WKE

AUG 27 2013

PROJECT ID: 1300-13-70

WITH: N/A

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	Cross-Sections

TOTAL SHEETS = 3186

01

COUNTY: MILWAUKEE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF BRIDGE REHABILITATION

HOAN BRIDGE & LAKE FREEWAY

MILWAUKEE RIVER TO CARFERRY DR

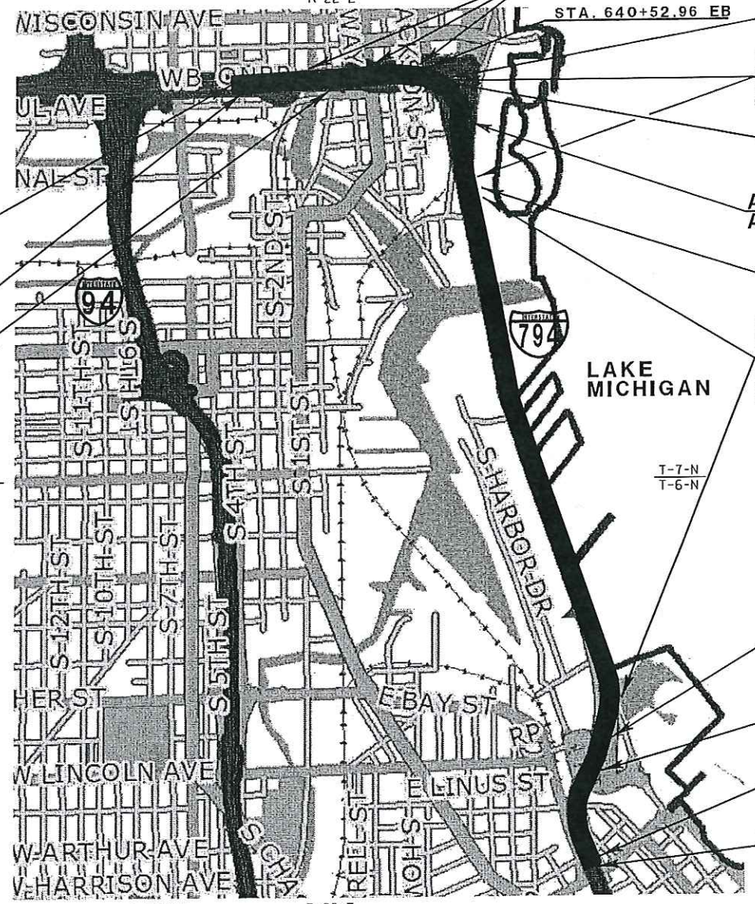
IH 794

MILWAUKEE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1300-13-70	WISC 2013377	1

STATE PROJECT NUMBER **1300-13-70**

R-22-E



END PROJECT
STA. 614+85 EB

WEST CROSSOVER
STA. 614+85.00 EB - STA. 618+95 EB

RAMP MX
STA. 60+47.48 MX - STA. 60+93.91 MX

IH 794 EAST-WEST REPLACEMENT STRUCTURES
B-40-885, B-40-886, B-40-887, B-40-888, R-40-582, R-40-583, R-40-584, C-40-102

STA. 640+52.96 EB

RAMP IE
STA. 93+72.51 IE - STA. 98+06.88 IE

LAKE INTERCHANGE STRUCTURE B-40-400 UNITS (OVERLAY)
1AA, 1BB, 1C, 1D, 1E, 1F, 2A, 2B, 2C, 2D, 2E, 2F, 3A, 3B, 3C, 3D, 3E
5B, 5C, 5D, 5E, 6C, 6D, 4A, 4B, 4C, 4D, 7A, 7B, 8A, 8B, 8C

RAMP JX
STA. 51+81.04 JX - STA. 54+17.62 JX

AH STA. 663+75.22 EB
AH STA. 169+72.83 SB

BK STA. 159+49.25 LF
AH STA. 159+50.00 NB & SB

HOAN BRIDGE STRUCTURE B-40-400 UNITS (REDECKING)
S24, S23, S22, S21, S20, S19, S18, S17, S16, S15, S14, S13, S12, S11, S10, S9, S8, S7A & B, S6A & B, S5A & B, S4A & B, S3A & B, S2A & B, 1A & B, N2A & B, N3A & B, N4A & B, 5A, 6A, 6B

RAMP SX
STA. 31+42.31 SX - STA. 33+63.59 SX

RAMP NX
STA. 20+37.15 NX - STA. 24+54.79 NX

CROSSOVER LF
STA. 38+09 LF - STA. 41+75 LF

BEGIN PROJECT
STA. 38+09.25 LF
Y = 284,645.89
X = 610,401.29

LAYOUT

SCALE 0 0.25 MI.

NET LENGTH OF CENTERLINE = 2.299 MI. (LF)
NET LENGTH OF CENTERLINE = 0.194 MI. (SB)
NET LENGTH OF CENTERLINE = 0.926 MI. (EB)
TOTAL NET LENGTH OF CENTERLINE = 3.419 MI.

Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Milwaukee County, NAD 1983 (2007).

Elevations shown on this plan are referenced to the North American Vertical Datum of 1988 NAVD 88 (1991).

DESIGN DESIGNATION		IH 794 MILWAUKEE RIVER - LAKE INTERCHANGE	IH 794 CARFERRY DRIVE - LAKE INTERCHANGE
A.A.D.T. (2015)	=	39,460 (EB)	22,800 (EB)
		35,950 (WB)	21,900 (WB)
A.A.D.T. (2035)	=	45,700 (EB)	26,000 (EB)
		42,700 (WB)	26,000 (WB)
D.H.V.	=	5,180 (EB)	4,100 (EB)
		5,180 (WB)	4,100 (WB)
D.D.	=	58-42	78-22
T.	=	8.4%	8.4%
DESIGN SPEED	=	55 MPH	55 MPH
ESALS	=	14,359,100	8,497,200

CONVENTIONAL SYMBOLS

PLAN

CORPORATE LIMITS	
REFERENCE LINE	
COMBUSTIBLE FLUIDS	CAUTION

UTILITIES

ELECTRIC	E
FIBER OPTIC	FO
GAS	G
SANITARY SEWER	SAN
STORM SEWER	SS
TELEPHONE	T
WATER	W
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

ORIGINAL PLANS PREPARED BY

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E-41975-6
NEW CASTLE PA

5-28-2013 Robert W. Bondi
(Date) (Signature)

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5/28/2013 Mary E. Pettit
(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	KAPUR & ASSOCIATES, INC.
Designer	BAKER CORPORATION / GRAEF
Project Manager	CAROLYNN GELLINGS, P.E.
Regional Examiner	
Regional Supervisor	DEBRA EVERS, P.E.
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 5/28/2013 (Signature)

E

2

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DIGGERS HOTLINE

Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

GENERAL NOTES

CURVE RADII ARE MEASURED TO CURB FLANGE UNLESS OTHERWISE NOTED.

PROPOSED ELEVATIONS ARE LISTED AT CURB FLANGE UNLESS OTHERWISE NOTED.

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER.

THE EXACT LOCATION OF PRIVATE ENTRANCES IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

REMOVE SIDEWALK AND CURB & GUTTER TO NEAREST JOINT OR AS DIRECTED BY THE ENGINEER.

CONTRACTOR SHALL CONTACT SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION (SEWRPC) BEFORE DISTURBING ANY PUBLIC SURVEY MONUMENTS. CONTACT LEE KREBLIN AT (262) 547-6721 FOR MONUMENT RELOCATION PROCEDURES. CONTRACTOR SHALL ALSO CONTACT TOM LIPSKY AT WISDOT SOUTH EAST REGION AT (262) 548-6737.

THE LOCATION OF KNOWN EXISTING UTILITIES IN THE VICINITY OF THE PROJECT ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITIES IN THE AREA THAT ARE NOT SHOWN.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.

EROSION CONTROL BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

INLET PROTECTION REQUIRED AT ALL INLETS AS PER EROSION CONTROL PLANS OR AS DIRECTED BY THE ENGINEER.

RE-TOPSOIL GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. APPLY SEED OR SOD LAWN, FERTILIZE, AND MULCH/EROSION MAT TOPSOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED.

STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED.

REMOVAL OF EROSION CONTROL DEVICES IS INCLUDED IN THE COST OF THEIR RESPECTIVE BID ITEMS.

ALL OPENINGS BELOW SUBGRADE RESULTING FROM REMOVALS OR ABANDONMENTS SHALL BE FILLED WITH GRANULAR BACKFILL, UP TO THE LOWER OF EXISTING GROUND OR PROPOSED SUBGRADE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE COST OF GRANULAR BACKFILL SHALL BE INCIDENTAL TO THE REMOVAL OR ABANDONMENT ITEM.

SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER THE ITEM TRAFFIC CONTROL COVERING TYPE I OR TYPE II SIGNS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

WHEN THE QUANTITY OF HMA PAVEMENT OR BASE AGGREGATE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

ASPHALTIC SURFACE TEMPORARY, E-3, WHERE INDICATED ON THE PLANS FOR THE HOAN SHOULDER OVERLAY, TEMPORARY CROSS-OVERS AND RAMPS, SHALL CONSIST OF LAYERS AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER:

TOTAL DEPTH	NOMINAL MAX SIZE GRADATION
1-INCH	9.5mm
5-INCH	25.0mm

ASPHALT SURFACE, WHERE INDICATED ON THE PLANS FOR ISOLATED CATCH BASIN REPLACEMENT UNDER THE IH 794 STEEL STRUCTURES, SHALL CONSIST OF ONE 3 ½-INCH LAYER, UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER.

HMA PAVEMENT, TYPE E-0.3, WHERE INDICATED ON THE PLANS FOR PARKING LOT REPAVING, SHALL CONSIST OF LAYERS AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER.

TOTAL DEPTH	LAYERS	NOMINAL MAX SIZE GRADATION	PERFORMANCE GRADE
3½-INCH	ONE 1¾-INCH UPPER LAYER	12.5mm	PG58-28
	ONE 1¾-INCH LOWER LAYER	12.5mm	PG58-28

HMA PAVEMENT, TYPE E-3, WHERE INDICATED ON THE PLANS, SHALL CONSIST OF LAYERS AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER.

TOTAL DEPTH	LAYERS	NOMINAL MAX SIZE GRADATION	PERFORMANCE GRADE
2-INCH	ONE 2-INCH LAYER	12.5mm	PG64-22
2½-INCH	ONE 2½-INCH LAYER	12.5mm	PG64-22
5-INCH	ONE 2-INCH UPPER LAYER	12.5mm	PG64-22
	ONE 3-INCH LOWER LAYER	19.0mm	PG64-22

STANDARD ABBREVIATIONS

BM	BENCH MARK
C/L	CENTER OR CONSTRUCTION LINE
CONC	CONCRETE
CATV	CABLE TELEVISION
D	DEGREE OF CURVE
DES.	DESIRABLE
D.S.	DESIGN SPEED
DS	DOWNSPOUT
EB	EASTBOUND
ELECT	ELECTRIC
ELEV	ELEVATION
EPS	EXTRUDED POLYSTYRENE
EXIST	EXISTING
HMA	HOT MIX ASPHALT
L	LENGTH OF CURVE
LT	LEFT
M/L	MATCHLINE
MGS	MIDWEST GUARDRAIL SYSTEM
MH	MANHOLE
MIN.	MINIMUM
NB	NORTHBOUND
PC	POINT-OF-CURVE
PCC	POINT OF COMPOUND CURVE
PI	POINT OF INTERSECTION
PM	PAVEMENT MARKING
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS OF CURVE
RR	RAILROAD
R	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RT	RIGHT
RTRP	REINFORCED THERMOSETTING RESIN PIPE
S.E.	SUPER ELEVATION
S.R.	SPEED RATING
SAN	SANITARY SEWER
SB	SOUTHBOUND
SHLDR	SHOULDER
SS	STORM SEWER
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STA	STATION
T	TANGENT LENGTH
TYP	TYPICAL
WB	WESTBOUND

REFERENCE LINE CALLOUTS

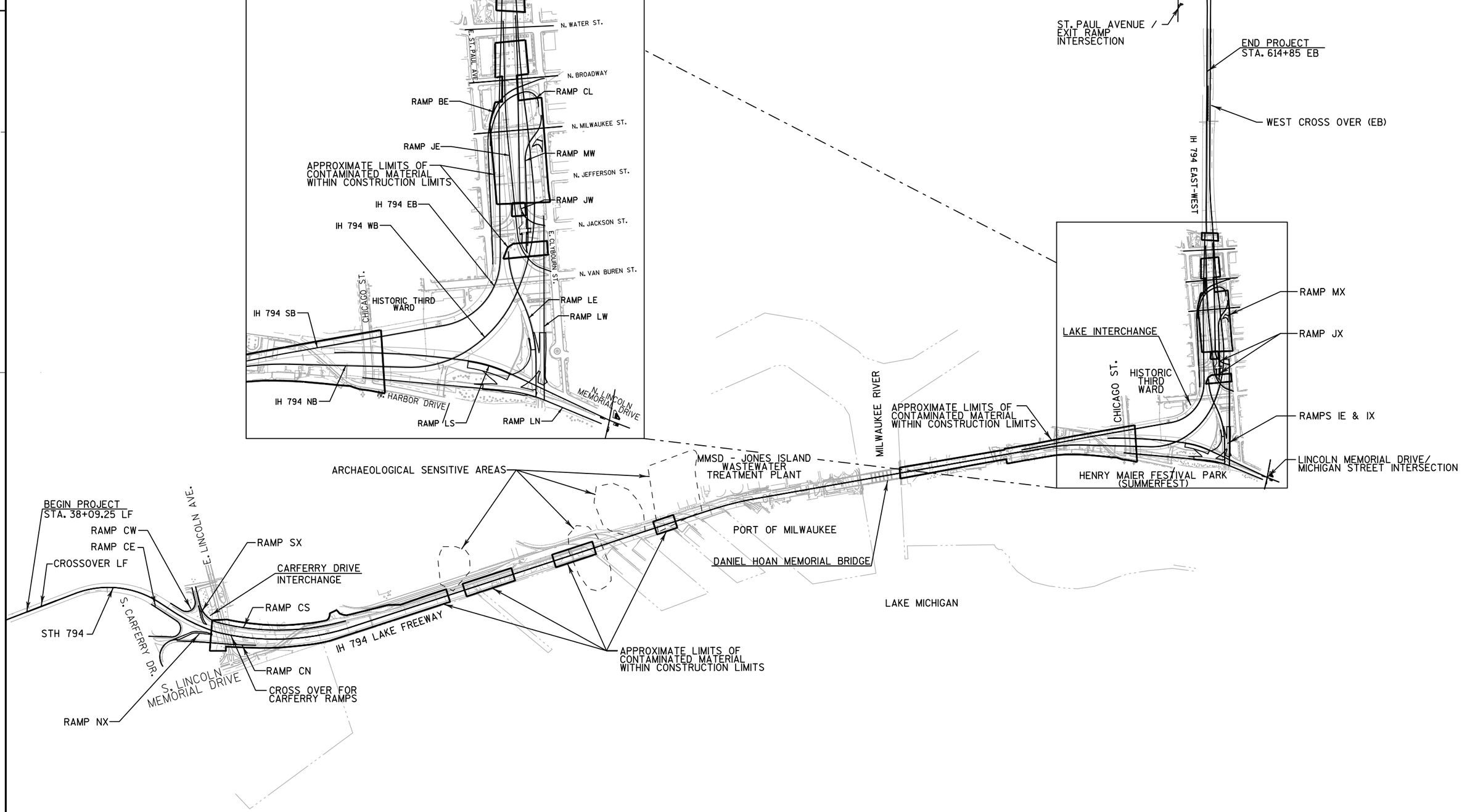
FREEWAY	
LF	NORTHBOUND/SOUTHBOUND IH 794 LAKE FREEWAY
NB	NORTHBOUND IH 794
SB	SOUTHBOUND IH 794
EB	EASTBOUND IH 794
WB	WESTBOUND IH 794

RAMPS	
CW	CARFERRY DRIVE WESTBOUND EXIT
CE	CARFERRY DRIVE EASTBOUND ENTRANCE
CS	CARFERRY DRIVE EASTBOUND EXIT
CN	CARFERRY DRIVE WESTBOUND ENTRANCE
LS	LINCOLN MEMORIAL DRIVE SOUTHBOUND ENTRANCE
LN	LINCOLN MEMORIAL DRIVE NORTHBOUND EXIT
LE	LINCOLN MEMORIAL DRIVE EASTBOUND EXIT
LW	LINCOLN MEMORIAL DRIVE WESTBOUND ENTRANCE
BE	BROADWAY EASTBOUND ENTRANCE
CL	CLYBOURN STREET EASTBOUND ENTRANCE
MW	MILWAUKEE STREET WESTBOUND EXIT
JE	JACKSON STREET EASTBOUND EXIT
JW	JACKSON STREET WESTBOUND ENTRANCE

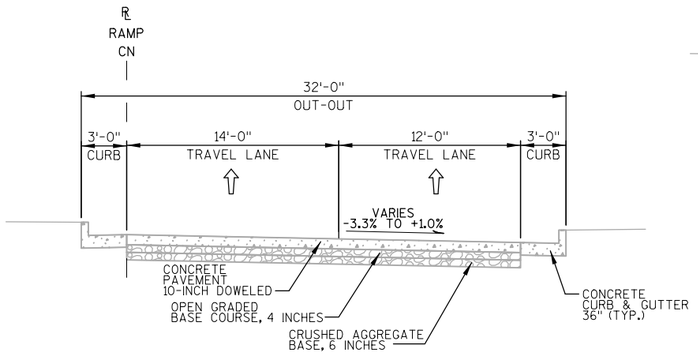
TEMPORARY RAMPS	
NX	CARFERRY DRIVE NORTHBOUND ENTRANCE
SX	CARFERRY DRIVE SOUTHBOUND EXIT
IX/IE	IH 794 LAKE INTERCHANGE
JX	JACKSON STREET WB ENTRANCE RAMP
MX	MILWAUKEE STREET WB EXIT RAMP
NI	LAKE INTERCHANGE WB ENTRANCE RAMP (STAGE 2)
SI	LAKE INTERCHANGE SB ENTRANCE RAMP (STAGE 2)

2

LAKE INTERCHANGE DETAIL INSET

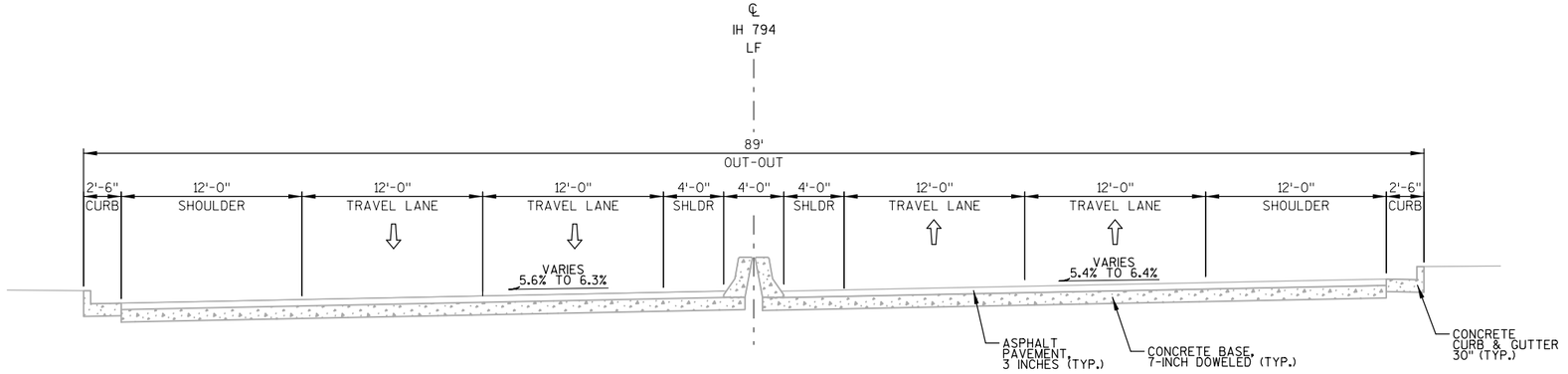


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 4	E



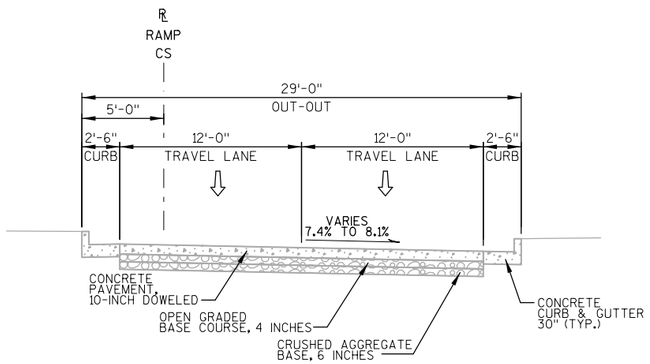
TYPICAL EXISTING SECTION, RAMP CN

IH 794 WESTBOUND ENTRANCE/ CARFERRY DR. INTERCHANGE
STA. 12+34.00 CN TO STA. 11+22.00 CN AND
STA. 657+61.00 CN TO STA. 658+00.00 CN
(LOOKING NORTH)



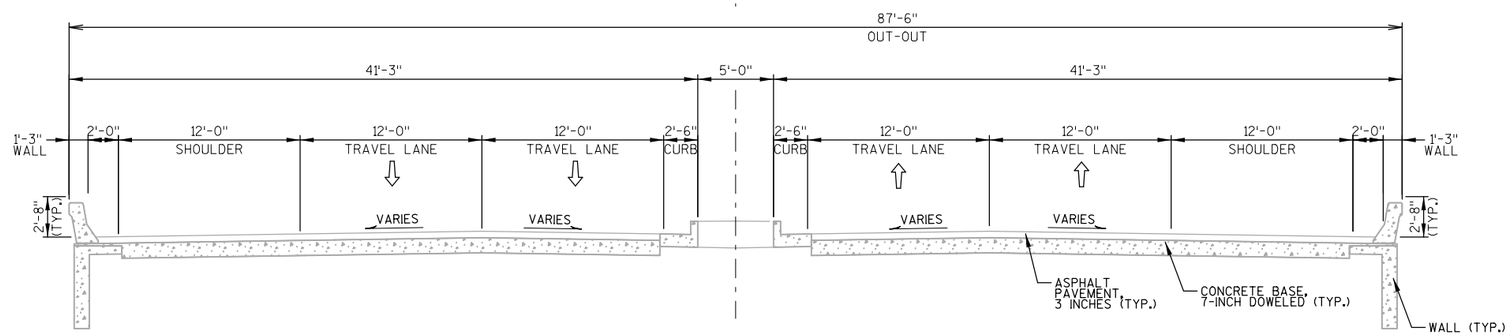
TYPICAL EXISTING SECTION, IH 794 LF

IH 794 EASTBOUND/WESTBOUND / LAKE FREEWAY
STA. 60+21.00 LF TO STA. 61+54.00 LF
(LOOKING NORTH)



TYPICAL EXISTING SECTION, RAMP CS

IH 794 EASTBOUND EXIT / CARFERRY DR. INTERCHANGE
STA. 359+20.00 CS TO STA. 360+17.00 CS
(LOOKING NORTHEAST)

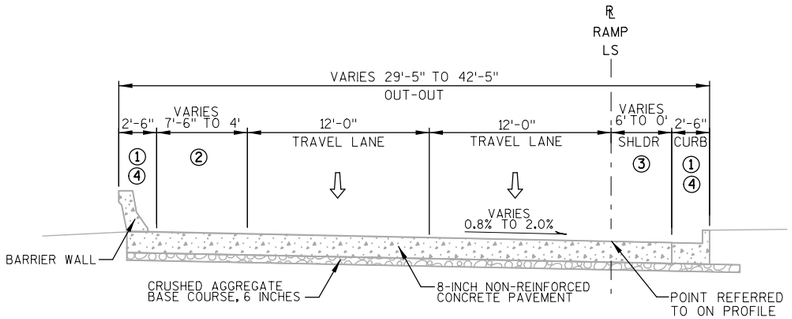


TYPICAL EXISTING SECTION, STH 794

STH 794 NORTHBOUND/SOUTHBOUND
STA. 38+00.00 LF TO STA. 42+00.00 LF
(LOOKING NORTH)

TYPICAL SECTIONS NOT TO SCALE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 5	E



① LT - 1'-11" TO 10" WALL FROM STA. 182+37.00 LS TO STA. 182+75.00 LS
RT - 2'-5" TO 0" WALL FROM STA. 182+19.00 LS TO STA. 182+96.00 LS

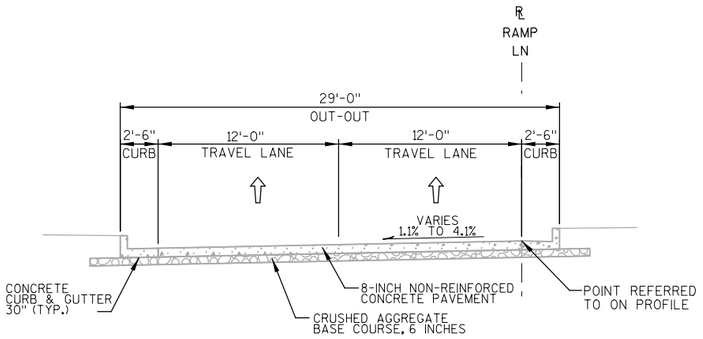
② 7'-6" TO 4' SHOULDER FROM STA. 182+19.00 LS TO STA. 182+75.00 LS

③ 6' TO 0' SHOULDER FROM STA. 182+21.00 LS TO STA 182+96.00 LS

④ 30" CURB AND GUTTER FROM STA. 182+96.00 LS TO STA. 183+50.00 LS

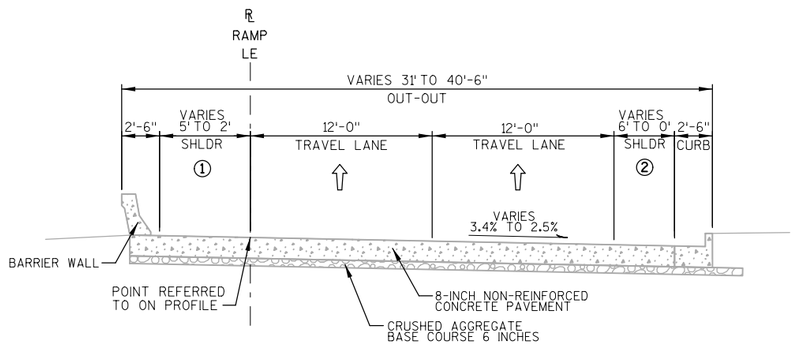
TYPICAL EXISTING SECTION, RAMP LS

IH 794 SOUTHBOUND ENTRANCE / LINCOLN MEMORIAL DRIVE INTERCHANGE
STA. 182+19.00 LS TO STA. 183+50.00 LS
(LOOKING NORTH)



TYPICAL EXISTING SECTION, RAMP LN

IH 794 NORTHBOUND EXIT / LINCOLN MEMORIAL DRIVE INTERCHANGE
STA. 179+50.00 LN TO STA. 189+09.00 LN
(LOOKING NORTH)

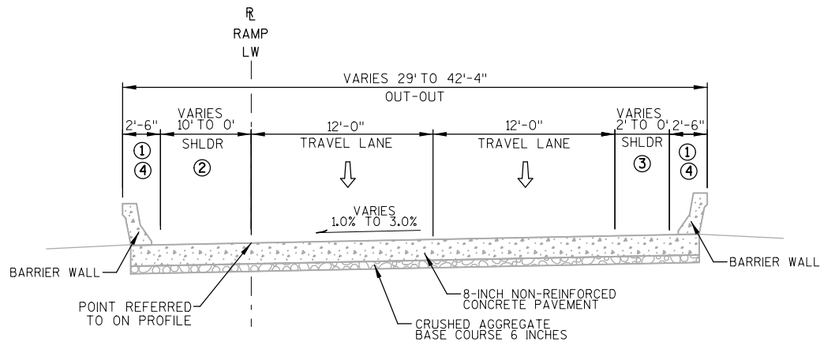


TYPICAL EXISTING SECTION, RAMP LE

IH 794 EASTBOUND EXIT / LINCOLN MEMORIAL DRIVE INTERCHANGE
STA. 355+55.00 LE TO STA. 357+59.00 LE
(LOOKING EAST)

① 5' SHOULDER FROM STA. 355+55.00 LE TO STA. 356+50.00 LE
5' TO 2' SHOULDER FROM STA. 356+50.00 LE TO STA. 357+18 LE

② 6' TO 0' SHOULDER FROM STA. 355+55.00 LE TO STA. 357+18 LE
NO SHOULDER FROM STA. 357+18.00 LE TO STA. 357+59.00 LE



① LT - 1'-11" TO 0" WALL FROM STA. 356+74.00 LW TO STA. 357+32.00 LW
RT - 2'-8" TO 0" WALL FROM STA. 356+35.00 LW TO STA. 357+32.00 LW

② 10' TO 0' SHOULDER FROM STA. 356+35.00 LW TO STA. 357+32.00 LW
NO SHOULDER FROM STA. 357+32.00 LW TO STA. 358+72.00 LW

③ 2' TO 0' SHOULDER FROM STA. 356+35.00 LW TO STA. 357+32.00 LW

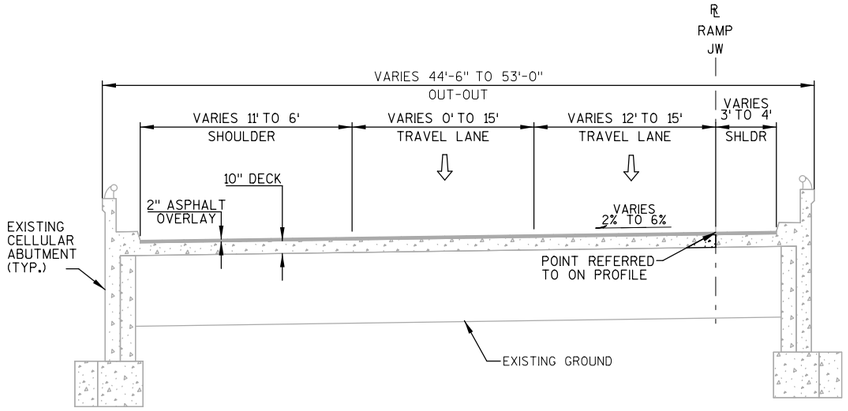
④ 30" CURB AND GUTTER FROM STA. 357+32.00 LW TO STA. 358+72.00 LW

TYPICAL EXISTING SECTION, RAMP LW

IH 794 WESTBOUND ENTRANCE / LINCOLN MEMORIAL DRIVE INTERCHANGE
STA. 356+35.00 LW TO STA. 358+72.00 LW
(LOOKING EAST)

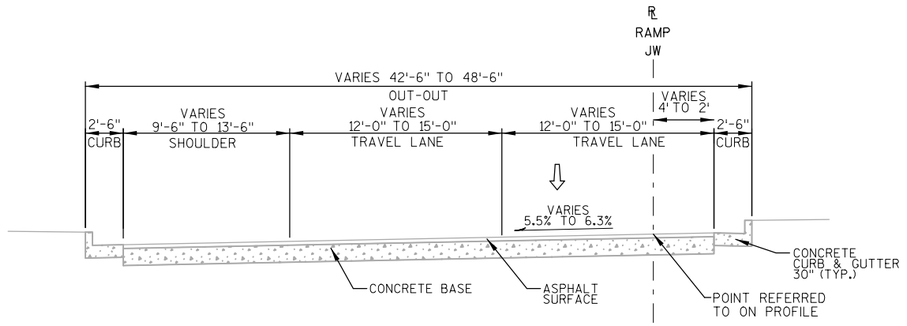
TYPICAL SECTIONS NOT TO SCALE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 6	E



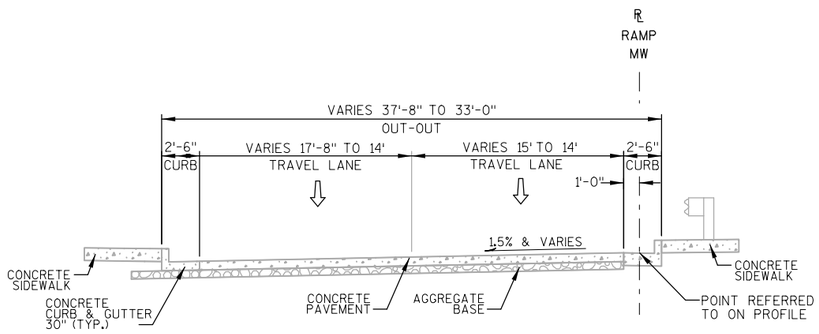
TYPICAL EXISTING SECTION, RAMP JW

IH 794 WESTBOUND ENTRANCE / JACKSON STREET INTERCHANGE
STA. 20+23.83 JW TO STA. 22+80.28 JW
(LOOKING EAST)



TYPICAL EXISTING SECTION, RAMP JW

IH 794 WESTBOUND ENTRANCE / JACKSON STREET INTERCHANGE
STA. 22+80.28 JW TO STA. 25+22.56 JW
(LOOKING EAST)



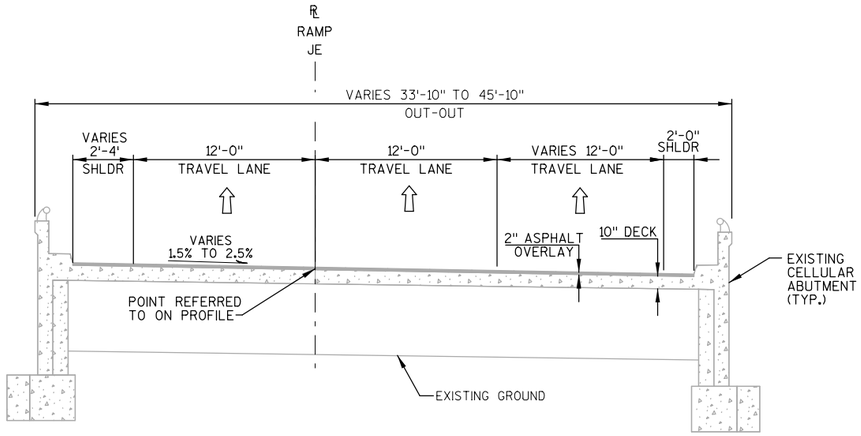
TYPICAL EXISTING SECTION, RAMP MW

IH 794 WESTBOUND EXIT / MILWAUKEE STREET INTERCHANGE
STA. 1+35.63 MW TO STA. 2+37.70 MW
(LOOKING EAST)

TYPICAL SECTIONS NOT TO SCALE

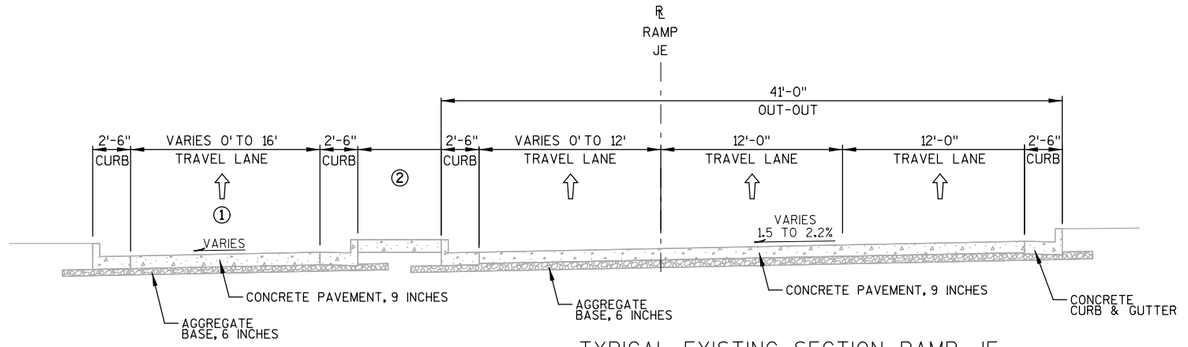
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 7	E

2



TYPICAL EXISTING SECTION, RAMP JE

IH 794 EASTBOUND EXIT / JACKSON STREET INTERCHANGE
STA. 11+17.60 JE TO STA. 13+96.49 JE
(LOOKING EAST)

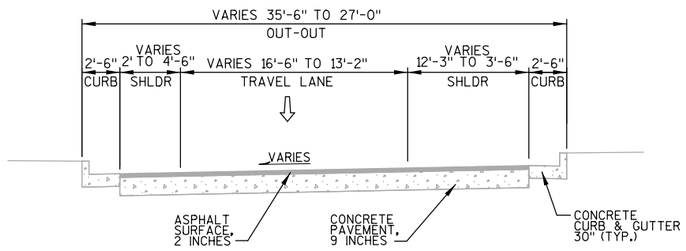


TYPICAL EXISTING SECTION, RAMP JE

IH 794 EASTBOUND EXIT / JACKSON STREET INTERCHANGE
STA. 13+96.49 JE TO STA. 18+01.36 JE
(LOOKING EAST)

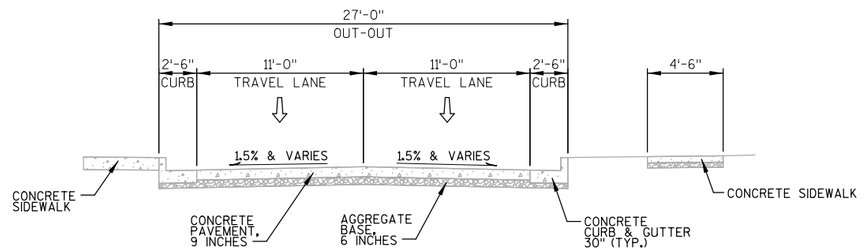
① EXIT TO WB CLYBOURN ST. FROM STA. 16+26.59 JE TO STA. 17+61.07 JE

② GORE VARIES 0.0' TO 12.0' FROM STA. 16+26.59 JE TO 16+65.25 JE
CURB FROM STA. 16+65.25 JE TO STA. 18+01.36 JE



TYPICAL EXISTING SECTION, RAMP JE

IH 794 EASTBOUND EXIT / JACKSON STREET INTERCHANGE
STA. 13+42.97 JE TO EAST SAINT PAUL AVENUE
(LOOKING EAST/SOUTH)



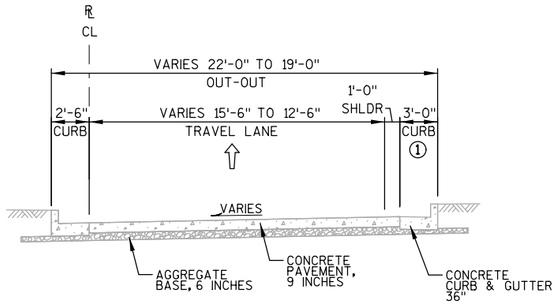
TYPICAL EXISTING SECTION, N. JACKSON STREET

IH 794 EASTBOUND EXIT / JACKSON STREET INTERCHANGE
JACKSON STREET EXIT RAMP TO E. CLYBOURN STREET
(LOOKING NORTH)

TYPICAL SECTIONS NOT TO SCALE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 8	E

FILE NAME : c:\pwv8i-local\baker_projects\alicia.deshasier\d0231471\020351_ts.dgn
PLOT DATE : 26-APR-2013
PLOT BY : Alicia.DeShasier
PLOT NAME :
PLOT SCALE : 10.000000:1.000000
WISDOT/CADDS SHEET 42

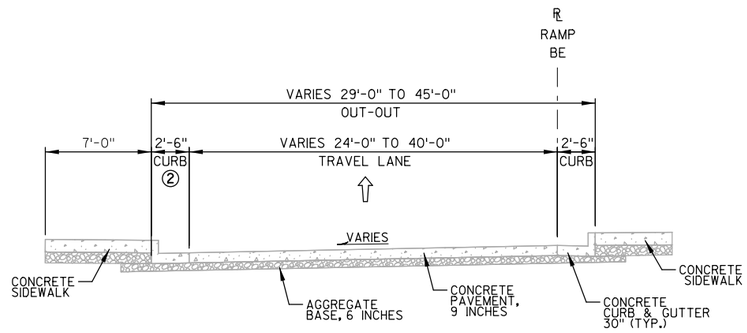


TYPICAL EXISTING SECTION, RAMP BE

IH 794 EASTBOUND ENTRANCE / BROADWAY INTERCHANGE
STA. 3+09.72 CL TO STA. 4+31.30 CL
(LOOKING SOUTH)

① CURB FROM STA. 3+09.72 CL TO STA. 3+92.46 CL
GORE VARIES 8'-5" TO 2'-5" FROM STA. 3+92.46 CL TO 4+31.30 CL

NOTE: STA. 4+31.30 CL= STA. 11+00.24 BE

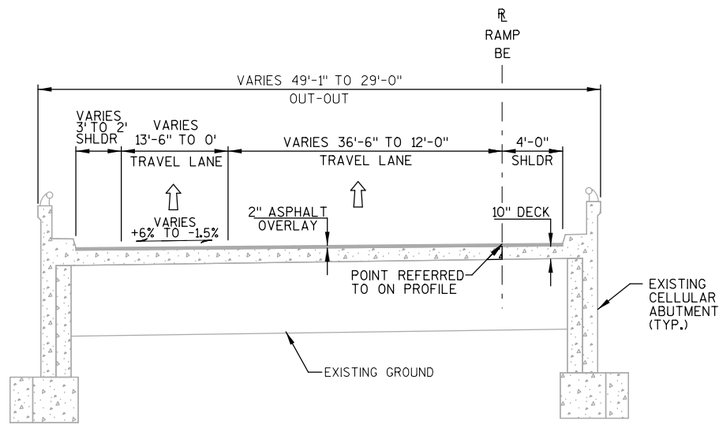


TYPICAL EXISTING SECTION, RAMP BE

IH 794 EASTBOUND ENTRANCE / BROADWAY INTERCHANGE
STA. 10+10.04 BE TO STA. 11+00.24 BE
(LOOKING EAST)

② CURB FROM STA. 10+10.04 BE TO STA. 10+57.55 BE
GORE VARIES 8'-5" TO 2'-5" FROM STA. 10+57.55 BE TO 11+00.24 BE

NOTE: STA. 4+31.30 CL= STA. 11+00.24 BE

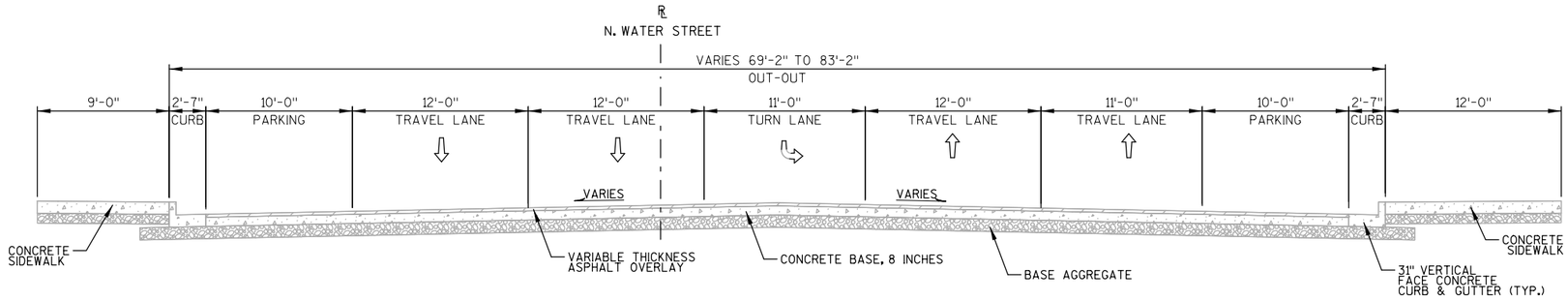


TYPICAL EXISTING SECTION, RAMP BE

IH 794 EASTBOUND ENTRANCE / BROADWAY INTERCHANGE
STA. 11+00.24 BE TO STA. 13+75.29 BE
(LOOKING EAST)

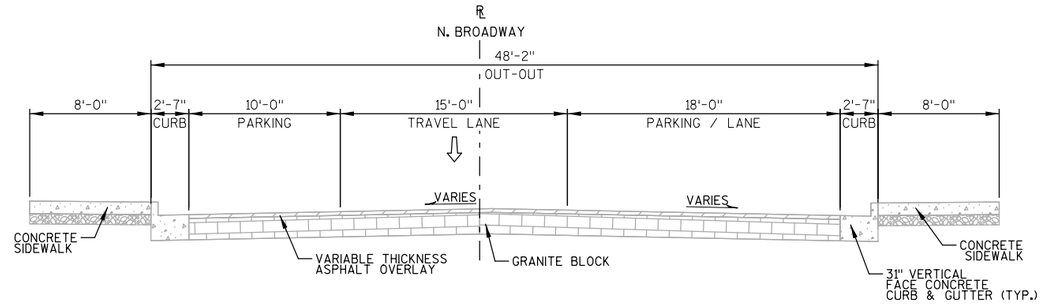
TYPICAL SECTIONS NOT TO SCALE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 9	E



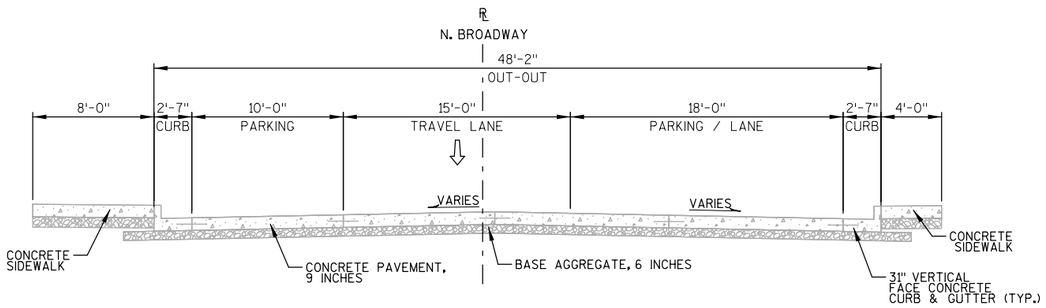
TYPICAL EXISTING SECTION, N. WATER STREET

STA. 100+75.3 TO STA. 104+40.0
(LOOKING NORTH)



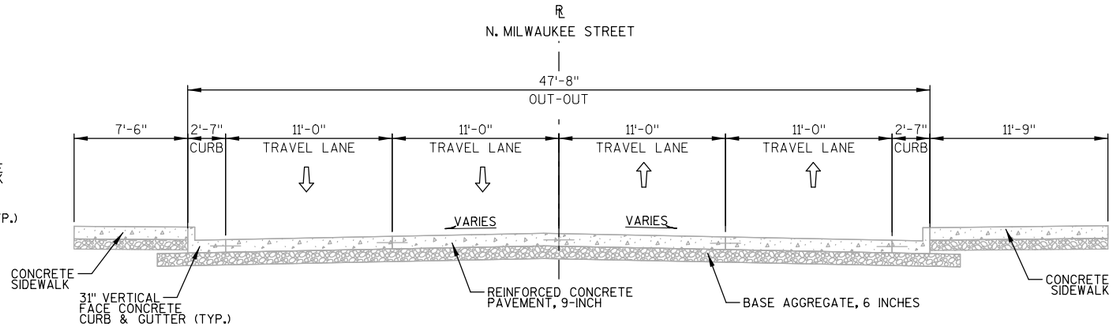
TYPICAL EXISTING SECTION, N. BROADWAY

STA. 200+71.1 TO STA. 203+00.0
(LOOKING NORTH)



TYPICAL EXISTING SECTION, N. BROADWAY

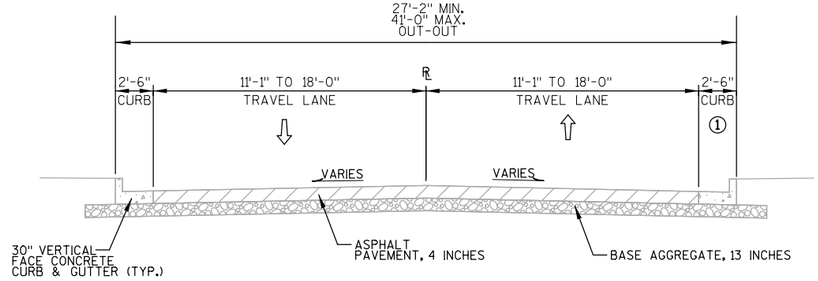
STA. 203+00.0 TO STA. 204+45.6
(LOOKING NORTH)



TYPICAL EXISTING SECTION, N. MILWAUKEE STREET

STA. 300+87.0 TO STA. 304+66.8
(LOOKING NORTH)

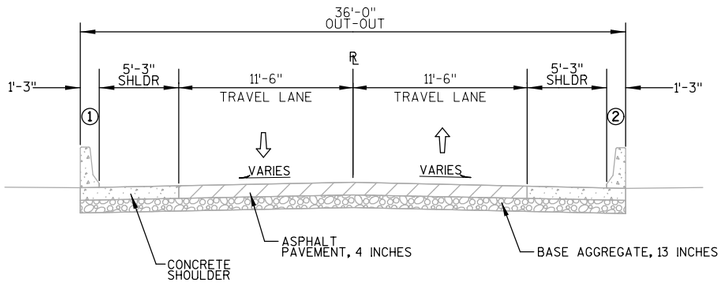
TYPICAL SECTIONS NOT TO SCALE



TYPICAL EXISTING SECTION, S. LINCOLN MEMORIAL DRIVE

STA. 202+52 LM TO STA. 205+40.9 LM
(LOOKING NORTH)

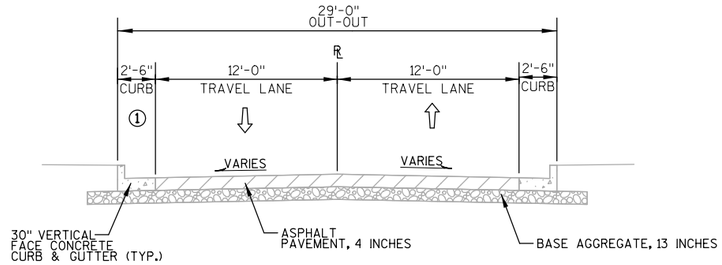
① CURB AND GUTTER FROM STA. 202+52 LM - STA. 205+40.9 LM.



TYPICAL EXISTING SECTION, S. LINCOLN MEMORIAL DRIVE

STA. 205+40.9 LM TO STA. 211+13.2 LM
(LOOKING NORTH)

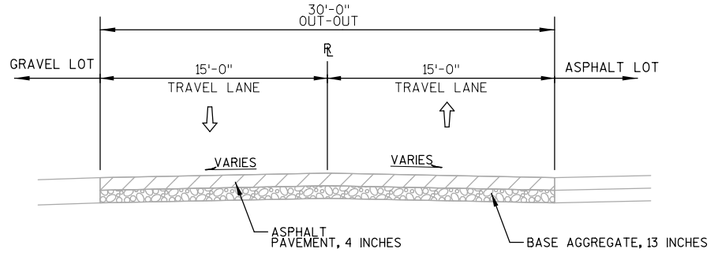
① CONCRETE BARRIER WALL FROM STA. 206+13.4 LM TO STA. 211+13.2 LM.
② CONCRETE BARRIER WALL FROM STA. 205+40.9 LM TO STA. 210+48.3 LM.



TYPICAL EXISTING SECTION, S. LINCOLN MEMORIAL DRIVE

STA. 211+13.2 LM TO STA. 243+95.0 LM
(LOOKING NORTH)

① CURB AND GUTTER FROM STA. 222+15.1 LM - STA. 235+43.5 LM.

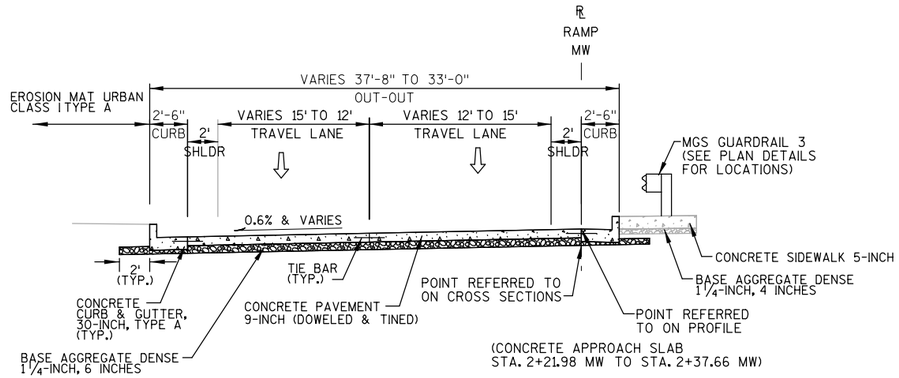


TYPICAL EXISTING SECTION, S. LINCOLN MEMORIAL DRIVE

STA. 243+95 LM TO STA. 262+16 LM
(LOOKING NORTH)

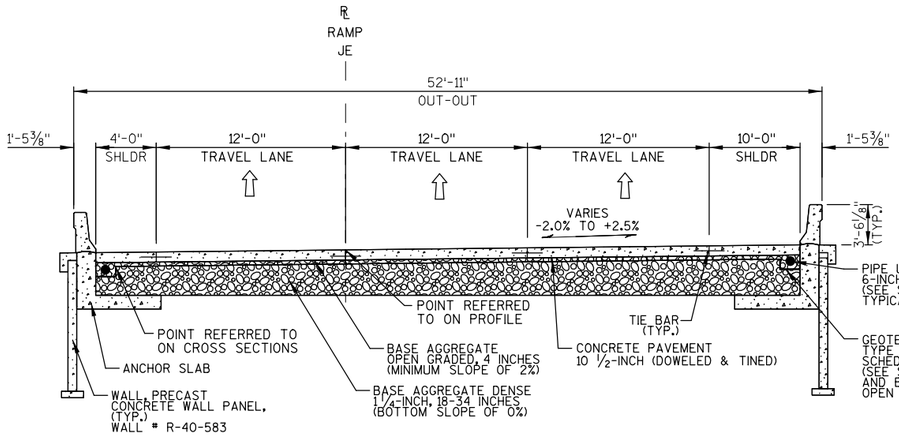
TYPICAL SECTIONS NOT TO SCALE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 11	E



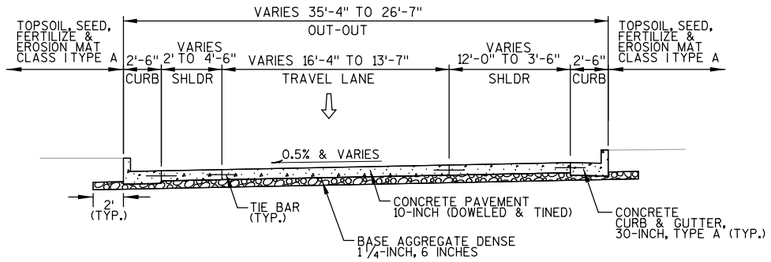
TYPICAL FINISHED SECTION, RAMP MW

IH 794 WESTBOUND EXIT / MILWAUKEE STREET INTERCHANGE
STA. 1+17.97 MW TO STA. 2+37.66 MW
(LOOKING EAST)



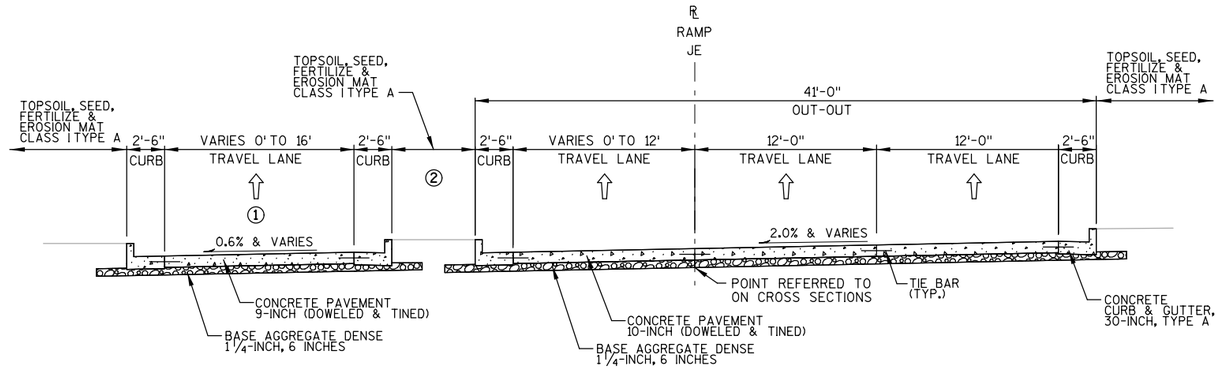
TYPICAL FINISHED SECTION, RAMP JE

IH 794 EASTBOUND EXIT / JACKSON STREET INTERCHANGE
STA. 5+82.40 JE TO STA. 13+96.49 JE
(LOOKING EAST)



TYPICAL FINISHED SECTION, RAMP JE

IH 794 EASTBOUND EXIT / JACKSON STREET INTERCHANGE
STA. 13+42.97 JE TO EAST SAINT PAUL AVENUE
(LOOKING NORTH)

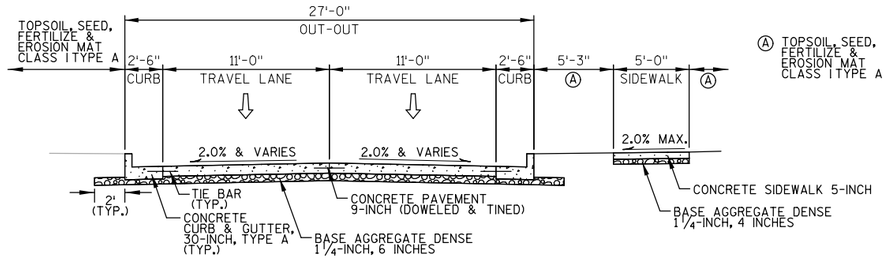


① EXIT TO WB CLYBOURN ST. FROM STA. 16+26.59 JE TO STA. 17+61.07 JE

② GORE VARIES 0.0' TO 12.0' FROM STA. 16+26.59 JE TO 16+65.25 JE
CURB FROM STA. 16+65.25 JE TO STA. 18+01.36 JE
CONCRETE SIDEWALK 5-INCH

TYPICAL FINISHED SECTION, RAMP JE

IH 794 EASTBOUND EXIT / JACKSON STREET INTERCHANGE
STA. 13+96.49 JE TO STA. 18+01.36 JE
(LOOKING EAST)

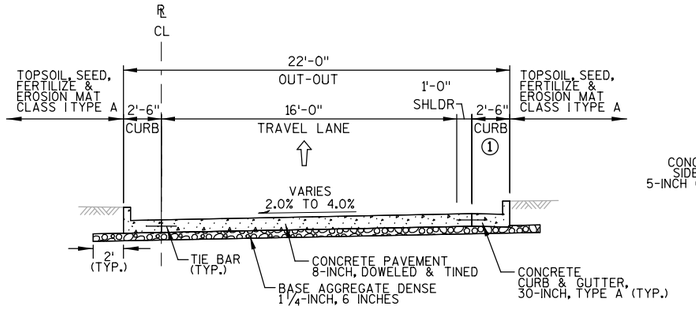


TYPICAL FINISHED SECTION, JACKSON STREET

IH 794 EASTBOUND EXIT / JACKSON STREET INTERCHANGE
JACKSON STREET EXIT RAMP TO E. CLYBOURN STREET
(LOOKING NORTH)

TYPICAL SECTIONS NOT TO SCALE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 12	E

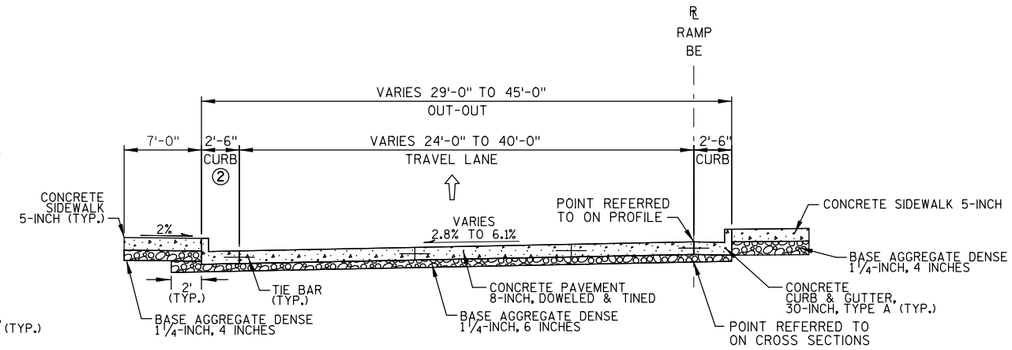


TYPICAL FINISHED SECTION, RAMP BE

IH 794 EASTBOUND ENTRANCE / LAKE FREEWAY INTERCHANGE
STA. 3+09.72 CL TO STA. 4+31.30 CL
(LOOKING SOUTH/EAST)

① CURB FROM STA. 3+09.72 CL TO STA. 3+83.92 CL
GORE VARIES 7'-6" TO 2'-5" FROM STA. 3+83.92 CL TO 4+31.30 CL

NOTE: STA. 4+31.30 CL= STA. 11+00.24 BE

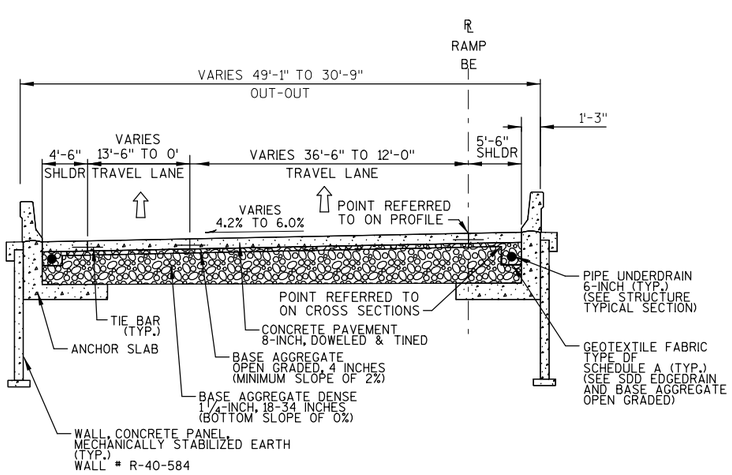


TYPICAL FINISHED SECTION, RAMP BE

IH 794 EASTBOUND ENTRANCE / LAKE FREEWAY INTERCHANGE
STA. 10+10.04 BE TO STA. 11+00.24 BE
(LOOKING SOUTH/EAST)

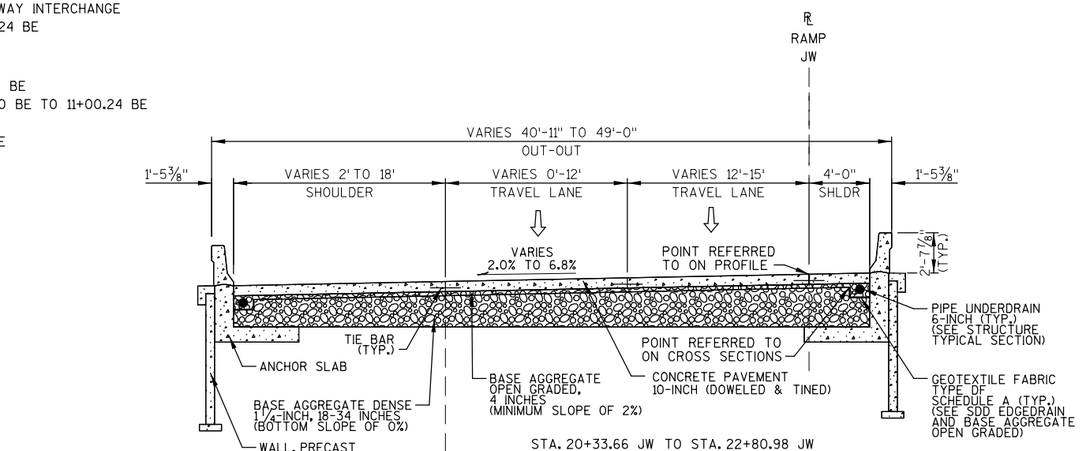
② CURB FROM STA. 10+10.04 BE TO STA. 10+46.30 BE
GORE VARIES 7'-6" TO 2'-5" FROM STA. 10+46.30 BE TO 11+00.24 BE

NOTE: STA. 4+31.30 CL= STA. 11+00.24 BE

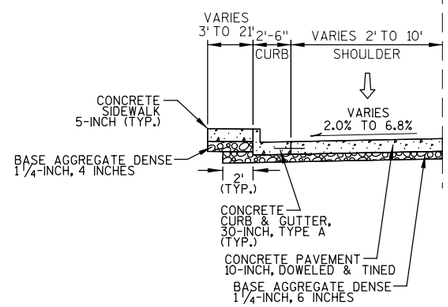


TYPICAL FINISHED SECTION, RAMP BE

IH 794 EASTBOUND ENTRANCE / LAKE FREEWAY INTERCHANGE
STA. 11+00.24 BE TO STA. 13+75.29 BE
(LOOKING EAST)



STA. 20+33.66 JW TO STA. 22+80.98 JW



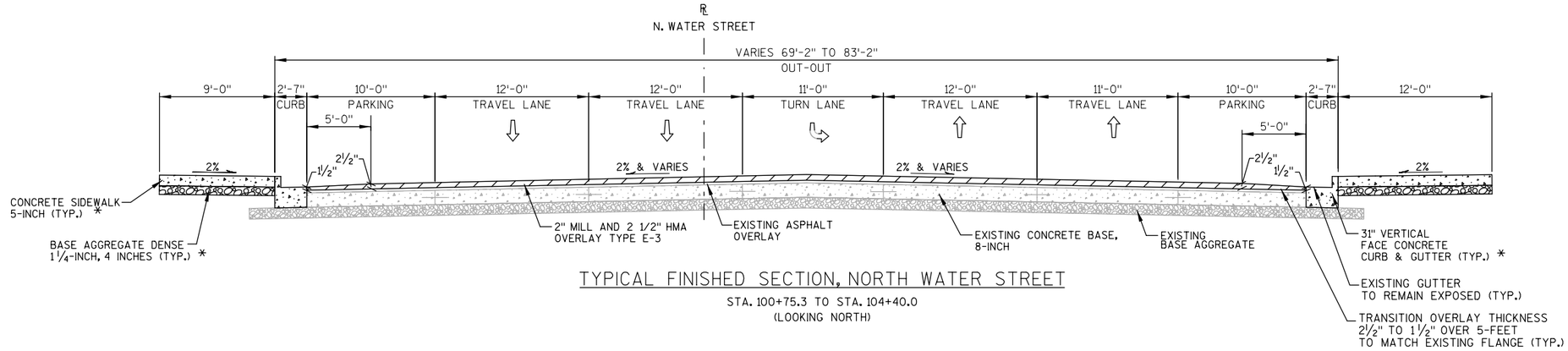
STA. 22+80.98 JW TO STA. 25+20.00 JW

TYPICAL FINISHED SECTION, RAMP JW

IH 794 WESTBOUND ENTRANCE / LAKE FREEWAY INTERCHANGE
STA. 16+01.32 JW TO STA. 25+20.00 JW
(LOOKING EAST)

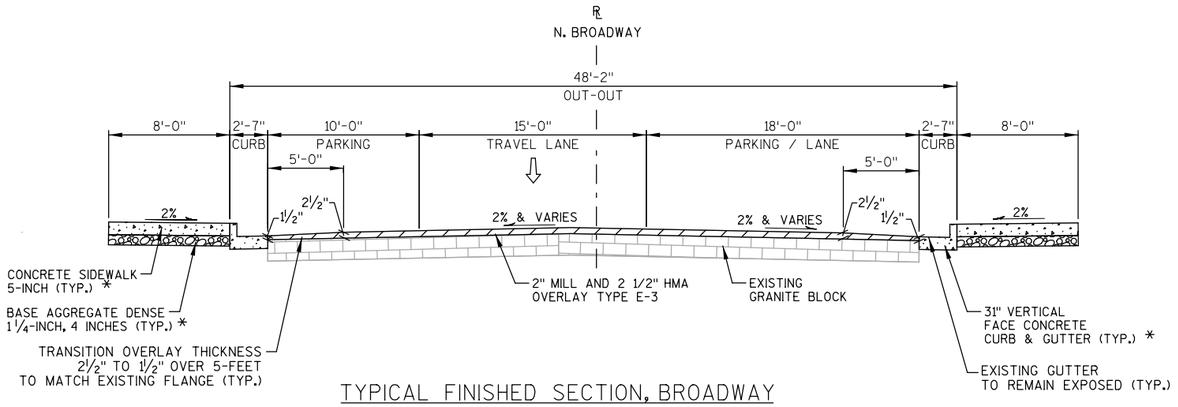
TYPICAL SECTIONS NOT TO SCALE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 13	E



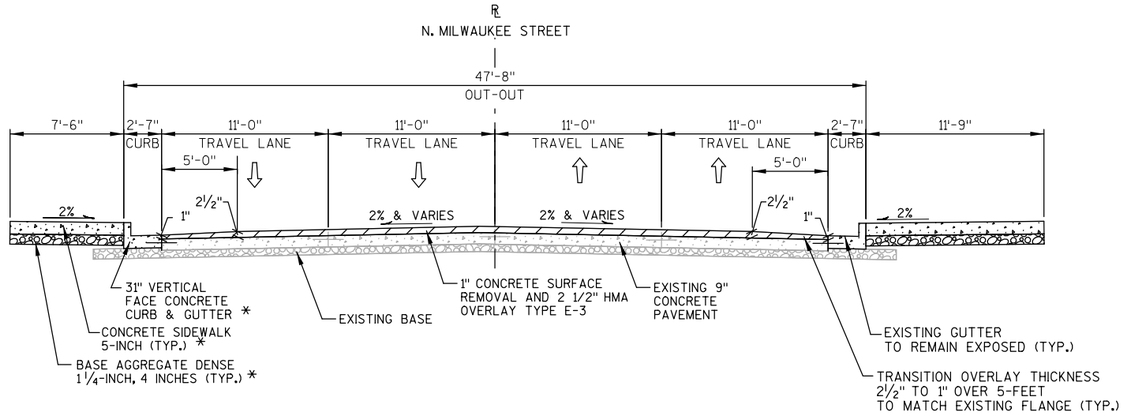
TYPICAL FINISHED SECTION, NORTH WATER STREET

STA. 100+75.3 TO STA. 104+40.0
(LOOKING NORTH)



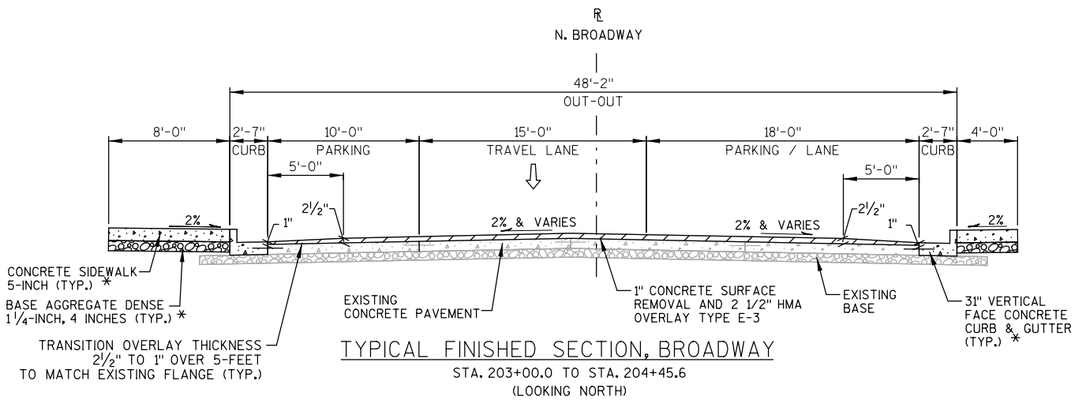
TYPICAL FINISHED SECTION, BROADWAY

STA. 200+71.0 TO STA. 203+00.0
(LOOKING NORTH)



TYPICAL FINISHED SECTION, MILWAUKEE STREET

STA. 300+87.0 TO STA. 304+66.8
(LOOKING NORTH)



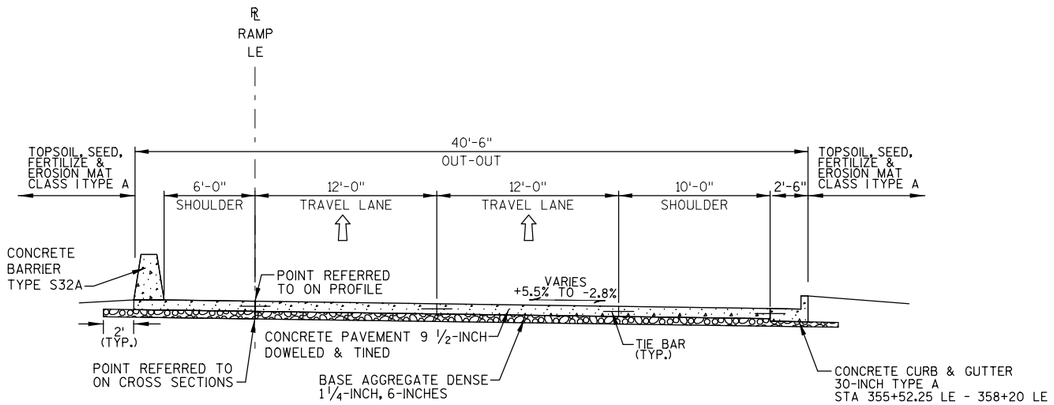
TYPICAL FINISHED SECTION, BROADWAY

STA. 203+00.0 TO STA. 204+45.6
(LOOKING NORTH)

* SEE PLAN DETAILS
FOR REPLACEMENT LIMITS

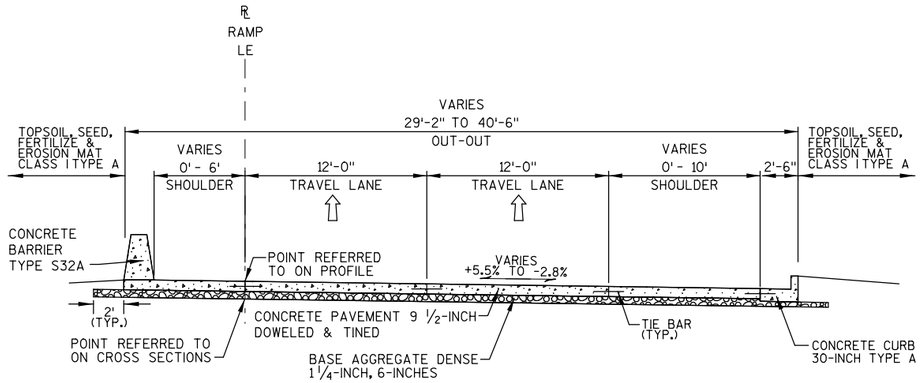
TYPICAL SECTIONS NOT TO SCALE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 14	E



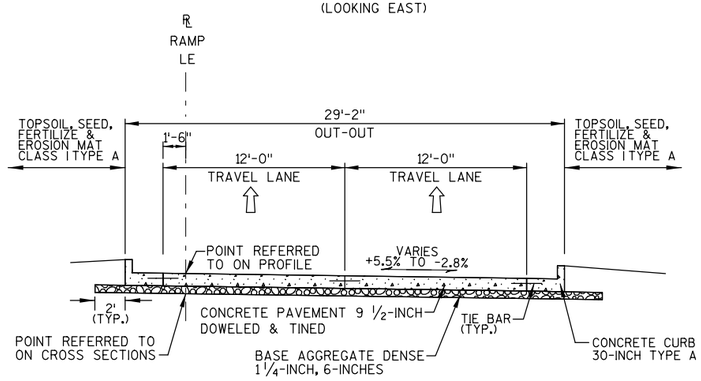
TYPICAL FINISHED SECTION, RAMP LE

IH 794 EASTBOUND EXIT / LINCOLN MEMORIAL DRIVE INTERCHANGE
STA. 355+20.00 LE TO STA. 356+35.00 LE
(LOOKING EAST)



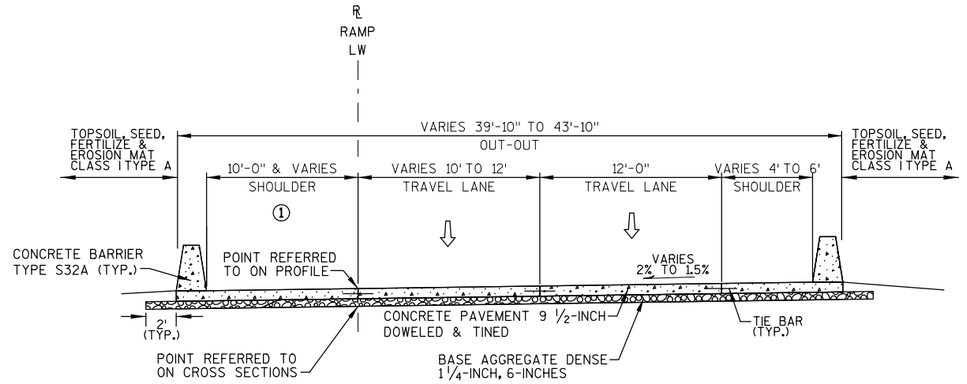
TYPICAL FINISHED SECTION, RAMP LE

IH 794 EASTBOUND EXIT / LINCOLN MEMORIAL DRIVE INTERCHANGE
STA. 356+35.00 LE TO STA. 358+12.00 LE
(LOOKING EAST)



TYPICAL FINISHED SECTION, RAMP LE

IH 794 EASTBOUND EXIT / LINCOLN MEMORIAL DRIVE INTERCHANGE
STA. 358+12.00 LE TO STA. 358+54.00 LE
(LOOKING EAST)



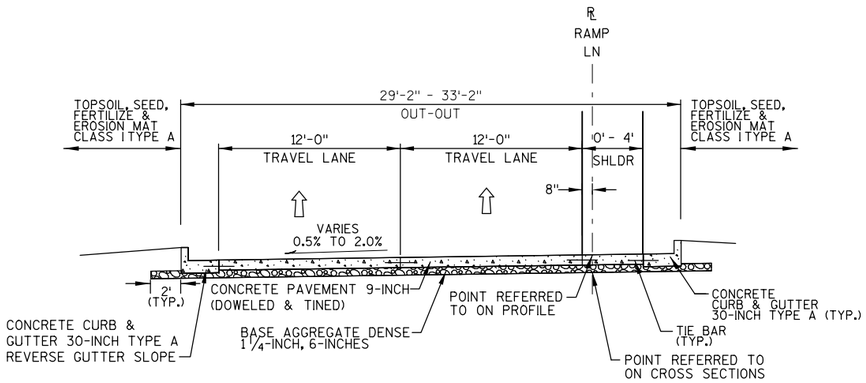
TYPICAL FINISHED SECTION, RAMP LW

IH 794 WESTBOUND ENTRANCE / LINCOLN MEMORIAL DRIVE INTERCHANGE
STA. 356+12.00 LW TO STA. 359+61.45 LW
(LOOKING EAST)

① 10' TO 0' SHOULDER FROM STA. 356+35.00 LW TO STA. 357+32.00 LW
NO SHOULDER FROM STA. 357+32.00 LW TO STA. 358+72.00 LW

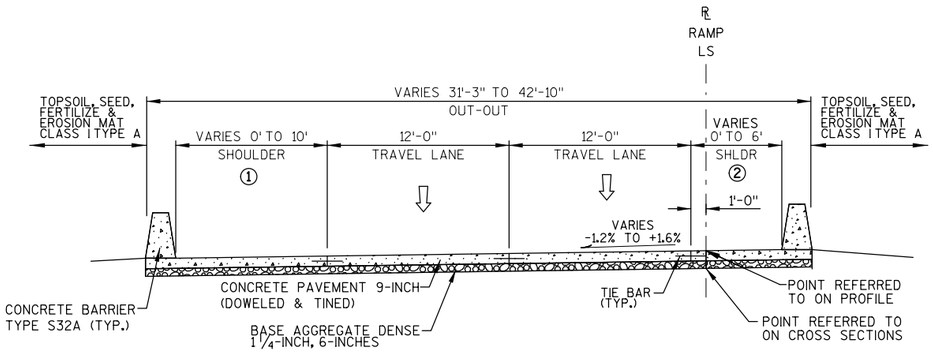
TYPICAL SECTIONS NOT TO SCALE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 15	E



TYPICAL FINISHED SECTION, RAMP LN

IH 794 NORTHBOUND EXIT / LINCOLN MEMORIAL DRIVE INTERCHANGE
STA. 179+65.00 LN TO STA. 183+30.00 LN
(LOOKING NORTH)

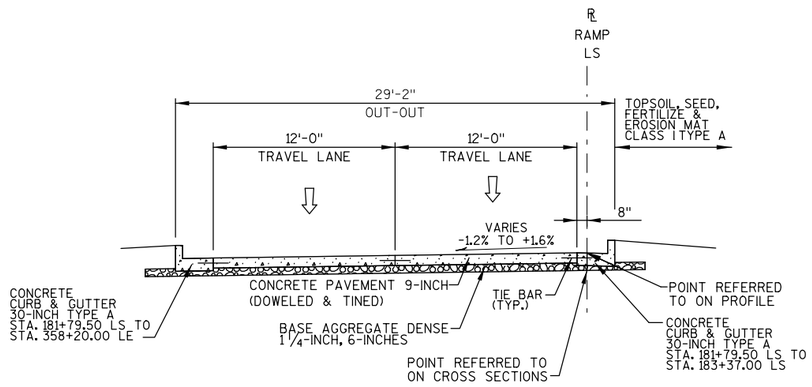


TYPICAL FINISHED SECTION, RAMP LS

IH 794 SOUTHBOUND ENTRANCE / LINCOLN MEMORIAL DRIVE INTERCHANGE
STA. 181+79.50 LS TO STA. 182+97.00 LS
(LOOKING NORTH)

① 10' SHOULDER FROM STA. 181+79.5 LS TO 182+13.30 LS
10' TO 0' SHOULDER FROM STA. 182+13.30 LS TO 182+97.00 LS

② 6' SHOULDER FROM STA. 181+79.50 LS TO 182+24.00 LS
0' TO 6' SHOULDER FROM STA. 182+24.00 LS TO 182+97.00 LS

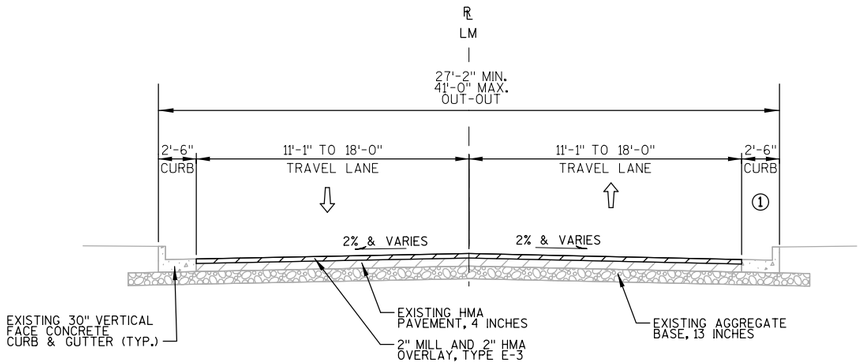


TYPICAL FINISHED SECTION, RAMP LS

IH 794 SOUTHBOUND ENTRANCE / LINCOLN MEMORIAL DRIVE INTERCHANGE
STA. 182+97.00 LS TO STA. 183+37.00 LS
(LOOKING NORTH)

TYPICAL SECTIONS NOT TO SCALE

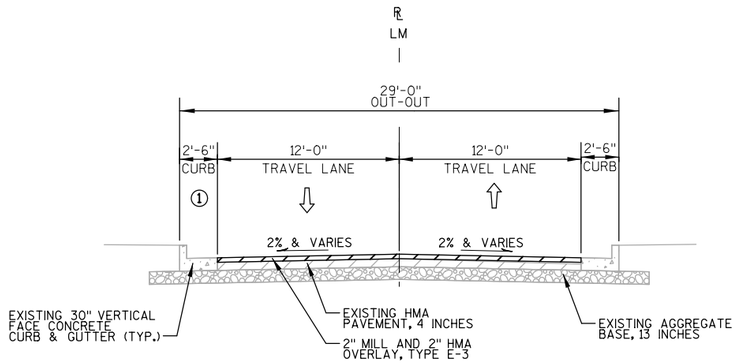
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 16	E



TYPICAL FINISHED SECTION, S. LINCOLN MEMORIAL DRIVE

STA. 202+52 LM TO STA. 205+40.9 LM
(LOOKING NORTH)

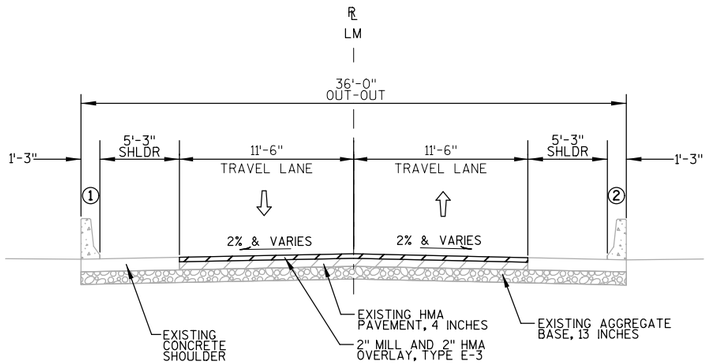
① CURB AND GUTTER FROM STA. 202+52 LM - STA. 205+40.9 LM.



TYPICAL FINISHED SECTION, S. LINCOLN MEMORIAL DRIVE

STA. 211+13.2 LM TO STA. 243+95.0 LM
(LOOKING NORTH)

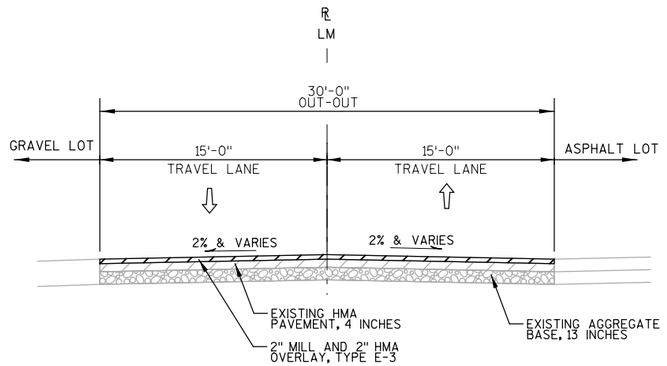
① CURB AND GUTTER FROM STA. 222+15.1 LM - STA. 235+43.5 LM.



TYPICAL FINISHED SECTION, S. LINCOLN MEMORIAL DRIVE

STA. 205+40.9 LM TO STA. 211+13.2 LM
(LOOKING NORTH)

① CONCRETE BARRIER WALL FROM STA. 206+13.4 LM TO STA. 211+13.2 LM.
② CONCRETE BARRIER WALL FROM STA. 205+40.9 LM TO STA. 210+48.3 LM.



TYPICAL FINISHED SECTION, S. LINCOLN MEMORIAL DRIVE

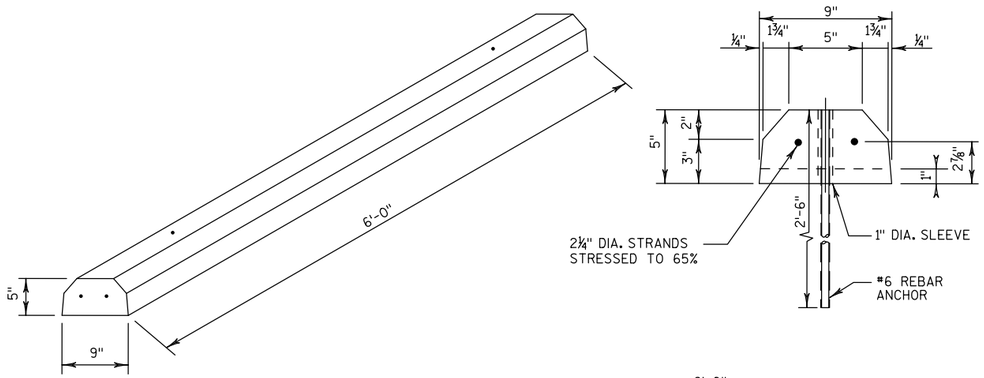
STA. 243+95 LM TO STA. 262+16 LM
(LOOKING NORTH)

TYPICAL SECTIONS NOT TO SCALE

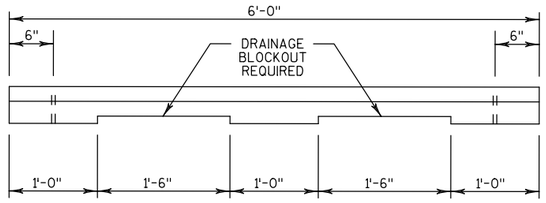
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 17	E

NOTE:

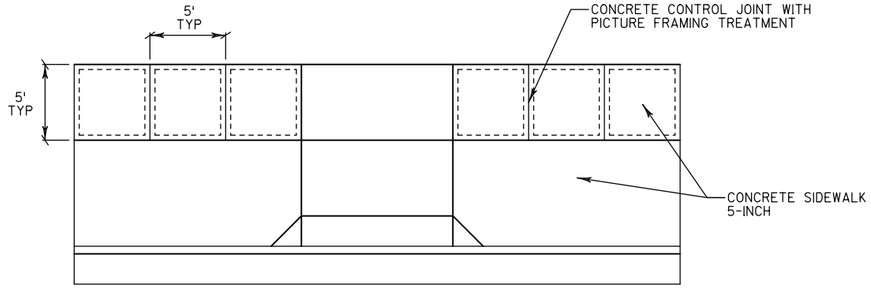
1. SEE PAVEMENT MARKING - PARKING STALL LAYOUT FOR MORE INFORMATION REGARDING PLACEMENT OF CONCRETE WHEEL STOPS WITHIN PARKING STALLS.



TO BE TESTED BY THE PORTLAND CEMENT ASSOCIATION FOR RESISTANCE TO RAPID FREEZING AND THAWING (ASTM C666) AND EXPOSURE TO DEICING CHEMICALS (ASTM C672). TEST RESULTS TO BE MADE AVAILABLE.



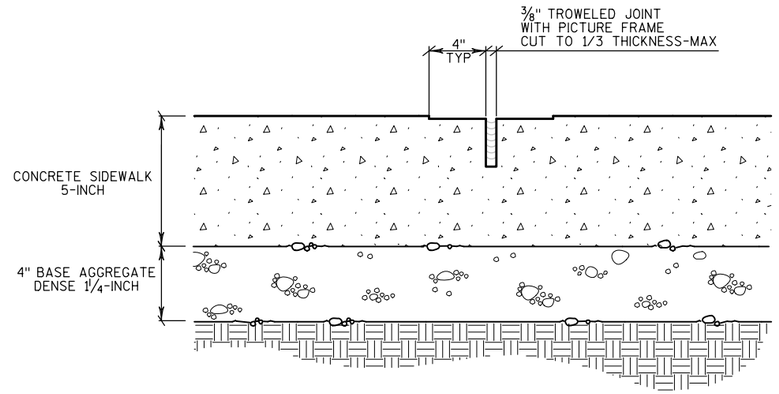
TYPICAL CONCRETE WHEEL STOP
N.T.S.



PLAN VIEW

NOTE:

1. SEE CONSTRUCTION DETAILS - PLAZA PAVING FOR LAYOUT OF CONCRETE CONTROL JOINTS. PICTURE FRAMING TO BE PROVIDED AT PLAZA PAVING AREAS ONLY.



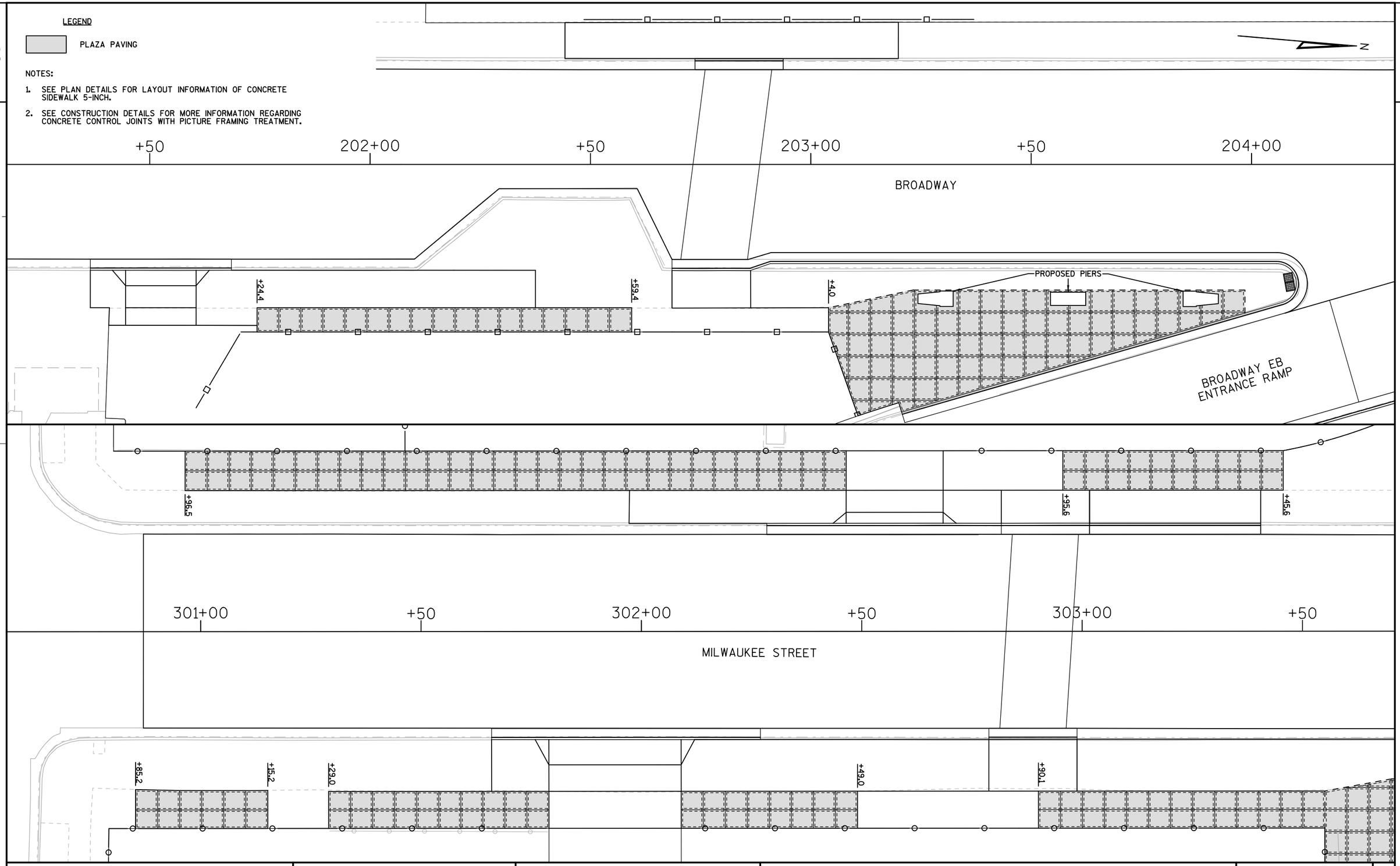
CONCRETE CONTROL JOINT WITH PICTURE FRAMING TREATMENT
N.T.S.

LEGEND

PLAZA PAVING

NOTES:

1. SEE PLAN DETAILS FOR LAYOUT INFORMATION OF CONCRETE SIDEWALK 5-INCH.
2. SEE CONSTRUCTION DETAILS FOR MORE INFORMATION REGARDING CONCRETE CONTROL JOINTS WITH PICTURE FRAMING TREATMENT.



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - PLAZA PAVING	SHEET 19	E

NOTES:

1. SEE PLAN DETAILS FOR LAYOUT INFORMATION OF CONCRETE SIDEWALK 5-INCH.
2. SEE CONSTRUCTION DETAILS FOR MORE INFORMATION REGARDING CONCRETE CONTROL JOINTS WITH PICTURE FRAMING TREATMENT.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - PLAZA PAVING	SHEET 20	E

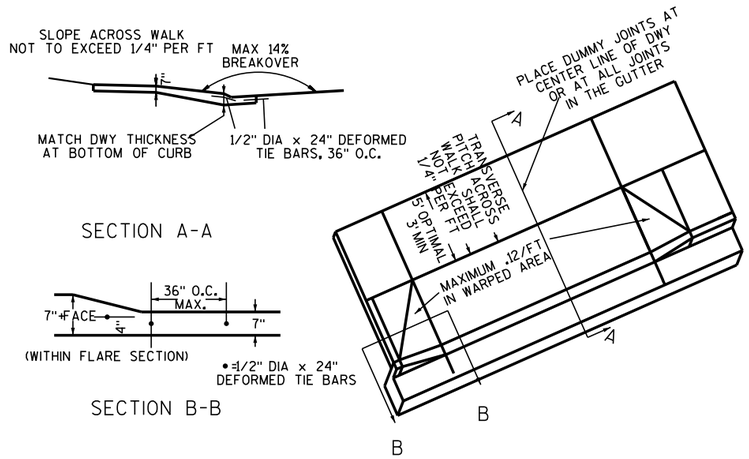
LEGEND

PLAZA PAVING

NOTES:

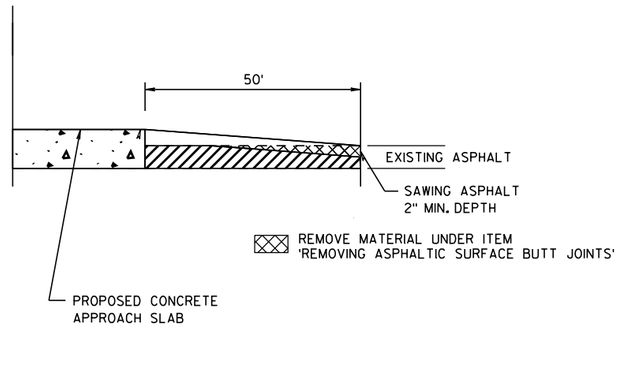
1. SEE PLAN DETAILS FOR LAYOUT INFORMATION OF CONCRETE SIDEWALK 5-INCH.
2. SEE CONSTRUCTION DETAILS FOR MORE INFORMATION REGARDING CONCRETE CONTROL JOINTS WITH PICTURE FRAMING TREATMENT.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - PLAZA PAVING	SHEET 21	E



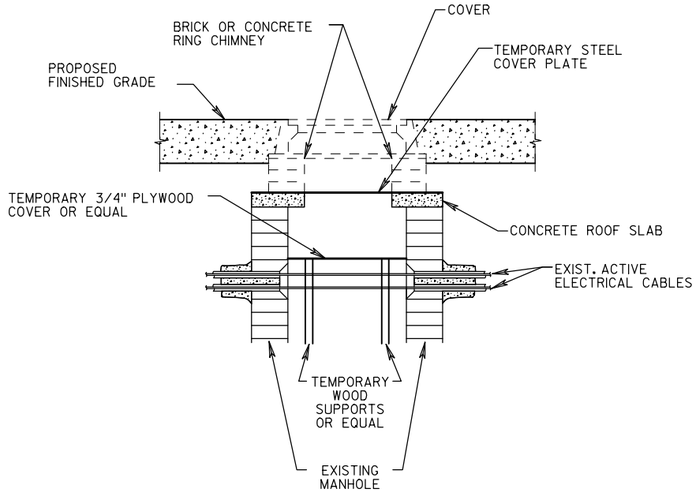
URBAN COMMERCIAL CONCRETE DRIVEWAY DETAIL

N.T.S

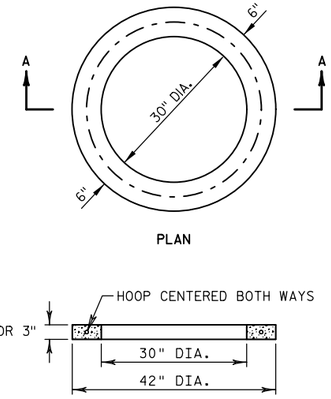


BUTT JOINT DETAIL

STA. 61+10.73 LF - STA. 61+60.73 LF
STA. 60+77.77 LF - STA. 61+27.77 LF



BLOCK OR PRECAST MANHOLE



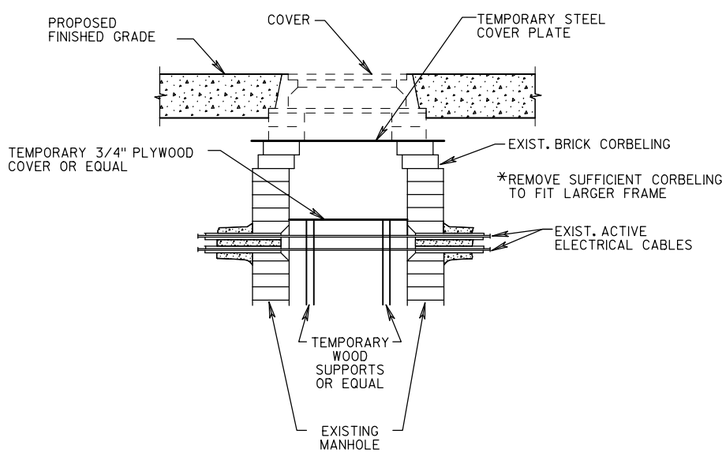
THE ADJUSTING RING SHALL BE 2" OR 3" IN HEIGHT.

THE CIRCUMFERENTIAL STEEL SHALL BE CENTERED WITHIN THE RING.

AREA OF CIRCUMFERENTIAL STEEL = 0.07 SQ. INCH PER VERTICAL FOOT WITH A MINIMUM OF .024 SQ. INCH IN ANY ONE RING.

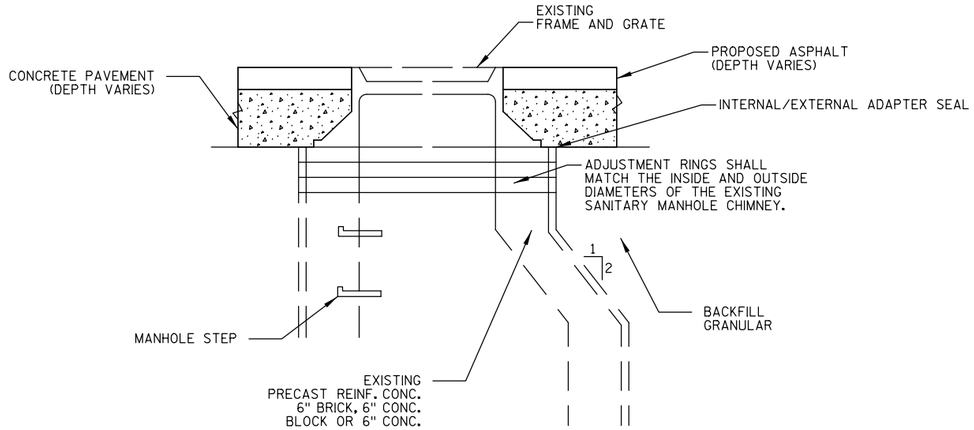
THE MINIMUM COMPRESSIVE STRENGH OF THE CONCRETE CORE SHALL BE 4000 P.S.I.

CONCRETE ADJUSTING RING



BRICK ROUND MANHOLE

ADJUSTING TES (CITY OF MILWAUKEE) MANHOLES



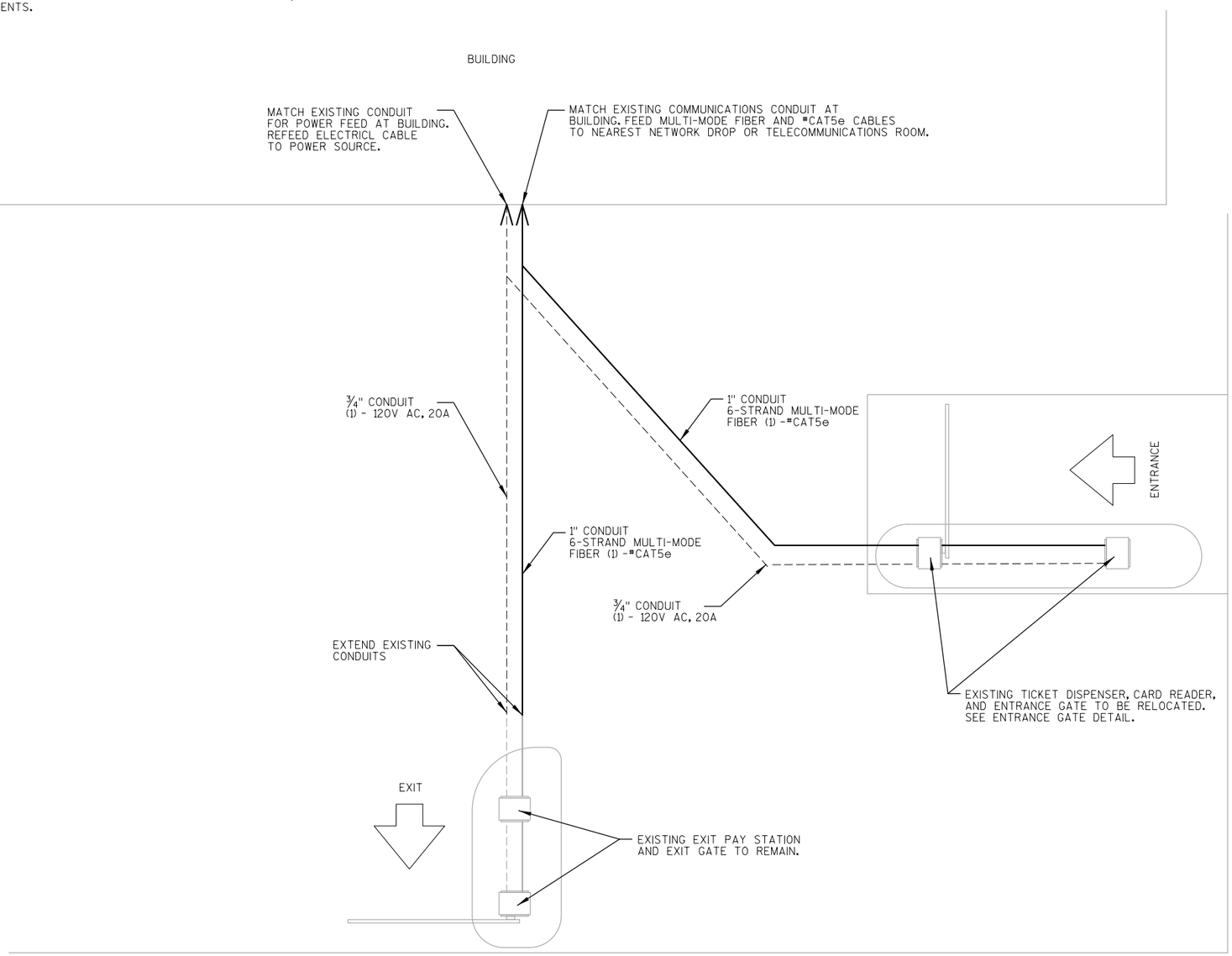
THE WORK INCLUDES REPAIRING AND ADJUSTING SANITARY MANHOLE CHIMNEY AND THE INSTALLATION OF MANHOLE SEAL.

ADJUSTING SANITARY MANHOLE

NOT TO SCALE

GENERAL NOTES

- 120VAC TO GATE MUST NOT DROP BELOW 105VAC WITH A 15A LOAD.
- EQUIPMENT IS DESIGNED FOR AUTOMOBILE TRAFFIC ONLY - NO MOTOR CYCLES, BICYCLES, OR PEDESTRIANS.
- EQUIPMENT IS DESIGNED TO BE MOUNTED ON A 6" HIGH LEVEL CONCRETE ISLAND.
- THE INFORMATION CONTAINED IN THIS DOCUMENT IS BASED ON TYPICAL CONFIGURATIONS. WE MAKE NO REPRESENTATIONS AS TO ITS ACCURACY, COMPLETENESS, OR SUITABILITY FOR A PARTICULAR APPLICATION. IT IS THE RESPONSIBILITY OF THE INSTALLER TO VERIFY ALL INFORMATION CONTAINED HEREIN AS IT RELATES TO THE ACTUAL SYSTEM DESIGN, SITE CONDITIONS, AND CODE REQUIREMENTS.

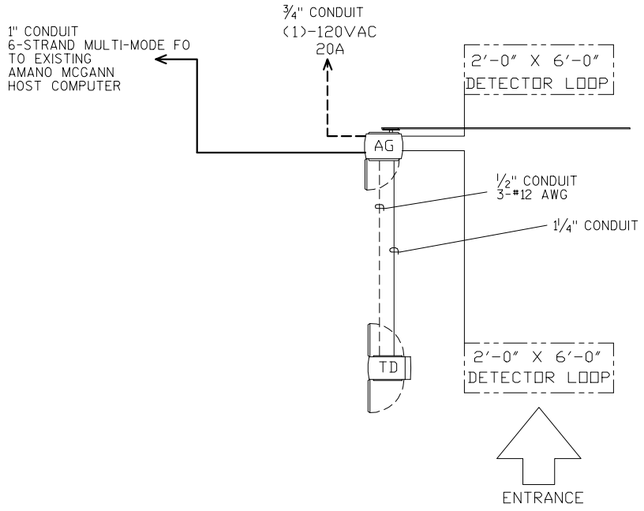


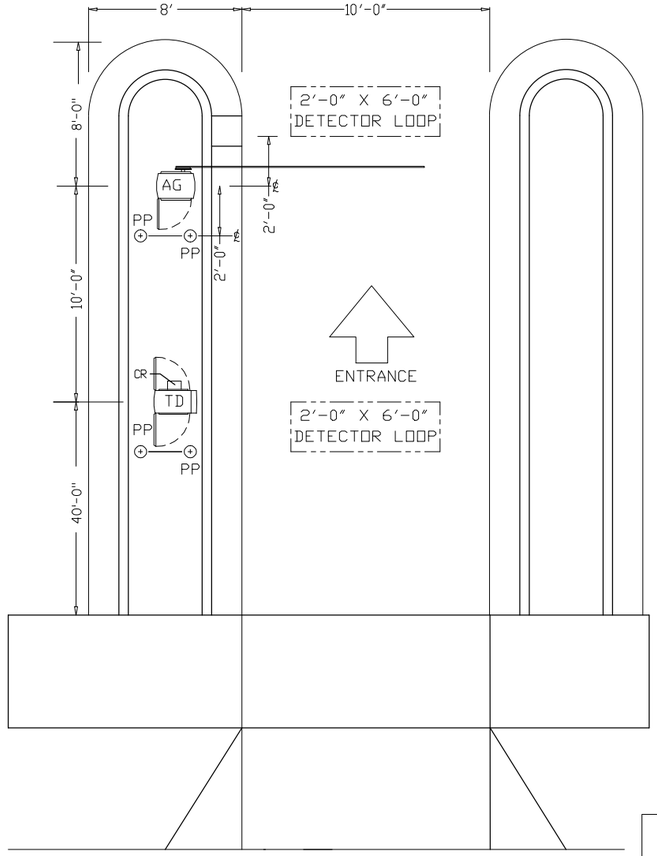
ELECTRICAL DETAIL

N.T.S.

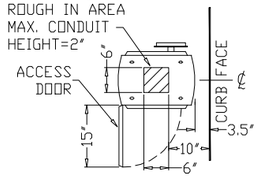
SHEET 1 OF 2

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL - PARKING GATE AT PUBLIC MARKET	SHEET 24	E

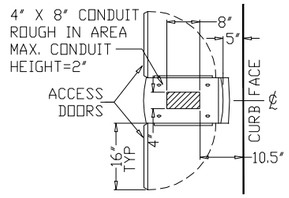




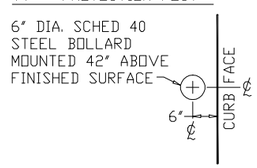
AG = AMG1700 AUTOGATE



TD = TICKET DISPENSER



PP = PROTECTION POST



GENERAL NOTES

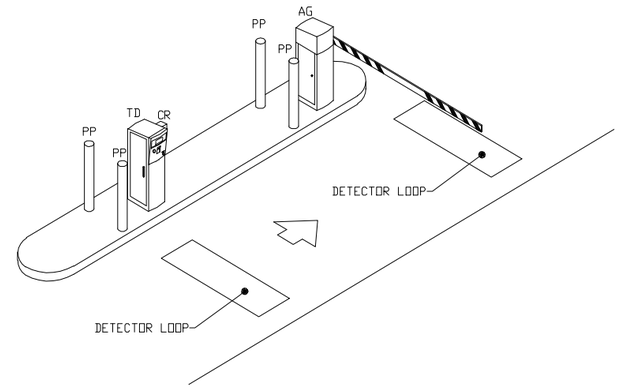
- 120VAC TO GATE MUST NOT DROP BELOW 105VAC WITH A 15A LOAD.
- EQUIPMENT IS DESIGNED FOR AUTOMOBILE TRAFFIC ONLY - NO MOTOR CYCLES, BICYCLES, OR PEDESTRIANS.
- EQUIPMENT IS DESIGNED TO BE MOUNTED ON A 6" HIGH LEVEL CONCRETE ISLAND.
- THE INFORMATION CONTAINED IN THIS DOCUMENT IS BASED ON TYPICAL CONFIGURATIONS. WE MAKE NO REPRESENTATIONS AS TO ITS ACCURACY, COMPLETENESS, OR SUITABILITY FOR A PARTICULAR APPLICATION. IT IS THE RESPONSIBILITY OF THE INSTALLER TO VERIFY ALL INFORMATION CONTAINED HEREIN AS IT RELATES TO THE ACTUAL SYSTEM DESIGN, SITE CONDITIONS, AND CODE REQUIREMENTS.

LEGEND

AG = EXISTING AUTOGATE
PP = EXISTING PROTECTION POST
TD = EXISTING TICKET DISPENSER
CR = EXISTING CARD READER

ENTRANCE GATE DETAIL

N.T.S.



SHEET 2 OF 2

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL - PARKING GATE AT PUBLIC MARKET	SHEET 25	E

WATER

Ⓐ PROP. 8"x45° BEND
I.E. 581.75 +/-

Ⓑ PROP. 8"x45° BEND
I.E. 580.00

Ⓒ PROP. 8"x45° BEND
I.E. 580.00 +/-

Ⓓ PROP. 8"x45° BEND
I.E. 581.62 +/-

Ⓔ DUCTILE IRON PIPE 8-INCH
28 LF @ S.=0.0063'/'

Ⓕ PROP. 8"x90° BEND
I.E. 581.44 +/-

Ⓖ DUCTILE IRON PIPE 8-INCH
74 LF @ S.=0.0063'/'

Ⓐ—Ⓑ DUCTILE IRON PIPE 8-INCH
2 LF @ S.=1.0000'/'

Ⓑ—Ⓒ DUCTILE IRON PIPE 8-INCH
19 LF @ S.=0.0000'/'

Ⓒ—Ⓓ DUCTILE IRON PIPE 8-INCH
2 LF @ S.=1.0000'/'

SANITARY

Ⓗ PR. 8"x8" WYE
W/ 8" CLEANOUT
AND 8"X6" REDUCER
I.E. 582.57
CONNECT TO EX. 6"
BUILDING SEWER

Ⓘ PR. 8"x8" WYE
W/ 8"X45° BEND
I.E. 582.42
CONNECT TO EX. 8"
TANK OUTLET

Ⓙ PR. 8"x45° BEND
I.E. 581.22

Ⓚ PR. 8"x45° BEND
I.E. 581.08

Ⓛ PVC SANITARY 8-INCH
24 L.F. @ S=0.0208'/'

Ⓜ PR. 8"x45° BEND
I.E. 580.58

Ⓝ PVC SANITARY 8-INCH
5 L.F. @ S=0.0208'/'

Ⓞ EX. STORM MANHOLE
RIM EL. 588.54
EX. 6" S. I.E. 582.84
EX. 8" W. I.E. 581.79 (RUNS TO GREASE TRAP)
EX. 8" W. I.E. 580.51 (RUNS TO SANITARY MH)
EX. 15" E. I.E. 579.79
PR. 8" W. I.E. 580.48

Ⓗ—Ⓘ PVC SANITARY 8-INCH
7 L.F. @ S=0.0208'/'

Ⓘ—Ⓙ PVC SANITARY 8-INCH
3 L.F. @ S=0.0208'/'

Ⓙ—Ⓚ PVC SANITARY 8-INCH
3 L.F. @ S=0.0208'/'

PROPOSED BRIDGE PIER (TYP.)

PROP. CONNECTION TO EXIST. 12" WATERMAIN MECHANICAL JOINT TAPPING SLEEVE 8-INCH x 12-INCH AND RESILIENT WEDGE GATE VALVE 8-INCH PER CITY OF MILWAUKEE WATER WORKS SPECIFICATIONS. CONTRACTOR SHALL VERIFY THE ELEVATION AND LOCATION OF THE EXIST. 12" WATERMAIN AND REPORT AND DISCREPANCIES TO THE ENGINEER.
STA. 202+35.30, 12.65' LT
EX. 12" N.&S. I.E. 582.10 +/-
PROP. 8" E. I.E. 582.26 +/-

EXISTING STORM SEWER

WE ENERGIES 4" STEAM LINE (ABANDONED)

IH 794 EB (ABOVE)

ASPHALT SURFACE PARKING LOT

AT&T FIBER OPTIC

MAINTAIN MINIMUM 18" CLEAR SEPARATION BETWEEN SANITARY AND WATER PER SPS 382.
TOP OF WATER ELEV. = 580.75 +/-
BOTTOM OF SAN. ELEV. = 582.30 +/-

LIMITS OF REMOVING WATER SERVICE LATERAL

EXISTING GREASE TRAP

CAUTION WE ENERGIES GAS

MATCH EXIST. 8" WATER SERVICE I.E. 581.75 +/-

REMOVE EX. SANITARY PIPING

EXIST. SANITARY MANHOLE
RIM EL. 590.37
6"+/- E. I.E. 579.42
11"+/- W. I.E. 579.37
24"+/- S. I.E. 578.37
24"+/- N. I.E. 578.32

MILWAUKEE PUBLIC MARKET

WE ENERGIES ELECTRIC

DUAL METROPOLITAN INTERCEPTOR SEWER (51" TOP / 36" BOTTOM)

CITY OF MILWAUKEE UNDERGROUND COMMUNICATIONS CONDUIT

TIME WARNER CABLE

WE ENERGIES STEAM

BROADWAY

202+00

+50

+50

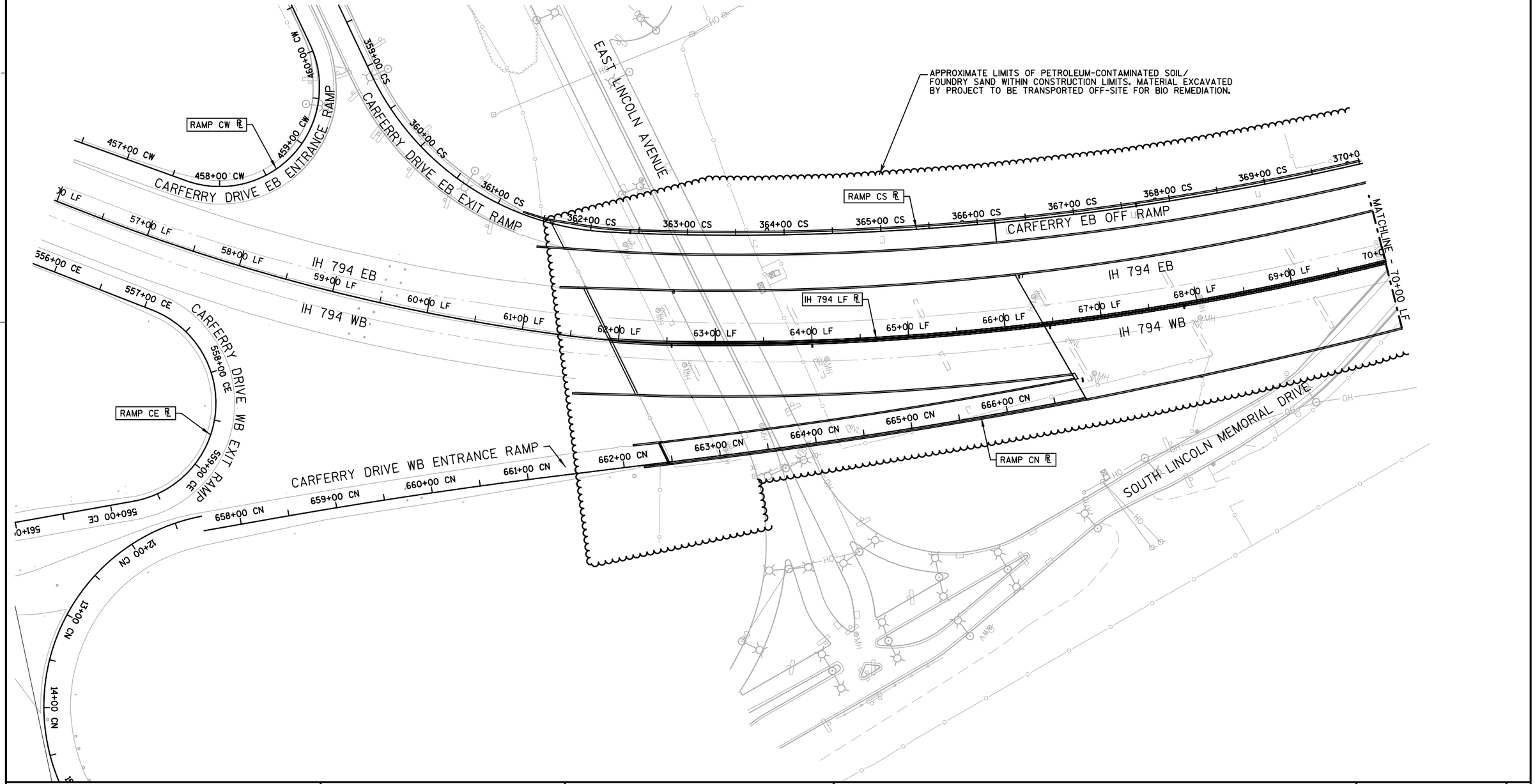
R/W

N

NOTES

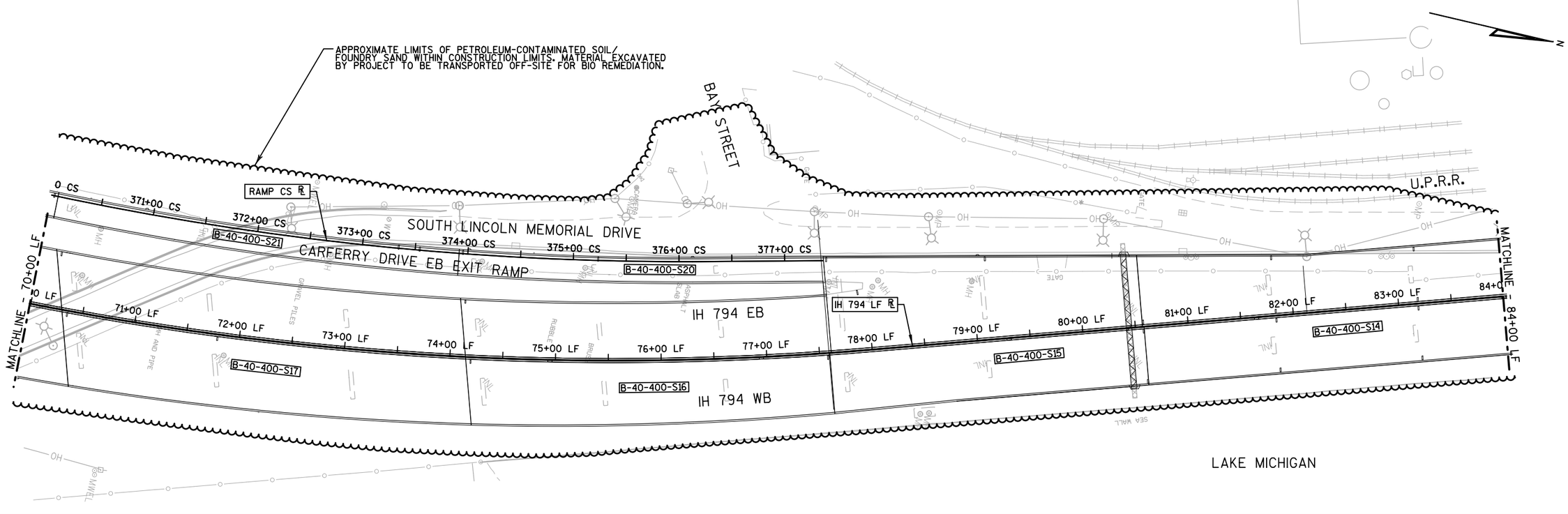
1. EXISTING WATER LATERAL TO MILWAUKEE PUBLIC MARKET IS IN CONFLICT WITH PROPOSED BRIDGE PIER LOCATION.
2. COORDINATE REMOVAL OF EXISTING WATER SERVICE LATERAL WITH CITY OF MILWAUKEE.
3. DUCTILE IRON WATER MAIN SHALL BE CL. 55 PER CITY OF MILWAUKEE STANDARDS.
4. CONTRACTOR SHALL COORDINATE INSTALLATION OF TAPPING SLEEVE AND VALVE WITH MILWAUKEE WATER WORKS.
5. CONTRACTOR SHALL RELOCATE EXISTING SANITARY BUILDING SEWER THAT CONFLICTS WITH PIER FOUNDATIONS. LOCATE POINTS OF CONNECTION AND CONFIRM PIPE SIZE AND ELEVATIONS. MINIMUM PIPE SLOPE SHALL BE 1/4 INCH/FOOT. CORE DRILL NEW CONNECTION TO EXISTING PRECAST CONCRETE MANHOLE AND INSTALL WATERTIGHT CONNECTOR. GROUT EXISTING CONNECTIONS AT MANHOLE WHICH ARE NO LONGER IN SERVICE.

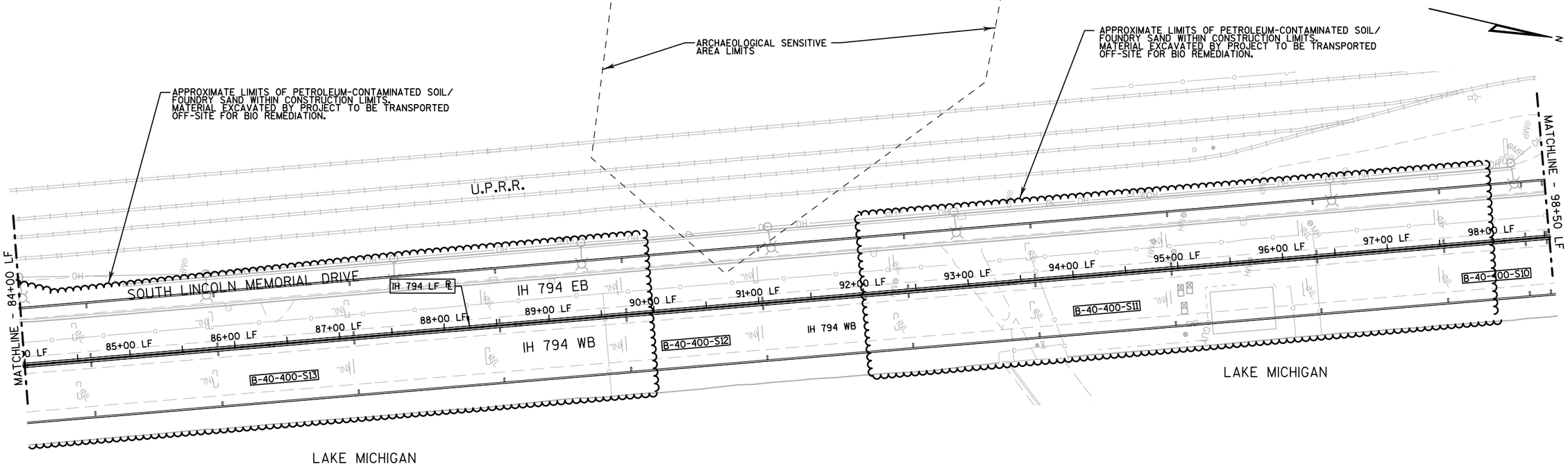
2



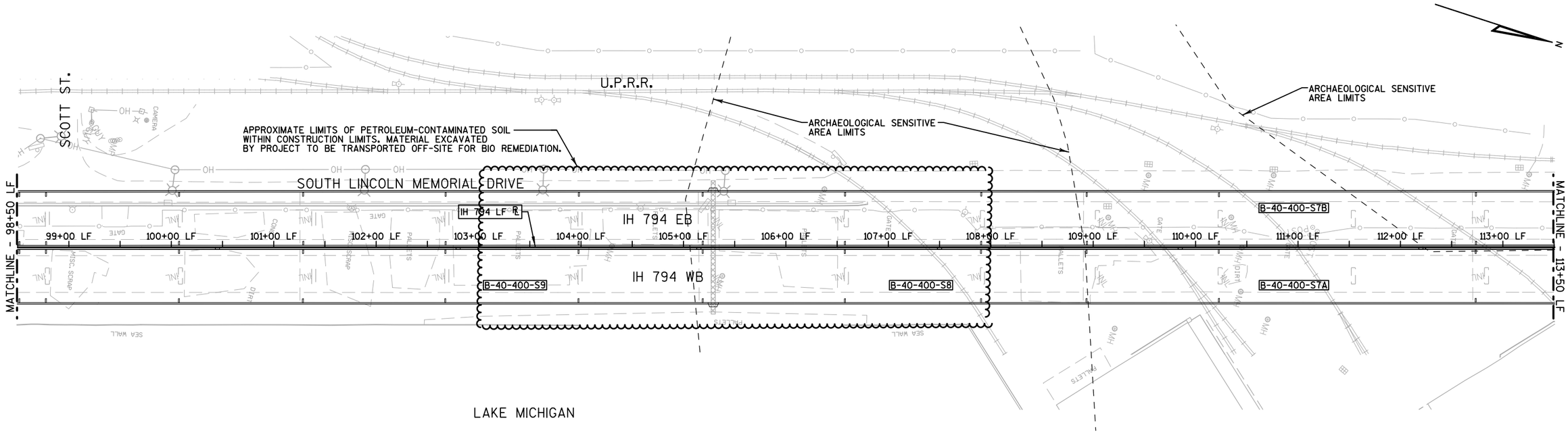
PROJECT NO:1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CONTAMINATED MATERIAL LOCATIONS	SHEET 27	E

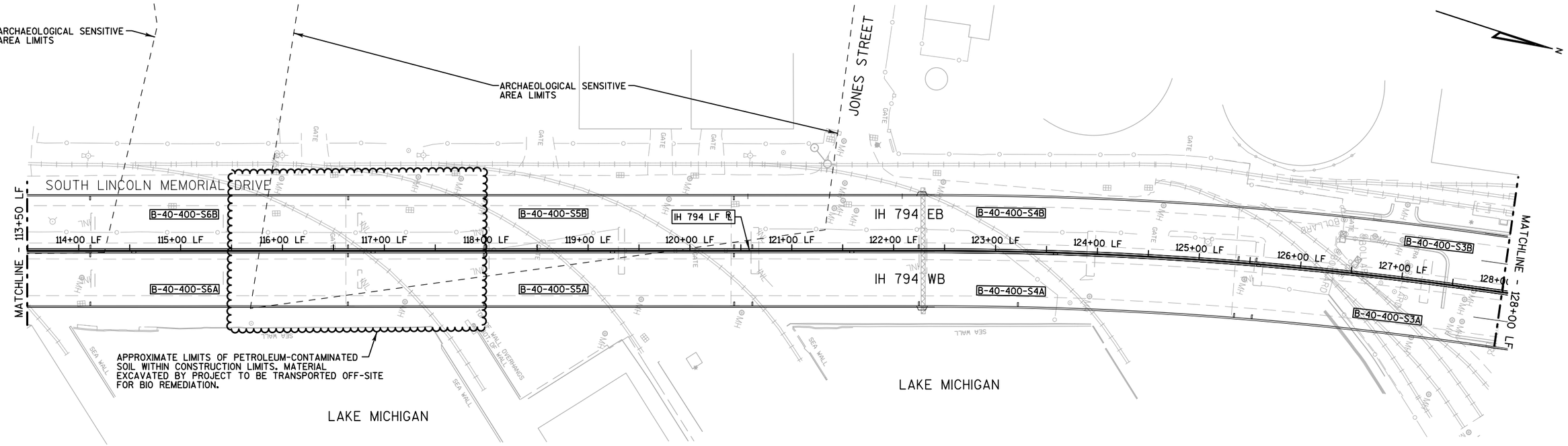
2



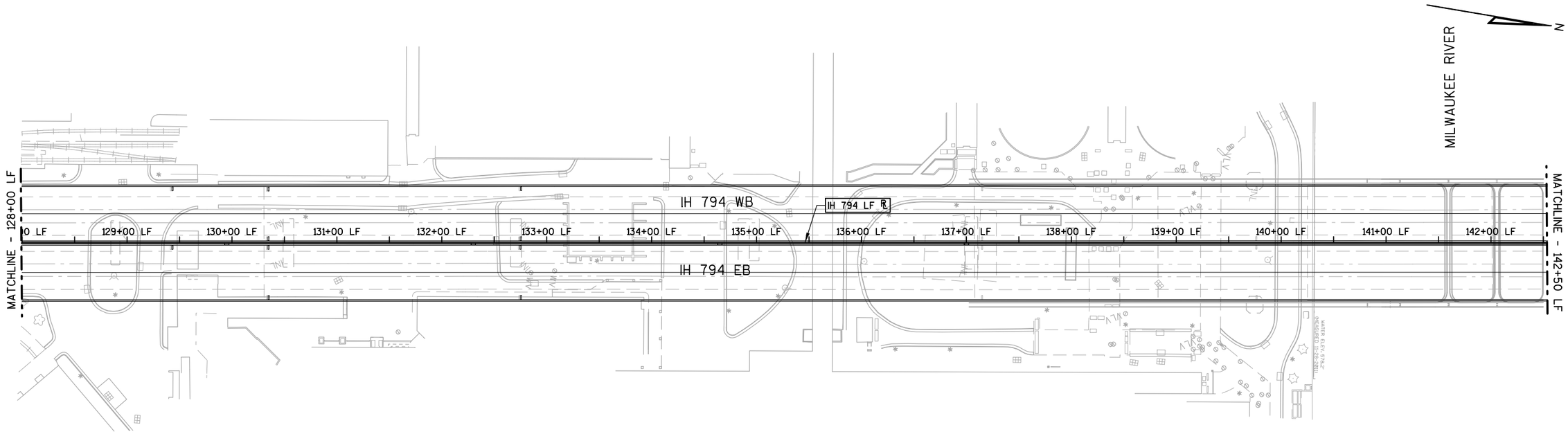


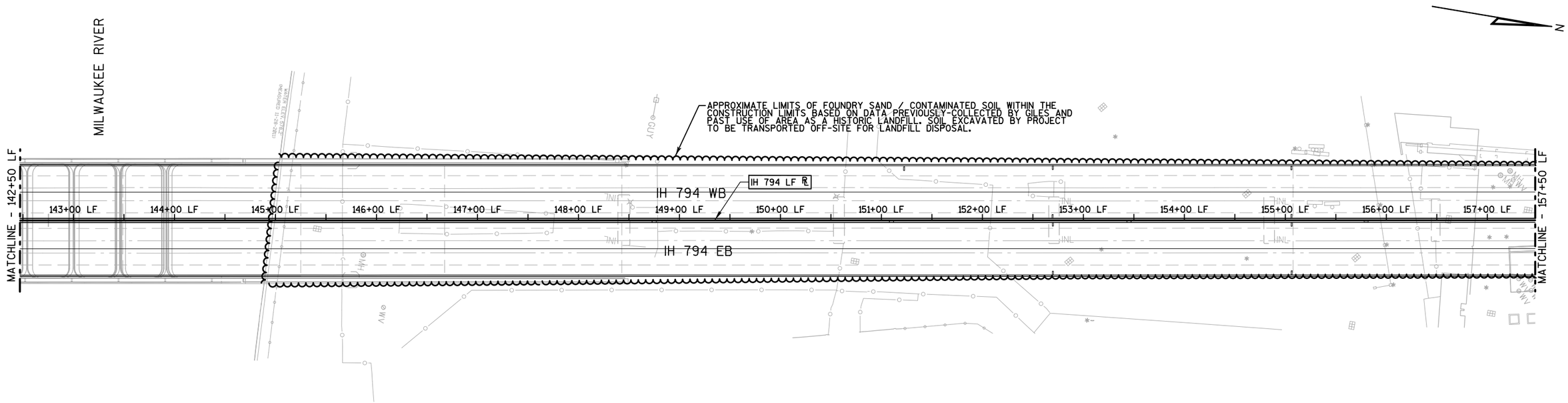
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CONTAMINATED MATERIAL LOCATIONS	SHEET 28	E



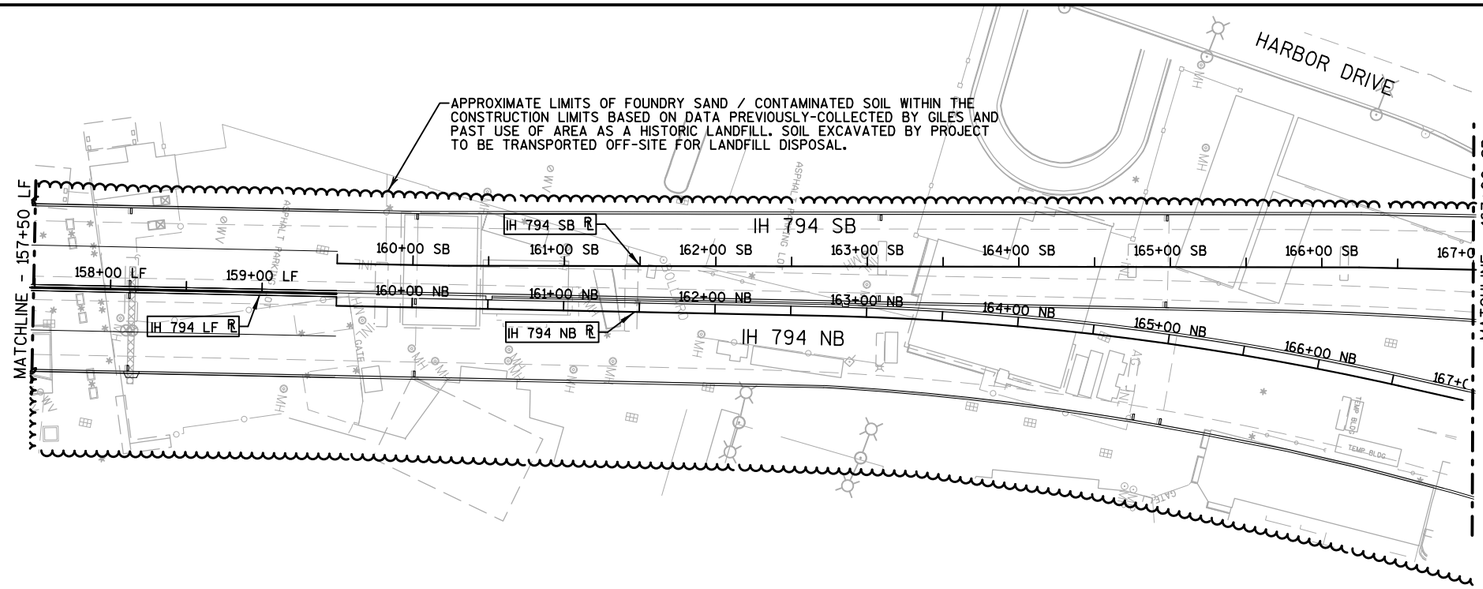


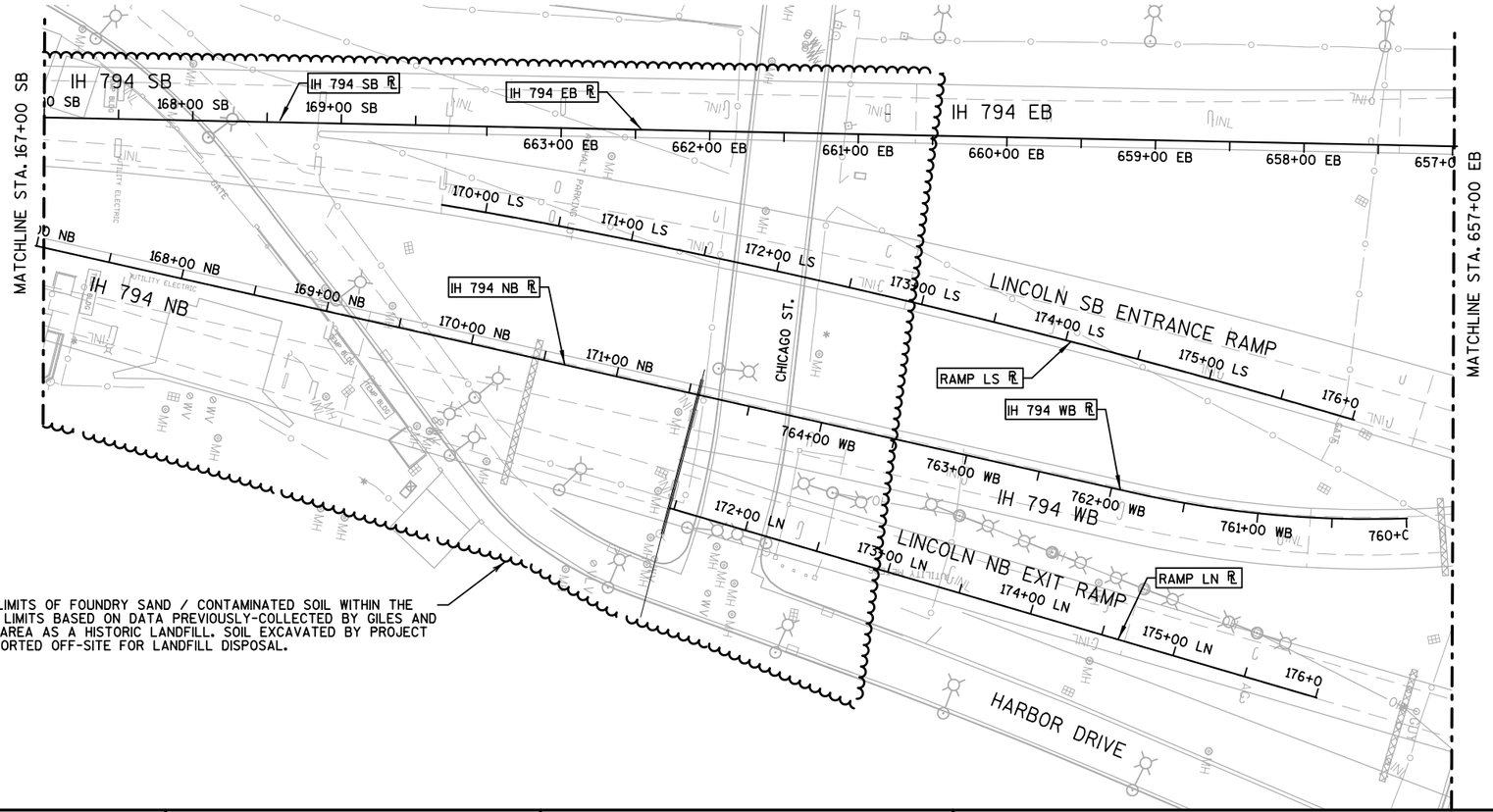
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CONTAMINATED MATERIAL LOCATIONS	SHEET 29	E





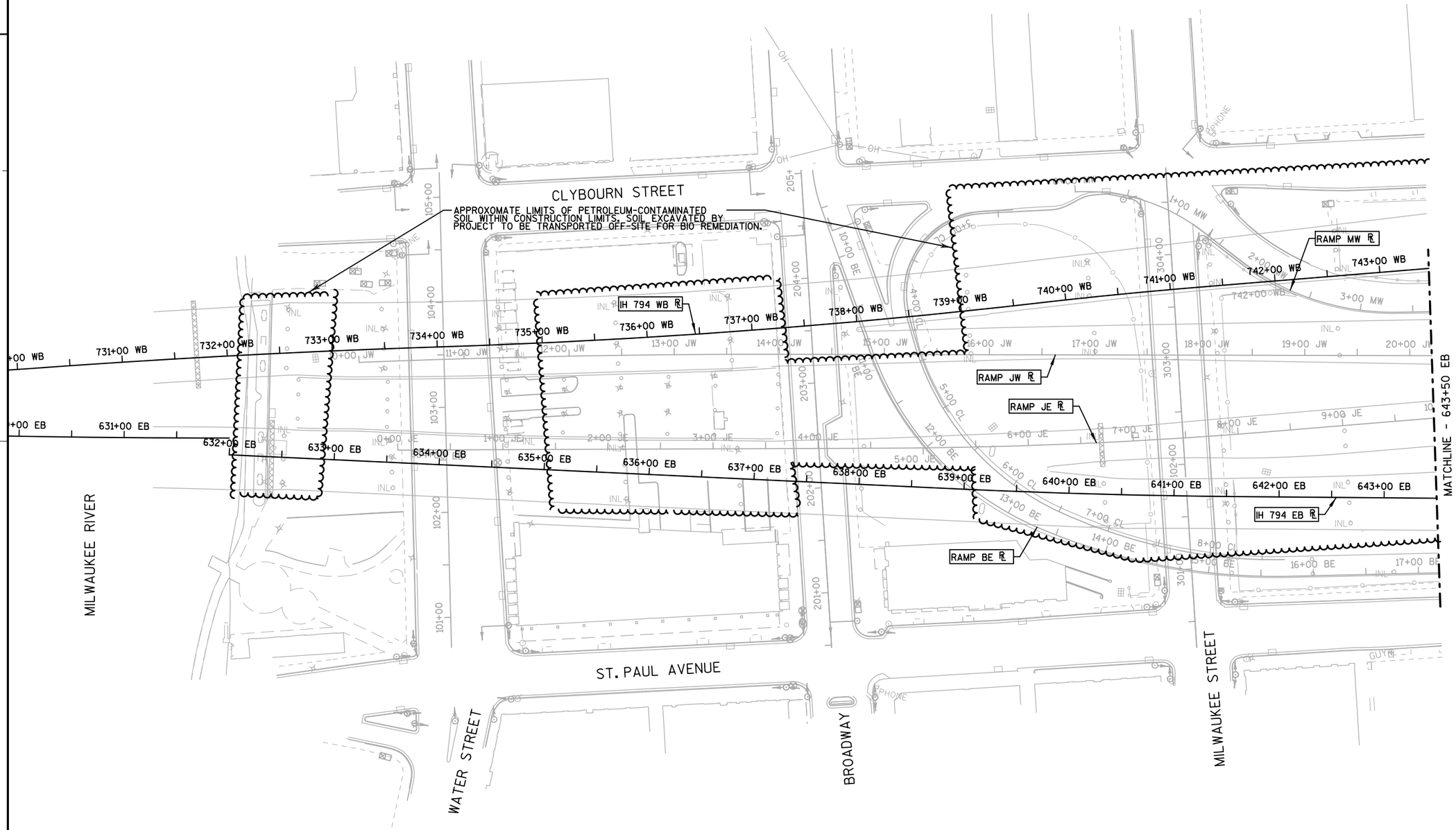
PROJECT NO:1300-13-70	HWY:IH 794	COUNTY:MILWAUKEE	CONSTRUCTION DETAILS - CONTAMINATED MATERIAL LOCATIONS	SHEET 30	E





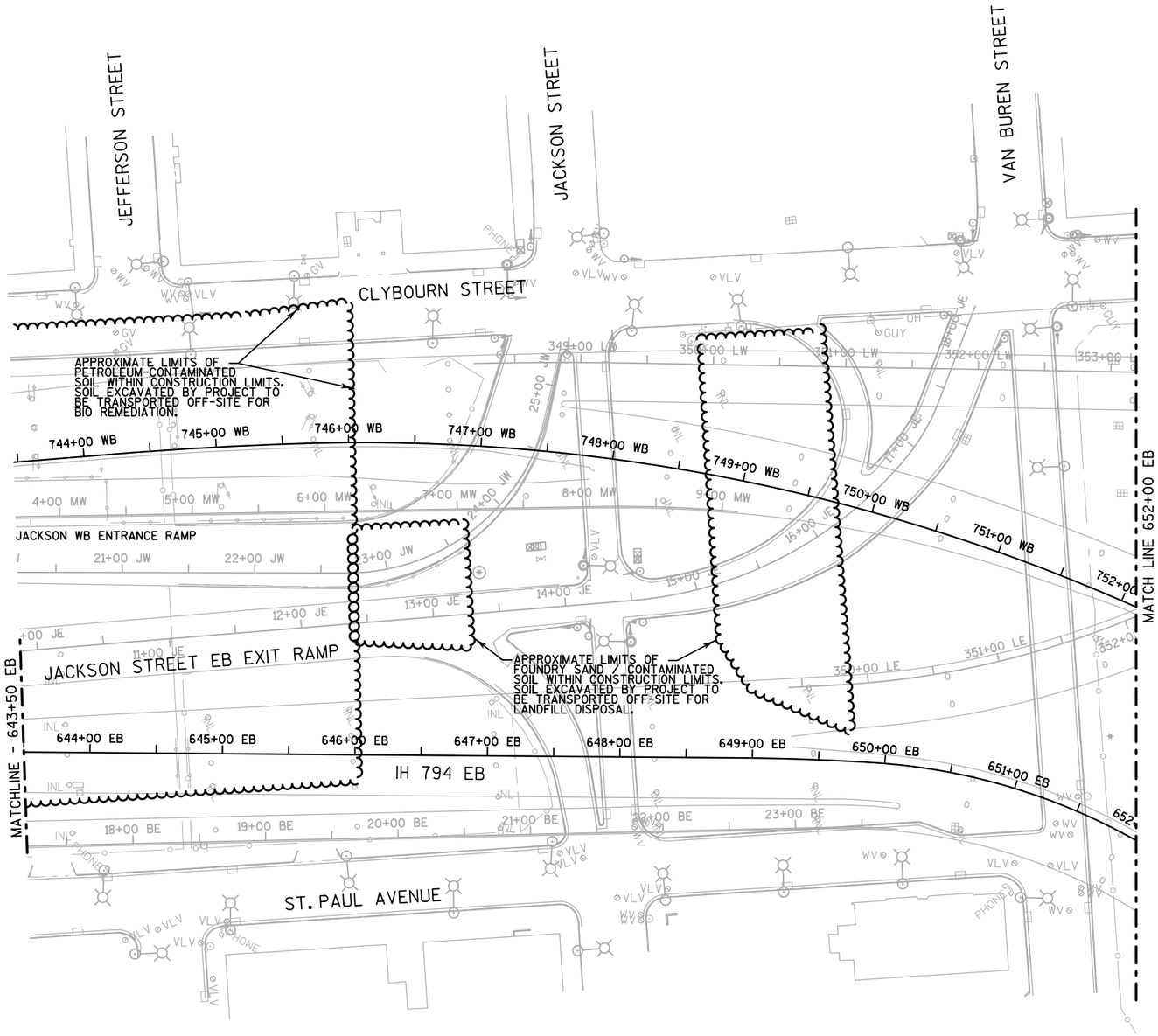
PROJECT NO:1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CONTAMINATED MATERIAL LOCATIONS	SHEET 31	E

2



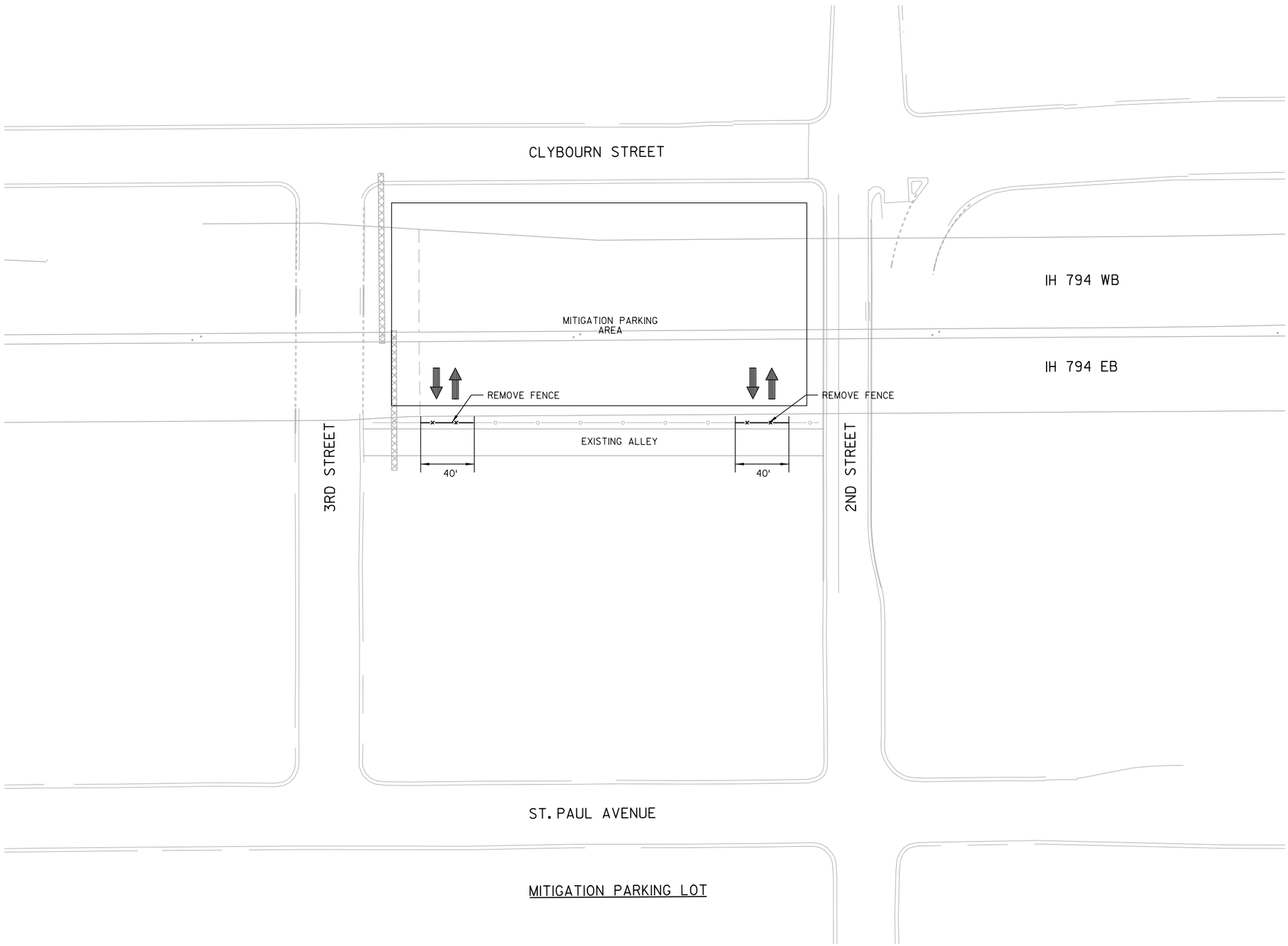
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL - CONTAMINATED MATERIAL LOCATIONS	SHEET 32	E

2



PROJECT NO:1300-13-70	HWY:IH 794	COUNTY:MILWAUKEE	CONSTRUCTION DETAILS - CONTAMINATED MATERIAL LOCATIONS	SHEET 33	E

FILE NAME : IP_PWP:d0231471\021016_cd.dgn PLOT DATE : 29-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000 WISDOT/CADDS SHEET 42



2

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL - MITIGATION PARKING LOT	SHEET 34	E

2

LEGEND

XXXXX SAWCUT

REMOVING CURB & GUTTER

REMOVING PAVEMENT

REMOVING ASPHALTIC SURFACE

REMOVING CONCRETE SIDEWALK

ATC 138kV OVERHEAD TRANSMISSION LINES

EXISTING R/W

STH 794 SB

STH 794 LF

37+00 LF +50 38+00 LF +50 39+00 LF +50 40+00 LF +50 41+00 LF +50 42+00 LF +50

REMOVE TEMPORARY ASPHALT PAID FOR AS REMOVING ASPHALTIC SURFACE

STH 794 NB

EXISTING R/W

RUSSELL AVENUE

ATC 138kV OVERHEAD TRANSMISSION LINES

WE ENERGIES OVERHEAD ELECTRIC LINES

ATC 138 kV UNDERGROUND

WE ENERGIES OVERHEAD ELECTRIC LINES

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN - CROSS OVER LF	SHEET 35	E

LEGEND

XXXXX SAWCUT

REMOVING CURB & GUTTER

REMOVING PAVEMENT

REMOVING ASPHALTIC SURFACE

REMOVING CONCRETE SIDEWALK

RAMP CW ℄

458+00 CW

459+00 CW

CARFERRY DRIVE SB ENTRANCE RAMP

IH 794 SB

IH 794 NB

STH 794 LF ℄

558+00 LF

559+00 LF

WISDOT STOC

REMOVE TEMPORARY RAMP
PAID FOR AS EXCAVATION COMMON

32+00 SX

33+00 SX

34+00 SX

RAMP SX ℄

RAMP CS ℄

360+00 CS

362+00 CS

CARFERRY DRIVE EB EXIT RAMP

RAMP CE ℄

CARFERRY DRIVE NB EXIT RAMP

558+00 CE

559+00 CE

560+00 CE

RAMP NX ℄

0+00 NX

21+00 NX

22+00 NX

23+00 NX

24+00 NX

25+00 NX

REMOVING STORM SEWER

REMOVE TEMPORARY RAMP
PAID FOR AS EXCAVATION COMMON

658+00 CN

659+00 CN

CARFERRY DRIVE WB ENTRANCE RAMP

RAMP CN ℄

WISDOT STOC

60+00 LF

61+00 LF

62+00 LF

N

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN - TEMPORARY RAMPS SX AND NX	SHEET 36	E

FILE NAME : c:\pwv8i-local\baker_projects\andrew.genz\d0231471\021031_rm.dgn PLOT DATE : 29-APR-2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

2

LEGEND

XXXXX SAWCUT

////// REMOVING CURB & GUTTER

REMOVING PAVEMENT

REMOVING ASPHALTIC SURFACE

REMOVING CONCRETE SIDEWALK

NOTES

1. REMOVE TEMPORARY RAMP PAVEMENT AND EMBANKMENT PAID FOR AS EXCAVATION COMMON

N

E. CLYBOURN STREET

EXISTING R/W

N. LINCOLN MEMORIAL DRIVE

REMOVE CURB & GUTTER

SEE NOTE 1.

LINCOLN MEMORIAL DRIVE WB ENTRANCE RAMP

POT 40+00.00 IX

40+00 IX

+50 IX

41+00 IX

PC 41+42.54 IX

42+00 IX

RAMP IX

REMOVING STORM SEWER

43+00 IX

MATCHLINE STA. 43+50 IX

STA. 355+17.8, 6.0' LT SAWCUT

STA. 355+17.9, 23.5' RT SAWCUT

STA. 354+61.2, 24.2' RT SAWCUT

LINCOLN MEMORIAL DRIVE EB EXIT RAMP

REMOVING PAVEMENT

REMOVING INLET

STORM SEWER

STA. 354+61.2, 34.2' RT SAWCUT

WISDOT LIGHTING

WISDOT HIGH-MAST LIGHT POLE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN - RAMP IX	SHEET 37	E

FILE NAME : IP_PWP:d0231471\021032_rm.dgn PLOT DATE : 30-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

2

LEGEND

XXXXX SAWCUT

REMOVING CURB & GUTTER

REMOVING PAVEMENT

REMOVING ASPHALTIC SURFACE

REMOVING CONCRETE SIDEWALK

N

RAMP IE ℄

99+00 IE

+50 IE

98+00 IE

+50 IE

97+00 IE

+50 IE

TEMPORARY STRUCTURE B-40-400-005E

LINCOLN MEMORIAL DRIVE SB ENTRANCE RAMP

180+00 LS

181+00 LS

182+00 LS

183+00 LS

REMOVE EXISTING CONCRETE BARRIER

REMOVE EXISTING CONCRETE BARRIER

TEMPORARY WALL

MATCHLINE STA. 43+50 IX

+50 IX

96+00 IE

+50 IE

44+00 IX

+50 IX

RAMP IX ℄

45+00 IX

+50 IX

47+00 IX

+50 IX

46+00 IX

+50 IX

LINCOLN MEMORIAL DRIVE NB EXIT RAMP

180+00 LN

181+00 LN

182+00 LN

183+00 LN

REMOVING STORM SEWER

REMOVE EXISTING CONCRETE BARRIER

REMOVE TEMPORARY RAMP PAVEMENT AND EMBANKMENT PAID FOR AS EXCAVATION COMMON

REMOVE CURB & GUTTER

N. LINCOLN MEMORIAL DR.

E. TED SEAVER STREET

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN - RAMP IX	SHEET 38	E

FILE NAME : IP_PWP:d0231471\021033_rm.dgn PLOT DATE : 30-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

2

LEGEND

- XXXX SAWCUT
- ////// REMOVING CURB & GUTTER
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK

NOTES:

1. REMOVAL OF ASPHALTIC PAVEMENT PAID AS EXCAVATION COMMON.

N

N. LINCOLN MEMORIAL DRIVE (SB)

N. LINCOLN MEMORIAL DRIVE (NB)

MICHIGAN STREET

MICHIGAN ℄

RAMP LS ℄

RAMP LN ℄

400+00

401+00

402+00

403+00

189+00 LS

190+00 LS

188+00 LS

STA. 401+44.9, 71.6'LT
END SIDEWALK
REMOVAL

STA. 401+52.7, 61.9'LT
END CURB & GUTTER
REMOVAL

STA. 401+31.7, 60.9'LT
BEGIN SIDEWALK
REMOVAL

STA. 401+39.2, 51.6'LT
BEGIN CURB & GUTTER
REMOVAL

SEE NOTE 1.

STA. 402+82.5, 61.0'LT
BEGIN CURB & GUTTER
REMOVAL

STA. 402+90.4, 72.1'LT
BEGIN SIDEWAL
REMOVAL

STA. 403+01.4, 61.1'LT
END SIDEWALK
REMOVAL

STA. 402+89.5, 53.5'LT
END CURB & GUTTER
REMOVAL

SEE NOTE 1.

STA. 188+37.7 LS, 59.8'LT
BEGIN SIDEWALK/ CURB &
GUTTER REMOVAL

STA. 188+41.1 LS, 65.9'LT
CONTINUE SIDEWALK
REMOVAL

STA. 188+37.7 LS, 59.8'LT
CONTINUE SIDEWALK
REMOVAL

STA. 188+39.5 LS, 52.1'LT
END SIDEWALK/CURB &
GUTTER REMOVAL

STA. 402+99.7, 43.2'RT
END CURB & GUTTER
REMOVAL

STA. 403+06.2, 52.3'RT
END SIDEWALK
REMOVAL

STA. 402+92.8, 61.8'RT
BEGIN SIDEWALK
REMOVAL

STA. 402+84.1, 54.6'RT
BEGIN CURB & GUTTER
REMOVAL

DATA TABLE

N LINCOLN MEMORIAL DR/MICHIGAN ST

POINT NO.	STATION	OFFSET	DESCRIPTION
1	401+38.6	18.9'LT	SAWCUT
2	401+36.2	27.5'LT	SAWCUT
3	189+85.6 LS	36.8'LT	SAWCUT
4	189+85.9 LS	27.3'LT	SAWCUT
5	401+89.0	20.3'LT	SAWCUT
6	402+60.0	53.7'LT	SAWCUT
7	402+66.1	56.3'LT	SAWCUT
8	402+83.9	36.6'LT	SAWCUT
9	402+84.6	27.9'LT	SAWCUT
10	402+56.6	25.9'LT	SAWCUT
11	189+11.4 LS	42.2'RT	SAWCUT
12	402+98.1	21.53'RT	SAWCUT
13	403+00.4	24.8'RT	SAWCUT
14	188+70.3 LS	48.3'RT	SAWCUT
15	188+70.3 LS	43.9 RT	SAWCUT
16	188+50.0 LS	39.9'LT	SAWCUT
17	188+52.9 LS	35.3'LT	SAWCUT
18	188+93.3 LS	35.5'LT	SAWCUT
19	401+18.6	20.4'RT	SAWCUT
20	401+15.7	23.2'RT	SAWCUT

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN - MICHIGAN STREET	SHEET 39 E

LEGEND

XXXXX SAWCUT

REMOVING CURB & GUTTER

REMOVING PAVEMENT

REMOVING ASPHALTIC SURFACE

REMOVING CONCRETE SIDEWALK

IH 794 EB EXIT RAMP

N. 6TH STREET VIADUCT

ST. PAUL AVENUE

STA. 401+89.2, 40.8' LT
BEGIN CURB AND GUTTER
REMOVAL

STA. 401+98.3, 21.8' LT
END CURB AND GUTTER
REMOVAL

STA. 402+04.6
END/BEGIN CURB AND
GUTTER REMOVAL

400+00 +50 401+00 +50 402+00 +50 403+00 +50 404+00

SIGN

CONC.

N

2

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN - ST. PAUL AVENUE	SHEET 40	E

2

LEGEND

- XXXXX SAWCUT
- /////// REMOVING CURB & GUTTER
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK

N

STA. 102+13.8
BEGIN SIDEWALK
REMOVAL

STA. 102+96.4
BEGIN CURB AND
GUTTER REMOVAL

STA. 103+16.4
END CURB AND
GUTTER REMOVAL

STA. 104+04.6
END SIDEWALK
REMOVAL

100+00 +50 101+00 +50 102+00 +50 103+00 +50 104+00 +50 105+00 +50 106+00

WATER STREET

STORM SEWER REMOVAL.
REMOVE PAVEMENT TO
NEAREST PANEL OR HALF PANEL.

STA. 102+80.3
BEGIN CURB AND
GUTTER REMOVAL

STA. 103+41.3
END CURB AND
GUTTER REMOVAL

STA. 104+07.0
END SIDEWALK
REMOVAL

STA. 102+03.7
BEGIN SIDEWALK
REMOVAL

EXISTING PIERS TO BE REMOVED. (TYP)
SEE STRUCTURE PLANS FOR DETAILS.

EXISTING PIERS TO BE REMOVED.
SEE STRUCTURE PLANS FOR DETAILS.

ST. PAUL AVENUE

CLYBOURN STREET

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN - WATER STREET	SHEET 41	E

FILE NAME : IP_PWP:d0231471\021036_rm.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

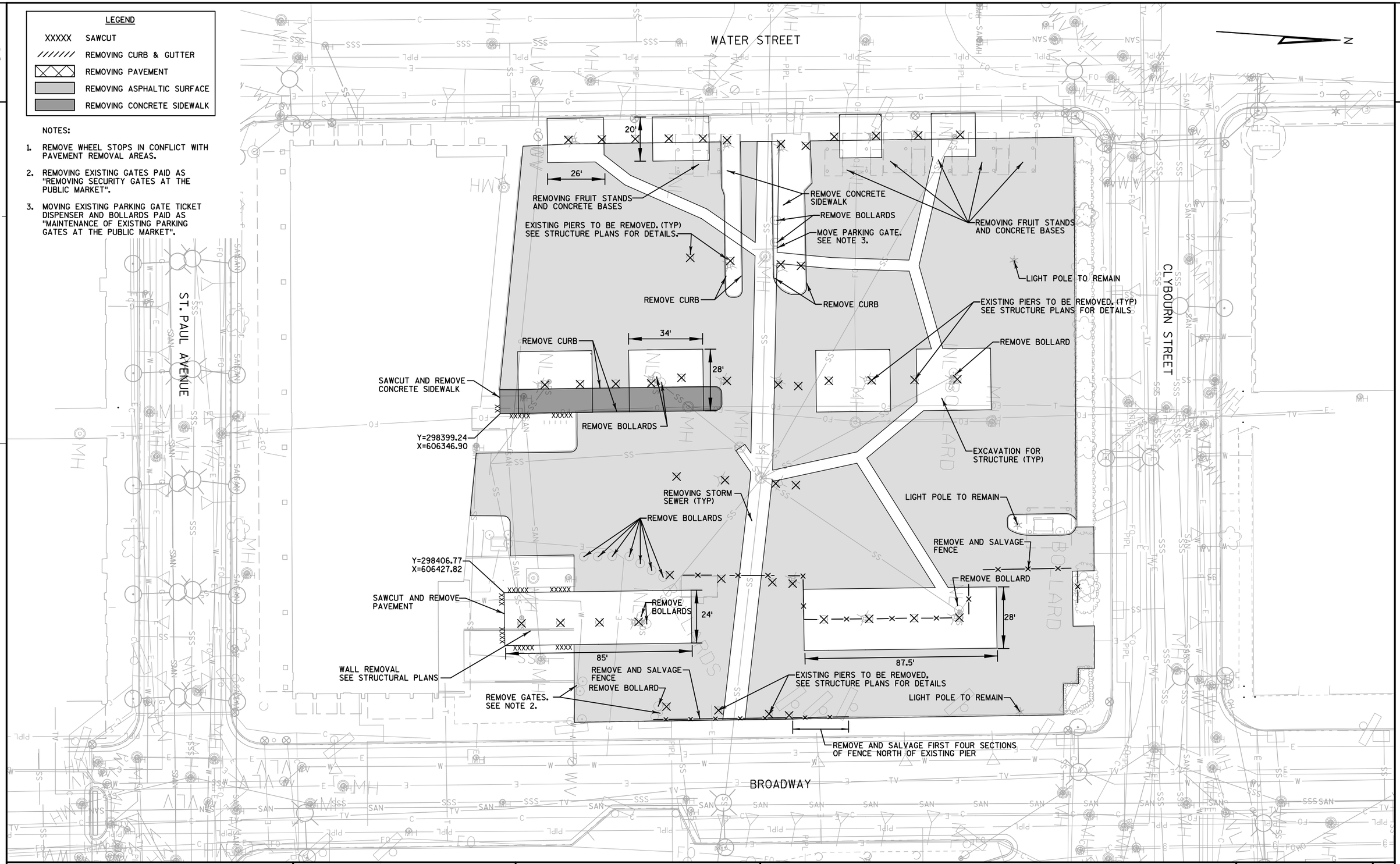
2

LEGEND

- XXXXX SAWCUT
- /////// REMOVING CURB & GUTTER
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK

NOTES:

1. REMOVE WHEEL STOPS IN CONFLICT WITH PAVEMENT REMOVAL AREAS.
2. REMOVING EXISTING GATES PAID AS "REMOVING SECURITY GATES AT THE PUBLIC MARKET".
3. MOVING EXISTING PARKING GATE TICKET DISPENSER AND BOLLARDS PAID AS "MAINTENANCE OF EXISTING PARKING GATES AT THE PUBLIC MARKET".



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 42	E

2

LEGEND

- XXXXX SAWCUT
- ////// REMOVING CURB & GUTTER
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK

N

BROADWAY

ST. PAUL AVENUE

CLYBOURN STREET

STA. 201+36.5
BEGIN SIDEWALK REMOVAL

STA. 201+36.5
BEGIN CURB AND GUTTER REMOVAL

STA. 201+68.5
END CURB AND GUTTER REMOVAL

STA. 202+37.5
END SIDEWALK REMOVAL

R/W

STA. 202+44.2
BEGIN SIDEWALK REMOVAL

STA. 202+68.5
BEGIN CURB & GUTTER REMOVAL

STA. 202+68.5
BEGIN SIDEWALK REMOVAL

STA. 202+73.7
BEGIN CURB & GUTTER REMOVAL

STA. 202+91.0, 20.0' RT
SAWCUT

STA. 202+93.7
END CURB & GUTTER REMOVAL

SAWCUT FOR STORM SEWER INSTALLATION. REMOVE PAVEMENT TO NEAREST PANEL OR HALF PANEL.

STA. 203+05.3
CONTINUE SIDEWALK REMOVAL

STA. 203+08.7
END SIDEWALK REMOVAL

STA. 203+19.9
END SIDEWALK REMOVAL

STA. 203+21.0
END CURB & GUTTER REMOVAL

SEE STRUCTURE REMOVAL PLANS

STA. 203+34.9, 99.0' RT
BEGIN CURB & GUTTER REMOVAL

STA. 203+33.1
BEGIN SIDEWALK REMOVAL

STA. 203+97.0
END SIDEWALK REMOVAL

STA. 204+10.5
CONTINUE SIDEWALK REMOVAL

STA. 204+36.2
BEGIN SIDEWALK REMOVAL

STA. 204+41.0
END CURB & GUTTER REMOVAL

STA. 204+44.1
BEGIN CURB & GUTTER REMOVAL

STA. 204+48.4, 44.2' LT
END SIDEWALK REMOVAL

STA. 204+59.0, 36.2' LT
END CURB & GUTTER REMOVAL

STA. 204+63.7, 55.4' RT
END CURB & GUTTER AND SIDEWALK REMOVAL

STA. 204+07.6
BEGIN SIDEWALK REMOVAL

STA. 204+57.3, 116.5' RT
BEGIN CURB & GUTTER REMOVAL

EXISTING PIERS TO BE REMOVED. SEE STRUCTURE PLANS FOR DETAILS.

STA. 205+03.1, 48.6' RT
BEGIN CURB & GUTTER AND SIDEWALK REMOVAL

STA. 205+05.5, 36.7' LT
BEGIN CURB & GUTTER REMOVAL

STA. 205+06.8, 43.3' LT
BEGIN SIDEWALK REMOVAL

STA. 205+19.0, 23.1' LT
END CURB & GUTTER REMOVAL

STA. 205+20.3
END CURB & GUTTER AND SIDEWALK REMOVAL

STA. 205+26.9, 24.3' LT
END SIDEWALK REMOVAL

200+00 201+00 202+00 203+00 204+00 205+00 +50

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN - BROADWAY	SHEET 43	E

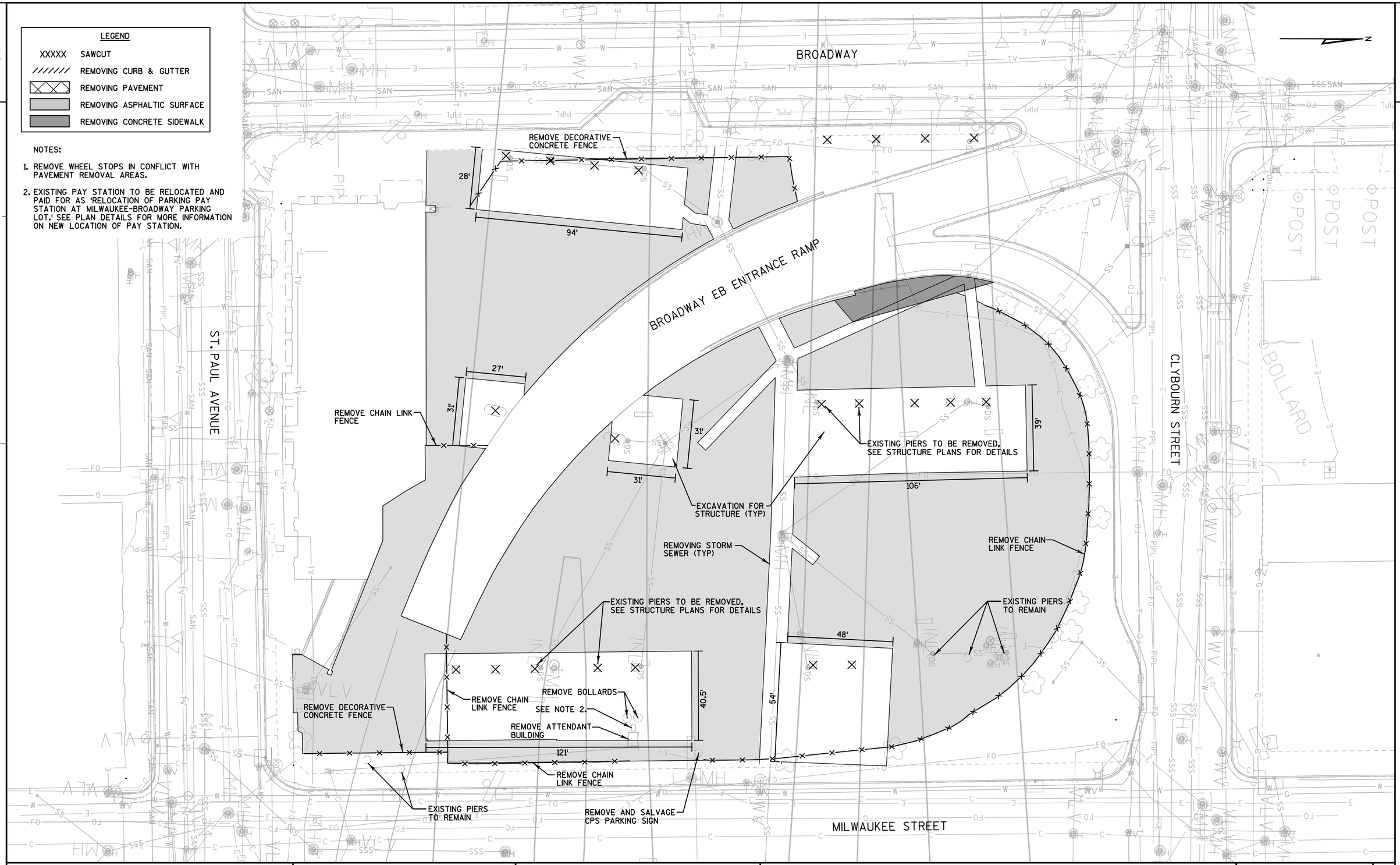
FILE NAME : IP_PWP:d0231471\021038_rm.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

LEGEND

XXXXX	SAWCUT
//////////	REMOVING CURB & GUTTER
	REMOVING PAVEMENT
	REMOVING ASPHALTIC SURFACE
	REMOVING CONCRETE SIDEWALK

NOTES:

1. REMOVE WHEEL STOPS IN CONFLICT WITH PAVEMENT REMOVAL AREAS.
2. EXISTING PAY STATION TO BE RELOCATED AND PAID FOR AS 'RELOCATION OF PARKING PAY STATION AT MILWAUKEE-BROADWAY PARKING LOT.' SEE PLAN DETAILS FOR MORE INFORMATION ON NEW LOCATION OF PAY STATION.



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 44	E

FILE NAME : c:\pwv8i-local\baker_projects\andrew.genz\d0231471\021039_rm.dgn PLOT DATE : 30-APR-2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 40.000000:1.000000

2

LEGEND

XXXXX	SAWCUT
//////	REMOVING CURB & GUTTER
	REMOVING PAVEMENT
	REMOVING ASPHALTIC SURFACE
	REMOVING CONCRETE SIDEWALK

NOTES

1. REMOVE TEMPORARY RAMP (MX) PAVEMENT AND EMBANKMENT. PAID FOR AS EXCAVATION COMMON.

N

MILWAUKEE STREET

CLYBOURN STREET

ST. PAUL AVENUE

STA. 301+97.3
BEGIN SIDEWALK REMOVAL

STA. 302+28.5
BEGIN CURB & GUTTER REMOVAL

STA. 301+66.0
BEGIN CURB & GUTTER REMOVAL

STA. 301+66.0
BEGIN SIDEWALK REMOVAL

STA. 302+27.0
END CURB & GUTTER REMOVAL

REMOVE TREE

STA. 303+40.5
END SIDEWALK REMOVAL

STA. 303+40.5
END CURB & GUTTER REMOVAL

SAWCUT FOR STORM SEWER INSTALLATION.
REMOVE PAVEMENT TO NEAREST PANEL
OR HALF PANEL.

STA. 302+78.8
BEGIN CURB &
GUTTER REMOVAL

STA. 302+98.8
END CURB &
GUTTER REMOVAL

EXISTING PIERS TO BE REMOVED,
SEE STRUCTURE PLANS FOR DETAILS

STA. 303+57.7
CONTINUE SIDEWALK
REMOVAL

STA. 303+55.3
END CURB & GUTTER
REMOVAL

STA. 303+89.3
BEGIN CURB & GUTTER
REMOVAL

STA. 303+50.5
END CURB & GUTTER
REMOVAL

STA. 304+57.4
END CURB &
GUTTER REMOVAL

STA. 304+43.2
END SIDEWALK
REMOVAL

STA. 304+34.4
BEGIN SIDEWALK
REMOVAL

STA. 304+42.1
BEGIN CURB & GUTTER REMOVAL

STA. 304+01.9
BEGIN CURB & GUTTER
REMOVAL

STA. 304+99.6, 36.4' LT
BEGIN CURB &
GUTTER/SIDEWALK
REMOVAL

STA. 305+16.2, 22.0' LT
END CURB & GUTTER/SIDEWALK
REMOVAL

STA. 304+66.4
22.2' RT

STA. 305+15.4, 33.3' RT
END CURB &
GUTTER/SIDEWALK
REMOVAL

STA. 304+48.3, 67.6' RT
BEGIN CURB &
GUTTER/SIDEWALK
REMOVAL

REMOVE CURB & GUTTER

SEE NOTE 1.

300+00 301+00 302+00 303+00 304+00 305+00 +50

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN - MILWAUKEE STREET	SHEET 45	E

FILE NAME : c:\pwv8i-local\baker_projects\andrew.genz\d0231471\021040_rm.dgn PLOT DATE : 30-APR-2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 40.000000:1.000000

LEGEND

XXXXX SAWCUT

////// REMOVING CURB & GUTTER

REMOVING PAVEMENT

REMOVING ASPHALTIC SURFACE

REMOVING CONCRETE SIDEWALK

NOTES:

1. REMOVE WHEEL STOPS IN CONFLICT WITH PAVEMENT REMOVAL AREAS.

Y=298716.37
X=607026.90

REMOVE DECORATIVE CONCRETE FENCE

Y=298693.28
X=607028.20

REMOVE GUARDRAIL

Y=298700.29
X=607153.21

PEDESTIRAN WALKWAY SLOPE INTERCEPT

REMOVE GUARDRAIL

Y=298642.97
X=607157.48

REMOVE CHAIN LINK FENCE

REMOVE BOLLARDS

MILWAUKEE STREET WB EXIT RAMP

REMOVE GUARDRAIL

REMOVING STORM SEWER (TYP)

EXCAVATION FOR STRUCTURE (TYP)

Y=298548.56
X=606918.27

Y=298549.24
X=606951.79

Y=298549.25
X=606956.81

EXCAVATION FOR STRUCTURE (TYP)

10'

Y=298524.49
X=606986.82

REMOVE CHAIN LINK FENCE

Y=298526.71
X=607021.62

Y=298545.55
X=607111.76

MILWAUKEE STREET

EXISTING PIERS TO BE REMOVED, SEE STRUCTURE PLANS FOR DETAILS

Y=298476.64
X=606924.38

5'

Y=298475.12
X=606906.44

Y=298456.46
X=606940.54

Y=298445.21
X=606908.98

Y=298462.92
X=607026.97

Y=298460.62
X=606990.88

Y=298446.75
X=606926.91

EXISTING PIERS TO REMAIN IN PLACE

REMOVE GUARDRAIL

REMOVE BOLLARDS

PEDESTIRAN WALKWAY SLOPE INTERCEPT

EXISTING PIERS TO REMAIN IN PLACE

Y=298414.71
X=607157.62

Y=298406.52
X=607205.07

Y=298412.03
X=607121.72

Y=298403.05
X=607158.49

Y=298364.94
X=606933.86

Y=298377.57
X=607109.23

Y=298379.72
X=607139.15

Y=298384.58
X=607206.70

REMOVE CHAIN LINK FENCE

REMOVE CHAIN LINK FENCE

Y=298354.75
X=607110.87

Y=298356.89
X=607140.80

Y=298737.48
X=607369.74

REMOVE DECORATIVE CONCRETE FENCE

Y=298739.56
X=607398.34

Y=298701.93
X=607216.14

REMOVE GUARDRAIL

REMOVE BOLLARD

EXISTING PIERS TO REMAIN IN PLACE

Y=298712.86
X=607371.49

REMOVE CHAIN LINK FENCE

REMOVE GUARDRAIL

Y=298671.04
X=607403.16

PEDESTIRAN WALKWAY SLOPE INTERCEPT

Y=298630.67
X=607221.45

REMOVE GUARDRAIL

Y=298635.89
X=607349.90

REMOVE GUARDRAIL

SEE REMOVAL PLAN - JEFFERSON STREET PEDESTRIAN WALKWAY FOR ADDITIONAL INFORMATION

JACKSON STREET WB ENTRANCE RAMP

JACKSON STREET EB EXIT RAMP

Y=298470.96
X=607250.40

Y=298485.33
X=607390.29

Y=298481.61
X=607424.43

Y=298463.25
X=607453.45

PEDESTIRAN WALKWAY SLOPE INTERCEPT

EXISTING PIERS TO REMAIN IN PLACE

Y=298388.17
X=607256.57

Y=298391.97
X=607309.39

Y=298394.06
X=607338.35

Y=298402.76
X=607459.25

REMOVE CHAIN LINK FENCE

REMOVE CHAIN LINK FENCE

REMOVE CHAIN LINK FENCE

Y=298369.17
X=607311.03

Y=298371.15
X=607340.00

N

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 46	E

2

LEGEND

XXXXX	SAWCUT
//////	REMOVING CURB & GUTTER
	REMOVING PAVEMENT
	REMOVING ASPHALTIC SURFACE
	REMOVING CONCRETE SIDEWALK

NOTES:

1. ONLY DETAILS SPECIFIC TO THE CONSTRUCTION OF THE PEDESTRIAN WALKWAY ARE SHOWN ON THIS PLAN FOR CLARITY.
2. REMOVE SIDEWALK TO THE NEAREST JOINT OR AS DIRECTED BY THE ENGINEER.
3. SEE PLAN DETAIL - MILWAUKEE-JACKSON PARKING LOTS, PLAN AND PROFILE - JEFFERSON STREET PEDESTRIAN WALWAY, AND PROPOSED PEDESTRIAN TUNNEL CROSS SECTIONS FOR ADDITIONAL DETAILS.
4. REMOVE WHEEL STOPS IN CONFLICT WITH PAVEMENT REMOVAL AREAS.

N

MILWAUKEE STREET WB EXIT RAMP

JEFFERSON STREET

REMOVING FENCE
STA 100+70, 1.6'RT - STA 101+94, 5.8'RT

REMOVING FENCE
STA 101+99, 5.7'RT - STA 102+23, 4.1'RT

REMOVING GUARDRAIL
STA 102+73, 1.7'RT - STA 102+74, 35.8'LT

REMOVING FENCE
STA 102+72, 4.8'RT - STA 103+87, 1.6'LT

REMOVING GUARDRAIL
STA 100+70, 0.2'RT - STA 101+09, 0.2'RT

REMOVING FENCE
STA 100+25, 1.6'RT - STA 100+46, 1.8'RT

SLOPE INTERCEPT

100+00 +50 101+00 102+00 +50 103+00 +50 104+00

END SIDEWALK REMOVAL
STA 103+88

SLOPE INTERCEPT

REMOVE FENCE
STA 102+72, 12.6'RT - STA 103+86, 21.9'RT

REMOVAL OF PEDESTRIAN TUNNEL
STA. 102+28.3 TO STA. 102+73.7
PAID FOR AS EXCAVATION FOR STRUCTURE.

BEGIN SIDEWALK REMOVAL
STA 100+24

REMOVING FENCE
STA 100+25, 7.7'RT - STA 100+46, 8.3'RT

REMOVING FENCE
STA 100+70, 8.1'RT - STA 101+50, 11.5'RT

REMOVE GUARDRAIL
STA 100+70, 9.4'RT - STA 101+09, 9.5'RT

ST. PAUL AVENUE

JACKSON STREET EB EXIT RAMP

JACKSON STREET WB ENTRANCE RAMP

CLYBOURN STREET

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN - JEFFERSON STREET PEDESTRIAN WALKWAY	SHEET 47	E

FILE NAME : IP_PWP:d0231471\021042_rm.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

2

LEGEND

XXXXX SAWCUT

REMOVING CURB & GUTTER

REMOVING PAVEMENT

REMOVING ASPHALTIC SURFACE

REMOVING CONCRETE SIDEWALK

N

TIME WARNER CABLE

WE ENERGIES ELECTRIC

E. CLYBOURN STREET

SAWCUT AT JOINT LINE

SAWCUT STA. 25+24.0 JW

SAWCUT STA. 25+22.6 JW

END REMOVING PAVEMENT STA. 25+22.5 JW

349+00 LW

350+00 LW

REMOVE CURB & GUTTER PAID FOR AS REMOVING PAVEMENT.

25+00 JW

REMOVE SIDEWALK

747+00 WB

748+00 WB

749+00

746+00 WB

745+00 WB

744+00 WB

743+00 WB

BEGIN REMOVING PAVEMENT STA. 22+81.3 JW

JACKSON STREET WB ENTRANCE RAMP

23+00 JW

22+00 JW

21+00 JW

20+00 JW

REMOVE GUARDRAIL

WISDOT HIGH-MAST LIGHT POLE

N. JACKSON STREET

15+00 JE

14+00 JE

13+00 JE

12+00 JE

11+00 JE

10+00 JE

JACKSON STREET EB EXIT RAMP

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN - JACKSON STREET WB ENTRANCE RAMP (JW)	SHEET 48	E

LEGEND

- XXXXX SAWCUT
- REMOVING CURB & GUTTER
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK

N

JACKSON STREET WB ENTRANCE RAMP

JACKSON STREET EB EXIT RAMP

IH 794 EB

BROADWAY EB ENTRANCE RAMP

N. JACKSON STREET

ST. PAUL AVENUE

746+00 WB, 747+00 WB, 6+00 MW, 7+00 MW, 24+00 JW, 8+00 MW, 9+00 MW, 22+00 JW, 23+00 JW, 12+00 JE, 13+00 JE, 14+00 JE, 15+00 JE, 645+00 EB, 646+00 EB, 647+00 EB, 648+00 EB, 649+00 EB, 19+00 BE, 20+00 BE, 21+00 BE, 22+00 BE, 23+00 BE

BEGIN SIDEWALK REMOVAL
STA. 14+56.5 JE, 91.9' LT

REMOVE CURB & GUTTER

REMOVE CURB & GUTTER

REMOVE CURB & GUTTER

MATCHLINE 15+50 JE

BEGIN REMOVING PAVEMENT
STA. 13+96.2 JE

BEGIN REMOVING PAVEMENT
STA. 13+95.6 JE

REMOVE SIDEWALK

REMOVE STORM SEWER AND INLET

REMOVE CURB AND GUTTER
(PAID AS REMOVING PAVEMENT)

BEGIN REMOVING PAVEMENT
STA. 13+63 JE, 30.6' RT

STA. 14+54.3 JE, 30.0' RT
BEGIN SIDEWALK REMOVAL

WISDOT HIGHWAY LIGHTING

BEGIN REMOVING PAVEMENT
STA. 13+39 JE, 56.2' RT

REMOVE SIDEWALK

REMOVE CURB AND GUTTER
(PAID AS REMOVING PAVEMENT)

BEGIN REMOVING PAVEMENT
STA. 14+12 JE, 164.5' RT

BEGIN REMOVING PAVEMENT
STA. 13+85.3 JE, 167.7' RT

WE ENERGIES ELECTRIC

COMBINED SEWER (STORM & SANITARY)

SANITARY SEWER

TIME WARNER CABLE

WE ENERGIES ELECTRIC

CITY OF MILWAUKEE BES TRAFFIC UTILITIES

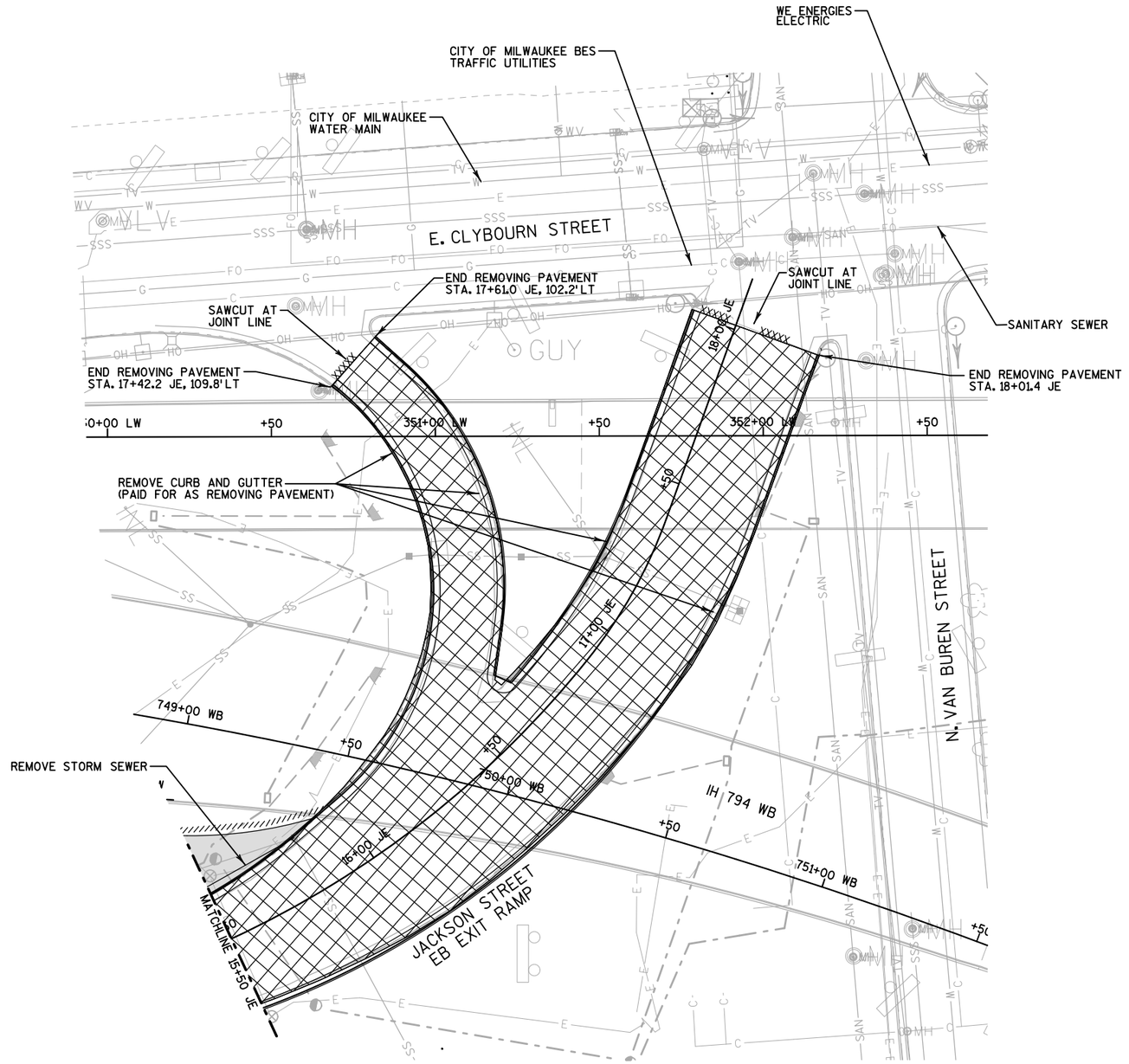
CITY OF MILWAUKEE WATER MAIN

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN - JACKSON STREET RAMP JE AND RAMP JW	SHEET 49	E

2

LEGEND

XXXXX	SAWCUT
//////	REMOVING CURB & GUTTER
	REMOVING PAVEMENT
	REMOVING ASPHALTIC SURFACE
	REMOVING CONCRETE SIDEWALK



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	REMOVAL PLAN - JACKSON STREET RAMP JE & RAMP JW	SHEET 50	E

LEGEND

30A — TYPE; * — SIZE (INCHES); SPECIAL	CONCRETE CURB AND GUTTER
31	CONCRETE CURB AND GUTTER 31-INCH
SN	CONCRETE MEDIAN SLOPED NOSE
SW5	CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
GR3	MGS GUARDRAIL 3
TBT	MGS THRIE BEAM TRANSITION
EAT	MGS ENERGY ABSORBING TERMINAL
TT2	MGS TYPE 2 TERMINAL
CR1 — TYPE	CURB RAMP
CC	CRASH CUSHION, PERMANENT LOW MAINTENANCE
CB32	CONCRETE BARRIER TYPE S32A
CAS	CONCRETE APPROACH SLAB
SAS	STRUCTURAL APPROACH SLAB
PAV 1	CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
PAV 2	CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
PAV 3	CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
PAV 4	5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
PAV 5	1" CONCRETE SURFACE REMOVAL AND 2½-INCH HMA OVERLAY, TYPE E-3
PAV 6	2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
PAV 7	CONCRETE PAVEMENT 8-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
PAV 8	CONCRETE PAVEMENT 10-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼ -INCH
PAV 9	CONCRETE PAVEMENT 10½-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
PAV 10	CONCRETE PAVEMENT 9-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
PAV 11	CONCRETE PAVEMENT 9½-INCH, OVER 6" BASE AGGREGATE DENSE 11#4-INCH
AS 1	3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
AS 2	3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
(XXX.XX)	EXISTING PAVEMENT GRADE
XXX.XX	PROPOSED PAVEMENT GRADE

POTTER AVENUE

BAY STREET

MMSD PIPE LINE
(FORMERLY WEST SHORE PIPE LINE)

MILWAUKEE WATER WORKS
WATER MAIN

BEGIN CURB & GUTTER
STA. 38+10

END CURB & GUTTER
STA. 41+75

5-INCH STAMPED COLORED CONCRETE

STH 794

37+00 LF	+50	38+00 LF	+50	39+00 LF	+50	40+00 LF	+50	41+00 LF	+50	42+00 LF	+50	43+00 LF
	(608.72)		(608.96)		(609.25)		(609.30)		(609.30)		(609.15)		(608.92)		(608.56)		(608.38)	
	(608.77)		(608.96)		(609.17)		(609.25)		(609.25)		(609.11)		(608.91)		(608.61)		(608.39)	

30A

ATC 138kV OVERHEAD
TRANSMISSION LINES

WISDOT HIGHWAY
LIGHTING

WE ENERGIES OVERHEAD
ELECTRIC LINES

RUSSELL AVENUE

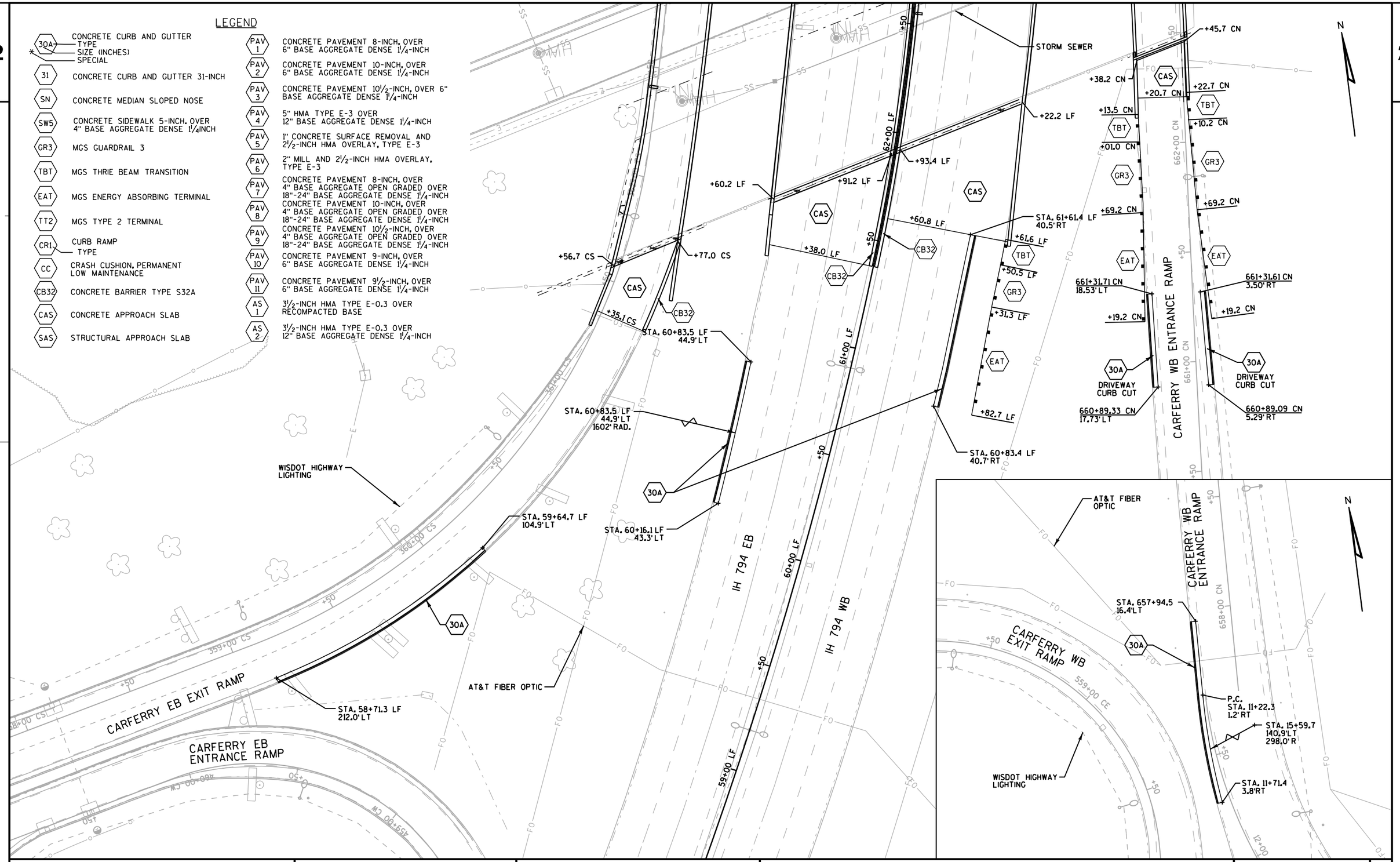
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - IH 794 WESTBOUND/EASTBOUND (LF)	SHEET	E

FILE NAME : IP_PWP:d0231471\021208_pd.dgn
PLOT DATE : 26-APR-2013
PLOT BY : 1732
PLOT NAME :
PLOT SCALE : 40.000000:1.000000
WISDOT/CADDS SHEET 42

LEGEND

- 30A — CONCRETE CURB AND GUTTER TYPE
- * — SIZE (INCHES) SPECIAL
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH, OVER 4" BASE AGGREGATE DENSE 1¼INCH
- GR3 — MGS GUARDRAIL 3
- TBT — MGS THRIE BEAM TRANSITION
- EAT — MGS ENERGY ABSORBING TERMINAL
- TT2 — MGS TYPE 2 TERMINAL
- CR1 — CURB RAMP TYPE
- CC — CRASH CUSHION, PERMANENT LOW MAINTENANCE
- CB32 — CONCRETE BARRIER TYPE S32A
- CAS — CONCRETE APPROACH SLAB
- SAS — STRUCTURAL APPROACH SLAB

- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 7 — CONCRETE PAVEMENT 8-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 8 — CONCRETE PAVEMENT 10-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 9 — CONCRETE PAVEMENT 10½-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 10 — CONCRETE PAVEMENT 9-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 11 — CONCRETE PAVEMENT 9½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH

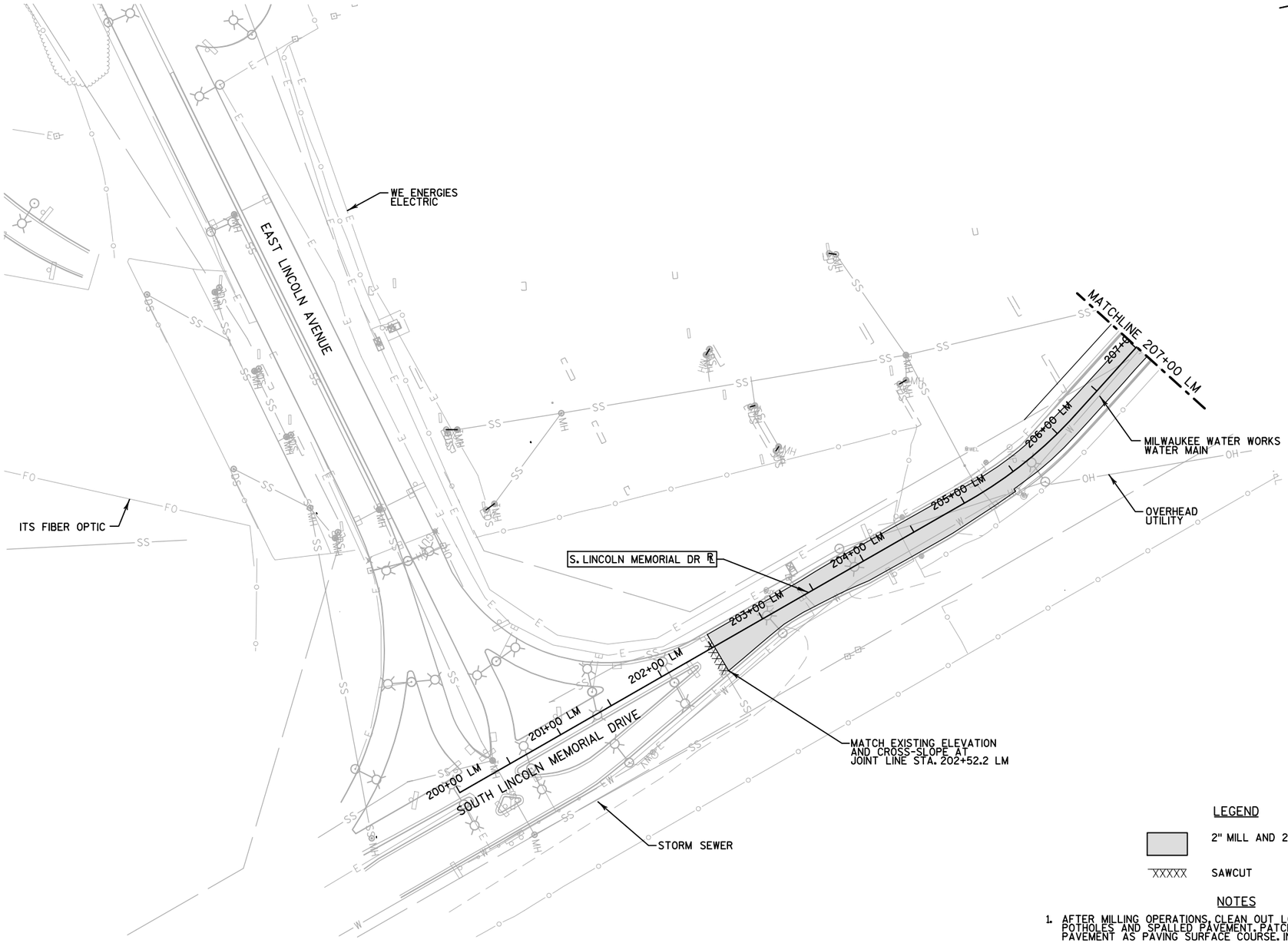


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - IH 794 WESTBOUND/EASTBOUND (LF)	SHEET 52 E

FILE NAME : 021209_pd.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2



LEGEND

2" MILL AND 2" HMA OVERLAY, TYPE E-3

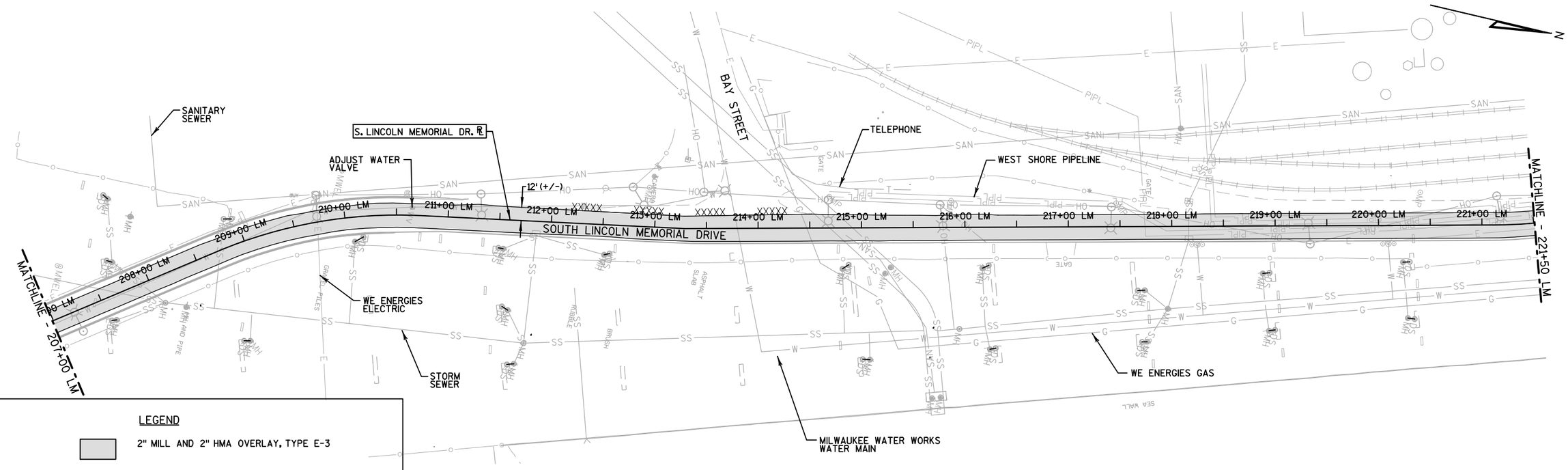
XXXXX SAWCUT

NOTES

1. AFTER MILLING OPERATIONS, CLEAN OUT LOOSE MATERIALS IN EXISTING POTHOLES AND SPALLED PAVEMENT. PATCH POTHOLES WITH THE SAME HMA PAVEMENT AS PAVING SURFACE COURSE. INCIDENTAL TO PAVING OPERATIONS.
2. SANITARY MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADES. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.
3. STORM SEWER MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADES. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - SOUTH LINCOLN MEMORIAL DRIVE	SHEET 53	E

2



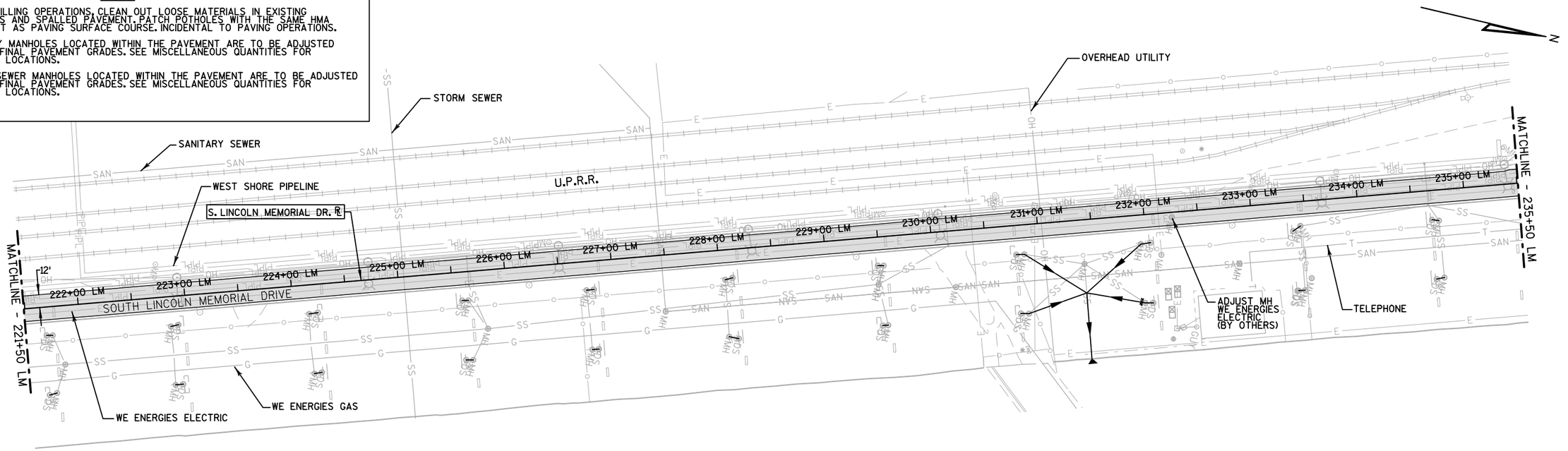
LEGEND

2" MILL AND 2" HMA OVERLAY, TYPE E-3

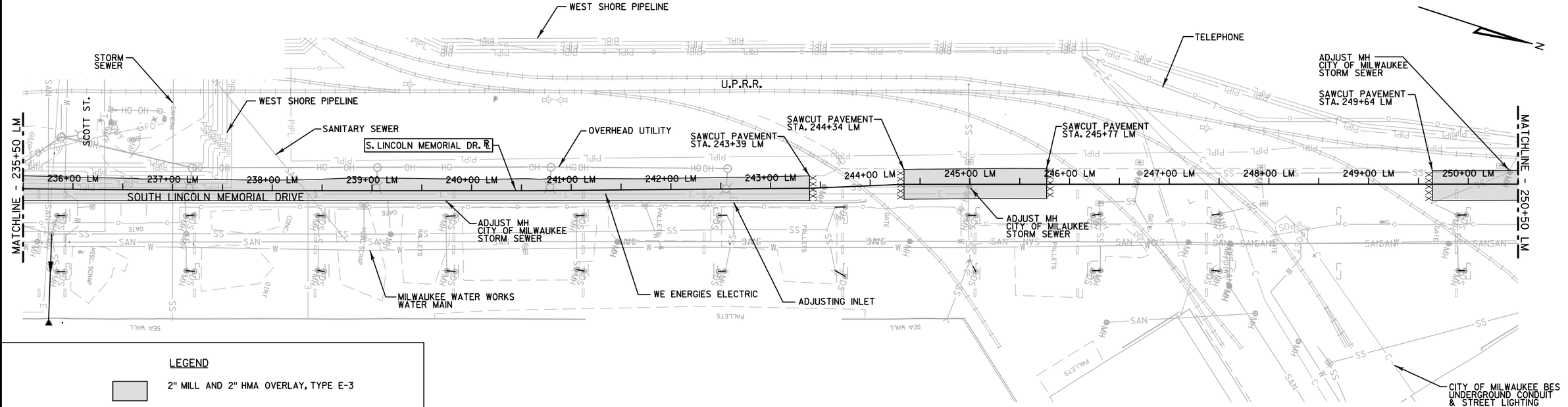
XXXXX SAWCUT

NOTES

1. AFTER MILLING OPERATIONS, CLEAN OUT LOOSE MATERIALS IN EXISTING POTHOLES AND SPALLED PAVEMENT. PATCH POTHOLES WITH THE SAME HMA PAVEMENT AS PAVING SURFACE COURSE. INCIDENTAL TO PAVING OPERATIONS.
2. SANITARY MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADES. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.
3. STORM SEWER MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADES. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - SOUTH LINCOLN MEMORIAL DRIVE	SHEET 54	E



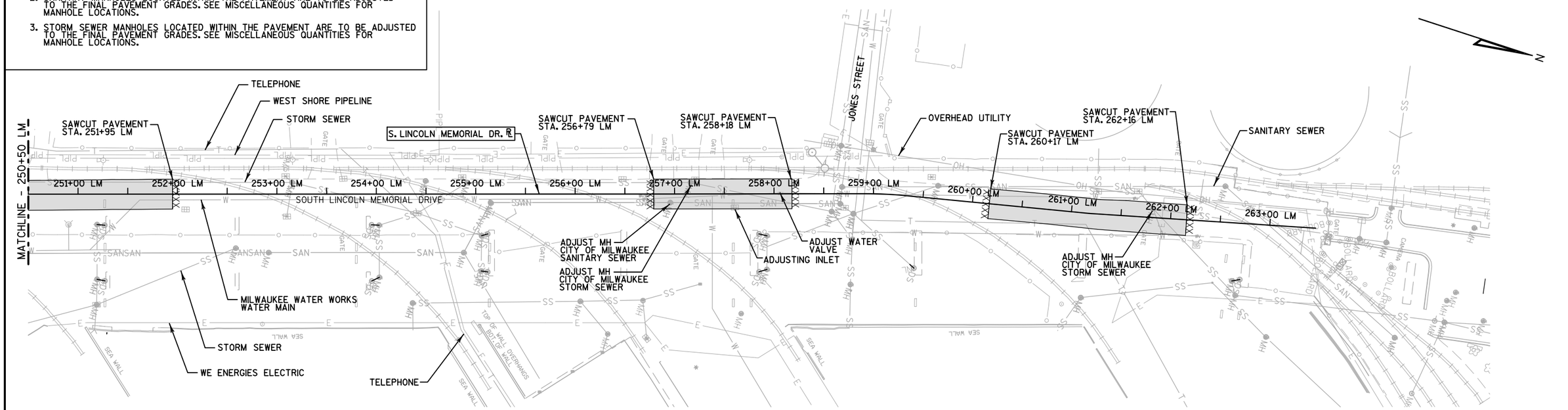
LEGEND

2" MILL AND 2" HMA OVERLAY, TYPE E-3

SAWCUT

NOTES

1. AFTER MILLING OPERATIONS, CLEAN OUT LOOSE MATERIALS IN EXISTING POTHOLES AND SPALLED PAVEMENT. PATCH POTHOLES WITH THE SAME HMA PAVEMENT AS PAVING SURFACE COURSE. INCIDENTAL TO PAVING OPERATIONS.
2. SANITARY MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADES. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.
3. STORM SEWER MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADES. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - SOUTH LINCOLN MEMORIAL DRIVE	SHEET 55	E

LEGEND

- 30A — CONCRETE CURB AND GUTTER, TYPE
- * — SIZE (INCHES) SPECIAL
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH, OVER 4" BASE AGGREGATE DENSE 1¼INCH
- GR3 — MGS GUARDRAIL 3
- TBT — MGS THRIE BEAM TRANSITION
- EAT — MGS ENERGY ABSORBING TERMINAL
- TT2 — MGS TYPE 2 TERMINAL
- CR1 — CURB RAMP, TYPE
- CC — CRASH CUSHION, PERMANENT LOW MAINTENANCE
- CB32 — CONCRETE BARRIER TYPE S32A
- CAS — CONCRETE APPROACH SLAB
- SAS — STRUCTURAL APPROACH SLAB

- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 7 — CONCRETE PAVEMENT 8-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 8 — CONCRETE PAVEMENT 10-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 9 — CONCRETE PAVEMENT 10½-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 10 — CONCRETE PAVEMENT 9-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 11 — CONCRETE PAVEMENT 9½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH

DATA TABLE

RAMP LE

POINT NO.	STATION	OFFSET	COMMENTS
27	354+61.2 LE	24.2'RT	BEGIN PAVEMENT
28	354+61.3 LE	34.2'RT	BEGIN CONCRETE BARRIER
29	355+17.8 LE	6.0'LT	BEGIN PAVEMENT
30	355+17.9 LE	23.6'RT	PAVEMENT PI
31	355+53.5 LE	30.7'RT	BEGIN C&G, BEGIN 1102' RADIUS
32	357+60.8 LE	1127.9'RT	1102' RADIUS
33	356+17.9 LE	29.6'RT	END 1102' RADIUS
34	356+24.0 LE	29.5'RT	BEGIN SLOPED C&G
35	356+24.4 LE	40.0'RT	BEGIN PAVEMENT
36	357+01.0 LE	24.4'RT	END SLOPED C&G
37	357+02.2 LE	34.8'RT	END PAVEMENT
38	357+11.7 LE	23.2'RT	BEGIN 102' RADIUS
39	357+24.8 LE	124.4'RT	102' RADIUS
40	357+24.9 LE	22.4'RT	END 102' RADIUS
41	357+38.4 LE	1.5'LT	BEGIN CURB & GUTTER
42	358+51.1 LE	1.6'LT	BEGIN 14' RADIUS
43	358+51.1 LE	6.6'LT	14' RADIUS
44	358+55.6 LE	4.4'LT	END 14' RADIUS
45	358+20.6 LE	22.5'RT	BEGIN 14' RADIUS
46	358+20.6 LE	36.5'RT	14' RADIUS

RADIUS SHOWN IS TO CURB FLANGE

DATA TABLE

RAMP LW

POINT NO.	STATION	OFFSET	COMMENTS
1	356+11.9 LW	11.4'LT	BEGIN CONCRETE BARRIER
2	356+11.8 LW	28.5'RT	BEGIN CONCRETE BARRIER
3	356+45.7 LW	11.4'LT	BEGIN TAPER
4	357+32.3 LW	3.5'LT	END TAPER
5	357+30.9 LW	22.5'RT	BEGIN CURB & GUTTER
6	357+44.3 LW	1.5'LT	BEGIN CURB & GUTTER
7	358+22.0 LW	22.5'RT	BEGIN TAPER
8	358+92.7 LW	36.0'RT	END TAPER, BEGIN 148' RADIUS
9	358+91.7 LW	1.5'LT	BEGIN 105' RADIUS
10	358+91.7 LW	106.5'LT	105' RADIUS
11	358+67.8 LW	170.9'LT	198' RADIUS
12	359+49.2 LW	18.7'LT	END CURB & GUTTER
13	359+24.7 LW	18.8'RT	BEGIN 4' RADIUS
14	359+25.7 LW	22.6'RT	4' RADIUS
15	359+25.5 LW	26.6'RT	END 4' RADIUS
16	359+62.0 LW	3.3'RT	BEGIN 4' RADIUS
17	359+63.9 LW	6.8'RT	4' RADIUS

RADIUS SHOWN IS TO CURB FLANGE

DATA TABLE

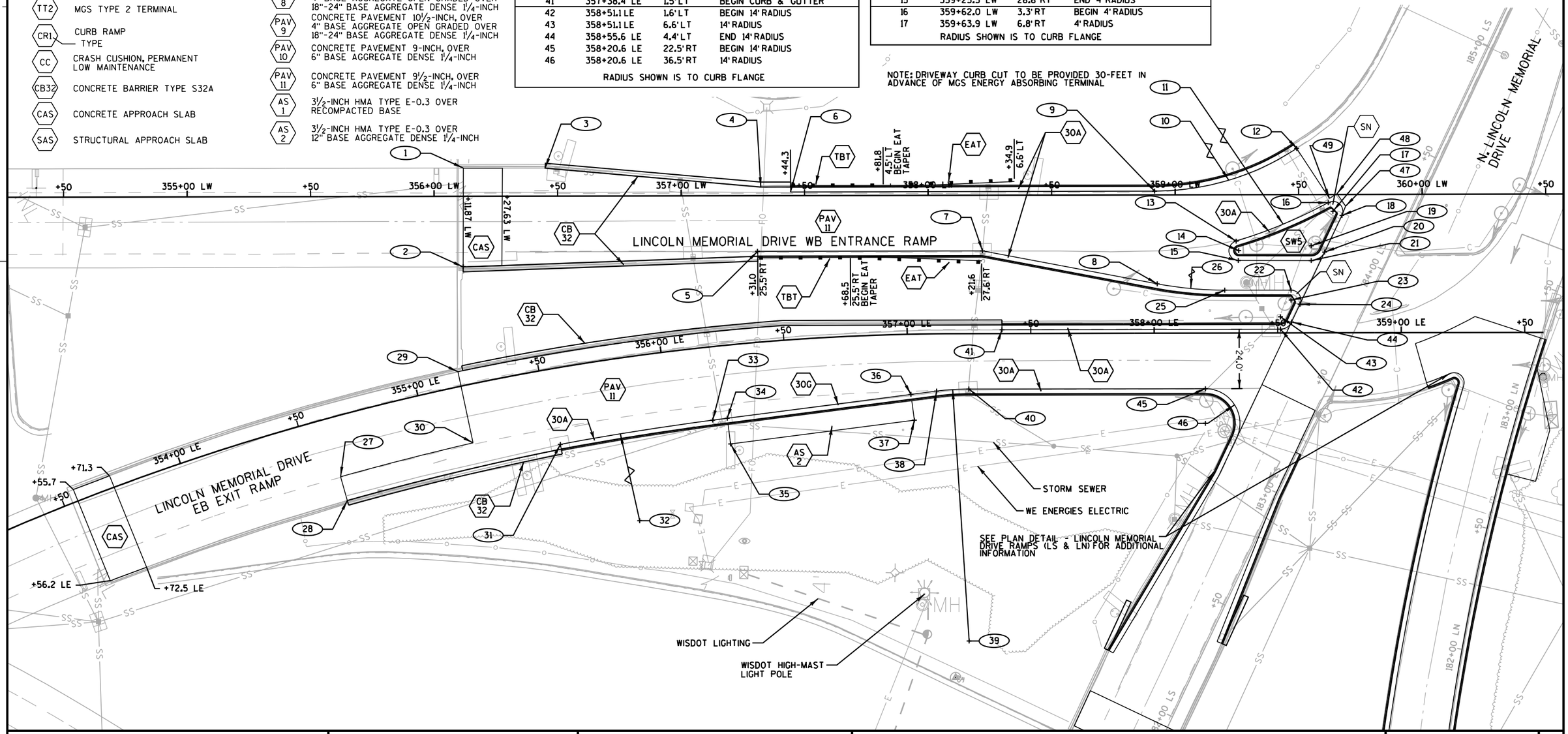
RAMP LW

POINT NO.	STATION	OFFSET	COMMENTS
18	359+67.5 LW	8.5'RT	END 4' RADIUS
19	359+55.1 LW	20.7'RT	6' RADIUS
20	359+60.5 LW	23.3'RT	END 6' RADIUS
21	359+55.1 LW	26.7'RT	BEGIN 6' RADIUS
22	359+46.9 LW	38.7'RT	BEGIN 4' RADIUS
23	359+46.9 LW	42.7'RT	4' RADIUS
24	359+50.5 LW	44.4'RT	END 4' RADIUS
25	359+20.0 LW	38.6'RT	END 148' RADIUS
26	359+20.4 LW	109.4'LT	148' RADIUS
47	359+69.0 LW	4.7'RT	PAVEMENT PI
48	359+65.6 LW	0.3'LT	PAVEMENT PI
49	359+62.5 LW	1.6'RT	PAVEMENT PI

RADIUS SHOWN IS TO CURB FLANGE

N

NOTE: DRIVEWAY CURB CUT TO BE PROVIDED 30-FEET IN ADVANCE OF MGS ENERGY ABSORBING TERMINAL



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - LINCOLN MEMORIAL DRIVE RAMPS (LW & LE)	SHEET E

FILE NAME : 021213_pd.dgn PLOT DATE : 4/30/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

LEGEND

(XXX.XX) EXISTING PAVEMENT GRADE

XXX.XX PROPOSED PAVEMENT GRADE

N

E. CLYBOURN STREET

N. LINCOLN MEMORIAL DRIVE

LINCOLN MEMORIAL DRIVE WB ENTRANCE RAMP

+50 355+00 LW +50 356+00 LW +50 357+00 LW +50 358+00 LW +50 359+00 LW +50 360+00 LW +50

600.96 600.45 599.42 598.45 597.57 596.62 596.03 595.29 594.61 594.04 593.30 592.36 591.71 (591.12) (591.68) (592.05) (592.25) (592.27)

601.19 600.49 599.58 598.61 597.70 592.05

599.75 598.79 597.92 597.06 596.22 595.48 594.84 594.22 593.60 593.03 592.63 592.67 592.36 (592.81)

601.68 600.87 599.98 599.08 598.21 597.02 596.42 595.67 595.08 594.57 593.90 593.38 593.05 593.01 592.97

594.03 593.68 593.58 593.48 593.45 (593.67) (593.91)

598.42 598.13 597.52 597.01 596.24 596.60 595.94 595.74 595.31 594.88 594.50 594.00

599.24 598.83 598.22 597.85 597.48 597.12 596.92 596.68 596.50 596.38 596.27 596.30 595.98 595.96 595.78 595.63 595.52 595.33 595.38 595.02 595.16 594.75 594.96 (594.74)

599.05 598.63 598.29 597.87 597.47 597.07 596.70

599.16 598.70 598.31 597.84 597.22

598.82 598.54 597.98 597.64

(599.91) (599.59) (599.73) (599.39) (599.11) (598.80) 598.97

355+00 LE +50 354+00 LE +50 356+00 LE +50 357+00 LE +50 358+00 LE +50 359+00 LE +50

LINCOLN MEMORIAL DRIVE EB EXIT RAMP

SEE PLAN DETAIL - LINCOLN MEMORIAL DRIVE RAMPS (LS & LN) FOR ADDITIONAL INFORMATION

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - PAVEMENT GRADES	SHEET 57	E

2

LEGEND

- 30A — CONCRETE CURB AND GUTTER, TYPE 30, SIZE (INCHES) *, SPECIAL
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- GR3 — MGS GUARDRAIL 3
- TBT — MGS THRIE BEAM TRANSITION
- EAT — MGS ENERGY ABSORBING TERMINAL
- TT2 — MGS TYPE 2 TERMINAL
- CR1 — CURB RAMP, TYPE
- CC — CRASH CUSHION, PERMANENT LOW MAINTENANCE
- CB32 — CONCRETE BARRIER TYPE S32A
- CAS — CONCRETE APPROACH SLAB
- SAS — STRUCTURAL APPROACH SLAB
- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 7 — CONCRETE PAVEMENT 8-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 8 — CONCRETE PAVEMENT 10-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 9 — CONCRETE PAVEMENT 10½-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 10 — CONCRETE PAVEMENT 9-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 11 — CONCRETE PAVEMENT 9½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH

NOTES

1. CONSTRUCT ASPHALTIC SURFACE TEMPORARY IN STAGE 2A FOR USE BY STAGE 2B (PHASE 1A) TRAFFIC. REMOVE ASPHALT AND CONSTRUCT FINAL CURB & GUTTER IN STAGE 2B (PHASE 1B) AFTER LEFT LANE OF RAMP IS COMPLETED.
2. PROVIDE DRIVEWAY CURB CUT 30-FEET IN ADVANCE OF MGS ENERGY ABSORBING TERMINAL.

DATA TABLE

RAMP LN & LS

POINT NO.	STATION	OFFSET	COMMENTS
1	178+02.7 LN	9.4' RT	BEGIN TAPER
2	178+04.9 LN	30.6' LT	BEGIN TAPER
3	179+04.9 LN	1.3' RT	END TAPER
4	179+04.8 LN	0.5' LT	BEGIN CURB & GUTTER/ BEGIN TEMPORARY PAVEMENT
5	179+09.2 LN	24.5' LT	BEGIN CURB & GUTTER
6	179+09.2 LN	26.5' LT	END TAPER
7	181+14.9 LN	0.5' LT	P.C.
8	181+14.9 LN	24.5' LT	P.C.
9	181+14.9 LN	954.9' RT	955.43' RAD.
10	181+14.9 LN	954.9' RT	979.43' RAD.
11	183+02.8 LN	24.5' LT	BEGIN RADIUS
12	183+05.8 LN	28.5' LT	4' RAD.
13	183+05.7 LN	31.1' LT	END RADIUS
14	183+30.0 LN	0.5' LT	END CURB & GUTTER
15	181+79.6 LS	5.5' RT	BEGIN CONCRETE BARRIER

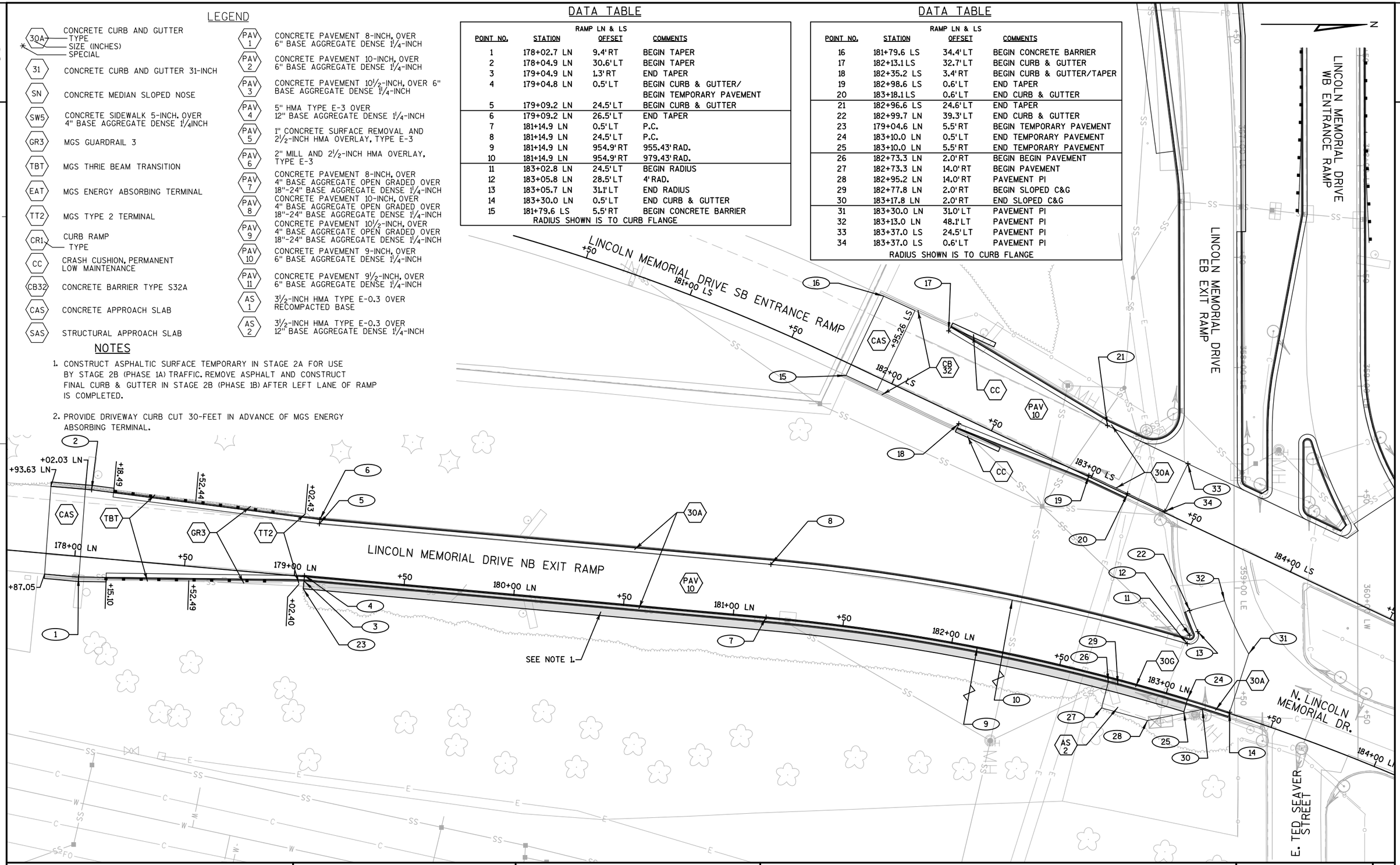
RADIUS SHOWN IS TO CURB FLANGE

DATA TABLE

RAMP LN & LS

POINT NO.	STATION	OFFSET	COMMENTS
16	181+79.6 LS	34.4' LT	BEGIN CONCRETE BARRIER
17	182+13.1 LS	32.7' LT	BEGIN CURB & GUTTER
18	182+35.2 LS	3.4' RT	BEGIN CURB & GUTTER/TAPER
19	182+98.6 LS	0.6' LT	END TAPER
20	183+18.1 LS	0.6' LT	END CURB & GUTTER
21	182+96.6 LS	24.6' LT	END TAPER
22	182+99.7 LN	39.3' LT	END CURB & GUTTER
23	179+04.6 LN	5.5' RT	BEGIN TEMPORARY PAVEMENT
24	183+10.0 LN	0.5' LT	END TEMPORARY PAVEMENT
25	183+10.0 LN	5.5' RT	END TEMPORARY PAVEMENT
26	182+73.3 LN	2.0' RT	BEGIN BEGIN PAVEMENT
27	182+73.3 LN	14.0' RT	BEGIN PAVEMENT
28	182+95.2 LN	14.0' RT	PAVEMENT PI
29	182+77.8 LN	2.0' RT	BEGIN SLOPED C&G
30	183+17.8 LN	2.0' RT	END SLOPED C&G
31	183+30.0 LN	31.0' LT	PAVEMENT PI
32	183+13.0 LN	48.1' LT	PAVEMENT PI
33	183+37.0 LS	24.5' LT	PAVEMENT PI
34	183+37.0 LS	0.6' LT	PAVEMENT PI

RADIUS SHOWN IS TO CURB FLANGE



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - LINCOLN MEMORIAL DRIVE RAMPS (LS & LN)	SHEET 58	E

2

LEGEND

(XXX.XX) EXISTING PAVEMENT GRADE

XXX.XX PROPOSED PAVEMENT GRADE

LINCOLN MEMORIAL DRIVE SB ENTRANCE RAMP

178+00 LS +50 179+00 LS +50 180+00 LS +50 181+00 LS +50 182+00 LS

600.18 599.70 599.62 599.46 599.76 599.23 598.34 598.06 +50 597.63 596.88 596.16 595.58 (595.05) +50 184+00 LS

599.05 598.60 598.52 597.66 596.69 595.86 595.73 595.32 594.90 594.69 (594.74) 595.30 (594.96)

SEE PLAN DETAIL - LINCOLN MEMORIAL DRIVE RAMPS (LW & LE) FOR ADDITIONAL INFORMATION

LINCOLN MEMORIAL DRIVE EB EXIT RAMP

LINCOLN MEMORIAL DRIVE WB ENTRANCE RAMP

LINCOLN MEMORIAL DRIVE NB EXIT RAMP

612.16 611.46 611.00 610.64 610.00 609.00 608.51 608.24 607.63 606.97 606.06 605.17 604.42 603.49 602.81 601.97 601.67 601.26 600.40 599.50 598.54 597.42 596.36 595.12 594.05

178+00 LN 611.11 610.42 609.73 608.88 608.30 607.46 606.71 605.89 605.00 604.25 603.30 602.56 601.64 600.88 599.94 599.10 598.14 597.16 596.18 595.10 594.08

611.54 610.90 610.43 609.50 608.74 608.02 607.89 607.29 +50 606.53 605.73 604.91 604.07 603.19 +50 602.30 601.40 600.87 +50 599.61 598.71 597.81 596.90 +50 596.00

179+00 LN 180+00 LN 181+00 LN 182+00 LN

611.32

(594.12) (593.74) 593.93 (592.96) 594.44 (593.15) 183+00 LN 594.19 (593.07) +50

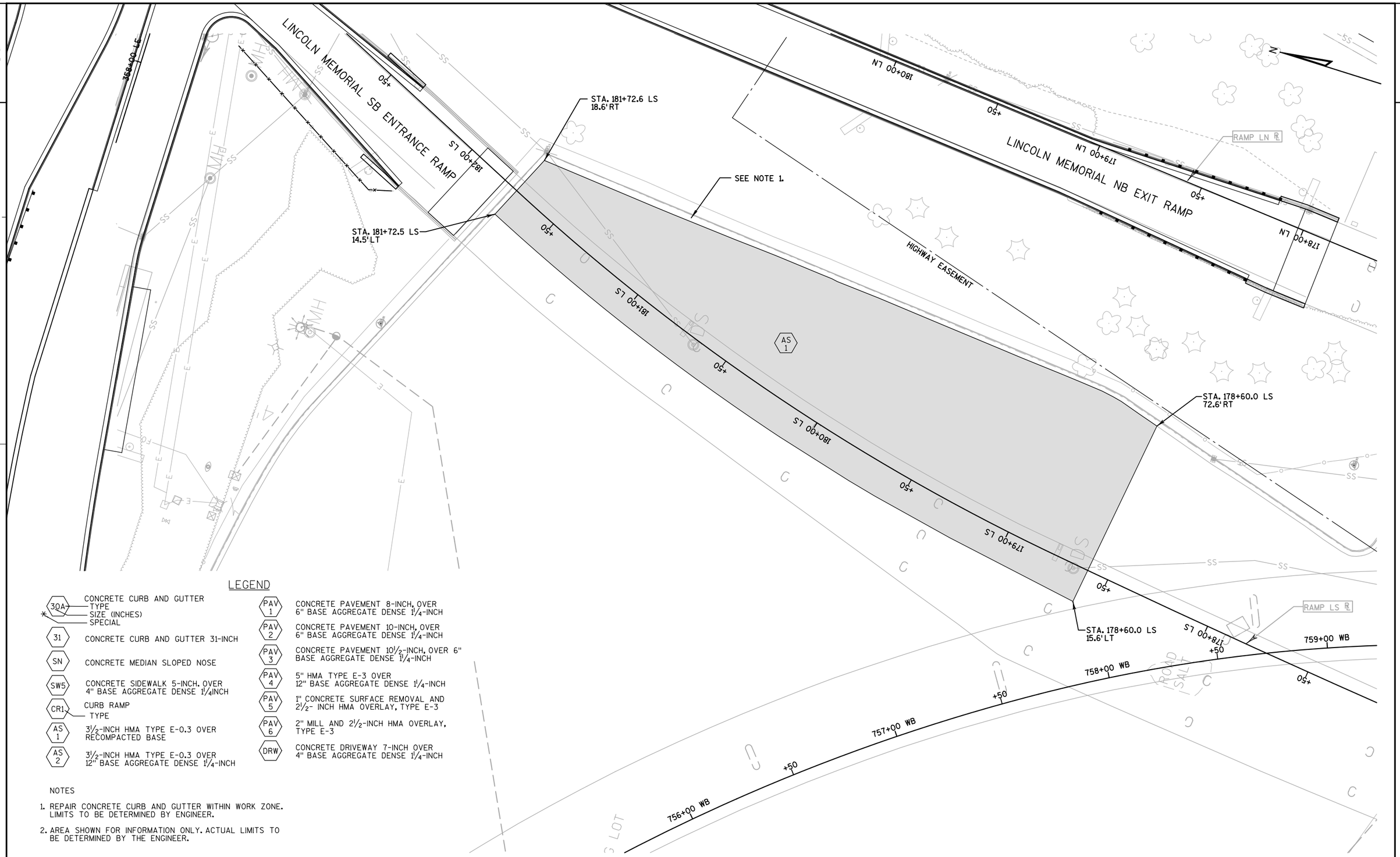
N. LINCOLN MEMORIAL DR.

E. TED SEAVER STREET

184+00 LS

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - PAVEMENT GRADES	SHEET 59	E

2



LEGEND

- 30A — CONCRETE CURB AND GUTTER, TYPE, SIZE (INCHES), SPECIAL
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP, TYPE
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½- INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- DRW — CONCRETE DRIVEWAY 7-INCH OVER 4" BASE AGGREGATE DENSE 1¼-INCH

NOTES

1. REPAIR CONCRETE CURB AND GUTTER WITHIN WORK ZONE. LIMITS TO BE DETERMINED BY ENGINEER.
2. AREA SHOWN FOR INFORMATION ONLY. ACTUAL LIMITS TO BE DETERMINED BY THE ENGINEER.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - VAN BUREN PARKING LOT	SHEET 60	E

LEGEND

- 30A — CONCRETE CURB AND GUTTER TYPE, SIZE (INCHES), SPECIAL *
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP TYPE
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½- INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- DRW — CONCRETE DRIVEWAY 7-INCH OVER 4" BASE AGGREGATE DENSE 1¼-INCH
- (XXX.XX) EXISTING PAVEMENT GRADE
- XXX.XX PROPOSED PAVEMENT GRADE

DATA TABLE

N. LINCOLN MEMORIAL DR/MICHIGAN ST

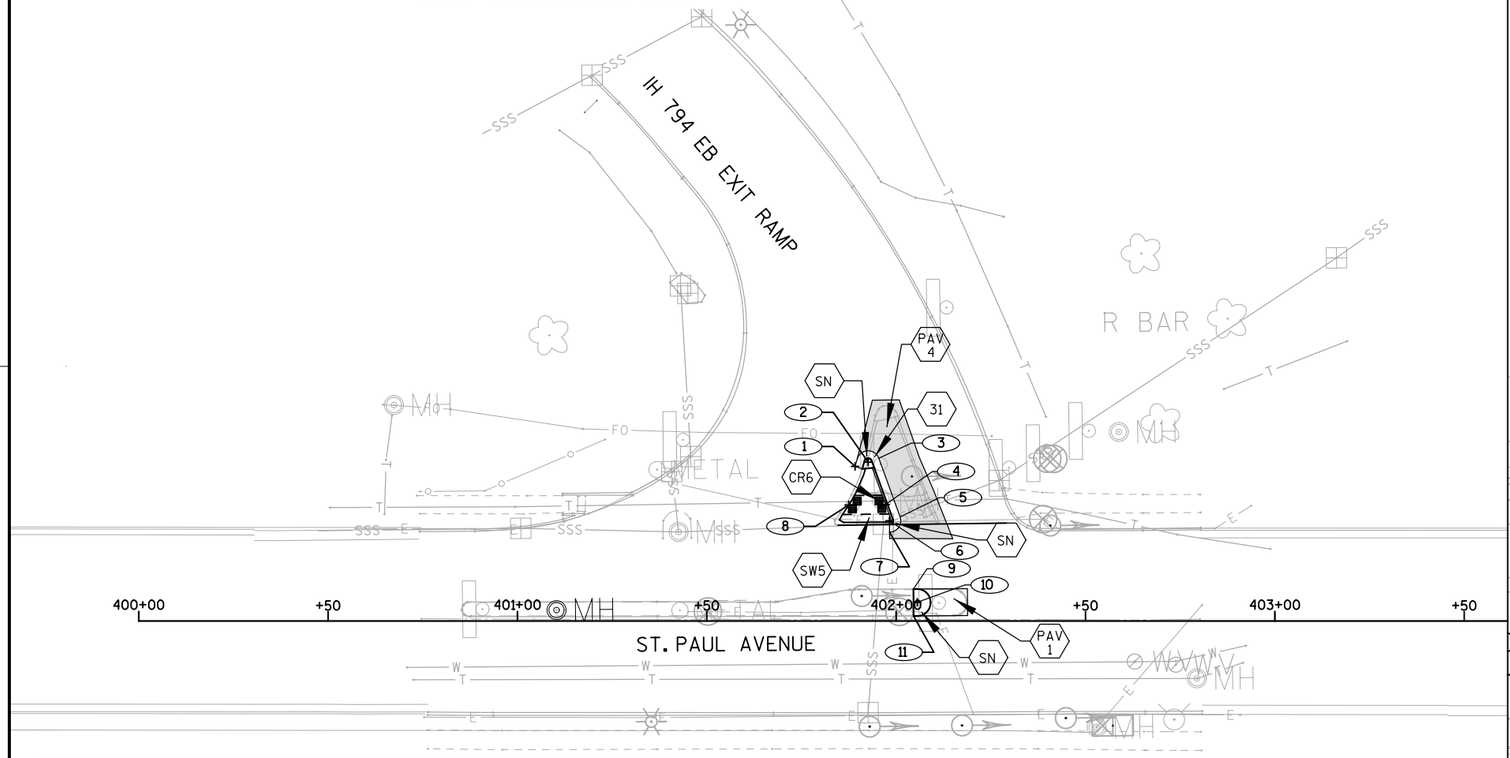
POINT NUMBER	STATION	OFFSET	DESCRIPTION
1	400+67.48	160.80' LT	150' RADIUS
2	189+72.56	41.50' LT	3.0' RADIUS
3	401+75.66	27.68' LT	3.0' RADIUS
4	401+42.99	27.74' LT	3.0' RADIUS
5	401+95.94	56.77' LT	CENTER OF CURB RAMP
6	401+59.85	39.46' LT	CENTER OF CURB RAMP
7	401+77.34	36.89' LT	CENTER OF CURB RAMP
8	401+63.83	27.20' LT	CENTER OF CURB RAMP
9	189+81.62	46.40' RT	3.0' RADIUS
10	402+63.00	33.33' LT	3.0' RADIUS
11	402+79.06	34.55' LT	3.0' RADIUS
12	189+91.22	66.48' RT	CENTER OF CURB RAMP
13	402+63.14	39.79' LT	CENTER OF CURB RAMP
14	402+71.22	43.94' LT	CENTER OF CURB RAMP
15	402+69.05	33.29' LT	CENTER OF CURB RAMP
16	402+88.22	27.44' RT	3.0' RADIUS
17	188+80.25	50.69' RT	3.0' RADIUS
18	402+54.22	27.44' RT	3.0' RADIUS
19	188+89.61	85.65' RT	CENTER OF CURB RAMP
20	402+75.20	37.50" RT	CENTER OF CURB RAMP
21	402+62.96	26.94' RT	CENTER OF CURB RAMP
22	402+66.64	43.71' RT	CENTER OF CURB RAMP
23	401+26.44	26.73' RT	3.0' RADIUS
24	401+62.06	26.78' RT	3.0' RADIUS
25	188+55.94	40.31' LT	3.0' RADIUS
26	188+44.61	59.84' LT	CENTER OF CURB RAMP
27	401+52.24	26.27' RT	CENTER OF CURB RAMP
28	401+60.23	35.90' RT	CENTER OF CURB RAMP
29	401+46.42	46.97' RT	CENTER OF CURB RAMP

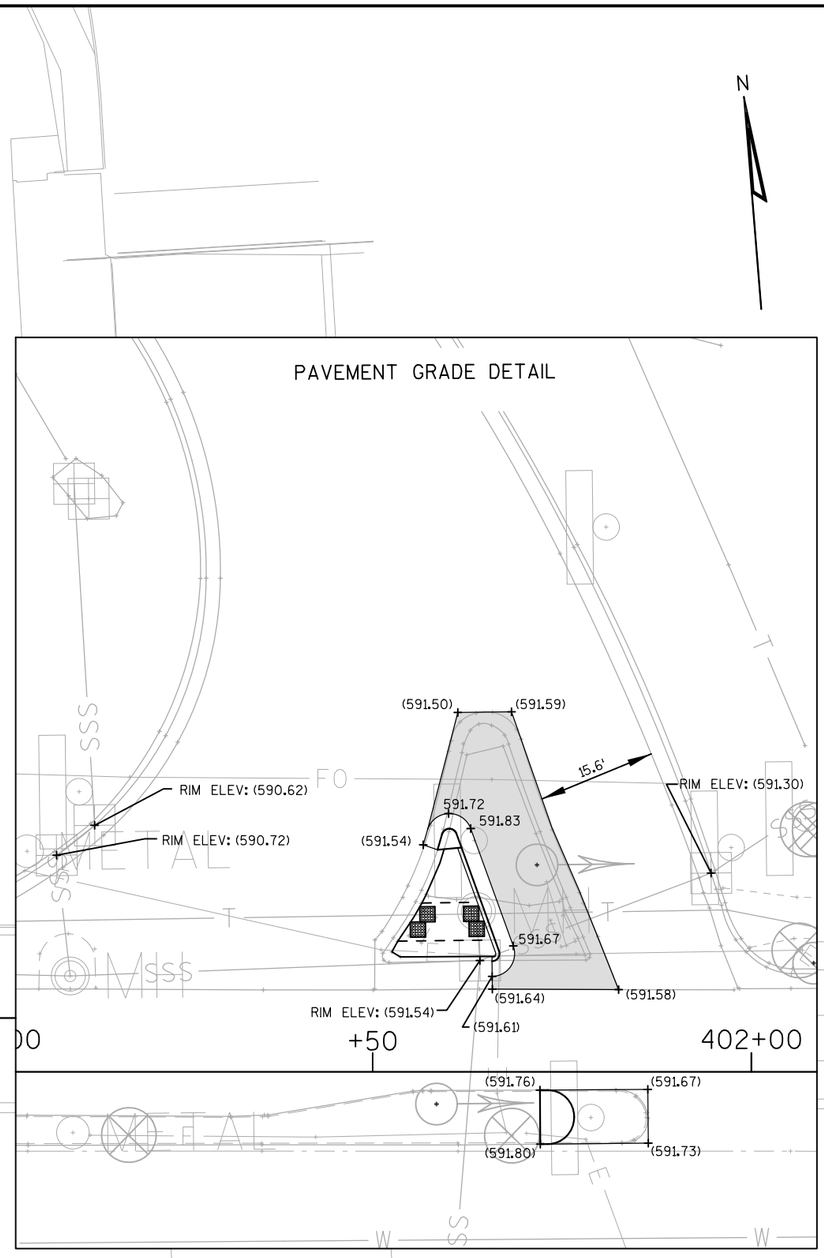
RADIUS SHOWN TO CURB FLANGE

N LINCOLN MEMORIAL DRIVE (SB)
N LINCOLN MEMORIAL DRIVE (NB)
MICHIGAN STREET
MICHIGAN ℄
400+00
401+00
402+00
403+00
+50
190+00 LS
189+00 LS
188+00 LS
188+00 LN
187+00 LN
RAMP LS ℄
RAMP LN ℄
N HARBOR DRIVE
(587.52)
(587.84)
587.35
587.47
587.38
587.80
587.49
587.72
587.62
587.60
587.82
588.15
588.41
588.30
(587.86)
12:1 MAX
587.49
587.47
587.28
587.53
(587.49)
587.77
587.69
(587.42)
(587.22)
587.82
587.64
587.78
587.67
587.84
587.82
587.56
587.55
(587.26)
587.62
587.80
(587.79)
(HIGH-SIDE)

LEGEND

- 30A — CONCRETE CURB AND GUTTER TYPE (SIZE (INCHES) SPECIAL *)
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH, OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP TYPE
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½- INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- DRW — CONCRETE DRIVEWAY 7-INCH OVER 4" BASE AGGREGATE DENSE 1¼-INCH
- (XXX.XX) EXISTING PAVEMENT GRADE
- XXX.XX PROPOSED PAVEMENT GRADE





DATA TABLE

ST. PAUL AVENUE & IH 794 EB EXIT RAMP

POINT NUMBER	STATION	OFFSET	DESCRIPTION
1	401+89.2	44.8' LT	BEGIN CURB & GUTTER, BEGIN RADIUS
2	401+92.6	42.0' LT	3.0' RADIUS
3	401+95.4	43.0' LT	END RADIUS
4	401+97.2	30.7' LT	CENTER OF CURB RAMP
5	402+01.0	27.5' LT	BEGIN RADIUS
6	401+98.2	26.5' LT	3.0' RADIUS
7	401+98.3	23.5' LT	END RADIUS, END CURB & GUTTER
8	401+87.4	30.6' LT	CENTER OF CURB RAMP
9	402+04.6	8.4' LT	BEGIN SLOPENOSE
10	402+05.6	4.9' LT	3.5' RADIUS OF SLOPENOSE
11	402+04.6	1.3' LT	END SLOPENOSE

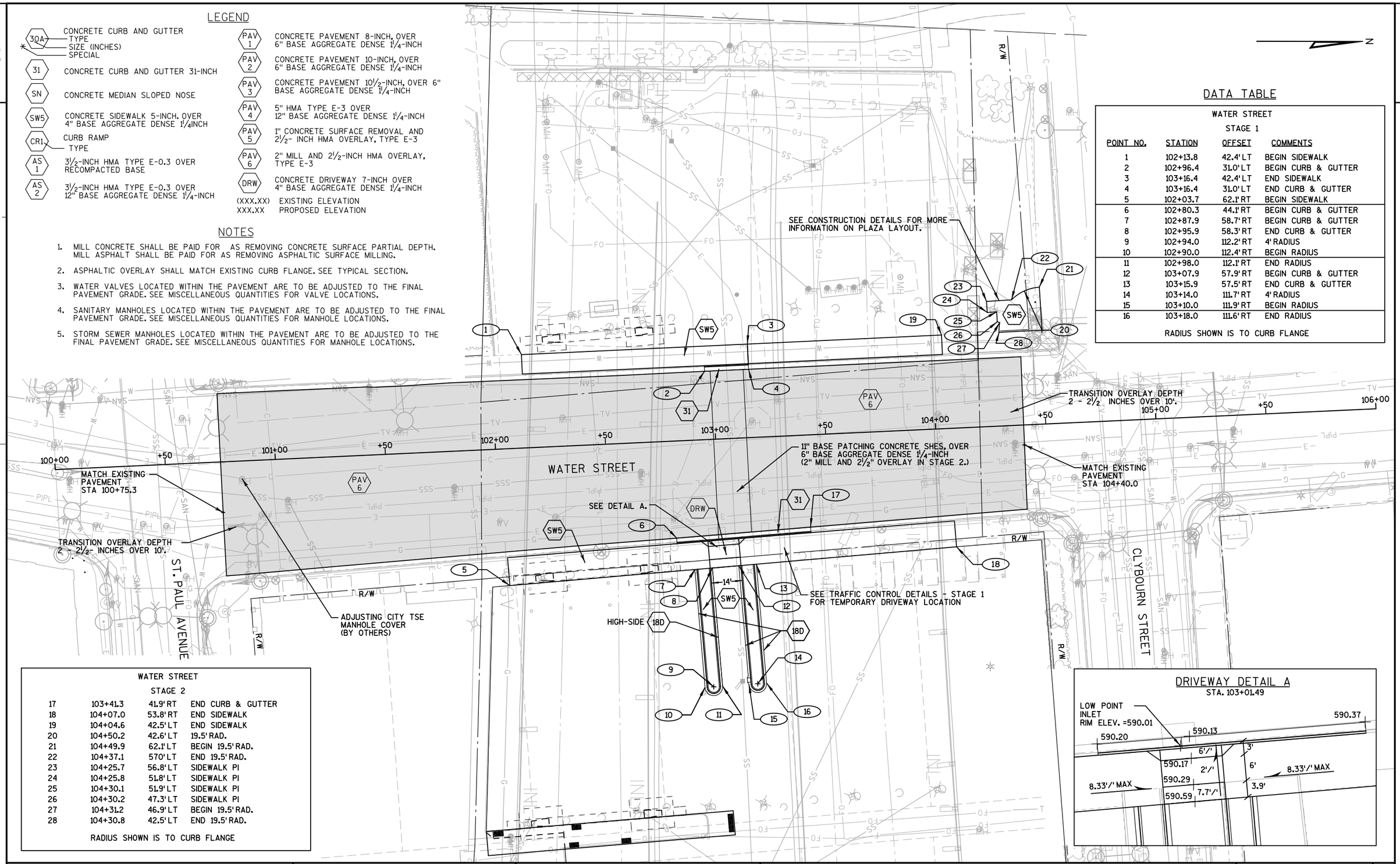
RADIUS SHOWN TO CURB FLANGE

LEGEND

- 30A — CONCRETE CURB AND GUTTER, TYPE 30, SIZE (INCHES) A, SPECIAL *
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP, TYPE 1
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½- INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- DRW — CONCRETE DRIVEWAY 7-INCH OVER 4" BASE AGGREGATE DENSE 1¼-INCH
- (XXX.XX) EXISTING ELEVATION
- XXX.XX PROPOSED ELEVATION

NOTES

1. MILL CONCRETE SHALL BE PAID FOR AS REMOVING CONCRETE SURFACE PARTIAL DEPTH. MILL ASPHALT SHALL BE PAID FOR AS REMOVING ASPHALTIC SURFACE MILLING.
2. ASPHALTIC OVERLAY SHALL MATCH EXISTING CURB FLANGE. SEE TYPICAL SECTION.
3. WATER VALVES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR VALVE LOCATIONS.
4. SANITARY MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.
5. STORM SEWER MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.



DATA TABLE

WATER STREET
STAGE 1

POINT NO.	STATION	OFFSET	COMMENTS
1	102+13.8	42.4' LT	BEGIN SIDEWALK
2	102+96.4	31.0' LT	BEGIN CURB & GUTTER
3	103+16.4	42.4' LT	END SIDEWALK
4	103+16.4	31.0' LT	END CURB & GUTTER
5	102+03.7	62.1' RT	BEGIN SIDEWALK
6	102+80.3	44.1' RT	BEGIN CURB & GUTTER
7	102+87.9	58.7' RT	BEGIN CURB & GUTTER
8	102+95.9	58.3' RT	END CURB & GUTTER
9	102+94.0	112.2' RT	4' RADIUS
10	102+90.0	112.4' RT	BEGIN RADIUS
11	102+98.0	112.1' RT	END RADIUS
12	103+07.9	57.9' RT	BEGIN CURB & GUTTER
13	103+15.9	57.5' RT	END CURB & GUTTER
14	103+14.0	111.7' RT	4' RADIUS
15	103+10.0	111.9' RT	BEGIN RADIUS
16	103+18.0	111.6' RT	END RADIUS

RADIUS SHOWN IS TO CURB FLANGE

WATER STREET
STAGE 2

17	103+41.3	41.9' RT	END CURB & GUTTER
18	104+07.0	53.8' RT	END SIDEWALK
19	104+04.6	42.5' LT	END SIDEWALK
20	104+50.2	42.6' LT	19.5' RAD.
21	104+49.9	62.1' LT	BEGIN 19.5' RAD.
22	104+37.1	570' LT	END 19.5' RAD.
23	104+25.7	56.8' LT	SIDEWALK PI
24	104+25.8	51.8' LT	SIDEWALK PI
25	104+30.1	51.9' LT	SIDEWALK PI
26	104+30.2	47.3' LT	SIDEWALK PI
27	104+31.2	46.9' LT	BEGIN 19.5' RAD.
28	104+30.8	42.5' LT	END 19.5' RAD.

RADIUS SHOWN IS TO CURB FLANGE

DRIVEWAY DETAIL A

STA. 103+01.49

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - WATER STREET	SHEET 63	E

LEGEND

- 30A — CONCRETE CURB AND GUTTER (TYPE, SIZE (INCHES), SPECIAL)
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH, OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP (TYPE)
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½- INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- DRW — CONCRETE DRIVEWAY 7-INCH OVER 4" BASE AGGREGATE DENSE 1¼-INCH
- (XXX.XX) EXISTING ELEVATION
- XXX.XX PROPOSED ELEVATION

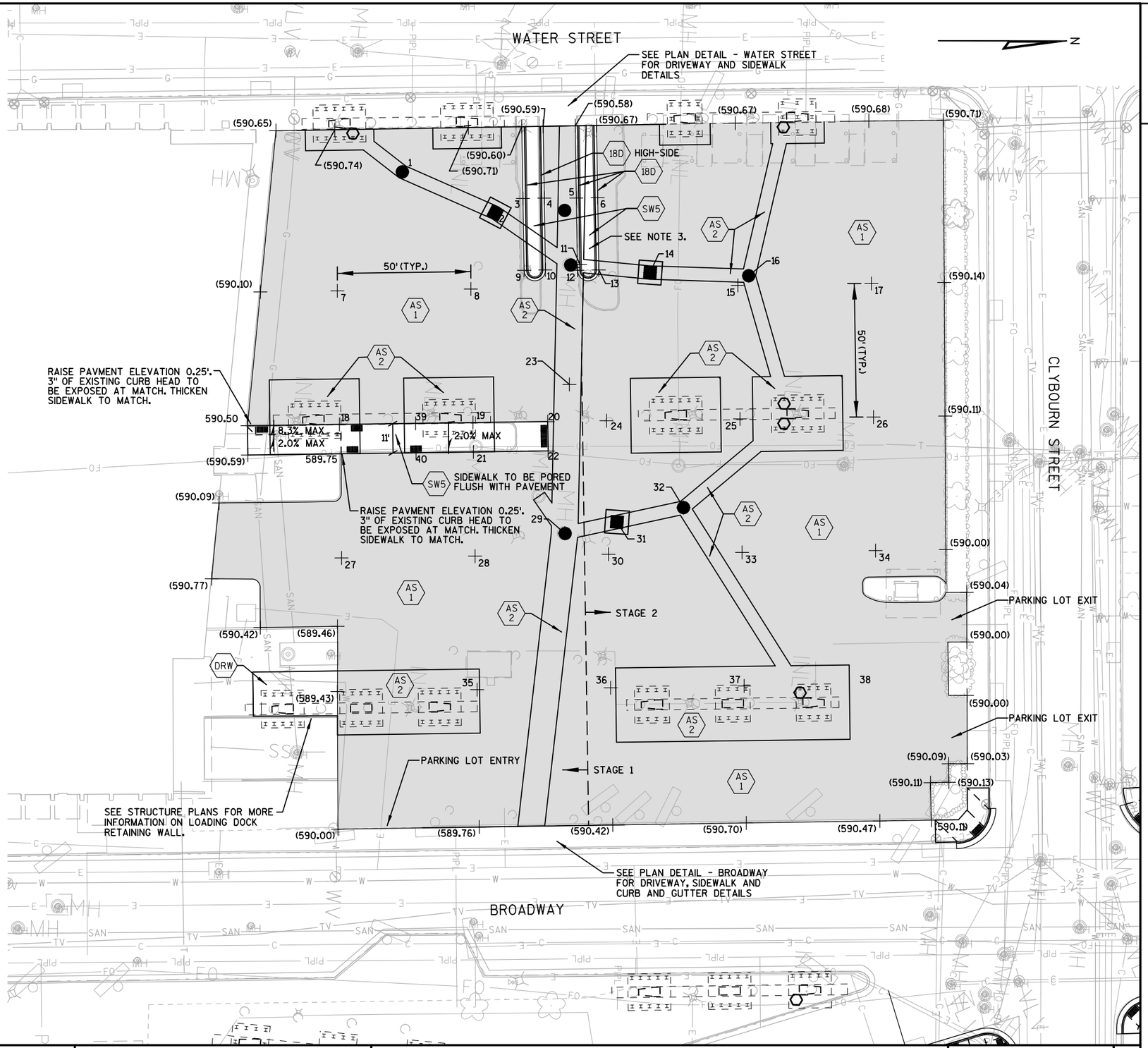
DATA TABLE

MILWAUKEE PUBLIC MARKET PARKING LOT

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	298,449.47	606,237.09	590.15	PROPOSED MANHOLE 203D
2	298,485.31	606,249.93	589.45	PROPOSED CATCH BASIN 203C
3	298,495.25	606,243.85	589.70	-
4	298,503.22	606,243.16	589.48	-
5	298,515.19	606,242.29	589.30	-
6	298,523.16	606,241.60	589.46	-
7	298,428.35	606,283.23	589.34	-
8	298,478.17	606,279.04	588.77	-
9	298,497.55	606,270.63	588.70	-
10	298,505.53	606,269.95	588.40	-
11	298,518.33	606,267.07	588.08	PROPOSED MANHOLE 203
12	298,517.51	606,269.23	588.48	-
13	298,525.48	606,268.55	589.75	-
14	298,544.68	606,268.27	588.95	PROPOSED CATCH BASIN 203A
15	298,577.82	606,270.66	589.22	-
16	298,581.62	606,266.80	589.27	PROPOSED MANHOLE 203B
17	298,627.64	606,266.47	589.90	-
18	298,432.64	606,333.05	589.85	-
19	298,482.46	606,328.86	589.17	-
20	298,510.35	606,326.51	588.55	-
21	298,483.39	606,339.82	589.07	-
22	298,511.30	606,337.89	588.42	-
23	298,517.49	606,312.09	588.72	HIGH POINT
24	298,532.28	606,324.67	588.68	-
25	298,582.11	606,320.47	589.18	-
26	298,631.93	606,316.28	589.75	-
27	298,436.92	606,382.87	589.14	-
28	298,486.75	606,378.67	588.43	-
29	298,519.61	606,367.80	587.96	PROPOSED MANHOLE 204
30	298,536.57	606,374.48	588.11	-
31	298,538.87	606,362.22	588.17	PROPOSED CATCH BASIN 204A
32	298,563.33	606,355.12	588.48	PROPOSED MANHOLE 204B
33	298,586.39	606,370.29	588.73	-
34	298,636.22	606,366.10	589.49	-
35	298,491.04	606,428.52	588.93	-
36	298,540.86	606,424.30	588.85	-
37	298,590.68	606,420.11	589.22	-
38	298,639.77	606,416.66	589.76	-
39	298,461.07	606,330.65	589.50	-
40	298,461.99	606,341.61	589.40	-

NOTES

1. SANITARY MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.
2. STORM SEWER MANHOLES LOCATED WITHIN THE PAYMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.
3. FINAL PARKING GATE TO BE RELOCATED. SEE CONSTRUCTION DETAIL - PARKING GATE AT PUBLIC MARKET.
4. PAVEMENT GRADES BASED ON EXISTING ELEVATIONS. CONTRACTOR SHALL REPAVE PARKING LOT IN A MANNER TO MATCH EXISTING GRADES TO ENSURE POSITIVE DRAINAGE.



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - WATER-BROADWAY PARKING LOT	SHEET 64 E

LEGEND

- 30A — CONCRETE CURB AND GUTTER TYPE (*) SIZE (INCHES) SPECIAL
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP TYPE
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½- INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- DRW — CONCRETE DRIVEWAY 7-INCH OVER 4" BASE AGGREGATE DENSE 1¼-INCH
- (XXX.XX) EXISTING ELEVATION
- XXX.XX PROPOSED ELEVATION

NOTES

1. MILL CONCRETE SHALL BE PAID FOR AS REMOVING CONCRETE SURFACE PARTIAL DEPTH. MILL ASPHALT SHALL BE PAID FOR AS REMOVING ASPHALTIC SURFACE MILLING.
2. ASPHALTIC OVERLAY SHALL MATCH EXISTING CURB FLANGE. SEE TYPICAL SECTION.
3. WATER VALVES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR VALVE LOCATIONS.
4. SANITARY MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.
5. STORM SEWER MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.

DATA TABLE

BROADWAY - STAGE 1

POINT NO.	STATION	OFFSET	COMMENTS
1	202+44.2	32.2' LT	BEGIN SIDEWALK
2	202+73.7	21.5' LT	BEGIN CURB & GUTTER
3	202+93.7	21.5' LT	END CURB & GUTTER
4	203+19.9	32.2' LT	END SIDEWALK
5	201+36.5	21.5' RT	BEGIN CURB & GUTTER
6	201+36.5	32.5' RT	BEGIN SIDEWALK
7	201+68.5	21.5' RT	END CURB & GUTTER
8	202+37.5	32.5' RT	END SIDEWALK
9	202+68.5	21.5' RT	BEGIN CURB & GUTTER
10	202+68.5	32.6' RT	BEGIN SIDEWALK
11	202+85.8	21.5' RT	END CURB & GUTTER
12	202+86.4	32.5' RT	END SIDEWALK
13	202+59.4	32.5' RT	END SIDEWALK
14	202+59.4	38.0' RT	END SIDEWALK
15	201+74.4	32.5' RT	SIDEWALK PI
16	201+74.4	38.0' RT	SIDEWALK PI

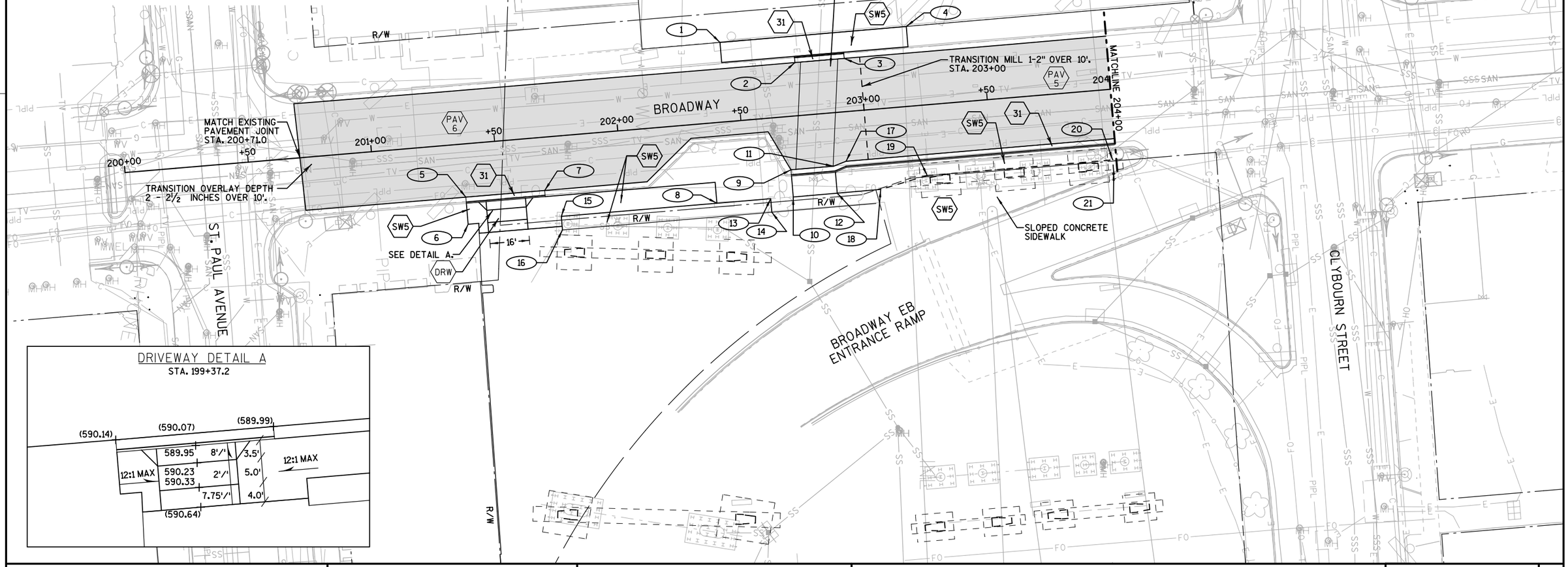
RADIUS SHOWN IS TO CURB FLANGE

DATA TABLE

BROADWAY - STAGE 2

POINT NO.	STATION	OFFSET	COMMENTS
17	202+91.0	20.0' RT	END TAPER
18	203+04.0	32.5' RT	SIDEWALK PI
19	203+23.2	28.5' RT	SIDEWALK PI
20	203+98.5	28.5' RT	SIDEWALK PI
21	203+98.5	33.7' RT	END SIDEWALK

RADIUS SHOWN IS TO CURB FLANGE



DRIVEWAY DETAIL A

STA. 199+37.2

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - BROADWAY	SHEET 65	E

FILE NAME : IP_PWP:d0231471\021222_pd.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

LEGEND

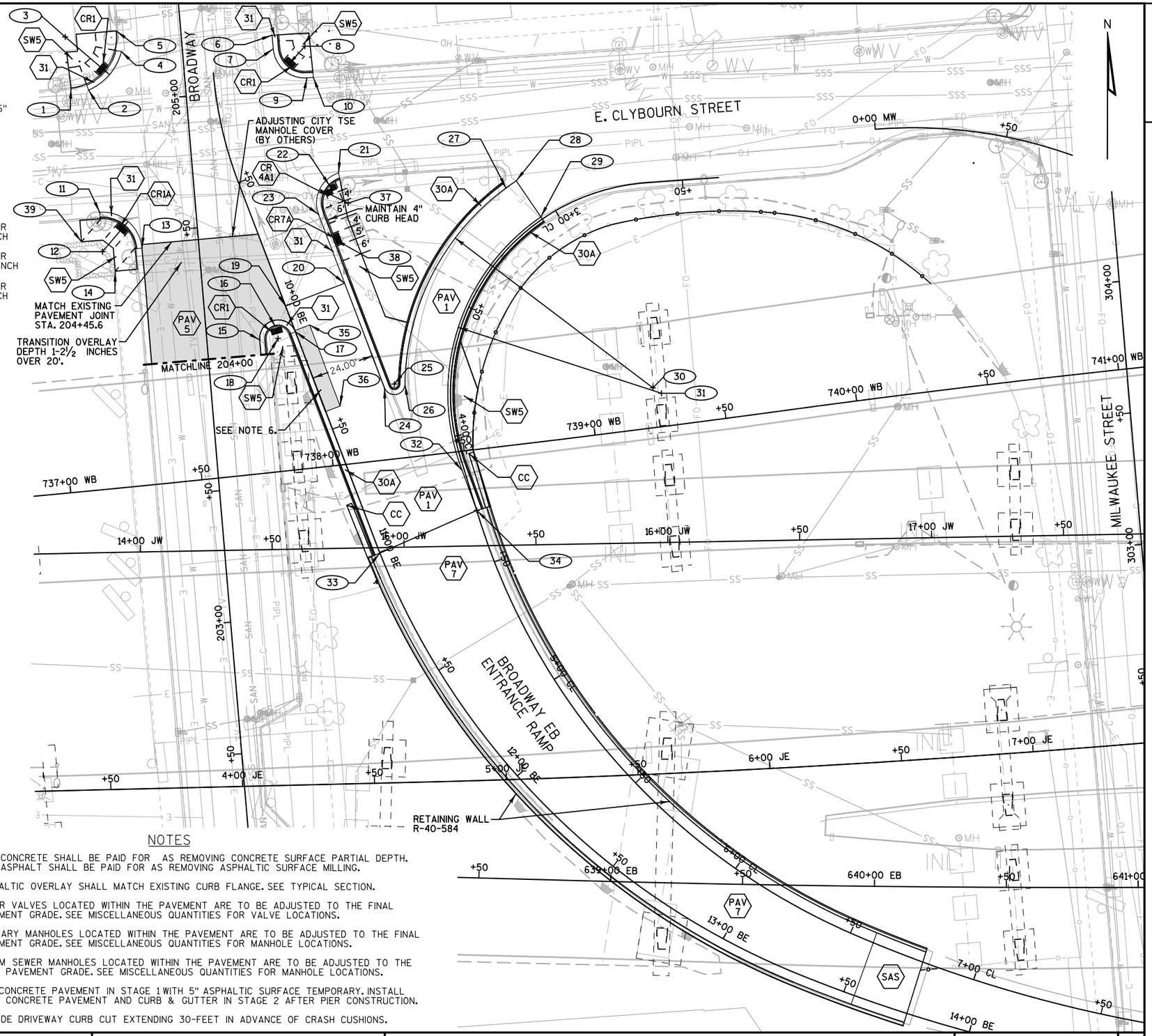
- 3OA — CONCRETE CURB AND GUTTER (3 = TYPE, OA = SIZE (INCHES), * = SPECIAL)
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH, OVER 4" BASE AGGREGATE DENSE 1¼INCH
- GR3 — MGS GUARDRAIL 3
- TBT — MGS THRIE BEAM TRANSITION
- EAT — MGS ENERGY ABSORBING TERMINAL
- TT2 — MGS TYPE 2 TERMINAL
- CR1 — CURB RAMP, TYPE
- CC — CRASH CUSHION, PERMANENT LOW MAINTENANCE
- CB32 — CONCRETE BARRIER TYPE S32A
- CAS — CONCRETE APPROACH SLAB
- SAS — STRUCTURAL APPROACH SLAB

- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 7 — CONCRETE PAVEMENT 8-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 8 — CONCRETE PAVEMENT 10-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼ -INCH
- PAV 9 — CONCRETE PAVEMENT 10½-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 10 — CONCRETE PAVEMENT 9-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 11 — CONCRETE PAVEMENT 9½-INCH, OVER 6" BASE AGGREGATE DENSE 11#4-INCH
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH

DATA TABLE

POINT NO.	STATION	OFFSET	COMMENTS
1	205+06.8	43.3' LT	BEGIN SIDEWALK
2	205+05.5	36.7' LT	BEGIN CURB & GUTTER
3	205+21.0	43.8' LT	22' RADIUS
4	205+19.0	23.1' LT	END CURB & GUTTER
5	205+26.9	24.3' LT	END SIDEWALK
6	205+20.3	34.4' RT	BEGIN CURB & GUTTER/SIDEWALK
7	205+15.2	34.4' RT	BEGIN 12' RADIUS
8	205+15.1	46.4' RT	12' RADIUS
9	205+03.1	46.2' RT	END 12' RADIUS
10	205+03.1	48.6' RT	END CURB & GUTTER/SIDEWALK
11	204+59.0	36.4' LT	BEGIN CURB & GUTTER/SIDEWALK
12	204+44.0	36.6' LT	15' RADIUS
13	204+44.1	21.6' LT	END CURB & GUTTER
14	204+36.2	32.4' LT	END SIDEWALK
15	204+05.7	20.0' RT	BEGIN 7' RADIUS
16	204+10.1	26.4' RT	CENTER OF CURB RAMP
17	204+07.6	33.7' RT	END 7' RADIUS
18	204+05.7	27.0' RT	7' RADIUS
19	10+00.0 BE	0.0' RT	BEGIN PAVEMENT
20	10+00.0 BE	24.0' RT	BEGIN 30A C&G / END 31 C&G
21	9+60.1 BE	36.8' LT	BEGIN CURB & GUTTER
22	9+63.5 BE	31.9' LT	CENTER OF CURB RAMP
23	9+72.1 BE	24.1' LT	END 12' RADIUS
24	10+42.4 BE	24.0' LT	BEGIN 4' RADIUS
25	10+42.4 BE	28.0' LT	4' RADIUS
26	10+43.9 BE	31.7' LT	END 4' RADIUS
27	9+88.1 BE	94.1' LT	BEGIN CURB & GUTTER
28	9+86.9 BE	98.6' LT	BEGIN PAVEMENT
29	10+03.0 BE	102.5' LT	BEGIN CURB & GUTTER/PAVEMENT
30	10+78.7 BE	119.0' LT	94' RADIUS
31	10+81.8 BE	121.3' LT	81' RADIUS
32	10+82.2 BE	40.3' LT	END 81' RADIUS
33	11+00.3 BE	0.0' RT	END CURB & GUTTER
34	10+98.6 BE	40.1' LT	END CURB & GUTTER
35	10+10.0 BE	6.0' LT	BEGIN ASPHALTIC SURFACE TEMPORARY
36	10+45.0 BE	6.0' LT	END ASPHALTIC SURFACE TEMPORARY
37	9+72.1 BE	36.1' LT	12' RADIUS
38	9+83.3 BE	26.5' LT	CENTER OR CURB RAMP
39	204+48.4	44.2' LT	BEGIN SIDEWALK

RADIUS SHOWN IS TO CURB FLANGE



NOTES

1. MILL CONCRETE SHALL BE PAID FOR AS REMOVING CONCRETE SURFACE PARTIAL DEPTH. MILL ASPHALT SHALL BE PAID FOR AS REMOVING ASPHALTIC SURFACE MILLING.
2. ASPHALTIC OVERLAY SHALL MATCH EXISTING CURB FLANGE. SEE TYPICAL SECTION.
3. WATER VALVES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR VALVE LOCATIONS.
4. SANITARY MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.
5. STORM SEWER MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.
6. GAP CONCRETE PAVEMENT IN STAGE 1 WITH 5" ASPHALTIC SURFACE TEMPORARY. INSTALL FINAL CONCRETE PAVEMENT AND CURB & GUTTER IN STAGE 2 AFTER PIER CONSTRUCTION.
7. PROVIDE DRIVEWAY CURB CUT EXTENDING 30-FEET IN ADVANCE OF CRASH CUSHIONS.

LEGEND

(XXX.XX) EXISTING PAVEMENT GRADE

XXX.XX PROPOSED PAVEMENT GRADE

E. CLYBOURN STREET

IH 794 WB

JACKSON STREET WB ENTRANCE RAMP

BROADWAY

BROADWAY EB ENTRANCE RAMP

JACKSON STREET EB EXIT RAMP

IH 794 EB

MILWAUKEE STREET

RETAINING WALL R-40-584

RETAINING WALL R-40-584

BEGIN S.E. TRANS.

END S.E. TRANS.

BEGIN S.E. TRANS.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - PAVEMENT GRADES	SHEET 67	E

FILE NAME : IP_PWP:d0231471\021224_pd.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

2

BROADWAY

SEE PLAN DETAIL - BROADWAY FOR DRIVEWAY AND SIDEWALK DETAILS

BROADWAY EB ENTRANCE RAMP

ST. PAUL AVENUE

CLYBOURN STREET

MILWAUKEE STREET

MATCH EXISTING DRIVEWAY

RELOCATE PAY STATION STA. 302+42, 49.0'LT

SEE PLAN DETAIL - MILWAUKEE STREET FOR DRIVEWAY AND SIDEWALK DETAILS

EXISTING PIERS TO REMAIN

STAGE 1 STAGE 2

(591.76) (590.14) (589.24) (589.14) (589.16) (589.28) (590.21) (589.94) (591.83) (590.79) (592.50) (590.08) 588.90 588.90 588.61 (590.03) (589.36) (590.56) (590.42) (590.12) (587.81) (588.95) (590.16) (589.86) (589.54) (588.98) (590.00) (590.10) (590.27) (590.28) (590.58) (589.96) (589.66) (589.88) (589.44) (589.87) (590.03) (590.14) 589.80 590.00 (590.08) (590.22) (590.46) 6' (590.52) (590.54) (590.49) (590.72) (591.13)

300+00 +50 301+00 +50 302+00 +50 303+00 +50 304+00

LEGEND

30A	CONCRETE CURB AND GUTTER TYPE SIZE (INCHES) SPECIAL
31	CONCRETE CURB AND GUTTER 31-INCH
SN	CONCRETE MEDIAN SLOPED NOSE
SW5	CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
CR1	CURB RAMP TYPE
AS 1	3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
AS 2	3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
PAV 1	CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
PAV 2	CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
PAV 3	CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
PAV 4	5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
PAV 5	1" CONCRETE SURFACE REMOVAL AND 2½- INCH HMA OVERLAY, TYPE E-3
PAV 6	2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
DRW	CONCRETE DRIVEWAY 7-INCH OVER 4" BASE AGGREGATE DENSE 1¼-INCH

(XXX.XX) EXISTING ELEVATION
XXX.XX PROPOSED ELEVATION

NOTES

1. PAVEMENT GRADES BASED ON EXISTING ELEVATIONS. CONTRACTOR SHALL REPAVE PARKING LOT IN A MANNER TO MATCH EXISTING GRADES TO ENSURE POSITIVE DRAINAGE.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - BROADWAY-MILWAUKEE PARKING LOTS	SHEET 68	E

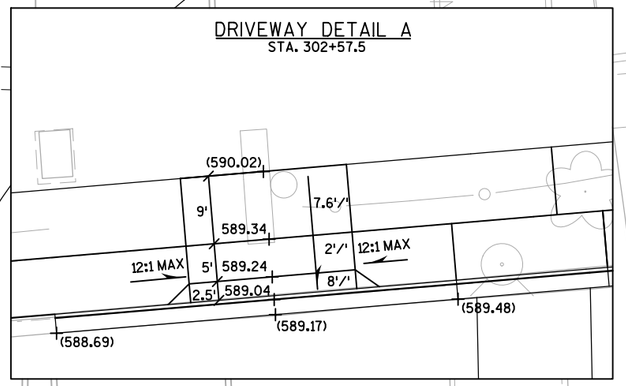
LEGEND

- 30A — CONCRETE CURB AND GUTTER TYPE (*SIZE (INCHES) / SPECIAL)
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH, OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP TYPE
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½- INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- DRW — CONCRETE DRIVEWAY 7-INCH OVER 4" BASE AGGREGATE DENSE 1¼-INCH
- (XXX.XX) EXISTING ELEVATION
- XXX.XX PROPOSED ELEVATION

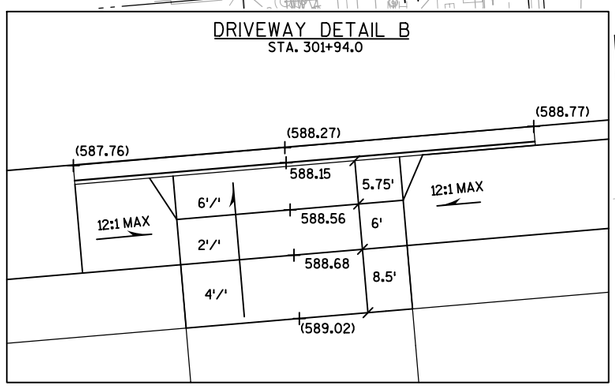
NOTES

1. MILL CONCRETE SHALL BE PAID FOR AS REMOVING CONCRETE SURFACE PARTIAL DEPTH. MILL ASPHALT SHALL BE PAID FOR AS REMOVING ASPHALTIC SURFACE MILLING.
2. ASPHALTIC OVERLAY SHALL MATCH EXISTING CURB FLANGE. SEE TYPICAL SECTION.
3. WATER VALVES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR VALVE LOCATIONS.
4. SANITARY MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.
5. STORM SEWER MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.

DRIVEWAY DETAIL A
STA. 302+57.5



DRIVEWAY DETAIL B
STA. 301+94.0



DATA TABLE
MILWAUKEE STREET
STAGE 2

17	302+28.5	22.0'LT	BEGIN CURB & GUTTER
18	301+97.3	32.0'LT	BEGIN SIDEWALK
19	300+96.5	32.0'LT	BEGIN SIDEWALK
20	303+40.5	22.0'LT	END CURB & GUTTER
21	302+95.6	32.0'LT	BEGIN SIDEWALK
22	303+45.6	32.0'LT	END SIDEWALK
23	303+40.5	32.0'LT	END SIDEWALK
24	303+55.1	36.3'RT	SIDEWALK P.I.

RADIUS SHOWN IS TO CURB FLANGE

DATA TABLE
MILWAUKEE STREET
STAGE 1

POINT NO.	STATION	OFFSET	COMMENTS
1	302+81.7	22.0'LT	BEGIN CURB & GUTTER
2	303+01.7	22.0'LT	END CURB & GUTTER
3	302+81.7	32.0'LT	BEGIN SIDEWALK
4	303+01.7	32.0'LT	END SIDEWALK
5	302+78.8	22.0'RT	BEGIN CURB & GUTTER
6	302+98.8	22.0'RT	END CURB & GUTTER
7	302+78.8	36.3'RT	BEGIN SIDEWALK
8	302+98.8	36.3'RT	END SIDEWALK
9	301+66.0	22.0'RT	BEGIN CURB & GUTTER
10	302+27.0	22.0'RT	END CURB & GUTTER
11	301+66.0	36.3'RT	BEGIN SIDEWALK
12	301+29.0	36.3'RT	BEGIN SIDEWALK
13	300+85.2	35.8'RT	BEGIN SIDEWALK
14	301+15.2	36.0'RT	END SIDEWALK
15	302+49.0	36.3'RT	END SIDEWALK
16	302+90.1	36.3'RT	BEGIN SIDEWALK

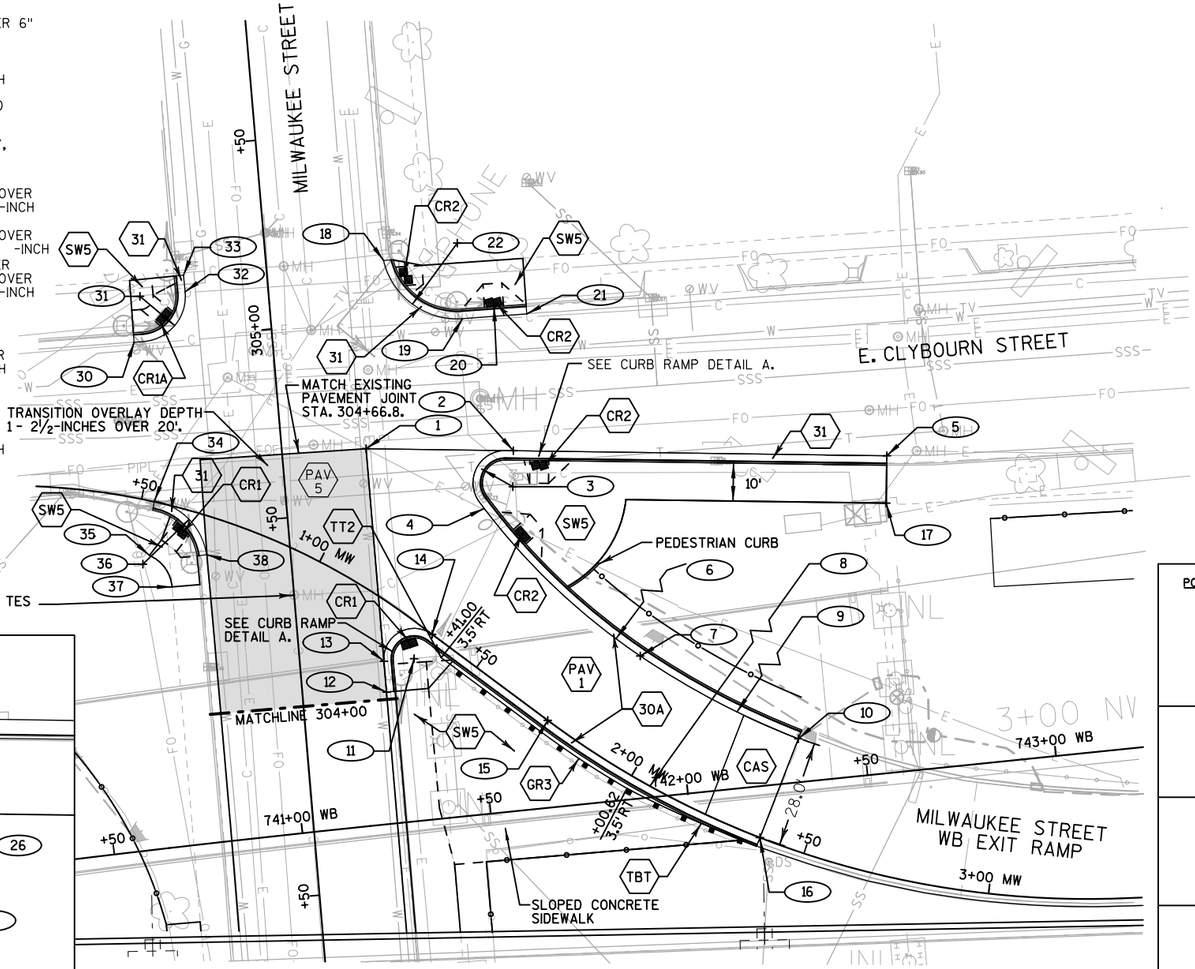
RADIUS SHOWN IS TO CURB FLANGE

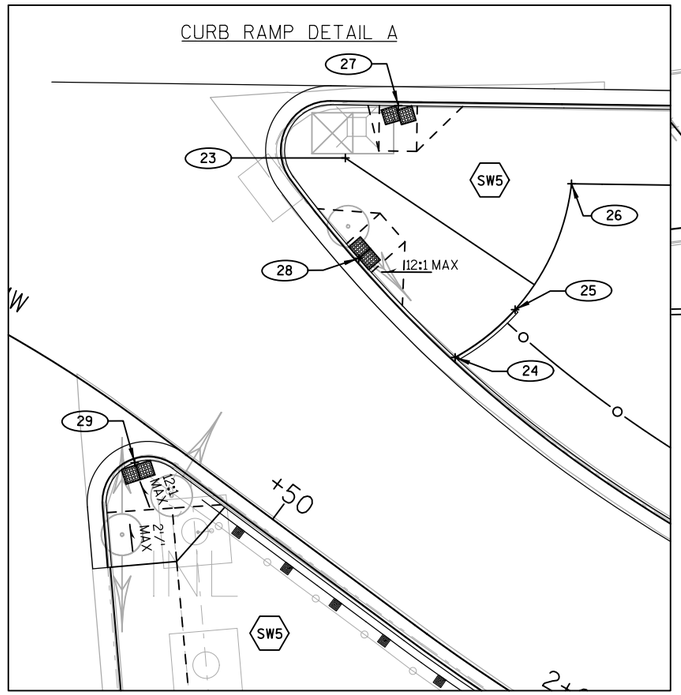
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - MILWAUKEE STREET	SHEET 69 E

LEGEND

- 30A — CONCRETE CURB AND GUTTER TYPE (*SIZE (INCHES) SPECIAL)
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- GR3 — MGS GUARDRAIL 3
- TBT — MGS THRIE BEAM TRANSITION
- EAT — MGS ENERGY ABSORBING TERMINAL
- TT2 — MGS TYPE 2 TERMINAL
- CR1 — CURB RAMP TYPE
- CC — CRASH CUSHION, PERMANENT LOW MAINTENANCE
- CB32 — CONCRETE BARRIER TYPE S32A
- CAS — CONCRETE APPROACH SLAB
- SAS — STRUCTURAL APPROACH SLAB

- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 7 — CONCRETE PAVEMENT 8-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 8 — CONCRETE PAVEMENT 10-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼ -INCH
- PAV 9 — CONCRETE PAVEMENT 10½-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 10 — CONCRETE PAVEMENT 9-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 11 — CONCRETE PAVEMENT 9½-INCH, OVER 6" BASE AGGREGATE DENSE 11*4-INCH
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH





NOTES

1. MILL CONCRETE SHALL BE PAID FOR AS REMOVING CONCRETE SURFACE PARTIAL DEPTH. MILL ASPHALT SHALL BE PAID FOR AS REMOVING ASPHALTIC SURFACE MILLING.
2. ASPHALTIC OVERLAY SHALL MATCH EXISTING CURB FLANGE. SEE TYPICAL SECTION.
3. WATER VALVES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR VALVE LOCATIONS.
4. SANITARY MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.
5. STORM SEWER MANHOLES LOCATED WITHIN THE PAVEMENT ARE TO BE ADJUSTED TO THE FINAL PAVEMENT GRADE. SEE MISCELLANEOUS QUANTITIES FOR MANHOLE LOCATIONS.

DATA TABLE

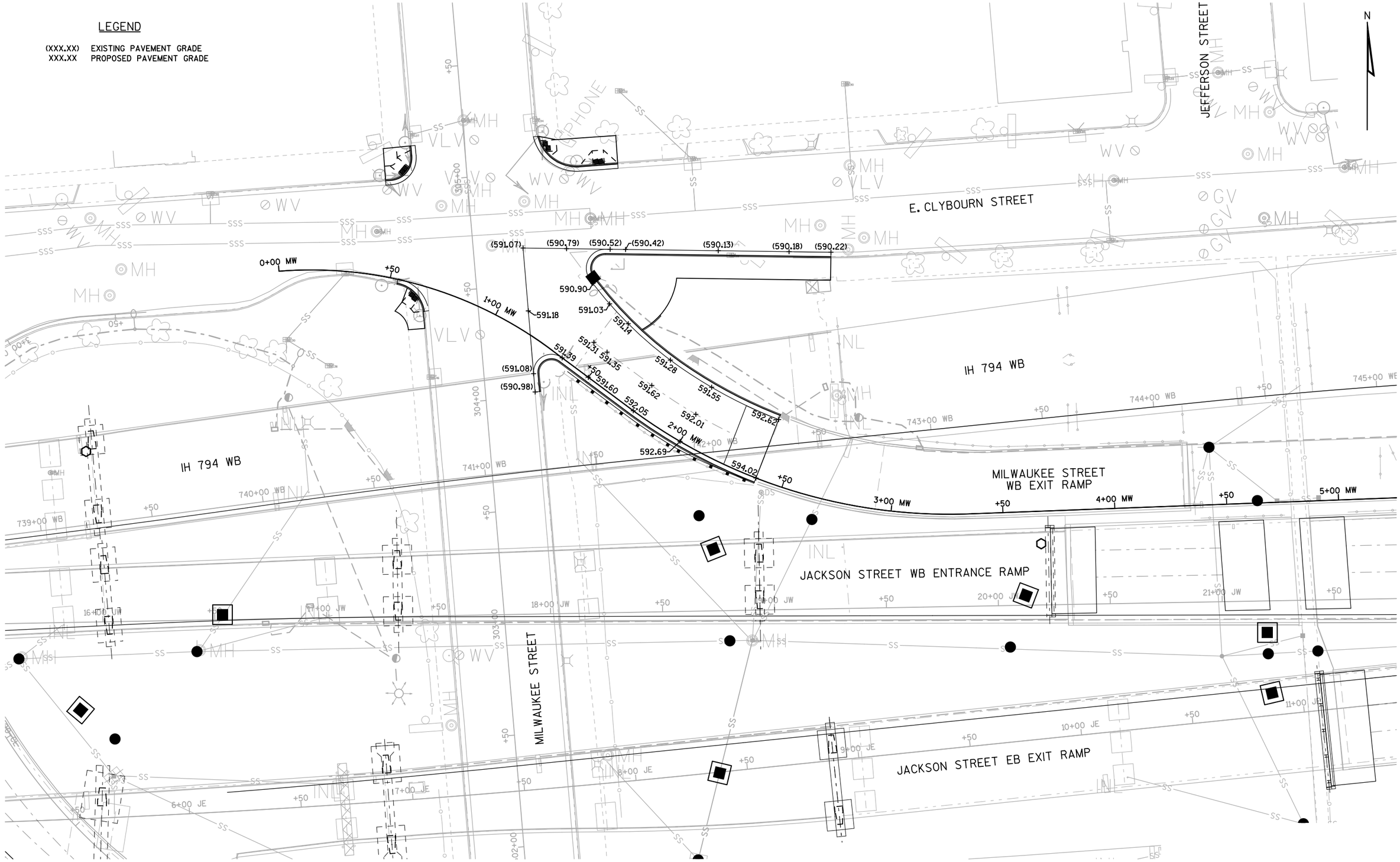
POINT NO.	STATION	OFFSET	COMMENTS
1	0+97.6 MW	32.1' LT	BEGIN PAVEMENT
2	1+24.9 MW	51.8' LT	BEGIN RADIUS, END 30A C&G, BEGIN 31 C&G
3	1+29.2 MW	44.0' LT	9.5' RADIUS
4	1+27.0 MW	34.9' LT	END RADIUS
5	2+28.2 MW	106.0' LT	BEGIN CURB & GUTTER
6	1+84.2 MW	203.0' LT	175' RADIUS
7	1+84.2 MW	28.0' LT	P.C.C.
8	1+73.5 MW	283.7' LT	238.7' RADIUS
9	1+73.5 MW	238.7' LT	210.7' RADIUS
10	2+37.7 MW	28.0' LT	END CURB & GUTTER
11	304+10.1	30.2' RT	8' RADIUS
12	304+01.9	22.2' RT	BEGIN CURB & GUTTER
13	304+10.1	22.2' RT	BEGIN RADIUS, END 31 C&G BEGIN 30A C&G
14	1+35.4 MW	0.0' RT	END RADIUS
15	1+73.5 MW	0.0' RT	P.C.
16	2+37.7 MW	0.0' RT	END CURB & GUTTER
17	2+36.2 MW	94.4' LT	BEGIN SIDEWALK
18	305+15.6	31.0' RT	BEGIN CURB & GUTTER
19	304+98.5	50.6' RT	END 20' RADIUS
20	305+00.9	59.0' RT	CENTER OF CURB RAMP
21	304+98.3	67.5' RT	END CURB & GUTTER
22	305+16.1	50.8' RT	20' RADIUS
23	1+29.2 MW	44.0' LT	30.0' RADIUS
24	1+29.2 MW	31.5' LT	BEGIN PEDESTRIAN CURB
25	1+59.2 MW	41.3' LT	END PEDESTRIAN CURB
26	1+55.2 MW	59.1' LT	SIDEWALK PI
27	2+36.2 MW	94.4' LT	CENTER OF CURB RAMP
28	1+06.8 MW	81.3' LT	CENTER OF CURB RAMP
29	1+30.7 MW	4.8' RT	CENTER OF CURB RAMP
30	304+99.6	36.5' LT	BEGIN CURB & GUTTER
31	305+11.6	33.9' LT	12' RADIUS
32	305+11.7	21.9' LT	END 12' RADIUS
33	305+16.1	21.9' LT	END CURB & GUTTER
34	304+57.4	34.6' LT	BEGIN CURB & GUTTER
35	304+43.2	37.2' LT	BEGIN SIDEWALK
36	304+41.0	39.1' LT	17' RADIUS
37	304+34.4	31.9' LT	END SIDEWALK
38	304+42.1	22.1' LT	END CURB & GUTTER

RADIUS SHOWN IS TO CURB FLANGE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - MILWAUKEE STREET WB EXIT RAMP (MW)	SHEET 70	E

LEGEND

(XXX.XX) EXISTING PAVEMENT GRADE
XXX.XX PROPOSED PAVEMENT GRADE



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - PAVEMENT GRADES	SHEET E

FILE NAME : IP_PWP:d0231471\021228_pd.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

CLYBOURN STREET

IH 794 WB

MILWAUKEE STREET WB EXIT RAMP

MILWAUKEE STREET

IH 794 EB

BROADWAY EB ENTRANCE RAMP

ST. PAUL AVENUE

MATCH EXISTING

MATCH GRADE AT EXISTING CITY SIDEWALK

EXISTING PIERS TO REMAIN

10' PEDESTRIAN WALKWAY

GRADE BREAK

PRECAST PEDESTRIAN TUNNEL 14-FT CLEAR WIDTH SEE PLAN AND PROFILE - JEFFERSON STREET PEDETRAIN WALKWAY AND PROPOSED PEDESTRIAN TUNNEL CROSS SECTIONS FOR ADDITIONAL DETAILS.

SEE PLAN DETAIL - MILWAUKEE STREET FOR DRIVEWAY AND SIDEWALK DETAILS

MATCH GRADE AT EXISTING CITY SIDEWALK AND BACK OF CURB

EXISTING PIERS TO REMAIN (TYP.)

LEGEND

- 30A — CONCRETE CURB AND GUTTER TYPE, SIZE (INCHES), SPECIAL
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP TYPE
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- ORNAMENTAL PICKET FENCE 3-FT
- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½- INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- DRW — CONCRETE DRIVEWAY 7-INCH OVER 4" BASE AGGREGATE DENSE 1¼-INCH
- (XXX.XX) EXISTING ELEVATION
- XXX.XX PROPOSED ELEVATION

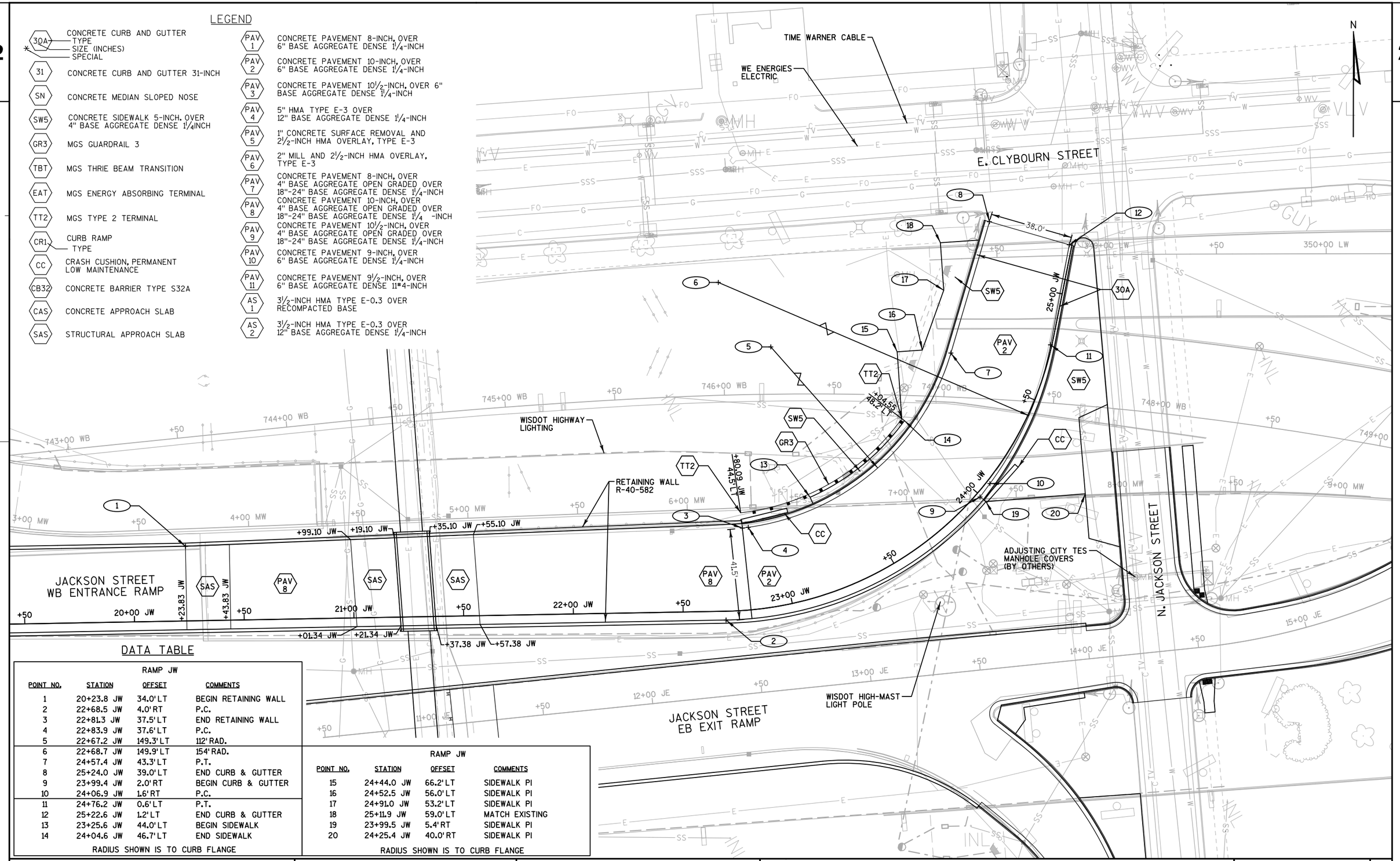
NOTES

1. PAVEMENT GRADES BASED ON EXISTING ELEVATIONS. CONTRACTOR SHALL REPAVE PARKING LOT IN A MANNER TO MATCH EXISTING GRADES TO ENSURE POSITIVE DRAINAGE.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - MILWAUKEE-JACKSON PARKING LOTS	SHEET 72	E

LEGEND

- 30A — CONCRETE CURB AND GUTTER, TYPE, SIZE (INCHES), SPECIAL
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH, OVER 4" BASE AGGREGATE DENSE 1¼INCH
- GR3 — MGS GUARDRAIL 3
- TBT — MGS THRIE BEAM TRANSITION
- EAT — MGS ENERGY ABSORBING TERMINAL
- TT2 — MGS TYPE 2 TERMINAL
- CR1 — CURB RAMP, TYPE
- CC — CRASH CUSHION, PERMANENT LOW MAINTENANCE
- CB32 — CONCRETE BARRIER TYPE S32A
- CAS — CONCRETE APPROACH SLAB
- SAS — STRUCTURAL APPROACH SLAB
- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 7 — CONCRETE PAVEMENT 8-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 8 — CONCRETE PAVEMENT 10-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼ -INCH
- PAV 9 — CONCRETE PAVEMENT 10½-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 10 — CONCRETE PAVEMENT 9-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 11 — CONCRETE PAVEMENT 9½-INCH, OVER 6" BASE AGGREGATE DENSE 11*4-INCH
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH



DATA TABLE

RAMP JW

POINT NO.	STATION	OFFSET	COMMENTS
1	20+23.8 JW	34.0' LT	BEGIN RETAINING WALL
2	22+68.5 JW	4.0' RT	P.C.
3	22+81.3 JW	37.5' LT	END RETAINING WALL
4	22+83.9 JW	37.6' LT	P.C.
5	22+67.2 JW	149.3' LT	112' RAD.
6	22+68.7 JW	149.9' LT	154' RAD.
7	24+57.4 JW	43.3' LT	P.T.
8	25+24.0 JW	39.0' LT	END CURB & GUTTER
9	23+99.4 JW	2.0' RT	BEGIN CURB & GUTTER
10	24+06.9 JW	1.6' RT	P.C.
11	24+76.2 JW	0.6' LT	P.T.
12	25+22.6 JW	1.2' LT	END CURB & GUTTER
13	23+25.6 JW	44.0' LT	BEGIN SIDEWALK
14	24+04.6 JW	46.7' LT	END SIDEWALK

RADIUS SHOWN IS TO CURB FLANGE

RAMP JW

POINT NO.	STATION	OFFSET	COMMENTS
15	24+44.0 JW	66.2' LT	SIDEWALK PI
16	24+52.5 JW	56.0' LT	SIDEWALK PI
17	24+91.0 JW	53.2' LT	SIDEWALK PI
18	25+11.9 JW	59.0' LT	MATCH EXISTING
19	23+99.5 JW	5.4' RT	SIDEWALK PI
20	24+25.4 JW	40.0' RT	SIDEWALK PI

RADIUS SHOWN IS TO CURB FLANGE

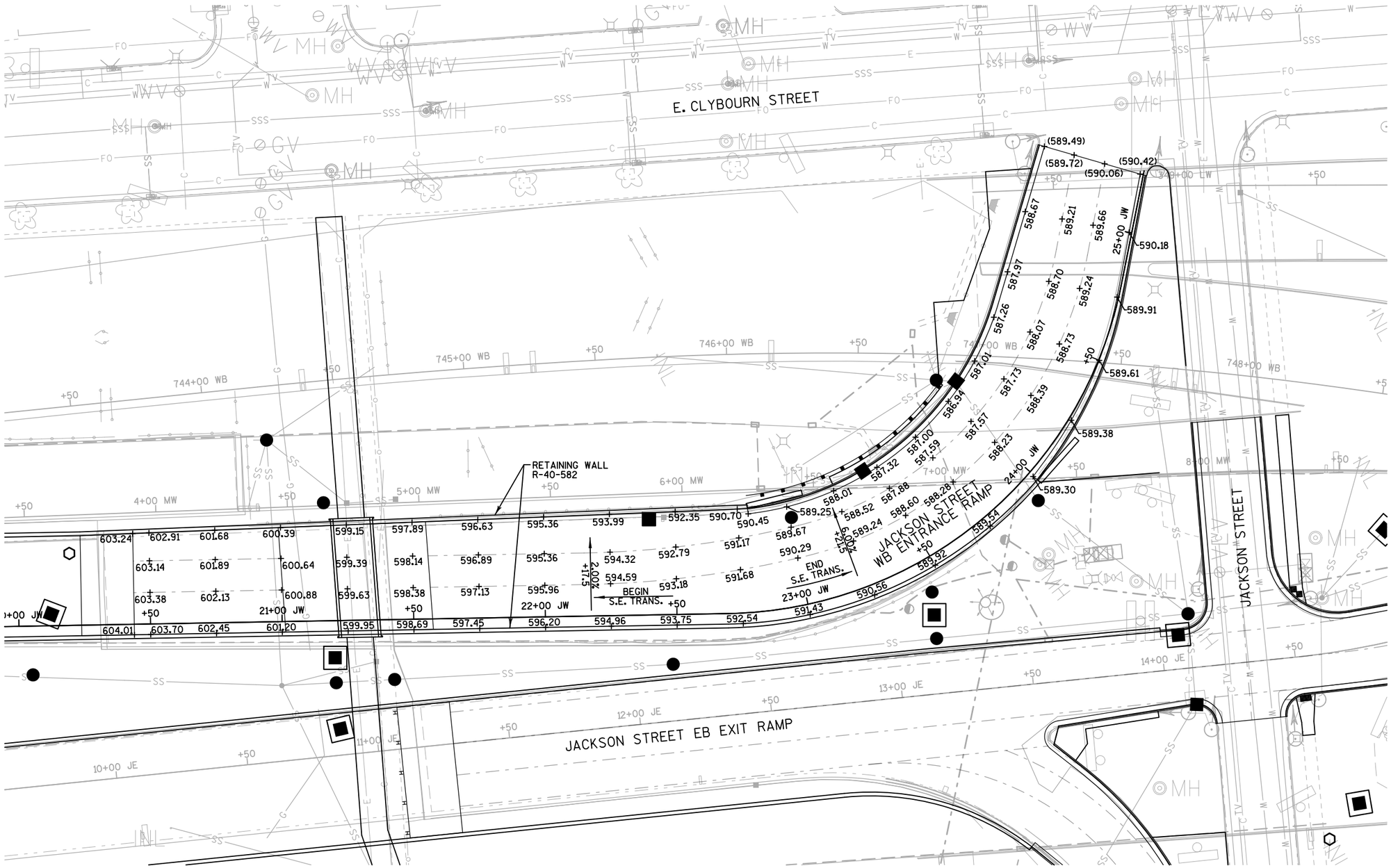
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - JACKSON STREET WB ENTRANCE RAMP (JW)	SHEET 73	E

FILE NAME : c:\pwv8i-local\baker_projects\andrew.genz\d0231471\021230_pd.dgn
PLOT DATE : 29-APR-2013
PLOT BY : Graef
PLOT NAME :
PLOT SCALE : 40.000000:1.000000
WISDOT/CADDS SHEET 42

LEGEND

(XXX.XX) EXISTING PAVEMENT GRADE

XXX.XX PROPOSED PAVEMENT GRADE



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - PAVEMENT GRADES	SHEET 74	E

LEGEND

- 30A — CONCRETE CURB AND GUTTER TYPE (*SIZE (INCHES) / SPECIAL)
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- GR3 — MGS GUARDRAIL 3
- TBT — MGS THRIE BEAM TRANSITION
- EAT — MGS ENERGY ABSORBING TERMINAL
- TT2 — MGS TYPE 2 TERMINAL
- CR1 — CURB RAMP TYPE
- CC — CRASH CUSHION, PERMANENT LOW MAINTENANCE
- CB32 — CONCRETE BARRIER TYPE S32A
- CAS — CONCRETE APPROACH SLAB
- SAS — STRUCTURAL APPROACH SLAB

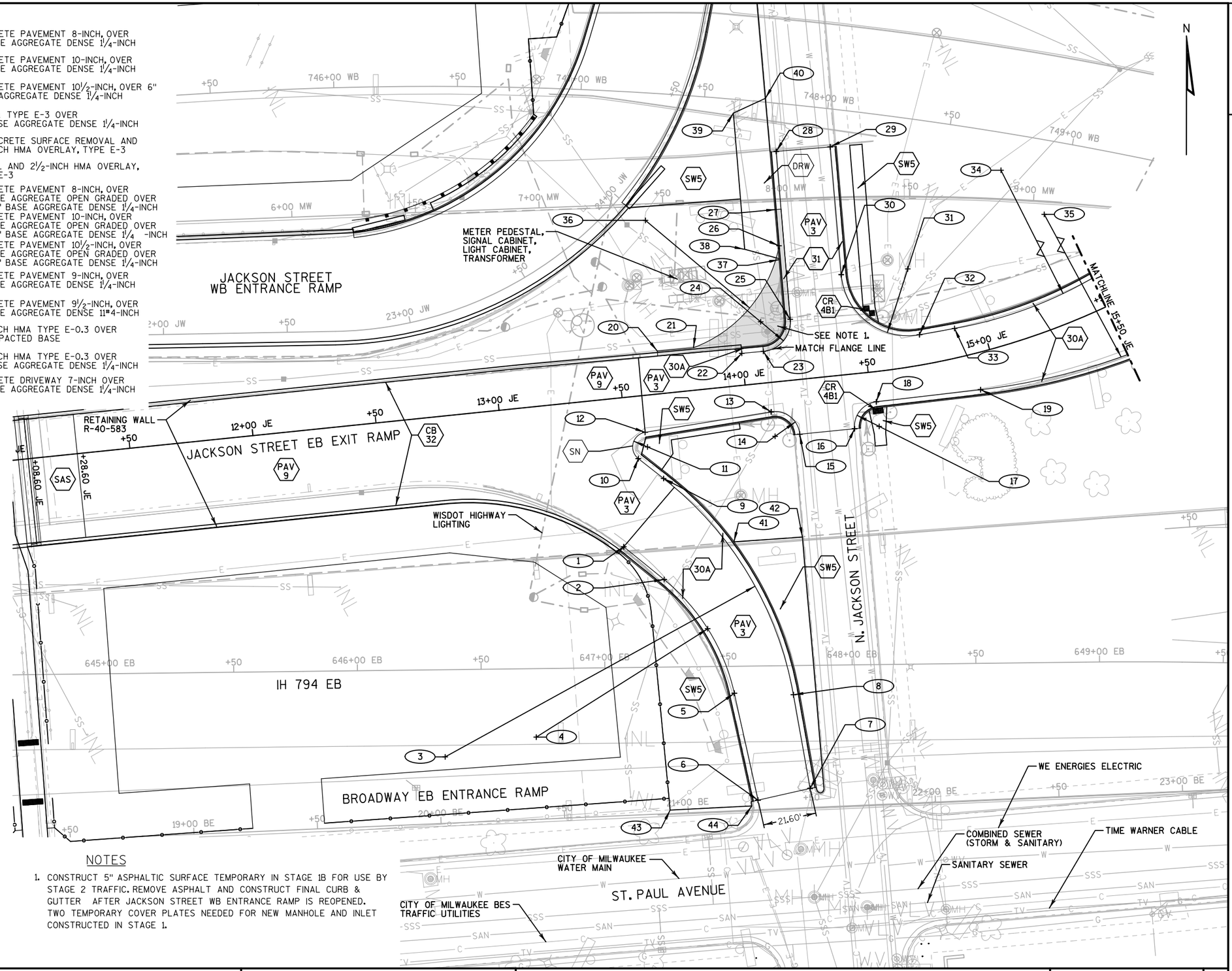
- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 7 — CONCRETE PAVEMENT 8-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 8 — CONCRETE PAVEMENT 10-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼ -INCH
- PAV 9 — CONCRETE PAVEMENT 10½-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 10 — CONCRETE PAVEMENT 9-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 11 — CONCRETE PAVEMENT 9½-INCH, OVER 6" BASE AGGREGATE DENSE 11#4-INCH
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- DRW — CONCRETE DRIVEWAY 7-INCH OVER 4" BASE AGGREGATE DENSE 1¼-INCH

DATA TABLE

RAMP JE

POINT NO.	STATION	OFFSET	COMMENTS
1	13+44.5 JE	60.0' RT	BEGIN CURB & GUTTER
2	13+59.4 JE	74.8' RT	P.C.
3	12+64.0 JE	137.1' RT	143' RAD.
4	13+01.4 JE	132.9' RT	82' RAD.
5	13+82.9 JE	123.4' RT	P.T.
6	13+88.1 JE	167.4' RT	END CURB & GUTTER
7	14+09.5 JE	164.8' RT	END CURB & GUTTER
8	14+06.7 JE	126.5' RT	P.T.
9	13+63.4 JE	34.2' RT	P.C.
10	13+54.0 JE	25.2' RT	BEGIN RADIUS
11	13+58.2 JE	20.9' RT	6' RAD.
12	13+57.8 JE	14.9' RT	END RADIUS
13	14+09.4 JE	11.9' RT	BEGIN RADIUS
14	14+10.0 JE	21.8' RT	10' RAD.
15	14+20.0 JE	22.0' RT	END RADIUS
16	14+42.2 JE	22.1' RT	BEGIN RADIUS
17	14+52.0 JE	22.2' RT	10' RAD.
18	14+52.0 JE	12.2' RT	END RADIUS
19	14+92.6 JE	14.8' RT	P.C.
20	13+66.09 JE	17.3' LT	EDGE OF PAVEMENT
21	13+80.8 JE	17.1' LT	BEGIN RADIUS
22	14+00.0 JE	12.9' LT	BEGIN CURB & GUTTER
23	14+08.7 JE	12.8' LT	BEGIN RADIUS
24	14+08.9 JE	24.8' LT	12' RAD
25	14+20.9 JE	24.6' LT	END RADIUS, BEGIN C&G 31
26	14+19.4 JE	54.6' LT	END RADIUS
27	14+19.7 JE	69.3' LT	EDGE OF PAVMENT
28	14+22.2 JE	92.6' LT	END CURB & GUTTER
29	14+44.1 JE	92.2' LT	BEGIN CURB & GUTTER
30	14+43.2 JE	40.4' LT	END C&G 31, BEGIN RADIUS
31	14+73.3 JE	39.2' LT	27' RAD.
32	14+73.2 JE	12.2' LT	END RADIUS
33	14+88.2 JE	11.8' LT	P.C.
34	15+11.3 JE	183.2' LT	172' RAD.
35	17+55.9 JE	232.5' LT	258' RAD.
36	13+66.7 JE	70.3' LT	55' RADIUS
37	14+18.8 JE	49.4' LT	BEGIN DRIVEWAY
38	14+05.4 JE	54.6' LT	DRIVEWAY PI
39	14+06.5 JE	109.8' LT	DRIVEWAY PI
40	14+20.0 JE	114.4' LT	END DRIVEWAY
41	13+89.0 JE	62.6' RT	END SIDEWALK
42	14+16.8 JE	63.6' RT	END SIDEWALK
43	13+52.3 JE	167.8' RT	BEGIN SIDEWALK
44	13+85.3 JE	169.5' RT	END SIDEWALK

RADIUS SHOWN IS TO CURB FLANGE



NOTES

1. CONSTRUCT 5" ASPHALTIC SURFACE TEMPORARY IN STAGE 1B FOR USE BY STAGE 2 TRAFFIC. REMOVE ASPHALT AND CONSTRUCT FINAL CURB & GUTTER AFTER JACKSON STREET WB ENTRANCE RAMP IS REOPENED. TWO TEMPORARY COVER PLATES NEEDED FOR NEW MANHOLE AND INLET CONSTRUCTED IN STAGE 1.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - JACKSON STREET EB EXIT RAMP (JE)	SHEET 75	E

2

LEGEND

(XXX.XX) EXISTING PAVEMENT GRADE

XXX.XX PROPOSED PAVEMENT GRADE

IH 794 WB

MILWAUKEE STREET WB EXIT RAMP

JACKSON STREET WB ENTRANCE RAMP

JACKSON STREET EB EXIT RAMP

RETAINING WALL R-40-583

S.E. TRANSITION

WISDOT HIGHWAY LIGHTING

WE ENERGIES GAS

IH 794 EB

BROADWAY EB ENTRANCE RAMP

N. JACKSON STREET

MATCHLINE (5+50 JE)

N

2

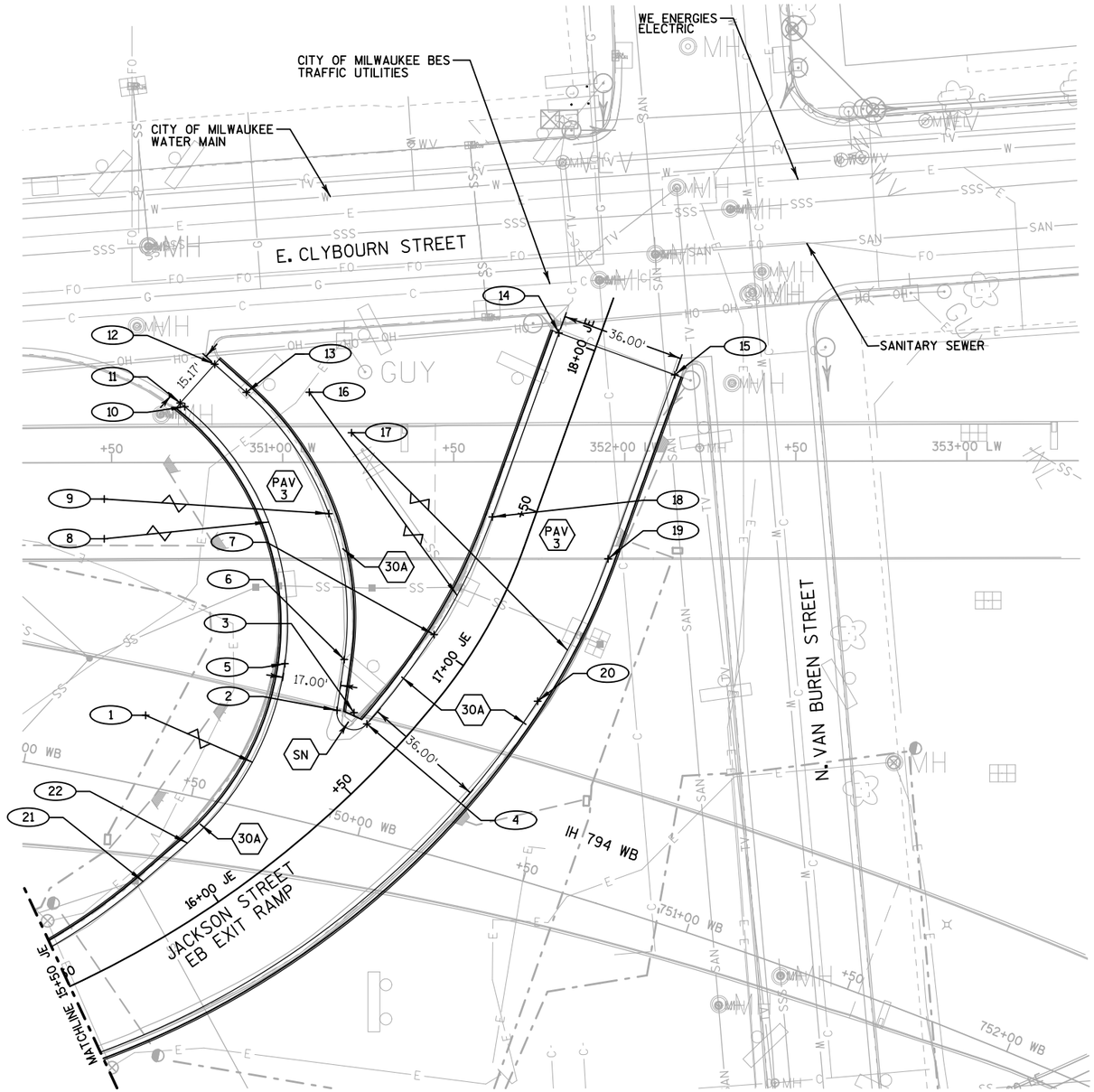
PROJECT NO:1300-13-70	HWY:IH 794	COUNTY:MILWAUKEE	PLAN DETAILS - PAVEMENT GRADES	SHEET 76	E

FILE NAME : IP_PWP:d0231471\021233_pd.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

LEGEND

- 30A — CONCRETE CURB AND GUTTER; TYPE; SIZE (INCHES); SPECIAL
- 31 — CONCRETE CURB AND GUTTER 31-INCH
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH, OVER 4" BASE AGGREGATE DENSE 1¼INCH
- GR3 — MGS GUARDRAIL 3
- TBT — MGS THRIE BEAM TRANSITION
- EAT — MGS ENERGY ABSORBING TERMINAL
- TT2 — MGS TYPE 2 TERMINAL
- CR1 — CURB RAMP; TYPE
- CC — CRASH CUSHION, PERMANENT LOW MAINTENANCE
- CB32 — CONCRETE BARRIER TYPE S32A
- CAS — CONCRETE APPROACH SLAB
- SAS — STRUCTURAL APPROACH SLAB
- PAV 1 — CONCRETE PAVEMENT 8-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 10-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 3 — CONCRETE PAVEMENT 10½-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 5 — 1" CONCRETE SURFACE REMOVAL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 6 — 2" MILL AND 2½-INCH HMA OVERLAY, TYPE E-3
- PAV 7 — CONCRETE PAVEMENT 8-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 8 — CONCRETE PAVEMENT 10-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼ -INCH
- PAV 9 — CONCRETE PAVEMENT 10½-INCH, OVER 4" BASE AGGREGATE OPEN GRADED OVER 18"-24" BASE AGGREGATE DENSE 1¼-INCH
- PAV 10 — CONCRETE PAVEMENT 9-INCH, OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 11 — CONCRETE PAVEMENT 9½-INCH, OVER 6" BASE AGGREGATE DENSE 11#4-INCH
- AS 1 — 3½-INCH HMA TYPE E-0.3 OVER RECOMPACTED BASE
- AS 2 — 3½-INCH HMA TYPE E-0.3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH



DATA TABLE

RAMP JE

POINT NO.	STATION	OFFSET	COMMENTS
1	15+88.6 JE	103.6' LT	85' RAD.
2	16+65.1 JE	20.2' LT	BEGIN RADIUS
3	16+68.1 JE	16.1' LT	5' RAD.
4	16+68.3 JE	11.1' LT	END RADIUS
5	16+64.4 JE	40.6' LT	P.C.C.
6	16+78.6 JE	28.5' LT	P.C.
7	17+02.8 JE	12.2' LT	P.C.
8	15+92.4 JE	101.9' LT	82' RAD.
9	16+08.0 JE	97.0' LT	88' RAD.
10	17+44.1 JE	107.2' LT	P.T.
11	17+44.7 JE	108.3' LT	END CURB AND GUTTER
12	17+58.8 JE	103.2' LT	END CURB AND GUTTER
13	17+54.1 JE	91.7' LT	P.T.
14	18+01.4 JE	11.6' LT	END CURB AND GUTTER
15	18+01.3 JE	24.4' RT	END CURB AND GUTTER
16	16+75.3 JE	183.7' LT	172' RAD.
17	16+75.3 JE	183.7' LT	208' RAD.
18	17+44.2 JE	11.7' LT	P.T.
19	17+44.1 JE	24.3' RT	P.T.
20	17+03.2 JE	23.8' RT	P.C.
21	15+84.3 JE	17.0' LT	P.T.
22	16+02.4 JE	19.3' LT	P.C.

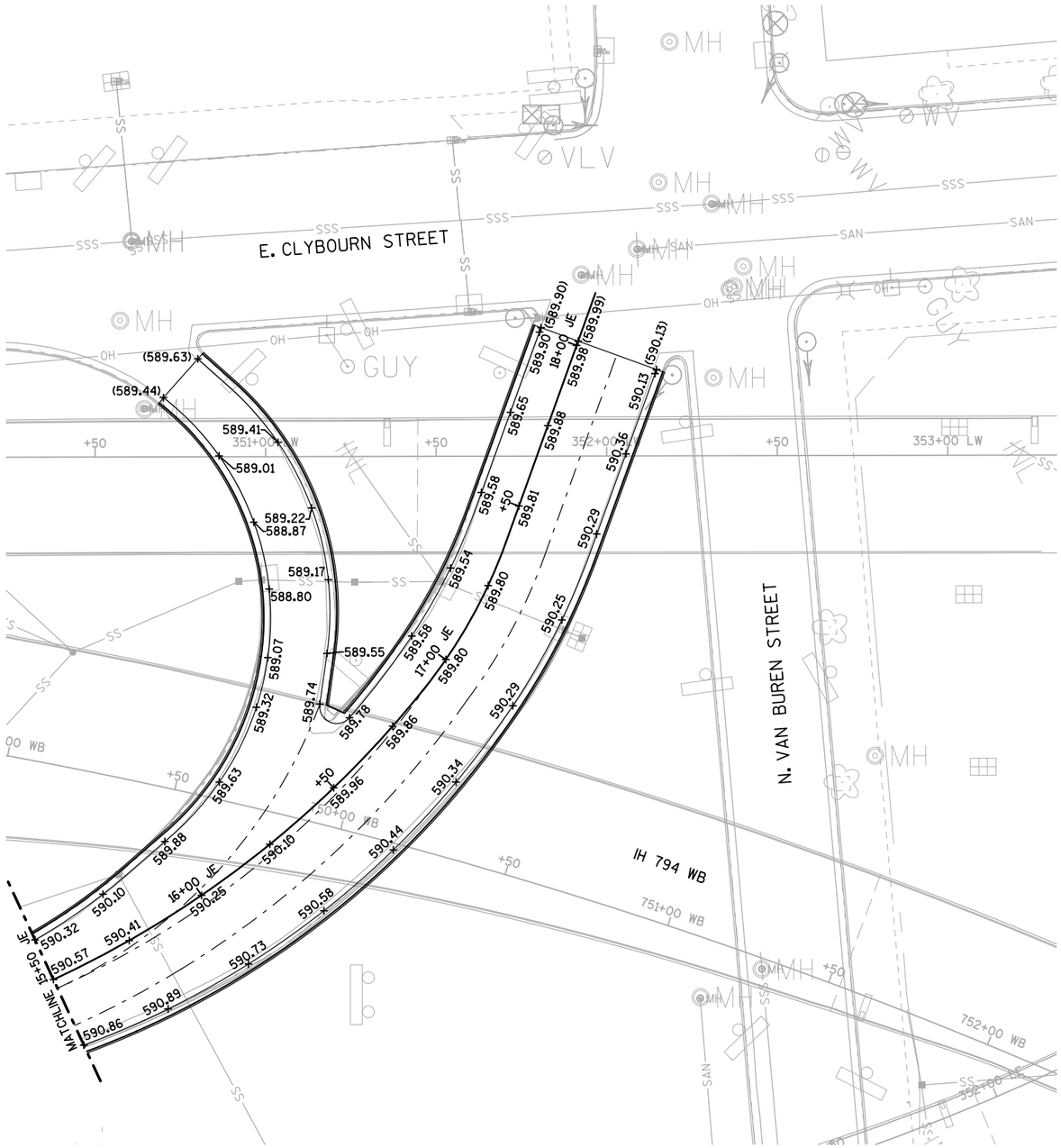
RADIUS SHOWN IS TO CURB FLANGE

2

LEGEND

(XXX.XX) EXISTING PAVEMENT GRADE

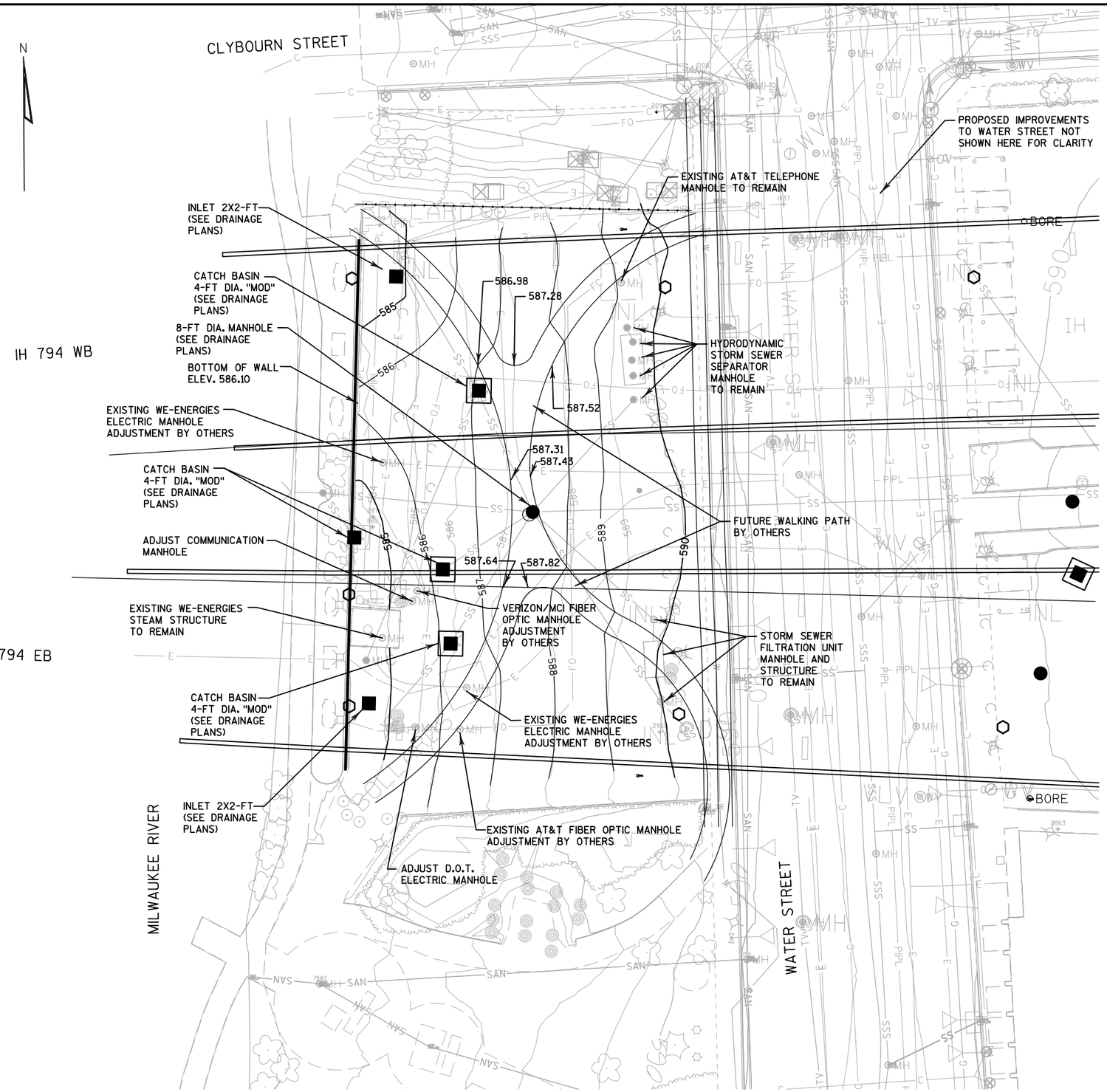
XXX.XX PROPOSED PAVEMENT GRADE

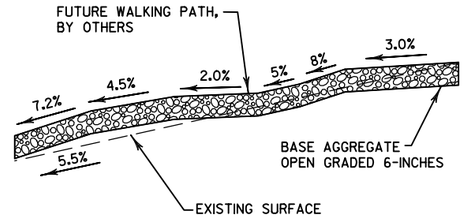


PROJECT NO:1300-13-70	HWY:IH 794	COUNTY:MILWAUKEE	PLAN DETAILS - PAVEMENT GRADES	SHEET 78	E

FILE NAME : IP_PWP:d0231471\021235_pd.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42





TYPICAL SECTION

MILWAUKEE RIVER TO WATER STREET
LOOKING NORTH

LEGEND

- PROPOSED MANHOLE
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"
- PROPOSED INLET
- PROPOSED DOWNSPOUT
- 590 — PROPOSED CONTOUR

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PROPOSED CONTOURS	SHEET 79	E

2

LEGEND

- PROPOSED MANHOLE
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"
- PROPOSED INLET
- PROPOSED DOWNSPOUT
- 590 — PROPOSED CONTOUR
- (XXX.XX) EXISTING ELEVATION
- XXX.XX PROPOSED ELEVATION

104+00
+50
103+00
+50
102+00
101+00
+50

IH 794 WB

MILWAUKEE STREET WB EXIT RAMP

JACKSON STREET

JACKSON STREET EB EXIT RAMP

IH 794 EB

595.86
(595.47)
(594.10)
(593.00)
(593.02)
(592.97)
588.41
4:1

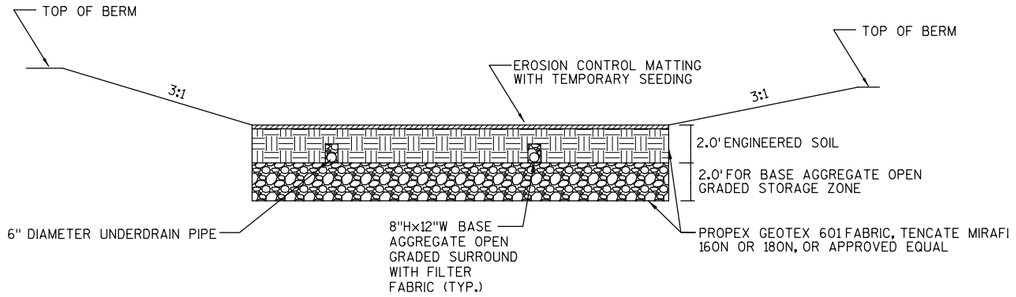
N

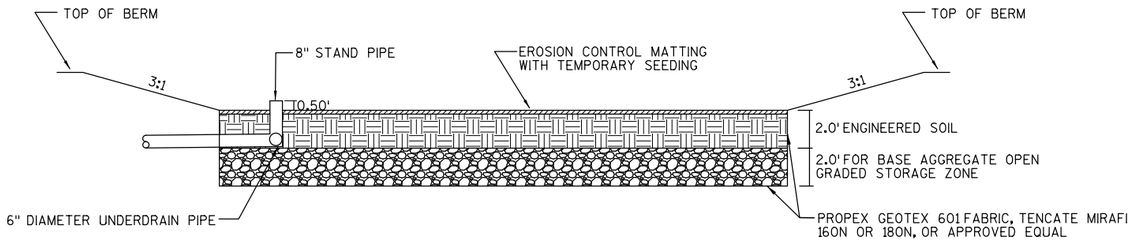
2

PROJECT NO:1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PROPOSED CONTOURS	SHEET 80	E

FILE NAME : IP_PWP:d0231471\021602_cm.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42





21 BIO-FILTRATION PLAN AND SECTION BF-A
N.T.S.

GENERAL NOTES

-SEE PROPOSED STORM SEWER PLANS AND GRADING PLANS FOR BIO-FILTRATION LAYOUT AND ELEVATIONS.

-COVER FILTER FABRIC WITH 2 INCHES OF BASE AGGREGATE OPEN GRADED BEFORE INSTALLING 6 INCH UNDERDRAIN, CLEANOUTS, AND STAND PIPES.

- FOR STAND PIPE AND CLEANOUT DETAILS, SEE BIO-FILTRATION DETAILS 25, 26, 27, AND 28.

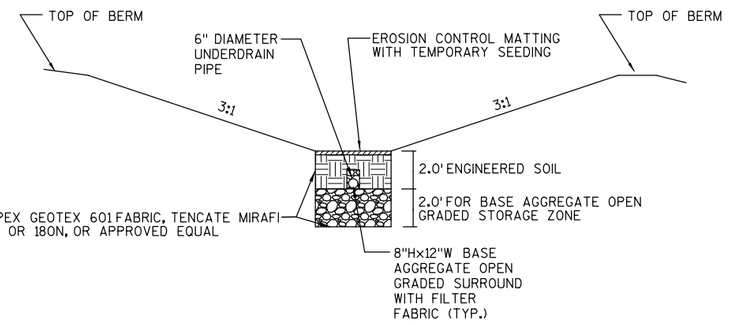
-VARY DEPTH OF ENGINEERED SOIL LAYER AND BASE AGGREGATE OPEN GRADED STORAGE LAYER BASED ON SLOPE OF UNDERDRAIN SYSTEM AS SHOWN ON PLANS.

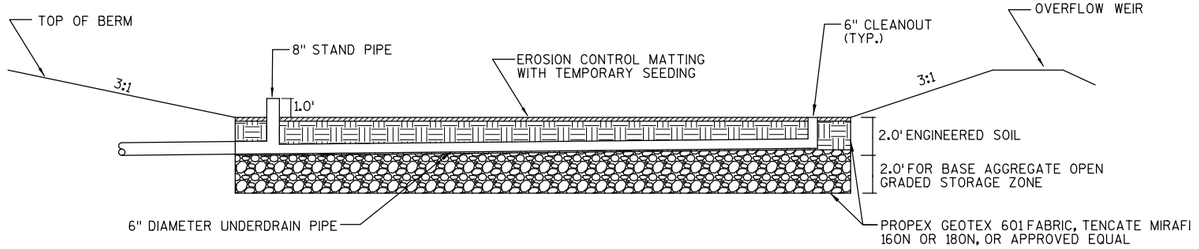
-ADJUST EXISTING INLET IN BIO-FILTRATION BASIN BF-D. EXISTING INLET ACTS AS OVERFLOW STAND PIPE.

-USE 6" PVC CLEANOUT FOR 6" HDPE UNDERDRAIN COLLECTORS IN BIO-FILTRATION.

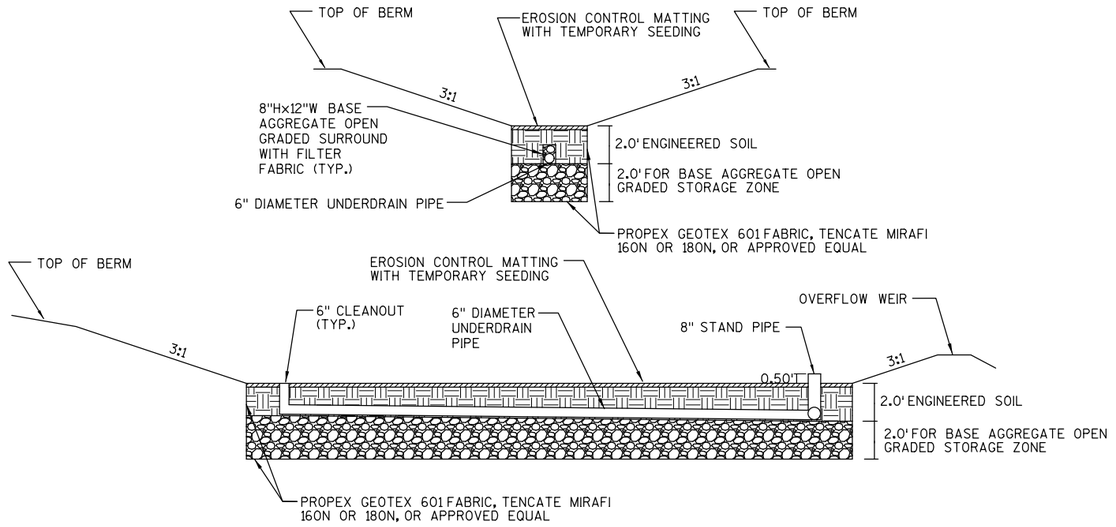
-USE 8" PVC FOR STAND PIPES AND OUTLET PIPES.

-USE 8" PVC OPEN GRATE CAP TO COVER STAND PIPE.





22 BIO-FILTRATION PLAN AND SECTION BF-B
N.T.S.



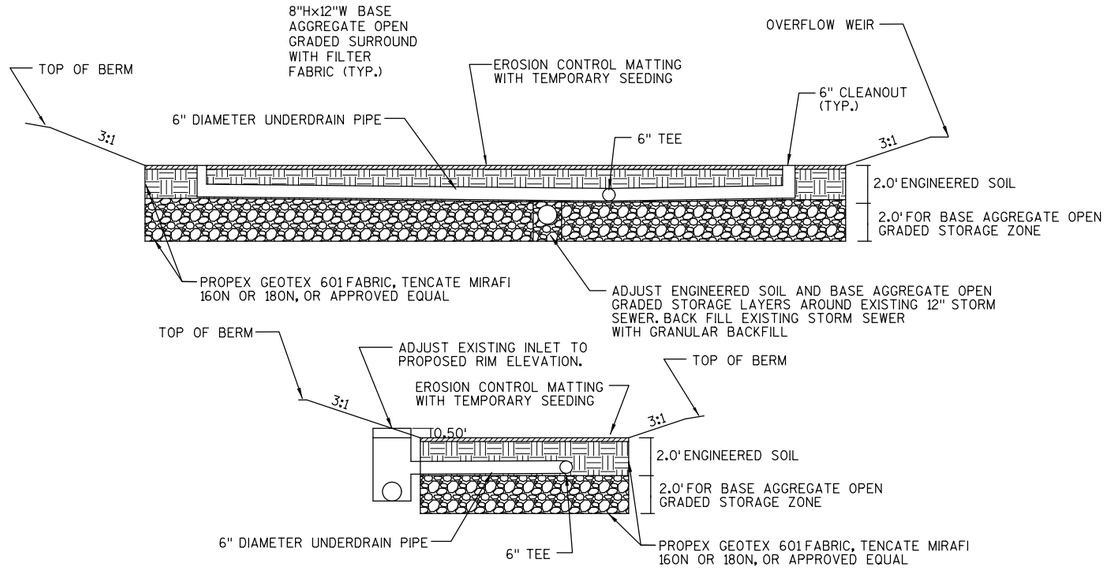
LEGEND

EROSION CONTROL MATTING WITH TEMPORARY SEEDING

ENGINEERED SOIL

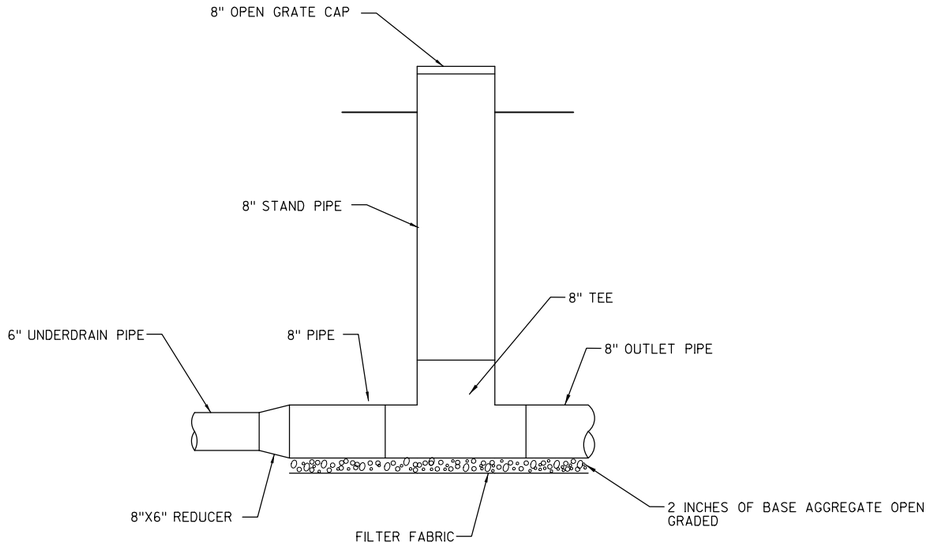
BASE AGGREGATE OPEN GRADED

23 BIO-FILTRATION PLAN AND SECTION BF-C
N.T.S.



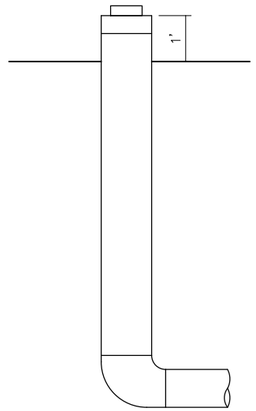
24 BIO-FILTRATION PLAN AND SECTION BF-D
N.T.S.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	BIO-FILTRATION DETAILS	SHEET 81	E



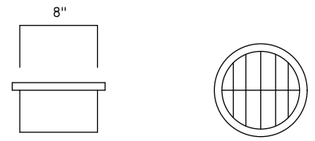
(25) BIO-FILTRATION BASIN 8-INCH STAND PIPE DETAIL

N.T.S.



(26) BIO-FILTRATION BASIN CLEANOUT DETAIL

N.T.S.



(27) BIO-FILTRATION BASIN 8-INCH STAND PIPE GRATE DETAIL

N.T.S.

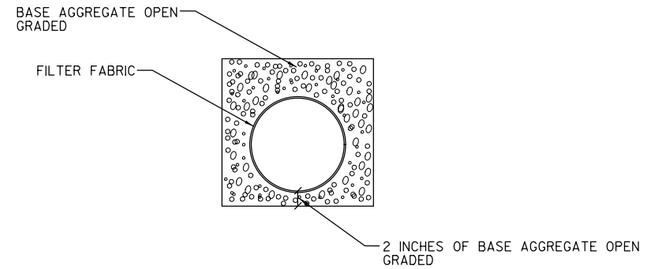
GENERAL NOTES

-FOR LOCATIONS OF STAND PIPE AND UNDERDRAINS, SEE BIO-FILTRATION GRADING PLANS AND DETAILS.

-USE 6" PVC CLEANOUT FOR 6" HDPE UNDERDRAIN COLLECTORS IN BIO-FILTRATION.

-USE 8" PVC FOR STAND PIPES AND OUTLET PIPES.

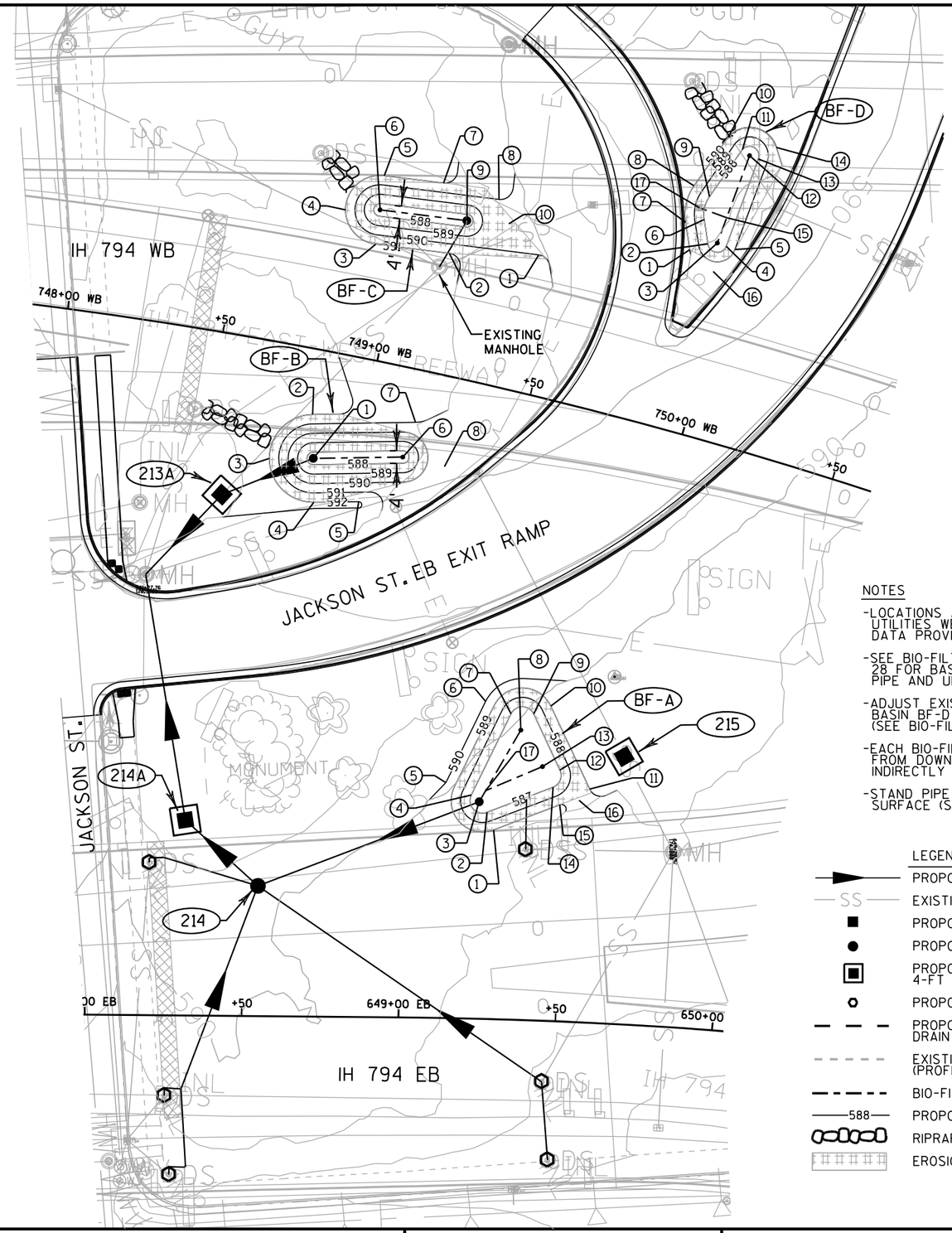
-USE 8" PVC OPEN GRATE CAP TO COVER STAND PIPE.



(28) UNDERDRAIN DETAIL

N.T.S.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	BIO-FILTRATION DETAILS	SHEET 82	E



NOTES

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON THE DATA PROVIDED.

-SEE BIO-FILTRATION DETAILS 21 THROUGH 28 FOR BASIN CROSS-SECTIONS AND STAND PIPE AND UNDERDRAIN DETAILS.

-ADJUST EXISTING INLET IN BIO-FILTRATION BASIN BF-D TO PROPOSED RIM ELEVATION. (SEE BIO-FILTRATION DETAIL 24).

-EACH BIO-FILTRATION BASIN RECEIVES DISCHARGE FROM DOWNSPOUTS THAT ARE DIRECTLY AND INDIRECTLY CONNECTED.

-STAND PIPE RIM ELEVATIONS VARY OFF BASIN SURFACE (SEE DRAINAGE TABLE AND PLANS).

LEGEND

- PROPOSED STORM SEWER
- SS EXISTING STORM SEWER
- PROPOSED INLET
- PROPOSED MANHOLE
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"
- PROPOSED DOWNSPOUT
- PROPOSED DOWNSPOUT DRAIN
- EXISTING STORM SEWER (PROFILE)
- BIO-FILTRATION DRAINTILE
- 588 PROPOSED CONTOURS
- RIPRAP LIGHT
- EROSION CONTROL MAT CLASS ITYPE A

BIO-FILTRATION BASIN	POINT	STATION	OFFSET	ELEV. (FT)	COMMENTS
BF-A	1	649+28.63 EB	60.30' LT.	589.00	
	2	649+26.43 EB	65.85' LT.	587.00	
	3	649+23.96 EB	69.13' LT.	587.50	8-INCH STAND PIPE, I.E. 585.17
	4	649+21.48 EB	71.22' LT.	587.00	
	5	649+13.65 EB	75.00' LT.	590.00	
	6	649+25.14 EB	101.18' LT.	590.00	
	7	649+32.88 EB	97.45' LT.	587.00	
	8	649+35.98 EB	92.36' LT.	587.00	6-INCH CLEANOUT, I.E. 585..43
	9	649+39.70 EB	97.62' LT.	587.00	
	10	649+44.74 EB	100.36' LT.	589.00	
	11	649+57.57 EB	74.41' LT.	589.00	
	12	649+48.29 EB	80.05' LT.	587.00	
	13	649+42.93 EB	80.97' LT.	587.00	6-INCH CLEANOUT, I.E. 585.40
	14	649+46.38 EB	74.54' LT.	587.00	
	15	649+48.64 EB	69.02' LT.	589.00	
	16	649+53.77 EB	71.40' LT.	588.50	OVERFLOW WEIR
	17	649+25.84 EB	72.72' LT.	587.00	6-INCH WYE CONNECTION
BF-B	1	648+71.38 EB	177.87' LT.	589.00	8-INCH STAND PIPE, I.E. 586.17
	2	648+71.07 EB	191.86' LT.	592.00	
	3	648+57.39 EB	177.56' LT.	592.00	
	4	648+71.69 EB	163.87' LT.	592.00	
	5	648+85.95 EB	164.18' LT.	592.00	
	6	648+99.39 EB	178.50' LT.	588.00	6-INCH CLEANOUT, I.E. 586.46
	7	649+02.92 EB	189.61' LT.	591.00	
	8	649+11.48 EB	175.68' LT.	590.50	OVERFLOW WEIR
BF-C	1	649+36.66 EB	243.89' LT.	590.00	
	2	649+11.72 EB	243.66' LT.	591.00	
	3	648+90.75 EB	246.27' LT.	591.00	
	4	648+81.01 EB	257.10' LT.	591.00	
	5	648+93.27 EB	268.12' LT.	591.00	
	6	648+92.01 EB	257.19' LT.	588.00	6-INCH CLEANOUT, I.E. 588.46
	7	649+09.78 EB	266.02' LT.	591.00	
	8	649+25.20 EB	261.19' LT.	590.00	
	9	649+16.44 EB	254.16' LT.	588.50	8-INCH STAND PIPE, I.E. 586.17
	10	649+28.06 EB	253.47' LT.	589.50	OVERFLOW WEIR
BF-D	1	649+78.62 EB	247.44' LT.	590.00	
	2	649+83.57 EB	249.89' LT.	588.00	
	3	649+86.15 EB	250.37' LT.	588.00	6-INCH CLEANOUT, I.E. 586.36
	4	649+88.65 EB	249.51' LT.	588.00	
	5	649+91.16 EB	248.66' LT.	589.00	
	6	649+82.10 EB	257.61' LT.	590.00	
	7	649+77.01 EB	256.35' LT	588.00	
	8	649+78.77 EB	268.11' LT	588.00	
	9	649+83.18 EB	264.97' LT.	590.00	
	10	649+87.30 EB	284.23' LT	590.00	
	11	649+91.40 EB	280.60' LT.	588.00	
	12	649+93.31 EB	278.79' LT.	588.00	6-INCH CLEANOUT, I.E. 586.43
	13	649+95.11 EB	277.95' LT.	588.00	
	14	649+98.54 EB	282.06' LT.	590.00	
	15	649+88.29 EB	258.61' LT.	588.00	6-INCH TEE CONNECTION, I.E. 586.27
	16	649+85.49 EB	241.24' LT.	589.50	OVERFLOW WEIR
	17	649+80.66 EB	261.25' LT.	588.50	ADJUST EXISTING INLET

LEGEND

(TYPE) INLET PROTECTION

SILT FENCE

N

TYPE C

SILT FENCE REQUIRED PRIOR TO REMOVAL OF TEMPORARY RAMP IN STAGE 2. TOPSOIL, SEEDING MIXTURE NO. 75, MULCHING AND EROSION MAT URBAN CLASS I TYPE A REQUIRED FOLLOWING REMOVAL OF FILL MATERIAL.

RAMP CW

460+00 CW

457+00 CW

458+00 CW

453+00 CW

CARFERRY DRIVE EB ENTRANCE RAMP

359+00 CS

CARFERRY DRIVE EB EXIT RAMP

360+00 CS

361+00 CS

EAST LINCOLN AVENUE

362+00 CS

363+00 CS

364+00 CS

365+00 CS

RAMP CS

366+00 CS

367+00 CS

368+00 CS

369+00 CS

370+0

CARFERRY EB OFF RAMP

MATCHLINE - 70+00 LF

IH 794 EB

IH 794 WB

IH 794 LF

56+00 LF

57+00 LF

58+00 LF

59+00 LF

60+00 LF

61+00 LF

62+00 LF

63+00 LF

64+00 LF

65+00 LF

66+00 LF

67+00 LF

68+00 LF

69+00 LF

556+00 CE

557+00 CE

CARFERRY DRIVE WB EXIT RAMP

558+00 CE

RAMP CE

559+00 CE

560+00 CE

561+0

12+00 CN

13+00 CN

14+00 CN

658+00 CN

659+00 CN

660+00 CN

661+00 CN

662+00 CN

CARFERRY DRIVE WB ENTRANCE RAMP

663+00 CN

664+00 CN

665+00 CN

666+00 CN

RAMP CN

SILT FENCE REQUIRED PRIOR TO REMOVAL OF TEMPORARY RAMP IN STAGE 2. TOPSOIL, SEEDING MIXTURE NO. 75, MULCHING AND EROSION MAT URBAN CLASS I TYPE A REQUIRED FOLLOWING REMOVAL OF FILL MATERIAL.

TRACKING PADS 150'x30'

SOUTH LINCOLN MEMORIAL DRIVE

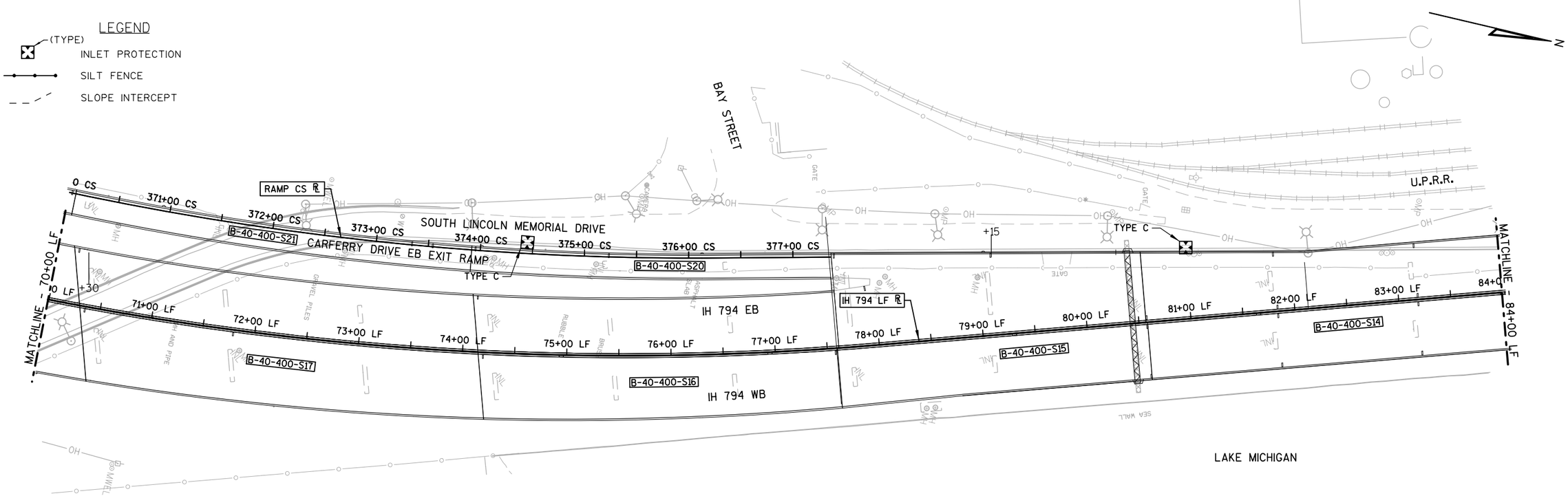
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 84	E

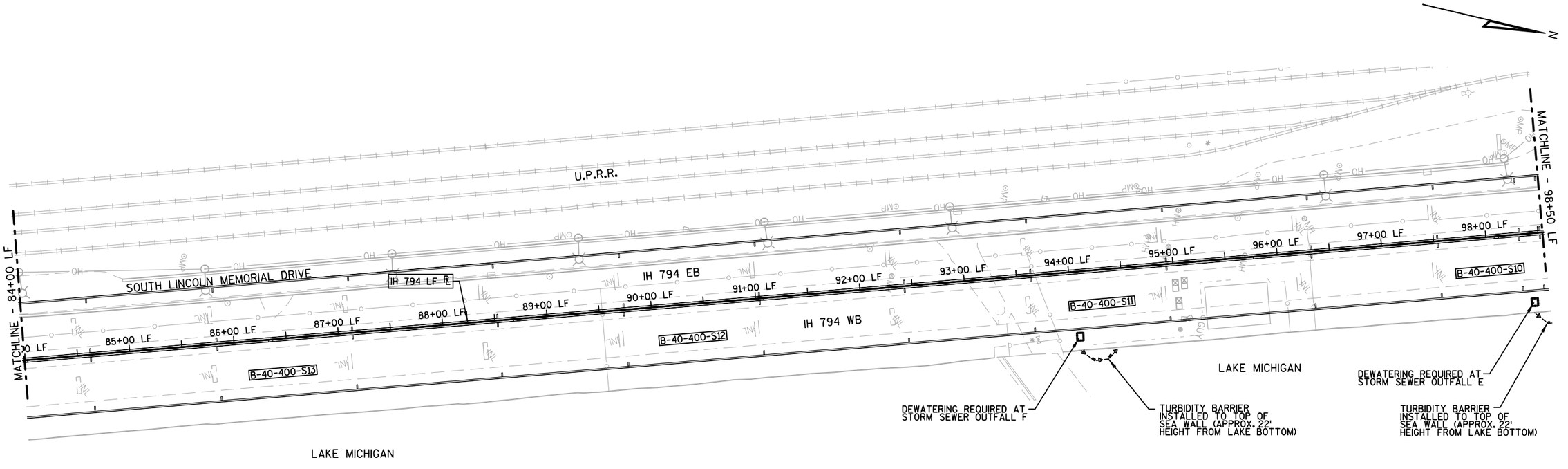
LEGEND

(TYPE) INLET PROTECTION

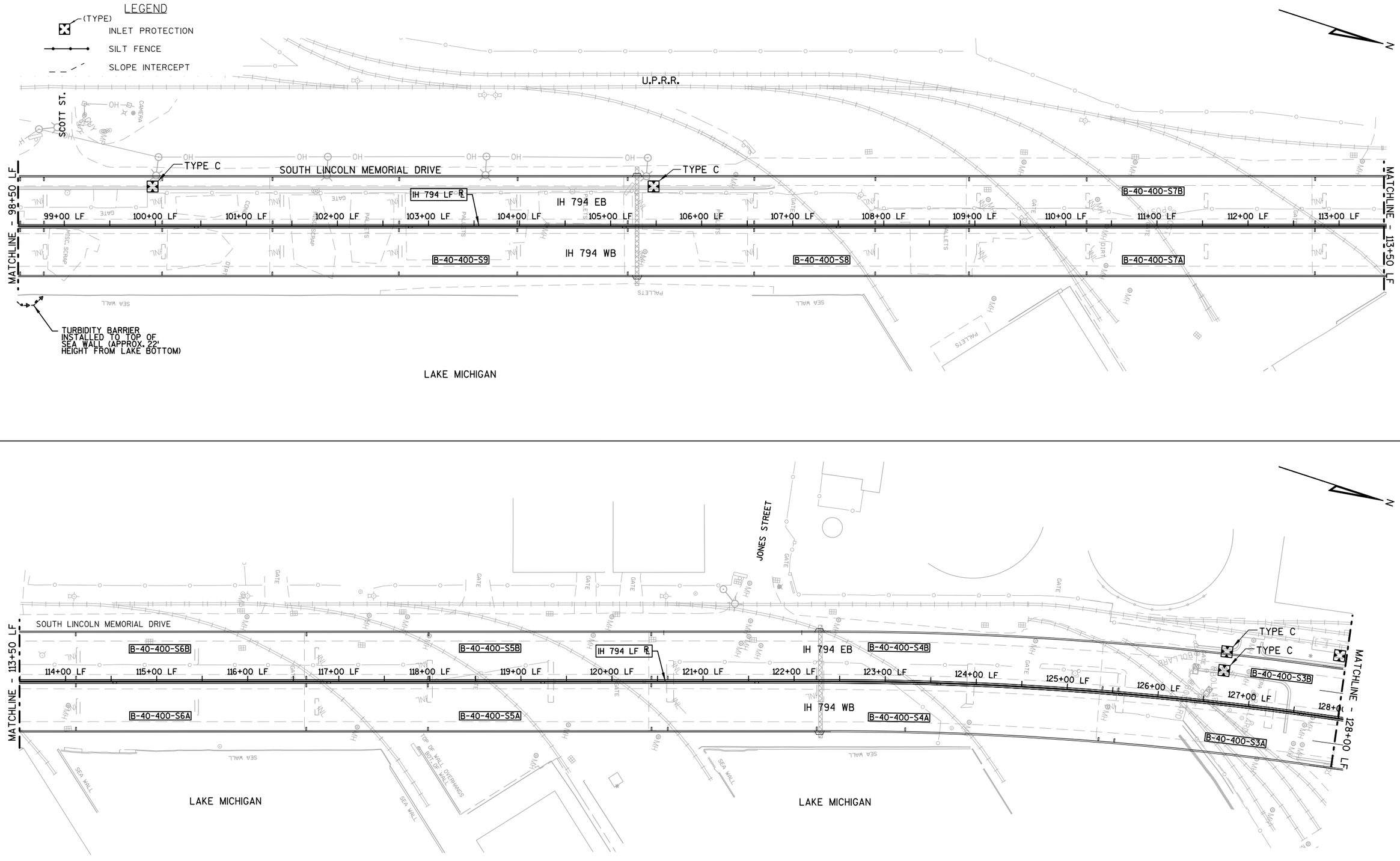
SILT FENCE

SLOPE INTERCEPT





PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 85	E

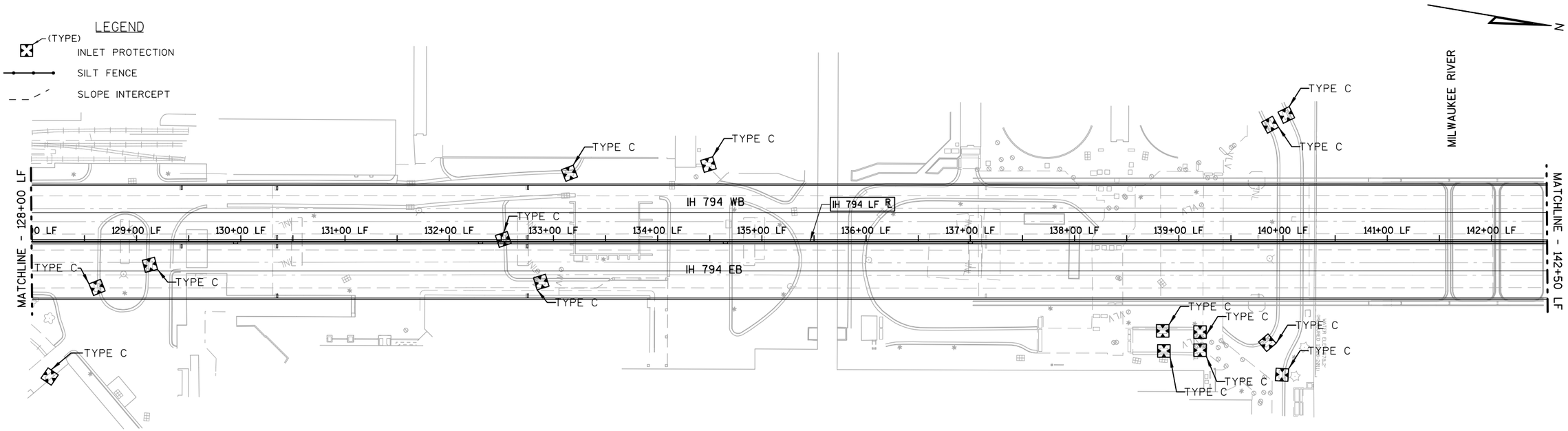

LEGEND
(TYPE) INLET PROTECTION
SILT FENCE
SLOPE INTERCEPT
N
U.P.R.R.
SCOTT ST.
SOUTH LINCOLN MEMORIAL DRIVE
TYPE C
TYPE C
IH 794 LF R
IH 794 EB
IH 794 WB
MATCHLINE - 98+50 LF
MATCHLINE - 113+50 LF
99+00 LF
100+00 LF
101+00 LF
102+00 LF
103+00 LF
104+00 LF
105+00 LF
106+00 LF
107+00 LF
108+00 LF
109+00 LF
110+00 LF
111+00 LF
112+00 LF
113+00 LF
B-40-400-S7B
B-40-400-S7A
B-40-400-S8
B-40-400-S9
TURBIDITY BARRIER INSTALLED TO TOP OF SEA WALL (APPROX. 22' HEIGHT FROM LAKE BOTTOM)
LAKE MICHIGAN
JONES STREET
MATCHLINE - 113+50 LF
MATCHLINE - 128+00 LF
114+00 LF
115+00 LF
116+00 LF
117+00 LF
118+00 LF
119+00 LF
120+00 LF
121+00 LF
122+00 LF
123+00 LF
124+00 LF
125+00 LF
126+00 LF
127+00 LF
B-40-400-S6B
B-40-400-S6A
B-40-400-S5B
B-40-400-S5A
B-40-400-S4B
B-40-400-S4A
B-40-400-S3B
B-40-400-S3A
TOP OF WALL OVERHANGS BOTTOM OF WALL
SEA WALL
PALLETS
GATE
HWY

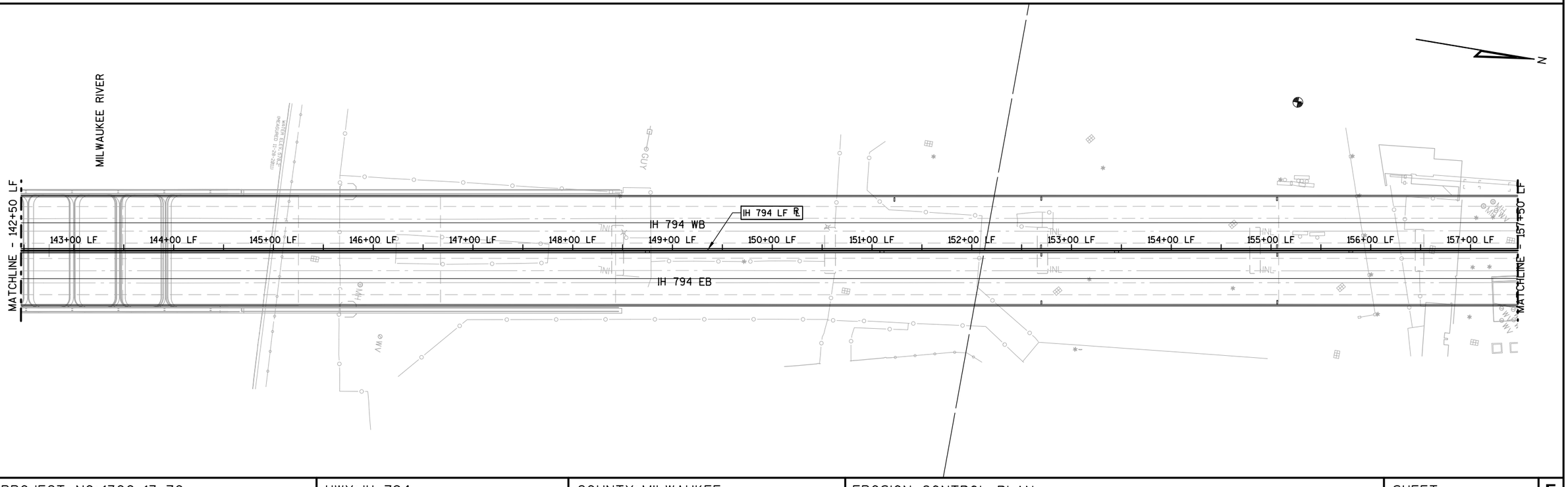
LEGEND

(TYPE) INLET PROTECTION

SILT FENCE

SLOPE INTERCEPT





PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 87	E

FILE NAME : IP_PWP:d0231471\022054_ec.dgn PLOT DATE : 29-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000102:1.000000

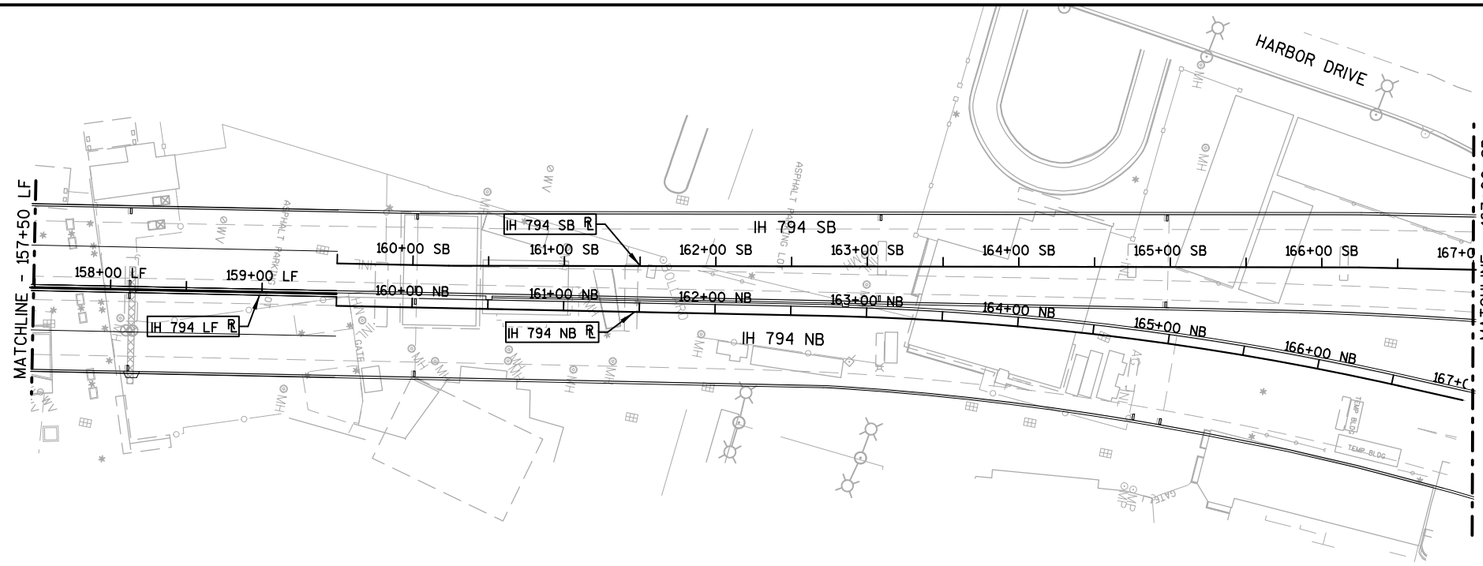
2

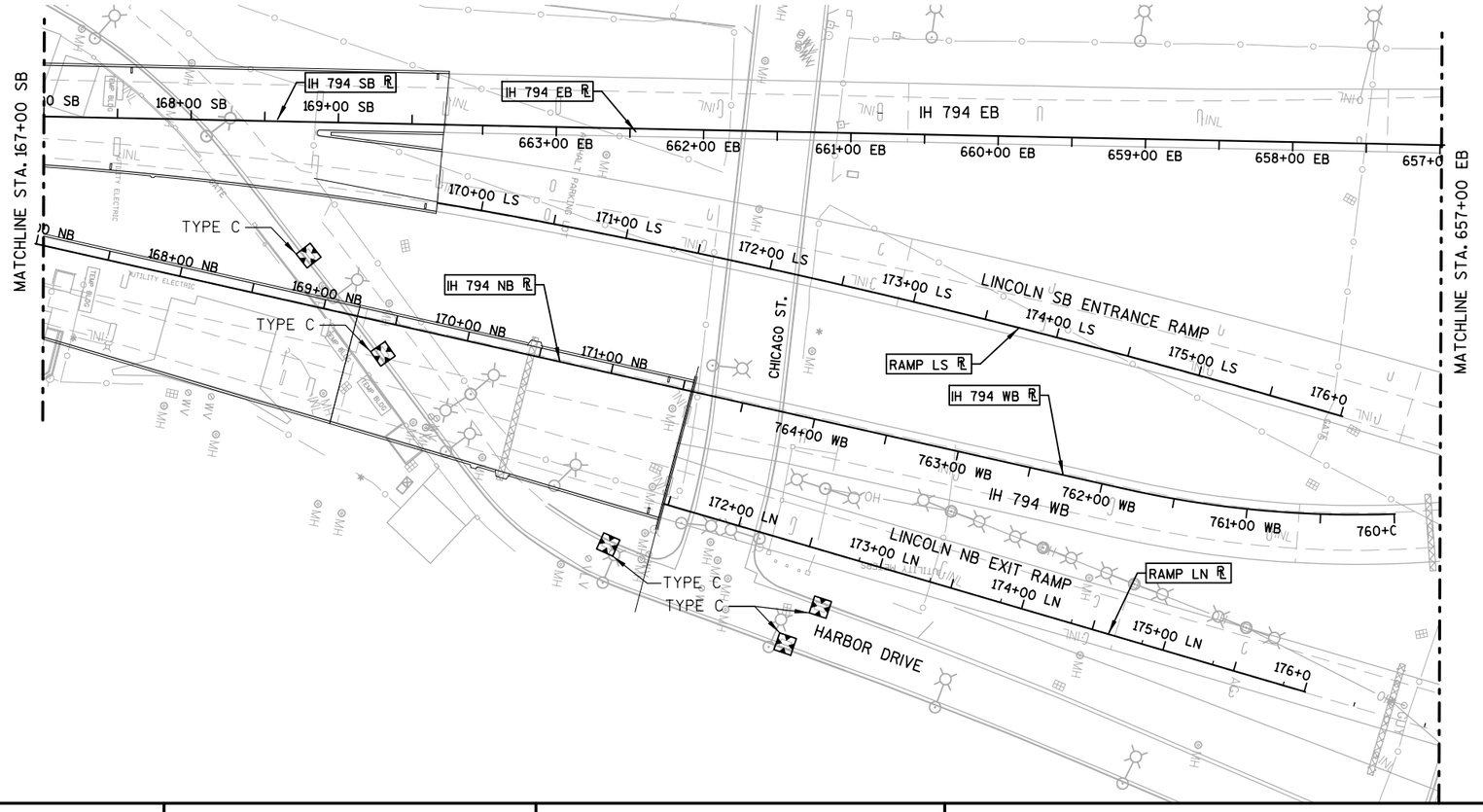
LEGEND

(TYPE) INLET PROTECTION

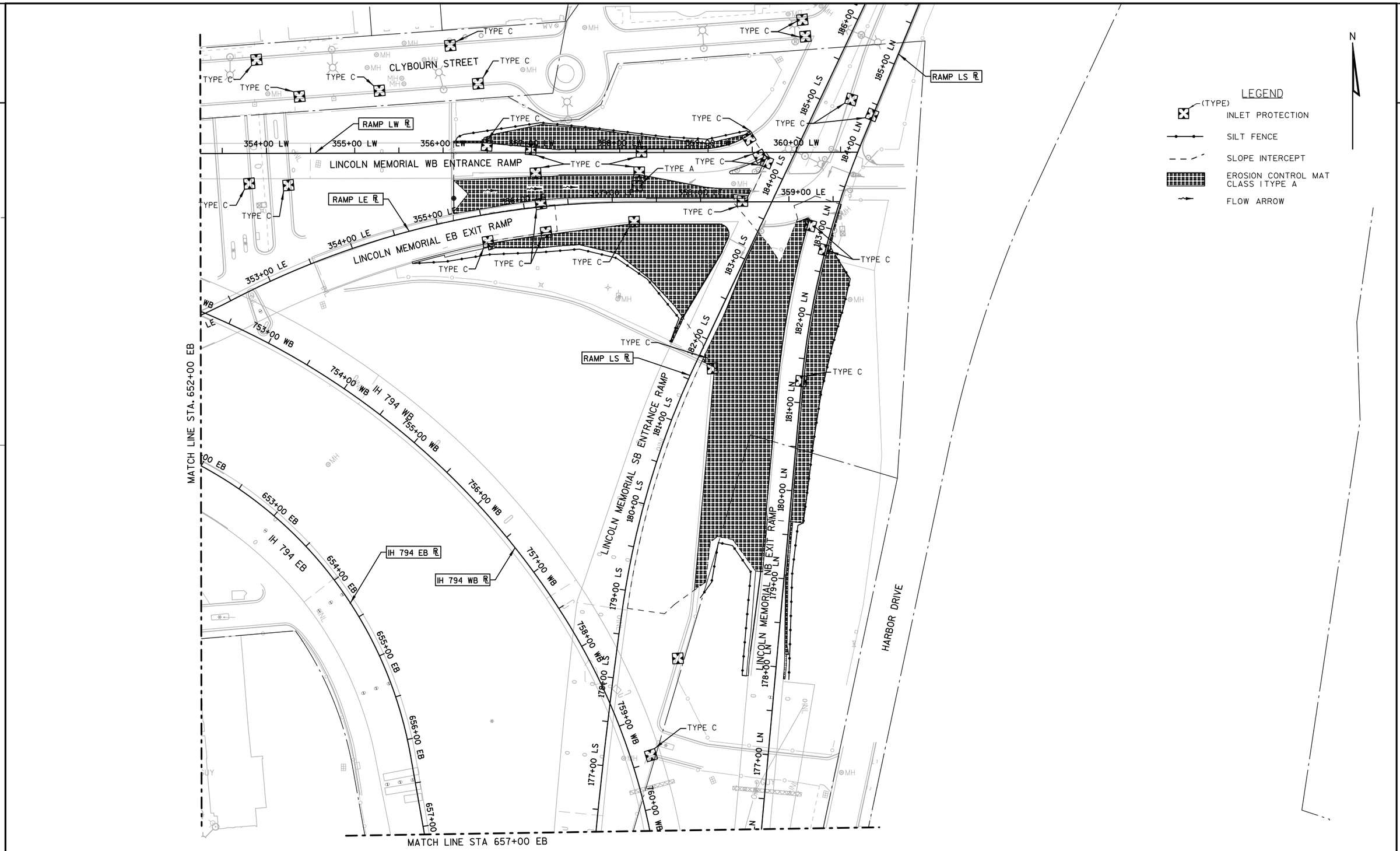
SILT FENCE

SLOPE INTERCEPT





PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 88	E



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 89	E

2

LEGEND

(TYPE) INLET PROTECTION

SILT FENCE

SLOPE INTERCEPT

N

CLYBOURN STREET

ST. PAUL AVENUE

WATER STREET

BROADWAY

MILWAUKEE STREET

MILWAUKEE RIVER

TURBIDITY BARRIER INSTALLED TO TOP OF DOCK WALL (APPROX. 10-FT HEIGHT FROM RIVER BOTTOM)

DEWATERING REQUIRED AT OUTFALL TO MILWAUKEE RIVER

IH 794 WB R

IH 794 EB R

RAMP MW R

RAMP JW R

RAMP JE R

RAMP BE R

TYPE C

MATCHLINE - 643+50 EB

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 90	E

FILE NAME : IP_PWP:d0231471\022057_ec.dgn PLOT DATE : 29-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000 WISDOT/CADDS SHEET 42

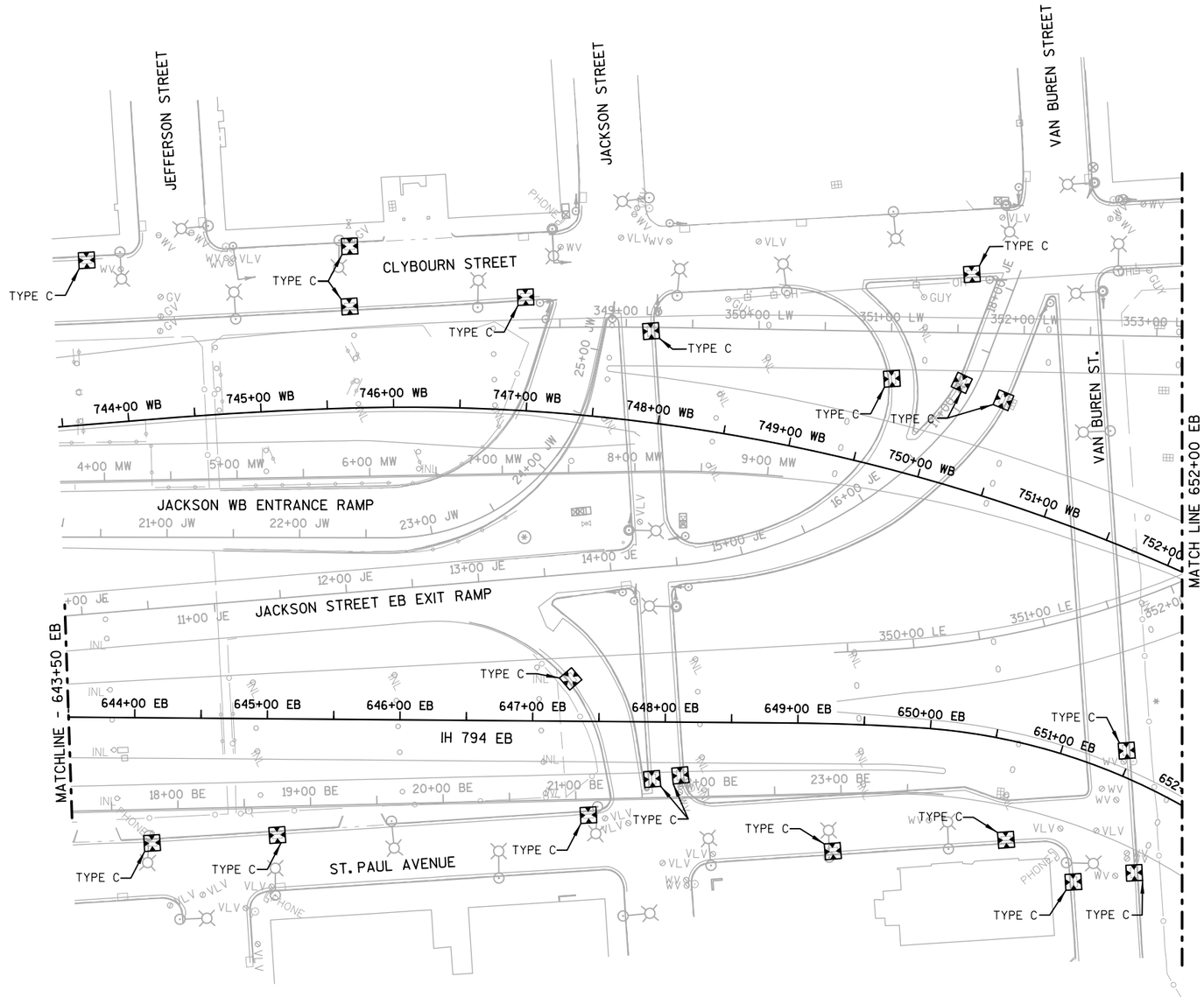
2

LEGEND

(TYPE) INLET PROTECTION

SILT FENCE

SLOPE INTERCEPT



N

2

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 91	E

FILE NAME : IP_PWP:d0231471\022058_ec.dgn PLOT DATE : 29-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000

WISDOT/CADDS SHEET 42

LEGEND

(TYPE) INLET PROTECTION

SILT FENCE

SLOPE INTERCEPT

* INSTALL TYPE A PROTECTION PRIOR TO RESURFACING AND TYPE C PROTECTION AFTER SURFACE HAS BEEN STABILIZED.

N

WATER STREET

CITY OF MILWAUKEE BES TRAFFIC

TYPE A
TYPE C*

TYPE A
TYPE C*

IH 794 EB

CLYBOURN STREET

WE ENERGIES ELECTRIC

ST. PAUL AVENUE

MILWAUKEE WATER MAIN

WE ENERGIES GAS

AT&T FIBER OPTIC

COMBINED SEWER

SANITARY SEWER

TYPE C

TYPE C

TYPE A
TYPE C*

IH 794 WB

TIME WARNER CABLE

TYPE C

BROADWAY

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 92	E

FILE NAME : IP_PWP:d0231471\022059_ec.dgn PLOT DATE : 29-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

LEGEND

(TYPE) INLET PROTECTION

SILT FENCE

SLOPE INTERCEPT

* INSTALL TYPE A PROTECTION PRIOR TO RESURFACING AND TYPE C PROTECTION AFTER SURFACE HAS BEEN STABILIZED.

N

BROADWAY

IH 794 EB

BROADWAY EB ENTRANCE RAMP

IH 794 WB

MILWAUKEE STREET

ST. PAUL AVENUE

CLYBOURN STREET

TYPE A
TYPE C*

STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH

EXISTING PIERS

TYPE C

COMBINED SEWER

WE ENERGIES ELECTRIC

MILWAUKEE WATER MAIN

SANITARY SEWER

WE ENERGIES GAS

WE ENERGIES STEAM

AT&T FIBER OPTIC

TIME WARNER CABLE

CITY OF MILWAUKEE BES TRAFFIC

TELEPHONE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 93	E

LEGEND

(TYPE) INLET PROTECTION

SILT FENCE

SLOPE INTERCEPT

* INSTALL TYPE A PROTECTION PRIOR TO RESURFACING AND TYPE C PROTECTION AFTER SURFACE HAS BEEN STABILIZED.

IH 794 WB

WE ENERGIES ELECTRIC

MILWAUKEE STREET WB EXIT RAMP

STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH

EXISTING PIERS

JACKSON STREET WB ENTRANCE RAMP

STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH

STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH

JACKSON STREET EB EXIT RAMP

MILWAUKEE STREET

IH 794 EB

MILWAUKEE WATER MAIN

EXISTING PIERS

BROADWAY EB ENTRANCE RAMP

TIME WARNER CABLE

TYPE A
TYPE C*

TYPE C

104+00

103+00

102+00

101+00

100+50

N

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 94	E

LEGEND

SOD LAWN

BROADWAY

200+00 +50 201+00 +50 202+00 +50 203+00 +50 204+00 +50 205+00

N

+59.4

+44.0

BROADWAY EB ENTRANCE RAMP

ST. PAUL AVENUE

CLYBOURN STREET

+76.3

+96.5

+68.5

+95.6

MILWAUKEE STREET

300+00 +50 301+00 +50 302+00 +50 303+00 +50 304+00 +50 305+00

NOTES

1. REMOVE EXISTING CRUSHED STONE AND PREPARE SOIL FOUNDATION FOR INSTALLATION OF SOD. COST IS INCIDENTAL TO SOD INSTALLATION.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	SITE RESTORATION PLAN - BROADWAY-MILWAUKEE STREET	SHEET 95	E

LEGEND

SOD LAWN

HARDWOOD BARK MULCH

NOTES

1. REMOVE EXISTING CRUSHED STONE AND PREPARE SOIL FOUNDATION FOR INSTALLATION OF SOD LAWN. COST IS INCIDENTAL TO SOD LANW INSTALLATION.

MILWAUKEE STREET

ST. PAUL AVENUE

JEFFERSON STREET

JACKSON STREET WB ENTRANCE RAMP

MILWAUKEE STREET WB EXIT RAMP

CLYBOURN STREET

APPROX. 5'

APPROX. 5'

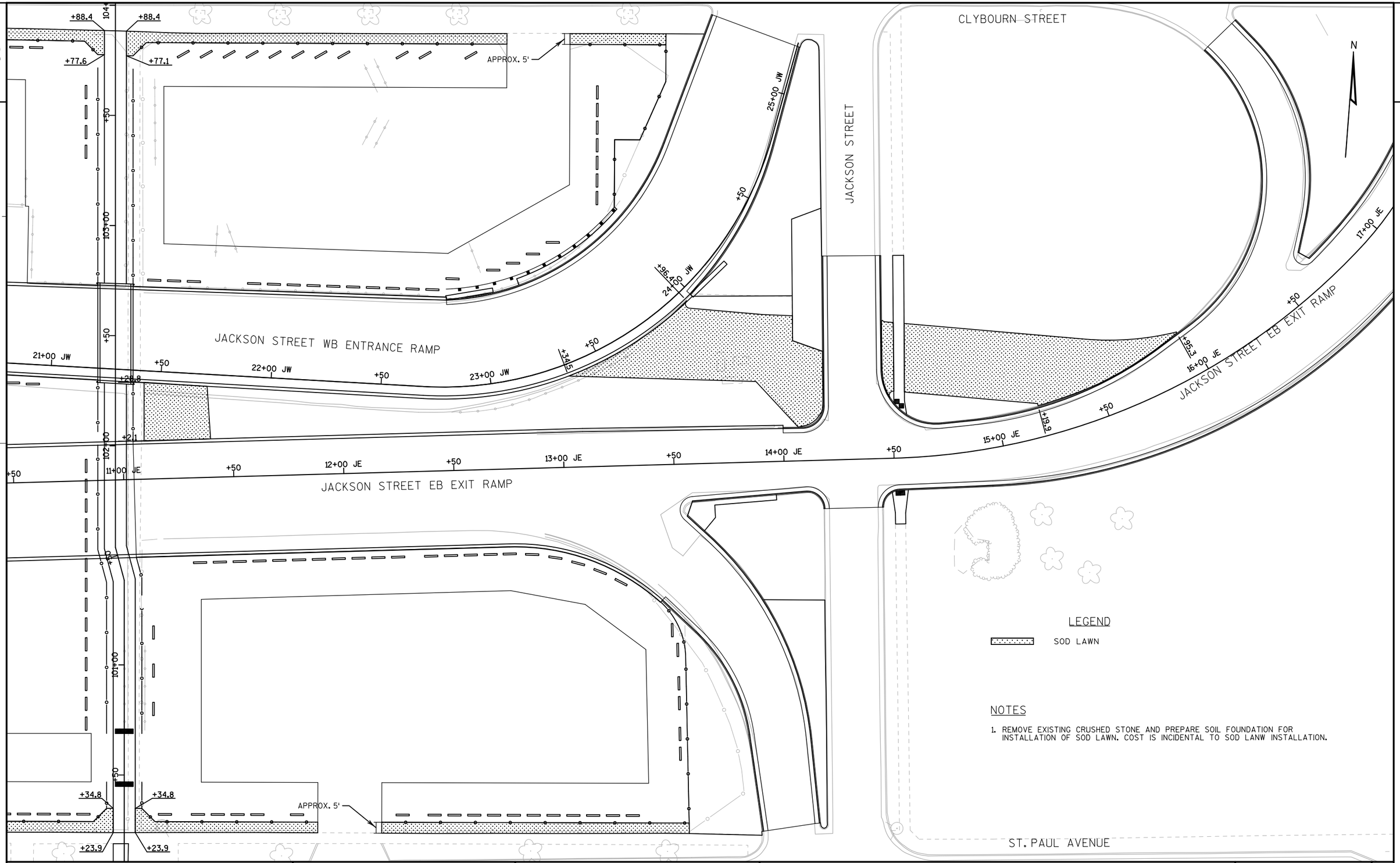
+85.2 +15.2 +29.0 +49.0 +90.1 +57.1 +39.8

301+00 +50 302+00 +50 303+00 +50 304+00 +50 305+00 +50

1+00 MW 2+00 MW 3+00 MW 4+00 MW 5+00 MW +50

N

PROJECT NO:1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	SITE RESTORATION PLAN - MILWAUKEE STREET-PEDESTRIAN WALKWAY	SHEET 96 E



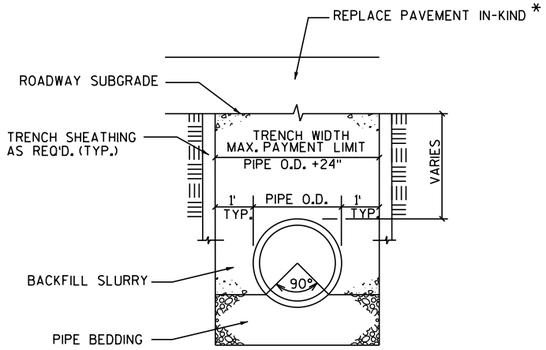
LEGEND

SOD LAWN

NOTES

1. REMOVE EXISTING CRUSHED STONE AND PREPARE SOIL FOUNDATION FOR INSTALLATION OF SOD LAWN. COST IS INCIDENTAL TO SOD LANW INSTALLATION.

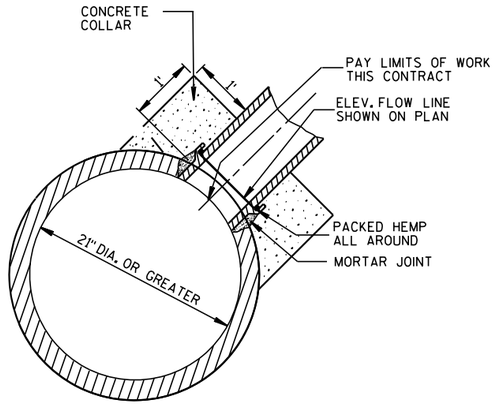
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	SITE RESTORATION PLAN - PEDESTRIAN WALKWAY-JACKSON STREET	SHEET 97	E



BACKFILL SLURRY FOR STORM SEWER/CULVERTS

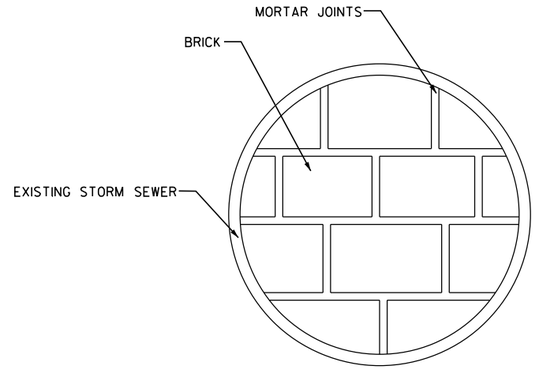
(REQUIRED BENEATH PAVED ROAD SURFACES ONLY)

* PAVEMENT SECTIONS WITH ASPHALT PAVEMENTOVER GRANITE BLOCK SHALL BE PREPARED WITH11" BASE PATCHING CONCRETE SHES. OVER 6" BASE AGGREGATE DENSE. 1¼"



DETAIL OF CONNECTION TO STORM SEWER

NOTE: CONTRACT UNIT PRICE FOR PIPE SHALL INCLUDE COST OF CONNECTION TO EXISTING STORM SEWER OR M.H.



SEALING EXISTING PIPE DETAIL

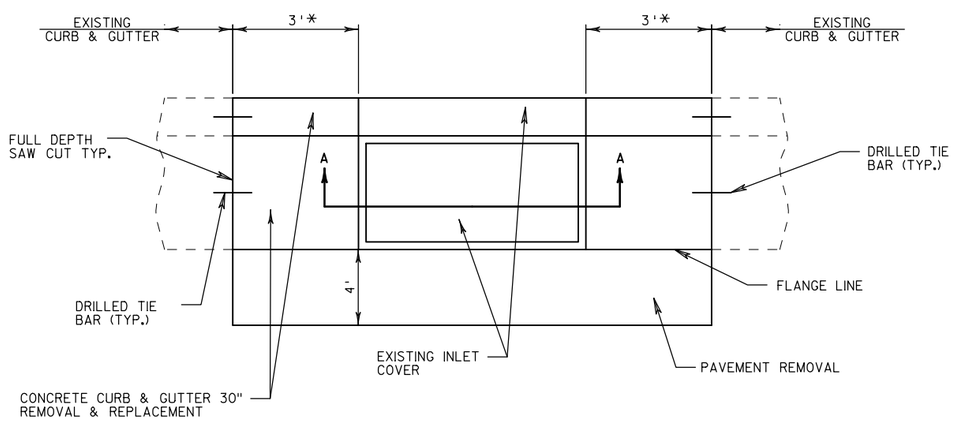
N.T.S.

2

RUNOFF COEFFICIENT TABLE

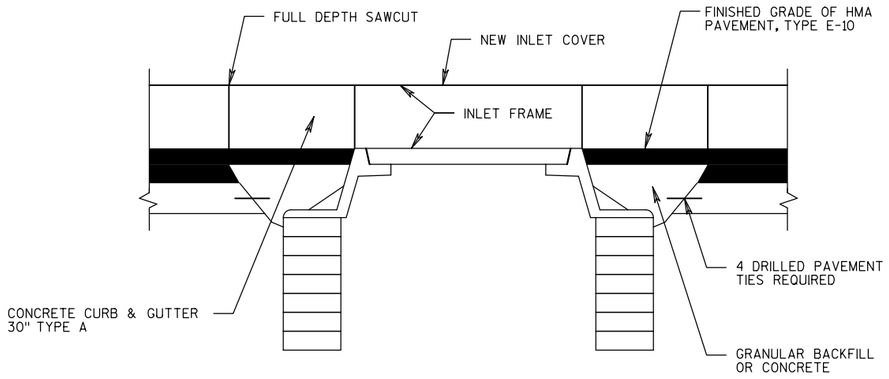
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.90											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 96.50 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 7.43 ACRES



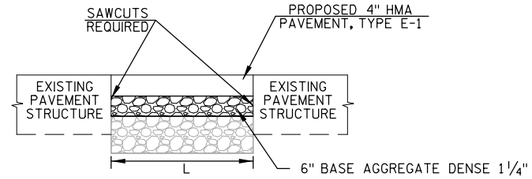
PLAN VIEW

* REMOVE 3'CURB & GUTTER MIN.
OR TO THE NEAREST JOINT (6'MAX.)
UNLESS OTHERWISE DIRECTED



SECTION A-A

ADJUSTING/RECONSTRUCTING INLET DETAIL

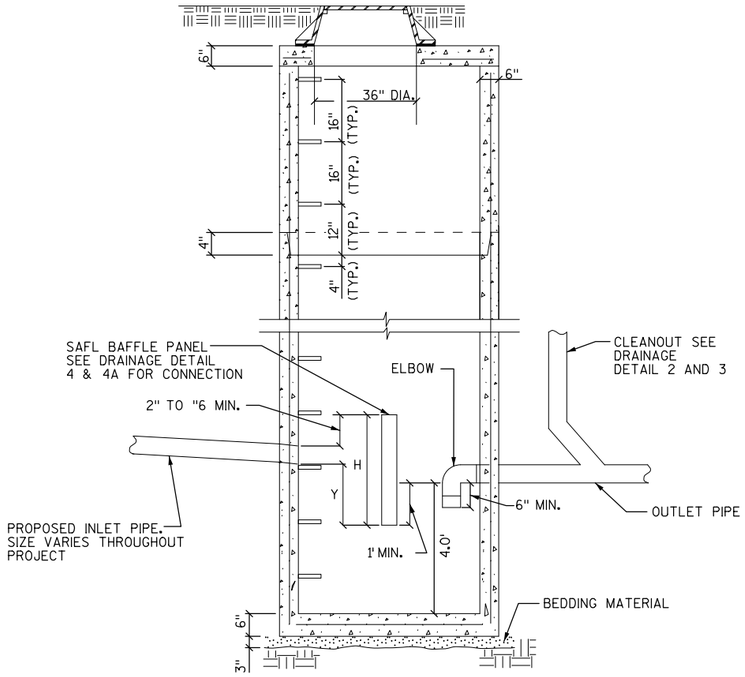


L = LENGTH TO BE DETERMINED
BY THE ENGINEER.
MINIMUM L = 6 FT.

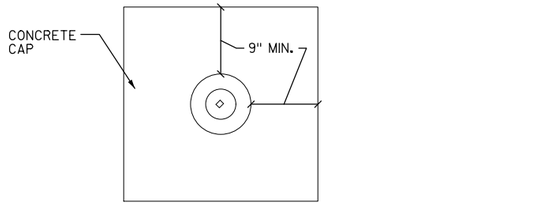
VARIOUS LOCATIONS

GENERAL DRAINAGE STRUCTURE NOTES:

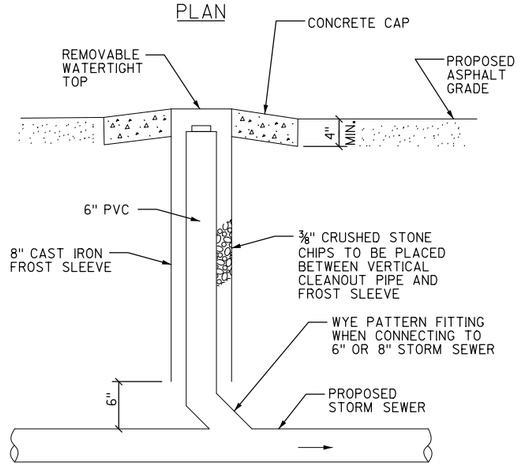
1. LOCATIONS OF STRUCTURES IN THE DRAINAGE TABLE REFER TO CENTERLINE OF STRUCTURE.
2. GRATE ELEVATIONS ARE GIVEN AT FLANGE LINE OF INLET COVER.
3. WHEN NEW COVERS ARE PLACED, THE FIRST 6" OF ADJUSTMENT OR REPAIRING SHALL BE INCIDENTAL TO THE COST OF THE NEW COVER. ANY ADJUSTMENT OR REPAIR OF BRICKWORK BETWEEN 6" AND 12" WILL BE PAID AS ADJUSTING COVERS. REPAIRS GREATER THAN 12" WILL BE PAID AS RECONSTRUCTING INLETS OR MANHOLES.
4. WHEN A NEW INLET COVER IS SPECIFIED, BOTH THE FRAME AND GRATE ARE INCLUDED.
5. THE CURB BOX OPENING SHALL BE SEALED BEFORE POURING CONCRETE CURB TO PREVENT CONCRETE FROM ENTERING STRUCTURE.
6. SAWING OF EXISTING CURB AND GUTTER AND PAVEMENT SHALL BE PAID FOR AS "SAWING CONCRETE".



1 CATCH BASIN 4-FT DIA. MODIFIED "MOD"
N.T.S.

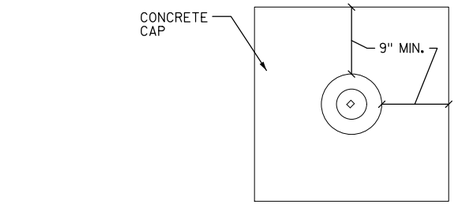


PLAN

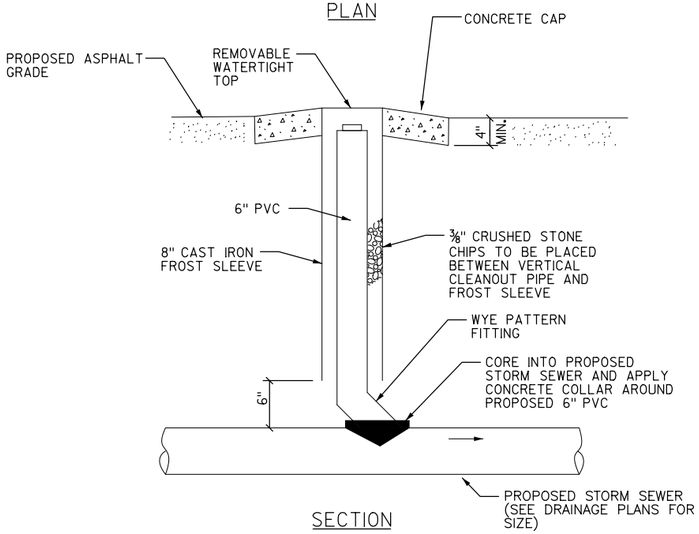


SECTION

2 CLEANOUT DETAIL
N.T.S.

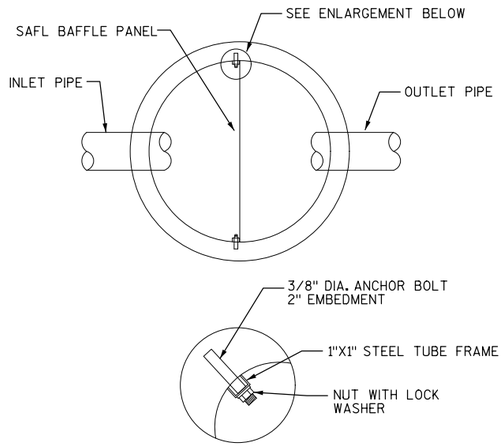


PLAN



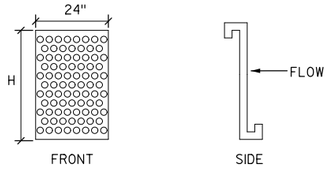
SECTION

3 CORE CONNECTION CLEANOUT DETAIL
N.T.S.



4A SAFL BAFFLE PANEL CONNECTION
N.T.S.

INCOMING PIPE DIA. (IN.)	H (IN.)	y (IN.)
8	34	12
12	34	12
15	34	12
18	34	12
21	44	12
24	44	12
27	44	12
30	54	12
36	54	12



4 SAFL BAFFLE PANEL
N.T.S.

GENERAL NOTES

-DETAILS NOT SHOWN SHALL CONFORM TO WISDOT STANDARDS CATCH BASINS 3-FT, 4-FT, 5-FT, AND 6-FT DIAMETER.

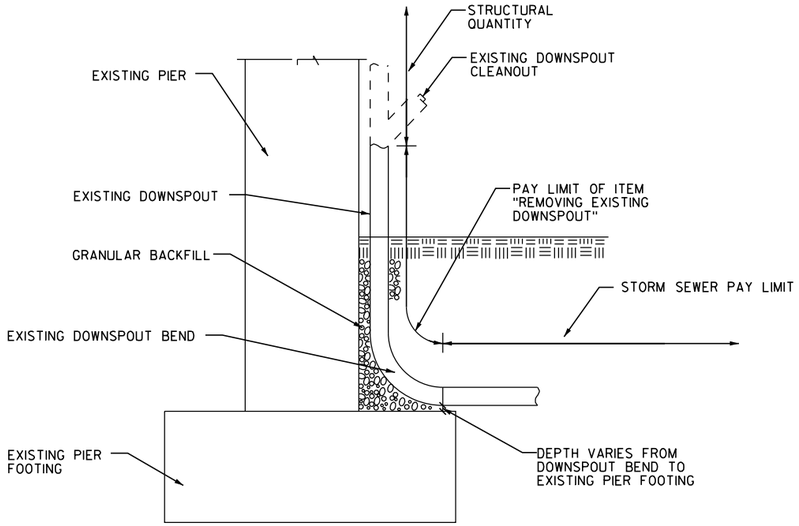
-FOR CLEANOUTS CONNECTING TO PROPOSED STORM SEWERS GREATER THAN 8", USE CONCRETE COLLAR.

-CATCH BASIN 4-FT DIA. "MOD" OUTLET ELBOW SHALL BE DUCTILE IRON PIPE MATERIAL. SIZE ELBOW TO FIT PROPOSED STORM SEWER OUTLET PIPE (SEE DRAINAGE PLANS FOR SIZES).

-IF THERE ARE TWO INCOMING PIPES TO CATCH BASIN 4-FT DIA. "MOD", POSITION SAFL BAFFLE PANEL IN FRONT OF BOTH IN COMING PIPES.

-MULTIPLE 24" SAFL BAFFLE PANEL PLATES WILL EXTEND ACROSS CATCH BASIN DIAMETER TO REACH FULL 4 FEET.

-USE 6-SAFL BAFFLE PANEL CONNECTION BOLTS ON EACH SIDE FOR CONNECTION.



(5) **REMOVING EXISTING DOWNSPOUT, FROM CLEANOUT TO BEND**

N.T.S.

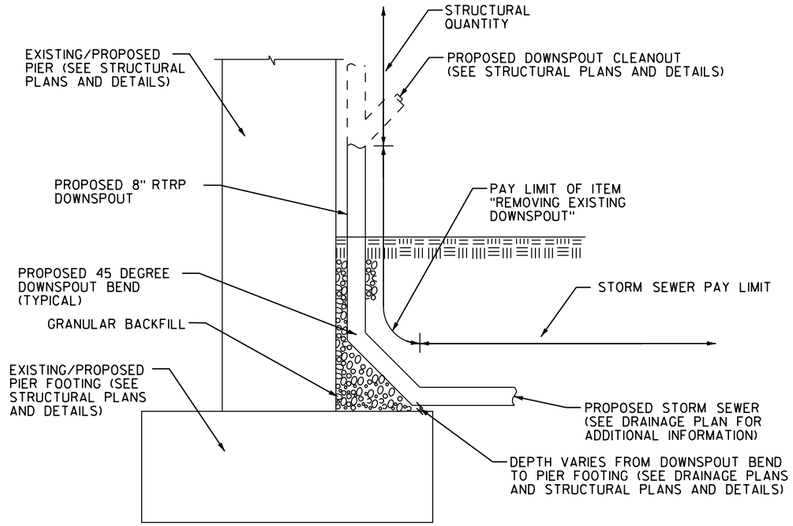
GENERAL NOTES

-POSITION DOWNSPOUTS WITHOUT DAMAGING PIER FOOTINGS. ADJUST DOWNSPOUTS AS NECESSARY TO REACH PROPOSED STORM SEWER PIPE.

-MAXIMUM DESIRABLE BEND SHALL BE 45 DEGREES. IF NECESSARY, 90 DEGREE BENDS CAN BE USED.

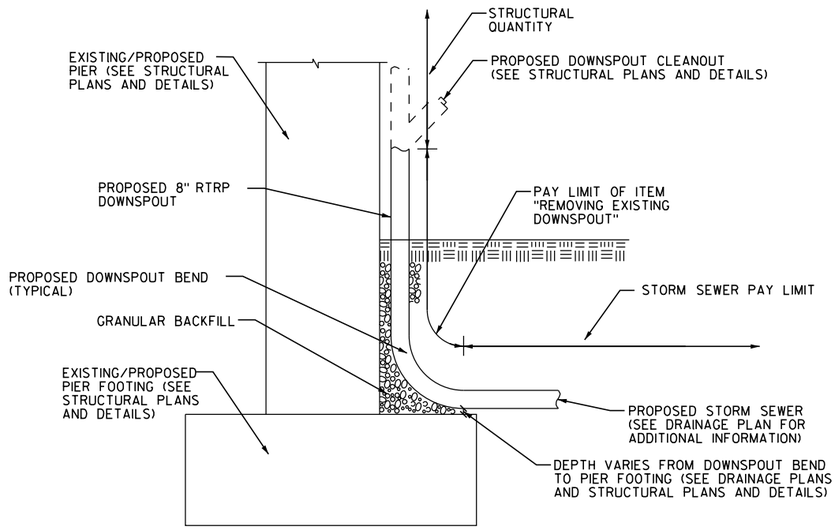
-DEPTHS VARY FROM EXISTING/PROPOSED GROUND ELEVATION TO EXISTING DOWNSPOUT BEND

-FOR ALL PIER AND FOOTING DEPTHS SEE STRUCTURAL PLANS AND DETAILS.



(6) **PROPOSED DOWNSPOUT CONNECTION, FROM CLEANOUT TO BEND**

N.T.S.



(7) **PROPOSED DOWNSPOUT CONNECTION, FROM CLEANOUT TO BEND**

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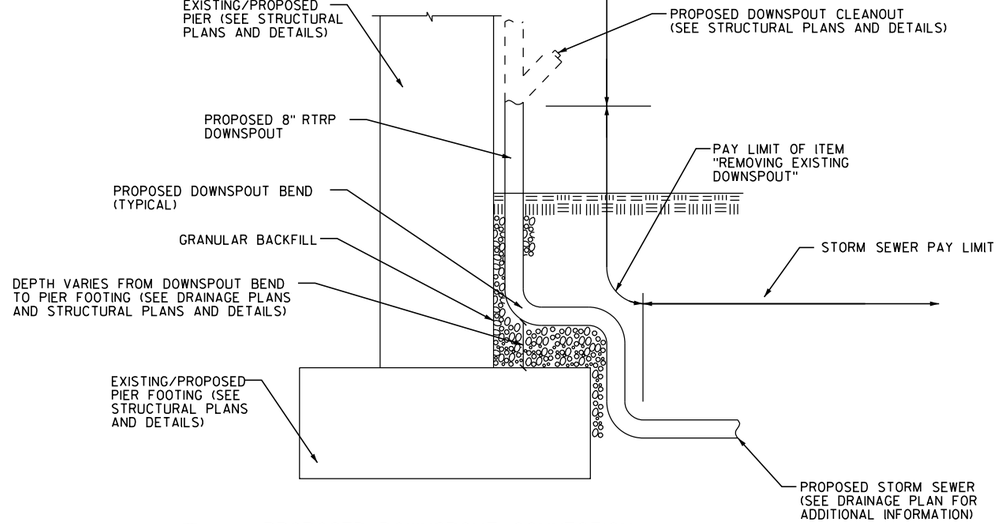
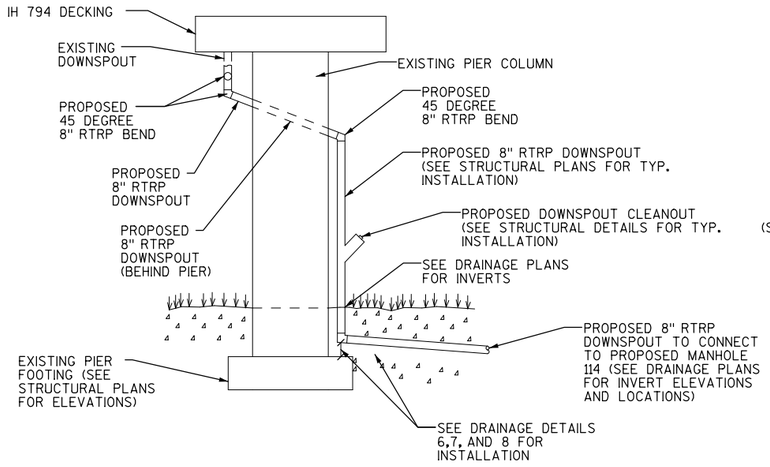


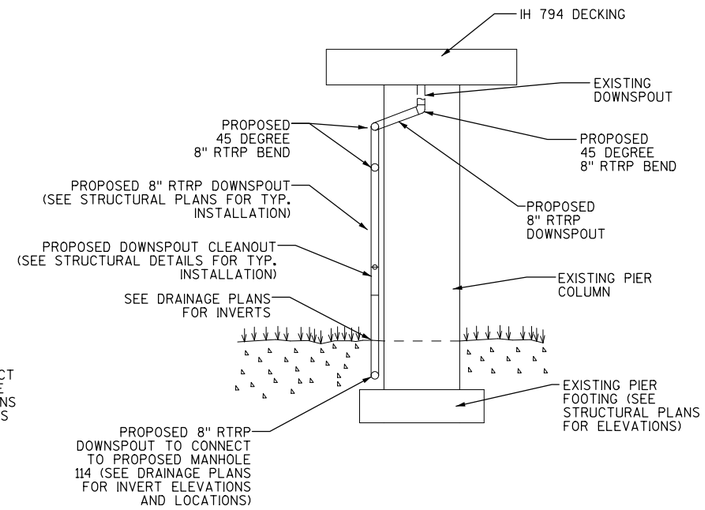
(8) **PROPOSED DOWNSPOUT CONNECTION, FROM CLEANOUT TO BEND**

N.T.S.



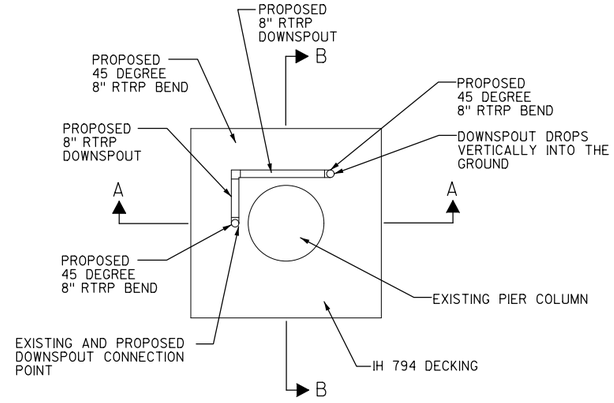
9 PROPOSED MANHOLE 114 DOWNSPOUT CONNECTION SECTION A-A

N.T.S.



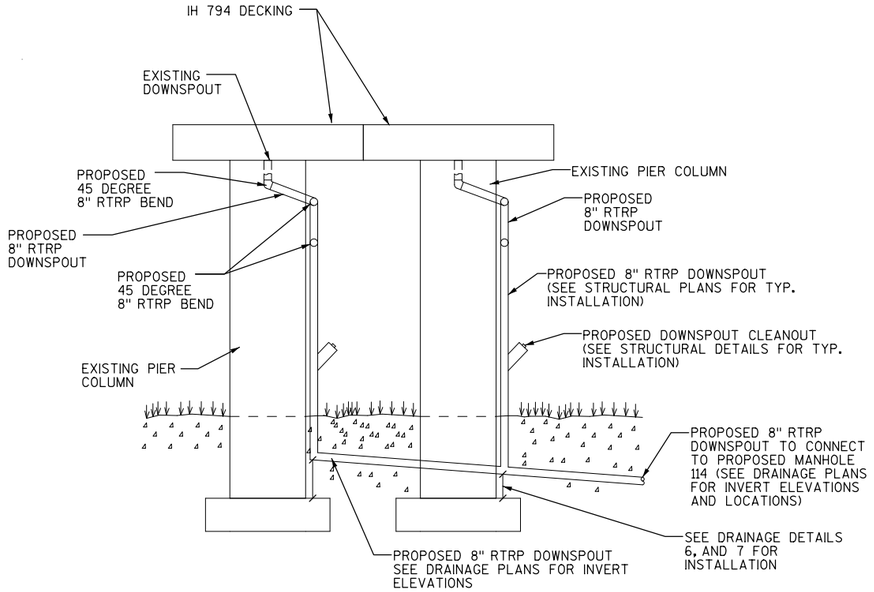
9 PROPOSED MANHOLE 114 DOWNSPOUT CONNECTION SECTION B-B

N.T.S.



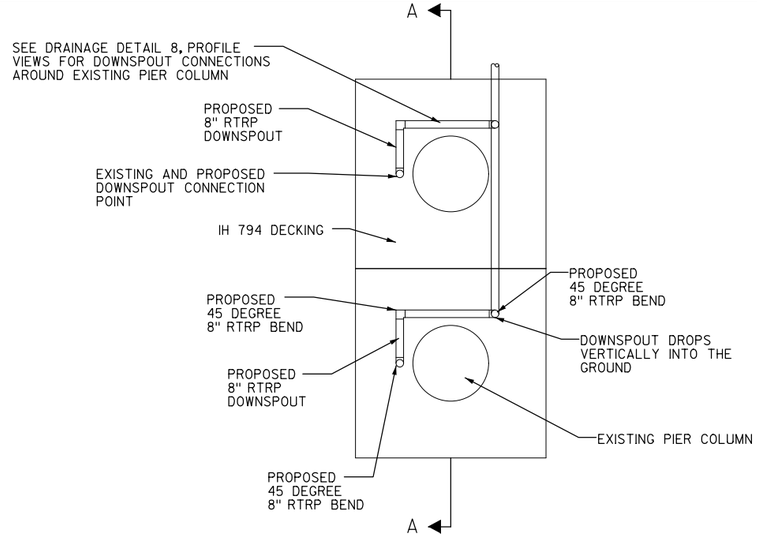
9 PROPOSED MANHOLE 114 DOWNSPOUT CONNECTION PLAN VIEW

N.T.S.



10 PROPOSED MANHOLE 114 DOWNSPOUT CONNECTION SECTION A-A

N.T.S.



10 PROPOSED MANHOLE 114 DOWNSPOUT CONNECTION PLAN VIEW

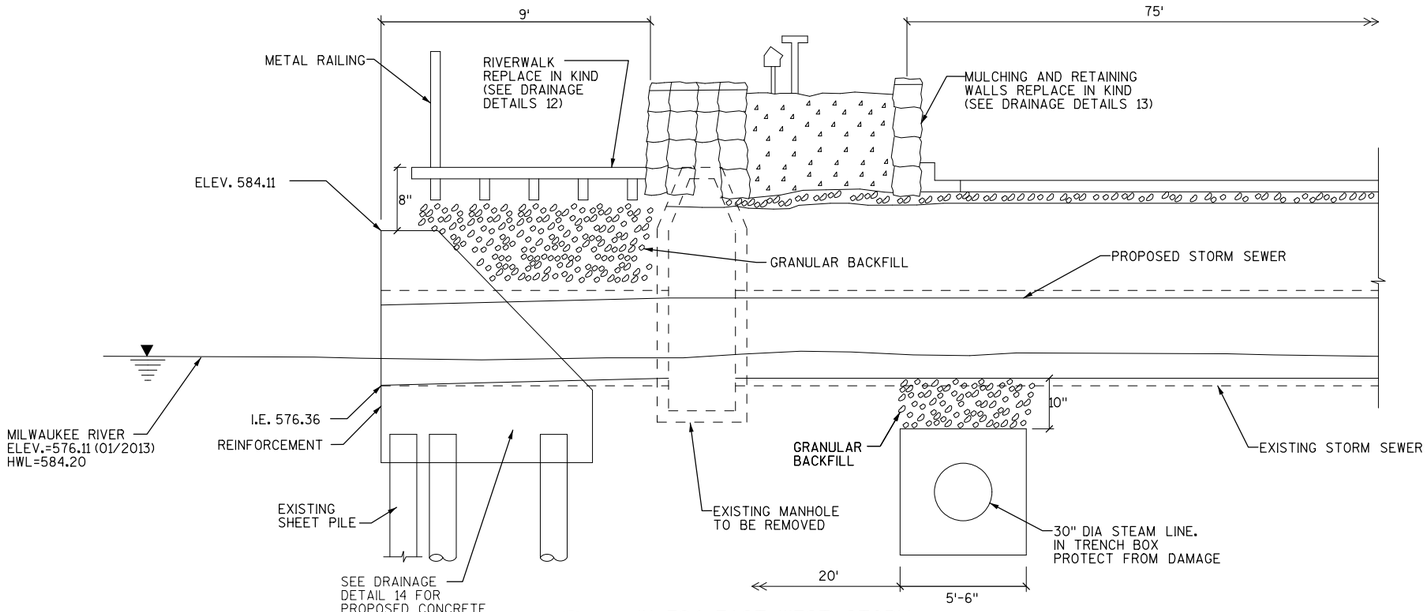
N.T.S.

GENERAL NOTES

-CONNECT EXISTING DOWNSPOUT TO PROPOSED DOWNSPOUT.

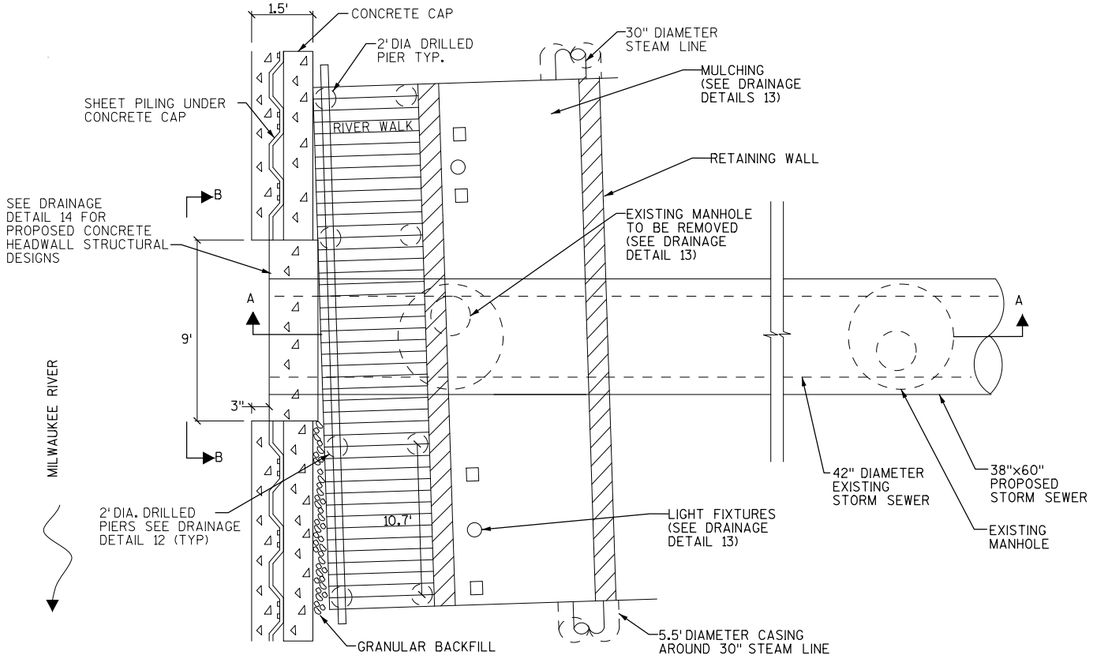
-IF EXISTING PIER FOOTING DEPTH DOES NOT ALLOW FOR INVERTS PROVIDED IN THE DRAINAGE PLANS, SEE DRAINAGE DETAIL 7.

-SEE DRAINAGE DETAILS 5, 6, AND 7 FOR PAYMENT LIMITS FOR REMOVAL AND INSTALLATION OF DOWNSPOUTS.



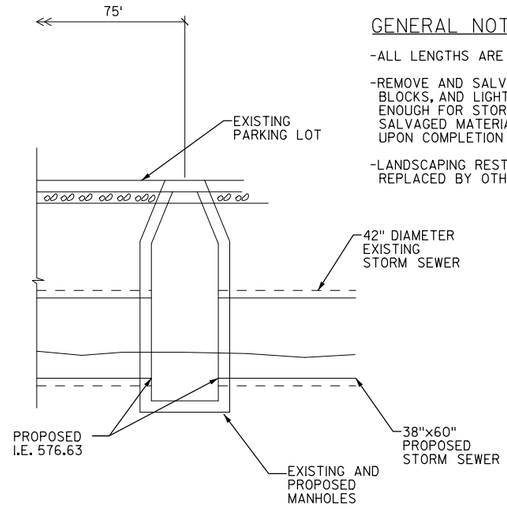
11 IH 794 EAST-WEST STORM SEWER OUTFALL-SECTION A-A

N.T.S.



11 IH 794 EAST-WEST STORM SEWER OUTFALL-PLAN VIEW

N.T.S.

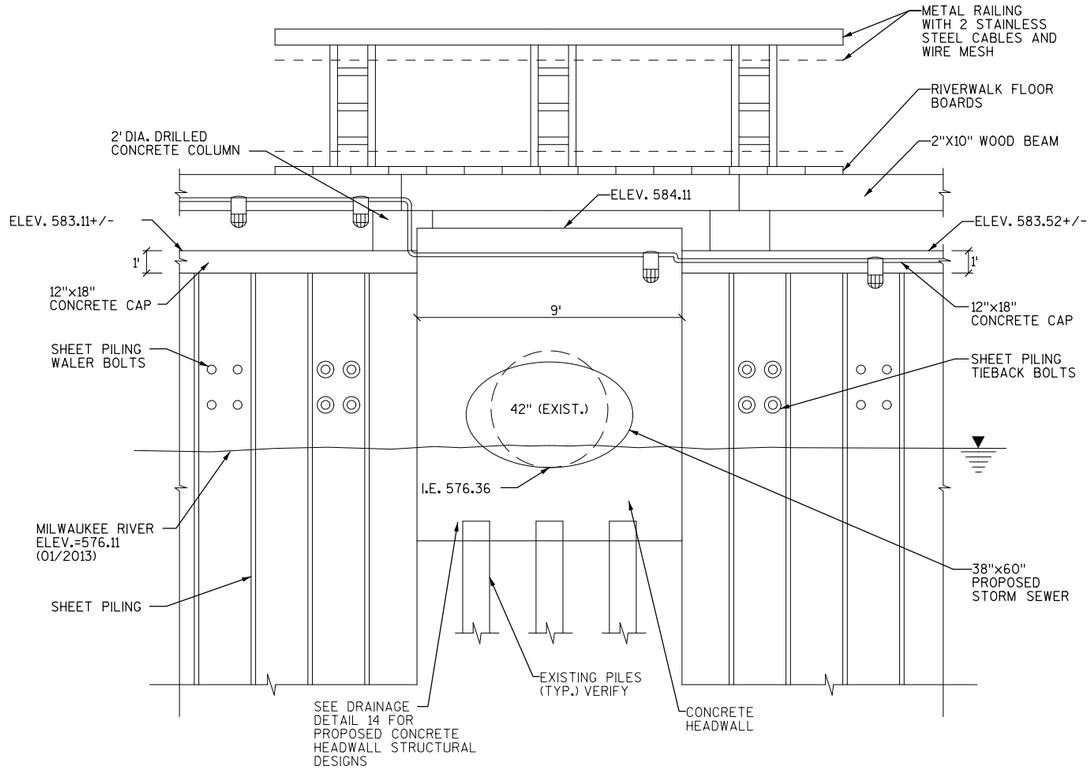


GENERAL NOTES

-ALL LENGTHS ARE APPROXIMATE

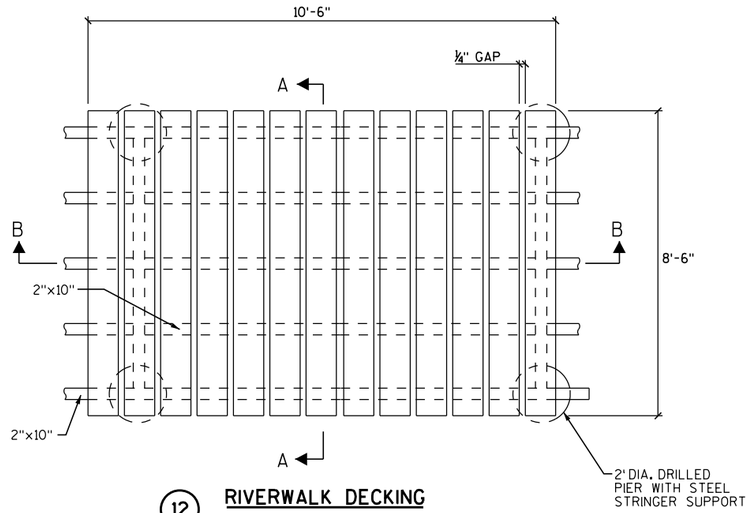
-REMOVE AND SALVAGE RIVERWALK MATERIALS, RETAINING BLOCKS, AND LIGHT FIXTURES UNTIL OPENING IS LARGE ENOUGH FOR STORM SEWER TRENCH. REASSEMBLE SALVAGED MATERIAL AND REPLACE MULCH IN KIND UPON COMPLETION OF STORM SEWER IMPROVMENTS.

-LANDSCAPING RESTORATION TO BE REPLACED BY OTHERS.



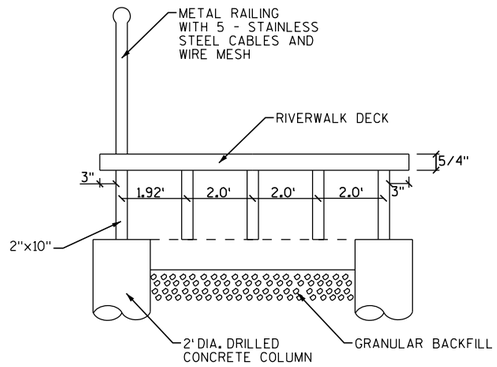
11 SECTION B-B

N.T.S.



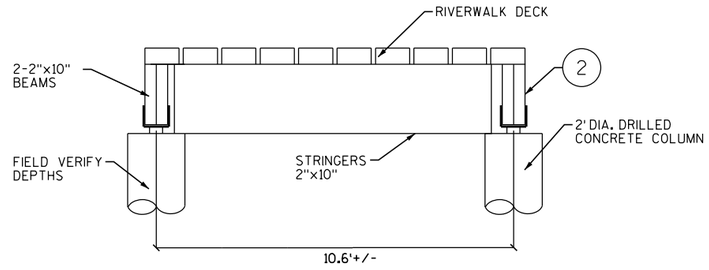
(12) **RIVERWALK DECKING PLAN VIEW**

N.T.S.



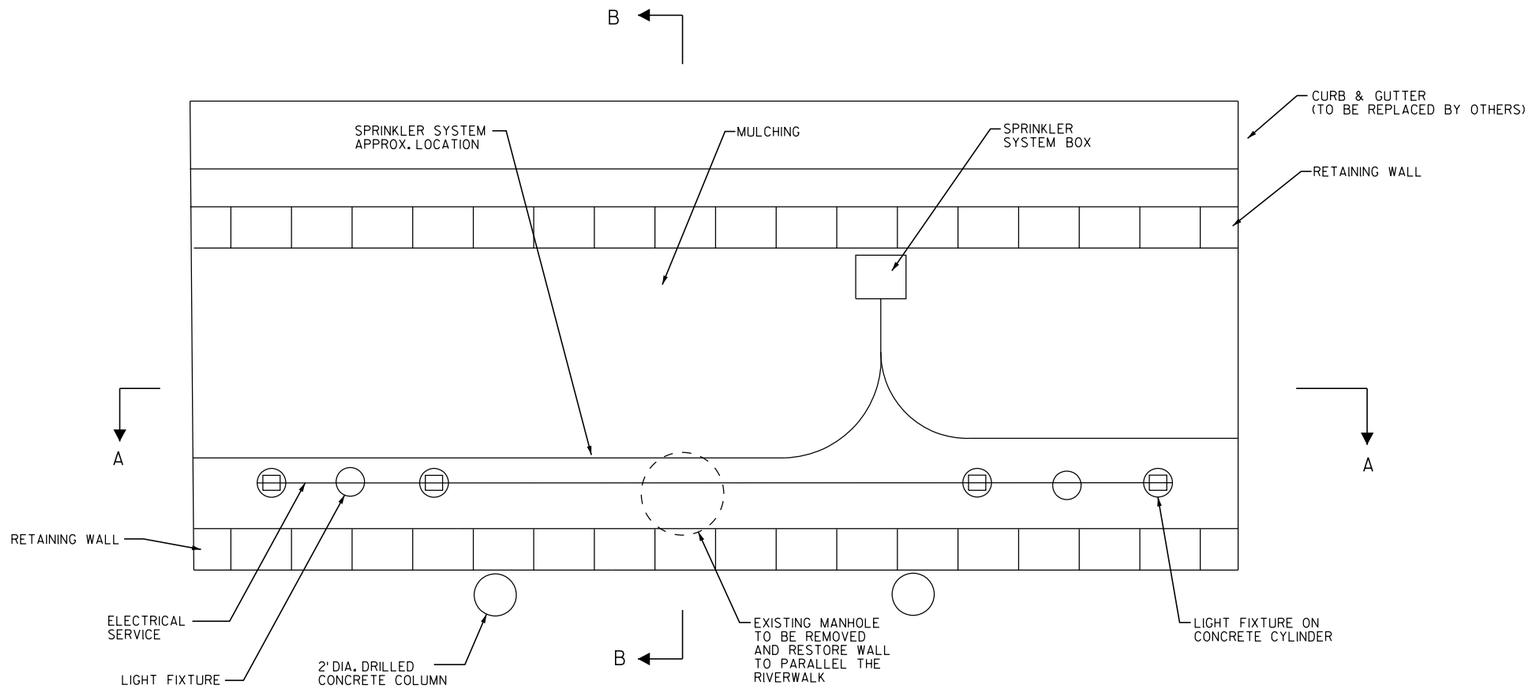
(12) **RIVERWALK DECKING SECTION A-A**

N.T.S.



(12) **RIVERWALK DECKING SECTION B-B**

N.T.S.

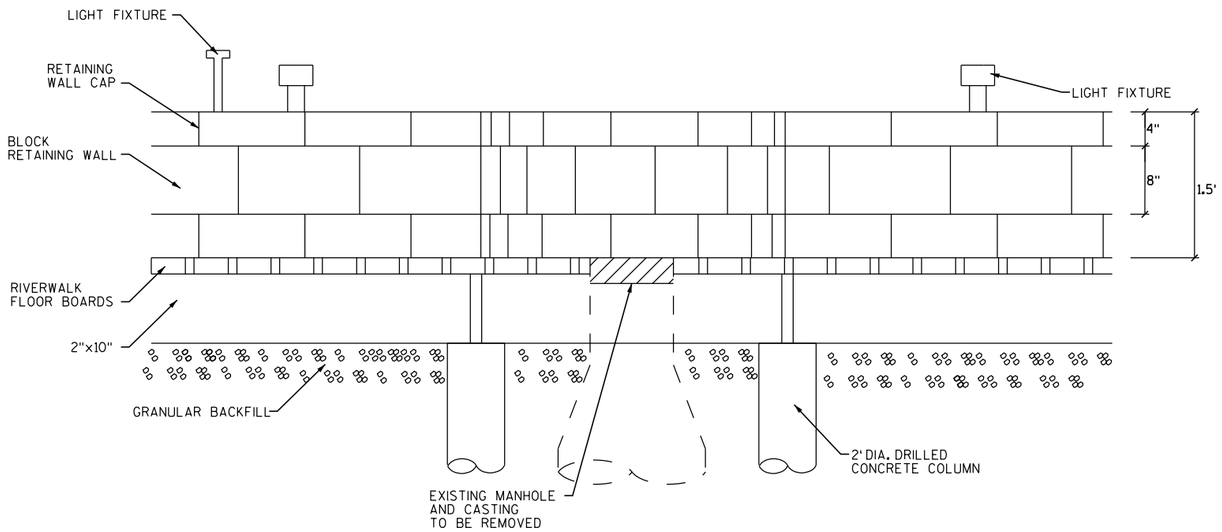


(13) **RIVERWALK LANDSCAPING**

N.T.S.

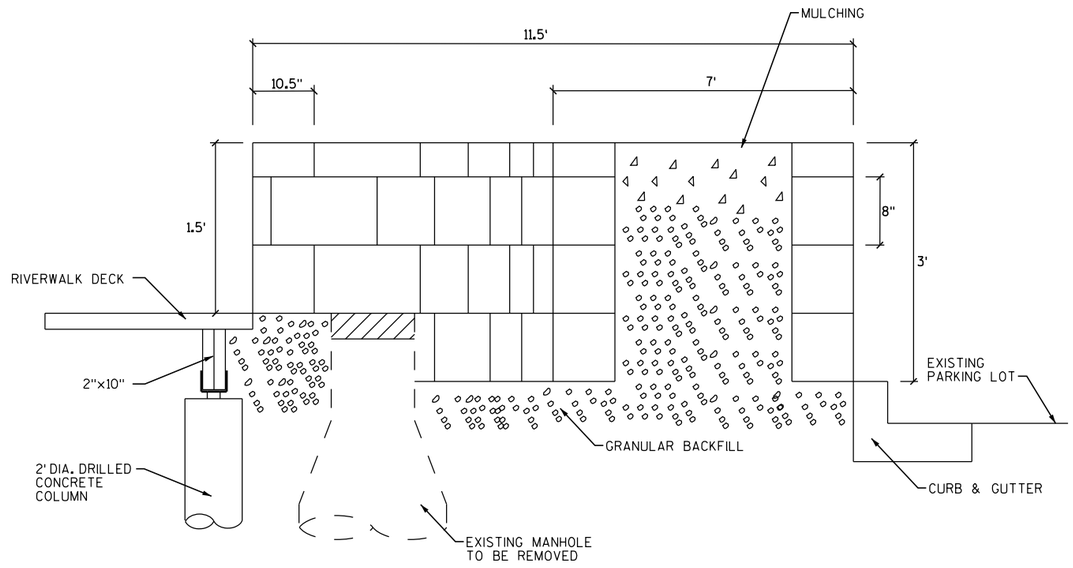
GENERAL NOTES

-LANDSCAPING RESTORATION TO BE REPLACED BY OTHERS.



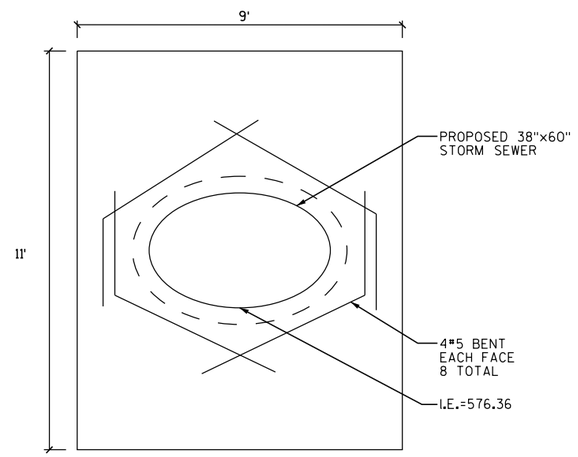
13 **RIVERWALK LANDSCAPING SECTION A-A**

N.T.S.



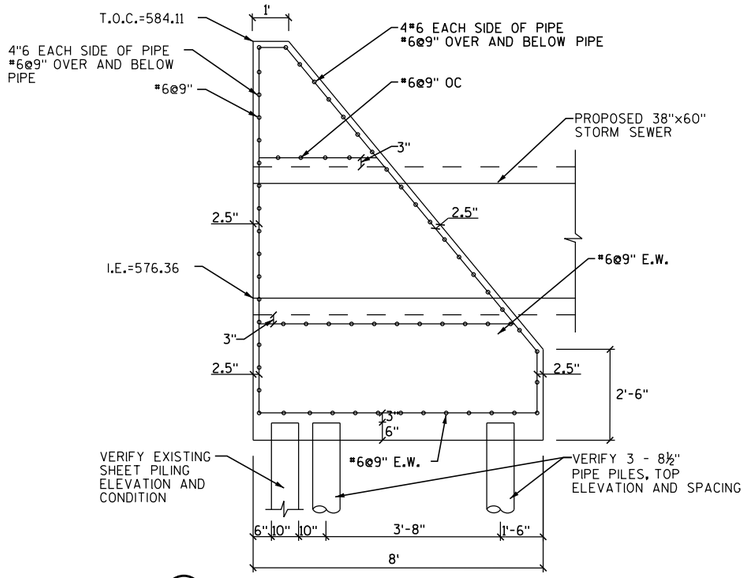
13 **RIVERWALK LANDSCAPING SECTION B-B**

N.T.S.



14 **PROPOSED CONCRETE HEADWALL**

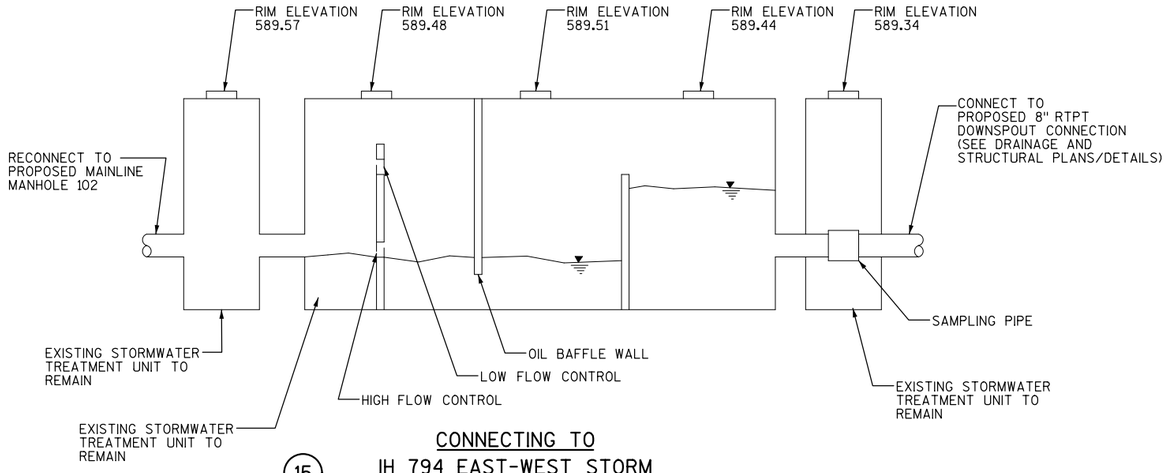
N.T.S.



14 **PROPOSED CONCRETE HEADWALL**

N.T.S.

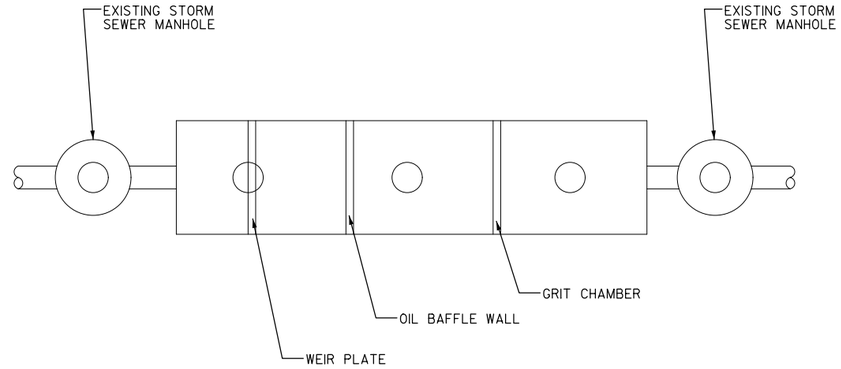
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DRAINAGE DETAILS	SHEET 105	E



15 CONNECTING TO IH 794 EAST-WEST STORM WATER TREATMENT UNIT SECTION VIEW

N.T.S.

STA. 633+32.59 EB, 109.20' LT.



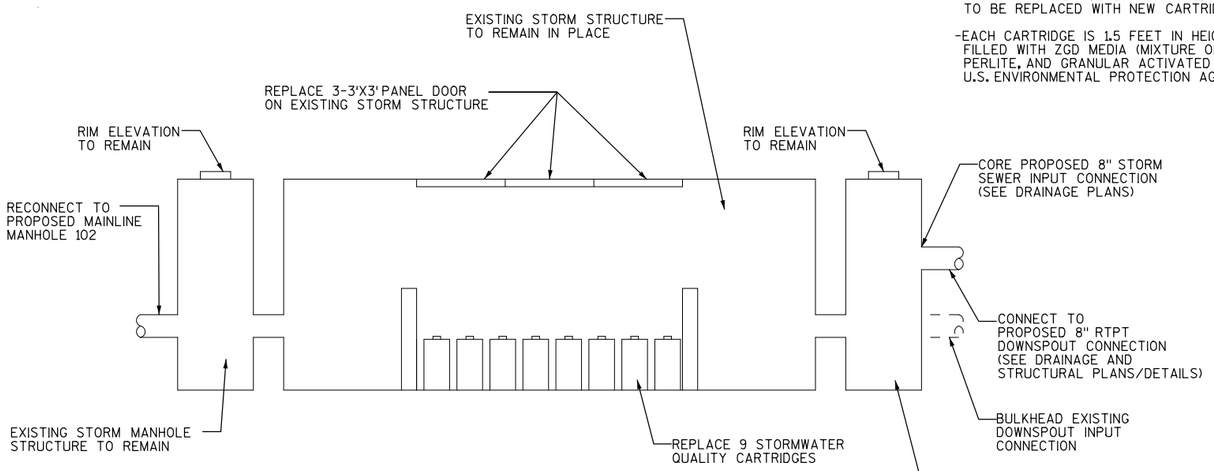
15 CONNECTING TO IH 794 EAST-WEST STORM WATER TREATMENT UNIT PLAN VIEW

N.T.S.

GENERAL NOTES

-EXISTING STRUCTURE TO REMAIN. 9 STORM WATER QUALITY CARTRIDGES TO BE REPLACED WITH NEW CARTRIDGES.

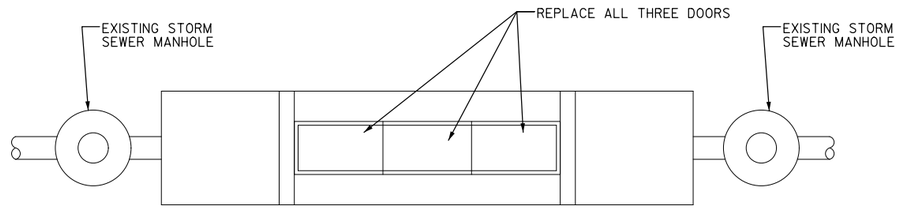
-EACH CARTRIDGE IS 1.5 FEET IN HEIGHT FILLED WITH ZGD MEDIA (MIXTURE OF ZEOLITE, PERLITE, AND GRANULAR ACTIVATED CARBON) U.S. ENVIRONMENTAL PROTECTION AGENCY, 2004



16 IH 794 EAST-WEST STORM WATER FILTRATION TREATMENT UNIT SECTION VIEW

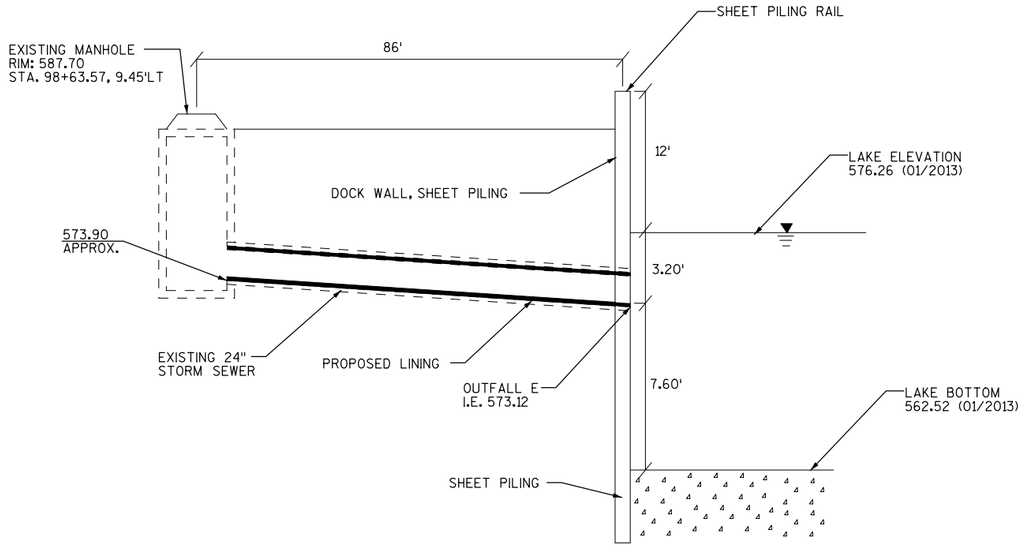
N.T.S.

STA. 633+45.64 EB, 3.46' LT.



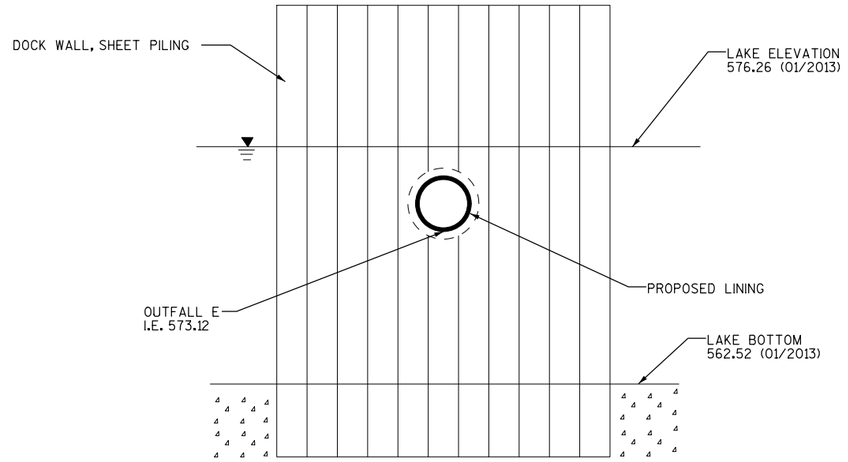
16 IH 794 EAST-WEST STORM WATER FILTRATION TREATMENT UNIT PLAN VIEW

N.T.S.



17 CURED IN PLACE PIPE LINING - OUTFALL E PROFILE VIEW

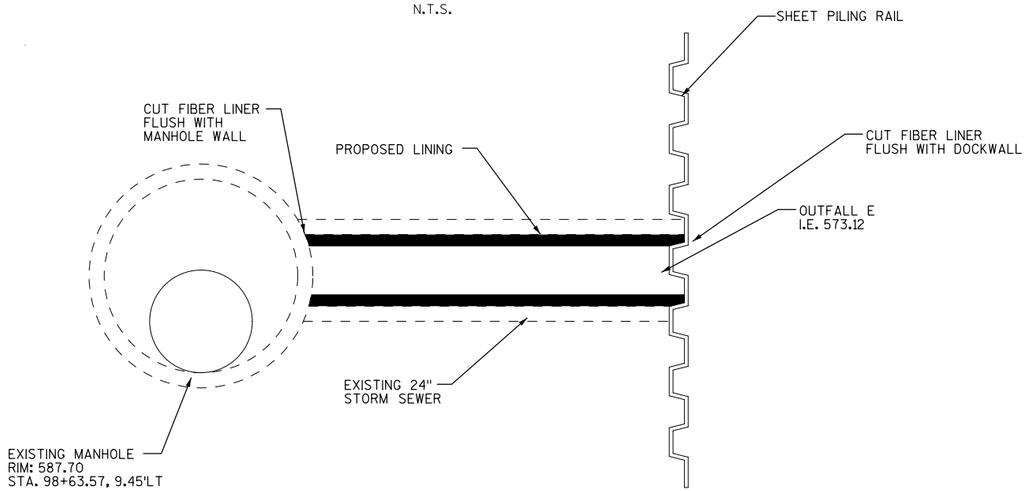
N.T.S.



17 CURED IN PLACE PIPE LINING - OUTFALL E FRONT VIEW

N.T.S.

STA. 98+59.72 LF, 76.05'RT.



17 CURED IN PLACE PIPE LINING - OUTFALL E PLANVIEW

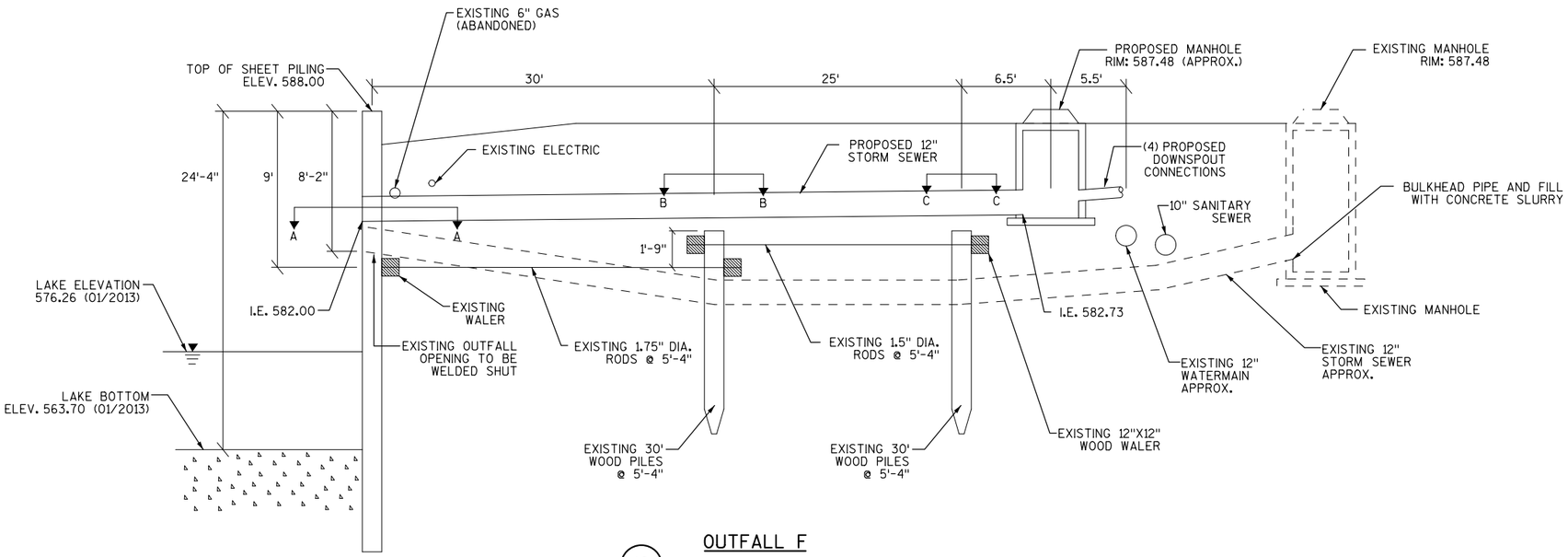
N.T.S.

GENERAL NOTES

-INSTALL FROM UPSTREAM MANHOLE.

-CUT OFF AT DOCKWALL AFTER CURING AND GROUT ANNULAR SPACE AS REQUIRED.

-EXISTING STORM SEWER PIPE NEEDS TO BE COMPLETELY DRY BEFORE INSTALLING PROPOSED LINING.



18 **OUTFALL F REPLACEMENT PROFILE VIEW**

N.T.S.

STA. 94+24.49 LF, 75.05' RT

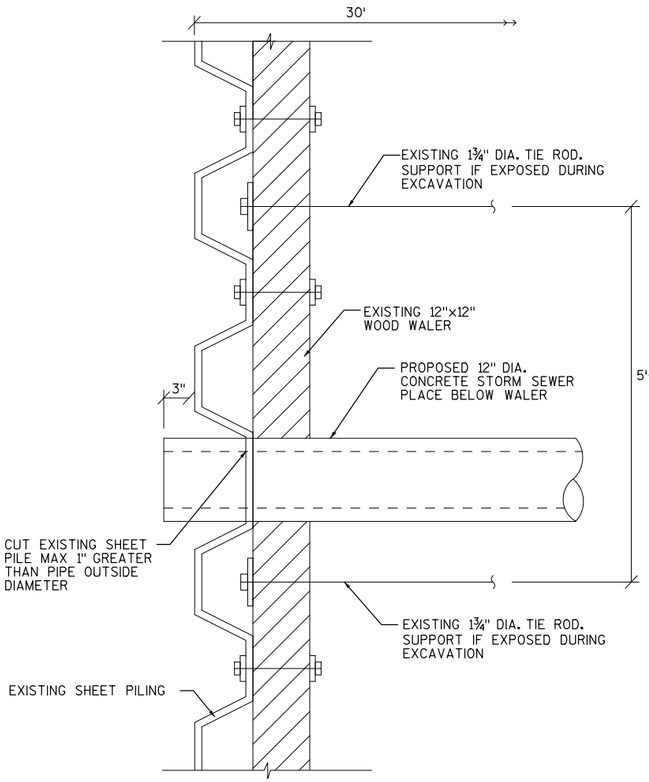
GENERAL NOTES

-SEE DRAINAGE DETAIL 19 FOR CLOSING EXISTING STORM SEWER OUTFALL OPENING.

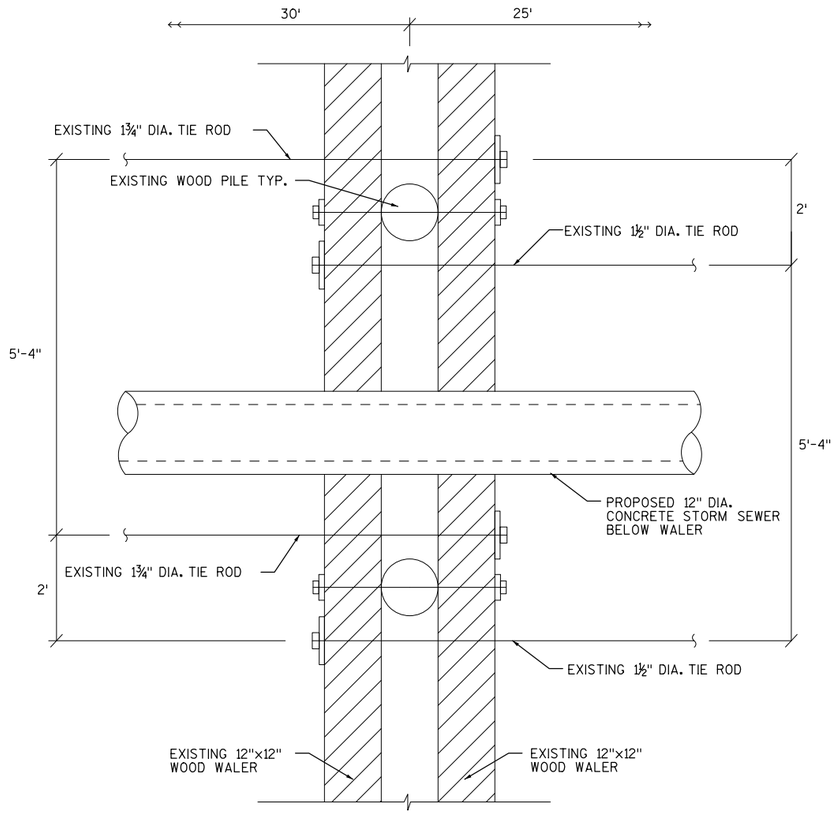
-CONTACT WE-ENERGIES GAS OPERATION IF PROPOSED STORM SEWER IS IN CONFLICT WITH EXISTING GAS.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DRAINAGE DETAILS	SHEET 108	E

2

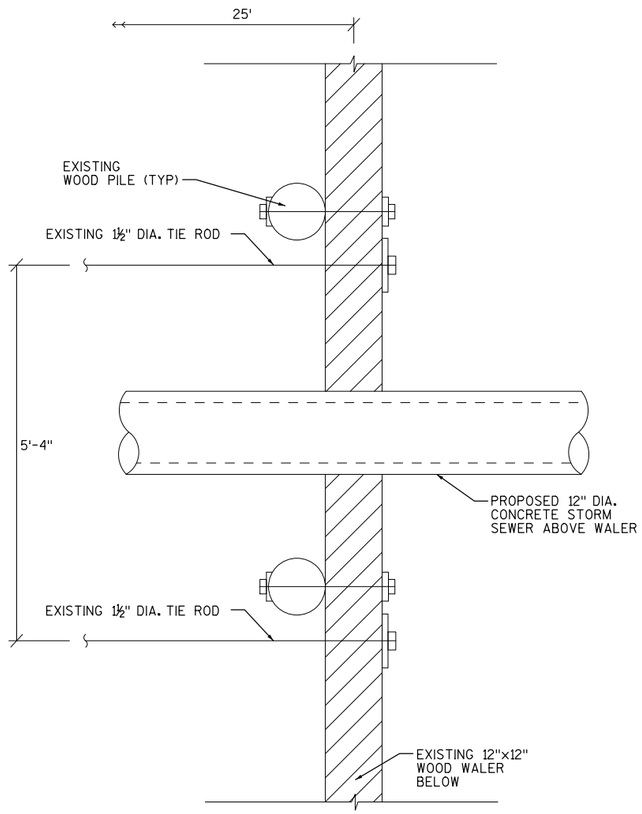


18 OUTFALL F
SECTION A-A
N.T.S.



18 OUTFALL F
SECTION B-B
N.T.S.

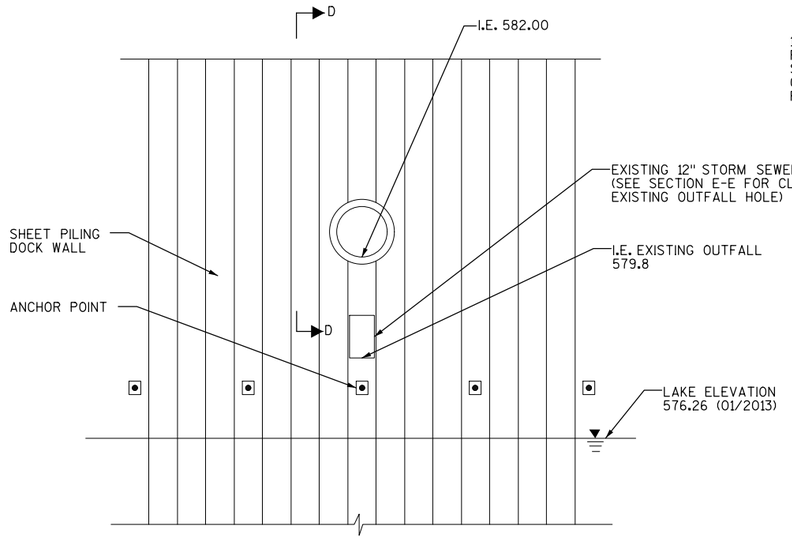
DO NOT DAMAGE
EXISTING TIE BACK SYSTEM
BELOW PROPOSED STORM SEWER



18 OUTFALL F
SECTION C-C
N.T.S.

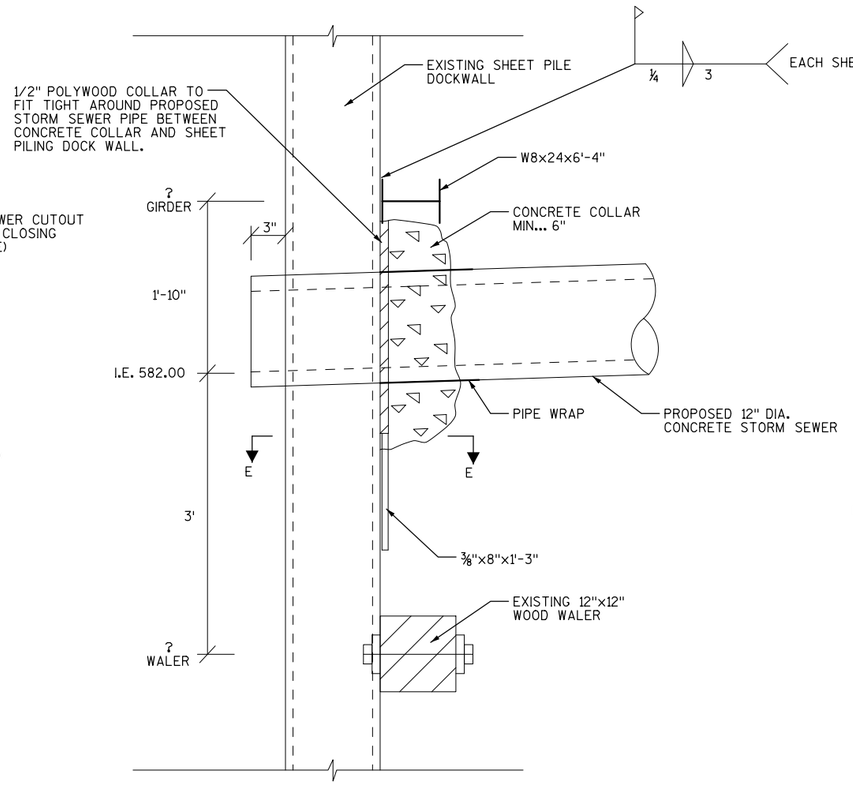
DO NOT DAMAGE
EXISTING TIE BACK SYSTEM
BELOW PROPOSED STORM SEWER

2



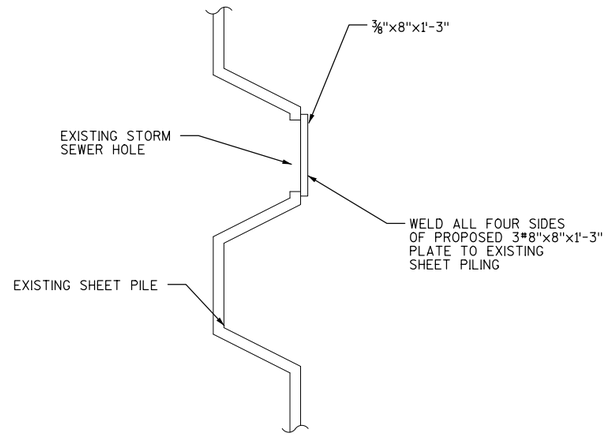
19 OUTFALL F REPLACEMENT FRONT VIEW

N.T.S.



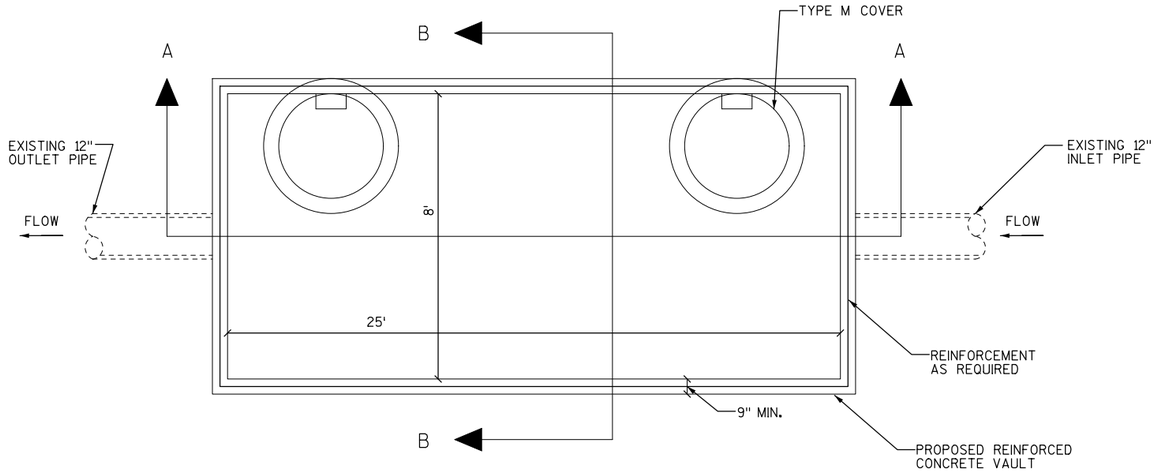
19 OUTFALL F REPLACEMENT SECTION D-D

N.T.S.



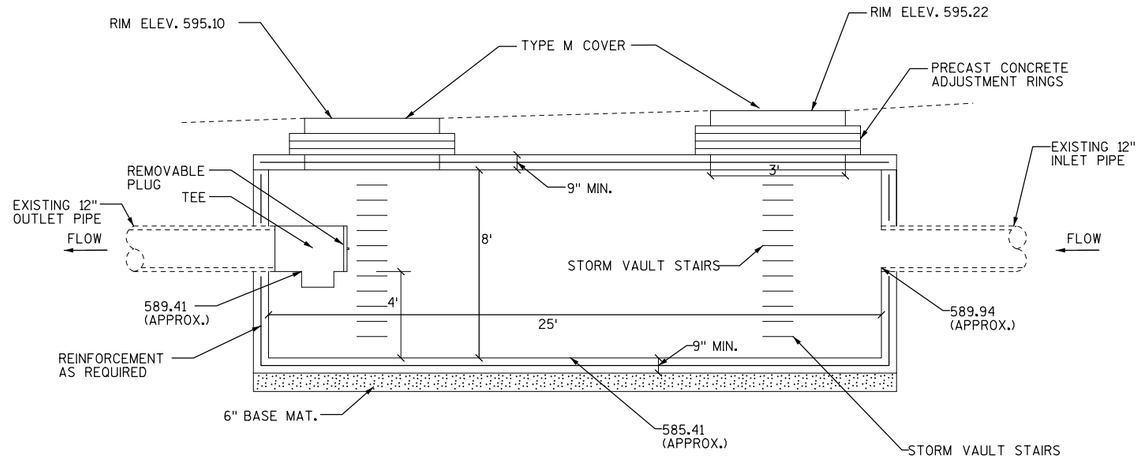
19 OUTFALL F CLOSING EXISTING HOLE SECTION E-E

N.T.S.



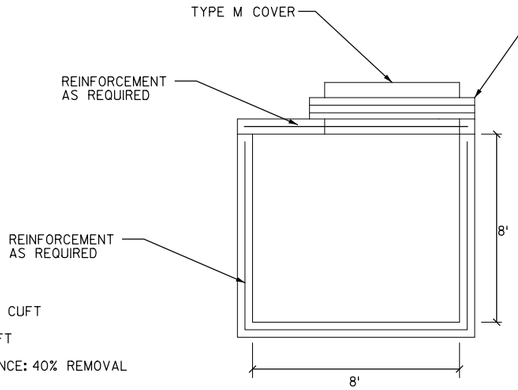
20 OUTFALL "I" STORM WATER QUALITY VAULT PLAN VIEW

N.T.S.



20 SECTION A-A FRONT

N.T.S.



VOLUMES: OVERALL - 1,600 CUFT

WET - 800 CUFT

WATER QUALITY PERFORMANCE: 40% REMOVAL

20 SECTION B-B FRONT

N.T.S.

GENERAL NOTES

-STRUCTURE SHALL PROVIDE AN OVERALL VOLUME OF 1,600 CUFT AND A WET VOLUME OF 800 CUFT.

-REINFORCEMENT SHALL BE DESIGNED AND STAMPED BY A WISCONSIN REGISTERED LICENSED ENGINEER.

-MAY BE CAST IN PLACE, PRECAST, OR MANUFACTURED PRODUCT.

-SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL.

-VAULT SHALL BE WATER TIGHT.

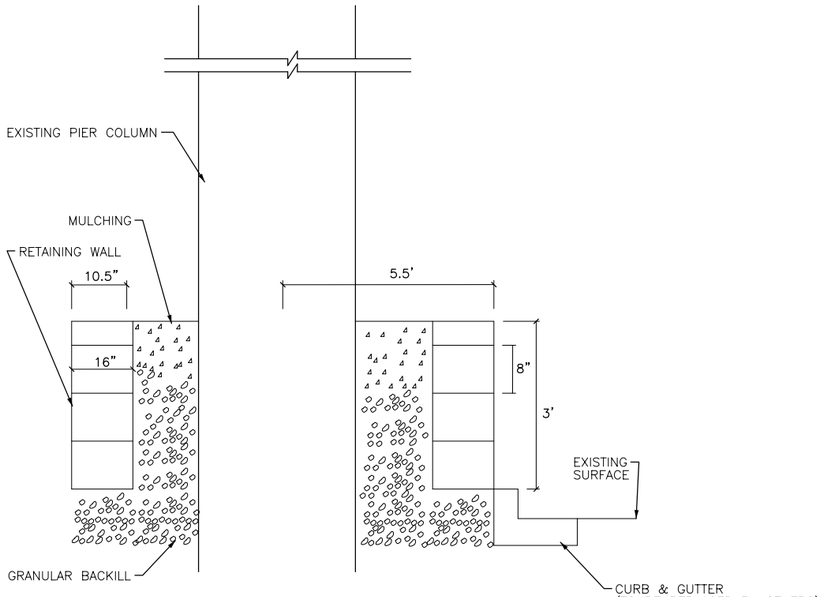
-REFERENCE WISDOT STANDARD MANHOLES 3-FT, 4-FT, 5-FT, 7-FT, AND 8-FT DIAMETER FOR REINFORCEMENT AND CONSTRUCTION.

-CONNECT EXISTING STORM SEWER TO PROPOSED STORM WATER QUALITY VAULT.

OUTFALL I STORM WATER QUALITY VAULT

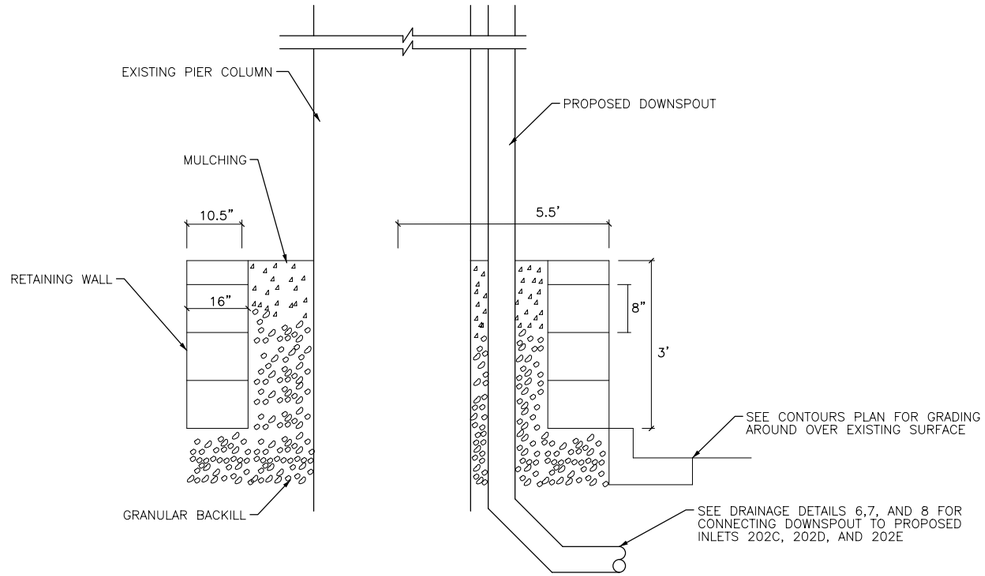
STA. 63+05.03 LF, 166.97' RT

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DRAINAGE DETAILS-STORM WATER QUALITY VAULT	SHEET 111	E



29 EXISTING LANDSCAPING SECTION

N.T.S.



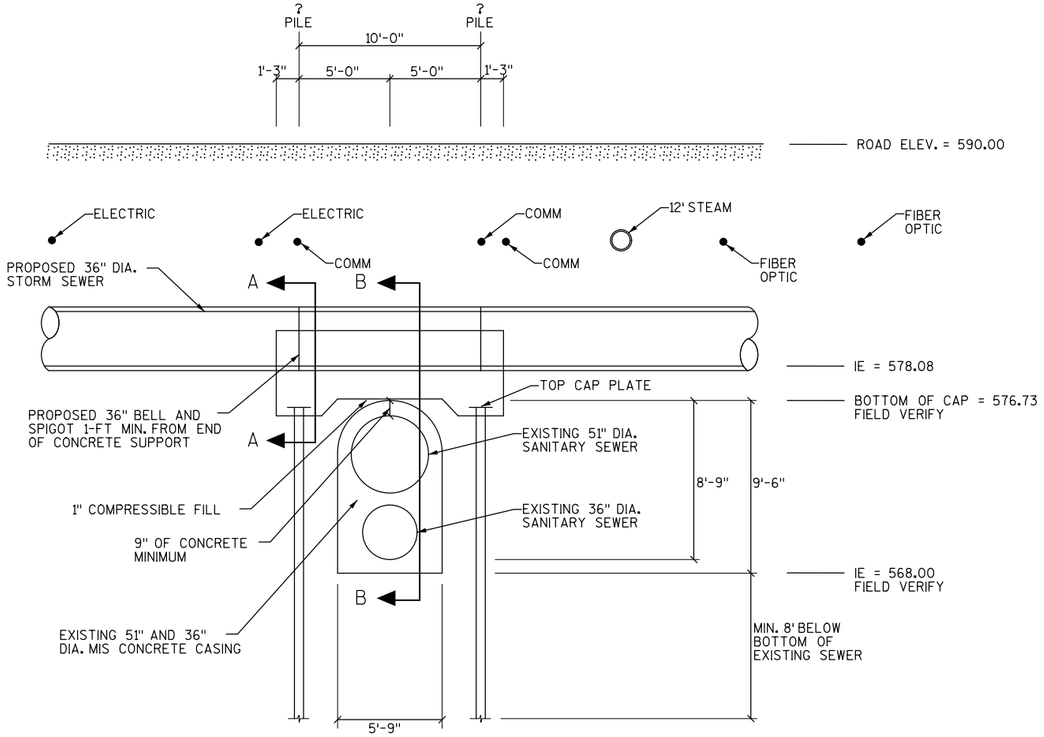
30 PROPOSED LANDSCAPING SECTION

N.T.S.

GENERAL NOTES

-PLANTER BED MATERIAL AND STONE BACK FILL MAY VARY IN DEPTH. REPLACE PLANTER BED AND STONE BACK FILL BEHIND WALL IN KIND.

-DETAILS 21 THROUGH 28 ARE IN LOCATED IN THE BIO-FILTRATION DETAILS.



(23) PROPOSED MIS CONCRETE SUPPORT

N.T.S.

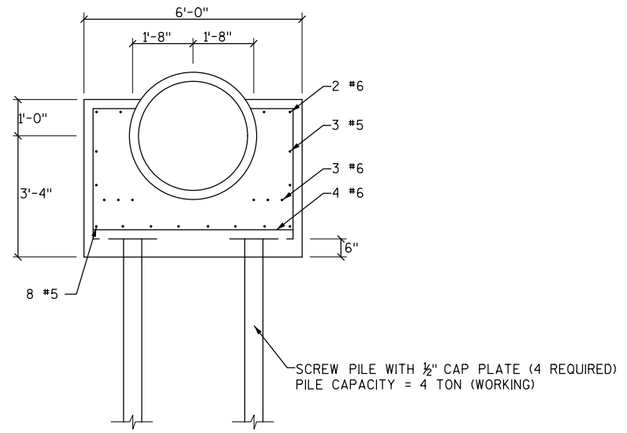
STA. 637+61.86 EB, 75.21' LT

GENERAL NOTES

-CONCRETE SUPPORT TO EXTEND A MINIMUM OF 12" BEYOND PROPOSED PIPE JOINTS.

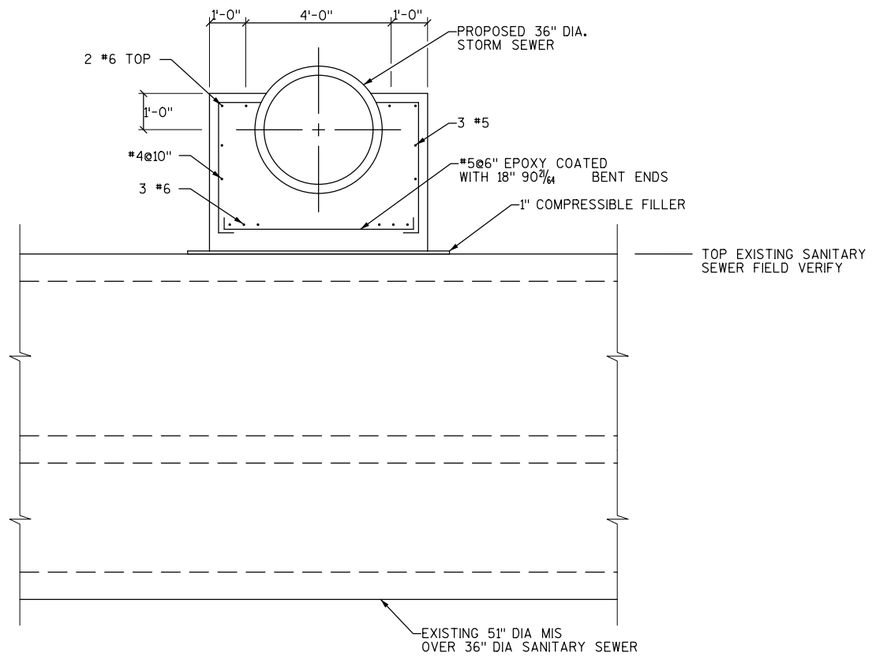
-CONTRACTOR TO DETERMINE EXISTING SOIL TYPE FOR PILE CAPACITY.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON THE DATA PROVIDED.



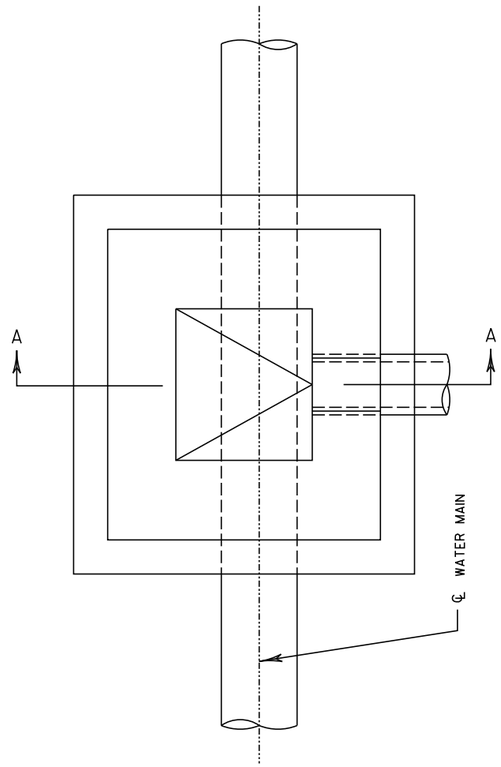
(23) SECTION A-A

N.T.S.

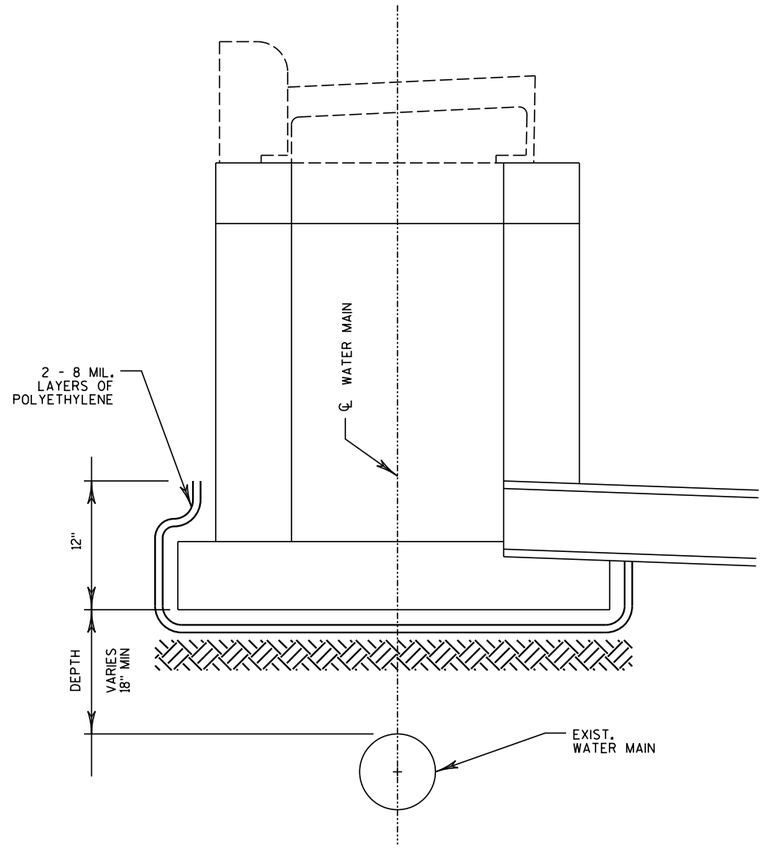


(23) SECTION B-B

N.T.S.



TOP VIEW

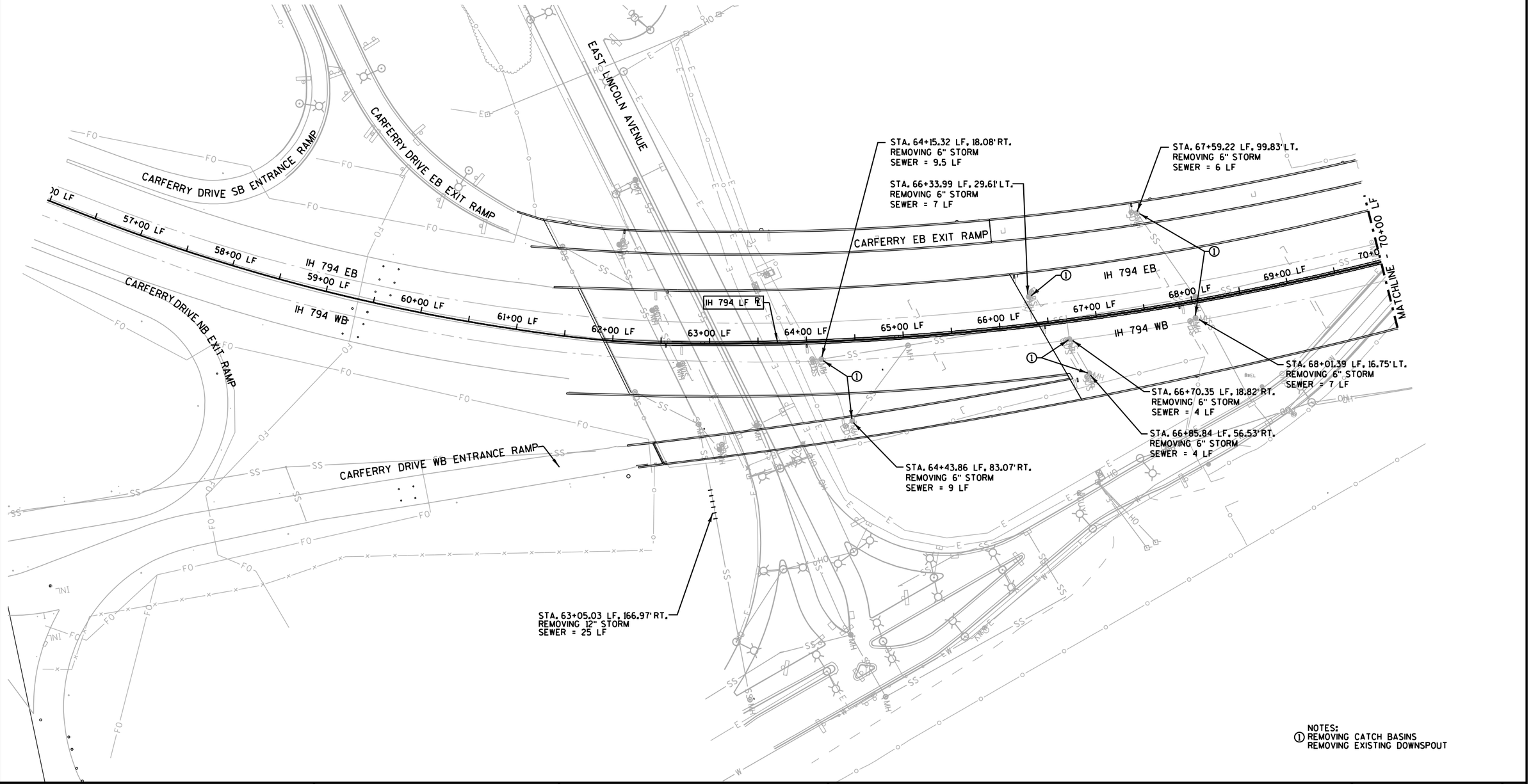


SIDE VIEW

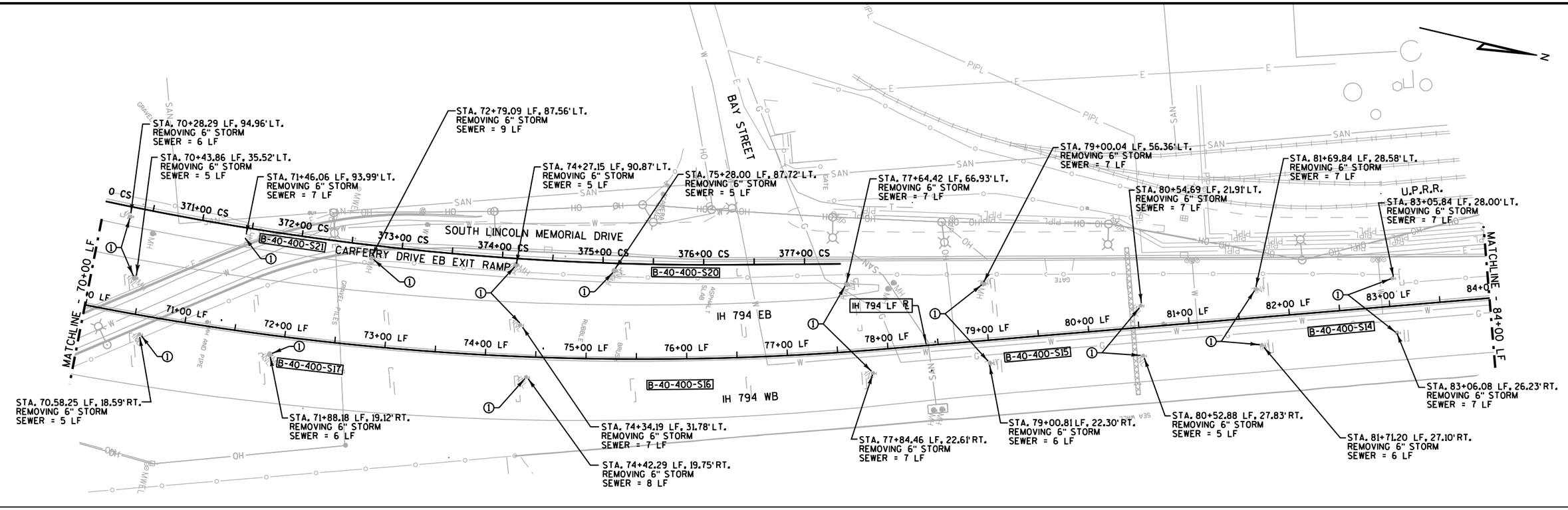
WATER MAIN PROTECTION

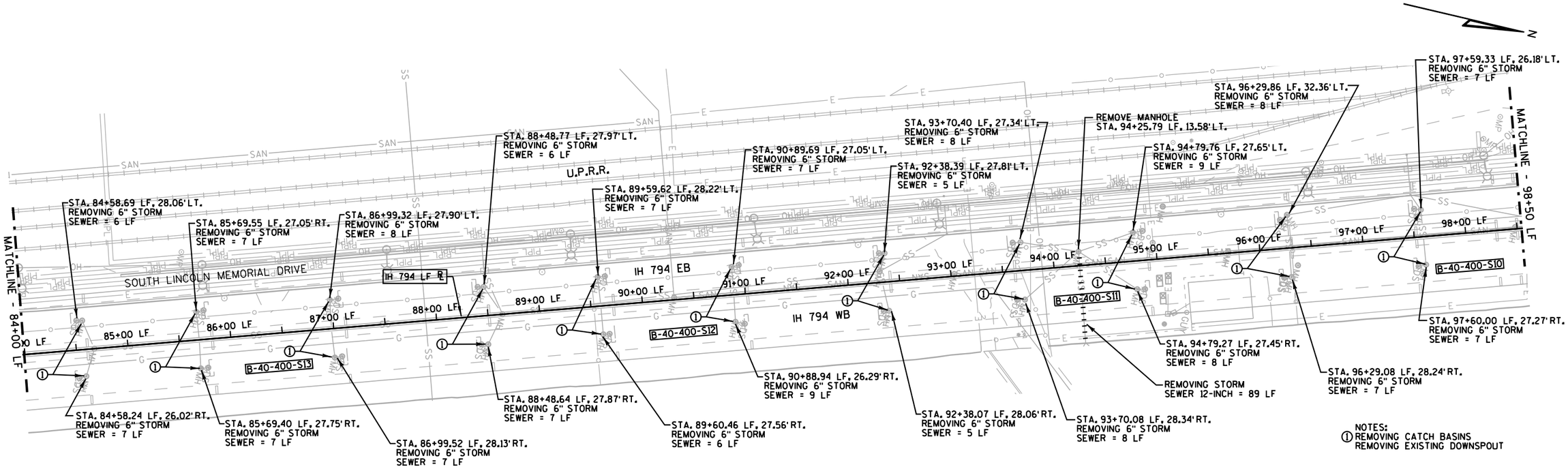
INSTALL ON ALL CATCH BASINS OR INLETS WITH LESS THAN 24" HORIZONTAL OUT-TO-OUT CLEARANCE FROM STRUCTURE TO WATER MAIN

2

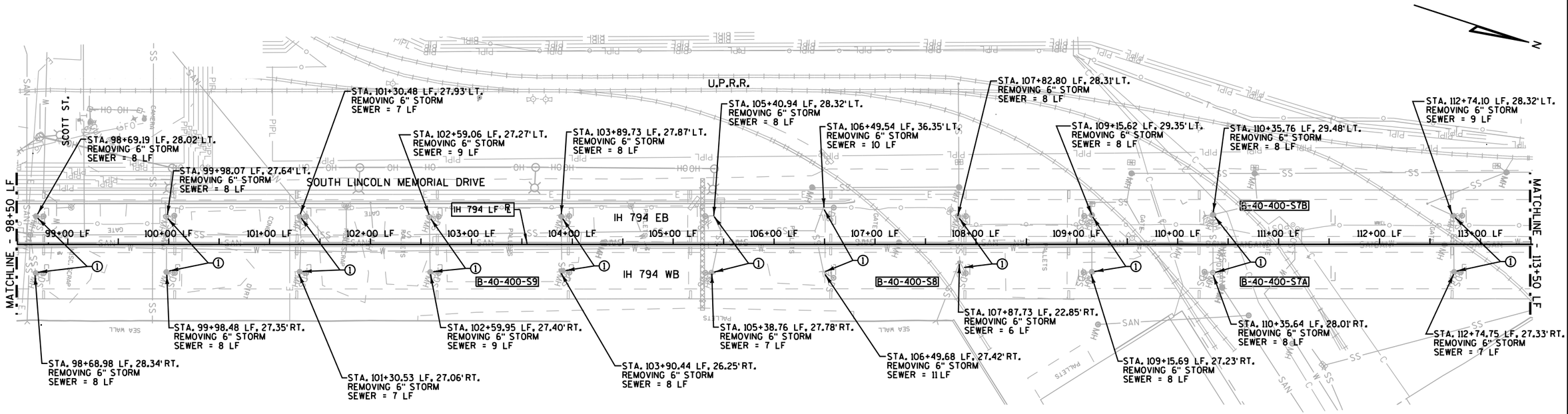


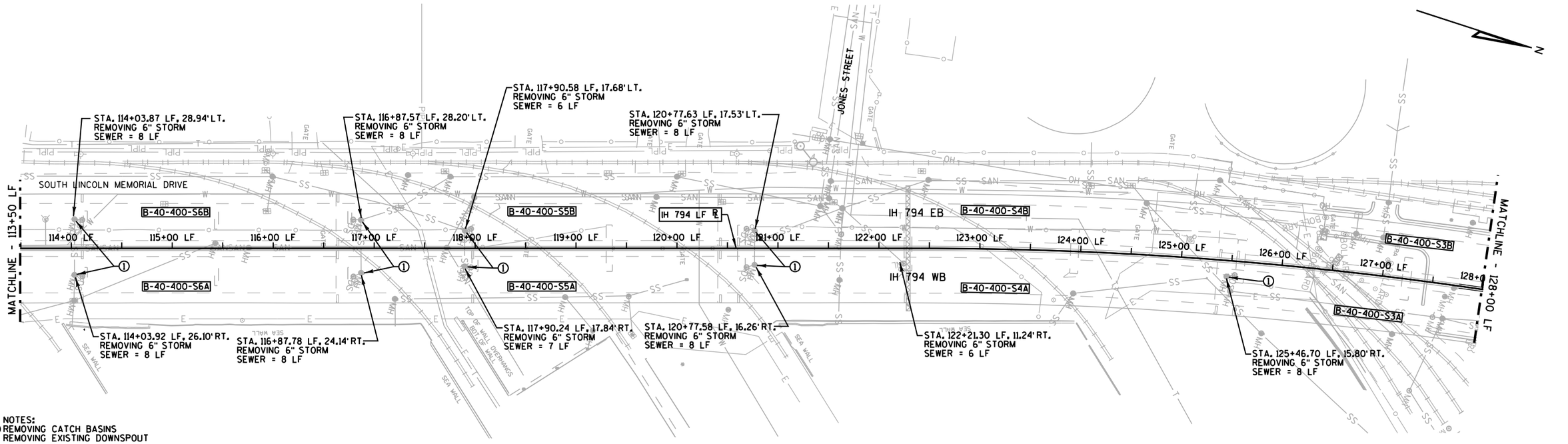
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER - REMOVAL PLAN	SHEET 115	E





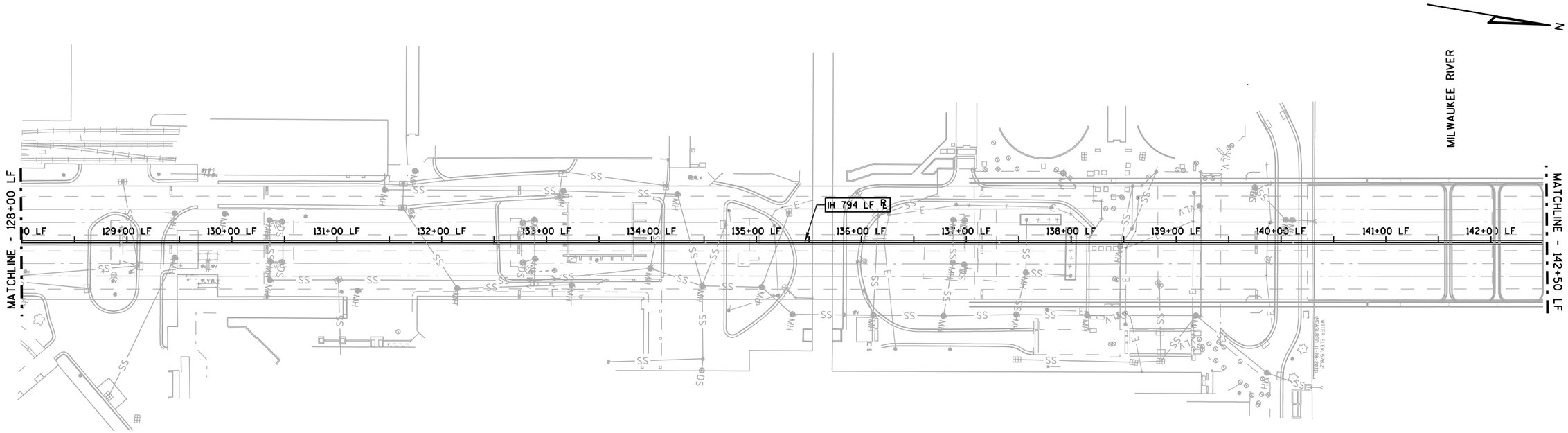
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER - REMOVAL PLAN	SHEET 116	E

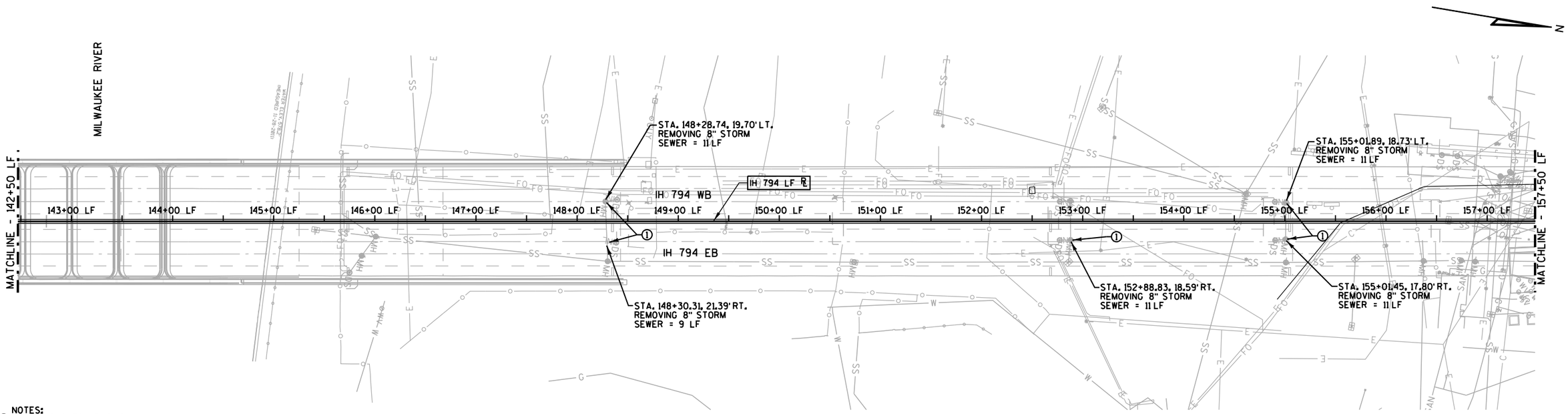




NOTES:
① REMOVING CATCH BASINS
REMOVING EXISTING DOWNSPOUT

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER - REMOVAL PLAN	SHEET 117	E

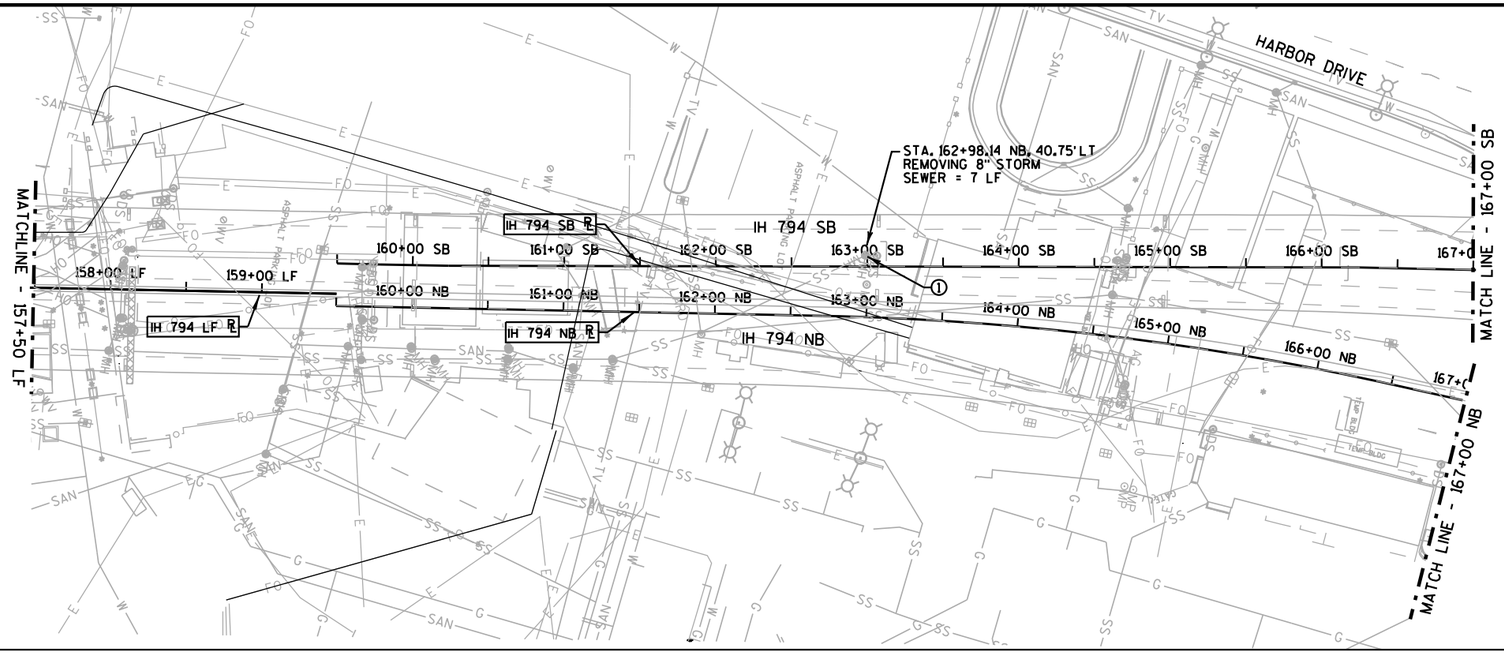


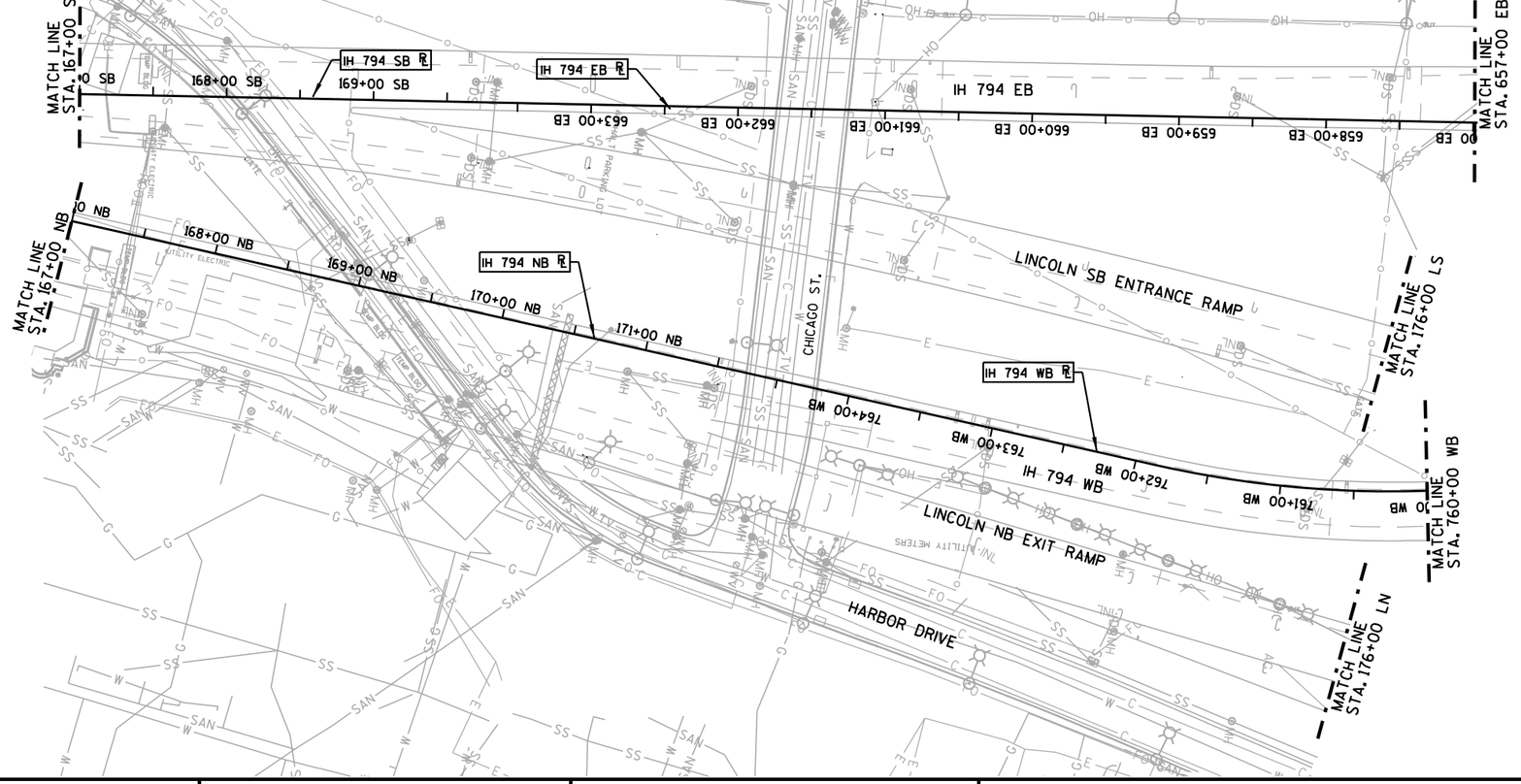


NOTES:
① REMOVING CATCH BASINS
REMOVING EXISTING DOWNSPOUT

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER - REMOVAL PLAN	SHEET 118	E

2



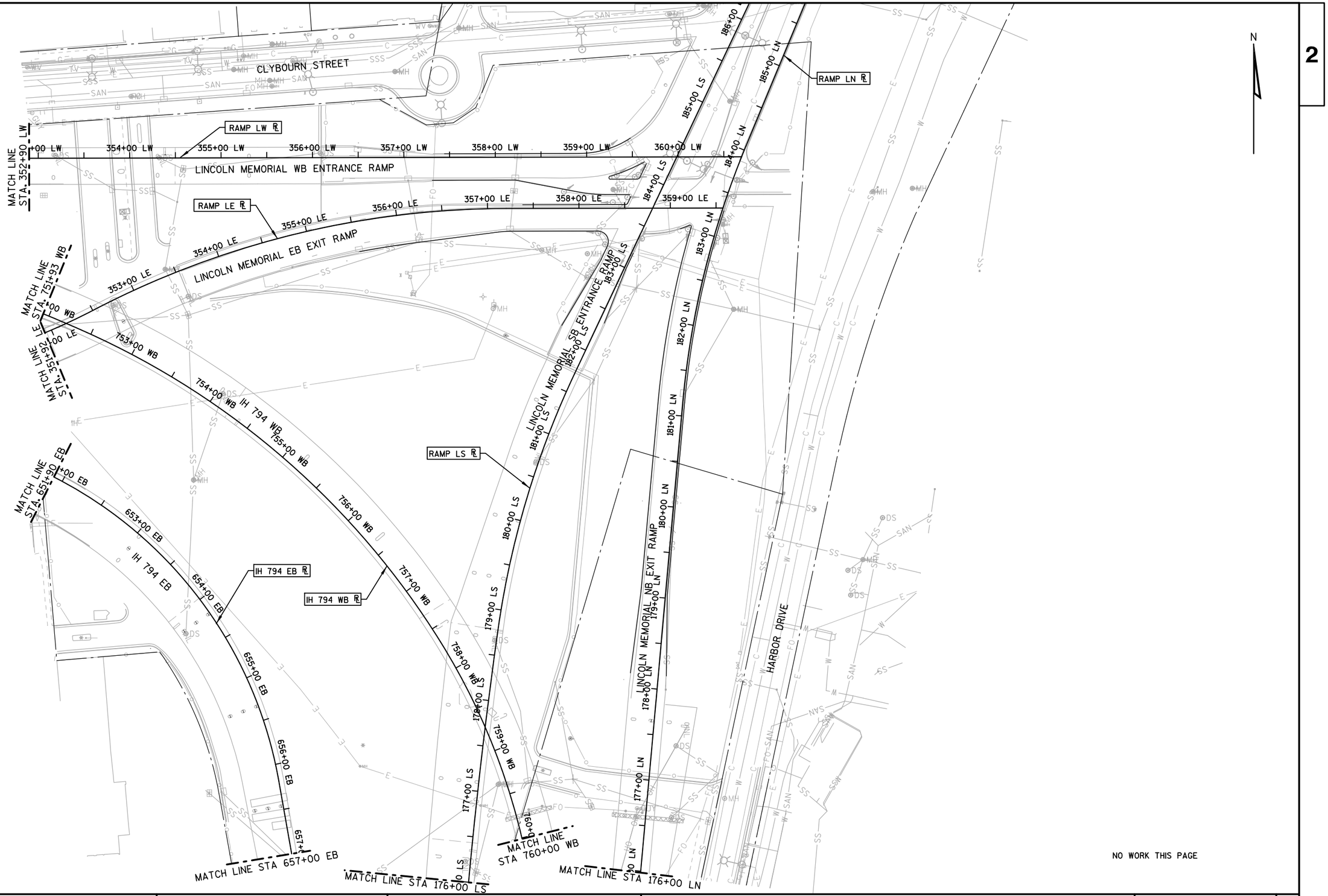


NOTES:
① REMOVING CATCH BASINS
REMOVING EXISTING DOWNSPOUT

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER - REMOVAL PLAN	SHEET 119	E

FILE NAME : 022505_ss.dgn | PLOT DATE : 6/2/2013 | PLOT BY : 1743 | PLOT NAME : | PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER - REMOVAL PLAN	SHEET 120	E

FILE NAME : IP_PWP:d0231471\022506_ss.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000

2

LEGEND

REMOVING STORM SEWER

ABANDON STORM SEWER & FILL WITH BACKFILL SLURRY

(X) SEAL EXISTING DOWNSPOUT

N

WATER STREET

BROADWAY

MILWAUKEE STREET

CLYBOURN STREET

IH 794 WB R

IH 794 EB R

ST. PAUL AVENUE

MATCHLINE - 643+50 EB

ST. PAUL OFF RAMP

N. 6TH STREET

731+00 WB | 732+00 WB | 733+00 WB | 734+00 WB | 735+00 WB | 736+00 WB | 737+00 WB | 738+00 WB | 739+00 WB | 740+00 WB | 741+00 WB | 742+00 WB | 743+00 WB

631+00 EB | 632+00 EB | 633+00 EB | 634+00 EB | 635+00 EB | 636+00 EB | 637+00 EB | 638+00 EB | 639+00 EB | 640+00 EB | 641+00 EB | 642+00 EB | 643+00 EB

42" DIA. | 12" DIA. | 10" DIA. | 6" DIA.

REMOVING EXISTING DOWNSPOUT

(1)	632+52.02 EB, 20.98' RT
(2)	632+63.57 EB, 31.15' LT
(3)	633+58.39 EB, 21.63' RT
(4)	635+73.33 EB, 25.98' LT
(5)	635+78.34 EB, 22.45' RT
(6)	636+82.81 EB, 30.58' LT
(7)	636+86.19 EB, 24.46' RT
(8)	638+02.09 EB, 38.78' LT

REMOVING EXISTING DOWNSPOUT

(9)	638+03.28 EB, 22.19' RT
(10)	639+25.98 EB, 43.24' LT
(11)	640+28.21 EB, 57.92' LT
(12)	640+32.27 EB, 12.58' LT
(13)	632+50.15 EB, 137.90' LT
(14)	633+39.42 EB, 128.73' LT
(15)	634+49.72 EB, 150.03' LT
(16)	635+58.56 EB, 159.40' LT

REMOVING EXISTING DOWNSPOUT

(17)	636+64.41 EB, 173.26' LT
(18)	637+75.63 EB, 184.47' LT
(19)	638+94.70 EB, 204.62' LT
(20)	639+00.16 EB, 126.96' LT
(21)	640+22.77 EB, 133.37' LT

REMOVING INLETS

(22)	632+36.44 EB, 41.14' LT
(23)	632+68.56 EB, 31.28' LT
(24)	632+72.60 EB, 4.84' LT
(25)	639+25.33 EB, 60.17' LT
(26)	641+87.84 EB, 23.64' LT
(27)	632+78.00 EB, 95.60' LT
(28)	637+93.31 EB, 228.30' LT
(29)	638+36.30 EB, 28.64' LT

REMOVING INLETS

(30)	638+53.31 EB, 235.30' LT
(31)	641+43.60 EB, 284.90' LT

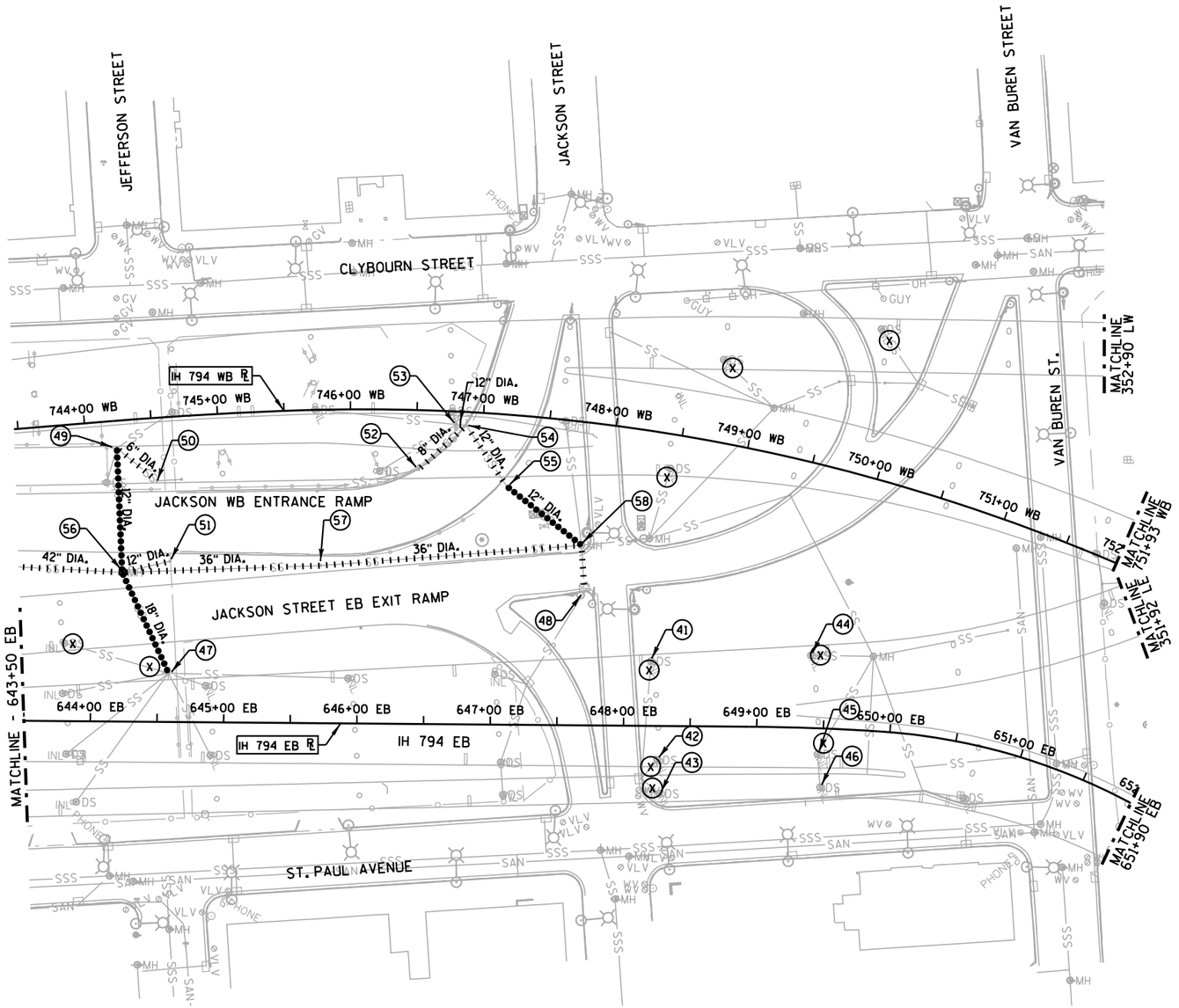
REMOVING MANHOLES

(32)	632+24.53 EB, 56.60' LT
(33)	632+99.72 EB, 53.30' LT
(34)	635+12.32 EB, 70.00' LT
(35)	636+12.67 EB, 77.90' LT
(36)	638+23.12 EB, 74.20' LT
(37)	638+81.17 EB, 111.50' LT
(38)	639+61.75 EB, 116.50' LT
(39)	642+14.28 EB, 119.20' LT
(40)	605+20.91 EB, 309.60' RT

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER - REMOVAL PLAN	SHEET 121 E

FILE NAME : 022507_ss.dgn | PLOT DATE : 6/2/2013 | PLOT BY : 1743 | PLOT NAME : | PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42



LEGEND

- REMOVING STORM SEWER
- ABANDON STORM SEWER & FILL WITH BACKFILL SLURRY
- (X) SEAL EXISTING DOWNSPOUT

REMOVING EXISTING DOWNSPOUT	
(41)	648+20.18 EB, 48.64' LT
(42)	648+25.53 EB, 25.59' RT
(43)	648+27.20 EB, 50.71' RT
(44)	649+38.68 EB, 54.42' LT
(45)	649+46.37 EB, 19.38' RT
(46)	649+49.27 EB, 44.24' RT

REMOVING INLETS	
(47)	644+58.31 EB, 36.59' LT
(48)	647+69.87 EB, 100.65' LT
(49)	644+18.15 EB, 205.20' LT
(50)	644+48.32 EB, 180.84' LT
(51)	644+58.91 EB, 120.58' LT
(52)	646+44.51 EB, 190.70' LT

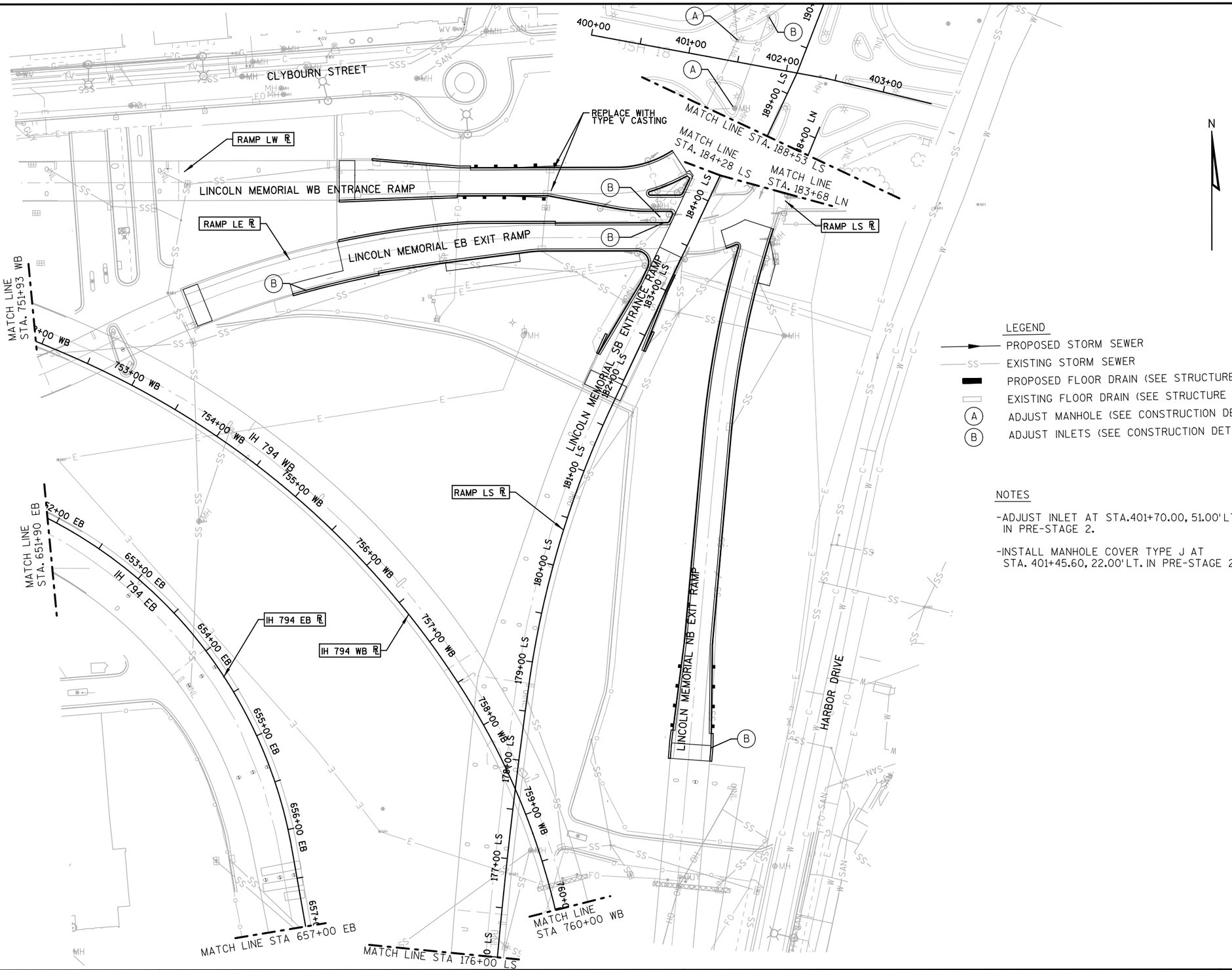
REMOVING INLETS	
(53)	646+72.81 EB, 225.00' LT
(54)	646+80.25 EB, 224.30' LT
(55)	647+11.00 EB, 178.80' LT

REMOVING MANHOLES	
(56)	644+22.86 EB, 111.87' LT
(57)	645+71.58 EB, 118.20' LT
(58)	647+67.36 EB, 135.10' LT

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER - REMOVAL PLAN	SHEET 122	E

FILE NAME : 022508_ss.dgn PLOT DATE : 6/2/2013 PLOT BY : 1743 PLOT NAME : PLOT SCALE : 1:100

2



NOTES

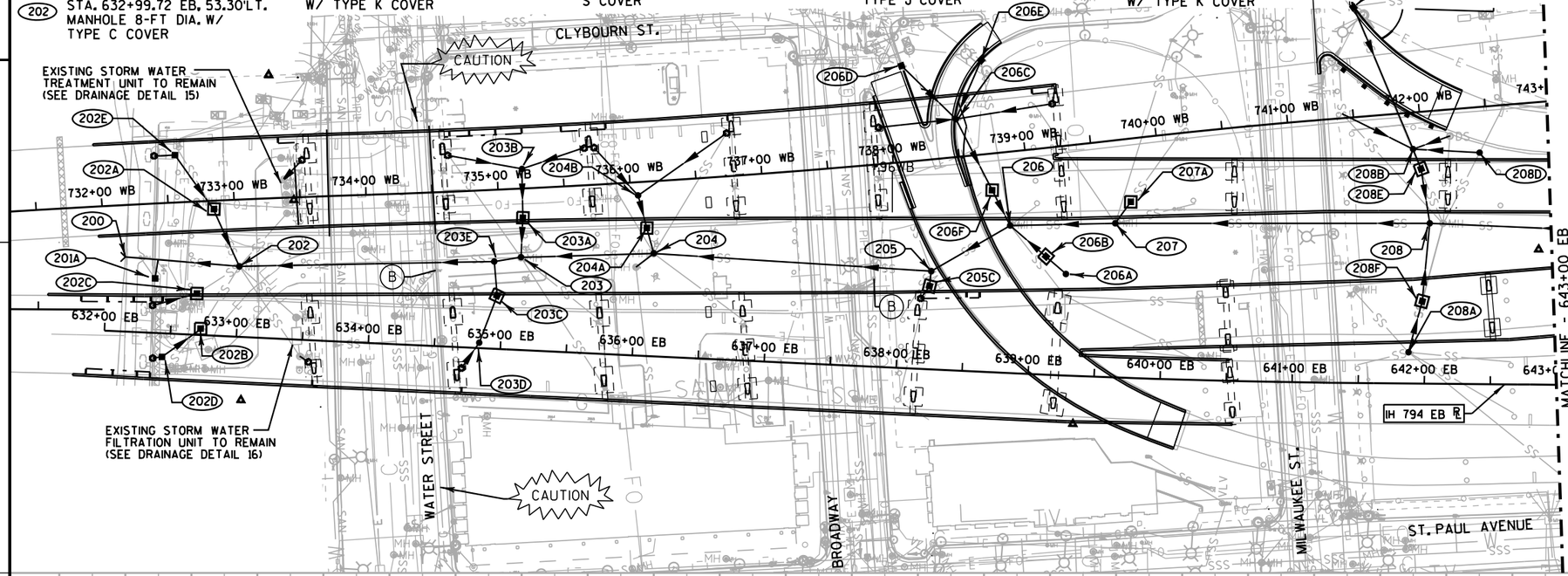
-ADJUST INLET AT STA.401+70.00, 51.00'LT. IN PRE-STAGE 2.

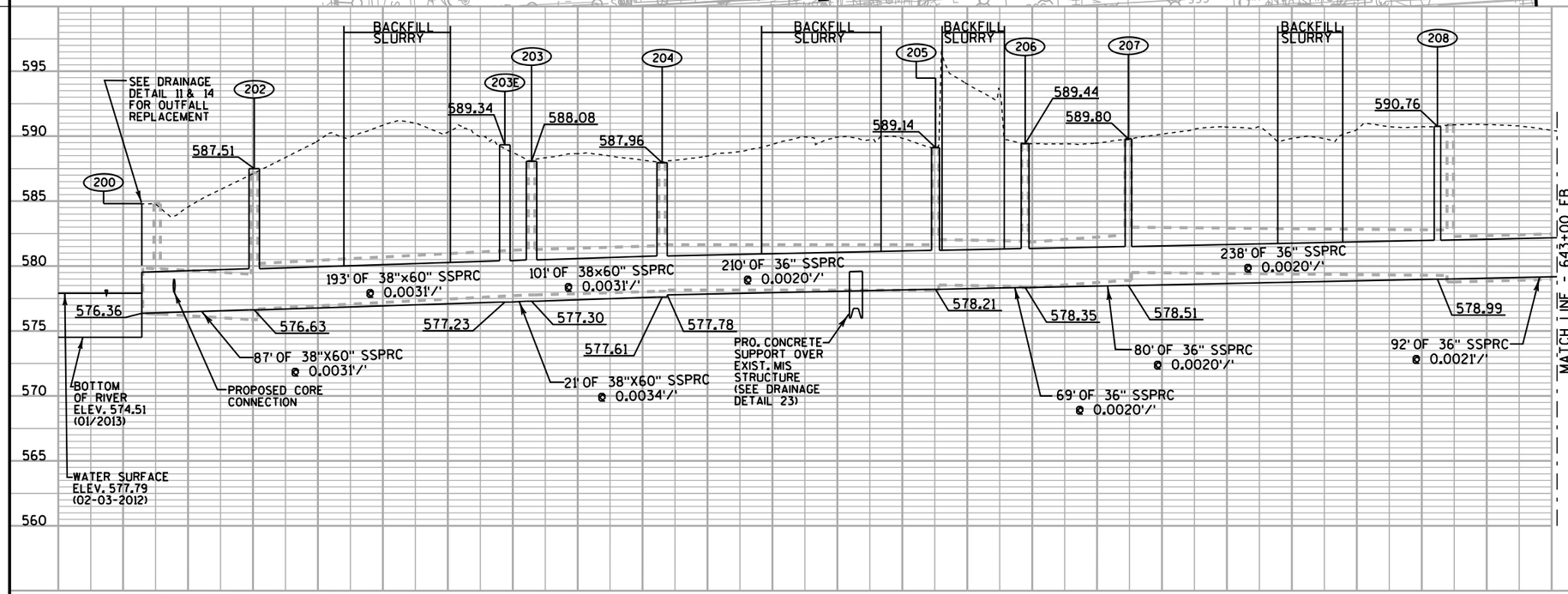
-INSTALL MANHOLE COVER TYPE J AT STA. 401+45.60, 22.00'LT. IN PRE-STAGE 2.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 123	E

(200) STA. 632+13.21 EB, 56.30'LT. CONCRETE HEADWALL
(2101A) STA. 632+34.55 EB, 41.10'LT. INLET 2X2-FT W/TYPE S COVER
(202) STA. 632+99.72 EB, 53.30'LT. MANHOLE 8-FT DIA. W/ TYPE C COVER
(202A) STA. 632+78.48 EB, 95.60'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER
(202B) STA. 632+72.61 EB, 4.90'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER
(202C) STA. 632+68.56 EB, 31.30'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER
(202D) STA. 632+44.39 EB, 17.94'RT. INLET 2x2-FT W/ TYPE S COVER
(202E) STA. 632+47.02 EB, 135.10'LT. INLET 2x2-FT W/ TYPE S COVER
(203E) STA. 634+92.31 EB, 66.00'LT. MANHOLE 8-FT DIA. W/ TYPE J COVER
(203) STA. 635+12.21 EB, 72.22'LT. MANHOLE 8-FT DIA. W/ TYPE A COVER
(203A) STA. 632+12.37 EB, 100.10'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(203B) STA. 635+09.99 EB, 137.00'LT. MANHOLE 4-FT DIA. W/ TYPE C COVER
(203C) STA. 634+95.70 EB, 40.24'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER
(203D) STA. 634+83.82 EB, 4.12'LT. MANHOLE 4-FT DIA. W/ TYPE C COVER
(204) STA. 636+12.67 EB, 77.90'LT. MANHOLE 8-FT DIA. W/ TYPE C COVER
(204A) STA. 636+06.52 EB, 96.80'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER
(204B) STA. 635+98.73 EB, 121.10'LT. MANHOLE 4-FT DIA. W/ TYPE C COVER
(205) STA. 638+23.12 EB, 74.20'LT. MANHOLE 6-FT DIA. W/ TYPE C COVER
(205C) STA. 638+22.38 EB, 62.86'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER
(206) STA. 638+81.17 EB, 111.50'LT. MANHOLE 6-FT DIA. W/ TYPE C COVER
(206A) STA. 639+25.39 EB, 76.80'LT. MANHOLE 4-FT DIA. W/ TYPE C COVER
(206B) STA. 639+09.56 EB, 89.30'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER
(206C) STA. 638+33.41 EB, 190.16'LT. MANHOLE 4-FT DIA. W/ TYPE A COVER
(206D) STA. 637+89.70 EB, 226.88'LT INLET 2x3-FT W/ TYPE H COVER
(206E) STA. 638+51.58 EB, 236.73'LT. INLET 2x3-FT W/ TYPE H "SPECIAL" COVER
(206F) STA. 638+66.28 EB, 137.60'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER
(207) STA. 639+61.75 EB, 116.50'LT. MANHOLE 5-FT DIA. W/ TYPE C COVER
(207A) STA. 639+73.08 EB, 133.20'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER
(208) STA. 642+03.15 EB, 121.33'LT. MANHOLE 5-FT DIA. W/ TYPE C COVER
(208A) STA. 641+87.84 EB, 23.60'LT. MANHOLE 4-FT DIA. W/ TYPE C COVER
(208B) STA. 641+90.03 EB, 177.40'LT. MANHOLE 4-FT DIA. W/ TYPE C COVER
(208C) STA. 641+41.90 EB, 283.24'LT. INLET 2x3-FT W/ TYPE H COVER
(208D) STA. 642+40.41 EB, 175.10'LT. MANHOLE 4-FT DIA. W/ TYPE C COVER
(208E) STA. 639+96.26 EB, 162.40'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER
(208F) STA. 641+97.89 EB, 62.40'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER





NOTES

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4 FOR REQUIREMENTS.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON THE DATA PROVIDED.

-FOR STORM SEWER TRENCH RESTORATION EAST OF WATER STREET, SEE PAVING PLANS. FOR TRENCH RESTORATION WEST OF WATER STREET, SEE CONTOURS PLAN.

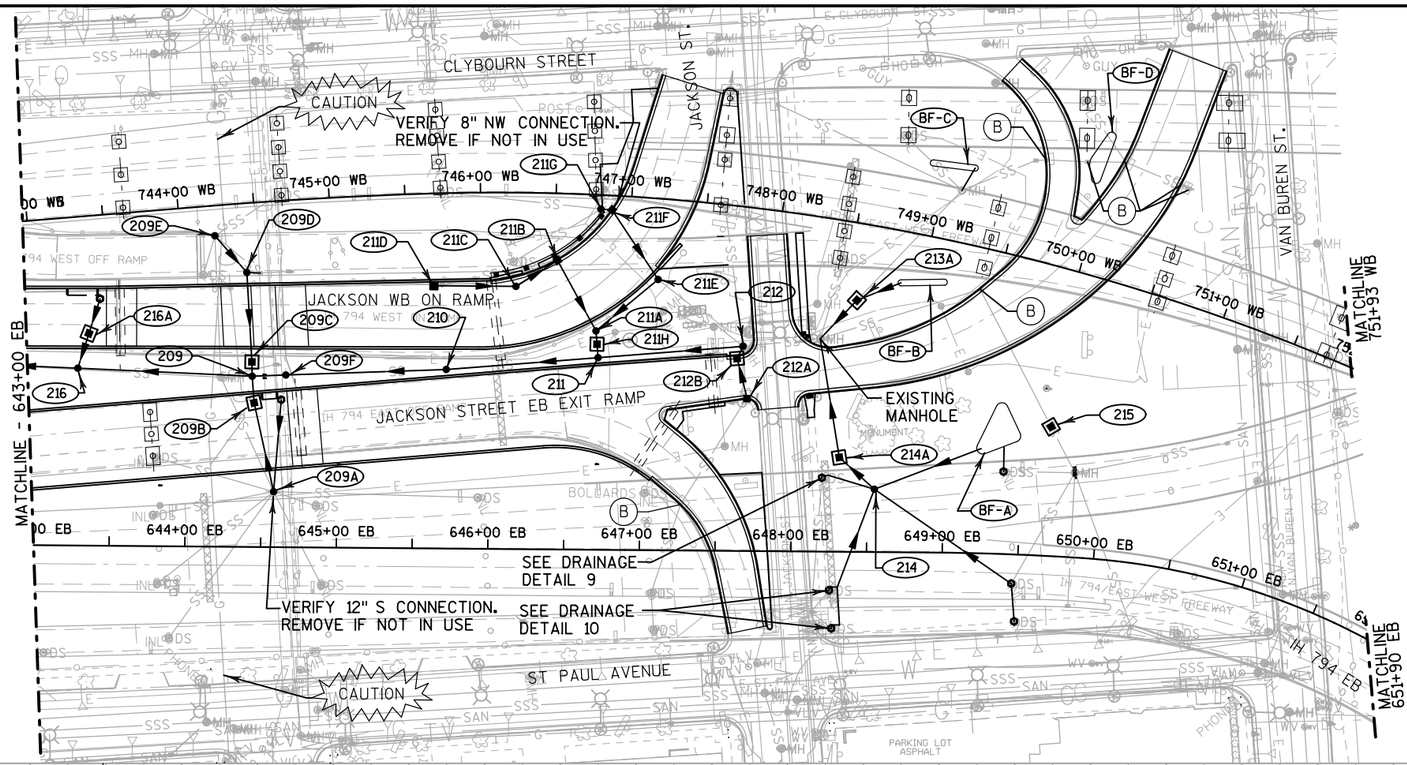
-UPON REMOVING EXISTING INLET AT STA. 639+25.33, 60.17'LT. REGRADE PARKING LOT AND SET PROPOSED STRUCTURE 206A AS LOW POINT.

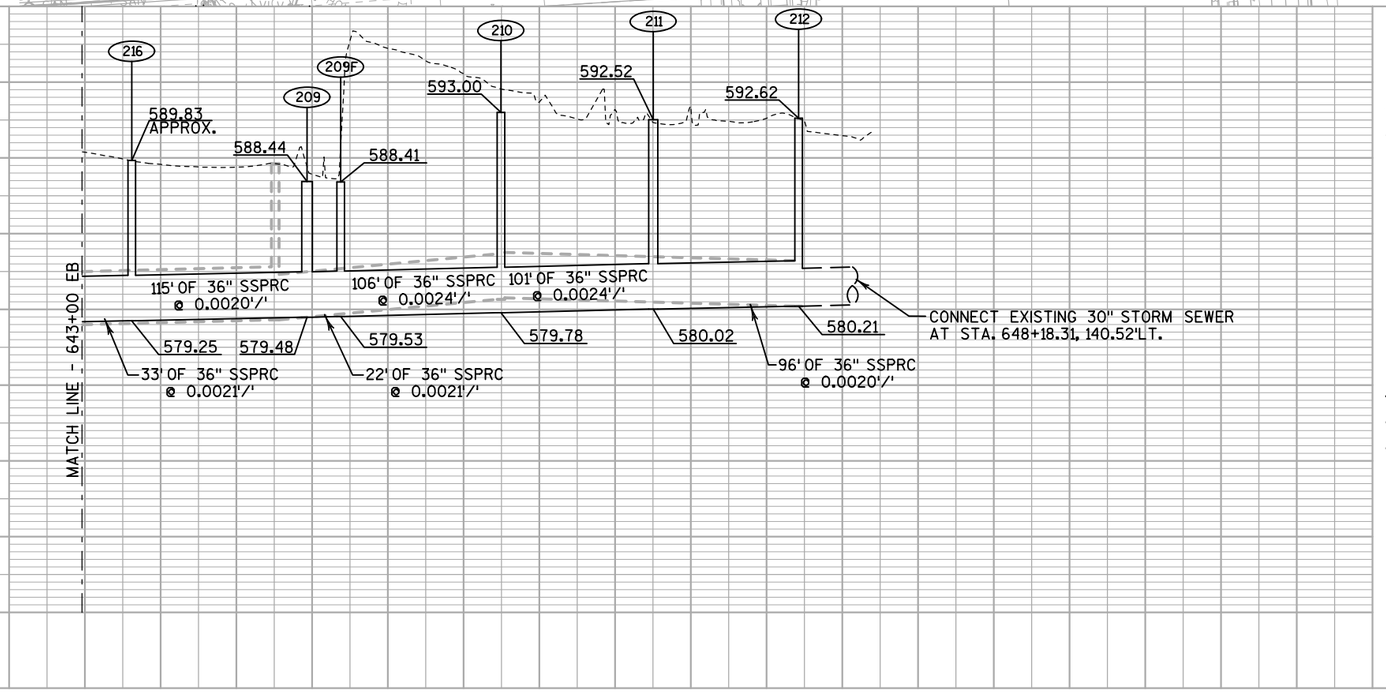
LEGEND

- PROPOSED STORM SEWER
- SS — EXISTING STORM SEWER TO REMAIN
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- (B) ADJUSTED INLETS (SEE CONSTRUCTION DETAILS)
- PROPOSED INLET
- PROPOSED MANHOLE
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"
- PROPOSED DOWNSPOUT
- PROPOSED DOWNSPOUT DRAIN
- EXISTING STORM SEWER (PROFILE)

N

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 124	E





(209) STA. 644+43.54 EB, 112.70'LT. MANHOLE 7-FT DIA. W/ TYPE C COVER

(209A) STA. 644+58.31 EB, 36.60'LT. MANHOLE 4-FT DIA. W/ TYPE C COVER

(209B) STA. 644+44.96 EB, 95.13'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(209C) STA. 644+43.27 EB, 122.20'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(209D) STA. 644+39.47 EB, 181.14'LT. MANHOLE 4-FT DIA. W/ TYPE C COVER

(209E) STA. 644+18.15 EB, 205.20'LT. MANHOLE 4-FT DIA. W/ TYPE C COVER

(209F) STA. 644+65.72 EB, 113.68'LT. MANHOLE 5-FT WITH TYPE TYPE C COVER

(210) STA. 645+71.58 EB, 118.20'LT. MANHOLE 5-FT DIA. W/ TYPE C COVER

(211) STA. 646+71.76 EB, 126.80'LT. MANHOLE 6-FT DIA. W/ TYPE C COVER

(211A) STA. 646+70.23 EB, 144.50'LT. MANHOLE 4-FT DIA. W/ TYPE C COVER

(211B) STA. 646+45.32 EB, 189.36'LT. INLET 2x3-FT WITH TYPE H COVER

(211C) STA. 646+17.15 EB, 173.40'LT. MANHOLE 4-FT DIA. W/ TYPE C COVER

(211D) STA. 645+63.05 EB, 175.92'LT. INLET 2x2-FT WITH TYPE V COVER

(211E) STA. 647+11.00 EB, 178.80'LT. MANHOLE 4-FT DIA. W/ TYPE C COVER

(211F) STA. 646+81.96 EB, 223.21'LT. INLET 2x3-FT WITH TYPE H "SPECIAL" COVER

(211G) STA. 646+72.81 EB, 225.00'LT. MANHOLE 4-FT DIA. W/ TYPE C COVER

(211H) STA. 646+71.00 EB, 135.70'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(212) STA. 647+67.36 EB, 135.10'LT. MANHOLE 5-FT DIA. W/ TYPE C COVER

(212A) STA. 647+70.49 EB, 102.71'LT. INLET 2x3-FT W/ TYPE H COVER

(212B) STA. 647+63.52 EB, 127.00'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE H COVER

(213A) STA. 648+42.32 EB, 166.10'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(214) STA. 648+54.87 EB, 41.50'LT. MANHOLE 4-FT DIA. W/ TYPE C COVER

(214A) STA. 648+31.55 EB, 62.28'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(215) STA. 649+67.64 EB, 85.00'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(216) STA. 643+28.38 EB, 117.10'LT. MANHOLE 5-FT DIA. W/ TYPE C COVER

(216A) STA. 643+35.54 EB, 140.00'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

N

LEGEND

- PROPOSED STORM SEWER
- SS EXISTING STORM SEWER TO REMAIN
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- (B) ADJUSTED INLETS (SEE CONSTRUCTION DETAILS)
- PROPOSED INLET
- PROPOSED MANHOLE
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"
- PROPOSED DOWNSPOUT
- PROPOSED DOWNSPOUT DRAIN
- EXISTING STORM SEWER (PROFILE)
- BIO-FILTRATION DRAIN TILE

NOTES

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4 FOR REQUIREMENTS.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON THE DATA PROVIDED.

-FOR STORM SEWER TRENCH RESTORATION EAST OF WATER STREET, SEE PAVING PLANS.

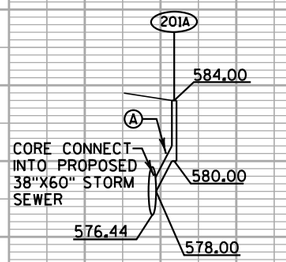
-UPON REMOVING EXISTING INLET AT STA. 639+25.33, 60.17'LT, REGRADE PARKING LOT AND SET PROPOSED STRUCTURE 206A AS LOW POINT.

-REFERENCE BIO-FILTRATION GRADING PLAN AND DETAILS 21 THROUGH 28 FOR PROPOSED BIO-FILTRATION BASIN ELEVATIONS AND INFORMATION.

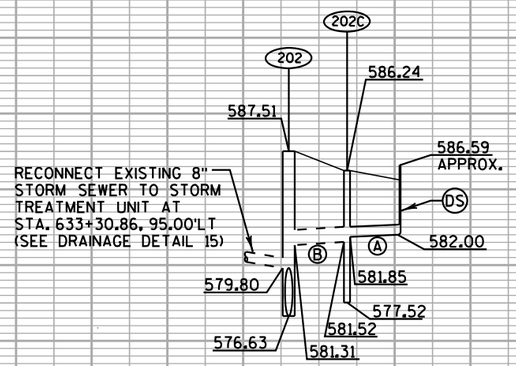
-POSITION PROPOSED MANHOLE 209A SO THAT PROPOSED CASTING IS OUT OF THE PEDESTRIAN PATH AS MUCH AS POSSIBLE.

-INSTALL TEMPORARY COVER PLATES ON STRUCTURES 212 AND 212B IN STAGE 1. FINAL COVERS TO BE INSTALLED IN STAGE 2B AFTER TEMPORARY PAVEMENT IS REMOVED.

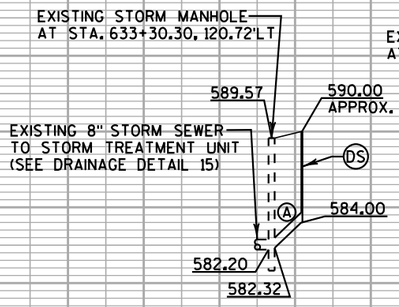
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 125	E



SS SYSTEM 201



SS SYSTEM 202



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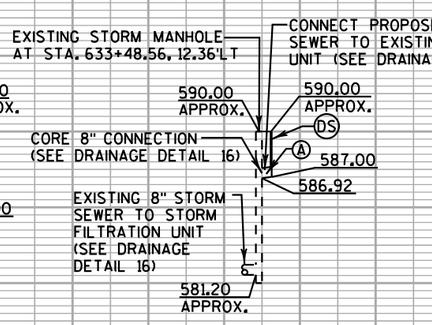

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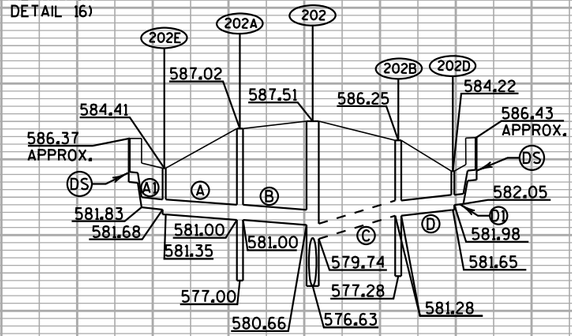
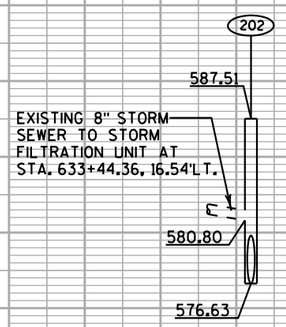
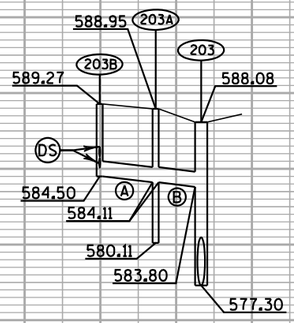


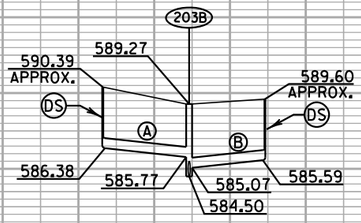
SS SYSTEM 202



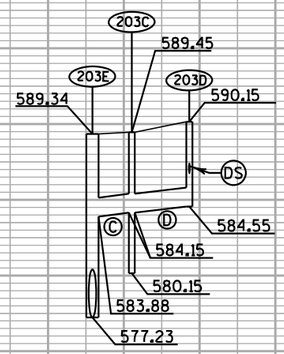
SS SYSTEM 202



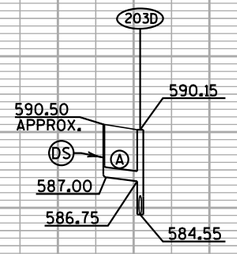
SS SYSTEM 203



SS SYSTEM 203



SS SYSTEM 203



SS SYSTEM 203

NOTE

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4 FOR REQUIREMENTS.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON THE DATA PROVIDED.

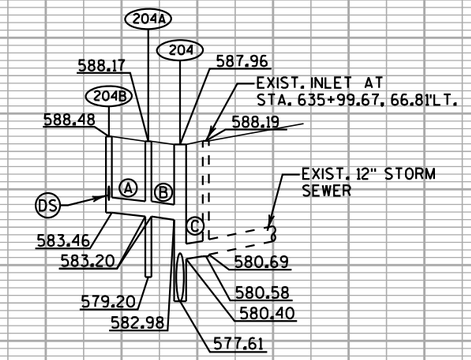
-FOR STORM SEWER TRENCH RESTORATION EAST OF WATER STREET, SEE PAVING PLANS. FOR TRENCH RESTORATION WEST OF WATER STREET, SEE CONTOURS PLAN.

-FOR INSTALLATION OF PROPOSED DOWNSPOUTS TO PROPOSED STRUCTURES 202C, 202D, AND 202E. (SEE DRAINAGE DETAIL 29 AND 30).

LEGEND

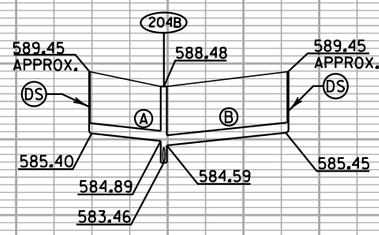
(DS) PROPOSED DOWNSPOUT CONNECTION. SEE DRAINAGE DETAIL 6, 7, AND 8.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 126	E



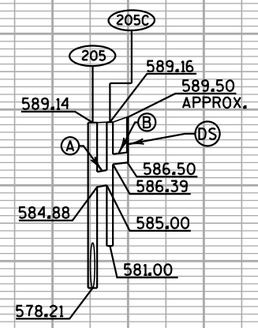
Ⓐ 25' OF 12" SSPRC @ 0.0104'/'
Ⓑ 20' OF 12" SSPRC @ 0.0110'/'
Ⓒ 17' OF 12" SSPRC @ 0.0104'/'

SS SYSTEM 204



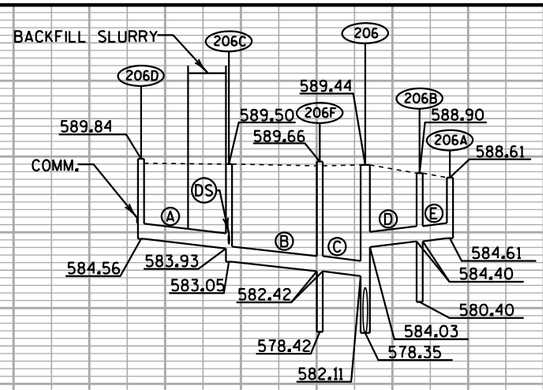
Ⓐ 49' OF 8" RTRP @ 0.0104'/'
Ⓑ 82' OF 8" RTRP @ 0.0105'/'

SS SYSTEM 204



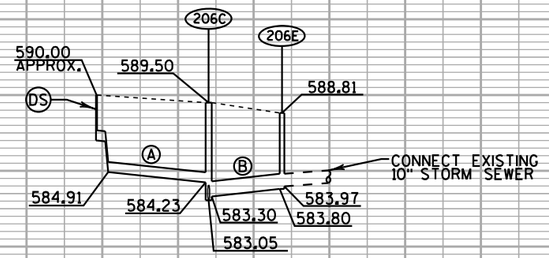
Ⓐ 11' OF 12" SSPRC @ 0.0110'/'
Ⓑ 11' OF 8" RTRP @ 0.0104'/'

SS SYSTEM 205



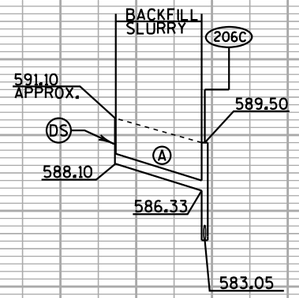
Ⓐ 58' OF 12" SSPRC @ 0.0109'/'
Ⓑ 60' OF 12" SSPRC @ 0.0105'/'
Ⓒ 30' OF 12" SSPRC @ 0.0104'/'
Ⓓ 36' OF 12" SSPRC @ 0.0104'/'
Ⓔ 20' OF 12" SSPRC @ 0.0105'/'

SS SYSTEM 206



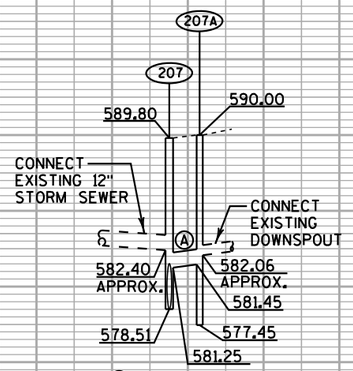
Ⓐ 66' OF 8" RTRP @ 0.0103'/'
Ⓑ 48' OF 12" SSPRC @ 0.0104'/'

SS SYSTEM 206



Ⓐ 59' OF 8" RTRP @ 0.0300'/'

SS SYSTEM 206



Ⓐ 20' OF 12" SSPRC @ 0.0100'/'

SS SYSTEM 207

NOTE

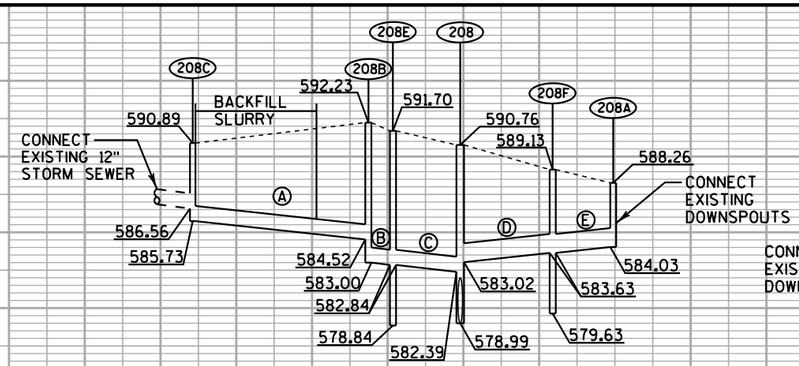
-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4 FOR REQUIREMENTS.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON THE DATA PROVIDED.

-FOR STORM SEWER TRENCH RESTORATION EAST OF WATER STREET, SEE PAVING PLANS. FOR TRENCH RESTORATION WEST OF WATER STREET, SEE CONTOURS PLAN.

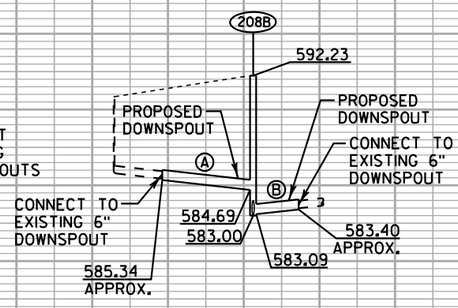
LEGEND

(DS) PROPOSED DOWNSPOUT CONNECTION. SEE DRAINAGE DETAIL 6, 7, AND 8.



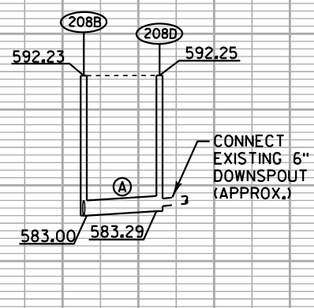
Ⓐ 116' OF 12" SSPRC @ 0.0104'/'
Ⓑ 16' OF 12" SSPRC @ 0.0100'/'
Ⓒ 42' OF 12" SSPRC @ 0.0107'/'
Ⓓ 59' OF 15" SSPRC @ 0.0103'/'
Ⓔ 40' OF 15" SSPRC @ 0.0100'/'

SS SYSTEM 208



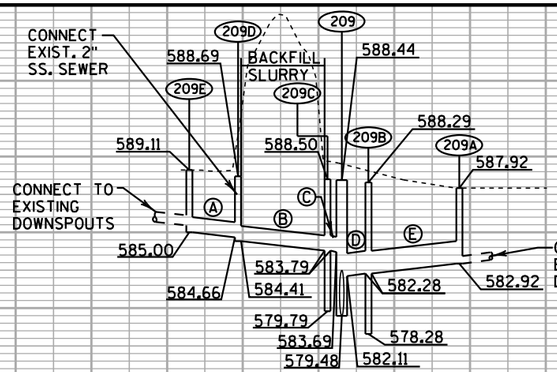
Ⓐ 60' OF 8" RTRP
Ⓑ 30' OF 8" RTRP

SS SYSTEM 208



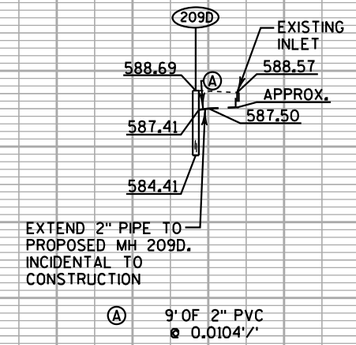
Ⓐ 50' OF 12" SSPRC @ 0.0058'/'

SS SYSTEM 208



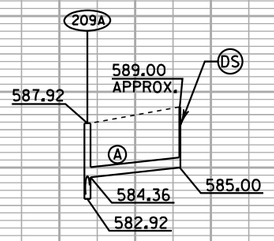
Ⓐ 32' OF 12" SSPRC @ 0.0106'/'
Ⓑ 59' OF 12" SSPRC @ 0.0105'/'
Ⓒ 10' OF 12" SSPRC @ 0.0100'/'
Ⓓ 18' OF 18" SSPRC @ 0.0095'/'
Ⓔ 60' OF 18" SSPRC @ 0.0107'/'

SS SYSTEM 209



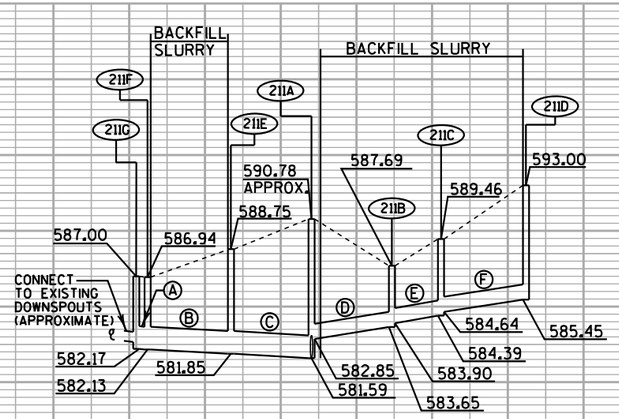
Ⓐ 9' OF 2" PVC @ 0.0104'/'

SS SYSTEM 209



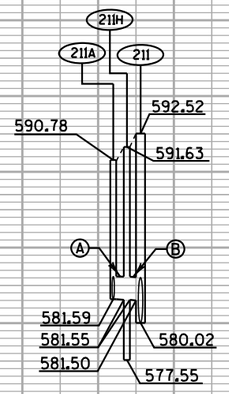
Ⓐ 61' OF 8" RTRP @ 0.0105'/'

SS SYSTEM 209



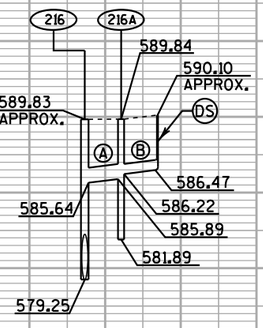
Ⓐ 8' OF 18" SSPRC @ 0.0053'/'
Ⓑ 55' OF 18" SSPRC @ 0.0051'/'
Ⓒ 53' OF 18" SSPRC @ 0.0050'/'
Ⓓ 53' OF 12" SSPRC @ 0.0151'/'
Ⓔ 32' OF 12" SSPRC @ 0.0152'/'
Ⓕ 54' OF 12" SSPRC @ 0.0150'/'

SS SYSTEM 211



Ⓐ 9' OF 18" SSPRC @ 0.0050'/'
Ⓑ 9' OF 18" SSPRC @ 0.0051'/'

SS SYSTEM 211



Ⓐ 24' OF 12" SSPRC @ 0.0104'/'
Ⓑ 24' OF 8" RTRP @ 0.0104'/'

SS SYSTEM 216

NOTE

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4 FOR REQUIREMENTS.

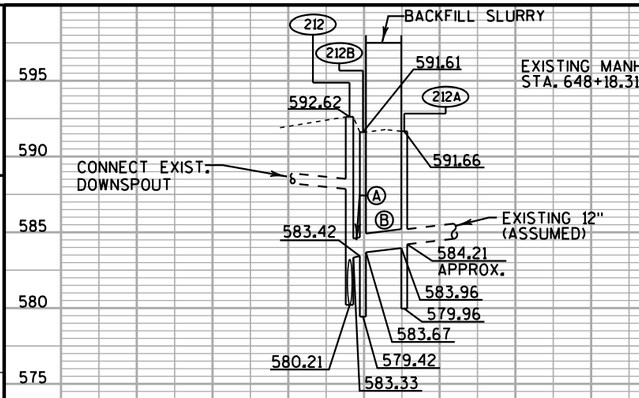
-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON THE DATA PROVIDED.

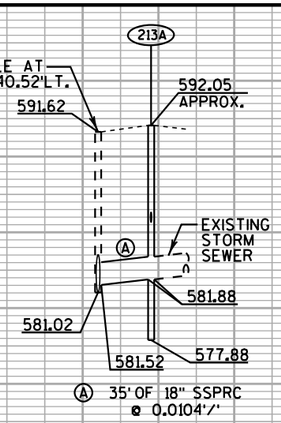
-FOR STORM SEWER TRENCH RESTORATION EAST OF WATER STREET, SEE PAVING PLANS. FOR TRENCH RESTORATION WEST OF WATER STREET, SEE CONTOURS PLAN.

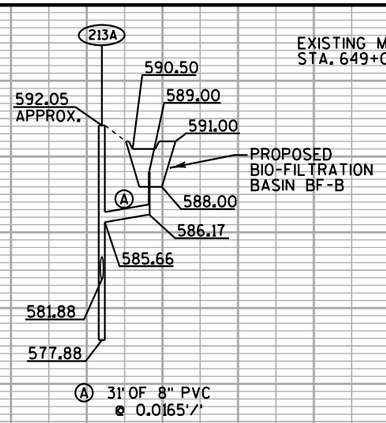
LEGEND

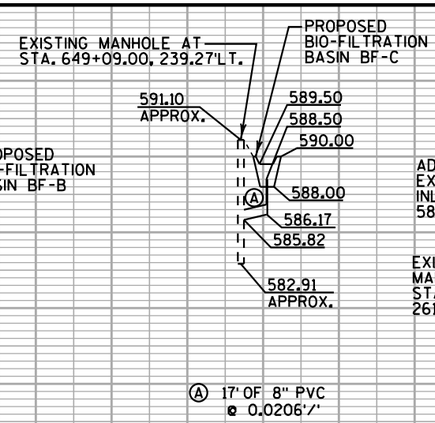
(DS) PROPOSED DOWNSPOUT CONNECTION. SEE DRAINAGE DETAIL 6, 7, AND 8.

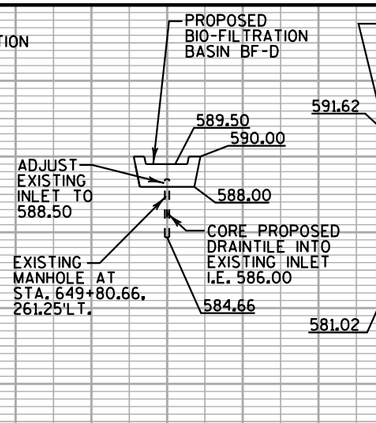
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 128	E

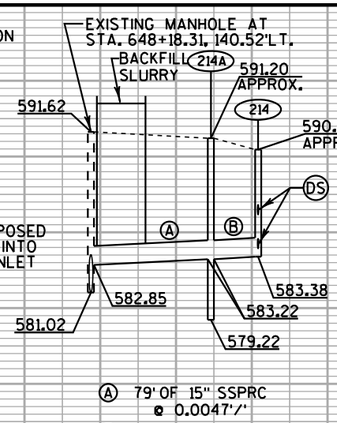


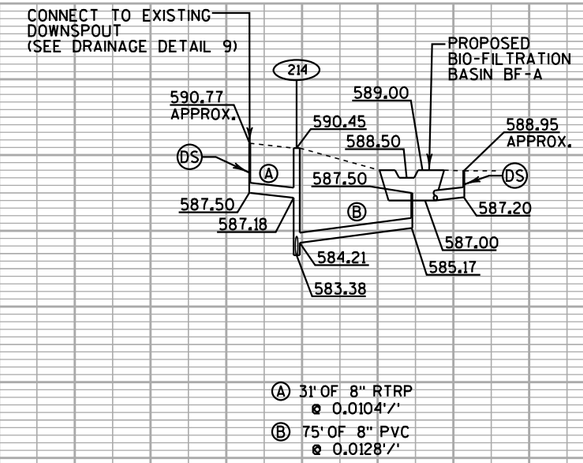


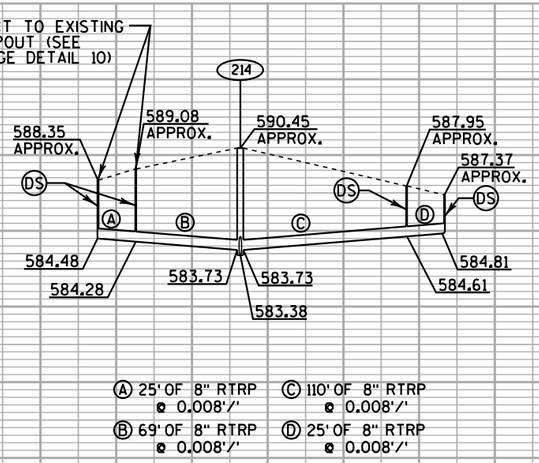


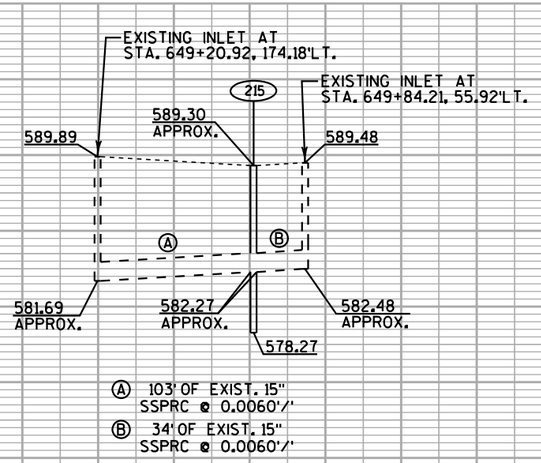












NOTE

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4 FOR REQUIREMENTS.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON THE DATA PROVIDED.

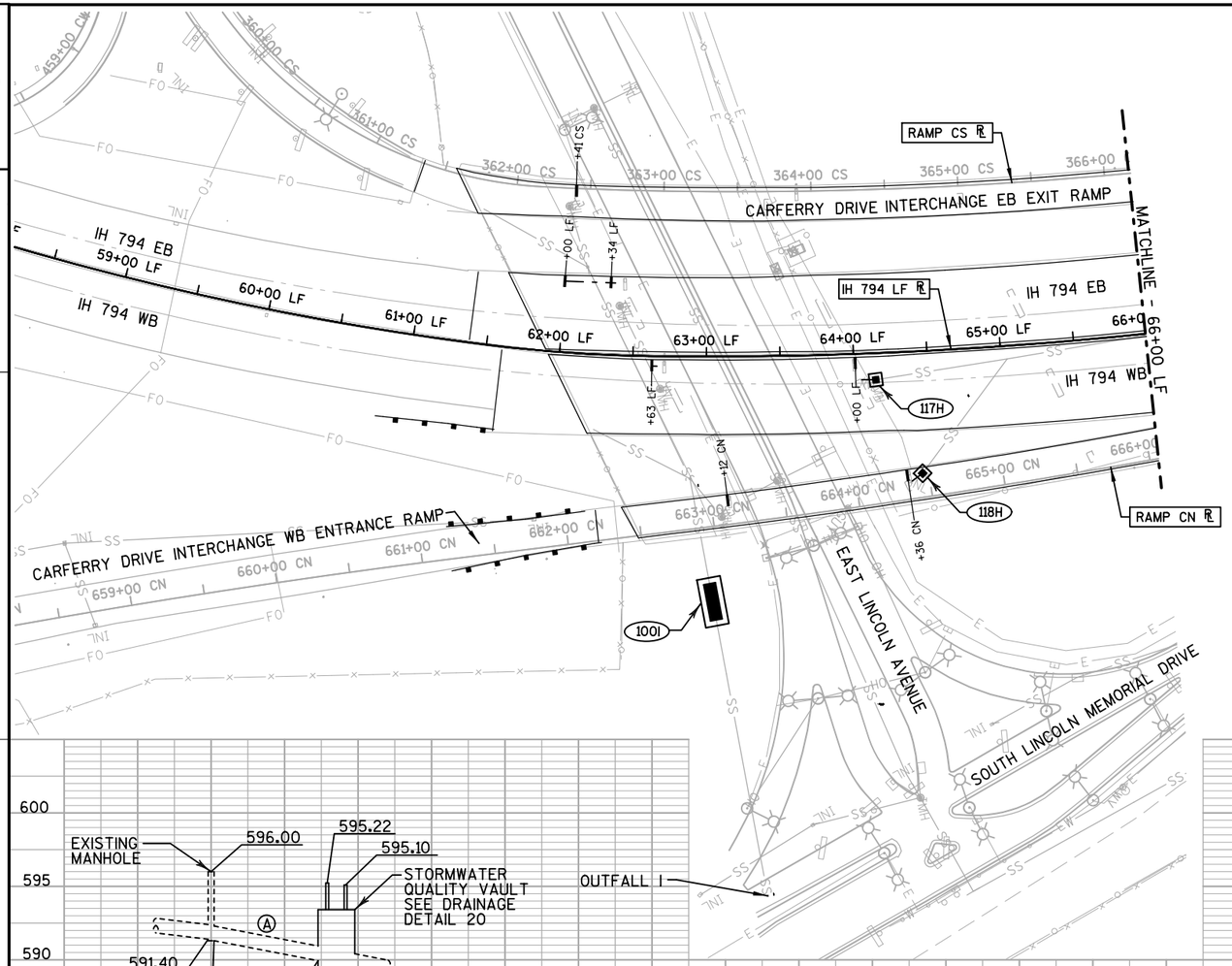
-FOR STORM SEWER TRENCH RESTORATION EAST OF WATER STREET, SEE PAVING PLANS. FOR TRENCH RESTORATION WEST OF WATER STREET, SEE CONTOURS PLAN.

-FOR ADDITIONAL BIO-FILTRATION BASIN DETAILS AND INFORMATION, SEE BIO-FILTRATION GRADING PLAN AND DETAILS 21 THROUGH 28.

LEGEND

(DS) PROPOSED DOWNSPOUT CONNECTION. SEE DRAINAGE DETAIL 6, 7, AND 8.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 129	E



LEGEND

- PROPOSED STORM SEWER
- EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT "MOD"
- PROPOSED STORMWATER QUALITY VAULT

(100I) STA. 63+04.28 LF, 166.97'RT. STORMWATER QUALITY VAULT W/ TYPE M COVERS (2)

(117H) STA. 64+14.57 LF, 18.08'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(118H) STA. 64+43.11 LF, 83.07'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

NOTES

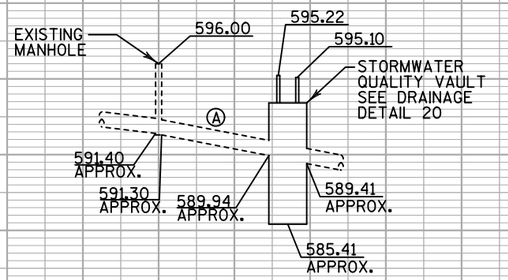
-OUTFALL I CONNECTS TO EXISTING STORM SEWER SYSTEM.

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

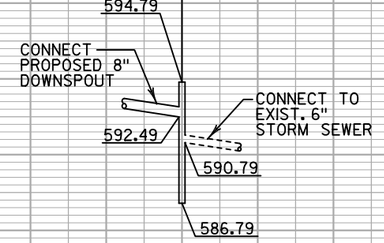
-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

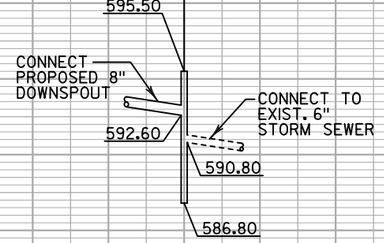


(A) 71' OF EXIST. 12" STORM. SEWER @ 0.019'/'

OUTFALL SYSTEM I

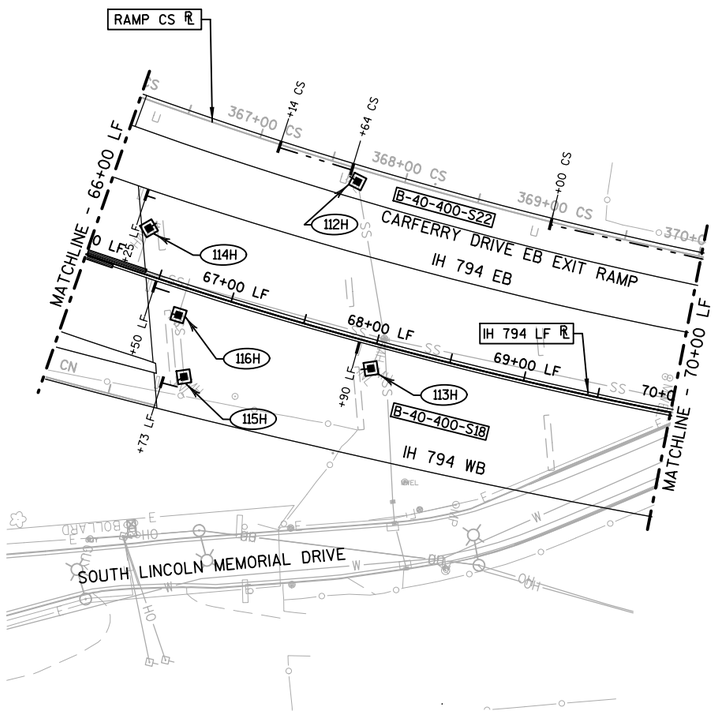


OUTFALL SYSTEM H



OUTFALL SYSTEM H

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 130	E



LEGEND

- PROPOSED STORM SEWER
- SS — EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"

(112H) STA. 67+58.47 LF, 99.83'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(113H) STA. 68+00.64 LF, 16.75'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(114H) STA. 66+33.24 LF, 29.61'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(115H) STA. 66+85.08 LF, 56.55'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(116H) STA. 66+69.60 LF, 18.82'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

NOTES

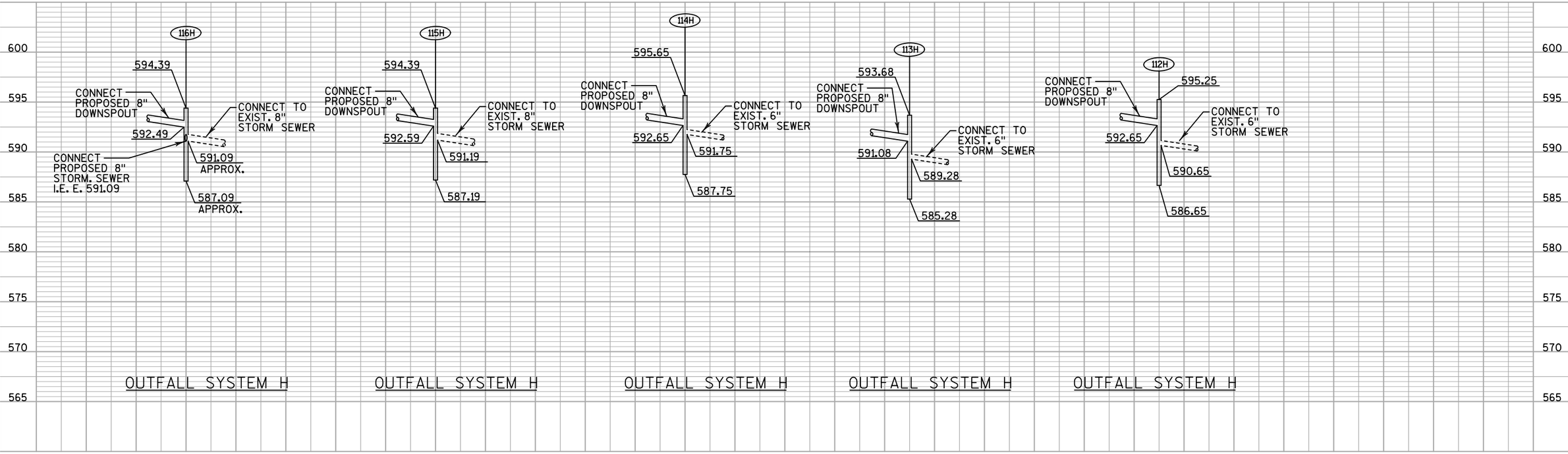
-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

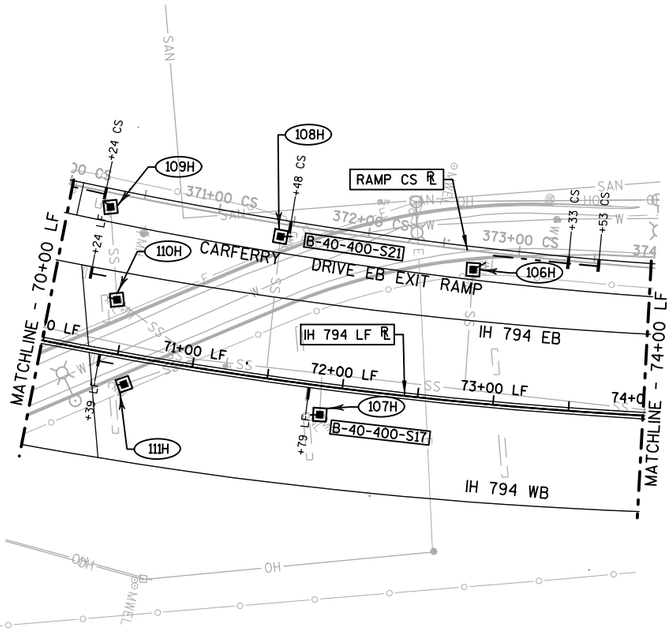
-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 131	E



(106H) STA. 72+78.41 LF, 87.46'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(107H) STA. 71+87.45 LF, 18.95'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(108H) STA. 71+45.31 LF, 93.99'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(109H) STA. 70+27.54 LF, 94.96'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(110H) STA. 70+43.11 LF, 35.52'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(111H) STA. 70+57.50 LF, 18.59'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

LEGEND

- PROPOSED STORM SEWER
- SS — EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"

NOTES

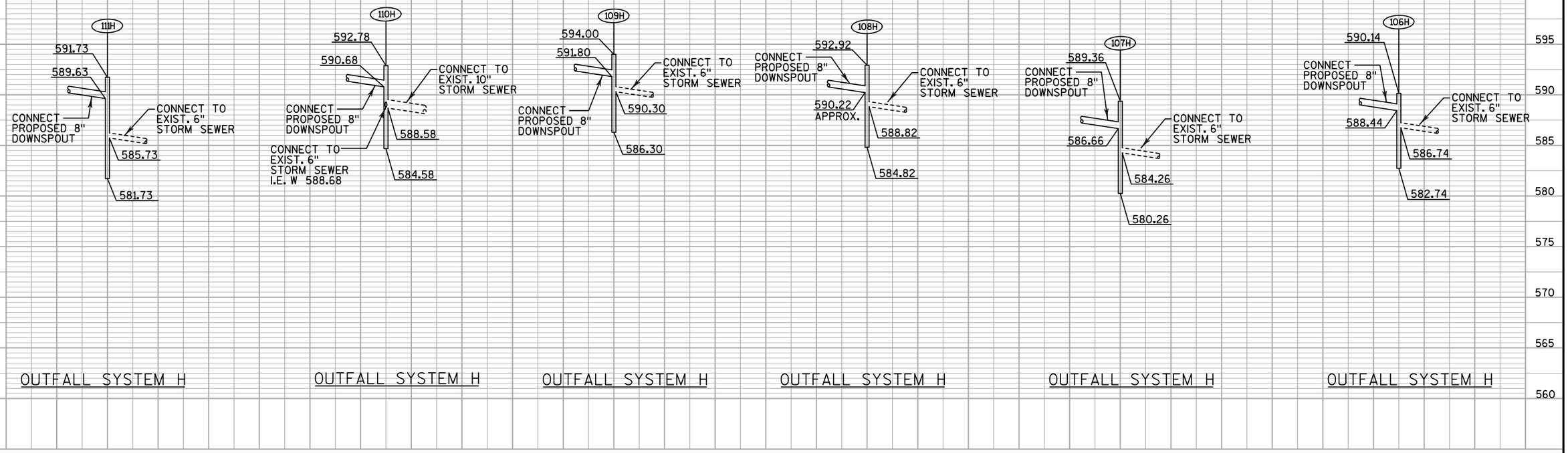
-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.



OUTFALL SYSTEM H | OUTFALL SYSTEM H | OUTFALL SYSTEM H | OUTFALL SYSTEM H | OUTFALL SYSTEM H | OUTFALL SYSTEM H

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 132	E

LEGEND

- PROPOSED STORM SEWER
- SS — EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"

NOTES

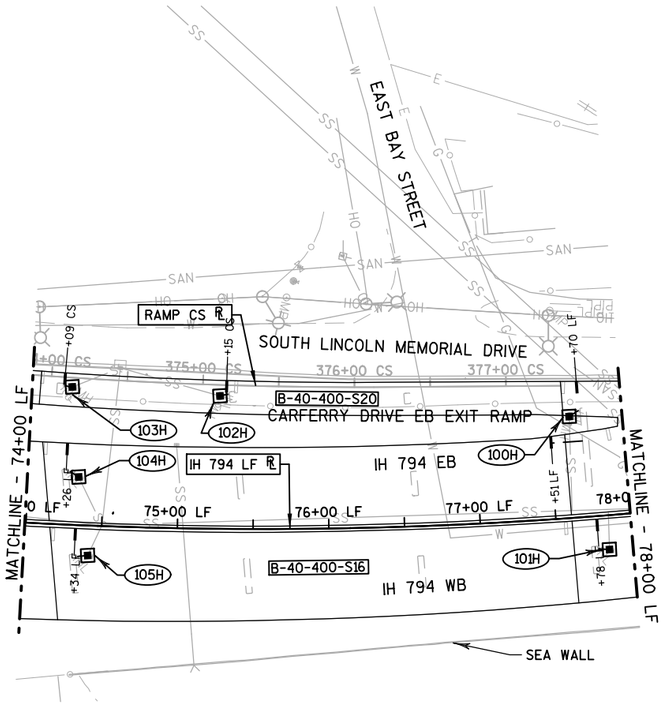
-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.



100H STA. 77+63.67 LF, 66.93'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

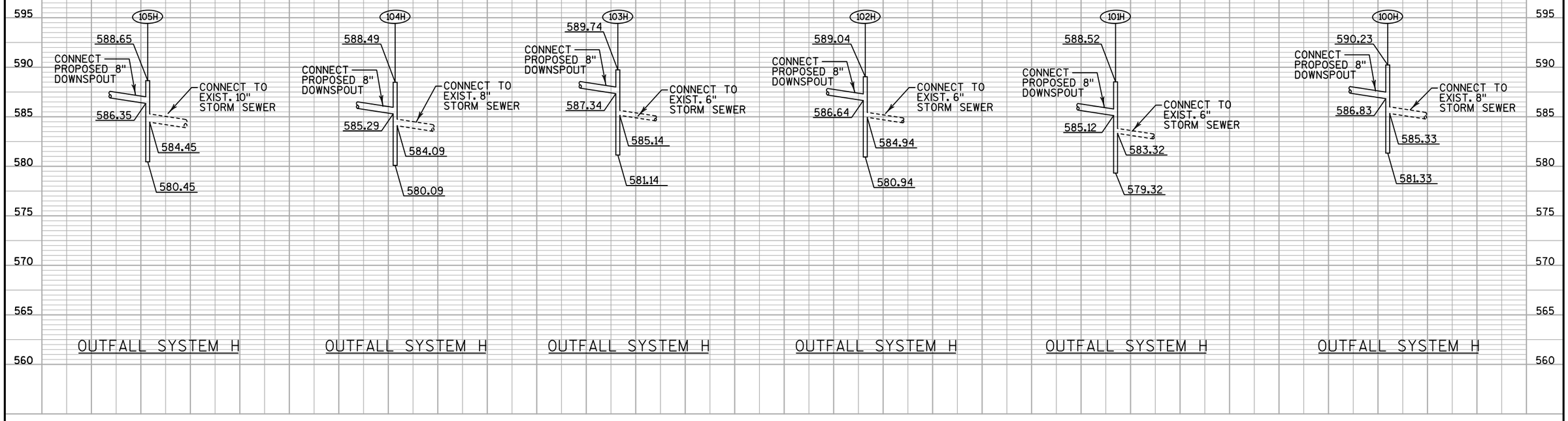
101H STA. 77+83.71 LF, 22.61'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

102H STA. 75+27.25 LF, 87.72'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

103H STA. 74+26.51 LF, 90.86'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

104H STA. 74+33.44 LF, 31.78'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

105H STA. 74+41.54 LF, 19.75'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER



OUTFALL SYSTEM H | OUTFALL SYSTEM H | OUTFALL SYSTEM H | OUTFALL SYSTEM H | OUTFALL SYSTEM H | OUTFALL SYSTEM H

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 133	E

LEGEND

- PROPOSED STORM SEWER
- EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN4-FT DIA. "MOD"

NOTES

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.

(116G) STA. 81+69.09 LF, 28.58'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

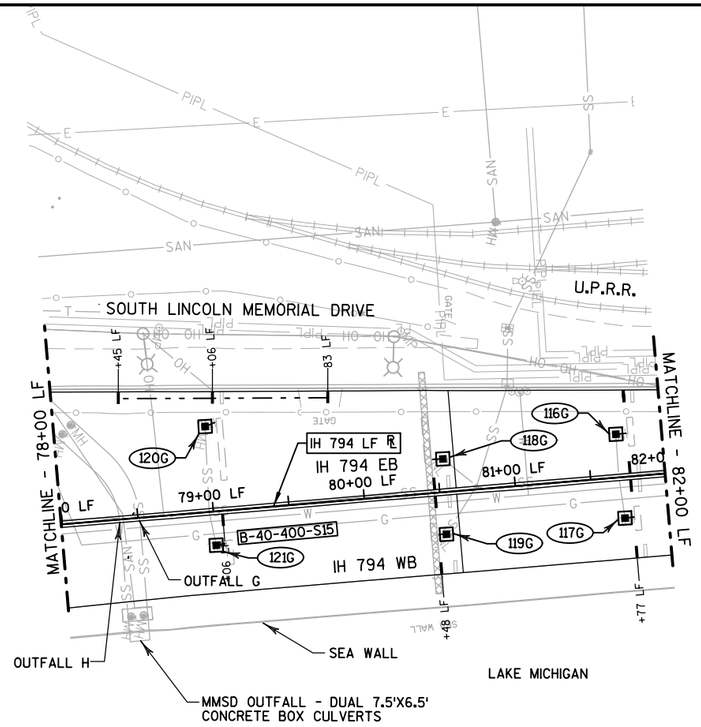
(117G) STA. 81+70.45 LF, 27.10'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

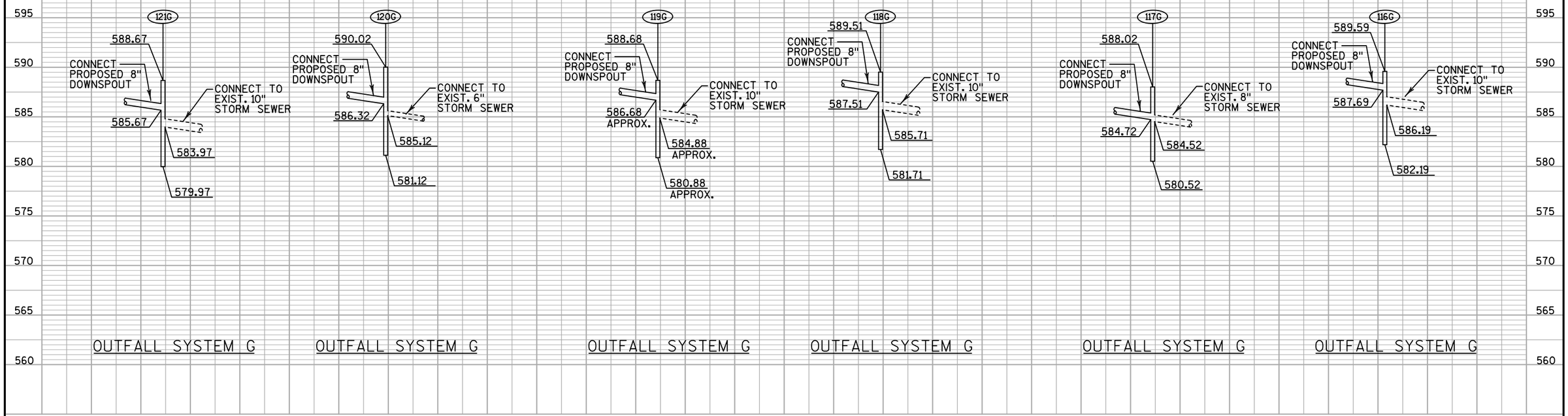
(118G) STA. 80+53.94 LF, 21.91'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(119G) STA. 80+52.13 LF, 27.83'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

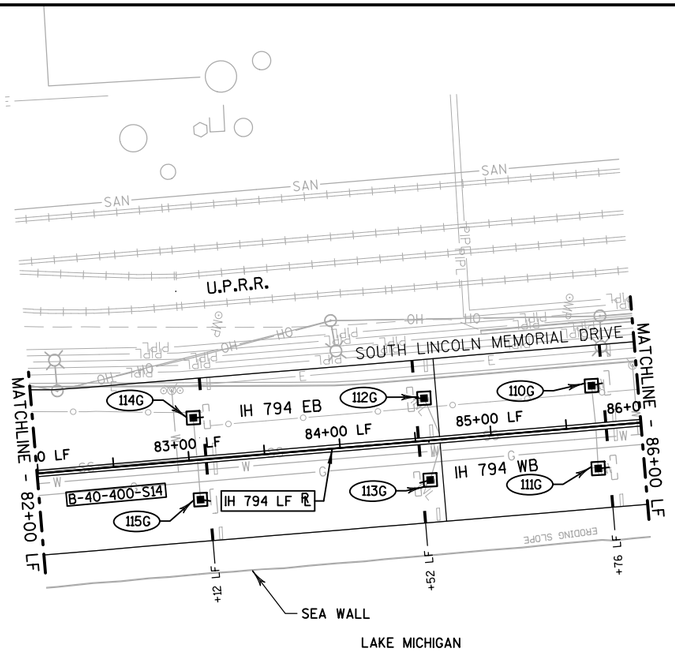
(120G) STA. 78+99.29 LF, 56.36'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(121G) STA. 79+00.06 LF, 22.30'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER





PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 134	E



LEGEND

- PROPOSED STORM SEWER
- SS — EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"

(110G) STA. 85+68.85 LF, 27.05'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(111G) STA. 85+68.70 LF, 27.75'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(112G) STA. 84+57.99 LF, 28.06'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(113G) STA. 84+57.54 LF, 26.02'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(114G) STA. 83+05.09 LF, 28.00'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(115G) STA. 83+05.33 LF, 26.23'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

NOTES

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

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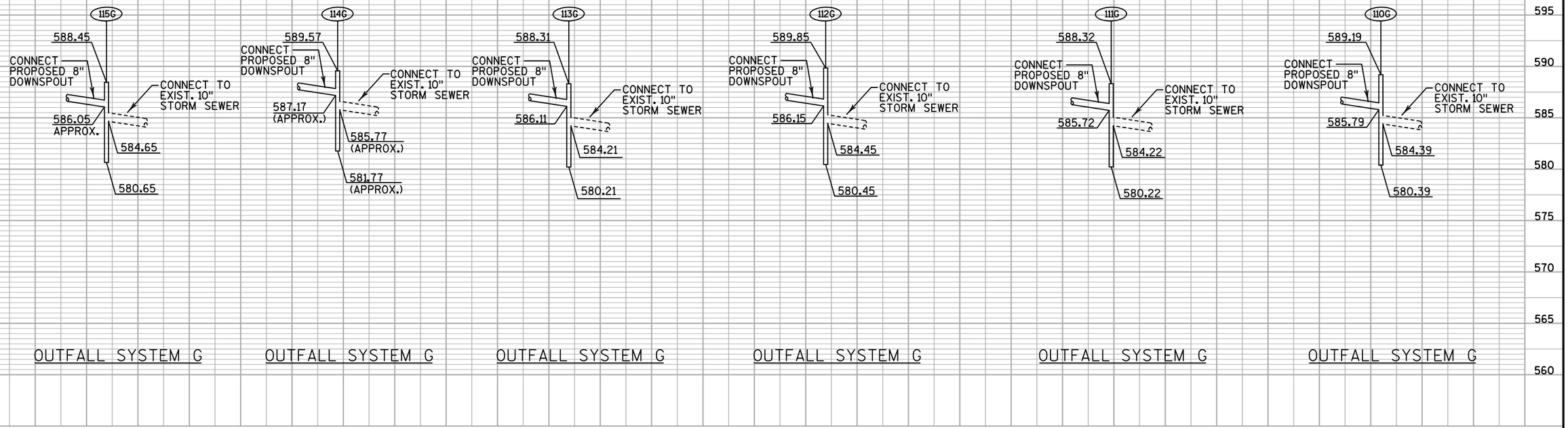
-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.



OUTFALL SYSTEM G | OUTFALL SYSTEM G | OUTFALL SYSTEM G | OUTFALL SYSTEM G | OUTFALL SYSTEM G | OUTFALL SYSTEM G

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 135	E

2

(104G) STA. 89+58.92 LF, 28.22'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

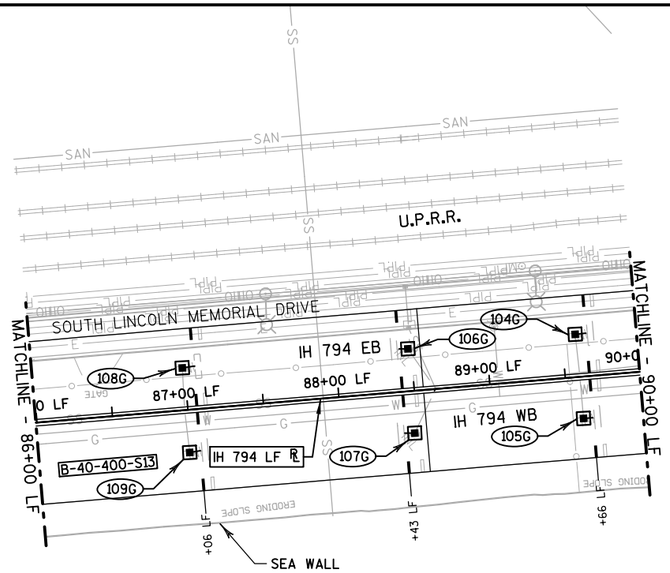
(105G) STA. 89+59.76 LF, 27.56'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(106G) STA. 88+48.07 LF, 27.97'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(107G) STA. 88+47.94 LF, 27.87'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(108G) STA. 86+98.62 LF, 27.89'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(109G) STA. 86+98.82 LF, 28.13'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER



LEGEND

- PROPOSED STORM SEWER
- SS EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"

NOTES

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

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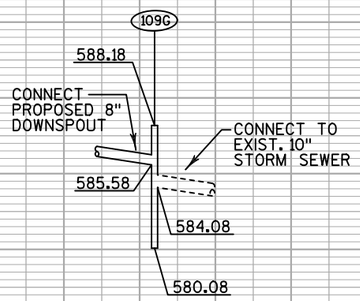
-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

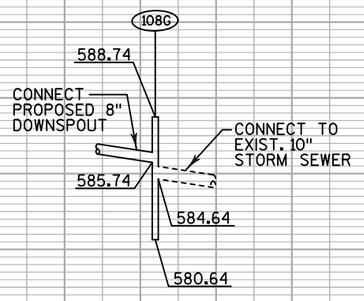
-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.

595 590 585 580 575 570 565 560



OUTFALL SYSTEM G



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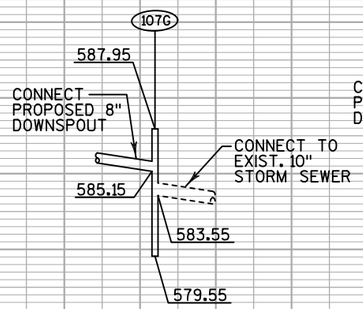

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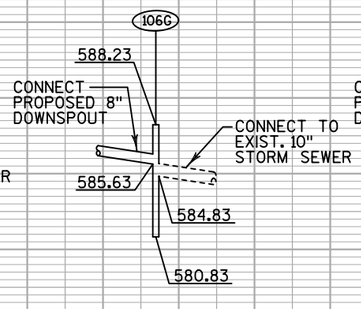

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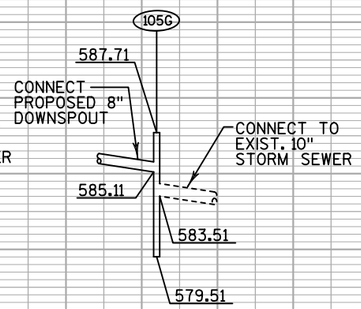
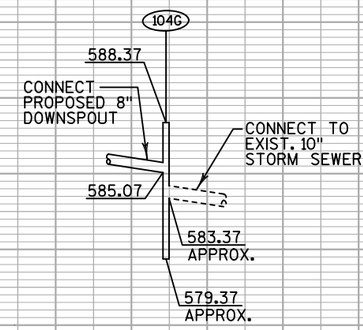


OUTFALL SYSTEM G



OUTFALL SYSTEM G

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 136	E

2

LEGEND

PROPOSED STORM SEWER

SS EXISTING STORM SEWER

PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)

EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)

PROPOSED CATCH BASIN 4-FT DIA. "MOD"

NOTES

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.

-TAKE CAUTION OF EXISTING WOOD PILINGS AND DOCK WALL TIE RODS WHEN PERFORMING WORK.

(100G) STA. 92+37.69 LF, 27.80'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

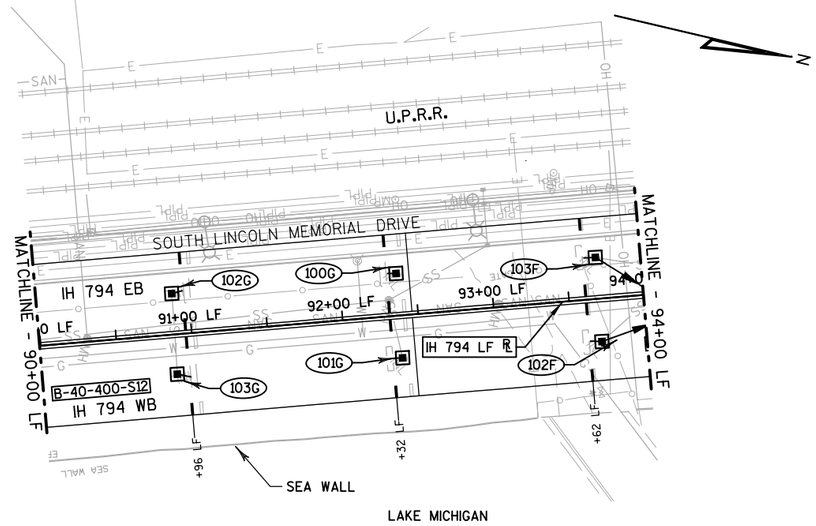
(101G) STA. 92+37.37 LF, 28.06'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

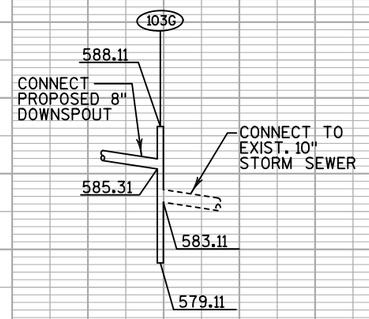
(102G) STA. 90+88.99 LF, 27.05'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(103G) STA. 90+88.24 LF, 26.29'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

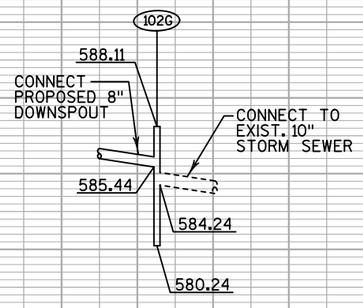
(102F) STA. 93+69.38 LF, 28.34'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(103F) STA. 93+69.38 LF, 28.34'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER





OUTFALL SYSTEM G



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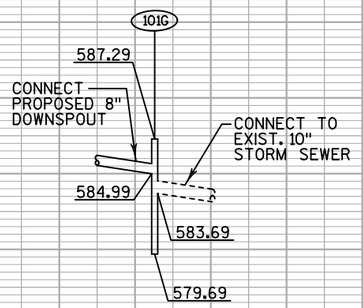
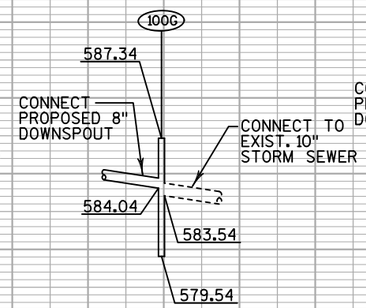
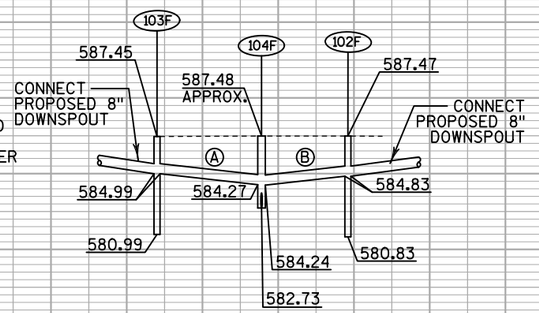


OUTFALL SYSTEM G



OUTFALL SYSTEM G

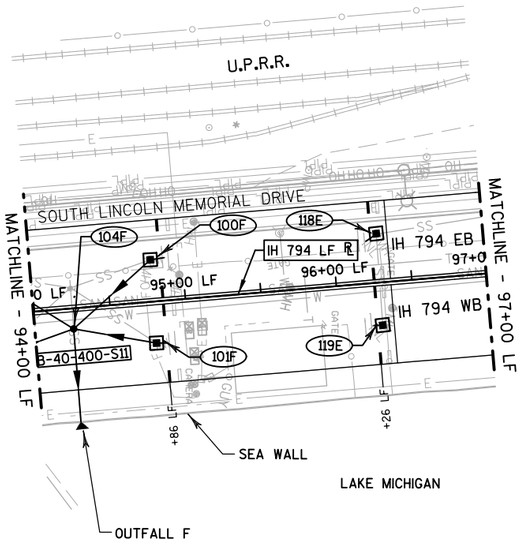


(A) 69' OF 8" RTRP @ 0.0104'/'

(B) 57' OF 8" RTRP @ 0.0104'/'

OUTFALL SYSTEM F

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 137	E



LEGEND

- PROPOSED STORM SEWER
- SS — EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"

(100F) STA. 94+79.06 LF, 27.65'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(101F) STA. 94+78.57 LF, 27.45'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(104F) STA. 94+24.84 LF, 13.55'RT.
MANHOLE 5-FT DIA.
W/ TYPE C COVER

(118E) STA. 96+29.16 LF, 32.36'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(119E) STA. 96+28.38 LF, 28.24'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

NOTES

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

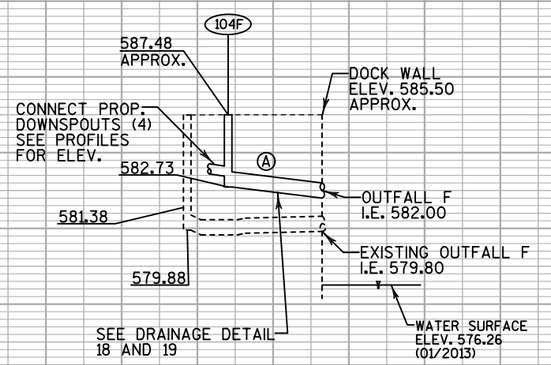
-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.

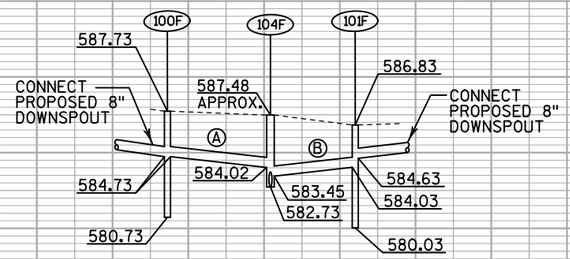
-TAKE CAUTION OF EXISTING WOOD PILINGS AND DOCK WALL TIE RODS WHEN PERFORMING WORK.



Ⓐ 62' OF 12" SSPRC
@ 0.0120'/'

BOTTOM OF LAKE/SILT
ELEVATION 563.70

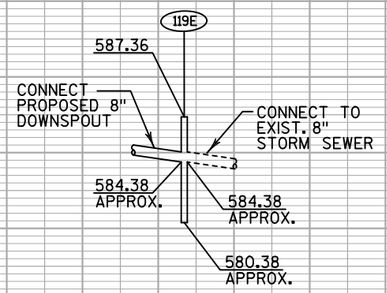
OUTFALL SYSTEM F



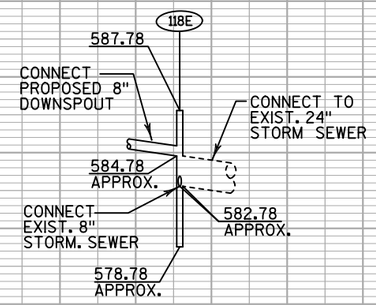
Ⓐ 68' OF 8" RTRP
@ 0.0104'/'

Ⓑ 56' OF 8" RTRP
@ 0.0104'/'

OUTFALL SYSTEM F



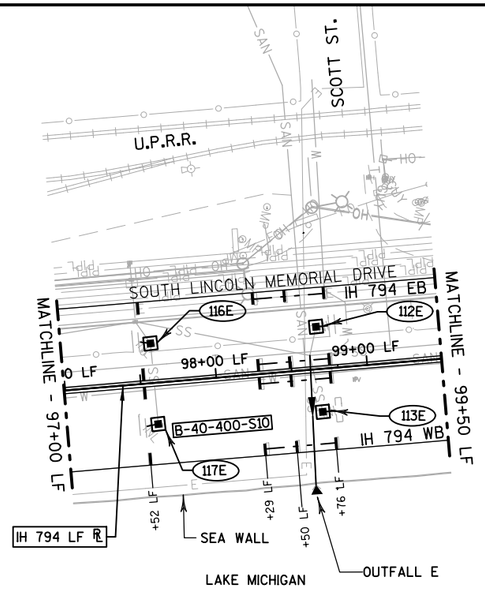
OUTFALL SYSTEM E



OUTFALL SYSTEM E

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 138	E

FILE NAME : IP_PWP:d0231471\022524_ss.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000017:1.000000



LEGEND

- PROPOSED STORM SEWER
- SS EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"

(112E) STA. 98+68.44 LF, 28.02'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(113E) STA. 98+68.23 LF, 28.34'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(116E) STA. 97+58.63 LF, 26.19'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(117E) STA. 97+59.30 LF, 27.27'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

NOTES

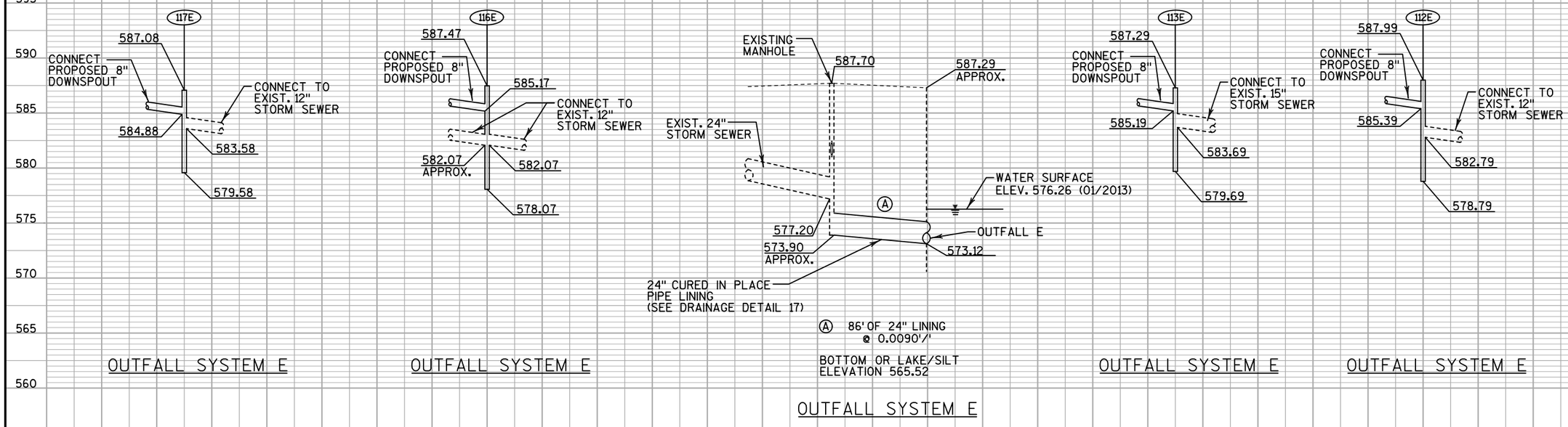
-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.



OUTFALL SYSTEM E

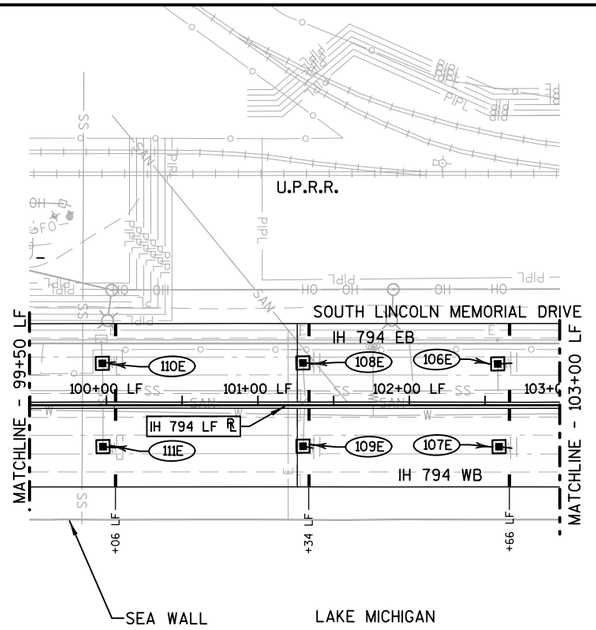
OUTFALL SYSTEM E

OUTFALL SYSTEM E

OUTFALL SYSTEM E

OUTFALL SYSTEM E

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 139	E



LEGEND

- PROPOSED STORM SEWER
- SS EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"

(106E) STA. 102+58.31 LF, 27.27'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(107E) STA. 102+59.20 LF, 27.40'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(108E) STA. 101+29.73 LF, 27.93'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(109E) STA. 101+29.78 LF, 27.06'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(110E) STA. 99+97.32 LF, 27.64'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(111E) STA. 99+97.73 LF, 27.35'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

NOTES

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

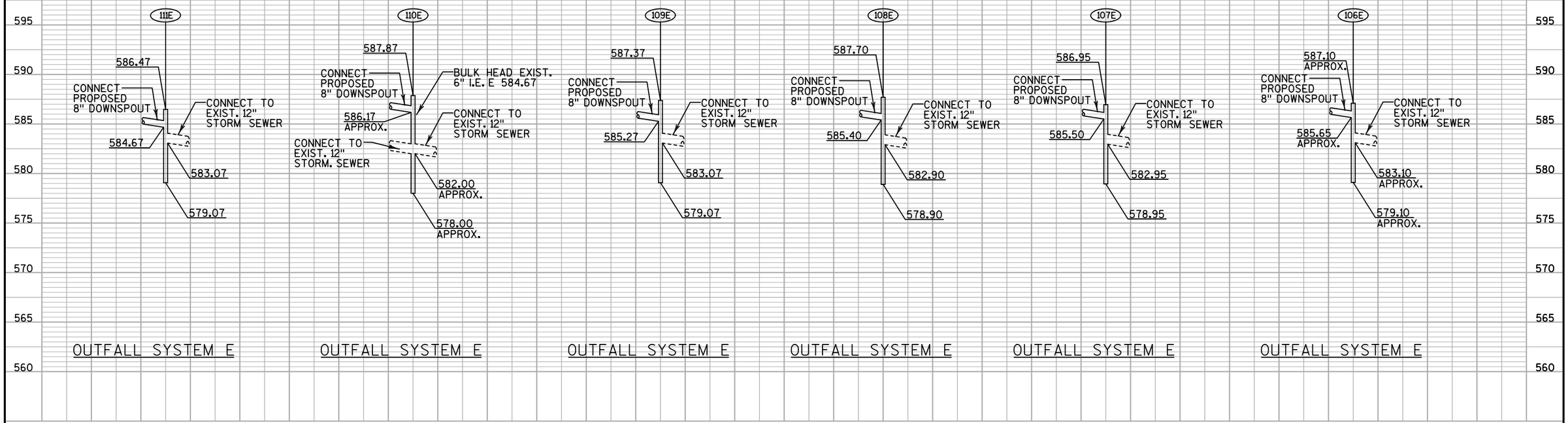
-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.

-CATCH BASIN RESTORATION SHALL CONSIST OF 3.5 INCHES OF ASPHALTIC SURFACE AND 12 INCHES OF BASE AGGREGATE DENSE 1-1/4 INCH.



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 140	E

(100E) STA. 106+48.79 LF, 36.35'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

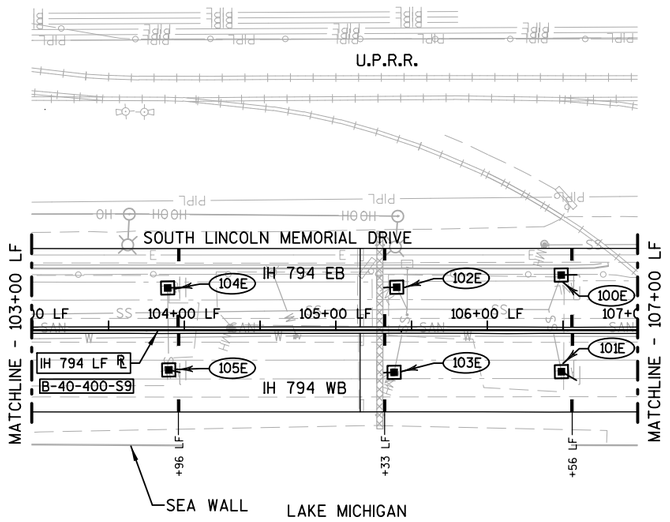
(101E) STA. 106+48.93 LF, 27.42'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(102E) STA. 105+40.19 LF, 28.32'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(103E) STA. 105+38.49 LF, 27.84'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(104E) STA. 103+88.98 LF, 27.87'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

(105E) STA. 103+89.69 LF, 26.25'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER



LEGEND

- PROPOSED STORM SEWER
- SS — EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"

N

NOTES

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

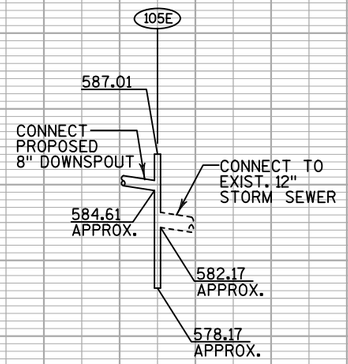
-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

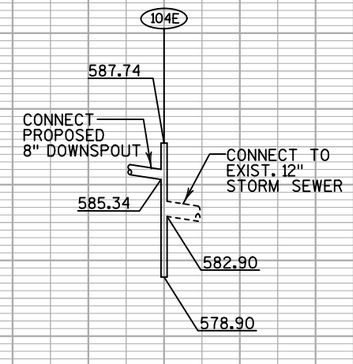
-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

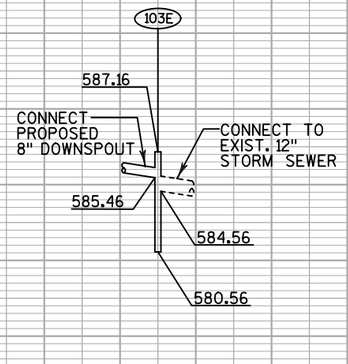
-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

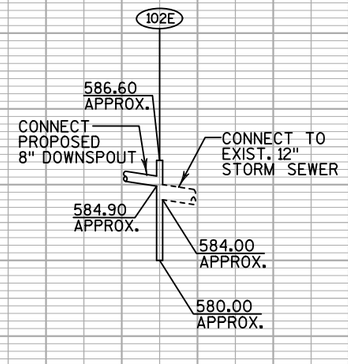
-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.

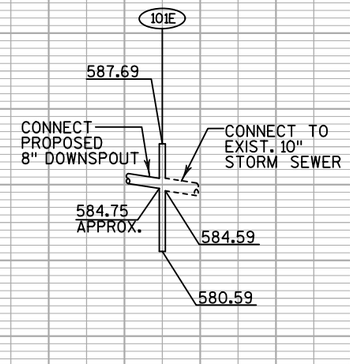
-CATCH BASIN RESTORATION SHALL CONSIST OF 3.5 INCHES OF ASPHALTIC SURFACE AND 12 INCHES OF BASE AGGREGATE DENSE 1-1/4 INCH.

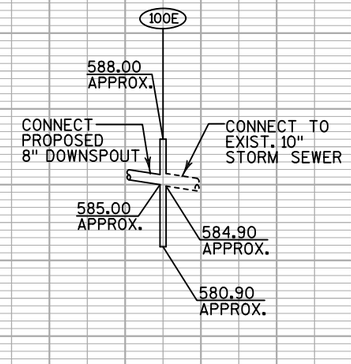












595 590 585 580 575 570 565 560

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 141	E

NOTES

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.

-CATCH BASIN RESTORATION SHALL CONSIST OF 3.5 INCHES OF ASPHALTIC SURFACE AND 12 INCHES OF BASE AGGREGATE DENSE 1-1/4 INCH.

LEGEND

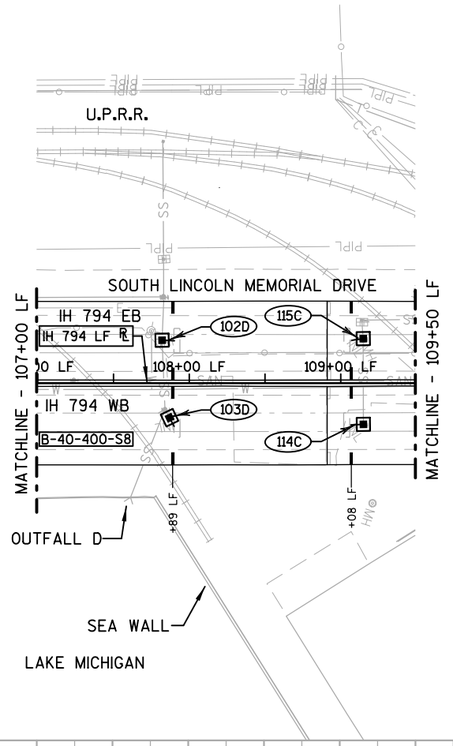
- PROPOSED STORM SEWER
- SS — EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"

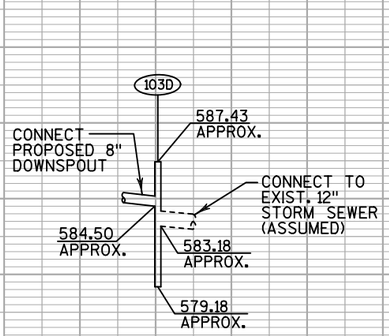
(102D) STA. 107+82.05 LF, 28.31'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(103D) STA. 107+86.98 LF, 22.85'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

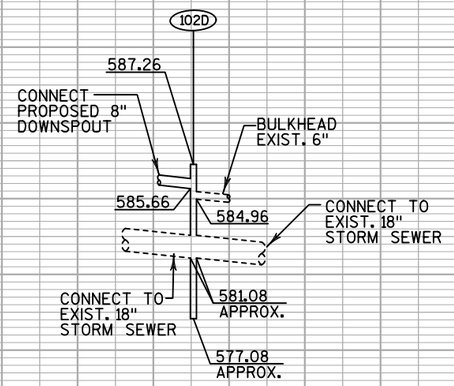
(114C) STA. 109+14.94 LF, 27.23'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(115C) STA. 109+14.87 LF, 29.35'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

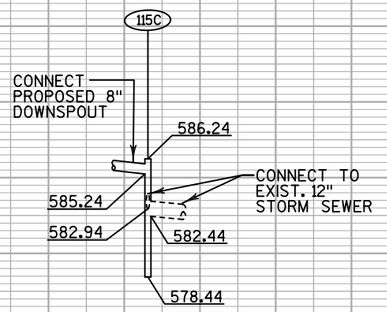




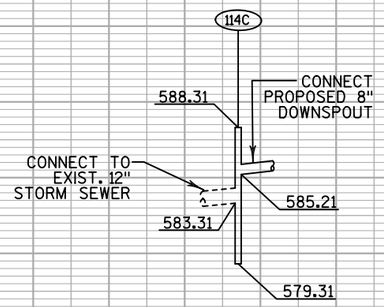
OUTFALL SYSTEM D



OUTFALL SYSTEM D



OUTFALL SYSTEM C



OUTFALL SYSTEM C

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 142	E

NOTES

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.

-CATCH BASIN RESTORATION SHALL CONSIST OF 3.5 INCHES OF ASPHALTIC SURFACE AND 12 INCHES OF BASE AGGREGATE DENSE 1-1/4 INCH.

LEGEND

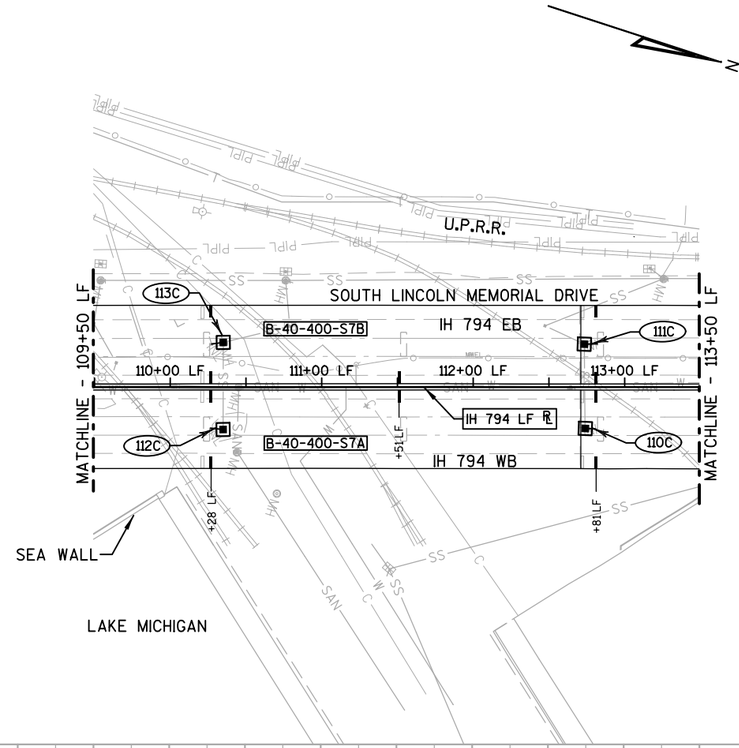
- PROPOSED STORM SEWER
- SS — EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"

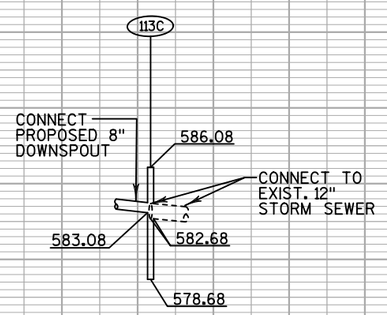
(110C) STA. 112+74.00 LF, 27.33'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(111C) STA. 112+73.35 LF, 28.32'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

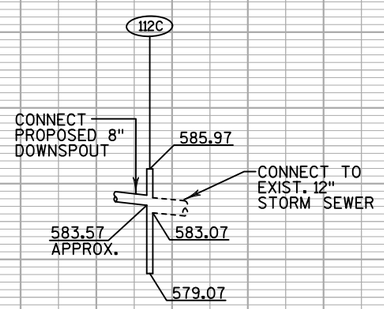
(112C) STA. 110+34.89 LF, 28.01'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(113C) STA. 110+35.01 LF, 29.48'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

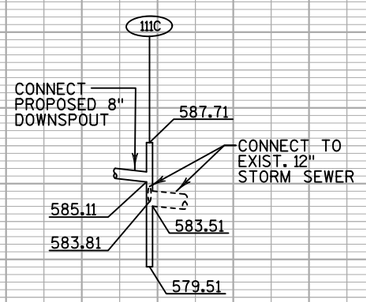




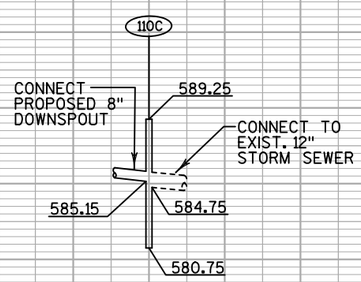
OUTFALL SYSTEM C



OUTFALL SYSTEM C

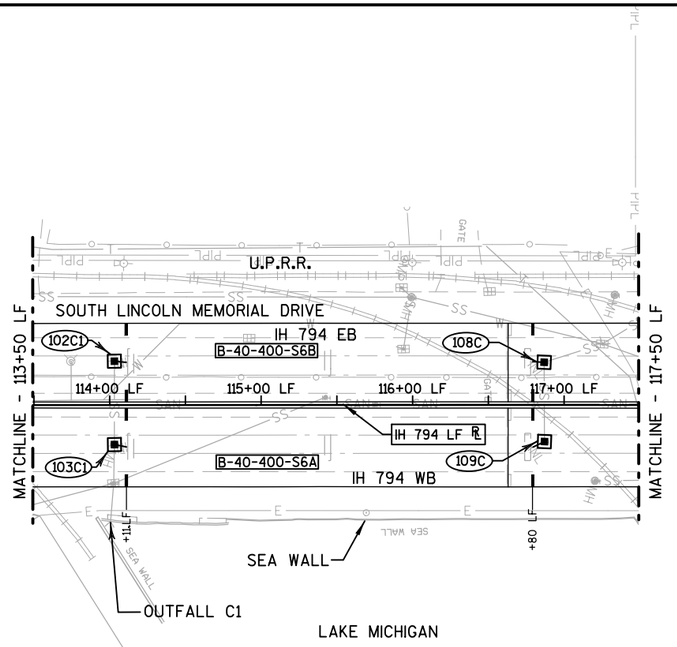


OUTFALL SYSTEM C



OUTFALL SYSTEM C

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 143	E



LEGEND

- PROPOSED STORM SEWER
- SS — EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"

(102C1) STA. 114+03.12 LF, 28.94'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(103C1) STA. 114+03.17 LF, 26.10'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(108C) STA. 116+86.82 LF, 28.20'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(109C) STA. 116+87.03 LF, 24.14'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

NOTES

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

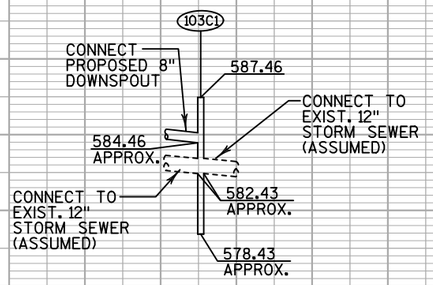
-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

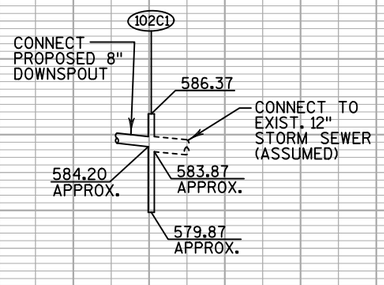
-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.

-CATCH BASIN RESTORATION SHALL CONSIST OF 3.5 INCHES OF ASPHALTIC SURFACE AND 12 INCHES OF BASE AGGREGATE DENSE 1-1/4 INCH.

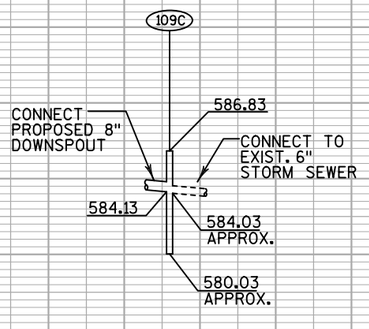
-OUTFALL C1 WAS RECONSTRUCTED AFTER COLLAPSING. A 24 INCH LINER WAS ADDED TO THE OUTFALL.



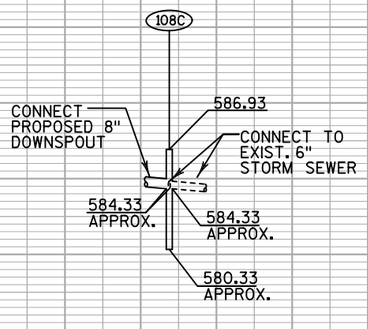
OUTFALL SYSTEM C1



OUTFALL SYSTEM C1



OUTFALL SYSTEM C



OUTFALL SYSTEM C

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 144	E

LEGEND

PROPOSED STORM SEWER

SS EXISTING STORM SEWER

PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)

EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)

PROPOSED CATCH BASIN 4-FT DIA. "MOD"

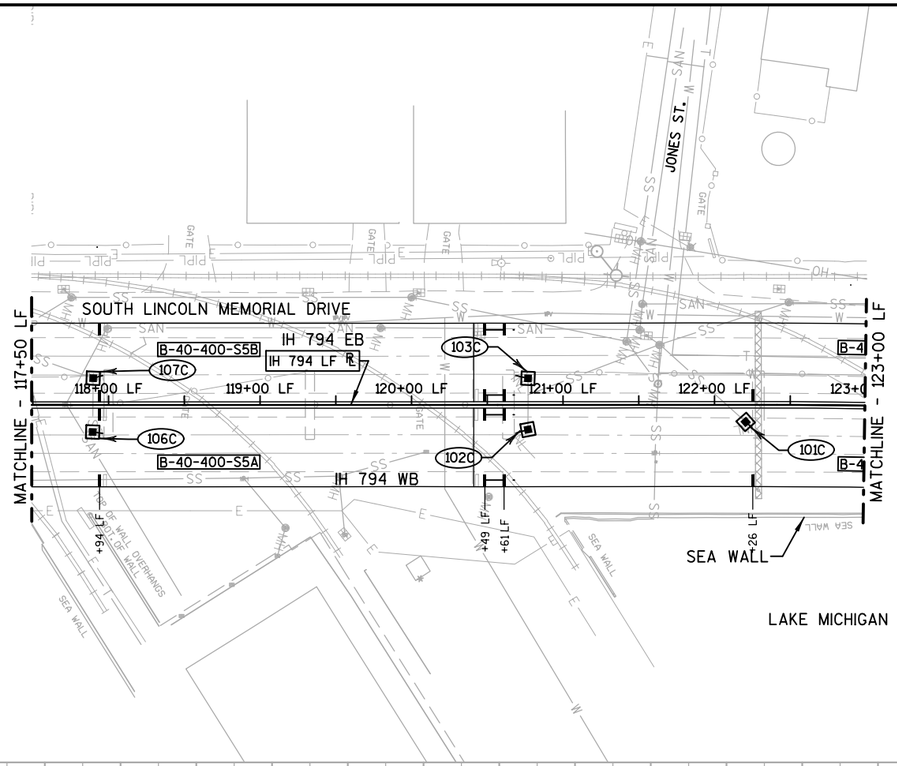
(101C) STA. 122+20.55 LF, 11.24'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(102C) STA. 120+76.83 LF, 16.26'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(103C) STA. 120+76.88 LF, 17.53'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(106C) STA. 117+89.49 LF, 17.84'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(107C) STA. 117+89.83 LF, 17.68'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER



NOTES

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

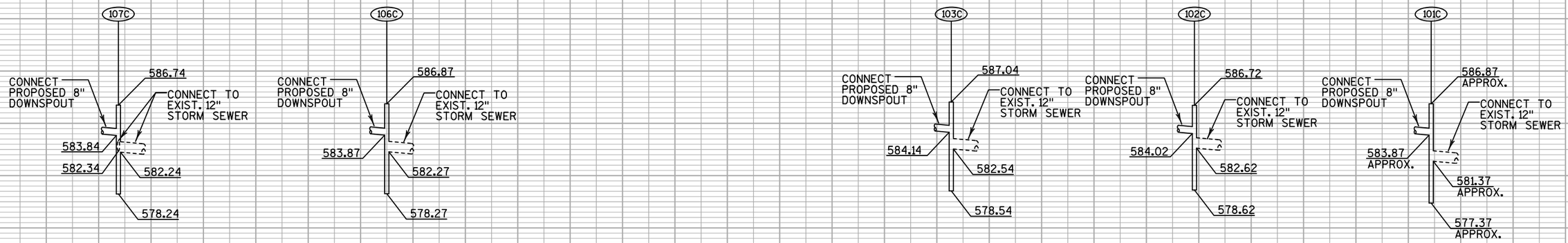
-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.

-CATCH BASIN RESTORATION SHALL CONSIST OF 3.5 INCHES OF ASPHALTIC SURFACE AND 12 INCHES OF BASE AGGREGATE DENSE 1-1/4 INCH.



OUTFALL SYSTEM C

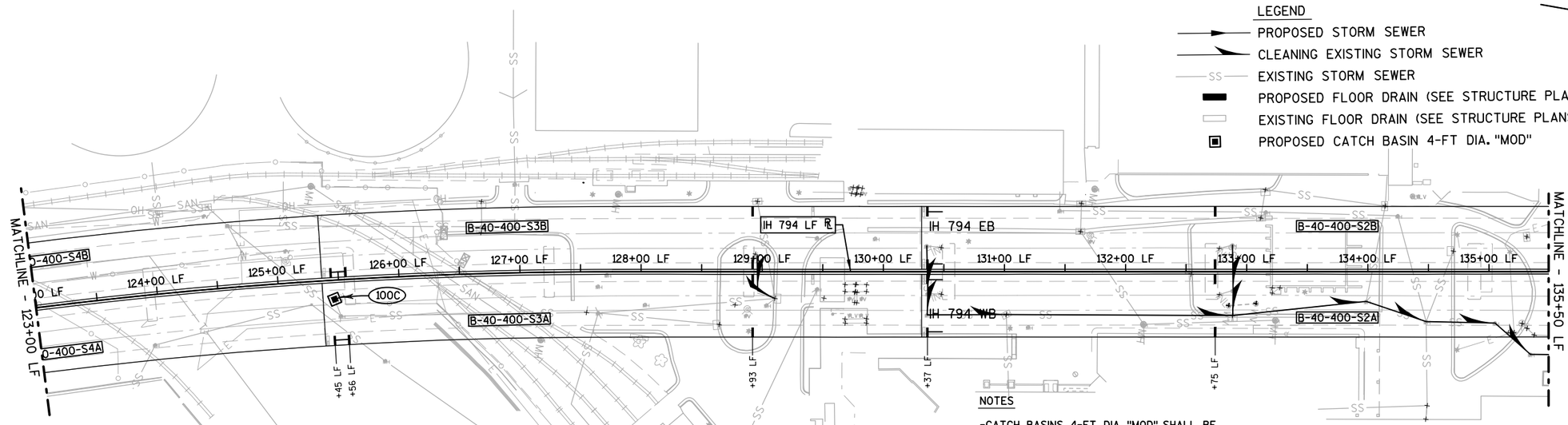
OUTFALL SYSTEM C

OUTFALL SYSTEM C

OUTFALL SYSTEM C

OUTFALL SYSTEM C

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 145	E



LEGEND

- PROPOSED STORM SEWER
- CLEANING EXISTING STORM SEWER
- SS — EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"

(100C) STA. 125+45.95 LF, 15.80'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

NOTES

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

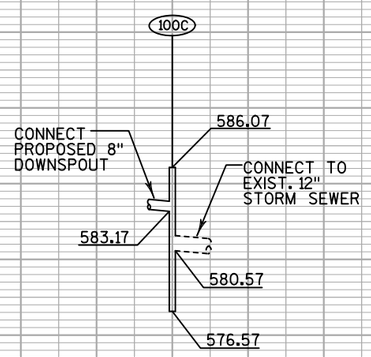
-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

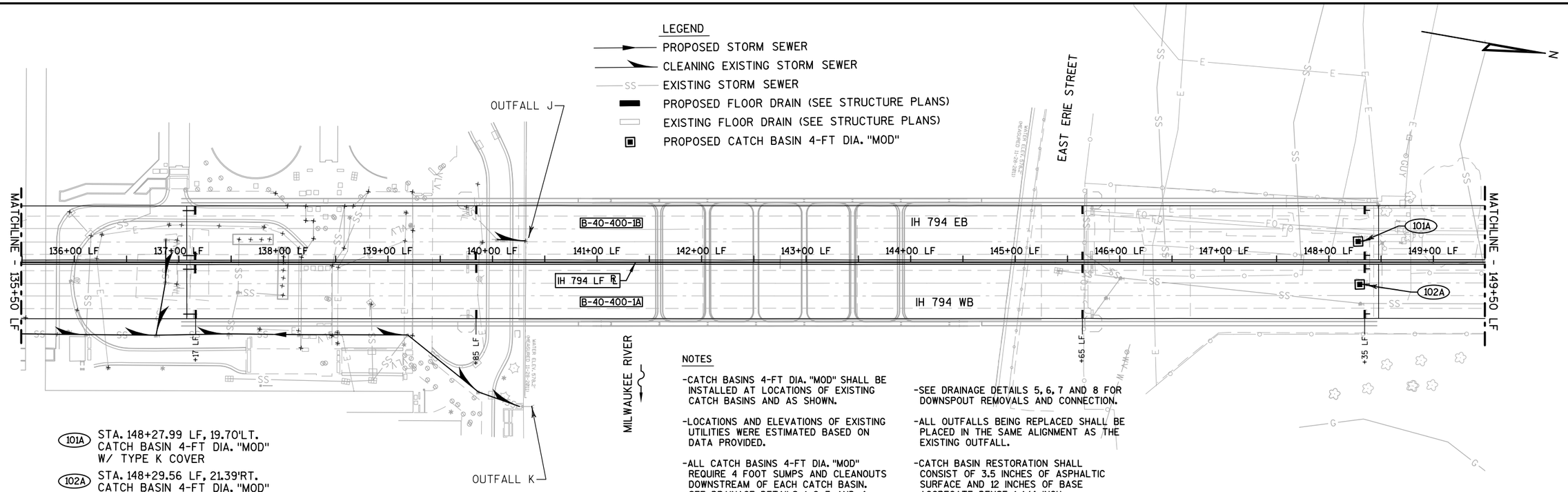
-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.

-CATCH BASIN RESTORATION SHALL CONSIST OF 3.5 INCHES OF ASPHALTIC SURFACE AND 12 INCHES OF BASE AGGREGATE DENSE 1-1/4 INCH.



OUTFALL SYSTEM C

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 146	E



101A STA. 148+27.99 LF, 19.70'LT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

102A STA. 148+29.56 LF, 21.39'RT.
CATCH BASIN 4-FT DIA. "MOD"
W/ TYPE K COVER

NOTES

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

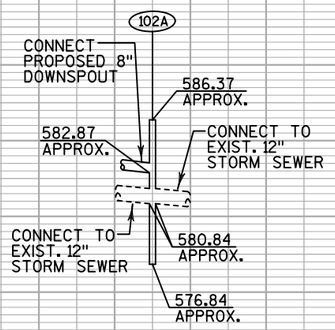
-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

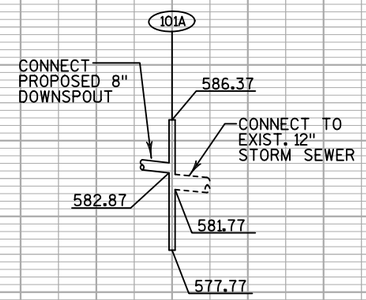
-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.

-CATCH BASIN RESTORATION SHALL CONSIST OF 3.5 INCHES OF ASPHALTIC SURFACE AND 12 INCHES OF BASE AGGREGATE DENSE 1-1/4 INCH.



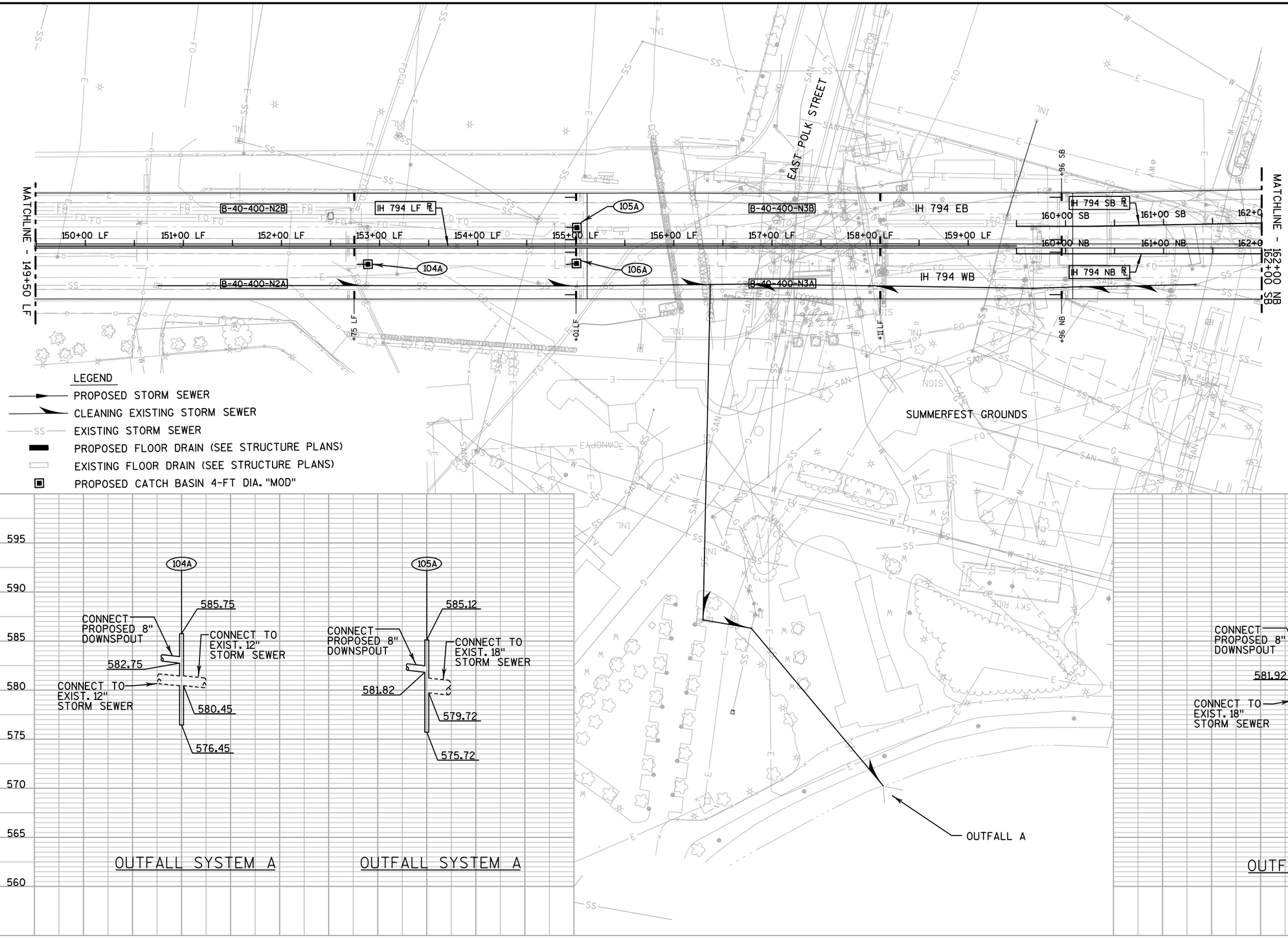
OUTFALL SYSTEM A



OUTFALL SYSTEM A

595 590 585 580 575 570 565 560

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 147	E



LEGEND

- PROPOSED STORM SEWER
- CLEANING EXISTING STORM SEWER
- SS EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"

(104A) STA. 152+88.08 LF, 18.59'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(105A) STA. 155+01.14 LF, 18.73'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

(106A) STA. 155+00.70 LF, 17.80'RT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

NOTES

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

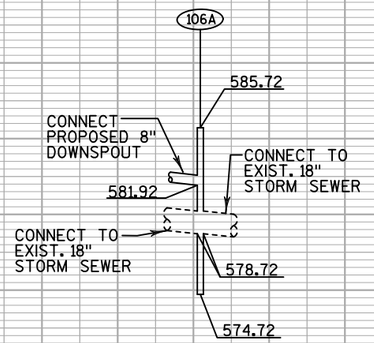
-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.

-CATCH BASIN RESTORATION SHALL CONSIST OF 3.5 INCHES OF ASPHALTIC SURFACE AND 12 INCHES OF BASE AGGREGATE DENSE 1-1/4 INCH.

595 590 585 580 575 570 565 560

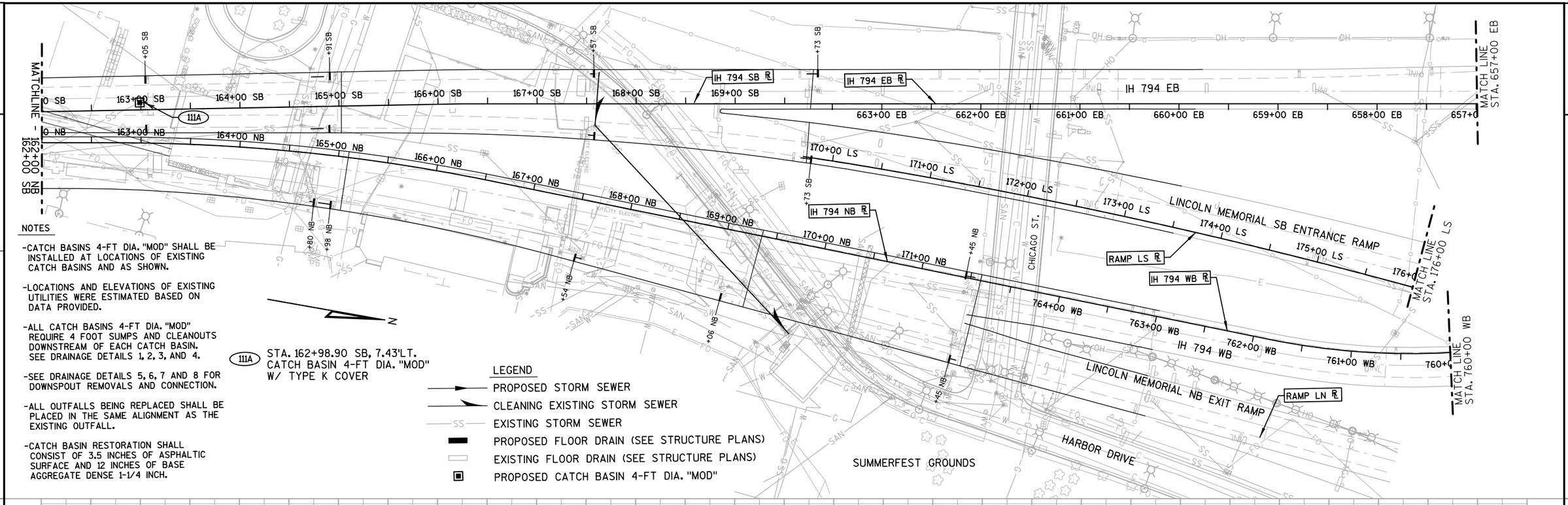
OUTFALL SYSTEM A

OUTFALL SYSTEM A



OUTFALL SYSTEM A

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 148	E



NOTES

-CATCH BASINS 4-FT DIA. "MOD" SHALL BE INSTALLED AT LOCATIONS OF EXISTING CATCH BASINS AND AS SHOWN.

-LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WERE ESTIMATED BASED ON DATA PROVIDED.

-ALL CATCH BASINS 4-FT DIA. "MOD" REQUIRE 4 FOOT SUMPS AND CLEANOUTS DOWNSTREAM OF EACH CATCH BASIN. SEE DRAINAGE DETAILS 1, 2, 3, AND 4.

-SEE DRAINAGE DETAILS 5, 6, 7 AND 8 FOR DOWNSPOUT REMOVALS AND CONNECTION.

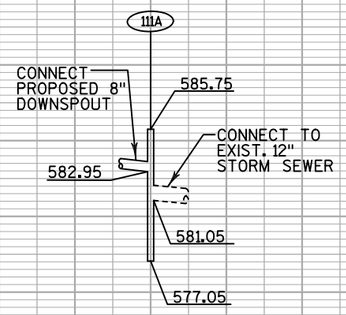
-ALL OUTFALLS BEING REPLACED SHALL BE PLACED IN THE SAME ALIGNMENT AS THE EXISTING OUTFALL.

-CATCH BASIN RESTORATION SHALL CONSIST OF 3.5 INCHES OF ASPHALTIC SURFACE AND 12 INCHES OF BASE AGGREGATE DENSE 1-1/4 INCH.

(111A) STA. 162+98.90 SB, 7.43'LT. CATCH BASIN 4-FT DIA. "MOD" W/ TYPE K COVER

LEGEND

- PROPOSED STORM SEWER
- CLEANING EXISTING STORM SEWER
- SS — EXISTING STORM SEWER
- PROPOSED FLOOR DRAIN (SEE STRUCTURE PLANS)
- EXISTING FLOOR DRAIN (SEE STRUCTURE PLANS)
- PROPOSED CATCH BASIN 4-FT DIA. "MOD"



OUTFALL SYSTEM A

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 149	E

STRUCT. NO.	STATION	OFFSET	PIPE NO.	C-C (FT)	TO STRUCT.	INLET TYPE & COVER		MH TYPE & COVER		RIM/GRATE ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INVERT ELEV.	DISCHARGE PIPE DISCH. ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	DISCHARGE PIPE CLASS	REMARKS
EAST-WEST SEGMENT																		
202	632+99.72 EB	53.30 LT.	-	87	200	-	-	MANHOLE 8-FT DIA.	C	587.51	10.88	38x60	576.63	576.36	87.00	0.31	III	CONNECT TO PROPOSED OUTFALL HEADWALL
201A	632+36.44 EB	41.14 LT.	-	14	38"X60"	INLET 2x2-FT	S	-	-	584.00	4.00	12	580.00	578.00	14.00	14.30	III	PROPOSED 2X2-FT INLET. CORE CONNECT INTO PROPOSED 38"X60" STORM SEWER
DS	-	-	-	13	202E	-	-	-	-	584.81	2.98	8	581.83	581.69	13.00	1.04		PROPOSED DOWNSPOUT(DS) TO PROPOSED INLET 202E
202E	632+47.02 EB	135.10 LT.	-	50	202A	INLET 2x2-FT	S	-	-	584.41	3.05	12	581.36	581.01	50.00	0.70	III	
202A	632+78.48 EB	95.60 LT.	-	48	202	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.02	6.02	12	581.00	580.66	48.00	0.70	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
DS	-	-	-	7	202D	-	-	-	-	584.74	2.69	8	582.05	581.98	7.00	1.04		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD" 202D
202D	-	-	-	36	202B	INLET 2x2-FT	S	-	-	584.22	2.57	12	581.65	581.28	36.00	1.04	III	
202B	632+72.61 EB	4.90 LT.	-	56	202	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.25	4.97	12	581.28	579.74	56.00	2.75		EXISTING 12" FROM STRUCTURE 202B TO 202
DS	-	-	-	35	202C	-	-	-	-	584.00	2.00	8	582.00	581.85	35.00	0.43		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD" 202C
202C	632+68.56 EB	31.30 LT.	-	38	202	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.24	4.72	12	581.52	581.31	38.00	0.56		EXISTING 12" FROM STRUCTURE 202C TO 202
DS	-	-	-	20	EX. TREATMENT UNIT	-	-	-	-	590.00	6.00	8	584.00	582.32	20.00	8.40		PROPOSED DOWNSPOUT(DS) CONNECTED TO EXISTING TREATMENT UNIT
DS	-	-	-	8	EX. FILTRATION UNIT	-	-	-	-	590.00	3.00	8	587.00	586.92	8.00	1.00		PROPOSED DOWNSPOUT(DS) CONNECTED TO EXISTING FILTRATION UNIT
203E	634+92.31 EB	66.00 LT.		193	202	-	-	MANHOLE 8-FT DIA.	J	589.34	12.11	38x60	577.23	576.63	193.00	0.31	III	
203	635+12.21 EB	72.22 LT.	-	21	203E	-	-	MANHOLE 8-FT DIA.	A	588.08	10.78	38x60	577.30	577.23	21	0.34	III	
DS	-	-	-	50	203B	-	-	-	-	589.60	4.01	8	585.59	585.07	50.00	1.04		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED MANHOLE 203B
DS	-	-	-	57	203B	-	-	-	-	590.39	4.01	8	586.38	585.77	57.00	1.07		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED MANHOLE 203B
203B	635+09.99 EB	137.00 LT.	-	37	203A	-	-	MANHOLE 4-FT DIA.	C	589.27	4.77	12	584.50	584.11	37.00	1.05	III	
203A	632+12.37 EB	100.10 LT.	-	30	203	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.95	4.84	12	584.11	583.80	30.00	1.04	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
DS	-	-	-	24	203D	-	-	-	-	590.50	3.50	8	587.00	586.75	24.00	1.04		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED MANHOLE 203D
203D	634+83.82 EB	4.12 LT.	-	38	203C	-	-	MANHOLE 4-FT DIA.	C	590.15	5.60	15	584.55	584.15	38.00	1.05	III	
203C	634+95.70 EB	40.24 LT.	-	26	203E	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	589.45	5.30	15	584.15	583.88	26.00	1.04	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
204	636+12.67 EB	77.90 LT.	-	101	203	-	-	MANHOLE 8-FT DIA.	C	587.96	10.35	38x60	577.61	577.30	101.00	0.31	III	
DS	-	-	-	49	204B	-	-	-	-	589.45	4.05	8	585.40	584.89	49.00	1.04		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED MANHOLE 204B
DS	-	-	-	82	204B	-	-	-	-	589.45	4.00	8	585.45	584.59	82.00	1.05		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED MANHOLE 204B
204B	635+98.73 EB	121.10 LT.	-	25	204A	-	-	MANHOLE 4-FT DIA.	C	588.48	5.02	12	583.46	583.20	25.00	1.04	III	
204A	636+06.52 EB	96.80 LT.	-	20	204	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.17	4.97	12	583.20	582.98	20.00	1.10	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
EX. INLET	-	-	-	17	204	-	-	-	-	588.19	7.61	12	580.58	580.40	17.00	1.04	III	PROPOSED 12" CONNECTS FROM EXISTING INLET TO PROPOSED MANHOLE
205	638+23.12 EB	74.20 LT.	-	210	204	-	-	MANHOLE 6-FT DIA.	C	589.14	10.93	36	578.21	577.78	210.00	0.20	III	
DS	-	-	-	11	205C	-	-	-	-	589.50	3.00	8	586.50	586.39	11.00	1.04		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD" 205C.
205C	638+22.38 EB	62.86 LT.	-	11	205	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	589.16	4.16	12	585.00	584.88	11.00	1.10	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
206	638+81.17 EB	111.50 LT.	-	69	205	-	-	MANHOLE 6-FT DIA.	C	589.44	11.09	36	578.35	578.21	69.00	0.20	III	
206A	639+25.39 EB	76.80 LT.	-	20	206B	-	-	MANHOLE 4-FT DIA.	C	588.61	4.00	12	584.61	584.40	20.00	1.05	III	
206B	639+09.56 EB	89.30 LT.	-	36	206	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.90	4.50	12	584.40	584.03	36.00	1.04	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
206E	638+51.58 EB	236.73 LT.	-	48	206C	INLET 2x3-FT	H "SPECIAL"	-	-	588.81	5.01	12	583.80	583.30	48.00	1.04	III	

NOTES

1. STATIONS AND OFFSETS TO MANHOLES ARE GIVEN TO THE CENTER OF STRUCTURE.
2. STATIONS AND OFFSETS TO CATCH BASINS 4-FT DIA."MOD" AND INLETS AND GIVEN TO THE CENTER OF STRUCTURE.
3. STATIONS AND OFFSETS FOR STRUCTURES 203, 206C, 206D, 206E, 208C, 211B, 211F, 212A, AND 212B ARE GIVEN TO THE FLANGE LINE.
4. STATION AND OFFSET FOR STRUCTURE 211D IS GIVEN TO FACE OF PARAPET.
5. STATION AND OFFSET FOR STRUCTURE 201A IS GIVEN TO FACE OF RETAINING WALL.
6. MANHOLE RIM/GRATE ELEVATIONS ARE GIVEN TO THE CENTER OF STRUCTURE.
7. CATCH BASINS 4-FT DIA."MOD" AND INLET RIM/GRATE ELEVATIONS ARE GIVEN TO THE CENTER OF STRUCTURE.
8. STRUCTURES 203, 206C, 206D, 206E, 208C, 211B, 211F, 212A, AND 212B RIM/GRATE ELEVATIONS ARE GIVEN TO THE FLANGE LINE.
9. STRUCTURE 211D RIM/GRATE ELEVATION ARE GIVEN TO FACE OF PARAPET.
10. STRUCTURE 201A RIM/GRATE ELEVATION ARE GIVEN TO FACE OF RETAINING WALL.
11. DEPTH OF MANHOLE AND INLETS ARE MEASURED FROM LOWEST INVERT OF THE OUT GOING PIPE TO THE RIM/GRATE ELEVATION.
12. DEPTH OF CATCH BASIN 4-FT DIA."MOD" ARE MEASURED FROM LOWEST INVERT OF THE OUT GOING PIPE TO THE RIM/GRATE ELEVATION.
13. PIPE LENGTHS FOR STRUCTURES ARE SHOWN FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

STRUCT. NO.	STATION	OFFSET	PIPE NO.	C-C (FT)	TO STRUCT.	INLET TYPE & COVER		MH TYPE & COVER		RIM/GRATE ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INVERT ELEV.	DISCHARGE PIPE DISCH. ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	DISCHARGE PIPE CLASS	REMARKS
EAST-WEST SEGMENT																		
206D	637+89.70 EB	226.88 LT.	-	58	206C	INLET 2x3-FT	H	-	-	589.84	5.28	12	584.56	583.93	58.00	1.09	III	
DS	-	-	-	59	206C	-	-	-	-	591.10	3.00	8	588.10	586.33	59.00	3.00		PROPOSED DOWNSPOUT(DS) TO PROPOSED MANHOLE 206C.
DS	-	-	-	66	206C	-	-	-	-	590.00	-	8	584.91	584.23	66.00	1.03		PROPOSED DOWNSPOUT(DS) TO PROPOSED MANHOLE 206C.
206C	638+33.41 EB	190.16 LT.	-	60	206F	-	-	MANHOLE 4-FT DIA.	A	589.50	6.45	12	583.05	582.42	60.00	1.05	III	
206F	638+66.28 EB	137.60 LT.	-	30	206	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	589.66	7.24	12	582.42	582.11	30.00	1.04	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
207	639+61.75 EB	116.50 LT.	-	80	206	-	-	MANHOLE 5-FT DIA.	C	589.80	11.29	36	578.51	578.35	80.00	0.20	III	
207A	639+73.08 EB	133.20 LT.	-	20	207	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	590.00	8.55	12	581.45	581.25	20.00	1.00	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
208	642+03.15 EB	121.33 LT.	-	238	207	-	-	MANHOLE 5-FT DIA.	C	590.76	11.77	36	578.99	578.51	238.00	0.20	III	
208A	641+87.84 EB	23.60 LT.	-	40	208F	-	-	MANHOLE 4-FT DIA.	C	588.26	4.23	15	584.03	583.63	40.00	1.00	III	
208F	641+97.89 EB	62.40 LT.	-	59	208	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	589.13	5.50	15	583.63	583.02	59.00	1.03	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
208C	641+41.90 EB	283.24 LT.	-	116	208B	INLET 2x3-FT	H	-	-	590.89	5.16	12	585.73	584.52	116.00	1.04	III	
DS	-	-	-	60	208B	-	-	-	-	-	-	8	585.34	584.69	60.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED MANHOLE 208B
DS	-	-	-	30	208B	-	-	-	-	-	-	8	583.40	583.09	30.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED MANHOLE 208B
208D	642+40.41 EB	175.00 LT.	-	50	208B	-	-	MANHOLE 4-FT DIA.	C	592.25	8.96	12	583.29	583.00	50.00	0.58	III	
208B	641+90.03 EB	177.40 LT.	-	16	208E	-	-	MANHOLE 4-FT DIA.	C	592.23	9.23	12	583.00	582.84	16.00	1.00	III	
208E	639+96.26 EB	162.40 LT.	-	42	208	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	591.70	8.86	12	582.84	582.39	42.00	1.07	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
216	643+28.38 EB	117.10 LT.	-	125	208	-	-	MANHOLE 5-FT DIA.	C	589.83	10.58	36	579.25	578.99	125.00	0.21	III	
DS	-	-	-	24	216A	-	-	-	-	590.10	3.63	8	586.47	586.22	24.00	1.04		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD" 216A
216A	643+35.54 EB	140.00 LT.	-	24	216	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	589.84	3.95	12	585.89	585.64	24.00	1.04	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
209	644+43.54 EB	112.70 LT.	-	115	216	-	-	MANHOLE 7-FT DIA.	C	588.44	8.96	36	579.48	579.25	115.00	0.20	III	
DS	-	-	-	61	209A	-	-	-	-	589.00	4.00	8	585.00	584.36	61.00	1.05		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED MANHOLE 209A
209A	644+58.31 EB	36.60 LT.	-	60	209B	-	-	MANHOLE 4-FT DIA.	C	587.92	5.00	18	582.92	582.28	60.00	1.07	III	
209B	644+44.96 EB	95.13 LT.	-	18	209	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.29	6.01	18	582.28	582.11	18.00	0.95	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
209E	644+18.15 EB	205.20 LT.	-	32	209D	-	-	MANHOLE 4-FT DIA.	C	589.11	4.11	12	585.00	584.66	32.00	1.06	III	
209D	644+39.47 EB	181.14 LT.	-	59	209C	-	-	MANHOLE 4-FT DIA.	C	588.69	4.28	12	584.41	583.79	59.00	1.05	III	
209C	644+43.27 EB	122.20 LT.	-	10	209	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.50	4.71	12	583.79	583.69	10.00	1.00	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
209F	644+65.72 EB	113.68 LT.	-	22	209	-	-	MANHOLE 5-FT DIA.	C	588.41	8.88	36	579.53	579.48	22.00	0.21	III	
210	645+71.58 EB	118.20 LT.	-	106	209F	-	-	MANHOLE 5-FT DIA.	C	593.00	13.22	36	579.78	579.53	106.00	0.24	III	
211	646+71.76 EB	126.80 LT.	-	101	210	-	-	MANHOLE 6-FT DIA.	C	592.52	12.50	36	580.02	579.78	101.00	0.24	III	
211D	645+63.05 EB	175.92 LT.	-	54	211C	INLET 2x2-FT	V	-	-	593.00	7.55	12	585.45	584.64	54.00	1.50	III	
211C	646+17.15 EB	173.40 LT.	-	32	211B	-	-	MANHOLE 4-FT DIA.	C	589.46	5.07	12	584.39	583.90	32.00	1.52	III	
211B	646+45.32 EB	189.36 LT.	-	53	211A	INLET 2x3-FT	H	-	-	587.69	4.04	12	583.65	582.85	53.00	1.51	III	
211G	646+72.81 EB	225.00 LT.	-	8	211F	-	-	MANHOLE 4-FT DIA.	C	587.00	4.83	18	582.17	582.13	8.00	0.53	III	
211F	646+81.96 EB	223.21 LT.	-	55	211E	INLET 2x3-FT	H "SPECIAL"	-	-	586.94	4.81	18	582.13	581.85	55.00	0.51	III	

NOTES

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2. STATIONS AND OFFSETS TO CATCH BASINS 4-FT DIA."MOD" AND INLETS AND GIVEN TO THE CENTER OF STRUCTURE.
3. STATIONS AND OFFSETS FOR STRUCTURES 203, 206C, 206D, 206E, 208C, 211B, 211F, 212A, AND 212B ARE GIVEN TO THE FLANGE LINE.
4. STATION AND OFFSET FOR STRUCTURE 211D IS GIVEN TO FACE OF PARAPET.
5. STATION AND OFFSET FOR STRUCTURE 201A IS GIVEN TO FACE OF RETAINING WALL.
6. MANHOLE RIM/GRATE ELEVATIONS ARE GIVEN TO THE CENTER OF STRUCTURE.
7. CATCH BASINS 4-FT DIA."MOD" AND INLET RIM/GRATE ELEVATIONS ARE GIVEN TO THE CENTER OF STRUCTURE.
8. STRUCTURES 203, 206C, 206D, 206E, 208C, 211B, 211F, 212A, AND 212B RIM/GRATE ELEVATIONS ARE GIVEN TO THE FLANGE LINE.
9. STRUCTURE 211D RIM/GRATE ELEVATION ARE GIVEN TO FACE OF PARAPET.
10. STRUCTURE 201A RIM/GRATE ELEVATION ARE GIVEN TO FACE OF RETAINING WALL.
11. DEPTH OF MANHOLE AND INLETS ARE MEASURED FROM LOWEST INVERT OF THE OUT GOING PIPE TO THE RIM/GRATE ELEVATION.
12. DEPTH OF CATCH BASIN 4-FT DIA."MOD" ARE MEASURED FROM LOWEST INVERT OF THE OUT GOING PIPE TO THE RIM/GRATE ELEVATION.
13. PIPE LENGTHS FOR STRUCTURES ARE SHOWN FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

STRUCT. NO.	STATION	OFFSET	PIPE NO.	C-C (FT)	TO STRUCT.	INLET TYPE & COVER		MH TYPE & COVER		RIM/GRATE ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	INVERT ELEV.	DISCH. ELEV.	LENGTH (FT)	SLOPE (%)	PIPE CLASS	REMARKS
EAST-WEST SEGMENT																		
211E	647+11.00 EB	178.80 LT.	-	53	211A	-	-	MANHOLE 4-FT DIA.	C	588.75	6.90	18	581.85	581.59	53.00	0.50	III	
211A	646+70.23 EB	144.50 LT.	-	9	211H	-	-	MANHOLE 4-FT DIA.	C	590.78	9.19	18	581.59	581.55	9.00	0.50	III	
211H	646+71.00 EB	135.70 LT.	-	9	211	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	591.63	10.08	18	581.55	581.50	9.00	0.51	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
212	647+67.36 EB	135.10 LT.	-	96	211	-	-	MANHOLE 5-FT DIA.	C	592.62	12.41	36	580.21	580.02	96.00	0.20	III	
212A	647+70.49 EB	102.71 LT.	-	27	212B	INLET 2x3-FT	H	-	-	591.63	7.67	15	583.96	583.67	27.00	1.06	III	
212B	647+63.52 EB	127.00 LT.	-	9	212	CATCH BASIN 4-FT DIA. "MOD"	H	-	-	591.69	8.27	15	583.42	583.33	9.00	1.04	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
BIO-FILTRATION BASIN (BF-B)	-	-	-	31	213A	-	-	-	-	589.00	2.83	8	586.17	585.66	31.00	1.65		CONNCET PROPOSED BIO-FILTRATION BASIN OUTLET PIPE TO PROPOSED MANHOLE 213A
213A	648+42.32 EB	166.10 LT.	-	35	EX. MANHOLE	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	592.05	10.17	18	581.88	581.52	35.00	1.04	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
DS	-	-	-	31	214	-	-	-	-	590.77	3.27	8	587.50	587.18	31.00	1.04		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED MANHOLE 214
DS	-	-	-	16	BIO-FILTRATION BASIN (BF-A)	-	-	-	-	588.95		8	587.20	587.00	16.00	1.25		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED BIO-FILTRATION BASIN
BIO-FILTRATION BASIN (BF-A)	-	-	-	75	214	-	-	-	-	507.50	2.33	0	505.17	504.21	75.00	1.20		CONNECT PROPOSED BIO-FILTRATION BASIN OUTLET PIPE TO PROPOSED MANHOLE 214
DS	-	-	-	25	DS	-	-	-	-	588.35	3.87	8	584.48	584.28	25.00	0.80		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED DOWNSPOUT
DS	-	-	-	69	214	-	-	-	-	589.08	4.80	8	584.28	583.73	69.00	0.80		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED MANHOLE 214
DS	-	-	-	25	DS	-	-	-	-	587.37	2.56	8	584.81	584.61	25.00	0.80		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED DOWNSPOUT
DS	-	-	-	110	214	-	-	-	-	587.95	3.34	8	584.61	583.73	110.00	0.80		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED MANHOLE 214
214	648+54.87 EB	41.50 LT.	-	31	214A	-	-	MANHOLE 4-FT DIA.	C	590.45	7.07	15	583.38	583.22	31.00	0.52	III	
214A	648+31.55 EB	62.28 LT.	-	79	EX. MANHOLE	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	591.20	7.98	15	583.22	582.85	79.00	0.47	III	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
215	649+67.64 EB	85.00 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	589.30	7.03	-	582.27	-	-	-		PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT.
BIO-FILTRATION BASIN (BF-C)	-	-	-	17	EX. MANHOLE	-	-	-	-	588.50	2.33	8	586.17	585.82	17.00	2.06		CONNECT PROPOSED BIO-FILTRATION BASIN OUTLET PIPE TO EXISTING MANHOLE AT STA. 649+09.00 EB, 239.27 LT'
BIO-FILTRATION BASIN (BF-D)	-	-	-	-	EX. INLET	-	-	-	-	588.50	-	-	584.66	-	-	-	-	CONNECT PROPOSED BIO-FILTRATION BASIN UNDERDRAIN PIPE TO EXISTING INLET AT STA. 649+80.66 EB, 261.25 LT'
HOAN BRIDGE SEGMENT																		
DS	-	-	-	12	101A	-	-	-	-	-	-	8	-	582.87	12.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
101A	148+27.99 LF	19.70 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.37	4.60	-	581.77	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	9	102A	-	-	-	-	-	-	8	-	582.87	9.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
102A	148+29.56 LF	21.39 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.37	5.53	-	580.84	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	11	104A	-	-	-	-	-	-	8	-	582.75	11.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
104A	152+88.08 LF	18.59 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	585.75	5.30	-	580.45	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	11	105A	-	-	-	-	-	-	8	-	581.82	11.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
105A	155+01.14 LF	18.73 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	585.12	5.40	-	579.72	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	10	106A	-	-	-	-	-	-	8	-	581.92	10.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
106A	155+00.70 LF	17.80 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	585.72	7.00	-	578.72	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	111A	-	-	-	-	-	-	8	-	582.95	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
111A	162+98.90 SB	7.43 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	585.75	4.70	-	581.05	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	100C	-	-	-	-	-	-	8	-	583.17	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"

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3. STATIONS AND OFFSETS FOR STRUCTURES 203, 206C, 206D, 206E, 208C, 211B, 211F, 212A, AND 212B ARE GIVEN TO THE FLANGE LINE.
4. STATION AND OFFSET FOR STRUCTURE 211D IS GIVEN TO FACE OF PARAPET.
5. STATION AND OFFSET FOR STRUCTURE 201A IS GIVEN TO FACE OF RETAINING WALL.
6. MANHOLE RIM/GRATE ELEVATIONS ARE GIVEN TO THE CENTER OF STRUCTURE.
7. CATCH BASINS 4-FT DIA."MOD" AND INLET RIM/GRATE ELEVATIONS ARE GIVEN TO THE CENTER OF STRUCTURE.
8. STRUCTURES 203, 206C, 206D, 206E, 208C, 211B, 211F, 212A, AND 212B RIM/GRATE ELEVATIONS ARE GIVEN TO THE FLANGE LINE.
9. STRUCTURE 211D RIM/GRATE ELEVATION ARE GIVEN TO FACE OF PARAPET.
10. STRUCTURE 201A RIM/GRATE ELEVATION ARE GIVEN TO FACE OF RETAINING WALL.
11. DEPTH OF MANHOLE AND INLETS ARE MEASURED FROM LOWEST INVERT OF THE OUT GOING PIPE TO THE RIM/GRATE ELEVATION.
12. DEPTH OF CATCH BASIN 4-FT DIA."MOD" ARE MEASURED FROM LOWEST INVERT OF THE OUT GOING PIPE TO THE RIM/GRATE ELEVATION.
13. PIPE LENGTHS FOR STRUCTURES ARE SHOWN FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

STRUCT. NO.	STATION	OFFSET	PIPE NO.	C-C (FT)	TO STRUCT.	INLET TYPE & COVER		MH TYPE & COVER		RIM/GRATE ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INVERT ELEV.	DISCHARGE PIPE DISCH. ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	DISCHARGE PIPE CLASS	REMARKS
HOAN BRIDGE SEGMENT																		
100C	125+45.95 LF	15.80 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.07	5.50	-	580.57	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	6	101C	-	-	-	-	-	-	8	-	583.87	6.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
101C	122+20.55 LF	11.24 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.87	5.50	-	581.37	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	102C	-	-	-	-	-	-	8	-	584.02	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
102C	120+76.83 LF	16.26 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.72	4.10	-	582.62	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	103C	-	-	-	-	-	-	8	-	584.14	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
103C	120+76.88 LF	17.53 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.04	4.50	-	582.54	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	106C	-	-	-	-	-	-	8	-	583.87	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
106C	117+89.49 LF	17.84 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.87	4.60	-	582.27	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	6	107C	-	-	-	-	-	-	8	-	583.84	6.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
107C	117+89.83 LF	17.68 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.74	4.50	-	582.24	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	108C	-	-	-	-	-	-	8	-	584.33	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
108C	116+86.82 LF	28.20 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.93	2.60	-	584.33	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	109C	-	-	-	-	-	-	8	-	584.13	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
109C	116+87.03 LF	24.14 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.83	2.80	-	584.03	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	110C	-	-	-	-	-	-	8	-	585.15	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
110C	112+74.00 LF	27.33 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	589.25	4.50	-	584.75	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	9	111C	-	-	-	-	-	-	8	-	585.11	9.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
111C	112+73.35 LF	28.32 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.71	4.20	-	583.51	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	112C	-	-	-	-	-	-	8	-	583.57	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
112C	110+34.89 LF	28.01 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	585.97	2.90	-	583.07	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	113C	-	-	-	-	-	-	8	-	583.08	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
113C	110+35.01 LF	29.48 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.08	3.40	-	582.68	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	114C	-	-	-	-	-	-	8	-	585.21	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
114C	109+14.94 LF	27.23 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.31	5.00	-	583.31	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	115C	-	-	-	-	-	-	8	-	585.24	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
115C	109+14.87 LF	29.35 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.24	3.80	-	582.44	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	102C1	-	-	-	-	-	-	8	-	584.20	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
102C1	114+03.12 LF	28.94 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.37	2.50	-	583.87	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	103C1	-	-	-	-	-	-	8	-	584.46	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
103C1	114+03.17 LF	26.10 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.46	5.03	-	582.43	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	102D	-	-	-	-	-	-	8	-	585.66	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
102D	107+82.05 LF	28.31 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.26	6.18	-	581.08	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	6	103D	-	-	-	-	-	-	8	-	584.50	6.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"

NOTES

1. STATIONS AND OFFSETS TO MANHOLES ARE GIVEN TO THE CENTER OF STRUCTURE.
2. STATIONS AND OFFSETS TO CATCH BASINS 4-FT DIA."MOD" AND INLETS AND GIVEN TO THE CENTER OF STRUCTURE.
3. STATIONS AND OFFSETS FOR STRUCTURES 203,206C,206D,206E,208C,211B,211F,212A, AND 212B ARE GIVEN TO THE FLANGE LINE.
4. STATION AND OFFSET FOR STRUCTURE 211D IS GIVEN TO FACE OF PARAPET.
5. STATION AND OFFSET FOR STRUCTURE 201A IS GIVEN TO FACE OF RETAINING WALL.
6. MANHOLE RIM/GRATE ELEVATIONS ARE GIVEN TO THE CENTER OF STRUCTURE.
7. CATCH BASINS 4-FT DIA."MOD" AND INLET RIM/GRATE ELEVATIONS ARE GIVEN TO THE CENTER OF STRUCTURE.
8. STRUCTURES 203,206C,206D,206E,208C,211B,211F,212A, AND 212B RIM/GRATE ELEVATIONS ARE GIVEN TO THE FLANGE LINE.
9. STRUCTURE 211D RIM/GRATE ELEVATION ARE GIVEN TO FACE OF PARAPET.
10. STRUCTURE 201A RIM/GRATE ELEVATION ARE GIVEN TO FACE OF RETAINING WALL.
11. DEPTH OF MANHOLE AND INLETS ARE MEASURED FROM LOWEST INVERT OF THE OUT GOING PIPE TO THE RIM/GRATE ELEVATION.
12. DEPTH OF CATCH BASIN 4-FT DIA."MOD" ARE MEASURED FROM LOWEST INVERT OF THE OUT GOING PIPE TO THE RIM/GRATE ELEVATION.
13. PIPE LENGTHS FOR STRUCTURES ARE SHOWN FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

STRUCT. NO.	STATION	OFFSET	PIPE NO.	C-C (FT)	TO STRUCT.	INLET TYPE & COVER		MH TYPE & COVER		RIM/GRATE ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INVERT ELEV.	DISCHARGE PIPE DISCH. ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	DISCHARGE PIPE CLASS	REMARKS
HOAN BRIDGE SEGMENT																		
103D	107+86.98 LF	22.85 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.43	4.25	-	583.18	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	10	100E	-	-	-	-	-	-	8	-	585.00	10.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
100E	106+48.79 LF	36.35 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.00	3.10	-	584.90	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	11	101E	-	-	-	-	-	-	8	-	584.75	11.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
101E	106+48.93 LF	27.42 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.69	3.10	-	584.59	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	9	102E	-	-	-	-	-	-	8	-	584.90	9.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
102E	105+40.19 LF	28.32 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.60	2.60	-	584.00	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	103E	-	-	-	-	-	-	8	-	585.46	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
103E	105+38.49 LF	27.84 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.16	2.60	-	584.56	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	104E	-	-	-	-	-	-	8	-	585.34	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
104E	103+88.98 LF	27.87 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.74	4.84	-	582.90	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	105E	-	-	-	-	-	-	8	-	584.61	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
105E	103+89.69 LF	26.25 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.01	4.84	-	582.17	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	9	106E	-	-	-	-	-	-	8	-	585.65	9.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
106E	102+58.31 LF	27.27 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.10	4.00	-	583.10	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	9	107E	-	-	-	-	-	-	8	-	585.50	9.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
107E	102+59.20 LF	27.40 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.95	4.00	-	582.95	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	108E	-	-	-	-	-	-	8	-	585.40	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
108E	101+29.73 LF	27.93 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.70	4.80	-	582.90	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	109E	-	-	-	-	-	-	8	-	585.27	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
109E	101+29.78 LF	27.06 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.37	4.30	-	583.07	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	110E	-	-	-	-	-	-	8	-	586.17	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
110E	99+97.32 LF	27.64 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.87	5.87	-	582.00	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	111E	-	-	-	-	-	-	8	-	584.67	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
111E	99+97.73 LF	27.35 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.47	3.40	-	583.07	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	112E	-	-	-	-	-	-	8	-	585.39	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
112E	98+68.44 LF	28.02 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.99	5.20	-	582.79	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	113E	-	-	-	-	-	-	8	-	585.19	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
113E	98+68.23 LF	28.34 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.29	3.60	-	583.69	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
EX. MANHOLE	98+62.82 LF	9.45 LT.	-	86	OUTFALL E DOCK WALL	-	-	-	-	587.70	13.80	24	573.90	573.12	86.00	0.90	-	24" CURED IN PLACE PIPE LINING
DS	-	-	-	7	116E	-	-	-	-	-	-	8	-	585.17	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
116E	97+58.63 LF	26.19 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.47	5.40	-	582.07	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS		-	-	7	117E	-	-	-	-	-	-	8	-	584.88	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
117E	97+59.30 LF	27.27 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.08	3.50	-	583.58	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES

NOTES

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2. STATIONS AND OFFSETS TO CATCH BASINS 4-FT DIA."MOD" AND INLETS AND GIVEN TO THE CENTER OF STRUCTURE.
3. STATIONS AND OFFSETS FOR STRUCTURES 203, 206C, 206D, 206E, 208C, 211B, 211F, 212A, AND 212B ARE GIVEN TO THE FLANGE LINE.
4. STATION AND OFFSET FOR STRUCTURE 211D IS GIVEN TO FACE OF PARAPET.
5. STATION AND OFFSET FOR STRUCTURE 201A IS GIVEN TO FACE OF RETAINING WALL.
6. MANHOLE RIM/GRATE ELEVATIONS ARE GIVEN TO THE CENTER OF STRUCTURE.
7. CATCH BASINS 4-FT DIA."MOD" AND INLET RIM/GRATE ELEVATIONS ARE GIVEN TO THE CENTER OF STRUCTURE.
8. STRUCTURES 203, 206C, 206D, 206E, 208C, 211B, 211F, 212A, AND 212B RIM/GRATE ELEVATIONS ARE GIVEN TO THE FLANGE LINE.
9. STRUCTURE 211D RIM/GRATE ELEVATION ARE GIVEN TO FACE OF PARAPET.
10. STRUCTURE 201A RIM/GRATE ELEVATION ARE GIVEN TO FACE OF RETAINING WALL.
11. DEPTH OF MANHOLE AND INLETS ARE MEASURED FROM LOWEST INVERT OF THE OUT GOING PIPE TO THE RIM/GRATE ELEVATION.
12. DEPTH OF CATCH BASIN 4-FT DIA."MOD" ARE MEASURED FROM LOWEST INVERT OF THE OUT GOING PIPE TO THE RIM/GRATE ELEVATION.
13. PIPE LENGTHS FOR STRUCTURES ARE SHOWN FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

STRUCT. NO.	STATION	OFFSET	PIPE NO.	C-C (FT)	TO STRUCT.	INLET TYPE & COVER		MH TYPE & COVER		RIM/GRATE ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INVERT ELEV.	DISCHARGE PIPE DISCH. ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	DISCHARGE PIPE CLASS	REMARKS
HOAN BRIDGE SEGMENT																		
DS	-	-	-	8	118E	-	-	-	-	-	-	8	-	584.78	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
118E	96+29.16 LF	32.36 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.78	5.00	-	582.78	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	6	119E	-	-	-	-	-	-	8	-	584.38	6.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
119E	96+28.38 LF	28.24 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.36	2.98	-	584.38	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	9	100F	-	-	-	-	-	-	8	-	584.73	9.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
100F	94+79.06 LF	27.65 LT.	-	68	104F	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.73	3.00	8	584.73	584.02	68.00	1.04	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV.
DS	-	-	-	8	101F	-	-	-	-	-	-	8	-	584.63	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
101F	94+78.57 LF	27.45 RT.	-	56	104F	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	586.83	2.80	8	584.03	583.45	56.00	1.04	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV.
DS	-	-	-	21	102F	-	-	-	-	-	-	8	-	584.83	21.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
102F	93+69.38 LF	28.34 RT.	-	57	104F	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.47	2.64	8	584.83	584.24	57.00	1.04	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV.
DS	-	-	-	8	103F	-	-	-	-	-	-	8	-	584.99	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
103F	93+69.38 LF	28.34 LT.	-	69	104F	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.45	2.46	8	584.99	584.27	69.00	1.04	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV.
104F	94+24.84 LF	13.55 RT.	-	62	OUTFALL F	-	-	MANHOLE 5-FT DIA.	C	587.48	4.75	12	582.73	582.00	61.50	1.2	--	
DS	-	-	-	5	100G	-	-	-	-	-	-	8	-	584.04	5.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
100G	92+37.69 LF	27.80 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.34	3.80	-	583.54	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	5	101G	-	-	-	-	-	-	8	-	584.99	5.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
101G	92+37.37 LF	28.06 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.29	3.60	-	583.69	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	102G	-	-	-	-	-	-	8	-	585.44	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
102G	90+88.99 LF	27.05 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.11	3.87	-	584.24	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	9	103G	-	-	-	-	-	-	8	-	585.31	9.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
103G	90+88.24 LF	26.29 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.11	5.00	-	583.11	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	104G	-	-	-	-	-	-	8	-	585.07	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
104G	89+58.92 LF	28.22 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.37	5.00	-	583.37	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	6	105G	-	-	-	-	-	-	8	-	585.11	6.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
105G	89+59.76 LF	27.56 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.71	4.20	-	583.51	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	6	106G	-	-	-	-	-	-	8	-	585.63	6.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
106G	88+48.07 LF	27.97 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.23	3.40	-	584.83	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	107G	-	-	-	-	-	-	8	-	585.15	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
107G	88+47.94 LF	27.87 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	587.95	4.40	-	583.55	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	108G	-	-	-	-	-	-	8	-	585.74	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
108G	86+98.62 LF	27.89 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.74	4.10	-	584.64	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	109G	-	-	-	-	-	-	8	-	585.58	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
109G	86+98.82 LF	28.13 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.18	4.10	-	584.08	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	110G	-	-	-	-	-	-	8	-	585.79	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"

NOTES

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2. STATIONS AND OFFSETS TO CATCH BASINS 4-FT DIA."MOD" AND INLETS AND GIVEN TO THE CENTER OF STRUCTURE.
3. STATIONS AND OFFSETS FOR STRUCTURES 203,206C,206D,206E,208C,211B,211F,212A, AND 212B ARE GIVEN TO THE FLANGE LINE.
4. STATION AND OFFSET FOR STRUCTURE 211D IS GIVEN TO FACE OF PARAPET.
5. STATION AND OFFSET FOR STRUCTURE 201A IS GIVEN TO FACE OF RETAINING WALL.
6. MANHOLE RIM/GRATE ELEVATIONS ARE GIVEN TO THE CENTER OF STRUCTURE.
7. CATCH BASINS 4-FT DIA."MOD" AND INLET RIM/GRATE ELEVATIONS ARE GIVEN TO THE CENTER OF STRUCTURE.
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12. DEPTH OF CATCH BASIN 4-FT DIA."MOD" ARE MEASURED FROM LOWEST INVERT OF THE OUT GOING PIPE TO THE RIM/GRATE ELEVATION.
13. PIPE LENGTHS FOR STRUCTURES ARE SHOWN FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

STRUCT. NO.	STATION	OFFSET	PIPE NO.	C-C (FT)	TO STRUCT.	INLET TYPE & COVER		MH TYPE & COVER		RIM/GRATE ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INVERT ELEV.	DISCHARGE PIPE DISCH. ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	DISCHARGE PIPE CLASS	REMARKS
HOAN BRIDGE SEGMENT																		
110G	85+68.85 LF	27.05 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	589.19	4.80	-	584.39	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	111G	-	-	-	-	-	-	8	-	585.72	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
111G	85+68.70 LF	27.75 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.32	4.10	-	584.22	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	6	112G	-	-	-	-	-	-	8	-	586.15	6.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
112G	84+57.99 LF	28.06 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	589.85	5.40	-	584.45	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	113G	-	-	-	-	-	-	8	-	586.11	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
113G	84+57.54 LF	26.02 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.31	4.10	-	584.21	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	114G	-	-	-	-	-	-	8	-	587.17	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
114G	83+05.09 LF	28.00 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	589.57	3.80	-	585.77	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	115G	-	-	-	-	-	-	8	-	586.05	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
115G	83+05.33 LF	26.23 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.45	3.80	-	584.65	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	116G	-	-	-	-	-	-	8	-	587.69	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
116G	81+69.09 LF	28.58 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	589.59	3.40	-	586.19	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	6	117G	-	-	-	-	-	-	8	-	584.72	6.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
117G	81+70.45 LF	27.10 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.02	3.50	-	584.52	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	118G	-	-	-	-	-	-	8	-	587.51	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
118G	80+53.94 LF	21.91 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	589.51	3.80	-	585.71	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	5	119G	-	-	-	-	-	-	8	-	586.68	5.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
119G	80+52.13 LF	27.83 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.68	3.80	-	584.88	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	120G	-	-	-	-	-	-	8	-	586.32	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
120G	78+99.29 LF	56.36 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	590.02	4.90	-	585.12	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	6	121G	-	-	-	-	-	-	8	-	585.67	6.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
121G	79+00.06 LF	22.30 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.67	4.70	-	583.97	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	100H	-	-	-	-	-	-	8	-	586.83	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
100H	77+63.67 LF	66.93 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	590.23	4.90	-	585.33	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	101H	-	-	-	-	-	-	8	-	585.12	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
101H	77+83.71 LF	22.61 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.52	5.20	-	583.32	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	5	102H	-	-	-	-	-	-	8	-	586.64	5.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
102H	75+27.25 LF	87.72 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	589.04	4.10	-	584.94	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	5	103H	-	-	-	-	-	-	8	-	587.34	5.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
103H	74+26.51 LF	90.86 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	589.74	4.60	-	585.14	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	104H	-	-	-	-	-	-	8	-	585.29	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
104H	74+33.44 LF	31.78 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.49	4.40	-	584.09	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	105H	-	-	-	-	-	-	8	-	586.35	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"

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STRUCT. NO.	STATION	OFFSET	PIPE NO.	C-C (FT)	TO STRUCT.	INLET TYPE & COVER		MH TYPE & COVER		RIM/GRATE ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	INVERT ELEV.	DISCH. ELEV.	LENGTH (FT)	SLOPE (%)	PIPE CLASS	REMARKS
HOAN BRIDGE SEGMENT																		
105H	74+41.54 LF	19.75 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	588.65	4.20	-	584.45	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	9	106H	-	-	-	-	-	-	8	-	588.44	9.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
106H	72+78.41 LF	87.46 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	590.14	3.40	-	586.74	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	6	107H	-	-	-	-	-	-	8	-	586.66	6.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
107H	71+87.45 LF	18.95 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	589.36	5.10	-	584.26	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	8	108H	-	-	-	-	-	-	8	-	590.22	8.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
108H	71+45.31 LF	93.99 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	592.92	4.10	-	588.82	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	6	109H	-	-	-	-	-	-	8	-	591.80	6.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
109H	70+27.54 LF	94.96 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	594.00	3.70	-	590.30	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	5	110H	-	-	-	-	-	-	8	-	590.68	5.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
110H	70+43.11 LF	35.52 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	592.78	4.20	-	588.58	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	5	111H	-	-	-	-	-	-	8	-	589.63	5.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
111H	70+57.50 LF	18.59 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	591.73	6.00	-	585.73	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	6	112H	-	-	-	-	-	-	8	-	592.65	6.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
112H	67+58.47 LF	99.83 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	595.25	4.60	-	590.65	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	7	113H	-	-	-	-	-	-	8	-	591.08	7.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
113H	68+00.64 LF	16.75 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	593.68	4.40	-	589.28	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	6	114H	-	-	-	-	-	-	8	-	592.65	6.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
114H	66+33.24 LF	29.61 LT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	595.65	3.90	-	591.75	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	4	115H	-	-	-	-	-	-	8	-	592.59	4.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
115H	66+85.08 LF	56.55 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	594.39	3.20	-	591.19	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	4	116H	-	-	-	-	-	-	8	-	592.49	4.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
116H	66+69.60 LF	18.82 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	594.39	3.30	-	591.09	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	10	117H	-	-	-	-	-	-	8	-	592.60	10.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
117H	64+14.57 LF	18.08 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	595.50	4.70	-	590.80	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
DS	-	-	-	9	118H	-	-	-	-	-	-	8	-	592.49	9.00	-		PROPOSED DOWNSPOUT(DS) CONNECTED TO PROPOSED CATCH BASIN "MOD"
118H	64+43.11 LF	83.07 RT.	-	-	-	CATCH BASIN 4-FT DIA. "MOD"	K	-	-	594.79	4.00	-	590.79	-	-	-	-	PROPOSED CATCH BASIN "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES
100I	63+04.28 LF	166.97 RT.	-	-	-	25'x8'x8' STORMWATER QUALITY VAULT	M (2)	-	-	595.10	5.69	-	589.41	-	-	-	--	PROPOSED VAULT "MOD". 4' SUMP FROM LOWEST INVERT ELEV. RECONNECT ALL EXISTING PIPES

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CLYBOURN STREET

IH 794 WB

BROADWAY

MILWAUKEE STREET

IH 794 EB

BROADWAY EB ENTRANCE RAMP

CONNECT PIPE UNDERDRAIN 6-INCH TO CATCH BASIN WITH PIPE UNDERDRAIN UNPERFORATED 6-INCH. PROVIDE A 6-INCH DIAMETER OPENING IN CATCH BASIN FOR UNDERDRAIN PIPE. SEAL WITH 6" OF NON-SHRINK GROUT ALL AROUND UNDERDRAIN PIPE. THE COST OF CONNECTING TO CATCH BASIN IS INCLUDED IN BID ITEM "PIPE UNDERDRAIN UNPERFORATED (6-INCH)."

206F
CATCH BASIN 4-FT DIA.
"MOD" W/ TYPE K COVER
SEE STORM SEWER PLAN
FOR MORE DETAILS.

STA. 11+00 BE

PIPE UNDERDRAIN UNPERFORATED 6-INCH

11+00 BE

TEE REQUIRED

STA. 11+00 BE

10+00 BE

12+00 BE

PIPE UNDERDRAIN 6-INCH (SLOPE 0.5% MIN.) TO SUITABLE DRAINAGE. SEE TYPICAL SECTIONS AND SDD EDGEDRAIN AND AGGREGATE OPEN GRADED FOR MORE INFORMATION.

PIPE UNDERDRAIN 6-INCH (SLOPE 0.5% MIN.) TO SUITABLE DRAINAGE. SEE TYPICAL SECTIONS AND SDD EDGEDRAIN AND AGGREGATE OPEN GRADED FOR MORE INFORMATION.

13+00 BE

STA. 13+75 BE

14+00 BE

STA. 13+75 BE

15+00 BE

N

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PIPE UNDERDRAIN - RAMP BE	SHEET 158 E

CLYBOURN STREET

IH 794 WB

109D
MANHOLE 4-FT DIA. W/
TYPE C COVER

CONNECT PIPE UNDERDRAIN 6-INCH TO MANHOLE WITH PIPE UNDERDRAIN UNPERFORATED 6-INCH. PROVIDE A 6-INCH DIAMETER OPENING IN MANHOLE FOR UNDERDRAIN PIPE. SEAL WITH 6" OF NON-SHRINK GROUT ALL AROUND UNDERDRAIN PIPE. THE COST OF CONNECTING TO MANHOLE IS INCLUDED IN BID ITEM "PIPE UNDERDRAIN UNPERFORATED (6-INCH)."

PIPE UNDERDRAIN 6-INCH (SLOPE 0.5% MIN.) TO SUITABLE DRAINAGE. SEE TYPICAL SECTIONS AND SDD EDGEDRAIN AND AGGREGATE OPEN GRADED FOR MORE INFORMATION.

PIPE UNDERDRAIN 6-INCH (SLOPE 0.5% MIN.) TO SUITABLE DRAINAGE. SEE TYPICAL SECTIONS AND SDD EDGEDRAIN AND AGGREGATE OPEN GRADED FOR MORE INFORMATION.

CONNECT PIPE UNDERDRAIN 6-INCH TO INLET. PROVIDE A 6-INCH DIAMETER OPENING IN MANHOLE FOR UNDERDRAIN PIPE. SEAL WITH 6" OF NON-SHRINK GROUT ALL AROUND UNDERDRAIN PIPE. THE COST OF CONNECTING TO MANHOLE IS INCLUDED IN BID ITEM "PIPE UNDERDRAIN UNPERFORATED (6-INCH)."

CONNECT PIPE UNDERDRAIN 6-INCH TO MANHOLE WITH PIPE UNDERDRAIN UNPERFORATED 6-INCH. PROVIDE A 6-INCH DIAMETER OPENING IN MANHOLE FOR UNDERDRAIN PIPE. SEAL WITH 6" OF NON-SHRINK GROUT ALL AROUND UNDERDRAIN PIPE. THE COST OF CONNECTING TO MANHOLE IS INCLUDED IN BID ITEM "PIPE UNDERDRAIN UNPERFORATED (6-INCH)."

JACKSON STREET

STA. 20+24 JW

STA. 21+19 JW
CONNECTION TO VERTICAL UNDERDRAIN PIPE. SEE STRUCTURE R-40-582 PLANS FOR DETAILS.

PIPE UNDERDRAIN UNPERFORATED 6-INCH

STA. 21+35 JW

STA. 22+44 JW

211D
INLET 2X3-FT W/
TYPE H COVER

STA. 22+80 JW

211C
MANHOLE 4-FT DIA.
W/ TYPE C COVER

JACKSON STREET WB ENTRANCE RAMP

CONNECT PIPE UNDERDRAIN 6-INCH TO CATCH BASIN WITH PIPE UNDERDRAIN UNPERFORATED 6-INCH. PROVIDE A 6-INCH DIAMETER OPENING IN CATCH BASIN FOR UNDERDRAIN PIPE. SEAL WITH 6" OF NON-SHRINK GROUT ALL AROUND UNDERDRAIN PIPE. THE COST OF CONNECTING TO CATCH BASIN IS INCLUDED IN BID ITEM "PIPE UNDERDRAIN UNPERFORATED (6-INCH)."

212B
CATCH BASIN 4-FT DIA.
"MOD" W/ TYPE H COVER

STA. 20+24 JW

STA. 21+21 JW

STA. 21+37 JW

STA. 22+80 JW

STA. 14+00 JE

STA. 11+09 JE

STA. 11+09 JE

JACKSON STREET EB EXIT RAMP

STA. 13+43 JE

PIPE UNDERDRAIN 6-INCH (SLOPE 0.5% MIN.) TO SUITABLE DRAINAGE. SEE TYPICAL SECTIONS AND SDD EDGEDRAIN AND AGGREGATE OPEN GRADED FOR MORE INFORMATION.

IH 794 EB

CONNECT PIPE UNDERDRAIN 6-INCH TO EXISTING INLET WITH PIPE UNDERDRAIN UNPERFORATED 6-INCH. PROVIDE A 6-INCH DIAMETER OPENING IN INLET FOR UNDERDRAIN PIPE. SEAL WITH 6" OF NON-SHRINK GROUT ALL AROUND UNDERDRAIN PIPE. THE COST OF CONNECTING TO INLET IS INCLUDED IN BID ITEM "PIPE UNDERDRAIN UNPERFORATED (6-INCH)."

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PIPE UNDERDRAIN - RAMP JE AND RAMP JW	SHEET 159	E

2

2

N

SPEED LIMIT 40 R2-1

5R 6R

SB ON LIGHT POLE

RUSSEL AVE.

BAY ST.

SIGN

SUBSTATION

37+00 LF 38+00 LF 39+00 LF 40+00 LF 41+00 LF 42+00 LF 43+00 LF 44+00 LF 45+00 LF 46+00 LF 47+00 LF 48+00 LF 49+00 LF 50+00 LF 51+00 LF 52+00 LF 53+00 LF 54+00

SIH 794

794 To 794 Downtown

1R

Port of Milwaukee

2R

S-40-14

S-40-14

3R

W1-1R

30 M.P.H.

W13-1

4R

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 1 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 160 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023101_ps.dgn PLOT DATE : 17-APR-2013 15:11 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

39R Port of Milwaukee → / ← Lincoln Mem Dr — D1-2

374R ← Car Ferry — D1-2

35R 37R 36R 38R STOP — R1-1 (ALL WAY) R1-3P

34R DO NOT ENTER — R5-1

29R Port of Milwaukee → / ← Lincoln Mem Dr — D1-2

28R ← Car Ferry — D1-2

40R NO PARKING ANY TIME — R7-1D

41R 42R 43R — W1-8

44R NO PARKING ANY TIME — R7-1D

30R 32R 30PR 32PR 31R 33R 31PR 33PR STOP — R1-1 (ALL WAY) R1-3P

20R ONLY — R3-8(MOD)

19R — W3-1

17R — W1-1R

18R 30 M.P.H. — W13-1 ON LIGHT POLE

WRONG WAY — R5-1A — 21R 22R

45R SOUTH 794 — J3-1

46R — W4-1

23R 24R 25R 26R 27R — W1-8

7R EXIT — E5-1(MOD)

8R SPEED LIMIT 40 — R2-1 (SB)

9R SPEED LIMIT 50 — R2-1

10R 11R REDUCED SPEED AHEAD 40 M.P.H. — ON WOOD POST

12R 13R REDUCED SPEED AHEAD 40 M.P.H. — SB ON LIGHT POLE

14R WEST 794 MILE 3 .5 — D10-5

15R EAST 794 MILE 3 .5 — D10-5 — ON LIGHT POLE

16R — W4-3R

CARFERRY DR

LINCOLN AVE. VIADUCT

IH 794

53+00 LF 54+00 LF 55+00 LF 56+00 LF 57+00 LF 58+00 LF 59+00 LF 60+00 LF 61+00 LF 62+00 LF 63+00 LF 64+00 LF 65+00 LF 66+00 LF 67+00 LF 68+00

554+00 CE 555+00 CE 556+00 CE 557+00 CE 558+00 CE

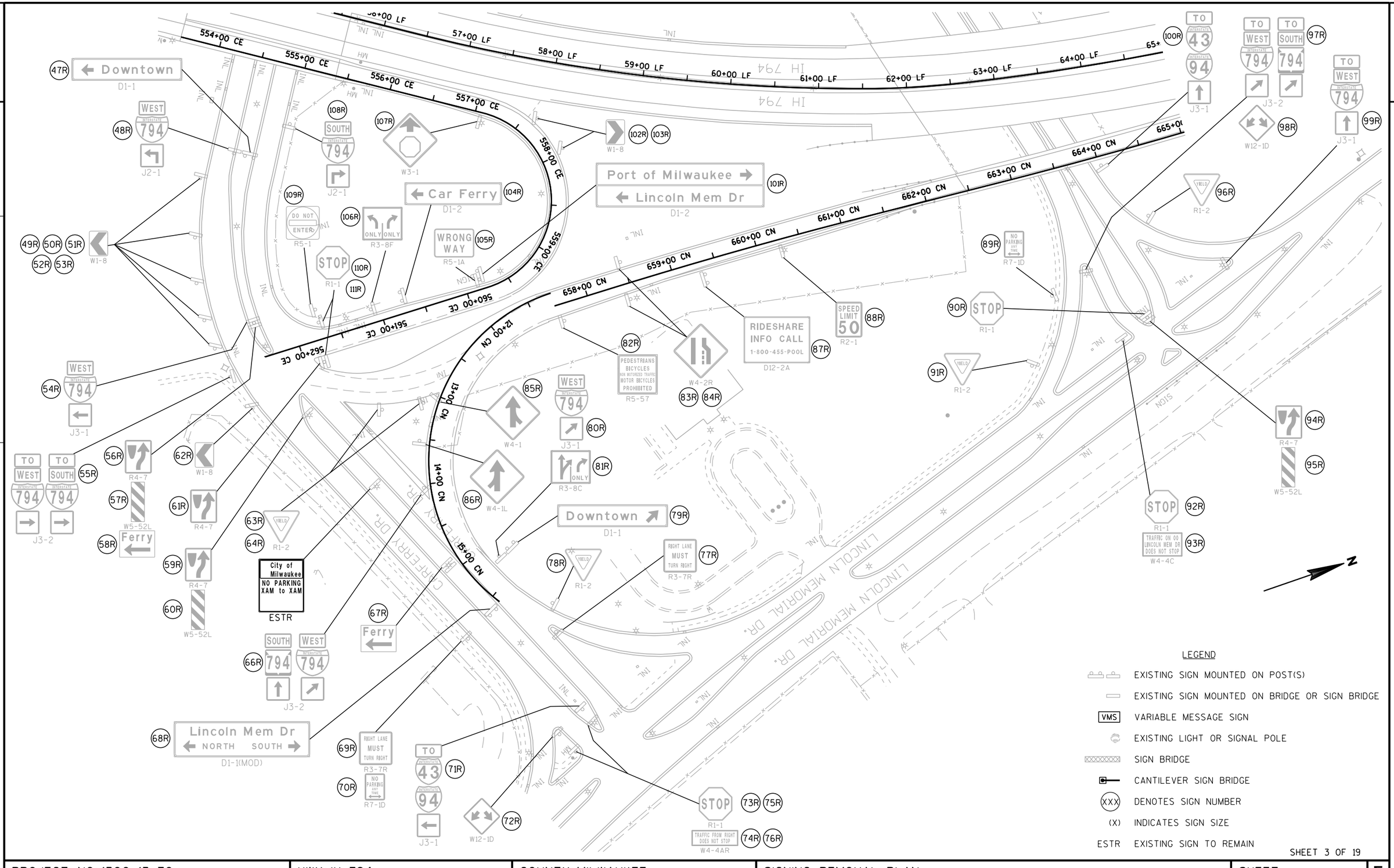
457+00 CW 458+00 CW 459+00 CW 460+00 CW

357+00 CS 358+00 CS 359+00 CS 360+00 CS 361+00 CS 362+00 CS 363+00 CS 364+00 CS 365+00 CS 366+00 CS 367+00 CS 368+00 CS

660+00 CN 661+00 CN 662+00 CN 663+00 CN 664+00 CN 665+00 CN 666+00 CN

SHEET 2 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 161 E



SHEET 3 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 162	E

2

N

112R WEST 794 MILE 3 .4 D10-5
113R EAST 794 MILE 3 .4 D10-5
ON LIGHT POLE

114R EXIT 3
E5-1A(MOD)
TOP OF WALL

115R EXIT 3 Port of Milwaukee EXIT ONLY

116R 794 SOUTH Lake Parkway

SCALE

367+00 CS 368+00 CS 369+00 CS 370+00 CS 371+00 CS 372+00 CS 373+00 CS 374+00 CS 375+00 CS 376+00 CS 377+00 CS

67+00 LF 68+00 LF 69+00 LF 70+00 LF 71+00 LF 72+00 LF 73+00 LF 74+00 LF 75+00 LF 76+00 LF 77+00 LF 78+00 LF 79+00 LF 80+00 LF 81+00 LF 82+00 LF

IH 794

S-40-167 EXISTING TO BE REPLACED BY S-40-852

117R EMERGENCY STOPPING ONLY R8-7
ON UPRIGHT

118R WEST INTERSTATE 794 J4-1
(NB)

119R Michigan St 2
Milwaukee St 2 1/4
43 94 41 2 3/4
(NB)
S-40-167

120R WEST 794 MILE 3 .2 D10-5
121R EAST 794 MILE 3 .2 D10-5
ON LIGHT POLE

122R SPEED LIMIT 50 R2-1
ON LIGHT POLE

123R WEST 794 MILE 3 .3 D10-5
124R EAST 794 MILE 3 .3 D10-5
ON LIGHT POLE

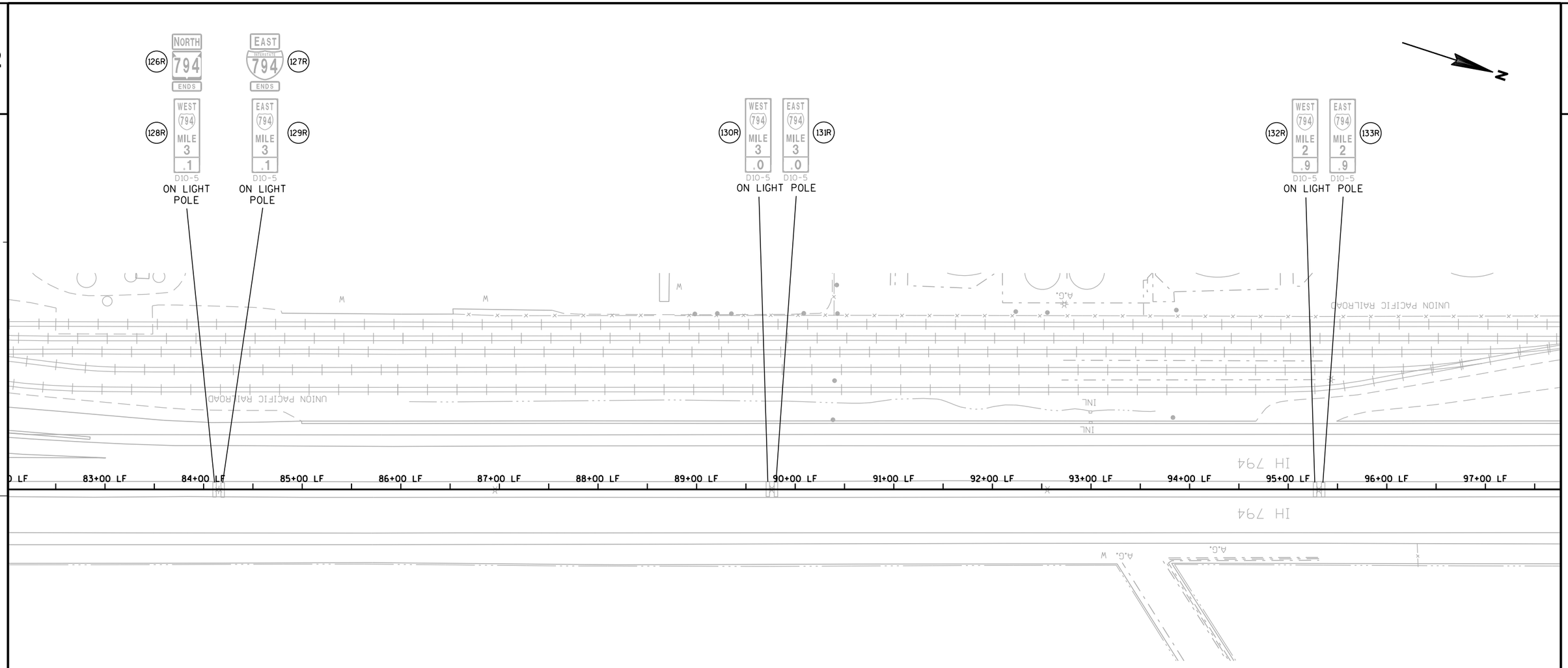
125R EMERGENCY STOPPING ONLY R8-7
ON LIGHT POLE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 4 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 163 E



LEGEND

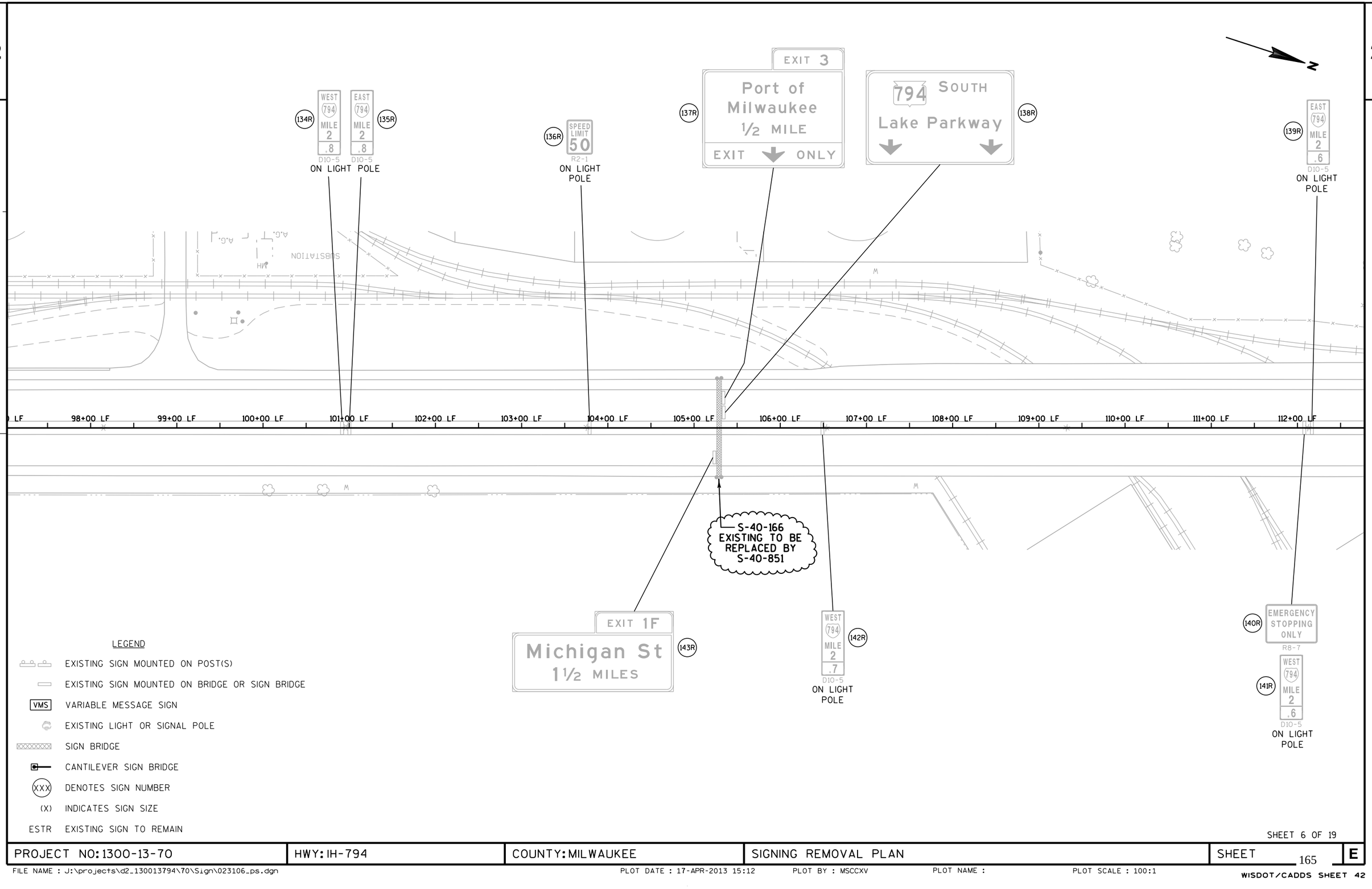
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 164	E

FILE NAME : J:\projects\d2_130013794\70\Sign\023105_ps.dgn PLOT DATE : 17-APR-2013 15:12 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1
WISDOT/CADDS SHEET 42

2

2



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 6 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET	E

FILE NAME : J:\projects\d2_130013794\70\Sign\023106_ps.dgn PLOT DATE : 17-APR-2013 15:12 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

2

N

WEST 794 MILE 2 .5 — D10-5
EAST 794 MILE 2 .5 — D10-5
145R 146R
ON LIGHT POLE

147R SPEED LIMIT 50 — R2-1
SB ON LIGHT POLE

148R EXIT 3
Port of Milwaukee 1 MILE
EXIT ONLY

149R FREEWAY ENDS 1 MILE

Car Ferry EXIT 3 — 378R
SB ON LIGHT POLE

IH 794

LF 113+00 LF 114+00 LF 115+00 LF 116+00 LF 117+00 LF 118+00 LF 119+00 LF 120+00 LF 121+00 LF 122+00 LF 123+00 LF 124+00 LF 125+00 LF 126+00 LF 127+00 LF

144R SPEED LIMIT 50 — R2-1
NB ON LIGHT POLE

S-40-330
TO BE TEMPORARILY REMOVED AND RESET

151R WEST 794 MILE 2 .4 — D10-5
152R EAST 794 MILE 2 .4 — D10-5
ON LIGHT POLE

150R INTERSTATE 794 WEST
To INTERSTATE 43 INTERSTATE 94 US 41
2 LEFT LANES

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 7 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 166	E

2

N

(NB)

153R SPEED LIMIT 50 R2-1

154R WEST (794) MILE 2 .3 D10-5 ON LIGHT POLE

155R EAST (794) MILE 2 .3 D10-5 ON LIGHT POLE

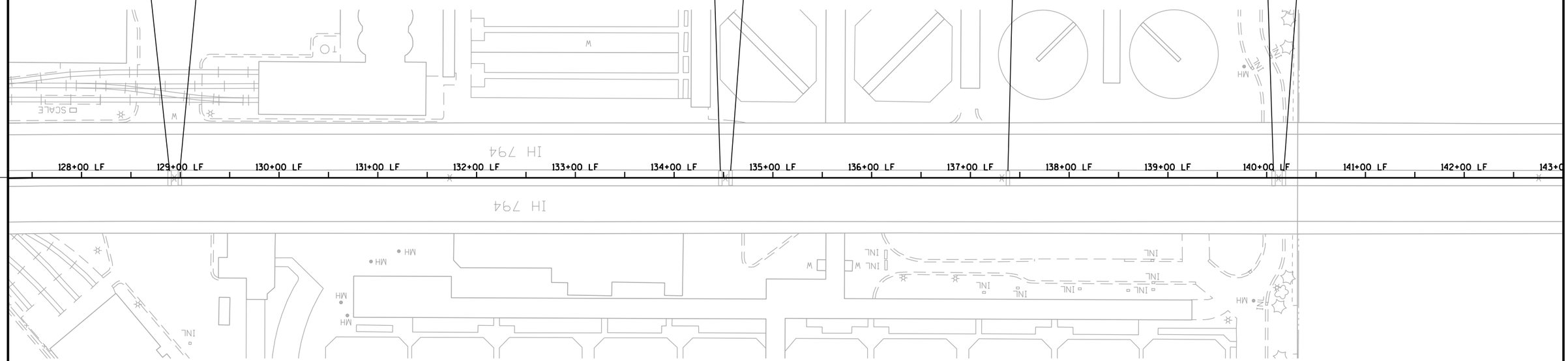
156R WEST (794) MILE 2 .2 D10-5 ON LIGHT POLE

157R EAST (794) MILE 2 .2 D10-5 ON LIGHT POLE

158R SPEED LIMIT 50 R2-1 SB ON LIGHT POLE

159R WEST (794) MILE 2 .1 D10-5 ON LIGHT POLE

160R EAST (794) MILE 2 .1 D10-5 ON LIGHT POLE



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

2

N

(SB)

SPEED LIMIT 50 R2-1 (167R)

(161R) WEST (794) MILE 2 .0 D10-5 — ON LIGHT POLE

(162R) EAST (794) MILE 2 .0 D10-5

(163R) WEST (794) MILE 1 .9 D10-5 — ON LIGHT POLE

(164R) EAST (794) MILE 1 .9 D10-5

(165R) WEST (794) MILE 1 .8 D10-5 — ON LIGHT POLE

(166R) EAST (794) MILE 1 .8 D10-5

143+00 LF 144+00 LF 145+00 LF 146+00 LF 147+00 LF 148+00 LF 149+00 LF 150+00 LF 151+00 LF 152+00 LF 153+00 LF 154+00 LF 155+00 LF 156+00 LF 157+00 LF 158+00 LF

IH 794

SPEED LIMIT 50 R2-1 (169R)
NB ON LIGHT POLE

EMERGENCY STOPPING ONLY R8-7 (168R)
NB ON LIGHT POLE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

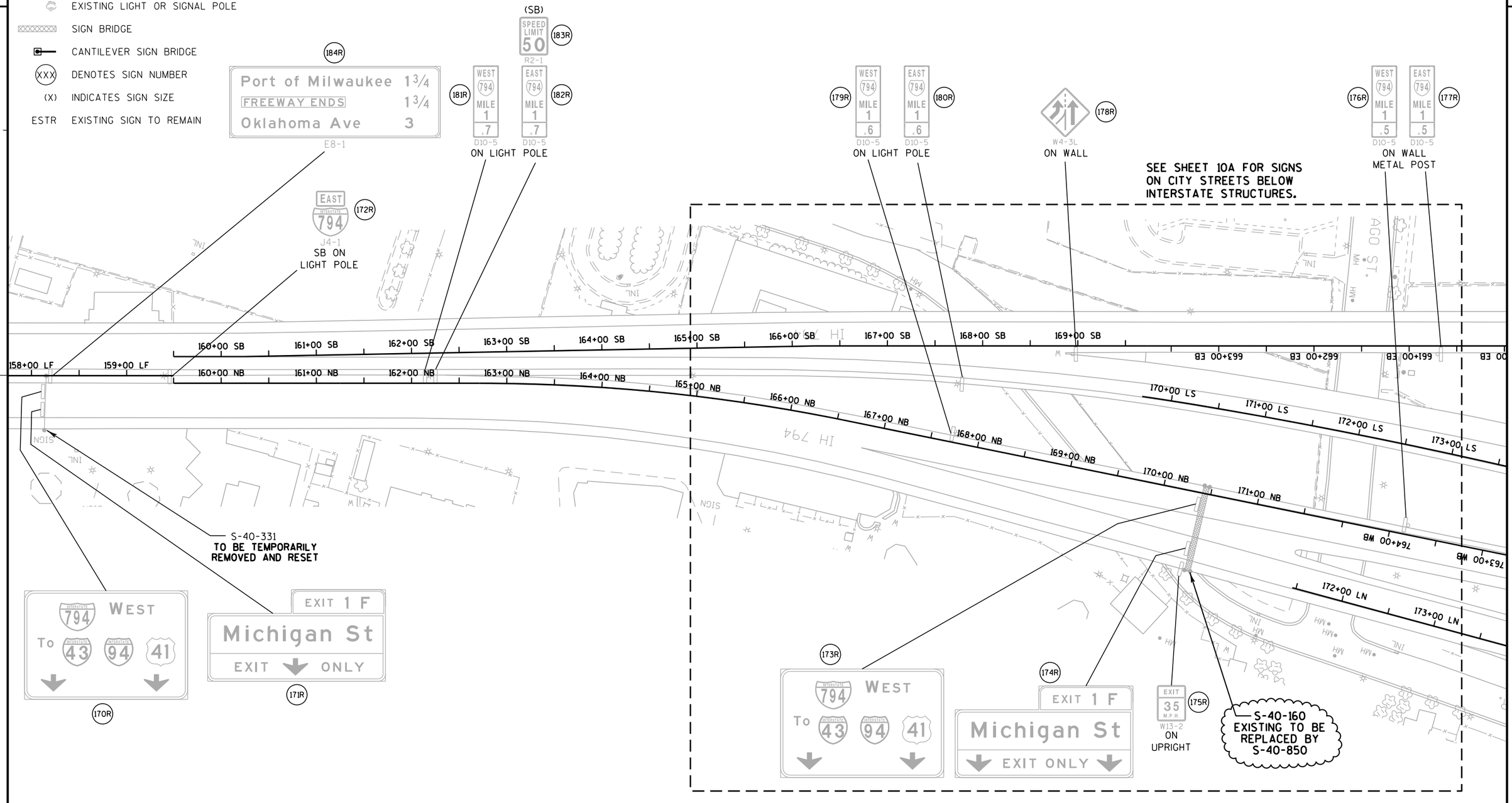
PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 168 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023109_ps.dgn PLOT DATE : 17-APR-2013 15:12 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 10 OF 19

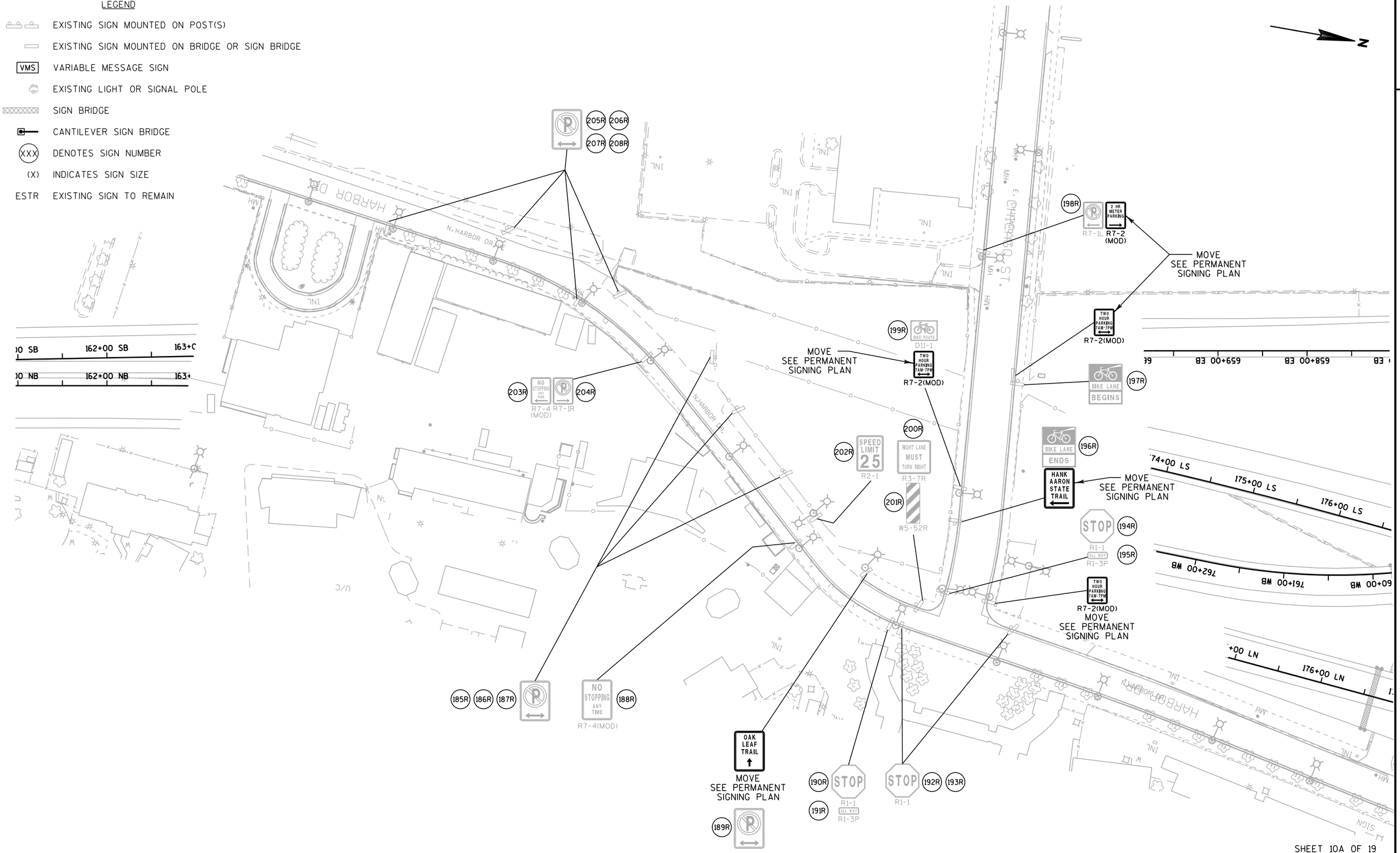
PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 169 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023110_ps.dgn PLOT DATE : 17-APR-2013 15:12 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 10A OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 170 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023110a_ps.dgn PLOT DATE : 17-APR-2013 15:12 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N

SEE SHEET 11A FOR SIGNS ON CITY STREETS BELOW INTERSTATE STRUCTURES.

222R — Lakefront / SIGNAL AHEAD

221R — 35 MPH

S-40-362

219R — EXIT 1F — E5-1A

220R — W4-1

211R — EAST (794) MILE 1 .3 — D10-5 — ON WALL

210R — EAST (794) MILE 1 .4 — D10-5

209R — EXIT 1 E — Milwaukee St Downtown — LEFT 1/4 MILE

S-40-367

212R — WEST (794) MILE 1 .4 — D10-5 — METAL POST ON TOP OF WALL

214R 215R — W3-3

213R — WEST (794) MILE 1 .3 — D10-5 — METAL POST ON TOP OF WALL

218R — RAMP 35 M.P.H. — W13-3 — REMOVE

S-40-165 EXISTING TO BE REPLACED BY S-40-854

217R — EXITS 1 A-B-C — INTERSTATE 43 / INTERSTATE 94 / US 41 — 1/2 MILE

216R — EXIT 1 E — Milwaukee St Downtown

JACKSON ST

VAN BUREN ST

CLYBOURN ST.

SHEET 11 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 171 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023111_ps.dgn PLOT DATE : 17-APR-2013 15:12 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N

MOVE BY OTHERS CITY OF MILW.
City of Milwaukee
NO PARKING XAM to XAM

223R
MS MSOE
OE Van Buren St
Clybourn St
D1-2

376R
WRONG WAY
R5-1A

224R
RIDESHARE INFO CALL
1-800-455-POOL
D12-2A

MOVE BY OTHERS CITY OF MILW.
FESTIVAL PARKING
ON COLUMN

NO PARKING
MOVE
SEE PERMANENT SIGNING PLAN

TO 32
J3-1
238R

JACKSON ST

237R
DO NOT ENTER
R5-1

236R
YIELD
R1-2

TO WEST
INTERSTATE 43 794
INTERSTATE 94
J2-2
MOVE
SEE PERMANENT SIGNING PLAN

235R
WRONG WAY
R5-1A

VAN BUREN ST

229R 230R

225R 226R
227R 228R

233R 234R
DO NOT ENTER
R5-1

NO TURN ON RED
232R
R10-11B(MOD)

ONLY
231R
R3-8B

CLYBOURN ST.

S-40-367

SHEET 11A OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 172	E

FILE NAME : J:\projects\d2_130013794\70\Sign\023111a_ps.dgn PLOT DATE : 17-APR-2013 15:13 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N

S-40-367
SEE SHEET 11

S-40-162
EXISTING TO BE
REPLACED BY
S-40-853

S-40-191

S-40-192

S-40-193

EXISTING
TYPE II SIGN

EXISTING
TYPE II SIGN

EXISTING
TYPE II SIGN

EXISTING
TYPE II SIGN

EXISTING
TYPE II SIGN

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 173 E

SHEET 12 OF 19

FILE NAME : J:\projects\d2_130013794\70\Sign\023112_ps.dgn PLOT DATE : 17-APR-2013 15:13 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

SEE SHEET 13A FOR SIGNS ON CITY STREETS BELOW INTERSTATE STRUCTURES.

275R WEST 794 MILE 1 .0 D10-5 ON WALL

296R W4-3L

295R SPEED LIMIT 50 R2-1

282R WEST 794 MILE 1 .1 D10-5 STEEL POST ON TOP OF WALL

294R Jackson St SOUTH

Van Buren St NORTH 293R

289R WEST 794 MILE 1 .2 D10-5 STEEL POST ON TOP OF WALL

EXIT 1E E5-1A 292R

291R W4-1

S-40-141 EXISTING TO BE REPLACED BY S-40-857

S-40-165

SEE SIGNS SHEET 11

S-40-140 EXISTING TO BE REPLACED BY 5-40-856

S-40-362

S-40-190 EXISTING TO BE REPLACED BY S-40-855

274R EAST 794 MILE 1 .0 D10-5 ON WALL

276R EXIT 1E E5-1A

277R Van Buren Street NORTH

278R Jackson Street SOUTH RIGHT LANE

279R 280R W3-3 ON UPRIGHT

281R EAST 794 MILE 1 .1 D10-5 ON WALL

283R EXIT 1F Lakefront

284R 794 TO 794 Port of Milw 35 MPH

287R SPEED LIMIT 50 R2-1 ON UPRIGHT

285R 286R WRONG WAY R5-1A

288R EAST 794 MILE 1 .2 D10-5 ON WALL

290R SPEED LIMIT 50 R2-1 ON UPRIGHT

CLYBOURN AVE.

ST PAUL AVE

JACKSON ST

N

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
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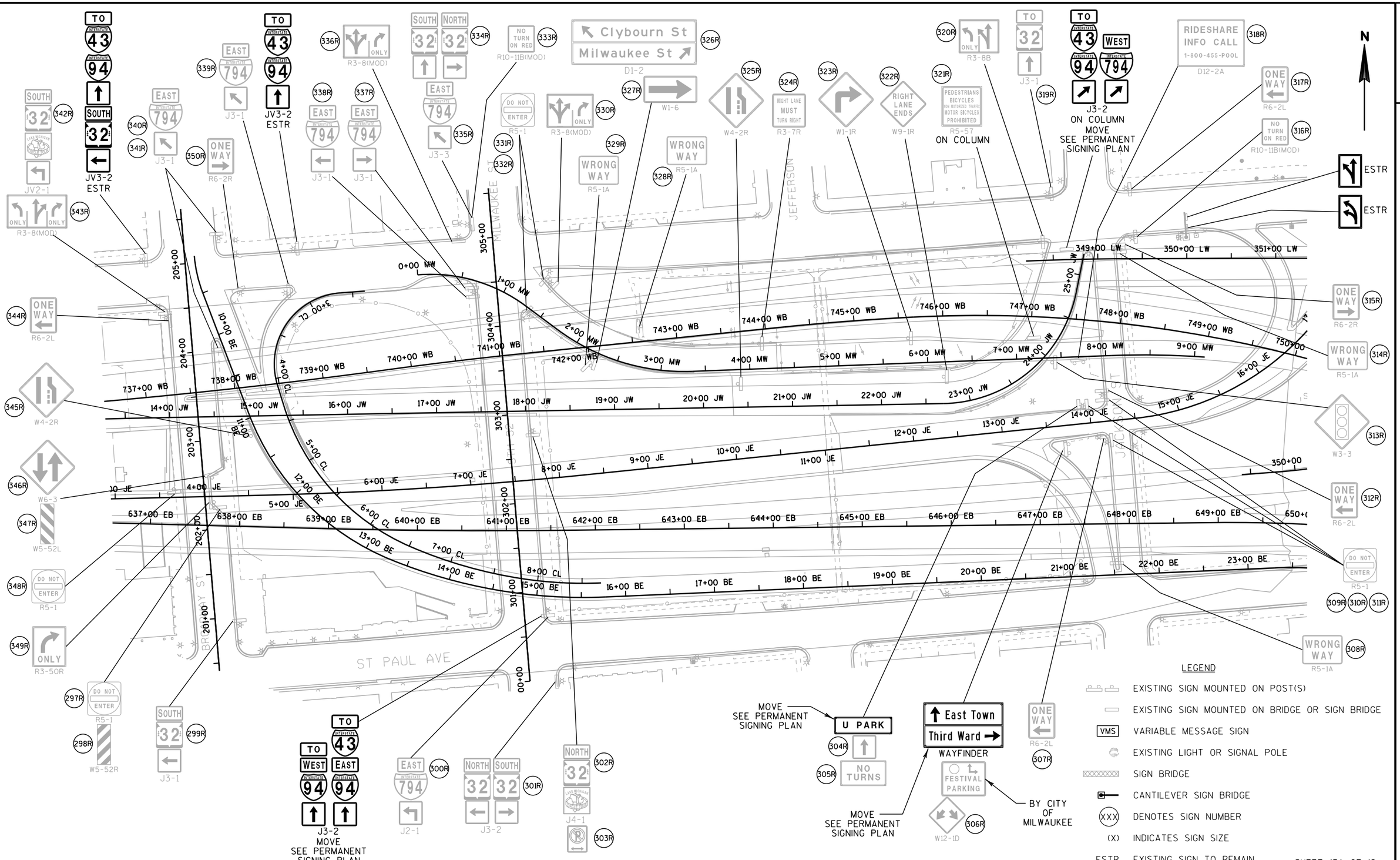
SHEET 13 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 174 E



SHEET 13A OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 175 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023113a_ps.dgn PLOT DATE : 17-APR-2013 15:13 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

EXIT 1 A

INTERSTATE 94 WEST
41
Milwaukee

EXITS 1 B-C

INTERSTATE 43 Green Bay
INTERSTATE 94 EAST 41
Chicago

1/4 MILE

359R

INSTALLED UNDER MAROUETTE PROJECT

351R EAST INTERSTATE 794 J4-1 ON LIGHT POLE

352R SPEED LIMIT 50 R2-1 WB ON LIGHT POLE

353R EAST (794) MILE 0 .7 D10-5 ON LIGHT POLE

(WB) SPEED LIMIT 50 355R R2-1

354R WEST (794) MILE 0 .7 D10-5 ON LIGHT POLE

356R WEST INTERSTATE 794 J4-1 ON LIGHT POLE

357R EAST (794) MILE 0 .8 D10-5 ON LIGHT POLE

358R WEST (794) MILE 0 .8 D10-5 ON LIGHT POLE

360R WEST (794) MILE 0 .9 D10-5 ON LIGHT POLE

S-40-540

720+00 WB 721+00 WB 722+00 WB 723+00 WB 724+00 WB 725+00 WB 726+00 WB 727+00 WB 728+00 WB 729+00 WB 730+00 WB 731+00 WB 732+00 WB 733+00 WB 734+00 WB 735+00 WB

620+00 EB 621+00 EB 622+00 EB 623+00 EB 624+00 EB 625+00 EB 626+00 EB 627+00 EB 628+00 EB 629+00 EB 630+00 EB 631+00 EB 632+00 EB 633+00 EB 634+00 EB 635+00 EB

10+00 JW 11+00 JW 12+00

0+00 JE 1+00 JE

105+00 104+00 103+00 102+00

IH 794

CLYBOURN

PLANKTON AVE

ATER ST

SUMMERFEST PARKING

FOLD UP SIGN MOVE SEE PERMANENT SIGNING PLAN

377R Car Ferry FOLLOW 794 ON LIGHT POLE

361R EAST (794) MILE 0 .9 D10-5 ON LIGHT POLE

S-40-539 EXISTING TO BE REPLACED BY S-40-858

362R EXIT 1 E Jackson St Van Buren St EXIT ONLY

363R EXIT 1 F Lakefront 1/4 MILE

364R INTERSTATE 794 EAST Port of Milw 2 RIGHT LANES

INSTALLED UNDER MARQUETTE PROJECT

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 14 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 176 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023114_ps.dgn PLOT DATE : 17-APR-2013 15:13 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

2

N

EXIT 1 B
INTERSTATE 43 SOUTH
INTERSTATE 43 41
Chicago
40 MPH
365R
INSTALLED UNDER MARQUETTE PROJECT

EXIT 1 C
INTERSTATE 43 NORTH
Green Bay
40 MPH
366R

S-40-534

EAST 794 MILE 0 .5 D10-5
367R
WEST 794 MILE 0 .5 D10-5
368R
ON LIGHT POLE

EXIT 1 C
INTERSTATE 43 NORTH
Green Bay
1/4 MILE
EXIT ONLY

EXIT 1 B
INTERSTATE 43 SOUTH
INTERSTATE 94 41 Chicago
1/4 MILE
EXIT ONLY
INSTALLED UNDER MARQUETTE PROJECT

S-40-535

W4-2R
SPECIAL SIGN
ESTR

LEFT EXIT 1 A
INTERSTATE 94 WEST 41
Madison

LANE ENDS 1000 FT

EXIT 1 B
INTERSTATE 43 SOUTH
INTERSTATE 94 E AST 41
Chicago

EXIT 1 C
INTERSTATE 43 NORTH
Green Bay
INSTALLED UNDER MARQUETTE PROJECT

S-40-538

373R SPEED LIMIT 50 R2-1
ON UPRIGHT

705+00 WB 706+00 WB 707+00 WB 708+00 WB 709+00 WB 710+00 WB 711+00 WB 712+00 WB 713+00 WB 714+00 WB 715+00 WB 716+00 WB 717+00 WB 718+00 WB 719+00 WB 720+00 WB

605+00 EB 606+00 EB 607+00 EB 608+00 EB 609+00 EB 610+00 EB 611+00 EB 612+00 EB 613+00 EB 614+00 EB 615+00 EB 616+00 EB 617+00 EB 618+00 EB 619+00 EB 620+00 EB

IH 794

S-40-718
(EB)

S-40-533

Jackson St LEFT 1/2
Lakefront 3/4
Port of Milwaukee 3
MEDIAN SEQUENCE SIGN
INSTALLED UNDER MARQUETTE PROJECT

S-40-536

W4-2R
ESTR

EXIT 1 D
E5-1A(MOD)
ESTR

EXITS 1 B-C
E5-1A(MOD)
ON STEEL POST
MOVE
SEE PERMANENT SIGNING PLAN

EAST 794 MILE 0 .6 D10-5
371R
WEST 794 MILE 0 .6 D10-5
372R
ON LIGHT POLE

S-40-537

EAST 794 MILE 0 .4 D10-5
369R
WEST 794 MILE 0 .4 D10-5
370R
ON LIGHT POLE

INTERSTATE 794 EAST
Lakefront

EXIT 1 D
Plankinton Avenue
INSTALLED UNDER MARQUETTE PROJECT

INTERSTATE 794 EAST
Lakefront

EXIT 1 D
Plankinton Avenue
INSTALLED UNDER MARQUETTE PROJECT

EXIT 1 E
Jackson St
Van Buren St
EXIT ONLY

EXIT 1 F
Lakefront
1/2 MILE

INTERSTATE 794 EAST
Port of Milw
2 RIGHT LANES
INSTALLED UNDER MARQUETTE PROJECT

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 15 OF 19

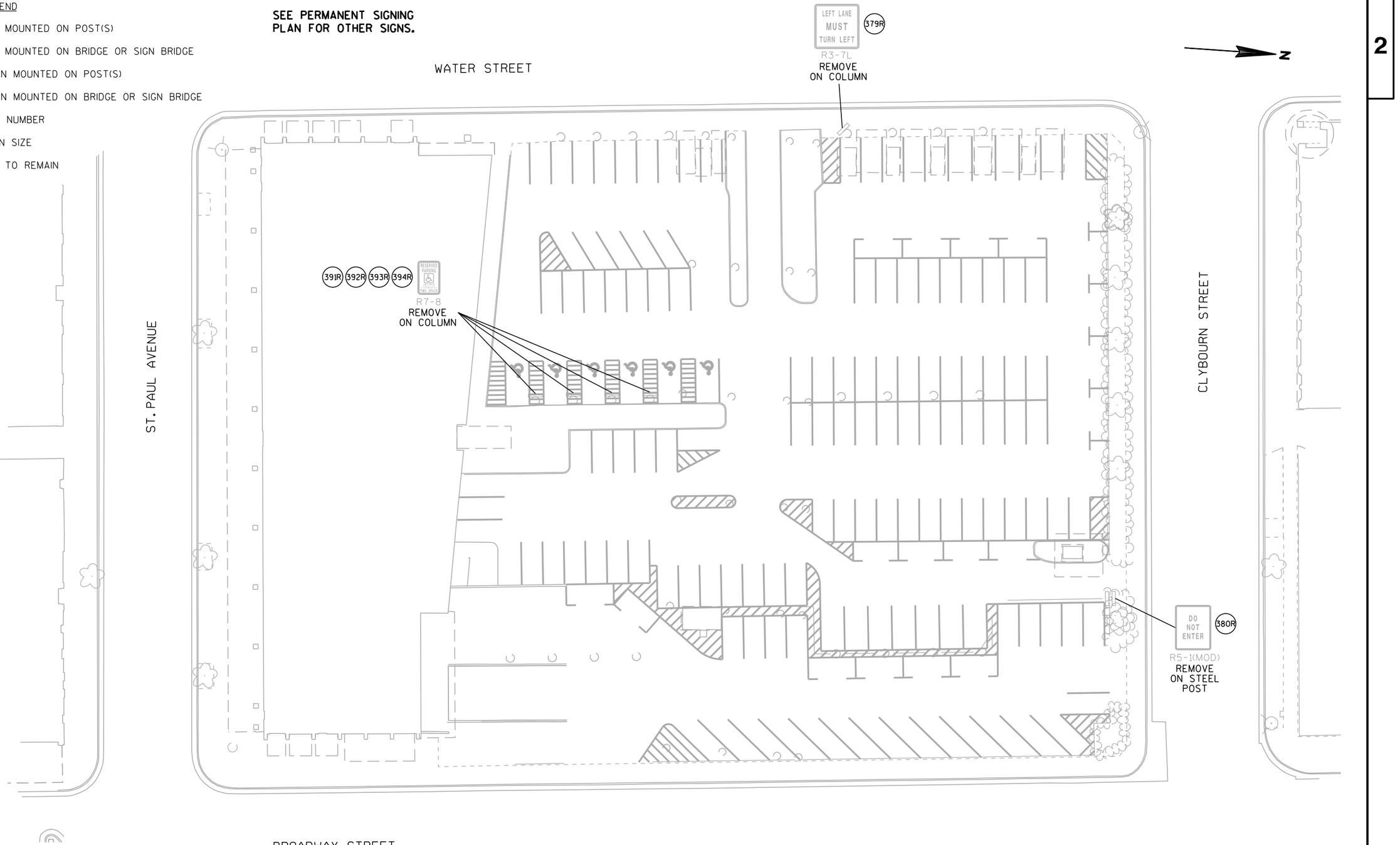
PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 177	E

FILE NAME : J:\projects\d2_130013794\70\Sign\023115_ps.dgn PLOT DATE : 17-APR-2013 15:13 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

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
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SEE PERMANENT SIGNING PLAN FOR OTHER SIGNS.



SHEET 16 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 178 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023116_ps.dgn PLOT DATE : 17-APR-2013 15:13 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

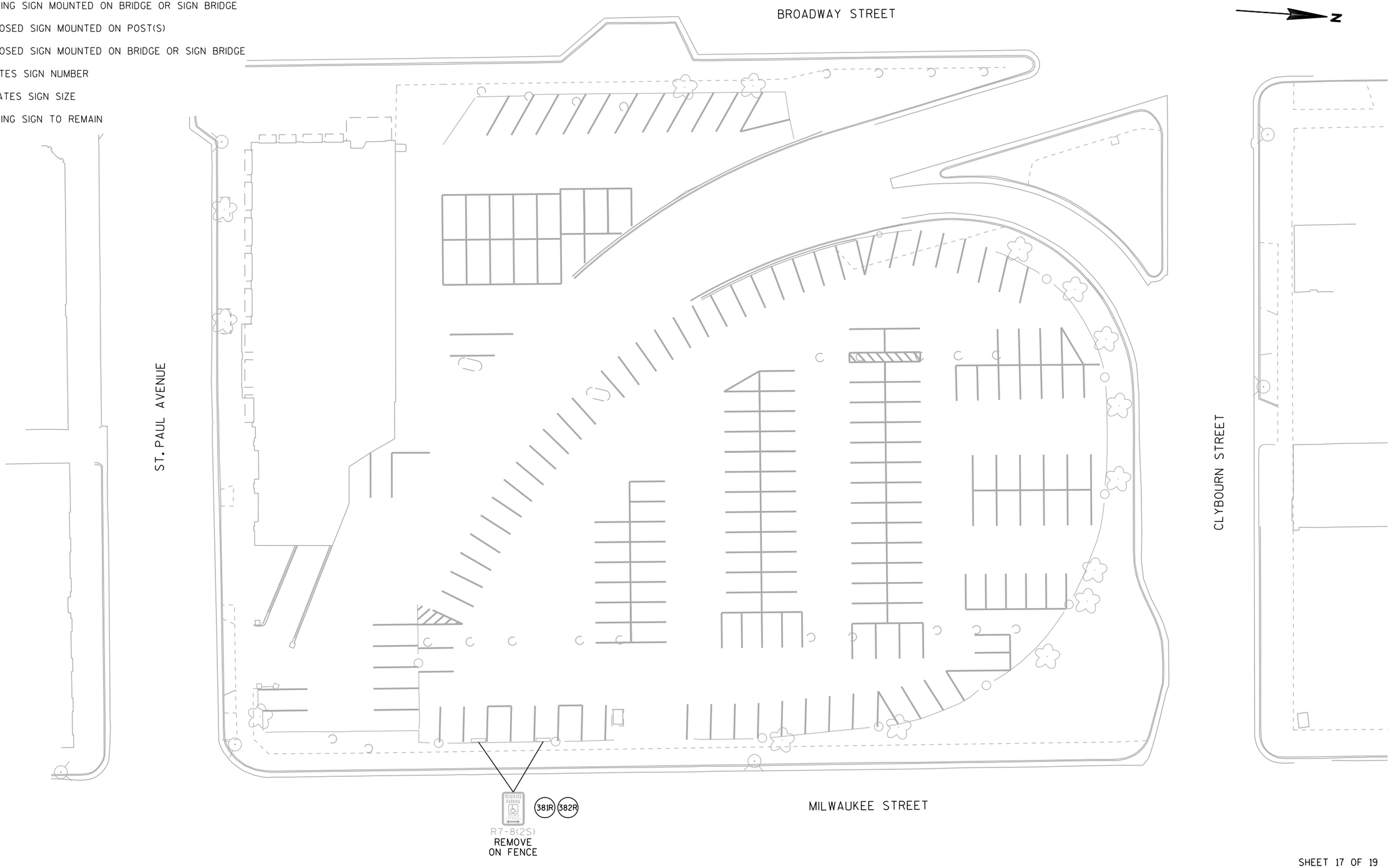
PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

SEE PERMANENT SIGNING PLAN FOR OTHER SIGNS.



2

SHEET 17 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 179	E

FILE NAME : J:\projects\d2_130013794\70\Sign\023117_ps.dgn PLOT DATE : 17-APR-2013 15:13 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

SEE PERMANENT SIGNING PLAN FOR OTHER SIGNS.

MILWAUKEE STREET

ST. PAUL AVENUE

383R 384R 385R 386R — R7-8 — RESERVED PARKING — REMOVE ON POST

387R 388R — PEDESTRIAN CROSSING — REMOVE ON FENCE

N

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
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 18 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 180 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023118_ps.dgn PLOT DATE : 17-APR-2013 15:13 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

SEE PERMANENT SIGNING
PLAN FOR OTHER SIGNS.

N

CLYBOURN STREET

MILWAUKEE STREET

R7-8
REMOVE
ON WALL
395R 396R

R7-8
REMOVE
389R

NO PARKING ANY TIME
R7-1
REMOVE
ON FENCE
390R

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
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 19 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 181 E

2

RUSSEL AVE.

BAY ST.

BAY ST.

37+00 LF
38+00 LF
39+00 LF
40+00 LF
41+00 LF
42+00 LF
43+00 LF
44+00 LF
45+00 LF
46+00 LF
47+00 LF
48+00 LF
49+00 LF
50+00 LF
51+00 LF
52+00 LF
53+00 LF
54+00 LF

STH 794
STH 794

SUBSTATION

SPEED LIMIT 40
R2-1(5)
SB ON
LIGHT POLE
5
6

S-40-14

1
794 To INTERSTATE 794
Downtown
TYPE I SIGN

2
Port of Milwaukee
TYPE I SIGN

S-40-14

3
W1-1R(5)

4
30 M.P.H.
W13-1(5)

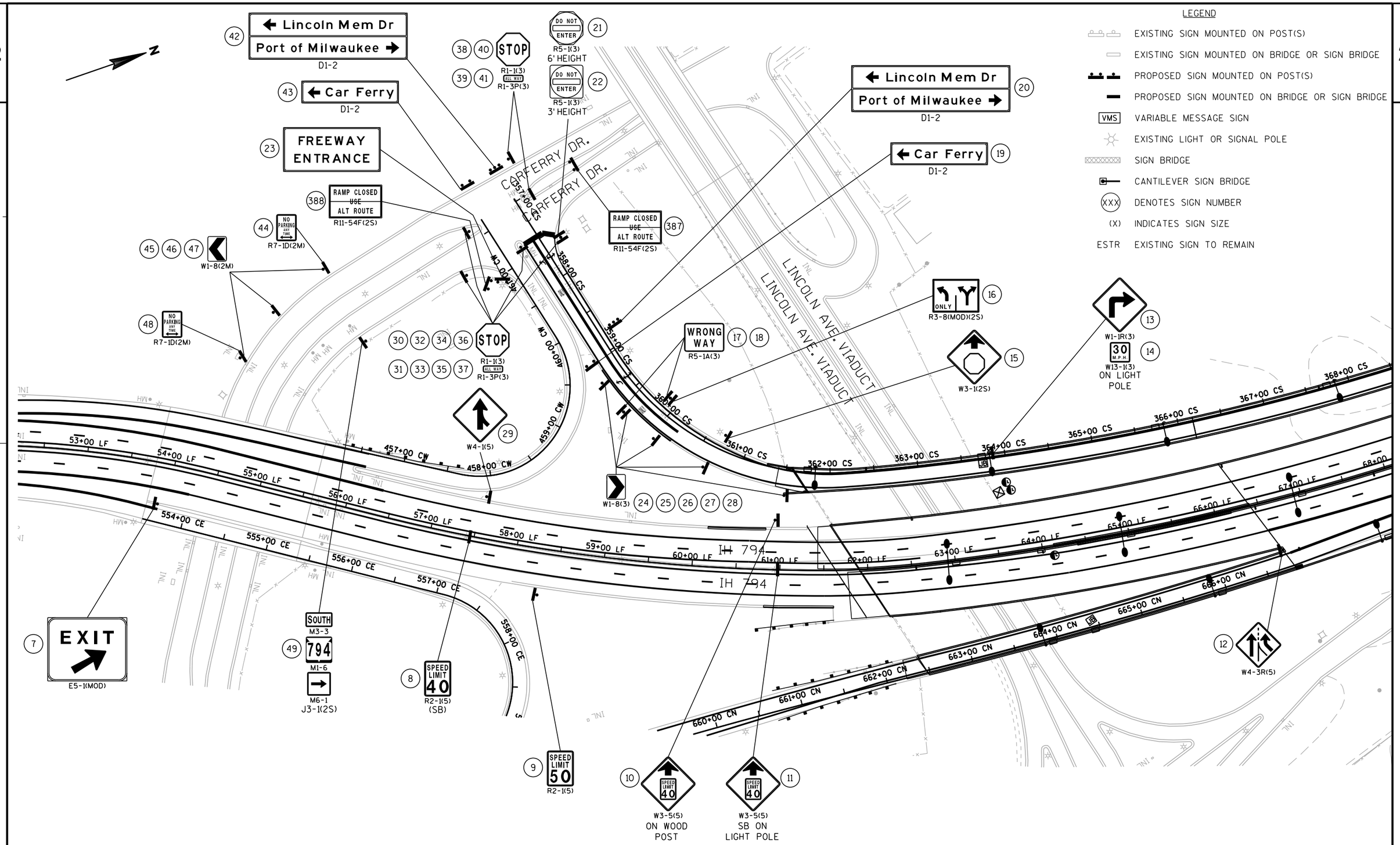
LEGEND

- 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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 1 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 182 E

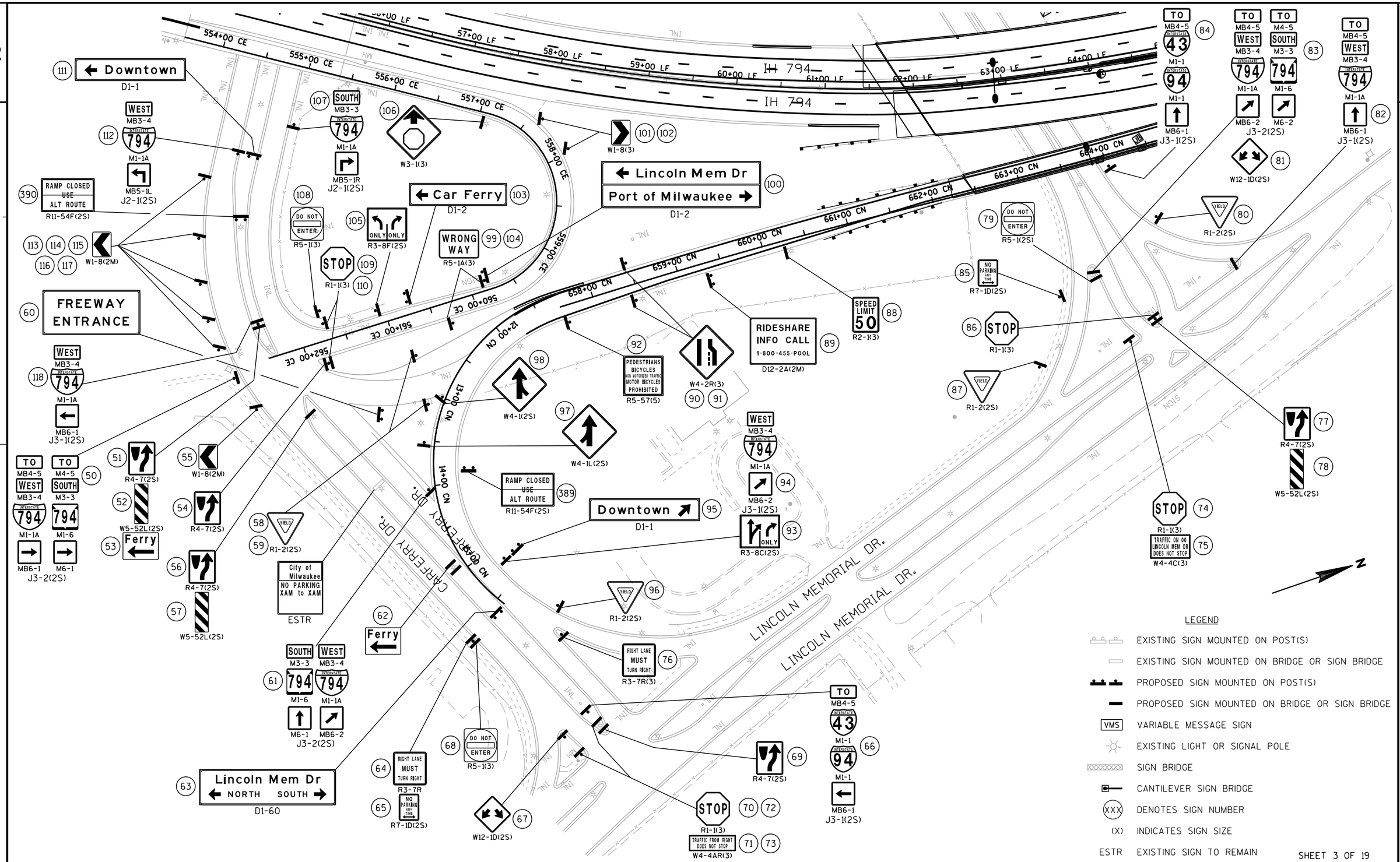
FILE NAME : J:\projects\d2_130013794\70\Sign\023201_ps.dgn
PLOT DATE : 17-APR-2013 14:47
PLOT BY : MSCCXV
PLOT NAME :
PLOT SCALE : 100:1
WISDOT/CADDS SHEET 42



SHEET 2 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 183 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023202_ps.dgn PLOT DATE : 17-APR-2013 14:47 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1
WISDOT/CADDS SHEET 42



SHEET 3 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 184 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023203_ps.dgn PLOT DATE : 17-APR-2013 14:47 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

2

N

(119) WEST 794 MILE 3 .4 — D10-5(5) ON LIGHT POLE

(120) EAST 794 MILE 3 .4 — D10-5(5) ON LIGHT POLE

(130) EXIT 3 — TOP OF WALL

(129A) EXIT 3 — Port of Milwaukee — EXIT ONLY — (129) TYPE I SIGN

794 SOUTH — Lake Parkway — (128) TYPE I SIGN

57+00 CS 368+00 CS 369+00 CS 370+00 CS 371+00 CS 372+00 CS 373+00 CS 374+00 CS 375+00 CS 376+00 CS 377+00 CS

00 LF 68+00 LF 69+00 LF 70+00 LF 71+00 LF 72+00 LF 73+00 LF 74+00 LF 75+00 LF 76+00 LF 77+00 LF 78+00 LF 79+00 LF 80+00 LF 81+00 LF 82+00 LF

IH-794

IH-794

S-40-167 EXISTING TO BE REPLACED BY S-40-852

(125) EMERGENCY STOPPING ONLY — R8-7(5) ON UPRIGHT

(127) WEST MB3-4 INTERSTATE 794 — M1-1A J4-1(5) (NB) ON LIGHT POLE

(121) EMERGENCY STOPPING ONLY — R8-7(5) ON LIGHT POLE

(122) SPEED LIMIT 50 — R2-1(5) ON LIGHT POLE

(123) WEST 794 MILE 3 .2 — D10-5(5) ON LIGHT POLE

(124) EAST 794 MILE 3 .2 — D10-5(5) ON LIGHT POLE

(126) Michigan St 2 / Milwaukee St 2 1/4 / 43 94 41 2 3/4 — TYPE I SIGN (NB) S-40-852

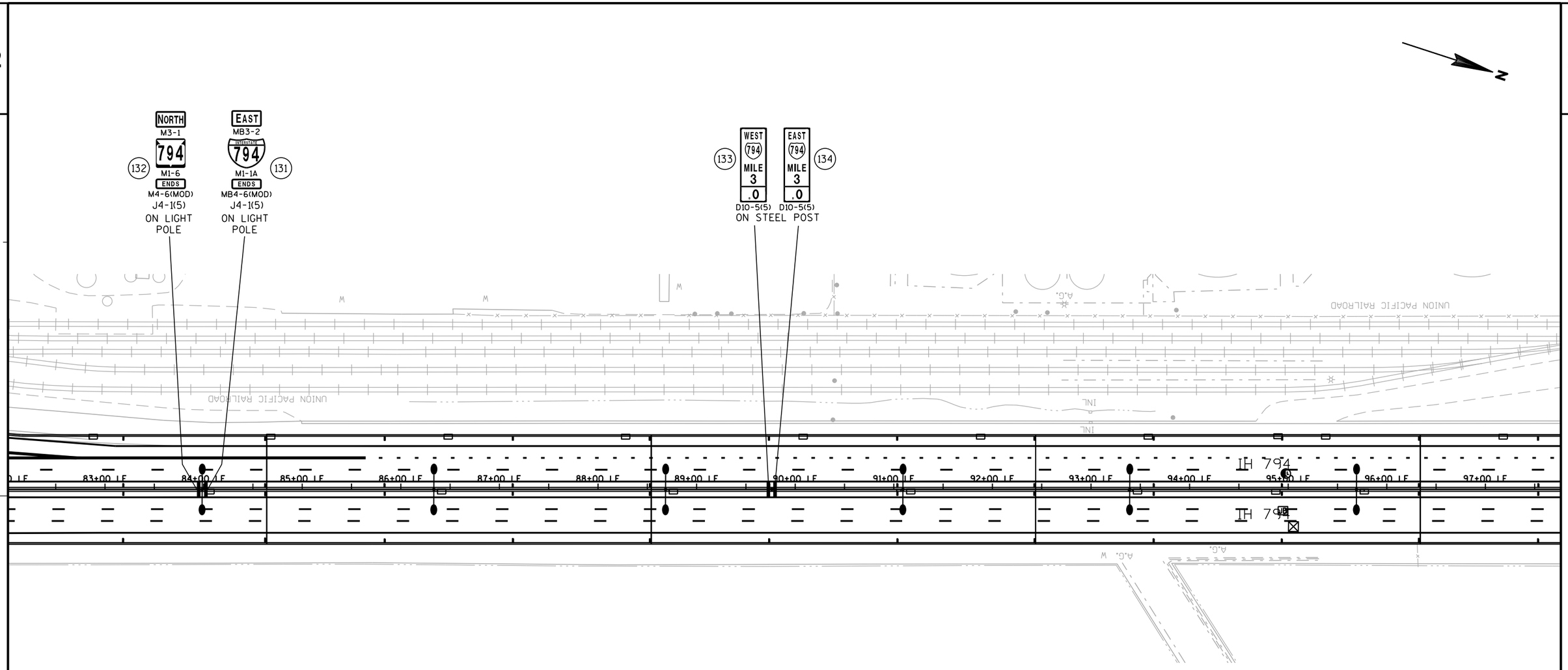
LEGEND

- 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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 4 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 185 E

2



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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

2

N

(135) WEST (794) MILE 2 .8
D10-5(5) ON LIGHT POLE

(136) EAST (794) MILE 2 .8
D10-5(5) ON LIGHT POLE

(137) SPEED LIMIT 50
R2-1(5) ON LIGHT POLE

(138A) EXIT 3

(138) Port of Milwaukee 1/2 MILE
EXIT ONLY
TYPE I SIGN

(139) 794 SOUTH
Lake Parkway
TYPE I SIGN

(140) EAST (794) MILE 2 .6
D10-5(5) ON LIGHT POLE

98+00 LF 99+00 LF 100+00 LF 101+00 LF 102+00 LF 103+00 LF 104+00 LF 105+00 LF 106+00 LF 107+00 LF 108+00 LF 109+00 LF 110+00 LF 111+00 LF 112+00 LF

S-40-166 EXISTING TO BE REPLACED BY S-40-851

(143R) EXIT 1F

(143) Michigan St 1 1/2 MILES
TYPE I SIGN

(141) EMERGENCY STOPPING ONLY
R8-7(5)

(142) WEST (794) MILE 2 .6
D10-5(5) ON LIGHT POLE

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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

2

N

(149A) EXIT 3

(149) Port of Milwaukee 1 MILE

EXIT ONLY

TYPE I SIGN

FREEWAY ENDS 1 MILE (148)

TYPE I SIGN

(150) SPEED LIMIT 50

R2-1(5)

SB ON LIGHT POLE

Car Ferry EXIT 3 (384)

5'x3'

TYPE II SIGN ON LIGHT POLE

IH 794

113+00 LF 114+00 LF 115+00 LF 116+00 LF 117+00 LF 118+00 LF 119+00 LF 120+00 LF 121+00 LF 122+00 LF 123+00 LF 124+00 LF 125+00 LF 126+00 LF 127+00 LF

(144) SPEED LIMIT 50

R2-1(5)

NB ON LIGHT POLE

S-40-330

TRUSS TO BE TEMPORARILY REMOVED AND RESET

(145) INTERSTATE 794 WEST

To INTERSTATE 43 INTERSTATE 94 US 41

2 LEFT LANES

TYPE I SIGN

(146) WEST (794) MILE 2 .4

D10-5(5) ON LIGHT POLE

EAST (794) MILE 2 .4 (147)

D10-5(5)

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
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 7 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 188 E

2

N

(NB)

151 SPEED LIMIT 50
R2-1(5)
ON LIGHT POLE

152 WEST 794 MILE 2 .2
D10-5(5)
ON LIGHT POLE

153 EAST 794 MILE 2 .2
D10-5(5)
POLE

154 SPEED LIMIT 50
R2-1(5)
SB ON LIGHT POLE

IH 794

128+00 LF 129+00 LF 130+00 LF 131+00 LF 132+00 LF 133+00 LF 134+00 LF 135+00 LF 136+00 LF 137+00 LF 138+00 LF 139+00 LF 140+00 LF 141+00 LF 142+00 LF 143+0

IH 794

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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 8 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 189	E

2

N

(155) WEST 794 MILE 2 .0 D10-5(5)
(156) EAST 794 MILE 2 .0 D10-5(5)
ON STEEL POST

(159) WEST 794 MILE 1 .8 D10-5(5)
(160) EAST 794 MILE 1 .8 D10-5(5)
ON LIGHT POLE

(SB) (161) SPEED LIMIT 50 R2-1(5)

IH 794

143+00 LF 144+00 LF 145+00 LF 146+00 LF 147+00 LF 148+00 LF 149+00 LF 150+00 LF 151+00 LF 152+00 LF 153+00 LF 154+00 LF 155+00 LF 156+00 LF 157+00 LF 158+00 LF

(157) SPEED LIMIT 50 R2-1(5)
NB ON
LIGHT POLE

(158) EMERGENCY STOPPING ONLY R8-7(5)
NB ON
LIGHT POLE

ST.

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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 190 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023209_ps.dgn PLOT DATE : 17-APR-2013 14:47 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1
WISDOT/CADDS SHEET 42

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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIZE
- ESTR — EXISTING SIGN TO REMAIN

2

2

N

Port of Milwaukee 1 3/4
FREEWAY ENDS 1 3/4
Oklahoma Ave 3
(172)
E8-1
TYPE I SIGN

(SB) SPEED LIMIT 50 (170)
R2-1(5)
ON LIGHT POLE

(168) WEST 794 MILE 1 .6
D10-5(5)
ON LIGHT POLE

(169) EAST 794 MILE 1 .6
D10-5(5)
ON LIGHT POLE

(167)
W4-3L(5)
ON WALL

SEE SHEET 10A FOR SIGNS ON CITY STREETS BELOW INTERSTATE STRUCTURES.

(171) EAST
MB3-2
INTERSTATE 794
M1-1A
J4-1(5)
SB ON
LIGHT POLE

AGO ST.

IH 794

158+00 LF 159+00 LF 160+00 SB 161+00 SB 162+00 SB 163+00 SB 164+00 SB 165+00 SB 166+00 SB 167+00 SB 168+00 SB 169+00 SB
160+00 NB 161+00 NB 162+00 NB 163+00 NB 164+00 NB 165+00 NB 166+00 NB 167+00 NB 168+00 NB 169+00 NB 170+00 NB 171+00 NB
663+00 EB 662+00 EB 661+00 EB
170+00 LS 171+00 LS 172+00 LS 173+00 LS
763+00 WB 764+00 WB
172+00 LN 173+00 LN

S-40-331
TRUSS TO BE TEMPORARILY REMOVED AND RESET

(162)
INTERSTATE 794 WEST
To INTERSTATE 43 INTERSTATE 94 US 41
TYPE I SIGN

EXIT 1 F (163A)
Michigan St (163)
EXIT ONLY
TYPE I SIGN

(164)
INTERSTATE 794 WEST
To INTERSTATE 43 INTERSTATE 94 US 41
TYPE I SIGN

(165) (165A)
EXIT 1 F
Michigan St
EXIT ONLY
TYPE I SIGN

EXIT 35 M.P.H. (166)
W13-2(5)
ON
UPRIGHT

S-40-160
EXISTING TO BE REPLACED BY S-40-850

SHEET 10 OF 19

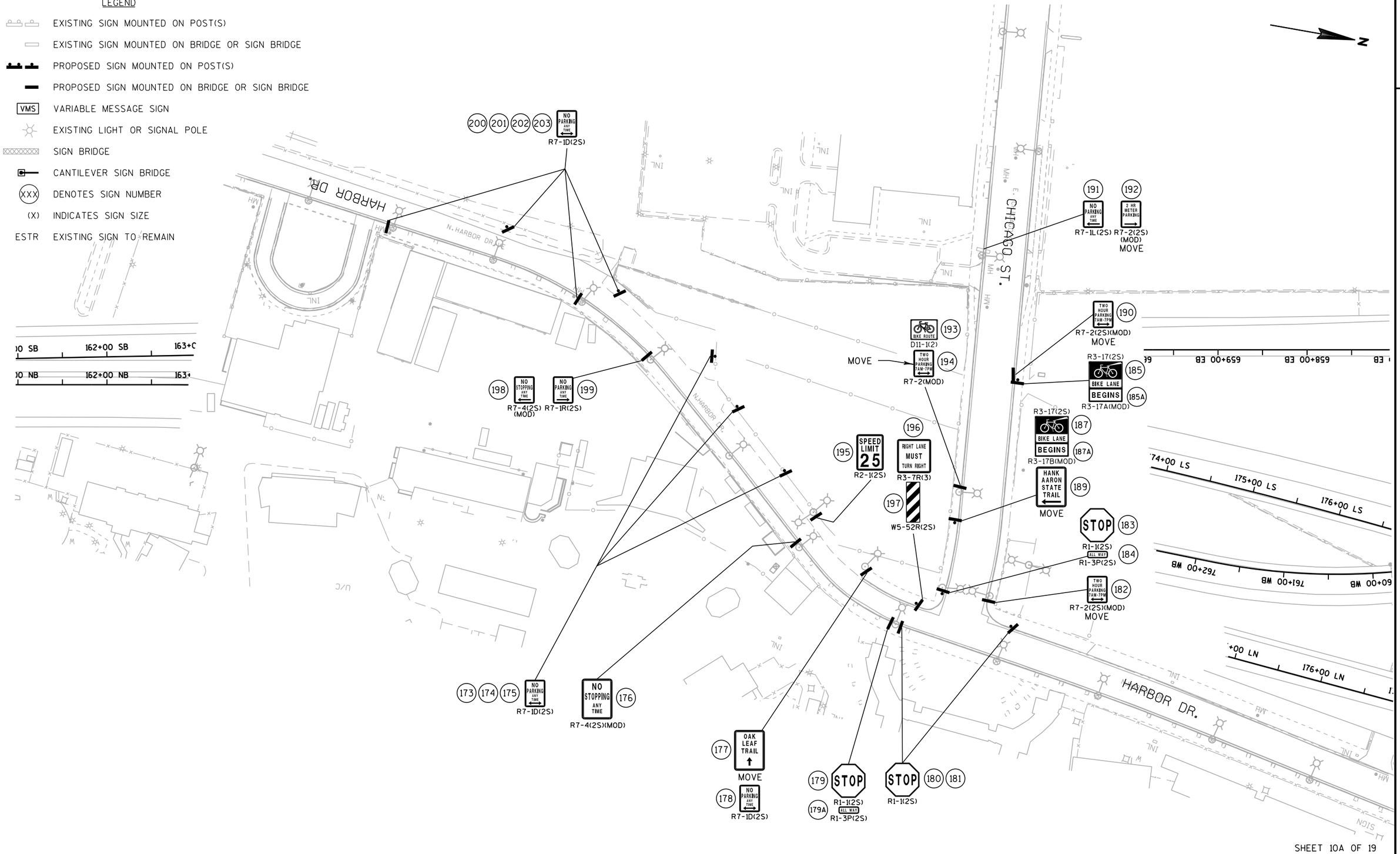
PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 191 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023210_ps.dgn PLOT DATE : 17-APR-2013 14:47 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 10A OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 192	E

FILE NAME : J:\projects\d2_130013794\70\Sign\023210a_ps.dgn PLOT DATE : 17-APR-2013 14:48 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SEE SHEET 11A FOR SIGNS ON CITY STREETS BELOW INTERSTATE STRUCTURES.

215 — Lakefront / SIGNAL AHEAD — TYPE I SIGN

214 — 35 MPH — TYPE I SIGN — S-40-362

213 — EXIT 1F — E5-1A(5)

212 — W4-1(5)

211 — RAMP 35 M.P.H. — W13-3(5)

S-40-165 EXISTING TO BE REPLACED BY S-40-854

210A — EXITS 1 A-B-C

210 — 43 / 94 / 41 — 1/2 MILE — TYPE I SIGN

209A — LEFT EXIT 1E

209 — Milwaukee St Downtown — TYPE I SIGN

204A — LEFT EXIT 1E

204 — Milwaukee St Downtown — LEFT 1/4 MILE — TYPE I SIGN

205 — EAST 794 MILE 1 .4 — D10-5(5)

207 208 — W3-3(3)

206 — WEST 794 MILE 1 .4 — D10-5(5) METAL POST ON TOP OF WALL

S-40-367

JACKSON ST

VAN BUREN ST

CLYBOURN ST.

HARBOR

SHEET 11 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 193 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023211_ps.dgn PLOT DATE : 17-APR-2013 14:48 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N

MOVE BY OTHERS CITY OF MILW.
City of Milwaukee
NO PARKING XAM to XAM

238 MSOE
Van Buren St
Clybourn St
D1-2

381 382 WRONG WAY
R5-1A(3)

237 RIDESHARE INFO CALL 1-800-455-POOL
D12-2A

372 W12-1D(2S)
2' HEIGHT

MOVE BY OTHERS CITY OF MILW.
FESTIVAL PARKING
ON COLUMN

NO PARKING EXCEPT AUTHORIZED VEHICLES
MOVE
235 236

TO M4-5 32 M1-6
M6-1
J3-1(2S)
234

JACKSON ST

373 DO NOT ENTER
R5-1(3)
6' HEIGHT

374 WRONG WAY
R5-1A(2M)
3' HEIGHT

231 YIELD
R1-2(2S)

TO 43 94 WEST 794
230
J2-2(2S)
MOVE

229 WRONG WAY
R5-1A(3)

VAN BUREN ST

220 221 NO PARKING ANY TIME
R7-1D(2S)

216 217 218 219 NO PARKING ANY TIME
R7-1D(2S)

222 224 DO NOT ENTER
R5-1(3)
6' HEIGHT

223 225 WRONG WAY
R5-1A(2M)
3' HEIGHT

226 NO TURN ON RED
R10-11B(2S)

227 228 ONLY
R3-8B(2S)

CLYBOURN ST.

S-40-367

HARBOR

SHEET 11A OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 194 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023211a_ps.dgn PLOT DATE : 28-MAY-2013 07:12 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

2

2

N

ONLY | ONLY
R3-8Y(2S)
273 274

271 272 WRONG WAY
R5-1A(3)

W3-3(3)
275 276

S-40-367
SEE SHEET 11

269 PEDESTRIANS BICYCLES NON MOTORIZED TRAFFIC MOTOR BICYCLES PROHIBITED
R5-57(5)

268
R3-1(2S)
ON SIGNAL POLE

270 RIGHT LANE ENDS
W9-1R(3)

393 RAMP CLOSED USE ALT ROUTE
R11-54F(2S)

241 242 WRONG WAY
R5-1A(3)

W4-2R(3)
267

DO NOT ENTER
263 265
R5-1(3)
6' HEIGHT

WRONG WAY
264 266
R5-1A(2M)
3' HEIGHT
ON SIGNAL POLE

FORM SINGLE LINE
262
R3-58(2S)

391 392 RAMP CLOSED USE ALT ROUTE
R11-54F(2S)

260 261 NO TURN ON RED ARROW
R10-11(2S)(MOD)
ON SIGNAL POLE

S-40-191

258 EAST 794
TYPE I SIGN
S-40-191

259 TO EAST 43 94 ONLY

253 ONLY
R3-5L
TYPE II SIGN

254 EAST 794
TYPE I SIGN

255 TO 43 94
TYPE I SIGN

SPEED LIMIT 30
ESTR

To Harbor
Lakefront
East Town
Third Ward
ESTR

S-40-192

S-40-193

Lakeshore State Park
BY CITY

S-40-162
EXISTING TO BE REPLACED BY S-40-853

239 Michigan St
TYPE I SIGN

240 Lincoln Mem Drive
TYPE I SIGN

243 R3-18(2S)

244 DO NOT ENTER
R5-1(3)
6' HEIGHT

245 WRONG WAY
R5-1A(2M)
3' HEIGHT

246 R3-2(2S)

247 ONE WAY
R6-2L(2M)

248 W1-6(2S)

249 ONE WAY
R6-2L(2M)

250 DO NOT ENTER
R5-1(3)

251 AHEAD SIGNAL
R10-10A(2S)

252 DO NOT ENTER
R5-1(3)

375
War Memorial
Betty Brinn Museum
Lakefront Museums
Lakeshore State Park
TYPE II SIGN

257 Michigan St WEST
TYPE I SIGN

256 Lincoln Mem Dr
TYPE I SIGN

SHEET 12 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 195 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023212_ps.dgn PLOT DATE : 17-APR-2013 14:48 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

SEE SHEET 13A FOR SIGNS ON CITY STREETS BELOW INTERSTATE STRUCTURES.

297 WEST (794) MILE 1 .0 — D10-5(5) ON WALL

296 W4-3L(5)

394 395 RAMP CLOSED USE ALT ROUTE — R11-54F

295 SPEED LIMIT 50 — R2-1(5)

294 Jackson St SOUTH — TYPE I SIGN

293 Van Buren St NORTH — TYPE I SIGN

292 WEST (794) MILE 1 .2 — D10-5(5) STEEL POST ON TOP OF WALL

291 EXIT 1E — E5-1A(5)

396 RAMP CLOSED USE ALT ROUTE — R11-54F

290 W4-1(5)

S-40-141 EXISTING TO BE REPLACED BY S-40-857

S-40-140 EXISTING TO BE REPLACED BY 5-40-856

S-40-165

SEE SIGNS SHEET 11

S-40-362

CLYBOURN AVE.

ST PAUL AVE

BROADWAY ST

MILWAUKEE ST

JEFFERSON ST

JACKSON ST

STH 32

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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

277 EAST (794) MILE 1 .0 — D10-5(5) ON WALL

278 EXIT 1E — E5-1A(5)

279 Van Buren Street NORTH — TYPE I SIGN

280 Jackson Street SOUTH RIGHT LANE — TYPE I SIGN

281 282 — W3-3(3) ON UPRIGHT

283A LEFT EXIT 1F

283 Lakefront — TYPE I SIGN

284 I-794 TO 794 Port of Milw 35 MPH — TYPE I SIGN

285 SPEED LIMIT 50 — R2-1(5) ON UPRIGHT

S-40-190 EXISTING TO BE REPLACED BY S-40-855

286 287 WRONG WAY — R5-1A(3)

288 EAST (794) MILE 1 .2 — D10-5(5) ON WALL

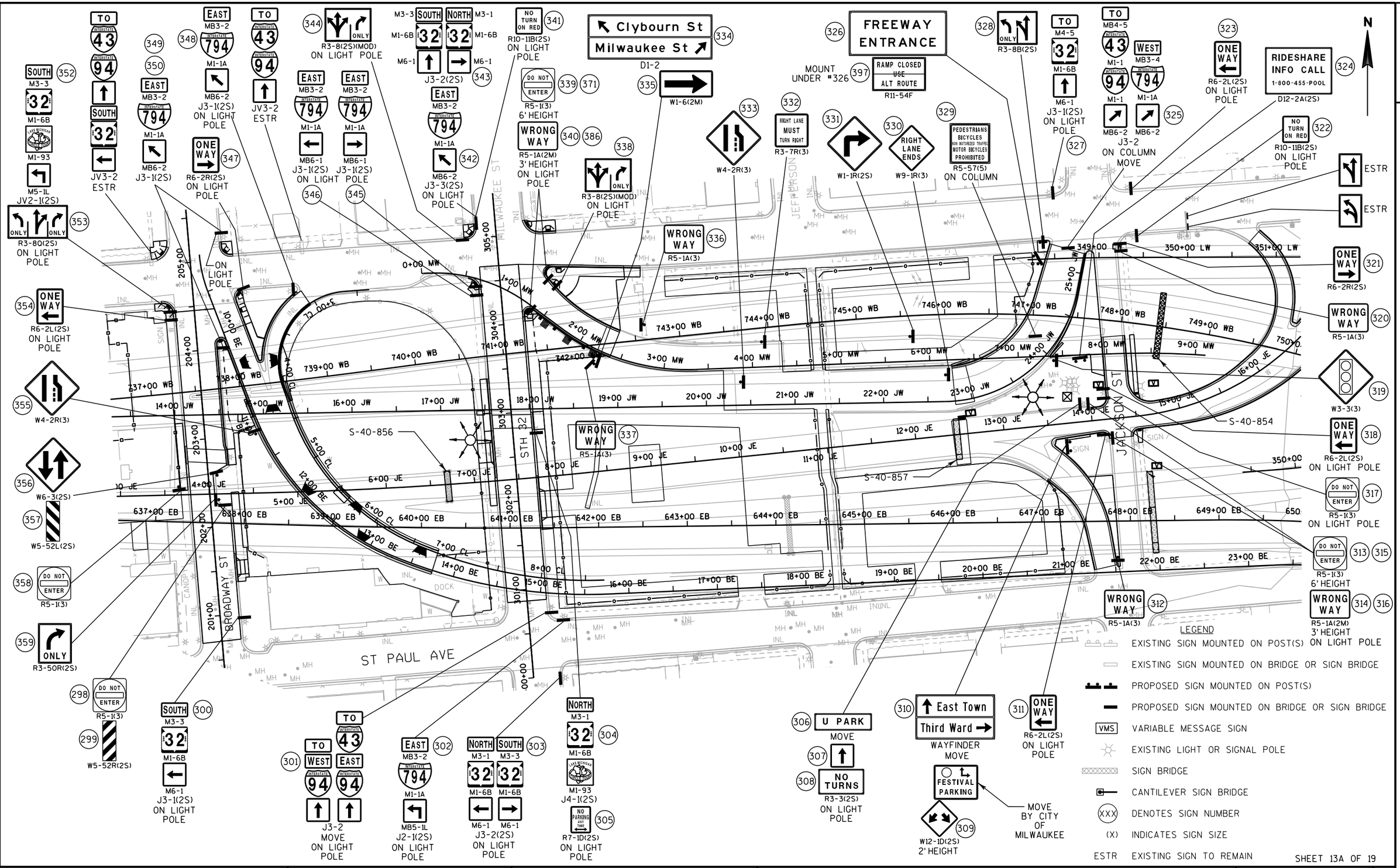
289 SPEED LIMIT 50 — R2-1(5) ON UPRIGHT

SHEET 13 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 196 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023213_ps.dgn PLOT DATE : 17-APR-2013 14:48 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42



SHEET 13A OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 197 E

2

EXIT 1 A

EXITS 1 B-C

94 WEST

41 Milwaukee

43 Green Bay

94 EAST 41 Chicago

1/4 MILE

N

INSTALLED UNDER MAROQUETTE PROJECT

360 EAST MB3-2 INTERSTATE 794 M1-1A J4-1(5) ON LIGHT POLE

Car Ferry FOLLOW 794 385

5'x3' TYPE II SIGN ON LIGHT POLE ABOVE ROUTE MARKER

SPEED LIMIT 50 361 R2-1(5) WB ON LIGHT POLE

SPEED LIMIT 50 EB ESTR ON LIGHT POLE

WEST MB3-4 362 INTERSTATE 794 M1-1A J4-1(5) ON LIGHT POLE

363 EAST 794 MILE 0 .8 D10-5(5) ON LIGHT POLE

WEST 794 MILE 0 .8 364 D10-5(5)

S-40-540

CLYBOURN

105+00

104+00

103+00

102+00

WATER ST

PLANKINTON AVE

720+00 WB 721+00 WB 722+00 WB 723+00 WB 724+00 WB 725+00 WB 726+00 WB 727+00 WB 728+00 WB 729+00 WB 730+00 WB 731+00 WB 732+00 WB 733+00 WB 734+00 WB 735+00 WB

10+00 JW 11+00 JW 12+00

620+00 EB 621+00 EB 622+00 EB 623+00 EB 624+00 EB 625+00 EB 626+00 EB 627+00 EB 628+00 EB 629+00 EB 630+00 EB 631+00 EB 632+00 EB 633+00 EB 634+00 EB 635+00 EB

0+00 JE 1+00 JE

IH 794

383 SUMMERFEST PARKING

FOLD UP SIGN MOVE FROM EXISTING SIGN BRIDGE TO NEW SIGN BRIDGE COLUMN

S-40-539 EXISTING TO BE REPLACED BY S-40-858

EXIT 1 E 378 Jackson St Van Buren St EXIT ONLY

EXIT 1 F 379 Lakefront 1/4 MILE

380 INTERSTATE 794 EAST Port of Milw 2 RIGHT LANES

INSTALLED UNDER MAROQUETTE PROJECT
MOVE TYPE I'S FROM S-40-539 TO S-40-858

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
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 14 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 198 E

FILE NAME : J:\projects\d2_130013794\70\Sign\023214_ps.dgn PLOT DATE : 25-APR-2013 15:21 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

EXIT 1 B
SOUTH
43 41
Chicago
40 MPH

EXIT 1 C
43
NORTH
Green Bay
40 MPH

INSTALLED UNDER MARQUETTE PROJECT

S-40-534

6th ST

5th ST

EXIT 1 C
43
NORTH
Green Bay
1/4 MILE
EXIT ONLY

EXIT 1 B
43
SOUTH
94 41
Chicago
1/4 MILE
EXIT ONLY

INSTALLED UNDER MARQUETTE PROJECT

S-40-535

W4-2R
SPECIAL SIGN
ESTR

LEFT
EXIT 1 A
94
WEST 41
Madison

LANE ENDS 1000 FT

EXIT 1 B
43
SOUTH
94
E AST 41
Chicago

EXIT 1 C
43
NORTH
Green Bay

INSTALLED UNDER MARQUETTE PROJECT

S-40-538

370
SPEED LIMIT
50
R2-1(45)
ON UPRIGHT

705+00 WB | 706+00 WB | 707+00 WB | 708+00 WB | 709+00 WB | 710+00 WB | 711+00 WB | 712+00 WB | 713+00 WB | 714+00 WB | 715+00 WB | 716+00 WB | 717+00 WB | 718+00 WB | 719+00 WB | 720+00 WB

605+00 EB | 606+00 EB | 607+00 EB | 608+00 EB | 609+00 EB | 610+00 EB | 611+00 EB | 612+00 EB | 613+00 EB | 614+00 EB | 615+00 EB | 616+00 EB | 617+00 EB | 618+00 EB | 619+00 EB | 620+00 EB

IH 794

EAST 794 MILE 0 .4
365
D10-5(5)
ON LIGHT POLE

WEST 794 MILE 0 .4
366
D10-5(5)

S-40-533

Jackson St LEFT 1/2
Lakefront 3/4
Port of Milwaukee 3
MEDIAN SEQUENCE SIGN
INSTALLED UNDER MARQUETTE PROJECT

S-40-718
(EB)

S-40-536

W4-2R
ESTR

EXIT 1 D
E5-1A(MOD)
ESTR

367
EXITS 1 B-C
E5-1A(MOD)
ON STEEL POST
MOVE

368
EAST 794 MILE 0 .6
D10-5(5)

369
WEST 794 MILE 0 .6
D10-5(5)
ON LIGHT POLE

S-40-537

EAST 794
Lakefront

EXIT 1 D
Plankinton Avenue

INSTALLED UNDER MARQUETTE PROJECT

EAST 794
Lakefront

EXIT 1 D
Plankinton Avenue

INSTALLED UNDER MARQUETTE PROJECT

EXIT 1 E
Jackson St
Van Buren St
EXIT ONLY

EXIT 1 F
Lakefront
1/2 MILE

EAST 794
Port of Milw
2 RIGHT LANES

INSTALLED UNDER MARQUETTE PROJECT

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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 15 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 199	E

LEGEND

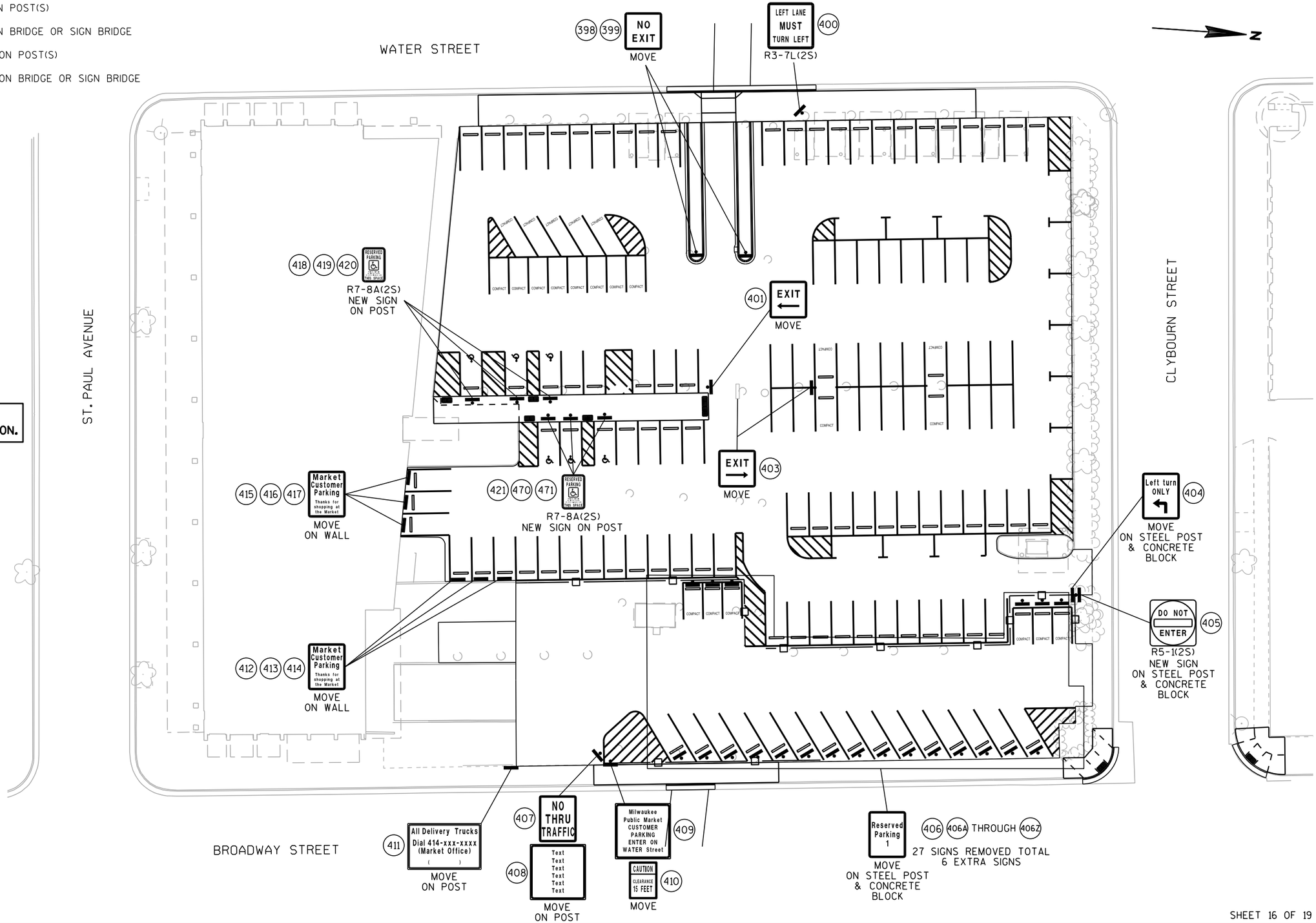
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

NOTES:

SIGNS NOTED TO BE MOVED SHALL BE STORED AND REINSTALLED IN SAME LOCATION OR AS DIRECTED BY ENGINEER. CONTACT TOM HEYDEL TRAFFIC OPS FOR PHOTOS OF SIGNS. 262-548-6763

THIS DRAWING SHOWS EXISTING SIGN LOCATIONS.

STORE CONCRETE BLOCKS AND POSTS FOR REINSTALLATION.



LEGEND

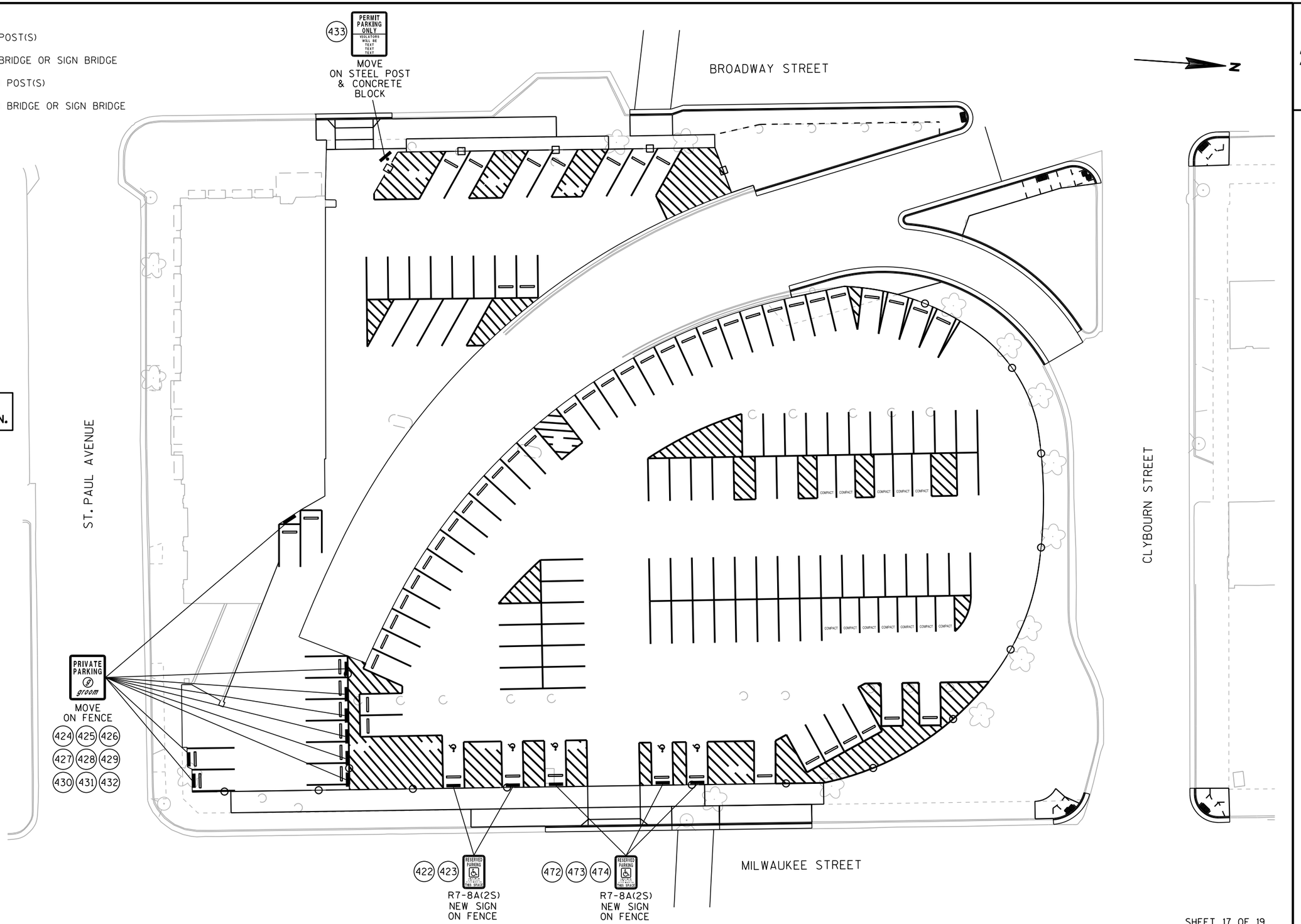
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

NOTES:

SIGNS NOTED TO BE MOVED SHALL BE STORED AND REINSTALLED IN SAME LOCATION OR AS DIRECTED BY ENGINEER. CONTACT TOM HEYDEL TRAFFIC OPS FOR PHOTOS OF SIGNS. 262-548-6763

THIS DRAWING SHOWS EXISTING SIGN LOCATIONS.

STORE CONCRETE BLOCKS AND POSTS FOR REINSTALLATION.



SHEET 17 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 201	E

2

N

NOTES:

SIGNS NOTED TO BE MOVED SHALL BE STORED AND REINSTALLED IN SAME LOCATION OR AS DIRECTED BY ENGINEER. CONTACT TOM HEYDEL TRAFFIC OPS FOR PHOTOS OF SIGNS. 262-548-6763

THIS DRAWING SHOWS EXISTING SIGN LOCATIONS.

STORE CONCRETE BLOCKS AND POSTS FOR REINSTALLATION.

MILWAUKEE STREET

476 477 — RESERVED PARKING — R7-8A(2S) NEW SIGN ON POST

443 — MONTHLY PARKING AVAILABLE — CALL:414-291-7460 — MOVE ON STEEL POST & CONCRETE BLOCK

441 475 — RESERVED PARKING — R7-8A(2S) NEW SIGN ON POST

442 — MONTHLY PARKING AVAILABLE — CALL:414-291-7460 — MOVE ON STEEL POST & CONCRETE BLOCK

480 481 — RESERVED PARKING — R7-8A(2S) NEW SIGN ON POST

438 439 440 — RESERVED PARKING — R7-8A(2S) NEW SIGN ON POST

ST. PAUL AVENUE

436 437 — W11-2(1) NEW SIGN ON FENCE

478 479 — RESERVED PARKING — R7-8A(2S) NEW SIGN ON POST

434 435 — PUBLIC PARKING (P) $5 All Day — MOVE ON FENCE

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
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

2

2

N

CLYBOURN STREET

MILWAUKEE STREET

460 SECURITY NOTICE — THIS PROPERTY IS PROTECTED BY VIDEO SURVEILLANCE
MOVE ON WALL

458 459 RESERVED PARKING — THIS SPACE
R7-8A(2S) NEW SIGN ON WALL

454 455 SECURITY NOTICE — THIS PROPERTY IS PROTECTED BY VIDEO SURVEILLANCE
MOVE ON COLUMN

449 450 451 452 453 Special Event Reserved Parking
MOVE ON POST

482 483 484 RESERVED PARKING — THIS SPACE
R7-8A(2S)

448 JOHNSON CONTROLS INC. PARKING ONLY NO UNAUTHORIZED PARKING ALL VEHICLES MUST BE REGISTERED WITH JCI SECURITY VIOLATORS WILL BE TICKETED & TOWED AT OWNERS EXPENSE WIS. STATE STATUTE 346.55(4) TOWED BY ROAD PATROL 414-272-2697
MOVE ON POSTS

447 RESERVED PARKING — THIS SPACE
R7-8A(2S) NEW SIGN ON COLUMN

456 457 COMPACT CAR PARKING ONLY
MOVE ON FENCE

468 JOHNSON CONTROLS INC. THIS AREA IS BEING PATROLLED BY JOHNSON CONTROLS INC. SECURITY
MOVE ON FENCE

467 NO PARKING ANY TIME
R7-1D(1) NEW SIGN ON FENCE

444 445 SECURITY NOTICE — THIS PROPERTY IS PROTECTED BY VIDEO SURVEILLANCE
MOVE ON COLUMN

446 JOHNSON CONTROLS INC. THIS AREA IS BEING PATROLLED BY JOHNSON CONTROLS INC. SECURITY
MOVE ON COLUMN

461 462 SECURITY NOTICE — THIS PROPERTY IS PROTECTED BY VIDEO SURVEILLANCE
MOVE ON WALL

469 SECURITY NOTICE — THIS PROPERTY IS PROTECTED BY VIDEO SURVEILLANCE
MOVE ON WALL

463 JOHNSON CONTROLS INC. THIS AREA IS BEING PATROLLED BY JOHNSON CONTROLS INC. SECURITY
MOVE ON POST

464 465 466 CONVEYANCE VAN RESERVED PARKING MONDAY-FRIDAY 4AM-5PM SAT.SUN. ALL HOURS VIOLATORS WILL BE PROSECUTED
MOVE ON WALL

NOTES:

SIGNS NOTED TO BE MOVED SHALL BE STORED AND REINSTALLED IN SAME LOCATION OR AS DIRECTED BY ENGINEER. CONTACT TOM HEYDEL TRAFFIC OPS FOR PHOTOS OF SIGNS. 262-548-6763

THIS DRAWING SHOWS EXISTING SIGN LOCATIONS.

STORE CONCRETE BLOCKS AND POSTS FOR REINSTALLATION.

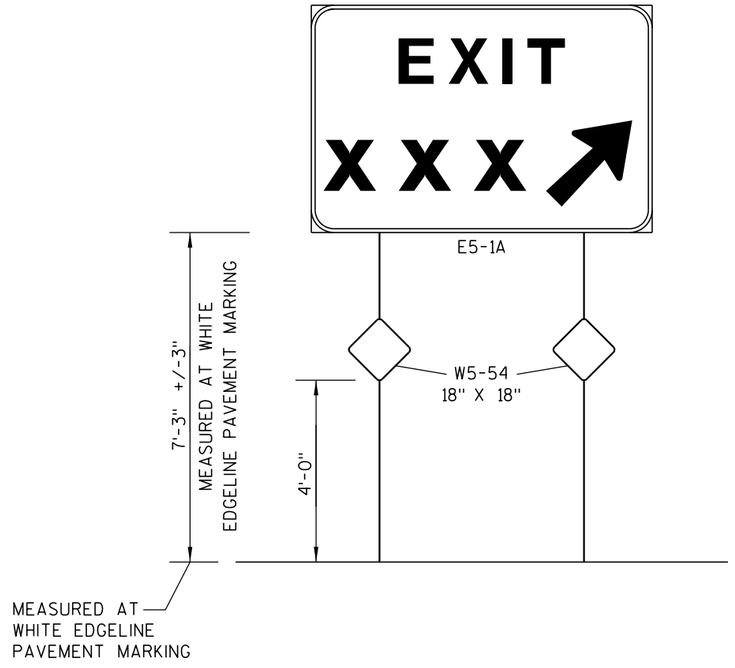
LEGEND

- 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
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 19 OF 19

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 203	E

2



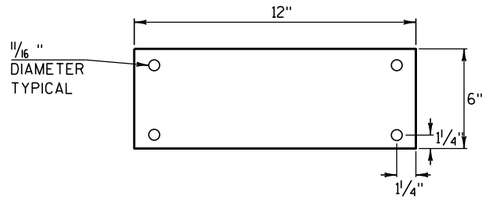
SEE STATE PLATE A4-2
FOR LOCATION LATERALLY
OF E5-1A SIGN.

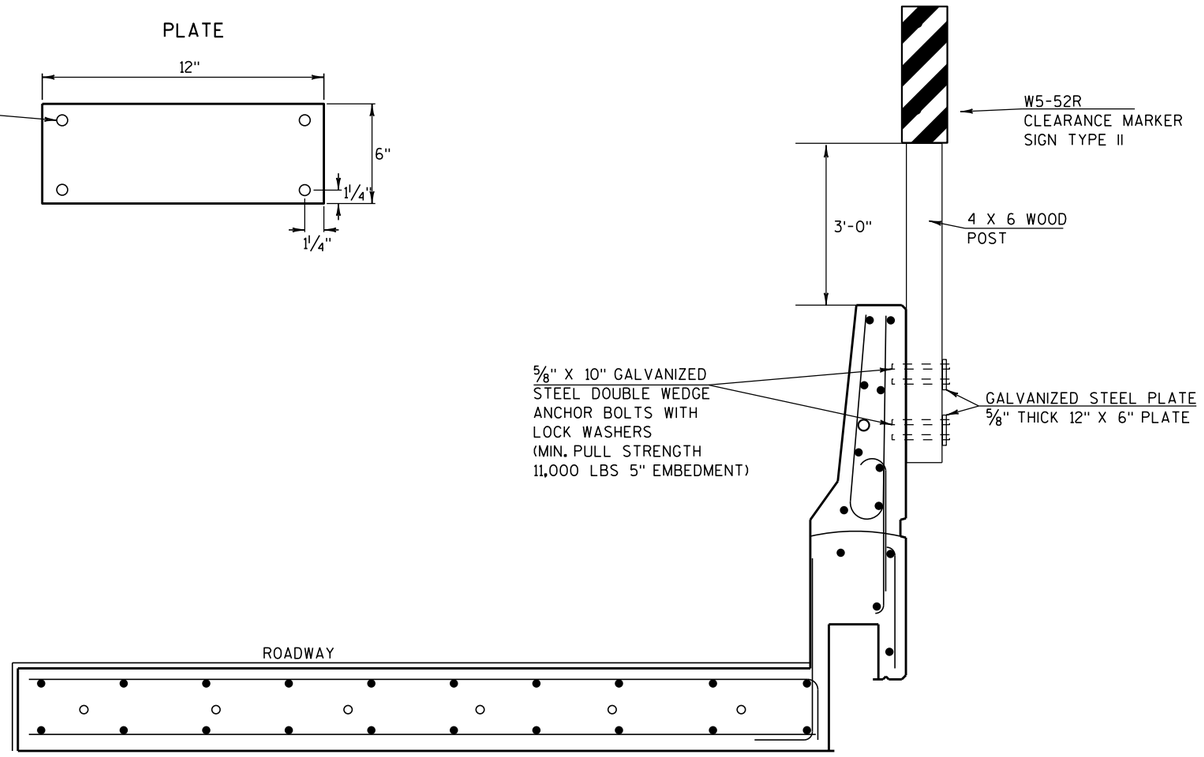
EXIT GORE SIGN DETAIL

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	EXIT GORE SIGN DETAIL	SHEET 204	E

2

PLATE

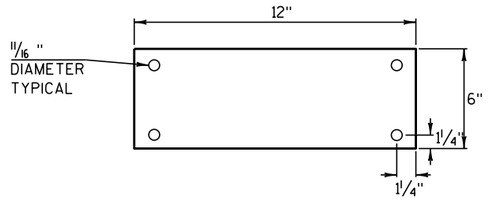


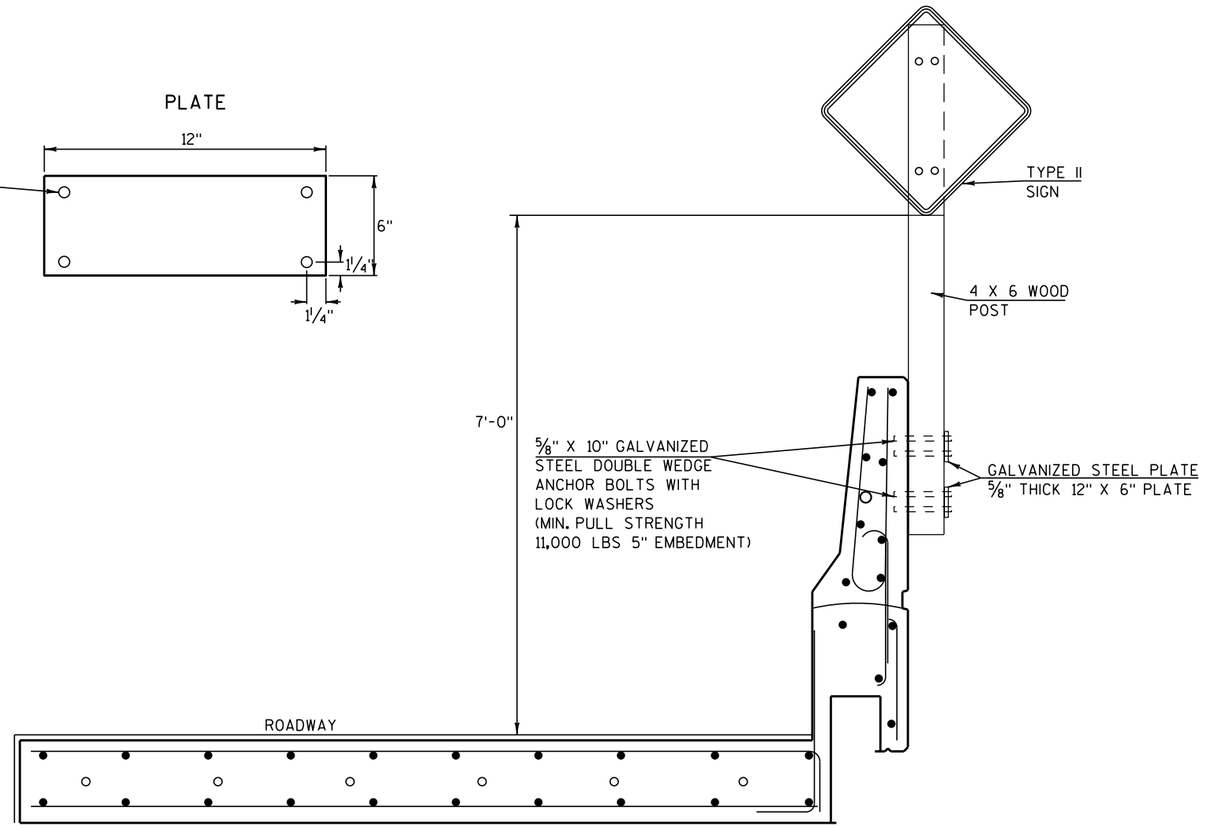


PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGN SUPPORTS CLEARANCE MARKER SPECIAL MOUNTING - TYPICAL	SHEET 205	E

2

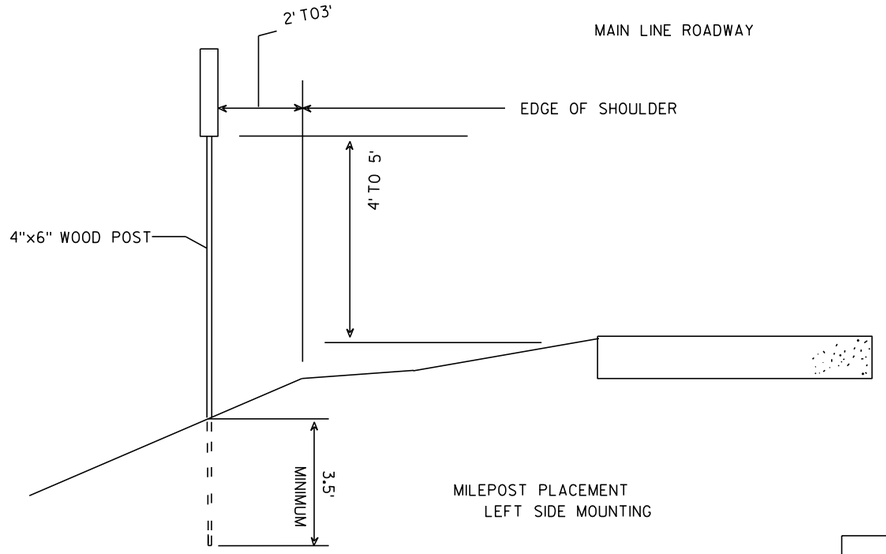
PLATE



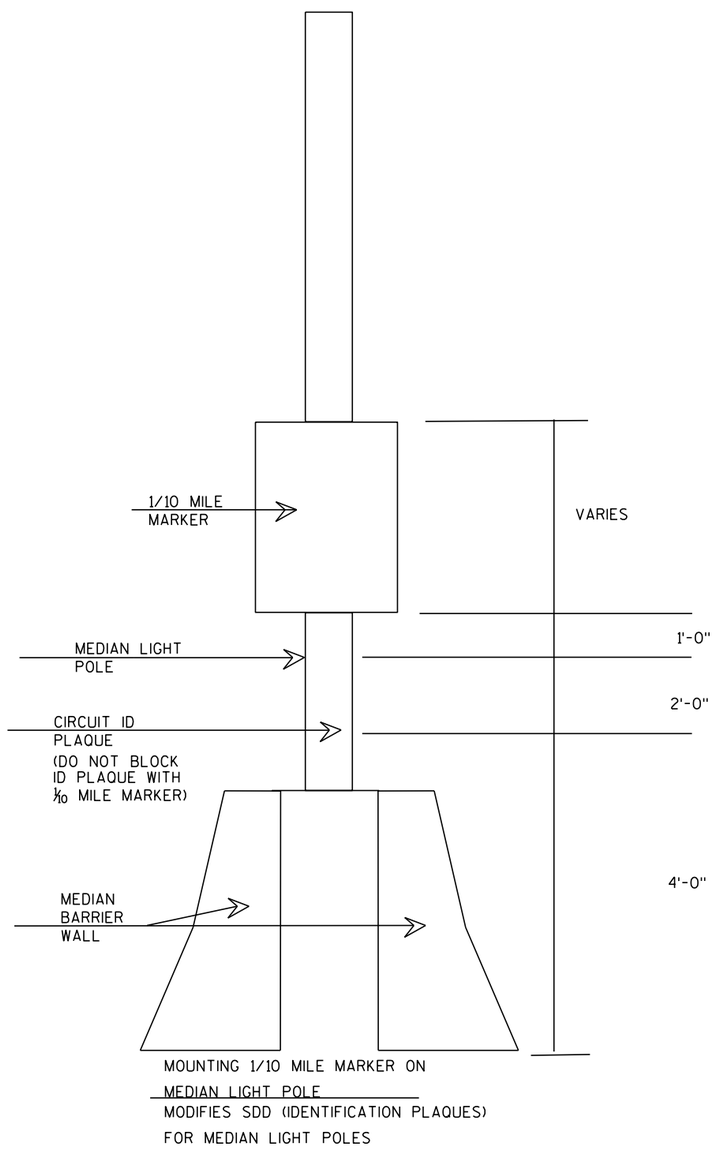


PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGN SUPPORTS SPECIAL MOUNTING - TYPICAL	SHEET 206	E

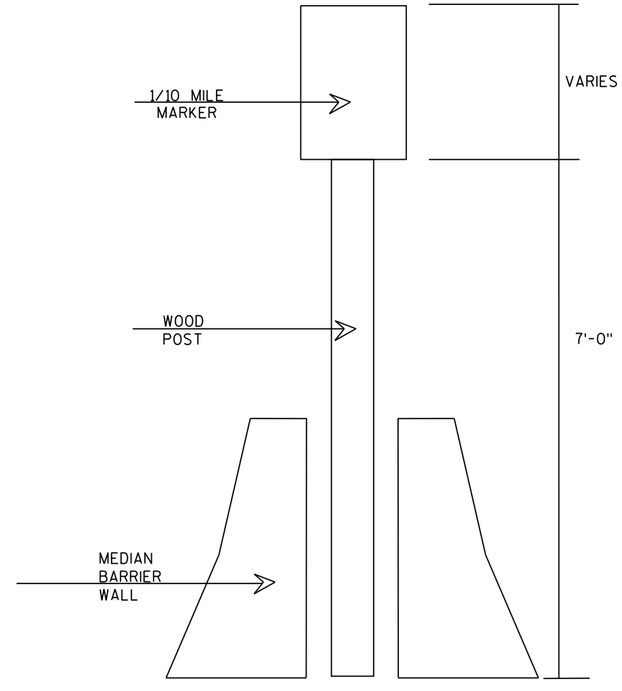
2



MILEPOST PLACEMENT
LEFT SIDE MOUNTING



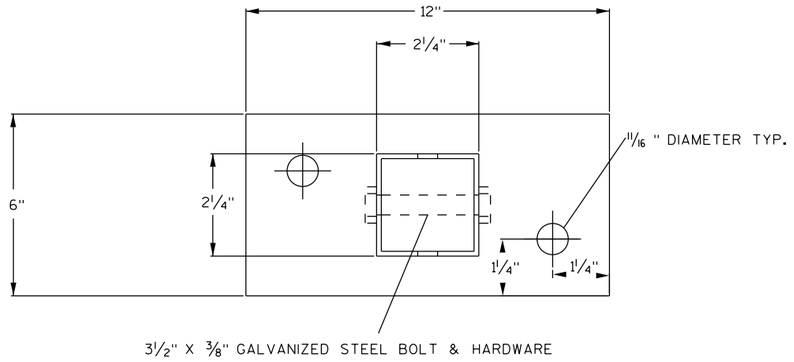
MOUNTING 1/10 MILE MARKER ON MEDIAN LIGHT POLE
MODIFIES SDD (IDENTIFICATION PLAQUES) FOR MEDIAN LIGHT POLES



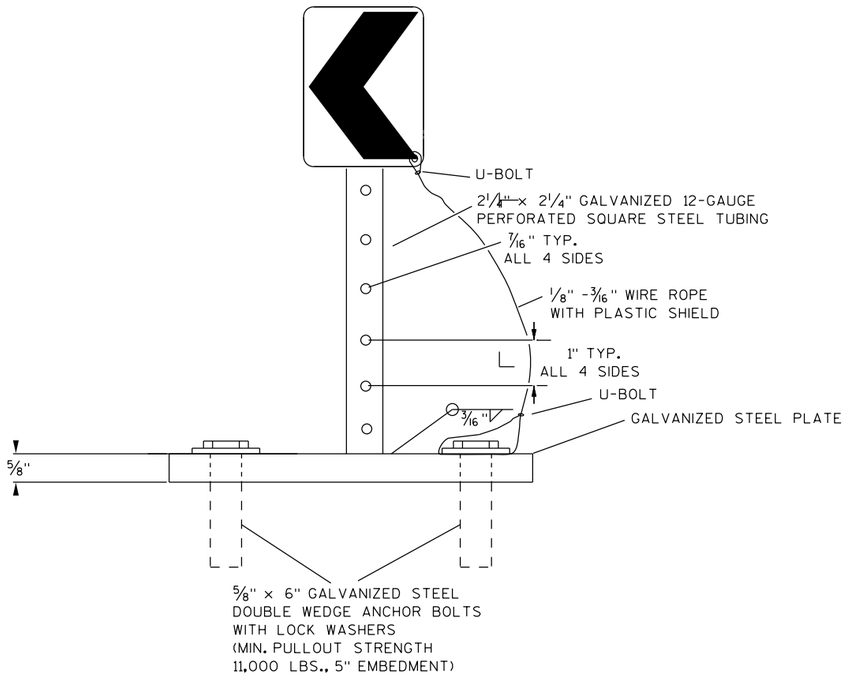
MOUNTING 1/10 MILE MARKER, IN MEDIAN, ON A WOOD POST

MOUNTING DETAILS FOR SIGNS MOUNTED TO MEDIAN BARRIER

BARRIER WALL SIGN BRACKET ASSEMBLY
NOT TO SCALE

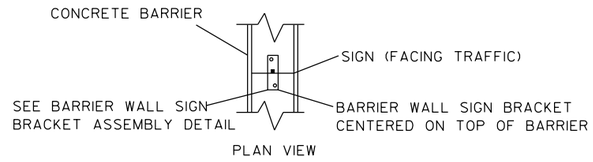


PLAN VIEW



SIDE VIEW

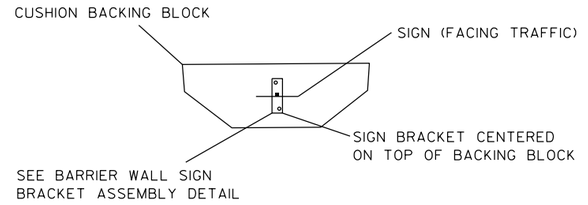
TYPICAL SIGN PLACEMENT DETAILS

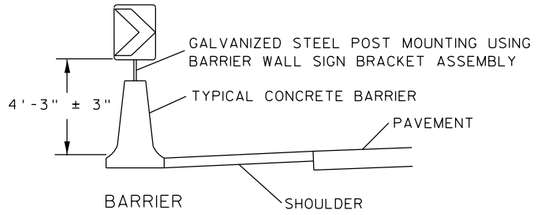


PLAN VIEW

MEDIAN BARRIER MOUNTING DETAIL

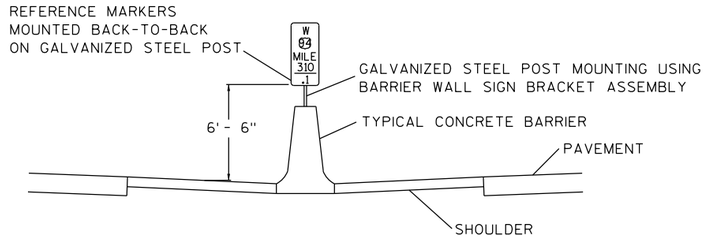
MOUNTING DETAIL FOR SIGNS MOUNTED
ON BACKING BLOCK IN GORE AREAS





BARRIER

ALTERNATE SIGN MOUNTING DETAIL FOR REFERENCE MARKERS

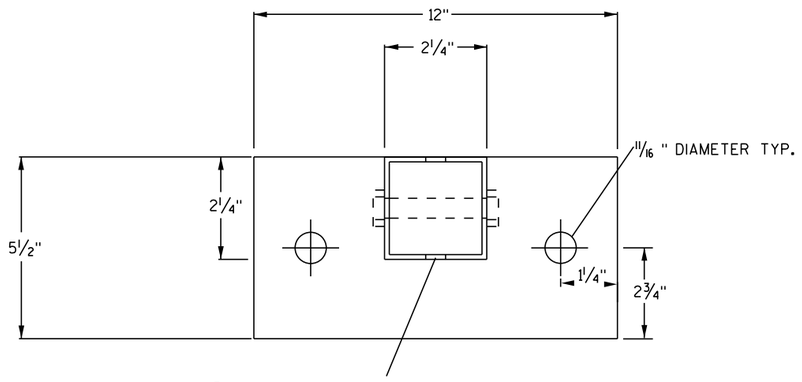


SINGLE MEDIAN BARRIER

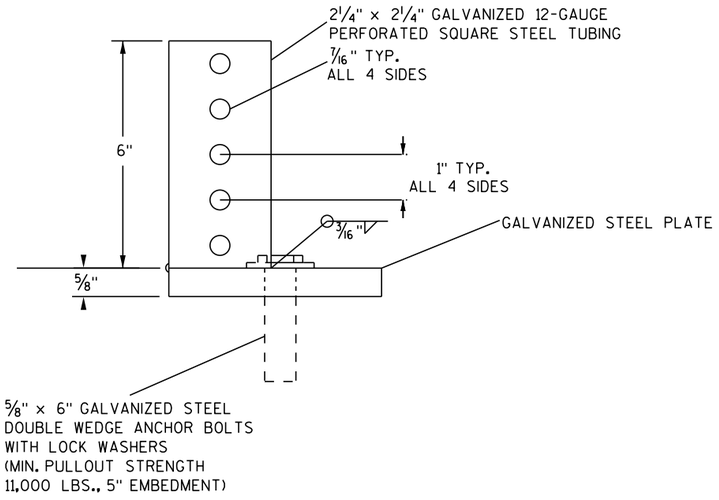
NOTES
1) ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION
2) ALL MATERIAL TO BE APPROVED BY ENGINEER BEFORE INSTALLATION
3) SEE SIGN PLATE A4-8 FOR BOLT REQUIREMENTS.

NOT TO SCALE

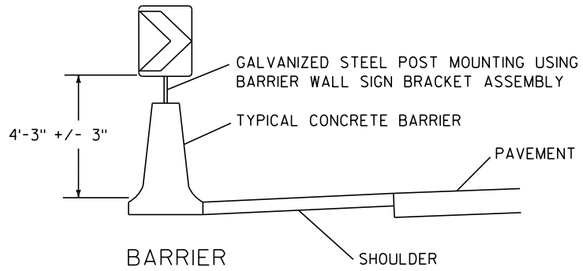
BARRIER WALL SIGN BRACKET ASSEMBLY
NOT TO SCALE



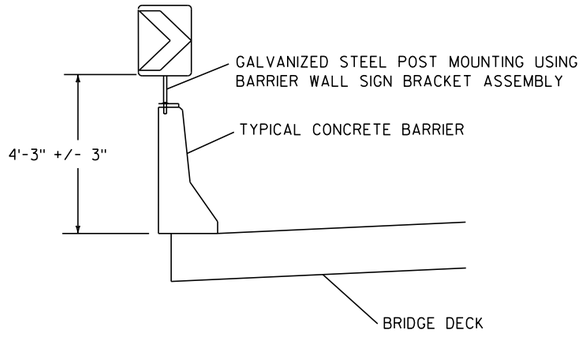
PLAN VIEW



ELEVATION VIEW

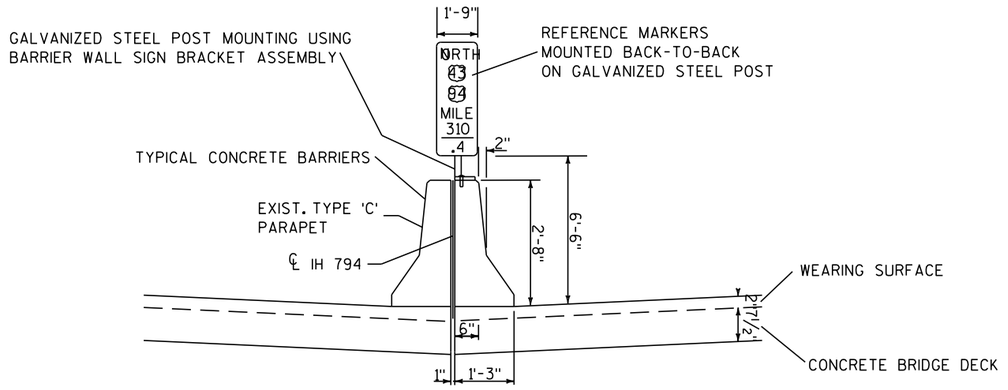


BARRIER

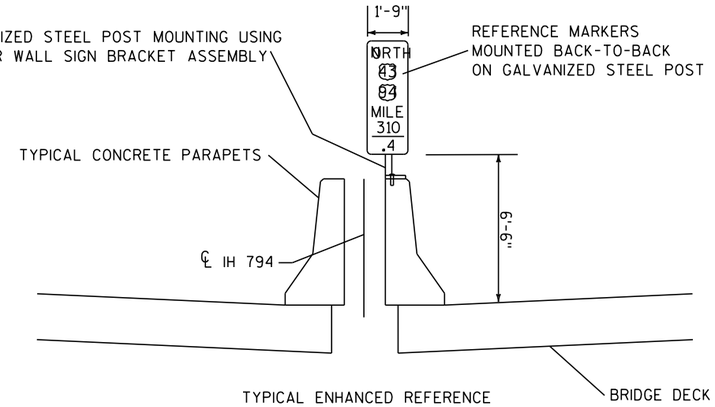


TYPICAL CHEVRON MARKER
PLACEMENT ON BRIDGE PARAPET

NOTES
1) ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION
2) ALL MATERIAL TO BE APPROVED BY ENGINEER BEFORE INSTALLATION
3) SEE SIGN PLATE A4-8 FOR BOLT REQUIREMENTS.



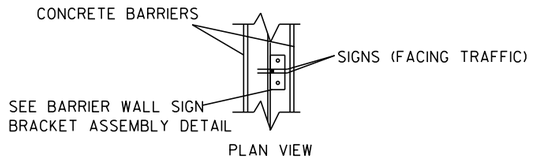
DOUBLE MEDIAN BRIDGE PARAPET



TYPICAL ENHANCED REFERENCE
MARKER PLACEMENT ON
DOUBLE BRIDGE PARAPET

DOUBLE MEDIAN BARRIER

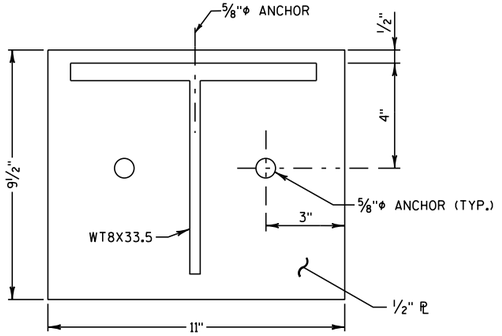
TYPICAL SIGN PLACEMENT DETAILS



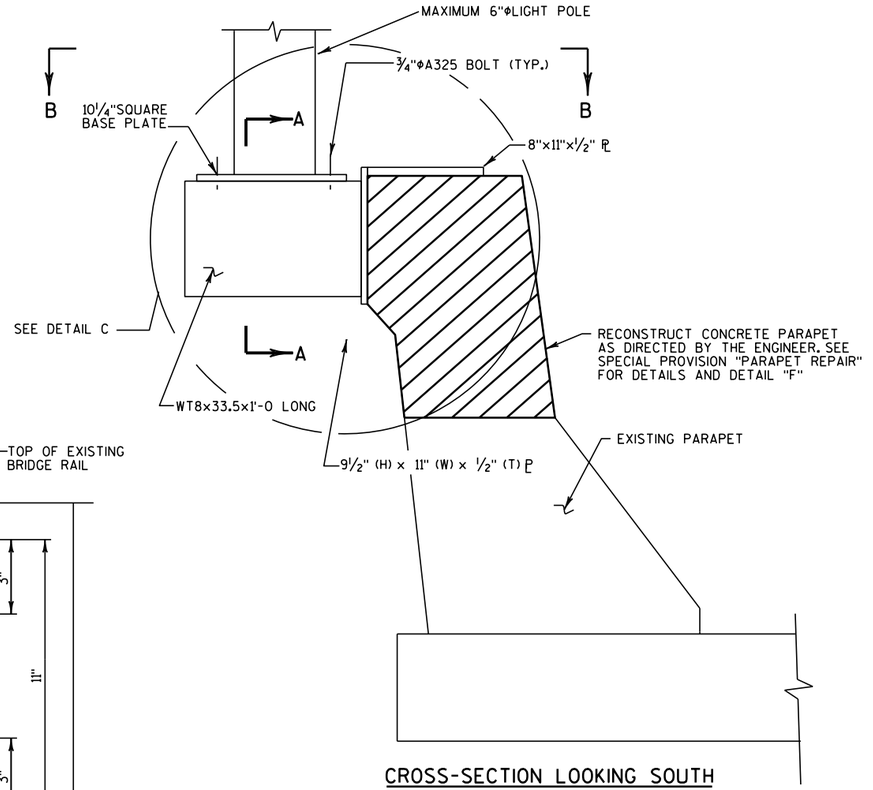
PLAN VIEW

MEDIAN BRIDGE PARAPET MOUNTING DETAIL

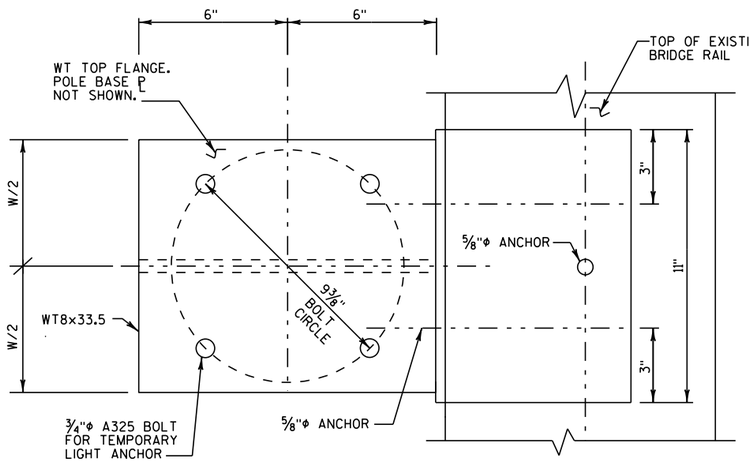
PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	OFFSET MILE MARKER MOUNTING DETAIL	SHEET 209	E



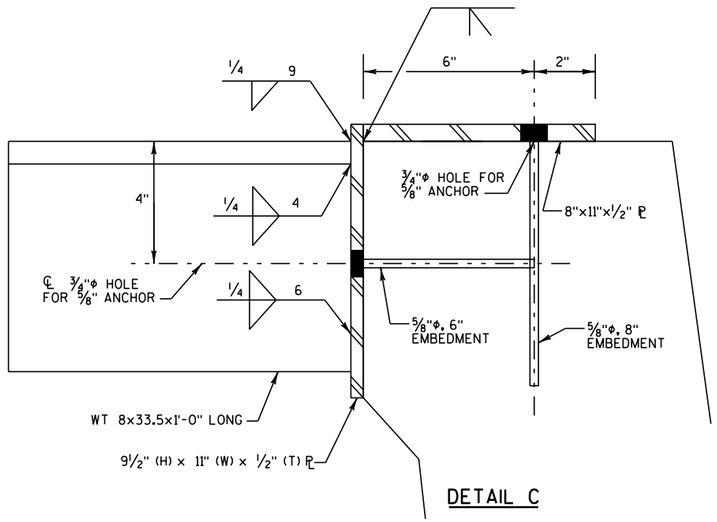
SECTION A-A



CROSS-SECTION LOOKING SOUTH
NORTHBOUND OUTSIDE EXISTING PARAPET



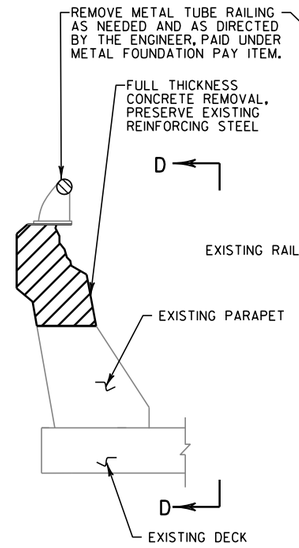
SECTION B-B



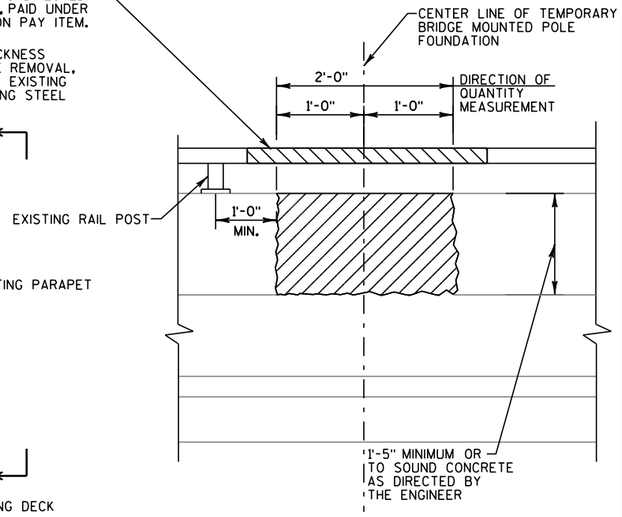
DETAIL C

TEMPORARY BRIDGE MOUNTED POLE FOUNDATION
ATTACHED TO EXISTING CONCRETE PARAPET
N.T.S

NOTES:
1. LIGHT POLE AND LIGHT POLE BASE PLATE NOT SHOWN FOR CLARITY.
2. METAL RAILING ON TOP OF THE PARAPET IS NOT SHOWN FOR CLARITY.
3. ⅝"ϕ ANCHORS TO BE ADHESIVE OR MECHANICAL. ASTM F1554-Gr 36 OR BETTER

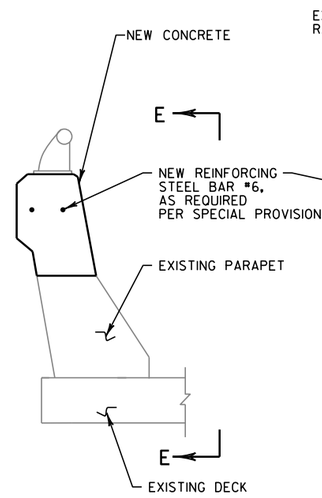


CROSS-SECTION

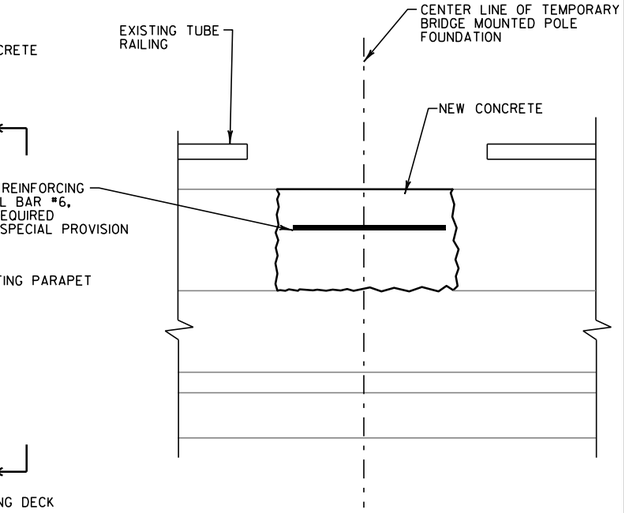


SECTION D-D

CONCRETE REMOVAL



CROSS-SECTION



SECTION E-E

CONCRETE CONSTRUCTION

DETAIL F
PARAPET REPAIR DETAILS - NORTHBOUND EAST PARAPET
N.T.S

NOTES:
THE LOCATION OF METAL FOUNDATION SHALL BE ADJUSTED IN THE FIELD UP TO 10FT TO AVOID ANY BRIDGE JOINT CONFLICTS OR ANY DAMAGED PARAPET SECTION AS APPROVED BY THE ENGINEER.

2

NOTES:

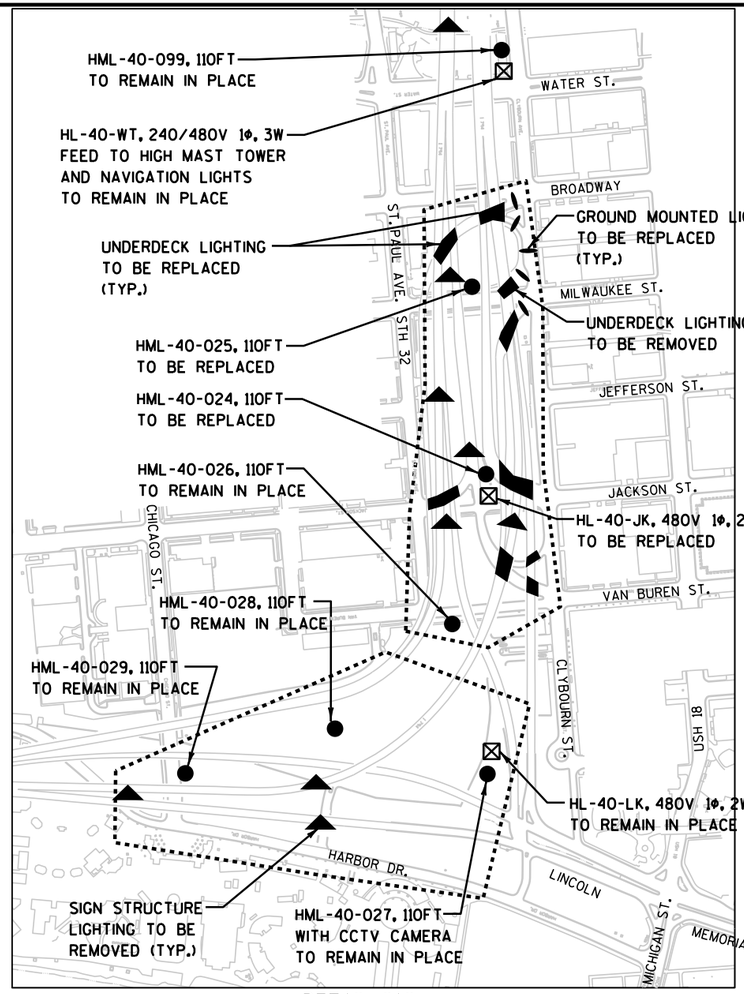
1. LIGHTING AND ELECTRICAL ITEMS SHOWN AS " TO BE REMOVED" SHALL BE REMOVED PERMANENTLY AND SHALL NOT BE REPLACED.
2. LIGHTING AND ELECTRICAL ITEMS SHOWN AS "TO BE REPLACED" SHALL BE REMOVED AND REPLACED BY NEW ITEMS AS SHOWN ON PROPOSED LIGHTING PLANS.
3. LIGHTING AND ELECTRICAL ITEMS SHOWN AS "TO REMAIN IN PLACE" SHALL NOT BE REMOVED. AS PART OF CONSTRUCTION STAGING, IF DEEMED NECESSARY BY THE ENGINEER TO REMOVE THESE ITEMS, TEMPORARY LIGHTING AND/OR ELECTRICAL SYSTEM SHALL BE PROVIDED. THESE ITEMS SHALL BE STORED AND REINSTALLED AS DIRECTED BY THE ENGINEER. ANY DAMAGED ITEMS SHALL BE REPLACED IN KIND BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH NO ADDITIONAL COST TO THE STATE UNLESS NOTED ON THE PLANS.
4. LIGHTING AND ELECTRICAL ITEMS SHOWN AS "TO BE MODERNIZED/MODIFIED" SHALL BE PARTIALLY REMOVED AS NEEDED WITH NEW ADDITIONAL LIGHTING AND ELECTRICAL SYSTEMS PROVIDED AS SHOWN ON PROPOSED LIGHTING PLANS.
5. REMOVAL OR REPLACEMENT SHALL BE COORDINATED WITH FTMS EQUIPMENT AND OPERATIONS.
6. THIS OVERVIEW SHEET SHOWS MAJOR ELEMENTS OF WISDOT LIGHTING SYSTEMS REMOVAL. SEE LIGHTING REMOVAL PLANS RL-11 TO RL-23 FOR DETAILED INFORMATION.

LIGHTING AND ELECTRICAL PLANS
PREPARED BY
SINGH + ASSOCIATES, INC. CONSULTING ENGINEERS
10501 W. RESEARCH DR.
MILWAUKEE, WI 53226
TEL: (414) 443-0840
FAX: (414) 727-0933

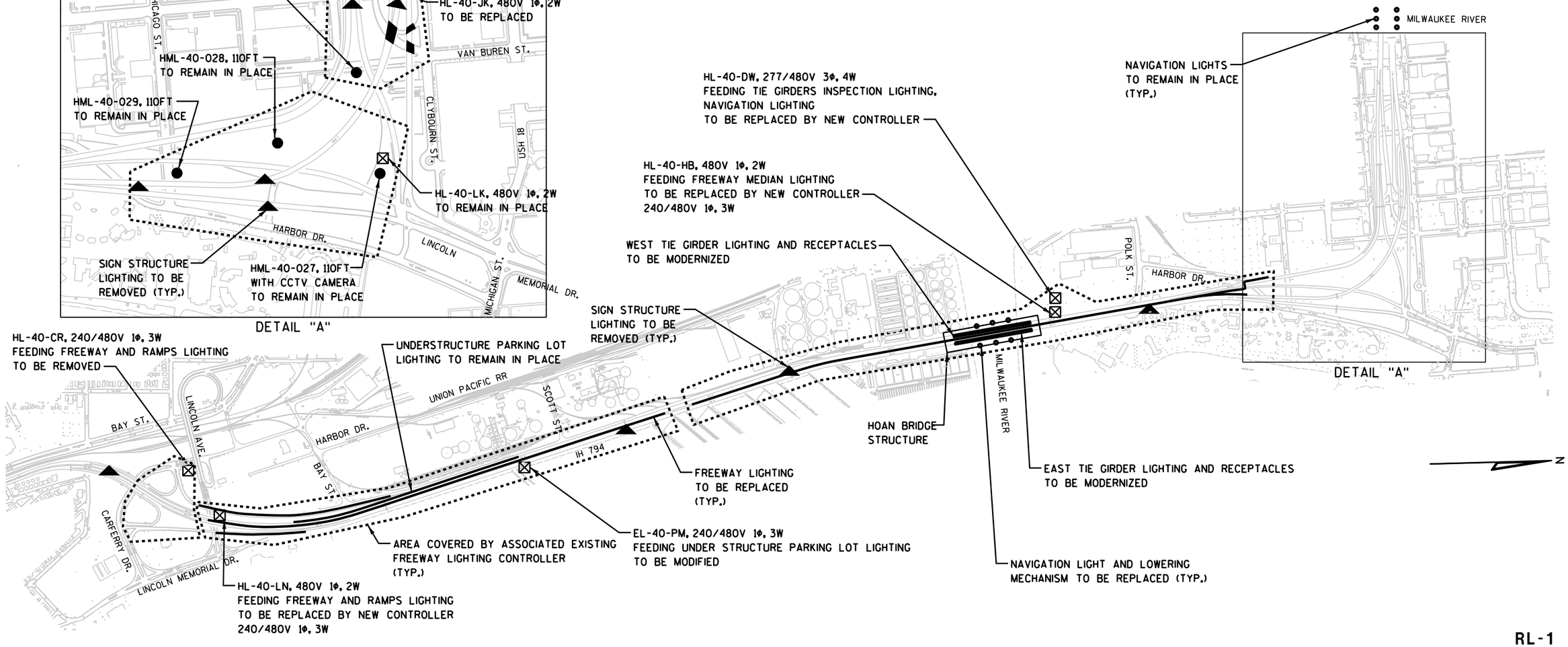
WISCONSIN
KIRANKUMAR G. PRAJAPATI
40097-6
STREAMWOOD, IL
PROFESSIONAL ENGINEER

4/26/2013 (DATE) (SIGNATURE)

ROADWAY LIGHTING SHEETS RL-1 TO RL-134



DETAIL "A"



DETAIL "A"

RL-1

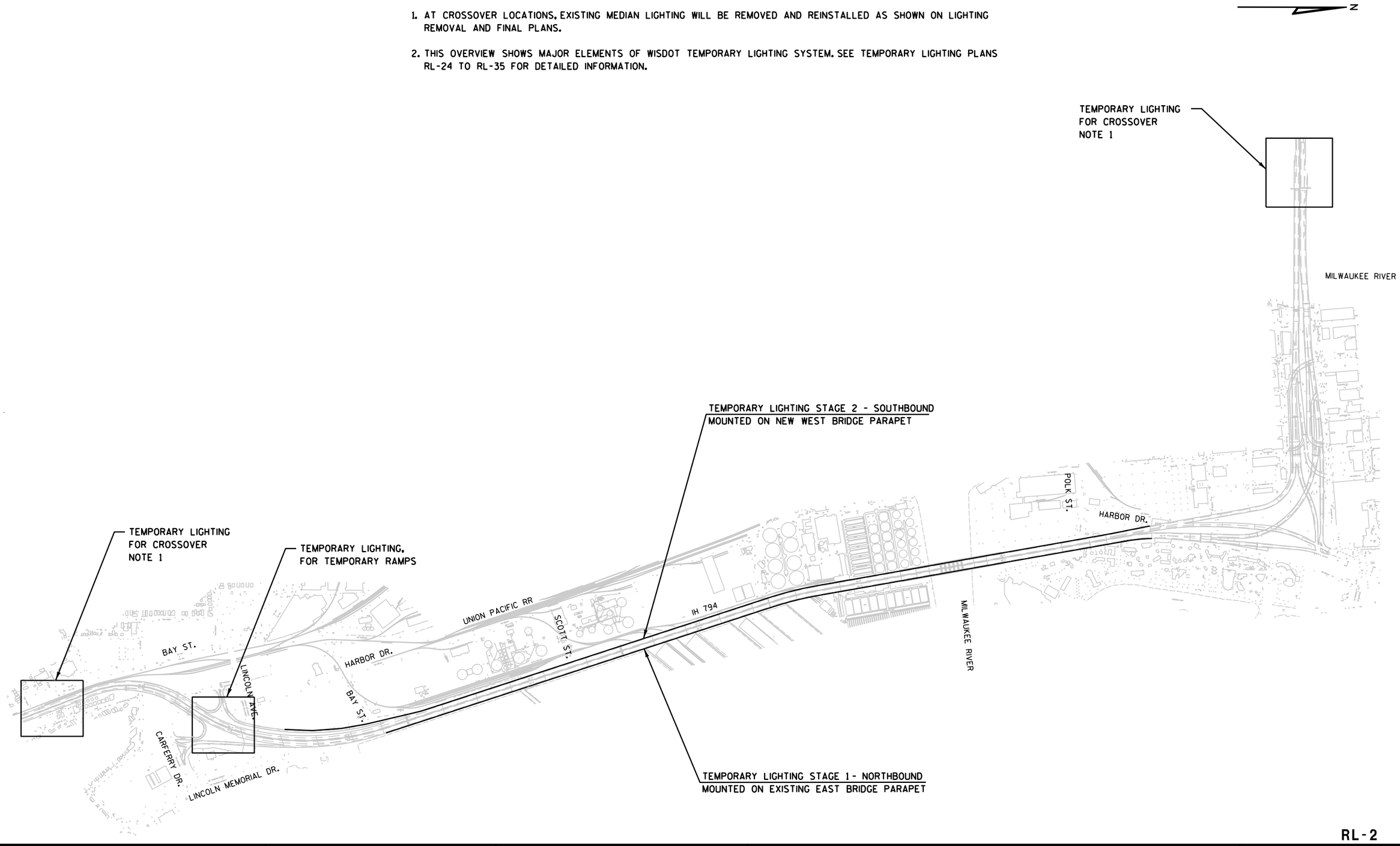
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	WISDOT LIGHTING SYSTEMS OVERVIEW - EXISTING & REMOVAL	SHEET E

FILE NAME : J:\302\DGN\CADD Sheets\023501_lp.dgn PLOT DATE : 26-APR-2013 13:28 PLOT BY : mgarvida PLOT NAME : PLOT SCALE : 1000:1
WISDOT/CADDS SHEET 42

NOTES:

1. AT CROSSOVER LOCATIONS, EXISTING MEDIAN LIGHTING WILL BE REMOVED AND REINSTALLED AS SHOWN ON LIGHTING REMOVAL AND FINAL PLANS.

2. THIS OVERVIEW SHOWS MAJOR ELEMENTS OF WISDOT TEMPORARY LIGHTING SYSTEM. SEE TEMPORARY LIGHTING PLANS RL-24 TO RL-35 FOR DETAILED INFORMATION.



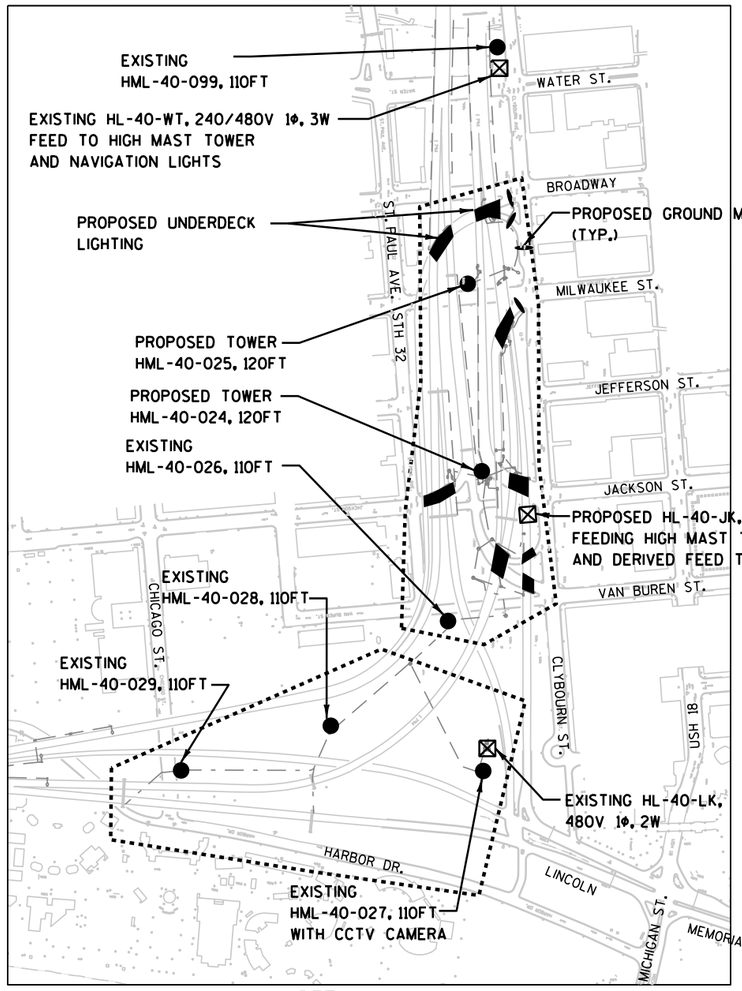
RL-2

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	WISDOT LIGHTING SYSTEMS OVERVIEW - TEMPORARY	SHEET 212 E

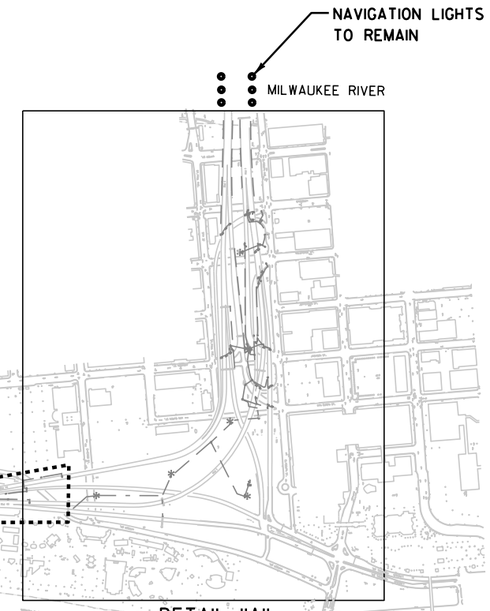
2

N

NOTE 1: THIS OVERVIEW SHOWS MAJOR ELEMENTS OF FINAL CONDITION OF WISDOT LIGHTING SYSTEMS. SEE FINAL LIGHTING PLANS RL-36 TO RL-61 FOR DETAILED INFORMATION.



DETAIL "A"



DETAIL "A"

PROPOSED HL-40-DW, 277/480V 3Φ, 4W
FEEDING TIE GIRDERS INSPECTION LIGHTING,
AND NAVIGATION LIGHTING

PROPOSED AL-40-KKP, 240/480V 1Φ, 3W
FEEDING AESTHETIC LIGHTING SYSTEM

UNDERSTRUCTURE PARKING LOT
LIGHTING TO REMAIN IN PLACE
FEED FROM EL-40-PM

PROPOSED HL-40-HB, 240/480V 1Φ, 3W
FEEDING FREEWAY MEDIAN LIGHTING AND
FEEDING AESTHETIC LIGHTING CONTROLLER

HOAN BRIDGE
STRUCTURE

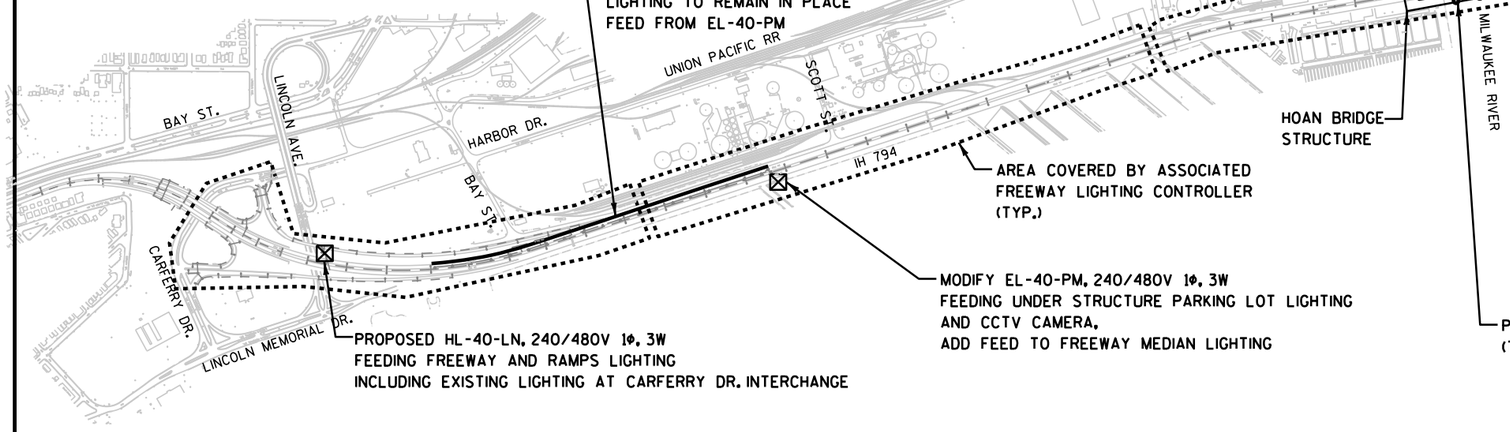
EAST AND WEST TIE GIRDERS AND ARCHES. (SEE HOAN BRIDGE MAINTENANCE/INSPECTION
ELECTRICAL SYSTEMS AND AESTHETIC LIGHTING SYSTEMS - OVERVIEW SHEET RL-6 AND RL-7)

AREA COVERED BY ASSOCIATED
FREEWAY LIGHTING CONTROLLER
(TYP.)

MODIFY EL-40-PM, 240/480V 1Φ, 3W
FEEDING UNDER STRUCTURE PARKING LOT LIGHTING
AND CCTV CAMERA,
ADD FEED TO FREEWAY MEDIAN LIGHTING

PROPOSED NAVIGATION LUMINAIRE WITH PROPOSED LOWERING MECHANISM
(TYP.)

PROPOSED HL-40-LN, 240/480V 1Φ, 3W
FEEDING FREEWAY AND RAMPS LIGHTING
INCLUDING EXISTING LIGHTING AT CARFERRY DR. INTERCHANGE



RL-3

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	WISDOT LIGHTING SYSTEM OVERVIEW - FINAL	SHEET E

FILE NAME : J:\302\DGN\CADD Sheets\023503_lp.dgn PLOT DATE : 26-APR-2013 13:28 PLOT BY : mgarvida PLOT NAME : PLOT SCALE : 1000:1
WISDOT/CADDS SHEET 42

EXISTING TO REMAIN

HL-40-WT	
PHASE A CKT A,C RED	30A/240VAC
PHASE B CKT A,B BLACK	30A/240VAC
PHASE A (DERIVED) CKT L RED	30A/120VAC
PHASE B (DERIVED) CKT M BLACK	30A/120VAC
N	WHITE
GND	GREEN OR BARE
240/480 VAC IPH 100A ISOLATED NEUTRAL	

EXISTING TO REMAIN

HL-40-ME	
A,C,E,G	BLACK
B,D,F,H	RED
N	WHITE
GND	GREEN OR BARE
100A M.B. ALL	30A
240/480VAC IPH 3 WIRE GROUNDED NEUTRAL	

STAGE P
NEW CONTROLLER

HL-40-JK	
A,C,E,G	RED
B,D,F,H	BLACK
N	WHITE
GND	GREEN OR BARE
100A M.B. A,B,C,D,E,F,G,H	30A
240/480VAC ISOLATED NEUTRAL	
30A-2P FEED TO PAD MOUNTED STEP-DOWN TRANSFORMER FOR FTMS DERIVED FEED	

STAGE P
EXISTING TO BE MODIFIED

EL-40-PM	
EXISTING	
A,C	RED
B,D	BLACK
N	WHITE
GND	GREEN OR BARE
100A M.B. A,B,C,D	30A
240/480VAC ISOLATED NEUTRAL	3W
120V DERIVED FEED TO CCTV CAMERA	
PROPOSED	
30A-2P DISCONNECT FOR CKTS: E,F	

STAGE P
NEW CONTROLLER

AL-40-KKP	
A,C	RED
B,D	BLACK
N	WHITE
GND	GREEN OR BARE
100A M.B. A,B,C,D	60A
240/480VAC ISOLATED NEUTRAL	

EXISTING TO REMAIN

HL-40-RU	
A,C	RED
B,D	BLACK
N	WHITE
G	GREEN
240/480VAC ISOLATED NEUTRAL	
100A M.B. A,B,C,D	30A

STAGE P
NEW CONTROLLER

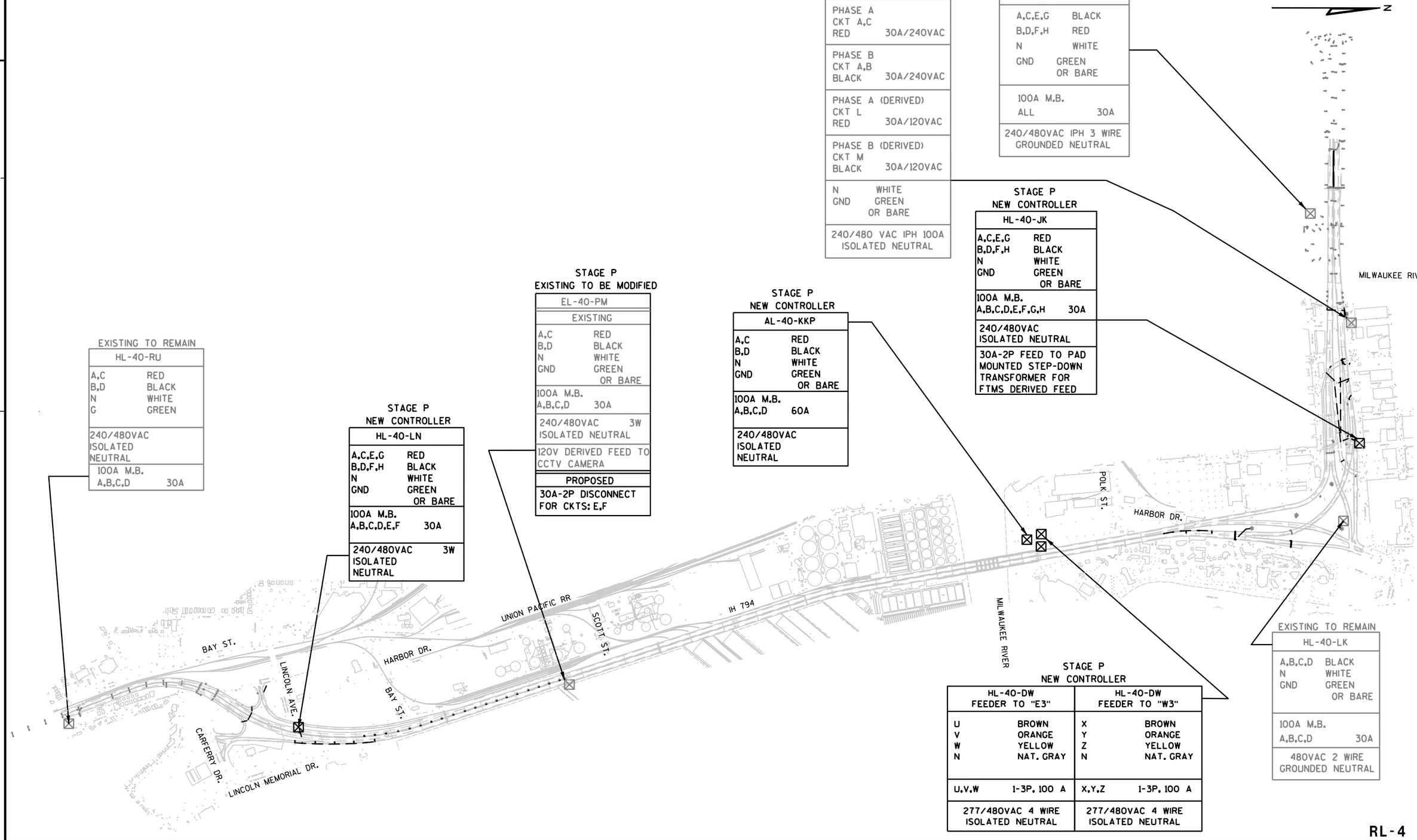
HL-40-LN	
A,C,E,G	RED
B,D,F,H	BLACK
N	WHITE
GND	GREEN OR BARE
100A M.B. A,B,C,D,E,F	30A
240/480VAC ISOLATED NEUTRAL	3W

STAGE P
NEW CONTROLLER

HL-40-DW FEEDER TO "E3"		HL-40-DW FEEDER TO "W3"	
U	BROWN	X	BROWN
V	ORANGE	Y	ORANGE
W	YELLOW	Z	YELLOW
N	NAT. GRAY	N	NAT. GRAY
U,V,W	1-3P, 100 A	X,Y,Z	1-3P, 100 A
277/480VAC 4 WIRE ISOLATED NEUTRAL		277/480VAC 4 WIRE ISOLATED NEUTRAL	

EXISTING TO REMAIN

HL-40-LK	
A,B,C,D	BLACK
N	WHITE
GND	GREEN OR BARE
100A M.B. A,B,C,D	30A
480VAC 2 WIRE GROUNDED NEUTRAL	



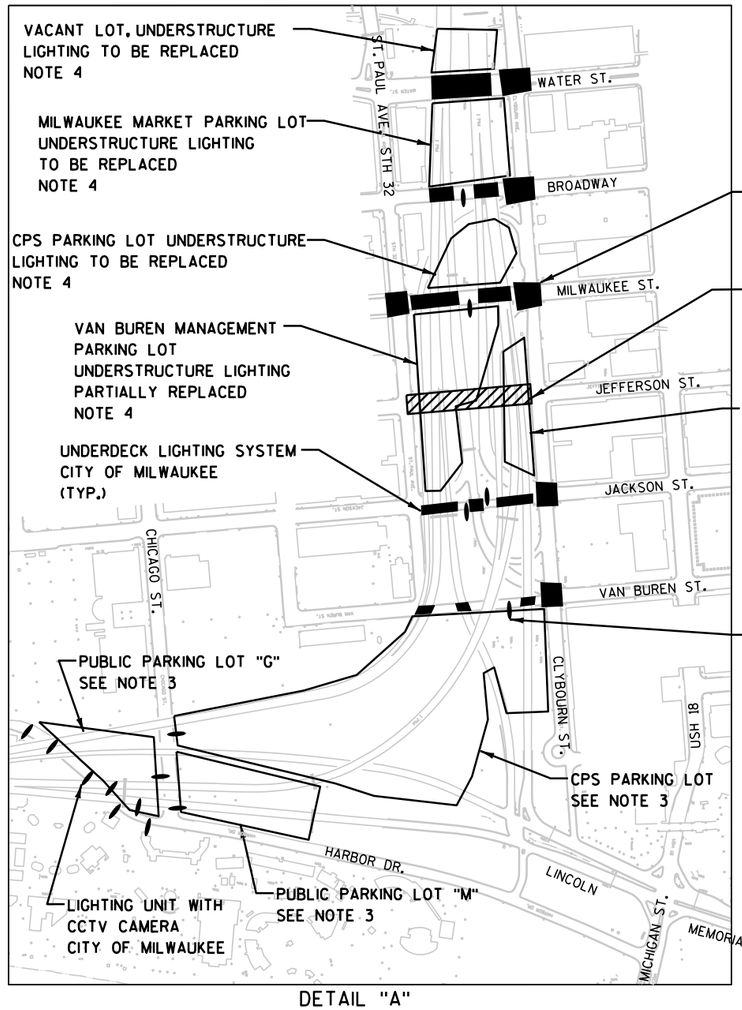
RL-4

2

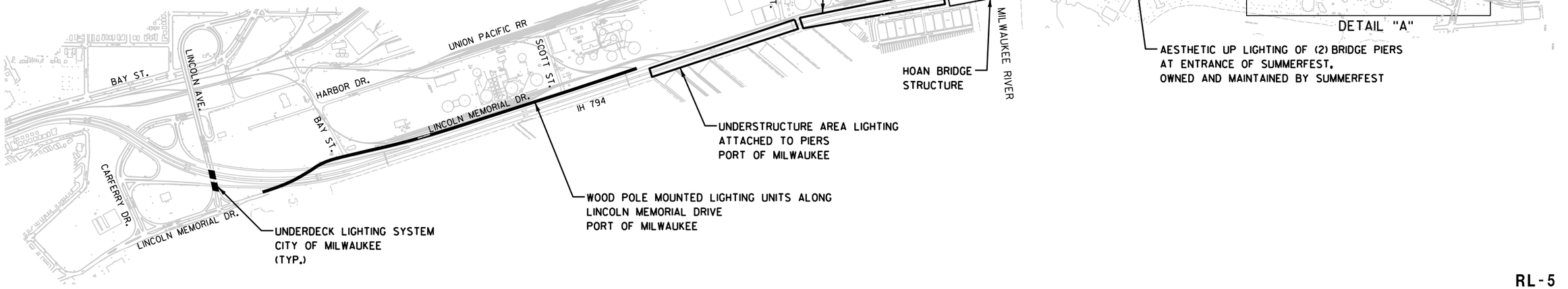
N

NOTES:

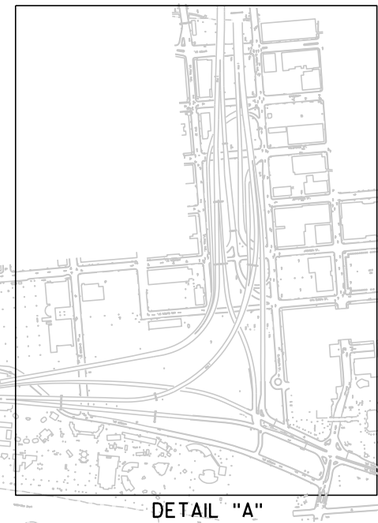
1. THIS OVERVIEW SHOWS LIGHTING AND ELECTRICAL SYSTEMS OWNED BY LOCAL AGENCIES OR PRIVATE OWNER, POSSIBLY IN CONFLICT WITH PROPOSED CONSTRUCTION WORK OR IN VICINITY OF CONSTRUCTION WORK.
2. ALL LIGHTING AND ELECTRICAL SYSTEMS WITHIN THE PROJECT LIMITS WHICH IS NOT OWNED OR MAINTAINED BY THE STATE SHALL REMAIN IN PLACE UNLESS IN CONFLICT WITH CONSTRUCTION WORK. ANY LIGHTING OR ELECTRICAL SYSTEMS DEEMED NECESSARY BY THE ENGINEER, TO BE REMOVED SHALL BE PAID FOR AS PART OF UTILITY RELOCATION. TEMPORARY AND PERMANENT SYSTEMS AS NEEDED SHALL BE COORDINATED AS A PART OF UTILITY RELOCATION UNLESS NOTED ON THE PLANS.
3. PARKING LOT IS PARTIALLY LIT BY HIGH MAST TOWERS AND GROUND MOUNTED LIGHT POLES SCATTERED AROUND THE PARKING LOT. SEE SHEET RL-3 FOR HIGH MAST TOWER LOCATIONS. HIGH MAST TOWERS ARE OWNED AND MAINTAINED BY WISDOT.
4. UNDERSTRUCTURE PARKING LOT LIGHTING, PEDESTRIAN TUNNEL, AND SIDEWALK LIGHTING ALONG JEFFERSON STREET SHALL BE REPLACED AS SHOWN IN SHEETS RL-73 TO RL-81, AND RL-128 TO RL-131 OF LIGHTING PLANS.



DETAIL "A"



MILWAUKEE RIVER

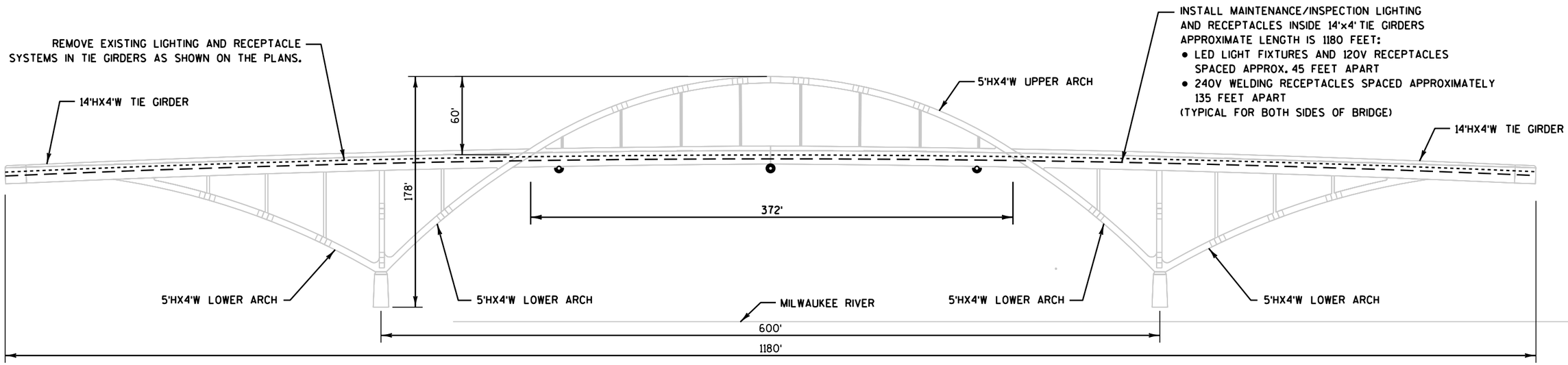


DETAIL "A"

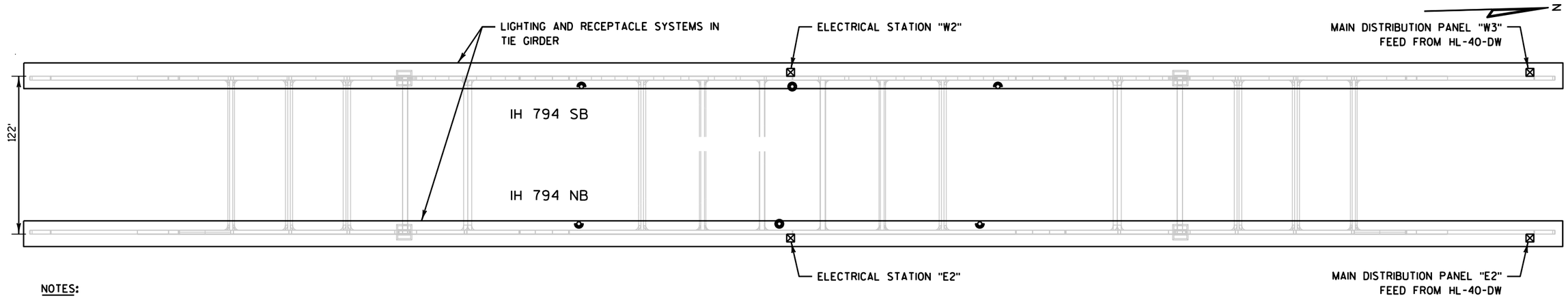
RL-5

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LOCAL AND PRIVATELY OWNED LIGHTING SYSTEMS OVERVIEW	SHEET 215 E

2



ELEVATION VIEW



PLAN VIEW

NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR GENERAL NOTES AND LEGEND.
2. THIS OVERVIEW SHOW MAJOR ELEMENTS OF TIE GIRDER LIGHTING ITEMS. SEE LIGHTING PLAN DETAILS RL-88 TO RL-104.

LEGEND

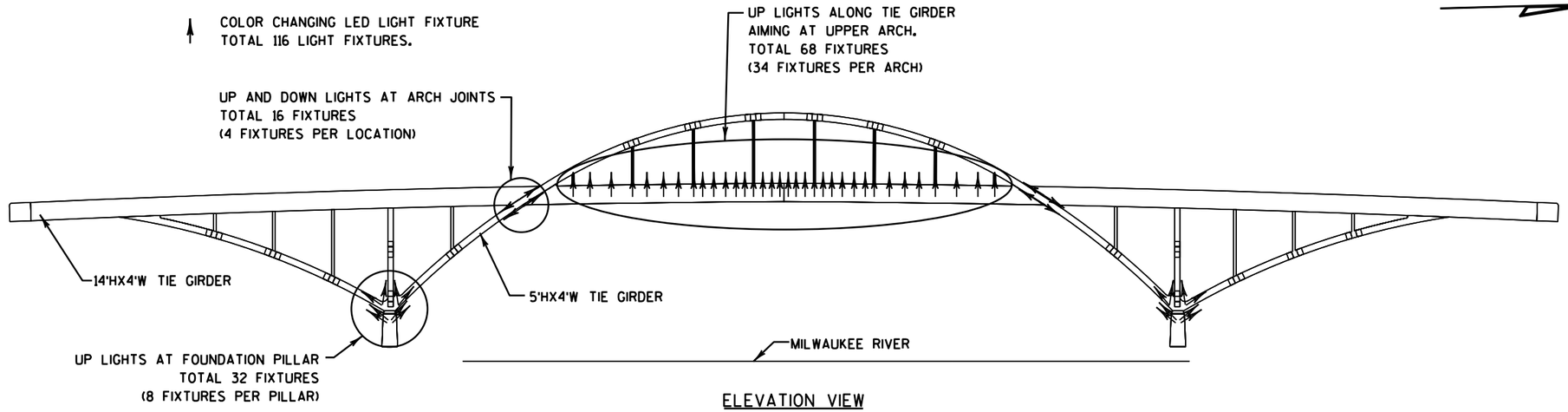
- - - - - - - PROPOSED LIGHTING AND RECEPTACLES SYSTEM IN TIE GIRDERS
---------- EXISTING LIGHTING AND RECEPTACLES SYSTEM IN TIE GIRDERS
CHANNEL MARGIN NAVIGATION LIGHT
CENTER CHANNEL NAVIGATION LIGHT

RL-6

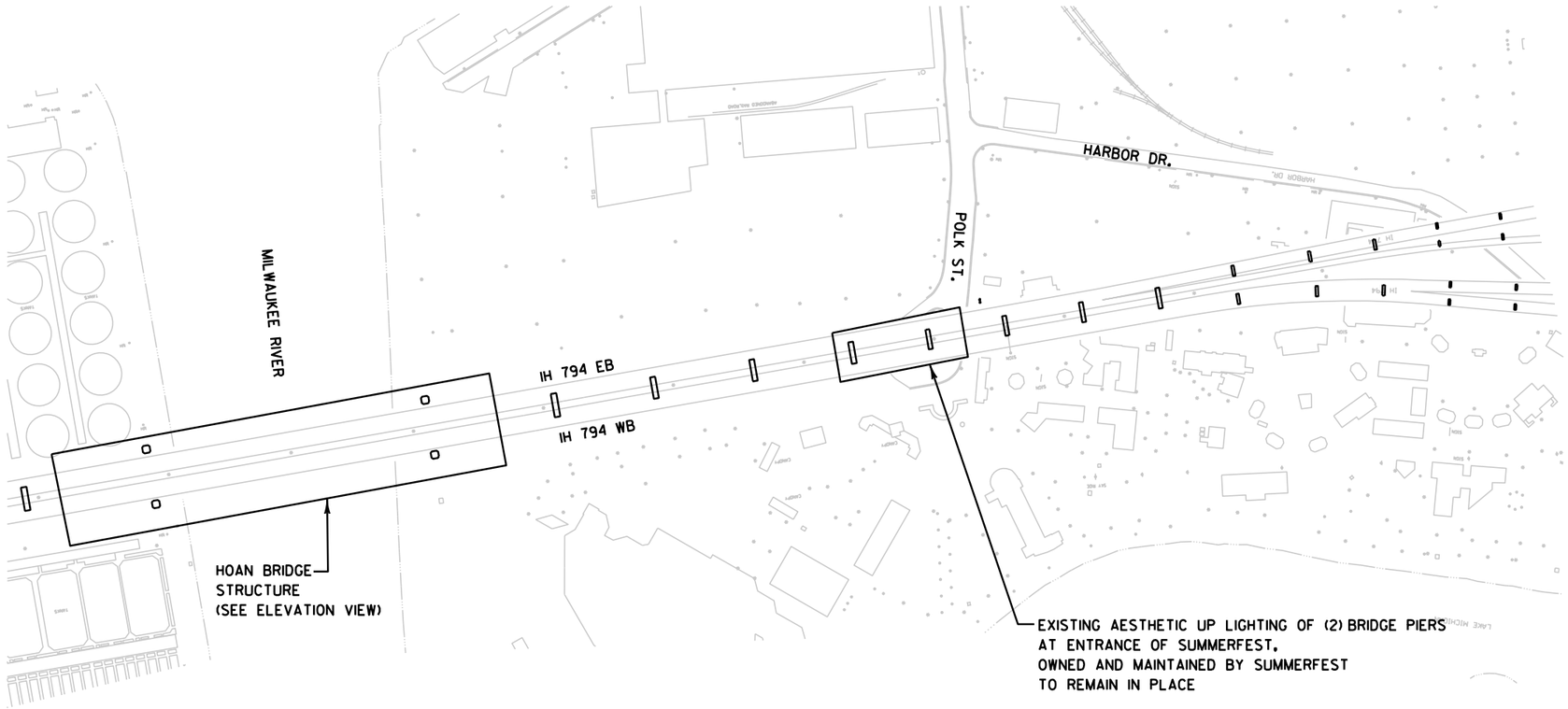
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	HOAN BRIDGE MAINT./INSPECTION ELECTRICAL SYSTEMS OVERVIEW	SHEET 216	E

LEGEND:

COLOR CHANGING LED LIGHT FIXTURE
TOTAL 116 LIGHT FIXTURES.



ELEVATION VIEW



NOTE 1: THIS OVERVIEW SHOWS MAJOR ELEMENTS OF AESTHETIC LIGHTING SYSTEMS. SEE AESTHETIC LIGHTING PLANS DETAILS RL-105 TO RL-121 AND RL-127.

RL-7

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	HOAN BRIDGE AESTHETIC LIGHTING SYSTEMS OVERVIEW	SHEET	E

FILE NAME : J:\302\DGN\CADD Sheets\023507_lp.dgn PLOT DATE : 26-APR-2013 13:28 PLOT BY : mgarvida PLOT NAME : PLOT SCALE : 300:1
WISDOT/CADDS SHEET 42

GENERAL NOTES:

FREEWAY LIGHTING SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTIONS 652 TO 657 AND 659 EXCEPT:

1. DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THESE DRAWINGS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
2. LOCATIONS OF THE PVC CONDUITS ARE IDENTIFIED IN THE PLANS WHERE THEY ARE REQUIRED. HOWEVER, INSTALLATION WILL REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. UNDER THE APPROVAL OF THE ENGINEER, APPROPRIATE ADJUSTMENT OF CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. FIELD MARK EACH CONDUIT LOCATION IN RED TO ILLUSTRATE AS BUILT CONDITIONS.
3. THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION ON THE CONDUIT.
4. ALL OPEN AND UN-TERMINATED CONDUITS SHALL BE CAPPED OR PLUGGED WITH ENGINEER APPROVED FITTINGS IMMEDIATELY AFTER INSTALLATION.
5. BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR IMMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.
6. ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS.
7. PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT THAT CAN BE EASILY REMOVED. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.
8. CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX-TO-PULL BOX, JUNCTION BOX OR BASE-TO-BASE, ETC.) UNLESS OTHERWISE NOTED ON PLANS.
9. PULL ROPE (⅜-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUITS.
10. CONTRACTOR SHALL SUPPLY AS-BUILT DRAWINGS (.PDF FORMAT) FOR ALL THE WORK BEING DONE.
11. CONDUIT LATERALS SHALL BE TRENCHED UNDER PAVEMENT BEFORE PAVEMENT CONSTRUCTION.
12. UNDERGROUND WIRE & CONDUIT SHOWN ON REMOVAL PLANS FOR REMOVAL SHALL BE ABANDONED IN PLACE UNLESS DIRECTED BY THE ENGINEER. CONTRACTOR MAY CHOOSE TO REMOVE CONDUCTOR AT THEIR OWN EXPENSE.
13. PROVIDE MINIMUM CABLE SLACK AS MENTIONED BELOW:
    PULL BOXES: 5-FT ONE WAY IN OR OUT
    EMBEDDED JUNCTION BOXES: 3-FT
    DISTRIBUTION CENTER/LOAD CENTER: 10-FT
14. AT EVERY BRIDGE JOINT, EXPANSION/DEFLECTION FITTINGS MUST BE USED TO PREVENT DAMAGE TO CONDUIT AND LIGHTING CIRCUITS. THIS ITEM IS INCIDENTAL TO THE CONDUIT BID ITEM.
15. THE SUPPORT CHANNELS FOR INSTALLATION OF CONDUITS, LUMINAIRES, JUNCTION BOXES AND ENCLOSURES SHALL BE STAINLESS STEEL UNISTRUT P1000 SERIES OR APPROVED EQUAL, CHANNELS SHALL BE SLOTTED OR PERFORATED.
16. PROVIDE REMOVABLE SEALANT SUCH AS DUCT SEAL IN THE CONDUITS AT THE CABINETS, PULL BOXES AND JUNCTION BOXES TO AVOID CONDENSATION CAUSED BY AIRFLOW THROUGH THE CONDUITS DUE TO TEMPERATURE DIFFERENCE. THIS WORK SHALL BE INCIDENTAL TO ASSOCIATED CODUIT PAY ITEM.

CONSTRUCTION STAGE IDENTIFIER

P - PRE CONSTRUCTION STAGE 1
1A - CONSTRUCTION STAGE 1A
1B - CONSTRUCTION STAGE 1B
2A - CONSTRUCTION STAGE 2A
2B - CONSTRUCTION STAGE 2B
2C - CONSTRUCTION STAGE 2C

CIRCUIT CALLOUT LEGEND

3 # 2 A,B,N, 1 # 8 GND, CID	PROPOSED CABLE IN DUCT WITH 3 # 2 AWG CONDUCTORS (HOT LEG A, HOT LEG B, NEUTRAL) AND 1 # 8 AWG GROUND CONDUCTOR
2" C, 3 # 6 C,D,N, 1 # 8 GND	PROPOSED 2 INCH CONDUIT WITH PROPOSED 3 # 6 AWG CONDUCTORS (HOT LEG C, HOT LEG D, NEUTRAL) AND 1 # 8 AWG GROUND CONDUCTOR
2" C EXISTING 3 # 4 A,B,N 1 # 8 GND	EXISTING CONDUIT WITH PROPOSED 3 # 4 AWG CONDUCTORS AND 1 # 8 AWG GROUND CONDUCTOR
3 # 8 G,H,N, 1 # 8 GND, CID EXISTING	EXISTING CABLE IN DUCT WITH EXISTING 3 # 8 AWG CONDUCTORS AND 1 # 8 AWG GROUND CONDUCTOR
2" C, 3 # 2 J,K,N, 1 # 8 GND (EXISTING)	EXISTING 2 INCH CONDUIT WITH EXISTING 3 # 2 AWG CONDUCTORS AND 1 # 8 AWG GROUND CONDUCTOR

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
1P	1 PHASE
2W	2 WIRE
A	AMPERES
A.I.C.	AMPS INTERRUPTING CURRENT
AN	ABOVE NORMAL
AWG	AMERICAN WIRE GAUGE
B.N.	BELOW NORMAL
C	CONDUIT
CKT. OR CIRC.	CIRCUIT
DIA.	DIAMETER
EB	EAST BOUND
EXLPB	EXISTING LIGHTING PULL BOX
FT.	FEET
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HPS	HIGH PRESSURE SODIUM
JB	JUNCTION BOX
L.E.D.	LIGHT EMITTING DIODE
LPB	LIGHTING PULL BOX
LT	LEFT
M.B.	MAIN BREAKER
M.L.O.	MAIN LUGS ONLY
NB	NORTH BOUND
NEMA	NATIONAL ELECTRICAL MANUFACTURES ASSOCIATION
No. / #	NUMBER
N.T.S.	NOT TO SCALE
P	POLE WHEN USED WITH CIRCUIT BREAKER
RT	RIGHT
RTRC	CONDUIT REINFORCED THERMOSETTING RESIN 1-INCH
SB	SOUTH BOUND
SPD	SURGE- PROTECTION DEVICES
SS	STAINLESS STEEL
STA.	STATION
UDL	UNDERDECK LIGHTING
VAC	VOLTS ALTERNATING CURRENT
WB	WEST BOUND
W.S.C.S.	WISCONSIN STATE ELECTRICAL CODE
X'MER	TRANSFORMER

2

RL-8

LEGEND : GENERAL

SYMBOL	DESCRIPTION
	LIGHTING DISTRIBUTION CENTER, BASE MOUNTED
	LIGHTING CONTROLLER, PARKING LOT, PEDESTAL MOUNTED
	ELECTRIC UTILITY TRANSFORMER
	ELECTRIC UTILITY METER
	PHOTOCELL
	SIGN STRUCTURE BRIDGE, SOLID SQUARES INDICATE LUMINAIRE
	PULLBOX (24" x 36" GROUNDED)
	PULLBOX (24" x 42" GROUNDED)
	PULLBOX POLYMER CONCRETE, CITY OF MILWAUKEE
	JUNCTION BOX EMBEDDED IN STRUCTURE, (PART OF STRUCTURE)
JB	JUNCTION BOX ATTACHED, SIZE AND TYPE AS NOTED
	360° GREEN CENTER CHANNEL NAVIGATION LIGHT
	180° RED CHANNEL MARGIN NAVIGATION LIGHT
	EXISTING HIGH MAST LIGHTING TOWER, ARROW INDICATE QUANTITY OF LUMINAIRES AND AIMING DIRECTION
	EXISTING DOT LIGHT POLE UNIT, SINGLE ARM
	EXISTING DOT LIGHT POLE UNIT, TWIN ARM
	EXISTING UDL (UNDERDECK LUMINAIRE) FOR FREEWAY
	EXISTING LIGHT POLE UNIT, SINGLE ARM, CITY OF MILWAUKEE
	EXISTING LIGHT POLE UNIT, TWIN ARM, CITY OF MILWAUKEE
	EXISTING LIGHT POLE UNIT, SINGLE BRACKET, PARKING LOT
	EXISTING LIGHT POLE UNIT, TWIN BRACKET, PARKING LOT
	EXISTING UNDERSTRUCTURE LUMINAIRE
	NEW HIGH MAST LIGHTING TOWER, ARROW INDICATE QUANTITY OF LUMINAIRES AND AIMING DIRECTION
	NEW LIGHT POLE UNIT, SINGLE ARM
	NEW LIGHT POLE UNIT, TWIN ARM
	NEW UDL (UNDERDECK LUMINAIRE) FOR FREEWAY
	NEW LIGHT POLE UNIT, SINGLE ARM, CITY OF MILWAUKEE
	NEW LIGHT POLE UNIT, TWIN ARM, CITY OF MILWAUKEE
	NEW UNDERSTRUCTURE LUMINAIRE
	PAD MOUNTED TRANSFORMER

LEGEND : GENERAL

SYMBOL	DESCRIPTION
	LIGHT UNIT, POST TOP LUMINAIRE, CITY OF MILWAUKEE
	PEDESTRIAN TUNNEL LUMINAIRE, CITY OF MILWAUKEE
	CID (CABLE IN DUCT), SIZE AND TYPE AS NOTED
	CONDUIT STUB-OUT
OH	OVERHEAD LIGHTING CABLE

LEGEND : LIGHTING PLAN - REMOVAL

SYMBOL	DESCRIPTION
	CONDUIT 2-INCH, EMBEDDED OR UNDERGROUND TO BE ABANDONED, UNLESS NOTED OTHERWISE
XYYZ	POLE LABEL, X- CIRCUIT, YY-DISTRIBUTION CENTER, Z-POLE NUMBER
#	DENOTES THE STAGE NUMBER FOR REMOVAL SEE REMOVAL LIGHTING GENERAL NOTE 1 ON SHEET RL-10
#6 A,B,N	#6 - CONDUCTOR SIZE (AWG) A,B,C,D,E,F,G,H,I,J,K - CIRCUIT LABELS N - NEUTRAL CONDUCTOR
S-40-245 1 MV-D/PR	SIGN STRUCTURE NUMBER NUMBER OF LAMPS (TYPE) - CKT./CONTROLLER (1 MERCURY VAPOR - CKT.D/HL-40-PR)

LEGEND : LIGHTING PLAN - TEMPORARY

SYMBOL	DESCRIPTION
	CONDUIT 2-INCH, UNLESS NOTED OTHERWISE TYPE AND INSTALLATION AS NOTED.
TXXYYZ V.W	POLE LABEL, T- TEMPORARY XX-CIRCUITS YY-DISTRIBUTION CENTER Z-POLE NUMBER V- STATION , W-OFFSET
#	DENOTES THE STAGE NUMBER FOR INSTALLATION SEE TEMPORARY GENERAL NOTE 2 ON SHEET RL-10
#/#	DENOTES THE STAGE NUMBERS FOR INSTALLATION AND REMOVAL, SEE TEMPORARY LIGHTING GENERAL NOTE 3 ON SHEET RL-10
	TEMPORARY WOOD POLE LIGHTING UNITS TWIN FLOODLIGHTS
	TEMPORARY BRIDGE MOUNTED LIGHTING UNITS 20-FT
	TEMPORARY LUMINAIRES FLOODLIGHTS HPS 250 WATTS

LEGEND : LIGHTING PLAN - FINAL

SYMBOL	DESCRIPTION
	CONDUIT 2-INCH, EMBEDDED OR UNDERGROUND TO BE ABANDONED, UNLESS NOTED OTHERWISE
#	DENOTES THE STAGE NUMBER FOR INSTALLATION SEE FINAL LIGHTING GENERAL NOTE 1 ON SHEET RL-10

STATION-OFFSET
LED-B-7(T)-6-AJK1
CIRCUIT, DISTRIBUTION CENTER, POLE NUMBER
LIGHT SOURCE
MAST ARM LENGTH
CATEGORY A, B, C, OR D
POLE TYPE, 5,7 OR A, EX- FOR EXISTING POLE (T)- FOR TRANSFORMER BASE IF ANY

LEGEND : HOAN BRIDGE TIE GIRDER LIGHTING

SYMBOL	DESCRIPTION
R	REMOVE HPS LUMINAIRE
R	REMOVE EXISTING INCANDESCENT LUMINAIRE
R	REMOVE EXISTING 120VAC DUPLEX RECEPTACLE/SPLIT
R	REMOVE EXISTING 250VAC WELDING RECEPTACLE
R	REMOVE EXISTING ON-OFF LIGHT SWITCH
ES E	ELECTRICAL STATION TO REMAIN
R	REMOVE 360° GREEN CENTER CHANNEL NAVIGATION LIGHT
R	REMOVE 180° RED CHANNEL MARGIN NAVIGATION LIGHT
	INSTALL 60 WATT LED LIGHT FIXTURE
	INSTALL 120VAC DUPLEX RECEPTACLE/SPLIT
	INSTALL 250VAC WELDING RECEPTACLE
	INSTALL ON-OFF LIGHT SWITCH
	INSTALL 360° GREEN CENTER CHANNEL NAVIGATION LIGHT
	INSTALL 180° RED CHANNEL MARGIN NAVIGATION LIGHT

LEGEND : HOAN BRIDGE AESTHETIC LIGHTING

SYMBOL	DESCRIPTION
	PROPOSED COLOR CHANGING LED LUMINAIRE, SIZE AND TYPE AS NOTED
	PROPOSED DATA ENABLER
	LOCAL MASTER CONTROLLER

RL-9

LIGHTING PLAN REMOVAL - GENERAL NOTES

1. EQUIPMENT SHOWN IN BOLD SHALL BE REMOVED AFTER OR DURING THE COMPLETION OF THE CONSTRUCTION STAGE NUMBER INDICATED ON PLANS AND PRIOR TO NEXT CONSTRUCTION STAGE UNLESS NOTED OTHERWISE.
2. WIRE AND CONDUIT SHOWN TO BE REMOVED SHALL BE ABANDONED IN PLACE UNLESS OTHERWISE SPECIFIED. CONTRACTOR MAY CHOOSE TO REMOVE WIRES FROM ABANDONED CONDUIT AT OWN EXPENSE.
3. CONTRACTOR SHALL DISPOSE OF REMOVED EXISTING LAMPS IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
4. CONTRACTOR SHALL COORDINATE LIGHTING WORK WITH ROADWAY TRAFFIC STAGING AND STRUCTURE WORK.

LIGHTING PLAN TEMPORARY - GENERAL NOTES

1. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE TEMPORARY LIGHTING INSTALLATION AND REMOVAL WITH ROADWAY CONSTRUCTION STAGES AND REMOVAL OF EXISTING LIGHTING AND INSTALLATION OF FINAL LIGHTING.
2. THE TEMPORARY LIGHTING WORK SHOWN WITH INSTALLATION STAGE NUMBER SHALL BE INSTALLED BEFORE THE CONSTRUCTION STAGE SPECIFIED AND MADE FULLY OPERATIONAL PRIOR TO TEMPORARY TRAFFIC PATTERN CHANGE FOR NEXT CONSTRUCTION STAGE.
3. THE TEMPORARY LIGHTING WORK SHOWN WITH INSTALLATION/REMOVAL STAGE NUMBERS SHALL BE INSTALLED AS DESCRIBED IN NOTE 2. TEMPORARY LIGHTING SHALL BE REMOVED AFTER THE ROADWAY CONSTRUCTION IS COMPLETE AND ROADWAY LIGHTING IS FULLY OPERATIONAL AND TESTED FOR THE STAGE NUMBER INDICATED AND PRIOR TO TEMPORARY TRAFFIC LANES PATTERN CHANGE FOR NEXT CONSTRUCTION STAGE.
4. REMOVED TEMPORARY LIGHTING UNITS AND OVERHEAD CABLES SHALL BE SALVAGED AND RE-INSTALLED AT NEW LOCATIONS AS SHOWN ON THE PLANS FOR FUTURE CONSTRUCTION STAGES. SALVAGED OVERHEAD CABLE SHALL BE TESTED AS DESCRIBED IN SPECIFICATIONS PRIOR TO RE-USE.
5. SEE FINAL LIGHTING PLANS FOR LIGHTING WORK NOT SHOWN ON TEMPORARY LIGHTING PLANS BUT SHALL BE MADE OPERATIONAL DURING CONSTRUCTION.
6. PROVIDE LONGER WOOD POLES AS NEEDED TO MAINTAIN 40FT MOUNTING HEIGHT FROM ADJACENT BRIDGE PAVEMENT AS SHOWN ON PLANS AND DETAILS WITH NO EXTRA COST TO CONTRACT. CONTRACTOR IS RESPONSIBLE TO ASCERTAIN EXISTING CONDITIONS FOR LENGTH OF WOOD POLES.
7. THE EXISTING LIGHTING AND ELECTRICAL SYSTEM SHOWN IN GREY SHALL REMAIN IN PLACE OPERATIONAL UNLESS NOTED OTHERWISE.

LIGHTING PLAN FINAL - GENERAL NOTES

1. THE FREEWAY LIGHTING WORK SHOWN ON FINAL LIGHTING PLANS SHALL BE INSTALLED AND MADE OPERATIONAL BEFORE THE CONSTRUCTION STAGE INDICATED ON PLANS PRIOR TO THE CHANGE OF TRAFFIC PATTERN FOR NEXT CONSTRUCTION STAGE UNLESS NOTED OTHERWISE.
2. INSTALLATION OF UNDERGROUND CONDUIT LATERAL UNDER PAVEMENT SHALL BE INSTALLED MINIMUM 30 INCH BELOW PROPOSED GRADE. CONDUIT LATERALS SHALL BE TRENCHED UNDER PAVEMENT BEFORE PAVEMENT CONSTRUCTION. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH ROADWAY CONSTRUCTION FOR CONDUIT LATERALS INSTALLATION.
3. PROVIDE 3 INCH PVC CONDUIT ELBOWS IN ALL GROUND MOUNTED CONCRETE BASES FOR CABLE IN DUCT TYPE INSTALLATION. THIS WORK IS INCIDENTAL TO CONCRETE BASES PAY ITEMS.
4. AT EACH SIGN STRUCTURE BASE PROVIDE 2" PVC CONDUIT FROM JUNCTION BOX TO SIGN STRUCTURE. INSTALLATION OF JUNCTION BOX AND CONDUIT ARE INCIDENTAL TO SIGN STRUCTURE INSTALLATION WORK.
5. INSTALL COMMON GROUND CONDUCTOR IN CONDUIT WHERE MULTIPLE BRANCH CIRCUITS CONDUCTORS ARE INSTALLED IN SAME CONDUIT AND SPLICE THE GROUND CONDUCTOR WITH TAP CONNECTOR IN PULLBOX.
6. ALL CONDUITS AND JUNCTION BOXES EMBEDDED IN STRUCTURE SHALL BE PAID UNDER STRUCTURE PAY ITEMS. CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF EMBEDDED CONDUITS.
7. ALL LIGHT POLES MOUNTED ON THE STRUCTURE SHALL BE MOUNTED ON VIBRATION PAD ACCORDING TO THE SPECIAL PROVISIONS.

TIE GIRDER LIGHTING - GENERAL NOTES

1. EXISTING AND PROPOSED TIE GIRDER ELECTRICAL POWER FEED FROM DISTRIBUTION CENTER HL-40-DW, 277/480V 3φ, 4W.
2. EXISTING ELECTRICAL EQUIPMENT IN THE TIE GIRDERS WILL BE REPLACED, INCLUDING, BUT NOT LIMITED TO: HPS AND INCANDESCENT LIGHT FIXTURES; ELECTRICAL RECEPTACLES; SWITCHES; COMPLETE WIRING AND PORTIONS OF CONDUIT SYSTEM AS SHOWN ON TIE GIRDER LIGHTING SYSTEM DETAIL SHEETS. THE EXISTING PANELS AND TRANSFORMERS INSIDE THE TIE GIRDERS WILL BE MODIFIED AS NOTED.
3. EXISTING ELECTRICAL CONDUIT IN THE TIE GIRDERS WILL REMAIN IN PLACE, EXCEPT AS REQUIRED TO PLACE NEW ELECTRICAL EQUIPMENT AS SHOWN ON THE PLANS.
4. EXISTING NAVIGATION LIGHTING EQUIPMENT TO BE REPLACED. SEE DETAIL SHEETS RL-85 TO RL-87 FOR MORE INFORMATION.
5. THE TIE GIRDER LIGHTING SYSTEM SHALL BE INSTALLED PER MOST CURRENT NEC CODE FOR WIRING, GROUNDING, AND BONDING FOR MAIN DISTRIBUTION AND DERIVED POWER SUPPLY. THE SURGE PROTECTION SYSTEM SHALL BE PROVIDED PER CURRENT NEC AND UL 1449 3RD EDITION.

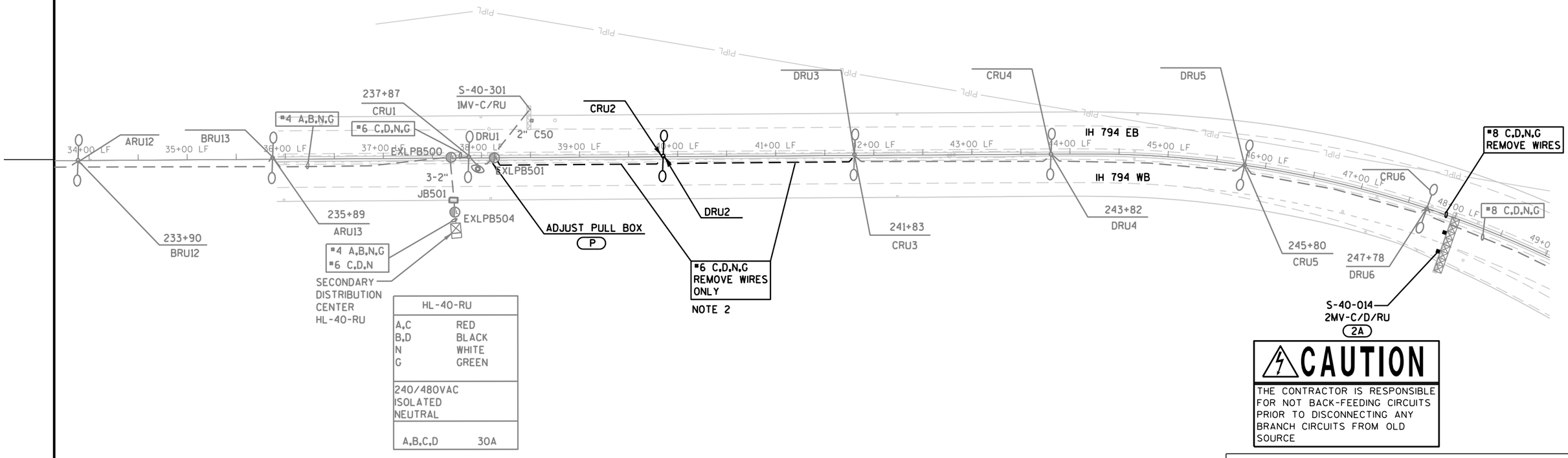
AESTHETIC LIGHTING - GENERAL NOTES

1. INSTALLATION OF AESTHETIC LIGHTING SHALL BE DONE IN ACCORDANCE TO LATEST STANDARDS. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE ENGINEER AND STATE TRAFFIC OPERATIONS CENTER.
2. THE LIGHTING DESIGN SHOWN ON LIGHTING PLANS IS BASED ON LED COLOR CHANGING LUMINAIRES AVAILABLE AT TIME OF DESIGN. CONTRACTOR MAY SUBMIT FOR APPROVAL A MORE EFFICIENT LIGHTING SYSTEM IF AVAILABLE UPON APPROVAL FROM THE ENGINEER. THE NEW SYSTEM SHALL MEET OR EXCEED THE PERFORMANCE AND OPERATION REQUIREMENTS MENTIONED IN THE SPECIAL PROVISIONS.
3. CONTRACTOR SHALL FIELD VERIFY THE EXISTING BRIDGE LAYOUT AND ALL APPLICABLE EXISTING CONDITIONS.
4. THE LOCATIONS OF THE LED LUMINAIRES SHOWN ON THE PLANS ARE TO BE AIMED AT THE TARGETED AREA TO ACHIEVE REQUIRED UNIFORM LIGHTING LEVELS AND ARE BASED ON PHOTOMETRIC COMPUTATIONS PERFORMED USING 3-DIMENSIONSAL BRIDGE MODELS AND PHOTOMETRIC DATA FILES (.IES FILES) PROVIDED BY THE MANUFACTURER. THE CONTRACTOR SHALL FIELD VERIFY ACTUAL DIMENSIONS OF THE BRIDGE AND THE LOCATIONS AND AIMING OF THE LUMINAIRES TO ACHIEVE REQUIRED UNIFORM LIGHTING LEVEL ALONG ARCHES. NECESSARY LUMINAIRE OUTPUT TUNING AND CALIBRATION SHALL BE PERFORMED AFTER INSTALLATION TO THE SATISFACTION OF THE ENGINEER.
5. AESTHETIC LIGHTING SYSTEM SHALL BE GROUNDED AND BONDED PER MOST CURRENT NEC CODES AND COMPLY WITH UL 1449 3RD EDITION. SURGE PROTECTION SYSTEM SHALL BE PROVIDED AS SHOWN ON THE PLANS AS NECESSARY TO MEET LATEST UL STANDARDS ON SURGE PROTECTION.
6. THE HOAN BRIDGE STEEL STRUCTURE IS CARBON STEEL. STAINLESS STEEL AND OTHER HARDWARE USED FOR LIGHTING INSTALLATION SHALL NOT BE IN DIRECT CONTACT WITH STEEL BRIDGE STRUCTURE, EXCEPT A325 GALVANIZED BOLT ASSEMBLIES.
7. THE AESTHETIC LIGHTING SYSTEM CONTROL UNITS SHALL BE INSTALLED AT THE STATE TRAFFIC OPERATIONS CENTER BUILDING AS DIRECTED BY THE ENGINEER. THE CONTROL UNITS SHALL BE CAPABLE TO CONTROL THE NEW HOAN BRIDGE AESTHETIC LIGHTING SYSTEM AND THE EXISTING MAROUETTE INTERCHANGE AESTHETIC LIGHTING SYSTEM FROM ONE SOFTWARE PROGRAM.

2

NOTES;

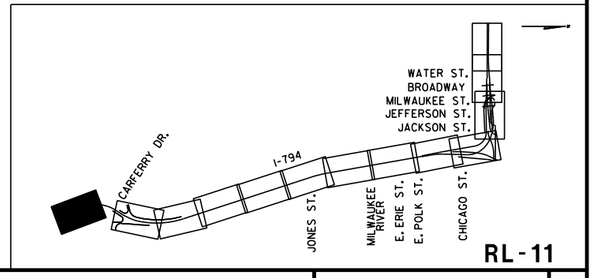
1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. REMOVE EXISTING POLE AND FOUNDATION, REMOVE EXISTING WIRES FROM CONDUIT, INTERCEPT EXISTING UNDERGROUND CONDUITS AND PROVIDE TEMPORARY WIRES BETWEEN LIGHT POLES CRU1/DRU1 AND CRU3/DRU3.



HL-40-RU	
A,C	RED
B,D	BLACK
N	WHITE
G	GREEN
240/480VAC ISOLATED NEUTRAL	
A,B,C,D	30A

⚠ CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-11

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 221	E

HL-40-CR	
A	RED
B	BLACK
N	WHITE
G	GREEN
240/480VAC ISOLATED NEUTRAL	
A,B	30A

HL-40-LN	
1,2,4	RED
6,3,5	BLACK
N	WHITE
GND	GREEN OR BARE
1,2,3,4,5,6	30A
480VAC 2 WIRE GROUNDED NEUTRAL	

1A SECONDARY DISTRIBUTION CENTER HL-40-CR

1A SECONDARY DISTRIBUTION CENTER HL-40-LN PHOTOCELL ON CABINET

CARFERRY DR.

ACR1 NOTE 2

ACR2 STA. 57+42.00 NOTE 2

ACR3 NOTE 2

ACR4 NOTE 2

ACR5 STA. 456+22.5LT NOTE 2

ACR6 STA. 459+43.12LT NOTE 2

ACR7 STA. 357+60.30LT NOTE 2

ACR8 STA. 360+60.17LT NOTE 2

ACR9 STA. 557+09.12RT NOTE 2

ACR10 STA. 559+53.11RT NOTE 2

ACR11 STA. 13+87.32LT NOTE 2

ACR12 STA. 561+03.50LT NOTE 2

ACR13 STA. 660+30.14RT NOTE 2

BCR1 STA. 55+69.00 NOTE 2

BCR2 NOTE 2

BCR3 STA. 59+21.00 NOTE 2

BCR4 STA. 60+94.00 NOTE 2

BCR5 458+10.13LT NOTE 2

BCR6 STA. 460+90.20LT NOTE 2

BCR7 STA. 359+12.18LT NOTE 2

BCR8 STA. 555+45.5RT NOTE 2

BCR9 STA. 558+38.11RT NOTE 2

BCR10 STA. 561+40.14RT NOTE 2

BCR11 STA. 12+02.34LT NOTE 2

BCR12 STA. 658+53.19RT NOTE 2

BCR13 STA. 661+84.8RT NOTE 2

1LN1 STA. 361+83.5LT

1LN16

1LN17

1LN18

2LN1

2LN2

3LN1

3LN2

4LN1

5LN1

6LN1

6LN2

6LN5

EXLPB606

EXLPB601

*8 A,B,N,G

*8 A,N,G

*8 B,N,G

*8 1,N

*6 1,N

*4 2,N,3

*6 4,N,5

*8 6,N

IH 794 EB

IH 794 WB

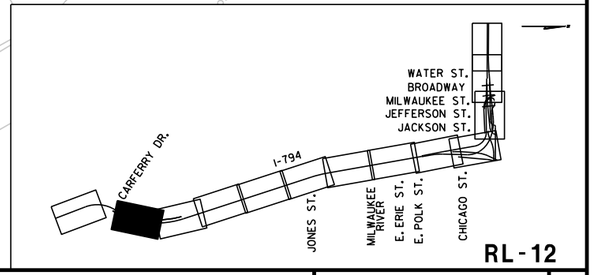
MATCH LINE - 70+00 LF

CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE

NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. THE EXISTING LIGHT POLE TO REMAIN IN PLACE. THE PLAQUE SEQUENCE IDENTIFICATION FOR LIGHT POLE SHALL BE REMOVED AND REPLACED. EXISTING HID LUMINAIRE SHALL BE REMOVED AND REPLACED WITH LED LUMINAIRE.

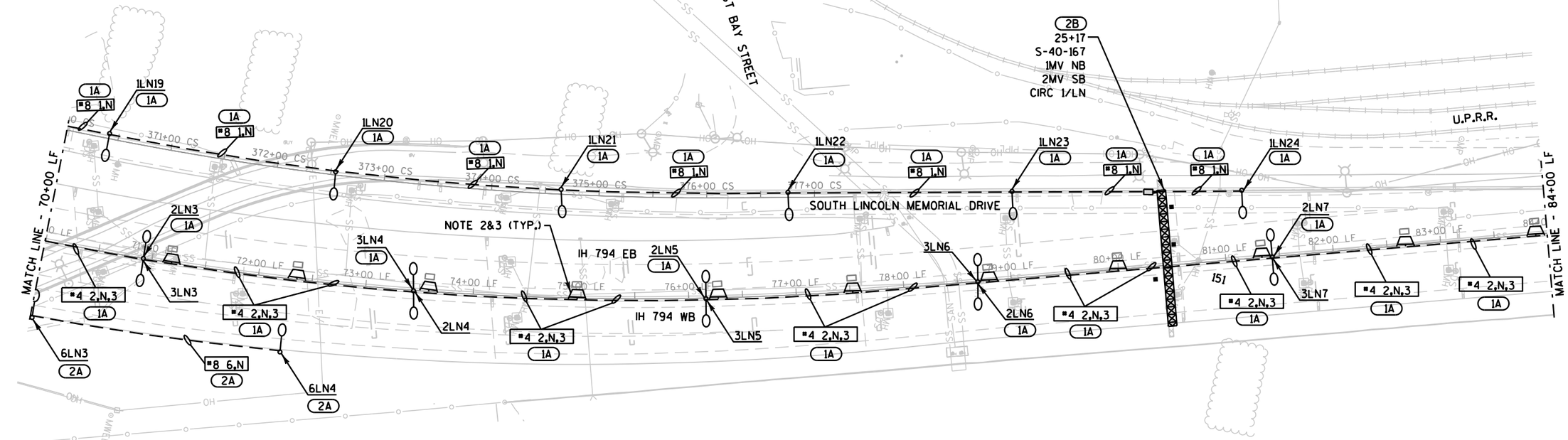


RL-12

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 222	E

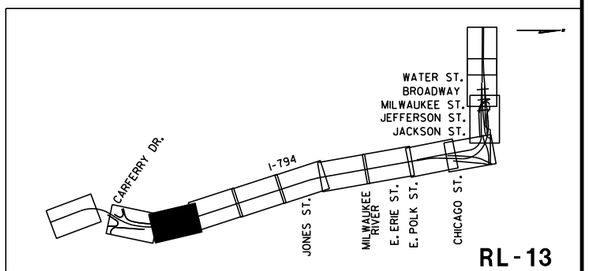
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. EXISTING COBRAHEAD LUMINAIRES ATTACHED TO STRUCTURE UNDER THE DECK FOR PARKING LOT LIGHTING SHALL BE REMOVED DURING CONSTRUCTION AND REINSTALLED AFTER BRIDGE CONSTRUCTION IS COMPLETED. THIS WORK SHALL BE PAID UNDER "PROTECTION OF UNDERSTRUCTURE PARKING LOT LUMINAIRES" PAY ITEM.
3. THE EXISTING UNDERSTRUCTURE PARKING LOT LUMINAIRES SHALL BE RE-FED FROM CIRCUITS E AND F. CIRCUITS A AND B SHALL BE RE-FED TO MEDIAN LIGHTING SYSTEM AS SHOWN ON FINAL LIGHTING PLANS.



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



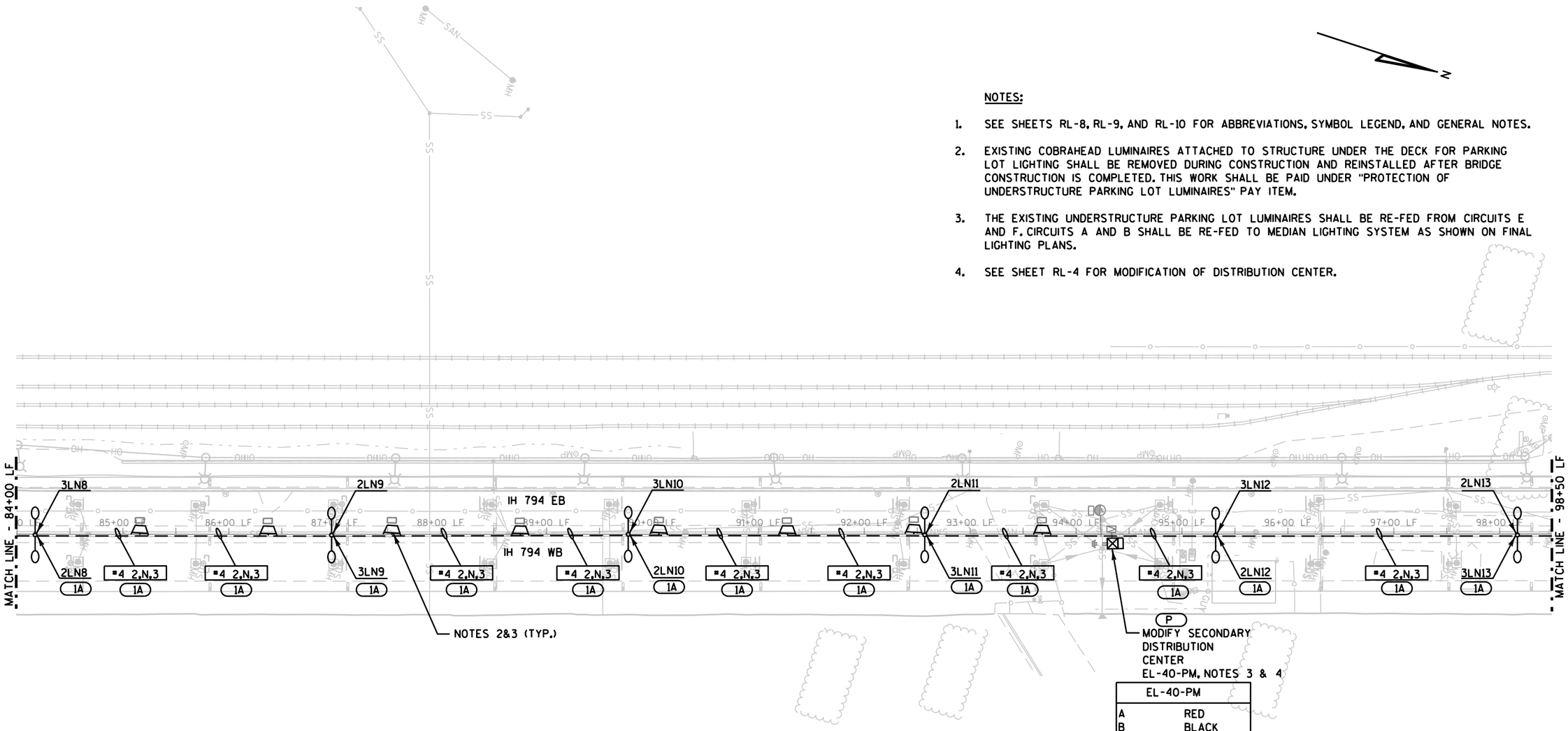
RL-13

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 223	E

2

NOTES:

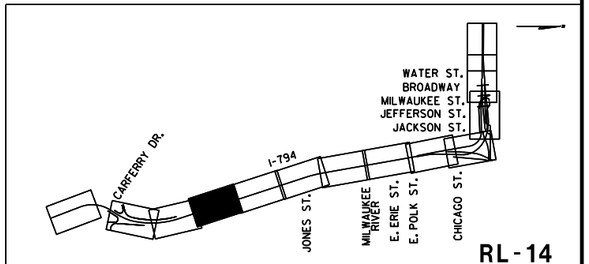
1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. EXISTING COBRAHEAD LUMINAIRES ATTACHED TO STRUCTURE UNDER THE DECK FOR PARKING LOT LIGHTING SHALL BE REMOVED DURING CONSTRUCTION AND REINSTALLED AFTER BRIDGE CONSTRUCTION IS COMPLETED. THIS WORK SHALL BE PAID UNDER "PROTECTION OF UNDERSTRUCTURE PARKING LOT LUMINAIRES" PAY ITEM.
3. THE EXISTING UNDERSTRUCTURE PARKING LOT LUMINAIRES SHALL BE RE-FED FROM CIRCUITS E AND F. CIRCUITS A AND B SHALL BE RE-FED TO MEDIAN LIGHTING SYSTEM AS SHOWN ON FINAL LIGHTING PLANS.
4. SEE SHEET RL-4 FOR MODIFICATION OF DISTRIBUTION CENTER.



EL-40-PM	
A	RED
B	BLACK
C	OPEN
D	OPEN
240/480VAC ISOLATED NEUTRAL	3W

CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE

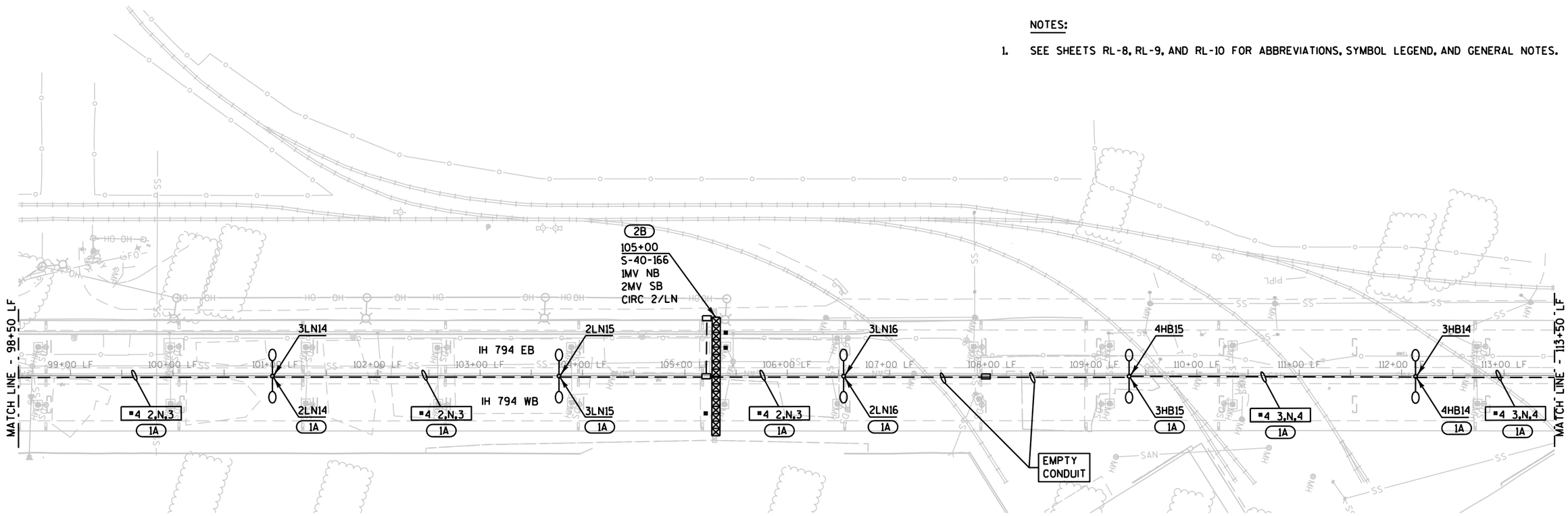


RL-14

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 224	E

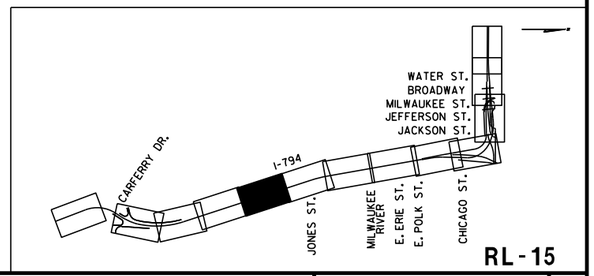
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



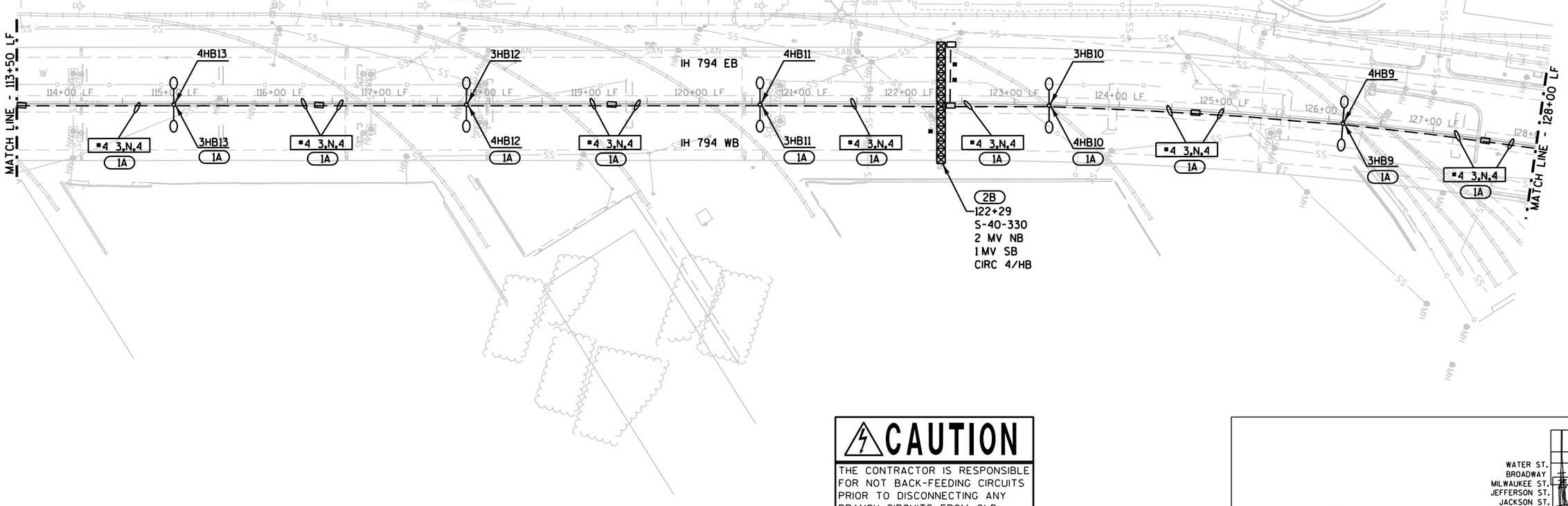
RL-15

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 225	E

2

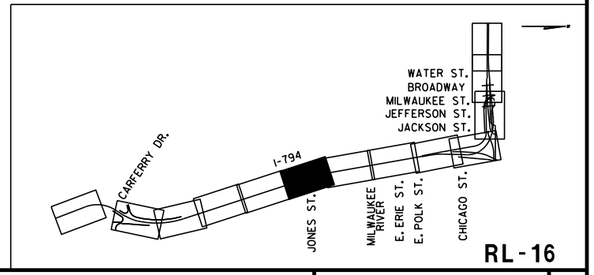
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



⚠ CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-16

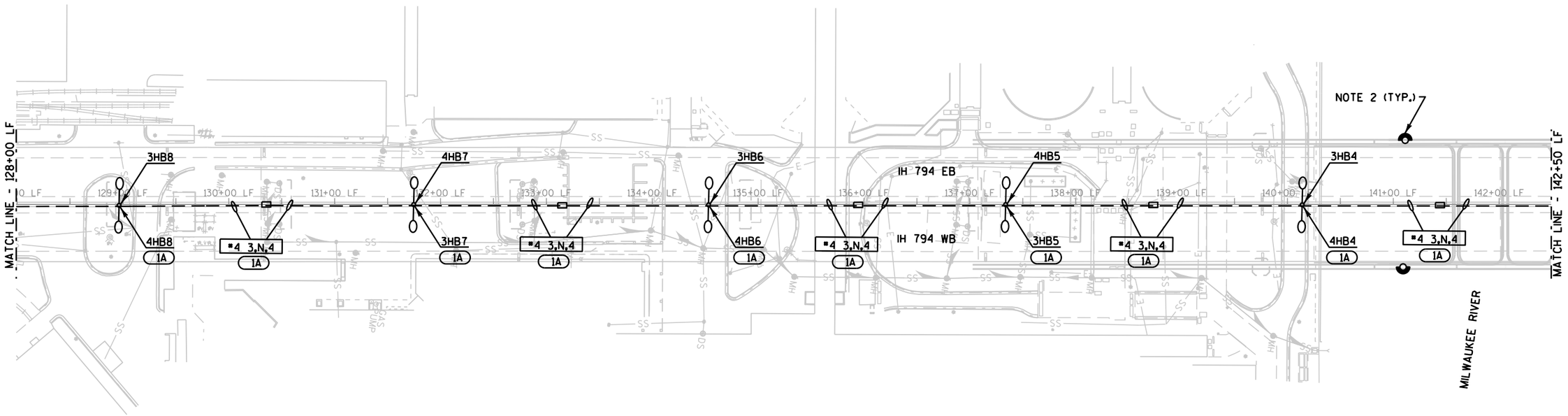
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET	E

FILE NAME : J:\302\DGN\CADD Sheets\023646_lp.dgn PLOT DATE : 26-APR-2013 13:29 PLOT BY : mgarvida PLOT NAME : PLOT SCALE : 100:1

2

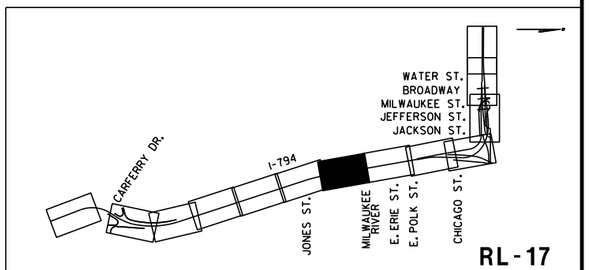
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. SEE SHEETS RL-85 TO RL-87 FOR NAVIGATION LIGHTING ASSEMBLIES REMOVAL AND REPLACEMENT.



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-17

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 227 E

2

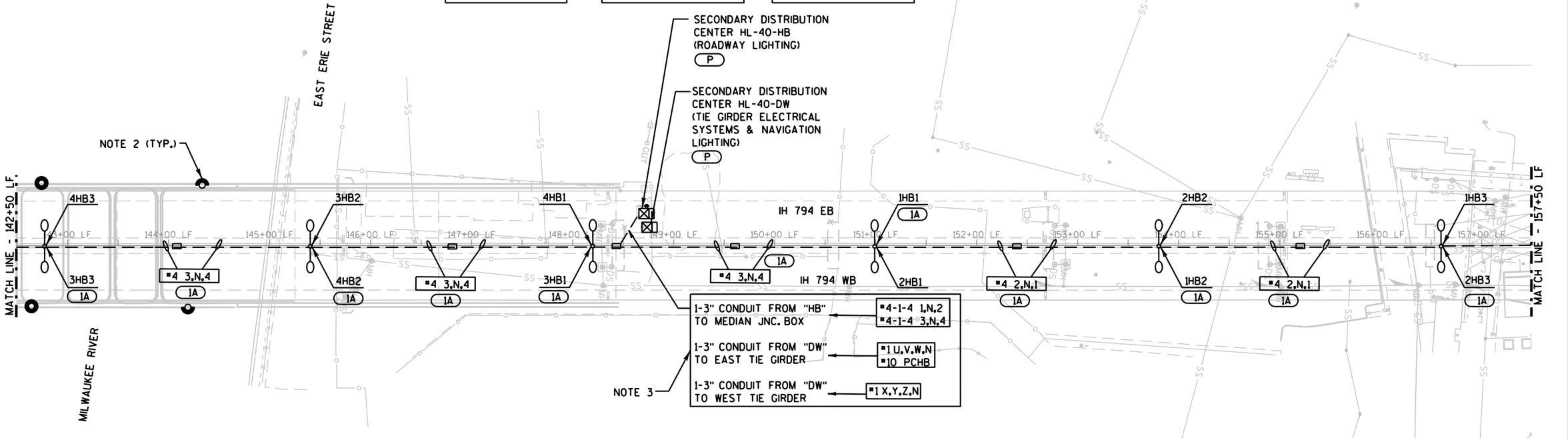
HL-40-HB	
1,2,3,4	BLACK
N	WHITE
1,2,3,4	30 A
480VAC 2 WIRE GROUNDED NEUTRAL	

HL-40-DW FEEDER TO "E3"	
U	BROWN
V	ORANGE
W	YELLOW
N	NAT. GRAY
PCHB	BLUE
U,V,W	1-3P, 100 A
480Y/277VAC 4 WIRE ISOLATED NEUTRAL	

HL-40-DW FEEDER TO "W3"	
X	BROWN
Y	ORANGE
Z	YELLOW
N	NAT. GRAY
X,Y,Z	1-3P, 100 A
480Y/277VAC 4 WIRE ISOLATED NEUTRAL	

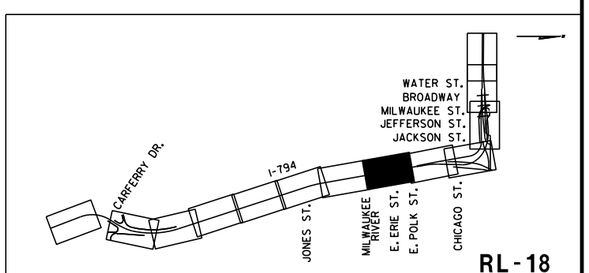
NOTES;

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. SEE SHEETS RL-85 TO RL-87 FOR NAVIGATION LIGHTING ASSEMBLIES REMOVAL AND REPLACEMENT.
3. SEE CONDUIT TRANSITION DETAILS ON SHEETS RL-67 & RL-68. THE EXISTING CONDUITS ATTACHED TO STRUCTURE SHALL REMAIN IN PLACE. EXISTING WIRES IN CONDUITS SHALL BE REMOVED.



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-18

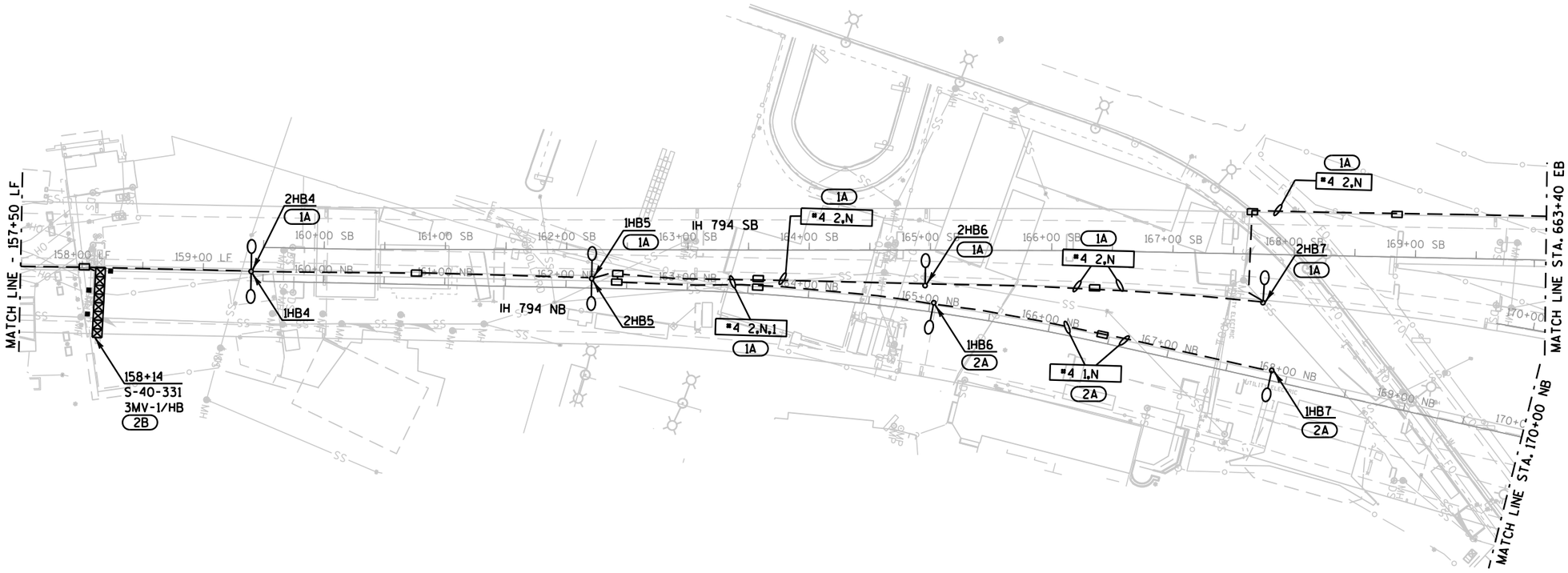
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 228 E

2

N

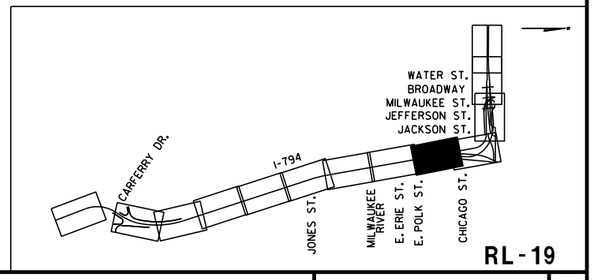
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



⚠ CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-19

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 229 E

2

MATCH LINE - 650+00 EB

MATCH LINE - 750+75 WB

EXLPB1010
P
10,N

EXLPB1011
P
10,N,11

EXLPB1012

FTMS
PEDESTAL ONLY
120/240VAC

HL-40-LK
A,B,C,D N GND — BLACK WHITE GREEN OR BARE
A,B,C,D — 30A
480VAC 2 WIRE GROUNDED NEUTRAL

VAN BUREN STREET

HML-40-026 TO REMAIN
10/11/JK
REPLACE PLAQUE I.D. ONLY

CHICAGO STREET

CLYBOURN STREET

2HB8
1A

MATCH LINE STA. 663+40 EB

IH 794 EB

IH 794 WB

EMPTY CONDUIT

3" ■6 C,D,LK ■2 N

177+13, 134'LT S.B.L.
HML-40-028
CIRC C/D/LK

HML-40-029
C/D/LK

LINCOLN MEMORIAL SB ENTRANCE RAMP

■6 C ■2 N

MATCH LINE STA. 170+00 NB

170+34 NBL
S-40-160
2MV
C/LK
2B

19+69 SW
S-40-367
1MV

176+60 S-MI
S-40-162
2MV-D/LK

LINCOLN MEMORIAL NB EXIT RAMP

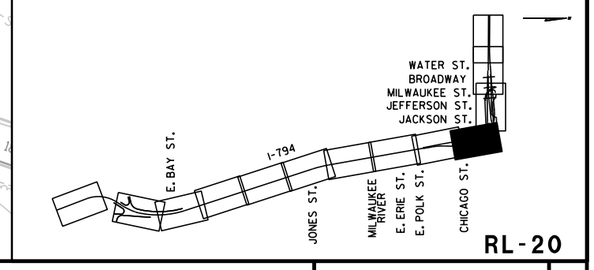
CCTV
FTMS SPECIAL METER BREAKER PEDESTAL.

DISTRIBUTION CENTER
HL-40-LK

3" ■6 C,D,LK ■2 N

4" ■6 C,D,LK ■2 N

182+00, 110'LT S.B.L.
HML-40-027
A/B/LK
CCTV



RL-20

CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE

NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 230	E

HL-40-JK
3,4,5,7, 10,11 BLACK
480VAC 2W
GROUNDED NEUTRAL

N

DISTRIBUTION CENTER
HL-40-JK
P

2A
S-40-165
2MV-4JK

2A
3 UDL
3JK

EXLPB1009

2A
4JK1

2A
2 UDL
4JK

2A
2 UDL
7JK

CLYBOURN STREET

2A
7JK5

2A
7JK3

2A
7JK2

2A
7JK4

EXLPB1005

EXLPB1006

LINCOLN WB ON-RAMP

MILWAUKEE WB OFF-RAMP

EXLPB1002

EXLPB1001

JACKSON WB ON-RAMP

2A
4 UDL
10JK

2A
3 UDL
7JK

10,N

10,N,11

EXLPB1003

EXLPB1007

P

10,N,11

MATCH LINE - 737+00 WB

IH 794 WB

2A
4 UDL
7JK

7,N

1A
HML-40-025
7/JK

EXLPB1004

7,N

5,N

7,N

S-40-141
2MV-5JK
1A

1A
HML-40-024
3/4/JK

JACKSON EB OFF-RAMP

5,N

1A
S-40-140
2MV-5JK

EXLPB1008

1A
S-40-362
2MV-5JK

1A
S-40-190
2MV-5JK

IH 794 EB

1A
3 UDL
5JK

1A
3 UDL
5JK

BROADWAY EB ON-RAMP

MATCH LINE - 637+00 EB

MATCH LINE - 650+00 EB

MATCH LINE - 750+75 WB

BROADWAY

ST. PAUL AVENUE

MILWAUKEE STREET

JEFFERSON STREET

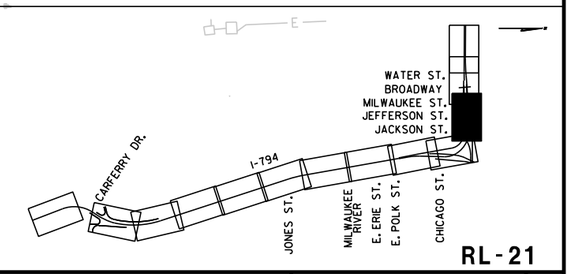
JACKSON STREET

CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE

NOTES:

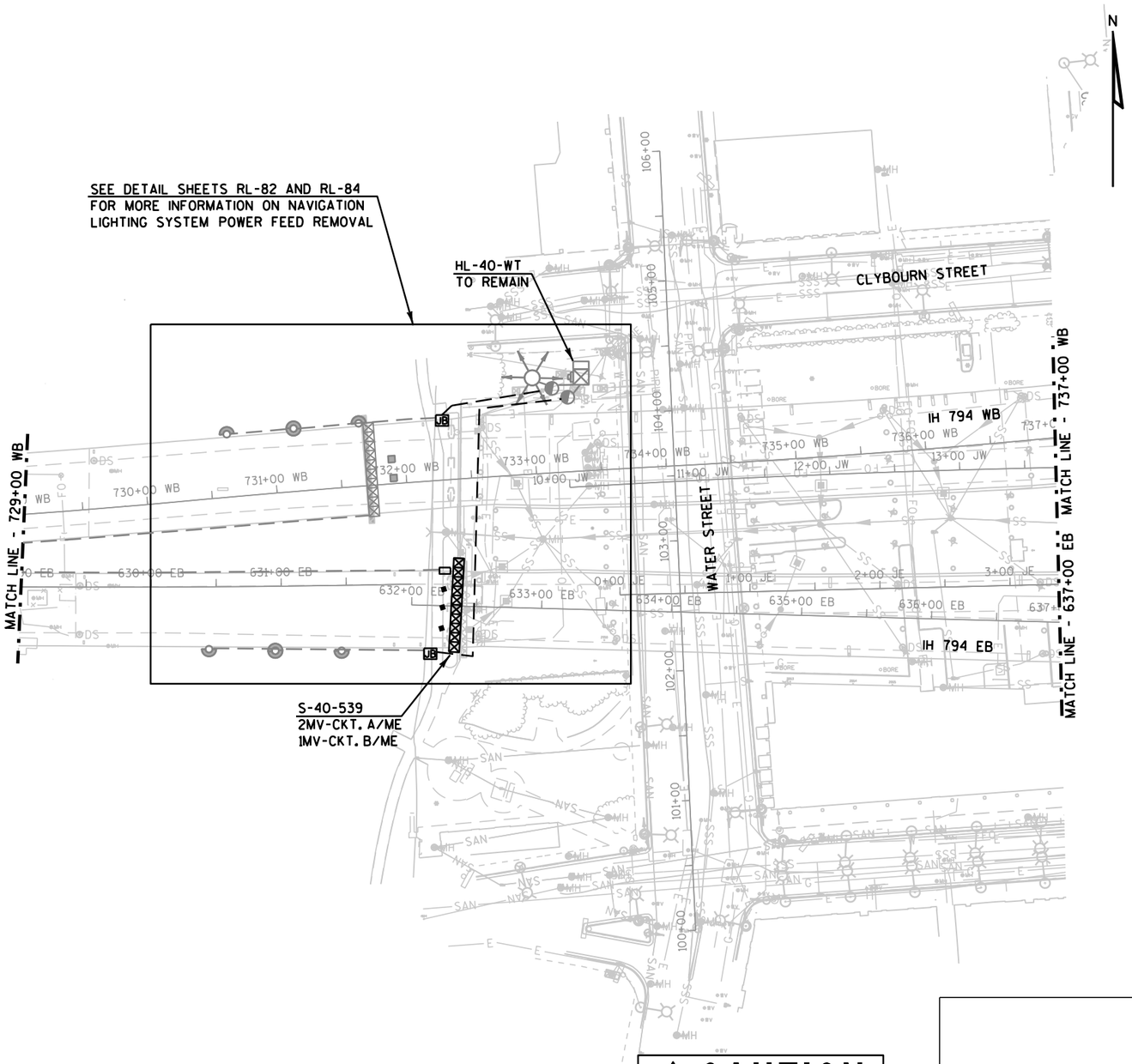
1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



RL-21

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 231 E

2

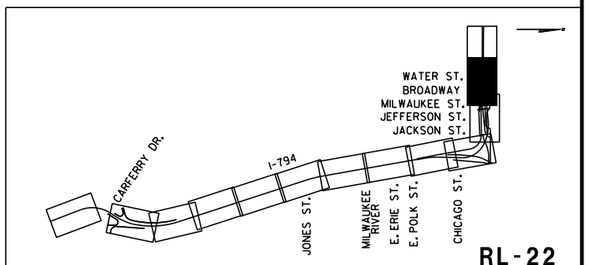


CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE

NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



RL-22

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET	E

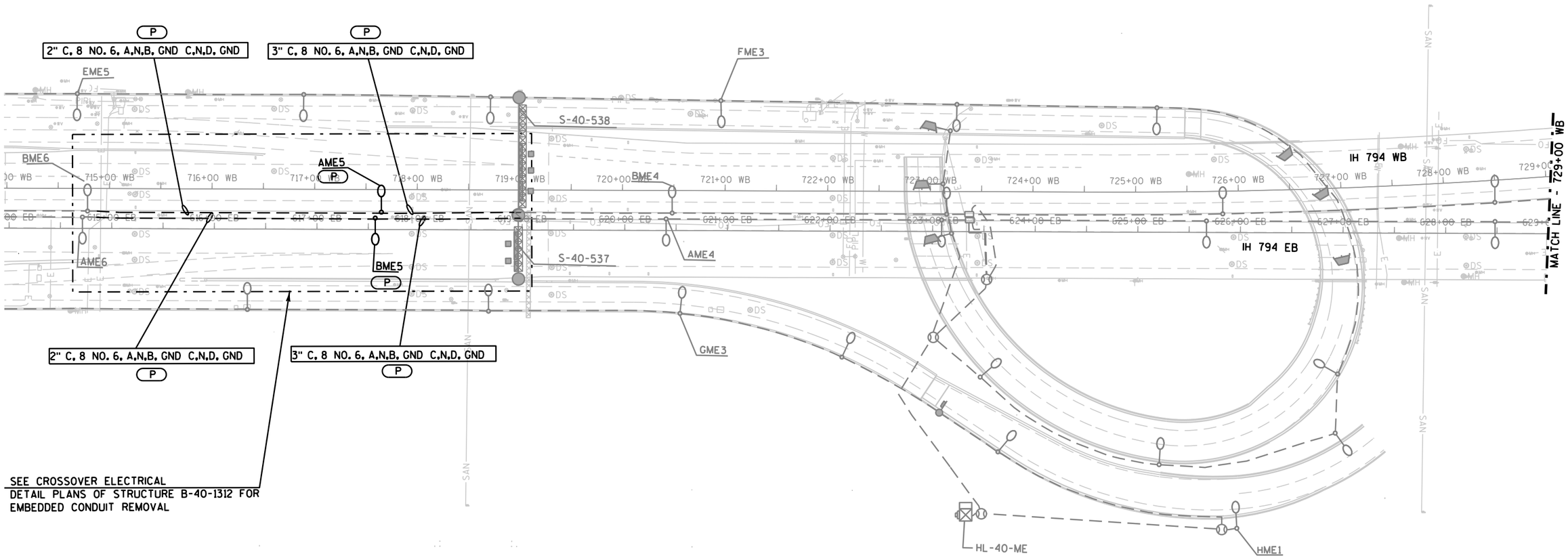
FILE NAME : J:\302\DGN\CADD Sheets\023652_lp.dgn PLOT DATE : 26-APR-2013 13:29 PLOT BY : mgarvida PLOT NAME : PLOT SCALE : 100:1
WISDOT/CADDS SHEET 42

2

N

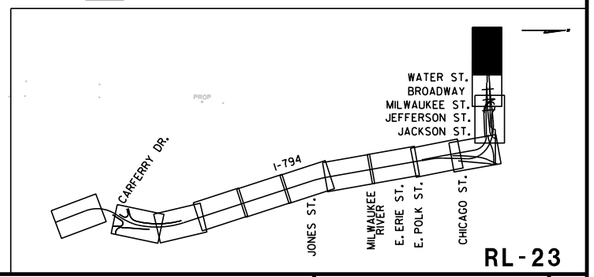
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-23

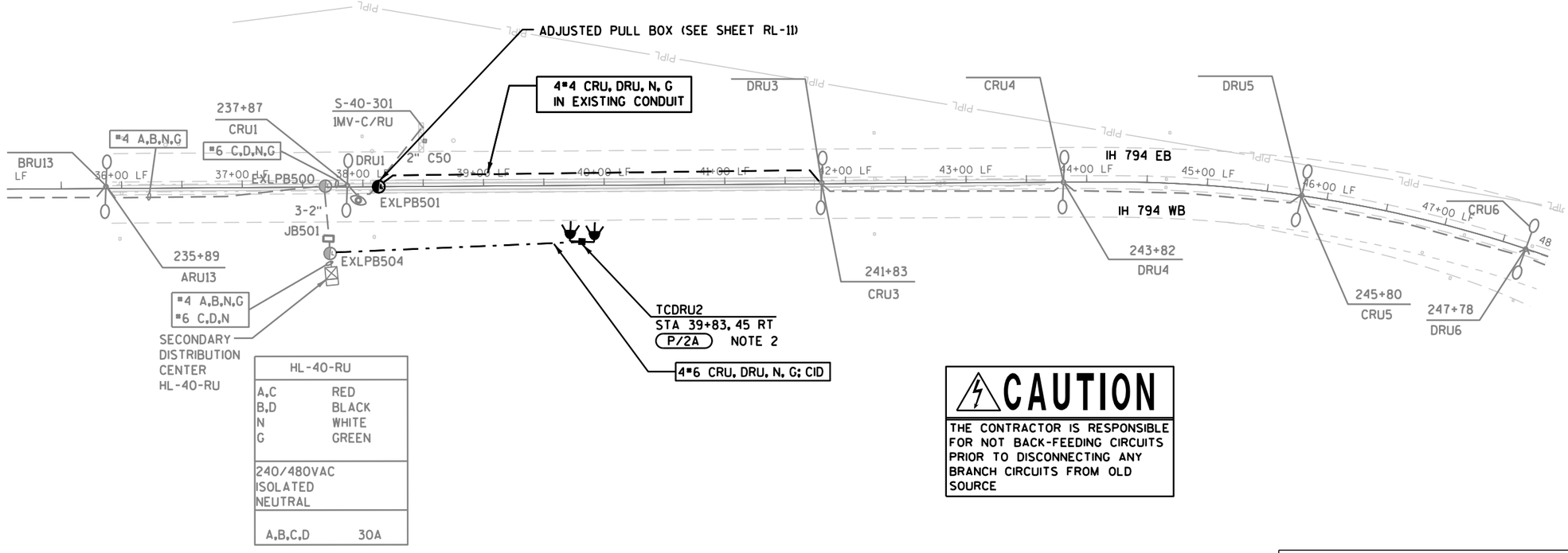
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 233	E

2

N

NOTES:

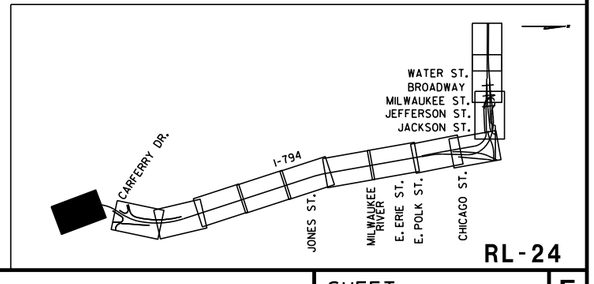
1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. SEE SHEET RL-72 FOR MORE DETAILS.



HL-40-RU	
A,C	RED
B,D	BLACK
N	WHITE
G	GREEN
240/480VAC ISOLATED NEUTRAL	
A,B,C,D	30A

⚠ CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-24

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY	SHEET 234	E

2

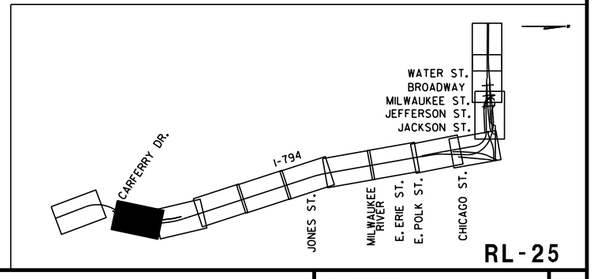
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. SEE SHEET RL-69 FOR DETAIL ON FLOOD LIGHT ON PROPOSED POLE.
3. SEE SHEETS RL-38 AND RL- 39 OF LIGHTING PLAN - FINAL FOR PERMANENT LIGHTING SYSTEM INSTALLATION.
4. SEE SHEETS RL-12 OF LIGHTING PLAN - REMOVAL FOR EXISTING LIGHTING SYSTEM TO REMAIN.

#8 A,N,G
#8 B,N,C
LPB608
LPB609
LPB607
LPB602
357+00 CS
358+00 CS
359+00 CS
360+00 CS
457+00 CW
458+00 CW
460+00 CW
0 LF
57+00 LF
58+00 LF
59+00 LF
60+00 LF
61+00 LF
62+00 LF
63+00 LF
64+00 LF
65+00 LF
66+00 LF
67+00 LF
68+00 LF
69+00 LF
70+00 LF
556+00 CE
557+00 CE
558+00 CE
559+00 CE
560+00 CE
561+00
13+00 CN
14+00 CN
15+00 CN
658+00 CN
659+00 CN
660+00 CN
661+00 CN
662+00 CN
663+00 CN
664+00 CN
665+00 CN
666+00 CN
361+00 CS
362+00 CS
363+00 CS
364+00 CS
365+00 CS
366+00 CS
367+00 CS
368+00 CS
369+00 CS
370+00 CS
ACR8
ACR4/BCR4
BCR13
BCR11
TALN1
STA. 60+29, 88LT.
P/2A
ALN1
NOTE 3
#4 AL QUADRUPLEX
A,B,N, AERIAL
1A/2A
2" C, 3 # 4 A,B,N
1 # 6 GND
NOTE 3
BLN5
NOTE 3
ALN5
NOTE 3
1B/2C
FLOOD LIGHT
ON PROPOSED POLE
NOTE 2
BLN6
NOTE 3
ALN6
NOTE 3
#6 AL QUADRUPLEX
A,B,N, AERIAL
1B/2C
2LN1/3LN1
4LN1/5LN1
P/2B
#4 4LN, 5LN, G ATTACHED
METALLIC CONDUIT
#4 2LN, 3LN, G ATTACHED
METALLIC CONDUIT
#4 AL QUADRUPLEX
A,B,N, AERIAL
1B/2C
THLN1
STA. 60+83, 84RT.
1B/2C
TGLN1
STA. 59+24, 183RT.
1B/2C
6LN5
#4 AL QUADRUPLEX
G,H,N, AERIAL
1B/2C
#4 AL QUADRUPLEX
G,H,N, AERIAL
1B/2C
SEE SHEET RL-62 FOR SITE PLAN
OF CONTROLLER HL-40-LN AND
SHEET RL-63 FOR CONDUIT TRANSITION
DETAIL
IH 794 EB
IH 794 WB
MATCH LINE - 70+00 LF
S. CHERRY DR.
S. LINCOLN MEMORIAL DR.
E. LINCOLN AVE.
SOUTHBOUND OFF-RAMP
SOUTHBOUND ON RAMP
HO
OH
SS
MH
VB

CAUTION

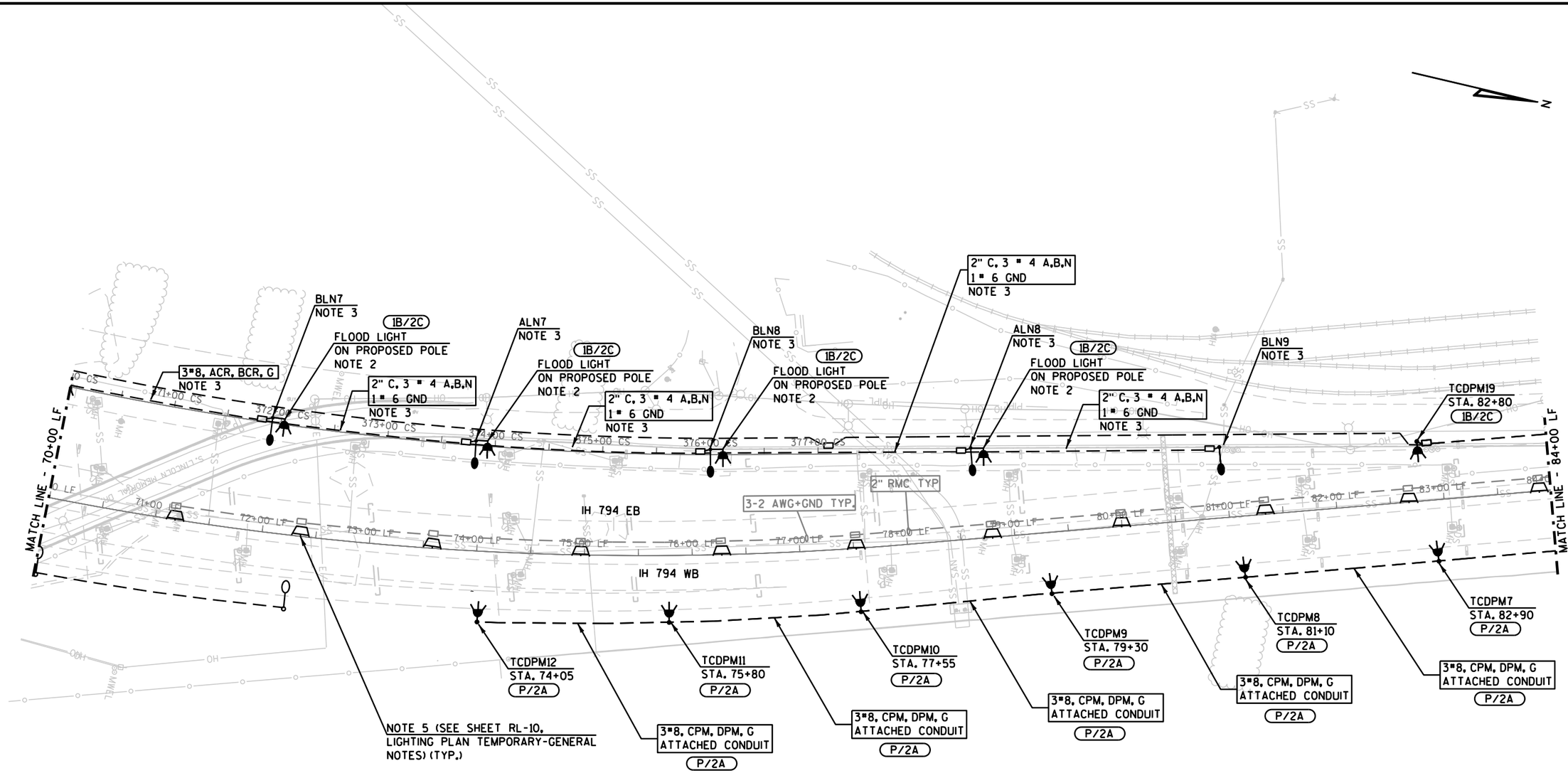
THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-25

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY	SHEET 235 E

2

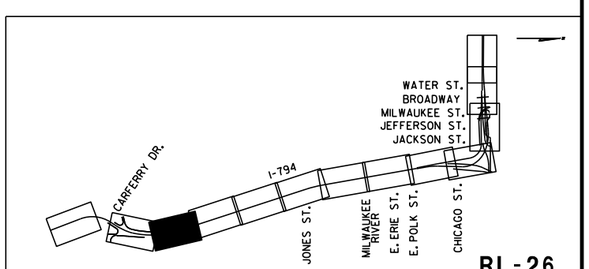


CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE

NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. SEE SHEET RL-69 FOR DETAIL ON FLOOD LIGHT ON PROPOSED POLE DETAIL.
3. SEE SHEETS RL-40 AND RL-41 OF LIGHTING PLAN - FINAL FOR PERMANENT LIGHTING SYSTEM INSTALLATION.



RL-26

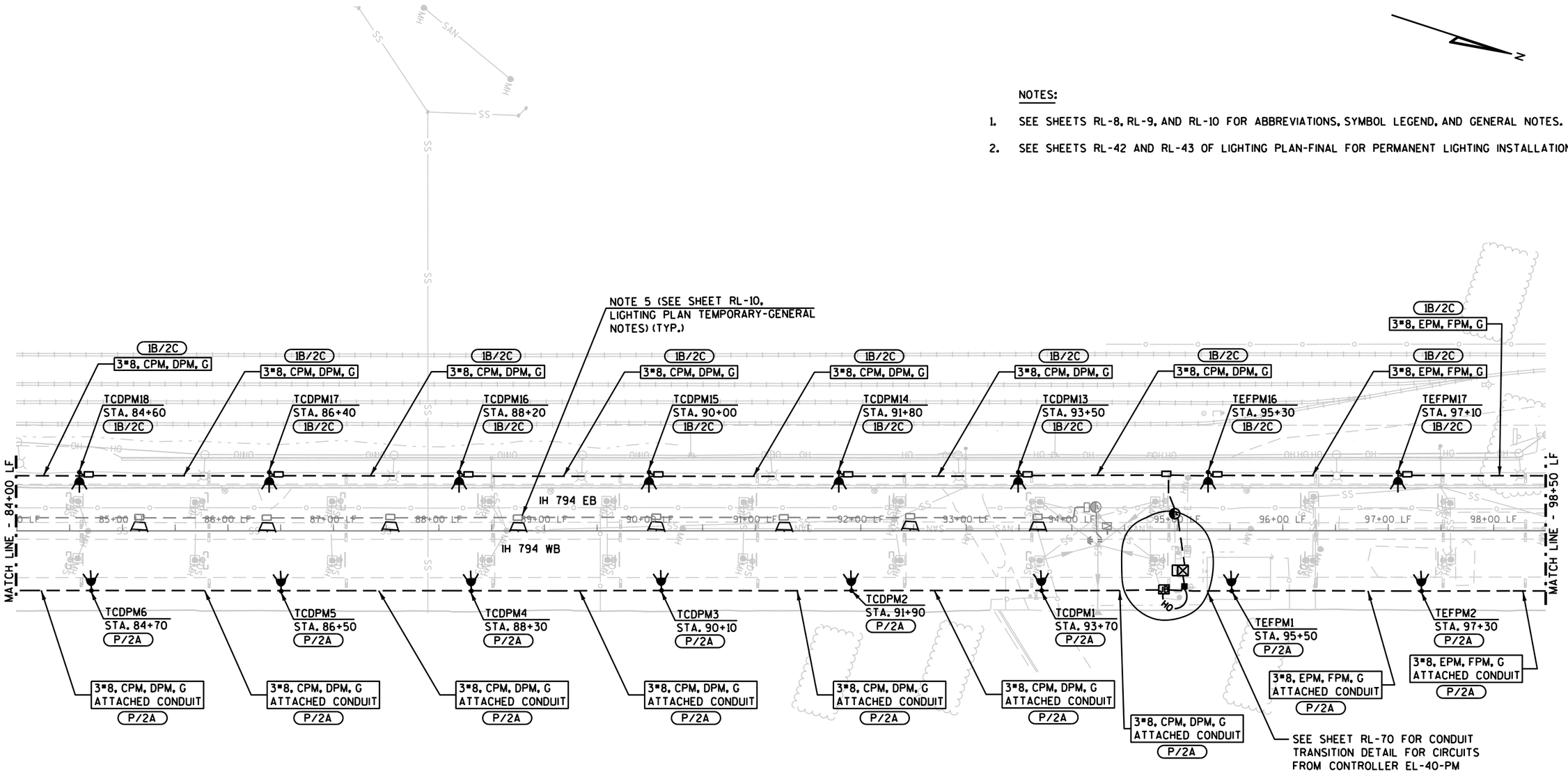
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY	SHEET	E

FILE NAME : J:\302\DGN\CADD Sheets\023656_lp.dgn PLOT DATE : 26-APR-2013 13:29 PLOT BY : mgarvida PLOT NAME : PLOT SCALE : 100:1
WISDOT/CADDS SHEET 42

2

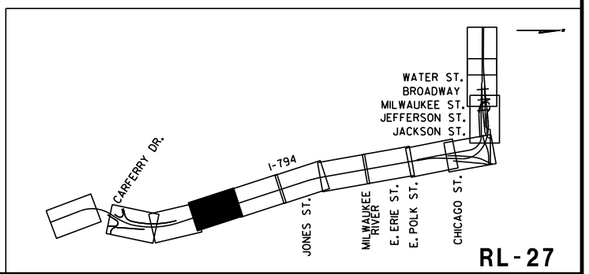
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. SEE SHEETS RL-42 AND RL-43 OF LIGHTING PLAN-FINAL FOR PERMANENT LIGHTING INSTALLATION.



⚠ CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



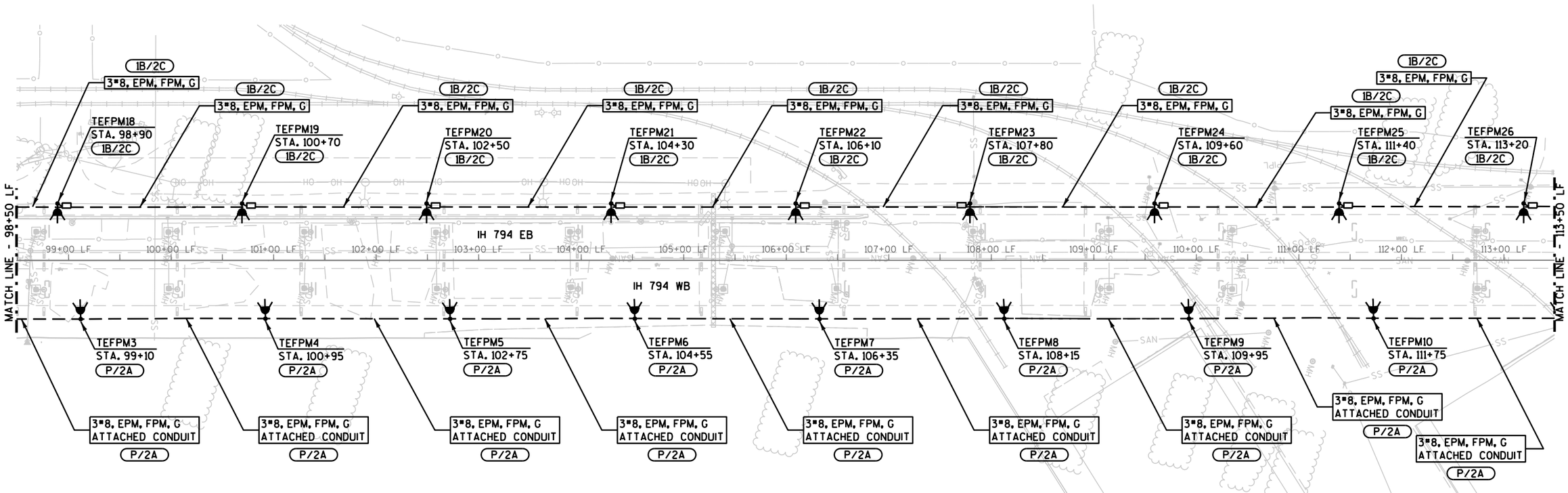
RL-27

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY	SHEET 237 E

2

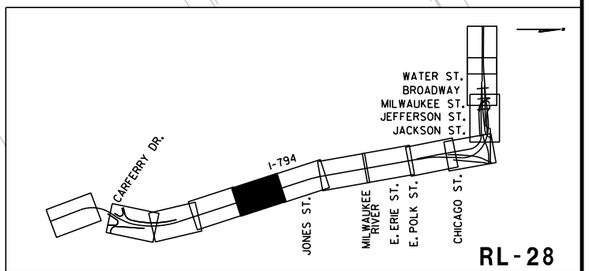
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



⚠ CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE

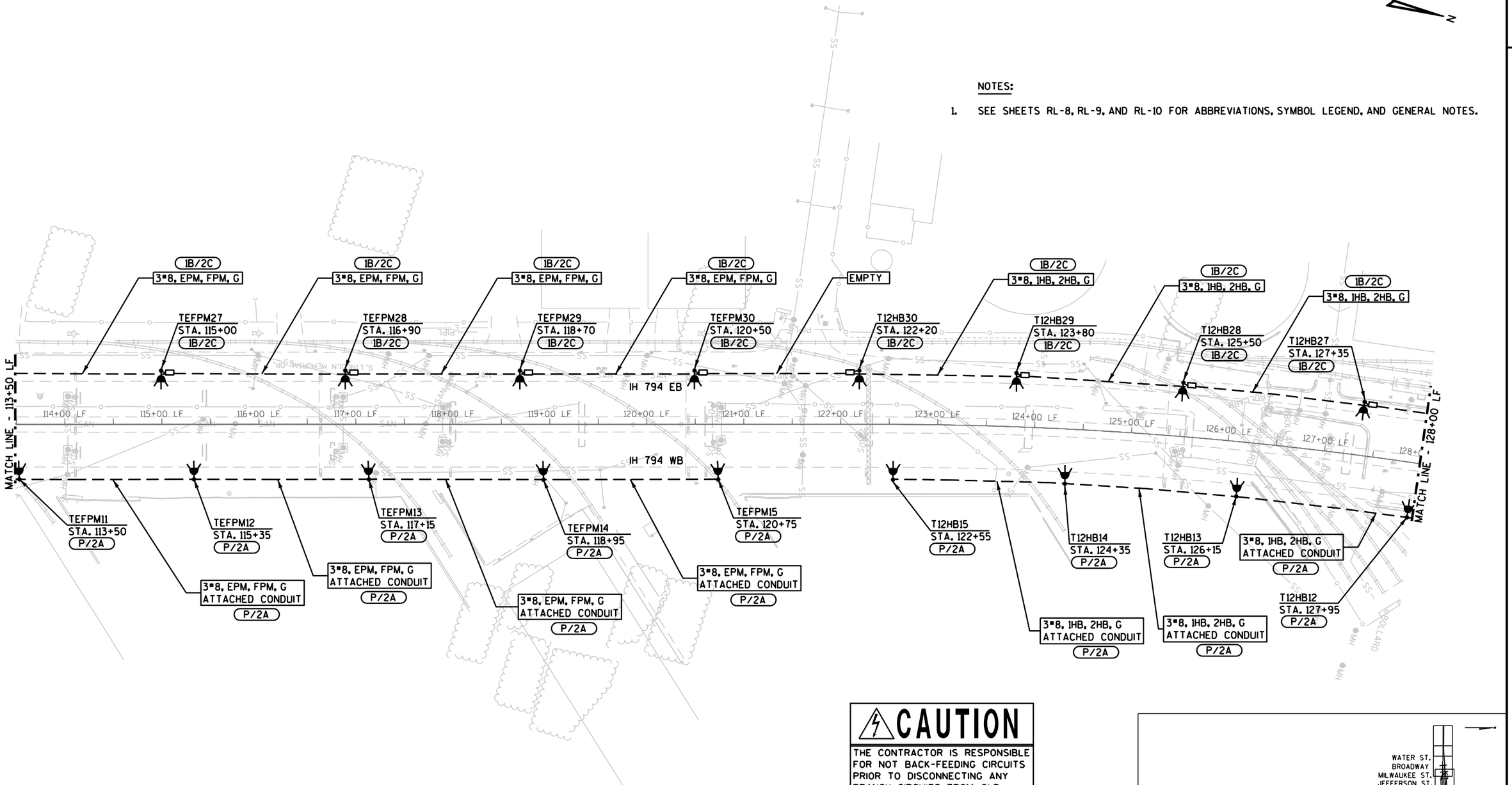


RL-28

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY	SHEET 238	E

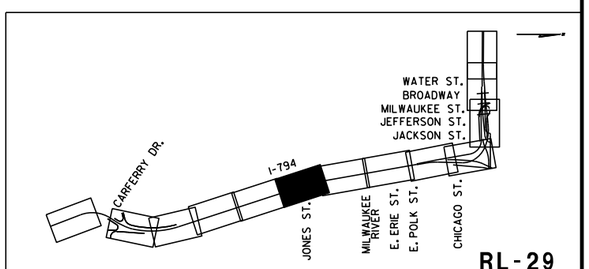
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



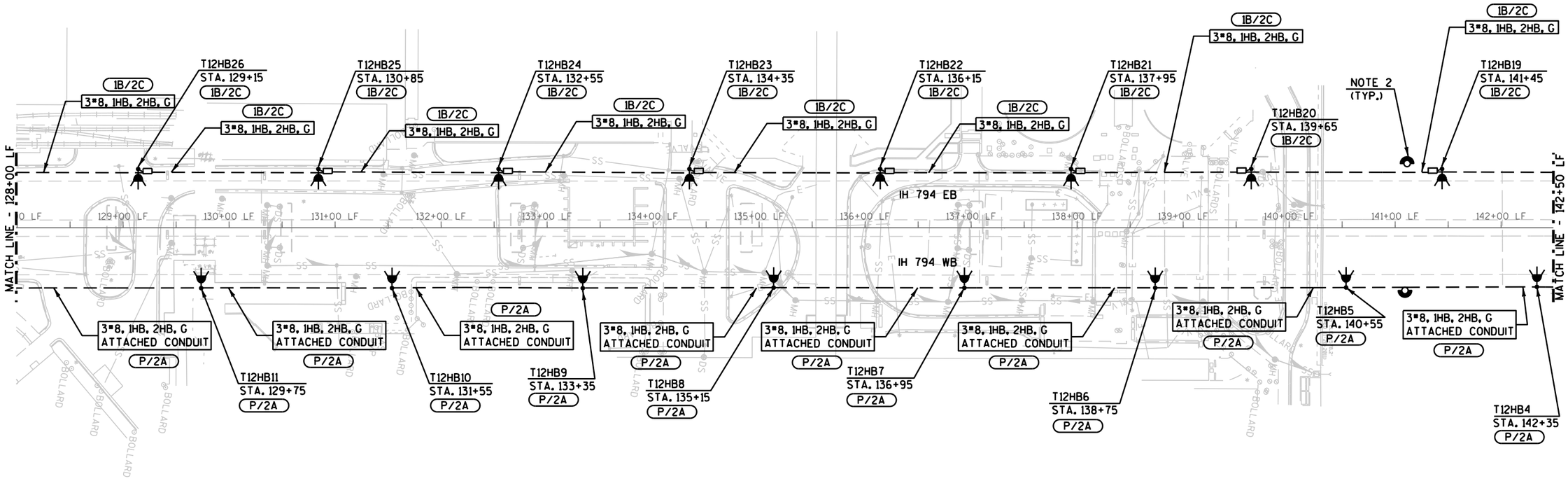
RL-29

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY	SHEET 239 E

2

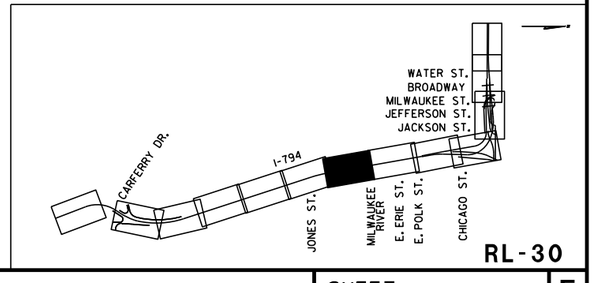
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. SEE SHEETS RL-85 TO RL-87 FOR NAVIGATION LIGHTING ASSEMBLIES REMOVAL AND REPLACEMENT.



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



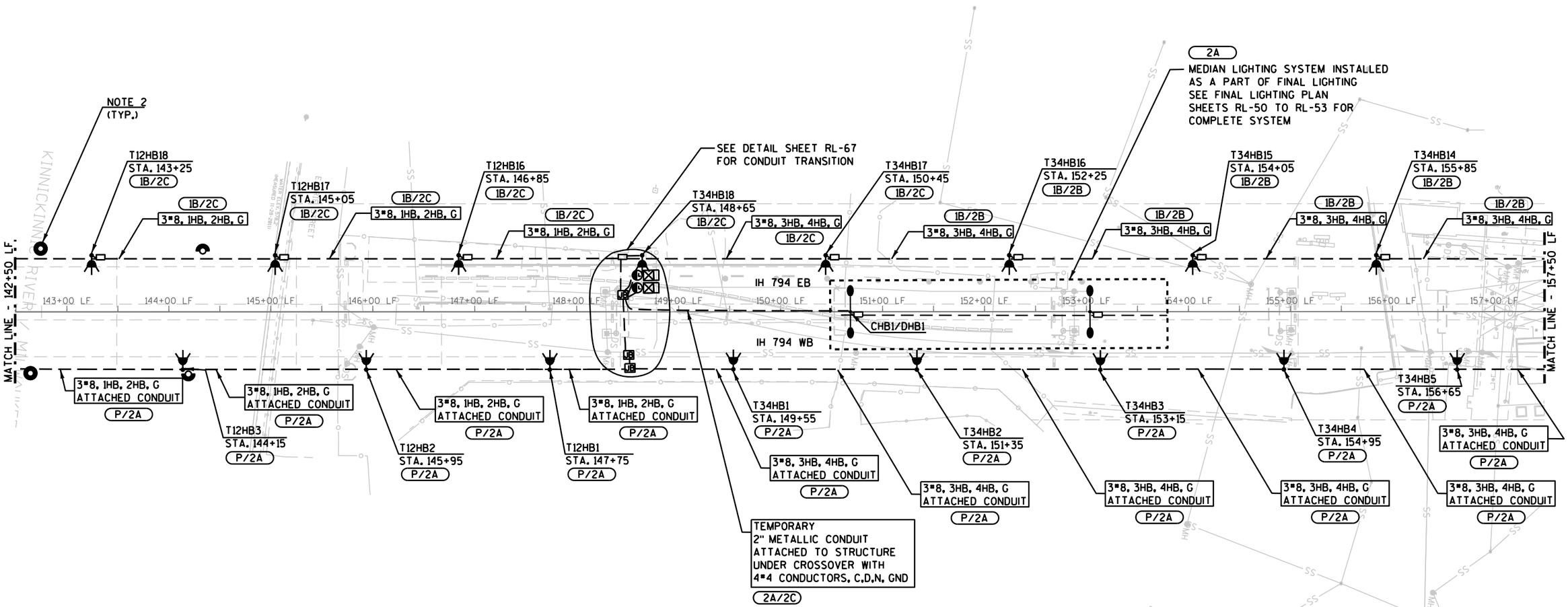
RL-30

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY	SHEET 240 E

2

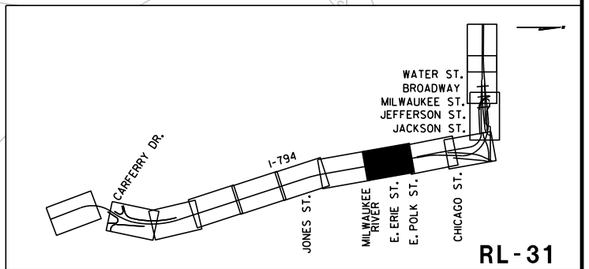
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. SEE SHEETS RL-85 TO RL-87 FOR NAVIGATION LIGHTING ASSEMBLIES REMOVAL AND REPLACEMENT.



⚠ CAUTION

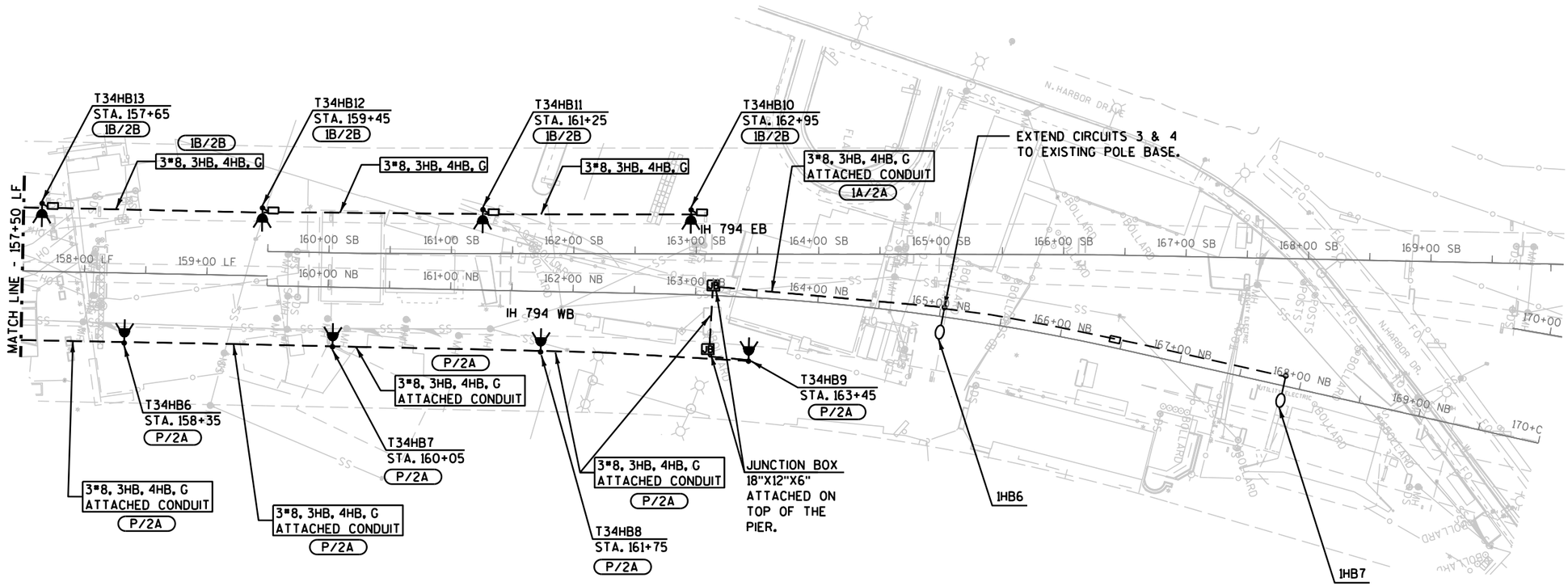
THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-31

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY	SHEET 241 E

2

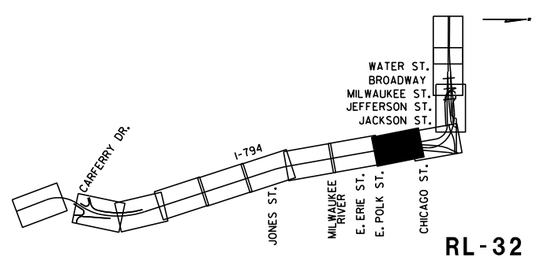


NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.

CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE

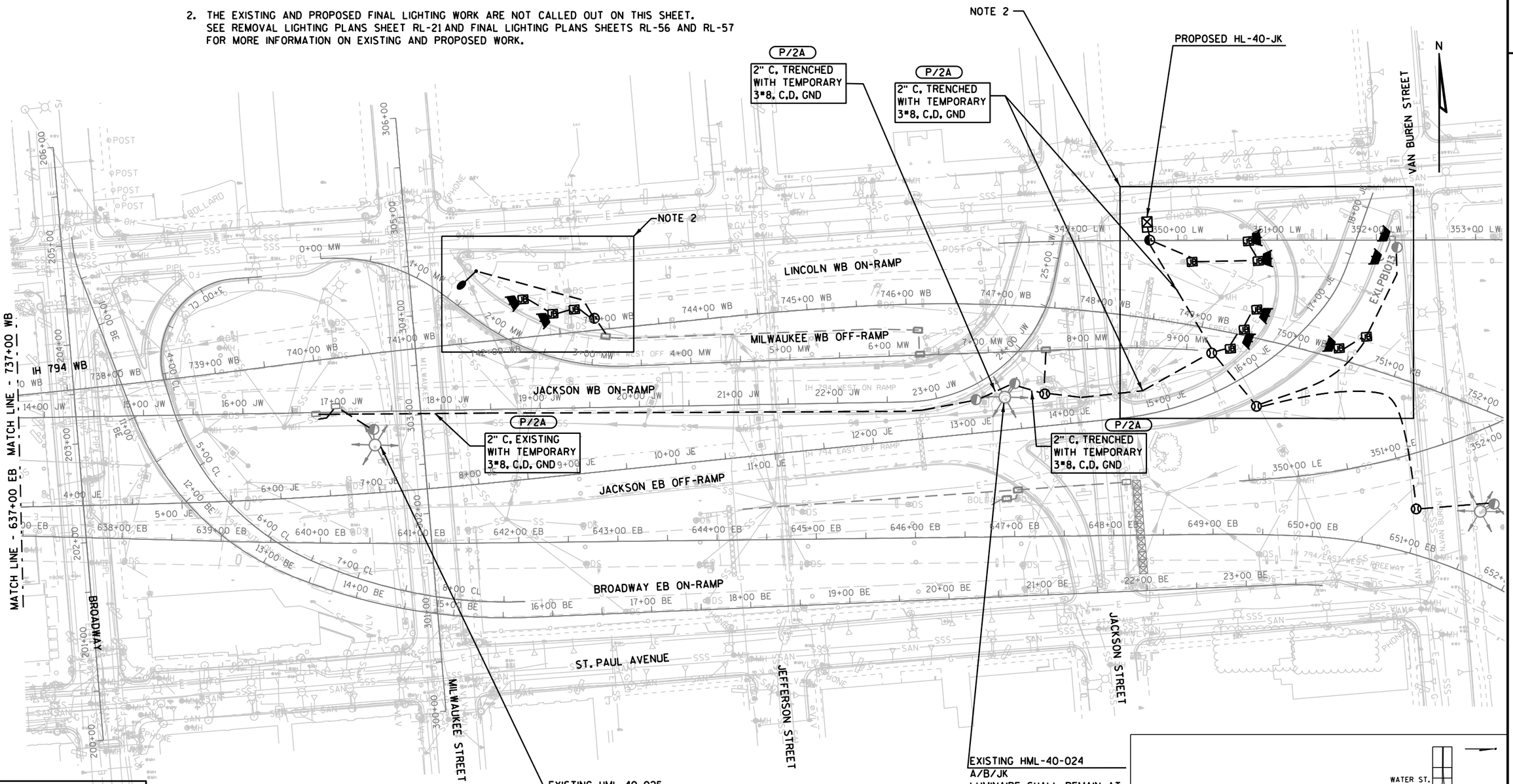


RL-32

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY	SHEET 242	E

NOTES:

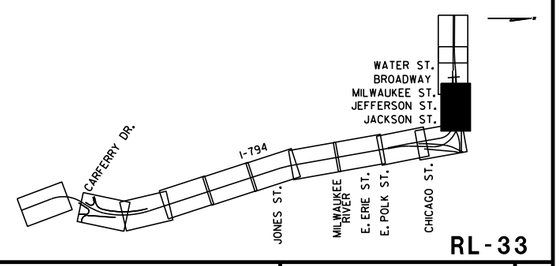
1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. THE EXISTING AND PROPOSED FINAL LIGHTING WORK ARE NOT CALLED OUT ON THIS SHEET. SEE REMOVAL LIGHTING PLANS SHEET RL-21 AND FINAL LIGHTING PLANS SHEETS RL-56 AND RL-57 FOR MORE INFORMATION ON EXISTING AND PROPOSED WORK.



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE

TEMPORARY LIGHTING SYSTEM DURING STAGE 1 CONSTRUCTION



RL-33

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY	SHEET 243 E

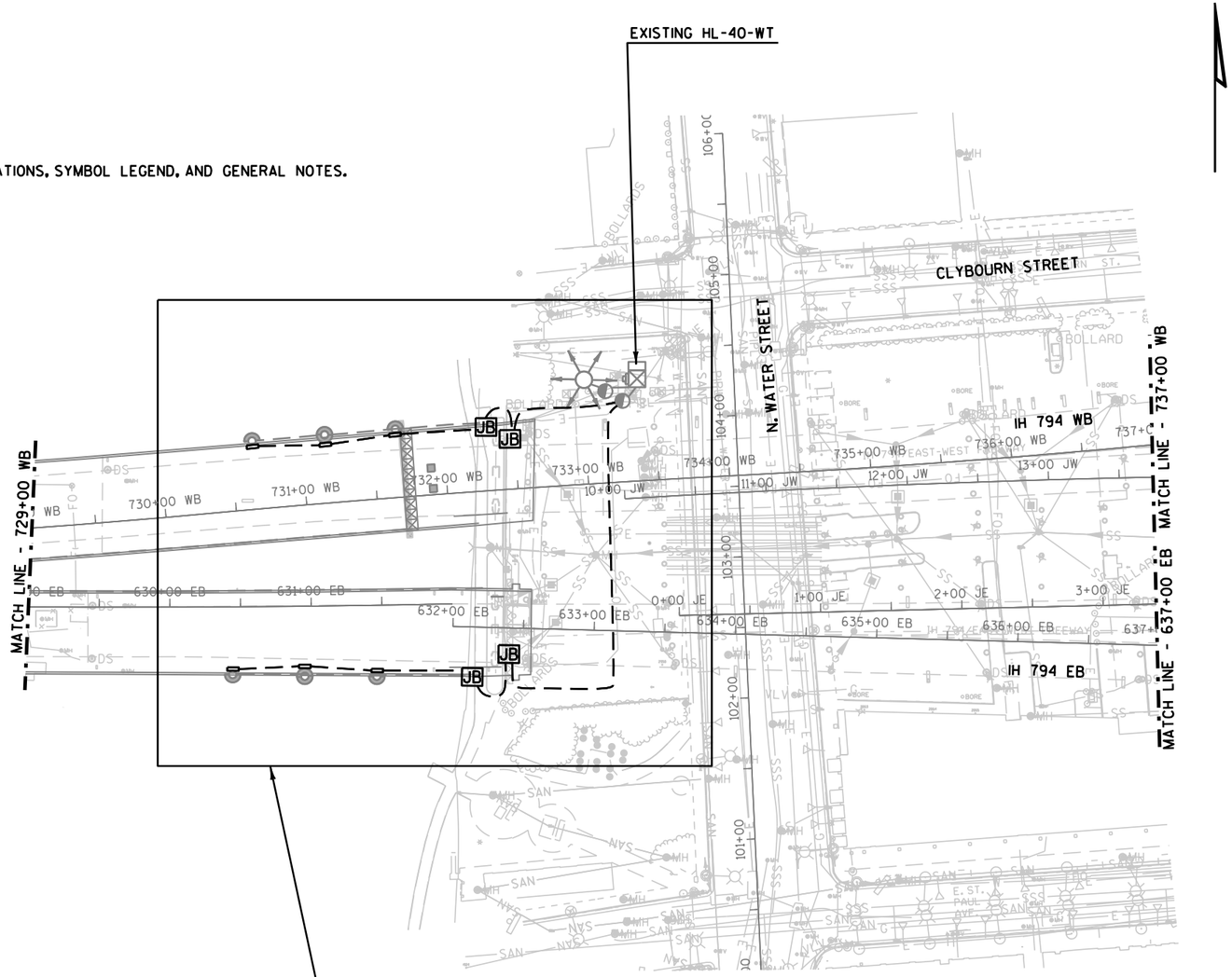
FILE NAME : J:\302\DGN\CADD Sheets\023663_lp.dgn PLOT DATE : 26-APR-2013 13:30 PLOT BY : mgarvida PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

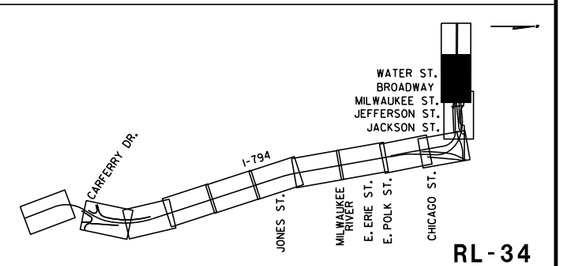
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-34

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY	SHEET	E

FILE NAME : J:\302\DGN\CADD Sheets\023664_lp.dgn PLOT DATE : 26-APR-2013 13:30 PLOT BY : mgarvida PLOT NAME : PLOT SCALE : 100:1
WISDOT/CADDS SHEET 42

2

N

P/2B
2" C, 8 NO. 4, A,N,B, GND
C,N,D, GND ATTACHED CONDUIT

P/2B
2" C, 8 NO. 4, A,N,B, GND
C,N,D, GND ATTACHED CONDUIT

FLOOD LIGHT ON
EXISTING POLE
FME4
NOTE 2
P/2B

FLOOD LIGHT ON
EXISTING POLE
EME4
NOTE 2
P/2B

EME5

FME3

S-40-538

P/2B
3#4, 2HB, G

BME6

BME4

AME6

S-40-537

AME4

GME3

JUNCTION BOX
18"X12"X6"

JUNCTION BOX
18"X12"X6"

JUNCTION BOX
18"X12"X6"

FLOOD LIGHT ON
EXISTING POLE
GME4
NOTE 2
P/2B

FLOOD LIGHT ON
EXISTING POLE
HME3
NOTE 2
P/2B

SEE CROSSOVER ELECTRICAL DETAIL
PLANS OF STRUCTURE B-40-1312 FOR
TEMPORARY CONDUIT TRANSITION

HL-40-ME

HME1

IH 794 WB

IH 794 WB

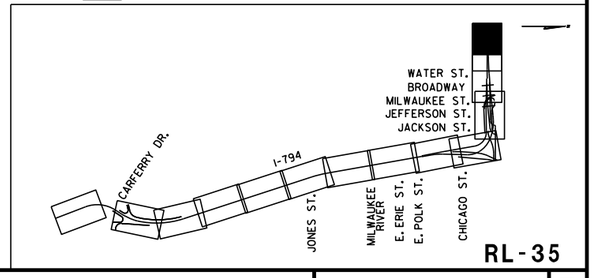
MATCH LINE - 729+00 WB

NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. SEE DETAIL ON SHEET RL-69 FOR FLOOD LIGHT ON EXISTING POLE.

CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-35

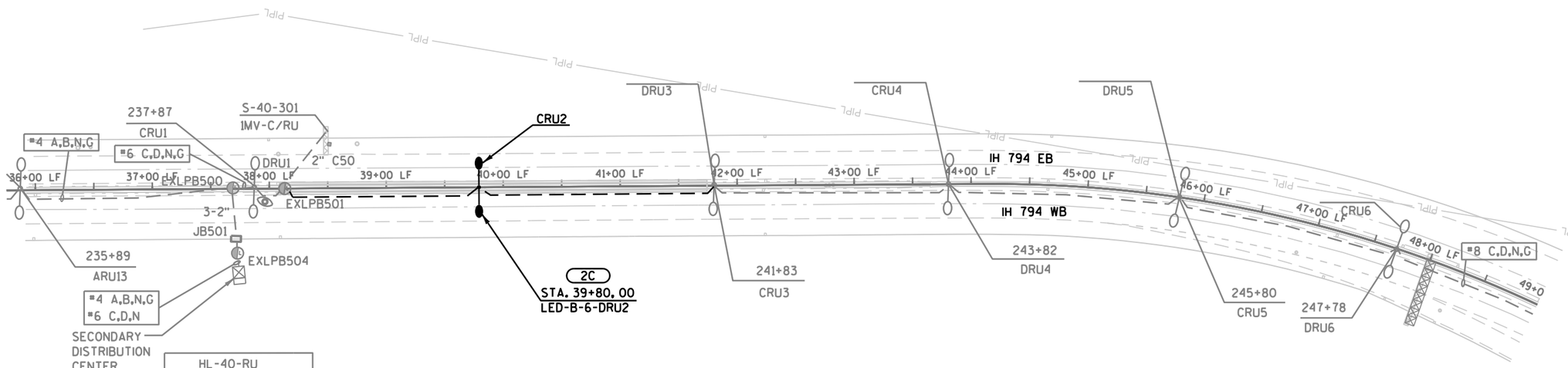
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY	SHEET 245 E

2

N

NOTES:

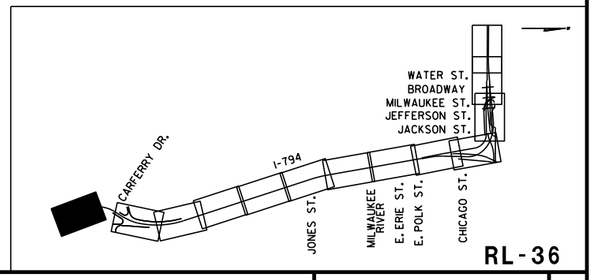
1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



HL-40-RU	
A,C	RED
B,D	BLACK
N	WHITE
G	GREEN
240/480VAC ISOLATED NEUTRAL	
A,B,C,D	30A

⚠ CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



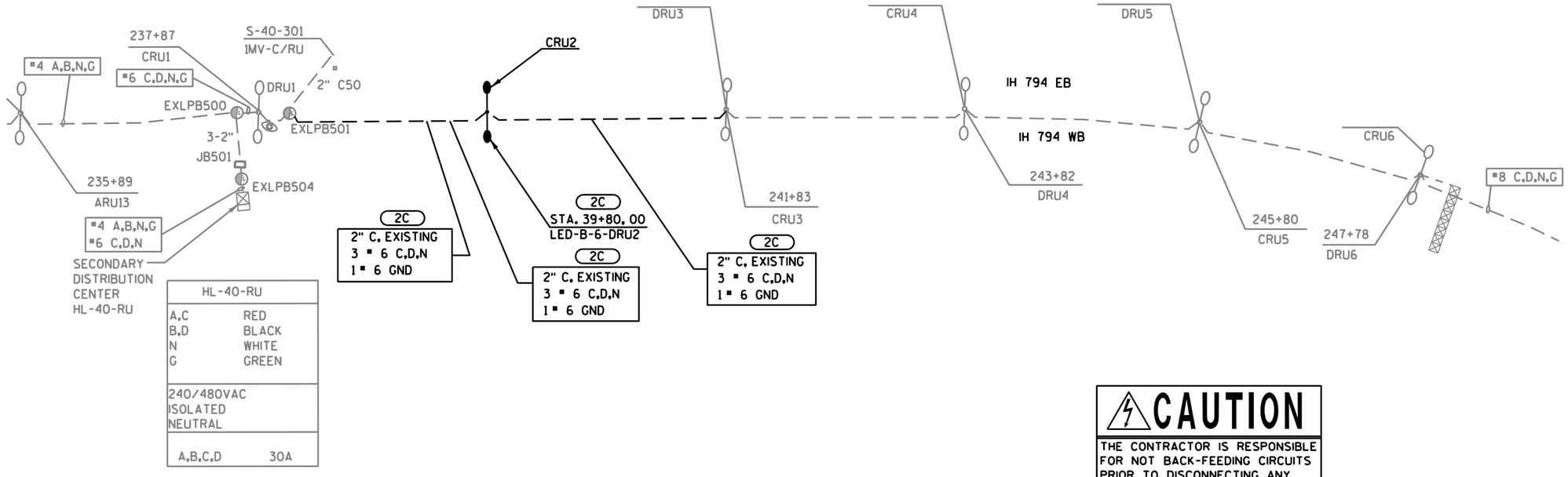
RL-36

2

N

NOTES:

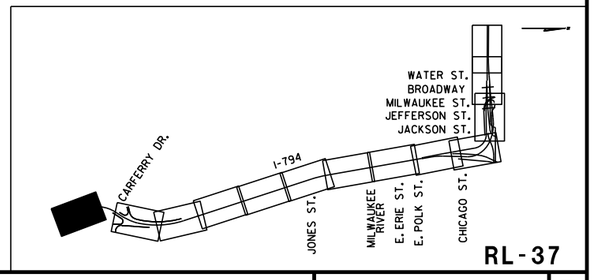
1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



HL-40-RU	
A,C	RED
B,D	BLACK
N	WHITE
G	GREEN
240/480VAC ISOLATED NEUTRAL	
A,B,C,D	30A

⚠ CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-37

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - SCHEMATIC	SHEET 247	E

NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. THE EXISTING LIGHT POLE TO REMAIN IN PLACE. THE PLAQUE SEQUENCE IDENTIFICATION FOR LIGHT POLE SHALL BE REMOVED AND REPLACED. EXISTING HID LUMINAIRE SHALL BE REMOVED AND REPLACED WITH LED LUMINAIRE.

1A STA. 460+90, 20LT
LED-B-EX-ALN3
NOTE 2

1A STA. 459+43, 12LT
LED-B-EX-BLN3
NOTE 2

1A STA. 456+22, 5LT
LED-B-EX-BLN4
NOTE 2

1A STA. 458+10, 13LT
LED-B-EX-ALN4
NOTE 2

1A STA. 357+60, 30LT
LED-B-EX-BLN2
NOTE 2

1A STA. 359+12, 18LT
LED-B-EX-ALN2
NOTE 2

1A STA. 360.60, 17LT
LED-B-EX-BLN1
NOTE 2

1A STA. 361+83, 5LT
LED-B-6-ALN1

SEE SHEET RL-62 FOR SITE PLAN OF CONTROLLER HL-40-LN AND SHEET RL-63 FOR CONDUIT TRANSITION DETAIL

1A STA. 363+82, 4LT
LED-B-6-BLN5

1A STA. 365+83, 4LT
LED-B-6-ALN5

1A STA. 367+84, 4LT
LED-B-6-BLN6

1A STA. 369+87, 5LT
LED-B-6-ALN6

1A STA. 55+69, 00
LED-B-6-DLN5
NOTE 2

1A CLN5
NOTE 2

1A CLN4
NOTE 2

1A STA. 57+42, 00
LED-B-6-DLN4
NOTE 2

1A STA. 59+21, 00
LED-B-6-DLN3
NOTE 2

1A CLN3
NOTE 2

CLN2
NOTE 2

1A STA. 60+94, 00
LED-B-6-DLN2
NOTE 2

2B STA. 62+92, 00
LED-B-6-CLN1

DLN1

HL-40-LN
PROPOSED

1A LPB601
LPB606

1A LPB610

ELN1

2B STA. 64+93, 00
LED-B-6-FLN1

2B STA. 66+93, 00
LED-B-6-FLN2

ELN2

ELN3

2C STA. 69+69, 73RT
LED-B-6-HLN8

2B STA. 68+93, 00
LED-B-6-FLN3

1A STA. 555+45, 5RT
LED-B-EX-HLN6
NOTE 2

1A STA. 557+09, 12RT
LED-B-EX-GLN6
NOTE 2

1A STA. 558+38, 11RT
LED-B-EX-HLN5
NOTE 2

1A STA. 559+53, 11RT
LED-B-EX-GLN5
NOTE 2

1A STA. 561+40, 14RT
LED-B-EX-HLN4
NOTE 2

1A STA. 561+03, 50LT
LED-B-EX-GLN4
NOTE 2

1A STA. 13+87, 32LT
LED-B-EX-HLN3
NOTE 2

1A STA. 12+02, 34LT
LED-B-EX-GLN3
NOTE 2

1A STA. 658+53, 19RT
LED-B-EX-HLN2
NOTE 2

1A STA. 660+30, 14RT
LED-B-7-6-GLN2
NOTE 2

1A STA. 661+84, 8RT
LED-B-7-X-HLN1
NOTE 2

2C STA. 663+85.32, 00
LED-B-6-GLN1

2C STA. 665+85.52, 00
LED-B-6-HLN7

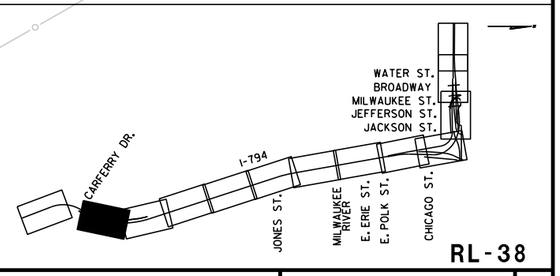
2C STA. 67+74, 79RT
LED-B-6-GLN7

CARFERRY EB ON-RAMP
CARFERRY EB OFF-RAMP
CARFERRY WB OFF-RAMP
CARFERRY WB ON-RAMP
IH 794 EB
IH 794 WB
EAST LINCOLN AVENUE
SOUTH LINCOLN MEMORIAL DRIVE
MATCH LINE - 70+00 LF

LPB607 LPB608 LPB609 LPB602

#8 A,N,G
#8 B,N,G
#8 B,N,G
#8 A,N,G
#8 B,N,G

CAUTION
THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



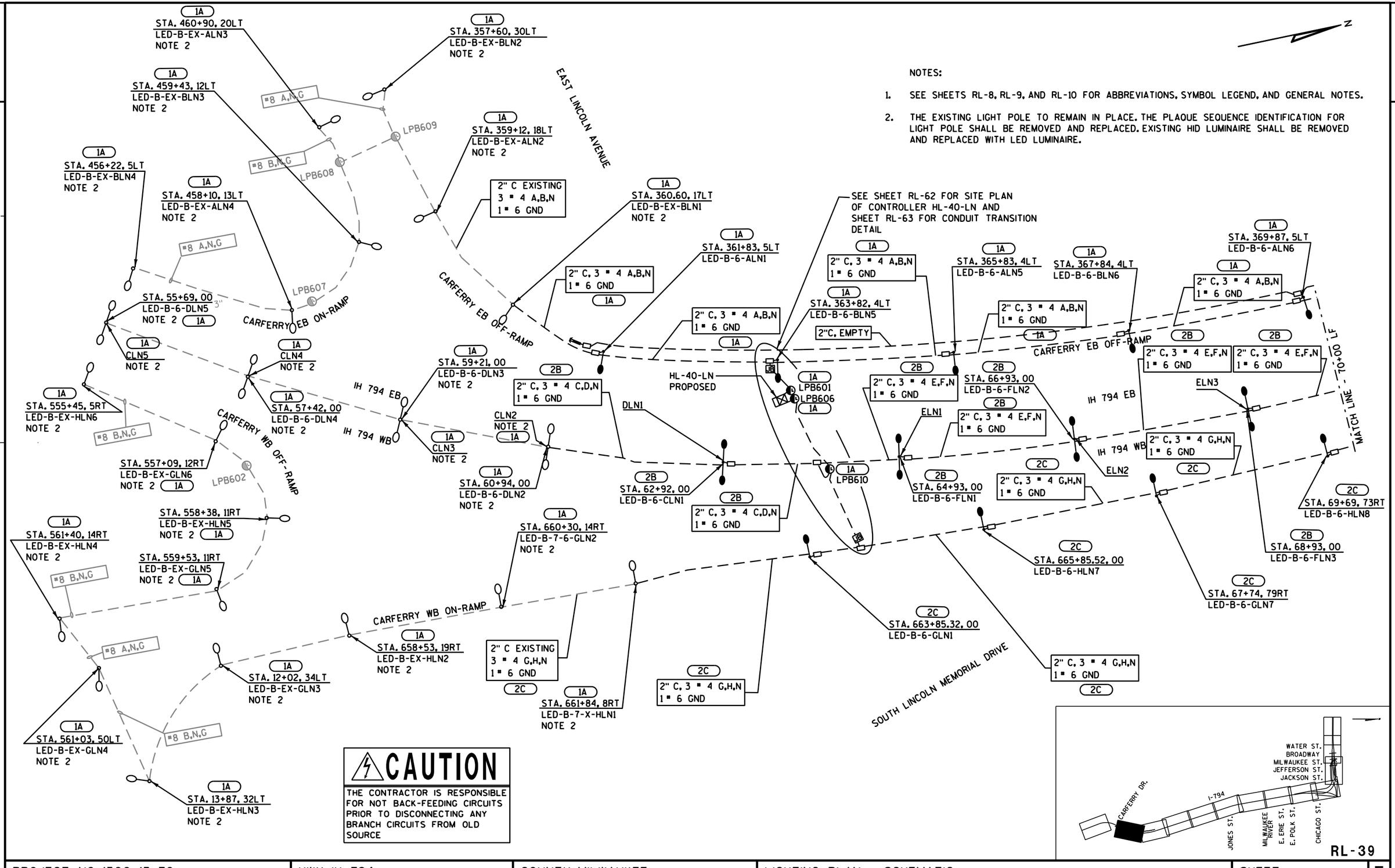
RL-38

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL	SHEET 248 E

2

NOTES:

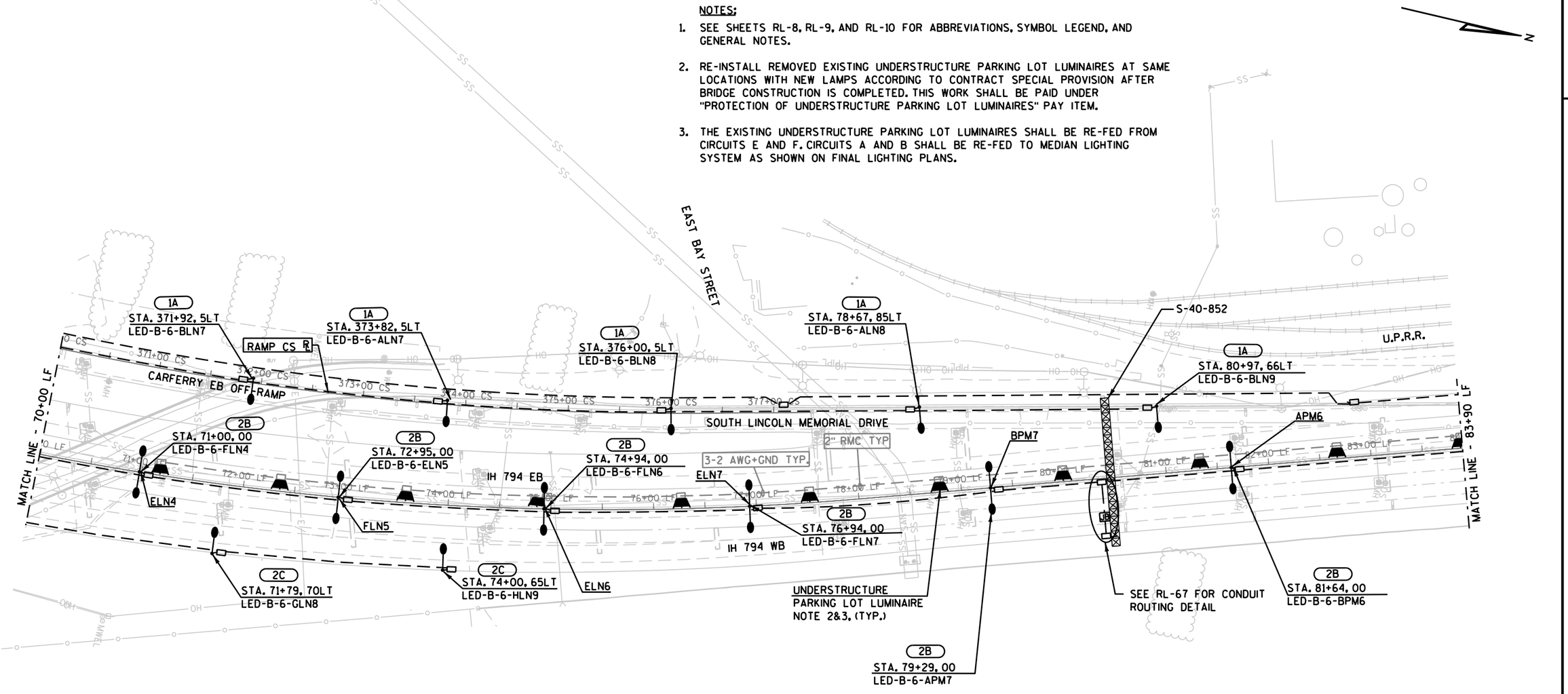
1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. THE EXISTING LIGHT POLE TO REMAIN IN PLACE. THE PLAQUE SEQUENCE IDENTIFICATION FOR LIGHT POLE SHALL BE REMOVED AND REPLACED. EXISTING HID LUMINAIRE SHALL BE REMOVED AND REPLACED WITH LED LUMINAIRE.



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - SCHEMATIC	SHEET 249 E

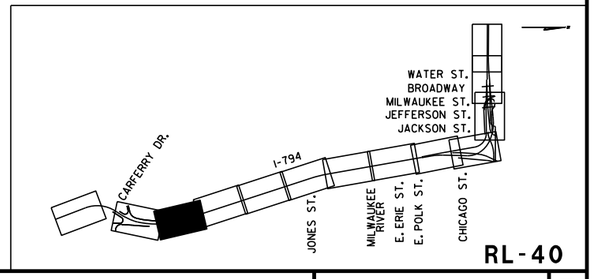
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. RE-INSTALL REMOVED EXISTING UNDERSTRUCTURE PARKING LOT LUMINAIRES AT SAME LOCATIONS WITH NEW LAMPS ACCORDING TO CONTRACT SPECIAL PROVISION AFTER BRIDGE CONSTRUCTION IS COMPLETED. THIS WORK SHALL BE PAID UNDER "PROTECTION OF UNDERSTRUCTURE PARKING LOT LUMINAIRES" PAY ITEM.
3. THE EXISTING UNDERSTRUCTURE PARKING LOT LUMINAIRES SHALL BE RE-FED FROM CIRCUITS E AND F. CIRCUITS A AND B SHALL BE RE-FED TO MEDIAN LIGHTING SYSTEM AS SHOWN ON FINAL LIGHTING PLANS.



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-40

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL	SHEET 250 E

FILE NAME : J:\302\DGN\CADD Sheets\023674_lp.dgn PLOT DATE : 26-APR-2013 13:31 PLOT BY : mgarvida PLOT NAME : PLOT SCALE : 100:1

NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. RE-INSTALL REMOVED EXISTING UNDERSTRUCTURE PARKING LOT LUMINAIRES AT SAME LOCATIONS WITH NEW LAMPS ACCORDING TO CONTRACT SPECIAL PROVISION AFTER BRIDGE CONSTRUCTION IS COMPLETED. THIS WORK SHALL BE PAID UNDER "PROTECTION OF UNDERSTRUCTURE PARKING LOT LUMINAIRES" PAY ITEM.
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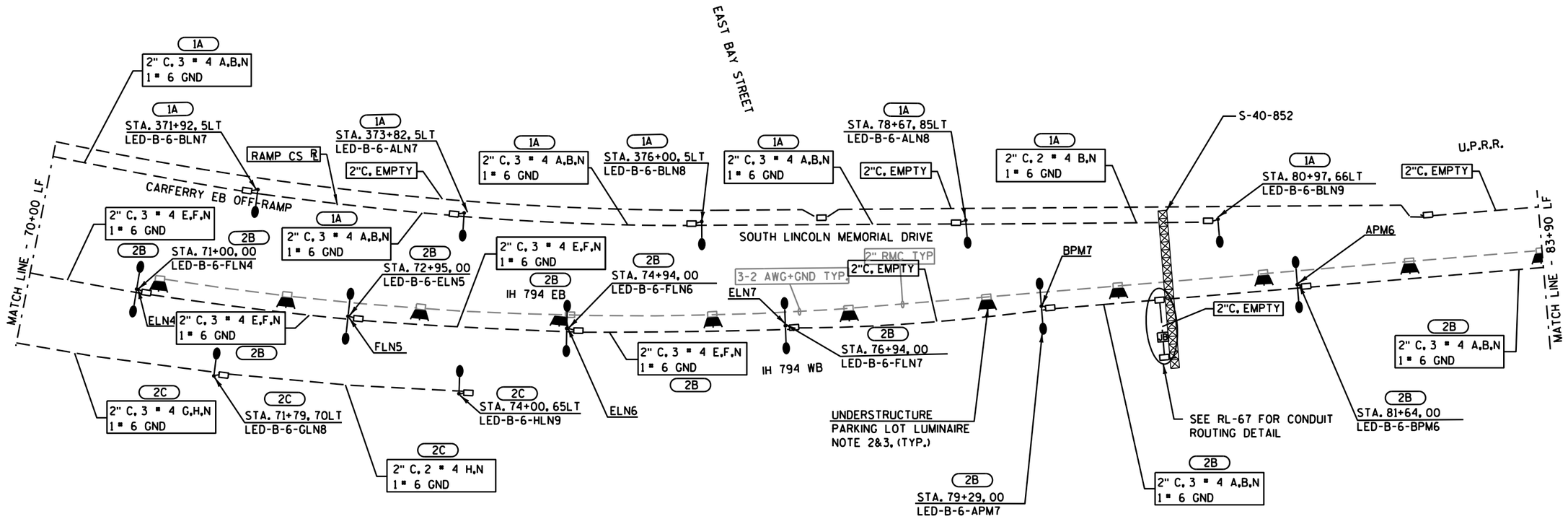
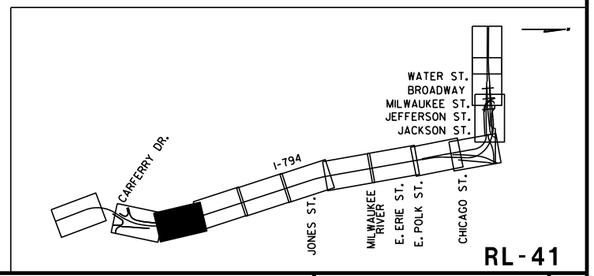


CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-41

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - SCHEMATIC	SHEET 251 E

2

NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. RE-INSTALL REMOVED EXISTING UNDERSTRUCTURE PARKING LOT LUMINAIRES AT SAME LOCATIONS WITH NEW LAMPS ACCORDING TO CONTRACT SPECIAL PROVISION AFTER BRIDGE CONSTRUCTION IS COMPLETED. THIS WORK SHALL BE PAID UNDER "PROTECTION OF UNDERSTRUCTURE PARKING LOT LUMINAIRES" PAY ITEM.
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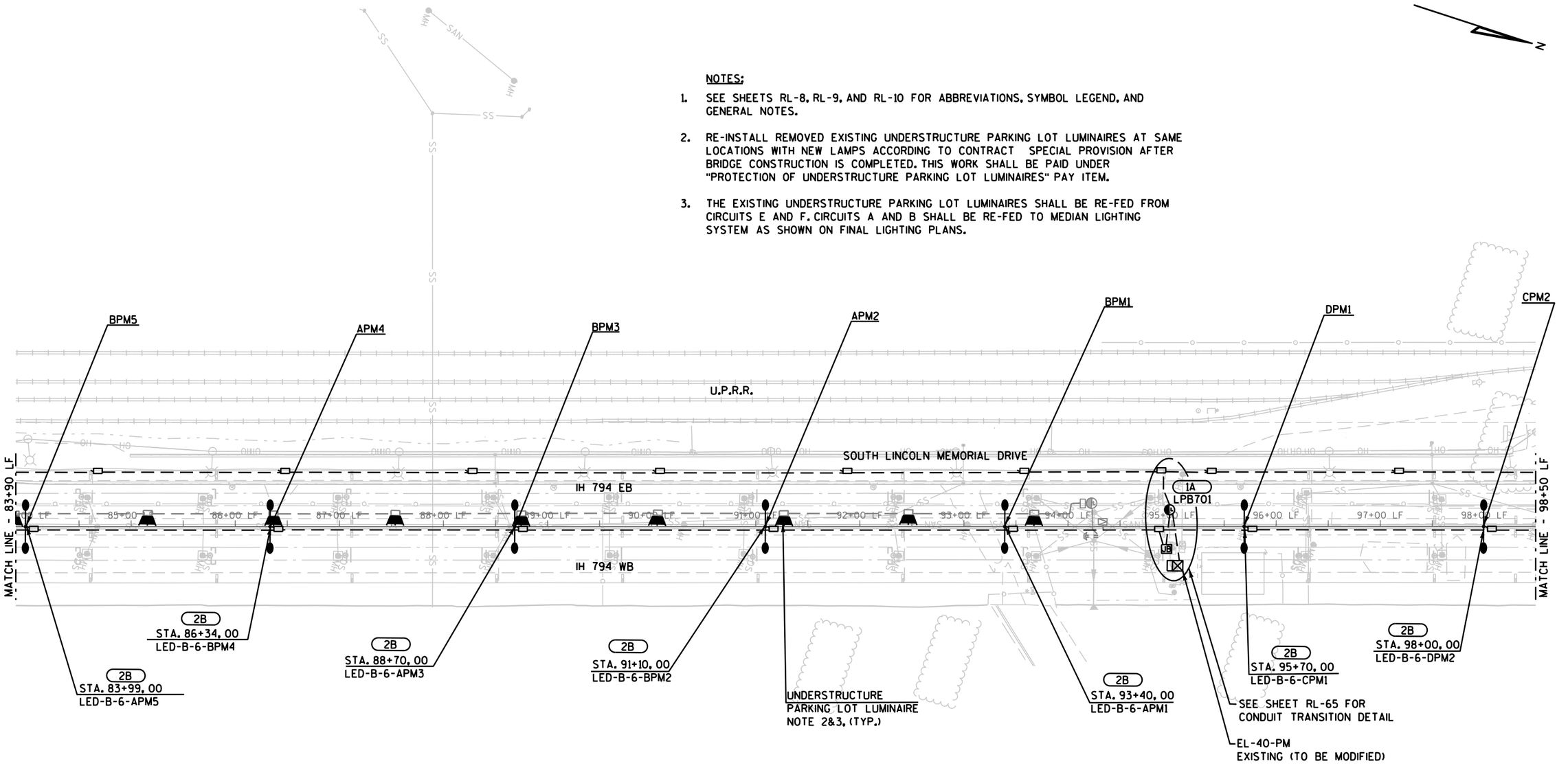
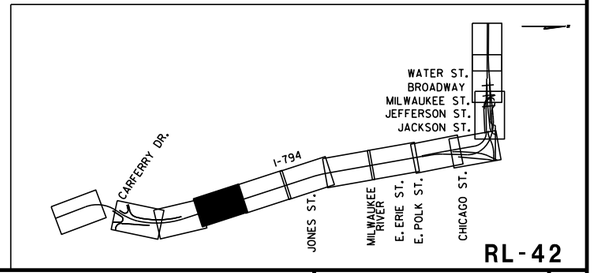


CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-42

2

N

NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. RE-INSTALL REMOVED EXISTING UNDERSTRUCTURE PARKING LOT LUMINAIRES AT SAME LOCATIONS WITH NEW LAMPS ACCORDING TO CONTRACT SPECIAL PROVISION AFTER BRIDGE CONSTRUCTION IS COMPLETED. THIS WORK SHALL BE PAID UNDER "PROTECTION OF UNDERSTRUCTURE PARKING LOT LUMINAIRES" PAY ITEM.
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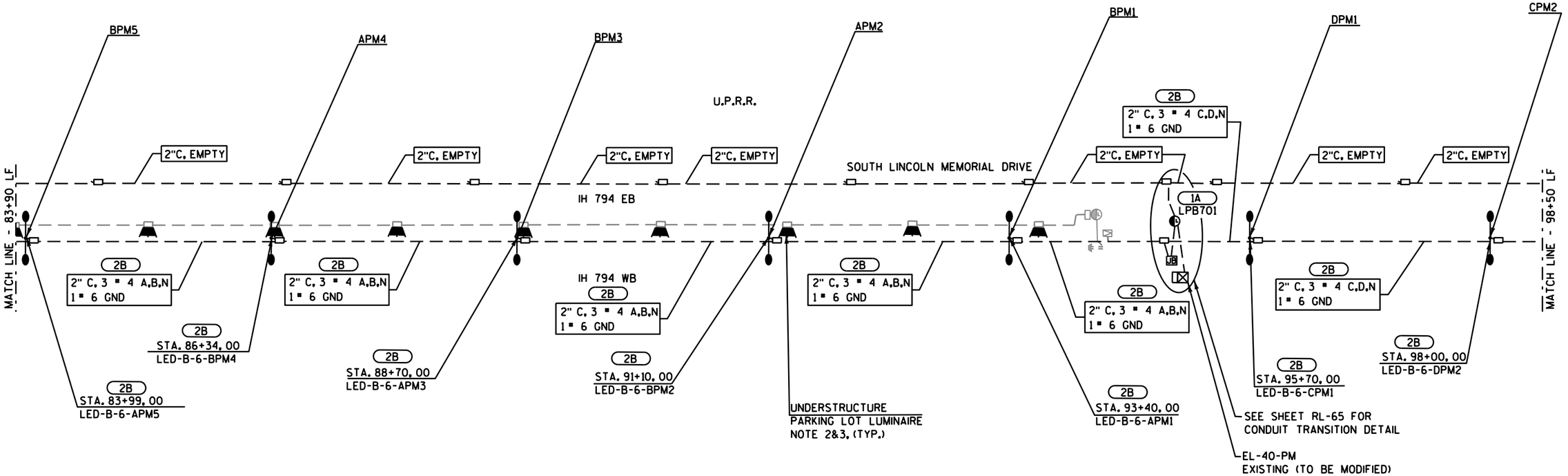
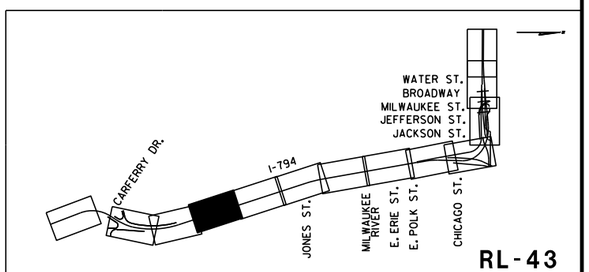


CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



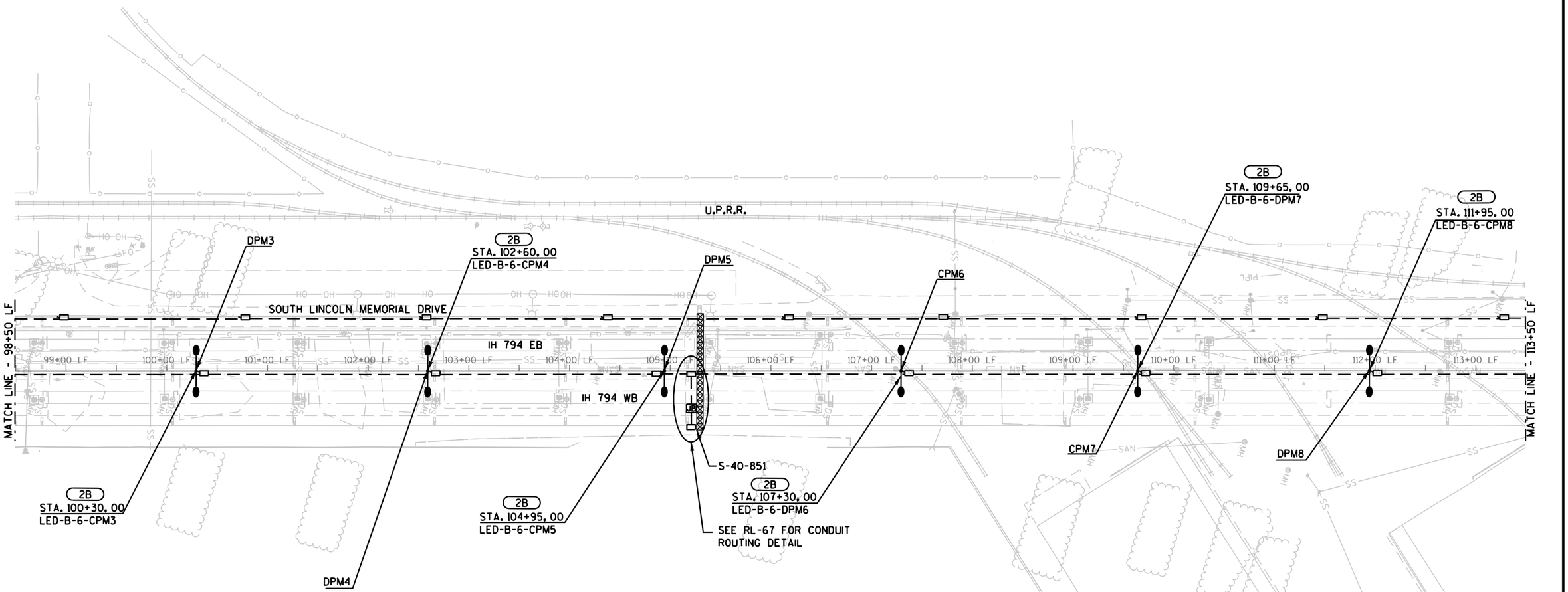
RL-43

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - SCHEMATIC	SHEET 253	E

2

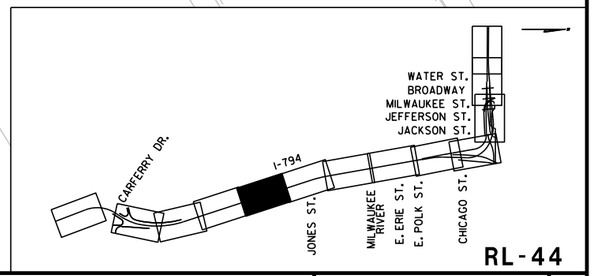
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-44

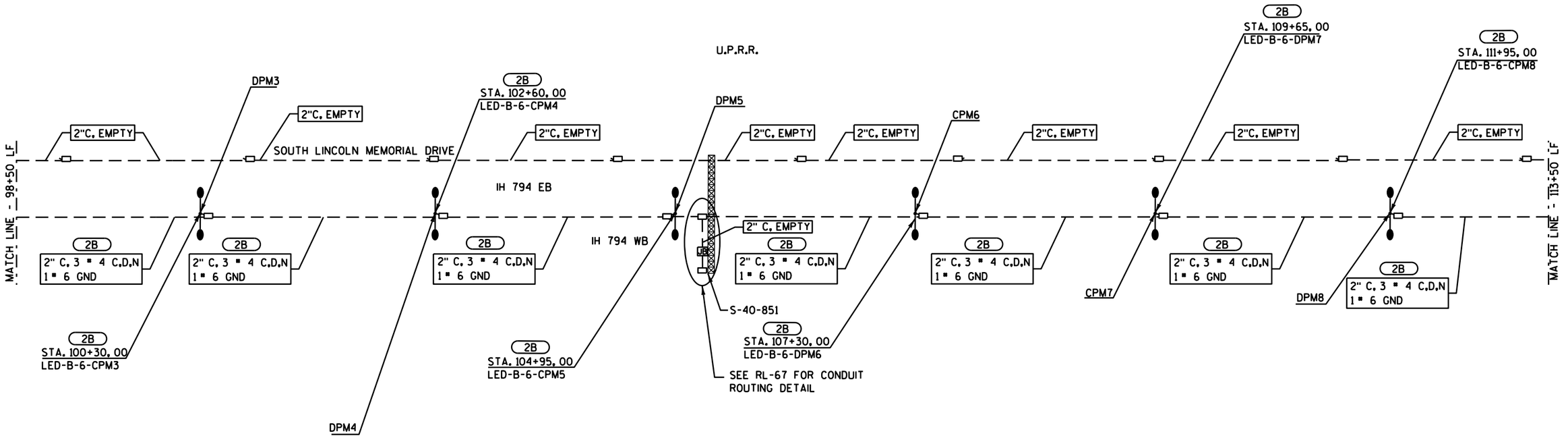
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL	SHEET 254	E

2

N

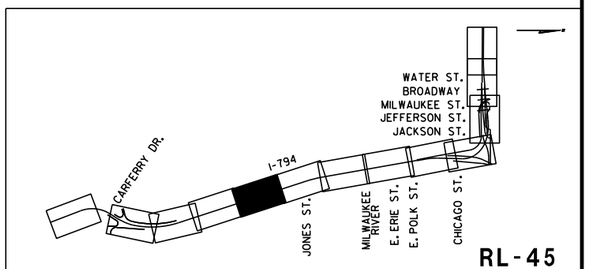
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



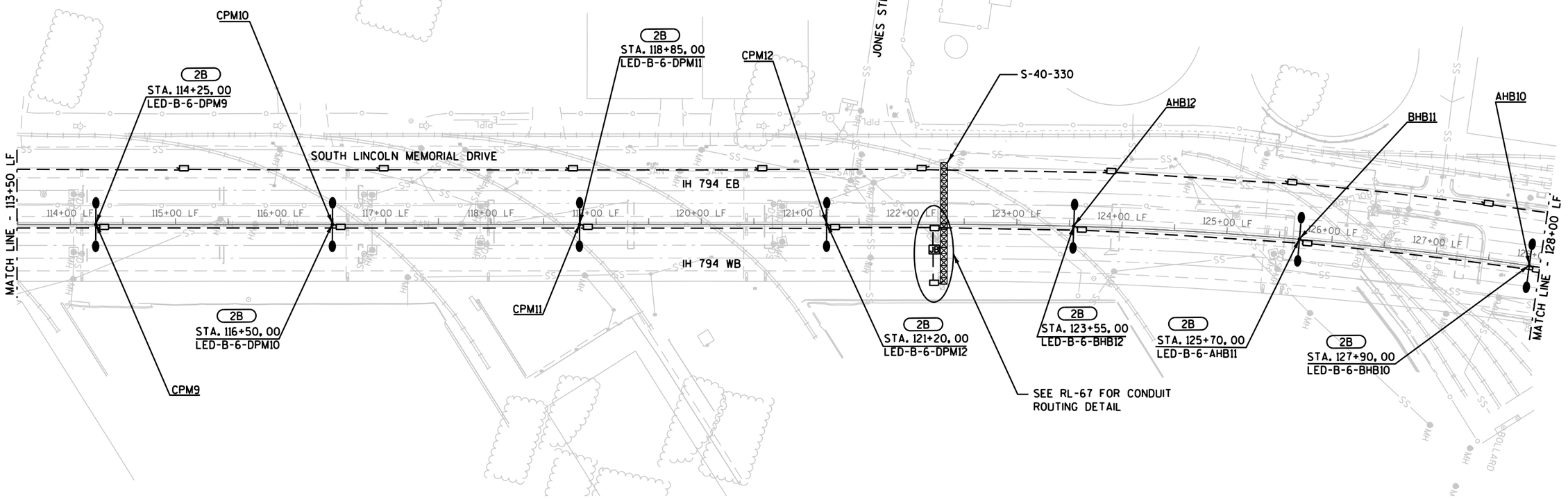
RL-45

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - SCHEMATIC	SHEET 255 E

2

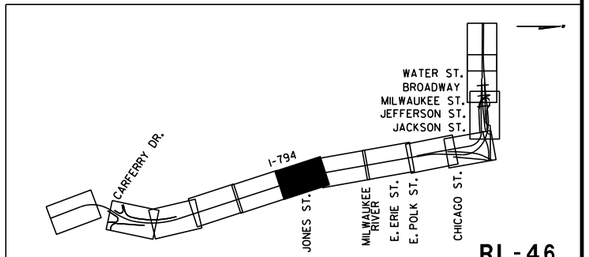
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



⚠ CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-46

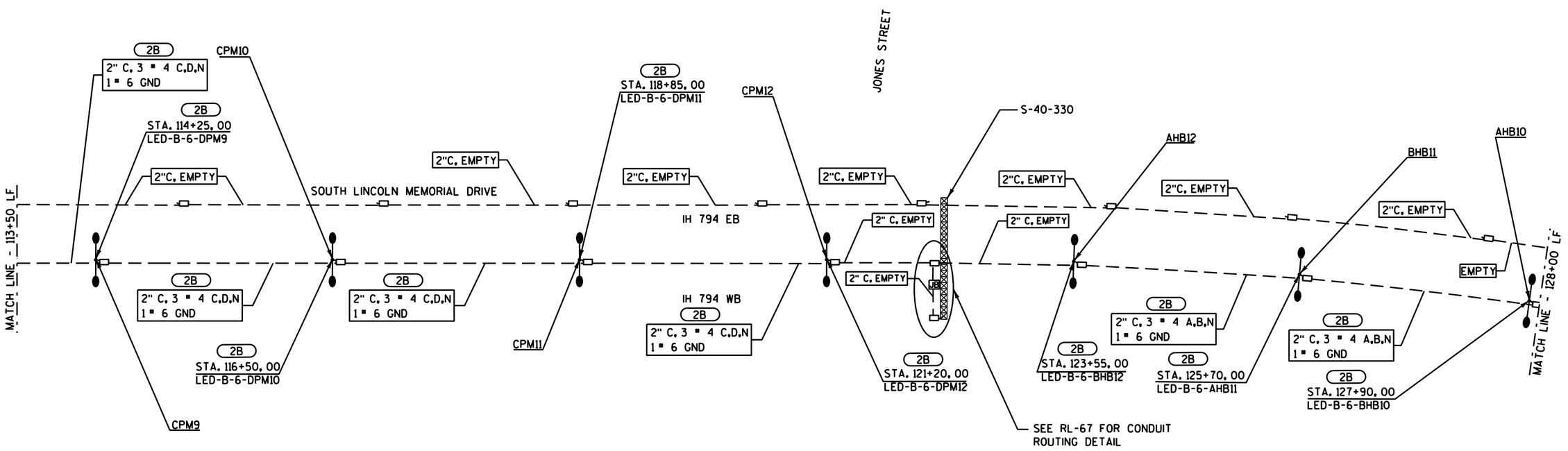
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL	SHEET 256 E

2

N

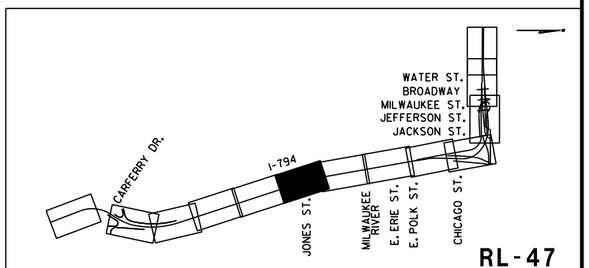
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-47

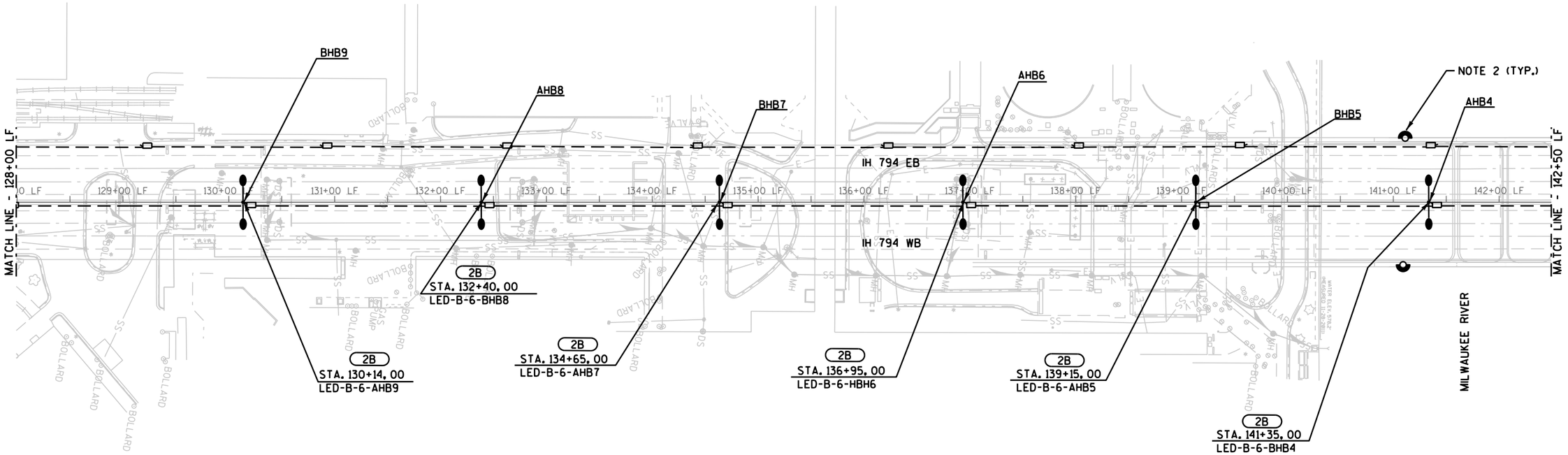
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - SCHEMATIC	SHEET 257 E

2

N

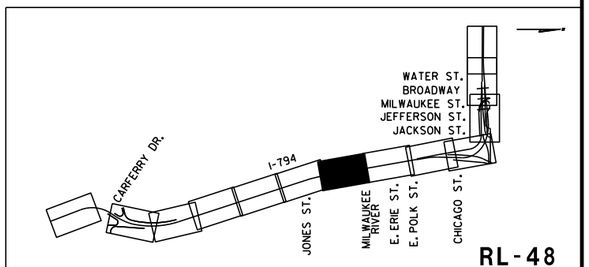
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. SEE SHEETS RL-85 TO RL-87 FOR NAVIGATION LIGHTING ASSEMBLIES REMOVAL AND REPLACEMENT.



⚠ CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-48

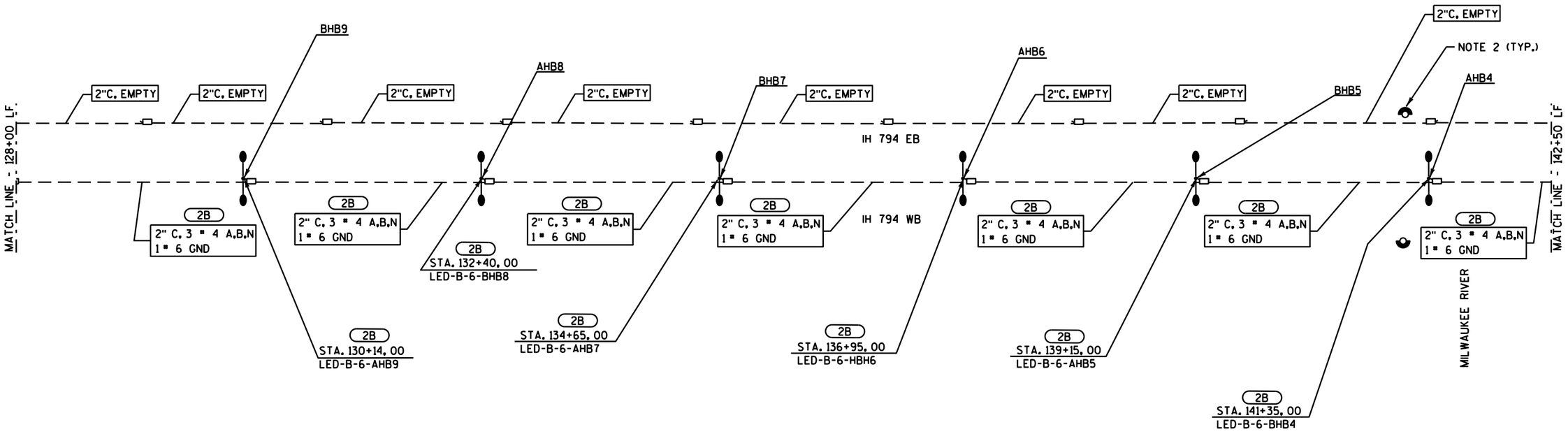
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL	SHEET 258 E

2

N

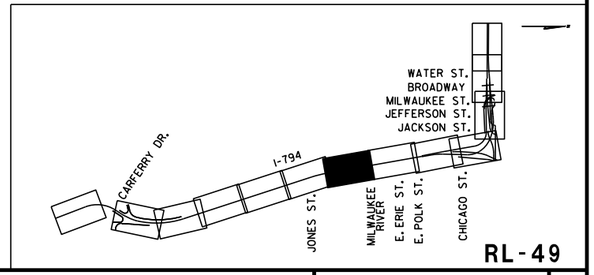
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. SEE SHEETS RL-85 TO RL-87 FOR NAVIGATION LIGHTING ASSEMBLIES REMOVAL AND REPLACEMENT.



⚠ CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-49

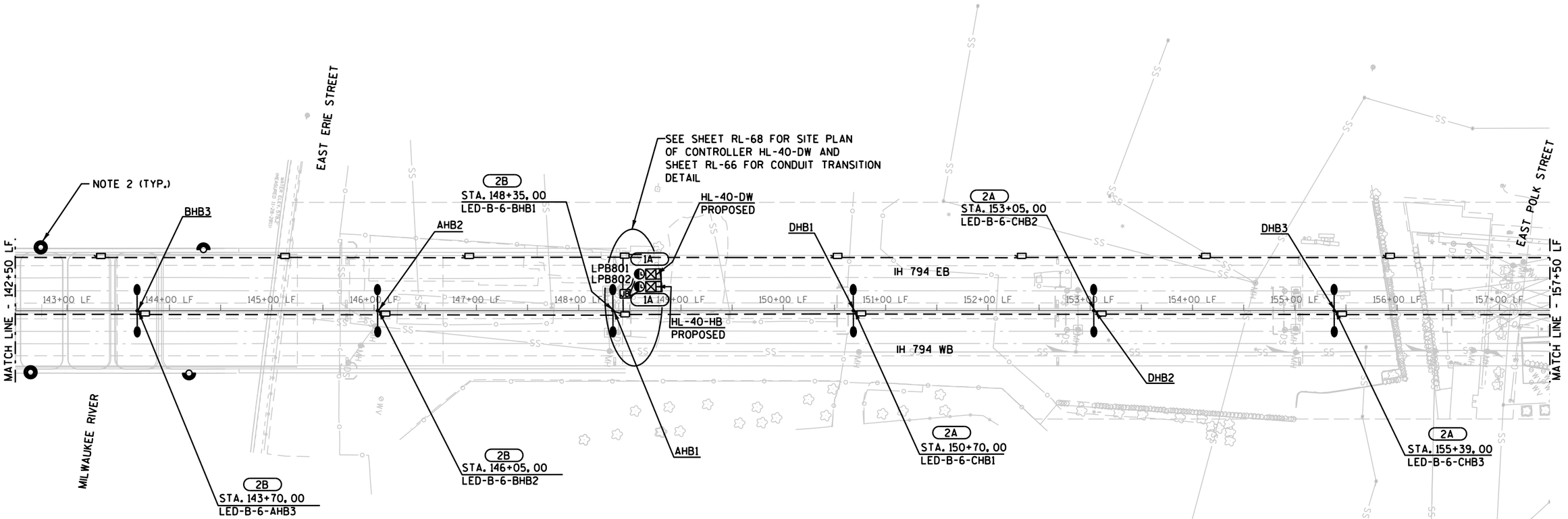
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - SCHEMATIC	SHEET 259	E

2

N

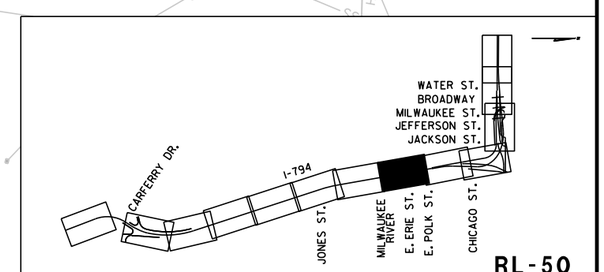
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. SEE SHEETS RL-85 TO RL-87 FOR NAVIGATION LIGHTING ASSEMBLIES REMOVAL AND REPLACEMENT.



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-50

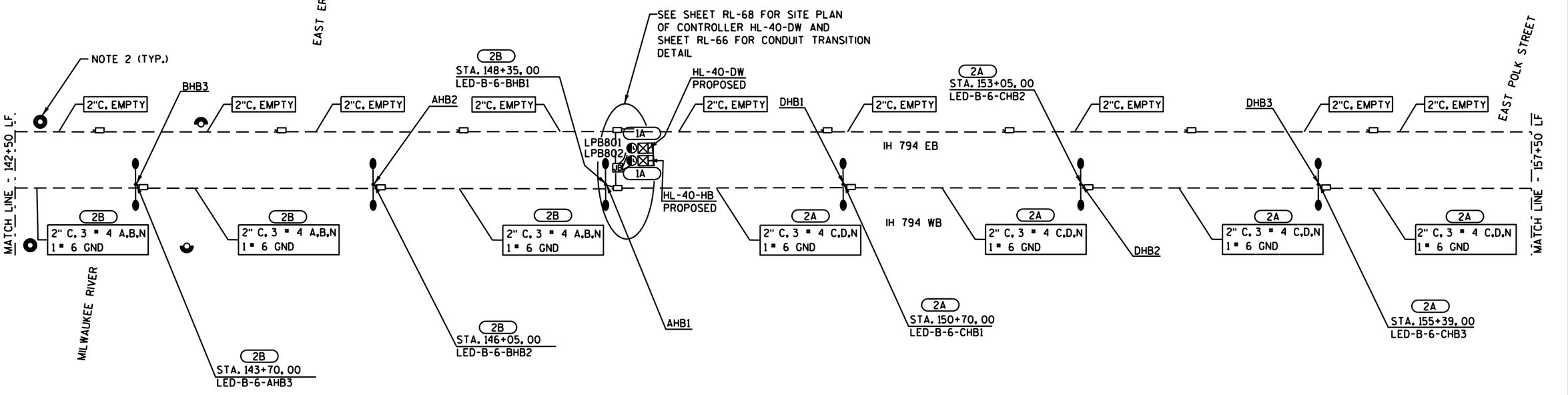
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL	SHEET 260	E

2

N

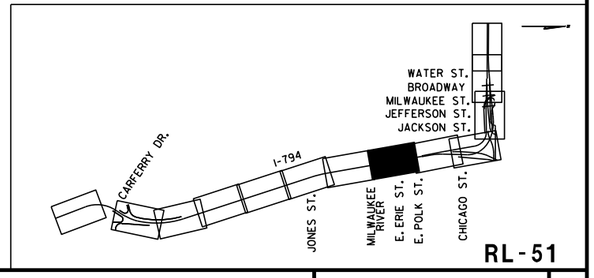
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. SEE SHEETS RL-85 TO RL-87 FOR NAVIGATION LIGHTING ASSEMBLIES REMOVAL AND REPLACEMENT.



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



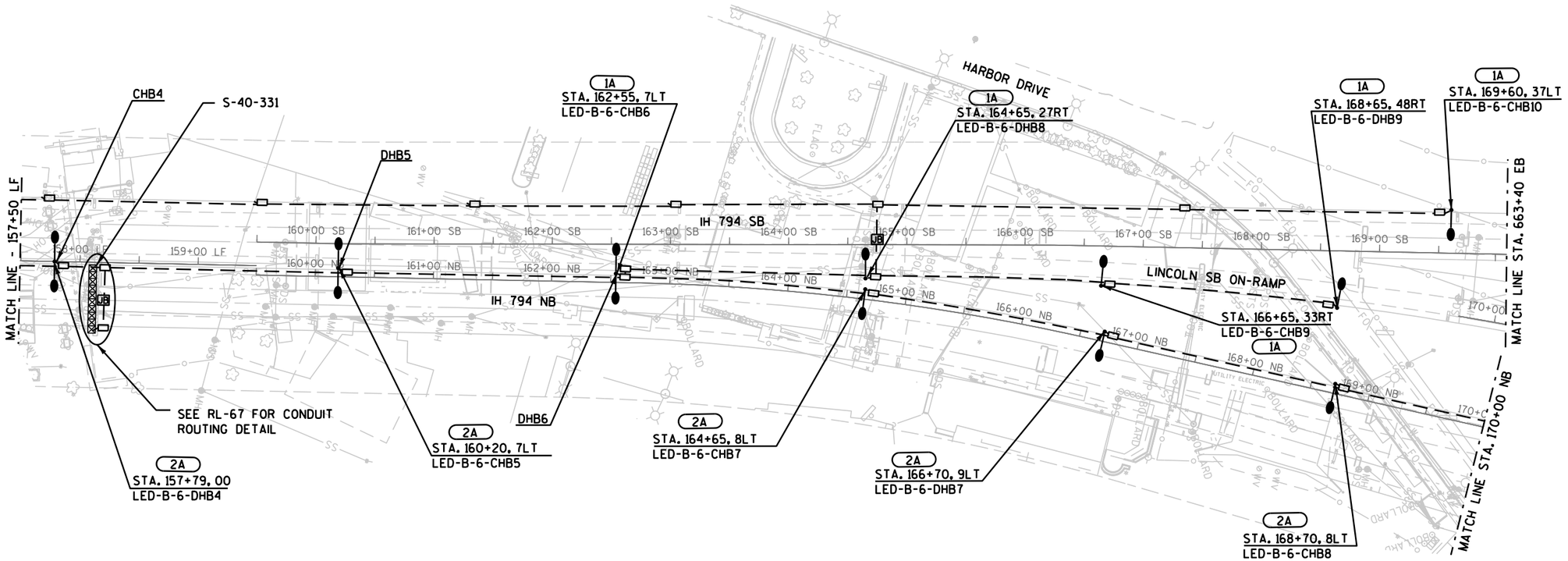
RL-51

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - SCHEMATIC	SHEET 261 E

2

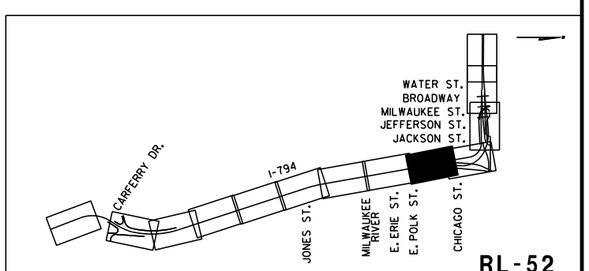
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



⚠ CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-52

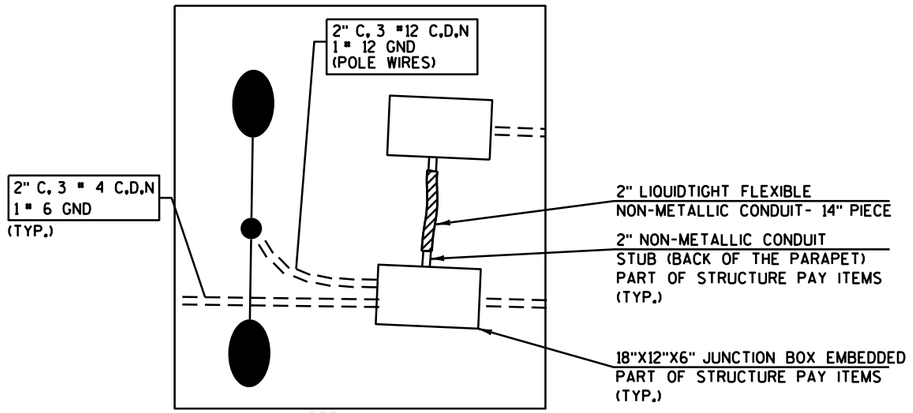
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL	SHEET 262	E

2

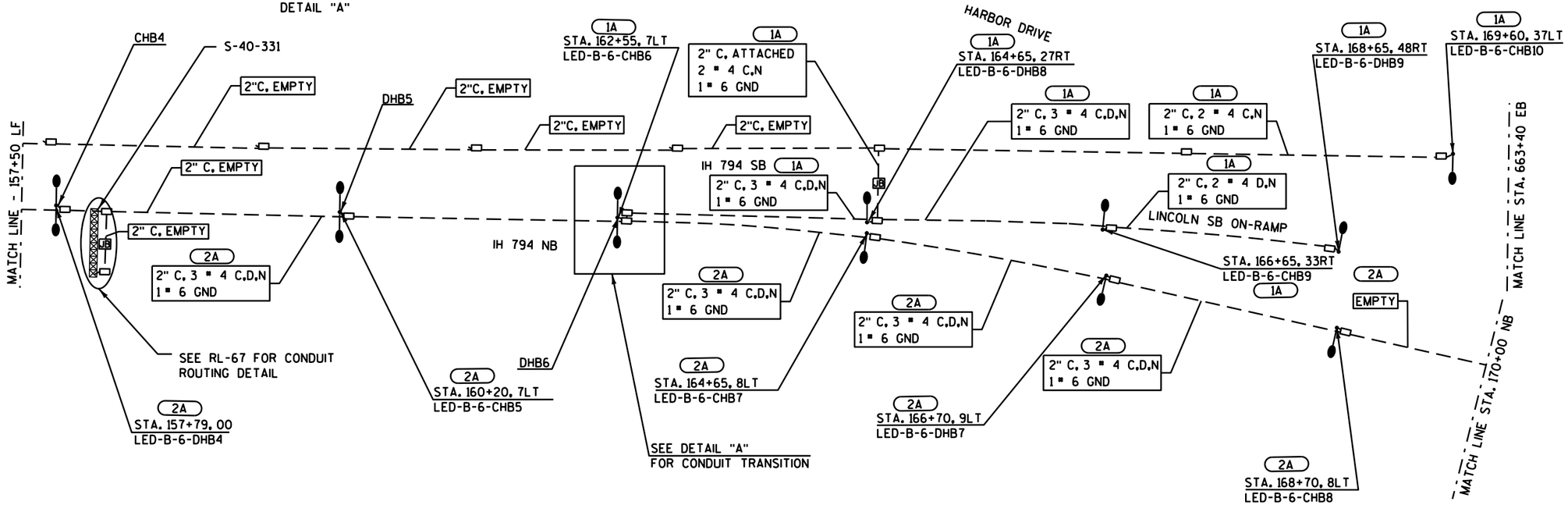
N

NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



DETAIL "A"



⚠ CAUTION

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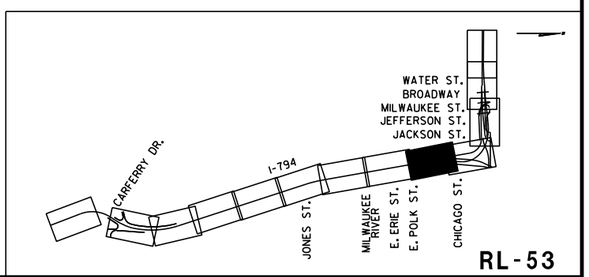


RL-53

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - SCHEMATIC	SHEET 263 E

2

MATCH LINE - 650+00 EB

MATCH LINE - 750+75 WB

IH 794 EB

IH 794 WB

VAN BUREN STREET

CHICAGO STREET

CLYBOURN STREET

LINCOLN MEMORIAL SB ENTRANCE RAMP

LINCOLN MEMORIAL NB EXIT RAMP

MATCH LINE STA. 663+40 EB

MATCH LINE STA. 170+00 NB

LPB1010

EXLPB1012

HML-40-026
CIRC E/F/JK
120 FT.

EMPTY
CONDUIT

3" #6 C,D,LK #2 N

177+13, 134'LT S.B.L.
HML-40-028
CIRC C/D/LK

HML-40-029
C/D/LK

S-40-850

SEE RL-67 FOR CONDUIT ROUTING DETAIL

S-40-853

CCTV
FTMS SPECIAL METER
BREAKER PEDESTAL.

DISTRIBUTION
CENTER
HL-40-LK

HL-40-LK
EXISTING

EXLPB900

4"

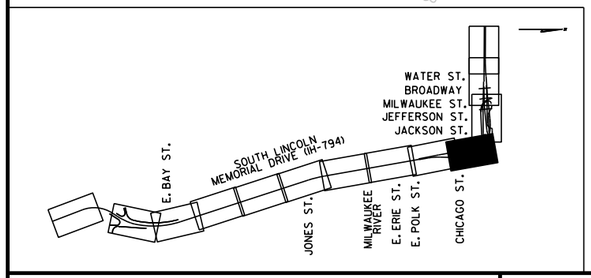
182+00, 110'LT S.B.L.
HML-40-027
A/B/LK
CCTV

LPB901

2B
STA. 178+00, 13RT
HPS250-B-7-15-ALK2

2B
STA. 180+00, 10RT
HPS250-B-7-15-BLK1

2B
STA. 182+00, 10RT
HPS250-B-7-15-ALK1



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE

NOTES:

SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.

RL-54

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL	SHEET 264	E

2

MATCH LINE - 650+00 EB

N

IH 794 EB

VAN BUREN STREET

LPB1010

2"C, SPECIAL
3 ▪ 4 E,F,N
1 ▪ 6 GND

2"C, TRENCHED
3 ▪ 4 E,F,N
1 ▪ 6 GND

MATCH LINE - 750+75 WB

FTMS	HL-40-LK
PEDESTAL ONLY	A,B,C,D BLACK N WHITE GND GREEN OR BARE
120/240VAC	A,B,C,D 30A
	480VAC 2 WIRE GROUNDED NEUTRAL

HML-40-026
CIRC E/F/JK
120 FT.

EXLPB1012

EMPTY CONDUIT

CHICAGO STREET

IH 794 EB

IH 794 WB

CLYBOURN STREET

MATCH LINE STA. 663+40 EB

MATCH LINE STA. 170+00 NB

S-40-850

SEE RL-67 FOR CONDUIT ROUTING DETAIL

2"C, EMPTY

2"C, EMPTY

HML-40-029
C/D/LK

LINCOLN MEMORIAL SB ENTRANCE RAMP

177+13, 134'LT S.B.L.
HML-40-028
CIRC C/D/LK

3"

▪6 C,D,LK
▪2 N

CCTV
FTMS SPECIAL METER
BREAKER PEDESTAL.

DISTRIBUTION CENTER
HL-40-LK

▪6 C,D,LK
▪2 N

HL-40-LK
EXISTING

182+00, 110'LT S.B.L.
HML-40-027
A/B/LK
CCTV

EXLPB900

4"

LINCOLN MEMORIAL NB EXIT RAMP

S-40-853

2" C, 3 ▪ 4 A,B,N
1 ▪ 4 GND

2" C, 3 ▪ 4 A,B,N
1 ▪ 4 GND

LPB901

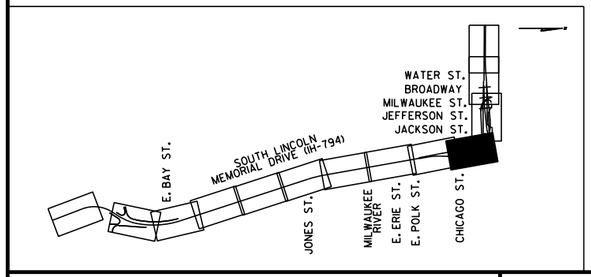
2B
STA. 178+00, 13RT
HPS250-B-7-15-ALK2

2 ▪ 4 A,N
1 ▪ 4 GND, CID

2B
STA. 180+00, 10RT
HPS250-B-7-15-BLK1

3 ▪ 4 A,B,N
1 ▪ 4 GND, CID

2B
STA. 182+00, 10RT
HPS250-B-7-15-ALK1



CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE

NOTES:

SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.

RL-55

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - SCHEMATIC	SHEET 265	E

STA. 3+20CL, 7LT
HPS250-B-7-15-DJK2
2A

STA. 2+00CL, 7LT
HPS250-B-7-15-CJK3
2A

STA. 9+95BE, 36LT
HPS250-B-7-15-CJK1
2A

STA. 302+84.6, 49LT
HML-40-025, NOTE 2
CKT. C/D/JK
120FT
1A

STA. 1+45MW, 40LT
HPS250-B-7-15-AJK1
2A

2A
UNDERDECK LIGHTING SYSTEMS
SEE UNDERDECK LIGHTING DETAILS
ON SHEETS RL-80 AND RL-81
FOR MORE INFORMATION
2A

UNDERDECK LIGHTING SYSTEMS
SEE UNDERDECK LIGHTING DETAILS
ON SHEETS RL-80 AND RL-81
FOR MORE INFORMATION

STA. 349+69LW, 19LT
HL-40-JK
P

STA. 349+75LW, 5LT
PAD MOUNTED TRANSFORMER
P

UNDERDECK LIGHTING SYSTEMS
SEE UNDERDECK LIGHTING DETAILS
ON SHEETS RL-80 AND RL-81
INFORMATION
2A

N

CLYBOURN STREET
LINCOLN WB ON-RAMP
MILWAUKEE WB OFF-RAMP
JACKSON WB ON-RAMP
JACKSON EB OFF-RAMP
BROADWAY EB ON-RAMP
ST. PAUL AVENUE
MILWAUKEE STREET
JEFFERSON STREET
JACKSON STREET
BROADWAY

LPB1005
LPB1006
LPB1004
LPB1014
LPB1009
LPB1001
LPB1003
LPB1002
LPB1007
LPB1008
S-40-856
S-40-857
S-40-855
S-40-854

MATCH LINE - 637+00 EB
MATCH LINE - 650+00 EB
MATCH LINE - 737+00 WB
MATCH LINE - 750+75 WB

1A
UNDERDECK LIGHTING SYSTEMS
SEE UNDERDECK LIGHTING DETAILS
ION SHEET RL-79 FOR MORE INFORMATION

2A
UNDERDECK LIGHTING SYSTEMS
SEE UNDERDECK LIGHTING DETAILS
ON SHEET RL-78 FOR MORE INFORMATION

1A
UNDERDECK LIGHTING SYSTEMS
SEE UNDERDECK LIGHTING DETAILS
ON SHEETS RL-80 AND RL-81
FOR MORE INFORMATION

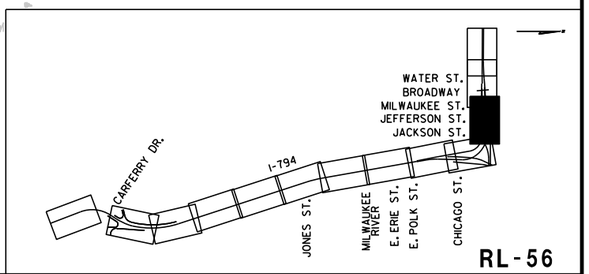
STA. 13+60JE, 33LT
HML-40-024, NOTE 2
CKT. A/B/JK
120FT
1A

NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. THE HIGH MAST TOWER FOUNDATIONS SHALL BE INSTALLED AS SHOWN ON THE HIGH MAST TOWER STRUCTURE PLANS HML-40-0-024 /025.

CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-56

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL	SHEET 266 E

FILE NAME : J:\302\DGN\CADD Sheets\023690_lp.dgn PLOT DATE : 26-APR-2013 13:32 PLOT BY : mgarvida PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

STA. 9+95BE, 36LT
HPS250-B-7-15-CJK1
2A

STA. 3+20CL, 7LT
HPS250-B-7-15-DJK2
2A

STA. 2+00CL, 7LT
HPS250-B-7-15-CJK3
2A

STA. 302+84.6, 49LT
HML-40-025, NOTE 2
CKT. C/D/JK
120FT
1A

STA. 1+45MW, 40LT
HPS250-B-7-15-AJK1
2A

2" C, TRENCHED
4#6 C,D,N, GND

2" C, TRENCHED
4#6 C,D,N, GND

2" C, TRENCHED
3#6 A,N, GND

LPB1005

LPB1006

LPB1004

S-40-856

LPB1014

2" C, TRENCHED
4#6 C,D,N, GND

2" C, 3#4 C,D,N
1 # 6 GND

2" C, 3#6 C,D,N
1 # 6 GND

MATCH LINE - 737+00 WB

MATCH LINE - 637+00 EB

BROADWAY

MILWAUKEE STREET

JACKSON WB ON-RAMP

JACKSON EB OFF-RAMP

BROADWAY EB ON-RAMP

ST. PAUL AVENUE

JEFFERSON STREET

UNDERDECK LIGHTING SYSTEMS
SEE UNDERDECK LIGHTING DETAILS
ON SHEETS RL-80 AND RL-81
FOR MORE INFORMATION
2A

UNDERDECK LIGHTING SYSTEMS
SEE UNDERDECK LIGHTING DETAILS
ON SHEETS RL-80 AND RL-81
FOR MORE INFORMATION

CLYBOURN STREET

LINCOLN WB ON-RAMP

2" C, EXISTING
3#6 A,B,N
1#6 GND

MILWAUKEE WB OFF-RAMP

2" C, TRENCHED
3#4 C,D,N
1 # 6 GND

S-40-857

S-40-855

2" C, 3#4 C,D,N
1 # 6 GND

2" C, TRENCHED
4#6 A,B,N, GND

LPB1009

2" C, TRENCHED
4#10

STA. 349+69LW, 19LT
HL-40-JK
P

STA. 349+75LW, 5LT
PAD MOUNTED TRANSFORMER
P

UNDERDECK LIGHTING SYSTEMS
SEE UNDERDECK LIGHTING DETAILS
ON SHEETS RL-80 AND RL-81
INFORMATION
2A

3" C, TRENCHED
(2)3#4 A,B,N, C,D,N
3#4 E,F,N
3#6 G,H,N
1 # 4 GND

2" C, TRENCHED
4#6 G,H,N, GND

2" C, SPECIAL
3#4 A,B,N
3#4 C,D,N
1 # 4 GND

LPB1003

S-40-854

LPB1002

LPB1001

LPB1007

EXIT PB013

MATCH LINE - 750+75 WB

2" C, TRENCHED
4#6 C,D,N, GND

LPB1008

2" C, SPECIAL
3#4 E,F,N
3#6 G,H,N
1 # 4 GND

MATCH LINE - 650+00 EB

ST. PAUL AVENUE

STA. 13+60JE, 33LT
HML-40-024, NOTE 2
CKT. A/B/JK
120FT
1A

JACKSON STREET

1A
UNDERDECK LIGHTING SYSTEMS
SEE UNDERDECK LIGHTING DETAILS
ON SHEETS RL-80 AND RL-81
FOR MORE INFORMATION

1A
UNDERDECK LIGHTING SYSTEMS
SEE UNDERDECK LIGHTING DETAILS
ION SHEET RL-79 FOR MORE INFORMATION

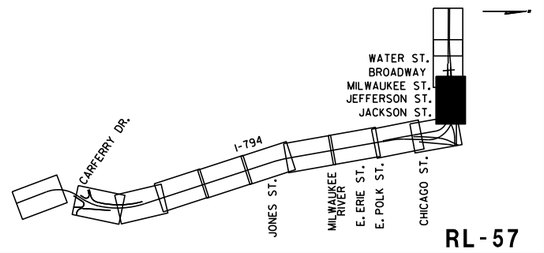
2A
UNDERDECK LIGHTING SYSTEMS
SEE UNDERDECK LIGHTING DETAILS
ON SHEET RL-78 FOR MORE INFORMATION

NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. THE HIGH MAST TOWER FOUNDATIONS SHALL BE INSTALLED AS SHOWN ON THE HIGH MAST TOWER STRUCTURE PLANS HML-40-0-024 /025.

CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE

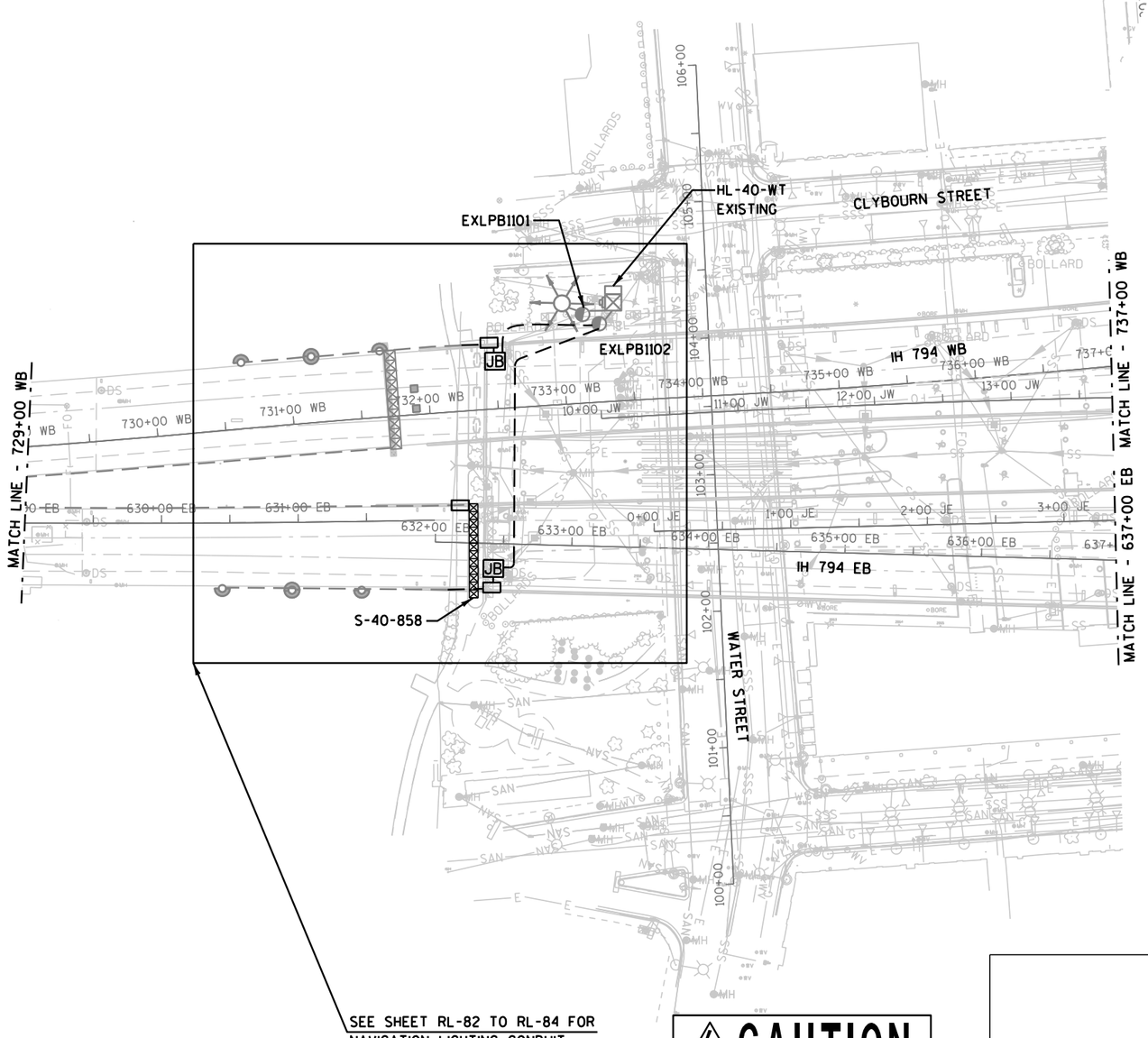


RL-57

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - SCHEMATIC	SHEET 267	E

NOTES:

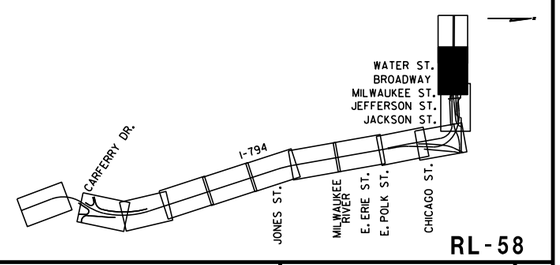
1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



SEE SHEET RL-82 TO RL-84 FOR NAVIGATION LIGHTING CONDUIT TRANSITION DETAILS FOR MORE INFORMATION

CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE

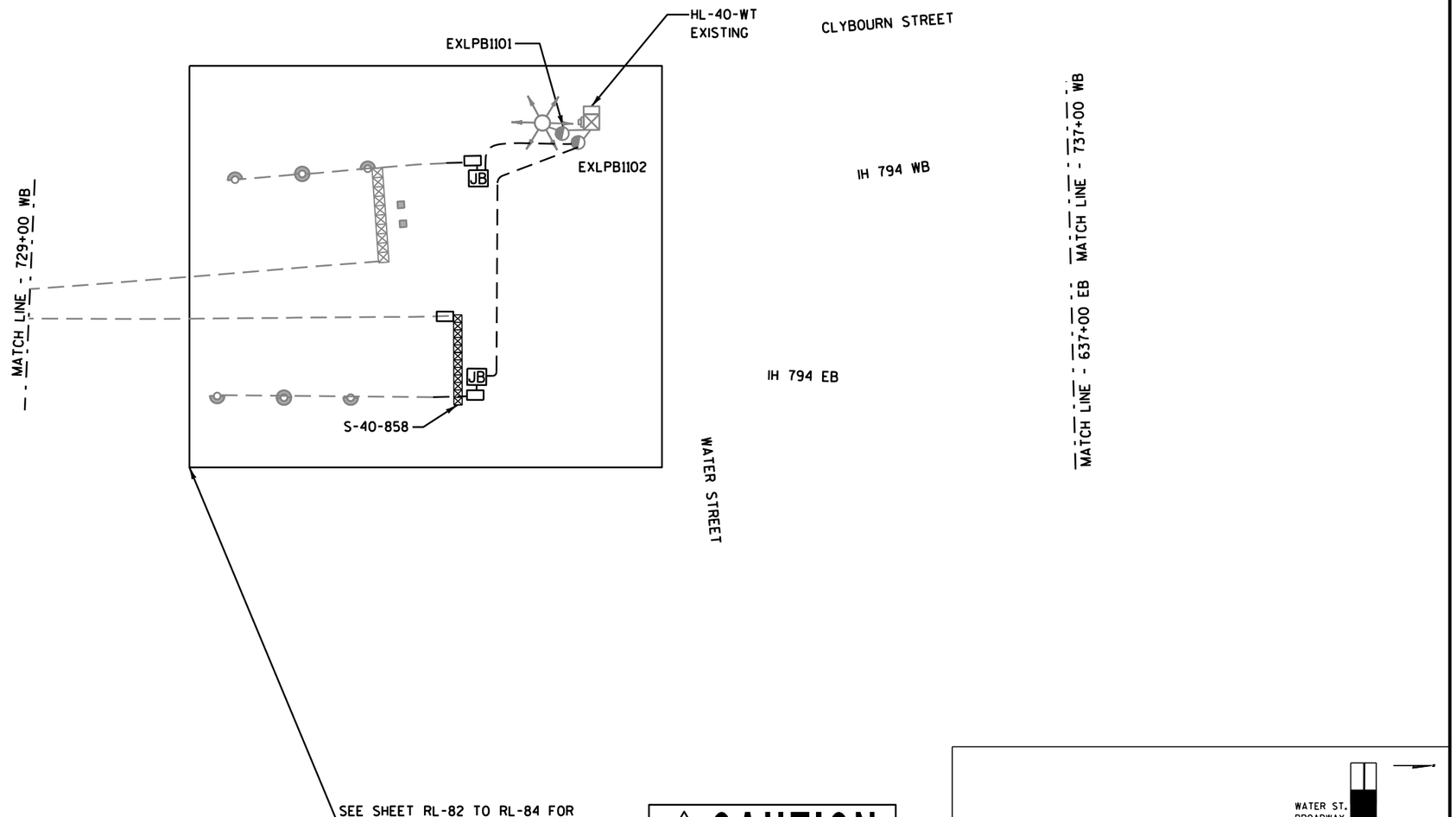


RL-58

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL	SHEET 268 E

NOTES:

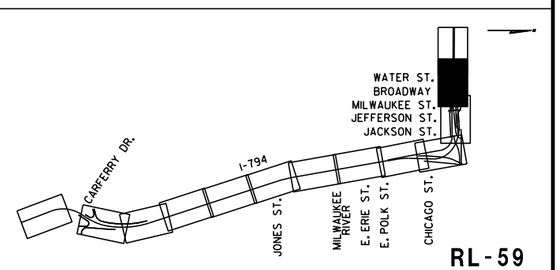
1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



SEE SHEET RL-82 TO RL-84 FOR NAVIGATION LIGHTING CONDUIT TRANSITION DETAILS FOR MORE INFORMATION

CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-59

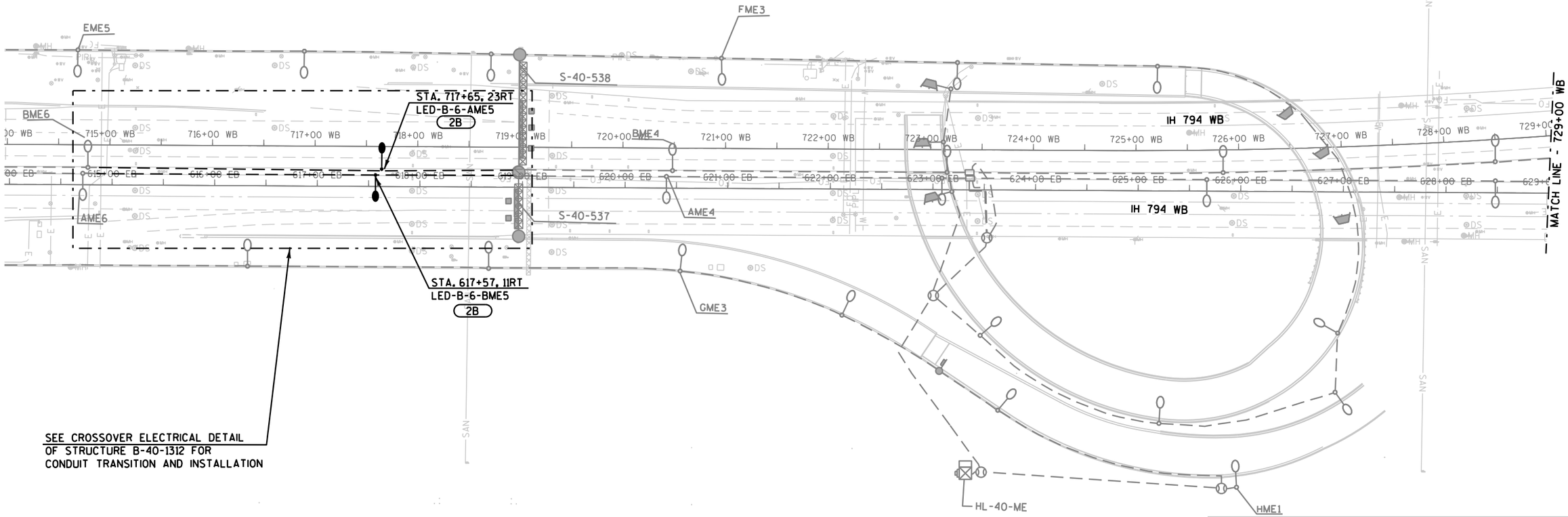
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - SCHEMATIC	SHEET 269 E

2

N

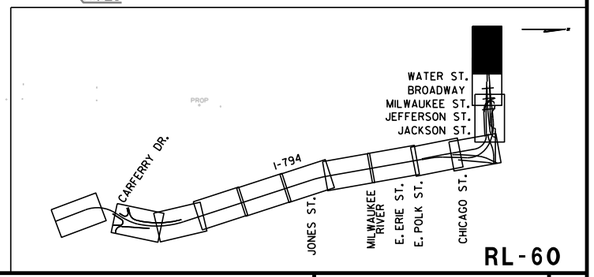
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



⚠ CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



RL-60

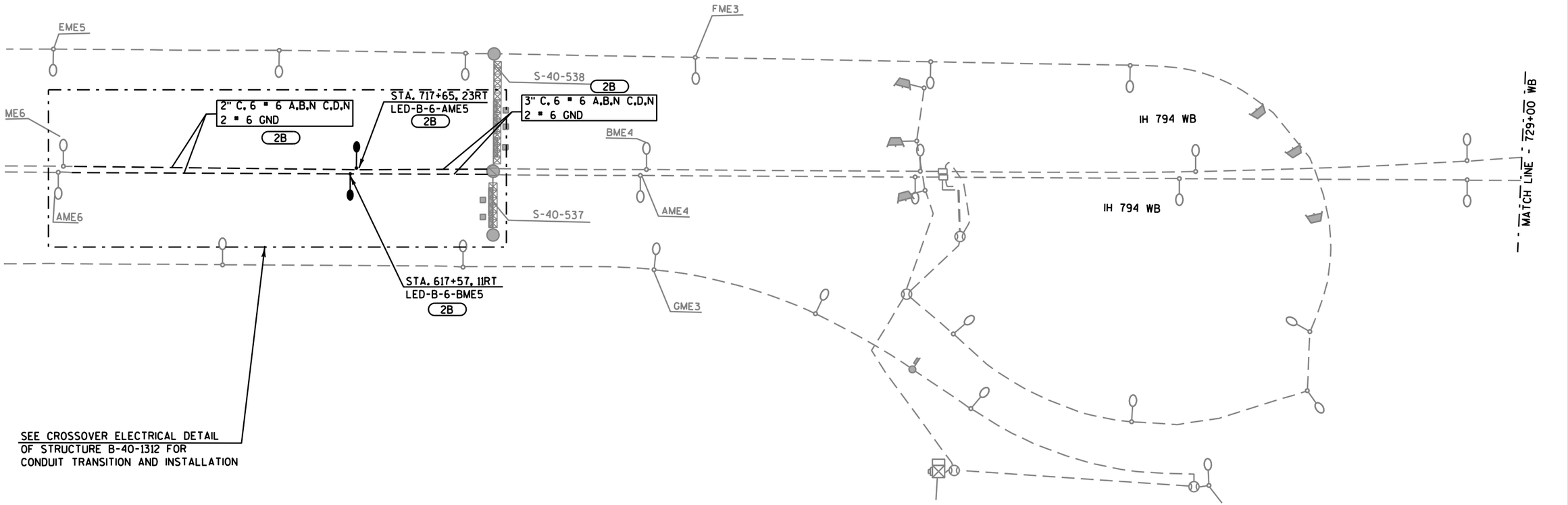
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL	SHEET 270 E

2

N

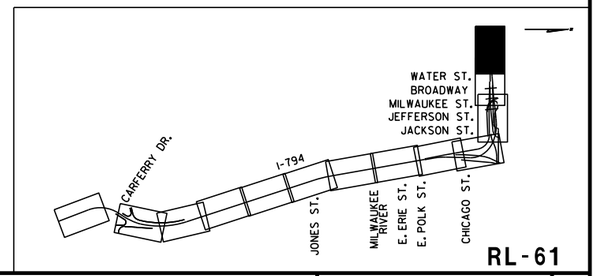
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.



⚠ CAUTION

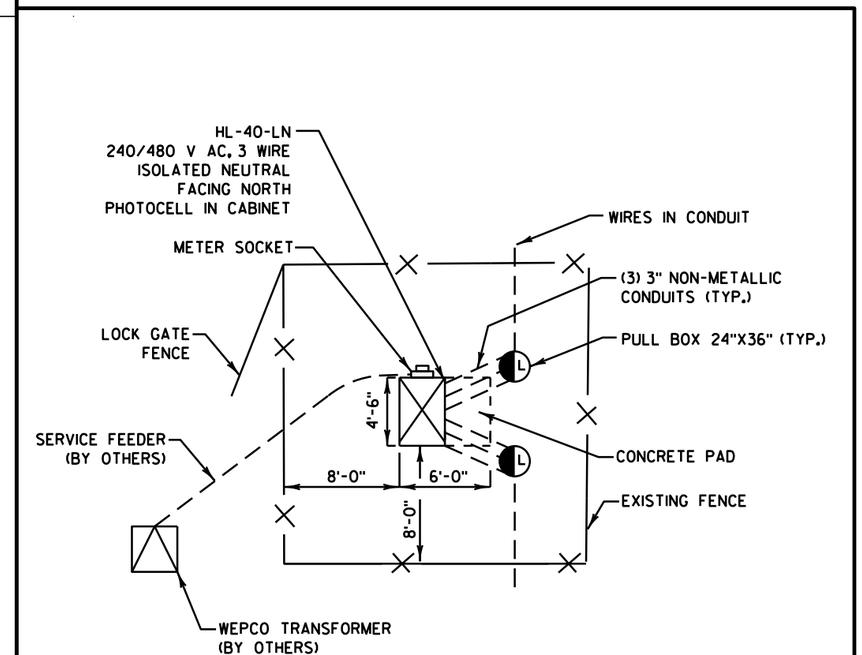
THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE



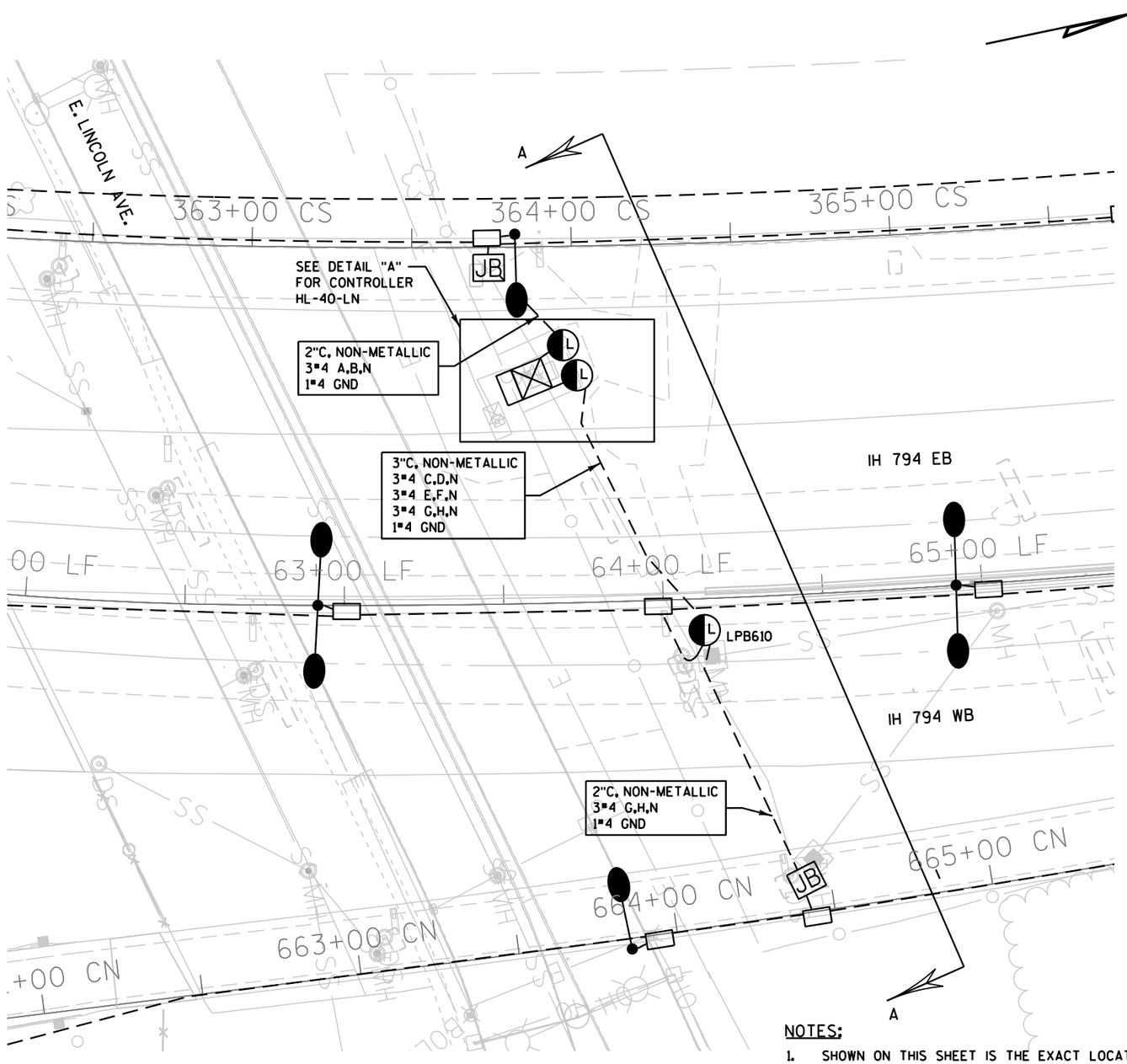
RL-61

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - SCHEMATIC	SHEET	E

FILE NAME : J:\302\DGN\CADD Sheets\023695_lp.dgn PLOT DATE : 26-APR-2013 13:32 PLOT BY : mgarvida PLOT NAME : PLOT SCALE : 100:1
WISDOT/CADDS SHEET 42



DETAIL "A"
SCALE: 1:10



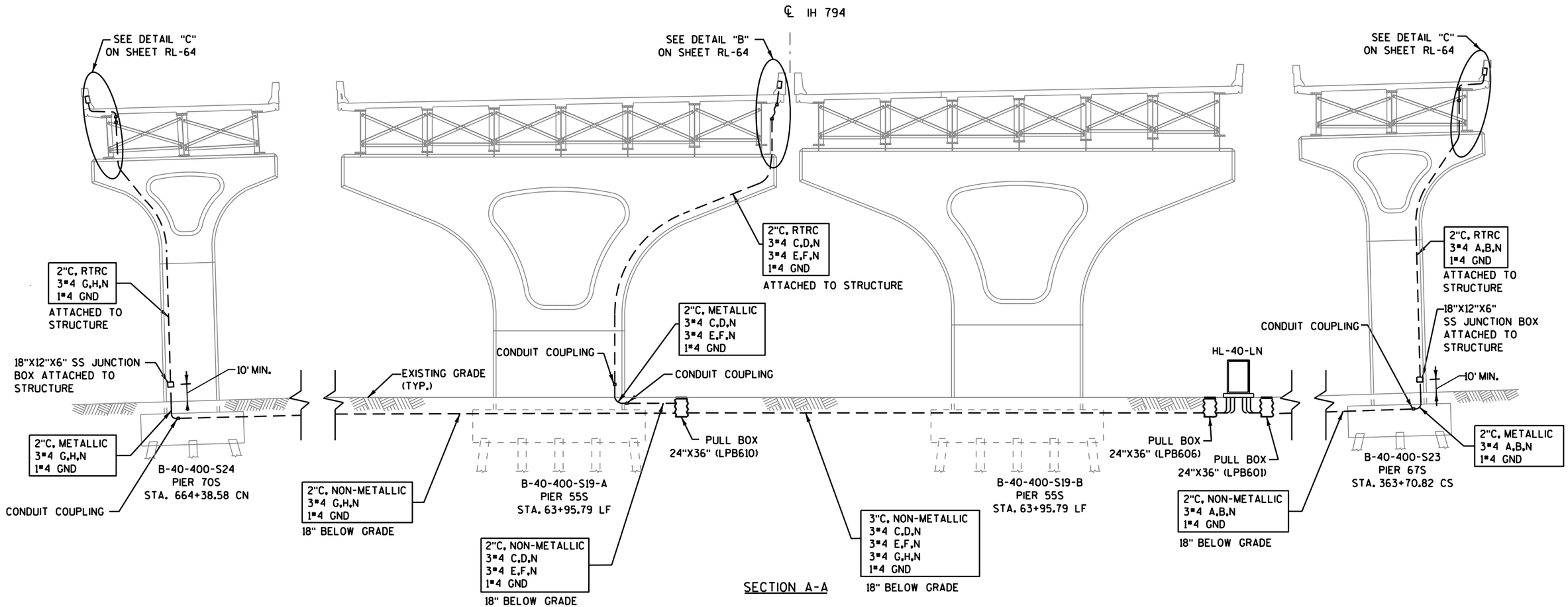
CONTROLLER HL-40-LN
SITE PLAN

NOTES:

1. SHOWN ON THIS SHEET IS THE EXACT LOCATION OF THE CONTROLLER FROM THE NEAREST ROADWAY. OTHER LIGHTING WORK ON THIS SHEET INCLUDING ROADWAY LIGHTING POLES, WIRING, AND CALLOUTS ARE DESCRIBED ON THE PROPOSED LIGHTING PLANS.
2. SEE SHEET RL-63 FOR SECTION A-A.

RL-62

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 272 E

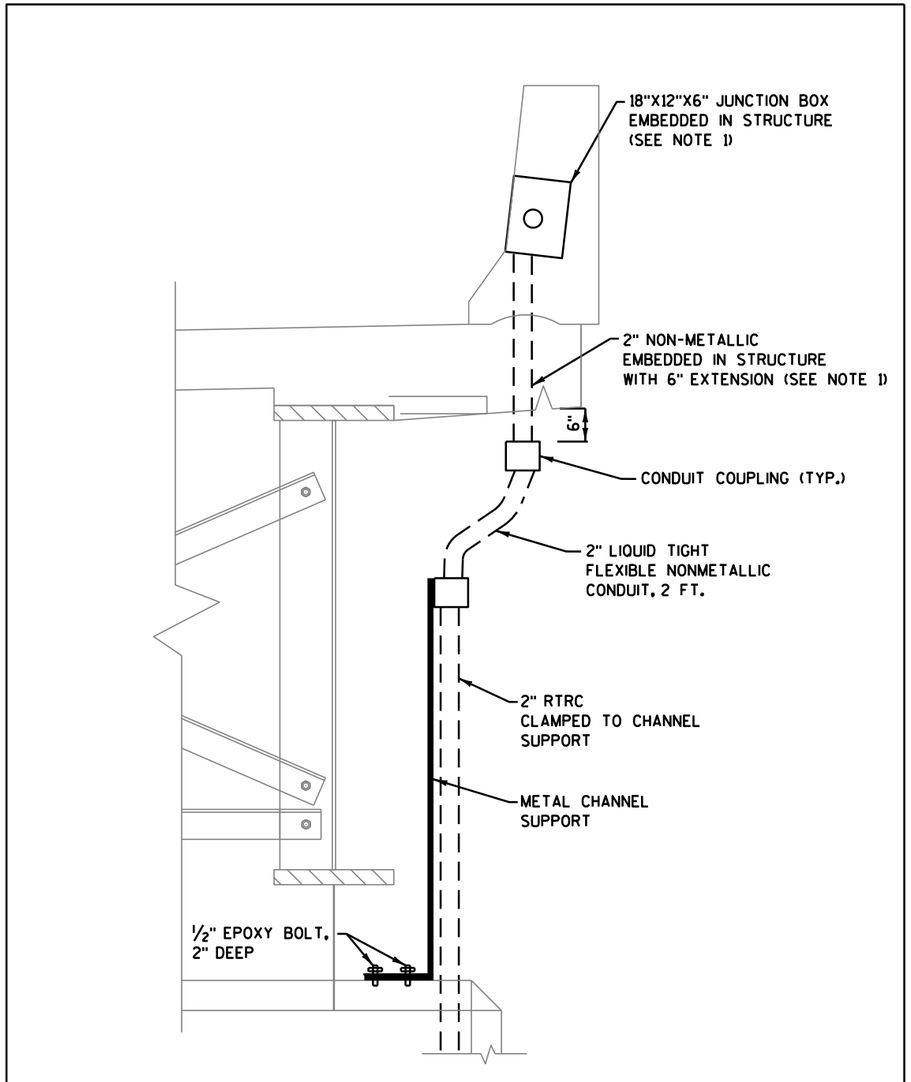


CONDUIT TRANSITION DETAIL LOOKING SOUTH ON NORTH FACE - HL-40-LN

N.T.S.

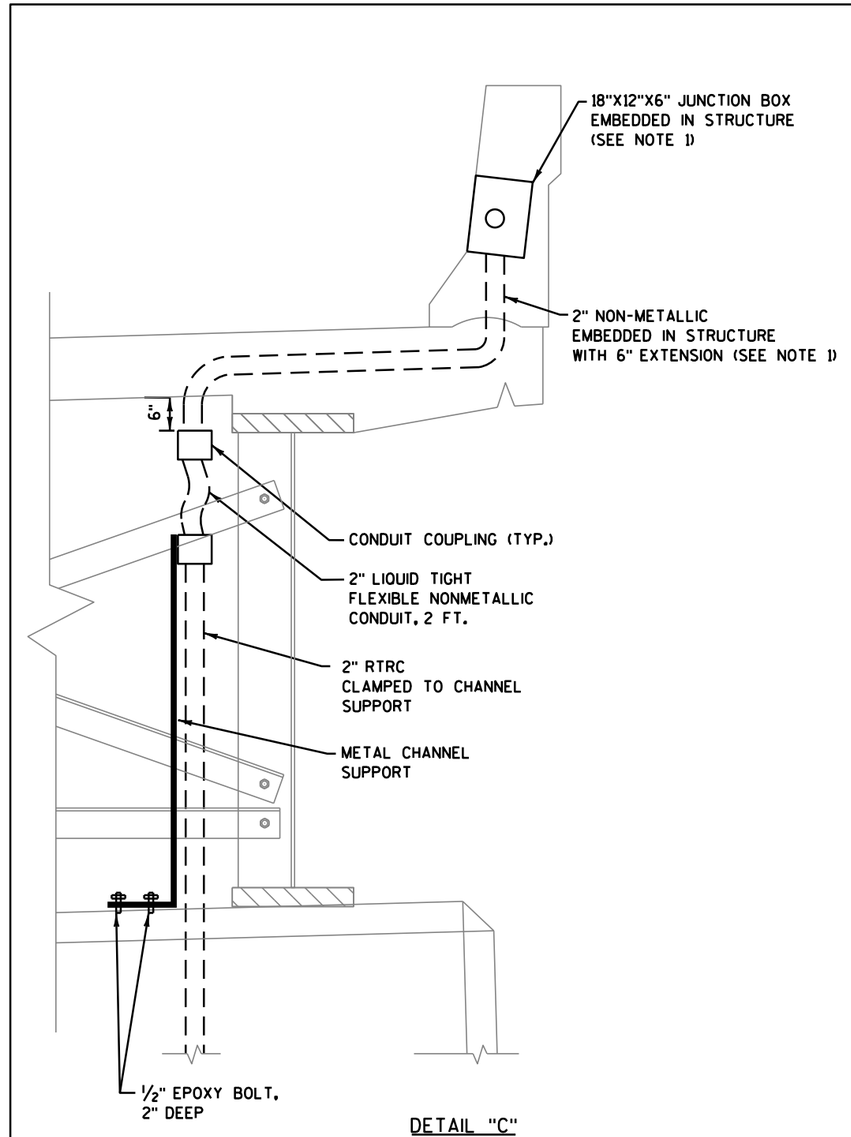
RL-63

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 273 E



DETAIL "B"
(CONDUIT TRANSITION DETAIL FROM BRIDGE DECK)
N.T.S

NOTE 1: SEE STRUCTURE B-40-400 PLANS FOR MORE DETAILS.
(PART OF STRUCTURE PAY ITEMS)

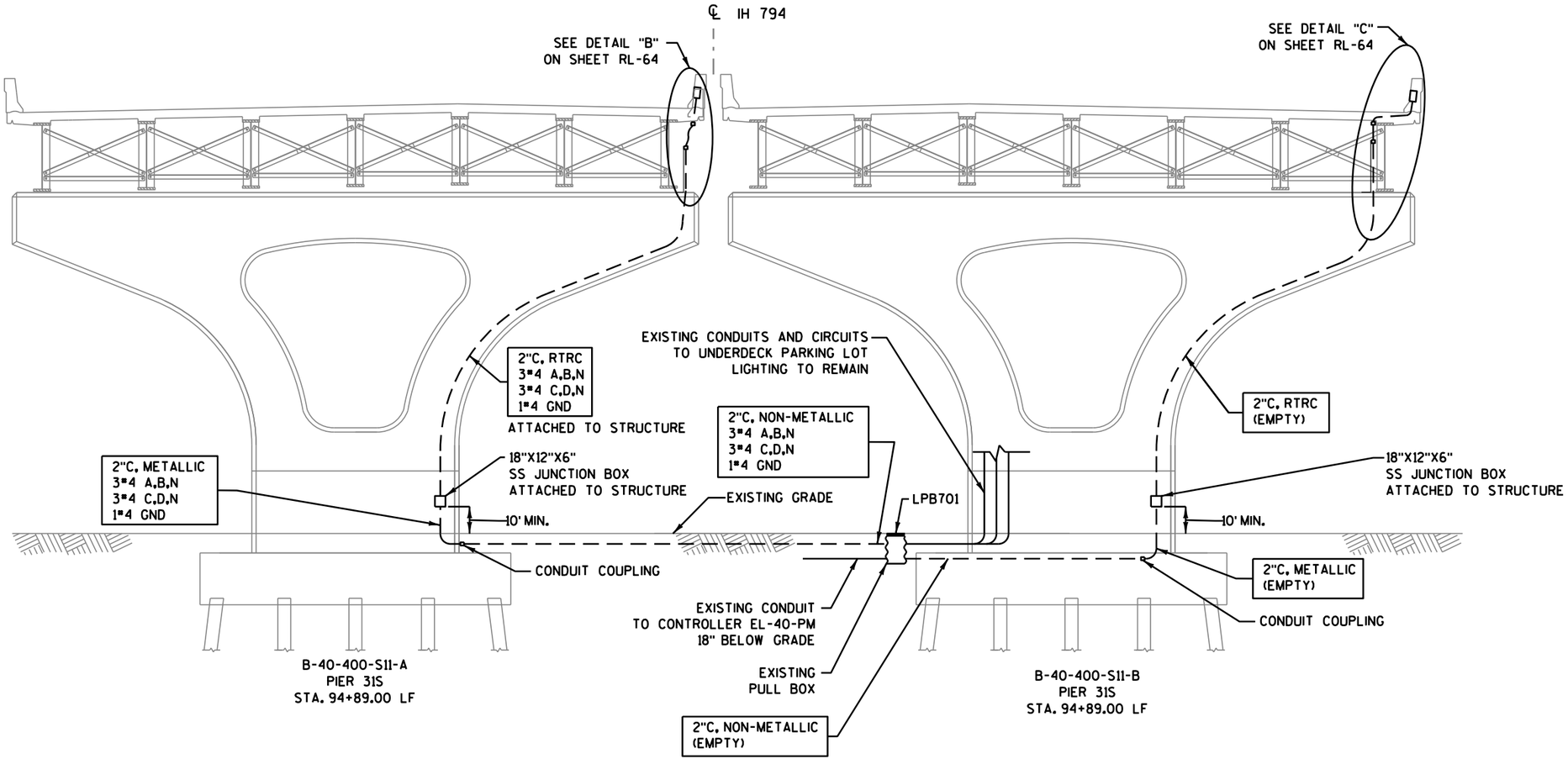


DETAIL "C"
(CONDUIT TRANSITION DETAIL FROM BRIDGE DECK)
N.T.S

NOTE 1: SEE STRUCTURE B-40-400 PLANS FOR MORE DETAILS.
(PART OF STRUCTURE PAY ITEMS)

2

RL-64



STRUCTURE S11 - PIER 31S CONDUIT TRANSITION DETAIL LOOKING SOUTH ON NORTH FACE - EL-40-PM

N.T.S.

RL-65

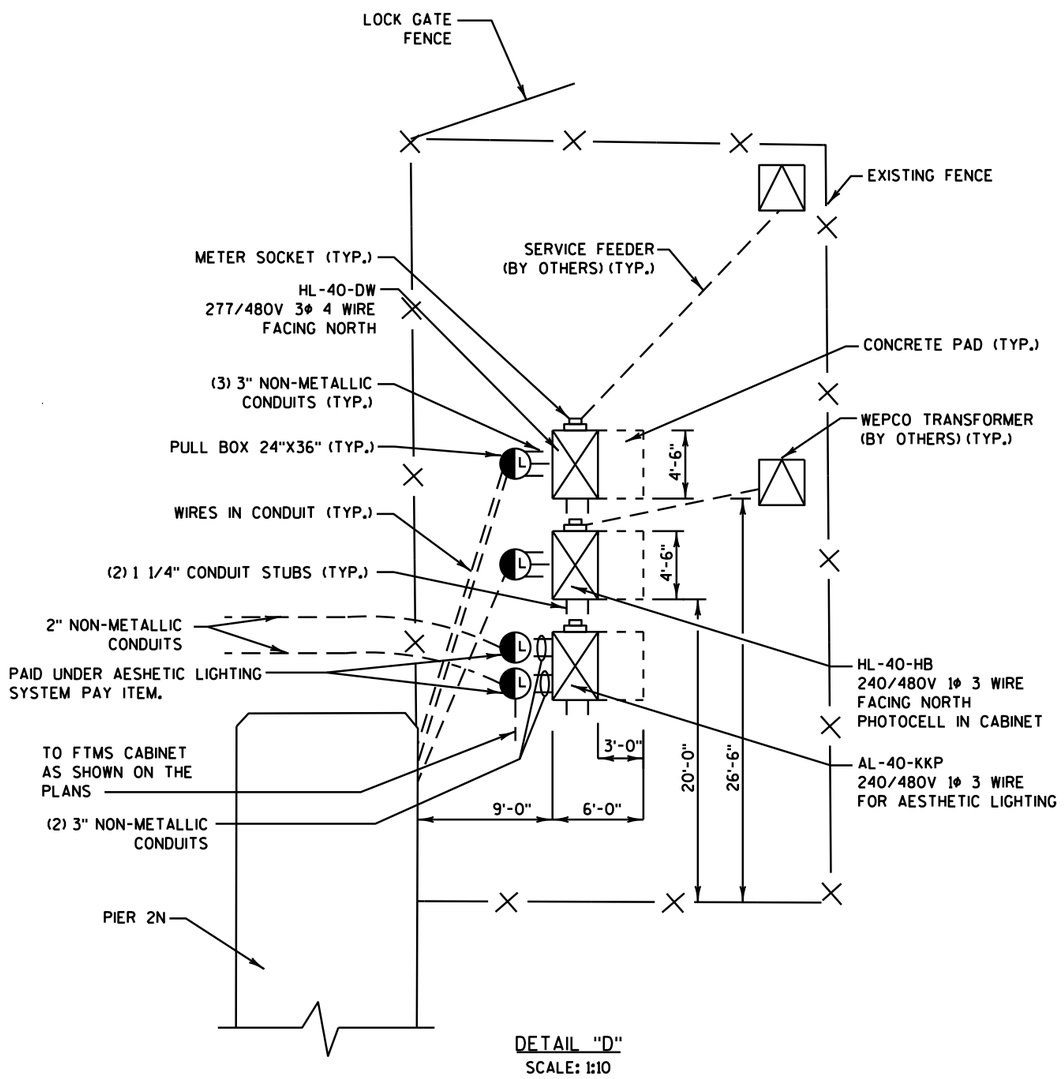
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 275 E

2

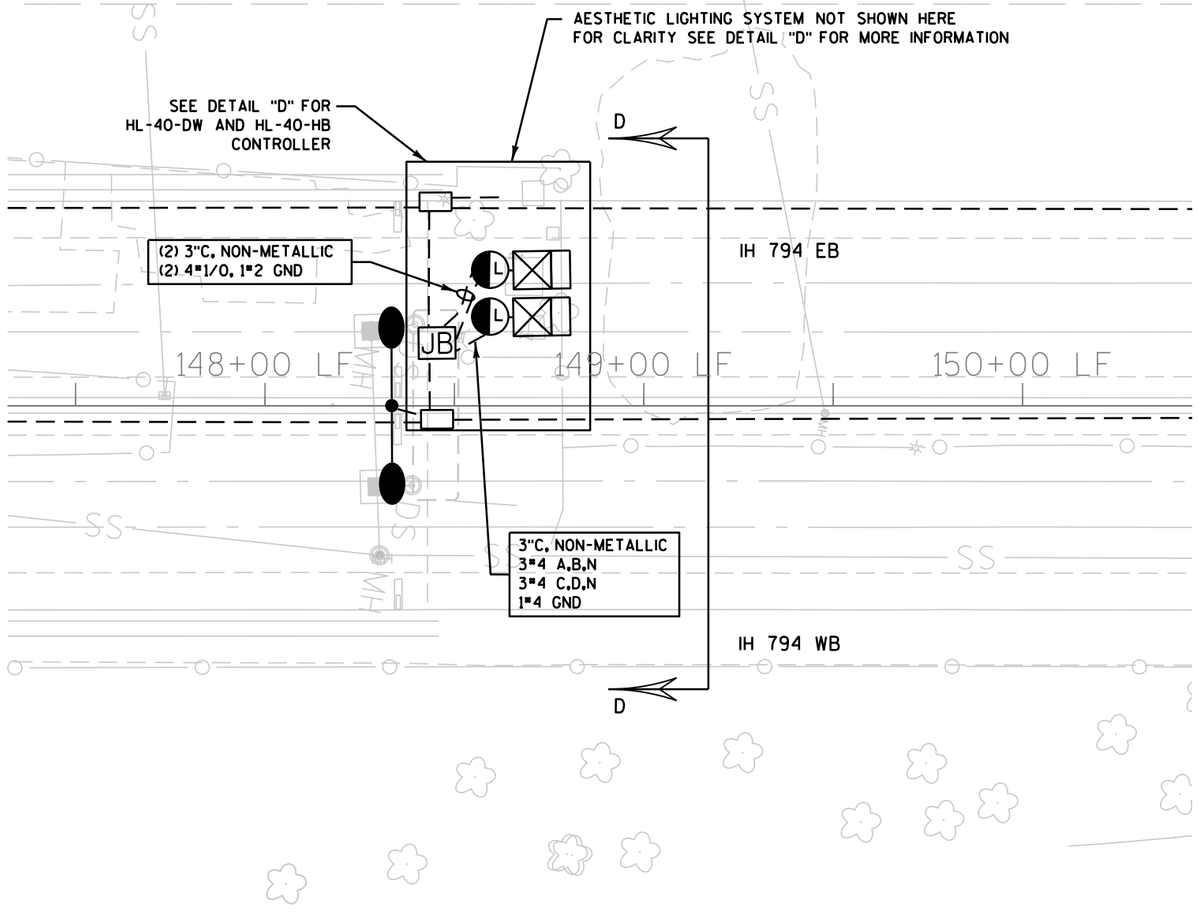
NOTES:

1. SHOWN ON THIS SHEET IS THE EXACT LOCATION OF THE CONTROLLER FROM THE NEAREST ROADWAY. OTHER LIGHTING WORK ON THIS SHEET INCLUDING ROADWAY LIGHTING POLES, WIRING, AND CALLOUTS IS DESCRIBED ON THE PROPOSED LIGHTING PLANS.

2. SEE SHEET RL-68 FOR SECTION D-D.



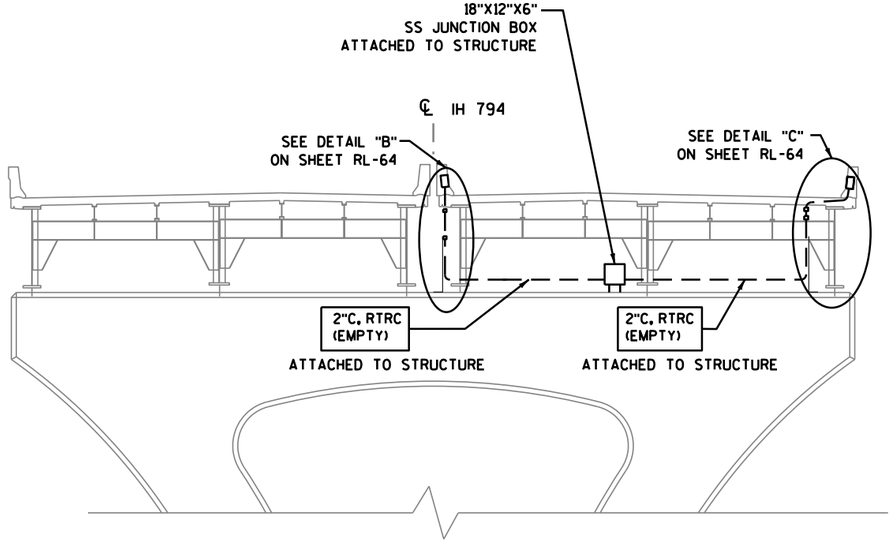
DETAIL "D"
SCALE: 1:10



CONTROLLER HL-40-DW
AND HL-40-HB SITE PLAN

RL-66

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 276 E

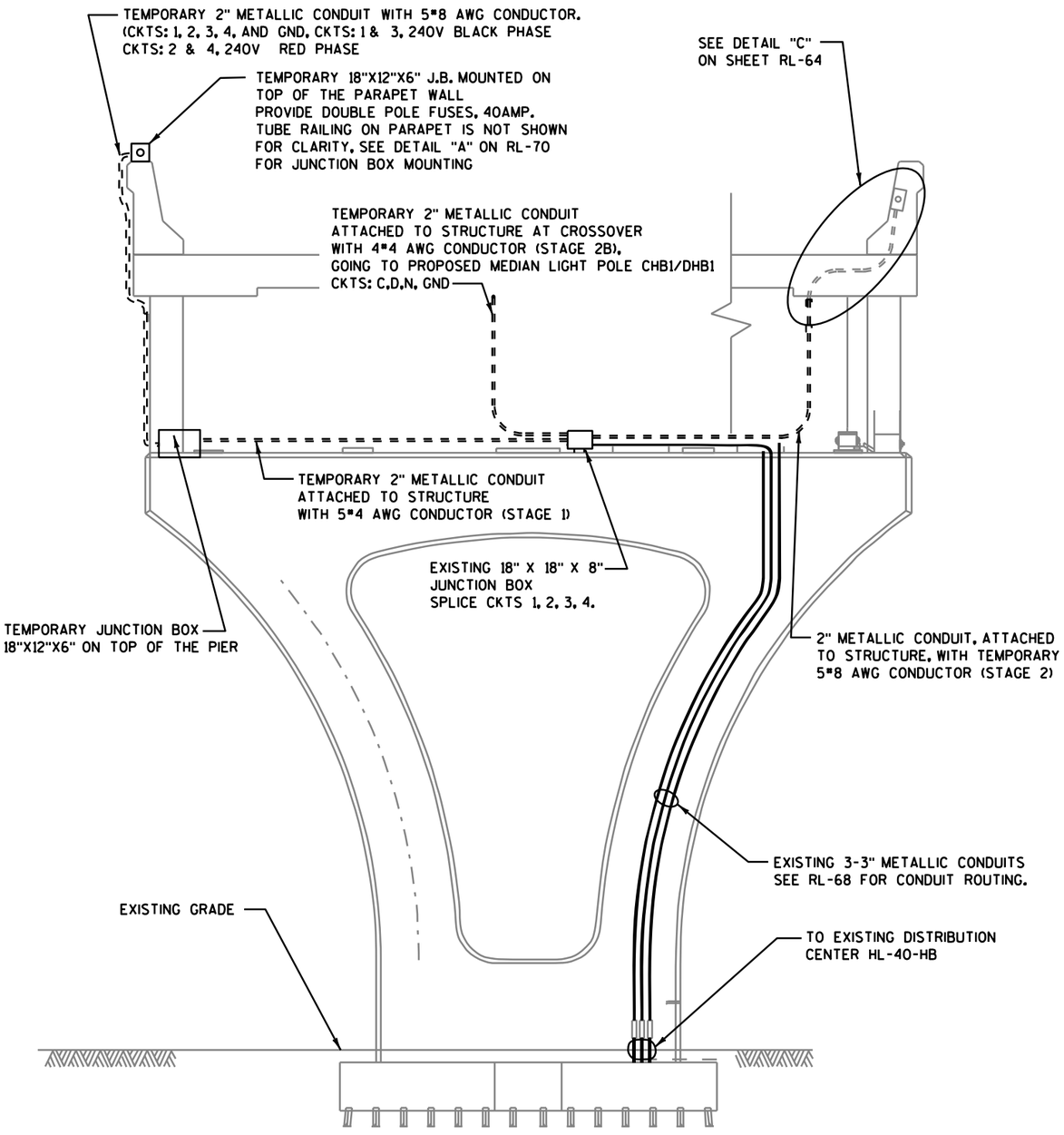


TYPICAL CONDUIT ROUTING FOR SIGN STRUCTURE

N.T.S

NOTES:

1. THIS DETAIL SHOWS TYPICAL CONDUIT TRANSITION DETAIL FOR ALL SIGN STRUCTURE LOCATIONS ON HOAN BRIDGE.
2. FOR SIGN STRUCTURE S-40-850 ON UNIT 6B CONDUIT TRANSITION SHALL BE PER DETAIL "C" ON SHEET RL-64 FOR BOTH SIDES.

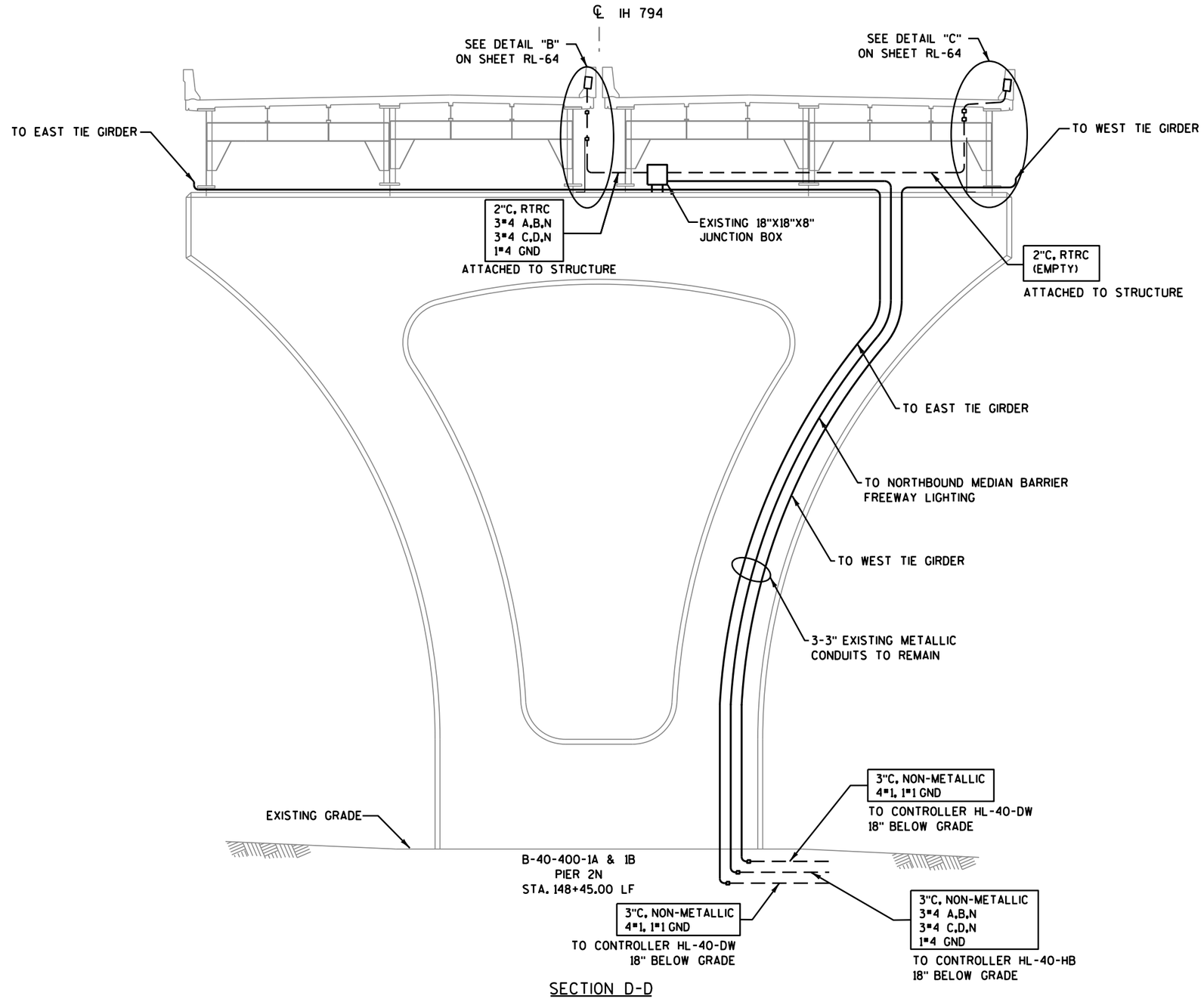


B-40-400-1A & 1B
PIER 2N
STA. 148+45.00 LF

ELEVATION VIEW LOOKING SOUTH)
FOR STAGE 1 CONSTRUCTION - NORTHBOUND TEMPORARY LIGHTING

N.T.S

RL-67



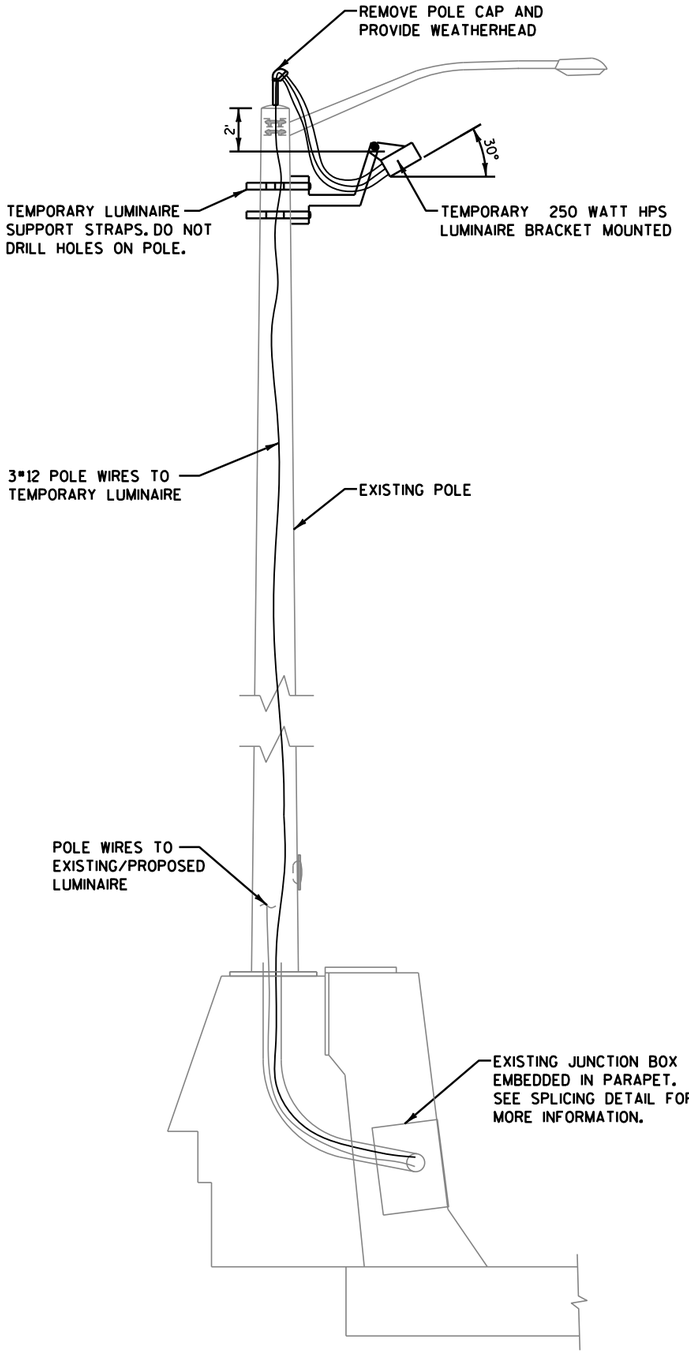
SECTION D-D

CONDUIT TRANSITION DETAIL LOOKING SOUTH ON NORTH FACE

N.T.S

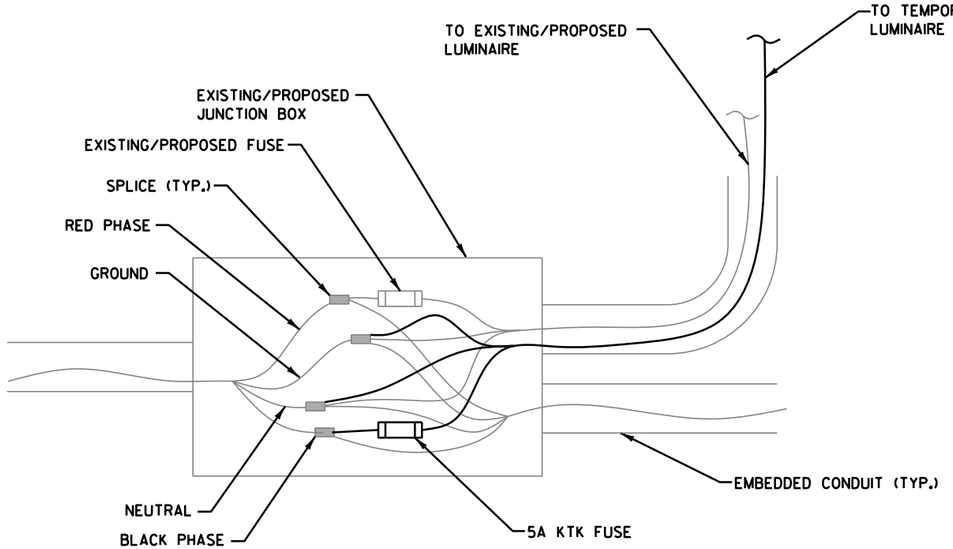
RL-68

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 278	E



TEMPORARY FLOODLIGHT MOUNTED ON EXISTING/PROPOSED LIGHT POLE

N.T.S



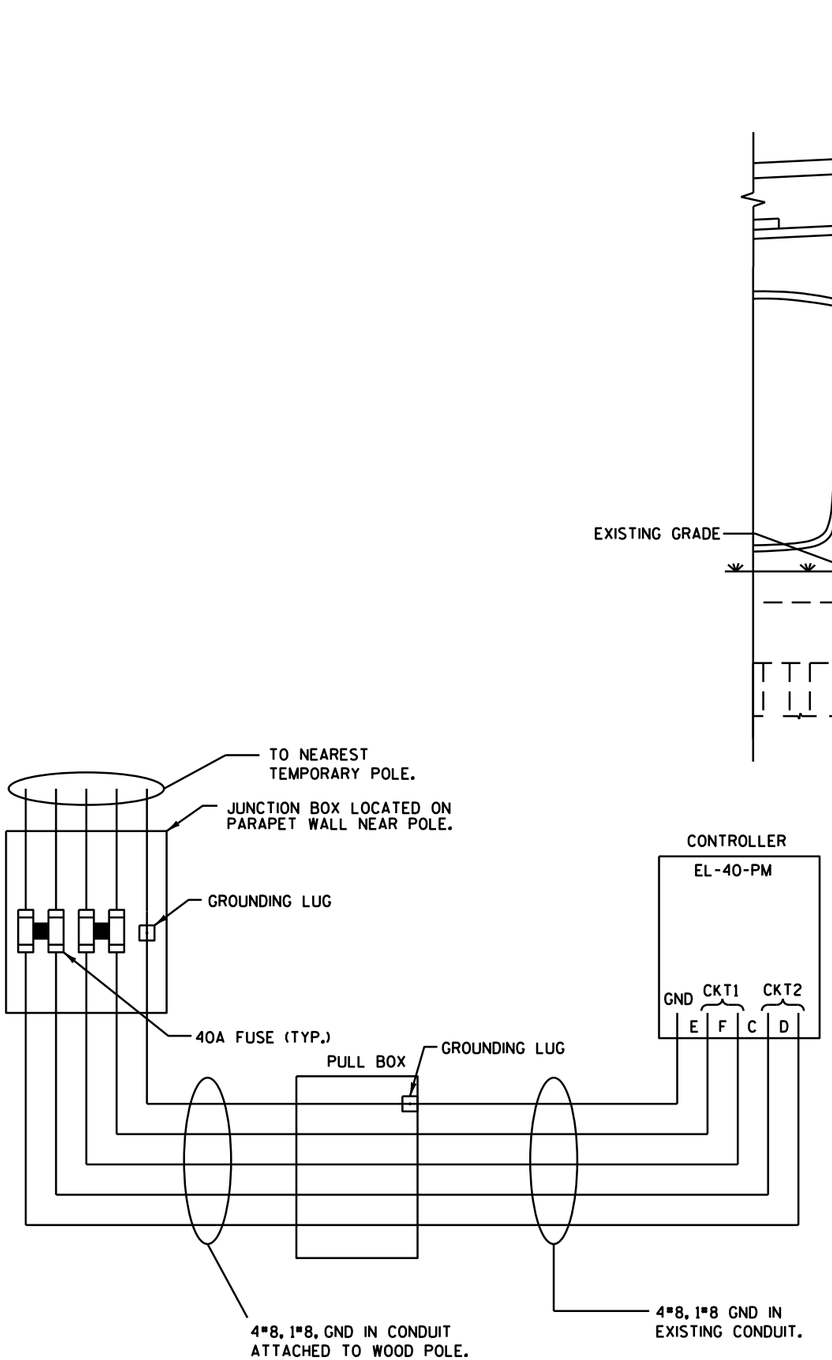
SPLICING DETAIL

N.T.S

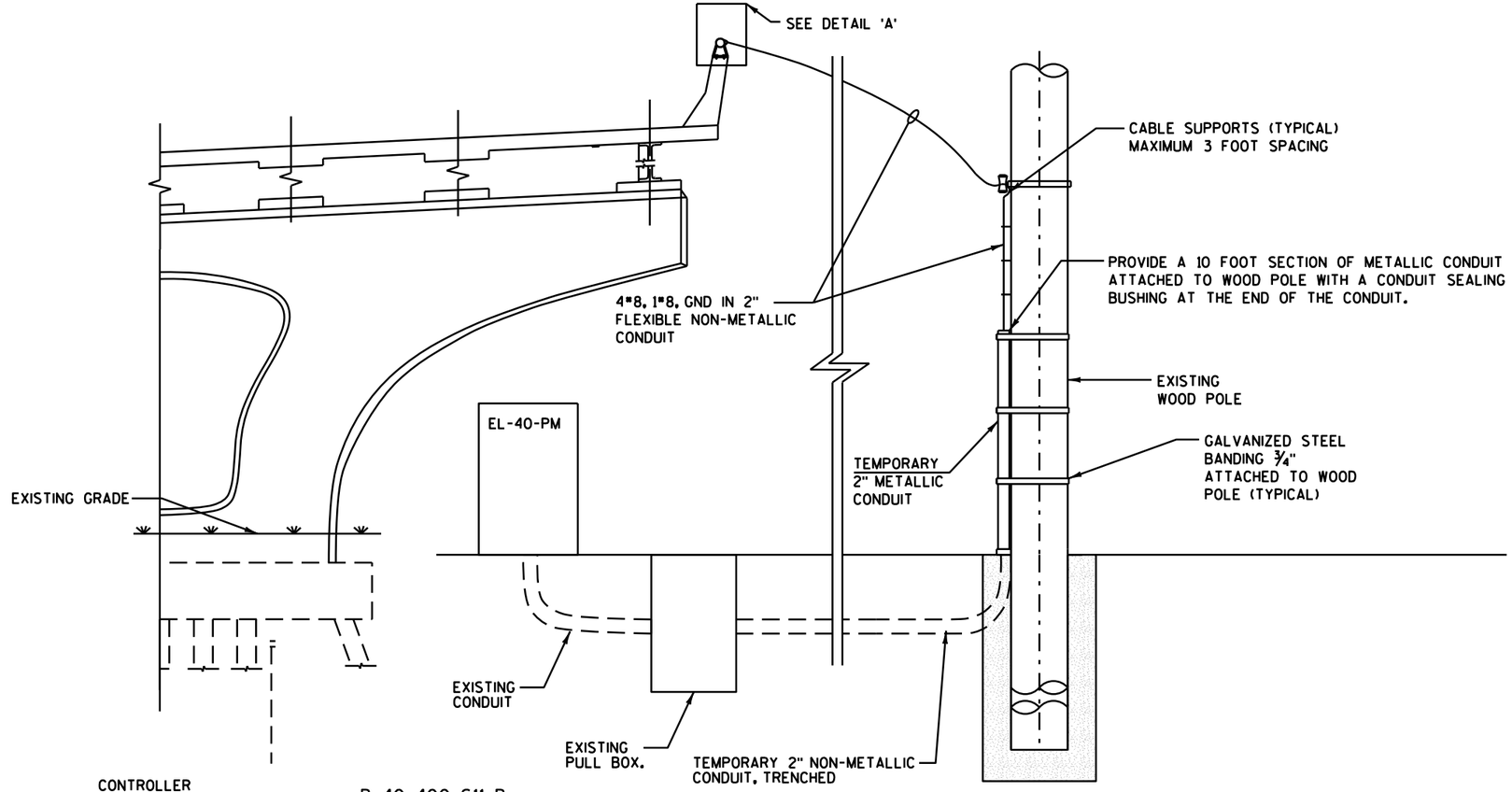
RL-69

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 279	E

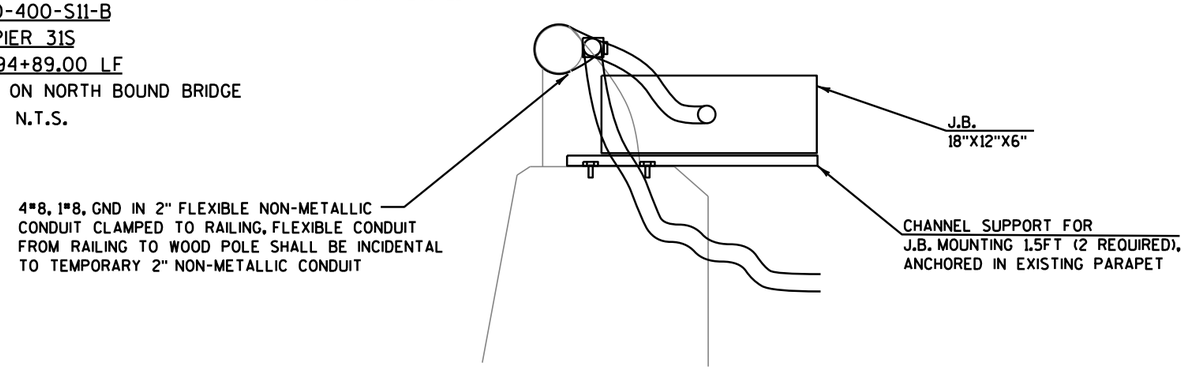
2



WIRING DIAGRAM



B-40-400-S11-B
PIER 31S
STA. 94+89.00 LF
LOOKING NORTH ON NORTH BOUND BRIDGE
N.T.S.

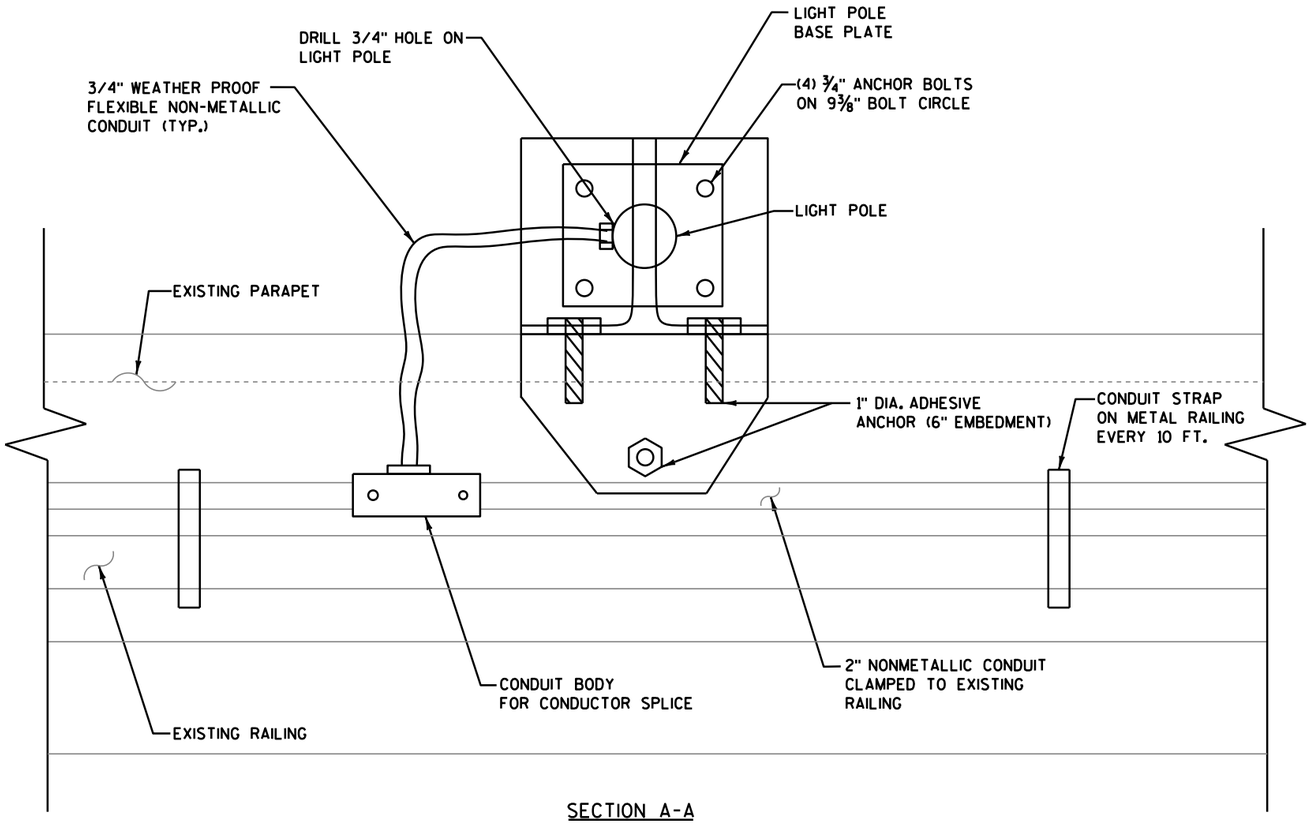


DETAIL A

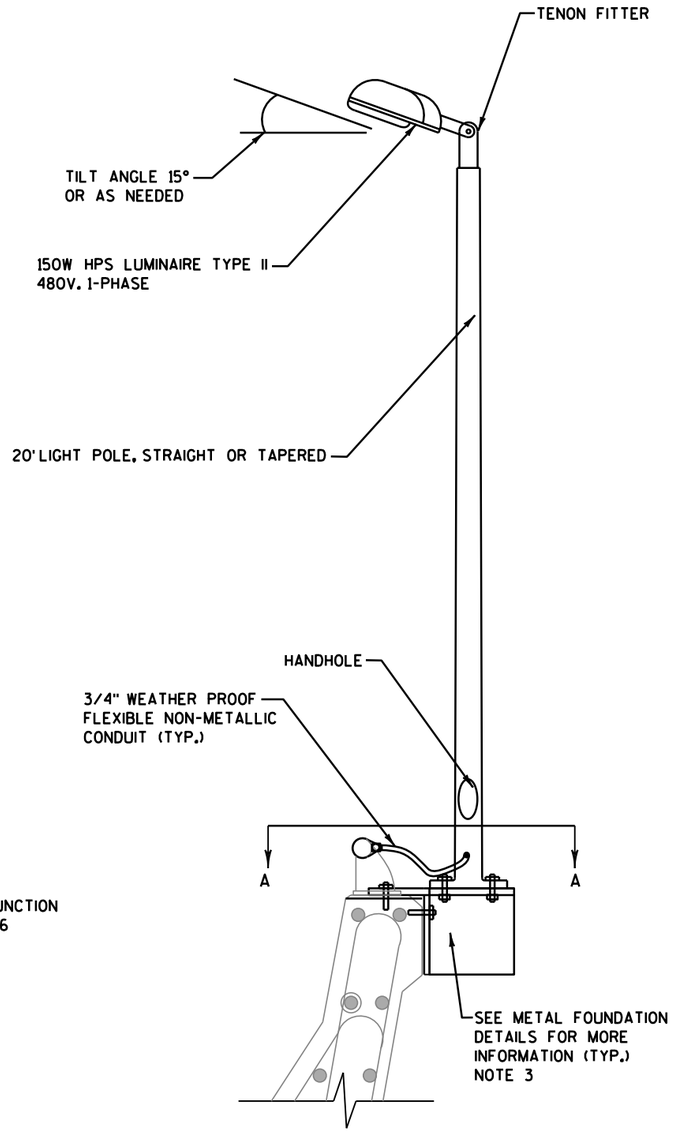
CONDUIT TRANSITION FOR CKTS FROM CONTROLLER EL-40-PM
N.T.S.

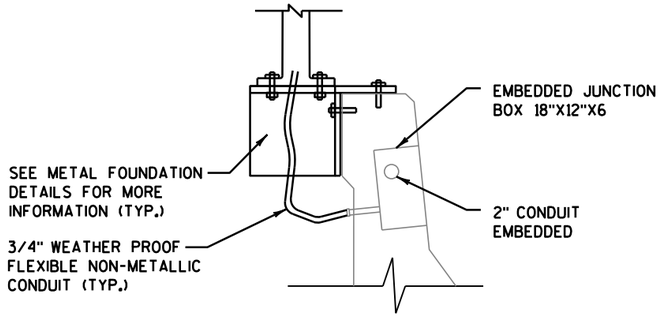
RL-70

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 280	E



SECTION A-A





TEMPORARY POLE MOUNTED ON PROPOSED SOUTHBOUND OUTSIDE PARAPET WALL CONDUIT TRANSITION DETAIL

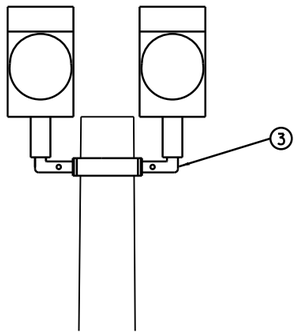
N.T.S.

TEMPORARY POLE MOUNTED ON EXISTING NORTHBOUND OUTSIDE PARAPET WALL CONDUIT TRANSITION DETAIL

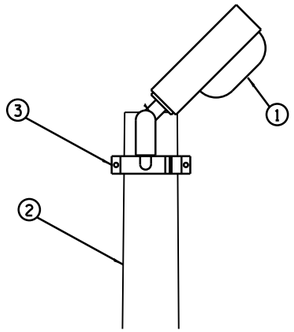
N.T.S.

NOTES:

1. TEMPORARY METAL FOUNDATION SHALL BE INSTALLED AS SHOWN ON THE TEMPORARY LIGHTING PLANS AND AS DESCRIBED IN SPECIAL PROVISIONS.
2. NECESSARY CONCRETE REPAIRS NEEDED FOR INSTALLATION AND TO PROVIDE NECESSARY STRENGTH AND STRUCTURE INTEGRITY SHALL BE PROVIDED. STRUCTURE REPAIR SHALL BE PAID AS SEPARATE PAY ITEM AS PART OF STRUCTURE DESIGN.
3. SEE ROADWAY CONSTRUCTION DETAILS OF TEMPORARY BRIDGE MOUNTED POLE FOUNDATION ATTACHED TO EXISTING CONCRETE PARAPET FOR MORE INFORMATION ON METAL FOUNDATION.

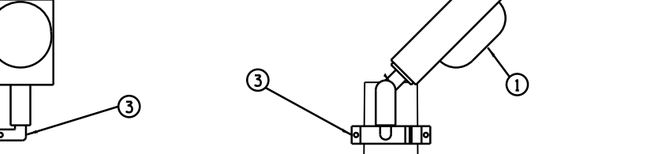


FACE VIEW



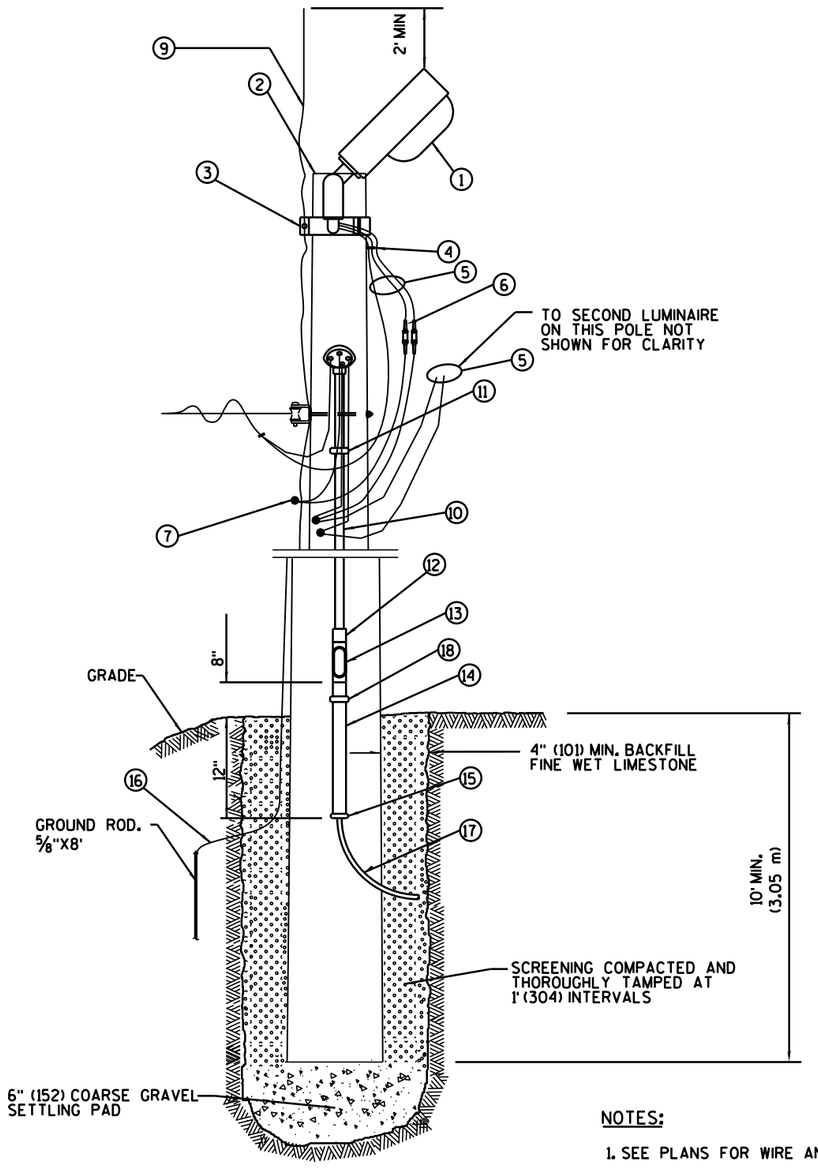
SIDE VIEW

LUMINAIRE
MOUNTING DETAILS



TWIN SINGLE

MOUNTING BRACKET DETAILS



LIGHT POLE WITH
CIRCUIT ROUTED
UNDERGROUND

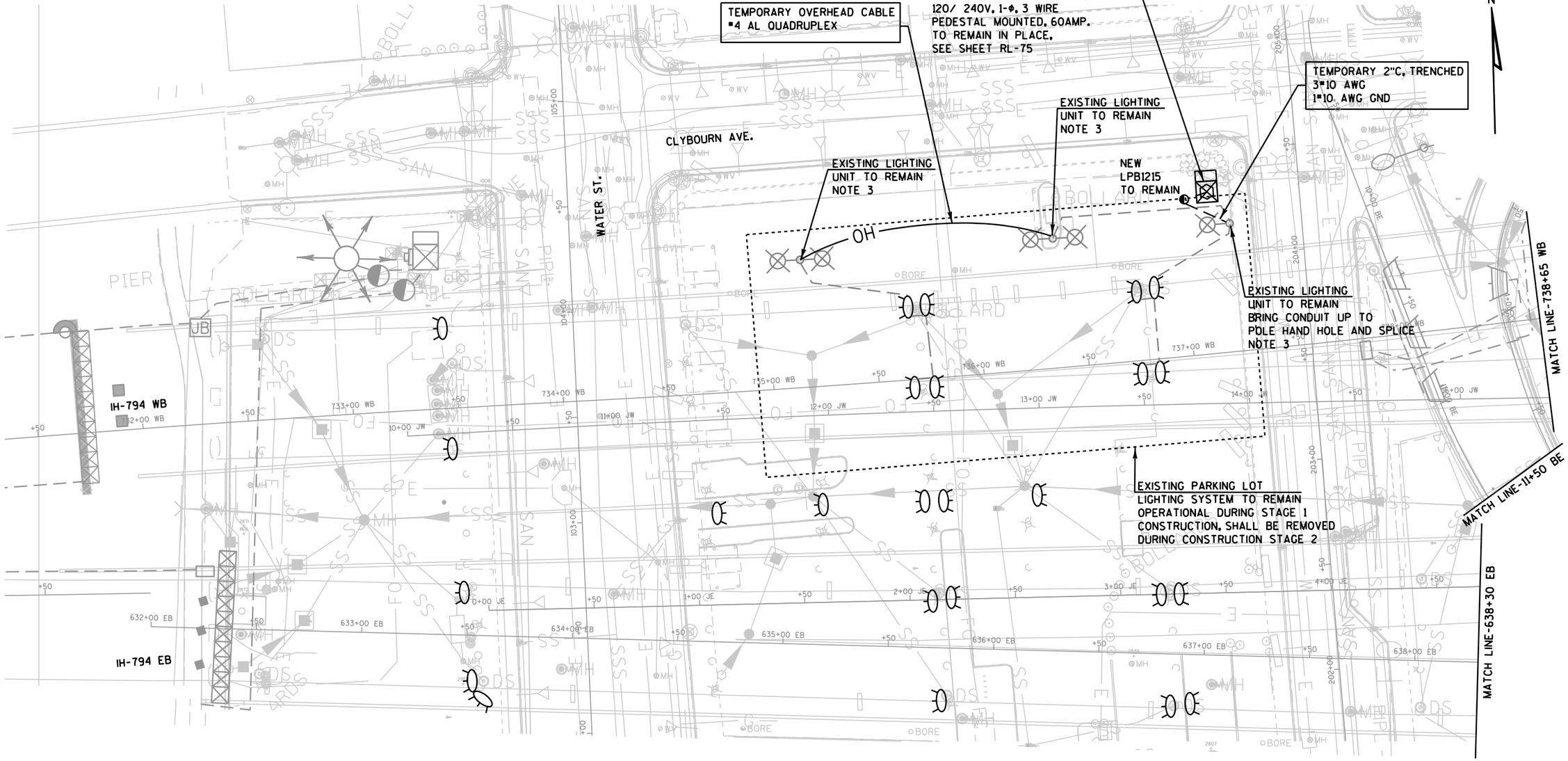
1. LUMINAIRE, SIZE AND TYPE AS NOTED.
2. WOOD LIGHT POLE, CLASS 4 (TYP.).
3. LUMINAIRE MOUNTING BRACKET.
4. CABLE CLAMPS, 2' INTERVALS.
5. 3#10 XLP-USE CABLE.
6. WATERPROOF DOUBLE POLE FUSE HOLDER WITH 5AMP FUSE AND SOLID SLUG FOR NEUTRAL.
7. WATERPROOF INSULATION PIERCING TAP CONNECTOR.
8. NOT USED
9. AIR TERMINAL.
10. 1" RIGID STEEL CONDUIT.
11. MALLEABLE IRON CONDUIT CLAMPS, 5' INTERVALS.
12. THREADED CONDUIT REDUCER.
13. "C" CONDULET, THREADED.
14. 2" RIGID STEEL CONDUIT.
15. CONDUIT BUSHING.
16. #2 BARE COPPER GROUND WIRE TO 8 FT. GROUND ROD.
17. UNIT DUCT.
18. MALLEABLE IRON CONDUIT CLAMP BELOW "C" CONDULET.

NOTES:

1. SEE PLANS FOR WIRE AND UNIT DUCT SIZES AND POLE LOCATIONS.
2. PROVIDE GUY WIRES WITH STRAIN INSULATORS AND ANCHORS, AS NEEDED, INCIDENTAL TO OVERHEAD CABLE INSTALLATION.

TEMPORARY WOOD POLE LIGHTING UNITS SINGLE/ TWIN FLOODLIGHT(S)
N.T.S.

RL-72



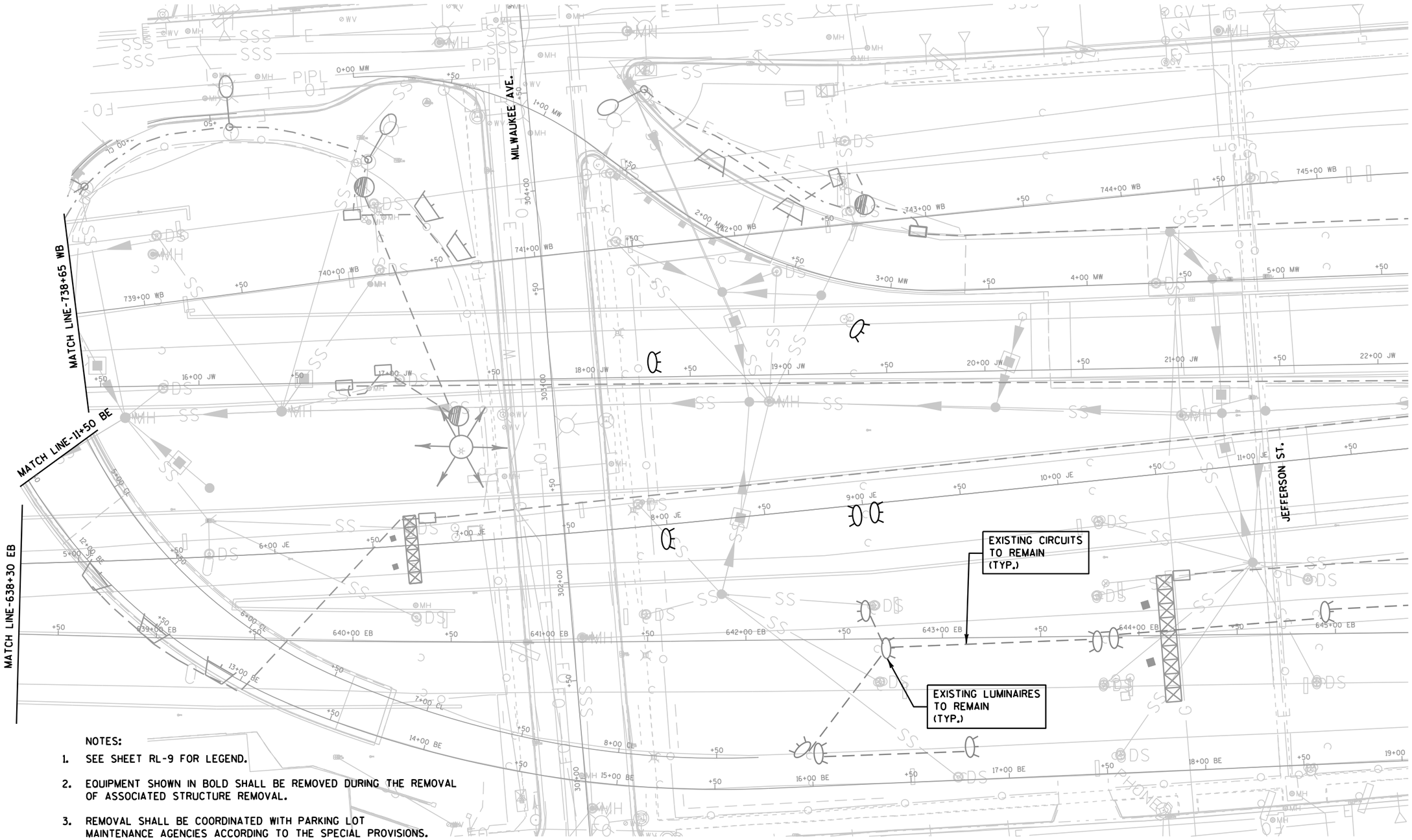
NOTES:

1. SEE SHEET RL-9 FOR LEGEND.
2. EQUIPMENT SHOWN IN BOLD SHALL BE REMOVED DURING THE REMOVAL OF ASSOCIATED STRUCTURE REMOVAL UNLESS NOTED ON THE PLANS.
3. EXISTING GROUND MOUNTED PARKING LOT POLES SHALL REMAIN IN PLACE. DURING STAGE 2 CONSTRUCTION CONTRACTOR MAY CHOOSE TO REMOVE THESE POLES AND INSTALL THEM BACK AFTER BRIDGE CONSTRUCTION IS DONE.
4. THE EXISTING MILWAUKEE PUBLIC MARKET PARKING LOT LIGHTING FEED LOCATIONS SHALL BE VERIFIED IN THE FIELD. THE MAIN POWER SOURCE IS LOCATED IN THE BASEMENT OF THE PUBLIC MARKET BUILDING. REMOVAL SHALL BE COORDINATED WITH PARKING LOT MAINTENANCE AGENCIES ACCORDING TO THE SPECIAL PROVISIONS.

EXISTING UNDERSTRUCTURE PARKING LOT LIGHTING REMOVAL
EAST-WEST SECTION

RL-73

2



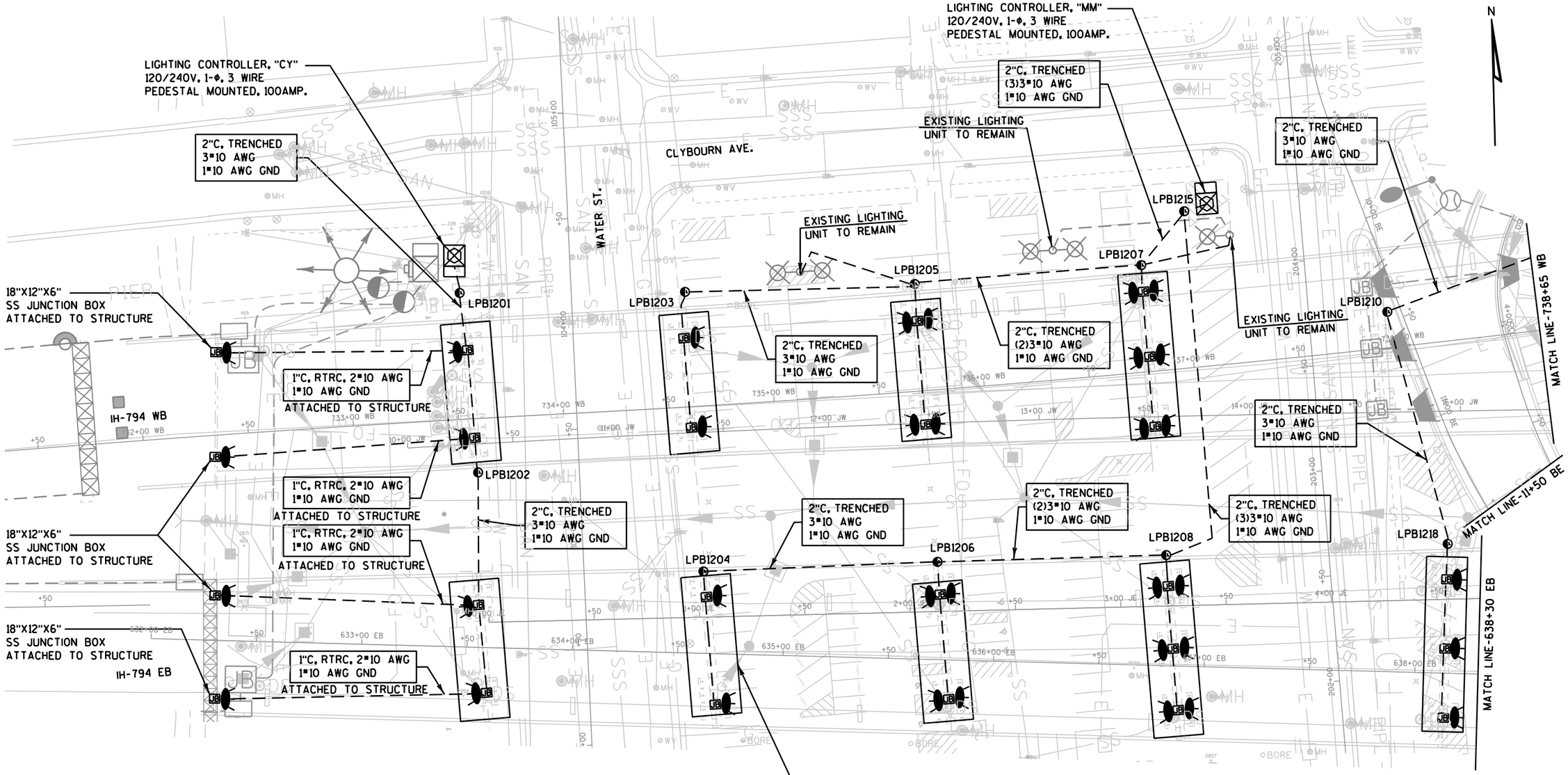
NOTES:

1. SEE SHEET RL-9 FOR LEGEND.
2. EQUIPMENT SHOWN IN BOLD SHALL BE REMOVED DURING THE REMOVAL OF ASSOCIATED STRUCTURE REMOVAL.
3. REMOVAL SHALL BE COORDINATED WITH PARKING LOT MAINTENANCE AGENCIES ACCORDING TO THE SPECIAL PROVISIONS.

EXISTING UNDERSTRUCTURE PARKING LOT LIGHTING REMOVAL
EAST-WEST SECTION

RL-74

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 284 E



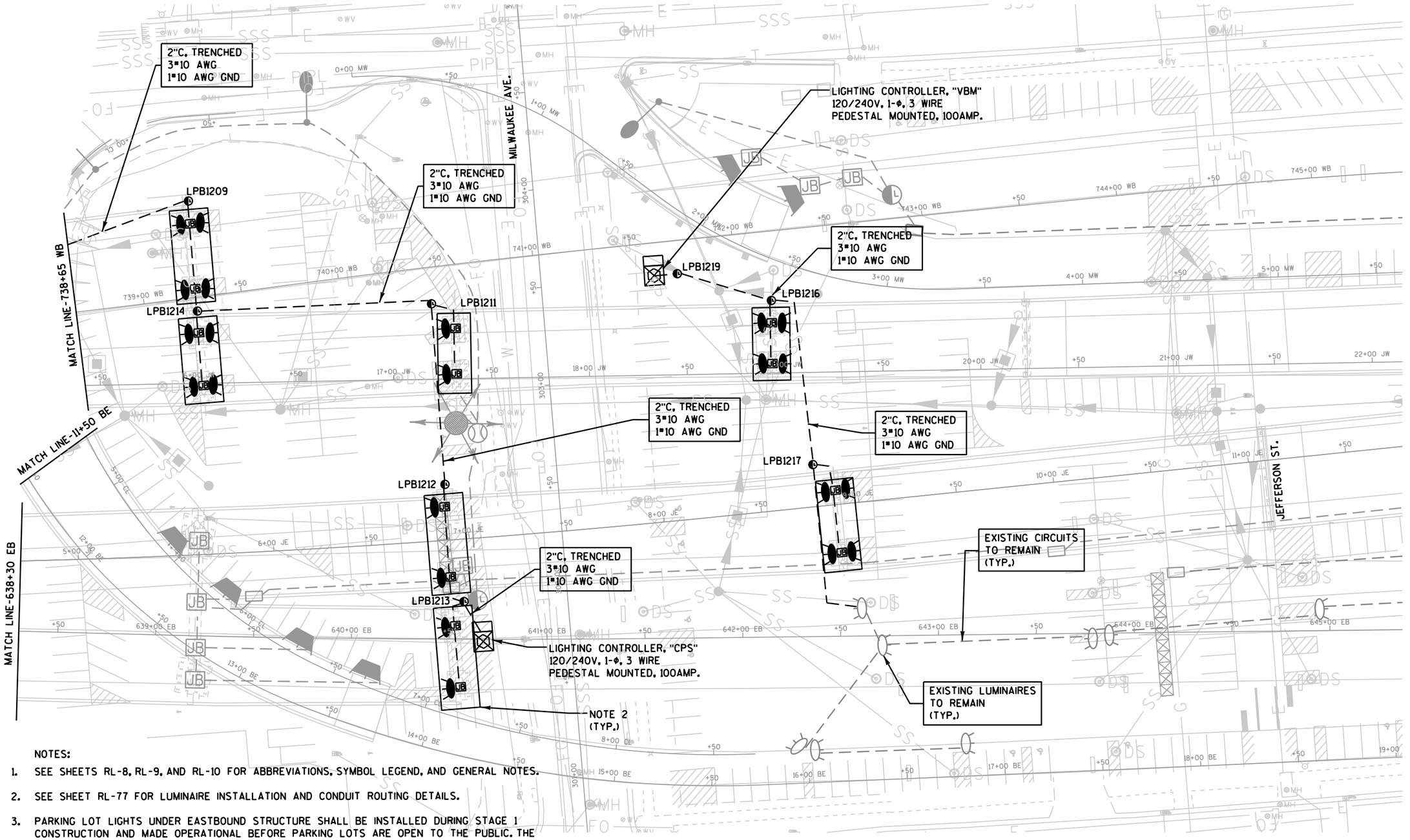
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. SEE SHEET RL-77 FOR LUMINAIRE INSTALLATION AND CONDUIT ROUTING DETAILS.
3. PARKING LOT LIGHTS UNDER EASTBOUND STRUCTURE SHALL BE INSTALLED DURING STAGE 1 CONSTRUCTION AND MADE OPERATIONAL BEFORE PARKING LOTS ARE OPEN TO THE PUBLIC. THE LIGHTING CONTROLLERS SHALL BE INSTALLED AND MADE OPERATIONAL DURING PRE-CONSTRUCTION STAGE FOR TEMPORARY LIGHTING NEEDED. THE COST FOR THIS WORK SHALL BE INCIDENTAL TO ASSOCIATED PAY ITEMS.

PROPOSED UNDERSTRUCTURE PARKING LOT LIGHTING
EAST-WEST SECTION

RL-75

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 285 E



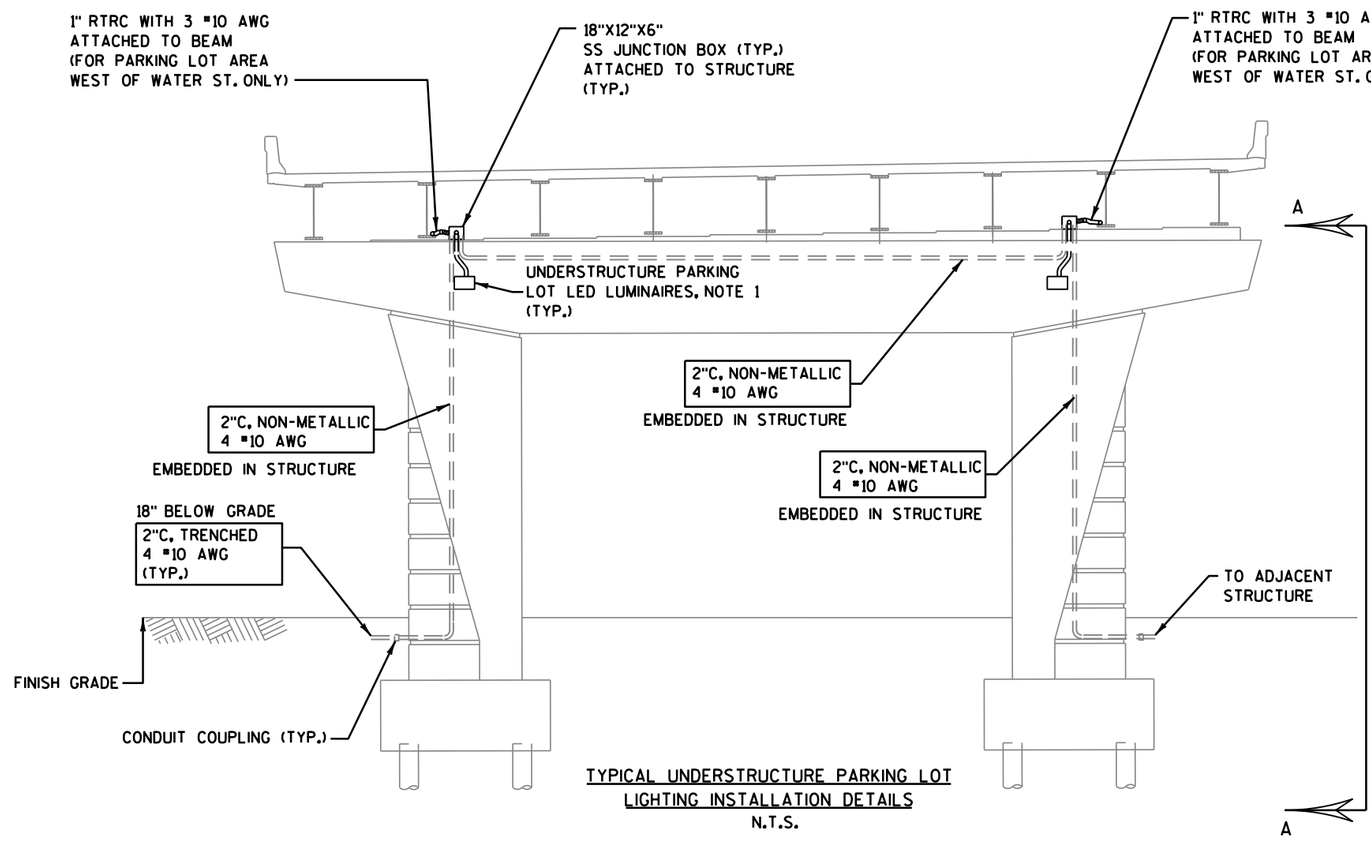
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. SEE SHEET RL-77 FOR LUMINAIRE INSTALLATION AND CONDUIT ROUTING DETAILS.
3. PARKING LOT LIGHTS UNDER EASTBOUND STRUCTURE SHALL BE INSTALLED DURING STAGE 1 CONSTRUCTION AND MADE OPERATIONAL BEFORE PARKING LOTS ARE OPEN TO THE PUBLIC. THE LIGHTING CONTROLLERS SHALL BE INSTALLED AND MADE OPERATIONAL DURING PRE-CONSTRUCTION STAGE FOR TEMPORARY LIGHTING NEEDED. THE COST FOR THIS WORK SHALL BE INCIDENTAL TO ASSOCIATED PAY ITEMS.

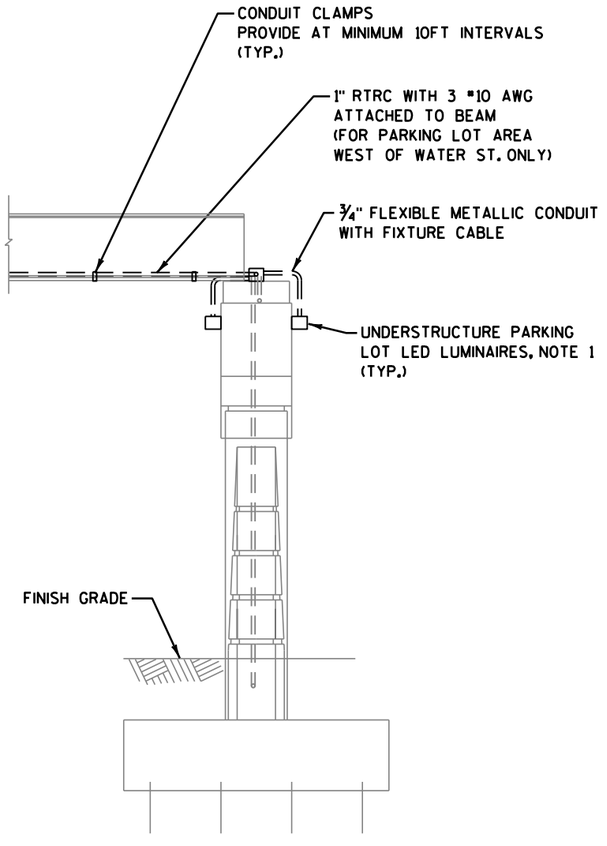
PROPOSED UNDERSTRUCTURE PARKING LOT LIGHTING
EAST-WEST SECTION

RL-76

2



TYPICAL UNDERSTRUCTURE PARKING LOT
LIGHTING INSTALLATION DETAILS
N.T.S.



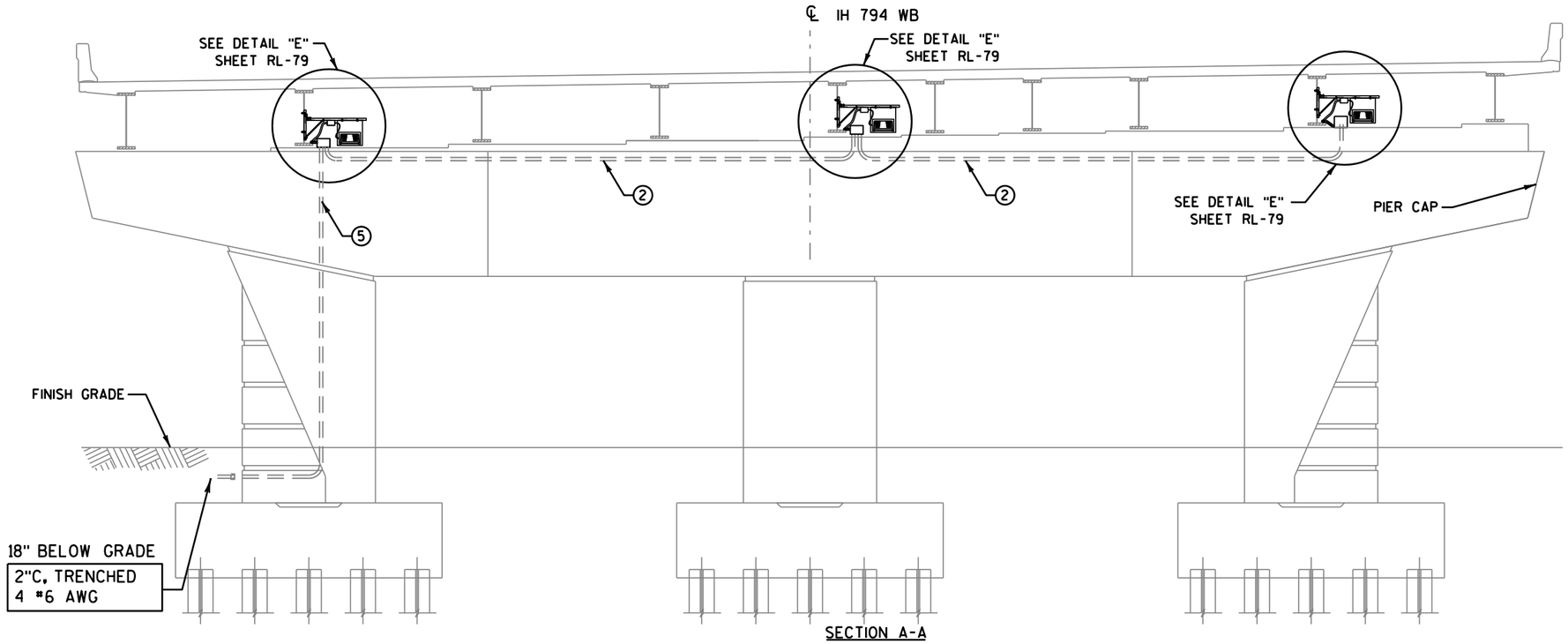
SECTION A-A
N.T.S.

NOTES:

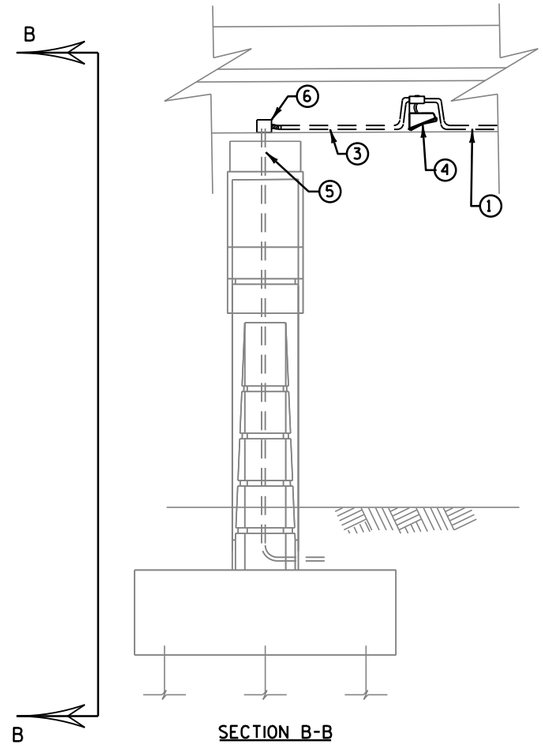
1. THE LED LUMINAIRES SHALL BE HORIZONTALLY MOUNTED ON THE PIER ACCORDING TO THE SPECIFICATIONS. LUMINAIRES SHALL BE LOCATED NO MORE THAN 1-FT FROM THE TOP OF THE PIER CAP. CENTER THE LUMINAIRES ON VERTICAL PER SUPPORT. FIXTURE CABLE SHALL BE CONNECTED BRANCH CIRCUITS AT THE JUNCTION BOX LOCATED ON TOP OF THE PIER.

RL-77

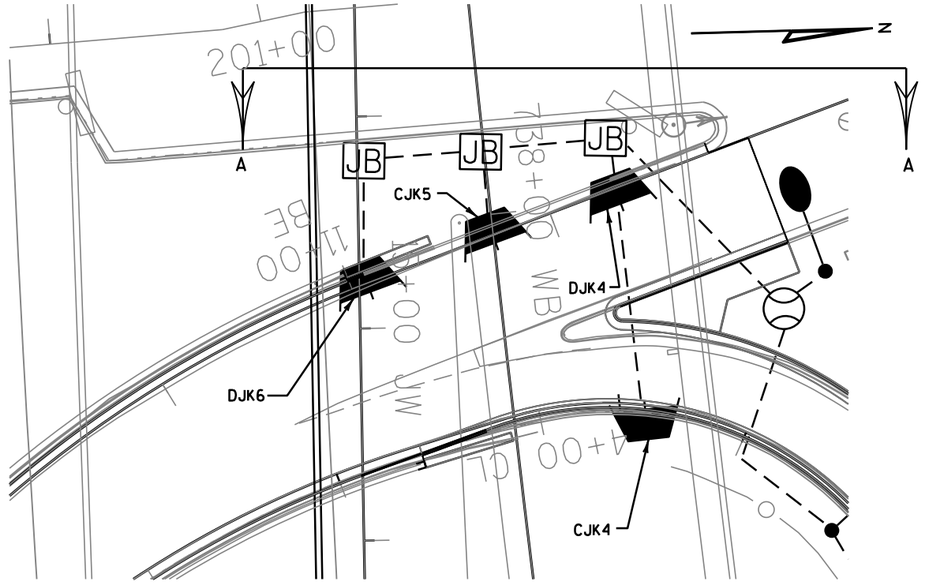
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 287	E



SECTION A-A
UNDERDECK LIGHTING INSTALLATION DETAIL
STRUCTURE B-40-885 - PIER 5 ELEVATION VIEW LOOKING EAST
STA. 737+86.78 WB
N.T.S.



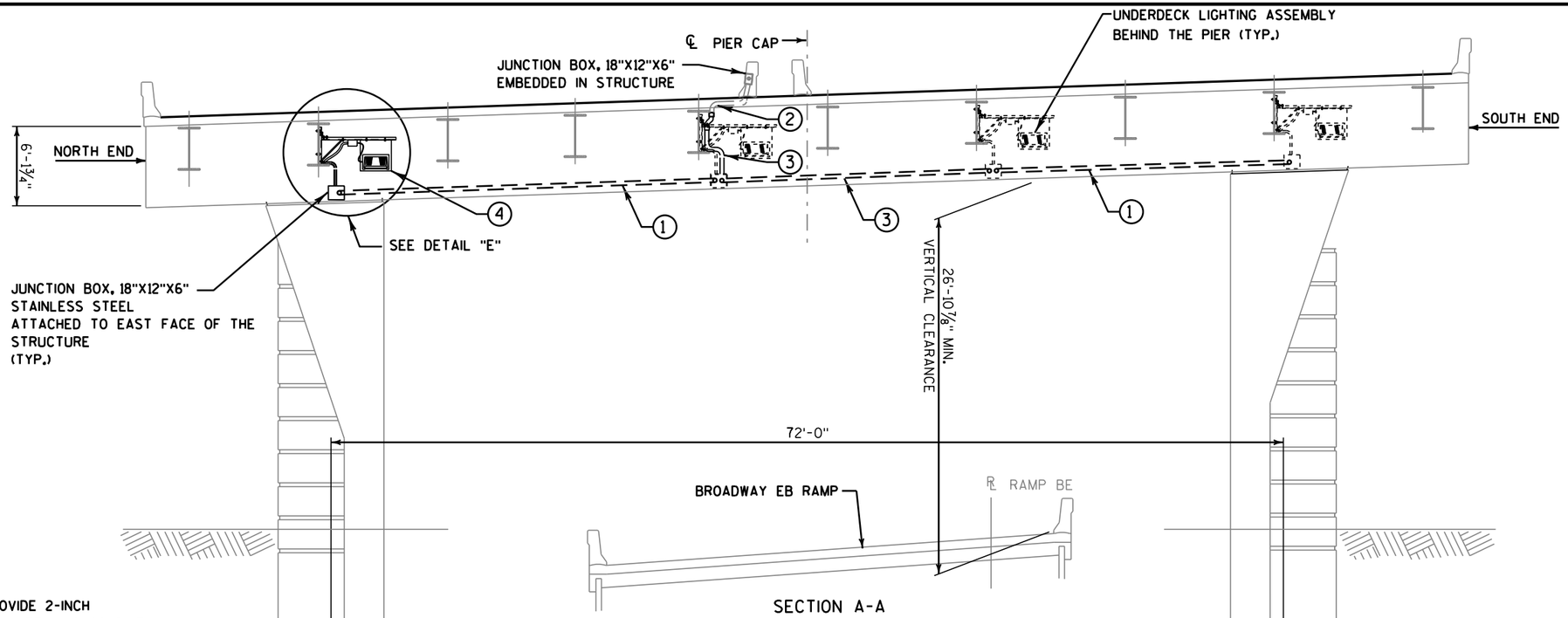
SECTION B-B
N.T.S.



LEGEND

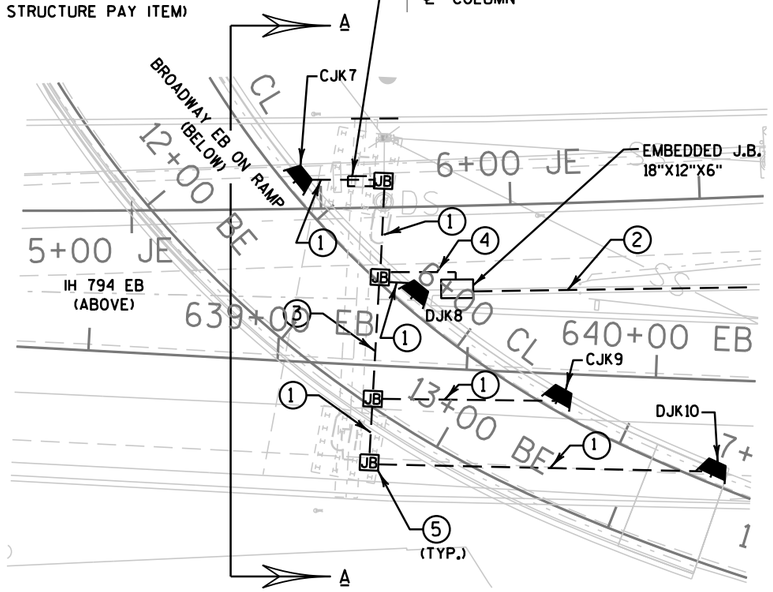
1. 1 INCH RTRC WITH 3 - 10 AWG CONDUCTORS
2. 1 INCH NON-METALLIC CONDUIT EMBEDDED IN STRUCTURE WITH 4 -10 AWG CONDUCTORS
3. 1 INCH RTRC WITH 4 - 10 AWG CONDUCTORS
4. UNDERDECK LIGHTING FIXTURE
5. 2 INCH NON-METALLIC CONDUIT EMBEDDED IN STRUCTURE WITH 4 - 6 AWG CONDUCTORS
6. JUNCTION BOX, STAINLESS STEEL 18"X12"X6", BOX COVER SHALL BE LOCATED ON TOP.

RL-78

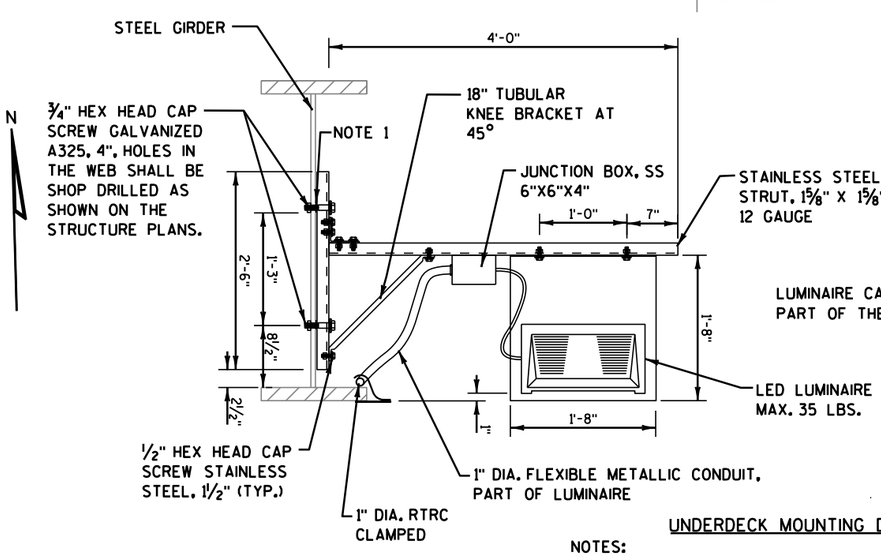


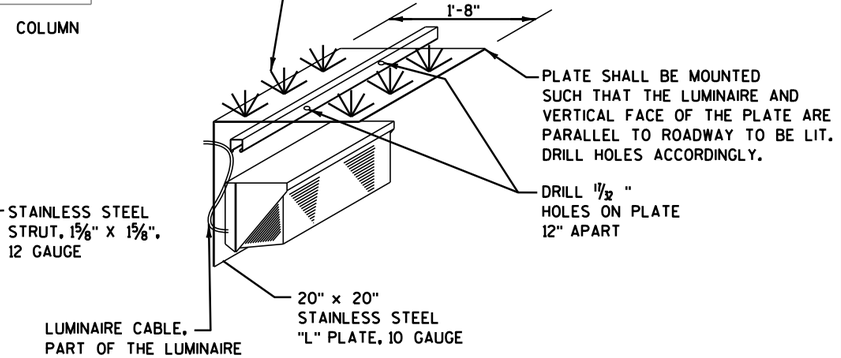
SECTION A-A
UNDERDECK LIGHTING INSTALLATION DETAIL
STRUCTURE B-40-887- PIER 6 ELEVATION VIEW LOOKING EAST
STA. 639+20.00 EB
N.T.S.

PROVIDE 2-INCH NON-METALLIC CONDUIT SLEEVE EMBEDDED IN STRUCTURE FOR CONDUIT TRANSITION, 6-INCH BELOW THE DECK (PART OF STRUCTURE PAY ITEM)



PLAN VIEW





DETAIL "E"
UNDERDECK MOUNTING DETAILS-FOR LIGHTING OVER RAMPS - BROADWAY ON RAMPS UNDER IH-794
N.T.S.

LEGEND

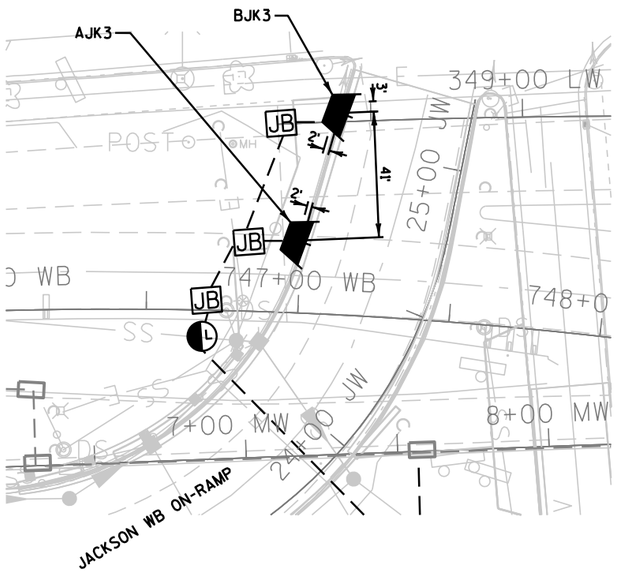
1. 1 INCH RTRC WITH 3 - 10 AWG CONDUCTORS
2. 2 INCH NON-METALLIC CONDUIT EMBEDDED IN STRUCTURE WITH 4 - 6 AWG CONDUCTORS
3. 1 INCH RTRC WITH 4 - 10 AWG CONDUCTORS
4. UNDERDECK LIGHTING FIXTURE.
5. JUNCTION BOX, STAINLESS STEEL 18"X12"X6".

NOTES:

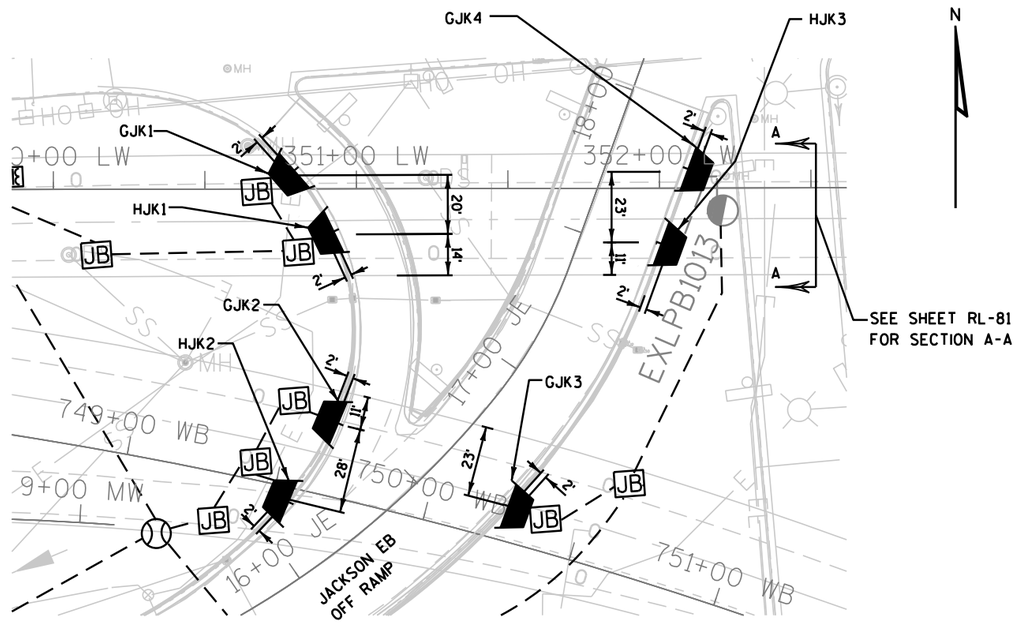
1. PROVIDE ½" NEOPRENE OR EQUAL WASHER AS DESCRIBED IN THE SPECIAL PROVISION TO AVOID CONTACT WITH DISSIMILAR METALS.
2. THE BOTTOM EDGE OF THE PLATE SHALL NOT BE LOWER THAN BOTTOM SURFACE OF THE GIRDER FLANGE.

RL-79

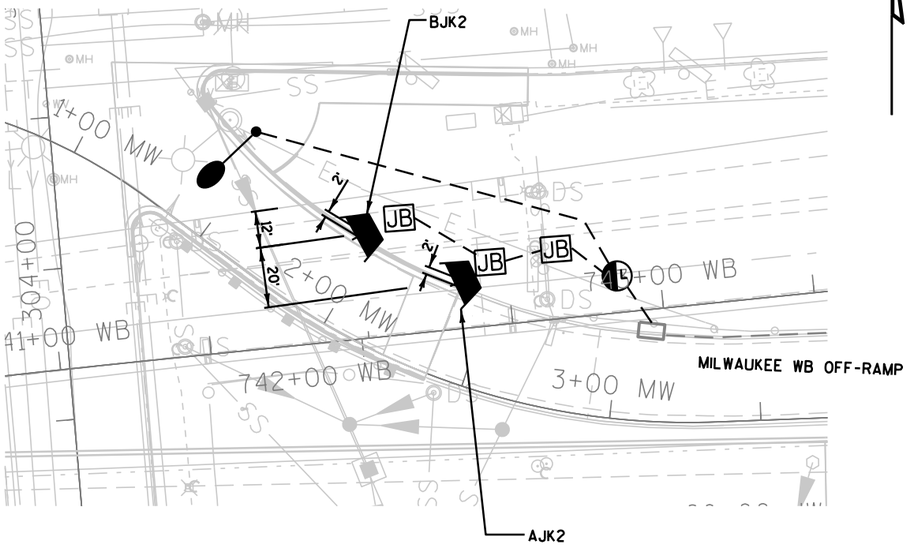
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 289 E



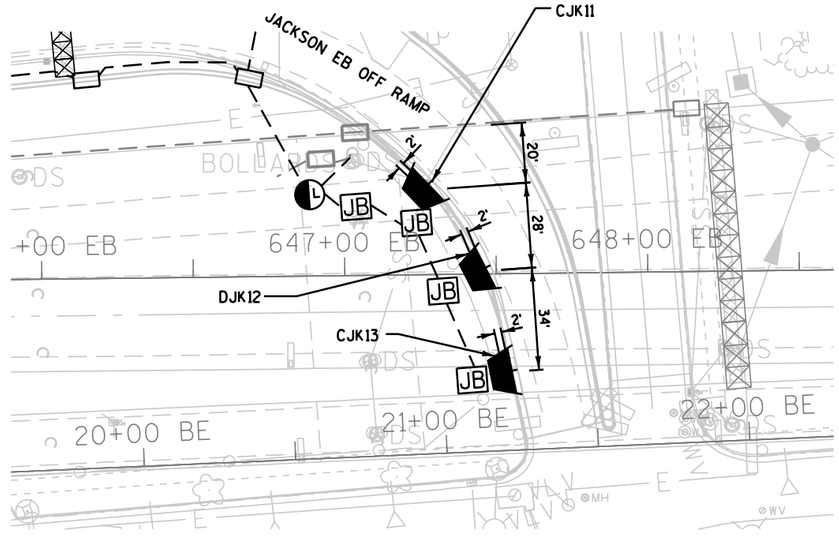
UNDERDECK LIGHTING SYSTEM JACKSON ON RAMP UNDER WB IH-794



UNDERDECK LIGHTING SYSTEM JACKSON OFF RAMP UNDER WB IH-794



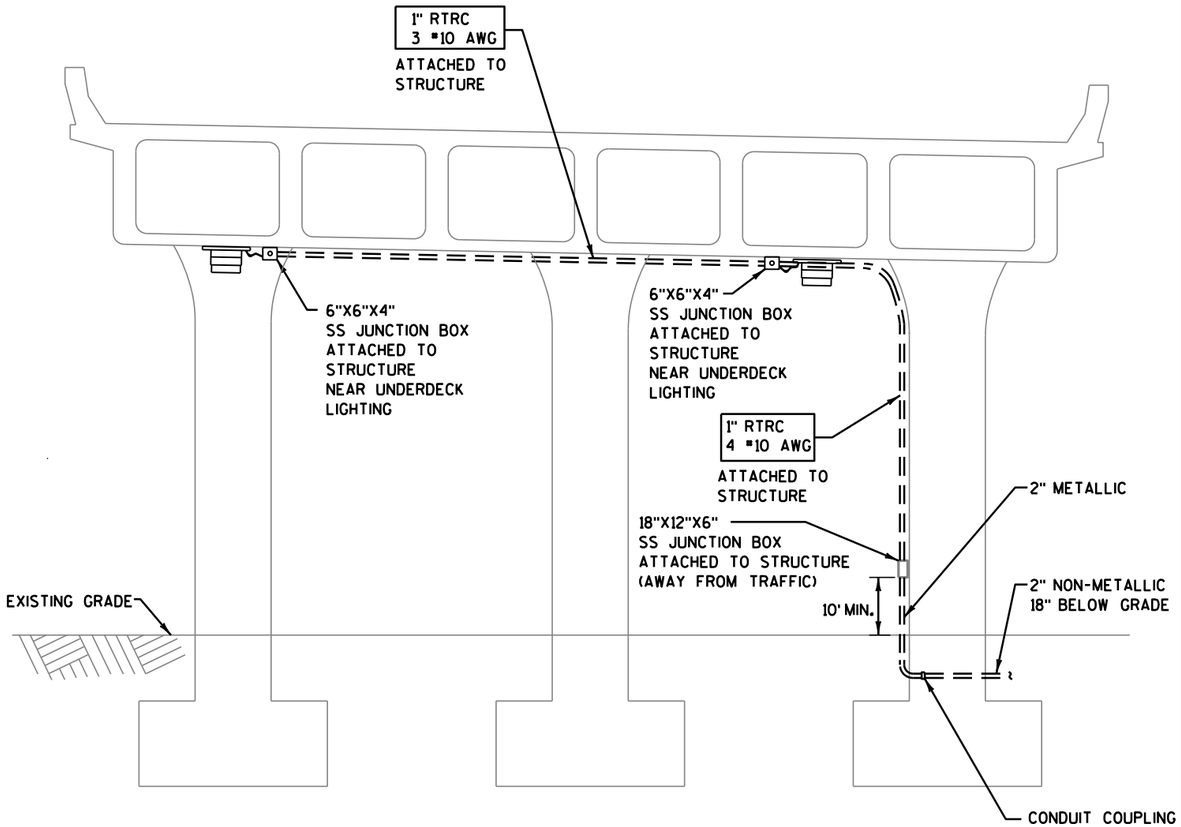
UNDERDECK LIGHTING SYSTEM MILWAUKEE OFF RAMP UNDER WB IH-794



UNDERDECK LIGHTING SYSTEM JACKSON OFF RAMP OFF RAMP UNDER EB IH-794

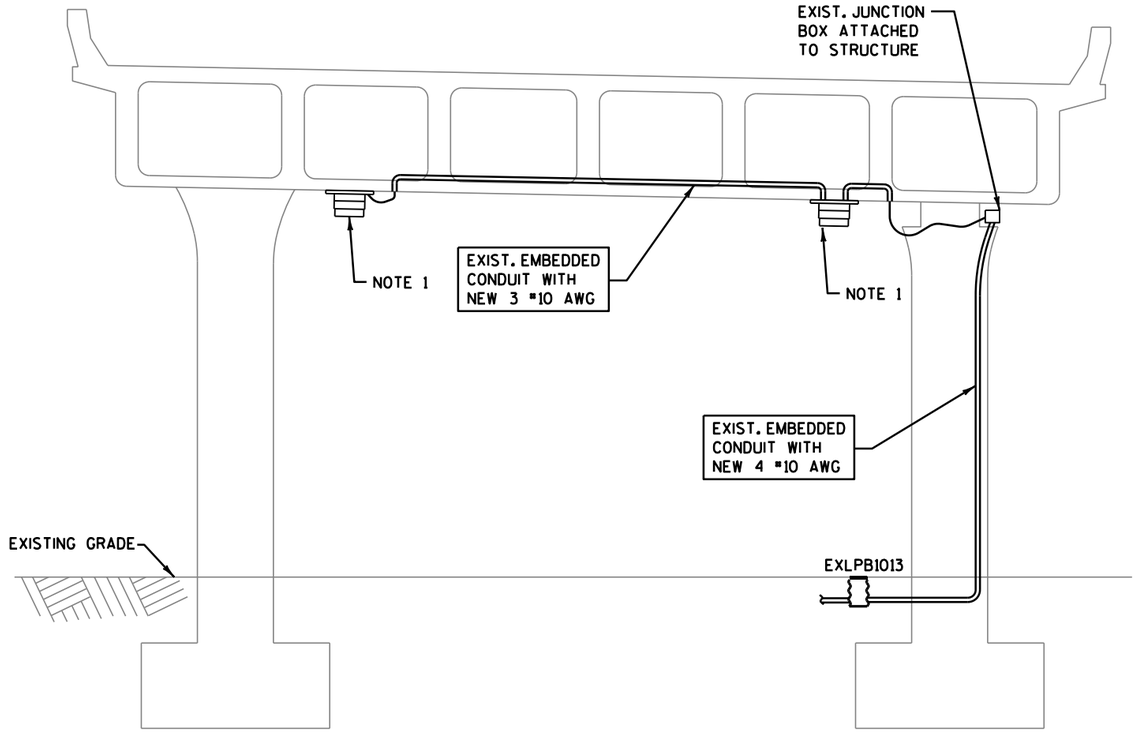
RL-80

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 290 E



TYPICAL CONDUIT TRANSITION DETAIL FOR UNDERDECK LIGHTING ON EXISTING STRUCTURE

N.T.S.



SECTION A-A PIER 1-1E , STA 352+18.72 LW UNDERDECK LIGHTING ON EXISTING STRUCTURE
(LOOKING WEST)

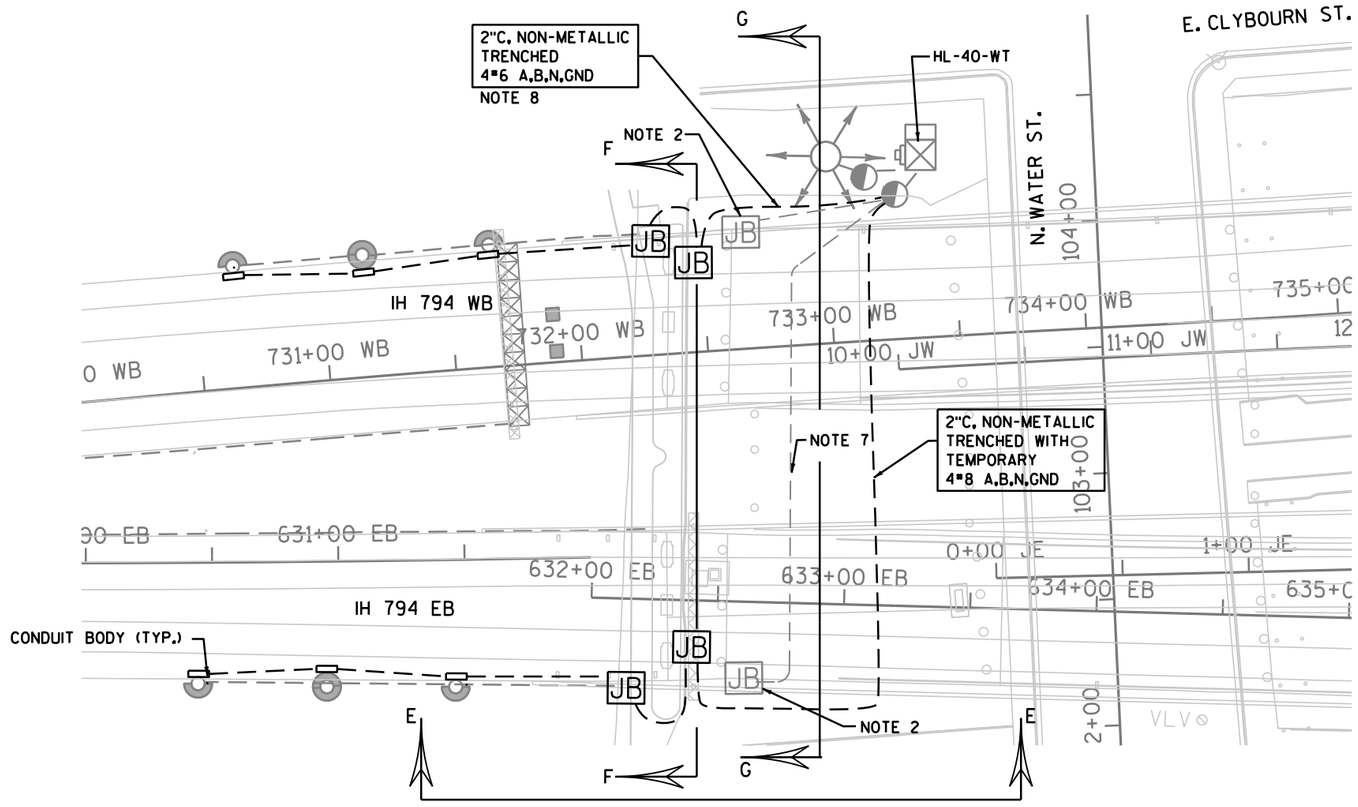
REPLACE LUMINAIRE AND WIRES ONLY
N.T.S.

NOTE 1: REPLACE EXISTING UDL WITH NEW LED UDL "L" BRACKET MOUNTED AS SHOWN ON DETAIL"E" ON SHEET RL-78.

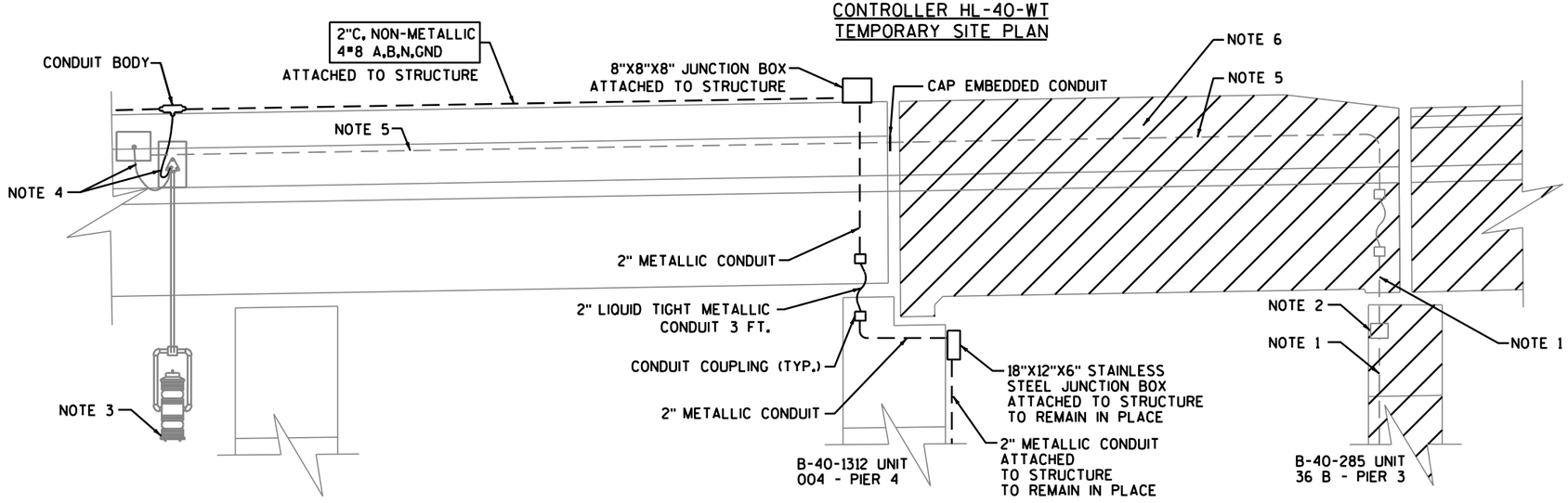
RL-81

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET	E

FILE NAME : J:\302\DGN\CADD Sheets\023739_lp.dgn PLOT DATE : 26-APR-2013 13:33 PLOT BY : mgarvida PLOT NAME : PLOT SCALE : 25:1
WISDOT/CADDS SHEET 42



CONTROLLER HL-40-WT
TEMPORARY SITE PLAN



SECTION E-E (LOOKING NORTH) (TEMPORARY)

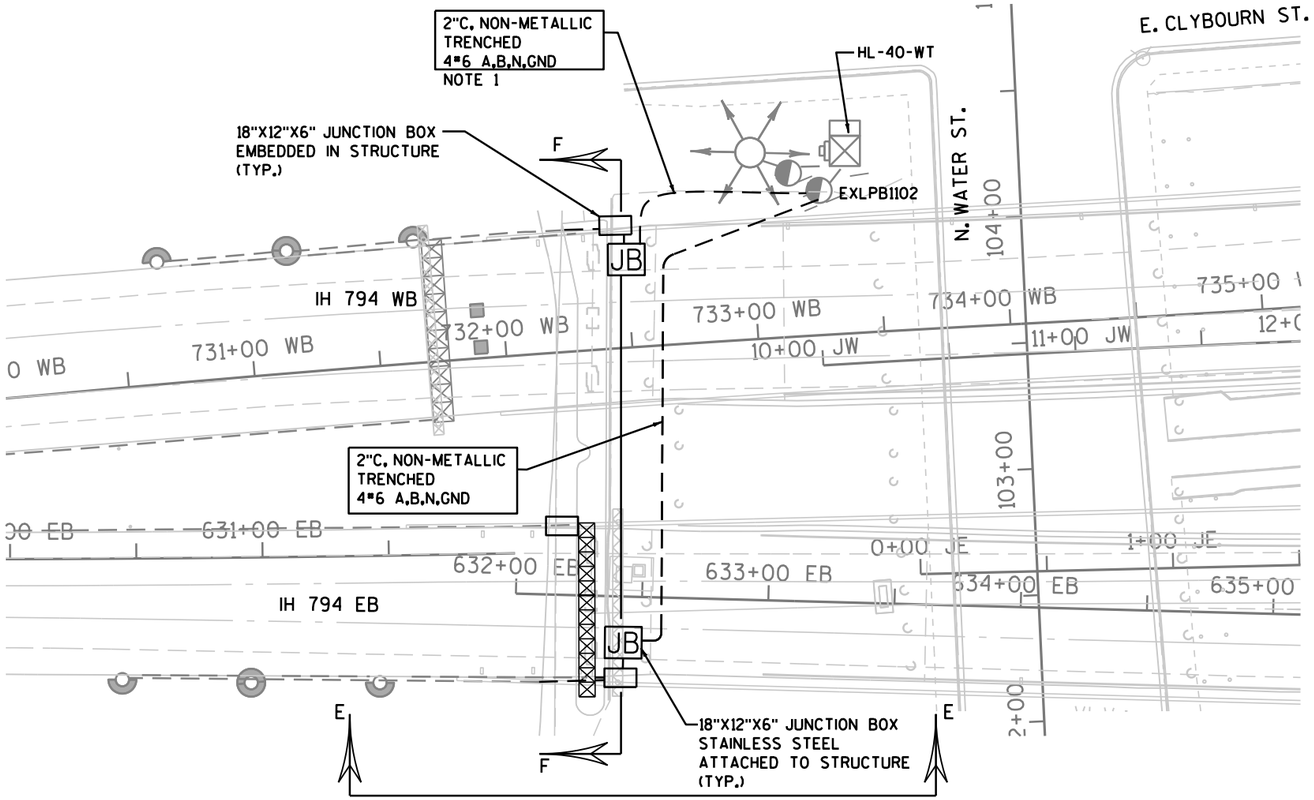
NOTE: B-40-1412 UNIT 004, PIER 4 SIMILAR
N.T.S

NOTES:

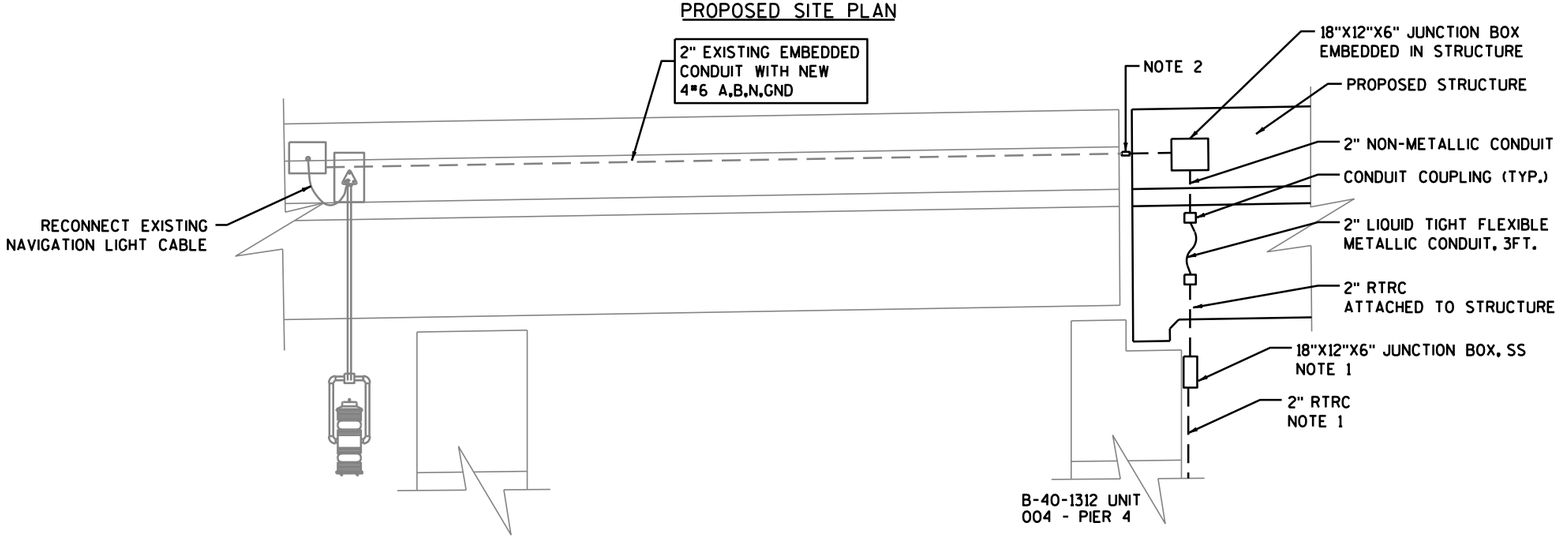
1. EXISTING CONDUIT AND CABLE USED FOR NAVIGATION LIGHTS TO BE REMOVED.
2. EXISTING JUNCTION BOX USED FOR NAVIGATION LIGHTS SHALL BE REMOVED.
3. EXISTING NAVIGATION LIGHTS TO REMAIN.
4. REMOVE EXISTING CABLE FROM NAVIGATION LIGHT AND CONNECT TEMPORARY CABLE, TYPE 'SO'.
5. EXISTING NAVIGATION LIGHT CABLE SHALL BE REMOVED FROM EMBEDDED CONDUIT.
6. EXISTING BRIDGE DECK AND PIER SHOWN IN HATCH AREA WILL BE REMOVED ACCORDING TO STRUCTURE PLANS. PLEASE SEE STRUCTURE PLANS FOR MORE DETAILS.
7. EXISTING CONDUIT USED FOR NAVIGATION LIGHTS BELOW GRADE SHALL BE ABANDONED.
8. JUNCTION BOXES, CONDUIT, AND WIRING SYSTEM SHALL REMAIN IN PLACE FOR PERMANENT SYSTEM.
9. COMPLETE TEMPORARY NAVIGATION LIGHTING POWER FEED SYSTEM SHOWN HERE SHALL BE REMOVED AFTER PERMANENT POWER FEED IS INSTALLED UNLESS NOTED ON THE PLANS.
10. ALL NAVIGATION LIGHTS SHALL BE OPERATIONAL AT ALL TIMES. CONTRACTOR SHALL COORDINATE WITH STRUCTURE WORK TO PROVIDE TEMPORARY POWER FEED BEFORE REMOVAL OF EXISTING POWER FEED TO NAVIGATION LIGHTS.

RL-82

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 292	E



CONTROLLER HL-40-WT
PROPOSED SITE PLAN



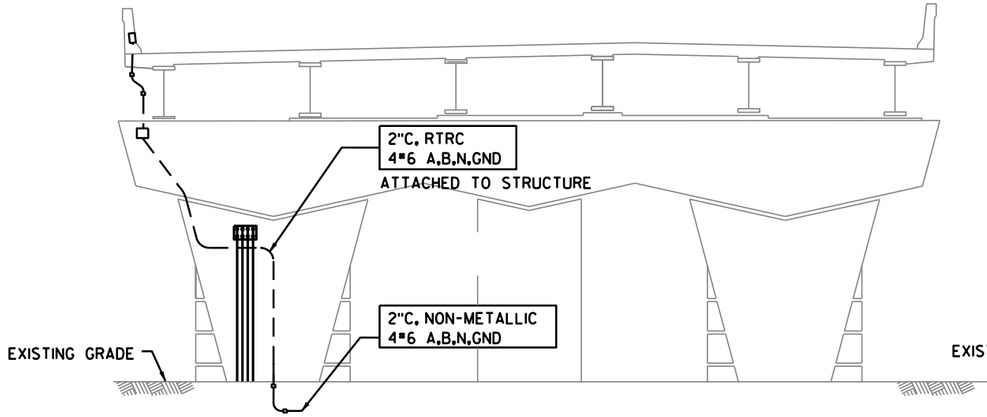
SECTION E-E (LOOKING NORTH) (PROPOSED)

NOTE: B-40-1412 UNIT 004, PIER 4 SIMILAR
N.T.S

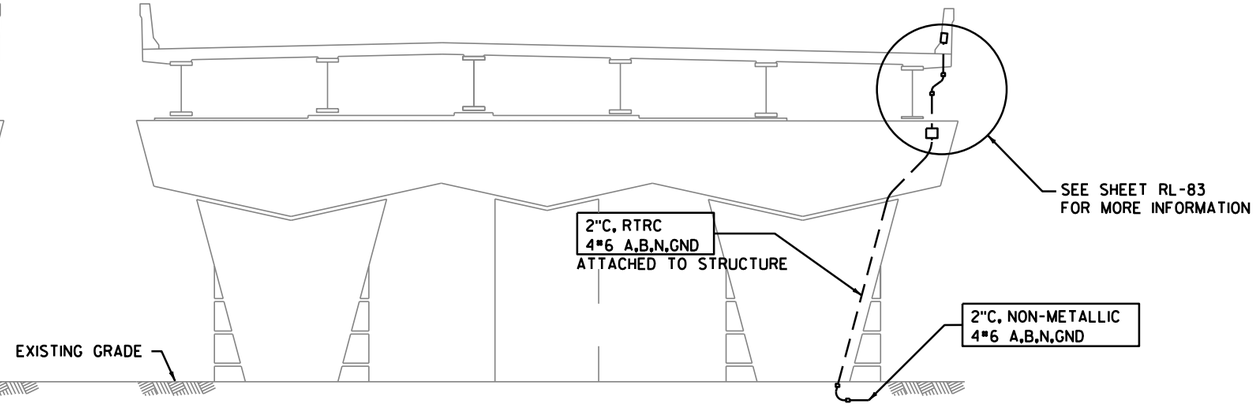
NOTES:

1. JUNCTION BOX AND CONDUIT USED IN THE TEMPORARY STAGE SHALL REMAIN IN PLACE AND WILL BE USED PERMANENTLY FOR NAVIGATION LIGHTS AND STRUCTURE SIGN LIGHTS.
2. EXPANSION JOINT SHALL BE USED TO CONNECT THE EXISTING CONDUIT EMBEDDED IN STRUCTURE AND PROPOSED CONDUIT EMBEDDED IN STRUCTURE.
3. SEE SHEET RL-84 FOR ADDITIONAL DETAIL.

RL-83

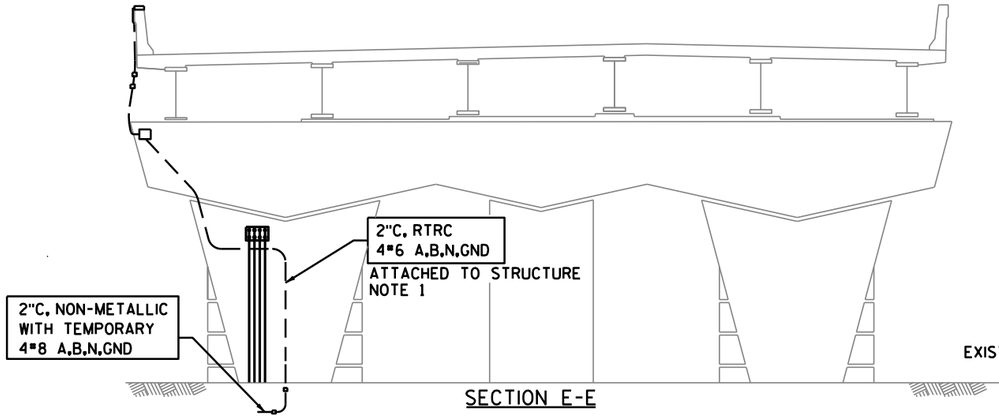


B-40-1312 UNIT 004 - PIER 4 CONDUIT TRANSITION DETAIL LOOKING WEST
N.T.S



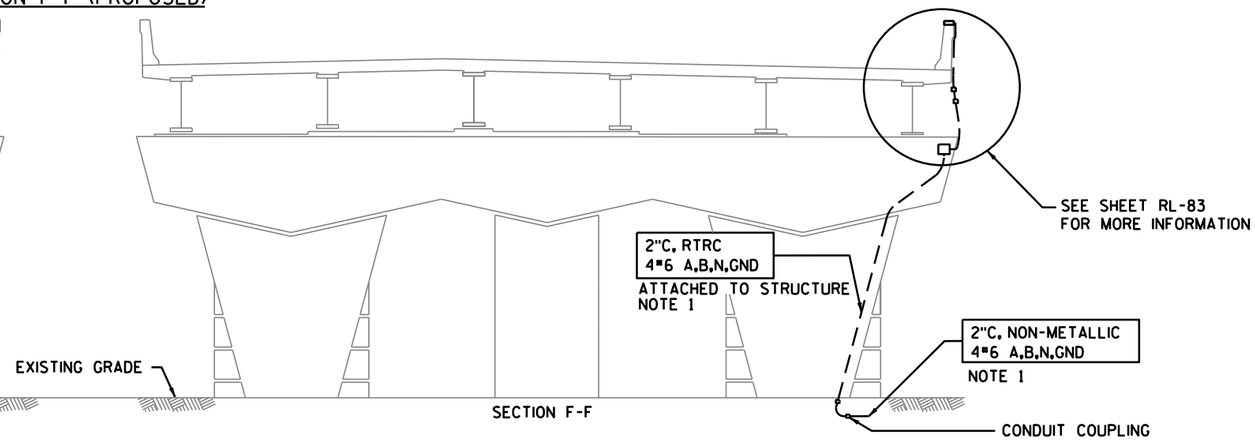
B-40-1412 UNIT 004 - PIER 4 CONDUIT TRANSITION DETAIL LOOKING WEST
N.T.S

SECTION F-F (PROPOSED)



SECTION E-E

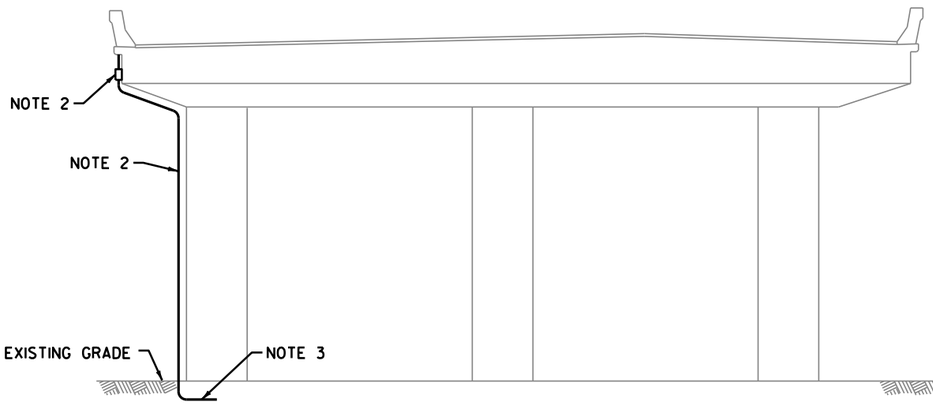
B-40-1312 UNIT 004 - PIER 4 CONDUIT TRANSITION DETAIL LOOKING WEST
N.T.S



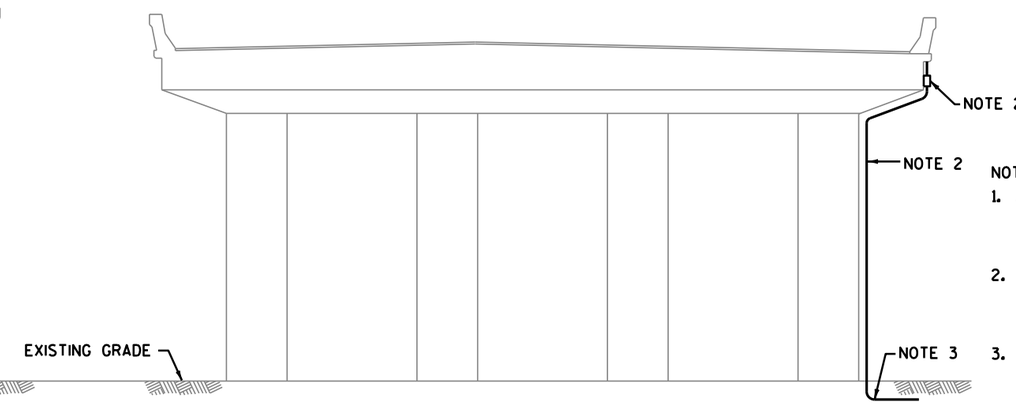
SECTION F-F

B-40-1412 UNIT 004 - PIER 4 CONDUIT TRANSITION DETAIL LOOKING WEST
N.T.S

SECTION F-F (TEMPORARY)



B-40-285 UNIT 36 B - PIER 3 CONDUIT DETAIL LOOKING WEST
N.T.S



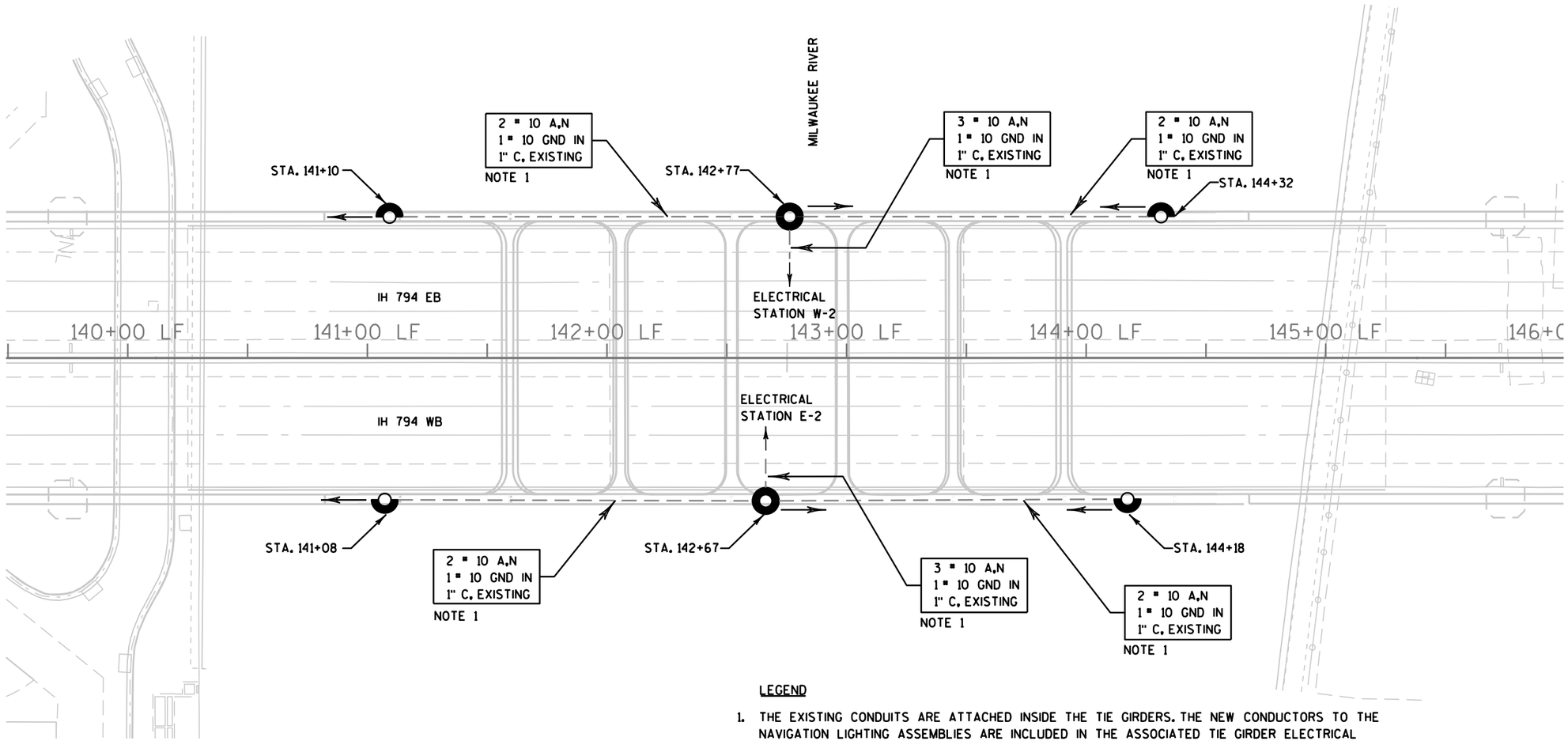
B-40-385 UNIT 37A - PIER 3 CONDUIT DETAIL LOOKING WEST
N.T.S

NOTES:
1. JUNCTION BOXES, CONDUIT, AND WIRING SYSTEM SHALL REMAIN IN PLACE FOR PERMANENT SYSTEM.
2. EXISTING JUNCTION BOX, CONDUIT, AND WIRING USED FOR NAVIGATION LIGHTS SHALL BE REMOVED.
3. EXISTING CONDUIT USED FOR NAVIGATION LIGHTS BELOW GRADE SHALL BE ABANDONED.

SECTION G-G (REMOVAL)

RL-84

2



LEGEND

CHANNEL MARGIN NAVIGATION LIGHT, 180° RED WITH 8W LED LAMP

GREEN CENTER CHANNEL NAVIGATION LIGHT, 360° GREEN WITH 8W LED LAMP

EXISTING 1" DIA. CONDUIT, ATTACHED TO INSIDE OF TIE GIRDER

INDICATES DIRECTION OF ROTATION

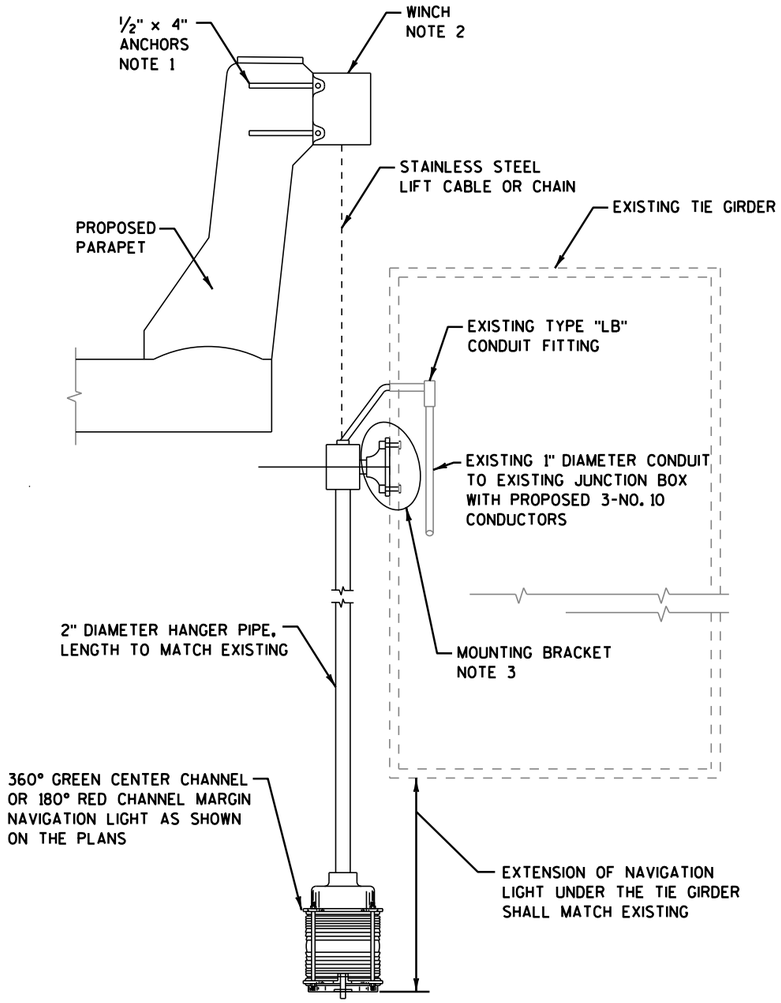
LEGEND

1. THE EXISTING CONDUITS ARE ATTACHED INSIDE THE TIE GIRDERS. THE NEW CONDUCTORS TO THE NAVIGATION LIGHTING ASSEMBLIES ARE INCLUDED IN THE ASSOCIATED TIE GIRDER ELECTRICAL LIGHTING SYSTEMS INSTALLATION PAY ITEMS.

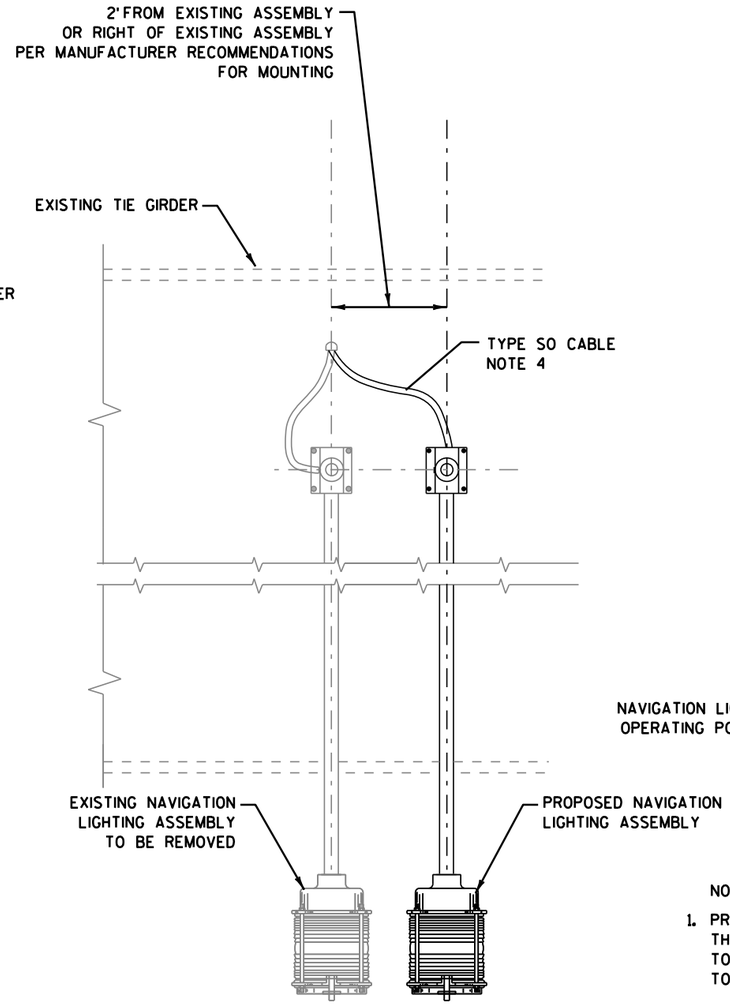
2. THE NEW NAVIGATION LIGHTING ASSEMBLIES SHALL BE INSTALLED ACCORDING TO LATEST U.S. COAST GUARD REQUIREMENTS AND TO PROVIDE CLEARANCE FOR OPERATING AND MAINTENANCE POSITIONS.

HOAN BRIDGE NAVIGATION LIGHTING - DETAILS

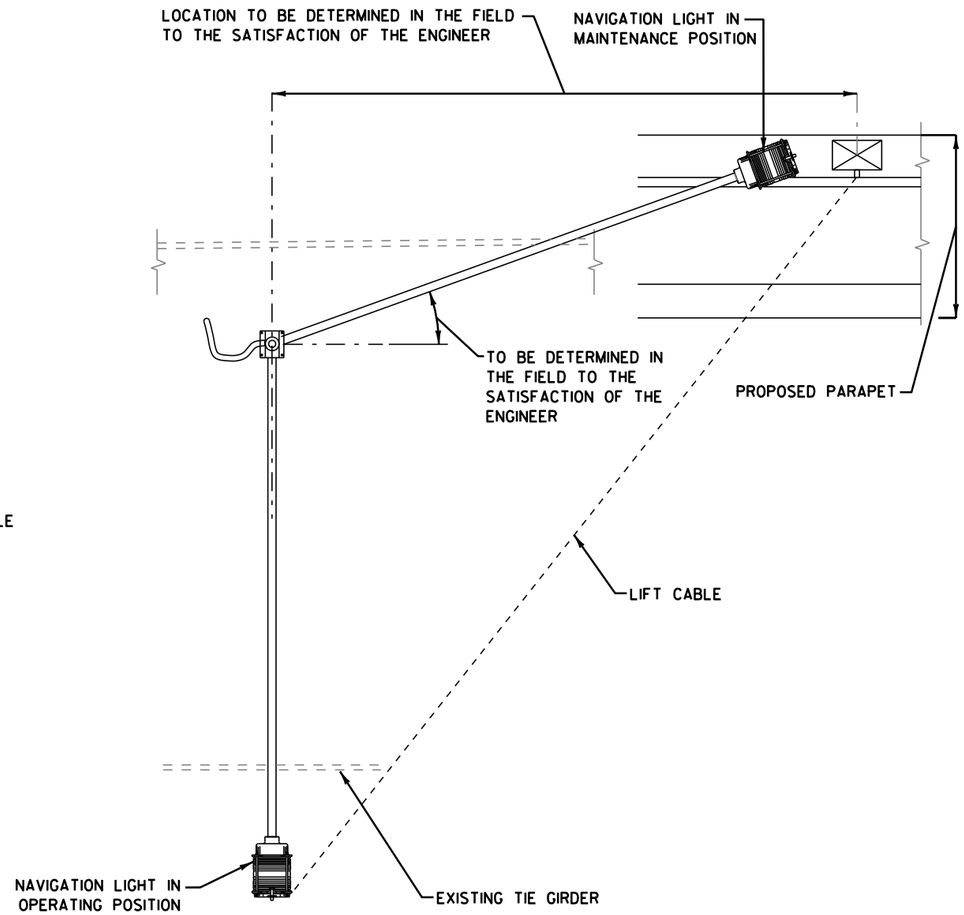
RL-85



TYPICAL CROSS SECTION AT NAVIGATION LIGHT
N.T.S.



MOUNTING DETAIL
N.T.S.



NAVIGATION LIGHT POSITION DETAIL
N.T.S.

NOTES:

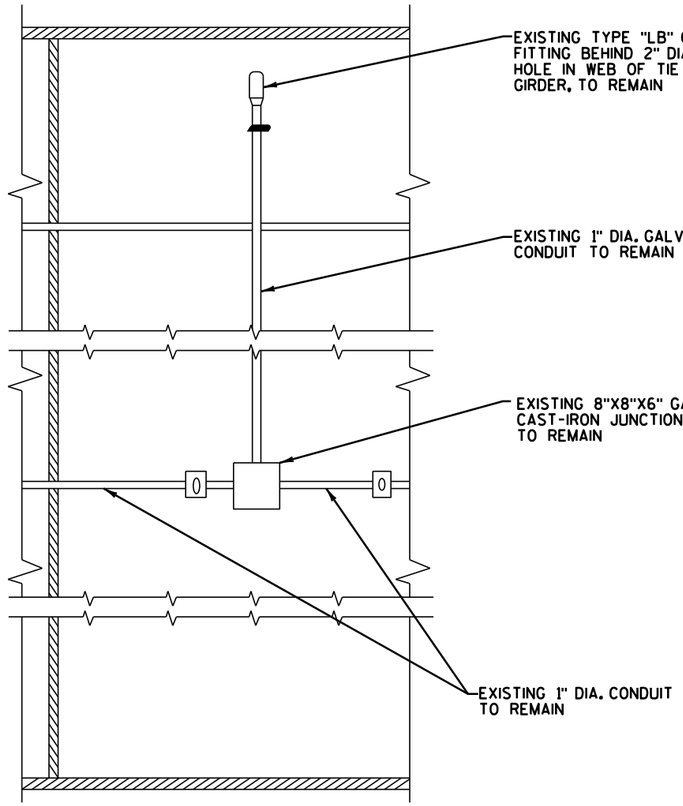
1. PROVIDE 1/2"X4" STAINLESS STEEL ANCHOR BOLTS FOR HAND WINCH MOUNTING OR AS RECOMMENDED BY THE HAND WINCH MANUFACTURER FOR TO HANDLE NAVIGATION LIGHTING ASSEMBLY LOAD. ANY DAMAGES TO THE BRIDGE PARAPET SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.
2. PROVIDE STAINLESS STEEL HAND WINCH WITH LOCKING AND ANTI-REVERSING MECHANISM. THE HAND WINCH SHALL BE CAPABLE OF HANDLING NAVIGATION LIGHTING ASSEMBLY LOAD. THE EXACT LOCATION FOR THE HAND WINCH SHALL BE DETERMINED IN THE FIELD PER MANUFACTURER RECOMMENDATIONS AND TO AVOID ANY CONFLICTS WITH STRUCTURES.
3. THE NAVIGATION LIGHTING ASSEMBLY SHALL BE ATTACHED TO THE TIE GIRDERS SUCH THAT DISSIMILAR METALS ARE NOT IN CONTACT. USE A325 GALVANIZED BOLTS FOR MOUNTING. USE NEOPRENE 1/2" PAD FOR MOUNTING.
4. TYPE SO FLEXIBLE CABLE WITH 3-1/C#14 FOR EXTRA HARD USAGE, WITH WATERTIGHT CONNECTOR WITH GLAND NUT AND NEOPRENE BUSHING SIZED TO FIT CABLE USED.

HOAN BRIDGE NAVIGATION LIGHTING - DETAILS

RL-86

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 296	E

2

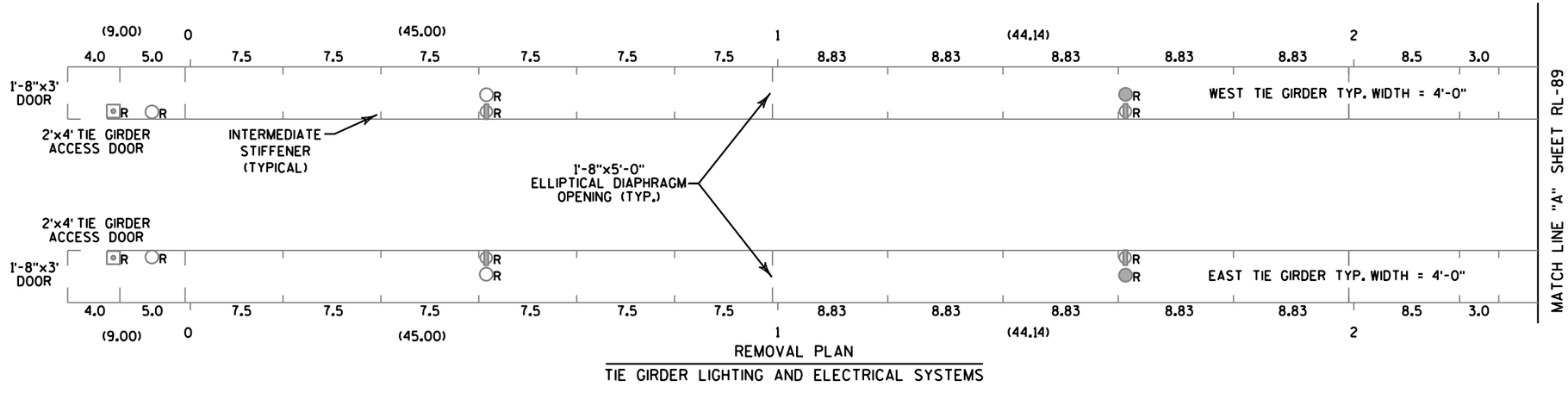


DETAIL AT NAVIGATION LIGHT CONDUIT TRANSITION
INSIDE THE TIE GIRDER
N.T.S.

NAVIGATION LIGHTING - DETAIL

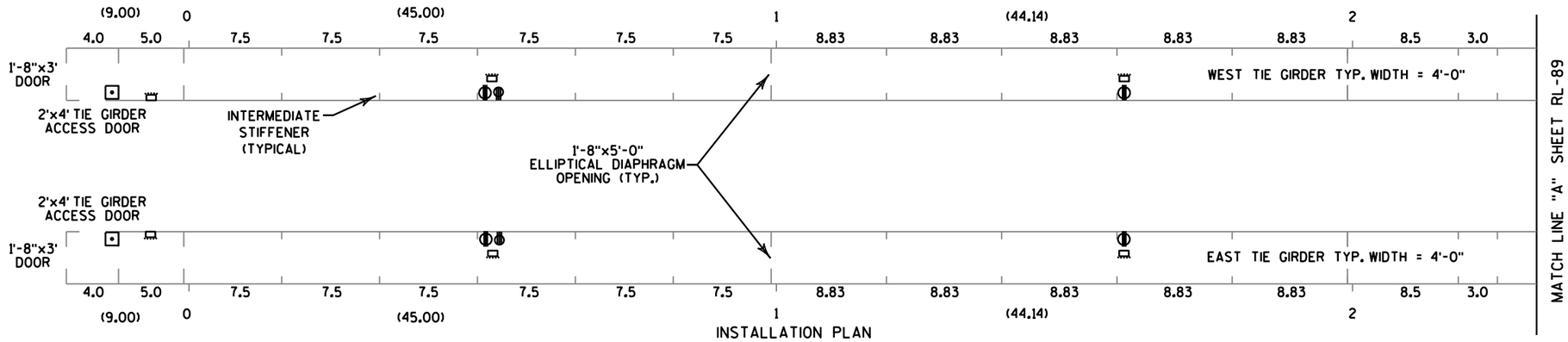
RL-87

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 297	E



REMOVAL PLAN

TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS



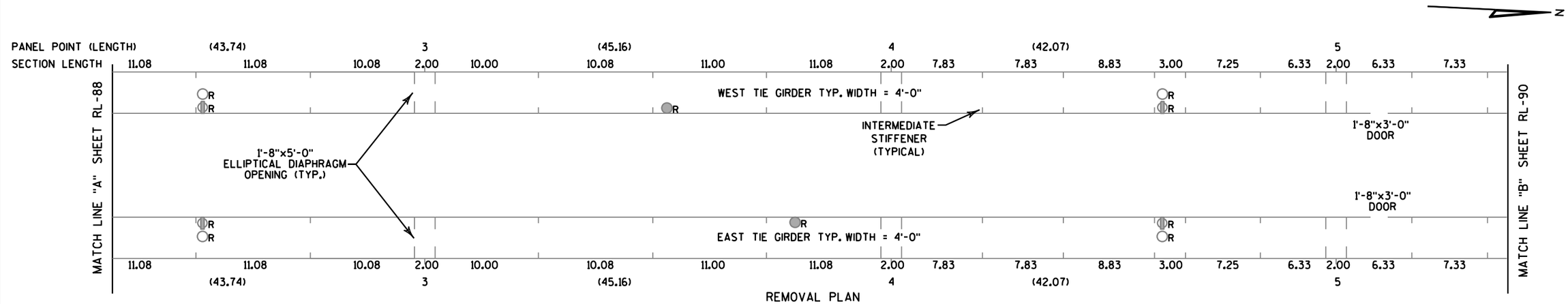
INSTALLATION PLAN

TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS

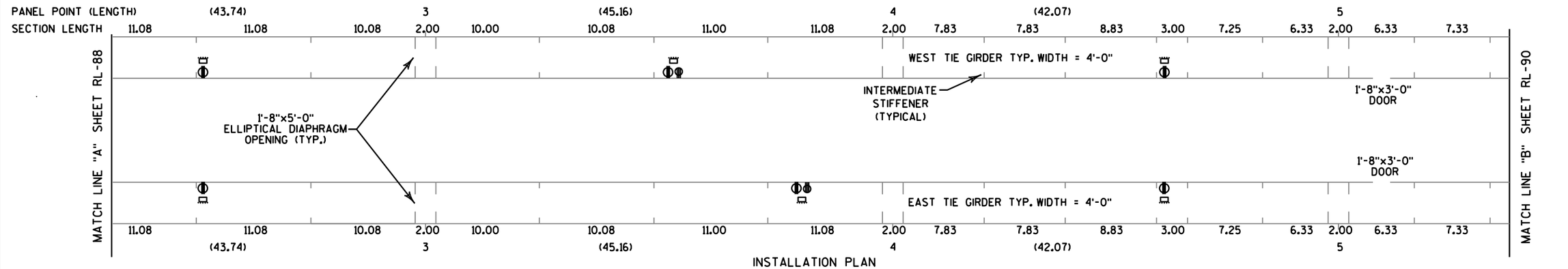
NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND AND RL-10 FOR GENERAL NOTES.
2. FOR CLARITY, CONDUITS NOT SHOWN

HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS



REMOVAL PLAN
TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS

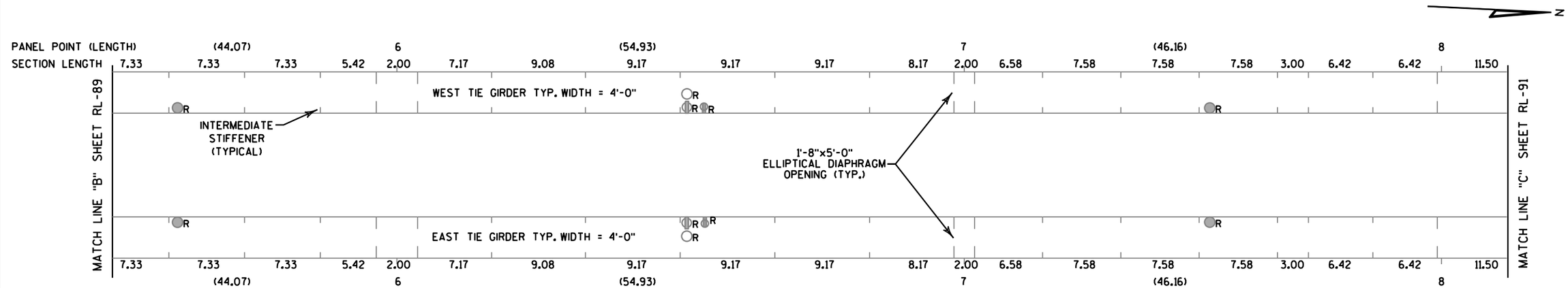


INSTALLATION PLAN
TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS

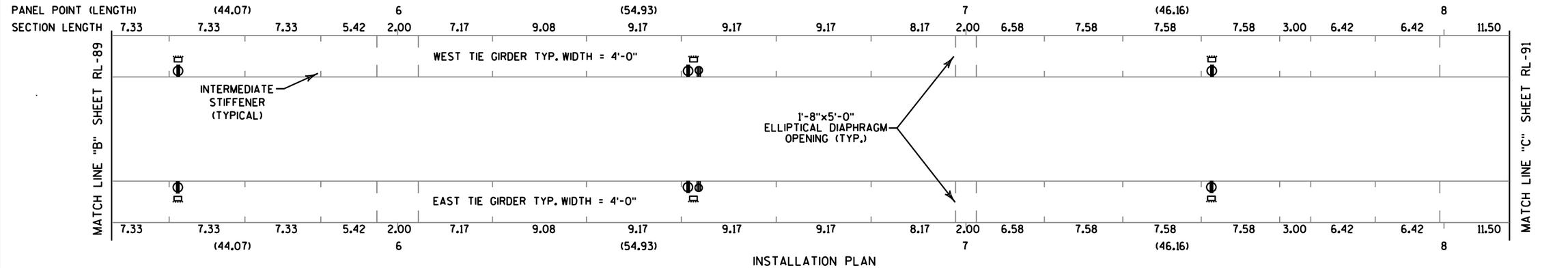
NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND AND RL-10 FOR GENERAL NOTES.
2. FOR CLARITY, CONDUITS NOT SHOWN

HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS



REMOVAL PLAN
TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS

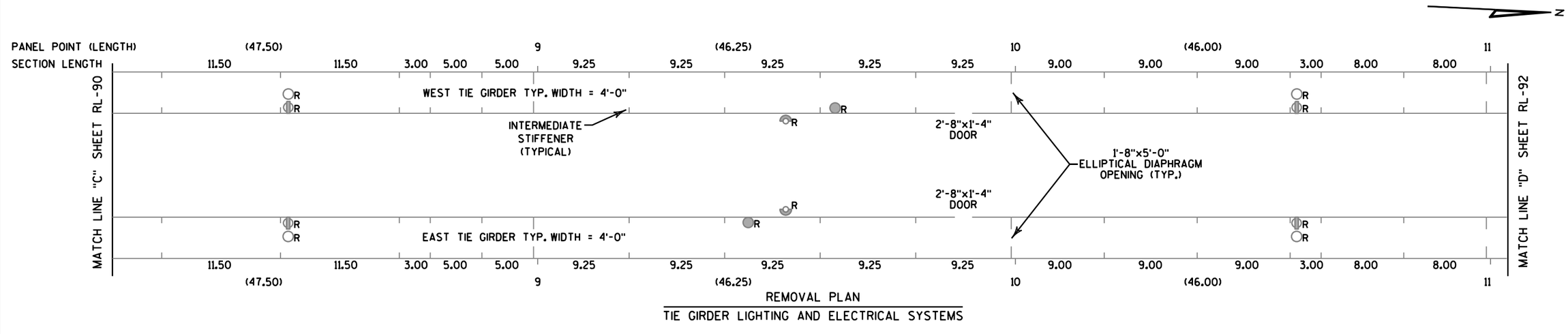


INSTALLATION PLAN
TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS

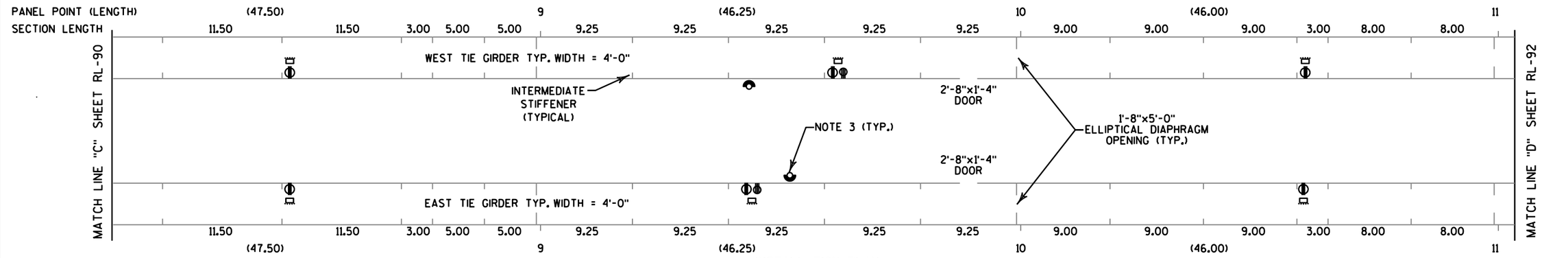
NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND AND RL-10 FOR GENERAL NOTES.
2. FOR CLARITY, CONDUITS NOT SHOWN

HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS



REMOVAL PLAN
TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS

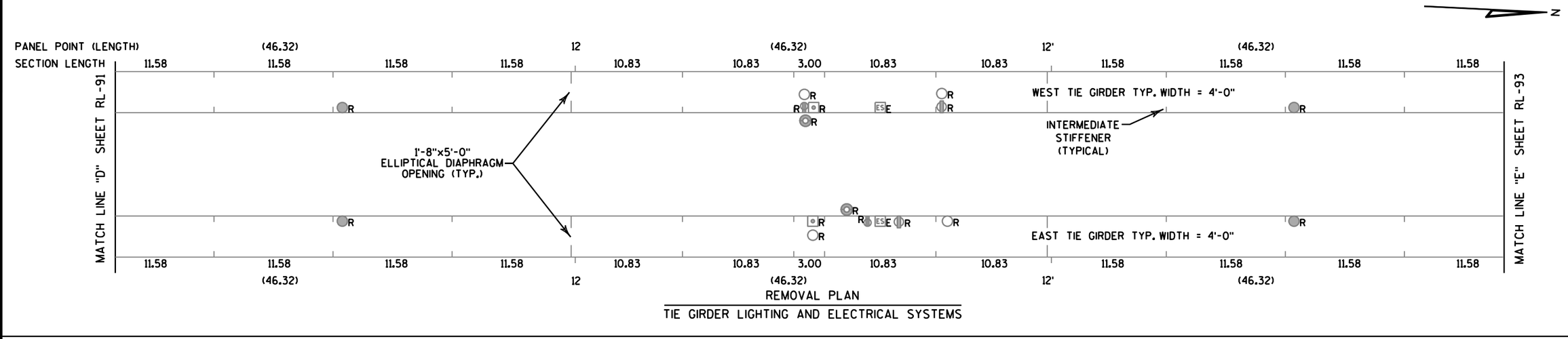


INSTALLATION PLAN
TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS

NOTES:

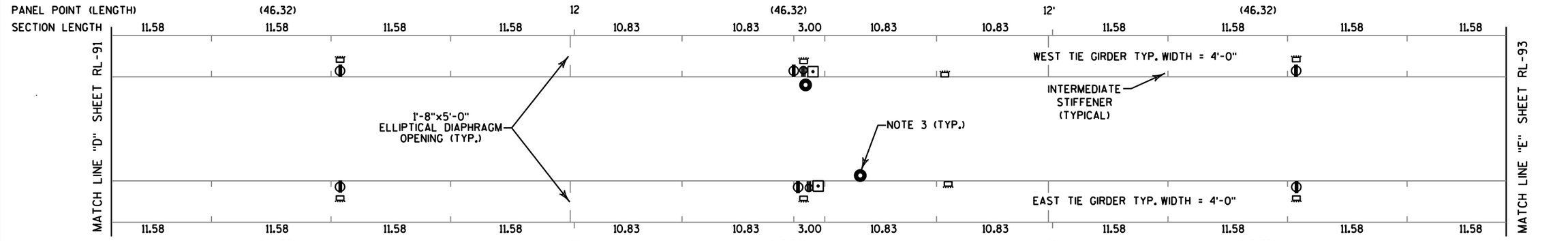
1. SEE SHEET RL-9 FOR SYMBOL LEGEND AND RL-10 FOR GENERAL NOTES.
2. FOR CLARITY, CONDUITS NOT SHOWN
3. FOR NAVIGATION LIGHTING PLANS SEE SHEET RL-85 THRU RL-87

HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS



REMOVAL PLAN

TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS



INSTALLATION PLAN

TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS

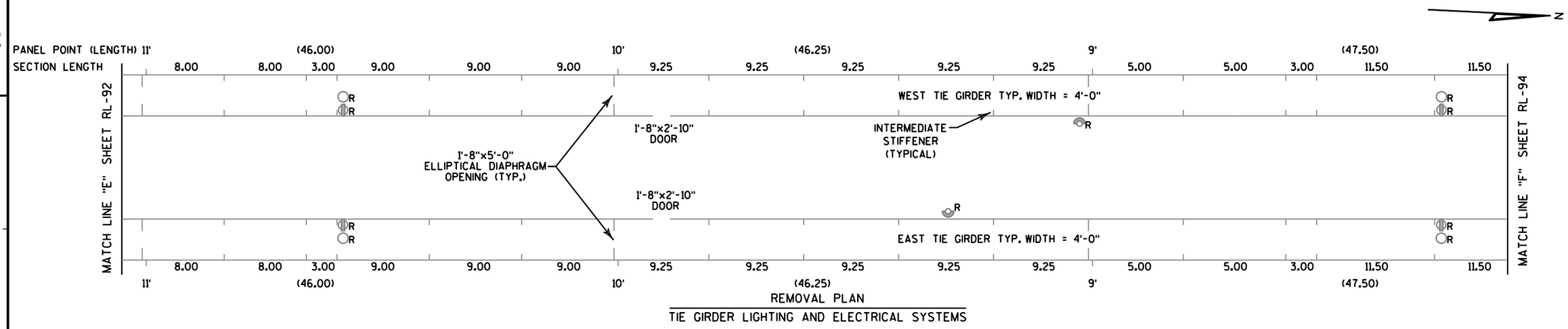
NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND AND RL-10 FOR GENERAL NOTES.
2. FOR CLARITY, CONDUITS NOT SHOWN
3. FOR NAVIGATION LIGHTING PLANS SEE SHEET RL-85 THRU RL-87

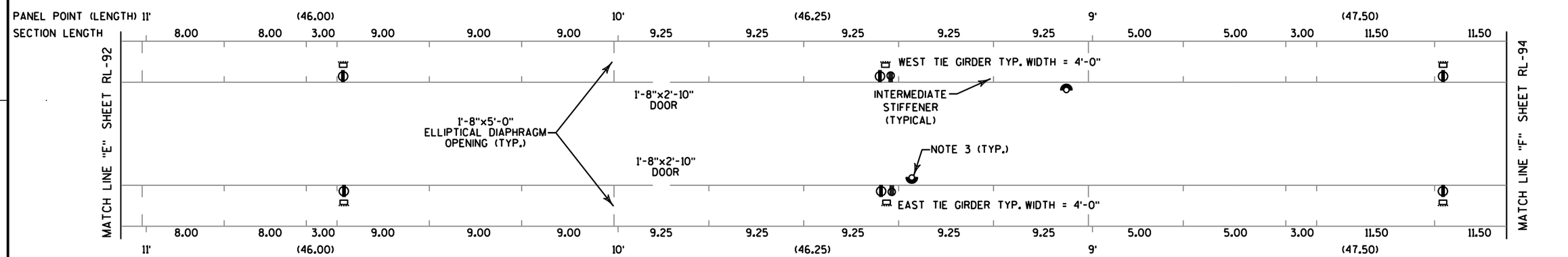
HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS

RL-92

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 302	E



REMOVAL PLAN
TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS

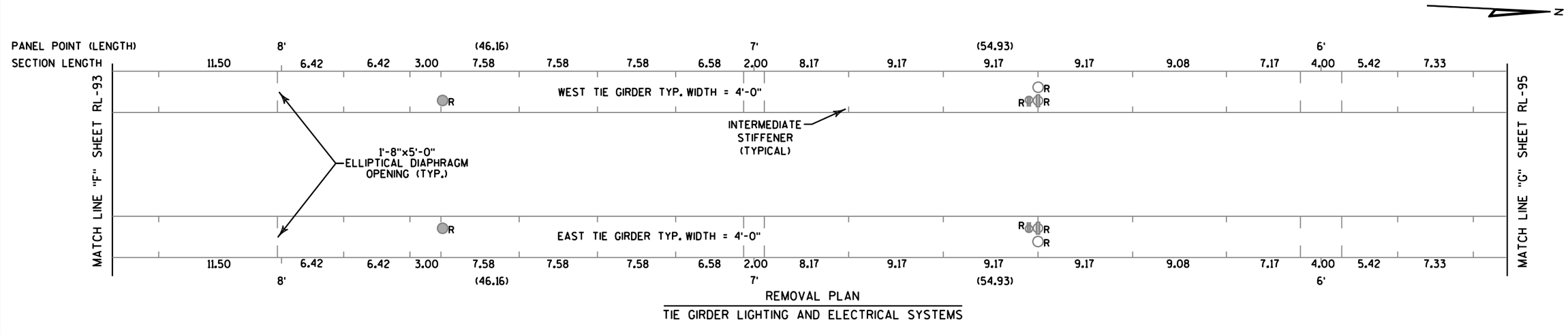


INSTALLATION PLAN
TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS

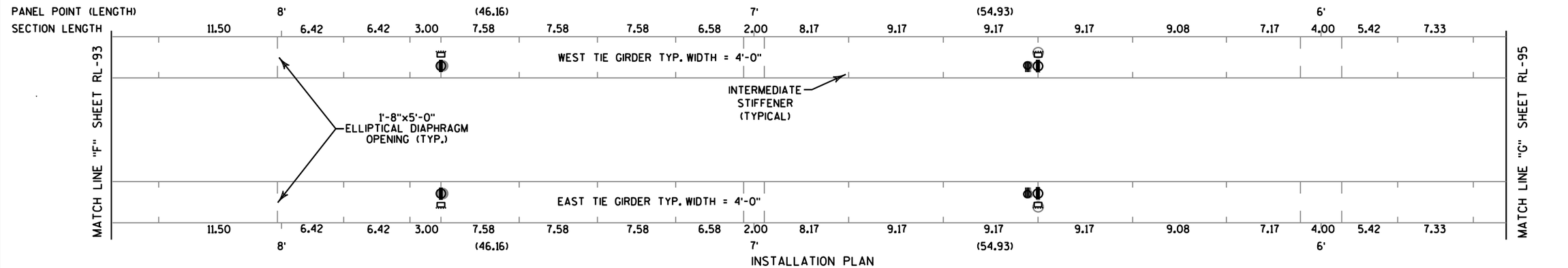
NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND AND RL-10 FOR GENERAL NOTES.
2. FOR CLARITY, CONDUITS NOT SHOWN.
3. FOR NAVIGATION LIGHTING PLANS SEE SHEET RL-85 THRU RL-87.

HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS



REMOVAL PLAN
TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS

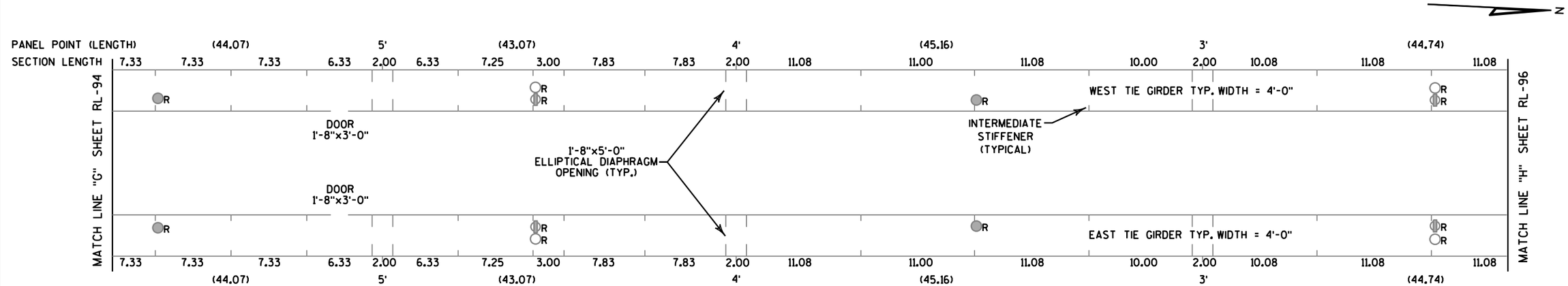


INSTALLATION PLAN
TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS

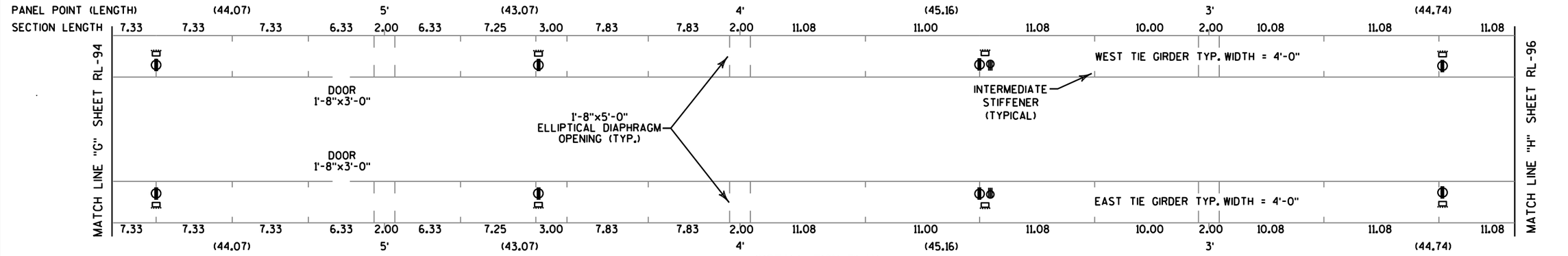
NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND AND RL-10 FOR GENERAL NOTES.
2. FOR CLARITY, CONDUITS NOT SHOWN

HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS



REMOVAL PLAN
TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS

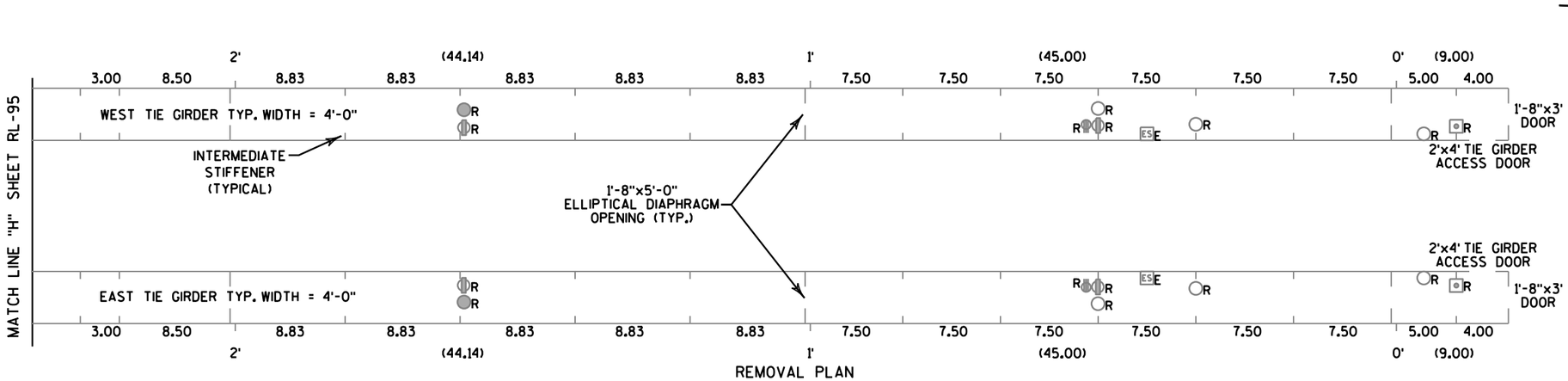


INSTALLATION PLAN
TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS

NOTES:

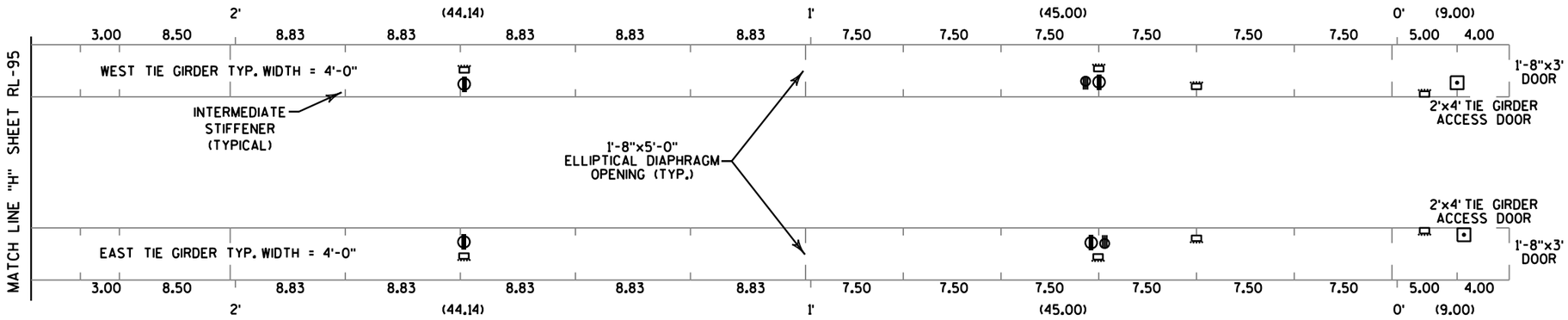
1. SEE SHEET RL-9 FOR SYMBOL LEGEND AND RL-10 FOR GENERAL NOTES.
2. FOR CLARITY, CONDUITS NOT SHOWN.

HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS



REMOVAL PLAN

TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS



INSTALLATION PLAN

TIE GIRDER LIGHTING AND ELECTRICAL SYSTEMS

NOTES:

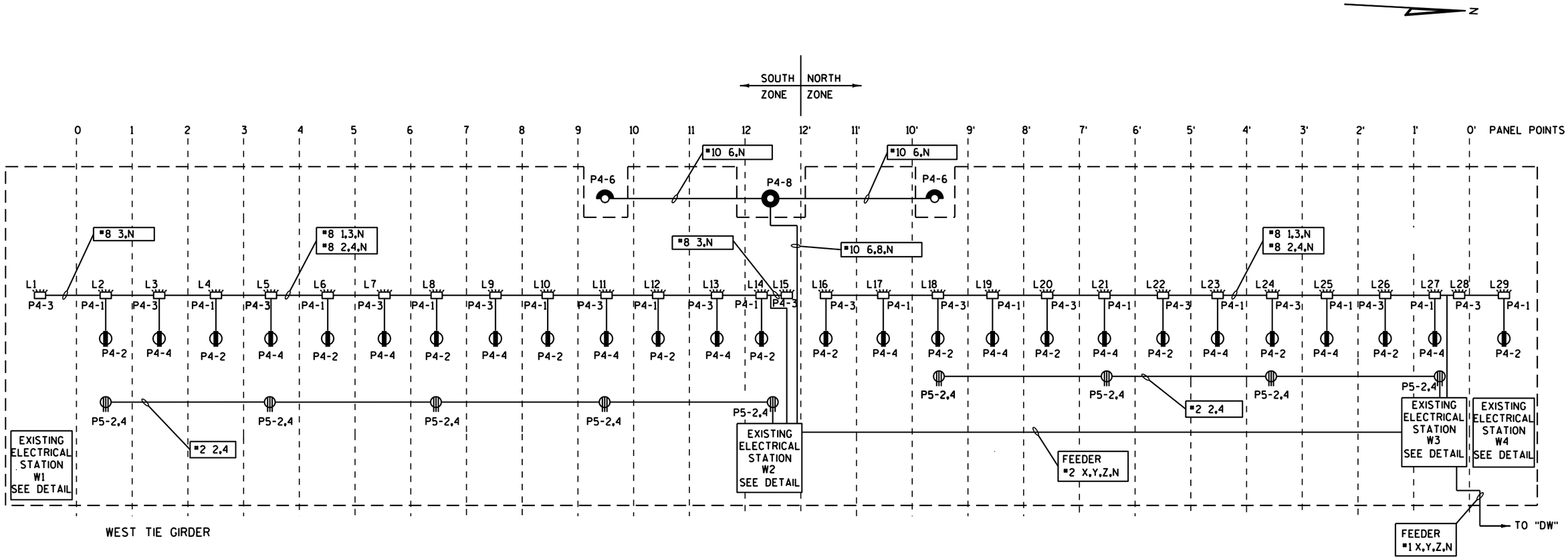
1. SEE SHEET RL-9 FOR SYMBOL LEGEND AND RL-10 FOR GENERAL NOTES.
2. FOR CLARITY, CONDUITS NOT SHOWN

HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS

RL-96

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 306 E

2



TIE GIRDER LIGHTING AND ELECTRICAL LAYOUT

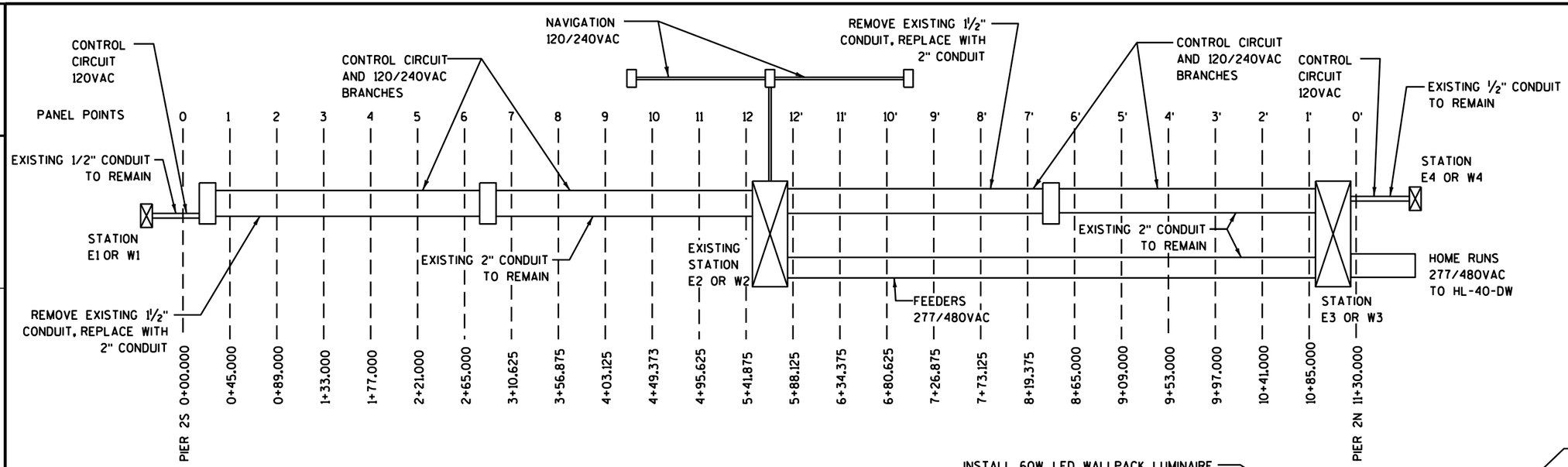
(TYPICAL FOR EAST & WEST GIRDERS)

NOTES:

1. SEE SHEET RL-8, RL-9 FOR SYMBOL LEGEND AND RL-10 FOR GENERAL NOTES.
2. TIE GIRDER AND ELECTRICAL LAYOUT IS IDENTICAL FOR EAST AND WEST GIRDERS
3. REMOVE EXISTING CONDUCTORS AND REPLACE WITH NEW CONDUCTORS AS SHOWN
4. FOR NAVIGATION LIGHTING, SEE SHEET RL-85 THRU RL-87.
5. SEE SHEETS RL-98 TO RL-104 FOR ADDITIONAL DETAIL.

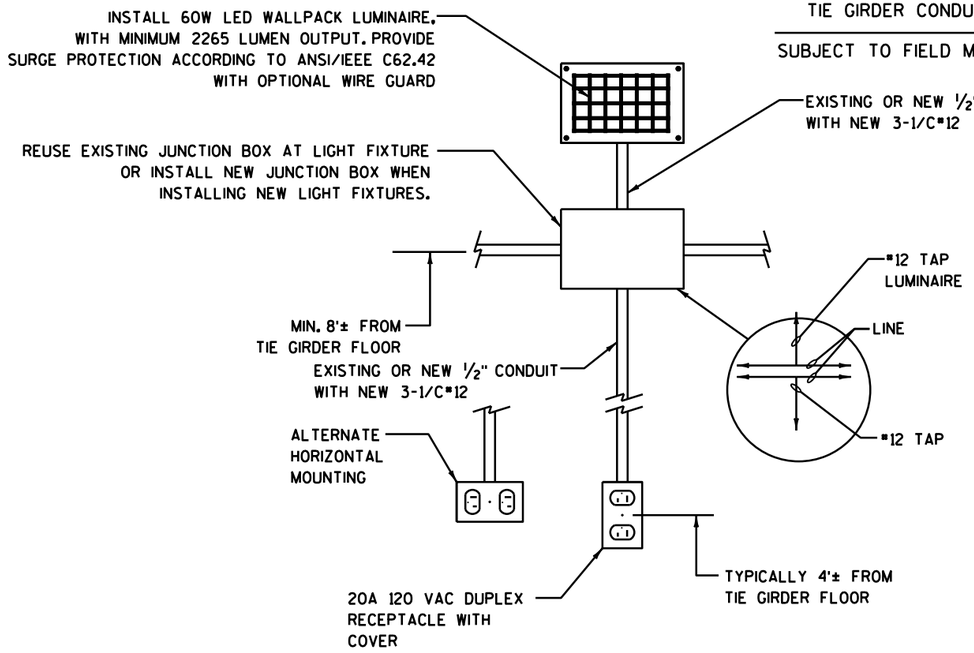
HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS

2

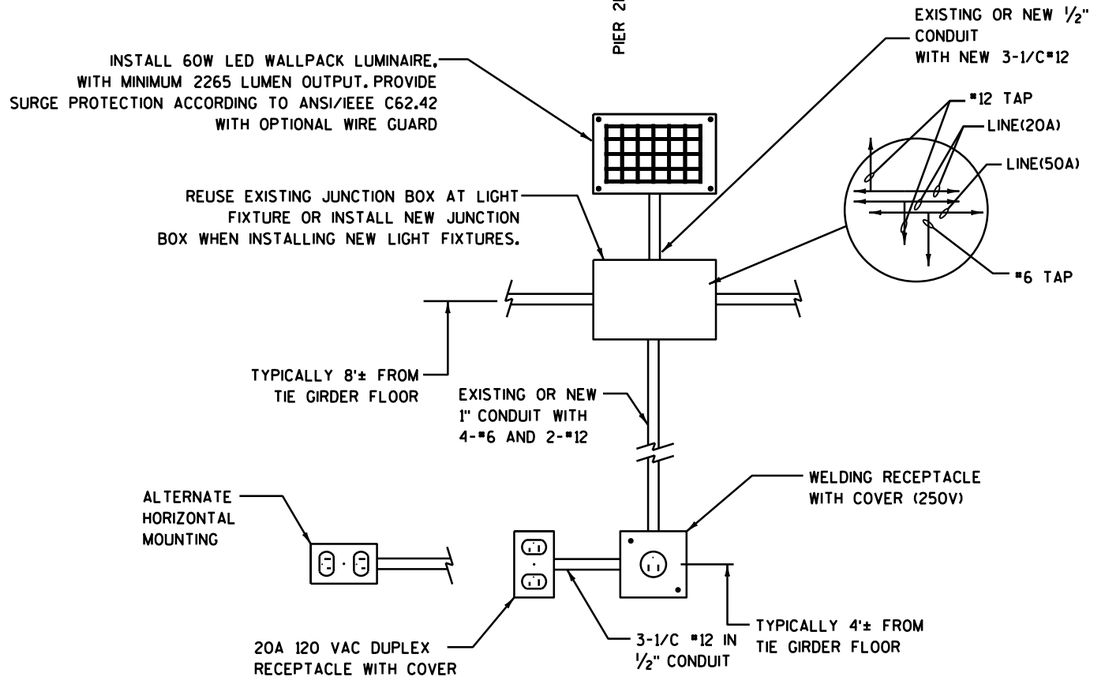


TIE GIRDER CONDUIT DETAIL

SUBJECT TO FIELD MODIFICATIONS



TYPICAL LUMINAIRE AND DUPLEX RECEPTACLE DETAIL



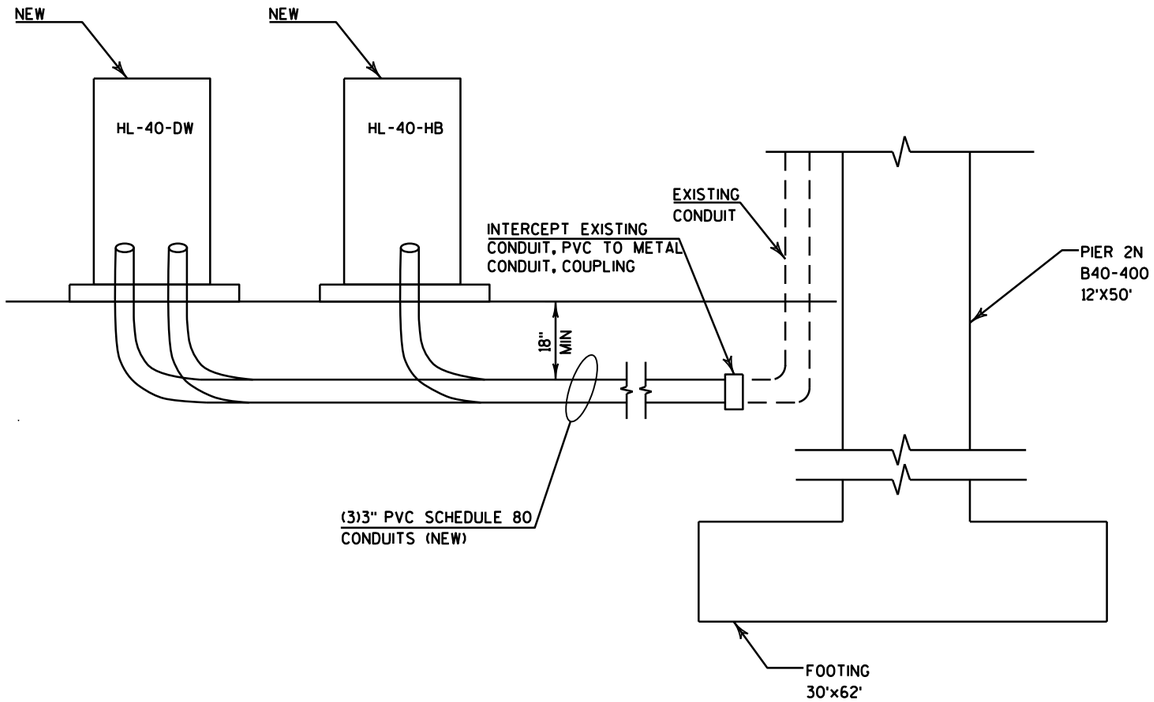
TYPICAL LUMINAIRE AND DUPLEX RECEPTACLE DETAIL

HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS

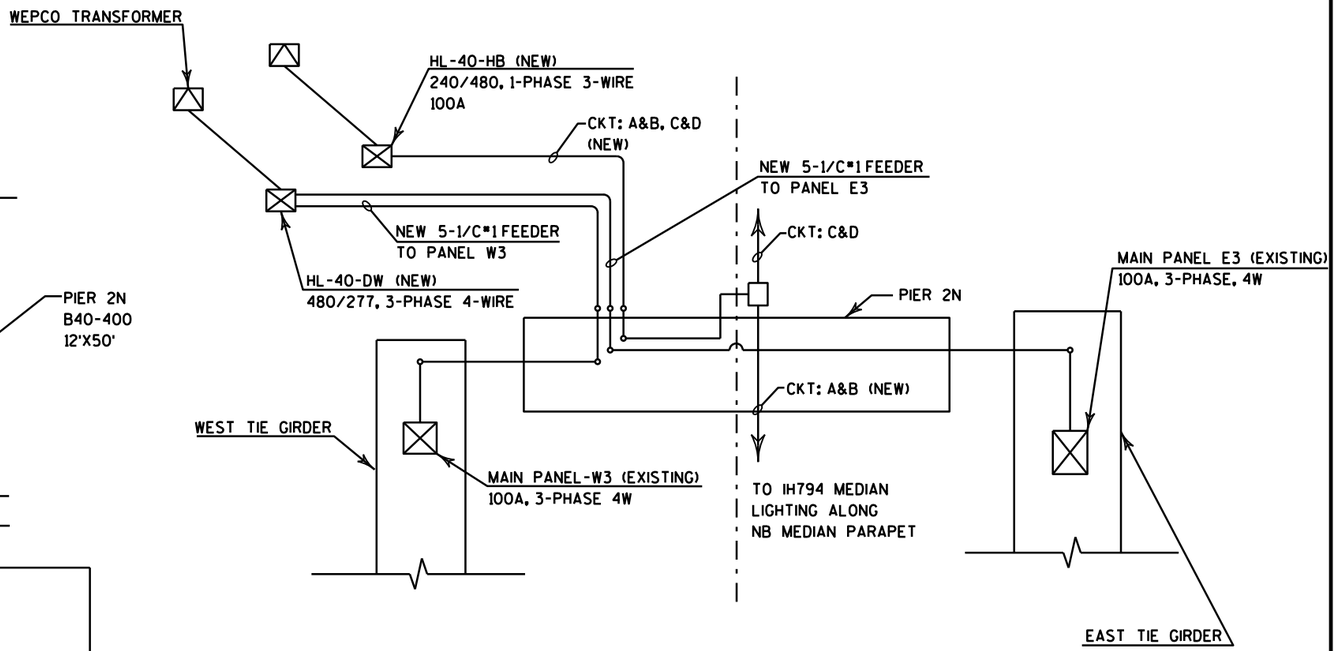
RL-98

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 308 E

2



CONTROLLER HL-40-HB AND HL-40-DW



SINGLE LINE DIAGRAM

CONTROLLER HL-40-HB AND HL-40-DW

SEE THE CONTROLLER OVERVIEW SHEET RL-4 FOR MODIFICATIONS TO THE EXISTING CONTROLLERS

NOTE:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.

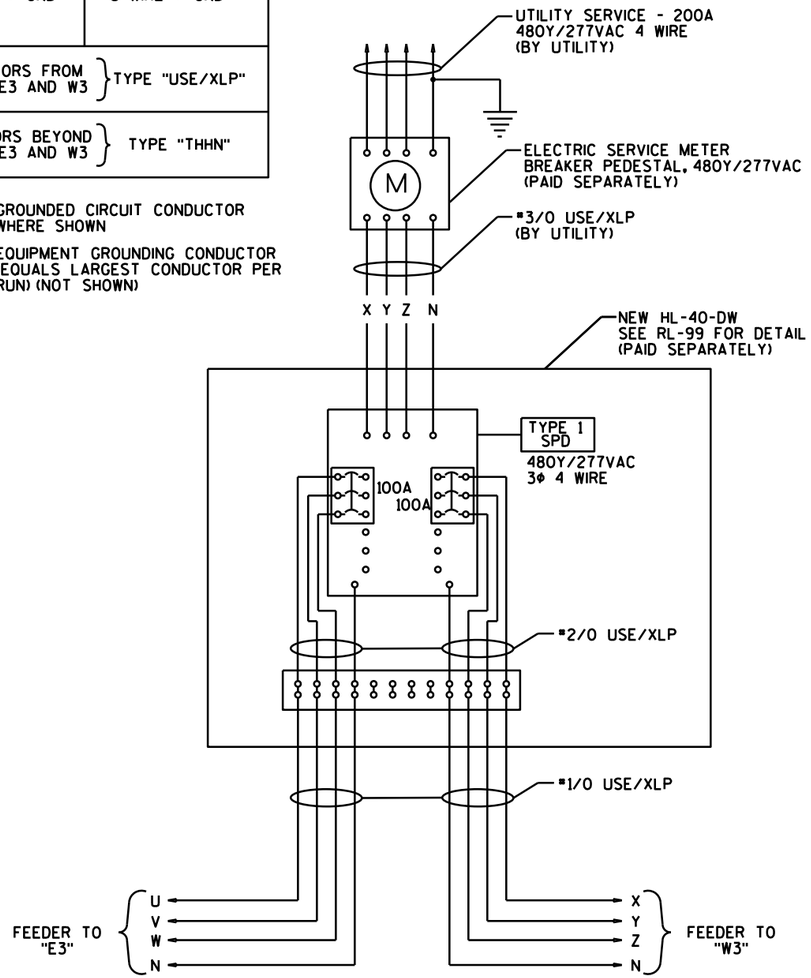
HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS

HL-40-DW		PANELS E3 & W3	
U, X	BROWN	A,C,E,G,J	RED
V,Y	ORANGE	L,R	RED
W,Z	YELLOW	B,D,F,H,K	BLACK
N	NATURAL GRAY	M,S	BLACK
		N	WHITE
480Y/277VAC 4 WIRE + GND		120/240VAC 3 WIRE + GND	
CONDUCTORS FROM "DW" TO E3 AND W3	TYPE "USE/XLP"		
CONDUCTORS BEYOND "DW" TO E3 AND W3	TYPE "THHN"		

N = GROUNDED CIRCUIT CONDUCTOR WHERE SHOWN

GND = EQUIPMENT GROUNDING CONDUCTOR (EQUALS LARGEST CONDUCTOR PER RUN) (NOT SHOWN)

ALL SPD DEVICE INSTALLED AS PER MANUFACTURE INSTRUCTION AND UL 1449 3RD EDITION



WIRING DIAGRAM DETAIL
NEW DISTRIBUTION CENTER "DW"

200A 480Y/277VAC 4 WIRE + GROUND

MAJOR COMPONENTS TO BE INSTALLED:
TIE GIRDER ELECTRICAL STATIONS

QTY DW	QTY E1	QTY E2	QTY E3	QTY E4	QTY W1	QTY W2	QTY W3	QTY W4	QTY TOTAL	DESCRIPTION	NOTES
		15	14			15	14		58	LED LIGHT FIXTURES	
		13	13			13	13		52	120VAC DUPLEX RECEPTACLE	NOT SHOWN
		5	4			5	4		18	250VAC WELDING RECEPTACLE	
		3	3			3	3		12	TYPE 2 SPD	SYSYEM VOLTAGE RATING AS SHOWN ON PLANS

HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS

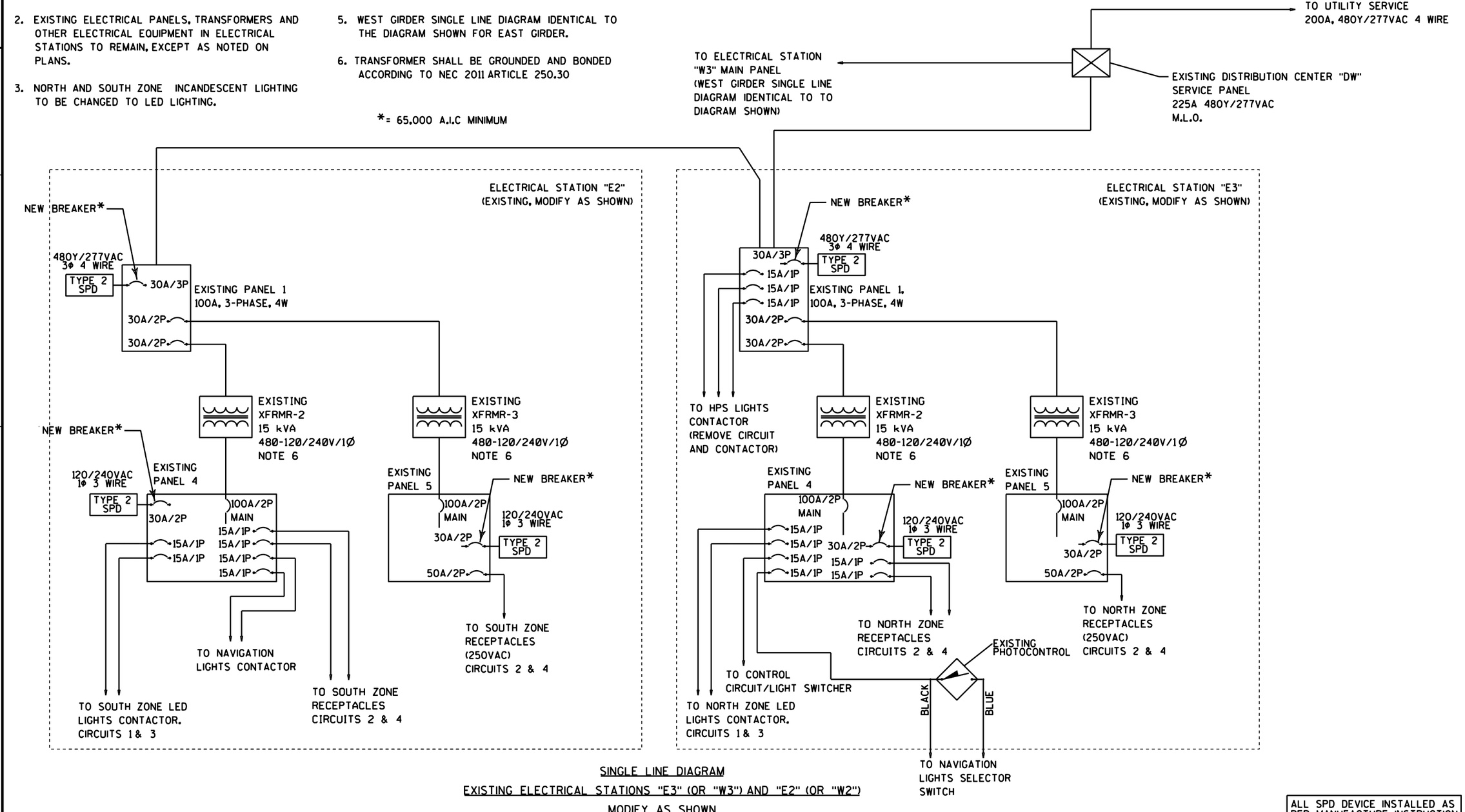
RL-100

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 310	E

NOTES:

1. SEE SHEET RL-100 FOR MAJOR COMPONENT SCHEDULE.
2. EXISTING ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT IN ELECTRICAL STATIONS TO REMAIN, EXCEPT AS NOTED ON PLANS.
3. NORTH AND SOUTH ZONE INCANDESCENT LIGHTING TO BE CHANGED TO LED LIGHTING.
4. REMOVE HPS LIGHTING CIRCUIT AND LIGHTS FROM ELECTRICAL STATION "E3".
5. WEST GIRDER SINGLE LINE DIAGRAM IDENTICAL TO THE DIAGRAM SHOWN FOR EAST GIRDER.
6. TRANSFORMER SHALL BE GROUNDED AND BONDED ACCORDING TO NEC 2011 ARTICLE 250.30

*= 65,000 A.I.C MINIMUM



SINGLE LINE DIAGRAM

EXISTING ELECTRICAL STATIONS "E3" (OR "W3") AND "E2" (OR "W2")

MODIFY AS SHOWN

ALL SPD DEVICE INSTALLED AS PER MANUFACTURE INSTRUCTION AND UL 1449 3RD EDITION

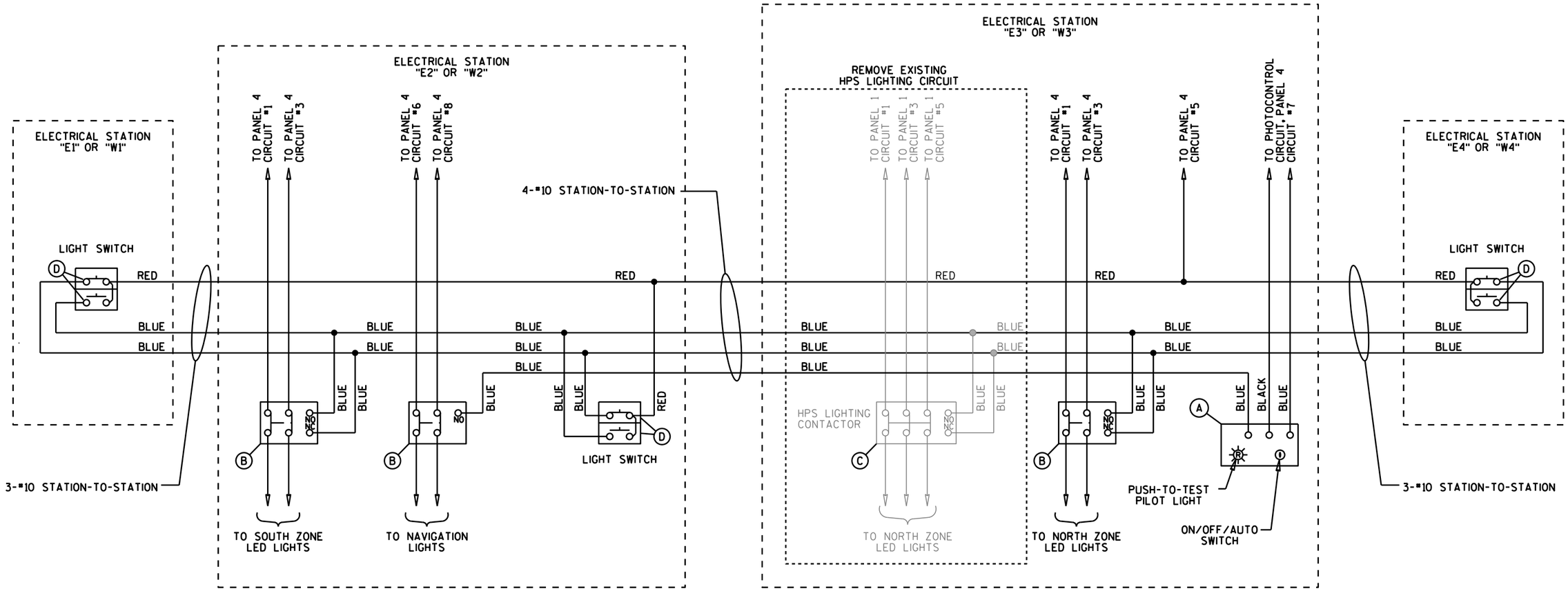
HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS

RL-101

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 311 E

NOTES:

1. SEE SHEET RL-100 FOR MAJOR COMPONENT SCHEDULE.
2. REMOVE HPS LIGHTING CIRCUIT AND LIGHTS FROM ELECTRICAL STATION "E3" AND "W3".
3. EAST AND WEST GIRDERS CONTROL CIRCUITS ARE IDENTICAL.



EXISTING CONTROL CIRCUIT DIAGRAM
(MODIFY AS SHOWN)

ELECTRICAL STATIONS "E1" OR "W1", "E2" OR "W2", "E3" OR "W3", AND "E4" OR "W4"

EXISTING ELECTRICAL COMPONENTS

A	NAVIGATION LIGHT CONTROL PANEL: CONSISTING OF ON/OFF/AUTO SELECTOR SWITCH, PILOT LIGHT, AND PILOT LIGHT PUSH-TO-TEST BUTTON
B	CONTACTOR: NEMA 1, 20A, 240VAC, 2P, MECHANICALLY HELD, 120VAC CONTROL RELAY
C	SWITCH: MOMENTARY CONTACT, PUSH BUTTON, 120VAC
D	SWITCH: MOMENTARY CONTACT, PUSH BUTTON, 120VAC

HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS

RL-102

PANEL	BUS AMPS:		NO MAIN BREAKER M.L.O.	MOUNTING		REMARKS
	VOLTAGE: 480Y/277VAC			SURFACE	X	
PANEL-1 STATION E3	PHASE: 3			FLUSH		
	WIRE: 4					

	CIRCUIT DESCRIPTION	AMP/POLE		CKT	BUS	CKT		AMP/POLE	CIRCUIT DESCRIPTION
NOTE 1	SPACE			1		2		30/2	TO TRANSFORMER-2 AND PANEL 4
NOTE 1	SPACE			3		4			
NOTE 1	SPACE			5		6		30/2	TO TRANSFORMER-3 AND PANEL 5
	TO SPD	30/3*		7		8			
				9		10			SPACE
				11		12			SPACE

EXISTING PANEL-1, MAIN PANEL IN ELECTRICAL STATION "E3" AND "W3"

PANEL	BUS AMPS:		NO MAIN BREAKER M.L.O.	MOUNTING		REMARKS
	VOLTAGE: 480Y/277VAC			SURFACE	X	
PANEL-1 STATION E2	PHASE: 3			FLUSH		
	WIRE: 4					

	CIRCUIT DESCRIPTION	AMP/POLE		CKT	BUS	CKT		AMP/POLE	CIRCUIT DESCRIPTION
	TO SPD	30/3*		1		2		30/2	TO TRANSFORMER-2 AND PANEL 4
				3		4			
				5		6		30/2	TO TRANSFORMER-3 AND PANEL 5
	SPACE			7		8			
	SPACE			9		10			SPACE
	SPACE			11		12			SPACE

EXISTING PANEL-1, MAIN PANEL IN ELECTRICAL STATION "E2" AND "W2"

PANEL	BUS AMPS:		MAIN BREAKER 100A	MOUNTING		REMARKS
	VOLTAGE: 120/240VAC			SURFACE	X	
PANEL-4 STATION E3	PHASE: 1			FLUSH		
	WIRE: 3					

	CIRCUIT DESCRIPTION	AMP/POLE		CKT	BUS	CKT		AMP/POLE	CIRCUIT DESCRIPTION
NOTE 2	TO NORTH ZONE LED LIGHTS CONTACTOR	15A		1		2		15A	TO NORTH ZONE 120VAC RECEPTACLES (SPLITS)
		15A		3		4		15A	
	TO CONTROL SWITCH	15A		5		6		30/2*	TO SPD
	NAVIGATION LIGHTS	15A		7		8			
	SPACE			9		10			SPACE
	SPACE			11		12			SPACE

EXISTING PANEL-4, ELECTRICAL STATION "E3" AND "W3"

PANEL	BUS AMPS:		MAIN BREAKER 100A	MOUNTING		REMARKS
	VOLTAGE: 120/240VAC			SURFACE	X	
PANEL-4 STATION E2	PHASE: 1			FLUSH		
	WIRE: 3					

	CIRCUIT DESCRIPTION	AMP/POLE		CKT	BUS	CKT		AMP/POLE	CIRCUIT DESCRIPTION
NOTE 2	TO SOUTH ZONE LED LIGHTS CONTACTOR	15A		1		2		15A	TO SOUTH ZONE 120VAC RECEPTACLES (SPLITS)
		15A		3		4		15A	
	SPACE			5		6		15A	TO NAVIGATION LIGHTS CONTACTOR
	TO SPD	30/2*		7		8		15A	
				9		10			SPACE
	SPACE			11		12			SPACE

EXISTING PANEL-4, ELECTRICAL STATION "E2" AND "W2"

PANEL	BUS AMPS:		MAIN BREAKER 100A	MOUNTING		REMARKS
	VOLTAGE: 120/240VAC			SURFACE	X	
PANEL-5 STATION E3	PHASE: 1			FLUSH		
	WIRE: 3					

CIRCUIT DESCRIPTION	AMP/POLE		CKT	BUS	CKT		AMP/POLE	CIRCUIT DESCRIPTION
TO SPD	30/2*		1		2		50/2	TO NORTH ZONE 250VAC RECEPTACLES
			3		4			
SPACE			5		6			SPACE
SPACE			7		8			SPACE
SPACE			9		10			SPACE
SPACE			11		12			SPACE

EXISTING PANEL-5, ELECTRICAL STATION "E3" AND "W3"

PANEL	BUS AMPS:		MAIN BREAKER 100A	MOUNTING		REMARKS
	VOLTAGE: 120/240VAC			SURFACE	X	
PANEL-5 STATION E2	PHASE: 1			FLUSH		
	WIRE: 3					

CIRCUIT DESCRIPTION	AMP/POLE		CKT	BUS	CKT		AMP/POLE	CIRCUIT DESCRIPTION
TO SPD	30/2*		1		2		50/2	TO SOUTH ZONE 250VAC RECEPTACLES
			3		4			
SPACE			5		6			SPACE
SPACE			7		8			SPACE
SPACE			9		10			SPACE
SPACE			11		12			SPACE

EXISTING PANEL-5, ELECTRICAL STATION "E2" AND "W2"

* NEW BREAKER WITH 65,000 A.I.C MINIMUM

NOTES:

1. HPS LIGHTING CONTACTOR. CIRCUIT, CONTACTORS, AND LIGHTS TO BE REMOVED.
2. INCANDESCENT LIGHT FIXTURES TO BE REPLACED WITH LED FIXTURES.

HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS

RL-103

PANEL	BUS AMPS:		NO MAIN BREAKER M.L.O.		MOUNTING		REMARKS
	VOLTAGE: 277/480VAC				SURFACE		
	PHASE: 3				FLUSH		
HL-40-DW	WIRE: 4						

CIRCUIT DESCRIPTION	AMP / POLE		CKT	BUS	CKT		AMP / POLE	CIRCUIT DESCRIPTION
FEEDER TO EAST TIE GIRDER ELECTRICAL STATION E3	100/3		1		2		100/3	FEEDER TO WEST TIE GIRDER ELECTRICAL STATION W3
			3		4			
			5		6			
SPACE			7		8			SPACE
SPACE			9		10			SPACE
SPACE			11		12			SPACE

PROPOSED DISTRIBUTION CENTER "DW" PANEL

PERFORMANCE DATA- TYPE 1 SPD (270/480 VAC 3φ, 4 WIRE)

NOMINAL OPERATING VOLTAGE / PHASE CONFIGURATION	277/480VAC, THREE PHASE WYE, 4 WIRE + GND
FAULT CURRENT RATING (SCCR)	200kAIC
OPERATING FREQUENCY RANGE	47 - 63 Hz
NOMINAL DISCHARGE CURRENT (IN)	20kA
MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV)	L-L 640V, L-G 320V, L-N 320V, N-G 320V
UL 1449 THIRD EDITION VPR'S	L-L 2000V, L-G 1200V, L-N 1200V, N-G 1200V
MAXIMUM SURGE CURRENT CAPACITY (8 X 20 S)	240 KA

PERFORMANCE DATA- TYPE 2 SPD (270/480 VAC 3φ, 4 WIRE)

NOMINAL OPERATING VOLTAGE / PHASE CONFIGURATION	277/480VAC, THREE PHASE WYE, 4 WIRE + GND
FAULT CURRENT RATING (SCCR)	200kAIC
OPERATING FREQUENCY RANGE	47 - 63 Hz
NOMINAL DISCHARGE CURRENT (IN)	20kA
MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV)	L-L 640V, L-G 320V, L-N 320V, N-G 320V
UL 1449 THIRD EDITION VPR'S	L-L 2000V, L-G 1200V, L-N 1200V, N-G 1200V
MAXIMUM SURGE CURRENT CAPACITY (8 X 20 S)	160 KA

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QUANTITY WEST SIDE	QUANTITY EAST SIDE	QUANTITY TOTAL
CONDUIT REINFORCED THERMOSETTING RESIN 2-INCH	LF	600	600	1,200
JUNCTION BOX 12X6X6-INCH	EACH	12	12	24
ELECTRICAL WIRE LIGHTING 10 AWG	LF	3510	3510	7,020
ELECTRICAL WIRE LIGHTING 8 AWG	LF	7660	7660	15,320
ELECTRICAL WIRE LIGHTING 2 AWG	LF	2110	2110	4,220
LED LIGHT FIXTURES	EACH	29	29	58
RECEPTACLES - 120V DUPLEX RECEPTACLE	EACH	26	26	52
RECEPTACLES - 250V WELDING RECEPTACLE	EACH	9	9	18
TYPE 2 SPD	EACH	6	6	12
REMOVE HPS LIGHT FIXTURES	EACH	12	12	24
REMOVE INCANDESCENT LIGHT FIXTURES	EACH	17	17	34
REMOVE EXISTING CONDUIT - 1 1/2"	LF	300	300	600
REMOVE ELECTRICAL WIRE LIGHTING 14 AWG	LF	4540	4540	9,080
REMOVE ELECTRICAL WIRE LIGHTING 10 AWG	LF	7020	7020	14,040
REMOVE ELECTRICAL WIRE LIGHTING 8 AWG	LF	3660	3660	7,320
REMOVE ELECTRICAL WIRE LIGHTING 6 AWG	LF	1180	1180	2,360

PERFORMANCE DATA- TYPE 2 SPD (120/240VAC 1φ, 3 WIRE)

NOMINAL OPERATING VOLTAGE / PHASE CONFIGURATION	120/240VAC, SINGLE PHASE, 3 WIRE + GND
FAULT CURRENT RATING (SCCR)	200kAIC
OPERATING FREQUENCY RANGE	47 - 63 Hz
NOMINAL DISCHARGE CURRENT (IN)	20kA
MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV)	L-L 300V, L-G 150V, L-N 150V, N-G 150V
UL 1449 THIRD EDITION VPR'S	L-L 1200V, L-G 700V, L-N 700V, N-G 700V
MAXIMUM SURGE CURRENT CAPACITY (8 X 20 S)	160 KA

HOAN BRIDGE MAINTENANCE/INSPECTION ELECTRICAL SYSTEMS - DETAILS

LIGHT FIXTURE SCHEDULE						
SYMBOL	IDENTIFIER	DESCRIPTION	MAX. WATTS	MINIMUM LUMEN OUTPUT	VOLTAGE RATING	MINIMUM LEADER CABLE LENGTH
▬	A	RGB COLOR CHANGING LED LUMINAIRE, NO SPREAD LENS MAXIMUM 6° NATIVE OPTIC)	150	4000	100-277 VAC	6FT
▬	B	RGB COLOR CHANGING LED LUMINAIRE WITH 8° TO 10° SPREAD LENS	150	3500	100-277 VAC	6FT
▬	C	RGB COLOR CHANGING LED LUMINAIRE WITH 20° TO 23° SPREAD LENS	150	3500	100-277 VAC	6FT

ALL THE LUMINAIRES SHALL BE INSTALLED WITH GLARE SHIELD TO AVOID CONFLICTS WITH VEHICULAR TRAFFIC ON THE FREEWAY AND NAVIGABLE WATERWAY TRAFFIC. GLARE SHIELD SHALL BE SEPARATE FROM LUMINAIRE TO ELIMINATE ANY SNOW ACCUMULATION ON LUMINAIRE LENS.

CABLE/CONDUIT SCHEDULE			
LEGEND	CABLE DESCRIPTION	CONDUIT SIZE/TYPE	MOUNTING
(A)	LUMINAIRE LEADER CABLE 4 #12 AWG, HOT, NEUTRAL, GROUND AND DATA OR DMX CABLE	¾" LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT	ATTACHED
(B)	4 #10 AWG, HOT, NEUTRAL, GROUND AND DATA OR DMX CABLE	1" DIA. RTRC CONDUIT	ATTACHED
(C)	4 #10 AWG, HOT, NEUTRAL, GROUND AND DATA OR DMX CABLE 3-1/C #8 AWG, HOT, NEUTRAL, GROUND POWER CABLE	1½" DIA. RTRC CONDUIT	ATTACHED
(D)	3 #8 AWG, HOT, NEUTRAL, GROUND POWER CABLE	1½" DIA. RTRC CONDUIT	ATTACHED
(E)	SHIELDED ETHERNET CAT 5e CABLE OR DMX CABLE	1½" DIA. RTRC CONDUIT	ATTACHED
(F)	(2) SHIELDED ETHERNET CAT 5e CABLE OR DMX CABLE (2) 3 #8 AWG, HOT, NEUTRAL, GROUND POWER CABLE	(2) 2" NON-METALLIC CONDUIT	UNDERGROUND
(G)	SHIELDED ETHERNET CAT 5e CABLE OR DMX CABLE 3 #8 AWG, HOT, NEUTRAL, GROUND POWER CABLE	(2) 2" NON-METALLIC CONDUIT	UNDERGROUND
(H)	SHIELDED ETHERNET CAT 5e CABLE OR DMX CABLE 3 #8 AWG, HOT, NEUTRAL, GROUND POWER CABLE	(2) 2" METALLIC CONDUIT	ATTACHED

LEGEND	JUNCTION BOX SCHEDULE
JB1	JUNCTION BOX, STAINLESS STEEL 18"X12"X6", ATTACHED TO STRUCTURE
JB2	JUNCTION BOX, STAINLESS STEEL 8"X8"X6", ATTACHED TO STRUCTURE

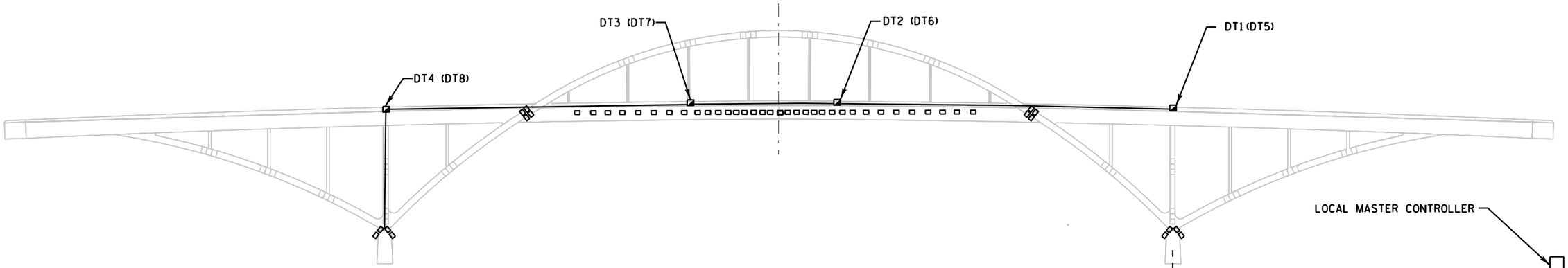
NOTES:

1. SEE SHEETS RL-8, RL-9, AND RL-10 FOR ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. MISCELLANEOUS ITEMS INCLUDING HARDWARE, CLAMPS, ACCESSORIES, CONTROLLER PROGRAMMING, TECH SUPPORT AND WARRANTIES ARE INCIDENTAL TO THIS PAY ITEMS WHICH ARE NOT LISTED BELOW.

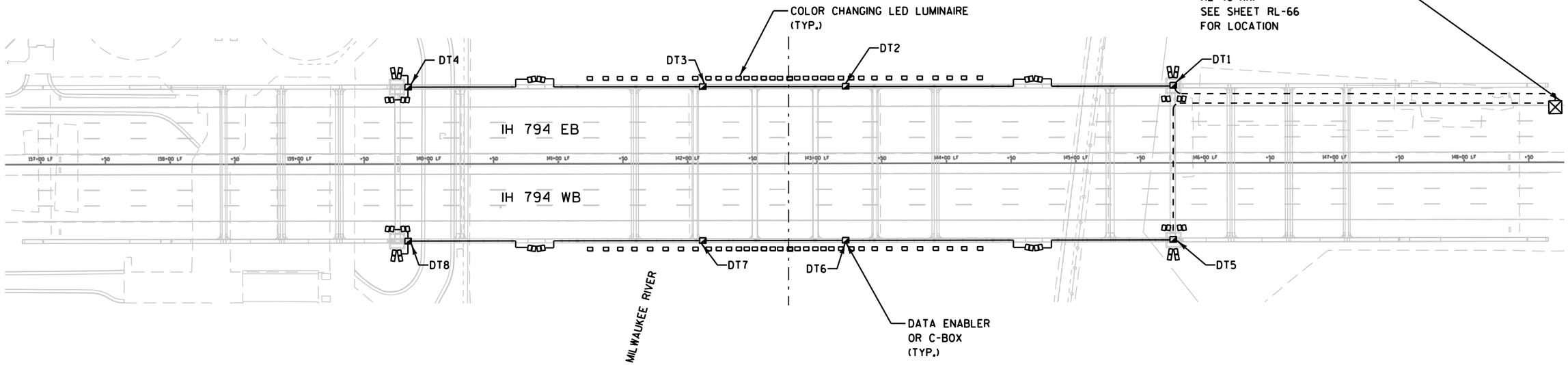
BID ITEM	ITEM DESCRIPTION	UNIT	QUANTITY
SPV.0105.1017	AESTHETIC LIGHTING SYSTEMS HOAN BRIDGE STEEL STRUCTURE	LS	1

NOTE 2

SCHEDULE OF ESTIMATED QUANTITIES		
ITEM DESCRIPTION	UNIT	QUANTITY
LED, RGB, COLOR CHANGING LUMINAIRES, TYPE A	EACH	64
LED, RGB, COLOR CHANGING LUMINAIRES, TYPE B	EACH	28
LED, RGB, COLOR CHANGING LUMINAIRES, TYPE C	EACH	24
JUNCTION BOXES, STAINLESS STEEL, 18X12X6	EACH	4
JUNCTION BOXES, STAINLESS STEEL, 8X8X6	EACH	108
POWER/DATA ENCLOSURES, STAINLESS STEEL, 24X18X12	EACH	8
LUMINAIRE MOUNTING ASSEMBLIES	EACH	116
DATA ENABLER OR C-BOX	EACH	8
SURGE PROTECTION TYPE-I, 200KA/KV	EACH	8
NETWORK TRANSIENT VOLTAGE SURGE SUPPRESSOR	EACH	8
PULL BOXES, STEEL, 24X36-INCH	EACH	4
AESTHETIC LIGHTING CONTROL CABINET AL-40-KKP	EACH	1
CONCRETE CONTROLLER BASE	EACH	1
ELECTRICAL SERVICE METER BREAKER PEDESTAL, 240/480V, 3-WIRES	EACH	1
MASTER CONTROL SYSTEM AND TOUCH PAD CONTROLLER (AT STOC)	EACH	1
LED, RGB, COLOR CHANGING LUMINAIRES, TYPE A (10% SPARE)	EACH	7
LED, RGB, COLOR CHANGING LUMINAIRES, TYPE B (10% SPARE)	EACH	3
LED, RGB, COLOR CHANGING LUMINAIRES, TYPE C (10% SPARE)	EACH	2
DATA ENABLER OR C-BOX (10% SPARE)	EACH	1
BENCH TESTING, TUNING AND CALIBRATION	EACH	1
MARQUETTE EXISTING LIGHTING AND HOAN BRIDGE LIGHTING SYSTEMS INTEGRATION	EACH	1
LUMINAIRE LEADER CABLE 4#12 AWG OR DMX CABLE, 6FT PIECE	EACH	116
SHIELDED ETHERNET CABLE OR DMX CABLE	LF	2,260
ELECTRICAL WIRE, LIGHTING, 10 AWG	LF	6,960
ELECTRICAL WIRE, LIGHTING, 8 AWG	LF	6,780
CONDUIT RIGID, NONMETALLIC, SCHEDULE 40 2-INCH	LF	840
CONDUIT RIGID, NONMETALLIC, SCHEDULE 40 3-INCH	LF	30
CONDUIT RIGID, METALLIC, 2 -INCH	LF	100
CONDUIT, REINFORCED THERMOSETTING RESIN 1 1/2-INCH	LF	2,840
CONDUIT, LIQUIDTIGHT FLEXIBLE METALLIC 3/4-INCH	LF	696
UNISTRUT P1000, STAINLESS STEEL 1-5/8"	LF	2,560
WISDOT STAFF TRAINING	HOURS	16



ELEVATION VIEW



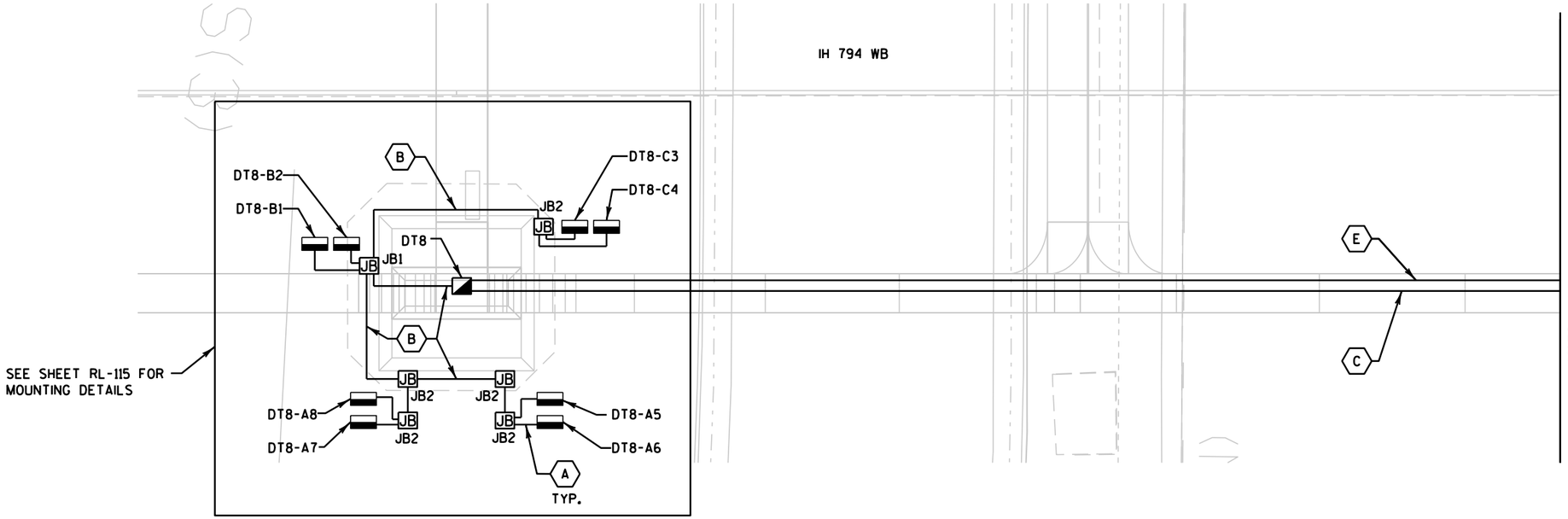
PLAN VIEW

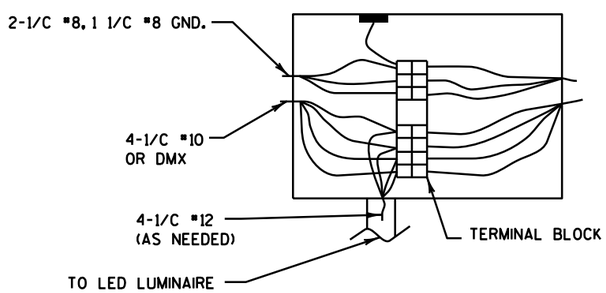
HOAN BRIDGE AESTHETIC LIGHTING - LAYOUT

RL-106

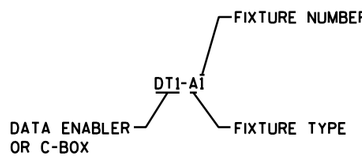
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 316 E

2





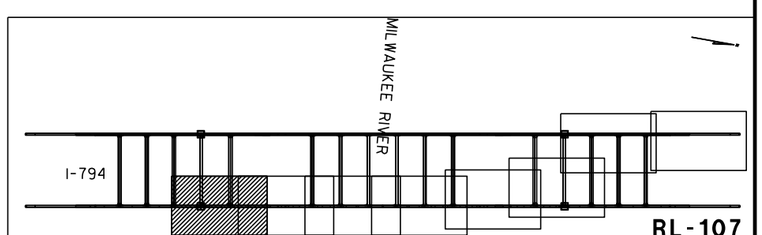
TYPICAL JUNCTION BOX SPLICE



TYPICAL CALLOUT

NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND, RL-10 FOR GENERAL NOTES, AND SHEET RL-105 FOR CABLE/ CONDUIT, LIGHT FIXTURE, AND JUNCTION BOX SCHEDULES.



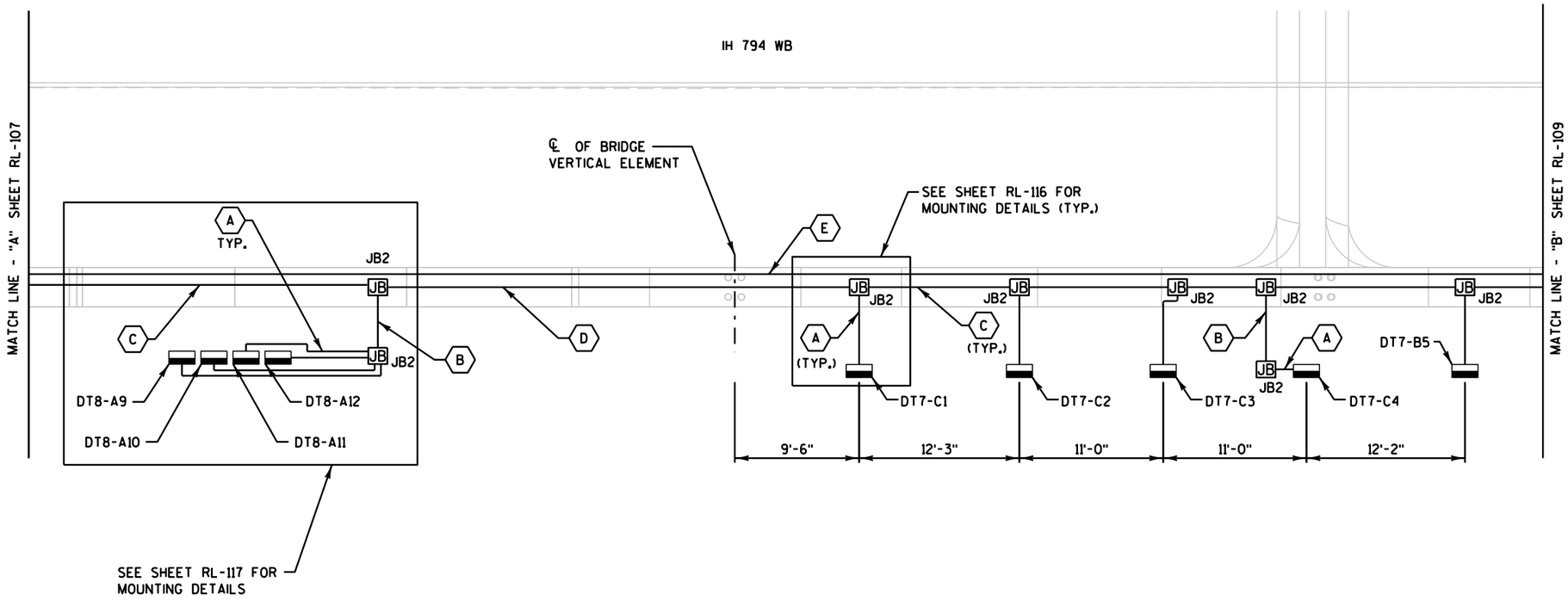
HOAN BRIDGE AESTHETIC LIGHTING - INSTALLATION PLAN

RL-107

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 317 E

2

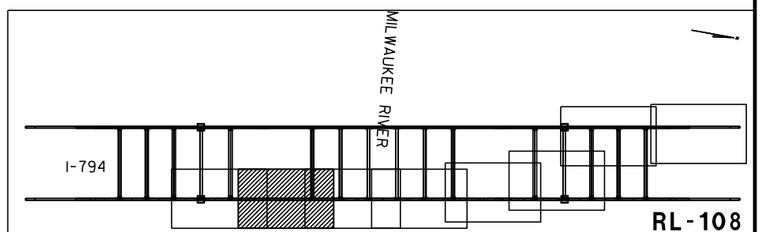
N



HOAN BRIDGE AESTHETIC LIGHTING - INSTALLATION PLAN

NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND, RL-10 FOR GENERAL NOTES, AND SHEET RL-105 FOR CABLE/ CONDUIT, LIGHT FIXTURE, AND JUNCTION BOX SCHEDULES.

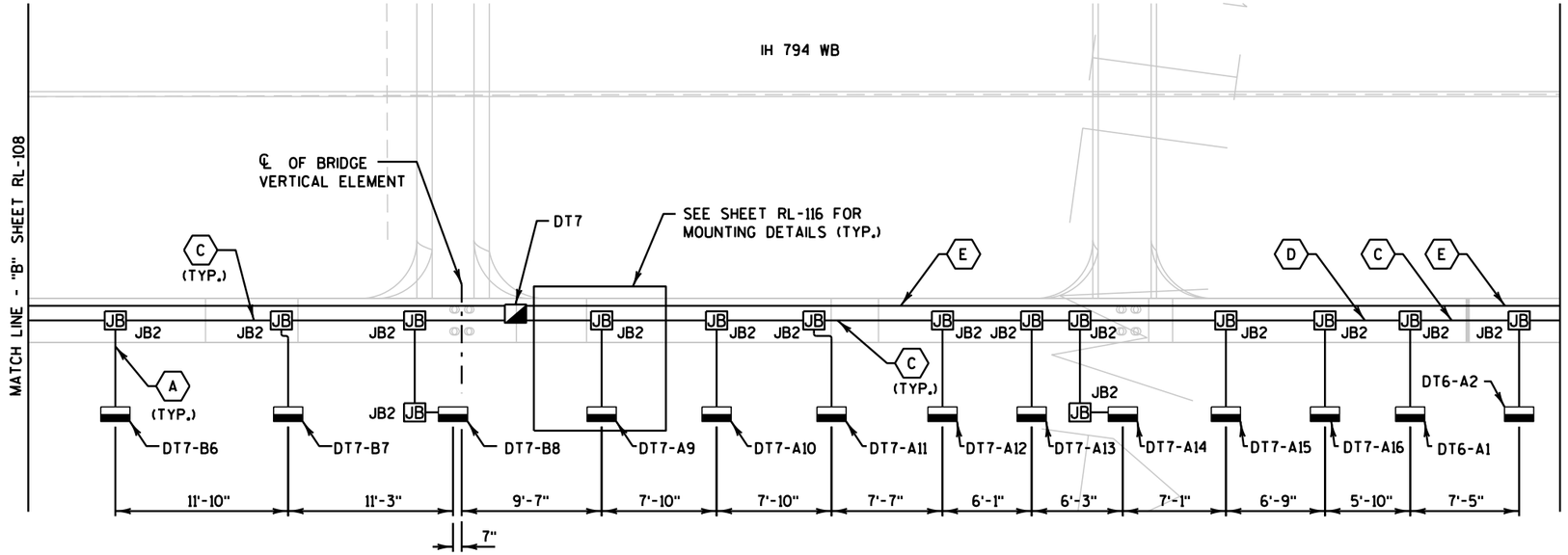


RL-108

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET E

FILE NAME : J:\302\DGN\CADD Sheets\023793_lp.dgn PLOT DATE : 26-APR-2013 13:34 PLOT BY : mgarvida PLOT NAME : PLOT SCALE : 10:1
WISDOT/CADDS SHEET 42

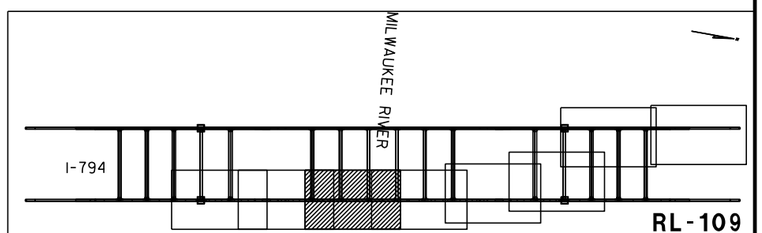
2



NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND, RL-10 FOR GENERAL NOTES, AND SHEET RL-105 FOR CABLE/ CONDUIT, LIGHT FIXTURE, AND JUNCTION BOX SCHEDULES.

HOAN BRIDGE AESTHETIC LIGHTING - INSTALLATION PLAN

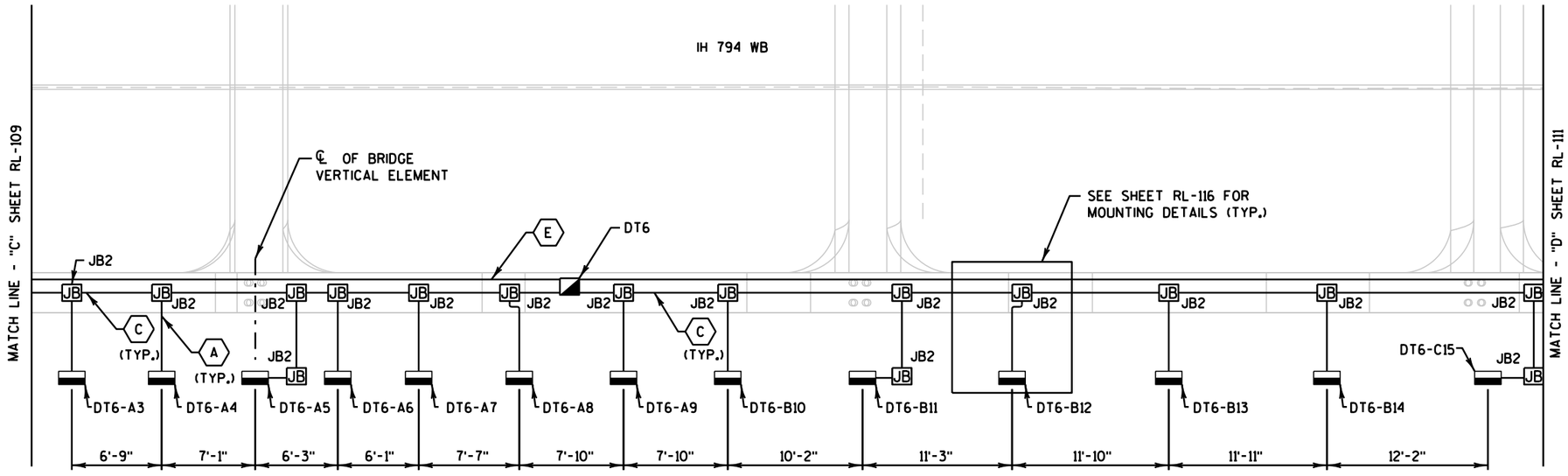


RL-109

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET E

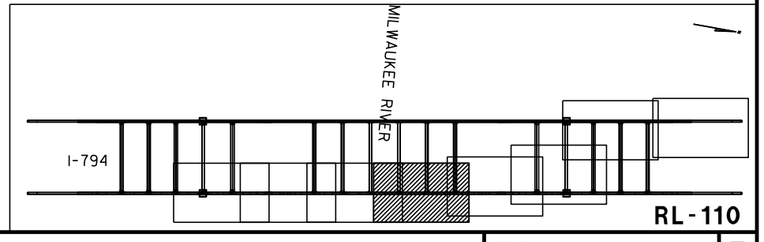
FILE NAME : J:\302\DGN\CADD Sheets\023794_lp.dgn PLOT DATE : 26-APR-2013 13:34 PLOT BY : mgarvida PLOT NAME : PLOT SCALE : 10:1
WISDOT/CADDS SHEET 42

2



NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND, RL-10 FOR GENERAL NOTES, AND SHEET RL-105 FOR CABLE/ CONDUIT, LIGHT FIXTURE, AND JUNCTION BOX SCHEDULES.

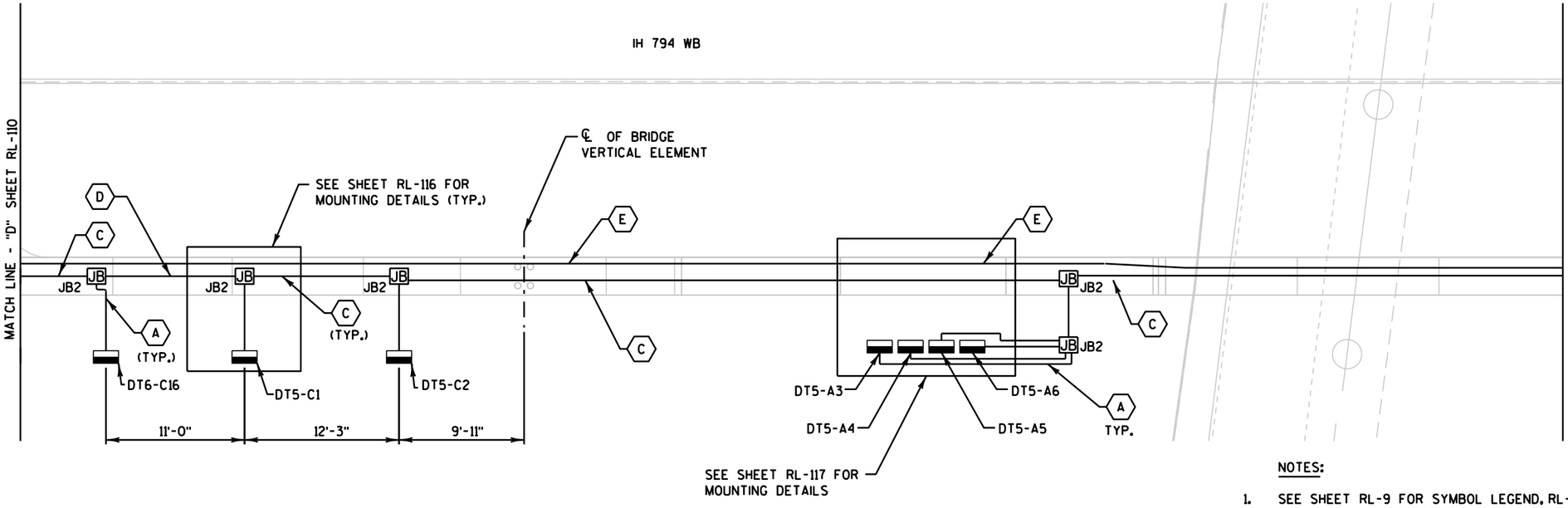


RL-110

HOAN BRIDGE AESTHETIC LIGHTING - INSTALLATION PLAN

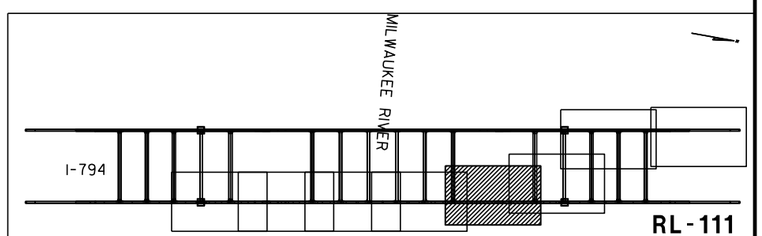
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 320 E

2



NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND, RL-10 FOR GENERAL NOTES, AND SHEET RL-105 FOR CABLE/ CONDUIT, LIGHT FIXTURE, AND JUNCTION BOX SCHEDULES.



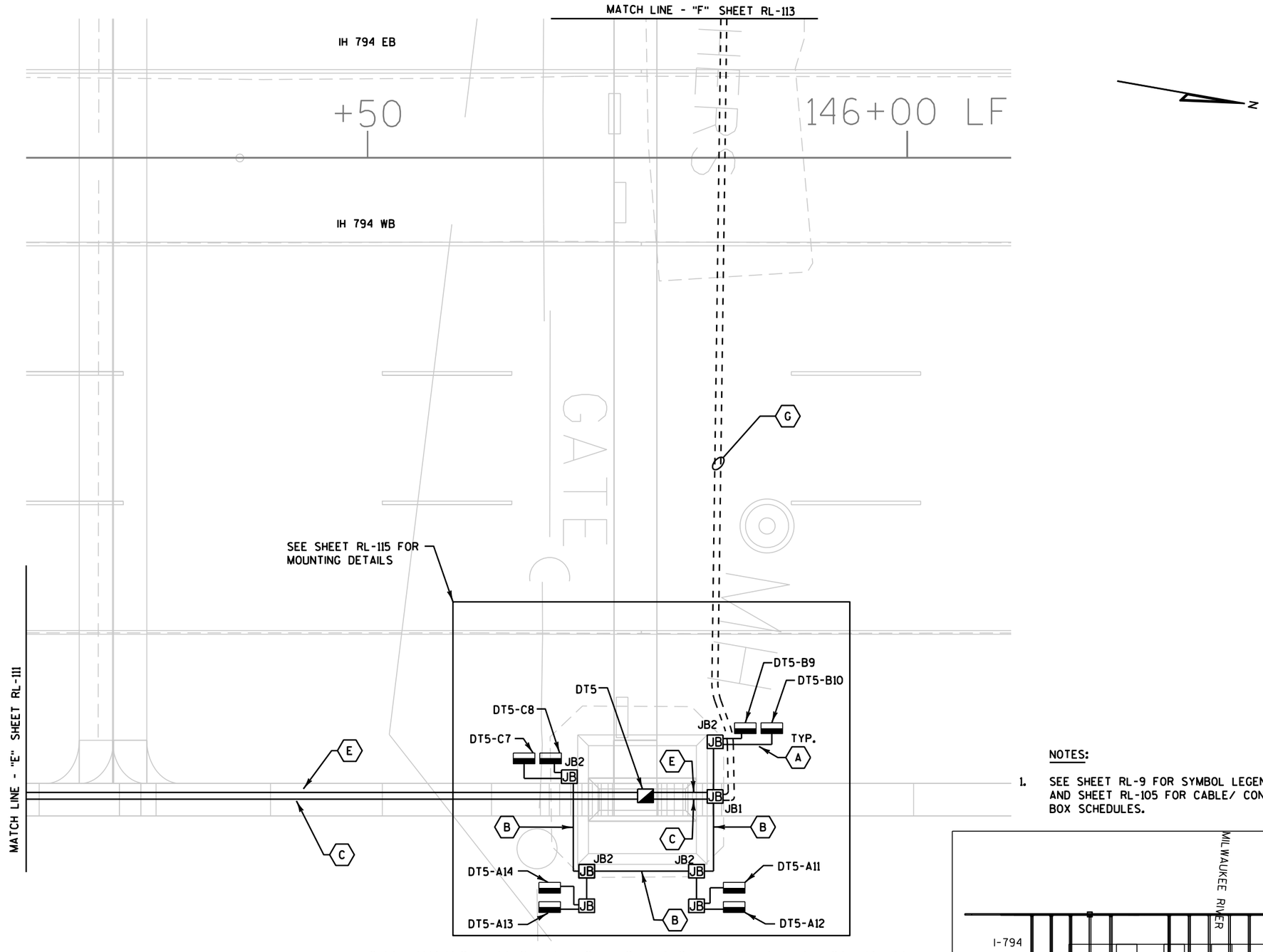
HOAN BRIDGE AESTHETIC LIGHTING - INSTALLATION PLAN

RL-111

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET E

FILE NAME : J:\302\DGN\CADD Sheets\023796_lp.dgn PLOT DATE : 26-APR-2013 13:35 PLOT BY : mgarvida PLOT NAME : PLOT SCALE : 10:1

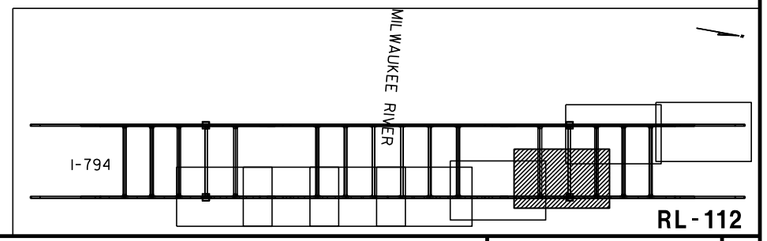
2



HOAN BRIDGE AESTHETIC LIGHTING - INSTALLATION PLAN

NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND, RL-10 FOR GENERAL NOTES, AND SHEET RL-105 FOR CABLE/ CONDUIT, LIGHT FIXTURE, AND JUNCTION BOX SCHEDULES.



RL-112

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 322	E

2

N

AESTHETIC LIGHTING LAYOUT
AND WIRING ALONG WEST TIE GIRDER
SHALL MATCH EAST TIE GIRDER

DT1

JB1
JB

F

G

BLEACHERS

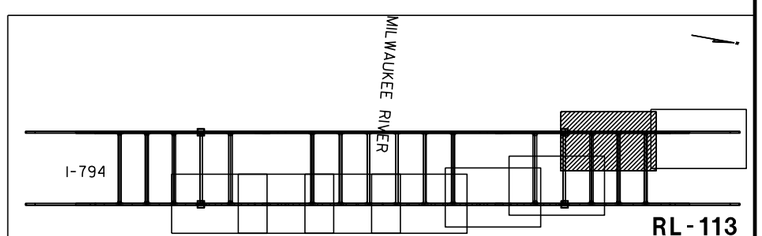
IH 794 EB

MATCH LINE - "G" SHEET RL-114

MATCH LINE - "F" SHEET RL-112

NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND, RL-10 FOR GENERAL NOTES, AND SHEET RL-105 FOR CABLE/ CONDUIT, LIGHT FIXTURE, AND JUNCTION BOX SCHEDULES.



RL-113

HOAN BRIDGE AESTHETIC LIGHTING - INSTALLATION PLAN

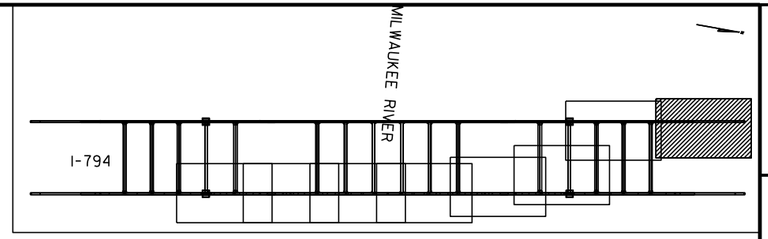
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 323 E

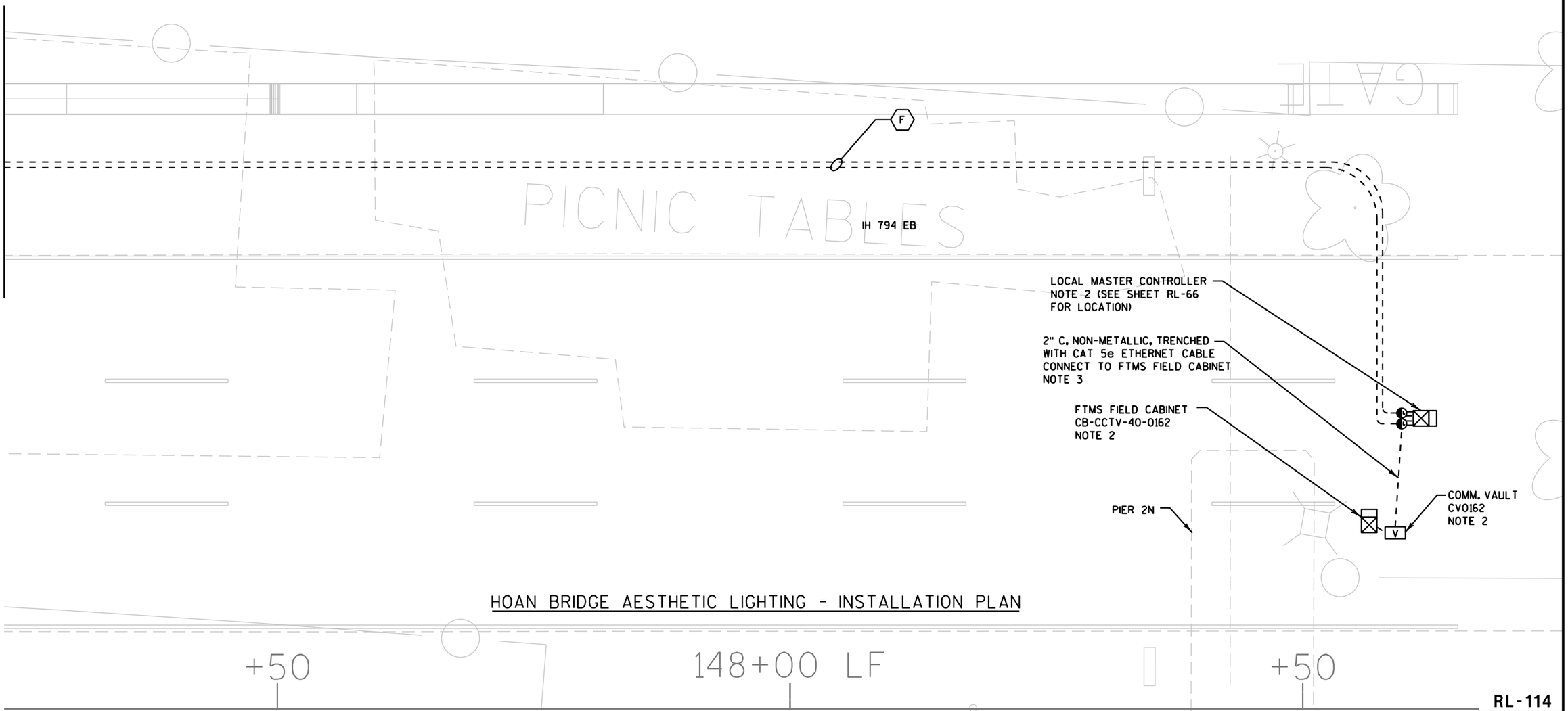
NOTES;

1. SEE SHEET RL-9 FOR SYMBOL LEGEND, RL-10 FOR GENERAL NOTES, AND SHEET RL-105 FOR CABLE/ CONDUIT, LIGHT FIXTURE, AND JUNCTION BOX SCHEDULES

2. LOCAL MASTER CONTROLLER SHALL BE CONNECTED TO STOC (STATE TRAFFIC OPERATIONS CENTER) VIA FIBER OPTIC BACKBONE FOR REMOTE CONTROL. CONTRACTOR SHALL COORDINATE WITH FTMS WORK AND CONNECTION TO FTMS FIELD CABINET. THE FTMS FIELD CABINET, COMMUNICATION VAULT AND FIBER OPTIC BACKBONE TO STOC ARE INCLUDED IN THE COST OF FTMS PAY ITEMS.

3. THE UNDERGROUND CONDUIT BETWEEN LOCAL MASTER CONTROLLER AND COMMUNICATION VAULT INCLUDING SHIELDED ETHERNET CAT5e CABLE SHALL BE INCLUDED IN THE COST OF HOAN BRIDGE AESTHETIC LIGHTING SYSTEMS PAY ITEM.



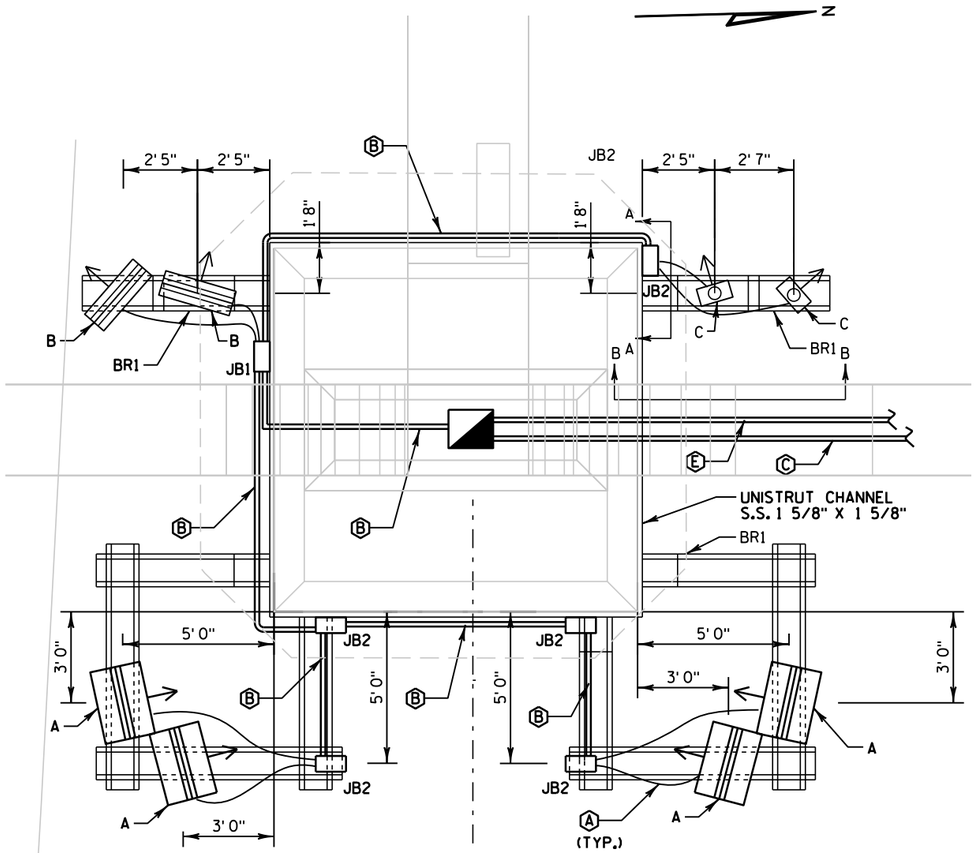


HOAN BRIDGE AESTHETIC LIGHTING - INSTALLATION PLAN

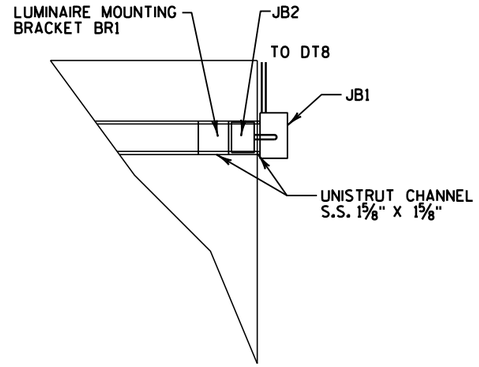
RL-114

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 324 E

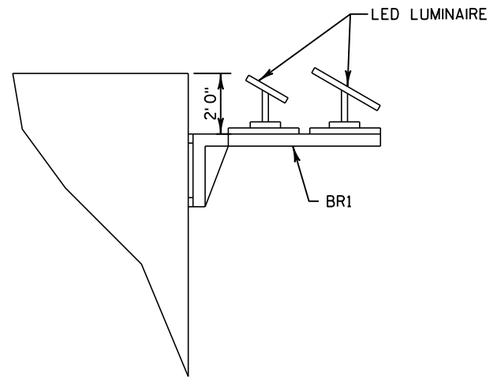
2



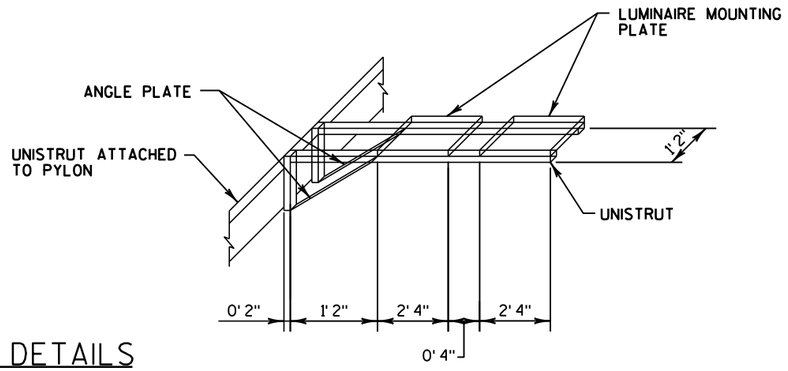
LUMINAIRE MOUNTING AND AIMING DETAIL (SOUTH EAST PILLAR)



SECTION A-A



SECTION B-B



LUMINAIRE MOUNTING
BRACKET BR1

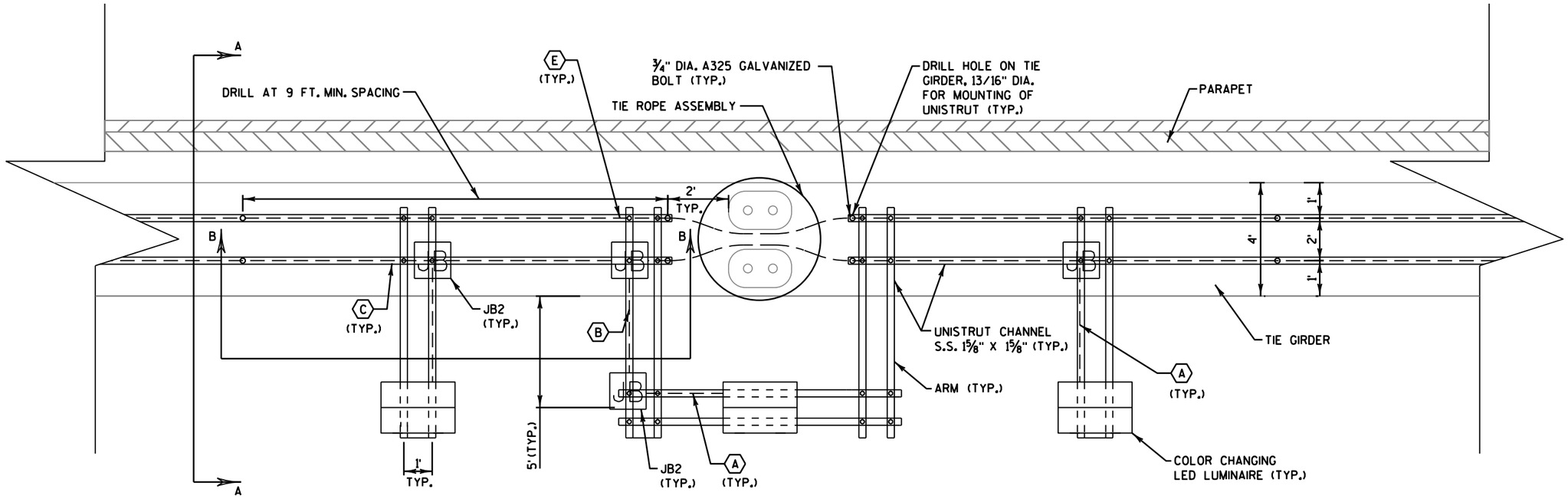
NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND, RL-10 FOR GENERAL NOTES, AND SHEET RL-105 FOR CABLE/ CONDUIT, LIGHT FIXTURE, AND JUNCTION BOX SCHEDULES
2. ALL MOUNTING HARDWARE AND UNISTRUT CHANNELS SHALL BE STAINLESS STEEL, EXCEPT AS SHOWN ON THE PLANS.
3. ATTACH BRACKET TO THE CONCRETE PILLAR WITH EPOXY ANCHORS AS RECOMMENDED BY THE MANFUFACTURER FOR LUMINAIRE AND MOUNTING HARDWARE LOADING.
4. ALL THE CONDUITS ATTACHED TO THE STRUCTURE SHALL BE RTRC OR LIQUIDTIGHT FLEXIBLE METALLIC AS NEEDED.
5. LUMINAIRE MOUNTING ASSEMBLY SHALL BE LOCATED A MINIMUM OF 2 FT BELOW TOP SURFACE OF THE CONCRETE PILLAR

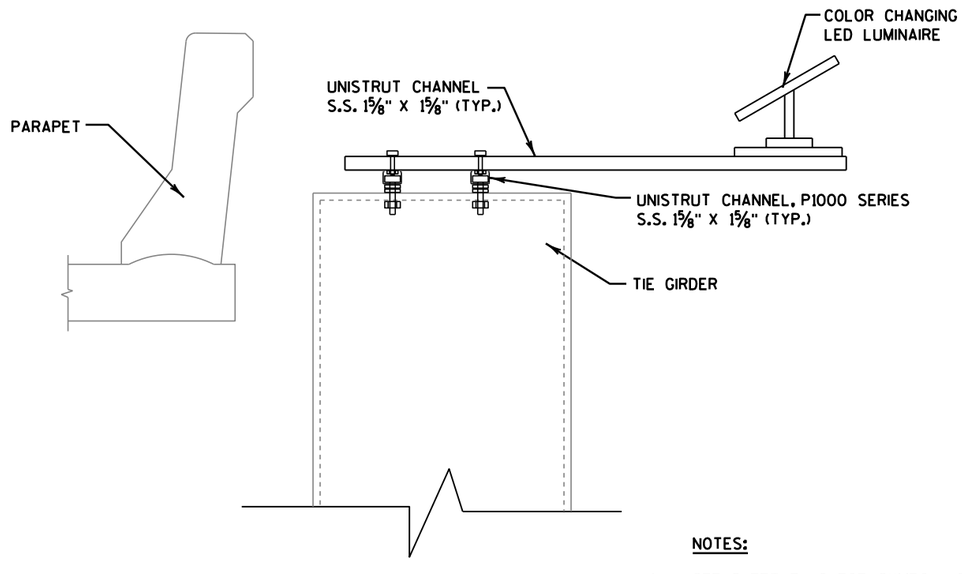
HOAN BRIDGE AESTHETIC LIGHTING - MOUNTING DETAILS

RL-115

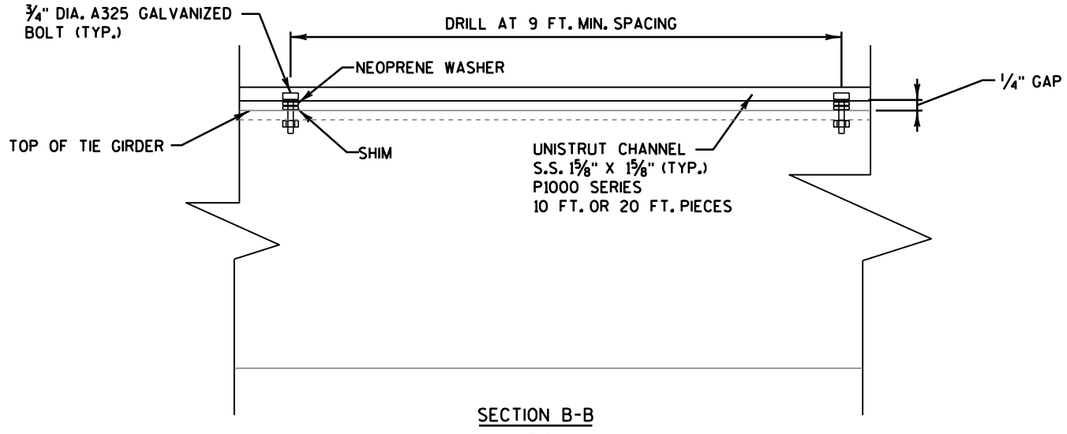
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 325 E



PLAN VIEW
HOAN BRIDGE AESTHETIC LIGHTING
LUMINAIRE MOUNTING DETAILS ALONG TIE GIRDER
N.T.S.



SECTION A-A
N.T.S.



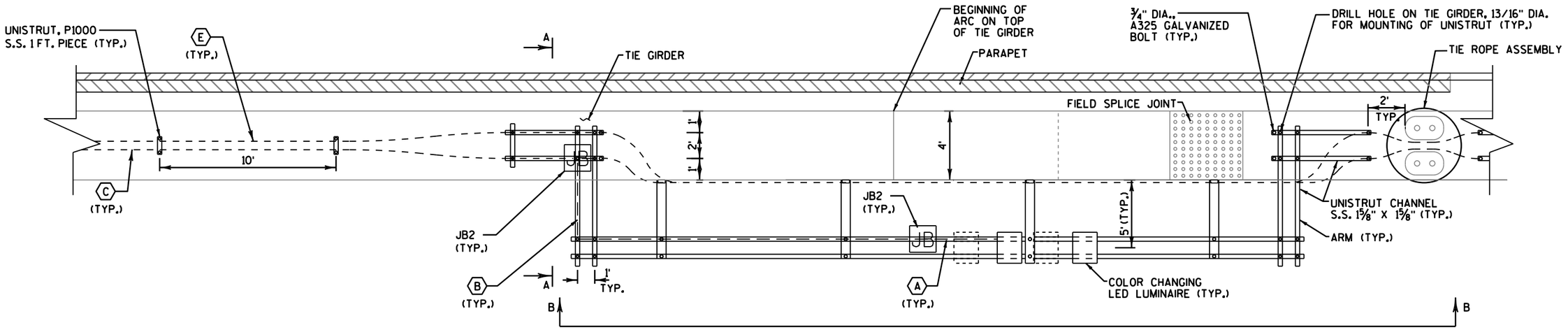
SECTION B-B
N.T.S.

NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND, RL-10 FOR GENERAL NOTES, AND SHEET RL-105 FOR CABLE/ CONDUIT, LIGHT FIXTURE, AND JUNCTION BOX SCHEDULES

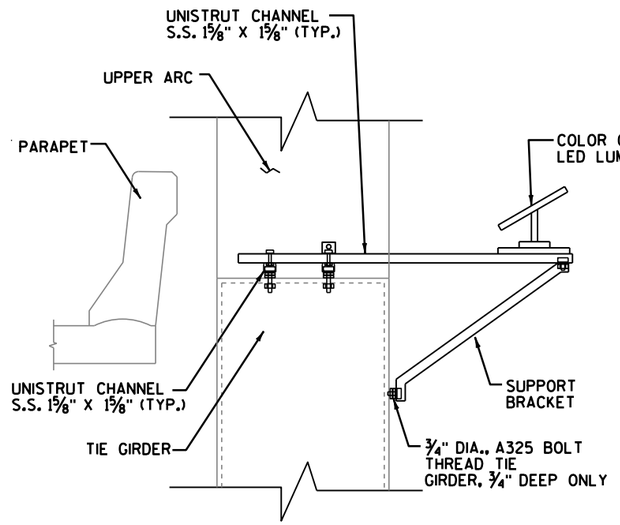
RL-116

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 326 E



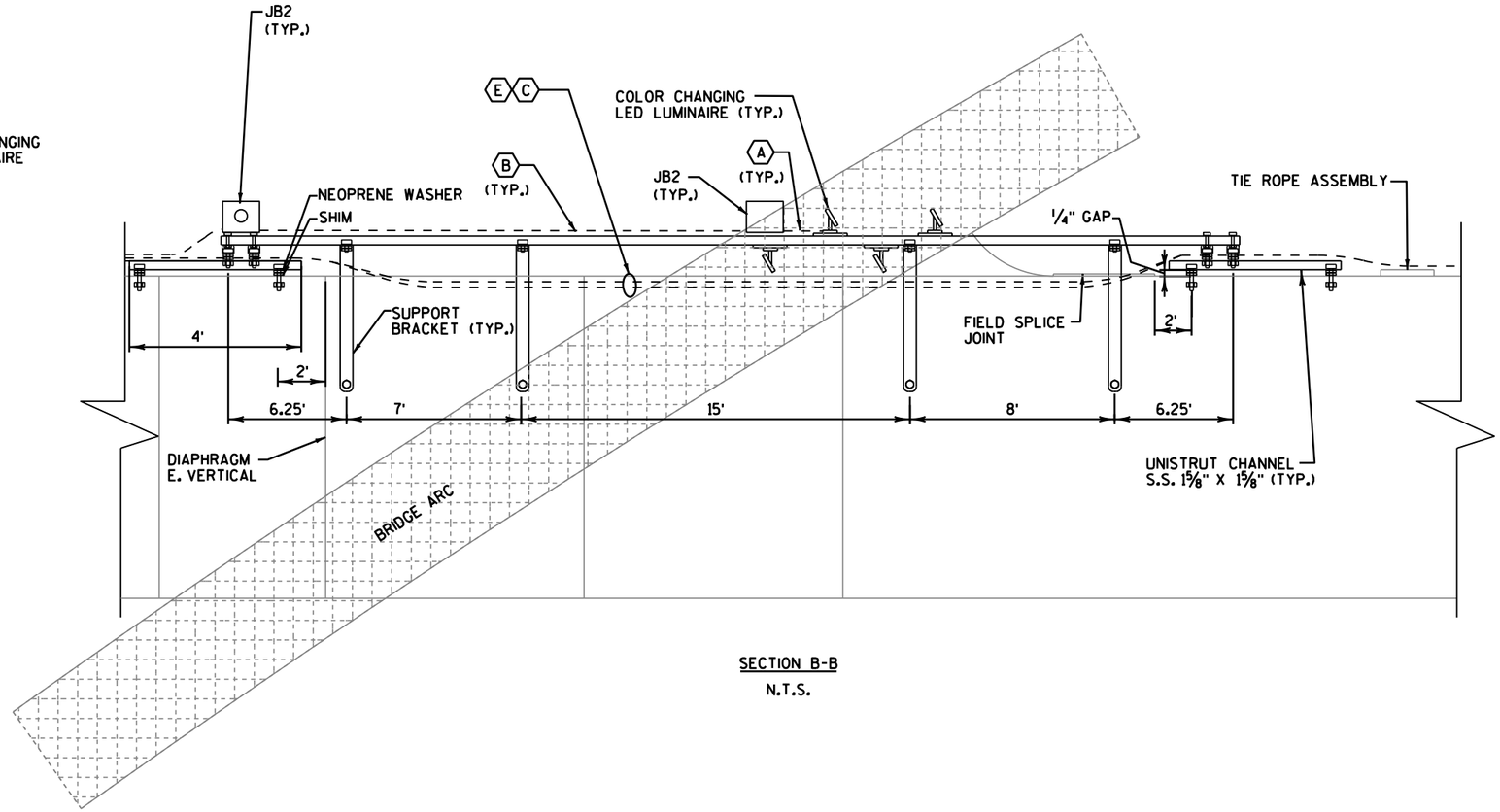
PLAN VIEW HOAN BRIDGE AESTHETIC LIGHTING LUMINAIRE MOUNTING DETAILS AROUND UPPER ARC JOINT

N.T.S.



SECTION A-A

N.T.S.



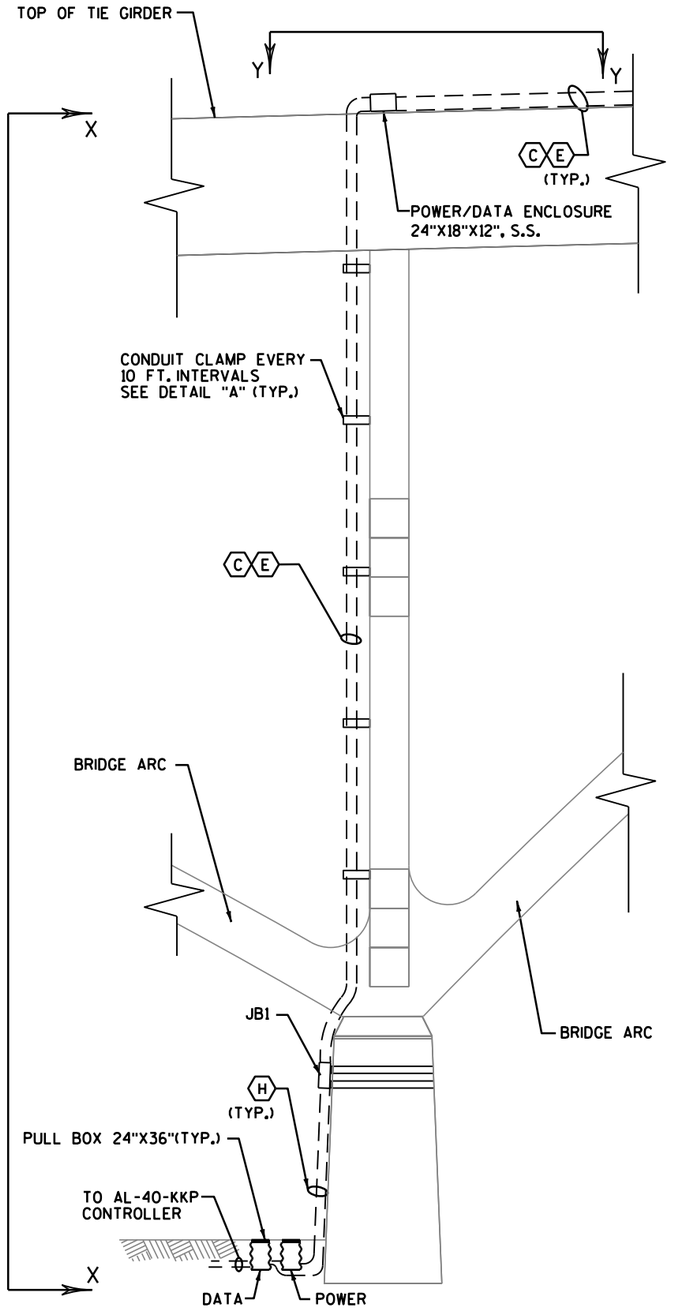
SECTION B-B

N.T.S.

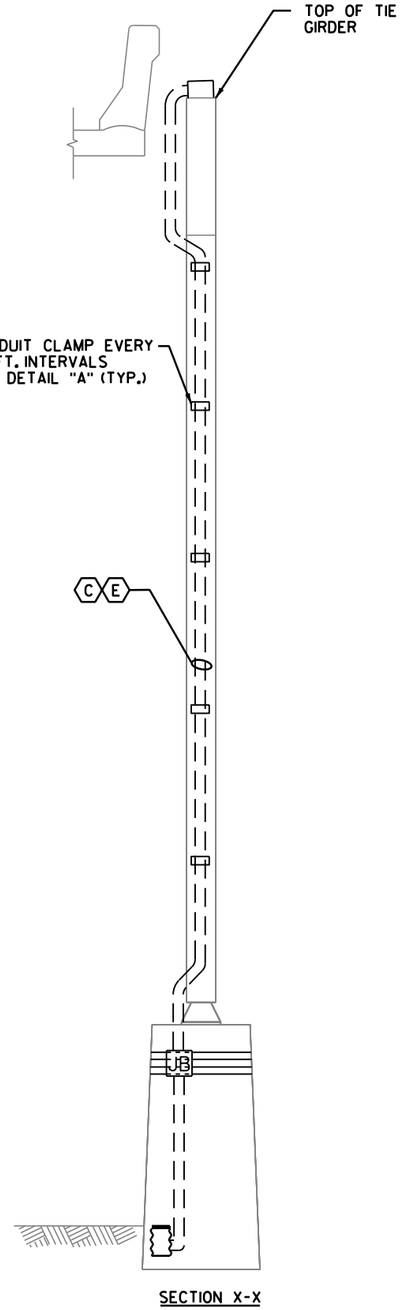
NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND, RL-10 FOR GENERAL NOTES, AND SHEET RL-105 FOR CABLE/ CONDUIT, LIGHT FIXTURE, AND JUNCTION BOX SCHEDULES

RL-117



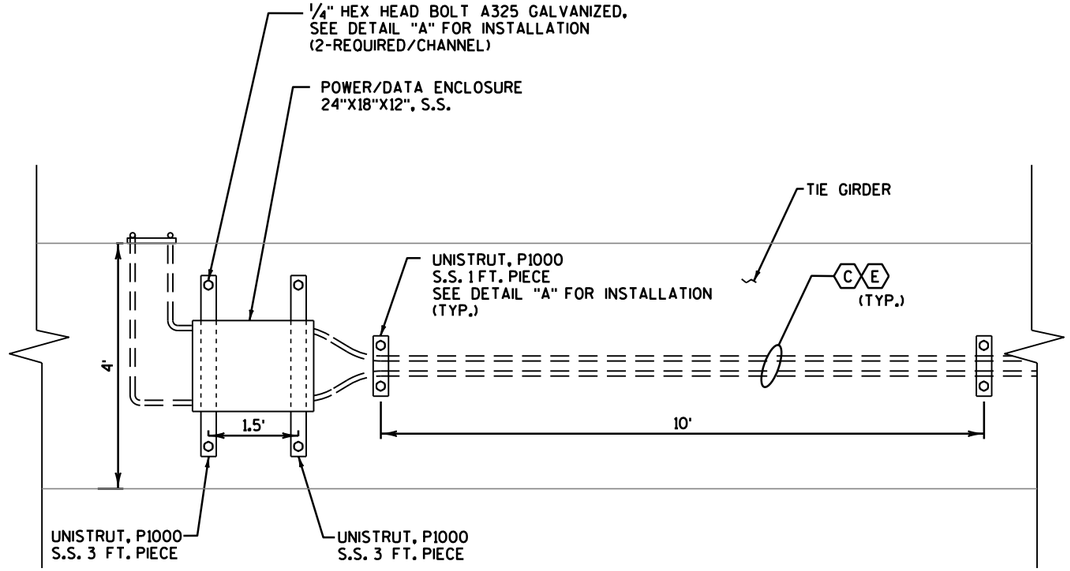
CONDUIT TRANSITION DETAIL AT HOAN BRIDGE FOOTING (STA. 145+75 LF, 59' LT.)
ELEVATION VIEW (LOOKING EAST)
N.T.S.



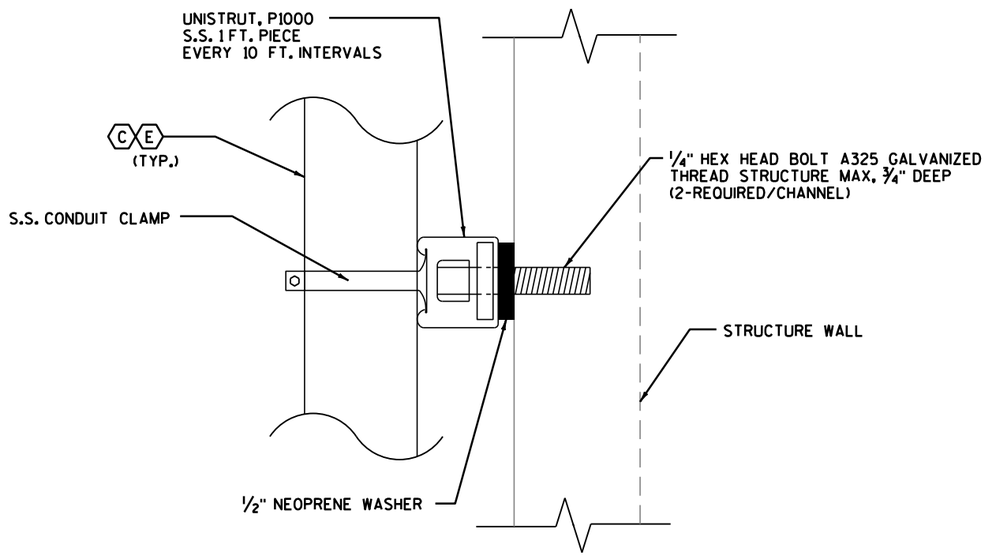
SECTION X-X
N.T.S.

NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND, RL-10 FOR GENERAL NOTES, AND SHEET RL-105 FOR CABLE/CONDUIT, LIGHT FIXTURE, AND JUNCTION BOX SCHEDULES



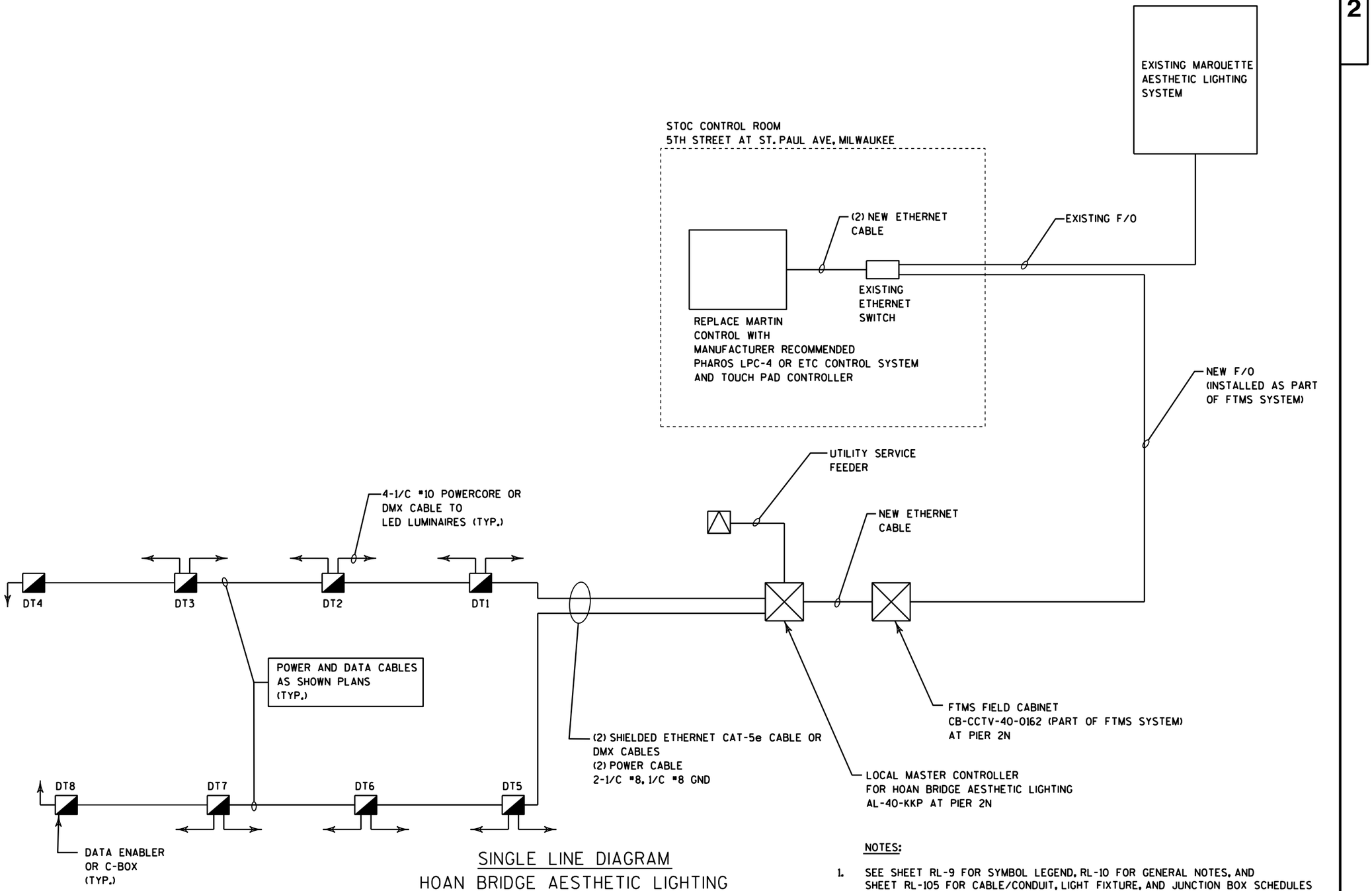
SECTION Y-Y
N.T.S.



DETAIL "A"
CONDUIT CLAMP MOUNTING DETAIL
N.T.S.

RL-118

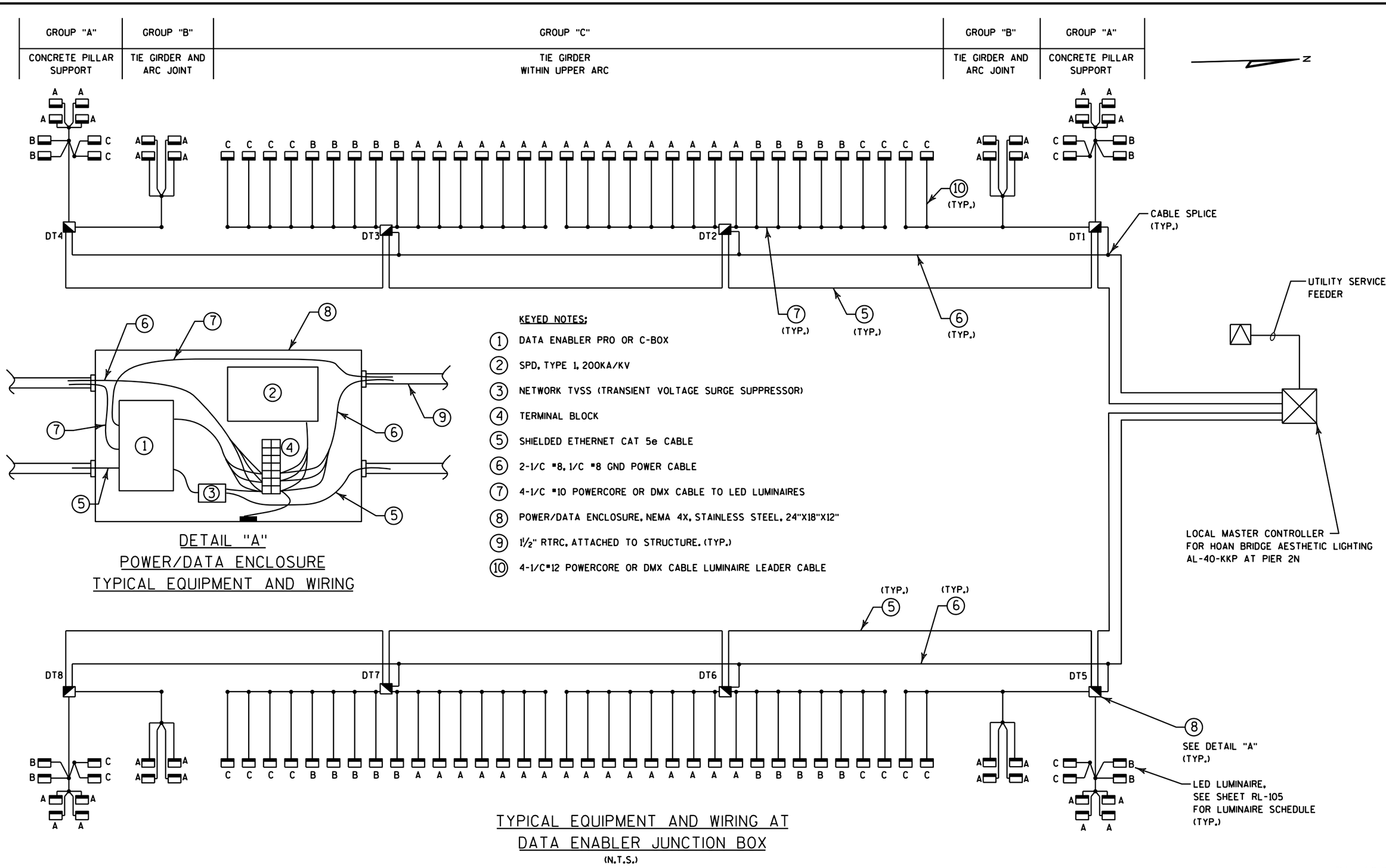
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 328 E



SINGLE LINE DIAGRAM
HOAN BRIDGE AESTHETIC LIGHTING

NOTES:

1. SEE SHEET RL-9 FOR SYMBOL LEGEND, RL-10 FOR GENERAL NOTES, AND SHEET RL-105 FOR CABLE/CONDUIT, LIGHT FIXTURE, AND JUNCTION BOX SCHEDULES



DETAIL "A"
POWER/DATA ENCLOSURE
TYPICAL EQUIPMENT AND WIRING

KEYED NOTES:

1. DATA ENABLER PRO OR C-BOX
2. SPD, TYPE 1, 200KA/KV
3. NETWORK TVSS (TRANSIENT VOLTAGE SURGE SUPPRESSOR)
4. TERMINAL BLOCK
5. SHIELDED ETHERNET CAT 5e CABLE
6. 2-1/C #8, 1/C #8 GND POWER CABLE
7. 4-1/C #10 POWERCORE OR DMX CABLE TO LED LUMINAIRES
8. POWER/DATA ENCLOSURE, NEMA 4X, STAINLESS STEEL, 24"X18"X12"
9. 1½" RTRC, ATTACHED TO STRUCTURE. (TYP.)
10. 4-1/C#12 POWERCORE OR DMX CABLE LUMINAIRE LEADER CABLE

TYPICAL EQUIPMENT AND WIRING AT
DATA ENABLER JUNCTION BOX
(N.T.S.)

RL-120

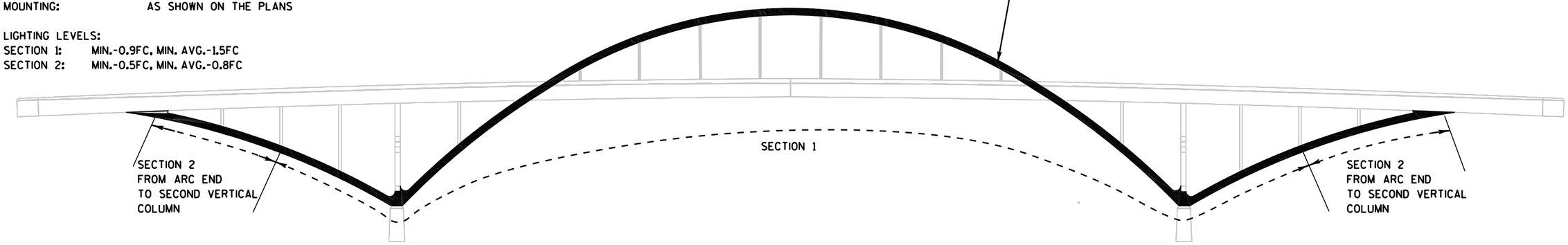
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 330 E

CONTRACTOR SHALL SUBMIT PHOTOMETRIC COMPUTATIONS USING IES FILES AVAILABLE ON MANUFACTURE'S WEB-SITE FOR LED LUMINAIRES WITH WHITE LIGHT. THE PHOTOMETRIC LIGHT OUTPUT SHALL BE MEASURED AT THE OUTSIDE SURFACE OF THE UPPER AND LOWER ARC AS HIGHLIGHTED IN THIS DRAWING.

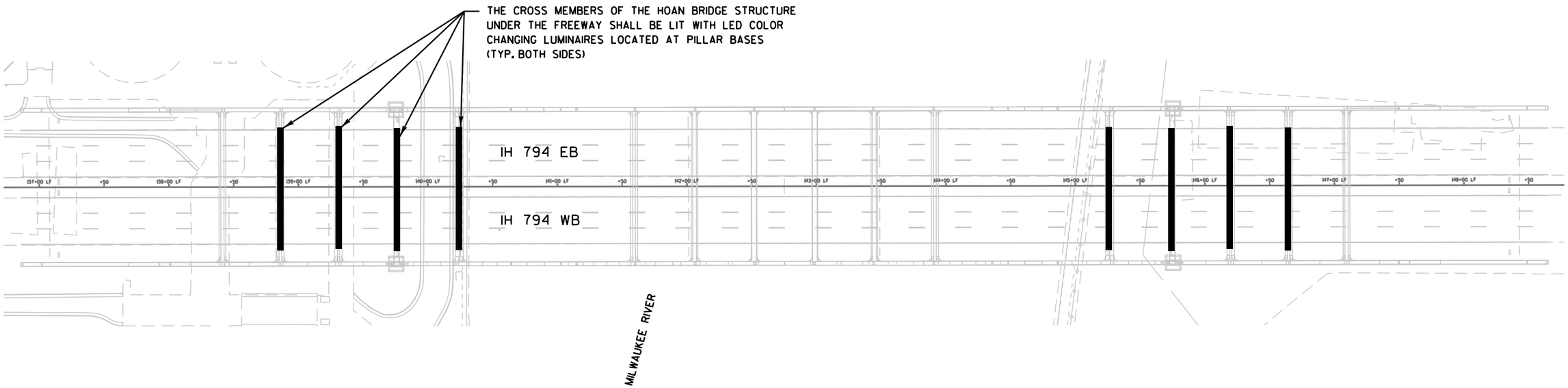
FOLLOWING CRITERIA SHALL BE USE FOR LIGHTING COMPUTATIONS:

LIGHT LOSS FACTOR: 0.75
LUMINAIRE AIMING: PER MANUFACTURER'S RECOMMENDATION TO LIGHT UPPER AND LOWER ARCHES
MOUNTING: AS SHOWN ON THE PLANS

LIGHTING LEVELS:
SECTION 1: MIN.-0.9FC, MIN. AVG.-1.5FC
SECTION 2: MIN.-0.5FC, MIN. AVG.-0.8FC



ELEVATION VIEW

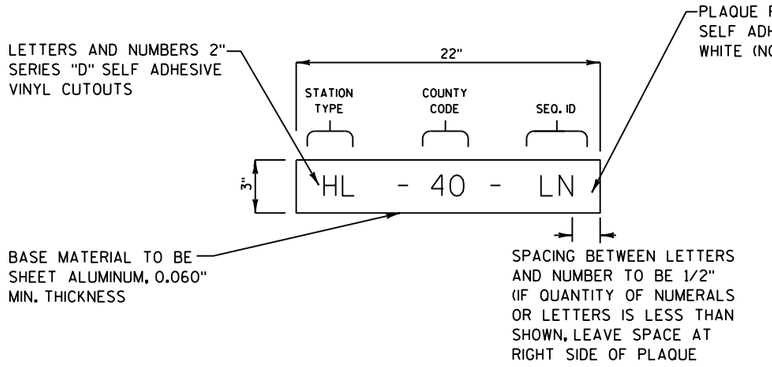


PLAN VIEW

HOAN BRIDGE AESTHETIC LIGHTING - LIGHTING PERFORMANCE LAYOUT

RL-121

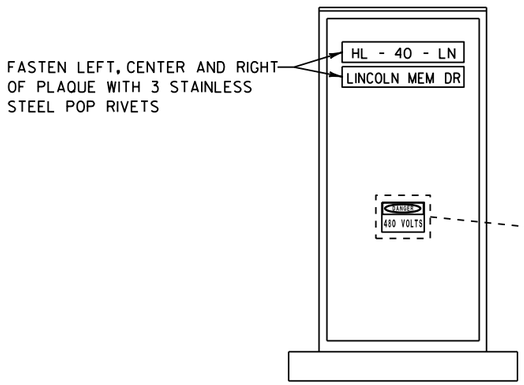
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 331 E



DISTRIBUTION CENTER IDENTIFICATION PLAQUE

LINCOLN MEM DR

MNEMONIC
(SEE MISC. QTYS.)
(NO. OF CHARACTERS VARIES THIRD PLAQUE MAY BE NECESSARY)

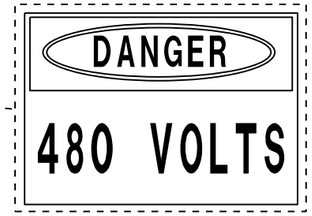


DISTRIBUTION CENTER IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS
(TYPICAL ALL CONTROL CABINETS)

GENERAL NOTES:

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

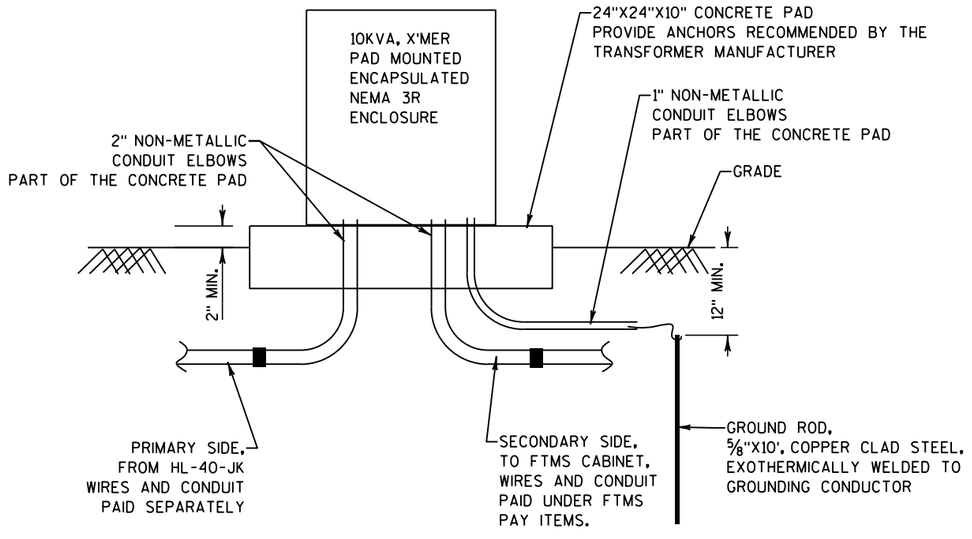
TWO REQUIRED FOR CABINET AND METER PEDESTALS (PAID AS PLAQUES SEQUENCE IDENTIFICATIONS)



APPROX. 10 1/2" X 7"

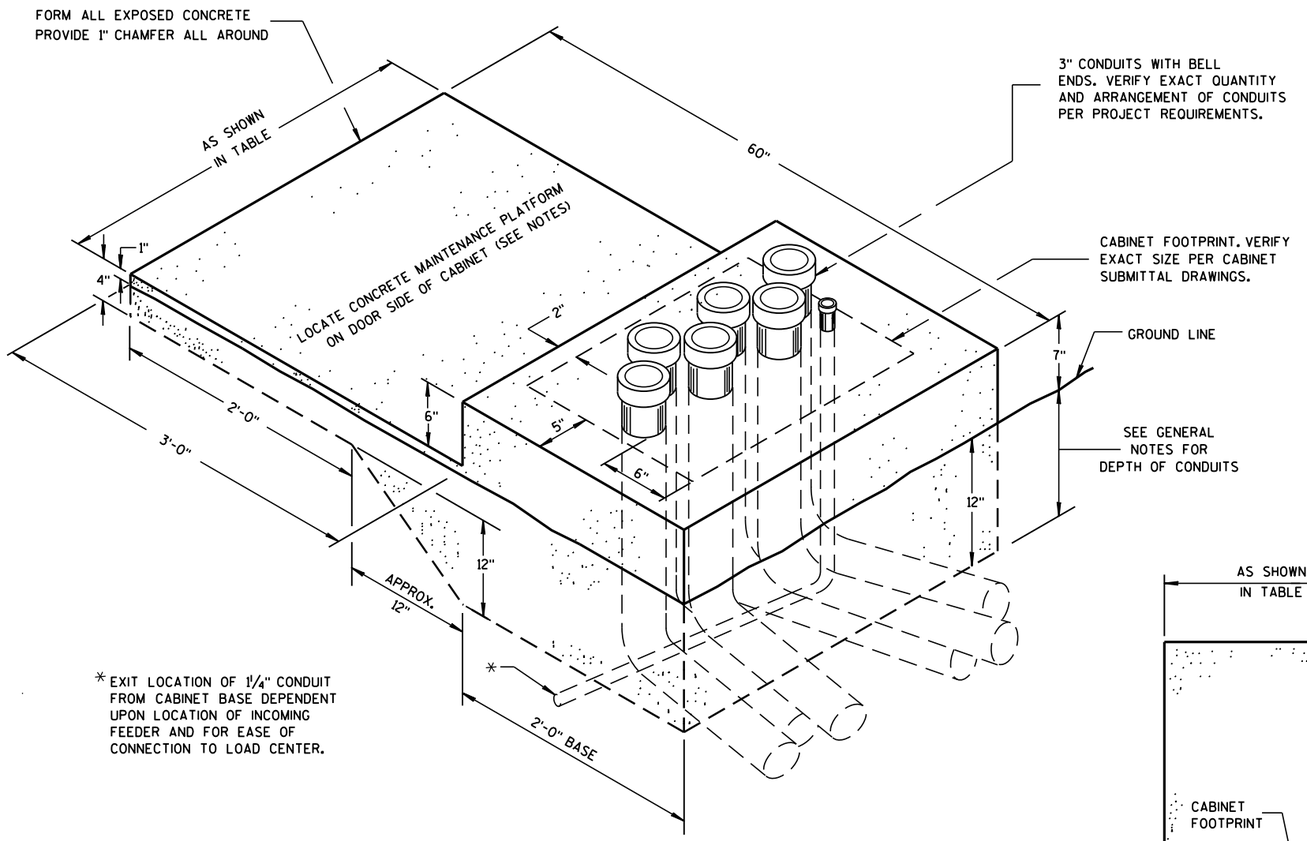
PLAQUE SEQUENCE IDENTIFICATION

1 - DISTRIBUTION CENTER NUMBER
1 - DISTRIBUTION CENTER LOCATION
1 - 480V PLAQUE FOR CABINET
1 - 480V PLAQUE FOR METER PEDESTAL
TOTAL 4



PAD MOUNTED TRANSFORMER DETAILS

RL-122



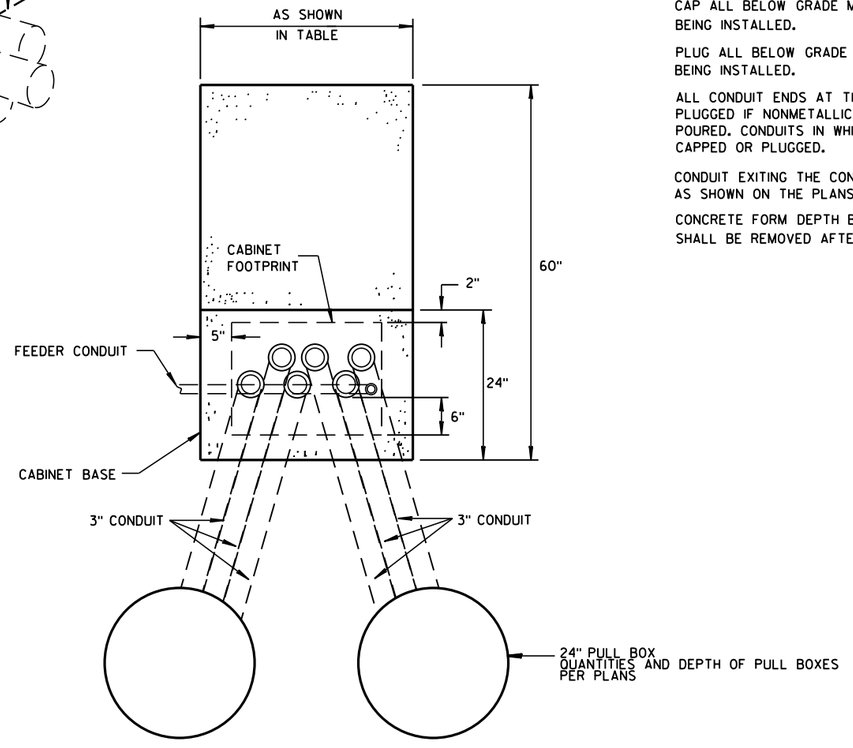
* EXIT LOCATION OF 1¼" CONDUIT FROM CABINET BASE DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, SPECIAL

(C.Y. CONCRETE = APPROX. 0.4)

CONTROLLER I.D.	BASE WIDTH	REMARKS
HL-40-JK	34-INCH	PAID SEPARATELY
HL-40-HB	34-INCH	PAID SEPARATELY
HL-40-DW	48-INCH	PAID SEPARATELY
HL-40-LN	34-INCH	PAID SEPARATELY
AL-40-KKP	48-INCH	PART OF HOAN BRIDGE AESTHETIC LIGHTING SYSTEMS



PLAN VIEW

CONCRETE CONTROL CABINET BASE, SPECIAL

NOTES:

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

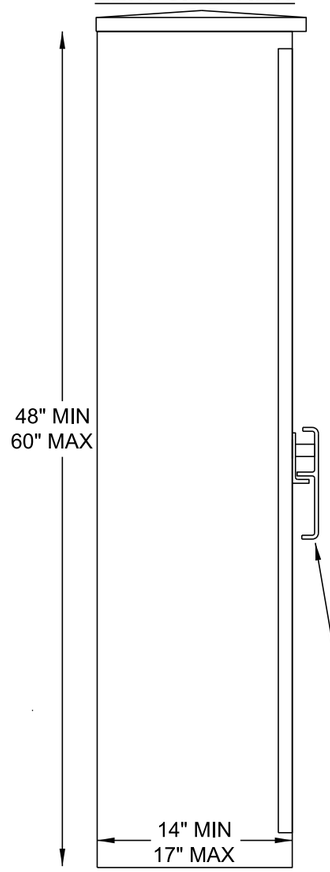
ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

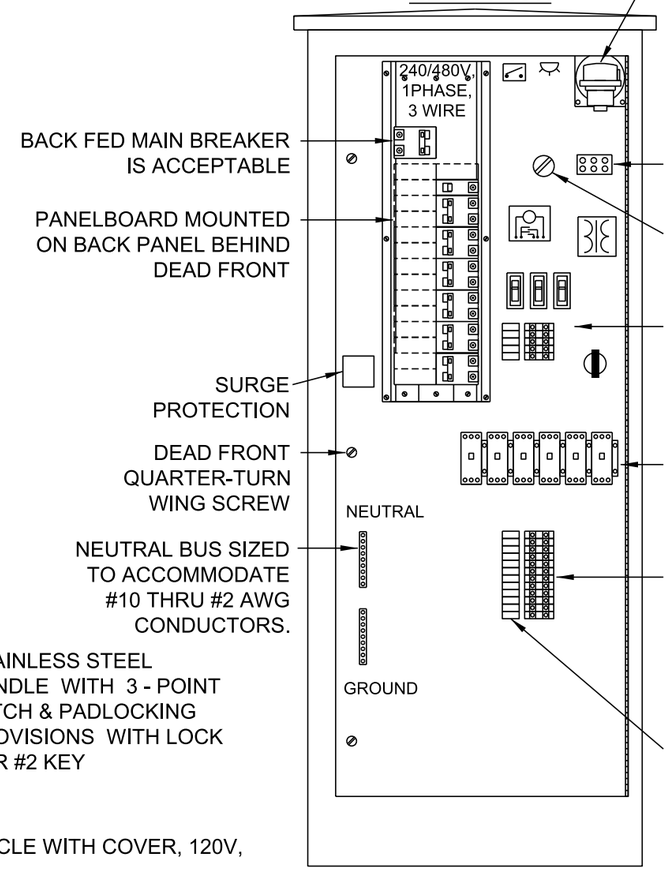
CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

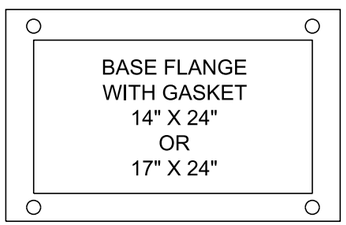
RL-123

LEFT SIDE VIEW

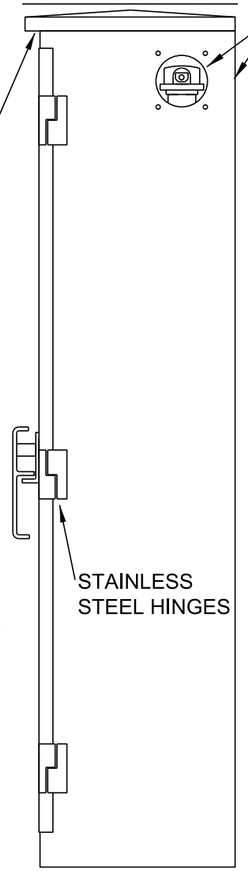


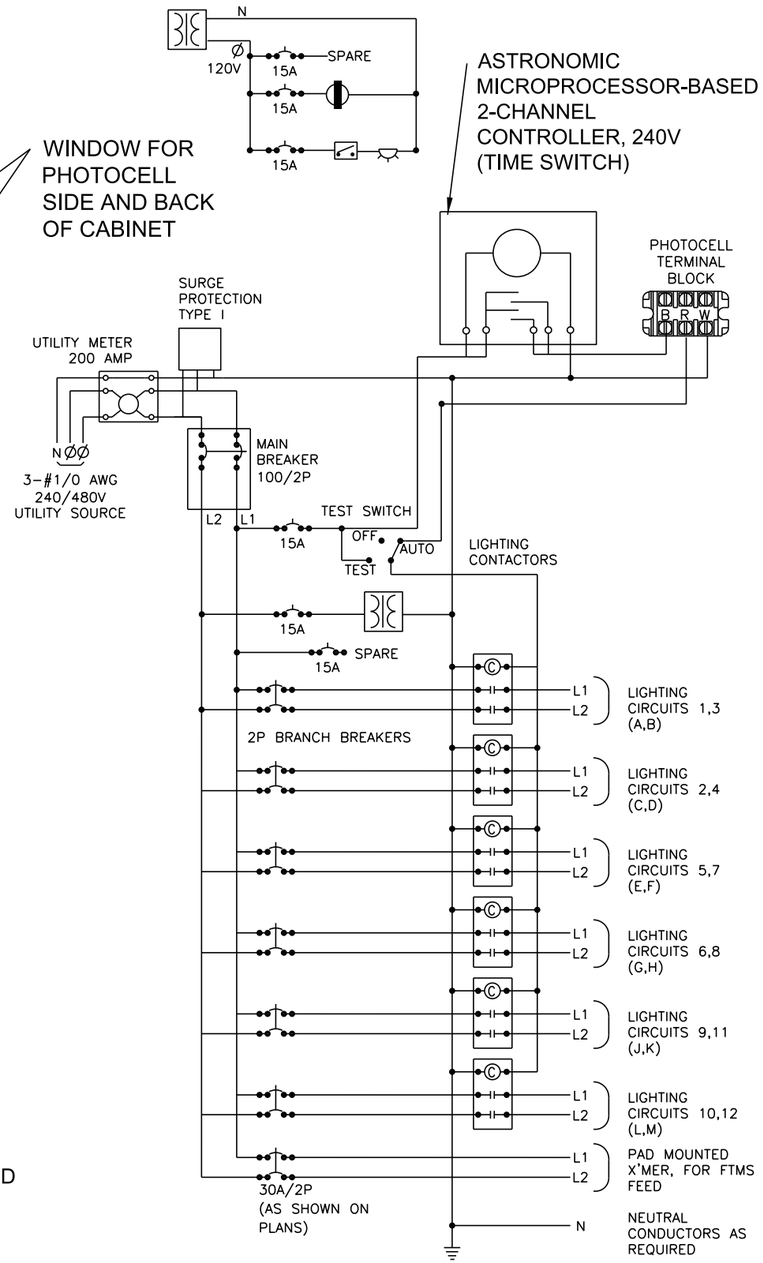
FRONT INTERIOR ELEVATION





RIGHT SIDE VIEW





CONTROL CABINET SCHEMATIC

LEGEND:

- 15 AMP GFCI DUPLEX RECEPTACLE WITH COVER, 120V,
- TERMINAL BLOCK
- 1.5KVA, SINGLE PHASE ENCAPSULATED TRANSFORMER 240/120V, 60HZ
- SPST, 20AMP SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN.
- INCANDESCENT LIGHTING FIXTURE ENCLOSED AND GASKETED WITH 60WATT, 120V LAMP.
- ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER (TIME SWITCH)
- 15 AMP/1P CIRCUIT BREAKER, 120V

PANELBOARD:

- 30 CIRCUIT MIN.
- 100 AMP MAIN CIRCUIT BREAKER
- COPPER BUS
- BOLT- ON BREAKERS
- 22K AIC
- (2) 15A/1P CONTROL BREAKER, 240V
- (1) 15A/1P CONTROL BREAKER, 240V, SPARE
- (1) 30A/2P BREAKER FOR FEED TO PAD MOUNTED STEP-DOWN X'MER, AS APPLICABLE
- (6) 30A/2P BRANCH BREAKERS

BOX CONSTRUCTION:

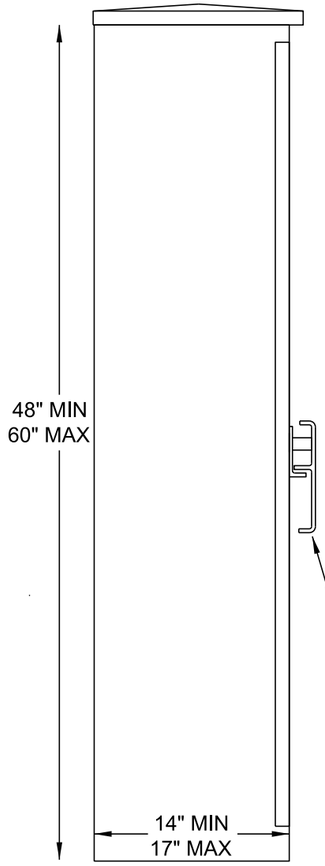
- NEMA 3R
- UL LISTED
- -1/8" ALUMINUM 5052-H32 ANODIZED CLEAR
- BENT CONSTRUCTION - ONE PIECE SIDES AND BACK
- NEOPRENE GASKETED DOORS
- STAINLESS STEEL HARDWARE
- ETL LISTED IN ACCORDANCE W/ UL508A

240/480 VOLT LIGHTING CONTROL CABINET POV-WISDOT 240/480

RL-124

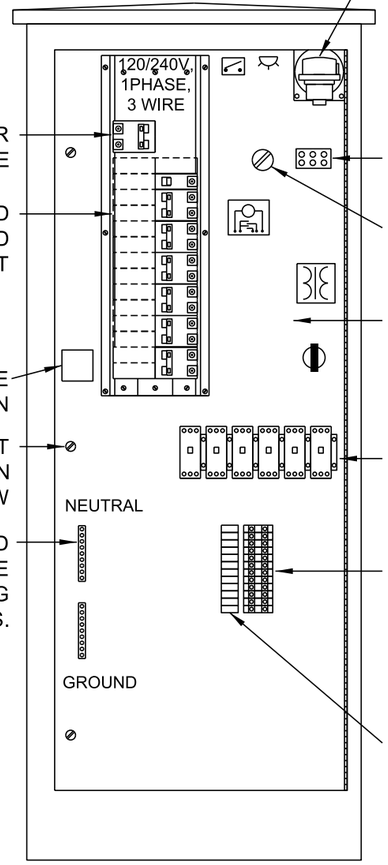
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 334 E

LEFT SIDE VIEW



STAINLESS STEEL HANDLE WITH 3 - POINT LATCH & PADLOCKING PROVISIONS WITH LOCK FOR #2 KEY

FRONT INTERIOR ELEVATION



BACK FED MAIN BREAKER IS ACCEPTABLE

PANELBOARD MOUNTED ON BACK PANEL BEHIND DEAD FRONT

SURGE PROTECTION

DEAD FRONT QUARTER-TURN WING SCREW

NEUTRAL BUS SIZED TO ACCOMMODATE #10 THRU #2 AWG CONDUCTORS.

NEMA TWIST-LOCK WISDOT APPROVED PHOTOCELL, 120V MOUNTED BEHIND WINDOWS

PHOTOCELL TERMINAL BLOCK

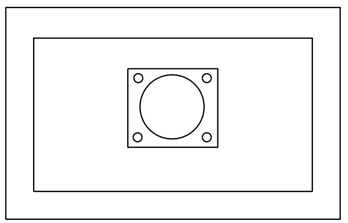
HAND-OFF-AUTO SWITCH MOUNTED ON HINGED DEAD FRONT

INTERIOR COMPONENTS MOUNTED ON BACK PANEL BEHIND HINGED DEAD FRONT

(6) 2P CONTACTORS, 240V COIL (CONTACTORS SIZED AS REQUIRED)

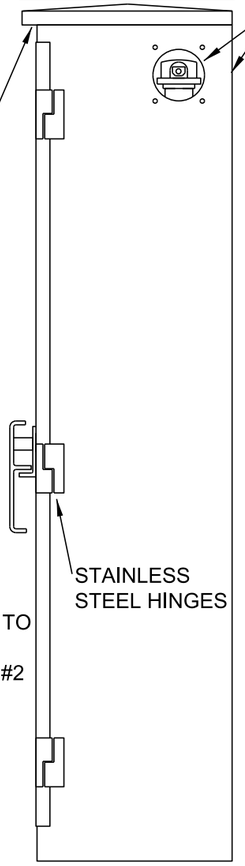
TERMINAL BLOCKS FOR LIGHTING CIRCUIT CONDUCTORS PRE WIRED TO CONTACTORS. SIZED TO ACCOMMODATE #10 THRU #2 AWG CONDUCTORS.

CIRCUIT LABELS



BASE FLANGE WITH GASKET FOR PEDESTAL MOUNT

RIGHT SIDE VIEW



VENTILATION UNDER TOP

WINDOW FOR PHOTOCELL SIDE AND BACK OF CABINET

STAINLESS STEEL HINGES

LEGEND:

- 15 AMP GFCI DUPLEX RECEPTACLE WITH COVER, 120V,
- SPST, 20 AMP SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN.
- INCANDESCENT LIGHTING FIXTURE ENCLOSED AND GASKETED WITH 60WATT, 120V LAMP.
- ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER (TIME SWITCH)

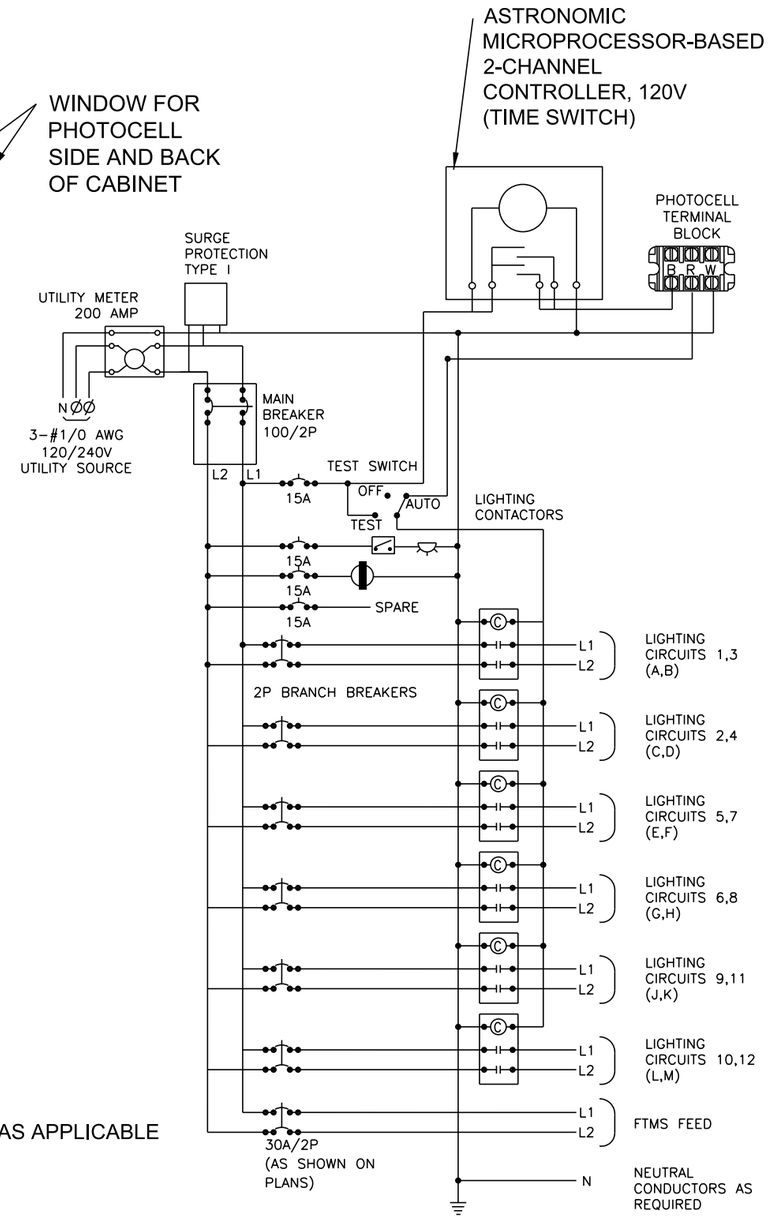
PANELBOARD:

- 30 CIRCUIT MIN.
- 100 AMP MAIN CIRCUIT BREAKER
- COPPER BUS
- BOLT- ON BREAKERS
- 22K AIC
- (3) 15A/1P CONTROL BREAKER
- (1) 15A/1P SPARE
- (1) 30A/2P BREAKER FOR FEED FTMS CABINET, AS APPLICABLE
- (6) 30-2P BRANCH BREAKERS

BOX CONSTRUCTION:

- NEMA 3R
- UL LISTED
- -1/8" ALUMINUM 5052-H32 ANODIZED CLEAR
- BENT CONSTRUCTION - ONE PIECE SIDES AND BACK
- NEOPRENE GASKETED DOORS
- STAINLESS STEEL HARDWARE
- ETL LISTED IN ACCORDANCE W/ UL508A

ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER, 120V (TIME SWITCH)



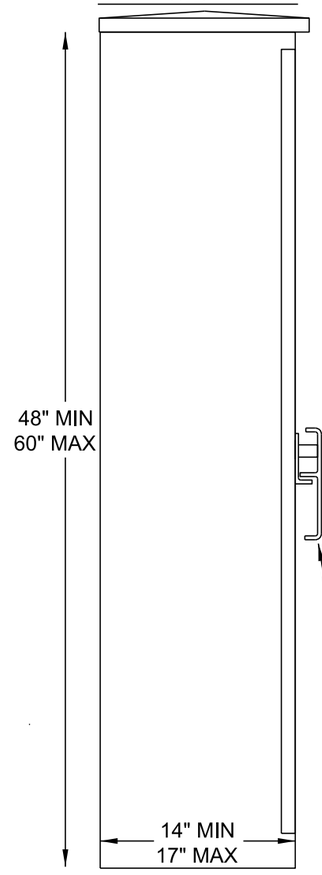
CONTROL CABINET SCHEMATIC

120/240 VOLT LIGHTING CONTROL CABINET POV-WISDOT 120/240

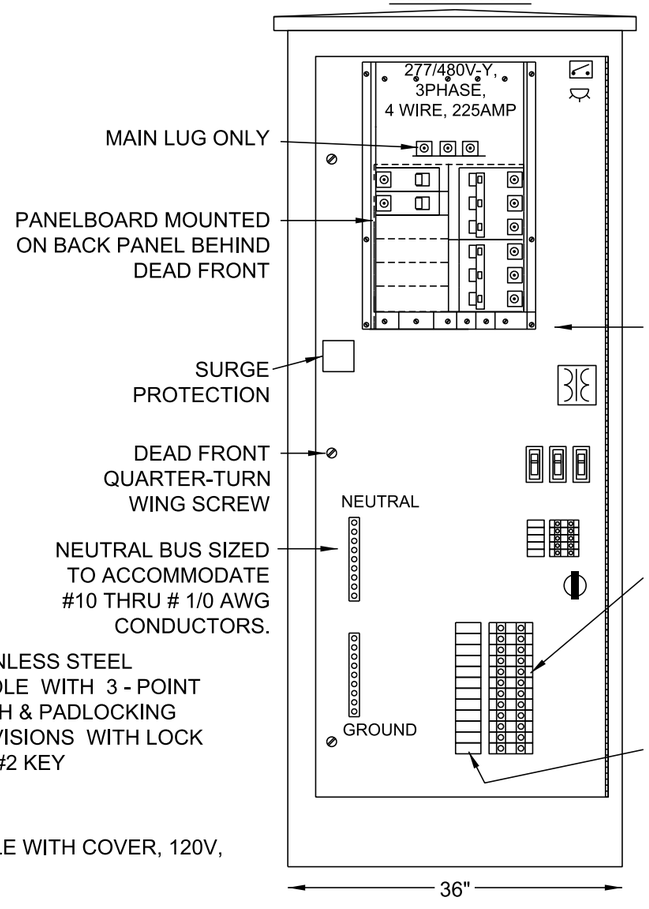
RL-125

2

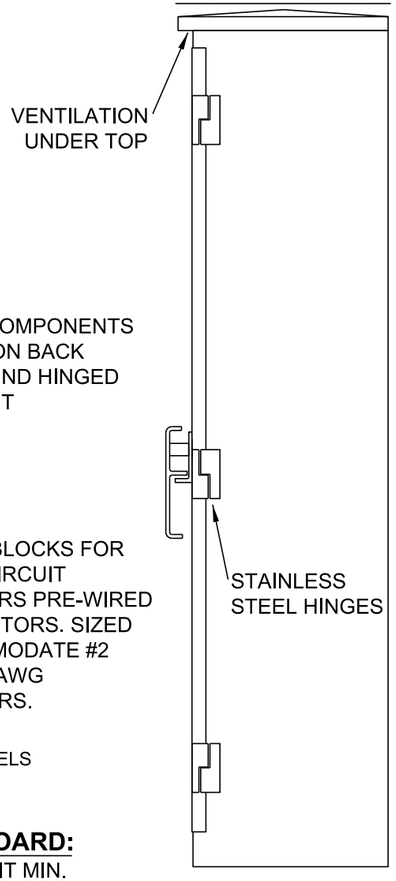
LEFT SIDE VIEW

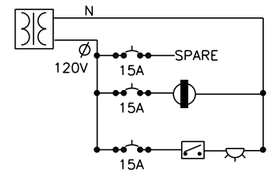


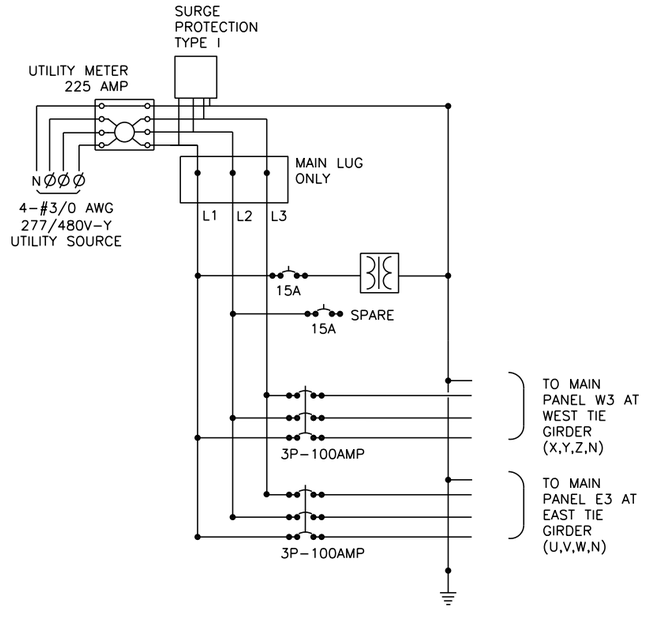
FRONT INTERIOR ELEVATION



RIGHT SIDE VIEW







LEGEND:

- 15 AMP GFCI DUPLEX RECEPTACLE WITH COVER, 120V,
- TERMINAL BLOCK
- 1.5KVA, SINGLE PHASE ENCAPSULATED TRANSFORMER 277/120V, 60HZ
- SPST, 20 AMP SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN.
- INCANDESCENT LIGHTING FIXTURE ENCLOSED AND GASKETED WITH 60WATT, 120V LAMP.
- 15 AMP/1P CIRCUIT BREAKER, 120V

BASE FLANGE WITH GASKET
14" X 36"
OR
17" X 36"

PANELBOARD:

- 12 CIRCUIT MIN.
- 200 AMP MAIN LUG ONLY
- COPPER BUS
- BOLT- ON BREAKERS
- 22K AIC
- (1) 15A/1P CONTROL BREAKER, 277V
- (1) 15A/1P CONTROL BREAKER, 277V, SPARE
- (2) 100A/3P BRANCH BREAKERS

BOX CONSTRUCTION:

- NEMA3R
- UL LISTED
- -1/8" ALUMINUM 5052-H32 ANODIZED CLEAR
- BENT CONSTRUCTION - ONE PIECE SIDES AND BACK
- NEOPRENE GASKETED DOORS
- STAINLESS STEEL HARDWARE
- ETL LISTED IN ACCORDANCE W/ UL508A

CONTROL CABINET SCHEMATIC

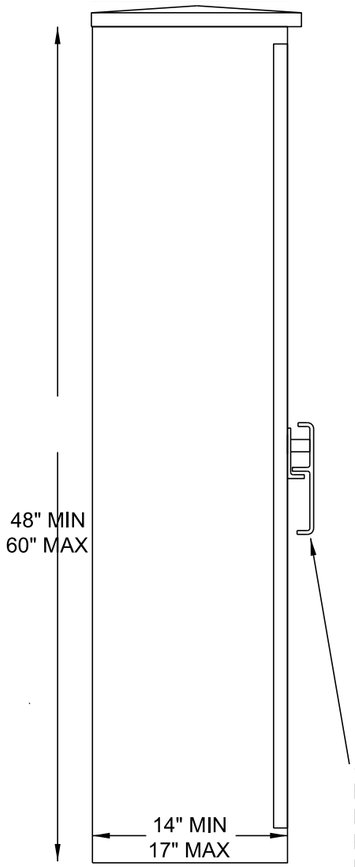
277/480 -Y, VOLT, 3-PHASE,
LIGHTING CONTROL CABINET
HL-40-DW, 200AMP

RL-126

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 336 E

2

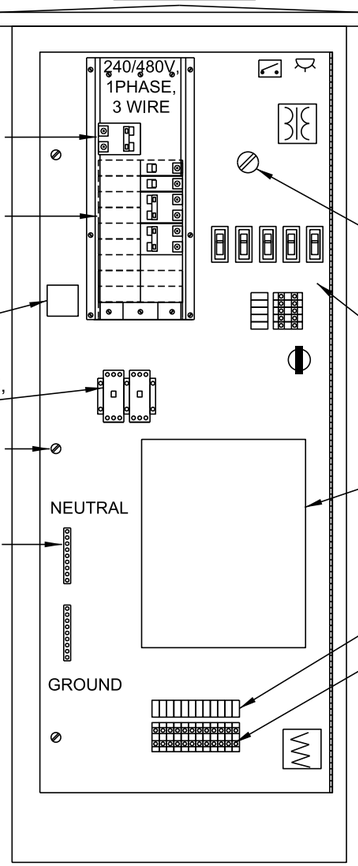
LEFT SIDE VIEW



STAINLESS STEEL HANDLE WITH 3 - POINT LATCH & PADLOCKING PROVISIONS WITH LOCK FOR #2 KEY

PLAQUE SEQUENCE IDENTIFICATIONS SHALL BE AS SHOWN ON SHEET RL-122 AND AS MENTIONED BELOW:
1- DISTRIBUTION CENTER NUMBER: AL-40-KKP
1- 480V PLAQUE FOR CABINET
1- 480V PLAQUE FOR METER PEDESTAL

FRONT INTERIOR ELEVATION



BACK FED MAIN BREAKER IS ACCEPTABLE

PANELBOARD MOUNTED ON BACK PANEL BEHIND DEAD FRONT

SURGE PROTECTION

(2) 2P CONTACTORS, 240V COIL, 60 AMP

DEAD FRONT QUARTER-TURN WING SCREW

NEUTRAL BUS SIZED TO ACCOMMODATE #10 THRU # 2 AWG CONDUCTORS.

HAND-OFF-AUTO SWITCH MOUNTED ON HINGED DEAD FRONT

INTERIOR COMPONENTS MOUNTED ON BACK PANEL BEHIND HINGED DEAD FRONT

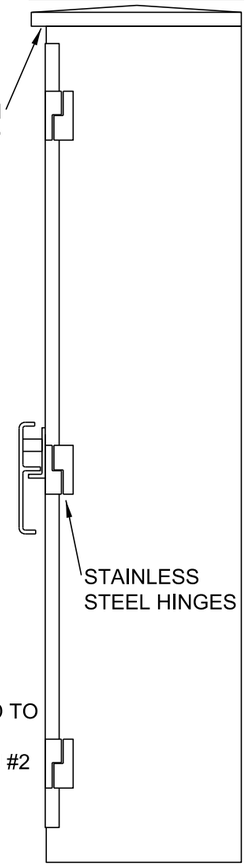
CONTROL/DATA ENCLOSURE, 24"X18"X12" WITH DIN RAILS NEMA 1

CIRCUIT LABELS

TERMINAL BLOCKS FOR LIGHTING CIRCUIT CONDUCTORS PRE-WIRED TO CONTACTORS. SIZED TO ACCOMMODATE #10 THRU #2 AWG CONDUCTORS.

BASE FLANGE WITH GASKET
14" X 36"
OR
17" X 36"

RIGHT SIDE VIEW



VENTILATION UNDER TOP

STAINLESS STEEL HINGES

LEGEND:

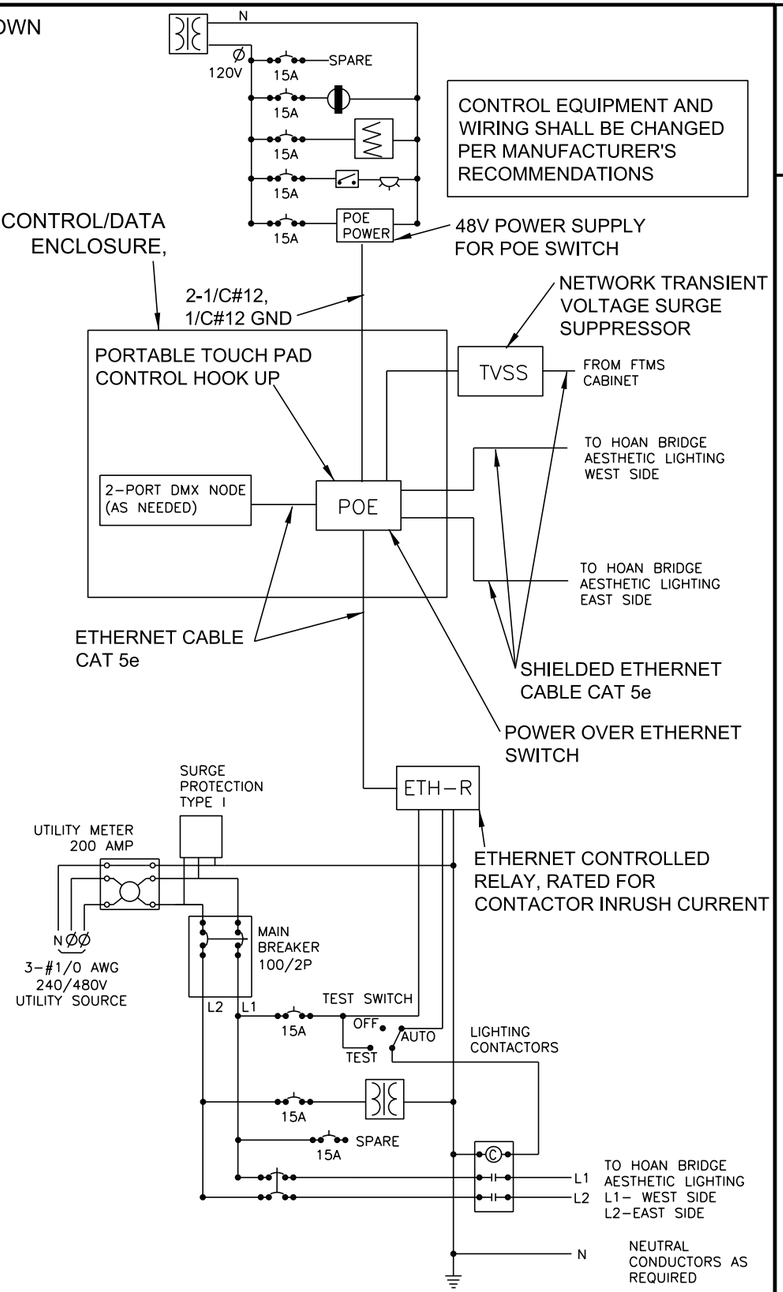
- 15 AMP GFCI DUPLEX RECEPTACLE WITH COVER, 120V,
- TERMINAL BLOCK
- 1.5KVA, SINGLE PHASE ENCAPSULATED TRANSFORMER 240/120V, 60HZ
- SPST, 20 AMP SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN.
- INCANDESCENT LIGHTING FIXTURE ENCLOSED AND GASKETED WITH 60 WATT, 120V LAMP.
- 15 AMP/1P CIRCUIT BREAKER, 120V
- 100W CABINET HEATER AND CONTROL, 120V

PANELBOARD:

- 18 CIRCUIT MIN.
- 100 AMP MAIN CIRCUIT BREAKER
- COPPER BUS
- BOLT- ON BREAKERS
- 22K AIC
- (1) 15A/1P CONTROL BREAKER, 240V
- (1) 15A/1P CONTROL BREAKER, 240V, SPARE
- (1) 60A/2P BRANCH BREAKERS
- (1) 60A/2P BRANCH BREAKER, SPARE

BOX CONSTRUCTION:

- NEMA 3R
- UL LISTED
- -1/8" ALUMINUM 5052-H32 ANODIZED CLEAR
- BENT CONSTRUCTION - ONE PIECE SIDES AND BACK
- NEOPRENE GASKETED DOORS
- STAINLESS STEEL HARDWARE
- ETL LISTED IN ACCORDANCE W/ UL508A

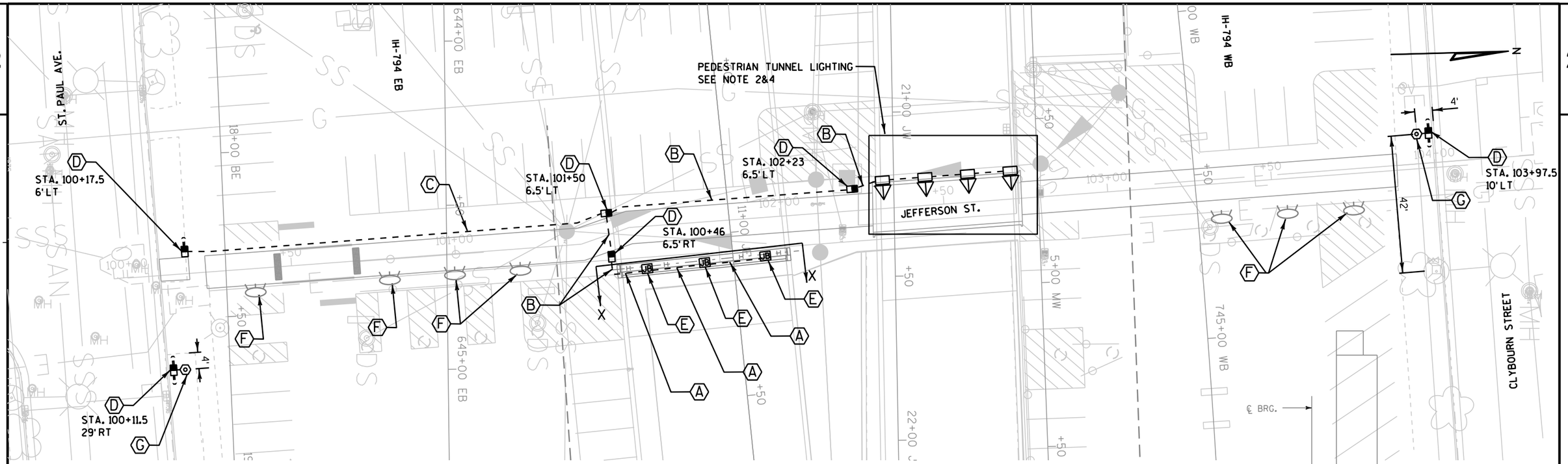


CONTROL CABINET SCHEMATIC

240/480 VOLT AESTHETIC LIGHTING CONTROL CABINET AL-40-KKP

RL-127

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 337 E



KEYED NOTES:

(A) 2-INCH METALLIC CONDUIT, ATTACHED TO STRUCTURE, WITH PULLING ROPE.

(B) 2-INCH NON-METALLIC CONDUIT, SCHEDULE 40, TRENCHED, WITH PULLING ROPE.

(C) 3-INCH NON-METALLIC CONDUIT, SCHEDULE 40, TRENCHED, WITH PULLING ROPE.

(D) STREET LIGHTING VAULT, 13"X24"X18", ORIENTATION AS SHOWN ON THE PLANS, PROVIDE CONDUIT STUBS AS NEEDED AND AS DIRECTED BY THE ENGINEER.

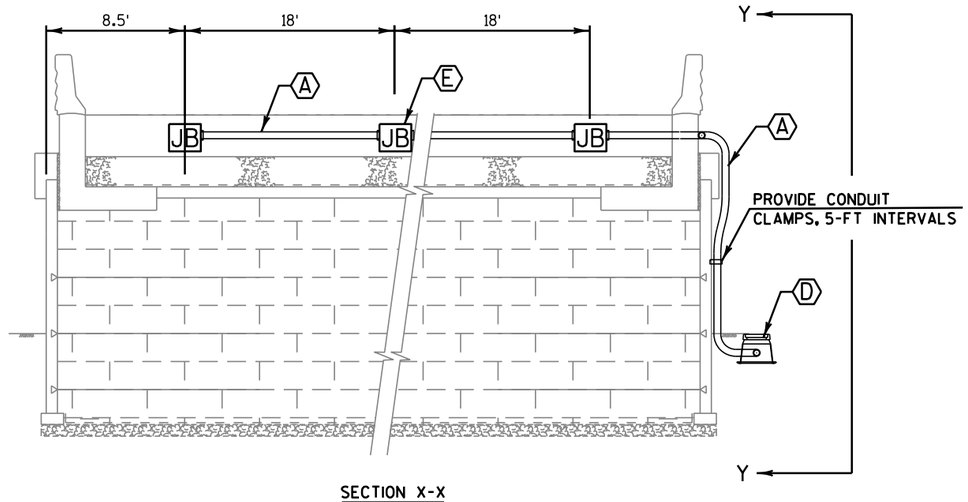
(E) JUNCTION BOX, STAINLESS STEEL, 18"X12"X6", ATTACHED TO STRUCTURE.

(F) EXISTING UNDERDECK LIGHTING SYSTEM SHALL REMAIN IN PLACE, WIRING AND POWER FEED SHALL NOT BE DISTURBED. COORDINATE WITH CITY OF MILWAUKEE FOR EXACT LOCATIONS.

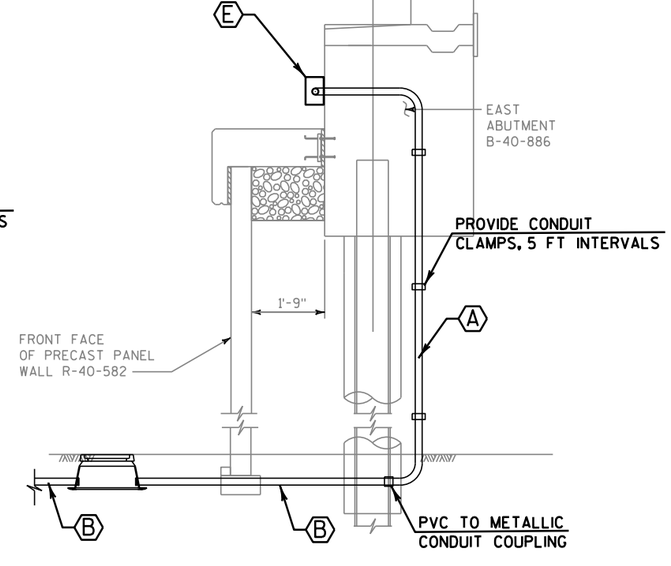
(G) CONCRETE HARP POLE BASE, CENTER OF THE POLE SHALL BE 48-INCH FROM FACE OF THE CURB AND AS SHOWN ON THE PLANS.

NOTES:

1. SEE SHEET RL-9 FOR LEGEND.
2. ALL THE WIRING, LUMINAIRES, POLES AND NECESSARY HARDWARE SHALL BE INSTALLED BY CITY OF MILWAUKEE.
3. CONDUITS, VAULTS, AND CONCRETE BASES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF MILWAUKEE STANDARDS. SEE SHEET RL-132 AND TRAFFIC SIGNAL CONDUIT DETAILS FOR CITY OF MILWAUKEE STANDARDS.
4. EMBEDDED CONDUITS, JUNCTION BOXES, PULLING ROPE AND MOUNTING PLATES SHALL BE INCLUDED IN STRUCTURE PLANS. SEE STRUCTURE C-40-102 PLANS FORE DETAILS.



SECTION X-X
LOOKING EAST

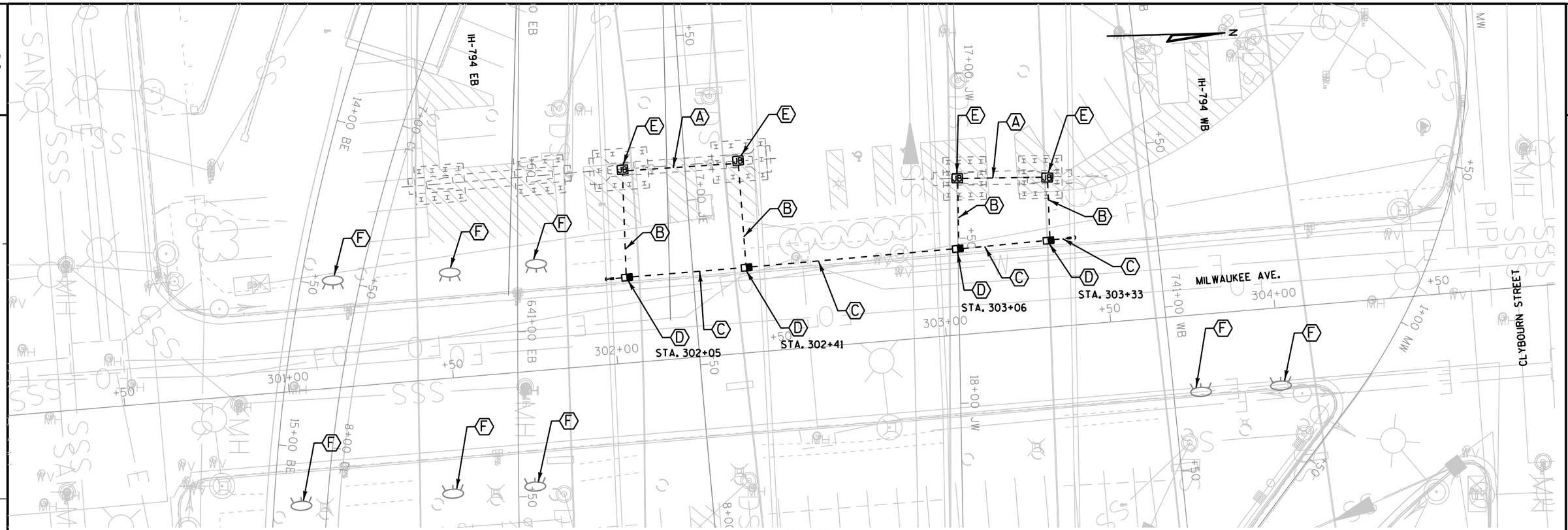


SECTION Y-Y

PROPOSED JEFFERSON STREET SIDEWALK AND PEDESTRIAN TUNNEL LIGHTING
CITY OF MILWAUKEE

RL-128

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 338 E



KEYED NOTES:

(A) 2½-INCH NON-METALLIC CONDUIT, SCHEDULE 40, EMBEDDED IN STRUCTURE, WITH PULLING ROPE. SEE STRUCTURE PLANS.

(B) 2½-INCH NON-METALLIC CONDUIT, SCHEDULE 40, TRENCHED, WITH PULLING ROPE.

(C) 3-INCH NON-METALLIC CONDUIT, SCHEDULE 40, TRENCHED, WITH PULLING ROPE.

(D) STREET LIGHTING VAULT, 13"X24"X18", ORIENTATION AS SHOWN ON THE PLANS, PROVIDE CONDUIT STUBS AS NEEDED AND AS DIRECTED BY THE ENGINEER.

(E) JUNCTION BOX, STAINLESS STEEL, 18"X12"X6", ATTACHED TO STRUCTURE.

(F) EXISTING UNDERDECK LIGHTING SYSTEM SHALL REMAIN IN PLACE, WIRING AND POWER FEED SHALL NOT BE DISTURBED. COORDINATE WITH CITY OF MILWAUKEE FOR EXACT LOCATIONS.

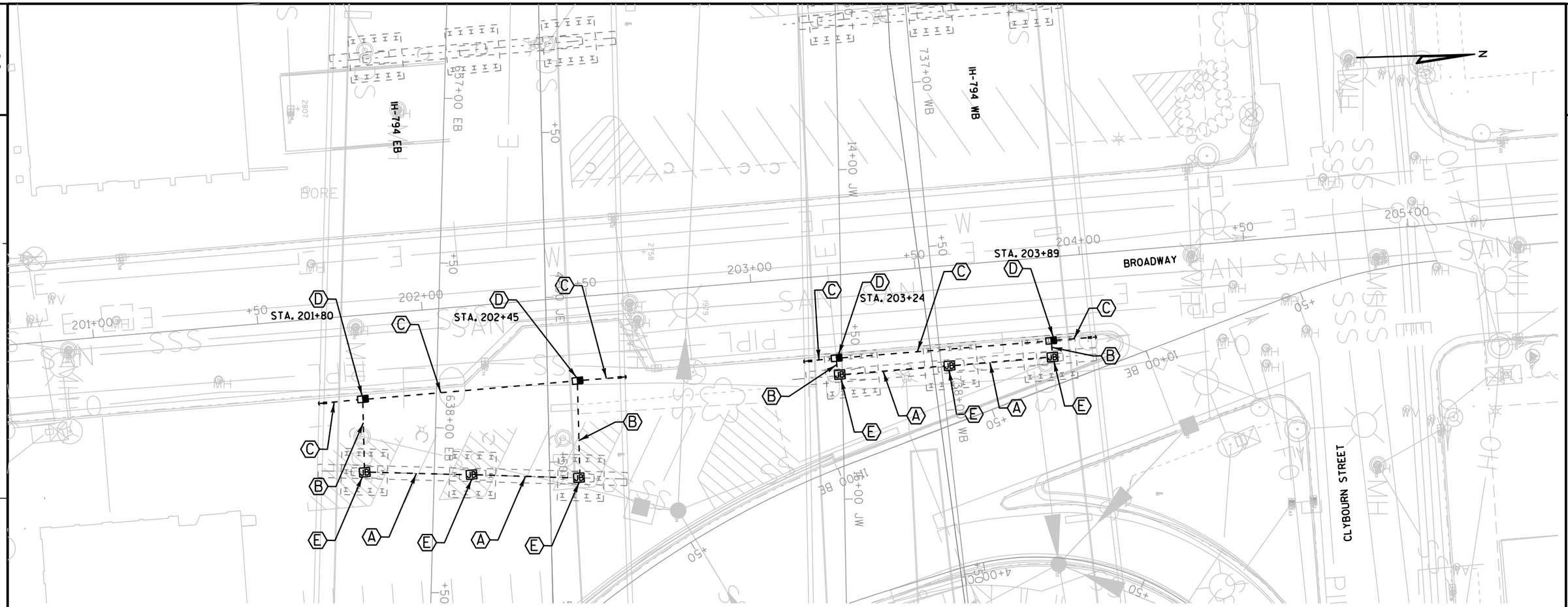
NOTES:

1. SEE SHEET RL-9 FOR LEGEND.
2. ALL THE WIRING, LUMINAIRES, POLES AND NECESSARY HARDWARE SHALL BE INSTALLED BY CITY OF MILWAUKEE.
3. CONDUITS, VAULTS, AND CONCRETE BASES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF MILWAUKEE STANDARDS. SEE SHEET RL-132 AND TRAFFIC SIGNAL CONDUIT DETAILS FOR CITY OF MILWAUKEE STANDARDS.

PROPOSED MILWAUKEE STREET UNDERDECK LIGHTING
CITY OF MILWAUKEE

RL-129

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 339 E



KEYED NOTES:

Ⓐ 2½-INCH NON-METALLIC CONDUIT, SCHEDULE 40, EMBEDDED IN STRUCTURE, WITH PULLING ROPE, SEE STRUCTURE PLANS.

Ⓑ 2½-INCH NON-METALLIC CONDUIT, SCHEDULE 40, TRENCHED, WITH PULLING ROPE.

Ⓒ 3-INCH NON-METALLIC CONDUIT, SCHEDULE 40, TRENCHED, WITH PULLING ROPE.

Ⓓ STREET LIGHTING VAULT, 13"X24"X18", ORIENTATION AS SHOWN ON THE PLANS, PROVIDE CONDUIT STUBS AS NEEDED AND AS DIRECTED BY THE ENGINEER.

Ⓔ JUNCTION BOX, STAINLESS STEEL, 18"X12"X6", ATTACHED TO STRUCTURE.

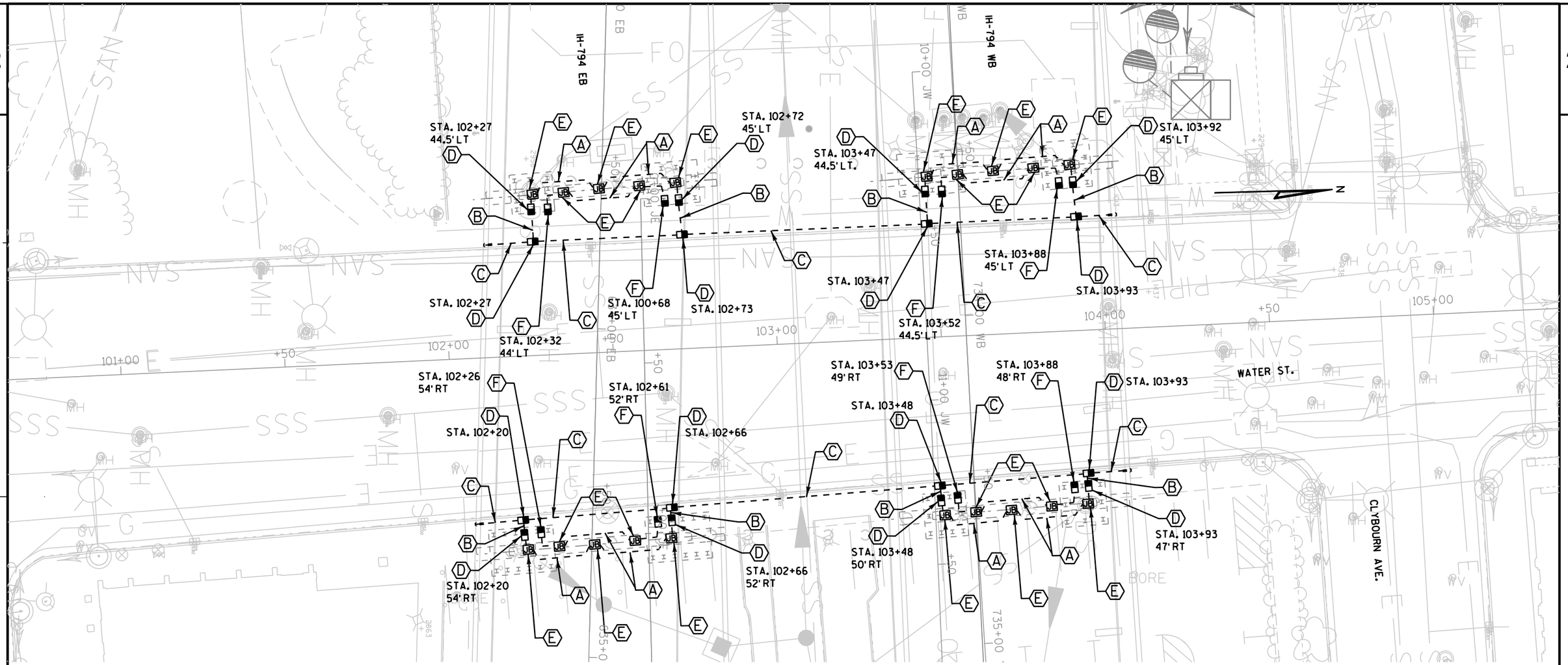
NOTES:

1. SEE SHEET RL-9 FOR LEGEND.
2. ALL THE WIRING, LUMINAIRES, POLES AND NECESSARY HARDWARE SHALL BE INSTALLED BY CITY OF MILWAUKEE.
3. CONDUITS, VAULTS, AND CONCRETE BASES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF MILWAUKEE STANDARDS. SEE SHEET RL-132 AND TRAFFIC SIGNAL CONDUIT DETAILS FOR CITY OF MILWAUKEE STANDARDS.

PROPOSED BROADWAY UNDERDECK LIGHTING
CITY OF MILWAUKEE

RL-130

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 340 E



KEYED NOTES:

(A) 2½-INCH NON-METALLIC CONDUIT, SCHEDULE 40, EMBEDDED IN STRUCTURE, WITH PULLING ROPE, SEE STRUCTURE PLANS.

(B) 2½-INCH NON-METALLIC CONDUIT, SCHEDULE 40, TRENCHED, WITH PULLING ROPE.

(C) 3-INCH NON-METALLIC CONDUIT, SCHEDULE 40, TRENCHED, WITH PULLING ROPE.

(D) STREET LIGHTING VAULT, 13"X24"X18", ORIENTATION AS SHOWN ON THE PLANS, PROVIDE CONDUIT STUBS AS NEEDED AND AS DIRECTED BY THE ENGINEER.

(E) JUNCTION BOX, STAINLESS STEEL, 18"X12"X6", ATTACHED TO STRUCTURE.

(F) ELECTRIC VAULT, 13"X24"X18", ORIENTATION AS SHOWN ON THE PLANS, PROVIDE CONDUIT STUBS AS NEEDED AND AS DIRECTED BY THE ENGINEER.

NOTES:

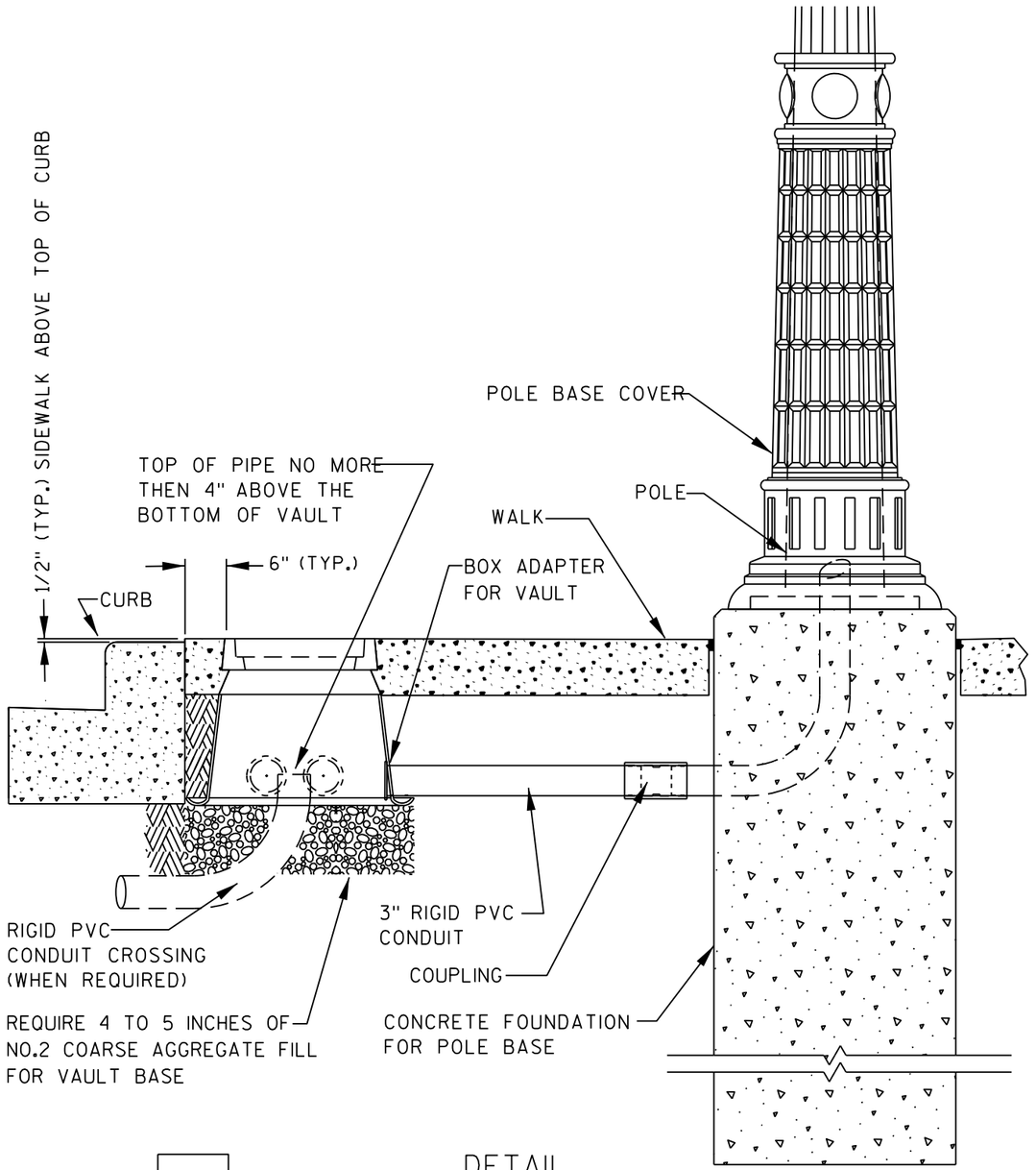
1. SEE SHEET RL-9 FOR LEGEND.
2. ALL THE WIRING, LUMINAIRES, POLES AND NECESSARY HARDWARE SHALL BE INSTALLED BY CITY OF MILWAUKEE.
3. CONDUITS, VAULTS, AND CONCRETE BASES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF MILWAUKEE STANDARDS. SEE SHEET RL-132 AND TRAFFIC SIGNAL CONDUIT DETAILS FOR CITY OF MILWAUKEE STANDARDS.

PROPOSED WATER STREET UNDERDECK LIGHTING AND SUPPLEMENTAL SIDEWALK LIGHTING

CITY OF MILWAUKEE

RL-131

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLAN - DETAIL	SHEET 341 E



107 DETAIL

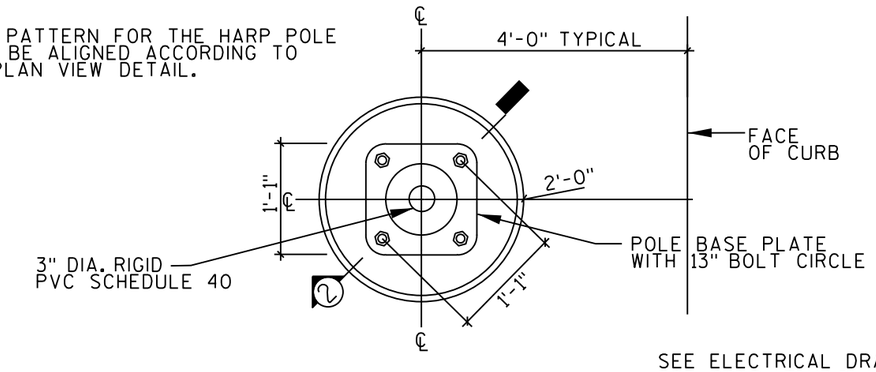
TYPICAL CONDUIT INSTALLATION FROM VAULT TO HARP OR LANTERN POLE BASE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

NOT TO SCALE

PLOTDATE

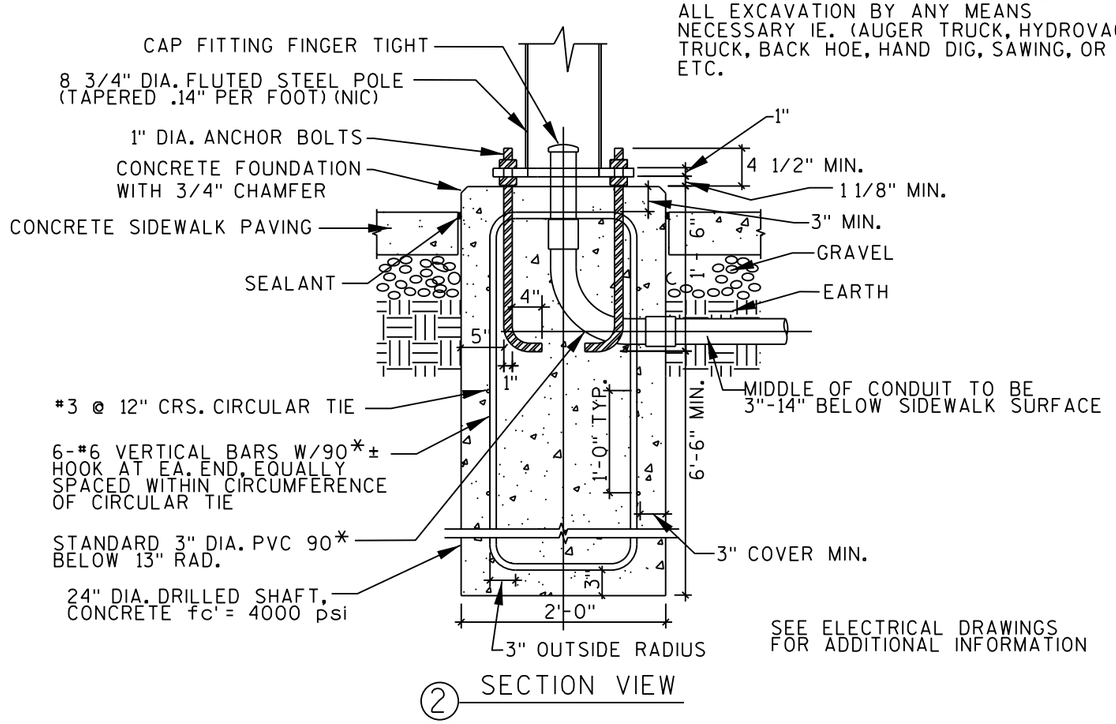
NOTE:
BOLT PATTERN FOR THE HARP POLE MUST BE ALIGNED ACCORDING TO THE PLAN VIEW DETAIL.



SEE ELECTRICAL DRAWINGS FOR CONDUIT AND VAULTS (IF REQUIRED)

1 PLAN VIEW

NOTE:
THE CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION BY ANY MEANS NECESSARY IE. (AUGER TRUCK, HYDROVAC TRUCK, BACK HOE, HAND DIG, SAWING, OR ETC.



SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION

2 SECTION VIEW

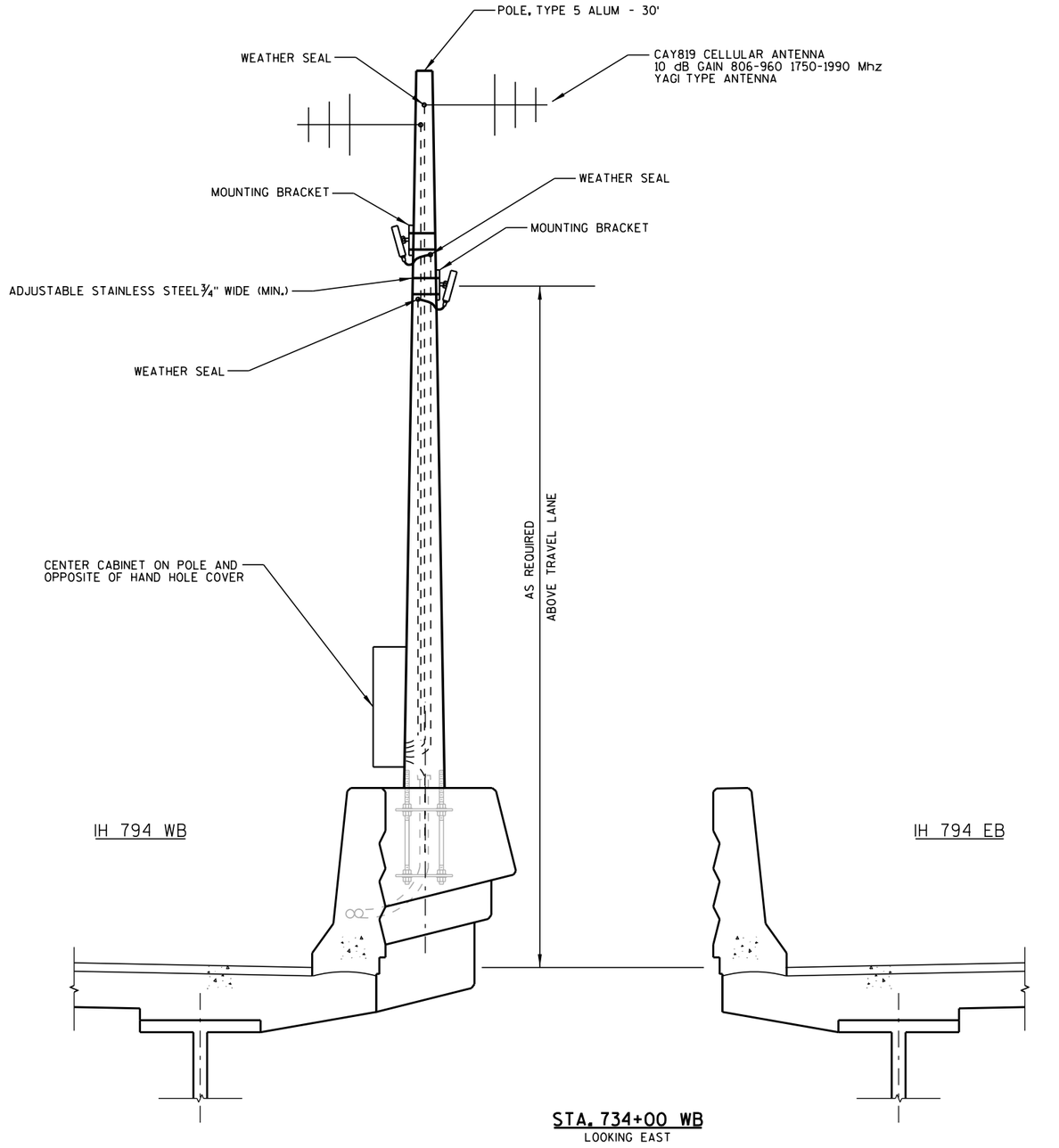
110 DETAIL

TYPICAL CONCRETE HARP BASE INSTALLATION ON FILL

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

NOT TO SCALE

2

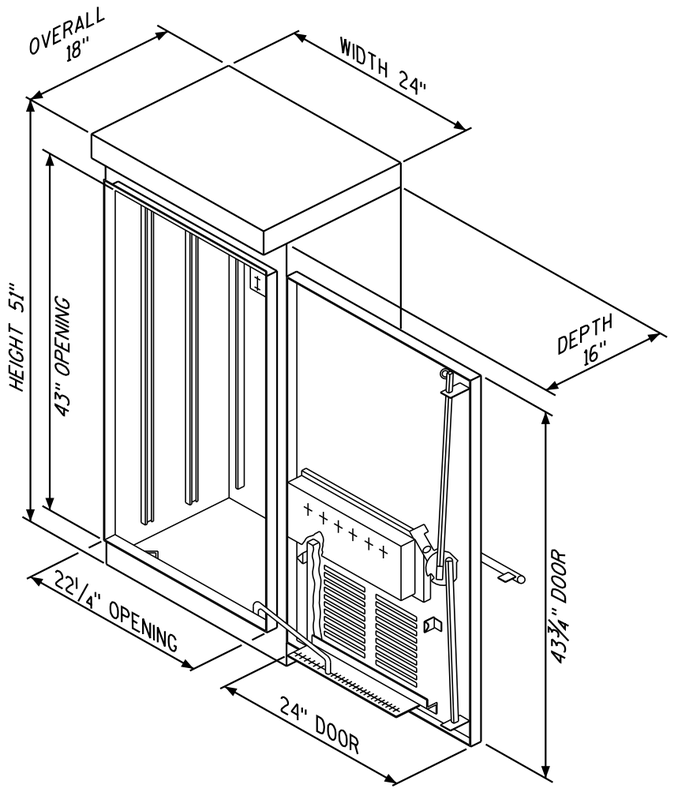


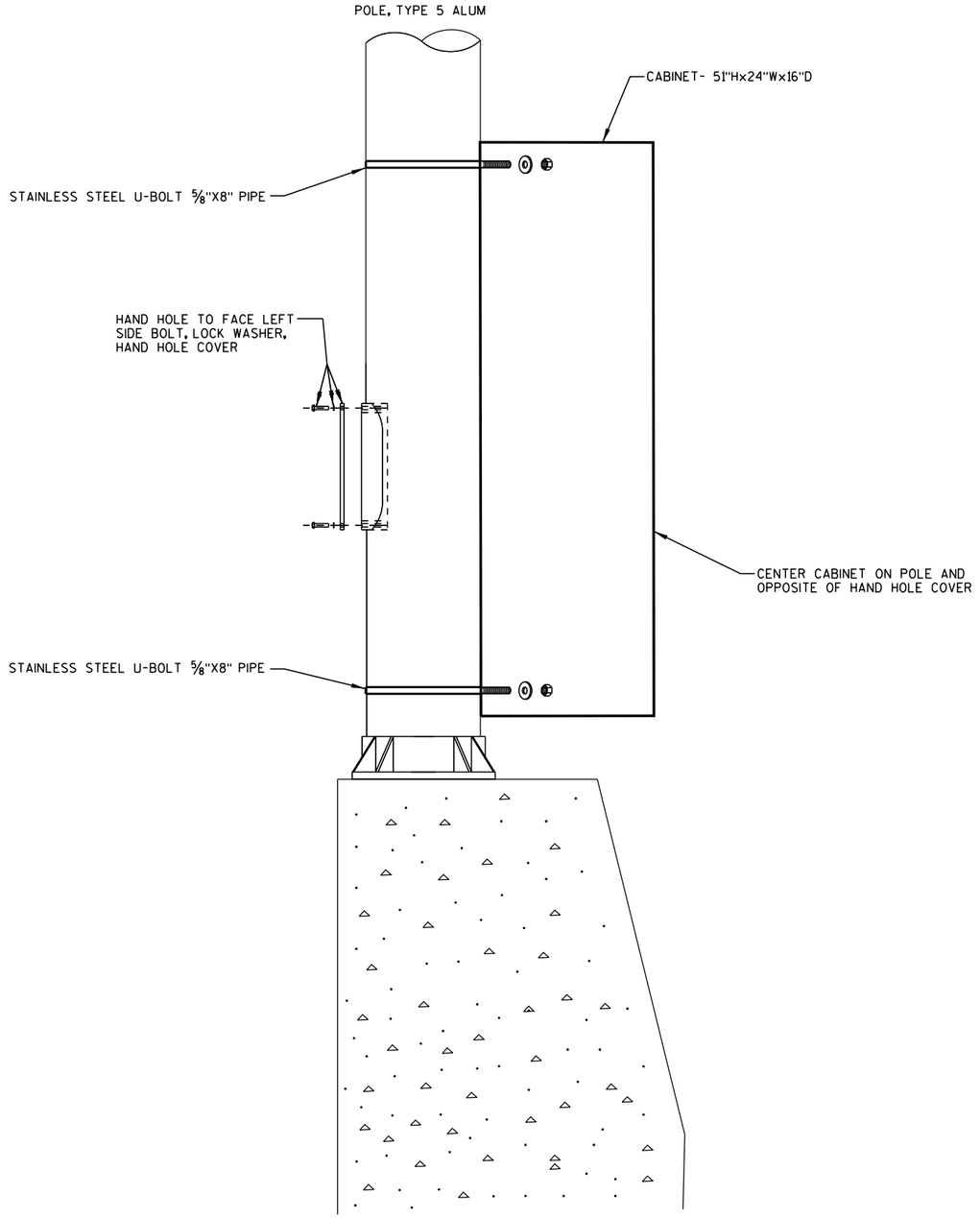
STA. 734+00 WB
LOOKING EAST

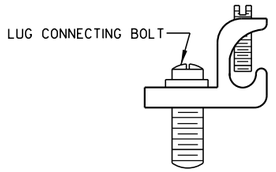
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	LIGHTING PLANS - POLE INSTALLATION (ATR 40-0031)	SHEET 343	E

GENERAL NOTES

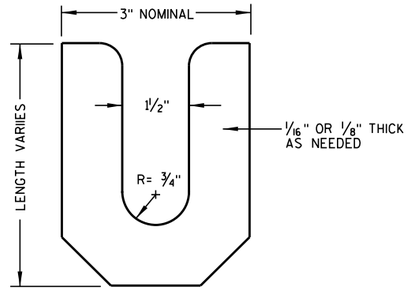
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-325, (92,000 YIELD) HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.
- LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.
- SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.
- DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.
- A NEMA APPROVED AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.
- THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1"#4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.
- SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.
- PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.
- BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 11"2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.
- THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.





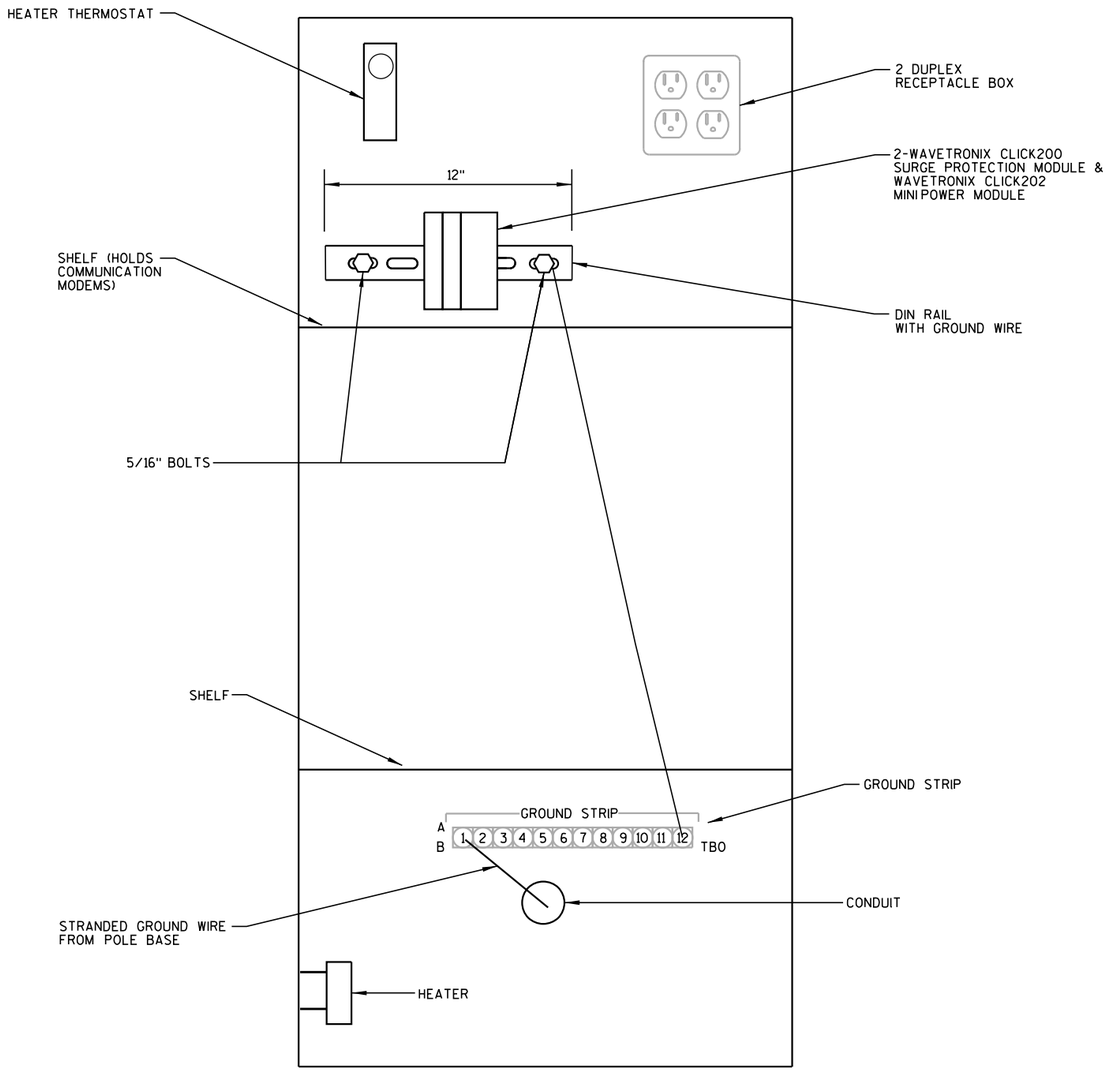


TYPICAL MECHANICAL CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

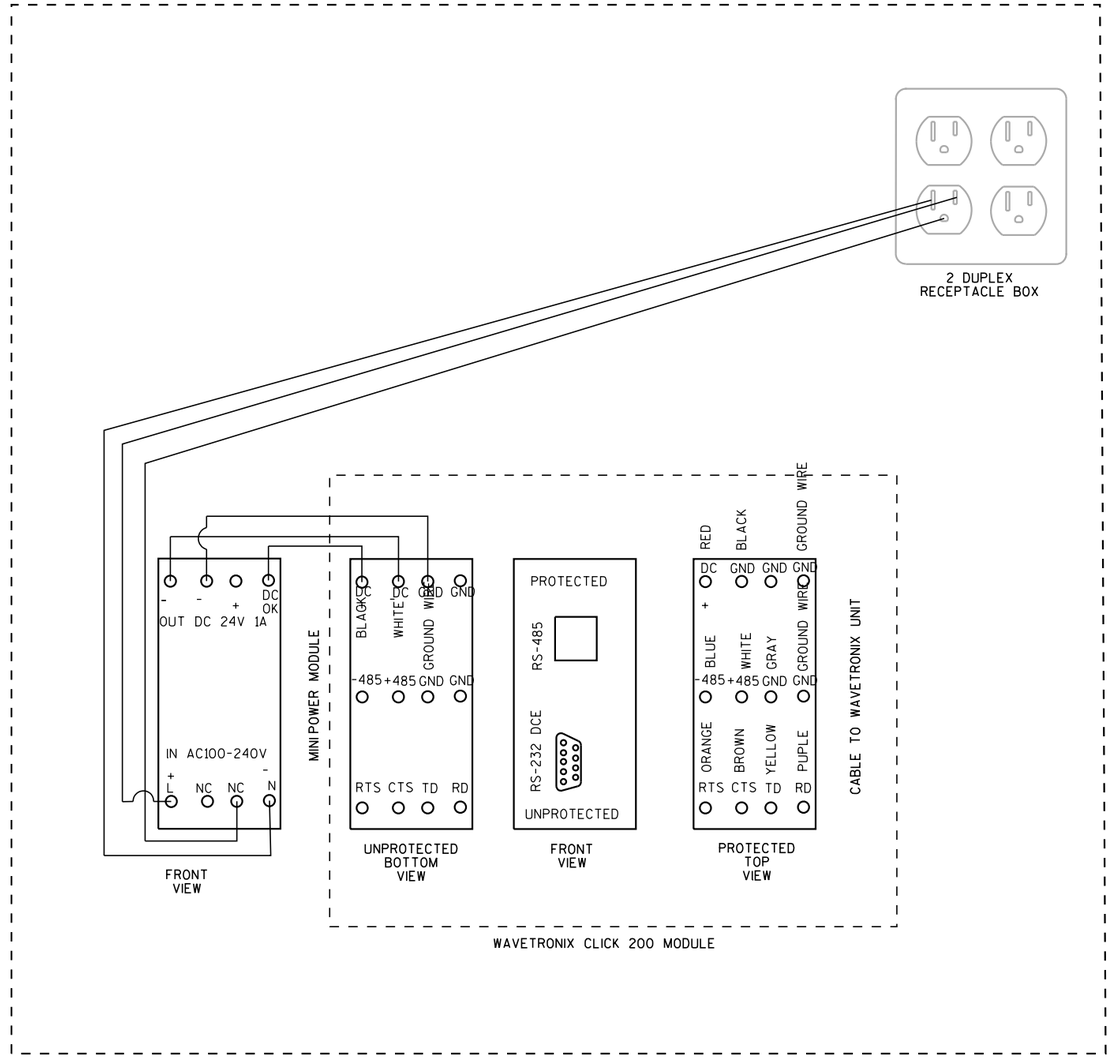


LEVELING SHIM
N.T.S.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CABINET INSTALLATION (ATR 40-0031)	SHEET 344	E



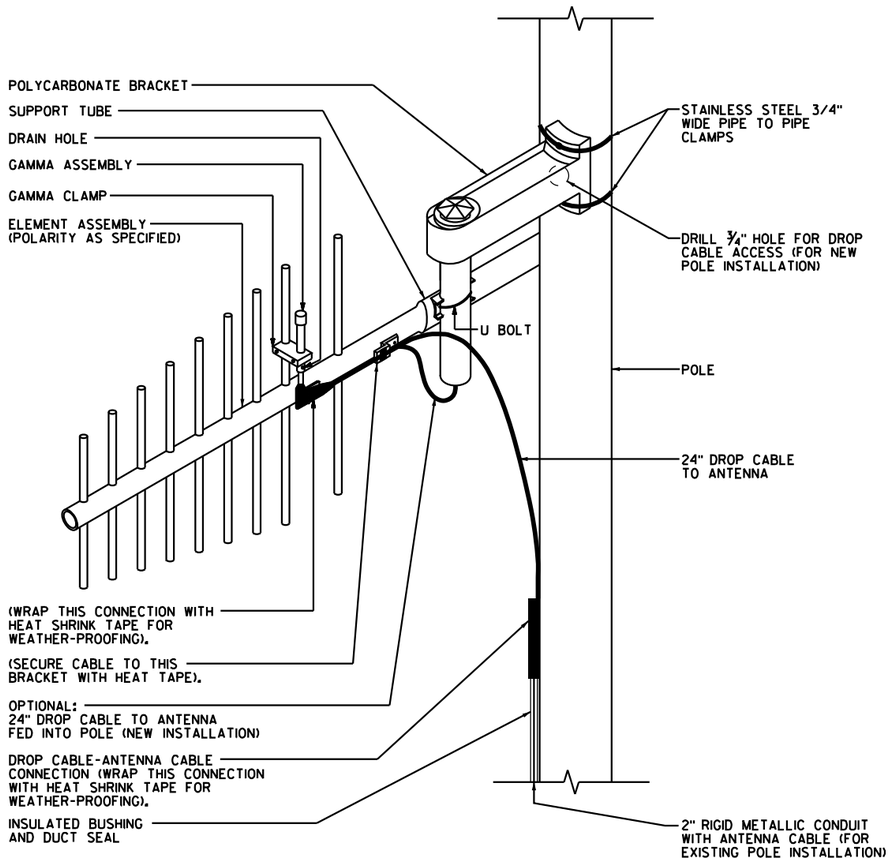
FRONT VIEW LAYOUT
N.T.S.



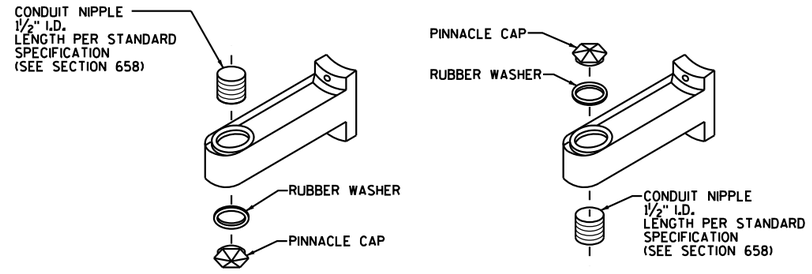
WIRING DIAGRAM
N.T.S.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CABINET LAYOUT (ATR 40-0031)	SHEET 345	E

2



CELLULAR ANTENNA MOUNTING
ASSEMBLY DETAIL
(YAGI TYPE)
N.T.S.



POLYCARBONATE BRACKET
N.T.S.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - INSTALLATION OF ANTENNA (ATR 40-0031)	SHEET 346	E

2

N

CLYBOURN STREET

EXISTING ATR POWER METER

USE EXISTING CONDUIT FROM POWER METER TO SIGN BRIDGE, THEN COMPLETE AC POWER CABLE RUN TO NEW ATR LOCATION AT STA. 734+00 WB.

CONNECT 2-INCH CONDUIT TO EXISTING ATR CONDUIT ON SIGN BRIDGE TO COMPLETE CONDUIT RUN FOR AC POWER CABLE.

IH 794 WB

731+00 WB +50 732+00 WB +50 733+00 WB +50 734+00 WB +50 735+00 WB +50 736+00 WB

10+00 JW 11+00 JW 12+00 JW 13+00 JW

10' 12' 12' 12' 12' 10' 10' 12' 12' 10'

2-INCH CONDUIT MOUNTED TO BRIDGE

EXISTING SIGN BRIDGE

WATER STREET

INTELLIGENT TRANSPORTATION SYSTEMS (ITS) CONTROL OF MATERIALS - ATR 40-0031 STA. 734+00 WB

IH 794 EB

631+00 EB +50 632+00 EB +50 633+00 EB +50 634+00 EB +50 635+00 EB +50 636+00 EB

0+00 JE 1+00 JE 2+00 JE

10' 12' 12' 12' 12' 10'

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - ATR 40-0031	SHEET	E

FILE NAME : 023855_1p.dgn PLOT DATE : 5/30/2013 PLOT BY : 1141 PLOT NAME : PLOT SCALE : 1:40

LEGEND	EXISTING	PROPOSED
FTMS CONVENTIONAL SYMBOLS		
JUNCTION BOX		
CCTV CAMERA AND POLE		
FTMS FIELD CABINET AND BASE		
POLE MOUNTED CABINET		
METER BREAKER PEDESTAL		
24"X36" STEEL PULL BOX		
ANTENNA POLE		
MANHOLE		
FTMS (ITS) CONDUIT		
COMMUNICATIONS VAULT, TYPE 1		
MICROWAVE VEHICLE DETECTOR		

ORIGINAL PLANS PREPARED BY

WISCONSIN
PAUL
W.
KUTZ
E-37837
MILWAUKEE
WI
PROFESSIONAL ENGINEER

4-24-2013 Paul Kutz
(Date) (Signature)

FTMS GENERAL NOTES

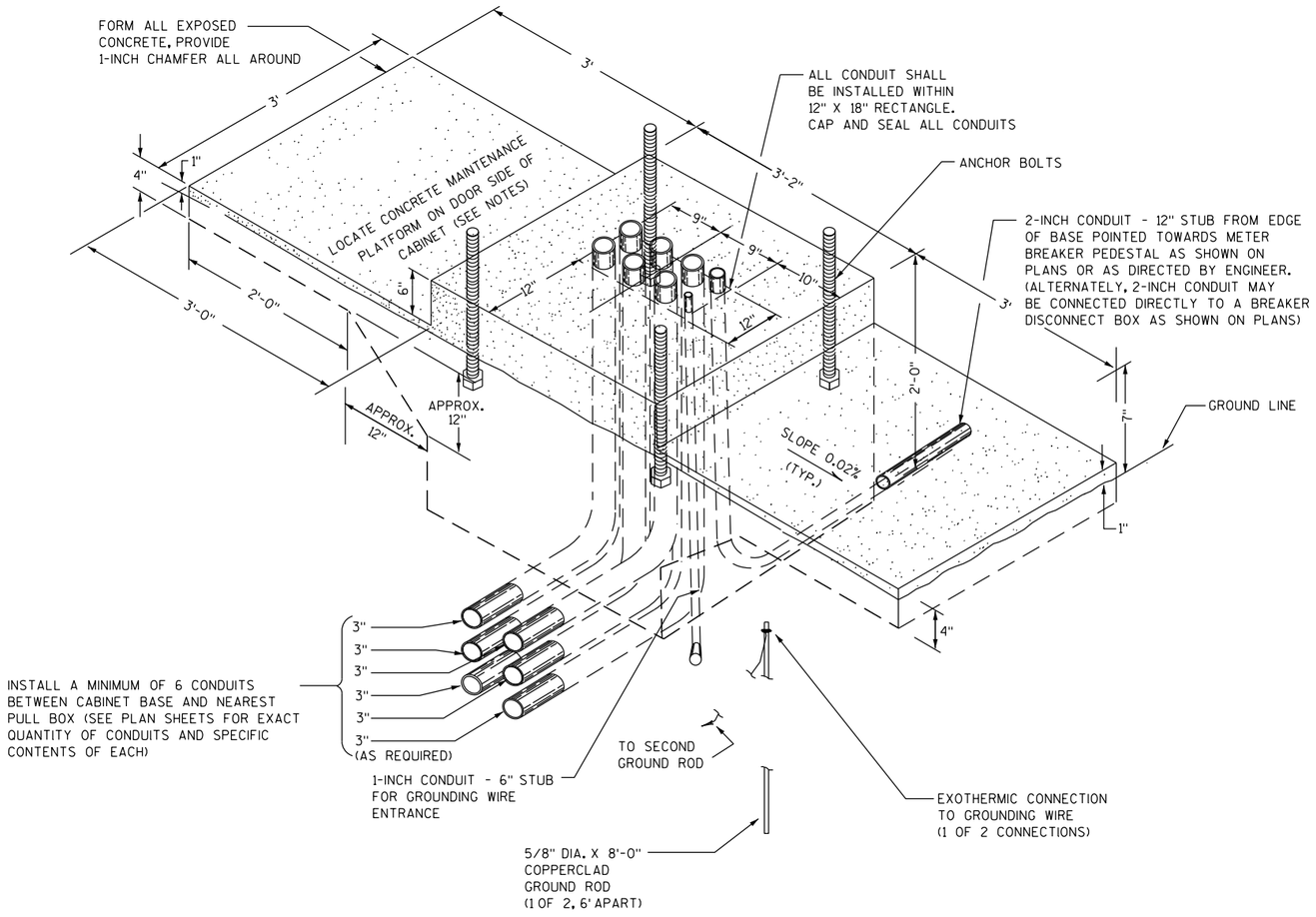
1. THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.
2. BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.
3. BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUITS, PULLBOXES, POLES, CABINET FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED. THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.
4. NO TREES (AND/OR SHRUBS) SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
5. AREAS WITHIN THE RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR FTMS CONSTRUCTION SHALL BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER, SEED, AND EROSION MAT, AND SHALL BE INCLUDED IN THE COST OF INSTALLING FTMS ITEMS. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS BUT ALSO CONTAINING FTMS CONSTRUCTION SHALL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS.
6. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
7. DUE TO RAMP, LANE, SHOULDER CLOSURE RESTRICTIONS, AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.
8. THE CONTRACTOR IS FULLY RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.
9. THE CONTRACTOR SHALL CONTACT THE WISDOT STATEWIDE TRAFFIC OPERATIONS CENTER AT (414) 227-2166 FIVE (5) WORKING DAYS PRIOR TO ENTERING ANY EXISTING WISDOT FTMS OR ITS CABINET.
10. ALL LOOP DETECTORS ARE STATIONED TO CENTER OF LEADING EDGE AS APPROACHED BY NORMAL VEHICLE PATH.
11. HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.
12. VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.

FTMS STANDARD ABBREVIATIONS

CB	CONTROLLER CABINET
CCTV	CLOSED CIRCUIT TELEVISION SITE
CV	COMMUNICATIONS VAULT
DMS	DYNAMIC MESSAGE SIGN
FY	ADVANCE FLASHER (ASSEMBLY)
PB	PULL BOX
MH	MANHOLE
RM	RAMP METER
WTS	WIRELESS TRAFFIC SENSOR
WP	TEMPORARY WOOD POLE
SH	RAMP METER SIGNAL HEAD
VD	TEMPORARY VIDEO DETECTION
SB	SIGN BASE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS PLANS - GENERAL NOTES	SHEET F

2

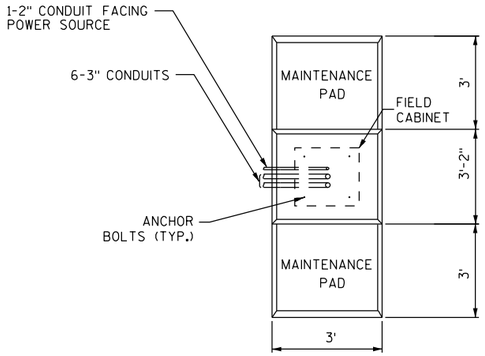


BASE ITS CONTROLLER CABINET

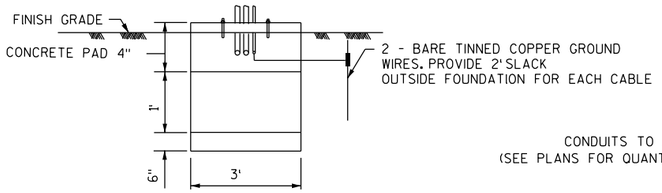
NOTES

1) DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
2) WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.
3) CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 3-INCHES.
4) DEPTH OF CONDUIT SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM.
5) ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.
6) CONTROLLER CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED AND LEVEL, PRIOR TO CABINET INSTALLATION. LEVELING OF TOP SURFACES AFTER CONCRETE BASE HAS CURED SHALL ONLY BE ACCOMPLISHED BY GRINDING.
7) MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.
8) MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.
9) ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.
10) CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.
11) PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.
12) ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC, IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS PLACED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.
13) CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6-INCH MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.
14) ALL METALLIC CONDUIT ENDS AT TOP OF CONCRETE BASES SHALL HAVE BUSHINGS IF WIRE IS INSTALLED.
15) ALL NONMETALLIC CONDUIT ENDS AT TOP OF CONCRETE BASES SHALL HAVE END BELLS IF WIRE IS INSTALLED.
16) ANCHOR BOLTS TO ANCHOR THE FIELD CABINET TO THE CABINET BASE SHALL BE STATE FURNISHED WITH THE FIELD CABINET.
17) CONFIRM BOLT PATTERN OF CABINET PRIOR TO CONSTRUCTION OF CONCRETE BASE.

2



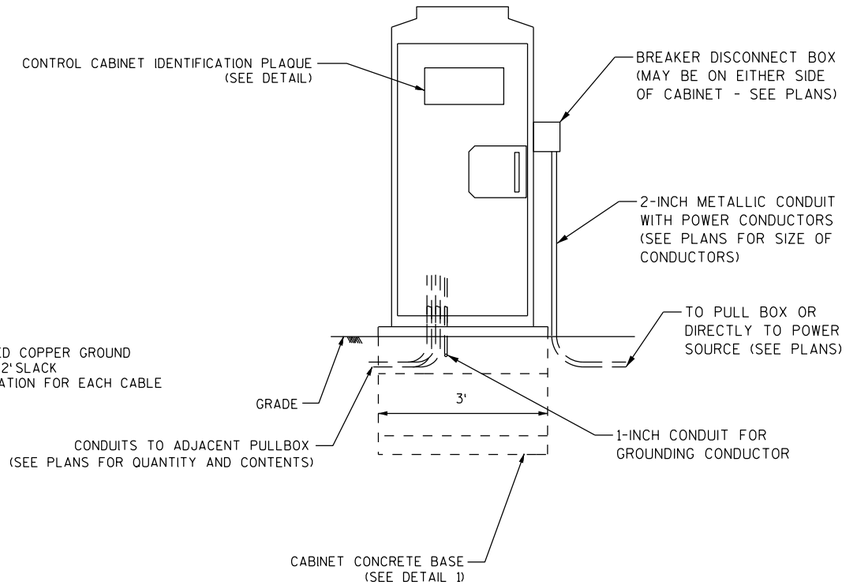
PLAN VIEW



FRONT VIEW

FTMS FIELD CABINET

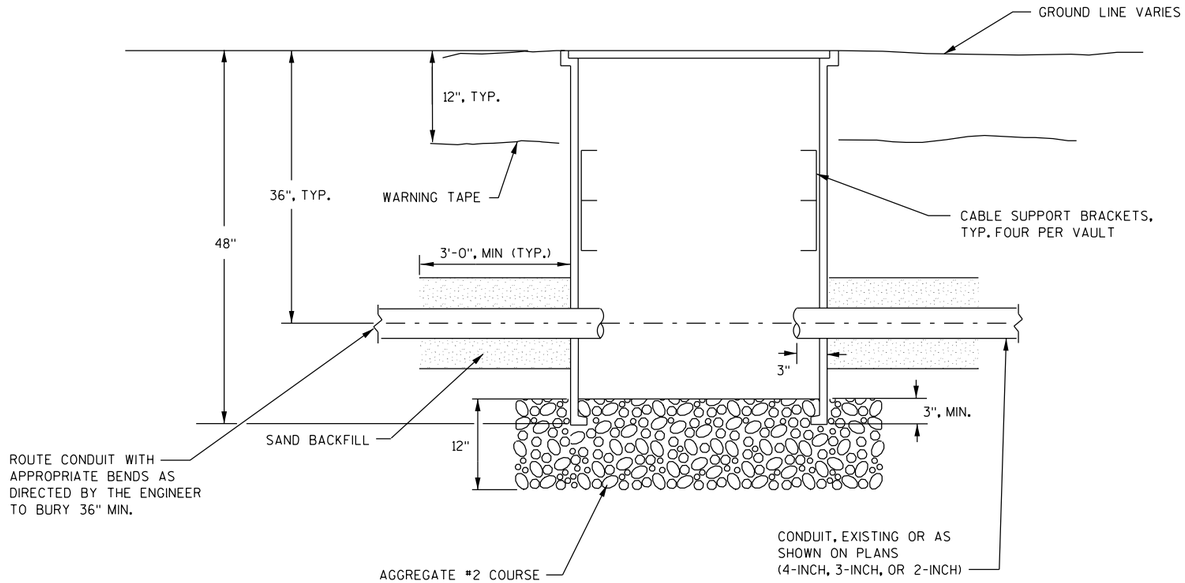
STATE-FURNISHED FIELD CABINET



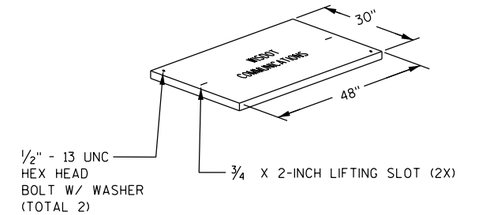
ITS FIELD CABINET

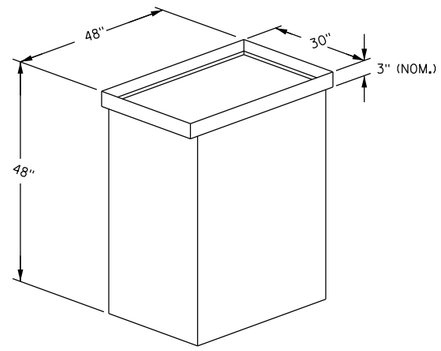
NOTES

1) DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
2) WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.
3) CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 3-INCHES.
4) DEPTH OF CONDUIT SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM.
5) ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.
6) CONTROLLER CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED AND LEVEL PRIOR TO CABINET INSTALLATION. LEVELING OF TOP SURFACES AFTER CONCRETE BASE HAS CURED SHALL ONLY BE ACCOMPLISHED BY GRINDING.
7) MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.
8) MINIMUM BENDING RADIUS OF CONDUIT SHALL BE SIX TIMES THE CONDUIT DIAMETER.
9) ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.
10) CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.
11) PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.
12) ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS PLACED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.
13) CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6-INCH MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.
14) ALL METALLIC CONDUIT ENDS AT TOP OF CONCRETE BASES SHALL HAVE BUSHINGS IF WIRE IS INSTALLED.
15) ALL NON METALLIC CONDUIT ENDS AT TOP OF CONCRETE BASES SHALL HAVE END BELLS IF WIRE IS INSTALLED.
16) ANCHOR BOLTS TO ANCHOR THE FIELD CABINETS TO THE CABINET BASE WILL BE STATE FURNISHED WITH THE FIELD CABINET.
17) CONTRACTOR SHALL CONFIRM BOLT PATTERN OF CABINET PRIOR TO CONSTRUCTION OF CONCRETE BASE.
18) THE CABINET SHALL BE SEALED WITH A SILICONE SEALANT AT THE INSIDE AND OUTSIDE JOINTS.
19) MAINTENANCE PADS SHALL BE INSTALLED ON BOTH SIDES OF THE CABINET.
20) STATE FURNISHED FIELD CABINETS WILL BE TYPE 334 CONTROLLER CABINETS.

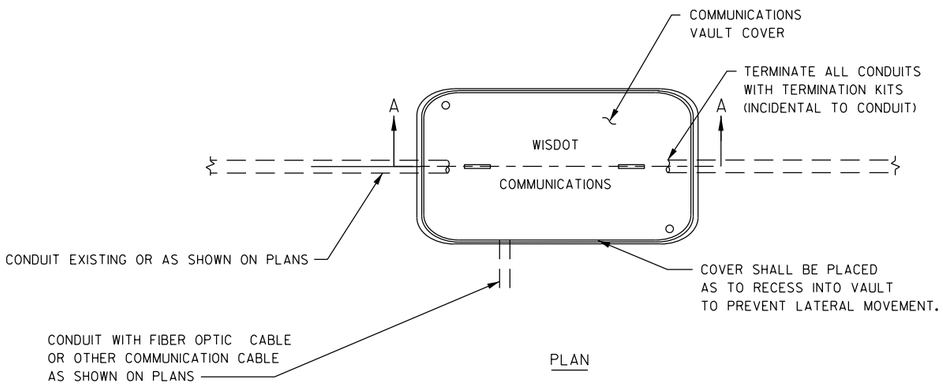


SECTION A-A





ISOMETRIC



PLAN

TYPE 1 COMMUNICATIONS VAULT

NOTES

1) BOX SHALL HAVE AN OPEN BASE.

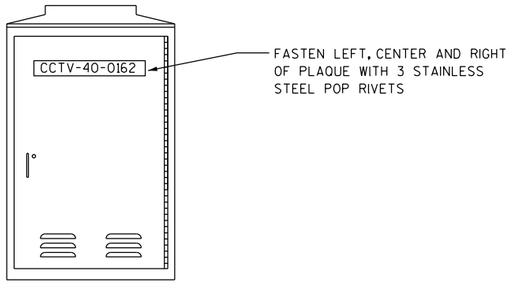
2) COVER SHALL BE DETECTABLE AND HAVE A MINIMUM DESIGN LOAD OF 15,000 LBS AND SHALL LOCK.

3) ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION, OR PUNCH DRIVEN AT TIME OF PLACEMENT.

4) VAULTS SHALL BE OF ONE-PIECE CONSTRUCTION. TWO-PIECE/STACKABLE VAULTS WILL NOT BE PERMITTED.

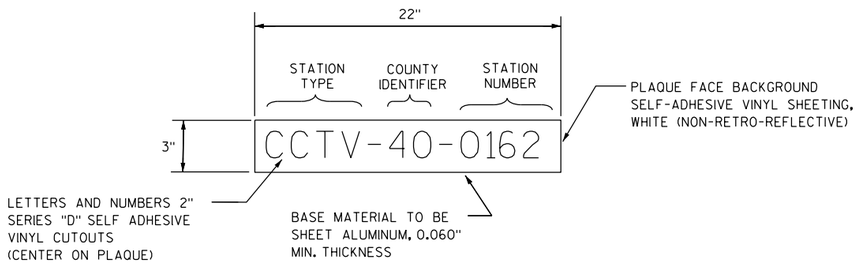
5) FIELD PLACEMENT OF COMMUNICATIONS VAULTS SHALL BE AS DIRECTED BY THE ENGINEER.

2

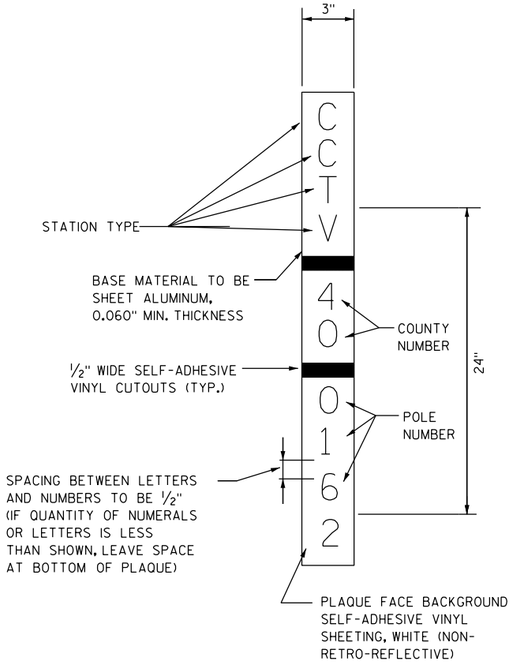


CONTROL CABINET IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS

(TYPICAL ALL CONTROL CABINETS)



CONTROL CABINET IDENTIFICATION PLAQUE DETAIL



POLE IDENTIFICATION PLAQUE DETAIL

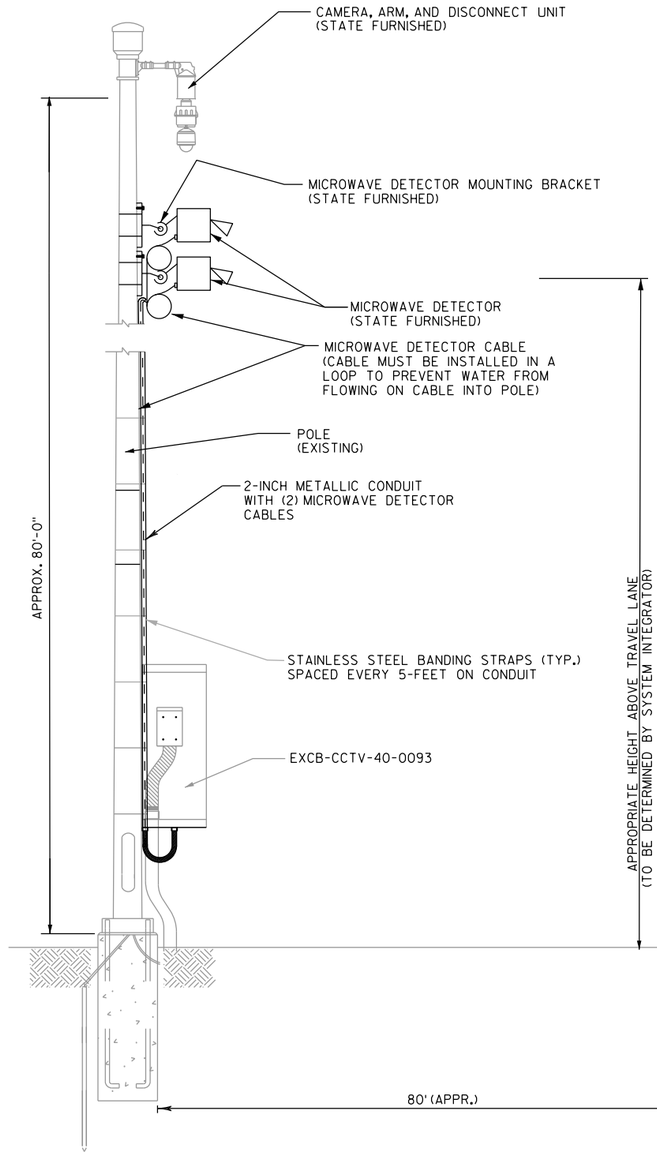
LEGEND STATION TYPE

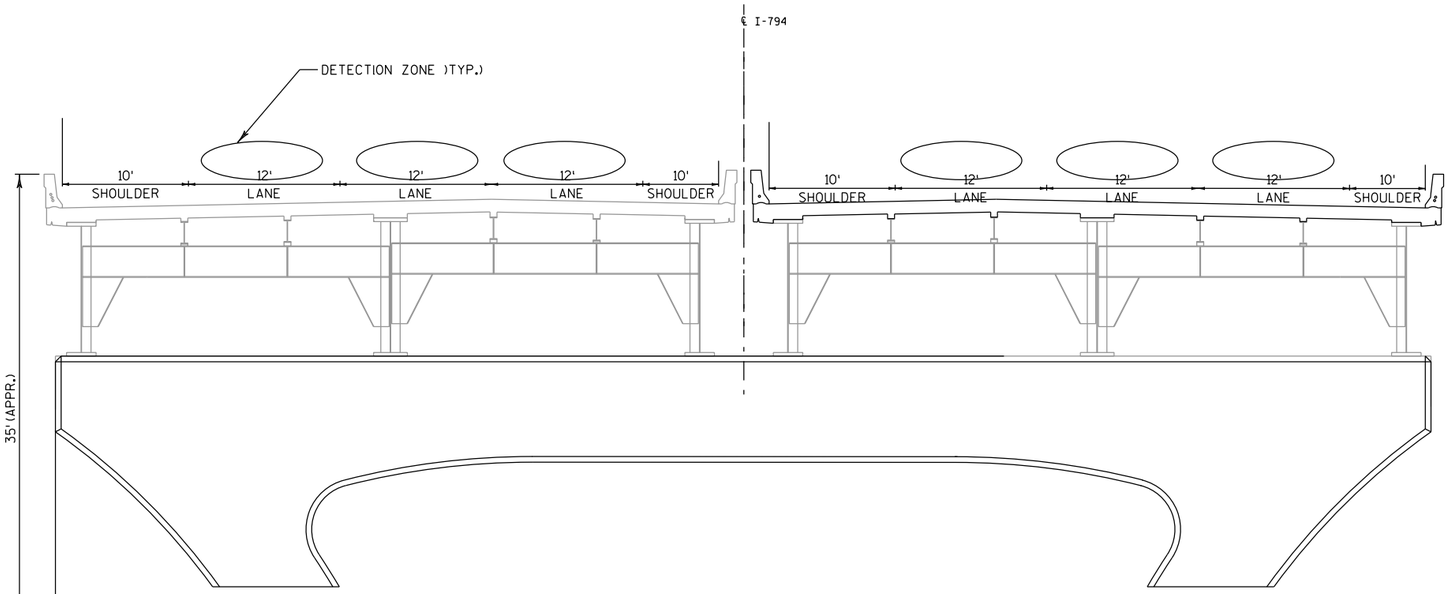
RM - RAMP METER
CCTV - CLOSED CIRCUIT TELEVISION
ATR - AUTOMATIC TRAFFIC RECORDER
SDS - SYSTEM DETECTOR STATION
MD - MICROWAVE DETECTOR

NOTES

1) TWO PLAQUES PER CABINET REQUIRED ON CONTROL CABINET.
2) FASTEN ONE PLAQUE ON FRONT DOOR, UPPER HALF.
3) FASTEN ONE PLAQUE ON SIDE FACING LOCAL STREET. IF NO LOCAL STREET NEARBY, OR IF SUCH LOCATION COINCIDES WITH LOCATION OF PLAQUE IN NOTE 2, FASTEN PLAQUE ON REAR OF CABINET, UPPER HALF.
4) COUNTY NUMBER NOT REQUIRED ON RAMP METER CABINETS.

2

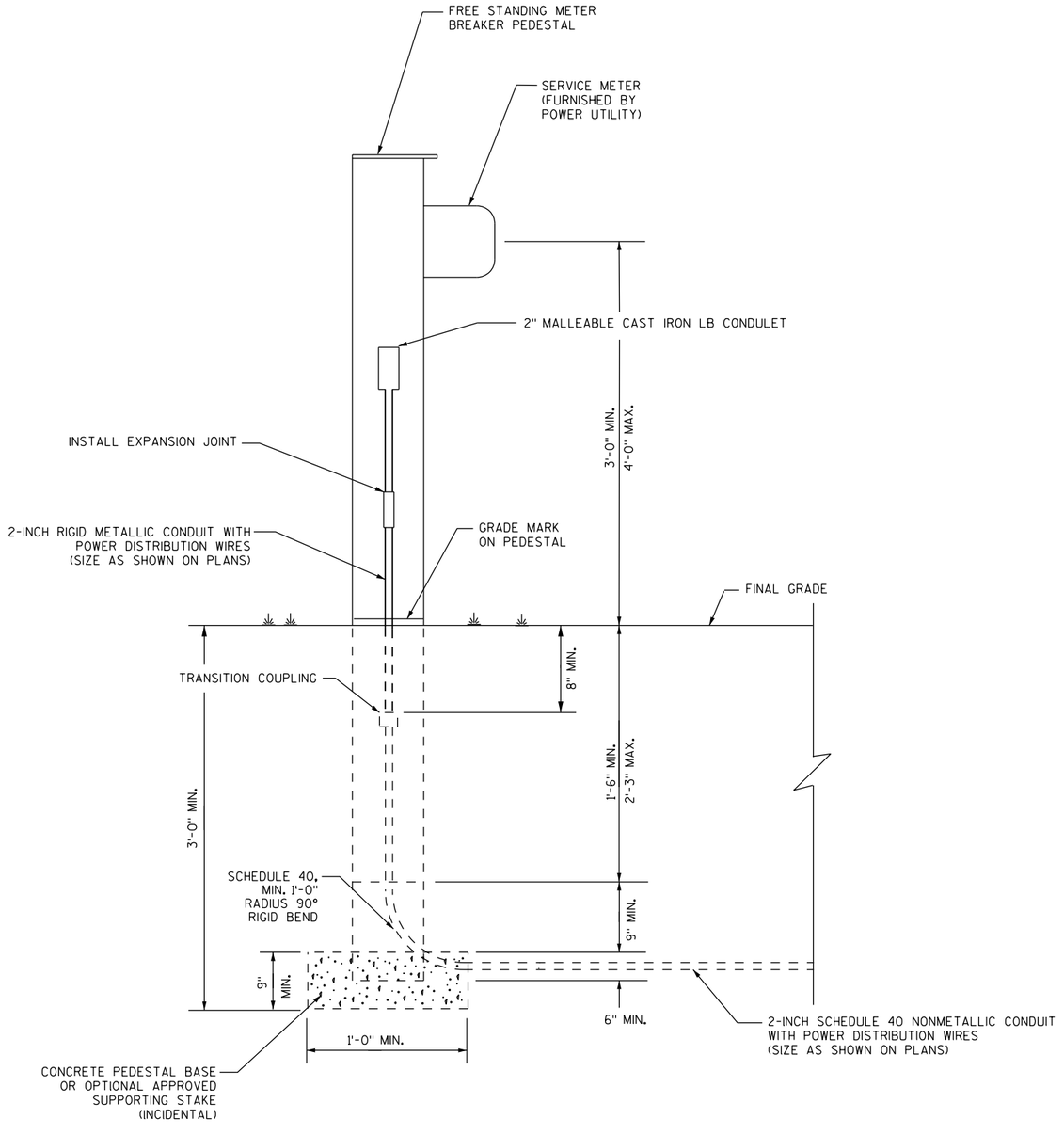




EXCCTV-40-0093 MICROWAVE DETECTOR INSTALLATION

PROJECT NO:1300-13-70	HWY:IH 794	COUNTY:MILWAUKEE	FTMS CONSTRUCTION DETAILS	SHEET 353	E

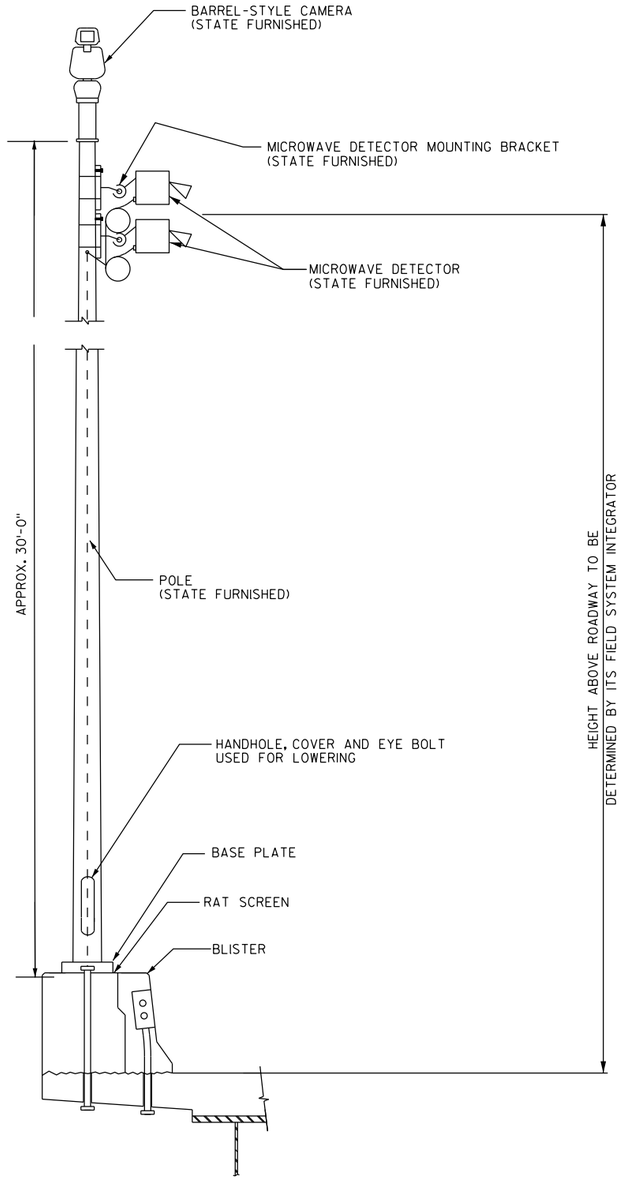
2



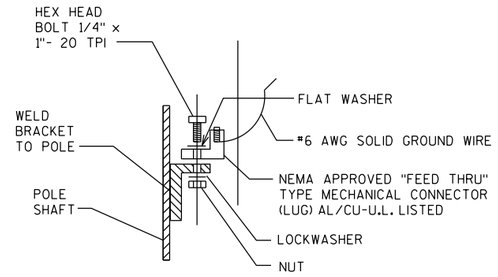
ELECTRICAL SERVICE METER BREAKER PEDESTAL

NOTES

1) MINIMUM REQUIREMENT SHOWN. ADDITIONAL BREAKERS MAY BE REQUIRED.



30-FOOT CAMERA POLE WITH MICROWAVE DETECTORS ON BRIDGE BLISTER



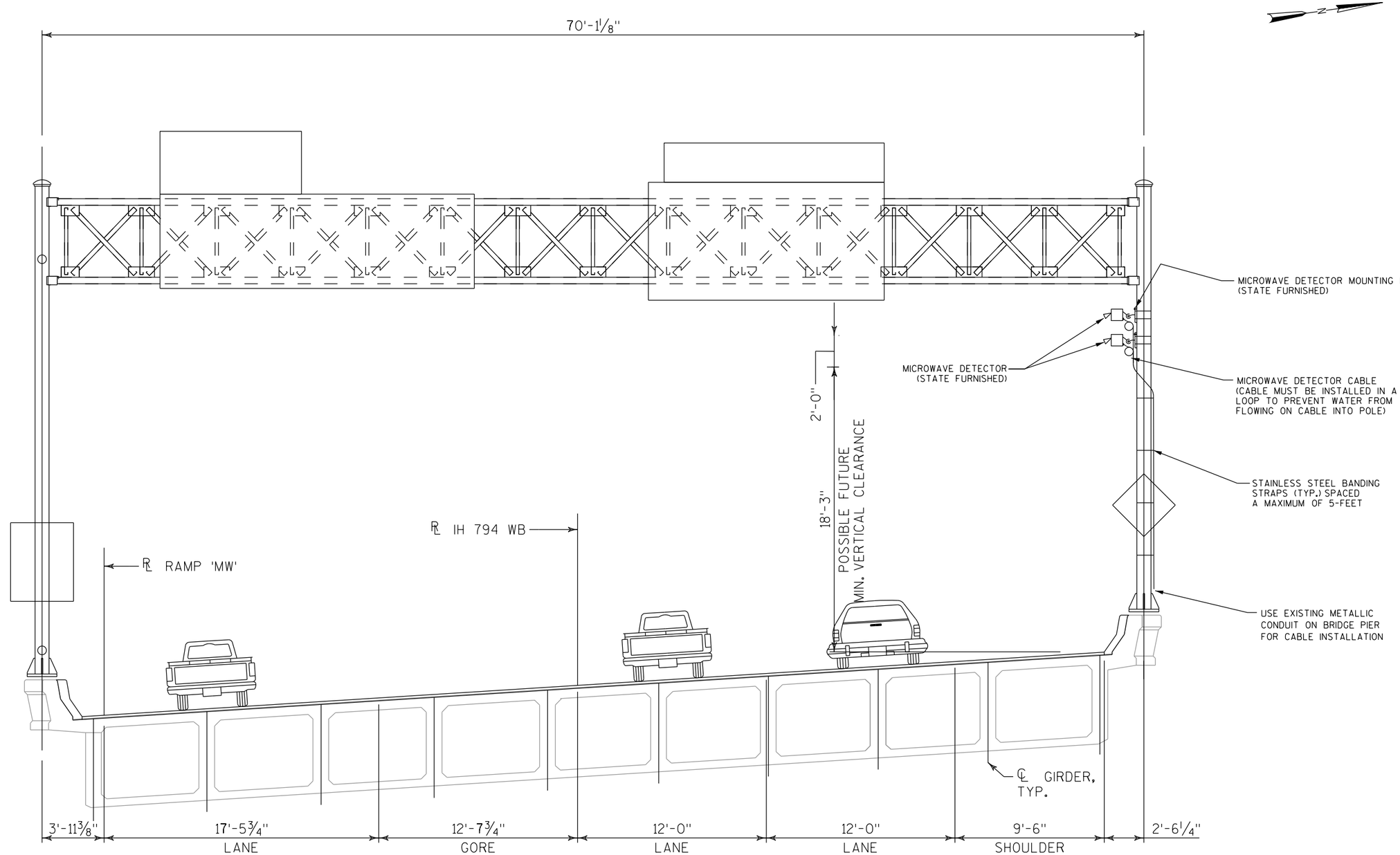
FIELD INSTALLED GROUNDING LUG

CAMERA POLES & FOUNDATIONS

NOTES

1) ALL HARDWARE AND FASTENERS SHALL BE STAINLESS STEEL
2) POLE DRAWINGS SHOWN FOR BIDDING INFORMATION PURPOSES ONLY. POLES WILL BE STATE FURNISHED.
3) CONTRACTOR SHALL CONFIRM BOLT PATTERN OF CAMERA POLE PRIOR TO CONSTRUCTION OF BLISTER.
4) CONTRACTOR SHALL INSTALL GROUNDING LUG AS SHOWN

2

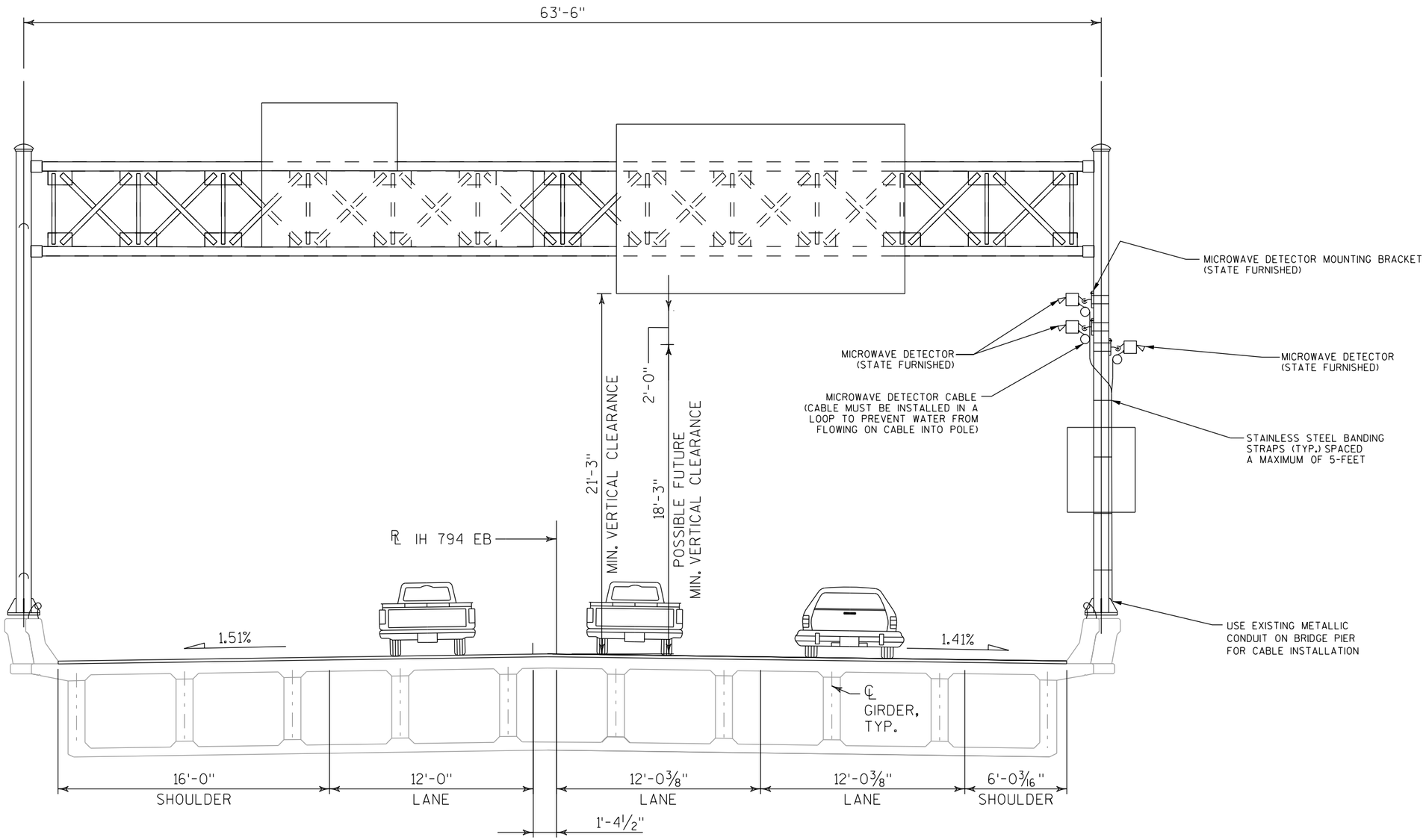


S-40-854, STA. 748+43.04 WB

LOOKING WEST

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS CONSTRUCTION DETAILS	SHEET 356	E

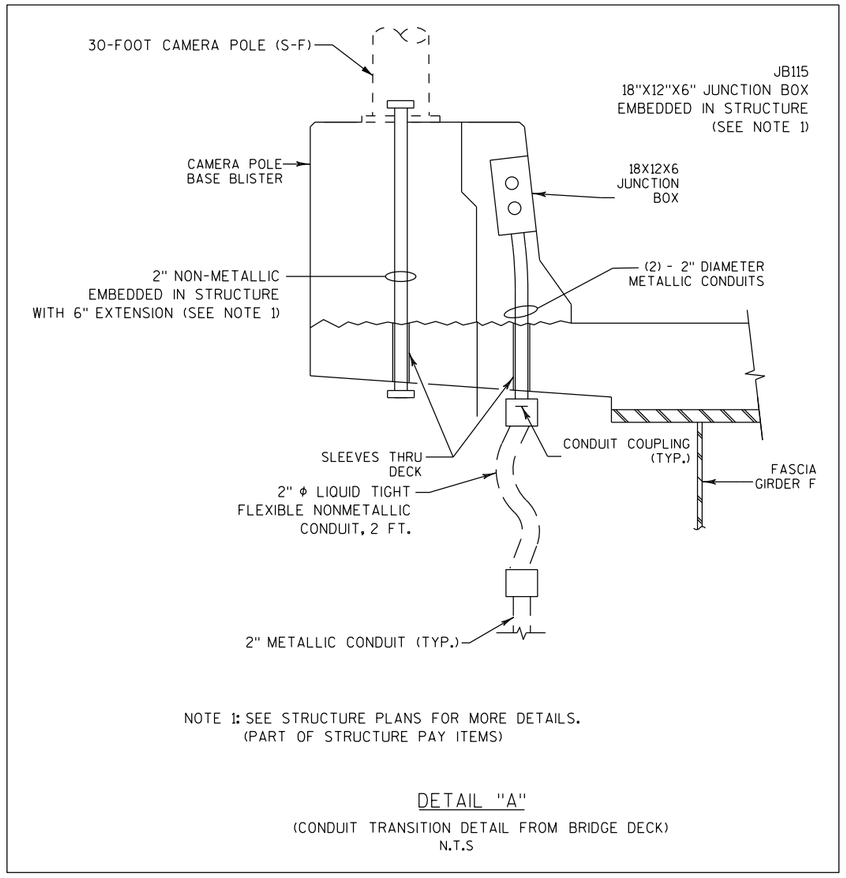
2



STRUCTURE S-40-855, STA. 644+14.53 EB

LOOKING EAST

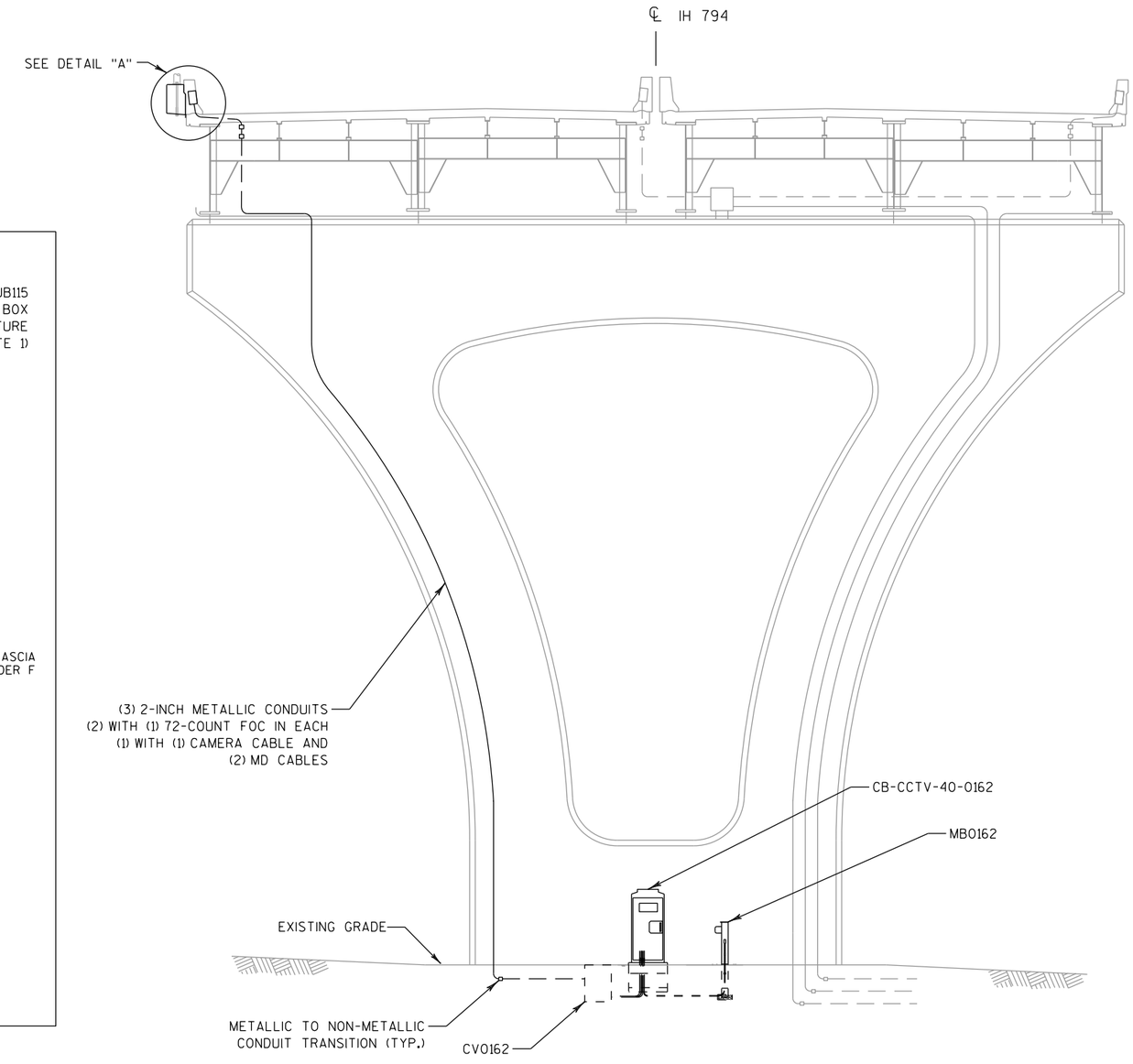
2



NOTE 1: SEE STRUCTURE PLANS FOR MORE DETAILS.
(PART OF STRUCTURE PAY ITEMS)

DETAIL "A"

(CONDUIT TRANSITION DETAIL FROM BRIDGE DECK)
N.T.S

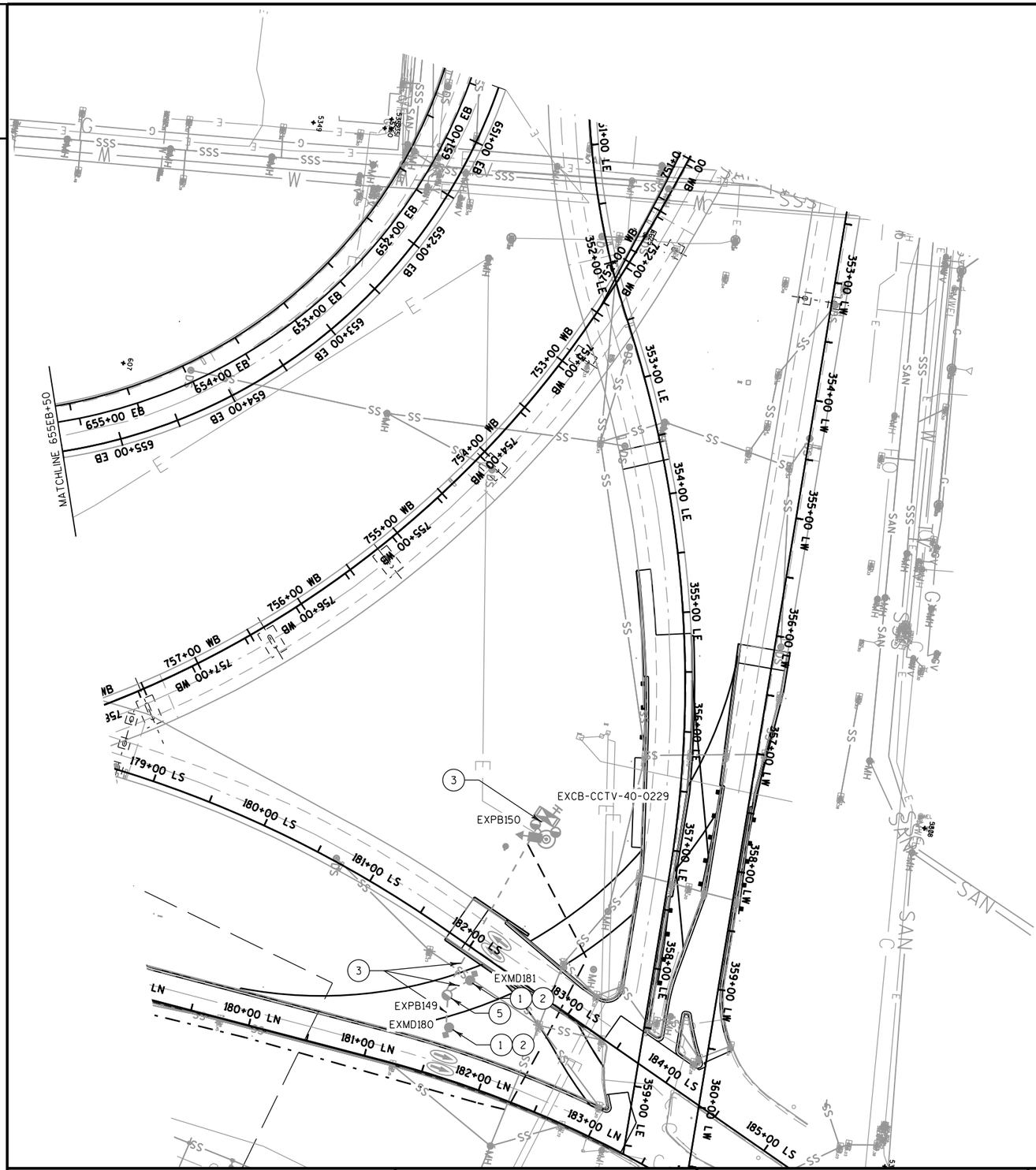


STRUCTURE N2B - PIER 2N CONDUIT TRANSITION DETAIL LOOKING SOUTH ON NORTH FACE

N.T.S

APPROXIMATELY 146+00 LF

2



NOTES:

1. 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 INCLUDING BUILDING SERVICES AND LATERALS.
2. FOR REMOVAL OF LIGHTING, BRIDGE, SIGN, OR OTHER ITEMS, REFER TO THE RESPECTIVE REMOVAL PLAN SECTIONS.
3. REMOVALS AND DISCONNECTION OF EQUIPMENT OR UTILITY SERVICES MUST BE PROPOSED TO WISDOT STOC A MINIMUM OF TWO WEEKS PRIOR TO SCHEDULED REMOVAL WORK. UNLESS FRMS REMOVAL IS DEMONSTRATED TO BE CRITICAL TO PROJECT COMPLETION SCHEDULE, STOC MAY DENY PROPOSED SCHEDULE AND REQUIRE THAT LOCATIONS BE MAINTAINED UNTIL REMOVALS ARE NECESSARY.

(1) REMOVE EXISTING MICROWAVE DETECTOR
(2) REMOVE EXISTING POLE
(3) REMOVE MICROWAVE DETECTOR CABLE
(4) SALVAGE OVERHEAD OVERHEAD VEHICLE CLASSIFICATION SENSOR
(5) REMOVE PULL BOX

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS REMOVAL PLANS	SHEET 359	E

NOTES:

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N

(EXMD7482 AND EXMD7483 ON VERTICAL SUPPORT OF EX-S-40-855) (1)

EXPB101B (3)

EXPB101A (3)

PROTECT CONDUIT ENDS FOR REINSTALLATION INTO NEW PULL BOX (5)

EXPB101

(EXMD7481 ON VERTICAL SUPPORT OF EX-S-40-855) (1)

(EXMD6443 AND EXMD6444 ON VERTICAL SUPPORT OF EX-S-40-855) (1)

EXPB102

(EXMD6441 AND EXMD6442 ON VERTICAL SUPPORT OF EX-S-40-855) (1)

MATCHLINE 650EB+50

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(2) REMOVE EXISTING POLE

(3) REMOVE MICROWAVE DETECTOR CABLE

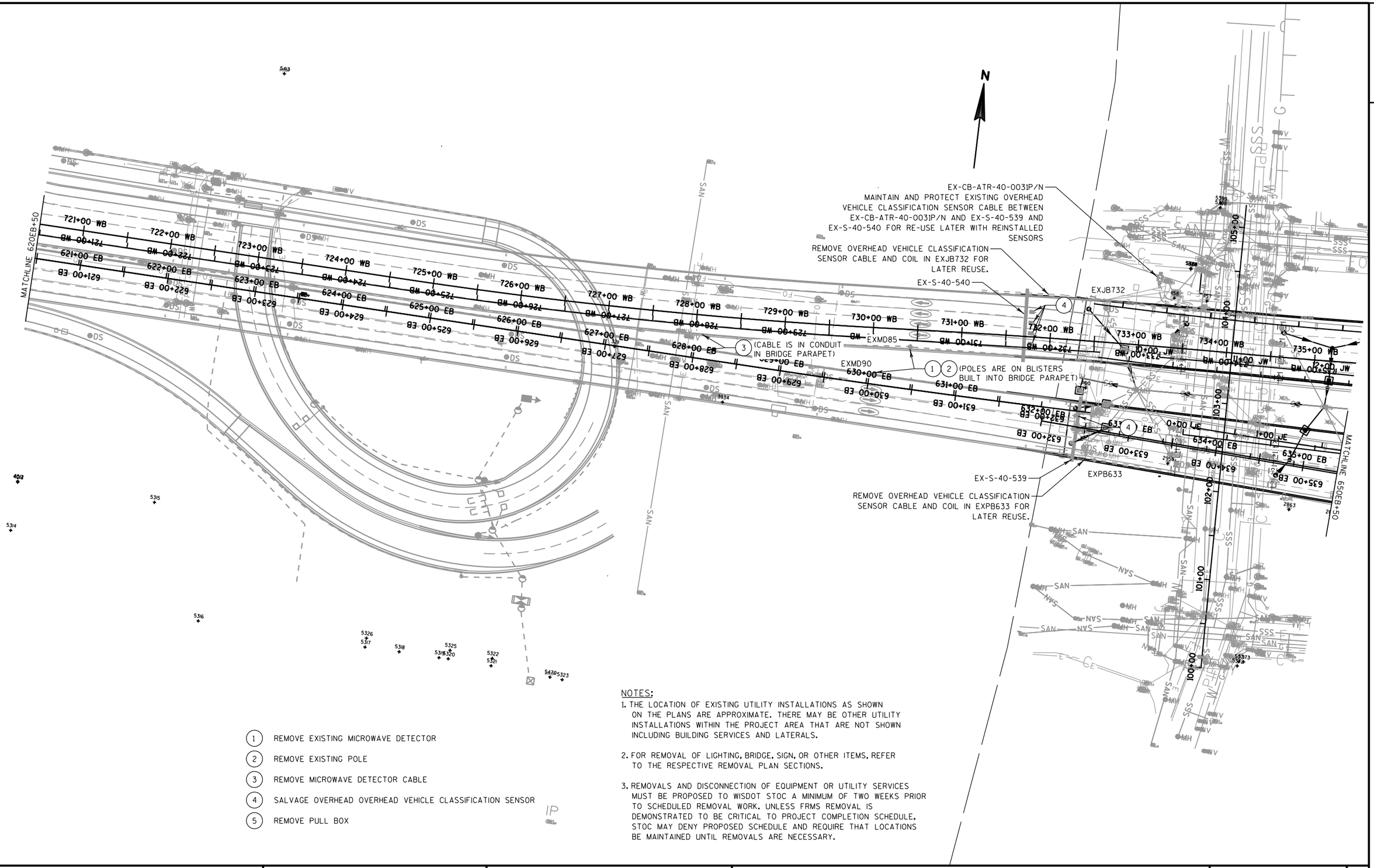
(4) SALVAGE OVERHEAD OVERHEAD VEHICLE CLASSIFICATION SENSOR

(5) REMOVE PULL BOX

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS REMOVAL PLANS	SHEET 360 E

FILE NAME : T:\59271\hoan-bridge\cds\60_hoan_fm_rem.dgn PLOT DATE : 4/22/2013 PLOT BY : pkutz PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42



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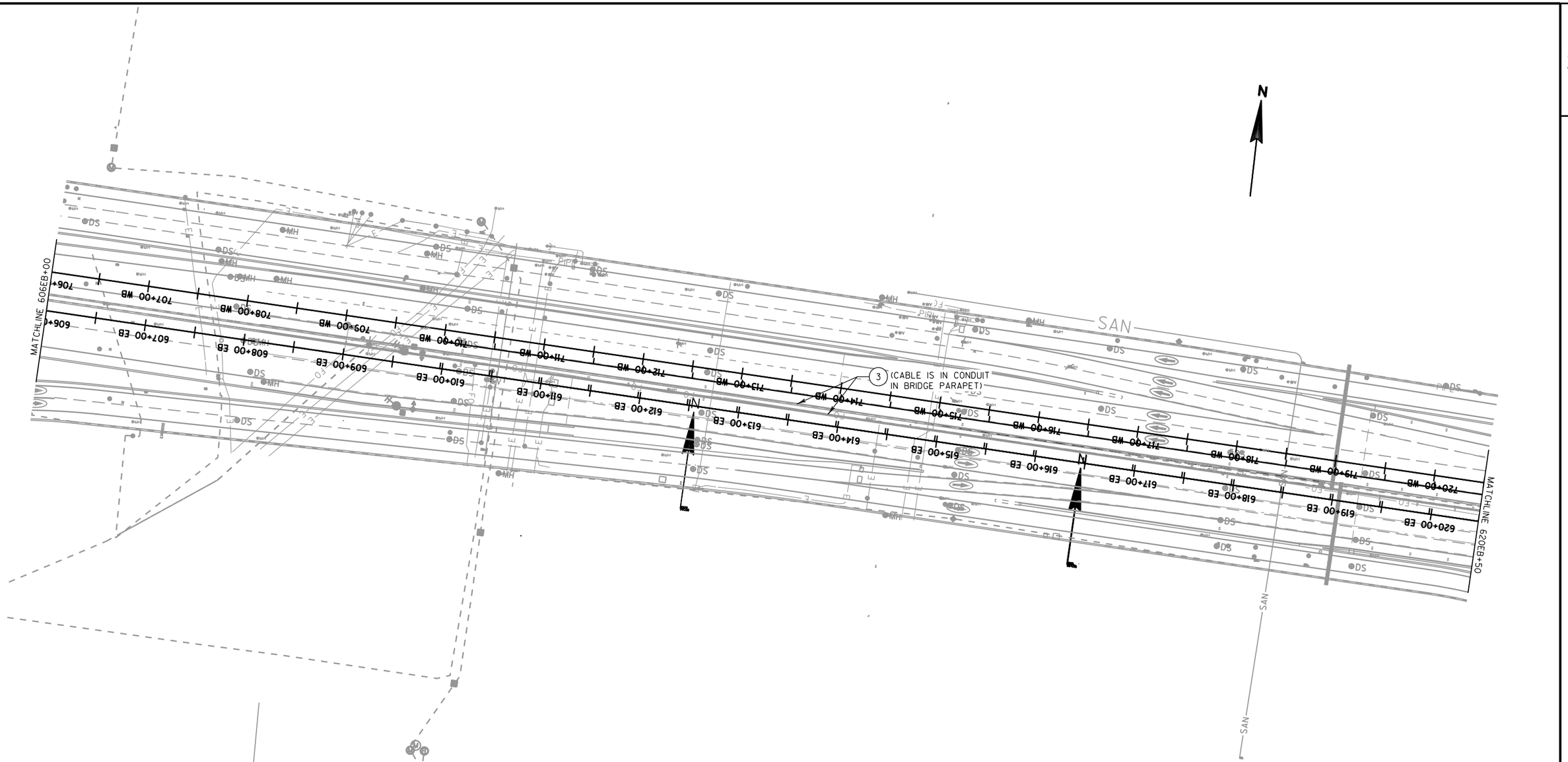
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS REMOVAL PLANS	SHEET 361	E

2



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3. REMOVE MICROWAVE DETECTOR CABLE
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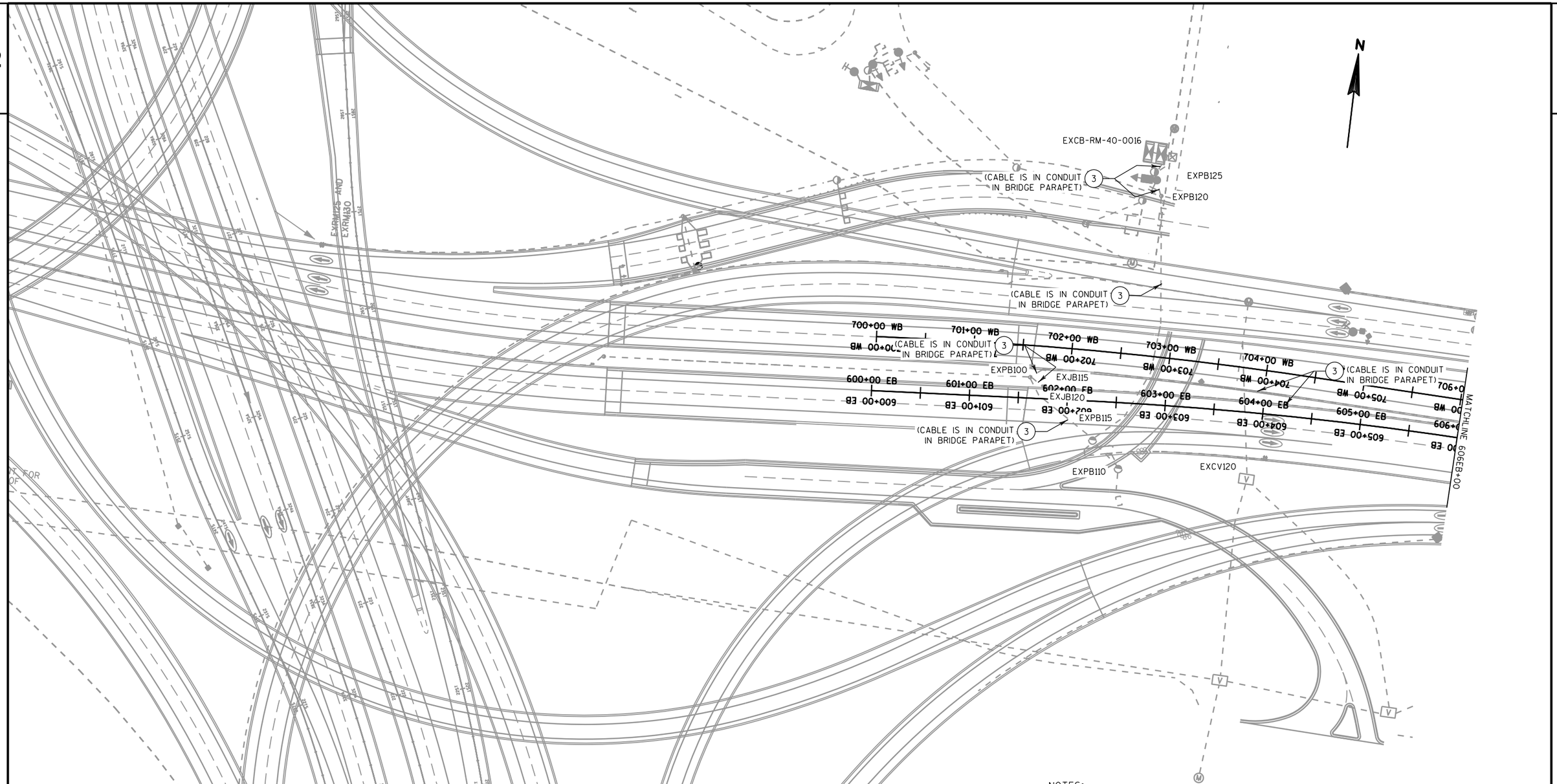

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NOTES:
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N

EXPB65
RG3
EXMH30
EXPB30
EXPB40
EXPB40-1
EXPB40-2
EXPB40-3
EXMH40
EXMH60
EXMH65
RG1
RG2
JB65

IN EXISTING CONDUIT
(1) 72-COUNT FOC (S-F)

IN EXISTING RACK IN BUILDING
(1) F.O. TERMINATION PANEL (S-F)
(72) F.O. TERMINATIONS
(1) ETHERNET SWITCH (S-F)

INSTALL PROPOSED CONDUIT
INTO EXISTING ITEM (QTY. 1)

IN CONDUIT INSTALLED IN BRIDGE PARAPET
(1) 72-COUNT FOC (S-F)

PORT OF MILWAUKEE
ADMINISTRATION BUILDING

IH 794 SB
IH 794 NB
IH 794 SB OFF-RAMP TO CARFERRY DR.
IH 794 NB ON-RAMP FROM CARFERRY DR.

SOUTH CARFERRY DRIVE

MATCHLINE 68LF+50

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS PLANS	SHEET 364 E

FILE NAME : \\milw00\ingrproj\59271\hoan-bridge\cds\10_hoan_fm.dgn | PLOT DATE : 4/22/2013 | PLOT BY : pkutz | PLOT NAME : | PLOT SCALE : 100:1

2

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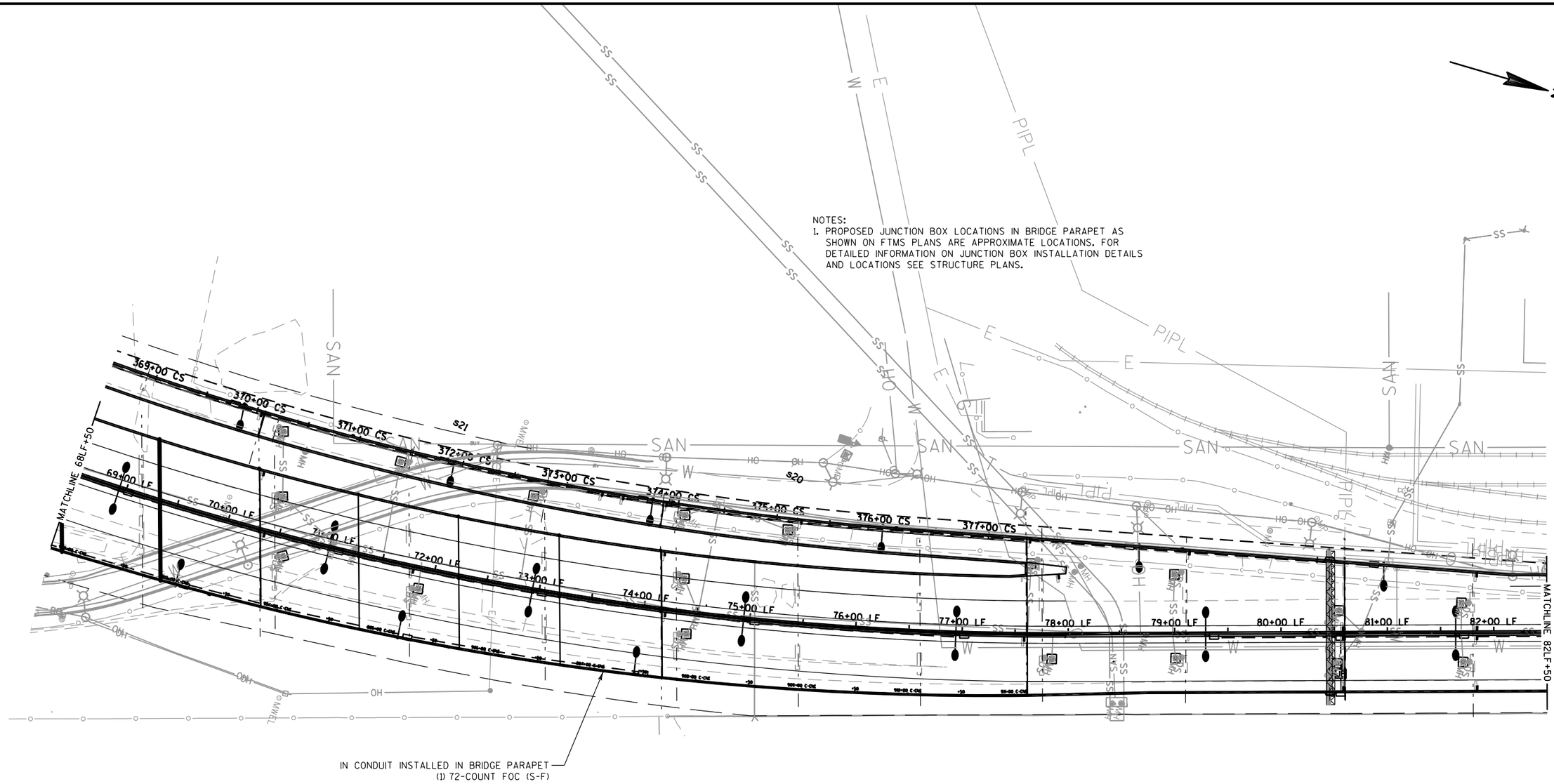

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

FILE NAME : \\milw00\ingrproj\59271\hoan-bridge\cds\15_hoan_fm.dgn PLOT DATE : 4/22/2013 PLOT BY : pkutz PLOT NAME : PLOT SCALE : 100:1
WISDOT/CADDS SHEET 42

2

NOTES:
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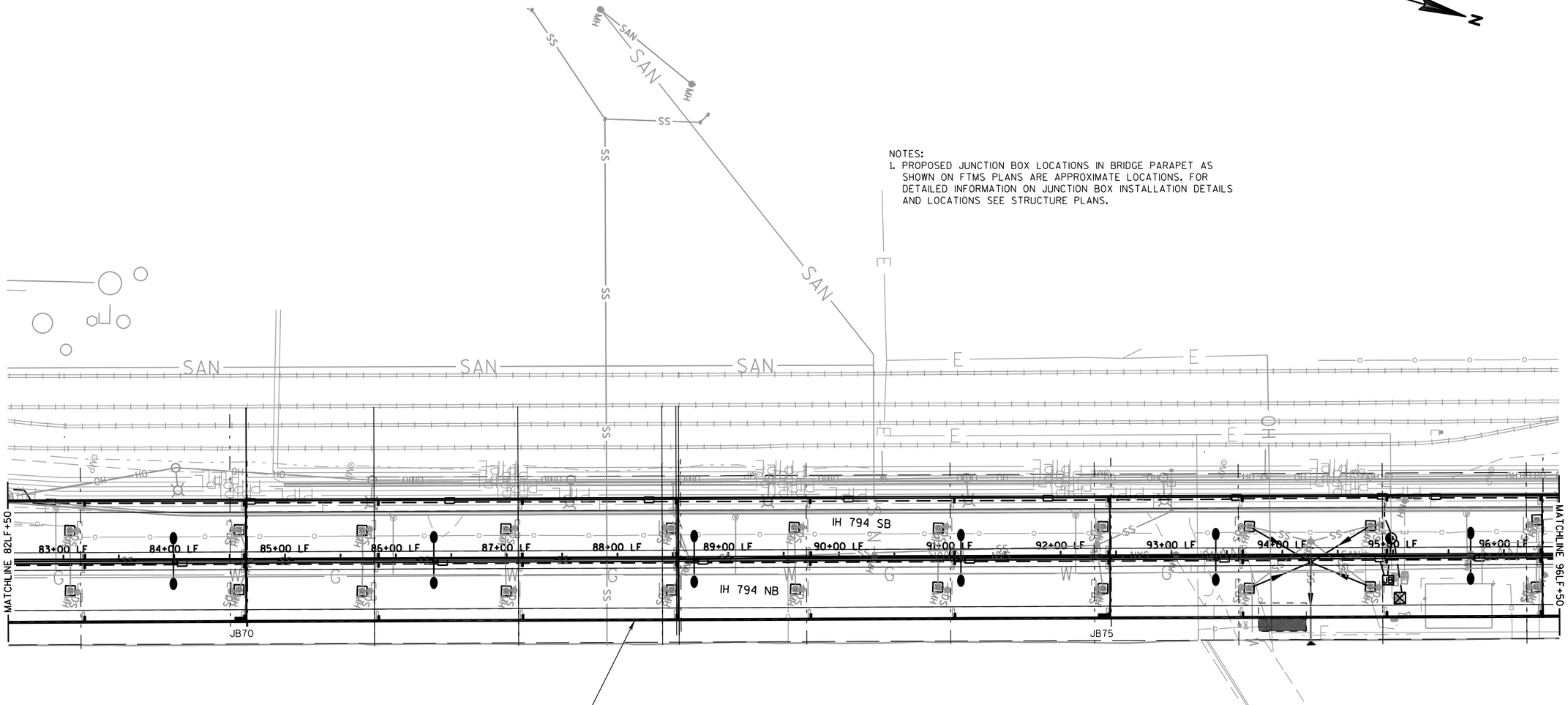

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS PLANS	SHEET 366	E

FILE NAME : \\milw00\ingrproj\59271\hoan-bridge\cds\20_hoan_fm.dgn PLOT DATE : 4/22/2013 PLOT BY : pkutz PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

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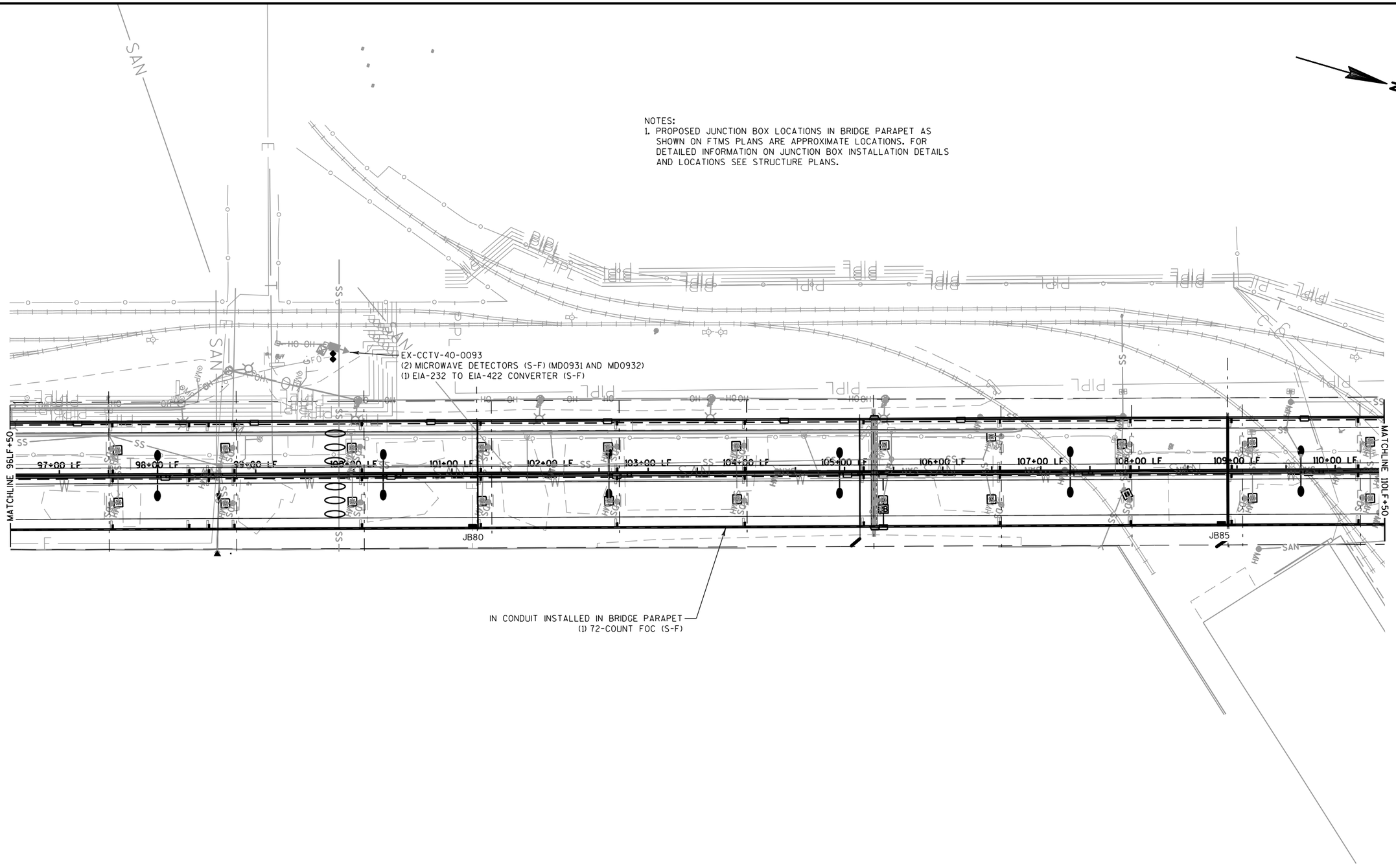

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS PLANS	SHEET 367 E

2

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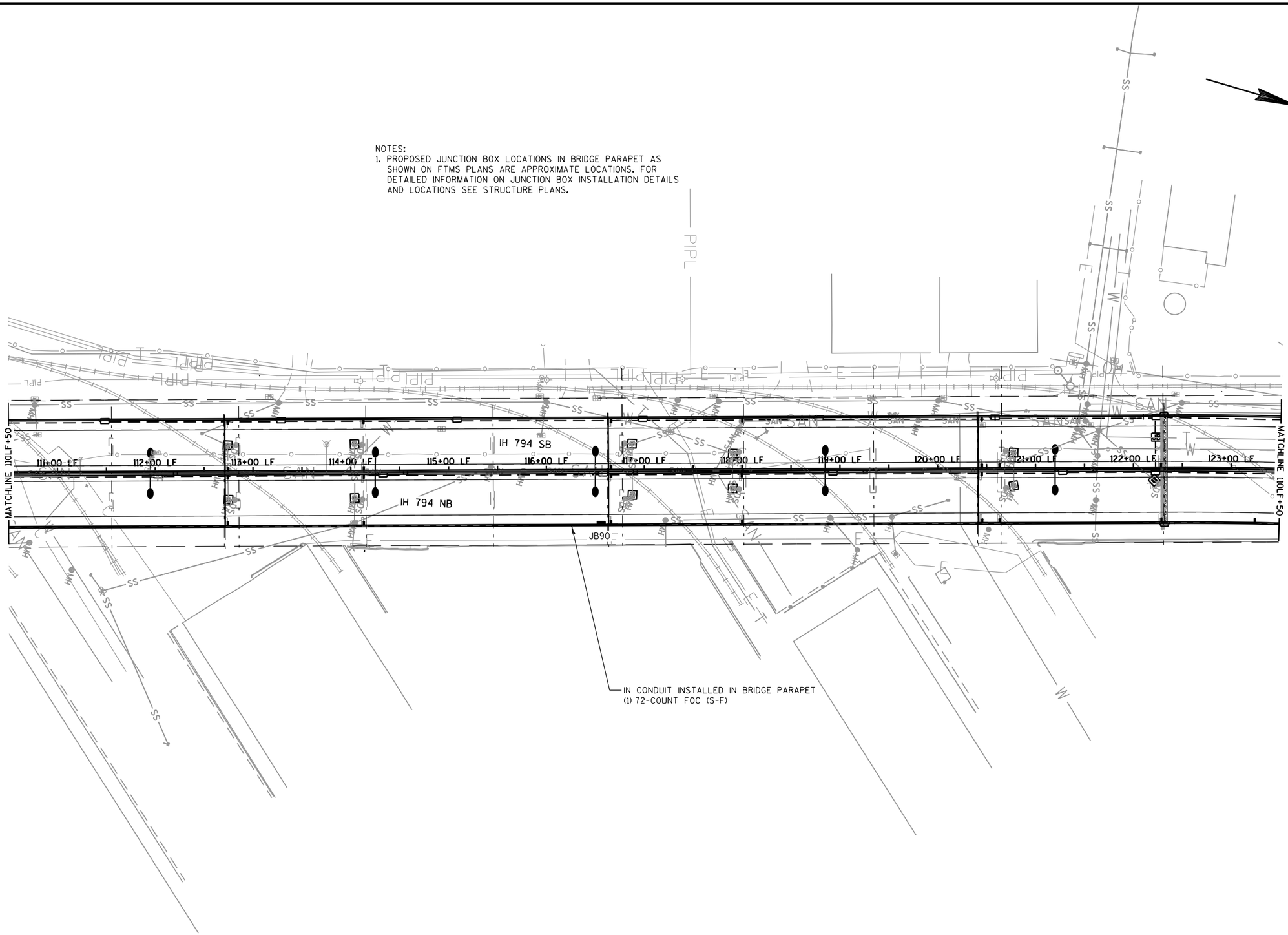

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS PLANS	SHEET 368	E

2

NOTES:
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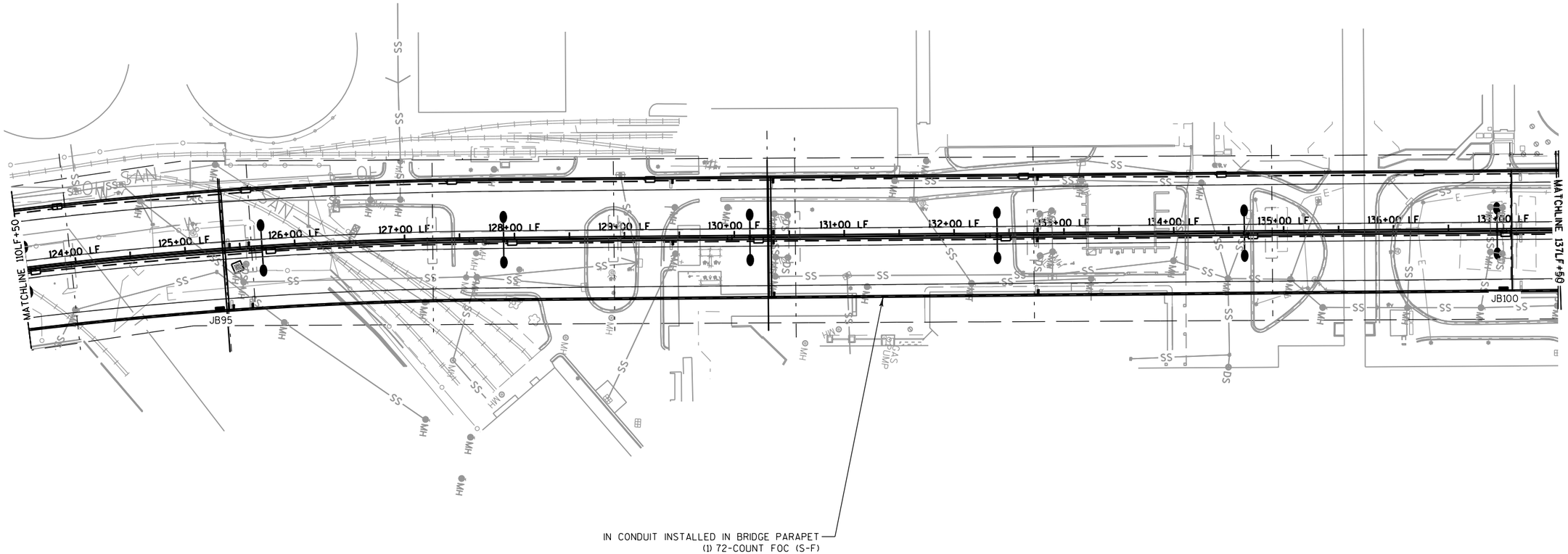
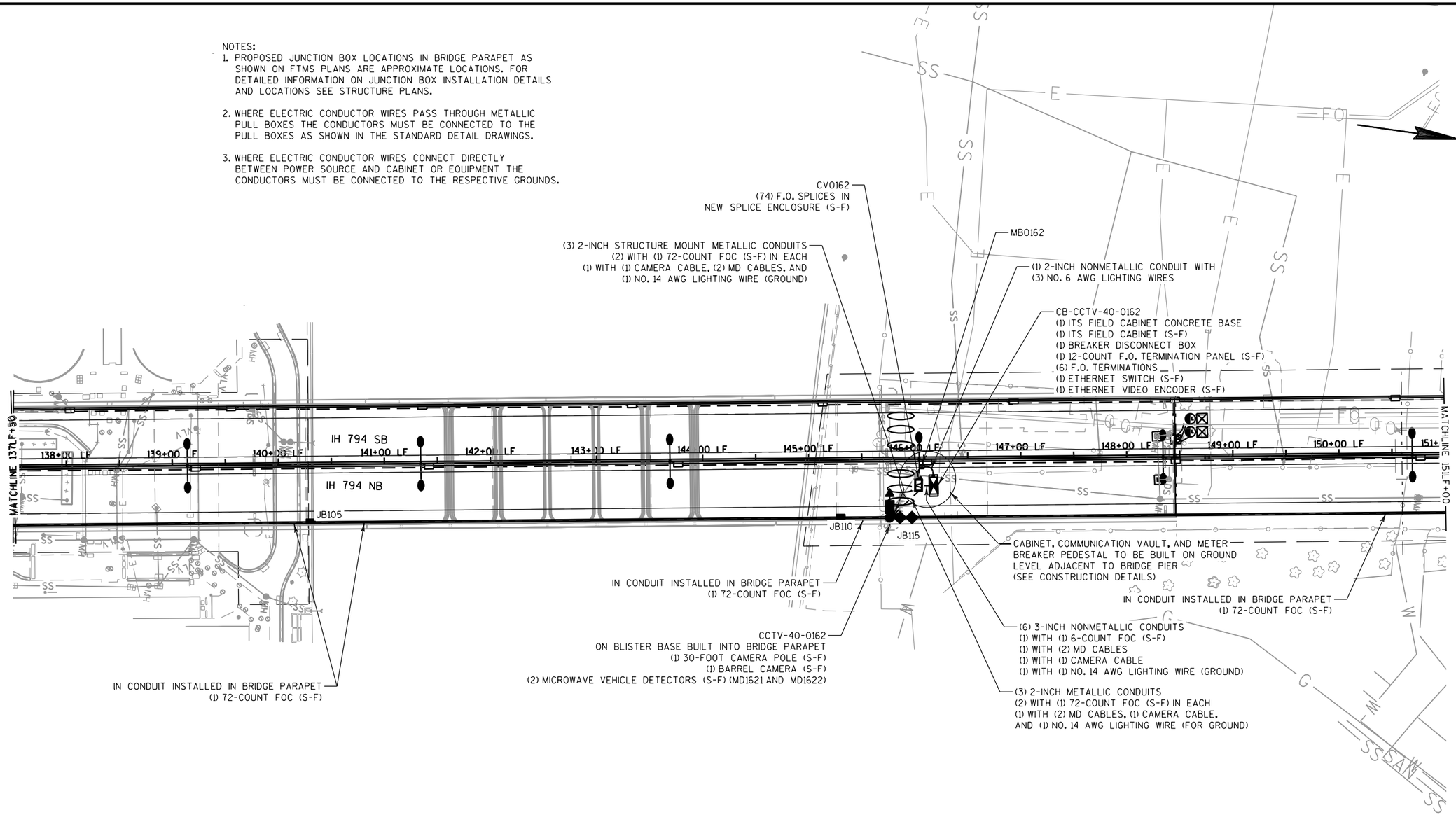


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS PLANS	SHEET 369	E

NOTES:
1. PROPOSED JUNCTION BOX LOCATIONS IN BRIDGE PARAPET AS SHOWN ON FTMS PLANS ARE APPROXIMATE LOCATIONS. FOR DETAILED INFORMATION ON JUNCTION BOX INSTALLATION DETAILS AND LOCATIONS SEE STRUCTURE PLANS.

2. WHERE ELECTRIC CONDUCTOR WIRES PASS THROUGH METALLIC PULL BOXES THE CONDUCTORS MUST BE CONNECTED TO THE PULL BOXES AS SHOWN IN THE STANDARD DETAIL DRAWINGS.

3. WHERE ELECTRIC CONDUCTOR WIRES CONNECT DIRECTLY BETWEEN POWER SOURCE AND CABINET OR EQUIPMENT THE CONDUCTORS MUST BE CONNECTED TO THE RESPECTIVE GROUNDS.



2

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N

MATCHLINE 151LF+00

151+00 LF
152+00 LF
153+00 LF
154+00 LF
155+00 LF
156+00 LF
157+00 LF
158+00 LF
159+00 LF
160+00 SB
161+00 SB
162+00 SB
163+00 SB
164+00 SB
160+00 NB
161+00 NB
162+00 NB
163+00 NB
164+00 NB

MATCHLINE 164LF+50

JB120

JB125

IN CONDUIT INSTALLED IN BRIDGE PARAPET
(1) 72-COUNT FOC (S-F)

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

FILE NAME : \\milw00\ingrproj\59271\hoan-bridge\cds\45_hoan_fm.dgn PLOT DATE : 4/22/2013 PLOT BY : pkutz PLOT NAME : PLOT SCALE : 100:1

2

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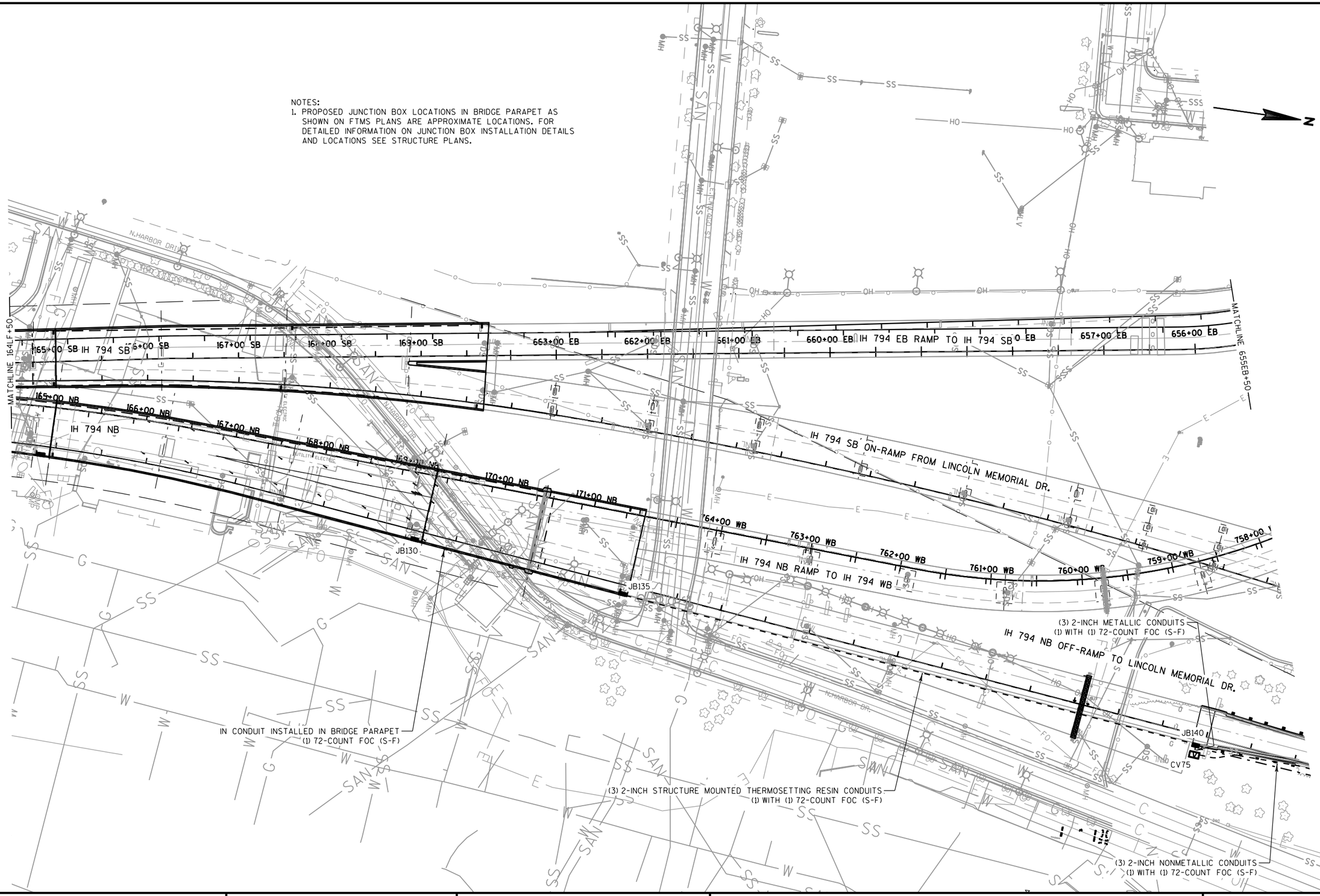
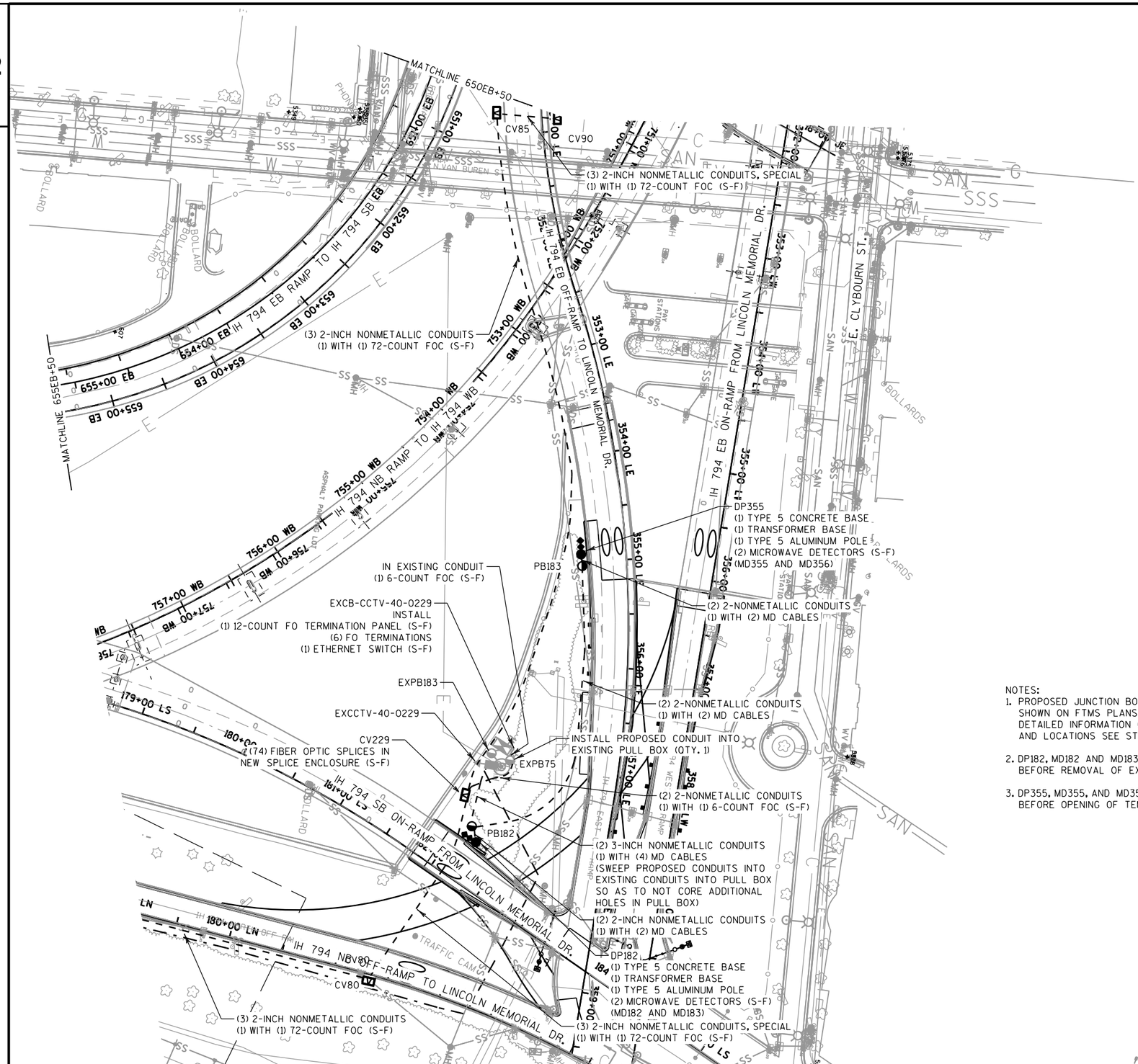


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS PLANS	SHEET 372	E

2



NOTES:
1. PROPOSED JUNCTION BOX LOCATIONS IN BRIDGE PARAPET AS SHOWN ON FTMS PLANS ARE APPROXIMATE LOCATIONS. FOR DETAILED INFORMATION ON JUNCTION BOX INSTALLATION DETAILS AND LOCATIONS SEE STRUCTURE PLANS.

2. DP182, MD182 AND MD183 MUST BE INSTALLED AND OPERATIONAL BEFORE REMOVAL OF EXMD180 AND EXMD181.

3. DP355, MD355, AND MD356 MUST BE INSTALLED AND OPERATIONAL BEFORE OPENING OF TEMPORARY SOUTH TO WEST RAMP CONNECTION.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS PLANS	SHEET 373	E

2

NOTES:
1. PROPOSED JUNCTION BOX LOCATIONS IN BRIDGE PARAPET AS SHOWN ON FTMS PLANS ARE APPROXIMATE LOCATIONS. FOR DETAILED INFORMATION ON JUNCTION BOX INSTALLATION DETAILS AND LOCATIONS SEE STRUCTURE PLANS.
2. WHERE ELECTRIC CONDUCTOR WIRES PASS THROUGH METALLIC PULL BOXES THE CONDUCTORS MUST BE CONNECTED TO THE PULL BOXES AS SHOWN IN THE STANDARD DETAIL DRAWINGS.
3. WHERE ELECTRIC CONDUCTOR WIRES CONNECT DIRECTLY BETWEEN POWER SOURCE AND CABINET OR EQUIPMENT THE CONDUCTORS MUST BE CONNECTED TO THE RESPECTIVE GROUNDS.

N

CB-SDS-40-0200
(1) ITS FIELD CABINET CONCRETE BASE
(1) ITS FIELD CABINET (S-F)
(1) BREAKER DISCONNECT BOX
(1) 12-COUNT F.O. TERMINATION PANEL (S-F)
(6) F.O. TERMINATIONS
(1) ETHERNET SWITCH (S-F)

(6) 3-INCH NONMETALLIC CONDUITS
(1) WITH (3) MD CABLES
(1) WITH (2) MD CABLES
(1) WITH (1) 6-COUNT FOC (S-F)

IN EXISTING CONDUIT
(3) MD CABLES AND
(1) 6-COUNT FOC (S-F)

MD748
INSTALL ON SIGN BRIDGE SUPPORT
(1) MICROWAVE DETECTOR (S-F)

MD749
INSTALL ON SIGN BRIDGE SUPPORT
(1) MICROWAVE DETECTOR (S-F)

(3) 2-INCH NONMETALLIC CONDUITS, SPECIAL
(1) WITH (1) 72-COUNT FOC (S-F)

IN EXISTING CONDUIT
(3) MD CABLES AND
(1) 6-COUNT FOC (S-F)

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F)

(3) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 72-COUNT FOC (S-F)

IN EXISTING CONDUIT
(3) MD CABLES

(3) 2-INCH METALLIC CONDUITS
(1) WITH (1) 72-COUNT FOC (S-F)

IN CONDUIT INSTALLED IN BRIDGE PARAPET
(1) 72-COUNT FOC (S-F)

MD643
INSTALL ON SIGN BRIDGE SUPPORT
(1) MICROWAVE DETECTOR (S-F)

S-40-855-01
INSTALL MD CABLE ACROSS
SIGN BRIDGE TRUSS
TO CONNECT TO MD644 AND MD645

MD644 AND MD645
INSTALL ON SIGN BRIDGE SUPPORT
(2) MICROWAVE DETECTORS (S-F)

(1) 2-INCH METALLIC CONDUIT WITH
(3) NO. 6 AWG LIGHTING WIRES

LIGHTING CABINET
HL-40-JK

(3) 2-INCH NONMETALLIC CONDUITS
(1) WITH (3) MD CABLES
(1) WITH (2) MD CABLES
(1) WITH (1) 6-COUNT FOC (S-F)

S-40-854-01
INSTALL MD CABLE ACROSS
SIGN BRIDGE TRUSS
TO CONNECT TO MD749

(3) 2-INCH NONMETALLIC CONDUITS, SPECIAL
(1) WITH (1) 72-COUNT FOC (S-F)

(14) FIBER OPTIC SPLICES IN
NEW SPLICE ENCLOSURE (S-F)

(3) 2-INCH NONMETALLIC CONDUITS, SPECIAL
(1) WITH (1) 72-COUNT FOC (S-F)

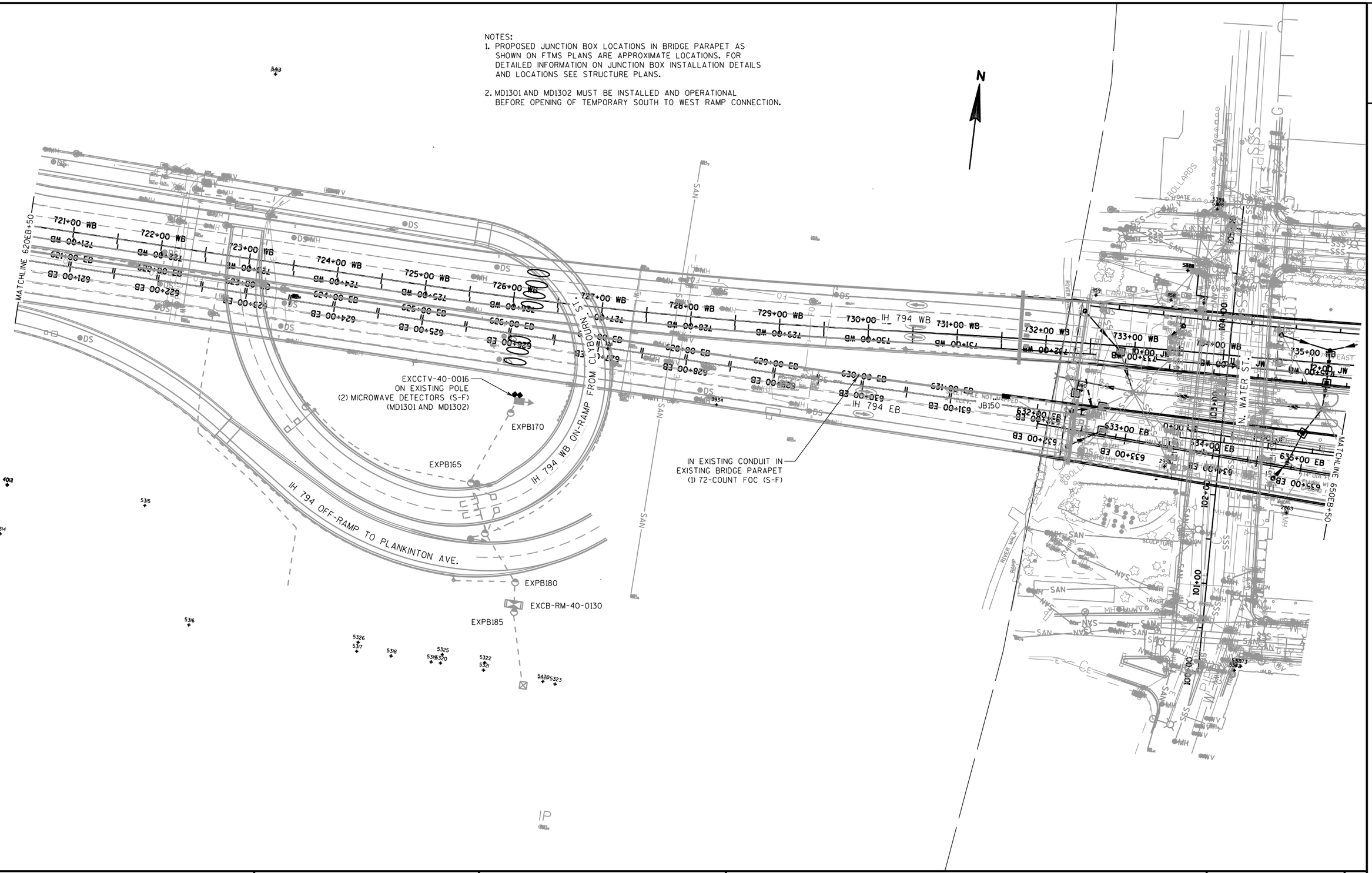
(3) 2-INCH NONMETALLIC CONDUITS, SPECIAL
(1) WITH (1) 72-COUNT FOC (S-F)

E. CLYBOURN ST.
N. BROADWAY ST.
N. MILWAUKEE ST.
IH 794 WB
IH 794 WEST OFF RAMP
IH 794 EAST OFF RAMP
IH 794 EB OFF-RAMP TO LINCOLN MEMORIAL DR.
IH 794 EB RAMP TO IH 794 SB
IH 794 SB ON-RAMP FROM BROADWAY ST.
SE. ST. PAUL AVE.
N. JEFFERSON ST.
MATCHLINE 650EB+50
MATCHLINE 650EB+50

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS PLANS	SHEET 374 E

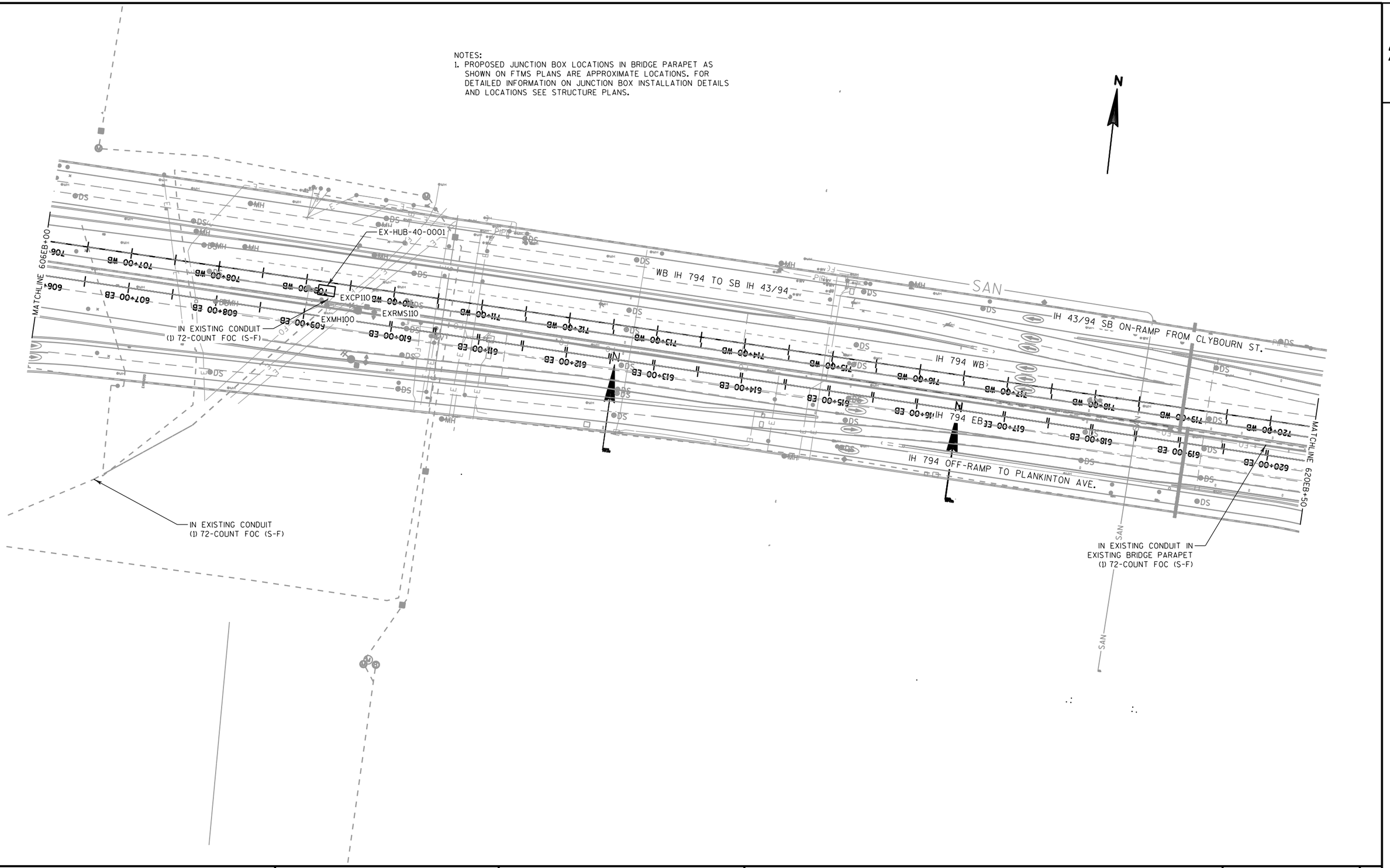
NOTES:
1. PROPOSED JUNCTION BOX LOCATIONS IN BRIDGE PARAPET AS SHOWN ON FTMS PLANS ARE APPROXIMATE LOCATIONS. FOR DETAILED INFORMATION ON JUNCTION BOX INSTALLATION DETAILS AND LOCATIONS SEE STRUCTURE PLANS.

2. MD1301 AND MD1302 MUST BE INSTALLED AND OPERATIONAL BEFORE OPENING OF TEMPORARY SOUTH TO WEST RAMP CONNECTION.



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS PLANS	SHEET 375	E

NOTES:
1. PROPOSED JUNCTION BOX LOCATIONS IN BRIDGE PARAPET AS SHOWN ON FTMS PLANS ARE APPROXIMATE LOCATIONS. FOR DETAILED INFORMATION ON JUNCTION BOX INSTALLATION DETAILS AND LOCATIONS SEE STRUCTURE PLANS.



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS PLANS	SHEET 376	E

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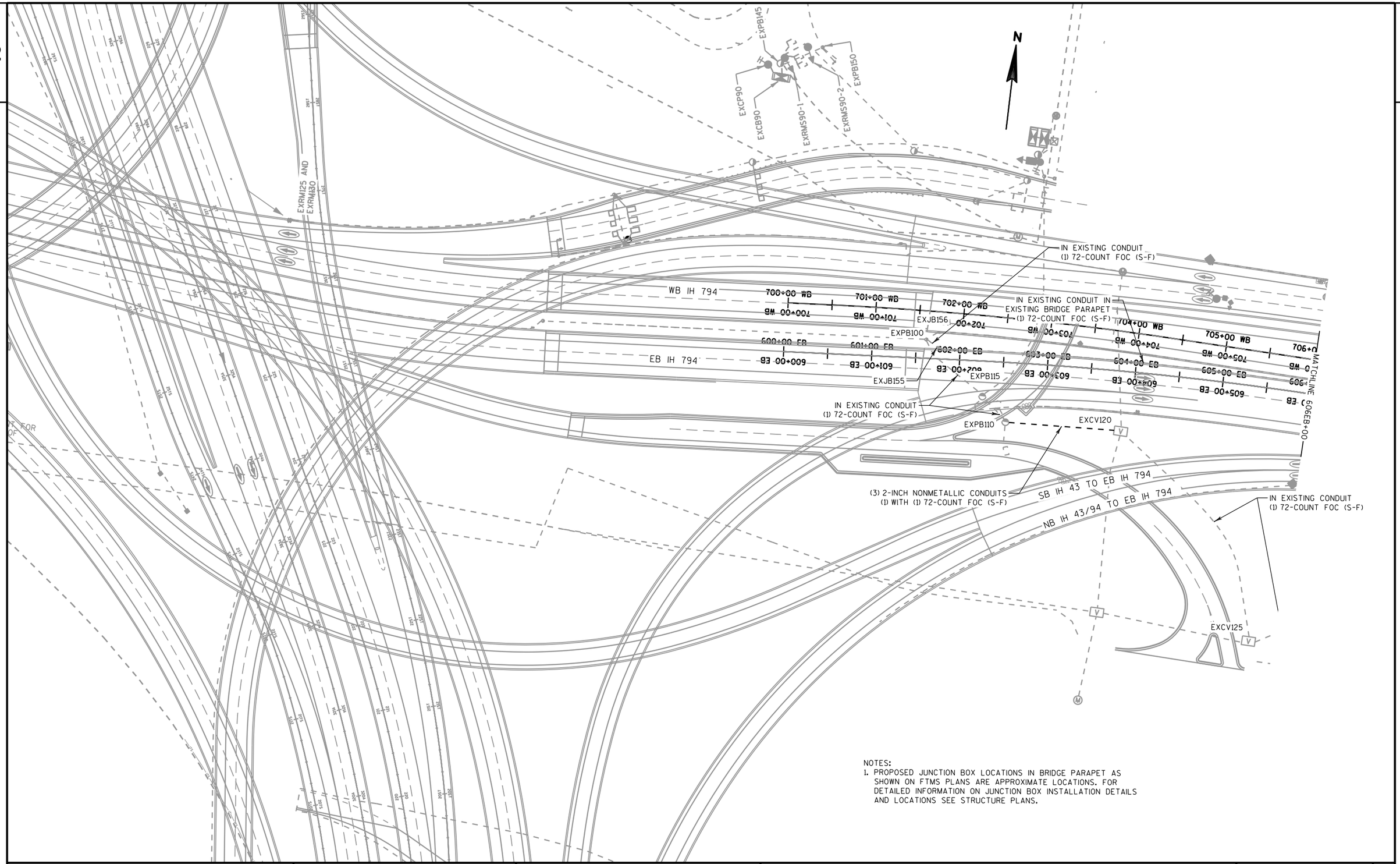
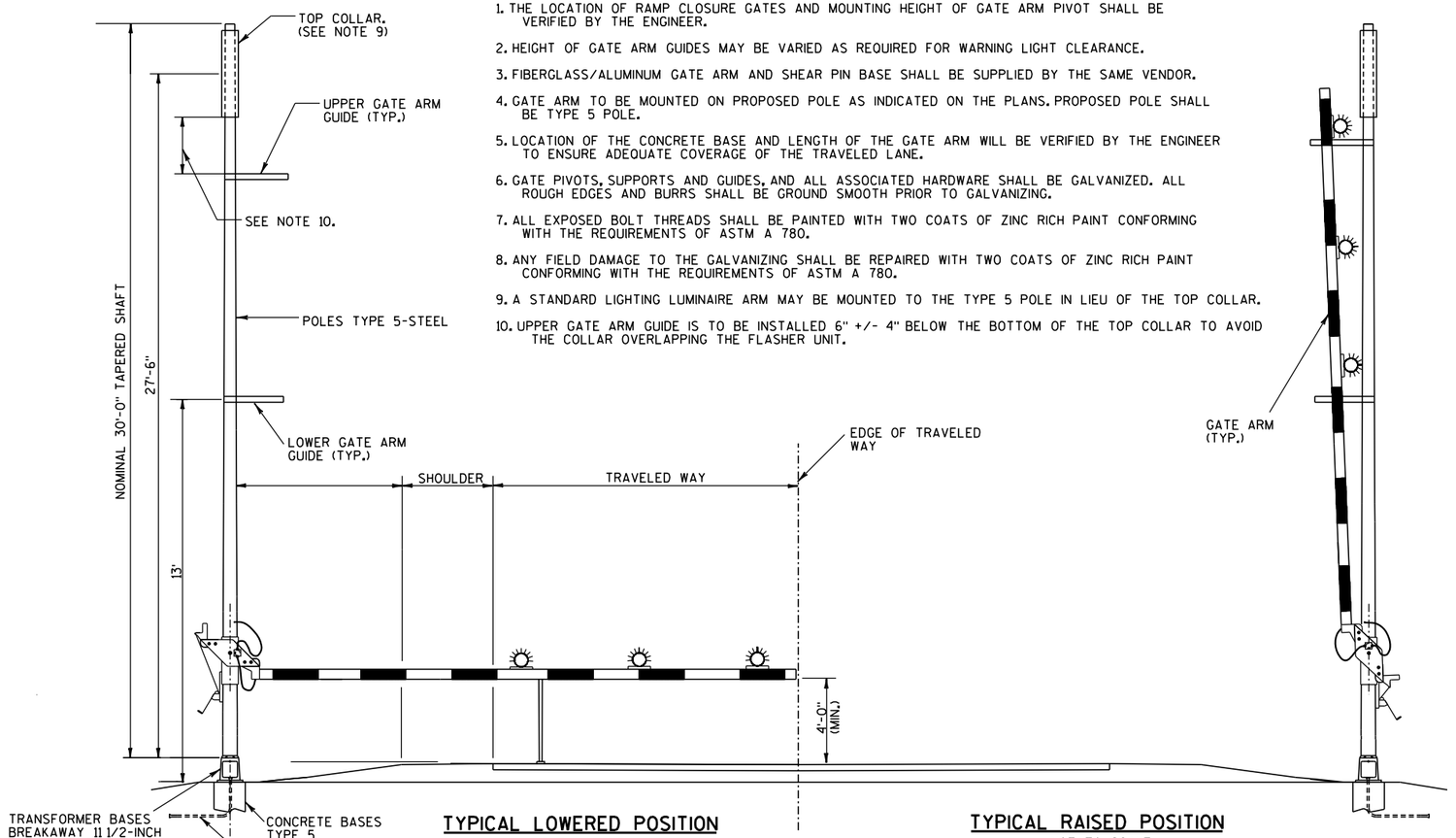


NOTES:
1. PROPOSED JUNCTION BOX LOCATIONS IN BRIDGE PARAPET AS SHOWN ON FTMS PLANS ARE APPROXIMATE LOCATIONS. FOR DETAILED INFORMATION ON JUNCTION BOX INSTALLATION DETAILS AND LOCATIONS SEE STRUCTURE PLANS.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS PLANS	SHEET 377	E

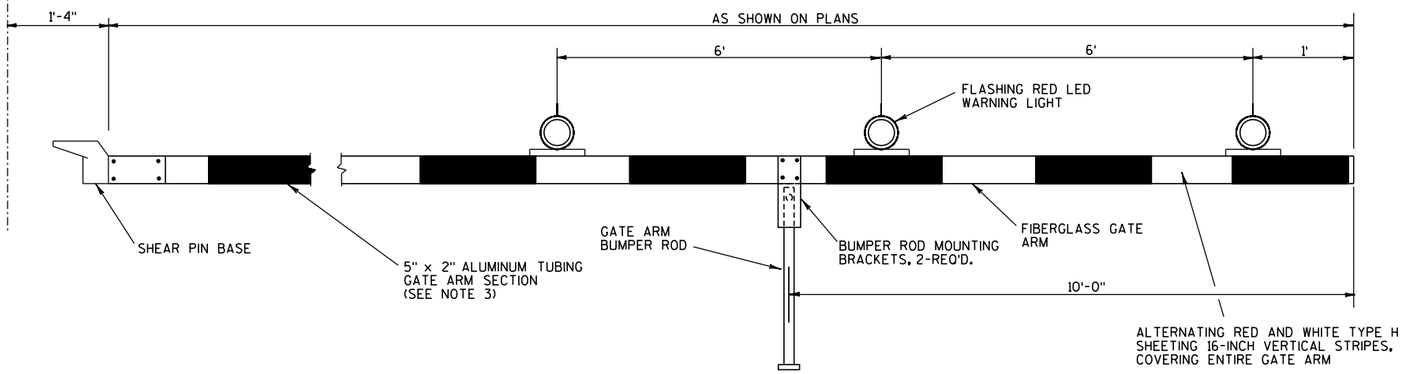
GENERAL NOTES

1. THE LOCATION OF RAMP CLOSURE GATES AND MOUNTING HEIGHT OF GATE ARM PIVOT SHALL BE VERIFIED BY THE ENGINEER.
2. HEIGHT OF GATE ARM GUIDES MAY BE VARIED AS REQUIRED FOR WARNING LIGHT CLEARANCE.
3. FIBERGLASS/ALUMINUM GATE ARM AND SHEAR PIN BASE SHALL BE SUPPLIED BY THE SAME VENDOR.
4. GATE ARM TO BE MOUNTED ON PROPOSED POLE AS INDICATED ON THE PLANS. PROPOSED POLE SHALL BE TYPE 5 POLE.
5. LOCATION OF THE CONCRETE BASE AND LENGTH OF THE GATE ARM WILL BE VERIFIED BY THE ENGINEER TO ENSURE ADEQUATE COVERAGE OF THE TRAVELED LANE.
6. GATE PIVOTS, SUPPORTS AND GUIDES, AND ALL ASSOCIATED HARDWARE SHALL BE GALVANIZED. ALL ROUGH EDGES AND BURRS SHALL BE GROUND SMOOTH PRIOR TO GALVANIZING.
7. ALL EXPOSED BOLT THREADS SHALL BE PAINTED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
8. ANY FIELD DAMAGE TO THE GALVANIZING SHALL BE REPAIRED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
9. A STANDARD LIGHTING LUMINAIRE ARM MAY BE MOUNTED TO THE TYPE 5 POLE IN LIEU OF THE TOP COLLAR.
10. UPPER GATE ARM GUIDE IS TO BE INSTALLED 6" +/- 4" BELOW THE BOTTOM OF THE TOP COLLAR TO AVOID THE COLLAR OVERLAPPING THE FLASHER UNIT.

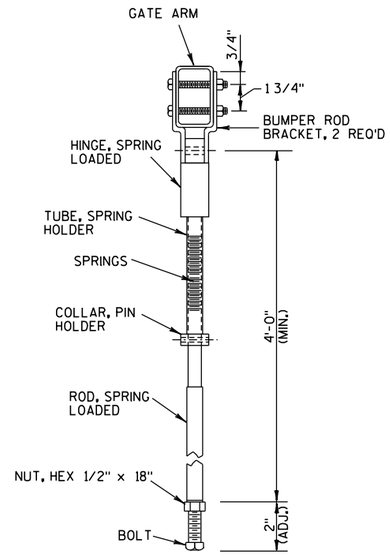


TYPICAL LOWERED POSITION
NOT TO SCALE

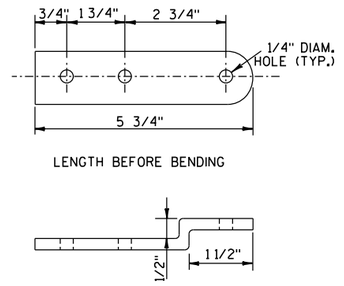
TYPICAL RAISED POSITION
NOT TO SCALE



GATE DETAIL
(SOLAR POWER OPTION)



GATE ARM BUMPER ROD DETAIL

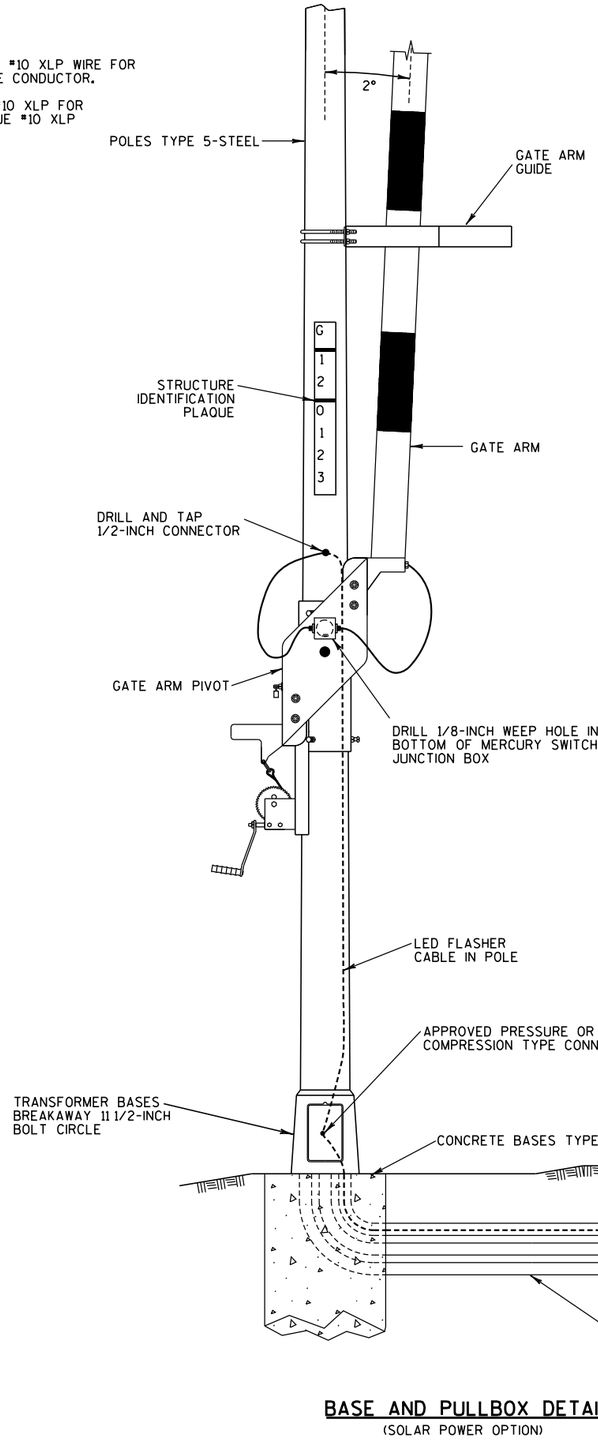


BUMPER ROD MOUNTING BRACKET DETAIL

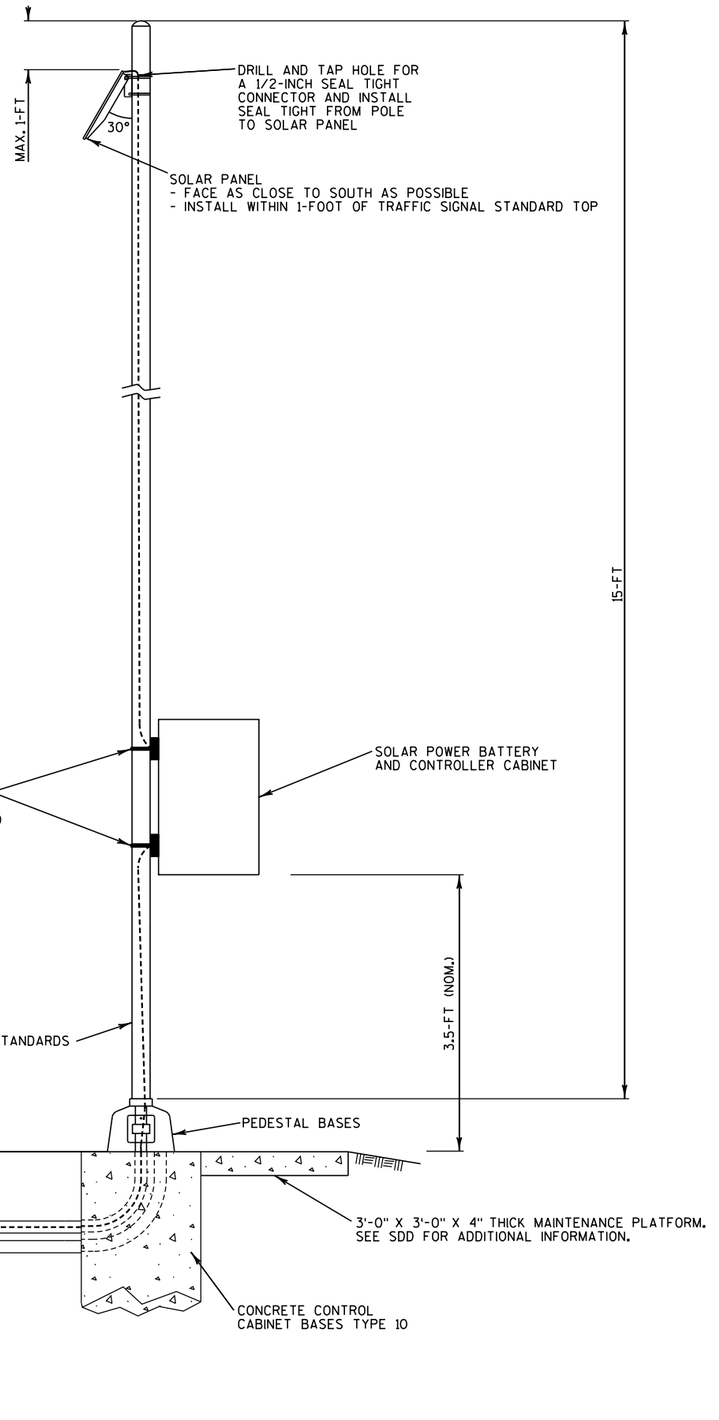
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - RAMP GATES	SHEET 378	E

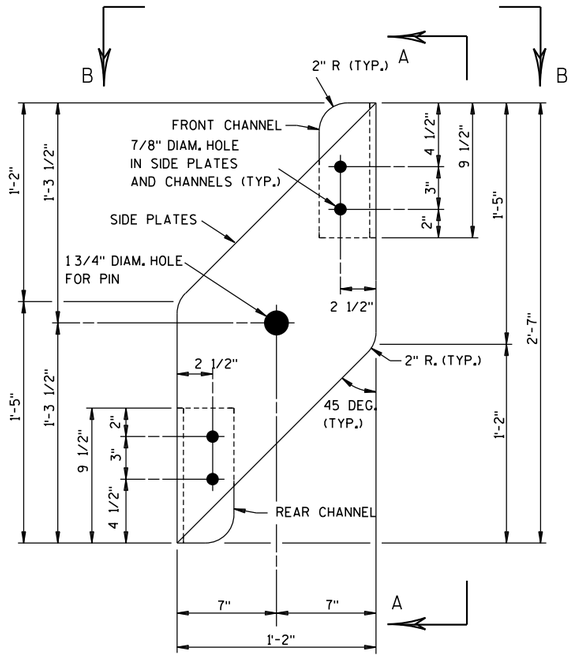
WIRING NOTES

1. WIRING FROM SOLAR PANEL TO CABINET SHALL BE BLUE #10 XLP WIRE FOR POSITIVE CONDUCTOR AND WHITE #10 XLP FOR NEGATIVE CONDUCTOR.
2. WIRING FROM CABINET TO GATE ARM SHALL BE WHITE #10 XLP FOR COMMON, RED #10 XLP FOR FLASHER CIRCUIT 1, AND BLUE #10 XLP FOR FLASHER CIRCUIT 2.

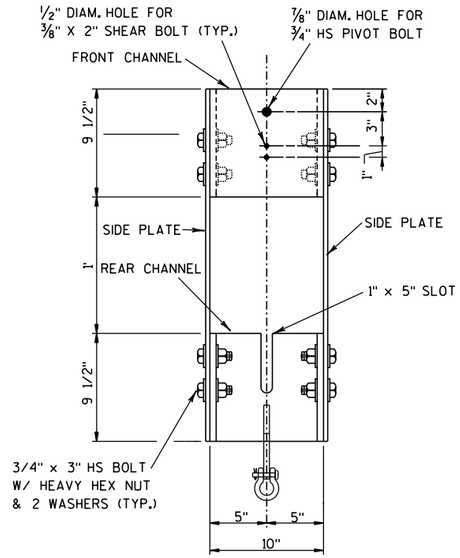


BASE AND PULLBOX DETAIL
(SOLAR POWER OPTION)

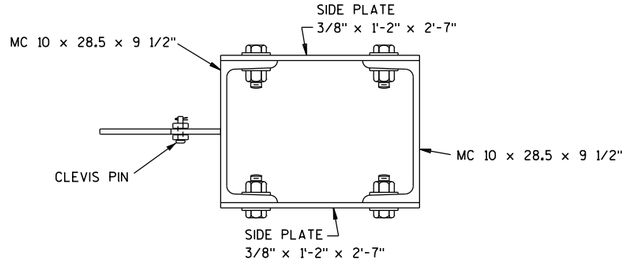




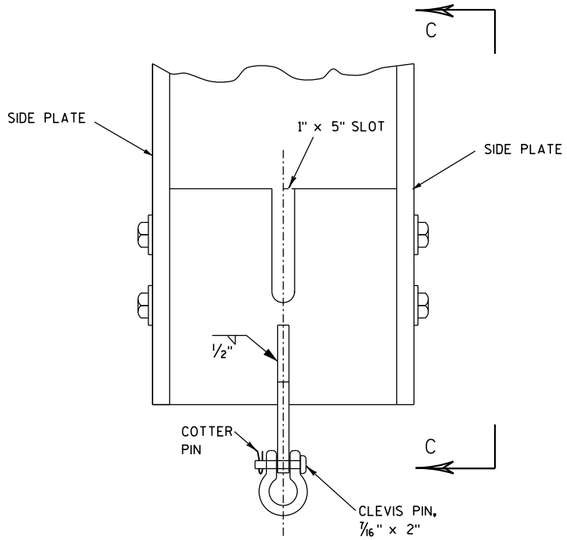
SIDE PLATE DETAIL



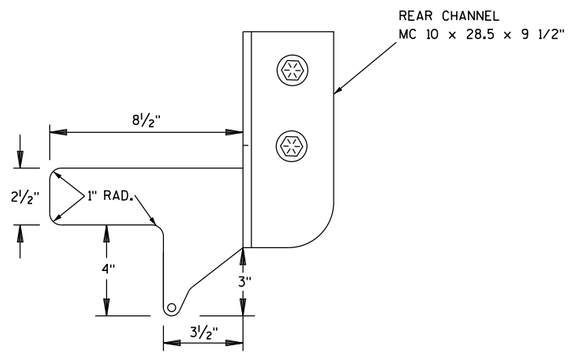
SECTION A-A



SECTION B-B



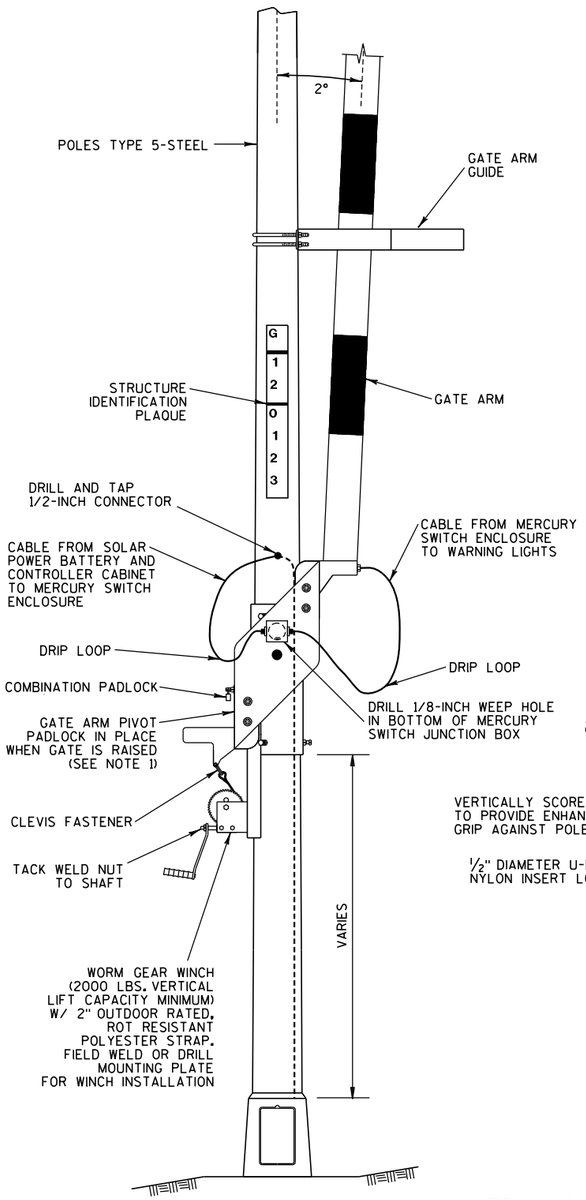
YOKE ASSEMBLY DETAIL



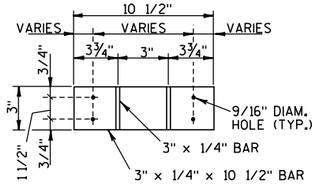
SECTION C-C

GENERAL NOTES

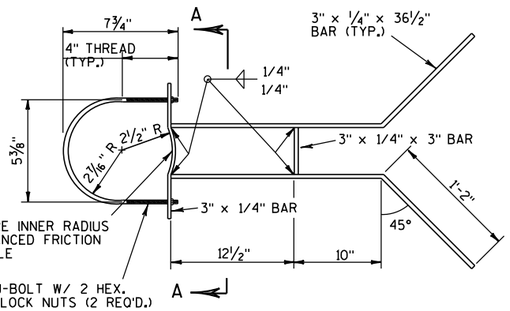
1. WHEN THE GATE IS FULLY RAISED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE OUTSIDE OF THE REAR CHANNEL AND PADLOCKED IN PLACE.
2. WHEN THE GATE IS FULLY LOWERED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE INSIDE OF THE REAR CHANNEL AND PADLOCKED INTO PLACE.
3. ANTI-SEIZE LUBRICATING MATERIAL SHALL BE USED ON ALL BOLT THREADS BEFORE INSTALLATION.
4. ALL BOLTS SHALL BE GALVANIZED AND CONFORM TO ASTM A307, GRADE A, UNLESS DESIGNATED AS HS (HIGH STRENGTH), WHICH SHALL CONFORM TO ASTM A325. BOLTS OF 1/2" NOMINAL DIAMTER OR LESS MAY BE STAINLESS STEEL.



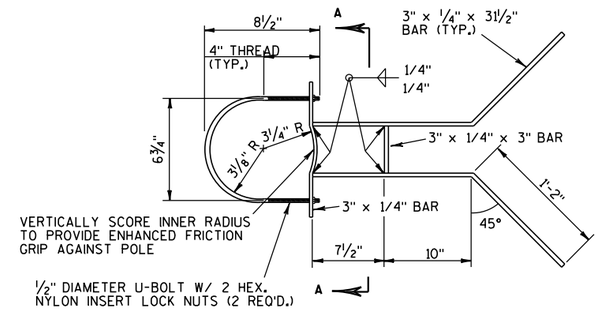
GATE PIVOT ASSEMBLY



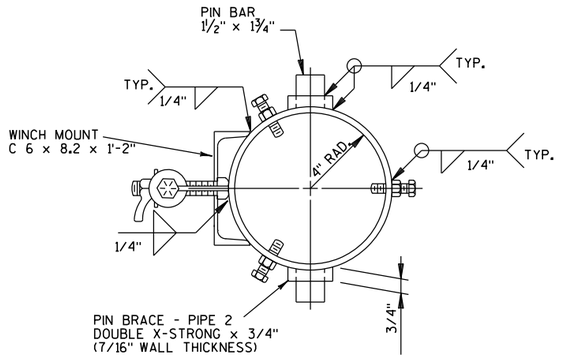
SECTION A-A
U-BOLTS NOT SHOWN



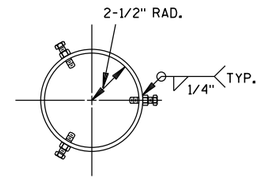
UPPER GATE ARM GUIDE DETAIL



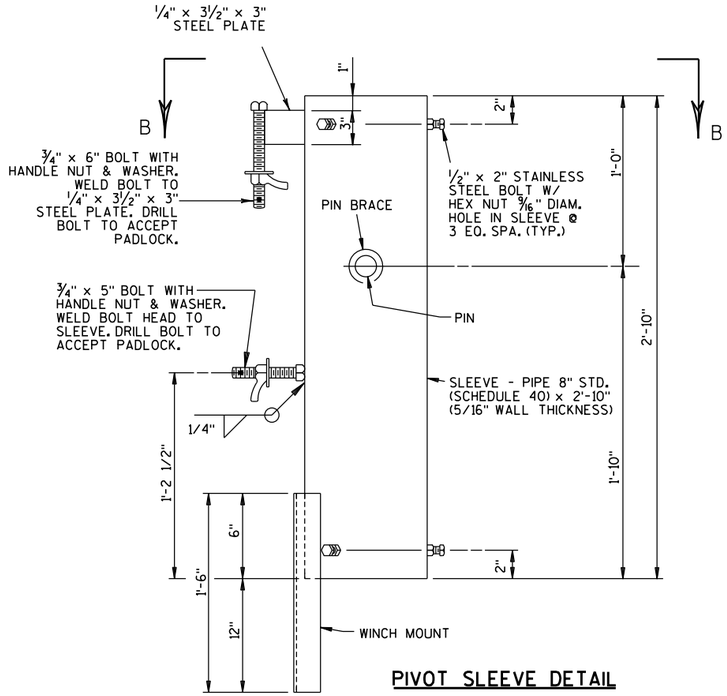
LOWER GATE ARM GUIDE DETAIL



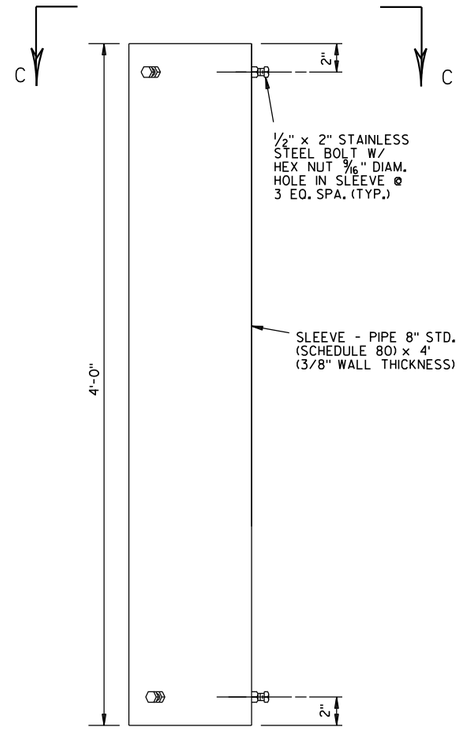
SECTION B-B



SECTION C-C

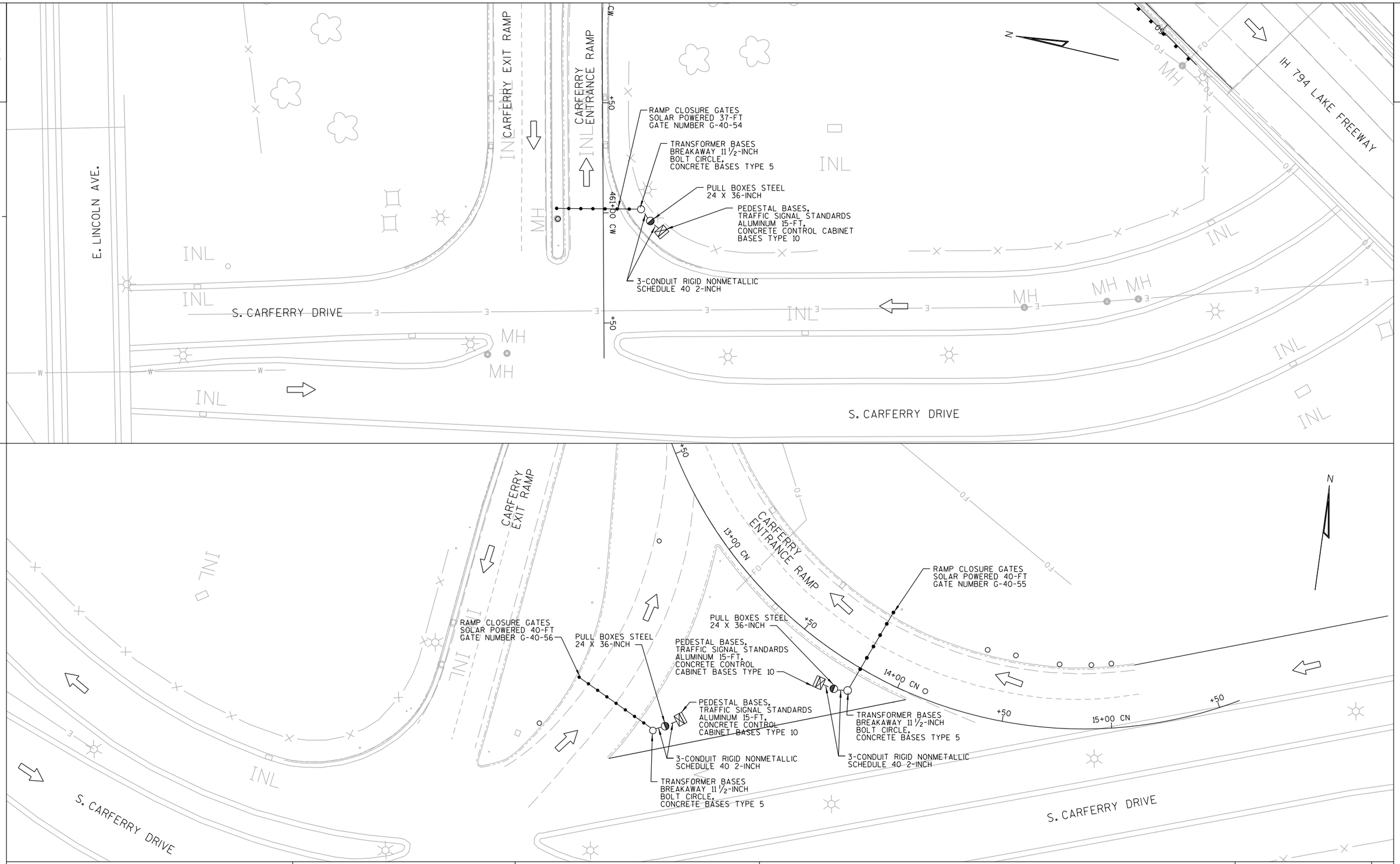


PIVOT SLEEVE DETAIL

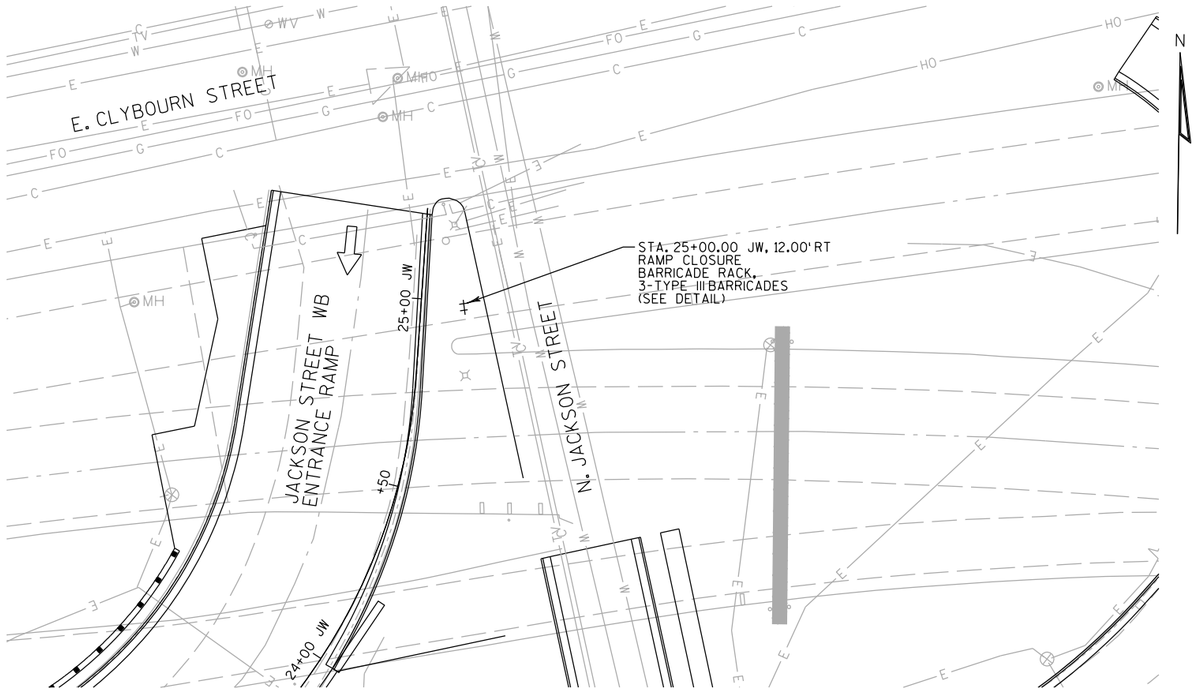


TOP COLLAR

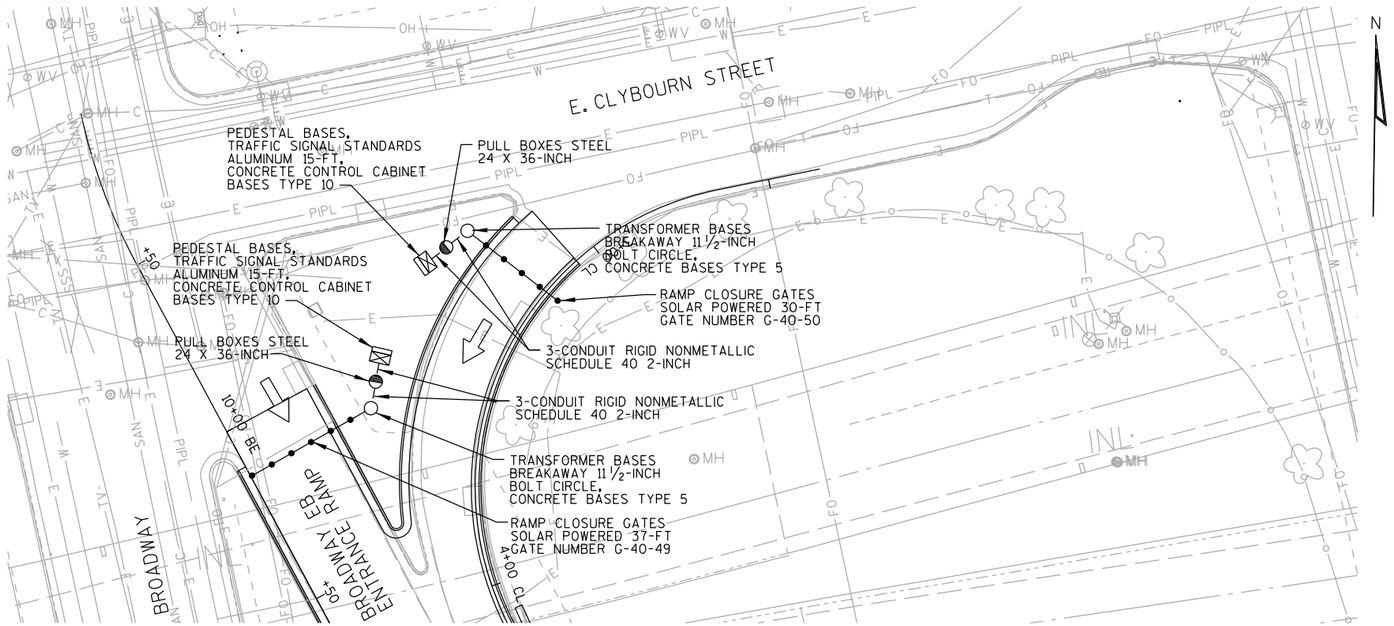
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - RAMP GATES	SHEET 381	E



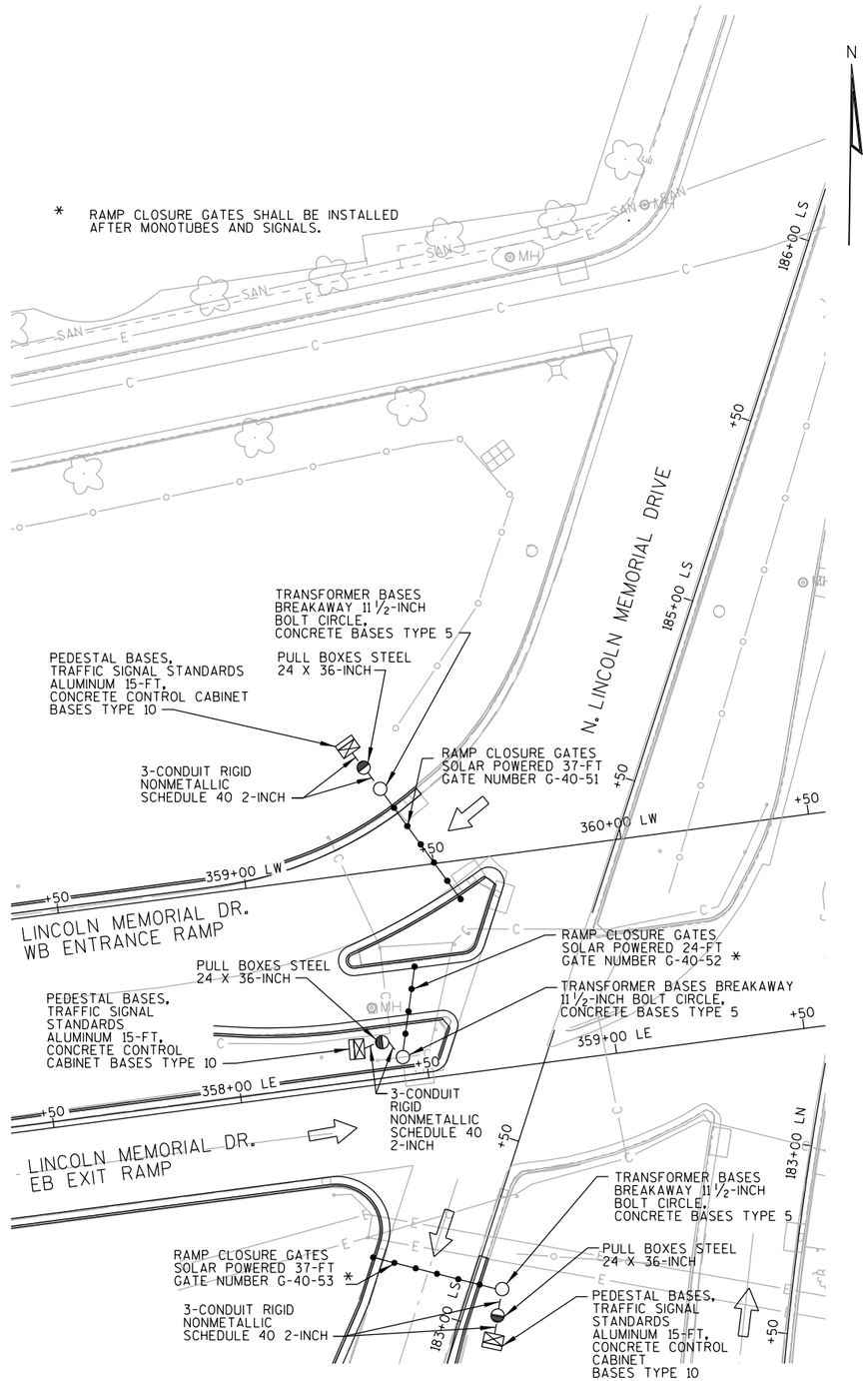
PROJECT NO:1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - S. CARFERRY RAMP GATE LOCATIONS	SHEET 382	E



JACKSON STREET ENTRANCE RAMP CLOSURE BARRICADE RACK DETAIL



BROADWAY ENTRANCE RAMP CLOSURE GATE DETAIL



LINCOLN MEMORIAL DRIVE ENTRANCE RAMP CLOSURE GATE DETAIL

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN DETAILS - RAMP GATE LOCATIONS	SHEET 383	E

2

TRAFFIC & STREET LIGHTING GENERAL NOTES:

PRIOR TO CONSTRUCTION, THE LOCATION OF UNDERGROUND UTILITIES SHALL BE DETERMINED IN THE FIELD BY CONTACTING "DIGGERS HOTLINE."

STREET LIGHTING & TRAFFIC SIGNALS SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 652 EXCEPT:

THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING REPAIRS, REPLACEMENT OR RELOCATION ETC. OF STREET LIGHTING OR TRAFFIC SIGNAL FACILITIES IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING OR TRAFFIC SIGNAL DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED PERMISSION.

1 DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

2 LOCATIONS OF THE PVC CONDUITS WHERE THEY ARE REQUIRED ARE IDENTIFIED IN THE PRINTS. HOWEVER, INSTALLATION MAY REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. ANY RELOCATIONS MUST BE APPROVED BY THE ENGINEER. FIELD MARK EACH CONDUIT LOCATION BY STAMPING AND PAINTING WITH RED PAINT ON TOP AND BACKSIDE OF CURB.

3 TYPICAL CONDUIT INSTALLED UP TO DIRECT BURIED STREET LIGHT POLES IS AS FOLLOWS 3-INCH OR 2.5-INCH (AS NOTED) SCHEDULE 40 RIGID PVC TO STREET LIGHTING METAL HOUSING (PEDESTAL), THE 1.5-INCH SCHEDULE 40 RIGID PVC TO STREET LIGHT POLE CABLE SLOT, AND THE 2-INCH SCHEDULE 40 RIGID PVC TO SIGNAL STANDARD BASE AND RISER FOR TRAFFIC SIGNAL ON STREET LIGHT POLE.

4 DEPTH OF CONDUIT INSTALLED BELOW THE STREETS, HIGHWAYS, ROADS, AND ALLEYS SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM. (MEASURED FROM FINISHED FLANGE LINE)

5 CONDUIT INSTALLED BEHIND CURB, AND UNDER DRIVEWAYS SHALL BE INSTALLED AT THE BASE OF THE BACKSIDE OF THE CURB/GUTTER SECTION.

6 WHEN THERE IS MORE THAN ONE CONDUIT TO BE LAID BEHIND THE CURB, PLACE ALL CONDUITS IN THE SAME TRENCH.

7 ANY EXCEPTION TO THE MINIMUM OR MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

8 THE CONTRACTOR OR HIS SUBCONTRACTOR MUST MAKE SURE THE AREA BEHIND CURB AND/OR WITHIN TRENCH SHALL BE FREE OF DEBRIS AND OVERPOUR AND SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

9 BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

10 ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS. (SEE NEC 352.28 2008 CODE)

11 PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED IMMEDIATELY AFTER INSTALLATION WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

12 ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

13 CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX OR JUNCTION BOX OR BASE TO BASE, ETC.).

14 PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUIT.

15 ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS UNLESS OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

16 WHEN ENDS OF CONDUIT DO NOT CONNECT TO A VAULT AND WILL END UP UNDER CONCRETE WALK. THE CONTRACTOR IS REQUIRED TO LEAVE A 24" X 24" BOX FORM CENTERED OVER THE END OF CONDUIT AND FILL THE BOXFORM WITH CRUSHED GRAVEL. (PER WISDOT SPEC 209.2.1(1) GRANULAR BACKFILL)

17 ALL PIPE CROSSINGS AND VAULTS SHALL BE AT LEAST SIX (6) FEET AWAY FROM FIRE HYDRANTS, UNLESS NOTED OTHERWISE, OR APPROVED BY THE STREET LIGHTING ENGINEER.

18 ALL POLES AND TRAFFIC STANDARDS IN CONCRETE ARE REQUIRED TO HAVE A 30"X30" BOX SHAPED JOINT PLACED AROUND THEM USING AN EXPANSION JOINT FILLER. UNLESS NOTED OTHERWISE (SEE DETAIL 122)

19 TYPICAL RECTANGULAR VAULTS SHOULD BE INSTALLED AS SHOWN ON PLANS, BUT WHEN IT IS NOT POSSIBLE, A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS AND FIRE HYDRANTS SHOULD BE USED, OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

2

TRAFFIC & STREET LIGHTING GENERAL NOTES:

20 COORDINATE NEW CONDUIT CONNECTIONS WITH EXISTING CONDUIT, DUCT PACKAGES, AND VAULTS/ MANHOLES WITH CITY OF MILWAUKEE STREET LIGHTING. THE CITY REQUIRES THREE WORKING DAYS ADVANCED NOTICE. CONTACT ELECTRICAL SUPERVISOR
STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251 OR DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-3687 (CELL) 414-708-5148 OR DISPATCHER @ 414-286-3687

21 IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL VAULT, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP SUPERVISORS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK.
STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251
STREET LIGHTING - GEORGE BERDINE (OFFICE) 414-286-5943 (CELL) 414-708-4245
STREET LIGHTING - THOMAS HUGHES (OFFICE) 414-286-3457 (CELL) 414-708-3175
STREET LIGHTING - DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-3687 (CELL) 414-708-5148
TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687

22 CONDUIT WILL ONLY BE INSTALLED AFTER THE CURB IS POURED, UNLESS APPROVED BY BOTH THE ENGINEER & STREET LIGHTING SHOP SUPERVISOR.

UTILITY LINE CODE

SAN	SANITARY SEWER
STO	STORM SEWER
W	WATER
G	GAS
E	ELECTRIC
TE&ES	CITY TRAFFIC, LIGHTING, COMM. & UNDERGROUND CONDUIT
. . .	OVERHEAD LINE
T	TELEPHONE
TV	CABLE

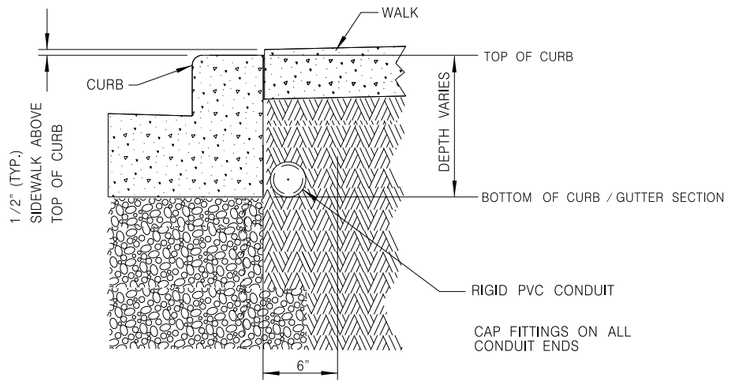
OTHER UTILITIES AS NOTED

SHEET 1 OF 10

PROJECT NO: 1300–13–70	HWY: IH 794	COUNTY: MILWAUKEE	TRFFFIC SIGNAL CONDUIT DETAILS	SHEET 384	E

2

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



100 DETAIL "A"

TYPICAL CONDUIT INSTALLATION
BEHIND CURB

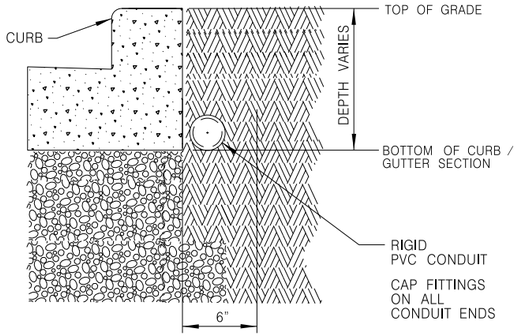
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

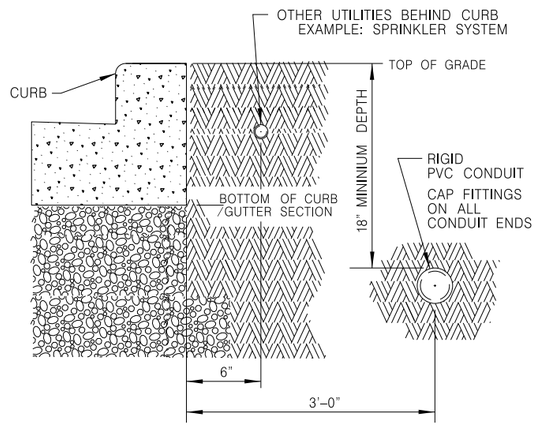
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB,
UNLESS NOTED OR APPROVED BY ENGINEER.



DETAIL "C"

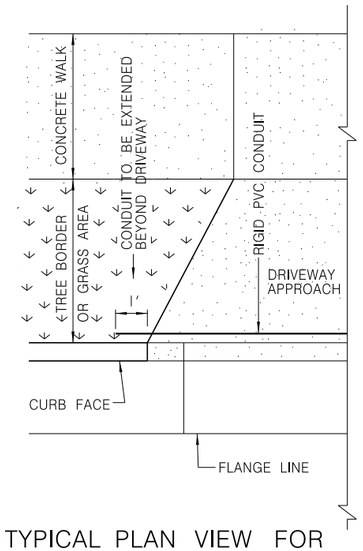


100 DETAIL "B" & "C"

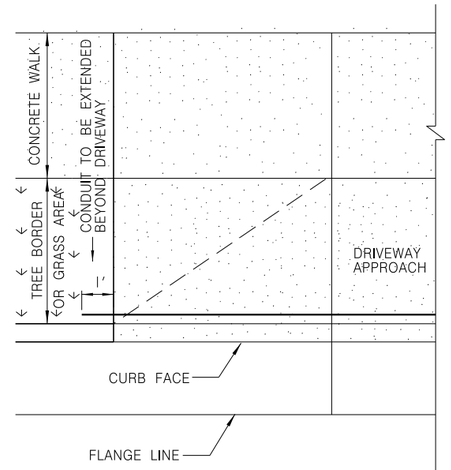
TYPICAL CONDUIT INSTALLATION
BEHIND CURB

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



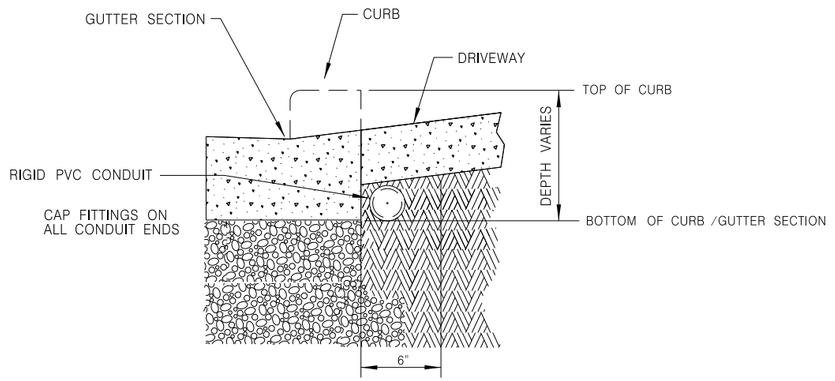
TYPICAL PLAN VIEW FOR
FLARED DRIVEWAY



TYPICAL PLAN VIEW FOR
DEPRESSED DRIVEWAY

2

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



101 DETAIL

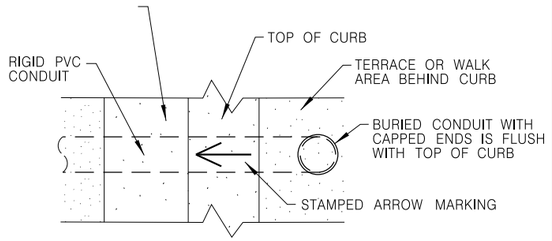
TYPICAL CONDUIT INSTALLATION
UNDER DRIVEWAYS OR PEDESTRIAN RAMPS

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 2 OF 10

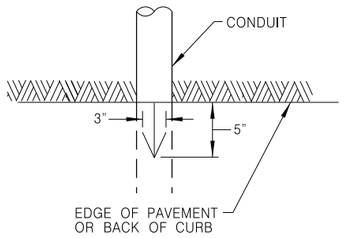
PROJECT NO: 1300–13–70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 385	E



TOP VIEW OF CURB STAMPING

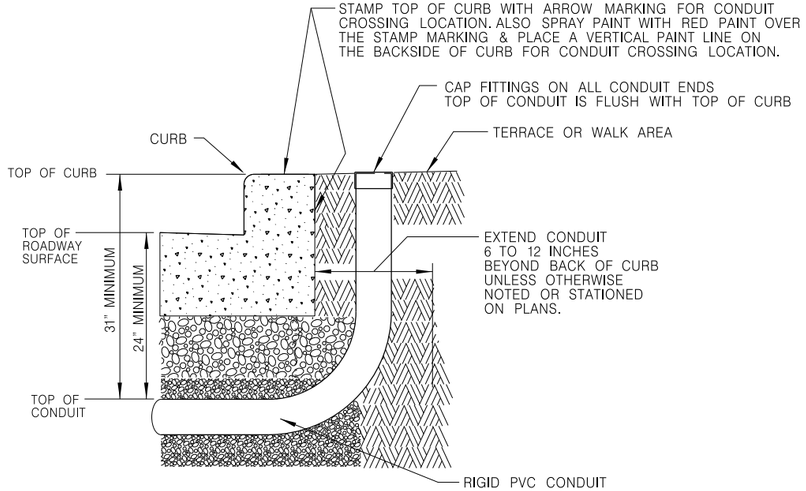
NOT TO SCALE

NOTE:
ARROW MARK SHALL BE INSCRIBED IN PAVEMENT SURFACE 1/4–INCH TO 3/8–INCH DEEP AT EACH LOCATION WHERE CONDUITS ARE PLACED UNDER THE PAVEMENT.



ARROW MARK

NOT TO SCALE

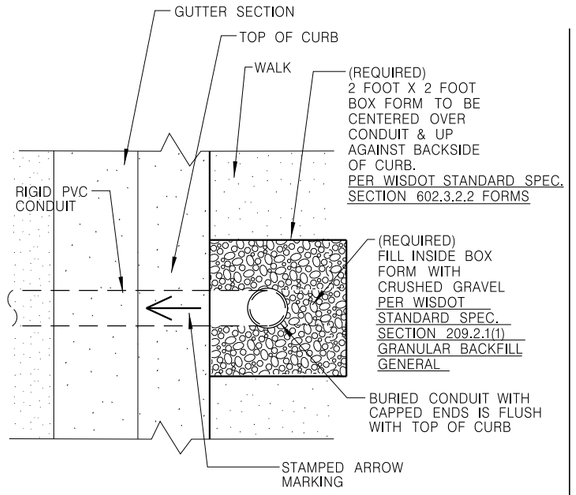


102 DETAIL VERSION #2

TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS

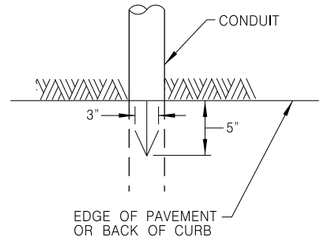
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



TOP VIEW OF CURB STAMPING

NOTE:
ARROW MARK SHALL BE INSCRIBED IN PAVEMENT SURFACE 1/4–INCH TO 3/8–INCH DEEP AT EACH LOCATION WHERE CONDUITS ARE PLACED UNDER THE PAVEMENT.

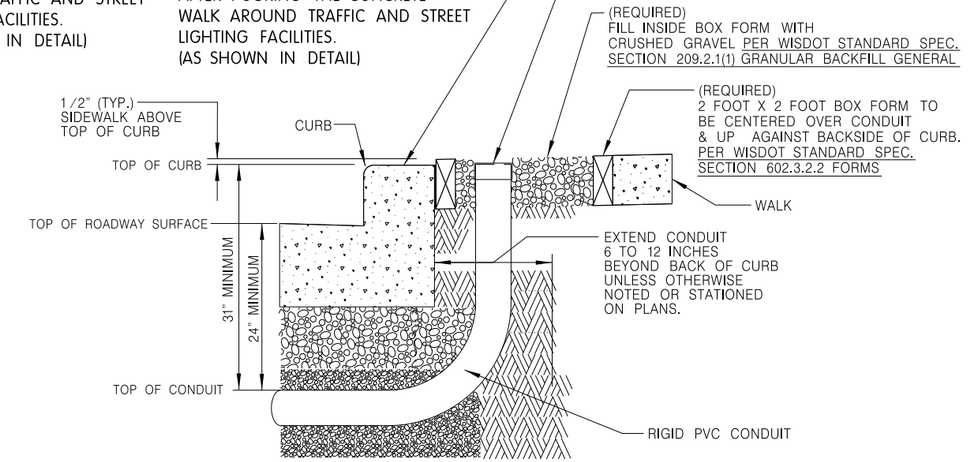


ARROW MARK

NOT TO SCALE

THE CONTRACTOR IS REQUIRED TO FORM OUT A OPENING IN THE CONCRETE WALK BEFORE POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES. (AS SHOWN IN DETAIL)

THE CONTRACTOR IS REQUIRED TO FILL IN THE FORMED OUT AREA OPENING IN THE CONCRETE WALK WITH CRUSHED GRAVEL, AFTER POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES. (AS SHOWN IN DETAIL)



103 DETAIL VERSION #2

TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS FROM FULL WALK AREAS

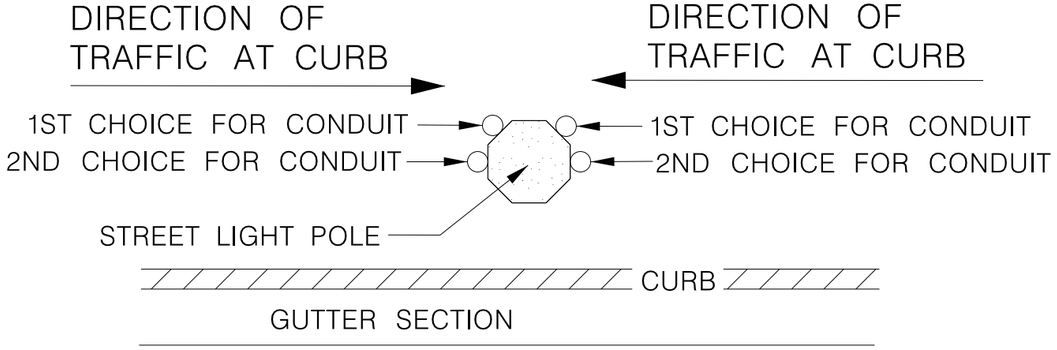
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 3 OF 10

PROJECT NO: 1300–13–70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 386	E

NOTE: CAP FITTINGS ON CONDUIT ENDS



104 DETAIL

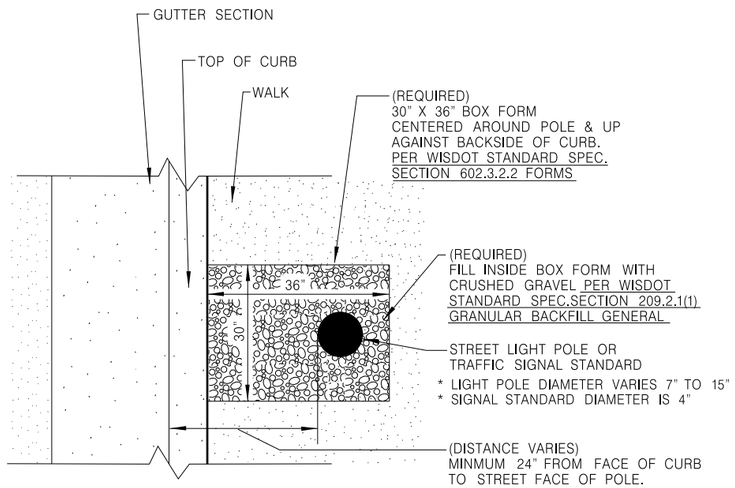
TYPICAL TRAFFIC SIGNAL RISER CONDUIT LOCATIONS ON STREET LIGHT POLE DEPENDING ON DIRECTION OF TRAFFIC AT CURB

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM TRAFFIC / STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

THE CONTRACTOR IS REQUIRED TO FORM OUT A OPENING IN THE CONCRETE WALK BEFORE POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES. (AS SHOWN IN ADJACENT DETAIL)

THE CONTRACTOR IS REQUIRED TO FILL IN THE FORMED OUT AREA OPENING IN THE CONCRETE WALK WITH CRUSHED GRAVEL, AFTER POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES. (AS SHOWN IN ADJACENT DETAIL)

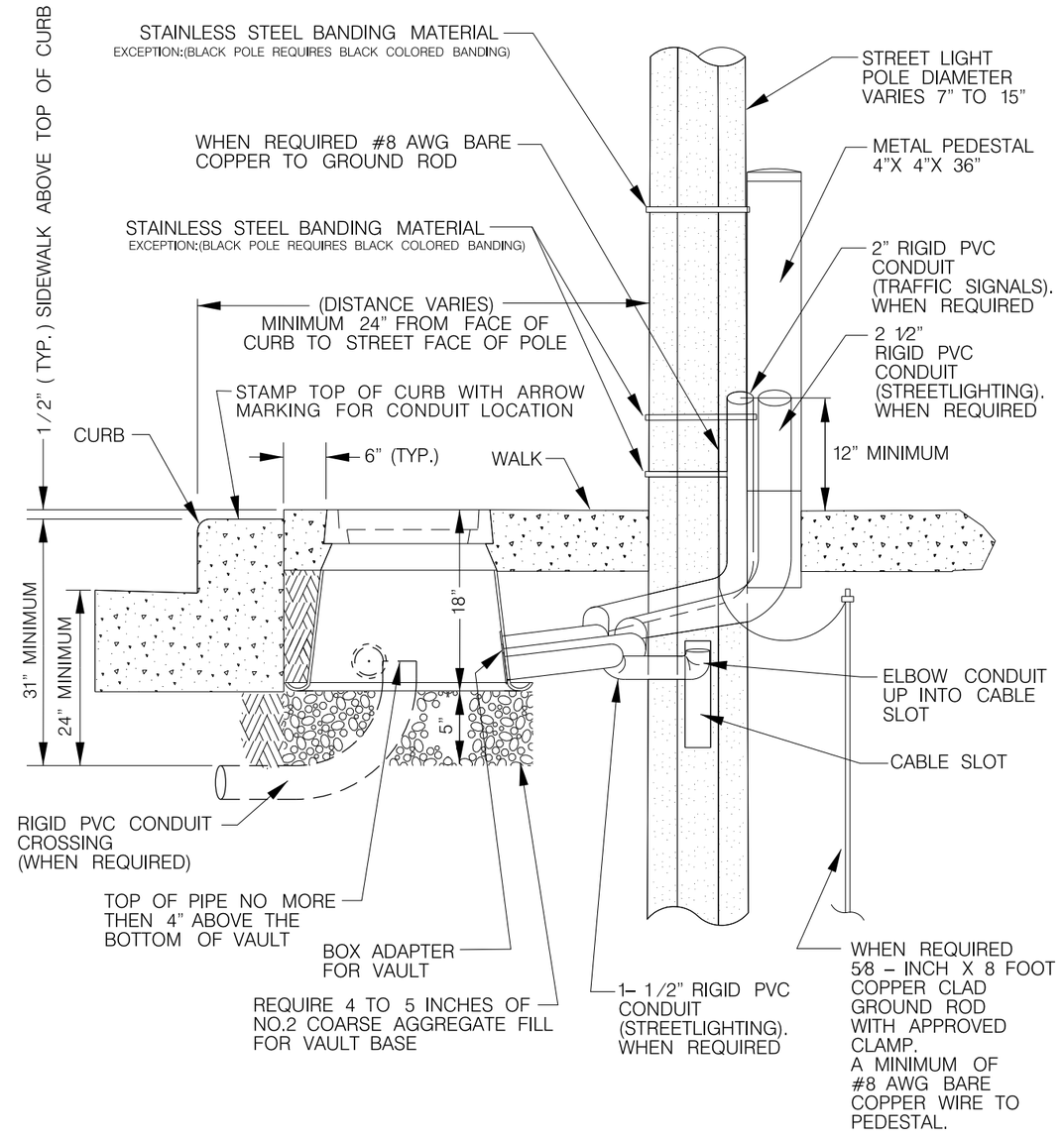


105 DETAIL

TYPICAL 30" X 36" BOX FORM AROUND STREET LIGHTING POLE OR TRAFFIC SIGNAL STANDARD

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



108 DETAIL

TYPICAL CONDUIT INSTALLATION FROM VAULT TO POLE

NOT TO SCALE

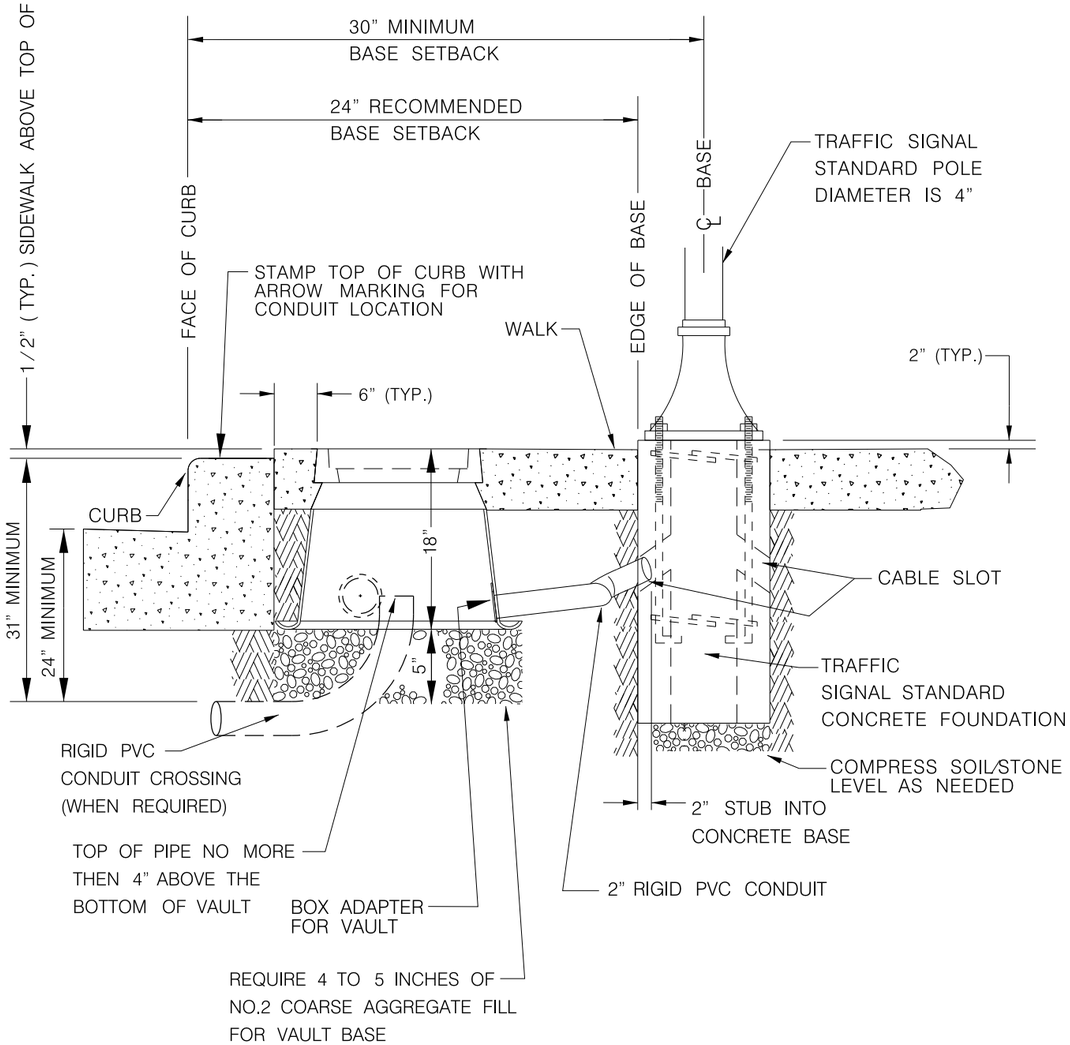
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 4 OF 10

PROJECT NO: 1300–13–70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 387	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

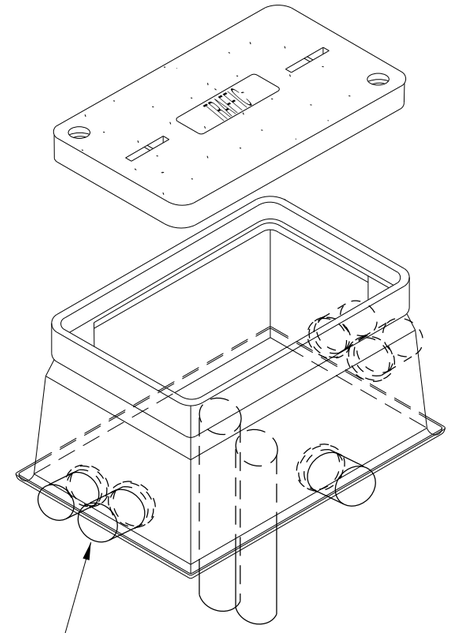


109 DETAIL

TYPICAL CONDUIT INSTALLATION
FROM VAULT TO SIGNAL STANDARD
AND TYPICAL BASE INSTALLATION

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM TRAFFIC & LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



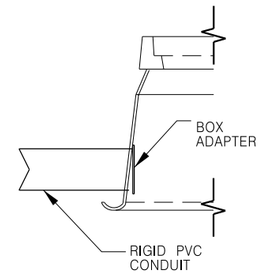
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W /2 BOLTS
COLOR: GRAY

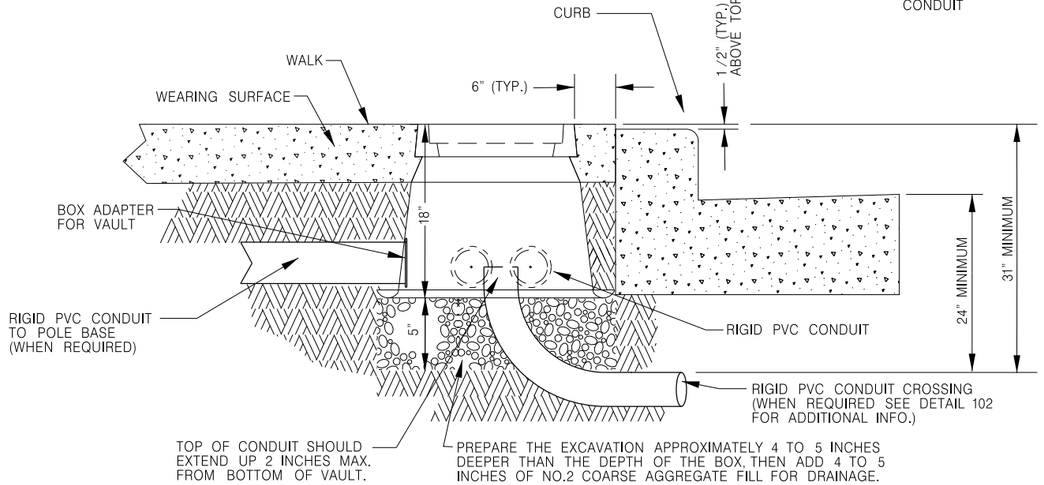
ELECTRICAL VAULT
FLARED WALL
BOX W /NO BASE
COLOR: GRAY

(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL PVC CONDUITS





112 DETAIL

TYPICAL VAULT INSTALLATION IN WALK

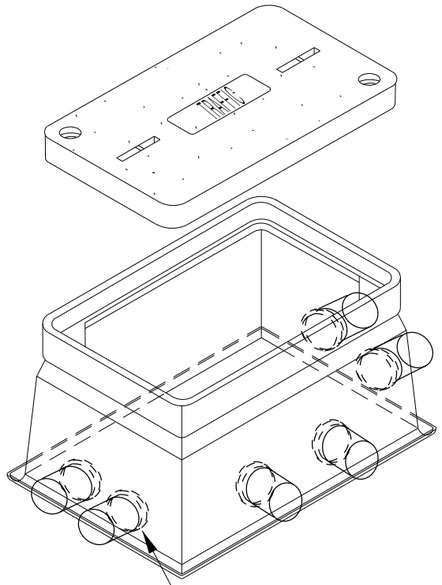
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 5 OF 10

PROJECT NO: 1300–13–70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 388	E

2

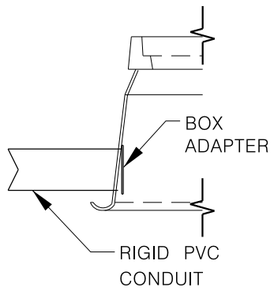


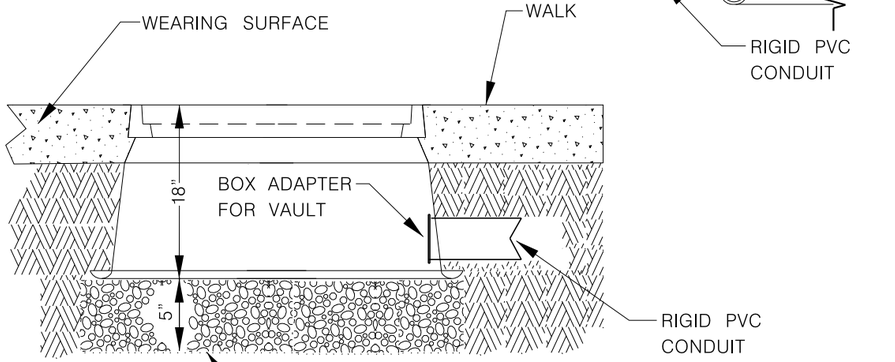
HEAVY DUTY COVER
W/ ELECTRIC LOGO
& W /2 BOLTS
COLOR: GRAY

ELECTRICAL VAULT
FLARED WALL
BOX W /NO BASE
COLOR: GRAY
(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL PVC CONDUITS





PREPARE THE EXCAVATION APPROXIMATELY 4 TO 5 INCHES
DEEPER THAN THE DEPTH OF THE BOX, THEN ADD 4 TO 5
INCHES OF NO.2 COARSE AGGREGATE FILL FOR DRAINAGE.

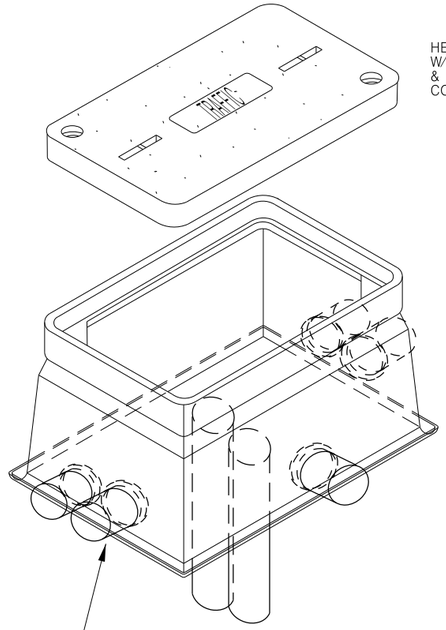
113 DETAIL

TYPICAL VAULT INSTALLATION
IN SIDEWALK

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

2



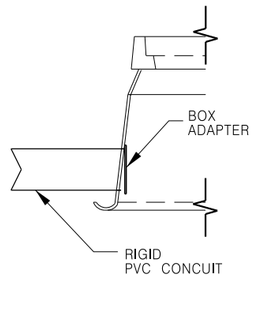
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W /2 BOLTS
COLOR: GRAY

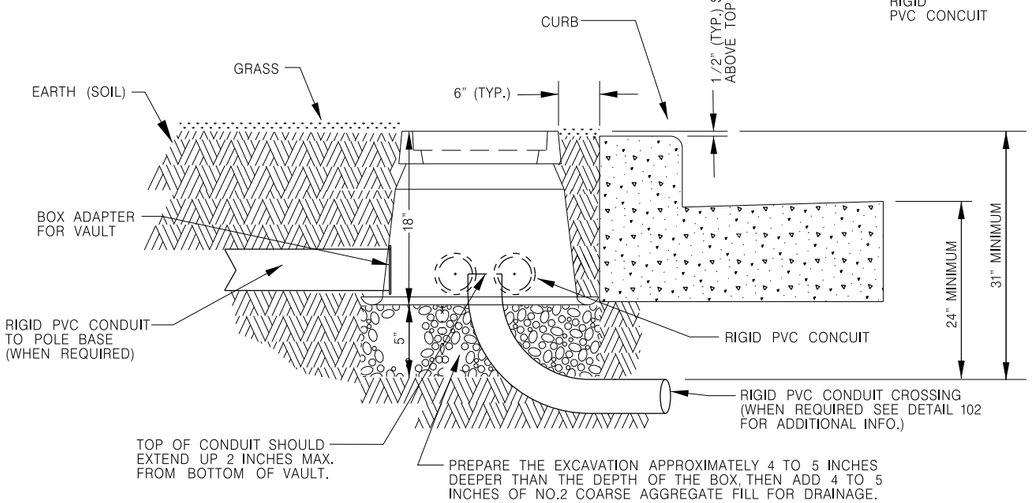
ELECTRICAL VAULT
FLARED WALL
BOX W /NO BASE
COLOR: GRAY

(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL P.V.C. CONDUITS





PREPARE THE EXCAVATION APPROXIMATELY 4 TO 5 INCHES
DEEPER THAN THE DEPTH OF THE BOX, THEN ADD 4 TO 5
INCHES OF NO.2 COARSE AGGREGATE FILL FOR DRAINAGE.

121 DETAIL

TYPICAL VAULT INSTALLATION IN GRASS AREA

NOT TO SCALE

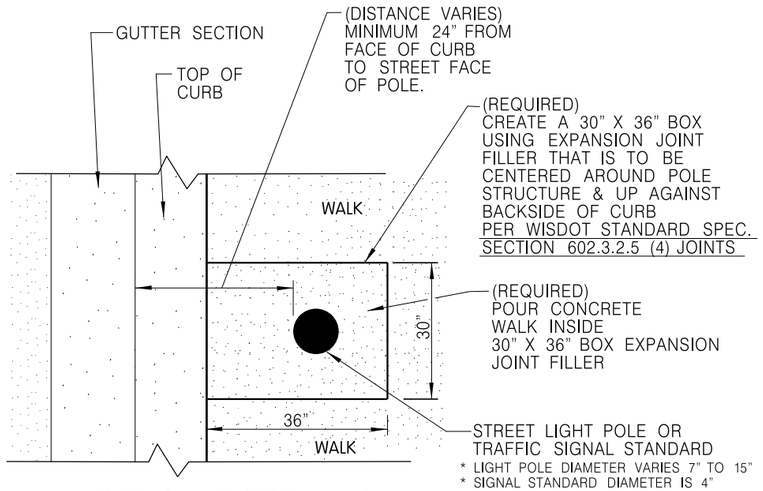
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 6 OF 10

PROJECT NO: 1300–13–70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 389	E

THE CONTRACTOR IS REQUIRED TO INSTALL EXPANSION JOINT FILLER INTO THE CONCRETE WALK, WHICH SHALL BE 1/2" WIDE MINIMUM TO BE USED TO CREATE A SEPARATION BETWEEN A SMALL CONCRETE AREA AROUND THE TRAFFIC & STREET LIGHTING FACILITIES AND THE REST OF THE CONCRETE WALK.

THE BOX SIZE OF THE AREA CREATED USING THE EXPANSION JOINT FILLER IS STANDARD AROUND LIGHT POLES AND TRAFFIC SIGNALS, BUT WILL VARY WHEN PLACED AROUND TRAFFIC & LIGHTING CONTROL CABINETS.



122 DETAIL VERSION #1

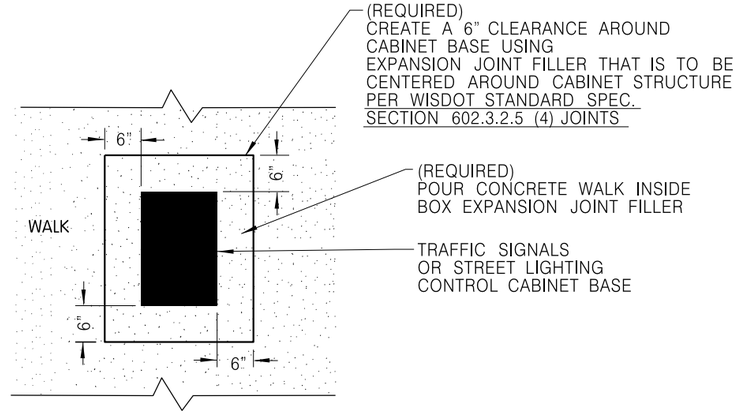
NOT TO SCALE

TYPICAL 30" X 36" BOX EXPANSION JOINT FILLER AROUND STREET LIGHTING POLE OR TRAFFIC SIGNAL STANDARD

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

THE CONTRACTOR IS REQUIRED TO INSTALL EXPANSION JOINT FILLER INTO THE CONCRETE WALK, WHICH SHALL BE 1/2" WIDE MINIMUM TO BE USED TO CREATE A SEPARATION BETWEEN A SMALL CONCRETE AREA AROUND THE TRAFFIC & STREET LIGHTING FACILITIES AND THE REST OF THE CONCRETE WALK.

THE BOX SIZE OF THE AREA CREATED USING THE EXPANSION JOINT FILLER IS STANDARD AROUND LIGHT POLES AND TRAFFIC SIGNALS, BUT WILL VARY WHEN PLACED AROUND TRAFFIC & LIGHTING CONTROL CABINETS.



122 DETAIL VERSION #2

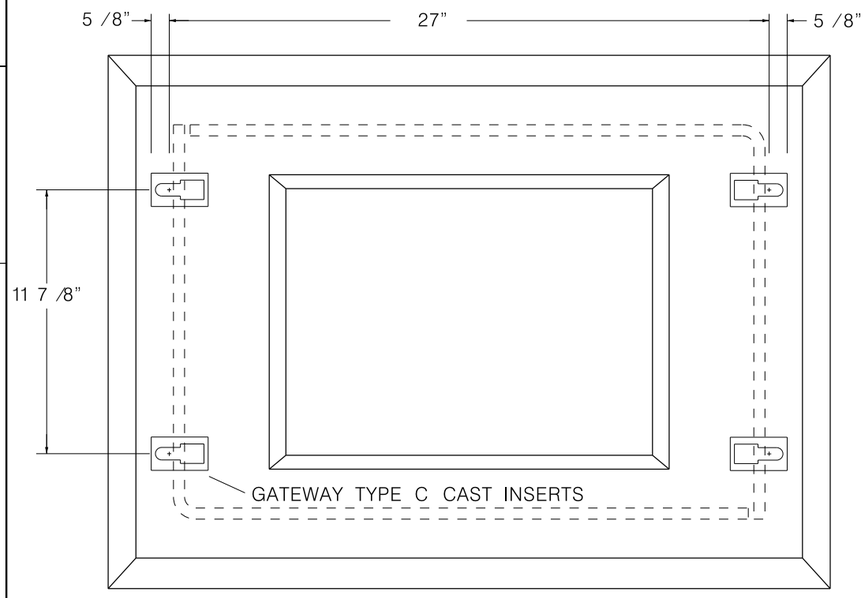
NOT TO SCALE

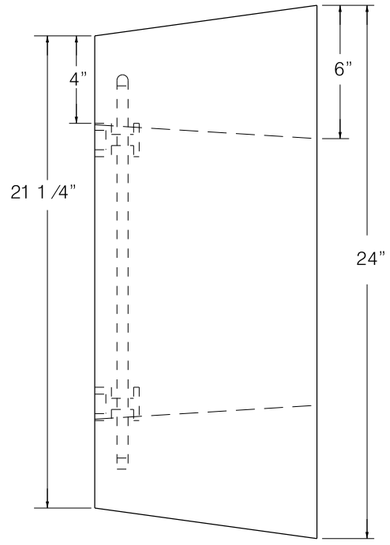
TYPICAL BOX EXPANSION JOINT FILLER AROUND TRAFFIC SIGNAL OR STREET LIGHTING CONTROL CABINET

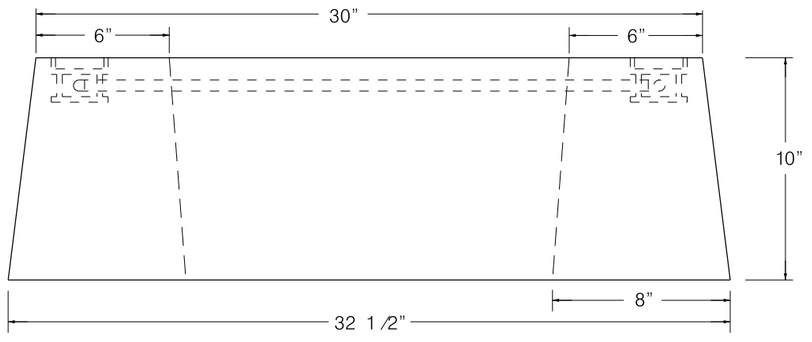
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 7 OF 10

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 390	E



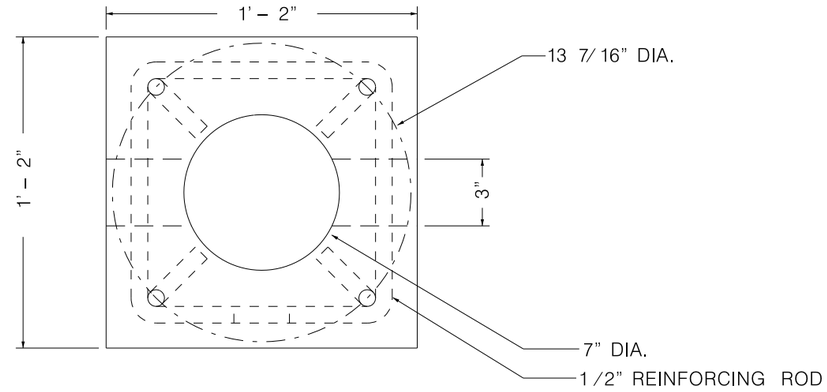


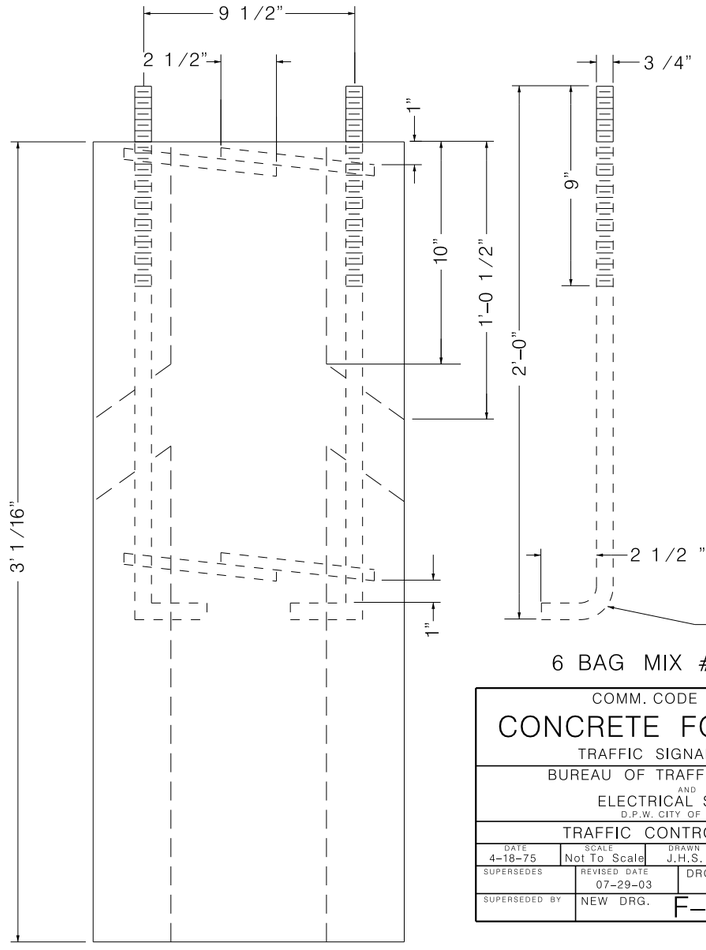


NOT TO SCALE

6 BAG MIX #1 STONE

COMM. CODE 1238-927				
CONCRETE FOUNDATION				
TRAFFIC SIGNAL CONTROL CABINET				
BUREAU OF TRAFFIC ENGINEERING AND ELECTRICAL SERVICES D.P.W. CITY OF MILWAUKEE				
TRAFFIC CONTROL MATERIAL				
DATE 4-22-75	SCALE 1/4" = 1"	DRAWN J.H.S.	CHECKED B.J.T.	APPROVED R.J.B.
SUPERSEDES C-65-546-T	REVISED DATE 01-30-02	DRG. C-75-564-T		
SUPERSEDED BY	NEW DRG. F-82-536-T			





NOT TO SCALE

6 BAG MIX #1 STONE

COMM. CODE 1238-936				
CONCRETE FOUNDATION				
TRAFFIC SIGNAL STANDARD				
BUREAU OF TRAFFIC ENGINEERING AND ELECTRICAL SERVICES D.P.W. CITY OF MILWAUKEE				
TRAFFIC CONTROL MATERIAL				
DATE 4-18-75	SCALE Not To Scale	DRAWN J.H.S.	CHECKED B.J.T.	APPROVED R.J.B.
SUPERSEDES	REVISED DATE 07-29-03	DRG. C-75-563-T		
SUPERSEDED BY	NEW DRG. F-82-535-T			

SHEET 8 OF 10

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 391 E

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER. CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUIT IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

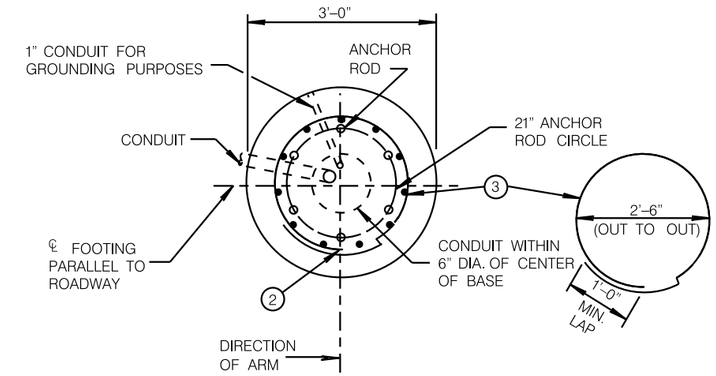
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

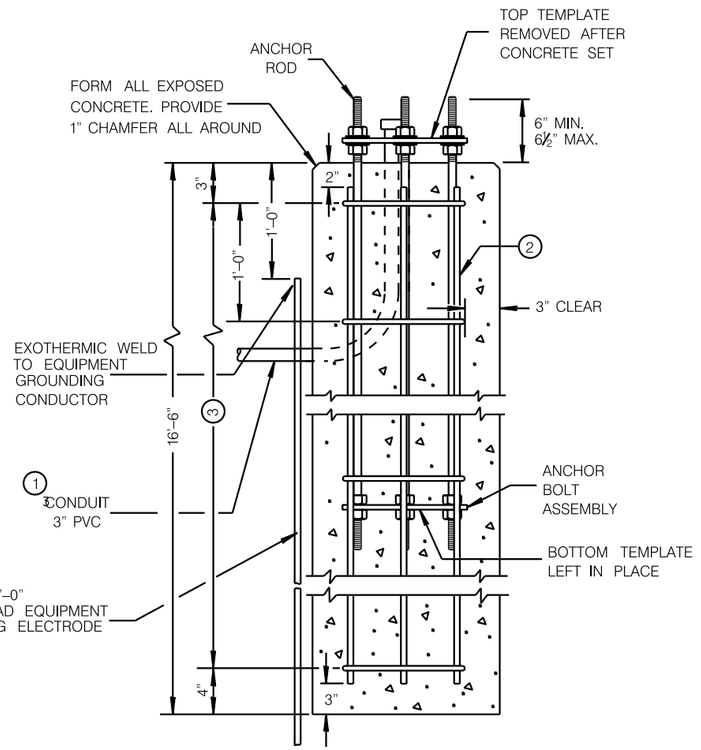
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER–RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (11) NO. 8 X 16'–1" BAR STEEL REINFORCEMENT.

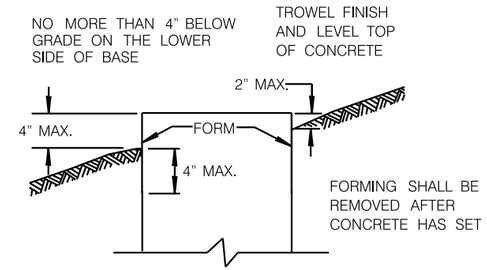
(3) (17) NO. 4 X 9'–0" BAR STEEL REINFORCEMENT @ 1'–0" C–C.

CONCRETE MASONRY	fc = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy = 55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy = 36,000 p.s.i.

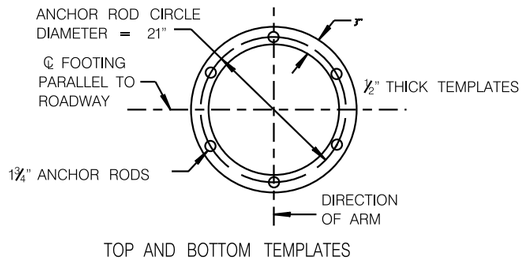




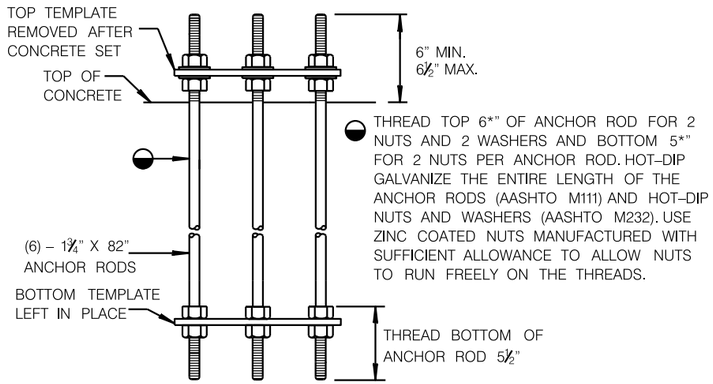
CONCRETE BASE TYPE 10 SPECIAL



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 SPECIAL

ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	4.32
LBS. OF HOOP BAR STEEL	103
LBS. OF VERTICAL BAR STEEL	473

CONCRETE BASE TYPE 10 SPECIAL

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

SHEET 9 OF 10

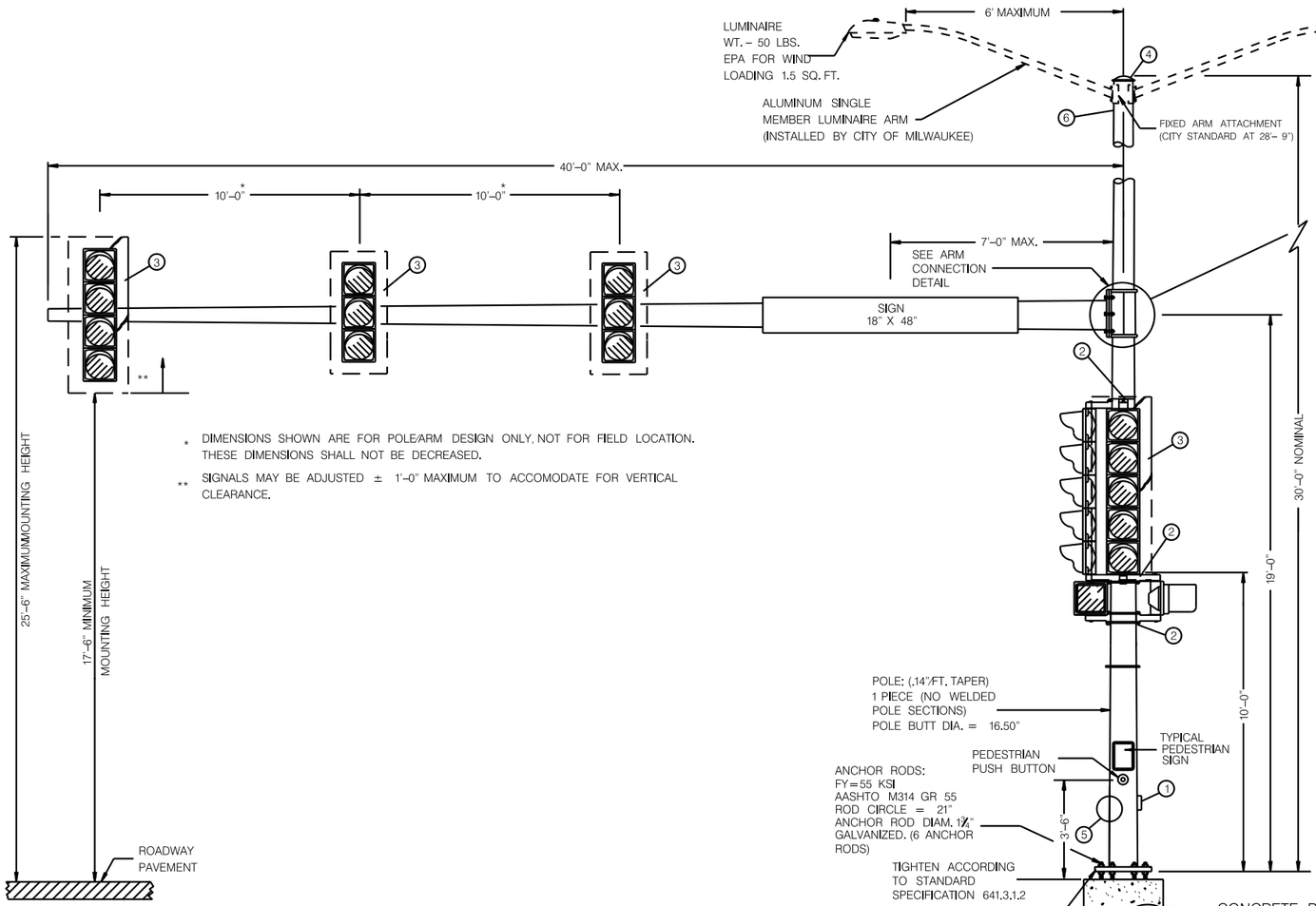
PROJECT NO: 1300–13–70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 392	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

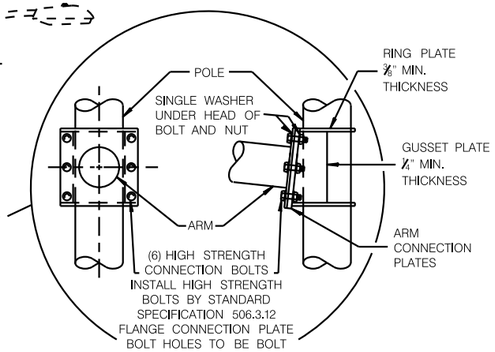
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

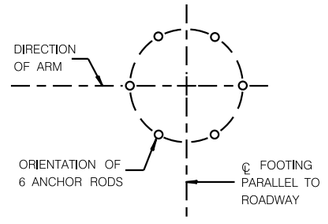


(MAXIMUM LOAD)

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM



6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

SHEET 10 OF 10

PROJECT NO: 1300–13–70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 393	E

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

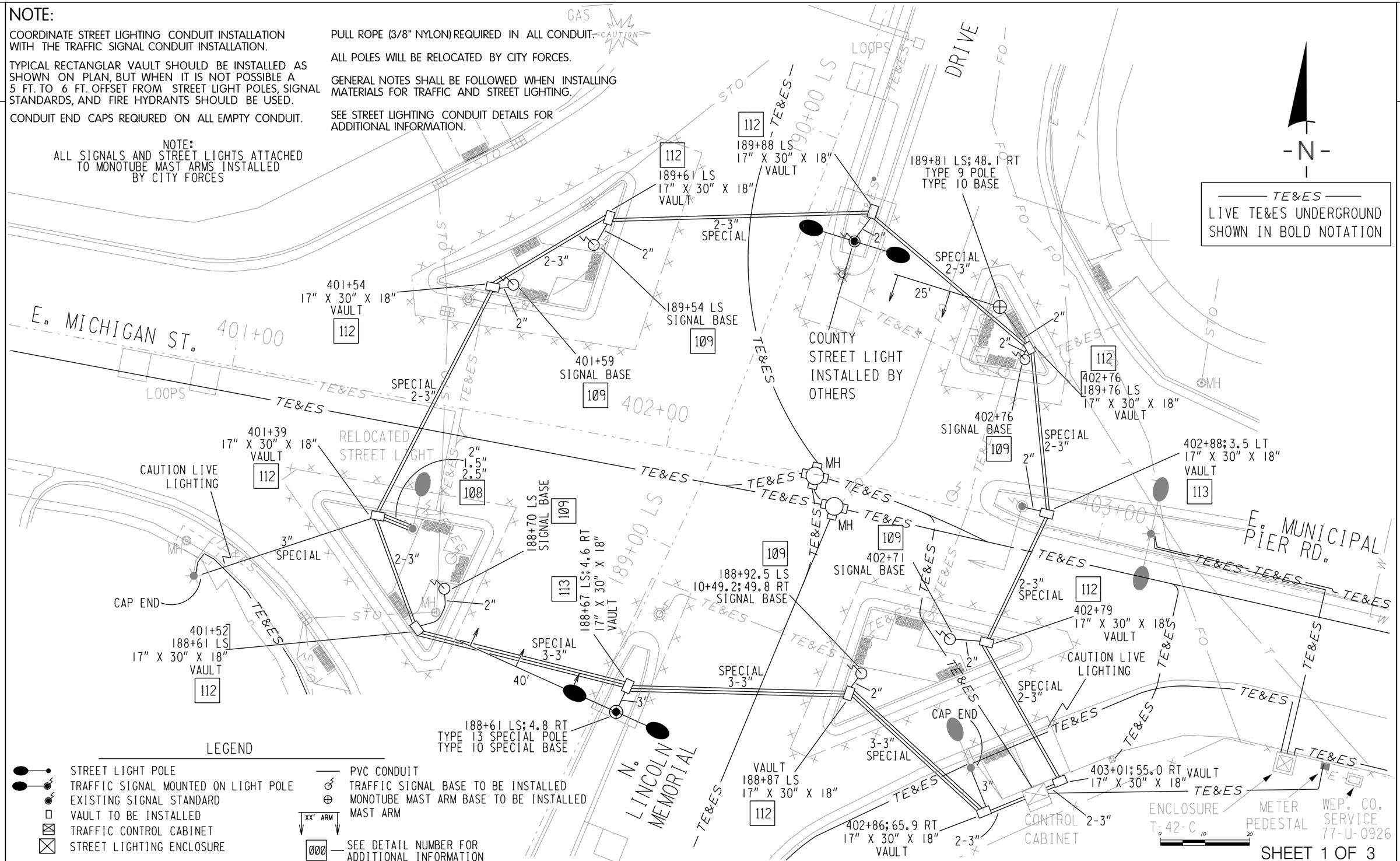
PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.

NOTE:
ALL SIGNALS AND STREET LIGHTS ATTACHED TO MONOTUBE MAST ARMS INSTALLED BY CITY FORCES



LEGEND

- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SHEET 1 OF 3

PROJECT NO: 1300–13–70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT PLAN	SHEET 394	E

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

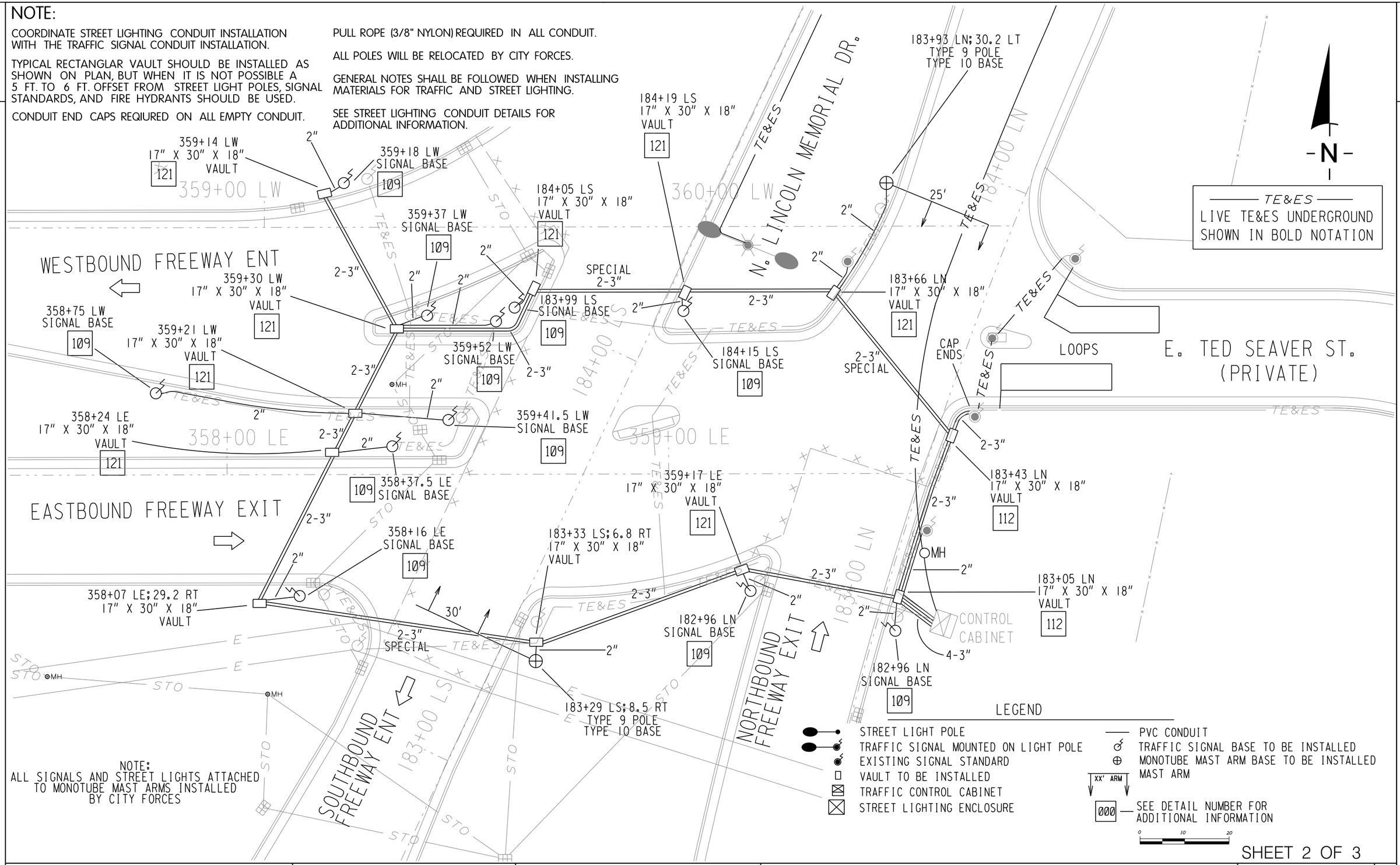
CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



NOTE:
ALL SIGNALS AND STREET LIGHTS ATTACHED TO MONOTUBE MAST ARMS INSTALLED BY CITY FORCES

LEGEND

- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

0 10 20

SHEET 2 OF 3

PROJECT NO: 1300–13–70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT PLAN	SHEET 395	E

2

CAP END AT PAVING LIMIT
105
WESTBOUND FREEWAY OVERPASS
WESTBOUND FREEWAY ENT
N. JACKSON
TE&ES
2.5"
108
2"
1.5"
2.5"
14+17.5 JE; 33.5 LT
17" X 30" X 18"
VAULT
14+49 JE; 33.0 LT
SIGNAL BASE
109
CAUTION LIVE TRAFFIC
CAP ENDS AT WOOD POLE
METER PEDESTAL
2"
WISDOT
WEP. CO.
14+15 JE; 29.0 LT
POLE INSTALLED BY CITY
ITS PEDESTAL METER
MH
2-3"
TYPE 9 WOOD POLE
14+08 JE
SIGNAL BASE
109
WISDOT
STO
15+00 JE
RAMP TO N. VAN BUREN ST.
2"
14+02 JE
17" X 30" X 18"
VAULT
121
4+00 JE
2-3"
25'
13+00 JE
14+58 JE; 19.7 RT
17" X 30" X 18"
VAULT
14+62 JE; 17.4 RT
TYPE 9 POLE
TYPE 10 BASE
2"
4-3"
CONTROL CABINET RELOCATED BY CITY
EASTBOUND FREEWAY EXIT
14+02 JE
17" X 30" X 18"
VAULT
121
14+12 JE; 20.7 RT
17" X 30" X 18"
VAULT
CAUTION LIVE LIGHTING
ST.
2.5"
CAP END
N
TE&ES
LIVE TE&ES UNDERGROUND SHOWN IN BOLD NOTATION

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.

NOTE:
ALL SIGNALS AND STREET LIGHTS ATTACHED TO MONOTUBE MAST ARMS INSTALLED BY CITY FORCES

EASTBOUND FREEWAY OVERPASS

0 10 20

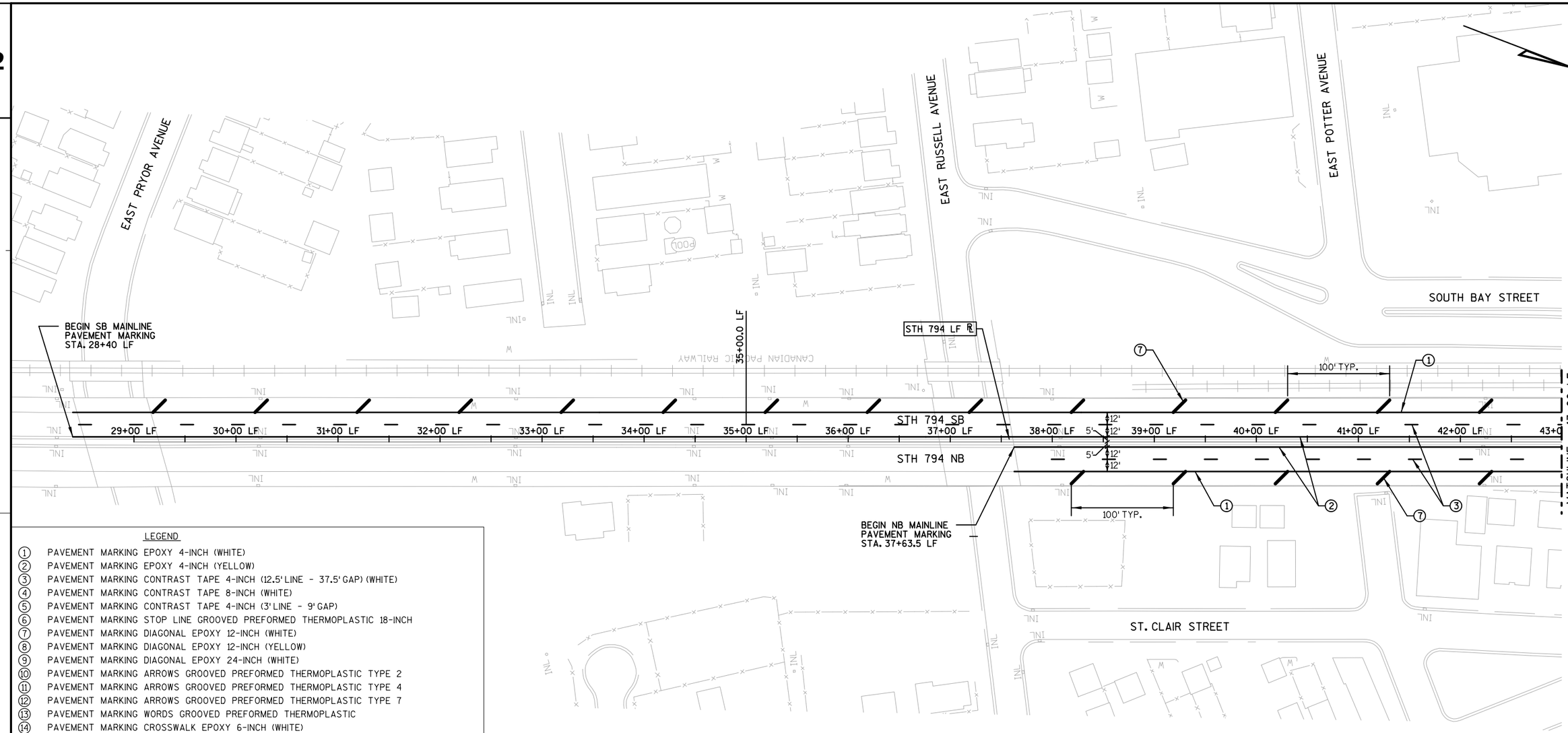
LEGEND

- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SHEET 3 OF 3

PROJECT NO: 1300–13–70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT PLAN	SHEET 396	E

2



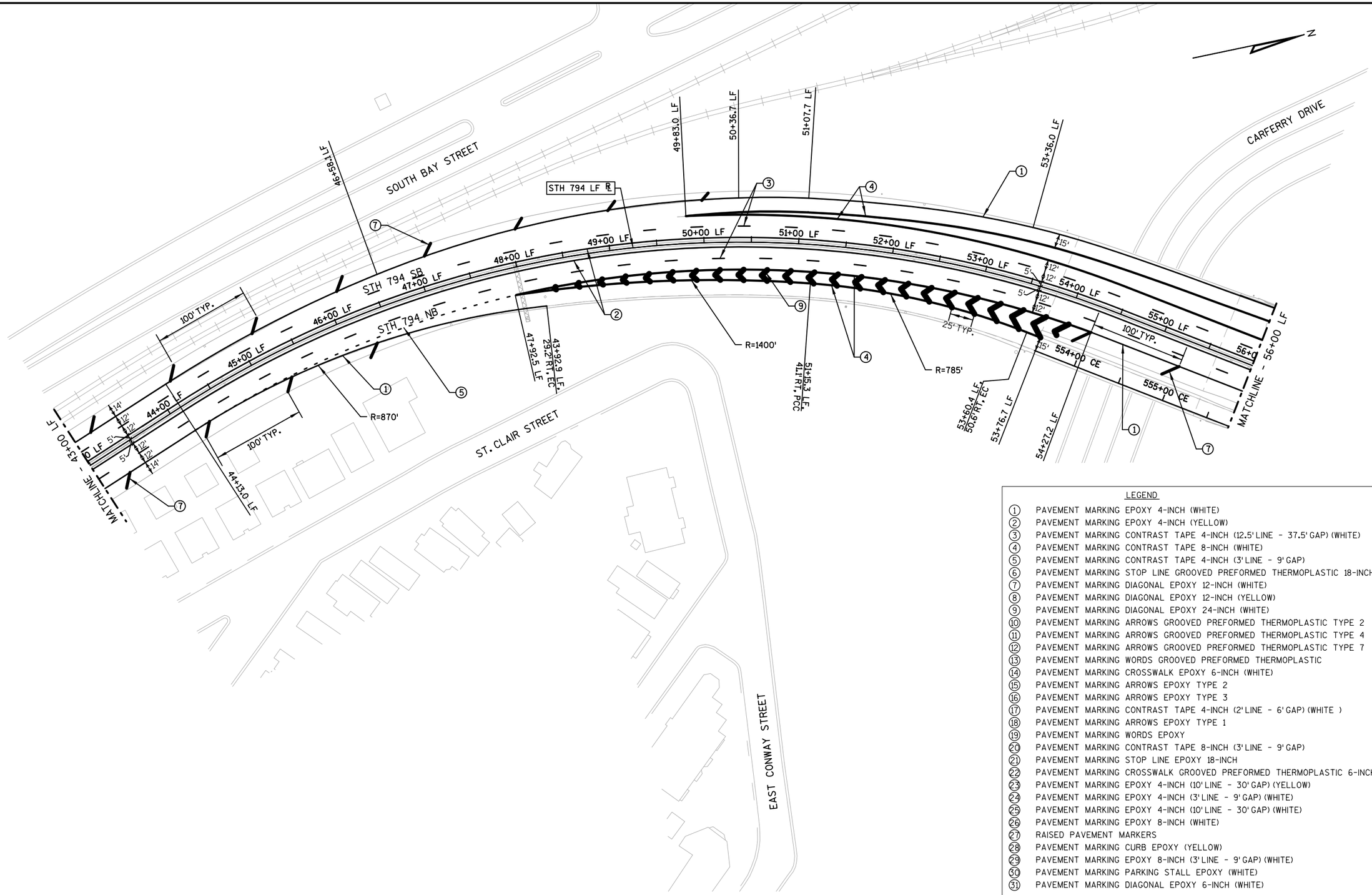
LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING CONTRAST TAPE 4-INCH (12.5'LINE - 37.5'GAP)(WHITE)
4. PAVEMENT MARKING CONTRAST TAPE 8-INCH (WHITE)
5. PAVEMENT MARKING CONTRAST TAPE 4-INCH (3'LINE - 9'GAP)
6. PAVEMENT MARKING STOP LINE GROOVED PREFORMED THERMOPLASTIC 18-INCH
7. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
8. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
9. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
10. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 2
11. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 4
12. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 7
13. PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC
14. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
15. PAVEMENT MARKING ARROWS EPOXY TYPE 2
16. PAVEMENT MARKING ARROWS EPOXY TYPE 3
17. PAVEMENT MARKING CONTRAST TAPE 4-INCH (2'LINE - 6'GAP)(WHITE)
18. PAVEMENT MARKING ARROWS EPOXY TYPE 1
19. PAVEMENT MARKING WORDS EPOXY
20. PAVEMENT MARKING CONTRAST TAPE 8-INCH (3'LINE - 9'GAP)
21. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
22. PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH (WHITE)
23. PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(YELLOW)
24. PAVEMENT MARKING EPOXY 4-INCH (3'LINE - 9'GAP)(WHITE)
25. PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(WHITE)
26. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
27. RAISED PAVEMENT MARKERS
28. PAVEMENT MARKING CURB EPOXY (YELLOW)
29. PAVEMENT MARKING EPOXY 8-INCH (3'LINE - 9'GAP)(WHITE)
30. PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 397	E

2



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING CONTRAST TAPE 4-INCH (12.5' LINE - 37.5' GAP) (WHITE)
4. PAVEMENT MARKING CONTRAST TAPE 8-INCH (WHITE)
5. PAVEMENT MARKING CONTRAST TAPE 4-INCH (3' LINE - 9' GAP)
6. PAVEMENT MARKING STOP LINE GROOVED PREFORMED THERMOPLASTIC 18-INCH
7. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
8. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
9. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
10. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 2
11. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 4
12. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 7
13. PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC
14. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
15. PAVEMENT MARKING ARROWS EPOXY TYPE 2
16. PAVEMENT MARKING ARROWS EPOXY TYPE 3
17. PAVEMENT MARKING CONTRAST TAPE 4-INCH (2' LINE - 6' GAP) (WHITE)
18. PAVEMENT MARKING ARROWS EPOXY TYPE 1
19. PAVEMENT MARKING WORDS EPOXY
20. PAVEMENT MARKING CONTRAST TAPE 8-INCH (3' LINE - 9' GAP)
21. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
22. PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH (WHITE)
23. PAVEMENT MARKING EPOXY 4-INCH (10' LINE - 30' GAP) (YELLOW)
24. PAVEMENT MARKING EPOXY 4-INCH (3' LINE - 9' GAP) (WHITE)
25. PAVEMENT MARKING EPOXY 4-INCH (10' LINE - 30' GAP) (WHITE)
26. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
27. RAISED PAVEMENT MARKERS
28. PAVEMENT MARKING CURB EPOXY (YELLOW)
29. PAVEMENT MARKING EPOXY 8-INCH (3' LINE - 9' GAP) (WHITE)
30. PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 398	E

2

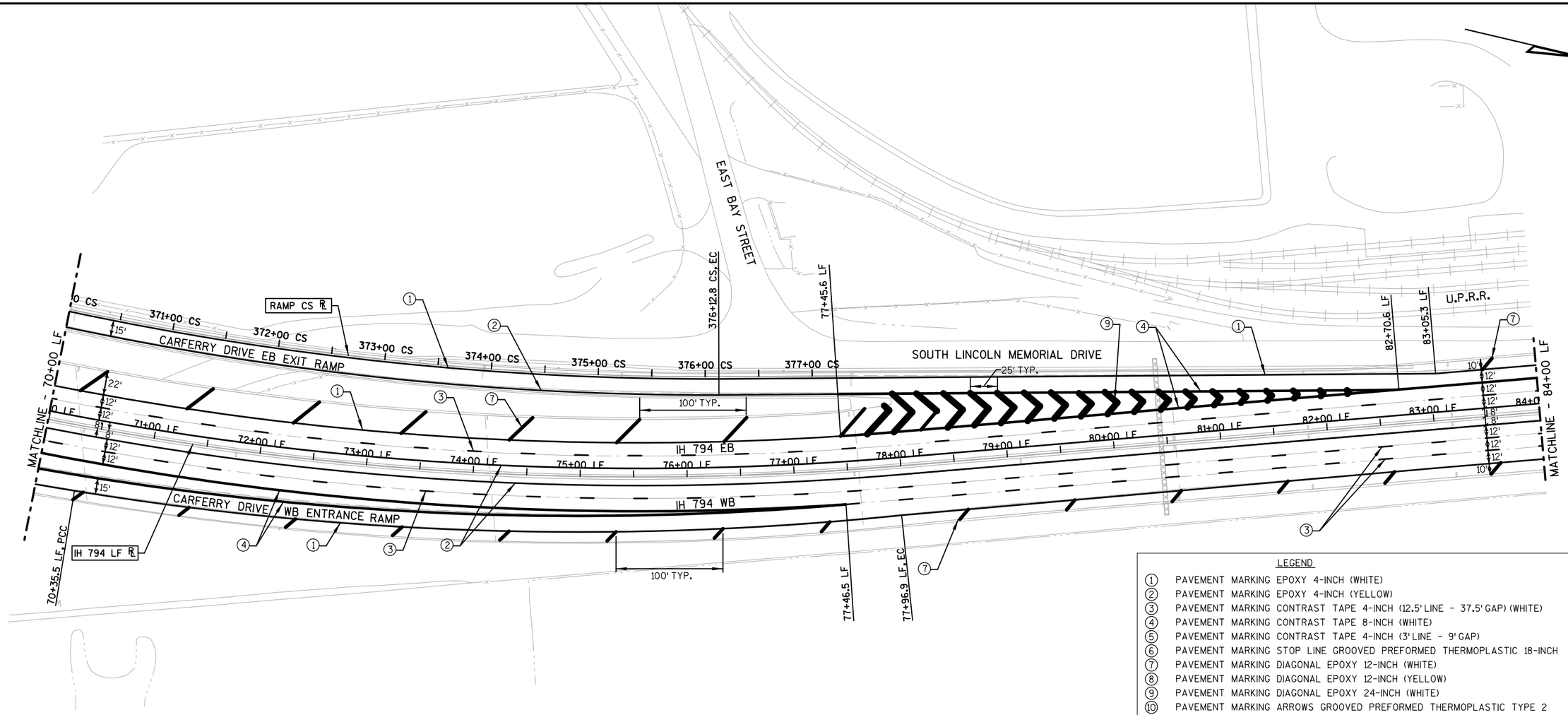
LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING CONTRAST TAPE 4-INCH (12.5'LINE - 37.5'GAP)(WHITE)
4. PAVEMENT MARKING CONTRAST TAPE 8-INCH (WHITE)
5. PAVEMENT MARKING CONTRAST TAPE 4-INCH (3'LINE - 9'GAP)
6. PAVEMENT MARKING STOP LINE GROOVED PREFORMED THERMOPLASTIC 18-INCH
7. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
8. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
9. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
10. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 2
11. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 4
12. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 7
13. PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC
14. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
15. PAVEMENT MARKING ARROWS EPOXY TYPE 2
16. PAVEMENT MARKING ARROWS EPOXY TYPE 3
17. PAVEMENT MARKING CONTRAST TAPE 4-INCH (2'LINE - 6'GAP)(WHITE)
18. PAVEMENT MARKING ARROWS EPOXY TYPE 1
19. PAVEMENT MARKING WORDS EPOXY
20. PAVEMENT MARKING CONTRAST TAPE 8-INCH (3'LINE - 9'GAP)
21. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
22. PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH (WHITE)
23. PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(YELLOW)
24. PAVEMENT MARKING EPOXY 4-INCH (3'LINE - 9'GAP)(WHITE)
25. PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(WHITE)
26. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
27. RAISED PAVEMENT MARKERS
28. PAVEMENT MARKING CURB EPOXY (YELLOW)
29. PAVEMENT MARKING EPOXY 8-INCH (3'LINE - 9'GAP)(WHITE)
30. PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

S. CARFERRY DRIVE
EAST LINCOLN AVENUE
CARFERRY DRIVE SB ENTRANCE RAMP
CARFERRY DRIVE EB EXIT RAMP
STH 794 SB
STH 794 NB
CARFERRY DRIVE NB EXIT
CARFERRY DRIVE WB ENTRANCE RAMP
IH 794 EB
IH 794 WB
SOUTH LINCOLN MEMORIAL DRIVE
MATCHLINE - 56+00 LF
MATCHLINE - 70+00 LF
RAMP CS PL
RAMP CN PL
IH 794 LF PL
100' TYP.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 399 E



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING CONTRAST TAPE 4-INCH (12.5' LINE - 37.5' GAP) (WHITE)
4. PAVEMENT MARKING CONTRAST TAPE 8-INCH (WHITE)
5. PAVEMENT MARKING CONTRAST TAPE 4-INCH (3' LINE - 9' GAP)
6. PAVEMENT MARKING STOP LINE GROOVED PREFORMED THERMOPLASTIC 18-INCH
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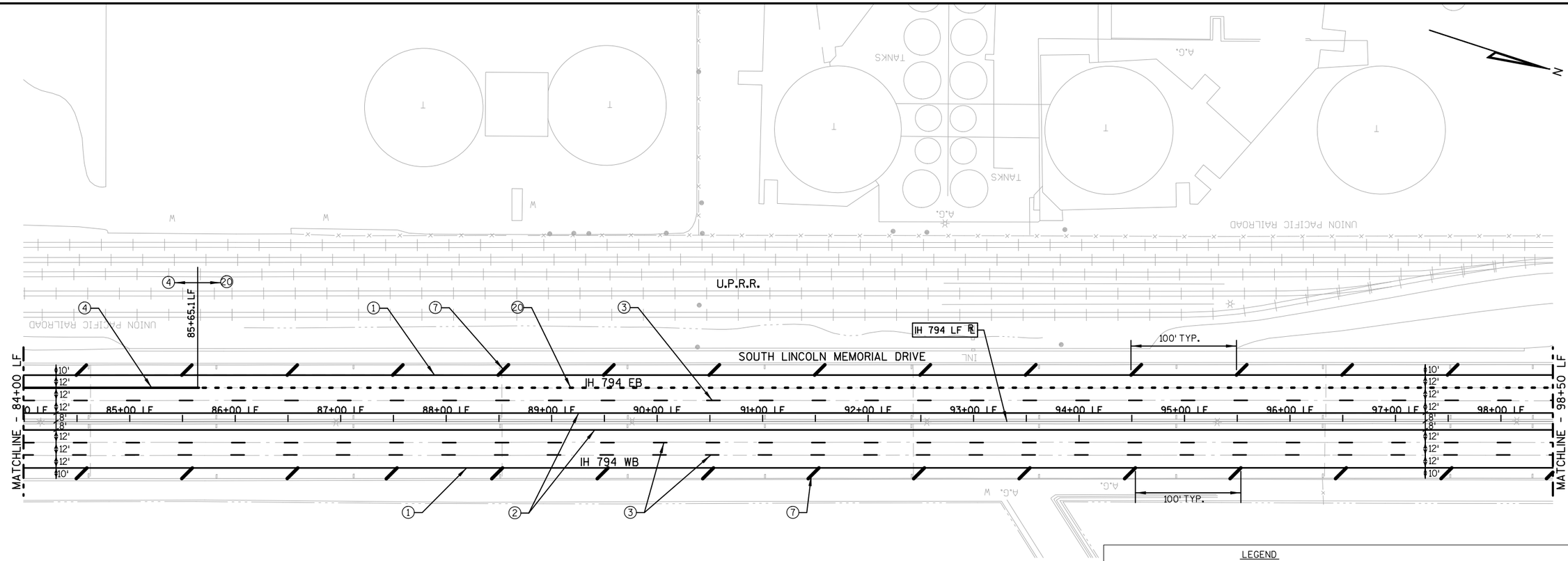
11. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 4
12. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 7
13. PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC
14. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
15. PAVEMENT MARKING ARROWS EPOXY TYPE 2
16. PAVEMENT MARKING ARROWS EPOXY TYPE 3
17. PAVEMENT MARKING CONTRAST TAPE 4-INCH (2' LINE - 6' GAP) (WHITE)
18. PAVEMENT MARKING ARROWS EPOXY TYPE 1
19. PAVEMENT MARKING WORDS EPOXY
20. PAVEMENT MARKING CONTRAST TAPE 8-INCH (3' LINE - 9' GAP)
21. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
22. PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH (WHITE)
23. PAVEMENT MARKING EPOXY 4-INCH (10' LINE - 30' GAP) (YELLOW)
24. PAVEMENT MARKING EPOXY 4-INCH (3' LINE - 9' GAP) (WHITE)
25. PAVEMENT MARKING EPOXY 4-INCH (10' LINE - 30' GAP) (WHITE)
26. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
27. RAISED PAVEMENT MARKERS
28. PAVEMENT MARKING CURB EPOXY (YELLOW)
29. PAVEMENT MARKING EPOXY 8-INCH (3' LINE - 9' GAP) (WHITE)
30. PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 400	E



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
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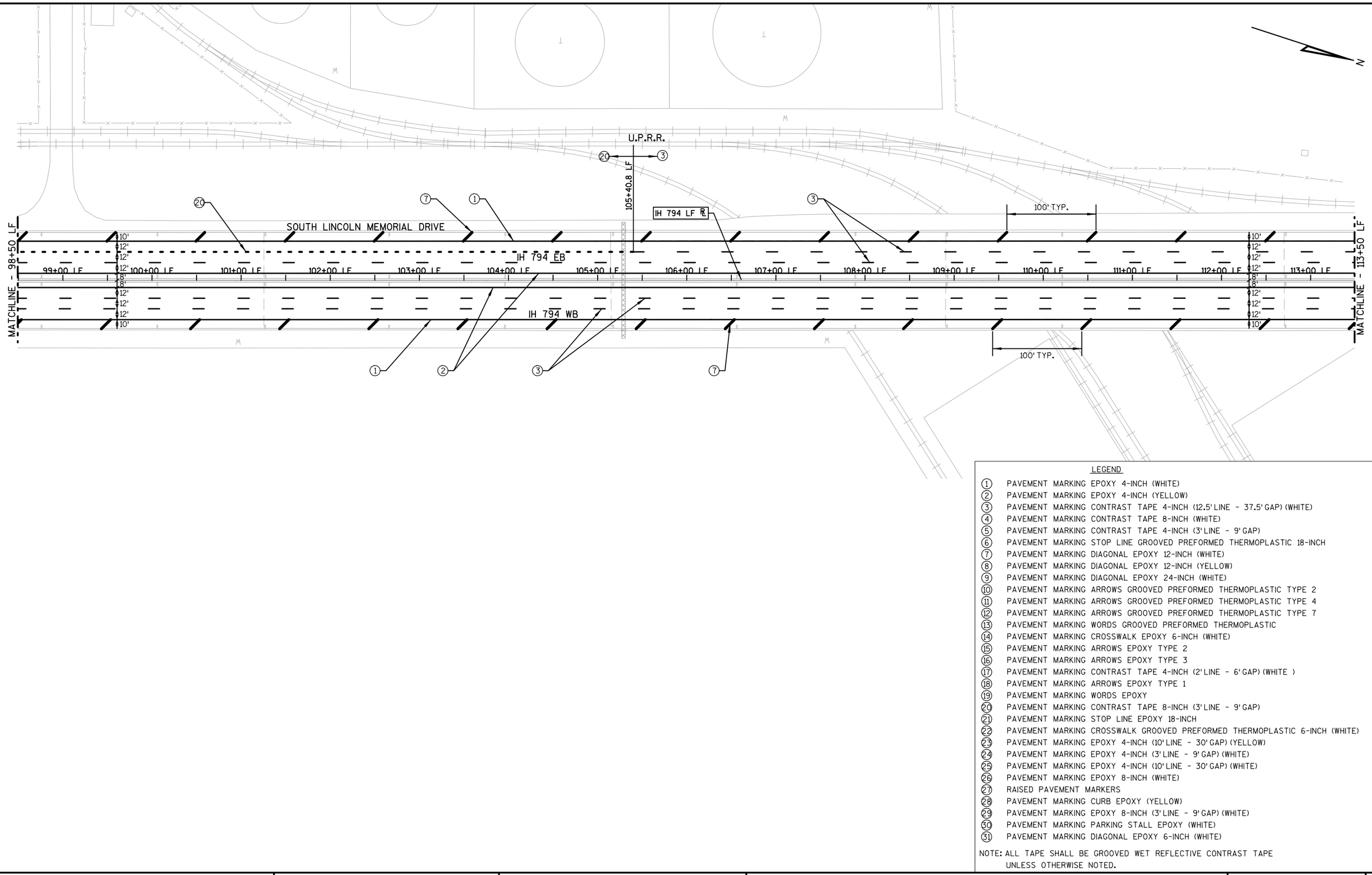
13. PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC
14. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
15. PAVEMENT MARKING ARROWS EPOXY TYPE 2
16. PAVEMENT MARKING ARROWS EPOXY TYPE 3
17. PAVEMENT MARKING CONTRAST TAPE 4-INCH (2' LINE - 6' GAP) (WHITE)
18. PAVEMENT MARKING ARROWS EPOXY TYPE 1
19. PAVEMENT MARKING WORDS EPOXY
20. PAVEMENT MARKING CONTRAST TAPE 8-INCH (3' LINE - 9' GAP)
21. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
22. PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH (WHITE)
23. PAVEMENT MARKING EPOXY 4-INCH (10' LINE - 30' GAP) (YELLOW)
24. PAVEMENT MARKING EPOXY 4-INCH (3' LINE - 9' GAP) (WHITE)
25. PAVEMENT MARKING EPOXY 4-INCH (10' LINE - 30' GAP) (WHITE)
26. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
27. RAISED PAVEMENT MARKERS
28. PAVEMENT MARKING CURB EPOXY (YELLOW)
29. PAVEMENT MARKING EPOXY 8-INCH (3' LINE - 9' GAP) (WHITE)
30. PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 401	E



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
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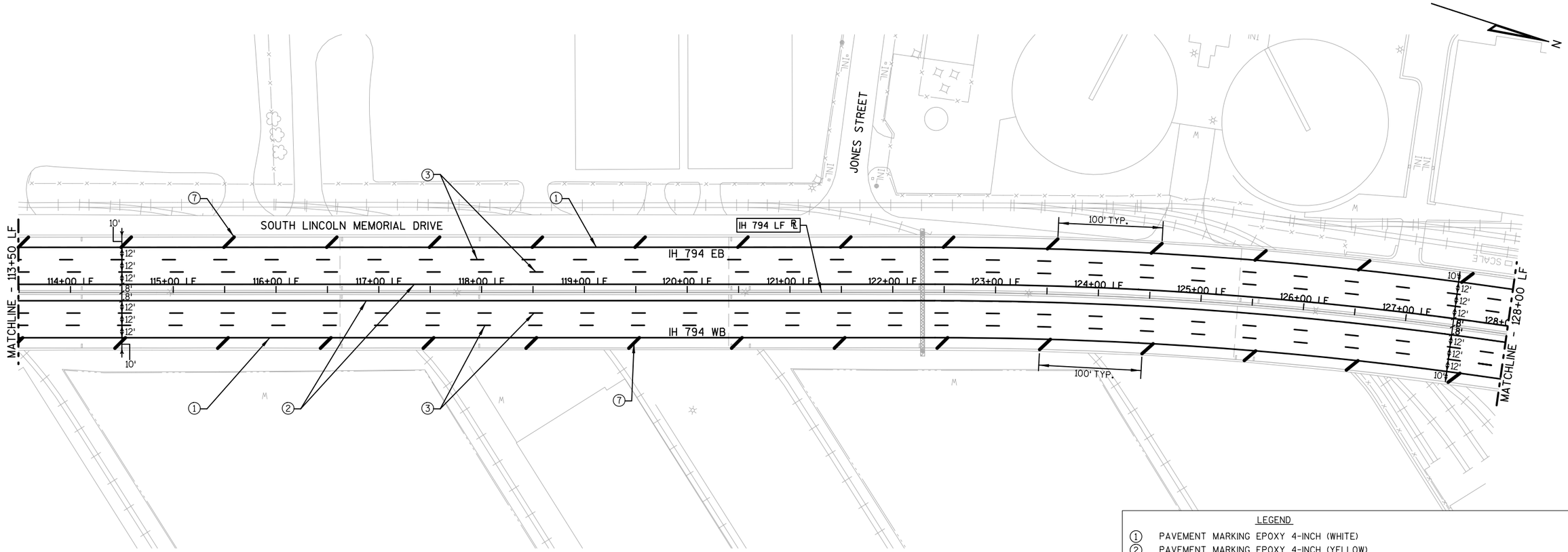
12. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 7
13. PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC
14. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
15. PAVEMENT MARKING ARROWS EPOXY TYPE 2
16. PAVEMENT MARKING ARROWS EPOXY TYPE 3
17. PAVEMENT MARKING CONTRAST TAPE 4-INCH (2'LINE - 6'GAP)(WHITE)
18. PAVEMENT MARKING ARROWS EPOXY TYPE 1
19. PAVEMENT MARKING WORDS EPOXY
20. PAVEMENT MARKING CONTRAST TAPE 8-INCH (3'LINE - 9'GAP)
21. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
22. PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH (WHITE)
23. PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(YELLOW)
24. PAVEMENT MARKING EPOXY 4-INCH (3'LINE - 9'GAP)(WHITE)
25. PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(WHITE)
26. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
27. RAISED PAVEMENT MARKERS
28. PAVEMENT MARKING CURB EPOXY (YELLOW)
29. PAVEMENT MARKING EPOXY 8-INCH (3'LINE - 9'GAP)(WHITE)
30. PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 402	E



LEGEND

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11. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 4
12. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 7
13. PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC
14. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
15. PAVEMENT MARKING ARROWS EPOXY TYPE 2
16. PAVEMENT MARKING ARROWS EPOXY TYPE 3
17. PAVEMENT MARKING CONTRAST TAPE 4-INCH (2' LINE - 6' GAP) (WHITE)
18. PAVEMENT MARKING ARROWS EPOXY TYPE 1
19. PAVEMENT MARKING WORDS EPOXY
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22. PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH (WHITE)
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28. PAVEMENT MARKING CURB EPOXY (YELLOW)
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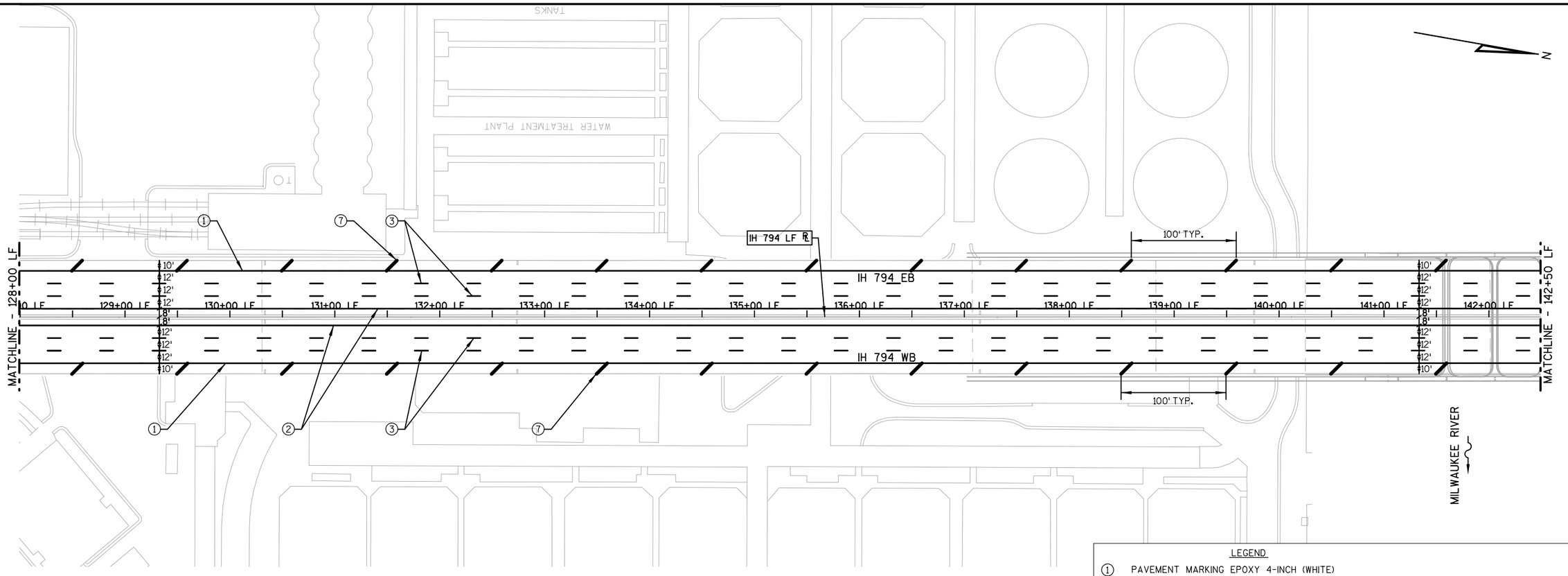
30. PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 403	E



LEGEND

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11. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 4
12. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 7
13. PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC
14. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
15. PAVEMENT MARKING ARROWS EPOXY TYPE 2
16. PAVEMENT MARKING ARROWS EPOXY TYPE 3
17. PAVEMENT MARKING CONTRAST TAPE 4-INCH (2' LINE - 6' GAP) (WHITE)
18. PAVEMENT MARKING ARROWS EPOXY TYPE 1
19. PAVEMENT MARKING WORDS EPOXY
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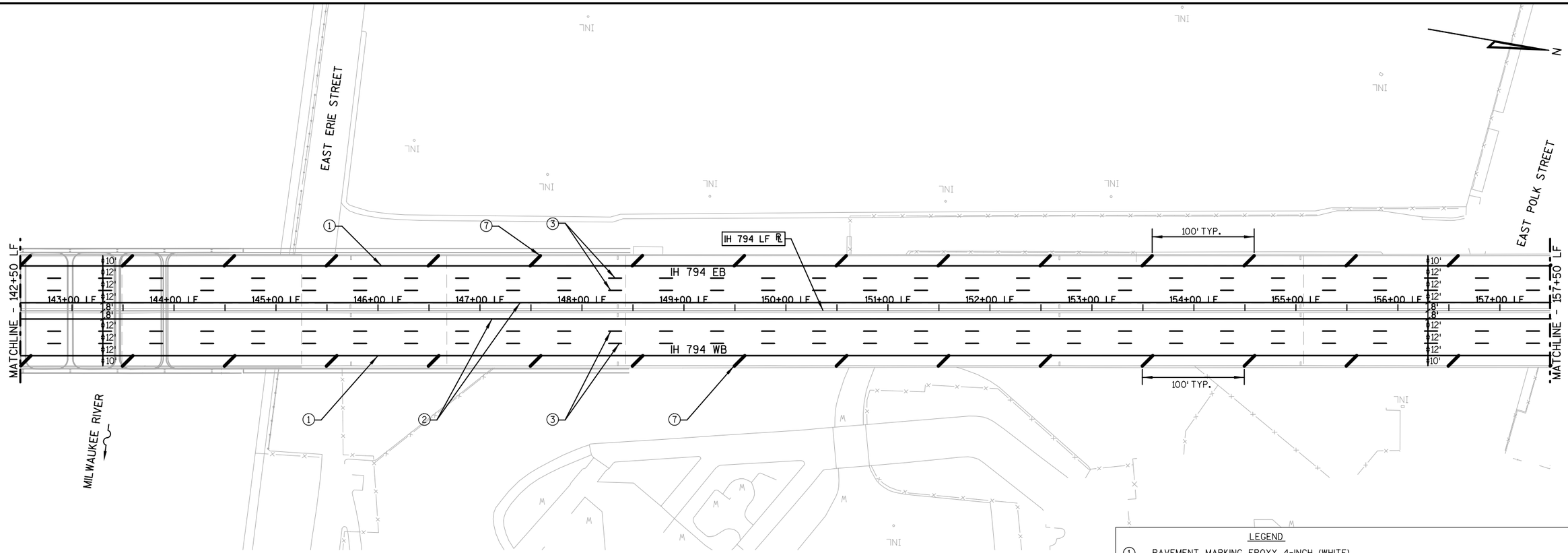
28. PAVEMENT MARKING CURB EPOXY (YELLOW)
29. PAVEMENT MARKING EPOXY 8-INCH (3' LINE - 9' GAP) (WHITE)
30. PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 404	E



LEGEND

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31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 405	E

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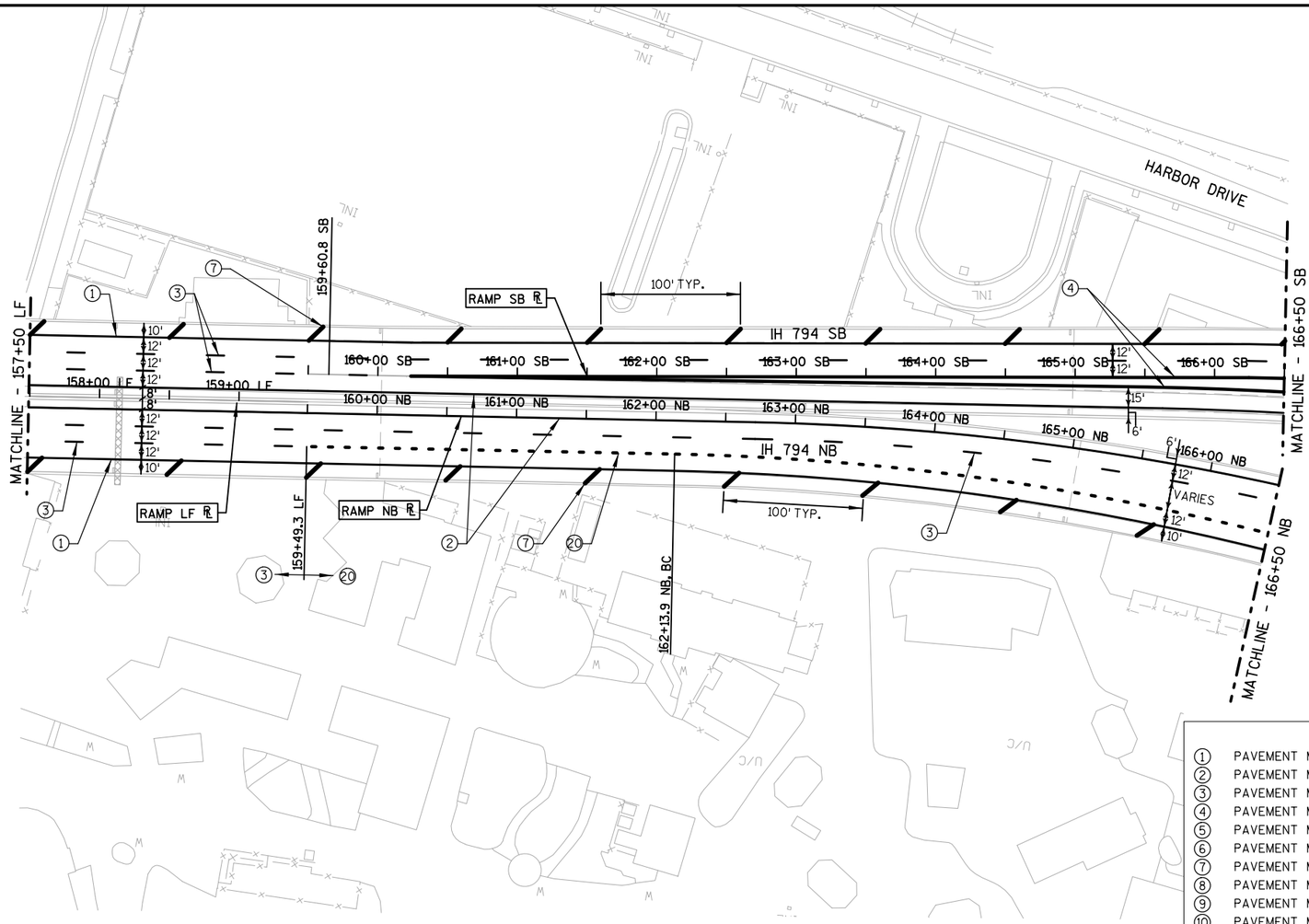

LEGEND

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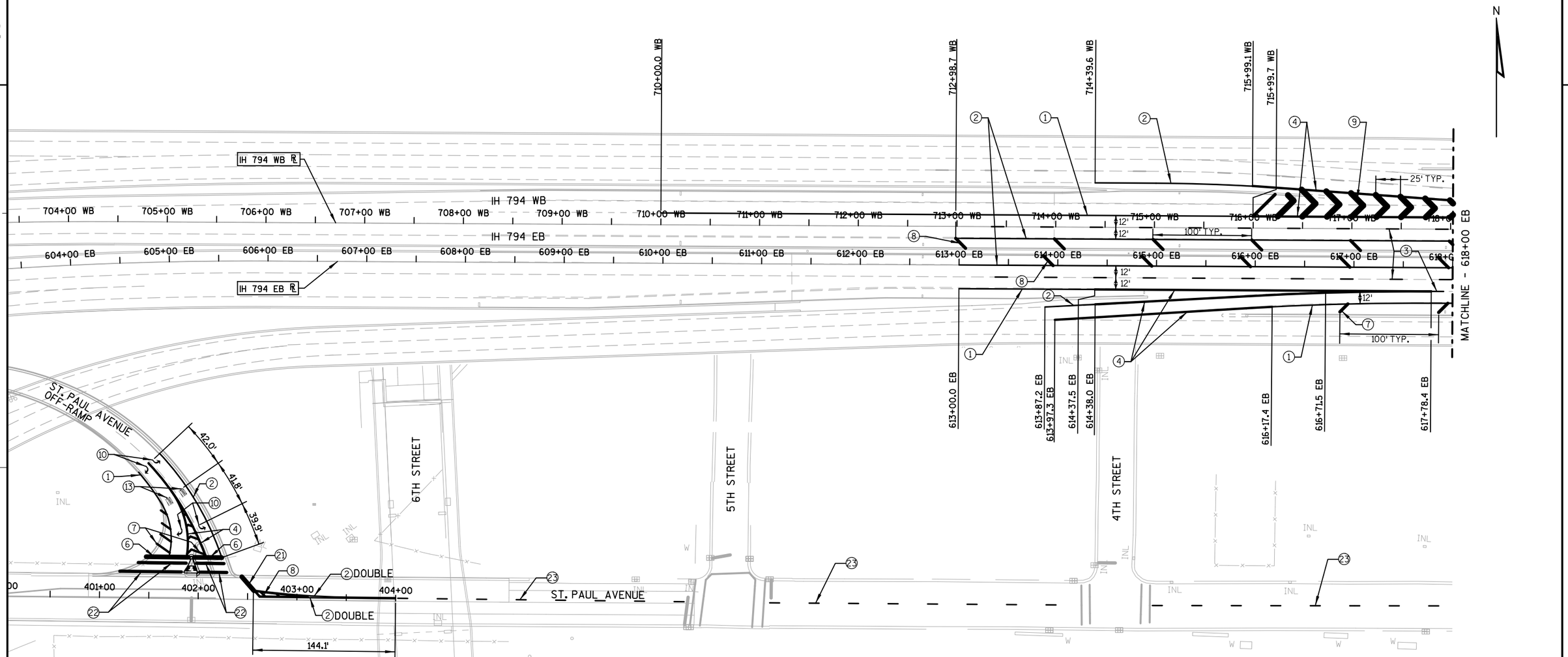
NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 406	E

2



LEGEND

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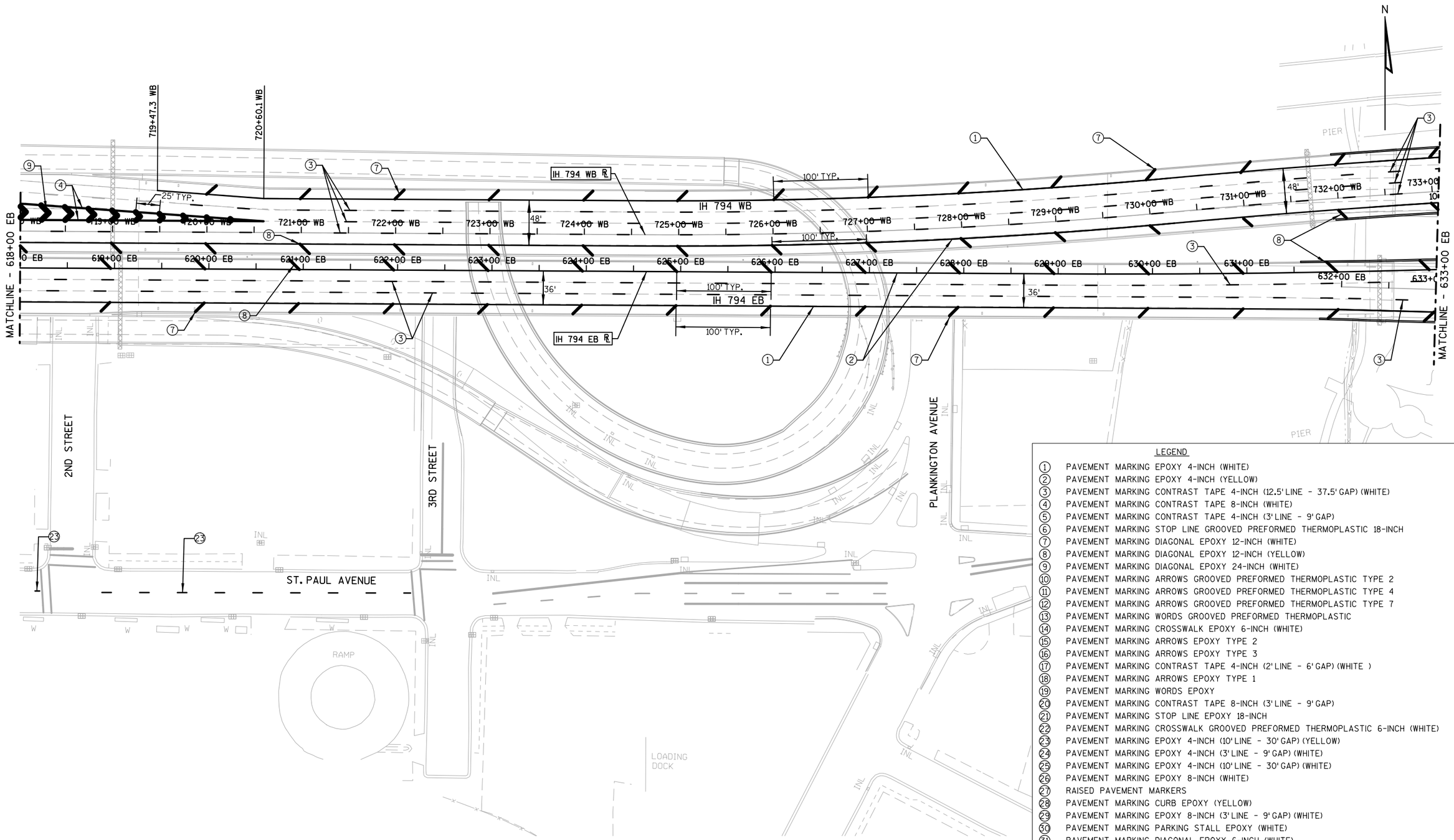
17. PAVEMENT MARKING CONTRAST TAPE 4-INCH (2'LINE - 6'GAP)(WHITE)
18. PAVEMENT MARKING ARROWS EPOXY TYPE 1
19. PAVEMENT MARKING WORDS EPOXY
20. PAVEMENT MARKING CONTRAST TAPE 8-INCH (3'LINE - 9'GAP)
21. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
22. PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH (WHITE)
23. PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(YELLOW)
24. PAVEMENT MARKING EPOXY 4-INCH (3'LINE - 9'GAP)(WHITE)
25. PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(WHITE)
26. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
27. RAISED PAVEMENT MARKERS
28. PAVEMENT MARKING CURB EPOXY (YELLOW)
29. PAVEMENT MARKING EPOXY 8-INCH (3'LINE - 9'GAP)(WHITE)
30. PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 407	E

2

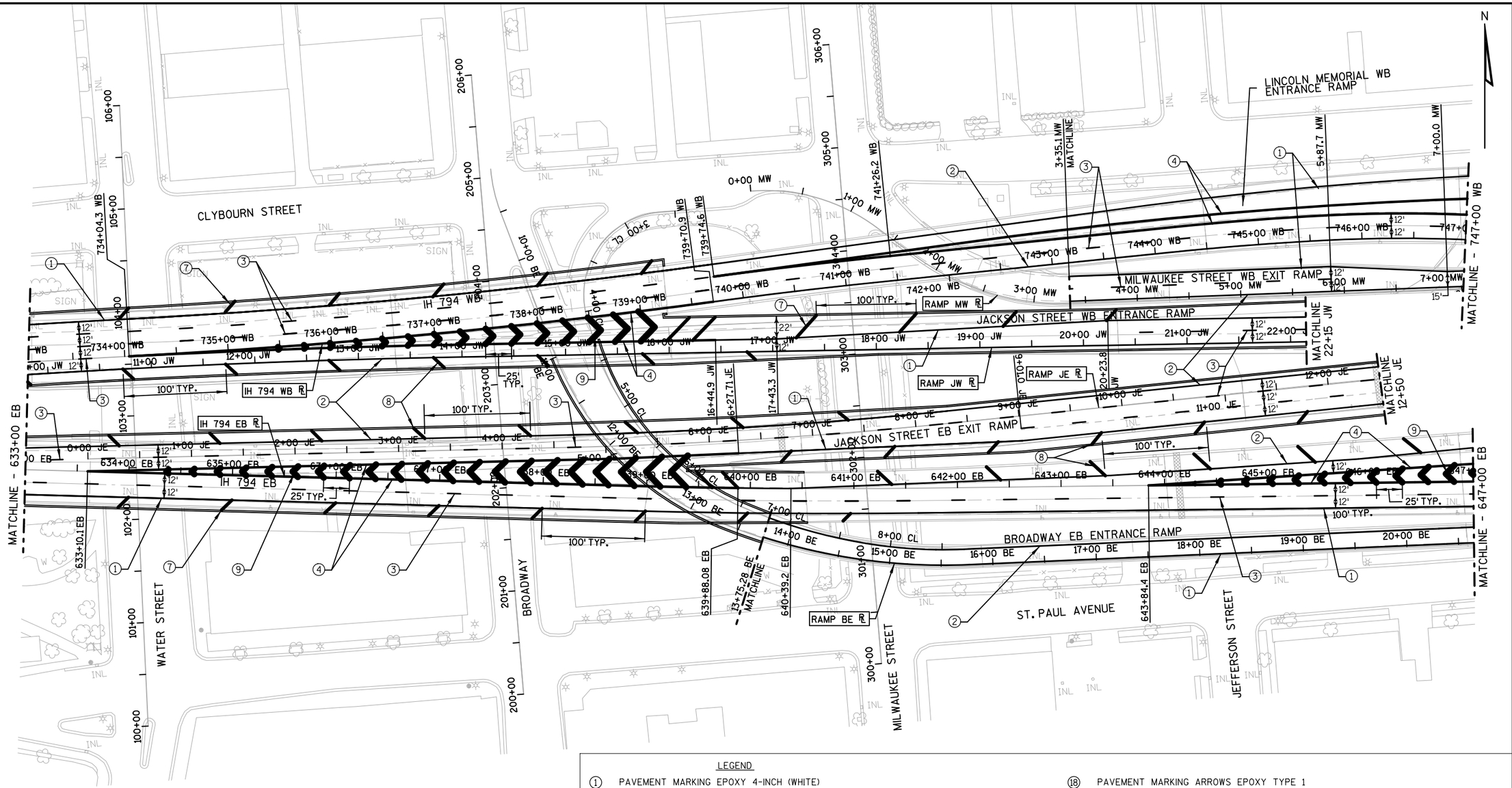


LEGEND

(1)	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(2)	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(3)	PAVEMENT MARKING CONTRAST TAPE 4-INCH (12.5'LINE - 37.5'GAP)(WHITE)
(4)	PAVEMENT MARKING CONTRAST TAPE 8-INCH (WHITE)
(5)	PAVEMENT MARKING CONTRAST TAPE 4-INCH (3'LINE - 9'GAP)
(6)	PAVEMENT MARKING STOP LINE GROOVED PREFORMED THERMOPLASTIC 18-INCH
(7)	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
(8)	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
(9)	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
(10)	PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 2
(11)	PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 4
(12)	PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 7
(13)	PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC
(14)	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
(15)	PAVEMENT MARKING ARROWS EPOXY TYPE 2
(16)	PAVEMENT MARKING ARROWS EPOXY TYPE 3
(17)	PAVEMENT MARKING CONTRAST TAPE 4-INCH (2'LINE - 6'GAP)(WHITE)
(18)	PAVEMENT MARKING ARROWS EPOXY TYPE 1
(19)	PAVEMENT MARKING WORDS EPOXY
(20)	PAVEMENT MARKING CONTRAST TAPE 8-INCH (3'LINE - 9'GAP)
(21)	PAVEMENT MARKING STOP LINE EPOXY 18-INCH
(22)	PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH (WHITE)
(23)	PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(YELLOW)
(24)	PAVEMENT MARKING EPOXY 4-INCH (3'LINE - 9'GAP)(WHITE)
(25)	PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(WHITE)
(26)	PAVEMENT MARKING EPOXY 8-INCH (WHITE)
(27)	RAISED PAVEMENT MARKERS
(28)	PAVEMENT MARKING CURB EPOXY (YELLOW)
(29)	PAVEMENT MARKING EPOXY 8-INCH (3'LINE - 9'GAP)(WHITE)
(30)	PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
(31)	PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 408	E



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING CONTRAST TAPE 4-INCH (12.5'LINE - 37.5'GAP)(WHITE)
4. PAVEMENT MARKING CONTRAST TAPE 8-INCH (WHITE)
5. PAVEMENT MARKING CONTRAST TAPE 4-INCH (3'LINE - 9'GAP)
6. PAVEMENT MARKING STOP LINE GROOVED PREFORMED THERMOPLASTIC 18-INCH
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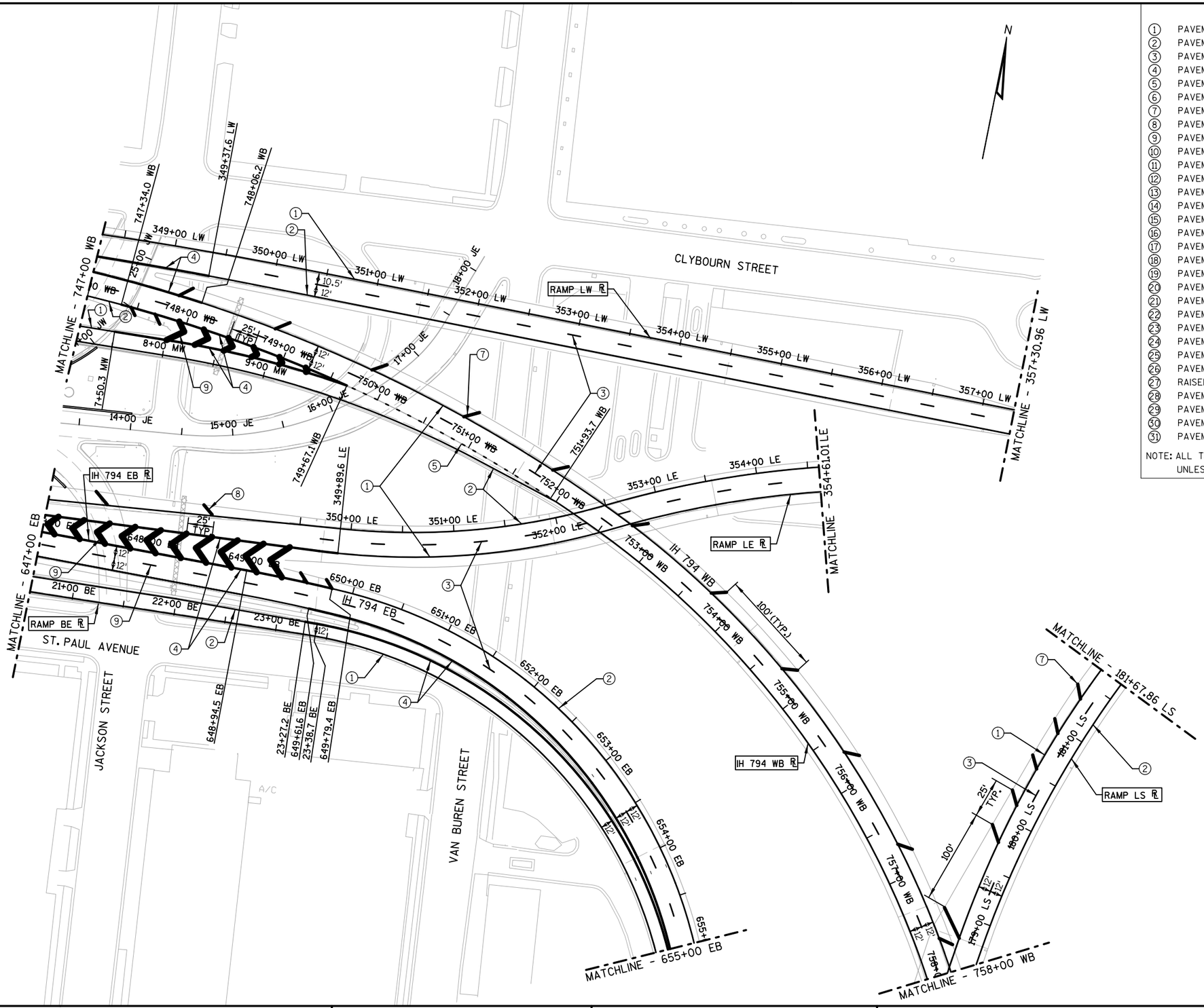
12. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 7
13. PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC
14. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
15. PAVEMENT MARKING ARROWS EPOXY TYPE 2
16. PAVEMENT MARKING ARROWS EPOXY TYPE 3
17. PAVEMENT MARKING CONTRAST TAPE 4-INCH (2'LINE - 6'GAP)(WHITE)
18. PAVEMENT MARKING ARROWS EPOXY TYPE 1
19. PAVEMENT MARKING WORDS EPOXY
20. PAVEMENT MARKING CONTRAST TAPE 8-INCH (3'LINE - 9'GAP)
21. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
22. PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH (WHITE)
23. PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(YELLOW)
24. PAVEMENT MARKING EPOXY 4-INCH (3'LINE - 9'GAP)(WHITE)
25. PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(WHITE)
26. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
27. RAISED PAVEMENT MARKERS
28. PAVEMENT MARKING CURB EPOXY (YELLOW)
29. PAVEMENT MARKING EPOXY 8-INCH (3'LINE - 9'GAP)(WHITE)
30. PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 409	E

2



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
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12. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 7
13. PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC
14. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
15. PAVEMENT MARKING ARROWS EPOXY TYPE 2
16. PAVEMENT MARKING ARROWS EPOXY TYPE 3
17. PAVEMENT MARKING CONTRAST TAPE 4-INCH (2' LINE - 6' GAP) (WHITE)
18. PAVEMENT MARKING ARROWS EPOXY TYPE 1
19. PAVEMENT MARKING WORDS EPOXY
20. PAVEMENT MARKING CONTRAST TAPE 8-INCH (3' LINE - 9' GAP)
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23. PAVEMENT MARKING EPOXY 4-INCH (10' LINE - 30' GAP) (YELLOW)
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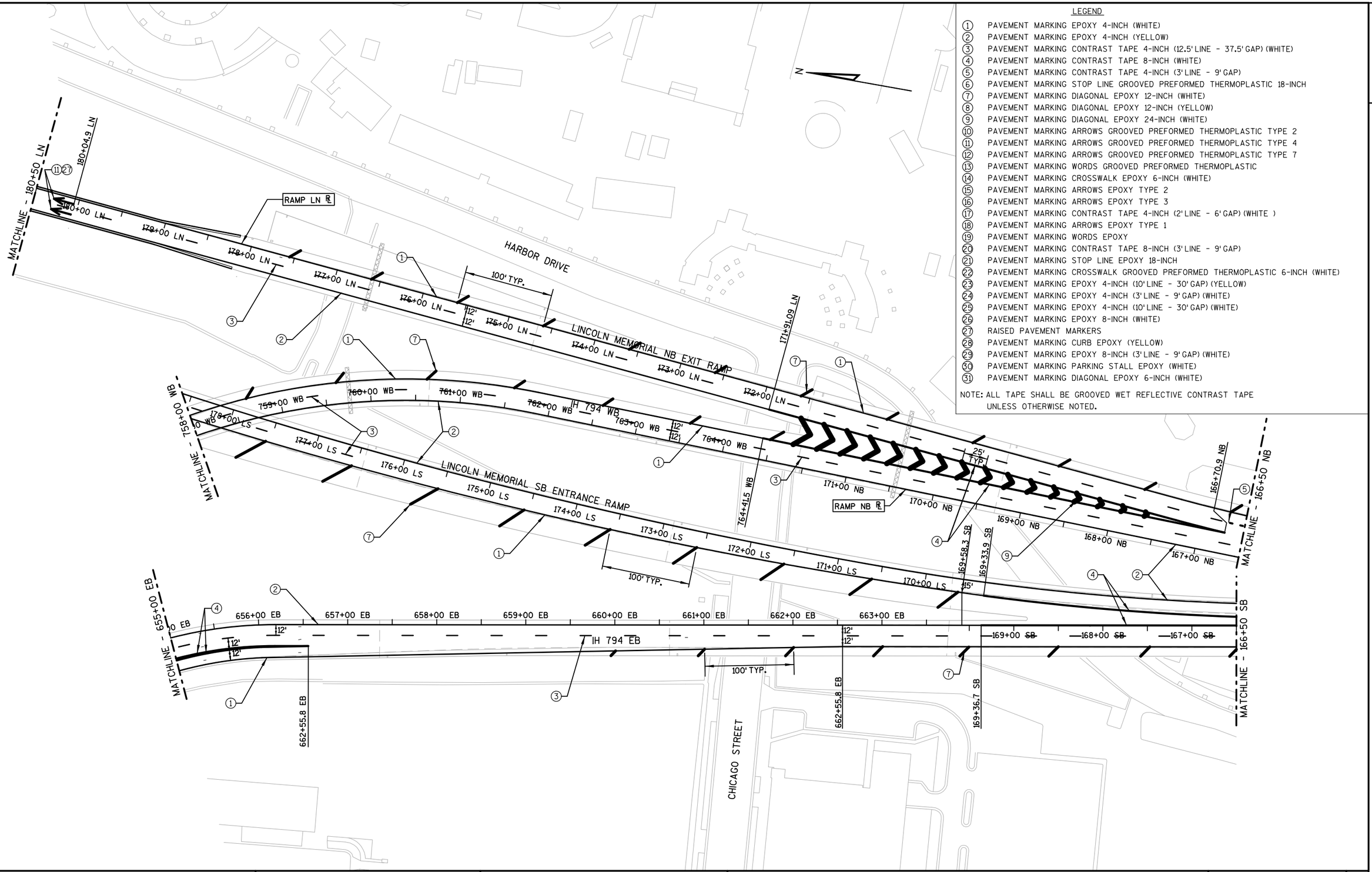
26. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
27. RAISED PAVEMENT MARKERS
28. PAVEMENT MARKING CURB EPOXY (YELLOW)
29. PAVEMENT MARKING EPOXY 8-INCH (3' LINE - 9' GAP) (WHITE)
30. PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 410	E

2



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
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14. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
15. PAVEMENT MARKING ARROWS EPOXY TYPE 2
16. PAVEMENT MARKING ARROWS EPOXY TYPE 3
17. PAVEMENT MARKING CONTRAST TAPE 4-INCH (2' LINE - 6' GAP) (WHITE)
18. PAVEMENT MARKING ARROWS EPOXY TYPE 1
19. PAVEMENT MARKING WORDS EPOXY
20. PAVEMENT MARKING CONTRAST TAPE 8-INCH (3' LINE - 9' GAP)
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22. PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH (WHITE)
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30. PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 411	E

LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(2) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(3) PAVEMENT MARKING CONTRAST TAPE 4-INCH (12.5'LINE - 37.5'GAP)(WHITE)
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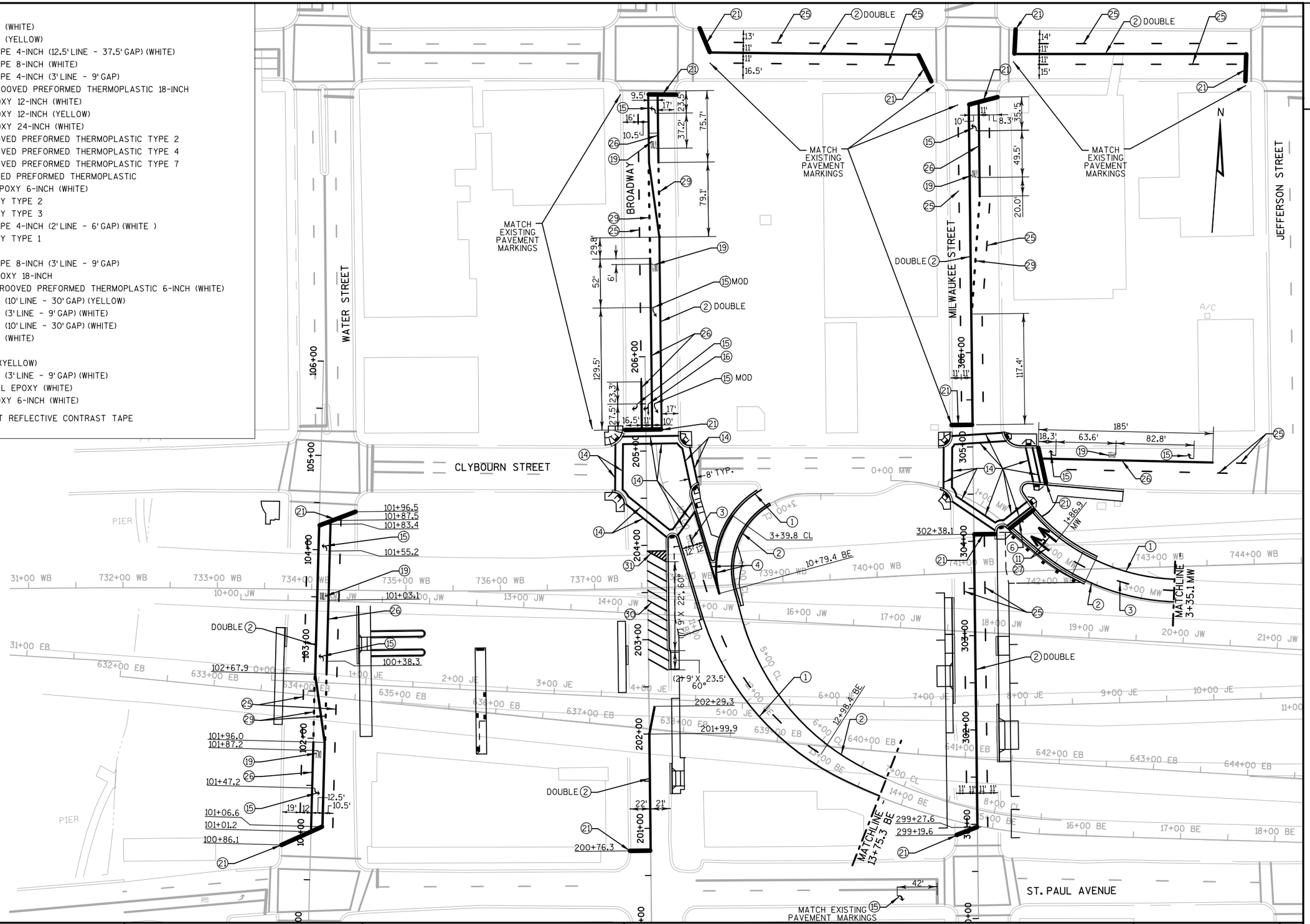
(31) PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 412	E

2

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING CONTRAST TAPE 4-INCH (12.5'LINE - 37.5'GAP)(WHITE)
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17. PAVEMENT MARKING CONTRAST TAPE 4-INCH (2'LINE - 6'GAP)(WHITE)
18. PAVEMENT MARKING ARROWS EPOXY TYPE 1
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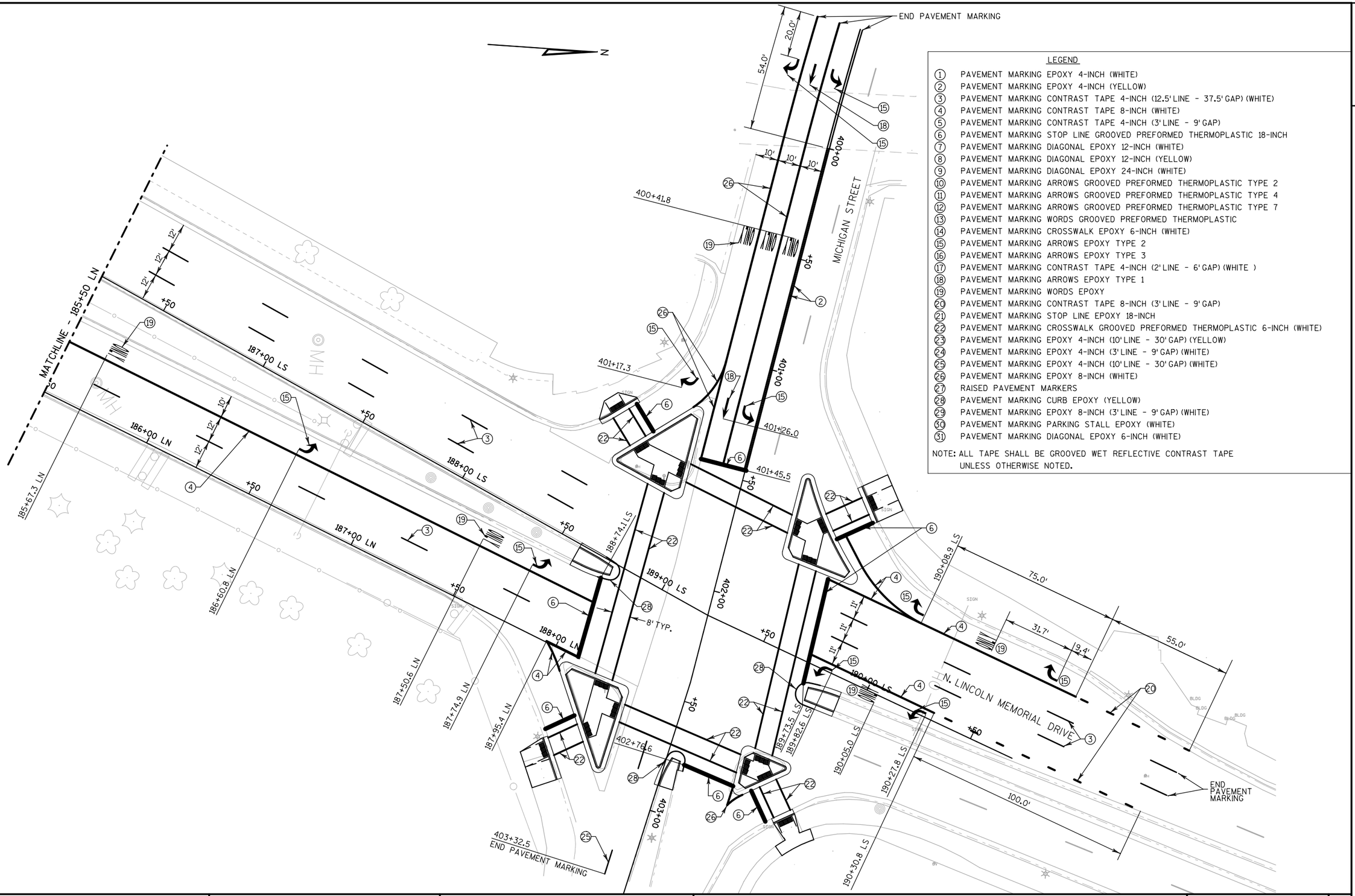
31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

MICHIGAN STREET
JACKSON STREET
VAN BUREN STREET
CLYBOURN STREET
MATCH EXISTING PAVEMENT MARKINGS
MATCHLINE - 185+50 LN
MATCHLINE - 357+31.0 LW
MATCHLINE - 354+64.1 LE
MATCHLINE - 22+15.1 JW
MATCHLINE - 12+50 JE
MATCHLINE - 181+67.8 LS
MATCHLINE - 180+50.0 LN
RAMP LE
RAMP LS
RAMP LN
(DL) DELINEATORS @ 50-FT SPACING WHITE W/ RED WRONG-WAY REFLECTORS

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 413	E

FILE NAME : IP_PWP:d0231471\024567_pm.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000



LEGEND

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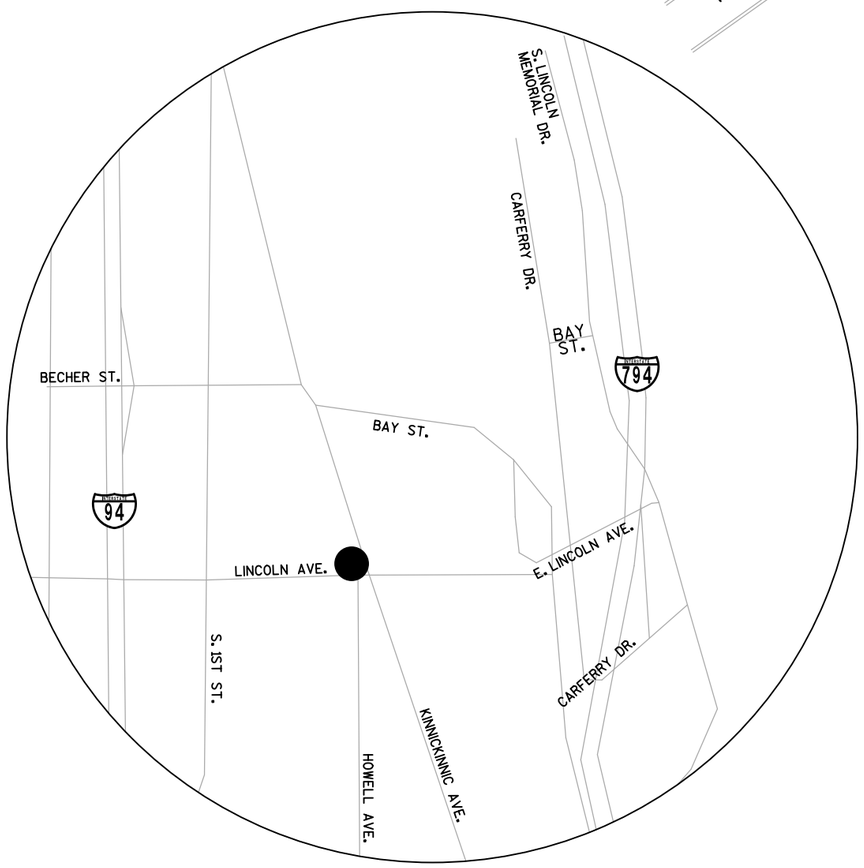
NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 414	E

FILE NAME : IP_PWP:d0231471\024568_pm.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

2



LINCOLN AVENUE

N

LEGEND

(1)	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(2)	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(3)	PAVEMENT MARKING CONTRAST TAPE 4-INCH (12.5' LINE - 37.5' GAP) (WHITE)
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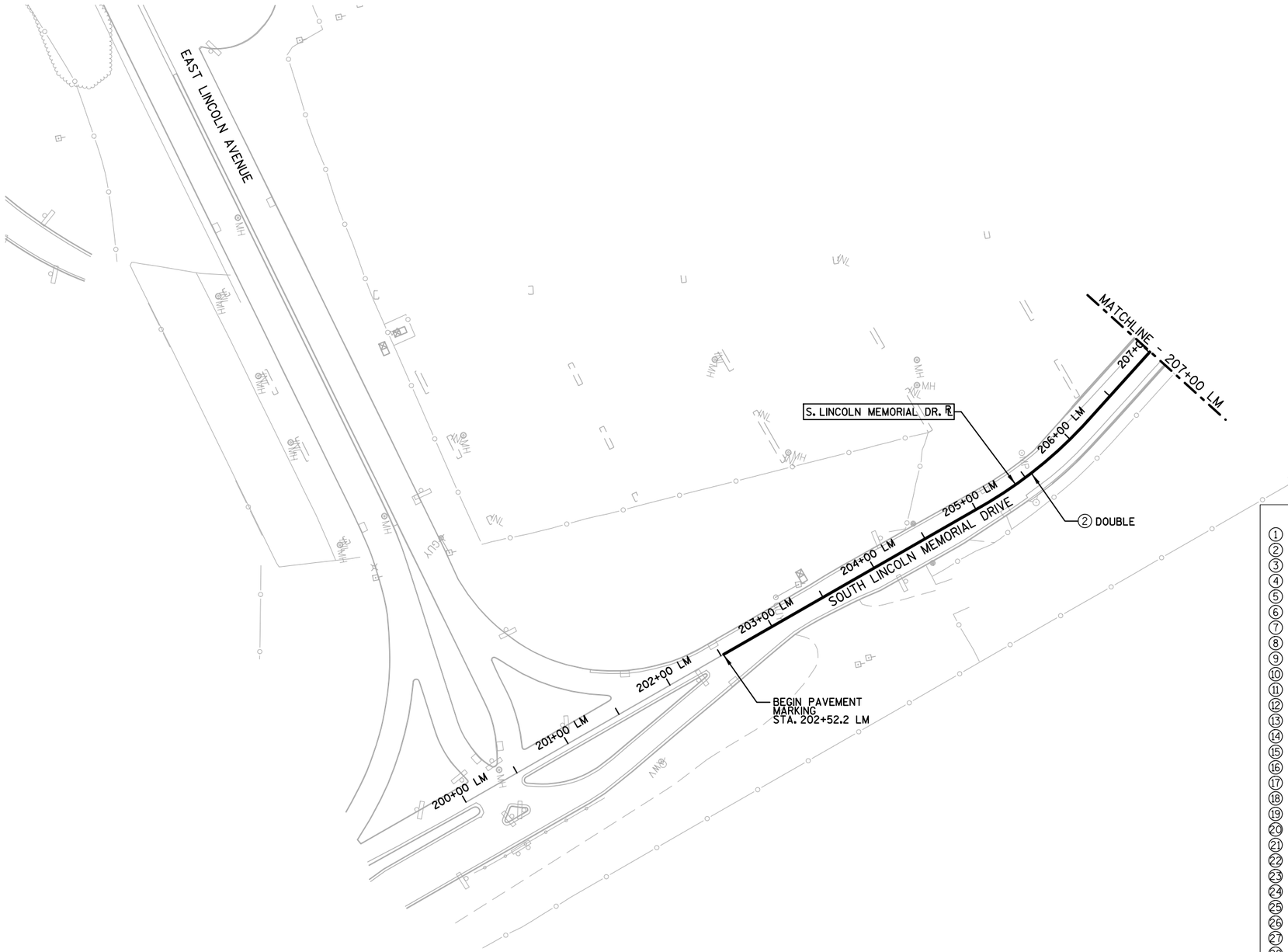
(23)	PAVEMENT MARKING EPOXY 4-INCH (10' LINE - 30' GAP) (YELLOW)
(24)	PAVEMENT MARKING EPOXY 4-INCH (3' LINE - 9' GAP) (WHITE)
(25)	PAVEMENT MARKING EPOXY 4-INCH (10' LINE - 30' GAP) (WHITE)
(26)	PAVEMENT MARKING EPOXY 8-INCH (WHITE)
(27)	RAISED PAVEMENT MARKERS
(28)	PAVEMENT MARKING CURB EPOXY (YELLOW)
(29)	PAVEMENT MARKING EPOXY 8-INCH (3' LINE - 9' GAP) (WHITE)
(30)	PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
(31)	PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 415	E

2



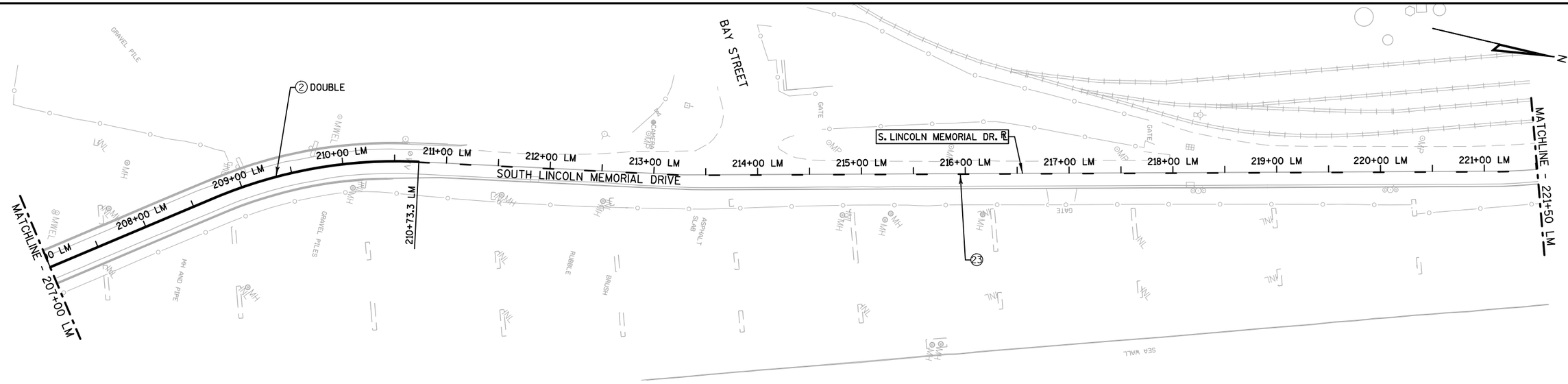
N

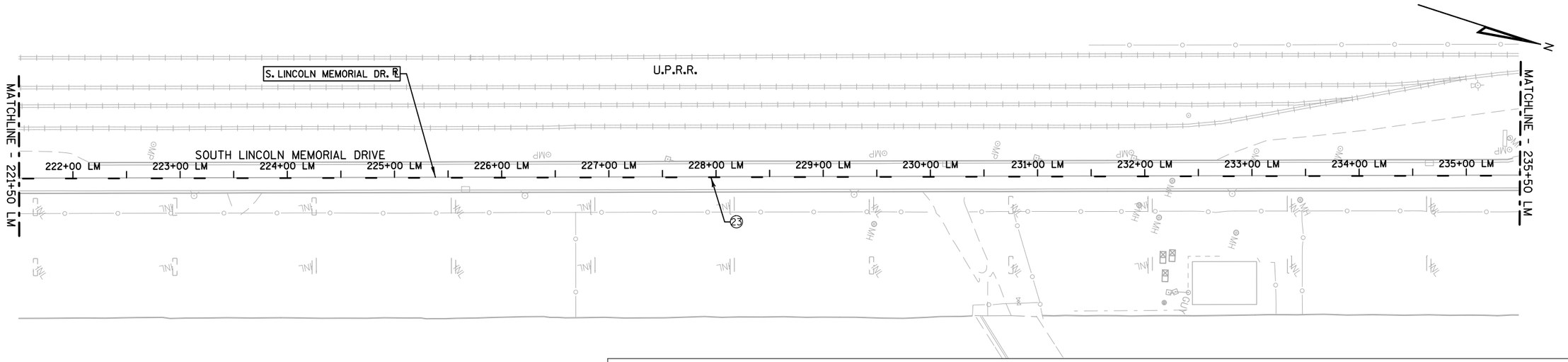
LEGEND

① PAVEMENT MARKING EPOXY 4-INCH (WHITE)
② PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
③ PAVEMENT MARKING CONTRAST TAPE 4-INCH (12.5'LINE - 37.5'GAP)(WHITE)
④ PAVEMENT MARKING CONTRAST TAPE 8-INCH (WHITE)
⑤ PAVEMENT MARKING CONTRAST TAPE 4-INCH (3'LINE - 9'GAP)
⑥ PAVEMENT MARKING STOP LINE GROOVED PREFORMED THERMOPLASTIC 18-INCH
⑦ PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
⑧ PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
⑨ PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
⑩ PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 2
⑪ PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 4
⑫ PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 7
⑬ PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC
⑭ PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
⑮ PAVEMENT MARKING ARROWS EPOXY TYPE 2
⑯ PAVEMENT MARKING ARROWS EPOXY TYPE 3
⑰ PAVEMENT MARKING CONTRAST TAPE 4-INCH (2'LINE - 6'GAP)(WHITE)
⑱ PAVEMENT MARKING ARROWS EPOXY TYPE 1
⑲ PAVEMENT MARKING WORDS EPOXY
⑳ PAVEMENT MARKING CONTRAST TAPE 8-INCH (3'LINE - 9'GAP)
㉑ PAVEMENT MARKING STOP LINE EPOXY 18-INCH
㉒ PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH (WHITE)
㉓ PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(YELLOW)
㉔ PAVEMENT MARKING EPOXY 4-INCH (3'LINE - 9'GAP)(WHITE)
㉕ PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(WHITE)
㉖ PAVEMENT MARKING EPOXY 8-INCH (WHITE)
㉗ RAISED PAVEMENT MARKERS
㉘ PAVEMENT MARKING CURB EPOXY (YELLOW)
㉙ PAVEMENT MARKING EPOXY 8-INCH (3'LINE - 9'GAP)(WHITE)
㉚ PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
㉛ PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 416	E



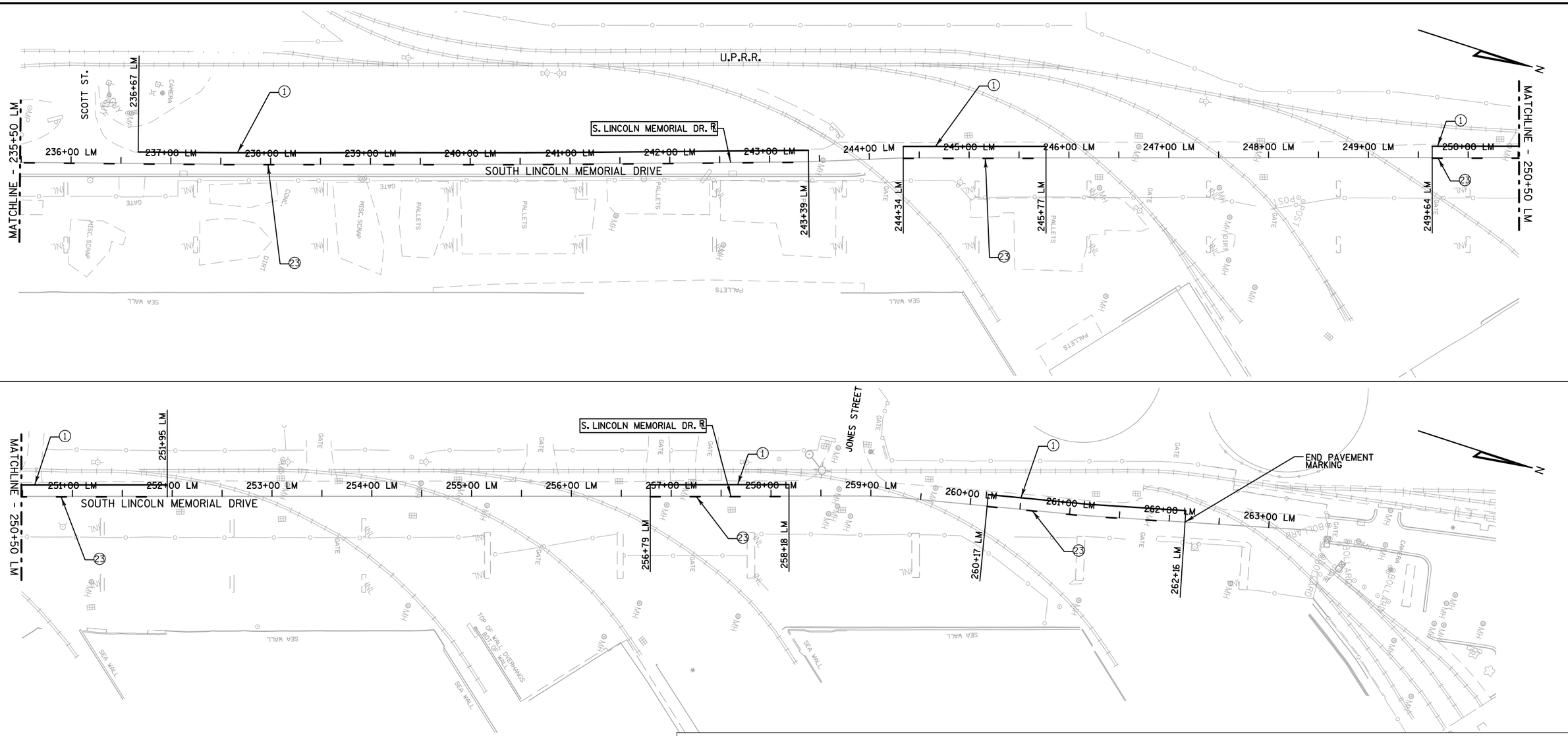


LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING CONTRAST TAPE 4-INCH (12.5'LINE - 37.5'GAP)(WHITE)
4. PAVEMENT MARKING CONTRAST TAPE 8-INCH (WHITE)
5. PAVEMENT MARKING CONTRAST TAPE 4-INCH (3'LINE - 9'GAP)
6. PAVEMENT MARKING STOP LINE GROOVED PREFORMED THERMOPLASTIC 18-INCH
7. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
8. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
9. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
10. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 2
11. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 4
12. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 7
13. PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC
14. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
15. PAVEMENT MARKING ARROWS EPOXY TYPE 2
16. PAVEMENT MARKING ARROWS EPOXY TYPE 3
17. PAVEMENT MARKING CONTRAST TAPE 4-INCH (2'LINE - 6'GAP)(WHITE)
18. PAVEMENT MARKING ARROWS EPOXY TYPE 1
19. PAVEMENT MARKING WORDS EPOXY
20. PAVEMENT MARKING CONTRAST TAPE 8-INCH (3'LINE - 9'GAP)
21. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
22. PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH (WHITE)
23. PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(YELLOW)
24. PAVEMENT MARKING EPOXY 4-INCH (3'LINE - 9'GAP)(WHITE)
25. PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(WHITE)
26. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
27. RAISED PAVEMENT MARKERS
28. PAVEMENT MARKING CURB EPOXY (YELLOW)
29. PAVEMENT MARKING EPOXY 8-INCH (3'LINE - 9'GAP)(WHITE)
30. PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 417	E



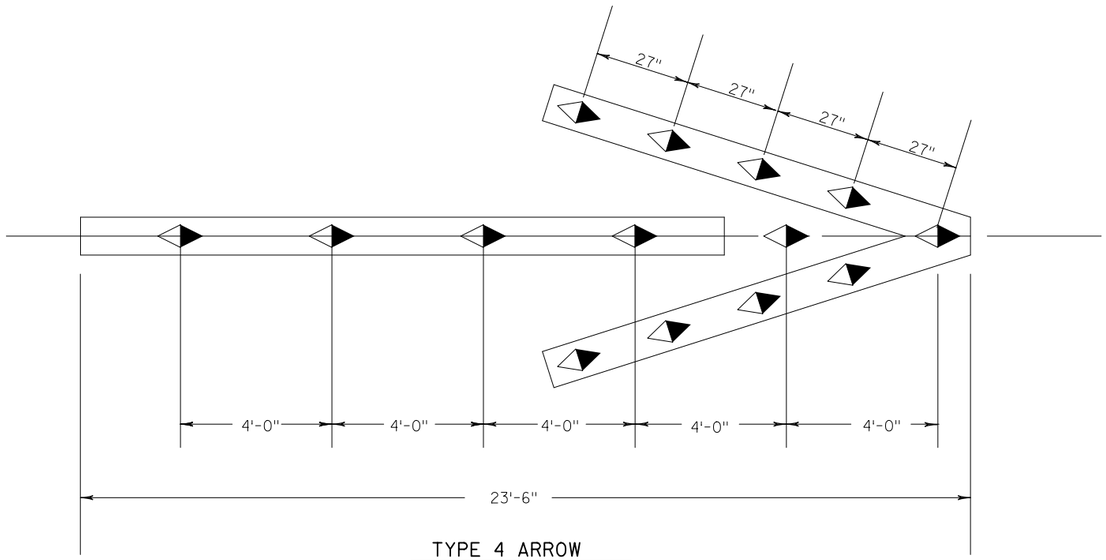
LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING CONTRAST TAPE 4-INCH (12.5'LINE - 37.5'GAP)(WHITE)
4. PAVEMENT MARKING CONTRAST TAPE 8-INCH (WHITE)
5. PAVEMENT MARKING CONTRAST TAPE 4-INCH (3'LINE - 9'GAP)
6. PAVEMENT MARKING STOP LINE GROOVED PREFORMED THERMOPLASTIC 18-INCH
7. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
8. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
9. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
10. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 2
11. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 4
12. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 7
13. PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC
14. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
15. PAVEMENT MARKING ARROWS EPOXY TYPE 2
16. PAVEMENT MARKING ARROWS EPOXY TYPE 3
17. PAVEMENT MARKING CONTRAST TAPE 4-INCH (2'LINE - 6'GAP)(WHITE)
18. PAVEMENT MARKING ARROWS EPOXY TYPE 1
19. PAVEMENT MARKING WORDS EPOXY
20. PAVEMENT MARKING CONTRAST TAPE 8-INCH (3'LINE - 9'GAP)
21. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
22. PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH (WHITE)
23. PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(YELLOW)
24. PAVEMENT MARKING EPOXY 4-INCH (3'LINE - 9'GAP)(WHITE)
25. PAVEMENT MARKING EPOXY 4-INCH (10'LINE - 30'GAP)(WHITE)
26. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
27. RAISED PAVEMENT MARKERS
28. PAVEMENT MARKING CURB EPOXY (YELLOW)
29. PAVEMENT MARKING EPOXY 8-INCH (3'LINE - 9'GAP)(WHITE)
30. PAVEMENT MARKING PARKING STALL EPOXY (WHITE)
31. PAVEMENT MARKING DIAGONAL EPOXY 6-INCH (WHITE)

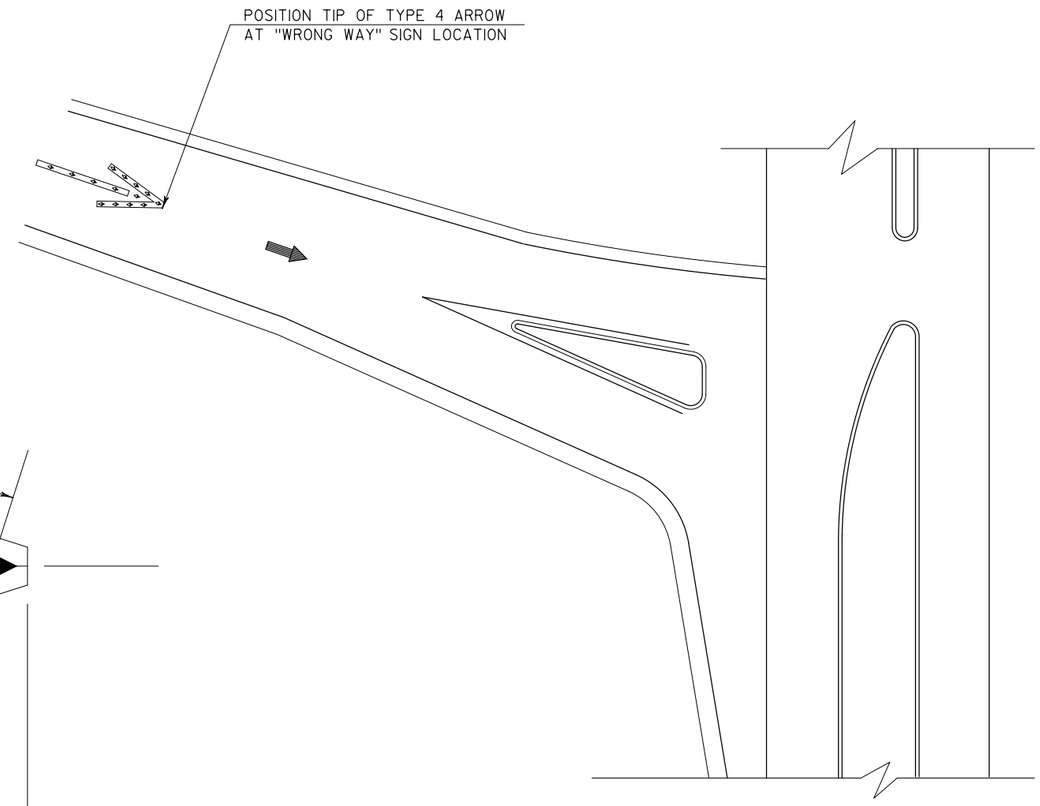
NOTE: ALL TAPE SHALL BE GROOVED WET REFLECTIVE CONTRAST TAPE UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 418	E

2



TYPE 4 ARROW
NEW INSTALLATION



EXIT RAMP
PLAN VIEW

GENERAL NOTES

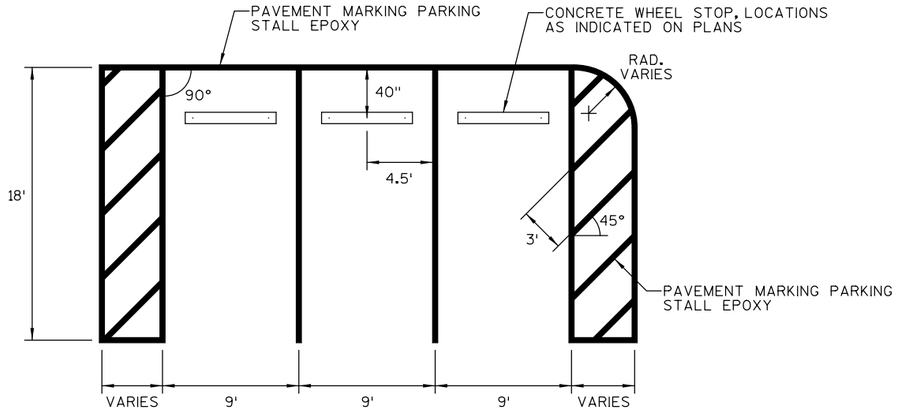
MARKER REFLECTORS INSTALLED IN TYPE 4 ARROWS BEFORE APPLICATION OF THE ARROW MARKING MATERIAL SHALL BE MASKED TO PREVENT COATING.

MARKERS SHALL NOT BE LOCATED DIRECTLY OVER LONGITUDNAL JOINTS. PLACE MARKERS ADJACENT TO THE JOINT LINE TO AVOID TEMPERATURE AND SHRINKAGE AND / OR BREAKAGE OF CONCRETE.

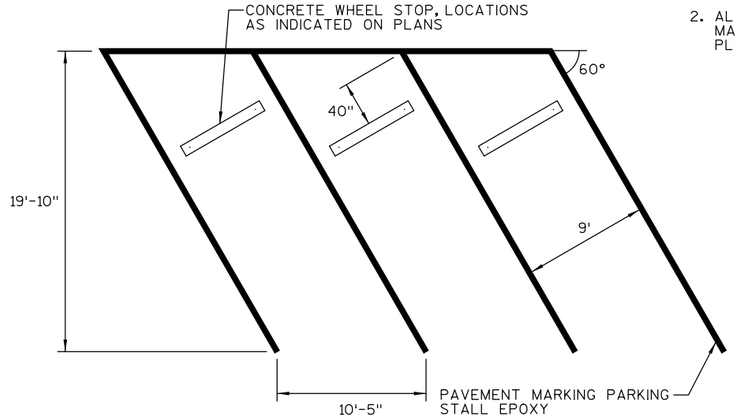
LEGEND

TWO WAY REFLECTOR (OPAQUE WHITE / REFLECTIVE RED REFLECTOR)

DIRECTION OF TRAVEL



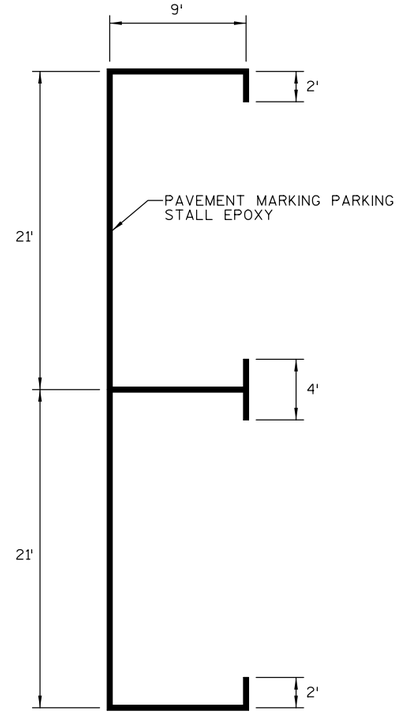
STANDARD VEHICLE 90° PARKING STALL



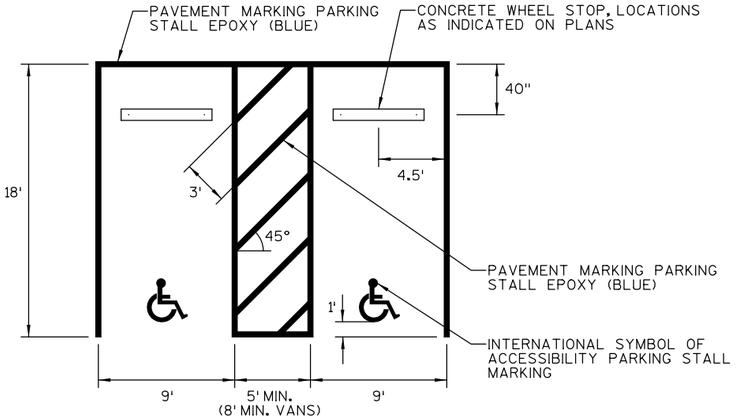
STANDARD VEHICLE 60° PARKING STALL

NOTES:

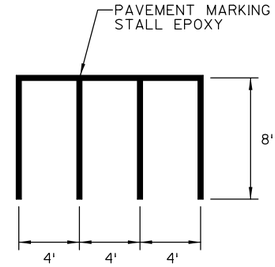
1. ALL ADA ACCESSIBLE PARKING STALLS TO BE MARKED WITH PAVEMENT MARKING PARKING STALL EPOXY, BLUE.
2. ALL STANDARD AND COMPACT PARKING STALLS TO BE MARKED WITH PAVEMENT MARKING PARKING STALL EPOXY, WHITE OR YELLOW. SEE PAVEMENT MARKING PLAN FOR PAVEMENT MARKING COLOR.



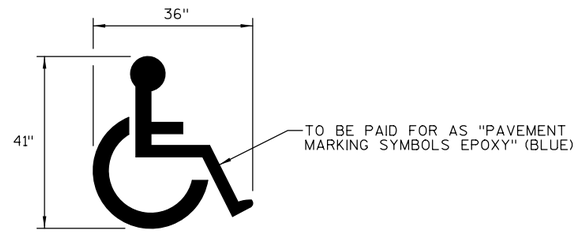
STANDARD VEHICLE PARALLEL PARKING STALL



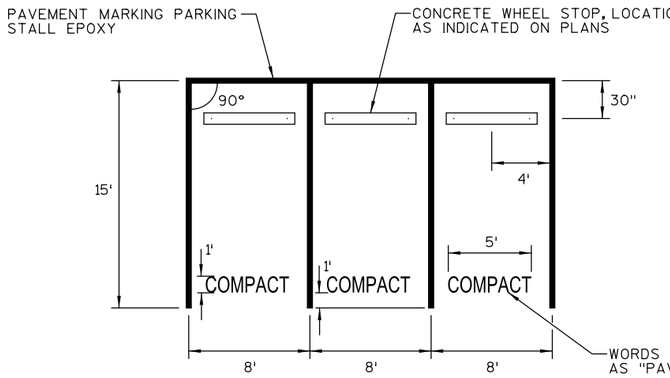
STANDARD ADA ACCESSIBLE PARKING STALL



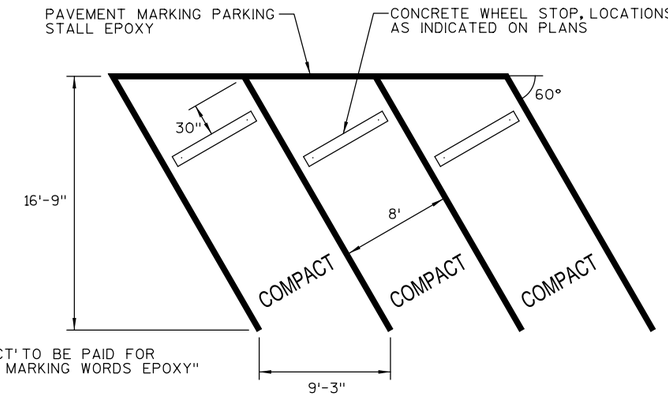
STANDARD MOTORCYCLE PARKING STALL



INTERNATIONAL SYMBOL OF ACCESSIBILITY PARKING STALL MARKING



COMPACT VEHICLE 90° PARKING STALL



COMPACT VEHICLE 60° PARKING STALL

2

WATER STREET

ST. PAUL AVENUE

CLYBOURN STREET

BROADWAY

N

(10) 9'x18' STANDARD STALLS, 90°
19.0'
2'
(5) 8'x15' COMPACT STALLS, 60°
15' RAD.
17.2'
17.0'
(8) 8'x15' COMPACT STALLS, 90°
23.6'
(3) 9'x18' ADA ACCESSIBLE STALLS, BLUE EPOXY
9.0'
9.4'
5.0'
(5) 9'x18' STANDARD STALLS, 90°
11.0'
9.0'
9.0'
9.0'
18.0'
19.0'
19.0'
20.0'
8.0'
5.0'
(3) 9'x18' ADA ACCESSIBLE STALLS, BLUE EPOXY
(4) 9'x18' STANDARD STALLS, 90°
28.5'
(13) 9'x18' STANDARD STALLS, 90°
3'
CONCRETE WHEEL STOP (TYP.)
(3) 8'x15' COMPACT STALLS, 90°
8.5'
4' RAD.
12.0'
4' RAD.
9.0'
27.4'
(15) 9'x18' STANDARD STALLS, 60°
22.5'
20.9'
9.0'
22.0'
(13) 9'x18' STANDARD STALLS, 90°
3.6'
21.9'
9' RAD.
(3) 21'x9' STANDARD STALLS
9' RAD.
23.6'
9.0'
9' RAD.
(8) 9'x18' STANDARD STALLS, 90°
24.0'
(4) COMPACT STALLS, 90°
(6) 9'x18' STANDARD STALLS, 90°
26.7'
15.1'
(4) 9'x18' STANDARD STALLS, 90°
(8) 9'x18' STANDARD STALLS, 90° CENTERED BETWEEN PIERS
24.8'
(6) 21'x9' STANDARD STALLS
(12) 9'x18' STANDARD STALLS, 90°
21.9'
18.2'
29' RAD.
20.0'
9' RAD.
(3) 21'x9' STANDARD STALLS
4.6'
17.6'
(11) 9'x18' STANDARD STALLS, 90°
5.0'
(3) 8'x15' COMPACT STALLS, 90°

NOTES

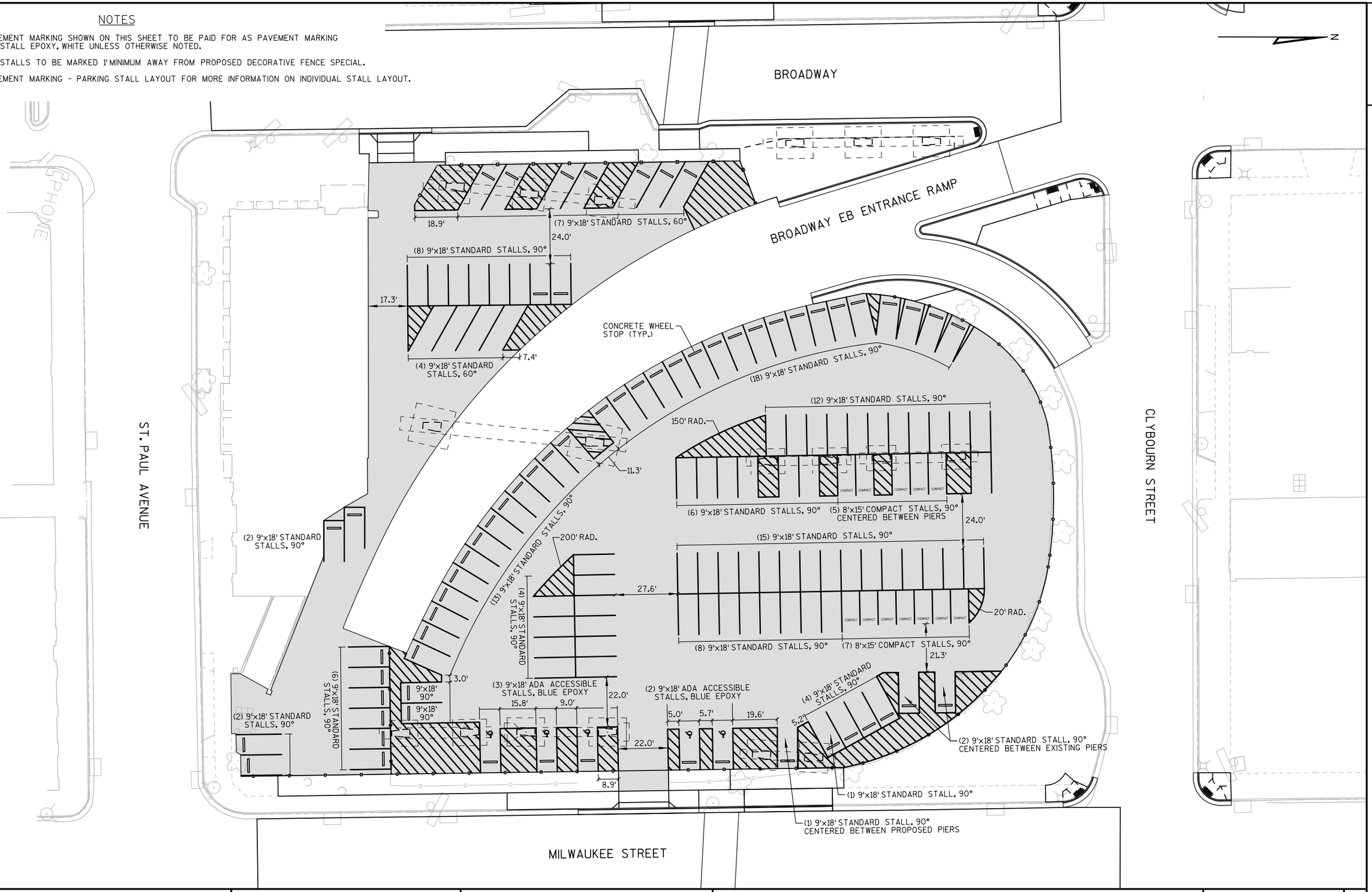
1. ALL PAVEMENT MARKING SHOWN ON THIS SHEET TO BE PAID FOR AS PAVEMENT MARKING PARKING STALL EPOXY, WHITE UNLESS OTHERWISE NOTED.
2. PARKING STALLS TO BE MARKED 1' MINIMUM AWAY FROM PROPOSED DECORATIVE FENCE SPECIAL.
3. SEE PAVEMENT MARKING - PARKING STALL LAYOUT FOR MORE INFORMATION ON INDIVIDUAL STALL LAYOUT.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING - WATER-BROADWAY PARKING LOT	SHEET 421 E

FILE NAME : IP_PWP:d0231471\024575_pm.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

NOTES

1. ALL PAVEMENT MARKING SHOWN ON THIS SHEET TO BE PAID FOR AS PAVEMENT MARKING PARKING STALL EPOXY, WHITE UNLESS OTHERWISE NOTED.
2. PARKING STALLS TO BE MARKED 1' MINIMUM AWAY FROM PROPOSED DECORATIVE FENCE SPECIAL.
3. SEE PAVEMENT MARKING - PARKING STALL LAYOUT FOR MORE INFORMATION ON INDIVIDUAL STALL LAYOUT.



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING - BROADWAY-MILWAUKEE PARKING LOTS	SHEET 422 E

FILE NAME : IP_PWP:d0231471\024576_pm.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

2

MILWAUKEE STREET WB EXIT RAMP

JACKSON STREET WB ENTRANCE RAMP

JACKSON STREET EB EXIT RAMP

MILWAUKEE STREET

(2) 9'x18' ADA ACCESSIBLE STALLS, BLUE EPOXY

(11) 9'x18' STANDARD STALLS, 90°

(4) 9'x18' STANDARD STALLS, 90°

4' RAD.

(8) 9'x18' STANDARD STALLS, 60°

(3) 9'x18' ADA ACCESSIBLE STALLS, BLUE EPOXY

(10) 4'x8' MOTORCYCLE STALLS, 90°

(7) 8'x15' COMPACT STALLS, 90°

(5) 9'x18' STANDARD STALLS, 90°

(13) 9'x18' STANDARD STALLS, 90°

CONCRETE WHEEL STOP (TYP.)

(13) 9'x18' STANDARD STALLS, 90°

(13) STALLS, 90° MATCH ADJACENT STALLS

(9) STALLS, 90° MATCH ADJACENT STALLS

(7) STALLS, 90° MATCH ADJACENT STALLS

(16) STALLS, 90° MATCH ADJACENT STALLS

(3) STALLS, 90° MATCH ADJACENT STALLS CENTER BETWEEN PROPOSED PIERS

(8) 9'x18' STANDARD STALLS, 90°

(11) 9'x18' STANDARD STALLS, 90°

(12) 9'x18' STANDARD STALLS, 90°

(14) 9'x18' STANDARD STALLS, 90°

(2) 9'x18' ADA ACCESSIBLE STALLS, BLUE EPOXY

(6) 9'x18' STANDARD STALLS, 90°

22.0' PAVEMENT MARKING CROSSWALK EPOXY 6-INCH

11.0' PAVEMENT MARKING STOP LINE EPOXY 18-INCH

(15) 9'x18' STANDARD STALLS, 90°

(2) 9'x18' ADA ACCESSIBLE STALLS, BLUE EPOXY

(1) 9'x18' ADA ACCESSIBLE STALL, BLUE EPOXY

(6) 9'x18' STANDARD STALLS, 90°

(21) 9'x18' STANDARD STALLS, 90°

(3) 9'x18' STANDARD STALLS, 90° CENTERED BETWEEN EXISTING PIERS

(4) 9'x18' STANDARD STALLS, 90°

(2) 9'x18' ADA ACCESSIBLE STALLS, BLUE EPOXY

(2) 9'x18' ADA ACCESSIBLE STALLS, BLUE EPOXY

(10) 9'x18' STANDARD STALLS, 90°

(6) 9'x18' STANDARD STALLS, 90° CENTERED BETWEEN EXISTING PIERS

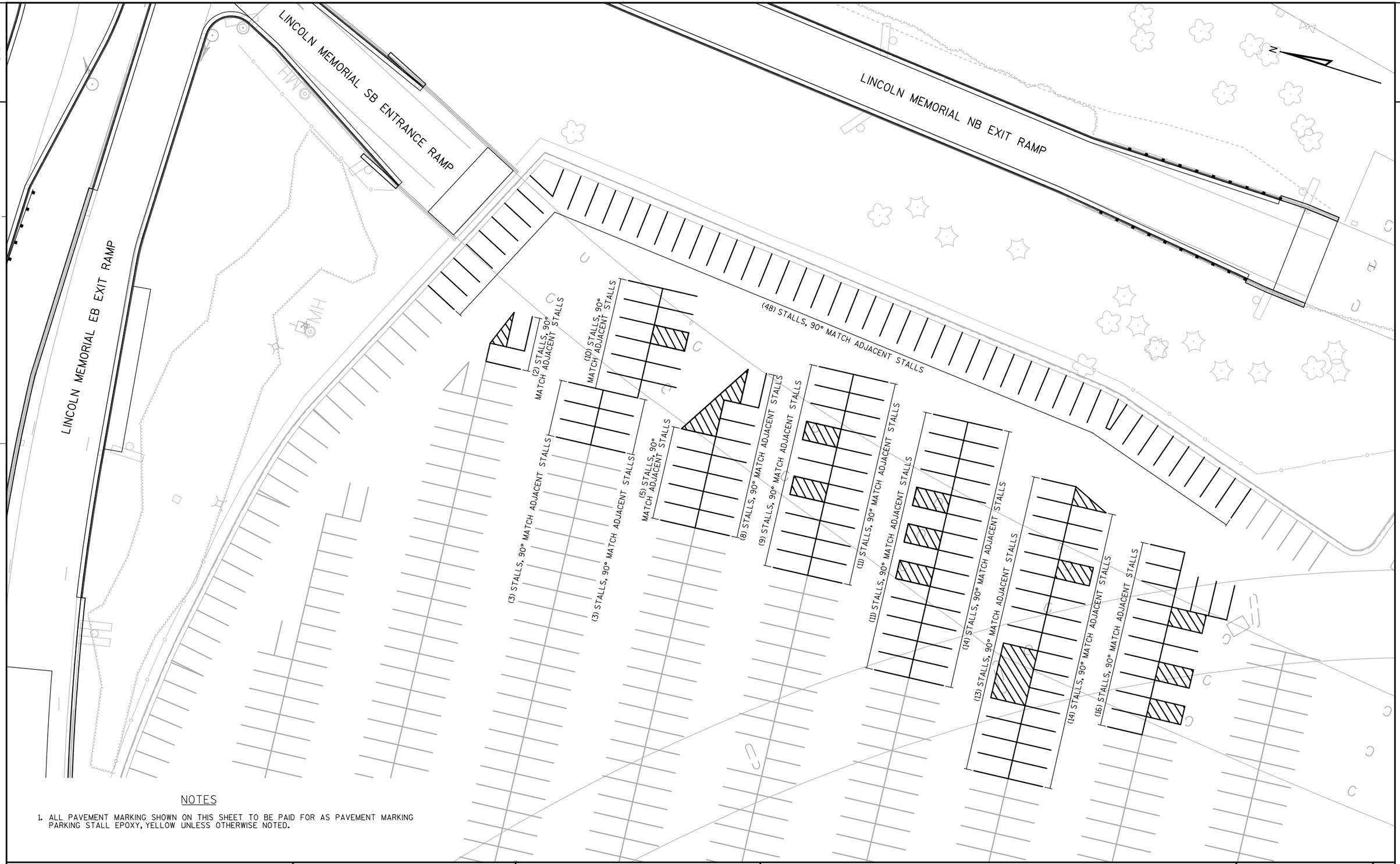
NOTES

1. ALL PAVEMENT MARKING SHOWN ON THIS SHEET TO BE PAID FOR AS PAVEMENT MARKING PARKING STALL EPOXY, YELLOW UNLESS OTHERWISE NOTED.
2. PARKING STALLS TO BE MARKED 1' MINIMUM AWAY FROM PROPOSED DECORATIVE FENCE SPECIAL.
3. SEE PAVEMENT MARKING - PARKING STALL LAYOUT FOR MORE INFORMATION ON INDIVIDUAL STALL LAYOUT.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING - MILWAUKEE-JACKSON PARKING LOTS	SHEET 423	E

FILE NAME : c:\pwv8i-local\baker_projects\andrew.genz\d0231471\024577_pm.dgn PLOT DATE : 29-APR-2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42



NOTES

1. ALL PAVEMENT MARKING SHOWN ON THIS SHEET TO BE PAID FOR AS PAVEMENT MARKING PARKING STALL EPOXY, YELLOW UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PAVEMENT MARKING - VAN BUREN PARKING LOT	SHEET 424	E

GENERAL NOTES FOR TRAFFIC CONTROL

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

2) CONFLICTING TRAFFIC SIGNS SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER. COVERING OR REMOVAL OF SIGNS SHALL BE PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE I OR II.

3) A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE WORK AREAS, IS WARRANTED BY CONDITIONS, OR AS DIRECTED BY THE ENGINEER. HOWEVER, CONTRACTOR SHALL NOT USE FLAG PERSONS TO DIRECT, STOP OR CONTROL TRAFFIC ON IH 794 AT ANY TIME.

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

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

6) FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.

7) ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE "A" (LOW INTENSITY FLASHING) LIGHTS.

8) DIMENSIONS TO CONCRETE BARRIER TEMPORARY PRECAST ARE TO THE FACE OF BARRIER ADJACENT TO TRAFFIC. STATION CALL-OUTS TO CONCRETE BARRIER TEMPORARY PRECAST ARE TO THE CENTER OF THE BARRIER.

9) COVER DETOUR SIGNING WHEN NOT IN USE. INCIDENTAL TO "TRAFFIC CONTROL DETOUR SIGNS" ITEM.

10) WORK AREAS SHOWN ARE NOT DEMONSTRATED TO REFLECT ALL REMOVALS. SEE BRIDGE REMOVAL OVERVIEW SHEETS FOR ADDITIONAL INFORMATION.

11) WATER BLASTING SHALL BE USED FOR REMOVING PAVEMENT MARKING ON THE DECK OF ANY STRUCTURES THAT WILL REMAIN AND FOR ANY TEMPORARY PAVEMENT MARKING ON FINAL SURFACES. GRINDING MAY BE USED FOR REMOVING PAVEMENT MARKINGS ON ANY ASPHALT PAVEMENT WHERE THE FINAL MARKING WILL BE GOING BACK IN THE SAME LOCATION OR ON ANY SURFACES THAT WILL NOT REMAIN AFTER THE PROJECT IS COMPLETE.

GENERAL NOTES FOR FIXED MESSAGE SIGNS FOUND ON TRAFFIC CONTROL SHEETS

1) CONTRACTOR SHALL LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY TYPE I SIGN AND A MINIMUM OF 200' FROM ANY TYPE II SIGN.

2) ALL FIXED MESSAGE SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND.

3) SEE FIXED MESSAGE SIGN LAYOUT SHEETS FOR MORE INFORMATION.

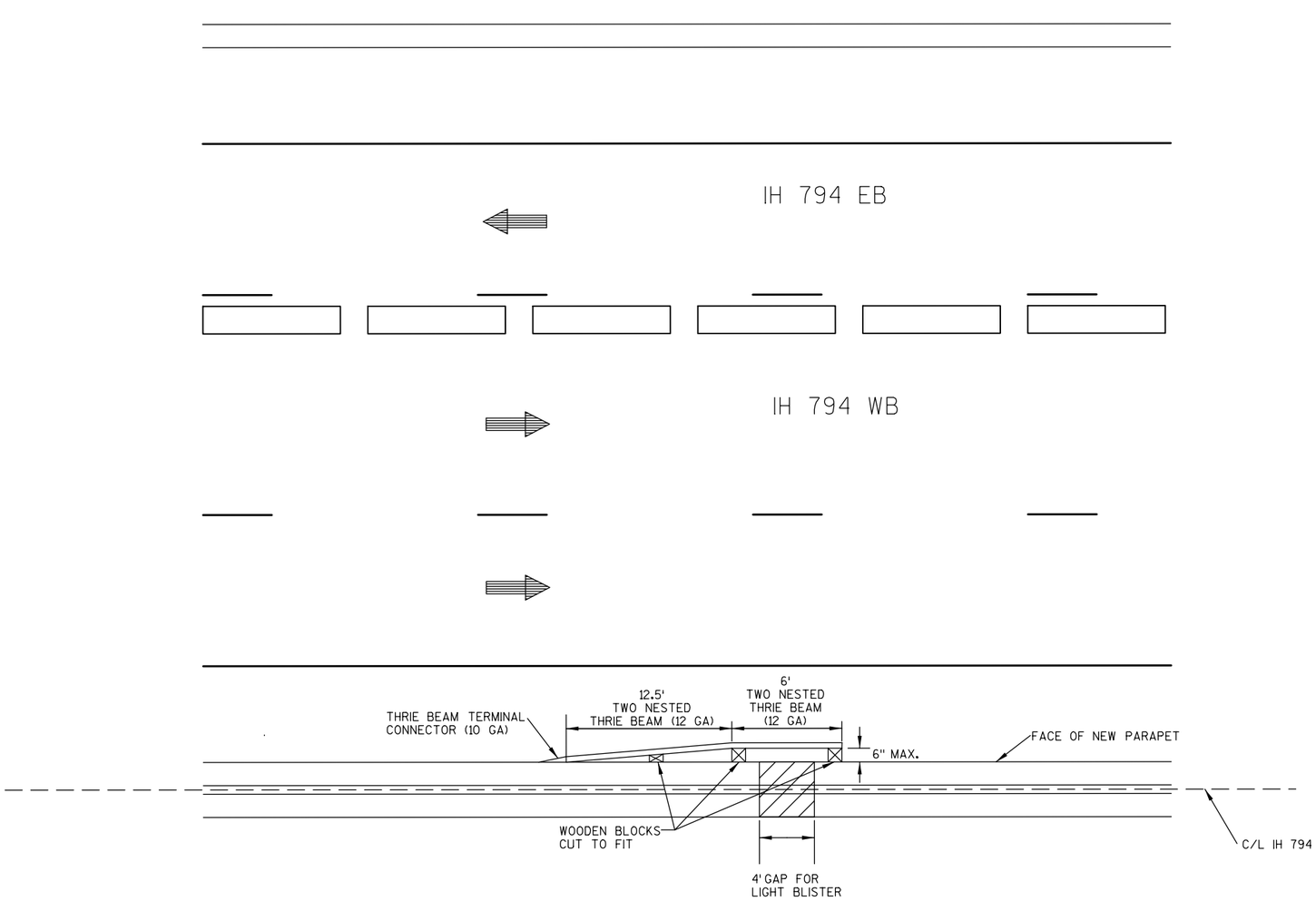
4) PORTABLE CHANGEABLE MESSAGE SIGNS NOTING RAMP CLOSURES OR TRAFFIC PATTERN CHANGES SHALL BE PLACED 10 DAYS PRIOR TO CONSTRUCTION.

STANDARD WISDOT WORK ZONE TRAFFIC CONTROL SYMBOLS

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- (A) TYPE A WARNING LIGHT (FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPRARY PRECAST OR MOVABLE BARRIER
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN

NON-STANDARD WORK ZONE TRAFFIC CONTROL SYMBOLS

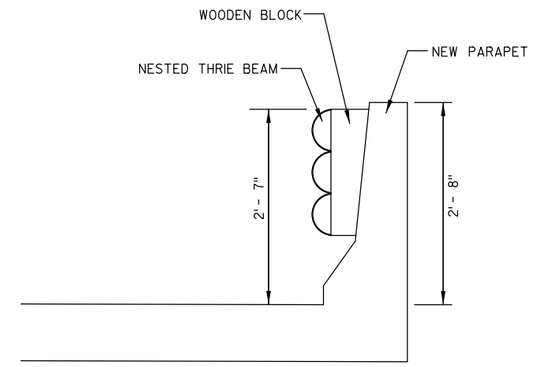
- EW4 PAVEMENT MARKING EPOXY, 4-INCH (WHITE)
- EY4 PAVEMENT MARKING EPOXY, 4-INCH (YELLOW)
- EW6 PAVEMENT MARKING EPOXY, 6-INCH (WHITE)
- EW8 PAVEMENT MARKING EPOXY, 8-INCH (WHITE)
- EW12 PAVEMENT MARKING EPOXY, 12-INCH (WHITE)
- PW4 PAVEMENT MARKING PAINT, 4-INCH (WHITE)
- PY4 PAVEMENT MARKING PAINT, 4-INCH (YELLOW)
- PW6 PAVEMENT MARKING PAINT, 6-INCH (WHITE)
- PW8 PAVEMENT MARKING PAINT, 8-INCH (WHITE)
- PW12 PAVEMENT MARKING PAINT, 12-INCH (WHITE)
- TW4 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE, 4-INCH (WHITE)
- TY4 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE, 4-INCH (YELLOW)
- TW8 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE, 8-INCH (WHITE)
- TW12 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE, 12-INCH (WHITE)
- TA2 TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE
- TW TEMPORARY PAVEMENT MARKING WORDS REMOVABLE TAPE
- PA1 PAVEMENT MARKING ARROWS PAINT, TYPE 1
- PA2 PAVEMENT MARKING ARROWS PAINT, TYPE 2
- PA3 PAVEMENT MARKING ARROWS PAINT, TYPE 3
- PW PAVEMENT MARKING WORDS PAINT



TEMPORARY THRIE BEAM LIGHT BLISTER PROTECTION

STA. 66+95 LF - 162+55 NB (STAGE 2)

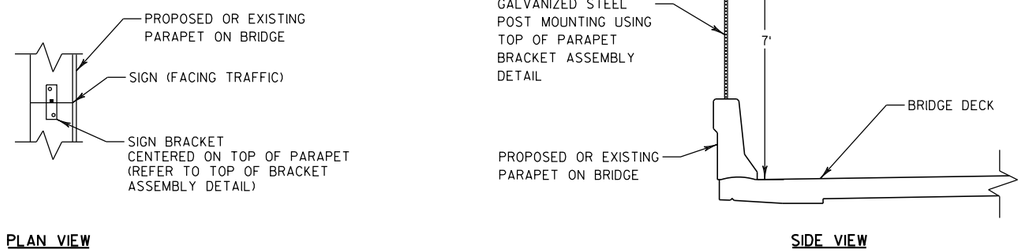
SEE SDD CONCRETE BARRIER TEMPORARY PRECAST, 12'- 6" FOR ADDITIONAL INFORMATION ON ATTACHING THRIE BEAM.



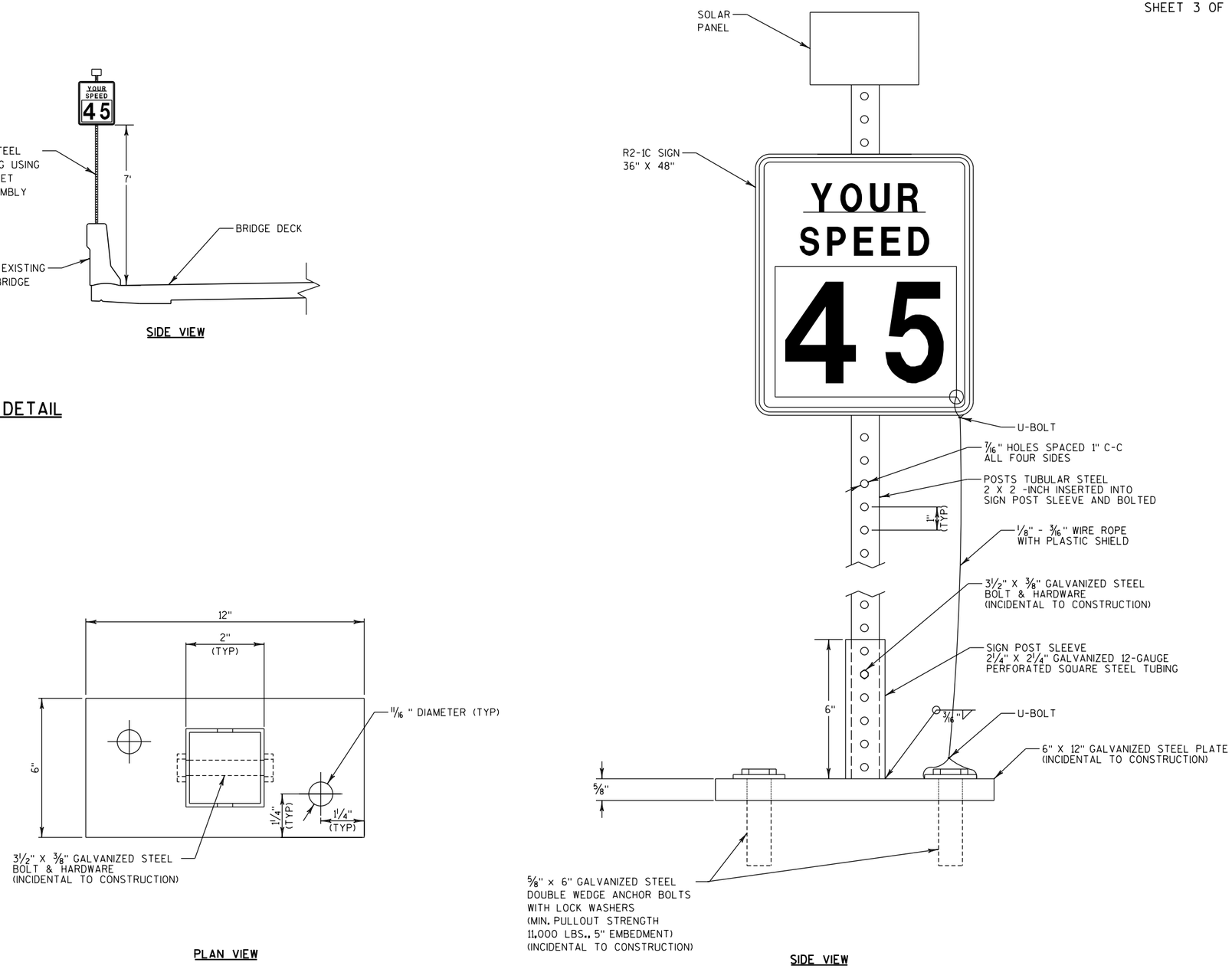
TEMPORARY THRIE BEAM LIGHT BLISTER PROTECTION - SIDE VIEW

NOTE:
CLOSE MEDIAN LANE AND USE TRUCK MOUNTED ATTENUATOR WHEN SAWCUTING THE PARAPET AND INSTALLING THE THRIE BEAM.

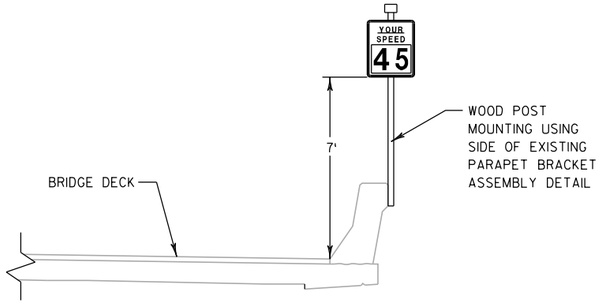
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL DETAILS - LIGHT BASE INSTALLATION	SHEET 426	E



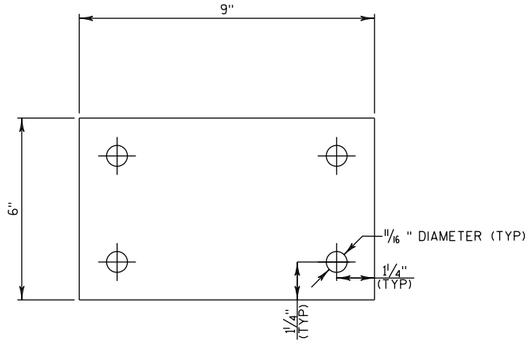
TOP OF PARAPET MOUNTING DETAIL



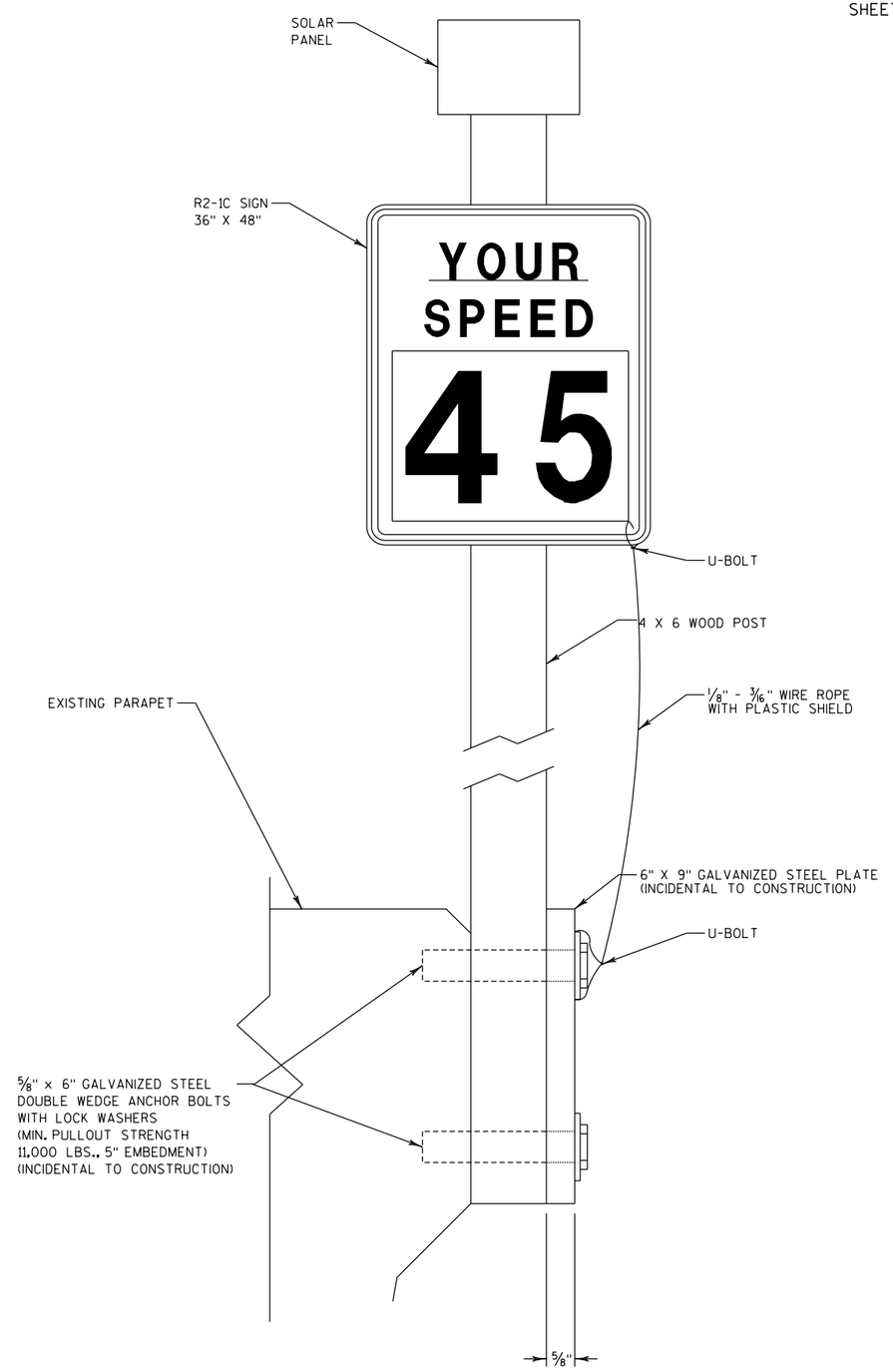
TOP OF PARAPET BRACKET ASSEMBLY DETAIL



SIDE OF EXISITING PARAPET MOUNTING DETAIL

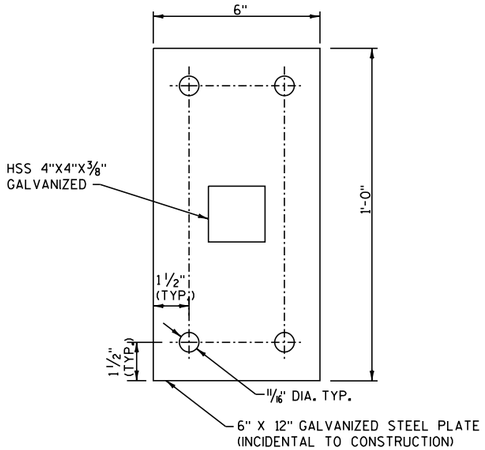


6" x 9" GALVANIZED STEEL PLATE DETAIL



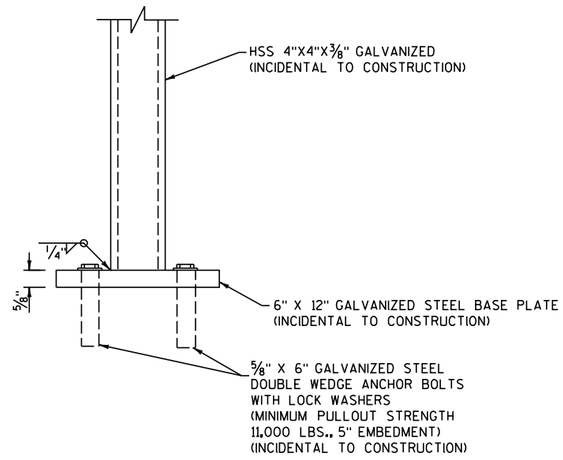
SIDE VIEW

SIDE OF EXISTING PARAPET BRACKET ASSEMBLY DETAIL

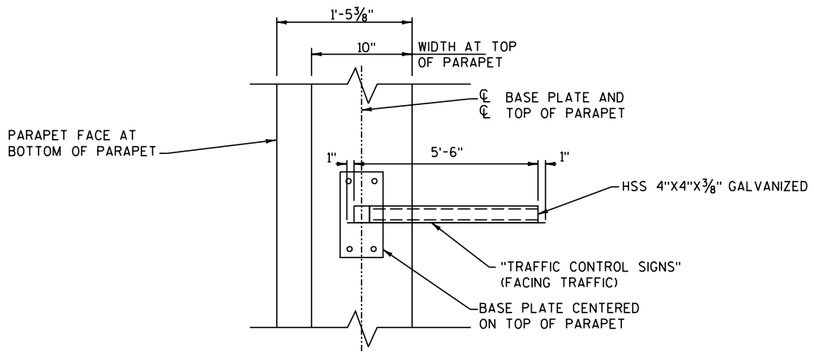


PLAN VIEW - BASE PLATE

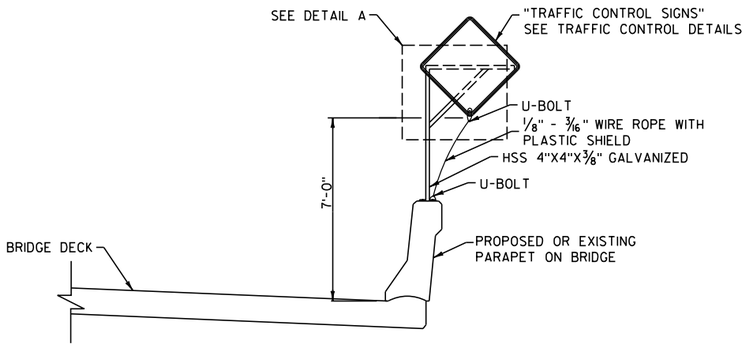
NOTES:
1. BRIDGE PARAPET SIGN POSTS ARE TEMPORARY.
2. ON PERMANANT PARAPETS, REMOVE THE BASE PLATES AND ANCHOR BOLTS. COMPLETELY FILL REMAINING HOLES WITH A NON-SHIRNK COMMERCIAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST. (INCIDENTAL TO CONSTRUCTION)
3. MOUNTING HARDWARE, FABRICATING, FURNISHING, INSTALLATION, AND REMOVAL OF THE BARRIER WALL SIGN BRACKETS ARE INCIDENTAL TO "TRAFFIC CONTROL SIGNS".



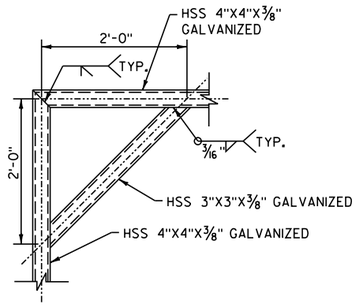
SIDE VIEW - SIGN POST & BASE PLATE



PLAN VIEW - OVERALL



SIDE VIEW - OVERALL

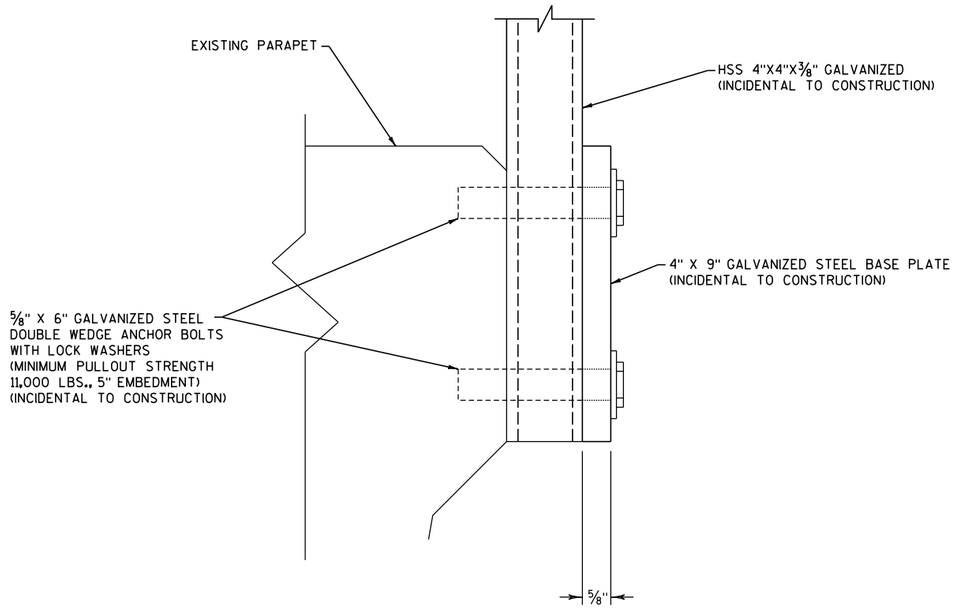


DETAIL A
SIGN NOT SHOWN FOR CLARITY

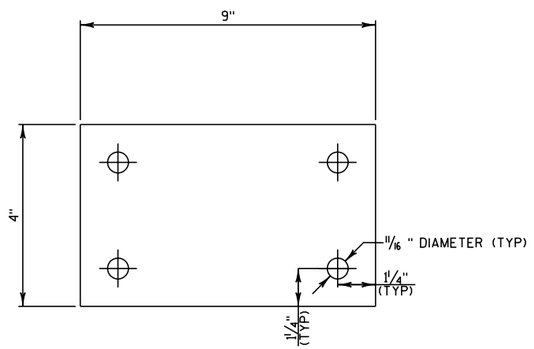
MOUNTING TRAFFIC CONTROL SIGNS TO BRIDGE PARAPET - TOP

N.T.S.

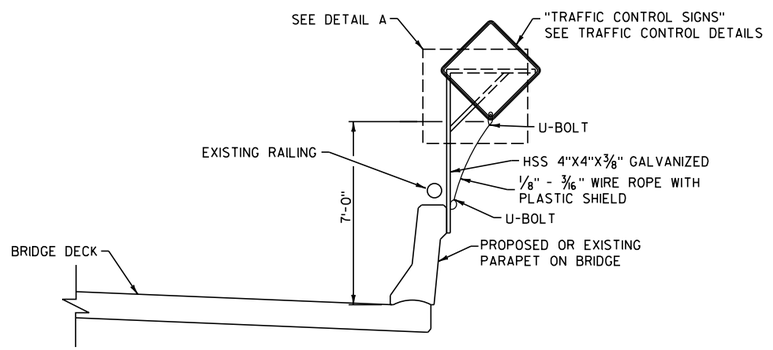
NOTES:
1. BRIDGE PARAPET SIGN POSTS ARE TEMPORARY.
2. ON PERMANANT PARAPETS, REMOVE THE BASE PLATES AND ANCHOR BOLTS, COMPLETELY FILL REMAINING HOLES WITH A NON-SHIRNK COMMERCIAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST. (INCIDENTAL TO CONSTRUCTION)
3. MOUNTING HARDWARE, FABRICATING, FURNISHING, INSTALLATION, AND REMOVAL OF THE BARRIER WALL SIGN BRACKETS ARE INCIDENTAL TO "TRAFFIC CONTROL SIGNS".



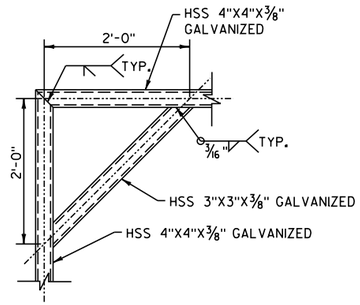
SIDE VIEW - SIGN POST & BASE PLATE



6" x 9" GALVANIZED STEEL PLATE DETAIL



SIDE VIEW - OVERALL

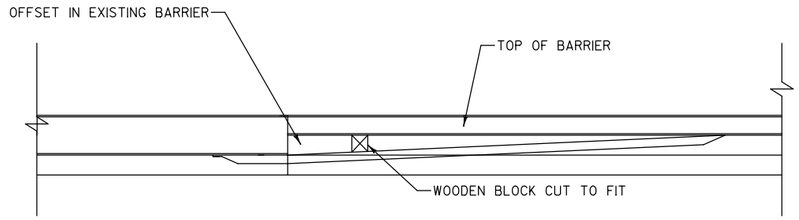


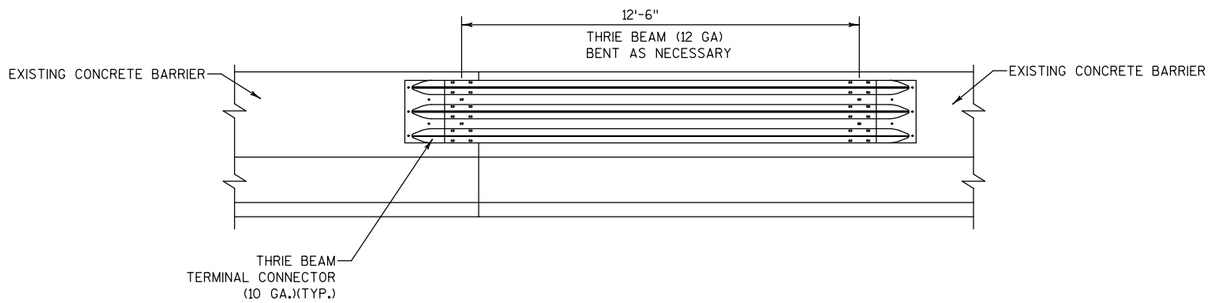
DETAIL A
SIGN NOT SHOWN FOR CLARITY

MOUNTING TRAFFIC CONTROL SIGNS TO BRIDGE PARAPET - SIDE

N.T.S.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL DETAILS - TRAFFIC CONTROL SIGN MOUNTING	SHEET 430	E



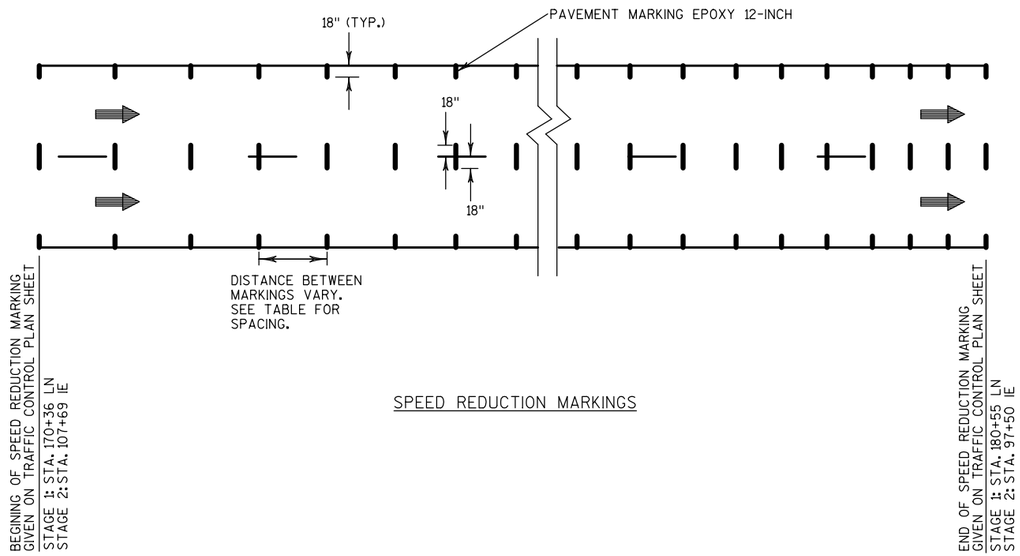


TEMPORARY THRIE BEAM CONNECTION STA 619+10 EB

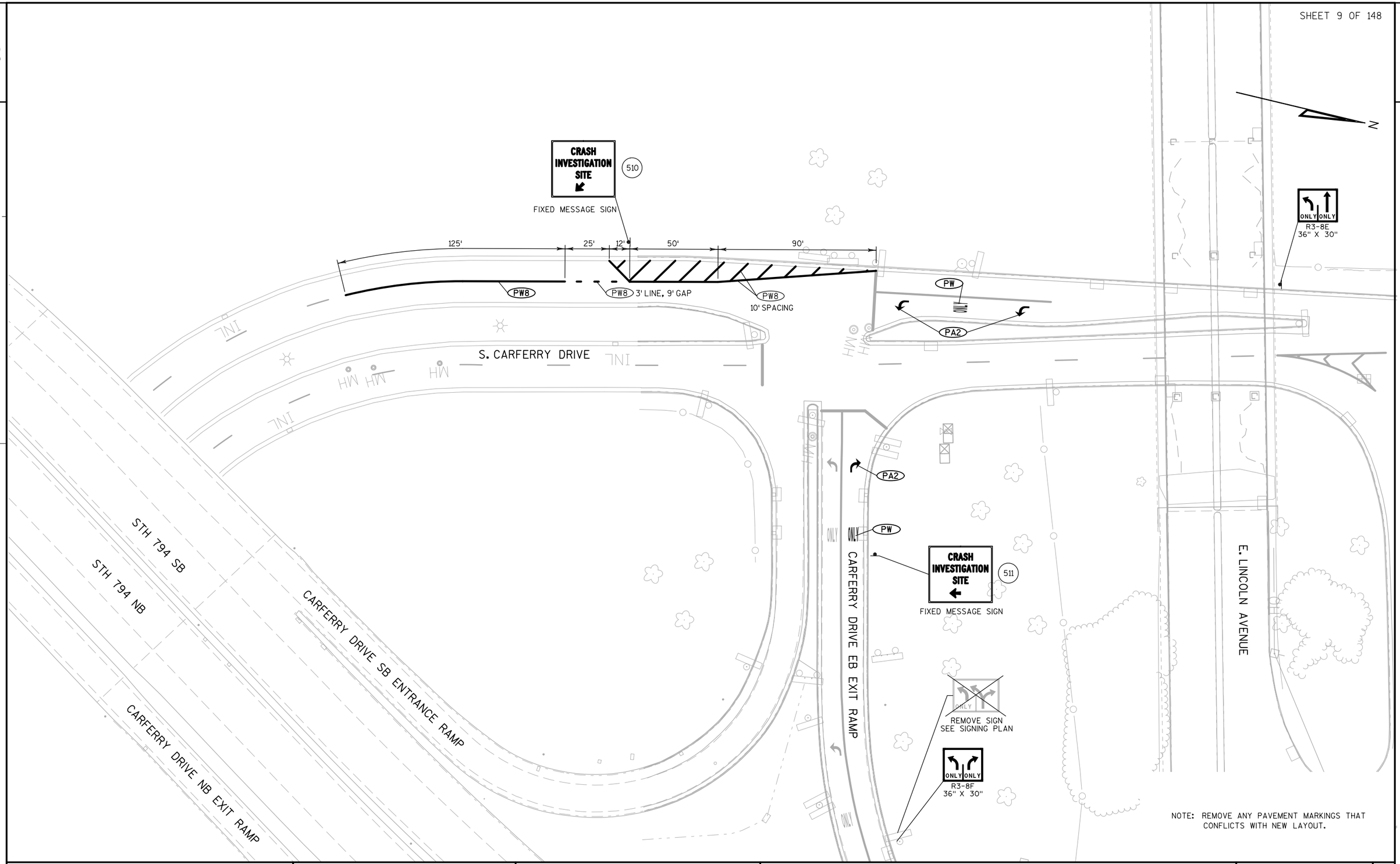
SEE SDD CONCRETE BARRIER TEMPORARY
PRECAST, 12'- 6" FOR ADDITIONAL INFORMATION
ON ATTACHING THRIE BEAM.

MARKING NUMBER	DISTANCE BETWEEN MARKINGS	STAGE 1 LOCATION OF MARK	STAGE 2 LOCATION OF MARK
1	0	170+36 LN	107+69 IE
2	20	170+56 LN	107+49 IE
3	20	170+76 LN	107+29 IE
4	20	170+96 LN	107+09 IE
5	20	171+16 LN	106+89 IE
6	19	171+35 LN	106+70 IE
7	19	171+54 LN	106+51 IE
8	19	171+73 LN	106+32 IE
9	19	171+92 LN	106+13 IE
10	19	172+11 LN	105+94 IE
11	19	172+30 LN	105+75 IE
12	18	172+48 LN	105+57 IE
13	18	172+66 LN	105+39 IE
14	18	172+84 LN	105+21 IE
15	18	173+02 LN	105+03 IE
16	18	173+20 LN	104+85 IE
17	18	173+38 LN	104+67 IE
18	17	173+55 LN	104+50 IE
19	17	173+72 LN	104+33 IE
20	17	173+89 LN	104+16 IE
21	17	174+06 LN	103+99 IE
22	17	174+23 LN	103+82 IE
23	16	174+39 LN	103+66 IE
24	16	174+55 LN	103+50 IE
25	16	174+71 LN	103+34 IE
26	16	174+87 LN	103+18 IE
27	16	175+03 LN	103+02 IE
28	16	175+19 LN	102+86 IE
29	16	175+35 LN	102+70 IE
30	15	175+50 LN	102+55 IE
31	15	175+65 LN	102+40 IE
32	15	175+80 LN	102+25 IE
33	15	175+95 LN	102+10 IE
34	15	176+10 LN	101+95 IE
35	14	176+24 LN	101+81 IE
36	14	176+38 LN	101+67 IE
37	14	176+52 LN	101+53 IE
38	14	176+66 LN	101+39 IE
39	14	176+80 LN	101+25 IE
40	14	176+94 LN	101+11 IE

MARKING NUMBER	DISTANCE BETWEEN MARKINGS	STAGE 1 LOCATION OF MARK	STAGE 2 LOCATION OF MARK
41	13	177+07 LN	100+98 IE
42	13	177+20 LN	100+85 IE
43	13	177+33 LN	100+72 IE
44	13	177+46 LN	100+59 IE
45	13	177+59 LN	100+46 IE
46	12	177+71 LN	100+34 IE
47	12	177+83 LN	100+22 IE
48	12	177+95 LN	100+10 IE
49	12	178+07 LN	99+98 IE
50	12	178+19 LN	99+86 IE
51	12	178+31 LN	99+74 IE
52	11	178+42 LN	99+63 IE
53	11	178+53 LN	99+52 IE
54	11	178+64 LN	99+41 IE
55	11	178+75 LN	99+30 IE
56	11	178+86 LN	99+19 IE
57	10	178+96 LN	99+09 IE
58	10	179+06 LN	98+99 IE
59	10	179+16 LN	98+89 IE
60	10	179+26 LN	98+79 IE
61	10	179+36 LN	98+69 IE
62	10	179+46 LN	98+59 IE
63	10	179+56 LN	98+49 IE
64	9	179+65 LN	98+40 IE
65	9	179+74 LN	98+31 IE
66	9	179+83 LN	98+22 IE
67	9	179+92 LN	98+13 IE
68	9	180+01 LN	98+04 IE
69	8	180+09 LN	97+96 IE
70	8	180+17 LN	97+88 IE
71	8	180+25 LN	97+80 IE
72	8	180+33 LN	97+72 IE
73	8	180+41 LN	97+64 IE
74	7	180+48 LN	97+57 IE
75	7	180+55 LN	97+50 IE



SPEED REDUCTION MARKINGS



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL DETAILS - STAGE 1&2 CRASH INVESTIGATION SITE	SHEET 433	E

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL DETAILS - VAN BUREN PARKING LOT	SHEET 434	E

FILE NAME : IP_PWP:d0231471\025007a_tc.dgn
PLOT DATE : 26-APR-2013
PLOT BY : 1732
PLOT NAME :
PLOT SCALE : 40.000000:1.000000
WISDOT/CADDS SHEET 42

LEGEND

- WORK ZONE
- SAFETY FENCE
- TEMPORARY CONCRETE BARRIER

NOTE

1. TEMPORARY RELOCATION OF PARKING GATE PAID AS "MAINTENANCE OF PARKING GATES AT THE PUBLIC MARKET". SEE CONSTRUCTION DETAIL FOR ADDITIONAL LAYOUT INFORMATION.

+50 101+00 +50 102+00 +50 103+00 +50 104+00 +50 105+00 +50

WATER STREET

ST. PAUL AVENUE

IH 794 EB

IH 794 WB

CLYBOURN STREET

MILWAUKEE PUBLIC MARKET BUILDING

STAGE 1 TEMPORARY DRIVEWAY AND ISLAND

SEE DETAIL A.

DRW

15'

2

1

SW5

18D

3

5

4

3" ASPHALTIC SURFACE TEMPORARY, OVER 6" BASE AGGREGATE DENSE 1¼-INCH

MAINTAIN INGRESS/EGRESS FROM NORTH ENTRANCE TO MILWAUKEE PUBLIC MARKET BUILDING, EXCEPT WHEN WORK IS OCCURING OVERHEAD.

10'

11'

10'

MAINTAIN INGRESS/EGRESS FROM NORTH ENTRANCE TO MILWAUKEE PUBLIC MARKET BUILDING, EXCEPT WHEN WORK IS OCCURING OVERHEAD.

10'

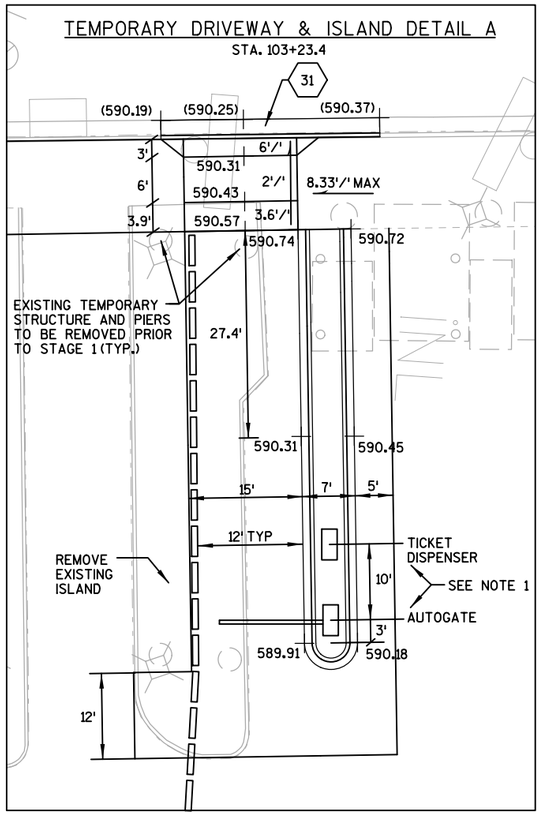
REPLACE CONDUIT AND WIRING FOR EXIT GATE PRIOR TO STAGE 1. SEE CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION. PAID AS " MAINTENANCE OF PARKING GATES AT THE PUBLIC MARKET".

+50 202+00 +50 203+00 +50 204+00

BROADWAY

TEMPORARY DRIVEWAY & ISLAND DETAIL A

STA. 103+23.4



DATA TABLE

WATER STREET

POINT NO.	STATION	OFFSET	COMMENTS
1	103+31.83	56.88' RT	BEGIN CURB & GUTTER
2	103+36.83	56.68' RT	END CURB & GUTTER
3	103+36.54	112.35' RT	5' RADIUS (FACE)
4	103+34.04	112.45' RT	BEGIN RADIUS
5	103+39.04	112.25' RT	END RADIUS

RADIUS SHOWN IS TO CURB FLANGE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL DETAILS - STAGE 1	SHEET 435	E

LEGEND

WORK ZONE

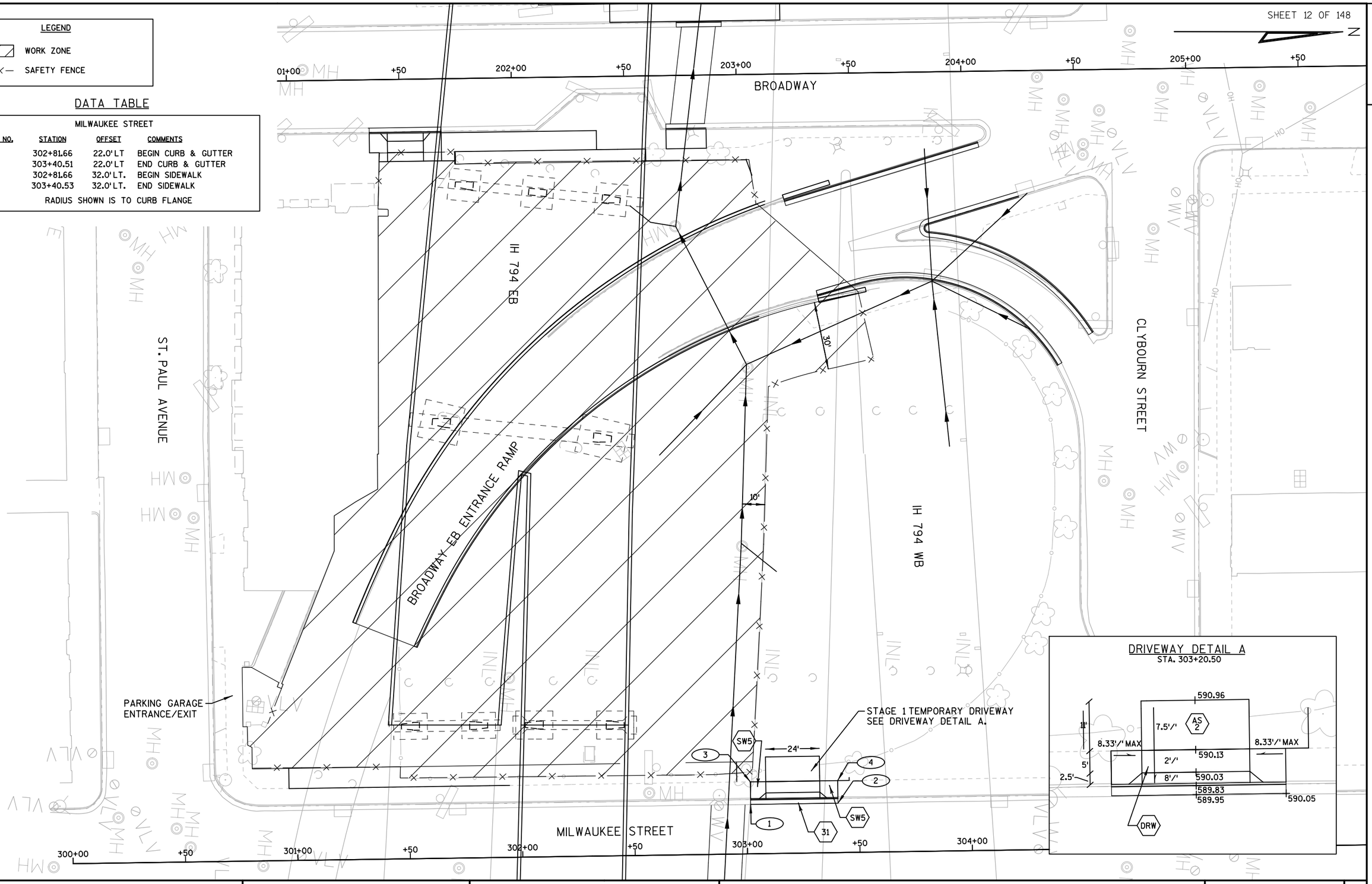
SAFETY FENCE

DATA TABLE

MILWAUKEE STREET

POINT NO.	STATION	OFFSET	COMMENTS
1	302+81.66	22.0'LT	BEGIN CURB & GUTTER
2	303+40.51	22.0'LT	END CURB & GUTTER
3	302+81.66	32.0'LT.	BEGIN SIDEWALK
4	303+40.53	32.0'LT.	END SIDEWALK

RADIUS SHOWN IS TO CURB FLANGE



DRIVEWAY DETAIL A
STA. 303+20.50

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL DETAILS - STAGE 1	SHEET 436 E

2

2

LEGEND

WORK ZONE

SAFETY FENCE

N

PARKING LOT ENTRANCE/EXIT

PARKING LOT ENTRY/EXIT

IH 794 WB

MILWAUKEE STREET WB EXIT RAMP

JACKSON STREET WB ENTRANCE RAMP

MILWAUKEE STREET

JACKSON STREET EB EXIT RAMP

PEDESTRIAN WALKWAY
10-FT WIDTH

30'

30'

15'

15'

IH 794 EB

BROADWAY EB ENTRANCE RAMP

PARKING LOT ENTRANCE/EXIT

PARKING LOT ENTRANCE/EXIT

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL DETAILS - STAGE 1	SHEET 437	E

LEGEND

- WORK ZONE
- SAFETY FENCE
- TEMPORARY CONCRETE BARRIER

WATER STREET

STAGE 2 AND PERMANENT PARKING LOT ENTRY

ST. PAUL AVENUE

IH 794 EB

MILWAUKEE PUBLIC MARKET BUILDING

15'

IH 794 WB

CLYBOURN STREET

30'

PARKING LOT EXIT

BROADWAY

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL DETAILS - STAGE 2	SHEET 438 E

LEGEND

WORK ZONE

SAFETY FENCE

N

BROADWAY

PARKING LOT ENTRANCE/EXIT

IH 794 EB

BROADWAY EB ENTRANCE RAMP

ST. PAUL AVENUE

CLYBOURN STREET

30'

IH 794 WB

PARKING GARAGE ENTRANCE/EXIT

MILWAUKEE STREET

STAGE 2 AND PERMANENT PARKING LOT ENTRANCE/EXIT

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL DETAILS - STAGE 2	SHEET 439	E

2

LEGEND

WORK ZONE

SAFETY FENCE

PARKING LOT ENTRANCE/EXIT

IH 794 WB

PEDESTRIAN WALKWAY
10-FT WIDTH

15'

PARKING LOT ENTRANCE/EXIT

MILWAUKEE STREET WB EXIT RAMP

30'

JACKSON STREET WB ENTRANCE RAMP

MILWAUKEE STREET

30'

CONSTRUCTION FENCE

JACKSON STREET EB EXIT RAMP

PEDESTRIAN WALKWAY
10-FT WIDTH

PARKING LOT ENTRANCE/EXIT

IH 794 EB

BROADWAY EB ENTRANCE RAMP

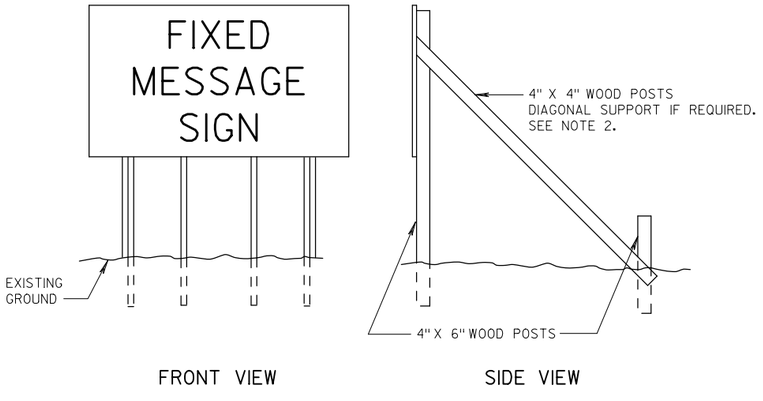
PARKING LOT ENTRANCE/EXIT

PARKING LOT ENTRANCE/EXIT

N

2

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL DETAILS - STAGE 2	SHEET 440 E



FRONT VIEW

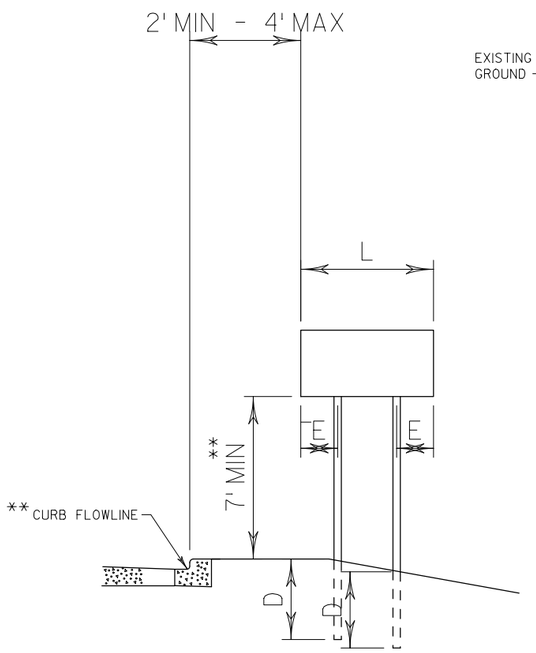
SIDE VIEW

NOTES

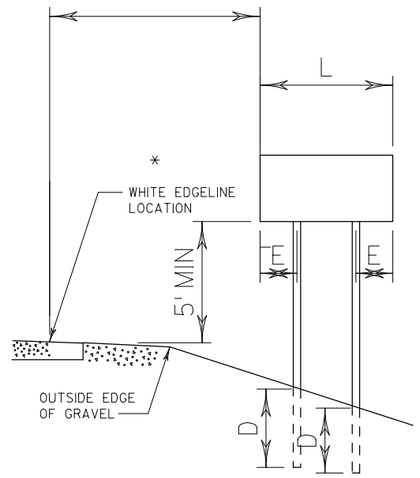
1. SEE TRAFFIC CONTROL SHEETS FOR SIGN LOCATIONS.
2. TWO DIAGONAL SUPPORTS TO BE INCLUDED FOR EACH SIGN OVER 12' LONG AND HIGHER THAN 8'. DIAGONAL SUPPORTS TO BE AFFIXED TO THE OUTSIDE SUPPORTS AND TO BE INCIDENTAL TO THE "TRAFFIC CONTROL FIXED MESSAGE SIGN" ITEM. IF DIAGONAL SUPPORTS ARE USED, SIGN TO BE SHIELDED BEHIND CONCRETE BARRIER OR PLACED OUTSIDE THE CLEAR ZONE.
3. SEE TABLES BELOW FOR REQUIRED NUMBER OF POSTS.

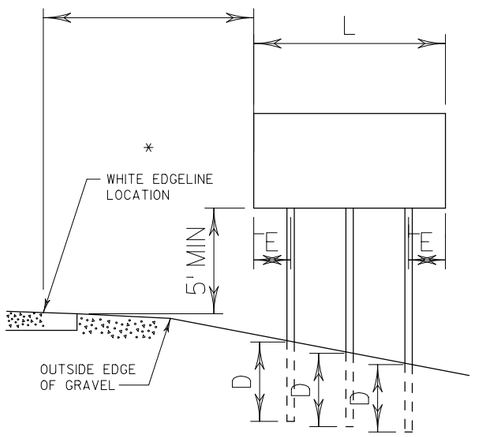
* 6' FROM EDGE OF A PAVED SHOULDER OR 12' FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) OR 2' FROM OUTSIDE EDGE OF GRAVEL, WHICHEVER IS GREATER UNLESS DIRECTED BY PROJECT ENGINEER. SEE NOTE 2 FOR OFFSET REQUIREMENTS WHERE DIAGONAL SUPPORTS ARE USED.

** THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5' MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.



URBAN AREA





RURAL AREA

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
GREATER THAN 48" LESS THAN 60"	12"
60" TO 120"	L/5

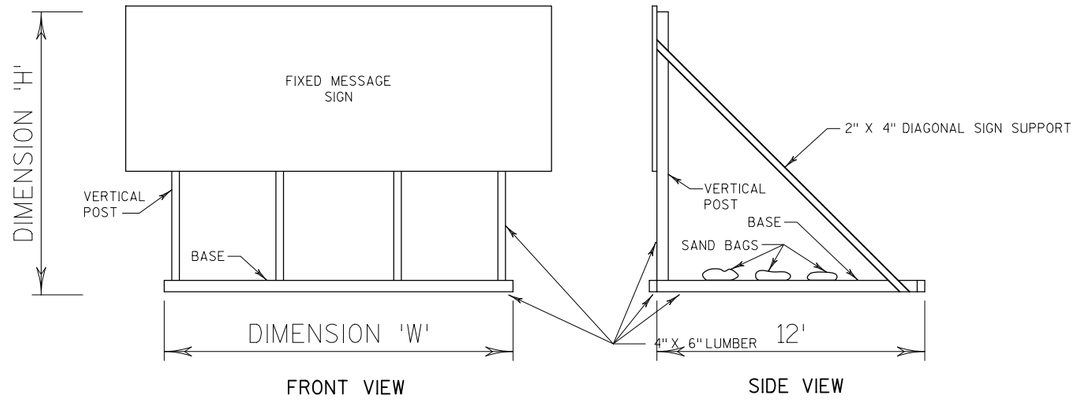
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
GREATER THAN 120" LESS THAN 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" AND GREATER	12"

POST EMBEDMENT DEPTH

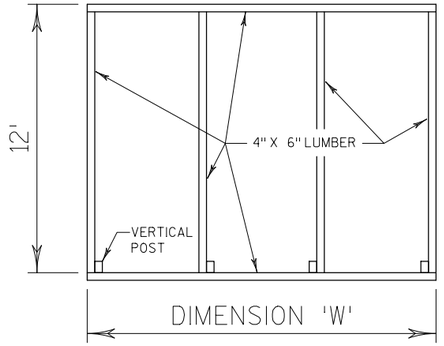
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

POST MOUNTING DETAIL FOR TRAFFIC CONTROL FIXED MESSAGE SIGNS



FRONT VIEW

SIDE VIEW



BASE PLAN VIEW

ANTICIPATED DIMENSIONS & POSTS REQUIRED

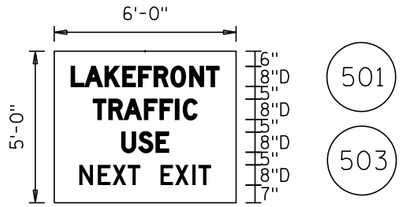
(FOR INFORMATION ONLY, CONTRACTOR IS TO VERIFY)

SIGN NO.	'W' (FT)	'H' (FT)	NO. OF POSTS OF HEIGHT 'H'
604	10	10	3
537	7	10.5	2

NOTES

1. SEE TRAFFIC CONTROL SHEETS FOR SIGN LOCATIONS.
2. TWO DIAGONAL SUPPORTS SHALL BE INCLUDED AND AFFIXED TO THE OUTSIDE SUPPORTS.
3. DIAGONAL SUPPORTS, VERTICAL POSTS AND BASE LUMBER ARE ALL INCLUDED IN THE "FIXED MESSAGE SIGN PORTABLE SUPPORT" ITEM.
4. PROVIDE AN ADEQUATE NUMBER OF SAND BAGS TO HOLD THE SIGN IN PLACE. SAND BAGS ARE INCLUDED IN THE "FIXED MESSAGE SIGN PORTABLE SUPPORT" ITEM.
5. SEE "TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS" SIGN PLATE FOR ADDITIONAL REQUIREMENTS.

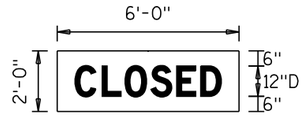
FIXED MESSAGE SIGN PORTABLE SUPPORT



501 MOUNT ON PARAPET

503

SIGN 503
PRE STAGE 2 - MOUNT ON TYPE III BARRICADE
STAGE 1 - MOUNT ON PARAPET - SEE DETAIL
STAGE 2B - MOUNT ON TYPE III BARRICADE



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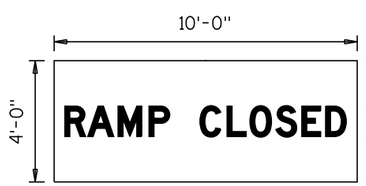
ATTACH TO EXISTING
TYPE I SIGN

535



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505

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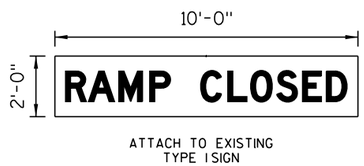
TYPE I SIGN

537



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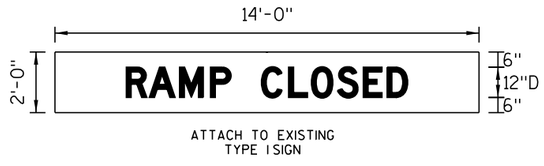

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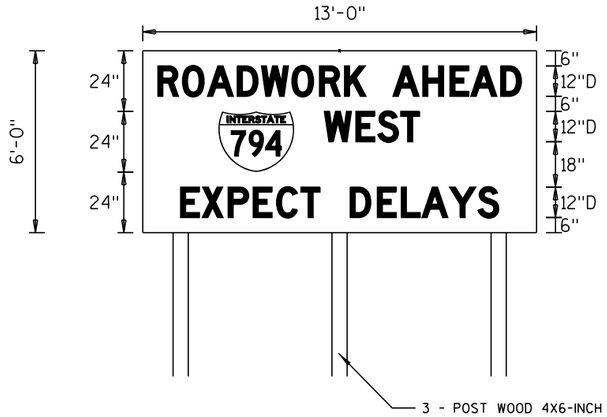

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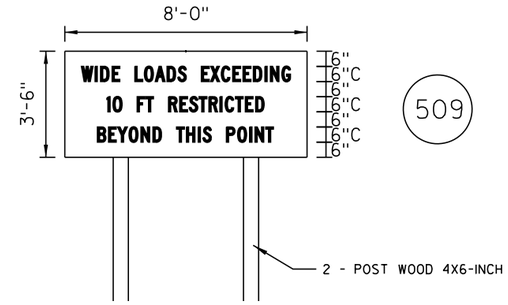

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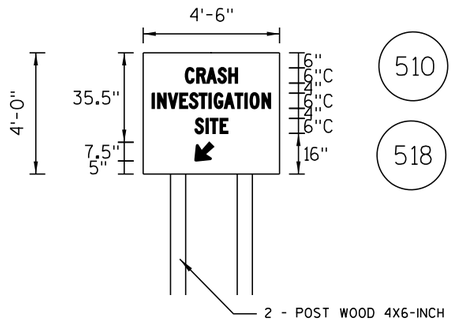

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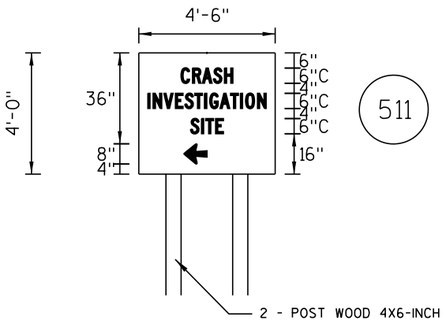

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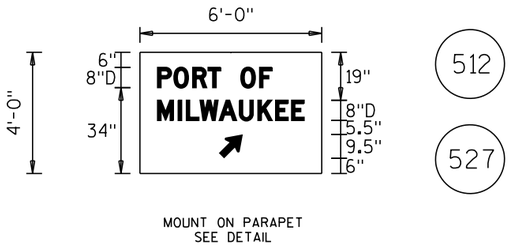


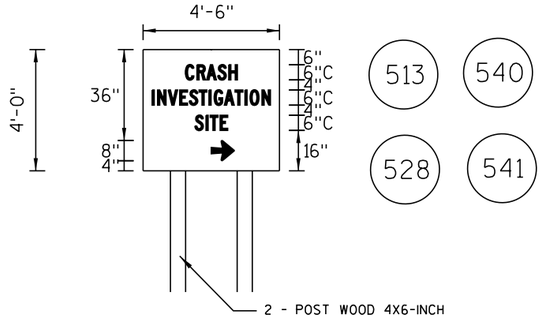
512

527

MOUNT ON PARAPET
SEE DETAIL

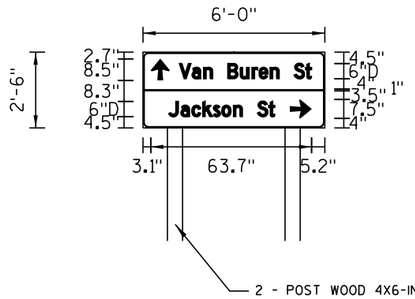
GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIRMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD , BUT BEFORE INSTALLATION, THE PROJECT ENGINEER SHALL VERIFY EACH SIGN LOCATION.
3. ALL SIGNS TO BE MOUNTED ON WOOD POST SUPPORTS (4" x 6"). THE NUMBER OF POSTS REQUIRED FOR EACH LAYOUT IS SHOWN. SIGNS WHERE NO POSTS ARE SHOWN TO BE MOUNTED AS NOTED.
4. SIGNS ON THIS SHEET TO BE PAID UNDER THE BID ITEM "TRAFFIC CONTROL SIGNS FIXED MESSAGE".
5. SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND UNLESS OTHERWISE NOTED.
6. ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS"
   12" CAPS SHALL BE SERIES "D"
   8" CAPS SHALL BE SERIES "D"
   6" CAPS SHALL BE SERIES "C"
7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.
8. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. DO NOT SCALE.



513 540 528 541

SIGN 513 MOUNT ON PARAPET
SEE DETAIL



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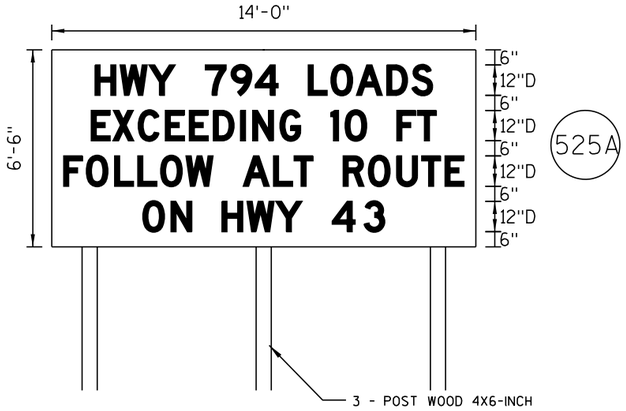

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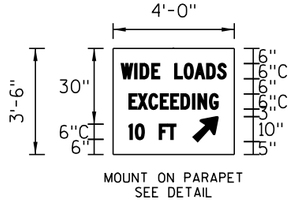
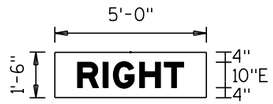


514 521

MOUNT ON PARAPET
SEE DETAIL



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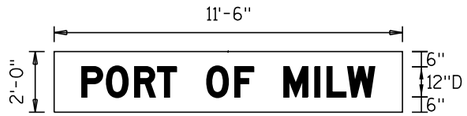
TYPE I SIGN



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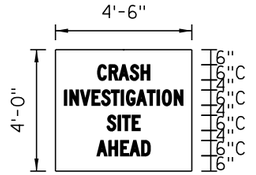
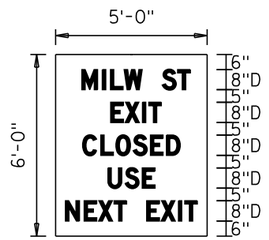


515 517

MOUNT ON PARAPET
SEE DETAIL



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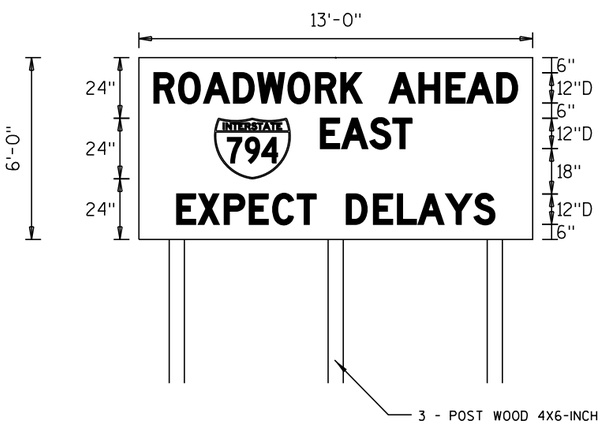
MOUNT ON PARAPET
SEE DETAIL



522 523 524 525

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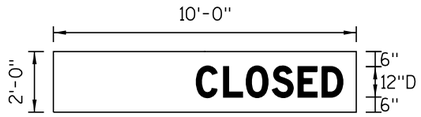
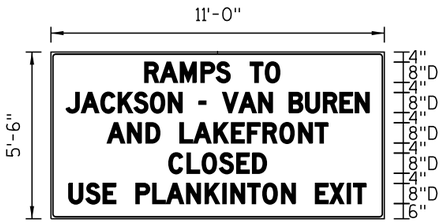


532

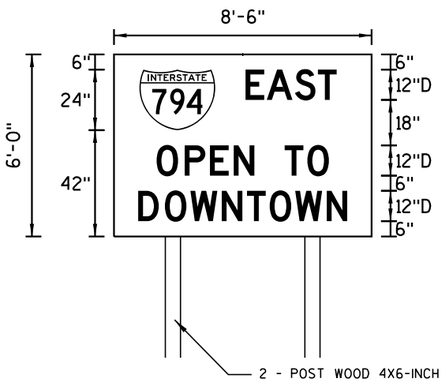
EXTRA LENGTH NEEDED TO COVER ALL MESSAGES

ATTACH TO EXISTING
TYPE I SIGN



538

MOUNT ON PORTABLE SUPPORT
SEE DETAIL



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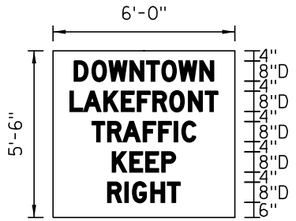
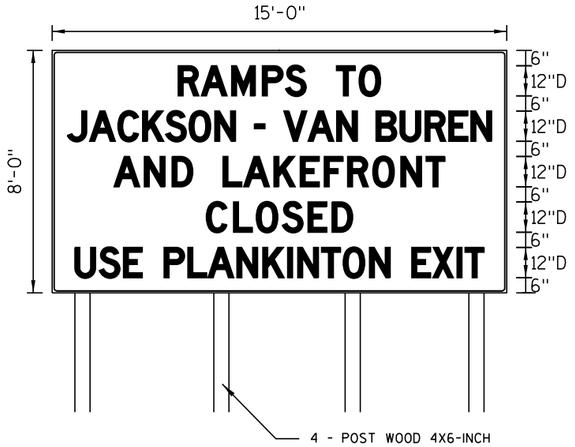
903



533

MOUNT ON EXISTING SIGN BRIDGE POST



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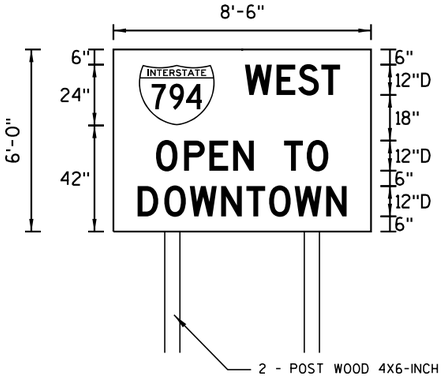

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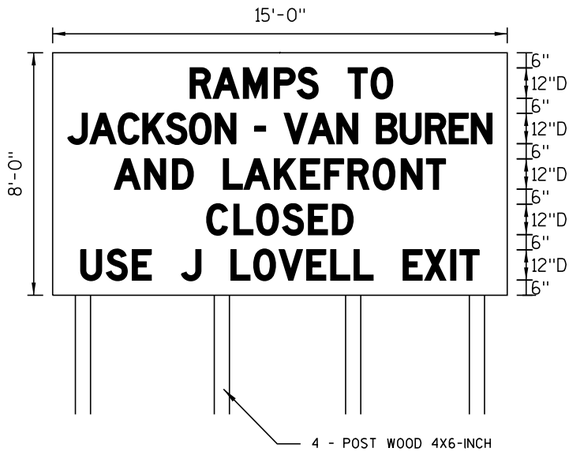

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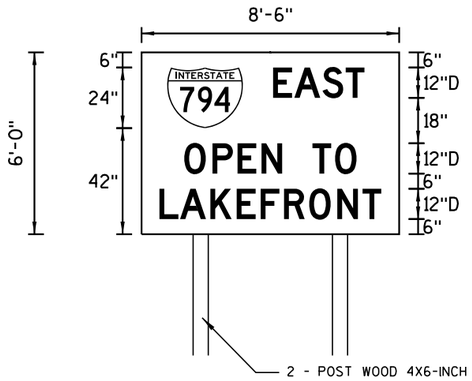

900

901

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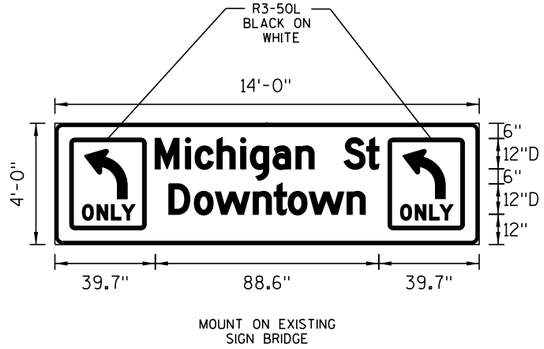
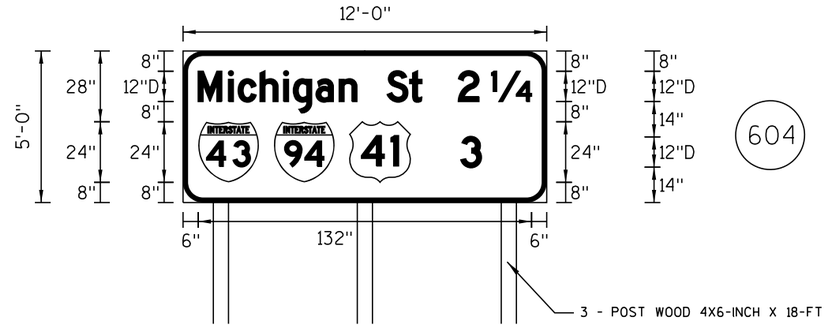


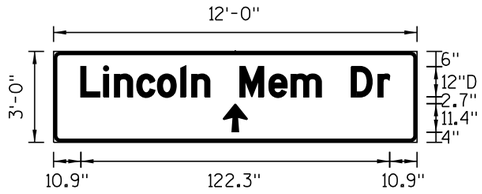
601

MOUNT ON EXISTING
SIGN BRIDGE



604

STAGE 1 - MOUNT ON WOOD POSTS
STAGE 2 - MOUNT ON PORTABLE SUPPORT SEE DETAIL



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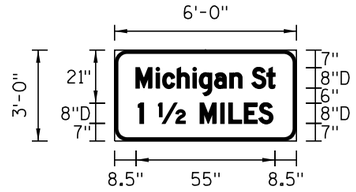
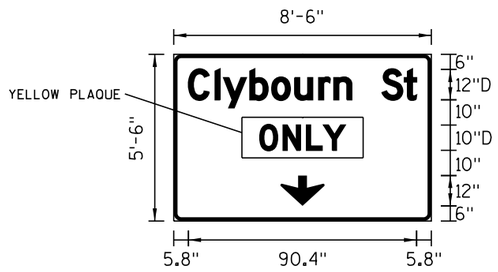
MOUNT ON EXISTING
SIGN BRIDGE



605

TYPE II SIGN
MOUNT ON PARAPET
SEE DETAIL



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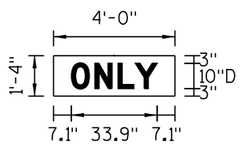
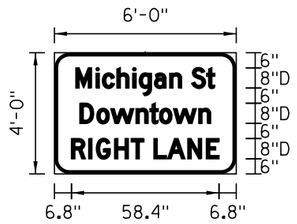
MOUNT ON EXISTING
SIGN BRIDGE



YELLOW PLAQUE



606

TYPE II SIGN
MOUNT ON PARAPET
SEE DETAIL

GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIRMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS TYPE I TEMPORARY".
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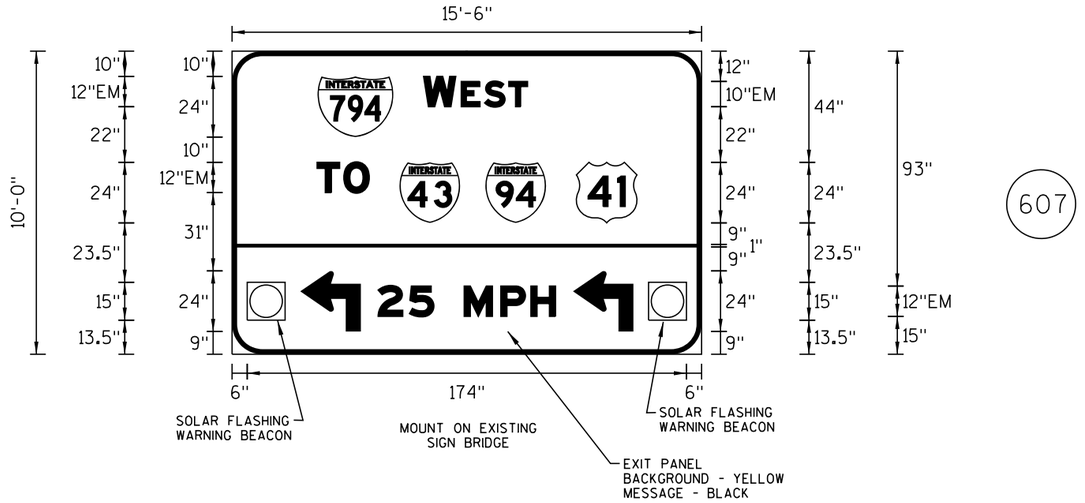
7. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
8. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
9. DO NOT SCALE.



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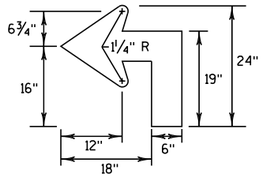

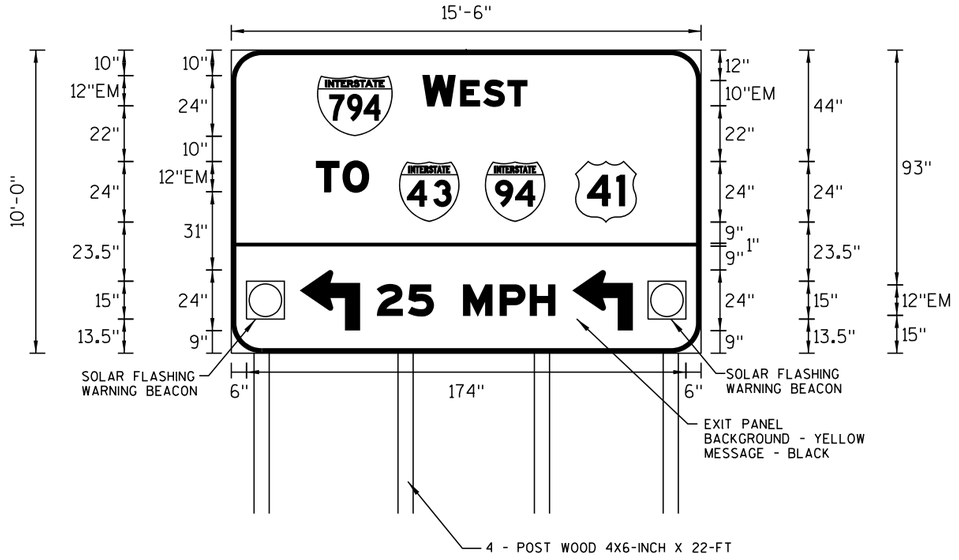

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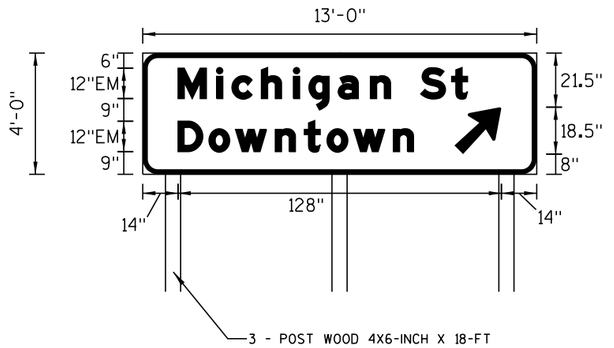

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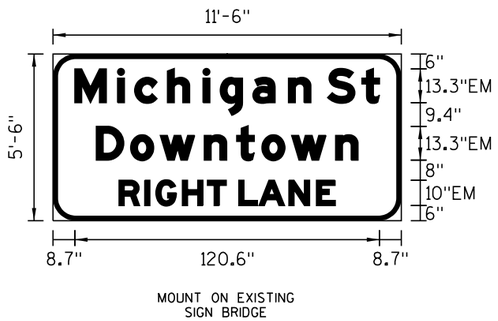

608

620

GENERAL NOTES:

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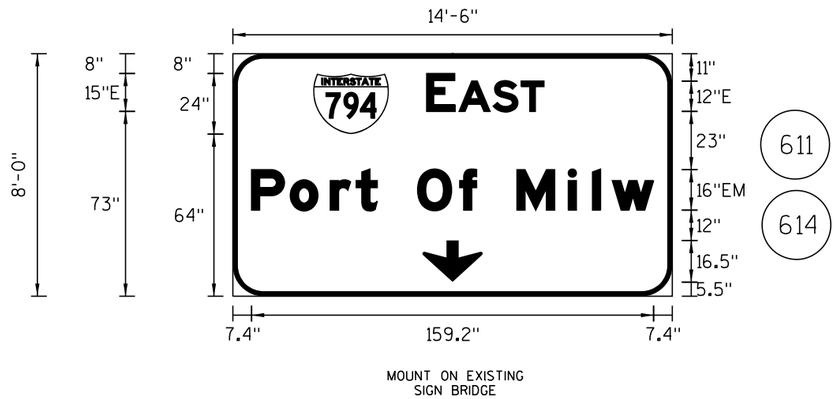
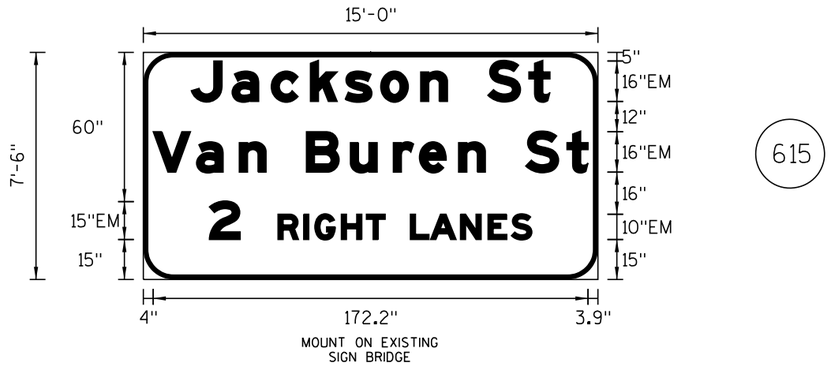
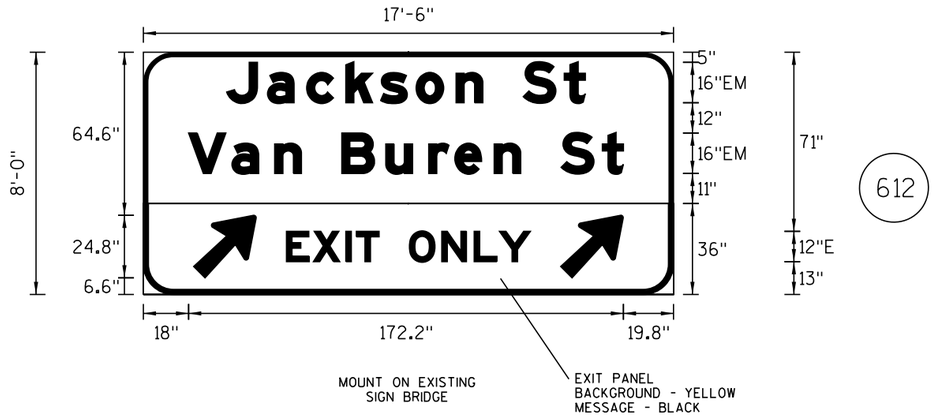
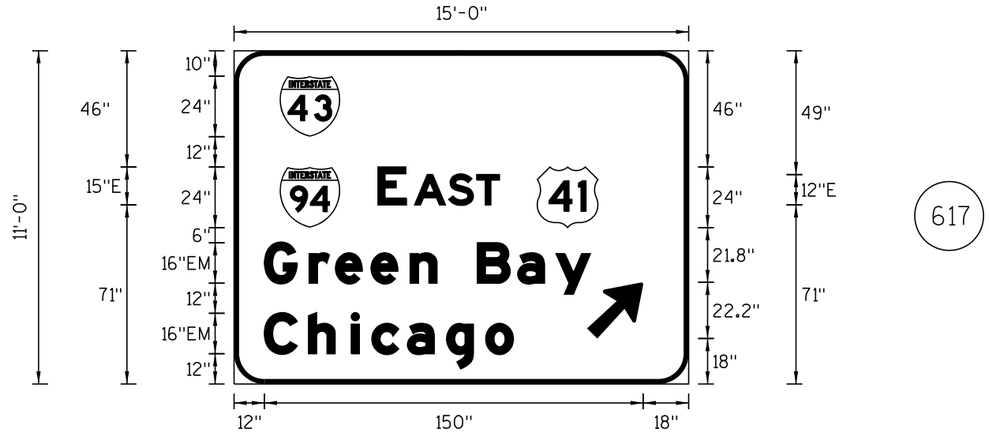
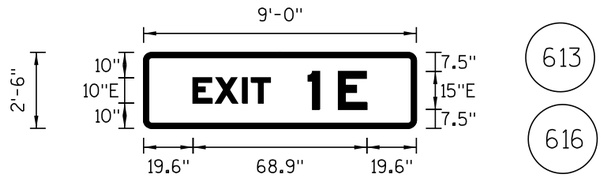
9. DO NOT SCALE.

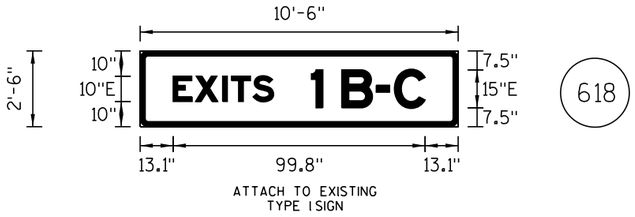












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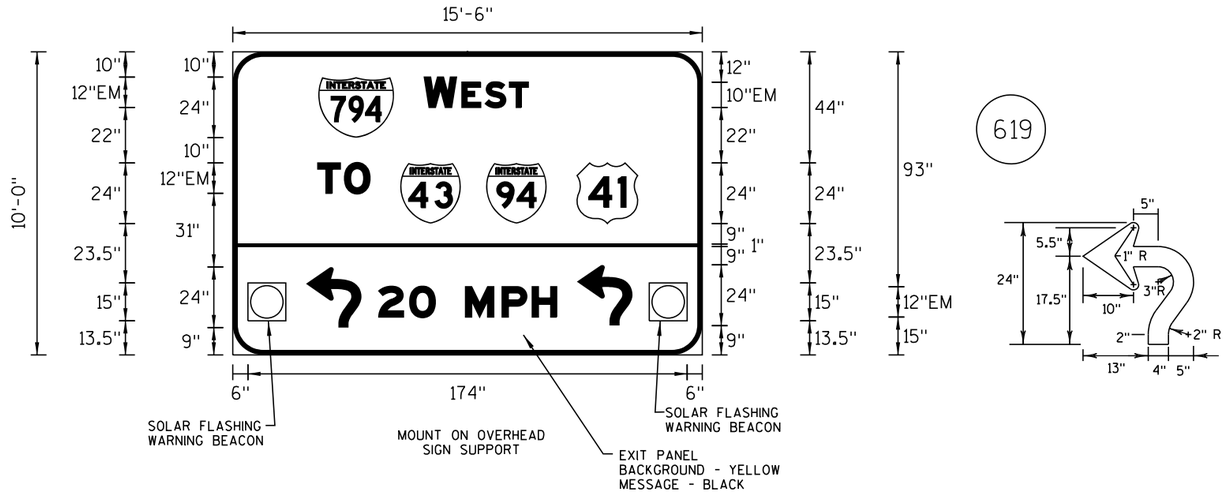

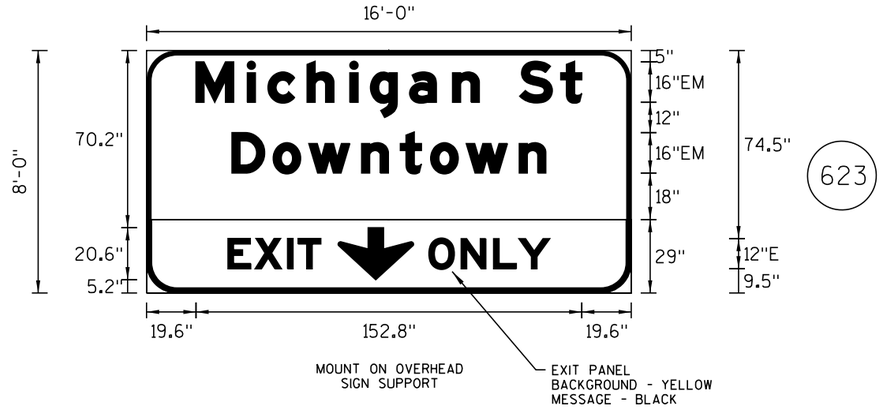

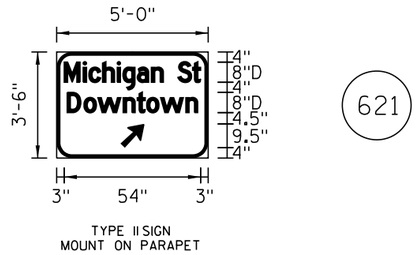

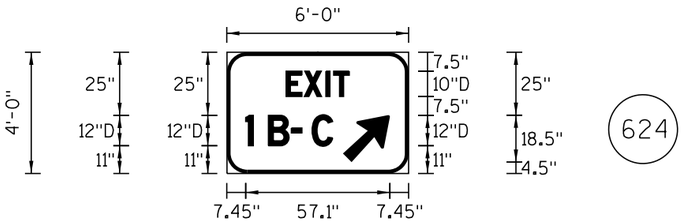

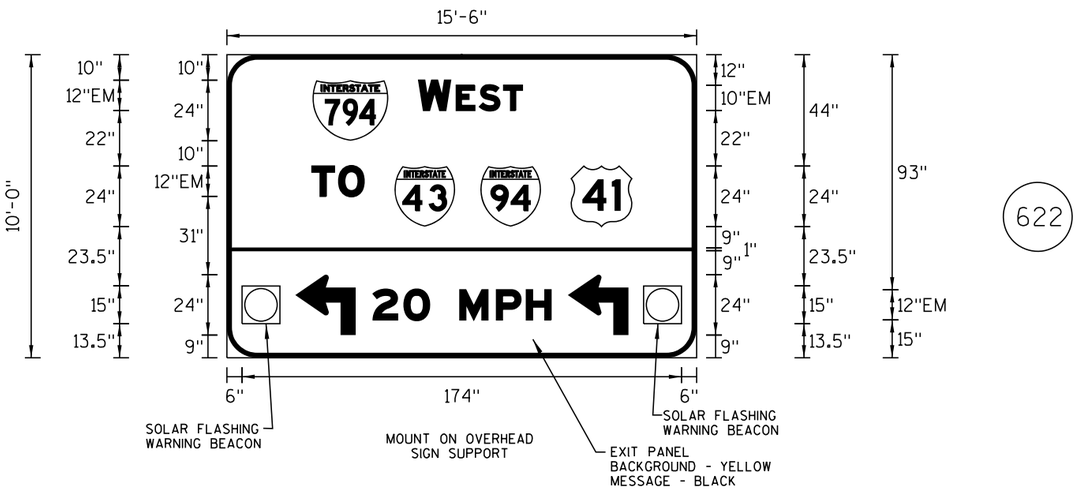

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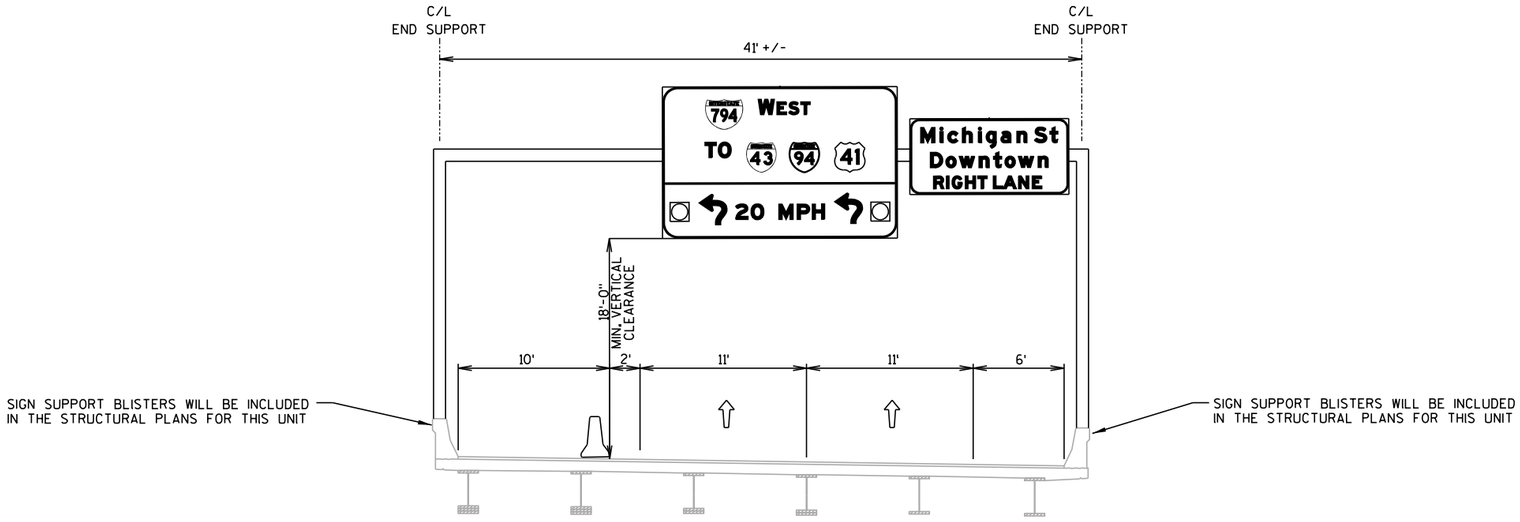
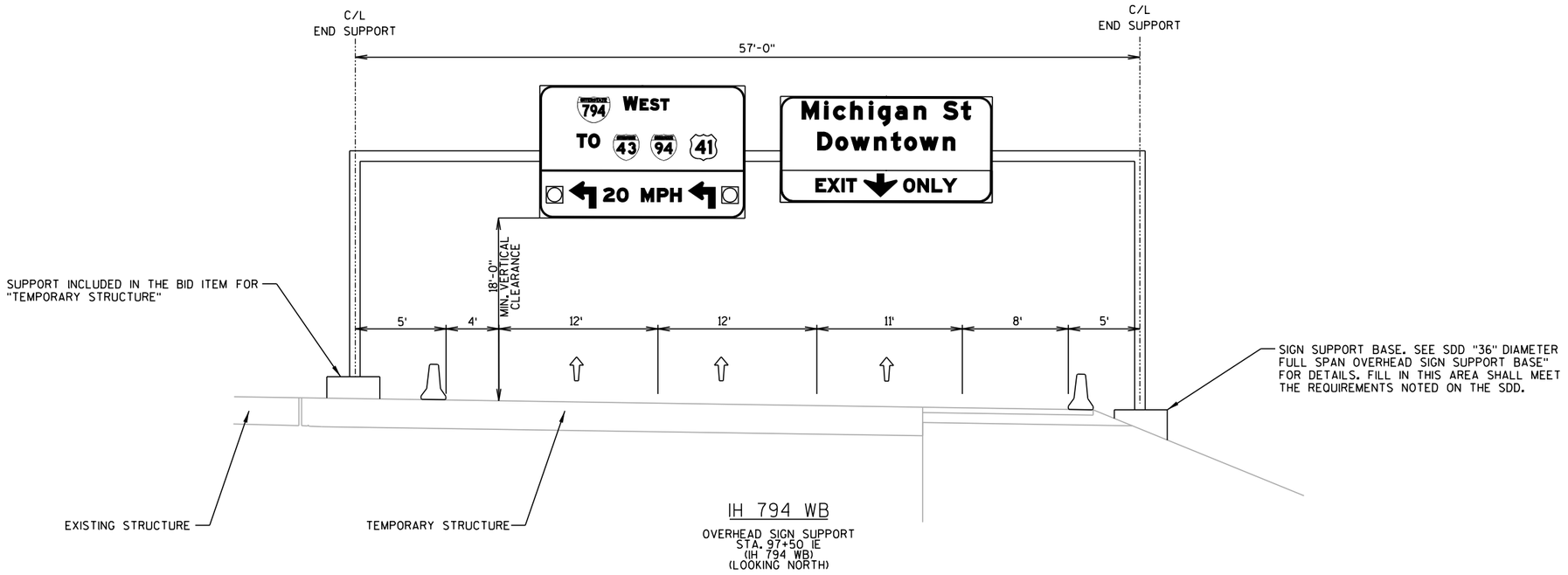


IH 794 WB

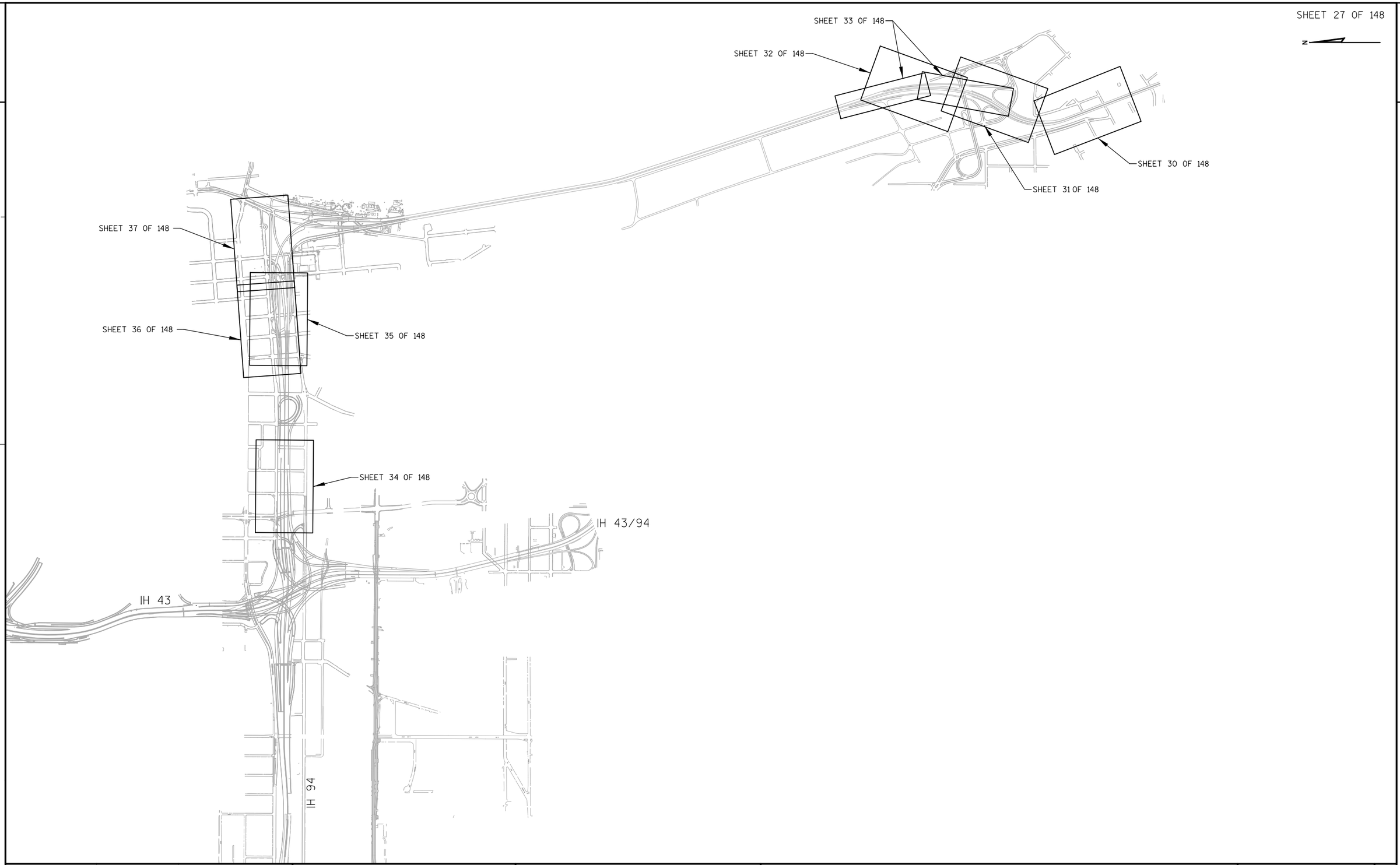
OVERHEAD SIGN SUPPORT
STA. 169+50 SB
(IH 794 WB)
(LOOKING NORTH)



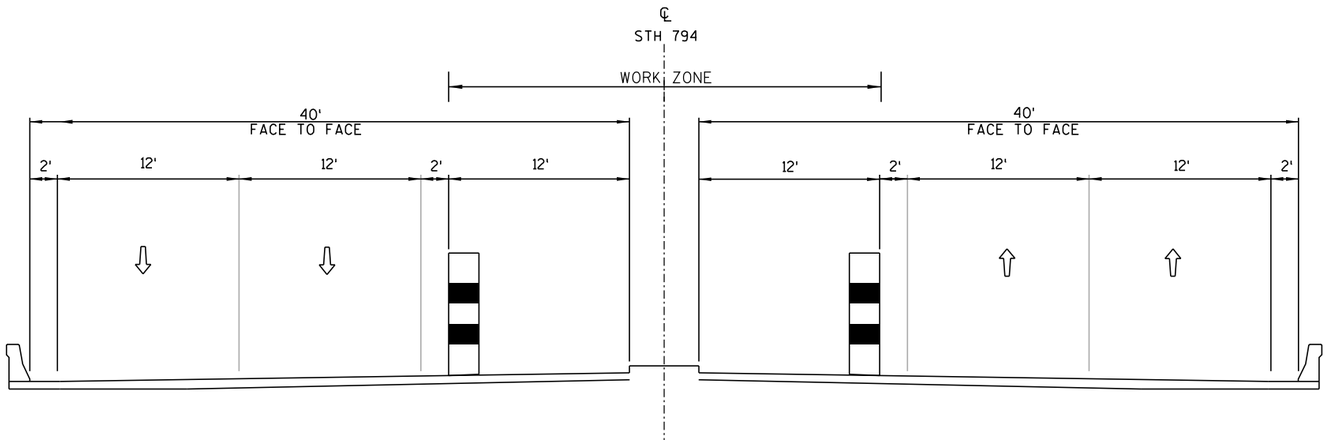
IH 794 WB

OVERHEAD SIGN SUPPORT
STA. 97+50 IE
(IH 794 WB)
(LOOKING NORTH)

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL DETAILS - OVERHEAD SIGN SUPPORT	SHEET 450	E

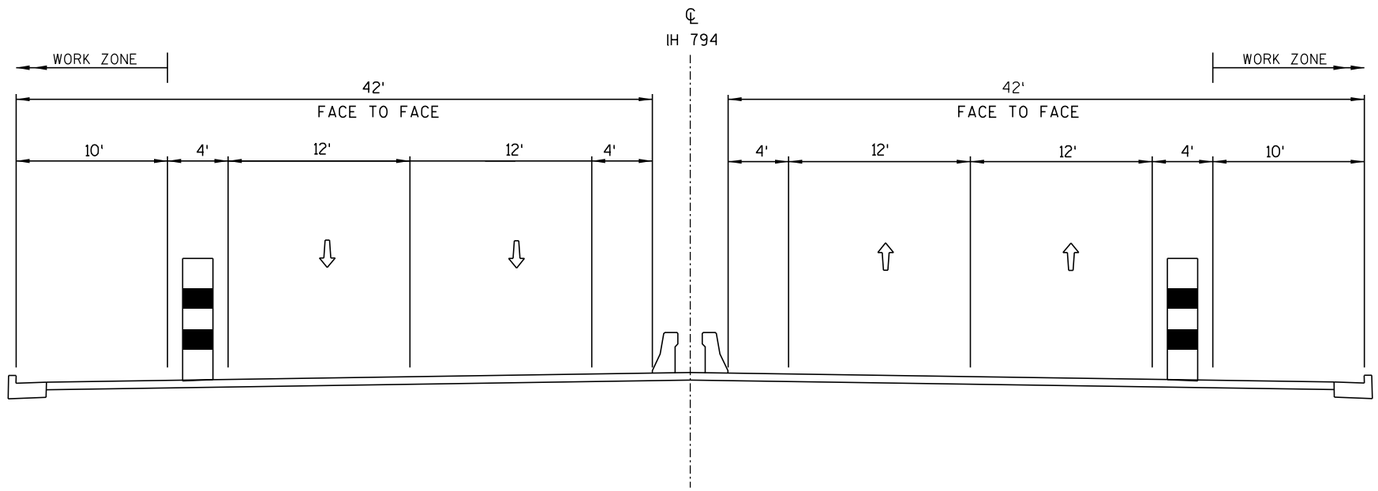


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL PRE-STAGE 1 OVERVIEW	SHEET 451	E



STH 794

STA. 38+00 LF - 42+00 LF
(STH 794 NB & SB)
(LOOKING NORTH)



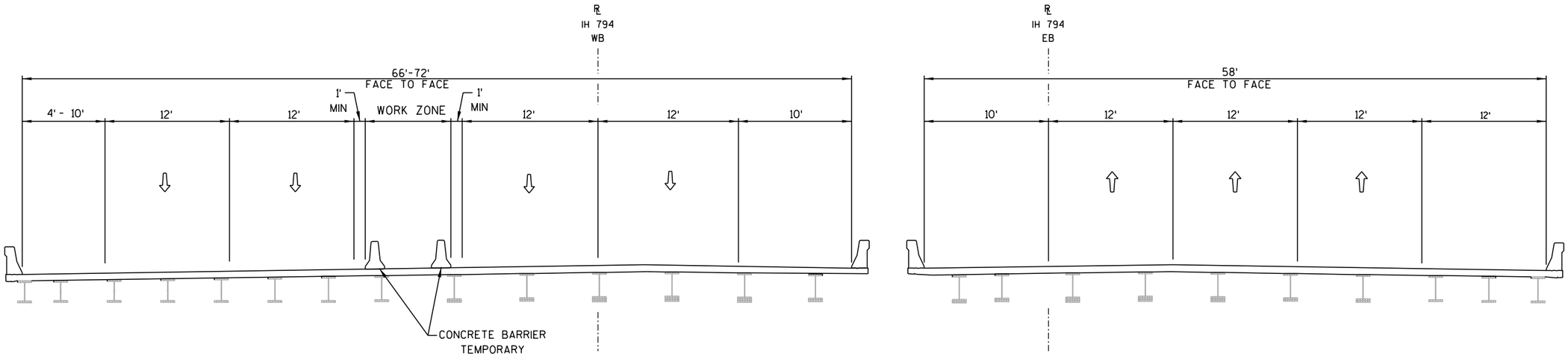
IH 794

STA. 58+50 LF - 62+00 LF
(STH 794 NB & SB)
(LOOKING NORTH)

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL TYPICALS - PRE-STAGE 1	SHEET 452	E

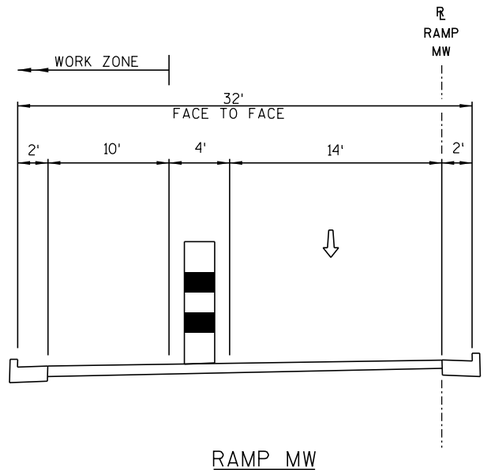
FILE NAME : 026000a_p-s1.dgn PLOT DATE : 4/26/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:10

WISDOT/CADDS SHEET 42



IH 794

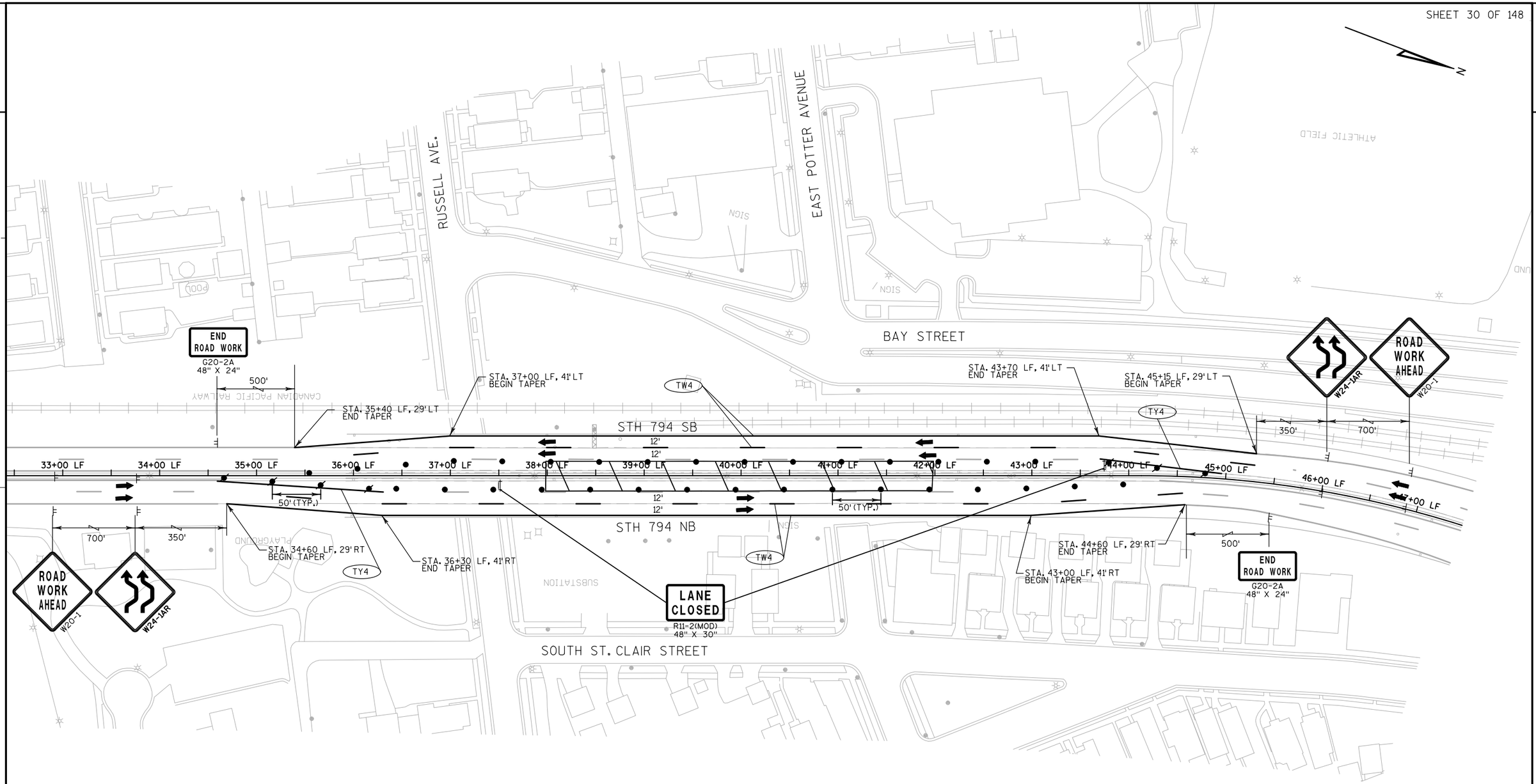
STA. 714+00 WB - 721+00 WB
(IH 794 EB & WB)
(LOOKING EAST)



RAMP MW

STA. 1+00 MW - 6+00 MW
(MILWAUKEE STREET OFF RAMP)
(LOOKING EAST)

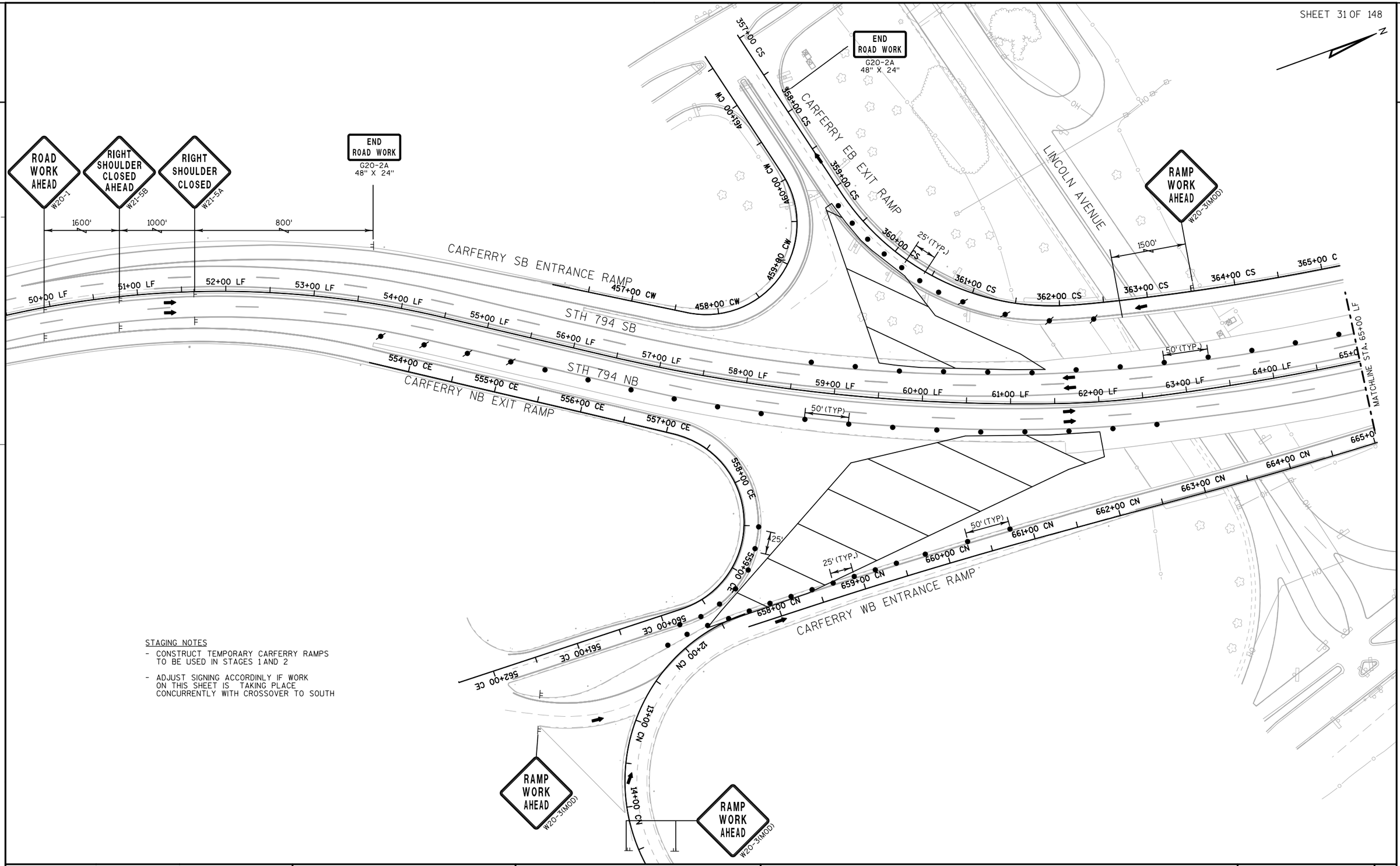
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL TYPICALS - PRE-STAGE 1	SHEET 453	E



STAGING NOTES

- CONSTRUCT CROSSOVER TO BE USED FOR STAGE 1 AND 2 TRAFFIC
- ADJUST SIGNING ACCORDINGLY IF WORK ON THIS SHEET IS TAKING PLACE CONCURRENTLY WITH CARFERRY RAMP CONSTRUCTION

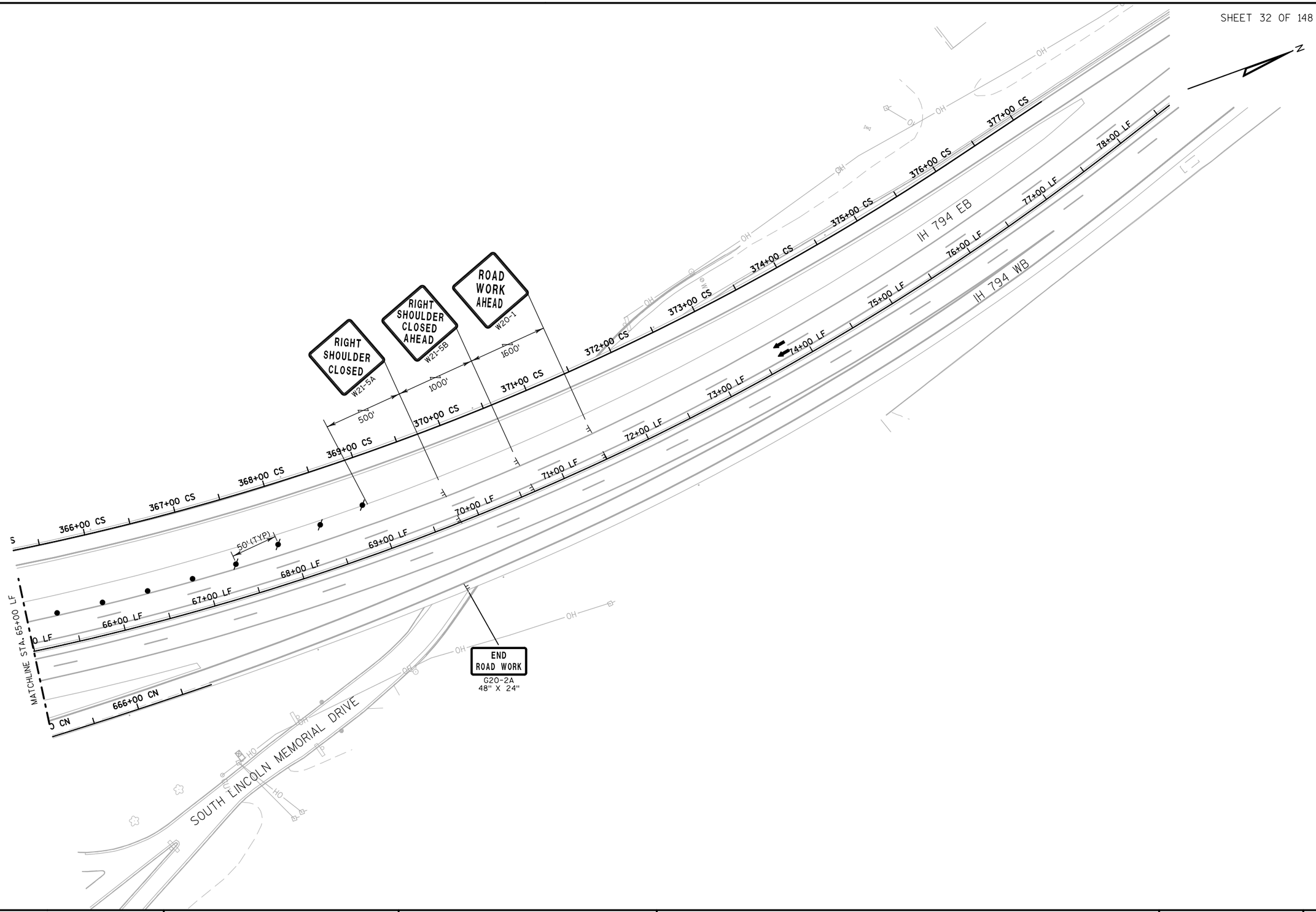
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 1	SHEET 454	E



STAGING NOTES

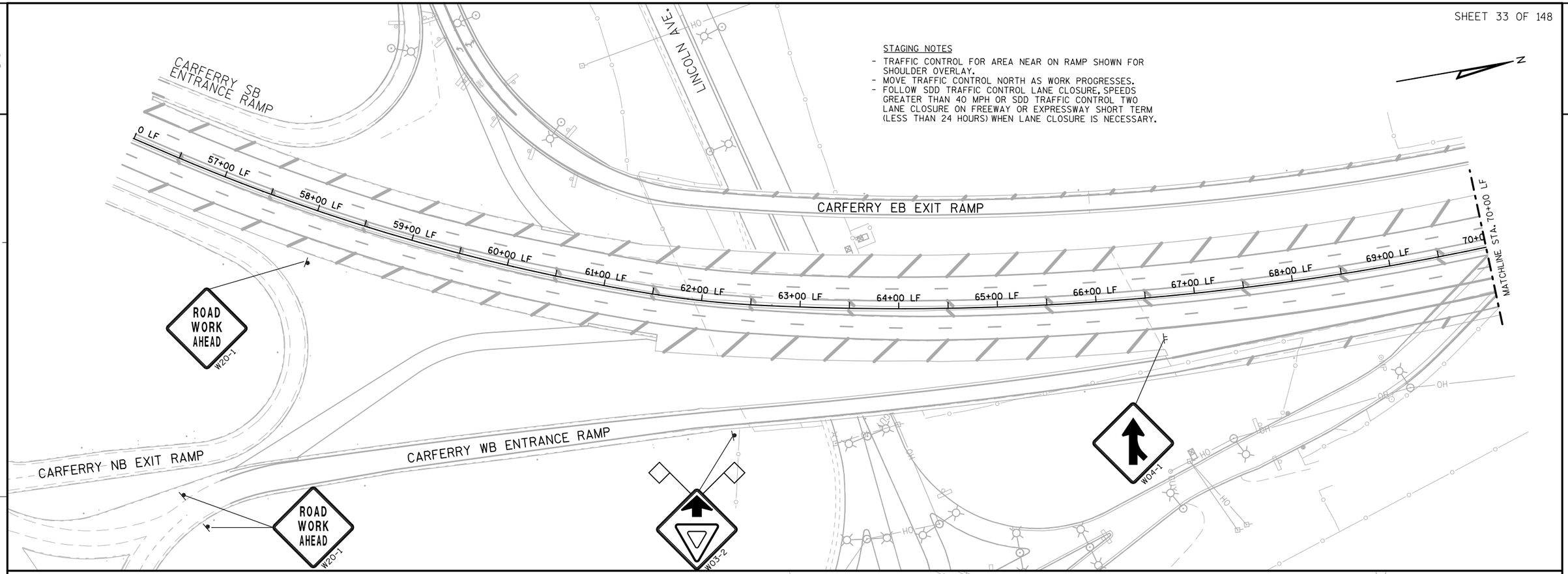
- CONSTRUCT TEMPORARY CARFERRY RAMPS TO BE USED IN STAGES 1 AND 2
- ADJUST SIGNING ACCORDINLY IF WORK ON THIS SHEET IS TAKING PLACE CONCURRENTLY WITH CROSSOVER TO SOUTH

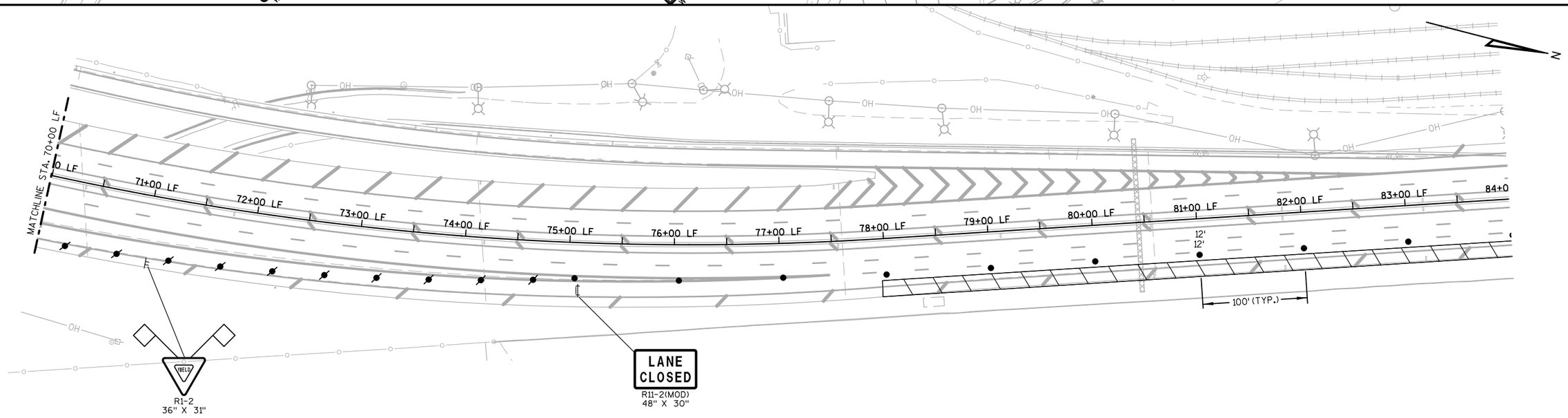
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 1A	SHEET 455	E



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 1A	SHEET 456	E

STAGING NOTES
- TRAFFIC CONTROL FOR AREA NEAR ON RAMP SHOWN FOR SHOULDER OVERLAY.
- MOVE TRAFFIC CONTROL NORTH AS WORK PROGRESSES.
- FOLLOW SDD TRAFFIC CONTROL LANE CLOSURE, SPEEDS GREATER THAN 40 MPH OR SDD TRAFFIC CONTROL TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY SHORT TERM (LESS THAN 24 HOURS) WHEN LANE CLOSURE IS NECESSARY.





PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 1B (SHOULDER RESURFACING)	SHEET 457	E

2

2

N

6TH STREET

5TH STREET

4TH STREET

RIGHT SHOULDER CLOSED W21-5A

RIGHT SHOULDER CLOSED AHEAD W21-5B

ROAD WORK AHEAD W20-1

500' 1000' 1600'

MOVE EXISTING CRASH CUSHION TO NEW BLUNT END. (PAID FOR AS MOVING CRASH CUSHIONS TEMPORARY)

PLACE CONCRETE BARRIER TEMPORARY PRECAST TO MAINTAIN A MINIMUM OF 1' BETWEEN LANE LINE AND FACE OF TEMPORARY BARRIER

CRASH CUSHIONS TEMPORARY

END ROAD WORK
G20-2A
48" X 24"

RAMP TO IH 43 NB & SB

IH 794 WB

WB 705+00 WB 706+00 WB 707+00 WB 708+00 WB 709+00 WB 710+00 WB 711+00 WB 712+00 WB 713+00 WB 714+00 WB 715+00 WB 716+00 WB 717+00 WB 718+00 WB 719+00 WB

+75

EB 605+00 EB 606+00 EB 607+00 EB 608+00 EB 609+00 EB 610+00 EB 611+00 EB 612+00 EB 613+00 EB 614+00 EB 615+00 EB 616+00 EB 617+00 EB 618+00 EB 619+00 EB

IH 794 EB

RAMP FROM IH 43 NB AND SB

401+00 402+00 403+00 404+00

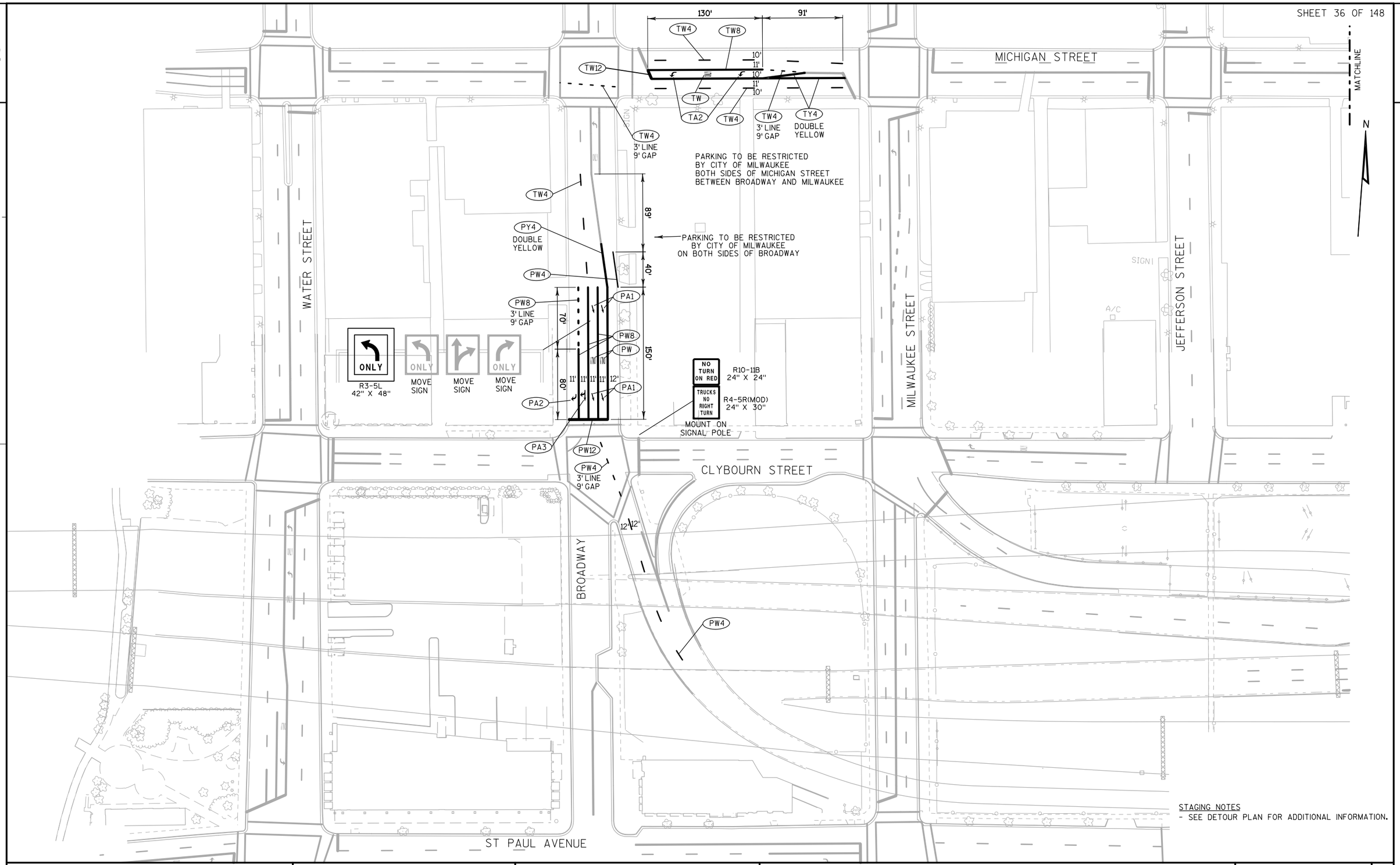
ST. PAUL AVENUE

STAGING NOTES
- REMOVE EXISTING PARAPET
- MOVE EXISITING CRASH CUSHION TO NEW BLUNT END

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 1	SHEET 458	E

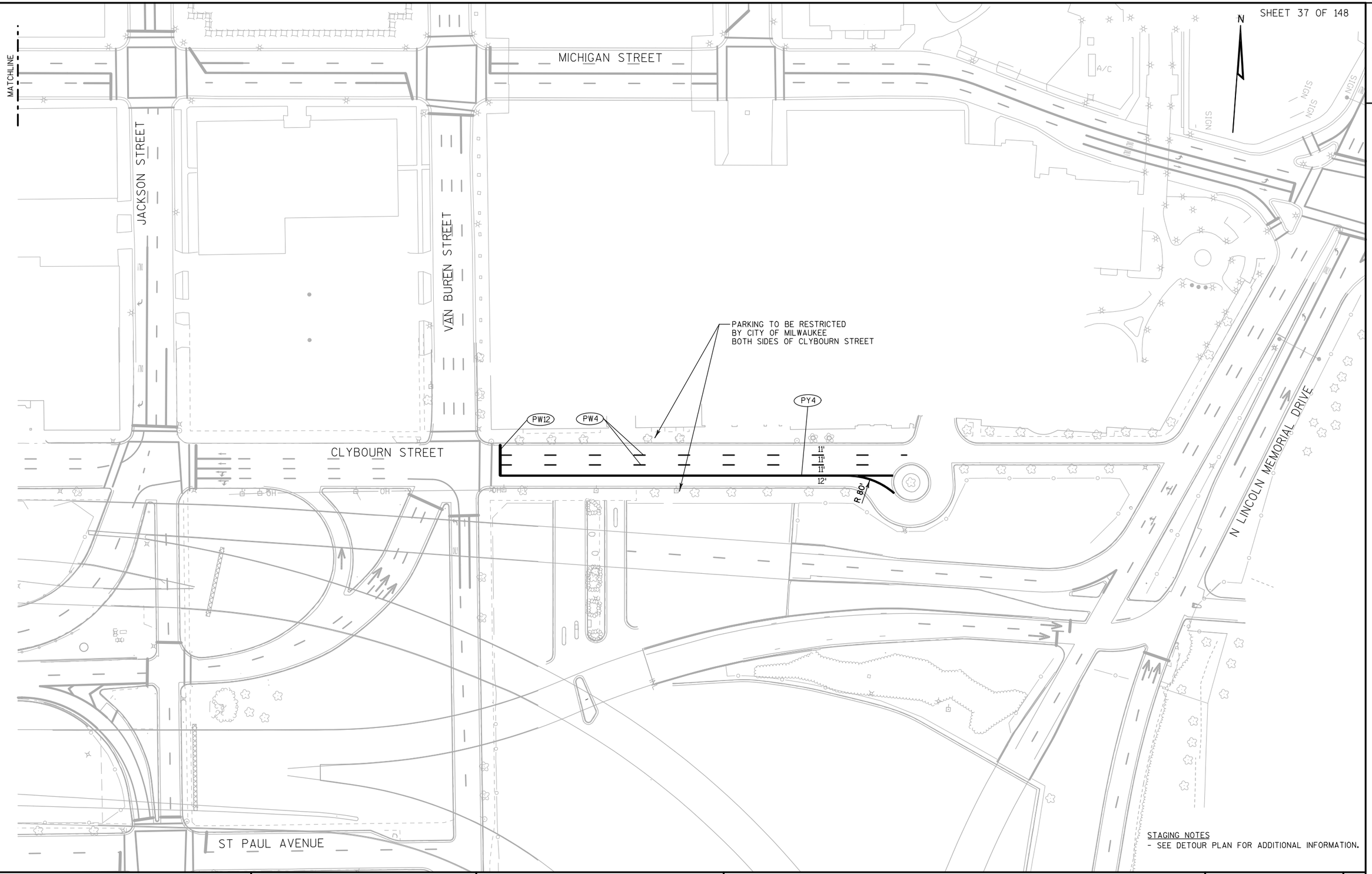
STAGING NOTES
- CONSTRUCT TEMPORARY PAVEMENT TO BE USED FOR STAGE 1 TRAFFIC
- RESTRICT MILWAUKEE STREET WB EXIT RAMP TO ONE LANE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 1 - MILWAUKEE WB EXIT RAMP	SHEET 459	E



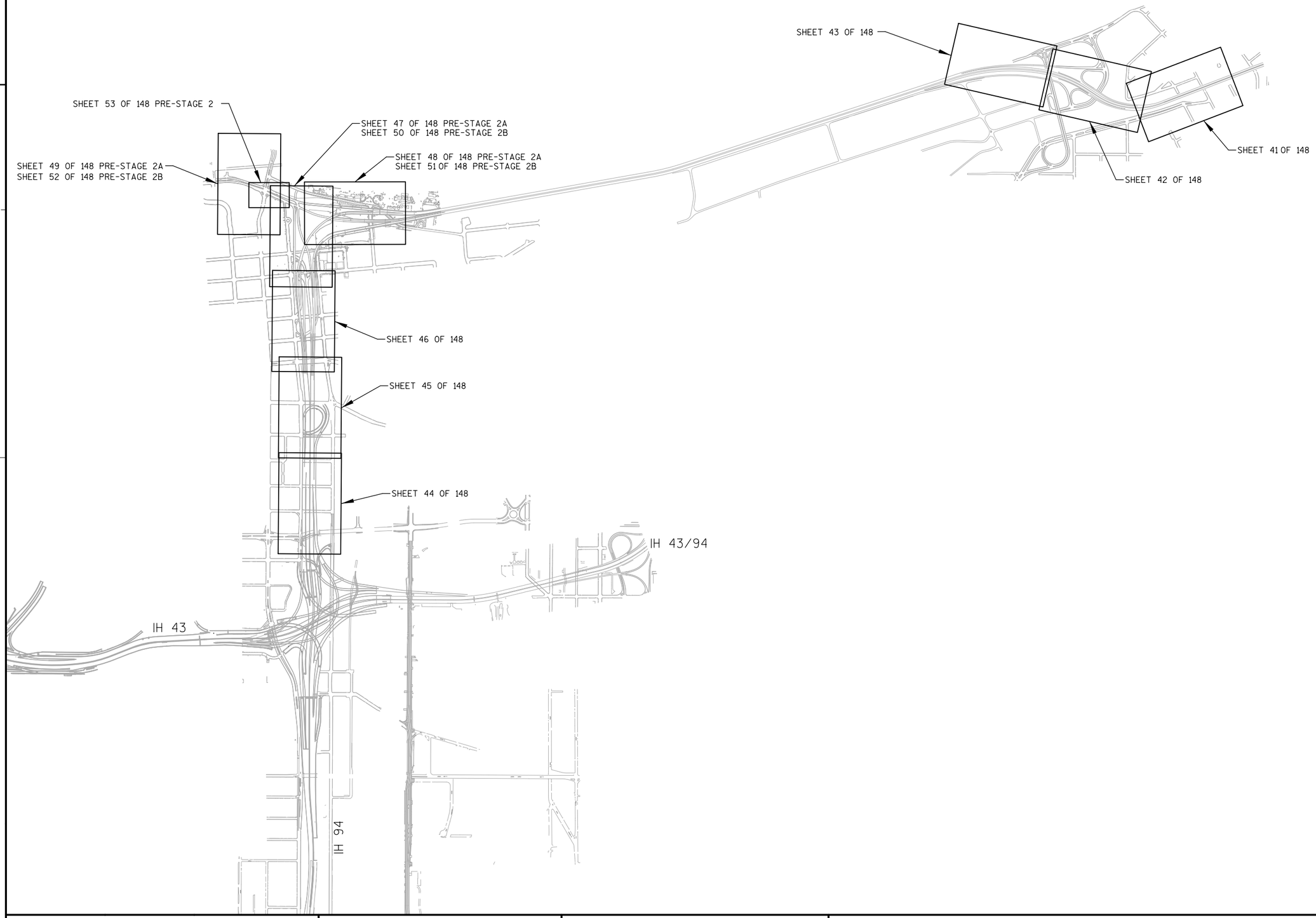
STAGING NOTES
- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 1 & 2 - LOCAL STREETS	SHEET 460	E

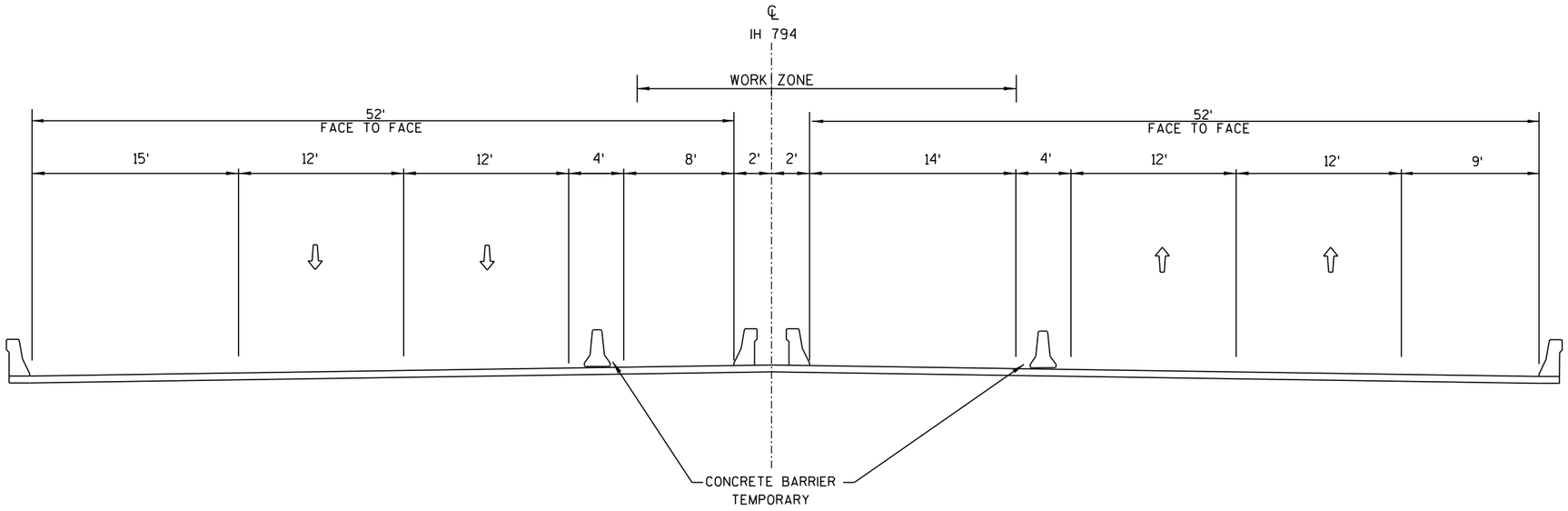


STAGING NOTES
- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 1 - LOCAL STREETS	SHEET 461	E

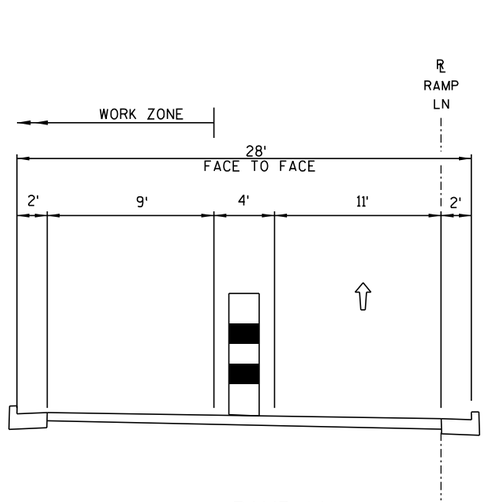


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL PRE-STAGE 2 OVERVIEW	SHEET 462	E



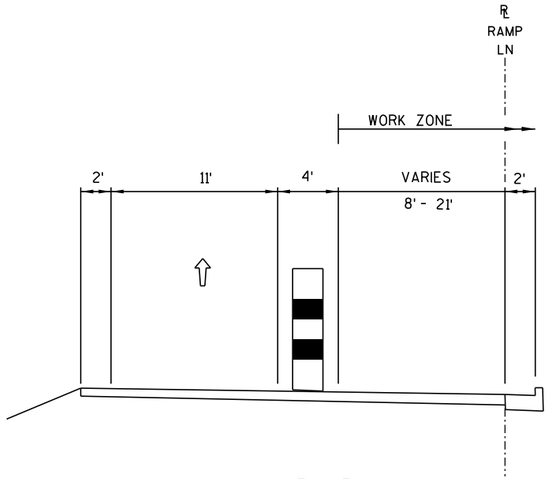
IH 794

STA. 62+00 LF - 67+00 LF
(STH 794 NB & SB)
(LOOKING NORTH)



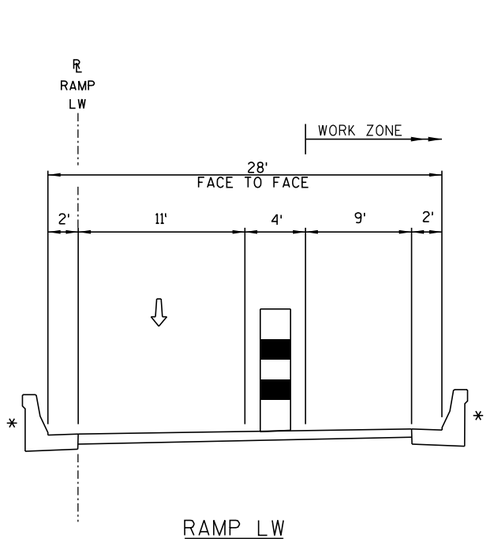
RAMP LN

PRE-STAGE 2A
STA. 177+00 LN - 183+00 LN
(LINCOLN MEMORIAL DRIVE NB OFF RAMP)
(LOOKING NORTH)



RAMP LN

PRE-STAGE 2B
STA. 177+00 LN - 183+00 LN
(LINCOLN MEMORIAL DRIVE WB OFF RAMP)
(LOOKING NORTH)

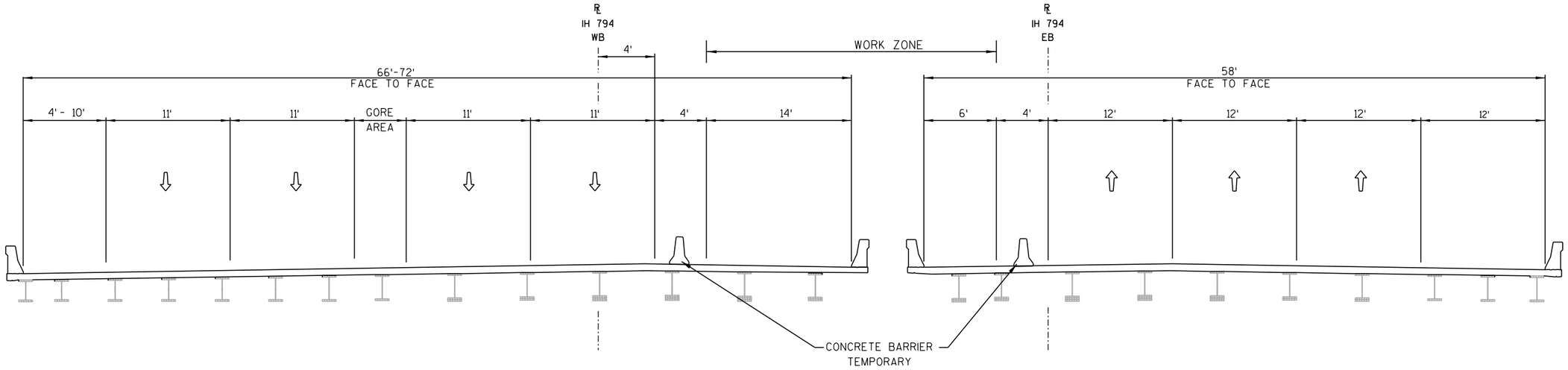


RAMP LW

STA. 356+00 LW - 359+00 LW
(LINCOLN MEMORIAL DRIVE WB ON RAMP)
(LOOKING EAST)

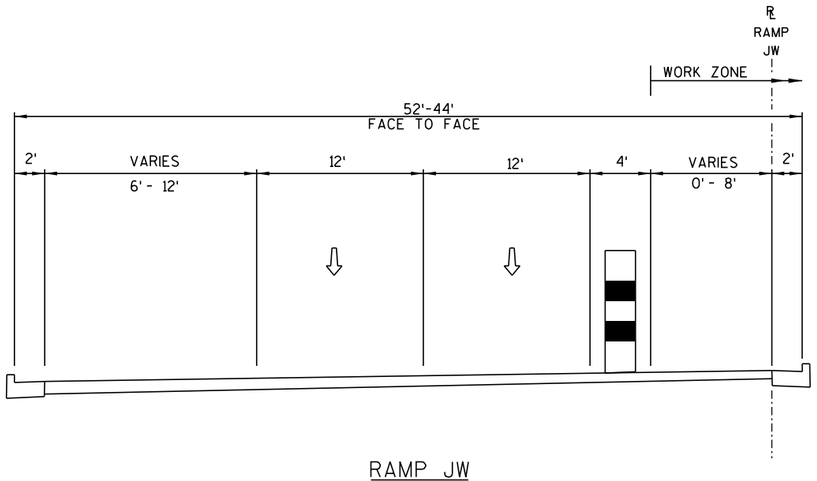
* CURB AND GUTTER STA 357+32 LW - 359+00 LW

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL TYPICALS - PRE-STAGE 2	SHEET 463	E



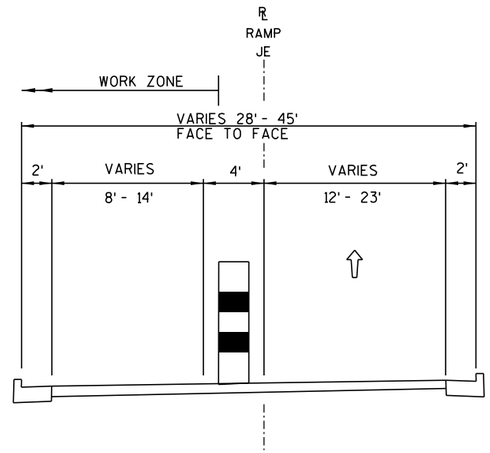
IH 794

STA. 714+00 WB - 721+00 WB
(IH 794 EB & WB)
(LOOKING EAST)



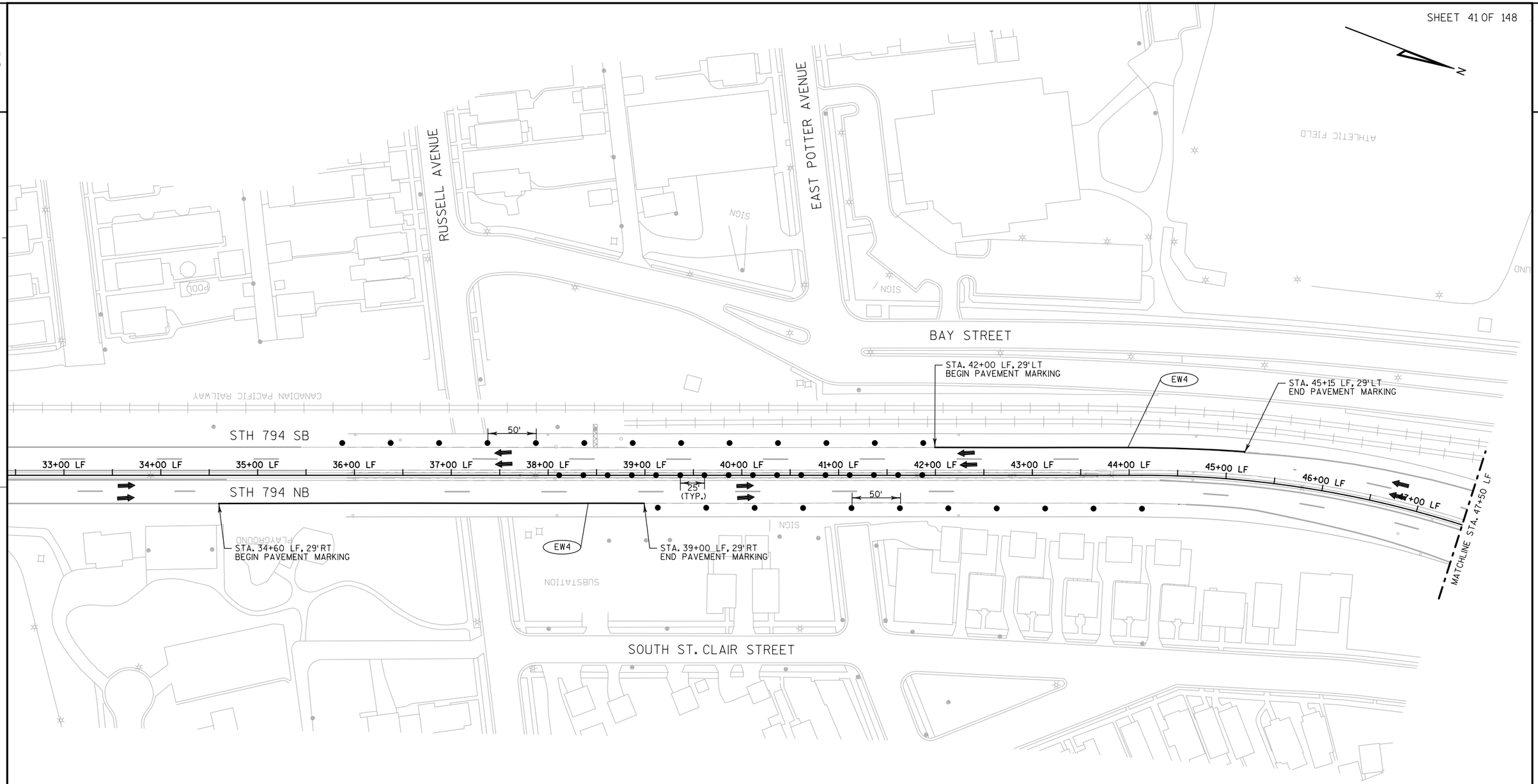
RAMP JW

STA. 23+00 JW - 26+00 JW
(JACKSON ON RAMP)
(LOOKING EAST)



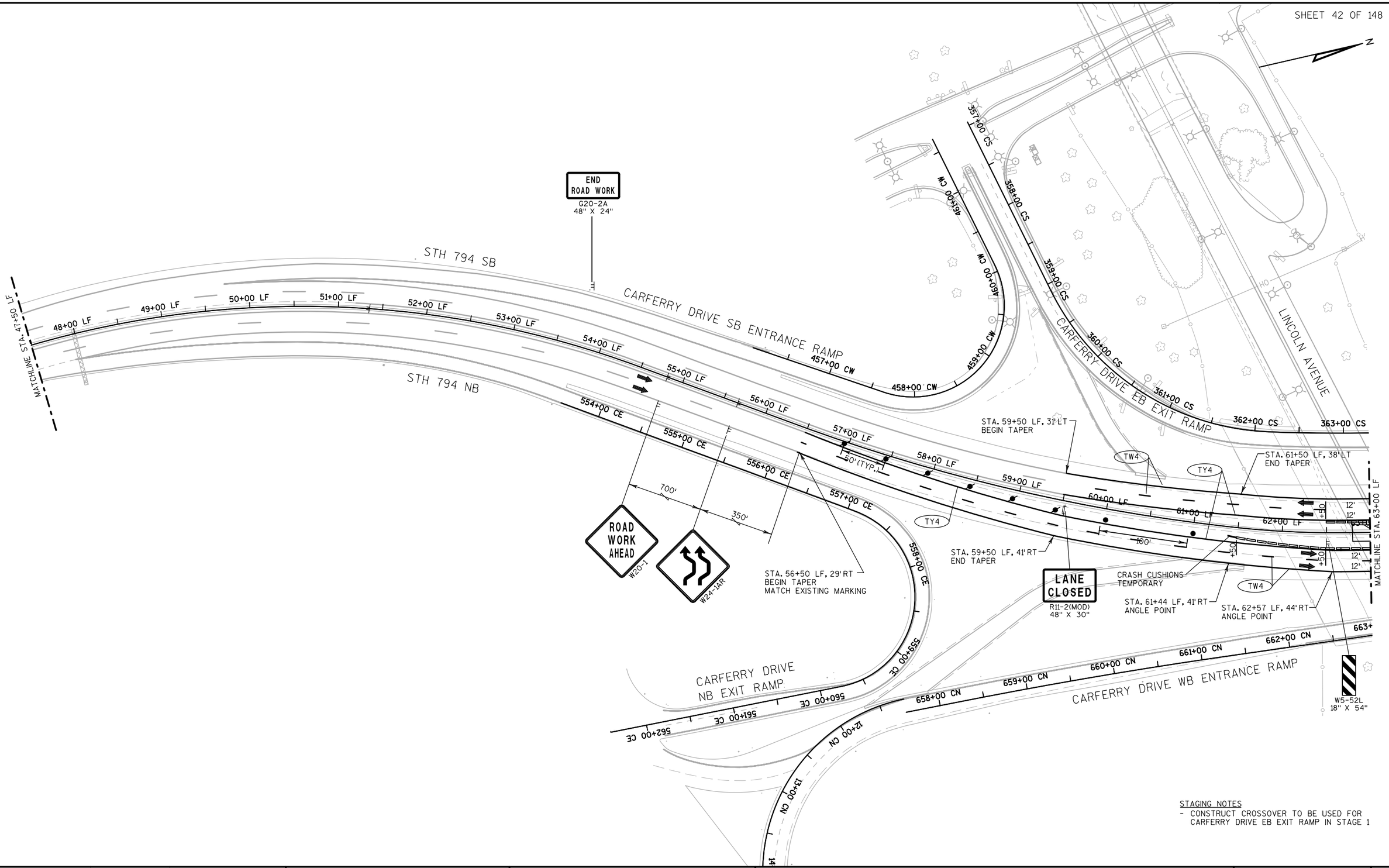
RAMP JE

STA. 13+00 JE - 16+00 JE
(JACKSON STREET OFF RAMP)
(LOOKING EAST)



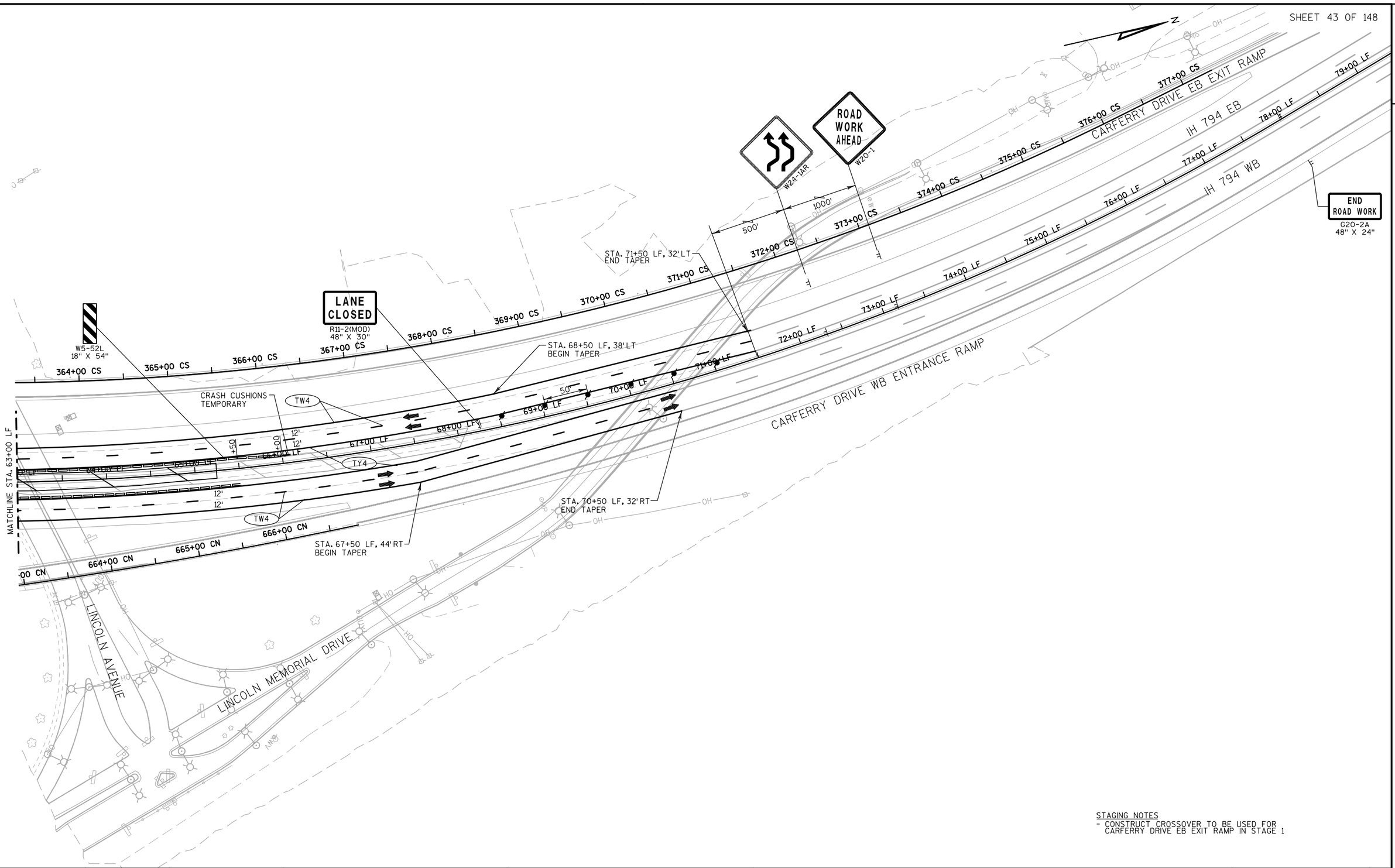
STAGING NOTES
- CLOSE OFF CROSSOVER WITH BARRELS AT 25' SPACING
- PLACE BARRELS AT 50' SPACING ON SHOULDERS WHERE PAVEMENT MARKING HAS BEEN REMOVED

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 2A	SHEET 465	E



STAGING NOTES
- CONSTRUCT CROSSOVER TO BE USED FOR CARFERRY DRIVE EB EXIT RAMP IN STAGE 1

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 2A	SHEET 466	E



STAGING NOTES
- CONSTRUCT CROSSOVER TO BE USED FOR CARFERRY DRIVE EB EXIT RAMP IN STAGE 1

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 2A	SHEET 467	E

2

2

N

6TH STREET

5TH STREET

4TH STREET

LEFT EXIT 1A
I-94 WEST 41
Madison
MOVE SIGN OVER LEFT LANES

EXITS 1B
I-43 SOUTH
I-94 EAST 41
Chicago
ESTR

EXIT 1C
I-43 NORTH
Green Bay
ESTR

W01-4B (MOD)

COVER EXISTING LANE LINES WITH TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4 INCH (BLACK)

CRASH CUSHION FROM PRESTAGE 1

BEGIN TAPER
STA 710+00 WB
MATCH EXISTING PAVEMENT MARKING

STA. 713+00 WB, 4'RT
END TAPER

CRASH CUSHIONS TEMPORARY

END ROAD WORK
G20-2A
48" X 24"

RAMP TO IH 43 NB & SB

IH 794 WB

TY4

TW4

TW8

WB 705+00 WB 706+00 WB 707+00 WB 708+00 WB 709+00 WB 710+00 WB 711+00 WB 712+00 WB 713+00 WB 714+00 WB 715+00 WB 716+00 WB 717+00 WB 718+00 WB 719+00 WB

EB 605+00 EB 606+00 EB 607+00 EB 608+00 EB 609+00 EB 610+00 EB 611+00 EB 612+00 EB 613+00 EB 614+00 EB 615+00 EB 616+00 EB 617+00 EB 618+00 EB 619+00 EB

12' 12' 11' 11' 12' 12'

+50 +75 +50

25' (TYP.)

100' (TYP.)

IH 794 EB

MATCHLINE STA. 719+50 WB

1600' 1000' 500'

RAMP FROM IH 43 NB & SB

ROAD WORK AHEAD W20-1

LEFT SHOULDER CLOSED AHEAD W21-5B(MOD)

LEFT SHOULDER CLOSED W21-5A(MOD)

LAKEFRONT TRAFFIC USE NEXT EXIT
501
FIXED MESSAGE SIGN

W5-52L
18" X 54"

LAKEFRONT TRAFFIC USE NEXT EXIT
FIXED MESSAGE SIGN
503

LEFT EXIT 1E
Jackson St
Van Buren St
EXIT ONLY
ESTR

EXIT 1F
Lakefront
RAMP CLOSED
504
ESTR
FIXED MESSAGE SIGN

I-794 EAST
Port Of Milw
2 RIGHT LANES
ESTR

Jackson St LEFT 1/2
Lakefront
Port Of Milwaukee 3
CLOSED
502
ESTR
FIXED MESSAGE SIGN

I-794 EAST
Lakefront
ESTR

EXIT 1D
Plankinton Avenue
ESTR

401+00 402+00 403+00 404+00

ST. PAUL AVENUE

STAGING NOTES
CONSTRUCT CROSSOVER TO BE USED FOR STAGE 1 AND 2 TRAFFIC

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 2 A & B	SHEET 468	E

2ND STREET

PLANKINTON AVENUE

WATER STREET

CLYBOURN STREET

IH 794 WB

IH 794 EB

ST PAUL AVENUE

N

MOVE CRASH CUSHION TEMPORARY FROM STA. 717+75 WB IN PRE-STAGE 1

COVER EXISTING LANE LINES WITH TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4 INCH (BLACK)

STA. 725+00 WB, 4'RT BEGIN TAPER

STA. 730+00 WB END TAPER MATCH EXISTING PAVEMENT MARKING

MATCHLINE STA. 719+50 WB

MATCHLINE STA. 734+00 WB

720+00 WB 721+00 WB 722+00 WB 723+00 WB 724+00 WB 725+00 WB 726+00 WB 727+00 WB 728+00 WB 729+00 WB 730+00 WB 731+00 WB 732+00 WB 733+00 WB 734+00

10+00 JW

620+00 EB 621+00 EB 622+00 EB 623+00 EB 624+00 EB 625+00 EB 626+00 EB 627+00 EB 628+00 EB 629+00 EB 630+00 EB 631+00 EB 632+00 EB 633+00 EB 634+00

0+00 JE

TY4

TW4

11' 11' 11' 11'

12' 12' 12' 12'

100'

50' (TYP.)

+50

-00

W5-52L
18" X 54"

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

LEFT LANE CLOSED AHEAD
W20-5

* SIGN MAY BE REMOVED WHEN WORK ON JACKSON/VAN BUREN RAMP IS COMPLETED

LEFT EXIT 1E

Jackson St
Van Buren St
EXIT ONLY

ESTR

EXIT 1F

Lakefront
RAMP CLOSED

ESTR

FIXED MESSAGE SIGN

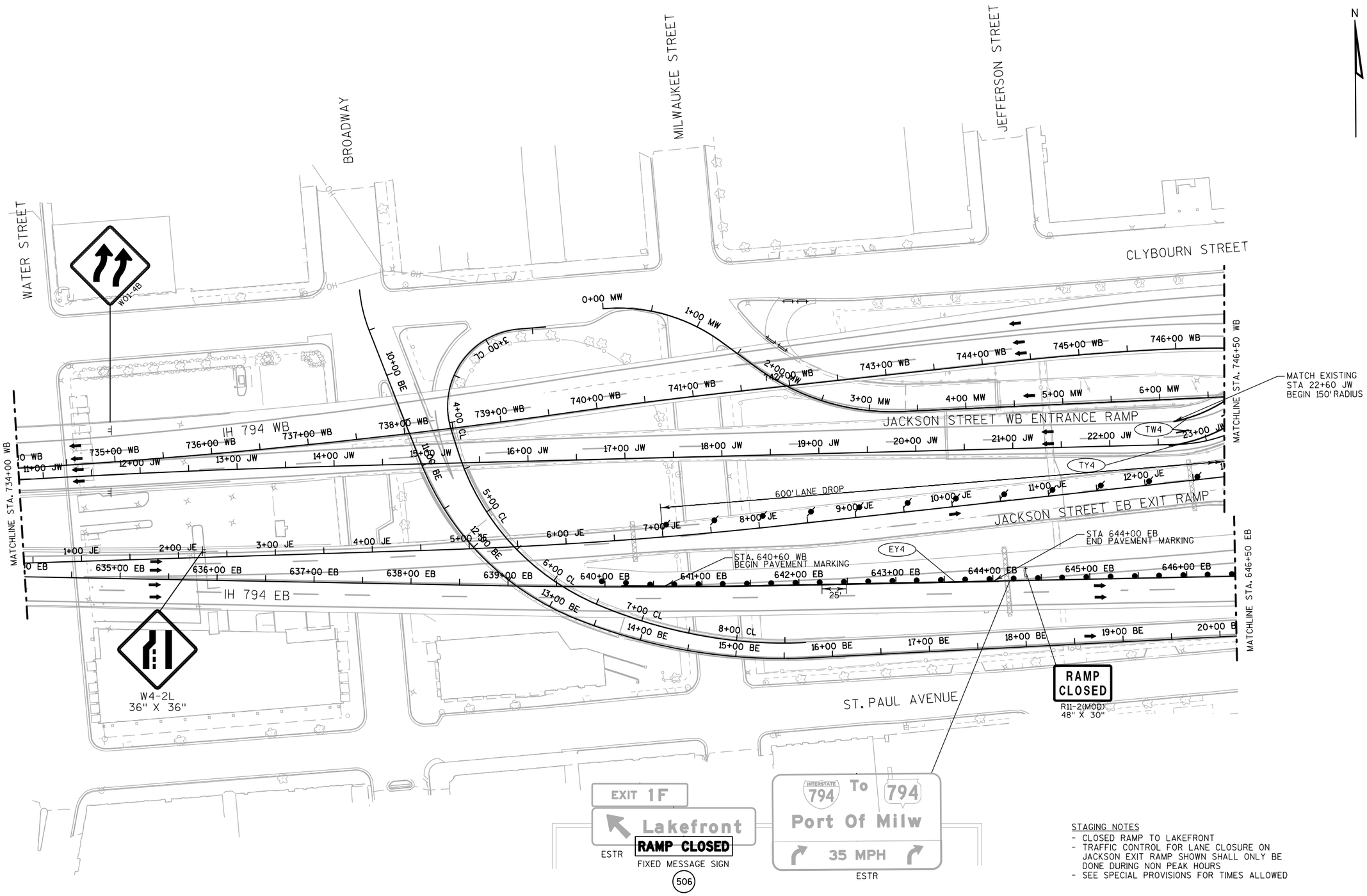
505

INTERSTATE 794 EAST
Port Of Milw
2 RIGHT LANES

ESTR

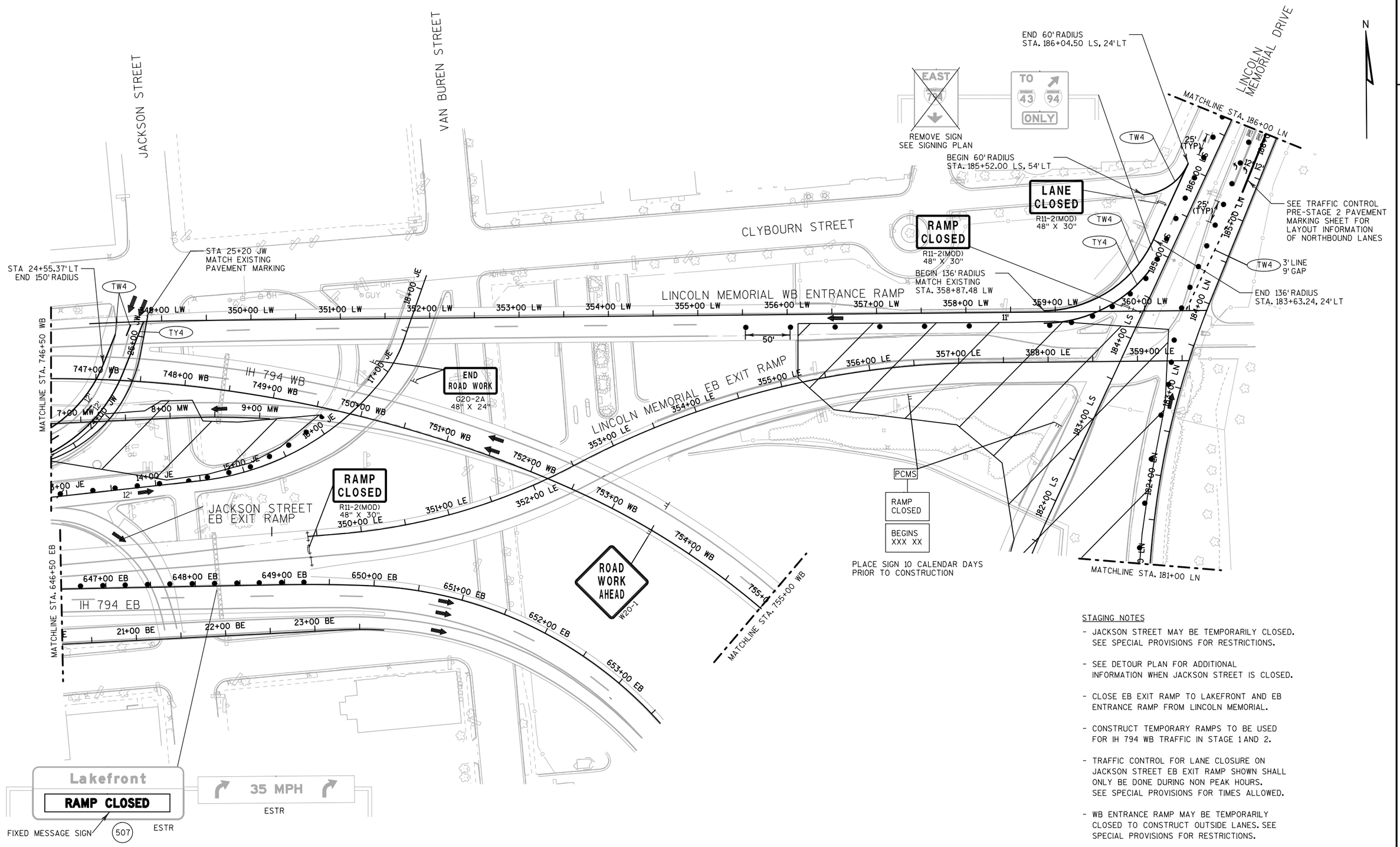
G.P.

PROJECT NO:1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 2 A & B	SHEET 469	E



STAGING NOTES
- CLOSED RAMP TO LAKEFRONT
- TRAFFIC CONTROL FOR LANE CLOSURE ON JACKSON EXIT RAMP SHOWN SHALL ONLY BE DONE DURING NON PEAK HOURS
- SEE SPECIAL PROVISIONS FOR TIMES ALLOWED

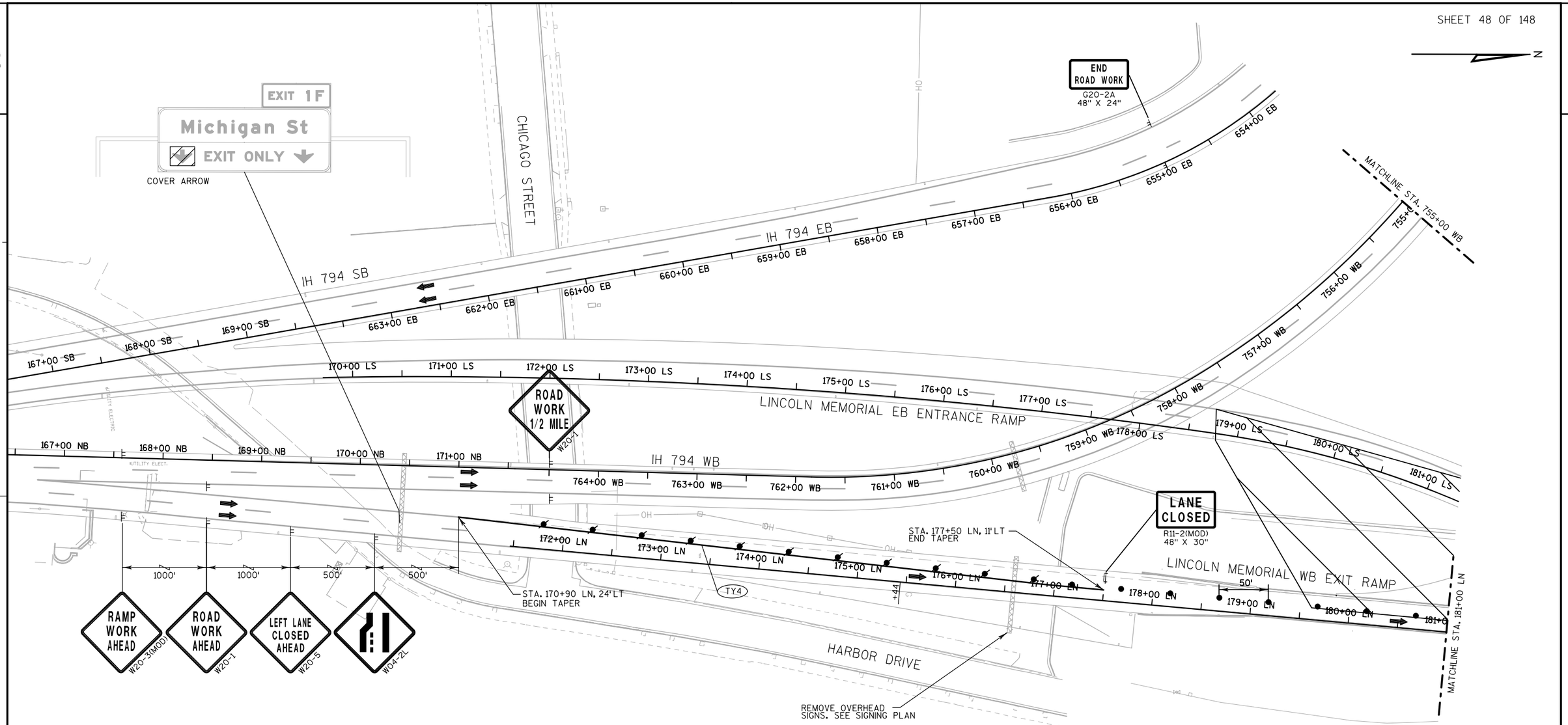
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 2 A & B	SHEET 470	E



STAGING NOTES

- JACKSON STREET MAY BE TEMPORARILY CLOSED. SEE SPECIAL PROVISIONS FOR RESTRICTIONS.
- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION WHEN JACKSON STREET IS CLOSED.
- CLOSE EB EXIT RAMP TO LAKEFRONT AND EB ENTRANCE RAMP FROM LINCOLN MEMORIAL.
- CONSTRUCT TEMPORARY RAMPS TO BE USED FOR IH 794 WB TRAFFIC IN STAGE 1 AND 2.
- TRAFFIC CONTROL FOR LANE CLOSURE ON JACKSON STREET EB EXIT RAMP SHOWN SHALL ONLY BE DONE DURING NON PEAK HOURS. SEE SPECIAL PROVISIONS FOR TIMES ALLOWED.
- WB ENTRANCE RAMP MAY BE TEMPORARILY CLOSED TO CONSTRUCT OUTSIDE LANES. SEE SPECIAL PROVISIONS FOR RESTRICTIONS.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 2A	SHEET 471	E



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 2A	SHEET 472	E

2

2

N

ROAD WORK AHEAD
W20-1
W01-4B
400'
200'
LINCOLN MEMORIAL DR.
END ROAD WORK
G20-2A
48" X 24"
125' LANE SHIFT
25' (TYP.)
LANE CLOSED
R11-2(MOD)
48" X 30"
75' TAPER
50' TURN BAY
LS
190+00
11'
LEFT TURN LANE
R3-55L
24" X 30"
ROAD WORK AHEAD
W20-1
END ROAD WORK
G20-2A
48" X 24"
MICHIGAN STREET
400+00
401+00
402+00
403+00
189+00
188+00
187+00
186+00
CL
LANE CLOSED
R11-2(MOD)
48" X 30"
LANE CLOSED
R11-2(MOD)
48" X 30"
25' (TYP.)
ROAD WORK AHEAD
W20-1
MATCHLINE STA. 186+00 LN
SEE TRAFFIC CONTROL PRE-STAGE 2 - MICHIGAN PAVEMENT MARKING PLAN FOR LAYOUT INFORMATION OF NORTHBOUND LANES
ONLY
MOVE SIGN OVER TURN LANE
TO
43
94
MOVE SIGN OVER LEFT LANE
Clybourn St
ONLY
603
Michigan St
Downtown
ONLY
ONLY
COVER SIGN
601
Lincoln Mem Dr
602
SIGNS ON EXISTING SIGN BRIDGE TO BE REMOVED SEE SIGNING PLAN
STATUE
MH
SIGN
A/C

STAGING NOTES
- RECONSTRUCT MEDIAN ISLAND NOSES.
- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 2A - LINCOLN MEMORIAL DRIVE	SHEET 473	E

2

2

N

JACKSON ST.

VAN BUREN ST.

LINCOLN MEMORIAL DR.

CLYBOURN STREET

LINCOLN MEMORIAL WB ENTRANCE RAMP

LINCOLN MEMORIAL EB EXIT RAMP

IH 794 WB

IH 794 EB

SEE TRAFFIC CONTROL PRE-STAGE 2 - MICHIGAN PAVEMENT MARKING PLAN FOR LAYOUT INFORMATION OF SOUTHBOUND LANES

TO 43 94 ONLY

MOVE SIGN OVER THROUGH LANE

CRASH CUSHION TEMPORARY

MATCHLINE STA. 746+50 WB

MATCHLINE STA. 646+50 EB

MATCHLINE STA. 755+00 WB

MATCHLINE STA. 186+00 LN

MATCHLINE STA. 181+00 LN

741+00 WB
748+00 WB
749+00 WB
750+00 WB
751+00 WB
752+00 WB
753+00 WB
754+00 WB

647+00 EB
648+00 EB
649+00 EB
650+00 EB
651+00 EB
652+00 EB
653+00 EB

756+00 WI
757+00 WI
+50
758+00 WI
759+00 WI
760+00 WI

185+00 LN
184+00 LN
183+00 LN
182+00 LN

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

ROAD WORK AHEAD
W20-1

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

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

STA. 758+71 WI, 11' RT

EW4
3' LINE
9' GAP

EW4

EY4

EW8

EW4

11'

50'
(TYP)

STA. 758+24 WI, 11' RT
BEGIN TAPER

STA. 759+21.5 WI, 37.5' RT
END TAPER

STA. 183+30 LN, 18' LT
END TAPER

STA. 182+89 LN, 25' LT
END 980' RAD.
BEGIN TAPER

TY4

TW4

STA. 181+14 LN, 25' LT
END TAPER
BEGIN 980' RAD.

Lakefront
RAMP CLOSED

35 MPH

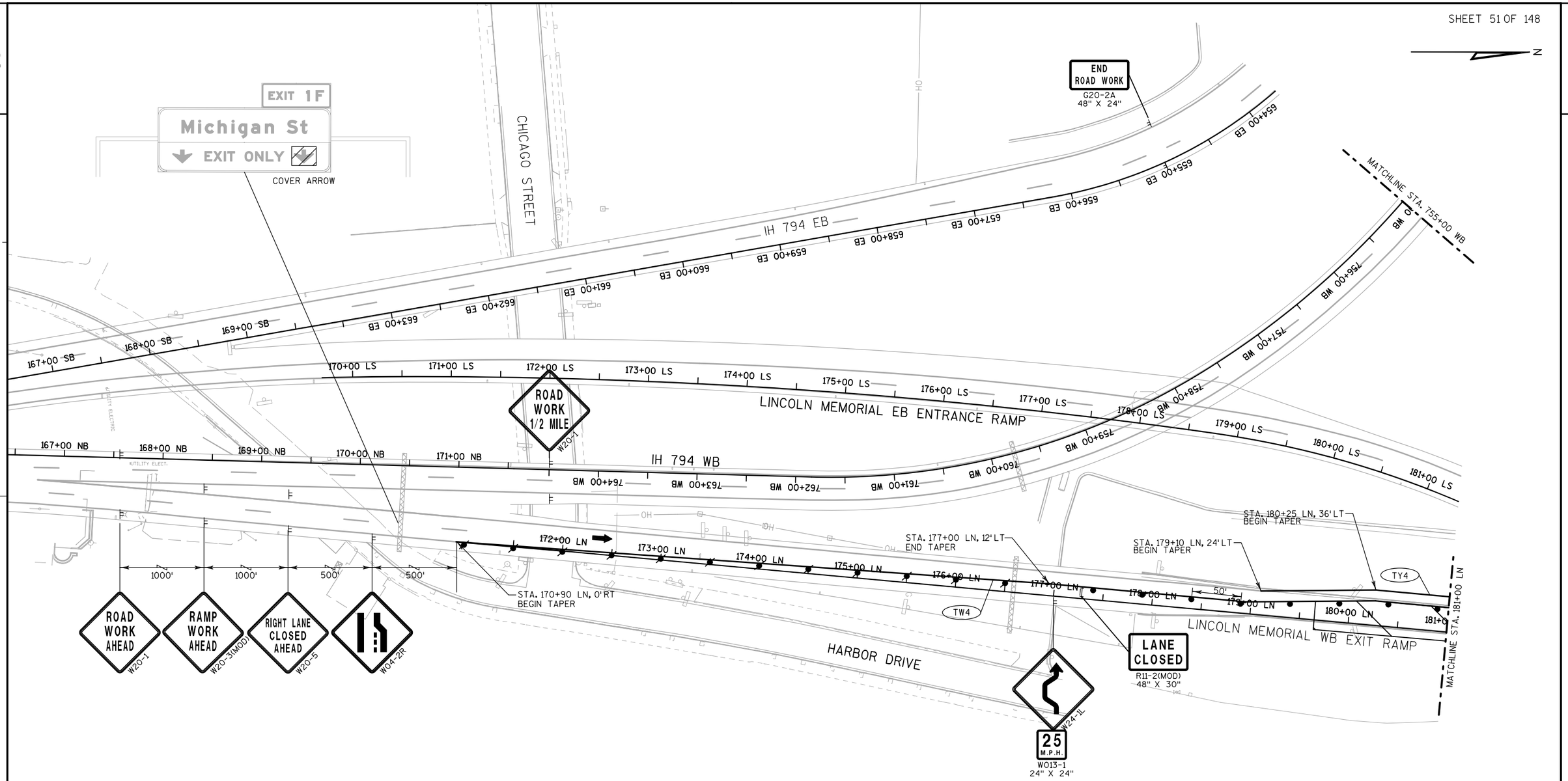
ESTR

ESTR

FIXED MESSAGE SIGN
FROM PRE-STAGE 2A

STAGING NOTES
- FINISH CONSTRUCTION OF RIGHT LANE OF LINCOLN MEMORIAL WB EXIT RAMP

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 2B	SHEET 474	E



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 2B	SHEET 475	E

N

ROAD WORK AHEAD
W20-1

LINCOLN MEMORIAL DR.

END ROAD WORK
G20-2A
48" X 24"

500'

WO12-1D
24" X 24"

TW4

22'

12'

25'

11'

11'

120'

ANGLE POINT
STA. 190+15 LS, 15' LT

MOVE SIGN OVER STAGE 1 LEFT TURN LANE & COVER

TO 43 94

MOVE SIGN OVER LEFT LANE

Clybourn St ONLY

MOVE SIGN OVER RIGHT LANE

END ROAD WORK
G20-2A
48" X 24"

MICHIGAN STREET

SIDEWALK CLOSED CROSS HERE
R9-11a
24" X 12"

400+00

401+00

402+00

403+00

190+00 LS

189+00 LS

188+00 LS

188+00 LN

187+00 LN

187+00 LS

186+00 LN

11'

11'

SIDEWALK CLOSED CROSS HERE
R9-11a
24" X 12"

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

ROAD WORK AHEAD
W20-1

SEE TRAFFIC CONTROL PRE-STAGE 2 - MICHIGAN PAVEMENT MARKING PLAN FOR LAYOUT INFORMATION OF SOUTHBOUND LANES

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

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

MATCHLINE STA. 186+00 LN

Michigan St Downtown ONLY ONLY

SIGN COVERED IN PRE-STAGE 2A

ESTR

Lincoln Mem Dr

ESTR

STAGING NOTES

- RECONSTRUCT ISLAND AND EAST MEDIAN ISLAND NOSE
- CONTRACTOR SHALL MAINTAIN ACCESSIBLE PEDESTRIAN PATH AT ALL TIMES.
- AFTER INTERSECTION IS COMPLETE, FINISH PAVEMENT MARKING FOR THE NORTH LEG OF THE INTERSECTION AND CROSSWALKS. SEE TRAFFIC CONTROL PRE-STAGE 2 PAVEMENT MARKING SHEET FOR LAYOUT INFORMATION.
- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 2B - LINCOLN MEMORIAL DRIVE	SHEET 476	E

FILE NAME : IP_PWP:d0231471\026112_p-s2.dgn
PLOT DATE : 26-APR-2013
PLOT BY : 1732
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
WISDOT/CADDS SHEET 42

N

2

2

BEGIN 60' RADIUS
STA 185+58.6, 42.6' LT

END 60' RADIUS
STA 186+11.2, 12' LT

BEGIN 75' RADIUS
STA 187+86, 24' LT

END 75' RADIUS
STA 188+41.7, 50.5' LT

BEGIN 78' RADIUS
STA 189+68.6, 49.5' LT

END 78' RADIUS
STA 190+19, 31' LT

MICHIGAN STREET

ONLY

N. LINCOLN MEMORIAL DRIVE

PW4 PW8 PW12 PW PA2 PW6

3' LINE
9' GAP

10' SPACING

47' RAD

75' RAD

185+00 LN

186+00 LS

186+00 LN

187+00 LS

187+00 LN

188+00 LS

188+00 LN

189+00 LS

190+00 LS

400+00

401+00

402+00

403+00

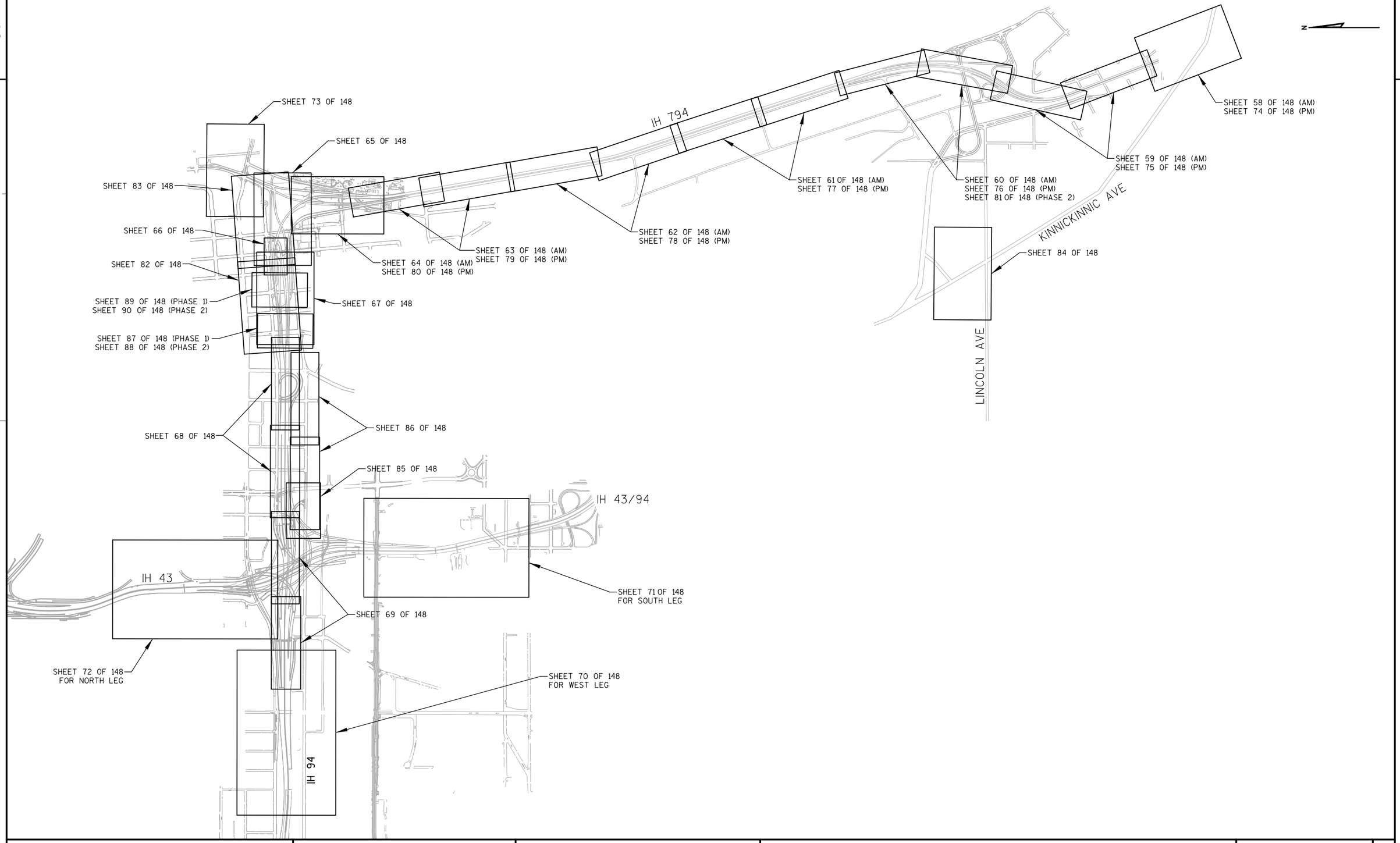
+50 +30 +90 +65 +08 +88 +32

12' 15' 11' 4' 25' 115' 100'

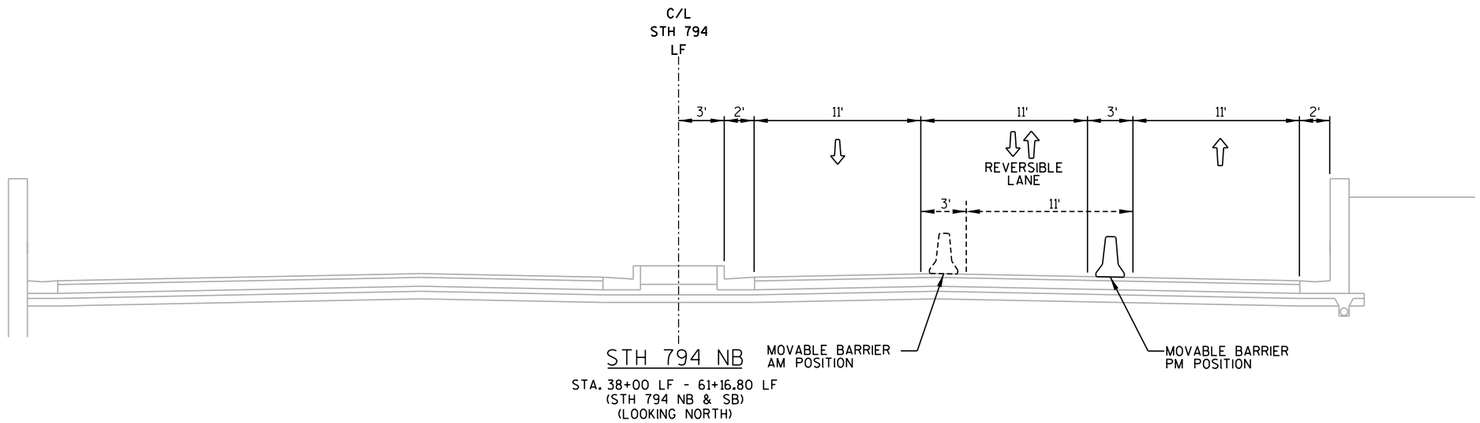
STAGING NOTES
- PAVEMENT MARKING FOR THE MICHIGAN STREET INTERSECTION IS TO BE DONE IN PHASES. SEE TRAFFIC CONTROL PLANS FOR SEQUENCE OF PAVEMENT MARKING.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE-STAGE 2 - MICHIGAN PAVEMENT MARKING	SHEET 477	E

FILE NAME : IP_PWP:d0231471\026113_p_S2.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000
WISDOT/CADDS SHEET 42

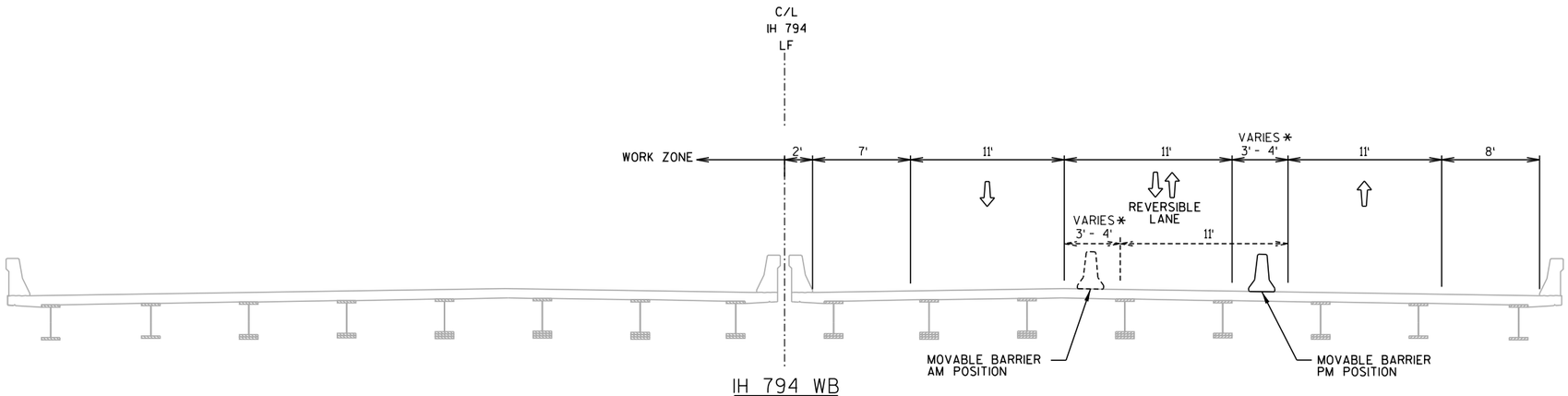


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1 OVERVIEW	SHEET 478	E



STH 794 NB

STA. 38+00 LF - 61+16.80 LF
(STH 794 NB & SB)
(LOOKING NORTH)

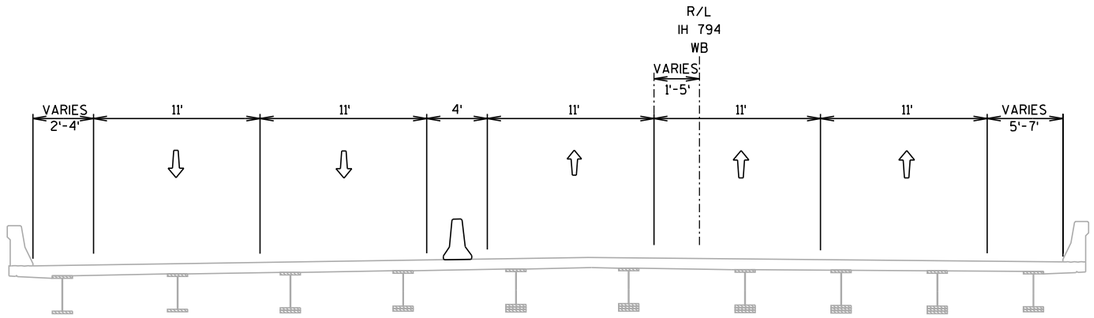


IH 794 WB

STA. 61+16.80 LF - 159+50 LF
STA. 159+50 NB - 171+43 NB
(IH 794 NB & SB)
(LOOKING NORTH)

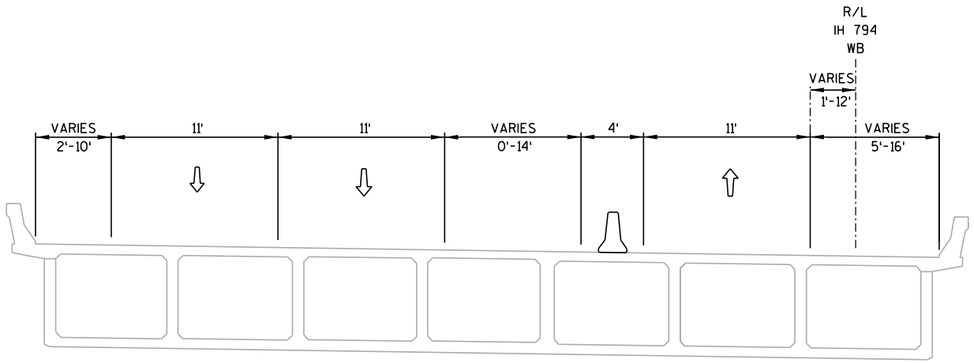
* STA 61+16.80 LF - 64+04.18 LF

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL TYPICALS - STAGE 1	SHEET 479	E



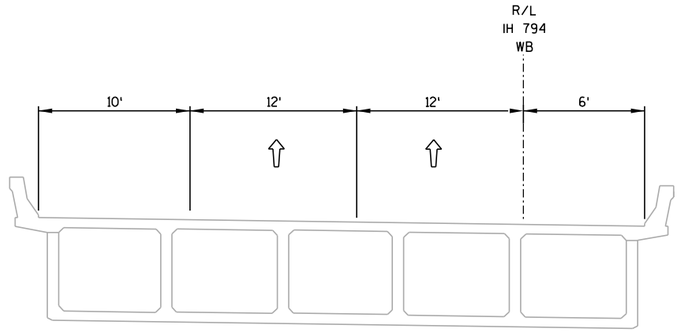
IH 794 WB

STA. 719+00 WB - 738+00 WB
(IH 794 EB & WB)
(LOOKING EAST)



IH 794 WB

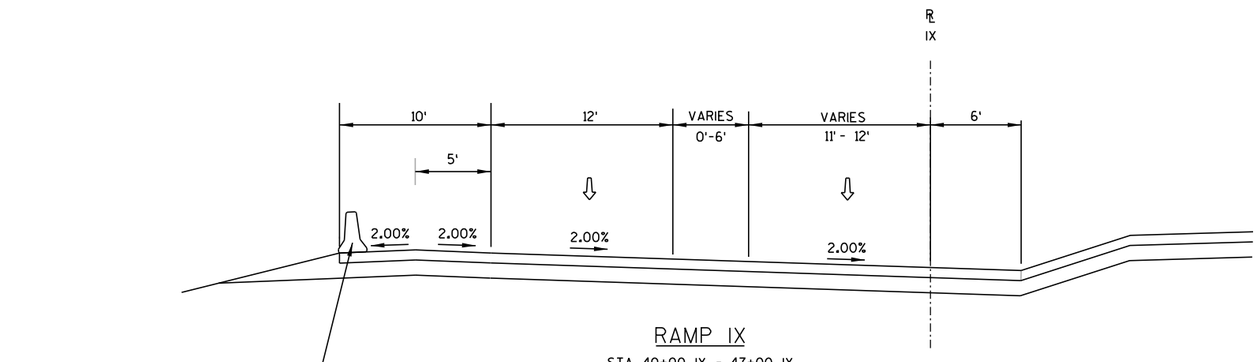
STA. 738+00 WB - 747+60 WB
(IH 794 EB & WB)
(LOOKING EAST)



IH 794 WB

STA. 747+60 WB - 764+85 WB
(IH 794 EB & WB)
(LOOKING EAST/SOUTH)

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL TYPICALS - STAGE 1	SHEET 480	E



RAMP IX

STA. 40+00 IX - 47+00 IX
(LINCOLN MEMORIAL CROSSOVER)
(LOOKING EAST)

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL TYPICALS - STAGE 1	SHEET 481	E

FILE NAME : 026200a_s1.dgn PLOT DATE : 4/26/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:10

WISDOT/CADDS SHEET 42

W057-52
36" X 24"

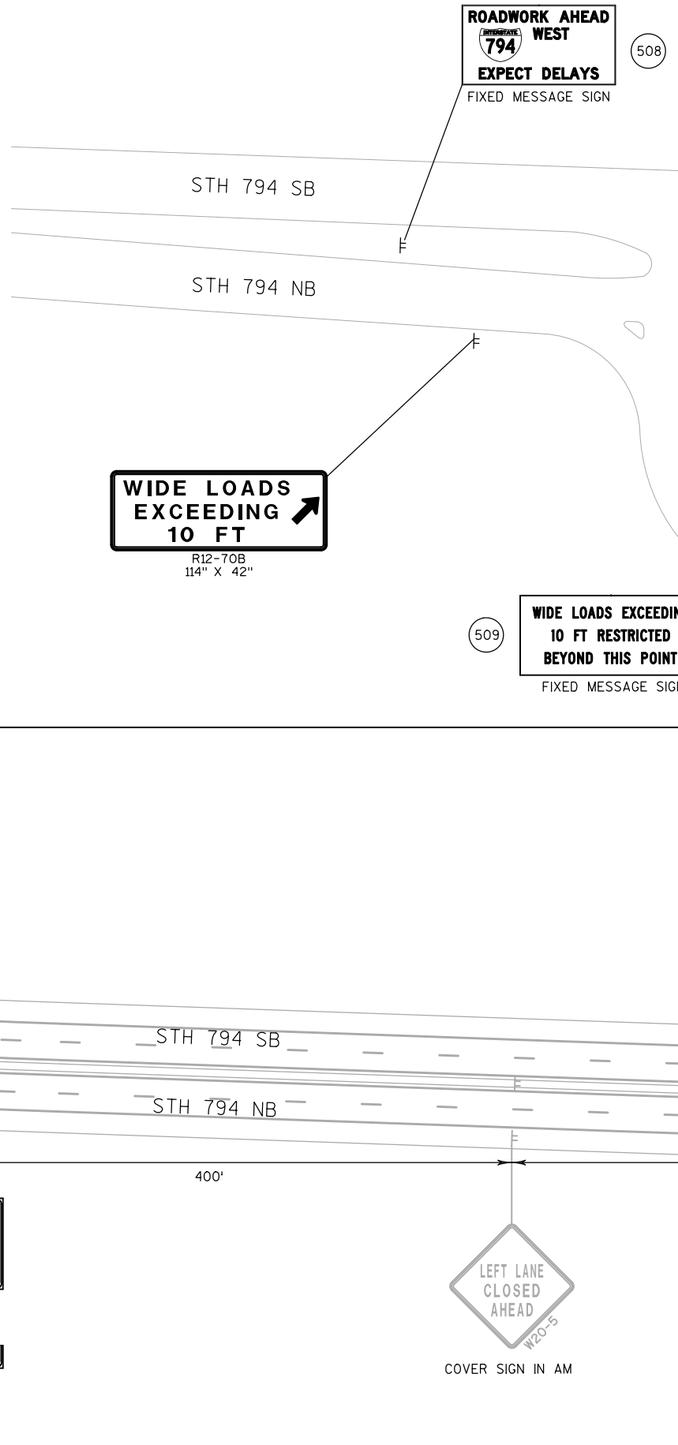
PLACE AT SIGN AT
PENNSYLVANIA AVE.
ON RAMP

W057-52
36" X 24"

PLACE AT SIGN AT
LAYTON AVE.
ON RAMP

W057-52
36" X 24"

PLACE AT SIGN AT
HOWARD AVE.
ON RAMP



W21-62
96" X 48"

W21-62P
96" X 12"

COVER SIGN IN AM

PLACE SIGN 10 CALENDAR DAYS PRIOR TO CONSTRUCTION

ONLY TO BE USED WHEN BARRIER TRANSFER MACHINE IS IN OPERATION

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - AM	SHEET 482	E

COVER SIGN IN AM

W04-2L

STA. 32+00 LF, 41'LT
END TAPER

STA. 35+00 LF, 29'RT
BEGIN PAVEMENT MARKING

3' LINE
9' GAP
PW8

STA. 37+50 LF, 29'LT
BEGIN TAPER

STA. 37+50 LF
BEGIN PAVEMENT MARKING
MATCH EXISTING

RUSSELL AVE.

STA. 39+00 LF, 41'LT
BEGIN LANE SHIFT

W04-1

STA. 38+00 LF, 27'LT
END TAPER

PT STA. 39+48
5.5'RT

BAY ST.

STA. 42+75 LF, 5'RT
END SOLID 4" WHITE
BEGIN LANE LINES

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

STA. 42+00 LF
END LANE SHIFT
END PAVEMENT MARKING
MATCH EXISTING

50'
TYP.

1050'R

MATCHLINE STA. 29+00 LF

STH 794 SB

STH 794 NB

0 LF | 30+00 LF | 31+00 LF | 32+00 LF | 33+00 LF | 34+00 LF | 35+00 LF | 36+00 LF | 37+00 LF | 38+00 LF | 39+00 LF | 40+00 LF | 41+00 LF | 42+00 LF | 43+0

EW4 | EW8 | EW4 | EW4 | EY4 | EW4

2' | 12' | 12' | 2' | 12' | 12' | 11' | 11' | 11'

+60 | +00

MATCHLINE STA. 43+00 LF

ROAD WORK
NEXT 4 MILES
G20-1
60" X 24"

700' | 670'

PLACE CONCRETE BARRIER TEMPORARY
PRECAST STA 36+60 LF - 37+85 LF, 0'RT.
MOVE CRASH CUSHION TEMPORARY
FROM STA 61+50 LF IN PRE-STAGE 2.

LOCATION OF BARRIER
TRANSFER MACHINE IN AM

PC STA. 38+00 LF
5'LT

STA. 38+00 LF
BEING PAVEMENT MARKING
MATCH EXISTING

STA. 39+00 LF, 29'RT
BEGIN LANE SHIFT

STA. 40+01 LF
13'RT

PC STA. 40+27 LF
5.5'LT

STA. 41+00 LF, 41'RT
END LANE SHIFT

STA. 42+00 LF, 30'RT
END SOLID 4" WHITE
BEGIN LANE LINES

PT STA. 41+75 LF
5'RT

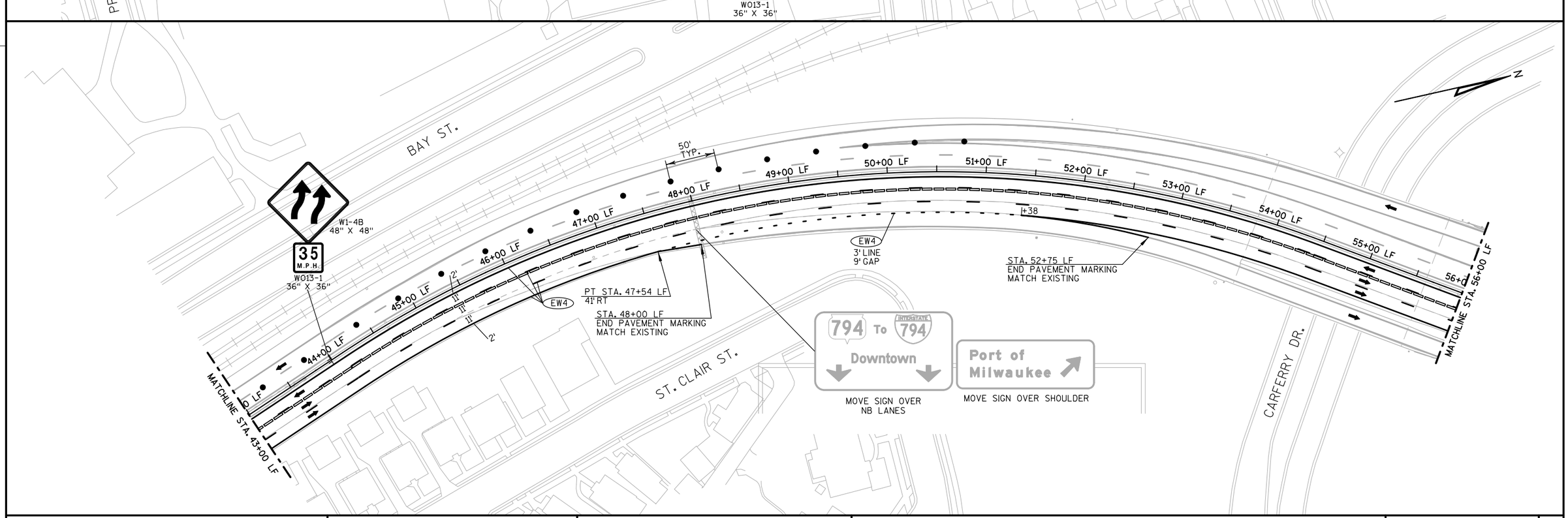
PRYOR AVE.

W1-4B
48" X 48"

35
M.P.H.
W013-1
36" X 36"

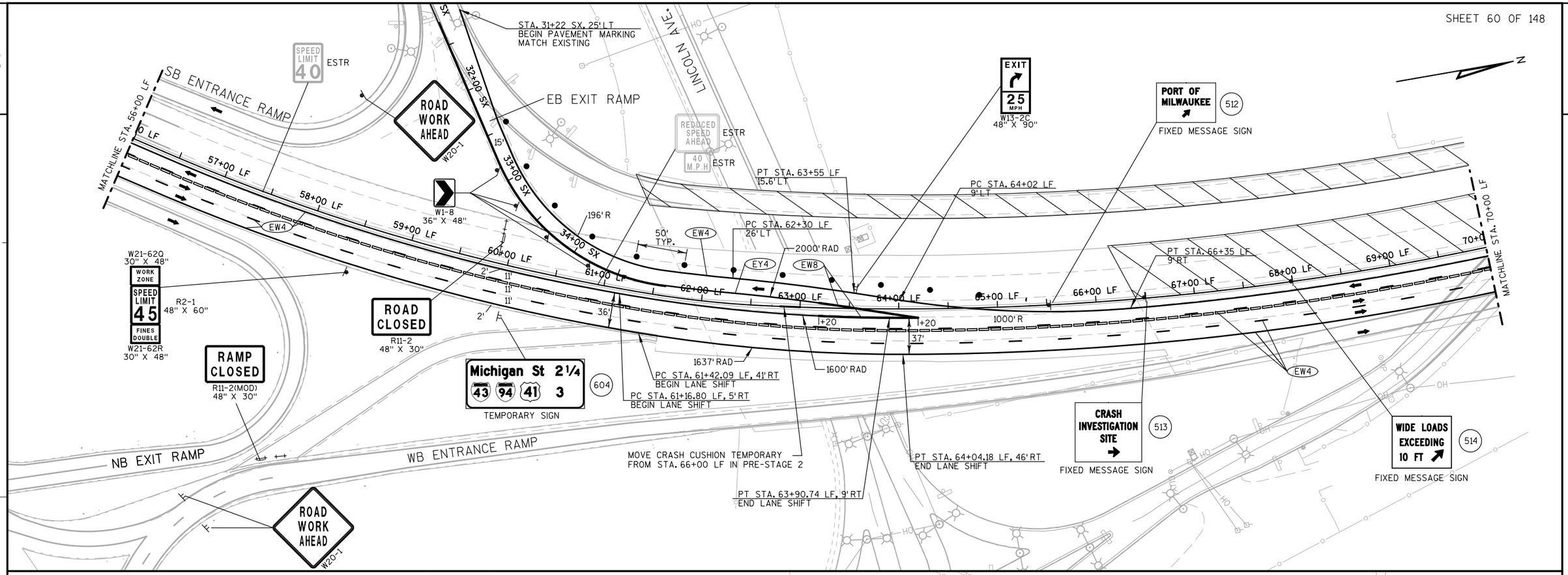
ST. CLAIR ST.

N



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - AM	SHEET 483	E

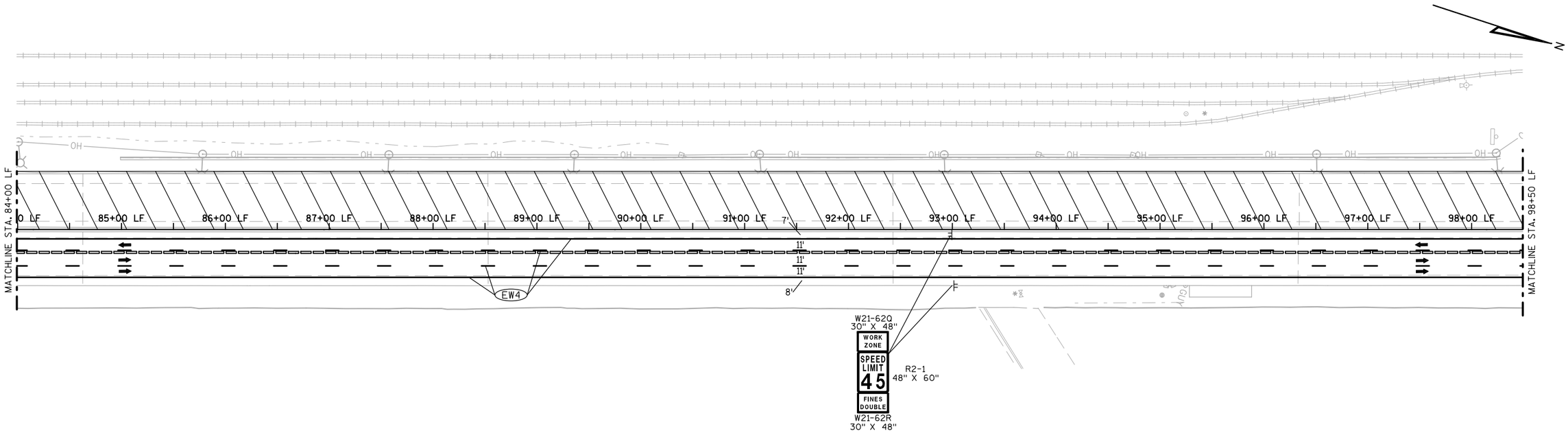
FILE NAME : IP_PWP:d0231471\026202_s1.dgn
PLOT DATE : 26-APR-2013
PLOT BY : 1732
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
WISDOT/CADDS SHEET 42

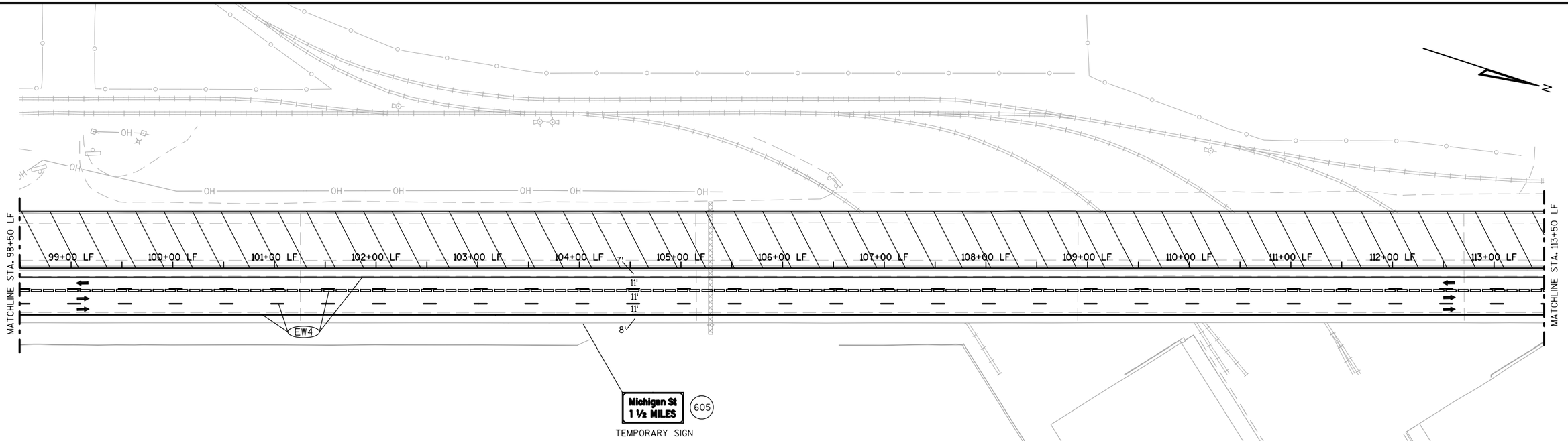


STAGING NOTES

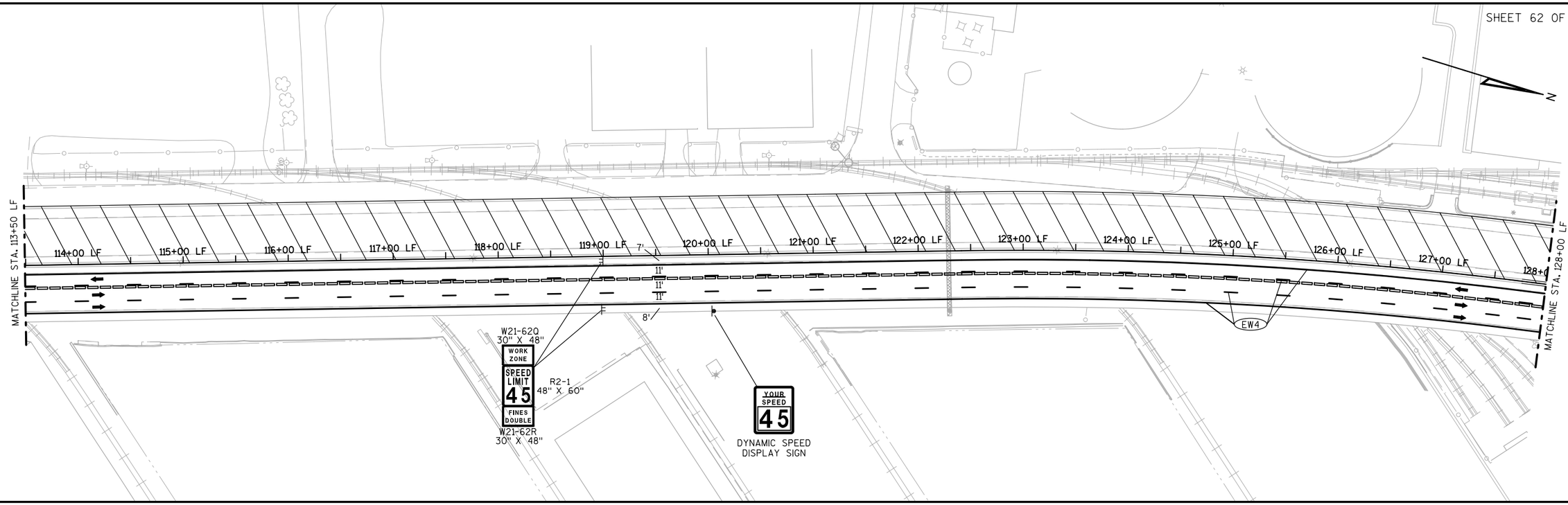
- WIDTH OF CENTER LANE TRANSITIONS FROM 14' - 15' STA 61+16.80 LF - 64+04.18 LF
- SEE CRASH INVESTIGATION SITE DETAIL FOR ADDITIONAL INFORMATION ALONG CARFERRY DRIVE.

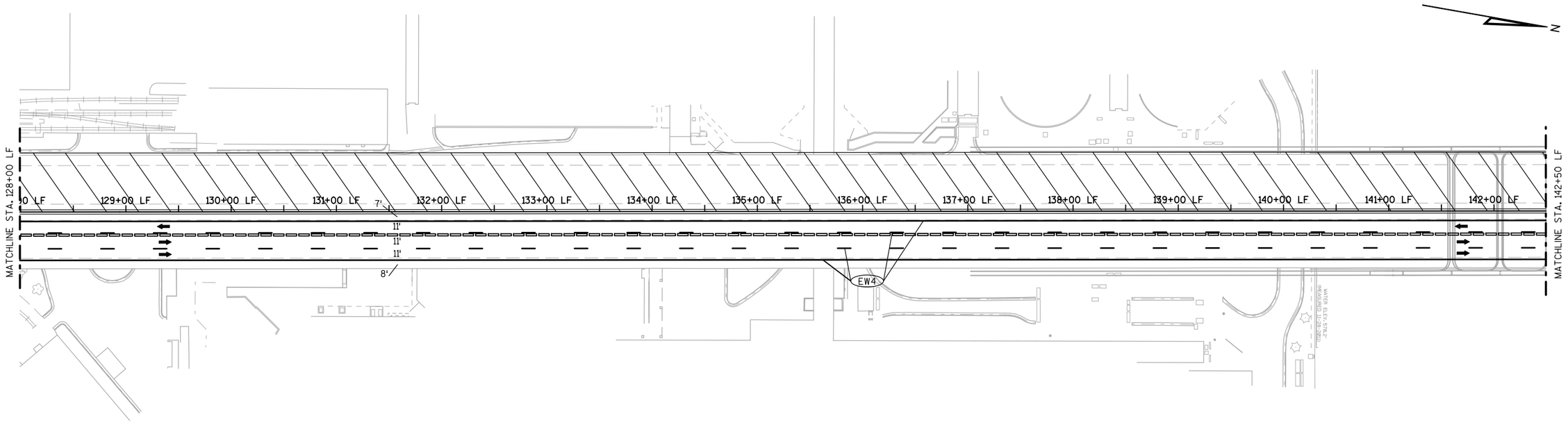
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - AM (PHASE 1 - EB RAMP OPEN)	SHEET 484	E



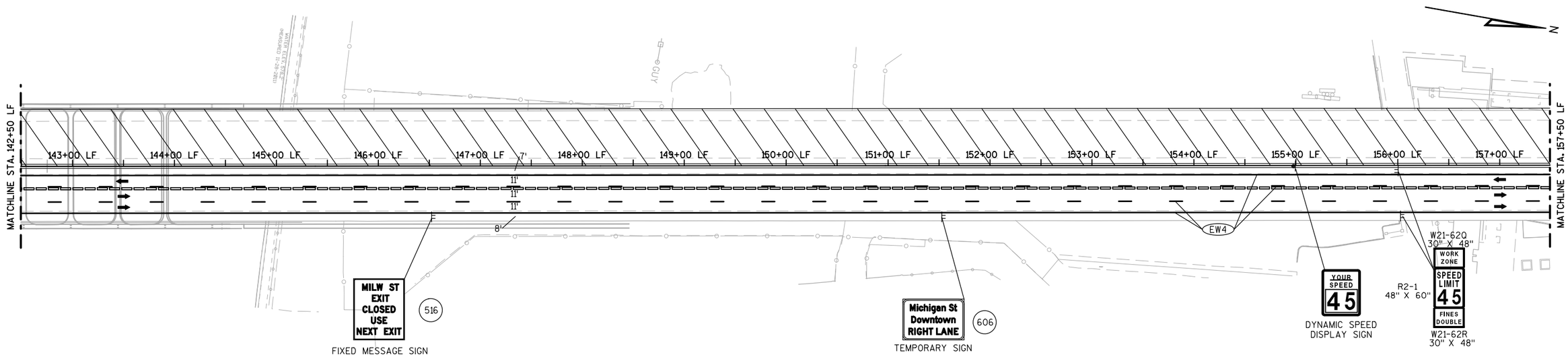


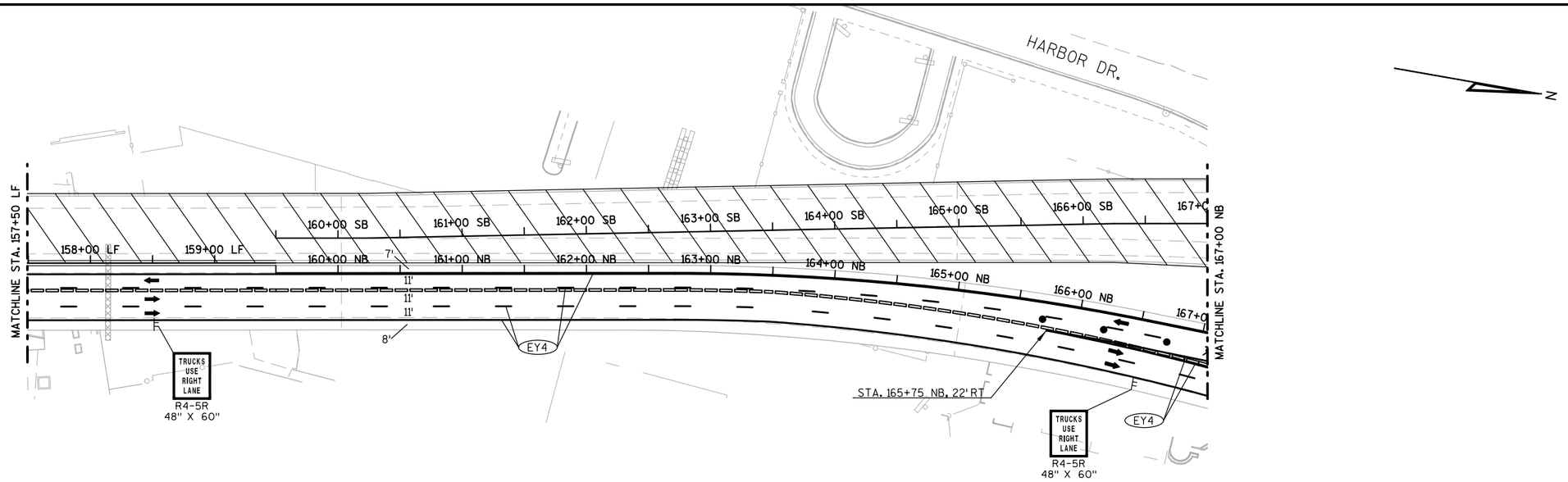
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - AM	SHEET 485	E





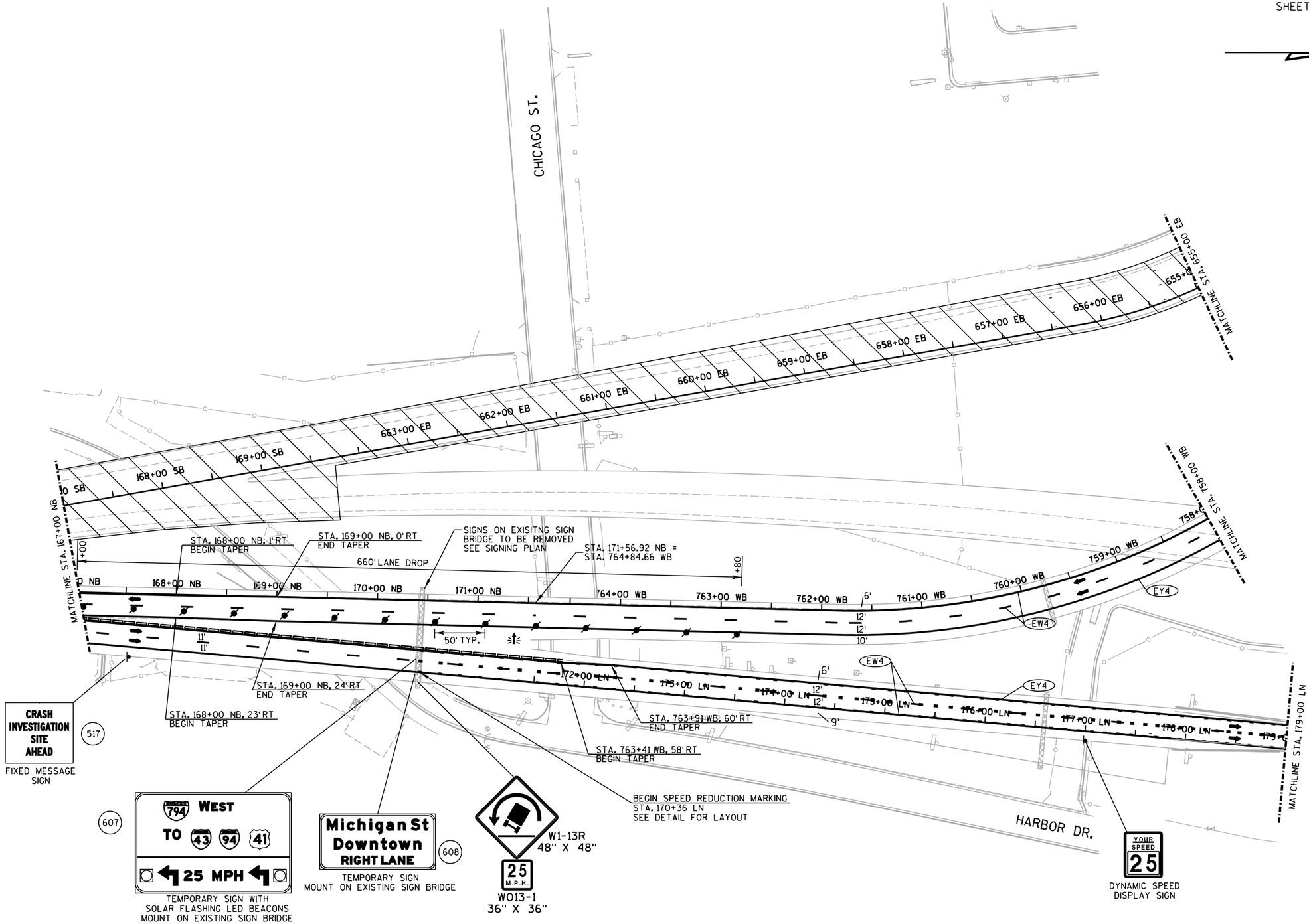
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - AM	SHEET 486	E





PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - AM	SHEET 487	E

FILE NAME : IP_PWP:d0231471\026206_s1.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - AM	SHEET 488	E

FILE NAME : 026207_s1.dgn PLOT DATE : 4/26/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:100

2

2

609 — I-794 WEST TO I-43 I-94 US-41 — 25 MPH
TEMPORARY SIGN WITH SOLAR FLASHING LED BEACONS

610 — Michigan St Downtown
TEMPORARY SIGN

518 — CRASH INVESTIGATION SITE
FIXED MESSAGE SIGN

EXIT 1F
E5-1A
72" X 60"

DYNAMIC CURVE WARNING SYSTEM SIGNS
36" x 48"

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

R1-2
36" X 31"

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

W04-1

W04-2L

LEFT LANE CLOSED 1500 FT
W20-5

MOVING WORK ZONE
NEXT 2 MILES
ONLY TO BE USED WHEN BARRIER TRANSFER MACHINE IS IN OPERATION

✳ SIGN UNCOVERED IN AM
SIGN COVERED IN PM

N

MATCHLINE STA. 179+00 LN

MATCHLINE STA. 186+00 LN

MATCHLINE STA. 758+00 WB

MATCHLINE STA. 655+00 EB

MATCHLINE STA. 747+00 WB

BEGIN TAPER
46+91 IX, 12' LT

END SPEED REDUCTION MARKING
STA. 180+55 LN
SEE DETAIL FOR LAYOUT

END TAPER
46+00 IX, 11' LT

PC STA. 45+88 IX
11' LT

PC STA. 45+26 IX
26' LT

CRASH CUSHIONS TEMPORARY
STA. 43+71.16 IX, 259' RT
275' RAD.

CHEVRONS AT 50' SPACING

CRASH CUSHIONS TEMPORARY

PT STA. 41+54 IX
11' LT

CRASH CUSHION FROM PRE-STAGE 2B

EW4
3' LINE
9' GAP

PCMS

CLYBOURN ST.

VAN BUREN ST.

JACKSON ST.

SEE NEXT SHEET FOR TRAFFIC CONTROL DETAIL ON VAN BUREN STREET EXIT RAMP

STAGING NOTES
- PIN BARRIER TO PAVEMENT ALONG RAMP IX

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - AM & PM	SHEET 489	E

JACKSON ST.

WB IH 794 VAN BUREN
STREET EXIT RAMP

ONE WAY
R6-2L
24" X 30"

DO NOT ENTER
R5-1
30" X 30"

STA. 49+25 JX

15:1 TAPER

7'

2'

11'

11'

CRASH CUSHIONS TEMPORARY

EW4

EY4

54+00 JX

+50 JX

53+00 JX

+50 JX

52+00 JX

+70

+20

51+00 JX

+50 JX

50+00 JX

CRASH CUSHIONS
TEMPORARY

WRONG WAY
DYNAMIC WRONG WAY SIGN
42" X 30"

WRONG WAY
DYNAMIC WRONG WAY SIGN
42" X 30"

W01-1L

15 M.P.H.
W013-1
36" X 36"

R3-1
24" X 24"

ONE WAY
R6-2L
24" X 30"

R3-1
24" X 24"

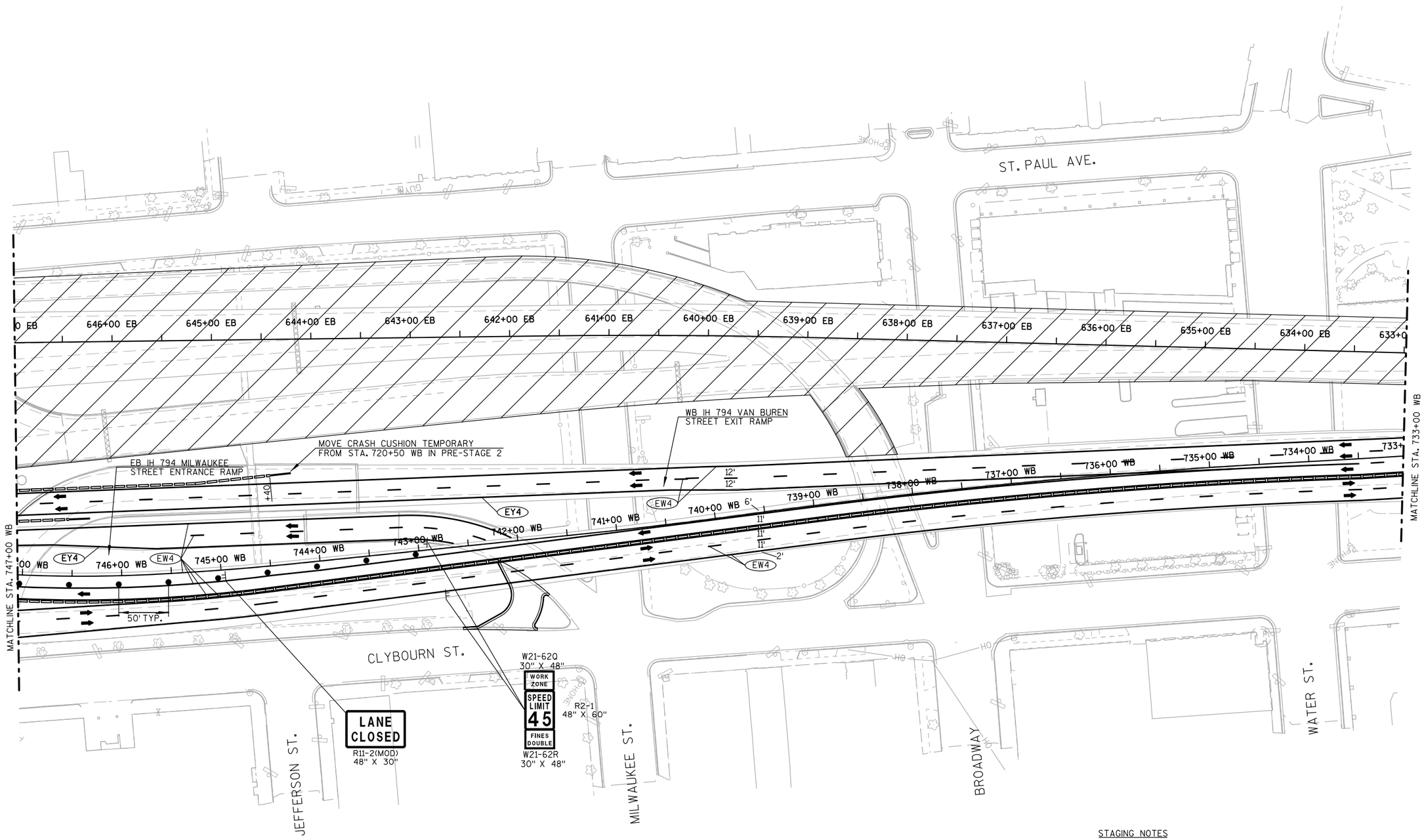
Van Buren St
Jackson St
519
FIXED MESSAGE SIGN

MATCH EXISTING

STA. 54+87.20 JX, 102'LT
125' RAD.

CLYBOURN ST.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 AM & PM - VAN BUREN RAMP DETAIL	SHEET 490	E



STAGING NOTES
- SEE TRAFFIC CONTROL LOCAL STREET PLANS FOR ADDITIONAL INFORMATION.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - AM & PM	SHEET 491	E

611
INTERSTATE 794 EAST
Port Of Milw
TEMPORARY SIGN PLACED ON EXISTING SIGN BRIDGE

EXIT 1E
Jackson St
Van Buren St
EXIT ONLY
613
612
TEMPORARY SIGN PLACED ON EXISTING SIGN BRIDGE

W21-62Q
30" X 48"
WORK ZONE
SPEED LIMIT 45
FINES DOUBLE
R2-1
48" X 60"
W21-62R
30" X 48"

LAKEFRONT TRAFFIC USE NEXT EXIT
MOVE SIGN FROM PRESTAGE 2 LOCATION

LEFT EXIT 1E
Jackson St
Van Buren St
EXIT ONLY
COVER SIGN

EXIT 1F
Lakefront
1/2 MILE
COVER SIGN

INTERSTATE 794 EAST
Port Of Milw
2 RIGHT LANES
COVER SIGN

614
INTERSTATE 794 EAST
Port Of Milw
TEMPORARY SIGN PLACED ON EXISTING SIGN BRIDGE

EXIT 1E
Jackson St
Van Buren St
2 RIGHT LANES
616
615
TEMPORARY SIGN PLACED ON EXISTING SIGN BRIDGE

N

MATCHLINE STA. 733+00 WB

632+00 EB
631+00 EB
630+00 EB
629+00 EB
628+00 EB
627+00 EB
626+00 EB
625+00 EB
624+00 EB
623+00 EB
622+00 EB
621+00 EB
620+00 EB
619+00 EB
618+00 EB

732+00 WB
731+00 WB
730+00 WB
729+00 WB
728+00 WB
727+00 WB
726+00 WB
725+00 WB
724+00 WB
723+00 WB
722+00 WB
721+00 WB
720+00 WB
719+00 WB
718+00 WB

PT STA. 719+75 WB
17' RT
1500' R
5'
11'
11'
11'
11'
11'
4'
EW4
EY4
STA. 720+25 WB, 42' RT
END PAVEMENT MARKING
MATCH EXISTING
PT STA. 718+59.5 WB
37.7' LT
EY8
MATCHLINE STA. 718+00 WB

LEFT EXIT 1A
INTERSTATE 94 WEST 41
Madison
COVER ARROW
MOVE SIGN WITH ARROW OVER LEFT LANE

EXITS 1B-C
INTERSTATE 43 INTERSTATE 94 EAST 41
Green Bay
Chicago
COVER ARROW
MOVE SIGN WITH ARROW OVER RIGHT LANE

W01-4B(MOD)
40 M.P.H.
W013-1
36" X 36"

LEFT EXIT 1A
INTERSTATE 94 WEST 41
Madison
SIGN WILL COVER EXISTING CHICAGO SIGN
MOVE SIGN OVER THROUGH LANES

EXITS 1B-C
618
INTERSTATE 43 INTERSTATE 94 EAST 41
Green Bay
Chicago
617
TEMPORARY SIGN
SIGN WILL COVER EXISTING GREEN BAY SIGN

EXIT 1D
INTERSTATE 794 EAST
Lakefront
Plankinton Avenue
ESTR

520
FIXED MESSAGE SIGN
Jackson St RIGHT 1/2
Lakefront CLOSED
Port Of Milwaukee 3
ESTR
SIGN FROM PRE-STAGE 2

EXIT 1D
INTERSTATE 794 EAST
Lakefront
Plankinton Avenue
ESTR

MOVE CRASH CUSHION TEMPORARY FROM STA. 613+50 EB IN PRE-STAGE 2
STA. 613+00 EB
BEGIN PAVEMENT MARKING
MATCH EXISTING
STA. 614+02 EB
BEGIN PAVEMENT MARKING
MATCH EXISTING
STA. 615+07 EB, 47' RT
W1-6
48" X 24"
STA. 717+57.7 WB
21.7' RT
PT STA. 615+90.7 EB
15.6' LT
PC STA. 613+08 EB
11.5' RT
1050' R
1500' R
EW4
PC STA. 613+75 EB
0' RT
PT STA. 715+48 WB
12' LT
STA. 713+76 WB
END PAVEMENT MARKING
MATCH EXISTING
CRASH CUSHION FROM PRE-STAGE 1
EW8
PC STA. 717+00 WB
26.7' LT
STA. 717+50 WB, 45' LT
END PAVEMENT MARKING
MATCH EXISTING
12'
+50

RAMP FROM IH 43 NB AND SB
IH 794 EB
IH 794 WB
RAMP TO IH 43 NB AND SB

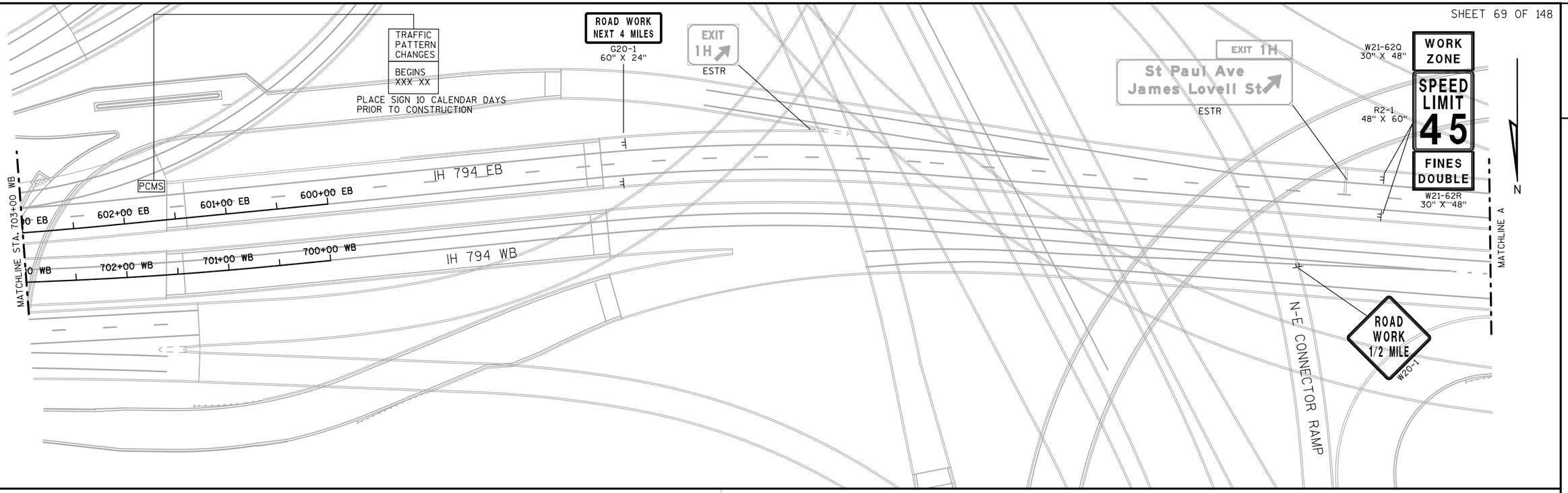
MATCHLINE STA. 718+00 WB
MATCHLINE STA. 703+00 WB

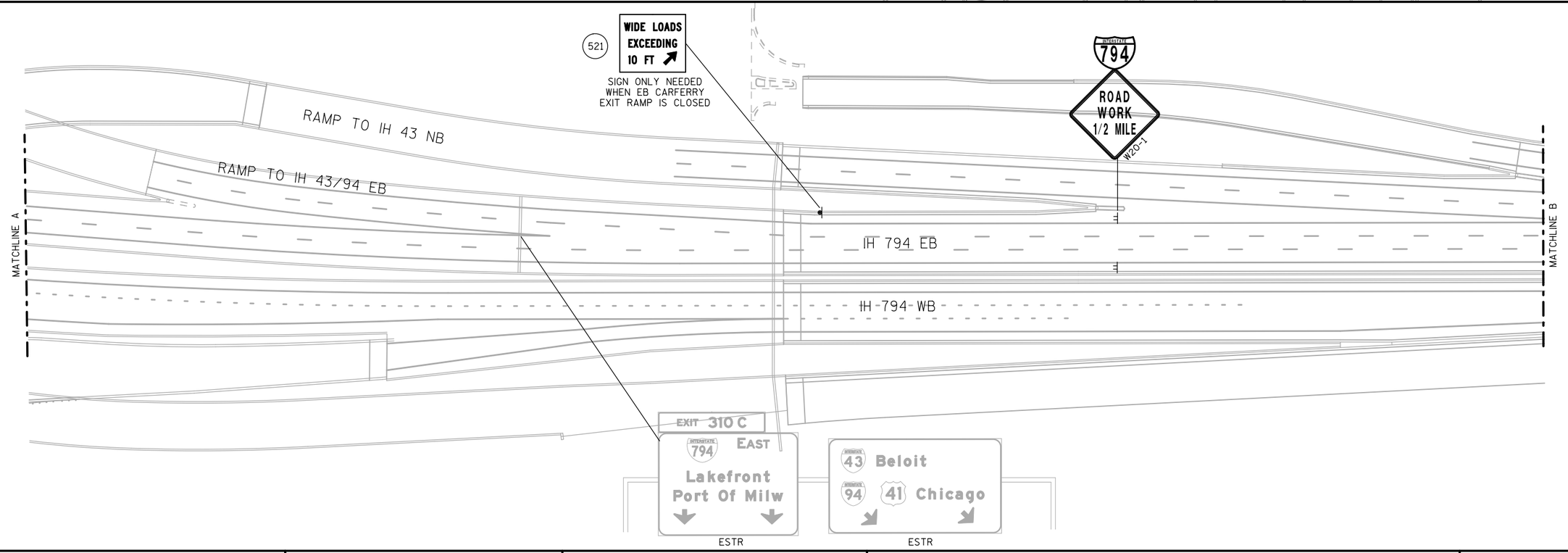
LAKEFRONT TRAFFIC USE NEXT EXIT
SIGN FROM PRE-STAGE 2

W01-4B(MOD)
40 M.P.H.
W013-1
36" X 36"

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - AM & PM	SHEET 492	E

2





PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - AM & PM	SHEET 493	E

2

2

Downtown Exits

43 NORTH Kilbourn Ave	1 1/4
794 St Paul - J Lovell	1
794 Jackson - Van Buren St	2

ESTR

EXIT 310 C
794 EAST
Lakefront
Port of Milw
43 SOUTH
94 41
Chicago
EXIT 310 B
43 NORTH
Green Bay
1/4 MILE
EXIT ONLY
ESTR

EXIT 310 A
13th Street
ESTR

N

27TH STREET

CLYBOURN STREET

MATCHLINE B

500' 500' 200'

794
ROAD WORK 1 MILE
W20-1

794
SPEED LIMIT 45
W3-5
48" X 48"

FINES DOUBLE IN WORK ZONES
Give 'em a BRAKE SLOW DOWN
W21-62
96" X 48"
$200 MINIMUM
W21-62P
96" X 12"

16TH STREET

35TH STREET

IH 94 EB

IH 94 WB

ROADWORK AHEAD
794 EAST
EXPECT DELAYS
522
FIXED MESSAGE SIGN

794
MAX.
10'
WIDTH
W12-52
48" X 48"
5 MILES AHEAD
W057-52
36" X 24"

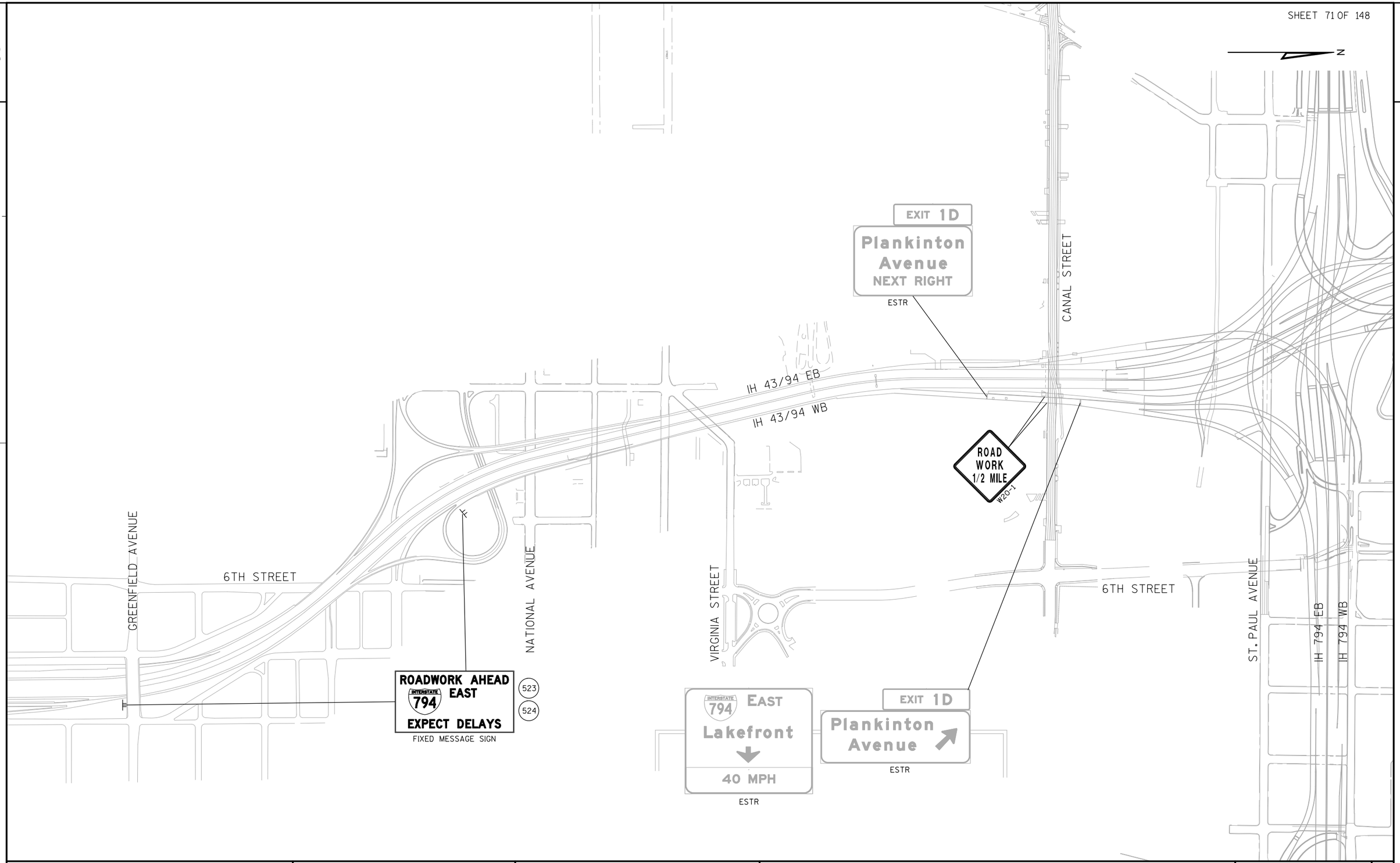
EXIT 310 C
794 EAST
Lakefront
Port of Milw
43 SOUTH
94 41
Chicago
ONLY
ESTR

EXIT 310 B
43 NORTH
Green Bay
EXIT ONLY
ESTR

EXIT 310 C
794 EAST
Lakefront
Port of Milw
3/4 MILE
43 SOUTH
94 41
Chicago
EXIT 310 B
43 NORTH
Green Bay
1/2 MILE
ESTR

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 AM & PM	SHEET 494	E

FILE NAME : IP_PWP:d0231471\026211a_s1.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 500.000000:1.000000



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 AM & PM	SHEET 495	E

2

2

N

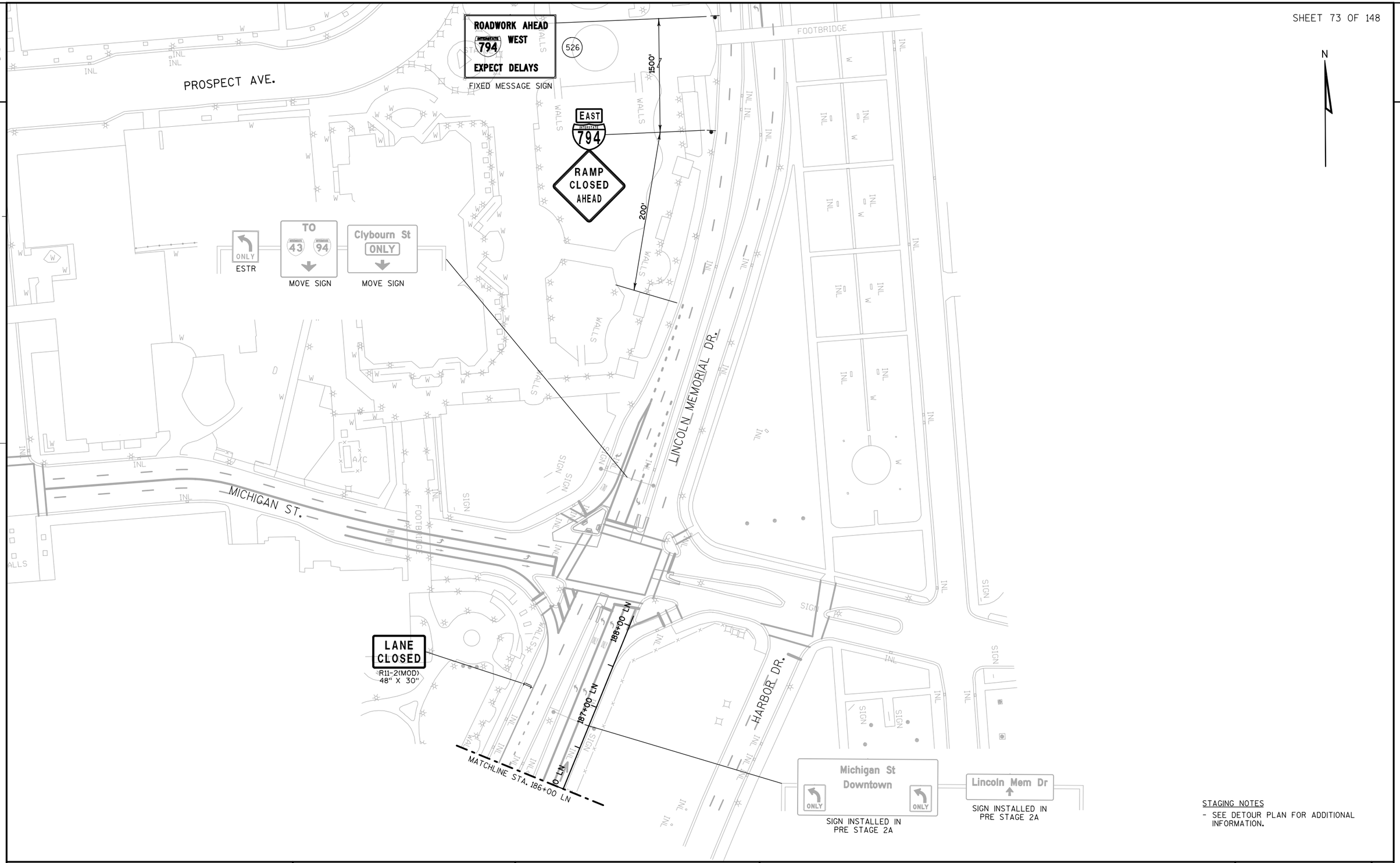
IH 94 EB
IH 94 WB
IH 43 SB
IH 43 NB
FOND DU LAC AVE
WALNUT STREET
IH 794 EB
IH 794 WB
MICHIGAN STREET

ROADWORK AHEAD
INTERSTATE 794 **EAST**
525
EXPECT DELAYS
FIXED MESSAGE SIGN

HWY 794 LOADS EXCEEDING 10 FT FOLLOW ALT ROUTE ON HWY 43
525A
FIXED MESSAGE SIGN
ONLY NEEDED
WHEN EB CARFERRY
EXIT RAMP IS CLOSED

INTERSTATE 794
MAX. 10' WIDTH
W12-52
48" X 48"
5 MILES AHEAD
W057-52
36" X 24"

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 AM & PM	SHEET 496	E



STAGING NOTES

- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 AM & PM	SHEET 497	E

W057-52
36" X 24"

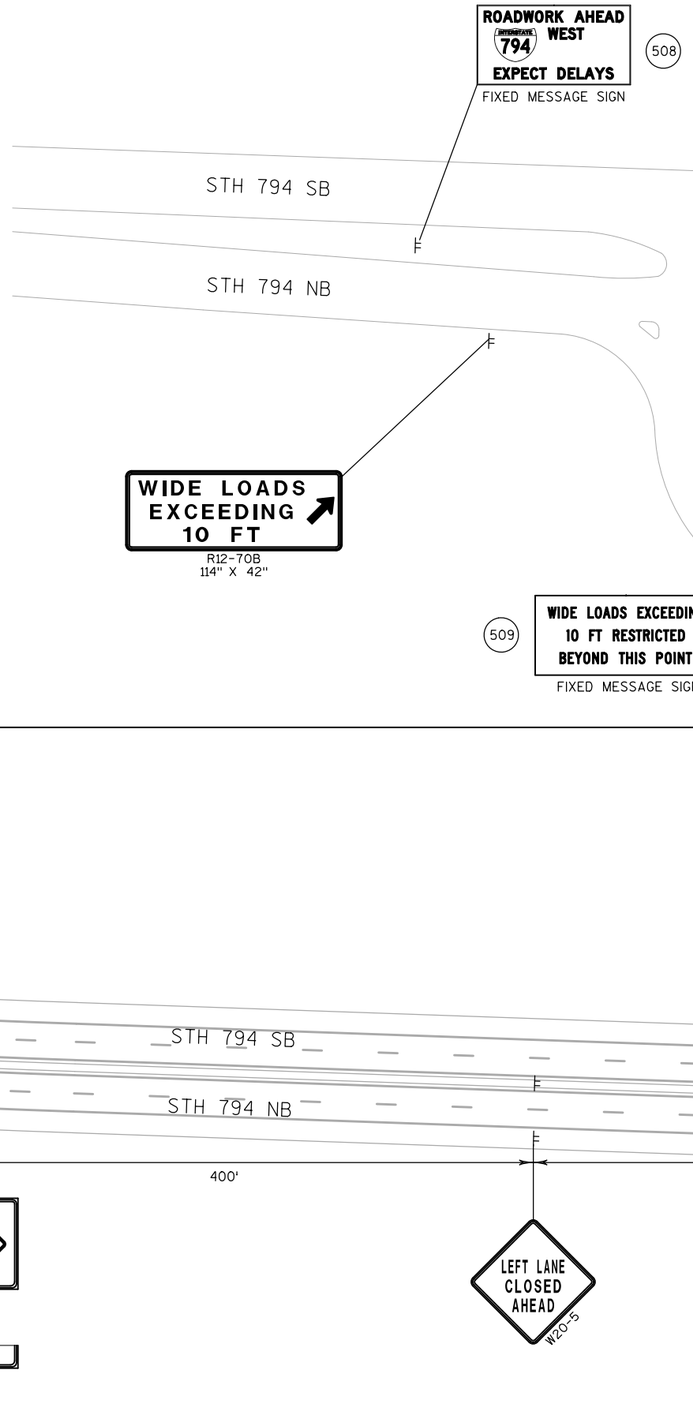
PLACE AT SIGN AT
PENNSYLVANIA AVE.
ON RAMP

W057-52
36" X 24"

PLACE AT SIGN AT
LAYTON AVE.
ON RAMP

W057-52
36" X 24"

PLACE AT SIGN AT
HOWARD AVE.
ON RAMP

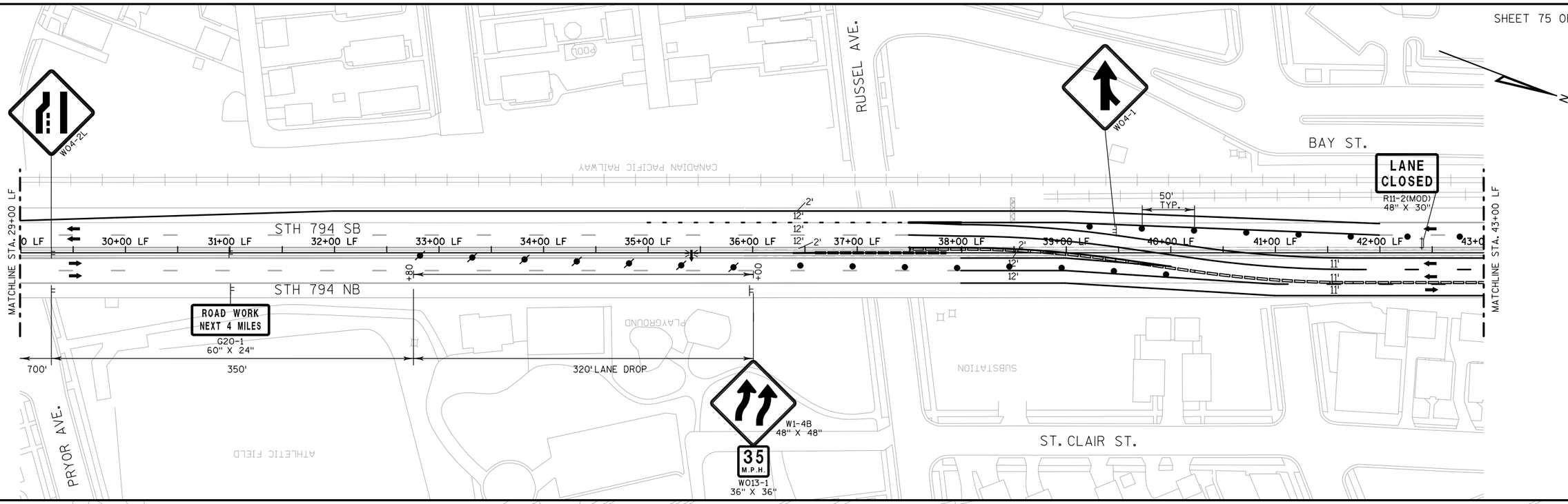


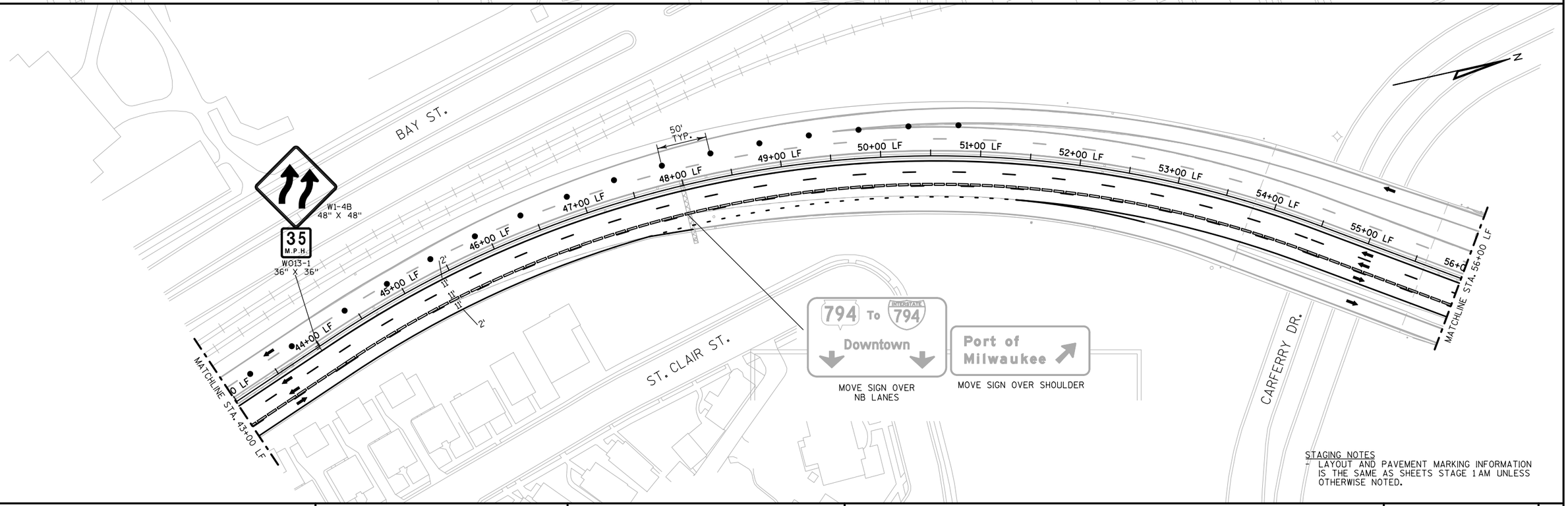
PLACE SIGN 10 CALENDAR DAYS PRIOR TO CONSTRUCTION

ONLY TO BE USED WHEN BARRIER TRANSFER MACHINE IS IN OPERATION

STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEETS STAGE 1AM UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - PM	SHEET 498	E





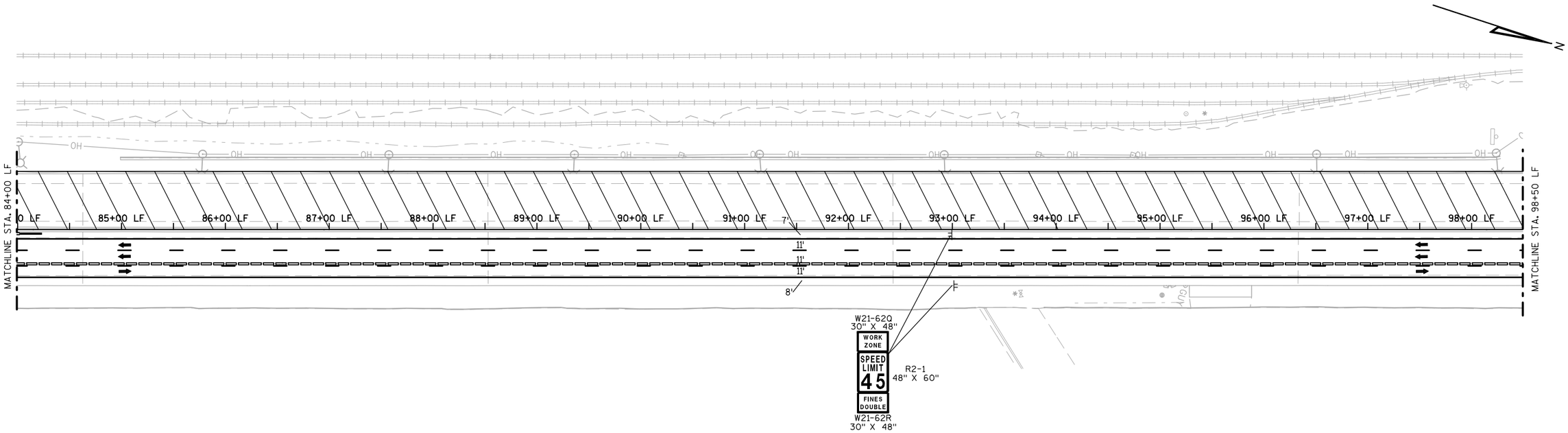
STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEETS STAGE 1AM UNLESS OTHERWISE NOTED.

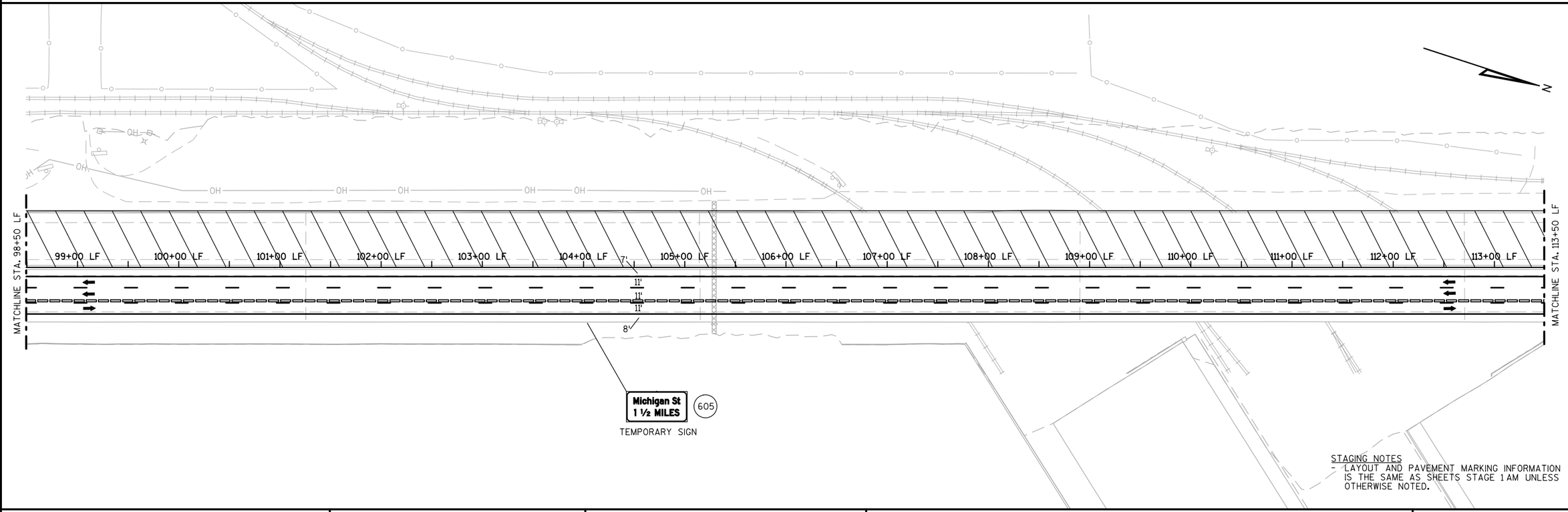
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - PM	SHEET 499	E

SB ENTRANCE RAMP
EB EXIT RAMP
NB EXIT RAMP
WB ENTRANCE RAMP
LINCOLN AVE.
MATCHLINE STA. 56+00 LF
MATCHLINE STA. 70+00 LF
MATCHLINE STA. 84+00 LF
SPEED LIMIT 40 ESTR
ROAD WORK AHEAD W20-1
W1-8 36" X 48"
REDUCED SPEED AHEAD 40 M.P.H ESTR
EXIT 25 MPH W13-2C 48" X 90"
PORT OF MILWAUKEE (512) FIXED MESSAGE SIGN
W21-62O 30" X 48" WORK ZONE SPEED LIMIT 45 FINES DOUBLE W21-62R 30" X 48"
R2-1 48" X 60"
ROAD CLOSED R11-2 48" X 30"
RAMP CLOSED R11-2(MOD) 48" X 30"
Michigan St 2¼ 43 94 41 3 (604) TEMPORARY SIGN
CRASH INVESTIGATION SITE (513) FIXED MESSAGE SIGN
WIDE LOADS EXCEEDING 10 FT (514) FIXED MESSAGE SIGN
CRASH INVESTIGATION SITE AHEAD (515) FIXED MESSAGE SIGN
50' TYP.
32+00 SX
33+00 SX
34+00 SX
57+00 LF
58+00 LF
59+00 LF
60+00 LF
61+00 LF
62+00 LF
63+00 LF
64+00 LF
65+00 LF
66+00 LF
67+00 LF
68+00 LF
69+00 LF
70+00 LF
71+00 LF
72+00 LF
73+00 LF
74+00 LF
75+00 LF
76+00 LF
77+00 LF
78+00 LF
79+00 LF
80+00 LF
81+00 LF
82+00 LF
83+00 LF
84+00 LF

STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEETS STAGE 1 AM UNLESS OTHERWISE NOTED.

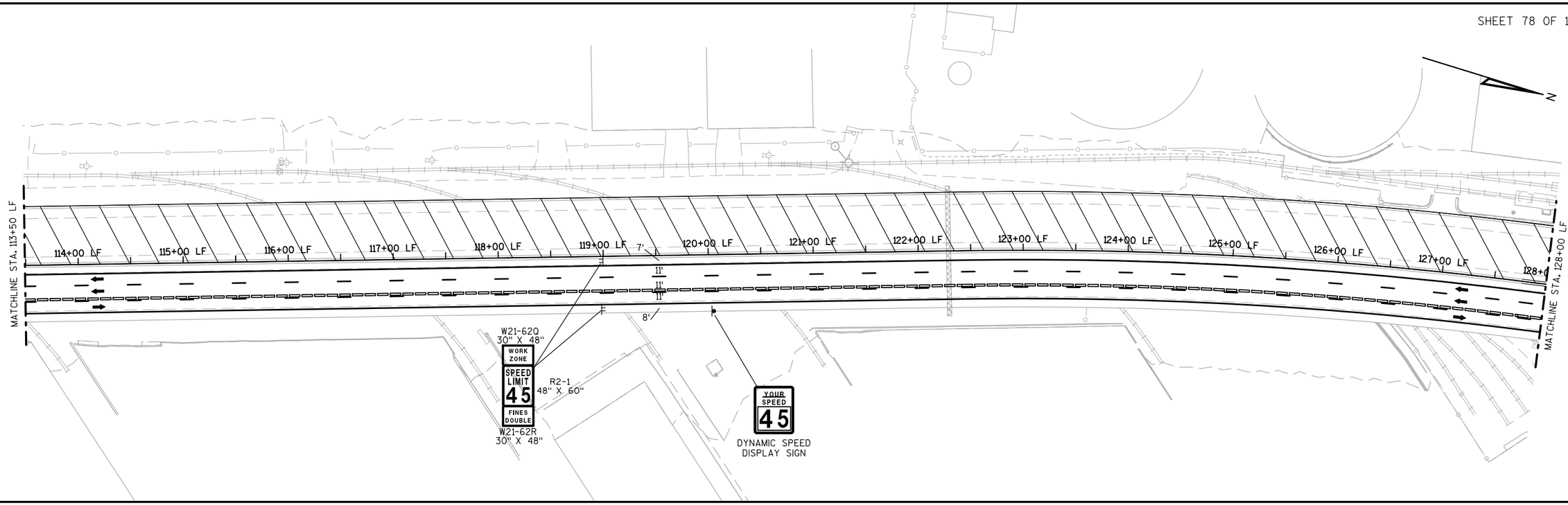
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - PM (PHASE 1 - EB RAMP OPEN)	SHEET 500	E

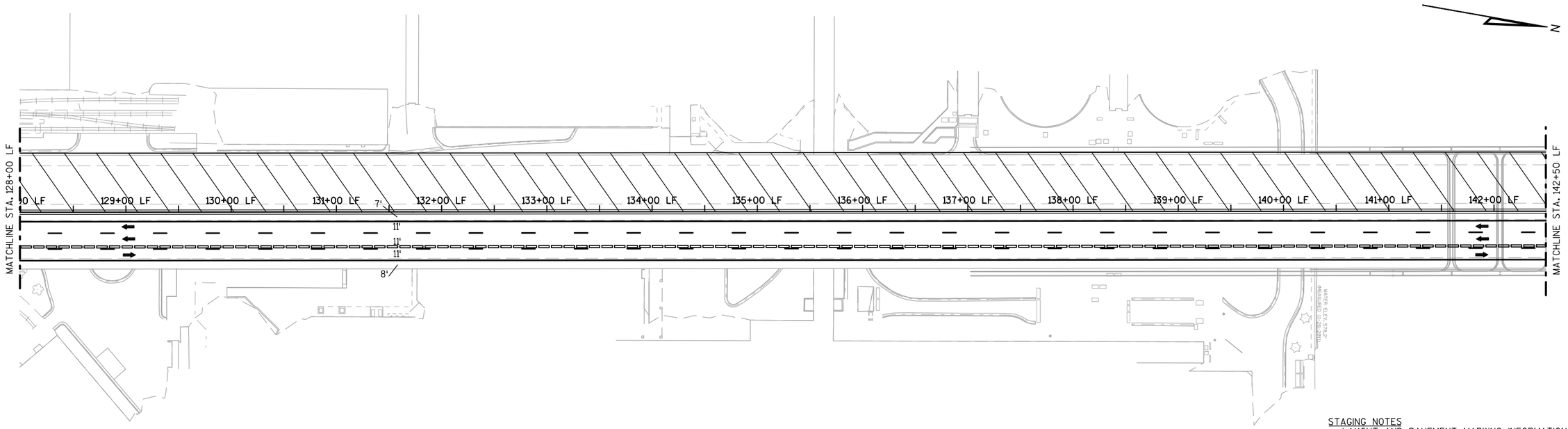




STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEETS STAGE 1 AM UNLESS OTHERWISE NOTED.

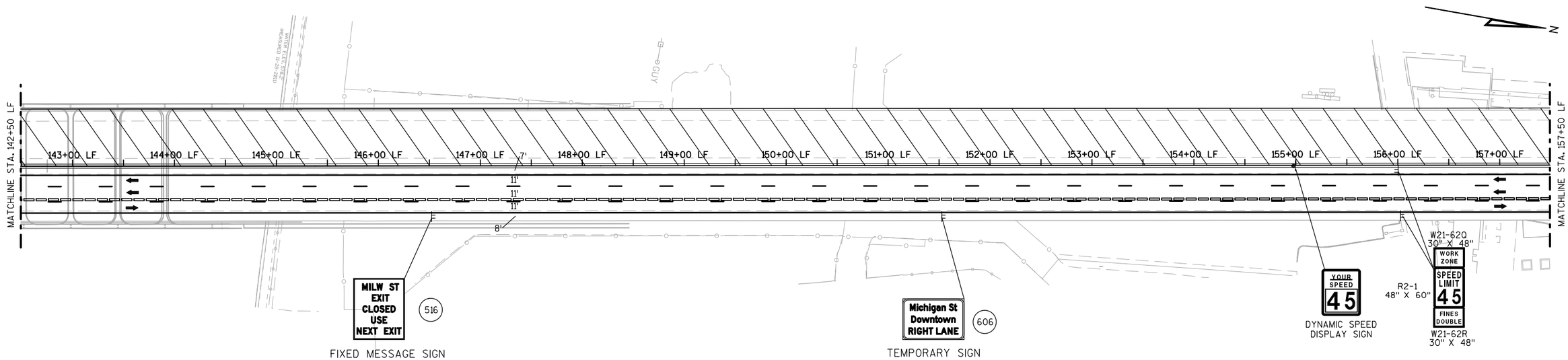
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - PM	SHEET 501	E

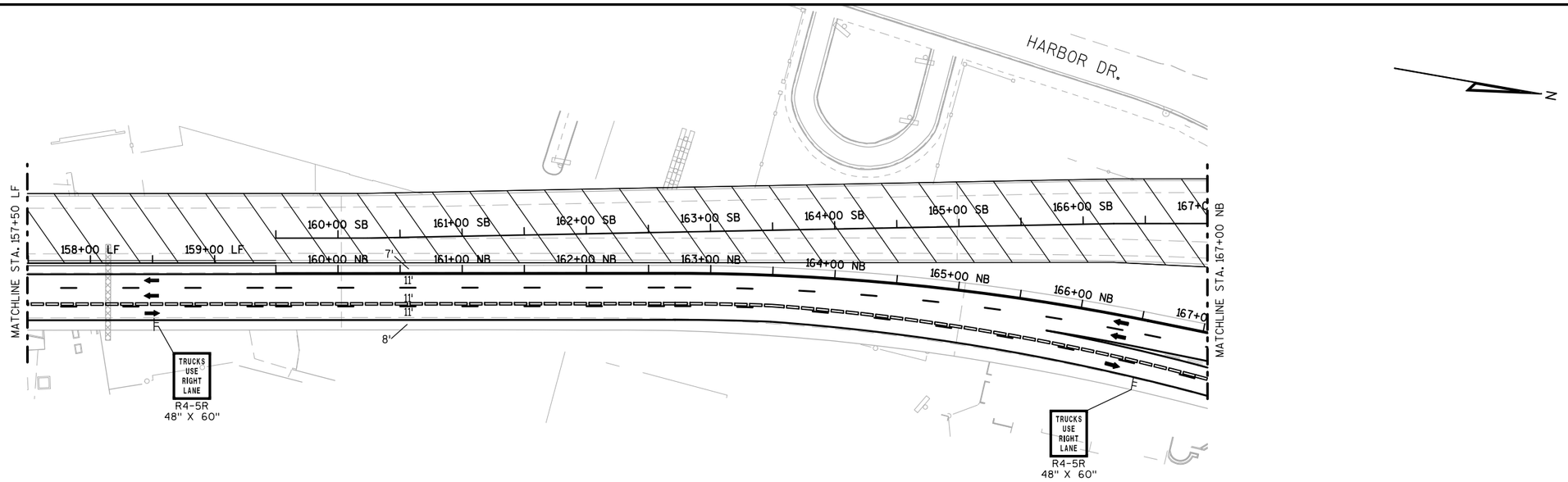




STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEETS STAGE 1 AM UNLESS OTHERWISE NOTED.

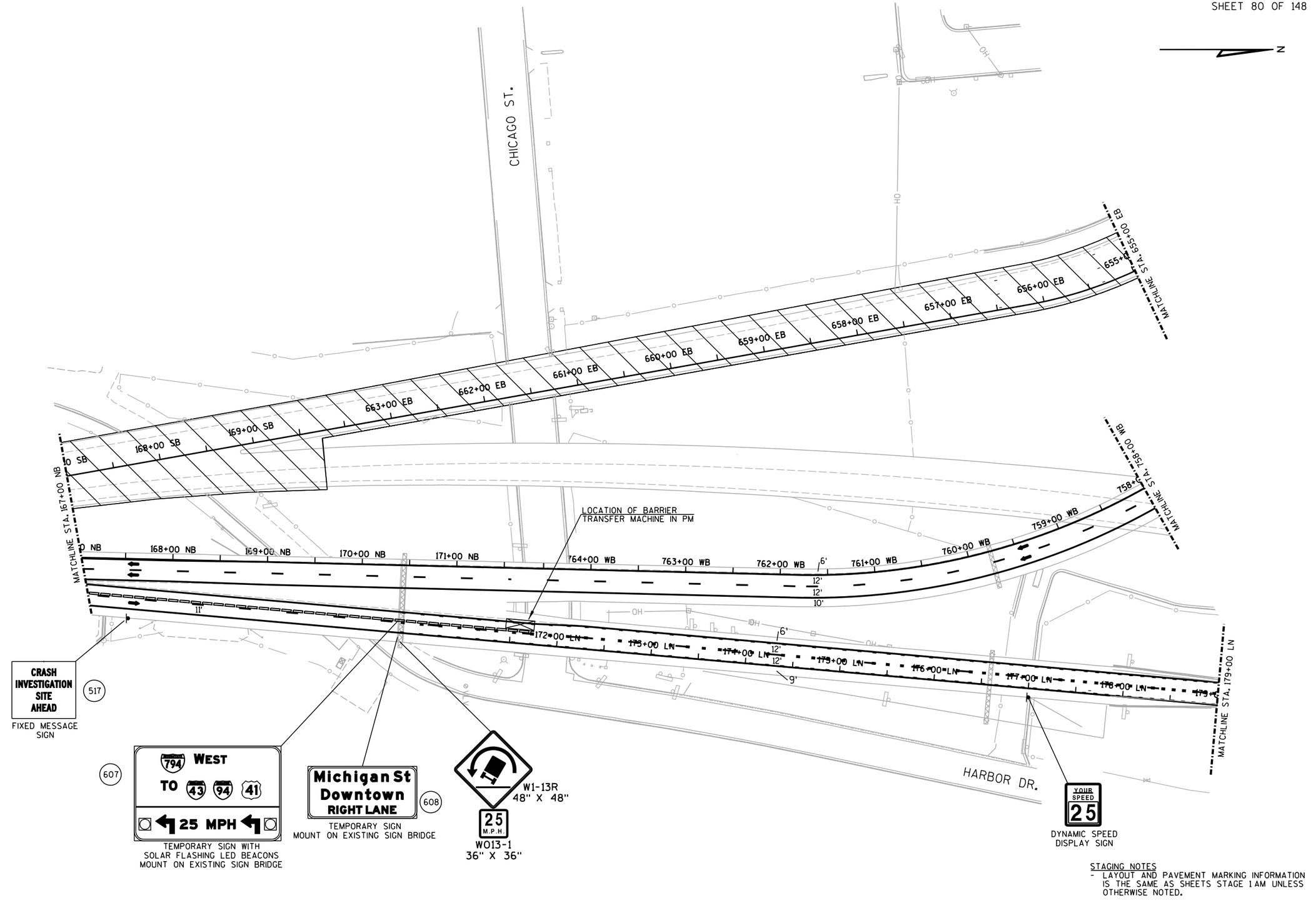
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - PM	SHEET 502	E





STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEETS STAGE 1AM UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - PM	SHEET 503	E



STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEETS STAGE 1 AM UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - PM	SHEET 504	E

FILE NAME : 026227_s1.dgn PLOT DATE : 4/26/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:100

STAGING NOTES
- CLOSE EB EXIT RAMP
- CLOSE CROSSOVER WITH TEMPORARY BARRIER AND CRASH CUSHION
- ALL OTHER LAYOUT INFORMATION SAME AS AM CONDITION
- AM CONDITION IS SHOWN. FOR PM CONDITION BARRIER MOVE 11' EAST
- SEE DETOUR SHEETS FOR SIGNING NEEDED FOR CLOSURE

ROAD WORK AHEAD W20-1

SB ENTRANCE RAMP

MATCHLINE STA. 56+00 LF

0 LF

57+00 LF

58+00 LF

59+00 LF

60+00 LF

61+00 LF

62+00 LF

63+00 LF

64+00 LF

65+00 LF

66+00 LF

67+00 LF

68+00 LF

69+00 LF

70+00 LF

MATCHLINE STA. 70+00 LF

LINCOLN AVE

REDUCED SPEED AHEAD

40 M.P.H

ESTR

ESTR

MOVE CRASH CUSHION TEMPORARY FROM STA. 62+80 LF IN STAGE 1

W21-62O 30" X 48"
WORK ZONE
SPEED LIMIT 45
FINES DOUBLE
W21-62R 30" X 48"

R2-1 48" X 60"

2'
11'
11'
11'
2'

37'

PLACE CONCRETE BARRIER TEMPORARY PRECAST TO MAINTAIN 2' BETWEEN LANE LINE AND FACE OF TEMPORARY BARRIER.

Michigan St 2¼
43 94 41 3
604
TEMPORARY SIGN

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

NB EXIT RAMP

WB ENTRANCE RAMP

ROAD WORK AHEAD W20-1

OH

HO

N

MATCHLINE STA. 70+00 LF

0 LF

71+00 LF

72+00 LF

73+00 LF

74+00 LF

75+00 LF

76+00 LF

77+00 LF

78+00 LF

79+00 LF

80+00 LF

81+00 LF

82+00 LF

83+00 LF

84+00 LF

MATCHLINE STA. 84+00 LF

7'
11'
11'
11'
11'
8'

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 (PHASE 2 - EB RAMP CLOSED)	SHEET 505	E

MICHIGAN STREET

WATER STREET

BROADWAY

MILWAUKEE STREET

JEFFERSON STREET

CLYBOURN STREET

ST PAUL AVENUE

MATCHLINE

N

ROAD WORK AHEAD W20-1

PARKING TO BE RESTRICTED BY CITY OF MILWAUKEE 100' FROM INTERSECTION PEAK HOURS ONLY 6AM-9AM AND 3PM-6PM

PARKING ON BROADWAY TO BE RESTRICTED BY CITY OF MILWAUKEE

PARKING TO BE RESTRICTED BY CITY OF MILWAUKEE BOTH SIDES OF MICHIGAN STREET BETWEEN MILWAUKEE AND JEFFERSON

25' (TYP)

75' 95' 75'

160'

ONLY

COVER SIGN

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

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

WRONG WAY R5-1A 42" X 30"

90' RAD

PW4 3' LINE 9' GAP

PY4 DOUBLE YELLOW

PW8 10' SPACING

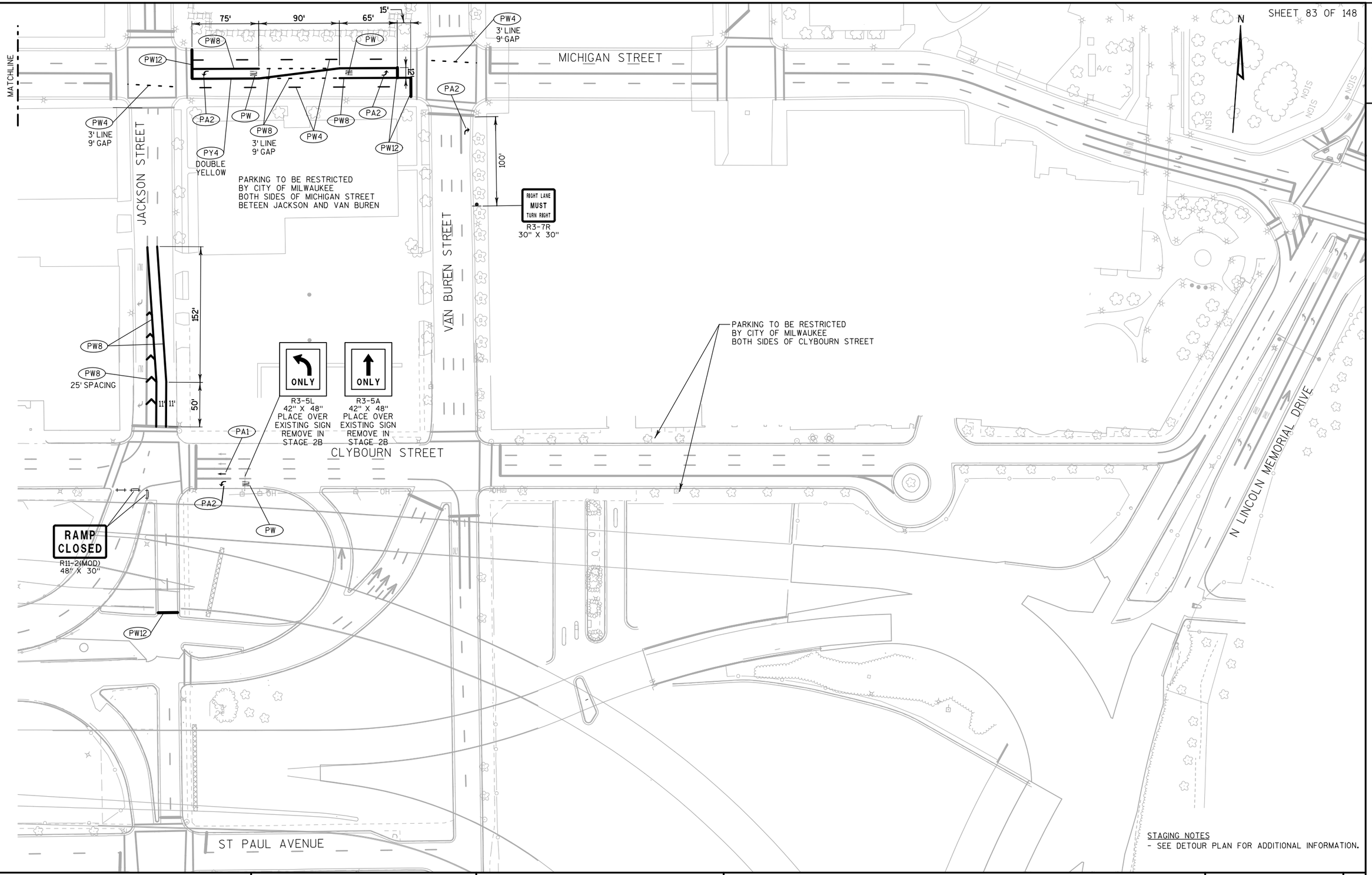
W04-2L

PLACE SIGN 300' SOUTH OF ST. PAUL AVE. ON WATER ST.

PLACE SIGN 300' SOUTH OF ST. PAUL AVE. ON MILWAUKEE ST.

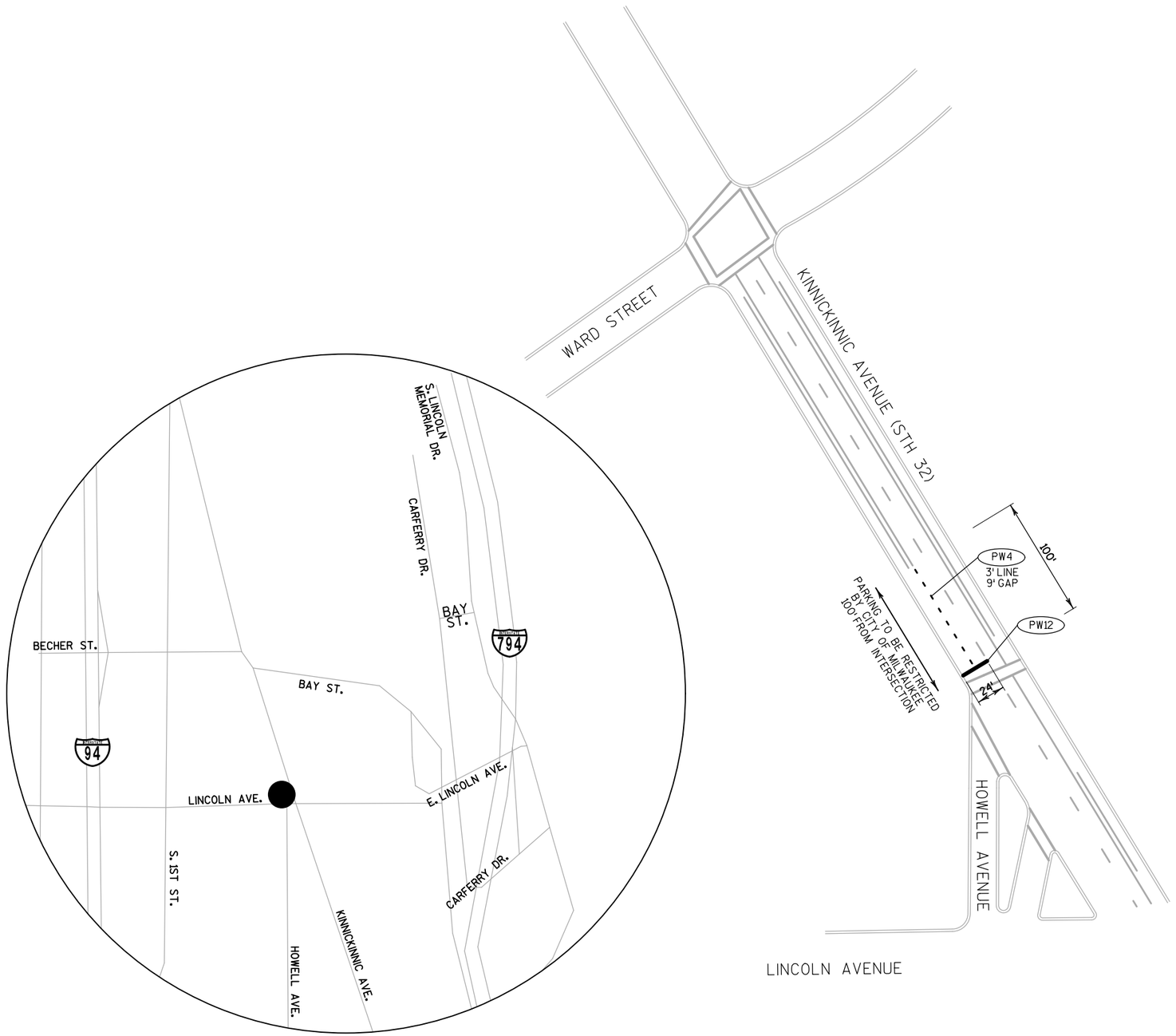
STAGING NOTES
- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - LOCAL STREETS	SHEET 506	E



STAGING NOTES
- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - LOCAL STREETS	SHEET 507	E



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 & 2 - KINNICKINNIC AVENUE	SHEET 508	E

2

2

IH 794 EB

N

ST. PAUL EXIT RAMP EB

RAMP FROM IH 43 SB

RAMP FROM IH 43 NB

ROAD WORK AHEAD W20-1

25' (TYP)

12'

500'

ROAD WORK AHEAD W20-1

ST. PAUL AVENUE

N. 6TH STREET

STAGING NOTES
- CONSTRUCT ISLAND AT THE END OF STAGE 1A FOR USE BY TRAFFIC STARTING IN STAGE 1B.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A - ST PAUL EXIT RAMP	SHEET 509	E

2

2

ST. PAUL EB EXIT RAMP

REMOVE EXISTING WORD

REMOVE EXISTING ARROW

12'

PW8

PW12

50'

50'

PA2

D

PW6

PW4
3' LINE
9' GAP

70' RAD

PY8
10' SPACING

PW4

11'
17'

PY4
DOUBLE YELLOW

N. 5TH STREET

N. 4TH STREET

ST. PAUL AVENUE

MATCHLINE

N

N. 3RD STREET

N. 2ND STREET

N. PLANKINTON AVENUE

MATCHLINE

11'
17'

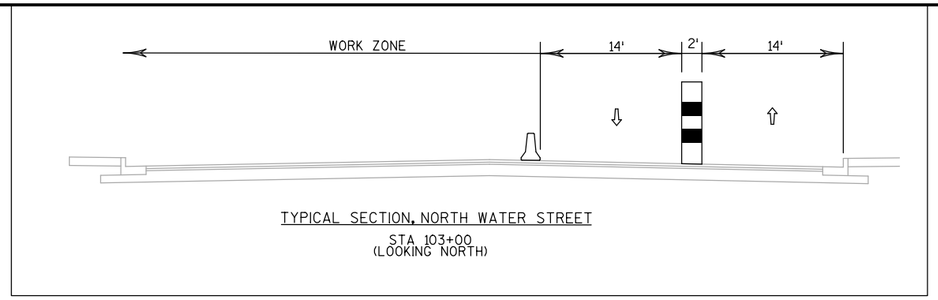
PY4
DOUBLE YELLOW

PW4

ST. PAUL AVENUE

N

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B & 2 - LOCAL STREETS	SHEET 510	E

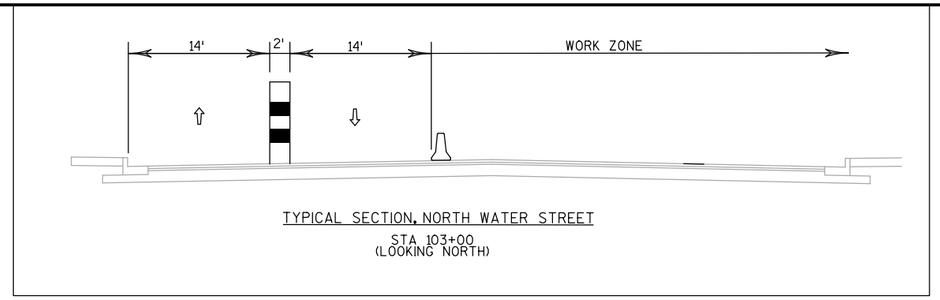


ROAD WORK AHEAD W20-1
200'
R3-2 24" X 24"
W24-1L
LANE CLOSED R11-2(MOD) 48" X 30"
RIGHT LANE MUST TURN RIGHT R3-7R 30" X 30"
ONLY ONLY R3-8D 36" X 30"
ROAD WORK AHEAD W20-1
50' 100' 180'
100+00
101+00
BEGIN BARREL TAPER STA 102+00
102+00
103+00
104+00
105+00
106+00
END BARREL TAPER STA 104+25
25' (TYP)
14'
14'
WATER STREET
150' 100' 50'
ROAD WORK AHEAD W20-1
ONLY ONLY R3-8D 36" X 30"
RIGHT LANE MUST TURN RIGHT R3-7R 30" X 30"
END BARREL TAPER STA 102+85, 26' RT
BEGIN BARREL TAPER STA 103+30, 26' RT
LANE CLOSED R11-2(MOD) 48" X 30"
W01-3R
200'
ST. PAUL AVE.
ROAD WORK AHEAD W20-1
CLYBOURN STREET
200'
ROAD WORK AHEAD W20-1

STAGING NOTES

- REFER TO PEDESTRIAN DETOUR PLAN FOR SIDEWALK CLOSURE SIGNING.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - WATER ST. (STORM PHASE 1)	SHEET 511	E



TYPICAL SECTION, NORTH WATER STREET
STA 103+00
(LOOKING NORTH)

ROAD WORK AHEAD W20-1

200'

R3-2
24" X 24"

END BARREL TAPER
STA 103+30, 17' LT

END BARREL TAPER
STA 102+85, 17' LT

BEGIN BARREL TAPER
STA 101+60

W01-3R

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

RIGHT LANE MUST TURN RIGHT
R3-7R
30" X 30"

ONLY ONLY
R3-8D
36" X 30"

ROAD WORK AHEAD W20-1

50' 100' 180'

25' (TYP)

14'

100+00 101+00 102+00 103+00 104+00 105+00 106+00

WATER STREET

150' 100' 50'

ROAD WORK AHEAD W20-1

ONLY ONLY
R3-8D
36" X 30"

RIGHT LANE MUST TURN RIGHT
R3-7R
30" X 30"

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

W24-1L

END BARREL TAPER
STA 104+00

TEMPORARY DRIVEWAY TO
MILWAUKEE PUBLIC MARKET

200'

ST. PAUL AVE.

ROAD WORK AHEAD W20-1

CLYBOURN STREET

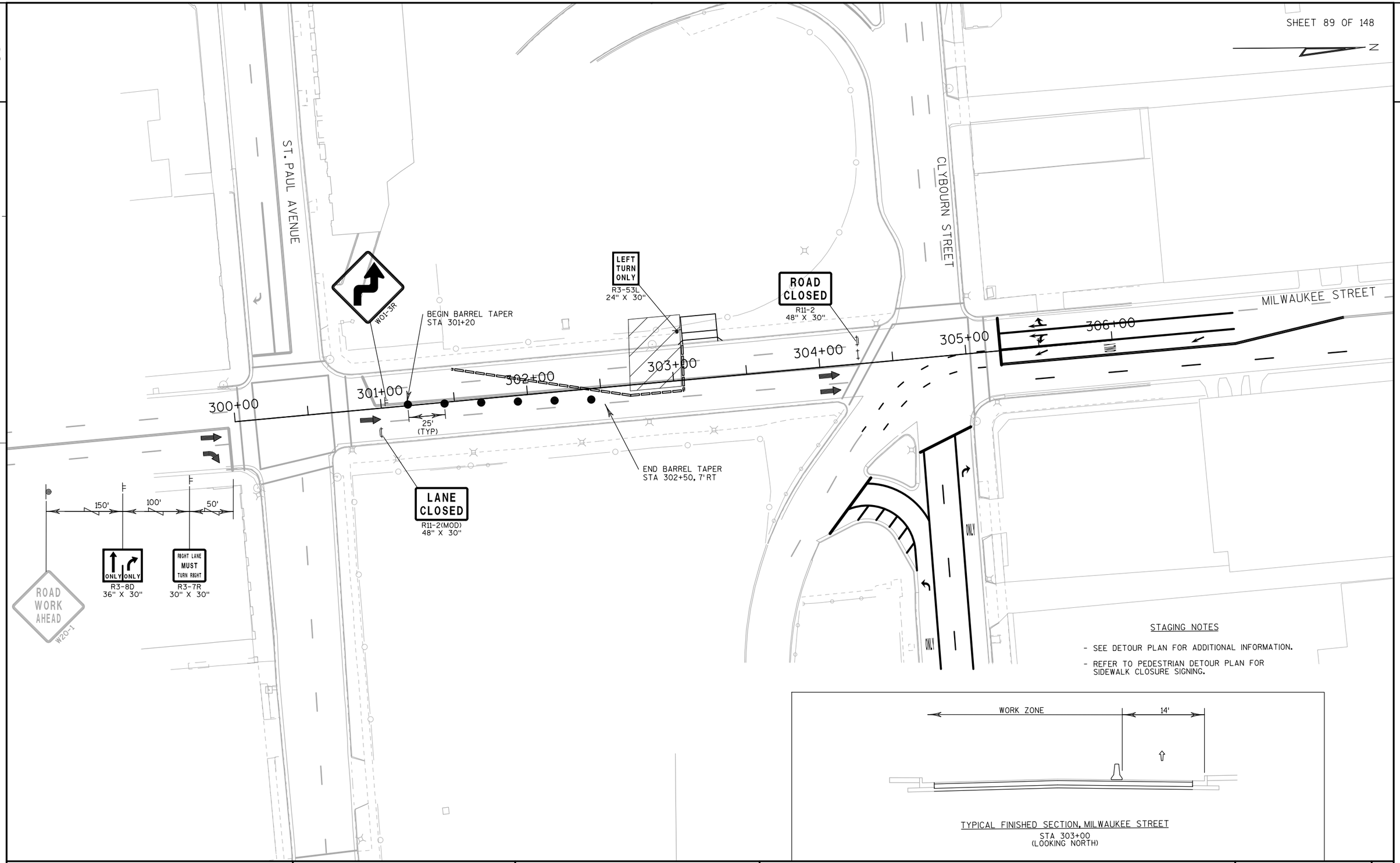
200'

ROAD WORK AHEAD W20-1

STAGING NOTES

- MAINTAIN ACCESS TO MILWAUKEE PUBLIC MARKET AT ALL TIMES.
- REFER TO PEDESTRIAN DETOUR PLAN FOR SIDEWALK CLOSURE SIGNING.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - WATER ST. (STORM PHASE 2)	SHEET 512	E

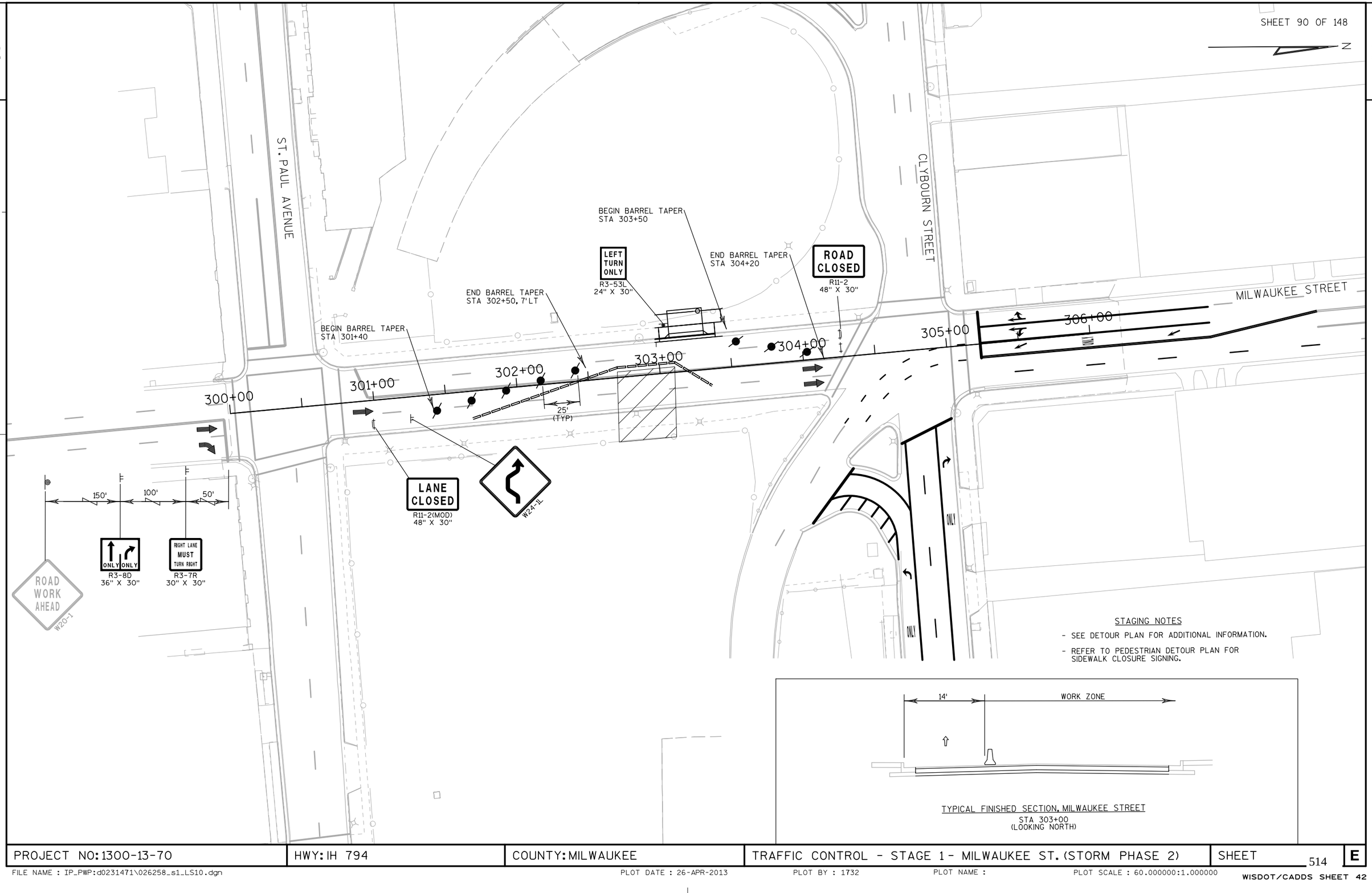


STAGING NOTES

- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION.
- REFER TO PEDESTRIAN DETOUR PLAN FOR SIDEWALK CLOSURE SIGNING.

TYPICAL FINISHED SECTION, MILWAUKEE STREET
STA 303+00
(LOOKING NORTH)

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - MILWAUKEE ST. (STORM PHASE 1)	SHEET 513	E

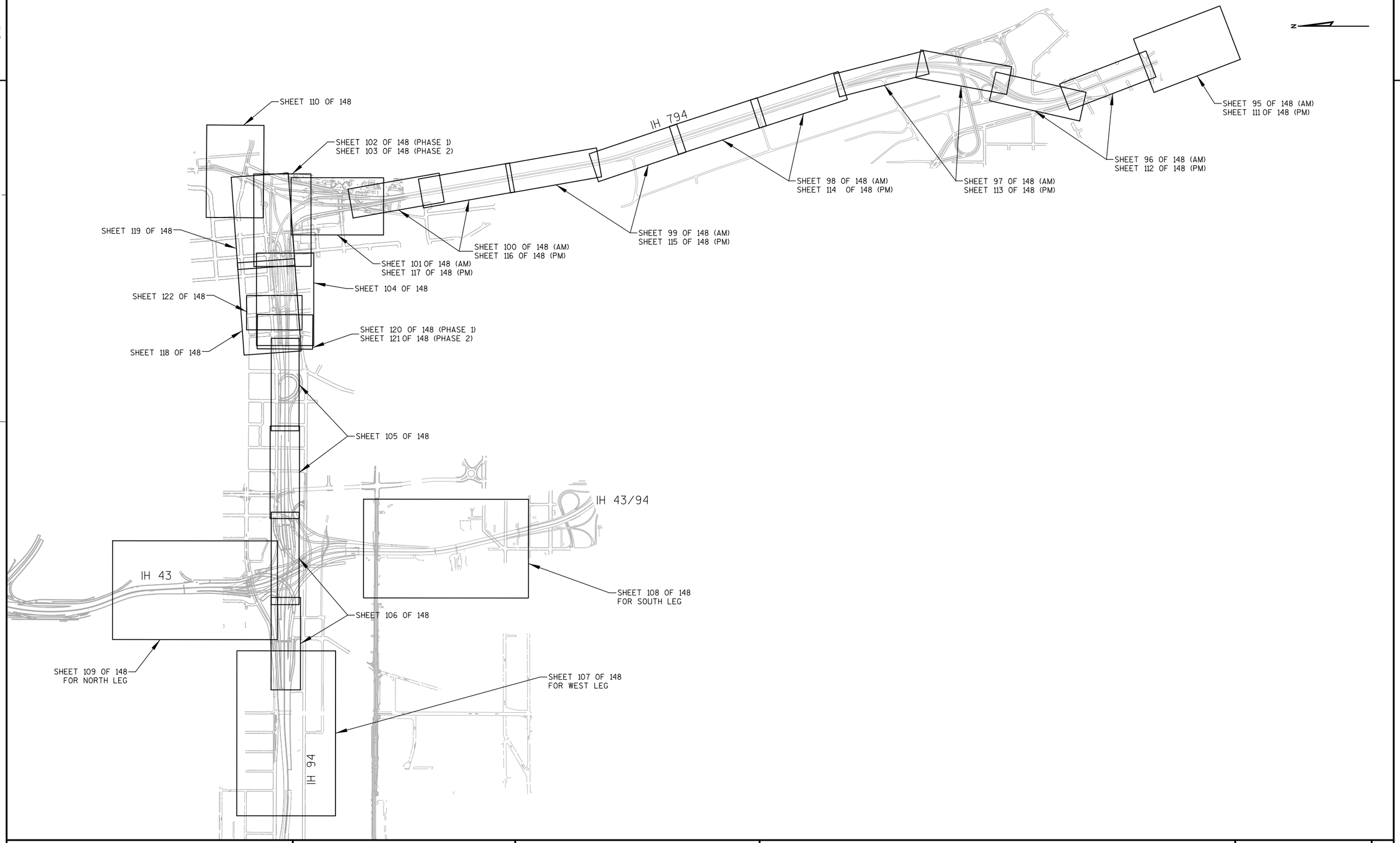


STAGING NOTES

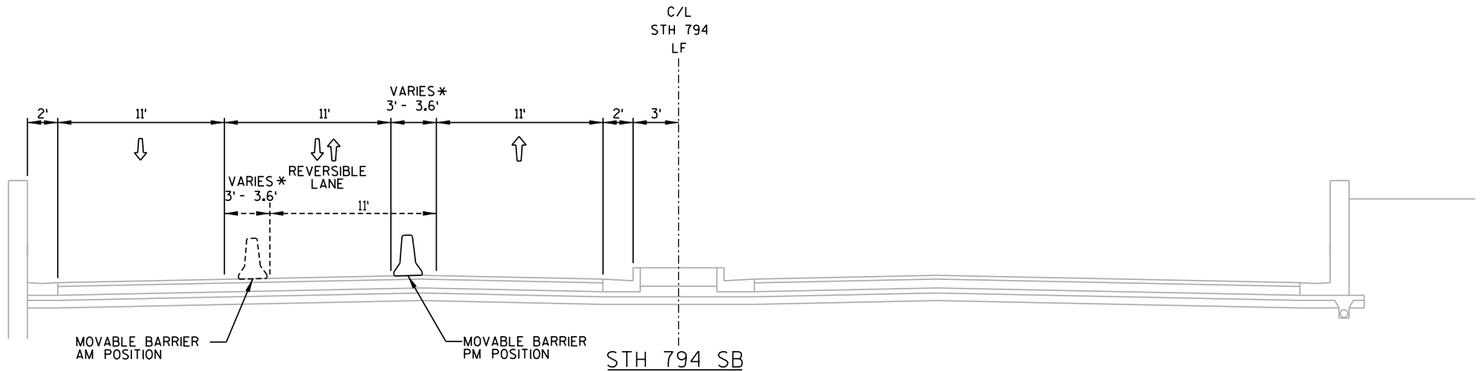
- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION.
- REFER TO PEDESTRIAN DETOUR PLAN FOR SIDEWALK CLOSURE SIGNING.

TYPICAL FINISHED SECTION, MILWAUKEE STREET
STA 303+00
(LOOKING NORTH)

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - MILWAUKEE ST. (STORM PHASE 2)	SHEET 514	E



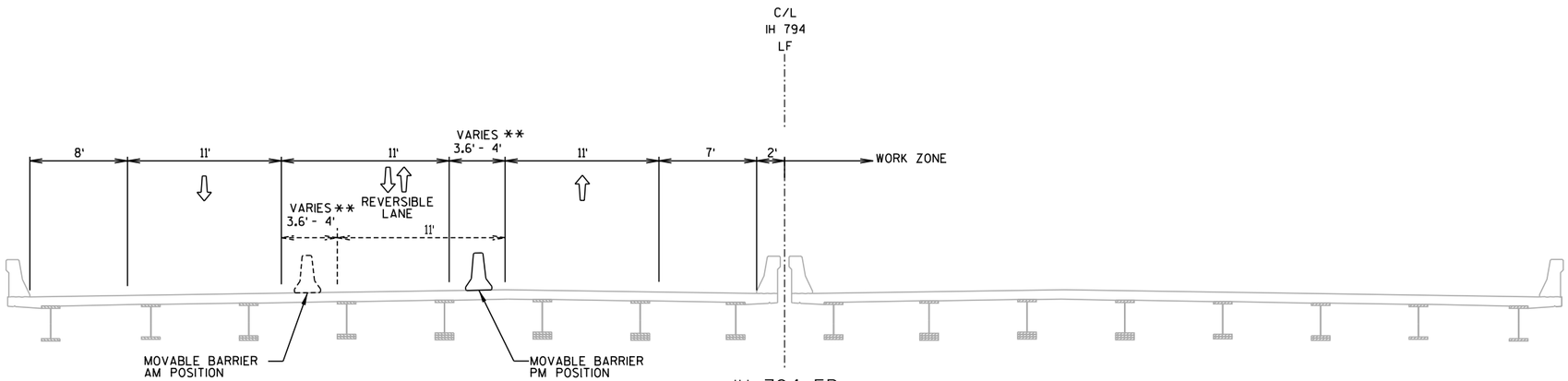
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2A OVERVIEW	SHEET 515	E



STH 794 SB

STA. 38+00 LF - 61+60 LF
(STH 794 NB & SB)
(LOOKING NORTH)

* STA. 59+28.57 - 61+60

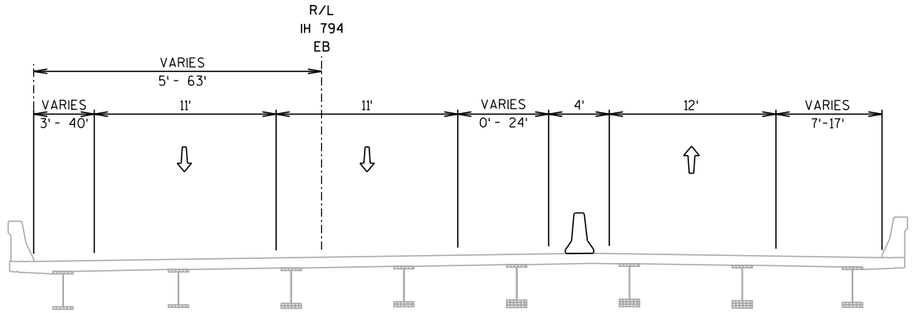


IH 794 EB

STA. 61+60 LF - 159+50 LF
STA. 159+50 SB - 168+85 SB
(IH 794 NB & SB)
(LOOKING NORTH)

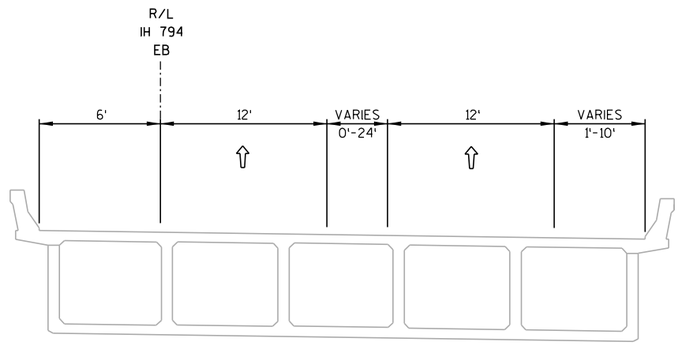
**STA 61+60 - 63+16.07

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL TYPICALS - STAGE 2A	SHEET 516	E



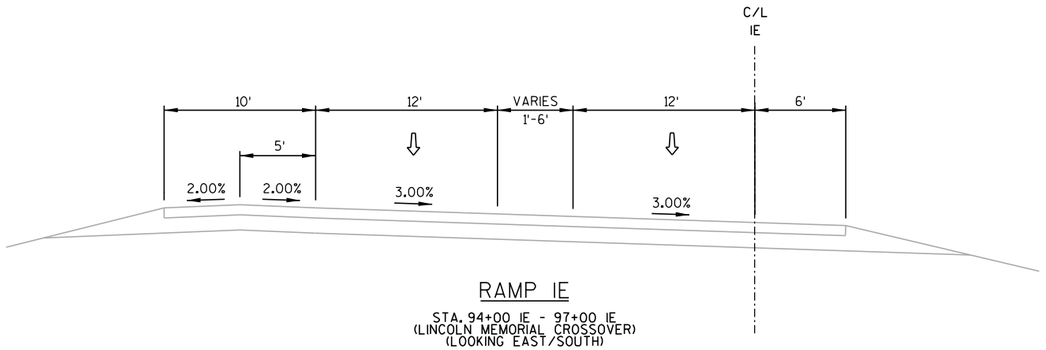
IH 794 EB

STA. 619+00 EB - 649+25 EB
(IH 794 EB & WB)
(LOOKING EAST)



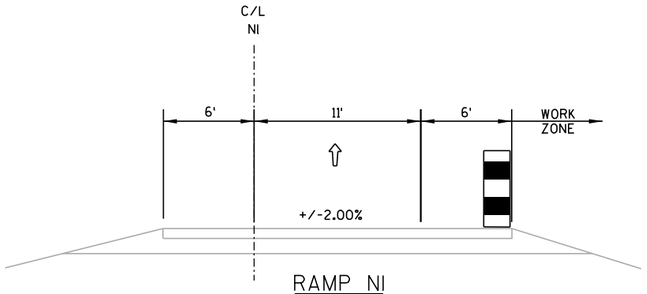
IH 794 EB

STA. 649+25 EB - 663+76 EB
(IH 794 EB & WB)
(LOOKING EAST/SOUTH)



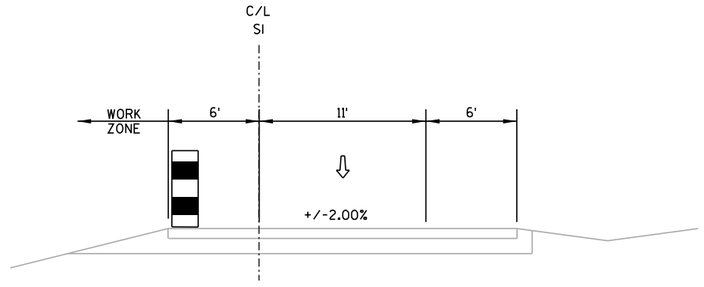
RAMP IE

STA. 94+00 IE - 97+00 IE
(LINCOLN MEMORIAL CROSSOVER)
(LOOKING EAST/SOUTH)



RAMP NI

STA. 111+50 NI - 112+75 NI)
(LINCOLN MEMORIAL WB OFF RAMP)
(LOOKING NORTH)



RAMP SI

STA. 120+25 SI - 122+50 SI)
(LINCOLN MEMORIAL WB ENTRANCE RAMP)
(LOOKING EAST)

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL TYPICALS - STAGE 2A	SHEET 518	E

SIGN INSTALLED IN STAGE 1

W057-52
36" X 24"

PLACE AT SIGN AT PENNSYLVANIA AVE. ON RAMP

SIGN INSTALLED IN STAGE 1

W057-52
36" X 24"

PLACE AT SIGN AT LAYTON AVE. ON RAMP

SIGN INSTALLED IN STAGE 1

W057-52
36" X 24"

PLACE AT SIGN AT HOWARD AVE. ON RAMP

FIXED MESSAGE SIGN
SIGN INSTALLED
IN STAGE 1

STH 794 SB

STH 794 NB

R12-70B
114" X 42"

SIGN INSTALLED
IN STAGE 1

OKLAHOMA AVE.

FIXED MESSAGE SIGN
SIGN INSTALLED
IN STAGE 1

ELLEN ST.

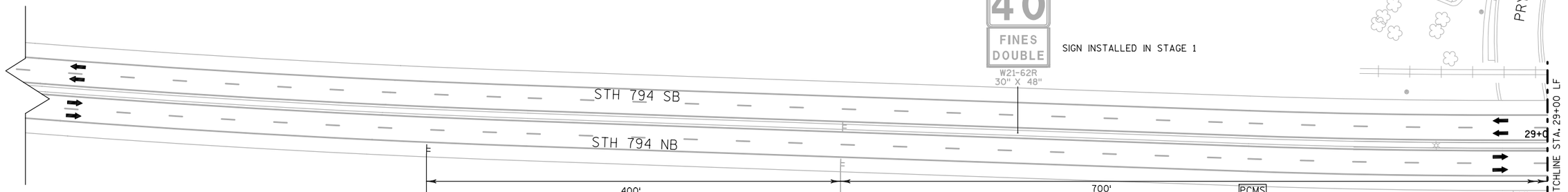
W21-62Q
30" X 48"

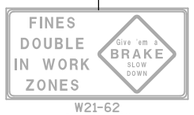
SIGN INSTALLED IN STAGE 1

ESTR

SIGN INSTALLED IN STAGE 1

W21-62R
30" X 48"





W21-62
96" X 48"

W21-62P
96" X 12"
SIGN INSTALLED
IN STAGE 1

COVER SIGN IN AM

PCMS

PLACE SIGN 10 CALENDAR DAYS PRIOR TO CONSTRUCTION

ONLY TO BE USED WHEN BARRIER TRANSFER MACHINE IS IN OPERATION

PRYOR AVE.

FULTON ST.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A & B - AM	SHEET 519	E

COVER SIGN IN AM
W04-2L

RUSSELL AVE.

W01-4R
35 M.P.H.
W013-1
36" X 36"

LOCATION OF BARRIER TRANSFER MACHINE IN AM

BAY ST.

STA. 37+00 LF, 41'LT
END LANE SHIFT

BARRIER AND CRASH CUSHION LEFT IN PLACE FROM STAGE 1.

STA. 35+00 LF, 29'LT
BEGIN LANE SHIFT

EW4

PC STA. 38+00 LF
5'RT

PT STA. 39+48.1LF
5.5'LT

STA. 40+44.3 LF
19'LT

EW4

MATCHLINE STA. 29+00 LF

STH 794 SB

0 LF | 30+00 LF | 31+00 LF | 32+00 LF | 33+00 LF | 34+00 LF | 35+00 LF | 36+00 LF | 37+00 LF | 38+00 LF | 1050'R | 39+00 LF | 40+00 LF | 41+00 LF | 42+00 LF | 43+0

11' 11' 11'

STH 794 NB

ROAD WORK NEXT 4 MILES
G20-1
60" X 24"
SIGN INSTALLED IN STAGE 1

700' PRYOR AVE. 670'

EY4

STA. 38+00 LF
BEGIN PAVEMENT MARKING
MATCH EXISTING

STA. 39+00 LF
29'RT

STA. 39+32 LF
19'RT

1050'R

PT STA. 41+75 LF
5'LT

EW4

PC STA. 40+26.9 LF
5.5'RT

STA. 42+00 LF, 30'RT
BEGIN PAVEMENT MARKING
MATCH EXISTING

PORT OF MILWAUKEE
FIXED MESSAGE SIGN

527

ST. CLAIR ST.

W01-4R
35 M.P.H.
W013-1
36" X 36"

MATCHLINE STA. 43+00 LF

N

SPEED LIMIT 40
NEW SIGN
SEE SIGNING PLAN

EW8
3'LANE
9'GAP

STA. 52+44 LF, 53'LT
END PAVMENT MARKING
MATCH EXISTING

STA. 52+82 LF
41'LT

EW8

+85

+32

11' 11' 11' 11' 2'

STA. 50+50 LF, 52'LT
END TAPER

BAY ST.

STA. 45+50 LF, 41'LT
BEGIN TAPER

EW4

44+00 LF | 45+00 LF | 46+00 LF | 47+00 LF | 48+00 LF | 49+00 LF | 50+00 LF | 51+00 LF | 52+00 LF | 53+00 LF | 54+00 LF | 55+00 LF | 56+0

11'

STA. 52+75 LF
END PAVEMENT MARKING
MATCH EXISTING

MATCHLINE STA. 43+00 LF

MATCHLINE STA. 56+00 LF

794 To 794 Downtown

REMOVE SIGN
SEE SIGNING PLAN
INSTALL NEW SIGN
PRIOR TO STAGE 2C

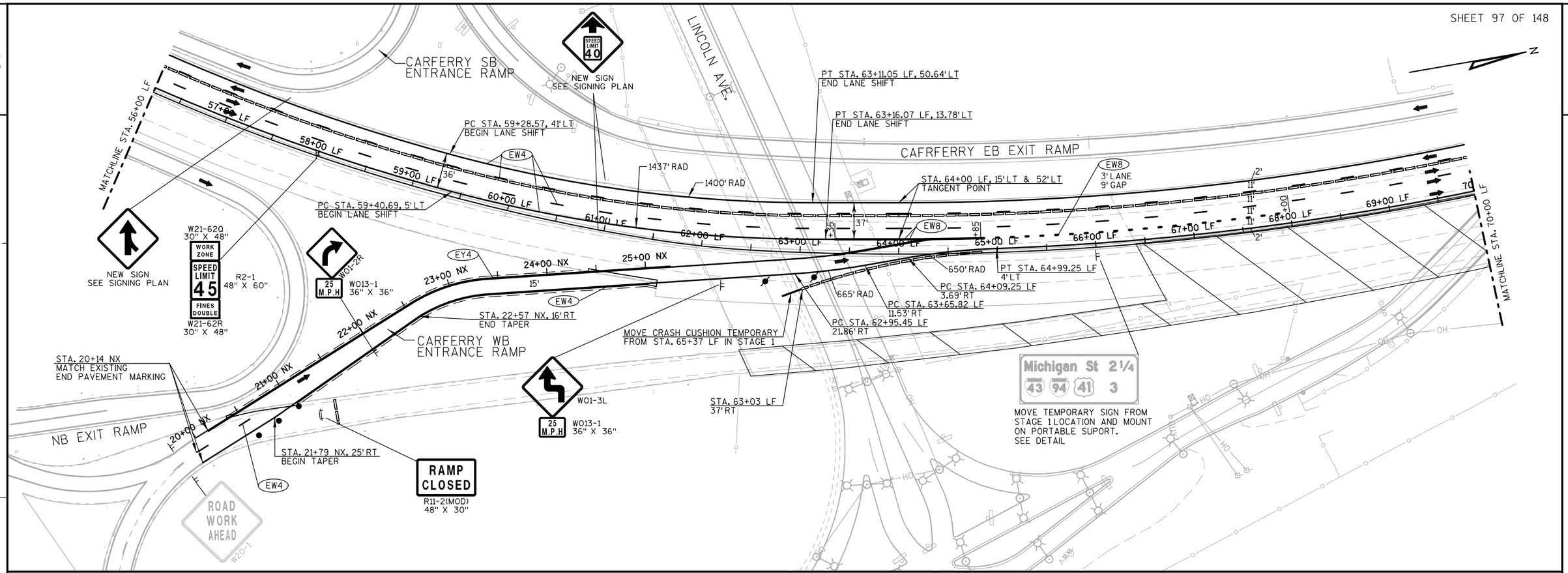
Port of Milwaukee

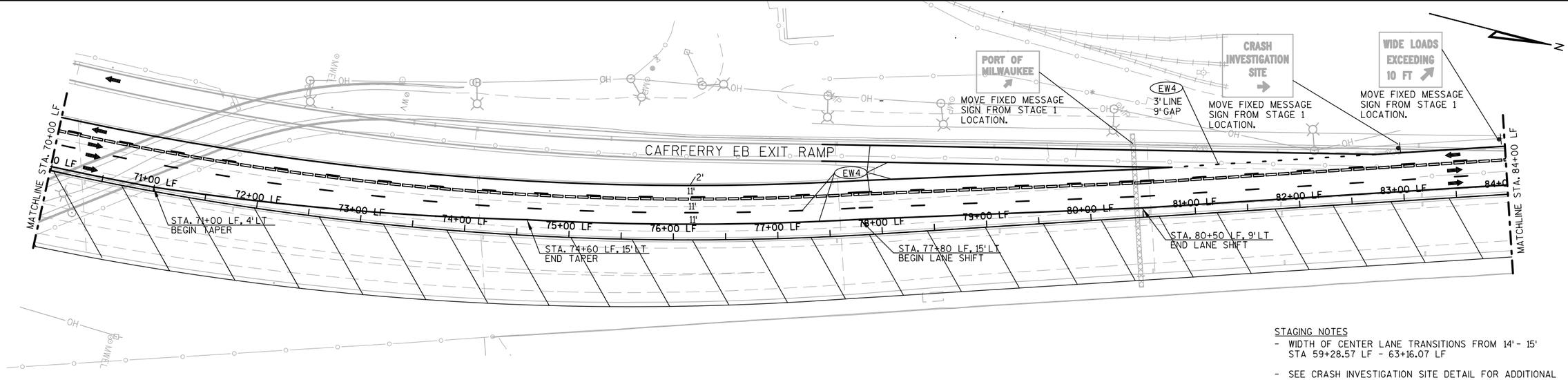
REMOVE EXISTING SIGN
AND INSTALL NEW SIGN
SEE SIGNING PLAN

ST. CLAIR ST.

CARFERRY DR.

PROJECT NO:1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A & B - AM	SHEET 520	E

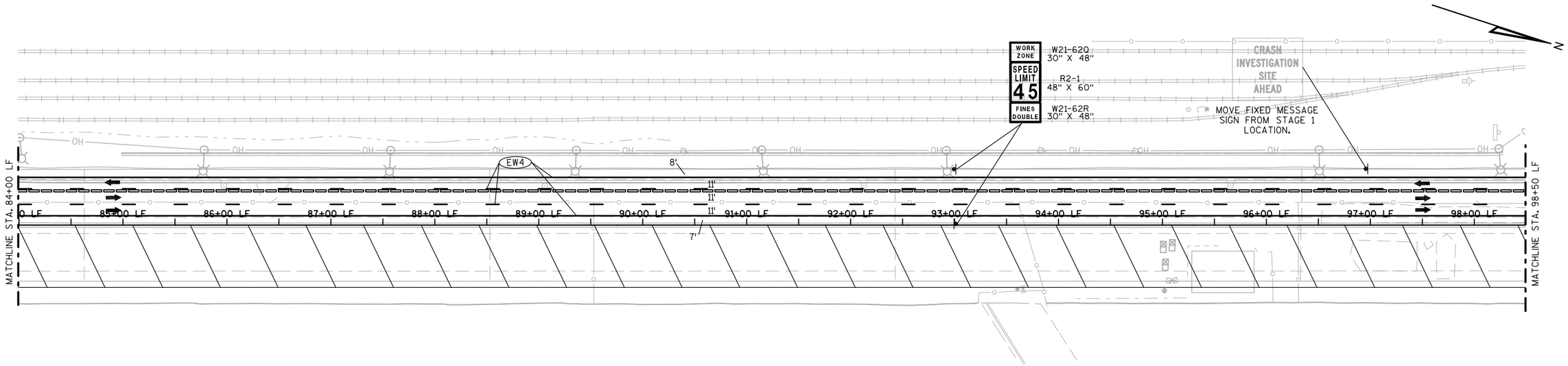


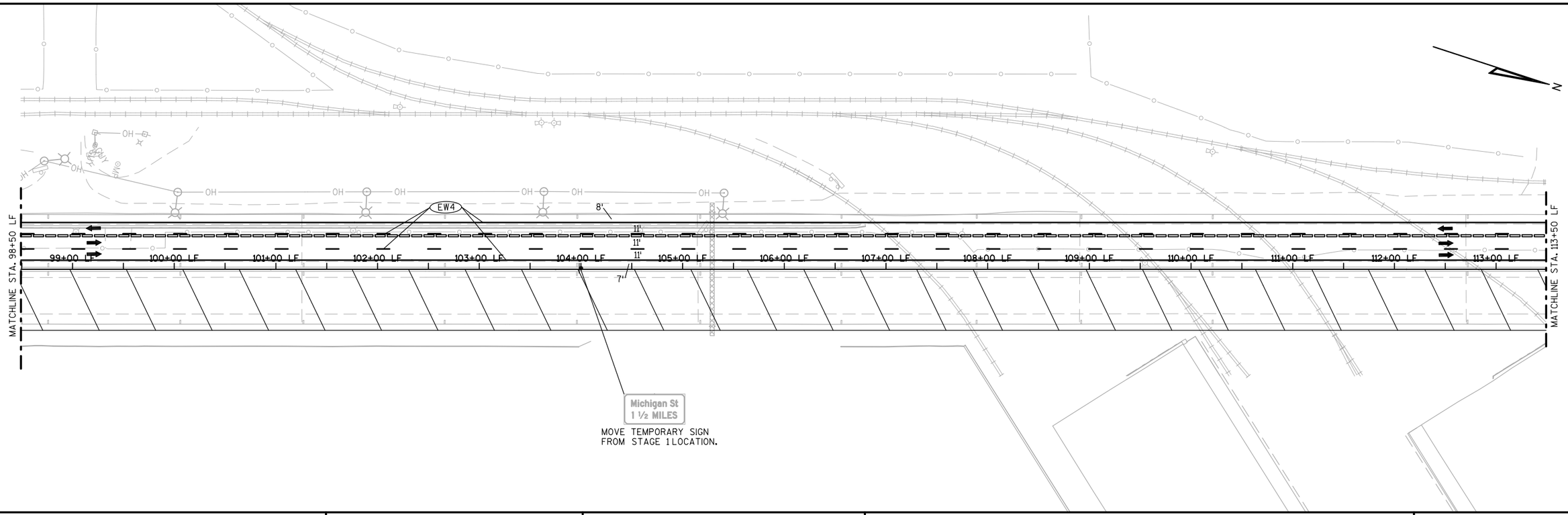


STAGING NOTES

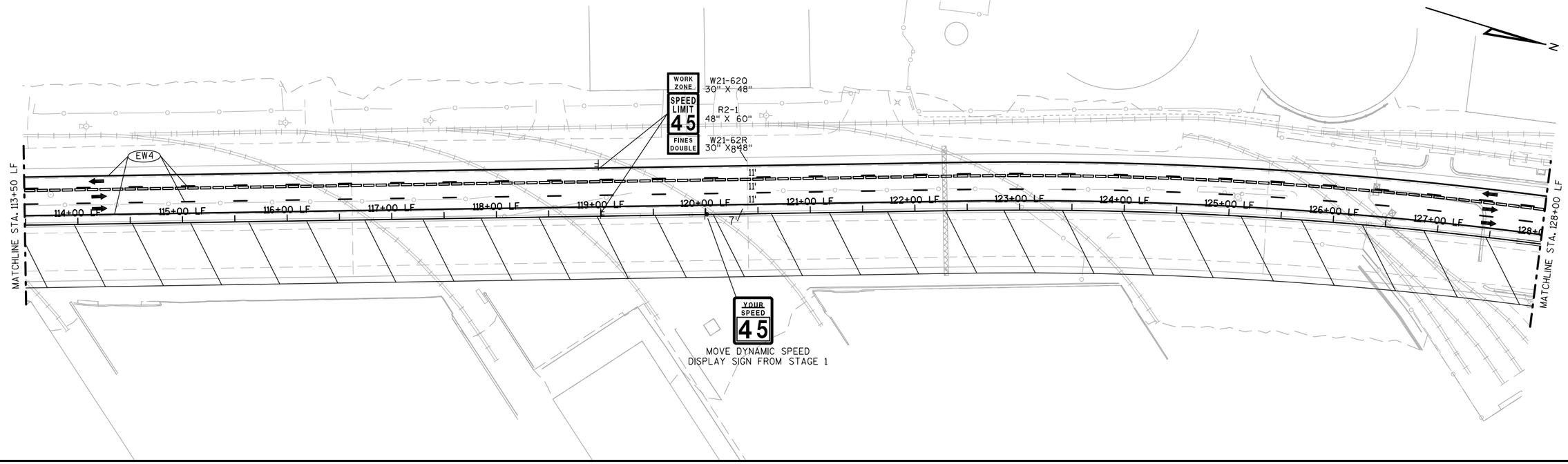
- WIDTH OF CENTER LANE TRANSITIONS FROM 14' - 15' STA 59+28.57 LF - 63+16.07 LF
- SEE CRASH INVESTIGATION SITE DETAIL FOR ADDITIONAL INFORMATION ALONG CARFERRY DRIVE.

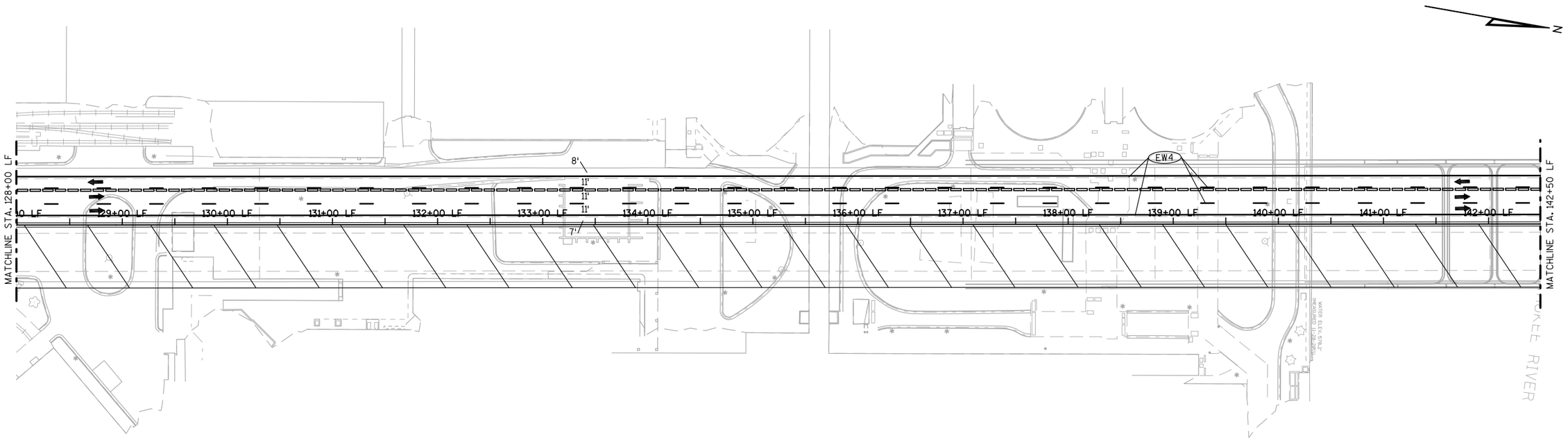
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A & B-AM (PHASE 1-WB RAMP OPEN)	SHEET 521	E





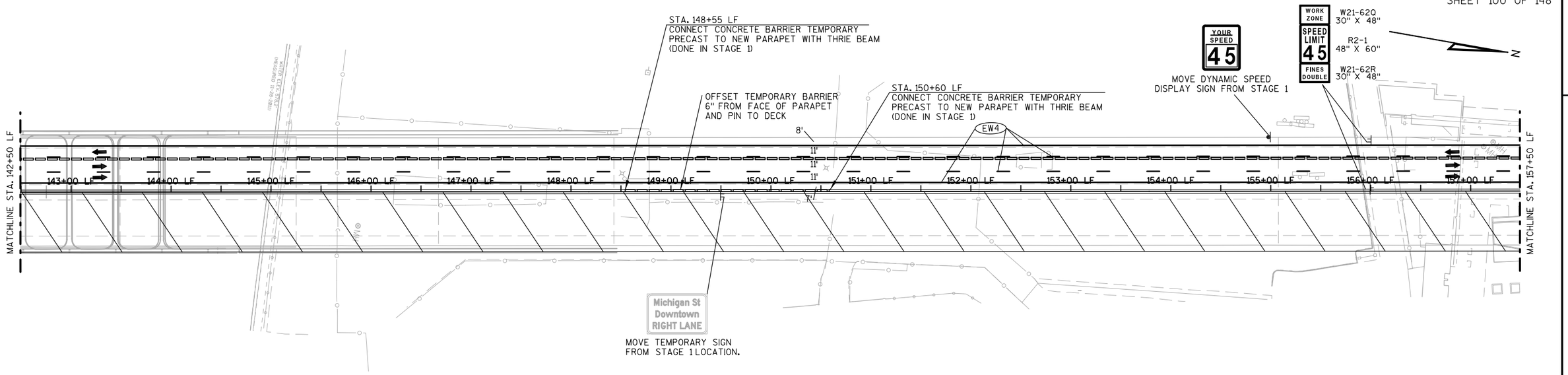
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A & B - AM	SHEET 522	E

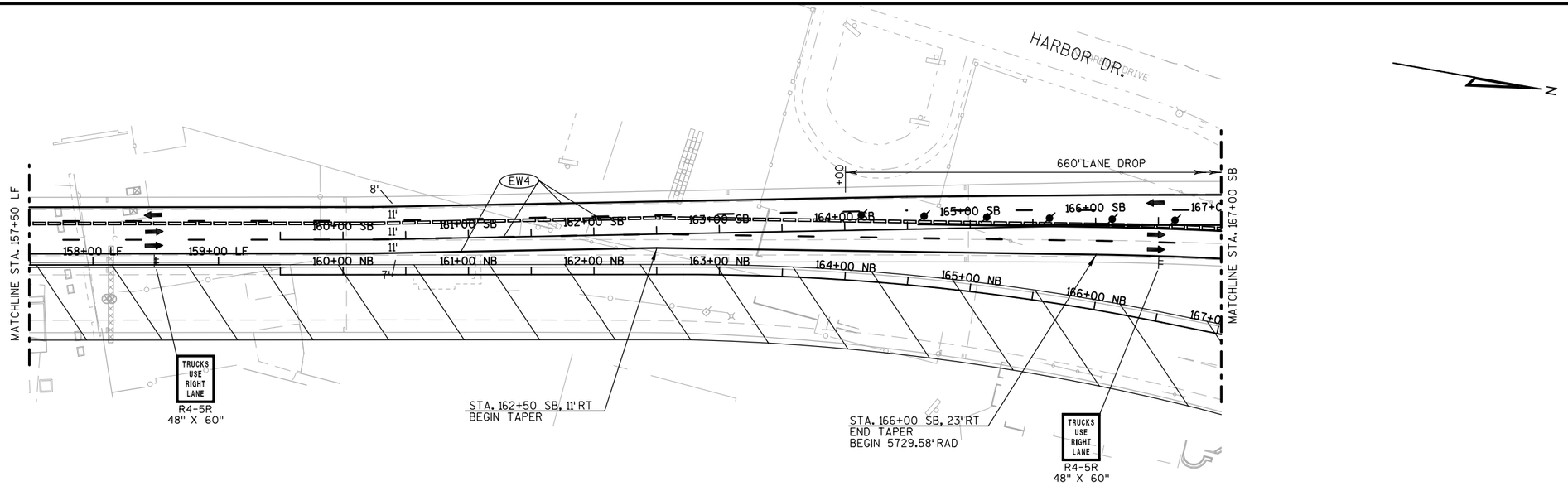




PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A & B - AM	SHEET 523	E

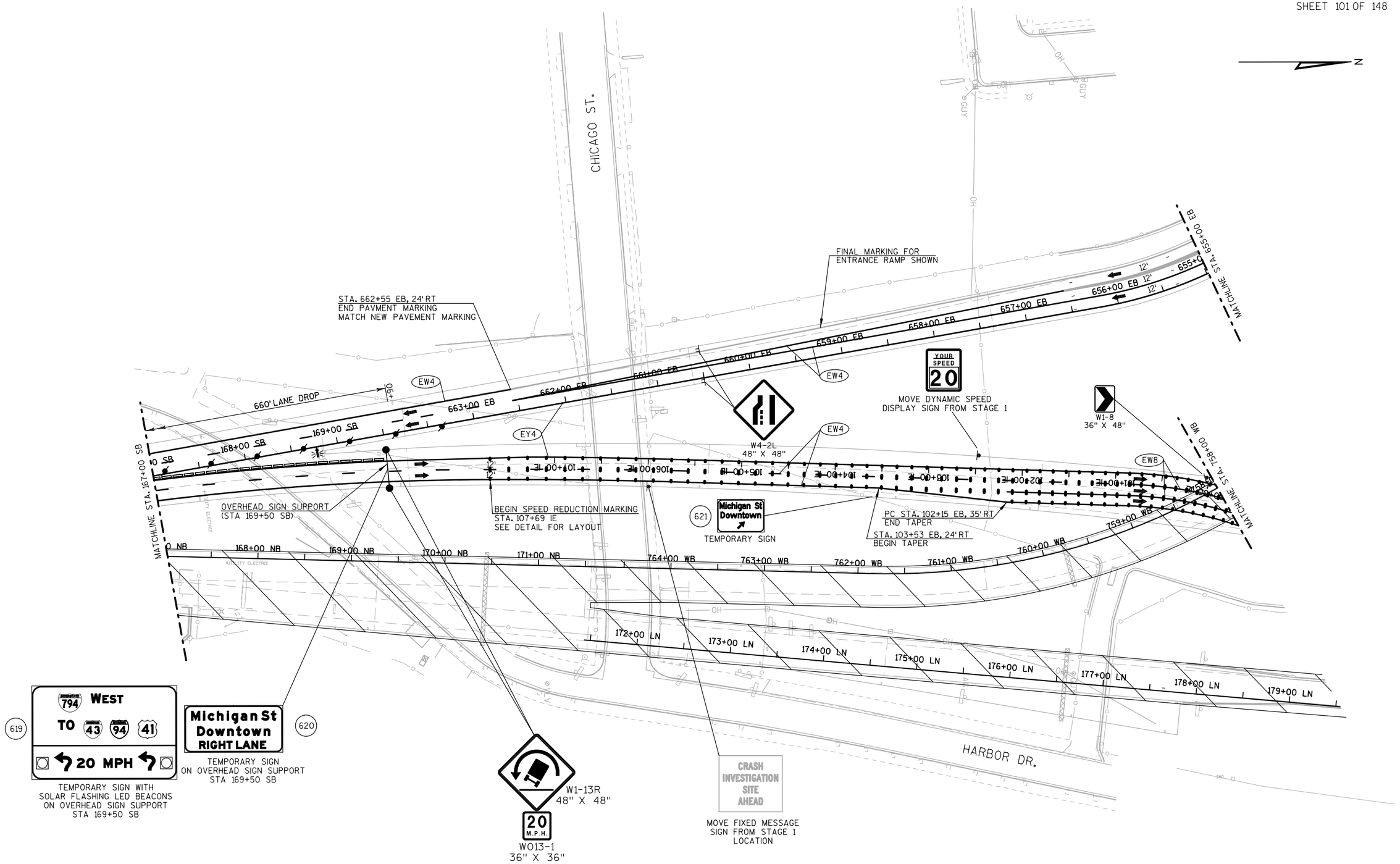
FILE NAME : IP_PWP:d0231471\026305_s2.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000





STAGING NOTES
- USE CONCRETE BARRIER TEMPORARY PRECAST TO CLOSE GAP IN PARAPET WHICH WILL BE USED ON STAGE 2B. SEE SDD "CONCRETE BARRIER TEMPORARY PRECAST 12'-6"" FOR CONNECTION DETAILS

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - AM	SHEET 524	E



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - AM	SHEET 525	E

2

2

622

794 WEST
TO 43 94 41
20 MPH

TEMPORARY SIGN WITH SOLAR FLASHING LED BEACONS ON OVERHEAD SIGN SUPPORT STA 97+50 IE

Michigan St Downtown
EXIT ONLY

623

TEMPORARY SIGN ON OVERHEAD SIGN SUPPORT STA 97+50 IE

CRASH INVESTIGATION SITE

528

FIXED MESSAGE SIGN

EXIT 1F

E5-1A
72" X 60"

PC STA. 180+62 LN, 40' LT
BEGIN 175' RAD.

PT STA. 181+70 LN, 4' RT
END 175' RAD.

CRASH CUSHION TEMPORARY FROM STAGE 1

STA. 182+39 LN
4' RT

DYNAMIC CURVE WARNING SYSTEM SIGNS
36" x 48"

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

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

MATCHLINE STA. 186+00 LN

MATCHLINE STA. 758+00 WB

MATCHLINE STA. 655+00 EB

W1-8
36" X 48"

MOVE CRASH CUSHION TEMPORARY FROM STA 41+00 IX IN STAGE 1

PC STA. 97+53.55 IE
13.40' LT

OVERHEAD SIGN SUPPORT
(STA 97+50 IE)

END SPEED REDUCTION MARKING
STA 97+50 IE
SEE DETAIL FOR LAYOUT

PT STA. 97+40 IE
40.5' LT

177' R

EW8 CHEVRONS AT 50' SPACING

PT STA. 93+46.35 IE
15.35' LT

MOVE CRASH CUSHION TEMPORARY FROM STA. 757+50 W IN STAGE 1

MOVE CRASH CUSHION TEMPORARY FROM STA 49+25 JX IN STAGE 1

W04-2L

FINAL MARKNING FOR ENTRANCE RAMP SHOWN

SIGN UNCOVERED IN AM
SIGN COVERED IN PM

Lakefront
RAMP CLOSED

SIGN FROM PRE-STAGE 2

ESTR

COVER ARROW
35 MPH

ESTR

MOVING WORK ZONE
NEXT 2 MILES

ONLY TO BE USED WHEN BARRIER TRANSFER MACHINE IS IN OPERATION

LEFT LANE CLOSED 1500 FT
W20-5

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

BEGIN LANE SHIFT
STA. 649+60.7 EB, 12.8' RT

PCMS

STA. 648+26 EB, 50.3' LT
BEGIN 360' TAPER

EW4
3' LINE
9' GAP

MATCHLINE STA. 647+00 EB

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

MOVE CRASH CUSHION TEMPORARY FROM STA 51+20 JX

CLYBOURN ST.

VAN BUREN ST.

JACKSON ST.

N

STAGING NOTES
- CONSTRUCT MODIFICATIONS TO RAMP "NI" & "SI".
- CLOSE WB ENTRANCE RAMP.
- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION ON ENTRANCE RAMP CLOSURE.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - AM & PM (PHASE 1)	SHEET 526	E

2

2

622

794 WEST
TO 43 94 41
20 MPH

TEMPORARY SIGN WITH SOLAR FLASHING LED BEACONS ON OVERHEAD SIGN SUPPORT STA 97+50 IE

Michigan St
Downtown
EXIT ONLY

623

TEMPORARY SIGN ON OVERHEAD SIGN SUPPORT STA 97+50 IE

CRASH INVESTIGATION SITE

528

FIXED MESSAGE SIGN

EXIT 1F

E5-1A
72" X 60"

MATCHLINE STA. 758+00 WB

MATCHLINE STA. 655+00 EB

W1-8
36" X 48"

MOVE CRASH CUSHION TEMPORARY FROM STA 41+00 IX IN STAGE 1

PC STA. 97+53.55 IE
13.40' LT

OVERHEAD SIGN SUPPORT (STA 97+50 IE)

177' R

CRASH CUSHION TEMPOARY FROM STAGE 1

DYNAMIC CURVE WARNING SYSTEM SIGNS
36" x 48"

W01-6
48" X 24"

EW8 CHEVRONS AT 50' SPACING

PT STA. 93+46.35 IE
15.35' LT

MOVE CRASH CUSHION TEMPORARY FROM STA. 757+50 WIN STAGE 1

MOVE CRASH CUSHION TEMPORARY FROM STA 49+25 JX IN STAGE 1

PW4
3' LINE
9' GAP

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

R1-2
36" X 31"

W4-3R
30" X 30"

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

MATCHLINE STA. 186+00 LN

W04-2L

SIGN UNCOVERED IN AM
SIGN COVERED IN PM

Lakefront
RAMP CLOSED

SIGN FROM PRE-STAGE 2

COVER ARROW
35 MPH
ESTR

ESTR

MOVING WORK ZONE
NEXT 2 MILES

ONLY TO BE USED WHEN BARRIER TRANSFER MACHINE IS IN OPERATION

FINAL MARKNING FOR ENTRANCE RAMP SHOWN

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

BEGIN LANE SHIFT
STA. 649+60.7 EB, 12.8' RT

LEFT LANE CLOSED 1500 FT
W20-5

PCMS

STA. 648+26 EB, 50.3' LT
BEGIN 360' TAPER

EW4
3' LINE
9' GAP

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

MOVE CRASH CUSHION TEMPORARY FROM STA 51+20 JX

MATCHLINE STA. 647+00 EB

CLYBOURN ST.

VAN BUREN ST.

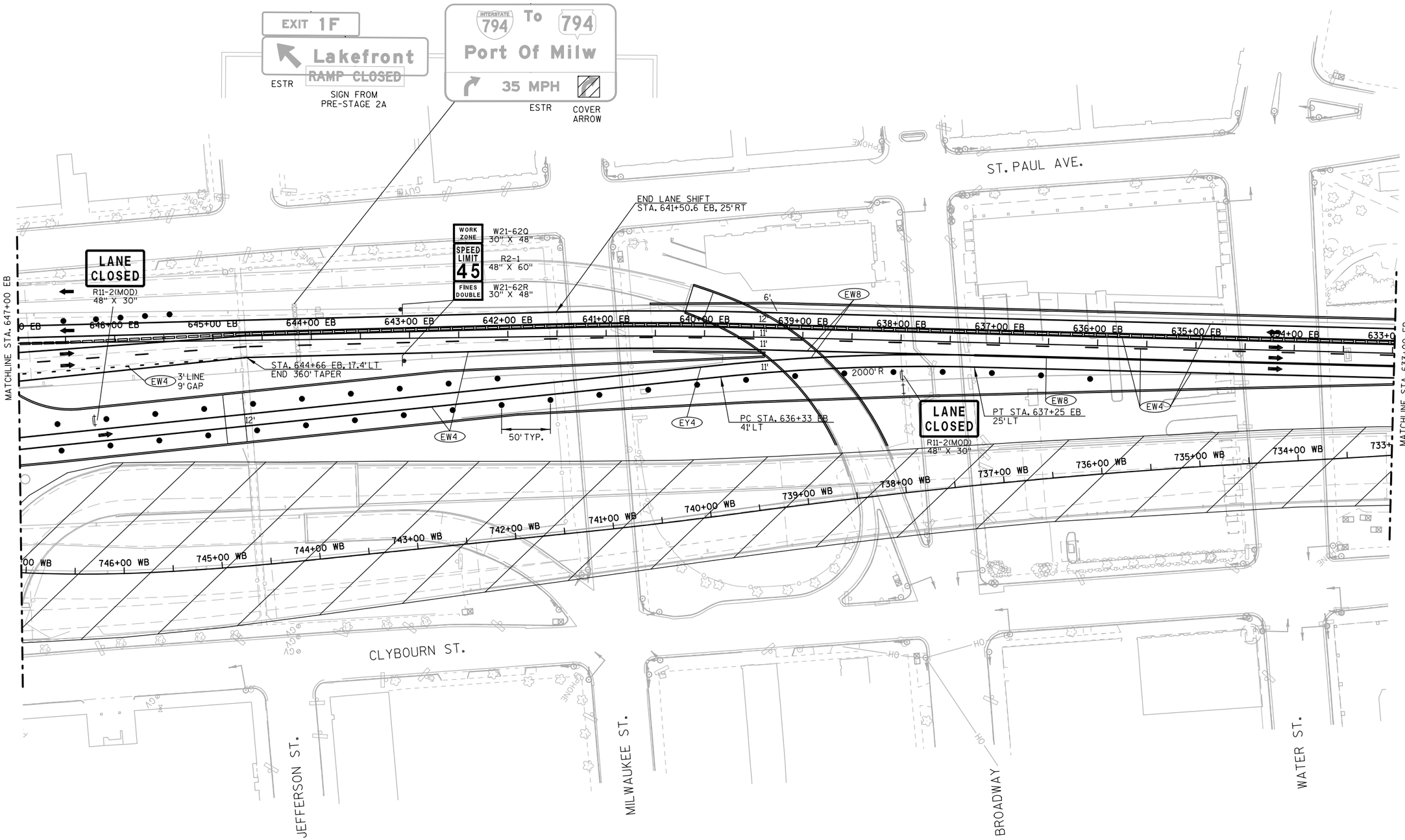
JACKSON ST.

STAGING NOTES

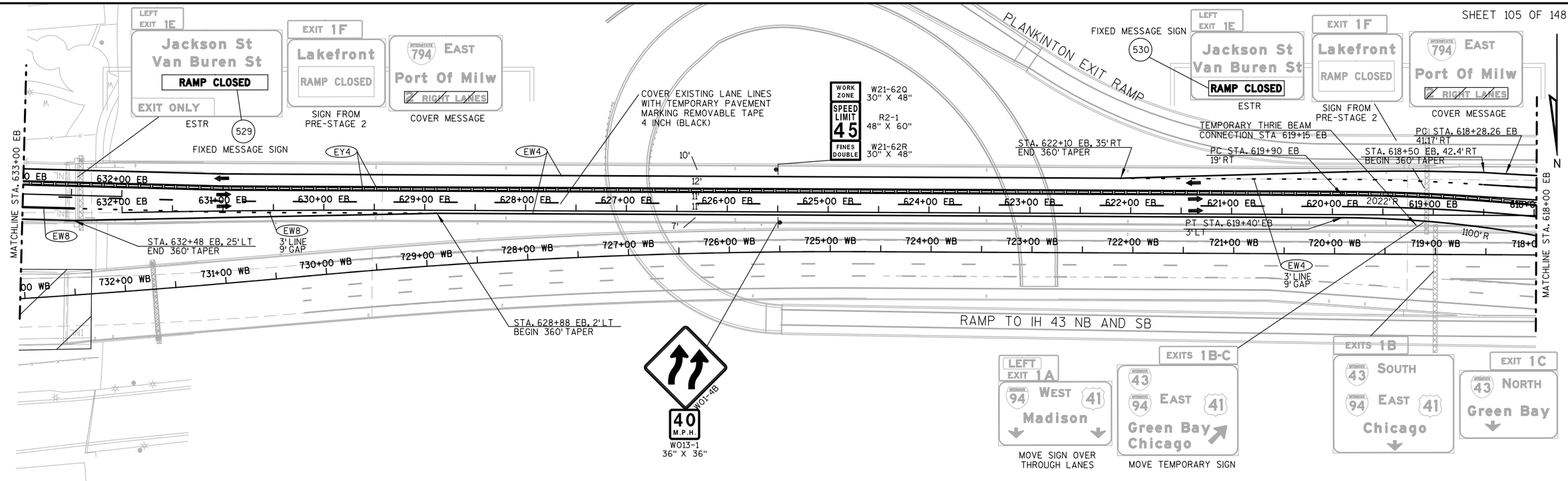
- CONSTRUCTION OF RAMPS "NI" & "SI" COMPLETED.
- SEE LOCAL STEET TRAFFIC CONTROL SHEETS FOR ADDITIONAL INFORMATION.

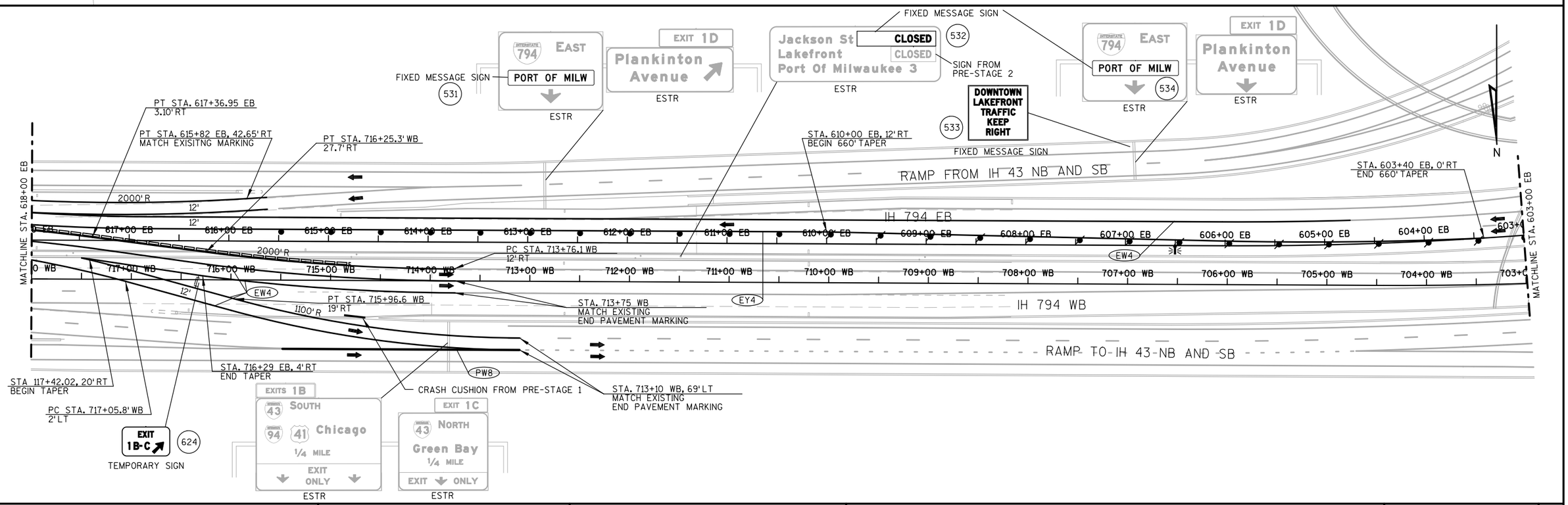
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - AM & PM (PHASE 2)	SHEET 527	E

STAGING NOTES
- SEE TRAFFIC CONTROL LOCAL STREET PLANS FOR ADDITIONAL INFORMATION.

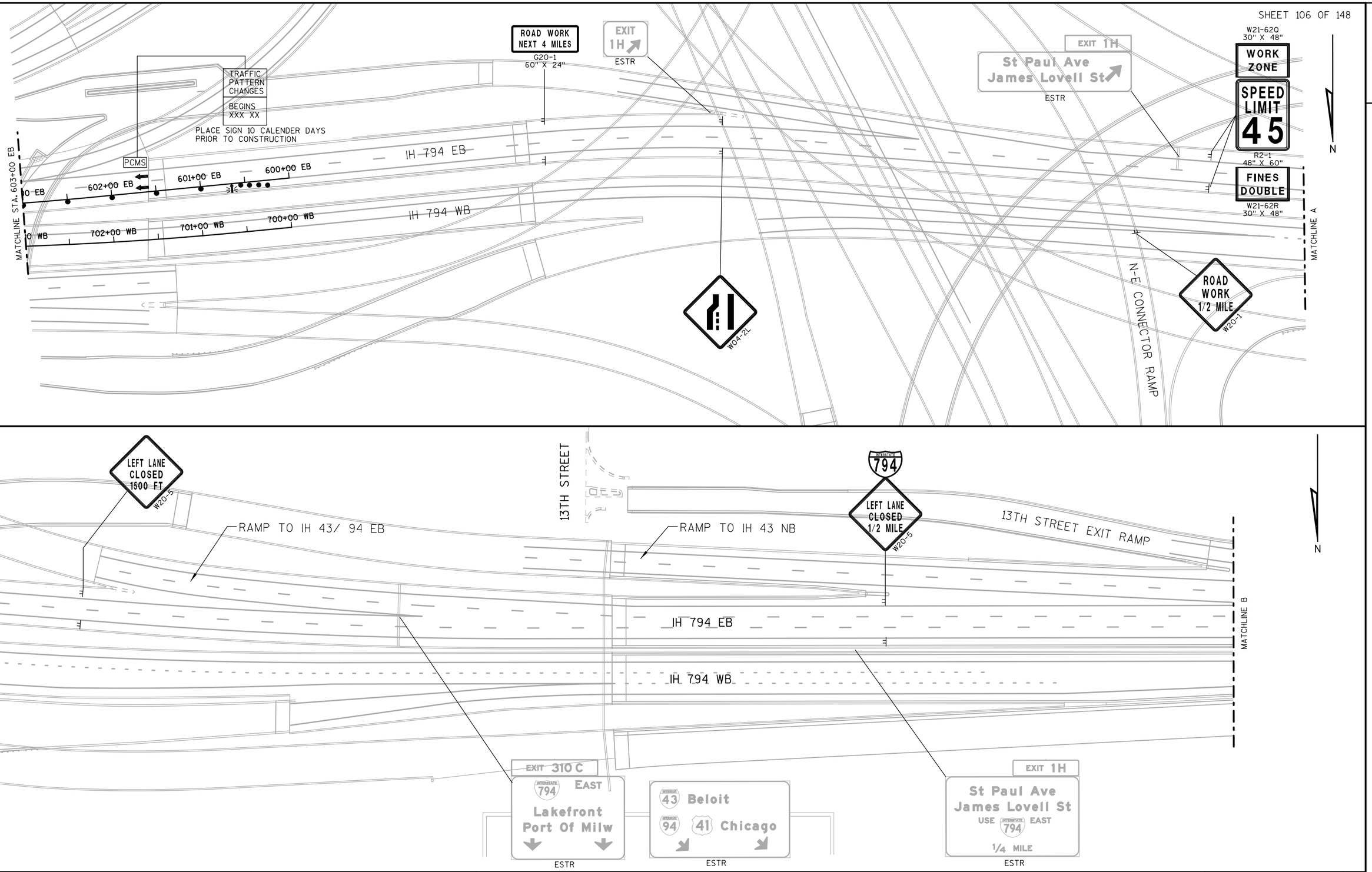


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - AM & PM	SHEET 528	E





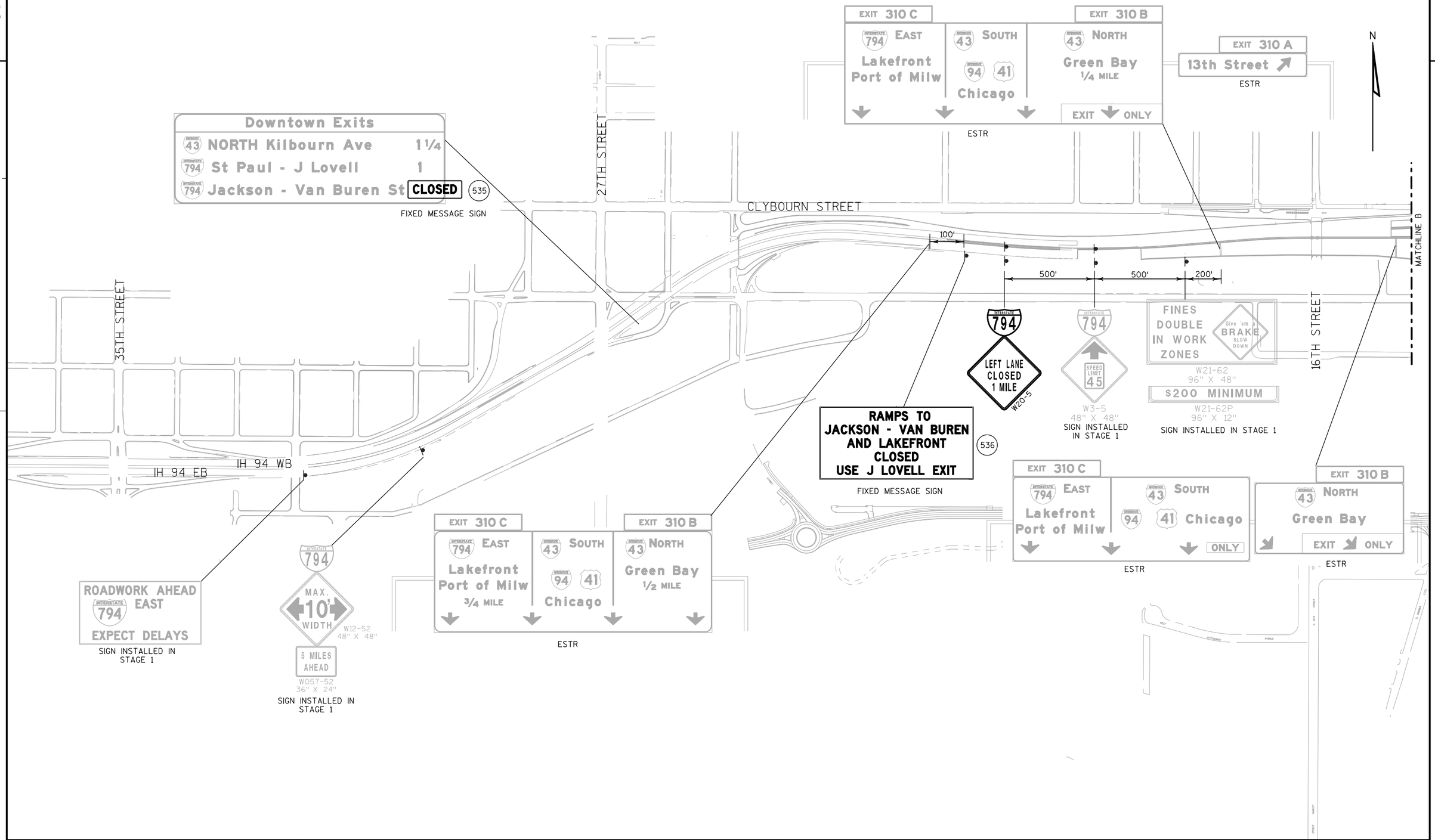
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - AM & PM	SHEET 529	E



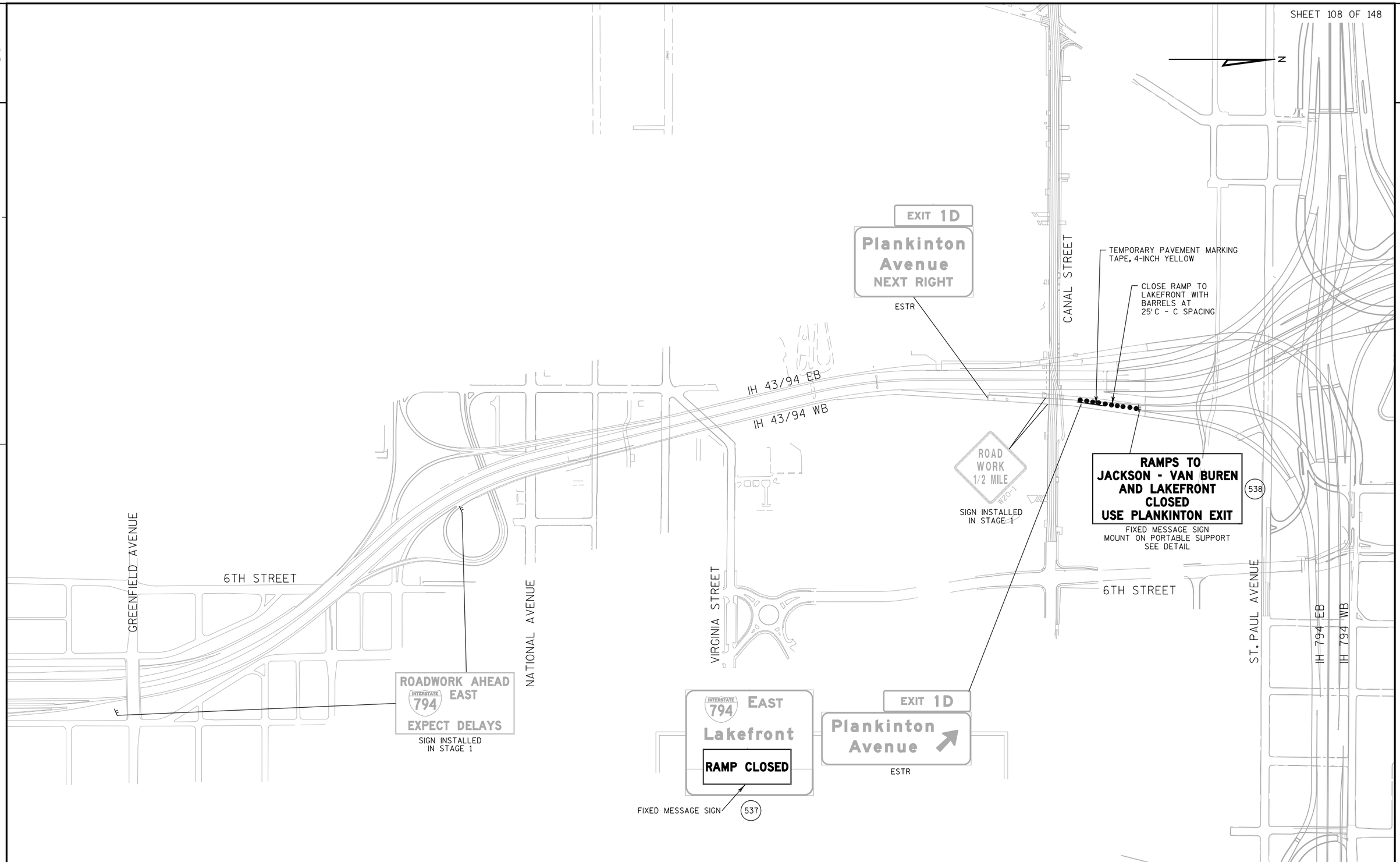
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A & B - AM & PM	SHEET 530	E

2

2



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - AM & PM	SHEET 531	E



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - AM & PM	SHEET 532	E

2

2

IH 94 EB
IH 94 WB

RAMPS TO JACKSON - VAN BUREN AND LAKEFRONT CLOSED USE PLANKINTON EXIT

539

FIXED MESSAGE SIGN

IH 43 SB
IH 43 NB

FOND DU LAC AVE

WALNUT STREET

ROADWORK AHEAD
INTERSTATE 794 EAST
EXPECT DELAYS

SIGN INSTALLED IN STAGE 1

INTERSTATE 794

MAX. 10' WIDTH
W12-52
48" X 48"

5 MILES AHEAD
W057-52
36" X 24"

SIGN INSTALLED IN STAGE 1

IH 794 EB
IH 794 WB

MICHIGAN STREET

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - AM & PM	SHEET 533	E

N

PROSPECT AVE.

FOOTBRIDGE

ROADWORK AHEAD
INTERSTATE 794 WEST
EXPECT DELAYS

SIGN INSTALLED
IN STAGE 1

1500'

EAST INTERSTATE 794

RAMP CLOSED AHEAD

200'

WALLS

ONLY
ESTR

TO
STH 43 STH 94
ESTR

Clybourn St
ONLY

SIGN INSTALLED
IN PRE-STAGE 2A

LINCOLN MEMORIAL DR.

MICHIGAN ST.

FOOTBRIDGE

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

188+00 LN

187+00 LN

0 LN

MATCHLINE STA. 186+00 LN

CRASH INVESTIGATION SITE
540
541

125'

NO PARKING ANY TIME
R7-1R
18" X 24"

CRASH INVESTIGATION SITE

MOVE FIXED MESSAGE SIGN
FROM STAGE 1 LOCATION

COVER SIGN

HARBOR DR.

Michigan St
Downtown
ONLY ONLY

SIGN INSTALLED
IN PRE-STAGE 2A

Lincoln Mem Dr

SIGN INSTALLED
IN PRE-STAGE 2A

STAGING NOTES

- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - AM & PM	SHEET 534	E

FILE NAME : IP_PWP:d0231471\026312_s2.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000

SIGN INSTALLED IN STAGE 1

W057-52
36" X 24"

PLACE AT SIGN AT PENNSYLVANIA AVE. ON RAMP

SIGN INSTALLED IN STAGE 1

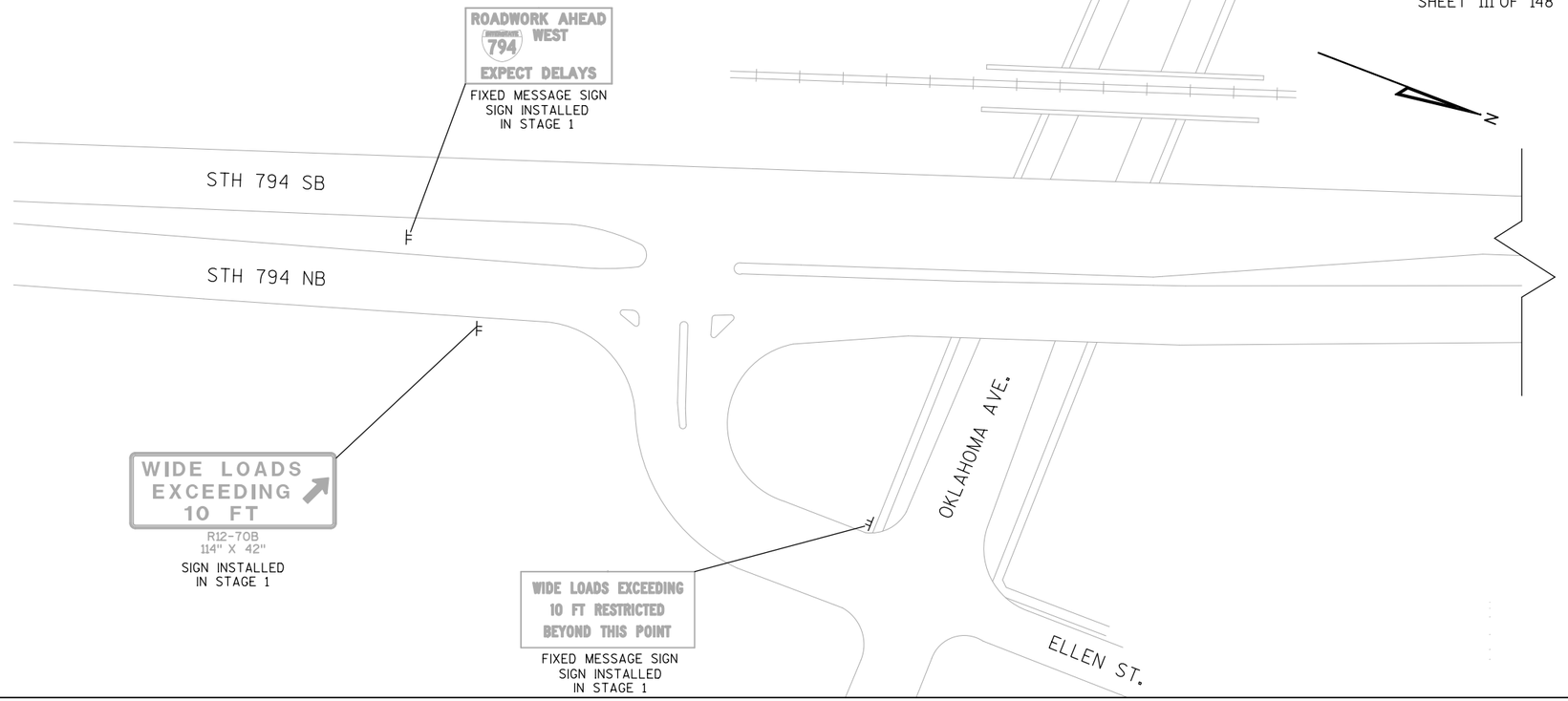
W057-52
36" X 24"

PLACE AT SIGN AT LAYTON AVE. ON RAMP

SIGN INSTALLED IN STAGE 1

W057-52
36" X 24"

PLACE AT SIGN AT HOWARD AVE. ON RAMP



FIXED MESSAGE SIGN
SIGN INSTALLED IN STAGE 1

R12-70B
114" X 42"
SIGN INSTALLED IN STAGE 1

FIXED MESSAGE SIGN
SIGN INSTALLED IN STAGE 1

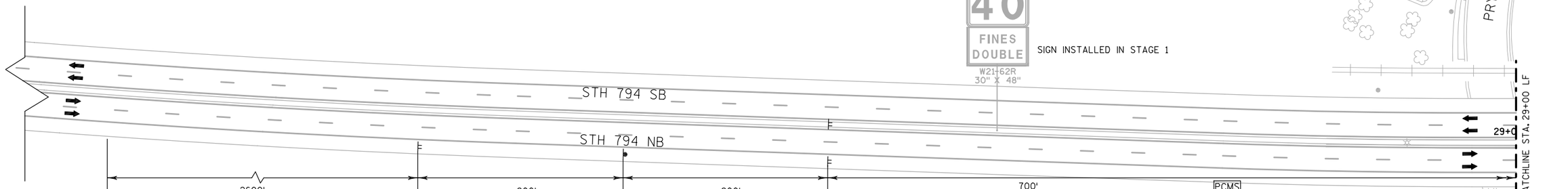
W21-620
30" X 48"

SIGN INSTALLED IN STAGE 1

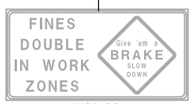
ESTR

SIGN INSTALLED IN STAGE 1

W21-62R
30" X 48"



SIGN INSTALLED IN STAGE 1



W21-62
96" X 48"

W21-62P
96" X 12"
SIGN INSTALLED IN STAGE 1

SIGN INSTALLED IN STAGE 1

PCMS

TRAFFIC PATTERN CHANGES
BEGINS XXX XX

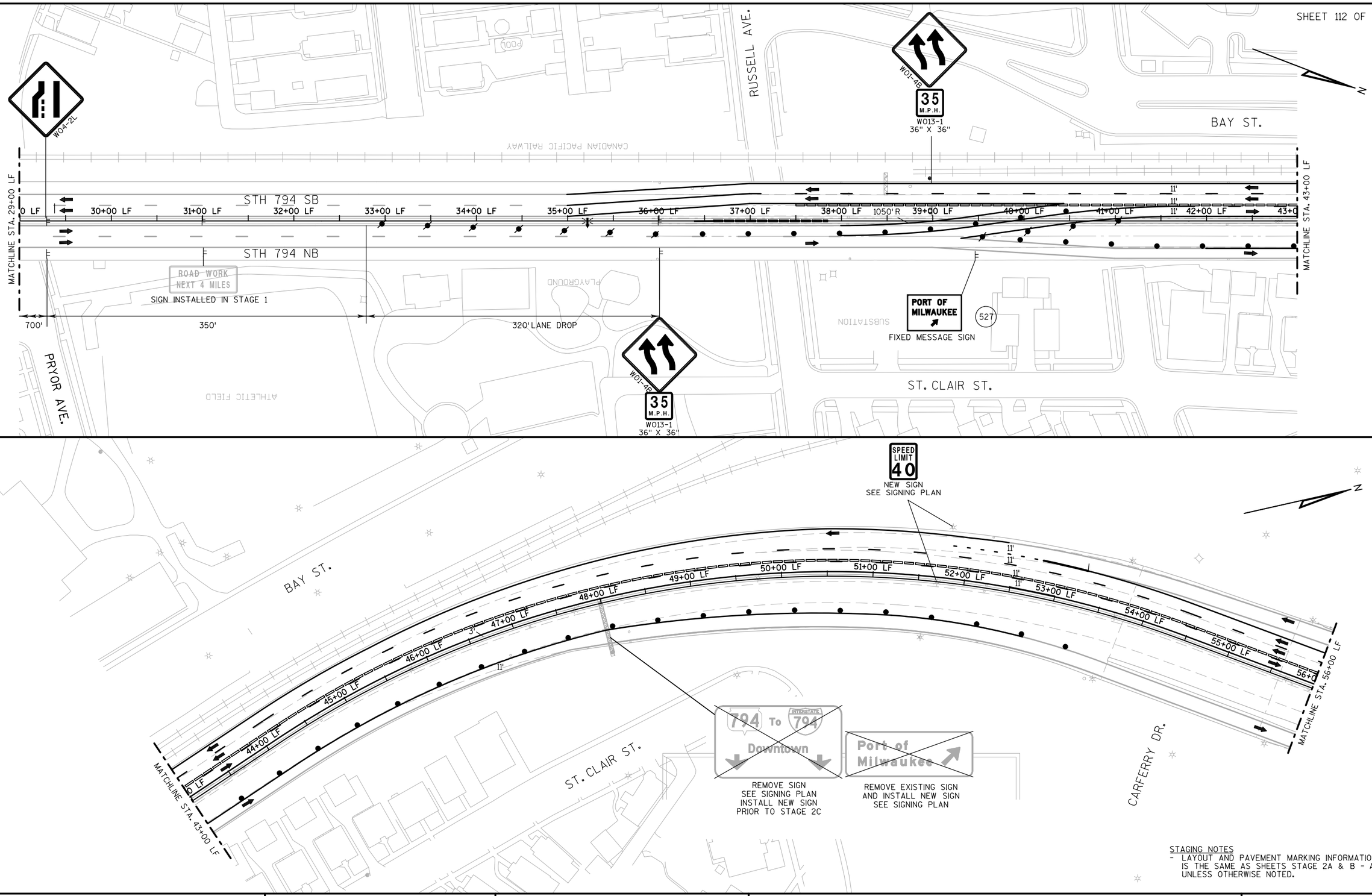
PLACE SIGN 10 CALENDAR DAYS PRIOR TO CONSTRUCTION

MOVING WORK ZONE
NEXT 2 MILES

ONLY TO BE USED WHEN BARRIER TRANSFER MACHINE IS IN OPERATION

STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEETS STAGE 2A & B - AM UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A & B - PM	SHEET 535	E



STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEETS STAGE 2A & B - AM UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A & B - PM	SHEET 536	E

CARFERRY SB ENTRANCE RAMP

NEW SIGN SEE SIGNING PLAN

SPEED LIMIT 40

LINCOLN AVE.

MATCHLINE STA. 56+00 LF

CAFRFERRY EB EXIT RAMP

57+00 LF 58+00 LF 59+00 LF 60+00 LF 61+00 LF 62+00 LF 63+00 LF 64+00 LF 65+00 LF 66+00 LF 67+00 LF 68+00 LF 69+00 LF 70

MATCHLINE STA. 70+00 LF

NEW SIGN SEE SIGNING PLAN

W21-62Q 30" X 48"

R2-1 48" X 60"

W21-62R 30" X 48"

WORK ZONE SPEED LIMIT 45 FINES DOUBLE

W01-2R

25 M.P.H W013-1 36" X 36"

23+00 NX 24+00 NX 25+00 NX

22+00 NX

CARFERRY WB ENTRANCE RAMP

W01-3L

25 M.P.H W013-1 36" X 36"

21+00 NX

20+00 NX

NB EXIT RAMP

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

ROAD WORK AHEAD W20-1

Michigan St 2¼ 43 94 41 3

MOVE TEMPORARY SIGN FROM STAGE 1LOCATION AND MOUNT ON PORTABLE SUPORT. SEE DETAIL

N

PORT OF MILWAUKEE

MOVE FIXED MESSAGE SIGN FROM STAGE 1 LOCATION.

CRASH INVESTIGATION SITE

MOVE FIXED MESSAGE SIGN FROM STAGE 1 LOCATION.

WIDE LOADS EXCEEDING 10 FT

MOVE FIXED MESSAGE SIGN FROM STAGE 1 LOCATION.

MATCHLINE STA. 70+00 LF

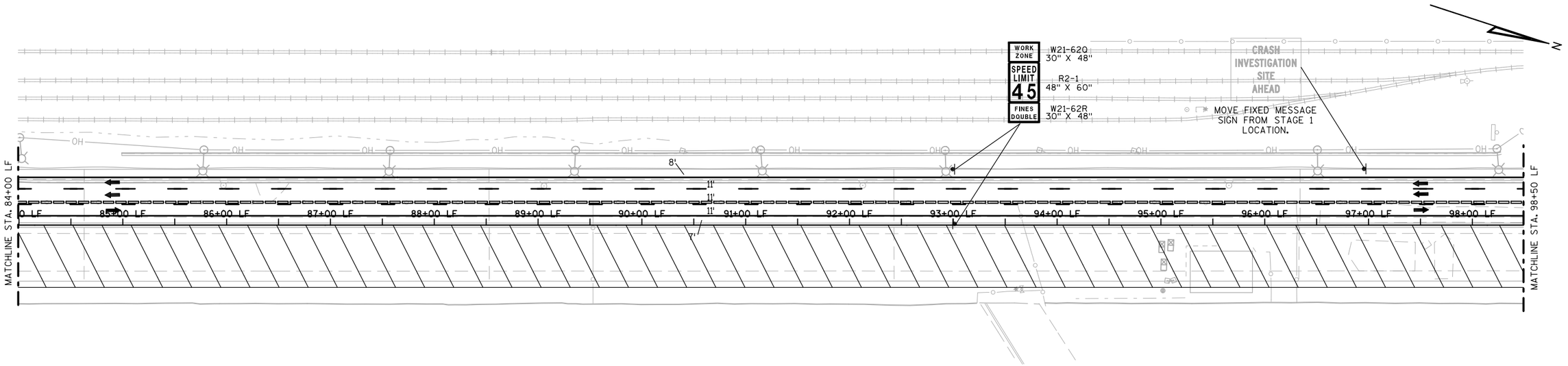
CAFRFERRY EB EXIT RAMP

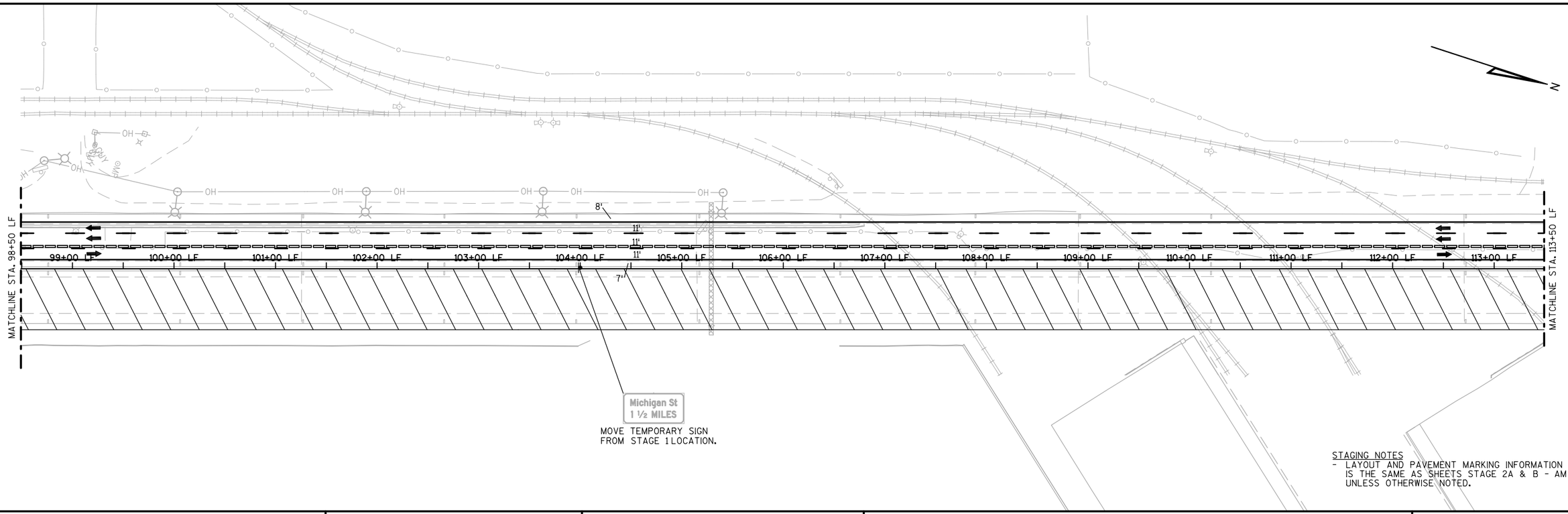
71+00 LF 72+00 LF 73+00 LF 74+00 LF 75+00 LF 76+00 LF 77+00 LF 78+00 LF 79+00 LF 80+00 LF 81+00 LF 82+00 LF 83+00 LF 84+00

MATCHLINE STA. 84+00 LF

STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEETS STAGE 2A & B - AM UNLESS OTHERWISE NOTED.

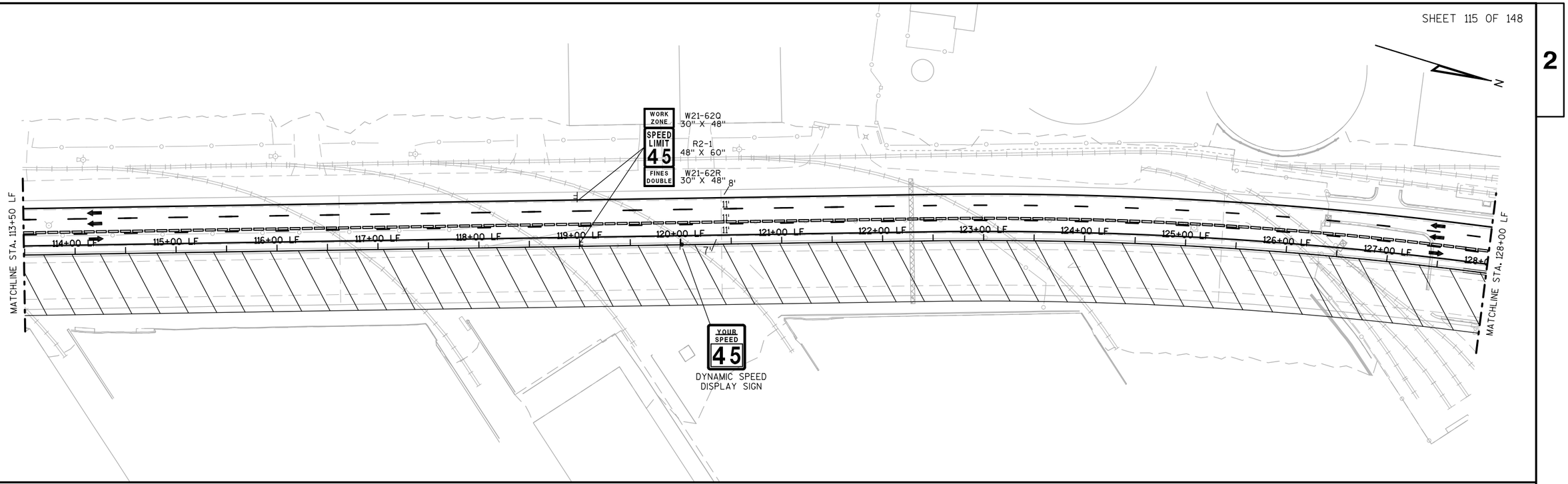
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A & B - PM (PHASE 1 WB RAMP OPEN)	SHEET 537	E

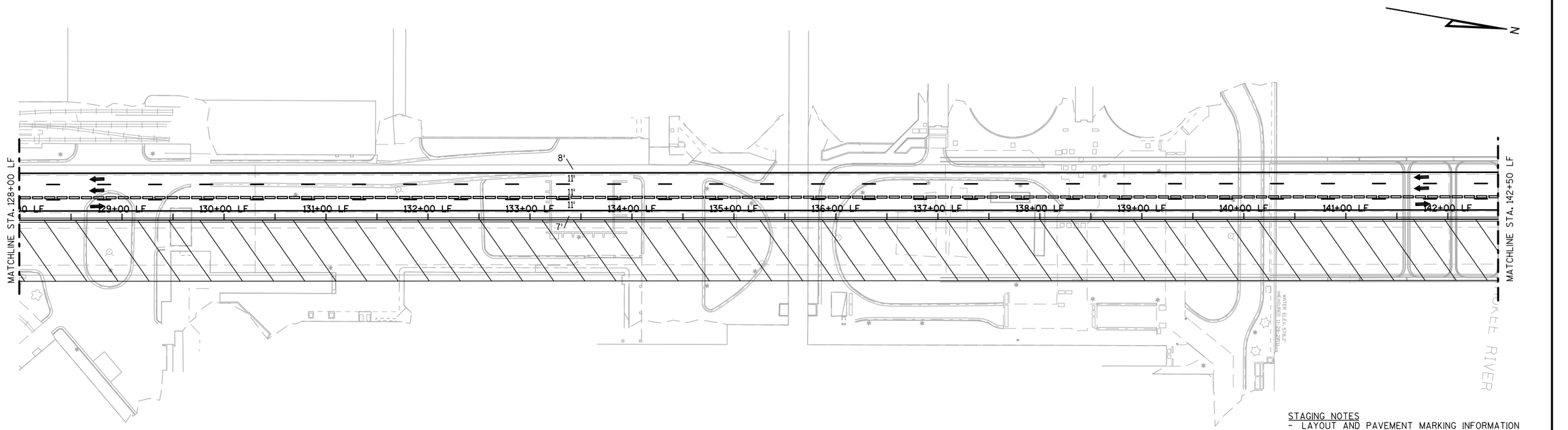




STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEETS STAGE 2A & B - AM UNLESS OTHERWISE NOTED.

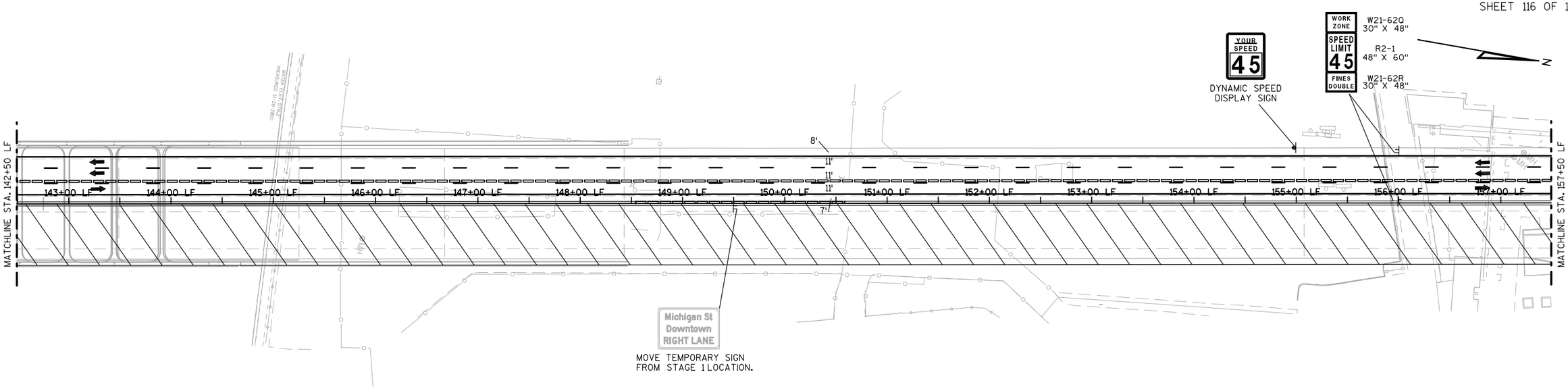
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A & B - PM	SHEET 538	E

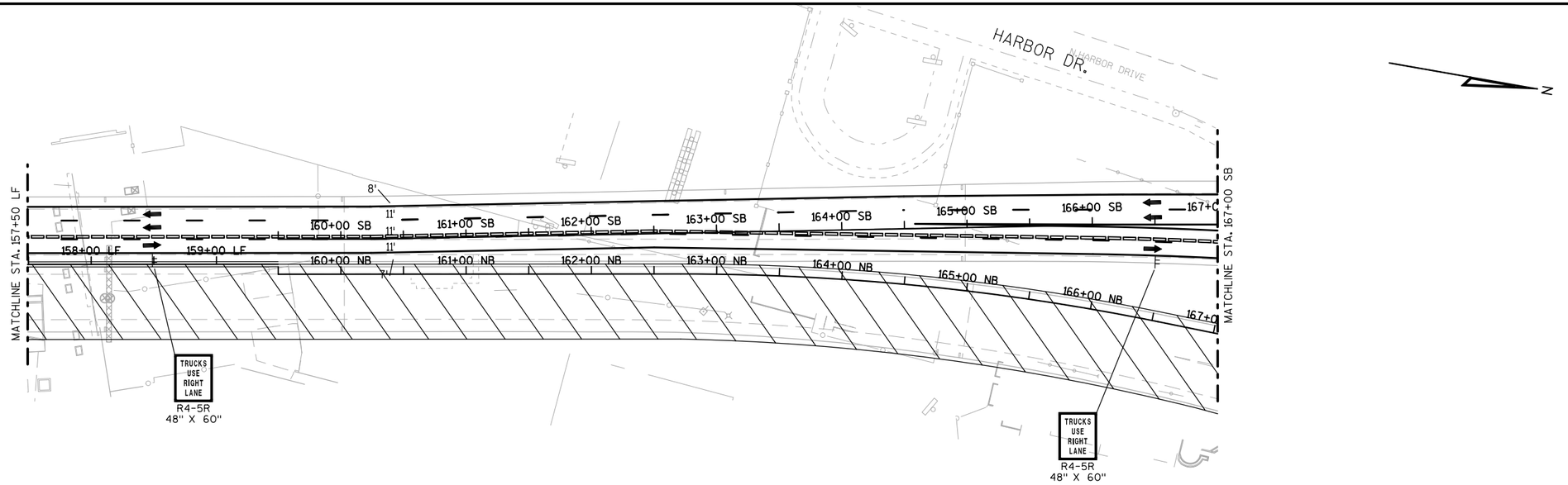




STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEETS STAGE 2A & B - AM UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A & B - PM	SHEET 539	E





STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEETS STAGE 2A - AM UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - PM	SHEET 540	E

2

N

CHICAGO ST.

MATCHLINE STA. 167+00 SB

MATCHLINE STA. 655+00 EB

MATCHLINE STA. 158+00 WB

168+00 SB

169+00 SB

663+00 EB

662+00 EB

661+00 EB

660+00 EB

659+00 EB

658+00 EB

657+00 EB

656+00 EB

655+00

12'

LOCATION OF BARRIER TRANSFER MACHINE IN PM

COVER SIGN IN PM

YOUR SPEED 20

DYNAMIC SPEED DISPLAY SIGN

W1-8
36" X 48"

W4-2L
48" X 48"

621 Michigan St Downtown

TEMPORARY SIGN

168+00 NB

169+00 NB

170+00 NB

171+00 NB

764+00 WB

763+00 WB

762+00 WB

761+00 WB

760+00 WB

759+00 WB

172+00 LN

173+00 LN

174+00 LN

175+00 LN

176+00 LN

177+00 LN

178+00 LN

179+00 LN

619 WEST 794
TO 43 94 41
20 MPH

TEMPORARY SIGN

Michigan St Downtown RIGHT LANE

620

TEMPORARY SIGN

W1-13R
48" X 48"

20 M.P.H.

W013-1
36" X 36"

CRASH INVESTIGATION SITE AHEAD

MOVE FIXED MESSAGE SIGN FROM STAGE 1 LOCATION

HARBOR DR.

STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEETS STAGE 2A - AM UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - PM	SHEET 541	E

MICHIGAN STREET

PARKING TO BE RESTRICTED BY CITY OF MILWAUKEE BOTH SIDES OF MICHIGAN STREET

130' 91'

PW4 PW8 PW12 PW PA2 PW4 PW4 PY4

10' 11' 10' 11' 10'

PARKING TO BE RESTRICTED BY CITY OF MILWAUKEE 100' FROM INTERSECTION PEAK HOURS ONLY 6AM-9AM AND 3PM-6PM

PW4 3' LINE 9' GAP

PW4 3' LINE 9' GAP

DOUBLE YELLOW

PARKING TO BE RESTRICTED BY CITY OF MILWAUKEE BOTH SIDES OF MICHIGAN STREET BETEEN BROADWAY AND MILWAUKEE

ROAD WORK AHEAD W20-1

ROAD WORK AHEAD W20-1

ROAD WORK AHEAD W20-1

WATER STREET

BROADWAY

MILWAUKEE STREET

JEFFERSON STREET

MATCHLINE

N

PW4

PARKING TO BE RESTRICTED BY CITY OF MILWAUKEE ON BOTH SIDES OF BRAODWAY

FINAL PAVEMENT MARKING. SEE PAVEMENT MARKING PLAN.

SIGN

A/C

ONLY ONLY ESTR ESTR ONLY ESTR

SIGN INSTALLED IN PRESTAGE 1

NO TURN ON RED R10-11B 24" X 24"

TRUCKS NO RIGHT TURN R4-5R(MOD) 24" X 30"

MOUNT ON SIGNAL POLE

CLYBOURN STREET

25'(TYP)

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

ROAD WORK AHEAD W20-1

PLACE SIGN 300' SOUTH OF ST. PAUL AVE. ON WATER ST.

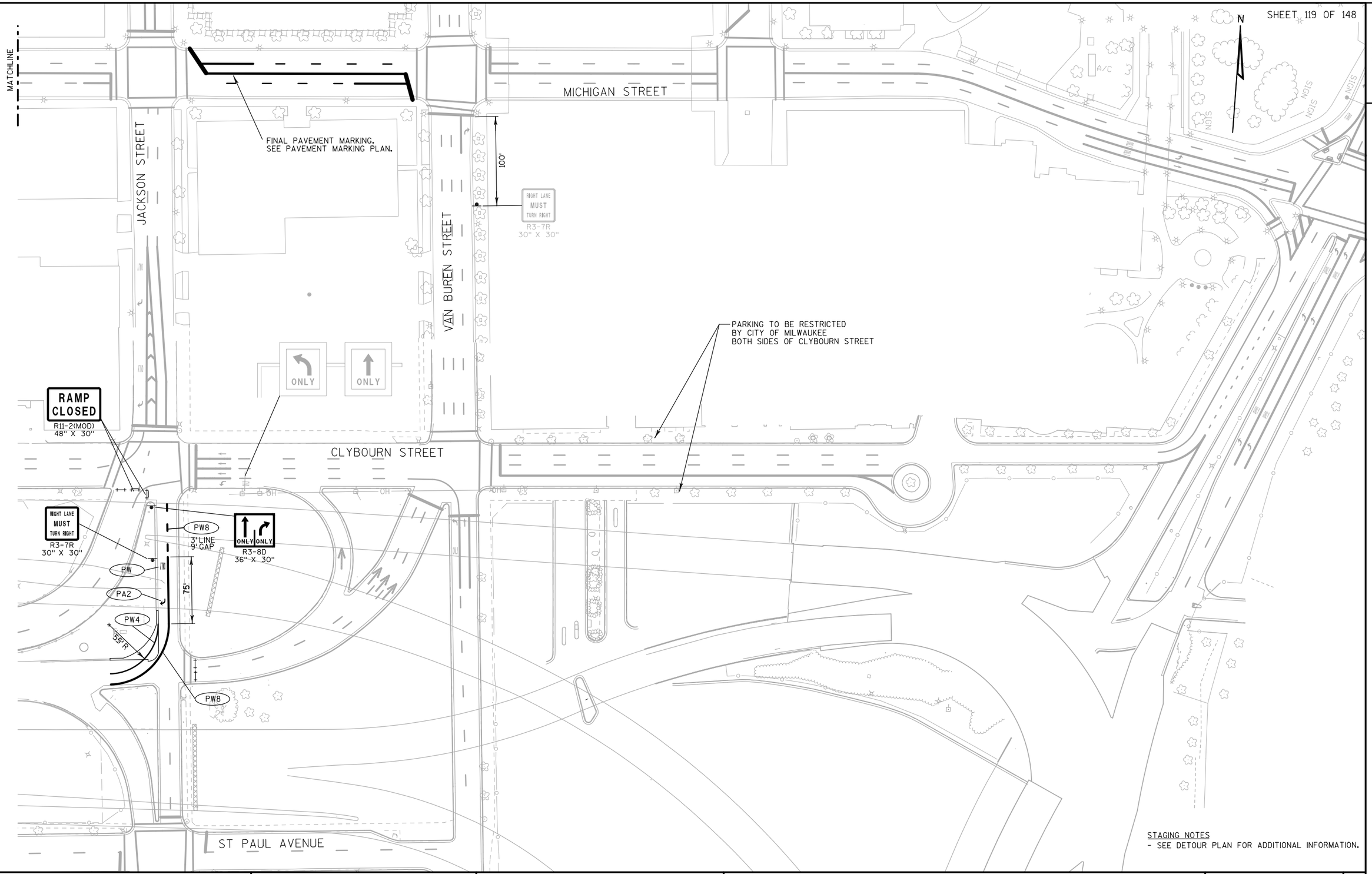
ST PAUL AVENUE

ROAD WORK AHEAD W20-1

PLACE SIGN 300' SOUTH OF ST. PAUL AVE. ON MILWAUKEE ST.

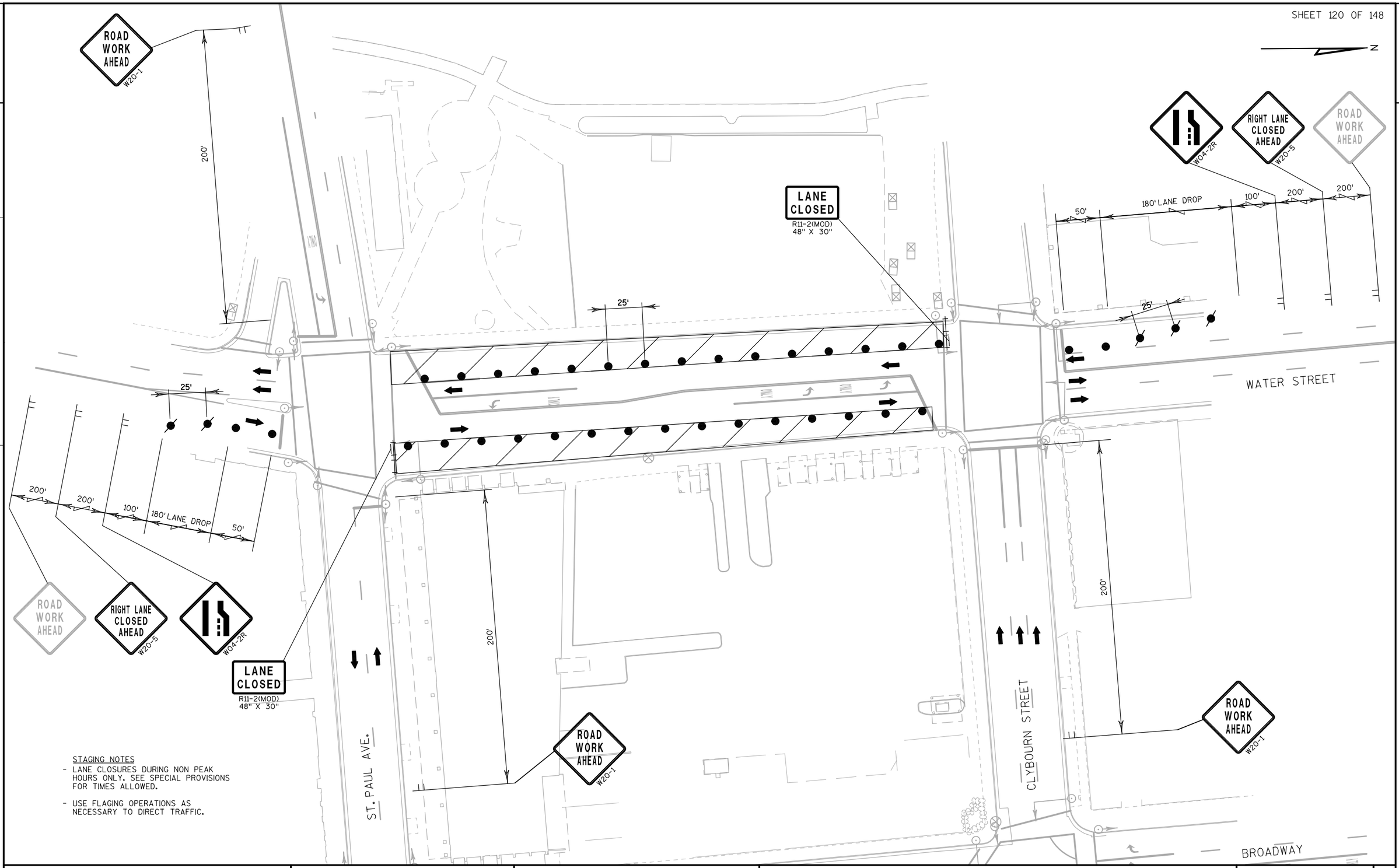
STAGING NOTES
- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - LOCAL STREETS	SHEET 542	E



STAGING NOTES
- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION.

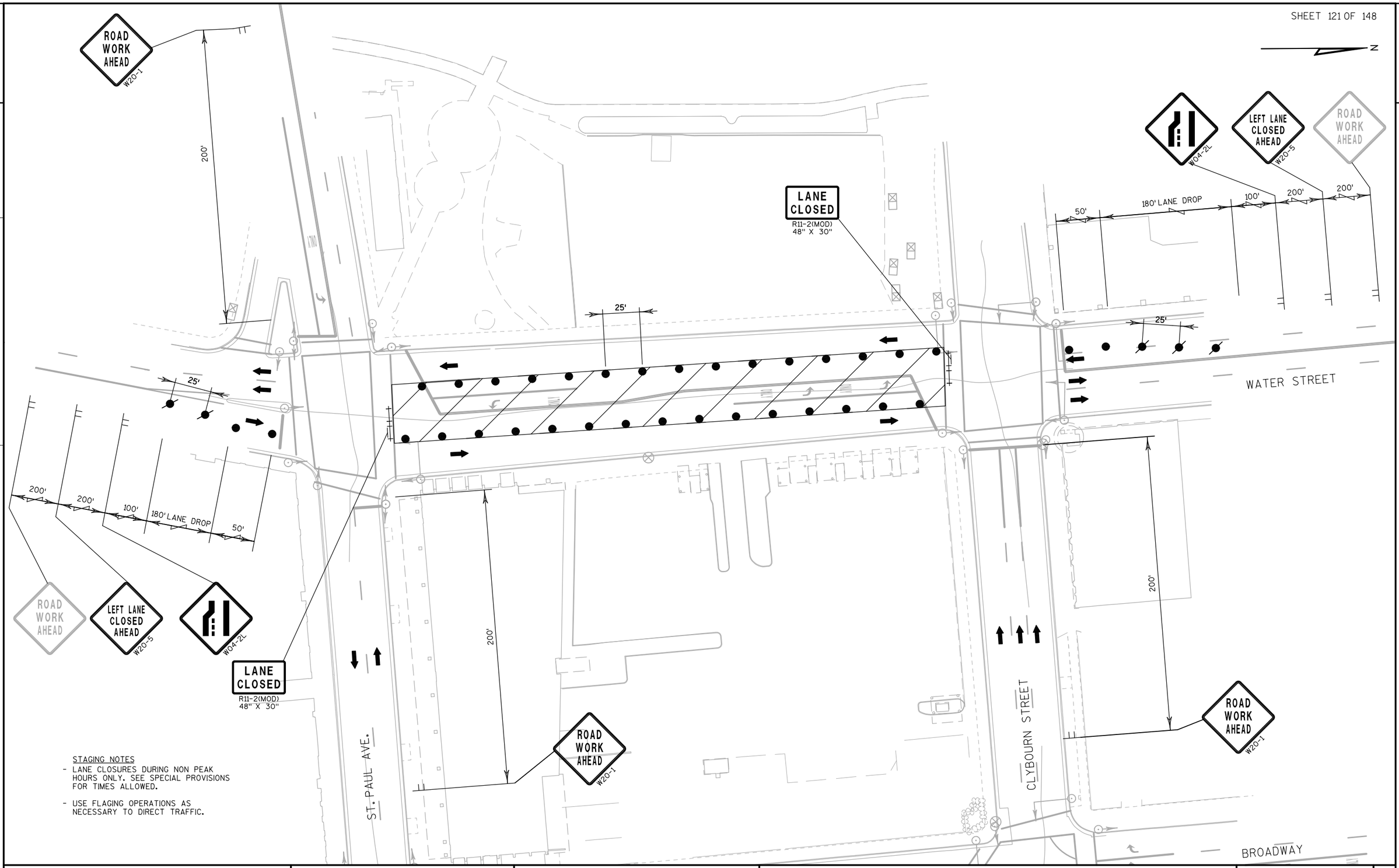
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - LOCAL STREETS	SHEET 543	E



STAGING NOTES

- LANE CLOSURES DURING NON PEAK HOURS ONLY. SEE SPECIAL PROVISIONS FOR TIMES ALLOWED.
- USE FLAGING OPERATIONS AS NECESSARY TO DIRECT TRAFFIC.

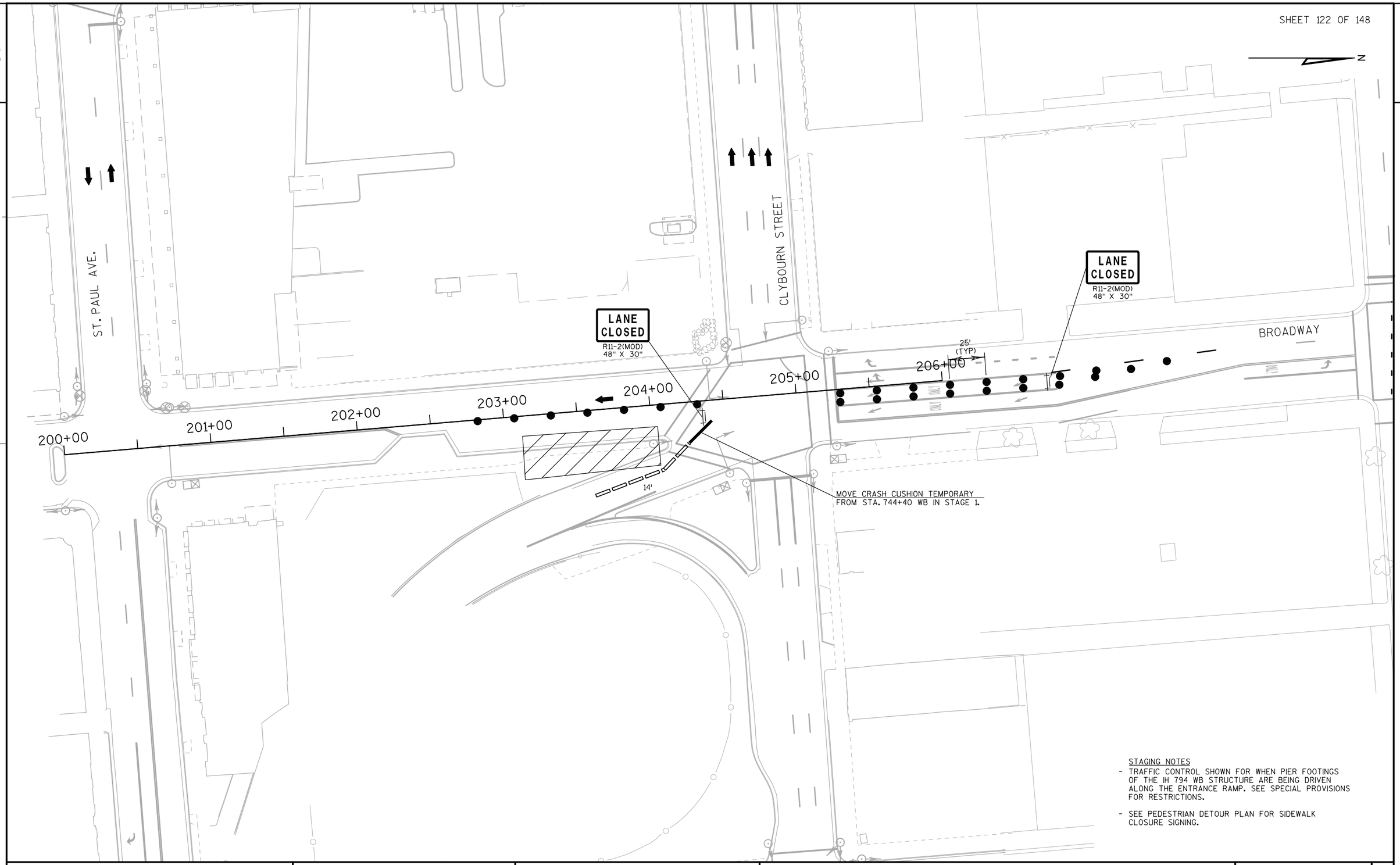
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - WATER ST. (RESURFACING PHASE 1)	SHEET 544	E



STAGING NOTES

- LANE CLOSURES DURING NON PEAK HOURS ONLY. SEE SPECIAL PROVISIONS FOR TIMES ALLOWED.
- USE FLAGING OPERATIONS AS NECESSARY TO DIRECT TRAFFIC.

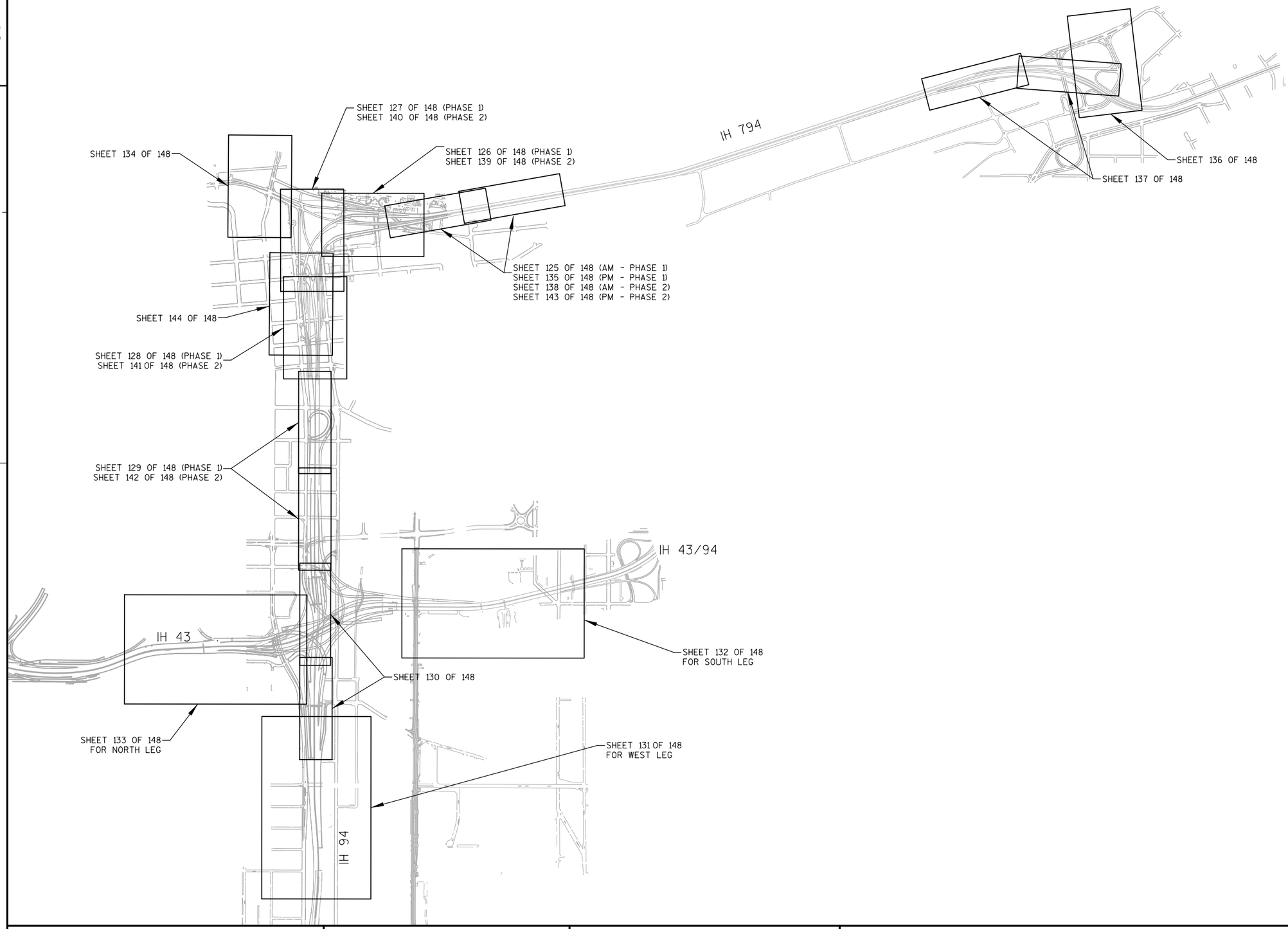
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - WATER ST. (RESURFACING PHASE 2)	SHEET 545	E



STAGING NOTES

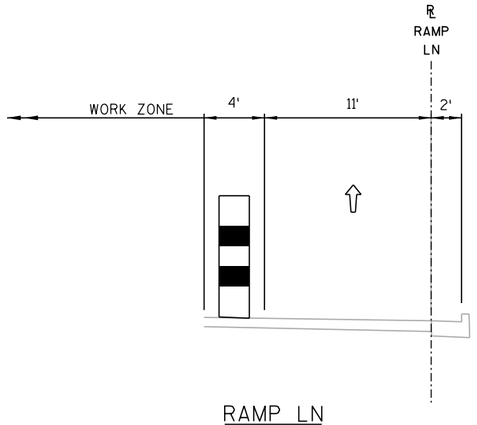
- TRAFFIC CONTROL SHOWN FOR WHEN PIER FOOTINGS OF THE IH 794 WB STRUCTURE ARE BEING DRIVEN ALONG THE ENTRANCE RAMP. SEE SPECIAL PROVISIONS FOR RESTRICTIONS.
- SEE PEDESTRIAN DETOUR PLAN FOR SIDEWALK CLOSURE SIGNING.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - BROADWAY RAMP	SHEET 546	E



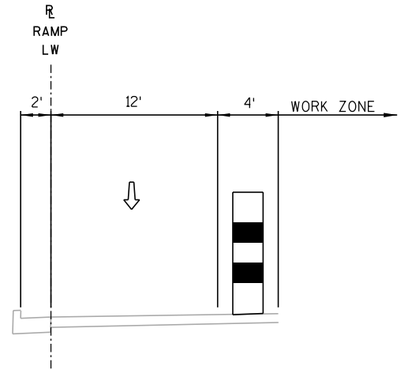
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2B OVERVIEW	SHEET 547	E

2



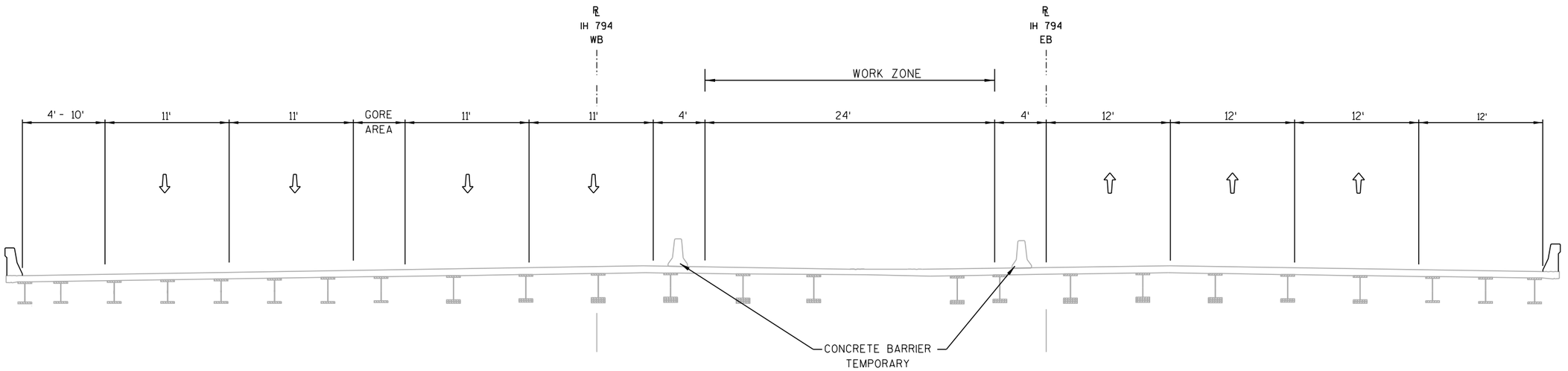
RAMP LN

STA. 177+00 LN - 183+00 LN
(LINCOLN MEMORIAL DRIVE NB OFF RAMP)
(LOOKING NORTH)



RAMP LW

STA. 356+00 LW - 359+00 LW
(LINCOLN MEMORIAL DRIVE WB ON RAMP)
(LOOKING EAST)

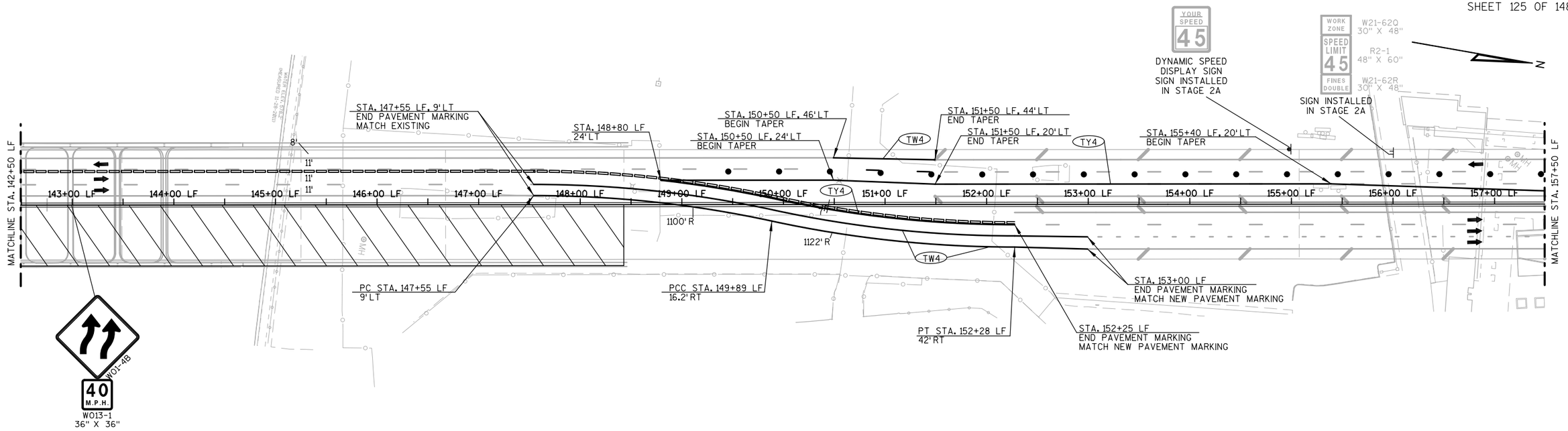


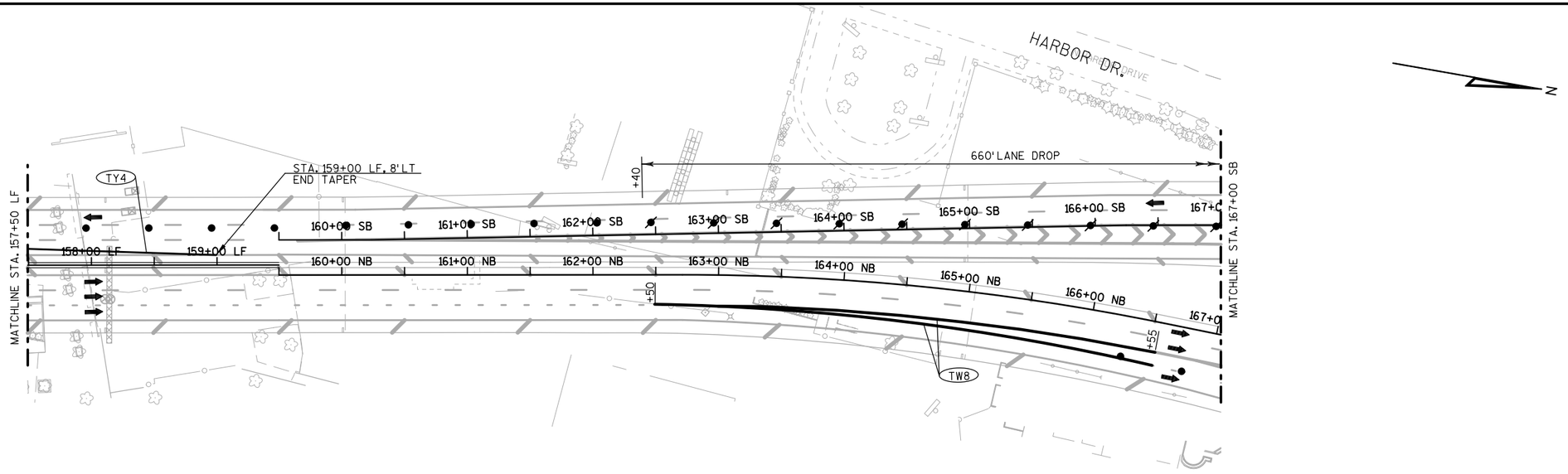
IH 794

STA. 714+00 WB - 721+00 WB
(IH 794 EB & WB)
(LOOKING EAST)

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL TYPICALS - STAGE 2B	SHEET 548	E

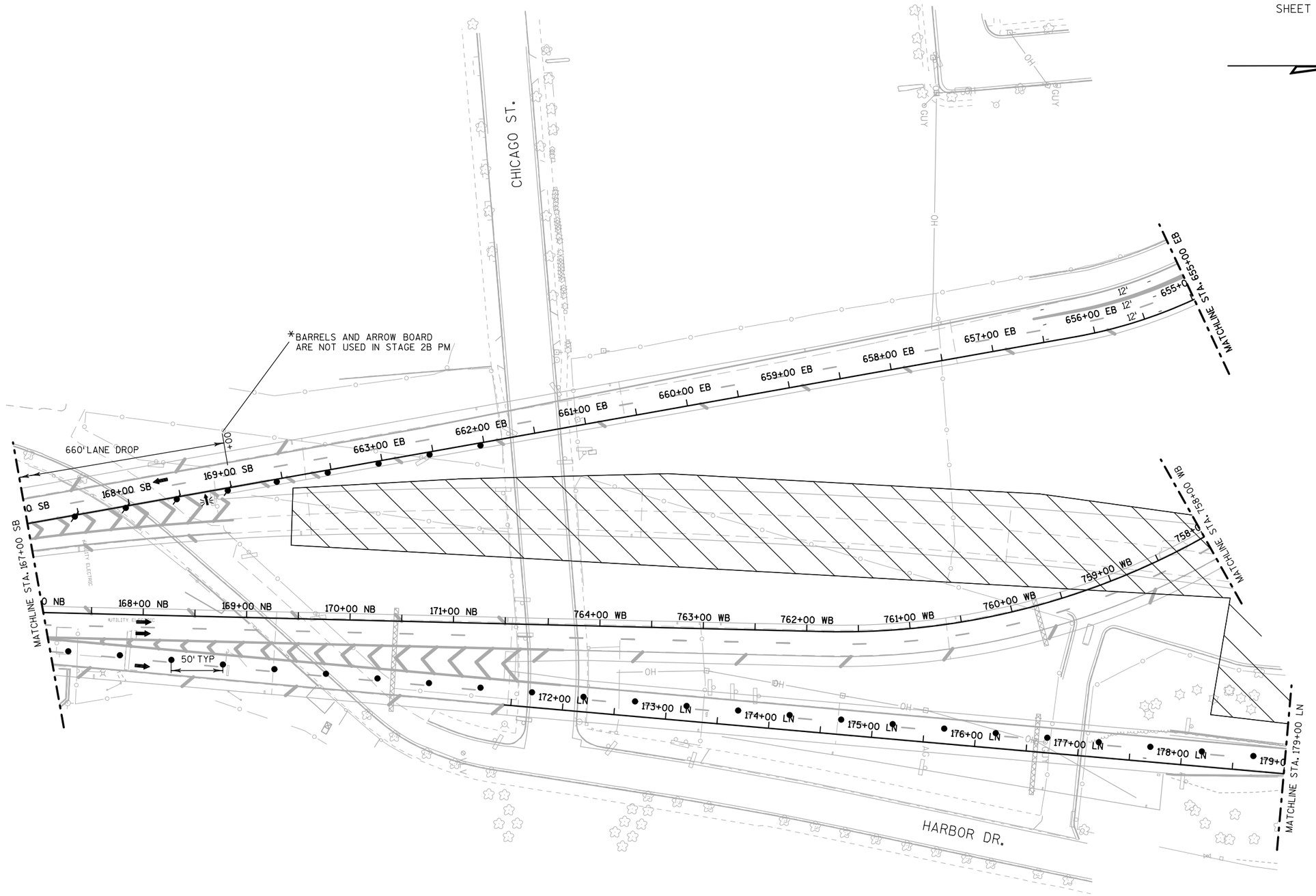
FILE NAME : 026362_s2b.dgn PLOT DATE : 4/26/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:10





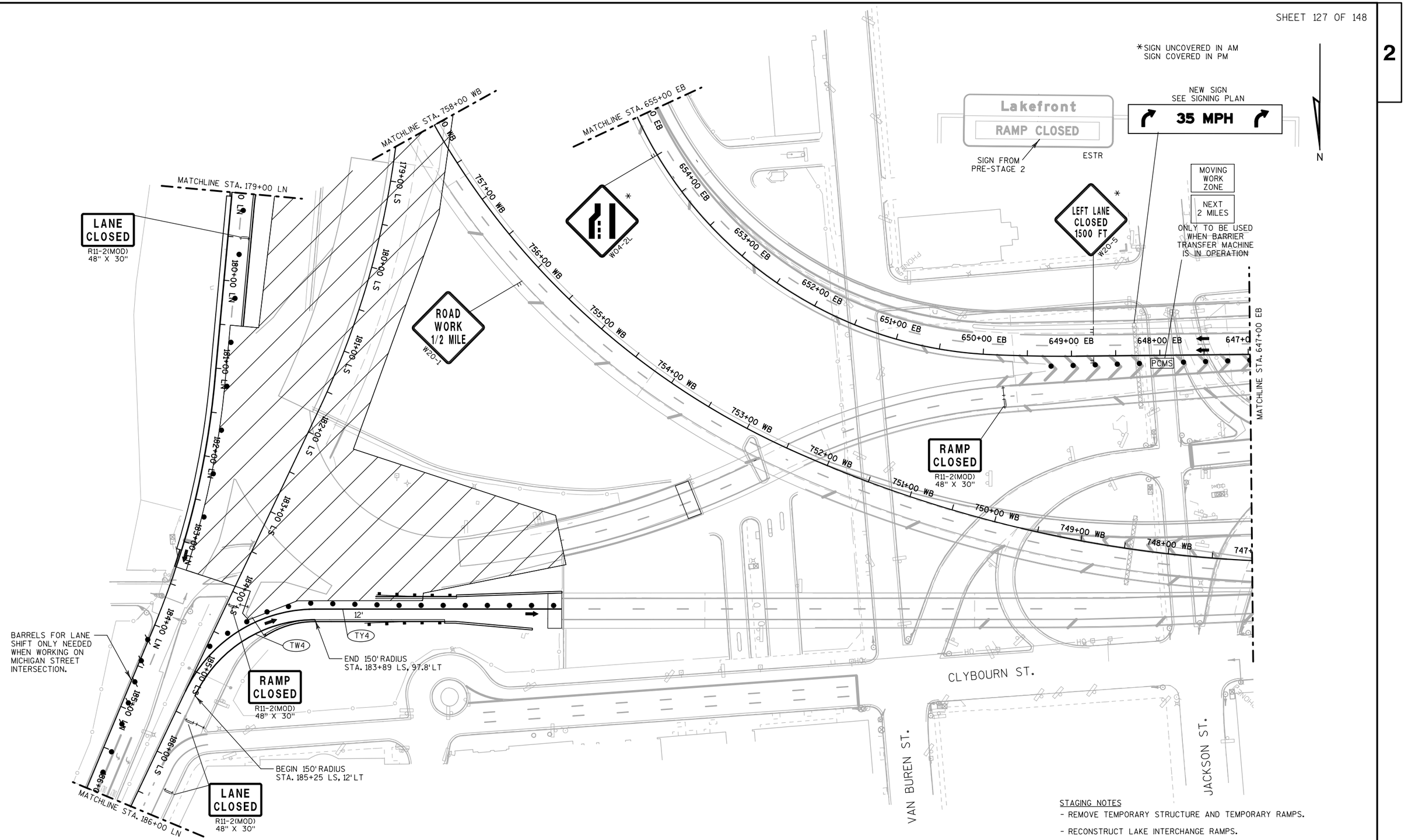
STAGING NOTES
- FINAL PAVEMENT MARKING SHOWN NORTH OF STA 151+50 LF UNLESS OTHERWISE NOTED.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B - AM (PHASE 1)	SHEET 549	E



STAGING NOTES
- FINAL PAVEMENT MARKING SHOWN

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B - AM & PM (PHASE 1)	SHEET 550	E



STAGING NOTES

- REMOVE TEMPORARY STRUCTURE AND TEMPORARY RAMPS.
- RECONSTRUCT LAKE INTERCHANGE RAMPS.
- FINAL PAVEMENT MARKING SHOWN.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B - AM & PM (PHASE 1)	SHEET 551	E

2

2

* SIGN UNCOVERED IN AM
SIGN COVERED IN PM

NEW SIGN
SEE SIGNING PLAN

EXIT 1F
Lakefront
~~RAMP CLOSED~~
ESTR

SIGN FROM
PRE-STAGE 2A

INTERSTATE 794 To 794
Port Of Milw
35 MPH

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

*
LEFT LANE CLOSED 1/2 MILE
W20-5

N

ST. PAUL AVE.

IH 794 EB

MATCHLINE STA. 647+00 EB

0 EB 646+00 EB 645+00 EB 644+00 EB 643+00 EB 642+00 EB 641+00 EB 640+00 EB 639+00 EB 638+00 EB 637+00 EB 636+00 EB 635+00 EB 634+00 EB 633+0

MATCHLINE STA. 633+00 EB

JACKSON EB EXIT RAMP

JACKSON WB ENTRANCE RAMP

00 WB 746+00 WB 745+00 WB 744+00 WB 743+00 WB 742+00 WB 741+00 WB 740+00 WB 739+00 WB 738+00 WB 737+00 WB 736+00 WB 735+00 WB 734+00 WB 733+

IH 794 WB

LEFT SHOULDER CLOSED AHEAD
W21-5B(MOD)

CLYBOURN ST.

JEFFERSON ST.

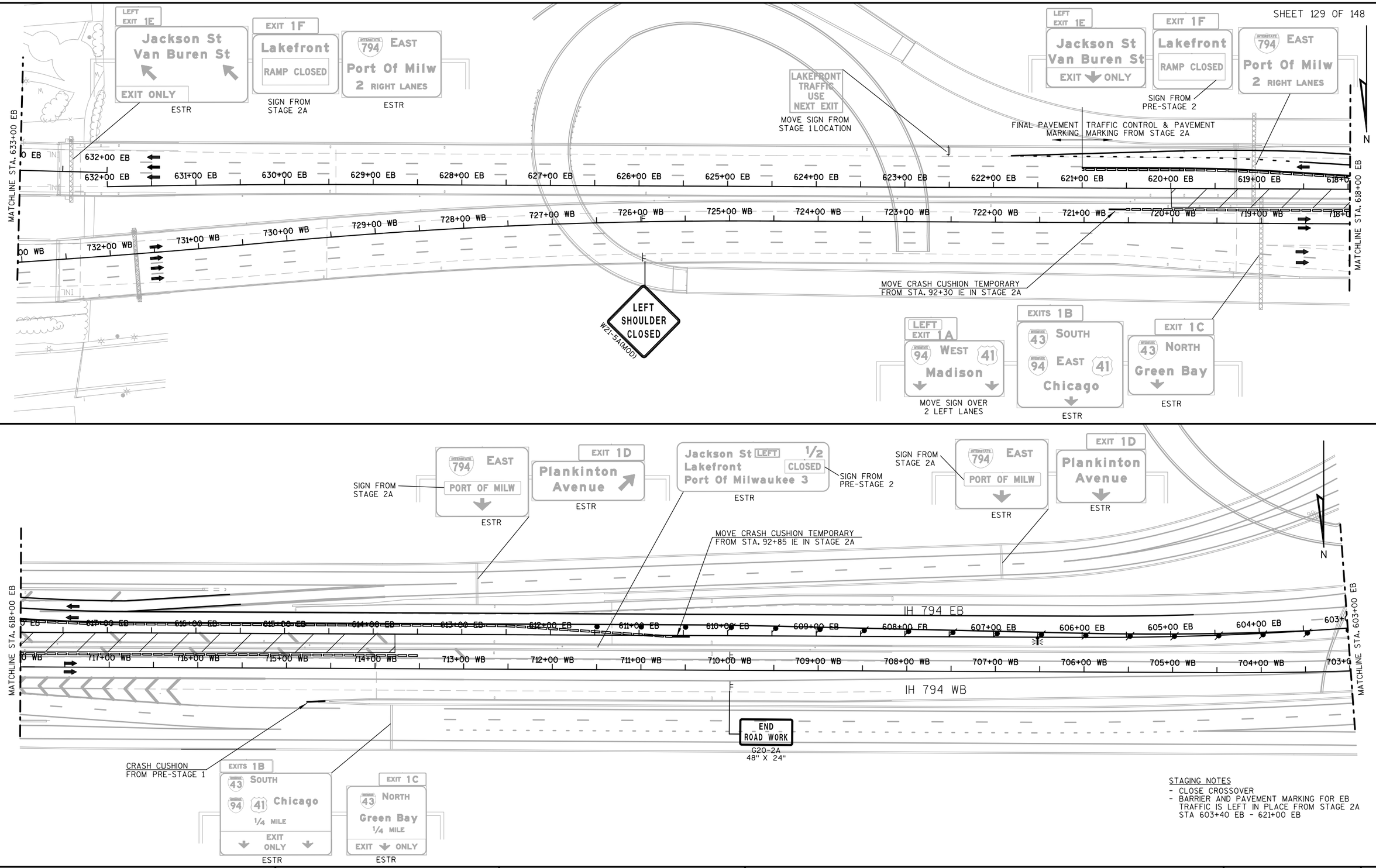
MILWAUKEE ST.

BROADWAY

WATER ST.

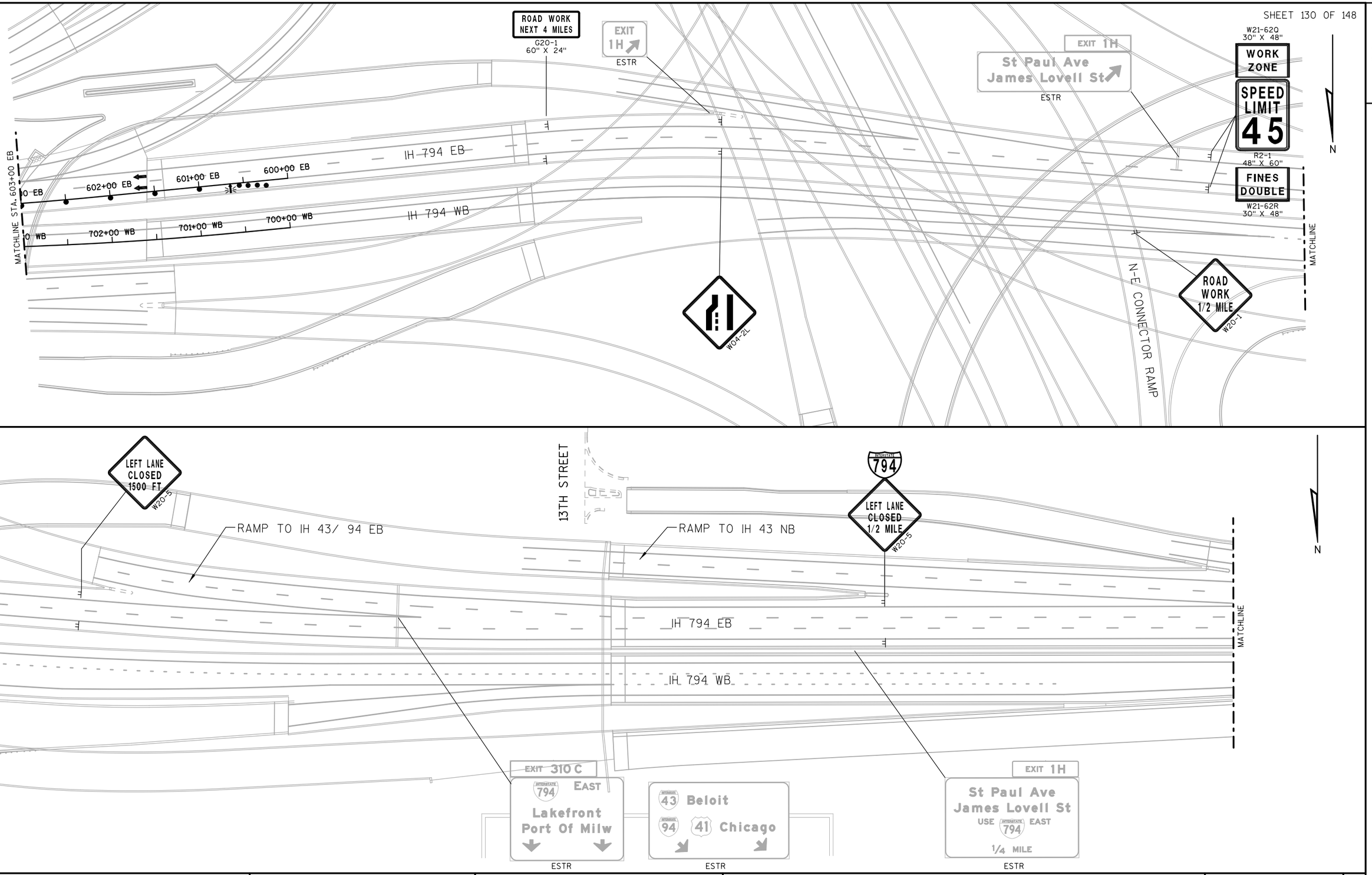
STAGING NOTES
- FINAL PAVEMENT MARKING SHOWN

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B - AM & PM (PHASE 1)	SHEET 552	E



STAGING NOTES
- CLOSE CROSSOVER
- BARRIER AND PAVEMENT MARKING FOR EB TRAFFIC IS LEFT IN PLACE FROM STAGE 2A STA 603+40 EB - 621+00 EB

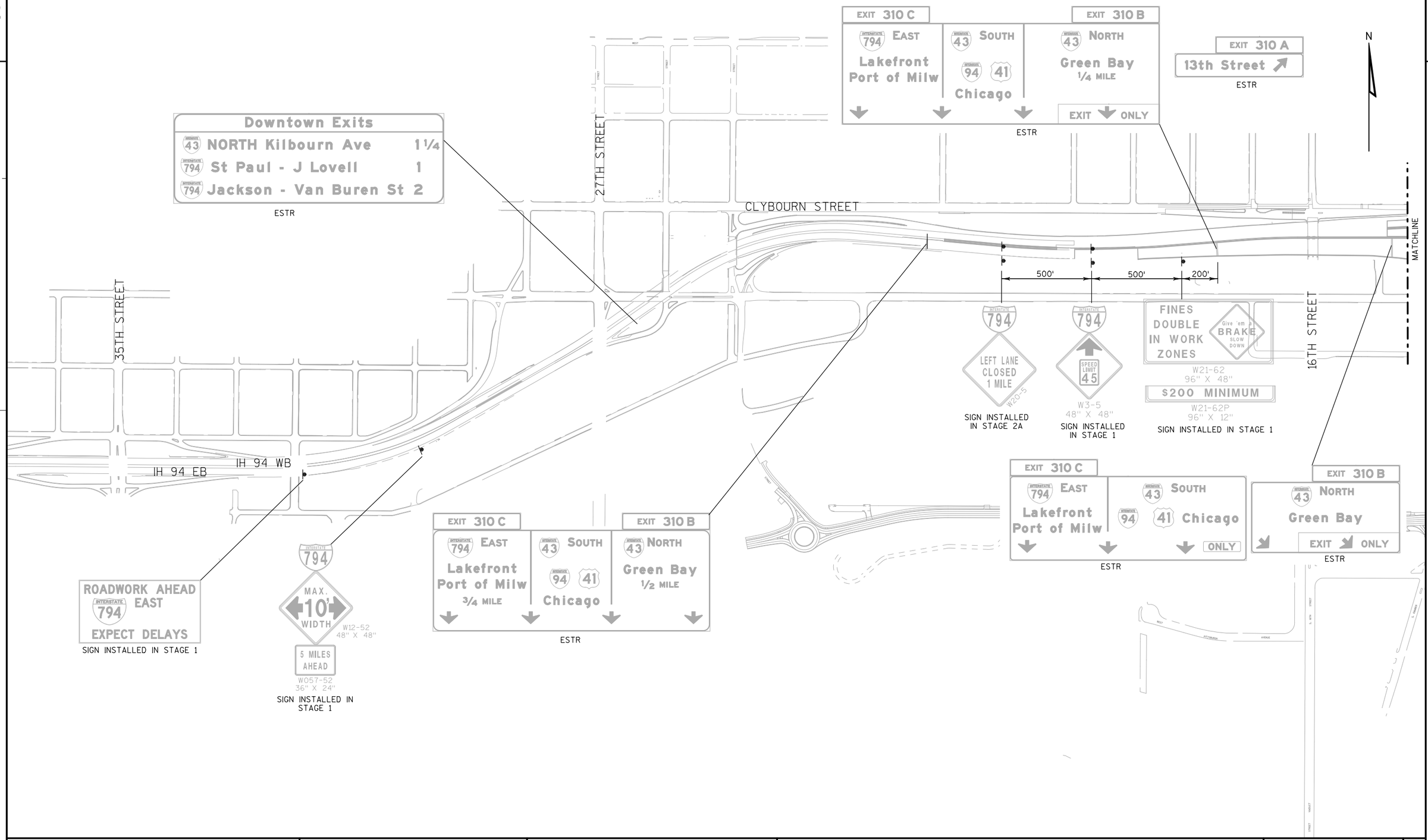
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B - AM & PM (PHASE 1)	SHEET 553	E



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B - AM & PM	SHEET 554	E

2

2



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B - AM & PM	SHEET 555	E

2

2

N

EXIT 1D
Plankinton Avenue
NEXT RIGHT
ESTR

CANAL STREET

IH 43/94 EB

IH 43/94 WB

ROAD WORK 1/2 MILE
W20-1

GREENFIELD AVENUE

6TH STREET

NATIONAL AVENUE

VIRGINIA STREET

6TH STREET

ST. PAUL AVENUE

IH 794 EB

IH 794 WB

ROADWORK AHEAD
INTERSTATE 794 EAST
EXPECT DELAYS
SIGN INSTALLED IN STAGE 1

INTERSTATE 794 EAST
Lakefront
40 MPH
ESTR

EXIT 1D
Plankinton Avenue
ESTR

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B - AM & PM	SHEET 556	E

2

2

N

IH 94 EB
IH 94 WB
IH 43 SB
IH 43 NB
FOND DU LAC AVE
WALNUT STREET
IH 794 EB
IH 794 WB
MICHIGAN STREET

ROADWORK AHEAD
INTERSTATE 794 EAST
EXPECT DELAYS
SIGN INSTALLED IN STAGE 1

INTERSTATE 794
MAX. 10' WIDTH
W12-52
48" X 48"
5 MILES AHEAD
W057-52
36" X 24"
SIGN INSTALLED IN STAGE 1

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B - AM & PM	SHEET 557	E

N

ROADWORK AHEAD
INTERSTATE 794 WEST
EXPECT DELAYS

SIGN INSTALLED IN STAGE 1

700'

ROAD WORK AHEAD
W20-1

400'

RIGHT LANE CLOSED AHEAD
W20-5

400'

W04-2R

200'

ONLY
ESTR

TO
INTERSTATE 43 INTERSTATE 94
ESTR

Clybourn St
ONLY

SIGN INSTALLED IN PRE-STAGE 2A

PROSPECT AVE.

FOOTBRIDGE

LINCOLN MEMORIAL DR.

180' LANE DROP

85' BUFFER

REMOVE EXISTING PAVEMENT MARKINGS

MICHIGAN ST.

100'

100'

100'

180' LANE DROP

85' BUFFER

ROAD WORK AHEAD
W20-1

W04-2R

RIGHT LANE CLOSED AHEAD
W20-5

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

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

#68+00 LN

#67+00 LN

CRASH INVESTIGATION SITE

SIGN INSTALLED IN STAGE 2A

CRASH INVESTIGATION SITE

SIGN INSTALLED IN STAGE 2A

125'

NO PARKING ANY TIME
R7-1R
18" X 24"

SIGN COVERED IN STAGE 2A

MATCHLINE STA. 186+00 LN

HARBOR DR.

Michigan St
WEST

NEW SIGN
SEE SIGNING PLAN

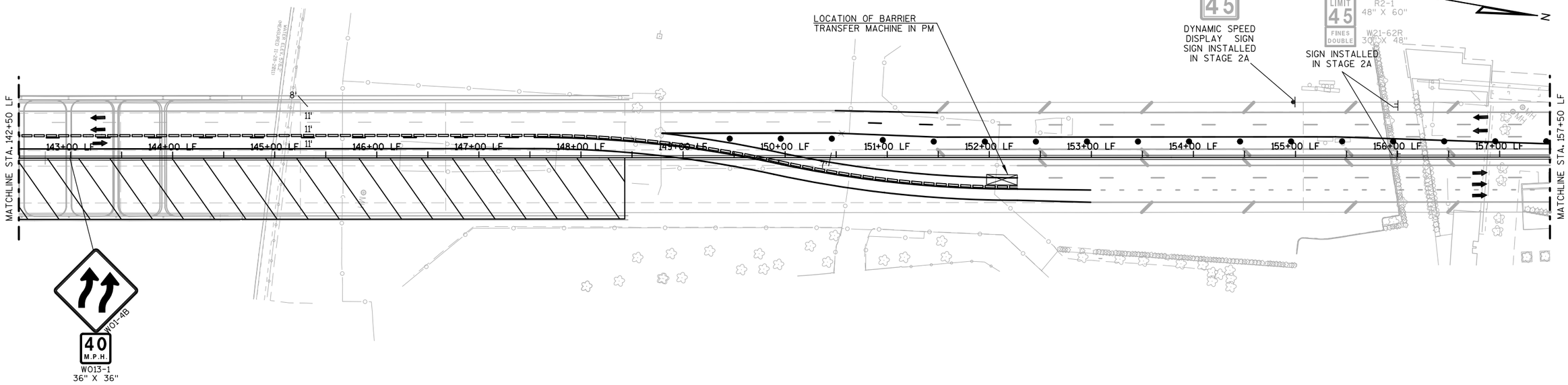
Lincoln Mem Dr

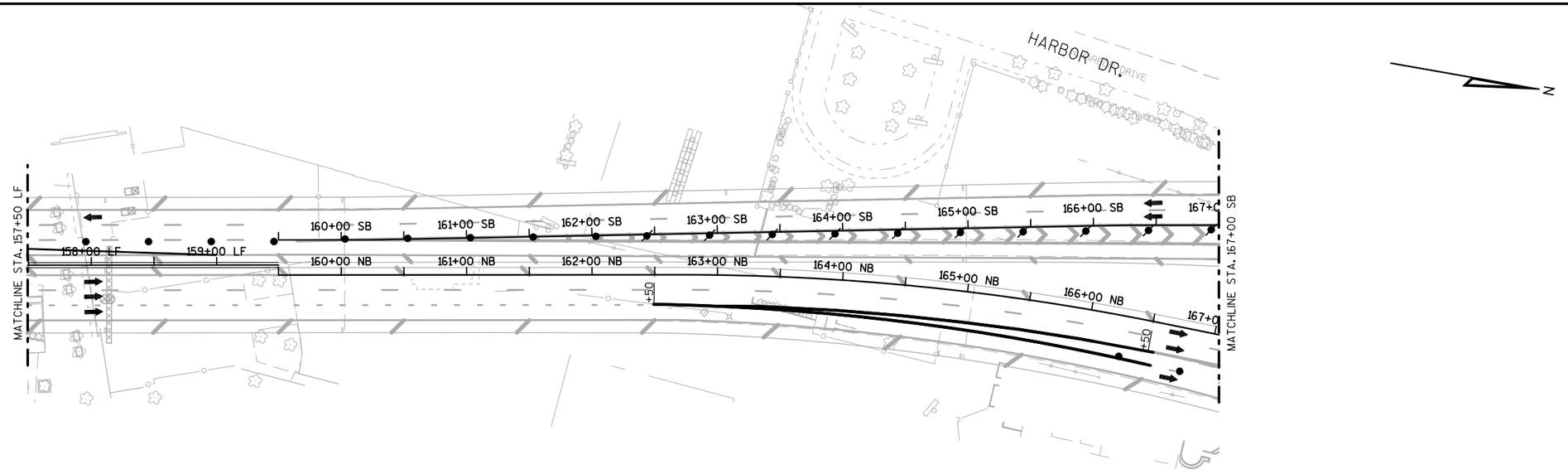
NEW SIGN
SEE SIGNING PLAN

STAGING NOTES

- CONSTRUCT CURB RAMPS AND ISLANDS.
- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION.
- CONTRACTOR SHALL MAINTAIN ACCESSIBLE PEDESTRIAN PATH AT ALL TIMES.
- TRAFFIC CONTROL SHOWN IS FOR NON PEAK HOURS. ADJUST TRAFFIC CONTROL TO KEEP ALL LANES AND RIGHT TURN LANES OPEN DURING PEAK HOURS.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B - AM & PM	SHEET 558	E





STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEET STAGE 2B-AM (PHASE 1) UNLESS OTHERWISE NOTED

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B - PM (PHASE 1)	SHEET 559	E

2

2

MATCHLINE STA. 56+00 LF

56+00 LF
55+00 LF
54+00 LF
53+00 LF
52+00 LF
51+00 LF
50+00 LF

MATCHLINE STA. 20+00 NX

20+00

DOWNTOWN
REMOVE SIGN
SEE SIGNING PLAN

WEST
794

REMOVE SIGN
SEE SIGNING PLAN

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

CARFERRY DRIVE

REMOVE SIGN
SEE SIGNING PLAN

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

W01-6
48" X 24"

25'

DOWNTOWN
REMOVE SIGN
SEE SIGNING PLAN

WEST
794

REMOVE SIGN
SEE SIGNING PLAN

LINCOLN MEMORIAL DRIVE

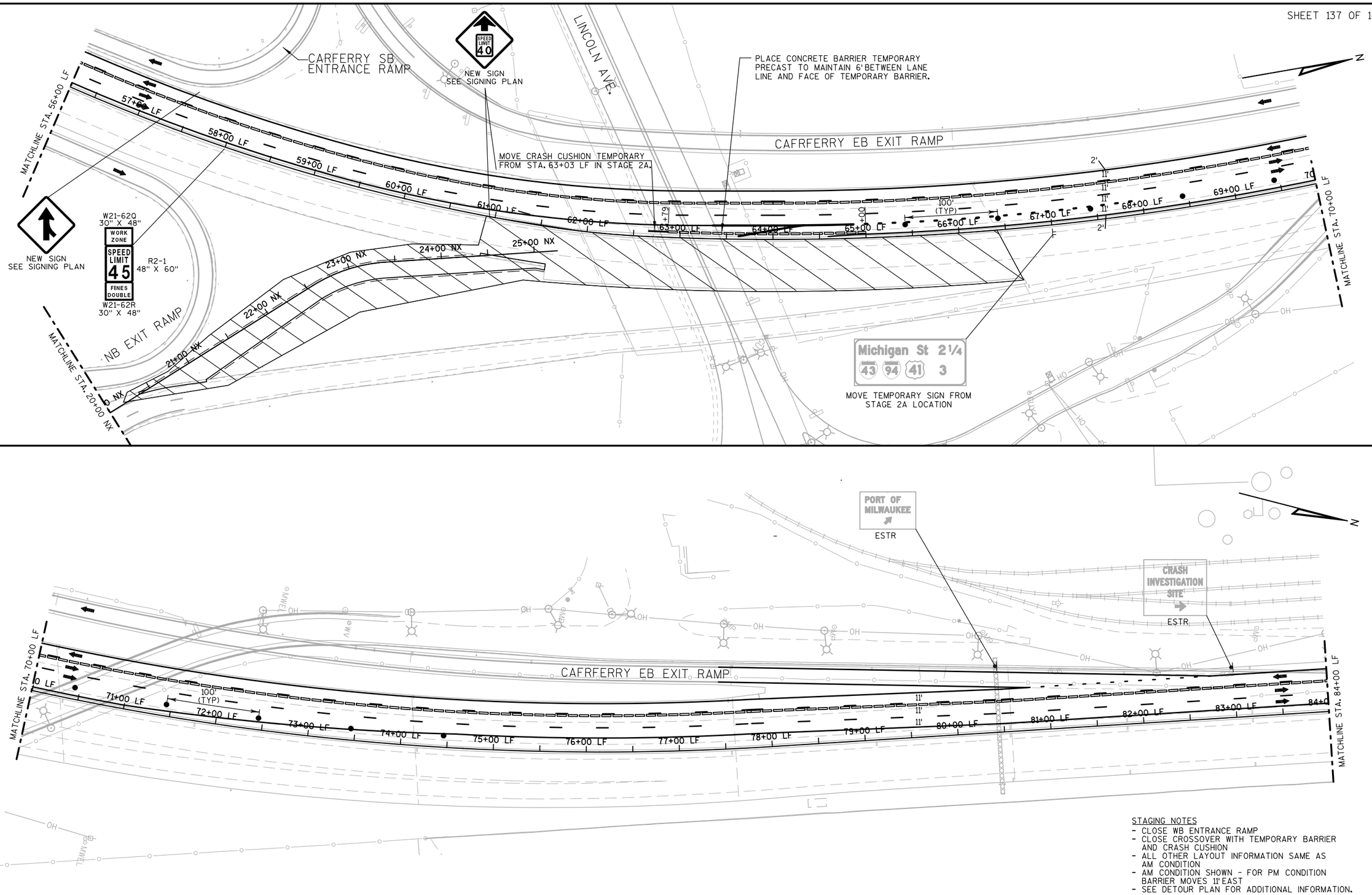
N

SIGN

TOWER

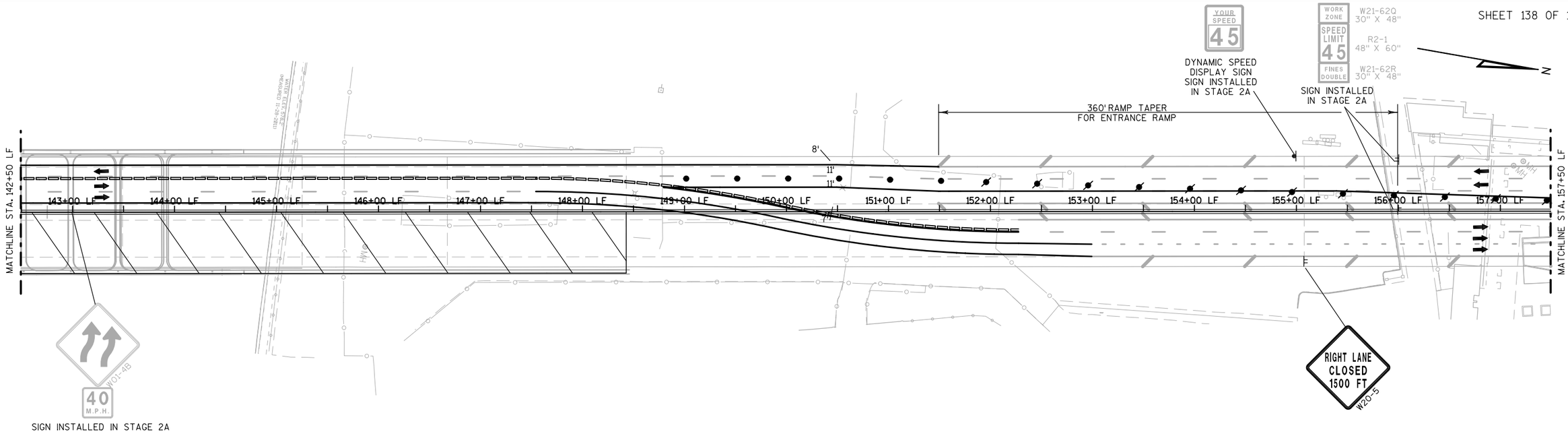
STAGING NOTES
- SEE DETOUR PLANS FOR ADDITIONAL INFORMATION.

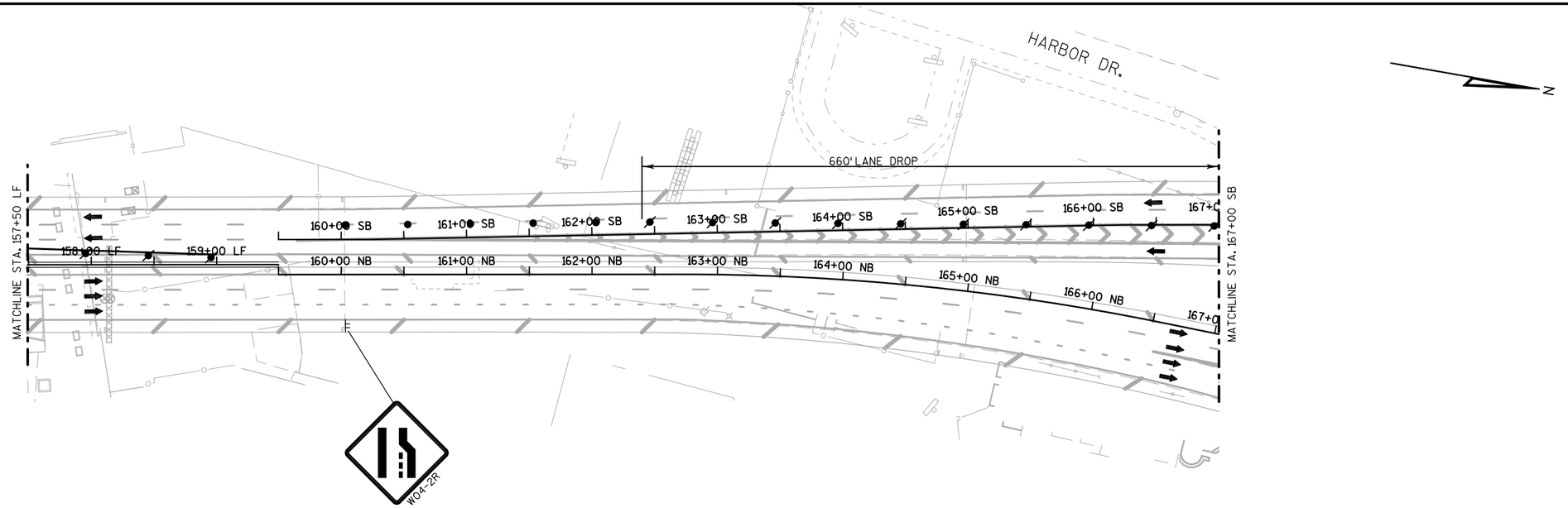
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B (PHASE 2 - WB RAMP CLOSED)	SHEET 560	E



STAGING NOTES
- CLOSE WB ENTRANCE RAMP
- CLOSE CROSSOVER WITH TEMPORARY BARRIER AND CRASH CUSHION
- ALL OTHER LAYOUT INFORMATION SAME AS AM CONDITION
- AM CONDITION SHOWN - FOR PM CONDITION BARRIER MOVES 11' EAST
- SEE DETOUR PLAN FOR ADDITIONAL INFORMATION.

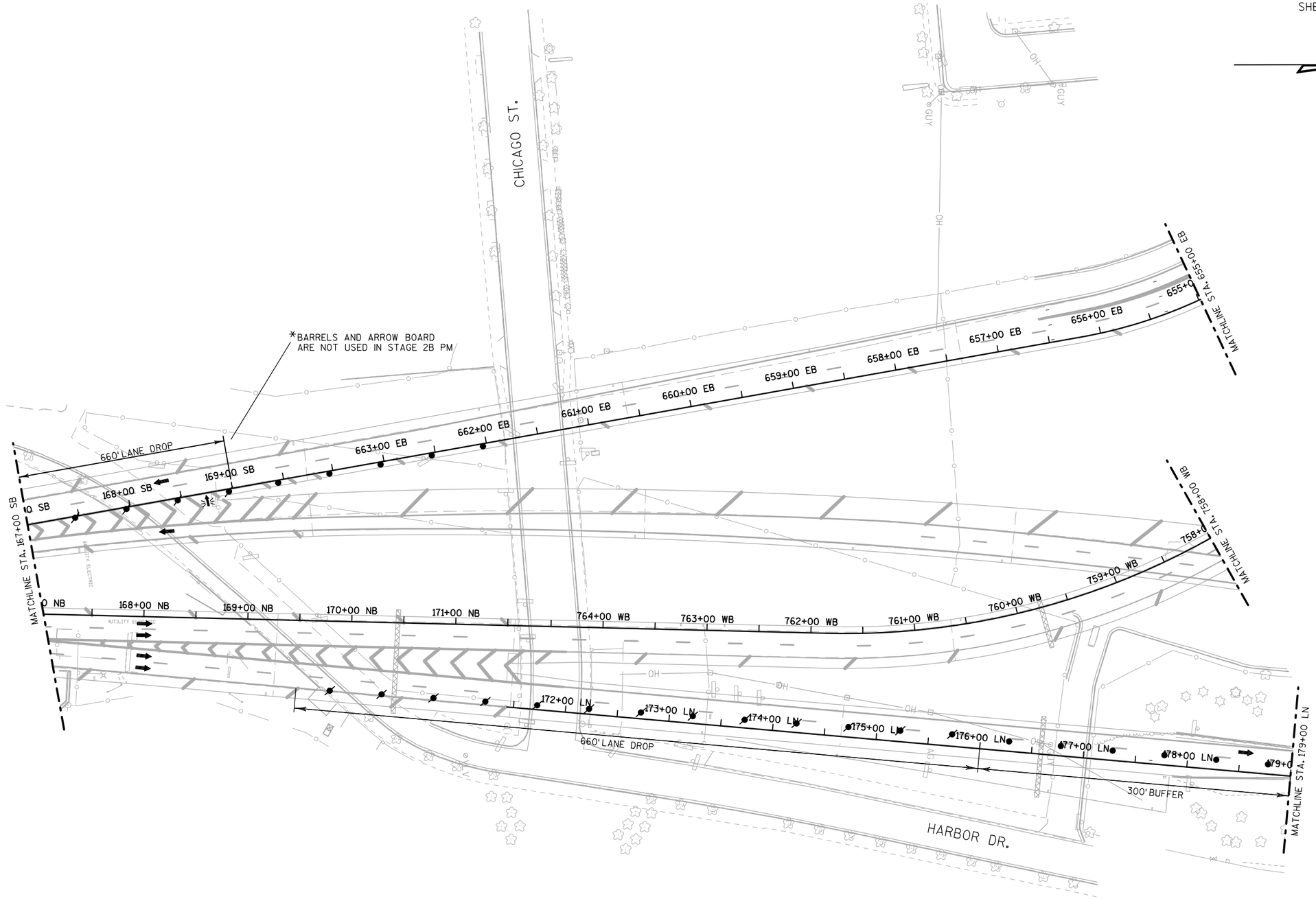
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B (PHASE 2 - WB RAMP CLOSED)	SHEET 561	E



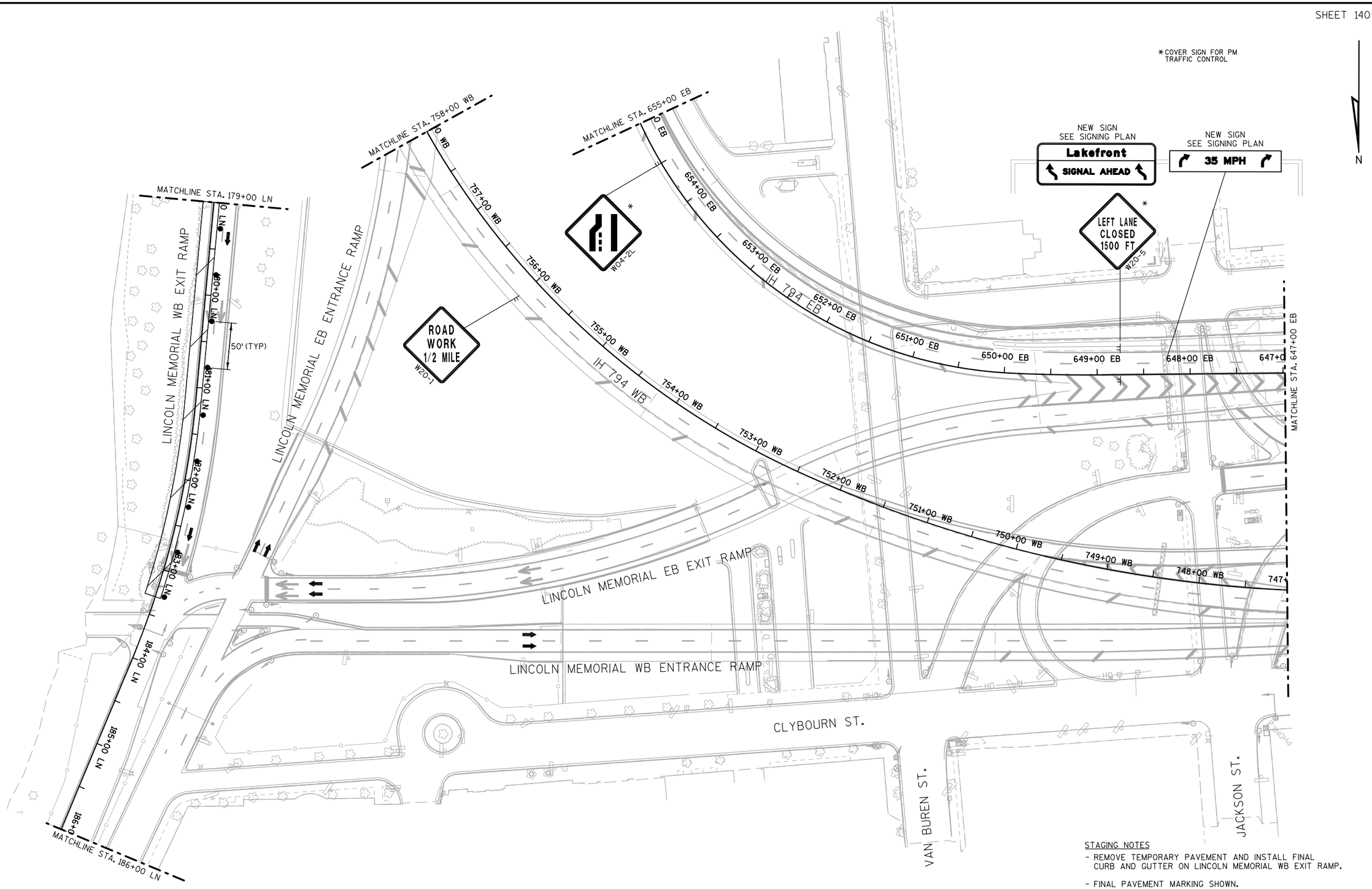


STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEET STAGE 2B-AM (PHASE 1) UNLESS OTHERWISE NOTED

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B AM - (PHASE 2 LMD RAMPS OPEN)	SHEET 562	E



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL-STAGE 2B-AM & PM (PHASE 2 LMD RAMPS OPEN)	SHEET 563	E



STAGING NOTES

- REMOVE TEMPORARY PAVEMENT AND INSTALL FINAL CURB AND GUTTER ON LINCOLN MEMORIAL WB EXIT RAMP.
- FINAL PAVEMENT MARKING SHOWN.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL-STAGE 2B-AM & PM (PHASE 2 LMD RAMPS OPEN)	SHEET 564	E

2

2

*SIGN UNCOVERED IN AM
SIGN COVERED IN PM

N

EXIT 1F
Lakefront
NEW SIGN
SEE SIGNING PLAN

794 To 794
Port Of Milw
35 MPH
NEW SIGN
SEE SIGNING PLAN

LEFT LANE CLOSED 1/2 MILE
W20-5

ST. PAUL AVE.

IH 794 EB

MATCHLINE STA. 647+00 EB

646+00 EB
645+00 EB
644+00 EB
643+00 EB
642+00 EB
641+00 EB
640+00 EB
639+00 EB
638+00 EB
637+00 EB
636+00 EB
635+00 EB
634+00 EB
633+00 EB

MATCHLINE STA. 633+00 EB

JACKSON EB EXIT RAMP

JACKSON WB ENTRANCE RAMP

746+00 WB
745+00 WB
744+00 WB
743+00 WB
742+00 WB
741+00 WB
740+00 WB
739+00 WB
738+00 WB
737+00 WB
736+00 WB
735+00 WB
734+00 WB
733+00 WB

IH 794 WB

RIGHT SHOULDER CLOSED AHEAD
W21-5B

CLYBOURN ST.

JEFFERSON ST.

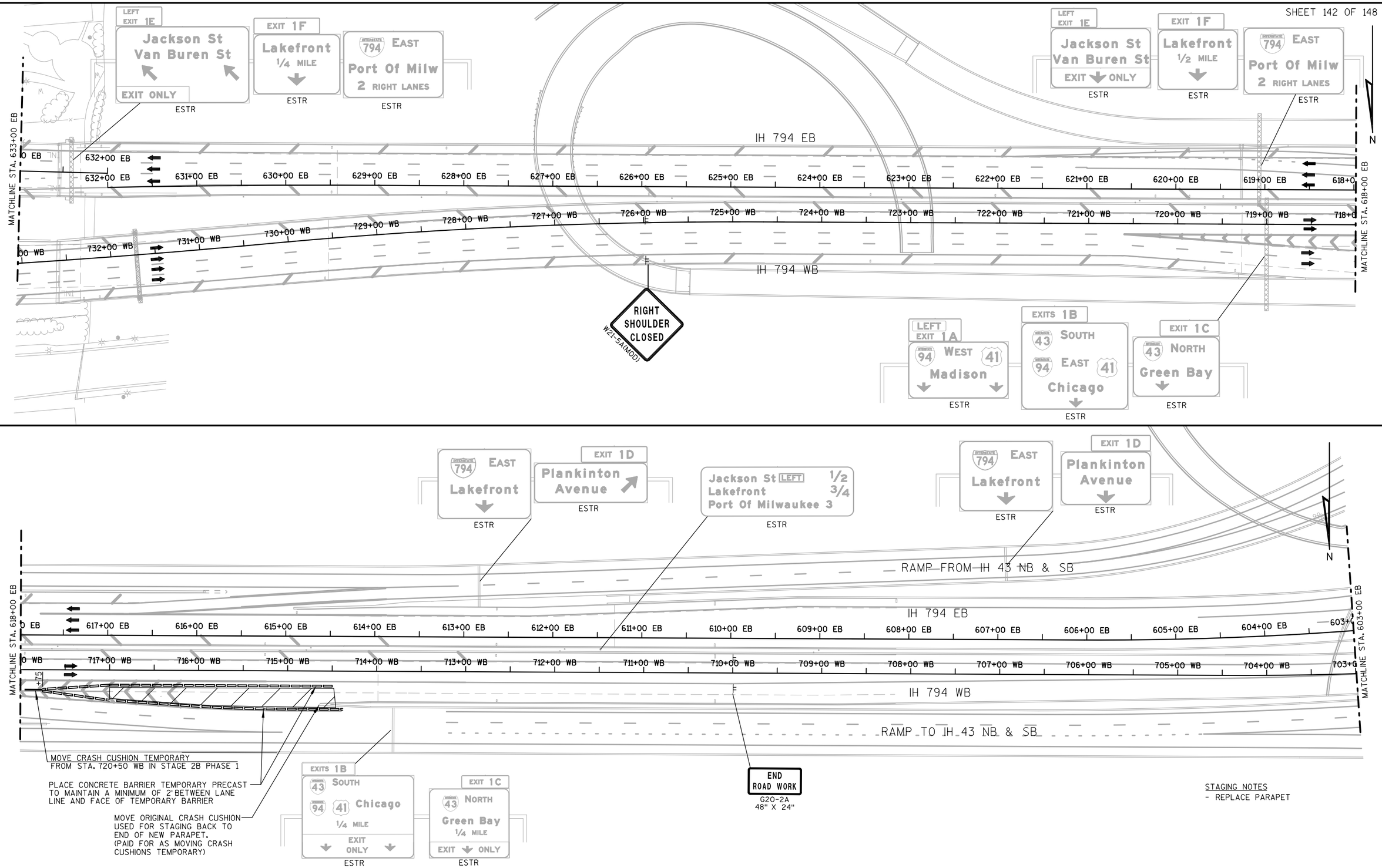
MILWAUKEE ST.

BROADWAY

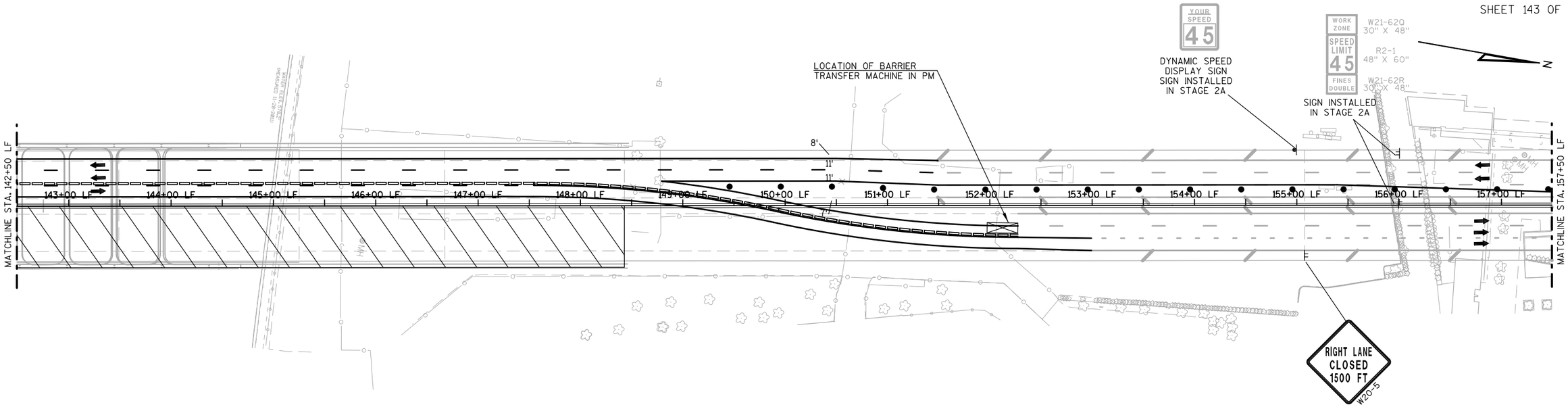
WATER ST.

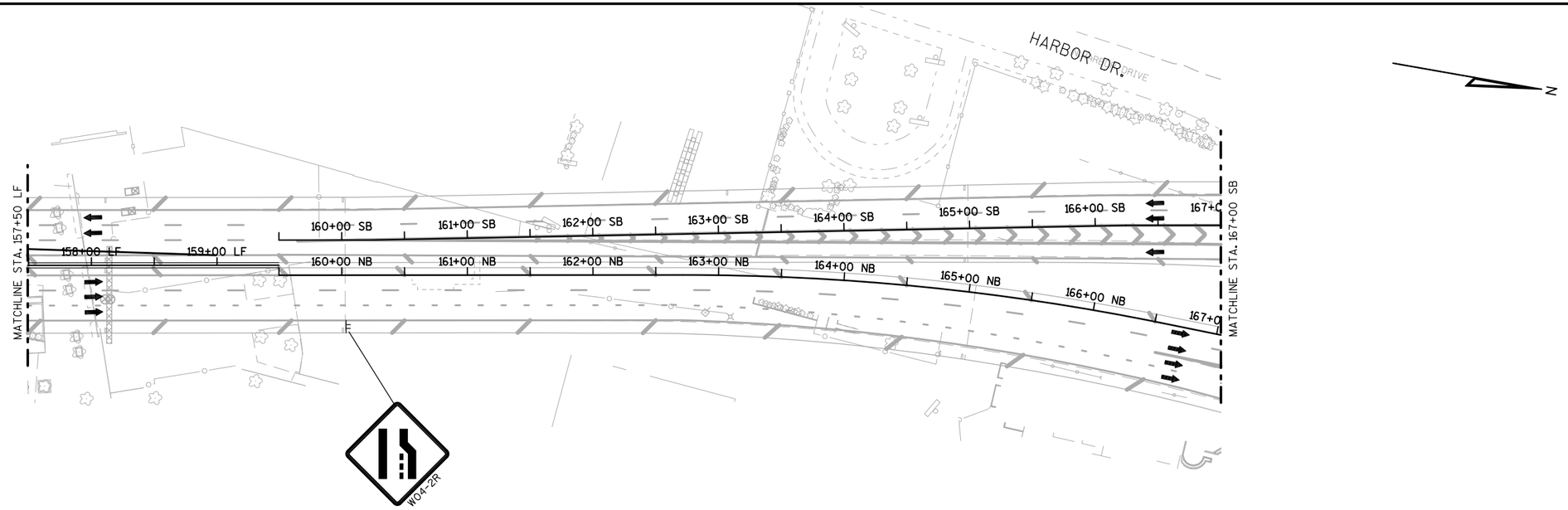
STAGING NOTES
- FINAL PAVEMENT MARKING SHOWN

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B - AM & PM (PHASE 2)	SHEET 565	E



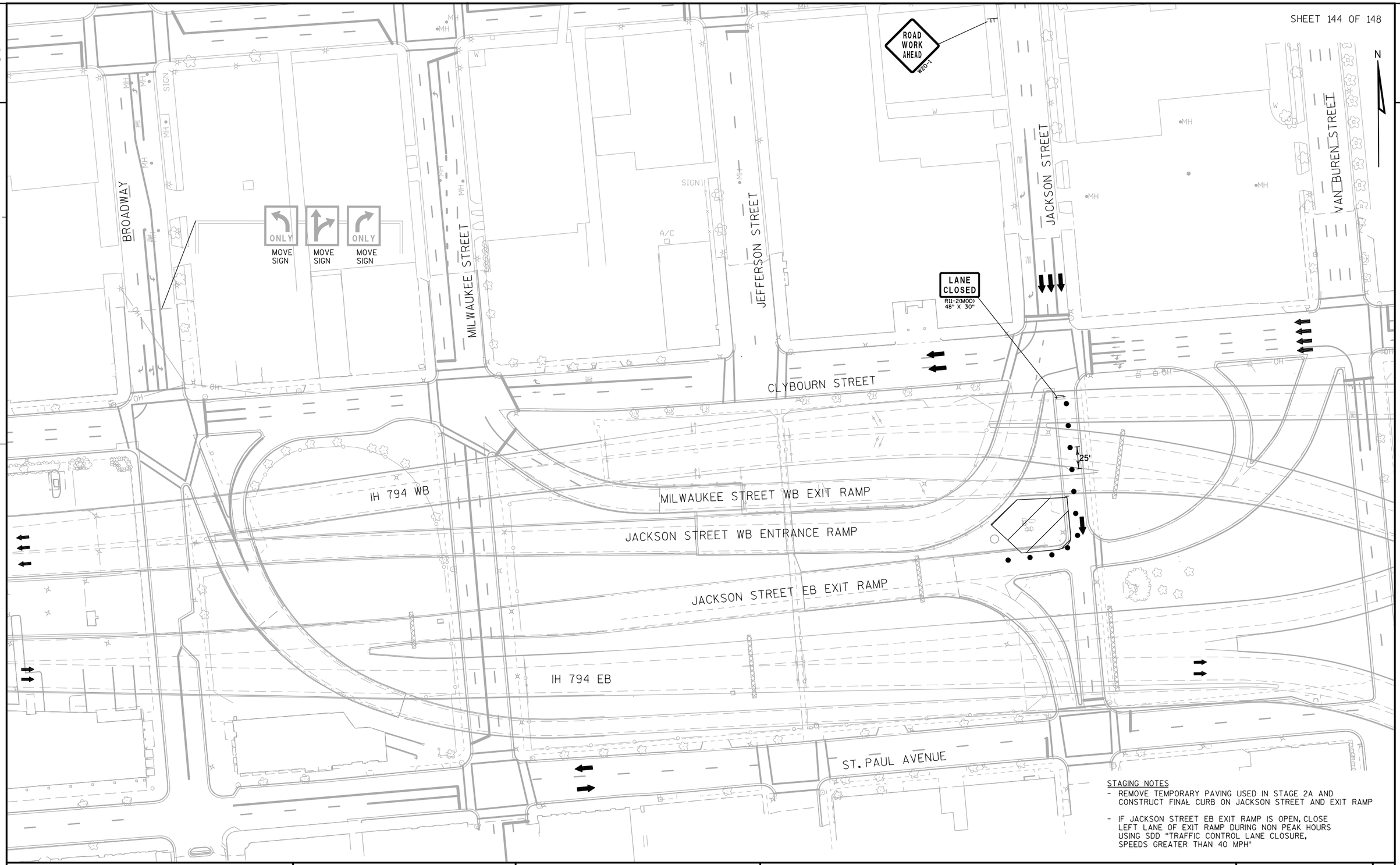
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B - AM & PM (PHASE 2)	SHEET 566	E





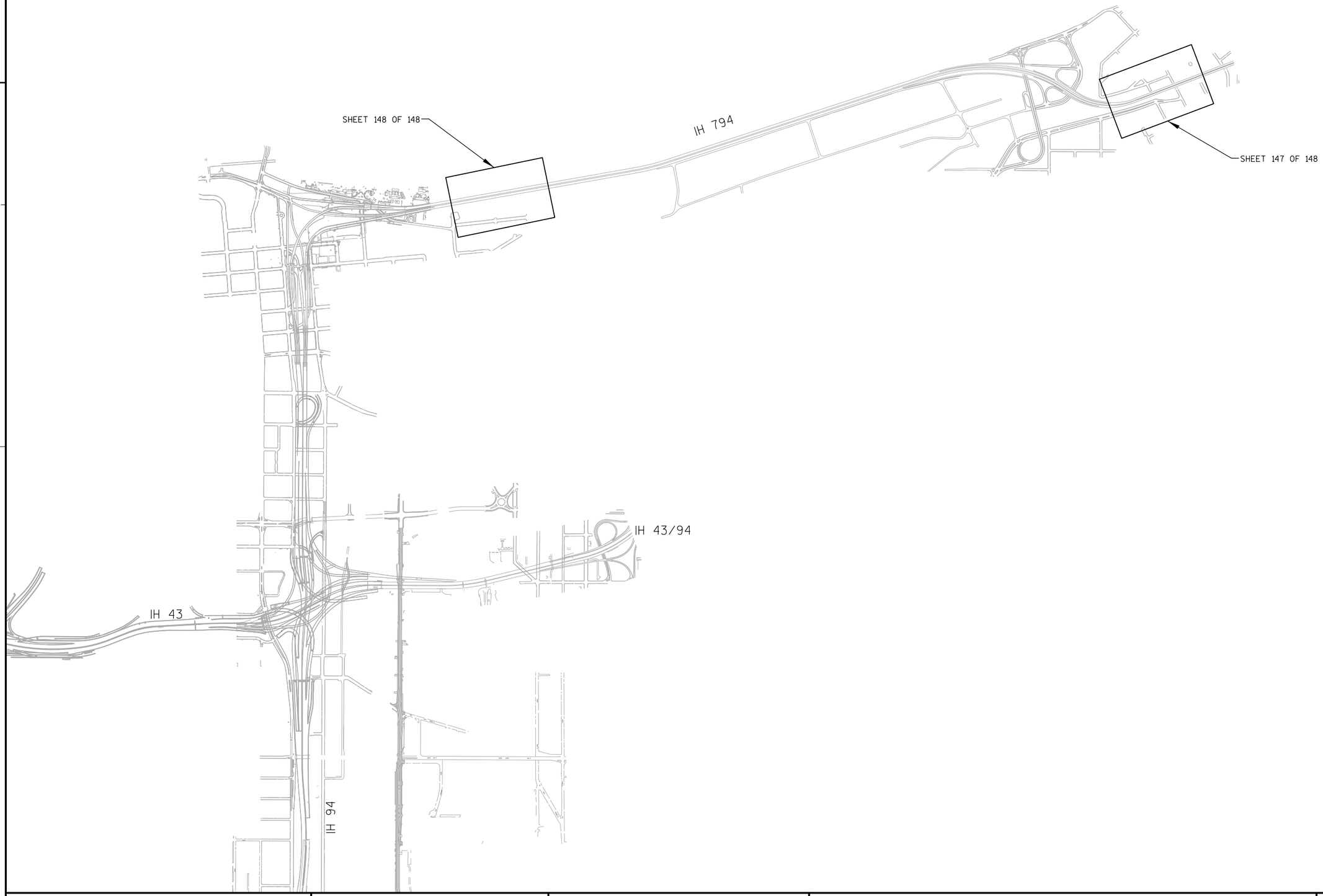
STAGING NOTES
- LAYOUT AND PAVEMENT MARKING INFORMATION IS THE SAME AS SHEET STAGE 2B-AM (PHASE 1) UNLESS OTHERWISE NOTED

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B PM - (PHASE 2 LMD RAMPS OPEN)	SHEET 567	E



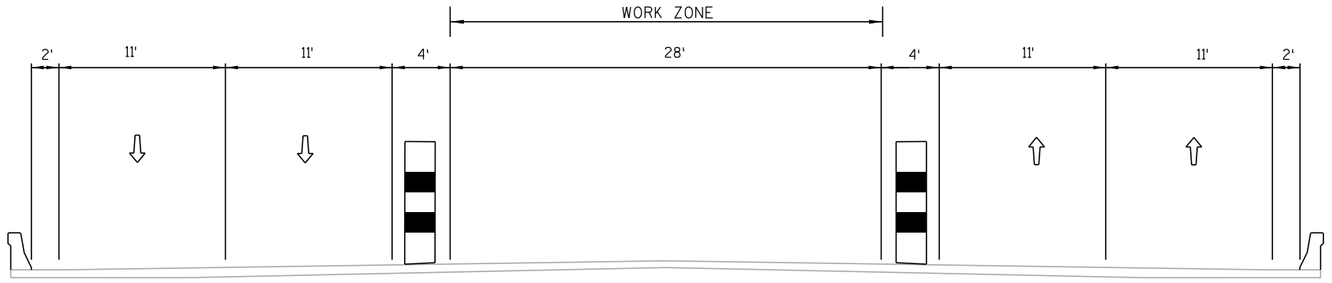
STAGING NOTES
- REMOVE TEMPORARY PAVING USED IN STAGE 2A AND CONSTRUCT FINAL CURB ON JACKSON STREET AND EXIT RAMP
- IF JACKSON STREET EB EXIT RAMP IS OPEN, CLOSE LEFT LANE OF EXIT RAMP DURING NON PEAK HOURS USING SDD "TRAFFIC CONTROL LANE CLOSURE, SPEEDS GREATER THAN 40 MPH"

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B - JACKSON STREET	SHEET 568	E



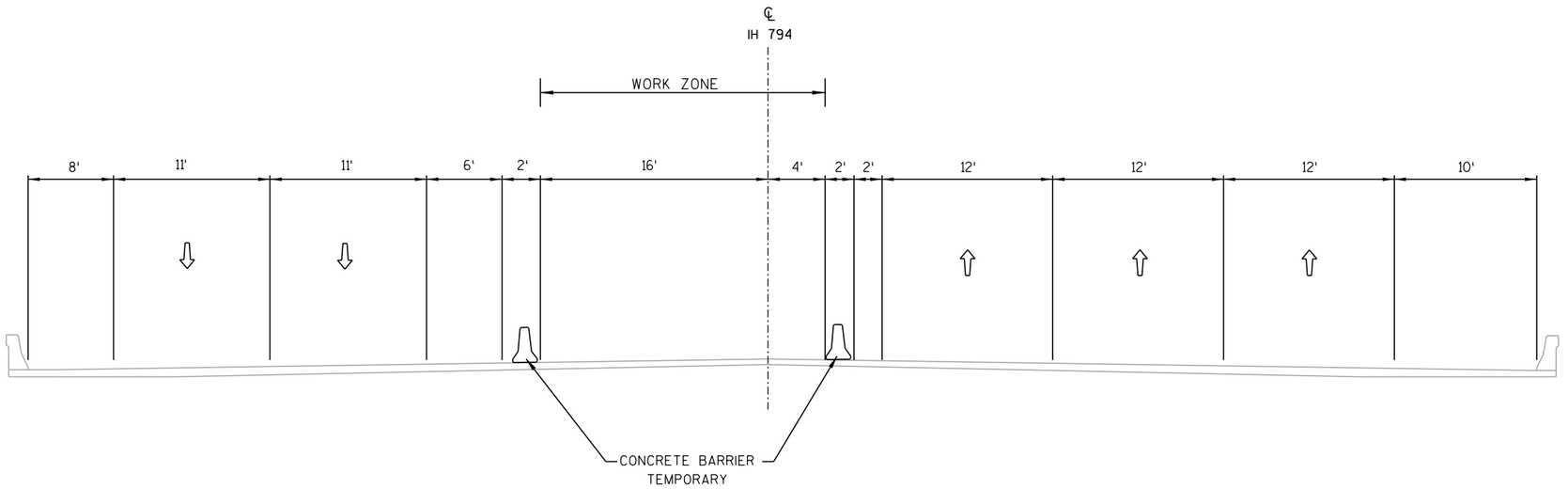
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2C OVERVIEW	SHEET 569	E

2



STH 794

STA. 38+00 LF - 42+00 LF
(STH 794 NB & SB)
(LOOKING NORTH)

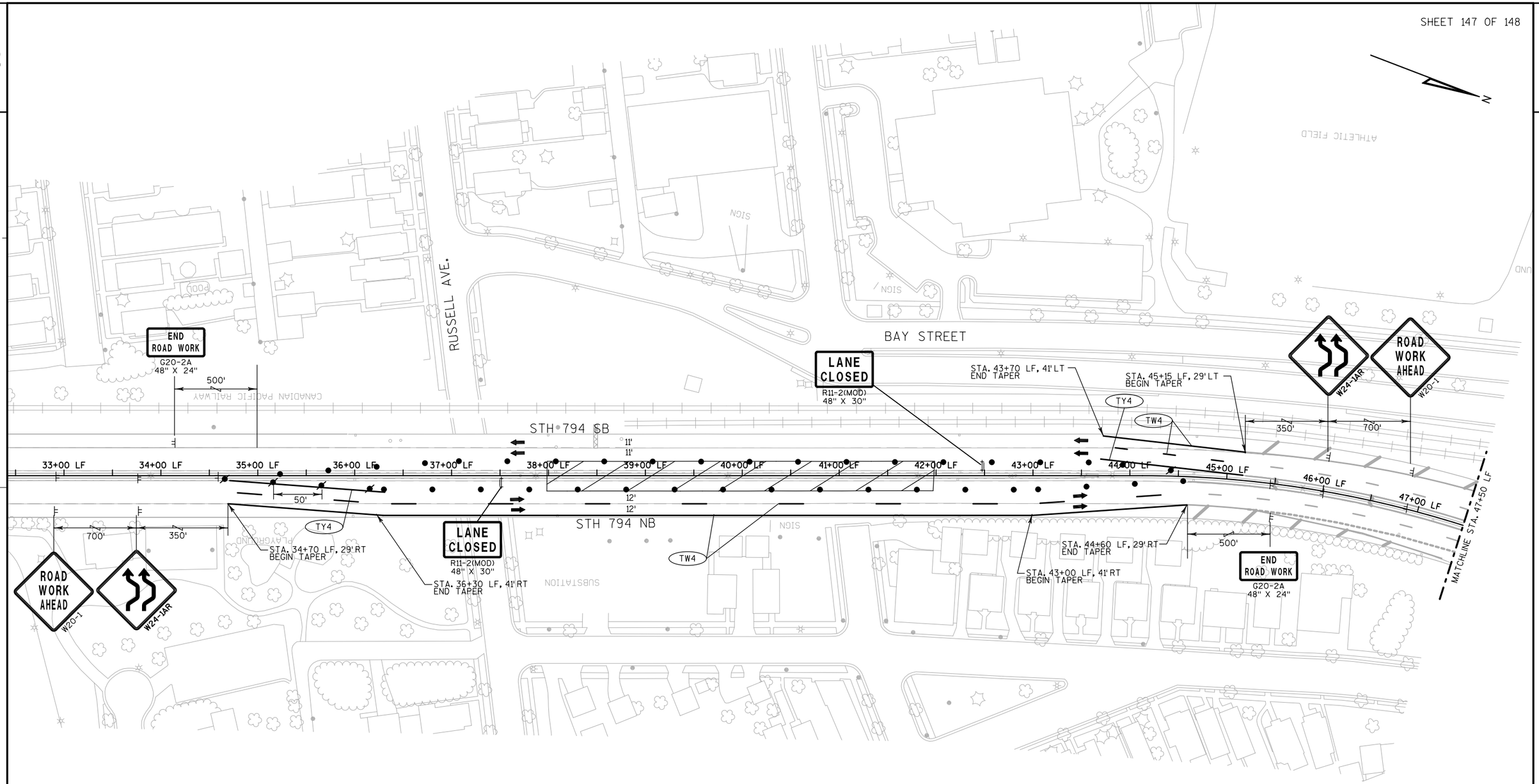


IH 794

STA. 147+50 LF - 152+50 LF
(LOOKING NORTH)

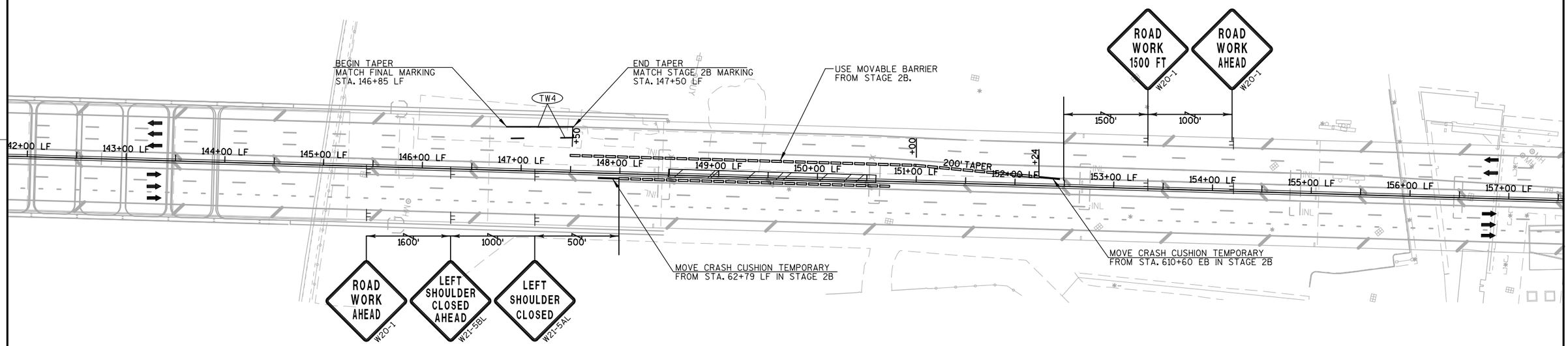
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL TYPICALS - STAGE 2C	SHEET 570	E

FILE NAME : 026389_s2c.dgn PLOT DATE : 4/26/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:10



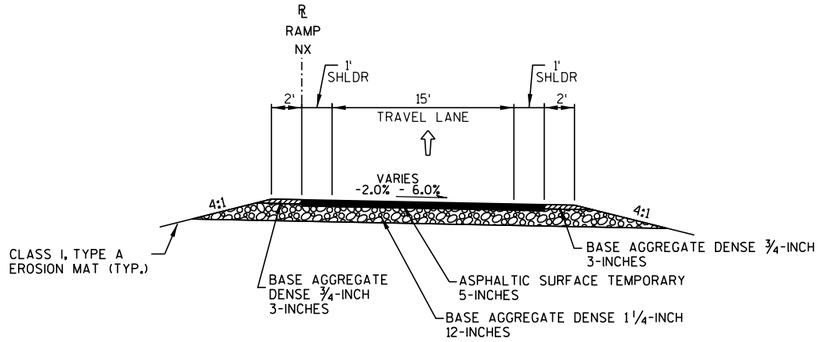
STAGING NOTES
- CLOSE CROSSOVER

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C	SHEET 571	E



STAGING NOTES
- CLOSE CROSSOVER
- FINAL PAVEMENT MARKINGS SHOWN UNLESS OTHERWISE NOTED

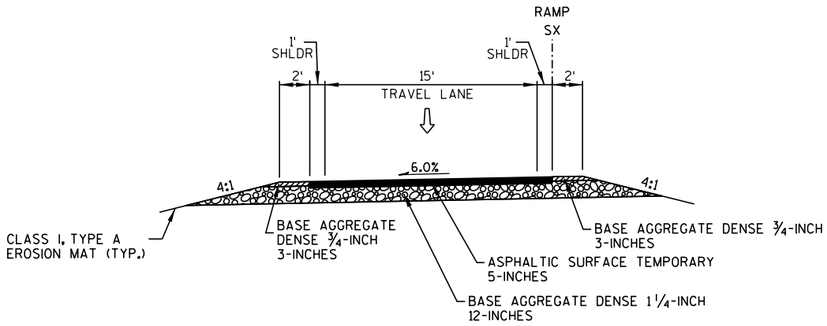
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C	SHEET 572	E



TYPICAL FINISHED SECTION TEMPORARY RAMP NX

STA. 20+38.00 NX TO STA. 25+11.00 NX
(LOOKING NORTH)

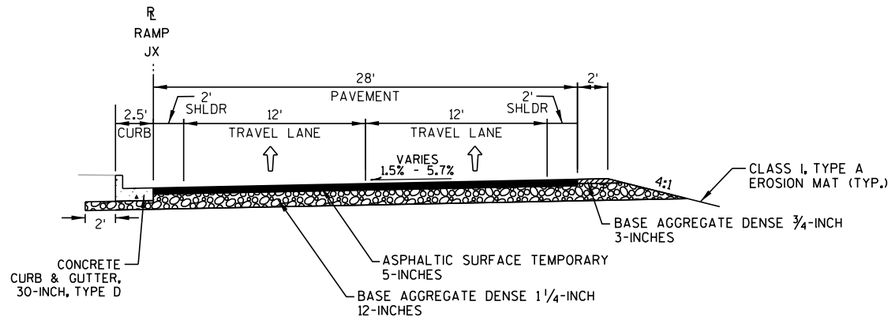
CARFERRY DRIVE NB ENTRANCE



TYPICAL FINISHED SECTION TEMPORARY RAMP SX

STA. 31+42.00 SX TO STA. 33+90.00 SX
(LOOKING NORTH)

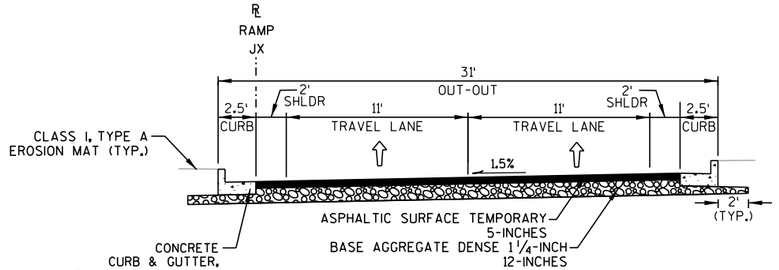
CARFERRY DRIVE SB EXIT



TYPICAL FINISHED SECTION TEMPORARY RAMP JX

STA. 51+44.00 JX TO STA. 52+80.00 JX
(LOOKING EAST)

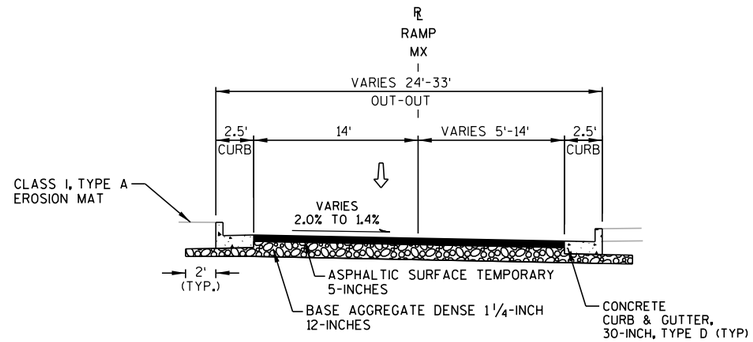
JACKSON STREET WB ENTRANCE



TYPICAL FINISHED SECTION TEMPORARY RAMP JX

STA. 52+80.00 JX TO STA. 54+17.60 JX
(LOOKING EAST)

JACKSON STREET WB ENTRANCE

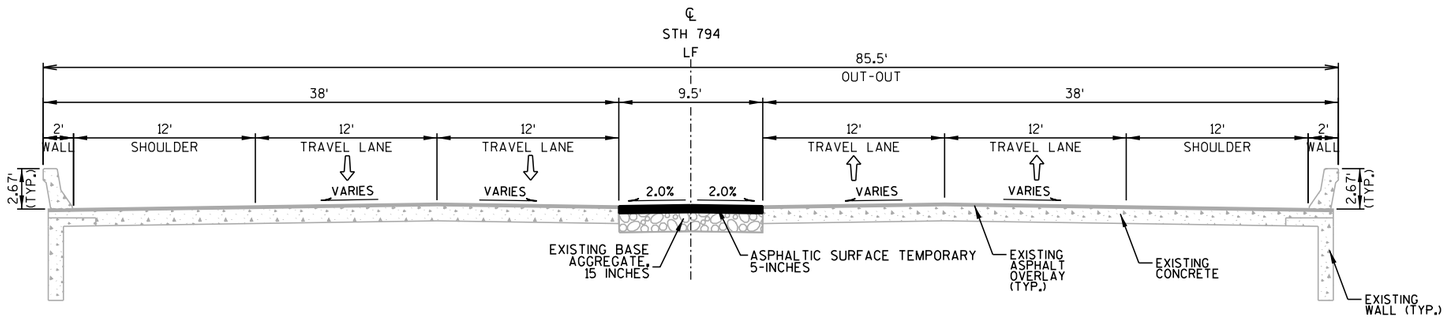


TYPICAL FINISHED SECTION TEMPORARY RAMP MX

STA. 59+75.00 MX TO STA. 61+10.00 MX
(LOOKING NORTH)

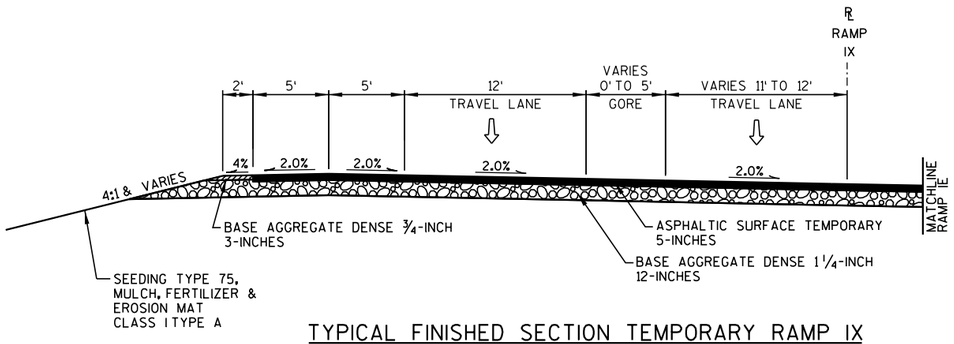
MILWAUKEE STREET WB EXIT RAMP

TYPICAL SECTIONS NOT TO SCALE



TYPICAL FINISHED SECTION CROSS OVER LF

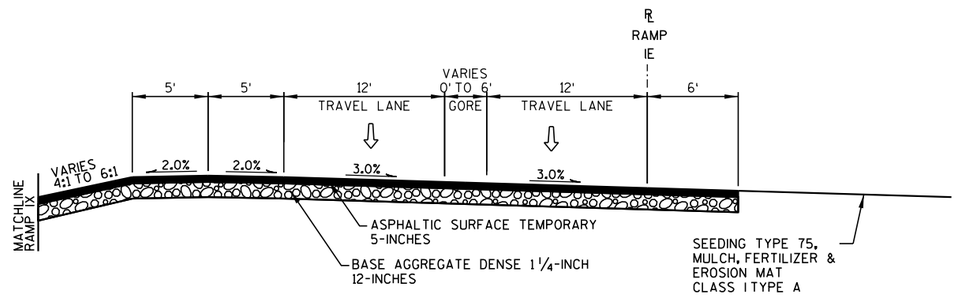
IH 794 NORTHBOUND/SOUTHBOUND / LAKE FREEWAY
STA. 38+00.00 LF TO STA. 42+00.00 LF
(LOOKING NORTH)



TYPICAL FINISHED SECTION TEMPORARY RAMP IX

STA. 40+52.02 IX TO STA. 47+50.00 IX
(LOOKING EAST)

LAKE INTERCHANGE - STAGE 1 RAMP



TYPICAL FINISHED SECTION TEMPORARY RAMP IE

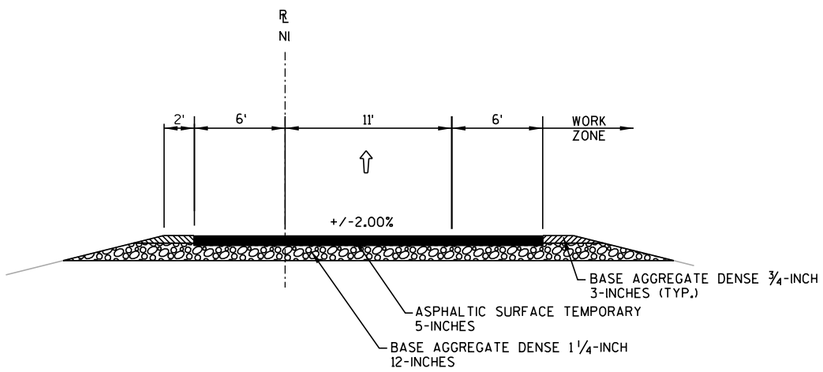
STA. 92+62.00 IE TO STA. 98+03.97 IE
(LOOKING EAST)

LAKE INTERCHANGE - STAGE 2 RAMP

TYPICAL SECTIONS NOT TO SCALE

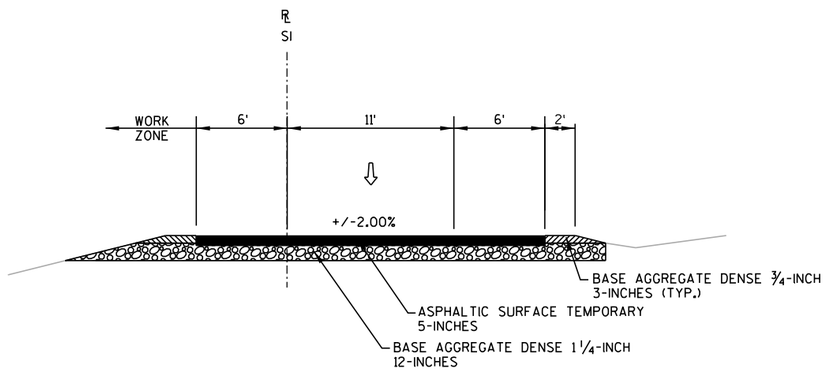
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - TYPICAL SECTIONS	SHEET 574	E

2



RAMP NI

STA. 111+50 NI - 112+75 NI)
(LINCOLN MEMORIAL WB OFF RAMP)
(LOOKING NORTH)



RAMP SI

STA. 120+25 SI - 122+50 SI)
(LINCOLN MEMORIAL WB ENTRANCE RAMP)
(LOOKING EAST)

2

LEGEND

XXXXX SAWCUT

REMOVING CURB & GUTTER

REMOVING PAVEMENT

REMOVING ASPHALTIC SURFACE

REMOVING CONCRETE SIDEWALK

ATC 138 kV (OVERHEAD TRANSMISSION LINE)

EXISTING R/W

STH 794 SB

REMOVE LIGHT SEE LIGHTING PLAN

MATCH EXISTING ELEVATION AND GRADE

REMOVING CONCRETE SIDEWALK STA 38+10 LF - 41+75 LF

REMOVING CURB & GUTTER STA 38+10 LF - 41+75 LF

STH 794 LF ℄

37+00 LF +50 38+00 LF +50 39+00 LF +50 40+00 LF +50 41+00 LF +50 42+00 LF +50

SAWCUT STA. 38+10 LF

SAWCUT ALONG FLANGE LINE

SAWCUT STA. 41+75 LF

STH 794 NB

EXISTING R/W

RUSSELL AVENUE

ATC 138kV (OVERHEAD TRANSMISSION LINE)

ATC 138kV (UNDERGROUND TRANSMISSION LINE)

TRIM TREES TO 2' BEHIND FACE OF WALL STA 42+00LF - 47+00LF

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - REMOVAL PLAN - CROSS OVER LF	SHEET 576	E

FILE NAME : IP_PWP:d0231471\026501_cs.dgn PLOT DATE : 29-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

2

LEGEND

- XXXXX SAWCUT
- ////// REMOVING CURB & GUTTER
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK

N

RAMP

31+00 SX

359+00 CS

+50

REMOVING CURB & GUTTER
STA 31+36 SX - 32+46 SX

SAWCUT ALONG
FLANGE LINE

32+00 SX

360+00 CS

RAMP CW

457+00 CW

458+00 CW

459+00 CW

CARFERRY DRIVE
SB ENTRANCE RAMP

56+00 LF

57+00 LF

58+00 LF

59+00 LF

60+00 LF

61+00 LF

62+00 LF

STH 794 SB

STH 794 NB

STH 794 LF

WISDOT STOC

REMOVE TREES

33+00 SX

361+00 CS

RAMP CS

362+00 CS

RAMP SX

SAWCUT ALONG
FLANGE LINE

REMOVING CURB & GUTTER
STA 33+50 SX - 34+11 SX

REMOVING FENCE

34+00 SX

CARFERRY DRIVE EB EXIT RAMP

557+00 CE

558+00 CE

CARFERRY DRIVE NB EXIT RAMP

RAMP CE

WISDOT STOC

23+00 NX

24+00 NX

25+00 NX

RAMP NX

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - REMOVAL PLAN - RAMP SX	SHEET 577	E

FILE NAME : IP_PWP:d0231471\026502_cs.dgn PLOT DATE : 29-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000 WISDOT/CADDS SHEET 42

2

LEGEND

- XXXXX SAWCUT
- ////// REMOVING CURB & GUTTER
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK

CARFERRY DRIVE NB EXIT RAMP

RAMP CE

RAMP NX

RAMP SX

RAMP CN

STH 794 SB

STH 794 NB

STH 794 LF

SAWCUT ALONG FLANGE LINE

SAWCUT ALONG FLANGE LINE

REMOVE TREES

AT&T FIBER OPTIC

REMOVING CURB & GUTTER STA 24+33 NX – 25+11 NX

REMOVING CURB & GUTTER STA 20+32 NX – 21+11 NX

REMOVING FENCE

REMOVING FENCE

REMOVING FENCE STA 661+25 CN – 661+75 CN (CONTRACTOR ACCESS)

CARFERRY DRIVE WB ENTRANCE RAMP

TALL GRASS

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - REMOVAL PLAN - RAMP NX	SHEET 578	E

FILE NAME : IP_PWP:d0231471\026503_cs.dgn PLOT DATE : 29-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

2

LEGEND

XXXXX SAWCUT

REMOVING CURB & GUTTER

REMOVING PAVEMENT

REMOVING ASPHALTIC SURFACE

REMOVING CONCRETE SIDEWALK

SAWCUT AT JOINT LINE

REMOVE CURB AND GUTTER (PAID AS REMOVING PAVEMENT)

CITY OF MILWAUKEE BES TRAFFIC

REMOVE CURB AND GUTTER STA 757+32 WI - 759+54 IE (PAID AS REMOVING PAVEMENT)

REMOVE CURB AND GUTTER STA 757+32 WI - 759+36 WI, 45.0' RT (PAID AS REMOVING PAVEMENT)

REMOVE PAVEMENT STA. 756+12 WI - STA. 759+55 WI

CLEARING AND GRUBBING

REMOVE BARRIER WALL STA. 756+12 WI - 757+32 WI

REMOVE BARRIER WALL STA. 756+35 WI - 757+32 WI

SAWCUT STA. 756+12 WI

RAMP LW R

RAMP LE R

REMOVE CURB AND GUTTER STA. 43+30, 43.7' LT - STA. 43+57, 70.3' LT (PAID AS REMOVING PAVEMENT)

REMOVE PAVEMENT STA. 93+73 IE - 95+17 IE, 119.4' LT

REMOVE CURB & GUTTER STA. 93+72 IE, 3' RT TO STA. 95+14 IE, 76.4' LT (PAID FOR AS REMOVING PAVEMENT)

REMOVE BARRIER WALL STA. 40+51.5 IX - STA. 43+30, 43.7' LT

WE ENERGIES ELECTRIC

REMOVE ASPHALTIC SURFACE

SAWCUT STA. 93+72 IE

REMOVE PAVEMENT STA. 92+59 IE - STA. 93+72 IE

REMOVE CURB AND GUTTER STA. 92+92 IE, 1.1' RT TO STA. 93+73 IE, 3.0' RT

STORM SEWER

REMOVE BARRIER WALL STA. 92+01 IE - STA. 92+92 IE

CLYBOURN STREET

EXISTING R/W

LINCOLN MEMORIAL WB ENTRANCE RAMP

MATCHLINE STA. 43+50 IX

LINCOLN MEMORIAL NB EXIT RAMP

LINCOLN MEMORIAL SB ENTRANCE RAMP

LINCOLN MEMORIAL EB EXIT RAMP

RAY STATION

759+00 WI

758+00 WI

757+00 WI

756+00 WI

+50 WI

43+00 IX

42+00 IX

41+00 IX

+50 IX

95+00 IE

94+00 IE

93+00 IE

+50 IE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - REMOVAL PLAN - LAKE INTERCHANGE (IX)	SHEET 579	E

SAWCUT STA 183+30 LN

STA 183+30 LN, 31' LT

RAMP LE R

REMOVE ASPHALTIC SURFACE

REMOVE FENCE

STA. 182+98 LN, 38' LT

STA. 183+13 LN, 48' LT

SAWCUT AT JOINT LINE

WE ENERGIES ELECTRIC

REMOVE FENCE

REMOVE CURB AND GUTTER STA 182+97 LS-183+18 LS (PAID AS REMOVING PAVEMENT)

REMOVE PAVEMENT STA 179+65 LN-183+30 LN

REMOVE CURB AND GUTTER STA 179+65 LN-183+30 LN (PAID AS REMOVING PAVEMENT)

MATCHLINE STA. 43+50 IX

REMOVE PAVEMENT STA 181+79.5 LS-183+37 LS

REMOVE BARRIER WALL STA 181+79.5 LS - 182+97 LS

REMOVE CURB AND GUTTER STA 179+65 LN-183+05 LN (PAID AS REMOVING PAVEMENT)

REMOVE CURB AND GUTTER BETWEEN JOINTS AS NEEDED FOR TEMPORARY STRUCTURE

SAWCUT STA 179+65 LN

REMOVE CURB & GUTTER STA 358+20 LE - 182+97 LS (PAID AS REMOVING PAVEMENT)

REMOVE BARRIER WALL STA 182+17 LS - 182+97 LS

CLEARING AND GRUBBING

REMOVE FENCE

SAWCUT STA. 181+79.5 LS

CLEARING AND GRUBBING

REMOVE CURB AND GUTTER STA 179+06 LN-179+65 LN

HIGHWAY EASEMENT

RAMP LN R

RAMP LS R

LINCOLN MEMORIAL EB EXIT RAMP

LINCOLN MEMORIAL EB ENTRANCE RAMP

LINCOLN MEMORIAL WB EXIT RAMP

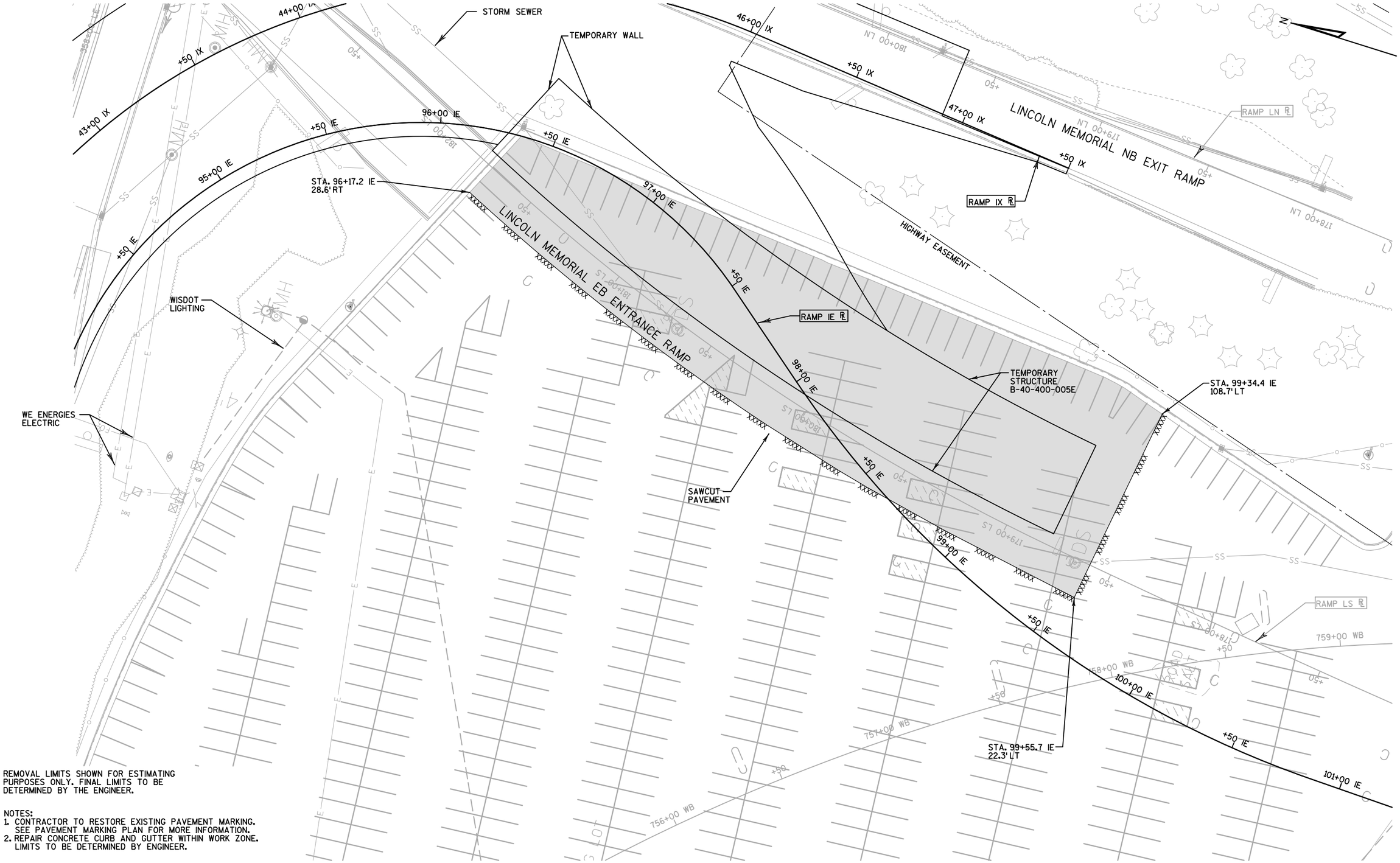
NOTE:
SEE STRUCTURES PLAN FOR DIMENSIONS OF TEMPORARY STRUCTURE B-40-005E

LEGEND

- XXXXX SAWCUT
- /////// REMOVING CURB & GUTTER
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - REMOVAL PLAN - LAKE INTERCHANGE (IX)	SHEET 580	E

2



REMOVAL LIMITS SHOWN FOR ESTIMATING PURPOSES ONLY. FINAL LIMITS TO BE DETERMINED BY THE ENGINEER.

NOTES:
1. CONTRACTOR TO RESTORE EXISTING PAVEMENT MARKING. SEE PAVEMENT MARKING PLAN FOR MORE INFORMATION.
2. REPAIR CONCRETE CURB AND GUTTER WITHIN WORK ZONE. LIMITS TO BE DETERMINED BY ENGINEER.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - REMOVAL PLAN-VAN BUREN PARKING LOT	SHEET 581	E

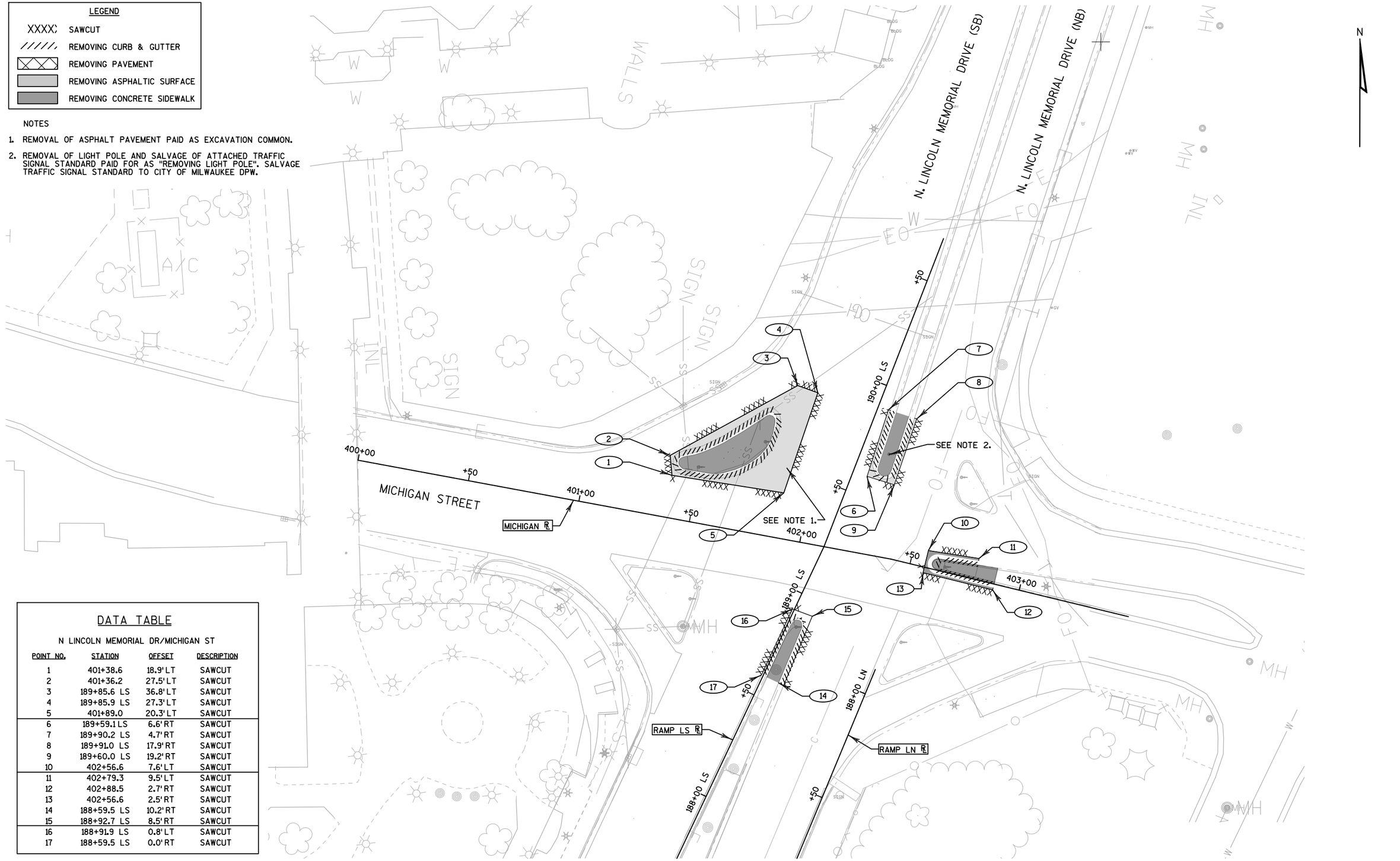
2

LEGEND

- XXXX SAWCUT
- ////// REMOVING CURB & GUTTER
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK

NOTES

1. REMOVAL OF ASPHALT PAVEMENT PAID AS EXCAVATION COMMON.
2. REMOVAL OF LIGHT POLE AND SALVAGE OF ATTACHED TRAFFIC SIGNAL STANDARD PAID FOR AS "REMOVING LIGHT POLE". SALVAGE TRAFFIC SIGNAL STANDARD TO CITY OF MILWAUKEE DPW.



DATA TABLE

N LINCOLN MEMORIAL DR/MICHIGAN ST

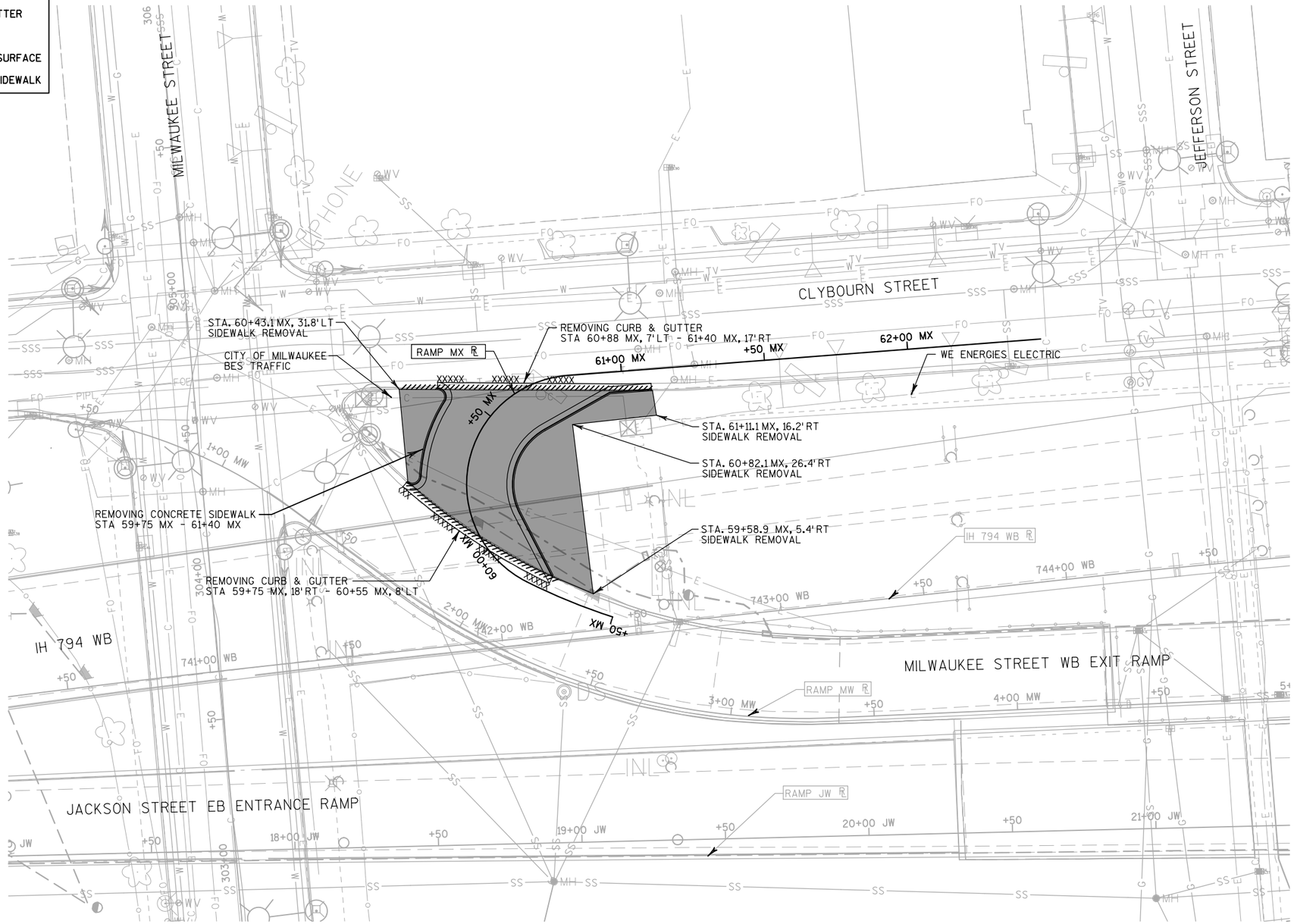
POINT NO.	STATION	OFFSET	DESCRIPTION
1	401+38.6	18.9' LT	SAWCUT
2	401+36.2	27.5' LT	SAWCUT
3	189+85.6 LS	36.8' LT	SAWCUT
4	189+85.9 LS	27.3' LT	SAWCUT
5	401+89.0	20.3' LT	SAWCUT
6	189+59.1 LS	6.6' RT	SAWCUT
7	189+90.2 LS	4.7' RT	SAWCUT
8	189+91.0 LS	17.9' RT	SAWCUT
9	189+60.0 LS	19.2' RT	SAWCUT
10	402+56.6	7.6' LT	SAWCUT
11	402+79.3	9.5' LT	SAWCUT
12	402+88.5	2.7' RT	SAWCUT
13	402+56.6	2.5' RT	SAWCUT
14	188+59.5 LS	10.2' RT	SAWCUT
15	188+92.7 LS	8.5' RT	SAWCUT
16	188+91.9 LS	0.8' LT	SAWCUT
17	188+59.5 LS	0.0' RT	SAWCUT

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - REMOVAL PLAN - LMD & MICHIGAN ST	SHEET 582	E

2

LEGEND

- XXXXX SAWCUT
- ////// REMOVING CURB & GUTTER
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - REMOVAL PLAN - RAMP MX	SHEET 583	E

FILE NAME : IP_PWP:d0231471\026508_cs.dgn PLOT DATE : 29-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

2

LEGEND

XXXXX SAWCUT

REMOVING CURB & GUTTER

REMOVING PAVEMENT

REMOVING ASPHALTIC SURFACE

REMOVING CONCRETE SIDEWALK

N

CLYBOURN STREET

VAN BUREN STREET

RAMP LW

IH 794 WB

REMOVE ASPHALTIC SURFACE

STORM SEWER

RAMP JE

BEGIN REMOVING SIDEWALK
STA. 52+87.9 JX, 12.5' LT

RAMP MW

IH 794 WB

RAMP JX

REMOVING CURB & GUTTER
STA 51+44 JX, 28' RT - 51+90 JX, 9' LT

SAWCUT ALONG
FLANGE LINE

JACKSON STREET
WB ENTRANCE RAMP

REMOVE GUARDRAIL
STA 51+47 JX, 29' RT - 51+69 JX, 17' RT

SAWCUT ALONG
FLANGE LINE

REMOVING CURB & GUTTER
STA 53+54 JX, 33' RT - 54+18 JX

RAMP JW

STORM SEWER

REMOVING CURB & GUTTER
STA 52+96 JX, 33' RT - 53+12 JX

JACKSON STREET EB EXIT RAMP

WE ENERGIES ELECTRIC

MONUMENT

JACKSON STREET

LINCOLN MEMORIAL EB EXIT RAMP

RAMP LE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - REMOVAL PLAN - RAMP JX	SHEET 584	E

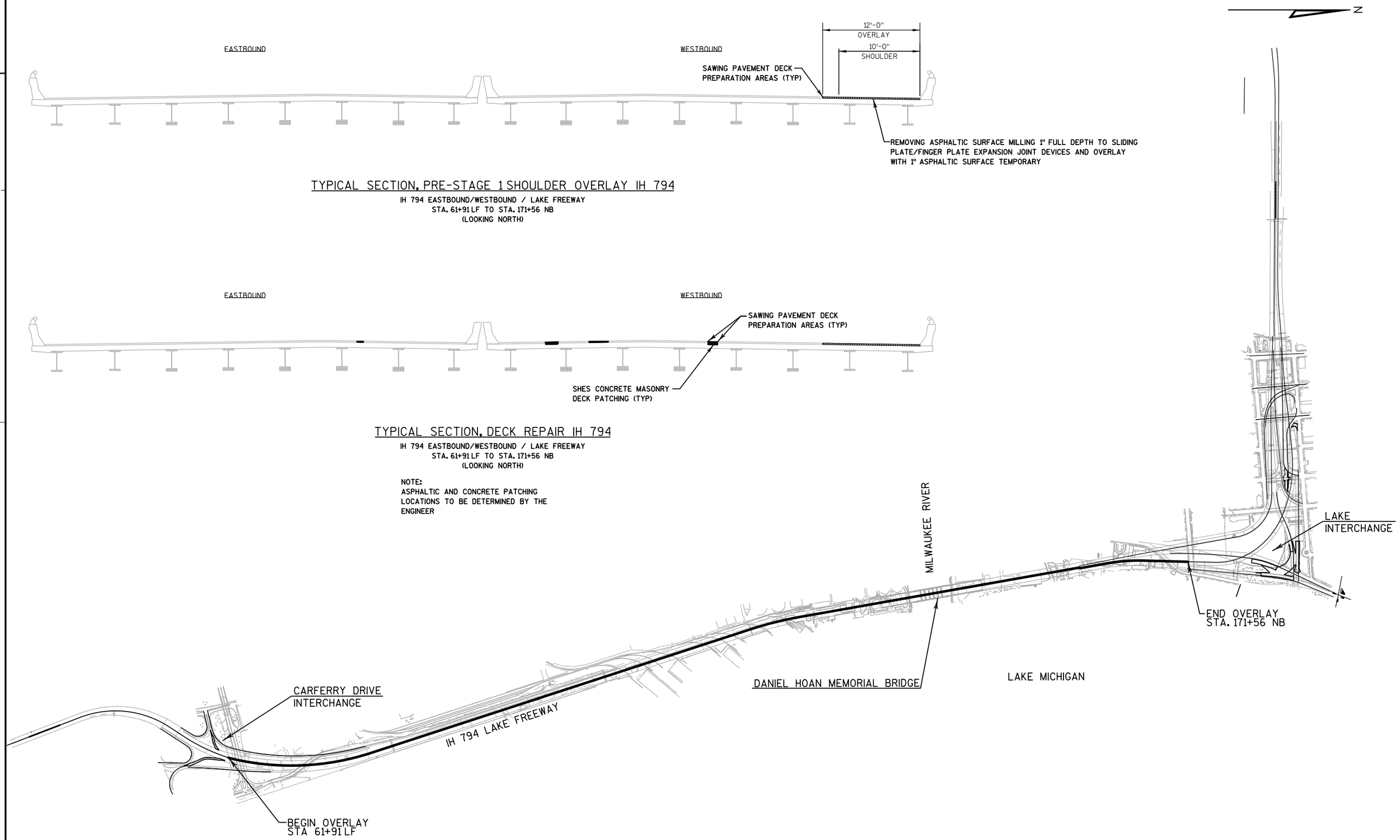
TYPICAL SECTION, PRE-STAGE 1 SHOULDER OVERLAY IH 794

IH 794 EASTBOUND/WESTBOUND / LAKE FREEWAY
STA. 61+91 LF TO STA. 171+56 NB
(LOOKING NORTH)

TYPICAL SECTION, DECK REPAIR IH 794

IH 794 EASTBOUND/WESTBOUND / LAKE FREEWAY
STA. 61+91 LF TO STA. 171+56 NB
(LOOKING NORTH)

NOTE:
ASPHALTIC AND CONCRETE PATCHING
LOCATIONS TO BE DETERMINED BY THE
ENGINEER

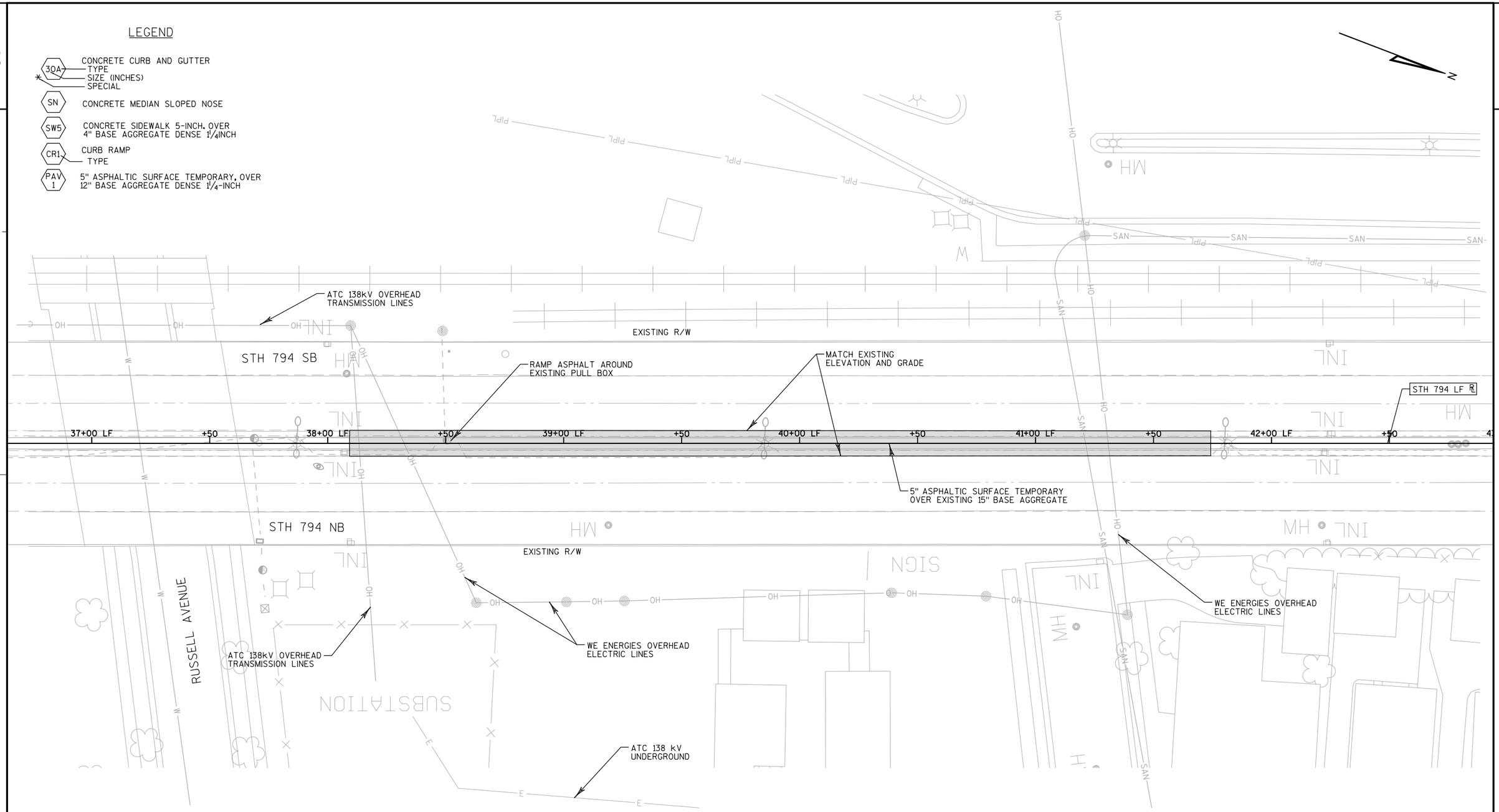


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - SHOULDER OVERLAY & DECK REPAIR	SHEET 585	E

2

LEGEND

- 30A — CONCRETE CURB AND GUTTER, TYPE
- * — SIZE (INCHES), SPECIAL
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP, TYPE
- PAV 1 — 5" ASPHALTIC SURFACE TEMPORARY, OVER 12" BASE AGGREGATE DENSE 1¼-INCH



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN DETAILS - CROSS OVER LF	SHEET 586	E

LEGEND

- 30A — CONCRETE CURB AND GUTTER; TYPE; SIZE (INCHES); SPECIAL
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP; TYPE
- PAV 1 — 5" ASPHALTIC SURFACE TEMPORARY, OVER 12" BASE AGGREGATE DENSE 1¼-INCH

CARFERRY DRIVE SB ENTRANCE RAMP

RAMP CW ℄

458+00 CW

459+00 CW

STH 794 SB

STH 794 NB

STH 794 LF ℄

57+00 LF

58+00 LF

59+00 LF

557+00 CE

558+00 CE

CARFERRY DRIVE NB EXIT RAMP

RAMP CE ℄

559+00 CE

560+00 CE

WISDOT STOC

STA. 31+42 SX

32+00 SX

STA. 32+32 SX
17' LT

PAV 1

33+00 SX

2'

17'

RAMP SX ℄

STA. 33+58 SX

STA. 33+90 SX
17' LT

34+00 SX

360+00 CS

362+00 CS

RAMP CS ℄

CARFERRY DRIVE EB EXIT RAMP

60+00 LF

61+00 LF

62+00 LF

42 LF - 12" STORM SEWER PIPE
REINFORCED CONCRETE
W I.E. 608.40
E I.E. 603.00
CORE INTO EXISTING INLET

STA. 21+90 NX, 15' LT.

RAMP NX ℄

STA. 20+38 NX

0+00 NX

21+00 NX

22+00 NX

23+00 NX

24+00 NX

25+00 NX

17'

END TAPER
STA. 22+57.0 NX, 17.0' RT

BEGIN TAPER
STA. 21+06 NX, 24' RT
STA. 21+90 NX, 41' RT

SALVAGE INLET COVER INSTALL
COVER PLATE TEMPORARY

15 LF - 12" STORM SEWER PIPE
REINFORCED CONCRETE
NE I.E 607.30
SW I.E. 603.00
CORE INTO EXISTING INLET

CARFERRY DRIVE WB ENTRANCE RAMP

RAMP CN ℄

658+00 CN

659+00 CN

12+00 CN

STA. 24+42 NX

STA. 25+00 NX, 17' RT

STA. 25+11 NX

WISDOT STOC

N

2

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN DETAILS - RAMP NX AND SX	SHEET 587	E

FILE NAME : IP_PWP:d0231471\026512_cs.dgn
PLOT DATE : 29-APR-2013
PLOT BY : 1732
PLOT NAME :
PLOT SCALE : 40.000000:1.000000
WISDOT/CADDS SHEET 42

LEGEND

- 30A — CONCRETE CURB AND GUTTER TYPE (*SIZE (INCHES) SPECIAL)
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP TYPE
- PAV 1 — 5" ASPHALTIC SURFACE TEMPORARY, OVER 12" BASE AGGREGATE DENSE 1¼-INCH

CLYBOURN STREET

EXISTING R/W

MATCH EXISTING
STA. 759+62.4 WI, 11.9' RT

MATCH EXISTING
STA. 759+54.7 WI, 11.4' LT

ADJUST INLET

STA. 359+46.2 WI, 9.8' LT
END 75' RAD.

SALVAGE MANHOLE COVER INSTALL
COVER PLATES TEMPORARY

30D

STA. 759+00.0 WI, 4.0' LT
END 75' RAD.

759+00 WI

+50 WI

MATCH EXISTING
STA. 759+63.3 WI, 18.0' RT

SALVAGE INLET COVER INSTALL
COVER PLATES TEMPORARY

MATCH EXISTING
STA. 759+54.14 WI, 18.77' RT

STA. 759+20.8 WI, 41.4' RT

STA. 758+79.9 WI, 28.5' RT

MATCHLINE STA. 43+50 IX

PAV 1

SALVAGE INLET COVER INSTALL
COVER PLATES TEMPORARY

STA. 758+50.0 WI, 6.5' LT
BEGIN TAPER

STA. 758+40.0 WI, 4.0' LT
END TAPER

SALVAGE INLET COVER INSTALL
COVER PLATES TEMPORARY

+50 WI

STA. 43+00.0 IX, 37.8' LT
BEGIN 297' RAD.

+50 IX

RAMP IX R

43+00 IX

SALVAGE MANHOLE COVER INSTALL
COVER PLATES TEMPORARY

16 LF-12" STORM SEWER PIPE
REINFORCED CONCRETE
E I.E. 592.80
W I.E. 592.97
CORE INTO EXISTING INLET

758+00 WI

ADJUST INLET
RIM 596.07

+50 IX

95+00 IE

INLETS MEDIAN 1 GRATE, MS COVER
43+00 IX, 4.0' RT
RIM 596.43

INLETS MEDIAN 1 GRATE, MS COVER
42+47 IX, 4.5' RT
RIM 595.97

+50 IE

36 LF-12" STORM SEWER PIPE
REINFORCED CONCRETE
W I.E. 593.06
E I.E. 593.43
CORE INTO EXISTING INLET

RAMP IE R

6'

STA. 757+29.7 WI, 4.0' LT
BEGIN 302' RAD.

+50 WI

PAV 1

42+00 IX

STA. 41+90.8 IX, 6.0' RT
END 269' RAD.

WE ENERGIES
ELECTRIC

6'

94+00 IE

MATCH EXISTING
STA. 93+72.0 IE, 27.0' LT

MATCH EXISTING
STA. 93+72.6 IE, 3.0' RT

STA. 757+14.5 WI, 4.0' LT
END 302' RAD.

757+00 WI

+50 IX

SALVAGE INLET COVER INSTALL
COVER PLATES TEMPORARY

SALVAGE INLET COVER INSTALL
COVER PLATE TEMPORARY

LINCOLN MEMORIAL
WB ENTRANCE RAMP

41+00 IX

+50 IE

STA. 93+52.0 IE, 6.0' RT
BEGIN 158' RAD.

STA. 41+42.4 IX, 19.2' RT
END 206' RAD.

STA. 41+42.5 IX, 6.0' RT
BEGIN 269' RAD.

STA. 41+31.4 IX, 21.6' RT
BEGIN 206' RAD.

LINCOLN MEMORIAL
EB EXIT RAMP

93+00 IE

STORM SEWER

STA. 92+92.13 IE, 6' RT

MATCH EXISTING
STA. 92+92.2 IE, 1.1' RT

MATCH EXISTING
STA. 756+12.0 WI, 3.3' LT

756+00 WI

+50 IX

MATCH EXISTING
STA. 40+52.0 IX, 6.0' RT

STA. 92+61.4 IE, 39.9' LT

MATCH EXISTING
STA. 92+59.4 IE, 30.3' LT

+50 IE

N

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN DETAILS - LAKE INTERCHANGE (IX)	SHEET 588 E

2

MATCH EXISTING
STA. 183+30 LN, 0'LT

(593.06)

594.61

30D

STA. 182+80 LN, 2.5'RT
BEGIN TAPER

SALVAGE INLET COVER INSTALL
COVER PLATE TEMPORARY

595.76

STA. 182+50 LN, 12'RT
END TAPER

MATCH EXISTING
STA. 183+30 LN, 28'LT

SALVAGE INLET COVER INSTALL
COVER PLATES TEMPORARY

MATCH EXISTING
STA. 183+13 LN, 48'LT

STA. 182+90 LN, 38'LT
END TAPER

33 LF-12" STORM SEWER PIPE
REINFORCED CONCRETE
N I.E. 594.00
S I.E. 591.00
CORE INTO EXISTING

STORM SEWER

STA. 44+10 IX, 52'LT

RAMP LE R

WE ENERGIES
ELECTRIC

SALVAGE INLET COVER INSTALL
COVER PLATE TEMPORARY

STA. 181+25 LN, 12'RT
BEGIN TAPER

MATCH EXISTING
STA. 759+41 WI, 46.3'RT

STA. 182+19.2 LN, 38'LT

STA. 44+44 IX,
37.72'LT
END 297'RAD.

STA. 180+75 LN, 6'RT
END TAPER

PAV
1

SALVAGE INLET COVER INSTALL
COVER PLATES TEMPORARY

SALVAGE INLET COVER INSTALL
COVER PLATE TEMPORARY

SALVAGE INLET COVER INSTALL
COVER PLATE TEMPORARY

MATCHLINE STA. 43+50 IX

** STA. 96+46.06 IE, 51.61'LT
ELEV. 602.09

** STA. 96+44.31 IE, 46.06'LT
ELEV. 601.97

STA. 45+97 IX, 15'RT

STA. 45+97 IX, 17'RT

** STA. 96+64.28 IE, 42.96'LT
ELEV. 602.44

** STA. 96+68.23 IE, 59.15'LT
ELEV. 602.78

STA. 97+11.8 IE, 54.4'LT
BEGIN 431'RAD.

STA. 46+90.3 IX, 30.0'LT

STA. 46+31 IX, 14.7'RT
BEGIN TAPER

RAMP IX R

STA. 47+36 IX, 3'LT
END TAPER

LINCOLN MEMORIAL WB EXIT RAMP

RAMP LN R

SALVAGE MANHOLE COVER INSTALL
COVER PLATES TEMPORARY

SALVAGE INLET COVER INSTALL
COVER PLATE TEMPORARY

EXISTING INLET
TO REMAIN

HIGHWAY EASEMENT

STA. 97+63.3 IE, 46.7'LT
END 431'RAD.
BEGIN 400'RAD.

STA. 98+04 IE, 45'LT
END 400'RAD.

LINCOLN MEMORIAL EB ENTRANCE RAMP

RAMP LS R

RAMP IE R

CONSTRUCT TEMPORARY STRUCTURE,
SEE STRUCTURE B-40-400-005E PLAN FOR DETAILS

LEGEND

- 30A — CONCRETE CURB AND GUTTER (TYPE; SIZE (INCHES); SPECIAL)
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP (TYPE)
- PAV 1 — 5" ASPHALTIC SURFACE TEMPORARY, OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- ** — ELEVATIONS NEEDED FOR FUTURE RAMP NI

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN DETAILS - LAKE INTERCHANGE (IX)	SHEET 589	E

LEGEND

- 30A — CONCRETE CURB AND GUTTER, TYPE
- * — SIZE (INCHES), SPECIAL
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP, TYPE
- PAV 1 — 5" ASPHALTIC SURFACE TEMPORARY. OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- PAV 2 — CONCRETE PAVEMENT 8-INCH. OVER 6" BASE AGGREGATE DENSE 1¼-INCH
- PAV 4 — 5" HMA TYPE E-3 OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- (XXX.XX) EXISTING PAVEMENT GRADE
- XXX.XX PROPOSED PAVEMENT GRADE

DATA TABLE

N LINCOLN MEMORIAL DR/MICHIGAN ST

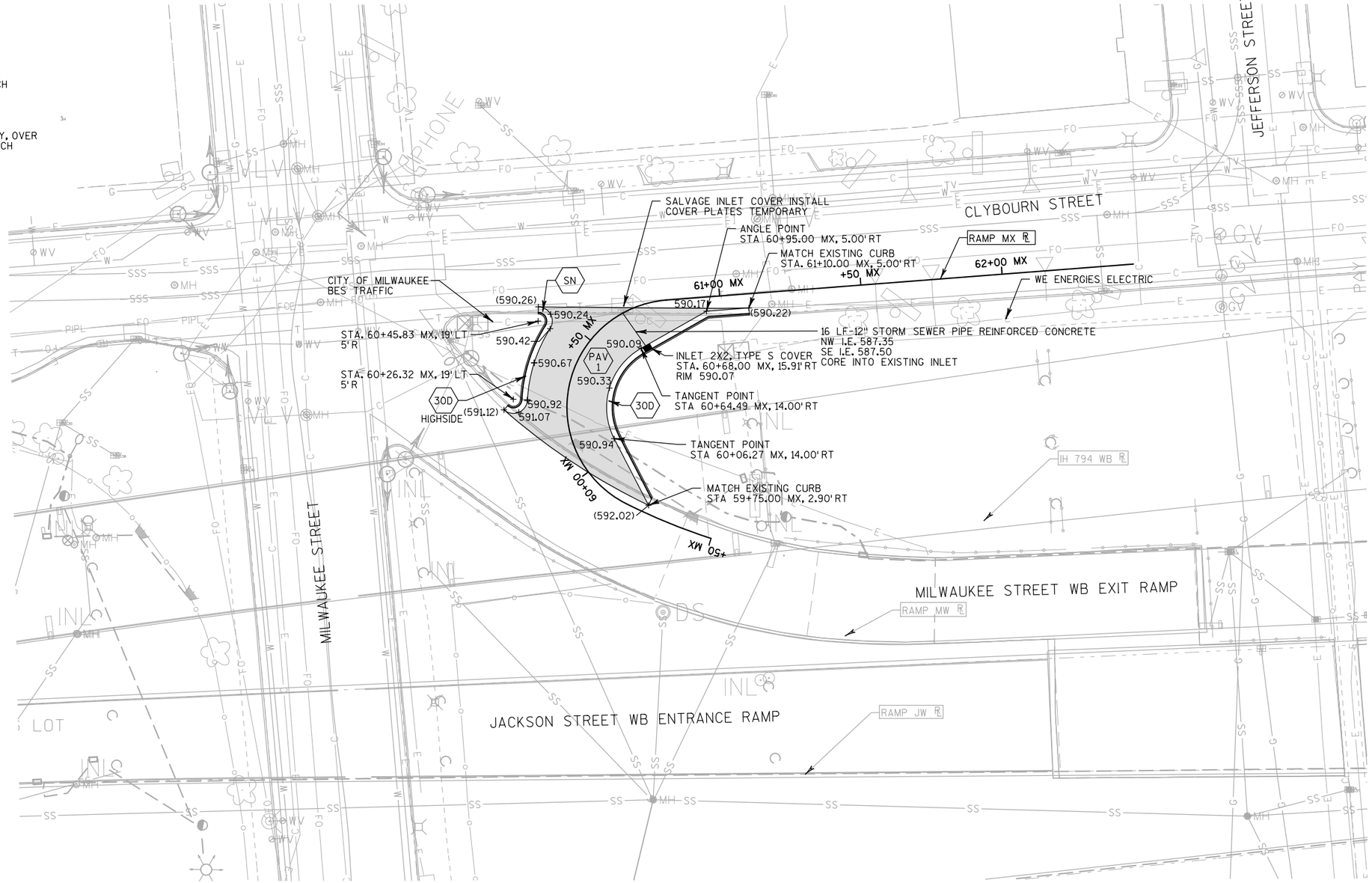
POINT NO.	STATION	OFFSET	DESCRIPTION
1	401+60.0	36.8' LT	4.0' RADIUS
2	189+60.3 LS	50.7' LT	CENTER OF CURB RAMP
3	189+79.8 LS	33.1' LT	5.0' RADIUS
4	189+60.9 LS	29.8' LT	CENTER OF CURB RAMP
5	189+54.6 LS	31.0' LT	4.0' RADIUS
6	401+76.4	35.3' LT	CENTER OF CURB RAMP
7	189+90.2 LS	5.7' RT	BEGIN CURB & GUTTER
8	189+90.9 LS	17.0' RT	END CURB & GUTTER
9	403+05.3	58.4' LT	80.0' RADIUS
10	189+76.9 LS	12.8' RT	5.0' RADIUS
11	402+79.4	8.5' LT	BEGIN CURB & GUTTER
12	402+75.7	4.2' LT	4.0' RADIUS
13	402+88.5	1.7' RT	END CURB & GUTTER
14	402+88.8	48.3' LT	50.0' RADIUS
15	188+76.3 LS	3.8' RT	4.0' RADIUS
16	188+60.3 LS	84.2' RT	85.0' RADIUS
17	188+56.8 LS	44.8' LT	55.0' RADIUS
18	188+59.5 LS	0.8' LT	BEGIN CURB & GUTTER
19	188+59.5 LS	10.2' RT	END CURB & GUTTER

RADIUS SHOWN IS TO CURB FLANGE

N. LINCOLN MEMORIAL DRIVE (SB)
N. LINCOLN MEMORIAL DRIVE (NB)
MICHIGAN STREET
MICHIGAN ℄
RAMP LS ℄
RAMP LN ℄
ADJUST EXISTING INLET
REPLACE EXISTING MANHOLE COVER WITH TYPE J COVER
EXISTING STORM SEWER
190+00 LS
189+00 LS
188+00 LS
188+00 LN
400+00
401+00
402+00
403+00
+50
587.38
587.46
587.48
587.29
587.49
587.59
587.54
587.61
587.65
587.73
587.71
587.69
587.99
(588.07)
(587.92)
(588.04)
587.91
(587.85)
587.99
(587.75)
588.05
588.53
(588.32)
(588.43)

LEGEND

- 30A — CONCRETE CURB AND GUTTER (TYPE / SIZE (INCHES) / SPECIAL)
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP (TYPE)
- PAV 1 — 5" ASPHALTIC SURFACE TEMPORARY. OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- (XXX.XX) EXISTING PAVEMENT GRADE
- XXX.XX PROPOSED PAVEMENT GRADE



PROJECT NO:1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN DETAILS - RAMP MX	SHEET 591	E

LEGEND

- 30A — CONCRETE CURB AND GUTTER; TYPE; * SIZE (INCHES) SPECIAL
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP TYPE
- PAV 1 — 5" ASPHALTIC SURFACE TEMPORARY, OVER 12" BASE AGGREGATE DENSE 1¼-INCH
- (XXX.XX) EXISTING PAVEMENT GRADES
- XXX.XX PROPOSED PAVEMENT GRADES

CLYBOURN STREET
VAN BUREN STREET
RAMP LW
RAMP JE
IH 794 WB
RAMP MW
RAMP JX
JACKSON STREET WB ENTRANCE RAMP
JACKSON STREET EB EXIT RAMP
JACKSON STREET
LINCOLN MEMORIAL EB EXIT RAMP
RAMP LE
IH 794 WB
STORM SEWER
WE ENERGIES ELECTRIC
CITY OF MILWAUKEE BES TRAFFIC
MONUMENT
BOLLARDS

STA. 51+93.7 JX, 6.1' LT 4.5' R
STA 52+51.8 JX, 4.5' LT 4.5' R
STA 52+82.6 JX, 4.5' LT 4.5' R
STA 54+17.6 JX
STA. 51+44 JX, 28' RT
STA. 52+25 JX, 28.00' RT BEGIN TAPER
STA. 52+45 JX, 48.0' RT END TAPER
STA 52+89.3 JX, 30.5' RT 4.5' R
STA 53+54.7 JX, 26' RT END CURB AND GUTTER
STA. 53+56 JX, 29.5' RT

ADJUST INLET REMOVE GRATE INSTALL TYPE S COVER RIM 589.67
ANGLE POINT STA 52+26.74 JX
ADJUST MANHOLE RIM 592.10
SALVAGE INLET COVER & REPLACE WITH TYPE S GRATE
58 LF-12" STORM SEWER PIPE REINFORCED CONCRETE NE I.E. 583.33 SW I.E. 583.91 CORE INTO EXISTING INLET
INLETS 2X2, TYPE S COVER STA. 53+56 JX, 29.5' RT RIM 590.70

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN DETAILS - RAMP JX	SHEET 592	E

LINCOLN MEMORIAL
WB ENTRANCE RAMP

LINCOLN MEMORIAL
EB EXIT RAMP

LINCOLN MEMORIAL
EB ENTRANCE RAMP

LINCOLN MEMORIAL
WB EXIT RAMP

+00 IX
+50 IX
41+00 IX
42+00 IX
43+00 IX
44+00 IX
45+00 IX
46+00 IX

+00 IE
+50 IE
93+00 IE
94+00 IE
95+00 IE
96+00 IE
97+00 IE

120+00 SI
121+00 SI
122+00 SI
123+00 SI

111+00 NI
112+00 NI
113+00 NI

REMOVING INLET
REMOVING STORM SEWER

MATCH EXISTING
STA. 120+25 SI, 17'LT

MATCH EXISTING
STA. 120+25 SI, 7.35'LT

MATCH EXISTING
STA. 120+88 SI, 6'RT

MATCH EXISTING
STA. 122+50 SI, 17'LT

MATCH EXISTING
STA. 122+50 SI, 2'RT

MATCH EXISTING
END TAPER
STA. 122+36 SI, 14.1'RT

BEGIN TAPER
STA. 122+88.35 SI, 6'RT

MATCH EXISTING
STA. 112+75 NI, 6'LT

MATCH EXISTING
STA. 112+75 NI, 17'RT

MATCH EXISTING
STA. 111+75 NI, 6'LT

MATCH EXISTING
STA. 111+75 NI, 0'RT

MATCH EXISTING
STA. 111+50 NI, 0'RT

MATCH EXISTING
STA. 111+50 NI, 17'RT

PAV 1
17'
6'

GATED GATE

MH
DS

N

LEGEND

- 30A — CONCRETE CURB AND GUTTER; TYPE; SIZE (INCHES); SPECIAL
- SN — CONCRETE MEDIAN SLOPED NOSE
- SW5 — CONCRETE SIDEWALK 5-INCH. OVER 4" BASE AGGREGATE DENSE 1¼INCH
- CR1 — CURB RAMP; TYPE
- PAV 1 — 5" ASPHALTIC SURFACE TEMPORARY, OVER 12" BASE AGGREGATE DENSE 1¼-INCH

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN DETAILS - RAMP SI & NI	SHEET 593 E

LEGEND

(TYPE) INLET PROTECTION

EROSION MAT CLASS I TYPE A

STH 794 SB

STH 794 NB

TYPE C

TYPE C

STH 794 LF R

TYPE C

TYPE C

37+00 LF +50 38+00 +50 39+00 LF +50 40+00 LF +50 41+00 LF +50 42+00 LF +50

RUSSELL AVENUE

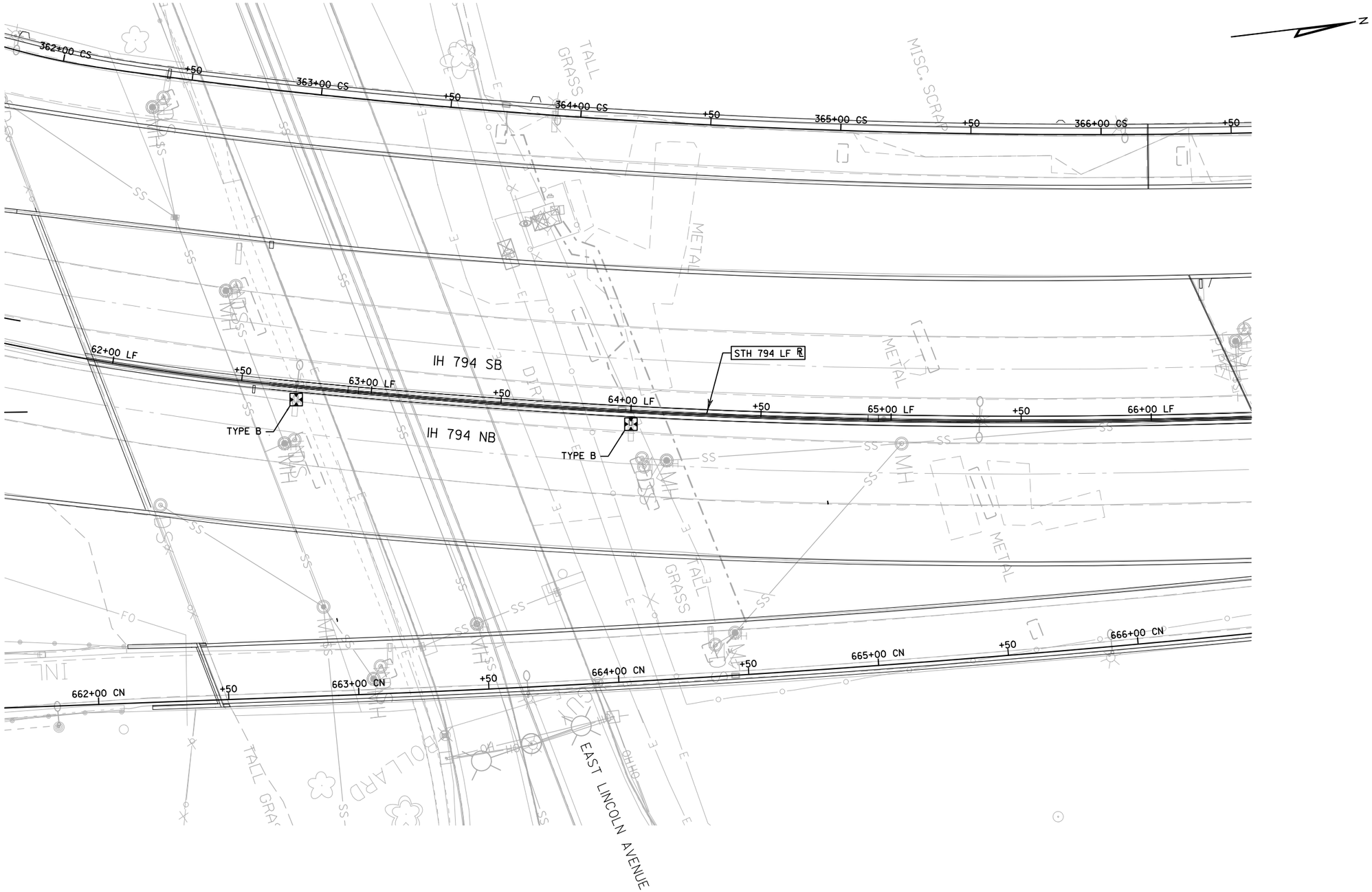
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - EROSION CONTROL PLAN	SHEET 594	E

FILE NAME : IP_PWP:d0231471\026519_cs.dgn PLOT DATE : 29-APR-2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

LEGEND

(TYPE) INLET PROTECTION

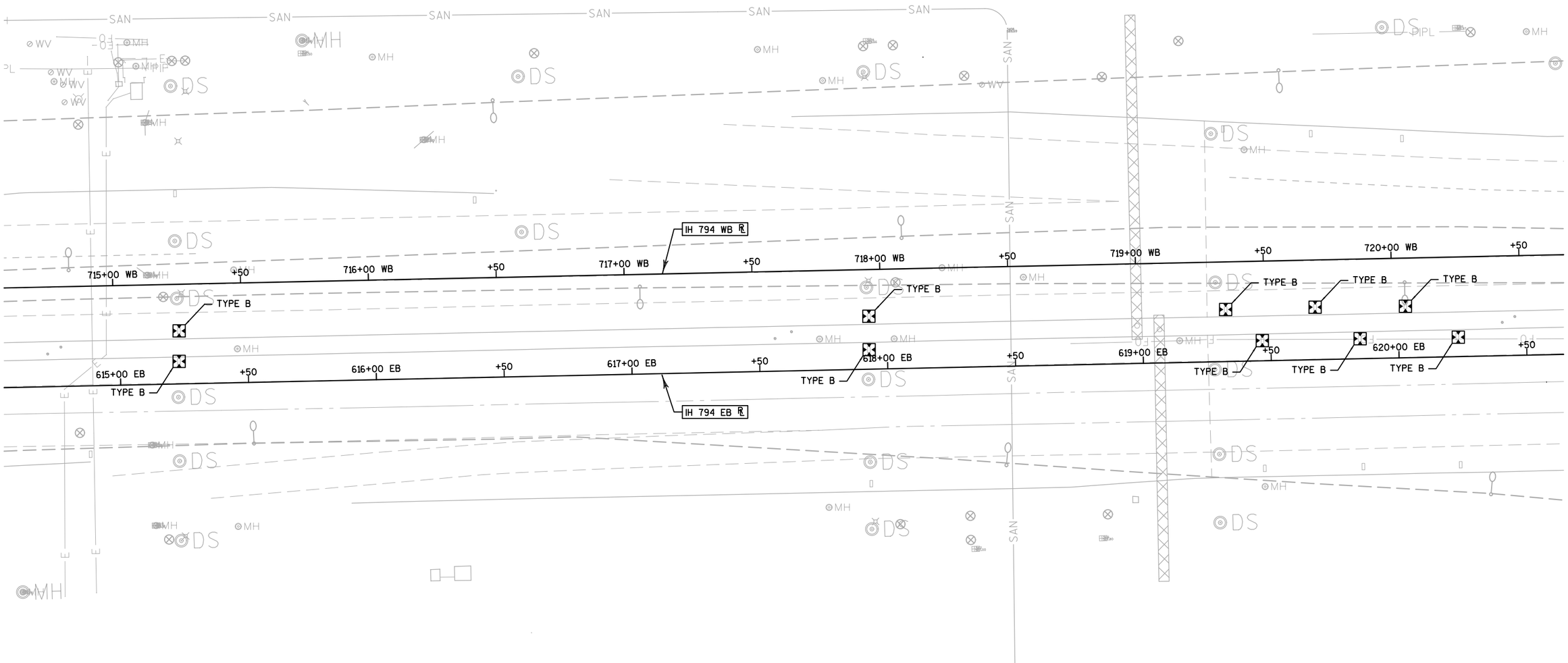


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - EROSION CONTROL PLAN	SHEET 595	E

LEGEND

(TYPE) INLET PROTECTION

N



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - EROSION CONTROL PLAN	SHEET 596	E

FILE NAME : IP_PWP:d0231471\026521_cs.dgn PLOT DATE : 29-APR-2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

LEGEND

(TYPE) INLET PROTECTION

SILT FENCE

CLASS I, TYPE A EROSION MAT

EROSION MAT CLASS III TYPE A

CULVERT PIPE CHECKS

FLOW ARROW

CARFERRY DRIVE NB EXIT RAMP

CARFERRY DRIVE SB ENTRANCE RAMP

IH 794 SB

IH 794 NB

CARFERRY DRIVE NB ENTRANCE RAMP

CARFERRY DRIVE SB EXIT RAMP

RAMP CW ℄

RAMP CE ℄

IH 794 LF ℄

RAMP NX ℄

RAMP SX ℄

RAMP CS ℄

TYPE A

557+00 CE

558+00 CE

559+00 CE

560+00 CE

457+00 CW

458+00 CW

459+00 CW

517+00 LF

518+00 LF

519+00 LF

520+00 LF

521+00 LF

522+00 LF

360+00 CS

361+00 CS

362+00 LF

658+00 CN

659+00 CN

660+00 LF

661+00 LF

662+00 LF

0+00 NX

21+00 NX

22+00 NX

23+00 NX

24+00 NX

25+00 NX

32+00 SX

33+00 SX

34+00 SX

+50

SS

HO

N

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - EROSION CONTROL PLAN	SHEET 597 E

FILE NAME : 026522_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

LEGEND

(TYPE) INLET PROTECTION

SILT FENCE

SLOPE INTERCEPT

FLOW ARROW

CLASS I, TYPE A EROSION MAT

CLASS I, TYPE B EROSION MAT

CLASS III, TYPE C EROSION MAT

N

RAMP LE R

RAMP LN R

RAMP IX R

RAMP LS R

RAMP IE R

LINCOLN MEMORIAL NB EXIT RAMP

LINCOLN MEMORIAL SB ENTRANCE RAMP

IH 794 WEST ON RAMP

IH 794 SOUTH ON RAMP

BOLLARD

TYPE A

TYPE C

+50 IX

+50 IE

41+00 IX

42+00 IX

43+00 IX

44+00 IX

45+00 IX

46+00 IX

47+00 IX

93+00 IE

94+00 IE

95+00 IE

96+00 IE

97+00 IE

98+00 IE

99+00 IE

MATCHLINE STA. 178+50 LS

MATCHLINE STA. 178+50 LS

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - EROSION CONTROL PLAN	SHEET 598	E

FILE NAME : IP_PWP:d0231471\026523_cs.dgn PLOT DATE : 29-APR-2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

2

CLYBOURN STREET

TYPE C

61+00 MX

+50 MX

TYPE C

+50 MX

RAMP MX

1+00 MW

XW 00+09

XW +50

IH 794 WB

743+00 WB

2+00 MW

742+00 WB

+50

41+00 WB

IH 794 WB

RAMP MW

3+00 MW

JACKSON STREET WB ENTRANCE RAMP

18+00 JW

19+00 JW

RAMP JW

MILWAUKEE STREET

9+00 JE

8+00 JE

JACKSON STREET EB EXIT RAMP

RAMP JE

LEGEND

(TYPE) INLET PROTECTION

CLASS I, TYPE A EROSION MAT

CLYBOURN STREET

JACKSON STREET WB ENTRANCE RAMP

TYPE C

350+00 LW

RAMP LW

351+00 LW

EROSION CONTROL IS REQUIRED FOR BIO-FILTRATION BASIN INSTALLATION. THE EXACT LOCATION OF THE REQUIRED EROSION CONTROL IS SHOWN ON THE GRADING PLAN FOR THE BASINS.

TYPE C

IH 794 WB

IH 794 WB

747+00 WB

748+00 WB

749+00 WB

TYPE C

RAMP JW

RAMP MW

7+00 MW

6+00 MW

9+00 MW

RAMP JX

54+00 JX

53+00 JX

+50 JX

TYPE C

TYPE C

RAMP JE

750+00 WB

16+00 JE

15+00 JE

14+00 JE

JACKSON STREET EB EXIT RAMP

3+00 JE

MONUMENT

RAMP LE

350+00 LE

LINCOLN MEMORIAL EB EXIT RAMP

JACKSON STREET

647+00 EB

648+00 EB

649+00 EB

650+00 EB

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - EROSION CONTROL PLAN	SHEET 599	E

LEGEND

(TYPE) INLET PROTECTION

N

N. LINCOLN MEMORIAL DRIVE (SB)

N. LINCOLN MEMORIAL DRIVE (NB)

MICHIGAN STREET

MICHIGAN ℄

400+00

401+00

402+00

403+00

+50

TYPE C

RAMP LS ℄

RAMP LN ℄

190+00 LS

189+00 LS

188+00 LS

188+00 LN

WALLS

SIGN

INL

SS

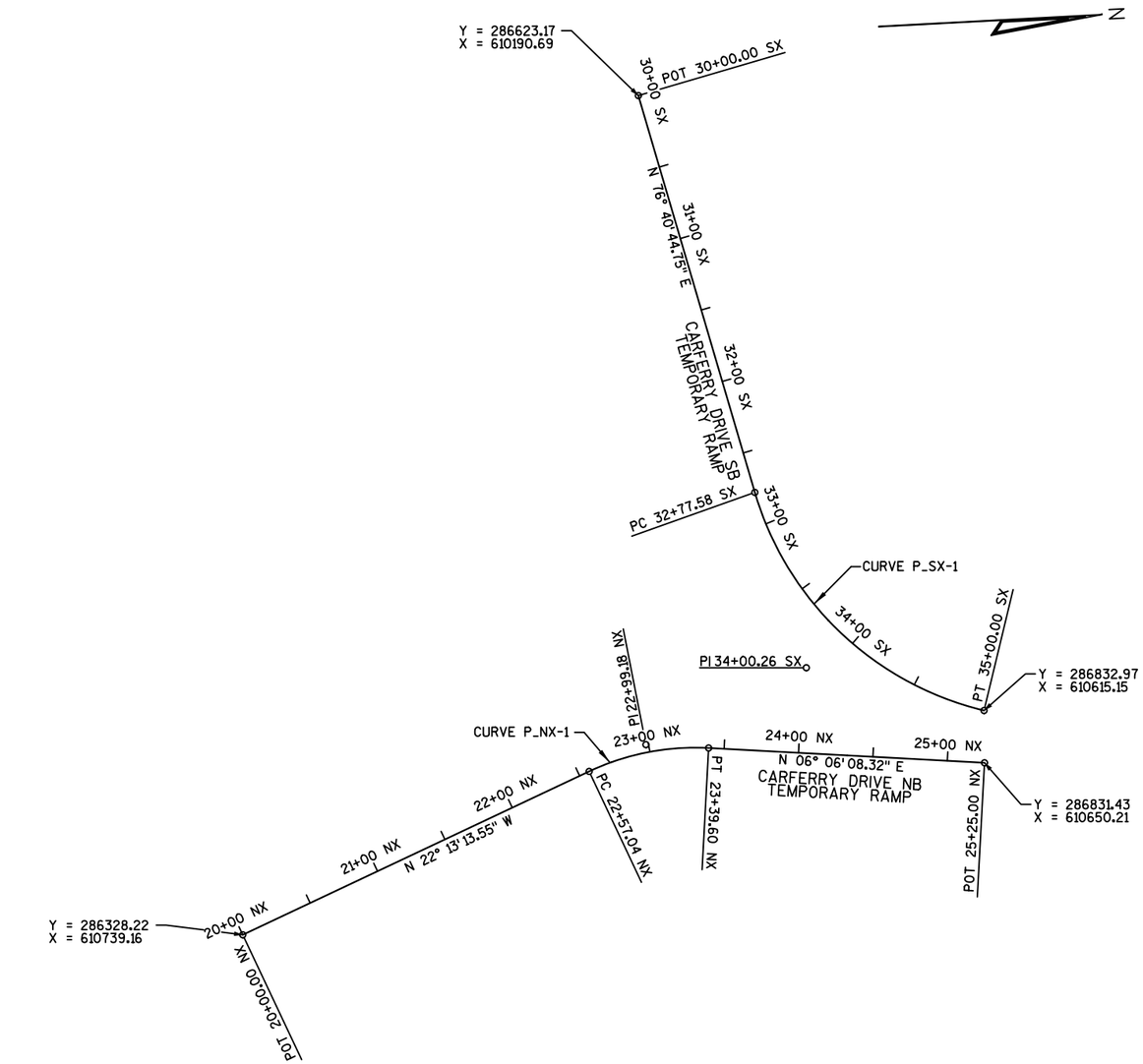
MH

EOW

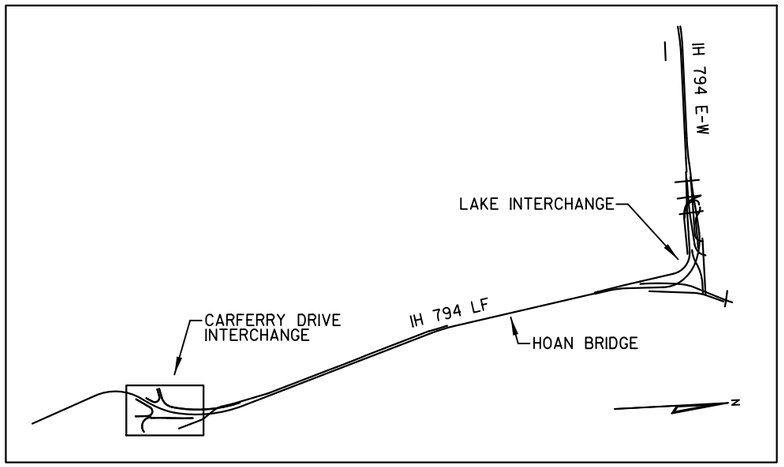
PROJECT NO:1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - EROSION CONTROL PLAN	SHEET 600	E

FILE NAME : IP_PWP:d0231471\026525_cs.dgn PLOT DATE : 29-APR-2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42



LOCATION MAP



CURVE = P_NX-1
P.I. = 22+99.18 NX
Y = 286,605.18
X = 610,626.02
DELTA = 28° 19' 22" (RT)
D = 34° 18' 32"
T = 42.14'
L = 82.55'
R = 167.00'
P.C. = 22+57.04 NX
P.T. = 23+39.60 NX

CURVE = P_SX-1
P.I. = 34+00.26 SX
Y = 286,715.39
X = 610,580.17
DELTA = 60° 06' 39" (LT)
D = 27° 01' 35"
T = 122.67'
L = 222.42'
R = 212.00'
P.C. = 32+77.58 SX
P.T. = 35+00.00 SX

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - TEMPORARY RAMP ALIGNMENT DETAILS	SHEET 601	E

CURVE = RAMP_NI-1
P.I. = 110+08.78
Y = 298,344.97
X = 608,482.79
DELTA = 2° 23' 18" (RT)
D = 13° 36' 34"
T = 8.78'
L = 17.55'
R = 421.00'
P.C. = 110+00.00
P.T. = 110+17.55

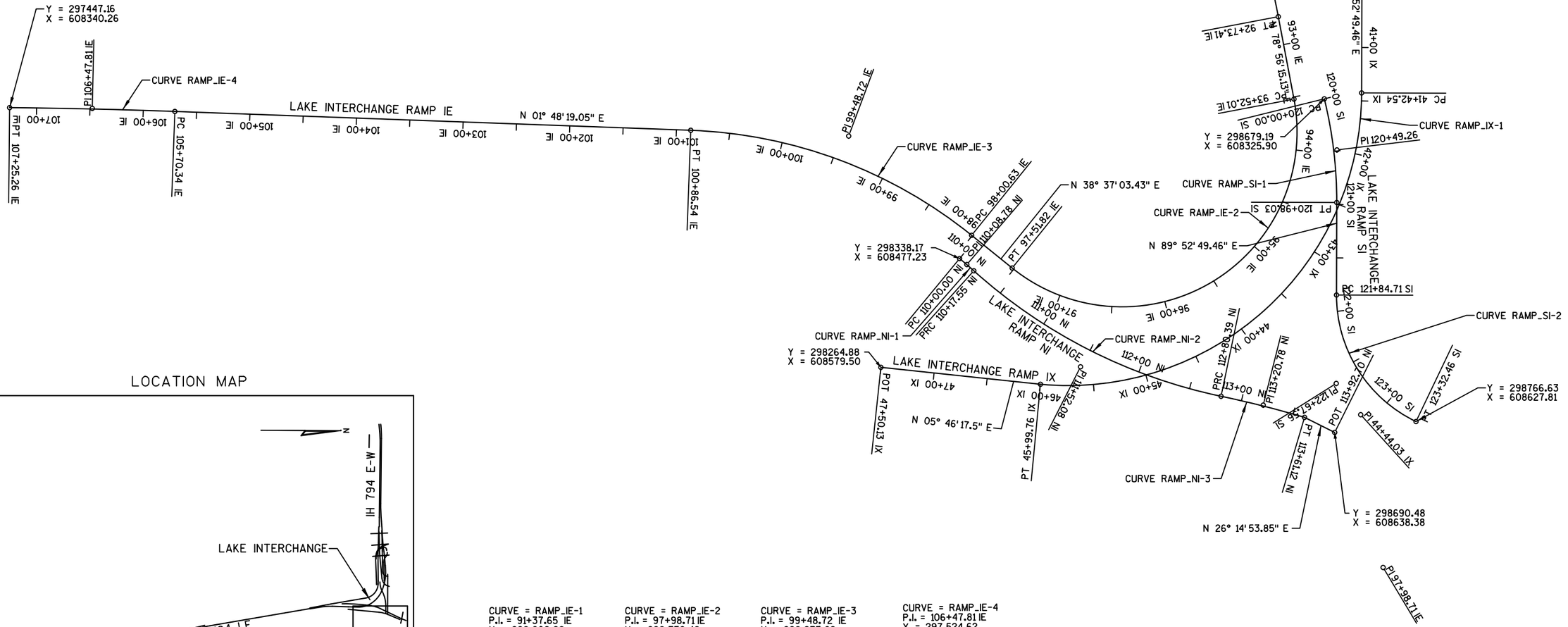
CURVE = RAMP_NI-3
P.I. = 113+20.78
Y = 298,623.38
X = 608,613.12
DELTA = 4° 40' 38" (RT)
D = 5° 47' 37"
T = 40.39'
L = 80.73'
R = 988.93'
P.C. = 112+80.39
P.T. = 113+61.12

CURVE = RAMP_IX-1
P.I. = 44+44.03 IX
Y = 298,714.76
X = 608,621.63
DELTA = 95° 15' 38" (RT)
D = 20° 50' 05"
T = 301.48'
L = 457.22'
R = 275.00'
P.C. = 41+42.54 IX
P.T. = 45+99.76 IX

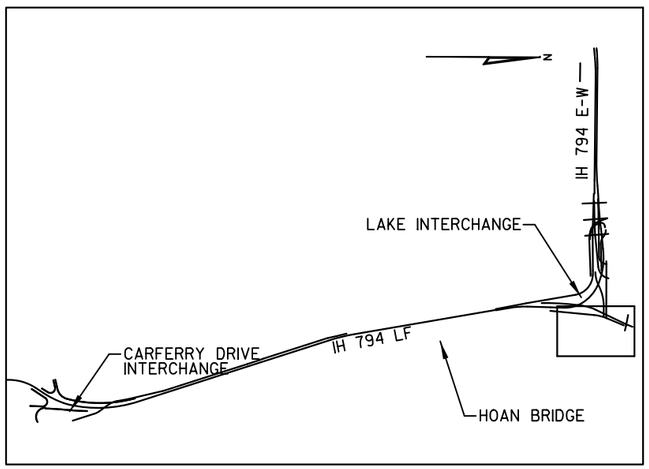
CURVE = RAMP_SI-1
P.I. = 120+49.26
Y = 298,691.24
X = 608,373.66
DELTA = 14° 02' 29" (RT)
D = 14° 19' 26"
T = 49.26'
L = 98.03'
R = 400.00'
P.C. = 120+00.00
P.T. = 120+98.03

CURVE = RAMP_SI-2
P.I. = 122+67.56
Y = 298,691.70
X = 608,592.45
DELTA = 64° 37' 21" (LT)
D = 43° 44' 14"
T = 82.85'
L = 147.75'
R = 131.00'
P.C. = 121+84.71
P.T. = 123+32.46

CURVE = RAMP_NI-2
P.I. = 111+52.08
Y = 298,452.01
X = 608,578.08
DELTA = 30° 07' 10" (LT)
D = 11° 27' 33"
T = 134.53'
L = 262.84'
R = 500.00'
P.C. = 110+17.55
P.T. = 112+80.39



LOCATION MAP



CURVE = RAMP_IE-1
P.I. = 91+37.65 IE
Y = 298,609.28
X = 608,114.01
DELTA = 16° 28' 19" (RT)
D = 6° 01' 29"
T = 137.65'
L = 273.41'
R = 951.01'
P.C. = 90+00.00 IE
P.T. = 92+73.41 IE

CURVE = RAMP_IE-2
P.I. = 97+98.71 IE
Y = 298,736.48
X = 608,764.64
DELTA = 139° 40' 48" (RT)
D = 34° 56' 11"
T = 446.70'
L = 399.81'
R = 164.00'
P.C. = 93+52.01 IE
P.T. = 97+51.82 IE

CURVE = RAMP_IE-3
P.I. = 99+48.72 IE
Y = 298,233.62
X = 608,362.96
DELTA = 36° 48' 44" (LT)
D = 12° 52' 32"
T = 148.08'
L = 285.91'
R = 445.00'
P.C. = 98+00.63 IE
P.T. = 100+86.54 IE

CURVE = RAMP_IE-4
P.I. = 106+47.81 IE
Y = 297,524.62
X = 608,340.61
DELTA = 1° 32' 34" (LT)
D = 0° 59' 45"
T = 77.46'
L = 154.92'
R = 5,753.58'
P.C. = 105+70.34 IE
P.T. = 107+25.26 IE

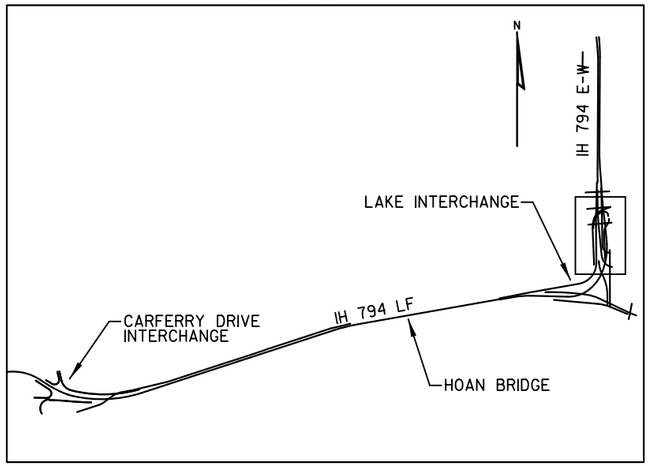
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - TEMPORARY RAMP ALIGNMENT DETAILS	SHEET 602	E

CURVE = P_MX-1
P.I. = 59+66.19 MX
Y = 298,651.65
X = 606,970.40
DELTA = 8° 39' 50" (RT)
D = 26° 48' 27"
T = 16.19'
L = 32.32'
R = 213.73'
P.C. = 59+50.00 MX
P.T. = 59+82.32 MX

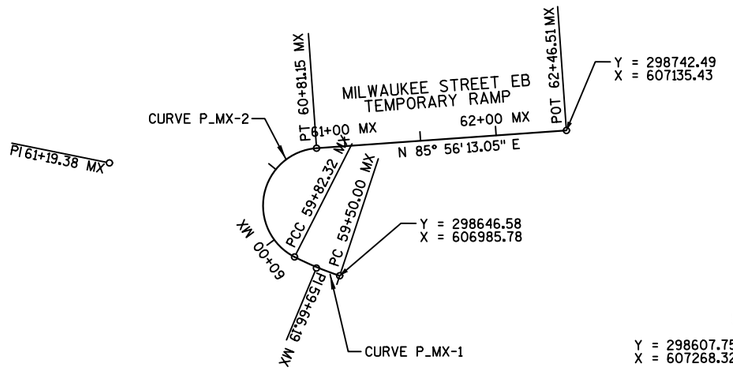
CURVE = P_JX-1
P.I. = 53+97.10 JX
Y = 298,615.82
X = 607,665.23
DELTA = 20° 24' 15" (LT)
D = 44° 04' 25"
T = 23.40'
L = 46.30'
R = 130.00'
P.C. = 53+73.70 JX
P.T. = 54+20.00 JX

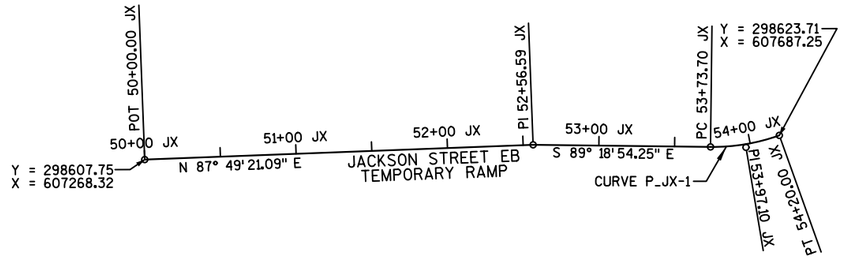
CURVE = P_MX-2
P.I. = 61+19.38 MX
Y = 298,721.06
X = 606,833.76
DELTA = 149° 00' 32" (RT)
D = 150° 46' 42"
T = 137.07'
L = 98.83'
R = 38.00'
P.C. = 59+82.32 MX
P.T. = 60+81.15 MX

LOCATION MAP



N





PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - TEMPORARY RAMP ALIGNMENT DETAILS	SHEET 603	E

2

RAMP CE ℄

SLOPE INTERCEPT

RAMP NX ℄

IH 794 LF ℄

RAMP SX ℄

IH 794 EB

IH 794 WB

20+00 NX

21+00 NX

22+00 NX

23+00 NX

24+00 NX

25+00 NX

+50

CARFERRY DRIVE RAMP NX

24.6'

17'

2'

2.0%

+20

S.E. TRANSITION -2.0% TO 6.0%

6.0%

+42

SLOPE INTERCEPT

CARFERRY DRIVE WB ENTRANCE RAMP

658+00 CN

659+00 CN

660+00 CN

RAMP CN ℄

BEGIN RAMP NX CONSTRUCTION
STA. 20+37.15 NX
Y=286362.61
X=610725.11

EXISTING R/W

END RAMP NX CONSTRUCTION
STA. 24+54.79 NX

34+00 SX

60+00 LF

61+00 LF

62+00 LF

362+00 CS

560+00 CE

559+00 CE

12+00 CN

F0

LEGEND
ASPHALTIC SURFACE
TEMPORARY

MATCH POINT

K = 26
L = 120'

20+85.00 EL 606.40

22+05.00
EL 614.09

604.43

PROPOSED PROFILE
RAMP NX

+8.69%

+4.12%

P.I. 21+45.00
El 608.87

EXISTING PROFILE
RAMP NX

MATCH POINT

22+50.00
EL 618.00

K = 20
L = 180'

24+30.00 EL 625.55

P.I. 23+40.00
El 625.82

-0.30%

+8.69%

625.48

PROPOSED PROFILE
RAMP NX

EXISTING PROFILE
RAMP NX

616	614	612	610	608	606	604	602
628	626	624	622	620	618	616	614

603.0 603.7 604.5 604.55 605.8 605.37 606.5 606.20 607.2 607.06 607.3 608.08 607.6 609.24 608.1 610.56 607.9 612.04 608.8 613.66 612.2 615.39 614.8 617.13

614.8 617.13 617.2 618.84 619.8 620.38 621.9 621.72 623.2 622.86 624.1 623.80 624.9 624.54 625.6 625.08 626.1 625.42 626.1 625.56 625.8 625.52 625.4 625.4 625.2

20+00 20+50 21+00 21+50 22+00 22+50 23+00 23+50 24+00 24+50 25+

PROJECT NO:1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN AND PROFILE - RAMP NX	SHEET 604	E

FILE NAME : IP_PWP:d0231471\026529_cs.dgn PLOT DATE : 29-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 40

EXISTING R/W

CARFERRY DRIVE EB EXIT RAMP

CARFERRY DRIVE SB ENTRANCE RAMP

RAMP CS ℄

358+00 CS

359+00 CS

360+00 CS

361+00 CS

30+00 SX

31+00 SX

32+00 SX

33+00 SX

34+00 SX

CARFERRY DRIVE RAMP SX

6.0%

2'

17'

2'

SLOPE INTERCEPT

SLOPE INTERCEPT

RAMP SX ℄

RAMP CW ℄

461+00 CW

460+00 CW

459+00 CW

BEGIN RAMP SX CONSTRUCTION
STA. 31+42.31 SX
Y=286655.96
X=610329.17

END RAMP SX CONSTRUCTION
STA. 33+63.59 SX

IH 794 EB

IH 794 WB

IH 794 LF ℄

60+00 LF

61+00 LF

25+00 NX

24+00 NX

RAMP NX ℄

CARFERRY DRIVE RAMP NX

N

LEGEND
ASPHALTIC SURFACE TEMPORARY

MATCH POINT

608.82

MATCH POINT

PROPOSED PROFILE RAMP SX

PI 32+32.00
EL 614.20

+6.00%

+5.25%

32+02.00
EL 612.40

K = 80
L = 60'

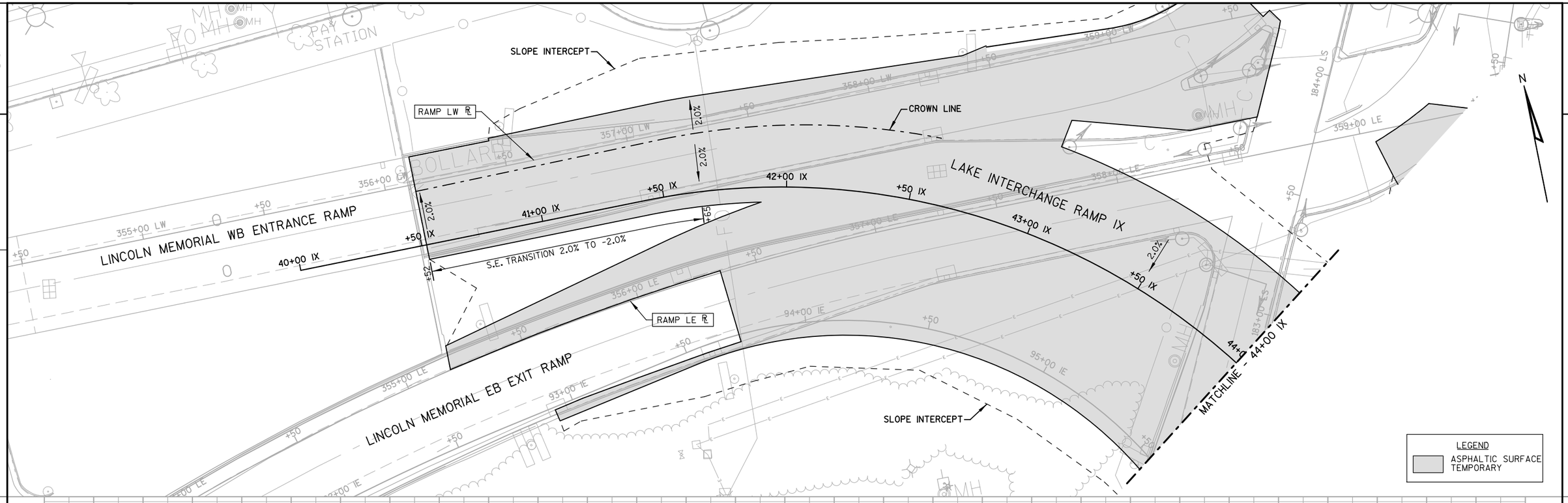
32+62.00 EL 615.78

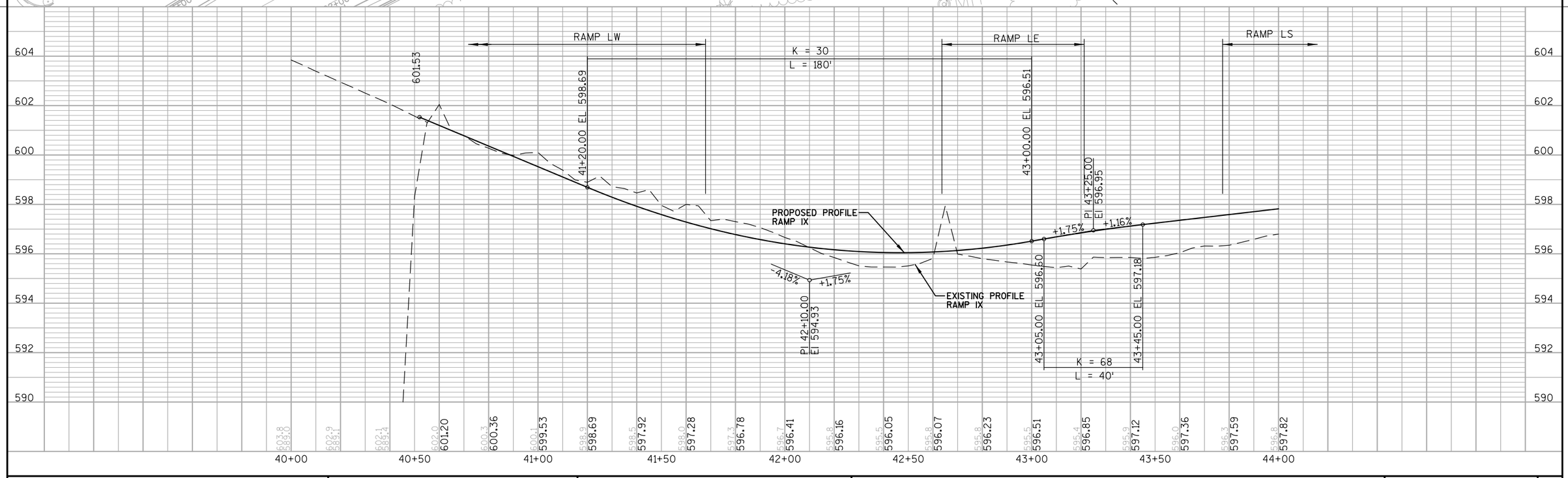
621.11

EXISTING PROFILE RAMP SX

| | | |

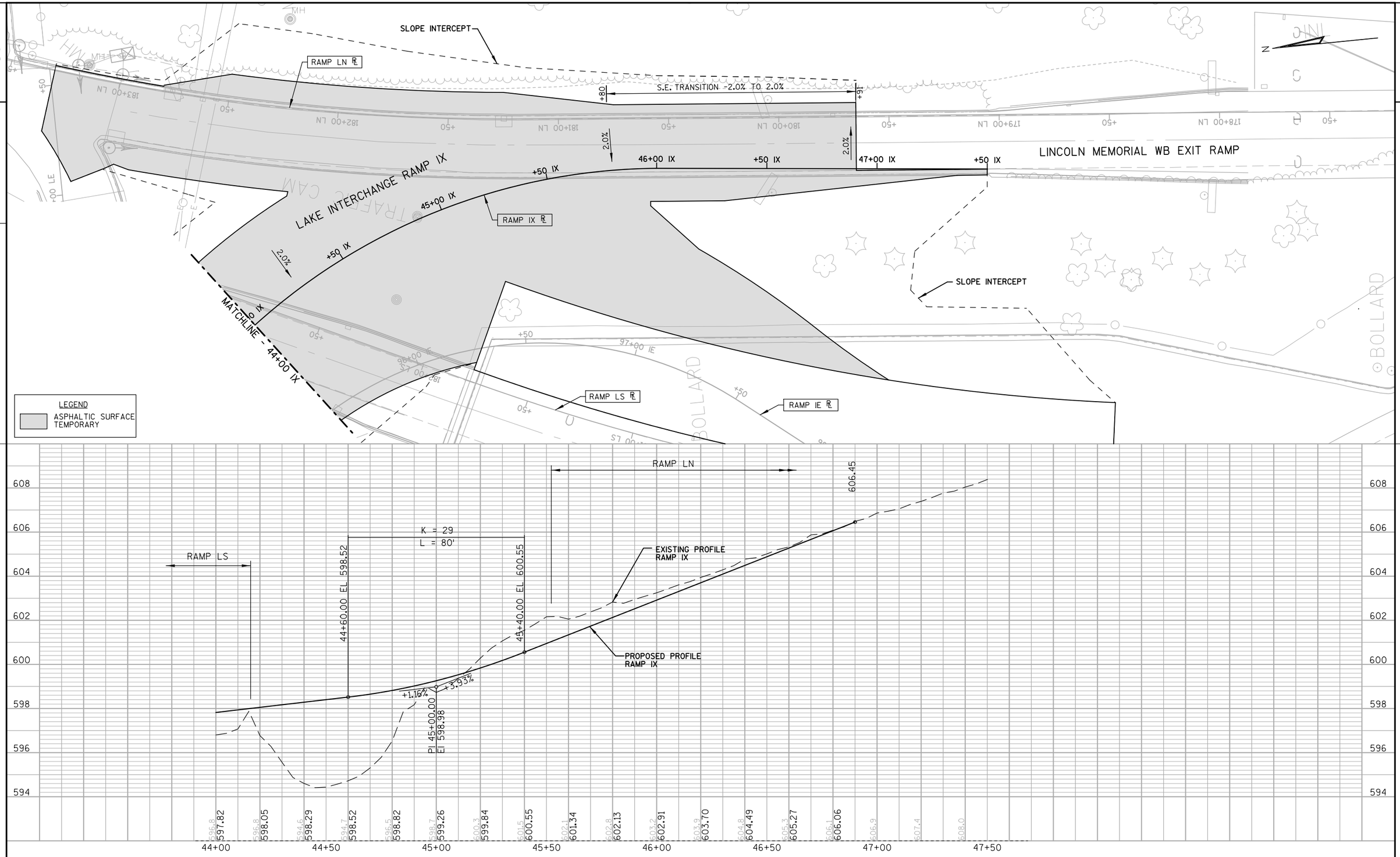
2





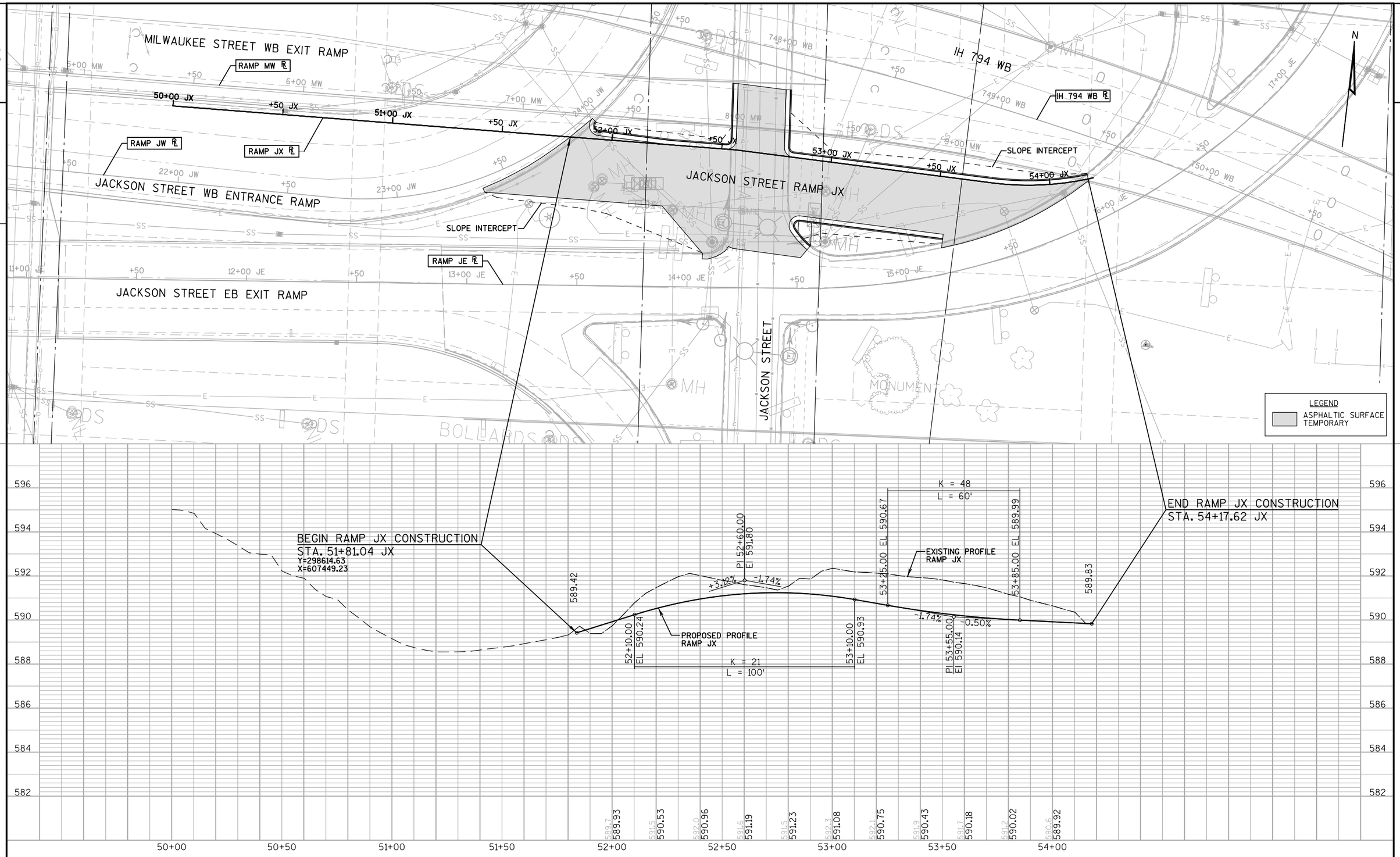
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN AND PROFILE - RAMP IX	SHEET 606	E

FILE NAME : c:\pwv8i-local\baker_projects\andrew.genz\d0231471\026531_cs.dgn
PLOT DATE : 30-APR-2013
PLOT BY : Graef
PLOT NAME :
PLOT SCALE : 40.000000:1.000000
WISDOT/CADDS SHEET 40



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN AND PROFILE - RAMP IX	SHEET 607	E

2



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN AND PROFILE - RAMP JX	SHEET 608	E

LEGEND
ASPHALTIC SURFACE TEMPORARY

CLYBOURN STREET

IH 794 WB

IH 794 WB ℄

MILWAUKEE STREET

JACKSON STREET WB ENTRANCE RAMP

RAMP JW ℄

MILWAUKEE STREET RAMP MX

SLOPE INTERCEPT

RAMP MW ℄

MILWAUKEE STREET WB EXIT RAMP

N

BEGIN RAMP MX CONSTRUCTION
STA. 59+99.61 MX

END RAMP MX CONSTRUCTION
STA. 60+69.24 MX

K = 17
L = 40'

60+25.00 EL 590.74

60+65.00 EL 590.23

591.37

590.22

EXISTING PROFILE
RAMP MX

PROPOSED PROFILE
RAMP MX

-2.47%

-0.12%

PI 60+45.00
EL 590.25

591.36 590.87 590.44 590.24

59+50 60+00 60+50 61+00 61+50 62+00

PROJECT NO:1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN AND PROFILE - RAMP MX	SHEET 609	E

FILE NAME : IP_PWP:d0231471\026534_cs.dgn PLOT DATE : 29-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 40

2

N

PAY STATIONS

GATE

GATE

GATE

RAMP LE

LINCOLN MEMORIAL EB EXIT RAMP

RAMP LW

LAKE INTERCHANGE RAMP IE

RAMP IE

CROWN LINE

SLOPE INTERCEPT

BOLLARD

IH 794 WB

MH

353+00 LE

354+00 LE

355+00 LE

356+00 LE

358+00 LE

42+00 IX

43+00 IX

183+00 LS

90+00 IE

91+00 IE

92+00 IE

93+00 IE

94+00 IE

95+00 IE

+50 IE

3.0%

2.0%

BEGIN RAMP IE CONSTRUCTION
STA. 93+72.51 IE
Y=298653.44
X=608346.56

LEGEND
ASPHALTIC SURFACE TEMPORARY

K = 28
L = 130'

93+95.00 EL 596.35

95+25.00 EL 597.34

596.72

EXISTING PROFILE RAMP IE

PROPOSED PROFILE RAMP IE

-1.60%

+3.12%

PI 94+60.00
El 595.31

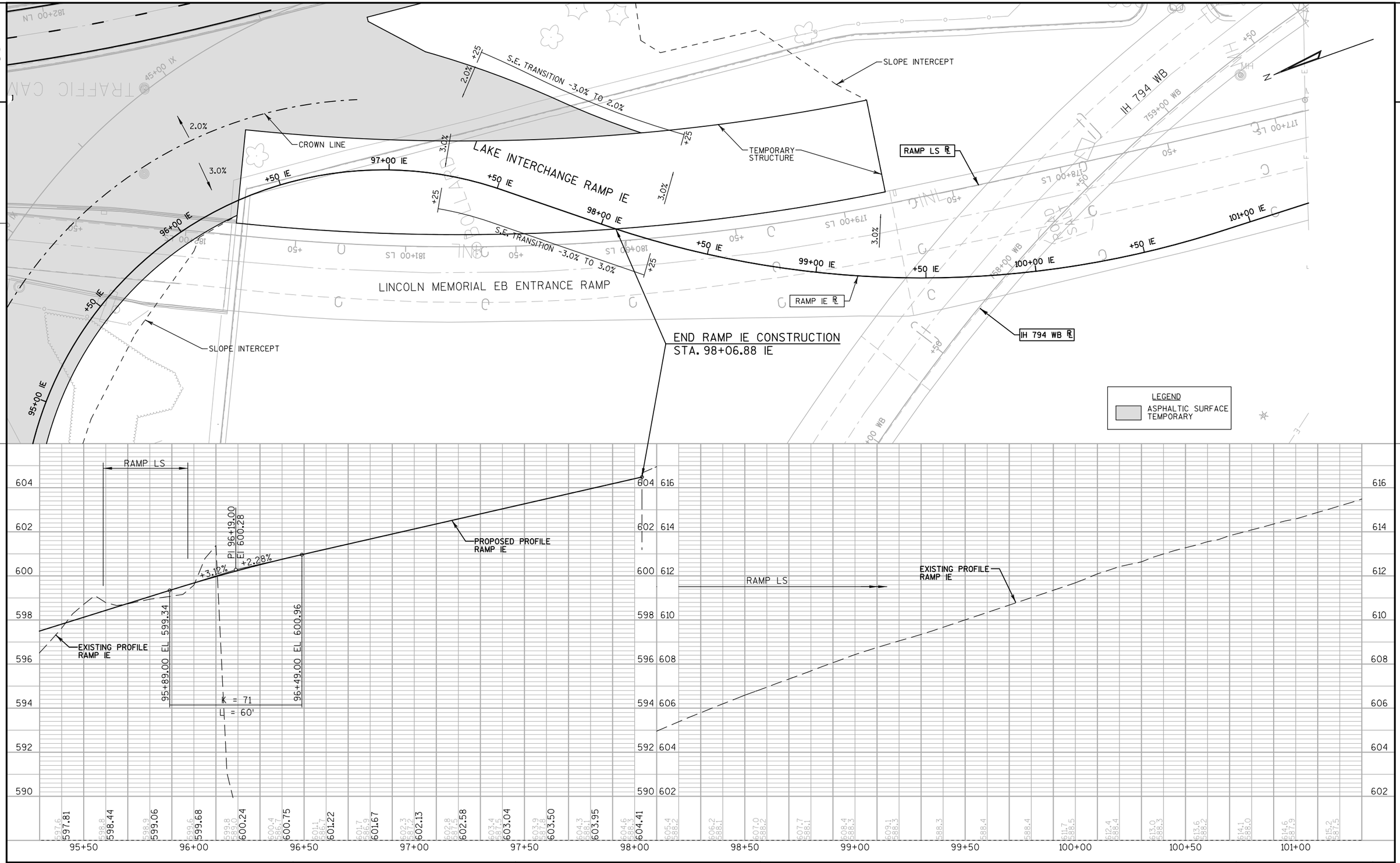
602 600 598 596 594 592 590 588 586

90+00 90+50 91+00 91+50 92+00 92+50 93+00 93+50 94+00 94+50 95+00 95+50

589.5 590.3 603.7 589.7 603.0 589.6 602.3 589.4 601.6 594.6 600.9 601.0 598.6 599.8 599.6 599.0 598.9 598.5 598.0 597.8 597.5 597.2 596.9 596.59 596.28 596.06 596.00 596.08 596.30 596.67 597.19 597.81 598.44

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN AND PROFILE - RAMP IE	SHEET 610	E

FILE NAME : IP_PWP:d0231471\026535_cs.dgn PLOT DATE : 29-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000 WISDOT/CADDS SHEET 40



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN AND PROFILE - RAMP IE	SHEET 611	E

FILE NAME : IP_PWP:d0231471\026536_cs.dgn PLOT DATE : 29-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

2

SLOPE INTERCEPT

SLOPE INTERCEPT

RAMP LW ℄

RAMP LE ℄

LINCOLN MEMORIAL WB ENTRANCE RAMP

LINCOLN MEMORIAL EB EXIT RAMP

BEGIN RAMP SI CONSTRUCTION
STA. 757+67.35 WI

END RAMP SI CONSTRUCTION
STA. 759+56.00 WI

PROPOSED PROFILE RAMP WI

EXISTING PROFILE RAMP WI

LEGEND
ASPHALTIC SURFACE TEMPORARY

PI 757+67.35
El 596.68

PI 758+35.00
El 596.06

PI 759+10.00
El 592.60

757+95.00 EL 596.43

758+75.00 EL 594.22

758+75.00 EL 594.22

759+45.00 EL 591.90

591.68

K = 22
L = 80'

K = 27
L = 70'

-0.91%

-0.91%

4.62%

-4.62%

-2.00%

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN AND PROFILE - RAMP WI	SHEET 612 E

FILE NAME : c:\pwv8i-local\baker_projects\andrew.genz\d0231471\026536a_cs.dgn PLOT DATE : 30-APR-2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 40

RAMP LS
RAMP LE
RAMP LW
LINCOLN MEMORIAL DRIVE SB
LINCOLN MEMORIAL DRIVE NB
LINCOLN MEMORIAL WB EXIT RAMP
BEGIN RAMP LN CONSTRUCTION
STA. 181+70.00 LN
SLOPE INTERCEPT
END RAMP SI CONSTRUCTION
STA. 183+30.00 LN

LEGEND
ASPHALTIC SURFACE TEMPORARY

PI 181+70.00
El 600.12
-1.84%
PI 182+25.00
El 599.11
-6.14%
K = 41
L = 60'
182+70.00 EL 596.35
183+30.00 EL 593.10
PROPOSED PROFILE RAMP LN
EXISTING PROFILE RAMP LN
181+80.00 EL 599.94
K = 21
L = 90'
182+70.00 EL 596.35
-6.14%
-4.68%
PI 183+00.00
El 594.50

180+00	180+50	181+00	181+50	182+00	182+50	183+00	183+50
605.6	604.9	604.2	603.5	602.7	602.1	601.4	600.5	599.9	599.2	598.6 599.94	597.8 599.47	597.1 598.82	596.4 597.97	595.6 596.94	594.8 595.74	594.2 594.61	593.4 593.58	592.7

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN AND PROFILE-TEMPORARY RAMP LN	SHEET 613	E

2

RAMP LW
LINCOLN MEMORIAL WB ENTRANCE RAMP
SLOPE INTERCEPT
RAMP LE
RAMP LX
LINCOLN MEMORIAL EB EXIT RAMP
BEGIN RAMP SI CONSTRUCTION
STA. 120+25.00 SI
END RAMP SI CONSTRUCTION
STA. 122+50.00 SI
N

LEGEND
ASPHALTIC SURFACE TEMPORARY

604
602
600
598
596
594
592
590

597.21
PI 121+05.00
El 596.93
EXISTING PROFILE
NB RAMP SI
-0.70%
-2.56%
593.22
120+67.50 EL 597.20
121+42.50 EL 595.97
PROPOSED PROFILE
NB RAMP SI
K = 40
L = 75'

597.8 597.5 597.2 596.4 597.09 596.0 596.84 596.3 596.49 596.7 596.04 597.1 595.52 597.2 595.01 594.3 594.50 593.8 593.99 593.3 593.48 593.0 592.5 592.1

120+50 121+00 121+50 122+00 122+50 123+00

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN AND PROFILE - RAMP SI	SHEET 614	E

FILE NAME : IP_PWP:d0231471\026538_cs.dgn PLOT DATE : 29-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

LEGEND
ASPHALTIC SURFACE TEMPORARY

RAMP LS
RAMP IE
RAMP IX
RAMP LN

LINCOLN MEMORIAL WB EXIT RAMP

BEGIN RAMP NI CONSTRUCTION
STA. 111+50.00 NI

END RAMP NI CONSTRUCTION
STA. 112+75.00 NI

SLOPE INTERCEPT

PROPOSED PROFILE
NB RAMP NI

EXISTING PROFILE
NB RAMP NI

PI 112+15.00
El 601.64

602.44

598.67

-1.23%

-4.96%

111+60.00 EL 602.32

112+70.00 EL 598.91

K = 30
L = 110'

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - PLAN AND PROFILE - RAMP NI	SHEET 615	E

Pre-Stage STH 794 (LF)

STATION	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
38+10.00		9	7	0	0	0	0	0	0	0	0	0
38+50.00	40	9	7	0	0	13	10	0	0	13	0	3
39+00.00	50	9	7	0	0	16	13	0	0	29	0	6
39+50.00	50	9	7	0	0	16	13	0	0	45	0	10
40+00.00	50	9	7	0	0	16	13	0	0	61	0	13
40+50.00	50	9	7	0	0	16	13	0	0	77	0	17
41+00.00	50	9	7	0	0	16	13	0	0	93	0	20
41+50.00	50	9	7	0	0	16	13	0	0	109	0	24
41+75.00	25	9	7	0	0	8	6	0	0	117	0	26
				Column totals		117	92	0	0			

Pre-Stage Carferry WB Entrance Ramp (NX)

STATION	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
20+50.00		10	0	0	0	0	0	0	0	0	0	0
21+00.00	50	41	0	0	0	47	0	0	0	47	0	47
21+50.00	50	0	0	30	0	38	0	28	0	85	33	52
22+00.00	50	0	0	200	0	0	0	216	0	85	293	-207
22+50.00	50	0	0	67	0	0	0	250	0	85	593	-507
23+00.00	50	69	0	23	0	64	0	83	0	149	693	-543
23+50.00	50	40	0	32	0	102	0	51	0	251	754	-504
24+00.00	50	36	0	0	0	70	0	30	0	321	789	-469
24+50.00	50	32	0	0	0	63	0	0	0	384	789	-406
25+00.00	50	13	0	0	0	42	0	0	0	426	789	-364
25+10.00	10	9	0	0	0	4	0	0	0	430	789	-360
				Column totals		430	0	658	0			

Pre-Stage Carferry EB Exit Ramp (SX)

STATION	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
31+50.00		9	0	0	0	0	0	0	0	0	0	0
32+00.00	50	20	0	0	0	27	0	0	0	27	0	27
32+50.00	50	40	0	1	0	56	0	1	0	83	1	82
33+00.00	50	25	0	0	0	60	0	1	0	143	2	141
33+50.00	50	45	0	0	0	65	0	0	0	208	2	206
33+88.00	38	9	0	0	0	38	0	0	0	246	2	244
				Column totals		246	0	2	0			

Pre-Stage LMD Ramp (IX)

STATION	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
40+52.02		63	32	0	0	0	0	0	0	0	0	0
41+00.00	48	76	36	0	0	125	60	0	0	125	0	64
41+50.00	50	57	25	10	0	125	56	10	0	250	12	120
42+00.00	50	46	23	9	0	96	45	18	0	346	33	149
42+00.00	0	34	23	3	0	0	0	0	0	250	12	120
42+50.00	50	25	11	21	0	65	35	20	0	411	57	155
43+00.00	50	22	22	32	0	44	31	49	0	455	116	110
43+50.00	50	63	31	69	0	79	49	93	0	534	228	28
44+00.00	50	22	22	60	0	79	49	120	0	613	371	-86
44+50.00	50	1	0	64	0	22	21	115	0	635	510	-224
45+00.00	50	62	22	4	0	58	21	63	0	692	585	-262
45+00.00	0	65	24	17	0	0	0	0	0	692	585	-262
45+50.00	50	70	23	1	0	125	44	16	0	818	605	-200
46+00.00	50	80	23	0	0	140	42	0	0	958	606	-105
46+50.00	50	84	22	4	0	155	42	4	0	1113	610	0
46+90.42	40	61	22	19	0	108	33	17	0	1221	631	55
47+00.00	10	12	0	13	0	13	4	6	0	1234	637	57
47+50.00	50	5	0	0	0	16	0	12	0	1250	652	58
				Column totals		1250	531	543	0			

Pre-Stage LMD Ramp (IE)

STATION	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
92+62.00		15	7	0	0	0	0	0	0	0	0	0
92+92.00	30	106	9	0	0	67	9	0	0	67	0	59
93+00.00	8	99	10	0	0	30	3	0	0	98	0	86
93+50.00	50	65	9	0	0	155	18	0	0	253	0	221
93+73.00	23	46	33	0	0	47	18	0	0	300	0	250
93+73.00	0	92	33	0	0	0	0	0	0	300	0	250
94+00.00	27	85	30	0	0	74	33	0	0	374	0	291
94+50.00	50	43	20	8	0	118	50	7	0	493	9	351
95+00.00	50	0	0	46	0	40	18	50	0	533	69	313
95+50.00	50	68	29	21	0	63	27	62	0	596	143	274
96+00.00	50	40	37	158	0	100	65	166	0	696	342	110
96+50.00	50	3	0	65	0	40	40	207	0	736	591	-138
97+00.00	50	1	0	223	0	3	0	267	0	739	911	-455
97+50.00	50	0	0	352	0	0	0	533	0	740	1550	-1093
98+00.00	50	0	0	135	0	0	0	451	0	740	2092	-1635
98+50.00	50	0	0	179	0	0	0	291	0	740	2441	-1985
99+00.00	50	0	0	0	0	0	0	166	0	740	2640	-2184
				Column totals		740	280	2200	0			

Pre-Stage LMD WB Ramp (WI)

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
757+67.00	75767		11	9	13	0	0	0	0	0	0	0	0
758+00.00	75800	33	11	11	19	0	14	12	19	0	14	23	-21
758+50.00	75850	50	22	22	36	0	30	30	51	0	44	84	-81
759+00.00	75900	50	38	34	20	0	55	54	52	0	99	146	-142
759+50.00	75950	50	68	40	0	0	98	70	19	0	198	168	-136
759+56.00	75956	6	61	32	1	0	14	8	0	0	212	168	-130
					Column totals		212	174	140	0			

Pre-Stage LMD NB Ramp (LN)

STATION	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
181+70.00		6	2	9	0	0	0	0	0	0	0	0
182+15.00	45	27	22	38	0	28	20	39	0	28	47	-39
182+50.00	35	33	22	40	0	39	29	51	0	67	108	-89
183+00.00	50	45	22	0	0	72	44	37	0	139	152	-106
183+30.00	30	48	24	0	0	52	26	0	0	190	152	-80
				Column totals		190	118	127	0			

Pre-Stage Jackson Ramp (JX)

STATION	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
51+50.00		17	0	0	0	0	0	0	0	0	0	0
51+88.00	38	59	0	0	0	53	0	0	0	53	0	53
52+00.00	12	71	0	0	0	29	0	0	0	82	0	82
52+50.00	50	114	0	0	0	171	0	0	0	253	0	253
52+68.00	18	115	57	0	0	76	19	0	0	329	0	311
53+00.00	32	79	0	0	0	114	34	0	0	444	0	391
53+50.00	50	84	0	0	0	151	0	0	0	595	0	542
53+55.00	5	90	0	0	0	16	0	0	0	611	0	558
54+00.00	45	25	0	0	0	96	0	0	0	707	0	654
54+17.00	17	2	0	0	0	8	0	0	0	715	0	662
				Column totals		715	53	0	0			

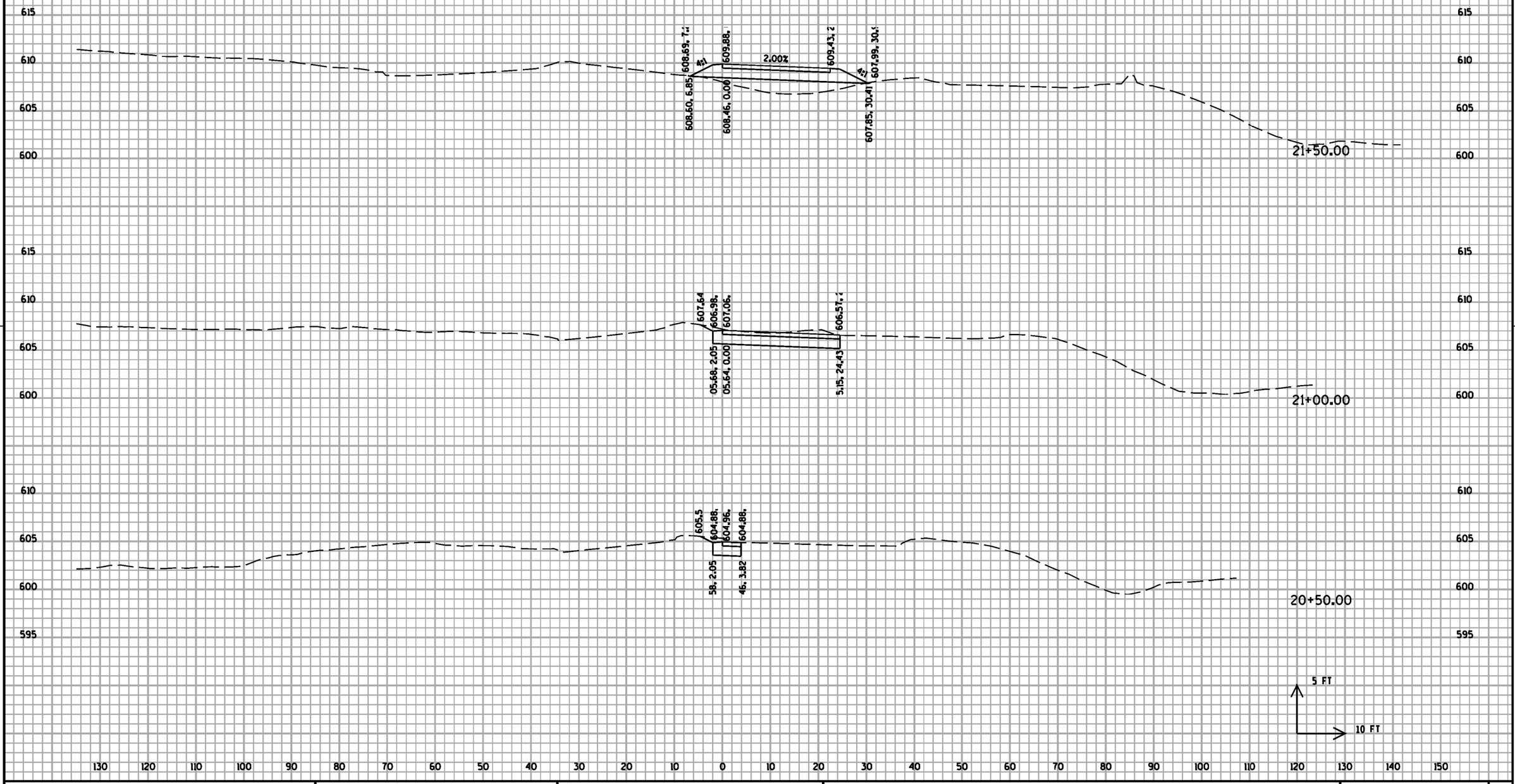
Pre-Stage Milwaukee Ramp (MX)

STATION	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
59+75.00		5	1	0	0	0	0	0	0	0	0	0
60+00.00	25	35	5	0	0	19	3	0	0	19	0	16
60+25.00	25	78	13	0	0	52	8	0	0	71	0	60
60+50.00	25	74	11	0	0	70	11	0	0	141	0	119
60+75.00	25	29	4	0	0	50	7	0	0	191	0	160
61+00.00	25	7	1	0	0	17	2	0	0	208	0	175
61+10.00	10	5	1	0	0	2	0	0	0	210	0	176
				Column totals		210	31	0	0			

Stage 2 SI Ramp

STATION	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
120+25.00		4	0	0	0	0	0	0	0	0	0	0
120+50.00	25	8	0	0	0	6	0	0	0	6	0	6
120+65.00	15	10	0	0	0	5	0	0	0	11	0	11
120+75.00	10	11	0	0	0	4	0	0	0	14	0	14
121+00.00	25	21	0	0	0	14	0	0	0	29	0	29
121+25.00	25	52	0	0	0	33	0	0	0	62	0	62
121+50.00	25	89	0	0	0	65	0	0	0	127	0	127
121+75.00	25	91	0	0	0	83	0	0	0	211	0	211
122+00.00	25	29	0	0	0	55	0	0	0	266	0	266
122+25.00	25	14	0	0	0	20	0	0	0	286	0	286
122+50.00	25	8	0	0	0	10	0	0	0	296	0	296
				Column totals		296	0	0	0			

ALL FILL PLACED IN PRE-STAGE 1
TO BE REMOVED IN STAGE 2
AFTER THE RAMP IS CLOSED

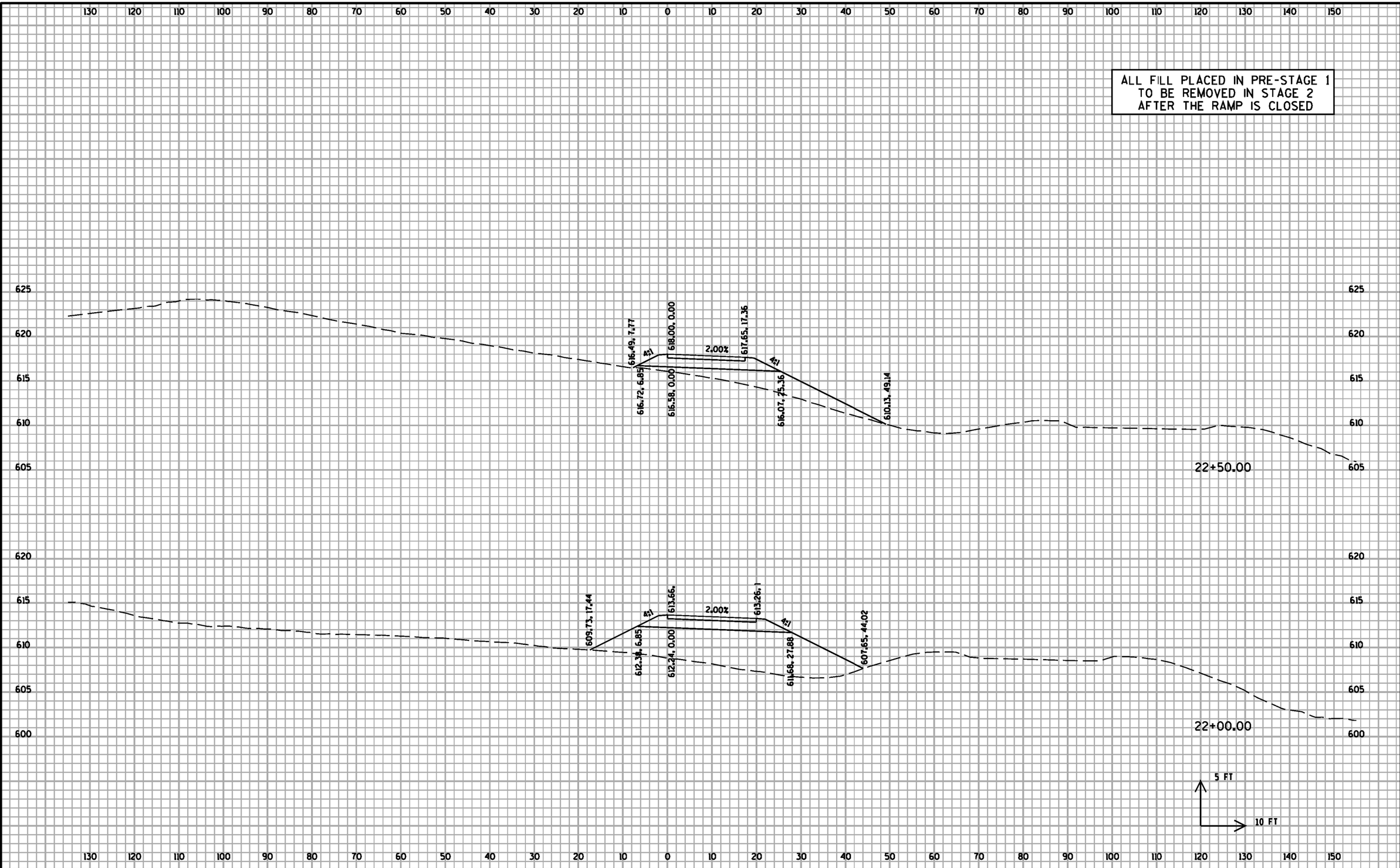


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP NX	SHEET E

FILE NAME : 026541_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

ALL FILL PLACED IN PRE-STAGE 1
TO BE REMOVED IN STAGE 2
AFTER THE RAMP IS CLOSED

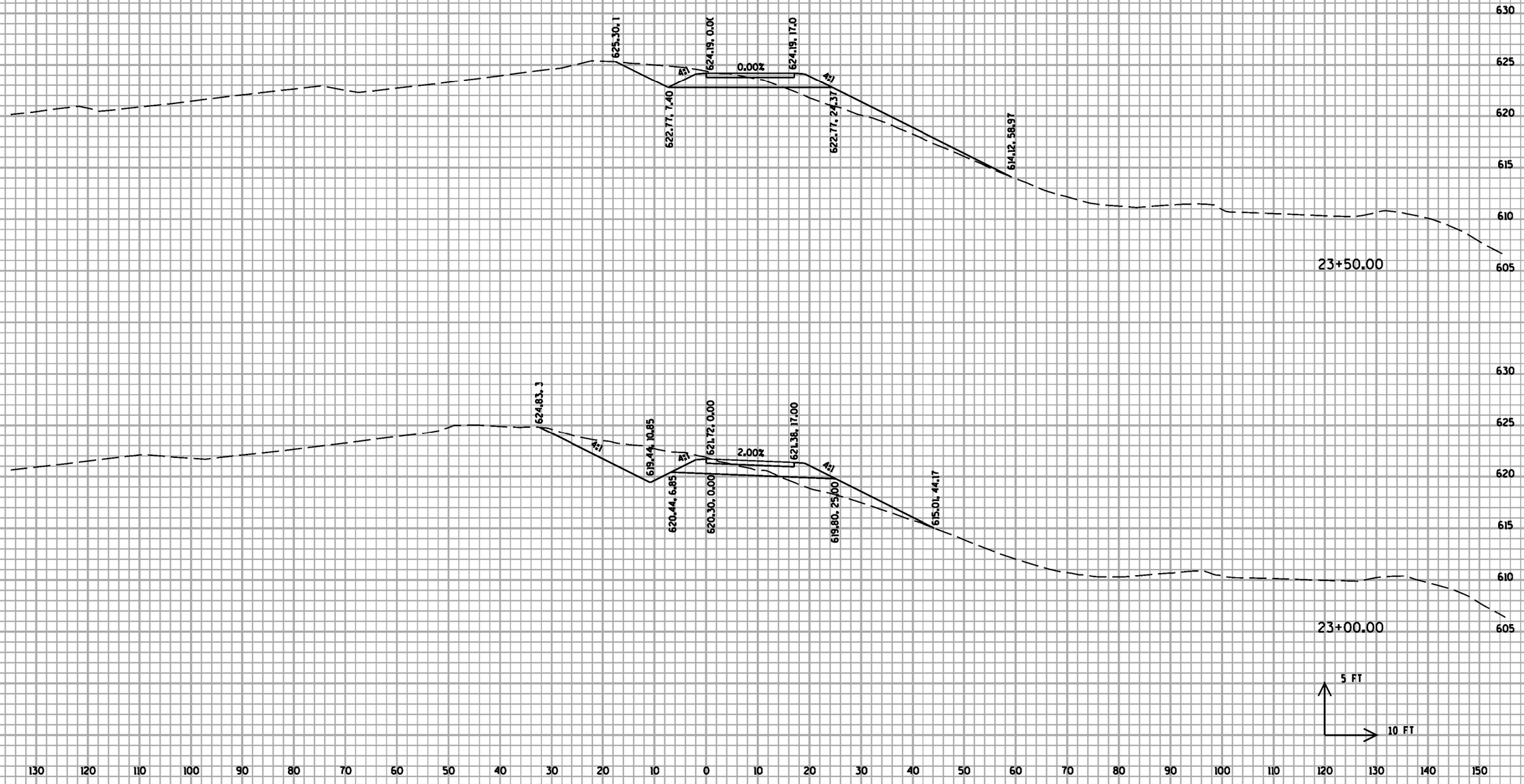


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP NX	SHEET	E

FILE NAME : 026541_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

ALL FILL PLACED IN PRE-STAGE 1
TO BE REMOVED IN STAGE 2
AFTER THE RAMP IS CLOSED

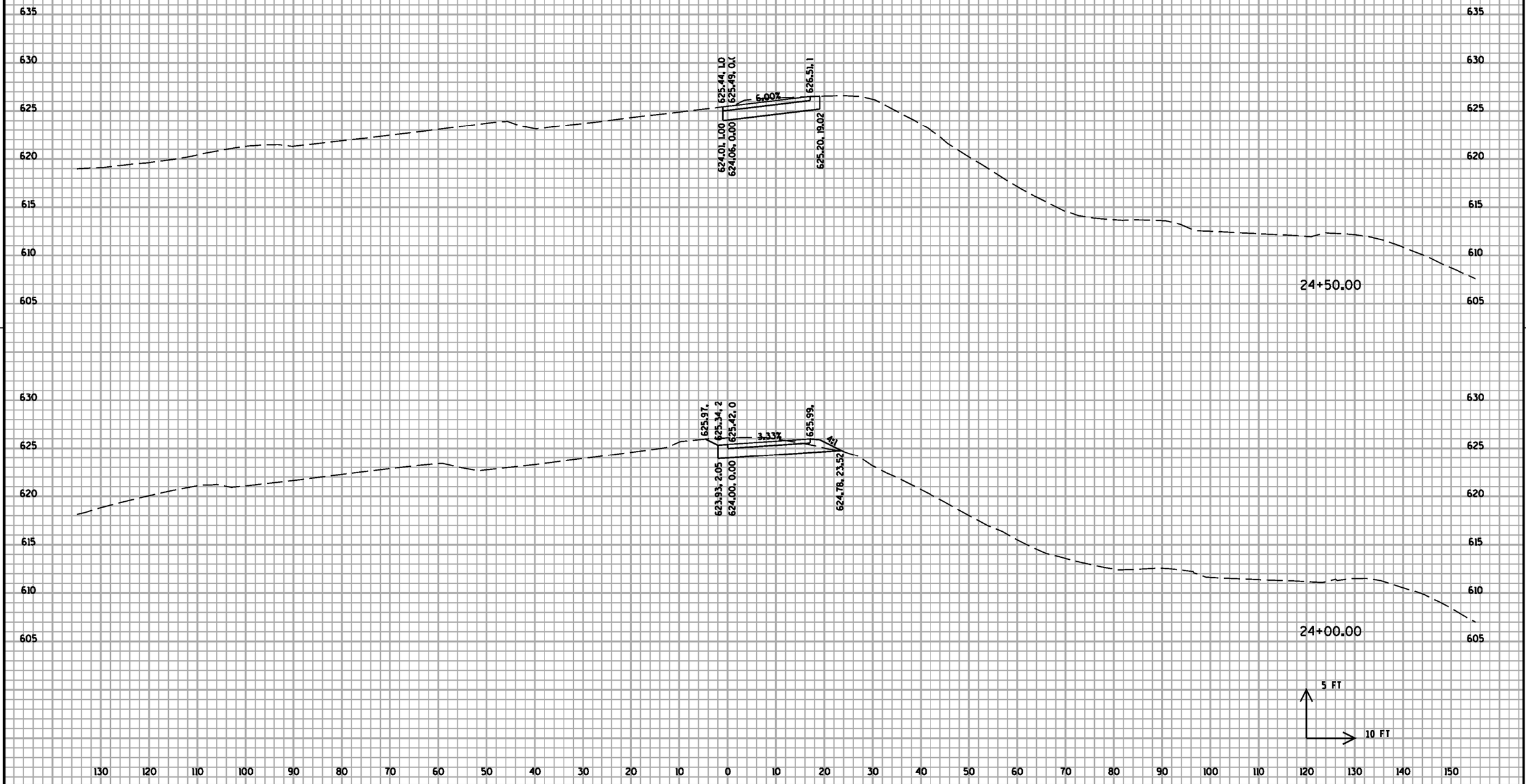


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP NX	SHEET	E

FILE NAME : 026541_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

ALL FILL PLACED IN PRE-STAGE 1
TO BE REMOVED IN STAGE 2
AFTER THE RAMP IS CLOSED



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP NX	SHEET E

FILE NAME : 026541_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

ALL FILL PLACED IN PRE-STAGE 1
TO BE REMOVED IN STAGE 2
AFTER THE RAMP IS CLOSED

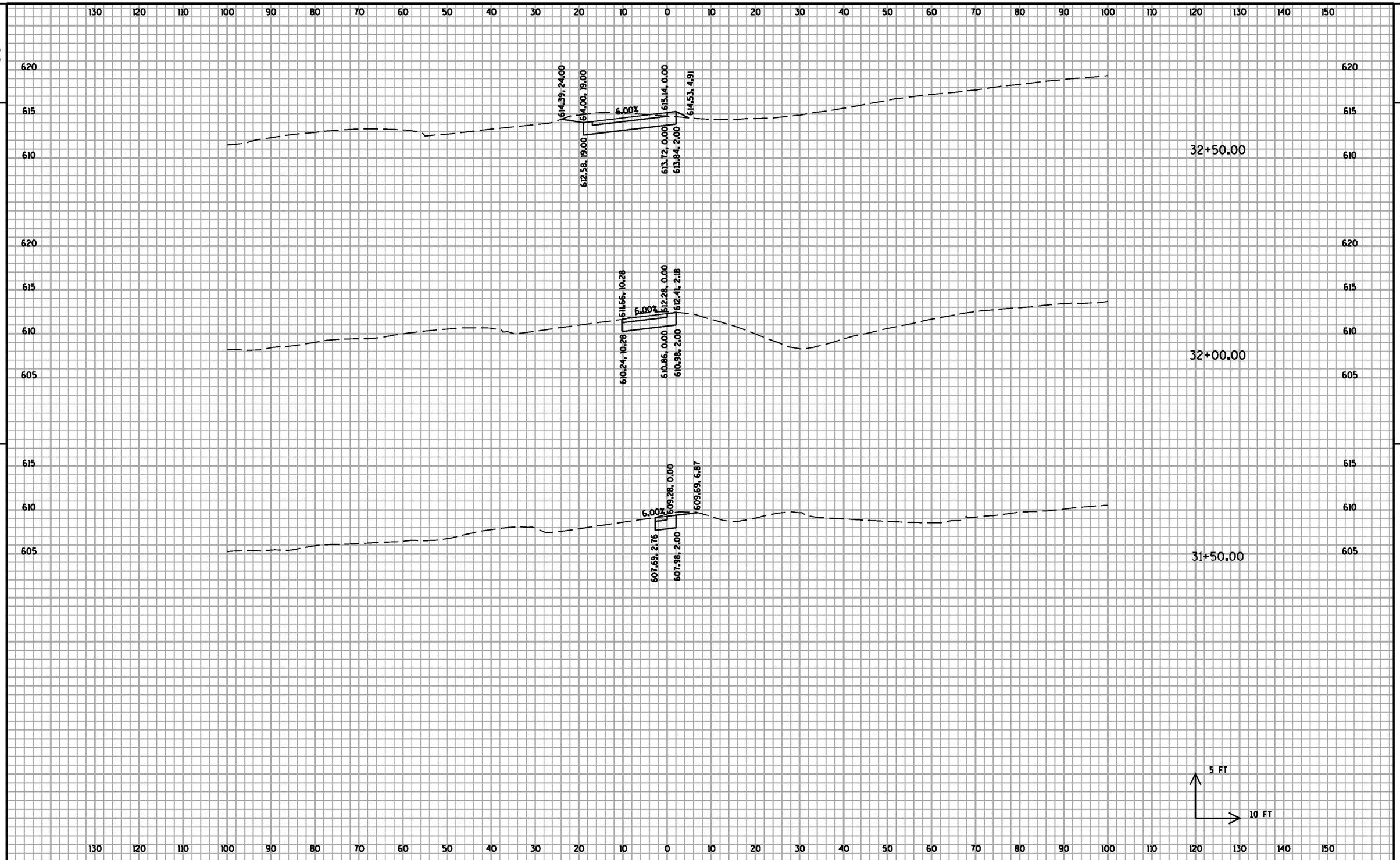
626.03, 13
6.00%
626.43, 1'
624.60, 13.00
625.12, 21.66
25+10.00

625.95, 10
626.32, 1
626.53, 1
624.52, 10.79
625.02, 19.00
25+00.00

5 FT
10 FT

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP NX	SHEET E

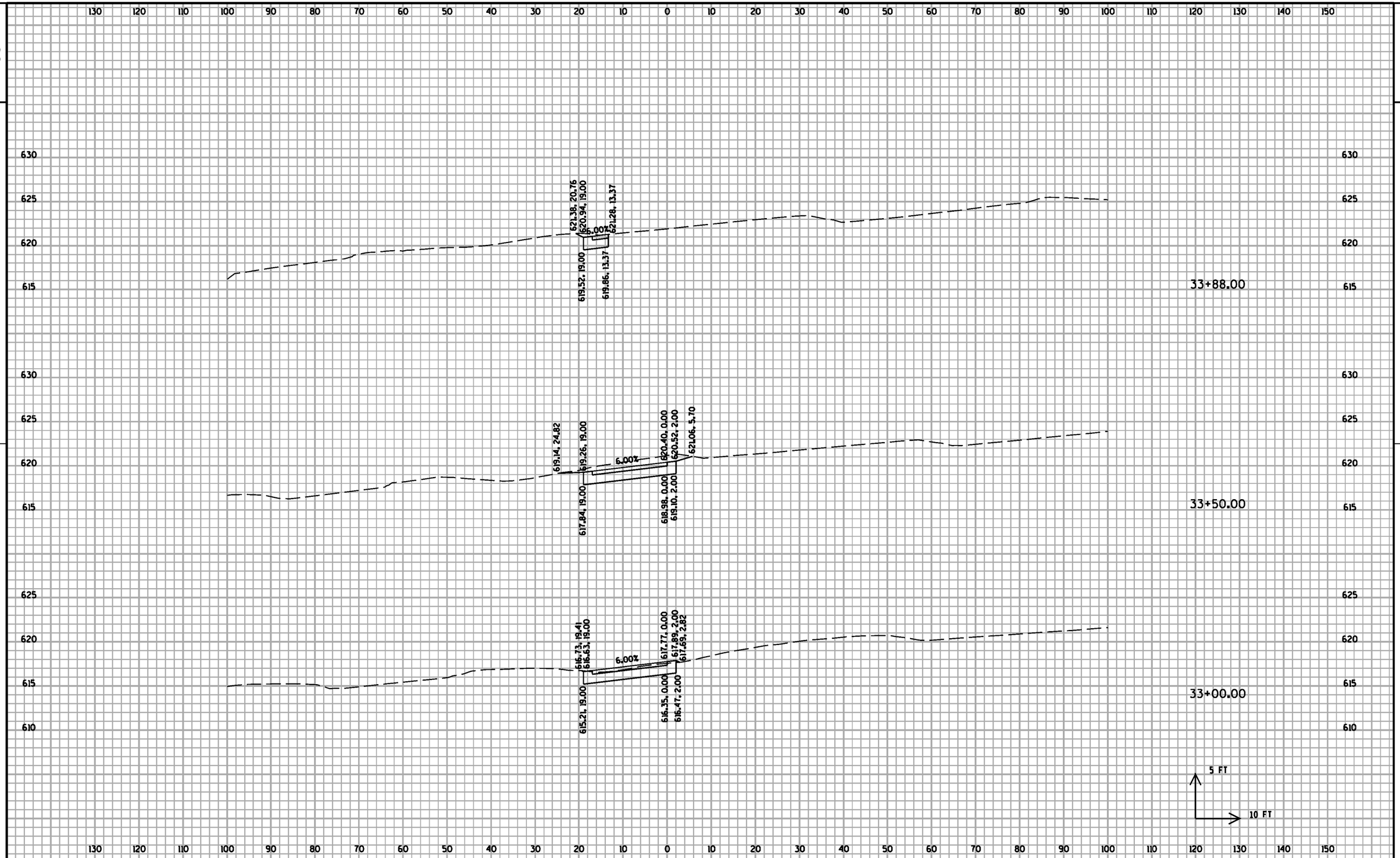
FILE NAME : 026541_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP SX	SHEET	E

FILE NAME : 026542_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

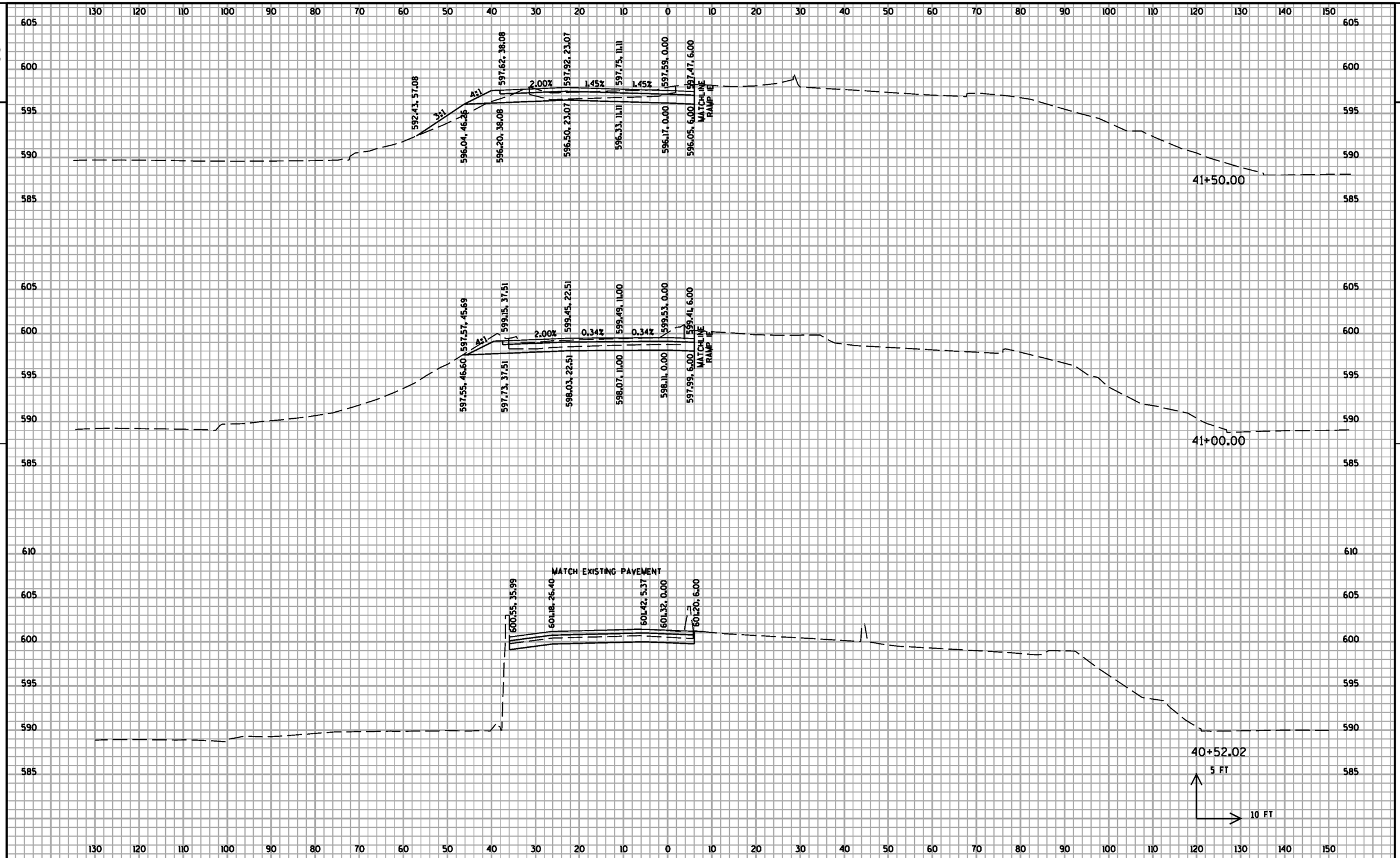
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP SX	SHEET	E

FILE NAME : 026542_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

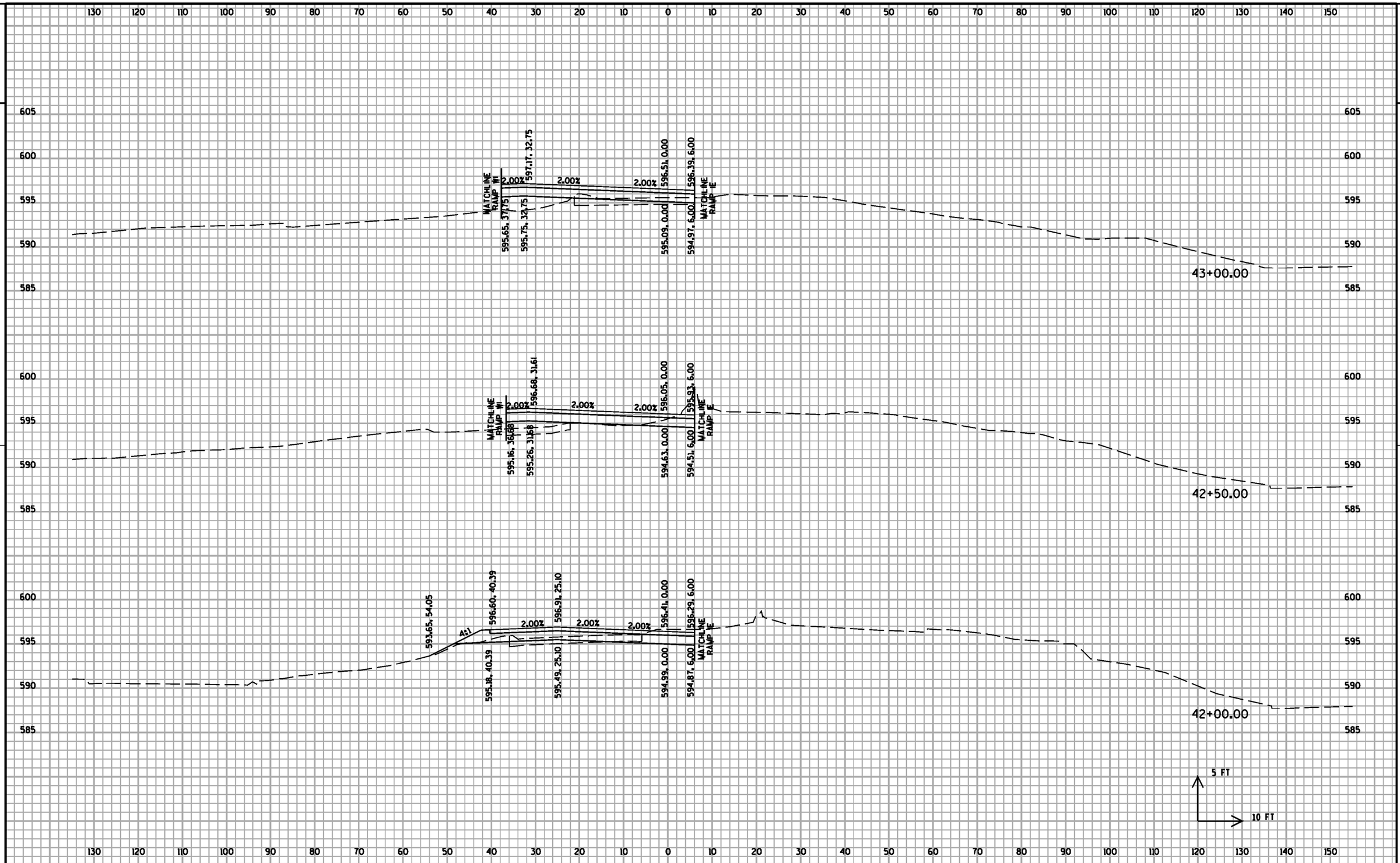
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP IX	SHEET E

FILE NAME : 026543_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

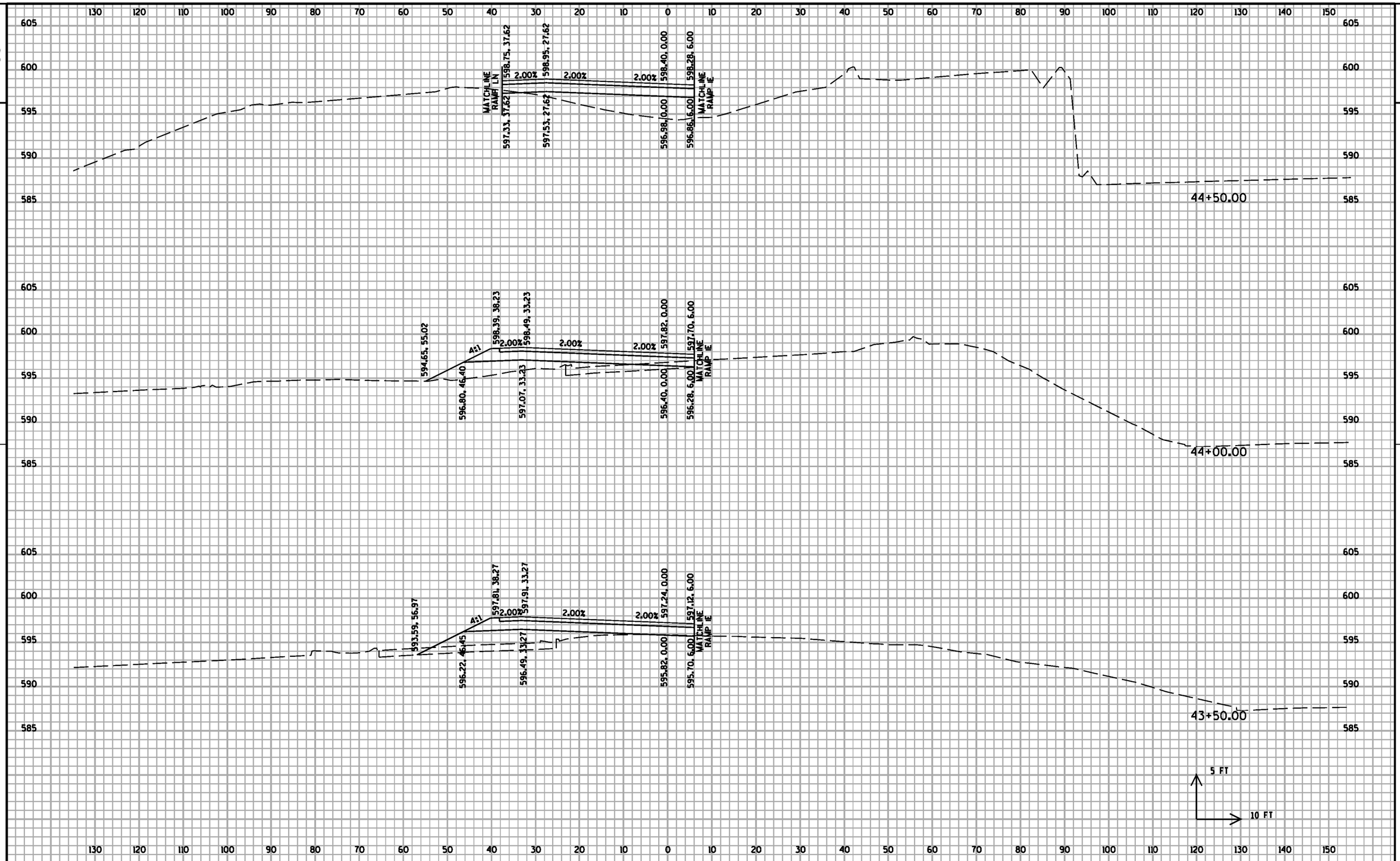
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP IX	SHEET	E

FILE NAME : 026543_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

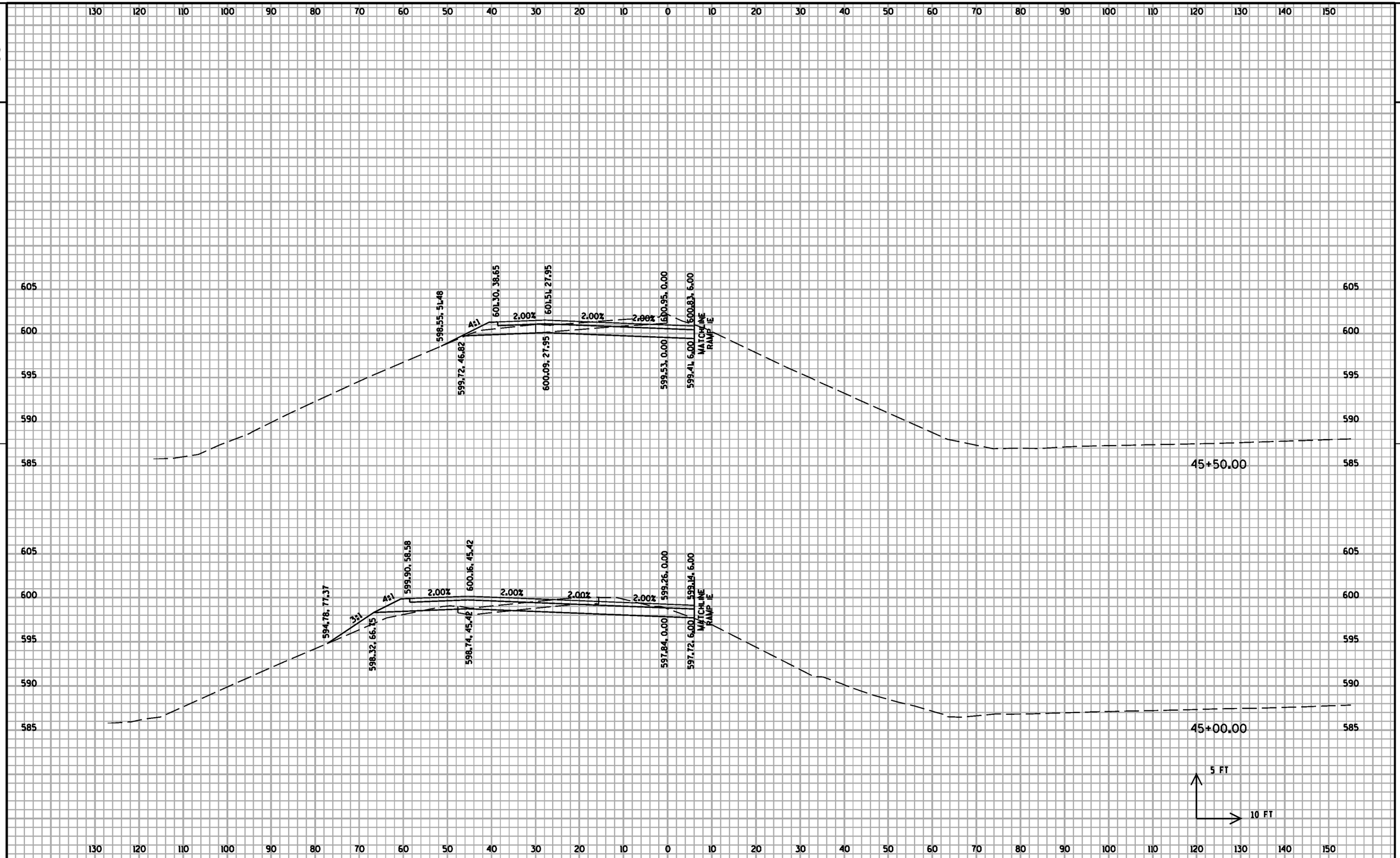
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP IX	SHEET	E

FILE NAME : 026543_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

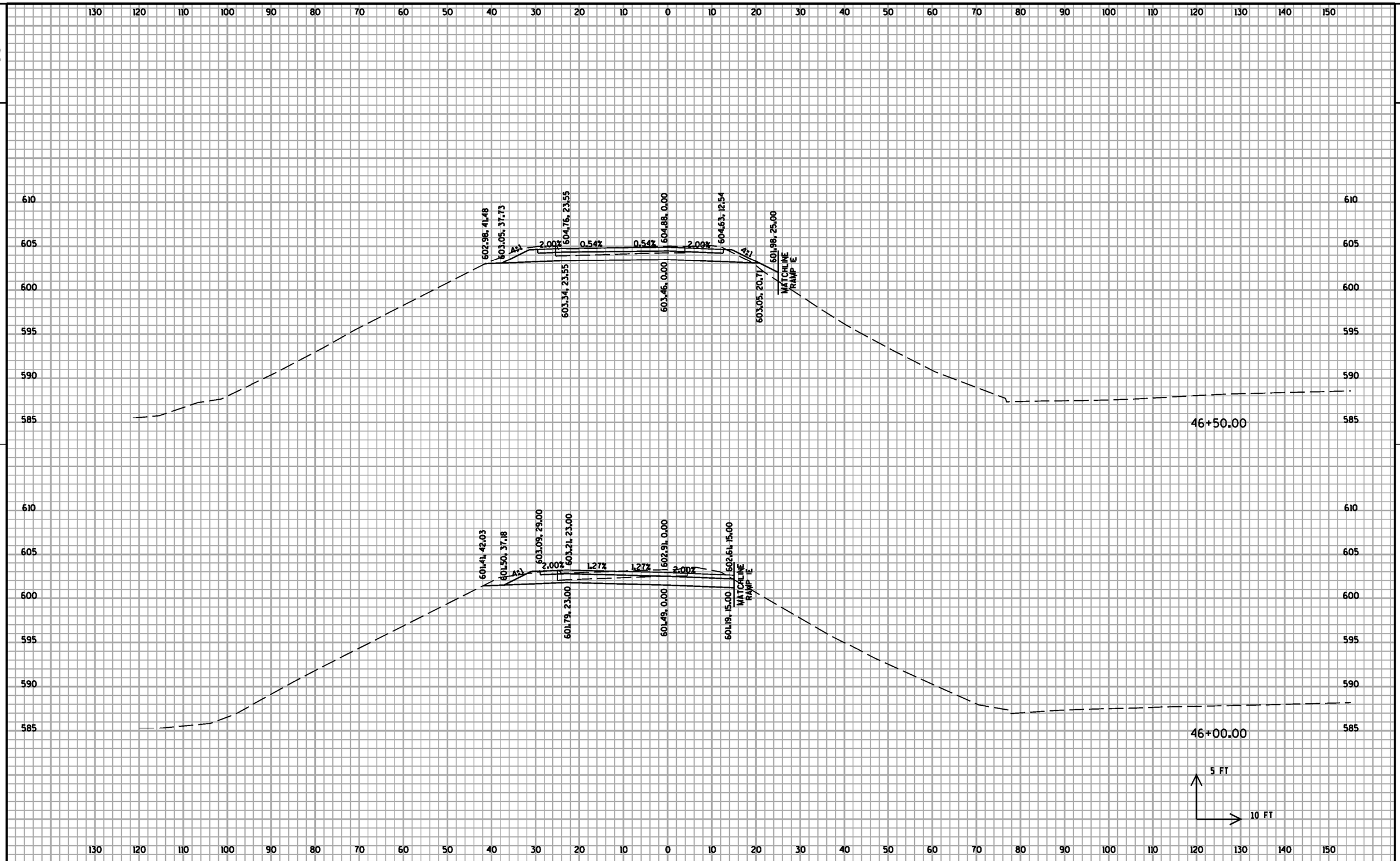
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP IX	SHEET	E

FILE NAME : 026543_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

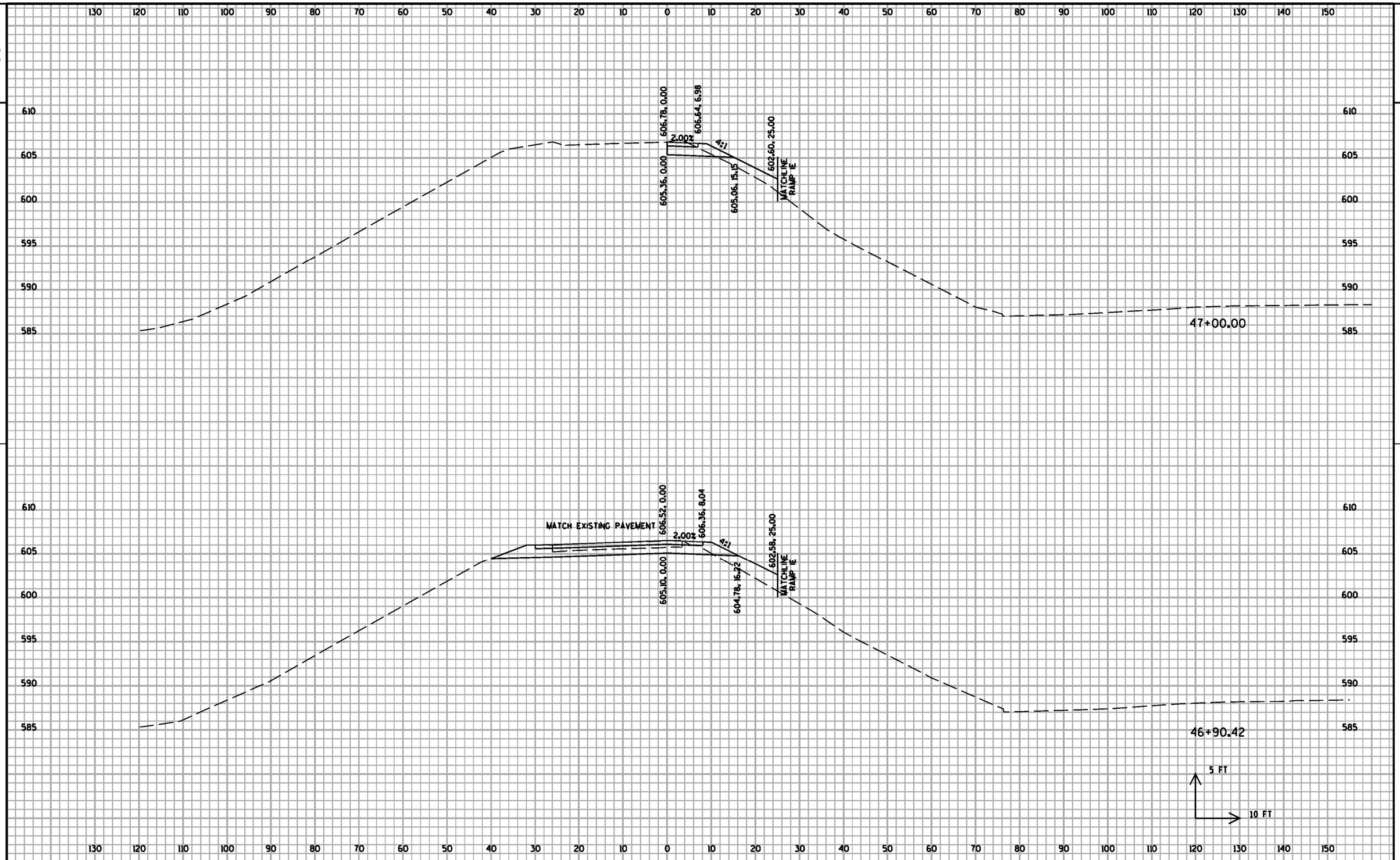


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP IX	SHEET	E

FILE NAME : 026543_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

2



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP IX	SHEET	E

FILE NAME : 026543_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

2

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

610
605
600
595
590
585

608.38, 0.00
608.39, 2.69
607.99, 8.17
606.96, 0.00
606.97, 2.69

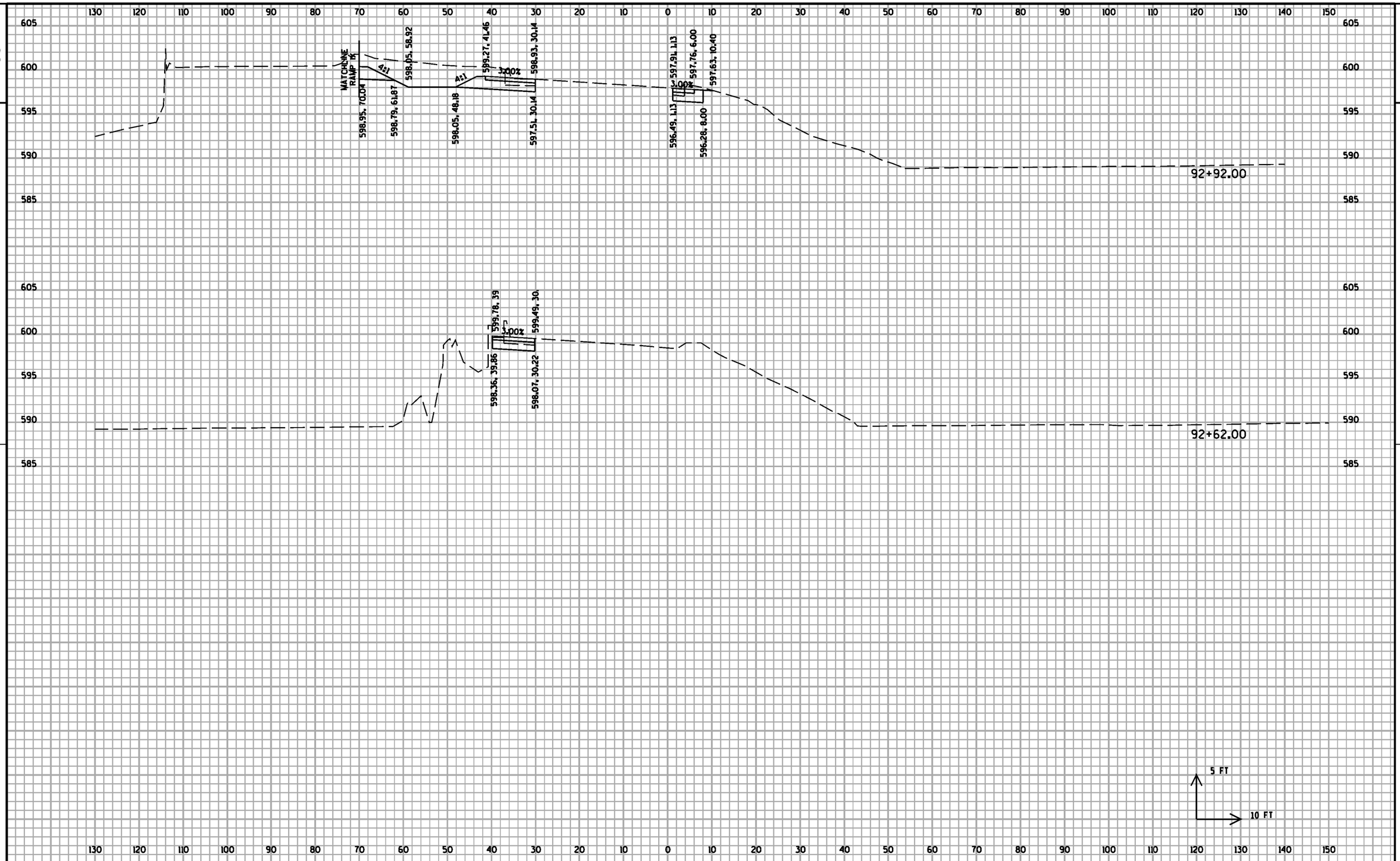
47+50.00

5 FT
10 FT

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP IX	SHEET	E

FILE NAME : 026543_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

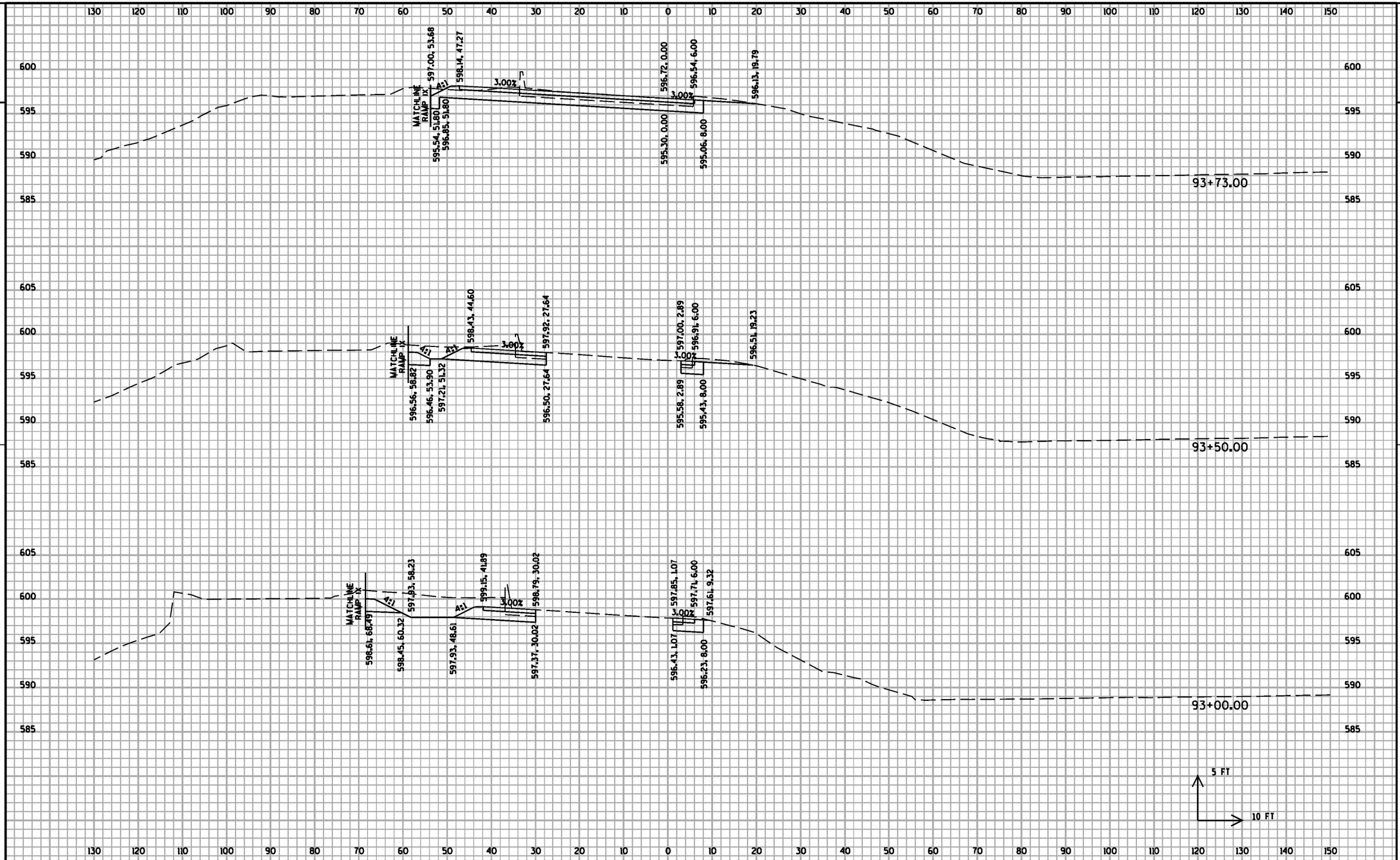
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP IE	SHEET	E

FILE NAME : 026544_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

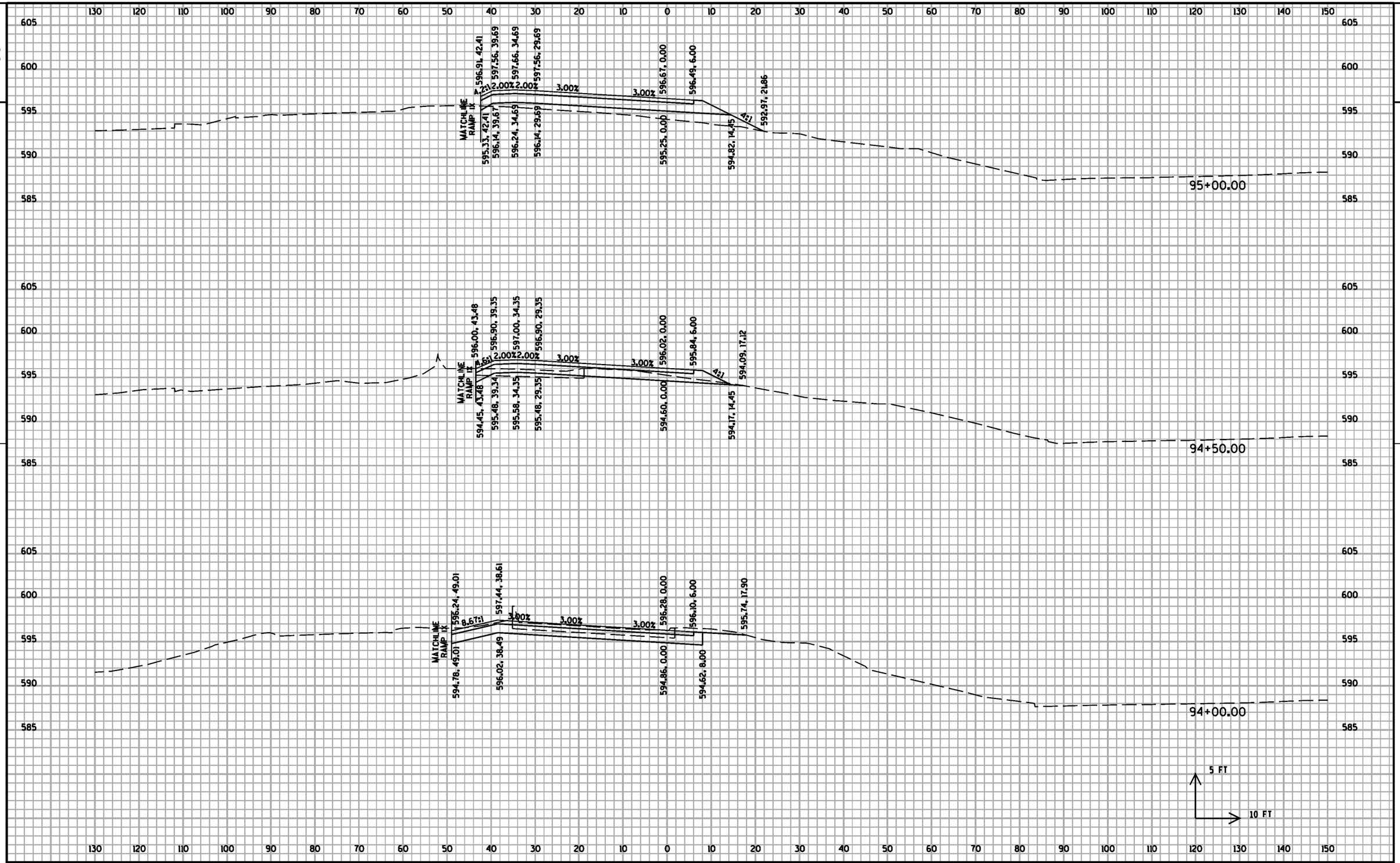
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP IE	SHEET E

FILE NAME : 026544_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

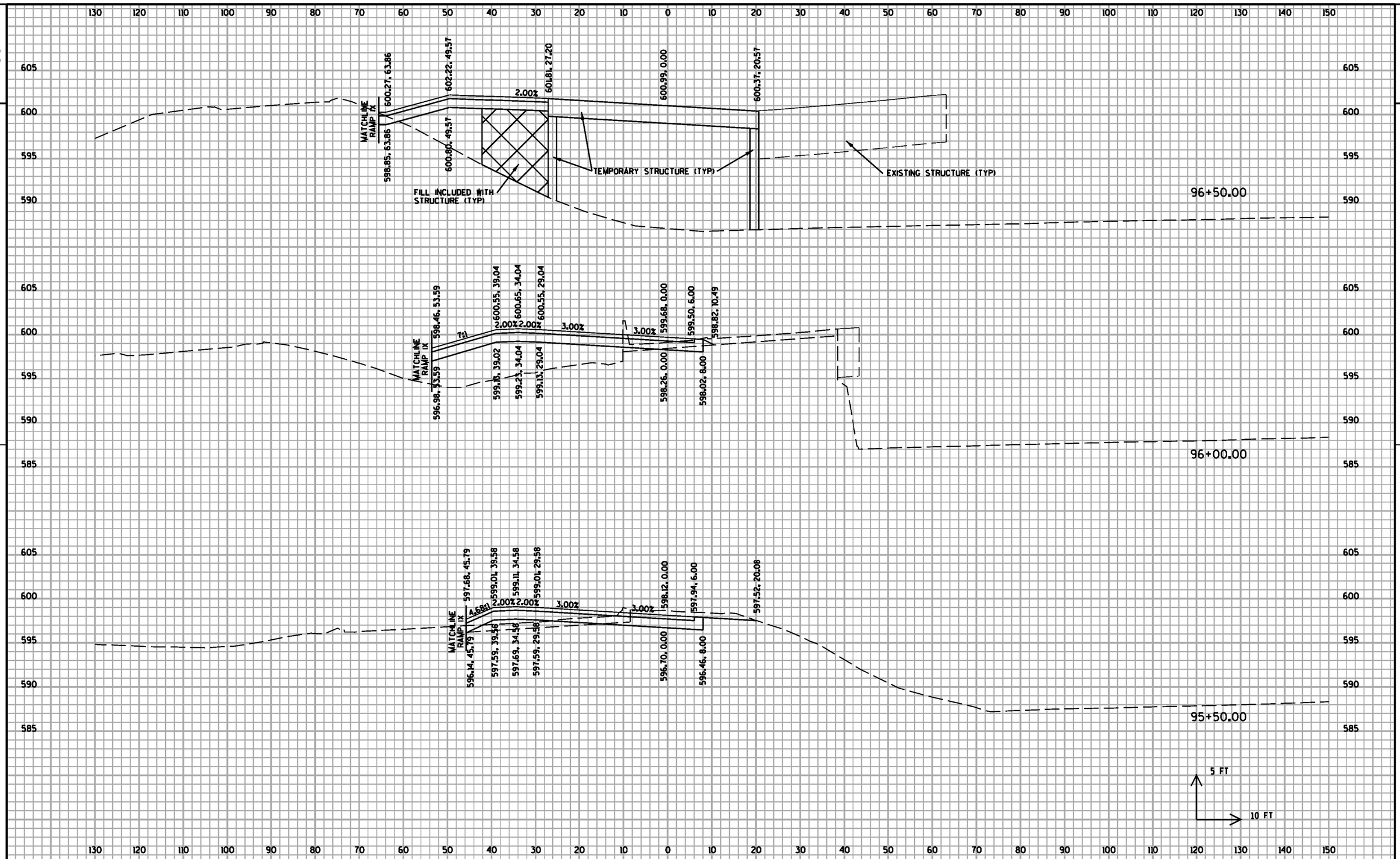
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP IE	SHEET	E

FILE NAME : 026544_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

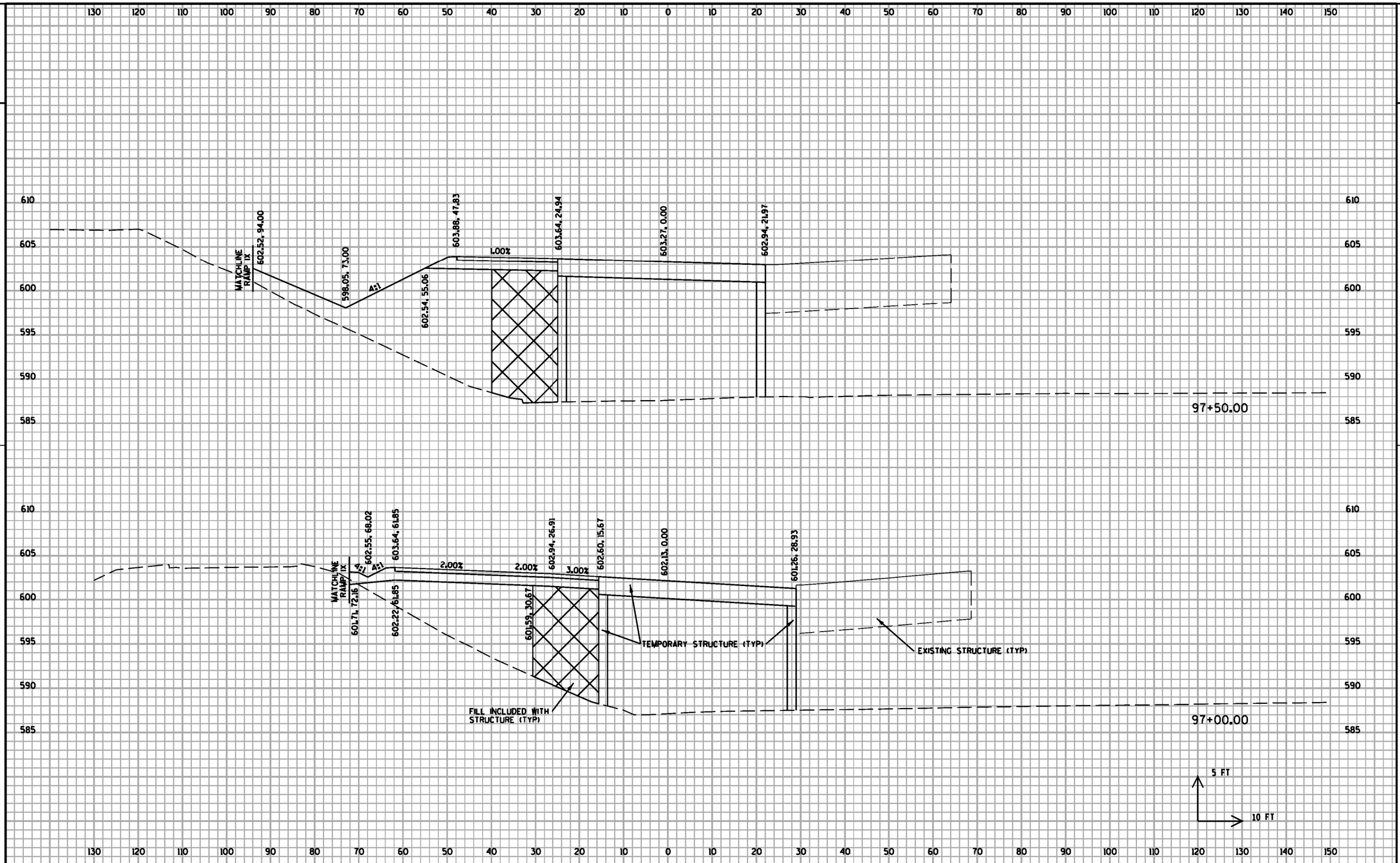
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP IE	SHEET	E

FILE NAME : 026544_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

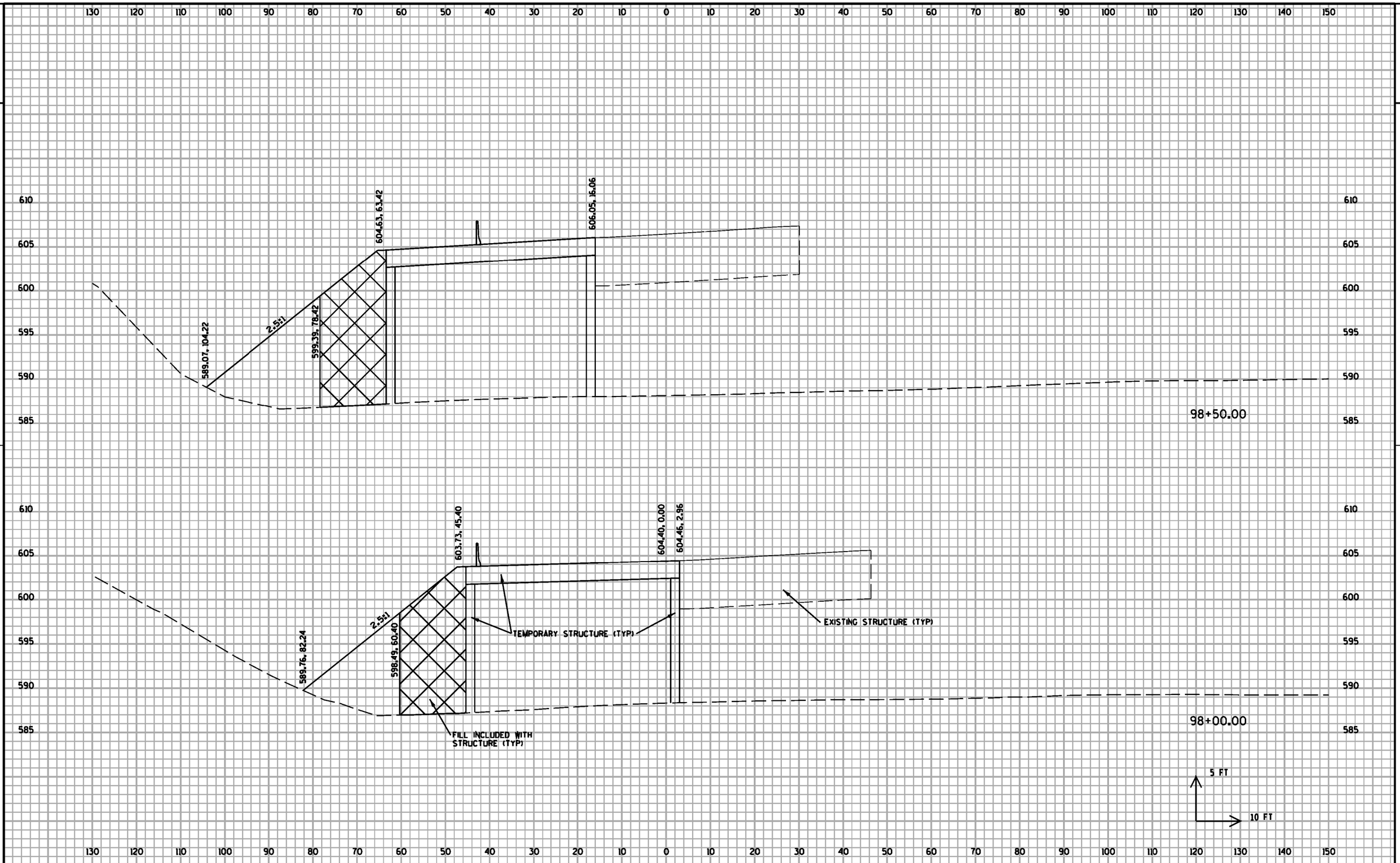
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP IE	SHEET	E

FILE NAME : 026544_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

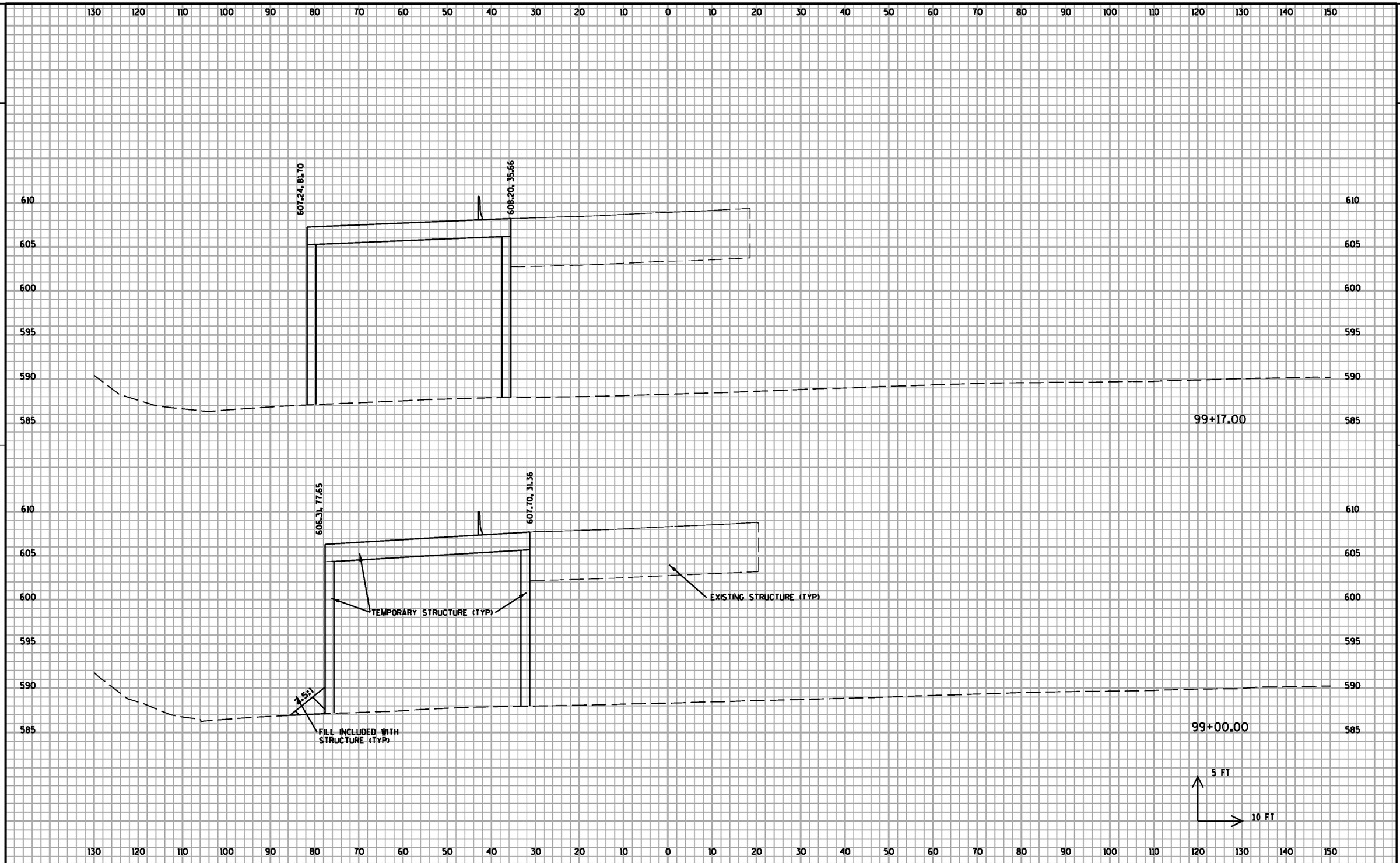
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP IE	SHEET	E

FILE NAME : 026544_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

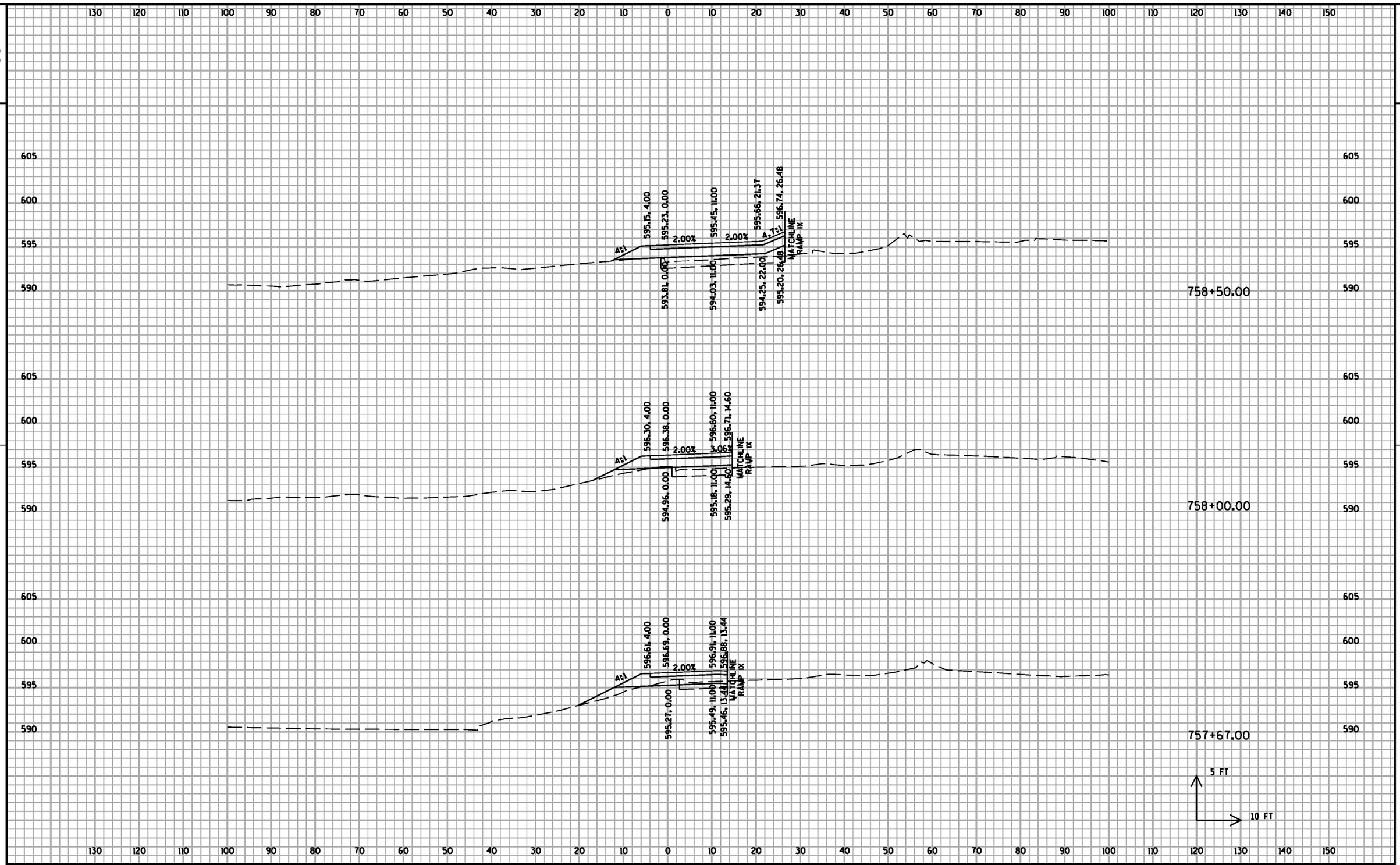
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP IE	SHEET 640	E

FILE NAME : 026544_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

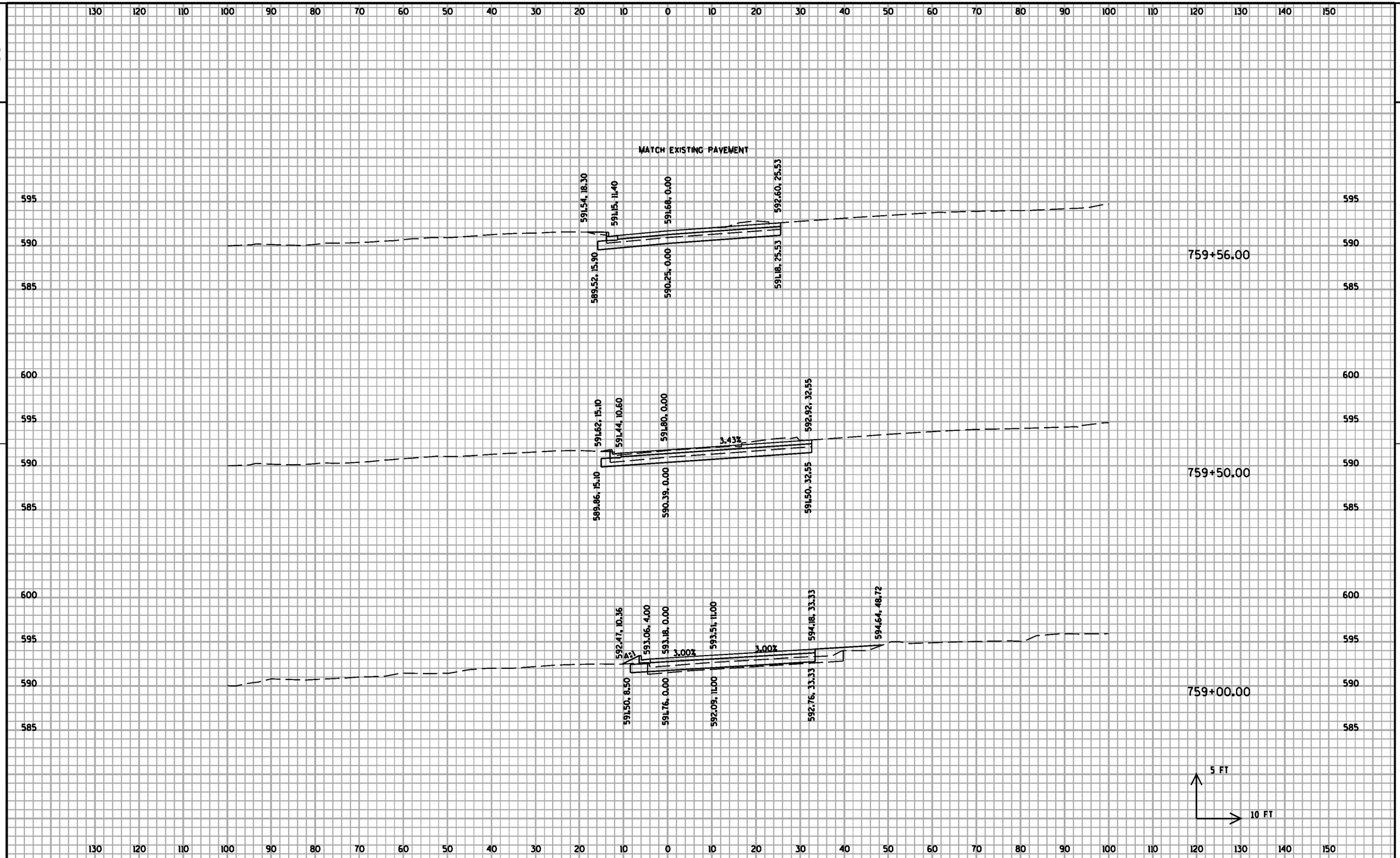
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP WI	SHEET	E

FILE NAME : 026545_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

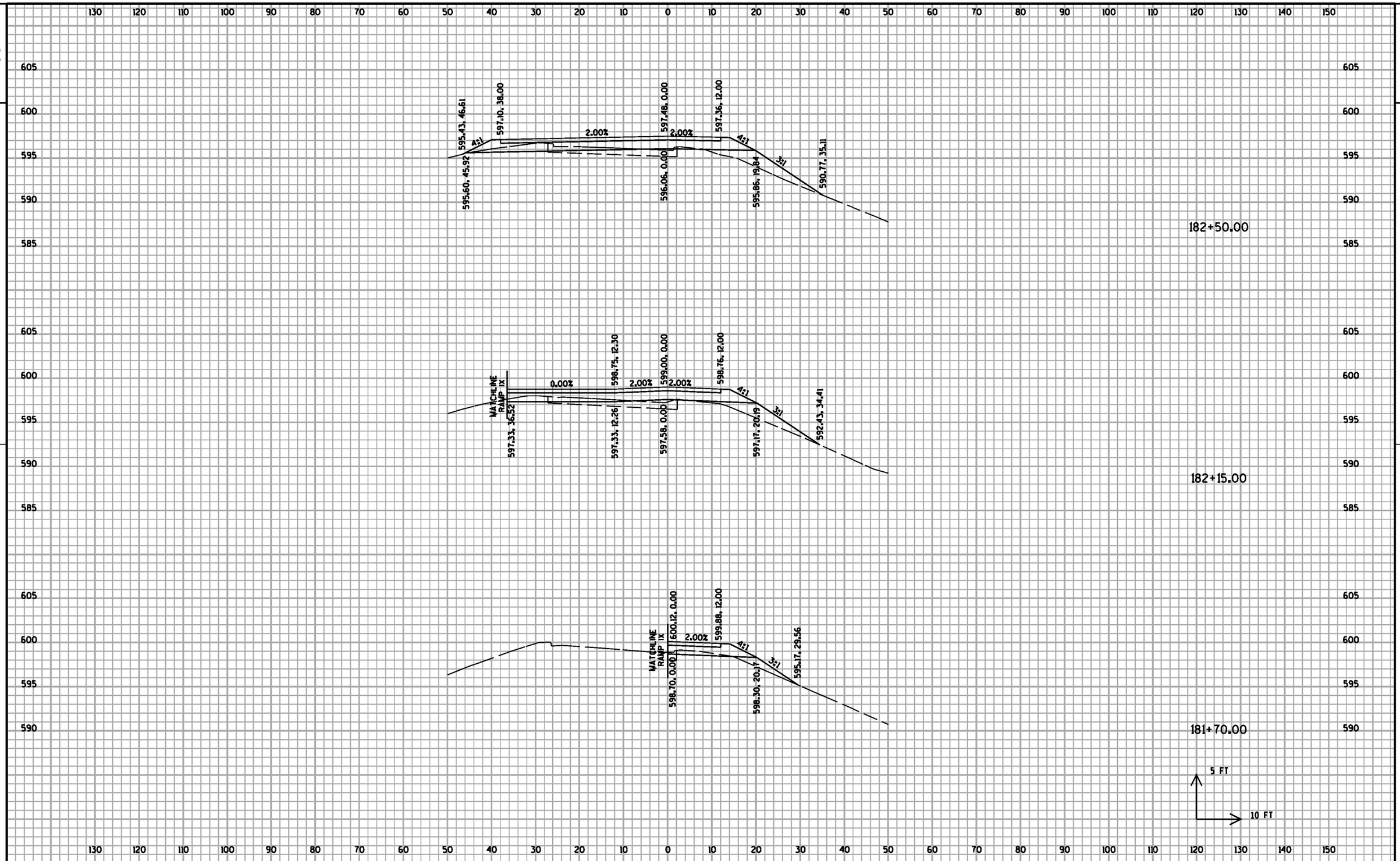
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP WI	SHEET	E

FILE NAME : 026545_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

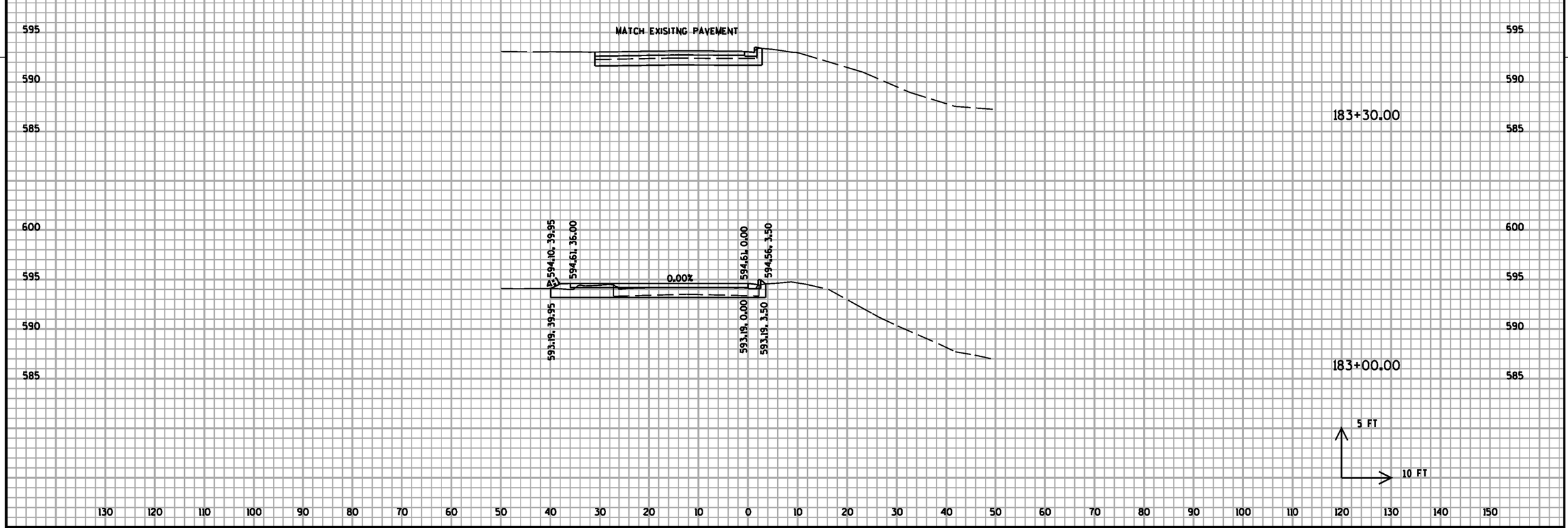


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: TEMPORARY RAMP LN	SHEET	E

FILE NAME : 026546_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

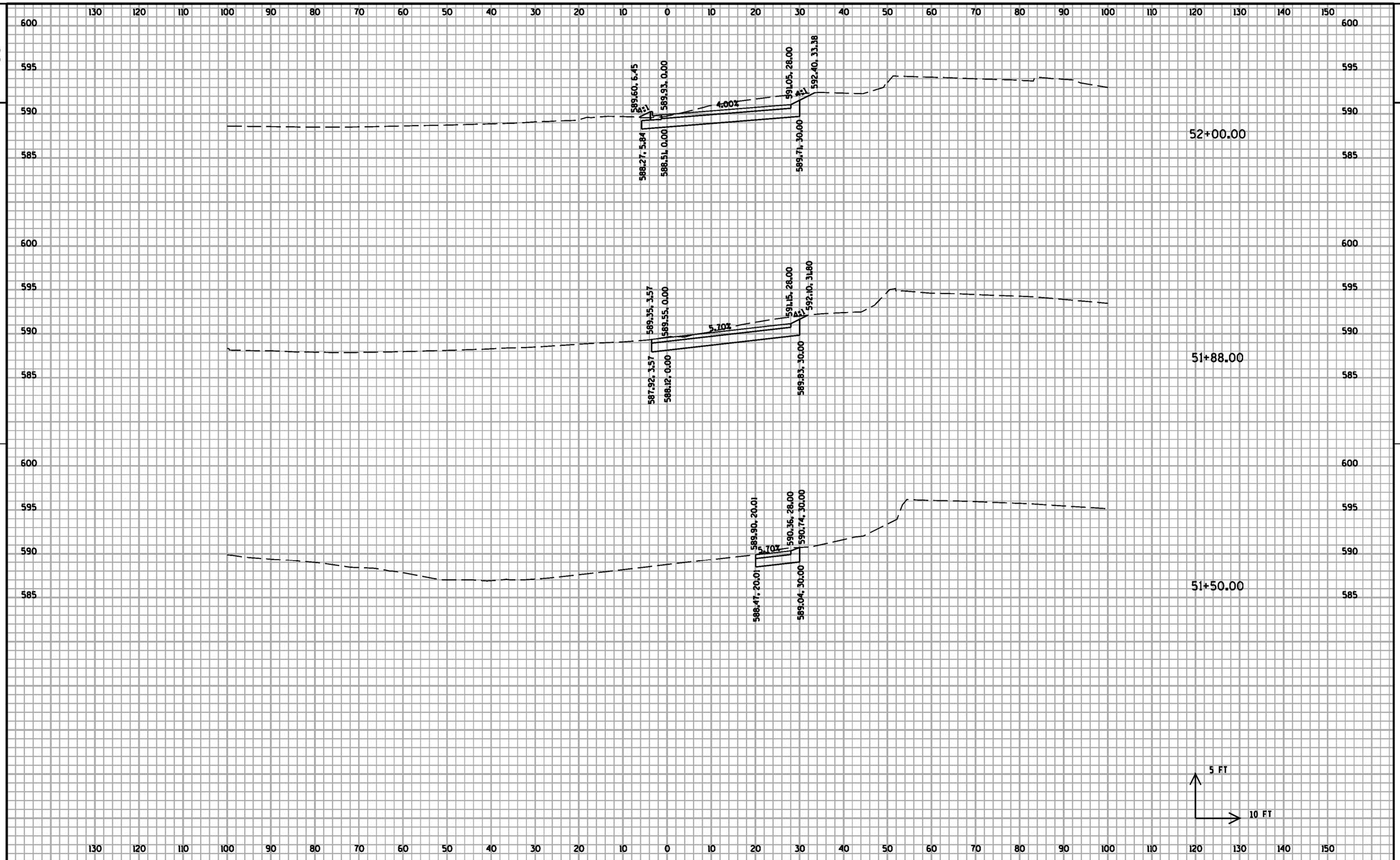
WISDOT/CADDS SHEET 21

2



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: TEMPORARY RAMP LN	SHEET 644	E

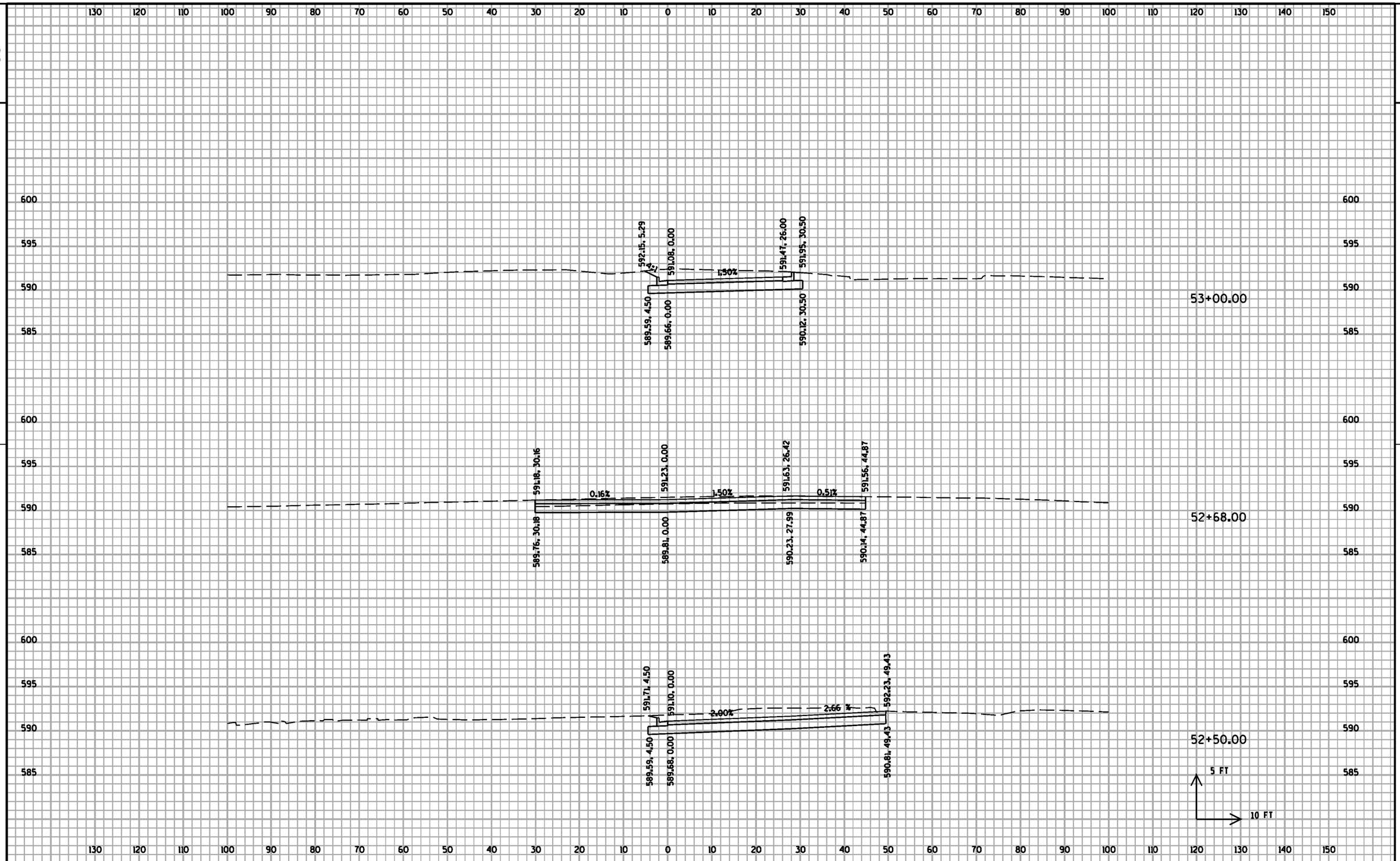
FILE NAME : 026546_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP JX	SHEET	E

FILE NAME : 026547_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

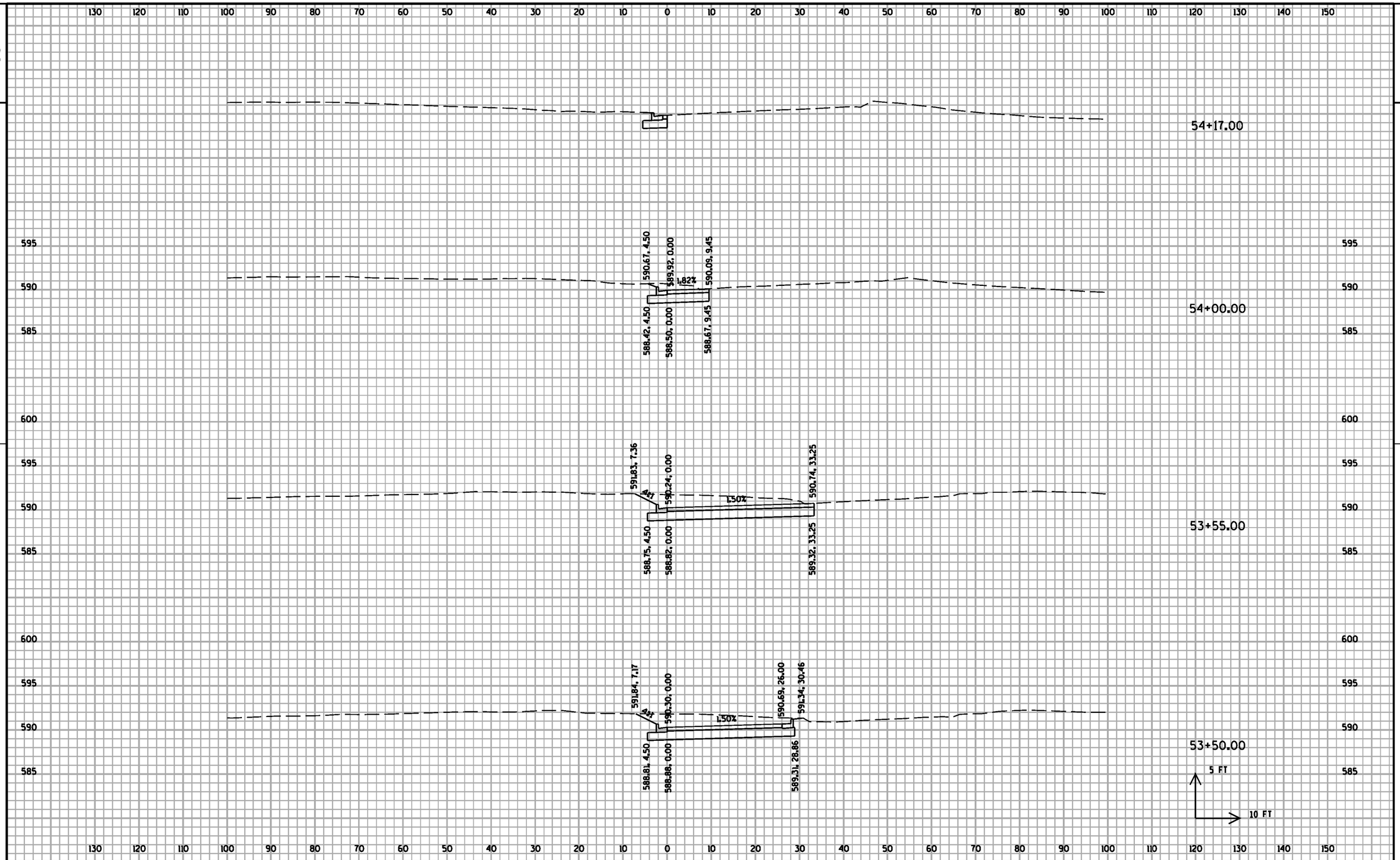
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP JX	SHEET 646	E

FILE NAME : 026547_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

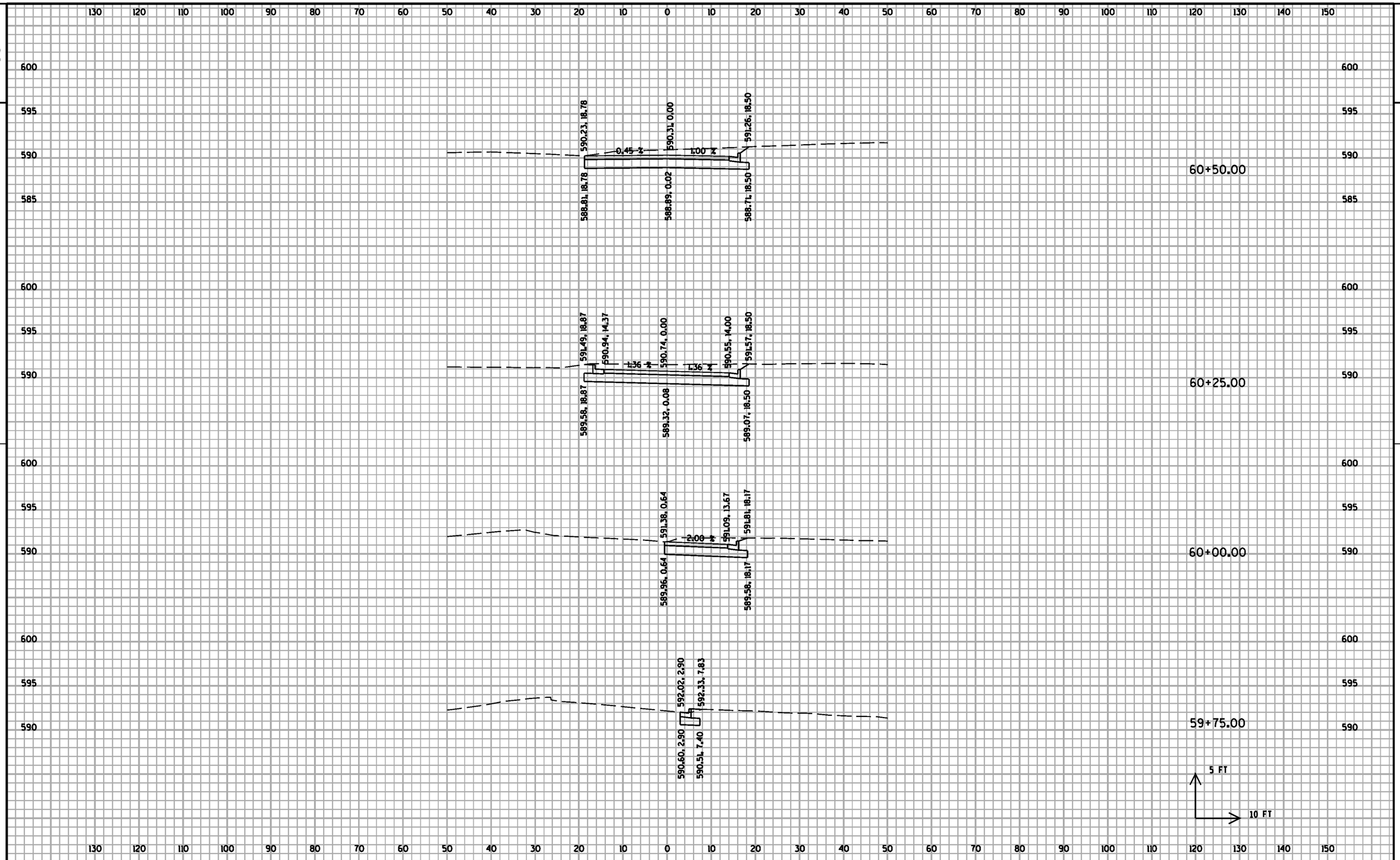
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP JX	SHEET 647	E

FILE NAME : 026547_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

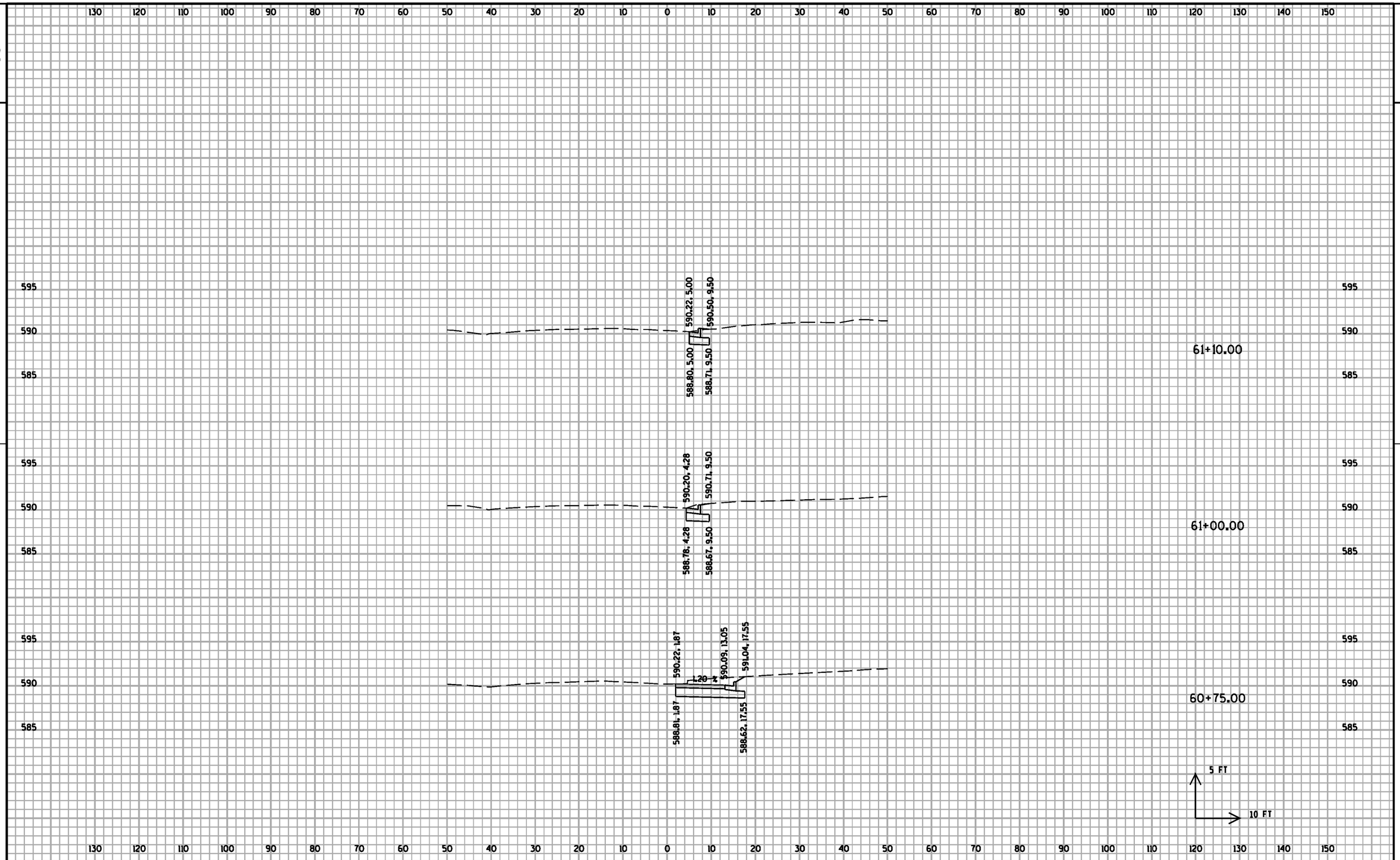
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP MX	SHEET 648	E

FILE NAME : 026548_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

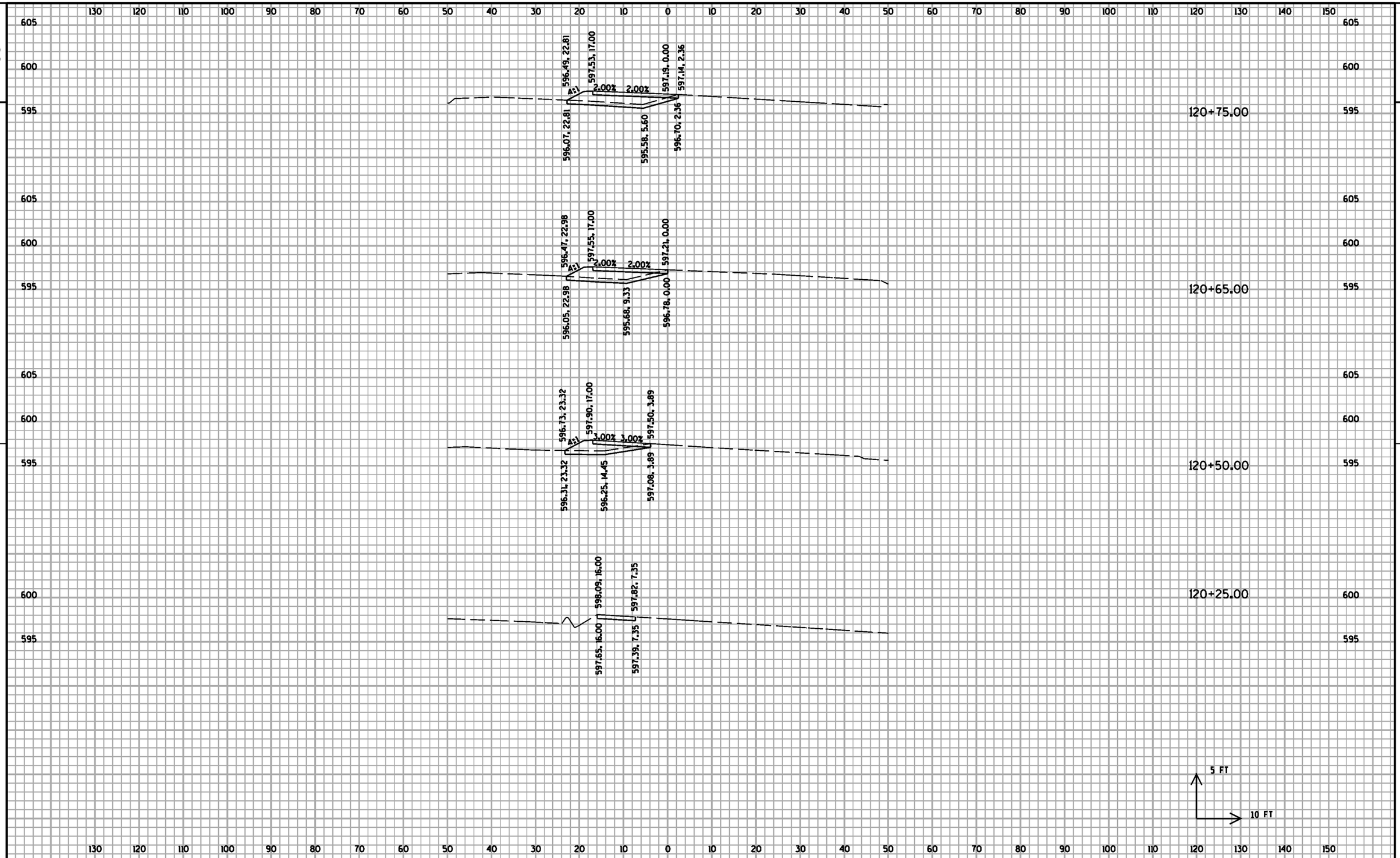
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP MX	SHEET	E

FILE NAME : 026548_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

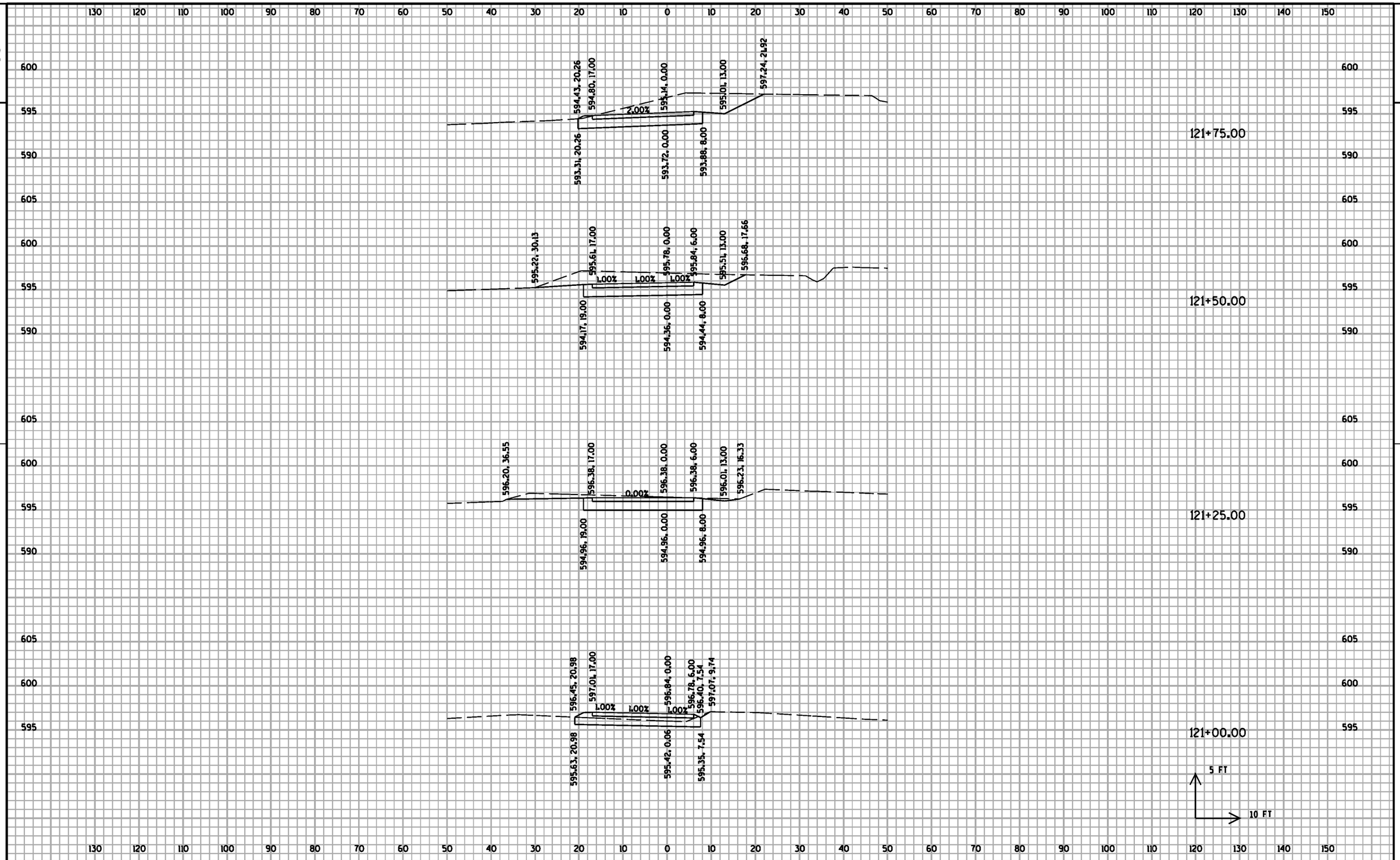
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP SI	SHEET	E

FILE NAME : 026549_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

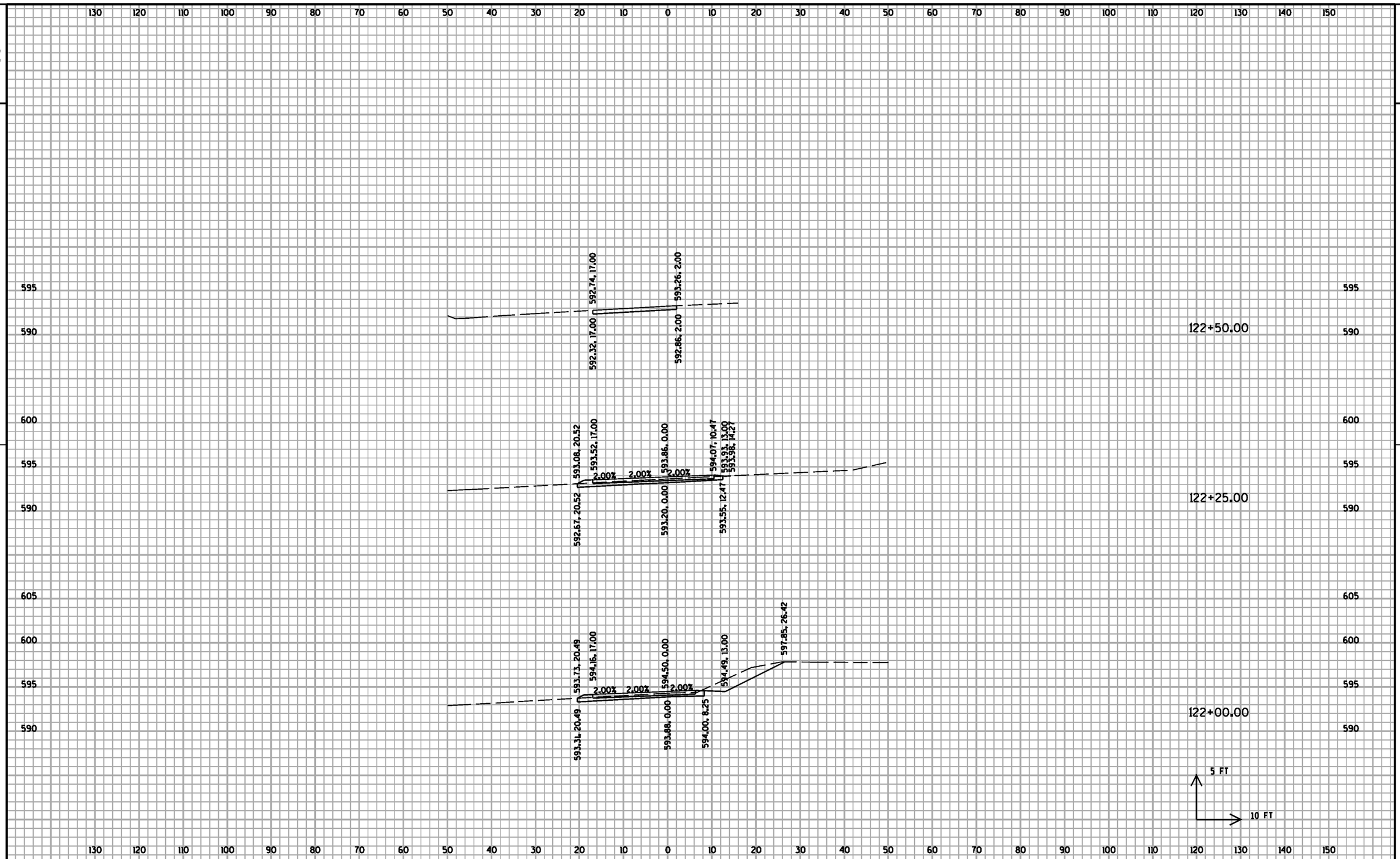
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP SI	SHEET 651	E

FILE NAME : 026549_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

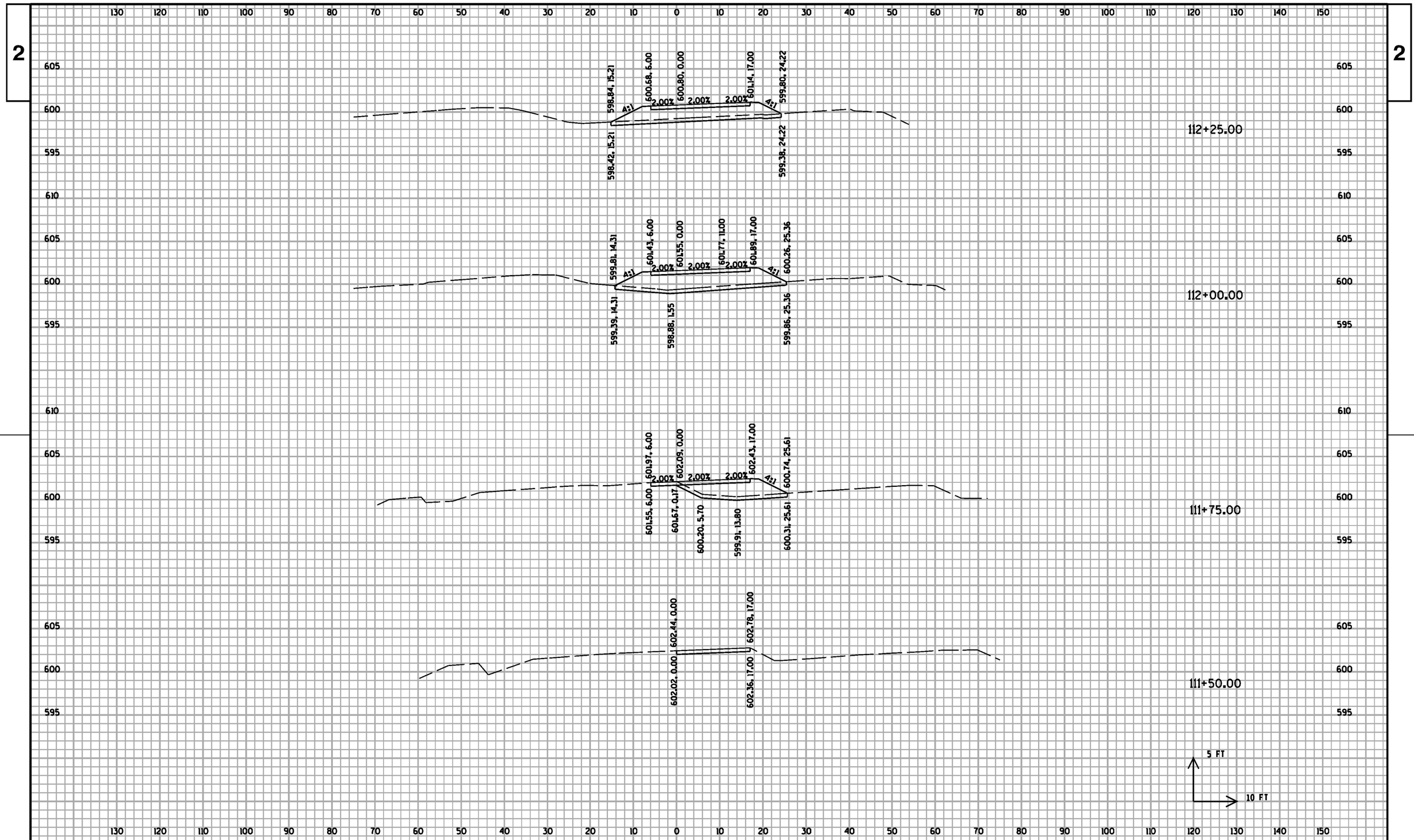
WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP SI	SHEET	E

FILE NAME : 026549_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP NI	SHEET	E

FILE NAME : 026550_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

2

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

600
595

598.63, 6.00
598.66, 0.00
598.74, 17.00
598.21, 6.00
598.24, 0.00
598.32, 17.00

112+75.00

605
600
595

598.93, 11.02
599.72, 6.00
599.84, 0.00
600.18, 17.00
599.04, 23.40
4:1
2.00%
2.00%
2.00%
4:1
598.54, 11.02
598.83, 0.96
598.17, 7.85
598.62, 23.40

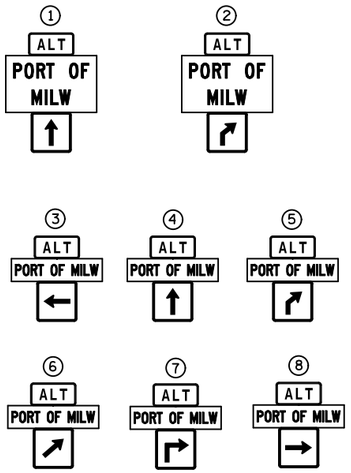
112+50.00

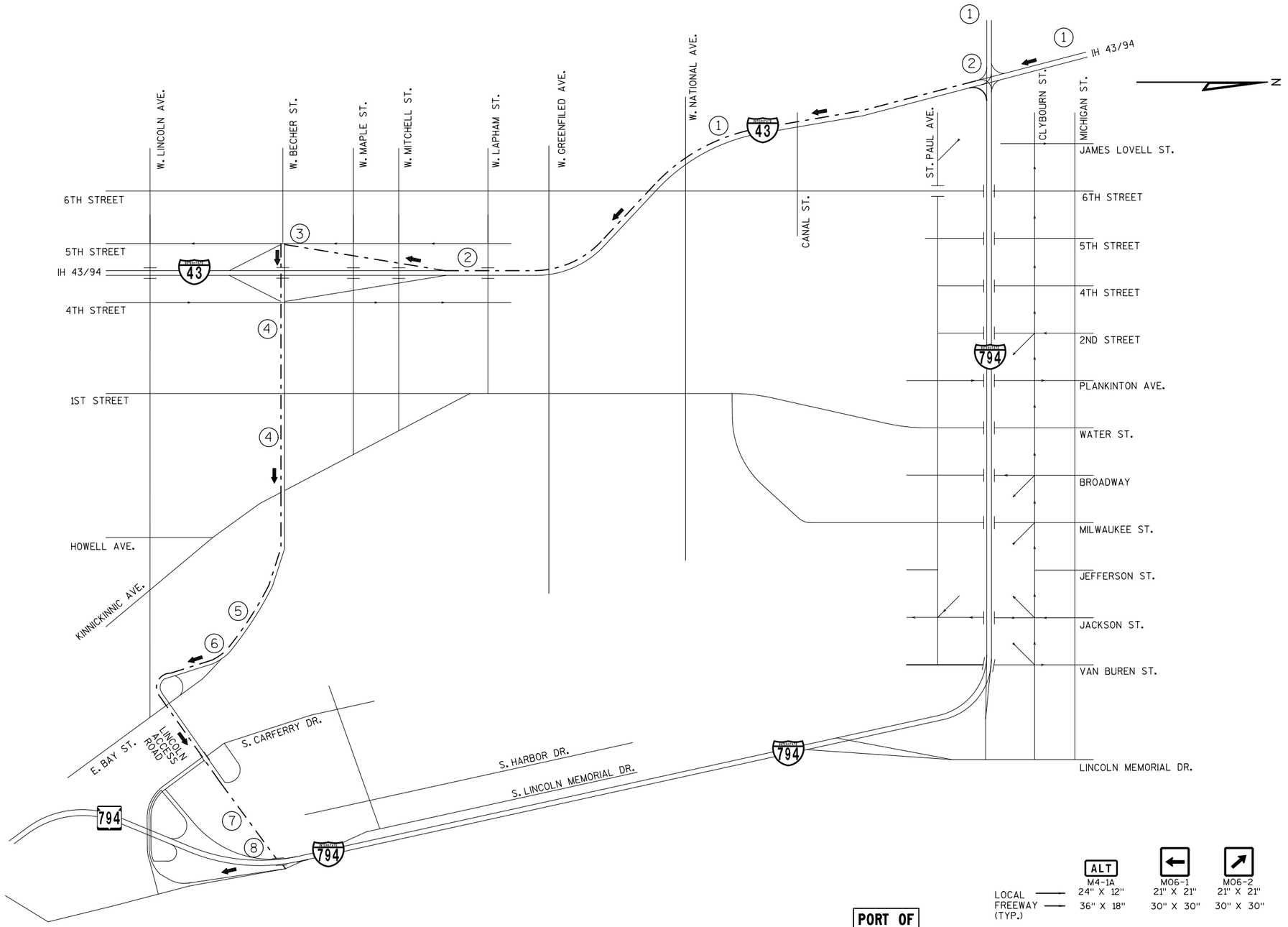
5 FT
10 FT

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	CONSTRUCTION STAGING - CROSS SECTIONS: RAMP NI	SHEET 654	E

FILE NAME : 026550_cs.dgn PLOT DATE : 4/29/2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 1:20

2





NOTES

1. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS, OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

LEGEND

— - — ALTERNATE ROUTE IH 794 EAST FROM MARQUETTE INTERCHANGE

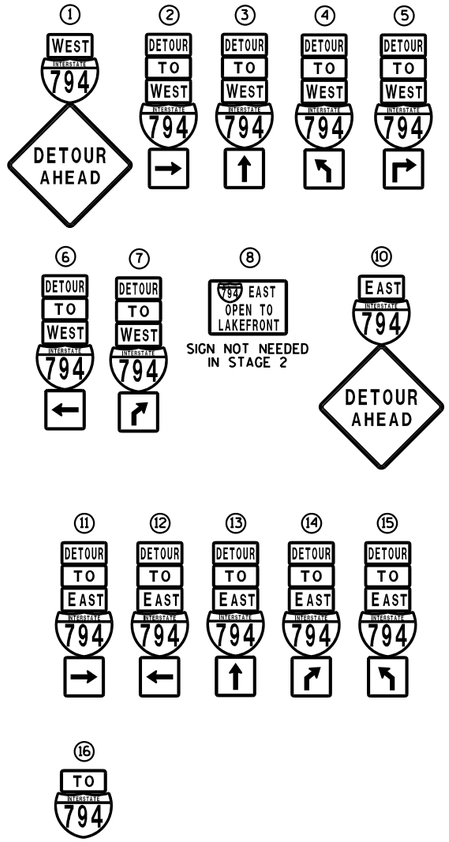
	ALT		
	M4-1A	M06-1	M06-2
LOCAL	24" X 12"	21" X 21"	21" X 21"
FREEWAY (TYP.)	36" X 18"	30" X 30"	30" X 30"

PORT OF MILW
48" X 30"
ORANGE BACKGROUND
WITH 8" BLACK LETTERS.
PAID FOR AS TRAFFIC
CONTROL DETOUR SIGNS.

PORT OF MILW
48" X 12"
ORANGE BACKGROUND
WITH 6" BLACK LETTERS.
PAID FOR AS TRAFFIC
CONTROL DETOUR SIGNS.

M05-1R	M05-2R
21" X 21"	21" X 21"
30" X 30"	30" X 30"

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	ALTERNATE ROUTE - PORT OF MILWAUKEE	SHEET 655	E



NOTES

1. ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.
2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS, OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.
3. USE SDD TRAFFIC CONTROL LANE CLOSURE, SPEEDS GREATER THAN 40 MPH FOR FREEWAY CLOSURE. DIVERT WESTBOUND TRAFFIC TO CARFERRY DRIVE. DIVERT EASTBOUND TRAFFIC TO JACKSON STREET IN STAGE 1 AND JAMES LOVELL OR PLANKINTON AVENUE IN STAGE 2.

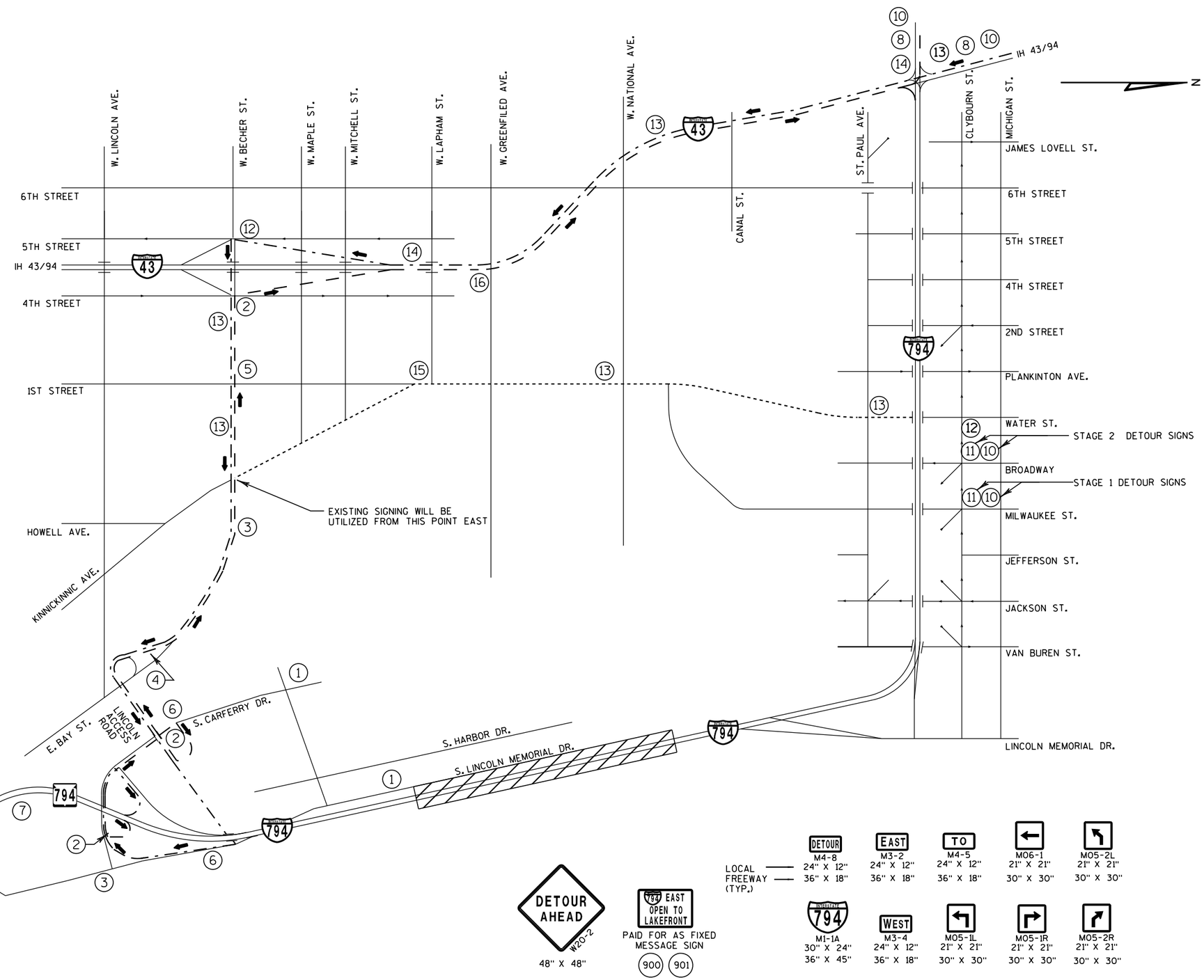
LEGEND

— - — DETOUR IH 794 EAST FROM GREEN BAY

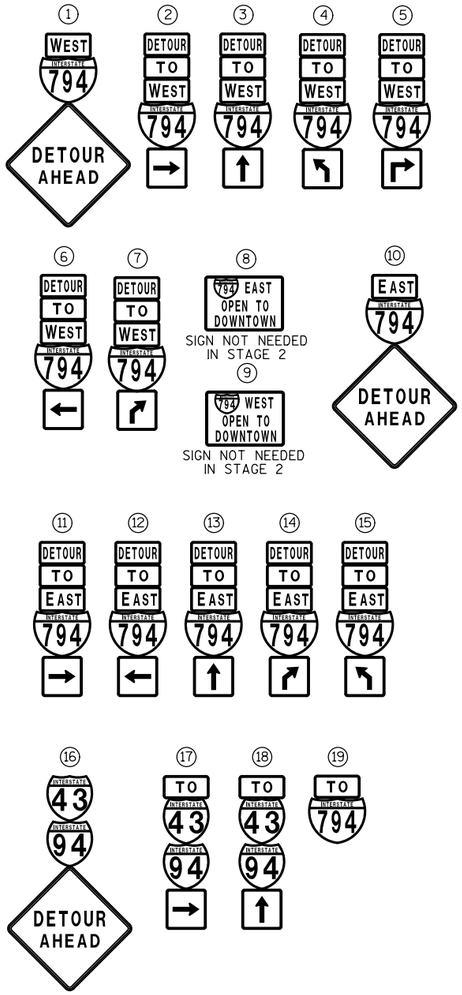
------- DETOUR IH 794 EAST FROM DOWNTOWN

— — DETOUR IH 794 WEST TO MADISON

ROAD CLOSED



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - IH 794 NB/SB- NIGHT TIME CLOSURE	SHEET 656	E



NOTES

1. ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.
2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS, OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.
3. USE SDD TRAFFIC CONTROL LANE CLOSURE, SPEEDS GREATER THAN 40 MPH FOR FREEWAY CLOSURE. DIVERT WESTBOUND TRAFFIC TO LINCOLN MEMORIAL DRIVE. DIVERT EASTBOUND TRAFFIC TO JAMES LOVELL OR PLANKINTON AVENUE.

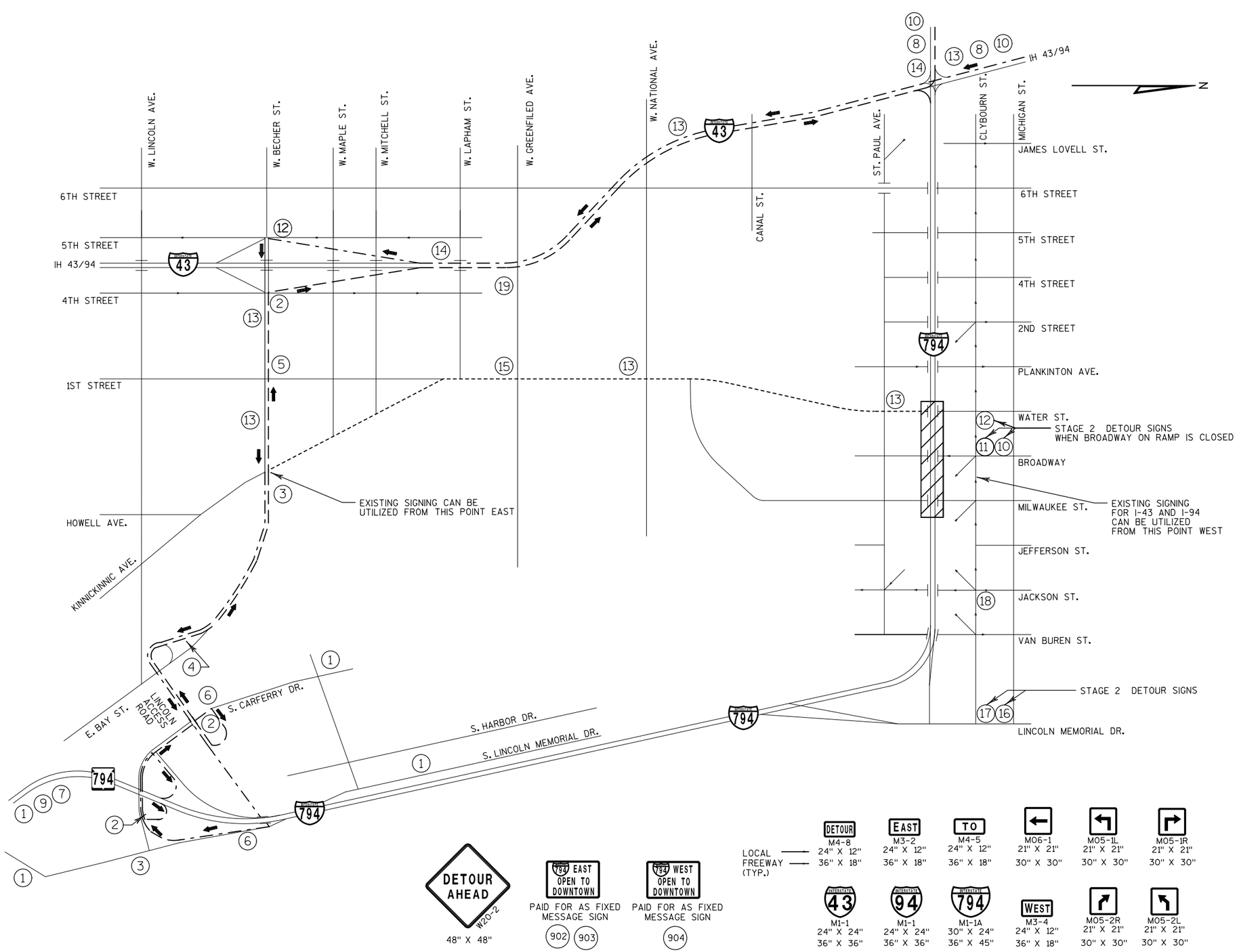
LEGEND

— - — DETOUR IH 794 EAST FROM GREEN BAY

------- DETOUR IH 794 EAST FROM DOWNTOWN

— — - DETOUR IH 794 WEST TO MADISON

ROAD CLOSED



DETOUR AHEAD W20-2 48" X 48"

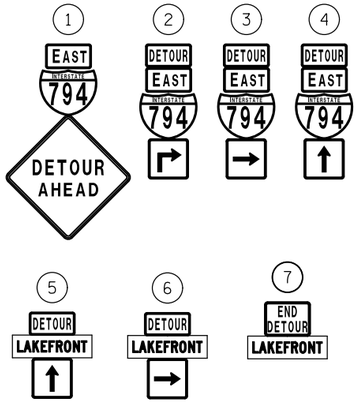
794 EAST OPEN TO DOWNTOWN — PAID FOR AS FIXED MESSAGE SIGN 902 903

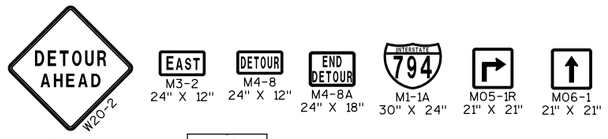
794 WEST OPEN TO DOWNTOWN — PAID FOR AS FIXED MESSAGE SIGN 904

	DETOUR M4-8	EAST M3-2	TO M4-5	M06-1	M05-1L	M05-1R
LOCAL	24" X 12"	24" X 12"	24" X 12"	21" X 21"	21" X 21"	21" X 21"
FREEWAY (TYP.)	36" X 18"	36" X 18"	36" X 18"	30" X 30"	30" X 30"	30" X 30"

	INTERSTATE 43 M1-1	INTERSTATE 94 M1-1	INTERSTATE 794 M1-1A	WEST M3-4	M05-2R	M05-2L
	24" X 24" 36" X 36"	24" X 24" 36" X 36"	30" X 24" 36" X 45"	24" X 12" 36" X 18"	21" X 21" 30" X 30"	21" X 21" 30" X 30"

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - IH 794 EB/WB- NIGHT TIME CLOSURE	SHEET 657	E





LAKEFRONT
42" x 12"
ORANGE BACKGROUND
WITH 6" BLACK LETTERS.
PAID FOR AS TRAFFIC
CONTROL DETOUR SIGNS.

NOTES

1. ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.
2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

N

LEGEND

- DETOUR: EB IH794 OFF RAMP TO LAKEFRONT
- DETOUR: EB LINCOLN MEMORIAL DRIVE ON RAMP TO EB IH 794
- WORK ZONE

EXISTING SIGNAGE FOR IH 794 WILL BE UTILIZED FROM THIS POINT TO THE WEST FOR THE REMAINDER OF THE DETOUR ROUTE.

E MICHIGAN STREET
WATER STREET
BROADWAY
MILWAUKEE STREET
JEFFERSON STREET
JACKSON STREET
VAN BUREN STREET
LINCOLN MEMORIAL DRIVE
CLYBOURN STREET

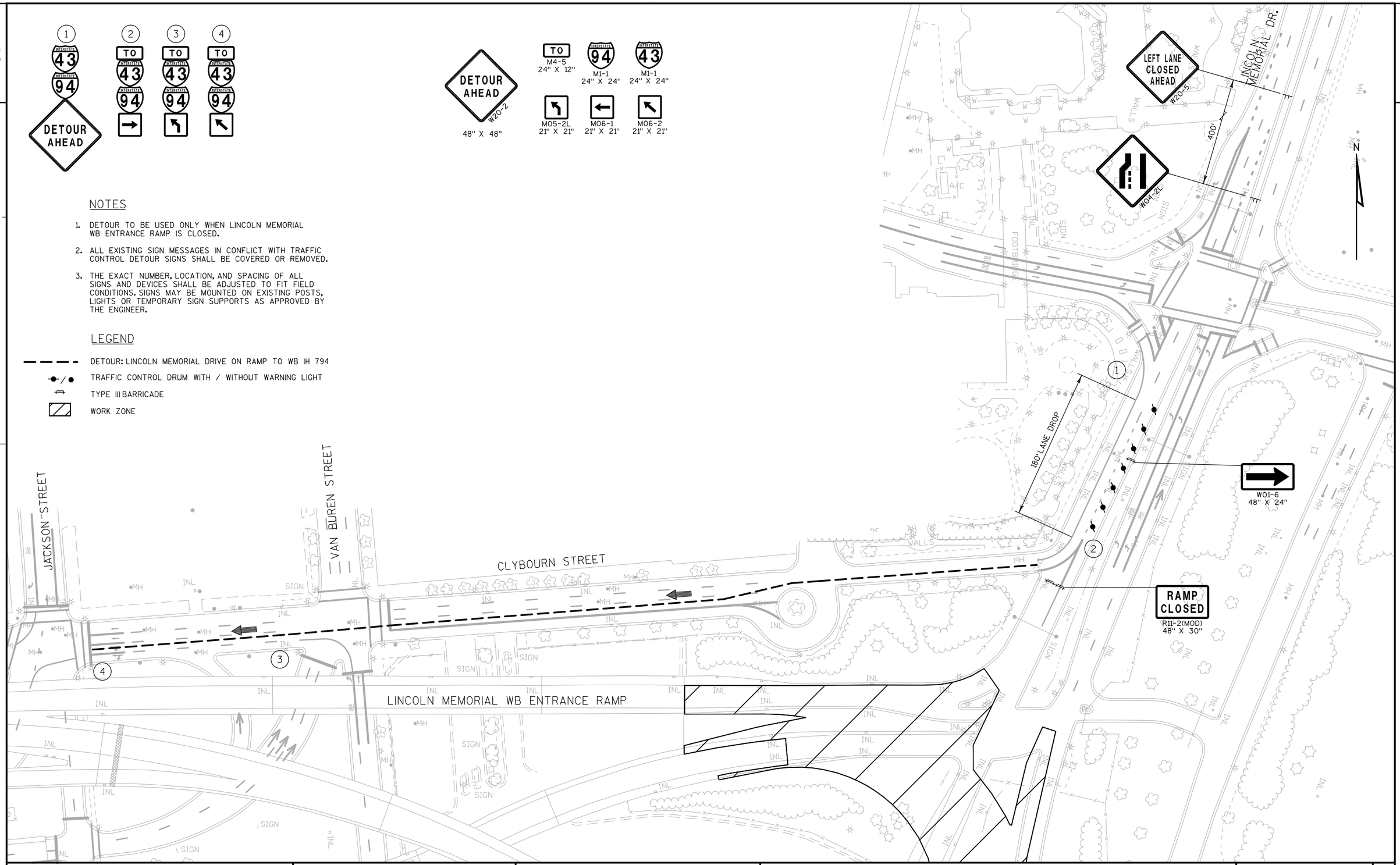
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - PRE-STAGE 2 - IH 794 EB RAMPS	SHEET 658	E

NOTES

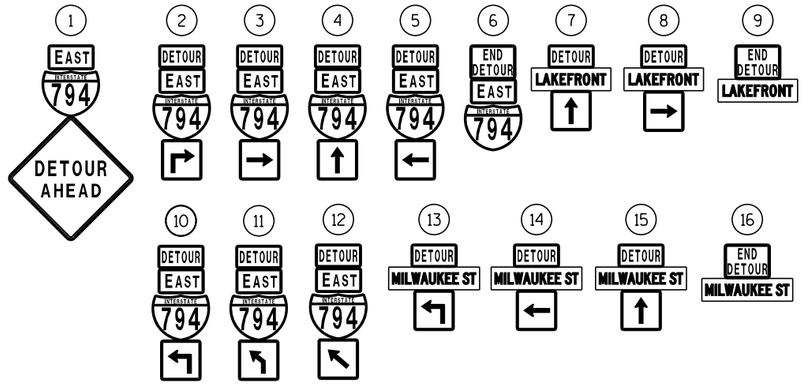
1. DETOUR TO BE USED ONLY WHEN LINCOLN MEMORIAL WB ENTRANCE RAMP IS CLOSED.
2. ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.
3. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

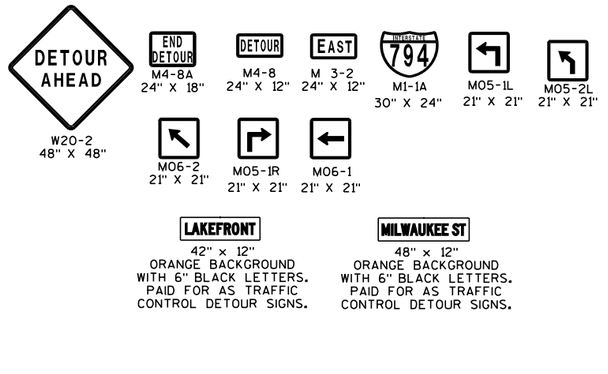
LEGEND

- DETOUR: LINCOLN MEMORIAL DRIVE ON RAMP TO WB IH 794
- TRAFFIC CONTROL DRUM WITH / WITHOUT WARNING LIGHT
- TYPE III BARRICADE
- WORK ZONE



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - PRE-STAGE 2A - IH 794 WB ENTRANCE RAMP	SHEET 659	E





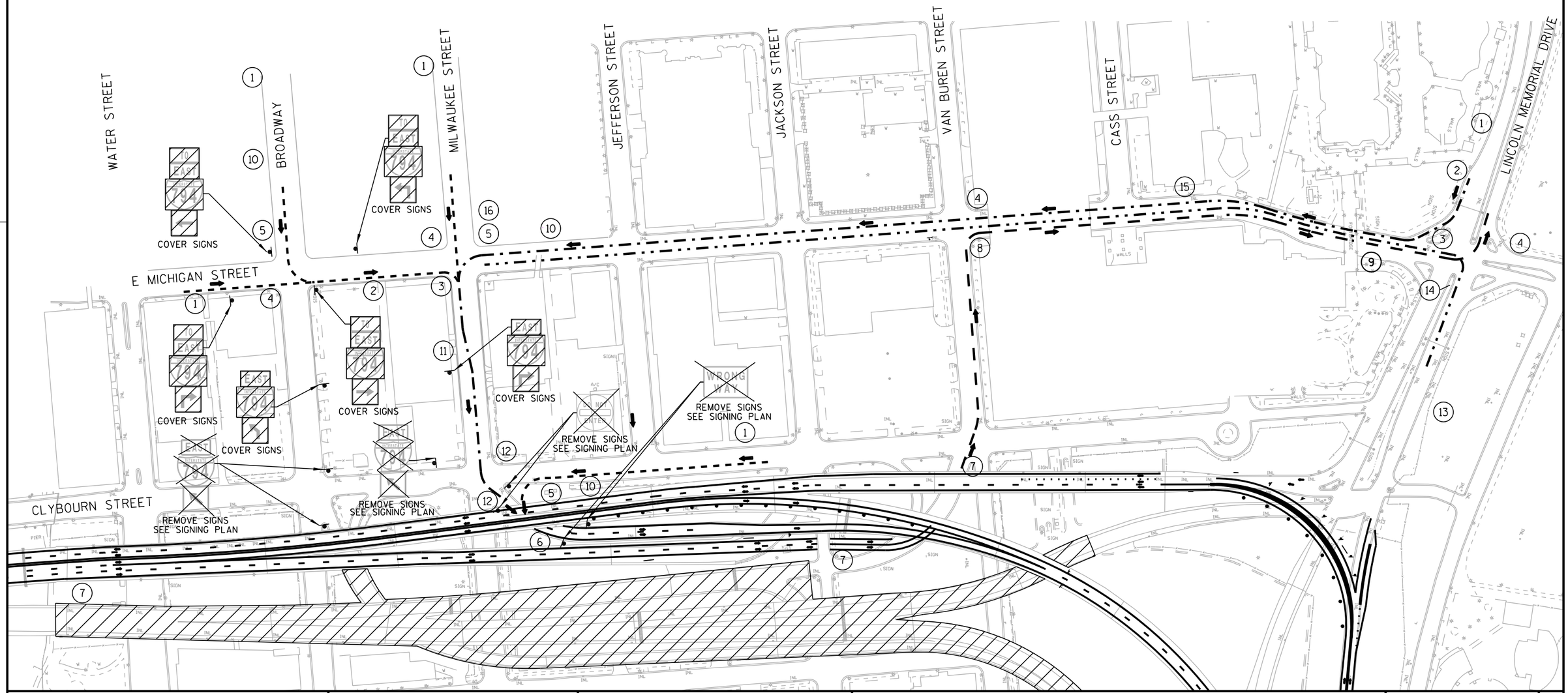
NOTES

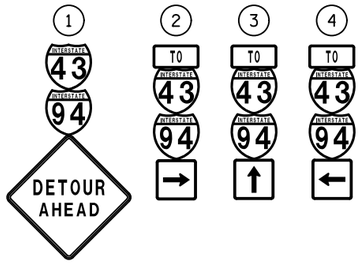
1. SEE TRAFFIC CONTROL LOCAL STREET PLAN FOR ADDITIONAL INFORMATION.
2. ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.
3. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

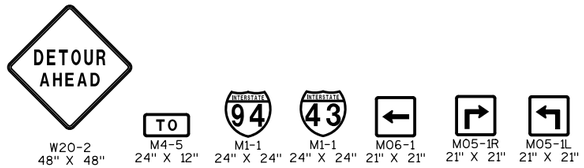
LEGEND

- DETOUR: LOCAL STREETS TO EB IH 794
- DETOUR: EB IH 794 OFF RAMP TO LAKEFRONT
- DETOUR: LINCOLN MEMORIAL DRIVE ON RAMP TO EB IH 794
- DETOUR: IH 794 WB TO MILWAUKEE STREET
- WORK ZONE

N







NOTES

SEE DETOUR PLAN - STAGE 1- IH 794 EB RAMPS FOR ADDITIONAL INFORMATION.

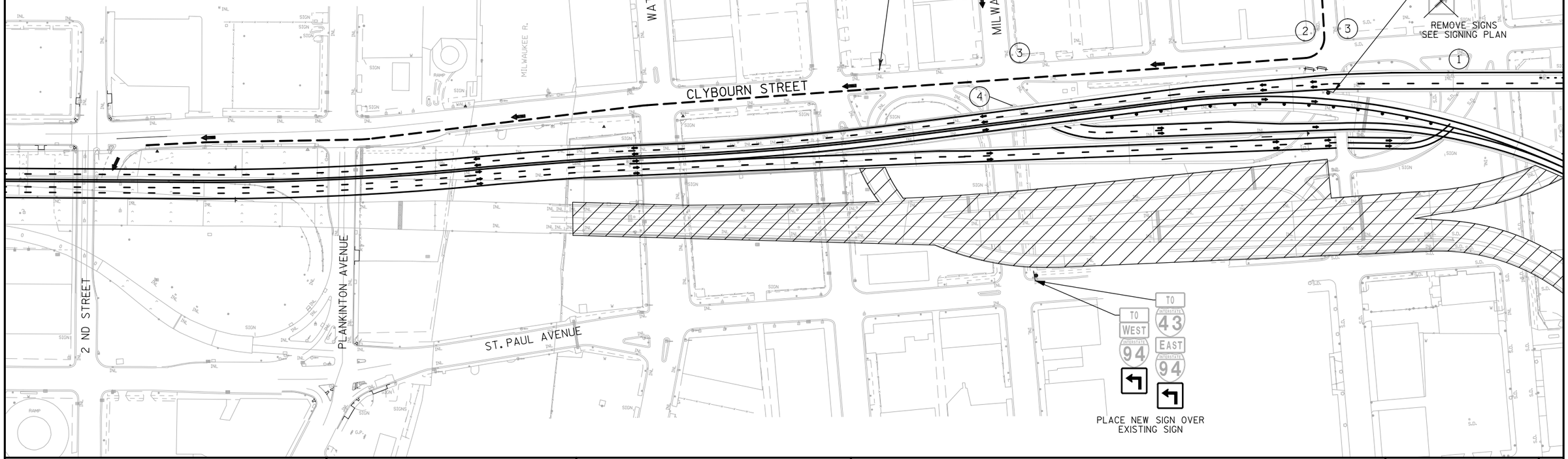
ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

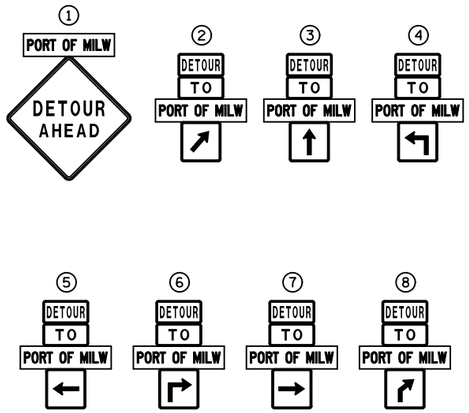
LEGEND

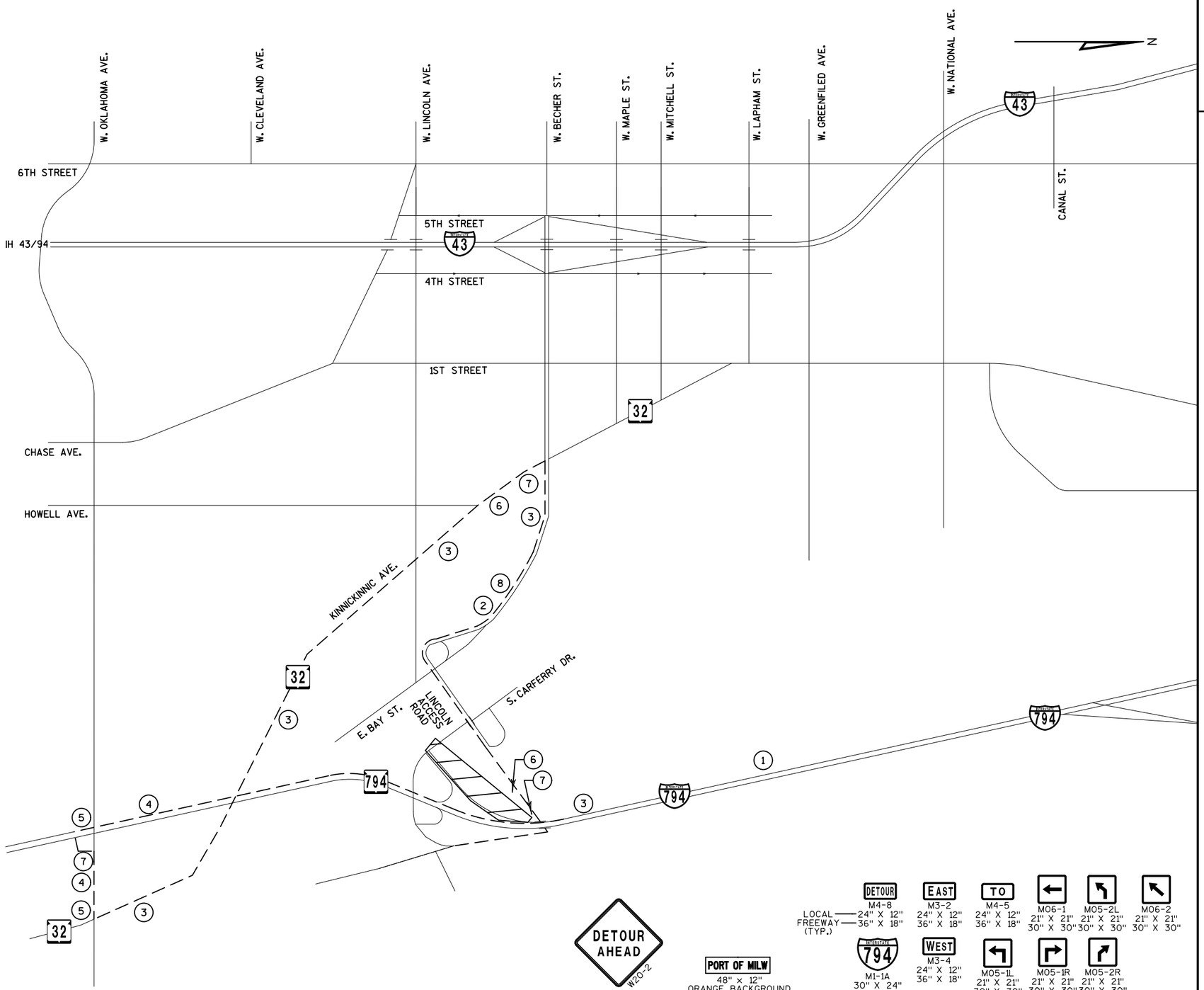
DETOUR: JACKSON STREET ON RAMP TO WB IH 794

WORK ZONE



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - STAGE 1- IH 43/94 RAMPS	SHEET 661	E





NOTES

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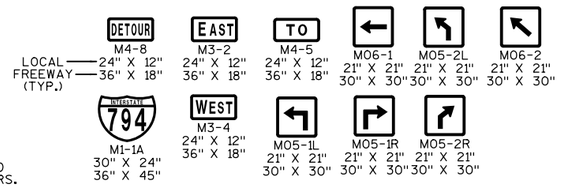
2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS, OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

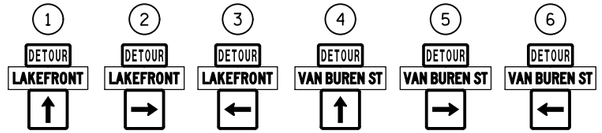
LEGEND

- — - DETOUR ROUTE
- RAMP CLOSED

PORT OF MILW
48" X 12"
ORANGE BACKGROUND
WITH 6" BLACK LETTERS.
PAID FOR AS TRAFFIC
CONTROL DETOUR SIGNS.



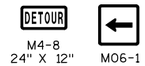
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - STAGE 1 - EB 794 OFF RAMP TO CARFERRY DRIVE	SHEET 662	E



LEGEND

DETOUR: IH43 NB/SB RAMPS TO LAKEFRONT & JACKSON/VAN BUREN

DETOUR: EB IH794 OFF RAMP TO LAKEFRONT & JACKSON/VAN BUREN



M4-8
24" X 12"

M06-1
21" X 21"

42" x 12"
ORANGE BACKGROUND
WITH 6" BLACK LETTERS.
PAID FOR AS TRAFFIC
CONTROL DETOUR SIGNS.

48" x 12"
ORANGE BACKGROUND
WITH 6" BLACK LETTERS.
PAID FOR AS TRAFFIC
CONTROL DETOUR SIGNS.

NOTES

1. ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.
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N

2

E MICHIGAN ST.

E MICHIGAN ST.

MATCH LINE

MICHIGAN ST.

JAMES LOVELL ST.

6TH ST.

5TH ST.

2ND ST.

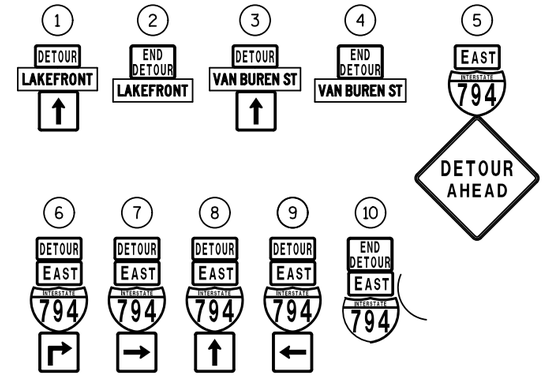
PLANKINTON AVE.

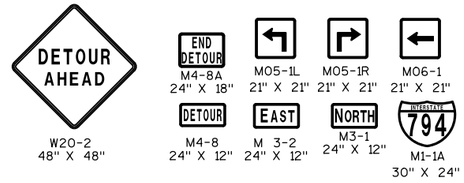
CLYBOURN ST.

CLYBOURN STREET

ST. PAUL AVENUE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - STAGE 2A - IH 794 EB RAMPS	SHEET 663	E





LAKEFRONT
42" x 12"
ORANGE BACKGROUND WITH 6" BLACK LETTERS. PAID FOR AS TRAFFIC CONTROL DETOUR SIGNS.

VAN BUREN ST
48" x 12"
ORANGE BACKGROUND WITH 6" BLACK LETTERS. PAID FOR AS TRAFFIC CONTROL DETOUR SIGNS.

MILWAUKEE ST
48" x 12"
ORANGE BACKGROUND WITH 6" BLACK LETTERS. PAID FOR AS TRAFFIC CONTROL DETOUR SIGNS.

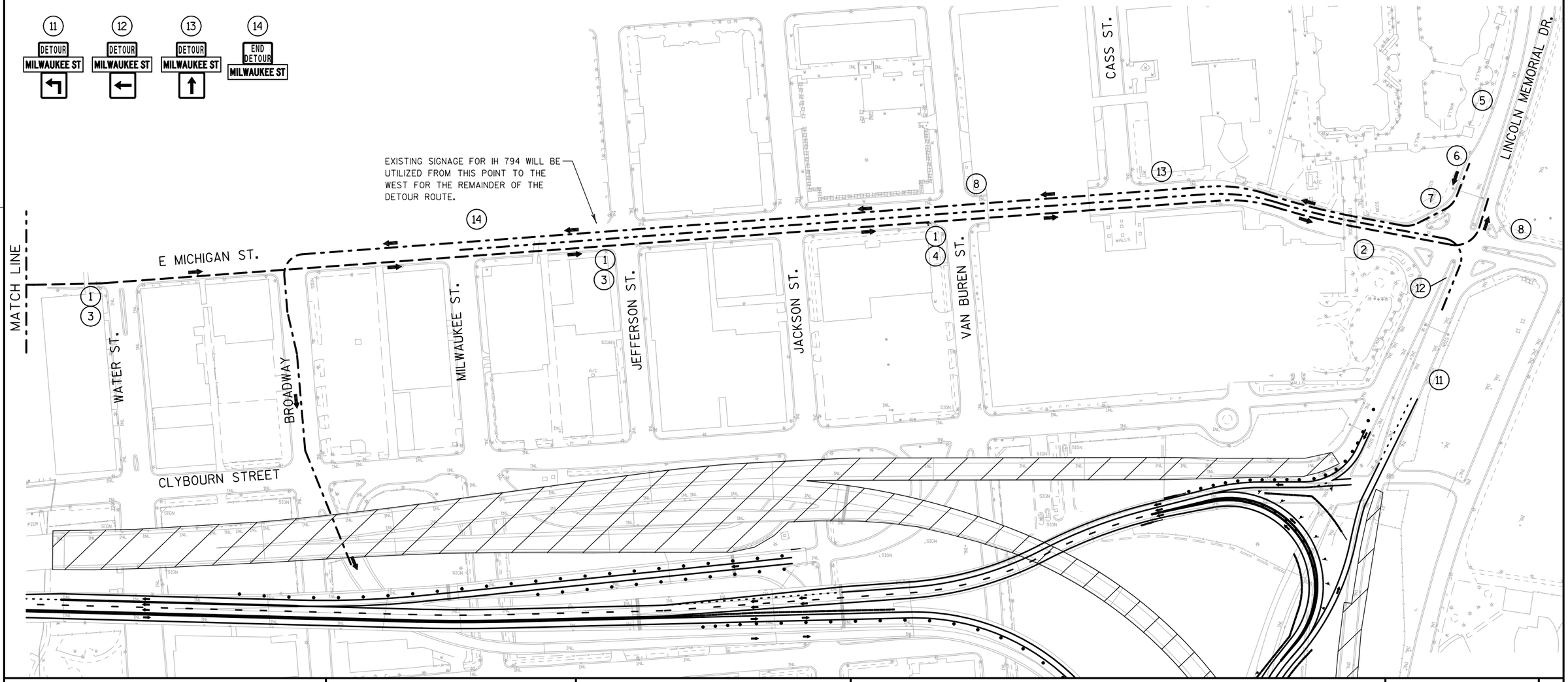
NOTES

1. ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.
2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

LEGEND

- DETOUR: IH43 NB/SB RAMPS & IH794 EB TO LAKEFRONT & JACKSON/VAN BUREN
- DETOUR: LINCOLN MEMORIAL DRIVE ON RAMP TO EB IH 794
- DETOUR: IH 794 WB TO MILWAUKEE STREET
- WORK ZONE

N



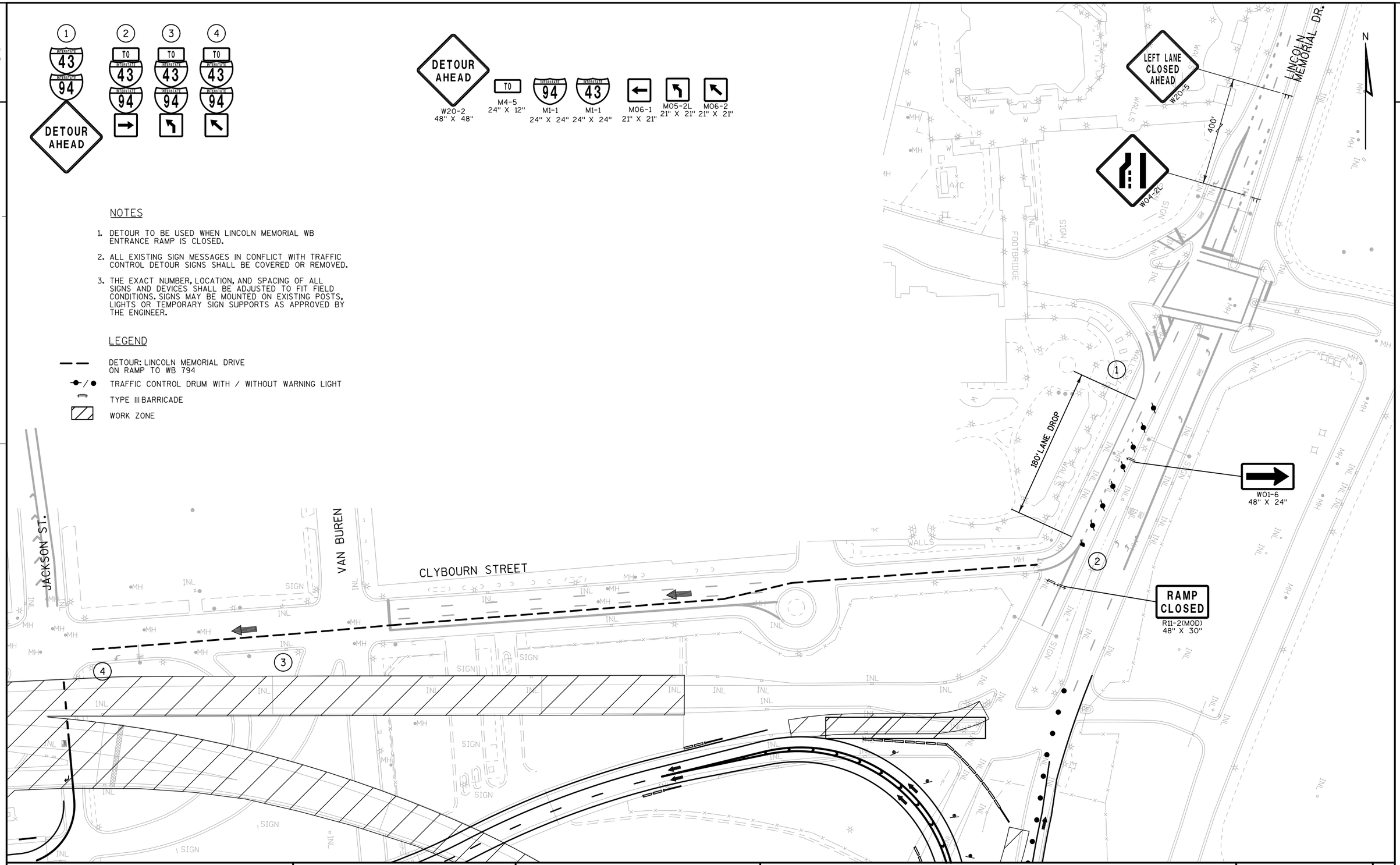
PROJECT NO:1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - STAGE 2A - IH 794 EB RAMPS	SHEET 664	E

NOTES

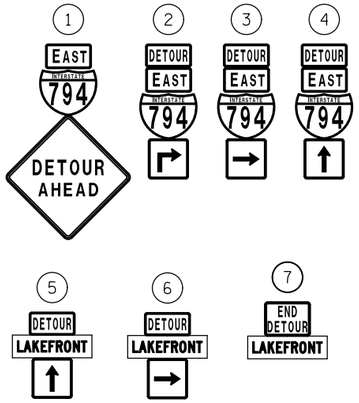
1. DETOUR TO BE USED WHEN LINCOLN MEMORIAL WB ENTRANCE RAMP IS CLOSED.
2. ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.
3. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

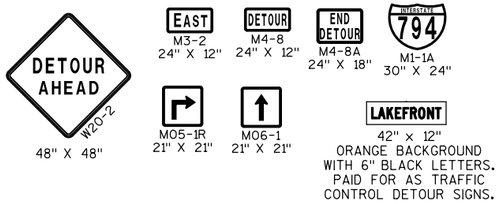
LEGEND

- DETOUR: LINCOLN MEMORIAL DRIVE ON RAMP TO WB 794
- TRAFFIC CONTROL DRUM WITH / WITHOUT WARNING LIGHT
- TYPE III BARRICADE
- WORK ZONE



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - STAGE 2A	SHEET 665	E





LEGEND

DETOUR: EB IH794 OFF RAMP TO LAKEFRONT

DETOUR: EB LINCOLN MEMORIAL DRIVE ON RAMP TO EB IH 794

WORK ZONE

NOTES

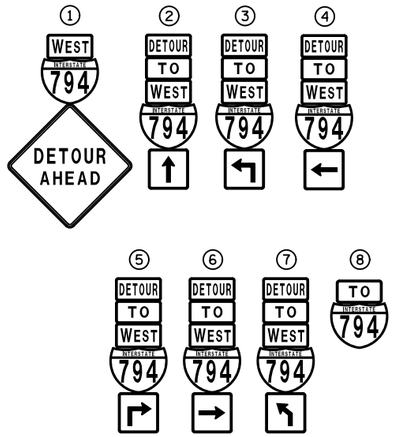
1. ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.
2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS, OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

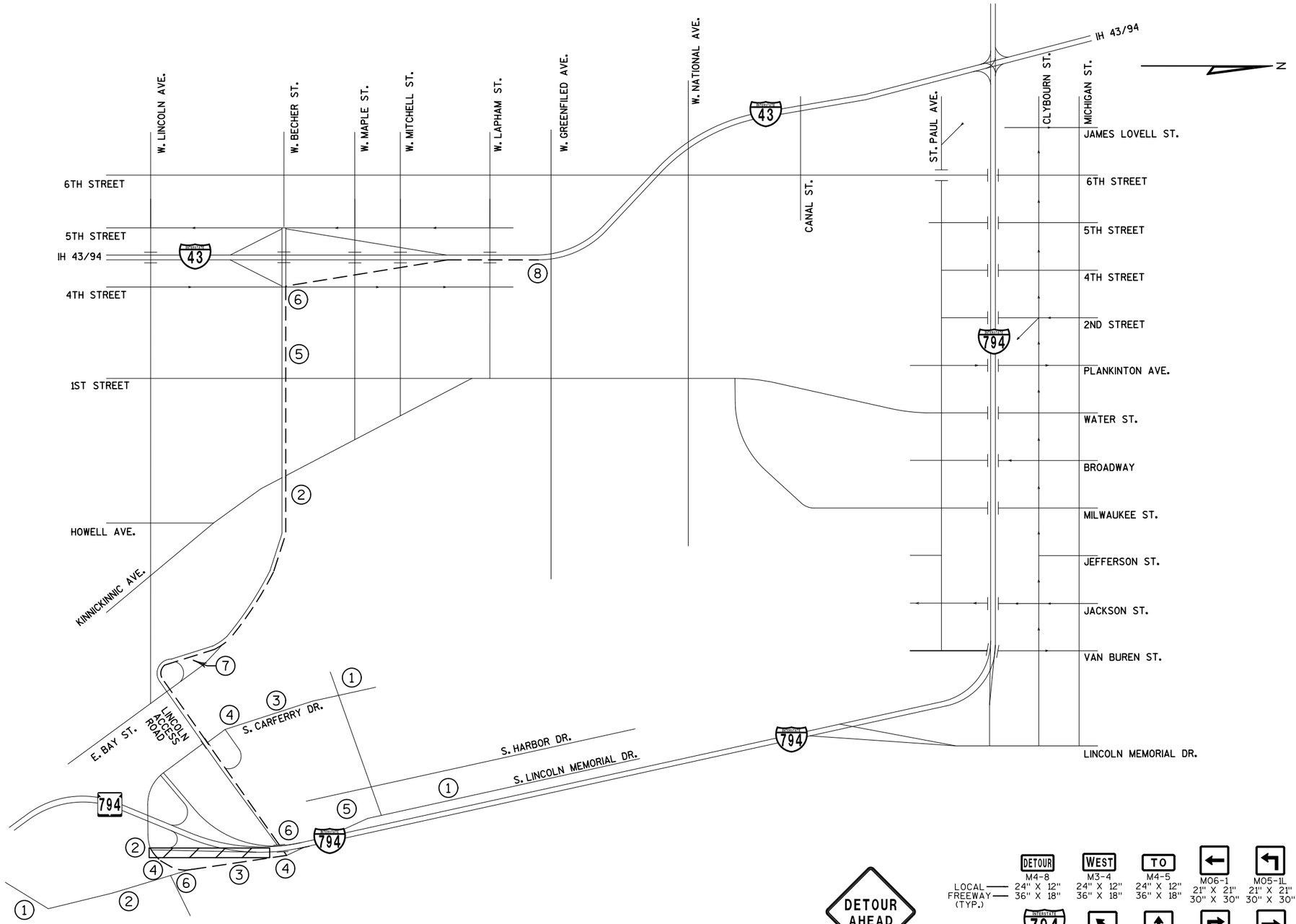
N

EXISTING SIGNAGE FOR IH 794 WILL BE UTILIZED FROM THIS POINT TO THE WEST FOR THE REMAINDER OF THE DETOUR ROUTE.

E MICHIGAN STREET
WATER STREET
BROADWAY
CLYBOURN STREET
MILWAUKEE STREET
JEFFERSON STREET
JACKSON STREET
VAN BUREN STREET
LINCOLN MEMORIAL DRIVE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - STAGE 2B - IH 794 EB RAMPS	SHEET 666	E





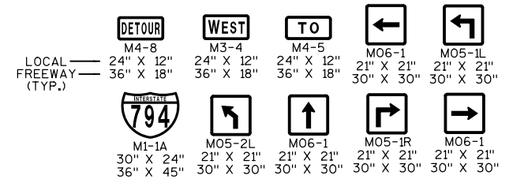
NOTES

1. ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.
2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS, OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

LEGEND

— — — DETOUR IH 794 WEST TO MADISON

RAMP CLOSED



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - STAGE 2B - CARFERRY DRIVE ON RAMP TO WB 794	SHEET 667	E

48" X 48"

M4-8A
24" X 18"

M4-8
24" X 12"

M06-1
21" X 21"

M05-1L
21" X 21"

42" X 12"
ORANGE BACKGROUND
WITH 6" BLACK LETTERS.
PAID FOR AS TRAFFIC
CONTROL DETOUR SIGNS.

NOTES

1. ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.
2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

LEGEND

DETOUR ROUTE

WORK ZONE

MICHIGAN STREET

MILWAUKEE STREET

JEFFERSON STREET

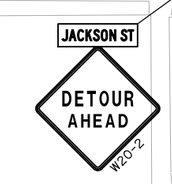
JACKSON STREET

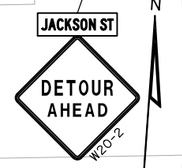
VAN BUREN STREET

BROADWAY

CLYBOURN STREET

ST. PAUL AVENUE





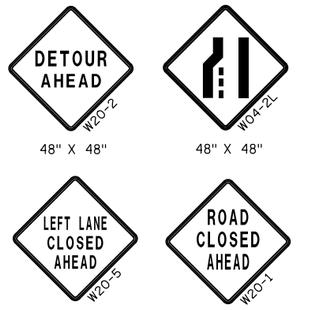
N

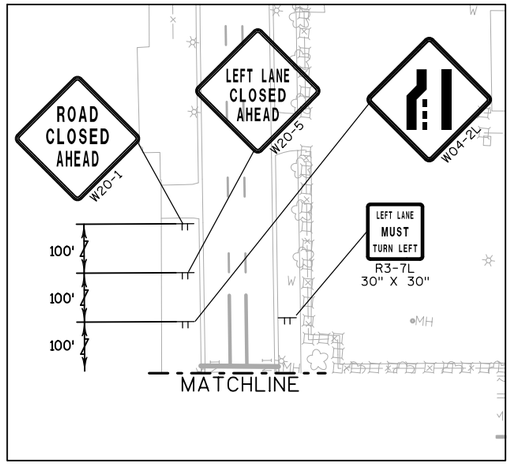
R11-2(MOD)
48" X 30"

R11-2
48" X 30"

400'

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - PRE-STAGE 2 - JACKSON STREET CLOSED	SHEET 668	E





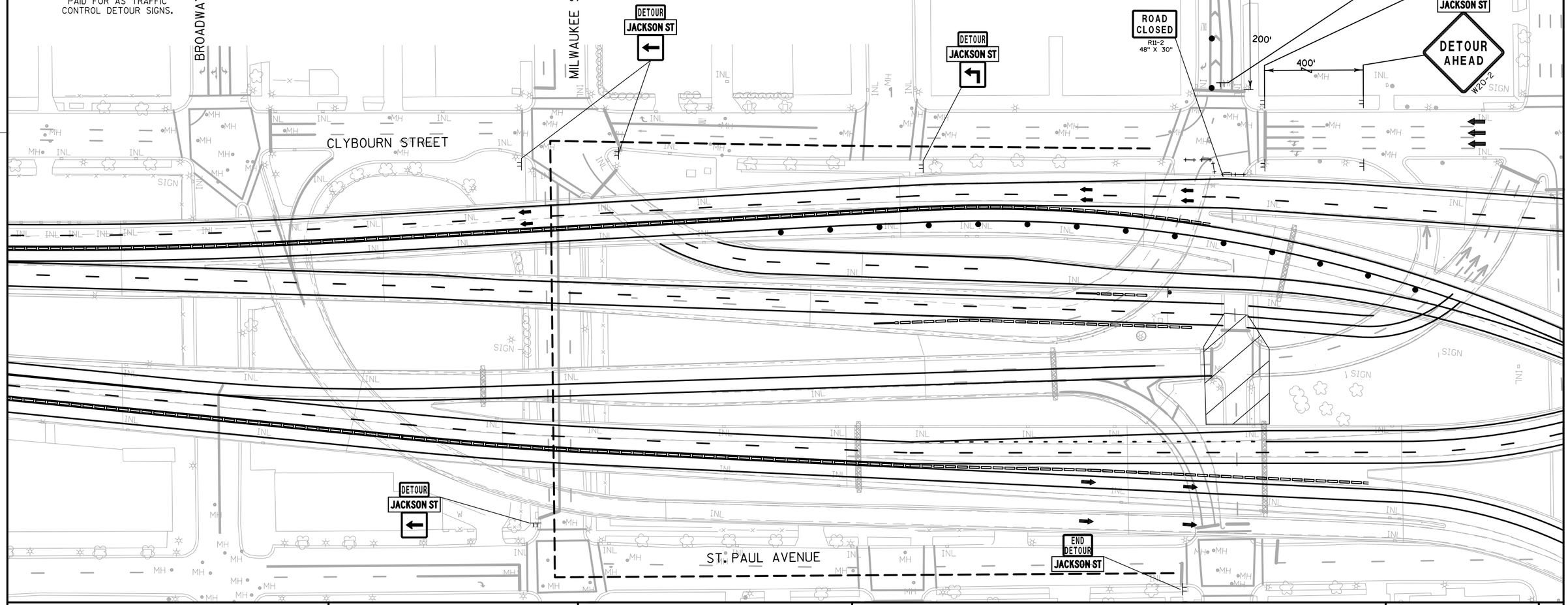
NOTES

1. ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.
2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

LEGEND

DETOUR ROUTE

WORK ZONE

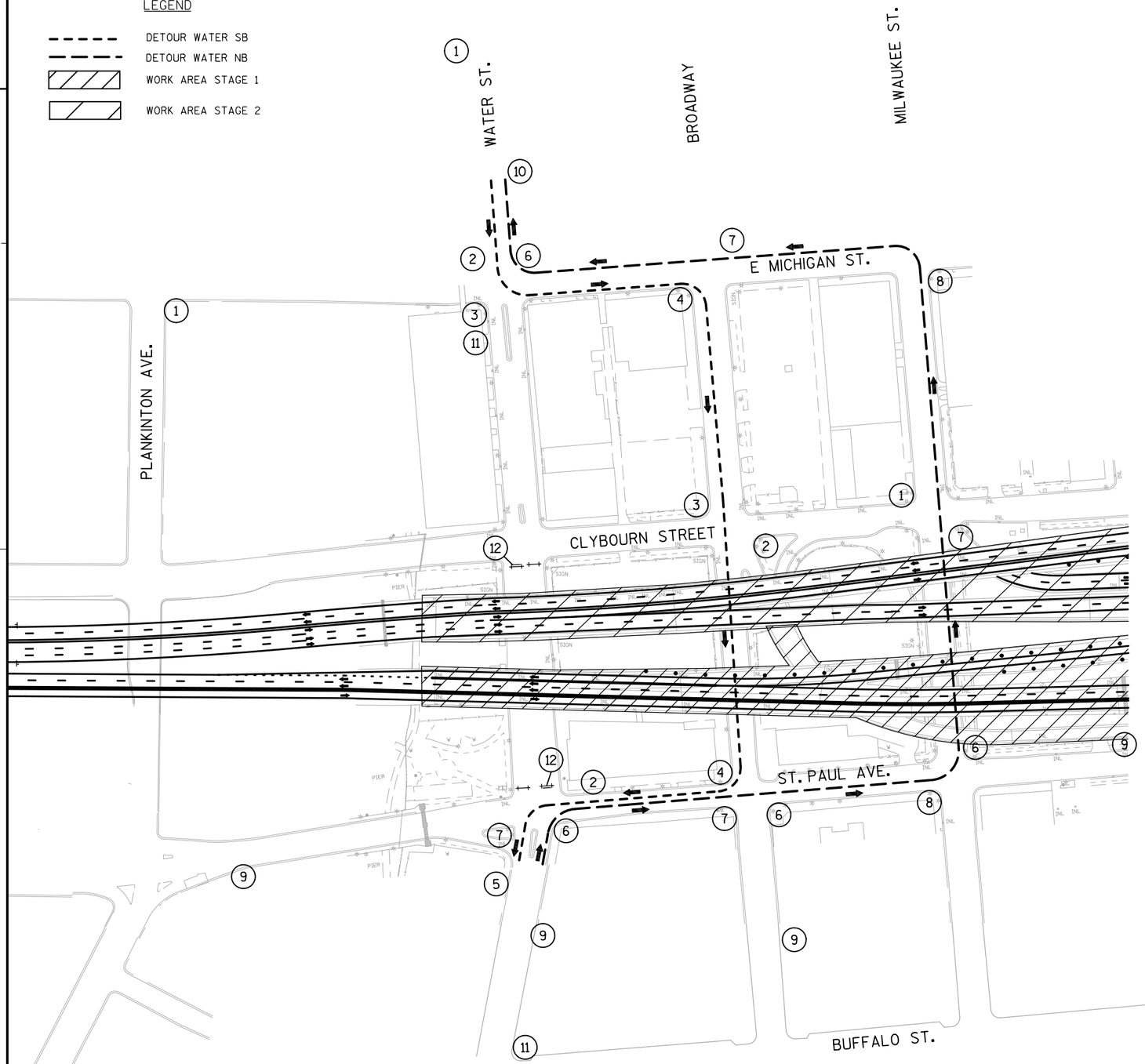


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - STAGE 1B - JACKSON STREET CLOSURE	SHEET 669	E

FILE NAME : IP_PWP:d0231471\027012_dt.dgn
PLOT DATE : 26-APR-2013
PLOT BY : 1732
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
WISDOT/CADDS SHEET 42

LEGEND

- DETOUR WATER SB
- DETOUR WATER NB
- WORK AREA STAGE 1
- WORK AREA STAGE 2



NOTES

ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

SEE PEDESTRIAN DETOUR PLAN: WATER STREET FOR PEDESTRIAN DETOUR SIGNING.

N

2

1 — SOUTH / WATER ST / DETOUR AHEAD

2 — DETOUR / SOUTH / WATER ST

3 — DETOUR / SOUTH / WATER ST

4 — DETOUR / SOUTH / WATER ST

5 — END DETOUR / SOUTH / WATER ST

6 — DETOUR / NORTH / WATER ST

7 — DETOUR / NORTH / WATER ST

8 — DETOUR / NORTH / WATER ST

9 — NORTH / WATER ST / DETOUR AHEAD

10 — END DETOUR / NORTH / WATER ST

11 — ROAD CLOSED AHEAD

12 — ROAD CLOSED

ROAD CLOSED AHEAD W20-3 — 48" X 48"

DETOUR AHEAD W20-2 — 48" X 48"

END DETOUR M4-8A 24" X 18"

DETOUR M4-8 24" X 12"

SOUTH M3-3 24" X 12"

NORTH M3-1 24" X 12"

ROAD CLOSED R11-2 48" X 30"

M06-1 21" X 21"

WATER ST — 36" X 12" ORANGE BACKGROUND WITH 6" BLACK LETTERS. PAID FOR AS TRAFFIC CONTROL DETOUR SIGNS.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - STAGE 1& 2A - WATER STREET	SHEET 670	E

2

LEGEND

DETOUR BROADWAY SB

WORK AREA STAGE 1

WORK AREA STAGE 2

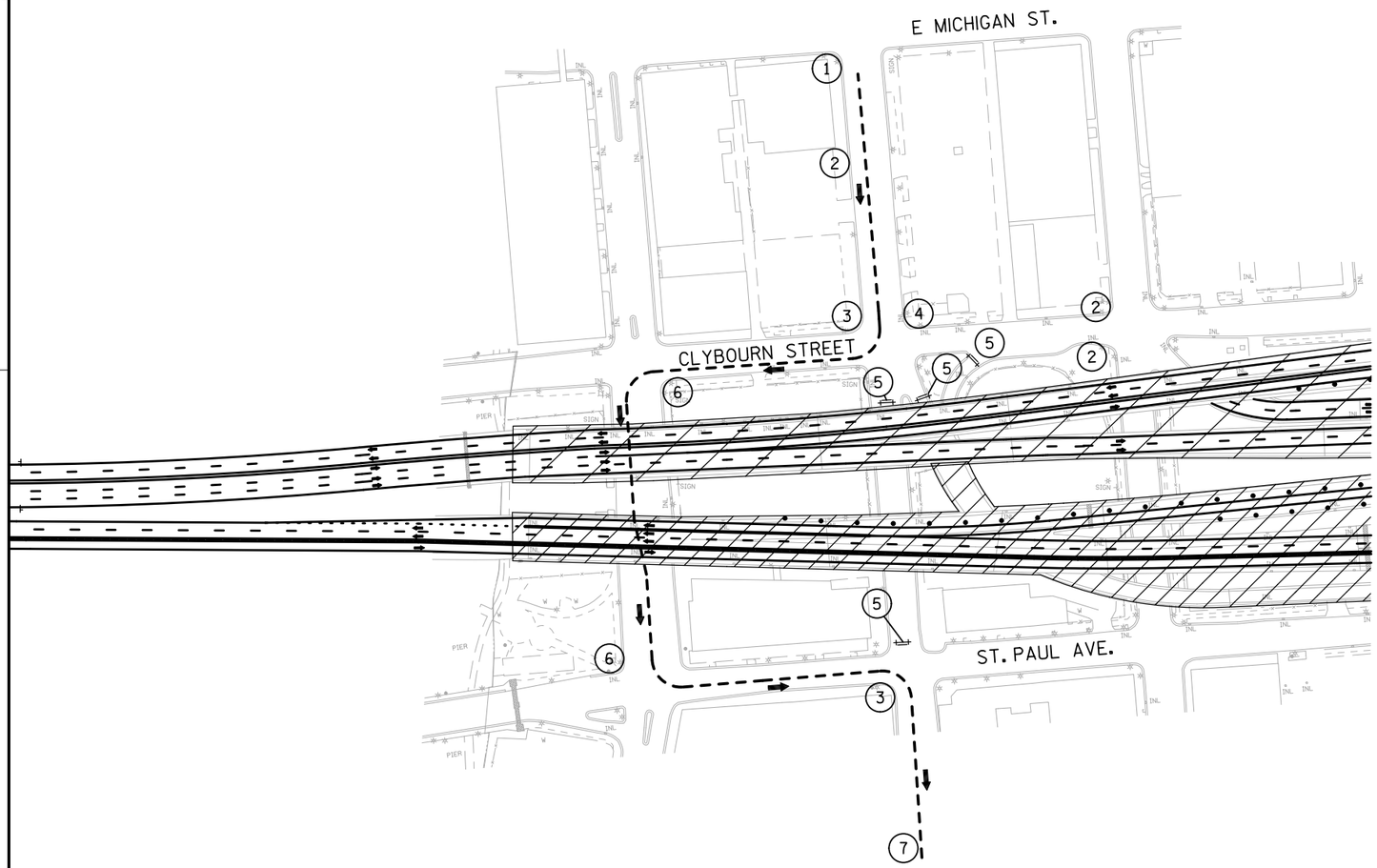
NOTES

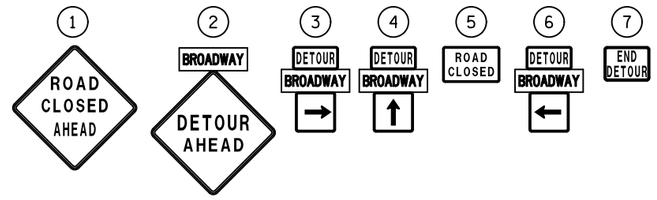
ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

SEE PEDESTRIAN DETOUR PLAN: BROADWAY FOR PEDESTRIAN DETOUR SIGNING.

N





48" X 48"

48" X 48"

M4-8A
24" X 18"

M4-8
24" X 12"

M06-1
21" X 21"

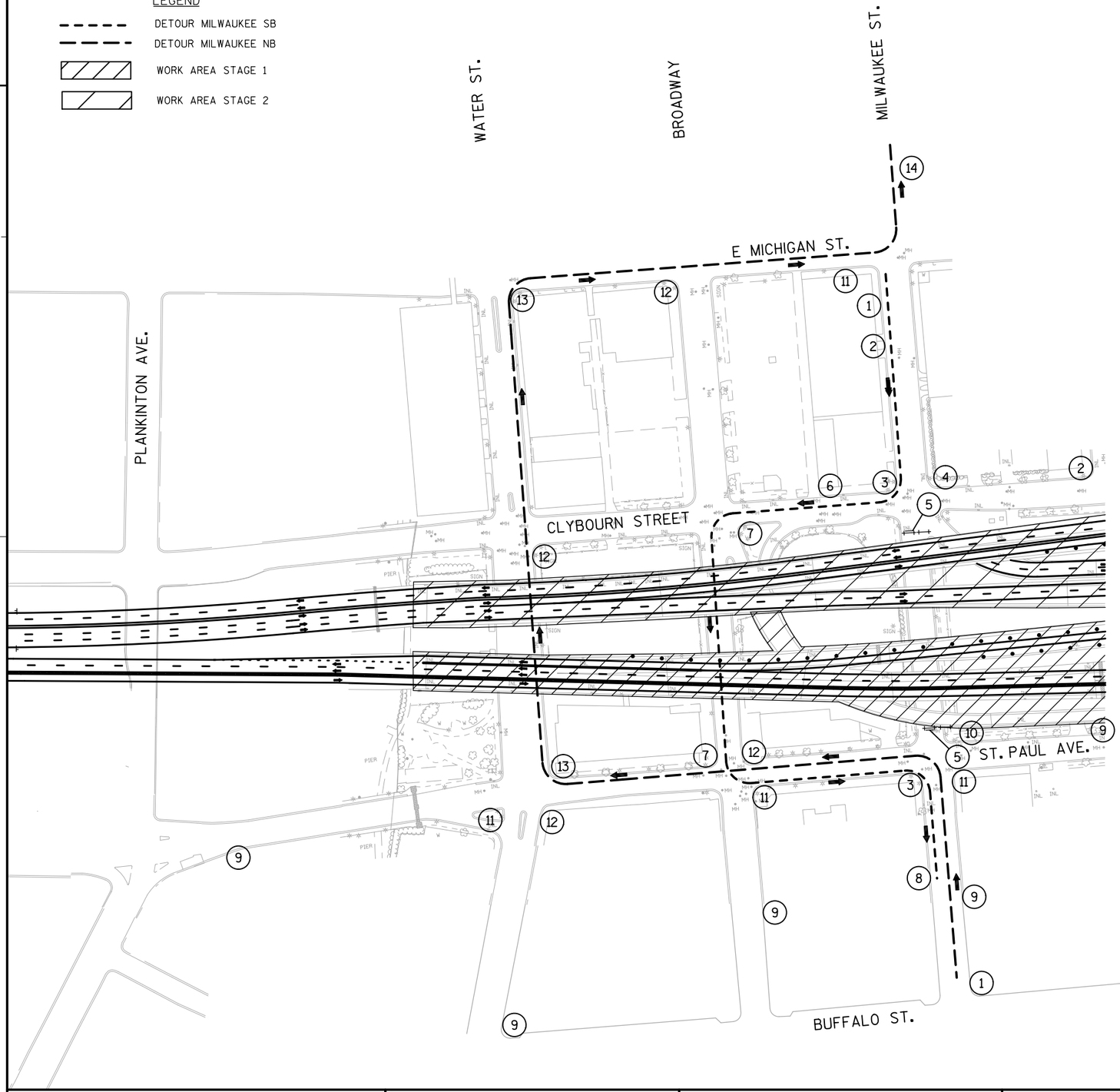
R11-2
48" X 30"

36" X 12"
ORANGE BACKGROUND
WITH 6" BLACK LETTERS.
PAID FOR AS TRAFFIC
CONTROL DETOUR SIGNS.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - STAGE 1 & 2A - BROADWAY	SHEET 671	E

LEGEND

- DETOUR MILWAUKEE SB
- DETOUR MILWAUKEE NB
- WORK AREA STAGE 1
- WORK AREA STAGE 2



NOTES

ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

SEE PEDESTRIAN DETOUR PLAN: MILWAUKEE STREET FOR PEDESTRIAN DETOUR SIGNING.

N

2

1 ROAD CLOSED AHEAD

2 SOUTH MILWAUKEE ST / DETOUR AHEAD

3 DETOUR SOUTH MILWAUKEE ST →

4 DETOUR SOUTH MILWAUKEE ST ↑

5 ROAD CLOSED

6 DETOUR SOUTH MILWAUKEE ST ↰

7 DETOUR SOUTH MILWAUKEE ST ←

8 END DETOUR SOUTH MILWAUKEE ST

9 NORTH MILWAUKEE ST / DETOUR AHEAD

10 DETOUR NORTH MILWAUKEE ST ↑

11 DETOUR NORTH MILWAUKEE ST ←

12 DETOUR NORTH MILWAUKEE ST ↑

13 DETOUR NORTH MILWAUKEE ST →

14 END DETOUR NORTH MILWAUKEE ST

ROAD CLOSED AHEAD W20-3 — 48" X 48"

DETOUR AHEAD W20-2 — 48" X 48"

END DETOUR M4-8A 24" X 18"

DETOUR M4-8 24" X 12"

SOUTH M3-3 24" X 12"

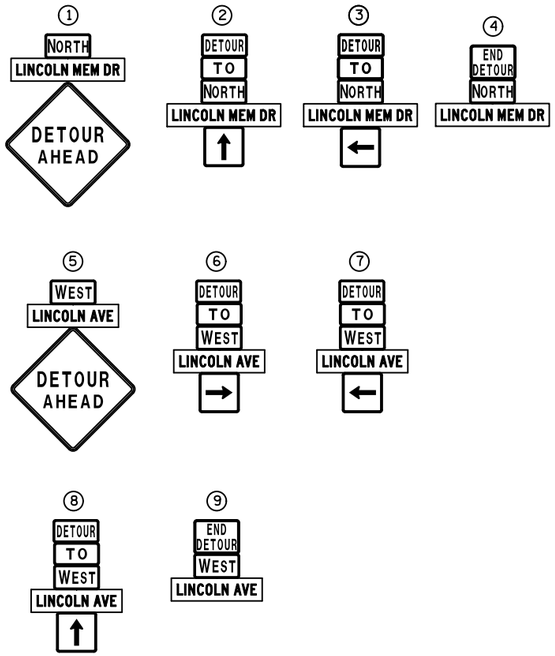
NORTH M3-1 24" X 12"

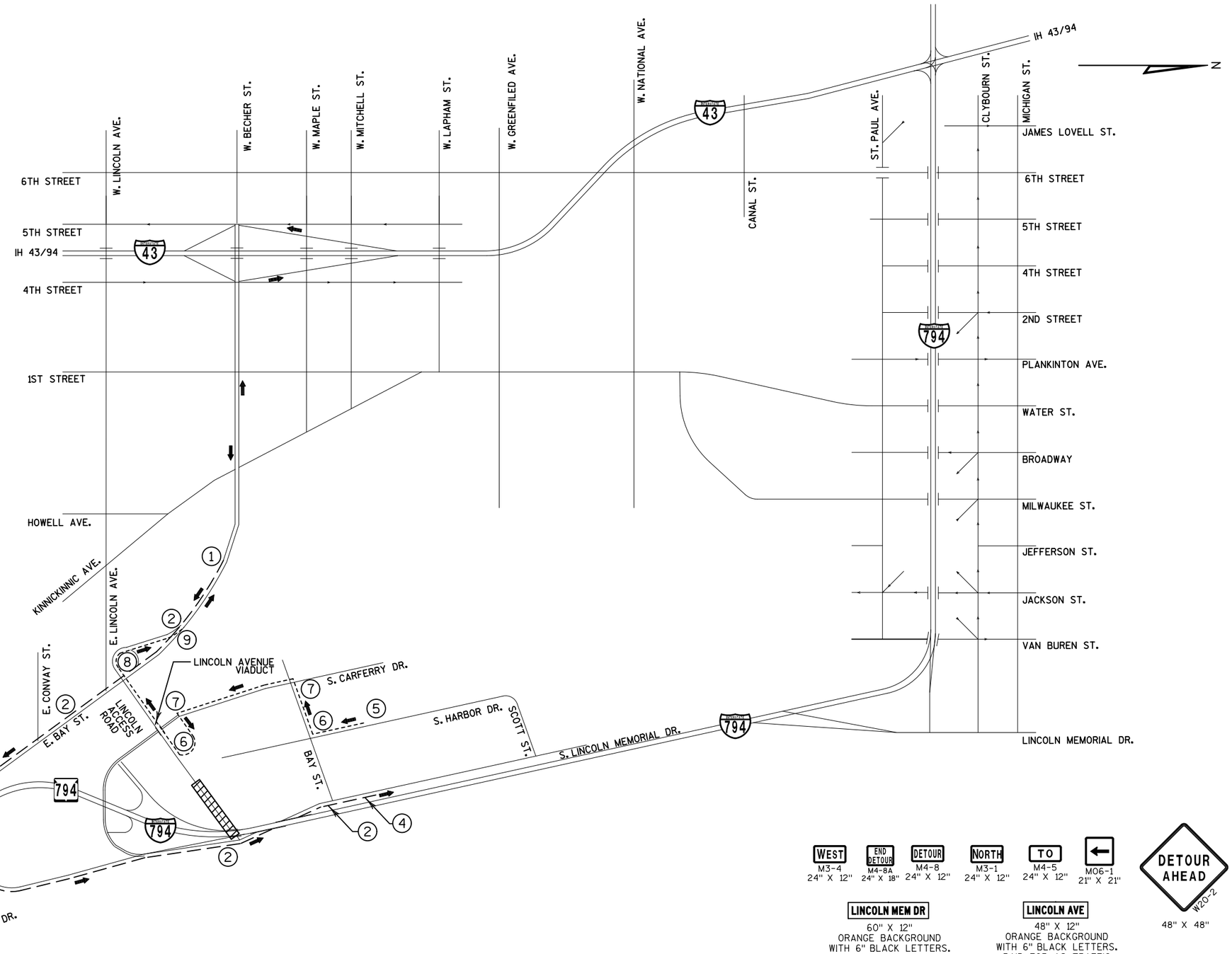
ROAD CLOSED R11-2 48" X 30"

M06-1 21" X 21"

MILWAUKEE ST 48" X 12" ORANGE BACKGROUND WITH 6" BLACK LETTERS. PAID FOR AS TRAFFIC CONTROL DETOUR SIGNS.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - STAGE 1 & 2A - MILWAUKEE STREET	SHEET 672	E





NOTES

1. ALL EXISTING SIGN MESSAGES IN CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.
2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS, OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.

LEGEND

— — — DETOUR E. BAY ST. TO S. LINCOLN MEMORIAL DRIVE

------- DETOUR BAY STREET TO LINCOLN AVENUE VIADUCT

ROAD CLOSED

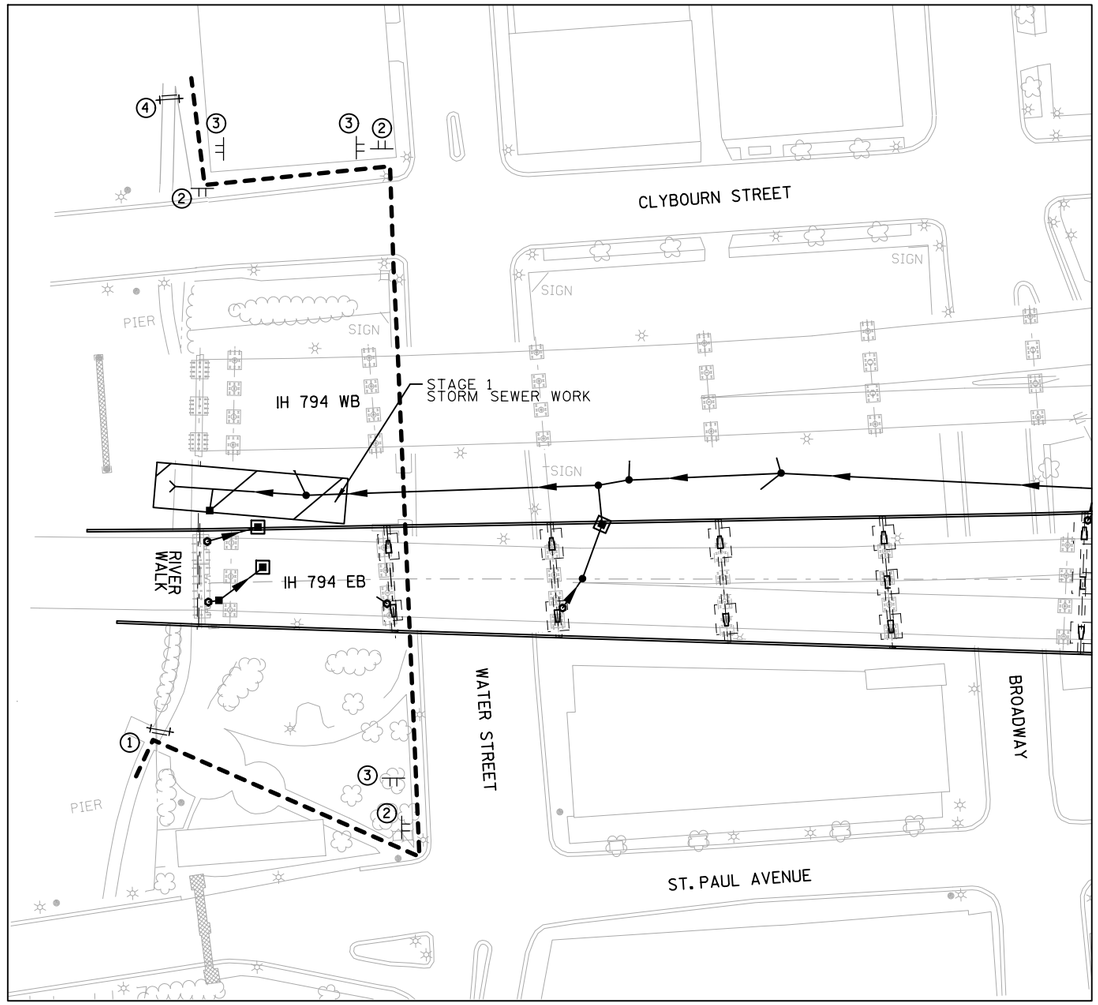
WEST M3-4 24" X 12"
END DETOUR M4-8A 24" X 18"
DETOUR M4-8 24" X 12"
NORTH M3-1 24" X 12"
TO M4-5 24" X 12"
M06-1 21" X 21"

DETOUR AHEAD W20-2 48" X 48"

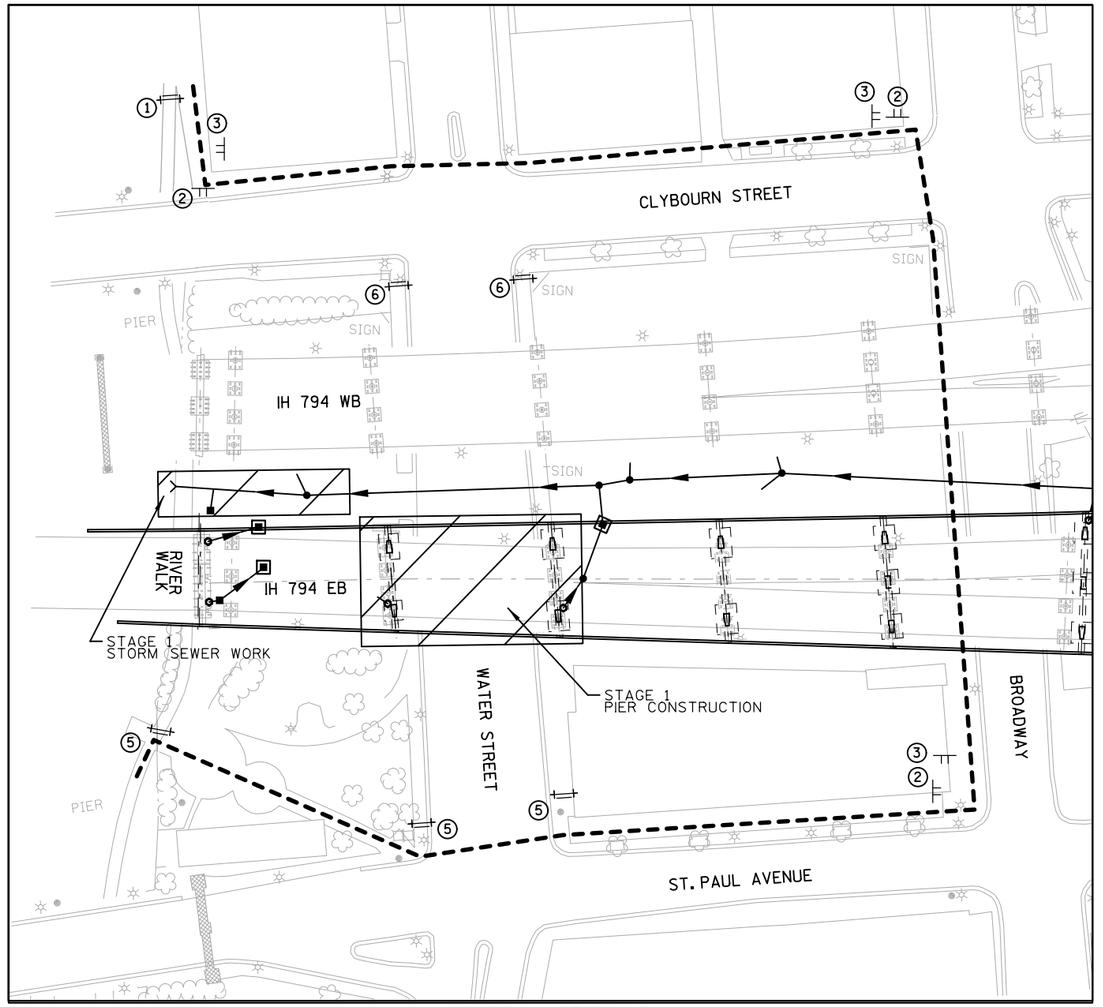
LINCOLN MEM DR
60" X 12"
ORANGE BACKGROUND
WITH 6" BLACK LETTERS.
PAID FOR AS TRAFFIC
CONTROL DETOUR SIGNS.

LINCOLN AVE
48" X 12"
ORANGE BACKGROUND
WITH 6" BLACK LETTERS.
PAID FOR AS TRAFFIC
CONTROL DETOUR SIGNS.

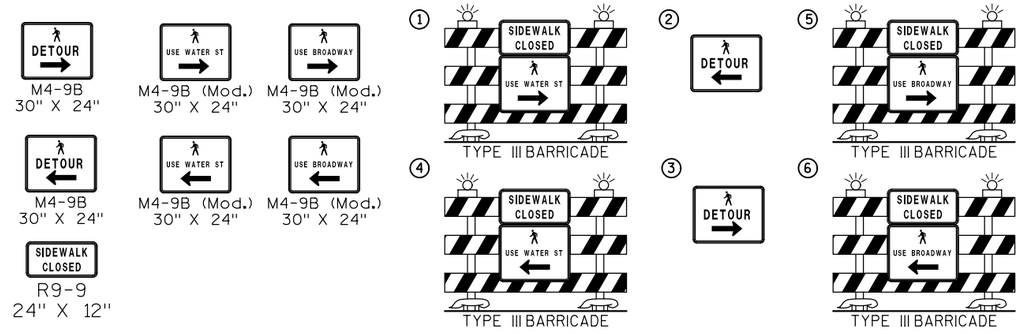
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - LINCOLN AVENUE VIADUCT NIGHT TIME DETOUR	SHEET 673	E



STAGE 1 - OPTION 1



STAGE 1 - OPTION 2



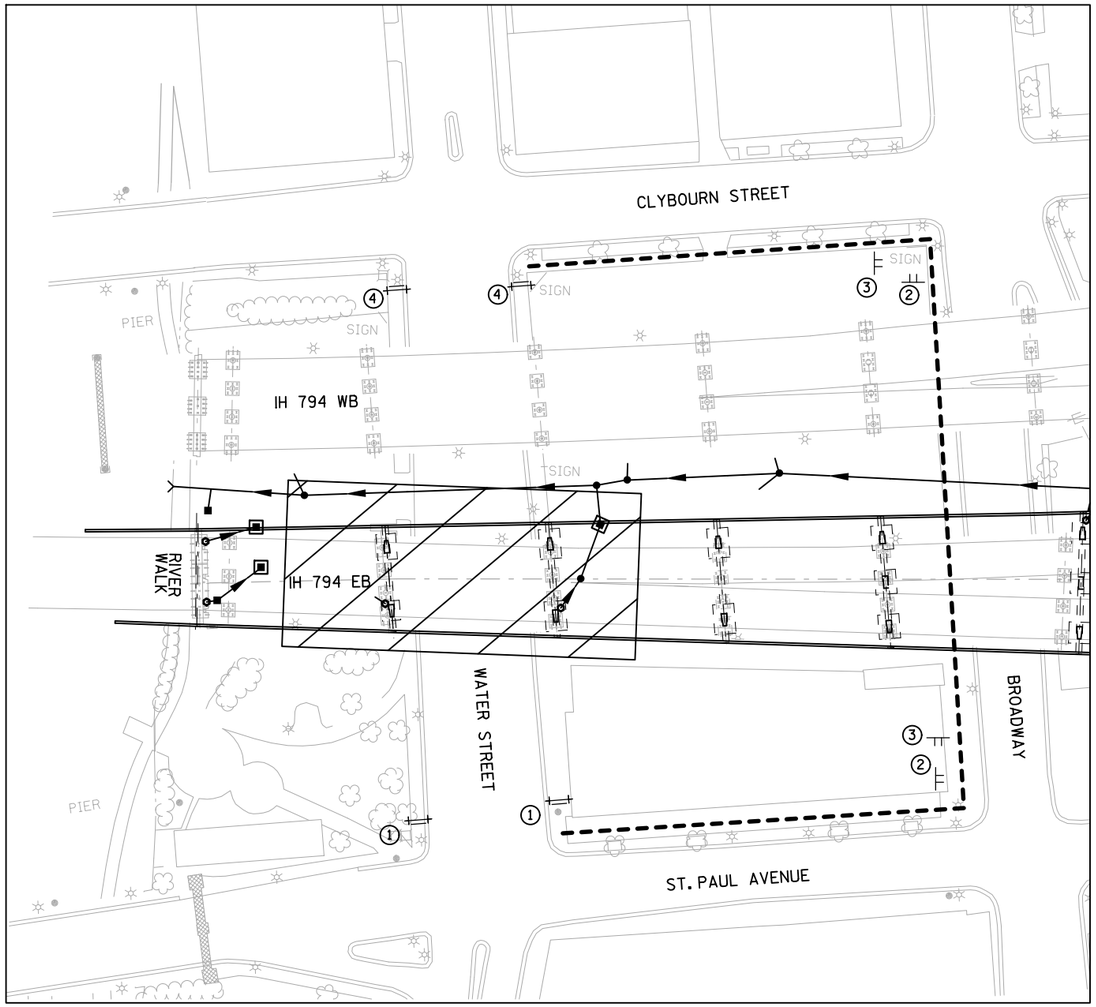
NOTES:

1. DETOUR PLAN TO BE USED WHEN BOTH SIDES OF SIDEWALK MUST BE CLOSED. WHEN ONE SIDE IS OPEN, FOLLOW SDD 15-D30.
2. FINAL SIGN LOCATIONS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS, OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.
3. MINIMUM SIGN MOUNTING HEIGHT IS 7 FEET.
4. ALL SIGNS MUST BE RETROREFLECTIVE OR ILLUMINATED. ORANGE WARNING FLAGS SHALL ALSO BE INSTALLED ON EACH BARRICADE.
5. IF SIDEWALKS ALONG WATER STREET ARE CLOSED FOR PIER CONSTRUCTION, DETOUR PEDESTRIANS TO BROADWAY (OPTION 2).

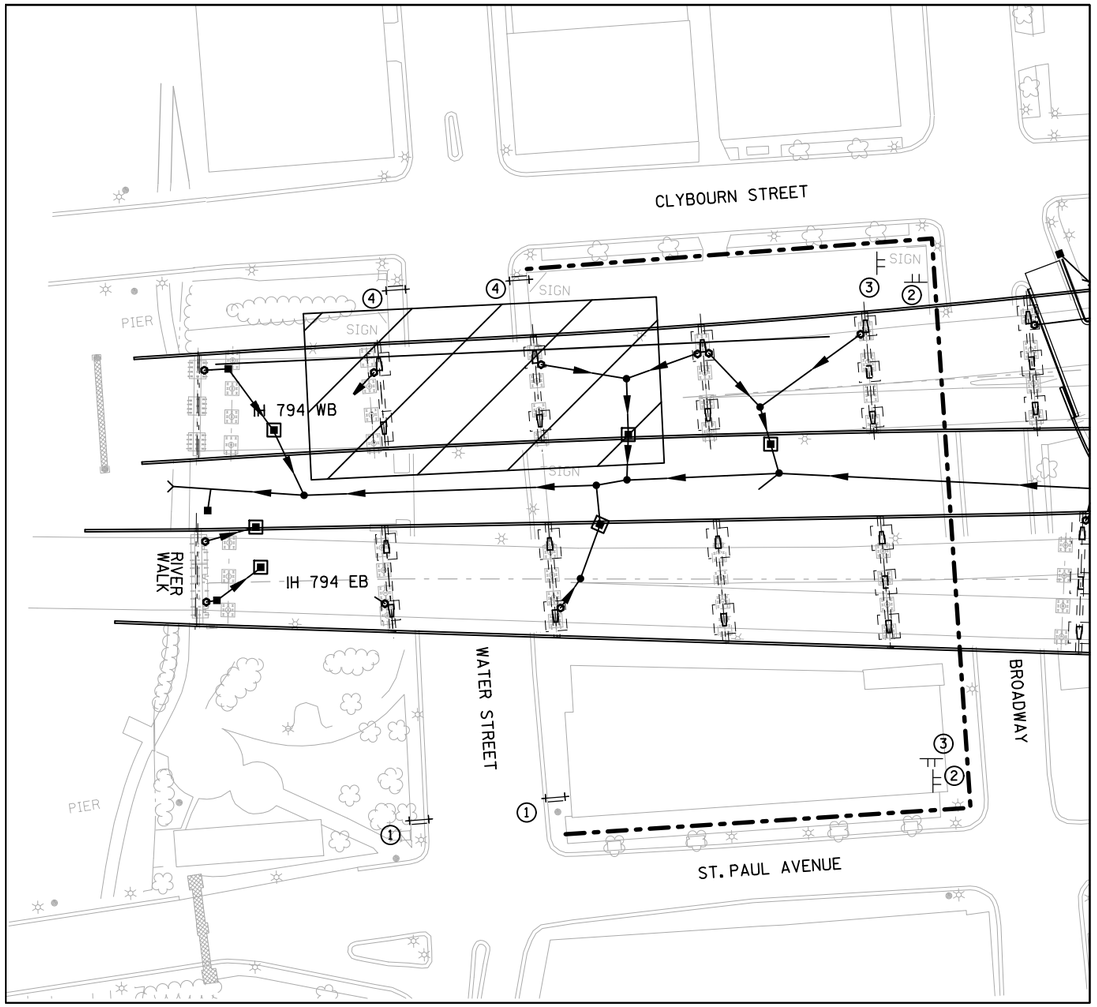
LEGEND:

- WORK AREA
- PEDESTRIAN DETOUR- STAGE 1
- TEMPORARY SIGN SUPPORT
- TYPE III BARRICADE WITH ATTACHED SIGN

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PEDESTRIAN DETOUR PLAN - RIVER WALK	SHEET 674	E



STAGE 1



STAGE 2

2

M4-9B
30" X 24"

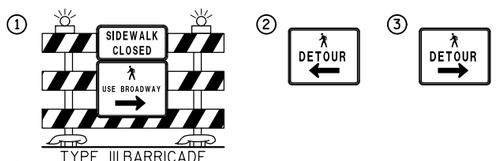
M4-9B (Mod.)
30" X 24"

M4-9B
30" X 24"

M4-9B (Mod.)
30" X 24"

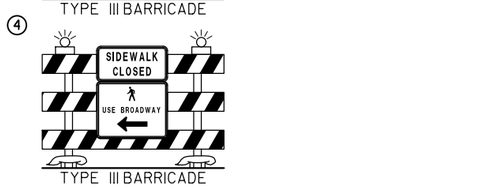
R9-9
24" X 12"

① ② ③



TYPE III BARRICADE

④



TYPE III BARRICADE

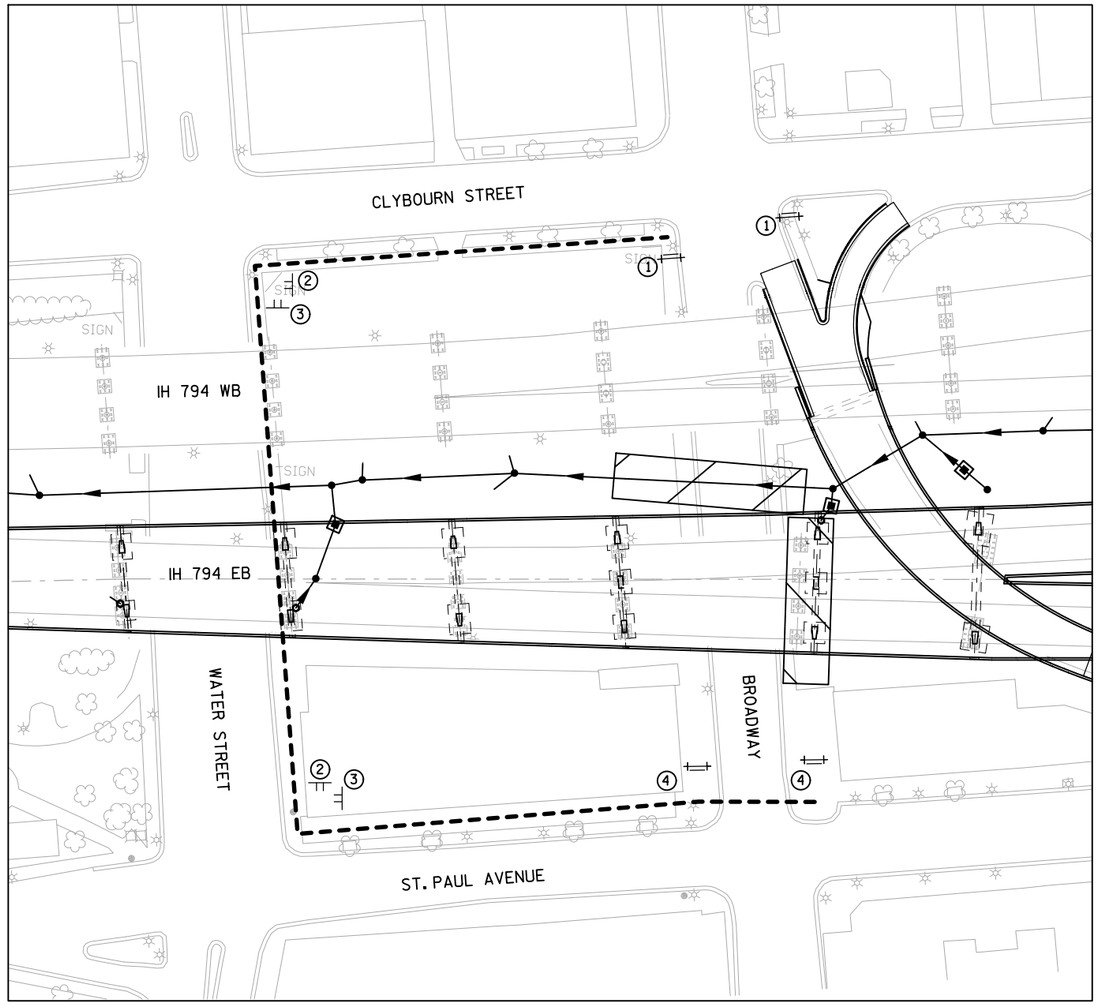
NOTES:

1. DETOUR PLAN TO BE USED WHEN BOTH SIDES OF SIDEWALK MUST BE CLOSED. WHEN ONE SIDE IS OPEN, FOLLOW SDD 15 D30.
2. FINAL SIGN LOCATIONS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS, OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.
3. MINIMUM SIGN MOUNTING HEIGHT IS 7 FEET.
4. ALL SIGNS MUST BE RETROREFLECTIVE OR ILLUMINATED. ORANGE WARNING FLAGS SHALL ALSO BE INSTALLED ON EACH BARRICADE.

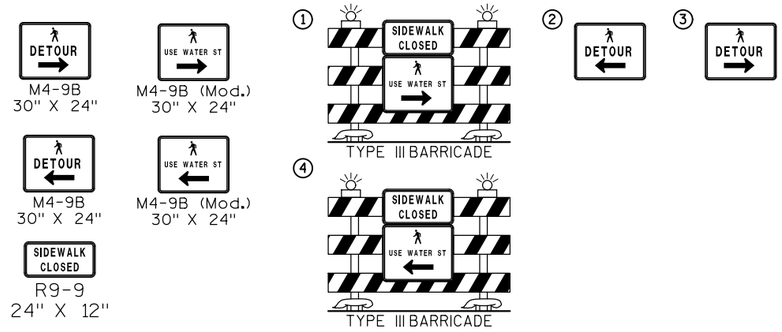
LEGEND:

- WORK AREA
- PEDESTRIAN DETOUR- STAGE 1
- PEDESTRIAN DETOUR- STAGE 2
- TEMPORARY SIGN SUPPORT
- TYPE III BARRICADE WITH ATTACHED SIGN

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PEDESTRIAN DETOUR PLAN - WATER STREET	SHEET 675	E



STAGE 1



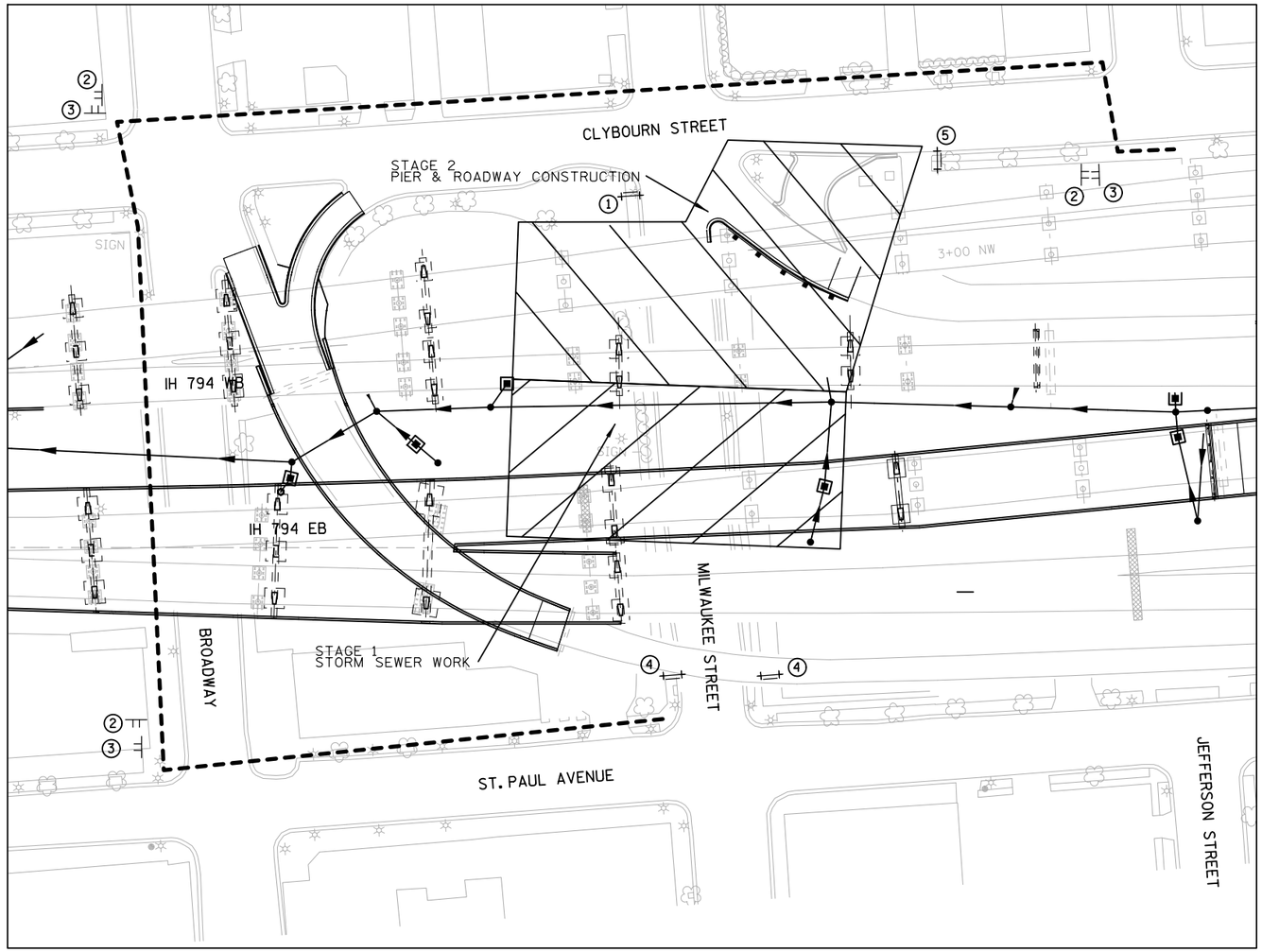
NOTES:

1. DETOUR PLAN TO BE USED WHEN BOTH SIDES OF SIDEWALK MUST BE CLOSED. WHEN ONE SIDE IS OPEN, FOLLOW SDD 15 D30.
2. FINAL SIGN LOCATIONS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS, OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.
3. MINIMUM SIGN MOUNTING HEIGHT IS 7 FEET.
4. ALL SIGNS MUST BE RETROREFLECTIVE OR ILLUMINATED. ORANGE WARNING FLAGS SHALL ALSO BE INSTALLED ON EACH BARRICADE.

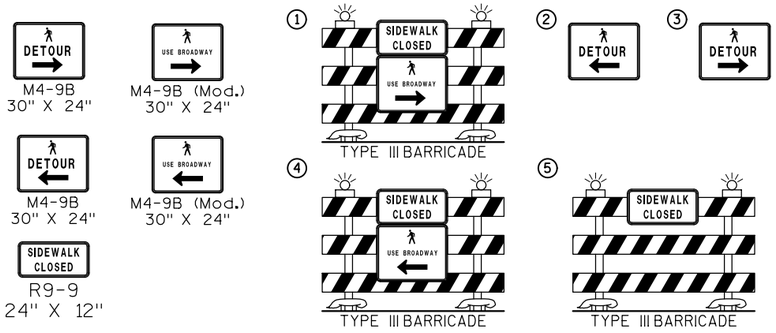
LEGEND:

- WORK AREA
- PEDESTRIAN DETOUR- STAGE 1
- TEMPORARY SIGN SUPPORT
- TYPE III BARRICADE WITH ATTACHED SIGN

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PEDESTRIAN DETOUR PLAN - BROADWAY	SHEET 676	E



STAGE 1 & STAGE 2



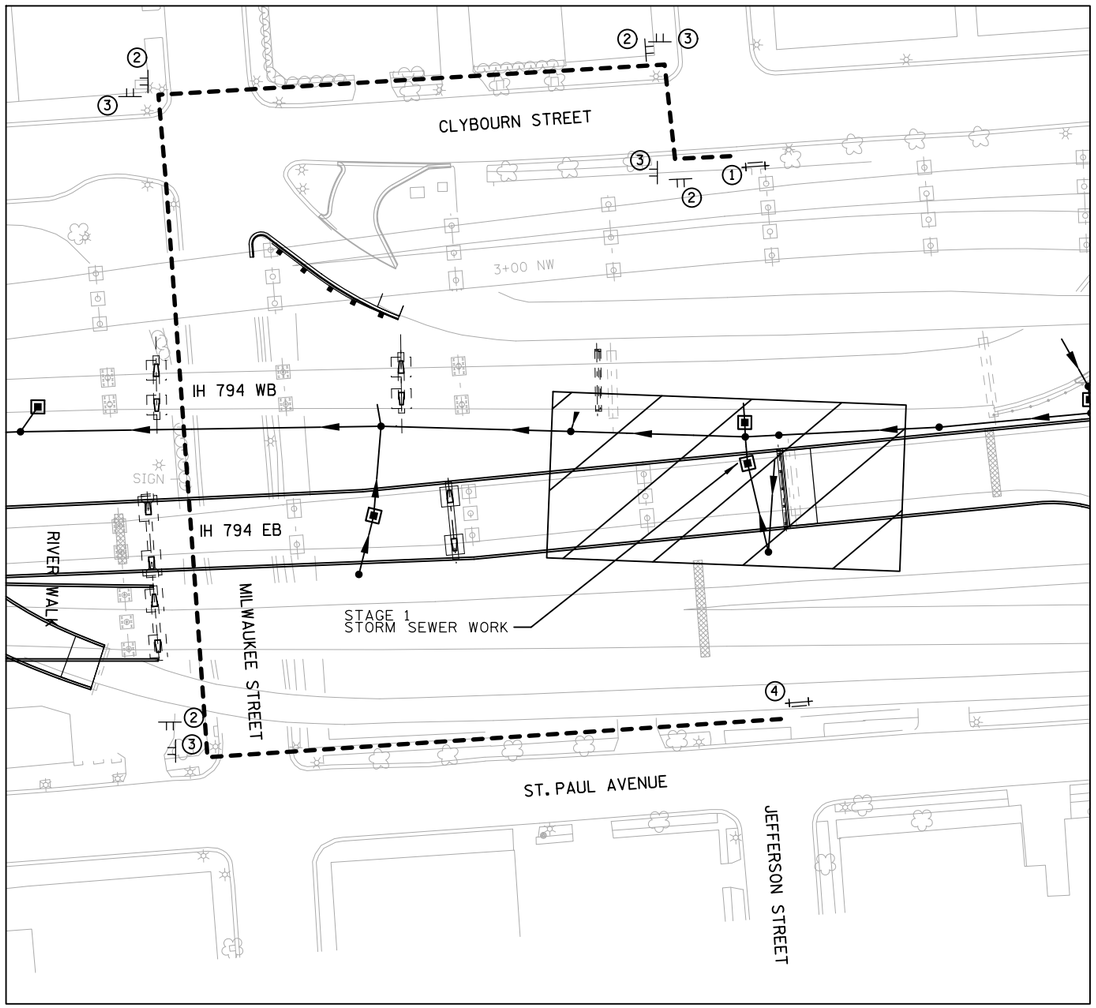
NOTES:

1. DETOUR PLAN TO BE USED WHEN BOTH SIDES OF SIDEWALK MUST BE CLOSED. WHEN ONE SIDE IS OPEN, FOLLOW SDD 15 D30.
2. FINAL SIGN LOCATIONS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS, OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.
3. MINIMUM SIGN MOUNTING HEIGHT IS 7 FEET.
4. ALL SIGNS MUST BE RETROREFLECTIVE OR ILLUMINATED. ORANGE WARNING FLAGS SHALL ALSO BE INSTALLED ON EACH BARRICADE.

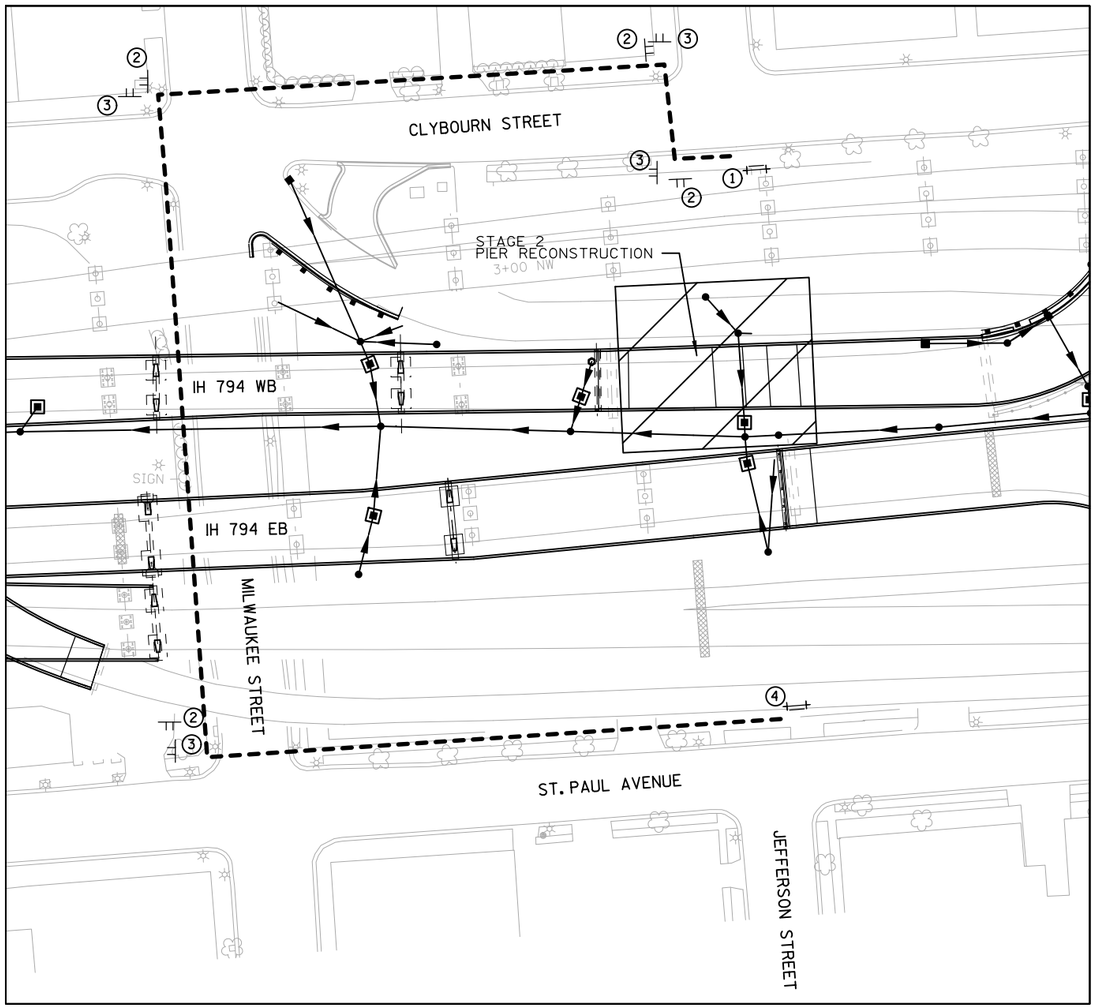
LEGEND:

- WORK AREA
- PEDESTRIAN DETOUR- STAGE 1
- PEDESTRIAN DETOUR- STAGE 2
- TEMPORARY SIGN SUPPORT
- TYPE III BARRICADE WITH ATTACHED SIGN

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PEDESTRIAN DETOUR PLAN - MILWAUKEE STREET	SHEET 677	E



STAGE 1



STAGE 2A

M4-9B
30" X 24"

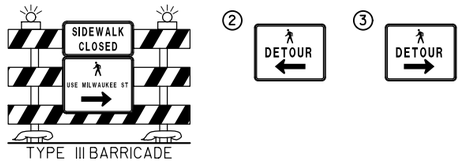
M4-9B (Mod.)
30" X 24"

M4-9B
30" X 24"

M4-9B (Mod.)
30" X 24"

R9-9
24" X 12"

① ② ③



TYPE III BARRICADE

④

TYPE III BARRICADE

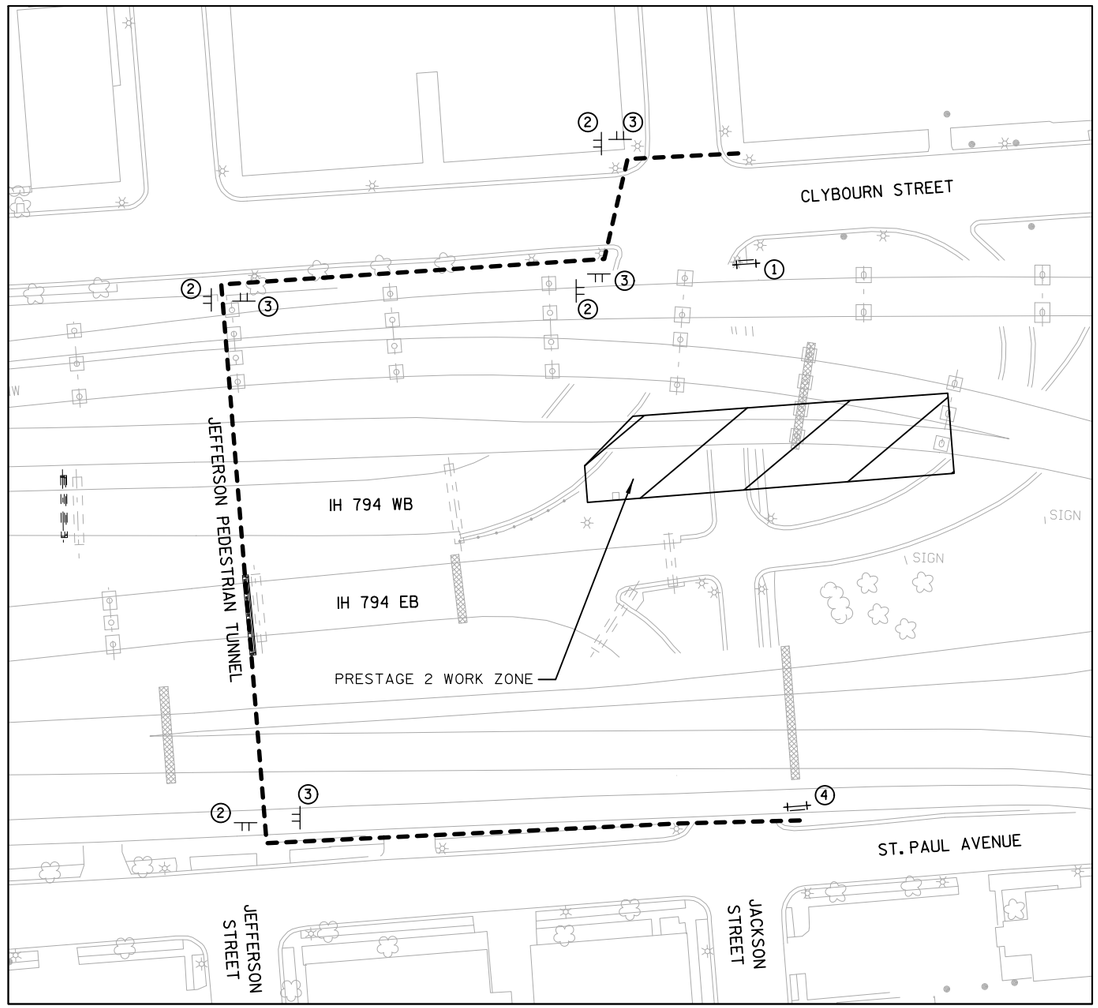
NOTES:

1. FINAL SIGN LOCATIONS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS, OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.
2. MINIMUM SIGN MOUNTING HEIGHT IS 7 FEET.
3. ALL SIGNS MUST BE RETROREFLECTIVE OR ILLUMINATED. ORANGE WARNING FLAGS SHALL ALSO BE INSTALLED ON EACH BARRICADE.

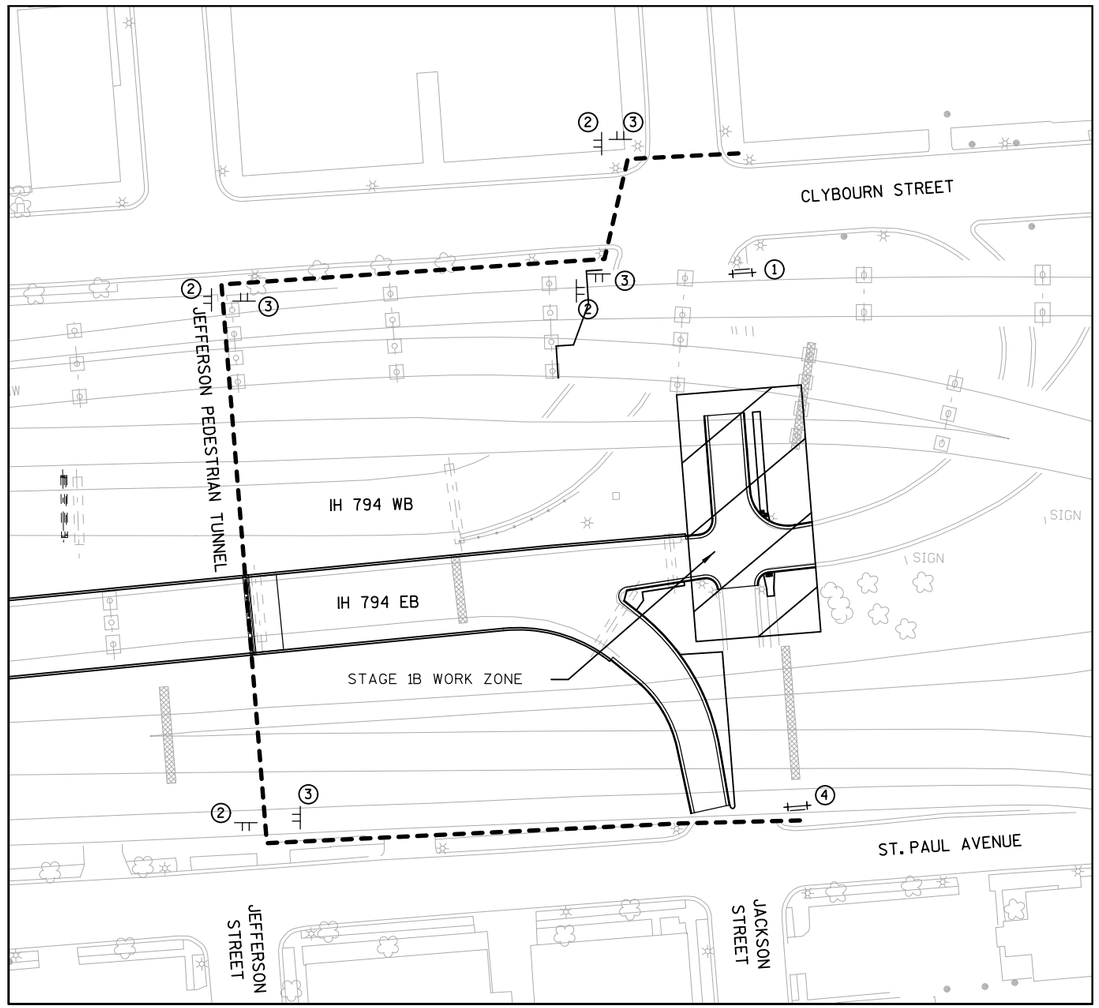
LEGEND:

- WORK AREA
- PEDESTRIAN DETOUR- STAGE 1
- PEDESTRIAN DETOUR- STAGE 2
- TEMPORARY SIGN SUPPORT
- TYPE III BARRICADE WITH ATTACHED SIGN

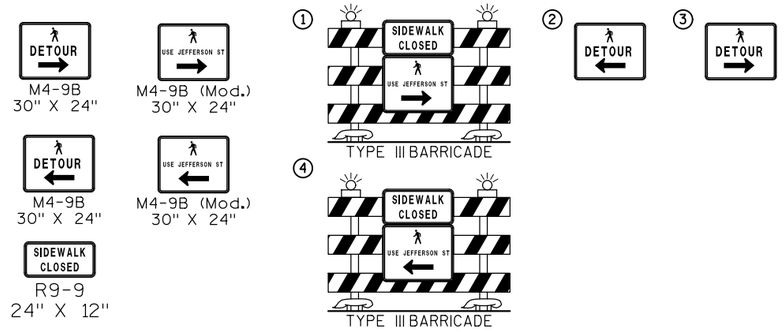
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PEDESTRIAN DETOUR PLAN - JEFFERSON PEDESTRIAN TUNNEL	SHEET 678	E



PRESTAGE 2



STAGE 1B



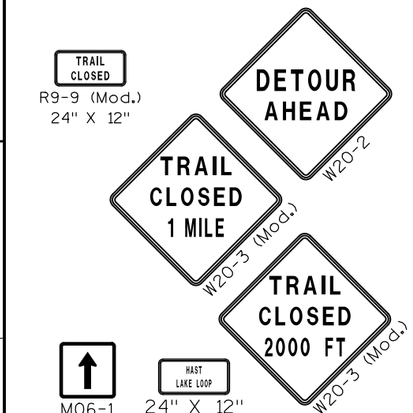
NOTES:

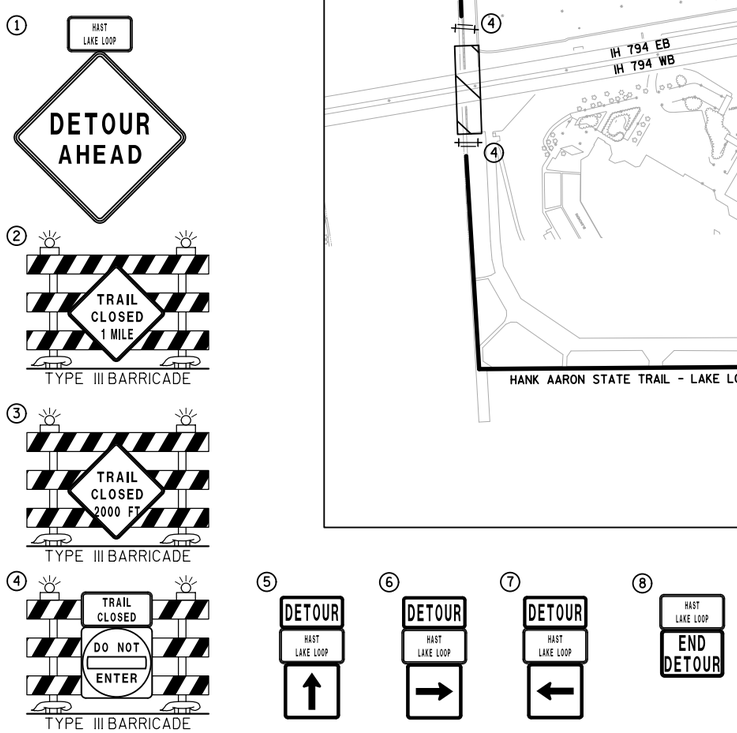
1. DETOUR PLAN TO BE USED WHEN BOTH SIDES OF SIDEWALK MUST BE CLOSED. WHEN ONE SIDE IS OPEN, FOLLOW SDD 15 D30.
2. FINAL SIGN LOCATIONS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS, OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.
3. MINIMUM SIGN MOUNTING HEIGHT IS 7 FEET.
4. ALL SIGNS MUST BE RETROREFLECTIVE OR ILLUMINATED. ORANGE WARNING FLAGS SHALL ALSO BE INSTALLED ON EACH BARRICADE.

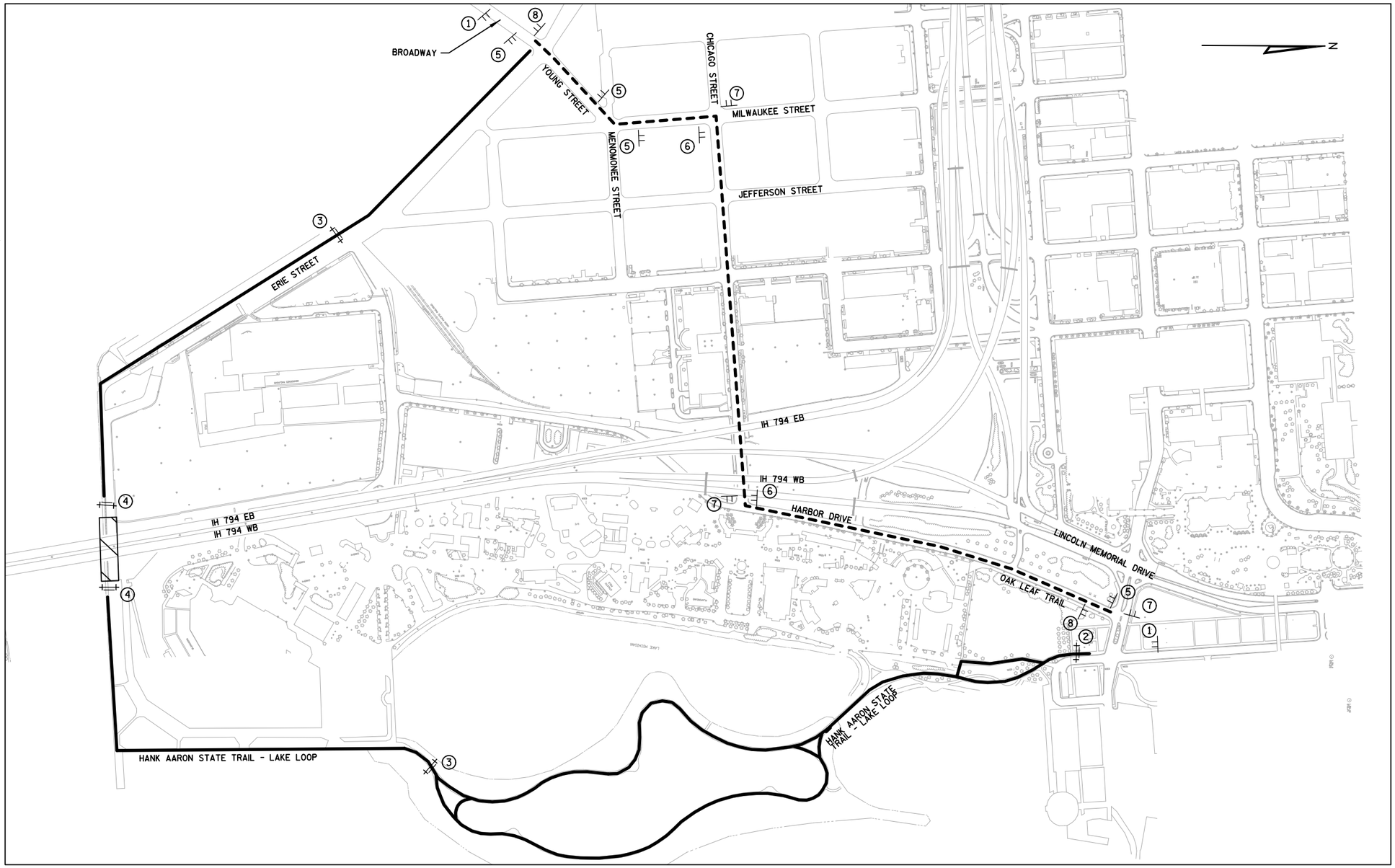
LEGEND:

- WORK AREA
- PEDESTRIAN DETOUR- STAGE 1
- TEMPORARY SIGN SUPPORT
- TYPE III BARRICADE WITH ATTACHED SIGN

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PEDESTRIAN DETOUR PLAN - JACKSON STREET	SHEET 679	E







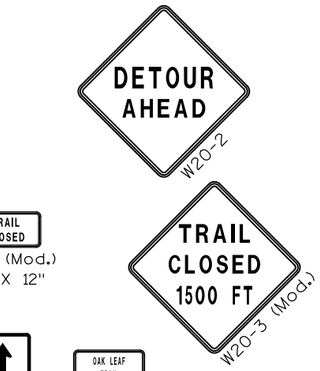
NOTES:

1. FINAL SIGN LOCATIONS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS, OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.
2. MINIMUM SIGN MOUNTING HEIGHT IS 7 FEET.
3. ALL SIGNS MUST BE RETROREFLECTIVE OR ILLUMINATED. ORANGE WARNING FLAGS SHALL ALSO BE INSTALLED ON EACH BARRICADE.
4. ALL WARNING SIGNS SHALL BE 30" X 30" UNLESS OTHERWISE NOTED.

LEGEND:

- WORK AREA
- HANK AARON STATE TRAIL - LAKE LOOP
- HANK AARON STATE TRAIL - LAKE LOOP DETOUR (HANK AARON STATE TRAIL)
- TEMPORARY SIGN SUPPORT
- TYPE III BARRICADE WITH ATTACHED SIGN

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - HANK AARON STATE TRAIL - LAKE LOOP	SHEET 680	E



TRAIL CLOSED
R9-9 (Mod.)
24" X 12"

M06-1
21" X 21"

OAK LEAF TRAIL
24" X 12"

DO NOT ENTER
R5-1
36" X 36"

END DETOUR
M4-8A
24" X 18"

DETOUR
M4-8
24" X 12"

① OAK LEAF TRAIL / DETOUR AHEAD

② TRAIL CLOSED 1500 FT
TYPE III BARRICADE

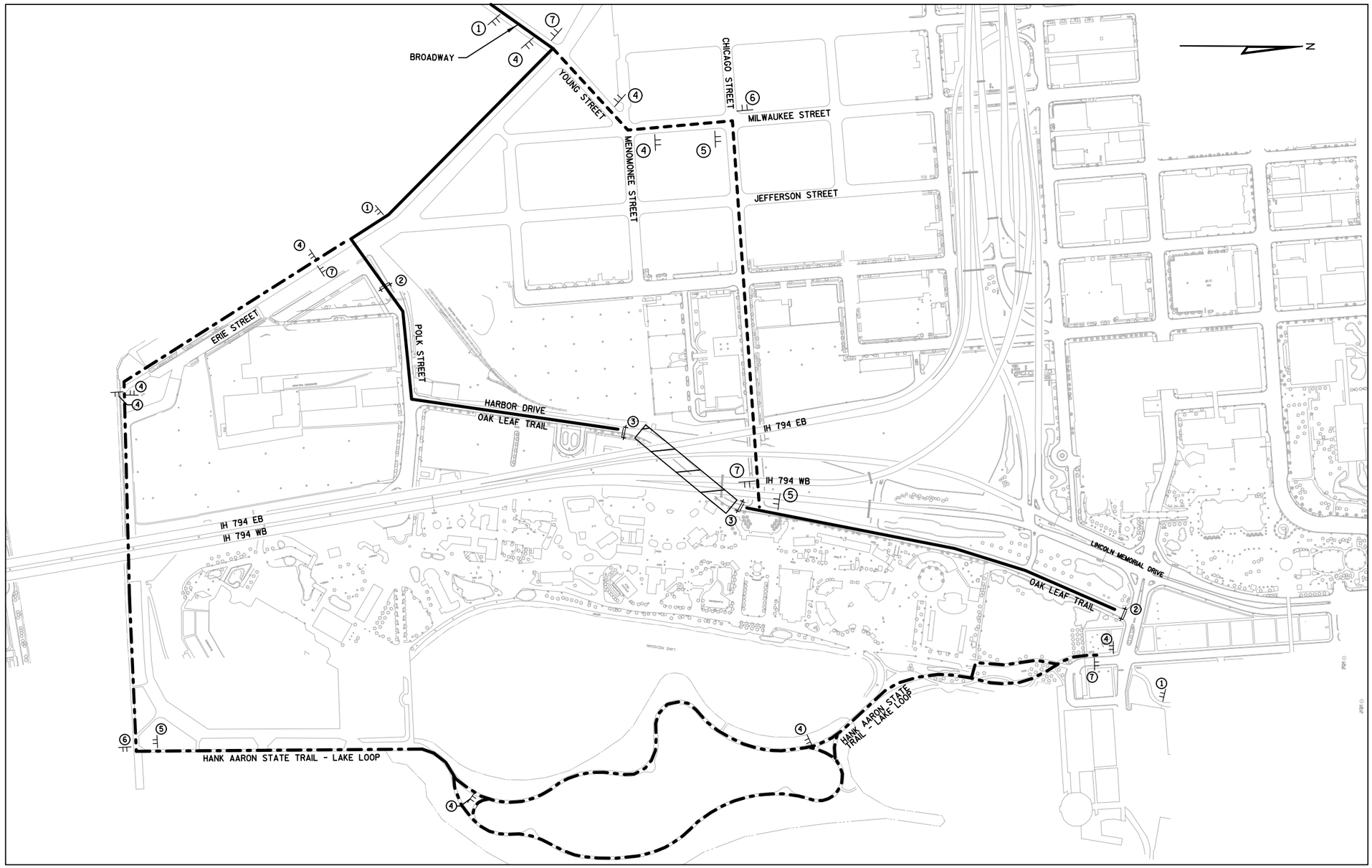
③ TRAIL CLOSED / DO NOT ENTER
TYPE III BARRICADE

④ DETOUR / OAK LEAF TRAIL

⑤ DETOUR / OAK LEAF TRAIL

⑥ DETOUR / OAK LEAF TRAIL

⑦ OAK LEAF TRAIL / END DETOUR



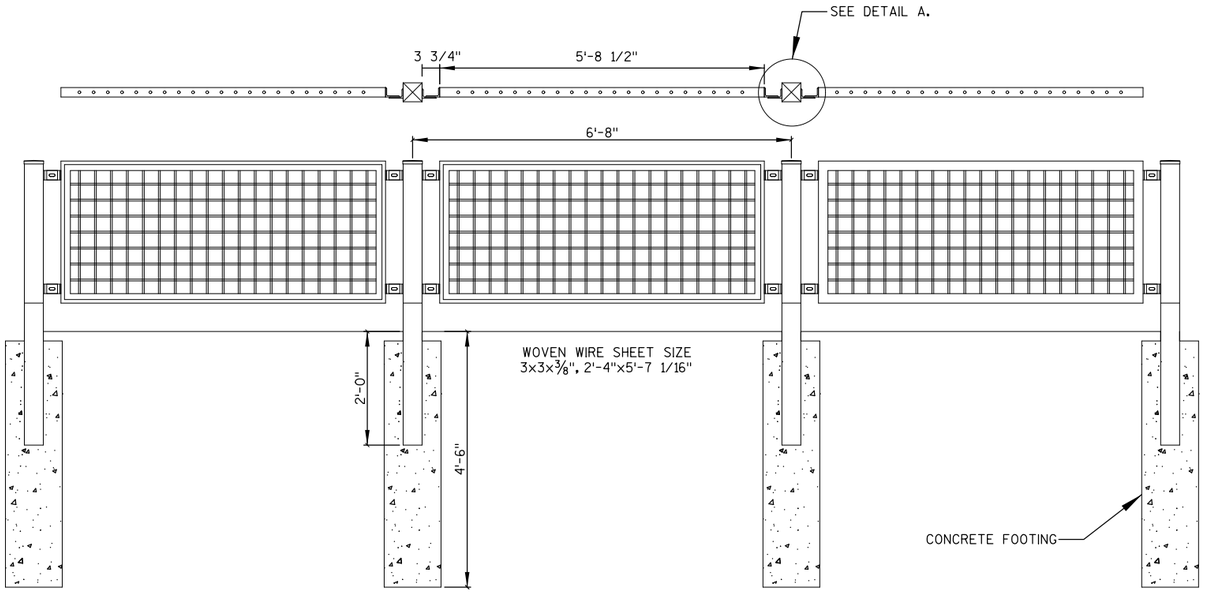
NOTES:

1. FINAL SIGN LOCATIONS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS. SIGNS MAY BE MOUNTED ON EXISTING POSTS, LIGHTS, OR TEMPORARY SIGN SUPPORTS AS APPROVED BY THE ENGINEER.
2. MINIMUM SIGN MOUNTING HEIGHT IS 7 FEET.
3. ALL SIGNS MUST BE RETROREFLECTIVE OR ILLUMINATED. ORANGE WARNING FLAGS SHALL ALSO BE INSTALLED ON EACH BARRICADE.
4. ALL WARNING SIGNS SHALL BE 30" X 30" UNLESS OTHERWISE NOTED.

LEGEND:

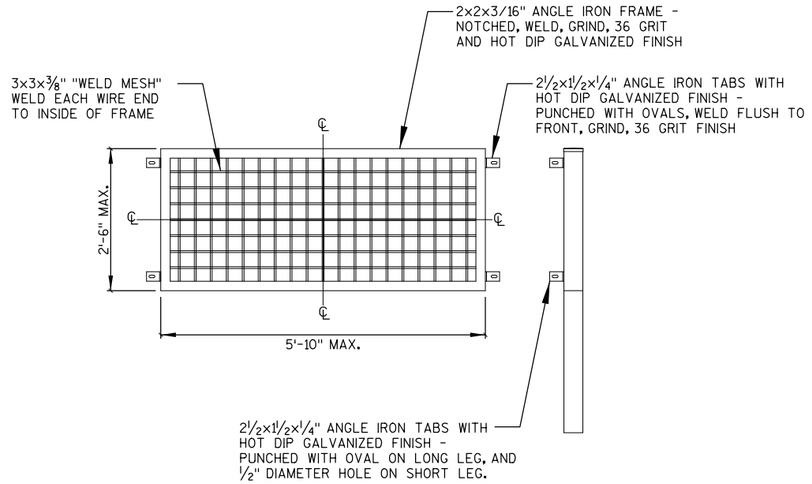
- WORK AREA
- OAK LEAF TRAIL
- OAK LEAF TRAIL DETOUR (HANK AARON STATE TRAIL)
- OAK LEAF TRAIL ALTERNATE DETOUR (HANK AARON STATE TRAIL - LAKE LOOP)
- TEMPORARY SIGN SUPPORT
- TYPE III BARRICADE WITH ATTACHED SIGN

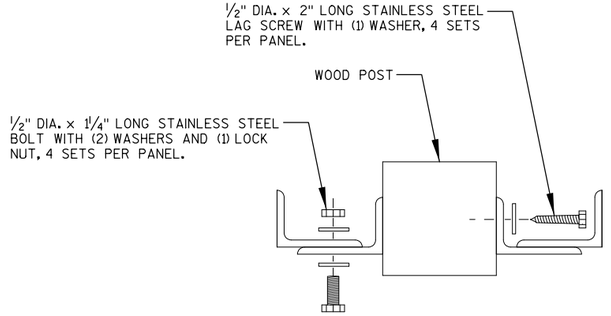
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	DETOUR PLAN - OAK LEAF TRAIL	SHEET 681	E



DECORATIVE FENCE SPECIAL

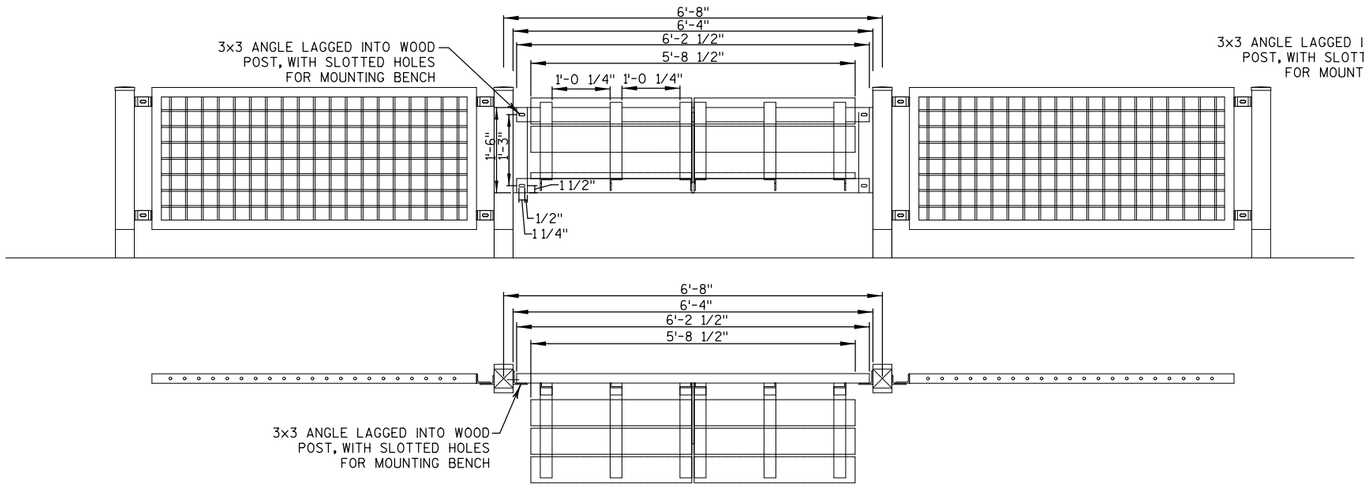
N.T.S.





DETAIL A

N.T.S.

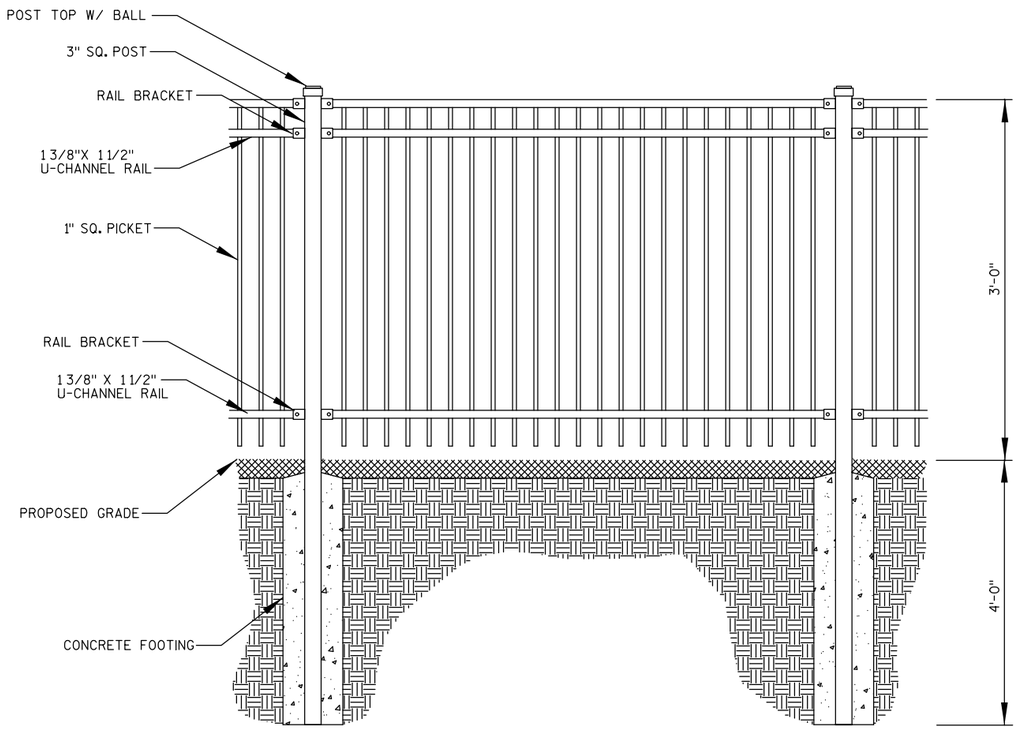


DECORATIVE FENCE SPECIAL
BENCH DETAIL

N.T.S.

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FENCING PLAN - DECORATIVE FENCE SPECIAL	SHEET 682	E

2



ORNAMENTAL PICKET FENCE 3-FT HT

N.T.S.

PROJECT NO:1300-13-70	HWY:IH 794	COUNTY:MILWAUKEE	FENCING PLAN - ORNAMENTAL PICKET FENCE 3-FT HT	SHEET 683	E

LEGEND

DECORATIVE FENCE SPECIAL

ORNAMENTAL PICKET FENCE 3-FT

NOTES:

1. SEE REMOVAL DETAILS FOR FENCE REMOVAL INFORMATION.

CLYBOURN STREET

WATER STREET

BROADWAY

BROADWAY EB ENTRANCE RAMP

PROPOSED DECORATIVE FENCE SPECIAL, BENCH. SEE FENCING PLAN - DECORATIVE FENCE SPECIAL FOR MORE INFORMATION.
Y=298625.46
X=606097.90

Y=298618.44
X=605991.34

Y=298625.80
X=606103.10

PROPOSED DECORATIVE FENCE SPECIAL

EXISTING DECORATIVE FENCE SPECIAL TO REMAIN IN PLACE

Y=298665.62
X=606398.35

Y=298667.33
X=606418.27

Y=298640.76
X=606420.55

Y=298639.05
X=606400.62

EXISTING DECORATIVE FENCE SPECIAL TO REMAIN IN PLACE

REINSTALL SALVAGED FENCE, MATCH EXISTING

Y=298530.29
X=606401.55

Y=298541.12
X=606429.08

Y=298532.57
X=606428.12

Y=298548.00
X=606564.82

Y=298539.74
X=606546.44

PROPOSED DECORATIVE FENCE SPECIAL

Y=298478.46
X=606480.50

Y=298437.30
X=606409.52

PROPOSED DECORATIVE FENCE SPECIAL

Y=298406.88
X=606557.66

Y=298398.19
X=606575.67

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FENCING PLAN	SHEET 684	E

FILE NAME : c:\pwv8i-local\baker_projects\andrew.genz\d0231471\027103_fn.dgn PLOT DATE : 29-APR-2013 PLOT BY : Graef PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

LEGEND

DECORATIVE FENCE SPECIAL

ORNAMENTAL PICKET FENCE 3-FT

NOTES:

1. SEE REMOVAL DETAILS FOR FENCE REMOVAL INFORMATION.

BROADWAY

ST. PAUL AVENUE

CLYBOURN STREET

MILWAUKEE STREET

Y=298597.94
X=606600.80

PROPOSED ORNAMENTAL
PICKET FENCE 3-FT

Y=298400.70
X=606770.39

PROPOSED ORNAMENTAL
PICKET FENCE 3-FT

Y=298505.18
X=606817.98

Y=298405.46
X=606826.44

Y=298527.13
X=606816.11

PROPOSED ORNAMENTAL
PICKET FENCE 3-FT

Y=298339.58
X=606832.04

Y=298604.01
X=606809.59

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FENCING PLAN	SHEET 685	E

LEGEND

DECORATIVE FENCE SPECIAL

ORNAMENTAL PICKET FENCE 3-FT

NOTES:

1. SEE REMOVAL DETAILS FOR FENCE REMOVAL INFORMATION.

MILWAUKEE STREET

ST. PAUL AVENUE

MILWAUKEE STREET WB EXIT RAMP

CLYBOURN STREET

Y=298620.63
X=606894.09

Y=298345.71
X=606917.42

Y=298445.23
X=606908.98

Y=298475.12
X=606906.44

PROPOSED ORNAMENTAL PICKET FENCE 3-FT

Y=298697.86
X=606922.49

8'

Y=298626.33
X=606961.27

Y=298663.80
X=606977.99

Y=298711.25
X=607027.19

Y=298359.61
X=607110.52

Y=298361.77
X=607140.45

STA. 100+34.85
8.00 LT

STA. 100+46.85
8.00 LT

STA. 100+28.87
14.00 LT

STA. 100+68.85
8.00 LT

STA. 101+39.49
8.00 LT

STA. 101+53.89
8.00 LT

STA. 102+06.40
8.00 LT

STA. 102+00.40
8.00 LT

STA. 102+28.75
8.00 LT

STA. 102+73.97
8.00 LT

STA. 103+77.61
8.00 LT

STA. 103+71.61
8.00 LT

STA. 103+83.72
14.00 LT

100+00 +50 101+00 +50 102+00 +50 103+00 +50 104+00

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FENCING PLAN	SHEET 686	E

FILE NAME : IP_PWP:d0231471\027105_fn.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

LEGEND

DECORATIVE FENCE SPECIAL

ORNAMENTAL PICKET FENCE 3-FT

NOTES:

1. SEE REMOVAL DETAILS FOR FENCE REMOVAL INFORMATION.

N

STA. 100+34.81
8.00 RT

STA. 100+46.81
8.00 RT

100+00

+50

101+00

+50

102+00

+50

103+00

+50

104+00

STA. 100+28.80
14.00 RT

STA. 100+68.81
8.00 RT

STA. 101+25.64
8.00 RT

STA. 101+31.64
8.00 RT

STA. 101+38.44
8.00 RT

STA. 101+47.17
8.00 RT

STA. 102+01.95
8.00 RT

STA. 102+27.84
8.00 RT

STA. 102+73.42
8.00 RT

STA. 103+71.06
8.00 RT

STA. 103+77.06
8.00 RT

STA. 103+83.03
14.00 RT

PROPOSED ORNAMENTAL
PICKET FENCE 3-FT

Y=298374.02
X=607310.68

Y=298376.11
X=607339.65

PROPOSED ORNAMENTAL
PICKET FENCE 3-FT

Y=298457.77
X=607436.90
35.0' RAD.

Y=298485.24
X=607458.58

Y=298386.13
X=607478.93

Y=298461.11
X=607471.74

PROPOSED ORNAMENTAL
PICKET FENCE 3-FT

Y=298732.64
X=607370.09

Y=298662.53
X=607424.20

Y=298734.65
X=607398.68

PROPOSED ORNAMENTAL
PICKET FENCE 3-FT

Y=298693.00
X=607422.10

Y=298693.81
X=607433.53

Y=298721.06
X=607443.31

Y=298737.71
X=607442.14

ST. PAUL AVENUE

JACKSON STREET EB EXIT RAMP

JACKSON STREET WB ENTRANCE RAMP

CLYBOURN STREET

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FENCING PLAN	SHEET 687	E

FILE NAME : IP_PWP:d0231471\027106_fn.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

2

N

EAST LINCOLN AVENUE

CARFERRY DRIVE EB ENTRANCE RAMP

457+00 CW
458+00 CW
459+00 CW
460+00 CW
461+00 CW

CARFERRY DRIVE EB EXIT RAMP

357+00 CS
358+00 CS
359+00 CS
360+00 CS
361+00 CS

CARFERRY SB EXIT RAMP

362+00 CS
363+00 CS
364+00 CS
365+00 CS
366+00 CS
367+00 CS
368+00 CS
369+00 CS
370+00 CS
371+00 CS

IH 794 EB

56+00 LF
57+00 LF
58+00 LF
59+00 LF
60+00 LF
61+00 LF
62+00 LF
63+00 LF
64+00 LF
65+00 LF
66+00 LF
67+00 LF
68+00 LF
69+00 LF
70+00 LF
71+00 LF

IH 794 WB

STA. 61+35.3 LF, 88.1' LT
FENCE CHAIN LINK 5-FT.
STA. 61+59.7 LF, 52.0' LT

STA. 62+24.1 LF, 55.4' RT
FENCE CHAIN LINK 5-FT.
STA. 62+47.0 LF, 101.7' RT

CARFERRY DRIVE WB EXIT RAMP

556+00 CE
557+00 CE
558+00 CE
559+00 CE
560+00 CE
561+00

CARFERRY DRIVE NB ENTRANCE RAMP

658+00 CN
659+00 CN
660+00 CN
661+00 CN
662+00 CN
663+00 CN
664+00 CN
665+00 CN
666+00 CN

STA. 662+37.3 CN, 3.5' RT
FENCE CHAIN LINK 5-FT.

STA. 661+25.3 CN, 78.6 RT
MATCH EXISTING FENCE

STA. 662+24.2 CN, 88.7' RT

12+00 CN
13+00 CN
14+00 CN

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FENCING PLAN	SHEET 688	E

FILE NAME : IP_PWP:d0231471\027107_fn.dgn
PLOT DATE : 26-APR-2013
PLOT BY : 1732
PLOT NAME :
PLOT SCALE : 100.000098:1.000000
WISDOT/CADDS SHEET 42

2

2

LINCOLN MEMORIAL EB EXIT RAMP

LINCOLN MEMORIAL WB ENTRANCE RAMP

CLYBOURN STREET

N. LINCOLN MEMORIAL DRIVE

LINCOLN MEMORIAL SB ENTRANCE RAMP

LINCOLN MEMORIAL NB EXIT RAMP

STA. 182+22.2 LS, 45.3' LT

STA. 182+13.3 LS, 38.0' LT

FENCE CHAIN LINK 5-FT.

STA. 183+09.7 LS, 37.3' LT

STA. 183+21.4 LS, 8.6' RT

FENCE CHAIN LINK 5-FT.

STA. 182+64.4 LN, 33.6' LT

STA. 182+66.4 LN, 6.0' RT

FENCE CHAIN LINK 5-FT.

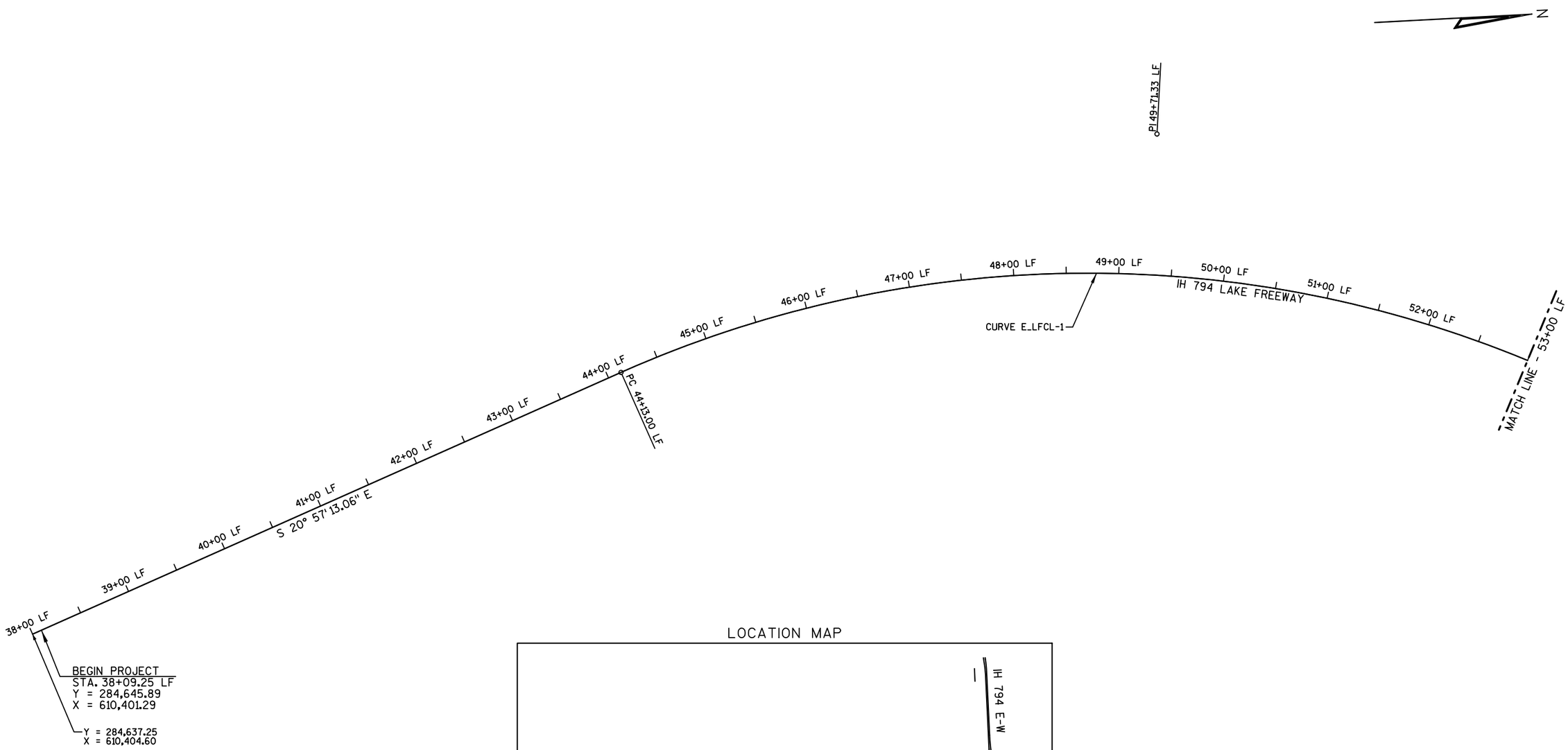
STA. 182+66.4 LN, 59.4' RT
MATCH EXISTING FENCE

180+00 LN
181+00 LN
182+00 LN
183+00 LN
184+00 LN
185+00 LN
186+00 LN
181+00 LS
182+00 LS
183+00 LS
184+00 LS
185+00 LS
186+00 LS
359+00 LE
359+00 LW
360+00 LW
+50

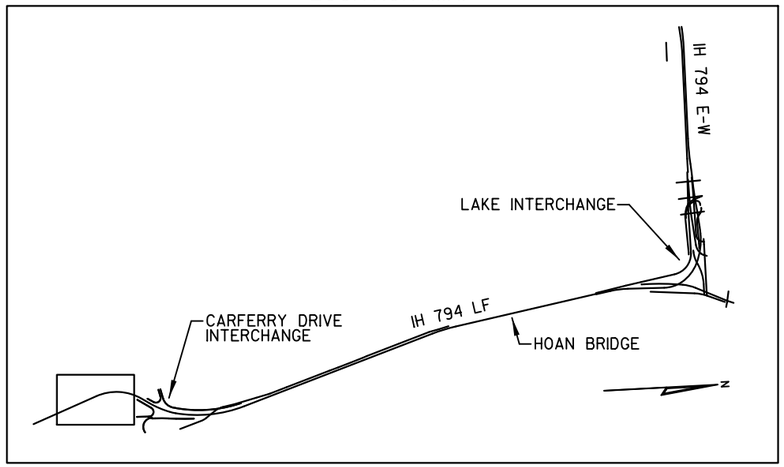
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FENCING PLAN	SHEET 689	E

FILE NAME : IP_PWP:d0231471\027108_fn.dgn
PLOT DATE : 26-APR-2013
PLOT BY : 1732
PLOT NAME :
PLOT SCALE : 40.000000:1.000000
WISDOT/CADDS SHEET 42

2



LOCATION MAP



CURVE = E_LFCL-1
P.I. = 49+71.34
Y = 285,731.12
X = 609,985.72
DELTA = 54° 05' 09" (RT)
D = 5° 14' 18"
T = 558.33'
L = 1,032.48'
R = 1,093.75'
P.C. = 44+13.01
P.T. = 54+45.48

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 690	E

2

CURVE = E_LFCL-2
P.I. = 58+95.20
Y = 286,575.27
X = 610,536.69
DELTA = 14° 08' 08" (LT)
D = 2° 45' 16"
T = 257.90'
L = 513.19'
R = 2,080.12'
P.C. = 56+37.30
P.C.C. = 61+50.49

CURVE = E_LFCL-3
P.I. = 62+05.72
Y = 286,871.36
X = 610,638.62
DELTA = 6° 19' 22" (LT)
D = 5° 43' 46"
T = 55.23'
L = 110.35'
R = 1,000.00'
P.C.C. = 61+50.49
P.C.C. = 62+60.84

CURVE = E_LFCL-4
P.I. = 70+47.68
Y = 287,692.91
X = 610,823.38
DELTA = 30° 43' 13" (LT)
D = 2° 00' 01"
T = 786.84'
L = 1,535.79'
R = 2,864.38'
P.C.C. = 62+60.84
P.T. = 77+96.63

T 6 N
4 4
9 9
R 22 E

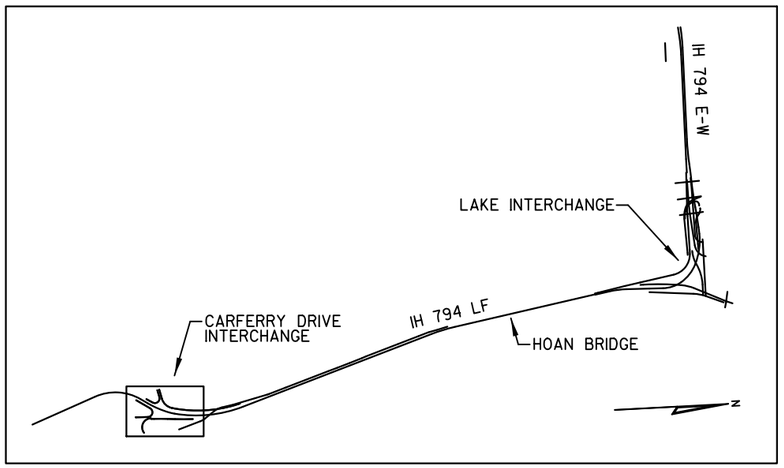
CONCRETE MONUMENT
WITH BRASS CAP
Y = 286566.81
X = 608733.41

POT 461+66.00 CW
Y = 286580.61
X = 610116.20

POT 357+00 CS
POT 356+96.00 CS
Y = 286623.42
X = 610106.01

N

LOCATION MAP



MATCH LINE - 53+00 LF

PT 54+45.48 LF
54+00 LF
55+00 LF
56+00 LF
57+00 LF
58+00 LF
59+00 LF
60+00 LF
61+00 LF
62+00 LF
63+00 LF
64+00 LF
65+00 LF
66+00 LF
67+00 LF
MATCH LINE - 68+00 LF
IH 794 LAKE FREEWAY

POT 553+54.78 CE
554+00 CE
555+00 CE
556+00 CE
557+00 CE
558+00 CE
559+00 CE
560+00 CE
561+00 CE
562+00 CE
POT 562+41.00 CE
CARFERRY DRIVE WB EXIT RAMP

Y = 286105.39
X = 610312.14
N 33° 7' 56.21" E
S 33° 9' 28.40" W
S 1° 41' 10.48" W

Y = 286330.45
X = 610299.95
POT 456+08.76 CW
CARFERRY DRIVE
EB ENTRANCE RAMP
N 31° 43' 20.40" E
PC 457+64.58 CW
457+00 CW
458+00 CW
459+00 CW
460+00 CW
PT 460+07.49 CW
S 76° 36' 26.53" W

PC 56+37.30 LF

CURVE E_RAMPCW-1

S 76° 36' 22.32" W
358+00 CS
359+00 CS
PC 359+08.29 CS
360+00 CS
361+00 CS
362+00 CS
363+00 CS
364+00 CS
365+00 CS
366+00 CS
367+00 CS
CARFERRY DRIVE EB EXIT RAMP

CURVE E_RAMPCS-1
CURVE E_RAMPCS-2
CURVE E_RAMPCS-3
PCC 362+16.06 CS
PCC 362+87.87 CS
PI 362+51.97 CS

PI 360+78.91 CS
PI 460+13.99 CW

CURVE E_RAMPCE-1
P.I. = 560+76.06 CE
Y = 286,709.22
X = 610,706.64
DELTA = 148° 40' 45" (RT)
D = 55° 37' 37"
T = 367.41'
L = 267.28'
R = 103.00'
P.C. = 557+08.65 CE
P.T. = 559+75.93 CE

PC 557+08.65 CE
PT 559+75.93 CE
CURVE E_RAMPCE-1

CURVE E_LFCL-2
PI 58+95.20 LF
CURVE E_LFCL-3
PCC 61+50.49 LF
PI 62+05.72 LF
PCC 62+60.84 LF
CURVE E_LFCL-4

BEGIN CONSTRUCTION
STA. 61+91.20 LF
Y = 286,857.91
X = 610,633.02

PI 659+80.49 CN
PI 560+76.06 CE
PC 662+92.28 CN

PI 659+05.39 CN
POT 657+61.00 CN
PC 658+33.63 CN
PT 661+27.29 CN
PT 666+82.54 CN
PI 664+87.48 CN

CURVE E_RAMPCNA-1
CURVE E_RAMPCNA-2
CARFERRY DRIVE WB ENTRANCE RAMP
S 4° 46' 24.40" W

Y = 287326.88
X = 610792.03

PC 11+22.00 CN
658+00 CN
659+00 CN
660+00 CN
661+00 CN
662+00 CN
663+00 CN
664+00 CN
665+00 CN
666+00 CN

Y = 286407.52
X = 610724.48
Y = 286407.03
X = 610739.66
S 1° 50' 12.40" W

CURVE E_RAMPCNB-1
12+00 CN
13+00 CN
14+00 CN
15+00 CN
PT 15+59.69 CN

Y = 286238.18
X = 611036.98

CURVE E_RAMPCNB-1
P.I. = 15+09.39 CN
Y = 286,020.20
X = 610,716.73
DELTA = 125° 23' 15" (LT)
D = 28° 38' 52"
T = 387.39'
L = 437.69'
R = 200.00'
P.C. = 11+22.00 CN
P.T. = 15+59.69 CN

CURVE E_RAMPCW-1
P.I. = 460+13.99 CW
Y = 286,675.14
X = 610,513.02
DELTA = 135° 07' 18" (LT)
D = 55° 37' 37"
T = 249.41'
L = 242.91'
R = 103.00'
P.C. = 457+64.58 CW
P.T. = 460+07.49 CW

CURVE E_RAMPCNA-1
P.I. = 659+80.49 CN
Y = 286,626.41
X = 610,746.70
DELTA = 2° 56' 12" (RT)
D = 1° 00' 00"
T = 146.87'
L = 293.67'
R = 5,729.58'
P.C. = 658+33.63 CN
P.T. = 661+27.29 CN

CURVE E_RAMPCNA-2
P.I. = 664+87.48 CN
Y = 287,131.71
X = 610,788.89
DELTA = 3° 51' 10" (LT)
D = 0° 59' 14"
T = 195.20'
L = 390.26'
R = 5,803.74'
P.C. = 662+92.28 CN
P.T. = 666+82.54 CN

CURVE E_RAMPCS-1
P.I. = 360+78.91 CS
Y = 286,712.11
X = 610,478.51
DELTA = 61° 33' 14" (LT)
D = 20° 00' 00"
T = 170.62'
L = 307.77'
R = 286.48'
P.C. = 359+08.29 CS
P.C.C. = 362+16.06 CS

CURVE E_RAMPCS-2
P.I. = 362+51.97 CS
Y = 286,911.56
X = 610,532.14
DELTA = 1° 58' 29" (LT)
D = 2° 45' 00"
T = 35.91'
L = 71.81'
R = 2,083.48'
P.C.C. = 362+16.06 CS
P.C.C. = 362+87.87 CS

CURVE E_RAMPCS-3
P.I. = 369+62.38 CS
Y = 287,603.55
X = 610,692.89
DELTA = 26° 29' 13" (LT)
D = 1° 59' 57"
T = 674.50'
L = 1,324.90'
R = 2,865.98'
P.C.C. = 362+87.87 CS
P.T. = 376+12.77 CS

T 6 N
4 3
9 10
R 22 E

CONCRETE MONUMENT
WITH BRASS CAP
Y = 286586.85
X = 611373.33

MATCH LINE - 204+50 LM
POT 200+00.00 LM
200+00 LM
201+00 LM
202+00 LM
203+00 LM
204+00 LM
S. LINCOLN MEMORIAL DRIVE
N 17° 59' 33.49" W
Y = 287011.08
X = 611003.98

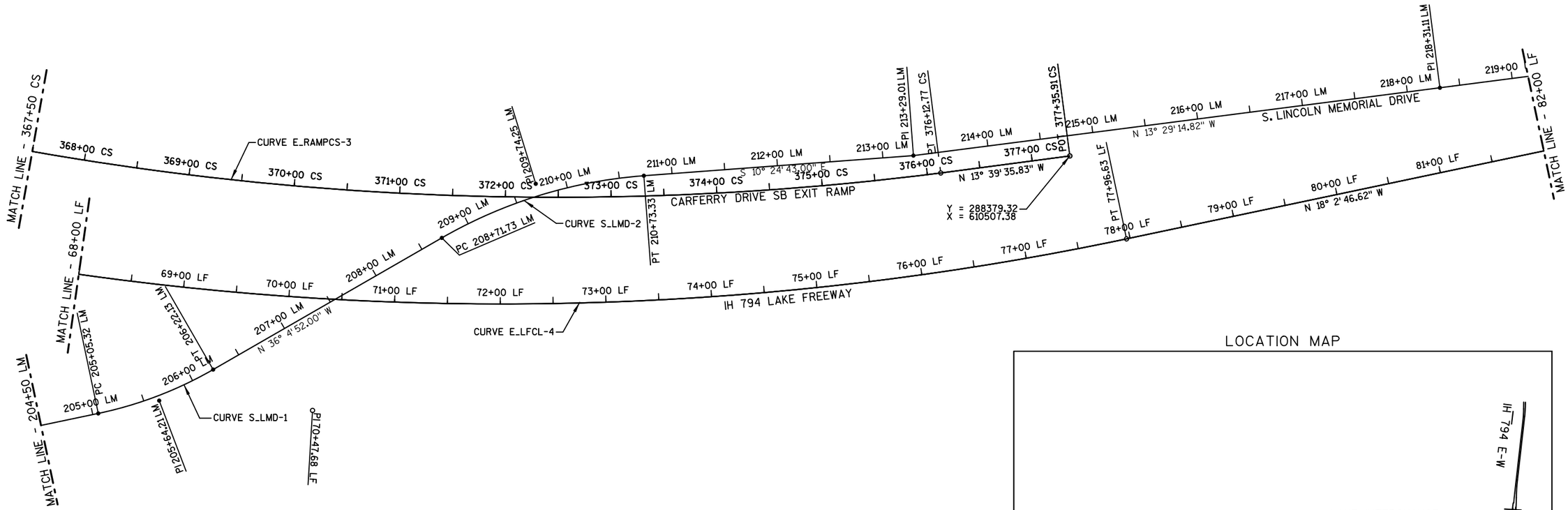
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 691	E

2

CURVE = E_RAMPCS-3
P.I. = 369+62.38 CS
Y = 287,603.55
X = 610,692.89
DELTA = 26° 29' 13" (LT)
D = 1° 59' 57"
T = 674.50'
L = 1,324.90'
R = 2,865.98'
P.C. = 362+87.87 CS
P.T. = 376+12.77 CS

CURVE = E_LFCL-4
P.I. = 70+50.13 LF
Y = 287,695.61
X = 610,822.49
DELTA = 30° 36' 52" (LT)
D = 2° 00' 01"
T = 783.99'
L = 1,530.50'
R = 2,864.38'
P.C. = 62+66.13 LF
P.T. = 77+96.63 LF

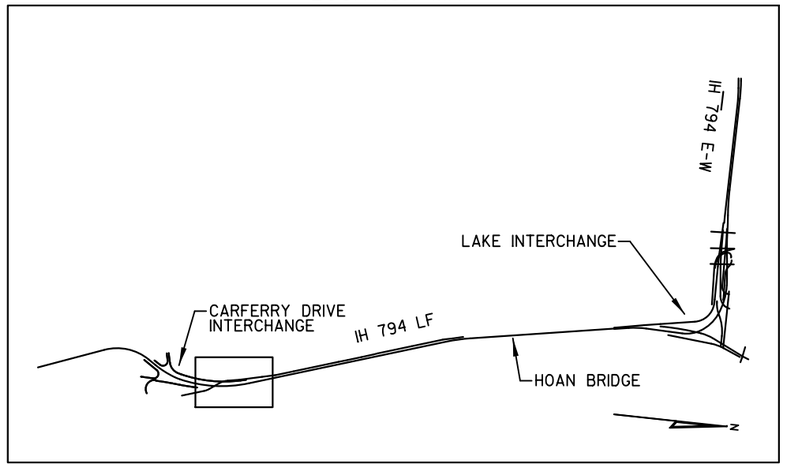
N



CURVE = S_LMD-1
P.I. = 205+64.21 LM
Y = 287,547.70
X = 610,829.70
DELTA = 18° 05' 19" (LT)
D = 15° 29' 07"
T = 58.90'
L = 116.81'
R = 370.00'
P.C. = 205+05.32 LM
P.T. = 206+22.13 LM

CURVE = S_LMD-2
P.I. = 209+74.25 LM
Y = 287,879.88
X = 610,587.64
DELTA = 25° 40' 09" (RT)
D = 12° 43' 57"
T = 102.52'
L = 201.61'
R = 450.00'
P.C. = 208+71.73 LM
P.T. = 210+73.33 LM

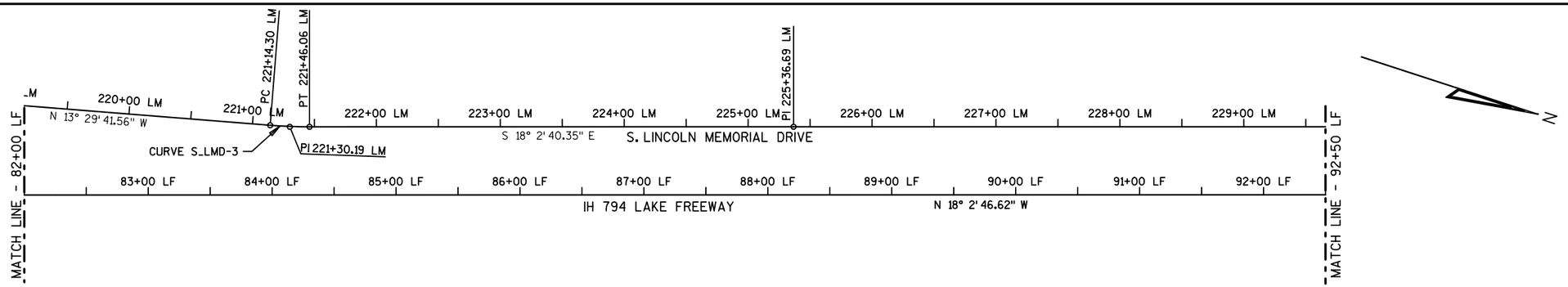
LOCATION MAP

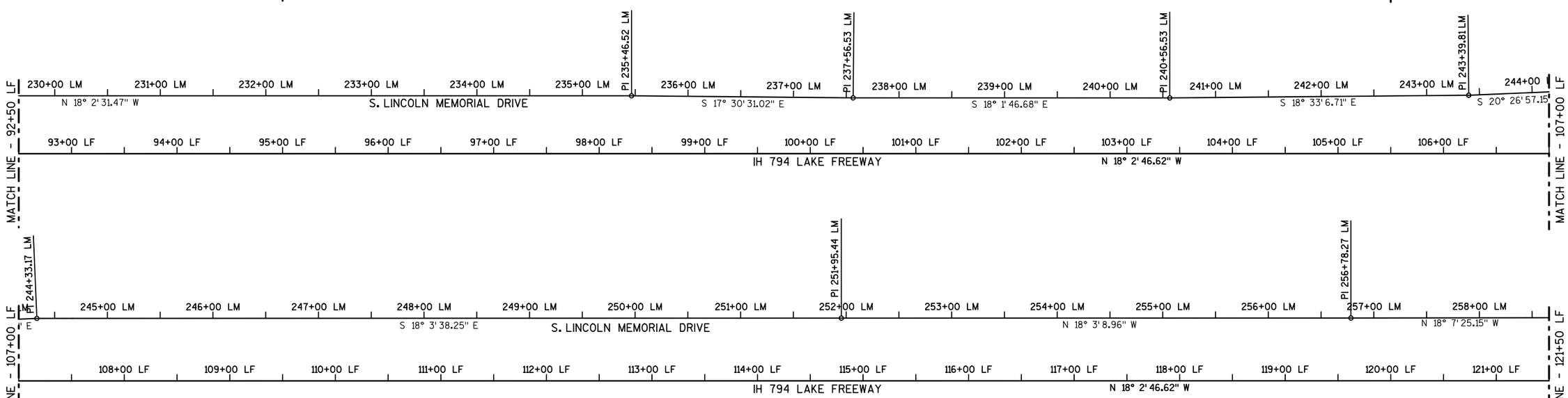


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 692	E

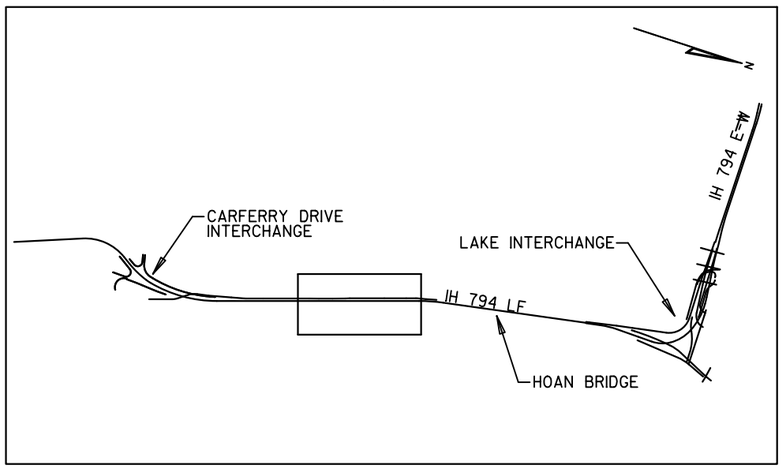
2

CURVE = S_LMD-3
P.I. = 221+30.19
Y = 289,011.26
X = 610,336.00
DELTA = 4° 32' 59" (LT)
D = 14° 19' 26"
T = 15.89'
L = 31.76'
R = 400.00'
P.C. = 221+14.30
P.T. = 221+46.06





LOCATION MAP



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 693	E

CURVE = E_LFCL-5
P.I. = 125+09.14 LF
Y = 292,921.72
X = 609,119.76
DELTA = 8° 01' 35" (RT)
D = 1° 30' 00"
T = 267.98'
L = 535.09'
R = 3,819.72'
P.C. = 122+41.15 LF
P.T. = 127+76.25 LF

CURVE = S_LMD-4
P.I. = 259+11.96 LF
Y = 292,605.41
X = 609,159.90
DELTA = 5° 36' 38" (RT)
D = 14° 19' 26"
T = 19.60'
L = 39.17'
R = 400.00'
P.C. = 258+92.36 LF
P.T. = 259+31.53 LF

N

MATCH LINE - 121+50 LF

PC 258+92.36 LM
PI 259+11.96 LM
PT 259+31.53 LM
PI 261+17.78 LM
PI 125+09.14 LF
POT 263+46.20 LM

259+00 LM | 260+00 LM | 261+00 LM | 262+00 LM | 263+00 LM

S 12° 30' 47.38" E
S 14° 19' 3.22" E

S_LMD-4

122+00 LF | 123+00 LF | 124+00 LF | 125+00 LF | 126+00 LF | 127+00 LF | 128+00 LF | 129+00 LF | 130+00 LF | 131+00 LF | 132+00 LF | 133+00 LF | 134+00 LF | 135+00 LF

N 18° 2' 46.62" W

PC 122+41.15

CURVE E_LFCL-5

PT 127+76.25 LF

IH 794 LAKE FREEWAY

N 10° 1' 11.62" W

MATCH LINE - 135+50 LF

CONCRETE MONUMENT
WITH BRASS CAP
Y = 291696.82
X = 608854.82

T 7 N
33 | 33
R 22 E

WEST WITNESS MONUMENT
CONCRETE WITH BRASS CAP
Y = 294290.57
X = 606262.95

T 7 N
32 | 33
32 | 33
R 22 E

MATCH LINE - 135+50 LF

136+00 LF | 137+00 LF | 138+00 LF | 139+00 LF | 140+00 LF | 141+00 LF | 142+00 LF | 143+00 LF | 144+00 LF | 145+00 LF | 146+00 LF | 147+00 LF | 148+00 LF | 149+00 LF

IH 794 LAKE FREEWAY

N 10° 1' 11.62" W

MATCH LINE - 149+50 LF

MEANDER CORNER
BRASS CAP IN
CONCRETE SEAWALL
Y = 294280.55
X = 609994.37

T 7 N
33 | 34
33 | 34
R 22 E

CONCRETE MONUMENT
WITH BRASS CAP
Y = 294283.43
X = 608894.86

T 7 N
33 | 33
33 | 33
R 22 E

PLASTIC PIPE MONUMENT
IN AN ALUMINUM HAND HOLE
Y = 296883.82
X = 608935.01

T 7 N
28 | 28
33 | 33
R 22 E

MATCH LINE - 149+50 LF

150+00 LF | 151+00 LF | 152+00 LF | 153+00 LF | 154+00 LF | 155+00 LF | 156+00 LF | 157+00 LF | 158+00 LF | 159+00 LF

IH 794 LAKE FREEWAY

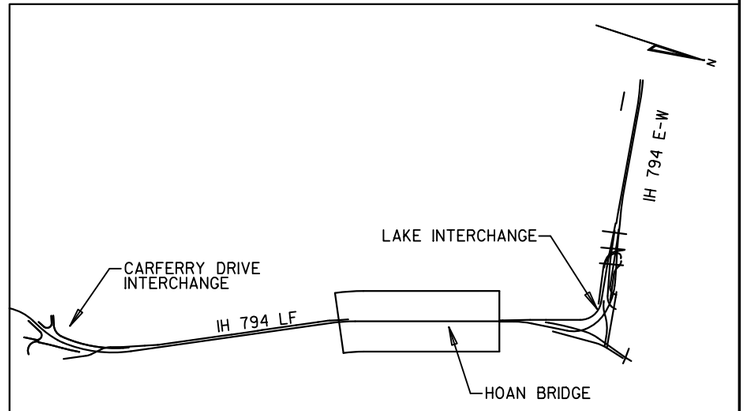
N 10° 1' 11.62" W

POT 159+49.25 LF

MATCH LINE - 159+50 NB & SB

STA. 159+49.25 LF BK. =
STA. 159+50.00 NB & SB AH.
Y = 296310.22
X = 608521.06

LOCATION MAP



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 694	E

CURVE = E_RAMPLS-1
P.I. = 170+03.42
Y = 297,350.47
X = 608,364.52
DELTA = 1° 22' 36" (RT)
D = 2° 00' 00"
T = 34.42'
L = 68.83'
R = 2,864.79'
P.C. = 169+69.00
P.C.C. = 170+37.83

CURVE = E_I794_NB-1
P.I. = 164+63.71 NB
Y = 296,817.48
X = 608,439.56
DELTA = 11° 30' 21" (RT)
D = 3° 00' 00"
T = 192.41'
L = 383.53'
R = 1,909.86'
P.C. = 162+71.29 NB
P.T. = 166+54.82 NB

CURVE = E_RAMPLS-2
P.I. = 174+58.67 LS
Y = 297,805.72
X = 608,361.67
DELTA = 8° 24' 06" (RT)
D = 1° 00' 00"
T = 420.84'
L = 840.17'
R = 5,729.58'
P.C.C. = 170+37.83 LS
P.T. = 178+78.01 LS

CONCRETE MONUMENT
WITH BRASS CAP
Y = 296900.29
X = 606295.17

POT STA. 159+50.00 SB
Y = 296306.74
X = 608501.37

POT STA. 159+50.00 NB
Y = 296311.61
X = 608528.94

MATCH LINE - 159+49.25 LF

PI 160+23.65 SB

IH 794 SB
N 10° 1' 11.62" W
N 11° 5' 18.62" W

PI 166+24.60 SB

IH 794 NB
N 1° 29' 9.46" E

PI 164+63.71 NB

PC 162+71.29 NB

CURVE E_I794_NB-1

PT 166+54.82 NB

IH 794 EB
N 10° 1' 11.62" W

POT 169+72.83 SB

AH STA. 663+75.22 EB
AH STA. 169+72.83 SB
Y = 297311.92
X = 608312.39

MATCH LINE 659+50 EB

Y = 297316.07
X = 608365.57

POT 663+75.22 EB

PI 170+03.98 LS

CURVE E_RAMPLS-1

CURVE E_RAMPLS-2

PC 169+70.12 LS

PCC 170+37.83 LS

LINCOLN MEMORIAL SB ENTRANCE RAMP

MATCH LINE 174+00 LS

POT 171+56.92 NB

AH STA. 764+85.67 WB
AH STA. 171+55.91 NB
Y = 297510.75
X = 608457.55

IH 794 WB
S 1° 29' 9.46" W

MATCH LINE 762+50 WB

POT 764+84.66 WB

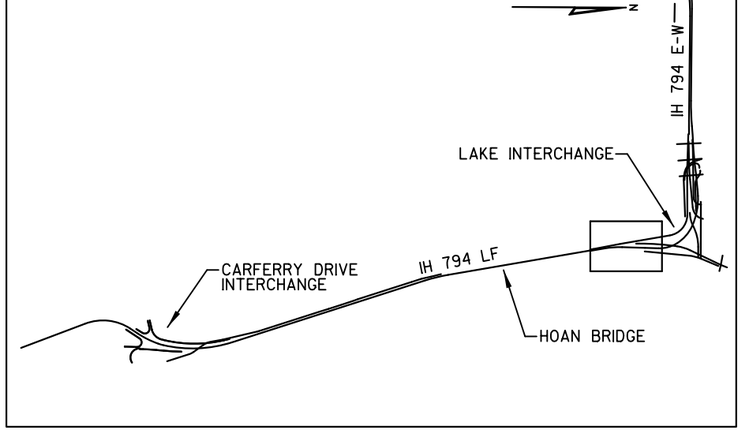
Y = 297506.23
X = 608536.00

LINCOLN MEMORIAL NB EXIT RAMP
N 5° 8' 27.46" E

MATCH LINE 173+50 LN

POT 171+46.89 LN

LOCATION MAP

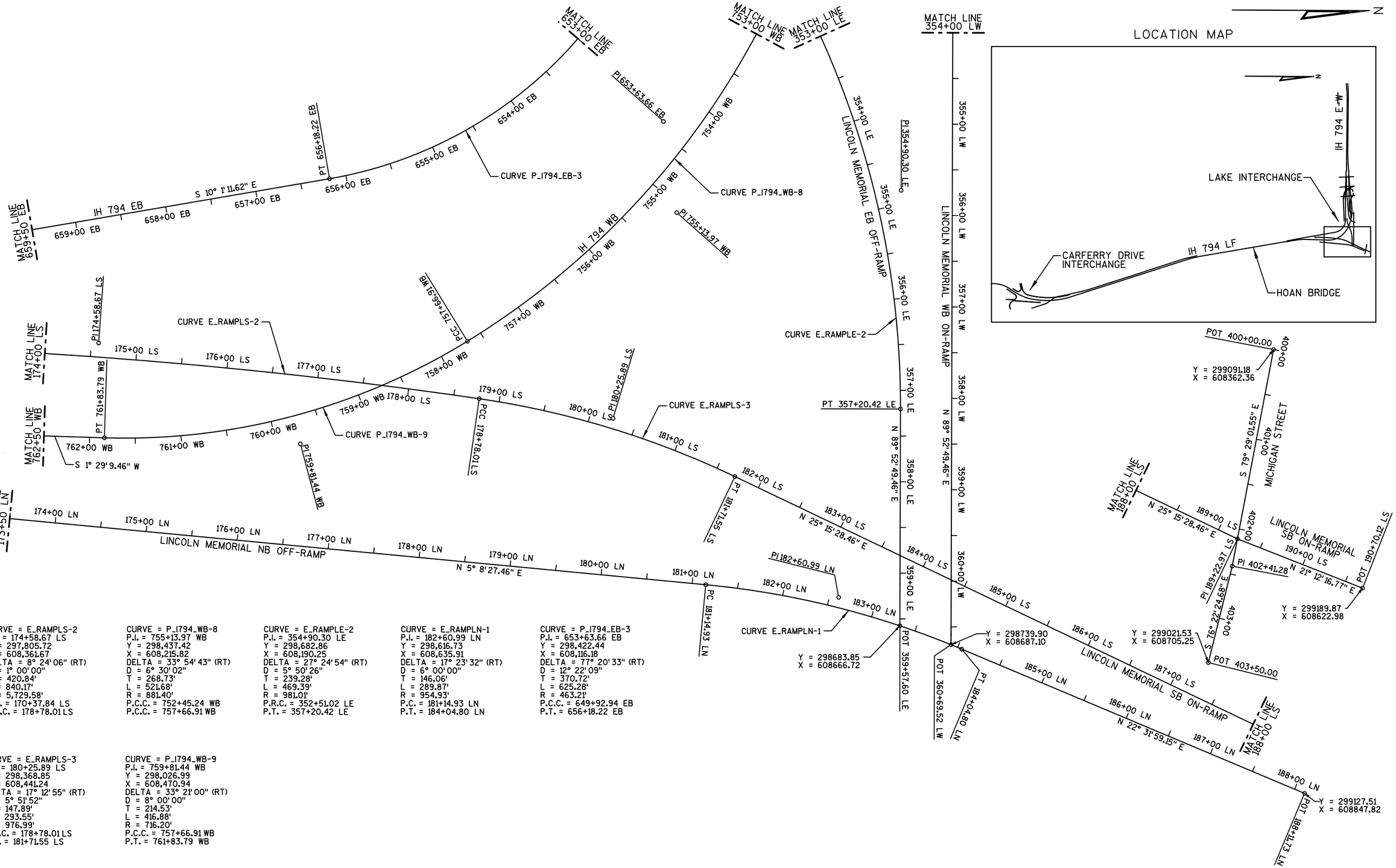


CONCRETE MONUMENT
WITH BRASS CAP
Y = 294283.43
X = 608894.86

PLASTIC PIPE MONUMENT
IN AN ALUMINUM HAND HOLE
Y = 296883.82
X = 608935.01

CONCRETE MONUMENT
WITH BRASS CAP
Y = 299520.59
X = 608954.01

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 695	E



CURVE = E_RAMPLS-2
P.I. = 174+58.67 LS
Y = 297,805.72
X = 608,361.67
DELTA = 8° 24' 06" (RT)
D = 1° 00' 00"
T = 420.84'
L = 840.17'
R = 5,729.58'
P.C. = 170+37.84 LS
P.C.C. = 178+78.01 LS

CURVE = P_I794_WB-8
P.I. = 755+13.97 WB
Y = 298,437.42
X = 608,215.82
DELTA = 33° 54' 43" (RT)
D = 6° 30' 02"
T = 268.73'
L = 521.68'
R = 881.40'
P.C.C. = 752+45.24 WB
P.C.C. = 757+66.91 WB

CURVE = E_RAMPLE-2
P.I. = 354+90.30 LE
Y = 298,682.86
X = 608,190.25
DELTA = 27° 24' 54" (RT)
D = 5° 50' 26"
T = 239.28'
L = 469.39'
R = 981.01'
P.R.C. = 352+51.02 LE
P.T. = 357+20.42 LE

CURVE = E_RAMPLN-1
P.I. = 182+60.99 LN
Y = 298,616.73
X = 608,635.91
DELTA = 17° 23' 32" (RT)
D = 6° 00' 00"
T = 146.06'
L = 289.87'
R = 954.93'
P.C. = 181+14.93 LN
P.T. = 184+04.80 LN

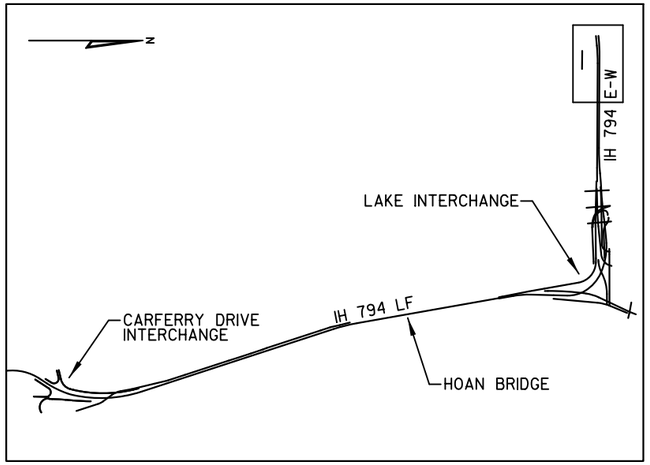
CURVE = P_I794_EB-3
P.I. = 653+63.66 EB
Y = 298,422.44
X = 608,116.18
DELTA = 77° 20' 33" (RT)
D = 12° 22' 09"
T = 370.72'
L = 625.28'
R = 463.21'
P.C.C. = 649+92.94 EB
P.T. = 656+18.22 EB

CURVE = E_RAMPLS-3
P.I. = 180+25.89 LS
Y = 298,368.85
X = 608,441.24
DELTA = 17° 12' 55" (RT)
D = 5° 51' 52"
T = 147.89'
L = 293.55'
R = 976.99'
P.C.C. = 178+78.01 LS
P.T. = 181+71.55 LS

CURVE = P_I794_WB-9
P.I. = 759+81.44 WB
Y = 298,026.99
X = 608,470.94
DELTA = 33° 21' 00" (RT)
D = 8° 00' 00"
T = 214.53'
L = 416.88'
R = 716.20'
P.C.C. = 757+66.91 WB
P.T. = 761+83.79 WB

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 696	E

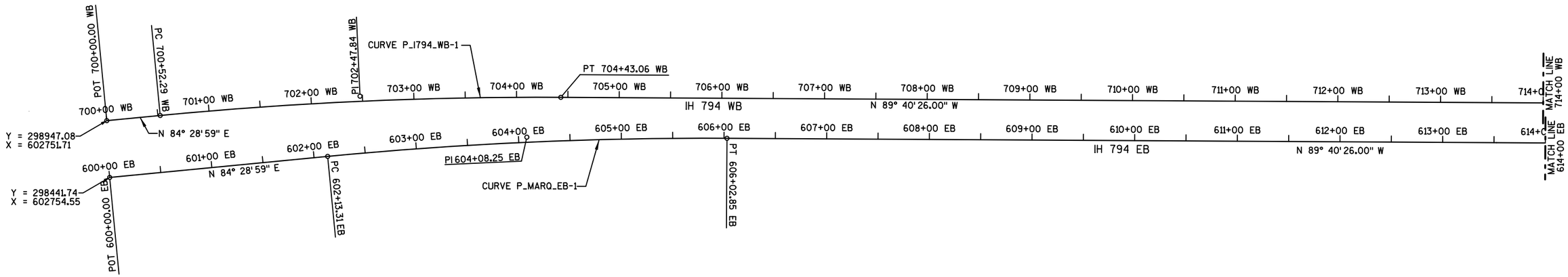
LOCATION MAP

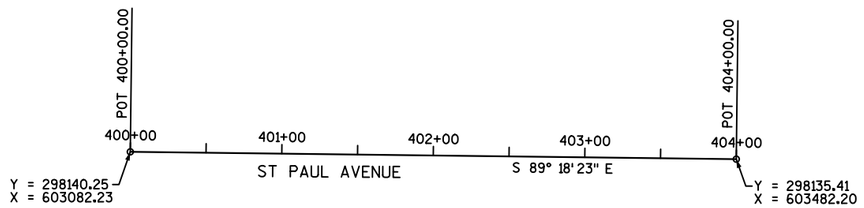


CURVE = P_MARQ_EB-1
P.I. = 604+08.25
Y = 298,480.99
X = 603,160.91
DELTA = 5° 50' 35" (RT)
D = 1° 30' 00"
T = 194.94'
L = 389.54'
R = 3,819.72'
P.C. = 602+13.31
P.T. = 606+02.85

CURVE = P_I794_WB-1
P.I. = 702+47.84
Y = 298,520.91
X = 602,998.41
DELTA = 5° 50' 35" (RT)
D = 1° 29' 43"
T = 195.55'
L = 390.77'
R = 3,831.72'
P.C. = 700+52.29
P.T. = 704+43.06

N

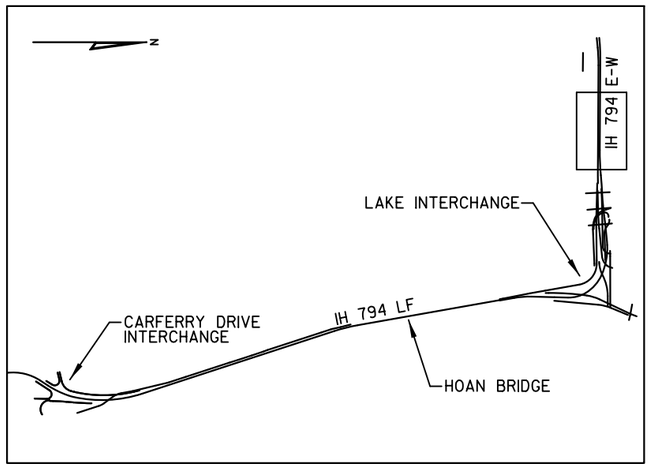




PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 697	E

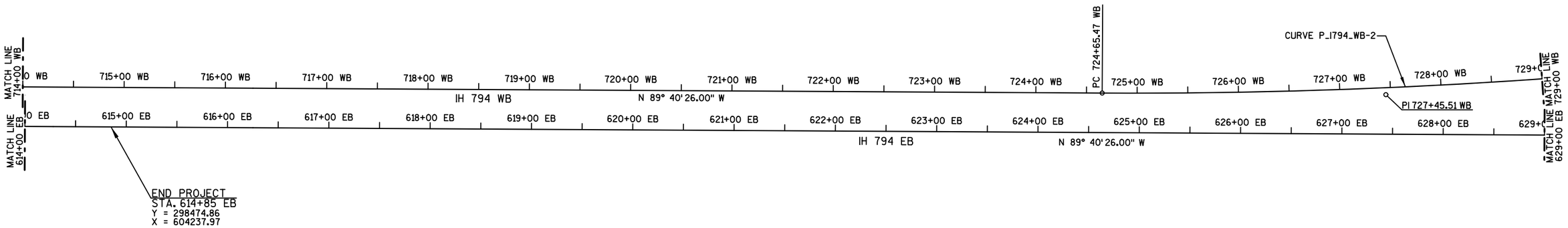
2

LOCATION MAP



CURVE = P_I794_WB-2
P.I. = 727+45.51 WB
Y = 298,506.69
X = 605,496.37
DELTA = 5° 36' 29" (LT)
D = 1° 00' 08"
T = 280.04'
L = 559.63'
R = 5,717.58'
P.C. = 724+65.47 WB
P.R.C. = 730+25.10 WB

N



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 698	E

CURVE = P_I794_WB-2
P.I. = 727+45.51 WB
Y = 298,506.69
X = 605,496.37
DELTA = 5° 36' 29" (LT)
D = 1° 00' 08"
T = 280.04'
L = 559.63'
R = 5,717.58'
P.C. = 724+65.47 WB
P.R.C. = 730+25.10 WB

CURVE = P_I794_WB-3
P.I. = 732+14.70 WB
Y = 298,549.93
X = 605,964.02
DELTA = 2° 17' 23" (RT)
D = 0° 36' 14"
T = 189.60'
L = 379.16'
R = 9,488.00'
P.C. = 730+25.10 WB
P.R.C. = 734+04.26 WB

CURVE = P_I794_WB-4
P.I. = 736+89.57 WB
Y = 298,574.72
X = 606,438.29
DELTA = 4° 43' 39" (LT)
D = 0° 49' 44"
T = 285.32'
L = 570.31'
R = 6,912.00'
P.R.C. = 734+04.26 WB
P.R.C. = 739+74.57 WB

CURVE = P_I794_WB-5
P.I. = 740+50.38 WB
Y = 298,623.23
X = 606,796.15
DELTA = 1° 53' 42" (RT)
D = 1° 15' 00"
T = 75.81'
L = 151.61'
R = 4,583.66'
P.R.C. = 739+74.57 WB
P.T. = 741+26.18 WB

CURVE = E_RAMPBE-1
P.I. = 9+28.56 BE
Y = 298,719.42
X = 606,504.14
DELTA = 16° 06' 40" (LT)
D = 37° 59' 59"
T = 21.34'
L = 42.40'
R = 150.78'
P.C. = 9+07.22 BE
P.T. = 9+49.62 BE

CURVE = E_RAMPBE-2
P.I. = 12+20.64 BE
Y = 298,446.27
X = 606,608.39
DELTA = 46° 58' 01" (LT)
D = 20° 00' 00"
T = 124.47'
L = 234.84'
R = 286.48'
P.C. = 10+96.18 BE
P.C.C. = 13+31.01 BE

CURVE = E_RAMPBE-3
P.I. = 14+56.08 BE
Y = 298,352.22
X = 606,839.52
DELTA = 24° 37' 39" (LT)
D = 10° 00' 00"
T = 125.07'
L = 246.28'
R = 572.96'
P.C.C. = 13+31.01 BE
P.T. = 15+77.29 BE

CURVE = P_MARQ_EB-2
P.I. = 630+51.44 EB
Y = 298,465.94
X = 605,804.39
DELTA = 1° 29' 08" (LT)
D = 0° 30' 00"
T = 148.58'
L = 297.14'
R = 11,459.16'
P.C. = 629+02.86 EB
P.T. = 632+00.00 EB

CURVE = E_RAMPMW-1
P.I. = 0+68.05 MW
Y = 298,724.25
X = 606,821.18
DELTA = 40° 45' 42" (RT)
D = 32° 00' 00"
T = 66.52'
L = 127.38'
R = 179.05'
P.C. = 0+01.53 MW
P.T. = 1+28.91 MW

CURVE = E_RAMPMW-2
P.I. = 2+57.51 MW
Y = 298,607.82
X = 606,977.75
DELTA = 38° 47' 44" (LT)
D = 24° 00' 01"
T = 84.06'
L = 161.65'
R = 238.73'
P.C. = 1+73.45 MW
P.T. = 3+35.10 MW

CURVE = P_RAMPJW-1
P.I. = 12+01.73 JW
Y = 298,555.60
X = 606,276.41
DELTA = 2° 26' 21" (RT)
D = 0° 36' 17"
T = 201.73'
L = 403.39'
R = 9,476.00'
P.C. = 10+00.00 JW
P.T. = 14+03.39 JW

CURVE = P_RAMPJE-1
P.I. = 6+47.79 JE
Y = 298,476.25
X = 606,761.21
DELTA = 4° 29' 30" (LT)
D = 1° 13' 09"
T = 184.32'
L = 368.46'
R = 4,700.00'
P.C. = 4+63.47 JE
P.T. = 8+31.92 JE

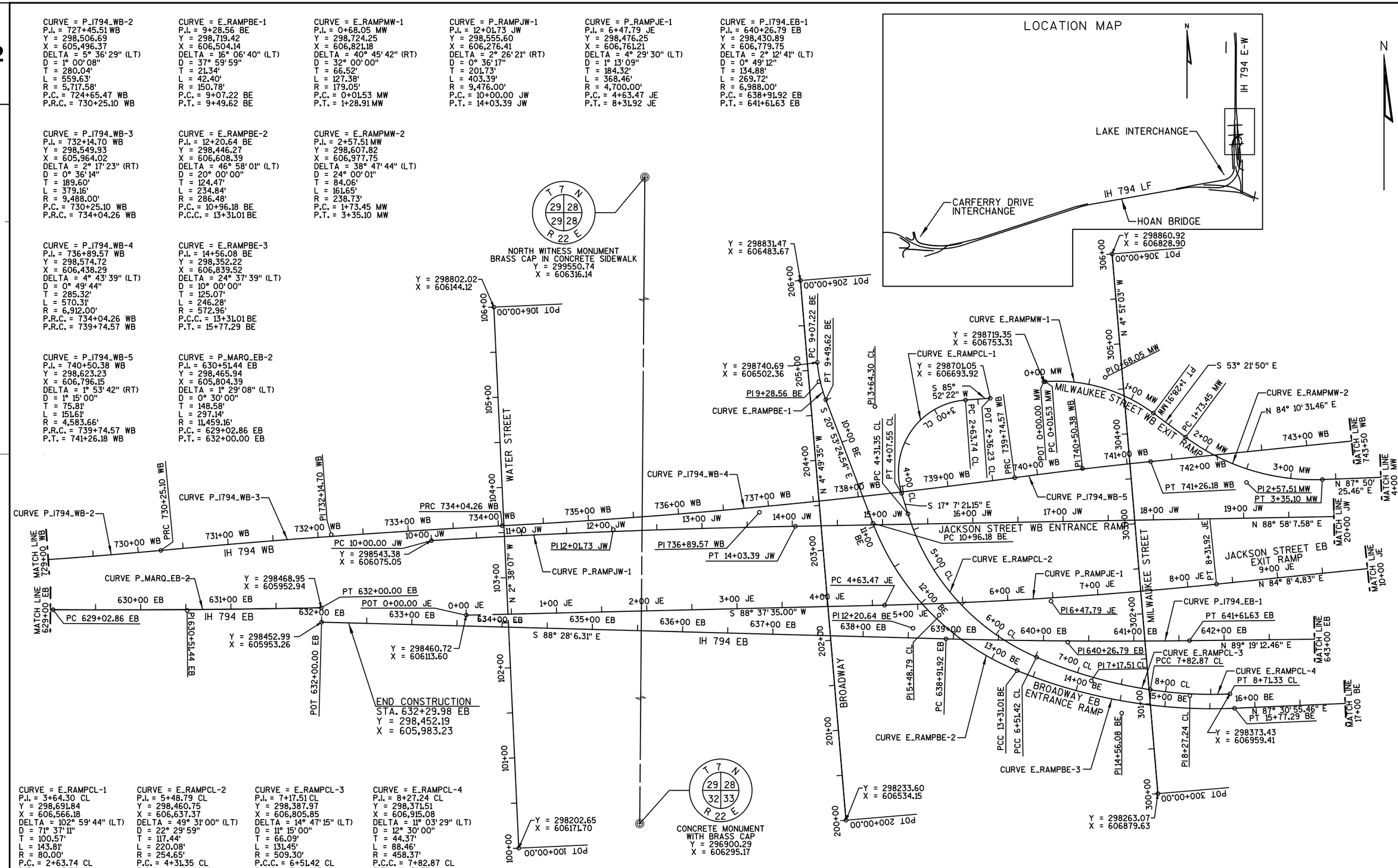
CURVE = P_I794_EB-1
P.I. = 640+26.79 EB
Y = 298,430.89
X = 606,779.75
DELTA = 2° 12' 41" (LT)
D = 0° 49' 12"
T = 134.88'
L = 269.72'
R = 6,988.00'
P.C. = 638+91.92 EB
P.T. = 641+61.63 EB

CURVE = E_RAMPCL-1
P.I. = 3+64.30 CL
Y = 298,691.84
X = 606,566.18
DELTA = 102° 59' 44" (LT)
D = 71° 37' 11"
T = 100.57'
L = 143.81'
R = 80.00'
P.C. = 2+63.74 CL
P.T. = 4+07.55 CL

CURVE = E_RAMPCL-2
P.I. = 5+48.79 CL
Y = 298,460.75
X = 606,637.37
DELTA = 49° 31' 00" (LT)
D = 22° 29' 59"
T = 117.44'
L = 220.08'
R = 254.65'
P.C. = 4+31.35 CL
P.C.C. = 6+51.42 CL

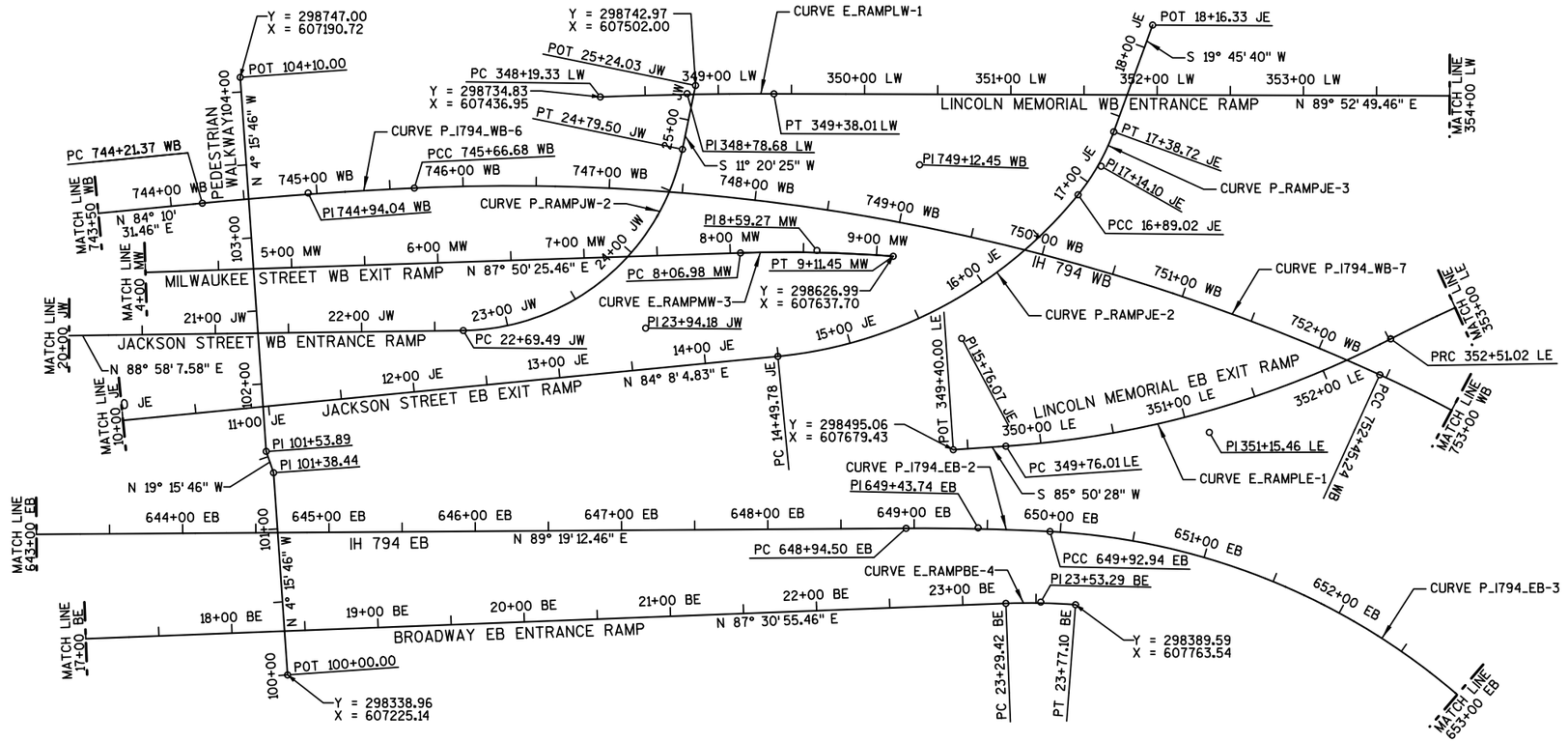
CURVE = E_RAMPCL-3
P.I. = 7+17.51 CL
Y = 298,387.97
X = 606,805.85
DELTA = 14° 47' 15" (LT)
D = 11° 15' 00"
T = 66.09'
L = 131.45'
R = 509.30'
P.C.C. = 6+51.42 CL
P.C.C. = 7+82.87 CL

CURVE = E_RAMPCL-4
P.I. = 8+27.24 CL
Y = 298,371.51
X = 606,915.08
DELTA = 11° 03' 29" (LT)
D = 12° 30' 00"
T = 44.37'
L = 88.46'
R = 458.37'
P.C.C. = 7+82.87 CL
P.T. = 8+71.33 CL

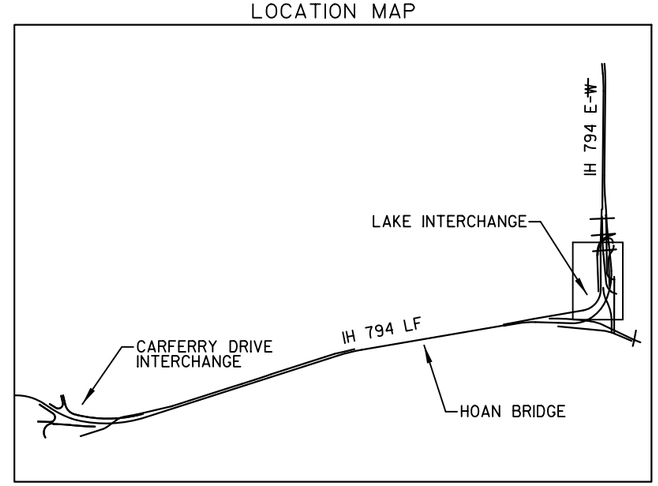


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 699	E

2



LOCATION MAP



CURVE = P_I794_EB-2
P.I. = 649+43.74 EB
Y = 298,441.77
X = 607,696.67
DELTA = 3° 19' 03" (RT)
D = 3° 22' 13"
T = 49.23'
L = 98.43'
R = 1,700.00'
P.C. = 648+94.50 EB
P.C.C. = 649+92.94 EB

CURVE = P_I794_WB-6
P.I. = 744+94.04 WB
Y = 298,668.25
X = 607,237.53
DELTA = 2° 54' 22" (RT)
D = 2° 00' 00"
T = 72.67'
L = 145.31'
R = 2,864.79'
P.C. = 744+21.37 WB
P.C.C. = 745+66.68 WB

CURVE = P_RAMPJE-2
P.I. = 15+76.07 JE
Y = 298,571.13
X = 607,684.82
DELTA = 45° 23' 19" (LT)
D = 18° 58' 20"
T = 126.29'
L = 239.24'
R = 302.00'
P.C. = 14+49.78 JE
P.C.C. = 16+89.02 JE

CURVE = P_RAMPJW-2
P.I. = 23+94.18 JW
Y = 298,577.06
X = 607,468.73
DELTA = 77° 37' 43" (LT)
D = 36° 57' 54"
T = 124.69'
L = 210.01'
R = 155.00'
P.C. = 22+69.49 JW
P.T. = 24+79.50 JW

CURVE = E_RAMPBE-4
P.I. = 23+53.29 BE
Y = 298,391.28
X = 607,739.74
DELTA = 6° 33' 17" (RT)
D = 13° 45' 00"
T = 23.86'
L = 47.67'
R = 416.70'
P.C. = 23+29.42 BE
P.T. = 23+77.10 BE

CURVE = E_RAMPLE-1
P.I. = 351+15.46 LE
Y = 298,507.78
X = 607,854.43
DELTA = 23° 22' 32" (LT)
D = 8° 30' 00"
T = 139.44'
L = 275.01'
R = 674.07'
P.C. = 349+76.01 LE
P.R.C. = 352+51.02 LE

CURVE = E_RAMPLW-1
P.I. = 348+78.68
Y = 298,737.41
X = 607,496.24
DELTA = 2° 22' 25" (RT)
D = 2° 00' 00"
T = 59.35'
L = 118.68'
R = 2,864.79'
P.C. = 348+19.33
P.T. = 349+38.01

CURVE = P_I794_EB-3
P.I. = 653+63.66 EB
Y = 298,422.44
X = 608,116.18
DELTA = 77° 20' 33" (RT)
D = 12° 22' 09"
T = 370.72'
L = 625.28'
R = 463.21'
P.C.C. = 649+92.94 EB
P.T. = 656+18.22 EB

CURVE = P_I794_WB-7
P.I. = 749+12.45 WB
Y = 298,689.56
X = 607,655.43
DELTA = 27° 08' 33" (RT)
D = 4° 00' 00"
T = 345.77'
L = 678.56'
R = 1,432.39'
P.C.C. = 745+66.68 WB
P.C.C. = 752+45.24 WB

CURVE = P_RAMPJE-3
P.I. = 17+14.10 JE
Y = 298,689.19
X = 607,779.56
DELTA = 18° 59' 05" (LT)
D = 38° 11' 50"
T = 25.08'
L = 49.70'
R = 150.00'
P.C.C. = 16+89.02 JE
P.T. = 17+38.72 JE

CURVE = E_RAMPMW-3
P.I. = 8+59.27 MW
Y = 298,630.74
X = 607,585.55
DELTA = 6° 16' 04" (RT)
D = 6° 00' 00"
T = 52.28'
L = 104.46'
R = 954.93'
P.C. = 8+06.98 MW
P.T. = 9+11.45 MW

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 700	E

2

CP229
BERNTSEN FENO MON.
SW CORNER OF CLYBOURN ST.
AND WATER ST., IN GRASS 2'
SOUTH OF CURB
STA 733+51.90 WB, 90.60' LT
N 298647.395
E 606095.861
ELEV 591.15

CP230
BERNTSEN FENO MON.
NE CORNER OF CLYBOURN ST.
AND BROADWAY, IN GRASS
TERRACE, 5' EAST OF CURB
STA 738+03.12 WB, 178.47' LT
N 298769.519
E 606531.288
ELEV 590.56

CP228
BERNTSEN FENO MON.
SW CORNER OF CLYBOURN ST.
AND MILWAUKEE ST., 11' SW OF
SIGNAL POLE
STA 740+54.59 WB, 84.05' LT
N 298706.571
E 606790.577
ELEV 591.15

CP231
BERNTSEN FENO MON.
WEST OF WATER ST.,
2' WEST OF SIDEWALK
IN NE CORNER OF
LANDSCAPED AREA
STA 633+66.22 EB, 50.06' RT
N 298398.504
E 606118.080
ELEV 590.22

CP227
BERNTSEN FENO MON.
SW CORNER OF ST PAUL AVE.
AND JEFFERSON ST., IN GRASS
TERRACE 2'S OF LIGHT POLE
STA 644+35.47 EB, 160.07' RT
N 298275.680
E 607190.342
ELEV 588.84

CP226
BERNTSEN FENO MON.
139' WEST OF VAN BUREN ST.
AND 34' SE OF JACKSON ST.
EB EXIT RAMP
STA 750+00.01 WB, 80.21' RT
N 298551.036
E 607719.648
ELEV 589.61

CP224
BERNTSEN FENO MON.
2' BEHIND PARKING LOT CURB,
34' SE OF HIGH MAST LIGHT POLE
STA 755+75.34 WB, 264.13' LT
N 298544.200
E 608428.713
ELEV 587.91

CP225
BERNTSEN FENO MON.
SOUTH OF PARKING LOT
ENTRANCE, IN GRASS
TERRACE 3' SOUTH OF CURB
STA 654+12.41 EB, 75.30' RT
N 298201.914
E 608040.422
ELEV 586.97

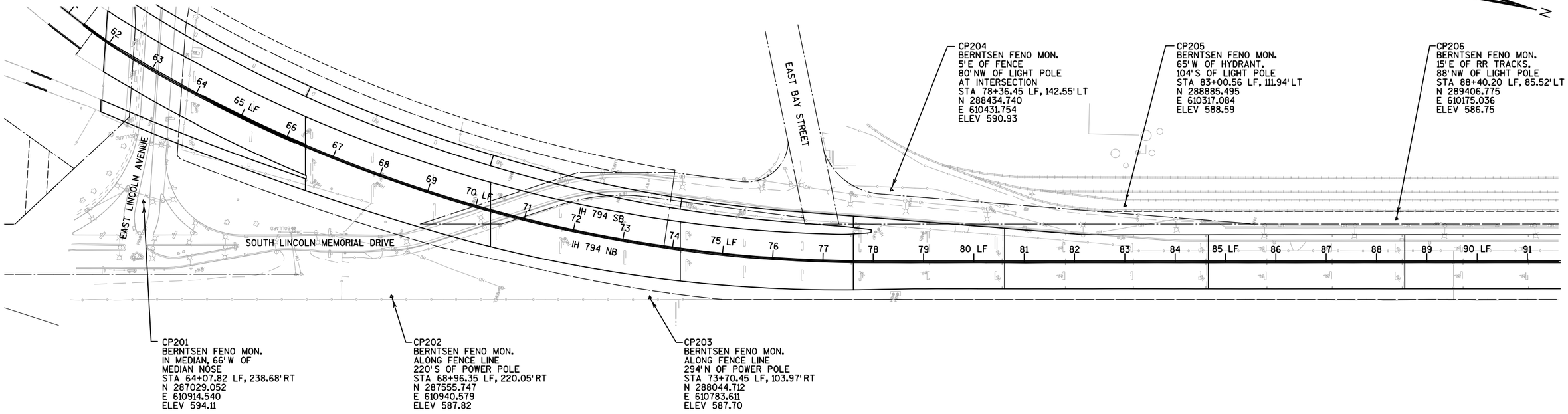
CP223
BERNTSEN FENO MON.
27' NORTH OF PARKING
LOT ENTRANCE ALONG
FENCE LINE
STA 759+15.73 WB, 82.13' LT
N 298103.611
E 608499.801
ELEV 585.93

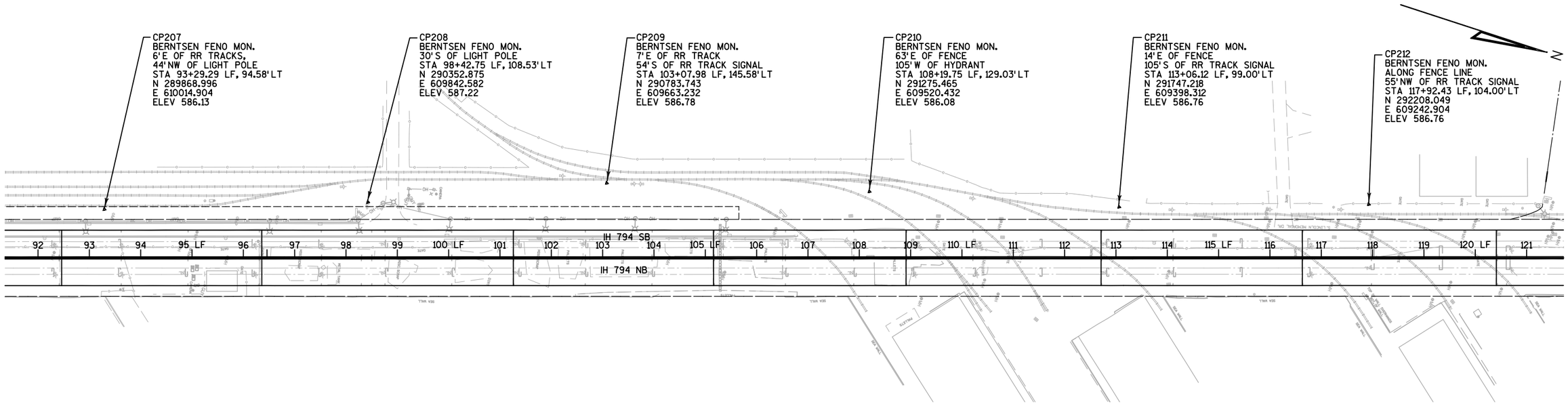
CP222
BERNTSEN FENO MON.
WEST OF DRIVEWAY,
18' SE OF LIGHT POLE
STA 661+81.63 EB, 98.82' RT
N 297485.367
E 608181.392
ELEV 587.04

CP221
BERNTSEN FENO MON.
WEST OF HARBOR DR.,
37' FROM LIGHT POLE
STA 169+26.60 NB, 37.74' LT
N 297282.497
E 608413.870
ELEV 585.34

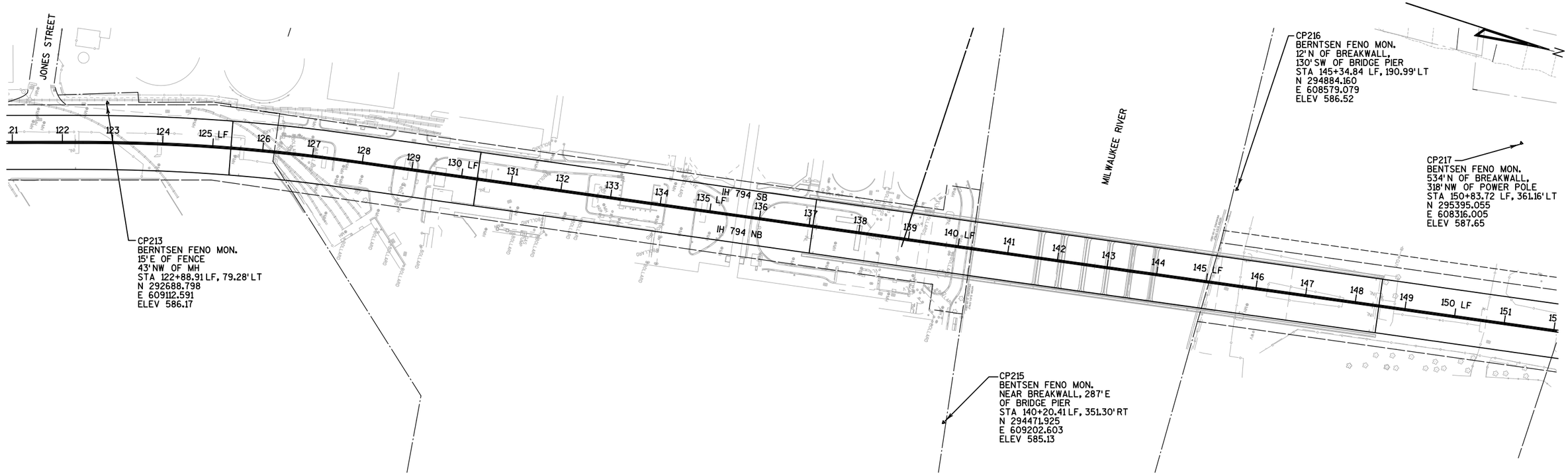
CLYBOURN STREET
ST PAUL AVENUE
CHICAGO STREET
WATER STREET
BROADWAY
MILWAUKEE ST.
JEFFERSON STREET
JACKSON STREET
VAN BUREN STREET
HARBOR DRIVE
IH 794 WB
IH 794 EB

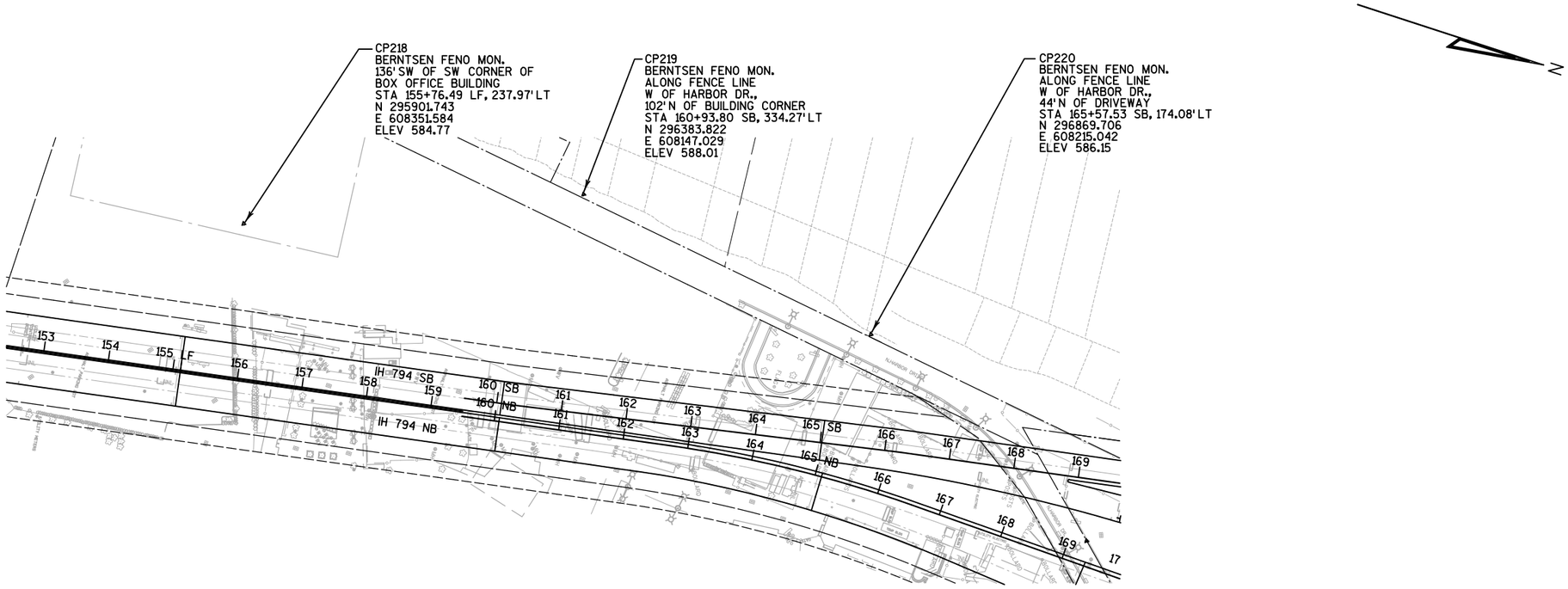
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	ALIGNMENT PLAN - SURVEY CONTROL	SHEET 701	E





PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	ALIGNMENT PLAN - SURVEY CONTROL	SHEET 702	E





PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	ALIGNMENT PLAN - SURVEY CONTROL	SHEET 703	E

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
0005	201.0105	CLEARING **P**	STA	10.000	10.000
0010	201.0120	CLEARING	ID	38.000	38.000
0015	201.0205	GRUBBING **P**	STA	5.000	5.000
0020	201.0220	GRUBBING	ID	38.000	38.000
0025	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 2001. 142+75 LF (NB)	LS	1.000	1.000
0030	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 2002. 142+75 LF (SB)	LS	1.000	1.000
0035	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 5097. 632+25 EB	LS	1.000	1.000
0040	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 5098. 732+35 WB	LS	1.000	1.000
0045	204.0100	REMOVING PAVEMENT **P**	SY	10,800.000	10,800.000
0050	204.0109.S	REMOVING CONCRETE SURFACE PARTIAL DEPTH **P**	SF	2,400.000	2,400.000
0055	204.0110	REMOVING ASPHALTIC SURFACE **P**	SY	21,500.000	21,500.000
0060	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS **P**	SY	455.000	455.000
0065	204.0125	REMOVING ASPHALTIC SURFACE MILLING **P**	TON	2,900.000	2,900.000
0070	204.0130	REMOVING CURB **P**	LF	480.000	480.000
0075	204.0150	REMOVING CURB & GUTTER **P**	LF	3,500.000	3,500.000
0080	204.0155	REMOVING CONCRETE SIDEWALK **P**	SY	3,950.000	3,950.000
0085	204.0157	REMOVING CONCRETE BARRIER **P**	LF	1,100.000	1,100.000
0090	204.0165	REMOVING GUARDRAIL **P**	LF	1,050.000	1,050.000
0095	204.0170	REMOVING FENCE **P**	LF	3,100.000	3,100.000
0100	204.0195	REMOVING CONCRETE BASES	EACH	37.000	37.000
0105	204.0210	REMOVING MANHOLES	EACH	13.000	13.000
0110	204.0215	REMOVING CATCH BASINS	EACH	86.000	86.000
0115	204.0220	REMOVING INLETS	EACH	23.000	23.000
0120	204.0230	REMOVING BUILDING (STATION) 0001. 302+30	LS	1.000	1.000
0125	204.0245	REMOVING STORM SEWER (SIZE) 1002. 6-INCH **P**	LF	650.000	650.000
0130	204.0245	REMOVING STORM SEWER (SIZE) 1003. 8-INCH **P**	LF	110.000	110.000
0135	204.0245	REMOVING STORM SEWER (SIZE) 1004. 10-INCH **P**	LF	110.000	110.000
0140	204.0245	REMOVING STORM SEWER (SIZE) 1005. 12-INCH **P**	LF	820.000	820.000
0145	204.0245	REMOVING STORM SEWER (SIZE) 1011. 36-INCH **P**	LF	350.000	350.000
0150	204.0245	REMOVING STORM SEWER (SIZE) 1012. 42-INCH **P**	LF	1,250.000	1,250.000
0155	204.0280	SEALING PIPES	EACH	54.000	54.000
0160	204.0291.S	ABANDONING SEWER 1001. STA 638+53 TO STA 638+81 EB	CY	4.000	4.000
0165	204.0291.S	ABANDONING SEWER 1002. STA 647+11 TO STA 647+67 EB	CY	2.000	2.000
0170	204.0291.S	ABANDONING SEWER 1003. STA 644+18 TO STA 644+58 EB	CY	9.000	9.000
0175	204.0291.S	ABANDONING SEWER 1004. STA 94+26 LF	CY	3.000	3.000
0180	204.9060.S	REMOVING (ITEM DESCRIPTION) 1001. FRUIT STANDS	EACH	6.000	6.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
0185	204.9060.S	REMOVING (ITEM DESCRIPTION) 1002. BOLLARDS	EACH	25.000	25.000
0190	204.9060.S	REMOVING (ITEM DESCRIPTION) 1003. WHEEL STOPS	EACH	250.000	250.000
0195	204.9090.S	REMOVING (ITEM DESCRIPTION) 1001. WATER SERVICE LATERAL	LF	106.000	106.000
0200	204.9090.S	REMOVING (ITEM DESCRIPTION) 1002. EXISTING SANITARY PIPE	LF	42.000	42.000
0205	204.9105.S	REMOVING (ITEM DESCRIPTION) 3053. SIGN STRUCTURE S-40-160	LS	1.000	1.000
0210	204.9105.S	REMOVING (ITEM DESCRIPTION) 3054. SIGN STRUCTURE S-40-166	LS	1.000	1.000
0215	204.9105.S	REMOVING (ITEM DESCRIPTION) 3055. SIGN STRUCTURE S-40-167	LS	1.000	1.000
0220	204.9105.S	REMOVING (ITEM DESCRIPTION) 4090. SIGN STRUCTURE S-40-162	LS	1.000	1.000
0225	204.9105.S	REMOVING (ITEM DESCRIPTION) 4091. SIGN STRUCTURE S-40-165	LS	1.000	1.000
0230	204.9105.S	REMOVING (ITEM DESCRIPTION) 4092. SIGN STRUCTURE S-40-190	LS	1.000	1.000
0235	204.9105.S	REMOVING (ITEM DESCRIPTION) 5102. SIGN STRUCTURE S-40-140	LS	1.000	1.000
0240	204.9105.S	REMOVING (ITEM DESCRIPTION) 5103. SIGN STRUCTURE S-40-141	LS	1.000	1.000
0245	204.9105.S	REMOVING (ITEM DESCRIPTION) 5104. SIGN STRUCTURE S-40-539	LS	1.000	1.000
0250	205.0100	EXCAVATION COMMON **P**	CY	12,200.000	12,200.000
0255	205.0501.S	EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	TON	33,707.000	33,707.000
0260	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 3046. B-40-400-0S19-A	LS	1.000	1.000
0265	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 3047. B-40-400-0S19-B	LS	1.000	1.000
0270	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 3051. B-40-400-0S23	LS	1.000	1.000
0275	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 3052. B-40-400-0S24	LS	1.000	1.000
0280	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 4082. B-40-400-005E	LS	1.000	1.000
0285	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 5093. B-40-885	LS	1.000	1.000
0290	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 5094. B-40-886	LS	1.000	1.000
0295	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 5095. B-40-887	LS	1.000	1.000
0300	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 5096. B-40-888	LS	1.000	1.000
0305	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 5099. R-40-582	LS	1.000	1.000
0310	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 5100. R-40-583	LS	1.000	1.000
0315	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 5101. R-40-584	LS	1.000	1.000
0320	206.6000.S	TEMPORARY SHORING	SF	26,045.000	26,045.000
0325	208.0100	BORROW **P**	CY	2,750.000	2,750.000
0330	209.0100	BACKFILL GRANULAR **P**	CY	3,984.000	3,984.000
0335	210.0100	BACKFILL STRUCTURE **P**	CY	764.000	764.000

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
0340	211.0100	PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) 0001. 1300-13-70	LS	1.000	1.000
0345	211.0200	PREPARE FOUNDATION FOR CONCRETE PAVEMENT (PROJECT) 0001. 1300-13-70	LS	1.000	1.000
0350	213.0100	FINISHING ROADWAY (PROJECT) 0001. 1300-13-70	EACH	1.000	1.000
0355	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	140.000	140.000
0360	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	23,500.000	23,500.000
0365	310.0110	BASE AGGREGATE OPEN GRADED	TON	840.000	840.000
0370	390.0403	BASE PATCHING CONCRETE SHES	SY	270.000	270.000
0375	415.0080	CONCRETE PAVEMENT 8-INCH **P**	SY	2,065.000	2,065.000
0380	415.0090	CONCRETE PAVEMENT 9-INCH **P**	SY	2,013.000	2,013.000
0385	415.0095	CONCRETE PAVEMENT 9 1/2-INCH **P**	SY	2,350.000	2,350.000
0390	415.0100	CONCRETE PAVEMENT 10-INCH **P**	SY	1,931.000	1,931.000
0395	415.0105	CONCRETE PAVEMENT 10 1/2-INCH **P**	SY	3,898.000	3,898.000
0400	415.0410	CONCRETE PAVEMENT APPROACH SLAB	SY	800.000	800.000
0405	416.0170	CONCRETE DRIVEWAY 7-INCH	SY	295.000	295.000
0410	416.0610	DRILLED TIE BARS	EACH	1,225.000	1,225.000
0415	416.0620	DRILLED DOWEL BARS	EACH	706.000	706.000
0420	455.0105	ASPHALTIC MATERIAL PG58-28	TON	263.000	263.000
0425	455.0115	ASPHALTIC MATERIAL PG64-22	TON	138.000	138.000
0430	455.0605	TACK COAT	GAL	632.000	632.000
0435	460.1100	HMA PAVEMENT TYPE E-0.3	TON	4,712.000	4,712.000
0440	460.1103	HMA PAVEMENT TYPE E-3	TON	2,449.000	2,449.000
0445	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	4,690.000	4,690.000
0450	465.0105	ASPHALTIC SURFACE	TON	40.000	40.000
0455	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	3,970.000	3,970.000
0460	502.0100	CONCRETE MASONRY BRIDGES **P**	CY	4,284.000	4,284.000
0465	502.0717.S	CRACK SEALING EPOXY	LF	320.000	320.000
0470	502.2000	COMPRESSION JOINT SEALER PREFORMED ELASTOMERIC (WIDTH) 4001. 2-INCH **P**	LF	114.000	114.000
0475	502.3100	EXPANSION DEVICE (STRUCTURE) 2001. B-40-400-001A	LS	1.000	1.000
0480	502.3100	EXPANSION DEVICE (STRUCTURE) 2002. B-40-400-001B	LS	1.000	1.000
0485	502.3100	EXPANSION DEVICE (STRUCTURE) 3039. B-40-400-0S15-B	LS	1.000	1.000
0490	502.3100	EXPANSION DEVICE (STRUCTURE) 3040. B-40-400-0S16-A	LS	1.000	1.000
0495	502.3100	EXPANSION DEVICE (STRUCTURE) 3046. B-40-400-0S19-A	LS	1.000	1.000
0500	502.3100	EXPANSION DEVICE (STRUCTURE) 3047. B-40-400-0S19-B	LS	1.000	1.000
0505	502.3100	EXPANSION DEVICE (STRUCTURE) 3051. B-40-400-0S23	LS	1.000	1.000
0510	502.3100	EXPANSION DEVICE (STRUCTURE) 3052. B-40-400-0S24	LS	1.000	1.000
0515	502.3100	EXPANSION DEVICE (STRUCTURE) 4058. B-40-400-01AA	LS	1.000	1.000
0520	502.3100	EXPANSION DEVICE (STRUCTURE) 4059. B-40-400-01BB	LS	1.000	1.000
0525	502.3100	EXPANSION DEVICE (STRUCTURE) 4060. B-40-400-001C	LS	1.000	1.000
0530	502.3100	EXPANSION DEVICE (STRUCTURE) 4062. B-40-400-001E	LS	1.000	1.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
0535	502.3100	EXPANSION DEVICE (STRUCTURE) 4063. B-40-400-001F	LS	1.000	1.000
0540	502.3100	EXPANSION DEVICE (STRUCTURE) 4065. B-40-400-002B	LS	1.000	1.000
0545	502.3100	EXPANSION DEVICE (STRUCTURE) 4067. B-40-400-002D	LS	1.000	1.000
0550	502.3100	EXPANSION DEVICE (STRUCTURE) 4068. B-40-400-002E	LS	1.000	1.000
0555	502.3100	EXPANSION DEVICE (STRUCTURE) 4071. B-40-400-003B	LS	1.000	1.000
0560	502.3100	EXPANSION DEVICE (STRUCTURE) 4073. B-40-400-003D	LS	1.000	1.000
0565	502.3100	EXPANSION DEVICE (STRUCTURE) 4074. B-40-400-003E	LS	1.000	1.000
0570	502.3100	EXPANSION DEVICE (STRUCTURE) 4075. B-40-400-004A	LS	1.000	1.000
0575	502.3100	EXPANSION DEVICE (STRUCTURE) 4076. B-40-400-004B	LS	1.000	1.000
0580	502.3100	EXPANSION DEVICE (STRUCTURE) 4077. B-40-400-004C	LS	1.000	1.000
0585	502.3100	EXPANSION DEVICE (STRUCTURE) 4080. B-40-400-005C	LS	1.000	1.000
0590	502.3100	EXPANSION DEVICE (STRUCTURE) 4081. B-40-400-005D	LS	1.000	1.000
0595	502.3100	EXPANSION DEVICE (STRUCTURE) 4082. B-40-400-005E	LS	1.000	1.000
0600	502.3100	EXPANSION DEVICE (STRUCTURE) 4084. B-40-400-006D	LS	1.000	1.000
0605	502.3100	EXPANSION DEVICE (STRUCTURE) 4085. B-40-400-007A	LS	1.000	1.000
0610	502.3100	EXPANSION DEVICE (STRUCTURE) 4088. B-40-400-008B	LS	1.000	1.000
0615	502.3100	EXPANSION DEVICE (STRUCTURE) 4089. B-40-400-008C	LS	1.000	1.000
0620	502.3100	EXPANSION DEVICE (STRUCTURE) 5094. B-40-886	LS	1.000	1.000
0625	502.3100	EXPANSION DEVICE (STRUCTURE) 5096. B-40-888	LS	1.000	1.000
0630	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3003. B-40-400-006B	LS	1.000	1.000
0635	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3005. B-40-400-005A	LS	1.000	1.000
0640	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3006. B-40-400-0N4A	LS	1.000	1.000
0645	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3007. B-40-400-0N4B	LS	1.000	1.000
0650	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3008. B-40-400-0N3A	LS	1.000	1.000
0655	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3009. B-40-400-0N3B	LS	1.000	1.000
0660	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3010. B-40-400-0N2A	LS	1.000	1.000
0665	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3011. B-40-400-0N2B	LS	1.000	1.000
0670	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3012. B-40-400-0S2A	LS	1.000	1.000
0675	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3013. B-40-400-0S2B	LS	1.000	1.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
0680	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3014. B-40-400-0S3A	LS	1.000	1.000
0685	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3015. B-40-400-0S3B	LS	1.000	1.000
0690	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3016. B-40-400-0S4A	LS	1.000	1.000
0695	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3017. B-40-400-0S4B	LS	1.000	1.000
0700	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3018. B-40-400-0S5A	LS	1.000	1.000
0705	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3019. B-40-400-0S5B	LS	1.000	1.000
0710	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3020. B-40-400-0S6A	LS	1.000	1.000
0715	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3021. B-40-400-0S6B	LS	1.000	1.000
0720	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3022. B-40-400-0S7A	LS	1.000	1.000
0725	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3023. B-40-400-0S7B	LS	1.000	1.000
0730	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3024. B-40-400-00S8-A	LS	1.000	1.000
0735	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3025. B-40-400-00S8-B	LS	1.000	1.000
0740	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3026. B-40-400-00S9-A	LS	1.000	1.000
0745	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3027. B-40-400-00S9-B	LS	1.000	1.000
0750	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3028. B-40-400-0S10-A	LS	1.000	1.000
0755	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3029. B-40-400-0S10-B	LS	1.000	1.000
0760	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3030. B-40-400-0S11-A	LS	1.000	1.000
0765	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3031. B-40-400-0S11-B	LS	1.000	1.000
0770	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3032. B-40-400-0S12-A	LS	1.000	1.000
0775	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3033. B-40-400-0S12-B	LS	1.000	1.000
0780	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3034. B-40-400-0S13-A	LS	1.000	1.000
0785	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3035. B-40-400-0S13-B	LS	1.000	1.000
0790	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3036. B-40-400-0S14-A	LS	1.000	1.000
0795	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3037. B-40-400-0S14-B	LS	1.000	1.000
0800	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3042. B-40-400-0S17-A	LS	1.000	1.000
0805	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3043. B-40-400-0S17-B	LS	1.000	1.000
0810	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3044. B-40-400-0S18-A	LS	1.000	1.000
0815	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3045. B-40-400-0S18-B	LS	1.000	1.000
0820	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3047. B-40-400-0S19-B	LS	1.000	1.000

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
0825	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3049. B-40-400-0S21	LS	1.000	1.000
0830	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3050. B-40-400-0S22	LS	1.000	1.000
0835	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 3051. B-40-400-0S23	LS	1.000	1.000
0840	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 5093. B-40-885	LS	1.000	1.000
0845	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 5095. B-40-887	LS	1.000	1.000
0850	502.3200	PROTECTIVE SURFACE TREATMENT **P**	SY	232,159.000	232,159.000
0855	502.4200.S	RUPTURED VOID REPAIR	SY	7.000	7.000
0860	502.5002	MASONRY ANCHORS TYPE L NO. 4 BARS **P**	EACH	371.000	371.000
0865	502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS **P**	EACH	2,110.000	2,110.000
0870	502.5010	MASONRY ANCHORS TYPE L NO. 6 BARS **P**	EACH	39.000	39.000
0875	502.5015	MASONRY ANCHORS TYPE L NO. 7 BARS **P**	EACH	32.000	32.000
0880	502.6102	MASONRY ANCHORS TYPE S 1/2-INCH **P**	EACH	13,383.000	13,383.000
0885	502.6105	MASONRY ANCHORS TYPE S 5/8-INCH **P**	EACH	868.000	868.000
0890	502.6130	MASONRY ANCHORS TYPE S 1 1/4-INCH	EACH	32.000	32.000
0895	502.6140	MASONRY ANCHORS TYPE S 1 1/2-INCH	EACH	32.000	32.000
0900	502.6500	PROTECTIVE COATING CLEAR **P**	GAL	5.000	5.000
0905	504.0100	CONCRETE MASONRY CULVERTS **P**	CY	91.000	91.000
0910	504.0500	CONCRETE MASONRY RETAINING WALLS **P**	CY	1,285.000	1,285.000
0915	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	175,371.000	175,371.000
0920	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	2,055,923.000	2,055,923.000
0925	505.0610	BAR STEEL REINFORCEMENT HS COATED CULVERTS	LB	46,390.000	46,390.000
0930	505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	144,890.000	144,890.000
0935	505.0904	BAR COUPLERS NO. 4 **P**	EACH	16.000	16.000
0940	505.0906	BAR COUPLERS NO. 6 **P**	EACH	2,382.000	2,382.000
0945	505.0908	BAR COUPLERS NO. 8 **P**	EACH	30.000	30.000
0950	505.0910	BAR COUPLERS NO. 10 **P**	EACH	46.000	46.000
0955	505.0911	BAR COUPLERS NO. 11 **P**	EACH	117.000	117.000
0960	506.0105	STRUCTURAL STEEL CARBON **P**	LB	165,569.000	165,569.000
0965	506.0605	STRUCTURAL STEEL HS **P**	LB	5,400,801.000	5,400,801.000
0970	506.2610	BEARING PADS ELASTOMERIC LAMINATED **P**	EACH	15.000	15.000
0975	506.3004	WELDED STUD SHEAR CONNECTORS 3/4X4-INCH **P**	EACH	5,726.000	5,726.000
0980	506.3005	WELDED STUD SHEAR CONNECTORS 7/8X4-INCH **P**	EACH	1,556.000	1,556.000
0985	506.3010	WELDED STUD SHEAR CONNECTORS 7/8X5-INCH **P**	EACH	21,143.000	21,143.000
0990	506.3015	WELDED STUD SHEAR CONNECTORS 7/8X6-INCH **P**	EACH	59,049.000	59,049.000
0995	506.3020	WELDED STUD SHEAR CONNECTORS 7/8X7-INCH **P**	EACH	25,104.000	25,104.000
1000	506.3025	WELDED STUD SHEAR CONNECTORS 7/8X8-INCH **P**	EACH	65,317.000	65,317.000
1005	506.3030	WELDED STUD SHEAR CONNECTORS 7/8X9-INCH **P**	EACH	35,650.000	35,650.000
1010	506.3035	WELDED STUD SHEAR CONNECTORS 7/8X10-INCH **P**	EACH	77,753.000	77,753.000
1015	506.5000	BEARING ASSEMBLIES FIXED (STRUCTURE) 5093. B-40-885 **P**	EACH	16.000	16.000

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
1020	506.5000	BEARING ASSEMBLIES FIXED (STRUCTURE) 5094. B-40-886 **P**	EACH	5.000	5.000
1025	506.5000	BEARING ASSEMBLIES FIXED (STRUCTURE) 5095. B-40-887 **P**	EACH	25.000	25.000
1030	506.5000	BEARING ASSEMBLIES FIXED (STRUCTURE) 5096. B-40-888 **P**	EACH	5.000	5.000
1035	506.6000	BEARING ASSEMBLIES EXPANSION (STRUCTURE) 5093. B-40-885 **P**	EACH	41.000	41.000
1040	506.6000	BEARING ASSEMBLIES EXPANSION (STRUCTURE) 5094. B-40-886 **P**	EACH	15.000	15.000
1045	506.6000	BEARING ASSEMBLIES EXPANSION (STRUCTURE) 5095. B-40-887 **P**	EACH	34.000	34.000
1050	506.6000	BEARING ASSEMBLIES EXPANSION (STRUCTURE) 5096. B-40-888 **P**	EACH	10.000	10.000
1055	506.7050.S	REMOVING BEARINGS (STRUCTURE) 2001. B-40-400-001A **P**	EACH	48.000	48.000
1060	506.7050.S	REMOVING BEARINGS (STRUCTURE) 2002. B-40-400-001B **P**	EACH	48.000	48.000
1065	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3003. B-40-400-006B **P**	EACH	12.000	12.000
1070	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3005. B-40-400-005A **P**	EACH	12.000	12.000
1075	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3006. B-40-400-0N4A **P**	EACH	3.000	3.000
1080	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3007. B-40-400-0N4B **P**	EACH	4.000	4.000
1085	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3008. B-40-400-0N3A **P**	EACH	3.000	3.000
1090	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3009. B-40-400-0N3B **P**	EACH	3.000	3.000
1095	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3014. B-40-400-0S3A **P**	EACH	3.000	3.000
1100	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3015. B-40-400-0S3B **P**	EACH	3.000	3.000
1105	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3016. B-40-400-0S4A **P**	EACH	3.000	3.000
1110	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3017. B-40-400-0S4B **P**	EACH	3.000	3.000
1115	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3020. B-40-400-0S6A **P**	EACH	7.000	7.000
1120	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3021. B-40-400-0S6B **P**	EACH	7.000	7.000
1125	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3024. B-40-400-00S8-A **P**	EACH	7.000	7.000
1130	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3025. B-40-400-00S8-B **P**	EACH	7.000	7.000
1135	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3034. B-40-400-0S13-A **P**	EACH	7.000	7.000
1140	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3035. B-40-400-0S13-B **P**	EACH	7.000	7.000
1145	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3036. B-40-400-0S14-A **P**	EACH	7.000	7.000
1150	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3040. B-40-400-0S16-A **P**	EACH	8.000	8.000
1155	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3042. B-40-400-0S17-A **P**	EACH	9.000	9.000
1160	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3043. B-40-400-0S17-B **P**	EACH	7.000	7.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
1165	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3044. B-40-400-0S18-A **P**	EACH	10.000	10.000
1170	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3045. B-40-400-0S18-B **P**	EACH	7.000	7.000
1175	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3046. B-40-400-0S19-A **P**	EACH	14.000	14.000
1180	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3047. B-40-400-0S19-B **P**	EACH	14.000	14.000
1185	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3049. B-40-400-0S21 **P**	EACH	3.000	3.000
1190	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3051. B-40-400-0S23 **P**	EACH	4.000	4.000
1195	506.7050.S	REMOVING BEARINGS (STRUCTURE) 3052. B-40-400-0S24 **P**	EACH	3.000	3.000
1200	509.0301	PREPARATION DECKS TYPE 1	SY	14,551.000	14,551.000
1205	509.0302	PREPARATION DECKS TYPE 2	SY	4,745.000	4,745.000
1210	509.0500	CLEANING DECKS **P**	SY	41,353.000	41,353.000
1215	509.1000	JOINT REPAIR **P**	SY	392.000	392.000
1220	509.2000	FULL-DEPTH DECK REPAIR	SY	79.000	79.000
1225	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	4,503.000	4,503.000
1230	509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY (STRUCTURE) 0001. LAKE INTERCHANGE **P**	SY	3,788.000	3,788.000
1235	509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY (STRUCTURE) 0001. LAKE INTERCHANGE **P**	SY	40,282.000	40,282.000
1240	509.9050.S	CLEANING PARAPETS **P**	LF	13,678.000	13,678.000
1245	513.4080	RAILING TUBULAR SPECIAL (STRUCTURE) 4058. B-40-400-01AA	LS	1.000	1.000
1250	513.4080	RAILING TUBULAR SPECIAL (STRUCTURE) 4078. B-40-400-004D	LS	1.000	1.000
1255	513.4080	RAILING TUBULAR SPECIAL (STRUCTURE) 4079. B-40-400-005B	LS	1.000	1.000
1260	514.0900	ADJUSTING FLOOR DRAINS **P**	EACH	60.000	60.000
1265	514.2608	DOWNSPOUT 8-INCH **P**	LF	13,548.000	13,548.000
1270	514.2625	DOWNSPOUT 6-INCH **P**	LF	1,479.000	1,479.000
1275	516.0500	RUBBERIZED MEMBRANE WATERPROOFING **P**	SY	426.000	426.000
1280	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 5093. B-40-885 **P**	SF	82.000	82.000
1285	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 5095. B-40-887 **P**	SF	82.000	82.000
1290	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 5099. R-40-582 **P**	SF	3,276.000	3,276.000
1295	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 5100. R-40-583 **P**	SF	4,049.000	4,049.000
1300	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 5101. R-40-584 **P**	SF	3,922.000	3,922.000
1305	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 5120. C-40-102 **P**	SF	256.000	256.000
1310	521.0124	CULVERT PIPE CORRUGATED STEEL 24-INCH **P**	LF	182.000	182.000
1315	550.0010	PRE-BORING UNCONSOLIDATED MATERIALS	LF	100.000	100.000
1320	550.1140	PILING STEEL HP 14-INCH X 73 LB	LF	37,202.000	37,202.000
1325	601.0331	CONCRETE CURB & GUTTER 31-INCH **P**	LF	1,500.000	1,500.000
1330	601.0407	CONCRETE CURB & GUTTER 18-INCH TYPE D **P**	LF	355.000	355.000
1335	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A **P**	LF	5,260.000	5,260.000

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
1340	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D **P**	LF	620.000	620.000
1345	601.0413	CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G **P**	LF	120.000	120.000
1350	601.0600	CONCRETE CURB PEDESTRIAN **P**	LF	35.000	35.000
1355	602.0410	CONCRETE SIDEWALK 5-INCH **P**	SF	38,100.000	38,100.000
1360	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW **P**	SF	384.000	384.000
1365	603.1232	CONCRETE BARRIER TYPE S32A	LF	1,560.000	1,560.000
1370	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	13,700.000	13,700.000
1375	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	16,187.500	16,187.500
1380	604.0400	SLOPE PAVING CONCRETE	SY	19.000	19.000
1385	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	1,327.000	1,327.000
1390	608.0315	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH	LF	310.000	310.000
1395	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	247.000	247.000
1400	608.0336	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	1,163.000	1,163.000
1405	610.0138	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 38X60-INCH	LF	401.000	401.000
1410	611.0530	MANHOLE COVERS TYPE J	EACH	2.000	2.000
1415	611.0540	MANHOLE COVERS TYPE K	EACH	106.000	106.000
1420	611.0550	MANHOLE COVERS TYPE M	EACH	2.000	2.000
1425	611.0600	INLET COVERS TYPE A	EACH	2.000	2.000
1430	611.0612	INLET COVERS TYPE C	EACH	28.000	28.000
1435	611.0624	INLET COVERS TYPE H	EACH	5.000	5.000
1440	611.0639	INLET COVERS TYPE H-S	EACH	2.000	2.000
1445	611.0642	INLET COVERS TYPE MS	EACH	2.000	2.000
1450	611.0651	INLET COVERS TYPE S	EACH	7.000	7.000
1455	611.0654	INLET COVERS TYPE V	EACH	3.000	3.000
1460	611.2004	MANHOLES 4-FT DIAMETER	EACH	16.000	16.000
1465	611.2005	MANHOLES 5-FT DIAMETER	EACH	7.000	7.000
1470	611.2006	MANHOLES 6-FT DIAMETER	EACH	3.000	3.000
1475	611.2007	MANHOLES 7-FT DIAMETER	EACH	1.000	1.000
1480	611.2008	MANHOLES 8-FT DIAMETER	EACH	4.000	4.000
1485	611.3220	INLETS 2X2-FT	EACH	6.000	6.000
1490	611.3230	INLETS 2X3-FT	EACH	6.000	6.000
1495	611.3901	INLETS MEDIAN 1 GRATE	EACH	2.000	2.000
1500	611.8110	ADJUSTING MANHOLE COVERS	EACH	40.000	40.000
1505	611.8115	ADJUSTING INLET COVERS	EACH	19.000	19.000
1510	611.8120.S	COVER PLATES TEMPORARY	EACH	27.000	27.000
1515	611.9705	SALVAGED MANHOLE COVERS	EACH	4.000	4.000
1520	611.9710	SALVAGED INLET COVERS	EACH	22.000	22.000
1525	612.0106	PIPE UNDERDRAIN 6-INCH **P**	LF	1,535.000	1,535.000
1530	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH **P**	LF	230.000	230.000
1535	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH **P**	LF	94.000	94.000
1540	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD **P**	EACH	4.000	4.000
1545	614.0700	SAND BARRELS ARRAYS	EACH	4.000	4.000
1550	614.0805	CRASH CUSHIONS PERMANENT LOW MAINTENANCE	EACH	6.000	6.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
1555	614.0905	CRASH CUSHIONS TEMPORARY	EACH	9.000	9.000
1560	614.0935	SALVAGED SAND BARRELS	EACH	55.000	55.000
1565	614.2300	MGS GUARDRAIL 3	LF	462.500	462.500
1570	614.2500	MGS THRIE BEAM TRANSITION	LF	433.400	433.400
1575	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	6.000	6.000
1580	614.2620	MGS GUARDRAIL TERMINAL TYPE 2	EACH	7.000	7.000
1585	616.0205	FENCE CHAIN LINK 5-FT	LF	475.000	475.000
1590	616.0700.S	FENCE SAFETY	LF	2,700.000	2,700.000
1595	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 0001. 1300-13-70	EACH	1.000	1.000
1600	619.1000	MOBILIZATION	EACH	1.000	1.000
1605	620.0300	CONCRETE MEDIAN SLOPED NOSE	SF	456.000	456.000
1610	623.0200	DUST CONTROL SURFACE TREATMENT	SY	15,000.000	15,000.000
1615	624.0100	WATER	MGAL	100.000	100.000
1620	625.0100	TOPSOIL **P**	SY	11,000.000	11,000.000
1625	627.0200	MULCHING **P**	SY	11,000.000	11,000.000
1630	628.1104	EROSION BALES	EACH	30.000	30.000
1635	628.1504	SILT FENCE	LF	2,451.000	2,451.000
1640	628.1520	SILT FENCE MAINTENANCE	LF	2,451.000	2,451.000
1645	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	6.000	6.000
1650	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	12.000	12.000
1655	628.2002	EROSION MAT CLASS I TYPE A	SY	4,198.000	4,198.000
1660	628.2004	EROSION MAT CLASS I TYPE B	SY	8,418.000	8,418.000
1665	628.6005	TURBIDITY BARRIERS	SY	270.000	270.000
1670	628.7005	INLET PROTECTION TYPE A	EACH	22.000	22.000
1675	628.7010	INLET PROTECTION TYPE B	EACH	12.000	12.000
1680	628.7015	INLET PROTECTION TYPE C	EACH	107.000	107.000
1685	628.7555	CULVERT PIPE CHECKS	EACH	2.000	2.000
1690	628.7560	TRACKING PADS	EACH	1.000	1.000
1695	628.7570	ROCK BAGS	EACH	80.000	80.000
1700	629.0205	FERTILIZER TYPE A	CWT	7.000	7.000
1705	630.0175	SEEDING MIXTURE NO. 75	LB	70.000	70.000
1710	631.0300	SOD WATER	MGAL	37.000	37.000
1715	631.1000	SOD LAWN	SY	1,650.000	1,650.000
1720	633.0500	DELINEATOR REFLECTORS	EACH	40.000	40.000
1725	633.1000	DELINEATOR BRACKETS	EACH	20.000	20.000
1730	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	162.000	162.000
1735	634.0622	POSTS WOOD 4X6-INCH X 22-FT	EACH	34.000	34.000
1740	634.0816	POSTS TUBULAR STEEL 2X2-INCH X 16-FT	EACH	34.000	34.000
1745	634.0885	POSTS TUBULAR STEEL 2X2-INCH X 8.5-FT	EACH	10.000	10.000
1750	637.0101	SIGNS TYPE I	SF	4,132.000	4,132.000
1755	637.0202	SIGNS REFLECTIVE TYPE II	SF	3,312.525	3,312.525
1760	637.0402	SIGNS REFLECTIVE FOLDING TYPE II	SF	110.000	110.000
1765	638.2101	MOVING SIGNS TYPE I	EACH	22.000	22.000
1770	638.2102	MOVING SIGNS TYPE II	EACH	113.000	113.000
1775	638.2601	REMOVING SIGNS TYPE I	EACH	55.000	55.000
1780	638.2602	REMOVING SIGNS TYPE II	EACH	364.000	364.000
1785	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	184.000	184.000
1790	641.5100	SIGN BRIDGE STRUCTURE MOUNTED (STRUCTURE) 3053. S-40-850	LS	1.000	1.000
1795	641.5100	SIGN BRIDGE STRUCTURE MOUNTED (STRUCTURE) 3054. S-40-851	LS	1.000	1.000
1800	641.5100	SIGN BRIDGE STRUCTURE MOUNTED (STRUCTURE) 3055. S-40-852	LS	1.000	1.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
1805	641.5100	SIGN BRIDGE STRUCTURE MOUNTED (STRUCTURE) 4090. S-40-853	LS	1.000	1.000
1810	641.5100	SIGN BRIDGE STRUCTURE MOUNTED (STRUCTURE) 4091. S-40-854	LS	1.000	1.000
1815	641.5100	SIGN BRIDGE STRUCTURE MOUNTED (STRUCTURE) 4092. S-40-855	LS	1.000	1.000
1820	641.5100	SIGN BRIDGE STRUCTURE MOUNTED (STRUCTURE) 5102. S-40-856	LS	1.000	1.000
1825	641.5100	SIGN BRIDGE STRUCTURE MOUNTED (STRUCTURE) 5103. S-40-857	LS	1.000	1.000
1830	641.5100	SIGN BRIDGE STRUCTURE MOUNTED (STRUCTURE) 5104. S-40-858	LS	1.000	1.000
1835	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 0001. 1300-13-70	DAY	777.000	777.000
1840	643.0300	TRAFFIC CONTROL DRUMS	DAY	125,272.000	125,272.000
1845	643.0410	TRAFFIC CONTROL BARRICADES TYPE II	DAY	514.000	514.000
1850	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	17,713.000	17,713.000
1855	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	33,338.000	33,338.000
1860	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	30,376.000	30,376.000
1865	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	2,292.000	2,292.000
1870	643.0900	TRAFFIC CONTROL SIGNS	DAY	103,690.000	103,690.000
1875	643.0910	TRAFFIC CONTROL COVERING SIGNS TYPE I	EACH	12.000	12.000
1880	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	26.000	26.000
1885	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	1,832.000	1,832.000
1890	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	1,030.000	1,030.000
1895	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 0001. 1300-13-70	EACH	1.000	1.000
1900	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	143,544.000	143,544.000
1905	645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A **P**	SY	660.000	660.000
1910	645.0140	GEOTEXTILE FABRIC TYPE SAS	SY	4,900.000	4,900.000
1915	646.0103	PAVEMENT MARKING PAINT 4-INCH **P**	LF	9,164.000	9,164.000
1920	646.0106	PAVEMENT MARKING EPOXY 4-INCH **P**	LF	260,151.000	260,151.000
1925	646.0123	PAVEMENT MARKING PAINT 8-INCH **P**	LF	3,572.000	3,572.000
1930	646.0126	PAVEMENT MARKING EPOXY 8-INCH **P**	LF	8,451.000	8,451.000
1935	646.0136	PAVEMENT MARKING EPOXY 12-INCH **P**	LF	1,047.000	1,047.000
1940	646.0600	REMOVING PAVEMENT MARKINGS **P**	LF	62,520.000	62,520.000
1945	646.0841.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH **P**	LF	65,885.000	65,885.000
1950	646.0843.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH **P**	LF	22,777.000	22,777.000
1955	646.0900.S	PAVEMENT MARKING LATE SEASON **P**	LF	46,350.000	46,350.000
1960	647.0153	PAVEMENT MARKING ARROWS PAINT TYPE 1 **P**	EACH	7.000	7.000
1965	647.0156	PAVEMENT MARKING ARROWS EPOXY TYPE 1 **P**	EACH	2.000	2.000
1970	647.0163	PAVEMENT MARKING ARROWS PAINT TYPE 2 **P**	EACH	23.000	23.000
1975	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2 **P**	EACH	24.000	24.000
1980	647.0173	PAVEMENT MARKING ARROWS PAINT TYPE 3 **P**	EACH	3.000	3.000
1985	647.0176	PAVEMENT MARKING ARROWS EPOXY TYPE 3 **P**	EACH	3.000	3.000
1990	647.0256	PAVEMENT MARKING SYMBOLS EPOXY **P**	EACH	27.000	27.000
1995	647.0353	PAVEMENT MARKING WORDS PAINT **P**	EACH	19.000	19.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
2000	647.0356	PAVEMENT MARKING WORDS EPOXY **P**	EACH	57.000	57.000
2005	647.0553	PAVEMENT MARKING STOP LINE PAINT 12-INCH **P**	LF	508.000	508.000
2010	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH **P**	LF	657.000	657.000
2015	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY **P**	EACH	3.000	3.000
2020	647.0656	PAVEMENT MARKING PARKING STALL EPOXY **P**	LF	26,748.000	26,748.000
2025	647.0706	PAVEMENT MARKING DIAGONAL EPOXY 6-INCH **P**	LF	38.000	38.000
2030	647.0713	PAVEMENT MARKING DIAGONAL PAINT 8-INCH **P**	LF	310.000	310.000
2035	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH **P**	LF	7,026.000	7,026.000
2040	647.0746	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH **P**	LF	3,300.000	3,300.000
2045	647.0763	PAVEMENT MARKING CROSSWALK PAINT 6-INCH **P**	LF	412.000	412.000
2050	647.0766	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH **P**	LF	1,061.000	1,061.000
2055	647.0955	REMOVING PAVEMENT MARKINGS ARROWS **P**	EACH	52.000	52.000
2060	647.0965	REMOVING PAVEMENT MARKINGS WORDS **P**	EACH	24.000	24.000
2065	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH **P**	LF	26,264.000	26,264.000
2070	649.0801	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH **P**	LF	1,199.000	1,199.000
2075	649.1000	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 12-INCH **P**	LF	9.000	9.000
2080	649.1800	TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE **P**	EACH	2.000	2.000
2085	649.2000	TEMPORARY PAVEMENT MARKING WORDS REMOVABLE TAPE **P**	EACH	1.000	1.000
2090	652.0125	CONDUIT RIGID METALLIC 2-INCH **P**	LF	1,518.000	1,518.000
2095	652.0210	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1-INCH **P**	LF	82.000	82.000
2100	652.0215	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH **P**	LF	1,640.000	1,640.000
2105	652.0220	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/2-INCH	LF	20.000	20.000
2110	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH **P**	LF	66,905.000	66,905.000
2115	652.0230	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 1/2-INCH **P**	LF	1,646.000	1,646.000
2120	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	2,559.000	2,559.000
2125	652.0405	CONDUIT REINFORCED THERMOSETTING RESIN 2-INCH	LF	2,249.000	2,249.000
2130	652.0605	CONDUIT SPECIAL 2-INCH	LF	2,128.000	2,128.000
2135	652.0615	CONDUIT SPECIAL 3-INCH	LF	1,520.000	1,520.000
2140	652.0700.S	INSTALL CONDUIT INTO EXISTING ITEM	EACH	5.000	5.000
2145	653.0135	PULL BOXES STEEL 24X36-INCH	EACH	41.000	41.000
2150	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	7.000	7.000
2155	653.0208	JUNCTION BOXES 8X8X8-INCH **P**	EACH	5.000	5.000
2160	653.0222	JUNCTION BOXES 18X12X6-INCH **P**	EACH	31.000	31.000
2165	653.0900	ADJUSTING PULL BOXES	EACH	1.000	1.000
2170	653.0905	REMOVING PULL BOXES	EACH	15.000	15.000
2175	654.0105	CONCRETE BASES TYPE 5	EACH	10.000	10.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
2180	654.0107	CONCRETE BASES TYPE 7	EACH	7.000	7.000
2185	654.0110	CONCRETE BASES TYPE 10	EACH	4.000	4.000
2190	654.0220	CONCRETE CONTROL CABINET BASES TYPE 10	EACH	12.000	12.000
2195	655.0144	CABLE IN DUCT 4-4 AWG	LF	420.000	420.000
2200	655.0320	CABLE TYPE UF 2-10 AWG GROUNDED	LF	550.000	550.000
2205	655.0505	ELECTRICAL WIRE TRAFFIC SIGNALS 14 AWG	LF	2,300.000	2,300.000
2210	655.0610	ELECTRICAL WIRE LIGHTING 12 AWG	LF	14,955.000	14,955.000
2215	655.0615	ELECTRICAL WIRE LIGHTING 10 AWG	LF	21,289.000	21,289.000
2220	655.0625	ELECTRICAL WIRE LIGHTING 6 AWG	LF	38,165.000	38,165.000
2225	655.0630	ELECTRICAL WIRE LIGHTING 4 AWG	LF	56,638.000	56,638.000
2230	655.0640	ELECTRICAL WIRE LIGHTING 1 AWG	LF	2,450.000	2,450.000
2235	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0001. HL-40-LN	LS	1.000	1.000
2240	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0002. HL-40-HB	LS	1.000	1.000
2245	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0003. HL-40-DW	LS	1.000	1.000
2250	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0004. HL-40-JK	LS	1.000	1.000
2255	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0005. CY	LS	1.000	1.000
2260	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0006. MM	LS	1.000	1.000
2265	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0007. CPS	LS	1.000	1.000
2270	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0008. VBM	LS	1.000	1.000
2275	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0009. MB0162	LS	1.000	1.000
2280	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0010. ATR 40-0031	LS	1.000	1.000
2285	656.0500	ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 1001. CCTV-40-0162	LS	1.000	1.000
2290	656.0500	ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 1002. SDS-40-0200	LS	1.000	1.000
2295	657.0100	PEDESTAL BASES	EACH	8.000	8.000
2300	657.0210	TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE	EACH	7.000	7.000
2305	657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	EACH	10.000	10.000
2310	657.0322	POLES TYPE 5-ALUMINUM	EACH	2.000	2.000
2315	657.0330	POLES TYPE 7	EACH	75.000	75.000
2320	657.0425	TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT	EACH	8.000	8.000
2325	657.0625	LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 6-FT	EACH	113.000	113.000
2330	657.0725	LUMINAIRE ARMS TRUSS TYPE 6-INCH CLAMP 15-FT	EACH	7.000	7.000
2335	657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES **P**	EACH	70.000	70.000
2340	659.0125	LUMINAIRES UTILITY HPS 250 WATTS	EACH	7.000	7.000
2345	659.0400	LUMINAIRES HIGH MAST LIGHTING	EACH	12.000	12.000
2350	659.0802	PLAQUES SEQUENCE IDENTIFICATION	EACH	62.000	62.000
2355	660.0200	HIGH MAST LIGHTING TOWER (LOCATION) 0001. HML-40-025	LS	1.000	1.000
2360	660.0200	HIGH MAST LIGHTING TOWER (LOCATION) 0002. HML-40-024	LS	1.000	1.000

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
2365	670.0100	FIELD SYSTEM INTEGRATOR	LS	1.000	1.000
2370	670.0200	ITS DOCUMENTATION	LS	1.000	1.000
2375	672.0100	BASE ITS CONTROLLER CABINET	EACH	2.000	2.000
2380	673.0105	COMMUNICATION VAULT TYPE 1	EACH	10.000	10.000
2385	673.0200.S	INSTALL ITS FIELD CABINET	EACH	2.000	2.000
2390	674.0200	CABLE MICROWAVE DETECTOR	LF	2,010.000	2,010.000
2395	674.0300	REMOVE CABLE	LF	6,915.000	6,915.000
2400	675.0300	INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY	EACH	8.000	8.000
2405	675.0400.S	INSTALL ETHERNET SWITCH	EACH	4.000	4.000
2410	677.0100	INSTALL CAMERA POLE	EACH	1.000	1.000
2415	677.0200	INSTALL CAMERA ASSEMBLY	EACH	1.000	1.000
2420	677.0300.S	INSTALL VIDEO ENCODER	EACH	1.000	1.000
2425	678.0006	INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT	LF	470.000	470.000
2430	678.0072	INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT	LF	19,260.000	19,260.000
2435	678.0300	FIBER OPTIC SPLICE	EACH	162.000	162.000
2440	678.0400	FIBER OPTIC TERMINATION	EACH	162.000	162.000
2445	678.0500	COMMUNICATION SYSTEM TESTING	LS	1.000	1.000
2450	690.0150	SAWING ASPHALT	LF	4,650.000	4,650.000
2455	690.0250	SAWING CONCRETE	LF	4,005.000	4,005.000
2460	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	980.000	980.000
2465	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	350,980.000	350,980.000
2470	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5.00/HR	HRS	60,000.000	60,000.000
2475	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	50,000.000	50,000.000
2480	SPV.0035	SPECIAL 0001. HPC MASONRY STRUCTURES **P**	CY	48,603.000	48,603.000
2485	SPV.0035	SPECIAL 1002. SHES CONCRETE MASONRY DECK PATCHING	CY	75.000	75.000
2490	SPV.0035	SPECIAL 1003. BACKFILL SLURRY	CY	456.000	456.000
2495	SPV.0035	SPECIAL 5001. EXPANDED POLYSTYRENE (EPS) GEOFOAM	CY	11,100.000	11,100.000
2500	SPV.0045	SPECIAL 1001. TRUCK MOUNTED ATTENUATOR	DAY	43.000	43.000
2505	SPV.0045	SPECIAL 1002. PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) CELLULAR COMMUNICATIONS	DAY	1,030.000	1,030.000
2510	SPV.0055	SPECIAL 1001. LANE RENTAL ASSESSMENT	DOL	1.000	1.000
2515	SPV.0060	SPECIAL 0001. FLOOR DRAIN SPECIAL **P**	EACH	258.000	258.000
2520	SPV.0060	SPECIAL 0005. THRIE BEAM TEMPORARY CONNECTION **P**	EACH	41.000	41.000
2525	SPV.0060	SPECIAL 0006. ANCHOR ASSEMBLIES SIGN BRIDGE ON STRUCTURES **P**	EACH	28.000	28.000
2530	SPV.0060	SPECIAL 0007. JUNCTION BOXES 18X12X6-INCH SPECIAL	EACH	155.000	155.000
2535	SPV.0060	SPECIAL 1020. LUMINAIRES UTILITY LED CATEGORY B	EACH	125.000	125.000
2540	SPV.0060	SPECIAL 1021. LAMP DISPOSAL HIGH INTENSITY DISCHARGE	EACH	199.000	199.000
2545	SPV.0060	SPECIAL 1023. REMOVING LIGHTING UNITS NO SALVAGE	EACH	62.000	62.000
2550	SPV.0060	SPECIAL 1024. REMOVING DISTRIBUTION CENTERS FOR STOCKPILE	EACH	5.000	5.000
2555	SPV.0060	SPECIAL 1026. REMOVING UNDERDECK LIGHTING	EACH	8.000	8.000

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
2560	SPV.0060	SPECIAL 1027. REMOVING HIGH MAST TOWER	EACH	2.000	2.000
2565	SPV.0060	SPECIAL 1029. REMOVING CONCRETE FOUNDATION HIGH MAST TOWER	EACH	2.000	2.000
2570	SPV.0060	SPECIAL 1030. LATERAL MOVEMENT OF MOVEABLE CONCRETE BARRIER	EACH	980.000	980.000
2575	SPV.0060	SPECIAL 1038. TEMPORARY WOOD POLE LIGHTING UNIT TWIN FLOODLIGHTS	EACH	1.000	1.000
2580	SPV.0060	SPECIAL 1039. TEMPORARY LUMINAIRES FLOODLIGHTS HPS 250 WATTS	EACH	11.000	11.000
2585	SPV.0060	SPECIAL 1040. TEMPORARY BRIDGE MOUNTED LIGHTING UNITS 20-FT	EACH	97.000	97.000
2590	SPV.0060	SPECIAL 1041. TEMPORARY BRIDGE MOUNTED POLE FOUNDATIONS	EACH	97.000	97.000
2595	SPV.0060	SPECIAL 1042.LIGHTING CONTROL CABINET 240/480 VAC	EACH	3.000	3.000
2600	SPV.0060	SPECIAL 1043. REMOVING AND RE-INSTALLING LIGHTING UNITS	EACH	3.000	3.000
2605	SPV.0060	SPECIAL 1050. BARRICADE RACK	EACH	1.000	1.000
2610	SPV.0060	SPECIAL 1051. RAMP CLOSURE GATES SOLAR POWERED 24-FT	EACH	1.000	1.000
2615	SPV.0060	SPECIAL 1052. RAMP CLOSURE GATES SOLAR POWERED 30-FT	EACH	1.000	1.000
2620	SPV.0060	SPECIAL 1053. RAMP CLOSURE GATES SOLAR POWERED 37-FT	EACH	4.000	4.000
2625	SPV.0060	SPECIAL 1054. RAMP CLOSURE GATES SOLAR POWERED 40-FT	EACH	2.000	2.000
2630	SPV.0060	SPECIAL 1055. RAMP CLOSURE GATE ARMS STOCKPILE 24-FT	EACH	1.000	1.000
2635	SPV.0060	SPECIAL 1056. RAMP CLOSURE GATE ARMS STOCKPILE 30-FT	EACH	1.000	1.000
2640	SPV.0060	SPECIAL 1057. RAMP CLOSURE GATE ARMS STOCKPILE 37-FT	EACH	1.000	1.000
2645	SPV.0060	SPECIAL 1058. RAMP CLOSURE GATE ARMS STOCKPILE 40-FT	EACH	1.000	1.000
2650	SPV.0060	SPECIAL 1059. RAMP CLOSURE GATE FLASHERS STOCKPILE	EACH	1.000	1.000
2655	SPV.0060	SPECIAL 1060. 25'X8'X8' STORMWATER QUALITY VAULT	EACH	1.000	1.000
2660	SPV.0060	SPECIAL 1061. REMOVING EXISTING DOWNSPOUT	EACH	114.000	114.000
2665	SPV.0060	SPECIAL 1063. DOWNSPOUT 8-INCH SPECIAL	EACH	108.000	108.000
2670	SPV.0060	SPECIAL 1064. CONNECTION OF OUTFALL F AT SHEET PILE DOCK WALL	EACH	1.000	1.000
2675	SPV.0060	SPECIAL 1065. CONNECTION OF MILWAUKEE RIVER OUTFALL AT CONCRETE DOCK WALL	EACH	1.000	1.000
2680	SPV.0060	SPECIAL 1068. ADJUSTING WATER BOXES	EACH	13.000	13.000
2685	SPV.0060	SPECIAL 1069. WATER MAIN PROTECTION	EACH	1.000	1.000
2690	SPV.0060	SPECIAL 1070. CONCRETE WHEEL STOP	EACH	336.000	336.000
2695	SPV.0060	SPECIAL 1071. JUNCTION BOXES 18X12X6-INCH STAINLESS STEEL	EACH	94.000	94.000
2700	SPV.0060	SPECIAL 1073. LUMINAIRES UNDERSTRUCTURE PARKING LOT LIGHTING	EACH	58.000	58.000
2705	SPV.0060	SPECIAL 1075. TEMPORARY WOOD POLE LIGHTING UNITS	EACH	3.000	3.000
2710	SPV.0060	SPECIAL 1077. CATCH BASINS 4-FT DIAMETER MODIFIED	EACH	107.000	107.000
2715	SPV.0060	SPECIAL 1078. DYNAMIC SPEED DISPLAY SIGN	EACH	3.000	3.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
2720	SPV.0060	SPECIAL 1079. MOVING DYNAMIC SPEED DISPLAY SIGN	EACH	3.000	3.000
2725	SPV.0060	SPECIAL 1080. SOLAR FLASHING WARNING BEACON SYSTEM	EACH	4.000	4.000
2730	SPV.0060	SPECIAL 1081. MOVING CRASH CUSHIONS TEMPORARY	EACH	20.000	20.000
2735	SPV.0060	SPECIAL 1082. REPLACING HPS LUMINAIRES WITH LED	EACH	26.000	26.000
2740	SPV.0060	SPECIAL 1083. EXPOSING EXISTING UTILITY	EACH	19.000	19.000
2745	SPV.0060	SPECIAL 1086. TEMPORARY THRIE BEAM LIGHT BLISTER PROTECTION	EACH	43.000	43.000
2750	SPV.0060	SPECIAL 1087. FIXED MESSAGE SIGN PORTABLE SUPPORT	EACH	2.000	2.000
2755	SPV.0060	SPECIAL 1088. PERMANENT BARRICADES TYPE III	EACH	3.000	3.000
2760	SPV.0060	SPECIAL 1089. MOBILIZATIONS EMERGENCY PAVEMENT REPAIR	EACH	12.000	12.000
2765	SPV.0060	SPECIAL 1091. POLES TYPE 9	EACH	4.000	4.000
2770	SPV.0060	SPECIAL 1092. POLES TYPE 13 SPECIAL	EACH	1.000	1.000
2775	SPV.0060	SPECIAL 1093. MONOTUBE ARMS 25-FT	EACH	3.000	3.000
2780	SPV.0060	SPECIAL 1094. MONOTUBE ARMS 30-FT	EACH	1.000	1.000
2785	SPV.0060	SPECIAL 1095. MONOTUBE ARMS 40-FT	EACH	1.000	1.000
2790	SPV.0060	SPECIAL 1096. CONCRETE BASE TYPE 10 SPECIAL	EACH	1.000	1.000
2795	SPV.0060	SPECIAL 1097. RECTANGULAR POLYMER CONCRETE VAULT 17X30X18-INCH	EACH	29.000	29.000
2800	SPV.0060	SPECIAL 1098. INSTALL TRAFFIC SIGNAL BASE	EACH	19.000	19.000
2805	SPV.0060	SPECIAL 1100. RECTANGULAR POLYMER CONCRETE VAULT 13X24X18-INCH STREET LIGHTING	EACH	30.000	30.000
2810	SPV.0060	SPECIAL 1101. RECTANGULAR POLYMER CONCRETE VAULT 13X24X18-INCH ELECTRIC	EACH	8.000	8.000
2815	SPV.0060	SPECIAL 1102. GALVANIZED LUMINAIRE FLAT MOUNTING PLATE	EACH	3.000	3.000
2820	SPV.0060	SPECIAL 1103. JUNCTION BOX 4X4X4-INCH **P**	EACH	4.000	4.000
2825	SPV.0060	SPECIAL 1104. GALVANIZED LUMINAIRE L-STYLE MOUNTING PLATE 1/4-INCH	EACH	4.000	4.000
2830	SPV.0060	SPECIAL 1106. CONCRETE FOUNDATION FOR HARP POLE	EACH	2.000	2.000
2835	SPV.0060	SPECIAL 1107. ADJUSTING TES MANHOLE COVERS	EACH	6.000	6.000
2840	SPV.0060	SPECIAL 1108. PROTECTION OF UNDERSTRUCTURE PARKING LOT LUMINAIRES	EACH	19.000	19.000
2845	SPV.0060	SPECIAL 1109. LIGHTING CONTROL CABINET PEDESTAL MOUNT 120/240 VAC	EACH	4.000	4.000
2850	SPV.0060	SPECIAL 1110. MODIFY EXISTING LIGHTING CONTROLLER	EACH	1.000	1.000
2855	SPV.0060	SPECIAL 1111. BASELINE CPM PROGRESS SCHEDULE	EACH	1.000	1.000
2860	SPV.0060	SPECIAL 1112. CPM PROGRESS SCHEDULE UPDATES AND ACCEPTED REVISIONS	EACH	1.000	1.000
2865	SPV.0060	SPECIAL 1113. REMOVE POLE	EACH	4.000	4.000
2870	SPV.0060	SPECIAL 1114. REMOVE MICROWAVE DETECTOR	EACH	11.000	11.000
2875	SPV.0060	SPECIAL 1115. SALVAGE OVERHEAD VEHICLE SENSOR	EACH	8.000	8.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
2880	SPV.0060	SPECIAL 1116. REFOCUS VEHICLE DETECTOR ASSEMBLY	EACH	15.000	15.000
2885	SPV.0060	SPECIAL 1119. TRAFFIC CONTROL INTERIM FREEWAY LANE CLOSURE	EACH	352.000	352.000
2890	SPV.0060	SPECIAL 1120. TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP	EACH	134.000	134.000
2895	SPV.0060	SPECIAL 1121. TRAFFIC CONTROL LOCAL ROAD LANE CLOSURES	EACH	188.000	188.000
2900	SPV.0060	SPECIAL 1122. CONCRETE CONTROL CABINET BASE SPECIAL	EACH	4.000	4.000
2905	SPV.0060	SPECIAL 1123. JUNCTION BOXES 6X6X4-INCH STAINLESS STEEL	EACH	20.000	20.000
2910	SPV.0060	SPECIAL 1124. LUMINAIRES UNDERDECK LED	EACH	22.000	22.000
2915	SPV.0060	SPECIAL 1125. UNDERDECK LUMINAIRE MOUNTING ASSEMBLY	EACH	8.000	8.000
2920	SPV.0060	SPECIAL 1126. PAD MOUNTED STEPDOWN TRANSFORMER 120/240 VAC	EACH	1.000	1.000
2925	SPV.0060	SPECIAL 1127. LIGHTING CONTROL CABINET TIE GIRDERS 277/480 VAC	EACH	1.000	1.000
2930	SPV.0060	SPECIAL 1128. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 7	EACH	2.000	2.000
2935	SPV.0060	SPECIAL 1129. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 2	EACH	6.000	6.000
2940	SPV.0060	SPECIAL 1130. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 4	EACH	16.000	16.000
2945	SPV.0060	SPECIAL 1131. PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC	EACH	4.000	4.000
2950	SPV.0060	SPECIAL 1132. RAISED PAVEMENT MARKERS	EACH	16.000	16.000
2955	SPV.0060	SPECIAL 1133. INSTALLING POLES TYPE 5	EACH	1.000	1.000
2960	SPV.0060	SPECIAL 1134. INSTALLING POLE MOUNTED CABINET	EACH	1.000	1.000
2965	SPV.0060	SPECIAL 1135. INSTALLING CABINET HEATER AND THERMOSTAT	EACH	1.000	1.000
2970	SPV.0060	SPECIAL 1136. INSTALLING WAVETRONIX CLICK 200 MODULE	EACH	2.000	2.000
2975	SPV.0060	SPECIAL 1137. INSTALLING WAVETRONIX POWER MODULE	EACH	1.000	1.000
2980	SPV.0060	SPECIAL 1138. INSTALLING WAVETRONIX DETECTOR MODULE AND HD 125 CABLE	EACH	2.000	2.000
2985	SPV.0060	SPECIAL 1139. INSTALLING CELLULAR/NEXTEL/PCS DUAL BAND ANTENNA, 10 DB GAIN	EACH	2.000	2.000
2990	SPV.0060	SPECIAL 1140. EXPOSING EXISTING UTILITY 12 TO 30 FT DEPTH	EACH	2.000	2.000
2995	SPV.0060	SPECIAL 1141. MECHANICAL JOINT TAPPING SLEEVE 8-INCH X 12-INCH	EACH	1.000	1.000
3000	SPV.0060	SPECIAL 1142. RESILIENT WEDGE GATE VALVE 8-INCH	EACH	1.000	1.000
3005	SPV.0060	SPECIAL 1143. 8X8-INCH WYE	EACH	2.000	2.000
3010	SPV.0060	SPECIAL 1144. 8-INCH X 45 DEGREE BEND	EACH	3.000	3.000
3015	SPV.0060	SPECIAL 1145. 8-INCH CLEANOUT	EACH	1.000	1.000
3020	SPV.0060	SPECIAL 1146. CLEANING STORMWATER TREATMENT UNIT	EACH	1.000	1.000
3025	SPV.0060	SPECIAL 1147. CONTRACTOR INSTALLED BUSINESS SIGNS	EACH	20.000	20.000
3030	SPV.0060	SPECIAL 2004. BEARING REPAIR B-40-400	EACH	8.000	8.000
3035	SPV.0060	SPECIAL 2006. LONGITUDINAL STIFFENER HOLE DRILLING	EACH	573.000	573.000

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
3040	SPV.0060	SPECIAL 2007. ACCESS HATCH REHABILITATION	EACH	4.000	4.000
3045	SPV.0060	SPECIAL 2009. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-001A **P**	EACH	48.000	48.000
3050	SPV.0060	SPECIAL 2010. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-001B **P**	EACH	48.000	48.000
3055	SPV.0060	SPECIAL 3004. REPLACE BOTTOM FLANGE FIELD SPLICE	EACH	36.000	36.000
3060	SPV.0060	SPECIAL 3006. LOWER LATERAL SHELF PLATE CLIPPED CORNER REHABILITATION	EACH	25.000	25.000
3065	SPV.0060	SPECIAL 3007. REPAIR BROKEN CROSS-FRAME WELDS	EACH	157.000	157.000
3070	SPV.0060	SPECIAL 3008. REPLACE BOLTS	EACH	560.000	560.000
3075	SPV.0060	SPECIAL 3011. RAISED BEARING ANCHOR ROD REPAIR AT PIERS	EACH	19.000	19.000
3080	SPV.0060	SPECIAL 3013. TRANSVERSE STIFFENER, ADD	EACH	706.000	706.000
3085	SPV.0060	SPECIAL 3014. TRANSVERSE STIFFENER, REPAIR	EACH	167.000	167.000
3090	SPV.0060	SPECIAL 3016. JUNCTION BOXES 18X18X6-INCH **P**	EACH	1.000	1.000
3095	SPV.0060	SPECIAL 3018. REPAIR EXISTING FATIGUE CRACKS GIRDER/FLOOR BEAM/STRINGER UNITS	EACH	2.000	2.000
3100	SPV.0060	SPECIAL 3024. DRILL MOUSEHOLE	EACH	580.000	580.000
3105	SPV.0060	SPECIAL 3025. ANCHOR ASSEMBLIES CAMERA POLES ON STRUCTURES **P**	EACH	1.000	1.000
3110	SPV.0060	SPECIAL 3026. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-006B **P**	EACH	22.000	22.000
3115	SPV.0060	SPECIAL 3028. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-005A **P**	EACH	12.000	12.000
3120	SPV.0060	SPECIAL 3029. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0N4A **P**	EACH	11.000	11.000
3125	SPV.0060	SPECIAL 3030. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0N4B **P**	EACH	12.000	12.000
3130	SPV.0060	SPECIAL 3031. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0N3A **P**	EACH	3.000	3.000
3135	SPV.0060	SPECIAL 3032. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0N3B **P**	EACH	3.000	3.000
3140	SPV.0060	SPECIAL 3037. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S3A **P**	EACH	3.000	3.000
3145	SPV.0060	SPECIAL 3038. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S3B **P**	EACH	3.000	3.000
3150	SPV.0060	SPECIAL 3039. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S4A **P**	EACH	10.000	10.000
3155	SPV.0060	SPECIAL 3040. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S4B **P**	EACH	10.000	10.000
3160	SPV.0060	SPECIAL 3043. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S6A **P**	EACH	7.000	7.000
3165	SPV.0060	SPECIAL 3044. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S6B **P**	EACH	7.000	7.000
3170	SPV.0060	SPECIAL 3045. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S7A **P**	EACH	7.000	7.000
3175	SPV.0060	SPECIAL 3046. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S7B **P**	EACH	7.000	7.000
3180	SPV.0060	SPECIAL 3047. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-00S8-A **P**	EACH	7.000	7.000
3185	SPV.0060	SPECIAL 3048. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-00S8-B **P**	EACH	7.000	7.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
3190	SPV.0060	SPECIAL 3049. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-00S9-A **P**	EACH	7.000	7.000
3195	SPV.0060	SPECIAL 3050. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-00S9-B **P**	EACH	7.000	7.000
3200	SPV.0060	SPECIAL 3051. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S10-A **P**	EACH	14.000	14.000
3205	SPV.0060	SPECIAL 3052. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S10-B **P**	EACH	14.000	14.000
3210	SPV.0060	SPECIAL 3053. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S11-A **P**	EACH	7.000	7.000
3215	SPV.0060	SPECIAL 3054. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S11-B **P**	EACH	7.000	7.000
3220	SPV.0060	SPECIAL 3055. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S12-A **P**	EACH	7.000	7.000
3225	SPV.0060	SPECIAL 3056. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S12-B **P**	EACH	7.000	7.000
3230	SPV.0060	SPECIAL 3057. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S13-A **P**	EACH	7.000	7.000
3235	SPV.0060	SPECIAL 3058. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S13-B **P**	EACH	7.000	7.000
3240	SPV.0060	SPECIAL 3059. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S14-A **P**	EACH	7.000	7.000
3245	SPV.0060	SPECIAL 3060. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S14-B **P**	EACH	8.000	8.000
3250	SPV.0060	SPECIAL 3061. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S15-A **P**	EACH	7.000	7.000
3255	SPV.0060	SPECIAL 3062. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S15-B **P**	EACH	10.000	10.000
3260	SPV.0060	SPECIAL 3063. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S16-A **P**	EACH	8.000	8.000
3265	SPV.0060	SPECIAL 3065. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S17-A **P**	EACH	9.000	9.000
3270	SPV.0060	SPECIAL 3066. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S17-B **P**	EACH	7.000	7.000
3275	SPV.0060	SPECIAL 3067. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S18-A **P**	EACH	10.000	10.000
3280	SPV.0060	SPECIAL 3068. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S18-B **P**	EACH	7.000	7.000
3285	SPV.0060	SPECIAL 3069. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S19-A **P**	EACH	14.000	14.000
3290	SPV.0060	SPECIAL 3070. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S19-B **P**	EACH	14.000	14.000
3295	SPV.0060	SPECIAL 3072. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S21 **P**	EACH	3.000	3.000
3300	SPV.0060	SPECIAL 3073. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S22 **P**	EACH	3.000	3.000
3305	SPV.0060	SPECIAL 3074. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S23 **P**	EACH	7.000	7.000
3310	SPV.0060	SPECIAL 3075. BEARING ASSEMBLIES EXPANSION MODIFIED B-40-400-0S24 **P**	EACH	6.000	6.000
3315	SPV.0060	SPECIAL 3077. BEARING MAINTENANCE B-40-400-0S2A **P**	EACH	3.000	3.000
3320	SPV.0060	SPECIAL 4001. TEMPORARY SUPPORT - CONCRETE BOX GIRDER STRUCTURES	EACH	2.000	2.000
3325	SPV.0060	SPECIAL 4003. JOINT SEALANT PARAPET	EACH	784.000	784.000
3330	SPV.0060	SPECIAL 4004. FLOOR DRAIN GRATE STEEL **P**	EACH	59.000	59.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
3335	SPV.0060	SPECIAL 5001. PILE DYNAMIC ANALYZER (PDA) TESTING	EACH	42.000	42.000
3340	SPV.0060	SPECIAL 5002. PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH	42.000	42.000
3345	SPV.0060	SPECIAL 5004. 24-HOUR BASELINE VIBRATION MONITORING	EACH	12.000	12.000
3350	SPV.0060	SPECIAL 5005. DAILY VIBRATION MONITORING	EACH	7.000	7.000
3355	SPV.0075	SPECIAL 1002. SAFETY SPOTTER	HRS	720.000	720.000
3360	SPV.0075	SPECIAL 2001. TIE-GIRDER INTERSECTING ELECTROSLAG WELD RETROFITS	HRS	120.000	120.000
3365	SPV.0085	SPECIAL 0001. BAR STEEL REINFORCEMENT HS STAINLESS BRIDGES **P**	LB	10,805,034.000	10,805,034
3370	SPV.0085	SPECIAL 5001. POST-TENSIONING INTEGRAL PIER CAP **P**	LB	14,000.000	14,000.000
3375	SPV.0090	SPECIAL 0001. CRACK SEALING, 0 TO 6 FEET ABOVE GRADE	LF	2,188.000	2,188.000
3380	SPV.0090	SPECIAL 0002. CRACK SEALING, GREATER THAN 6 FEET ABOVE GRADE	LF	3,268.000	3,268.000
3385	SPV.0090	SPECIAL 0003. PARAPET REPAIR	LF	102.000	102.000
3390	SPV.0090	SPECIAL 1004. PAVEMENT MARKING STOP LINE GROOVED PREFORMED THERMOPLASTIC 18-INCH	LF	508.000	508.000
3395	SPV.0090	SPECIAL 1006. STORM SEWER PIPE PVC 8-INCH	LF	124.000	124.000
3400	SPV.0090	SPECIAL 1007. TEMPORARY CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	10,234.000	10,234.000
3405	SPV.0090	SPECIAL 1008. TEMPORARY CABLE IN DUCT 4-6 AWG	LF	832.000	832.000
3410	SPV.0090	SPECIAL 1009. TEMPORARY ELECTRICAL WIRE LIGHTING 4 AWG	LF	7,016.000	7,016.000
3415	SPV.0090	SPECIAL 1010. TEMPORARY OVERHEAD CABLE QUADRUPLEX 4 AWG	LF	936.000	936.000
3420	SPV.0090	SPECIAL 1011. TEMPORARY CONDUIT METALLIC 2-INCH	LF	670.000	670.000
3425	SPV.0090	SPECIAL 1013. REINFORCED THERMOSETTING RESIN PIPE, 8-INCH	LF	1,832.000	1,832.000
3430	SPV.0090	SPECIAL 1019. CONDUIT REINFORCED THERMOSETTING RESIN 1-INCH	LF	1,496.000	1,496.000
3435	SPV.0090	SPECIAL 1020. TEMPORARY ELECTRICAL WIRE LIGHTING 8 AWG	LF	59,200.000	59,200.000
3440	SPV.0090	SPECIAL 1021. DECORATIVE FENCE SPECIAL	LF	395.000	395.000
3445	SPV.0090	SPECIAL 1022. ORNAMENTAL PICKET FENCE 3-FT HT	LF	2,530.000	2,530.000
3450	SPV.0090	SPECIAL 1023. REMOVING PAVEMENT MARKINGS WATER BLASTING	LF	106,010.000	106,010.000
3455	SPV.0090	SPECIAL 1024. REMOVING AND SALVAGING FENCE	LF	268.000	268.000
3460	SPV.0090	SPECIAL 1025. RIVERWALK AND LANDSCAPING REMOVAL AND RESTORATION	LF	15.000	15.000
3465	SPV.0090	SPECIAL 1030. MOVEABLE CONCRETE BARRIER DELIVERED AND INITIAL INSTALLATION **P**	LF	13,450.000	13,450.000
3470	SPV.0090	SPECIAL 1031. MOVEABLE CONCRETE BARRIER FINAL REMOVAL **P**	LF	13,450.000	13,450.000
3475	SPV.0090	SPECIAL 1032. MOVEABLE CONCRETE BARRIER REINSTALLATION **P**	LF	14,150.000	14,150.000
3480	SPV.0090	SPECIAL 1034. CLEANING STORM SEWER PIPE	LF	3,305.000	3,305.000
3485	SPV.0090	SPECIAL 1035. MOUNTING CHANNEL HOT DIP GALVANIZED WITH ASSEMBLY HARDWARE	LF	650.000	650.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
3490	SPV.0090	SPECIAL 1037. PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH	LF	834.000	834.000
3495	SPV.0090	SPECIAL 1038. SAWING PAVEMENT DECK PREPARATION AREAS	LF	11,500.000	11,500.000
3500	SPV.0090	SPECIAL 1040. RETAINING WALL AND LANDSCAPING REMOVAL AND INSTALLATION	LF	12.000	12.000
3505	SPV.0090	SPECIAL 1041. DUCTILE IRON PIPE 8-INCH	LF	125.000	125.000
3510	SPV.0090	SPECIAL 1042. PVC SANITARY 8-INCH	LF	42.000	42.000
3515	SPV.0090	SPECIAL 2001. SUSPENDER CABLE CLEANING AND SPOT COATING, 2 1/4-INCH **P**	LF	3,004.000	3,004.000
3520	SPV.0090	SPECIAL 2002. INSPECTION CATWALK **P**	LF	1,356.000	1,356.000
3525	SPV.0090	SPECIAL 4001. CLEANING PARAPETS REFACING	LF	5,020.000	5,020.000
3530	SPV.0090	SPECIAL 4002. PARAPET REPLACEMENT	LF	251.000	251.000
3535	SPV.0105	SPECIAL 0001. REMOVING OLD STRUCTURES PROJECT 1300-13-70	LS	1.000	1.000
3540	SPV.0105	SPECIAL 0002. ABATEMENT OF ASBESTOS CONTAINING MATERIAL PROJECT 1300-13-70	LS	1.000	1.000
3545	SPV.0105	SPECIAL 0003. DEBRIS CONTAINMENT PROJECT 1300-13-70	LS	1.000	1.000
3550	SPV.0105	SPECIAL 0004. PREPARATION AND COATING OF TOP FLANGES PROJECT 1300-13-70	LS	1.000	1.000
3555	SPV.0105	SPECIAL 0005. STRUCTURE REPAINTING RECYCLED ABRASIVE PROJECT 1300-13-70	LS	1.000	1.000
3560	SPV.0105	SPECIAL 0006. PAINTING WARRANTED PROJECT 1300-13-70	LS	1.000	1.000
3565	SPV.0105	SPECIAL 0007. NEG PRES CONTAINMENT AND COLLECTION OF WASTE MATL PRJ 1300-13-70	LS	1.000	1.000
3570	SPV.0105	SPECIAL 0008. PORTABLE DECONTAMINATION FACILITIES PROJECT 1300-13-70	LS	1.000	1.000
3575	SPV.0105	SPECIAL 0009. PREPARATION AND COATING OF STRUCTURAL STEEL PROJECT 1300-13-70	LS	1.000	1.000
3580	SPV.0105	SPECIAL 1007. LIGHTING SYSTEM INTEGRATOR	LS	1.000	1.000
3585	SPV.0105	SPECIAL 1009. REPLACING NAVIGATION LIGHTING SYSTEMS	LS	1.000	1.000
3590	SPV.0105	SPECIAL 1012. REMOVING ELECTRICAL AND LIGHTING SYSTEMS EAST TIE GIRDER	LS	1.000	1.000
3595	SPV.0105	SPECIAL 1013. REMOVING ELECTRICAL AND LIGHTING SYSTEMS WEST TIE GIRDER	LS	1.000	1.000
3600	SPV.0105	SPECIAL 1014. INSTALLATION OF ELECTRICAL AND LIGHTING SYSTEMS EAST TIE GIRDER	LS	1.000	1.000
3605	SPV.0105	SPECIAL 1015. INSTALLATION OF ELECTRICAL AND LIGHTING SYSTEMS WEST TIE GIRDER	LS	1.000	1.000
3610	SPV.0105	SPECIAL 1017. AESTHETIC LIGHTING SYSTEMS HOAN BRIDGE STEEL STRUCTURE	LS	1.000	1.000
3615	SPV.0105	SPECIAL 1019. MAINTENANCE OF LIGHTING SYSTEMS	LS	1.000	1.000
3620	SPV.0105	SPECIAL 1020. REMOVING UNDERSTRUCTURE PARKING LOT LIGHTING SYSTEMS	LS	1.000	1.000
3625	SPV.0105	SPECIAL 1021. DYNAMIC CURVE WARNING SYSTEM	LS	1.000	1.000
3630	SPV.0105	SPECIAL 1022. DYNAMIC WRONG WAY SYSTEM	LS	1.000	1.000
3635	SPV.0105	SPECIAL 1024. CURED IN PLACE PIPE LINING- OUTFALL E	LS	1.000	1.000
3640	SPV.0105	SPECIAL 1025. REPLACING STORMWATER FILTRATION UNIT CARTRIDGES	LS	1.000	1.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
3645	SPV.0105	SPECIAL 1026. REPLACING STORMWATER FILTRATION UNIT DOORS	LS	1.000	1.000
3650	SPV.0105	SPECIAL 1027. CONSTRUCTION DEWATERING	LS	1.000	1.000
3655	SPV.0105	SPECIAL 1033. SURVEY PROJECT 1300-13-70	LS	1.000	1.000
3660	SPV.0105	SPECIAL 1034. PAVEMENT CLEANUP PROJECT 1300-13-70	LS	1.000	1.000
3665	SPV.0105	SPECIAL 1035. CONCRETE PAVEMENT JOINT LAYOUT	LS	1.000	1.000
3670	SPV.0105	SPECIAL 1036. REMOVING SECURITY GATES AT THE PUBLIC MARKET	LS	1.000	1.000
3675	SPV.0105	SPECIAL 1037. FIELD OFFICE FIXED	LS	1.000	1.000
3680	SPV.0105	SPECIAL 1038. PROPOSED STORM SEWER CONCRETE SUPPORT ABOVE EXISTING MIS	LS	1.000	1.000
3685	SPV.0105	SPECIAL 1039. MAINTENANCE OF NAVIGATION LIGHTING SYSTEMS	LS	1.000	1.000
3690	SPV.0105	SPECIAL 1040. TEMPORARY OVERHEAD SIGN SUPPORT STA 169+50 SB	LS	1.000	1.000
3695	SPV.0105	SPECIAL 1041. TEMPORARY OVERHEAD SIGN SUPPORT STA 97+50 IE	LS	1.000	1.000
3700	SPV.0105	SPECIAL 1042. MAINTENANCE OF PARKING GATES AT THE PUBLIC MARKET	LS	1.000	1.000
3705	SPV.0105	SPECIAL 1043. RELOCATION OF PARKING PAY STATION AT MILWAUKEE-BROADWAY PARKING LOT	LS	1.000	1.000
3710	SPV.0105	SPECIAL 2007. FLOORBEAM END CONNECTION RETROFIT	LS	1.000	1.000
3715	SPV.0105	SPECIAL 3039. REMOVE AND REPLACE EXISTING SIGN BRIDGE STRUCTURE MOUNTED S-40-330	LS	1.000	1.000
3720	SPV.0105	SPECIAL 3040. REMOVE AND REPLACE EXISTING SIGN BRIDGE STRUCTURE MOUNTED S-40-331	LS	1.000	1.000
3725	SPV.0105	SPECIAL 3041. EXPANSION DEVICE MODIFIED B-40-400-006B	LS	1.000	1.000
3730	SPV.0105	SPECIAL 3043. REPLACE SHIPLAPS JOINT 6A NORTHBOUND	LS	1.000	1.000
3735	SPV.0105	SPECIAL 3044. REPLACE SHIPLAPS JOINT 11N SOUTHBOUND	LS	1.000	1.000
3740	SPV.0105	SPECIAL 3045. REPLACE SHIPLAPS JOINT 11S NORTHBOUND	LS	1.000	1.000
3745	SPV.0105	SPECIAL 3046. REPLACE SHIPLAPS JOINT 11S SOUTHBOUND	LS	1.000	1.000
3750	SPV.0105	SPECIAL 3047. REPLACE SHIPLAPS JOINT 17S NORTHBOUND	LS	1.000	1.000
3755	SPV.0105	SPECIAL 3048. REPLACE SHIPLAPS JOINT 17S SOUTHBOUND	LS	1.000	1.000
3760	SPV.0105	SPECIAL 3049. REPLACE SHIPLAPS JOINT 23S NORTHBOUND	LS	1.000	1.000
3765	SPV.0105	SPECIAL 3050. REPLACE SHIPLAPS JOINT 23S SOUTHBOUND	LS	1.000	1.000
3770	SPV.0105	SPECIAL 3051. REPLACE SHIPLAPS JOINT 26S NORTHBOUND	LS	1.000	1.000
3775	SPV.0105	SPECIAL 3052. REPLACE SHIPLAPS JOINT 26S SOUTHBOUND	LS	1.000	1.000
3780	SPV.0105	SPECIAL 3053. REPLACE SHIPLAPS JOINT 30S NORTHBOUND	LS	1.000	1.000
3785	SPV.0105	SPECIAL 3054. REPLACE SHIPLAPS JOINT 30S SOUTHBOUND	LS	1.000	1.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
3790	SPV.0105	SPECIAL 3055. REPLACE SHIPLAPS JOINT 33S NORTHBOUND	LS	1.000	1.000
3795	SPV.0105	SPECIAL 3056. REPLACE SHIPLAPS JOINT 33S SOUTHBOUND	LS	1.000	1.000
3800	SPV.0105	SPECIAL 3057. REPLACE SHIPLAPS JOINT 36S NORTHBOUND	LS	1.000	1.000
3805	SPV.0105	SPECIAL 3058. REPLACE SHIPLAPS JOINT 36S SOUTHBOUND	LS	1.000	1.000
3810	SPV.0105	SPECIAL 3059. REPLACE SHIPLAPS JOINT 42S SOUTHBOUND	LS	1.000	1.000
3815	SPV.0105	SPECIAL 3060. REPLACE SHIPLAPS JOINT 44S SOUTHBOUND	LS	1.000	1.000
3820	SPV.0105	SPECIAL 3061. REPLACE SHIPLAPS JOINT 53S NORTHBOUND	LS	1.000	1.000
3825	SPV.0105	SPECIAL 3062. REPLACE SHIPLAPS JOINT 62S SOUTHBOUND	LS	1.000	1.000
3830	SPV.0105	SPECIAL 3063. REPLACE SHIPLAPS JOINT 65S SOUTHBOUND	LS	1.000	1.000
3835	SPV.0105	SPECIAL 3064. REPLACE SHIPLAPS JOINT 11N NORTHBOUND	LS	1.000	1.000
3840	SPV.0105	SPECIAL 3065. TEMPORARY ASPHALTIC PLUG EXPANSION JOINT SYSTEM	LS	1.000	1.000
3845	SPV.0105	SPECIAL 4025. EXPANSION DEVICE MODIFIED B-40-400-005E	LS	1.000	1.000
3850	SPV.0105	SPECIAL 4030. EXPANSION DEVICE MODIFIED B-40-400-008A	LS	1.000	1.000
3855	SPV.0105	SPECIAL 4033. TEMPORARY STRUCTURE STATION 180+25 MODIFIED	LS	1.000	1.000
3860	SPV.0135	SPECIAL 1001. MOVEABLE CONCRETE BARRIER TRANSFER AND TRANSPORT VEHICLE	MON	24.000	24.000
3865	SPV.0165	SPECIAL 0001. LONGITUDINAL GROOVING BRIDGE DECK **P**	SF	1,321,294.000	1,321,294.000
3870	SPV.0165	SPECIAL 0003. CONCRETE SURFACE REPAIR, 0 TO 6 FEET ABOVE GRADE	SF	2,043.000	2,043.000
3875	SPV.0165	SPECIAL 0004. CONCRETE SURFACE REPAIR, GREATER THAN 6 FEET ABOVE GRADE	SF	1,151.000	1,151.000
3880	SPV.0165	SPECIAL 1001. BIO-FILTRATION BASINS, UNDER 400 SF	SF	536.000	536.000
3885	SPV.0165	SPECIAL 1004. TEMPORARY WALL	SF	3,924.000	3,924.000
3890	SPV.0165	SPECIAL 1005. COLORED STAMPED CONCRETE 5-INCH	SF	1,860.000	1,860.000
3895	SPV.0165	SPECIAL 1006. SIGNS TYPE 1 TEMPORARY	SF	1,846.000	1,846.000
3900	SPV.0165	SPECIAL 1007. BIO-FILTRATION BASINS, OVER 400 SF	SF	557.000	557.000
3905	SPV.0165	SPECIAL 3001. RUST PIT REPAIR	SF	324.000	324.000
3910	SPV.0165	SPECIAL 4001. CONCRETE SURFACE CLEANING	SF	3,132.000	3,132.000
3915	SPV.0165	SPECIAL 5001. PRESTRESSED PRECAST CONCRETE WALL PANEL **P**	SF	20,203.000	20,203.000
3920	SPV.0165	SPECIAL 5002. CONCRETE STAINING B-40-885 SPECIAL **P**	SF	18,671.000	18,671.000
3925	SPV.0165	SPECIAL 5003. CONCRETE STAINING B-40-886 SPECIAL **P**	SF	5,649.000	5,649.000
3930	SPV.0165	SPECIAL 5004. CONCRETE STAINING B-40-887 SPECIAL **P**	SF	26,251.000	26,251.000
3935	SPV.0165	SPECIAL 5005. CONCRETE STAINING B-40-888 SPECIAL **P**	SF	2,138.000	2,138.000
3940	SPV.0165	SPECIAL 5006. CONCRETE STAINING B-40-1312 SPECIAL **P**	SF	4,998.000	4,998.000

3

DATE 01JUL13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1300-13-70 QUANTITY
3945	SPV.0165	SPECIAL 5007. CONCRETE STAINING B-40-1412 SPECIAL **P**	SF	133.000	133.000
3950	SPV.0165	SPECIAL 5008. CONCRETE STAINING R-40-582 SPECIAL **P**	SF	6,295.000	6,295.000
3955	SPV.0165	SPECIAL 5009. CONCRETE STAINING R-40-583 SPECIAL **P**	SF	7,271.000	7,271.000
3960	SPV.0165	SPECIAL 5010. CONCRETE STAINING R-40-584 SPECIAL **P**	SF	7,183.000	7,183.000
3965	SPV.0165	SPECIAL 5011. CONCRETE STAINING C-40-102 SPECIAL **P**	SF	256.000	256.000
3970	SPV.0180	SPECIAL 1001. GEOTEXTILE FABRIC LINER TYPE FF	SY	50.000	50.000
3975	SPV.0180	SPECIAL 1002. CONCRETE PAVEMENT REPAIR SPECIAL	SY	100.000	100.000
3980	SPV.0180	SPECIAL 3001. SLOPE PAVING REPAIR	SY	138.000	138.000
3985	SPV.0180	SPECIAL 4001. SEALER CONCRETE SHIPLAPS **P**	SY	3,059.000	3,059.000
3990	SPV.0195	SPECIAL 1001. ASPHALTIC PAVEMENT REPAIR SPECIAL	TON	50.000	50.000
3995	SPV.0195	SPECIAL 1002. COLD PATCH	TON	50.000	50.000
4000	SPV.0195	SPECIAL 1003. MANAGEMENT OF SOLID WASTE	TON	799.000	799.000

3

CLEARING AND GRUBBING

CATEGORY	STATION	TO	STATION	OFFSET	DIRECTION	LOCATION	201.0105 CLEARING STA	201.0120 CLEARING ID	201.0205 GRUBBING STA	201.0220 GRUBBING ID
HOAN BRIDGE										
PRE-STAGE 1										
1000	42+00 LF	-	47+00 LF	--	--	--	5	--	--	--
	32+50 SX	-	-- --	--	--	--	--	5	--	5
	32+85 SX	-	-- --	--	--	--	--	5	--	5
	33+10 SX	-	-- --	--	--	--	--	5	--	5
	22+45 NX	-	-- --	--	--	--	--	5	--	5
	22+75 NX	-	-- --	--	--	--	--	5	--	5
	23+20 NX	-	-- --	--	--	--	--	5	--	5
						SUBTOTAL HOAN BRIDGE	5	30	--	30
LAKE INTERCHANGE										
PRE-STAGE 2										
1000	356+00 LW	-	358+00 LW	--	--	--	2	--	2	--
	95+00 IE	-	98+00 IE	--	--	--	3	--	3	--
						SUBTOTAL LAKE INTERCHANGE	5	--	5	--
IH-794 EAST-WEST										
STAGE 2										
1000	303+00 --	-	-- --	35'	LT	MILWAUKEE ST	--	8	--	8
						SUBTOTAL IH 794 EAST-WEST	--	8	--	8
						PROJECT TOTAL	10	38	5	38

REMOVING CONCRETE SURFACE PARTIAL DEPTH

CATEGORY	STATION	TO	STATION	LOCATION	204.0109.S SF
IH 794 EAST-WEST					
STAGE 1					
1000	102+99	-	103+14	WATER STREET	1,100
	202+71	-	202+91	BROADWAY	650
	302+81	-	302+99	MILWAUKEE STREET	650
				PROJECT TOTAL	2,400

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	STATION	TO	STATION	204.0115 SY
HOAN BRIDGE				
STAGE 2				
1000	66+10.73 LF	-	61+60.73 LF	216
	60+77.77 LF	-	61+27.77 LF	239
			PROJECT TOTAL	455

REMOVING PAVEMENT

CATEGORY	STATION	TO	STATION	LOCATION	204.0100 SY
LAKE INTERCHANGE					
PRE-STAGE					
1000	14+20 JE	-	14+43 JE	RAMP JE	241
	179+65 LN	-	183+30 LN	RAMP LN	1,261
	181+80 LS	-	183+25 LS	RAMP LS	654
	356+35 LE	-	358+50 LE	RAMP LE	869
	356+12 LW	-	359+69 LW	RAMP LW	1,500
				SUBTOTAL PRE-STAGE	4,525
STAGE 2					
1000	177+87 LN	-	179+65 LN	RAMP LN	640
	354+61 LE	-	356+35 LE	RAMP LE	463
	188+50 LS	-	188+93 LS	LINCOLN MEMORIAL DRIVE	62
	188+70 LS	-	189+21 LS	LINCOLN MEMORIAL DRIVE	63
				SUBTOTAL STAGE 2	1,228
				SUBTOTAL LAKE INTERCHANGE	5,753
IH 794 EAST-WEST					
STAGE 1					
1000	102+99 --	-	103+14 --	WATER STREET	140
	202+71 --	-	202+91 --	BROADWAY	83
	302+81 --	-	302+99 --	MILWAUKEE STREET	83
	10+00 BE	-	11+00 BE	RAMP BE	530
	13+40 JE	-	14+10 JE	RAMP JE	470
				SUBTOTAL STAGE 1	1,306
STAGE 2					
	00+98 MW	-	02+38 MW	RAMP MW	470
	22+81 JW	-	25+24 JW	RAMP JW	1,150
	13+50 JE	-	18+01 JE	RAMP JE	2,100
	202+86 --	-	204+12 --	BROADWAY	21
				SUBTOTAL STAGE 2	3,741
				SUBTOTAL IH 794 EAST-WEST	5,047
				PROJECT TOTAL	10,800

REMOVING CURB

CATEGORY	FROM	TO	LOCATION	204.0130 LF
IH 794 EAST-WEST				
STAGE 1				
1000	WATER STREET	- BROADWAY	PARKING LOT	480
			PROJECT TOTAL	480

REMOVING ASPHALTIC SURFACE

CATEGORY	STATION		TO	STATION		DESCRIPTION	REMOVING ASPHALTIC SURFACE 204.0110 SY	REMOVING ASPHALTIC SURFACE MILLING 204.0125 TON
HOAN BRIDGE								
PRE-STAGE								
1000	202+52	LM	-	262+16	LM	S. LINCOLN MEMORIAL DRIVE	--	1,470
	61+91	LF	-	171+56	NB	IH 794 WB	--	800
	61+91	LF	-	171+56	NB	UNDISTRIBUTED	--	25
						SUBTOTAL PRE-STAGE	--	2,295
STAGE 1								
1000	99+98	LF	-	162+98	SB	CATCH BASINS	90	--
STAGE 2								
1000	99+98	LF	-	155+01	LF	CATCH BASINS	105	--
	38+10	LF	-	41+75	LF	STH 794	440	--
						SUBTOTAL STAGE 2	545	--
						SUBTOTAL HOAN BRIDGE	635	2,295
LAKE INTERCHAGNE								
PRE-STAGE								
1000	--	--	-	--	--	PARKING LOT TEMP STRUCTURE B-40-400-005E	2,450	--
	CLYBOURN STREET		-	ST. PAUL AVENUE		JACKSON STREET	95	--
	356+24	LE	-	357+02	LE	RAMP LE	65	--
	182+73	LN	-	183+21	LN	RAMP LN	50	--
						SUBTOTAL LAKE INTERCHANGE	2,660	--
IH 794 EAST-WEST								
STAGE 1								
1000	--	--	-	--	--	PARKING LOT WATER ST. - BROADWAY	2,440	--
	--	--	-	--	--	PARKING LOT BROADWAY - MILWAUKEE ST.	3,410	--
	--	--	-	--	--	PARKING LOT MILWAUKEE ST. - JACKSON ST.	3,970	--
						SUBTOTAL STAGE 1	9,820	--
STAGE 2								
1000	--	--	-	--	--	PARKING LOT WATER ST. - BROADWAY	3,170	--
	--	--	-	--	--	PARKING LOT BROADWAY - MILWAUKEE ST.	1,630	--
	--	--	-	--	--	PARKING LOT MILWAUKEE ST. - JACKSON ST.	3,275	--
	111+50	NI	-	112+75	NI	--	310	--
	98+31	--	-	101+96	--	WATER STREET	--	340
	198+56	--	-	200+95	--	BROADWAY	--	115
	200+95	--	-	202+40	--	BROADWAY	--	40
	299+18	--	-	302+97	--	MILWAUKEE STREET	--	110
						SUBTOTAL STAGE 2	8,385	605
						SUBTOTAL IH 794 EAST-WEST	18,205	605
						PROJECT TOTAL	21,500	2,900

REMOVING CURB & GUTTER

CATEGORY	STATION		TO	STATION		DIRECTION	LOCATION	204.0150 LF
HOAN BRIDGE								
PRE-STAGE								
1000	38+09	LF	-	41+75	LF	--	--	735
	20+38	NX	-	21+06	NX	RT	--	85
	24+42	NX	-	25+11	NX	RT	--	80
	33+58	SX	-	33+90	SX	LT	--	55
	31+42	SX	-	32+32	SX	LT	--	115
							SUBTOTAL PRE-STAGE	1,070
							SUBTOTAL HOAN BRIDGE	1,070
LAKE INTERCHANGE								
PRE-STAGE								
1000	92+92	IE	-	93+72	IE	RT	--	80
	179+06	LN	-	179+65	LN	LT	--	60
	359+11	LE	-	359+21	LE	RT	--	10
	188+59	LS	-	188+93	LS	RT	--	65
	189+30	LS	-	189+72	LS	LT	--	110
	189+60	LS	-	190+04	LS	RT	--	65
	402+65	--	-	402+88		LT	MICHIGAN ST	45
	51+44	JX	-	51+94	JX	LT	--	60
	53+55	JX	-	54+18	JX	RT	--	80
	59+75	MX	--	60+55	MX	RT/LT	--	65
	60+88	MX	--	61+40	MX	LT/RT	--	90
							SUBTOTAL PRE-STAGE	730
STAGE 2								
1000	188+40	LS	-	--	--	LT	--	20
	189+50	LS	-	--	--	LT	--	105
	189+60	LS	-	--	--	LT	--	20
	402+60	--	-	--	--	LT	MICHIGAN ST	70
	402+82	--	-	--	--	LT	MICHIGAN ST	10
	402+84	--	-	--	--	RT	MICHIGAN ST	20
							SUBTOTAL STAGE 2	245
							SUBTOTAL LAKE INTERCHANGE	975

REMOVING CURB & GUTTER CONTINUED

CATEGORY	STATION		TO	STATION	DIRECTION	LOCATION	204.0150 LF
IH 794 EAST-WEST							
STAGE 1							
1000	102+96	--	-	103+16	-- LT	WATER STREET	20
	102+80	--	-	103+41	-- RT	WATER STREET	65
	401+89	--	-	401+98	-- LT	ST PAUL AVENUE	60
	402+05	--	-	402+05	-- LT	ST PAUL AVENUE	35
						SUBTOTAL STAGE 1	180
STAGE 2							
1000	103+32	--	-	103+37	-- RT	WATER ST	120
	201+37	--	-	201+69	-- RT	BROADWAY	35
	202+69	--	-	204+09	-- RT	BROADWAY	155
	202+74	--	-	202+94	-- LT	BROADWAY	20
	204+44	--	-	204+36	-- LT	BROADWAY	20
	205+08	--	-	205+20	-- LT	BROADWAY	20
	205+06	--	-	205+20	-- RT	BROADWAY	25
	203+33	--	-	204+09	-- RT	BROADWAY	90
	204+57	--	-	204+64	-- RT	BROADWAY	180
	203+35	--	-	204+41	-- RT	BROADWAY	120
	301+66	--	-	302+27	-- RT	MILWAUKEE ST	65
	302+79	--	-	302+99	-- RT	MILWAUKEE ST	20
	301+97	--	-	303+41	-- LT	MILWAUKEE ST	115
	304+42	--	-	304+55	-- LT	MILWAUKEE ST	20
	305+02	--	-	305+16	-- LT	MILWAUKEE ST	25
	305+01	--	-	305+16	-- RT	MILWAUKEE ST	45
	303+55	--	-	304+02	-- RT	MILWAUKEE ST	125
	303+81	--	-	304+50	-- RT	MILWAUKEE ST	75
						SUBTOTAL STAGE 2	1,275
						SUBTOTAL IH 794 EAST-WEST	1,455
						PROJECT TOTAL	3,500

REMOVING CONCRETE BARRIER

CATEGORY	STATION		TO	STATION	DIRECTION		204.0157 LF
LAKE INTERCHANGE							
PRE-STAGE							
1000	356+35	LW	-	357+32	LW	LT	97
	356+12	LW	-	357+32	LW	RT	120
	355+20	LE	-	358+12	LE	LT	300
	181+80	LS	-	182+97	LS	RT	118
	182+17	LS	-	182+97	LS	LT	80
						SUBTOTAL PRE-STAGE	715
STAGE 2							
1000	354+61	LE	-	355+52	LE	RT	89
	356+12	LW	-	356+35	LW	LT	23
	181+80	LS	-	182+17	LS	RT	37
	177+87	LN	-	179+05	LN	RT	118
	177+87	LN	-	179+05	LN	LT	118
						SUBTOTAL STAGE 2	385
						PROJECT TOTAL	1,100

REMOVING CONCRETE SIDEWALK

CATEGORY	STATION		TO	STATION		DIRECTION	LOCATION	204.0155 SY
HOAN BRIDGE								
PRE-STAGE								
1000	38+09	LF	-	41+75	LF	--	--	184
							SUBTOTAL HOAN BRIDGE	184
LAKE INTERCHANGE								
PRE-STAGE								
1000	188+59	LS	-	188+89	LS	RT	--	17
	401+39	--	-	401+80	--	LT	MICHIGAN STREET	55
	189+63	LS	-	190+04	LS	RT	--	28
	401+32	--	-	401+45	--	LT	MICHIGAN STREET	22
							SUBTOTAL PRE-STAGE	122
STAGE 2								
1000	25+17	JW	-	--		LT	--	18
	24+00	JW	-	25+24	JW	RT	--	381
	13+54	JE	-	13+96	JE	RT	--	20
	14+05	JE	-	--	--	RT	--	122
	14+50	JE	-	--	--	RT	--	9
	402+83	--	-	403+01	--	LT	--	18
	402+60	--	-	402+57	--	LT	--	24
	188+70	LS	-	189+11	LS	RT	--	64
	402+93	--	-	403+06	--	RT	--	22
	188+53	LS	-	188+93	LS	LT	--	65
	188+38	LS	-	188+40	LS	LT	--	9
	401+58	--	-	401+93	--	LT	--	56
	14+50	JE	-	--	--	LT	--	18
							SUBTOTAL STAGE 2	826
							SUBTOTAL LAKE INTERCHANGE	948

REMOVING CONCRETE SIDEWALK

CATEGORY	STATION		TO	STATION		DIRECTION	LOCATION	204.0155 SY
IH 794 EAST-WEST								
PRE-STAGE								
1000	14+50	JE	-	--		LT	--	20
	1+43	MW	-	2+39	MW	LT	--	395
							SUBTOTAL PRE-STAGE	415
STAGE 1								
1000	102+14		-	103+16		LT	WATER STREET	101
	102+03		-	103+42		RT	WATER STREET	192
	--		-	--		--	WATER ST PARKING LOT	281
	202+44		-	203+20		LT	BROADWAY	68
	201+37		-	202+38		RT	BROADWAY	95
	202+69		-	203+05		RT	BROADWAY	34
	301+97		-	303+41		RT	MILWAUKEE STREET	121
	301+66		-	304+02		LT	MILWAUKEE STREET	505
	401+85		-	402+11		LT	ST PAUL AVENUE	43
	402+05		-	402+19		LT	ST PAUL AVENUE	11
							SUBTOTAL STAGE 1	1,451
STAGE 2								
1000	3+65	CL	-	4+40	CL	LT	--	28
	1+36	MW	-	--		RT	--	9
	1+23	MW	-	2+38	MW	LT	--	97
	103+16	--	-	104+05	--	LT	WATER STREET	88
	103+42	--	-	104+07	--	RT	WATER STREET	87
	203+05	--	-	203+09	--	RT	WATER STREET	240
	204+08	--	-	204+36	--	RT	WATER STREET	69
	204+36	--	-	204+57	--	LT	WATER STREET	26
	205+07	--	-	205+27	--	LT	WATER STREET	31
	205+06	--	-	205+20	--	RT	WATER STREET	16
	302+99	--	-	303+35	--	LT	WATER STREET	47
	303+81	--	-	304+42	--	RT	WATER STREET	141
	304+34	--	-	304+53	--	LT	WATER STREET	16
	305+02	--	-	305+16	--	LT	WATER STREET	16
	305+01	--	-	305+15	--	RT	WATER STREET	41
							SUBTOTAL STAGE 2	952
							SUBTOTAL IH 794 EAST-WEST	2,818
							PROJECT TOTAL	3,950

REMOVING GUARDRAIL

CATEGORY	STATION		TO	STATION		LOCATION	204.0165 LF
HOAN BRIDGE							
STAGE 2							
1000	60+89	LF	-	61+53	LF	--	75
	661+32	CN	-	662+11	CN	--	80
	661+40	CN	-	662+10	CN	--	70
	456+28	CW	-	456+97	CW	--	70
						SUBTOTAL HOAN BRIDGE	295
LAKE INTERCHANGE							
PRE-STAGE							
1000	51+47	JX	-	51+69	JX	--	25
STAGE 2							
1000	1+33	MW	-	2+32	MW	RT	100
						SUBTOTAL LAKE INTERCHANGE	125
IH 794 EAST-WEST							
STAGE 1							
1000	BROADWAY		-	JACKSON STREET		PARKING LOT	130
STAGE 2							
1000	BROADWAY		-	JACKSON STREET		PARKING LOT	500
						SUBTOTAL IH 794 EAST-WEST	630
						PROJECT TOTAL	1,050

REMOVING CONCRETE BASES

CATEGORY	STATION		LOCATION	204.0195* EACH
LAKE INTERCHANGE				
PRE-STAGE				
1000	+	LW	RAMP LW	6
	+	LE	RAMP LE	2
	+	LS	RAMP LS	1
	+	LN	RAMP LN	1
	+	JE	RAMP JE	1
			SUBTOTAL LAKE INTERCHANGE	11
IH 794 EAST-WEST				
STAGE 1				
1000	634+70	EB	--	4
STAGE 2				
1000	734+70	WB	--	12
			SUBTOTAL IH 794 EAST-WEST	16
			PROJECT TOTAL	27

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING FENCE

CATEGORY	STATION		TO	STATION		DIRECTION	LOCATION	204.0170 LF
HOAN BRIDGE								
PRE-STAGE								
1000	661+25	CN	-	661+75	CN	RT	--	50
STAGE 1								
1000	61+34	LF	-	61+61	LF	LT	--	45
STAGE 2								
1000	62+25	LF	-	62+48	LF	RT	--	55
	661+75	CN	-	662+37	CN	RT	--	135
							SUBTOTAL STAGE 2	190
							SUBTOTAL HOAN BRIDGE	285
LAKE INTERCHANGE								
PRE-STAGE								
1000	182+65	LN	-	--	--	LT	--	40
	182+13	LS	-	183+10	LS	LT	--	100
							SUBTOTAL LAKE INTERCHANGE	140
IH 794 EAST-WEST								
STAGE 1								
1000	BROADWAY		-	MILWAUKEE ST			PARKING LOT	760
	MILWAUKEE ST		-	JACKSON ST			PARKING LOT	1,390
							SUBTOTAL STAGE 1	2,150
STAGE 2								
1000	100+25	--	-	100+46	--	LT/RT	PEDESTRIAN TUNNEL	25
	100+25	--	-	100+46	--	RT	PEDESTRIAN TUNNEL	25
	100+70	--	-	101+50	--	RT	PEDESTRIAN TUNNEL	90
	100+70	--	-	101+94	--	RT	PEDESTRIAN TUNNEL	125
	101+99	--	-	102+23	--	RT	PEDESTRIAN TUNNEL	25
	102+72	--	-	103+87	--	LT/RT	PEDESTRIAN TUNNEL	120
	102+72	--	-	103+86	--	RT	PEDESTRIAN TUNNEL	115
							SUBTOTAL STAGE 2	525
							SUBTOTAL IH 794 EAST-WEST	2,675
							PROJECT TOTAL	3,100

REMOVING SECURITY GATES AT THE PUBLIC MARKET

CATEGORY	LOCATION	SPV.0105.1036 LS
IH 794 EAST-WEST		
STAGE 1		
1000	PUBLIC MARKET	1
	PROJECT TOTAL	

REMOVING MANHOLES

CATEGORY	STATION		OFFSET	LOCATION	204.0210 EACH
HOAN BRIDGE					
STAGE 1					
1000	94+25.79	SB	13.58	LT	1
				SUBTOTAL HOAN BRIDGE	1
IH 794 EAST-WEST					
STAGE 1					
1000	401+79.00	--	42.00	LT	1
	632+24.53	EB	56.60	LT	1
	632+99.72	EB	53.30	LT	1
	635+12.32	EB	70.00	LT	1
	636+12.67	EB	77.90	LT	1
	638+23.12	EB	74.20	LT	1
	638+81.17	EB	111.50	LT	1
	639+61.75	EB	116.50	LT	1
	642+14.29	EB	119.20	LT	1
	644+22.86	EB	111.87	LT	1
	645+71.58	EB	118.20	LT	1
	647+67.36	EB	135.10	LT	1
				SUBTOTAL IH 794 EAST-WEST	12
				PROJECT TOTAL	13

REMOVING AND SALVAGING FENCE

CATEGORY	LOCATION	SPV.0090.1024 LF
IH 794 EAST-WEST		
STAGE 1		
1000	WATER STREET-BROADWAY PARKING LOT	268
	PROJECT TOTAL	268

REMOVING CATCH BASINS

CATEGORY	STATION		OFFSET	LOCATION	204.0215 EACH
HOAN BRIDGE					
STAGE 1					
1000	67+59.22	LF	98.83	LT	1
	66+39.99	LF	29.61	LT	1
	70+28.29	LF	94.96	LT	1
	70+43.86	LF	35.52	LT	1
	71+46.06	LF	93.99	LT	1
	72+79.09	LF	87.56	LT	1
	74+27.15	LF	90.87	LT	1
	74+34.19	LF	31.78	LT	1
	75+28.00	LF	87.72	LT	1
	77+64.42	LF	66.93	LT	1
	79+00.04	LF	56.36	LT	1
	80+54.69	LF	21.91	LT	1
	81+69.84	LF	28.58	LT	1
	83+05.84	LF	28.00	LT	1
	84+58.69	LF	28.06	LT	1
	85+69.55	LF	27.05	LT	1
	86+99.32	LF	27.90	LT	1
	88+48.77	LF	27.97	LT	1
	89+59.62	LF	28.22	LT	1
	90+89.69	LF	27.05	LT	1
	92+38.39	LF	27.81	LT	1
	93+70.40	LF	27.34	LT	1
	94+79.76	LF	27.65	LT	1
	96+29.86	LF	32.36	LT	1
	97+59.33	LF	26.18	LT	1
	98+69.19	LF	28.02	LT	1
	99+98.07	LF	27.64	LT	1
	101+30.48	LF	27.93	LT	1
	102+59.06	LF	27.27	LT	1
	103+89.73	LF	27.87	LT	1
	105+40.94	LF	28.32	LT	1
	106+49.54	LF	36.35	LT	1
	107+82.80	LF	28.31	LT	1
	109+15.62	LF	29.35	LT	1
	110+35.76	LF	29.48	LT	1
	112+74.10	LF	28.32	LT	1
	114+03.87	LF	28.94	LT	1
	116+87.57	LF	28.20	LT	1
	117+90.58	LF	17.68	LT	1
	120+77.63	LF	17.53	LT	1
	148+28.74	LF	19.70	LT	1
	155+01.89	LF	18.73	LT	1
	162+98.14	LF	40.75	LT	1
				SUBTOTAL STAGE 1	43

REMOVING CATCH BASINS CONTINUED

CATEGORY	STATION		OFFSET	LOCATION	204.0215 EACH
HOAN BRIDGE					
STAGE 2					
1000	64+15.32	LF	18.08	RT	1
	64+43.86	LF	83.07	RT	1
	66+70.35	LF	18.82	RT	1
	66+85.84	LF	56.53	RT	1
	68+01.39	LF	16.75	RT	1
	70+58.25	LF	18.59	RT	1
	71+88.18	LF	19.12	RT	1
	74+42.29	LF	19.75	RT	1
	77+84.46	LF	22.61	RT	1
	79+00.81	LF	22.30	RT	1
	80+52.88	LF	27.83	RT	1
	81+71.20	LF	27.10	RT	1
	83+06.08	LF	26.23	RT	1
	84+58.24	LF	26.02	RT	1
	85+69.40	LF	27.75	RT	1
	86+99.52	LF	28.13	RT	1
	88+48.64	LF	27.87	RT	1
	89+60.46	LF	27.56	RT	1
	90+88.94	LF	26.29	RT	1
	92+38.07	LF	28.06	RT	1
	93+70.08	LF	28.34	RT	1
	94+79.27	LF	27.45	RT	1
	96+29.08	LF	28.24	RT	1
	97+60.00	LF	27.27	RT	1
	98+68.98	LF	28.34	RT	1
	99+98.48	LF	27.35	RT	1
	101+30.53	LF	27.06	RT	1
	102+59.95	LF	27.40	RT	1
	103+90.44	LF	26.25	RT	1
	105+38.76	LF	27.78	RT	1
	106+49.68	LF	27.42	RT	1
	107+87.73	LF	22.85	RT	1
	109+15.69	LF	27.23	RT	1
	110+35.64	LF	28.01	RT	1
	112+74.75	LF	27.33	RT	1
	114+03.92	LF	26.10	RT	1
	116+87.78	LF	24.14	RT	1
	117+90.24	LF	17.84	RT	1
	120+77.58	LF	16.26	RT	1
	125+46.70	LF	15.80	RT	1
	148+30.31	LF	21.39	RT	1
	152+88.83	LF	18.59	RT	1
	155+01.45	LF	17.80	RT	1
				SUBTOTAL STAGE 2	43
				PROJECT TOTAL	86

REMOVING INLETS

CATEGORY	STATION		OFFSET	LOCATION	204.0220 EACH
LAKE INTERCHANGE					
STAGE 2					
1000	42+47.00	IX	4.50	RT	1
	43+00.00	IX	4.00	RT	1
	53+56.00	JX	29.50	RT	1
				SUBTOTAL LAKE INTERCHANGE	3
IH 794 EAST-WEST					
STAGE 1					
1000	632+36.44	EB	41.14	LT	1
	632+68.56	EB	31.28	LT	1
	632+72.60	EB	4.84	LT	1
	639+25.33	EB	60.17	LT	1
	641+87.84	EB	23.64	LT	1
	644+58.31	EB	36.59	LT	1
	647+69.87	EB	100.65	LT	1
				SUBTOTAL STAGE 1	7
STAGE 2					
1000	632+78.00	EB	95.60	LT	1
	637+93.31	EB	228.30	LT	1
	638+36.30	EB	28.64	LT	1
	638+53.31	EB	235.30	LT	1
	641+43.60	EB	284.90	LT	1
	644+18.15	EB	205.20	LT	1
	644+48.32	EB	180.84	LT	1
	644+58.91	EB	120.58	LT	1
	646+44.51	EB	190.70	LT	1
	646+72.81	EB	225.00	LT	1
	646+80.25	EB	224.30	LT	1
	647+11.00	EB	178.80	LT	1
	60+68.00	MX	15.91	RT	1
				SUBTOTAL STAGE 2	13
				SUBTOTAL IH 794 EAST-WEST	20
				PROJECT TOTAL	23

REMOVING BUILDING (302+30)

CATEGORY	STATION	LOCATION	204.0230 LS
IH 794 EAST-WEST			
STAGE 1			
1000	302+30	MICHIGAN STREET	1
		PROJECT TOTAL	1

REMOVING STORM SEWER (6-INCH)

204.0245.1002

CATEGORY	STATION		OFFSET	DIRECTION	LF
HOAN BRIDGE					
STAGE 1					
1000	67+59.22	LF	98.83'	LT	7
	66+33.99	LF	29.61'	LT	6
	70+28.29	LF	94.96'	LT	6
	70+43.86	LF	35.52'	LT	5
	71+46.06	LF	93.99'	LT	7
	72+79.09	LF	87.56'	LT	9
	74+27.15	LF	90.87'	LT	5
	74+34.19	LF	31.78'	LT	7
	75+28.00	LF	87.72'	LT	5
	77+64.42	LF	66.93'	LT	7
	79+00.04	LF	56.36'	LT	7
	80+54.69	LF	21.91'	LT	7
	81+69.84	LF	28.58'	LT	7
	83+05.84	LF	28.00'	LT	7
	84+58.69	LF	28.06'	LT	6
	85+69.55	LF	27.05'	LT	7
	86+99.32	LF	27.90'	LT	8
	88+48.77	LF	27.97'	LT	6
	89+59.62	LF	28.22'	LT	7
	90+89.69	LF	27.05'	LT	7
	92+38.39	LF	27.81'	LT	5
	93+70.40	LF	27.34'	LT	8
	94+79.76	LF	27.65'	LT	9
	96+29.86	LF	32.36'	LT	8
	97+59.33	LF	26.18'	LT	7
	98+69.19	LF	28.02'	LT	8
	99+98.07	LF	27.64'	LT	8
	101+30.48	LF	27.93'	LT	7
	102+59.06	LF	27.27'	LT	9
	103+89.73	LF	27.87'	LT	8
	105+40.94	LF	28.32'	LT	8
	106+49.54	LF	36.35'	LT	10
	107+82.80	LF	28.31'	LT	8
	109+15.62	LF	29.35'	LT	8
	110+35.76	LF	29.48'	LT	8
	112+74.10	LF	28.32'	LT	10
	114+03.87	LF	28.94'	LT	8
	116+87.57	LF	28.20'	LT	8
	117+90.58	LF	17.68'	LT	6
	120+77.63	LF	17.53'	LT	8
				SUBTOTAL STAGE 1	292
STAGE 2					
1000	64+15.32	LF	18.08'	RT	9
	64+43.86	LF	83.07'	RT	9
	66+70.35	LF	18.82'	RT	4
	66+85.84	LF	56.53'	RT	4
	68+01.39	LF	16.75'	RT	7
	70+58.25	LF	18.59'	RT	5
				SUBTOTAL	38

REMOVING STORM SEWER (6-INCH) CONTINUED

204.0245.1002

CATEGORY	STATION		OFFSET	DIRECTION	LF
STAGE 2 CONTINUED					
1000	71+88.18	LF	19.12'	RT	6
	74+42.29	LF	19.75'	RT	7
	77+84.46	LF	22.61'	RT	7
	79+00.81	LF	22.30'	RT	6
	80+52.88	LF	27.83'	RT	5
	81+71.20	LF	27.10'	RT	6
	83+06.08	LF	26.23'	RT	7
	84+58.24	LF	26.02'	RT	7
	85+69.40	LF	27.75'	RT	7
	86+99.52	LF	28.13'	RT	7
	88+48.64	LF	27.87'	RT	7
	89+60.46	LF	27.56'	RT	6
	90+88.94	LF	26.29'	RT	10
	92+38.07	LF	28.06'	RT	5
	93+70.08	LF	28.34'	RT	8
	94+79.27	LF	27.45'	RT	8
	96+29.08	LF	28.24'	RT	7
	97+60.00	LF	27.27'	RT	7
	98+68.98	LF	28.34'	RT	8
	99+98.48	LF	27.35'	RT	8
	101+30.53	LF	27.06'	RT	7
	102+59.95	LF	27.40'	RT	9
	103+90.44	LF	26.25'	RT	8
	105+38.76	LF	27.78'	RT	7
	106+49.68	LF	27.42'	RT	11
	107+87.73	LF	22.85'	RT	6
	109+15.69	LF	27.23'	RT	8
	110+35.64	LF	28.01'	RT	8
	112+74.75	LF	27.33'	RT	7
	114+03.92	LF	26.10'	RT	8
	116+87.78	LF	24.14'	RT	8
	117+90.24	LF	17.84'	RT	7
	120+77.58	LF	16.26'	RT	8
	122+21.30	LF	11.24'	RT	6
	125+46.70	LF	15.80'	RT	8
				SUBTOTAL STAGE 2	293
				SUBTOTAL HOAN BRIDGE	585
LAKE INTERCHANGE					
STAGE 1					
1000	644+18.15	EB	205.2'	LT	39
				SUBTOTAL LAKE INTERCHANGE	39
IH 794 EAST-WEST					
STAGE 1					
1000	633+39.42	EB	128.73'	LT	12
	633+58.39	EB	21.60	RT	14
				SUBTOTAL IH 794 EAST-WEST	26
				PROJECT TOTAL	650

REMOVING STORM SEWER (8-INCH)

204.0245.1003

CATEGORY	STATION		TO	STATION	DIRECTION	LF
HOAN BRIDGE						
STAGE 1						
1000	148+28	LF	--	--	LT	11
	155+01	LF	--	--	LT	11
	162+98	LF	--	--	LT	7
					SUBTOTAL STAGE 1	29
STAGE 2						
1000	148+30	LF	--	--	LT	9
	152+88	LF	--	--	LT	11
	155+01	LF	--	--	LT	11
					SUBTOTAL STAGE 2	31
					SUBTOTAL HOAN BRIDGE	60
IH 794 EAST-WEST						
STAGE 2						
1000	646+44	EB	-	646+80 EB	LT	50
					SUBTOTAL IH 794 EAST-WEST	50
					PROJECT TOTAL	110

REMOVING STORM SEWER (10-INCH)

204.0245.1004

CATEGORY	STATION		TO	STATION	DIRECTION	LF
IH 794 EAST-WEST						
STAGE 2						
1000	638+53	EB	-	638+36 EB	LT	50
	638+36	EB	-	637+93 EB	LT	60
					PROJECT TOTAL	110

REMOVING STORM SEWER (12-INCH)

204.0245.1005

CATEGORY	STATION	TO	STATION	DIRECTION	LOCATION	LF
HOAN BRIDGE						
STAGE 2						
1000	63+05 LF	-	-- --	RT	--	25
	21+85 NX	-	21+90 NX	LT	--	42
	21+85 NX	-	21+90 NX	RT	--	15
					SUBTOTAL HOAN BRIDGE	82
LAKE INTERCHANGE						
STAGE 2						
1000	42+47 IX	-	42+58 IX	LT	--	16
	42+58 IX	-	43+19 IX	RT	--	36
	44+10 IX	-	44+21 IX	LT	--	33
	15+20 JE	-	15+82 JE	LT	--	58
	401+73 --	-	401+19 --	LT	MICHIGAN STREET	4
					SUBTOTAL LAKE INTERCHANGE	147
IH 794 EAST-WEST						
STAGE 1						
1000	632+24 EB	-	632+36 EB	LT	--	19
	636+00 EB	-	636+12 EB	LT	--	17
	638+81 EB	-	639+25 EB	LT	--	70
	642+14 EB	-	641+88 EB	LT	--	105
	644+58 EB	-	644+22 EB	LT	--	37
	647+67 EB	-	647+70 EB	LT	--	35
					SUBTOTAL STAGE 1	283
STAGE 2						
1000	632+78 EB	-	633+00 EB	LT	--	48
	641+44 EB	-	642+14 EB	LT	--	180
	642+16 EB	-	642+05 EB	LT	--	17
	646+73 EB	-	646+80 EB	LT	--	8
	646+80 EB	-	647+11 EB	LT	--	55
					SUBTOTAL STAGE 2	308
					SUBTOTAL IH 794 EAST-WEST	591
					PROJECT TOTAL	820

REMOVING STORM SEWER (36-INCH)

204.0245.1011

CATEGORY	STATION	TO	STATION	DIRECTION	LF
IH 794 EAST-WEST					
STAGE 1					
1000	644+23 EB	-	645+71 EB	LT	150
	645+71 EB	-	647+67 EB	LT	200
				PROJECT TOTAL	350

REMOVING STORM SEWER (42-INCH)

204.0245.1012

CATEGORY	STATION	TO	STATION	DIRECTION	LF
IH 794 EAST-WEST					
STAGE 1					
1000	632+13 EB	-	632+24 EB	LT	15
	632+24 EB	-	632+99 EB	LT	75
	632+99 EB	-	635+12 EB	LT	220
	635+12 EB	-	636+12 EB	LT	110
	636+12 EB	-	638+23 EB	LT	220
	638+23 EB	-	638+81 EB	LT	70
	638+81 EB	-	693+61 EB	LT	80
	693+61 EB	-	642+14 EB	LT	250
	642+14 EB	-	644+23 EB	LT	210
				PROJECT TOTAL	1,250

ABANDONING SEWER STA 638+53 TO STA 638+81 EB

204.0291.S.1001

CATEGORY	STATION	TO	STATION	DIRECTION	CY
IH 794 EAST-WEST					
STAGE 2					
1000	638+53 EB	-	638+81 EB	LT	4
				PROJECT TOTAL	4

ABANDONING SEWER STA 647+11 TO STA 647+67 EB

204.0291.S.1002

CATEGORY	STATION	TO	STATION	DIRECTION	CY
LAKE INTERCHANGE					
STAGE 2					
1000	647+11 EB	-	647+67 EB	--	2
				PROJECT TOTAL	2

ABANDONING SEWER STA 644+18 TO STA 644+58 EB

204.0291.S.1003

CATEGORY	STATION	TO	STATION	DIRECTION	CY
IH 794 EAST-WEST					
STAGE 1					
1000	644+23 EB	-	644+58 EB	LT	6
STAGE 2					
1000	644+18 EB	-	644+23 EB	LT	3
				PROJECT TOTAL	9

ABANDONING SEWER STA 94+26 LF

204.0291.S.1004

CATEGORY	STATION	TO	STATION	DIRECTION	CY
HOAN BRIDGE					
STAGE 2					
1000	94+26 LF	--	--	RT	3
				PROJECT TOTAL	3

REMOVING FRUIT STANDS

204.9060.S.1001

CATEGORY	STATION	EACH
IH 794 EAST-WEST		
STAGE 1		
1000	634+70.00 EB	1
STAGE 2		
1000	734+70.00 WB	5
	PROJECT TOTAL	6

REMOVING BOLLARDS

204.9060.S.1002

CATEGORY	STATION	OFFSET	LOCATION	EACH
IH 794 EAST-WEST				
STAGE 1				
1000	634+95 EB	73'	LT	2
	635+06 EB	73'	LT	2
	635+72 EB	26'	LT	2
	636+56 EB	2'	LT	7
	636+80 EB	80'	LT	2
	637+20 EB	41'	LT	1
	640+50 EB	55'	LT	2
	643+80 EB	57'	LT	2
			SUBTOTAL STAGE 1	20
STAGE 2				
1000	735+67 WB	33'	LT	1
	736+76 WB	34'	LT	1
	736+76 WB	34'	LT	1
	742+55 WB	48'	RT	2
			SUBTOTAL STAGE 2	5
			PROJECT TOTAL	25

REMOVING EXISTING DOWNSPOUT

CATEGORY	STATION		OFFSET	LOCATION	SPV.0060.1061 EACH
HOAN BRIDGE					
STAGE 1					
1000	67+59.22	LF	98.83	LT	1
	66+39.99	LF	29.61	LT	1
	70+28.29	LF	94.96	LT	1
	70+43.86	LF	35.52	LT	1
	71+46.06	LF	93.99	LT	1
	72+79.09	LF	87.56	LT	1
	74+27.15	LF	90.87	LT	1
	74+34.19	LF	31.78	LT	1
	75+28.00	LF	87.72	LT	1
	77+64.42	LF	66.93	LT	1
	79+00.04	LF	56.36	LT	1
	80+54.69	LF	21.91	LT	1
	81+69.84	LF	28.58	LT	1
	83+05.84	LF	28.00	LT	1
	84+58.69	LF	28.06	LT	1
	85+69.55	LF	27.05	LT	1
	86+99.32	LF	27.90	LT	1
	88+48.77	LF	27.97	LT	1
	89+59.62	LF	28.22	LT	1
	90+89.69	LF	27.05	LT	1
	92+38.39	LF	27.81	LT	1
	93+70.40	LF	27.34	LT	1
	94+79.76	LF	27.65	LT	1
	96+29.86	LF	32.36	LT	1
	97+59.33	LF	26.18	LT	1
	98+69.19	LF	28.02	LT	1
	99+98.07	LF	27.64	LT	1
	101+30.48	LF	27.93	LT	1
	102+59.06	LF	27.27	LT	1
	103+89.73	LF	27.87	LT	1
	105+40.94	LF	28.32	LT	1
	106+49.54	LF	36.35	LT	1
	107+82.80	LF	28.31	LT	1
	109+15.62	LF	29.35	LT	1
	110+35.76	LF	29.48	LT	1
	112+74.10	LF	28.32	LT	1
	114+03.87	LF	28.94	LT	1
	116+87.57	LF	28.20	LT	1
	117+90.58	LF	17.68	LT	1
	120+77.63	LF	17.53	LT	1
	148+28.74	LF	19.70	LT	1
	155+01.89	LF	18.73	LT	1
	162+98.14	LF	40.75	LT	1
				SUBTOTAL STAGE 1	43
STAGE 2					
1000	64+15.32	LF	18.08	RT	1
	64+43.86	LF	83.07	RT	1
	66+70.35	LF	18.82	RT	1
	66+85.84	LF	56.53	RT	1
	68+01.39	LF	16.75	RT	1
	70+58.25	LF	18.59	RT	1
	71+88.18	LF	19.12	RT	1
	74+42.29	LF	19.75	RT	1
	77+84.46	LF	22.61	RT	1
	79+00.81	LF	22.30	RT	1
	80+52.88	LF	27.83	RT	1
	81+71.20	LF	27.10	RT	1
	83+06.08	LF	26.23	RT	1
				SUBTOTAL	13

REMOVING EXISTING DOWNSPOUT

CATEGORY	STATION		OFFSET	LOCATION	SPV.0060.1061 EACH
HOAN BRIDGE					
STAGE 2 CONTINUED					
	84+58.24	LF	26.02	RT	1
	85+69.40	LF	27.75	RT	1
	86+99.52	LF	28.13	RT	1
	88+48.64	LF	27.87	RT	1
	89+60.46	LF	27.56	RT	1
	90+88.94	LF	26.29	RT	1
	92+38.07	LF	28.06	RT	1
	93+70.08	LF	28.34	RT	1
	94+79.27	LF	27.45	RT	1
	96+29.08	LF	28.24	RT	1
	97+60.00	LF	27.27	RT	1
	98+68.98	LF	28.34	RT	1
	99+98.48	LF	27.35	RT	1
	101+30.53	LF	27.06	RT	1
	102+59.95	LF	27.40	RT	1
	103+90.44	LF	26.25	RT	1
	105+38.76	LF	27.78	RT	1
	106+49.68	LF	27.42	RT	1
	107+87.73	LF	22.85	RT	1
	109+15.69	LF	27.23	RT	1
	110+35.64	LF	28.01	RT	1
	112+74.75	LF	27.33	RT	1
	114+03.92	LF	26.10	RT	1
	116+87.78	LF	24.14	RT	1
	117+90.24	LF	17.84	RT	1
	120+77.58	LF	16.26	RT	1
	122+21.30	LF	11.24	RT	1
	125+46.70	LF	15.80	RT	1
	148+30.31	LF	21.39	RT	1
	152+88.83	LF	18.59	RT	1
	155+01.45	LF	17.80	RT	1
				SUBTOTAL STAGE 2	44
				SUBTOTAL HOAN BRIDGE	87
LAKE INTERCHANGE					
STAGE 1					
1000	648+20.18	EB	48.64	LT	1
	648+25.53	EB	25.59	RT	1
	648+27.20	EB	50.71	RT	1
	649+38.68	EB	54.42	LT	1
	649+46.37	EB	19.38	RT	1
	649+49.27	EB	44.24	RT	1
				SUBTOTAL LAKE INTERCHANGE	6

REMOVING WATER SERVICE LATERAL

CATEGORY	STATION	OFFSET	TO	STATION	OFFSET	DIRECTION	LOCATION	204.9090.S.1001 REMOVING WATER SERVICE LATERAL LF
IH 794 EAST-WEST								
STAGE 1								
1000	201+85	13'	-	202+15	86'	LT	BROADWAY	106
							PROJECT TOTAL	106

REMOVING EXISTING DOWNSPOUT

CATEGORY	STATION		OFFSET	LOCATION	SPV.0060.1061 EACH
IH 794 EAST-WEST					
STAGE 1					
1000	632+52.02	EB	20.98	RT	1
	632+63.57	EB	31.15	LT	1
	633+58.39	EB	21.63	RT	1
	635+73.33	EB	25.98	LT	1
	635+78.34	EB	22.45	RT	1
	636+82.81	EB	30.58	LT	1
	636+86.19	EB	24.46	RT	1
	638+02.09	EB	38.78	LT	1
	638+03.28	EB	22.19	RT	1
	639+25.98	EB	43.24	LT	1
	640+28.21	EB	57.92	LT	1
	640+32.27	EB	12.58	LT	1
				SUBTOTAL STAGE 1	12
STAGE 2					
	632+50.15	EB	137.90	LT	1
	633+39.42	EB	128.73	LT	1
	634+49.72	EB	150.03	LT	1
	635+58.56	EB	159.40	LT	1
	636+64.41	EB	173.26	LT	1
	637+75.63	EB	184.47	LT	1
	638+94.70	EB	204.62	LT	1
	639+00.16	EB	126.96	LT	1
	640+22.77	EB	133.37	LT	1
				SUBTOTAL STAGE 2	9
				SUBTOTAL IH 794 EAST-WEST	21
				PROJECT TOTAL	114

REMOVING WHEEL STOPS

CATEGORY	FROM		TO	DESCRIPTION	204.9060.S.1003 EACH
IH 794 EAST-WEST					
STAGE 1					
1000	WATER STREET	-	BROADWAY	PARKING LOT	25
	BROADWAY	-	MILWAUKEE STREET	PARKING LOT	6
	MILWAUKEE STREET	-	JACKSON STREET	PARKING LOT	89
				UNDISTRIBUTED	10
				SUBTOTAL STAGE 1	130
STAGE 2					
1000	WATER STREET	-	BROADWAY	PARKING LOT	46
	BROADWAY	-	MILWAUKEE STREET	PARKING LOT	0
	MILWAUKEE STREET	-	JACKSON STREET	PARKING LOT	63
				UNDISTRIBUTED	11
				SUBTOTAL STAGE 2	120
				PROJECT TOTAL	250

REMOVING EXISTING SANITARY PIPING

204.9090.S.1002
REMOVING EXISTING
SANITARY PIPING

CATEGORY	STATION	OFFSET	DIRECTION	LF
IH 794 EAST-WEST				
STAGE 1 - BROADWAY				
1000	201+89 - 201+98	91'-64'	LT	42
			PROJECT TOTAL	42

EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL

205.0501.S

CATEGORY	STATION	TO	STATION	LOCATION	Material Excavated CY	Material Reused CY	Material Hauled Off CY	Material Hauled Off TON
HOAN BRIDGE								
STAGE 1								
1000	61+50 LF	-	90+00 LF	B-40-400-0S19-B	135	--	135	230
	61+50 LF	-	90+00 LF	B-40-400-0S23	73	--	73	124
	61+50 LF	-	90+00 LF	STORM SEWER	380	--	380	646
	92+00 LF	-	98+00 LF	STORM SEWER	223	--	223	379
	103+00 LF	-	108+00 LF	STORM SEWER	80	--	80	136
	115+50 LF	-	118+00 LF	STORM SEWER	20	--	20	34
				SUBTOTAL STAGE 1	911	--	911	1,549
STAGE 2								
1000	61+50 LF	-	90+00 LF	B-40-400-0S19-A	135	--	135	230
	61+50 LF	-	90+00 LF	B-40-400-0S24	56	--	56	95
	61+50 LF	-	90+00 LF	STORM SEWER	474	--	474	806
	92+00 LF	-	98+00 LF	B-40-400-0S24	151	--	151	257
	103+00 LF	-	108+00 LF	STORM SEWER	80	--	80	136
	115+50 LF	-	118+00 LF	STORM SEWER	20	--	20	34
				SUBTOTAL STAGE 2	916	--	916	1,558
				SUBTOTAL HOAN BRIDGE	1,827	--	1,827	3,107
LAKE INTERCHANGE								
STAGE 1								
1000	739+00 WB	-	746+00 WB	STORM SEWER	1,753	466	1,287	2,188
	739+00 WB	-	746+00 WB	B-40-885 PIERS P6N, P6S	695	521	174	296
	739+00 WB	-	746+00 WB	B-40-886	900	675	225	383
	739+00 WB	-	746+00 WB	R-40-582	4,180	--	4,180	7,106
	739+00 WB	-	746+00 WB	R-40-584	1,890	--	1,890	3,213
				SUBTOTAL STAGE 1	9,418	1,662	7,756	13,186
STAGE 2								
1000	739+00 WB	-	746+00 WB	STORM SEWER	643	--	643	1,093
	739+00 WB	-	746+00 WB	B-40-887, PIERS P6, P7N, P7S	1,795	1,347	448	762
	739+00 WB	-	746+00 WB	B-40-888	455	341	114	194
	739+00 WB	-	746+00 WB	R-40-583	5,120	--	5,120	8,704
				SUBTOTAL STAGE 2	8,013	1,688	6,325	10,753
				SUBTOTAL LAKE INTERCHANGE	17,431	3,350	14,081	23,939

MANAGEMENT OF SOLID WASTE

SPV.0195.1003

CATEGORY	STATION	TO	STATION	LOCATION	TON
HOAN					
STAGE 1					
1000	145+00 LF	-	171+57 LF	STORM SEWER	102
STAGE 2					
1000	145+00 LF	-	171+57 LF	STORM SEWER	102
				SUBTOTAL HOAN	204
LAKEFRONT INT					
STAGE 1					
1000	746+00 WB	-	747+00 WB	STORM SEWER	308
STAGE 2					
1000	746+00 WB	-	747+00 WB	STORM SEWER	255
	748+75 WB	-	749+75 WB	STORM SEWER	32
				SUBTOTAL STAGE 2	287
				SUBTOTAL LAKEFRONT INT	595
				PROJECT TOTAL	799

EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL

205.0501.S

CATEGORY	STATION	TO	STATION	LOCATION	Material Excavated CY	Material Reused CY	Material Hauled Off CY	Material Hauled Off TON
IH 794 EAST-WEST								
STAGE 1								
1000	732+25 WB	-	733+00 WB	STORM SEWER	277	123	155	263
	735+00 WB	-	737+30 WB	B-40-885 PIERS P3, P4	2,045	1,534	511	869
	735+00 WB	-	737+30 WB	STORM SEWER	624	299	325	553
	737+30 WB	-	739+00 WB	STORM SEWER	401	175	226	384
	737+30 WB	-	739+00 00+00	R-40-584	1,890	--	1,890	3,213
				SUBTOTAL STAGE 1	5,237	2,131	3,107	5,282
STAGE 2								
1000	732+25 WB	-	733+00 WB	STORM SEWER	58	--	58	99
	735+00 WB	-	737+30 WB	STORM SEWER	272	--	272	462
	735+00 WB	-	737+30 WB	B-40-887, PIERS P3, P4	975	732	243	413
	737+30 WB	-	739+00 WB	STORM SEWER	43	--	43	73
	737+30 WB	-	739+00 WB	B-40-887, PIER P5	780	585	195	332
				SUBTOTAL STAGE 2	2,128	1,317	811	1,379
				SUBTOTAL IH 794 EAST-WEST	7,365	3,448	3,918	6,661
				PROJECT TOTAL	26,623	6,798	19,826	33,707

EARTHWORK SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	Common Excavation (1)	(item # 205.0100)	Salvaged/ Unusable Pavement Material (4)	Available Material (5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate +/- (14)	Waste	Borrow (15)
					Cut (2)	EBS Excavation (3)											Factor 1.20			(item #208.0100)
HOAN BRIDGE																				
PRE-STAGE																				
1000	38+10 LF	-	41+75 LF	STH 794 MAINLINE	117	0	92	25	0	0	0	0	0	0	0	0	0	25	25	
	31+50 SX	-	33+88 SX	CARFERRY EB EXIT RAMP	246	0	0	246	0	0	0	0	0	0	0	2	2	244	244	
	20+50 NX	-	25+10 NX	CARFERRY WB ENTRANCE RAMP	430	0	0	430	0	0	0	0	0	0	0	658	790	-360		360
				SUBTOTAL HOAN BRIDGE	793	0	92	701	0	0	0	0	0	0	0	660	792	-91	269	360
LAKE INTERCHANGE																				
PRE-STAGE																				
1000	40+52 IX	-	47+50 IX	LINCOLN MEMORIAL DRIVE RAMP	1,250	0	531	719	0	0	0	0	0	0	0	543	652	67	67	
	92+62 IE	-	99+00 IE	LINCOLN MEMORIAL DRIVE RAMP	740	0	280	460	0	0	0	0	0	0	0	2,200	2,640	-2,180		2,180
	181+70 LN	-	183+30 LN	LINCOLN MEMORIAL DRIVE RAMP	190	0	118	72	0	0	0	0	0	0	0	127	152	-80		80
	757+67 WI	-	759+56 WI	LINCOLN MEMORIAL DRIVE RAMP	212	0	174	38	0	0	0	0	0	0	0	140	168	-130		130
	51+50 JX	-	54+17 JX	JACKSON RAMP	715	0	53	662	0	0	0	0	0	0	0	0	0	662	662	
	59+75 MX	-	61+10 MX	MILWAUKEE RAMP	210	0	31	179	0	0	0	0	0	0	0	0	0	179	179	
				SUBTOTAL PRE-STAGE	3,317	0	1,187	2,130	0	0	0	0	0	0	0	3,010	3,612	-1,482	908	2,390
STAGE 2																				
1000	120+25 SI	-	122+50 SI	LINCOLN MEMORIAL DRIVE RAMP	296	0	0	296								0	0	296	296	
	11+08 JE	-	18+01 JE	VAN BUREN STREET EXIT RAMP	1,310	0	926	384								11	13	371	371	
	22+80 JW	-	25+22 JW	JACKSON STREET ENTRANCE RAMP*	1,110	0	558	552								2	2	550	550	
	100+23.85 --	-	103+88.39 --	PEDESTTRIAN TUNNEL	405	0	0	405								0	0	405	405	
	354+61 LE	-	358+53 LE	LINCOLN MEMORIAL DRIVE EXIT RAMP	625	0	539	86								26	31	55	55	
	177+87 LN	-	183+30 LN	LINCOLN MEMORIAL DRIVE EXIT RAMP	1,450	0	609	841								11	13	828	828	
	181+80 LS	-	183+37 LS	LINCOLN MEMORIAL DRIVE ENTRANCE RAMP	435	0	126	309								0	0	309	309	
	356+12 LW	-	359+66 LW	LINCOLN MEMORIAL DRIVE ENTRANCE RAMP	2,000	0	739	1,261								0	0	1,261	1,261	
				SUBTOTAL STAGE 2	7,631	0	3,497	4,134	0	0	0	0	0	0	0	50	60	4,075	4,075	0
				SUBTOTAL LAKE INTERCHANGE	10,948	0	4,684	6,264	0	0	0	0	0	0	0	3,060	3,672	2,593	4,983	2,390
IH-794 EAST-WEST																				
STAGE 1																				
1000	10+00 BE	-	11+00 BE	BROADWAY ENTRANCE RAMP**	459	0	177	282	0	0	0	0	0	0	0	0	0	282	282	
				SUBTOTAL I-794 EAST-WEST	459	0	177	282	0	0	0	0	0	0	0	0	0	282	282	0
					12,200	0														
				PROJECT TOTAL	Total Common Exc	12,200	4,953	7,247	0	0	0	0	0	0	0	3,720	4,464	2,784	5,534	2,750

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
6) Marsh Excavation - to be backfilled with Select Borrow Material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well. Item number 205.0500
7) Rock Excavation item number 205.0200
8) Reduced Marsh in Fill - Excavated Marsh material is usuable in Fills outside the 1:1 slope. Marsh in Fill Reduction factor = 0.6
9) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
10) Expanded Marsh Backfill - This is to be filled with Select Borrow material. Marsh Backfill Factor = 1.2. Item number 208.11
11) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.3. Item number 208.11
12) Expanded Rock - Factor = 1.1.
13) Expanded Fill. Factor = 1.20
14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
15) Borrow Excavation item number 208.0100

*Earthwork for STA 20+50 JW to 22+50 JW paid for as structural excavation as part of the MSE Walls

**Earthwork for STA 11+50 BE to 13+75 BE paid for as structural excavation as part of the MSE Walls

BASE AGGREGATE DENSE 1 1/4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	305.0120 TON
HOAN BRIDGE					
PRE-STAGE 1					
1000	20+37 NX	-	25+11 NX	RAMP CN	990
	31+42 SX	-	33+90 SX	RAMP CS	422
				SUBTOTAL PRE-STAGE 1	1,412
STAGE 1					
1000	99+98 LF	-	162+99 SB	CATCH BASINS	128
STAGE 2					
1000	38+09 LF	-	41+74 LF	STH 794	90
				SUBTOTAL HOAN BRIDGE	1,630
LAKE INTERCHANGE					
PRE-STAGE 1					
1000	188+55 LS	-	189+90 LS	LINCOLN MEMORIAL	160
	59+75 MX	-	61+10 MX	RAMP MX	230
				SUBTOTAL PRE-STAGE 1	390
PRE-STAGE 2					
1000	40+52 IX	-	46+91 IX	RAMP IX	3,705
	92+59 IE	-	99+26 IE	RAMP IE	2,125
	51+43 JX	-	54+18 JX	RAMP JX	830
				SUBTOTAL PRE-STAGE 2	6,660
STAGE 2					
1000	122+25 NI	-	112+75 NI	RAMP NI	382
	120+00 SI	-	122+75 SI	RAMP SI	333
	354+61 LE	-	358+56 LE	RAMP LE	516
	181+80 LS	-	183+37 LS	RAMP LS	204
	356+12 LW	-	359+69 LW	RAMP LW	498
	177+86 LN	-	183+30 LN	RAMP LN	714
	188+40 LS	-	190+07 LS	LINCOLN MEMORIAL	234
				SUBTOTAL STAGE 2	2,881
				SUBTOTAL LAKE INTERCHANGE	9,931

BASE AGGREGATE DENSE 1 1/4-INCH CONTINUED

CATEGORY	STATION	TO	STATION	LOCATION	305.0120 TON
IH 794 EAST -WEST					
STAGE 1					
1000	102+03 --	-	104+07 --	WATER STREET	104
	201+37 --	-	205+27 --	BROADWAY	56
	301+66 --	-	305+16 --	MILWAUKEE STREET	86
	100+10 --	-	102+29 --	PEDESTRIAN TUNNEL	52
	-- --	-	-- --	PARKING LOT WATER ST. - BROADWAY	496
	-- --	-	-- --	PARKING LOT BROADWAY - MILWAUKEE ST	888
	-- --	-	-- --	PARKING LOT MILWAUKEE ST - JACKSON ST	780
	9+60 BE	-	13+54 BE	RAMP BE	1,895
	11+29 JE	-	18+01 JE	RAMP JE	2,652
	401+85 --	-	402+19 --	ST PAUL AVENUE	42
				SUBTOTAL STAGE 1	7,051
STAGE 2					
1000	102+03 --	-	104+50 --	WATER STREET	68
	201+37 --	-	104+07 --	BROADWAY	50
	301+66 --	-	305+16 --	MILWAUKEE STREET	170
	-- --	-	-- --	JACKSON STREET	30
	102+74 --	-	103+89 --	PEDESTRIAN TUNNEL	28
	-- --	-	-- --	PARKING LOT WATER ST. - BROADWAY	450
	-- --	-	-- --	PARKING LOT BROADWAY - MILWAUKEE ST	464
	-- --	-	-- --	PARKING LOT MILWAUKEE ST - JACKSON ST	298
	11+29 JE	-	18+01 JE	RAMP JE	858
	0+98 MW	-	2+38 MW	RAMP MW	260
	20+44 JW	-	25+24 JW	RAMP JW	2,212
				SUBTOTAL STAGE 2	4,888
				SUBTOTAL IH 794 EAST-WEST	11,939
				PROJECT TOTAL	23,500

BASE AGGREGATE DENSE 3/4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 TON
HOAN BRIDGE					
PRE-STAGE 1					
1000	20+40 NX	-	20+10 NX	RAMP NX	30
	31+42 SX	-	33+89 SX	RAMP SX	14
				SUBTOTAL HOAN BRIDGE	44
LAKE INTERCHANGE					
PRE-STAGE 2					
1000	40+52 IX	-	47+50 IX	RAMP IX	30
	99+62 IE	-	99+00 IE	RAMP IE	25
	181+70 LN	-	183+30 LN	RAMP LN	8
	757+67 WI	-	759+56 WI	RAMP WI	6
				SUBTOTAL PRE-STAGE 2	69
STAGE 2					
1000	120+25 SI	-	122+50 SI	RAMP SI	15
	111+50 NI	-	112+75 NI	RAMP NI	8
				SUBTOTAL STAGE 2	23
				SUBTOTAL LAKE INTERCHANGE	92
IH 794 EAST-WEST					
PRE-STAGE 2					
1000	51+45 JX	-	52+45 JX	RAMP JX	4
				SUBTOTAL IH 794 EAST-WEST	4
				PROJECT TOTAL	140

PIPE UNDERDRAIN

CATEGORY	STATION	TO	STATION	LOCATION	310.0110 BASE AGGREGATE OPEN GRADED TON	612.0106 PIPE UNDERDRAIN 6-INCH LF	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	645.0111 GEOTEXTILE FABRIC TYPE DF SCHEDULE A SY
IH 794 EAST-WEST								
STAGE 1								
1000	11+00 BE	-	13+75 BE	RAMP BE	250	525	65	230
	11+05 JE	-	14+00 JE	RAMP JE	350	535	35	230
				SUBTOTAL STAGE 1	600	1,060	100	460
STAGE 2								
1000	20+20 JW	-	22+81 JW	RAMP JW	240	475	110	200
				PROJECT TOTAL	840	1,535	210	660

BACKFILL SLURRY

CATEGORY	PIPE SIZE-INCH	STATION	OFFSET	TO	STATION	OFFSET	DIRECTION	SPV.0035.1003 CY
IH 794 EAST-WEST								
STAGE 1								
1000	38X60	633+69.48 EB	57.86'	-	634+48.94 EB	63.12'	LT	163
	36	637+31.72 EB	75.55'	-	637+79.67 EB	75.02'	LT	56
	36	638+27.17 EB	76.36'	-	638+67.14 EB	102.25'	LT	78
	36	640+77.55 EB	119.82'	-	641+27.76 EB	120.56'	LT	56
	15	648+19.13 EB	135.80'	-	648+24.57 EB	104.83'	LT	14
	15	647+70.10 EB	99.81'	-	647+64.03 EB	129.58'	LT	10
							SUBTOTAL STAGE 1	377
STAGE 2								
1000	18	646+80.25 EB	224.32'	-	647+08.91 EB	181.44'	LT	8
	12	645+63.02 EB	173.37'	-	646+68.17 EB	147.67'	LT	20
	12	644+39.98 EB	174.16'	-	644+42.58 EB	130.50'	LT	28
	12	641+45.36 EB	285.69'	-	641+76.06 EB	209.44'	LT	15
	12	638+16.39 EB	207.75'	-	638+37.03 EB	190.47'	LT	4
	8	637+81.36 EB	181.51'	-	638+37.03 EB	190.47'	LT	4
							SUBTOTAL STAGE 2	79
							PROJECT TOTAL	456

BASE PATCHING CONRETE SHES

CATEGORY	STATION	TO	STATION	LOCATION	390.0403 SY
IH 794 EAST-WEST					
STAGE 1					
1000	100+54	-	100+72	WATER STREET	125
	200+65	-	200+86	BROADWAY	70
	302+81	-	302+99	MILWAUKEE STREET	75
				PROJECT TOTAL	270

CONCRETE PAVEMENT APPROACH SLAB

CATEGORY	FROM		TO		LOCATION	415.0410 SY
HOAN BRIDGE						
STAGE 1						
1000	61+44	LF	61+91	LF	IH 794 EB	170
	361+41	CS	361+80	CS	RAMP CS	75
					SUBTOTAL STAGE 1	245
STAGE 2						
1000	61+78	LF	62+23	LF	IH 794 WB	175
	662+23	CN	662+48	CN	RAMP CN	50
					SUBTOTAL STAGE 2	225
					SUBTOTAL HOAN BRIDGE	470
LAKE INTERCHANGE						
STAGE 2						
	2+22	MW	2+38	MW	RAMP MW	50
	353+56	LE	353+71	LE	RAMP LE	70
	356+12	LW	356+28	LW	RAMP LW	70
	177+87	LN	178+02	LN	RAMP LN	70
	181+79	LS	181+95	LS	RAMP LS	70
					SUBTOTAL LAKE INTERCHANGE	330
					PROJECT TOTAL	800

CONCRETE PAVEMENT

CATEGORY	STATION	TO	STATION	LOCATION	415.0080 CONCRETE PAVEMENT 8-INCH SY	415.0090 CONCRETE PAVEMENT 9-INCH SY	415.0095 CONCRETE PAVEMENT 9.5-INCH SY	415.0100 CONCRETE PAVEMENT 10-INCH SY	415.0105 CONCRETE PAVEMENT 10.5-INCH SY
LAKE INTERCHANGE									
PRE-STAGE									
1000	188+60 LS	-	188+92 LS	LINCOLN MEMORIAL DRIVE	15	--	--	--	--
STAGE 1									
1000	354+61 LE	-	358+55 LE	RAMP LE	--	--	1,184	--	--
	181+95 LS	-	183+37 LS	RAMP LS	--	476	--	--	--
				SUBTOTAL STAGE 1	--	476	1,184	--	--
STAGE 2									
1000	356+28 LW	-	359+70 LW	RAMP LW	--	--	1,166	--	--
	178+05 LN	-	183+31 LN	RAMP LN	--	1,537	--	--	--
	0+95 MW	-	2+22 MW	RAMP MW	410	--	--	--	--
	188+50 LS	-	189+21 LS	LINCOLN MEMORIAL DRIVE	48	--	--	--	--
	188+50 LS	-	189+21 LS	LINCOLN MEMORIAL DRIVE	43	--	--	--	--
				SUBTOTAL STAGE 2	501	1,537	1,166	--	--
				SUBTOTAL LAKE INTERCHANGE	516	2,013	2,350	--	--
IH 794 EAST-WEST									
STAGE 1									
1000	10+00 BE	-	13+55 BE	RAMP BE	1,541	--	--	--	--
	11+29 JE	-	18+01 JE	RAMP JE	--	--	--	--	3,898
	402+06	-	402+19	ST. PAUL AVENUE	8	--	--	--	--
				SUBTOTAL STAGE 1	1,549	--	--	--	3,898
STAGE 2									
1000	20+44 JW	-	25+26 JW	RAMP JW	--	--	--	1,931	--
				SUBTOTAL IH 794 EAST-WEST	1,549	--	--	1,931	3,898
				PROJECT TOTAL	2,065	2,013	2,350	1,931	3,898

SHES CONCRETE MASONRY DECK PATCHING

CATEGORY	LOCATION	SPV.0035.1002 SHES CONCRETE MASONRY DECK PATCHING CY
IH 794 EAST-WEST		
PRE-STAGE 1 AND STAGE 1		
1000	UNDISTRIBUTED	75
	PROJECT TOTAL	75

DRILLED TIE BARS

CATEGORY	STREET	STATION	TO	STATION	OFFSET	416.0610 DRILLED TIE BARS EACH
HOAN BRIDGE						
STAGE 1						
1000	IH 794 EB	60+15 LF	-	60+83 LF	LT	27
	RAMP CS	359+14 CS	-	360+19 CS	RT	45
					SUBTOTAL STAGE 1	72
STAGE 2						
1000	IH 794 WB	60+83 LF	-	61+61 LF	RT	32
	RAMP CN	11+71 CN	-	657+94 CN	LT	34
	STH 794	38+09 LF	-	41+74 LF	RT/LT	292
					SUBTOTAL STAGE 2	358
					SUBTOTAL HOAN BRIDGE	430
LAKE INTERCHANGE						
PRE-STAGE						
1000	LINCOLN MEMORIAL	188+60 LS	-	188+93 LS	RT	27
STAGE 2						
1000	RAMP MW	0+98 MW	-	2+28 MW	LT	78
	LINCOLN MEMORIAL	188+70 LS	-	189+11 LS	RT	43
	LINCOLN MEMORIAL	188+50 LS	-	188+93 LS	LT	38
	MICHIGAN STREET	401+28 --	-	401+41 --	RT	8
	MICHIGAN STREET	402+83 --	-	402+98 --	RT	8
	RAMP LE	354+61 LE	-	355+18 LE	RT	22
	RAMP LE	358+56 LE	-	358+59 LE	LT	4
	RAMP LN	178+15 LN		183+30 LN	RT	207
	RAMP LN	183+13 LN	-	183+30 LN	LT	18
	RAMP LS	183+18 LS	-	183+37 LS	LT	8
	RAMP LW	359+60 LW	-	359+67 LW	RT	10
					SUBTOTAL STAGE 2	444
					SUBTOTAL LAKE INTERCHANGE	471
IH 794 EAST-WEST						
STAGE 1						
1000	WATER STREET	102+99	-	103+14	RT	6
	WATER STREET	102+99	-	103+14	LT	6
	BROADWAY	102+83	-	103+01	RT	7
	BROADWAY	102+89	-	103+04	LT	6
	RAMP BE	9+60 BE	-	10+00 BE	LT	19
	RAMP BE	3+06 CL	-	3+10 CL	RT	2
	MILWAUKEE STREET	302+79	-	302+99	RT	8
	MILWAUKEE STREET	302+84	-	302+99	LT	6
	WATER STREET-BROADWAY	00+00	-	00+00	PARKING LOT	20
	ST PAUL AVENUE	402+05	-	402+19	LT	12
					SUBTOTAL STAGE 1	92

DRILLED TIE BARS CONTINUED

CATEGORY	STREET	STATION	TO	STATION	OFFSET	416.0610 DRILLED TIE BARS EACH
IH 794 EAST-WEST						
STAGE 2						
1000	BROADWAY	203+04 --	-	204+13 --	RT	49
	BROADWAY	205+03 --	-	205+20 --	RT	11
	BROADWAY	204+44 --	-	204+59 --	LT	10
	BROADWAY	205+05 --	-	205+19 --	LT	8
	MILWAUKEE STREET	301+66 --	-	302+27 --	RT	25
	MILWAUKEE STREET	304+98 --	-	305+16 --	RT	18
	MILWAUKEE STREET	302+28 --	-	302+84 --	LT	25
	MILWAUKEE STREET	302+99 --	-	303+41 --	LT	17
	MILWAUKEE STREET	304+42 --	-	304+57 --	LT	9
	MILWAUKEE STREET	305+00 --	-	305+16 --	LT	11
	RAMP JE	14+21 JE	-	14+21 JE	LT	28
	RAMP JE	14+43 JE	-	14+43 JE	LT	21
					SUBTOTAL STAGE 2	232
					SUBTOTAL IH 794 EAST-WEST	324
					PROJECT TOTAL	1,225

CONCRETE DRIVEWAY 7-INCH

CATEGORY	LOCATION	STATION	LOCATION	416.0170 SY
IH 794 EAST-WEST				
STAGE 1				
1000	WATER STREET	103+23	RT	20
	WATER STREET-BROADWAY	--	PARKING LOT	59
	BROADWAY	201+53	RT	25
	MILWAUKEE STREET	303+21	LT	21
	MILWAUKEE STREET	301+94	RT	41
			SUBTOTAL STAGE 1	166
STAGE 2				
1000	WATER STREET	103+02	RT	20
	MILWAUKEE STREET	302+57	LT	19
	RAMP JW	24+25 JW	RT	90
			SUBTOTAL STAGE 2	129
			PROJECT TOTAL	295

DRILLED DOWEL BARS

416.0620

CATEGORY	STATION		TO	STATION		LOCATION	EACH
LAKE INTERCHANGE							
PRE-STAGE							
1000	188+92	LS	-	188+92	LS	LINCOLN MEMORIAL	8
STAGE 2							
1000	356+28	LW	-	356+28	LW	RAMP LW	32
	359+49	LW	-	359+69	LW	RAMP LW	24
	354+61	LE	-	355+18	LE	RAMP LE	32
	358+44	LE	-	358+69	LE	RAMP LE	41
	178+02	LN	-	178+02	LN	RAMP LN	32
	183+00	LN	-	183+30	LN	RAMP LN	36
	181+95	LS	-	181+95	LS	RAMP LS	32
	183+37	LS	-	183+37	LS	RAMP LS	20
	2+22	MW	-	2+22	MW	RAMP MW	23
						SUBTOTAL STAGE 2	272
						SUBTOTAL LAKE INTERCHANGE	280
IH 794 EAST-WEST							
STAGE 1							
1000	102+99		-	103+14		WATER STREET	119
	202+71		-	202+91		BROADWAY	70
	302+81		-	302+99		MILWAUKEE STREET	71
	402+19		-	402+19		ST PAUL AVENUE	6
	10+00	BE	-	10+00	BE	RAMP BE	20
	3+06	CL	-	3+06	CL	RAMP BE	14
	13+88	JE	-	14+09	JE	RAMP JE	18
						SUBTOTAL STAGE 1	318
STAGE 2							
1000	25+23	JW	-	25+23	JW	RAMP JW	31
	14+22	JE	-	14+42	JE	RAMP JE	36
	17+45	JE	-	17+59	JE	RAMP JE	12
	18+01	JE	-	18+01	JE	RAMP JE	29
						SUBTOTAL STAGE 2	108
						SUBTOTAL IH 794 EAST-WEST	426
						PROJECT TOTAL	706

ASPHALTIC PAVEMENT

CATEGORY	STATION	TO	STATION	LOCATION	455.0105 ASPHALTIC MATERIAL PG58-28 TON	455.0115 ASPHALTIC MATERIAL PG64-22 TON	455.0605 TACK COAT GAL	460.1100 HMA PAVEMENT TYPE E-0.3 TON	460.1103 HMA PAVEMENT TYPE E-3 TON	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL
HOAN BRIDGE										
PRE-STAGE										
1000	202+52 LM	-	262+16 LM	S. LINCOLN MEMORIAL	--	81	--	--	1,470	939
				SUBTOTAL HOAN BRIDGE	--	81	--	--	1,470	939
LAKE INTERCHANGE										
PRE-STAGE										
1000	189+28 LS	-	189+86 LS	N. LINCOLN MEMORIAL	--	1	1	--	13	26
STAGE 2										
1000	189+28 LS	-	189+86 LS	N. LINCOLN MEMORIAL	--	2	3	--	36	23
	356+24 LE	-	357+02 LE	RAMP LE	1	--	2	13	--	8
	182+73 LN	-	183+18 LN	RAMP LN	--	--	1	8	--	5
				SUBTOTAL STAGE 2	1	2	6	21	36	36
				SUBTOTAL LAKE INTERCHANGE	1	3	7	21	49	62
IH 794 EAST-WEST										
STAGE 1										
1000	401+90 --	-	402+15 --	ST PAUL AVENUE	--	1	1	--	13	8
	WATER STREET	-	BROADWAY	PARKING LOT	33	--	77	591	--	378
	BROADWAY	-	MILWAUKEE STREET	PARKING LOT	50	--	125	910	--	577
	MILWAUKEE STREET	-	JACKSON STREET	PARKING LOT	65	--	152	1,122	--	772
				SUBTOTAL STAGE 1	148	1	355	2,623	13	1,735
STAGE 2										
1000	WATER STREET	-	BROADWAY	PARKING LOT	41	--	99	753	--	482
	BROADWAY	-	MILWAUKEE STREET	PARKING LOT	26	--	61	468	--	299
	MILWAUKEE STREET	-	JACKSON STREET	PARKING LOT	21	--	50	382	--	270
	96+25	-	99+50 IE	PARKING LOT	26	--	60	465	--	298
	--	-	--	WATER STREET	--	25	--	--	426	271
	--	-	--	BROADWAY	--	13	--	--	236	151
	--	-	--	MILWAUKEE STREET	--	15	--	--	255	183
				SUBTOTAL STAGE 2	114	53	270	2,068	917	1,954
				SUBTOTAL IH 794 EAST-WEST	262	54	625	4,691	930	3,689
				PROJECT TOTAL	263	138	632	4,712	2,449	4,690

ASPHALTIC SURFACE

CATEGORY	STATION	TO	STATION	LOCATION	465.0105 ASPHALTIC SURFACE (TON)	465.0125 ASPHALTIC SURFACE TEMPORARY (TON)
HOAN BRIDGE						
PRE-STAGE 1						
1000	38+09 LF	-	41+75 LF	STH 794 MEDIAN	--	120
	20+38 NX	-	24+42 NX	RAMP NX	--	242
	31+42 SX	-	33+58 SX	RAMP SX	--	97
	61+91 LF		171+56 NB	IH 794	--	804
				SUBTOTAL PRE-STAGE 1	--	1,263
STAGE 1						
1000	100+00 LF	-	163+00 SB	CATCH BASINS	40	--
				SUBTOTAL HOAN BRIDGE	40	1,263
LAKE INTERCHANGE						
PRE-STAGE 1						
1000	59+75 MX	-	61+10 MX	RAMP MX	--	60
	189+28 LS		189+86 LS	N. LINCOLN MEMORIAL		28
				SUBTOTAL PRE-STAGE 1	--	88
PRE-STAGE 2						
1000	51+44 JX	-	54+18 JX	RAMP JX	--	245
	41+50 IX	-	46+91 IX	RAMP IX	--	945
	92+50 IE	-	99+24 IE	RAMP IE	--	754
	182+50 LN	-	183+30 LN	RAMP LN	--	198
	757+67 WI	-	759+54 WI	RAMP WI	--	145
				SUBTOTAL PRE-STAGE 2	--	2,287
STAGE 2A						
1000	111+50 NI	-	112+75 NI	RAMP NI	--	84
	120+25 SI	-	122+50 SI	RAMP SI	--	147
	13+66 JE	-	14+20 JE	RAMP JE	--	21
	179+05 LN	-	183+10 LN	RAMP LN	--	74
				SUBTOTAL STAGE 2A	--	326
				SUBTOTAL LAKE INTERCHANGE	--	2,701
IH 794 EAST-WEST						
STAGE 1						
1000	WATER STREET	-	BROADWAY	PARKING LOT	--	--
STAGE 2						
1000	10+08 BE	-	10+43 BE	RAMP BE	--	6
				SUBTOTAL IH 794 EAST-WEST	--	6
				PROJECT TOTAL	40	3,970

TEMPORARY STRUCTURE STA 180+25 LS MODIFIED

CATEGORY	LOCATION	SPV.0105.4033 LS
LAKE INTERCHANGE		
PRE-STAGE 2		
1000	180+25 LS	1

DUST CONTROL SURFACE TREATMENT

CATEGORY	LOCATION	623.0200 SY
UNDISTRIBUTED		
1000	CONCRETE PAVEMENT	15,000
	PROJECT TOTAL	15,000

CONCRETE CURB & GUTTER

CATEGORY	STATION		TO	STATION		DIRECTION	DESCRIPTION	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0407 CONCRETE CURB & GUTTER 18-INCH TYPE D LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0413 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G LF	601.0600 CONCRETE CURB PEDESTRIAN LF
HOAN BRIDGE													
STAGE 1													
1000	60+15	LF	-	60+83	LF	LT	IH 794 EB	--	--	66	--	--	--
	359+14	CS	-	360+19	CS	RT	RAMP CS	--	--	112	--	--	--
							SUBTOTAL STAGE 1	--	--	178	--	--	--
STAGE 2													
1000	60+83	LF	-	61+61	LF	RT	IH 794 WB	--	--	80	--	--	--
	11+71	CN	-	657+94	CN	LT	RAMP CN	--	--	84	--	--	--
	38+09	LF	-	41+74	LF	RT	STH 794	--	--	365	--	--	--
	38+09	LF	-	41+74	LF	LT	STH 794	--	--	365	--	--	--
							SUBTOTAL STAGE 2	--	--	894	--	--	--
							SUBTOTAL HOAN BRIDGE	--	--	1,072	--	--	--
LAKE INTERCHANGE													
PRE-STAGE													
1000	188+59	LS	-	188+77	LS	RT	LINCOLN MEMORIAL	35	--	--	--	--	--
	189+32	LS	-	189+70	LS	LT	LINCOLN MEMORIAL	105	--	--	--	--	--
	189+76	LS	-	189+91	LS	RT	LINCOLN MEMORIAL	28	--	--	--	--	--
	402+75	--	-	402+89	--	LT	MICHIGAN STREET	18	--	--	--	--	--
	182+80	LN	-	183+30	LN	RT	RAMP LN	--	--	--	50	--	--
	358+50	LW	-	359+48	LW	LT	RAMP LW	--	--	--	101	--	--
							SUBTOTAL PRE-STAGE	186	--	--	151	--	--
STAGE 2													
1000	1+31	MW	-	2+17	MW	LT	RAMP MW	101	--	--	--	--	--
	1+57	MW	-	1+59	MW	LT	RAMP MW	--	--	--	--	--	10
	1+31	MW	-	2+38	MW	RT	RAMP MW	--	--	125	--	--	--
	1+24	MW	-	2+38	MW	LT	RAMP MW	--	--	120	--	--	--
	188+81	LS	-	189+08	LS	RT	LINCOLN MEMORIAL	98	--	--	--	--	--
	189+64	LS	-	189+82	LS	RT	LINCOLN MEMORIAL	48	--	--	--	--	--
	188+55	LS	-	188+85	LS	LT	LINCOLN MEMORIAL	97	--	--	--	--	--
	189+48	LS	-	189+82	LS	LT	LINCOLN MEMORIAL	96	--	--	--	--	--
	401+27	--	-	401+40	--	RT	MICHIGAN STREET	19	--	--	--	--	--
	402+84	--	-	402+99	--	RT	MICHIGAN STREET	19	--	--	--	--	--
	401+40	--	-	401+53	--	LT	MICHIGAN STREET	17	--	--	--	--	--
	402+82	--	-	402+89	--	LT	MICHIGAN STREET	10	--	--	--	--	--
	356+24	LE	-	357+01	LE	RT	RAMP LE	--	--	--	--	75	--
	355+53	LE	-	358+21	LE	RT	RAMP LE	--	--	187	--	--	--
	357+38	LE	-	358+57	LE	LT	RAMP LE	--	--	124	--	--	--
	182+73	LN	-	183+18	LN	RT	RAMP LN	--	--	--	--	45	--
	178+15	LN	-	183+30	LN	RT	RAMP LN	--	--	470	--	--	--
	178+15	LN	-	183+04	LN	LT	RAMP LN	--	--	509	--	--	--
	181+86	LS	-	182+61	LS	RT	RAMP LS	--	--	83	--	--	--
	181+77	LS	-	182+74	LS	LT	RAMP LS	--	--	124	--	--	--
	182+80	LW	-	183+50	LW	RT	RAMP LW	--	--	314	--	--	--
	183+03	LW	-	183+69	LW	LT	RAMP LW	--	--	207	--	--	--
							SUBTOTAL STAGE 2	505	--	2,263	--	120	10
							SUBTOTAL LAKE INTERCHANGE	691	--	2,263	151	120	10

CONCRETE CURB & GUTTER CONTINUED

CATEGORY	STATION		TO	STATION		DIRECTION	DESCRIPTION	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0407 CONCRETE CURB & GUTTER 18-INCH TYPE D LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0413 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G LF	601.0600 CONCRETE CURB PEDESTRIAN LF
IH 794 EAST-WEST													
PRE-STAGE													
1000	59+80	MX	-	61+10	MX	RT	RAMP MX	--	--	--	100	--	--
	60+35	MX	-	60+50	MX	LT	RAMP MX	--	--	--	41	--	--
	52+85	JX	-	53+55	JX	RT	RAMP JX	--	--	--	71	--	--
	51+92	JX	-	54+17	JX	LT	RAMP JX	--	--	--	257	--	--
	52+90	JX	-	52+94	JX	RT	RAMP JX	--	--	--	--	--	25
							SUBTOTAL PRE-STAGE	--	--	--	469	--	25
STAGE 1													
1000	--	--	-	--			PARKING LOT WATER ST-BROADWAY	--	355	--	--	--	--
	102+80	--	-	103+41	--	RT	WATER STREET	61	--	--	--	--	--
	102+96	--	-	103+16	--	LT	WATER STREET	20	--	--	--	--	--
	201+37	--	-	201+69	--	RT	BROADWAY	32	--	--	--	--	--
	202+69	--	-	202+91	--	RT	BROADWAY	23	--	--	--	--	--
	202+74	--	-	202+94	--	LT	BROADWAY	20	--	--	--	--	--
	9+62	BE	-	10+00	BE	LT	RAMP BE	44	--	--	--	--	--
	10+45	BE	-	11+00	BE	RT	RAMP BE	--	--	55	--	--	--
	10+00	BE	-	10+42	BE	LT	RAMP BE	--	--	42	--	--	--
	3+10	CL	-	3+81	CL	RT	RAMP BE	--	--	45	--	--	--
	3+06	CL	-	4+29	CL	LT	RAMP BE	--	--	122	--	--	--
	302+79	--	-	302+99	--	RT	MILWAUKEE STREET	20	--	--	--	--	--
	302+82	--	-	303+41	--	LT	MILWAUKEE STREET	59	--	--	--	--	--
	13+43	JE	-	14+18	JE	RT	RAMP JE	--	--	341	--	--	--
	401+91	--	-	402+00	--	LT	ST PAUL AVENUE	21	--	--	--	--	--
							SUBTOTAL STAGE 1	300	355	605	--	--	--
STAGE 2													
1000	201+91	--	-	204+11	--	RT	BROADWAY	130	--	--	--	--	--
	205+05	--	-	205+20	--	RT	BROADWAY	23	--	--	--	--	--
	204+44	--	-	204+57	--	LT	BROADWAY	20	--	--	--	--	--
	205+07	--	-	205+20	--	LT	BROADWAY	18	--	--	--	--	--
	10+11	BE	-	10+45	BE	RT	RAMP BE	--	--	34	--	--	--
	301+66	--	-	302+27	--	RT	MILWAUKEE STREET	61	--	--	--	--	--
	305+00	--	-	305+16	--	RT	MILWAUKEE STREET	42	--	--	--	--	--
	302+28	--	-	302+82	--	LT	MILWAUKEE STREET	53	--	--	--	--	--
	304+42	--	-	304+55	--	LT	MILWAUKEE STREET	19	--	--	--	--	--
	305+02	--	-	305+16	--	LT	MILWAUKEE STREET	23	--	--	--	--	--
	14+19	JE	-	14+19	JE	LT	RAMP JE	68	--	--	--	--	--
	14+45	JE	-	14+45	JE	LT	RAMP JE	52	--	--	--	--	--
	14+44	JE	-	18+01	JE	RT	RAMP JE	--	--	390	--	--	--
	14+00	JE	-	18+01	JE	LT	RAMP JE	--	--	580	--	--	--
	24+00	JW	-	25+22	JW	RT	RAMP JW	--	--	125	--	--	--
	22+80	JW	-	25+24	JW	LT	RAMP JW	--	--	191	--	--	--
							SUBTOTAL STAGE 2	509	--	1,320	--	--	--
							SUBTOTAL IH 794 EAST-WEST	809	355	1,925	469	--	25
							PROJECT TOTAL	1,500	355	5,260	620	120	35

CONCRETE SIDEWALK 5-INCH

CATEGORY	STATION		TO	STATION	DIRECTION		DESCRIPTION	602.0410 CONCRETE SIDEWALK 5-INCH SF	SPV.0165.1005 COLORED STAMPED CONCRETE SIDEWALK 5-INCH SF
HOAN BRIDGE									
STAGE 2									
1000	38+09	LF	-	41+74	LF	RT/LT	STH 794	--	1,860
							SUBTOTAL HOAN BRIDGE	--	1,860
LAKE INTERCHANGE									
PRE-STAGE									
1000	188+59	LS	-	188+77	LS	RT	LINCOLN MEMORIAL	86	--
	189+48	LS	-	189+82	LS	LT	LINCOLN MEMORIAL	508	--
	189+76	LS	-	189+90	LS	RT	LINCOLN MEMORIAL	82	--
	402+75	--	-	402+89	--	LT	MICHIGAN STREET	63	--
							SUBTOTAL PRE-STAGE	739	--
STAGE 2	359+24	LW	-	359+65	LW	RT	RAMP LW	354	--
	188+82	LS	-	189+07	LS	RT	LINCOLN MEMORIAL	494	--
	189+64	LS	-	189+82	LS	RT	LINCOLN MEMORIAL	157	--
	188+56	LS	-	188+85	LS	LT	LINCOLN MEMORIAL	541	--
	189+37	LS	-	189+71	LS	LT	LINCOLN MEMORIAL	464	--
	401+26	--	-	401+39	--	RT	MICHIGAN STREET	80	--
	402+84	--	-	403+06	--	RT	MICHIGAN STREET	197	--
	401+32	--	-	401+53	--	LT	MICHIGAN STREET	202	--
	402+83	--	-	403+01	--	LT	MICHIGAN STREET	153	--
							SUBTOTAL STAGE 2	2,642	--
							SUBTOTAL LAKE INTERCHANGE	3,381	--
IH 794 EAST WEST									
PRE-STAGE									
1000	52+89	JX	-	52+94	JX	RT	RAMP JX	39	--
	52+84	JX	-	52+93	JX	LT	RAMP JX	60	--
							SUBTOTAL PRE-STAGE	99	--

CONCRETE SIDEWALK 5-INCH CONTINUED

CATEGORY	STATION		TO	STATION	DIRECTION		DESCRIPTION	602.0410 CONCRETE SIDEWALK 5-INCH SF	SPV.0165.1005 COLORED STAMPED CONCRETE SIDEWALK 5-INCH SF
IH 794 EAST WEST									
STAGE 1									
1000	102+03	--	-	103+36	--	RT	WATER STREET	2,005	--
	102+14	--	-	103+16	--	LT	WATER STREET	917	--
	--	--	-	--	--	--	PARKING LOT WATER ST - BROADWAY	1,237	--
	201+37	--	-	202+86	--	RT	BROADWAY	1,400	--
	202+44	--	-	203+20	--	LT	BROADWAY	620	--
	9+63	BE	-	10+99	BE	LT	RAMP BE	935	--
	302+79	--	-	302+99	--	RT	MILWAUKEE STREET	2,205	--
	302+82	--	-	303+09	--	LT	MILWAUKEE STREET	198	--
	100+10	--	-	102+29	--	RT/LT	PEDESTRIAN TUNNEL	2,105	--
	13+56	JE	-	14+56	JE	RT	RAMP JE	3,630	--
	401+85	--	-	401+99	--	LT	ST PAUL AVENUE	108	--
							SUBTOTAL STAGE 1	15,360	--
STAGE 2									
1000	103+12	--	-	104+07	--	RT	WATER STREET	1,100	--
	103+16	--	-	104+50	--	LT	WATER STREET	1,135	--
	202+86	--	-	204+10	--	RT	BROADWAY	2,525	--
	205+06	--	-	205+20	--	RT	BROADWAY	148	--
	204+36	--	-	204+57	--	LT	BROADWAY	237	--
	205+07	--	-	205+27	--	LT	BROADWAY	280	--
	301+66	--	-	304+16	--	RT	MILWAUKEE STREET	1,245	--
	305+01	--	-	305+16	--	RT	MILWAUKEE STREET	366	--
	301+97	--	-	303+41	--	LT	MILWAUKEE STREET	2,500	--
	304+34	--	-	304+53	--	LT	MILWAUKEE STREET	142	--
	305+02	--	-	305+16	--	LT	MILWAUKEE STREET	148	--
	1+44	MW	-	2+33	MW	RT	RAMP MW	2,055	--
	1+22	MW	-	2+36	MW	LT	RAMP MW	1,556	--
	102+74	--	-	103+89	--	RT/LT	PEDESTRIAN TUNNEL	1,148	--
	23+26	JW	-	24+05	JW	LT	PARKING LOT	170	--
	14+51	JE	-	14+57	JE	RT/LT	RAMP JE	435	--
	24+00	JW	-	25+24	JW	RT	RAMP JW	4,070	--
							SUBTOTAL STAGE 2	19,260	--
							SUBTOTAL IH 794 EAST-WEST	34,719	--
							PROJECT TOTAL	38,100	1,860

CONCRETE WHEEL STOP

CATEGORY	FROM	TO	DESCRIPTION	SPV.0060.1070 EACH
IH 794 EAST-WEST				
STAGE 2				
1000	WATER STREET	BROADWAY	PARKING LOT	102
	BROADWAY	MILWAUKEE STREET	PARKING LOT	64
	MILWAUKEE STREET	JEFFERSON PEDESTRIAN WALKWAY	PARKING LOT	86
	JEFFERSON PEDESTRIAN WALKWAY	JACKSON STREET	PARKING LOT	84
			PROJECT TOTAL	336

CURB RAMP DETECTABLE WARNING FIELD YELLOW

CATEGORY	STATION	DIRECTION		DESCRIPTION	602.0505 SF
LAKE INTERCHANGE					
PRE-STAGE					
1000	189+59	LS	LT	LINCOLN MEMORIAL	24
STAGE 2					
1000	189+00	LS	RT	LINCOLN MEMORIAL	24
	189+71	LS	RT	LINCOLN MEMORIAL	24
	188+72	LS	LT	LINCOLN MEMORIAL	24
	189+50	LS	LT	LINCOLN MEMORIAL	24
	401+32	--	RT	MICHIGAN STREET	8
	402+88	--	RT	MICHIGAN STREET	8
	401+45	--	LT	MICHIGAN STREET	8
	402+87	--	LT	MICHIGAN STREET	8
				SUBTOTAL STAGE 2	128
				SUBTOTAL LAKE INTERCHANGE	152
IH 794 EAST-WEST					
PRE-STAGE					
1000	52+92	JX	RT	RAMP JX	16
	52+89	JX	LT	RAMP JX	8
				SUBTOTAL PRE-STAGE	24
STAGE 1					
1000	--	--	--	PARKING LOT - WATER ST	40
	9+65	BE	LT	RAMP BE	8
	9+83	BE	LT	RAMP BE	8
	100+46	--	RT/LT	PEDESTRIAN TUNNEL	16
	100+70	--	RT/LT	PEDESTRIAN TUNNEL	16
	401+89	--	LT	ST PAUL AVENUE	8
	401+95	--	LT	ST PAUL AVENUE	8
				SUBTOTAL STAGE 1	104
STAGE 2					
1000	204+07	--	RT	BROADWAY	8
	205+10	--	RT	BROADWAY	8
	204+52	--	LT	BROADWAY	8
	205+13	--	LT	BROADWAY	8
	305+10	--	RT	NILWAUKEE STREET	16
	304+48	--	LT	NILWAUKEE STREET	8
	305+06	--	LT	NILWAUKEE STREET	8
	1+32	MW	RT	RAMP MW	8
	1+38	MW	LT	RAMP MW	16
	14+53	JE	LT	RAMP JE	8
	14+52	JE	RT	RAMP JE	8
				SUBTOTAL STAGE 2	104
				SUBTOTAL IH 794 EAST-WEST	232
				PROJECT TOTAL	384

CONCRETE BARRIER TYPE S32A

CATEGORY	STATION	TO	STATION	DIRECTION	603.1232 LF
HOAN BRIDGE					
PRE-STAGE					
1000	61+14 LF	-	66+41 LF	LT	178
	62+00 LF	-	65+75 LF	RT	255
				SUBTOTAL HOAN BRIDGE	433
LAKE INTERCHANGE					
STAGE 1					
1000	354+61 LE	-	355+53 LE	RT	89
	355+20 LE	-	357+38 LE	LT	220
				SUBTOTAL STAGE 1	309

CONCRETE BARRIER TYPE S32A

CATEGORY	STATION	TO	STATION	DIRECTION	603.1232 LF
LAKE INTERCHANGE					
STAGE 2					
1000	356+12 LW	-	357+44 LW	LT	133
	356+12 LW	-	357+31 LW	RT	120
	181+80 LS	-	182+13 LS	LT	34
	181+80 LS	-	182+35 LS	RT	56
	177+86 LN	-	178+15 LN	LT	29
	177+87 LN	-	178+15 LN	RT	28
				SUBTOTAL STAGE 2	400
				SUBTOTAL LAKE INTERCHANGE	709
IH 794 EAST-WEST					
PRE-STAGE					
1000	614+85 EB	-	618+90 EB	LT	418
				SUBTOTAL IH 794 EAST-WEST	418
				PROJECT TOTAL	1,560

MOVABLE CONCRETE BARRIER

CATEGORY	STATION		TO	STATION		DIRECTION	SPV.0060.1030 LATERAL MOVEMENT OF MOVEABLE CONCRETE BARRIER EACH	SPV.0090.1030 MOVEABLE CONCRETE BARRIER DELIVERED AND INITIAL INSTALLATION LF	SPV.0090.1031 MOVEABLE CONCRETE BARRIER FINAL REMOVAL LF	SPV.0090.1032 MOVEABLE CONCRETE BARRIER REINSTALLATION LF	SPV.0135.1001 MOVEABLE CONCRETE BARRIER TRANSFER AND TRANSPORT VEHICLE MONTH
HOAN BRIDGE											
STAGE 1											
1000	37+50	LT	-	171+84	NB	RT	470	13,450	--	--	11
STAGE 2A											
1000	37+50	LF		169+46	SB	RT	400	--	230	13,200	10
STAGE 2B											
1000	147+55	LF	-	152+25	LF	LT	110	--	1,720	475	3
STAGE 2C											
1000	147+00	LF	-	152+24	LF	LT	--	--	11,500	475	--
						PROJECT TOTAL	980	13,450	13,450	14,150	24

CONCRETE BARRIER TEMPORARY

CATEGORY	STATION		TO	STATION		DIRECTION	OFFSET	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLATION LF
HOAN BRIDGE									
PRE-STAGE 2									
1000	62+50	LF	-	66+00	LF	LT	11'	350.0	350.0
	61+50	LF	-	65+50	LF	RT	20'	400.0	400.0
						SUBTOTAL PRE-STAGE 2		750.0	750.0
STAGE 1									
1000	36+50	LF	-	37+85	LF	RT	0'	125.0	125.0
	62+75	LF	-	65+37	LF	RT	5'	262.5	262.5
						SUBTOTAL STAGE 1		387.5	387.5
STAGE 2A									
1000	63+00	LF	-	64+75	LF	--	--	--	212.5
STAGE 2B									
1000	62+79	LF	-	65+00	LF	LT	5'	--	212.5
STAGE 2C									
1000	148+00	LF	-	150+75	LF	LT	5'	275.0	275.0
						SUBTOTAL HOAN BRIDGE		1,412.5	1,837.5
LAKE INTERCHANGE									
PRE STAGE 2									
1000	PARKING LOT UNDER TEMP BRIDGE					--	--	475.0	475.0
STAGE 1									
1000	739+25	WB	-	764+84	WB	--	--	1,537.5	1,537.5
STAGE 2A									
1000	178+75	LS	-	640+53	EB	--	--	1,387.5	1,487.5
						SUBTOTAL LAKE INTERCHANGE		3,400.0	3,500.0
IH 794 EAST-WEST									
PRE STAGE 1									
1000	714+40	WB	-	717+75	WB	LT	16'	325.0	325.0
	714+50	WB	-	717+75	WB	LT	35'	337.5	337.5
						SUBTOTAL PRE-STAGE 1		662.5	662.5
PRE STAGE 2									
1000	713+75	WB	-	720+50	WB	RT	8'	712.5	712.5
	613+75	EB	-	620+00	EB	LT	3'	650.0	650.0
						SUBTOTAL PRE-STAGE 2		1,362.5	1,362.5
STAGE 1									
1000	719+75	WB	-	62+50	WB	LT	--	2,262.5	2,825.0
	WATER STREET					--	--	225.0	437.5
	MILWAUKEE STREET					--	--	187.5	362.5
	PUBLIC MARKET PARKING LOT					--	--	250.0	250.0
						SUBTOTAL STAGE 1		2,925.0	3,875.0

CONCRETE BARRIER TEMPORARY CONTINUED

CATEGORY	STATION		TO	STATION		DIRECTION	OFFSET	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLATION LF
IH 794 EAST-WEST									
STAGE 2A									
1000	614.+75.00	EB	-	640+53.00	EB	RT	--	2,062.5	2,575.0
	BROADWAY					--	--	75.0	75.0
	PUBLIC MARKET PARKING LOT					--	--	--	212.5
						SUBTOTAL STAGE 2A		2,137.5	2,862.5
STAGE 2B (PHASE 1)									
1000	610+75.00	EB	-	720+55.00	EB	--	--	1,137.5	1,425.0
STAGE 2B (PHASE 2)									
	610+75.00	EB	-	720+55.00	EB	--	--	662.5	662.5
						SUBTOTAL IH 794 EAST-WEST		8,887.5	10,850.0
						PROJECT TOTAL		13,700.0	16,187.5

STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH

CATEGORY	STATION		TO	STATION		DIRECTION	608.0312* LF
HOAN BRIDGE							
PRE-STAGE 1							
1000	21+90	NX	-	21+85	NX	--	42
	21+85	NX	-	21+90	NX	RT	15
						SUBTOTAL HOAN BRIDGE	57
LAKE INTERCHANGE							
PRE-STAGE 1							
1000	60+66	MX	-	60+68	MX	RT	16
						SUBTOTAL PRE-STAGE 1	16
PRE-STAGE 2							
1000	42+47	IX	-	42+63	IX	RT	16
	42+63	IX	-	43+00	IX	RT	36
	44+12	IX	-	44+21	IX	LT	33
	53+51	JX	-	54+06	JX	RT	58
						SUBTOTAL PRE-STAGE 2	143
						SUBTOTAL LAKE INTERCHANGE	159
						PROJECT TOTAL	216

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

INLET COVERS TYPE MS

CATEGORY	STATION	OFFSET	DIRECTION	611.0642 EACH
LAKE INTERCHANGE				
PRE-STAGE 2				
1000	42+47.00	IX 4'	RT	1
	43+00.00	IX 4'	RT	1
			PROJECT TOTAL	2

INLET COVERS TYPE S

CATEGORY	STATION		OFFSET	LOCATION	611.0651* EACH
LAKE INTERCHANGE					
PRE-STAGE 1					
1000	60+68.00	MX	15.9'	RT	1
PRE-STAGE 2					
1000	51+94.00	JX	3.6'	LT	1
	53+56.00	JX	29.5'	RT	1
	54+05.00	JX	4'	RT	1
				SUBTOTAL PRE-STAGE 2	3
				PROJECT TOTAL	4

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

INLETS 2x2-FT

CATEGORY	STATION		OFFSET	DIRECTION	611.3220* EACH
LAKE INTERCHANGE					
PRE-STAGE 1					
1000	60+68.00	MX	15.9'	RT	1
PRE-STAGE 2					
1000	53+56.00	JX	29.5'	RT	1
				PROJECT TOTAL	2

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

INLETS MEDIAN 1 GRATE

CATEGORY	STATION		OFFSET	DIRECTION	611.3901 EACH
LAKE INTERCHANGE					
PRE-STAGE 2					
1000	42+47.00	IX	4'	RT	1
	43+00.00	IX	4'	RT	1
				PROJECT TOTAL	2

ADJUSTING INLET COVERS

CATEGORY	STATION		OFFSET	DIRECTION	611.8115* EACH
LAKE INTERCHANGE					
PRE-STAGE 2					
1000	42+65	IX	3'	RT	1
	759+50	WI	13'	LT	1
	51+95	JX	4'	LT	1
				PROJECT TOTAL	3

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ADJUSTING MANHOLE COVERS

CATEGORY	STATION	OFFSET	DIRECTION	LOCATION	UTILITY TYPE	611.8110* EACH
HOAN BRIDGE						
PRE-STAGE						
1000	239+74.09	9.9'	RT	S. Lincoln Memorial Drive	City of Milw. Storm sewer	1
	244+99.26	2.3'	RT	S. Lincoln Memorial Drive	City of Milw. Storm sewer	1
	250+41.81	12.2'	LT	S. Lincoln Memorial Drive	City of Milw. Storm sewer	1
	256+95.63	8.6'	RT	S. Lincoln Memorial Drive	City of Milw. Sanitary sewer	1
	257+16.14	11.5'	LT	S. Lincoln Memorial Drive	City of Milw. Storm sewer	1
	261+81.76	8.9'	LT	S. Lincoln Memorial Drive	City of Milw. Storm sewer	1
					SUBTOTAL HOAN BRIDGE	6
IH 794 EAST-WEST						
PRE-STAGE						
1000	632+58.21 EB	19.40'	LT	Milwaukee River	Communication	1
	632+61.27 EB	25.62'	RT	Milwaukee River	D.O.T. Electric	1
					SUBTOTAL PRE-STAGE	2
STAGE 2						
1000	632+58.21 EB	19.40'	LT	Milwaukee River	Communication	1
	632+61.27 EB	25.62'	RT	Milwaukee River	D.O.T. Electric	1
	100+92.71	24.58'	RT	Water Street	We Energies - Steam	1
	101+04.94	18.63'	RT	Water Street	City of Milwaukee - Combined Sewer	1
	101+44.07	30.98'	LT	Water Street	MMSD	1
	101+56.86	10.55'	LT	Water Street	City of Milwaukee	1
	101+80.66	16.17'	RT	Water Street	City of Milwaukee - Combined Sewer	1
	102+31.08	13.07'	LT	Water Street	City of Milwaukee	1
	102+65.54	13.16'	RT	Water Street	City of Milwaukee - Combined Sewer	1
	103+28.83	16.93'	LT	Water Street	City of Milwaukee	1
	103+50.07	10.66'	RT	Water Street	City of Milwaukee - Combined Sewer	1
	104+01.30	6.84'	LT	Water Street	MMSD	1
	104+01.87	9.34'	RT	Water Street	City of Milwaukee - Combined Sewer	1
	104+31.61	1.27'	RT	Water Street	We Energies - Steam	1
	104+35.68	7.94'	RT	Water Street	City of Milwaukee - Combined Sewer	1
	200+92.17	3.11'	RT	Broadway	City of Milw. Storm sewer	1
	201+36.77	15.96'	RT	Broadway	We Energies - Steam	1
	201+79.50	3.51'	RT	Broadway	City of Milwaukee - Combined Sewer	1
	202+62.79	3.16'	RT	Broadway	City of Milw. Storm sewer	1
	202+64.93	8.33'	RT	Broadway	City of Milw. Storm sewer	1
	204+33.77	2.97'	RT	Broadway	City of Milw. Storm sewer	1
	301+71.82	4.57'	RT	Milwaukee Street	City of Milwaukee - Sewer	1
	635+85.91 EB	33.43'	RT	Public Market Parking Lot	Sanitary Sewer	1
	740+18.34 WB	27.27'	LT	Private Parking Lot	WisDOT Traffic Lighting	1
	740+26.24 WB	28.74'	LT	Private Parking Lot	WisDOT Traffic Lighting	1
					SUBTOTAL STAGE 2	25
					SUBTOTAL IH 794 EAST-WEST	27
1000				UNDISTRIBUTED		5
					PROJECT TOTAL	38

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ADJUSTING WATER BOXES

CATEGORY	STATION	STREET	OFFSET	DIRECTION	SPV.0060.1068 EACH
HOAN BRIDGE					
PRE-STAGE					
1000	210+64.94	S. LINCOLN MEMORIAL DRIVE	7.8'	LT	1
	258+06.03	S. LINCOLN MEMORIAL DRIVE	0.9'	LT	1
				SUBTOTAL HOAN BRIDGE	2
IH 794 EAST-WEST					
STAGE 2					
1000	100+85.37	WATER STREET	50.95'	RT	1
	200+81.54	BROADWAY	7.40'	LT	1
	200+88.67	BROADWAY	13.65'	LT	1
	202+11.31	BROADWAY	14.31'	LT	1
	302+81.53	MILWAUKEE STREET	25.83'	LT	1
	302+87.68	MILWAUKEE STREET	21.44'	LT	1
	304+36.26	MILWAUKEE STREET	20.17'	LT	1
	304+54.35	MILWAUKEE STREET	47.47'	RT	1
	304+54.58	MILWAUKEE STREET	0.48'	LT	1
	304+56.31	MILWAUKEE STREET	33.02'	LT	1
	304+57.35	MILWAUKEE STREET	20.78'	RT	1
				SUBTOTAL IH 794 EAST-WEST	11
				PROJECT TOTAL	13

WATER MAIN PROTECTION

CATEGORY	STATION		OFFSET	DIRECTION	SPV.0060.1069 EACH
IH 794 EAST-WEST					
STAGE 1					
1000	1+25.81	MW	37.0'	LT	1
				PROJECT TOTAL	1

ADJUSTING TES MANHOLE COVERS

CATEGORY	STATION	OFFSET	DIRECTION	LOCATION	UTILITY TYPE	SPV.0060.1107 EACH
LAKE INTERCHANGE						
PRE-STAGE						
1000	14+24.80 JE	35.04'	LT	Jackson Street	City of Milwaukee - Comm	1
STAGE 2						
1000	14+24.80 JE	35.04'	LT	Jackson Street	City of Milwaukee - Comm	1
					SUBTOTAL LAKE INTERCHANGE	2
IH 794 EAST-WEST						
STAGE 2						
1000	100+84.57	8.1'	RT	Water Street	City of Milwaukee - Comm	1
	204+45.73	13.0'	RT	Broadway	City of Milwaukee - Comm	1
	301+01.72	1.7'	LT	Milwaukee Street	City of Milwaukee - Comm	1
	304+29.56	0.0'	RT	Milwaukee Street	City of Milwaukee - Comm	1
					SUBTOTAL IH 794 EAST-WEST	4
					PROJECT TOTAL	6

EXPOSING EXISTING UTILITY

CATEGORY	LOCATION	STATION	OFFSET	DIRECTION	UTILITY	SPV.0060.1083 EXPOSING EXISTING UTILITY EACH	SPV.0060.1140 EXPOSING EXISTING UTILITY 12 TO 30 FT DEPTH EACH
LAKE INTERCHANGE							
PRE-STAGE							
1000	VAN BUREN ST PARKING LOT	96+75 IE	17'	RT	STORM SEWER	1	--
					SUBTOTAL LAKE INTERCHANGE	1	--
IH 794 EAST-WEST							
STAGE 1							
1000	WATER ST	102+21	39'	LT	City of Milwaukee 16" Water Main	2	--
	WATER ST	102+61	39'	LT	City of Milwaukee 16" Water Main	2	--
	WATER ST	103+39	39'	LT	City of Milwaukee 16" Water Main	2	--
	WATER ST	103+83	39'	LT	City of Milwaukee 16" Water Main	2	--
	BROADWAY	202+80	6'	RT	MMSD 51" top/36" bottom	--	1
					SUBTOTAL IH 794 EAST-WEST	8	1
UNDISTRIBUTED							
PRE-STAGE							
1000	UNDISTRIBUTED	--	--	--	--	4	--
STAGE 1							
1000	UNDISTRIBUTED	--	--	--	--	2	--
STAGE 2							
1000	UNDISTRIBUTED	--	--	--	--	4	1
					SUBTOTAL UNDISTRIBUTED	10	1
					PROJECT TOTAL	19	2

COVER PLATES TEMPORARY

CATEGORY	STATION		OFFSET	DIRECTION	611.8120.S EACH
HOAN BRIDGE					
PRE-STAGE 1					
1000	21+85.00	NX	32'	RT	1
			SUBTOTAL HOAN BRIDGE		1
LAKE INTERCHANGE					
PRE-STAGE 1					
1000	60+66.00	MX	1'	LT	1
			SUBTOTAL PRE-STAGE 1		1
PRE-STAGE 2					
1000	756+50.00	WI	2'	LT	1
	757+00.00	WI	2'	RT	1
	41+45.00	IX	--	--	1
	93+59.00	IE	33'	LT	1
	93+59.00	IE	5'	RT	1
	758+25.00	WI	--	--	1
	758+23.00	WI	26'	RT	1
	42+60.00	IX	12'	LT	1
	42+70.00	IX	27'	RT	1
	43+20.00	IX	27'	RT	1
	759+24.00	WI	36'	RT	1
	759+56.00	WI	14'	RT	1
	759+60.00	WI	21'	RT	1
	43+50.00	IX	28'	LT	1
	43+60.00	IX	3'	LT	1
	43+70.00	IX	23'	LT	1
	43+75.00	IX	15'	RT	1
	44+25.00	IX	20'	LT	1
	95+84.00	IE	27'	LT	1
	182+98.00	LN	27'	LT	1
	182+75.00	LN	1'	RT	1
	45+38.00	IX	32'	LT	1
	46+80.00	IX	25'	LT	1
			SUBTOTAL PRE-STAGE 2		23
STAGE 1B					
1000	14+07.00	JE	15'	LT	1
	14+11.00	JE	20'	LT	1
			SUBTOTAL STAGE 1B		2
			SUBTOTAL LAKE INTERCHANGE		26
			PROJECT TOTAL		27

SALVAGE INLET & MANHOLE COVERS

CATEGORY	STATION		OFFSET	DIRECTION	611.9705 SALVAGE MANHOLE COVERS EACH	611.9710 SALVAGE INLET COVERS EACH
HOAN BRIDGE						
PRE-STAGE 1						
1000	21+85.00	NX	32'	RT	--	1
			SUBTOTAL HOAN BRIDGE		--	1
LAKE INTERCHANGE						
PRE-STAGE 1						
1000	60+66.00	MX	1'	LT	--	1
PRE-STAGE 2						
1000	756+50.00	WI	2'	LT	--	1
	757+00.00	WI	2'	RT	--	1
	41+45.00	IX	00+00.00	00+00.00	--	1
	93+59.00	IE	33'	LT	--	1
	93+59.00	IE	5'	RT	--	1
	758+25.00	WI	--	--	--	1
	758+23.00	WI	26'	RT	--	1
	42+60.00	IX	12'	LT	--	1
	42+70.00	IX	27'	RT	--	1
	43+20.00	IX	27'	RT	1	--
	759+24.00	WI	36'	RT	1	--
	759+56.00	WI	14'	RT	--	1
	759+60.00	WI	21'	RT	--	1
	43+50.00	IX	28'	LT	--	1
	43+60.00	IX	3'	LT	1	--
	43+70.00	IX	23'	LT	--	1
	43+75.00	IX	15'	RT	1	--
	44+25.00	IX	20'	LT	--	1
	95+84.00	IE	27'	LT	--	1
	182+98.00	LN	27'	LT	--	1
	182+75.00	LN	1'	RT	--	1
	45+38.00	IX	32'	LT	--	1
	46+80.00	IX	25'	LT	--	1
	54+05.00	JX	4'	RT	--	1
			SUBTOTAL PRE-STAGE 2		4	20
			SUBTOTAL LAKE INTERCHANGE		4	21
			PROJECT TOTAL		4	22

CLEANING STORMWATER TREATMENT UNIT

CATEGORY	STRUCTURE TYPE	STATION	OFFSET	DIRECTION	SPV.0060.1146 EACH
IH 794 EAST-WEST					
STAGE 1					
1000	Hydrodynamic Separator	633+32.59	EB 109.2'	LT	1
				PROJECT TOTAL	1

CLEANING STORM SEWER PIPE

CATEGORY	PIPE SIZE INCH	STATION	OFFSET	DIRECTION	TO	STATION	OFFSET	DIRECTION	SPV.0090.1034 LF
LAKE INTERCHANGE									
STAGE 1									
1000	15 (Approx.)	167+62.64 SB	31.58'	LT	-	167+58.53 SB	21.71'	RT	54
	15 (Approx.)	167+58.53 SB	21.71'	RT	-	169+54.11 SB	231.95'	RT	287
						SUBTOTAL LAKE INTERCHANGE			341
HOAN BRIDGE									
STAGE 1									
1000	30	161+31.83 SB	61.4'	RT	-	160+62.64 SB	61.49'	RT	69
	30	160+62.64 SB	61.49'	RT	-	160+15.65 SB	61.58'	RT	48
	30	160+15.65 SB	61.58'	RT	-	159+67.10 SB	63.14'	RT	49
	30	159+67.10 SB	63.14'	RT	-	157+99.68 LF	40.54'	RT	167
	30	157+99.68 LF	40.54'	RT	-	156+74.39 LF	38.81'	RT	125
	30	156+74.39 LF	38.81'	RT	-	156+37.11 LF	39.27'	RT	37
	21	150+73.98 LF	40.39'	RT	-	152+85.96 LF	40.31'	RT	212
	30	152+85.96 LF	40.31'	RT	-	155+00.95 LF	40.73'	RT	215
	30	155+00.95 LF	40.73'	RT	-	156+37.11 LF	39.27'	RT	136
	42	156+37.11 LF	39.27'	RT	-	156+29.70 LF	381'	RT	342
	42	156+29.70 LF	381'	RT	-	156+78.82 LF	389.5'	RT	50
	42	156+78.82 LF	389.5'	RT	-	158+13.29 LF	550.1'	RT	210
	12	128+95.77 LF	13.51'	LT	-	128+96.18 LF	15.48'	RT	29
	12	128+96.18 LF	15.48'	RT	-	129+10.51 LF	22.12'	RT	16
	15	130+35.87 LF	21.39'	LT	-	130+36.65 LF	18.1'	RT	40
	15	130+36.65 LF	18.1'	RT	-	130+36.17 LF	35.62'	RT	18
	15	130+36.17 LF	35.62'	RT	-	131+01.52 LF	35.4'	RT	65
	18	131+01.52 LF	35.4'	RT	-	132+88.42 LF	36.24'	RT	187
	8	132+88.24 LF	21.98'	LT	-	132+88.77 LF	15.41'	RT	37
	12	132+88.77 LF	15.41'	RT	-	132+88.42 LF	36.24'	RT	21
	18	132+88.42 LF	36.24'	RT	-	133+98.71 LF	24.56'	RT	111
	18	133+98.71 LF	24.56'	RT	-	134+48.13 LF	41.24'	RT	52
	24	134+48.13 LF	41.24'	RT	-	135+04.96 LF	42.43'	RT	57
	24	135+04.96 LF	42.43'	RT	-	135+34.19 LF	68.3'	RT	39
	24	135+34.19 LF	68.3'	RT	-	136+11.23 LF	69.21'	RT	77
	24	136+11.23 LF	69.21'	RT	-	136+78.22 LF	69.81'	RT	67
	8	136+87.59 LF	21.69'	LT	-	136+87.16 LF	19.19'	RT	41
	10	136+87.16 LF	19.19'	RT	-	136+78.22 LF	69.81'	RT	51
	24	136+78.22 LF	69.81'	RT	-	137+47.62 LF	68.53'	RT	69
	24	137+47.62 LF	68.53'	RT	-	138+15.15 LF	69.27'	RT	68
	24	138+15.15 LF	69.27'	RT	-	139+18.83 LF	69.53'	RT	104
	24	139+18.83 LF	69.53'	RT	-	139+86.54 LF	124.14'	RT	87
	24	139+86.54 LF	124.14'	RT	-	140+25.78 LF	137.99'	RT	41
	30	140+04.54 LF	21.65'	LT	-	140+10.77 LF	21.52'	LT	6
	30	140+10.77 LF	21.52'	LT	-	140+31.29 LF	20.42'	LT	21
							SUBTOTAL HOAN BRIDGE		2,964
							PROJECT TOTAL		3,305

STORM SEWER SUMMARY

CATEGORY	ITEM NUMBER	DESCRIPTION	UNITS	HOAN BRIDGE STAGE 1	HOAN BRIDGE STAGE 2	LAKE INTERCHANGE PRE-STAGE	LAKE INTERCHANGE STAGE 1	LAKE INTERCHANGE STAGE 2	IH 794 EAST-WEST STAGE 1	IH 794 EAST-WEST STAGE 2	PROJECT TOTAL	
1000	204.0280	Sealing Pipes	EACH	--	--	--	--	--	25	29	54	
	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	62	--	--	--	--	134	915	1,111	*
	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	--	--	--	--	--	310	--	310	
	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	--	--	--	--	--	78	169	247	
	608.0336	Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	LF	--	--	--	--	--	1,163	--	1,163	
	610.0138	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 38x60-Inch	LF	--	--	--	--	--	401	--	401	
	611.0530	Manhole Covers Type J	EACH	--	--	1	--	--	1	--	2	
	611.0540	Manhole Covers Type K	EACH	43	44	--	--	--	9	10	106	
	611.0550	Manhole Covers Type M	EACH	2	--	--	--	--	--	--	2	
	611.0600	Inlet Covers Type A	EACH	--	--	--	--	--	1	1	2	
	611.0612	Inlet Covers Type C	EACH	1	--	--	--	--	17	10	28	
	611.0624	Inlet Covers Type H	EACH	--	--	--	--	--	2	3	5	
	611.0639	Inlet Covers Type H-S	EACH	--	--	--	--	--	--	2	2	
	611.0651	Inlet Covers Type S	EACH	--	--	--	--	--	2	1	3	*
	611.0654	Inlet Covers Type V	EACH	--	--	--	2	--	--	1	3	
	611.2004	Maholes 4-FT Diameter	EACH	--	--	--	--	--	5	11	16	
	611.2005	Maholes 5-FT Diameter	EACH	1	--	--	--	--	6	--	7	
	611.2006	Maholes 6-FT Diameter	EACH	--	--	--	--	--	3	--	3	
	611.2007	Maholes 7-FT Diameter	EACH	--	--	--	--	--	1	--	1	
	611.2008	Maholes 8-FT Diameter	EACH	--	--	--	--	--	4	--	4	
	611.3220	Inlet 2x2-FT	EACH	--	--	--	--	--	2	2	4	*
	611.3230	Inlet 2x3-FT	EACH	--	--	--	--	--	2	4	6	
	611.8110	Adjusting Manholes Covers	EACH	--	--	--	--	2	--	--	2	*
	611.8115	Adjusting Inlet Covers	EACH	--	--	1	--	6	3	6	16	*
	SPV.0060.1060	25'X8'X8' Stormwater Quality Vault	EACH	1	--	--	--	--	--	--	1	
	SPV.0060.1063	Downspout 8-Inch Special	EACH	43	44	--	--	--	12	9	108	
	SPV.0060.1064	Connection of Outfall F at Sheet Pile Dock Wall	EACH	1	--	--	--	--	--	--	1	
	SPV.0060.1065	Connection of Milwaukee River Outfall at Concrete Dock Wall	EACH	--	--	--	--	--	1	--	1	
	SPV.0060.1077	Catch Basins 4-FT Diameter Modified	EACH	43	44	--	--	--	10	10	107	
	SPV.0090.1006	Storm Sewer Pipe PVC 8-Inch	LF	--	--	--	--	--	75	49	124	
	SPV.0090.1013	Reinforced Thermosetting Resin Pipe, 8-Inch	LF	456	433	--	--	--	423	520	1,832	
	SPV.0090.1025	Riverwalk and Landscaping Removal and Restoration	LF	--	--	--	--	--	15	--	15	
	SPV.0090.1040	Retaining Wall and Landscaping Removal and Restoration	LF	--	--	--	--	--	8	4	12	
	SPV.0105.1024	Cured in Place Pipe Lining - Outfall E	LS	1	--	--	--	--	--	--	1	
	SPV.0105.1025	Replacing Stormwater Filtration Unit Cartridges	LS	--	--	--	--	--	1	--	1	
	SPV.0105.1026	Replacing Stormwater Filtration Unit Doors	LS	--	--	--	--	--	1	--	1	
	SPV.0105.1038	Proposed Storm Sewer Concrete Support Above Existing MIS	EACH	--	--	--	--	--	1	--	1	
7000	SPV.0165.1001	Bio-Filtration Basins, Under 400 SF	SF	--	--	--	--	--	--	536	536	
	SPV.0165.1007	Bio-Filtration Basins, Over 400 SF	SF	--	--	--	--	--	557	--	557	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

SAND BARRELS

CATEGORY	STATION		OFFSET	DIRECTION	614.0700 SAND BARREL ARRAYS EACH	614.0935 SALVAGED SAND BARRELS EACH
HOAN BRIDGE						
STAGE 1						
1000	77+59	LF	60'	LT	1	15
STAGE 2						
1000	171+56	NB	40'	RT	1	13
			SUBTOTAL HOAN BRIDGE		2	28
LAKE INTERCHANGE						
STAGE 1						
1000	639+35	EB	25'	LT	1	12
	649+29	EB	13'	LT	1	15
			SUBTOTAL LAKE INTERCHANGE		2	27
			PROJECT TOTAL		4	55

CRASH CUSHIONS PERMANENT LOW MAINTENANCE

CATEGORY	STATION		OFFSET	DIRECTION	614.0805 EACH
LAKE INTERCHANGE					
STAGE 2B					
1100	182+24.03	LS	35.8'	LT	1
	182+46.10	LS	6.3'	RT	1
			SUBTOTAL LAKE INTERCHANGE		2
IH 794 EAST-WEST					
STAGE 1					
1100	10+87.85	BE	45.3'	LT	1
	10+89.60	BE	4.1'	RT	1
			SUBTOTAL STAGE 1		2
STAGE 2					
1100	22+94.33	JW	42.5'	LT	1
	24.09+91	JW	5.5'	RT	1
			SUBTOTAL STAGE 2		2
			SUBTOTAL IH 794 EAST-WEST		4
			PROJECT TOTAL		6

CRASH CUSHIONS TEMPORARY

CATEGORY	STATION		OFFSET	DIRECTION	614.0905 CRASH CUSHIONS TEMPORARY EACH	SPV.0060.1081 MOVING CRASH CUSHIONS TEMPORARY EACH
HOAN BRIDGE						
PRE-STAGE 2A						
1000	61+50	LF	11'	RT	1	--
	66+00	LF	9'	LT	1	--
			SUBTOTAL PRE-STAGE 2		2	--
STAGE 1						
1000	36+60	LF	0'	RT	--	1
	62+80	LF	0'	RT	--	1
	65+37	LF	6'	RT	--	1
			SUBTOTAL STAGE 1		--	3
STAGE 2A						
1000	63+03	LF	37'	RT	--	1
STAGE 2B						
1000	62+79	LF	8'	LT	--	1
STAGE 2C						
1000	148+00	LF	5'	RT	--	1
	152+24	LF	8'	LT	--	1
			SUBTOTAL STAGE 2C		--	2
			SUBTOTAL HOAN BRIDGE		2	7
LAKE INTERCHANGE						
PRE-STAGE 2B						
1000	757+50	WI	3'	LT	1	--
STAGE 1						
1000	41+00	IX	4'	RT	1	--
	44+25	IX	37'	LT	1	--
	51+20	JX	4'	LT	1	--
			SUBTOTAL STAGE 1		3	--
STAGE 2A						
1000	92+30	IE	5'	RT	--	1
	92+85	IE	38'	LT	--	1
	98+65	IE	10'	RT	--	1
	13+65	JE	16'	LT	--	1
	BROADWAY AND CLYBOURN INTERSECTION				--	1
			SUBTOTAL STAGE 2A		--	5
			SUBTOTAL LAKE INTERCHANGE		4	5

CRASH CUSHIONS TEMPORARY CONTINUED

CATEGORY	STATION		OFFSET	DIRECTION	614.0905 CRASH CUSHIONS TEMPORARY EACH	SPV.0060.1081 MOVING CRASH CUSHIONS TEMPORARY EACH
IH 794 EAST-WEST						
PRE-STAGE 1						
1000	714+65	WB	36'	LT	--	1
	717+75	WB	22'	LT	1	--
			SUBTOTAL PRE-STAGE 1		1	1
PRE-STAGE 2A						
1000	613+50	EB	4'	LT	1	--
	720+50	WB	9'	RT	--	1
			SUBTOTAL PRE-STAGE 2A		1	1
STAGE 1						
	49+25	JX	32'	RT	1	--
	744+40	WB	90'	RT	--	1
	615+05	EB	47'	RT	--	1
			SUBTOTAL STAGE 1		1	2
STAGE 2B (PHASE 1)						
	610+60	EB	2'	LT	--	1
	720+50	WB	15'	RT	--	1
			SUBTOTAL STAGE 2B (PHASE 1)		--	2
STAGE 2B (PHASE 2)						
	716+55	WB	36'	LT	--	1
	717+75	WB	22'	LT	--	1
			SUBTOTAL STAGE 2B (PHASE 2)		--	2
			SUBTOTAL IH 794 EAST WEST		3	8
			PROJECT TOTAL		9	20

3

MSG GUARDRAIL 3

Category	STATION		OFFSET	TO	STATION		OFFSET	DIRECTION	614.2300 LF
HOAN BRIDGE									
STAGE 1									
1000	56+17.99	LF	69.5'	-	56+69.02	LF	70.4'	LT	50
STAGE 2									
1000	661+22.29	CN	6.8'	-	661+72.25	CN	4.7'	RT	50
	661+23.92	CN	21.8'	-	661+73.91	CN	21.8'	LT	50
								SUBTOTAL STAGE 2	100
								SUBTOTAL HOAN BRIDGE	150
LAKE INTERCHANGE									
STAGE 1									
	355+92.34	LE	33.1'	-	356+18.21	LE	33.6'	RT	25
	357+75.84	LE	5.3'	-	358+13.34	LE	5.3'	LT	37.5
								SUBTOTAL STAGE 1	62.5
STAGE 2									
1000	1+38.52	MW	3.5'	-	2+00.62	MW	3.5'	RT	62.5
	178+52.49	LN	6.5'	-	179+02.40	LN	3.7'	RT	50
	178+52.44	LN	29.7'	-	179+02.43	LN	28.8'	LT	50
								SUBTOTAL STAGE 2	162.5
								SUBTOTAL LAKE INTERCHANGE	225
IH 794 EAST-WEST									
STAGE 1									
1000	22+80.09	JW	44.5'	-	24+04.55	JW	48.2'	LT	87.5
								SUBTOTAL IH 794 EAST-EST	87.5
								PROJECT TOTAL	462.5

TEMPORARY THRIE BEAM CONNECTION

CATEGORY	STATION	DIRECTION	SPV.0060.0005* EACH
IH 794 EAST-WEST			
STAGE 2			
1000	619+10 EB	LT	1
		PROJECT TOTAL	1

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

MGS THRIE BEAM TRANSITION

Category	STATION		OFFSET	TO	STATION		OFFSET	DIRECTION	614.2500 LF
HOAN BRIDGE									
STAGE 1									
1000	55+80.50	LF	68.7'	-	56+17.99	LF	69.5'	LT	39.4
								SUBTOTAL STAGE 1	39.4
STAGE 2									
1000	61+25.85	LF	60.4'	-	61+61.70	LF	56.6'	RT	39.4
	661+72.25	CN	4.7'	-	662+09.72	CN	3.2'	RT	39.4
	661+73.91	CN	21.8'	-	662+11.41	CN	21.8'	LT	39.4
								SUBTOTAL STAGE 2	118.2
								SUBTOTAL HOAN BRIDGE	157.6
LAKE INTERCHANGE									
STAGE 1									
1000	355+53.52	LE	33.7'	-	355+92.34	LE	33.1'	RT	39.4
	357+38.38	LE	3.5'	-	357+75.84	LE	5.3'	LT	39.4
								SUBTOTAL STAGE 1	78.8
STAGE 2									
1000	2+00.62	MW	3.5'	-	2+37.66	MW	2.0'	RT	39.4
	357+31.00	LW	25.5'	-	357+68.50	LW	25.5'	RT	39.4
	357+44.31	LW	4.5'	-	357+81.81	LW	4.5'	LT	39.4
	178+15.10	LN	9.4'	-	178+52.49	LN	6.5'	RT	39.4
	178+14.96	LN	31.2'	-	178+52.44	LN	29.7'	LT	39.4
								SUBTOTAL STAGE 2	197
								SUBTOTAL LAKE INTERCHANGE	275.8
								PROJECT TOTAL	433.4

MGS GUARDRAIL TERMINAL EAT

CATEGORY	STATION		OFFSET	DIRECTION	614.2610 EACH
HOAN BRIDGE					
STAGE 1					
1000	57+23.93	LF	74.0'	LT	1
STAGE 2					
1000	60+74.81	LF	67.8'	RT	1
	660+69.22	CN	10.6'	RT	1
	660+71.05	CN	24.0'	LT	1
				SUBTOTAL STAGE 2	3
				SUBTOTAL HOAN BRIDGE	4
LAKE INTERCHANGE					
STAGE 2					
1000	358+21.58	LW	27.6'	RT	1
	358+34.90	LW	6.6'	LT	1
				SUBTOTAL LAKE INTERCHANGE	2
				PROJECT TOTAL	6

MGS GUARDRAIL TERMINAL TYPE 2

CATEGORY	STATION		OFFSET	DIRECTION	614.2620 EACH
LAKE INTERCHANGE					
STAGE 1					
1000	356+18.21	LE	33.6'	RT	1
	358+13.34	LE	5.3'	LT	1
				SUBTOTAL STAGE 1	2
STAGE 2					
1000	1+38.52	MW	3.5'	RT	1
	179+02.40	LN	3.7'	RT	1
	179+02.43	LN	28.8'	LT	1
				SUBTOTAL STAGE 2	3
				SUBTOTAL LAKE INTERCHANGE	5
IH 794 EAST-WEST					
STAGE 1					
1000	22+80.09	JW	44.5'	LT	1
	24+04.55	JW	48.2'	LT	1
				SUBTOTAL IH 794 EAST-WEST	2
				PROJECT TOTAL	7

FENCE CHAIN LINE 5-FT

CATEGORY	STATION		TO	STATION		DIRECTION	616.0205 LF
HOAN BRIDGE							
PRE-STAGE							
1000	661+25	CN	-	661+75	CN	RT	50
STAGE 1							
1000	61+34	LF	-	61+61	LF	LT	44
STAGE 2							
1000	62+25	LF	-	62+48	LF	RT	53
	661+75	CN	-	662+37	CN	RT	135
	182+20	LS	-	183+25	LS	RT & LT	193
						SUBTOTAL STAGE 2	381
						PROJECT TOTAL	475

FENCE SAFETY

CATEGORY	FROM		TO	DESCRIPTION	616.0700.S LF
IH 794 EAST-WEST					
STAGE 1 & 2					
1000	WATER STREET	-	BROADWAY	PARKING LOT	740
	BROADWAY	-	MILWAUKEE STREET	PARKING LOT	680
	MILWAUKEE STREET	-	JACKSON STREET	PARKING LOT	1,110
				UNDISTRIBUTED	170
				PROJECT TOTAL	2,700

CONCRETE MEDIAN SLOPED NOSE

CATEGORY	STATION		OFFSET	LOCATION	620.0300 SF
LAKE INTERCHANGE					
PRE-STAGE					
1000	188+78	LS	RT	LINCOLN MEMORIAL	21
	189+75	LS	RT	LINCOLN MEMORIAL	36
	189+53	LS	LT	LINCOLN MEMORIAL	9
	189+83	LS	LT	LINCOLN MEMORIAL	23
	402+74	--	LT	MICHIGAN STREET	21
	60+50	MX	LT	RAMP MX	22
				SUBTOTAL PRE-STAGE	132
STAGE 2					
1000	188+80	LS	RT	LINCOLN MEMORIAL	26
	189+07	LS	RT	LINCOLN MEMORIAL	20
	189+64	LS	RT	LINCOLN MEMORIAL	21
	189+68	LS	RT	LINCOLN MEMORIAL	25
	188+76	LS	LT	LINCOLN MEMORIAL	26
	188+85	LS	LT	LINCOLN MEMORIAL	22
	189+43	LS	LT	LINCOLN MEMORIAL	20
	189+73	LS	LT	LINCOLN MEMORIAL	27
	359+49	LW	RT	RAMP LW	14
	359+65	LW	RT	RAMP LW	19
				SUBTOTAL STAGE 2	220
				SUBTOTAL LAKE INTERCHANGE	352
IH 794 EAST-WEST					
STAGE 1					
1000	401+93		LT	ST PAUL AVENUE	11
	402+06		LT	ST PAUL AVENUE	27
	13+55	JE	RT	RAMP JE	36
				SUBTOTAL STAGE 1	74
STAGE 2					
1000	16+65	JE	LT	RAMP JE	30
				SUBTOTAL IH 794 EAST-WEST	104
				PROJECT TOTAL	456

DECORATIVE FENCE SPECIAL

CATEGORY	STATION		TO	STATION		DESCRIPTION	SPV.0090.1021 LF
IH 794 EAST-WEST							
STAGE 1							
7100	BROADWAY		-	MILWAUKEE STREET		PARKING LOT	175
STAGE 2							
7100	104+25	--	-	104+25	--	WATER STREET	113
	WATER STREET		-	BROADWAY		PARKING LOT	107
						SUBTOTAL STAGE 2	220
						PROJECT TOTAL	395

ORNAMENTAL PICKET FENCE 3-FT HT

CATEGORY	FROM STATION		TO STATION	LOCATION	SPV.0090.1022 LF
IH 794 EAST-WEST					
STAGE 1					
1000	BROADWAY	-	MILWAUKEE STREET	PARKING LOT	222
	MILWAUKEE STREET	-	JACKSON STREET	SOUTH PARKING LOT	987
				SUBTOTAL STAGE 1	1,209
STAGE 2					
1000	BROADWAY	-	MILWAUKEE STREET	PARKING LOT	381
	MILWAUKEE STREET	-	JACKSON STREET	SOUTH PARKING LOT	213
	MILWAUKEE STREET	-	JACKSON STREET	NORTH PARKING LOT	727
				SUBTOTAL STAGE 2	1,321
				PROJECT TOTAL	2,530

							LANDSCAPING						
							624.0100 WATER	625.0100 TOPSOIL	627.0200 MULCHING	629.0205 FERTILIZER TYPE A	630.0175 SEEDING MIXTURE NO. 75	631.0300 SOD WATER	631.1000 SOD LAWN
CATEGORY	STATION		TO	STATION		LOCATION	MGAL	SY	SY	CWT	LB	GAL	SY
HOAN BRIDGE													
PRE-STAGE 1													
1000	20+37	NX	-	24+55	NX	RAMP NX	--	1,110	1,110	0.70	7	--	--
	31+42	SX	-	33+64	SX	RAMP SX	--	90	90	0.10	1	--	--
						SUBTOTAL PRE-STAGE 1	--	1,200	1,200	0.80	8	--	--
STAGE 2													
1000	20+37	NX	-	24+55	NX	RAMP NX	--	2,120	2,120	1.35	13	--	--
	31+42	SX	-	33+64	SX	RAMP SX	--	520	520	0.35	3	--	--
						SUBTOTAL STAGE 2	--	2,640	2,640	1.70	16	--	--
						SUBTOTAL HOAN BRIDGE	--	3,840	3,840	2.50	24	--	--
LAKE INTERCHANGE													
PRE-STAGE 1													
1000	40+00	IX	-	47+50	IX	RAMP IX	--	2,220	2,220	1.40	14	--	--
	348+85	LW	-	359+61	LW	RAMP LW	--	110	110	0.07	1	--	--
	--	--	--	--	--	UNDISTRIBUTED	50	--	--	--	--	--	--
						SUBTOTAL PRE-STAGE 1	50	2,330	2,330	1	15	--	--
STAGE 2													
1000	171+46	LN	-	177+87	LN	RAMP LN	--	570	570	0.36	4	--	--
	169+69	LS	-	181+80	LS	RAMP LS	--	3,850	3,850	2.41	24	--	--
	348+85	LW	-	359+61	LW	RAMP LW	--	410	410	0.26	3	--	--
	--	--	-	--	--	UNDISTRIBUTED	50	--	--	--	--	--	--
						SUBTOTAL STAGE 2	50	4,830	4,830	3.03	31	--	--
						SUBTOTAL LAKE INTERCHANGE	100	7,160	7,160	4.50	46	--	--
IH 794 EAST-WEST													
STAGE 1													
1000	--	--	-	--	--	MILWAUKEE ST PARKING LOT	--	--	--	--	--	1	45
	--	--	-	--	--	CLYBOURN, ST PAUL PARKING LOT	--	--	--	--	--	9	420
						SUBTOTAL STAGE 1	--	--	--	--	--	10	465
STAGE 2													
1000	--	--	-	--	--	MILWAUKEE ST PARKING LOT	--	--	--	--	--	1	30
	--	--	-	--	--	CLYBOURN, ST PAUL PARKING LOT	--	--	--	--	--	11	480
	13+00	JE	-	16+00	JE	JACKSON STREET	--	--	--	--	--	15	675
						SUBTOTAL STAGE 2	--	--	--	--	--	27	1,185
						SUBTOTAL IH 794 EAST-WEST	--	--	--	--	--	37	1,650
						PROJECT TOTAL	100	11,000	11,000	7	70	37	1,650

EROSION CONTROL

CATEGORY	STATION		TO	STATION		LOCATION	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2002 EROSION MAT CLASS I TYPE A SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.6005 TURBIDITY BARRIERS SY
HOAN BRIDGE														
PRE-STAGE 1														
1000	--	--	-	--	--	PRE-STAGE 1 MOBILIZATION	--	--	--	1	3	--	--	--
	20+37	NX	-	24+55	NX	RAMP NX	--	535	535	--	--	1,100	--	--
	31+42	SX	-	33+64	SX	RAMP SX	--	320	320	--	--	90	--	--
						SUBTOTAL PRE-STAGE 1	--	855	855	1	3	1,190	--	--
STAGE 1														
1000	--	--	-	--	--	STORM SEWER OUTFALL E	10	--	--	1	1	--	--	108
	--	--	-	--	--	STORM SEWER OUTFALL F	10	--	--	--	1	--	--	115
						SUBTOTAL STAGE 1	20	--	--	1	2	--	--	223
STAGE 2														
1000	20+37	NX	-	24+55	NX	RAMP NX	--	631	631	1	1	--	2,110	--
	31+42	SX	-	33+64	SX	RAMP SX	--	315	315	--	--	--	520	--
						SUBTOTAL STAGE 2	--	946	946	1	1	--	2,630	--
						SUBTOTAL HOAN BRIDGE	20	1,801	1,801	3	6	1,190	2,630	223
LAKE INTERCHANGE														
PRE-STAGE 1														
1000	--	--	-	--	--	PRE-STAGE 1 MOBILIZATION	--	--	--	1	3	--	--	--
	40+00	IX	-	47+50	IX	RAMP IX	--	650	650	--	--	2,392	--	--
	348+85	LW	-	359+61	LW	RAMP LW	--	--	--	--	--	616	--	--
						SUBTOTAL PRE-STAGE 1	--	650	650	1	3	3,008	--	--
STAGE 2														
1000	171+46	LN	-	177+87	LN	RAMP LN	--	--	--	1	2	--	824	--
	169+69	LS	-	181+80	LS	RAMP LS	--	--	--	--	--	--	4,073	--
	348+85	LW	-	359+61	LW	RAMP LW	--	--	--	--	--	--	891	--
						SUBTOTAL STAGE 2	--	--	--	1	2	--	5,788	--
						SUBTOTAL LAKE INTERCHANGE	--	650	650	2	5	3,008	5,788	--
IH-794 EAST-WEST														
STAGE 1														
1000	--	--	--	--	--	STORM SEWER OUTFALL 100	10	--	--	1	1	--	--	47
						SUBTOTAL I-794 EAST-WEST	10	--	--	1	1	--	--	47
						PROJECT TOTAL	30	2,451	2,451	6	12	4,198	8,418	270

EROSION CONTROL CONTINUED

CATEGORY	STATION		TO	STATION		LOCATION	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7555 CULVERT PIPE CHECKS EACH	628.7560 TRACKING PADS EACH	628.7570 ROCK BAGS EACH	SPV.0180.1001 GEOTEXTILE FABRIC LINER TYPE FF SY
HOAN BRIDGE													
PRE-STAGE 1													
1000	38+00	LF	-	42+50	LF	STH 794 MEDIAN	--	--	4	--	--	--	--
	62+50	LF	-	64+00	LF	STH 794 MEDIAN	--	2	--	--	--	--	--
	64+00	LF	-	159+50	LF	UNDER HOAN BRIDGE	--	--	37	--	--	--	--
	615+00	EB	-	620+50	EB	STH 794 MEDIAN	--	10	--	--	--	--	--
	661+48	CN	-	662+42	CN	CONTRACTOR ACCESS - TEMP EASEMENT	--	--	--	--	1	--	--
	20+37	NX	-	24+55	NX	RAMP NX	1	--	--	2	--	--	--
	31+42	SX	-	33+64	SX	RAMP SX	1	--	--	--	--	--	--
	--	--	--	--	--	UNDISTRIBUTED	--	--	--	--	--	20	--
						SUBTOTAL PRE-STAGE 1	2	12	41	2	1	20	--
STAGE 1													
1000	--	--	--	--	--	STORM SEWER OUTFALL E	--	--	--	--	--	20	17
	--	--	--	--	--	STORM SEWER OUTFALL F	--	--	--	--	--	20	17
						SUBTOTAL STAGE 1	--	--	--	--	--	40	34
STAGE 2													
1000	20+37	NX	-	24+55	NX	RAMP NX	--	--	5	--	--	--	--
	31+42	SX	-	33+64	SX	RAMP SX	--	--	7	--	--	--	--
						SUBTOTAL STAGE 2	--	--	12	--	--	--	--
						SUBTOTAL HOAN BRIDGE	2	12	53	2	1	60	34
LAKE INTERCHANGE													
PRE-STAGE 1													
	40+00	IX	-	47+50	IX	RAMP IX	4	--	19	--	--	--	--
	60+47	MX	-	60+94	MX	RAMP MX	--	--	2	--	--	--	--
	51+81	JX	-	54+18	JX	RAMP JX	--	--	5	--	--	--	--
	--	--	--	--	--	LINCOLN MEMORIAL DRIVE	--	--	7	--	--	--	--
						SUBTOTAL LAKE INTERCHANGE	4	--	33	--	--	--	--
I-794 EAST-WEST													
STAGE 1													
1000	--	--	--	--	--	STORM SEWER OUTFALL 100	--	--	--	--	--	20	16
	--	--	--	--	--	WATER ST PARKING LOT	1	--	4	--	--	--	--
	--	--	--	--	--	MILWAUKEE ST PARKING LOT	2	--	4	--	--	--	--
	--	--	--	--	--	CLYBOURN, ST PAUL PARKING LOT	2	--	2	--	--	--	--
						SUBTOTAL STAGE 1	5	--	10	--	--	20	16
STAGE 2													
1000	--	--	--	--	--	WATER ST PARKING LOT	2	--	--	--	--	--	--
	--	--	--	--	--	MILWAUKEE ST PARKING LOT	3	--	3	--	--	--	--
	--	--	--	--	--	CLYBOURN, ST PAUL PARKING LOT	6	--	8	--	--	--	--
						SUBTOTAL STAGE 2	11	--	11	--	--	--	--
						SUBTOTAL I-794 EAST-WEST	16	--	21	--	--	20	16
						PROJECT TOTAL	22	12	107	2	1	80	50

SIGN TYPES & FIXED MESSAGE

CATEGORY	STATION		LOCATION	SIGN NO.	SIZE FEET	634.0618* POSTS WOOD 4X6-INCH X 18-FT EACH	634.0622* POSTS WOOD 4X6-INCH X 22-FT EACH	637.0202* SIGNS REFLECTIVE TYPE II SF	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	SPV.0165.1006 SIGNS TYPE I TEMPORARY SF
HOAN BRIDGE										
STAGE 1										
1000	--	--	STH 794	508	13 X 6	--	--	--	78.00	--
	--	--	STH 794	509	8 X 3.5	--	--	--	28.00	--
	--	--	CARFERRY DRIVE	510	4.5 X 4	--	--	--	18.00	--
	--	--	CARFERRY EX RAMP	511	4.5 X 4	--	--	--	18.00	--
	60+00	LF	--	604	12 X 5	3	--	--	--	60.00
	65+50	LF	--	512	6 X 4	--	--	--	24.00	--
	66+50	LF	--	513	4.5 X 4	--	--	--	18.00	--
	68+00	LF	--	514	4 X 3.5	--	--	--	14.00	--
	72+50	LF	--	515	4.5 X 4	--	--	--	18.00	--
	104+00	LF	--	605	6 X 3	--	--	18.00	--	--
	146+50	LF	--	516	5 X 6	--	--	--	30.00	--
	151+50	LF	--	606	6 X 4	--	--	24.00	--	--
	167+50	LF	--	517	4.5 X 4	--	--	--	18.00	--
	170+45	NB	--	607	15.5 X 10	--	--	--	--	155.00
	170+45	NB	--	608	11.5 X 5.5	--	--	--	--	63.25
					SUBTOTAL STAGE 1	3	--	42.00	264.00	278.25
STAGE 2										
1000	39+00	LF	--	527	6 X 4	--	--	--	24.00	--
DETOUR										
1000	--	--	STH 794	904	8.5 X 6	--	--	--	51.00	--
					SUBTOTAL HOAN BRIDGE	3	--	42.00	339.00	278.25
LAKE INTERCHANGE										
PRE-STAGE 2										
1000	186+75	LN	--	601	14 X 4	--	--	--	--	56.00
	186+75	LN	--	602	12 X 3	--	--	--	--	36.00
	190+25	LS	--	603	8.5 X 5.5	--	--	--	--	46.75
					SUBTOTAL PRE-STAGE 2	--	--	--	--	138.75
STAGE 1										
1000	180+30	LN	--	609	15.5 X 10	--	4	--	--	155.00
	180+00	LN	--	610	13 X 4	3	--	--	--	52.00
	180+70	LN	--	518	4.5 X 4	--	--	--	18.00	--
	52+00	JX	--	519	6 X 2.5	--	--	--	15.00	--
	--	--	LINCOLN MEM DR	526	13 X 6	--	--	--	78.00	--
					SUBTOTAL STAGE 1	3	4	--	111.00	207.00
STAGE 2A										
	169+50	SB	--	619	15.5 X 10	--	--	--	--	155.00
	169+50	SB	--	620	11.5 X 5.5	--	--	--	--	63.25
	103+50	IE	--	621	5 X 3.5	--	--	17.50	--	--
	97+50	IE	--	622	15.5 X 10	--	--	--	--	155.00
	97+50	IE	--	623	16 X 8	--	--	--	--	128.00
	97+50	IE	--	528	4.5 X 4	--	--	--	18.00	--
	187+50	LN	--	540	4.5 X 4	--	--	--	18.00	--
	188+00	LN	--	541	4.5 X 4	--	--	--	18.00	--
					SUBTOTAL STAGE 2A	--	--	17.50	54.00	501.25
					SUBTOTAL LAKE INTERCHANGE	3	4	17.50	165.00	847.00

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

SIGN TYPES & FIXED MESSAGE CONTINUED

CATEGORY	STATION		LOCATION	SIGN NO.	SIZE FEET	634.0618* POSTS WOOD 4X6-INCH X 18-FT EACH	634.0622* POSTS WOOD 4X6-INCH X 22-FT EACH	637.0202* SIGNS REFLECTIVE TYPE II SF	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	SPV.0165.1006 SIGNS TYPE I TEMPORARY SF
IH 794 EAST-WEST										
PRE-STAGE 2										
1000	609+75	EB	--	501	6 X 5	--	--	--	30.00	--
	611+30	EB	--	502	6 X 2	--	--	--	12.00	--
	618+00	EB	--	503	6 X 5	--	--	--	30.00	--
	619+05	EB	--	504	10 X 4	--	--	--	40.00	--
	632+40	EB	--	505	10 X 4	--	--	--	40.00	--
	644+10	EB	--	506	10 X 2	--	--	--	20.00	--
	648+25	EB	--	507	14 X 2	--	--	--	28.00	--
					SUBTOTAL PRE-STAGE 2	--	--	--	200.00	--
STAGE 1										
1000	731+70	WB	--	611	14.5 X 8	--	--	--	--	116.00
	731+70	WB	--	612	17.5 X 8	--	--	--	--	140.00
	731+70	WB	--	613	9 X 2.5	--	--	--	--	22.50
	719+00	WB	--	614	14.5 X 8	--	--	--	--	116.00
	719+00	WB	--	615	15 X 7.5	--	--	--	--	112.50
	719+00	WB	--	616	9 X 2.5	--	--	--	--	22.50
	719+00	WB	--	617	15 X 11	--	--	--	--	165.00
	719+00	WB	--	618	10.5 X 2.5	--	--	--	--	26.25
	711+50	WB	--	520	5 X 1.5	--	--	--	7.50	--
			IH 794 EB	521	4 X 3.5	--	--	--	14.00	--
	--	--	IH 94 EB	522	13 X 6	--	--	--	78.00	--
	--	--	IH 94 WB	523	13 X 6	--	--	--	78.00	--
	--	--	IH 94 WB	524	13 X 6	--	--	--	78.00	--
	--	--	IH 43 SB	525	13 X 6	--	--	--	78.00	--
	--	--	IH 43 SB	525A	14 X 6.5	--	--	--	91.00	--
					SUBTOTAL STAGE 1	--	--	--	424.50	720.75
STAGE 2A										
	632+40	EB	--	529	14 X 2	--	--	--	28.00	--
	619+05	EB	--	530	10 X 2	--	--	--	20.00	--
	716+35	WB	--	624	6 X 4	--	--	24.00	--	--
	612+80	EB	--	531	11.5 X 2	--	--	--	23.00	--
	611+50	EB	--	532	10 X 2	--	--	--	20.00	--
	606+90	EB	--	533	6 X 5.5	--	--	--	33.00	--
	606+90	EB	--	534	11.5 X 2	--	--	--	23.00	--
	--	--	IH 94 EB	535	6 X 2	--	--	--	12.00	--
	--	--	IH 94 EB	536	15 X 8	--	--	--	120.00	--
	--	--	IH 94 WB	537	10 X 4	--	--	--	40.00	--
	--	--	IH 94 WB	538	11 X 5.5	--	--	--	60.50	--
	--	--	IH 43 SB	539	15 X 8	--	--	--	120.00	--
					SUBTOTAL STAGE 2A	--	--	24.00	499.50	--
DETOUR										
	--	--	IH 94 EB	900	8.5 X 6	--	--	--	51.00	--
	--	--	IH 43 SB	901	8.5 X 6	--	--	--	51.00	--
	--	--	IH 94 EB	902	8.5 X 6	--	--	--	51.00	--
	--	--	IH 43 SB	903	8.5 X 6	--	--	--	51.00	--
					SUBTOTAL DETOUR	--	--	--	204.00	--
					SUBTOTAL IH 794 EAST-WEST	--	--	24.00	1,328.00	720.75
					PROJECT TOTAL	6	4	83.50	1,832.00	1,846.00

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

MOVING SIGNS

CATEGORY	STATION		638.2101* MOVING SIGNS TYPE I EACH	638.2102* MOVING SIGNS TYPE II EACH
HOAN BRIDGE				
STAGE 1				
1000	48+00	LF	2	--
STAGE 2A				
1000	66+00	LF	1	--
	80+50	LF	--	1
	83+00	LF	--	1
	84+00	LF	--	1
	97+00	LF	--	1
	104+00	LF	--	1
	149+50	LF	--	1
SUBTOTAL STAGE 2A			1	6
STAGE 2B				
1000	67+00	LF	1	--
SUBTOTAL HOAN BRIDGE			4	6
LAKE INTERCHANGE				
PRE-STAGE 2A				
1000	190+25	LS	1	1
PRE-STAGE 2B				
1000	185+00	LS	1	--
	190+25	LS	2	1
SUBTOTAL PRE-STAGE 2B			3	1
STAGE 1				
1000	190+25	LS	2	--
STAGE 2A				
1000	106+00	IE	--	1
	188+00	LN	--	1
SUBTOTAL STAGE 2A			--	2
SUBTOTAL LAKE INTERCHANGE			6	4

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

MOVING SIGNS CONTINUED

CATEGORY	STATION		638.2101* MOVING SIGNS TYPE I EACH	638.2102* MOVING SIGNS TYPE II EACH
IH 794 EAST-WEST				
PRE-STAGE 1				
1000	BROADWAY		--	3
PRE-STAGE 2				
1000	719+00	WB	1	--
STAGE 1				
1000	731+70	WB	2	--
	623+00	EB	--	1
	719+00	WB	1	--
SUBTOTAL STAGE 1			3	1
STAGE 2A				
1000	619+05	EB	2	--
STAGE 2B				
1000	BROADWAY		--	3
	622+50	EB	--	1
	719+00	WB	1	--
SUBTOTAL STAGE 2B			1	4
SUBTOTAL IH 794 EAST-WEST			7	8
PROJECT TOTAL			17	18

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING SIGNS

CATEGORY	SIGN NUMBER	638.2601* REMOVING SIGNS TYPE I EACH	638.2602* REMOVING SIGNS TYPE II EACH	638.3000* REMOVING SMALL SIGN SUPPORTS EACH
HOAN BRIDGE				
STAGE 2				
1000	604	1	--	3
	605	--	1	--
	606	--	1	--
	607	1	--	--
	608	1	--	--
SUBTOTAL HOAN BRIDGE		3	2	3
LAKE INTERCHANGE				
STAGE 2				
1000	601	1	--	--
	602	1	--	--
	603	1	--	--
	609	1	--	4
	610	1	--	3
	619	1	--	--
	620	1	--	--
	621	--	1	--
	622	1	--	--
	623	1	--	--
SUBTOTAL LAKE INTERCHANGE		9	1	7
IH 794 EAST-WEST				
STAGE 2				
1000	611	1	--	--
	612	1	--	--
	613	1	--	--
	614	1	--	--
	615	1	--	--
	616	1	--	--
	617	1	--	--
	618	1	--	--
	624	--	1	--
SUBTOTAL IH 794 EAST-WEST		8	1	--
PROJECT TOTAL		20	4	10

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

SOLAR POWERED SIGNS

CATEGORY	STATION		OFFSET	DIRECTION	SPV.0060.1078 DYNAMIC SPEED DISPLAY SIGN EACH	SPV.0060.1079 MOVING DYNAMIC SPEED DISPLAY SIGN EACH	SPV.0060.1080 SOLAR FLASHING WARNING BEACON SYSTEM EACH	SPV.0105.1021 DYNAMIC CURVE WARNING SYSTEM LS	SPV.0060.1022 DYNAMIC WRONG WAY SYSTEM LS
HOAN BRIDGE									
STAGE 1									
1000	120+00	LF	54'	RT	1	--	--	--	--
	155+00	LF	0'	RT	1	--	--	--	--
	170+43	LF			--	--	1	--	--
				SUBTOTAL STAGE 1	2	--	1	--	--
STAGE 2A									
1000	120+00	LF	0'	RT	--	1	--	--	--
	155+00	LF	54'	RT	--	1	--	--	--
	169+50	SB	40'	RT	--	--	1	--	--
				SUBTOTAL STAGE 2A	--	2	1	--	--
				SUBTOTAL HOAN BRIDGE	2	2	2	--	--
LAKE INTERCHANGE									
STAGE 1									
1000	177+00	LN	10'	RT	1	--	--	--	--
	180+30	LN	45'	LT	--	--	1	--	--
	43+00 IX - 44+50 IX			LT & RT	--	--	--	1	
	49+00 JX - 51+00 JX			LT & RT	--	--	--	--	1
				SUBTOTAL STAGE 1	1	--	1	1	1
STAGE 2A									
1000	102+50	IE	13'	RT	--	1	--	--	--
	97+50	IE	12'	RT	--	--	1	--	--
				SUBTOTAL STAGE 2A	--	1	1	--	--
				SUBTOTAL LAKE INTERCHANGE	1	1	2	1	1
				PROJECT TOTAL	3	3	4	1	1

CONTRACTOR INSTALLED BUSINESS SIGNS

CATEGORY	LOCATION	SPV.0060.1147 EACH
LAKE INTERCHANGE		
STAGE 1		
1000	UNDISTRIBUTED	20
	PROJECT TOTAL	20

FIXED MESSAGE SIGN PORTABLE SUPPORT

CATEGORY	STATION		SPV.0060.1087 EACH
HOAN BRIDGE			
STAGE 2			
1000	66+00	LF	1
IH 794 EAST-WEST			
STAGE 2			
1000	43NB TO 794 RAMP		1
	PROJECT TOTAL		2

TEMPORARY OVERHEAD SIGN SUPPORT

CATEGORY	STATION	SPV.0105.1040 TEMPORARY OVERHEAD SIGN SUPPORT STA 169+50 SB LS	SPV.0105.1041 TEMPORARY OVERHEAD SIGN SUPPORT STA 97+50 IE LS
HOAN BRIDGE			
STAGE 2			
1000	169+50 SB	1	--
LAKE INTERCHANGE			
STAGE 2			
1000	97+50 IE	--	1
	PROJECT TOTAL	1	1

TRAFFIC CONTROL
SURVEILLANCE AND MAINTENANCE

CATEGORY	PROJECT	643.0200 DAYS
1000	1300-13-70	777

TRAFFIC CONTROL

CATEGORY	STATION		TO	STATION		LOCATION	DAYS	643.0300 TRAFFIC CONTROL DRUMS DRUM	DAYS	643.0410 TRAFFIC CONTROL BARRICADES TYPE II BARRICADE	DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III BARRICADE	DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH	DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH	DAYS	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.3000 TRAFFIC CONTROL DETOUR SIGNS EACH	DAYS
PRE-STAGE 1																										
HOAN BRIDGE																										
1000	33+00	LF	-	47+00	LF	--	5	39	195	--	--	2	10	4	20	7	35	--	--	12	60	--		--	--	
	50+00	LF	-	80+00	LF	--	7	73	511	--	--	--	--	--	--	12	84	--	--	20	140	--		--	--	
	62+00	LF	-	171+50	NB	SHOULDER RESURFACING	5	107	535	--	--	10	50	20	100	10	50	--	--	16	80	--		--	--	
						SUBTOTAL HOAN BRIDGE			1,241		--		60		120		169		--		280	--		--		--
LAKE INTERCHANGE																										
1000	0+00	MW	-	7+00	MW	--	7	23	161	--	--	1	7	2	14	--	--	--	--	3	21	--		--	--	
	--	--	--	--	--	LOCAL STREETS	7	19	133	--	--	1	7	2	14	11	77	--	--	10	70	--		--	--	
						SUBTOTAL LAKE INTERCHANGE			294		--		14		28		77		--		91			--		--
IH 794 EAST-WEST																										
1000	705+00	WB	-	719+00	WB	--	7	--	--	--	--	--	--	--	--	--	--	--	--	7	49	--		--	--	
						SUBTOTAL PRE-STAGE 1			1,535				74		148		246		--		420			--		--
PRE-STAGE 2A																										
HOAN BRIDGE																										
1000	36+00	LF	-	86+50	LF	--	38	54	2,052	--	--	2	76	4	152	12	456	--	--	14	532	--		--	--	
LAKE INTERCHANGE																										
1000	739+25	WB	-	764+84	WB	--	31	148	4,588	--	--	12	372	24	744	29	899	--	--	33	1,023	2		--	--	
	--	--	--	--	--	LOCAL STREETS	31	--	--	--	--	--	--	--	--	--	--	--	--	3	93	--		--	--	
	--	--	--	--	--	JACKSON STREET CLOSURE	7	3	21	--	--	3	21	6	42	--	--	--	--	3	21	--		--	40	280
	--	--	--	--	--	JACKSON STREET PED DETOUR	7	--	--	--	--	2	14	--	--	--	--	--	--	--	--	--		--	12	84
	--	--	--	--	--	COLN MEM WB ENT RAMP CLOSURE	5	7	35	--	--	2	10	4	20	7	35	--	--	4	20	--		--	15	75
	--	--	--	--	--	LINCOLN MEM EB RAMP CLOSURES	49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	33	1,617
	--	--	--	--	--	UNDISTRIBUTED	--	--	--	--	100	--	--	--	--	--	--	--	--	--	--	--		--	--	--
						SUBTOTAL LAKE INTERCHANGE			4,644		100		417		806		934		--		1,157	2		--		2,056
IH 794 EAST-WEST																										
1000	705+00	WB	-	739+25	WB	--	43	28	1,204	--	--	2	86	4	172	10	430	--	--	17	731	--		--	--	
						SUBTOTAL PRE-STAGE 2A			7,900		100		579		1,130		1,820		--		2,420	2		--		2,056
PRE-STAGE 2B																										
LAKE INTERCHANGE																										
1000	739+25	WB	-	764+84	WB	--	7	112	784	2	14	19	133	38	266	12	84	--	--	36	252	1		1	--	--
	--	--	--	--	--	LOCAL STREETS	7	--	--	--	--	--	--	--	--	--	--	--	--	3	21	--		--	--	
						SUBTOTAL LAKE INTERCHANGE			784		14		133		266		84		--		273	1		1		--
						SUBTOTAL PRE-STAGE 2B			784		14		133		266		84		--		273	1		1		--

TRAFFIC CONTROL CONTINUED

CATEGORY	STATION	TO	STATION		LOCATION	DAYS	643.0300 TRAFFIC CONTROL DRUMS DRUM	DAYS	643.0410 TRAFFIC CONTROL BARRICADES TYPE II BARRICADE	DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III BARRICADE	DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH	DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH	DAYS	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.3000 TRAFFIC CONTROL DETOUR SIGNS EACH	DAYS
STAGE 1																								
HOAN BRIDGE																								
1000	SOUTH LIMITS	-	171+56	NB	--	328	63	20,664	--	--	6	1,968	12	3,936	22	7,216	2	656	62	20,336	--	--	--	--
	--	--	--	--	-- HANK AARION STATE TRAIL	30	--	--	--	--	5	150	--	--	--	--	--	--	--	--	--	--	42	1,260
	--	--	--	--	-- OAK LEAF TRAIL	30	--	--	--	--	4	120	--	--	--	--	--	--	--	--	--	--	29	870
	--	--	--	--	-- NB/SB CLOSURE	61	60	3,660	--	--	--	--	--	--	28	1,708	2	122	12	732	--	--	141	8,601
	--	--	--	--	-- LINCOLN AVENUE DETOUR	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	67	402
	--	--	--	--	-- EB CARFERRY EXIT RAMP CLOSURE	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	66	3,300
					SUBTOTAL HOAN BRIDGE			24,324		--		2,238		3,936		8,924		778		21,068	--	--		14,433
LAKE INTERCHANGE																								
1000	739+25	WB	- 764+84	WB	--	328	32	10,496	--	--	9	2,952	18	5,904	5	1,640	--	--	31	10,168	--	--	--	--
	--	--	--	--	-- LOCAL STREETS	328	--	--	--	--	3	984	6	1,968	--	--	--	--	5	1,640	--	--	--	--
	--	--	--	--	-- MILWAUKEE SS STAGE 1	7	6	42	--	--	3	21	6	42	--	--	--	--	6	42	--	--	--	--
	--	--	--	--	-- MILWAUKEE SS STAGE 2	7	8	56	--	--	3	21	6	42	8	56	--	--	6	42	--	--	--	--
	--	--	--	--	-- LINCOLN MEM EB RAMP CLOSURES	328	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	22	107	35,096
	--	--	--	--	-- SON EB ENTRANCE RAMP CLOSURE	328	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	24	7,872
	--	--	--	--	-- JACKSON STREET CLOSURE	5	11	55	--	--	4	20	8	40	6	30	--	--	7	35	--	--	24	120
	--	--	--	--	-- JACKSON STREET PED DETOUR	5	--	--	--	--	2	10	--	--	--	--	--	--	--	--	--	--	12	60
	--	--	--	--	-- JEFFERSON TUNNEL PED DETOUR	10	--	--	--	--	2	20	--	--	--	--	--	--	--	--	--	--	12	120
	--	--	--	--	-- UNDISTRIBUTED	--	--	--	--	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--
					SUBTOTAL LAKE INTERCHANGE			10,649		100		4,028		7,996		1,726		--		11,927	--	22		43,268
IH 794 EAST-WEST																								
1000	WEST LIMITS	-	739+25	WB	--	328	--	--	--	--	2	656	4	1,312	--	--	--	--	42	13,776	5	--	--	--
	--	--	--	--	-- LOCAL STREETS	328	17	5,576	--	--	6	1,968	12	3,936	--	--	--	--	13	4,264	--	2	--	--
	--	--	--	--	-- ALTERNATE ROUTE	328	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	36	11,808
	--	--	--	--	-- ST PAUL EXIT RAMP	5	10	50	--	--	--	--	--	--	--	--	--	--	2	10	--	--	--	--
	--	--	--	--	-- WATER STREET SS STAGE 1	8	17	136	--	--	4	32	8	64	3	24	--	--	12	96	--	--	--	--
	--	--	--	--	-- WATER STREET SS STAGE 2	8	18	144	--	--	4	32	8	64	6	48	--	--	12	96	--	--	--	--
	--	--	--	--	-- WATER STREET CLOSURE	5	--	--	--	--	6	30	12	60	--	--	--	--	--	--	--	--	99	495
	--	--	--	--	-- BROADWAY STREET CLOSURE	5	--	--	--	--	4	20	8	40	--	--	--	--	--	--	--	--	27	135
	--	--	--	--	-- MILWAUKE STREET CLOSURE	5	--	--	--	--	4	20	8	40	--	--	--	--	--	--	--	--	99	495
	--	--	--	--	-- MILWAUKEE STREET PED DETOUR	10	--	--	--	--	4	40	--	--	--	--	--	--	--	--	--	--	14	140
	--	--	--	--	-- BROADWAY PED DETOUR	10	--	--	--	--	4	40	--	--	--	--	--	--	--	--	--	--	12	120
	--	--	--	--	-- WATER STREET PED DETOUR	10	--	--	--	--	4	40	--	--	--	--	--	--	--	--	--	--	12	120
	--	--	--	--	-- RIVER WALK PED DETOUR	12	--	--	--	--	6	72	--	--	--	--	--	--	--	--	--	--	18	216
	--	--	--	--	-- EB/WB CLOSURE	5	60	300	--	--	--	--	--	--	28	140	2	10	12	60	--	--	145	725
	--	--	--	--	-- UNDISTRIBUTED	--	--	--	--	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--
					SUBTOTAL IH 794 EAST-WEST			6,206		100		2,950		5,516		212		10		18,302	5	2		14,254
					SUBTOTAL STAGE 1			41,179		200		9,216		17,448		10,862		788		51,297	5	24		71,955

TRAFFIC CONTROL CONTINUED

CATEGORY	STATION	TO	STATION	LOCATION	DAYS	643.0300 TRAFFIC CONTROL DRUMS DRUM	DAYS	643.0410 TRAFFIC CONTROL BARRICADES TYPE II BARRICADE	DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III BARRICADE	DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH	DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH	DAYS	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.3000 TRAFFIC CONTROL DETOUR SIGNS EACH	DAYS
STAGE 2A																							
HOAN BRIDGE																							
1000	SOUTH LIMITS	-	169+72	SB --	283	65	18,395	--	--	1	283	2	566	26	7,358	2	566	59	16,697	--	--	--	--
	--	--	--	--	-- HANK AARION STATE TRAIL	30	--	--	--	--	5	150	--	--	--	--	--	--	--	--	--	--	42	1,260
	--	--	--	--	-- OAK LEAF TRAIL	30	--	--	--	--	4	120	--	--	--	--	--	--	--	--	--	--	29	870
	--	--	--	--	-- NB/SB CLOSURE	38	60	2,280	--	--	--	--	--	--	28	1,064	2	76	12	456	--	--	141	5,358
	--	--	--	--	-- LINCOLN AVENUE DETOUR	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	67	402
					SUBTOTAL HOAN BRIDGE			20,675		--		553		566		8,422		642		17,153	--	--		7,890
LAKE INTERCHANGE																							
1000	640+50	EB	- 663+75	EB --	283	60	16,980	--	--	11	3,113	22	6,226	--	--	--	--	30	8,490	2	1	--	--
	--	--	--	--	-- LOCAL STREETS	283	--	--	--	--	3	849	6	1,698	--	--	--	--	4	1,132	--	--	--	--
	--	--	--	--	-- LINCOLN MEM EB RAMP CLOSURES	283	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	33	9,339
	--	--	--	--	-- COLN MEM WB ENT RAMP CLOSURE	2	8	16	--	--	2	4	4	8	8	16	--	--	4	8	--	--	--	15	30
	--	--	--	--	-- JEFFERSON TUNNEL PED DETOUR	88	--	--	--	--	2	176	--	--	--	--	--	--	--	--	--	--	--	12	1,056
	--	--	--	--	-- UNDISTRIBUTED	--	--	--	--	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
					SUBTOTAL LAKE INTERCHANGE			16,996		100		4,142		7,932		16		--		9,630	2	1		10,425
IH 794 EAST-WEST																							
1000	WEST LIMITS	-	640+50	EB --	283	53	14,999	--	--	3	849	6	1,698	14	3,962	2	566	41	11,603	2	--	--	--
	--	--	--	--	-- LOCAL STREETS	283	9	2,547	--	--	4	1,132	8	2,264	--	--	--	--	9	2,547	--	--	--	--
	--	--	--	--	-- ALTERNATE ROUTE	283	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	36	10,188
	--	--	--	--	-- WATER STREET RESURFACING 1	2	48	96	--	--	4	8	8	16	14	28	--	--	11	22	--	--	--	--
	--	--	--	--	-- WATER STREET RESURFACING 2	2	48	96	--	--	4	8	8	16	14	28	--	--	11	22	--	--	--	--
	--	--	--	--	-- BROADWAY RAMP	14	25	350	--	--	2	28	4	56	--	--	--	--	2	28	--	--	--	--
	--	--	--	--	-- WATER STREET CLOSURE	5	--	--	--	--	6	30	12	60	--	--	--	--	--	--	--	--	99	495
	--	--	--	--	-- BROADWAY STREET CLOSURE	5	--	--	--	--	4	20	8	40	--	--	--	--	--	--	--	--	27	135
	--	--	--	--	-- MILWAUKE STREET CLOSURE	5	--	--	--	--	4	20	8	40	--	--	--	--	--	--	--	--	99	495
	--	--	--	--	-- MILWAUKEE STREET PED DETOUR	10	--	--	--	--	4	40	--	--	--	--	--	--	--	--	--	--	14	140
	--	--	--	--	-- BROADWAY PED DETOUR	3	--	--	--	--	4	12	--	--	--	--	--	--	--	--	--	--	12	36
	--	--	--	--	-- WATER STREET PED DETOUR	10	--	--	--	--	4	40	--	--	--	--	--	--	--	--	--	--	12	120
	--	--	--	--	-- JACKSON EB EXIT RAMP CLOSED	283	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	103	29,149
	--	--	--	--	-- EB/WB CLOSURE	5	60	300	--	--	--	--	--	--	28	140	2	10	12	60	--	--	145	725
	--	--	--	--	-- UNDISTRIBUTED	--	--	--	--	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
					SUBTOTAL IH 794 EAST-WEST			18,388		100		2,187		4,190		4,158		576		14,282	2	--		41,483
					SUBTOTAL STAGE 2A			56,059		200		6,882		12,688		12,596		1,218		41,065	4	1		59,798

TRAFFIC CONTROL CONTINUED

CATEGORY	STATION		TO	STATION		LOCATION	DAYS	643.0300 TRAFFIC CONTROL DRUMS DRUM	643.0300 DAYS	643.0410 TRAFFIC CONTROL BARRICADES TYPE II BARRICADE	643.0410 DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III BARRICADE	643.0420 DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	643.0715 DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH	643.0800 DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 DAYS	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.3000 TRAFFIC CONTROL DETOUR SIGNS EACH	643.3000 DAYS
STAGE 2B																									
HOAN BRIDGE																									
1000	SOUTH LIMITS		-	171+56	NB	PHASE 1	45	104	4,680	--	--	1	45	2	90	27	1,215	2	90	52	2,340	--	--	--	--
	SOUTH LIMITS		-	171+56	NB	PHASE 2	31	97	3,007	--	--	1	31	2	62	46	1,426	2	62	57	1,767	--	--	--	--
	--	--	--	--	--	WB CARFERRY ENT RAMP CLOSURE	36	31	1,116	--	--	4	144	8	288	5	180	--	--	3	108	--	--	67	2,412
	--	--	--	--	--	NB/SB CLOSURE	22	60	1,320	--	--	--	--	--	--	28	616	2	44	12	264	--	--	141	3,102
						SUBTOTAL HOAN BRIDGE			10,123		--		220		440		3,437		196		4,479	--	--		5,514
LAKE INTERCHANGE																									
1000	739+25	WB	-	764+84	WB	PHASE 1	45	80	3,600	--	--	10	450	20	900	--	--	--	--	10	450	--	--	--	--
	739+25	WB	-	764+84	WB	PHASE 2	31	28	868	--	--	--	--	--	--	9	279	--	--	4	124	--	--	--	--
	185+00	LS	-	NORTH LIMITS		LINCOLN MEMORIAL & MICHIGAN	20	65	1,300	--	--	7	140	14	280	19	380	--	--	12	240	--	--	--	--
	--	--	--	--	--	JACKSON STREET	5	11	55	--	--	1	5	2	10	--	--	--	--	2	10	--	--	--	--
	--	--	--	--	--	LINCOLN MEM EB RAMP CLOSURES	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	33	1,485
						SUBTOTAL LAKE INTERCHANGE			5,823		--		595		1,190		659		--		824	--	--		1,485
IH 794 EAST-WEST																									
1000	WEST LIMITS		-	739+25	WB	PHASE 1	45	35	1,575	--	--	--	--	--	--	14	630	2	90	38	1,710	--	--	--	--
	WEST LIMITS		-	739+25	WB	PHASE 2	31	--	--	--	--	--	--	--	--	--	--	--	--	31	961	--	--	--	--
	--	--	-	--	--	ALTERNATE ROUTE	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	36	2,736
						SUBTOTAL IH 794 EAST-WEST			1,575		--		--		--		630		90		2,671	--	--		2,736
						SUBTOTAL STAGE 2B			17,521		--		815		1,630		4,726		286		7,974	--	--		9,735
STAGE 2C																									
HOAN BRIDGE																									
1000	32+00	LF	-	47+00	LF	--	7	42	294	--	--	2	14	4	28	6	42	--	--	13	91	--	--	--	--
	145+00	LF	-	155+00	LF	--	15	--	--	--	--	--	--	--	--	--	--	--	--	10	150	--	--	--	--
						SUBTOTAL STAGE 2C			294		--		14		28		42		--		241	--	--		--
						PROJECT TOTAL			125,272		514		17,713		33,338		30,376		2,292		103,690	12	26		143,544

TRAFFIC CONTROL SIGNS PCMS

CATEGORY	STATION		OFFSET	DIRECTION	TRAFFIC CONTROL SIGNS PCMS 643.1050 DAY	PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) CELLULAR COMMUNICATIONS SPV.0045.1002 DAY
HOAN BRIDGE						
STAGE 1						
1000	26+20.00	LF	36'	LT	10	10
	26+20.00	LF	36'	LT	235	235
				SUBTOTAL STAGE 1	245	245
STAGE 2A						
1000	26+20.00	LF	36'	LT	200	200
STAGE 2B						
1000	26+20.00	LF	36'	LT	55	55
				SUBTOTAL HOAN BRIDGE	500	500
LAKE INTERCHANGE						
PRE STAGE 2						
1000	356+40.00	LE	32'	RT	10	10
	182+70.00	LS	30'	LT	10	10
				SUBTOTAL PRE-STAGE 2	20	20
STAGE 1						
1000	748+00	WB	0'	LT	235	235
STAGE 2A						
1000	648+00	EB	25'	RT	200	200
STAGE 2B						
1000	648+00	EB	10'	LT	55	55
				SUBTOTAL LAKE INTERCHANGE	510	510
IH 794 EAST-WEST						
STAGE 1						
1000	601+75.00	EB	32'	RT	10	10
STAGE 2A						
1000	601+75.00	EB	32'	RT	10	10
				SUBTOTAL IH 794 EAST-WEST	20	20
				PROJECT TOTAL	1,030	1,030

TRAFFIC CONTROL INTERIM FREEWAY LANE CLOSURE

CATEGORY	LOCATION	SPV.0060.1119 EACH
HOAN BRIDGE		
PRE-STAGE 1		
1000	SHOULDER RESURFACING	5
STAGE 1		
1000	DECK POURS	122
	BRIDGE UNIT ACCESS	27
	SUBTOTAL STAGE 1	149
STAGE 2		
1000	DECK POURS	120
	BRIDGE UNIT ACCESS	25
	LIGHT BLISTER INSTALLATION	43
	SUBTOTAL STAGE 2	188
	SUBTOTAL HOAN BRIDGE	342
IH 794 EAST WEST		
STAGE 1		
1000	BRIDGE UNIT ACCESS	5
STAGE 2		
1000	BRIDGE UNIT ACCESS	5
	SUBTOTAL IH 794 EAST-WEST	10
	PROJECT TOTAL	352

TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP

SPV.0060.1120

CATEGORY	LOCATION	EACH
HOAN BRIDGE		
STAGE 1		
1000	CARFERRY WB ENTRANCE RAMP FOR N-S CLOSURE	61
STAGE 2		
1000	CARFERRY WB ENTRANCE RAMP FOR N-S CLOSURE	58
	CARFERRY WB ENTRANCE RAMP	1
	SUBTOTAL STAGE 2	59
	SUBTOTAL HOAN BRIDGE	120
LAKE INTERCHANGE		
PRE-STAGE 2		
1000	LINCOLN MEMORIAL EB ENTRANCE RAMP	1
	LINCOLN MEMORIAL WB ENTRANCE RAMP	1
	SUBTOTAL PRE-STAGE 2	2
STAGE 1		
1000	JACKSON WB ENTRANCE RAMP	1
	LINCOLN MEMORIAL WB ENTRANCE RAMP FOR E-W CLOSURE	5
	SUBTOTAL STAGE 1	6
	SUBTOTAL LAKE INTERCHANGE	8
IH 794 EAST WEST		
STAGE 1		
1000	BROADWAY EB ENTRANCE RAMP	1
STAGE 2		
1000	LINCOLN MEMORIAL WB ENTRANCE RAMP FOR E-W CLOSURE	5
	SUBTOTAL IH 794 EAST WEST	6
	PROJECT TOTAL	134

TRAFFIC CONTROL LOCAL ROAD LANE CLOSURES

SPV.0060.1121

CATEGORY	LOCATION	EACH
HOAN BRIDGE		
STAGE 1		
1000	SOUTH LINCOLN MEMORIAL DRIVE	12
	LINCOLN AVENUE	12
	SUBTOTAL STAGE 1	24
STAGE 2		
1000	SOUTH LINCOLN MEMORIAL DRIVE	12
	LINCOLN AVENUE	12
	SUBTOTAL STAGE 2	24
	SUBTOTAL HOAN BRIDGE	48
LAKE INTERCHANGE		
PRE-STAGE 1		
1000	CLYBOURN STREET	1
PRE-STAGE 2		
1000	JACKSON STREET CLOSURE	2
STAGE 1		
1000	MILWAUKEE STREET STORM SEWER SB	2
	MILWAUKEE STREET STORM SEWER NB- PHASE 1	1
	MILWAUKEE STREET STORM SEWER NB- PHASE 2	1
	MILWAUKEE STREET CLOSURE FOR BRIDGE WORK	28
	JACKSON STREET CLOSURE	2
	SUBTOTAL STAGE 1	34
STAGE 2		
1000	MILWAUKEE STREET CLOSURE FOR BRIDGE WORK	28
	SUBTOTAL LAKE INTERCHANGE	65
IH 794 EAST-WEST		
STAGE 1		
1000	WATER STREET STORM SEWER - PHASE 1	2
	WATER STREET STORM SEWER - PHASE 2	2
	BROADWAY STORM SEWER	1
	WATER STREET CLOSURE FOR BRIDGE WORK	28
	BROADWAY CLOSURE FOR BRIDGE WORK	7
	SUBTOTAL STAGE 1	40
STAGE 2		
1000	WATER STREET CLOSURE FOR BRIDGE WORK	28
	BROADWAY CLOSURE FOR BRIDGE WORK	7
	SUBTOTAL STAGE 2	35
	SUBTOTAL IH 794 EAST WEST	75
	PROJECT TOTAL	188

TEMPORARY PAVEMENT MARKING

CATEGORY	STATION		TO STATION		LOCATION	646.0103 PAVEMENT MARKING PAINT 4-INCH (WHITE) LF	646.0103 PAVEMENT MARKING PAINT 4-INCH (YELLOW) LF	646.0106* PAVEMENT MARKING EPOXY 4-INCH (WHITE) LF	646.0106* PAVEMENT MARKING EPOXY 4-INCH (YELLOW) LF	646.0123 PAVEMENT MARKING PAINT 8-INCH LF	646.0126* PAVEMENT MARKING EPOXY 8-INCH LF	646.0136 PAVEMENT MARKING EPOXY 12-INCH LF	647.0153 PAVEMENT MARKING ARROWS PAINT TYPE 1 EACH	647.0163 PAVEMENT MARKING ARROWS PAINT TYPE 2 EACH	647.0173 PAVEMENT MARKING ARROWS PAINT TYPE 3 EACH	647.0353 PAVEMENT MARKING WORDS PAINT EACH	647.0553 PAVEMENT MARKING STOP LINE PAINT 12-INCH (WHITE) LF	647.0713 PAVEMENT MARKING DIAGONAL PAINT 8-INCH (WHITE) EACH	647.0713 PAVEMENT MARKING DIAGONAL PAINT 8-INCH (YELLOW) EACH	647.0763 PAVEMENT MARKING CROSSWALK PAINT 6-INCH (WHITE) EACH
HOAN BRIDGE																				
PRE-STAGE 1																				
1000	34+60	LF -	45+15	LF	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PRE-STAGE 2A																				
1000	34+60	LF -	45+15	LF	--	--	--	759	--	--	--	--	--	--	--	--	--	--	--	--
	56+50	LF -	71+50	LF	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
					SUBTOTAL PRE-STAGE 2	--	--	759	--	--	--	--	--	--	--	--	--	--	--	--
STAGE 1																				
1000	28+40	LF -	171+56	NB	--	--	--	35,896	2,141	--	365	--	--	--	--	--	--	--	--	--
					CARFERRY DRIVE	--	--	--	--	291	--	--	--	3	--	2	--	118	--	--
					SUBTOTAL STAGE 1	--	--	35,896	2,141	291	365	--	--	3	--	2	--	118	--	--
STAGE 2A																				
1000	29+00	LF -	169+70	SB	--	--	--	35,943	2,494	--	456	--	--	--	--	--	--	--	--	--
STAGE 2B																				
1000	147+55	LF -	166+55	NB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
STAGE 2C																				
1000	34+70	LF -	45+30	LF	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	146+85	LF -	147+50	LF	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
					SUBTOTAL STAGE 2C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
					SUBTOTAL HOAN BRIDGE	--	--	72,598	4,635	291	821	--	--	3	--	2	--	118	--	--
LAKE INTERCHANGE																				
PRE-STAGE 1																				
--	--	--	--	--	LOCAL STREETS	226	969	--	--	--	--	--	--	--	--	--	34	--	--	--
PRE-STAGE 2A																				
	170+90	LN -	177+50	LN	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	358+87	LW -	186+04	LS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	22+60	JW -	25+20	JW	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	640+60	EB -	644+00	EB	--	--	--	--	388	--	--	--	--	--	--	--	--	--	--	--
	185+00	LS -	189+00	LS	--	--	--	--	--	289	--	--	4	--	3	12	--	--	--	--
					SUBTOTAL PRE-STAGE 2A	--	--	--	388	289	--	--	--	4	--	3	12	--	--	--	--
PRE-STAGE 2B																				
1000	185+00	LS -	189+00	LS	--	408	--	--	--	242	--	--	--	--	--	--	75	51	--	--
	189+00	LS --	192+70	LS	--	104	--	--	--	399	--	--	--	2	--	1	--	--	--	357
	756+00	WI --	185+03	LS	--	--	--	720	127	--	220	--	--	--	--	--	--	--	--	--
	--	-- --	--	--	PARKING LOT UNDERNEATH TEMP BRIDGE	--	256	--	--	--	--	--				--	--	--	--	--	--
					SUBTOTAL PRE-STAGE 2B	512	256	720	127	641	220	--	--	2	--	1	75	51	--	357

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEMPORARY PAVEMENT MARKING CONTINUED

CATEGORY	STATION		TO STATION		LOCATION	646.0103 PAVEMENT MARKING PAINT 4-INCH (WHITE) LF	646.0103 PAVEMENT MARKING PAINT 4-INCH (YELLOW) LF	646.0106* PAVEMENT MARKING EPOXY 4-INCH (WHITE) LF	646.0106* PAVEMENT MARKING EPOXY 4-INCH (YELLOW) LF	646.0123 PAVEMENT MARKING PAINT 8-INCH (WHITE) LF	646.0126* PAVEMENT MARKING EPOXY 8-INCH (WHITE) LF	646.0136 PAVEMENT MARKING EPOXY 12-INCH (WHITE) LF	647.0153 PAVEMENT MARKING ARROWS PAINT TYPE 1 EACH	647.0163 PAVEMENT MARKING ARROWS PAINT TYPE 2 EACH	647.0173 PAVEMENT MARKING ARROWS PAINT TYPE 3 EACH	647.0353 PAVEMENT MARKING WORDS PAINT EACH	647.0553 PAVEMENT MARKING STOP LINE PAINT 12-INCH (WHITE) LF	647.0713 PAVEMENT MARKING DIAGONAL PAINT 8-INCH (WHITE) LF	647.0713 PAVEMENT MARKING DIAGONAL PAINT 8-INCH (YELLOW) LF	647.0763 PAVEMENT MARKING CROSSWALK PAINT 6-INCH (WHITE) LF
LAKE INTERCHANGE																				
STAGE 1																				
1000	739+25	WB -	794+84	WB	--	--	--	9,934	7,454	--	1,532	450	--	--	--	--	--	--	--	--
	--	-- --	--	--	LOCAL STREETS	381	953	--	--	1,290	--	--	3	8	--	6	237	111	--	--
	--	-- --	--	--	KINNICKINNIC AVENUE	25	--	--	--	--	--	--	--	--	--	--	23	--	--	--
					SUBTOTAL STAGE 1	406	953	9,934	7,454	1,290	1,532	450	3	8	--	6	260	111	--	--
STAGE 2A																				
1000	640+53	EB -	663+75	EB	--	--	--	9,170	6,711	--	2,190	597	--	--	--	--	--	--	--	--
	--	-- --	--	--	LOCAL STREETS	86	--	--	--	195	--	--	--	1	--	1	--	--	--	--
					SUBTOTAL STAGE 2A	86	--	9,170	6,711	195	2,190	597	--	1	--	1	--	--	--	--
STAGE 2B																				
1000	356+10	LW -	185+25	LS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
					SUBTOTAL LAKE INTERCHANGE	1,230	2,178	19,824	14,680	2,415	3,942	1,047	3	15	--	11	381	162	--	357
IH 794 EAST-WEST																				
PRE-STAGE 1																				
1000	--	-- --	--	--	LOCAL STREETS	116	400	--	--	398	--	--	4	1	1	3	44	--	--	--
PRE-STAGE 2A																				
1000	710+00	WB -	730+00	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	--	-- --	--	--	LOCAL STREETS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
					SUBTOTAL PRE-STAGE 2A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
STAGE 1																				
1000	713+00	WB -	739+25	WB	--	--	--	9,520	5,179	--	217	--	--	--	--	--	--	--	--	--
	--	-- --	--	--	LOCAL STREETS	232	913	--	--	320	--	--	--	--	2	2	32	--	--	--
	--	-- --	--	--	ST. PAUL AVENUE	370	3,038	--	--	18	--	--	--	2	--	--	42	--	30	55
					SUBTOTAL STAGE 1	602	3,951	9,520	5,179	338	217	--	--	2	2	2	74	--	30	55
STAGE 2A																				
1000	603+40	EB -	640+53	EB	--	--	--	8,974	6,465	--	1,294	--	--	--	--	--	--	--	--	--
	--	-- --	--	--	LOCAL STREETS	167	520	--	--	130	--	--	--	2	--	1	9	--	--	--
					SUBTOTAL STAGE 2A	167	520	8,974	6,465	130	1,294	--	--	2	--	1	9	--	--	--
					SUBTOTAL IH 794 EAST-WEST	885	4,871	18,494	11,644	866	1,511	--	4	5	3	6	127	--	30	55
					PROJECT TOTAL	2,115	7,049	110,916	30,959	3,572	6,274	1,047	7	23	3	19	508	280	30	412

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEMPORARY PAVEMENT MARKING CONTINUED

CATEGORY	STATION		TO STATION		LOCATION	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE) LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW) LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (BLACK) LF	649.0801 TEMPORARY PAVEMENT MARKING REMOVEABLE TAPE 8-INCH (WHITE) LF	649.1000 TEMPORARY PAVEMENT STOP LINE REMOVABLE TAPE 12-INCH (WHITE) LF	649.1800 TEMPORARY PAVEMENT MARKING ARROWS REMOVEABLE TAPE EACH	649.2000 TEMPORARY PAVEMENT MARKING WORDS REMOVEABLE TAPE EACH
HOAN BRIDGE												
PRE-STAGE 1												
1000	34+60	LF -	45+15	LF	--	2,477	298	--	--	--	--	--
PRE-STAGE 2A												
1000	34+60	LF -	45+15	LF	--	--	--	--	--	--	--	--
	56+50	LF -	71+50	LF	--	3,264	2,605	--	--	--	--	--
					SUBTOTAL PRE-STAGE 2	3,264	2,605	--	--	--	--	--
STAGE 1												
1000	28+40	LF -	171+56	NB	--	--	--	--	--	--	--	--
					CARFERRY DRIVE	--	--	--	--	--	--	--
					SUBTOTAL STAGE 1	--	--	--	--	--	--	--
STAGE 2A												
1000	29+00	LF -	169+70	SB	--	--	--	--	--	--	--	--
STAGE 2B												
1000	147+55	LF -	166+55	NB	--	1,222	1,372	--	750	--	--	--
STAGE 2C												
1000	34+70	LF -	45+30	LF	--	1,423	308	--	--	--	--	--
	146+85	LF -	147+50	LF	--	84	--	--	--	--	--	--
					SUBTOTAL STAGE 2C	1,506	308	--	--	--	--	--
					SUBTOTAL HOAN BRIDGE	8,469	4,583	--	750	--	--	--
LAKE INTERCHANGE												
PRE-STAGE 1												
	--	-- --	--	--	LOCAL STREETS	--	285	--	--	--	--	--
PRE-STAGE 2A												
	170+90	LN -	177+50	LN	--	--	660	--	--	--	--	--
	358+87	LW -	186+04	LS	--	348	136	--	--	--	--	--
	22+60	JW -	25+20	JW	--	241	244	--	--	--	--	--
	640+60	EB -	644+00	EB	--	--	--	--	--	--	--	--
	185+00	LS -	189+00	LS	--	--	--	--	--	--	--	--
					SUBTOTAL PRE-STAGE 2A	589	1,040	--	--	--	--	--
PRE-STAGE 2B												
1000	170+90	LN -	183+30	LN	--	1,245	430	--	--	--	--	--
	189+00	LS --	192+70	LS	--	268	--	--	--	--	--	--
	756+00	WI --	185+03	LS	--	--	--	--	--	--	--	--
	--	-- --	--	--	PARKING LOT UNDERNEATH TEMP BRIDGE	--	--	--	--	--	--	--
					SUBTOTAL PRE-STAGE 2B	1,513	430	--	--	--	--	--

TEMPORARY PAVEMENT MARKING CONTINUED

CATEGORY	STATION		TO STATION		LOCATION	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE) LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW) LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (BLACK) LF	649.0801 TEMPORARY PAVEMENT MARKING REMOVEABLE TAPE 8-INCH (WHITE) LF	649.1000 TEMPORARY PAVEMENT STOP LINE REMOVABLE TAPE 12-INCH (WHITE) LF	649.1800 TEMPORARY PAVEMENT MARKING ARROWS REMOVEABLE TAPE EACH	649.2000 TEMPORARY PAVEMENT MARKING WORDS REMOVEABLE TAPE EACH
LAKE INTERCHANGE												
STAGE 1												
1000	739+25	WB	794+84	WB	--	--	--	--	--	--	--	--
	--	-- --	--	--	LOCAL STREETS	--	--	--	--	--	--	--
	--	-- --	--	--	KINNICKINNIC AVENUE	--	--	--	--	--	--	--
					SUBTOTAL STAGE 1	--	--	--	--	--	--	--
STAGE 2A												
1000	640+53	EB	663+75	EB	--	--	--	--	--	--	--	--
	--	-- --	--	--	LOCAL STREETS	--	--	--	--	--	--	--
					SUBTOTAL STAGE 2A	--	--	--	--	--	--	--
STAGE 2B												
1000	356+10	LW	185+25	LS	--	170	462	--	--	--	--	--
					SUBTOTAL LAKE INTERCHANGE	2,272	2,217	--	--	--	--	--
IH 794 EAST-WEST												
PRE-STAGE 1												
1000	--	-- --	--	--	LOCAL STREETS	157	520	--	130	9	2	1
PRE-STAGE 2A												
1000	710+00	WB	730+00	WB	--	2,657	2,001	2,319	319	--	--	--
	--	-- --	--	--	LOCAL STREETS	--	--	--	--	--	--	--
					SUBTOTAL PRE-STAGE 2A	2,657	2,001	2,319	319	--	--	--
STAGE 1												
1000	713+00	WB	739+25	WB	--	--	--	176	--	--	--	--
	--	-- --	--	--	LOCAL STREETS	--	--	--	--	--	--	--
	--	-- --	--	--	ST. PAUL AVENUE	--	--	--	--	--	--	--
					SUBTOTAL STAGE 1	--	--	176	--	--	--	--
STAGE 2A												
1000	603+40	EB	640+53	EB	--	--	--	893	--	--	--	--
	--	-- --	--	--	LOCAL STREETS	--	--	--	--	--	--	--
					SUBTOTAL STAGE 2A	--	--	893	--	--	--	--
					SUBTOTAL IH 794 EAST-WEST	2,814	2,521	3,388	449	9	2	1
					PROJECT TOTAL	13,555	9,321	3,388	1,199	9	2	1

PAVEMENT MARKINGS REMOVAL

CATEGORY	STATION		TO	STATION		SHEET	LOCATION	646.0600 REMOVING PAVEMENT MARKINGS LF	647.0955 REMOVING PAVEMENT MARKINGS ARROWS EACH	647.0965 REMOVING PAVEMENT MARKINGS WORDS EACH	SPV.0090.1023 REMOVING PAVEMENT MARKING WATER BLASTING LF
HOAN BRIDGE											
PRE-STAGE 1											
1000	34+70	LF	-	45+30	LF	--	--	3,627	--	--	--
PRE-STAGE 2											
1000	56+50	LF	-	71+50	LF	--	--	4,315	--	--	--
	--	--	--	--	--	--	PARKING LOT UNDERNEATH TEMP BRIDGE	996	--	--	--
	--	--	--	--	--	--	CARFERRY EB EXIT RAMP	--	2	--	--
							SUBTOTAL PRE-STAGE 2	5,311	2	--	--
STAGE 1											
1000	28+40	LF	-	167+11	NB	--	--	23,745	--	--	--
STAGE 2A											
1000	28+40	LF	-	62+00	LF	--	--	4,937	--	--	4,559
STAGE 2B											
1000	147+50	LF	-	169+75	SB	--	--	--	--	--	10,463
	--	--	--	--	--	--	KINNICKINNIC AVENUE	--	--	--	94
							SUBTOTAL STAGE 2B	--	--	--	10,557
STAGE 2C											
1000	35+00	LF	-	151+50	LF	--	--	--	--	--	32,773
	--	--	--	--	--	--	CARFERRY DRIVE	--	3	2	808
							SUBTOTAL STAGE 2C	--	3	2	33,581
							SUBTOTAL HOAN BRIDGE	37,620	5	2	48,697
LAKE INTERCHANGE											
PRE-STAGE 1											
1000	--	--	--	--	--		LOCAL STREETS	1,167	--	--	--
PRE-STAGE 2											
1000	185+04	LS	-	193+11	LS	--	LINCOLN MEMORIAL DRIVE	1,532	3	2	--
	170+90	LN	-	177+50	LN	--	--	149	--	--	--
	22+75	JW	-	25+25	JW	--	--	816	--	--	--
							SUBTOTAL PRE-STAGE 2	2,497	3	2	--
STAGE 1											
1000	739+25	WB	-	356+12	LW	--	--	6,345	--	--	--
	--	--	--	--	--	--	KINNICKINNIC AVENUE	170	--	--	--
							SUBTOTAL STAGE 1	6,515	--	--	--

PAVEMENT MARKINGS REMOVAL CONTINUED

CATEGORY	STATION		TO	STATION		SHEET	LOCATION	646.0600 REMOVING PAVEMENT MARKINGS LF	647.0955 REMOVING PAVEMENT MARKINGS ARROWS EACH	647.0965 REMOVING PAVEMENT MARKINGS WORDS EACH	SPV.0090.1023 REMOVING PAVEMENT MARKING WATER BLASTING LF
LAKE INTERCHANGE											
STAGE 2A											
1000	170+00	LS	-	749+00	WB	--	--	4,374	--	--	68
	--	--	--	--	--	--	LOCAL STREETS	25	--	--	1,394
							SUBTOTAL STAGE 2A	4,399	--	--	1,462
STAGE 2B											
1000	640+50	LS	-	663+75	EB	--	--	--	--	--	14,182
	--	--	--	--	--	--	LOCAL STREETS	--	16	10	5,775
							SUBTOTAL STAGE 2A	--	16	10	19,957
							SUBTOTAL LAKE INTERCHANGE	14,578	19	12	21,419
IH 794 EAST-WEST											
PRE-STAGE 1											
1000	--	--	--	--	--		LOCAL STREETS	1,406	4	1	--
PRE-STAGE 2											
1000	713+00	WB	-	730+00	WB	--	--	--	--	--	2,217
STAGE 1											
1000	710+00	WB	-	730+00	WB	--	--	4,312	--	--	3,425
	--	--	--	--	--	--	LOCAL STREETS	3,049	4	1	--
	--	--	--	--	--	--	ST. PAUL AVENUE	1,003	2	1	--
							SUBTOTAL STAGE 1	8,364	6	2	3,425
STAGE 2A											
1000	708+00	WB	-	732+50	WB	--	--	--	--	--	8,328
	--	--	--	--	--	--	LOCAL STREETS	552	7	3	1,744
							SUBTOTAL STAGE 2A	552	7	3	10,072
STAGE 2B											
1000											
	713+00	WB	-	12+36	JE	--	--	--	--	--	12,995
	--	--	--	--	--	--	LOCAL STREETS	--	9	4	3,510
	--	--	--	--	--	--	ST. PAUL AVENUE	--	2	--	3,675
							SUBTOTAL STAGE 2B	--	11	4	20,180
							SUBTOTAL IH 794 EAST-WEST	10,322	28	10	35,894
							PROJECT TOTAL	62,520	52	24	106,010

PAVEMENT MARKING

CATEGORY	STATION		TO	STATION		LOCATION	646.0106* PAVEMENT MARKING EPOXY 4-INCH (WHITE) LF	646.0106* PAVEMENT MARKING EPOXY 4-INCH (YELLOW) LF	646.0126* PAVEMENT MARKING EPOXY 8-INCH LF	646.0841.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH LF	646.0843.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH LF	647.0156 PAVEMENT MARKING ARROWS EPOXY TYPE 1 EACH	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2 EACH	647.0176 PAVEMENT MARKING ARROWS EPOXY TYPE 3 EACH	647.0256 PAVEMENT MARKING SYMBOLS EPOXY EACH	647.0356 PAVEMENT MARKING WORDS EPOXY EACH	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH LF	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY EA	647.0656 PAVEMENT MARKING PARKING STALL EPOXY (WHITE) LF	647.0656 PAVEMENT MARKING PARKING STALL EPOXY (YELLOW) LF	647.0656 PAVEMENT MARKING PARKING STALL EPOXY (BLUE) LF
HOAN BRIDGE																						
STAGE 2																						
1000	28+40	LF	-	159+50	LF	IH 794 NB & SB	24,619	25,295	--	39,161	8,111	--	--	--	--	--	--	--	--	--	--	
	357+46	CS	-	370+00	CS	RAMP CS	1,981	2,005	--	--	276	--	--	--	--	--	--	--	--	--	--	
	11+75	CN	-	666+83	CN	RAMP CN	968	919	--	--	--	--	--	--	--	--	--	--	--	--	--	
	159+50	SB	-	169+73	SB	IH 794 SB	1,059	1,055	--	1,096	1,824	--	--	--	--	--	--	--	--	--	--	
	159+50	NB	-	171+56	NB	IH 794 NB	1,196	1,206	--	1,690	1,686	--	--	--	--	--	--	--	--	--	--	
	--	--	--	--	--	KINNICKINNIC AVE	193	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	--	--	--	--	--	LINCOLN MEMORIAL DRIVE SOUTH	1,384	5,620	--	--	--	--	--	--	--	--	--	--	--	--	--	
						SUBTOTAL HOAN BRIDGE	31,400	36,100	--	41,947	11,897	--	--	--	--	--	--	--	--	--	--	
LAKE INTERCHANGE																						
STAGE 2																						
1000	739+25	WB	-	764+85	WB	IH 794 WB	2,443	2,348	--	2,629	2,182	--	--	--	--	--	--	--	--	--	--	
	640+50	EB	-	663+75	EB	IH 794 EB	2,217	2,275	--	2,309	2,404	--	--	--	--	--	--	--	--	--	--	
	1+40	MW	-	9+11	MW	RAMP MW	588	770	--	436	163	--	--	--	--	--	--	--	--	--	--	
	13+75	BE	-	23+27	BE	RAMP BE	1,002	946	--	--	51	--	--	--	--	--	--	--	--	--	--	
	348+19	LW	-	359+76	LW	RAMP LW	1,134	1,011	--	974	304	--	--	--	--	--	--	--	--	--	--	
	349+40	LE	-	358+50	LE	RAMP LE	843	911	--	841	50	--	--	--	--	--	--	--	--	--	--	
	169+69	LS	-	183+37	LS	RAMP LS	1,379	1,368	--	636	--	--	--	--	--	--	--	--	--	--	--	
	171+46	LN	-	179+50	LN	RAMP LN	1,152	1,112	--	1,160	46	--	--	--	--	--	--	--	--	--	--	
	183+37	LS	-	191+40	LS	N. LINCOLN MEMORIAL DRIVE	294	--	--	1,677	828	--	7	--	--	4	--	2	--	--	--	
	399+46	--	-	403+33	--	MICHIGAN ST.	61	399	442	--	--	2	4	--	--	3	--	1	--	--	--	
						SUBTOTAL LAKE INTERCHANGE	11,113	11,140	442	10,662	6,028	2	11	--	--	7	--	3	--	--	--	
IH 794 EAST-WEST																						
STAGE 2																						
1000	713+00	WB	-	739+50	WB	--	2,574	2,187	--	5,946	1,443	--	--	--	--	--	--	--	--	--	--	
	613+00	EB	-	640+50	EB	--	2,622	2,122	--	4,337	1,423	--	--	--	--	--	--	--	--	--	--	
	0+00	JE	-	18+00	JE	--	1,298	1,857	--	2,224	1,062	--	--	--	--	--	--	--	--	--	--	
	10+00	JW	-	25+23	JW	--	841	1,522	--	477	566	--	--	--	--	--	--	--	--	--	--	
	9+36	BE	-	13+75	BE	--	410	375	--	292	177	--	--	--	--	--	--	--	--	--	--	
	--	--	--	--	--	WATER ST.	685	640	402	--	--	--	3	--	--	2	88	--	--	--	--	
	--	--	--	--	--	BROADWAY	309	1,018	485	--	--	--	4	1	--	2	89	--	298	--	--	
	--	--	--	--	--	MILWAUKEE ST.	1,300	1,300	225	--	--	--	1	--	--	1	98	--	--	--	--	
	--	--	--	--	--	JACKSON ST	822	--	320	--	--	--	2	--	--	2	71	--	--	--	--	
	--	--	--	--	--	CLYBOURN ST	993	1,110	183	--	--	--	2	2	--	1	95	--	--	--	--	
	--	--	--	--	--	MICHIGAN ST	1,271	1,381	120	--	--	--	--	--	--	--	175	--	--	--	--	
	--	--	--	--	--	ST PAUL AVE	95	1,791	--	--	181	--	1	--	--	--	19	--	--	--	--	
	--	--	--	--	--	WATER TO BROADWAY PARKING LOT	--	--	--	--	--	--	--	--	6	23	--	--	4,439	--	459	
	--	--	--	--	--	BROADWAY TO MILWAUKEE PARKING LOT	--	--	--	--	--	--	--	--	5	12	--	--	5,896	--	680	
	--	--	--	--	--	MILWAUKEE TO JACKSON PARKING LOT	--	--	--	--	--	--	--	--	16	7	22	--	--	8,965	1,374	
	--	--	--	--	--	VAN BUREN PARKING LOT	--	--	--	--	--	--	--	--	--	--	--	--	--	4,637	--	
						SUBTOTAL IH 794 EAST-WEST	13,220	15,303	1,735	13,276	4,852	--	13	3	27	50	657	--	10,633	13,602	2,513	
						PROJECT TOTAL	55,733	62,543	2,177	65,885	22,777	2	24	3	27	57	657	3	10,633	13,602	2,513	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

PAVEMENT MARKING CONTINUED

CATEGORY	STATION		TO	STATION		LOCATION	647.0706 PAVEMENT MARKING DIAGONAL EPOXY 6-INCH	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH		647.0746 PAVEMENT MARKING DIAGONAL EPOXY 24-INCH	647.0766 PAVEMENT MARKING CROSSWALK EPOXY 6-INCH	SPV.0060.1128 PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 7	SPV.0060.1129 PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 2	SPV.0060.1130 PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 4	SPV.0060.1131 PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC	SPV.0060.1132 RAISED PAVEMENT MARKERS	SPV.0090.1004 PAVEMENT MARKING STOP LINE GROOVED PREFORMED THERMOPLASTIC 18-INCH	SPV.0090.1037 PAVEMENT MARKING CROSS WALK GROOVED PREFORMED THERMOPLASTIC 6-INCH
							LF	(WHITE) LF	(YELLOW) LF	(WHITE) LF	LF	EACH	EACH	EACH	EACH	EACH	LF	LF
HOAN BRIDGE																		
STAGE 2																		
1000	28+40	LF	-	159+50	LF	IH 794 NB & SB	--	3,778	--	963	--	--	--	--	--	--	--	--
	357+46	CS	-	370+00	CS	RAMP CS	--	--	--	--	--	2	2	--	2	--	39	--
	11+75	CN	-	666+83	CN	RAMP CN	--	--	--	--	--	--	--	--	--	--	--	--
	159+50	SB	-	169+73	SB	IH 794 SB	--	159	--	--	--	--	--	--	--	--	--	--
	159+50	NB	-	171+56	NB	IH 794 NB	--	174	--	421	--	--	--	--	--	--	--	--
	--	--	--	--	--	KINNICKINNIC AVE	--	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	LINCOLN MEMORIAL DRIVE SOUTH	--	--	--	--	--	--	--	--	--	--	--	--
						SUBTOTAL HOAN BRIDGE	--	4,111	--	1,384	--	2	2	--	2	--	39	--
LAKE INTERCHANGE																		
STAGE 2																		
1000	739+25	WB	-	764+85	WB	IH 794 WB	--	251	--	116	--	--	--	--	--	--	--	--
	640+50	EB	-	663+75	EB	IH 794 EB	--	56	152	502	--	--	--	--	--	--	--	--
	1+40	MW	-	9+11	MW	RAMP MW	--	--	--	--	--	--	--	2	--	2	31	--
	13+75	BE	-	23+27	BE	RAMP BE	--	--	--	--	--	--	--	--	--	--	--	--
	348+19	LW	-	359+76	LW	RAMP LW	--	--	--	--	--	--	--	--	--	--	--	--
	349+40	LE	-	358+50	LE	RAMP LE	--	--	--	--	--	--	--	4	--	4	25	--
	169+69	LS	-	183+37	LS	RAMP LS	--	423	--	--	--	--	--	--	--	--	--	--
	171+46	LN	-	179+50	LN	RAMP LN	--	102	--	--	--	--	--	4	--	4	24	--
	183+37	LS	-	191+40	LS	N. LINCOLN MEMORIAL DRIVE	--	--	--	--	--	--	--	--	--	--	164	400
	399+46	--	-	403+33	--	MICHIGAN ST.	--	--	--	--	--	--	--	--	--	--	73	268
						SUBTOTAL LAKE INTERCHANGE	--	832	152	618	--	--	--	10	--	10	317	668
IH 794 EAST-WEST																		
STAGE 2																		
1000	713+00	WB	-	739+50	WB	--	--	289	286	757	--	--	--	--	--	--	--	--
	613+00	EB	-	640+50	EB	--	--	320	295	541	--	--	--	--	--	--	--	--
	0+00	JE	-	18+00	JE	--	--	212	112	--	--	--	--	--	--	--	82	--
	10+00	JW	-	25+23	JW	--	--	217	96	--	--	--	--	6	--	6	--	--
	9+36	BE	-	13+75	BE	--	--	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	WATER ST.	--	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	BROADWAY	38	--	--	--	314	--	--	--	--	--	--	--
	--	--	--	--	--	MILWAUKEE ST.	--	--	--	--	300	--	--	--	--	--	--	--
	--	--	--	--	--	JACKSON ST	--	--	--	--	64	--	--	--	--	--	--	--
	--	--	--	--	--	CLYBOURN ST	--	--	--	--	339	--	--	--	--	--	--	--
	--	--	--	--	--	MICHIGAN ST	--	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	ST PAUL AVE	--	93	11	--	--	--	4	--	2	--	70	166
	--	--	--	--	--	WATER TO BROADWAY PARKING LOT	--	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	BROADWAY TO MILWAUKEE PARKING LOT	--	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	MILWAUKEE TO JACKSON PARKING LOT	--	--	--	--	44	--	--	--	--	--	--	--
	--	--	--	--	--	VAN BUREN PARKING LOT	--	--	--	--	--	--	--	--	--	--	--	--
						SUBTOTAL IH 794 EAST-WEST	38	1,131	800	1,298	1,061	--	4	6	2	6	152	166
						PROJECT TOTAL	38	6,074	952	3,300	1,061	2	6	16	4	16	508	834

PAVEMENT MARKING LATE SEASON

CATEGORY	STATION	TO	STATION	LOCATION	646.0900.S PAVEMENT MARKING EPOXY 4-INCH LF
HOAN BRIDGE					
STAGE 2					
1000	28+50 LF	-	151+50 LF	IH 794 SB	46,350
				PROJECT TOTAL	46,350

DELINEATORS

CATEGORY	LOCATION	REFLECTORS** 633.0500 EACH	BRACKETS 633.1000 EACH
LAKE INTERCHANGE			
STAGE 2			
1000	RAMP LN	20	10
	RAMP LE	20	10
	PROJECT TOTAL	40	20

**QUANTITY ACCOUNTS FOR FRONT/BACK

SAWING ASPHALT

CATEGORY	STATION	TO	STATION	DIRECTION	LOCATION	690.0150 LF
HOAN BRIDGE						
PRE-STAGE						
1000	202+52 LM	-	262+16 LM	RT/LT	S. LINCOLN MEMORIAL	315
					SUBTOTAL HOAN BRIDGE	315
LAKE INTERCHANGE						
PRE-STAGE						
1000	189+60 LS	-	189+90 LS	RT	N LINCOLN MEMORIAL	75
	189+28 LS	-	189+86 LS	LT	N LINCOLN MEMORIAL	180
	402+57 --	-	402+89 --	RT/LT	MICHIGAN STREET	65
					SUBTOTAL PRE-STAGE	320
STAGE 2						
1000	111+50 NI	-	112+75 NI	RT/LT	RAMP NI	300
	120+25 SI	-	122+00 SI	RT/LT	RAMP SI	485
	178+60 LS	-	181+72 LS	RT/LT	PARKING LOT	405
	189+56 LS	-	189+88 LS	RT	N LINCOLN MEMORIAL	95
	189+59 LS	-	189+71 LS	LT	MICHIGAN STREET	15
	189+93 LS	-	189+86 LS	LT	MICHIGAN STREET	10
					SUBTOTAL STAGE 2	1,310
					SUBTOTAL LAKE INTERCHANGE	1,630
IH 794 EAST-WEST						
STAGE 1						
	401+89	-	402+15	LT	ST PAUL AVENUE	65
	MILWAUKEE STREET	-	JACKSON STREET	--	SOUTH PARKING LOT	1,920
					SUBTOTAL STAGE 1	1,985
STAGE 2						
1000	ILWAUKEE STREET	-	\CKSON STREET	--	NORTH PARKING LOT	720
					SUBTOTAL STAGE 2	720
					SUBTOTAL IH 794 EAST-WEST	2,705
					PROJECT TOTAL	4,650

SAWING CONCRETE

CATEGORY	STATION		TO	STATION		DIRECTION	DESCRIPTION	690.0250 LF
HOAN BRIDGE								
PRE-STAGE								
1000	38+09	LF	-	41+74	LF	RT/LT	STH 794	750
	24+33	NX	-	25+11	NX	RT/LT	IH 794 WB	80
	33+50	SX	-	34+11	SX	RT/LT	IH 794 EB	65
	20+32	NX	-	21+11	NX	RT	RAMP CN	85
	31+36	SX	-	32+46	SX	LT	RAMP CS	110
							SUBTOTAL HOAN BRIDGE	1,090
LAKE INTERCHANGE								
PRE-STAGE								
1000	1+55	MX	-	2+28	MX	LT	RAMP MW	135
	355+19	LE	-	356+35	LE	RT/LT	RAMP LE	235
	358+44	LE	-	358+61	LE	RT/LT	RAMP LE	40
	359+48	LW	-	359+69	LW	RT/LT	RAMP LW	75
	179+06	LN	-	179+65	LN	RT/LT	RAMP LN	85
	182+89	LN	-	183+30	LN	RT/LT	RAMP LN	65
	183+18	LS	-	183+37	LS	LT	RAMP LS	40
	188+60	LS	-	188+93	LS	RT/LT	LINCOLN MEMORIAL	75
							SUBTOTAL PRE-STAGE	750
STAGE 2								
1000	0+98	MW	-	1+43	MW	RT/LT	RAMP MW	120
	354+61	LE	-	355+18	LE	RT/LT	RAMP LE	95
	188+70	LS	-	189+11	LS	RT	LINCOLN MEMORIAL	165
	188+50	LS	-	188+93	LS	LT	LINCOLN MEMORIAL	155
	401+28	--	-	401+41	--	RT	MICHIGAN STREET	20
	402+83	--	-	402+98	--	RT	MICHIGAN STREET	20
							SUBTOTAL STAGE 2	575
							SUBTOTAL LAKE INTERCHANGE	1,325
IH 794 EAST-WEST								
PRE-STAGE								
1000	51+43	JX	-	51+90	JX	RT/LT	RAMP JX	60
	52+45	JX	-	52+94	JX	RT/LT	RAMP JX	75
	53+55	JX	-	54+18	JX	RT	RAMP JX	75
							SUBTOTAL PRE-STAGE	210
STAGE 1								
1000	102+80	--	-	103+41	--	RT/LT	WATER STREET	230
	201+37	--	-	201+69	--	RT	BROADWAY	30
	202+68	--	-	202+94	--	RT/LT	BROADWAY	125
	302+79	--	-	303+41	--	RT/LT	MILWAUKEE STREET	165
	9+60	BE	-	10+09	BE	LT	RAMP BE	80
	3+06	CL	-	3+10	CL	RT	RAMP BE	25
	13+86	JE	-	14+12	JE	RT	RAMP JE	25
	WATER STREET		-	BROADWAY		--	PARKING LOT	95
	401+98	--	-	402+19	--	LT	ST PAUL AVENUE	55
							SUBTOTAL STAGE 1	830

SAWING CONCRETE CONTINUED

CATEGORY	STATION		TO	STATION		DIRECTION	DESCRIPTION	690.0250 LF
IH 794 EAST-WEST								
STAGE 2								
1000	202+86	--	-	204+13	--	RT	BROADWAY	140
	205+03	--	-	205+20	--	RT	BROADWAY	25
	204+44	--	-	204+59	--	LT	BROADWAY	25
	205+05	--	-	205+19	--	LT	BROADWAY	20
	301+66	--	-	302+27	--	RT	MILWAUKEE STREET	60
	304+98	--	-	305+16	--	RT	MILWAUKEE STREET	45
	302+28	--	-	302+82	--	LT	MILWAUKEE STREET	55
	304+42	--	-	304+57	--	LT	MILWAUKEE STREET	20
	305+00	--	-	305+16	--	LT	MILWAUKEE STREET	25
	25+22	JW	-	25+24	JW	LT	RAMP JW	45
	14+20	JE	-	14+42	JE	RT	RAMP JE	20
	14+22	JE	-	14+44	JE	LT	RAMP JE	20
	18+01	JE	-	18+01.	JE	RT/LT	RAMP JE	35
	17+45	JE	-	17+59	JE	LT	RAMP JE	15
							SUBTOTAL STAGE 2	550
							SUBTOTAL IH 794 EAST-WEST	1,590
							PROJECT TOTAL	4,005

SAWING PAVEMENT DECK PREPARATION AREAS

CATEGORY	STATION		TO	STATION		LOCATION	SPV.0090.1038 LF
HOAN BRIDGE							
PRE-STAGE							
1000	61+91	LF	-	171+56	NB	IH 794 WB	11,000
	61+91	LF	-	171+56	NB	UNDISTRIBUTED	500
						PROJECT TOTAL	11,500

LIGHT PROTECTION

CATEGORY	STATION		TO	STATION		SPV.0045.1001 TRUCK MOUNTED ATTENUATOR DAY	SPV.0060.1086 TEMPORARY THRIE BEAM LIGHT BLISTER PROTECTION EACH
HOAN BRIDGE							
STAGE 2							
1000	66+95	LF	-	162+55	NB	43	43
						PROJECT TOTAL 43	43

INCENTIVE STRENGTH CONCRETE

CATEGORY	PROJECT	PAVEMENT 715.0415 DOL	STRUCTURES 715.0502 DOL
1000	1300-13-70	980	350,980
	PROJECT TOTAL	980	350,980

MOBILIZATIONS EMERGENCY PAVEMENT REPAIR

CATEGORY	PROJECT	SPV.0060.1089 EACH
1000	1300-13-70	12

MECHANICAL JOINT TAPPING SLEEVE 8-INCH x 12-INCH

CATEGORY	STATION	OFFSET	DIRECTION	SPV.0060.1141 MECHANICAL JOINT TAPPING SLEEVE 8-INCH x 12-INCH EACH
IH 794 EAST-WEST				
STAGE 1 - BROADWAY				
1000	202+35	13'	LT	1
			PROJECT TOTAL	1

RESILIENT WEDGE GATE VALVE 8-INCH

CATEGORY	STATION	OFFSET	DIRECTION	SPV.0060.1142 RESILIENT WEDGE GATE VALVE 8-INCH EACH
IH 794 EAST-WEST				
STAGE 1 - BROADWAY				
1000	202+35	13'	LT	1
			PROJECT TOTAL	1

SAFETY SPOTTER

CATEGORY	PROJECT	SPV.0075.1002 DAYS
1000	1300-13-70	720

SANITARY SEWER COMPONENTS

CATEGORY	STATION	OFFSET	DIRECTION	SPV.0060.1143 8x8-INCH WYE EACH	SPV.0060.1145 8-INCH CLEANOUT EACH
IH 794 EAST-WEST					
STAGE 1 - BROADWAY					
1000	201+89	91'	LT	1	1
	201+96	91'	LT	1	--
			PROJECT TOTAL	2	1

8-INCH x 45-DEGREE BEND

CATEGORY	STATION	OFFSET	DIRECTION	SPV.0060.1144 8-INCH x 45-DEGREE BEND EACH
IH 794 EAST-WEST				
STAGE 1 - BROADWAY				
1000	201+00	91'	LT	1
	202+02	89'	LT	1
	202+02	65'	LT	1
			PROJECT TOTAL	3

SUMMARY OF LUMP SUM AND EACH BID ITEMS

CATEGORY	ITEM NUMBER	DESCRIPTION	UNITS	TOTAL QUANTITY
1000	211.0100	Prepare Foundation fo Asphaltic Pavement 1300-13-70	LS	1
	211.0200	Prepare Foundation for Concrete Pavement 1300-13-70	LS	1
	213.0100	Finish Roadway 1300-13-70	EACH	1
	618.0100	Maintenance and Repair of Haul Roads 1300-13-70	EACH	1
	619.1000	Mobilization	EACH	0.1
	643.2000	Traffic Control Detour 1300-13-70	EACH	1
	SPV.0060.1111	Baseline CPM Progress Schedule	EACH	1
	SPV.0060.1112	CPM Progress Schedule Updates and Accepted Revisions	EACH	1
	SPV.0105.0001	Removing Old Structures Project 1300-13-70	LS	1
	SPV.0105.0002	Abatement of Asbestos Containing Material Project 1300-13-70	LS	1
	SPV.0105.0003	Debris Containment Project 1300-13-70	LS	1
	SPV.0105.0004	Preparation and Coating of Top Flanges Project 1300-13-70	LS	1
	SPV.0105.0005	Structure Repainting Recycled Abrasive Project 1300-13-70	LS	1
	SPV.0105.0006	Painting Warranted Project 1300-13-70	LS	1
	SPV.0105.0007	Negative Pressure Containment and Collection of Waste Materials Project 1300-13-70	LS	1
	SPV.0105.0008	Portable Decontamination Facilities Project 1300-13-70	LS	1
	SPV.0105.0009	Preparation and Coating of Structural Steel Project 1300-13-70	LS	1
	SPV.0105.1027	Construction Dewatering	LS	1
	SPV.0105.1033	Survey Project 1300-13-70	LS	1
	SPV.0105.1034	Pavement Cleanup Project 1300-13-70	LS	1
	SPV.0105.1035	Concrete Pavement Joint Layout	LS	1
	SPV.0105.1037	Field Office Fixed	LS	1

DUCTILE IRON PIPE 8-INCH

CATEGORY	STATION	OFFSET	TO	STATION	OFFSET	DIRECTION	LOCATION	SPV.0090.1041 DUCTILE IRON PIPE 8-INCH LF
IH 794 EAST-WEST								
STAGE 1								
1000	201+85	13'	-	202+35	86'	LT	BROADWAY	125
							PROJECT TOTAL	125

PVC SANITARY 8-INCH

CATEGORY	STATION	OFFSET	DIRECTION	SPV.0090.1042 PVC SANITARY 8-INCH LF
IH 794 EAST-WEST				
STAGE 1 - BROADWAY				
1000	201+89 - 201+99	89'-63'	LT	42
			PROJECT TOTAL	42

MAINTENANCE OF PARKING GATES AT THE PUBLIC MARKET

CATEGORY	LOCATION	SPV.0105.1042 LS
IH 794 EAST-WEST		
1000	PUBLIC MARKET	1

RELOCATION OF PARKING PAY STATION AT MILWAUKEE BROADWAY PARKING LOT

CATEGORY	STATION	LOCATION	SPV.0105.1043 LS
IH 794 EAST-WEST			
STAGE 2			
1000	302+30	MICHIGAN STREET	1
		PROJECT TOTAL	1

TEMPORARY WALL

CATEGORY	STATION	TO	STATION	SPV.0165.1004 SF
LAKE INTERCHANGE				
PRE STAGE 2				
1000	178+80	LS -	181+27 LS	3,924
			PROJECT TOTAL	3,924

PAVEMENT REPAIR SPECIAL

CATEGORY	LOCATION	CONCRETE SPV.0180.1002 SY	ASPHALT SPV.0195.1001 TON
1000	UNDISTRIBUTED	100	50

COLD PATCH

CATEGORY	LOCATION	SPV.0195.1002 TON
1000	UNDISTRIBUTED	50

VIBRATION MONITORING

CATEGORY	BRIDGE	SPV.0060.5004 24-HOUR BASELINE VIBRATION MONITORING EACH	SPV.0060.5005 DAILY VIBRATION MONITORING EACH
IH-794 EAST-WEST			
STAGE 1			
4020	B-40-0887	4	2
4030	B-40-0888	2	1
SUBTOTAL STAGE 1		6	3
STAGE 2			
4000	B-40-0885	3	2
4010	B-40-0886	3	2
SUBTOTAL STAGE 2		6	4
PROJECT TOTAL		12	7

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.0202 SIGNS REFLC TYPE II [SF]	637.0402 SIGNS REFLC FOLDING TYPE II [SF]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0622 WOOD POSTS 4" X 6" X 22'	634.0816 TUBULAR STEEL POSTS 2"x2"x 16' [EA]	634.0885 TUBULAR STEEL POSTS 2"x2"x 8.5' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.0101 SIGNS TYPE I [SF]	638.2101 MOVING SIGNS TYPE I I [EA]
1	E6-51	[794] To [794] DOWNTOWN [A] [A]	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-14 I BEAMS INCIDENTAL	17 x 9	153.00	--
2	E6-1	PORT OF MILWAUKEE [A]	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-14 I BEAMS INCIDENTAL	12 x 4	48.00	--
3	W1-1R(5)	RIGHT CURVE	48 x 48	16.000	--	1		--	--	--	--	--	x	0.00	--
4	W13-1(5)	30 MPH	36 x 36	9.000	--	--		--	--	--	#3	--	x	0.00	--
5	R2-1(5)	SPEED LIMIT 40	48 x 60	20.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
6	R2-1(5)	SPEED LIMIT 40	48 x 60	20.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
7	E5-1(MOD)	EXIT [A]	42 x 48	14.000	--	--		--	--	--	--	--	x	0.00	--
8	R2-1(5)	SPEED LIMIT 40	48 x 60	20.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
9	R2-1(5)	SPEED LIMIT 50	48 x 60	20.000	--	1		--	--	--	--	--	x	0.00	--
10	W3-5(5)	REDUCED SPEED 40	48 x 48	16.000	--	1		--	--	--	--	--	x	0.00	--
11	W3-5(5)	REDUCED SPEED 40	48 x 48	16.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
12	W4-3R(5)	MERGE ADDED LANE	48 x 48	16.000	--	1		--	--	--	--	--	x	0.00	--
13	W1-1R(3)	RIGHT CURVE	36 x 36	9.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
14	W13-1(3)	30 MPH	24 x 24	4.000	--	--		--	--	--	#13	--	x	0.00	--
15	W3-1(2S)	STOP AHEAD	36 x 36	9.000	--	1		--	--	--	--	--	x	0.00	--
16	R3-8(MOD)(2S)	LANE CONTROL	36 x 30	7.500	--	1		--	--	--	--	--	x	0.00	--
17	R5-1A(3)	WRONG WAY	42 x 30	8.750	--	--		--	--	--	#16	--	x	0.00	--
18	R5-1A(3)	WRONG WAY	42 x 30	8.750	--	--		--	--	--	#27	--	x	0.00	--
19	D1-2	[A] CAR FERRY	72 x 15	7.500	--	2		--	--	--	--	--	x	0.00	--
20	D1-2	PORT OF MILWAUKEE [A] [A] LINCOLN MEM DR	144 x 42	42.000	--	3		--	--	--	--	--	x	0.00	--
21	R5-1(3)	DO NOT ENTER	36 x 36	9.000	--	--		--	--	--	#30	TRIM TO STOP SIGN. 6' MOUNT HEIGHT	x	0.00	--
22	R5-1(3)	DO NOT ENTER	36 x 36	9.000	--	--		--	--	--	#21	3' MOUNT HEIGHT	x	0.00	--
23	--	FREEWAY ENTRANCE	66 x 30	13.750	--	3		--	--	--	--	--	x	0.00	--
24	W1-8(3)	CHEVRON	24 x 30	5.000	--	1		--	--	--	--	--	x	0.00	--
25	W1-8(3)	CHEVRON	24 x 30	5.000	--	1		--	--	--	--	--	x	0.00	--
26	W1-8(3)	CHEVRON	24 x 30	5.000	--	1		--	--	--	--	--	x	0.00	--
27	W1-8(3)	CHEVRON	24 x 30	5.000	--	1		--	--	--	--	--	x	0.00	--
28	W1-8(3)	CHEVRON	24 x 30	5.000	--	1		--	--	--	--	--	x	0.00	--
29	W4-1(5)	MERGING TRAFFIC	48 x 48	16.000	--	1		--	--	--	--	--	x	0.00	--
30	R1-1(3)	STOP	36 x 36	7.460	--	1		--	--	--	--	--	x	0.00	--
31	R1-3P(3)	ALL WAY	30 x 12	2.500	--	--		--	--	--	#30	--	x	0.00	--
32	R1-1(3)	STOP	36 x 36	7.460	--	1		--	--	--	--	--	x	0.00	--
33	R1-3P(3)	ALL WAY	30 x 12	2.500	--	--		--	--	--	#32	--	x	0.00	--
34	R1-1(3)	STOP	36 x 36	7.460	--	1		--	--	--	--	--	x	0.00	--
35	R1-3P(3)	ALL WAY	30 x 12	2.500	--	--		--	--	--	#34	--	x	0.00	--
36	R1-1(3)	STOP	36 x 36	7.460	--	1		--	--	--	--	--	x	0.00	--
37	R1-3P(3)	ALL WAY	30 x 12	2.500	--	--		--	--	--	#36	--	x	0.00	--
38	R1-1(3)	STOP	36 x 36	7.460	--	1		--	--	--	--	--	x	0.00	--
39	R1-3P(3)	ALL WAY	30 x 12	2.500	--	--		--	--	--	#38	--	x	0.00	--
40	R1-1(3)	STOP	36 x 36	7.460	--	1		--	--	--	--	--	x	0.00	--
41	R1-3P(3)	ALL WAY	30 x 12	2.500	--	--		--	--	--	#40	--	x	0.00	--
42	D1-2	PORT OF MILWAUKEE [A] [A] LINCOLN MEM DR	144 x 42	42.000	--	3		--	--	--	--	--	x	0.00	--

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43	D1-2	[A] CAR FERRY	72 x	15	7.500	--	2		--	--	--	--	--	x		0.00	--
44	R7-1D(2M)	NO PARKING ANY TIME	24 x	30	5.000	--	--		--	--	--	#45	--	x		0.00	--
45	W1-8(3)	CHEVRON	24 x	30	5.000	--	1		--	--	--	--	--	x		0.00	--
46	W1-8(3)	CHEVRON	24 x	30	5.000	--	1		--	--	--	--	--	x		0.00	--
47	W1-8(3)	CHEVRON	24 x	30	5.000	--	1		--	--	--	--	--	x		0.00	--
48	R7-1D(2M)	NO PARKING ANY TIME	24 x	30	5.000	--	--		--	--	--	#47	--	x		0.00	--
49	J3-1(2S)	--	24 x	57	9.500	--	1		--	--	--	--	--	x		0.00	--
	M3-3	SOUTH	24 x	12	--	--	--		--	--	--	--	--	x		0.00	--
	M1-6	STH 794	24 x	24	--	--	--		--	--	--	--	--	x		0.00	--
	M6-1	ARROW	21 x	21	--	--	--		--	--	--	--	--	x		0.00	--
50	J3-2(2S)	--	48 x	69	23.000	--	1		--	--	--	--	--	x		0.00	--
	MB4-5	TO	24 x	12	--	--	--		--	--	--	--	--	x		0.00	--
	MB3-4	WEST	24 x	12	--	--	--		--	--	--	--	--	x		0.00	--
	M1-1A	IH 794	24 x	24	--	--	--		--	--	--	--	--	x		0.00	--
	MB6-1	ARROW	21 x	21	--	--	--		--	--	--	--	--	x		0.00	--
	M4-5	TO	24 x	12	--	--	--		--	--	--	--	--	x		0.00	--
	M3-4	WEST	24 x	12	--	--	--		--	--	--	--	--	x		0.00	--
	M1-6	STH 794	24 x	24	--	--	--		--	--	--	--	--	x		0.00	--
	M6-1	ARROW	21 x	21	--	--	--		--	--	--	--	--	x		0.00	--
51	R4-7(2S)	KEEP RIGHT	24 x	30	5.000	--	1		--	--	--	--	--	x		0.00	--
52	W5-52L(2S)	CLEARANCE STRIPER	12 x	36	3.000	--	--		--	--	--	#51	--	x		0.00	--
53	D1-1(MOD)	[A] FERRY	30 x	24	5.000	--	--		--	--	--	#51	--	x		0.00	--
54	R4-7(2S)	KEEP RIGHT	24 x	30	5.000	--	1		--	--	--	--	--	x		0.00	--
56	R4-7(2S)	KEEP RIGHT	24 x	30	5.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x		0.00	--
57	W5-52L(2S)	CLEARANCE STRIPER	12 x	36	3.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x		0.00	--
58	R1-2(2S)	YIELD	36 x	31	3.880	--	1		--	--	--	--	--	x		0.00	--
59	R1-2(2S)	YIELD	36 x	31	3.880	--	1		--	--	--	--	--	x		0.00	--
60	--	FREEWAY ENTRANCE	66 x	30	13.750	--	3		--	--	--	--	--	x		0.00	--
61	J3-2(2S)	--	48 x	57	19.000	--	1		--	--	--	--	--	x		0.00	--
	M3-3	SOUTH	24 x	12	--	--	--		--	--	--	--	--	x		0.00	--
	M1-6	STH 794	24 x	24	--	--	--		--	--	--	--	--	x		0.00	--
	M6-1	ARROW	21 x	21	--	--	--		--	--	--	--	--	x		0.00	--
	MB3-4	WEST	24 x	12	--	--	--		--	--	--	--	--	x		0.00	--
	M1-1A	IH 794	24 x	24	--	--	--		--	--	--	--	--	x		0.00	--
	MB6-2	TILT ARROW	21 x	21	--	--	--		--	--	--	--	--	x		0.00	--
62	D1-1(MOD)	[A] FERRY	30 x	24	5.000	--	1		--	--	--	--	--	x		0.00	--
63	D1-60	LINCOLN MEM DR [A] NORTH SOUTH [A]	84 x	48	28.000	--	2		--	--	--	--	--	x		0.00	--
64	R3-7R	RIGHT LANE MUST TURN RT	30 x	30	6.250	--	1		--	--	--	--	--	x		0.00	--
65	R7-1D(2S)	NO PARKING ANY TIME	18 x	24	3.000	--	--		--	--	--	#64	--	x		0.00	--
66	J3-1(2S)	--	24 x	81	13.500	--	1		--	--	--	--	--	x		0.00	--
	MB4-5	TO	24 x	12	--	--	--		--	--	--	--	--	x		0.00	--
	M1-1	IH 43	24 x	24	--	--	--		--	--	--	--	--	x		0.00	--
	M1-1	IH 94	24 x	24	--	--	--		--	--	--	--	--	x		0.00	--
	MB6-1	ARROW	21 x	21	--	--	--		--	--	--	--	--	x		0.00	--
67	W12-1D(2S)	DOUBLE DOWN ARROWS	-- x	--	--	--	1		--	--	--	--	--	x		0.00	--
68	R5-1(3)	DO NOT ENTER	36 x	36	9.000	--	--		--	--	--	#64	--	x		0.00	--
69	R4-7(2S)	KEEP RIGHT	24 x	30	5.000	--	--		--	--	--	--	MOUNT ON SIGNAL POLE	x		0.00	--
70	R1-1(3)	STOP	36 x	36	7.460	--	--		--	--	--	--	MOUNT ON SIGNAL POLE	x		0.00	--
71	W4-4AR(3)	TRAFFIC FROM RT DOES NOT	42 x	15	4.375	--	--		--	--	--	#70	--	x		0.00	--

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72	R1-1(3)	STOP	36 x 36	7.460	--	1		--	--	--	--	--	x	0.00	--
73	W4-4AR(3)	TRAFFIC FROM RT DOES NOT	42 x 15	4.375	--	--		--	--	--	#72	--	x	0.00	--
74	R1-1(3)	STOP	36 x 36	7.460	--	1		--	--	--	--	--	x	0.00	--
75	W4-4C(3)	LINCOLN MEM DR DOES NOT	36 x 15	3.750	--	--		--	--	--	#74	--	x	0.00	--
76	R3-7R(3)	RIGHT LANE MUST TURN RT	36 x 36	9.000	--	1		--	--	--	--	--	x	0.00	--
77	R4-7(2S)	KEEP RIGHT	24 x 30	5.000	--	1		--	--	--	--	--	x	0.00	--
78	W5-52L(2S)	CLEARANCE STRIPER	12 x 36	3.000	--	--		--	--	--	--	--	x	0.00	--
79	R5-1(2S)	DO NOT ENTER	30 x 30	6.250	--	--		--	--	--	#83	--	x	0.00	--
80	R1-2(2S)	YIELD	36 x 31	3.880	--	1		--	--	--	--	--	x	0.00	--
81	W12-1D(2S)	DOUBLE DOWN ARROWS	24 x 24	4.000	--	--		--	--	--	#83	--	x	0.00	--
82	J3-1(2S)	--	24 x 69	11.500	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
	MB4-5	TO	24 x 12	--	--	--		--	--	--	--	--	x	0.00	--
	MB3-4	WEST	24 x 12	--	--	--		--	--	--	--	--	x	0.00	--
	M1-1A	IH 794	24 x 24	--	--	--		--	--	--	--	--	x	0.00	--
	MB6-1	ARROW	21 x 21	--	--	--		--	--	--	--	--	x	0.00	--
83	J3-2(2S)	--	48 x 69	23.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
	MB4-5	TO	24 x 12	--	--	--		--	--	--	--	--	x	0.00	--
	MB3-4	WEST	24 x 12	--	--	--		--	--	--	--	--	x	0.00	--
	M1-1A	IH 794	24 x 24	--	--	--		--	--	--	--	--	x	0.00	--
	MB6-2	TILT ARROW	21 x 21	--	--	--		--	--	--	--	--	x	0.00	--
	M4-5	TO	24 x 12	--	--	--		--	--	--	--	--	x	0.00	--
	M3-3	SOUTH	24 x 12	--	--	--		--	--	--	--	--	x	0.00	--
	M1-6	STH 794	24 x 24	--	--	--		--	--	--	--	--	x	0.00	--
	M6-1	TILT ARROW	21 x 21	--	--	--		--	--	--	--	--	x	0.00	--
84	J3-1(2S)	--	24 x 81	13.500	--	1		--	--	--	--	--	x	0.00	--
	MB4-5	TO	24 x 12	--	--	--		--	--	--	--	--	x	0.00	--
	M1-1	IH 43	24 x 24	--	--	--		--	--	--	--	--	x	0.00	--
	M1-1	IH 94	24 x 24	--	--	--		--	--	--	--	--	x	0.00	--
	MB6-1	ARROW	21 x 21	--	--	--		--	--	--	--	--	x	0.00	--
85	R7-1D(2S)	NO PARKING ANY TIME	18 x 24	3.000	--	1		--	--	--	--	--	x	0.00	--
86	R1-1(3)	STOP	36 x 36	7.460	--	--		--	--	--	#77	--	x	0.00	--
87	R1-2(2S)	YIELD	36 x 31	3.880	--	1		--	--	--	--	--	x	0.00	--
88	R2-1(3)	SPEED LIMIT 50	36 x 48	12.000	--	1		--	--	--	--	--	x	0.00	--
89	D12-2A(2M)	RIDESHARE 1-800-455-POOL	60 x 42	17.500	--	2		--	--	--	--	--	x	0.00	--
90	W4-2R(3)	LANE REDUCTION	48 x 48	16.000	--	1		--	--	--	--	--	x	0.00	--
91	W4-2R(3)	LANE REDUCTION	48 x 48	16.000	--	1		--	--	--	--	--	x	0.00	--
92	R5-57(5)	PEDESTRIANS ETC...	36 x 36	9.000	--	1		--	--	--	--	--	x	0.00	--
93	R3-8C(2S)	LANE CONTROL	36 x 30	7.500	--	--		--	--	--	#94	--	x	0.00	--
94	J3-1(2S)	--	24 x 57	9.500	--	1		--	--	--	--	--	x	0.00	--
	MB3-4	WEST	24 x 12	--	--	--		--	--	--	--	--	x	0.00	--
	M1-1A	IH 794	24 x 24	--	--	--		--	--	--	--	--	x	0.00	--
	MB6-2	TILT ARROW	21 x 21	--	--	--		--	--	--	--	--	x	0.00	--
95	D1-1	DOWNTOWN [A]	72 x 15	7.500	--	2		--	--	--	--	--	x	0.00	--
96	R1-2(2S)	YIELD	36 x 31	3.880	--	1		--	--	--	--	--	x	0.00	--
97	W4-1L(2S)	MERGING TRAFFIC	36 x 36	9.000	--	1		--	--	--	--	--	x	0.00	--
98	W4-1(2S)	MERGING TRAFFIC	36 x 36	9.000	--	1		--	--	--	--	--	x	0.00	--
99	R5-1A(3)	WRONG WAY	42 x 30	8.750	--	1		--	--	--	--	--	x	0.00	--
100	D1-2	PORT OF MILWAUKEE [A] [A] LINCOLN MEM DR	144 x 42	42.000	--	3		--	--	--	--	--	x	0.00	--

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101	W1-8(3)	CHEVRON	24 x 30	5.000	--	1		--	--	--	--	--	x	0.00	--
102	W1-8(3)	CHEVRON	24 x 30	5.000	--	1		--	--	--	--	--	x	0.00	--
103	D1-2	[A] CAR FERRY	72 x 15	7.500	--	2		--	--	--	--	--	x	0.00	--
104	R5-1A(3)	WRONG WAY	42 x 30	8.750	--	--		--	--	--	#100	--	x	0.00	--
105	R3-8F(2S)	LANE CONTROL	36 x 30	7.500	--	1		--	--	--	--	--	x	0.00	--
106	W3-1(3)	STOP AHEAD	36 x 36	9.000	--	1		--	--	--	--	--	x	0.00	--
107	J2-1(2S)	--	24 x 57	9.500	--	1		--	--	--	--	--	x	0.00	--
	MB3-3	SOUTH	24 x 12	--	--	--		--	--	--	--	--	x	0.00	--
	M1-1A	IH 794	24 x 24	--	--	--		--	--	--	--	--	x	0.00	--
	MB5-1R	ADV RIGHT ARROW	21 x 21	--	--	--		--	--	--	--	--	x	0.00	--
108	R5-1(3)	DO NOT ENTER	36 x 36	9.000	--	1		--	--	--	--	--	x	0.00	--
109	R1-1(3)	STOP	36 x 36	7.460	--	1		--	--	--	--	--	x	0.00	--
110	R1-1(3)	STOP	36 x 36	7.460	--	--		--	--	--	#54	--	x	0.00	--
111	D1-1	[A] DOWNTOWN	72 x 15	7.500	--	2		--	--	--	--	--	x	0.00	--
112	J2-1(2S)	--	24 x 57	9.500	--	1		--	--	--	--	--	x	0.00	--
	MB3-3	WEST	24 x 12	--	--	--		--	--	--	--	--	x	0.00	--
	M1-1A	IH 794	24 x 24	--	--	--		--	--	--	--	--	x	0.00	--
	MB5-1L	ADV LEFT ARROW	21 x 21	--	--	--		--	--	--	--	--	x	0.00	--
113	W1-8(2M)	CHEVRON	18 x 24	3.000	--	1		--	--	--	--	--	x	0.00	--
114	W1-8(2M)	CHEVRON	18 x 24	3.000	--	1		--	--	--	--	--	x	0.00	--
115	W1-8(2M)	CHEVRON	18 x 24	3.000	--	1		--	--	--	--	--	x	0.00	--
116	W1-8(2M)	CHEVRON	18 x 24	3.000	--	1		--	--	--	--	--	x	0.00	--
117	W1-8(2M)	CHEVRON	18 x 24	3.000	--	1		--	--	--	--	--	x	0.00	--
118	J3-1(2S)	--	24 x 57	9.500	--	--		--	--	--	#50	--	x	0.00	--
	MB3-4	WEST	24 x 12	--	--	--		--	--	--	--	--	x	0.00	--
	M1-1A	IH 794	24 x 24	--	--	--		--	--	--	--	--	x	0.00	--
	MB6-1	ARROW	21 x 21	--	--	--		--	--	--	--	--	x	0.00	--
119	D10-5(5)	W(794 SHIELD) MILE 3/.4	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
120	D10-5(5)	E(794 SHIELD) MILE 3/.4	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
121	R8-7(5)	EMERGENCY STOP ONLY	48 x 36	12.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
122	R2-1(5)	SPEED LIMIT 50	48 x 60	20.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
123	D10-5(5)	W(794 SHIELD) MILE 3/.2	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
124	D10-5(5)	E(794 SHIELD) MILE 3/.2	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
125	R8-7(5)	EMERGENCY STOP ONLY	48 x 36	12.000	--	--		--	--	--	--	MOUNT ON UPRIGHT OF S-40-852	x	0.00	--
126	E8-1	MICHIGAN ST 2 MILWAUKEE ST 2 1/4 [43] [94] [41] 2 3/4	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-852 I BEAMS INCIDENTAL	19 x 8	152.00	--
127	J4-1(5)	--	45 x 54	16.875	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
	MB3-4	WEST	36 x 18	--	--	--		--	--	--	--	--	x	0.00	--
	M1-1A	IH 794	45 x 36	--	--	--		--	--	--	--	--	x	0.00	--
128	E6-51	[794] SOUTH LAKE PARKWAY [A] [A]	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-852 I BEAMS INCIDENTAL	17 x 10.5	178.50	--
129	E6-1(MOD)	PORT OF MILWAUKEE [A] EXIT ONLY	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-852 I BEAMS INCIDENTAL	17 x 8	136.00	--
129A	E1-5P	EXIT 3	-- x --	--	--	--		--	--	--	--	--	8 x 2.5	20.00	--

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130	--	EXIT 3 [A]	30 x 72	15.000	--	--		--	1	--	--	MOUNT ON TOP OF WALL	x	0.00	--
131	J4-1(5)	--	45 x 72	22.500	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
	MB3-2	EAST	36 x 18	--	--	--		--	--	--	--	--	x	0.00	--
	M1-1A	IH 794	45 x 36	--	--	--		--	--	--	--	--	x	0.00	--
	MB4-6(MOD)	ENDS	36 x 18	--	--	--		--	--	--	--	--	x	0.00	--
132	J4-1(5)	--	45 x 72	22.500	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
	M3-1	NORTH	36 x 18	--	--	--		--	--	--	--	--	x	0.00	--
	M1-6	STH 794	36 x 36	--	--	--		--	--	--	--	--	x	0.00	--
	M4-6(MOD)	ENDS	36 x 18	--	--	--		--	--	--	--	--	x	0.00	--
133	D10-5(5)	W(794 SHIELD) MILE 3/.0	21 x 60	8.750	--	--		--	1	--	--	--	x	0.00	--
134	D10-5(5)	E(794 SHIELD) MILE 3/.0	21 x 60	8.750	--	--		--	--	--	#133	--	x	0.00	--
135	D10-5(5)	W(794 SHIELD) MILE 2/.8	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
136	D10-5(5)	E(794 SHIELD) MILE 2/.8	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
137	R2-1(5)	SPEED LIMIT 50	48 x 60	20.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
138	E6-1(MOD)	PORT OF MILWAUKEE 1/2 MILE EXIT [A] ONLY	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-851 I BEAMS INCIDENTAL	16 x 11	176.00	--
138A	E1-5P	EXIT 3	-- x --	--	--	--		--	--	--	--	--	8 x 2.5	20.00	--
139	E6-51	[794] SOUTH LAKE PARKWAY [A] [A]	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-851	17 x 10.5	178.50	--
140	D10-5(5)	E (794 SHIELD) MILE 2/.6	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
141	R8-7(5)	EMERGENCY STOP ONLY	48 x 36	12.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
142	D10-5(5)	W (794 SHIELD) MILE 2/.6	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
143	E6-51	MICHIGAN ST 1 1/2 MILES	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-851 I BEAMS INCIDENTAL	15 x 6	90.00	--
143A	E1-5P	EXIT 1 F	-- x --	--	--	--		--	--	--	--	--	10 x 2.5	25.00	--
144	R2-1(5)	SPEED LIMIT 50	48 x 60	20.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
145	E6-1(MOD)	[794] WEST TO [43] [94] [41] 2 LEFT LANES	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-330 I BEAMS INCIDENTAL	19 x 11	209.00	--
146	D10-5(5)	W (794 SHIELD) MILE 2/.4	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
147	D10-5(5)	E (794 SHIELD) MILE 2/.4	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
148	E6-52(MOD)	FREEWAY ENDS 1 MILE	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-330 I BEAMS INCIDENTAL	10 x 6.5	65.00	--
149	E6-1(MOD)	PORT OF MILWAUKEE 1 MILE EXIT [A] ONLY	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-330 I BEAMS INCIDENTAL	16 x 11	176.00	--

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149A	E1-5P	EXIT 3	-- x --	--	--	--		--	--	--	--	--	8 x 2.5	20.00	--
150	R2-1(5)	SPEED LIMIT 50	48 x 60	20.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
151	R2-1(5)	SPEED LIMIT 50	48 x 60	20.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
152	D10-5(5)	W (794 SHIELD) MILE 2/.2	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
153	D10-5(5)	E (794 SHIELD) MILE 2/.2	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
154	R2-1(5)	SPEED LIMIT 50	48 x 60	20.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
155	D10-5(5)	W (794 SHIELD) MILE 2/.0	21 x 60	8.750	--	--		--	1	--	--	--	x	0.00	--
156	D10-5(5)	E (794 SHIELD) MILE 2/.0	21 x 60	8.750	--	--		--	--	--	#155	--	x	0.00	--
157	R2-1(5)	SPEED LIMIT 50	48 x 60	20.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
158	R8-7(5)	EMERGENCY STOP ONLY	48 x 36	12.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
159	D10-5(5)	W (794 SHIELD) MILE 1/.8	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
160	D10-5(5)	E (794 SHIELD) MILE 1/.8	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
161	R2-1(5)	SPEED LIMIT 50	48 x 60	20.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
162	E6-1(MOD)	[794] WEST TO [43] [94] [41] [A] [A]	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-331 I BEAMS INCIDENTAL	19 x 12	228.00	--
163	E6-1(MOD)	MICHIGAN ST EXIT [A] ONLY	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-331 I BEAMS INCIDENTAL	16 x 7	112.00	--
163A	E1-5P	EXIT 1 F	-- x --	--	--	--		--	--	--	--	--	10 x 2.5	25.00	--
164	E6-1(MOD)	[794] WEST TO [43] [94] [41] [A] [A]	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-850 I BEAMS INCIDENTAL	19 x 12	228.00	--
165	E6-1(MOD)	MICHIGAN ST [A] EXIT ONLY [A]	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-850 I BEAMS INCIDENTAL	17 x 6.5	110.50	--
165A	E1-5P	EXIT 1 F	-- x --	--	--	--		--	--	--	--	--	10 x 2.5	25.00	--
166	W13-2(5)	EXIT 35 MPH	48 x 60	20.000	--	--		--	--	--	--	MOUNT ON UPRIGHT OF S-40-850	x	0.00	--
167	W4-3L(5)	MERGE ADDED LANE	48 x 48	16.000	--	--		--	1	--	--	MOUNT ON BARRIER WALL	x	0.00	--
168	D10-5(5)	W (794 SHIELD) MILE 1/.6	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
169	D10-5(5)	E (794 SHIELD) MILE 1/.6	21 x 60	8.750	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
170	R2-1(5)	SPEED LIMIT 50	48 x 60	20.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
171	J4-1(5) MB3-2 M1-1A	-- EAST IH 794	45 x 54 36 x 18 45 x 36	16.875 -- --	-- -- --	-- -- --		-- -- --	-- -- --	-- -- --	-- -- --	MOUNT ON LIGHT POLE -- --	x x x	0.00 0.00 0.00	-- -- --
172	E8-1	PORT OF MILWAUKEE 1 3/4 [FREEWAY ENDS] 1 3/4 OKLAHOMA AVE 3	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-331 I BEAMS INCIDENTAL	23 x 7.5	172.50	--
173	R7-1D(2S)	NO PARKING ANY TIME	18 x 24	3.000	--	1		--	--	--	--	--	x	0.00	--
174	R7-1D(2S)	NO PARKING ANY TIME	18 x 24	3.000	--	1		--	--	--	--	--	x	0.00	--
175	R7-1D(2S)	NO PARKING ANY TIME	18 x 24	3.000	--	1		--	--	--	--	--	x	0.00	--
176	R7-4(2S)(MOD)	NO STOPPING ANY TIME	18 x 24	3.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
177	--	OAK LEAF TRAIL	-- x --	--	--	--		--	--	1	--	MOUNT ON LIGHT POLE	x	0.00	--

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178	R7-1D(2S)	NO PARKING ANY TIME	18 x	24	3.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x		0.00	--
179	R1-1(2S)	STOP	30 x	30	5.180	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x		0.00	--
179A	R1-3P(2S)	ALL WAY	18 x	6	0.750	--	--		--	--	--	#179	MOUNT ON LIGHT POLE	x		0.00	--
180	R1-1(2S)	STOP	30 x	30	5.180	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x		0.00	--
181	R1-1(2S)	STOP	30 x	30	5.180	--	1		--	--	--	--	--	x		0.00	--
182	R7-2	2 HR PARKING	-- x	--	--	--	--		--	--	1	--	MOUNT ON LIGHT POLE	x		0.00	--
183	R1-1(2S)	STOP	30 x	30	5.180	--	1		--	--	--	--	--	x		0.00	--
184	R1-3P(2S)	ALL WAY	18 x	6	0.750	--	--		--	--	--	#183	--	x		0.00	--
185	R3-17B(2S)	BIKE LANE	30 x	24	5.000		1				--	--	--	x		0.00	--
185A	R3-17A MOD	BEGINS	30 X	12	2.500							185					
186	NOT USED	--	-- x	--	--	--	--		--	--	--	--	* NOT USED *	x		0.00	--
187	R3-17(2S)	BIKE LANE	30 X	24	5.000		1				--	--	--	x		0.00	--
187A	R3-17B(2S)	ENDS	30 X	12	2.500							187					
188	--	--	-- x	--	--	--	--		--	--	--	--	* NOT USED *	x		0.00	--
189	--	HANK AARON STATE TRAIL	-- x	--	--	--	--		--	--	1	#187	--	x		0.00	--
190	R7-2	2 HR PARKING	-- x	--	--	--	--		--	--	1	#185	--	x		0.00	--
191	R7-1L(2S)	NO PARKING ANY TIME	18 x	24	3.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x		0.00	--
192	R7-2	2 HR PARKING	-- x	--	--	--	--		--	--	1	--	MOUNT ON LIGHT POLE	x		0.00	--
193	D11-1(2)	BIKE ROUTE	24 x	18	3.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x		0.00	--
194	R7-2	2 HR PARKING	-- x	--	--	--	--		--	--	1	--	MOUNT ON LIGHT POLE	x		0.00	--
195	R2-1(2S)	SPEED LIMIT 25	24 x	30	5.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x		0.00	--
196	R3-7R(3)	RIGHT LANE MUST TURN RT	36 x	36	9.000	--	1		--	--	--	--	--	x		0.00	--
197	W5-52R(2S)	CLEARANCE STRIPER	12 x	36	3.000	--	--		--	--	--	#196	--	x		0.00	--
198	R7-4(2S)(MOD)	NO STOPPING ANY TIME	18 x	24	3.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x		0.00	--
199	R7-1R(2S)	NO PARKING ANY TIME	18 x	24	3.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x		0.00	--
200	R7-1D(2S)	NO PARKING ANY TIME	18 x	24	3.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x		0.00	--
201	R7-1D(2S)	NO PARKING ANY TIME	18 x	24	3.000	--	1		--	--	--	--	--	x		0.00	--
202	R7-1D(2S)	NO PARKING ANY TIME	18 x	24	3.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x		0.00	--
203	R7-1D(2S)	NO PARKING ANY TIME	18 x	24	3.000	--	1		--	--	--	--	--	x		0.00	--
204	E6-51	MILWAUKEE ST DOWNTOWN [LEFT] 1/4 MILE	-- x	--	--	--	--		--	--	--	--	INSTALL ON S-40-367 I BEAMS INCIDENTAL	17 x	8	136.00	--
204A	E1-5BP	[LEFT] EXIT 1 E	-- x	--	--	--	--		--	--	--	--	MOUNT ON 204	9 x	4	36.00	--
205	D10-5(5)	E (794 SHIELD) MILE 1/.4	21 x	60	8.750	--	--		--	1	--	--	--	x		0.00	--
206	D10-5(5)	W (794 SHIELD) MILE 1/.4	21 x	60	8.750	--	--		--	1	--	--	--	x		0.00	--
207	W3-3(3)	SIGNAL AHEAD	36 x	36	9.000	--	1		--	--	--	--	--	x		0.00	--
208	W3-3(3)	SIGNAL AHEAD	36 x	36	9.000	--	1		--	--	--	--	--	x		0.00	--
209	E6-1	MILWAUKEE ST [A] DOWNTOWN											INSTALL ON S-40-854 I BEAMS INCIDENTAL	20 x	6		
209A	E1-5BP	[LEFT] EXIT 1 E	-- x	--	--	--	--		--	--	--	--	MOUNT ON 209	9 x	4	36.00	--
210	E6-1(MOD)	[43] [94] [41] 1/2 MILE	-- x	--	--	--	--		--	--	--	--	INSTALL ON S-40-854 I BEAMS INCIDENTAL	15 x	7.5	112.50	--
210A	E1-5P	EXITS 1 A-B-C	-- x	--	--	--	--		--	--	--	--	--	14 x	2.5	35.00	--
211	W13-3(5)	RAMP 35 M.P.H.	48 x	60	20.000	--	--		--	--	--	--	INSTALL ON UPRIGHT OF S-40-854	x		0.00	--
212	W4-1(5)	MERGING TRAFFIC	48 x	48	16.000	--	1		--	--	--	--	--	x		0.00	--

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213	E5-1A(5)	EXIT [A] 1F	72 x 60	30.000	--	2		--	--	--	--	--	x	0.00	--
214	E11-1(MOD)	[A] 35 MPH [A]	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-362 I BEAMS INCIDENTAL	17 x 3	51.00	--
215	--	LAKEFRONT [A] SIGNAL AHEAD [A]										INSTALL ON S-40-362 I BEAMS INCIDENTAL	17 x 6		
216	R7-1R(2S)	NO PARKING ANY TIME	18 x 24	3.000	--	1		--	--	--	--	--	x	0.00	--
217	R7-1D(2S)	NO PARKING ANY TIME	18 x 24	3.000	--	1		--	--	--	--	--	x	0.00	--
218	R7-1D(2S)	NO PARKING ANY TIME	18 x 24	3.000	--	1		--	--	--	--	--	x	0.00	--
219	R7-1D(2S)	NO PARKING ANY TIME	18 x 24	3.000	--	1		--	--	--	--	--	x	0.00	--
220	R7-1D(2S)	NO PARKING ANY TIME	18 x 24	3.000	--	1		--	--	--	--	--	x	0.00	--
221	R7-1D(2S)	NO PARKING ANY TIME	18 x 24	3.000	--	1		--	--	--	--	--	x	0.00	--
222	R5-1(3)	DO NOT ENTER	36 x 36	9.000	--	--		--	--	--	--	ON LIGHT POLE - 6 FT MOUNT HEIGHT	x	0.00	--
223	R5-1A(2M)	WRONG WAY	36 x 24	6.000	--	--		--	--	--	#222	ON LIGHT POLE - 3 FT MOUNT HEIGHT	x	0.00	--
224	R5-1(3)	DO NOT ENTER	36 x 36	9.000	--	1		--	--	--	--	6' MOUNT HEIGHT	x	0.00	--
225	R5-1A(2M)	WRONG WAY	36 x 24	6.000	--	--		--	--	--	#224	3' MOUNT HEIGHT	x	0.00	--
226	R10-11B(2S)	NO TURN ON RED	24 x 24	4.000	--	--		--	--	--	--	MOUNT ON LIGHT POLE	x	0.00	--
227	R3-8B(2S)	LANE CONTROL	36 x 30	7.500	--	1		--	--	--	--	--	x	0.00	--
228	R3-8B(2S)	LANE CONTROL	36 x 30	7.500	--	--		--	--	--	#220	--	x	0.00	--
229	R5-1A(3)	WRONG WAY	42 x 30	8.750	--	1		--	--	--	--	--	x	0.00	--
230	J2-2	EXISTING ASSEMBLY	-- x --	--	--	1		--	--	1	--	--	x	0.00	--
231	R1-2(2S)	YIELD	36 x 31	3.880	--	1		--	--	--	--	--	x	0.00	--
232	R5-1(3)	DO NOT ENTER	36 x 36	9.000	--	--		--	--	--	#231	6' MOUNT HEIGHT	x	0.00	--
233	R5-1(3)	DO NOT ENTER	36 x 36	9.000	--	--		--	--	--	#232	3' MOUNT HEIGHT	x	0.00	--
234	J3-1(2S)	--	48 x 69	23.000	--	1		--	--	--	--	--	x	0.00	--
	M4-5	TO	24 x 12	--	--	--		--	--	--	--	--	x	0.00	--
	M1-6B	32 SPECIAL	24 x 24	--	--	--		--	--	--	--	--	x	0.00	--
	M6-1	ARROW	21 x 21	--	--	--		--	--	--	--	--	x	0.00	--
235	R7-2	NO PARKING EXCEPT AUTH.	-- x --	--	--	1		--	--	1	--	--	x	0.00	--
236	R7-2	NO PARKING EXCEPT AUTH.	-- x --	--	--	1		--	--	1	--	--	x	0.00	--
237	D12-2A(2M)	RIDESHARE 1-800-455-POOL	60 x 42	17.500	--	2		--	--	--	--	--	x	0.00	--
238	D1-2	MSOE [A] VAN BUREN [A] CLYBOURN ST	84 x 39	22.750	--	2							x		
239	E6-1(MOD)	MICHIGAN ST [A]	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-853 I BEAMS INCIDENTAL	12.5 x 5	62.50	--
240	E3-1(MOD)	LINCOLN MEM DRIVE [A]	-- x --	--	--	--		--	--	--	--	INSTALL ON S-40-853 I BEAMS INCIDENTAL	13 x 7	91.00	--
241	R5-1A(3)	WRONG WAY	42 x 30	8.750	--	1		--	--	--	--	--	x	0.00	--
242	R5-1A(3)	WRONG WAY	42 x 30	8.750	--	1		--	--	--	--	--	x	0.00	--
243	R3-18(2S)	NO LEFT / U-TURN	24 x 24	4.000	--	--		--	--	--	--	MOUNT ON SIGNAL POLE	x	0.00	--
244	R5-1(3)	DO NOT ENTER	36 x 36	9.000	--	1		--	--	--	--	6' MOUNT HEIGHT	x	0.00	--
245	R5-1A(2M)	WRONG WAY	36 x 24	6.000	--	--		--	--	--	#244	3' MOUNT HEIGHT	x	0.00	--
246	R3-2(2S)	NO LEFT	24 x 24	4.000	--	--		--	--	--	--	MOUNT ON SIGNAL POLE	x	0.00	--
247	R6-2L(2M)	ONE WAY	30 x 36	7.500	--	--		--	--	--	--	MOUNT ON SIGNAL POLE	x	0.00	--
248	W1-6(2S)	NIGHT ARROW	48 x 24	8.000	--	1		--	--	--	--	--	x	0.00	--
249	R6-2L(2M)	ONE WAY	30 x 36	7.500	--	--		--	--	--	--	MOUNT ON SIGNAL POLE	x	0.00	--
250	R5-1(3)	DO NOT ENTER	36 x 36	9.000	--	--		--	--	--	--	MOUNT ON SIGNAL POLE	x	0.00	--

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251	R10-10A(2S)	AHEAD SIGNAL	24 x	30	5.000	--	--		--	--	--	--	MOUNT ON SIGNAL POLE		x	0.00	--
252	R5-1(3)	DO NOT ENTER	36 x	36	9.000	--	--		--	--	--	--	MOUNT ON SIGNAL POLE		x	0.00	--
253	R3-5L	ONLY [A]	42 x	48	14.000	--	--		--	--	--	--	INSTALL ON S-40-193		x	0.00	--
254	E6-1(MOD)	TO [794] [A]	-- x	--	--	--	--		--	--	--	--	INSTALL ON S-40-193	5 x	7.5	37.50	--
255	E6-1(MOD)	EAST [43] [94] [A]	-- x	--	--	--	--		--	--	--	--	INSTALL ON S-40-193	8 x	7.5	60.00	--
256	NONE	LINCOLN MEMORIAL DRIVE (TWO ARROWS UP)	-- x	--	--	-- --	-- --		-- --	-- --	-- --	--	INSTALL ON S-40-192 I BEAMS INCIDENTAL	18 x	2.5	45.00	--
257	NONE	MICHIGAN STREET ARROW WEST	-- x	--	--	--	--		--	--	--	--	INSTALL ON S-40-192 I BEAMS INCIDENTAL	10 X	4.5	45.00	--
258	NONE	EAST 794 ARROW DOWN	-- x	--	--	--	--		--	--	--	--	INSTALL ON S-40-191 I BEAMS INCIDENTAL	5 X	7.5	37.50	--
259	NONE	TO 43 94 EAST ONLY ARROW TILT RIGHT			--	--							INSTALL ON S-40-191 I BEAMS INCIDENTAL	8 X	9	72.00	
260	R10-11(2S) MOD	NO TURN ON RED ARROW	24 X	30	5.000	--							ON SIGNAL POLE				
261	R10-11(2S) MOD	NO TURN ON RED ARROW	24 X	30	5.000	--							ON SIGNAL POLE				
262	R3-58 (2S)	FORM SINGLE LINE	24 X	30	5.000	--	1										
263	R5-1(3)	DO NOT ENTER	36 X	36	9.000	--							ON SIGNAL POLE				
264	R5-1A(2M)	WRONG WAY	36 X	24	6.000	--							ON SIGNAL POLE - 3 FT HEIGHT				
265	R5-1(3)	DO NOT ENTER	36 X	36	9.000	--							ON SIGNAL POLE				
266	R5-1A(2M)	WRONG WAY	36 X	24	6.000	--							ON SIGNAL POLE - 3 FT HEIGHT				
267	W4-2R(3)	LANE MERGE SIGN	36 X	36	9.000	--	1						SEE DETAIL FOR MOUNTING ON WALL				
268	R3-1(2S)	NO LEFT TURN	24 X	24	4.000	--							ON SIGNAL POLE				
269	R5-57 (5)	PED'S PROHIBITED	36 X	36	9.000	--											
270	W9-1R(3)	RIGHT LANE ENDS	36 X	36	9.000	--	1										
271	R5-1A(3)	WRONG WAY	42 X	30	8.750	--	1										
272	R3-1A(3)	WRONG WAY	42 X	30	8.750	--											
273	R3-8Y (2S)	DUAL LEFT	36 X	30	7.500	--						271					
274	R3-8Y (2S)	DUAL LEFT	36 X	30	7.500	--						272					
275	W3-3(3)	SIGNAL AHEAD	36 X	36	9.000	--	1										
276	W3-3(3)	SIGNAL AHEAD	36 X	36	9.000	--	1										
277	D10-5(5)	EAST 794 MILE 1/0	21 X	60	8.750	--			--	1			ON WALL				
278	E5-1A (5)	EXIT 1E (ARROW LEFT)	72 X	60	30.000	--		2					SEE MOUNTING DETAIL TO PARAPET WALL INCIDENTAL TO SIGN				
279	E6-51MOD	VAN BUREN STREET NORTH (ARROW DOWN)			--	--							MOUNT ON S40-856 I BEAMS INCIDENTAL TO SIGN	14 X	10.5	147.00	
280	E6-51MOD	JACKSON STREET SOUTH RIGHT LANE			--	--							MOUNT ON S-40-856 I BEAMS INCIDENTAL TO SIGN	12 X	10	120.00	

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281	W3-3 (3)	SIGNAL AHEAD	36 X 36	9.000	--							ON UPRIGHT OF SIGN BRIDGE			
282	W3-3 (3)	SIGNAL AHEAD	36 X 36	9.000	--							ON UPRIGHT OF SIGN BRIDGE			
283	E6-1 MOD	LAKEFRONT			--							MOUNT ON S-40-855	16 X 4.5	72.00	
		TILT ARROW LEFT										I BEAMS INCIDENTAL			
283A	E1-5BP	LEFT			--						283		9 X 4	36.00	
		EXIT 1F													
284	E6-1 MOD	794 TO 794			--							MOUNT ON S-40-855	17 X 10	170.00	
		PORT OF MILWAUKEE										I BEAMS INCIDENTAL			
		CURVE ARROWS + 35 MPH													
285	R2-1(5)	SPEED LIMIT 50	48 X 60	20.000	--							MOUNT ON UPRIGHT OF SIGN BRIDGE			
286	R5-1A (3)	WRONG WAY	42 X 30	8.750	--							MOUNT ON UPRIGHT OF SIGN BRIDGE			
287	R5-1A (3)	WRONG WAY	42 X 30	8.750	--							MOUNT ON UPRIGHT OF SIGN BRIDGE			
288	D10-5(5)	EAST 794 MILE 1/2	21 X 60	8.750	--			--	1			ON WALL			
289	R2-1(5)	SPEED LIMIT 50	48 X 60	20.000	--							ON UPRIGHT OF SIGN BRIDGE			
290	W4-1(5)	MERGE SIGN	48 X 48	16.000	--							MOUNT ON SIGN BRIDGE UPRIGHT			
291	E5-1A (5)	EXIT IE ARROW LEFT	72 X 60	30.000	--		2					MOUNT ON BACK OF WALL SEE DETAIL			
292	D10-5(5)	WEST 794 MILE 1/2	21 X 60	8.750	--			--	1			MOUNT ON WALL - SEE DETAIL			
293	NONE	VAN BUREN ST			--							MOUNT ON S-40-857	17 X 7	119.00	
		NORTH										I BEAMS INCIDENTAL			
		(DOUBLE DOWN ARROWS)													
294	E6-1 (MOD)	JACKSON STREET			--							MOUNT ON S-40-857	14 X 4.5	63.00	
		SOUTH (ARROW RIGHT)										I BEAMS INCIDENTAL			
295	R2-1(5)	SPEED LIMIT 50	48 X 60	20.000	--	1						MOUNT ON WALL			
296	W4-3L(5)	MERGE LANE ADD	48 X 48	16.000	--	1						MOUNT ON WALL			
297	D10-5 (5)	WEST 794 MILE 1/0	21 X 60	8.750	--			--	1			MOUNT ON WALL			
298	R5-1 (3)	DO NOT ENTER	36 X 36	9.000	--	1									
299	W5-52R(2S)	CLEARANCE STRIPER	12 X 36	3.000	--						298				
300	J3-1 (2S)		24 X 57	9.500	--							ON LIGHT POLE			
	M3-3	SOUTH	12 X 24												
	M1-6B	32 SPECIAL	24 X 24												
	M6-1	ARROW	21 X 21												
301	J3-2 (2S)				--					1		ON LIGHT POLE			
302	J2-1 (2S)		30 X 57	11.880	--							ON LIGHT POLE			
	MB3-2	EAST	24 X 12												
	M1-1A	794	30 X 24												
	MB5-1L	ARROW	21 X 21												
303	J3-2(2S)		48 X 57	19.000	--							ON LIGHT POLE			
	M3-1	NORTH	24 X 12												
	M1-6B	32 SPECIAL	24 X 24												
	M6-1	ARROW	21 X 21												
	M3-3	SOUTH	24 X 12												
	M1-6B	32 SPECIAL	24 X 24												
	M6-1	ARROW	21 X 21												
304	J4-1 (2S)		24 X 60	10.000	--							ON LIGHT POLE			
	M3-1	NORTH	24 X 12												
	M1-6B	32 SPECIAL	24 X 24												
	M1-93	CIRCLE TOUR LAKE MICH.	24 X 24												
305	R7-1D (2S)	NO PARKING ANY TIME	18 X 24	3.000	--							ON LIGHT POLE			
306	NONE	U PARK			--					1		ON LIGHT POLE			
307	MG6-1	ARROW			--					1		ON LIGHT POLE			

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308	R3-3(2S)	NO TURNS	24	X	24	4.000	--							ON LIGHT POLE					
309	W12-1D (2S)	DOUBLE DOWN ARROWS	24	X	24	4.000	--						310	2 FT MOUNT HEIGHT					
310	NONE	WAYFINDER SIGN					--		2			1							
311	R6-2L (2S)	ONE WAY LEFT	24	X	30	5.000	--							ON LIGHT POLE					
312	R5-1A(3)	WRONG WAY	42	X	30	8.750	--	1											
313	R5-1(3)	DO NOT ENTER	36	X	36	9.000	--							ON LIGHT POLE					
314	R5-1A(2M)	WRONG WAY	36	X	24	6.000	--							ON LIGHT POLE - 3 FT MOUNT HEIGHT					
315	R5-1(3)	DO NOT ENTER	36	X	36	9.000	--							ON LIGHT POLE					
316	R5-1(3)	DO NOT ENTER	36	X	36	9.000	--							ON LIGHT POLE - 3 FT MOUNT HEIGHT					
317	R5-1(3)	DO NOT ENTER	36	X	36	9.000	--							ON LIGHT POLE					
318	R6-2L (2S)	ONE WAY LEFT	24	X	30	5.000	--							ON LIGHT POLE					
319	W3-3(3)	SIGNAL AHEAD	36	X	36	9.000	--	1											
320	R5-1A(3)	WRONG WAY	42	X	30	8.750	--	1											
321	R6-2R (2S)	ONE WAY RIGHT	24	X	30	5.000	--						320						
322	R10-11B(2S)	NO TURN ON RED	24	X	24	4.000	--							ON LIGHT POLE					
323	R6-2L (2S)	ONE WAY LEFT	24	X	30	5.000	--							ON LIGHT POLE					
324	D12-2A (2S)	RIDESHARE INFO CALL	60	X	42	17.500	--		2										
325	J3-2 (2S)		54	X	81	30.375	--							MOUNT UP HIGH ON COLUMN					
	MB4-5	TO	24	X	12														
	M1-1	43	24	X	24														
	M1-1	94	24	X	24														
	MB6-2	ARROW	21	X	21														
	MB3-4	WEST	24	X	12														
	M1-1A	794	30	X	24														
	MB6-2	ARROW	21	X	21														
326	NONE	FREEWAY ENTRANCE	66	X	30	13.750	--	2											
327	J3-1 (2S)		24	X	57	9.500	--							ON LIGHT POLE					
	M4-5	TO	24	X	12														
	M1-6B	32 SPECIAL	24	X	24														
	M6-1		21	X	21														
328	R3-8B (2S)	LANE USE SIGN	36	X	30	7.500	--	1											
329	R5-57(5)	PEDS BIKES PROHIBITED	36	X	36	9.000	--							ON COLUMN					
330	W9-1R(3)	RIGHT LANE ENDS	36	X	36	9.000	--	1						ON WALL SEE DETAIL					
331	W1-1R(2S)	TURN RIGHT	36	X	36	9.000	--	1						ON WALL SEE DETAIL					
332	R3-7R(3)	RIGHT LANE MUST TURN RIGHT	36	X	36	9.000	--	1						ON WALL SEE DETAIL					
333	W4-2R (3)	LANE DROP RIGHT	36	X	36	9.000	--	1						ON WALL SEE DETAIL					
334	D1-2	CLYBOURN ST ARROW LEFT MILWAUKEE ST ARROW RIGHT	90	X	30	18.750	--		2										
335	W1-6(2M)	NIGHT ARROW	48	X	24	8.000	--						334						
336	R5-1A (3)	WRONG WAY	42	X	30	8.750	--	1											
337	R5-1A (3)	WRONG WAY	42	X	30	8.750	--						334						
338	R3-8 (2S) MODIFIED	TRIPLE ARROW ARROW RIGHT	42	X	30	8.750	--							ON LIGHT POLE					
339	R5-1(3)	DO NOT ENTER	36	X	36	9.000	--							ON LIGHT POLE					
340	R5-1A(2M)	WRONG WAY	36	X	24	6.000	--							ON LIGHT POLE - 3 FT MOUNT HEIGHT					
341	R10-11RB (2S)	NO TURN ON RED	24	X	24	4.000	--							ON LIGHT POLE					

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342	J3-3 (2S)		30 X 57	11.875	--							ON LIGHT POLE			
	MB3-2	EAST	24 X 12												
	M1-1A	794	30 X 24												
	MB6-2	ARROW	21 X 21												
343	J3-2 (2S)		48 x 57	19.000	--							ON LIGHT POLE			
	M3-3	SOUTH	24 X 12												
	M1-6B	32 SPECIAL	24 X 24												
	M6-1	ARROW	21 X 21												
	M3-1	NORTH	24 X 12												
	M1-6B	32 SPECIAL	24 X 24												
	M6-1	ARROW	21 X 21												
344	R3-8 (2S) MOD	TRIPLE ARROW ARROW RIGHT	42 X 30	8.750	--							ON LIGHT POLE			
345	J3-1 (2S)		30 X 57	11.875	--							ON LIGHT POLE			
	MB3-2	EAST	24 X 12												
	M1-1A	794	30 X 24												
	MB6-1	ARROW	21 X 21												
346	J3-1 (2S)		30 X 57	11.875	--							ON LIGHT POLE			
	MB3-2	EAST	24 X 12												
	M1-1A	794	30 X 24												
	MB6-1	ARROW	21 X 21												
347	R6-2R (2S)	ONE WAY RIGHT	24 X 30	5.000	--							ON LIGHT POLE			
348	J3-1(2S)		30 X 57	11.875	--							ON LIGHT POLE			
	MB3-2	EAST	24 X 12												
	M1-1A	794	30 X 24												
	MB6-2	ARROW	21 X 21												
349	J3-1(2S)		30 X 57	11.875	--							ON LIGHT POLE			
	MB3-2	EAST	24 X 12												
	M1-1A	794	30 X 24												
	MB6-2	ARROW	21 X 21												
350	J3-1(2S)		30 X 57	11.875	--	1									
	MB3-2	EAST	24 X 12												
	M1-1A	794	30 X 24												
	MB6-2	ARROW	21 X 21												
351	NOT USED														
352	JV2-1(2S)		24 X 81	13.500	--							ON LIGHT POLE			
	M3-3	SOUTH	24 X 12												
	M1-6B	32 SPECIAL	24 X 24												
	M1-93	CIRCLE TOUR LAKE MICH.	24 X 24												
	M5-1L	ARROW	21 X 21												
353	R3-80(2S)		48 X 30	10.000	--							ON LIGHT POLE			
354	R6-2L (2S)	ONE WAY LEFT	24 X 30	5.000	--							ON LIGHT POLE			
355	W4-2R(3)	RIGHT LANE DROP	36 X 36	9.000	--	1									
356	W6-3(2S)	TWO WAY TRAFFIC	36 X 36	9.000	--	1									
357	W5-52L (2S)	CLEARANCE STRIPER	12 X 36	3.000	--						356				
358	R5-1(3)	DO NOT ENTER	36 X 36	9.000	--	1									
359	R3-50R(2S)	RIGHT ONLY	30 X 36	7.500	--						358				
360	J4-1(5)		45 X 54	16.875	--							ON LIGHT POLE			
	MB3-2	EAST	36 X 18												
	M1-1A	794	45 X 36												

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361	R2-1(5)	SPEED LIMIT 50	48 X 60	20.000	--							ON LIGHT POLE			
362	J4-1(5)		45 X 54	16.875	--							ON LIGHT POLE			
	MB3-4	WEST	36 X 18												
	M1-1A	794	45 X 36												
363	D10-5 (5)	EAST 794 MILE 0/8	21 X 60	8.750	--							ON LIGHT POLE			
364	D10-5 (5)	WEST 794 MILE 0/8	21 X 60	8.750	--							ON LIGHT POLE			
365	D10-5 (5)	EAST 794 MILE 0/4	21 X 60	8.750	--							ON LIGHT POLE			
366	D10-5 (5)	WEST 794 MILE 0/4	21 X 60	8.750	--							ON LIGHT POLE			
367	E5-1A MOD	EXIT 1 B-C TILT ARROW RIGHT			--					1		ON STEEL POST REUSE STEEL POST			
368	D10-5 (5)	EAST 794 MILE 0/6	21 X 60	8.750	--							ON LIGHT POLE			
369	D10-5 (5)	WEST 794 MILE 0/6	21 X 60	8.750	--							ON LIGHT POLE			
370	R2-1(5)	SPEED LIMIT 50	48 X 60	20.000	--							ON UPRIGHT OF SIGN BRIDGE			
371	R5-1(3)	DO NOT ENTER	36 X 36	9.000	--							ON LIGHT POLE SEE SHEET 13A FOR SIGN			
372	W12-1D (2S)	DOUBLE DOWN ARROWS	24 X 24	4.000	--						229	SHEET 11A			
373	R5-1(3)	DO NOT ENTER	36 X 36	9.000	--	1						SHEET 11A			
374	R5-1A(2M)	WRONG WAY	36 X 24	6.000	--						373	SHEET 11A			
375		WAR MEMORIAL BETTY BRINN MUSEUM LAKE FRONT MUSEUMS LAKE SHORE STATE PARK	60 X 84	35.000	--	2						SHEET 12			
376	NOT USED		X												
377	NOT USED		X												
378	E6-1(MOD)				--							NEW I BEAMS INCIDENTAL			1
379	E6-51				--							NEW I BEAMS INCIDENTAL			1
380	E6-51(MOD)				--							NEW I BEAMS INCIDENTAL			1
381	R5-1a(3)		42 X 30	8.750	--						238	SHEET 11A			
382	R5-1a(3)		42 X 30	8.750	--	1						SHEET 11A			
383	--	SUMMERFEST PARKING	-- X --	--	--					1		FOLD UP SIGN. MOVE TO NEW SIGN BRIDGE UPRIGHT			
384	--	CAR FERRY EXIT 3	60 X 36	15.000	--							ON LIGHT POLE			
385	--	CAR FERRY FOLLOW 794	60 X 36	15.000	--	--						ON LIGHT POLE 5CMB22			
386	R5-1A(2M)	WRONG WAY	36 X 24	6.000	--							ON LIGHT POLE SHEET 13A			
387	R11-54F(2S)		48 X 30	--	10.000		2					SHEET 2			
388	R11-54F(2S)		48 X 30	--	10.000		2					SHEET 2			
389	R11-54F(2S)		48 X 30	--	10.000		2					SHEET 3			
390	R11-54F(2S)		48 X 30	--	10.000		2					SHEET 3			
391	R11-54F(2S)		48 X 30	--	10.000		2					SHEET 12			
392	R11-54F(2S)		48 X 30	--	10.000		2					SHEET 12			
393	R11-54F(2S)		48 X 30	--	10.000		2					SHEET 12			
394	R11-54F(2S)		48 X 30	--	10.000		2					SHEET 13			
395	R11-54F(2S)		48 X 30	--	10.000		2					SHEET 13			
396	R11-54F(2S)		48 X 30	--	10.000		2					SHEET 13			
397	R11-54F(2S)		48 X 30	--	10.000		--					MOUNT UNDER #326 SHEET 13A			
398	--	NO EXIT	-- X --	--	--		--	1		1					

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399	--	NO EXIT	--	X --	--	--		--	1		1						
400	R3-7L(2S)		30	X 30	6.250	--		--	1								
401	--	EXIT	--	X --	--	--		--	1		1						
402	NOT USED	--	--	X --	--	--		--									
403	--	EXIT	--	X --	--	--		--	1		1						
404	--	LEFT TURN ONLY	--	X --	--	--		--			1		CONCRETE BLOCK & STEEL POST				
405	R5-1(2S)	DO NOT ENTER	30	X 30	6.250	--		--				404	CONCRETE BLOCK & STEEL POST				
406	--	RESERVED PARKING	--	X --	--	--		--			1		CONCRETE BLOCK & STEEL POST				
406A-406Z	--	RESERVED PARKING	--	X --	--	--		--			26		CONCRETE BLOCK & STEEL POST				
407	--	NO THRU TRAFFIC	--	X --	--	--		--			1		CONCRETE BLOCK & STEEL POST				
408	--	--	--	X --	--	--		--			1		CONCRETE BLOCK & STEEL POST				
409	--	--	--	X --	--	--		--			1		CONCRETE BLOCK & STEEL POST				
410	--	CAUTION	--	X --	--	--		--			1		CONCRETE BLOCK & STEEL POST				
411	--	ALL DELIVERIES	--	X --	--	--		--	1		1						
412	--	MARKET CUSTOMER PARKING	--	X --	--	--		--			1		ON WALL				
413	--	MARKET CUSTOMER PARKING	--	X --	--	--		--			1		ON WALL				
414	--	MARKET CUSTOMER PARKING	--	X --	--	--		--			1		ON WALL				
415	--	MARKET CUSTOMER PARKING	--	X --	--	--		--			1		ON WALL				
416	--	MARKET CUSTOMER PARKING	--	X --	--	--		--			1		ON WALL				
417	--	MARKET CUSTOMER PARKING	--	X --	--	--		--			1		ON WALL				
418	R7-8A(2S)		12	X 18	1.500	--		--	1								
419	R7-8A(2S)		12	X 18	1.500	--		--	1								
420	R7-8A(2S)		12	X 18	1.500	--		--	1								
421	R7-8A(2S)		12	X 18	1.500	--		--	1								
422	R7-8A(2S)		12	X 18	1.500	--		--					ON FENCE				
423	R7-8A(2S)		12	X 18	1.500	--		--					ON FENCE				
424	--	PRIVATE PARKING	--	X --	--	--		--			1		ON FENCE				
425	--	PRIVATE PARKING	--	X --	--	--		--			1		ON FENCE				
426	--	PRIVATE PARKING	--	X --	--	--		--			1		ON FENCE				
427	--	PRIVATE PARKING	--	X --	--	--		--			1		ON FENCE				
428	--	PRIVATE PARKING	--	X --	--	--		--			1		ON FENCE				
429	--	PRIVATE PARKING	--	X --	--	--		--			1		ON FENCE				
430	--	PRIVATE PARKING	--	X --	--	--		--			1		ON FENCE				
431	--	PRIVATE PARKING	--	X --	--	--		--			1		ON FENCE				
432	--	PRIVATE PARKING	--	X --	--	--		--			1		ON FENCE				
433	--	PERMIT PARKING ONLY	--	X --	--	--		--			1		CONCRETE BLOCK & STEEL POST				
434	--	PUBLIC PARKING $5 ALL DAY	--	X --	--	--		--			1		ON FENCE				
435	--	PUBLIC PARKING $5 ALL DAY	--	X --	--	--		--			1		ON FENCE				
436	W11-2(1)	--	24	X 24	4.000	--		--					ON FENCE				
437	W11-2(1)	--	24	X 24	4.000	--		--					ON FENCE				
438	R7-8A(2S)		12	X 18	1.500	--		--	1								
439	R7-8A(2S)		12	X 18	1.500	--		--	1								
440	R7-8A(2S)		12	X 18	1.500	--		--	1								
441	R7-8A(2S)		12	X 18	1.500	--		--	1								
442	--	MONTHLY PARKING AVAILABLE	--	X --	--	--		--			1		CONCRETE BLOCK & STEEL POST				
443	--	MONTHLY PARKING AVAILABLE	--	X --	--	--		--			1		CONCRETE BLOCK & STEEL POST				
444	--	SECURITY NOTICE	--	X --	--	--		--			1		ON COLUMN				
445	--	SECURITY NOTICE	--	X --	--	--		--			1		ON COLUMN				
446	--	JOHNSON CONTROLS	--	X --	--	--		--			1		ON COLUMN				
447	R7-8A(2S)	--	12	X 18	1.500	--		--			1		ON COLUMN				

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.0202 SIGNS REFLC TYPE II [SF]	637.0402 SIGNS REFLC FOLDING TYPE II [SF]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0622 WOOD POSTS 4" X 6" X 22'	634.0816 TUBULAR STEEL POSTS 2"x2"x 16' [EA]	634.0885 TUBULAR STEEL POSTS 2"x2"x 8.5' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.0101 SIGNS TYPE I [SF]	638.2101 MOVING SIGNS TYPE I I [EA]
448	--	JOHNSON CONTROLS	--	X	--	--	--		--	2		1					
449	--	SPECIAL EVENT	--	X	--	--	--		--	1		1					
450	--	SPECIAL EVENT	--	X	--	--	--		--	1		1					
451	--	SPECIAL EVENT	--	X	--	--	--		--	1		1					
452	--	SPECIAL EVENT	--	X	--	--	--		--	1		1					
453	--	SPECIAL EVENT	--	X	--	--	--		--	1		1					
454	--	SECURITY NOTICE	--	X	--	--	--		--			1		ON COLUMN			
455	--	SECURITY NOTICE	--	X	--	--	--		--			1		ON COLUMN			
456	--	COMPACT CAR	--	X	--	--	--		--			1		ON FENCE			
457	--	COMPACT CAR	--	X	--	--	--		--			1		ON FENCE			
458	R7-8A(2S)		12	X	18	1.500	--		--					ON WALL			
459	R7-8A(2S)		12	X	18	1.500	--		--					ON WALL			
460	--	SECURITY NOTICE	--	X	--	--	--		--			1		ON COLUMN			
461	--	SECURITY NOTICE	--	X	--	--	--		--			1		ON COLUMN			
462	--	SECURITY NOTICE	--	X	--	--	--		--			1		ON COLUMN			
463	--	JOHNSON CONTROLS	--	X	--	--	--		--	1		1					
464	--	CONVEYANCE VAN	--	X	--	--	--		--			1		ON WALL			
465	--	CONVEYANCE VAN	--	X	--	--	--		--			1		ON WALL			
466	--	CONVEYANCE VAN	--	X	--	--	--		--			1		ON WALL			
467	R7-1D(1)		12	X	18	1.500	--		--					ON FENCE			
468	--	JOHNSON CONTROLS	--	X	--	--	--		--			1		ON FENCE			
469	--	SECURITY NOTICE	--	X	--	--	--		--			1		ON FENCE			
470	R7-8A(2S)		12	X	18	1.500	--		--	1							
471	R7-8A(2S)		12	X	18	1.500	--		--	1							
472	R7-8A(2S)		12	X	18	1.500	--		--					ON FENCE			
473	R7-8A(2S)		12	X	18	1.500	--		--					ON FENCE			
474	R7-8A(2S)		12	X	18	1.500	--		--					ON FENCE			
475	R7-8A(2S)		12	X	18	1.500	--		--	1							
476	R7-8A(2S)		12	X	18	1.500	--		--	1							
477	R7-8A(2S)		12	X	18	1.500	--		--	1							
478	R7-8A(2S)		12	X	18	1.500	--		--	1							
479	R7-8A(2S)		12	X	18	1.500	--		--	1							
480	R7-8A(2S)		12	X	18	1.500	--		--	1							
481	R7-8A(2S)		12	X	18	1.500	--		--	1							
482	R7-8A(2S)		12	X	18	1.500	--		--	1							
483	R7-8A(2S)		12	X	18	1.500	--		--	1							
484	R7-8A(2S)		12	X	18	1.500	--		--	1							
UNDISTRIBUTED																	2
TOTALS						3229.025*	110	156*	30*	34	10	95	--	--		4132.000*	5*

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TYPE I & TYPE II SIGN REMOVAL

IH 794 1300-13-71

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2601 REM SIGNS TYPE I [EA]	REMARKS / NEW SIGN LOCATION
1R	--	[794] TO [794] DOWNTOWN [A]	--	--	1	--
2R	--	PORT OF MILWAUKEE [A]	--	--	1	--
3R	W1-1R	--	1	1	--	--
4R	W13-1	--	1	--	--	--
5R	R2-1	--	--	--	--	--
6R	R2-1	--	--	--	--	--
7R	E5-1	--	1	2	--	--
8R	R2-1	--	--	--	--	--
9R	R2-1	--	--	--	--	--
10R	--	REDUCED SPEED AHEAD	1	1	--	--
11R	--	40 MPH	1	--	--	--
12R	--	REDUCED SPEED AHEAD	1	--	--	--
13R	--	40 MPH	1	--	--	--
14R	D10-5	--	1	--	--	--
15R	D10-5	--	1	--	--	--
16R	W4-3R	--	1	1	--	--
17R	W1-1R	--	1	--	--	--
18R	W13-1	--	1	--	--	--
19R	W3-1	--	1	1	--	--
20R	W3-8(MOD)	--	1	1	--	--
21R	R5-1A	--	1	--	--	--
22R	R5-1A	--	1	--	--	--
23R	W1-8	--	1	1	--	--
24R	W1-8	--	1	1	--	--
25R	W1-8	--	1	1	--	--
26R	W1-8	--	1	1	--	--
27R	W1-8	--	1	1	--	--
28R	D1-2	[A] CAR FERRY	1	2	--	--
29R	D1-2	PORT OF MILWAUKEE [A]	1	3	--	--
30R	R1-1	--	1	1	--	--
31R	R1-1	--	1	1	--	--
32R	R1-1	--	1	1	--	--
33R	R1-1	--	1	1	--	--
30PR	R1-3P	--	1	--	--	--
31PR	R1-3P	--	1	--	--	--
32PR	R1-3P	--	1	--	--	--
33PR	R1-3P	--	1	--	--	--
34R	R5-1A	--	1	--	--	--
35R	R1-1	--	1	1	--	--
36R	R1-3P	--	1	--	--	--
37R	R1-1	--	1	1	--	--
38R	R1-3P	--	1	--	--	--
39R	D1-2	PORT OF MILWAUKEE [A]	1	3	--	--
40R	R7-1D	--	1	--	--	--
41R	W1-8	--	1	1	--	--
42R	W1-8	--	1	1	--	--
43R	W1-8	--	1	1	--	--
44R	R7-1D	--	1	--	--	--
45R	J3-1	EXISTING ASSEMBLY	1	1	--	--
46R	R4-1	--	1	1	--	--
47R	D1-1	[A] DOWNTOWN	1	2	--	--

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2601 REM SIGNS TYPE I [EA]	REMARKS / NEW SIGN LOCATION
48R	J2-1	EXISTING ASSEMBLY	1	1	--	--
49R	W1-8	--	1	1	--	--
50R	W1-8	--	1	1	--	--
51R	W1-8	--	1	1	--	--
52R	W1-8	--	1	1	--	--
53R	W1-8	--	1	1	--	--
54R	J3-1	EXISTING ASSEMBLY	1	1	--	--
55R	J3-2	EXISTING ASSEMBLY	1	1	--	--
56R	R4-7	--	1	--	--	--
57R	W5-52L	--	1	--	--	--
58R	--	FERRY [A]	1	--	--	--
59R	R4-7	--	1	--	--	--
60R	W5-52L	--	1	--	--	--
61R	R4-7	--	1	1	--	--
62R	W1-8	--	1	1	--	--
63R	R1-2	--	1	1	--	--
64R	R1-2	--	1	1	--	--
65R	--	--	--	--	--	* NOT USED *
66R	J3-2	EXISTING ASSEMBLY	1	1	--	--
67R	--	FERRY [A]	1	1	--	--
68R	D1-60	LINCOLN MEM DR	1	2	--	--
69R	R3-7R	--	1	1	--	--
70R	R7-1D	--	1	--	--	--
71R	J3-1	--	1	1	--	--
72R	W12-1D	--	1	1	--	--
73R	R1-1	--	1	1	--	--
74R	W4-4AR	--	1	--	--	--
75R	R1-1	--	1	--	--	--
76R	W4-4AR	--	1	--	--	--
77R	R3-7R	--	1	1	--	--
78R	R1-2	--	1	1	--	--
79R	D1-1	DOWNTOWN [A]	1	2	--	--
80R	J3-1	EXISTING ASSEMBLY	1	1	--	--
81R	R3-8C	--	1	--	--	--
82R	R5-57	--	1	1	--	--
83R	W4-2R	--	1	1	--	--
84R	W4-2R	--	1	1	--	--
85R	W4-1	--	1	1	--	--
86R	W4-1L	--	1	1	--	--
87R	D12-2A	--	1	2	--	--
88R	R2-1	--	1	--	--	--
89R	R7-1D	--	1	1	--	--
90R	R1-1	--	1	1	--	--
91R	R1-2	--	1	1	--	--
92R	R1-1	--	1	1	--	--
93R	W4-4C	--	1	--	--	--
94R	R4-7	--	1	--	--	--
95R	W5-52L	--	1	--	--	--
96R	R1-2	--	1	1	--	--
97R	J3-2	EXISTING ASSEMBLY	1	--	--	--
98R	W12-1D	--	1	--	--	--

TYPE I & TYPE II SIGN REMOVAL

IH 794 1300-13-71

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2601 REM SIGNS TYPE I [EA]	REMARKS / NEW SIGN LOCATION
99R	J3-1	EXISTING ASSEMBLY	1	--	--	--
100R	J3-1	EXISTING ASSEMBLY	1	1	--	--
101R	D1-2	PORT OF MILWAUKEE [A]	1	2	--	--
102R	W1-8	--	1	1	--	--
103R	W1-8	--	1	1	--	--
104R	D1-2	[A] CAR FERRY	1	2	--	--
105R	R5-1A	--	1	--	--	--
106R	R3-8F	--	1	1	--	--
107R	W3-1	--	1	--	--	--
108R	J2-1	EXISTING ASSEMBLY	1	1	--	--
109R	R5-1	--	1	1	--	--
110R	R1-1	--	1	1	--	--
111R	R1-1	--	1	--	--	--
112R	D10-5	--	1	--	--	--
113R	D10-5	--	1	--	--	--
114R	E5-1A(MOD)	EXIT 3 [A]	1	--	--	--
115R	E6-1(MOD)	PORT OF MILWAUKEE [A]	--	--	1	--
116R	E6-51	[794] SOUTH	--	--	1	--
117R	R8-7	--	1	--	--	--
118R	J4-1	EXISTING ASSEMBLY	1	--	--	--
119R	E8-1	MICHIGAN ST 2	--	--	1	--
120R	D10-5	--	1	--	--	--
121R	D10-5	--	1	--	--	--
122R	R2-1	--	1	--	--	--
123R	D10-5	--	1	--	--	--
124R	D10-5	--	1	--	--	--
125R	R8-7	--	1	--	--	--
126R	J4-1	EXISTING ASSEMBLY	1	--	--	--
127R	J4-1	EXISTING ASSEMBLY	1	--	--	--
128R	D10-5	--	1	--	--	--
129R	D10-5	--	1	--	--	--
130R	D10-5	--	1	--	--	--
131R	D10-5	--	1	--	--	--
132R	D10-5	--	1	--	--	--
133R	D10-5	--	1	--	--	--
134R	D10-5	--	1	--	--	--
135R	D10-5	--	1	--	--	--
136R	R2-1	--	1	--	--	--
137R	E6-1(MOD)	PORT OF MILW 1/2 MILE	--	--	1	--
138R	E6-51	[794] SOUTH [A]	--	--	1	--
139R	D10-5	--	1	--	--	--
140R	R8-7	--	1	--	--	--
141R	D10-5	--	1	--	--	--
142R	D10-5	--	1	--	--	--
143R	E6-51	MICHIGAN ST 1 1/2 MILE	--	--	1	--
144R	R2-1	--	1	--	--	--
145R	D10-5	--	1	--	--	--
146R	D10-5	--	1	--	--	--
147R	R2-1	--	1	--	--	--
148R	E6-1(MOD)	PORT OF MILW 1 MILE	--	--	1	--
149R	E6-52	FREEWAY ENDS 1 MILE	--	--	1	--
150R	E6-1(MOD)	[794] WEST	--	--	1	--

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2601 REM SIGNS TYPE I [EA]	REMARKS / NEW SIGN LOCATION
151R	D10-5	--	1	--	--	--
152R	D10-5	--	1	--	--	--
153R	R2-1	--	1	--	--	--
154R	D10-5	--	1	--	--	--
155R	D10-5	--	1	--	--	--
156R	D10-5	--	1	--	--	--
157R	D10-5	--	1	--	--	--
158R	R2-1	--	1	--	--	--
159R	D10-5	--	1	--	--	--
160R	D10-5	--	1	--	--	--
161R	D10-5	--	1	--	--	--
162R	D10-5	--	1	--	--	--
163R	D10-5	--	1	--	--	--
164R	D10-5	--	1	--	--	--
165R	D10-5	--	1	--	--	--
166R	D10-5	--	1	--	--	--
167R	R2-1	--	1	--	--	--
168R	R8-7	--	1	--	--	--
169R	R2-1	--	1	--	--	--
170R	E6-1(MOD)	[794] WEST	--	--	1	--
171R	E6-1(MOD)	MICHIGAN ST	--	--	1	--
172R	J4-1	EXISTING ASSEMBLY	1	--	--	--
173R	E6-1(MOD)	[794] WEST	--	--	1	--
174R	E6-1(MOD)	MICHIGAN ST	--	--	1	--
175R	W13-2	--	1	--	--	--
176R	D10-5	--	1	1	--	--
177R	D10-5	--	1	1	--	--
178R	W4-3L	--	1	1	--	--
179R	D10-5	--	1	--	--	--
180R	D10-5	--	1	--	--	--
181R	D10-5	--	1	--	--	--
182R	D10-5	--	1	--	--	--
183R	R2-1	--	1	--	--	--
184R	E8-1	PORT OF MILW 13/4	--	--	1	--
185R	--	NO PARKING	1	1	--	--
186R	--	NO PARKING	1	1	--	--
187R	--	NO PARKING	1	1	--	--
188R	R7-4(MOD)	--	--	--	--	--
189R	--	NO PARKING	1	--	--	--
190R	R1-1	--	1	--	--	--
191R	R1-3P	--	1	--	--	--
192R	R1-1	--	1	--	--	--
193R	R1-1	--	1	1	--	--
194R	R1-1	--	1	1	--	--
195R	R1-3P	--	1	--	--	--
196R	--	BIKE LANE ENDS	1	1	--	--
197R	--	BIKE LANE BEGINS	1	1	--	--
198R	R7-1L	--	1	--	--	--
199R	D11-1	--	1	1	--	--
200R	R3-7R	--	1	1	--	--

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2601 REM SIGNS TYPE I [EA]	REMARKS / NEW SIGN LOCATION
201R	W5-52R	--	1	--	--	--
202R	R2-1	--	1	--	--	--
203R	R7-4(MOD)	--	1	--	--	--
204R	R7-1R	--	1	--	--	--
205R	--	NO PARKING	1	1	--	--
206R	--	NO PARKING	1	--	--	--
207R	--	NO PARKING	1	1	--	--
208R	--	NO PARKING	1	--	--	--
209R	E6-51	MILWAUKEE ST 1/4 MILE	--	--	1	--
210R	D10-5	--	1	1	--	--
211R	D10-5	--	1	1	--	--
212R	D10-5	--	1	1	--	--
213R	D10-5	--	1	1	--	--
214R	W3-3	--	1	1	--	--
215R	W3-3	--	1	1	--	--
216R	E6-1	[A] MILWAUKEE ST	--	--	1	--
217R	E6-51	[43] [94] [41] 1/2 MILE	--	--	1	--
218R	W13-3	--	1	--	--	--
219R	E5-1A	EXIT [A] 1F	1	2	--	--
220R	W4-1	--	1	1	--	--
221R	E11-1(MOD)	[A] 35 MPH [A]	--	--	1	--
222R	--	LAKEFRONT SIGNAL AHEAD	--	--	1	--
223R	D1-2	[A] MSOE / VAN BUREN ST	1	2	--	--
224R	D12-2A	--	1	2	--	--
225R	--	NO PARKING	1	1	--	--
226R	--	NO PARKING	1	1	--	--
227R	--	NO PARKING	1	1	--	--
228R	--	NO PARKING	1	1	--	--
229R	--	NO PARKING	1	1	--	--
230R	--	NO PARKING	1	1	--	--
231R	R3-8B	--	1	--	--	--
232R	R10-11B(MOD	--	1	1	--	--
233R	R5-1	--	1	--	--	--
234R	R5-1	--	1	1	--	--
235R	R5-1A	--	1	1	--	--
236R	R1-2	--	1	1	--	--
237R	R5-1	--	1	--	--	--
238R	J3-1	EXISTING ASSEMBLY	1	1	--	--
239R	E6-1(MOD)	MICHIGAN ST [A]	--	--	1	--
240R	E3-1(MOD)	LINCOLN MEM DRIVE [A]	--	--	1	--
241R	R5-1A	--	1	1	--	--
242R	R5-1A	--	1	1	--	--
243R	R3-2	--	1	--	--	--
244R	R3-4	--	1	--	--	--
245R	R5-1	--	1	1	--	--
246R	R3-2	--	1	--	--	--
247R	R6-2L	--	1	--	--	--
248R	W1-6	--	1	1	--	--
249R	R6-2L	--	1	--	--	--
250R	R5-1	--	1	--	--	--

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2601 REM SIGNS TYPE I [EA]	REMARKS / NEW SIGN LOCATION
251R	R10-10A	--	1	--	--	--
252R	R5-1	--	1	--	--	--
253R	--	NO TURN ON RED ARROW	1	--	--	--
254R	R3-58	--	1	1	--	--
255R	R5-1	--	1	1	--	--
256R	R5-1	--	1	--	--	--
257R	W4-2R	--	1	1	--	--
258R	R3-1	--	1	--	--	--
259R	R5-57	--	1	--	--	--
260R	R5-1A	--	1	1	--	--
261R	R5-1A	--	1	1	--	--
262R	W9-1R	--	1	1	--	--
263R	R3-8Y	--	1	--	--	--
264R	R3-8Y	--	1	--	--	--
265R	W3-3	--	1	1	--	--
266R	W3-3	--	1	1	--	--
267R	E6-51(MOD)	MICHIGAN ST [A] WEST	1	--	--	--
268R	--	[A] LINCOLN MEM DR [A]	1	--	--	--
269R	R3-5L	--	1	--	--	--
270R	E6-1(MOD)	EAST [794] [A]	1	--	--	--
271R	E6-1(MOD)	TO [43] [94] [A]	1	--	--	--
272R	E6-1	TO [A] [43] [94] ONLY	1	--	--	--
273R	E6-1(MOD)	EAST [794] [A]	1	--	--	--
274R	D10-5	--	1	1	--	--
275R	D10-5	--	1	1	--	--
276R	E5-1A	EXIT [A] 1E	1	2	--	--
277R	E6-1(MOD)	VAN BUREN ST NORTH [A]	--	--	1	--
278R	E6-51(MOD)	JACKSON ST SOUTH	--	--	1	--
279R	W3-3	--	1	--	--	--
280R	W3-3	--	1	--	--	--
281R	D10-5	--	1	1	--	--
282R	D10-5	--	1	1	--	--
283R	E6-1	[A] LAKEFRONT	--	--	1	--
284R	E6-51	[794] TO [794]	--	--	1	--
285R	R5-1A	--	1	--	--	--
286R	R5-1A	--	1	--	--	--
287R	R2-1	--	1	--	--	--
288R	D10-5	--	1	1	--	--
289R	D10-5	--	1	1	--	--
290R	R2-1	--	1	--	--	--
291R	W4-1	--	1	1	--	--
292R	E5-1A	EXIT [A] 1E	1	2	--	--
293R	E6-1	VAN BUREN ST NORTH [A]	--	--	1	--
294R	E6-1	JACKSON ST SOUTH [A]	--	--	1	--
295R	R2-1	--	1	1	--	--
296R	R4-3L	--	1	1	--	--
297R	R5-1	--	1	1	--	--
298R	W5-52R	--	1	--	--	--
299R	J3-1	EXISTING ASSEMBLY	1	--	--	--
300R	J2-1	EXISTING ASSEMBLY	1	--	--	--

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2601 REM SIGNS TYPE I [EA]	REMARKS / NEW SIGN LOCATION
301R	J3-2	EXISTING ASSEMBLY	1	--	--	--
302R	J4-1	EXISTING ASSEMBLY	1	--	--	--
303R	--	NO PARKING	1	--	--	--
304R	M1-6	--	1	--	--	--
305R	--	NO TURNS	1	--	--	--
306R	W12-1D	--	1	2	--	--
307R	R6-2L	--	1	--	--	--
308R	R5-1A	--	1	1	--	--
309R	R5-1	--	1	--	--	--
310R	R5-1	--	1	--	--	--
311R	R5-1	--	1	--	--	--
312R	R6-2L	--	1	--	--	--
313R	W3-3	--	1	1	--	--
314R	R5-1A	--	1	--	--	--
315R	R6-2R	--	1	--	--	--
316R	R10-11B(MOD	--	1	--	--	--
317R	R6-2L	--	1	--	--	--
318R	D12-2A	--	1	2	--	--
319R	J3-1	EXISTING ASSEMBLY	1	--	--	--
320R	R3-8B	--	1	1	--	--
321R	R5-57	--	1	--	--	--
322R	W9-1R	--	1	1	--	--
323R	W1-1R	--	1	1	--	--
324R	R3-7R	--	1	1	--	--
325R	W4-2R	--	1	1	--	--
326R	D1-2	[A] CLYBOURN ST	1	2	--	--
327R	W1-6	--	1	--	--	--
328R	R5-1A	--	1	1	--	--
329R	R5-1A	--	1	--	--	--
330R	R3-8(MOD)	--	1	--	--	--
331R	R5-1	--	1	--	--	--
332R	R5-1	--	1	--	--	--
333R	R10-11B(MOD	--	1	--	--	--
334R	J3-2	EXISTING ASSEMBLY	1	--	--	--
335R	J3-3	EXISTING ASSEMBLY	1	--	--	--
336R	R3-8	EXISTING ASSEMBLY	1	--	--	--
337R	J3-1	EXISTING ASSEMBLY	1	--	--	--
338R	J3-1	EXISTING ASSEMBLY	1	--	--	--
339R	J3-1	EXISTING ASSEMBLY	1	--	--	--
340R	J3-1	EXISTING ASSEMBLY	1	--	--	--
341R	J3-1	EXISTING ASSEMBLY	1	--	--	--
342R	JV2-1	EXISTING ASSEMBLY	1	--	--	--
343R	R3-8 modified	--	1	--	--	--
344R	R6-2L	--	1	--	--	--
345R	W4-2R	--	1	1	--	--
346R	W6-3	--	1	1	--	--
347R	W5-52L	--	1	--	--	--
348R	W5-1	--	1	1	--	--
349R	R3-50R	--	1	1	--	--
350R	R6-2R	--	1	--	--	--

TYPE I & TYPE II SIGN REMOVAL

IH 794 1300-13-71

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2601 REM SIGNS TYPE I [EA]	REMARKS / NEW SIGN LOCATION
351R	J4-1	EXISTING ASSEMBLY	1	--	--	--
352R	R2-1	--	1	--	--	--
353R	D10-5	--	1	--	--	--
354R	D10-5	--	1	--	--	--
355R	R2-1	--	1	--	--	--
356R	J4-1	EXISTING ASSEMBLY	1	--	--	--
357R	D10-5	--	1	--	--	--
358R	D10-5	--	1	--	--	--
359R	E6-51	EXISTING DIAGRAMATIC	--	--	1	--
360R	D10-5	--	1	--	--	--
361R	D10-5	--	1	--	--	--
362R	E6-1(MOD)	JACKSON ST/VAN BUREN	--	--	1	--
363R	E6-1(MOD)	LAKEFRONT 1/4 MILE [A]	--	--	1	--
364R	E6-1(MOD)	[794] EAST 2 RIGHT LANES	--	--	1	--
365R	E6-51	[43] SOUTH [AIRPLANE]	--	--	1	--
366R	E6-1(MOD)	[43] NORTH GREEN BAY	--	--	1	--
367R	D10-5	--	1	--	--	--
368R	D10-5	--	1	--	--	--
369R	D10-5	--	1	--	--	--
370R	D10-5	--	1	--	--	--
371R	D10-5	--	1	--	--	--
372R	D10-5	--	1	--	--	--
373R	R2-1	--	1	--	--	--
374R	D1-2	[A] CAR FERRY	1	2	--	SHEET 2
375R	--	NO TURN ON RED ARROW	1	--	--	SHEET 12
376R	R5-1a	--	1	1	--	--
377R	--	CAR FERRY FOLLOW 794	1	--	--	ON LIGHT POLE SHEET 14
378R	--	CAR FERRY EXIT 3	1	--		ON LIGHT POLE SHEET 7
379R	R3-7L	--	1	1	--	SHEET 16
380R	R1-5	--	1	1	--	SHEET 16
381R	R7-8	--	1	--	--	ON FENCE SHEET 17
382R	R7-8	--	1	--	--	ON FENCE SHEET 17
383R	R7-8	--	1	1	--	--
384R	R7-8	--	1	1	--	--
385R	R7-8	--	1	1	--	--
386R	R7-8	--	1	1	--	--
387R	R7-8	--	1	1	--	--
388R	R7-8	--	1	1	--	--
389R	R7-8	--	1	--	--	ON COLUMN
390R	R7-1	--	1	--	--	ON FENCE
391R	R7-8	--	1	--	--	ON COLUMN
392R	R7-8	--	1	--	--	ON COLUMN
393R	R7-8	--	1	--	--	ON COLUMN
394R	R7-8	--	1	--	--	ON COLUMN
395R	R7-8	--	1	--	--	ON WALL
396R	R7-8	--	1	--	--	ON WALL
397R	--	MOTORCYCLE PARKING	1	--	--	--
	TOTALS		360 *	174 *	35 *	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

ESTIMATE OF QUANTITIES-TRAFFIC SIGNALS

PROJECT ID. 1300-13-70

MILWAUKEE COUNTY

Category	Std.Bid Item No.	Description	Unit	Quantity
1000	652.0220	Conduit Rigid Nonmetallic Schedule 40 1 1/2-Inch	LF	20
	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	340
	652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	80
	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	1,145
	652.0615	Conduit Special 3-Inch	LF	1,520
	654.0110	Concrete Bases Type 10	Each	4
7200	SPV.0060.1091	Poles Type 9	Each	4
	SPV.0060.1092	Poles Type 13 Special	Each	1
	SPV.0060.1093	Monotube Arms 25-FT	Each	3
	SPV.0060.1094	Monotube Arms 30-FT	Each	1
	SPV.0060.1095	Monotube Arms 40-FT	Each	1
1000	SPV.0060.1096	Concrete Bases Type 10 Special	Each	1
	SPV.0060.1097	Rectangular Polymer Concrete Vault 17x30x18-Inch	Each	29
	SPV.0060.1098	Pre-Cast Traffic Signal Bases	Each	19

LIGHTING REMOVALS

CATEGORY	SYSTEM	DESCRIPTION	204.0195* REMOVING CONCRETE BASES EACH	653.0905* REMOVING PULL BOXES EACH	SPV.0060.1021 LAMP DISPOSAL HIGH INTENSITY DISCHARGE EACH	SPV.0060.1023 REMOVING LIGHTING UNITS NO SALVAGE EACH	SPV.0060.1024 REMOVING DISTRIBUTION CENTERS FOR STOCKPILE EACH	SPV.0060.1026 REMOVING UNDERDECK LIGHTING EACH	SPV.0060.1043 REMOVING AND RE-INSTALLING LIGHTING UNITS EACH
HOAN BRIDGE									
PRE-STAGE									
5000	HL-40-RU	CRU2/DRU2	1	--	--	--	--	--	1
	HL-40-ME	AME5	--	--	--	--	--	--	1
		BME5	--	--	--	--	--	--	1
	HL-40-JK	HL-40-JK	--	--	--	--	1	--	--
		EXLPB1003	--	1	--	--	--	--	--
		EXLPB1007	--	1	--	--	--	--	--
		EXLPB1010	--	1	--	--	--	--	--
		SUBTOTAL PRE-STAGE	1	3	--	--	1	--	3
STAGE 1									
5000	HL-40-LN	1LN1	--	--	1	1	--	--	--
		1LN16	--	--	1	1	--	--	--
		1LN17	--	--	1	1	--	--	--
		1LN18	--	--	1	1	--	--	--
		1LN19	--	--	1	1	--	--	--
		1LN20	--	--	1	1	--	--	--
		1LN21	--	--	1	1	--	--	--
		1LN22	--	--	1	1	--	--	--
		1LN23	--	--	1	1	--	--	--
		1LN24	--	--	1	1	--	--	--
		3LN2/2LN2	--	--	2	1	--	--	--
		2LN3/3LN3	--	--	2	1	--	--	--
		3LN4/2LN4	--	--	2	1	--	--	--
		2LN5/3LN5	--	--	2	1	--	--	--
		3LN6/2LN6	--	--	2	1	--	--	--
		2LN7/3LN7	--	--	2	1	--	--	--
		3LN8/2LN8	--	--	2	1	--	--	--
		2LN9/3LN9	--	--	2	1	--	--	--
		3LN10/2LN10	--	--	2	1	--	--	--
		2LN11/3LN11	--	--	2	1	--	--	--
		3LN12/3LN12	--	--	2	1	--	--	--
		2LN13/3LN13	--	--	2	1	--	--	--
		3LN14/2LN14	--	--	2	1	--	--	--
		2LN15/3LN15	--	--	2	1	--	--	--
		3LN16/2LN16	--	--	2	1	--	--	--
		HL-40-LN	--	--	--	--	1	--	--
	HL-40-HB	4HB15/3HB15	--	--	2	1	--	--	--
		3HB14/4HB14	--	--	2	1	--	--	--
		4HB13/3HB13	--	--	2	1	--	--	--
		3HB12/4HB12	--	--	2	1	--	--	--
		4HB11/3HB11	--	--	2	1	--	--	--
		3HB10/4HB10	--	--	2	1	--	--	--
		4HB9/3HB9	--	--	2	1	--	--	--
		3HB8/4HB8	--	--	2	1	--	--	--
		4HB7/3HB7	--	--	2	1	--	--	--
		3HB6/4HB6	--	--	2	1	--	--	--
		4HB5/3HB5	--	--	2	1	--	--	--
		3HB4/4HB4	--	--	2	1	--	--	--
		4HB3/3HB3	--	--	2	1	--	--	--
		SUBTOTAL	--	--	66	38	1	--	--

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING REMOVALS CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	204.0195* REMOVING CONCRETE BASES EACH	653.0905* REMOVING PULL BOXES EACH	SPV.0060.1021 LAMP DISPOSAL HIGH INTENSITY DISCHARGE EACH	SPV.0060.1023 REMOVING LIGHTING UNITS NO SALVAGE EACH	SPV.0060.1024 REMOVING DISTRIBUTION CENTERS FOR STOCKPILE EACH	SPV.0060.1026 REMOVING UNDERDECK LIGHTING EACH	SPV.0060.1043 REMOVING AND RE-INSTALLING LIGHTING UNITS EACH
HOAN BRIDGE									
STAGE 1 CONTINUED									
5000	HL-40-HB	3HB2/4HB2	--	--	2	1	--	--	--
		4HB1/3HB1	--	--	2	1	--	--	--
		1HB1/2HB1	--	--	2	1	--	--	--
		2HB2/1HB2	--	--	2	1	--	--	--
		1HB3/2HB3	--	--	2	1	--	--	--
		2HB4/1HB4	--	--	2	1	--	--	--
		1HB5/2HB5	--	--	2	1	--	--	--
		2HB6	--	--	1	1	--	--	--
		1HB6	--	--	1	1	--	--	--
		2HB7	--	--	1	1	--	--	--
		1HB7	--	--	1	1	--	--	--
		2HB8	--	--	1	1	--	--	--
	HL-40-CR	EXLPB601	--	1	--	--	--	--	--
		EXLPB606	--	1	--	--	--	--	--
	HL-40-HB	HL-40-HB	--	--	--	--	1	--	--
	HL-40-CR	HL-40-CR	--	--	--	--	1	--	--
		ACR8	--	--	1	--	--	--	--
		BCR7	--	--	1	--	--	--	--
		ACR7	--	--	1	--	--	--	--
		BCR6	--	--	1	--	--	--	--
		ACR6	--	--	1	--	--	--	--
		BCR5	--	--	1	--	--	--	--
		ACR5	--	--	1	--	--	--	--
		ACR1/BCR1	--	--	2	--	--	--	--
		ACR2/BCR2	--	--	2	--	--	--	--
		ACR3/BCR3	--	--	2	--	--	--	--
		ACR4/BCR4	--	--	2	--	--	--	--
		BCR8	--	--	1	--	--	--	--
		ACR9	--	--	1	--	--	--	--
		BCR9	--	--	1	--	--	--	--
		ACR10	--	--	1	--	--	--	--
		BCR10	--	--	1	--	--	--	--
		ACR12	--	--	1	--	--	--	--
		ACR11	--	--	1	--	--	--	--
		BCR11	--	--	1	--	--	--	--
		BCR12	--	--	1	--	--	--	--
		ACR13	--	--	1	--	--	--	--
		BCR13	--	--	1	--	--	--	--
	HL-40-DW	HL-40-DW	--	--	--	--	1	--	--
	HL-40-JK	EXLPB1001	--	1	--	--	--	--	--
		EXLPB1002	--	1	--	--	--	--	--
		EXLPB1004	--	1	--	--	--	--	--
		EXLPB1005	--	1	--	--	--	--	--
		EXLPB1006	--	1	--	--	--	--	--
		EXLPB1008	--	1	--	--	--	--	--
		EXLPB1009	--	1	--	--	--	--	--
		EXLPB1011	--	1	--	--	--	--	--
	EL-40-PM	UDL - PARKING LOT	--	--	19	--	--	--	--
		SUBTOTAL STAGE 1	--	10	130	50	4	--	--

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING REMOVALS CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	204.0195* REMOVING CONCRETE BASES EACH	653.0905* REMOVING PULL BOXES EACH	SPV.0060.1021 LAMP DISPOSAL HIGH INTENSITY DISCHARGE EACH	SPV.0060.1023 REMOVING LIGHTING UNITS NO SALVAGE EACH	SPV.0060.1024 REMOVING DISTRIBUTION CENTERS FOR STOCKPILE EACH	SPV.0060.1026 REMOVING UNDERDECK LIGHTING EACH	SPV.0060.1043 REMOVING AND RE-INSTALLING LIGHTING UNITS EACH
HOAN BRIDGE									
STAGE 2									
5000	HL-40-RU	S-40-014	--	--	2	--	--	--	--
	HL-40-LN	4LN1/5LN1	--	--	2	1	--	--	--
		2LN1/3LN1	--	--	2	1	--	--	--
		6LN5	--	--	1	1	--	--	--
		6LN1	--	--	1	1	--	--	--
		6LN2	--	--	1	1	--	--	--
		6LN3	--	--	1	1	--	--	--
		6LN4	--	--	1	1	--	--	--
		S-40-167	--	--	3	--	--	--	--
		S-40-166	--	--	3	--	--	--	--
	HL-40-HB	S-40-330	--	--	3	--	--	--	--
		S-40-331	--	--	2	--	--	--	--
		SUBTOTAL STAGE 2	--	--	22	7	--	--	--
		SUBTOTAL HOAN BRIDGE	1	13	152	57	5	--	3
LAKE INTERCHANGE									
STAGE 2									
5000	HL-40-LK	S-40-160	--	--	2	--	--	--	--
		S-40-162	--	--	2	--	--	--	--
		S-40-367	--	--	1	--	--	--	--
		SUBTOTAL LAKE INTERCHANGE	--	--	5	--	--	--	--

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING REMOVALS CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	204.0195* REMOVING CONCRETE BASES EACH	653.0905* REMOVING PULL BOXES EACH	SPV.0060.1021 LAMP DISPOSAL HIGH INTENSITY DISCHARGE EACH	SPV.0060.1023 REMOVING LIGHTING UNITS NO SALVAGE EACH	SPV.0060.1024 REMOVING DISTRIBUTION CENTERS FOR STOCKPILE EACH	SPV.0060.1026 REMOVING UNDERDECK LIGHTING EACH	SPV.0060.1043 REMOVING AND RE-INSTALLING LIGHTING UNITS EACH
IH 794 EAST-WEST									
STAGE 1									
5000	HL-40-JK	3UDL5JK (JACKSON)	--	--	3	--	--	1	--
		3UDL5JK (BROADWAY)	--	--	3	--	--	1	--
		S-40-140	--	--	2	--	--	--	--
		S-40-190	--	--	2	--	--	--	--
		S-40-141	--	--	2	--	--	--	--
		S-40-362	--	--	2	--	--	--	--
		SUBTOTAL STAGE 1	--	--	14	--	--	2	--
STAGE 2									
5000	HL-40-JK	4UDL7JK	--	--	4	--	--	1	--
		2UDL7JK	--	--	2	--	--	1	--
		3UDL7JK	--	--	3	--	--	1	--
		2UDL4JK	--	--	2	--	--	1	--
		3UDL3JK	--	--	3	--	--	1	--
		4UDL10JK	--	--	4	--	--	1	--
		7JK5	1	--	1	1	--	--	--
		7JK4	1	--	1	1	--	--	--
		7JK3	1	--	1	1	--	--	--
		7JK2	1	--	1	1	--	--	--
		4JK1	1	--	1	1	--	--	--
		S-40-165	--	--	2	--	--	--	--
	HL-40-ME	S-40-539	--	--	3	--	--	--	--
		SUBTOTAL STAGE 2	5	--	28	5	--	6	--
		SUBTOTAL IH 794 EAST-WEST	5	--	42	5	--	8	--
		PROJECT TOTAL	6	13	199	62	5	8	3

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING TEMPORARY POLES

CATEGORY	SYSTEM	DESCRIPTION	SPV.0060.1038 TEMPORARY WOOD POLE LIGHTING UNIT TWIN FLOODLIGHTS EACH	SPV.0060.1039 TEMPORARY LUMINARIES FLOODLIGHTS HPS 250 WATTS EACH	SPV.0060.1040 TEMPORARY BRIDGE MOUNTED LIGHTING UNITS 20-FT EACH	SPV.0060.1041 TEMPORARY BRIDGE MOUNTED POLE FOUNDATIONS EACH	SPV.0060.1075 TEMPORARY WOOD POLE LIGHTING UNITS EACH	SPV.0090.0003 PARAPET REPAIR LF
HOAN BRIDGE								
PRE-STAGE								
5000	HL-40-RU	TCDRU2	1	--	--	--	--	--
	EL-40-PM	TCDPM12	--	--	1	1	--	2
		TCDPM11	--	--	1	1	--	2
		TCDPM10	--	--	1	1	--	2
		TCDPM9	--	--	1	1	--	2
		TCDPM8	--	--	1	1	--	2
		TCDPM7	--	--	1	1	--	2
		TCDPM6	--	--	1	1	--	2
		TCDPM5	--	--	1	1	--	2
		TCDPM4	--	--	1	1	--	2
		TCDPM3	--	--	1	1	--	2
		TCDPM2	--	--	1	1	--	2
		TCDPM1	--	--	1	1	--	2
		TEFPM15	--	--	1	1	--	2
		TEFPM14	--	--	1	1	--	2
		TEFPM13	--	--	1	1	--	2
		TEFPM12	--	--	1	1	--	2
		TEFPM11	--	--	1	1	--	2
		TEFPM10	--	--	1	1	--	2
		TEFPM9	--	--	1	1	--	2
		TEFPM8	--	--	1	1	--	2
		TEFPM7	--	--	1	1	--	2
		TEFPM6	--	--	1	1	--	2
		TEFPM5	--	--	1	1	--	2
		TEFPM4	--	--	1	1	--	2
		TEFPM3	--	--	1	1	--	2
		TEFPM2	--	--	1	1	--	2
		TEFPM1	--	--	1	1	--	2
	HL-40-HB	T12HB15	--	--	1	1	--	2
		T12HB14	--	--	1	1	--	2
		T12HB13	--	--	1	1	--	2
		T12HB12	--	--	1	1	--	2
		T12HB11	--	--	1	1	--	2
		T12HB10	--	--	1	1	--	2
		T12HB9	--	--	1	1	--	2
		T12HB8	--	--	1	1	--	2
		T12HB7	--	--	1	1	--	2
		T12HB6	--	--	1	1	--	2
		T12HB5	--	--	1	1	--	2
		T12HB4	--	--	1	1	--	2
		T12HB3	--	--	1	1	--	2
		SUBTOTAL	1	--	40	40	--	80

LIGHTING TEMPORARY POLES CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	SPV.0060.1038 TEMPORARY WOOD POLE LIGHTING UNIT TWIN FLOODLIGHTS EACH	SPV.0060.1039 TEMPORARY LUMINARIES FLOODLIGHTS HPS 250 WATTS EACH	SPV.0060.1040 TEMPORARY BRIDGE MOUNTED LIGHTING UNITS 20-FT EACH	SPV.0060.1041 TEMPORARY BRIDGE MOUNTED POLE FOUNDATIONS EACH	SPV.0060.1075 TEMPORARY WOOD POLE LIGHTING UNITS EACH	SPV.0090.0003 PARAPET REPAIR LF
HOAN BRIDGE								
PRE-STAGE CONTINUED								
5000	HL-40-HB	T12HB2	--	--	1	1	--	2
		T12HB1	--	--	1	1	--	2
		T34HB9	--	--	1	1	--	2
		T34HB8	--	--	1	1	--	2
		T34HB7	--	--	1	1	--	2
		T34HB6	--	--	1	1	--	2
		T34HB5	--	--	1	1	--	2
		T34HB4	--	--	1	1	--	2
		T34HB3	--	--	1	1	--	2
		T34HB2	--	--	1	1	--	2
		T34HB1	--	--	1	1	--	2
	HL-40-CR	TACR8	--	--	--	--	1	--
		SUBTOTAL PRE-STAGE	1	--	51	51	1	102
STAGE 1								
5000	HL-40-LN	ALN5	--	1	--	--	--	--
		BLN6	--	1	--	--	--	--
		ALN6	--	1	--	--	--	--
		BLN7	--	1	--	--	--	--
		ALN7	--	1	--	--	--	--
		BLN8	--	1	--	--	--	--
		ALN8	--	1	--	--	--	--
	EL-40-PM	TCDPM19	--	--	1	1	--	--
		TCDPM18	--	--	1	1	--	--
		TCDPM17	--	--	1	1	--	--
		TCDPM16	--	--	1	1	--	--
		TCDPM15	--	--	1	1	--	--
		TCDPM14	--	--	1	1	--	--
		TCDPM13	--	--	1	1	--	--
		TEFPM30	--	--	1	1	--	--
		TEFPM29	--	--	1	1	--	--
		TEFPM28	--	--	1	1	--	--
		TEFPM27	--	--	1	1	--	--
		TEFPM26	--	--	1	1	--	--
		TEFPM25	--	--	1	1	--	--
		TEFPM24	--	--	1	1	--	--
		TEFPM23	--	--	1	1	--	--
		TEFPM22	--	--	1	1	--	--
		TEFPM21	--	--	1	1	--	--
		TEFPM20	--	--	1	1	--	--
		TEFPM19	--	--	1	1	--	--
		TEFPM18	--	--	1	1	--	--
		TEFPM17	--	--	1	1	--	--
		TEFPM16	--	--	1	1	--	--
		SUBTOTAL	--	7	22	22	--	--

LIGHTING TEMPORARY POLES CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	SPV.0060.1038 TEMPORARY WOOD POLE LIGHTING UNIT TWIN FLOODLIGHTS EACH	SPV.0060.1039 TEMPORARY LUMINARIES FLOODLIGHTS HPS 250 WATTS EACH	SPV.0060.1040 TEMPORARY BRIDGE MOUNTED LIGHTING UNITS 20-FT EACH	SPV.0060.1041 TEMPORARY BRIDGE MOUNTED POLE FOUNDATIONS EACH	SPV.0060.1075 TEMPORARY WOOD POLE LIGHTING UNITS EACH	SPV.0090.0003 PARAPET REPAIR LF
HOAN BRIDGE								
STAGE 1 CONTINUED								
5000	HL-40-HB	T12HB30	--	--	1	1	--	--
		T12HB29	--	--	1	1	--	--
		T12HB28	--	--	1	1	--	--
		T12HB27	--	--	1	1	--	--
		T12HB26	--	--	1	1	--	--
		T12HB25	--	--	1	1	--	--
		T12HB24	--	--	1	1	--	--
		T12HB23	--	--	1	1	--	--
		T12HB22	--	--	1	1	--	--
		T12HB21	--	--	1	1	--	--
		T12HB20	--	--	1	1	--	--
		T12HB19	--	--	1	1	--	--
		T12HB18	--	--	1	1	--	--
		T12HB17	--	--	1	1	--	--
		T12HB16	--	--	1	1	--	--
		T34HB18	--	--	1	1	--	--
		T34HB17	--	--	1	1	--	--
		T34HB16	--	--	1	1	--	--
		T34HB15	--	--	1	1	--	--
		T34HB14	--	--	1	1	--	--
		T34HB13	--	--	1	1	--	--
		T34HB12	--	--	1	1	--	--
		T34HB11	--	--	1	1	--	--
		T34HB10	--	--	1	1	--	--
		TGLN1	--	--	--	--	1	--
		THLN1	--	--	--	--	1	--
		SUBTOTAL STAGE 1	--	7	46	46	2	--
		SUBTOTAL HOAN BRIDGE	1	7	97	97	3	102
IH 794 EAST-WEST								
PRE-STAGE								
5000	HL-40-ME	FME4	--	1	--	--	--	--
		EME4	--	1	--	--	--	--
		GME4	--	1	--	--	--	--
		HME3	--	1	--	--	--	--
		SUBTOTAL IH 794 EAST-WEST	--	4	--	--	--	--
		PROJECT TOTAL	1	11	97	97	3	102

LIGHTING TEMPORARY WIRES

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	SPV.0090.1007 TEMPORARY CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	SPV.0090.1008 TEMPORARY CABLE IN DUCT 4-6 AWG LF	SPV.0090.1009 TEMPORARY ELECTRICAL WIRE LIGHTING 4 AWG LF	SPV.0090.1010 TEMPORARY OVERHEAD CABLE QUADRUPLEX 4 AWG LF	SPV.0090.1011 TEMPORARY CONDUIT METALLIC 2-INCH LF	SPV.0090.1020 TEMPORARY ELECTRICAL WIRE LIGHTING 8 AWG LF
HOAN BRIDGE										
PRE-STAGE 5000	HL-40-RU	--	TCDRU2	HL-40-RU	--	832	--	--	--	--
		--	EXLPB501	CRU3/DRU3	--	--	1,510	--	--	--
	EL-40-PM	--	TCDPM12	TCDPM11	170	--	--	--	--	525
		--	TCDPM11	TCDPM10	170	--	--	--	--	525
		--	TCDPM10	TCDPM9	170	--	--	--	--	525
		--	TCDPM9	TCDPM8	175	--	--	--	--	540
		--	TCDPM8	TCDPM7	180	--	--	--	--	540
		--	TCDPM7	TCDPM6	180	--	--	--	--	540
		--	TCDPM6	TCDPM5	180	--	--	--	--	540
		--	TCDPM5	TCDPM4	180	--	--	--	--	540
		--	TCDPM4	TCDPM3	180	--	--	--	--	540
		--	TCDPM3	TCDPM2	180	--	--	--	--	540
		--	TCDPM2	TCDPM1	180	--	--	--	--	540
		--	TCDPM1	JB	110	--	--	--	--	330
		--	JB	EL-40-PM	30	--	--	--	15	400
		--	TEFPM15	TEFPM14	180	--	--	--	--	540
		--	TEFPM14	TEFPM13	180	--	--	--	--	540
		--	TEFPM13	TEFPM12	180	--	--	--	--	540
		--	TEFPM12	TEFPM11	180	--	--	--	--	540
		--	TEFPM11	TEFPM10	180	--	--	--	--	540
		--	TEFPM10	TEFPM9	180	--	--	--	--	540
		--	TEFPM9	TEFPM8	180	--	--	--	--	540
		--	TEFPM8	TEFPM7	180	--	--	--	--	540
		--	TEFPM7	TEFPM6	180	--	--	--	--	540
		--	TEFPM6	TEFPM5	180	--	--	--	--	540
		--	TEFPM5	TEFPM4	180	--	--	--	--	540
		--	TEFPM4	TEFPM3	180	--	--	--	--	540
		--	TEFPM3	TEFPM2	180	--	--	--	--	540
		--	TEFPM2	TEFPM1	180	--	--	--	--	540
		--	TEFPM1	JB	60	--	--	--	--	180
	HL-40-HB	--	T12HB15	T12HB14	180	--	--	--	--	540
		--	T12HB14	T12HB13	180	--	--	--	--	540
		--	T12HB13	T12HB12	180	--	--	--	--	540
		--	T12HB12	T12HB11	180	--	--	--	--	540
		--	T12HB11	T12HB10	180	--	--	--	--	540
		--	T12HB10	T12HB9	180	--	--	--	--	540
		--	T12HB9	T12HB8	180	--	--	--	--	540
		--	T12HB8	T12HB7	180	--	--	--	--	540
		--	T12HB7	T12HB6	180	--	--	--	--	540
		--	T12HB6	T12HB5	180	--	--	--	--	540
		--	T12HB5	T12HB4	180	--	--	--	--	540
		--	T12HB4	T12HB3	180	--	--	--	--	540
		--	T12HB3	T12HB2	180	--	--	--	--	540
		--	T12HB2	T12HB1	180	--	--	--	--	540
		--	T12HB1	JB(148+52, 55' RT)	75	--	--	--	--	225
		--	JB(148+52, 55' RT)	JB(148+45, 17' LT)	--	--	--	--	95	500
				SUBTOTAL	7,260	832	1,510	--	110	22,650

LIGHTING TEMPORARY WIRES CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	SPV.0090.1007 TEMPORARY CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	SPV.0090.1008 TEMPORARY CABLE IN DUCT 4-6 AWG LF	SPV.0090.1009 TEMPORARY ELECTRICAL WIRE LIGHTING 4 AWG LF	SPV.0090.1010 TEMPORARY OVERHEAD CABLE QUADRUPLEX 4 AWG LF	SPV.0090.1011 TEMPORARY CONDUIT METALLIC 2-INCH LF	SPV.0090.1020 TEMPORARY ELECTRICAL WIRE LIGHTING 8 AWG LF
HOAN BRIDGE										
PRE-STAGE CONTINUED										
5000	HL-40-HB	--	T34HB9	JB(163+12,44'RT)	45	--	--	--	--	135
		--	JB(163+12,44'RT)	JB(163+14,8'LT)	62	--	--	--	--	186
		--	JB(163+14,8'LT)	1HB6	200	--	--	--	--	600
		--	T34HB9	T34HB8	180	--	--	--	--	540
		--	T34HB8	T34HB7	180	--	--	--	--	540
		--	T34HB7	T34HB6	180	--	--	--	--	540
		--	T34HB6	T34HB5	180	--	--	--	--	540
		--	T34HB5	T34HB4	180	--	--	--	--	540
		--	T34HB4	T34HB3	180	--	--	--	--	540
		--	T34HB3	T34HB2	180	--	--	--	--	540
		--	T34HB2	T34HB1	180	--	--	--	--	540
		--	T34HB1	JB(148+52, 55' RT)	95	--	--	--	--	285
	HL-40-LN	--	4LN1/5LN1	LPB610	--	--	600	--	125	--
		--	2LN1/3LN1	LPB610	--	--	640	--	135	--
				SUBTOTAL PRE-STAGE	9,102	832	2,750	--	370	28,176
STAGE 1										
5000	HL-40-LN	--	BCR11	TGLN1	--	--	--	190	--	--
		--	TGLN1	THLN1	--	--	--	195	--	--
		--	BCR13	GLN5	--	--	--	180	--	--
		--	ACR4/BCR4	GLN1/5LN1	--	--	--	181	--	--
		--	ACR8	TALN1	--	--	--	65	--	--
	EL-40-PM	--	TCDPM19	TCDPM18	--	--	--	--	--	528
		--	TCDPM18	TCDPM17	--	--	--	--	--	558
		--	TCDPM17	TCDPM16	--	--	--	--	--	558
		--	TCDPM16	TCDPM15	--	--	--	--	--	543
		--	TCDPM15	TCDPM14	--	--	--	--	--	843
		--	TCDPM14	TCDPM13	--	--	--	--	--	213
		--	TCDPM13	JB	--	--	--	--	--	378
		--	TEFPM30	TEFPM29	--	--	--	--	--	543
		--	TEFPM29	TEFPM28	--	--	--	--	--	543
		--	TEFPM28	TEFPM27	--	--	--	--	--	543
		--	TEFPM27	TEFPM26	--	--	--	--	--	543
		--	TEFPM26	TEFPM25	--	--	--	--	--	543
		--	TEFPM25	TEFPM24	--	--	--	--	--	543
		--	TEFPM24	TEFPM23	--	--	--	--	--	543
		--	TEFPM23	TEFPM22	--	--	--	--	--	543
		--	TEFPM22	TEFPM21	--	--	--	--	--	543
		--	TEFPM21	TEFPM20	--	--	--	--	--	543
		--	TEFPM20	TEFPM19	--	--	--	--	--	543
		--	TEFPM19	TEFPM18	--	--	--	--	--	543
		--	TEFPM18	TEFPM17	--	--	--	--	--	543
		--	TEFPM17	TEFPM16	--	--	--	--	--	543
		--	TEFPM16	JB	--	--	--	--	--	123
		--	JB	EXLPB701	--	--	--	--	--	465
		--	EXLPB701	EL-40-PM	--	--	--	--	--	275
				SUBTOTAL	--	--	--	811	--	12,086

LIGHTING TEMPORARY WIRES CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	SPV.0090.1007 TEMPORARY CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	SPV.0090.1008 TEMPORARY CABLE IN DUCT 4-6 AWG LF	SPV.0090.1009 TEMPORARY ELECTRICAL WIRE LIGHTING 4 AWG LF	SPV.0090.1010 TEMPORARY OVERHEAD CABLE QUADRUPLEX 4 AWG LF	SPV.0090.1011 TEMPORARY CONDUIT METALLIC 2-INCH LF	SPV.0090.1020 TEMPORARY ELECTRICAL WIRE LIGHTING 8 AWG LF
HOAN BRIDGE										
STAGE 1 CONTINUED										
5000	HL-40-HB	--	T12HB30	T12HB29	--	--	--	--	--	483
		--	T12HB29	T12HB28	--	--	--	--	--	513
		--	T12HB28	T12HB27	--	--	--	--	--	549
		--	T12HB27	T12HB26	--	--	--	--	--	543
		--	T12HB26	T12HB25	--	--	--	--	--	513
		--	T12HB25	T12HB24	--	--	--	--	--	513
		--	T12HB24	T12HB23	--	--	--	--	--	543
		--	T12HB23	T12HB22	--	--	--	--	--	543
		--	T12HB22	T12HB21	--	--	--	--	--	543
		--	T12HB21	T12HB20	--	--	--	--	--	513
		--	T12HB20	T12HB19	--	--	--	--	--	543
		--	T12HB19	T12HB18	--	--	--	--	--	543
		--	T12HB18	T12HB17	--	--	--	--	--	543
		--	T12HB17	T12HB16	--	--	--	--	--	543
		--	T12HB16	T34HB18	--	--	--	--	--	510
		--	JB(148+45, 17' LT)	T34HB18	--	--	--	--	50	315
		--	T34HB18	T34HB17	--	--	--	--	--	543
		--	T34HB17	T34HB16	--	--	--	--	--	543
		--	T34HB16	T34HB15	--	--	--	--	--	543
		--	T34HB15	T34HB14	--	--	--	--	--	543
		--	T34HB14	T34HB13	--	--	--	--	--	543
		--	T34HB13	T34HB12	--	--	--	--	--	543
		--	T34HB12	T34HB11	--	--	--	--	--	543
		--	T34HB11	T34HB10	--	--	--	--	--	543
				SUBTOTAL STAGE 1	--	--	--	811	50	24,683
STAGE 2										
5000	HL-40-HB	MEDIAN FINAL LIGHTING	PIER 2N	CHB1/DHB1	--	--	1,060	--	250	--
				SUBTOTAL HOAN BRIDGE	9,102	832	3,810	811	670	52,859
IH 794 EAST-WEST										
PRE-STAGE										
5000	HL-40-ME	--	BME6	S-40-538	400	--	3,206	--	--	--
	MM	--	EX. LP (104+20,109RT)	X. LP (204+15,119LT	--	--	--	125	--	--
	HL-40-WT	--	NAV EB		466	--	--	--	--	1,844
		--	NAV WB		191	--	--	--	--	816
	HL-40-JK	--	HL-40-JK	LPB1001	--	--	--	--	--	1,059
		--	LPB1001	EXLPB1002	33	--	--	--	--	114
		--	EXLPB1002	EXLPB1001	42	--	--	--	--	141
		--	EXLPB1001	EX. HML-40-025	--	--	--	--	--	2,367
				SUBTOTAL IH 794 EAST-WEST	1,132	--	3,206	125	--	6,341
				PROJECT TOTAL	10,234	832	7,016	936	670	59,200

LIGHTING CONDUIT

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	652.0125* CONDUIT RIGID METALLIC 2-INCH LF	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0405* CONDUIT REINFORCED THERMOSETTING RESIN 2-INCH LF	652.0605* CONDUIT SPECIAL 2-INCH LF	SPV.0090.1019 CONDUIT REINFORCED THERMOSETTING RESIN 1-INCH LF
HOAN BRIDGE										
STAGE 1										
5000	HL-40-LN	--	HL-40-LN	LPB601	--	--	21	--	--	--
		--	LPB601	PIER 67S	--	40	--	--	--	--
		--	PIER 67S	BRIDGE DECK	12	--	--	20	--	--
		--	HL-40-LN	LPB606	--	--	21	--	--	--
		--	LPB606	LPB610	--	--	90	--	--	--
		--	LPB610	PIER 70S	--	90	--	--	--	--
		--	PIER 70S	BRIDGE DECK	12	--	--	20	--	--
		--	LPB610	PIER 55S	--	10	--	--	--	--
		--	PIER 55S	BRIDGE DECK	10	--	--	30	--	--
	EL-40-PM	--	LPB701	PIER 31S (WB)	--	40	--	--	--	--
		--	PIER 31S (WB)	BRIDGE DECK	12	--	--	35	--	--
		--	LPB701	PIER 31S(EB)	--	25	--	--	--	--
		--	PIER 31S (EB)	BRIDGE DECK	12	--	--	35	--	--
	HL-40-HB	--	HL-40-HB	LPB802	--	--	9	--	--	--
		--	LPB802	PIER 2N	--	--	10	--	--	--
		--	JUCTION BOX	BRIDGE DECK	--	--	--	66	--	--
	HL-40-DW	--	HL-40-DW	LPB801	--	--	9	--	--	--
		--	LPB801	PIER 2N	--	-	35	--	--	--
				SUBTOTAL HOAN BRIDGE	58	205	195	206	--	--
LAKE INTERCHANGE										
STAGE 2										
5000	HL-40-LK	--	ALK1	LPB901	--	88	--	--	--	--
		--	LPB901	EXLPB900	--	195	--	--	--	--
				SUBTOTAL LAKE INTERCHANGE	--	283	--	--	--	--
IH 794 EAST-WEST										
STAGE 1										
5000	HL-40-JK	--	HL-40-JK	LPB1003	--	--	109	--	--	--
		--	LPB1003	JB (STA. 350+14 LW,22'RT)	12	36	--	--	--	--
		--	LPB1003	LPB1002	--	--	130	--	--	--
		--	LPB1002	JB (STA. 749+32 WB,16'RT)	12	10	--	--	--	--
		--	LPB1002	LPB1007	--	--	--	--	70	--
		--	LPB1007	JB (STA. 750+62 WB,30'LT)	12	120	--	--	--	--
		--	JB (STA. 750+62 WB,30'LT)	JB (STA. 352+18 LW,27'RT)	--	76	--	--	--	--
		--	LPB1007	LPB1010	--	253	--	--	--	--
		--	LPB1010	EXLPB1012	--	--	--	--	79	--
		--	LPB1002	LPB1001	--	--	--	--	179	--
		--	LPB1001	HML-40-024	--	18	--	--	--	--
		--	LPB1008	JB (STA. 13+06 JE,40' RT)	--	100	--	--	--	--
		--	LPB1001	JB (STA. 13+06 JE, 40' RT)	--	120	--	--	--	--
		--	LPB1001	EX JB (STA. 3+58 MW)	--	45	--	--	--	--
		--	LPB1004	LPB1014	--	86	--	--	--	--
		--	JB (STA. 6+96 JE, 14' RT)	JB (STA. 6+91 JE, 21' LT)	--	--	--	7	--	--
		--	LPB1003	TRANSFORMER	--	5	--	--	--	--
				SUBTOTAL	36	869	239	7	328	--

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING CONDUIT CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	652.0125* CONDUIT RIGID METALLIC 2-INCH LF	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0405* CONDUIT REINFORCED THERMOSETTING RESIN 2-INCH LF	652.0605* CONDUIT SPECIAL 2-INCH LF	SPV.0090.1019 CONDUIT REINFORCED THERMOSETTING RESIN 1-INCH LF
IH 794 EAST-WEST										
STAGE 1 CONTINUED										
5000	HL-40-WT	NAV. LIGHTING	NAV. LIGHTING (EB)	--	--	250	--	56	--	--
			NAV. LIGHTING (WB)	--	--	86	--	50	--	--
	HL-40-JK	UDL-BROADWAY UNDER EB IH-794	--	--	--	--	--	5	--	115
		UDL-JACKSON OFF-RAMP UNDER EB IH-794	--	--	5	--	--	--	--	110
	CY	UNDERSTRUCTURE PARKING LOT LIGHTING	LIGHTING CONTROLLER CY	LPB1201	--	18	--	--	--	--
			LPB1202	PIER(633+58 EB)	--	63	--	--	--	--
			PIER(633+58 EB)	PIER(632+29 EB)	--	--	--	--	--	268
			JB(PIER 632+29 EB)	LIGHT FIXTURE	--	--	--	--	--	8
			JB(PIER 633+58 EB)	LIGHT FIXTURE	--	--	--	--	--	8
	MM	--	LIGHTING CONTROLLER MM	LPB1215	--	12	--	--	--	--
		--	LPB1215	LPB1207	--	33	--	--	--	--
		--	LPB1215	EX. LP (TEMP CONDUIT)	--	25	--	--	--	--
		--	LPB1207	LPB1205	--	108	--	--	--	--
		--	LPB1205	EXIST. LIGHT	--	55	--	--	--	--
		--	LPB1205	LPB1203	--	109	--	--	--	--
		--	LPB1204	PIER(634+66 EB)	--	5	--	--	--	--
		--	LPB1206	PIER(635+77 EB)	--	5	--	--	--	--
		--	LPB1208	PIER(636+86 EB)	--	5	--	--	--	--
		--	JB(PIER 634+66 EB)	LIGHT FIXTURE	--	--	--	--	--	8
		--	JB(PIER 635+77 EB)	LIGHT FIXTURE	--	--	--	--	--	16
		--	JB(PIER 636+86 EB)	LIGHT FIXTURE	--	--	--	--	--	24
	CPS	--	LPB1210	LPB1218	--	114	--	--	--	--
		--	LPB1210	LPB1209	--	139	--	--	--	--
		--	LPB1218	PIER(638+14 EB)	--	17	--	--	--	--
		--	LPB1211	LPB1212	--	93	--	--	--	--
		--	LPB1213	PIER(6+89 JE)		18	--	--	--	--
		--	LPB1213	PIER(640+54 EB)		16	--	--	--	--
		--	LPB1214	LPB1211	--	132	--	--	--	--
		--	LPB1219	LPB1216	--	50	--	--	--	--
		--	LIGHTING CONTROLLER CPS	LPB1213	--	23	--	--	--	--
		--	JB(PIER 638+14 EB)	LIGHT FIXTURE	--	--	--	--	--	12
		--	JB(PIER 6+89 JE)	LIGHT FIXTURE	--	--	--	--	--	8
		--	JB(PIER 640+54 EB)	LIGHT FIXTURE	--	--	--	--	--	8
	VBM	--	LPB1217	EXISTING LIGHT	--	89	--	--	--	--
		--	LIGHTING CONTROLLER VBM	LPB1219	--	12	--	--	--	--
		--	LPB1216	LPB1217	-	84	-	--	--	--
		--	JB(PIER 8+89 JE)	LIGHT FIXTURE	--	--	--	--	--	16
	CITY OF MILWAUKEE	JEFFERSON ST S/W & PED.TUNNEL LIGHTING	LV (100+17.5)	LV(101+50)	--	--	135	--	--	--
			LV (101+50)	LV (100+46)	--	15	--	--	--	--
			LV (101+50)	LV (102+23)	--	73	--	--	--	--
		--	LV (100+46)	ABUTMENT	--	6	--	--	--	--
		--	ABUTMENT WALL		60	--	--	--	--	--
				SUBTOTAL	65	1,655	135	111	--	601

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING CONDUIT CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	652.0125* CONDUIT RIGID METALLIC 2-INCH LF	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0405* CONDUIT REINFORCED THERMOSETTING RESIN 2-INCH LF	652.0605* CONDUIT SPECIAL 2-INCH LF	SPV.0090.1019 CONDUIT REINFORCED THERMOSETTING RESIN 1-INCH LF
IH 794 EAST-WEST										
STAGE 1 CONTINUED										
5000	CITY OF MILWAUKEE	MILWAUKEE UDL LIGHTING	LV (302+05)	LV(302+41)	--	--	36	--	--	--
			LV (302+41)	LV(303+06)	--	--	65	--	--	--
		--	LV(302+05)	STUB	--	--	10	--	--	--
		BROADWAY UDL	LV(201+80)	STUB	--	--	15	--	--	--
		--	LV(201+80)	LV(202+45)	--	--	66	--	--	--
		--	LV(202+45)	STUB	--	--	15	--	--	--
		WATER ST UDL AND S/W	LV(102+27)	STUB	--	--	15	--	--	--
			LV(102+27)	LV(102+73)	--	--	46	--	--	--
		--	LV(102+73)	LV(103+47)	--	--	75	--	--	--
		--	LV(102+20)	STUB	--	--	15	--	--	--
		--	LV(102+20)	LV(102+66)	--	--	46	--	--	--
		--	LV(102+66)	LV(103+48)	--	--	82	--	--	--
				SUBTOTAL STAGE 1	101	2,524	860	118	328	601
STAGE 2										
5000	HL-40-JK	UDL-BROADWAY UNDER WB IH-794	--	--	--	--	--	5	--	280
		UDL-JACKSON ON-RAMP UNDER WB IH-794	--	--	5	--	--	--	--	90
		UDL-JACKSON OFF-RAMP UNDER WB IH-794	--	--	20	--	--		--	310
		UDL-MILWAUKEE OFF-RAMP WB IH-794	--	--	5	--	--	--	--	95
		--	LPB1001	1009	--	109	--	--	--	--
		--	LPB1005	JB(STA. 737+85 WB, 30' LT)	30	58	--	--	--	--
		--	LPB1005	CJK1	--	13	--	--	--	--
		--	LPB1005	DJK2	--	64	--	--	--	--
		--	LPB1006	AJK1	--	133	--	--	--	--
		--	DJK2	CJK3	--	113	--	--	--	--
		--	LPB1006	JB(303+82,182'RT)	30	22	--	--	--	--
	CY	UNDERSTRUCTURE PARKING LOT LIGHTING	LPB1201	PIER(733+59 WB)	--	24	--	--	--	--
			PIER(733+59 WB)	PIER(732+34 WB)	--	242	--	--	--	--
			PIER 733+59 WB	LPB1202	--	17	--	--	--	--
		–	JB(PIER 732+34 WB)	LIGHT FIXTURE	--	--	--	--	--	8
		–	JB(PIER 733+59 WB)	LIGHT FIXTURE	--	--	--	--	--	8
	MM	–	LPB1207	PIER(736+79 WB)	--	5	--	--	--	--
		--	LPB1207	EXIST. LIGHT	--	45	--	--	--	--
		--	LPB1205	PIER(735+71 WB)	--	5	--	--	--	--
		--	LPB1203	PIER(734+60 WB)	--	10	--	--	--	--
		--	LPB1206	LPB1204	--	111	--	--	--	--
		--	LPB1208	LPB1206	--	110	--	--	--	--
		--	LPB1215	LPB1208	--	180	--	--	--	--
		--	JB(PIER 734+60 WB)	LIGHT FIXTURE	--	--	--	--	--	8
		--	JB(PIER 735+71 WB)	LIGHT FIXTURE	--	--	--	--	--	16
		--	JB(PIER 736+79 WB)	LIGHT FIXTURE	--	--	--	--	--	24
				SUBTOTAL	90	1,261	--	5	--	839

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING CONDUIT CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	652.0125* CONDUIT RIGID METALLIC 2-INCH LF	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0405* CONDUIT REINFORCED THERMOSETTING RESIN 2-INCH LF	652.0605* CONDUIT SPECIAL 2-INCH LF	SPV.0090.1019 CONDUIT REINFORCED THERMOSETTING RESIN 1-INCH LF
IH 794 EAST-WEST										
STAGE 2 CONTINUED										
5000	CPS	--	LPB1209	PIER(739+27 WB)	--	12	--	--	--	--
		--	PIER(737+27 WB)	LPB1214	--	12	--	--	--	--
		--	LPB1214	PIER(16+03 JW)	--	11	--	--	--	--
		--	LPB1211	PIER(17+32 JW)	--	17	--	--	--	--
		--	LPB1212	PIER(6+89 JE)	--	12	--	--	--	--
		--	JB(PIER 739+27 WB)	LIGHT FIXTURE	--	--	--	--	--	16
		--	JB(PIER 16+03 JW)	LIGHT FIXTURE	--	--	--	--	--	16
		--	JB(PIER 17+32 JW)	LIGHT FIXTURE	--	--	--	--	--	8
	VBM	--	LPB1216	PIER(18+94 JW)	--	12	--	--	--	--
		--	JB(PIER 18+94 JW)	LIGHT FIXTURE	--	--	--	--	--	16
	CITY OF MILWAUKEE	MILWAUKEE UDL LIGHTING	LV(303+06)	LV(303+33)	--	--	28	--	--	--
			LV((303+33)	STUB	--	--	10	--	--	--
		BROADWAY UDL	LV(203+24)	STUB	--	--	10	--	--	--
		--	LV(203+24)	LV(203+89)	--	--	--	--	--	--
		--	LV(203+89)	STUB	--	--	15	--	--	--
		WATER ST UDL AND S/W	LV(103+48)	LV(103+93)	--	--	40	--	--	--
			LV(103+93)	STUB	--	--	15	--	--	--
		--	LV(103+47)	LV(103+93)	--	--	46	--	--	--
		--	LV(103+93)	STUB	--	--	15	--	--	--
	HL-40-JK	--	LPB1004	CJK3	--	195	--	--	--	--
		--	LPB1006	EX JB (742+95, 7' RT)	--	22	--	--	--	--
				SUBTOTAL STAGE 2	90	1,554	179	5	--	895
				SUBTOTAL IH 794 EAST-WEST	191	4,078	1,039	123	328	1,496
				PROJECT TOTAL	249	4,566	1,234	329	328	1,496

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING WIRES

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	655.0144 CABLE IN DUCT 4-4 AWG LF	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG LF	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG LF	655.0640 ELECTRICAL WIRE LIGHTING 1 AWG LF
HOAN BRIDGE									
STAGE 1									
5000	HL-40-LN	--	HL-40-LN	LPB601	--	--	--	76	--
		--	LPB601	BLN5	--	--	--	304	--
		--	BLN5	ALN1	--	--	201	603	--
		--	ALN1	BLN1	--	--	113	339	--
		--	BLN1	ALN2	--	--	143	429	--
		--	BLN5	ALN5	--	--	203	609	--
		--	ALN5	BLN6	--	--	203	609	--
		--	BLN6	ALN6	--	--	207	621	--
		--	ALN6	BLN7	--	--	207	621	--
		--	BLN7	ALN7	--	--	193	579	--
		--	ALN7	BLN8	--	--	218	654	--
		--	BLN8	ALN8	--	--	184	552	--
		--	ALN8	BLN9	--	--	160	320	--
		--	HL-40-LN	LPB606	--	--	--	190	--
		--	LPB606	LPB610	--	--	--	920	--
	EL-40-PM	--	EL-40-PM	LPB701	--	--	--	455	--
		--	LPB701	JB	--	--	--	644	--
	HL-40-HB	--	HL-40-HB	LPB802	--	--	--	126	--
		--	DHB8	CHB9	--	--	201	603	--
		--	CHB9	DHB9	--	--	189	378	--
		--	DHB8	CHB10	--	--	550	1,100	--
				SUBTOTAL STAGE 1	--	--	2,972	10,732	--
STAGE 2									
5000	HL-40-RU	--	EXLPB501	CRU2/DRU2	--	--	704	--	--
		--	CRU2/DRU2	CRU3/DRU3	--	--	824	--	--
	HL-40-LN	--	JB	CLN1/DLN1	--	--	98	294	--
		--	CLN1/DLN1	CLN2/DLN2	--	--	213	639	--
		--	JB	ELN1/FLN1	--	--	104	312	--
		--	ELN1/FLN1	ELN2/FLN2	--	--	203	609	--
		--	ELN2/FLN2	ELN3/FLN3	--	--	203	609	--
		--	ELN3/FLN3	ELN4/FLN4	--	--	208	624	--
		--	ELN4/FLN4	ELN5/FLN5	--	--	198	594	--
		--	ELN5/FLN5	ELN6/FLN6	--	--	203	609	--
		--	ELN6/FLN6	ELN7/FLN7	--	--	203	609	--
		--	LPB610	GLN1	--	--	182	546	--
		--	LPB610	JB	--	--	54	324	--
		--	GLN1	HLN1	--	--	209	627	--
		--	HLN1	GLN2	--	--	158	474	--
		--	GLN1	HLN7	--	--	200	600	--
		--	HLN7	GLN7	--	--	203	609	--
				SUBTOTAL	--	--	4,167	8,079	--

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING WIRES CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	655.0144 CABLE IN DUCT 4-4 AWG LF	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG LF	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG LF	655.0640 ELECTRICAL WIRE LIGHTING 1 AWG LF
HOAN BRIDGE									
STAGE 2 CONTINUED									
5000	HL-40-LN	--	GLN7	HLN8	--	--	203	609	--
		--	HLN8	GLN8	--	--	218	654	--
		--	GLN8	HLN9	--	--	228	456	--
		--	JB	APM1/BPM1	--	--	140	420	--
		--	APM1/BPM1	APM2/BPM2	--	--	233	699	--
	EL-40-PM	--	APM2/BPM2	APM3/BPM3	--	--	243	729	--
		--	APM3/BPM3	APM4/BPM4	--	--	238	714	--
		--	APM4/BPM4	APM5/BPM5	--	--	238	714	--
		--	APM5/BPM5	APM6/BPM6	--	--	238	714	--
		--	APM6/BPM6	APM7/BPM7	--	--	238	714	--
		--	JB	CPM1/DPM1	--	--	90	270	--
		--	CPM1/DPM1	CPM2/DPM2	--	--	233	699	--
		--	CPM2/DPM2	CPM3/DPM3	--	--	233	699	--
		--	CPM3/DPM3	CPM4/DPM4	--	--	233	699	--
		--	CPM4/DPM4	CPM5/DPM5	--	--	238	714	--
		--	CPM5/DPM5	CPM6/DPM6	--	--	238	714	--
		--	CPM6/DPM6	CPM7/DPM7	--	--	238	714	--
		--	CPM7/DPM7	CPM8/DPM8	--	--	233	699	--
		--	CPM8/DPM8	CPM9/DPM9	--	--	233	699	--
		--	CPM9/DPM9	CPM10/DPM10	--	--	228	684	--
		--	CPM10/DPM10	CPM11/DPM11	--	--	238	714	--
		--	CPM11/DPM11	CPM12/DPM12	--	--	238	714	--
	HL-40-HB	--	LPB802	AHB1/BHB1	--	--	168	1,008	--
		--	AHB1/BHB1	AHB2/BHB2	--	--	238	714	--
		--	AHB2/BHB2	AHB3/BHB3	--	--	238	714	--
		--	AHB3/BHB3	AHB4/BHB4	--	--	238	714	--
		--	AHB4/BHB4	AHB5/BHB5	--	--	223	669	--
		--	AHB5/BHB5	AHB6/BHB6	--	--	223	669	--
		--	AHB6/BHB6	AHB7/BHB7	--	--	223	669	--
		--	AHB7/BHB7	AHB8/BHB8	--	--	228	684	--
		--	AHB8/BHB8	AHB9/BHB9	--	--	228	684	--
		--	AHB9/BHB9	AHB10/BHB10	--	--	228	684	--
		--	AHB10/BHB10	AHB11/BHB11	--	--	223	669	--
		--	AHB11/BHB11	AHB12/BHB12	--	--	218	654	--
		--	AHB1/BHB1	CHB1/DHB1	--	--	233	699	--
		--	CHB1/DHB1	CHB2/DHB2	--	--	238	714	--
		--	CHB2/DHB2	CHB3/DHB3	--	--	238	714	--
		--	CHB3/DHB3	CHB4/DHB4	--	--	243	729	--
		--	CHB4/DHB4	CHB5/DHB5	--	--	243	729	--
		--	CHB5/DHB5	CHB6/DHB6	--	--	238	714	--
		--	CHB6/DHB6	CHB7	--	--	213	639	--
		--	CHB7	DHB7	--	--	209	627	--
		--	DHB7	CHB8	--	--	203	609	--
		--	CHB6/DHB6	DHB8	--	--	225	675	--
				SUBTOTAL STAGE 2	--	--	14,016	37,902	--
				SUBTOTAL HOAN BRIDGE	--	--	16,988	48,634	--

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING WIRES CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	655.0144 CABLE IN DUCT 4-4 AWG LF	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG LF	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG LF	655.0640 ELECTRICAL WIRE LIGHTING 1 AWG LF
LAKE INTERCHANGE									
STAGE 2									
5000	HL-40-LK	--	EXLPB900	LPB901	--	--	--	788	--
		--	LPB901	ALK1	--	--	--	390	--
		--	ALK1	BLK1	210	--	--	--	--
		--	BLK1	ALK2	210	--	--	--	--
				SUBTOTAL LAKE INTERCHANGE	420	--	--	1,178	--
IH 794 EAST-WEST									
STAGE 1									
5000	HL-40-WT	NAV. LIGHTING	NAV. LIGHTING (EB)	--	--	--	2,132	--	--
		NAV. LIGHTING	NAV. LIGHTING (WB)	--	--	--	1,452	--	--
	HL-40-JK	--	HL-40-JK	LPB1003	--	--	99	330	--
		--	HL-40-JK	TRANSFORMER	--	216	--	--	--
		--	LPB1003	JB (STA. 350+14 LW, 22' RT)	--	--	260	--	--
		--	LPB1003	LPB1002	--	--	405	1,350	--
		--	LPB1002	JB (STA. 749+32 WB, 16' RT)	--	--	132	--	--
		--	LPB1002	LPB1007	--	--	225	300	--
		--	LPB1007	JB (STA. 750+62 WB, 30' LT.)	--	--	588	--	--
		--	JB (STA. 750+62 WB, 30' LT.)	EXLPB1013	--	--	360	--	--
		--	LPB1007	LPB1010	--	--	258	774	--
		--	LPB1010	EXLPB1012	--	--	84	252	--
		--	LPB1002	LPB1001	--	--	--	1,288	--
		--	LPB1001	HML-40-024	--	--	84	--	--
		--	LPB1001	JB (STA. 13+06 JE, 40' RT)	--	--	126	378	--
		--	JB (STA. 13+06 JE, 40' RT)	LPB1008	--	--	552	--	--
		--	JB (STA. 13+06 JE, 40' RT)	JB (STA. 6+91 JE, 24' RT)	--	--	718	2,154	--
		--	JB (STA. 6+91 JE, 24' RT)	JB(STA. 639+20 JE, 17' LT)	--	--	592	--	--
		--	JB (STA. 6+91 JE, 24' RT)	LPB1004	--	--	584	--	--
		--	LPB1004	HML-40-025	--	--	92	--	--
		UDL-BROADWAY UNDER EB IH-794	--	--	--	1,035	--	--	--
		UDL-JACKSON OFF-RAMP UNDER EB IH-794	--	--	--	450	--	--	--
				SUBTOTAL STAGE 1	--	1,701	8,743	6,826	--
IH 794 EAST-WEST									
STAGE 2									
5000	HL-40-JK	--	LPB1001	LPB1009	--	--	456	--	--
		--	LPB1001	JB (742+66 WB, 22' LT)	--	--	2652	--	--
		--	JB(14+55,60LT)	LPB1005	--	--	384	--	--
		--	LPB1005	CJK1	--	--	72	--	--
		--	LPB1005	DJK2	--	--	276	--	--
		--	DJK2	CJK3	--	--	468	--	--
		--	LPB1004	CJK3	--	--	780	--	--
		--	LPB1006	AJK1	--	--	432	--	--
	HL-40-DW	--	HL-40-DW	EAST TIE GIRDER	--	--	--	--	1,450
		--	HL-40-DW	WEST TIE GIRDER	--	--	--	--	1,000
		--	AME6/BME6	AME5/BME5	--	--	2,384	--	--
		--	AME5/BME5	AME4/BME4	--	--	2,360	--	--
				SUBTOTAL	--	--	10,264	--	2,450

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING WIRES CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	655.0144 CABLE IN DUCT 4-4 AWG LF	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG LF	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG LF	655.0640 ELECTRICAL WIRE LIGHTING 1 AWG LF
IH 794 EAST-WEST									
STAGE 2									
5000	CY	UDL	CONTROLLER CY	LPB1201	--	132	--	--	--
		PARKING LOT	LPB1201	LPB1202	--	568	--	--	--
		--	PIER(733+59 WB)	PIER(732+34 WB)	--	768	--	--	--
		--	LPB1202	PIER(633+58 EB)	--	640	--	--	--
		--	PIER(633+58 EB)	PIER(632+29 EB)	--	846			--
	MM	--	CONTROLLER MM	LPB1215	--	270	--	--	--
		--	LPB1215	LPB1207	--	380	--	--	--
		--	LPB1215	EX. LIGHT POLE	--	132	--	--	--
		--	LPB1208	LPB1215	--	1,260	--	--	--
		--	LPB1207	EX. LIGHT POLE	--	144	--	--	--
		--	LPB1207	PIER (736+79 WB)	--	516	--	--	--
		--	LPB1208	PIER(636+86 EB)	--	500	--	--	--
		--	LPB1207	LPB1206	--	805	--	--	--
		--	LPB1207	LPB1205	--	791	--	--	--
		--	LPB1205	EX. LIGHT POLE	--	232	--	--	--
		--	LPB1205	PIER (735+71 WB)	--	380	--	--	--
		--	LPB1206	PIER(635+77 EB)	--	628	--	--	--
		--	LPB1205	LPB1203	--	456	--	--	--
		--	LPB1206	LPB1204	--	464	--	--	--
		--	LPB1203	PIER (734+60 WB)	--	308	--	--	--
		--	LPB1204	PIER(634+66 EB)	--	380	--	--	--
	VBM	--	CONTROLLER VBM	LPB1219	--	108	--	--	--
		--	LPB1219	LPB1216	--	220	--	--	--
		--	LPB1216	PIER(18+94 JW)	--	308	--	--	--
		--	LPB1216	LPB1217	--	356	--	--	--
		--	LPB1217	EX. LIGHT POLE	--	276	--	--	--
		--	LPB1217	PIER(8+89 JE)	--	388	--	--	--
	CPS	--	CONTROLLER CPS	LPB1213	--	152	--	--	--
		--	LPB1213	PIER(640+54 EB)	--	364	--	--	--
		--	LPB1213	LPB1212	--	580	--	--	--
		--	LPB1212	LPB1211	--	392	--	--	--
		--	LPB1211	PIER(17+32 JW)	--	336	--	--	--
		--	LPB1211	LPB1214	--	548	--	--	--
		--	LPB1214	PIER(16+03 JW)	--	328	--	--	--
		--	LPB1214	LPB1209	--	544	--	--	--
		--	LPB1209	LPB1210	--	576	--	--	--
		--	LPB1210	LPB1218	--	476	--	--	--
		--	LPB1218	PIER(638+14 EB)	--	536	--	--	--
		UDL-BROADWAY UNDER WB IH-794	--	--	--	710	--	--	--
		UDL-JACKSON ON-RAMP UNDER WB IH-794	--	--	--	350	--	--	--
		UDL-JACKSON OFF-RAMP UNDER WB IH-794	--	--	--	1,110	--	--	--
		UDL-MILWAUKEE OFF-RAMP WB IH-794	--	--	--	330	--	--	--
				SUBTOTAL STAGE 2	--	19,588	10,264	--	2,450
			SUBTOTAL	IH 794 EAST-WEST	--	21,289	19,007	6,826	2,450
				PROJECT TOTAL	420	21,289	35,995	56,638	2,450

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING LUMINAIRE ARMS AND POLES

CATEGORY	SYSTEM	DESCRIPTION	654.0107 CONCRETE BASES TYPE 7 EACH	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	657.0210 TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE EACH	657.0330 POLES TYPE 7 EACH	657.0625 LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 6-FT EACH	657.0725 LUMINAIRE ARMS TRUSS TYPE 6-INCH CLAMP 15-FT EACH	659.0125 LUMINAIRES UTILITY HPS 250 WATTS EACH	659.0802* PLAQUES SEQUENCE IDENTIFICATION EACH	SPV.0060.1020 LUMINAIRES UTILITY LED CATEGORY B EACH	SPV.0060.1082 REPLACING HPS LUMINAIRES WITH LED EACH
HOAN BRIDGE												
STAGE 1												
5000	HL-40-LN	ALN1	--	165	--	1	1	--	--	--	1	--
		BLN1	--	--	--	--	--	--	--	1	--	1
		ALN2	--	--	--	--	--	--	--	1	--	1
		BLN2	--	--	--	--	--	--	--	1	--	1
		ALN3	--	--	--	--	--	--	--	1	--	1
		BLN3	--	--	--	--	--	--	--	1	--	1
		ALN4	--	--	--	--	--	--	--	1	--	1
		BLN4	--	--	--	--	--	--	--	1	--	1
		BLN5	--	165	--	1	1	--	--	--	1	--
		ALN5	--	165	--	1	1	--	--	--	1	--
		BLN6	--	165	--	1	1	--	--	--	1	--
		ALN6	--	165	--	1	1	--	--	--	1	--
		CLN2/DLN2	--	--	--	--	--	--	--	2	--	2
		CLN3/DLN3	--	--	--	--	--	--	--	2	--	2
		CLN4/DLN4	--	--	--	--	--	--	--	2	--	2
		CLN5/DLN5	--	--	--	--	--	--	--	2	--	2
		GLN4	--	--	--	--	--	--	--	1	--	1
		HLN4	--	--	--	--	--	--	--	1	--	1
		GLN5	--	--	--	--	--	--	--	1	--	1
		HLN5	--	--	--	--	--	--	--	1	--	1
		GLN6	--	--	--	--	--	--	--	1	--	1
		HLN6	--	--	--	--	--	--	--	1	--	1
		HLN1	--	--	--	--	--	--	--	1	--	1
		GLN2	--	--	--	--	--	--	--	1	--	1
		HLN2	--	--	--	--	--	--	--	1	--	1
		GLN3	--	--	--	--	--	--	--	1	--	1
		HLN3	--	--	--	--	--	--	--	1	--	1
		BLN7	--	165	--	1	1	--	--	--	1	--
		ALN7	--	165	--	1	1	--	--	--	1	--
		BLN8	--	165	--	1	1	--	--	--	1	--
		ALN8	--	165	--	1	1	--	--	--	1	--
		BLN9	--	165	--	1	1	--	--	--	1	--
	HL-40-HB	CHB6/DHB6	--	220	--	1	2	--	--	--	2	--
		DHB8	--	165	--	1	1	--	--	--	1	--
		CHB9	--	165	--	1	1	--	--	--	1	--
		DHB9	--	165	--	1	1	--	--	--	1	--
		CHB10	--	165	--	1	1	--	--	--	1	--
		SUBTOTAL STAGE 1	--	2,530	--	15	16	--	--	26	16	26

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING LUMINAIRE ARMS AND POLES CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	654.0107 CONCRETE BASES TYPE 7 EACH	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	657.0210 TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE EACH	657.0330 POLES TYPE 7 EACH	657.0625 LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 6-FT EACH	657.0725 LUMINAIRE ARMS TRUSS TYPE 6-INCH CLAMP 15-FT EACH	659.0125 LUMINAIRES UTILITY HPS 250 WATTS EACH	659.0802* PLAQUES SEQUENCE IDENTIFICATION EACH	SPV.0060.1020 LUMINAIRES UTILITY LED CATEGORY B EACH	SPV.0060.1082 REPLACING HPS LUMINAIRES WITH LED EACH
HOAN BRIDGE												
STAGE 2												
5000	HL-40-LN	CLN1/DLN1	--	220	--	1	2	--	--	--	2	--
		ELN1/FLN1	--	220	--	1	2	--	--	--	2	--
		ELN2/FLN2	--	220	--	1	2	--	--	--	2	--
		ELN3/FLN3	--	220	--	1	2	--	--	--	2	--
		GLN1	--	165	--	1	1	--	--	--	1	--
		HLN7	--	165	--	1	1	--	--	--	1	--
		GLN7	--	165	--	1	1	--	--	--	1	--
		HLN8	--	165	--	1	1	--	--	--	1	--
		ELN4/FLN4	--	220	--	1	2	--	--	--	2	--
		ELN5/FLN5	--	220	--	1	2	--	--	--	2	--
		ELN6/FLN6	--	220	--	1	2	--	--	--	2	--
		ELN7/FLN7	--	220	--	1	2	--	--	--	2	--
		GLN8	--	165	--	1	1	--	--	--	1	--
		HLN9	--	165	--	1	1	--	--	--	1	--
	EL-40-PM	APM7/BPM7	--	220	--	1	2	--	--	--	2	--
		APM6/BPM6	--	220	--	1	2	--	--	--	2	--
		APM5/BPM5	--	220	--	1	2	--	--	--	2	--
		APM4/BPM4	--	220	--	1	2	--	--	--	2	--
		APM3/BPM3	--	220	--	1	2	--	--	--	2	--
		APM2/BPM2	--	220	--	1	2	--	--	--	2	--
		APM1/BPM1	--	220	--	1	2	--	--	--	2	--
		CPM1/DPM1	--	220	--	1	2	--	--	--	2	--
		CPM2/DPM2	--	220	--	1	2	--	--	--	2	--
		CPM3/DPM3	--	220	--	1	2	--	--	--	2	--
		CPM4/DPM4	--	220	--	1	2	--	--	--	2	--
		CPM5/DPM5	--	220	--	1	2	--	--	--	2	--
		CPM6/DPM6	--	220	--	1	2	--	--	--	2	--
		CPM7/DPM7	--	220	--	1	2	--	--	--	2	--
		CPM8/DPM8	--	220	--	1	2	--	--	--	2	--
		CPM9/DPM9	--	220	--	1	2	--	--	--	2	--
		CPM10/DPM10	--	220	--	1	2	--	--	--	2	--
		CPM11/DPM11	--	220	--	1	2	--	--	--	2	--
		CPM12/DPM12	--	220	--	1	2	--	--	--	2	--
	HL-40-HB	AHB12/BHB12	--	220	--	1	2	--	--	--	2	--
		AHB11/BHB11	--	220	--	1	2	--	--	--	2	--
		AHB10/BHB10	--	220	--	1	2	--	--	--	2	--
		SUBTOTAL	--	7,590	--	36	66	--	--	--	66	--

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING LUMINAIRE ARMS AND POLES CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	654.0107 CONCRETE BASES TYPE 7 EACH	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	657.0210 TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE EACH	657.0330 POLES TYPE 7 EACH	657.0625 LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 6-FT EACH	657.0725 LUMINAIRE ARMS TRUSS TYPE 6-INCH CLAMP 15-FT EACH	659.0125 LUMINAIRES UTILITY HPS 250 WATTS EACH	659.0802* PLAQUES SEQUENCE IDENTIFICATION EACH	SPV.0060.1020 LUMINAIRES UTILITY LED CATEGORY B EACH	SPV.0060.1082 REPLACING HPS LUMINAIRES WITH LED EACH
HOAN BRIDGE												
STAGE 2 CONTINUED												
5000		AHB9/BHB9	--	220	--	1	2	--	--	--	2	--
		AHB8/BHB8	--	220	--	1	2	--	--	--	2	--
		AHB7/BHB7	--	220	--	1	2	--	--	--	2	--
		AHB6/BHB6	--	220	--	1	2	--	--	--	2	--
		AHB5/BHB5	--	220	--	1	2	--	--	--	2	--
		AHB4/BHB4	--	220	--	1	2	--	--	--	2	--
		AHB3/BHB3	--	220	--	1	2	--	--	--	2	--
		AHB2/BHB2	--	220	--	1	2	--	--	--	2	--
		AHB1/BHB1	--	220	--	1	2	--	--	--	2	--
		CHB1/DHB1	--	220	--	1	2	--	--	--	2	--
		CHB2/DHB2	--	220	--	1	2	--	--	--	2	--
		CHB3/DHB3	--	220	--	1	2	--	--	--	2	--
		CHB4/DHB4	--	220	--	1	2	--	--	--	2	--
		CHB5/DHB5	--	220	--	1	2	--	--	--	2	--
		CHB7	--	165	--	1	1	--	--	--	1	--
		DHB7	--	165	--	1	1	--	--	--	1	--
		CHB8	--	165	--	1	1	--	--	--	1	--
		SUBTOTAL STAGE 2	--	11,165	--	53	97	--	--	--	97	--
		SUBTOTAL HOAN BRIDGE	--	13,695	--	68	113	--	--	26	113	26
LAKE INTERCHANGE												
STAGE 2												
5000	HL-40-LK	ALK1	1	180	1	1	--	1	1	--	--	--
		BLK1	1	180	1	1	--	1	1	--	--	--
		ALK2	1	180	1	1	--	1	1	--	--	--
		SUBTOTAL LAKE INTERCHANGE	3	540	3	3	--	3	3	--	--	--
IH 794 EAST-WEST												
STAGE 2												
5000	HL-40-JK	CJK1	1	180	1	1	--	1	1	--	--	--
		DJK2	1	180	1	1	--	1	1	--	--	--
		CJK3	1	180	1	1	--	1	1	--	--	--
		AJK1	1	180	1	1	--	1	1	--	--	--
		SUBTOTAL IH 794 EAST-WEST	4	720	4	4	--	4	4	--	--	--
5000	10% SPARE LED CATEGORY B LUMINAIRE		--	--	--	--	--	--	--	--	12	--
		PROJECT TOTAL	7	14,955	7	75	113	7	7	26	125	26

LIGHTING HIGH MAST TOWERS

CATEGORY	SYSTEM	DESCRIPTION	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	659.0400 LUMINAIRES HIGH MAST LIGHTING EACH	659.0802* PLAQUES SEQUENCE IDENTIFICATION EACH	660.0200.0001 HIGH MAST LIGHTING TOWER HML-40-025 EACH	660.0200.0002 HIGH MAST LIGHTING TOWER HML-40-024 EACH	SPV.0060.1027 REMOVING HIGH MAST TOWER EACH	SPV.0060.1029 REMOVING CONCRETE FOUNDATION HIGH MAST TOWER EACH
IH 794 EAST-WEST									
STAGE 1									
5000	HL-40-JK	HML-40-024	560	6	1	--	1	1	1
		HML-40-025	560	6	1	1	--	1	1
		HML-40-026	--	--	1	--	--	--	--
		PROJECT TOTAL	1,120	12	3	1	1	2	2

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

LIGHTING PULL BOXES AND JUNCTION BOXES

CATEGORY	SYSTEM	DESCRIPTION	STATION	OFFSET	653.0135* PULL BOXES STEEL 24X36-INCH EACH	653.0140 PULL BOXES STEEL 24X42-INCH EACH	653.0208 JUNCTION BOXES 8X8X8-INCH EACH	653.0222 JUNCTION BOXES 18X12X6-INCH EACH	653.0900 ADJUSTING PULL BOXES EACH	SPV.0060.1071 JUNCTION BOXES 18X12X6-INCH STAINLESS STEEL EACH
HOAN BRIDGE										
PRE-STAGE										
5000	EL-40-PM	PIER 31S(94+89LF)(TEMP.)	--	--	--	--	--	1	--	--
	HL-40-HB	PIER 2N(148+45LF) (TEMP)	--	--	--	--	--	2	--	--
		PIER 10A(163+09NB) (TEMP)	--	--	--	--	--	2	--	--
	HL-40-RU	EXLPB501	38+14 LF	--	--	--	--	--	1	--
				SUBTOTAL PRE-STAGE	--	--	--	5	1	--
STAGE 1										
5000	HL-40-LN	LPB601	63+71 LF	81' LT	1	--	--	--	--	--
	--	PIER 67S(363+70.82CS)	--	--	--	--	--	--	--	1
	--	LPB606	63+75 LF	71' LT	1	--	--	--	--	--
	--	LPB610	64+13 LF	10' RT	1	--	--	--	--	--
	EL-40-PM	LPB701	94+98 LF	16' LT	1	--	--	--	--	--
	EL-40-PM	PIER 31S(94+89LF)	--	--	--	--	--	--	--	1
	EL-40-PM	PIER 10(122+29LF)	122+30 LF	--	--	--	--	--	--	1
	HL-40-DW	LPB801	148+60 LF	36' LT	1	--	--	--	--	--
	--	LPB802	148+60 LF	24' LT	1	--	--	--	--	--
	HL-40-HB	PIER 11B(164+74.09SB)		--	--	--	--	--	--	1
				SUBTOTAL STAGE 1	6	--	--	--	--	4
STAGE 2										
5000	HL-40-LN	PIER	664+38 CN	--	--	--	--	--	--	1
	EL-40-PM	PIER 31S(94+89LF)	--	--	--	--	--	--	--	1
	EL-40-PM	PIER 23S(105+29LF)	--	--	--	--	--	--	--	1
	--	PIER 10NA(163+09NB)	--	--	--	--	--	--	--	2
				SUBTOTAL STAGE 2	--	--	--	--	--	5
				SUBTOTAL HOAN BRIDGE	6	--	--	5	1	9
LAKE INTERCHANGE										
STAGE 1										
5000	HL-40-LK	LPB901	182+37	54' LT	--	1	--	--	--	--
				SUBTOTAL LAKE INTERCHANGE	--	1	--	--	--	--
IH 794 EAST-WEST										
PRE-STAGE										
5000	HL-40-JK	LPB1001	13+77 JE	33' LT	--	1	--	--	--	--
	HL-40-WT	B-40-1312 UNIT 004-P4	--	--	--	--	2	--	--	--
	HL-40-ME	WEST CROSSOVER	--	--	--	--	--	2	--	--
				SUBTOTAL PRE-STAGE	--	1	2	2	--	--

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING PULL BOXES AND JUNCTION BOXES CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	STATION	OFFSET	653.0135* PULL BOXES STEEL 24X36-INCH EACH	653.0140 PULL BOXES STEEL 24X42-INCH EACH	653.0208 JUNCTION BOXES 8X8X8-INCH EACH	653.0222 JUNCTION BOXES 18X12X6-INCH EACH	653.0900 ADJUSTING PULL BOXES EACH	SPV.0060.1071 JUNCTION BOXES 18X12X6-INCH STAINLESS STEEL EACH
IH 794 EAST-WEST										
STAGE 1										
5000	HL-40-JK	LPB1004	7+09 JE	58' LT	--	1	--	--	--	--
		LPB1002	749+14 WB	24' RT	--	1	--	--	--	--
		LPB1007	15+81 JE	33' LT	--	1	--	--	--	--
		LPB1008	646+89 EB	27' LT	1	--	--	--	--	--
		LPB1010	351+07 LE	54' RT	--	1	--	--	--	--
		LPB1003	746+68 WB	9' RT	1	--	--	--	--	--
		LPB1014	7+03 JE	32' RT	1	--	--	--	--	--
		UDL-BROADWAY UNDER EB IH-794	--	--	--	--	--	--	--	4
		UDL-JACKSON OFF-RAMP UNDER EB IH-794	--	--	--	--	--	--	--	1
	CY	LPB1201	104+17	53' LT	1	--	--	--	--	--
		LPB1202	103+32	48' LT	1	--	--	--	--	--
		PIER	633+58 EB	--	--	--	--	--	--	2
	MM	LPB1203	104+13	54' RT	1	--	--	--	--	--
		LPB1204	103+32	55' RT	1	--	--	--	--	--
		LPB1205	104+11	163' RT	1	--	--	--	--	--
		LPB1206	103+32	166' RT	1	--	--	--	--	--
		LPB1207	204+05	77' LT	1	--	--	--	--	--
		LPB1208	203+19	77' LT	1	--	--	--	--	--
		LPB1215	204+28	55' LT	1	--	--	--	--	--
		PIER	634+66 EB	--	--	--	--	--	--	2
		PIER	635+77 EB	--	--	--	--	--	--	2
		PIER	636+86 EB	--	--	--	--	--	--	3
	CPS	LPB1209	303+09	176' LT	1	--	--	--	--	--
		LPB1210	203+73	37' RT	1	--	--	--	--	--
		LPB1211	303+46	57' RT	1	--	--	--	--	--
		LPB1212	302+54	57' LT	1	--	--	--	--	--
		LPB1213	301+93	53' LT	1	--	--	--	--	--
		LPB1214	304+09	176' LT	1	--	--	--	--	--
		LPB1218	202+60	57' RT	1	--	--	--	--	--
		PIER	638+14 EB	--	--	--	--	--	--	3
		PIER	6+89 JE	--	--	--	--	--	--	2
		PIER	640+54 EB	--	--	--	--	--	--	2
	VBM	LPB1216	303+33	117' RT	1	--	--	--	--	--
		LPB1217	302+48	131' RT	1	--	--	--	--	--
		LPB1219	303+51	70' RT						
		PIER	8+89 JE	--	--	--	--	--	--	2
CITY OF MILWAUKEE	JEFFERSON ST. S/W PED. TUNNEL MILWAUKEE ST UDL	--	--	--	--	--	--	--	--	3
	BROADWAY UDL	PIER (6+89 JE)	--	--	--	--	--	--	--	2
	WATER ST. S/W LIGHTING	PIER (638+14)	--	--	--	--	--	--	--	3
		PIER(633+58 EB)	--	--	--	--	--	--	--	5
		PIER (634+66 EB)	--	--	--	--	--	--	--	5
				SUBTOTAL STAGE 1	21	4	--	--	--	41

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING PULL BOXES AND JUNCTION BOXES CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	STATION	OFFSET	653.0135* PULL BOXES STEEL 24X36-INCH EACH	653.0140 PULL BOXES STEEL 24X42-INCH EACH	653.0208 JUNCTION BOXES 8X8X8-INCH EACH	653.0222 JUNCTION BOXES 18X12X6-INCH EACH	653.0900 ADJUSTING PULL BOXES EACH	SPV.0060.1071 JUNCTION BOXES 18X12X6-INCH STAINLESS STEEL EACH
IH 794 EAST-WEST										
STAGE 2										
5000	HL-40-JK	LPB1005	10+07 BE	41' LT	--	1	--	--	--	--
		LPB1006	742+85 WB	12' LT	1	--	--	--	--	--
		LPB1009	746+69 WB	9' RT	1	--	--	--	--	--
		UDL-BROADWAY UNDER WB IH-794	--	--	--	--	--	--	--	3
		UDL-JACKSON ON-RAMP UNDER WB IH-794	--	--	--	--	--	--	--	1
		UDL-JACKSON OFF-RAMP UNDER WB IH-794	--	--	--	--	--	--	--	3
		UDL-MILWAUKEE OFF-RAMP WB IH-794	--	--	--	--	--	--	--	1
	CY	PIER	732+34 WB	--	--	--	--	--	--	2
		PIER	733+59 WB	--	--	--	--	--	--	2
		PIER	632+29 EB	--	--	--	--	--	--	2
	MM	PIER	734+60 WB	--	--	--	--	--	--	2
		PIER	735+71 WB	--	--	--	--	--	--	2
		PIER	736+79 WB	--	--	--	--	--	--	3
	CPS	PIER	739+27 WB	--	--	--	--	--	--	2
		PIER	16+03 JW	--	--	--	--	--	--	2
		PIER	17+32 JW	--	--	--	--	--	--	2
	VBM	PIER	18+94 JW	--	--	--	--	--	--	2
	CITY OF MILWAUKEE	MILWAUKEE ST UDL	PIER (6+89 JE)	--	--	--	--	--	--	2
		BROADWAY UDL	PIER (737+86 WB)	--	--	--	--	--	--	3
		WATER ST	PIER(733+57,WB)	--	--	--	--	--	--	5
		S/W LIGHTING	PIER(734+60WB)	--	--	--	--	--	--	5
				SUBTOTAL STAGE 2	2	1	--	--	--	44
				SUBTOTAL IH 794 EAST-WEST	23	6	2	2	--	85
				PROJECT TOTAL	29	7	2	7	1	94

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

MISCELLANEOUS LIGHTING QUANTITES

CATEGORY	SYSTEM	STATION	TO	STATION	SPV.0060.1108 PROTECTION OF UNDERSTRUCTURE PARKING LOT LUMINAIRES EACH	SPV.0060.1110 MODIFY EXISTING LIGHTING CONTROLLER EACH	SPV.0060.1123 JUNCTION BOXES 6X6X4-INCH STAINLESS STEEL EACH	SPV.0060.1124 LUMINAIRES UNDERDECK LED EACH	SPV.0060.1125 UNDERDECK LUMINAIRE MOUNTING ASSEMBLY EACH
HOAN BRIDGE									
PRE-STAGE									
5000	EL-40-PM	71+00 LF	-	95+00 LF	19	1	--	--	--
			HOAN BRIDGE SUBTOTAL		19	1	--	--	--
IH 794 EAST-WEST									
STAGE 1									
5000	HL-40-JK	UDL-BROADWAY UNDER EB IH-794			--	--	4	4	4
		UDL-JACKSON OFF-RAMP UNDER EB IH-794			--	--	3	3	--
			SUBTOTAL STAGE 1		--	--	7	7	4
STAGE 2									
5000	HL-40-JK	UDL-BROADWAY UNDER WB IH-794			--	--	4	4	4
		UDL-JACKSON ON-RAMP UNDER WB IH-794			--	--	2	2	--
		UDL-JACKSON OFF-RAMP UNDER WB IH-794			--	--	5	7	--
		UDL-MILWAUKEE OFF-RAMP WB IH-794			--	--	2	2	--
			SUBTOTAL STAGE 2		--	--	13	15	4
			IH 794 EAST-WEST SUBTOTAL		--	--	20	22	8
			PROJECT TOTAL		19	1	20	22	8

PARKING LOTS LIGHTING

CATEGORY	SYSTEM	DESCRIPTION	SPV.0060.1073 LUMINAIRES UNDERSTRUCTURE PARKING LOT LIGHTING EACH	SPV.0105.1020 REMOVING UNDERSTRUCTURE PARKING LOT LIGHTING SYSTEMS LS
IH 794 EAST-WEST				
STAGE 1				
5000		PIER (632+29 EB)	2	--
		PIER(633+58 EB)	2	--
		PIER (634+66 EB)	2	--
		PIER (635+77 EB)	4	--
		PIER (636+86 EB)	6	--
		PIER (638+14 EB)	3	--
		PIER (5+60 JE)	1	--
		PIER (6+89 JE)	2	--
		PIER (640+54 EB)	2	--
		PIER (8+89 JE)	4	--
		MILWAUKEE RIVER TO JEFFERSON ST	--	1
		SUBTOTAL STAGE 1	28	1
STAGE 2				
5000		PIER (732+34 WB)	2	--
		PIER (733+59 WB)	2	--
		PIER (734+60 WB)	2	--
		PIER (735+71 WB)	4	--
		PIER (736+79 WB)	6	--
		PIER (739+27 WB)	4	--
		PIER (16+03 JW)	4	--
		PIER (17+32 JW)	2	--
		PIER (18+94 JW)	4	--
		SUBTOTAL STAGE 2	30	--
		PROJECT TOTAL	58	1

PEDESTRIAN TUNNEL AND UDL (CITY OF MILWAUKEE)**

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	STATION	OFFSET	652.0230* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 1/2-INCH LF	SPV.0060.1100 RECTANGULAR POLYMER CONCRETE VAULT 13X24X18-INCH STREET LIGHTING EACH	SPV.0060.1101 RECTANGULAR POLYMER CONCRETE VAULT 13X24X18-INCH ELECTRIC EACH	SPV.0060.1106 CONCRETE FOUNDATION FOR HARP POLE EACH
IH 794 EAST-WEST										
STAGE 1										
5000	CITY OF MILWAUKEE	JEFFERSON ST S/W & PED TUNNEL	--	--	100+11.5	29RT	--	1	--	1
			--	--	100+17.5	6LT	--	1	--	--
		--	--	--	101+50	6.5LT	--	1	--	--
		--	--	--	100+46	6.5RT	--	1	--	--
		--	--	--	102+23	6.5LT	--	1	--	--
		--	--	--	103+97.5	10LT	--	1	--	1
		MILWAUKEE ST UDL	--	--	302+05	--	--	1	--	--
			--	--	302+41	--	--	1	--	--
		--	LV (302+05)	PIER (6+89 JE)	--	--	32	--	--	--
		--	LV (302+41)	PIER (6+89 JE)	--	--	32	--	--	--
		BROADWAY UDL	--	--	201+80	--	--	1	--	--
		--	--	--	202+45	--	--	1	--	--
		--	LV(201+80)	PIER (638+14 EB)	--	--	21	--	--	--
		--	LV(202+45)	PIER (638+14 EB)	--	--	28	--	--	--
		WATER ST UDL & S/W LIGHTING	--	--	102+32	44LT	--	--	1	--
			--	--	100+68	45LT	--	--	1	--
		--	--	--	102+26	54RT	--	--	1	--
		--	--	--	102+61	52RT	--	--	1	--
		--	--	--	102+27	--	--	1	--	--
		--	--	--	102+27	44.5LT	--	1	--	--
		--	--	--	102+73	--	--	1	--	--
		--	--	--	102+72	45LT	--	1	--	--
		--	--	--	102+20	--	--	1	--	--
		--	--	--	102+20	54RT	--	1	--	--
		--	--	--	102+66	--	--	1	--	--
		--	--	--	102+66	52RT	--	1	--	--
		--	LV(102+27)	PIER(633+58 EB)	--	--	15	--	--	--
		--	LV(102+32)	PIER (633+58 EB)	--	--	5	--	--	--
		--	LV(100+68)	PIER(633+58 EB)	--	--	5	--	--	--
		--	LV(102+73)	PIER(633+58 EB)	--	--	15	--	--	--
		--	LV(102+20)	PIER(634+66 EB)	--	--	15	--	--	--
		--	LV(102+26)	PIER(634+66 EB)	--	--	5	--	--	--
		--	LV(102+61)	PIER(634+66 EB)	--	--	5	--	--	--
		--	LV(102+66)	PIER(634+66 EB)	--	--	15	--	--	--
						SUBTOTAL STAGE 1	193	18	4	2

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

** 2-INCH, 3-INCH CONDUITS AND ATTACHED JUNCTION BOXES FOR CITY OF MILWAUKEE ARE INCLUDED IN CONDUIT AND JUNCTION BOX MQ SHEETS

PEDESTRIAN TUNNEL AND UDL (CITY OF MILWAUKEE) CONTINUED**

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	STATION	OFFSET	652.0230* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 1/2-INCH LF	SPV.0060.1100 RECTANGULAR POLYMER CONCRETE VAULT 13X24X18-INCH STREET LIGHTING EACH	SPV.0060.1101 RECTANGULAR POLYMER CONCRETE VAULT 13X24X18-INCH ELECTRIC EACH	SPV.0060.1106 CONCRETE FOUNDATION FOR HARP POLE EACH
IH 794 EAST-WEST										
STAGE 2										
5000	CITY OF MILWAUKEE	MILWAUKEE ST UDL LIGHTING	--	--	303+06	--	--	1	--	--
			--	--	303+33	--	--	1	--	--
			LV(303+06)	PIER (17+32 JW)	--	--	20	--	--	--
			LV(303+33)	PIER (17+32 JW)	--	--	18	--	--	--
		BROADWAY UDL	LV(203+24)	PIER (737+86WB)	--	--	5	--	--	--
			LV(203+89)	PIER (737+86WB)	--	--	5	--	--	--
			--	--	203+24	--	--	1	--	--
			--	--	203+89	--	--	1	--	--
		WATER ST UDL & S/W LIGHTING	--	--	103+52	44.5LT	--	--	1	--
			--	--	103+88	45LT	--	--	1	--
			--	--	103+53	49RT	--	--	1	--
			--	--	103+88	48RT	--	--	1	--
			--	--	103+47	--	--	1	--	--
			--	--	103+47	44.5LT	--	1	--	--
			--	--	103+93	--	--	1	--	--
			--	--	103+92	45LT	--	1	--	--
			--	--	103+48	--	--	1	--	--
			--	--	103+48	49RT	--	1	--	--
			--	--	103+93	47RT	--	1	--	--
			--	--	103+93	--	--	1	--	--
			LV(103+47)	PIER(733+57 WB)	--	--	15	--	--	--
			LV(103+52)	PIER(733+57 WB)	--	--	5	--	--	--
			LV(103+88)	PIER(733+57 WB)	--	--	5	--	--	--
			LV(103+93)	PIER(733+57 WB)	--	--	15	--	--	--
			LV(103+48)	PIER(734+60 WB)	--	--	10	--	--	--
			LV(103+53)	PIER(734+60 WB)	--	--	5	--	--	--
			LV(103+88)	PIER(734+60 WB)	--	--	5	--	--	--
			LV(103+93)	PIER(734+60 WB)	--	--	10	--	--	--
						SUBTOTAL STAGE 2	118	12	4	--
						PROJECT TOTAL	311	30	8	2

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE
** 2-INCH, 3-INCH CONDUITS AND ATTACHED JUNCTION BOXES FOR CITY OF MILWAUKEE ARE INCLUDED IN CONDUIT AND JUNCTION BOX MQ SHEETS

DISTRIBUTION CENTERS AND SERVICE

CATEGORY	SYSTEM	STATION	OFFSET	654.0220* CONCRETE CONTROL CABINET BASE TYPE 10 EACH	656.0200.0001 ELECTRICAL SERVICE METER BREAKER PEDESTAL HL-40-LN LS	656.0200.0002 ELECTRICAL SERVICE METER BREAKER PEDESTAL HL-40-HB LS	656.0200.0003 ELECTRICAL SERVICE METER BREAKER PEDESTAL HL-40-DW LS	656.0200.0004 ELECTRICAL SERVICE METER BREAKER PEDESTAL HL-40-JK LS	656.0200.0005 ELECTRICAL SERVICE METER BREAKER PEDESTAL CY LS	656.0200.0006 ELECTRICAL SERVICE METER BREAKER PEDESTAL MM LS	656.0200.0007 ELECTRICAL SERVICE METER BREAKER PEDESTAL CPS LS
HOAN BRIDGE											
PRE-STAGE											
5000	HL-40-LN	63+61 LF	70 LT	--	1	--	--	--	--	--	--
	HL-40-HB	148+71 LF	23 LT	--	--	1	--	--	--	--	--
	HL-40-DW	148+71	36 LT	--	--	--	1	--	--	--	--
			SUBTOTAL HOAN BRIDGE	--	1	1	1	--	--	--	--
IH 794 EAST-WEST											
PRE-STAGE											
5000	HL-40-JK	13+85JE	33LT	--	--	--	--	1	--	--	--
	CY	104+35	55LT	1	--	--	--	--	1	--	--
	MM	204+31	44LT	1	--	--	--	--	--	1	--
	CPS	301+72	45LT	1	--	--	--	--	--	--	1
	VBM	303+51	58RT	1	--	--	--	--	--	--	--
			SUBTOTAL IH 794 EAST-WEST	4	--	--	--	1	1	1	1
			PROJECT TOTAL	4	1	1	1	1	1	1	1

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

DISTRIBUTION CENTERS AND SERVICE CONTINUED

CATEGORY	SYSTEM	STATION	OFFSET	656.0200.0008 ELECTRICAL SERVICE METER BREAKER PEDESTAL VBM LS	659.0802* PLAQUES SEQUENCE IDENTIFICATION EACH	SPV.0060.1042 LIGHTING CONTROL CABINET 240/480 VAC EACH	SPV.0060.1109 LIGHTING CONTROL CABINET PEDESTAL MOUNT 120/240 VAC EACH	SPV.0060.1122 CONCRETE CONTROL CABINET BASE SPECIAL EACH	SPV.0060.1126 PAD MOUNTED STEPDOWN TRANSFORMER 120/240 VAC EACH	SPV.0060.1127 LIGHTING CONTROL CABINET TIE GIRDERS 277/480 VAC EACH
HOAN BRIDGE										
PRE-STAGE										
5000	HL-40-LN	63+61 LF	70 LT	--	4	1	--	1	--	--
	HL-40-HB	148+71 LF	23 LT	--	4	1	--	1	--	--
	HL-40-DW	148+71	36 LT	--	4	--	--	1	--	1
			SUBTOTAL HOAN BRIDGE	--	12	2	--	3	--	1
IH 794 EAST-WEST										
PRE-STAGE										
5000	HL-40-JK	13+85JE	33LT	--	4	1	--	1	1	--
	CY	104+35	55LT	--	4	--	1	--	--	--
	MM	204+31	44LT	--	4	--	1	--	--	--
	CPS	301+72	45LT	--	4	--	1	--	--	--
	VBM	303+51	58RT	1	4	--	1	--	--	--
			SUBTOTAL IH 794 EAST-WEST	1	20	1	4	1	1	--
			PROJECT TOTAL	1	32	3	4	4	1	1

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

LIGHTING HOAN BRIDGE STRUCTURE

CATEGORY	SYSTEM	DESCRIPTION	SPV.0105.1009 REPLACING NAVIGATION LIGHTING SYSTEM LS	SPV.0105.1012 REMOVING ELECTRICAL AND LIGHTING SYSTEMS EAST TIE GIRDER LS	SPV.0105.1013 REMOVING ELECTRICAL AND LIGHTING SYSTEMS WEST TIE GIRDER LS	SPV.0105.1014 INSTALLATION OF ELECTRICAL AND LIGHTING SYSTEMS EAST TIE GIRDER LS	SPV.0105.1015 INSTALLATION OF ELECTRICAL AND LIGHTING SYSTEMS WEST TIE GIRDER LS	SPV.0105.1017 AESTHETIC LIGHTING SYSTEMS HOAN BRIDGE STEEL STRUCTURE LS
HOAN BRIDGE								
STAGE 2								
5000	HL-40-DW	OVER HOAN BRIDGE	1	--	--	--	--	--
		EAST TIE GIRDER	--	1	--	--	--	--
		WEST TIE GIRDER	--	--	1	--	--	--
		EAST TIE GIRDER	--	--	--	1	--	--
		WEST TIE GIRDER	--	--	--	--	1	--
		HOAN BRIDGE	--	--	--	--	--	1
		PROJECT TOTAL	1	1	1	1	1	1

3

LIGHTING LUMP SUM ITEMS - PROJECT

CATEGORY	SPV.0105.1007 LIGHTING SYSTEM INTEGRATOR LS	SPV.0105.1019 MAINTENANCE OF LIGHTING SYSTEMS LS	SPV.0105.1039 MAINTENANCE OF NAVIGATION LIGHTING SYSTEMS LS
UNDISTRIBUTED 5000	1	1	1
PROJECT TOTAL	1	1	1

RAMP CLOSURE GATES

CATEGORY	STATION		OFFSET		DESCRIPTION	652.0225* CONDUIT RIGID NOMETALLIC SCHEDULE 40 2-INCH LF	653.0135* PULL BOXES STEEL 24X36-INCH EACH	654.0105* CONCRETE BASES TYPE 5 EACH	654.0220 CONCRETE CONTROL CABINET BASES TYPE 10 EACH	657.0100 PEDESTAL BASES EACH	657.0255* TRANSFORMER BASES BREAKAWAY 11 ½-INCH BOLT CIRCLE EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	SPV.0060.1050 BARRICADE RACK (3 BARRICADE UNIT) EACH	SPV.0060.1051 RAMP CLOSURE GATES SOLAR POWERED 24-FT EACH	SPV.0060.1052 RAMP CLOSURE GATES SOLAR POWERED 30-FT EACH	SPV.0060.1053 RAMP CLOSURE GATES SOLAR POWERED 37-FT EACH	SPV.0060.1054 RAMP CLOSURE GATES SOLAR POWERED 40-FT EACH	SPV.0060.1088 PERMANENT BARRICADES TYPE III EACH
HOAN BRIDGE																		
STAGE 2																		
6000	13+45.74	CN	89.59'	LT	GATE NUMBER: G-40-56	24	1	1	1	1	1	1	--	--	--	--	1	--
	13+94.09	CN	8.00'	RT	GATE NUMBER: G-40-55	24	1	1	1	1	1	1	--	--	--	--	1	--
	461+06.18	CW	25.15'	LT	GATE NUMBER: G-40-54	23	1	1	1	1	1	1	--	--	--	1	--	--
SUBTOTAL HOAN BRIDGE						71	3	3	3	3	3	3	--	--	--	1	2	--
LAKE INTERCHANGE																		
STAGE 2																		
6000	359+38.63	LW	21.44'	LT	GATE NUMBER: G-40-51	24	1	1	1	1	1	1	--	--	--	1	--	--
	358+43.88	LE	6.39'	LT	GATE NUMBER: G-40-52	24	1	1	1	1	1	1	--	1	--	--	--	--
	183+11.50	LS	34.76'	LT	GATE NUMBER: G-40-53	23	1	1	1	1	1	1	--	--	--	1	--	--
6000	25+00.00	JW	10.00'	RT		--	--	--	--	--	--	--	1	--	--	--	--	3
SUBTOTAL LAKE INTERCHANGE						71	3	3	3	3	3	3	1	1	--	2	--	3
IH 794 EAST-WEST																		
STAGE 2																		
6000	9+83.40	BE	81.16'	LT	GATE NUMBER: G-40-50	24	1	1	1	1	1	1	--	--	1	--	--	--
	10+12.54	BE	35.20'	LT	GATE NUMBER: G-40-49	24	1	1	1	1	1	1	--	--	--	1	--	--
SUBTOTAL IH 794 EAST-WEST						48	2	2	2	2	2	2	--	--	1	1	--	--
PROJECT TOTAL						190	8	8	8	8	8	8	1	1	1	4	2	3

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

RAMP CLOSURE GATES

CATEGORY	STATION		OFFSET		SPV.0060.1055 RAMP CLOSURE GATE ARMS STOCKPILE 24-FT EACH	SPV.0060.1056 RAMP CLOSURE GATE ARMS STOCKPILE 30-FT EACH	SPV.0060.1057 RAMP CLOSURE GATE ARMS STOCKPILE 37-FT EACH	SPV.0060.1058 RAMP CLOSURE GATE ARMS STOCKPILE 40-FT EACH	SPV.0060.1059 RAMP CLOSURE GATE FLASHERS STOCKPILE EACH
HOAN BRIDGE									
STAGE 2									
6000	13+46.96	CN	89.59'	LT	--	--	--	--	1
	13+94.09	CN	8.00'	RT	--	--	--	--	--
	461+06.18	CW	25.15'	LT	--	--	--	1	--
			SUBTOTAL HOAN BRIDGE		--	--	--	1	1
LAKE INTERCHANGE									
STAGE 2									
6000	359+38.63	LW	21.44'	LT	--	--	1	--	--
	359+45.13	LW	19.02'	RT	1	--	--	--	--
			SUBTOTAL LAKE INTERCHANGE		1	--	1	--	--
IH 794 EAST-WEST									
STAGE 2									
6000	9+82.25	BE	86.94'	LT	--	1	--	--	--
			SUBTOTAL IH 794 EAST-WEST		--	1	--	--	--
			PROJECT TOTAL		1	1	1	1	1

ATR 40-0031 SUMMARY TABLE

CATEGORY	ITEM NUMBER	DESCRIPTION	LOCATION	UNITS	QUANTITY	
IH 794 EAST-WEST						
STAGE 2						
6000	652.0125	Conduit Rigid Metallic - 2 Inch	734+00 WB	LF	340	*
	655.0320	Cable Type UF 2-10 AVG Grounded	734+00 WB	LF	550	
	656.0200.0010	Electrical Service Meter Breaker Pedestal ATR 40-0031	734+00 WB	LS	1	
	SPV.0060.1133	Installing Poles Type 5	734+00 WB	EACH	1	
	SPV.0060.1134	Installing Pole Mounted Cabinet	734+00 WB	EACH	1	
	SPV.0060.1135	Installing Cabinet Heater and Thermostat	734+00 WB	EACH	1	
	SPV.0060.1136	Installing Wavetronix Click 200 Module	734+00 WB	EACH	2	
	SPV.0060.1137	Installing Wavetronix Power Module	734+00 WB	EACH	1	
	SPV.0060.1138	Installing Wavetronix Detector Module and HD 125 Cable	734+00 WB	EACH	2	
	SPV.0060.1139	Instalilng Cellular/Nextel/PCS Dual Band Antenna, 10 dB Gain	734+00 WB	EACH	2	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

FTMS PULLBOXES & COMMUNICATION VAULTS

CATEGORY	ROADWAY	ITEM ID	STATION	OFFSET	653.0135* PULL BOXES STEEL 24 X 36 - INCH EACH	673.0105 COMMUNICATION VAULT TYPE 1 EACH	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH	678.0300 FIBER OPTIC SPLICE EACH	653.0222* JUNCTION BOXES 18X12X6- INCH EACH
6000	IH 794								
		EXMH65	662CN+10	15' RT	--	--	1	--	--
		CV0162	146LF+05	25' RT	--	1	--	74	--
		JB140	759WB+15	200' LT	--	--	--	--	1
		CV75	759WB+20	205' LT	--	1	--	--	--
		CV80	177LN+95	7' RT	--	1	--	--	--
		CV229	181LS+95	70' LT	--	1	--	74	--
		EXPB75	182LS+05	120' LT					
		CV85	350LE+85	45' RT	--	1	--	--	--
		CV90	350LE+85	15' LT	--	1	--	--	--
		CV95	648LE+60	65' LT	--	1	--	--	--
		CV100	15JE+15	40' LT	--	1	--	--	--
		CV230	14JE+05	40' LT	--	1	--	14	--
		CV110	12JE+65	25' LT	--	1	--	--	--
		JB145	12JE+55	15'LT	--	--	--	--	1
		EXCV120	603EB+90	70' RT	--	--	1	--	--
		PB182	182LS+10	50' LT	1	--	--	--	--
		EXPB75	182LS+5	120' LT	--	--	1	--	--
		PB183	355LE+05	40' RT	1	--	--	--	--
		PB105	13JE+80	35' LT	1	--	--	--	--
		EXPB748	748WB+85	40' LT	--	--	1	--	--
		PB350	349LW+50	5' LT	1	--	--	--	--
		EXPB643	10JF+55	45' RT	--	--	1	--	--
	TOTALS				4	10	5	162	2

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

FTMS ELECTRICAL SERVICE

CATEGORY	ROADWAY	ITEM ID	STATION	OFFSET	656.0200.0009 ELECTRICAL SERVICE METER BREAKER PEDESTAL (MB0162) LS	656.0500.1001 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (CCTV-40-0162) LS	656.0500.1002 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (SDS-40-0200) LS
6000	IH 794						
		CB-CCTV-40-0162	146LF+15	25' RT	--	1	--
		MB0162	146LF+05	5' RT	1	--	--
		CB-SDS-40-0200	349LW+50	15' LT	--	--	1
	TOTALS				1	1	1

FTMS COMMUNICATIONS (CABINETS)

CATEGORY	ROADWAY	ITEM ID	STATION	OFFSET	675.0400.S INSTALL ETHERNET SWITCH EACH	677.0300.S INSTALL VIDEO ENCODER EACH	678.0400 FIBER OPTIC TERMINATION EACH
6000	IH 794						
		PORT BUILDING	892C-CNE+80	145' RT	1	--	72
		CB-CCTV-40-0162	146LF+15	25' RT	1	1	6
		EXCB-CCTV-40-0229	755WB+60	280' LT	1	--	6
		EX-HUB-40-0001	609EB+20	30' LT	--	--	72
		CB-SDS-40-0200	349LW+50	15' LT	1	--	6
	TOTALS				4	1	162

3

FTMS CONDUIT

CATEGORY	ROADWAY	ITEM ID	LINEAR DISTANCE	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0125* CONDUIT RIGID METALLIC 2-INCH LF	652.0405* CONDUIT REINFORCED THERMOSETTING RESIN 2-INCH LF	652.0605* CONDUIT SPECIAL 2-INCH LF
6000	IH 794							
		JB115 - CV0162	125	--	--	375	--	--
		CV0162 - CB-CCTV-40-0162	5	--	30	--	--	--
		CB-CCTV-40-0162 - MB0162	10	10	--	--	--	--
		JB135 - JB140	640	--	--	--	1920	
		JB140 - CV75	5	--	--	15	--	--
		CV75 - CV80	325	975	--	--	--	--
		CV80 - CV229	185	--	--	--	--	555
		CV229 - EXPB75	45	90	--	--	--	--
		CV229 - CV85	615	1845	--	--	--	--
		CV85 - CV90	50	--	--	--	--	150
		CV90 - CV95	230	--	--	--	--	690
		CV95 - CV100	85	--	--	--	--	255
		CV100 - CV230	50	--	--	--	--	150
		CV230 - CV110	140	420	--	--	--	--
		CV110 - JB145	5	--	--	15	--	--
		DP182-PB182	10	20	--	--	--	--
		PB182-EXPB183	60	--	120	--	--	--
		PB182-PB183	290	580	--	--	--	--
		PB183-DP355	5	10	--	--	--	--
		CV105-PB105	15	30				
		EXPB748-PB350	45	135	--	--	--	--
		PB350-CB-SDS-40-0200	5	--	30	--	--	--
		CB-SDS-40-0200 - HL-40-JK	5	5	--	--	--	--
		TOTALS		4120	180	405	1920	1800

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

FTMS FIBER OPTIC CABLES

CATEGORY	ROADWAY	ITEM ID	LINEAR DISTANCE	678.0006 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT LF	678.0072 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT LF
6000	IH 794				
		EXMH30 - EXPB30	25	--	25
		EXPB30 -EXPB40	180	--	180
		EXPB40 - EXMH40	35	--	85
		EXMH40 - PORT BUILDING	70	--	120
		EXMH30 - EXMH60	430	--	480
		EXMH60 - EXMH65	30	--	80
		EXMH65 - JB65	460	--	510
		JB70 - JB75	770	--	770
		JB75 - JB80	875	--	875
		JB80 - JB85	755	--	755
		JB85 - JB90	765	--	765
		JB90 - JB95	860	--	860
		JB95 - JB100	1170	--	1170
		JB100 - JB105	330	--	330
		JB105 - JB110	500	--	500
		JB110 - JB115	60	--	60
		JB115 - CV0162	125	--	350
		CV0162 - CB-CCTV-40-0162	10	60	--
		JB115 - JB120	910	--	910
		JB120 - JB125	980	--	980
		JB125 - JB130	420	--	420
		JB130 - JB135	230	--	230
		JB135 - JB140	640	--	640
		JB140 - CV75	10	--	60
		CV75 - CV80	325	--	375
		CV80 - CV229	185	--	235
		CV229 - CV85	615	--	665
		CV85 - CV90	50	--	100
		CV90 - CV95	230	--	280
		CV95 - CV100	85	--	135
		CV100 - CV230	100	--	200
		CV230 - CV110	140	--	190
		CV230 - PB105	25	75	--
		CV105 - CV110	140	--	190
		CV110 - JB145	5	--	55
		JB145 - JB150	1450	--	1450
		JB150 - EXJB155	3000	--	3000
		EXJB155 - EXPB100	15	--	15
		EXPB100 - EXPB115	85	--	85
		EX9B115 - EXPB110	30	--	30
		EXPB110 - EXCV120	120	--	170
		EXCV120 - EXCV125	275	--	325
		EXCV125 - EXMH100	455	--	505
		EXMH100 - EX-HUB-40-0001	10	--	100
		CV229 - EXPB75	45	95	--
		PB105 - EXPB349	115	115	--
		EXPB349 - EXPB748	75	75	--
		EXPB748 - PB350	45	45	--
		PB350 - CB-SDS-40-0200	5	5	--
		TOTALS		470	19260

3

FTMS CABLES AND WIRES

CATEGORY	ROADWAY	ITEM ID	LINEAR DISTANCE	655.0505 ELECTRICAL WIRE TRAFFIC SIGNALS 14 AWG LF	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	674.0200 CABLE MICTOWAVE DETECTOR LF
6000	IH 794					
		JB110 - CCTV-40-0162	40	--	--	80
		JB115 - CV0162	125	--	--	250
		CV0162 - CB-CCTV-40-0162	5	--	--	10
		CB-CCTV-40-0162 - MB0162	10	--	30	--
		CV75 - CV80	325	325	--	--
		CV80 - CV229	185	185	--	--
		CV229 - CV85	615	615	--	--
		CV85 - CV90	50	50	--	--
		CV90 - CV95	230	230	--	--
		CV95 - CV100	85	85	--	--
		CV100 - CV105	50	50	--	--
		CV105 - CV110	140	140	--	--
		CV110 - JB145	5	5	--	--
		DP182 - PB182	10	10	--	20
		PB182 - EXPB183	60	10	--	240
		PB182 - PB183	290	10	--	580
		PB183 - DP355	5	5	--	10
		PB105 - EXPB349	115	115	--	345
		EXPB349 - EXPB748	75	75	--	225
		EXPB748 - PB350	45	45	--	225
		PB350 - CB-SDS-40-0200	5	5	--	25
		CB-SDS-40-0200 - HL-40-JK	5	5	15	--
		PB105 - EXPB643	335	335	1005	--
		TOTALS		2300	1050	2010

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

FTMS LUMP SUM ITEMS

CATEGORY	ROADWAY	670.0100 FIELD SYSTEM INTEGRATOR LS	670.0200 ITS DOCUMENTATION LS	678.0500 COMMUNICATION SYSTEM TESTING LS
6000	IH 794			
	PROJECT	1	1	1
	TOTALS	1	1	1

3

FTMS BASES, POLES AND EQUIPMENT

CATEGORY	ROADWAY	ITEM ID	LOCATION	OFFSET	654.0105* CONCRETE BASES TYPE 5 EACH	657.0255* TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0322 POLES TYPE 5 ALUMINUM EACH	659.0802* PLAQUES SEQUENCE IDENTIFICATION EACH	672.0100 BASE ITS CONTROLLER CABINET EACH	673.0200.S INSTALL ITS FIELD CABINET EACH	675.0300 INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY EACH	677.0100 INSTALL CAMERA POLE EACH	677.0200 INSTALL CAMERA ASSEMBLY EACH	SPV.0060.1116 REFOCUS VEHICLE DETECTOR ASSEMBLY EACH
6000	IH 794													
		CCTV-40-0162	145+50LF+25	45' RT	--	--	--	1	--	--	2	1	1	--
		CB-CCTV-40-0162	146+00LF+15	25' RT	--	--	--	--	1	1	--	--	--	--
		DP182	182+00LS+20	40' LT	1	1	1	--	--	--	2	--	--	--
		DP355	354+50LE+40	40' RT	1	1	1	--	--	--	2	--	--	--
		CB-SDS-40-0200	349+00LW+50	15' LT	--	--	--	--	1	1	--	--	--	--
		EX-CCTV-40-0016	626EB+20	75' RT	--	--	--	--	--	--	2	--	--	--
		UNDISTRIBUTED			--	--	--	--	--	--	--	--	--	15
		TOTALS			2	2	2	1	2	2	8	1	1	15

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	FTMS MISCELLANEOUS QUANTITIES	SHEET:	E

FILE NAME : W:\Cadd\Final\10603375_RR1\Roads\cds\030214_mq_fm.ppt PLOT DATE : 5/1/2013 9:15:01 AM PLOT BY : MSCCEJ PLOT NAME : 030214_mq_fm3 PLOT SCALE : 1:1

3

FTMS REMOVALS

CATEGORY	ROADWAY	ITEM ID	674.0300* REMOVE CABLE LF
6000	IH 794		
		EXMD180-EXPB149	20
		EXPB180-EXMD181	15
		EXPB180-EXPB150	155
		EXPB150-EXCB-CCTV-40-0229	5
		EXPB101A-EXPB101B	75
		EXPB101B-EXPB101	115
		EXPB101-EXPB102	335
		EXMD85-EXJB115	2975
		EXJB115-EXPB100	15
		EXPB100-EXPB115	85
		EXPB100-EXJB115	15
		EXJB120-EXMD90	2825
		EXPB115-EXPB120	255
		EXPB120-EXPB125	20
		EXPB125-EXCB-RM-40-0016	5
		TOTAL	6,915

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

3

FTMS REMOVALS

CATEGORY	ROADWAY	ITEM	204.0195* REMOVING CONCRETE BASE EACH	653.0905 REMOVING PULL BOXES EACH	SPV.0060.1113 REMOVING POLE EACH	SPV.0060.1114 REMOVING MICROWAVE DETECTOR EACH	SPV.0060.1115 SALVAGE OVERHEAD VEHICLE SENSOR EACH
6000	IH 794						
		EXMD180	1	--	1	1	--
		EXPB149	--	1	--	--	--
		EXMD181	1	--	1	1	--
		EXMD7481	--	--	--	1	--
		EXMD7482	--	--	--	1	--
		EXMD7483	--	--	--	1	--
		EXPB101	--	1	--	--	--
		EXMD6443	--	--	--	1	--
		EXMD6444	--	--	--	1	--
		EXMD4441	--	--	--	1	--
		EXMD4442	--	--	--	1	--
		EXMD85	1	--	1	1	--
		EXMD90	1	--	1	1	--
		EX-S-40-540	--	--	--	--	4
		EX-S-40-539	--	--	--	--	4
		TOTALS	4	2	4	11	8

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
1300-13-20	4.01	
FEDERAL PROJECT NUMBER		

PLAT OF RIGHT-OF-WAY REQUIRED FOR

LAKE FREEWAY
LINCOLN AVENUE TO MILWAUKEE RIVER

IH 794 MILWAUKEE COUNTY

CONSTRUCTION PROJECT NUMBER
1300-13-71

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	POINT OF INTERSECTION	P.I.
LAND CONTRACT	LC	LONG CHORD	LCH
MONUMENT	MON.	LONG CHORD BEARING	LCB
PAGE	P.	RADIUS	R
PERMANENT LIMITED EASEMENT	PLE	DEGREE OF CURVE	D
PROPERTY LINE	PL	CENTRAL ANGLE OR DELTA	DELTA
RECORDED AS	(100')	LENGTH OF CURVE	L
		TANGENT	T

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	Ø (0" UNLESS NOTED)	PROPOSED R/W LINE	
		EXISTING H.E. LINE	
R/W MONUMENT	● •(SET)	PROPERTY LINE	
R/W STANDARD	▲ •(SET)	LOT & TIE LINES	
SIGN	ISIGN	SLOPE INTERCEPTS	
SECTION CORNER MONUMENT	●	CORPORATE LIMITS	
SECTION CORNER SYMBOL	(SEC. NO.)	ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)	
FEE (HATCH VARIES)		ACCESS RESTRICTED (BY ACQUISITION)	
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
PERMANENT LIMITED EASEMENT		SECTION LINE	
R/W BOUNDARY POINT	400	QUARTER LINE	
TLE BOUNDARY POINT	600	SIXTEENTH LINE	
PARCEL NUMBER	102	EXISTING CENTERLINE	
UTILITY PARCEL NUMBER	92	PROPOSED REFERENCE LINE	
SIGN NUMBER (OFF PREMISE)	21-1	PARALLEL OFFSET	
		BUILDING	B
		BUILDING W/OVERHANG	BO

CONVENTIONAL UTILITY SYMBOLS

WATER	—W—	
GAS	—G—	
TELEPHONE	—T—	
OVERHEAD	—OH—	
TRANSMISSION LINES ELECTRIC	—E—	
CABLE TELEVISION	—TV—	
FIBER OPTIC	—FO—	
SANITARY SEWER	—SAN—	
STORM SEWER	—SS—	
FENCE	—x—o—	
	NON COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER	⊠	

NOTES

COORDINATES AND BEARINGS ON THIS PLAT ARE ORIENTED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD 83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4"X24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION DOT SURVEY.

PROPERTY LINES ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF RECORD".

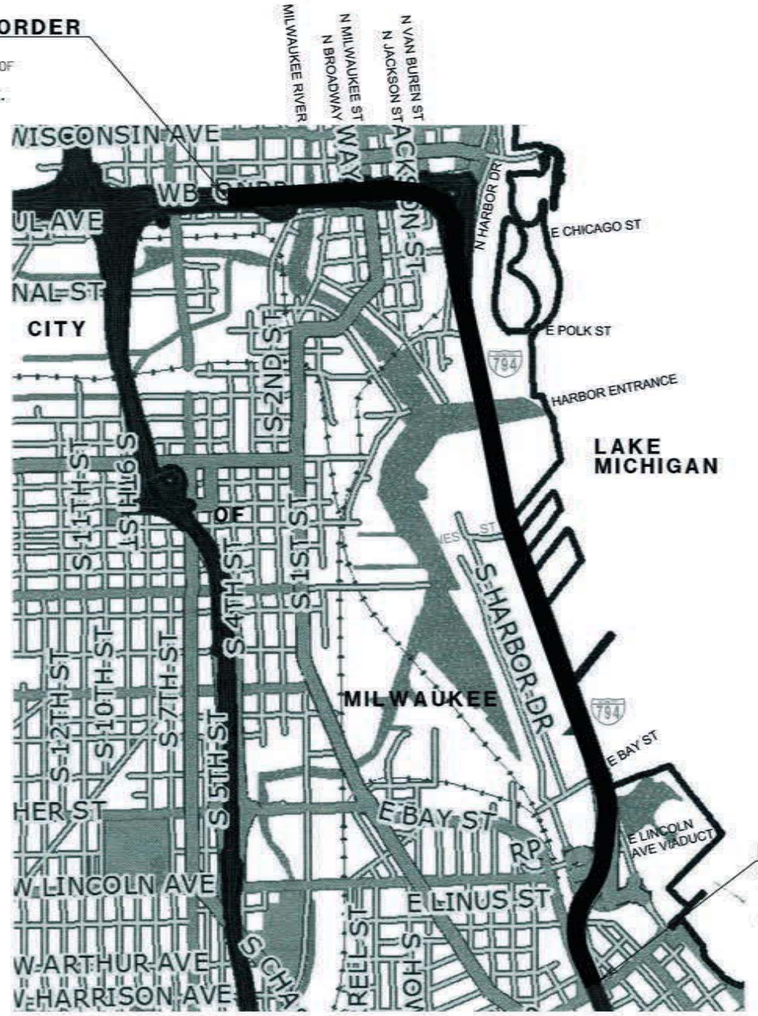
FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION REGION OFFICE (WAUKESHA).

"WISCONSIN CORS" MONUMENTS USED ON THIS PROJECT WERE;
1.) RASN
2.) SIW2

CITY STREET RIGHT OF WAY WAS ESTABLISHED USING EXISTING FIELD MONUMENTATION (OF RECORD), AND/OR CURB LOCATIONS.

CENTERLINE OF HIGHWAY EASEMENT WAS ESTABLISHED USING EXISTING INTERIOR BARRIER WALL ALONG ELEVATED FREEWAY.

END RELOCATION ORDER
STA 614+85 EB
1084'+/- SOUTH AND 575'+/- EAST OF THE NORTHWEST CORNER OF THE SOUTHEAST 1/4, SEC. 29, T.7N., R.22E.



GN

BEGIN RELOCATION ORDER
STA 38+09.25 LF
1007'+/- NORTH AND 769'+/- WEST OF THE SOUTHEAST CORNER OF THE NORTHEAST 1/4, SEC. 9, T.6N., R.22E.

LAYOUT
SCALE 0 0.25 MI.

NET LENGTH OF CENTERLINE = 2.99 MI. (LF)
NET LENGTH OF CENTERLINE = 0.194 MI. (SB)
NET LENGTH OF CENTERLINE = 0.926 MI. (EB)
TOTAL NET LENGTH OF CENTERLINE = 3.419 MI.

ORIGINAL PLAT PREPARED BY

GRAEF
One Honey Creek Corporate Center
125 S. 84th Street,
Suite 401
Milwaukee, WI 53214-1470
414 / 259-1500
414 / 259-0037 fax
www.graef-usa.com

WISCONSIN DAVID L. KOSLO S-2437-108 MILWAUKEE, WI LAND SURVEYOR

9/25/2012 (Date) (Signature)

REVISION DATE
10-18-12
02-28-13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED FOR THE DEPARTMENT
DATE: 9-25-2012 (Signature)

E

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSED ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

					R/W ACRES REQUIRED						
PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	TOTAL ACRES	NEW	EXISTING	TOTAL	TOTAL ACRES REMAINING	P.L.E. ACRES	T.L.E. ACRES	PARCEL NUMBER
1	4.04	CITY OF MILWAUKEE (PORT OF MILWAUKEE)	TLE	-----	-----	-----	-----	-----	-----	0.111	1
2	4.04 - 4.05	CITY OF MILWAUKEE (HARBOR COMMISSION)	TLE	-----	-----	-----	-----	-----	-----	1.805	2
3	4.07 - 4.09	CITY OF MILWAUKEE (HARBOR COMMISSION)	TLE	-----	-----	-----	-----	-----	-----	2.260	3
UTILITY NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED								UTILITY NUMBER
100	4.04 - 4.05	WEST SHORE PIPELINE CO.	RELEASE OF RIGHTS	-----	-----	-----	-----	-----	-----	-----	100
101	4.05	AT&T WISCONSIN	RELEASE OF RIGHTS	-----	-----	-----	-----	-----	-----	-----	101
102	4.07	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS	-----	-----	-----	-----	-----	-----	-----	102
103	4.08 - 4.09	WE ENERGIES - GAS	RELEASE OF RIGHTS	-----	-----	-----	-----	-----	-----	-----	103
UA100	4.11	CITY OF MILWAUKEE - MUNICIPAL WATER UTILITY	MUNICIPAL AGREEEMENT	-----	-----	-----	-----	-----	-----	-----	UA100

4

4

REVISION DATE
10-18-12
02-28-13

DATE 09/25/2012

SCALE, FEET
0 N/A

HWY: IH 794
COUNTY: MILWAUKEE

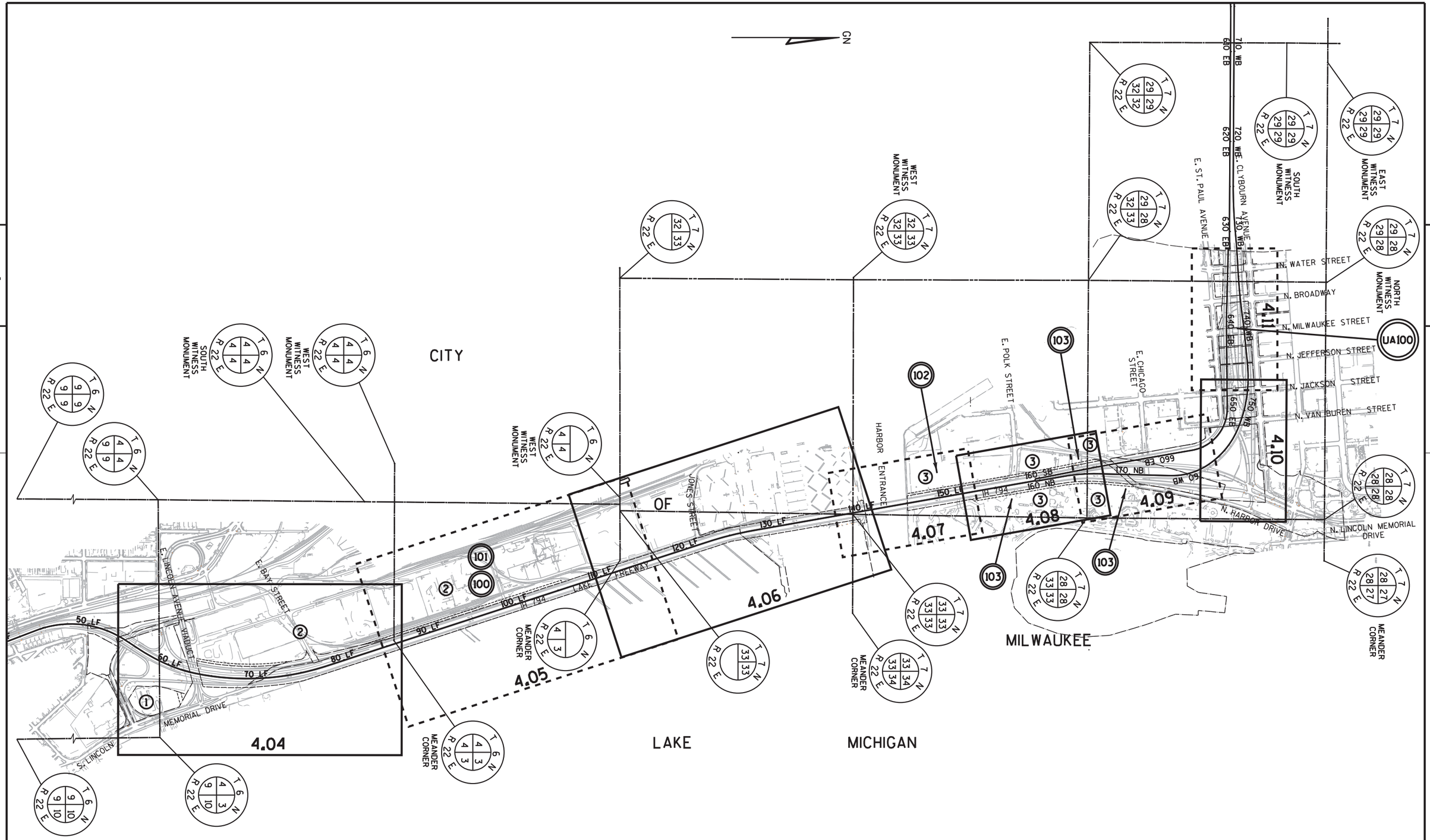
STATE R/W PROJECT NUMBER 1300-13-20
CONSTRUCTION PROJECT NUMBER 1300-13-71

PLAT SHEET 4.02
PS&E SHEET 839

E

FILE NAME : 040402_rs.dgn PLOT DATE : 2/28/2013 PLOT BY : 0950 PLOT NAME : PLOT SCALE : 1:200

WISDOT/CADDS SHEET 70



4

4

REVISION DATE 10-18-12 02-28-13	DATE 09/25/2012	0 500 1000 SCALE, FEET	HWY: IH 794	STATE R/W PROJECT NUMBER 1300-13-20	PLAT SHEET 4.03
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1300-13-71	PS&E SHEET 840 E

FILE NAME : 040403_r1.dgn PLOT DATE : 2/28/2013 PLOT BY : 0950 PLOT NAME : PLOT SCALE : 1:1000

WISDOT/CADDS SHEET 70

COURSE TABLE		
402-403	N.10°24'43" W.	133.86'
404-405	N.60°19'29" E.	165.77'(165.50')
405-406	N.18°02'47" W.	67.40'(67.38')
406-407	N.60°19'29" E.	146.10'(146.03')
408-409	N.13°28'21" W.	747.23'
400-457	N.75°45'18" E.	254.31'(254.33')
457-456	N.28°49'38" E.	9.62'(9.65')
455-454	N.05°27'16" W.	249.58'(249.53')
405-501	S.60°19'29" W.	12.46'(12.18')
501-502	S.10°24'43" E.	311.63'(311.64')
503-504	S.36°04'52" E.	120.74'
504-505	S.18°03'29" E.	61.60'
505-506	N.36°04'52" W.	329.35'
506-401	N.18°02'34" W.	81.89'(81.88')

COURSE TABLE		
458-459	N.18°00'45" W.	224.20'
459-460	N.75°45'18" E.	25.95'
460-461	S.14°14'42" E.	60.00'
461-462	N.69°45'18" E.	477.89'
462-463	N.75°45'18" E.	184.39'(184.30')
463-464	S.61°08'46" E.	150.36'(150.35')
464-467	S.17°43'46" W.	217.65'
467-468	S.11°14'41" W.	89.12'

466, 469, 470 NOT USED

COURSE TABLE FOR TLE PARCEL 1		
468-467	N.11°14'41" E.	89.12'
467-611	N.17°43'46" E.	109.06'
611-612	N.17°43'46" E.	47.39'
612-613	N.75°17'39" E.	87.14'
613-614	S.61°08'46" E.	58.05'
614-611	S.75°17'39" W.	154.62'

CONCRETE MONUMENT WITH BRASS CAP
X = 608,733.41
Y = 286,566.81

WITNESS MOUNUMENT CONCRETE WITH BRASS CAP
X = 608,330.00
Y = 289,193.67

MEANDER CORNER CONCRETE MONUMENT WITH BRASS CAP
X = 610,298.86
Y = 289,186.69

CONCRETE MONUMENT WITH BRASS CAP
X = 611,373.33
Y = 286,586.85

T 6 N R 22 E — Sec. 4: 4 4 / 3 4 / 4 3 / 4 4; Sec. 9: 9 9 / 10 9

N.89°33'54" E. 1788.10'

S.89°47'48" E. 428.51'

NOT LOCATED

MATCH LINE - SEE SHEET 4.05

S.89°47'48" E. 1499.26'

QUARTER LINE

SIXTEENTH LINE

NO ACCESS ALLOWED PER R/W PLAT 1300-1-21

SW-SE SEC 4 | SE-SE SEC 4 | NW-SE SEC 4 | NE-SE SEC 4

CITY OF MILWAUKEE (2)

CITY OF MILWAUKEE (1)

BEGIN RELOCATION ORDER
STA. 38+09.25 LF
Y = 284,645.89
X = 610,401.29

S. CARFERRY DRIVE

STATE OF WISCONSIN

PC 56+37.30
Y = 286,359.70
X = 610,395.73

NW-NE SEC 9

E. LINCOLN AVENUE VIADUCT

58+93.88 459 474.83
59+15.36 460 454.95
461 58+57.67 415.97
57+04.18 458 311.52
500 63+17.26 105.09
462 62+23.75 59.80

STA. 58+91.79
CURVE=E_LFCL-2
STA. 258"LA"+93.18
R/W PLAT 1300-04-20
PI 58+95.20
60+00 LF

PCC 62+69.84 100'
PCC 61+50.49
IH 794

NO ACCESS ALLOWED PER R/W PLAT I-794-8(12)310 / 1300-1-21

CURVE=IH794_EXROW1
CURVE=TLE2
CURVE=IH794_EXROW2

TLE CONTRACTOR ACCESS/ STRUCTURES

62+93.34 600 166.56
S.81°27'03" W. 26.74'
63+03.23 400 141.52
65+00 LF
25'
VARIES

601 402 73+82.71 153.60, 148.75
502 73+36.27 92.88
S.18°02'34" E. 110.52'
506 71+84.22 114.46
401 72+68.09 130.66
N.80°14'05" E. 4.85'
403 75+23.86 146.96
S.80°14'05" W. 48.75'

LAKE

HIGHWAY EASEMENT

S. LINCOLN MEMORIAL DRIVE

MEMORIAL DRIVE

E. BAY STREET — 66'

CURVE=TLE_TIE1A
75+00 LF
STA. 72+24.92
CURVE=FEE1

404 76+16.36 232.15
501 76+57.87 83.94
76+94.71 407 216.42
78+13.63 408 134.59
602 82+45.98 100.00
409 85+58.48 75.00
86+05.46 75.00
86+13.70 100.00
100

CURVE=IH794_EXROW3
STATE OF WISCONSIN
S.13°28'21" E. 313.50'
2319.41'
46.98'
41.10'
37.87'
78.97'

FREEWAY
85+00 LF
STA. 85+80.72
N.18°02'47" W. 4444.52'
826.60'
784.09'
4996.32' (4996.45')
PT 77+96.63
80+00 LF
75'
E24

SEAWALL
OVERHEAD STRUCTURE PIER (TYP.)
85+55.99 75.00
77+30.15 406 74.25
76+61.05 405 71.87
71+61.65 503 43.49
70+58.57 504 20.09
75+08.90 453 89.90
454 71+96.33 89.61
PI 70+47.68

CURVE=E_LFCL-4
CURVE=IH794_EXROW4
E23/E24

MILWAUKEE

LAKE MICHIGAN

WISCONSIN
CURVE=E_LFCL-3
60+84.81 467 246.01
464 62+67.02 248.38
63+07.75 463 104.37
457 64+23.27 125.94
64+31.95 456 129.15
505 69+05.74 65.47
455 69+54.70 97.60
CURVE=IH794_EXROW5

468 60+06.69 262.31
611 61+79.13 242.95
62+17.23 612 244.16
62+50.11 613 320.44
614 62+38.79 376.44

WIND TURBINE
CAMERA POLE
40'

B
N.88°07'03" E. 851.41' PER R/W PLAT 1300-04-20
N.89°33'54" E. 851.90'
562.47'
SECTION LINE

CARFERRY DRIVE

S. LINCOLN MEMORIAL DRIVE

NE-NE SEC 9

NO ACCESS ALLOWED PER R/W PLAT 1300-1-21

CURVE=FEE1
P.I. = 72+42.38 LF
Y = 287,890.00
X = 610,611.19
DELTA = 25° 40' 05" (LT)
D = 14° 20' 42"
T = 90.99'
L = 178.93'(178.94')
R = 399.41'

CURVE=TLE_TIE1A
P.I. = 75+89.67 LF
Y = 288,243.91
X = 610,643.85
DELTA = 8° 16' 47" (RT)
D = 2° 00' 01"
T = 207.32'
L = 413.92'
R = 2,864.38'

CURVE=TLE2
P.I. = 68+38.08 LF
Y = 287,499.58
X = 610,605.71
DELTA = 20° 57' 23" (LT)
D = 2° 02' 18"
T = 519.86'
L = 1028.10'
R = 2,810.87'

CURVE=IH794_EXROW1
P.I. = 67+85.69 LF
Y = 287,448.76
X = 610,618.59
DELTA = 18° 33' 45" (RT)
D = 2° 01' 13"
T = 463.44'
L = 918.75'(918.74')
R = 2,835.87'

CURVE=IH794_EXROW2
P.I. = 76+18.65 LF
Y = 288,234.67
X = 610,491.94
DELTA = 95° 24' 39" (LT)
D = 69° 52' 22"
T = 90.13'
L = 136.55'
R = 82.00'

CURVE=IH794_EXROW3
P.I. = 77+28.24 LF
Y = 288,335.48
X = 610,465.57'
DELTA = 64° 40' 08" (LT)
D = 44° 04' 25"
T = 82.29'
L = 146.73'
R = 130.00'

CURVE=IH794_EXROW4
P.I. = 73+52.61 LF
Y = 288,024.91
X = 610,776.96
DELTA = 6° 16' 28" (RT)
D = 1° 56' 47"
T = 161.34'
L = 322.36'
R = 2,943.62'

CURVE=IH794_EXROW5
P.I. = 66+92.66 LF
Y = 287,344.06
X = 610,826.95
DELTA = 5° 24' 38" (RT)
D = 0° 59' 42"
T = 272.10'
L = 543.80'(543.84')
R = 5,758.49'

CURVE=E_LFCL-2
P.I. = 58+93.89 LF
Y = 286,575.27
X = 610,536.69
DELTA = 14° 08' 08" (LT)
D = 2° 45' 16"
T = 257.90'
L = 513.19'
R = 2,080.12'

CURVE=E_LFCL-3
P.I. = 62+05.66 LF
Y = 286,871.36
X = 610,638.62
DELTA = 6° 19' 22" (LT)
D = 5° 43' 46"
T = 55.23'
L = 110.35'
R = 1,000.00'

CURVE=E_LFCL-4
P.I. = 70+28.74 LF
Y = 287,692.91
X = 610,823.38
DELTA = 30° 43' 13" (LT)
D = 2° 00' 01"
T = 786.84'
L = 1,535.79'
R = 2,864.38'

HIGHWAY	BASIS OF EXISTING RIGHT-OF WAY	WIDTH	DATE
IH 794	I-794-8(12)310/1300-1-21	VARIES	4-8-1977
LAKE PARKWAY STH 794	1300-04-20	VARIES	4-7-2000

ENCROACHMENTS (PER REPORT 7/24/2012)			
NO.	DESCRIPTION	STATION	DISTANCE INTO H.E.
E23	STOCKPILES/STORED ITEMS	63+90-122+00 LF	VARIES
E24	FENCING	63+90-122+00 LF	VARIES

WIDTH			
100 WEST SHORE PIPELINE CO.	VARIES	DOC. 3897229 DEED 4165 PAGE 79 SUPPLEMENTAL AGREEMENT DEC. 13, 1961 EXTENSION AND AMENDMENT OF EASEMENT AND LEASE AGREEMENT, APRIL 23, 1984 AMENDMENT OF EASEMENT AND LEASE AGREEMENT, APRIL 21, 1988 RESOLUTION 872287, MARCH 8, 1988 EXTENSION AND AMENDMENT OF EASEMENT AND LEASE AGREEMENT, MARCH 11, 2008 RESOLUTION 071306, FEBRUARY 18, 2008 THIRD AMENDMENT TO EASEMENT AND LEASE AGREEMENT, JULY 10, 2012 RESOLUTION 111441, MARCH 28, 2012	PAR. 2

REVISION DATE
10-18-12
02-28-13

DATE 09/25/2012

0 100 200
SCALE, FEET

HWY: IH 794

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1300-13-20

CONSTRUCTION PROJECT NUMBER 1300-13-71

PLAT SHEET 4.04

PS&E SHEET 841

E

FILE NAME : 040404_rp.dgn

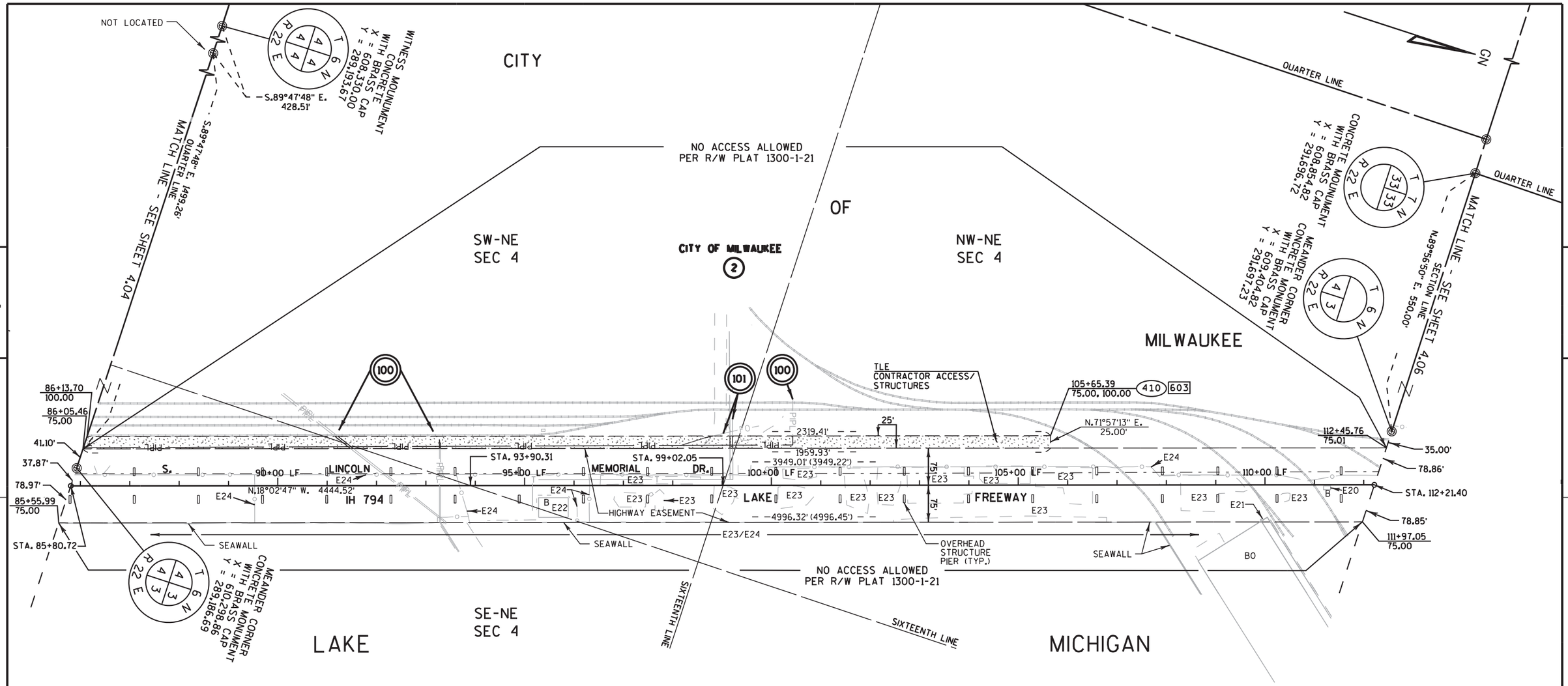
PLOT DATE : 2/28/2013

PLOT BY : 0950

PLOT NAME :

PLOT SCALE : 1:200

WISDOT/CADDS SHEET 70



WIDTH			
(100) WEST SHORE PIPELINE CO.	VARIES	DOC. 3897229 DEED 4165 PAGE 79 SUPPLEMENTAL AGREEMENT DEC. 13, 1961 EXTENSION AND AMENDMENT OF EASEMENT AND LEASE AGREEMENT, APRIL 23, 1984 AMENDMENT OF EASEMENT AND LEASE AGREEMENT, APRIL 21, 1988 RESOLUTION 872287, MARCH 8, 1988 EXTENSION AND AMENDMENT OF EASEMENT AND LEASE AGREEMENT, MARCH 11, 2008 RESOLUTION 071306, FEBRUARY 18, 2008 THIRD AMENDMENT TO EASEMENT AND LEASE AGREEMENT, JULY 10, 2012 RESOLUTION 111441, MARCH 28, 2012	PAR. 2
(101) AT&T WISCONSIN	GENERAL DESCRIPTION	DOC. 5275457 REEL 1168 IMAGE 847	PAR. 2

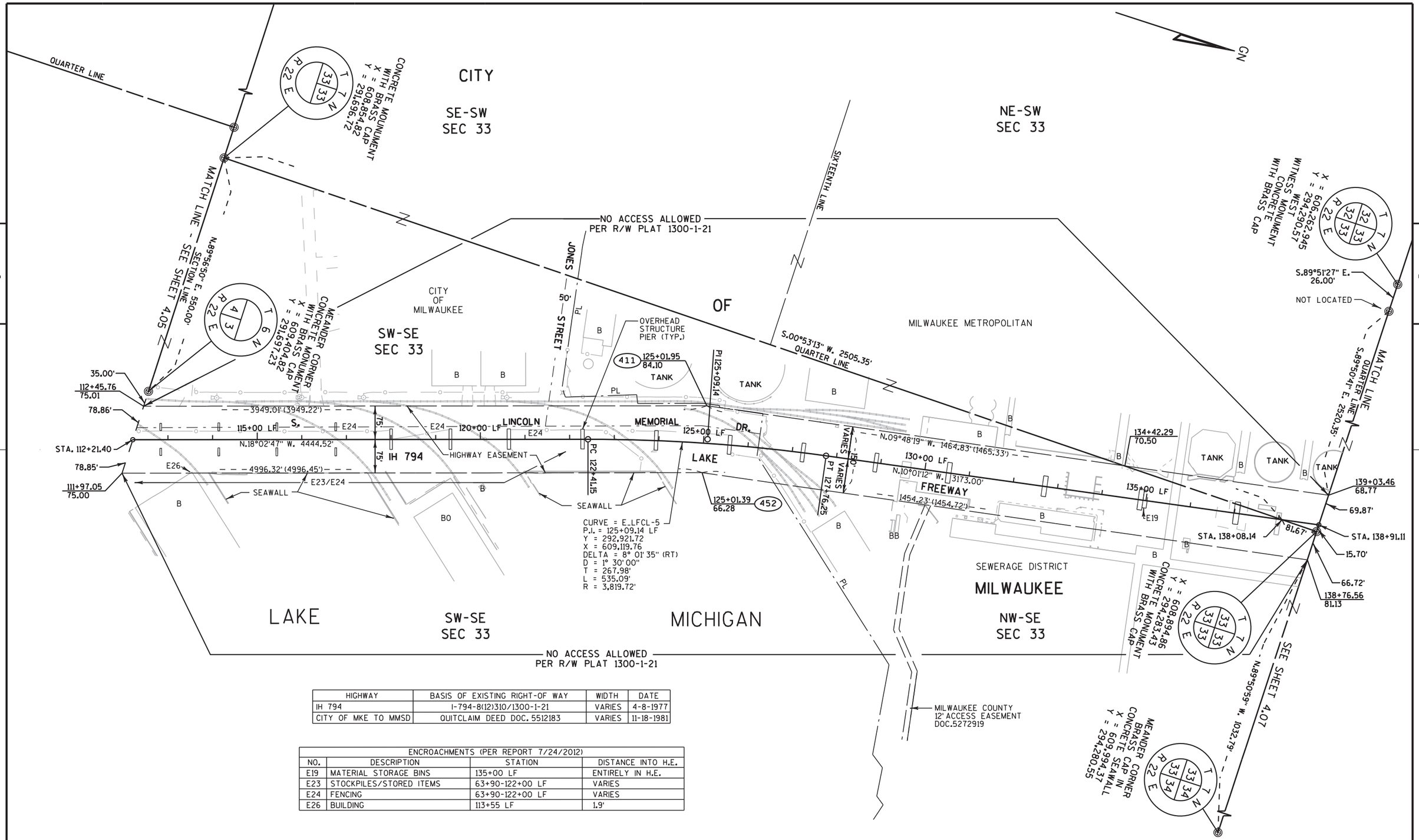
HIGHWAY	BASIS OF EXISTING RIGHT-OF WAY	WIDTH	DATE
IH 794	I-794-8(12)310/1300-1-21	VARIES	4-8-1977

ENCROACHMENTS (PER REPORT 7/24/2012)			
NO.	DESCRIPTION	STATION	DISTANCE INTO H.E.
E20	GUARD SHACK	111+50 LF	ENTIRELY IN H.E.
E21	BLDG/OVERHANG ON PORT WAREHOUSE	110+05 LF	9.2'
E22	STORAGE BUILDING	95+60 LF	ENTIRELY IN H.E.
E23	STOCKPILES/STORED ITEMS	63+90-122+00 LF	VARIES
E24	FENCING	63+90-122+00 LF	VARIES

REVISION DATE 10-18-12 02-28-13	DATE 09/25/2012	0 100 200 SCALE, FEET	HWY: IH 794	STATE R/W PROJECT NUMBER 1300-13-20	PLAT SHEET 4.05	
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1300-13-71	PS&E SHEET 842	E

FILE NAME : 040405_rp.dgn PLOT DATE : 2/28/2013 PLOT BY : 0950 PLOT NAME : PLOT SCALE : 1:200

WISDOT/CADDS SHEET 70



HIGHWAY	BASIS OF EXISTING RIGHT-OF WAY	WIDTH	DATE
IH 794	I-794-8(12)310/1300-1-21	VARIES	4-8-1977
CITY OF MKE TO MMSD	QUITCLAIM DEED DOC. 5512183	VARIES	11-18-1981

ENCROACHMENTS (PER REPORT 7/24/2012)			
NO.	DESCRIPTION	STATION	DISTANCE INTO H.E.
E19	MATERIAL STORAGE BINS	135+00 LF	ENTIRELY IN H.E.
E23	STOCKPILES/STORED ITEMS	63+90-122+00 LF	VARIES
E24	FENCING	63+90-122+00 LF	VARIES
E26	BUILDING	113+55 LF	1.9'

REVISION DATE 10-18-12 02-28-13	DATE 09/25/2012	0 100 200 SCALE, FEET	HWY: IH 794	STATE R/W PROJECT NUMBER 1300-13-20	PLAT SHEET 4.06	
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1300-13-71	PS&E SHEET 843	E

FILE NAME : 040406_rp.dgn PLOT DATE : 2/28/2013 PLOT BY : 0950 PLOT NAME : PLOT SCALE : 1:200

COURSE TABLE		
412-413	S.80°06'55" W.	50.00'
413-414	N.09°48'19" W.	66.83'
414-449	N.80°11'41" E.	250.00'
449-450	S.09°48'19" E.	66.49'
450-451	S.80°06'55" W.	50.00'

WITNESS WEST QUARTER CORNER CONCRETE MONUMENT WITH BRASS CAP
X = 606,262.95
Y = 294,290.57

NOT LOCATED

S.89°51'27" E. 26.00'

CITY

S.89°50'41" E. 2520.35'

MATCH LINE - QUARTER LINE

PL

HARBOR

NO ACCESS ALLOWED PER R/W PLAT 1300-1-21

MILWAUKEE METROPOLITAN

139+61.09 118.55 (413)

140+27.92 118.30 (414)

TANK

(412) 139+60.97 68.55

139+03.47 68.77

N.09°48'19" W. 69.87'

STA. 138+91.08

15.70'

VARIES

HIGHWAY

140+00 LF

614.46'

N.10°01'12" W. 3173.00'

150'

250'

EASEMENT

66.72'

138+76.58 81.13

B

140+26.99 131.69 (449)

(451) 139+60.61 81.44

(450) 139+60.50 131.44

TANK

SEWERAGE DISTRICT

NO ACCESS ALLOWED PER R/W PLAT 1300-1-21

MILWAUKEE COUNTY 12' ACCESS EASEMENT DOC.5272919

N.89°50'59" W. 1032.79'

QUARTER LINE

SEE SHEET 4.06

CONCRETE MONUMENT WITH BRASS CAP
X = 608,894.86
Y = 294,283.43

MEANDER CORNER BRASS CAP IN CONCRETE SEAWALL
X = 609,994.37
Y = 294,280.55

ENTRANCE

QUARTER LINE

WDNR & MILWAUKEE WORLD FESTIVAL CONSERVATION EASEMENT DOC. 9208873 VARIES

SE-NW SEC 33

CITY OF MILWAUKEE (3)

604 145+20.11 106.00

25'

25.27'

415 145+17.52 81.00

S.88°22'26" W. 81.88'

145+00 LF

E18

81'

OF

S.88°22'26" W. 81.87'

448 144+93.62 81.00

OVERHEAD STRUCTURE PIER (TYP.)

IH 794

81' LAKE FREEWAY

725.64'

NO ACCESS ALLOWED PER R/W PLAT 1300-1-21

WDNR & MILWAUKEE WORLD FESTIVAL CONSERVATION EASEMENT DOC. 9208873

(102) 1502.67'

1506.62'

TLE CONTRACTOR ACCESS/ STRUCTURES

HIGHWAY EASEMENT

STA. 152+12.61

150+00 LF

E13 E14

SIXTEENTH LINE

MATCH LINE - SEE SHEET 4.08

MILWAUKEE

SW-NE SEC 33

WIDTH			
(102) WE ENERGIES ELECTRIC	10'	DOC. 4739160 REEL 703 IMAGE 1195	PAR. 3

ENCROACHMENTS (PER REPORT 7/24/2012)			
NO.	DESCRIPTION	STATION	DISTANCE INTO H.E.
E13	PARKING LOT	145+50-156+50 LF	VARIES
E14	BLEACHERS	145+96-156+50 LF	12.9' FROM PIER
E18	FENCING	145+60-154+00 LF	VARIES

HIGHWAY	BASIS OF EXISTING RIGHT-OF WAY	WIDTH	DATE
IH 794	I-794-8(12)310/1300-1-21	VARIES	4-8-1977

REVISION DATE
10-18-12
02-28-13

DATE 09/25/2012

0 50 100
SCALE, FEET

HWY: IH 794

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1300-13-20

CONSTRUCTION PROJECT NUMBER 1300-13-71

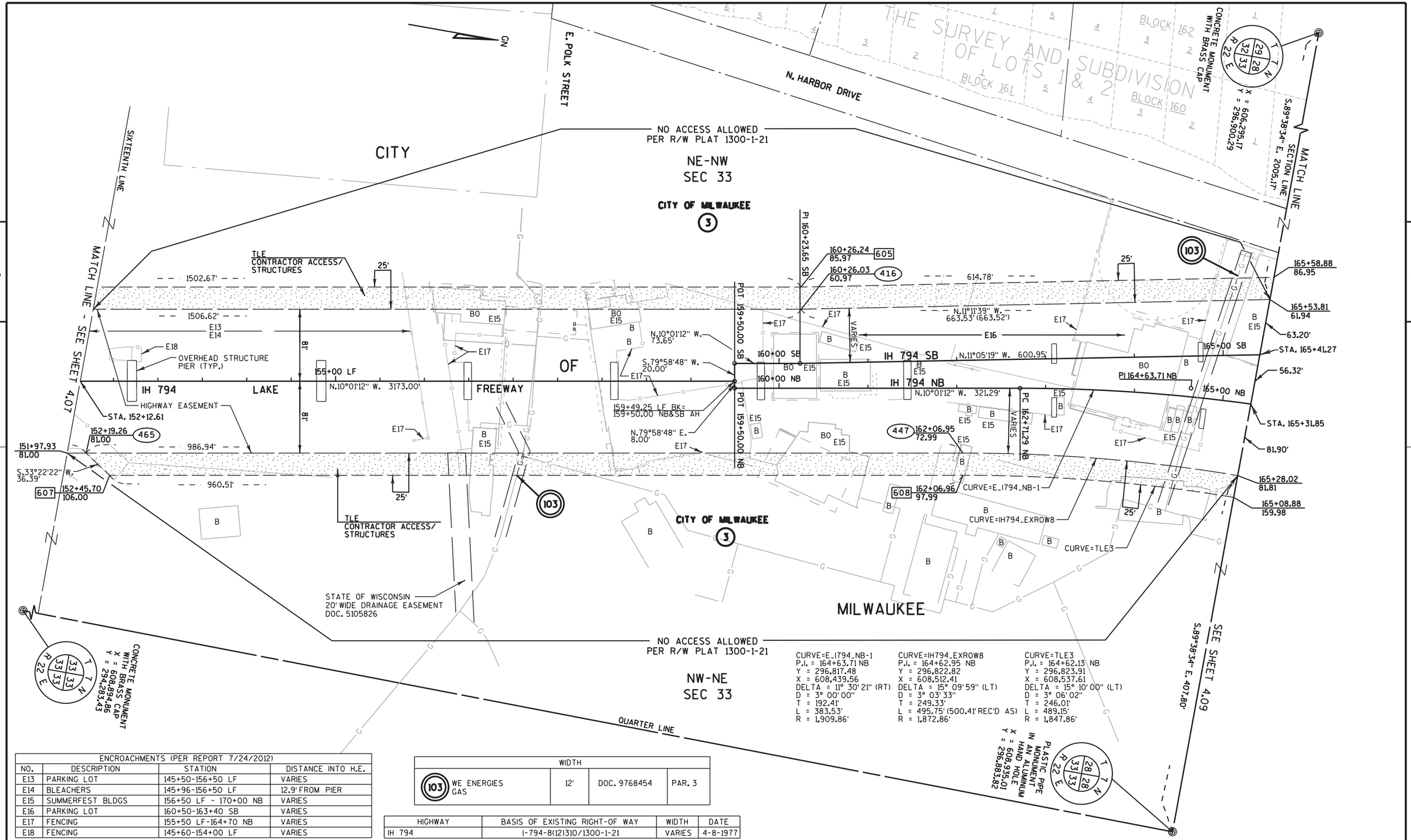
PLAT SHEET 4.07

PS&E SHEET 844 E

FILE NAME : 040407_rp.dgn PLOT DATE : 2/28/2013 PLOT BY : 0950 PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 70

4



CURVE=E_I794_NB-1
P.I. = 164+63.71 NB
Y = 296,817.48
X = 608,439.56
DELTA = 11° 30' 21" (RT)
D = 3° 00' 00"
T = 192.41'
L = 383.53'
R = 1,909.86'

CURVE=IH794_EXROW8
P.I. = 164+62.95 NB
Y = 296,822.82
X = 608,512.41
DELTA = 15° 09' 59" (LT)
D = 3° 03' 33"
T = 249.33'
L = 495.75' (500.41' REC'D AS)
R = 1,872.86'

CURVE=TLE3
P.I. = 164+62.13 NB
Y = 296,823.91
X = 608,537.61
DELTA = 15° 10' 00" (LT)
D = 3° 06' 02"
T = 246.01'
L = 489.15'
R = 1,847.86'

ENCROACHMENTS (PER REPORT 7/24/2012)

NO.	DESCRIPTION	STATION	DISTANCE INTO H.E.
E13	PARKING LOT	145+50-156+50 LF	VARIES
E14	BLEACHERS	145+96-156+50 LF	12.9' FROM PIER
E15	SUMMERFEST BLDGS	156+50 LF - 170+00 NB	VARIES
E16	PARKING LOT	160+50-163+40 SB	VARIES
E17	FENCING	155+50 LF-164+70 NB	VARIES
E18	FENCING	145+60-154+00 LF	VARIES

	WIDTH		
103 WE ENERGIES GAS	12'	DOC. 9768454	PAR. 3

HIGHWAY	BASIS OF EXISTING RIGHT-OF WAY	WIDTH	DATE
IH 794	I-794-8(12)310/1300-1-21	VARIES	4-8-1977

REVISION DATE 10-18-12 02-28-13	DATE 09/25/2012	0 50 100 SCALE, FEET	HWY: IH 794	STATE R/W PROJECT NUMBER 1300-13-20	PLAT SHEET 4.08
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1300-13-71	PS&E SHEET 845 E

4

CONCRETE MONUMENT WITH BRASS CAP X = 606,295.17 Y = 296,900.29

T 7 N R 22 E — 29 28 32 33

S.89°38'34" E. 2005.17'

SECTION LINE

MATCH LINE

CITY

PLAT OF THE DIVISION OF 13.30 ACRES OFF THE EAST END OF LOT 3 AND 17.10 ACRES OFF THE EAST OF LOT 4

BLOCK 81 · BLOCK 82 · BLOCK 80 · BLOCK 83 · BLOCK 111

E. CHICAGO STREET

E. BUFFALO STREET

N. VAN BUREN STREET

GN

CITY OF MILWAUKEE (3)

NO ACCESS ALLOWED — PER R/W PLAT 1300-1-21

COURSE TABLE			
417-418	S.16°04'49" W.	60.61'	(60.71')
418-419	N.07°47'04" E.	209.76'	
419-420	S.42°28'09" W.	47.95'	
420-507	N.10°12'01" W.	73.68'	
507-421	N.10°12'01" W.	849.34'	
422-423	S.85°10'47" W.	113.01'	
446-445	N.05°04'16" E.	302.25'	(297.61')
445-440	S.00°07'05" W.	129.34'	
440-439	N.08°56'48" E.	182.61'	
507-437	N.07°47'04" E.	373.73'	
442-443	S.42°28'09" W.	236.94'	
443-444	S.33°47'11" W.	116.92'	
444-417	S.16°04'49" W.	56.09'	
441-419	S.42°28'09" W.	284.00'	

609 165+58.88 86.95

TLE CONTRACTOR ACCESS/ STRUCTURES

165+53.81 61.94

63.20'

STA. 165+41.27

614.78'

25'

VARIES

PT 166+24.60 SB

166+33.95 90.06 418

166+39.39 87.39 606

166+88.38 63.39 417

N.16°04'49" E. 54.56' (TLE)

168+04.47 63.95 420

168+78.14 64.19 507

168+33.67 25.92 419

N.11°11'39" W. 663.53' (663.52')

N.11°05'19" W. 600.95'

IH 794 SB

444 167+38.75 38.71

CITY

STATE

N.10°01'12" W. 348.23'

POT AH STA. 663+75.22 EB AH STA. 169+72.83 SB Y = 297311.92 X = 608312.39

PL

80'

66'

50'

HIGHWAY EASEMENT

443 168+23.13 42.22

56.32'

STA. 165+31.85

81.90'

IH 794 NB

N.01°29'09" E. 501.09'

170+00 NB

OF

CURVE=IH794_EXROW11 P.I. = 170+79.56 NB Y = 297,431.97 X = 608,550.30 DELTA = 33° 14' 46" (RT) D = 24° 16' 00" T = 70.49' L = 137.00' R = 236.11'

165+28.02 81.81

CURVE=E_I794_NB-1 P.I. = 164+63.71 NB Y = 296,817.48 X = 608,439.56 DELTA = 11° 30' 21" (RT) D = 3° 00' 00" T = 192.41' L = 383.53' R = 1,909.86'

165+26.79 106.79

PT 166+54.82 NB

VARIES

MILWAUKEE

442 169+93.98 86.67

N.05°04'16" E. 302.25' (297.61')

357.59'

167+18.47 88.28 446

167+16.91 113.23 609

25'

TLE CONTRACTOR ACCESS/ STRUCTURES

CITY OF MILWAUKEE (3)

CURVE=IH794_EXROW8 P.I. = 164+62.95 NB Y = 296,822.82 X = 608,512.41 DELTA = 15° 09' 59" (LT) D = 3° 03' 33" T = 249.33' L = 495.75' (500.41' REC'D AS) R = 1,872.86'

SEE SHEET 4.08

S.89°38'34" E. 407.80'

NOTE: CURVE=IH794_EXROW9 NOT USED

CURVE=TLE3 P.I. = 164+62.13 NB Y = 296,823.91 X = 608,537.61 DELTA = 15° 10' 00" (LT) D = 3° 06' 02" T = 246.01' L = 489.15' R = 1,847.86'

CURVE=IH794_EXROW10 P.I. = 170+06.46 NB Y = 297,358.82 X = 608,551.32 DELTA = 6° 39' 31" (RT) D = 20° 01' 33" T = 16.64' L = 33.25' R = 286.11'

CURVE=TLE4 P.I. = 170+45.45 NB Y = 297,397.11 X = 608,578.89 DELTA = 12° 11' 01" (LT) D = 20° 01' 33" T = 30.53' L = 60.84' R = 286.11'

103 170+73.80 136.59 610

NO ACCESS ALLOWED PER R/W PLAT 1300-1-21

WDNR & MILWAUKEE WORLD FESTIVAL CHICAGO ST. ACCESS EASEMENT DOC. 9208873 VARIES

CURVE=IH794_EXROW7 P.I. = 762+35.47 WB Y = 297,757.30 X = 608,601.69 DELTA = 3° 02' 09" (LT) D = 1° 59' 27" T = 76.26' L = 152.48' R = 2877.79'

WIDTH			
103 WE ENERGIES GAS	12'	DOC. 9768454	PAR. 3

ENCROACHMENTS (PER REPORT 7/24/2012)			
NO.	DESCRIPTION	STATION	DISTANCE INTO ROW/H.E.
E5	SORAGE CONTAINERS	656+50 EB	ENTIRELY IN ROW
E9	STORAGE BLDG	758+58 WB	ENTIRELY IN ROW
E10	BUS STOP SIGN	763+81 WB	15.5' H.E.
E11	SIGN	661+06 EB	92.6' ROW
E12	SIGN FRAME	171+51 NB	ENTIRELY IN H.E.
E15	SUMMERFEST BLDGS	156+50 LF - 170+00 NB	VARIES

HIGHWAY	BASIS OF EXISTING RIGHT-OF WAY	WIDTH	DATE
IH 794	I-794-8(12)310/1300-1-21	VARIES	4-8-1977
IH 794	QUIT CLAIM DEED DOC. 6149930	VARIES	2-15-1988

CONCRETE MONUMENT WITH BRASS CAP X = 608,935.01 Y = 296,883.82

T 7 N R 22 E — 28 33 33 28

423 653+36.86 162.46

CURVE=IH794_EXROW6 P.I. = 655+21.84 EB Y = 298,128.04 X = 608,100.02 DELTA = 25° 00' 15" (LT) D = 14° 46' 42" T = 85.97' L = 169.19' R = 387.70'

422 654+22.74 69.14

421 656+20.57 66.86

PT 656+18.22 EB

STA. 654+57.73

655+00 EB

CURVE=P_I794_EB-3 P.I. = 653+63.66 EB Y = 298,422.44 X = 608,116.18 DELTA = 77° 20' 33" (RT) D = 12° 22' 09" T = 370.72' L = 625.28' R = 463.21'

660+00 EB

E11

661+14.07 50.09 437

SE-SE SEC 28

OF

E5

OVERHEAD STRUCTURE PIER (TYP.)

CURVE=P_I794_WB-9 P.I. = 759+81.44 WB Y = 298,026.99 X = 608,470.94 DELTA = 33° 21' 00" (RT) D = 8° 00' 00" T = 214.53' L = 416.88' R = 716.20'

WISCONSIN

170+26.24 48.67 441

E12

S.01°29'09" W. 301.88'

170+20.13 107.18 445

761+83.79 WB

N.16°29'33" E. 878.34'

IH 794 WB

760+00 WB

E9

STA. 757+70.69

SIXTEENTH LINE

171+49.44 104.09 440

E10

763+11.08 127.80 439

HIGHWAY EASEMENT

PI 759+81.44 WB

761+64.57 151.91 438

N. HARBOR DRIVE

N.11°58'57" E. 550.89'

MILWAUKEE CO.

SEE SHEET 4.10

REVISION DATE 10-18-12 02-28-13	DATE 09/25/2012	0 50 100 SCALE, FEET	HWY: IH 794	STATE R/W PROJECT NUMBER 1300-13-20	PLAT SHEET 4.09	
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1300-13-71	PS&E SHEET 846	E

HIGHWAY	BASIS OF EXISTING RIGHT-OF WAY	WIDTH	DATE
IH 794	I-794-8(12)310/1300-1-21	VARIES	4-8-1977
IH 794	QUIT CLAIM DEED DOC. 6149930	VARIES	2-15-1988
N. JACKSON STREET	PLAT OF MILWAUKEE EAST OF THE RIVER	80'	DEC., 1859
N. VAN BUREN STREET	PLAT OF MILWAUKEE EAST OF THE RIVER	80'	DEC., 1859
E. CLYBOURN STREET	PLAT OF MILWAUKEE EAST OF THE RIVER	80'	DEC., 1859
E. ST. PAUL AVENUE	PLAT OF MILWAUKEE EAST OF THE RIVER	VARIES	DEC., 1859

ENCROACHMENTS (PER REPORT 07/24/2012)			
NO.	DESCRIPTION	STATION	DISTANCE TO ROW
E4	PRK LOT SIGN (NOT SHOWN)	647+50 EB	----------
E6	PRK LOT SIGN (NOT SHOWN)	751+00 WB	----------
E7	SIGN	751+98 WB	25.1'ROW
E8	SIGN (NOT SHOWN)	752+90 WB	----------
E25	BLDG	653+41 EB	ENTIRELY IN ROW

COURSE TABLE			
508-424	N.04°52'19" W.	62.75'	
424-425	N.85°07'42" E.	180.00'	
425-426	N.04°52'19" W.	180.00'	
426-427	N.85°07'42" E.	34.00'	
427-428	N.07°48'07" E.	182.23'	
428-429	N.85°49'47" E.	149.60'	
429-430	S.61°22'30" E.	58.66'	(59.10')*
430-431	N.85°24'53" E.	29.58'	

COURSE TABLE			
431-432	N.55°57'48" E.	29.80'	
432-433	N.22°12'20" E.	49.93'	
433-434	N.85°45'50" E.	349.00'	
434-435	S.03°37'41" W.	495.98'	
435-436	S.73°30'24" E.	173.40'	
424-471	N.04°52'18" W.	360.90'	
471-428	N.85°49'47" E.	254.00'	
472-473	S.85°49'47" W.	255.86'	(255.69')*

( )* = RECORDED DISTANCE IS BASED ON RE-SURVEY OF ORIGINAL BLOCKS. RE-SURVEY DATE JULY 31, 1935 IN BOOK NUMBER 632.

GN

T 7 N
28 28
28 28
R 22 E

CONCRETE MONUMENT WITH BRASS CAP
X = 608,954.01
Y = 299,520.59

PLAT OF MILWAUKEE EAST OF THE RIVER

PLAT OF THE DIVISION OF BLOCK 99 MILWAUKEE COUNTY

NW-SW SEC 28

NE-SW SEC 28

N. JACKSON STREET 80'

N. VAN BUREN STREET 80'

CURVE=P_I794_WB-7
P.I. = 749+12.45 WB
Y = 298,689.56
X = 607,655.43
DELTA = 27° 08' 33" (RT)
D = 4° 00' 00"
T = 345.77'
L = 678.56'
R = 1,432.39'

NO ACCESS ALLOWED PER R/W PLAT I-794(1)309

748+00.61 (473) 84.80

472 750+28.94 152.00

PL (R/W)

PI 749+12.45 WB

MILWAUKEE

MATCH LINE - SEE SHEET 4.11

STA. 748+86.21

750+00 WB

SIXTEENTH LINE

80'

PL

26

VACATED 14' ALLEY

EAST OF THE RIVER

PI 649+43.74 EB

650+00 EB CO.

N. 89°19'12" E. 732.87'

STA. 648+73.86

PC 648+94.50 EB

PCC 649+92.94 EB

VARIES

E. ST. PAUL AVENUE

NO ACCESS ALLOWED PER R/W PLAT 1300-1-21

NO ACCESS ALLOWED PER R/W PLAT I-794(1)309

CURVE=P_I794_EB-2
P.I. = 649+43.74 EB
Y = 298,441.77
X = 607,696.67
DELTA = 3° 19' 03" (RT)
D = 3° 22' 13"
T = 49.23'
L = 98.43'
R = 1,700.00'

CURVE=P_I794_EB-3
P.I. = 653+63.66 EB
Y = 298,422.44
X = 608,116.18
DELTA = 77° 20' 33" (RT)
D = 12° 22' 09"
T = 370.72'
L = 625.28'
R = 463.21'

750+95.83 (471) 180.78

752+86.85 (428) 294.11

CLYBOURN STREET

E7

STATE

429 753+76.66 377.91

430 754+17.45 383.50

754+31.51 (433) 479.20

754+39.69 432 430.84

754+33.00 (431) 402.72

755+77.35 (434) 728.16

MILWAUKEE

13.30 ACRES OFF THE EAST

OF

426 753+14.41 104.50

753+39.25 (427) 123.72

BLOCK 85

END OF LOT 3 AND 17.10 ACRES

PCC 752+45.24 WB

425 754+18.92 39.52

752+54.24 (424) 143.31

PI 653+63.66 EB

PI 755+13.97 WB

755+00 WB

IH 794 WB

651+98.42 (508) 38.78

SUBDIVISION

OFF THE EAST END OF LOT 4

N. 04°49'13" W. 163.14'

E25 B0

NO ACCESS ALLOWED PER R/W PLAT 1300-1-21

IH 794 EB

STA. 654+57.73

CURVE=P_I794_WB-8
P.I. = 755+13.97 WB
Y = 298,437.42
X = 608,215.82
DELTA = 33° 54' 43" (RT)
D = 6° 30' 02"
T = 268.73'
L = 521.68'
R = 881.40'

SIXTEENTH LINE

STA. 757+70.69

CURVE 9 SEE SHEET 4.09

PCC 757+66.91 WB

MATCH LINE

SEE SHEET 4.09

OVERHEAD STRUCTURE PIER (TYP.)

WISCONSIN

436 757+14.76 289.95

435 758+05.47 404.74

CITY

N. 16°29'33" E. 878.34'

S. 11°58'57" W. 550.89'

HIGHWAY EASEMENT OF MILWAUKEE COUNTY

N. HARBOR DRIVE

QUARTER LINE

T 7 N
28 28
33 33
R 22 E

CONCRETE MONUMENT WITH BRASS CAP
X = 608,935.01
Y = 296,883.82

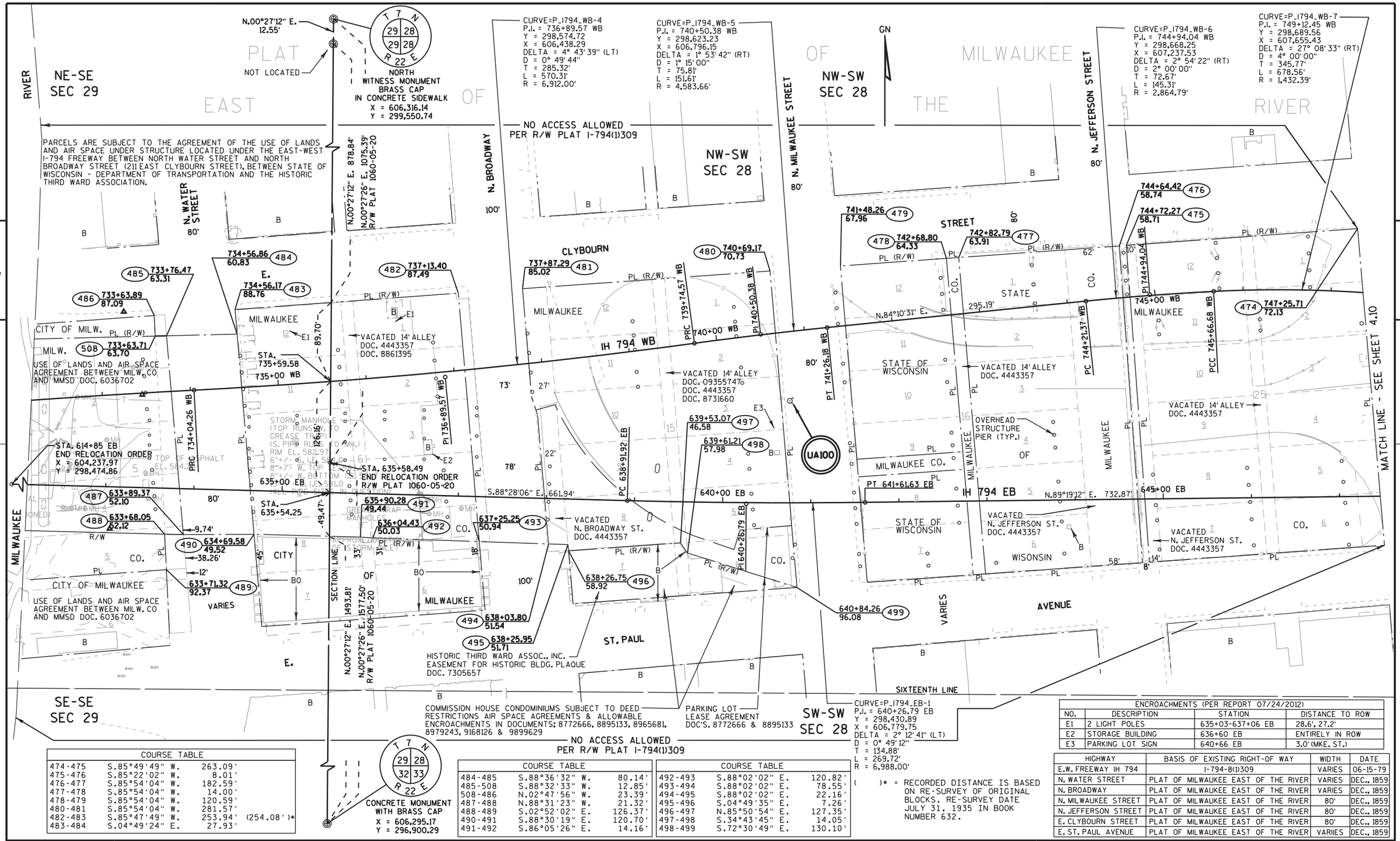
4

4

REVISION DATE 10-18-12 02-28-13	DATE 09/25/2012	0 50 100 SCALE, FEET	HWY: IH 794	STATE R/W PROJECT NUMBER 1300-13-20	PLAT SHEET 4.10
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1300-13-71	PS&E SHEET 847 E

FILE NAME : 040410_rp.dgn PLOT DATE : 2/28/2013 PLOT BY : 0950 PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 70



COURSE TABLE			
474-475	S.85°49'49" W.	263.09'	
475-476	S.85°22'02" W.	8.01'	
476-477	S.85°54'04" W.	182.59'	
477-478	S.85°54'04" W.	14.00'	
478-479	S.85°54'04" W.	120.59'	
480-481	S.85°54'04" W.	281.57'	
482-483	S.85°47'49" W.	253.94'	(254.08')*
483-484	S.04°49'24" E.	27.93'	

COURSE TABLE		
484-485	S.88°36'32" W.	80.14'
485-508	S.88°32'33" W.	12.85'
508-486	N.02°47'56" W.	23.39'
487-488	N.88°31'23" W.	21.32'
488-489	S.02°52'02" E.	126.37'
490-491	S.88°30'19" E.	120.70'
491-492	S.86°05'26" E.	14.16'

COURSE TABLE		
492-493	S.88°02'02" E.	120.82'
493-494	S.88°02'02" E.	78.55'
494-495	S.88°02'02" E.	22.16'
495-496	S.04°49'35" E.	7.26'
496-497	N.85°50'54" E.	127.35'
497-498	S.34°43'45" E.	14.05'
498-499	S.72°30'49" E.	130.10'

ENCROACHMENTS (PER REPORT 07/24/2012)			
NO.	DESCRIPTION	STATION	DISTANCE TO ROW
E1	2 LIGHT POLES	635+03-637+06 EB	28.6', 27.2'
E2	STORAGE BUILDING	636+60 EB	ENTIRELY IN ROW
E3	PARKING LOT SIGN	640+66 EB	3.0' (MKE. ST.)

HIGHWAY	BASIS OF EXISTING RIGHT-OF WAY	WIDTH	DATE
E.W. FREEWAY IH 794	I-794-8(1)309	VARIES	06-15-79
N. WATER STREET	PLAT OF MILWAUKEE EAST OF THE RIVER	VARIES	DEC., 1859
N. BROADWAY	PLAT OF MILWAUKEE EAST OF THE RIVER	VARIES	DEC., 1859
N. MILWAUKEE STREET	PLAT OF MILWAUKEE EAST OF THE RIVER	80'	DEC., 1859
N. JEFFERSON STREET	PLAT OF MILWAUKEE EAST OF THE RIVER	80'	DEC., 1859
E. CLYBOURN STREET	PLAT OF MILWAUKEE EAST OF THE RIVER	80'	DEC., 1859
E. ST. PAUL AVENUE	PLAT OF MILWAUKEE EAST OF THE RIVER	VARIES	DEC., 1859

REVISION DATE 10-18-12 02-28-13	DATE 09/25/2012		HWY: IH 794	STATE R/W PROJECT NUMBER 1300-13-20	PLAT SHEET 4.11
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1300-13-71	PS&E SHEET 848 E

FILE NAME : 040411_rp.dgn PLOT DATE : 2/28/2013 PLOT BY : 0950 PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 70

BENCH MARKS

NO.	LF ℄ STATION	DESCRIPTION	ELEV.
202	68+96.35	ALUMINUM MONUMENT CAP	587.82

MGS THRIE BEAM TRANSITION
MGS GUARDRAIL 3
MGS GUARDRAIL TERMINAL EAT
+80.50
+17.00
+67.00
+22.50
REMOVE EXISTING GUARDRAIL
CARFERRY EB ENTRANCE RAMP
CARFERRY EB EXIT RAMP
E. LINCOLN AVENUE
TEMPORARY EASEMENT
HIGHWAY EASEMENT
RAMP CS ℞
B-40-400-S23
B-40-400-S22
CARFERRY EB EXIT RAMP
MATCH LINE - 70+00 LF
56+00 LF
57+00 LF
58+00 LF
59+00 LF
60+00 LF
61+00 LF
62+00 LF
63+00 LF
64+00 LF
65+00 LF
66+00 LF
67+00 LF
68+00 LF
69+00 LF
IH 794 EB
IH 794 WB
IH 794 LF ℞
MIN. VERTICAL CLEARANCE (EB)
MIN. VERTICAL CLEARANCE (WB)
B-40-400-S19
B-40-400-S18
+81.50
+31.50
+61.70
REMOVE EXISTING GUARDRAIL
MGS GUARDRAIL TERMINAL EAT
MGS THRIE BEAM TRANSITION
CARFERRY WB EXIT RAMP
CARFERRY WB ENTRANCE RAMP
658+00 CN
659+00 CN
660+00 CN
661+00 CN
662+00 CN
663+00 CN
664+00 CN
665+00 CN
666+00 CN
B-40-400-S24
RAMP CN ℞
HIGHWAY EASEMENT
S. LINCOLN MEMORIAL DRIVE
BM-202
BEGIN CONSTRUCTION
STA. 61+91.20 LF
Y=286,857.91
X=610,633.02

K = 750
L = 150'
64+93.38 EL 625.69
66+43.38 EL 626.29
EB/WB PROFILES IDENTICAL
PROPOSED PROFILE IH 794 EB
624.78
+0.30%
+0.50%
PI 65+68.38
EL 625.92
B-40-400-S19
STA. 64+00 LF
4-SPAN STEEL MULTIGIRDER
449-FEET OVERALL LENGTH
108-FEET OVERALL WIDTH
TO BE REDECKED
IH-794 EB PGL
EXISTING GRADE IH 794 LF (EB ONLY) (TYP.)
PROPOSED GRADE IH 794 LF (EB ONLY) (TYP.)
624.81 624.96 625.11 625.26 625.41 625.56 625.71 625.88 626.08 626.32
62+00 LF 63+00 LF 64+00 LF 65+00 LF 66+00 LF

PROPOSED PROFILE IH 794 WB
624.10
+0.50%
EB/WB PROFILES IDENTICAL
PROPOSED PROFILE IH 794 WB/EB
EXISTING PROFILE IH 794 WB/EB
B-40-400-S19
STA. 64+00 LF
4-SPAN STEEL MULTIGIRDER
449-FEET OVERALL LENGTH
108-FEET OVERALL WIDTH
TO BE REDECKED
B-40-400-S18
STA. 68+00 LF
4-SPAN STEEL MULTIGIRDER
390-FEET OVERALL LENGTH
140-FEET TO 127-FEET OVERALL WIDTH
TO BE REDECKED
18'-0" MINIMUM CLEARANCE (EB)
21'-7" MINIMUM CLEARANCE (WB)
IH-794 WB PGL
IH-794 EB/WB PGL
EXISTING GROUND-LEVEL PROFILE ALONG PGL OF IH 794
EAST LINCOLN AVENUE
EXISTING GRADE IH 794 LF (WB ONLY) (TYP.)
PROPOSED GRADE IH 794 LF (WB ONLY) (TYP.)
EXISTING GRADE IH 794 LF ℄ (TYP.)
PROPOSED GRADE IH 794 LF ℄ (TYP.)
624.14 624.39 624.64 624.88 625.13 625.38 625.63 625.88 626.12 626.37 626.62 626.87 627.11 627.36 627.61 627.86 628.10 628.35
624.3 624.5 624.6 625.0 625.2 625.3 625.6 625.8 626.0 626.3 626.4 626.7 627.5 627.2 627.5 627.7 628.0 628.3
62+00 LF 63+00 LF 64+00 LF 65+00 LF 66+00 LF 67+00 LF 68+00 LF 69+00 LF 70+00 LF 71+00 LF
625 620 615 610 605 600 595 590

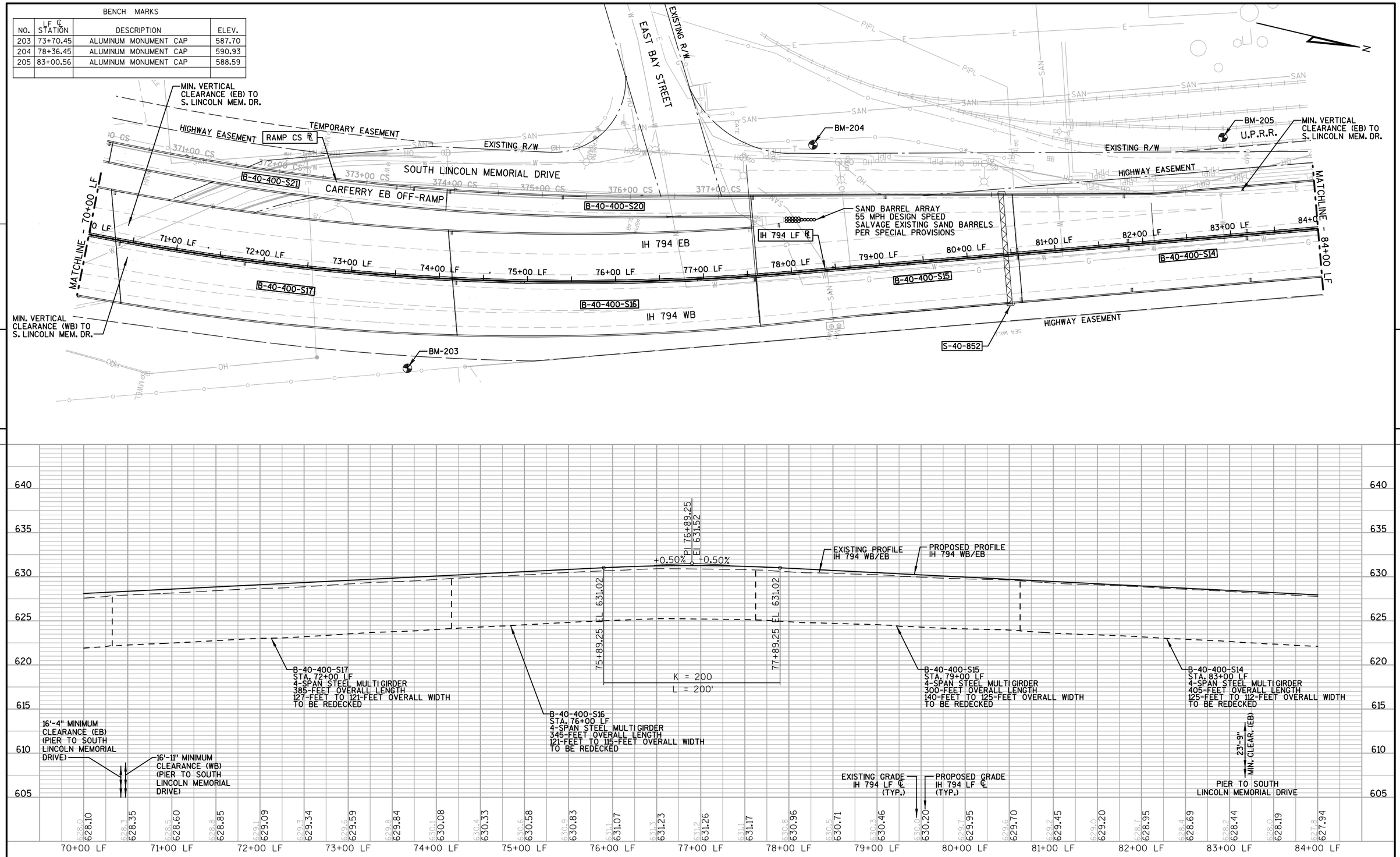
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - IH 794 WESTBOUND/EASTBOUND (LF)	SHEET 849 E

FILE NAME : IP_PWP:d0231471\050151_pp.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000

WISDOT/CADDS SHEET 40

BENCH MARKS

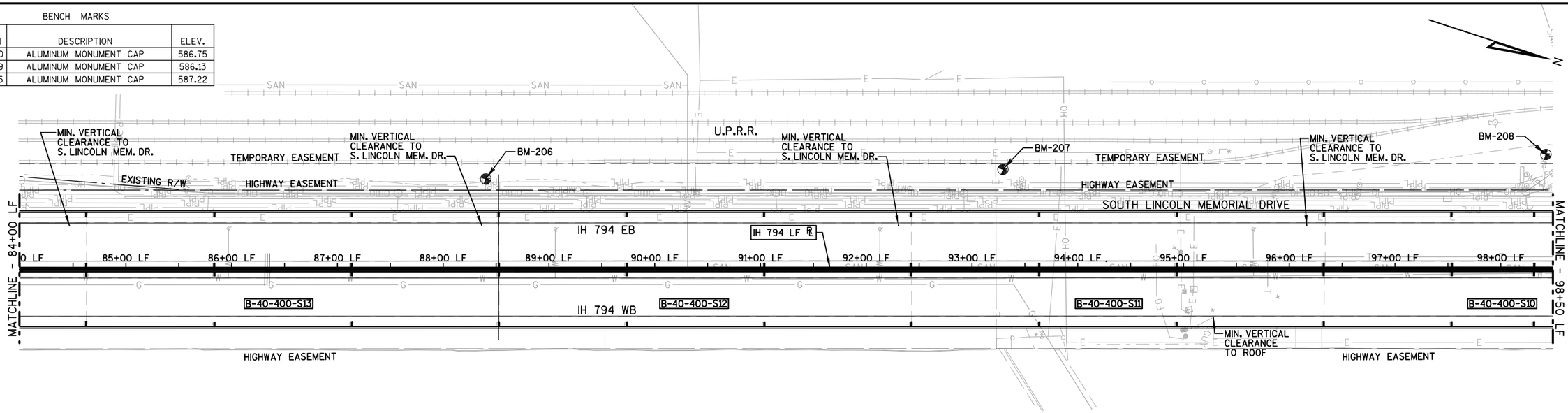
NO.	LF ℄ STATION	DESCRIPTION	ELEV.
203	73+70.45	ALUMINUM MONUMENT CAP	587.70
204	78+36.45	ALUMINUM MONUMENT CAP	590.93
205	83+00.56	ALUMINUM MONUMENT CAP	588.59

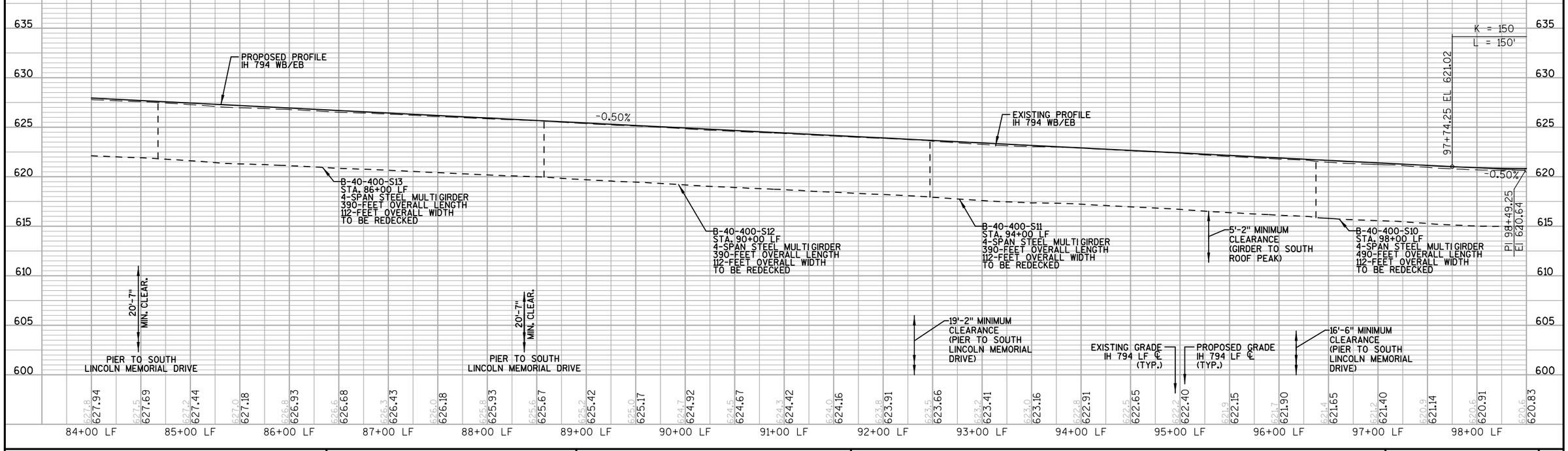


PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - IH 794 WESTBOUND/EASTBOUND (LF)	SHEET 850	E

BENCH MARKS

NO.	LF ℄ STATION	DESCRIPTION	ELEV.
206	88+40.20	ALUMINUM MONUMENT CAP	586.75
207	93+29.29	ALUMINUM MONUMENT CAP	586.13
208	98+42.75	ALUMINUM MONUMENT CAP	587.22

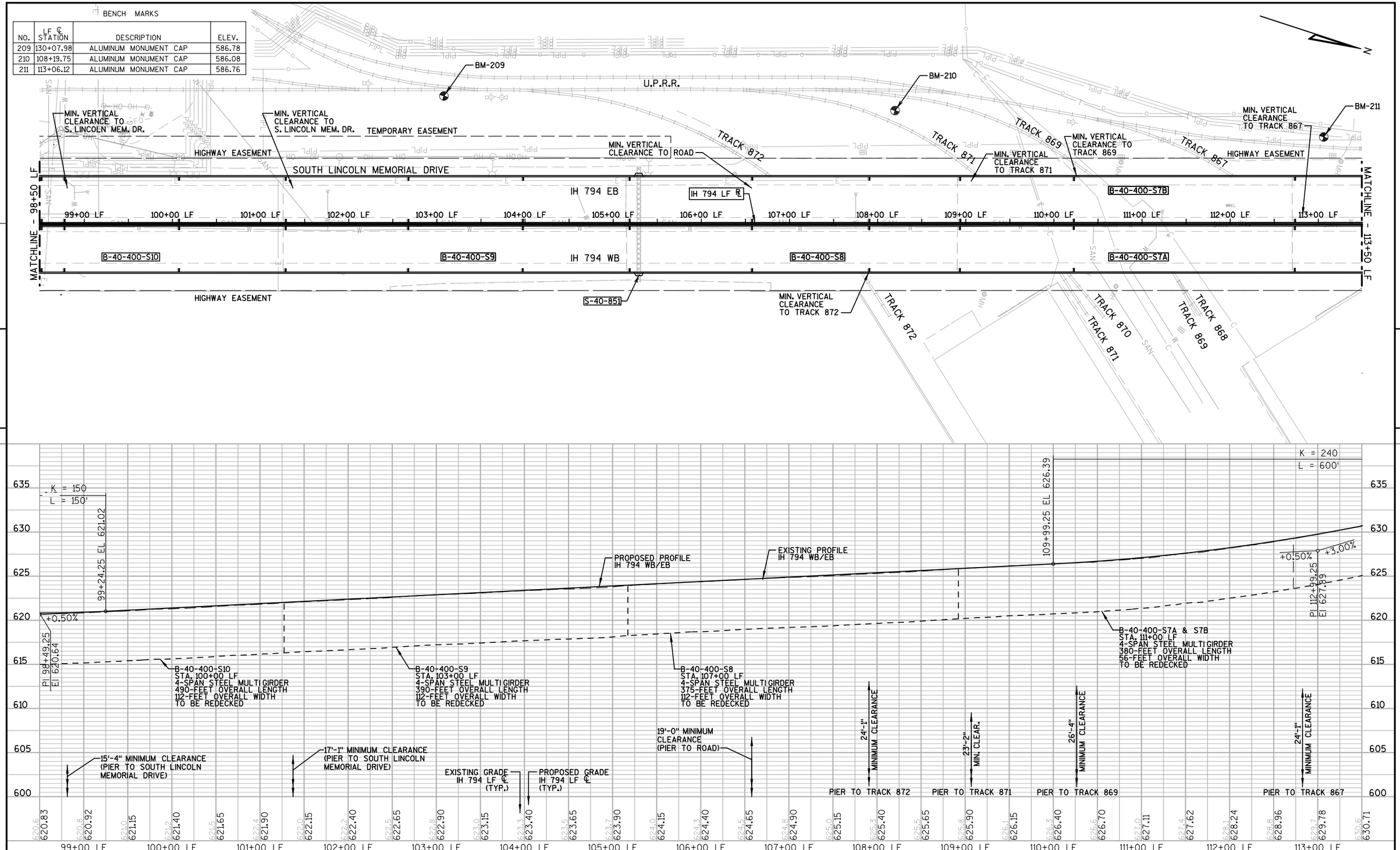




PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - IH 794 WESTBOUND/EASTBOUND (LF)	SHEET 851	E

BENCH MARKS

NO.	LF ℄ STATION	DESCRIPTION	ELEV.
209	130+07.98	ALUMINUM MONUMENT CAP	586.78
210	108+19.75	ALUMINUM MONUMENT CAP	586.08
211	113+06.12	ALUMINUM MONUMENT CAP	586.76

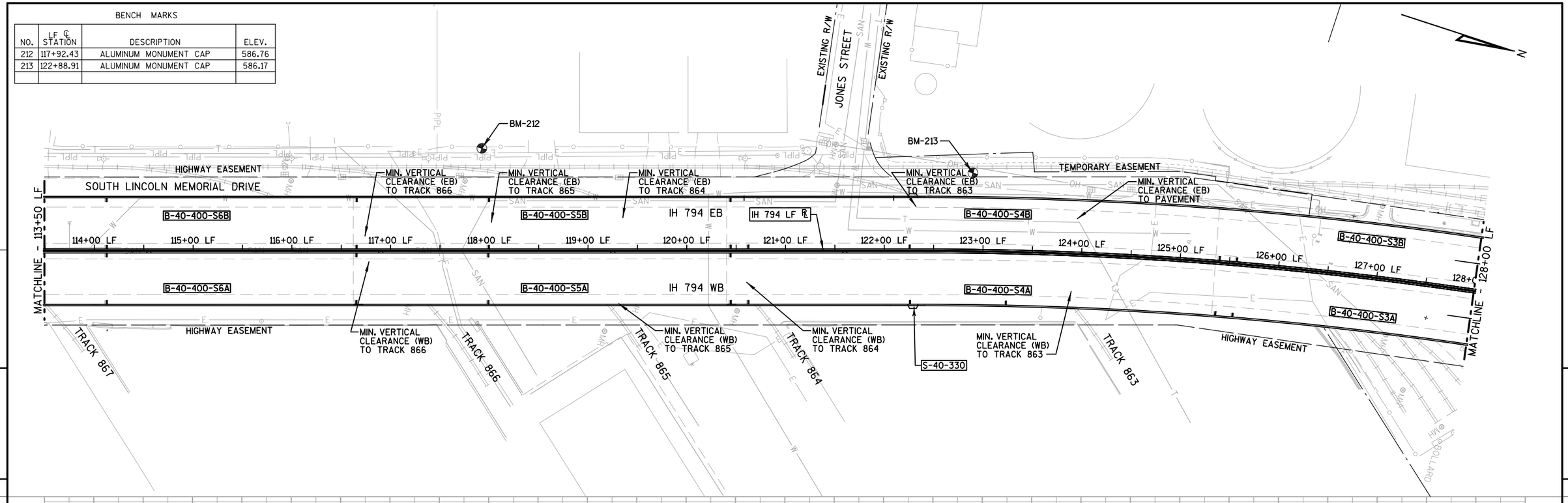


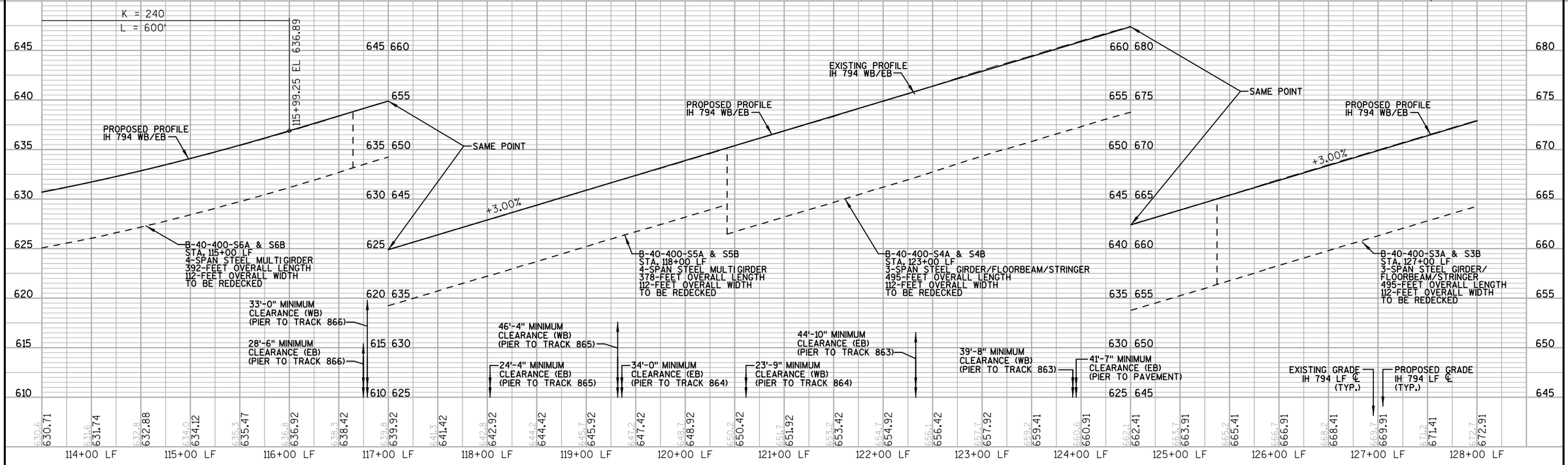
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - IH 794 WESTBOUND/EASTBOUND (LF)	SHEET 852	E

FILE NAME : IP_PWP:d0231471\050154_pp.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000
WISDOT/CADDS SHEET 40

BENCH MARKS

NO.	LF ℄ STATION	DESCRIPTION	ELEV.
212	117+92.43	ALUMINUM MONUMENT CAP	586.76
213	122+88.91	ALUMINUM MONUMENT CAP	586.17

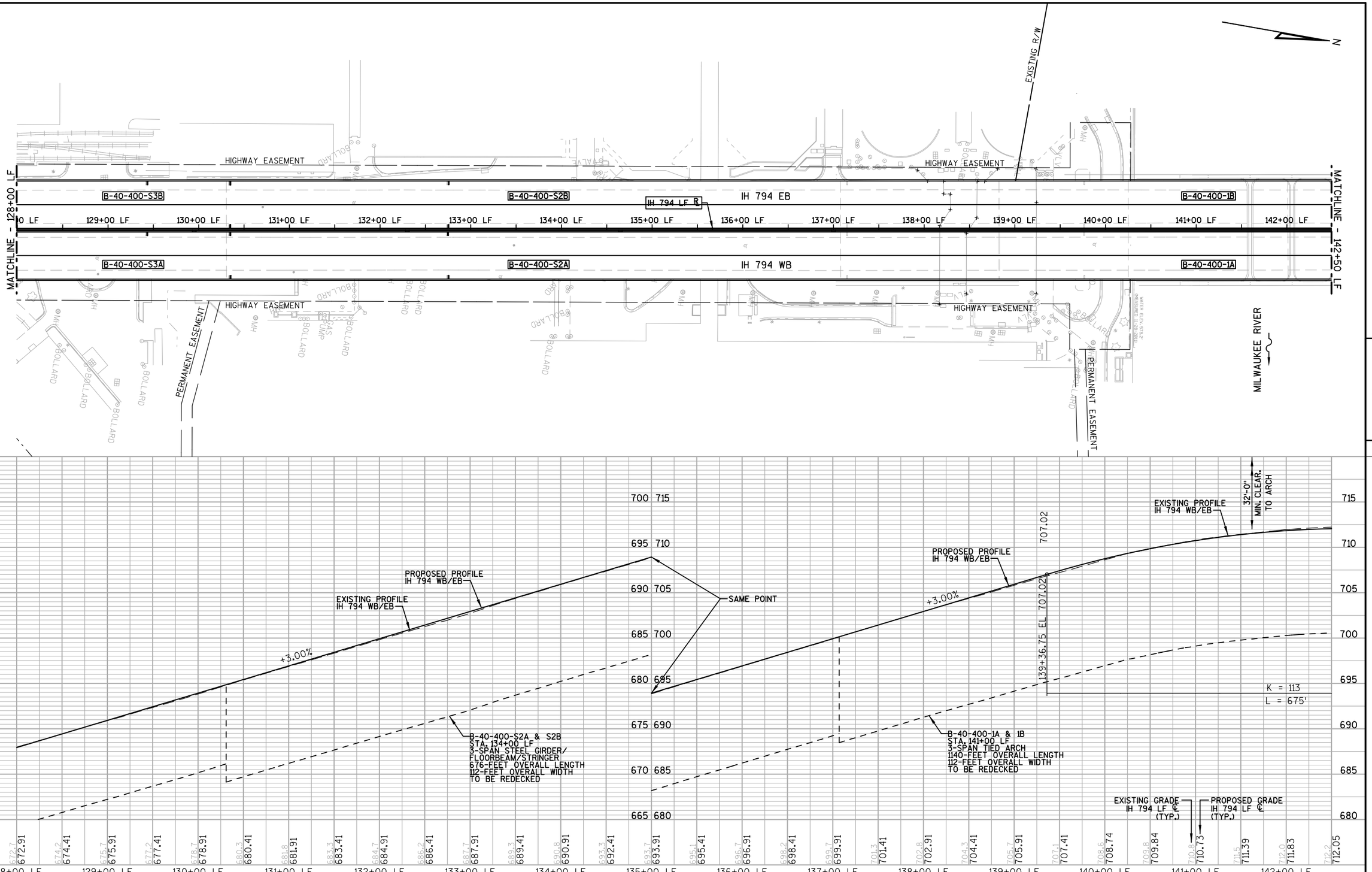




PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - IH 794 WESTBOUND/EASTBOUND (LF)	SHEET 853	E

FILE NAME : IP_PWP:d0231471\050155_pp.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000

WISDOT/CADDS SHEET 40



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - IH 794 WESTBOUND/EASTBOUND (LF)	SHEET 854	E

FILE NAME : IP_PWP:d0231471\050156_pp.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000 WISDOT/CADDS SHEET 40

BENCH MARKS

NO.	LF ℄ STATION	DESCRIPTION	ELEV.
216	145+34.84	ALUMINUM MONUMENT CAP	586.52
218	155+76.49	ALUMINUM MONUMENT CAP	584.77

BM-216

BM-218

N

EAST ERIE STREET

PERMANENT EASEMENT

TEMPORARY EASEMENT

HIGHWAY EASEMENT

MATCHLINE - 142+50 LF

MATCHLINE - 157+50 LF

B-40-400-1B

IH 794 EB

IH 794 LF ℄

B-40-400-N2B

B-40-400-N3B

143+00 LF 144+00 LF 145+00 LF 146+00 LF 147+00 LF 148+00 LF 149+00 LF 150+00 LF 151+00 LF 152+00 LF 153+00 LF 154+00 LF 155+00 LF 156+00 LF 157+00 LF

B-40-400-1A

IH 794 WB

B-40-400-N2A

B-40-400-N3A

MILWAUKEE RIVER

PERMANENT EASEMENT

HIGHWAY EASEMENT

TEMPORARY EASEMENT

PERMANENT EASEMENT

PI 142+74.25
EI 717.14
+3.00%
-3.00%

PROPOSED PROFILE
IH 794 WB/EB

EXISTING PROFILE
IH 794 WB/EB

146+11.75 EL 707.02

-3.00%

K = 113
L = 675'

120'± MINIMUM CLEARANCE

107'-4" MINIMUM CLEARANCE

B-40-400-1A & 1B
STA. 141+00 LF
3-SPAN TIED ARCH
1140-FEET OVERALL LENGTH
112-FEET OVERALL WIDTH
TO BE REDECKED

SAME POINT

EXISTING PROFILE
IH 794 WB/EB

-3.00%

PROPOSED PROFILE
IH 794 WB/EB

B-40-400-N2A & N2B
STA. 152+00 LF
3-SPAN STEEL GIRDER
FLOORBEAM/STRINGER
664-FEET OVERALL LENGTH
112-FEET OVERALL WIDTH
TO BE REDECKED

B-40-400-N3A & N3B
STA. 157+00 LF
3-SPAN STEEL GIRDER/
FLOORBEAM/STRINGER
495-FEET OVERALL LENGTH
112-FEET OVERALL WIDTH
TO BE REDECKED

75'-0" MINIMUM CLEARANCE

EXISTING GRADE
IH 794 LF ℄
(TYP.)

PROPOSED GRADE
IH 794 LF ℄
(TYP.)

715 710 705 700 695 690 685

715 710 705 700 695 690 685

695 690 685 680 675 670 665 660

712.2 712.05 712.2 712.05 712.0 711.82 711.5 711.37 710.8 710.70 709.8 709.81 708.6 708.70 707.2 707.36 705.7 705.87 704.3 704.37 702.8 702.87 701.3 701.37 699.7 699.87 698.2 698.37 696.7 696.87 695.2 695.37 693.6 693.87 692.3 692.37 690.6 690.87 689.1 689.37 687.7 687.87 686.2 686.37 684.7 684.87 683.2 683.37 681.7 681.87 680.2 680.37 678.6 678.87 677.1 677.37 675.6 675.87 674.1 674.37 672.7 672.87

143+00 LF 144+00 LF 145+00 LF 146+00 LF 147+00 LF 148+00 LF 149+00 LF 150+00 LF 151+00 LF 152+00 LF 153+00 LF 154+00 LF 155+00 LF 156+00 LF 157+00 LF

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - IH 794 WESTBOUND/EASTBOUND (LF)	SHEET 855	E

FILE NAME : IP_PWP:d0231471\050157_pp.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000

WISDOT/CADDS SHEET 40

BENCH MARKS

NO.	NB ℄ STATION	DESCRIPTION	ELEV.
221	169+26.60	ALUMINUM MONUMENT CAP	585.34

LEGEND

CONCRETE OVERLAY

TEMPORARY EASEMENT
HIGHWAY EASEMENT
EXISTING R/W
IH 794 SB ℄
IH 794 EB ℄
B-40-400-4D
IH 794 EB
LINCOLN MEMORIAL SB ENTRANCE RAMP
B-40-400-5B
B-40-400-5A
B-40-400-N4B
RAMP LS ℄
SAND BARREL ARRAY
55 MPH DESIGN SPEED
SALVAGE EXISTING SAND BARRELS
PER SPECIAL PROVISIONS
BM-221
S-40-850
CHICAGO STREET
IH 794 WB ℄
B-40-400-N3B
MATCHLINE - 157+50 LF
158+00 LF
159+00 LF
160+00 NB
161+00 NB
162+00 NB
163+00 NB
164+00 NB
165+00 NB
166+00 NB
167+00 NB
168+00 NB
169+00 NB
170+00 NB
171+00 NB
IH 794 LF ℄
IH 794 NB ℄
B-40-400-N4A
IH 794 NB
B-40-400-6A
B-40-400-6B
B-40-400-N3A
S-40-331
LINCOLN MEMORIAL NB EXIT RAMP
RAMP LN ℄
N. HARBOR DRIVE

BEGIN IH 794 NB CONSTRUCTION
STA. 159+50.00 NB
Y=296311.61
X=608528.94

END IH 794 NB CONSTRUCTION
STA. 171+55.91 NB (FROM SOUTH)
STA. 764+85.67 WB (FROM NORTH)
Y=297510.75
X=608457.55

667.01
SAME POINT O/S 6'RT
B-40-400-N3A
STA. 160+00 NB
3-SPAN STEEL GIRDER/ FLOORBEAM/STRINGER
WEB DEPTH = 96"
LENGTH = 495'-0"
TO BE REDECKED
-3.00%
-2.11%
-2.92%
-3.83%
-3.23%
PI 160+50.00 EL 664.01
PI 163+00.00 EL 658.73
PI 167+00.00 EL 647.05
PI 169+60.00 EL 637.10
159+75.00 EL 666.26
161+25.00 EL 662.43
161+50.00 EL 661.90
164+50.00 EL 654.35
165+25.00 EL 652.16
168+85.00 EL 639.97
168+75.00 EL 640.35
170+35.00 EL 634.68
666.89
EXISTING PROFILE IH 794 NB
PROPOSED PROFILE IH 794 NB
K = 169
L = 150'
K = 371
L = 300'
K = 251
L = 150'
K = 386
L = 350'
B-40-400-N4A
STA. 162+50 NB
3-SPAN STEEL GIRDER
FLOORBEAM/STRINGER
WEB DEPTH = 96"
LENGTH = 495'-0"
TO BE REDECKED
B-40-400-6A
STA. 167+00 NB
3-SPAN STEEL MULTIGIRDER
WEB DEPTH = 60"
LENGTH = 420'-0"
TO BE REDECKED
B-40-400-6B
STA. 169+50 NB
3-SPAN STEEL MULTIGIRDER
WEB DEPTH = 60"
LENGTH = 227'-0"
TO BE REDECKED
42'-5" MINIMUM CLEAR.
HARBOR DRIVE
630.77
EXISTING GRADE IH 794 NB ℄ (TYP.)
PROPOSED GRADE IH 794 NB ℄ (TYP.)

685 680 675 670 665 660 655 650
665 660 655 650 645 640 635 630

672.7 672.87 | 671.2 671.37 | 669.7 669.87 | 668.2 668.37 | 666.7 667.01 | 665.2 665.53 | 663.9 664.18 | 662.7 662.97 | 661.7 661.90 | 660.5 660.81 | 659.3 659.65 | 658.1 658.43 | 656.8 657.14 | 655.3 655.78 | 653.9 654.35 | 652.5 652.89 | 651.0 651.42 | 649.7 649.90 | 648.1 648.31 | 646.4 646.65 | 644.7 644.93 | 642.8 643.15 | 641.0 641.30 | 639.1 639.40 | 637.3 637.57 | 635.6 635.83 | 633.9 634.19 | 632.4 632.58 | 630.9 630.96

158+00 LF | 159+00 LF | 160+00 NB | 161+00 NB | 162+00 NB | 163+00 NB | 164+00 NB | 165+00 NB | 166+00 NB | 167+00 NB | 168+00 NB | 169+00 NB | 170+00 NB | 171+00 NB

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - IH 794 NORTHBOUND (NB AND LF)	SHEET 856 E

FILE NAME : IP_PWP:d0231471\050158_pp.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000

WISDOT/CADDS SHEET 40

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
220	165+57.53	ALUMINUM MONUMENT CAP	586.15
221	169+26.60	ALUMINUM MONUMENT CAP	585.34
222	661+81.63	ALUMINUM MONUMENT CAP	587.04

LEGEND
CONCRETE OVERLAY

EXISTING R/W
EXISTING R/W
N. HARBOR DRIVE
BM-220
BM-222
CHICAGO STREET
EXISTING R/W
TEMPORARY EASEMENT
HIGHWAY EASEMENT
HIGHWAY EASEMENT
MATCHLINE - 157+50 LF
B-40-400-N3B
IH 794 SB
IH 794 SB
B-40-400-N4B
IH 794 EB
B-40-400-4D
IH 794 EB
160+00 SB
161+00 SB
162+00 SB
163+00 SB
164+00 SB
165+00 SB
166+00 SB
167+00 SB
168+00 SB
169+00 SB
B-40-400-5A
158+00 LF
159+00 LF
IH 794 LF
B-40-400-N3A
IH 794 NB
IH 794 NB
B-40-400-N4A
LINCOLN MEMORIAL
SB ENTRANCE RAMP
B-40-400-5B
RAMP LS
BM-221
RAMP WB
B-40-400-6A
HIGHWAY EASEMENT
TEMPORARY EASEMENT
HIGHWAY EASEMENT
TEMPORARY EASEMENT
B-40-400-6B
BEGIN IH 794 SB CONSTRUCTION
STA. 159+50.00 SB
Y=296306.74
X=608501.37
END IH 794 SB CONSTRUCTION
STA. 169+72.83 SB (FROM SOUTH)
STA. 663+75.22 EB (FROM NORTH)
Y=297311.92
X=608312.39

PROPOSED PROFILE IH 794 SB
EXISTING PROFILE IH 794 SB
EXISTING PROFILE IH 794 LF
PROPOSED PROFILE IH 794 LF
-3.00%
667.26
666.89
B-40-400-N3B
STA. 160+00 SB
3-SPAN STEEL GIRDER/
FLOORBEAM/STRINGER
WEB DEPTH = 96"
LENGTH = 495'-0"
TO BE REDECKED
BOTTOM OF BRIDGE
0.36' ELEVATION DIFFERENCE
DUE TO CHANGE IN HORIZONTAL
LOCATION OF REFERENCE LINES
B-40-400-N4B
STA. 162+50 SB
3-SPAN STEEL GIRDER
FLOORBEAM/STRINGER
WEB DEPTH = 96"
LENGTH = 495'-0"
TO BE REDECKED
K = 226
L = 150'
163+75.00 EL 654.34
165+25.00 EL 650.28
PI 164+50.00
El 652.06
-3.04%
-2.38%
PI 166+25.00
El 647.90
-2.38%
-2.94%
165+50.00 EL 649.68
167+00.00 EL 645.70
K = 268
L = 150'
B-40-400-5A
STA. 167+50 SB
3-SPAN STEEL MULTI GIRDER
WEB DEPTH = 60"
LENGTH = 470'-0"
TO BE REDECKED
K = 2691
L = 150'
167+75.00 EL 643.49
169+25.00 EL 639.13
-2.94%
-2.88%
PI 168+50.00
El 641.29
46'-8"
MIN. CLEAR.
HARBOR
DRIVE

680 675 670 665 660 655 650 645
680 675 660 665 650 660 645 655 640 650 635 645 630
665 660 655 650 645 640 635 630
672.7 673.00 671.2 671.49 669.6 669.99 668.2 668.49 666.9 667.26 665.3 665.74 663.8 664.22 662.3 662.70 660.8 661.18 659.3 659.66 657.8 658.14 656.4 656.62 654.8 655.10 653.3 653.59 651.8 652.18 650.5 650.89 649.3 649.68 648.2 648.45 646.8 647.12 645.4 645.70 643.9 644.23 642.5 642.76 641.0 641.30 639.7 639.85 638.3 638.41
158+00 LF 159+00 LF 160+00 SB 161+00 SB 162+00 SB 163+00 SB 164+00 SB 165+00 SB 166+00 SB 167+00 SB 168+00 SB 169+00 SB

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - IH 794 SOUTHBOUND (SB AND LF)	SHEET 857	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
227	644+35.46 EB	ALUMINUM MONUMENT CAP	588.84
228	740+54.61 WB	ALUMINUM MONUMENT CAP	591.15
229	733+51.91 WB	ALUMINUM MONUMENT CAP	591.15
230	738+03.15 WB	ALUMINUM MONUMENT CAP	590.56
231	633+66.21 EB	ALUMINUM MONUMENT CAP	590.22

LEGEND
CONCRETE OVERLAY

BM-230
BM-228
BM-229
BM-231
BM-227
CLYBOURN STREET
EXISTING R/W
IH 794 WB
IH 794 EB
IH 794 WB ℄
IH 794 EB ℄
B-40-885
B-40-886
B-40-887
B-40-400-1AA
B-40-400-1BB
B-40-400-1C
B-40-400-7A
B-40-400-7B
B-40-400-3A
B-40-400-3B
B-40-400-8A
B-40-400-8B
B-40-400-8C
S-40-858
S-40-855
R-40-582
R-40-583
R-40-584
RAMP MW ℄
RAMP JW ℄
RAMP' JE ℄
RAMP BE ℄
RAMP CL ℄
MILWAUKEE WB EXIT RAMP
JACKSON STREET WB ENTRANCE RAMP
JACKSON STREET EB EXIT RAMP
BROADWAY EB ENTRANCE RAMP
SAND BARREL ARRAY
55 MPH DESIGN SPEED
SALVAGE EXISTING SAND BARRELS
PER SPECIAL PROVISIONS
END PROJECT
STA. 632+29.98 EB
MATCHLINE STA. 647+00 EB
WATER STREET
BROADWAY
MILWAUKEE STREET
ST. PAUL AVENUE
N

PI 638+07.47
EL 625.45
+2.70%
-1.15%
FULL RECONSTRUCT MILL AND OVERLAY

PROPOSED PROFILE
IH 794 EB

EXISTING PROFILE
IH 794 EB

PROPSED PROFILE IH 794 EB
FOR INFORMATION ONLY WITHIN
MILL AND OVERLAY LIMITS

K = 118
L = 200'
632+30.00
EL 611.56
634+30.00
EL 615.26
+1.00%
+2.70%
PI 633+30.00
EL 612.56

44" WEB STEEL PLATE GIRDERS
B-40-887
STA. 636+00 EB
REMOVE STRUCTURE B-40-285-38A/B
706'- 0" OVERALL LENGTH
FULL RECONSTRUCT

634+49.97 EL 615.80

18'-0"
MINIMUM CLEARANCE

36" WEB STEEL PLATE GIRDERS
B-40-887
STA. 640+00 EB
REMOVE STRUCTURE B-40-285-38C
112'- 0" OVERALL LENGTH
FULL RECONSTRUCT

16'-4"
MINIMUM CLEARANCE

16'-2"
MINIMUM CLEARANCE

25'-8"
MINIMUM CLEARANCE

K = 186
L = 715'

BROADWAY EB
ENTRANCE RAMP
R-40-584/B-40-400-8A

28'-8"
MINIMUM CLEARANCE

641+64.97 EL 621.34

66" MULTI-CELL CONCRETE BOX GIRDERS
B-40-400-3A
STA. 642+25 EB
CONCRETE OVERLAY STRUCTURE B-40-400-3A
3-SPAN MULTI-CELL CONCRETE BOX GIRDER BRIDGE

66" MULTI-CELL CONCRETE BOX GIRDERS
B-40-400-3B
STA. 645+50 EB
CONCRETE OVERLAY STRUCTURE B-40-400-3B
3-SPAN MULTI-CELL CONCRETE BOX GIRDER BRIDGE

EXISTING GROUND PROFILE

EXISTING GRADE
IH 794 EB ℄
(TYP.)

PROPOSED GRADE
IH 794 EB ℄
(TYP.)

620 615 610 605 600 595 590 585

611.78 612.47 613.37 614.49 615.80 617.08 618.23 619.24 620.12 620.87 621.48 621.95 622.29 622.50 622.57 622.50 622.31 621.97 621.51 620.94 620.36 619.79 619.21 618.64 618.06 617.49 616.91 616.34 615.76 615.19

633+00 EB 634+00 EB 635+00EB 636+00 EB 637+00 EB 638+00 EB 639+00 EB 640+00 EB 641+00 EB 642+00 EB 643+00 EB 644+00 EB 645+00 EB 646+00 EB 647+00 EB

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - IH 794 EASTBOUND (EB)	SHEET 858 E

FILE NAME : IP_PWP:d0231471\050160_pp.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000

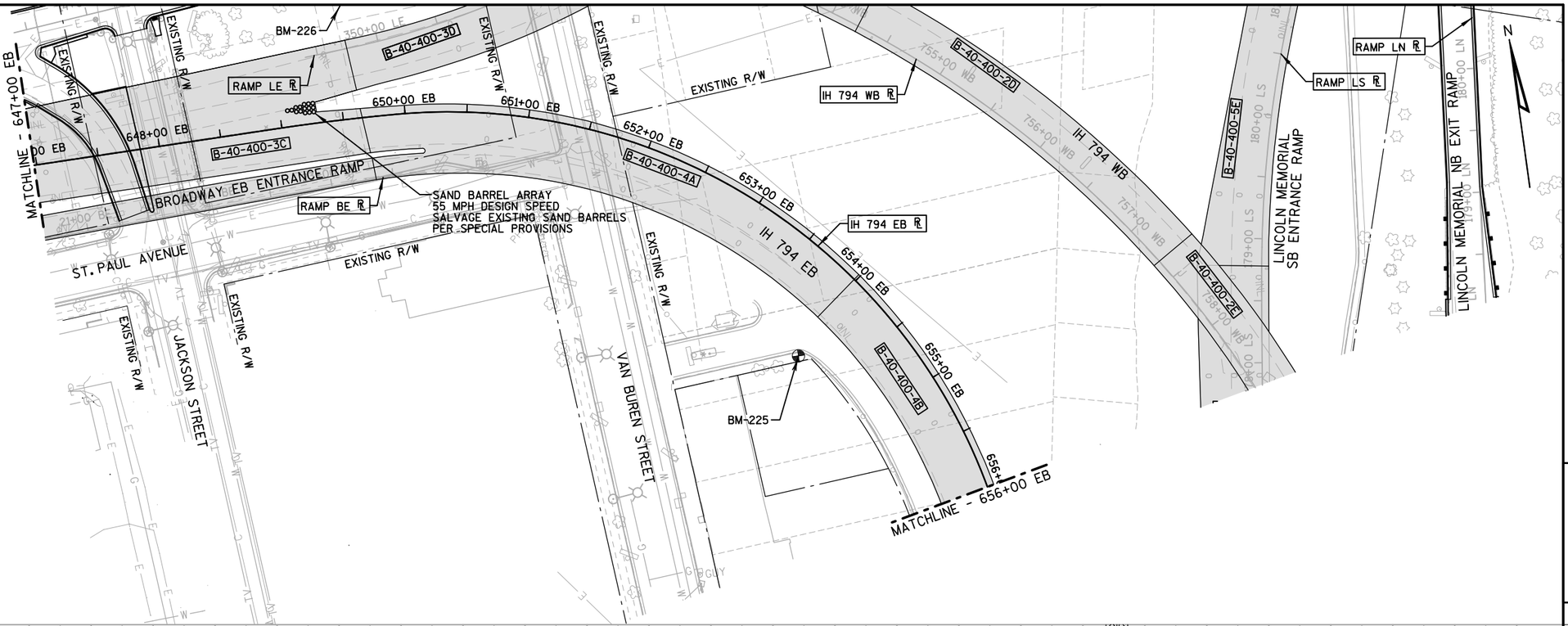
WISDOT/CADDS SHEET 40

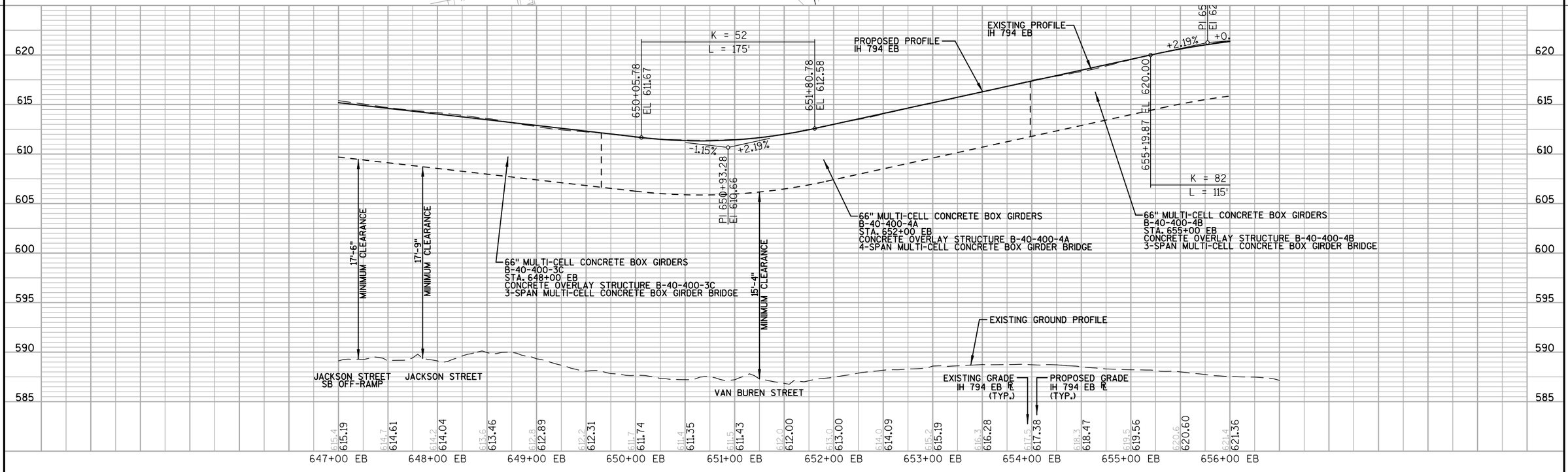
BENCH MARKS

NO.	EB ℄ STATION	DESCRIPTION	ELEV.
225	654+12.41	ALUMINUM MONUMENT CAP	586.97
226	649+63.54	ALUMINUM MONUMENT CAP	589.61
227	644+35.46	ALUMINUM MONUMENT CAP	588.84

LEGEND

CONCRETE OVERLAY





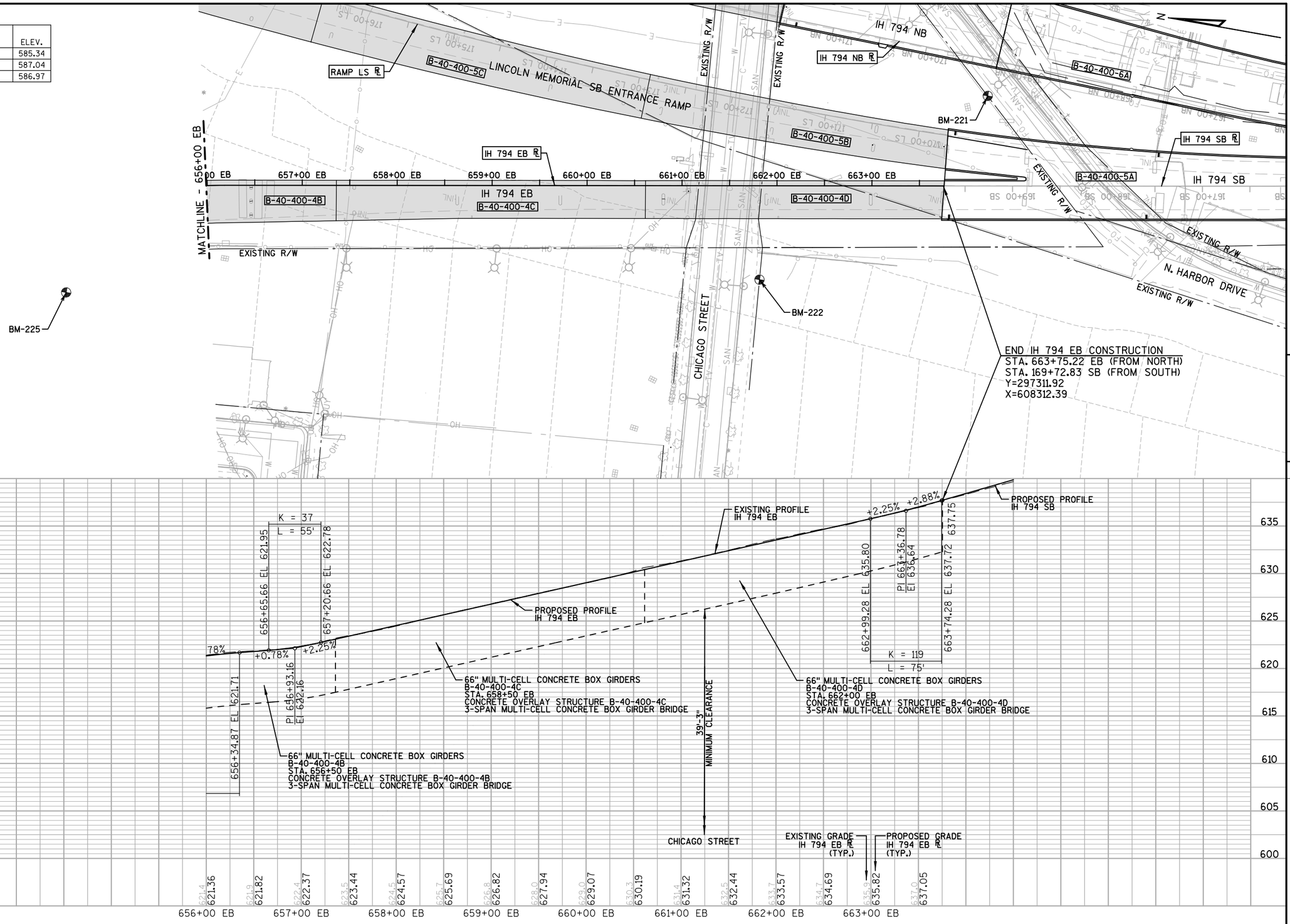
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - IH 794 EASTBOUND (EB)	SHEET 859	E

BENCH MARKS

NO.	EB ℄ STATION	DESCRIPTION	ELEV.
221	169+26.60	ALUMINUM MONUMENT CAP	585.34
222	661+81.61	ALUMINUM MONUMENT CAP	587.04
225	654+12.41	ALUMINUM MONUMENT CAP	586.97

LEGEND

CONCRETE OVERLAY



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - IH 794 EASTBOUND (EB)	SHEET 860	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
228	740+54.61 WB	ALUMINUM MONUMENT CAP	591.15
229	733+51.91 WB	ALUMINUM MONUMENT CAP	591.15
230	738+03.15 WB	ALUMINUM MONUMENT CAP	590.56
231	633+66.21 EB	ALUMINUM MONUMENT CAP	590.22

LEGEND

CONCRETE OVERLAY

BM-229 BM-230 BM-231 BM-228

WATER STREET BROADWAY CLYBOURN STREET MILWAUKEE STREET JEFFERSON STREET

EXISTING R/W

IH 794 WB IH 794 EB IH 794 WB RAMP IH 794 EB RAMP

B-40-885 B-40-887 B-40-1AA B-40-7B B-40-886 B-40-7A B-40-1BB B-40-3A B-40-3B B-40-888 S-40-855

R-40-584 R-40-582 R-40-583

RAMP CL RAMP BE RAMP MW RAMP JW RAMP JE

MILWAUKEE STREET WB EXIT RAMP

JACKSON STREET WB ENTRANCE RAMP

JACKSON STREET EB EXIT RAMP

EX. R/W

WISCONSIN AVENUE - 746+00 WB

BEGIN IH 794 WB CONSTRUCTION
STA. 732+33.97 WB
Y=298549.41
X=605983.40

FULL RECONSTRUCT MILL AND OVERLAY

K = 296
L = 415'

K = 179
L = 115'

K = 123
L = 175'

K = 38
L = 35'

732+34.77 EL 613.46

613.47

-0.90% +0.50%

PI 734+42.27 EL 611.60

736+49.77 EL 612.63

PROPOSED PROFILE IH 794 WB

EXISTING PROFILE IH 794 WB

+0.50% +0.36% +0.36% +1.00%

PI 739+25.17 EL 614.01

739+92.50 EL 614.25

741+07.50 EL 615.04

PI 740+50.00 EL 614.46

742+42.50 EL 616.39

744+17.50 EL 616.90

+1.00% -0.42%

PI 743+30.00 EL 617.27

745+03.84 EL 616.53

745+38.84 EL 616.55

-0.42% +0.50%

PI 745+21.34 EL 616.46

44" WEB STEEL PLATE GIRDERS
B-40-885
STA. 736+00 WB
REMOVE STRUCTURE B-40-285-37B
268'-0" OVERALL LENGTH

66" MULTI-CELL CONCRETE BOX GIRDERS
B-40-400-1AA
STA. 740+50 WB
CONCRETE OVERLAY STRUCTURE B-40-400-1AA

66" MULTI-CELL
CONCRETE BOX GIRDERS
B-40-400-1BB
STA. 743+50 WB
CONCRETE OVERLAY
STRUCTURE B-40-400-1BB

66" MULTI-CELL CONCRETE BOX GIRDERS
B-40-400-1C
STA. 745+50 WB
CONCRETE OVERLAY STRUCTURE B-40-400-1C

15'-4" MINIMUM CLEARANCE
16'-10" MINIMUM CLEARANCE
17'-3" MINIMUM CLEARANCE
17'-11" MINIMUM CLEARANCE
18'-5" MINIMUM CLEARANCE
16'-9" MINIMUM CLEARANCE

WATER STREET
BROADWAY
BROADWAY EB ENTRANCE RAMP
CLYBOURN EB SLIP RAMP
MILWAUKEE STREET
MILWAUKEE WB EXIT RAMP

EXISTING GRADE IH 794 WB RP (TYP.)
PROPOSED GRADE IH 794 WB RP (TYP.)

EXISTING GROUND PROFILE

620 615 610 605 600 595 590 585

613.3 613.33 613.1 612.95 612.9 612.65 612.6 612.44 612.2 612.31 612.0 612.26 611.7 612.30 611.6 612.43 611.7 612.63 611.9 612.88 612.4 613.13 612.9 613.38 613.4 613.63 613.8 613.88 614.1 614.10 614.3 614.28 614.6 614.55 615.0 614.96 615.5 615.46 615.9 615.97 616.5 616.46 616.8 616.83 617.1 617.00 617.0 616.96 616.9 616.76 616.6 616.55 616.7 616.60 616.9 616.85

WB 733+00 WB 734+00 WB 735+00 WB 736+00 WB 737+00 WB 738+00 WB 739+00 WB 740+00 WB 741+00 WB 742+00 WB 743+00 WB 744+00 WB 745+00 WB 746+00 WB

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - IH 794 WESTBOUND (WB)	SHEET 861	E

FILE NAME : IP_PWP:d0231471\050163_pp.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000

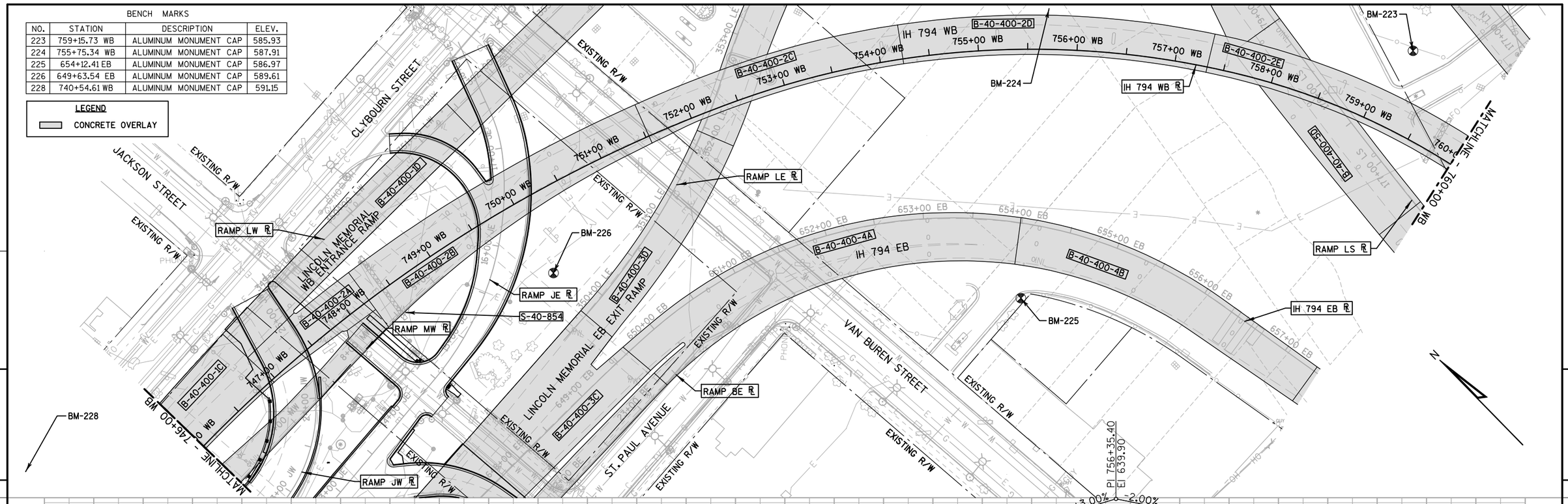
WISDOT/CADDS SHEET 40

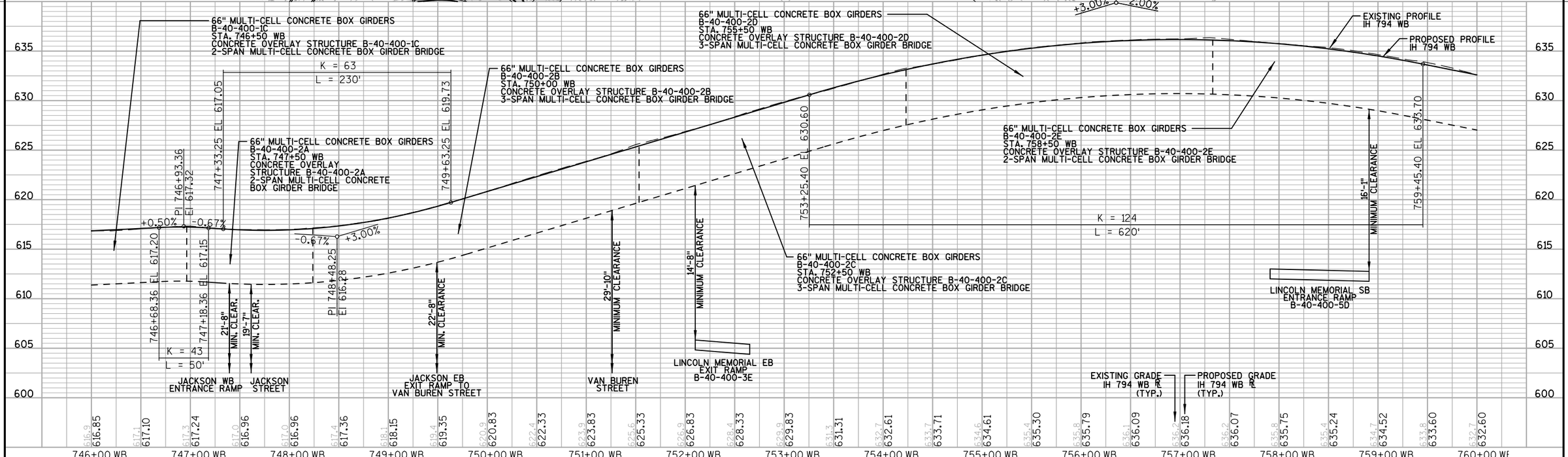
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
223	759+15.73 WB	ALUMINUM MONUMENT CAP	585.93
224	755+75.34 WB	ALUMINUM MONUMENT CAP	587.91
225	654+12.41 EB	ALUMINUM MONUMENT CAP	586.97
226	649+63.54 EB	ALUMINUM MONUMENT CAP	589.61
228	740+54.61 WB	ALUMINUM MONUMENT CAP	591.15

LEGEND

CONCRETE OVERLAY





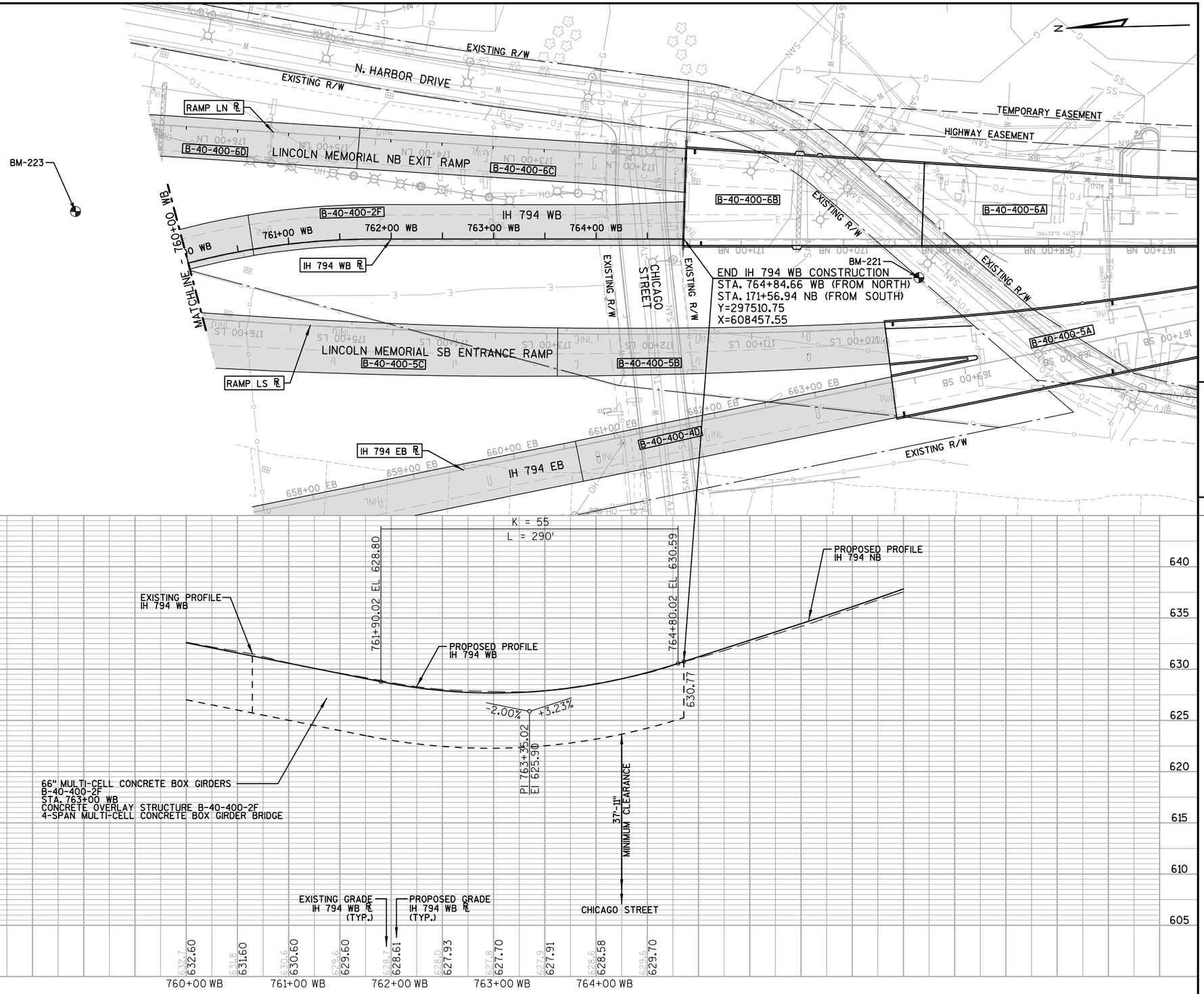
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - IH 794 WESTBOUND (WB)	SHEET 862	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
221	169+26.60 NB	ALUMINUM MONUMENT CAP	585.34
223	759+15.73 WB	ALUMINUM MONUMENT CAP	585.93

LEGEND

CONCRETE OVERLAY



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - IH 794 WESTBOUND (WB)	SHEET 863	E

BENCH MARKS

NO.	LF ℄ STATION	DESCRIPTION	ELEV.
201	64+07.82	ALUMINUM MONUMENT CAP	594.11
202	68+96.35	ALUMINUM MONUMENT CAP	587.82

STATE OF WISCONSIN

CARFERRY WB EXIT RAMP

CARFERRY WB ENTRANCE RAMP

SOUTH CARFERRY DRIVE

12+00 CN

13+00 CN

14+00 CN

15+00 CN

EXISTING R/W

EXISTING R/W

TEMPORARY EASEMENT

CITY OF MILWAUKEE

CITY OF MILWAUKEE

658+00 CN

659+00 CN

660+00 CN

661+00 CN

662+00 CN

663+00 CN

664+00 CN

665+00 CN

666+00 CN

RAMP CN ℄

MGS THRIE BEAM TRANSITION

+71.05

+23.92

+73.91

+11.41

MIN. VERTICAL CLEARANCE

+69.22

+22.29

+09.72

+72.25

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

REMOVE EXISTING GUARDRAIL

IH 794 EB

IH 794 WB

IH 794 LF ℄

B-40-400-S19

B-40-400-S18

B-40-400-S24

HIGHWAY EASEMENT

EAST LINCOLN AVENUE

SOUTH LINCOLN MEMORIAL DRIVE

BM-201

BM-202

BEGIN RAMP CN CONSTRUCTION
STA. 662+22.87 CN
Y = 286868.03
X = 610766.87

END RAMP CN CONSTRUCTION
STA. 666+82.54 CN
Y = 287327.19
X = 610792.03

PI 665+90.00
El 626.73

628.87

K = 130
L = 215'

660+42.50 EL 611.04

662+57.50 EL 616.20

PROPOSED PROFILE RAMP CN

+3.13%

+2.31%

+3.23%

+3.13%

665+37.50 EL 625.09

627.94

666+42.50 EL 627.94

K = 129
L = 105'

PI 663+89.89
El 620.47

+3.23%

+1.57%

EXISTING PROFILE RAMP CN

PI 661+50.00
El 612.73

615.13

16'-6"
MINIMUM CLEARANCE

B-40-400-S24
STA. 664+50 CN
4-SPAN STEEL MULTIGIRDER
436-FEET OVERALL LENGTH
26-FEET OVERALL WIDTH
TO BE REDECKED

EXISTING GROUND-LEVEL PROFILE ALONG ALIGNMENT OF CARFERRY DRIVE WESTBOUND ENTRANCE RAMP

EAST LINCOLN AVENUE

EXISTING GRADE RAMP CN ℄ (TYP.)

PROPOSED GRADE RAMP CN ℄ (TYP.)

630 625 620 615 610 605 600 595

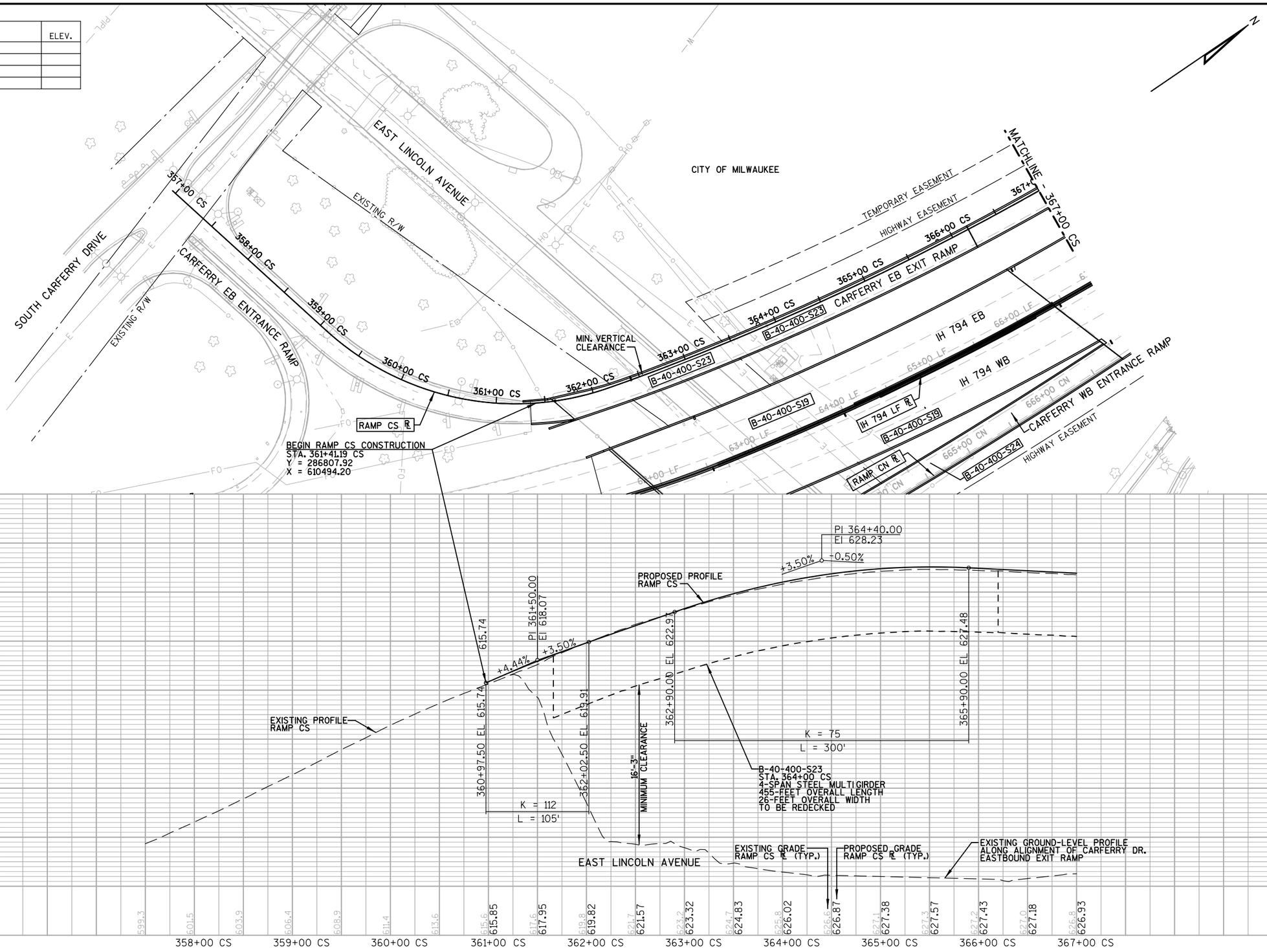
606.5 607.6 608.6 609.5 610.4 611.3 612.1 613.2 614.4 616.0 615.96 617.5 617.57 619.0 619.18 620.5 620.79 622.2 622.35 623.7 623.91 625.3 625.47 626.8 626.89 627.9 628.12

658+00 CN 659+00 CN 660+00 CN 661+00 CN 662+00 CN 663+00 CN 664+00 CN 665+00 CN 666+00 CN

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - CARFERRY WESTBOUND ENTRANCE RAMP (CN)	SHEET 864	E

BENCH MARKS

NO.	LF ℄ STATION	DESCRIPTION	ELEV.



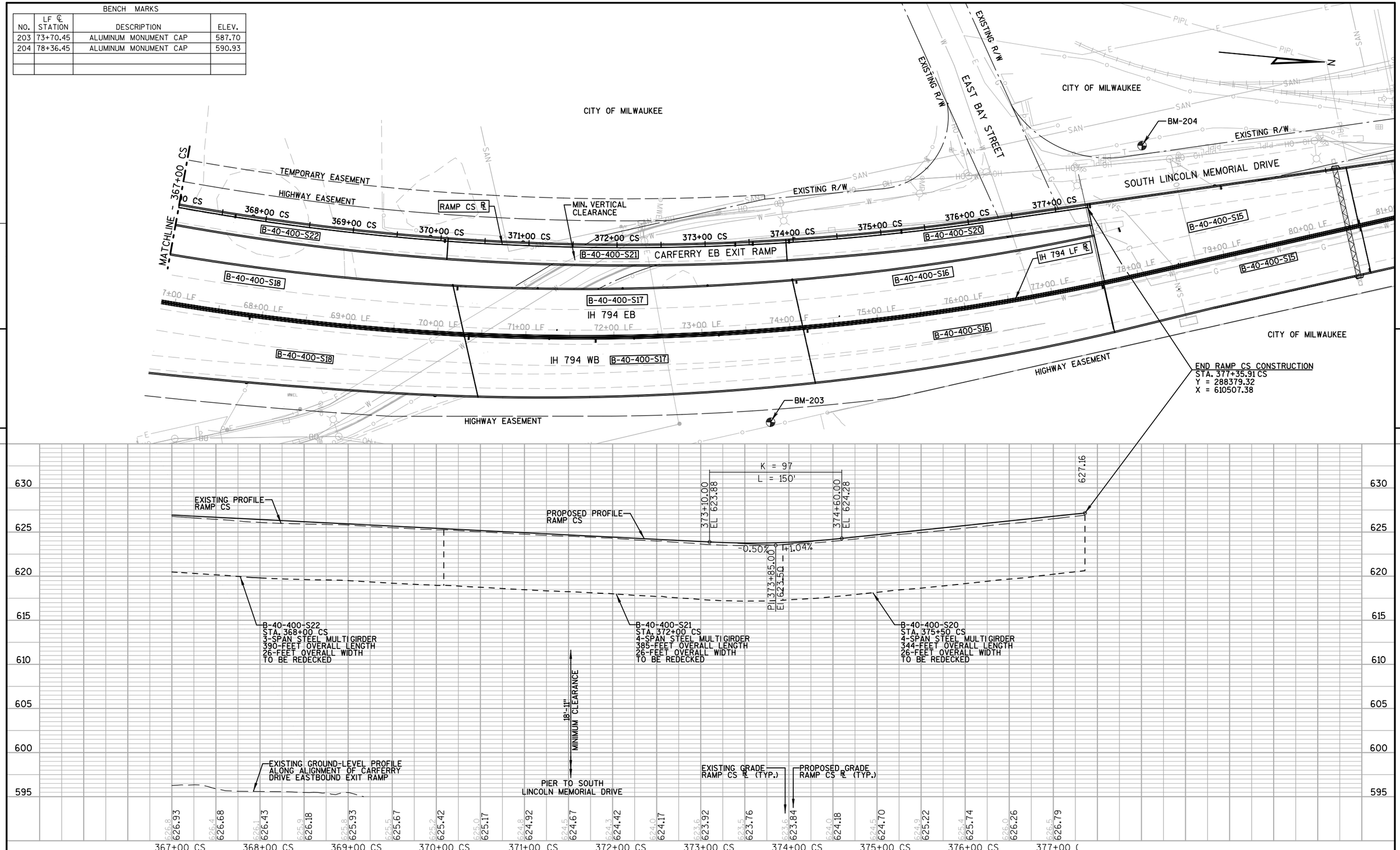
PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - CARFERRY EASTBOUND EXIT RAMP (CS)	SHEET 865	E

FILE NAME : IP_PWP:d0231471\050167_pp.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000

WISDOT/CADDS SHEET 40

BENCH MARKS

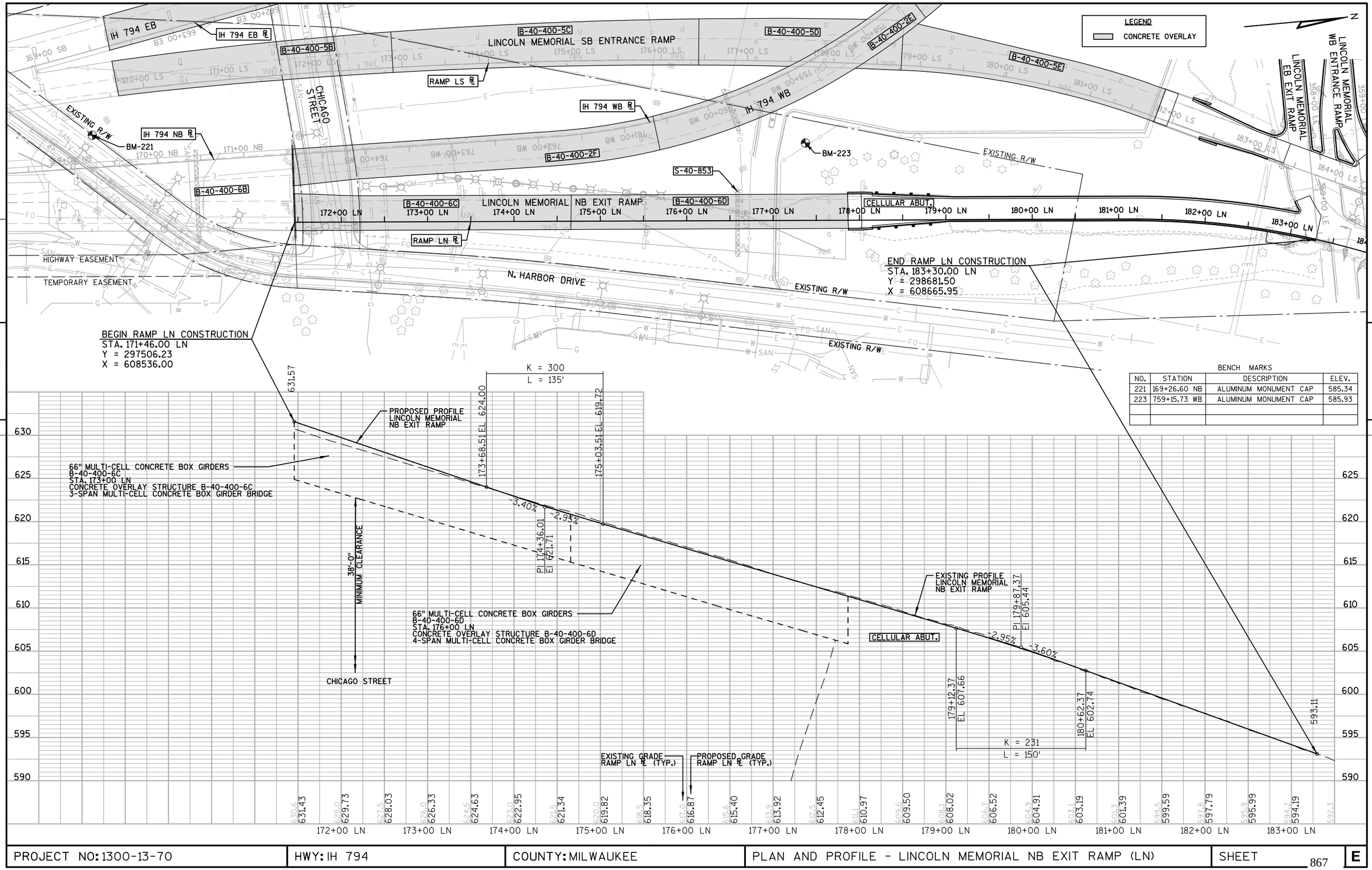
NO.	LF ℄ STATION	DESCRIPTION	ELEV.
203	73+70.45	ALUMINUM MONUMENT CAP	587.70
204	78+36.45	ALUMINUM MONUMENT CAP	590.93



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - CARFERRY EASTBOUND EXIT RAMP (CS)	SHEET 866	E

FILE NAME : IP_PWP:d0231471\050168_pp.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000

WISDOT/CADDS SHEET 40



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - LINCOLN MEMORIAL NB EXIT RAMP (LN)	SHEET 867	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
221	169+26.60 NB	ALUMINUM MONUMENT CAP	585.34
222	661+81.61 EB	ALUMINUM MONUMENT CAP	587.04
223	759+15.73 WB	ALUMINUM MONUMENT CAP	585.93

LEGEND
CONCRETE OVERLAY

BM-222
CHICAGO STREET
EXISTING R/W
B-40-400-4B
IH 794 EB
B-40-400-4C
B-40-400-4D
B-40-400-5A
IH 794 SB
IH 794 SB
LINCOLN MEMORIAL SB ENTRANCE RAMP
B-40-400-5B
B-40-400-5C
B-40-400-5D
B-40-400-2E
170+00 LS
171+00 LS
172+00 LS
173+00 LS
174+00 LS
175+00 LS
176+00 LS
177+00 LS
178+00 LS
179+00 LS
RAMP LS
MATCH LINE - 179+00 LS.
BM-221
BEGIN RAMP LS CONSTRUCTION
STA. 169+69.00 LS
Y = 297316.07
X = 608365.57
IH 794 WB
IH 794 WB
B-40-400-2F
IH 794 NB
IH 794 NB
B-40-400-6A
B-40-400-6B
N. HARBOR DRIVE
EXISTING R/W
B-40-400-6C
LINCOLN MEMORIAL NB EXIT RAMP
B-40-400-6D
BM-223
HIGHWAY EASEMENT
RAMP LN
635
636.63
EXISTING PROFILE
LINCOLN MEMORIAL SB
ENTRANCE RAMP
PI 172+89.27
El 626.55
-3.15%
-3.01%
66" MULTI-CELL CONCRETE BOX GIRDERS
B-40-400-5B
STA. 171+50 LS
CONCRETE OVERLAY STRUCTURE B-40-400-5B
3-SPAN MULTI-CELL CONCRETE BOX GIRDER BRIDGE
37'-0"
MINIMUM CLEARANCE
PROPOSED PROFILE
LINCOLN MEMORIAL SB
ENTRANCE RAMP
66" MULTI-CELL CONCRETE BOX GIRDERS
B-40-400-5D
STA. 176+43 LS
CONCRETE OVERLAY STRUCTURE B-40-400-5D
3-SPAN MULTI-CELL CONCRETE BOX GIRDER BRIDGE
66" MULTI-CELL CONCRETE BOX GIRDERS
B-40-400-5C
STA. 174+50 LS
CONCRETE OVERLAY STRUCTURE B-40-400-5C
3-SPAN MULTI-CELL CONCRETE BOX GIRDER BRIDGE
EXISTING GRADE
RAMP LS ℄ (TYP.)
PROPOSED GRADE
RAMP LS ℄ (TYP.)
CHICAGO STREET

635 630 625 620 615 610 605 600

635.2 635.65
633.6 634.08
632.2 632.51
630.7 630.93
629.1 629.36
627.7 627.78
626.3 626.22
624.7 624.72
623.2 623.21
621.7 621.71
620.2 620.20
618.7 618.70
617.1 617.19
615.8 615.69
614.2 614.18
612.7 612.68
611.2 611.17
609.7 609.67
608.1 608.17

170+00 LS 171+00 LS 172+00 LS 173+00 LS 174+00 LS 175+00 LS 176+00 LS 177+00 LS 178+00 LS 179+00 LS

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - LINCOLN MEMORIAL SB ENTRANCE RAMP (LS)	SHEET 868	E

FILE NAME : IP_PWP:d0231471\050170_pp.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000

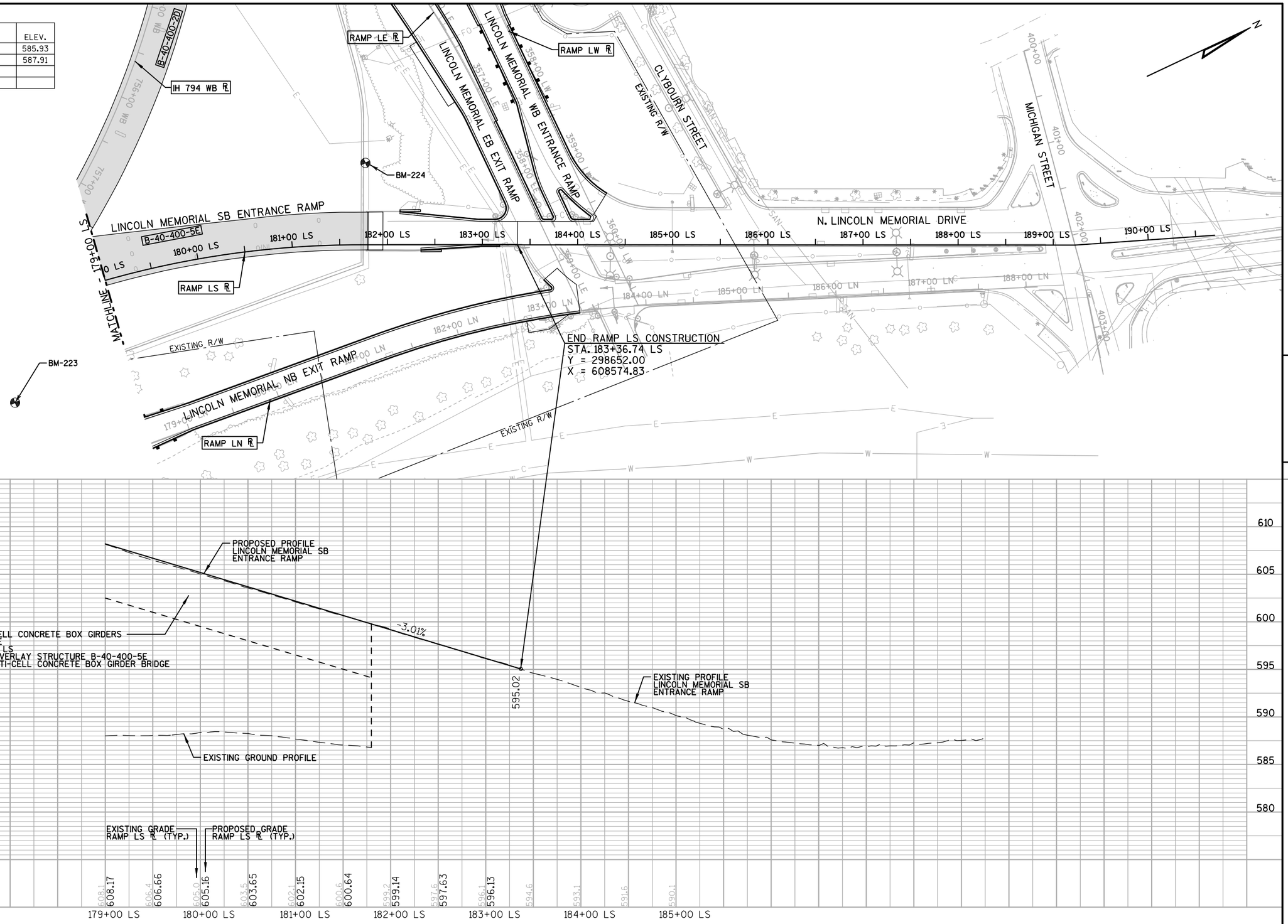
WISDOT/CADDS SHEET 40

BENCH MARKS

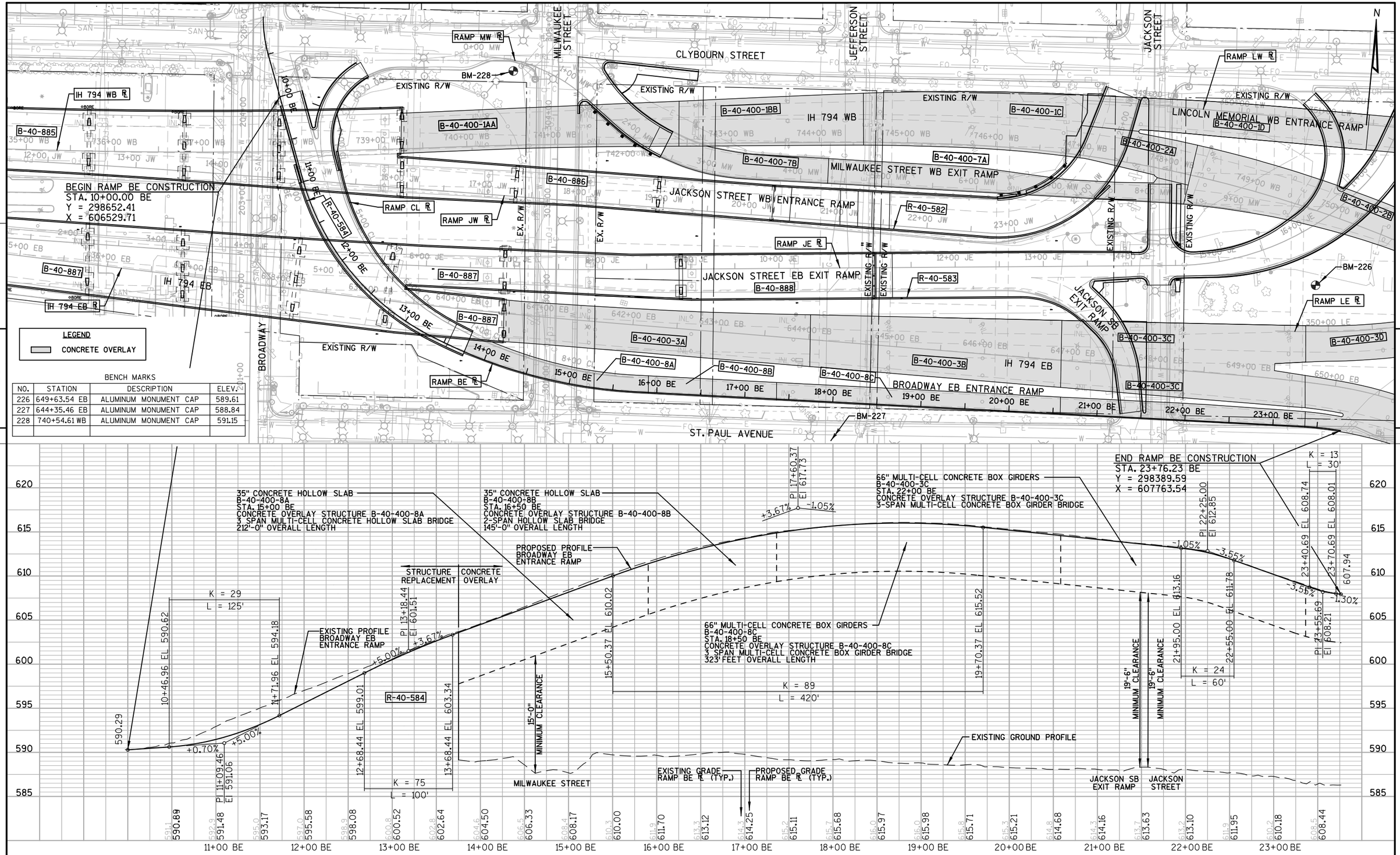
NO.	WB ℄ STATION	DESCRIPTION	ELEV.
223	759+15.73	ALUMINUM MONUMENT CAP	585.93
224	755+75.34	ALUMINUM MONUMENT CAP	587.91

LEGEND

CONCRETE OVERLAY



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - LINCOLN MEMORIAL SB ENTRANCE RAMP (LS)	SHEET 869	E



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - BROADWAY EB ENTRANCE RAMP (BE)	SHEET 870	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
226	649+63.54 EB	ALUMINUM MONUMENT CAP	589.61
228	740+54.61 WB	ALUMINUM MONUMENT CAP	591.15

LEGEND

CONCRETE OVERLAY

BEGIN RAMP JE CONSTRUCTION
STA. 5+82.40 JE
Y = 298476.19
X = 606695.79

END RAMP JE CONSTRUCTION
STA. 18+01.35 JE
Y = 298771.74
X = 607809.21

PI 8+06.81
EI 619.80

84" WEB STEEL PLATE GIRDERS
B-40-888
STA. 9+00 JE
REMOVE STRUCTURE B-40-285-38D
3-SPAN 45 W PRESTRESSED GIRDER BRIDGE
426'-6" OVERALL LENGTH

PROPOSED PROFILE
JACKSON STREET EB EXIT RAMP

EXISTING PROFILE
JACKSON STREET
EB EXIT RAMP

EXISTING GROUND PROFILE

EXISTING GRADE
RAMP JE ℄ (TYP.)

PROPOSED GRADE
RAMP JE ℄ (TYP.)

MILWAUKEE STREET

20'-6"
MINIMUM CLEARANCE

K = 103
L = 445'

K = 41
L = 175'

K = 155
L = 175'

R-40-583

5+84.31 EL 621.14

10+27.31 EL 608.90

12+94.29 EL 595.92

14+69.29 EL 591.08

16+25.02 EL 590.10

18+00.02 EL 589.98

PI 13+81.79
EI 591.63

PI 17+12.52
EI 589.55

-0.60%

-4.90%

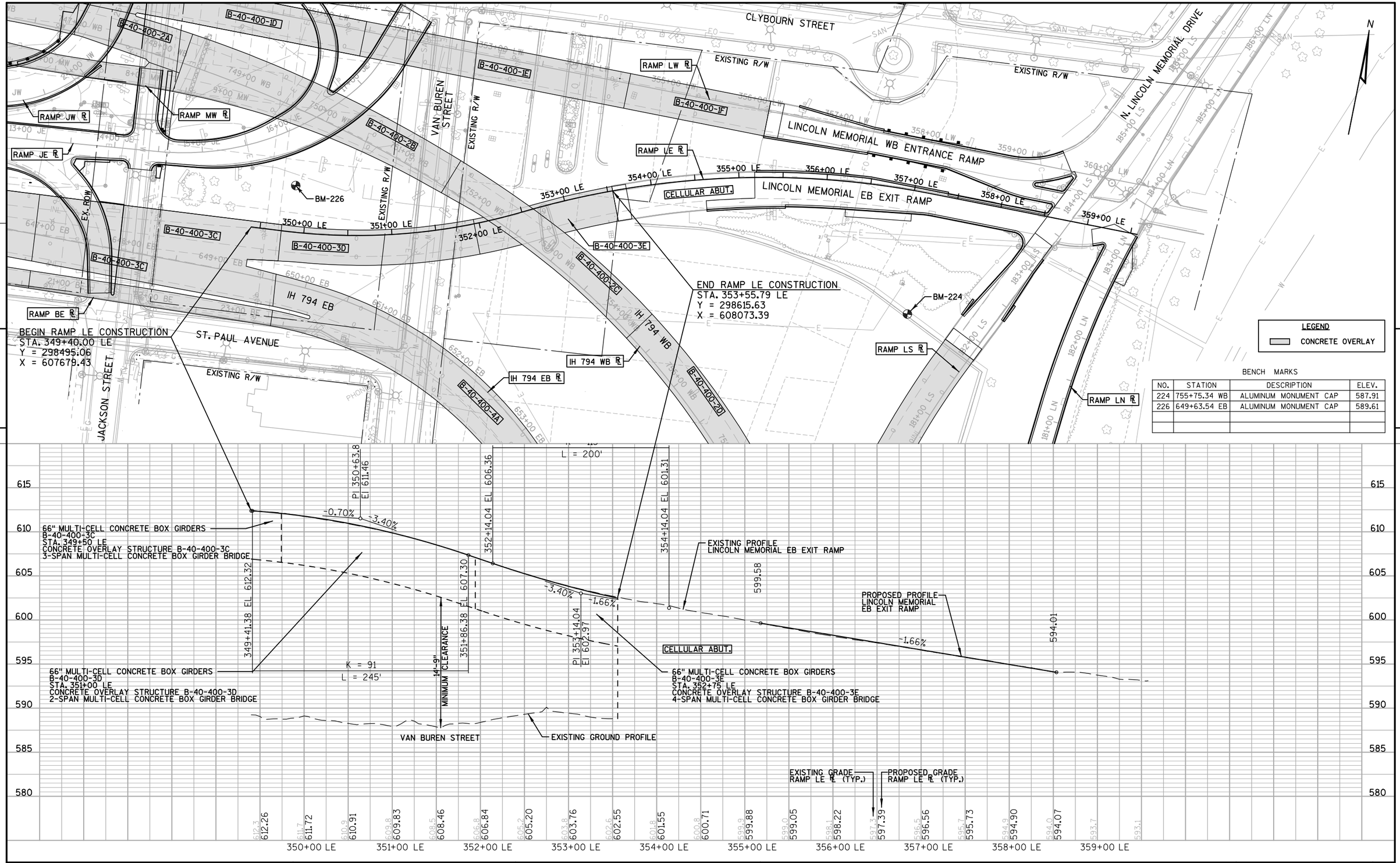
-0.63%

+0.50%

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - JACKSON STREET EASTBOUND EXIT RAMP (JE)	SHEET 871	E

FILE NAME : IP_PWP:d0231471\050173_pp.dgn | PLOT DATE : 26-APR-2013 | PLOT BY : 1732 | PLOT NAME : | PLOT SCALE : 100.000000:1.000000

WISDOT/CADDS SHEET 40



PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - LINCOLN MEMORIAL EB EXIT RAMP (LE)	SHEET 872	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
226	649+63.54 EB	ALUMINUM MONUMENT CAP	589.61
230	738+03.15 WB	ALUMINUM MONUMENT CAP	590.56

BEGIN RAMP JW CONSTRUCTION
STA. 15+98.90
Y = 298562.74
X = 606673.58

END RAMP JW CONSTRUCTION
STA. 25+22.46 JW
Y = 298741.43
X = 607501.70

LEGEND
CONCRETE OVERLAY

614.90
PI 18+14.35
El 615.40
+0.23%
-5.00%
48" WEB STEEL PLATE GIRDERS
B-40-886
STA. 18+00 JW
REMOVE STRUCTURE B-40-285-37C
4-SPAN MULTI-CELL CONCRETE BOX GIRDER BRIDGE
430'-0" OVERALL LENGTH
EXISTING PROFILE
JACKSON STREET WB
ENTRANCE RAMP
PROPOSED PROFILE
JACKSON STREET WB
ENTRANCE RAMP
16+04.35 EL 614.91
17'-0"
MINIMUM CLEARANCE
20+24.35 EL 604.90
R-40-582
K = 80
L = 420'
MILWAUKEE
STREET
EXISTING GRADE
RAMP JW ℄ (TYP.)
PROPOSED GRADE
RAMP JW ℄ (TYP.)
EXISTING GROUND PROFILE
K = 24
L = 150'
22+78.22 EL 592.21
24+28.22 EL 589.36
590.49
-5.00%
+1.20%
PI 23+53.22
El 588.46

16+00 JW	17+00 JW	18+00 JW	19+00 JW	20+00 JW	21+00 JW	22+00 JW	23+00 JW	24+00 JW	25+00 JW
614.7 614.90	614.5 614.89	613.7 614.57	612.6 613.93	611.2 612.98	609.3 611.73	607.4 610.16	606.1 608.28	603.4 606.08	601.6 603.62
599.7 601.12	597.7 598.62	595.7 596.12	593.6 593.62	591.2 591.22	589.8 589.68	589.2 589.19	589.7 589.62	590.1 590.22	

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - JACKSON STREET WB ENTRANCE RAMP (JW)	SHEET 873	E

FILE NAME : IP_PWP:d0231471\050175_pp.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000

WISDOT/CADDS SHEET 40

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
226	649+63.54 EB	ALUMINUM MONUMENT CAP	589.61
228	740+54.61 WB	ALUMINUM MONUMENT CAP	591.15
230	738+03.15 WB	ALUMINUM MONUMENT CAP	590.56

LEGEND

CONCRETE OVERLAY

BEGIN RAMP MW CONSTRUCTION
STA. 1+17.97 MW
Y = 298690.81
X = 606865.59

END RAMP MW CONSTRUCTION
STA. 8+04.06 MW
Y = 298628.65
X = 607530.38

B-40-400-7B
STA. 3+50 MW
CONCRETE OVERLAY STRUCTURE B-40-400-7B
7-SPAN VAULTED ABUTMENT

66" MULTI-CELL CONCRETE BOX GIRDERS
B-40-400-7A
STA. 4+31 MW
CONCRETE OVERLAY STRUCTURE B-40-400-7A
4-SPAN MULTI-CELL CONCRETE BOX GIRDER BRIDGE

66" MULTI-CELL CONCRETE BOX GIRDERS
B-40-400-2A
STA. 7+50 MW
CONCRETE OVERLAY STRUCTURE B-40-400-2A
2-SPAN MULTI-CELL CONCRETE BOX GIRDER BRIDGE

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - MILWAUKEE STREET WB EXIT RAMP (MW)	SHEET 874	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
224	755+75.34 WB	ALUMINUM MONUMENT CAP	587.91
226	649+63.54 EB	ALUMINUM MONUMENT CAP	589.61

LEGEND
CONCRETE OVERLAY

EXISTING R/W
VAN BUREN STREET
CLYBOURN STREET
JACKSON STREET
LINCOLN MEMORIAL WB ENTRANCE RAMP
LINCOLN MEMORIAL EB EXIT RAMP
LINCOLN MEMORIAL SB ENTRANCE RAMP
LINCOLN MEMORIAL NB EXIT RAMP
IH 794 WB
B-40-400-1C
B-40-400-1D
B-40-400-1E
B-40-400-1F
B-40-400-2A
B-40-400-2B
B-40-400-2C
B-40-400-3E
B-40-400-7A
B-40-400-30
R-40-582
R-40-583
RAMP LW R
RAMP LS R
RAMP LE R
RAMP LN R
RAMP MW R
RAMP JW R
RAMP JE R
IH 794 WB R
BM-226
BM-224
349+00 LW
350+00 LW
351+00 LW
352+00 LW
353+00 LW
354+00 LW
355+00 LW
356+00 LW
357+00 LW
358+00 LW
359+00 LW
360+00 LW
BEGIN RAMP LW CONSTRUCTION
STA. 348+19.33 LW
Y = 298734.83
X = 607436.95
END RAMP LW CONSTRUCTION
STA. 359+61.45
Y =298739.67
X = 608579.02
620.37
66" MULTI-CELL CONCRETE BOX GIRDERS
B-40-400-1D
STA. 346+94 WB
CONCRETE OVERLAY
STRUCTURE B-40-400-1D
3-SPAN MULTI-CELL
CONCRETE BOX GIRDER BRIDGE
23'-9" MINIMUM CLEARANCE
23'-1" MINIMUM CLEARANCE
JACKSON WB ENTRANCE RAMP
JACKSON STREET
PI 352+39.88
El 617.71
-0.75%
-4.45%
66" MULTI-CELL CONCRETE BOX GIRDERS
B-40-400-1E
STA. 351+45 LW
CONCRETE OVERLAY STRUCTURE B-40-400-1E
3-SPAN MULTI-CELL CONCRETE BOX GIRDER BRIDGE
351+39.88 EL 618.46
353+39.88 EL 613.26
23'-6" MINIMUM CLEARANCE
21'-7" MINIMUM CLEAR.
21'-7" MINIMUM CLEAR.
K = 54
L = 200'
JACKSON EB EXIT RAMP TO CLYBOURN STREET
JACKSON EB EXIT RAMP TO VAN BUREN STREET
VAN BUREN STREET
EXISTING PROFILE
LINCOLN MEMORIAL WB ENTRANCE RAMP
EXISTING GROUND PROFILE
66" MULTI-CELL CONCRETE BOX GIRDERS
B-40-400-1F
STA. 354+50 LW
CONCRETE OVERLAY STRUCTURE B-40-400-1F
3-SPAN MULTI-CELL CONCRETE BOX GIRDER BRIDGE
K = 108
L = 200'
356+00.00 EL 601.69
358+00.00 EL 594.64
PROPOSED PROFILE
LINCOLN MEMORIAL WB ENTRANCE RAMP
-4.45%
-2.60%
-2.60%
+0.30%
K = 34
L = 100'
358+58.33 EL 593.12
359+58.33 EL 591.97
591.98
PI 357+00.00
El 597.24
PI 359+08.33
El 591.82
EXISTING GRADE
RAMP LW R (TYP.)
PROPOSED GRADE
RAMP LW R (TYP.)

	349+00 LW	350+00 LW	351+00 LW	352+00 LW	353+00 LW	354+00 LW	355+00 LW	356+00 LW	357+00 LW	358+00 LW	359+00 LW	360+00 LW
EXISTING GRADE	620.26	619.89	619.51	619.14	618.76	618.38	617.68	616.51	614.89	612.81	610.59	608.36
	606.14	604.0	603.91	601.7	601.69	599.58	597.7	597.70	596.1	596.05	594.7	594.64
	593.3	593.34	592.2	592.29	591.9	591.95	592.2		591.3			

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - LINCOLN MEMORIAL WB ENTRANCE RAMP (LW)	SHEET 875	E

FILE NAME : IP_PWP:d0231471\050177_pp.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 100.000000:1.000000

WISDOT/CADDS SHEET 40

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
227	644+35.46	ALUMINUM MONUMENT CAP	588.84

BM 227

IH 794 EB

IH 794 WB

RAMP BE

RAMP JE

RAMP JW

RAMP MW

B-40-888

SLOPE INTERCEPT (TYP.)

JEFFERSON STREET

10-FT WIDE CONCRETE SIDEWALK 5-INCH

STA. 100+18.8
5.00' LT

STA. 100+09.9
5.00' LT

+45.8

+69.8

100+00

101+00

102+00

103+00

104+00

EXISTING R/W

CONCRETE SIDEWALK 5-INCH MATCH EXISTING

DETECTABLE WARNING FIELDS YELLOW

PROPOSED PEDESTRIAN TUNNEL SEE STRUCTURE PLANS

ST PAUL AVENUE

CLYBOURN STREET

B-40-400-8C

B-40-400-3B

R-40-583

R-40-582

B-40-400-7A

BEGIN PATH CONSTRUCTION
STA. 100+23.85

END PATH CONSTRUCTION
STA. 103+88.39

589.10

PI 100+90.00
El 589.00

101+00.00 EL 588.63

K = 9
L = 40'

101+40.00 EL 588.04

EXISTING PROFILE AT THE PROPOSED ALIGNMENT OF THE PEDESTRIAN WALKWAY

PROPOSED PROFILE PEDESTRIAN WALKWAY

PI 102+20.00
El 588.70

102+75.00 EL 588.87

K = 14
L = 40'

103+15.00 EL 589.54

PI 103+25.00
El 589.85

590.86

-0.15%

-3.75%

+0.82%

+0.31%

+3.01%

+1.59%

100+80.00 EL 589.02

K = 6
L = 20'

PI 101+20.00
El 587.88

PI 102+95.00
El 588.93

103+20.00 EL 589.70

103+30.00 EL 589.93

K = 7
L = 10'

595 593 591 589 587 585 583 581

589.1 589.10 589.1 589.06 589.0 589.02 588.9 588.63 588.7 588.05 588.4 588.12 588.5 588.33 588.6 588.54 588.7 588.72 588.7 588.79 588.8 588.87 588.7 589.16 589.9 589.83 590.3 590.25 590.7 590.65 590.8

100+00 100+50 101+00 101+50 102+00 102+50 103+00 103+50 104+00

PROJECT NO: 1300-13-70	HWY: IH 794	COUNTY: MILWAUKEE	PLAN AND PROFILE - JEFFERSON STREET PEDESTRIAN WALKWAY	SHEET 876	E

FILE NAME : IP_PWP:d0231471\050178_pp.dgn PLOT DATE : 26-APR-2013 PLOT BY : 1732 PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 40

Standard Detail Drawing List

08A05-18A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-18C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-18D	INLET COVER, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-01	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D15-04A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08D15-04B	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D15-04C	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08E04-02	SOD OR MASONRY AND SOD DITCH CHECKS
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08E14-01	TRACKING PAD
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F05-01	CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER
09B02-07	CONDUIT
09B04-10	PULL BOX
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09C03-03	TRANSFORMER/PEDESTAL BASES
09C05-07	CONCRETE CONTROL CABINET BASES
09C08-04	CONCRETE BASE, TYPE 7
09C10-02	TRANSFORMER BASE FOR 15" BOLT CIRCLE
09C11-03	CONCRETE BASE TYPE 10
09C13-01	CONCRETE BASE TYPE 10 & TYPE 13 EXTENSION
09D01-04	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-02	SIGNAL OR LIGHTING CONTROL CABINET
09D03-02	POST MOUNTED CONTROLLER SERVICE INSTALLATION
09E01-12D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E02-03	FREEWAY LIGHTING UNIT POLE WIRING
09E08-04A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-04E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09G01-03A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
10A01-02	ELECTRICAL HANDHOLE WIRING
10A02-02	IDENTIFICATION PLAQUES LIGHT POLES
10A04-02	IDENTIFICATION PLAQUES UNDERDECK AND HIGH MAST LIGHTING
10A05-02	ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES ISOLATED NEUTRAL SYSTEMS
10A08-02	ELECTRICAL DETAILS STRUCTURE MOUNT LIGHT POLES ISOLATED NEUTRAL SYSTEMS
10A14-02A	ELECTRICAL DETAILS HIGH MAST LIGHTING
10A14-02B	ELECTRICAL DETAILS HIGH MAST LIGHTING
10A15-03A	ELECTRICAL DETAILS UNDERDECK LIGHTING
10A17-03A	POLES, TYPES 7 & 7BR ALUMINUM - 35'-10" SHAFT
10A18-04A	LUMINAIRE ARMS, SINGLE MEMBER 6-INCH CLAMP
10A18-04B	LUMINAIRE ARMS, TRUSS TYPE 6-INCH CLAMP
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13B02-06	CONCRETE PAVEMENT APPROACH SLAB
13C01-15	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-09A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-09B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-09C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C13-07	URBAN DOWELED CONCRETE PAVEMENT
13C14-04A	BASE PATCHING CONCRETE
13C14-04B	BASE PATCHING CONCRETE
13C14-04C	BASE PATCHING CONCRETE
13C18-01A	CONCRETE PAVEMENT JOINTING

6

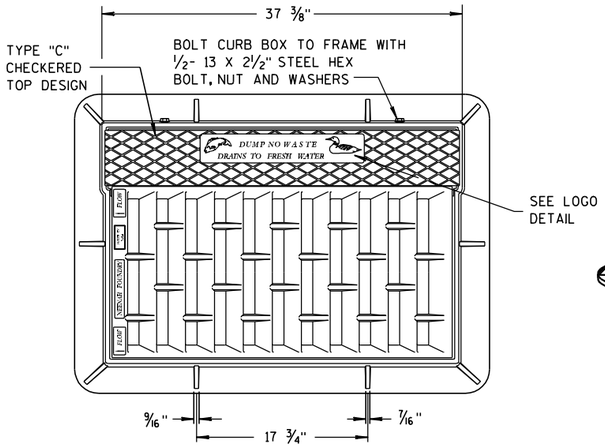
Standard Detail Drawing List

13C18-01B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-01C	CONCRETE PAVEMENT JOINT TIES
13C18-01D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14B07-13A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-01A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B15-07A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B18-06B	STEEL PLATE BEAM GUARD, CLASS "A" AT MEDIAN APPROACH TO BRIDGES
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B20-11D	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS
14B20-11G	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL
14B32-01A	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-01B	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-01C	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-01D	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B33-01A	CONCRETE BARRIER SINGLE SLOPE 32" THRIE BEAM ANCHOR
14B33-01B	CONCRETE BARRIER SINGLE SLOPE 32" THRIE BEAM ANCHOR
14B33-01C	CONCRETE BARRIER SINGLE SLOPE 32" THRIE BEAM ANCHOR
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-01A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A02-07	DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR
15A06-02	DELINEATOR LAYOUT
15B03-12A	CHAIN LINK FENCE
15B03-12B	CHAIN LINK FENCE
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C07-12A	PAVEMENT MARKING SYMBOLS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C08-15B	PAVEMENT MARKING (INTERSECTIONS)
15C08-15E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-15F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C10-10	PAVEMENT MARKINGS FOR DROP LANES FREEWAY/EXPRESSWAY
15C15-03	36" DIAMETER FULL SPAN OVERHEAD SIGN SUPPORT BASE
15C27-01	DOUBLE ARROW WARNING SIGN PLACEMENT

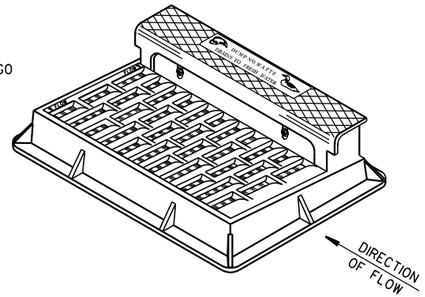
6

Standard Detail Drawing List

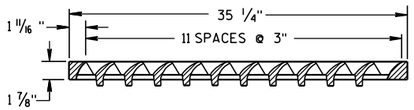
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-01B	LANE DROP PAVEMENT MARKING
15C31-01C	PAVEMENT MARKING MAJOR SPLIT FREEWAY TO FREEWAY
15D03-01	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D04-01	TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING
15D07-03	TRAFFIC CONTROL, TEMPORARY EXIT RAMP CROSSOVER
15D08-03	TRAFFIC CONTROL, TEMPORARY ENTRANCE RAMP CROSSOVER
15D12-02	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.
15D16-01	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-01	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE

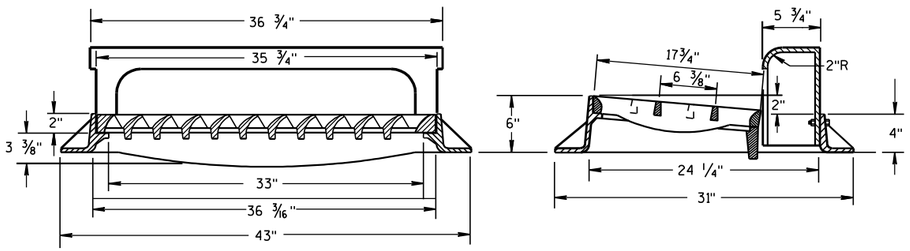


NOTE:
GRATE IS REVERSIBLE.



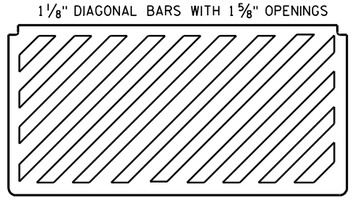
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"





TYPE "H"

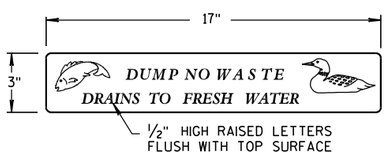
(APPROXIMATE WEIGHT 441 LBS.)
FRAME..... 181 LBS.
GRATE..... 146 LBS.
CURB BOX..... 114 LBS.



SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 159 LBS.)
GRATE..... 159 LBS.

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL

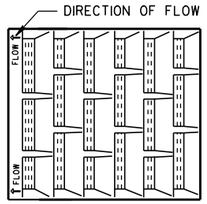
GENERAL NOTES

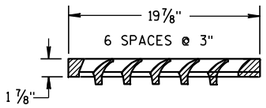
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

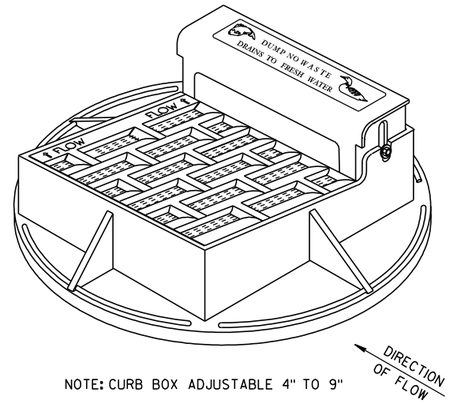
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

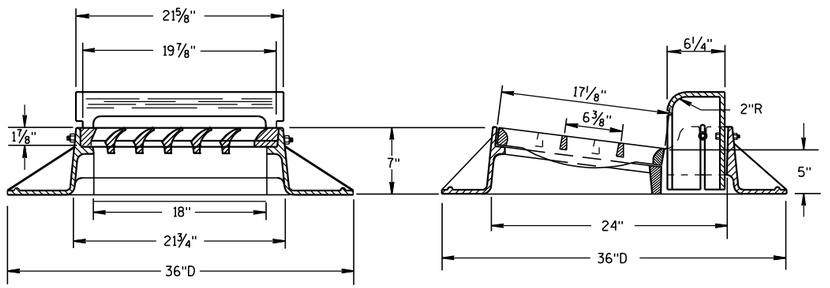
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





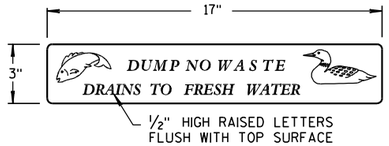


NOTE: CURB BOX ADJUSTABLE 4" TO 9"



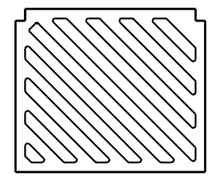
TYPE "A"

(APPROXIMATE WEIGHT 340 LBS.)
FRAME..... 185 LBS.
GRATE..... 71 LBS.
CURB BOX..... 84 LBS.



LOGO DETAIL

NOTE:
GRATE IS REVERSIBLE.



SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 3/4" X 17" X 1 7/8"
GRATE..... 84 LBS.

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

INLET COVERS
TYPE A, H, A-S, & H-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 DATE
/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
880
[illegible] IENT
FHWA

6

S.D.D. 8 A 5-18a

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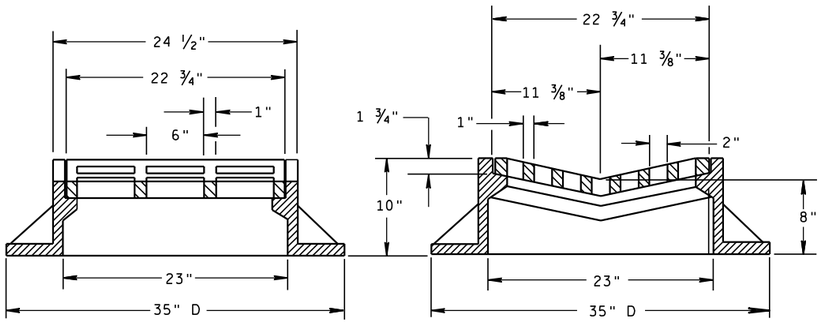
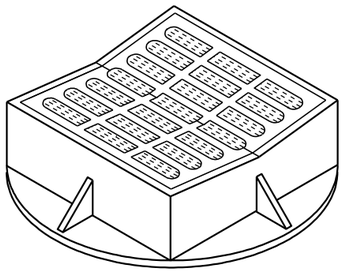
S.D.D. 8 A 5-18a

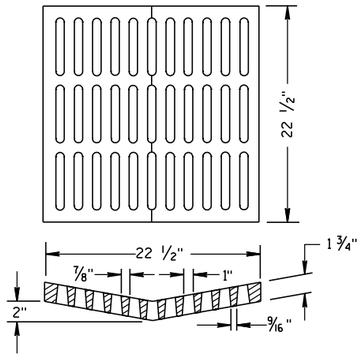




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

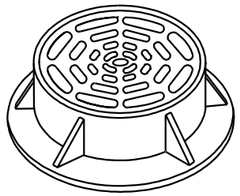


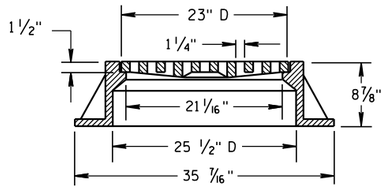
ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 134 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE





TYPE "C"

(APPROXIMATE WEIGHT 259 LBS.)

FRAME..... 152 LBS.
GRATE..... 107 LBS.

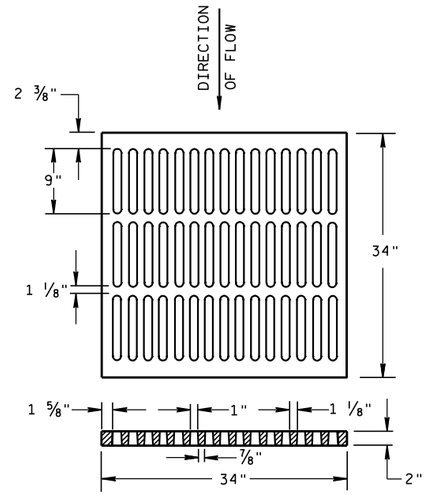
GENERAL NOTES

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

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

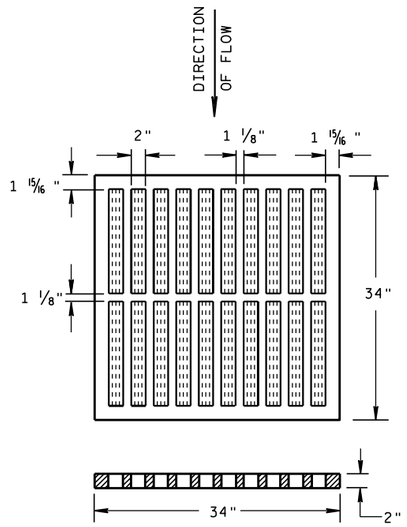


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

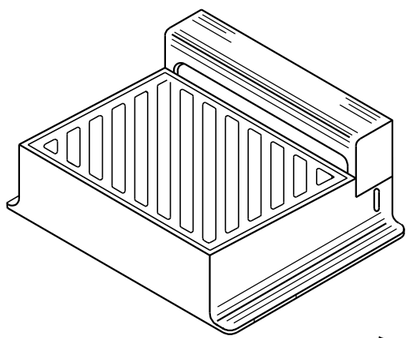


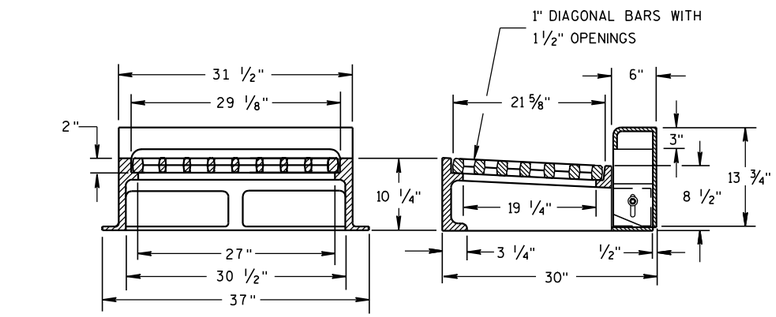
TYPE "MS"

(APPROXIMATE GRATE WEIGHT 268 LBS.)

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE





NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

DIRECTION OF FLOW

DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.

TYPE "WM"

(APPROXIMATE WEIGHT 648 LBS.)

FRAME..... 355 LBS.
GRATE..... 156 LBS.
CURB BOX..... 137 LBS.

INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS ENGINEER

881 ENT

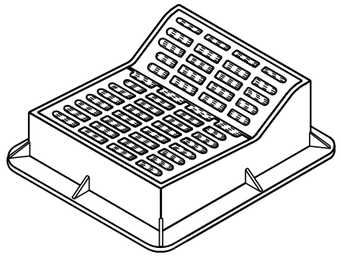
FHWA

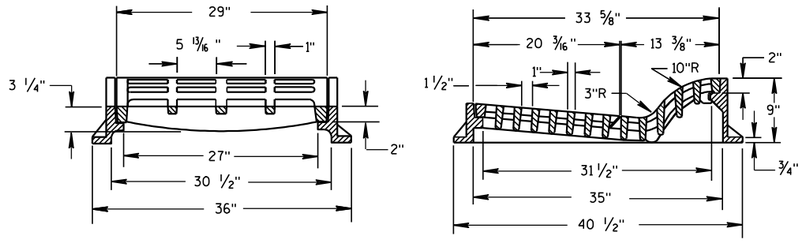
6

S.D.D. 8 A 5-18b

6

S.D.D. 8 A 5-18b



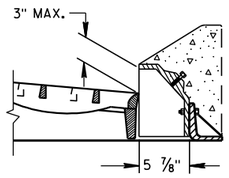


TYPE "F"

(APPROXIMATE WEIGHT 644 LBS.)

FRAME.....302 LBS.
GRATE.....160 LBS.
GRATE.....182 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

(APPROXIMATE WEIGHT CURB BOX 68 LBS.)

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

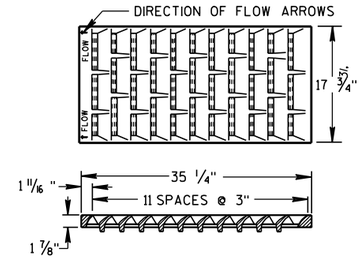
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

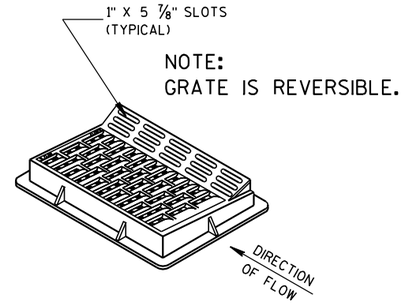
GENERAL NOTES

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

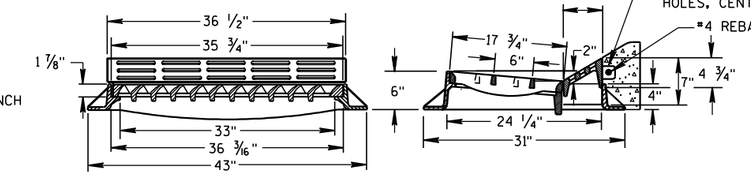
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





NOTE:
GRATE IS REVERSIBLE.

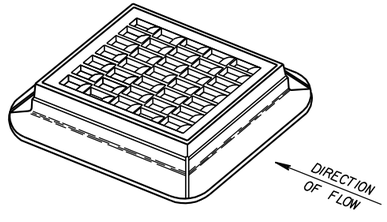


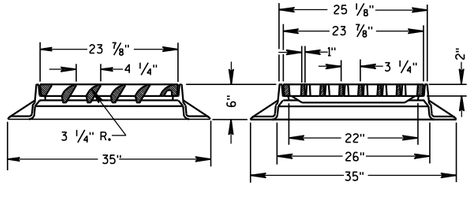
TYPE "HM"

(APPROXIMATE WEIGHT 414 LBS.)
FRAME..... 181 LBS.
GRATE..... 159 LBS.
CURB BOX..... 74 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE

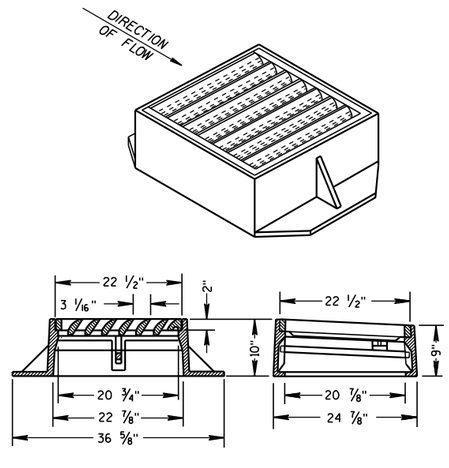




TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

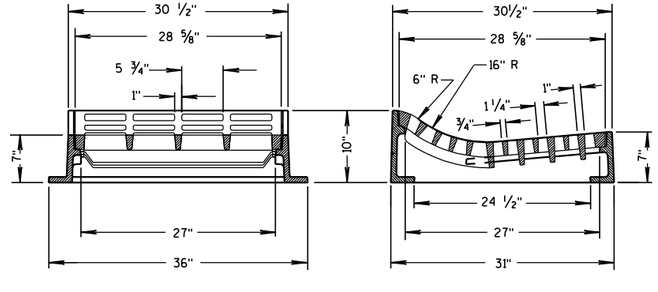
FRAME.....164 LBS.
GRATE..... 169 LBS.



TYPE "V"

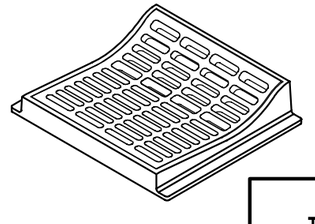
(APPROXIMATE WEIGHT 410 LBS.)

FRAME..... 269 LBS.
GRATE..... 136 LBS.
SAFETY BAR..... 5 LBS.



TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)
FRAME.....270 LBS.
GRATE.....260 LBS.
USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

882

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S.D.D. 8 A 5-18c

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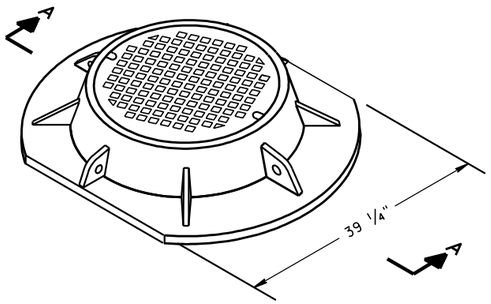
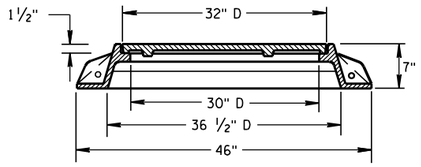
S.D.D. 8 A 5-18c



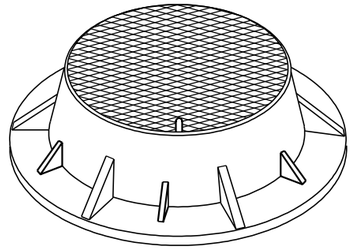


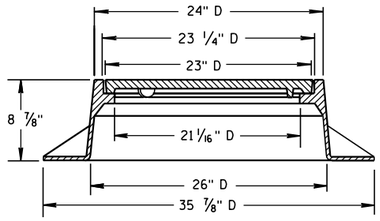
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

FRAME.....216 LBS.
LID.....223 LBS.

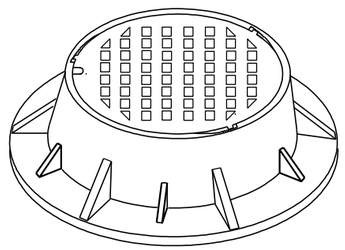


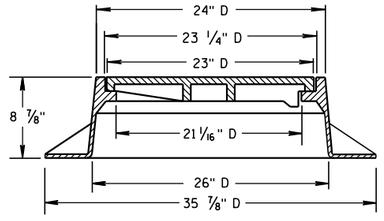


TYPE "J"

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....152 LBS.
LID.....115 LBS.





TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....158 LBS.
LID.....109 LBS.

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

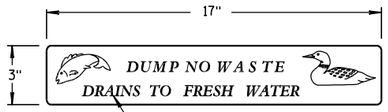
GENERAL NOTES

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

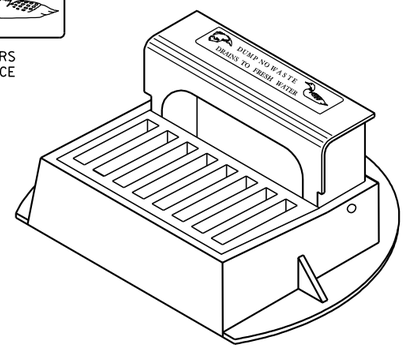
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

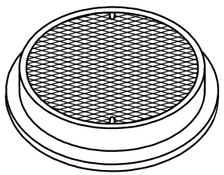
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

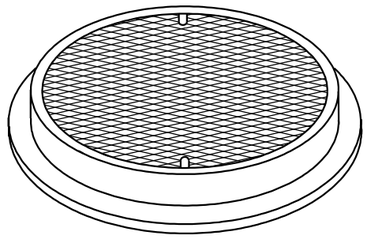
THE ACTUAL WEIGHT OF COVERS MAY VARY WITH 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

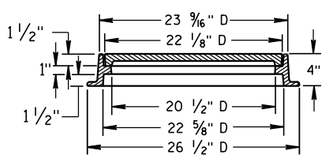


LOGO DETAIL





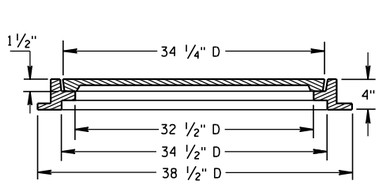




TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

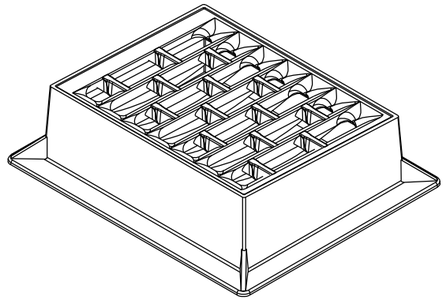
FRAME.....81 LBS.
LID.....77 LBS.

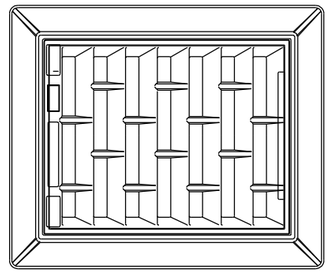


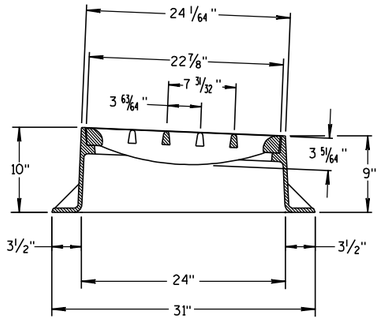
TYPE "M"

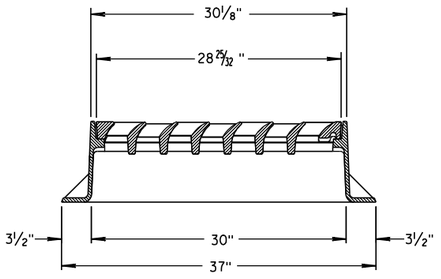
(APPROXIMATE WEIGHT 377 LBS.)

FRAME..... 125 LBS.
LID..... 252 LBS.

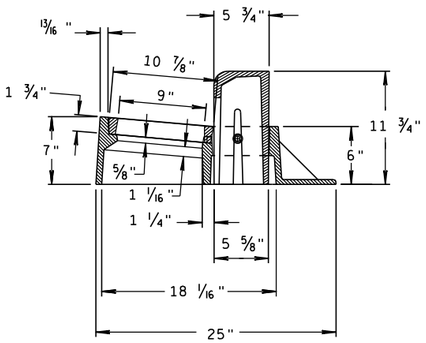








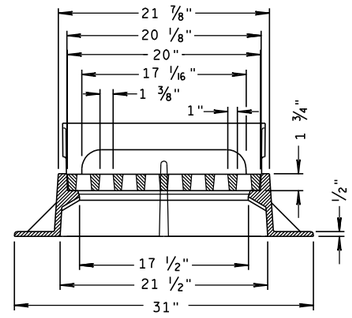
INLET COVER TYPE "BW"



INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 344 LBS.)

FRAME.....206 LBS.
GRATE..... 46 LBS.
CURB BOX..... 92 LBS.



INLET COVERS, TYPE BW, Z
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

883

NT

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S.D.D. 8 A 5-18d

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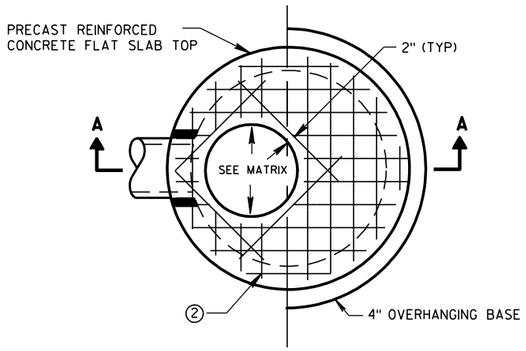
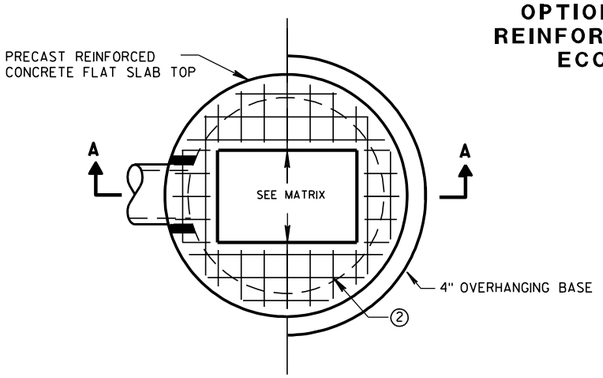
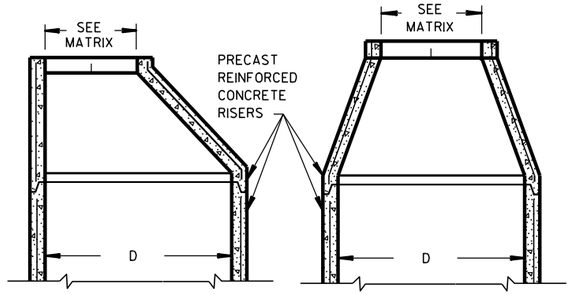
S.D.D. 8 A 5-18d



PLAN VIEW CIRCULAR OPENING

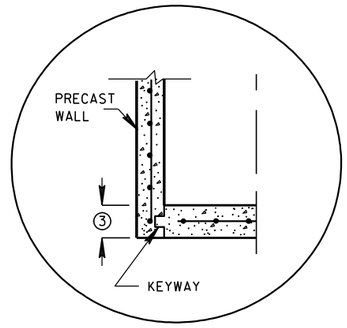


PLAN VIEW RECTANGULAR OPENING

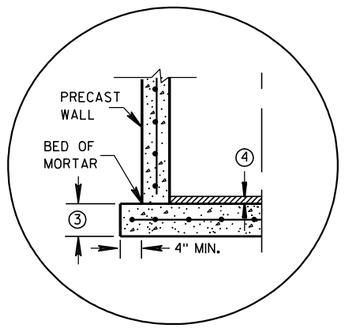


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

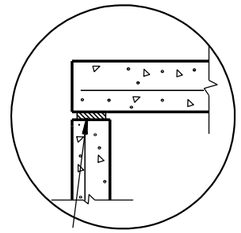


PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION



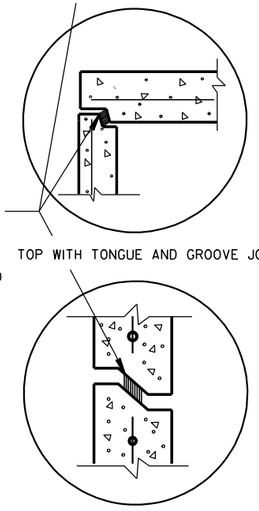
SEPERATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "A"



TOP WITH PLAIN END JOINT

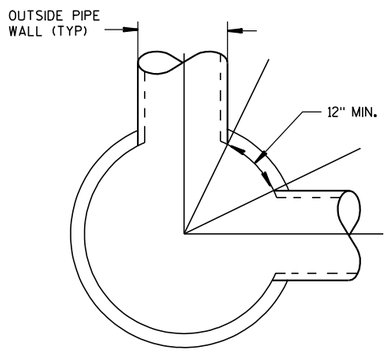
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



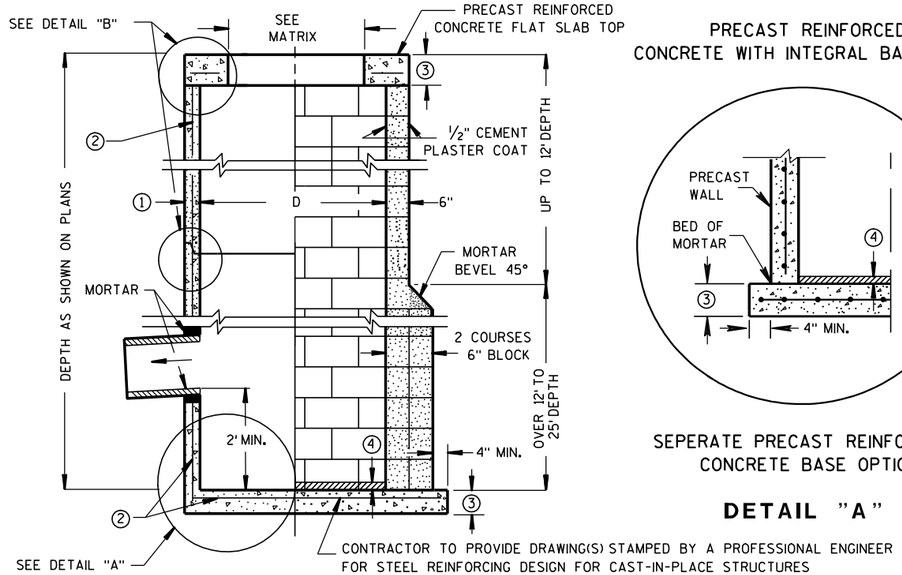
TOP WITH TONGUE AND GROOVE JOINT

RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



DETAIL "C"



CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT)											
3-FT	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT-6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

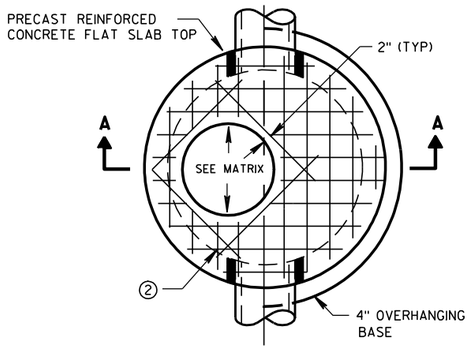
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

884

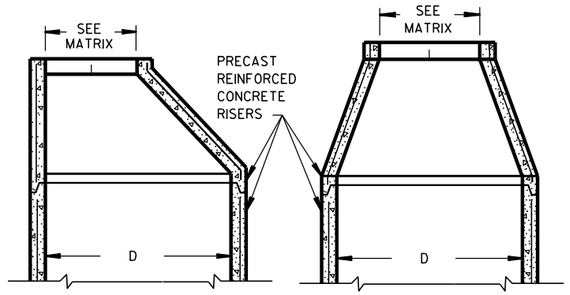
FHWA

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

6
S.D.D. 8 A 8-1

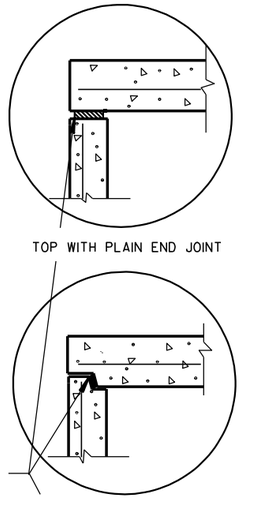


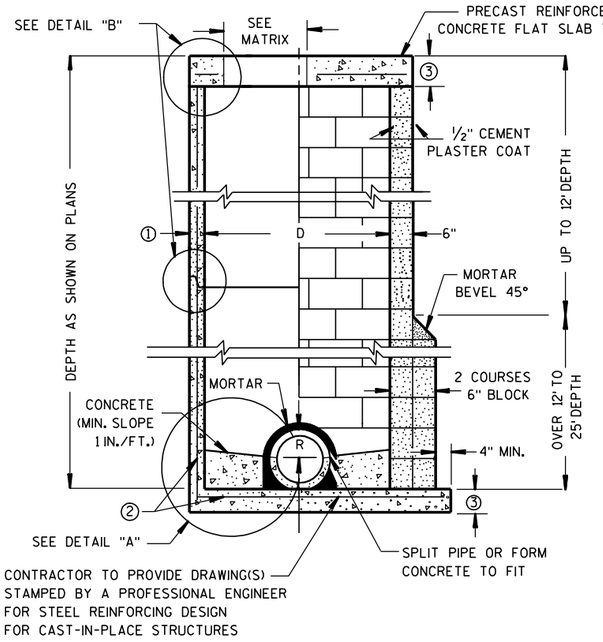
PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

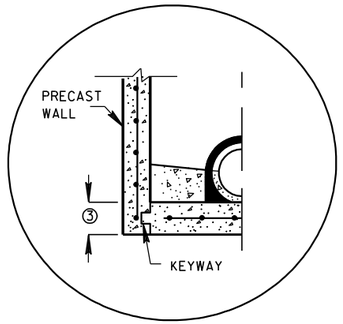
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



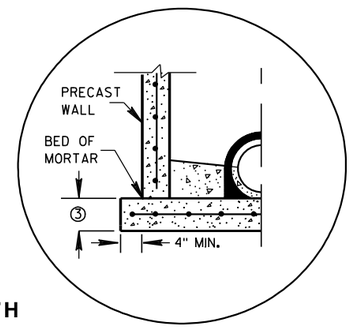


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

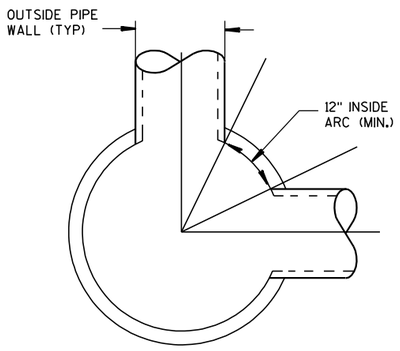


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

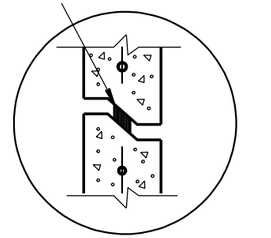


SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



DETAIL "B"

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER 885

FHWA

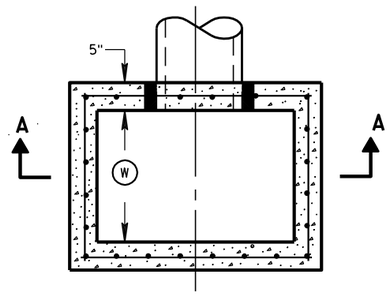
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

6

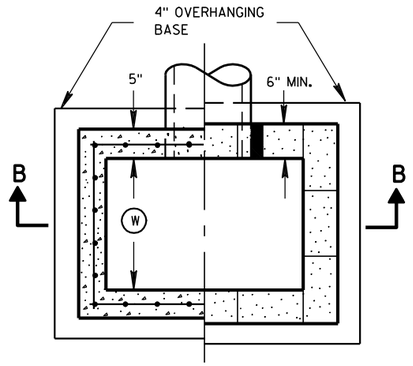
S.D.D. 8 B 9-1

6

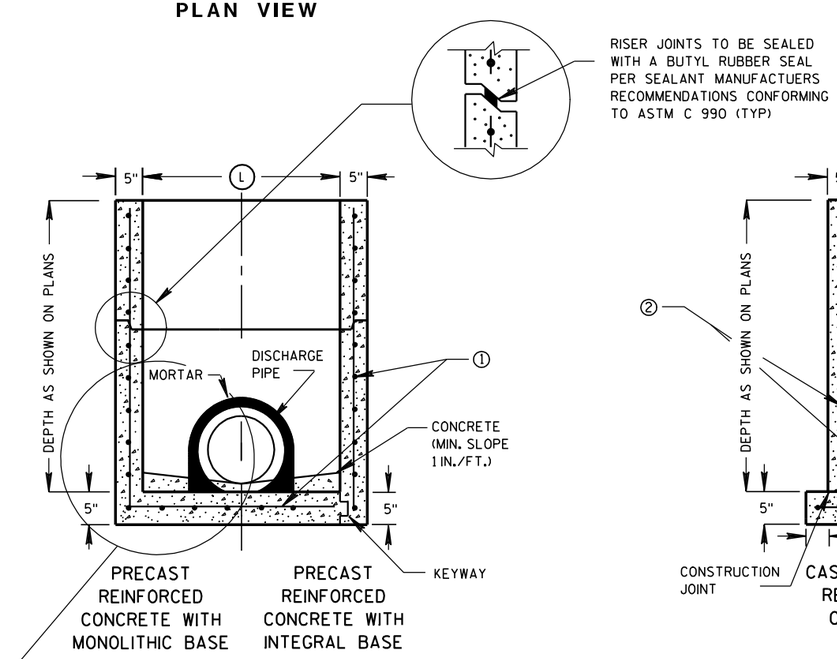
S.D.D. 8 B 9-1



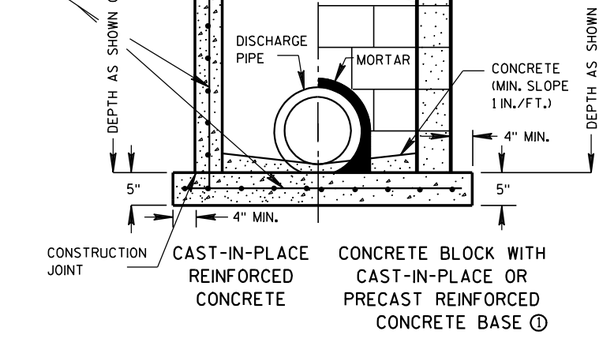
PLAN VIEW



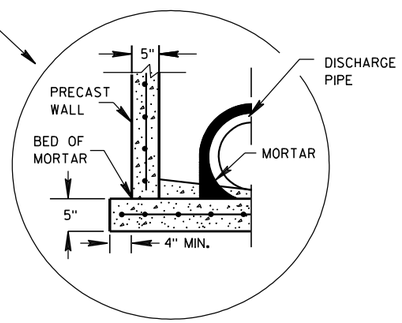
PLAN VIEW



SECTION A-A



SECTION B-B



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

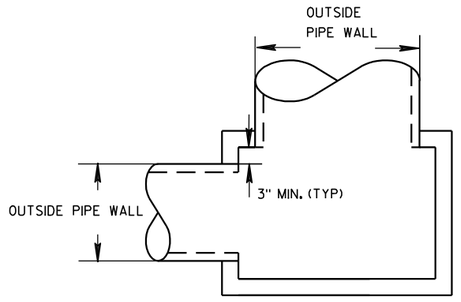
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS D 886 IT ENGINEER
FHWA

6

S.D.D. 8 C 7-1

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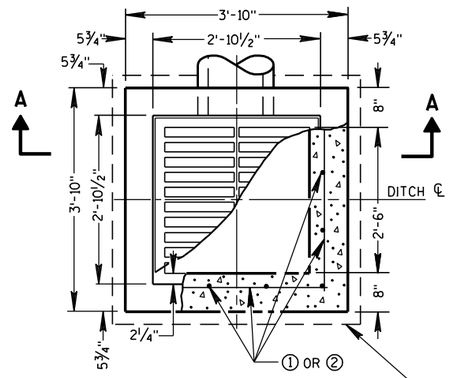
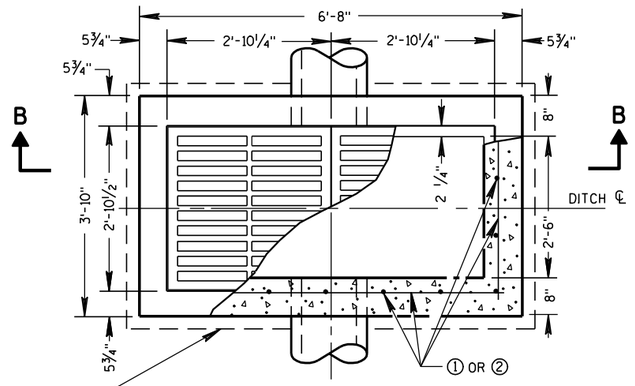
S.D.D. 8 C 7-1

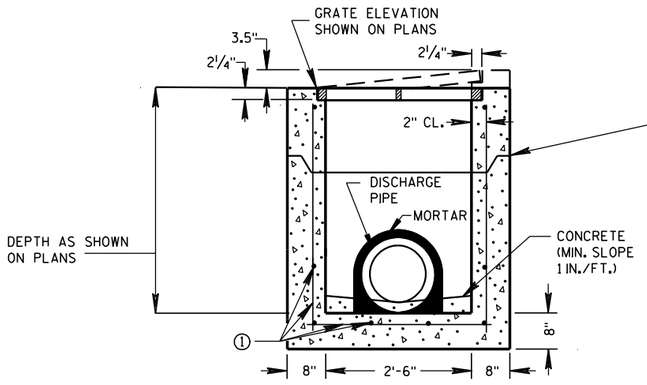


PLAN VIEW

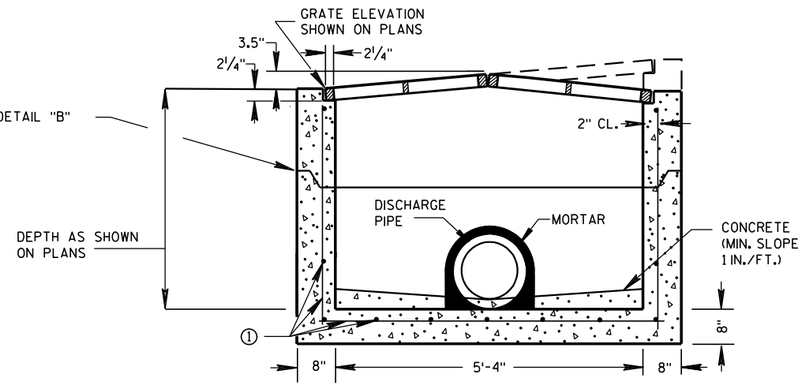


PLAN VIEW

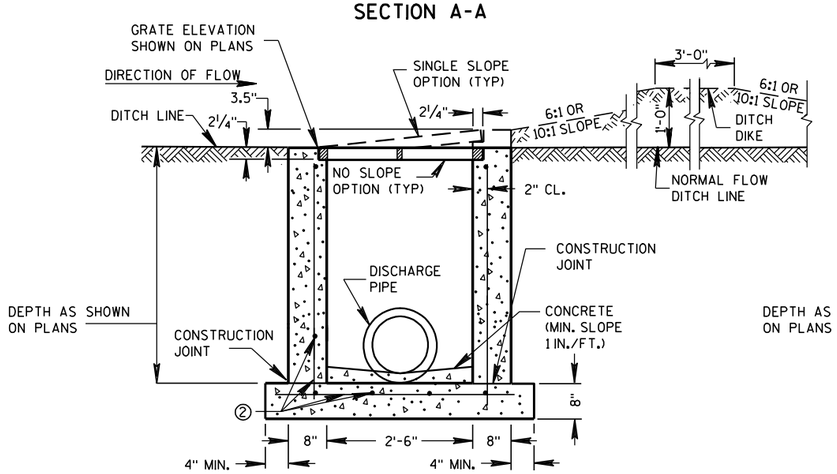
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



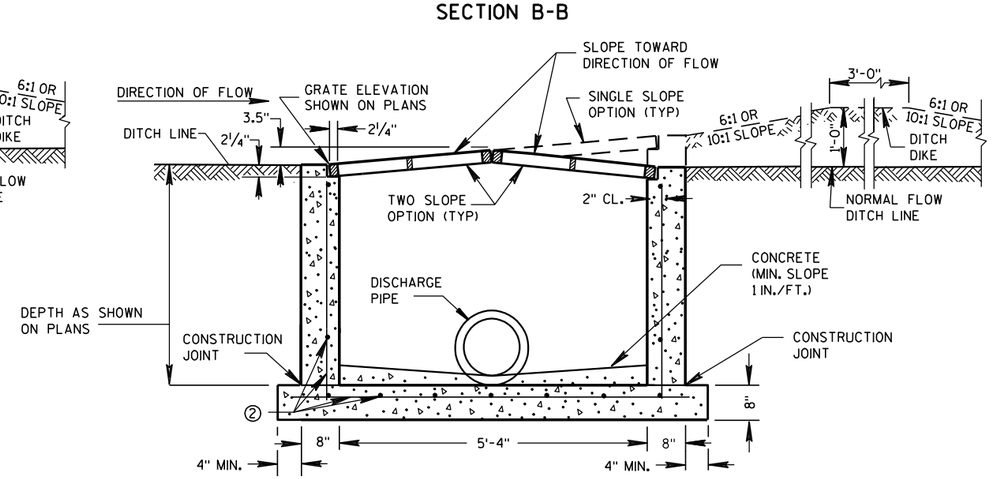
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

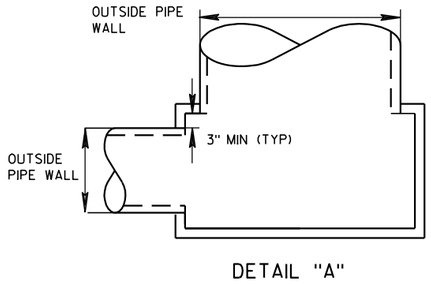
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

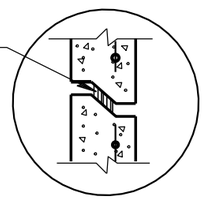
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

887

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S.D.D. 8 C 8-1

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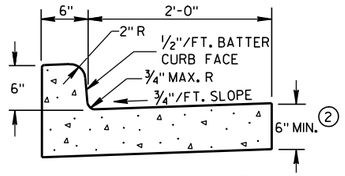
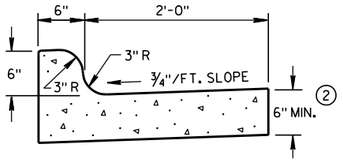
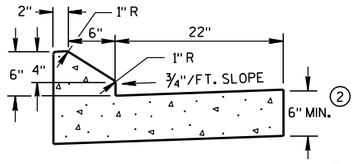
S.D.D. 8 C 8-1



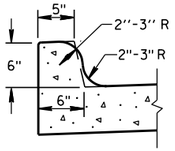
TYPES A & D (1)



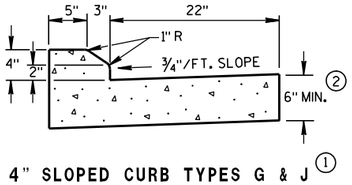
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

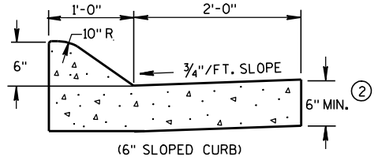


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

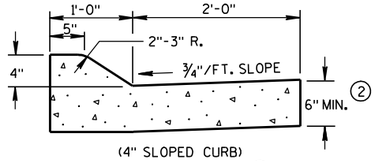


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

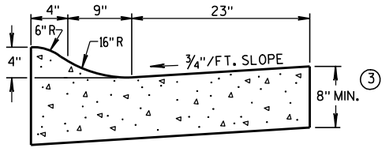


(6" SLOPED CURB)



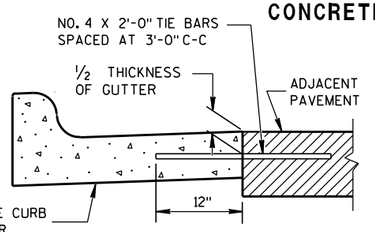
(4" SLOPED CURB)

TYPES A & D (1)

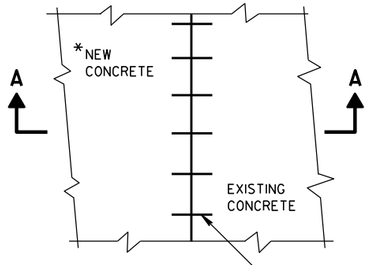


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"

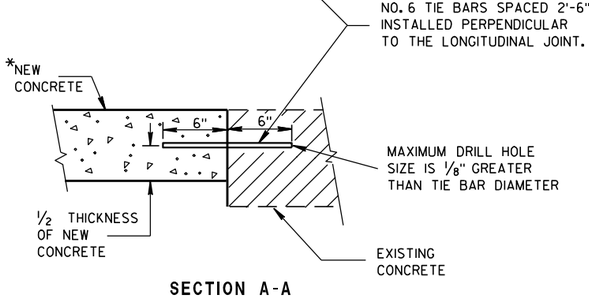


TYPICAL TIE BAR LOCATION (1)



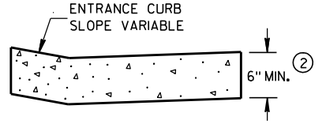
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

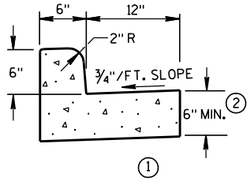


SECTION A-A

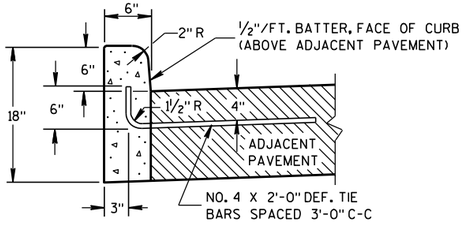
TIE BARS DRILLED INTO EXISTING PAVEMENT



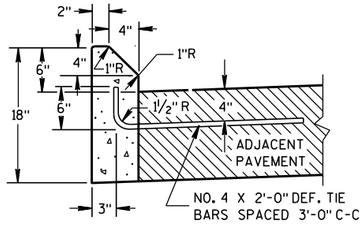
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



(1)
TYPES A & D
CONCRETE CURB & GUTTER 18"



(1)
TYPES A & D



(1)
TYPES G & J

CONCRETE CURB

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

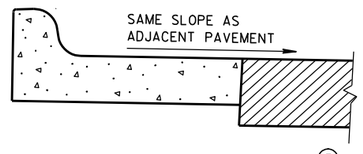
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

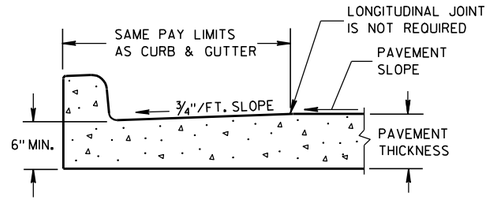
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

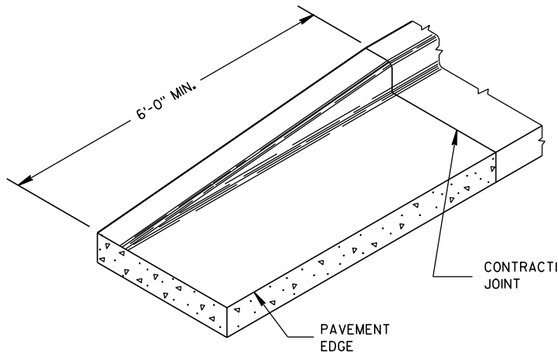
(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

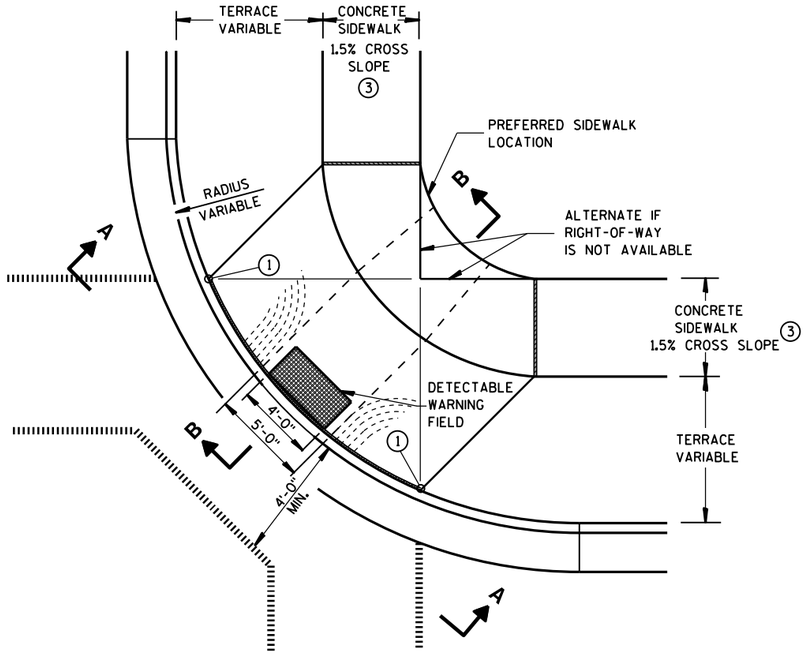
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
888
ENT
FHWA

6

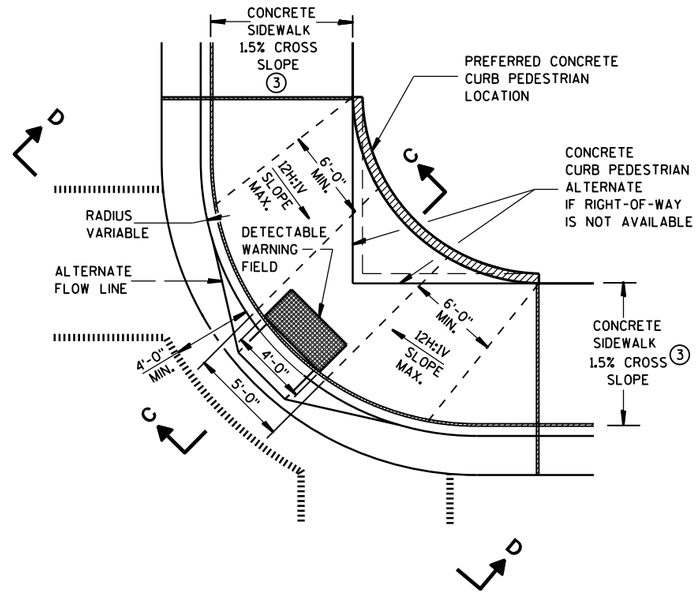
S.D.D. 8 D 1-17



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

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

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

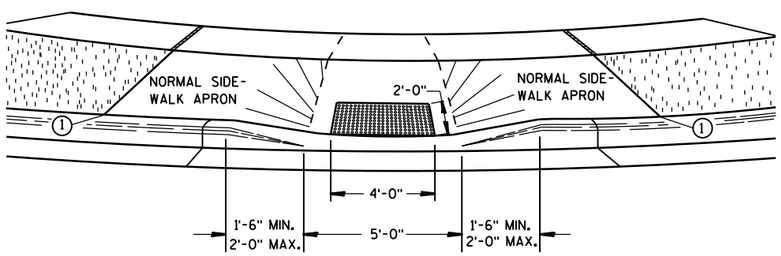
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

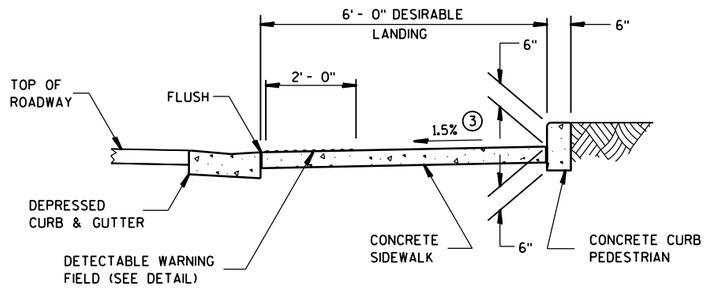
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

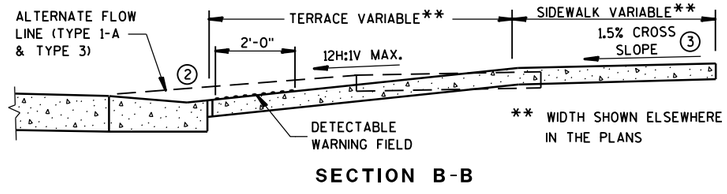
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



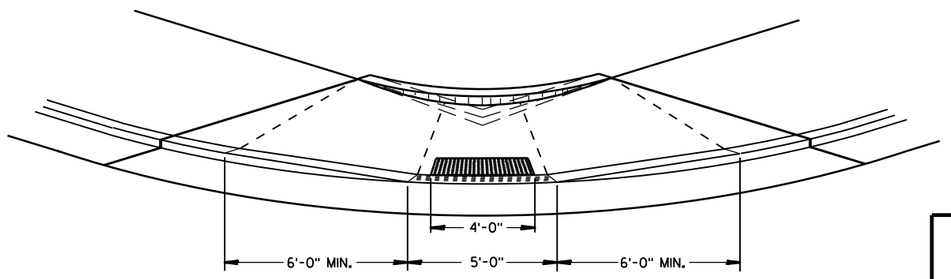
VIEW A-A



SECTION C-C



SECTION B-B



VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

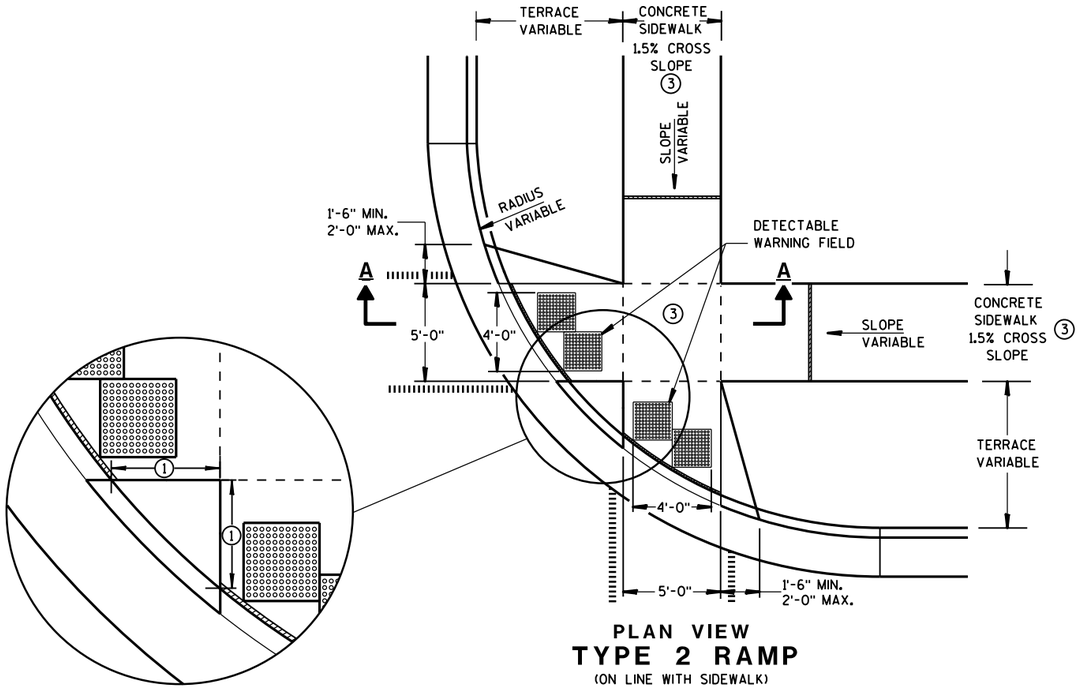
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 889

6

S.D.D. 8 D 5-15a

6

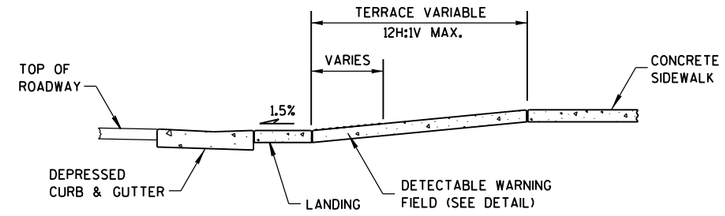
S.D.D. 8 D 5-15a



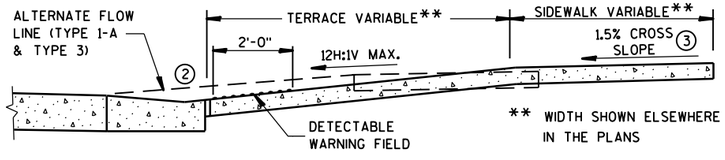
PLAN VIEW

TYPE 2 RAMP

(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

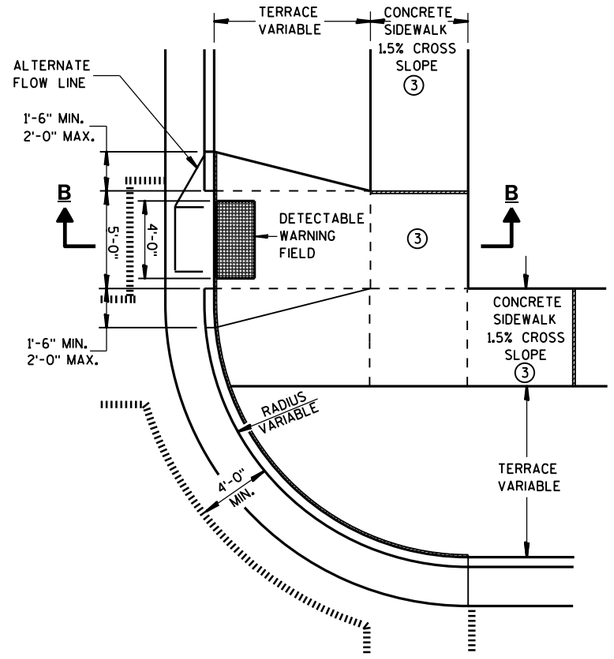
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

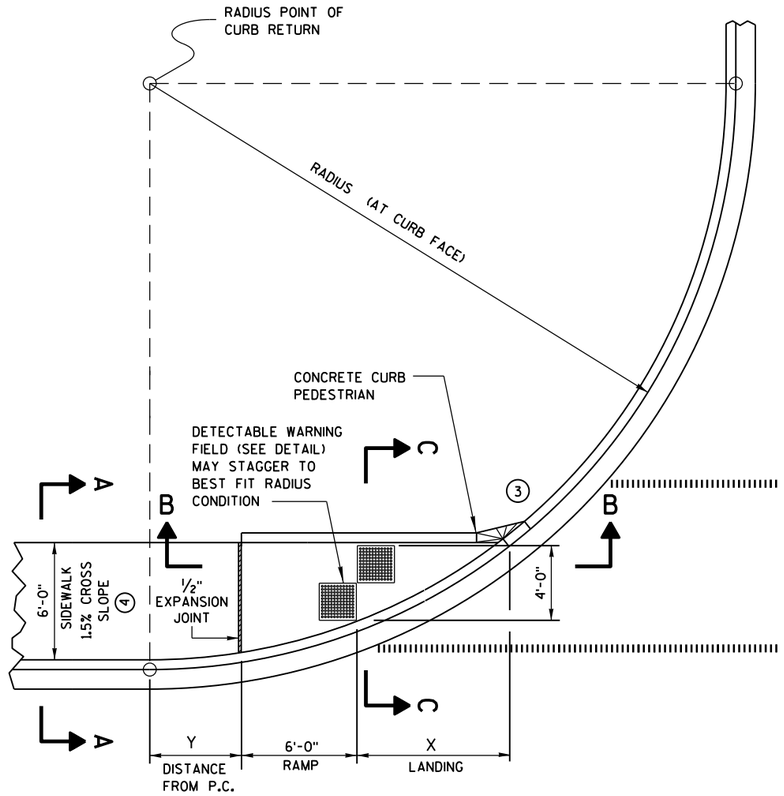
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS
TYPES 2 AND 3

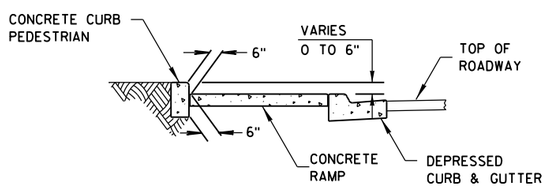
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

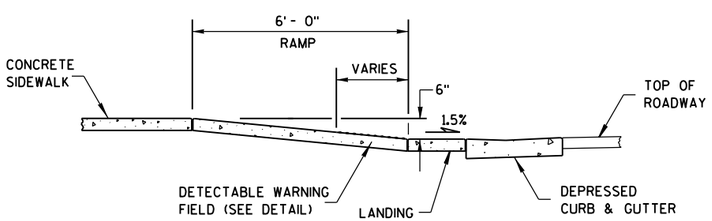
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



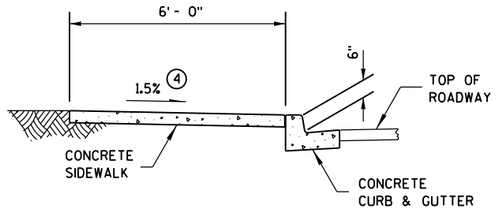
SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

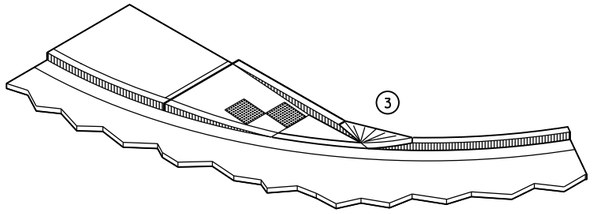
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

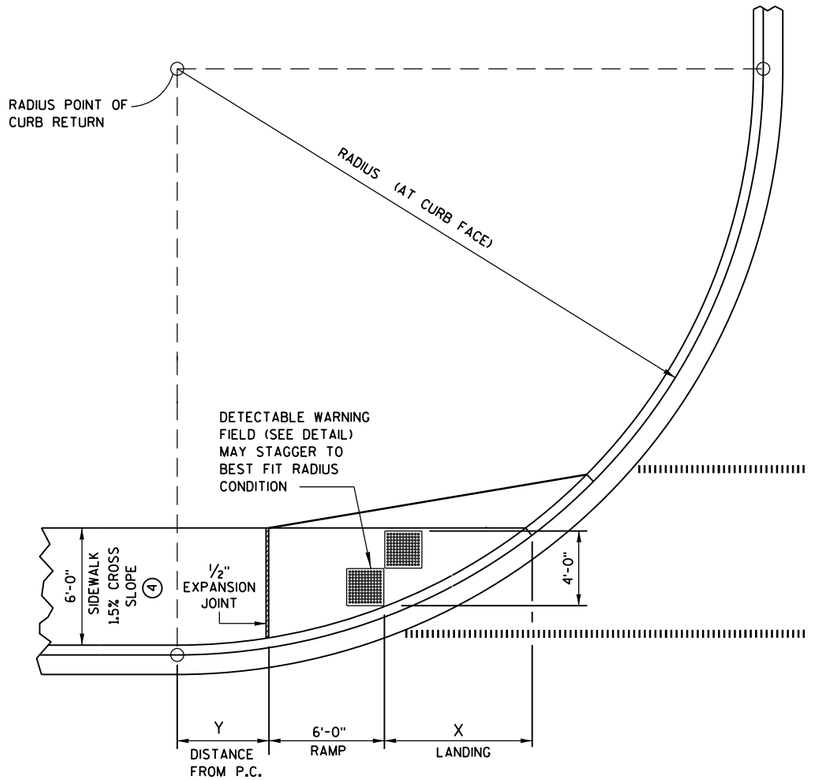
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

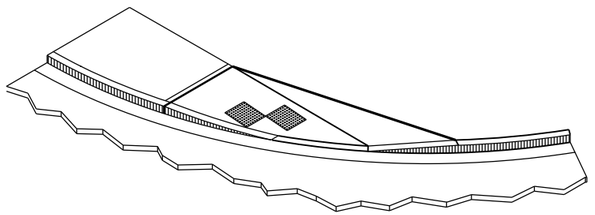
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

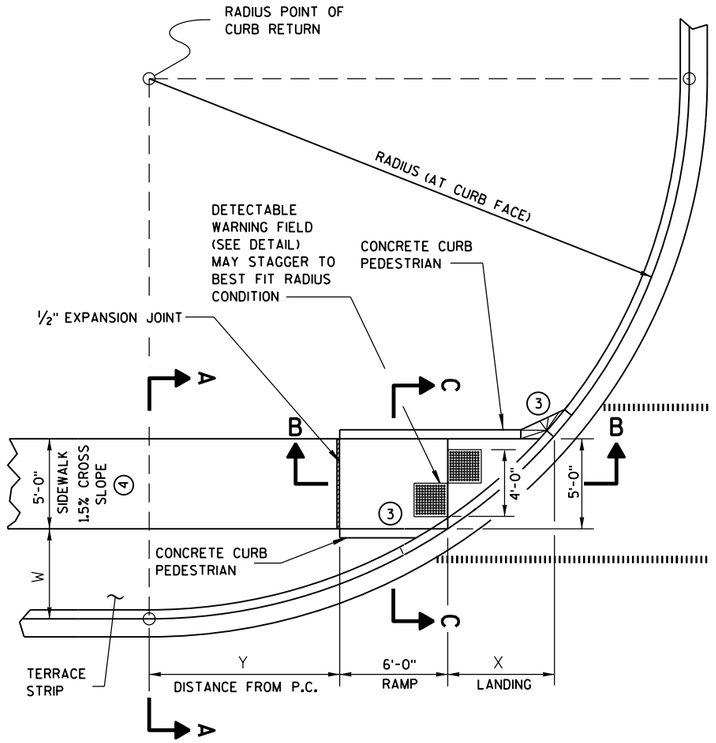
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

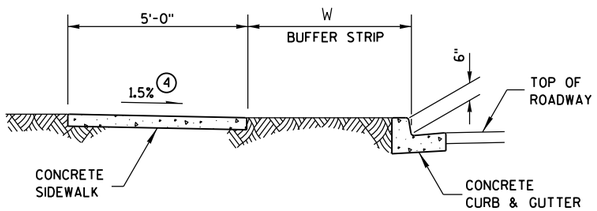
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

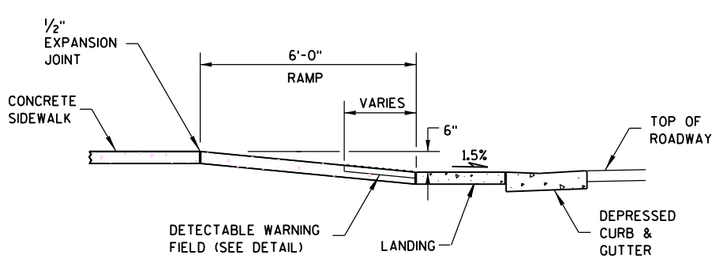
S.D.D. 8 D 5-15c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



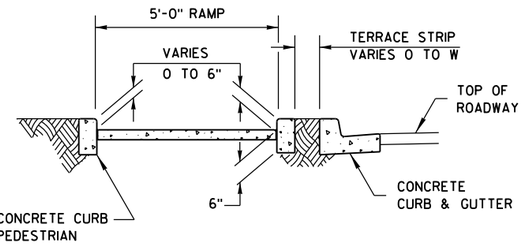
SECTION B-B FOR TYPE 4B

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4B

GENERAL NOTES

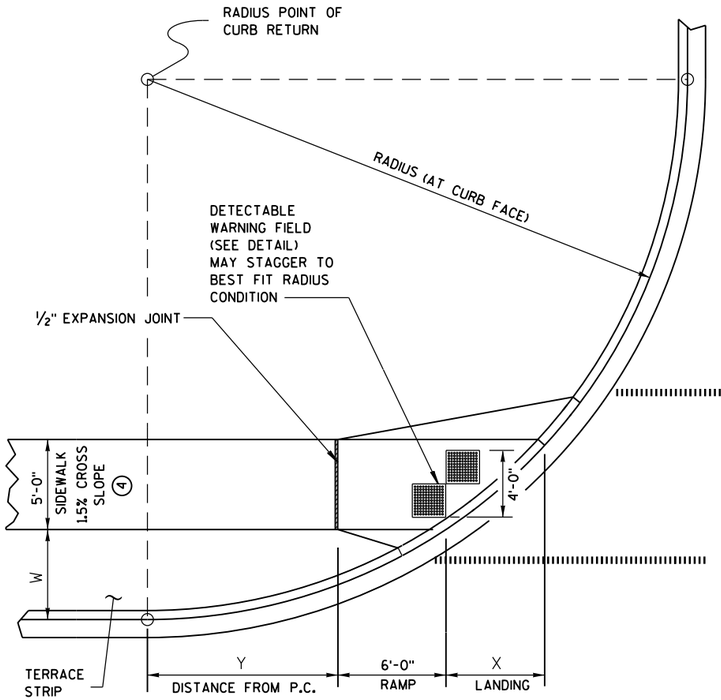
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

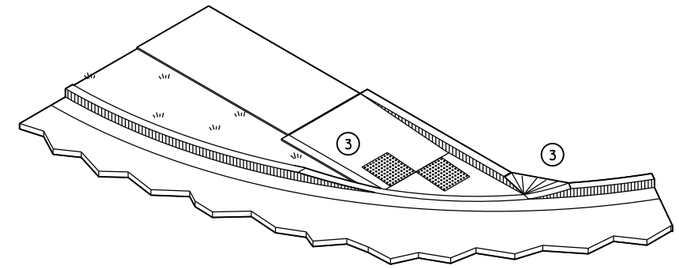
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

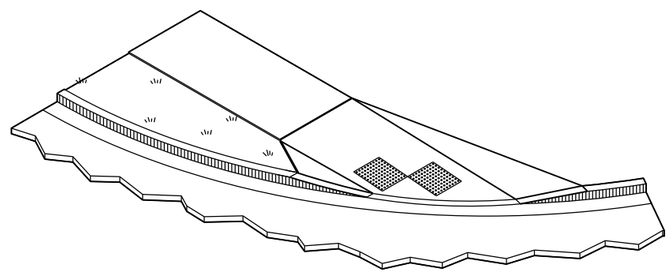
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B

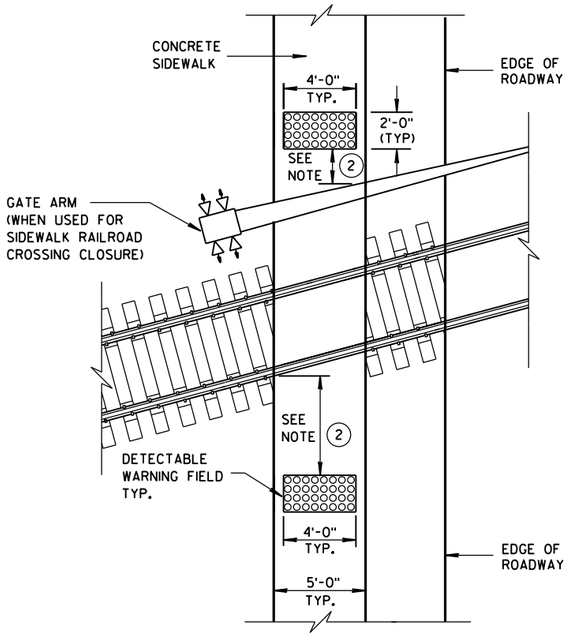


ISOMETRIC VIEW FOR TYPE 4B1

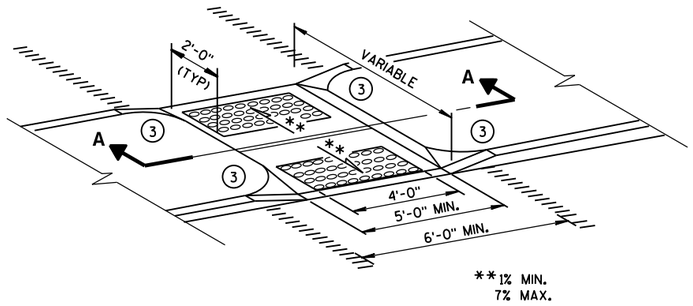
CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 8 D 5-15d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

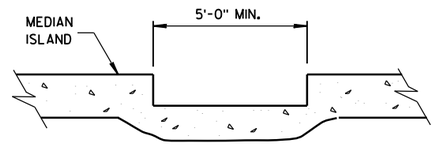
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

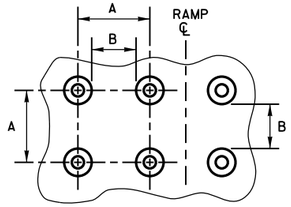
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



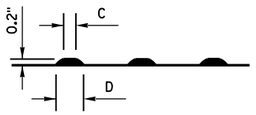
SECTION A-A



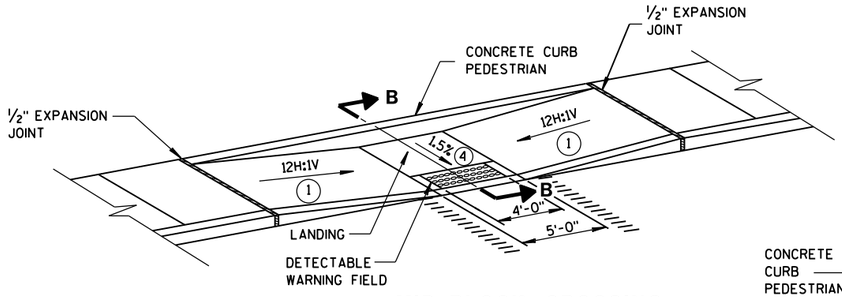
PLAN VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

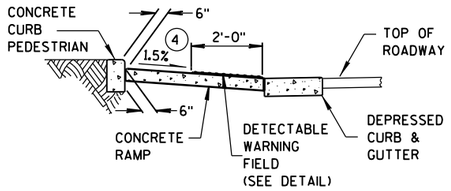
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

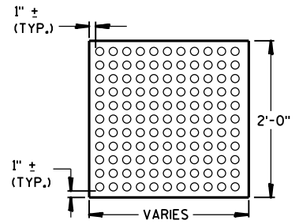


MID-BLOCK CROSSING
TYPE 7A



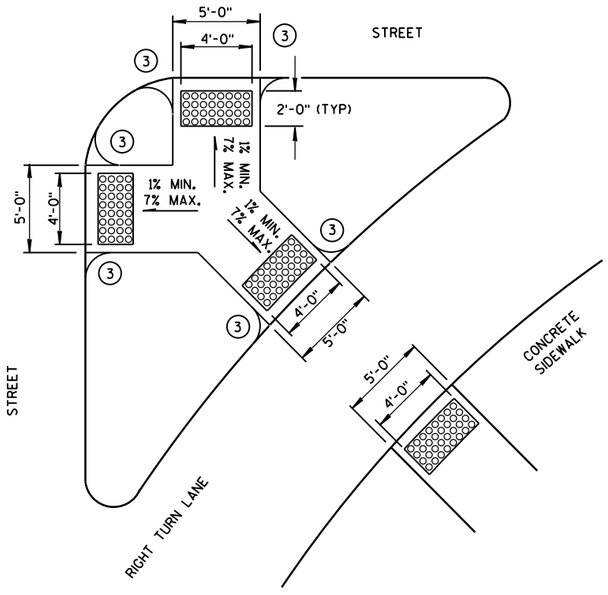
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

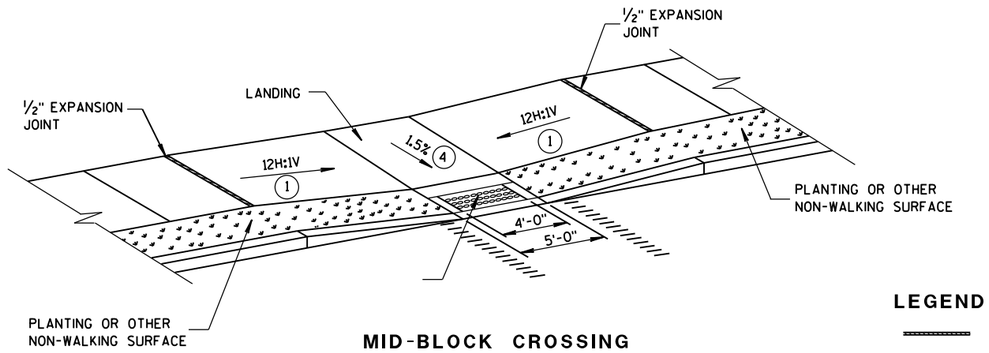


PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2-6-2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 D 5-15e

GENERAL NOTES

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

(1) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

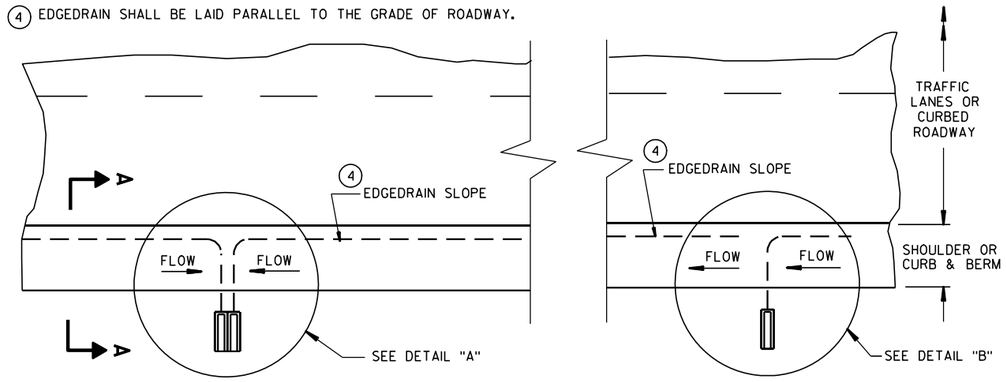
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

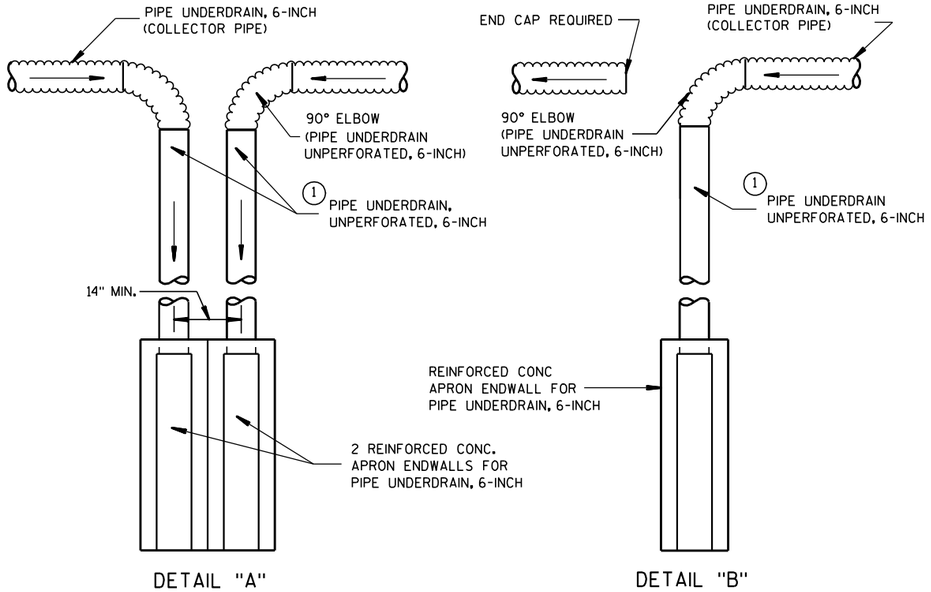
(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



PLAN VIEW

ROADWAY WITH SHOULDERS OR CURBS

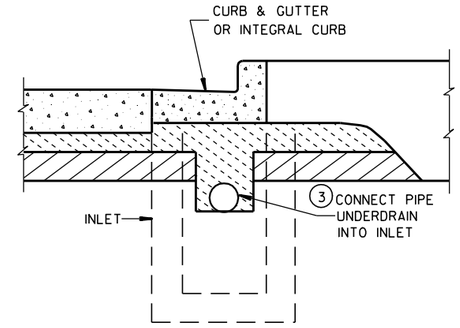
(EDGEDRAIN OUTLETS TO ROADSIDE) (2)



DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS

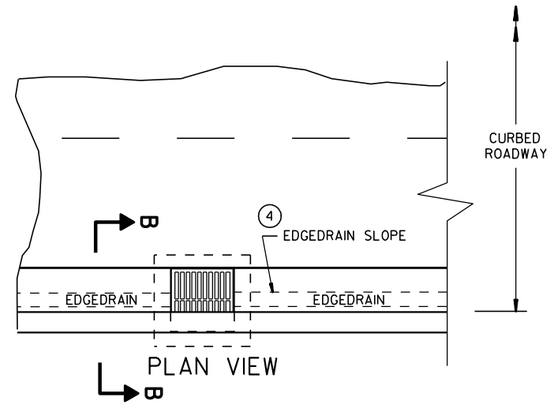
DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS



SECTION B-B

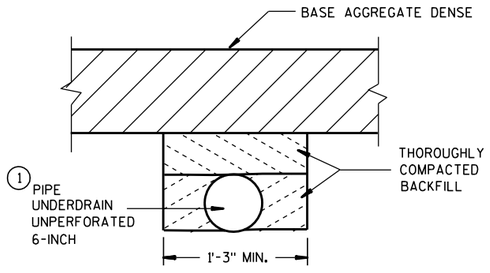
URBAN CROSS SECTION



PLAN VIEW

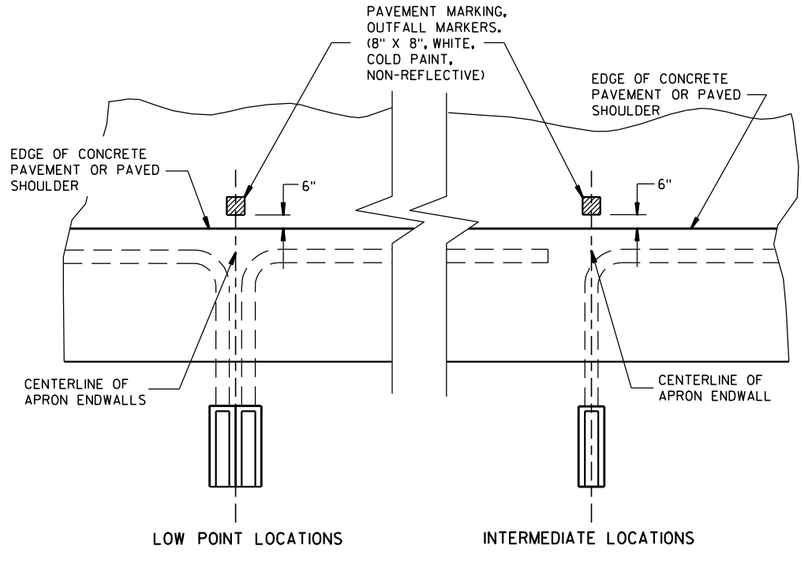
ROADWAY WITH CURBS

(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)



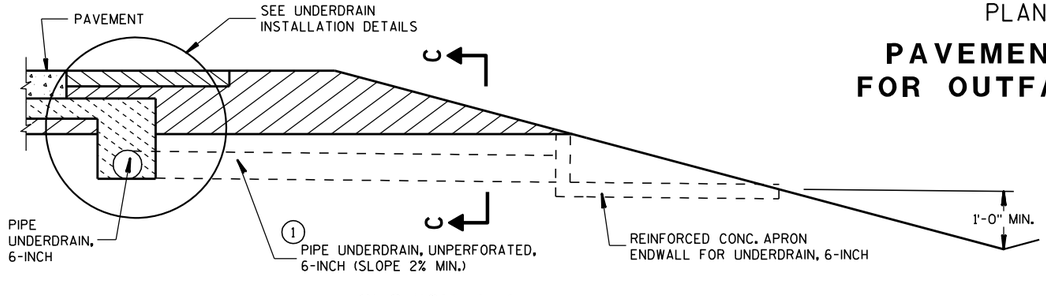
SECTION C-C

(TRENCH FOR OUTFALL PIPE)



PLAN VIEW

PAVEMENT MARKING FOR OUTFALL MARKERS



SECTION A-A

RURAL CROSS SECTION

EDGEDRAIN OUTLET AND OUTFALL MARKERS

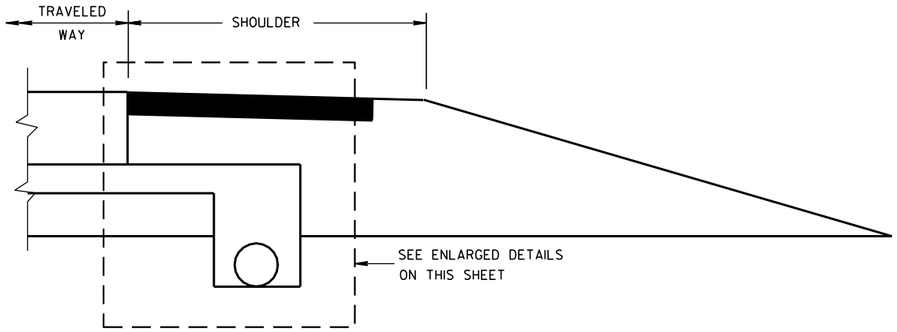
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 8 D 15-4a

6

S.D.D. 8 D 15-4a



RURAL CROSS SECTION

GENERAL NOTES

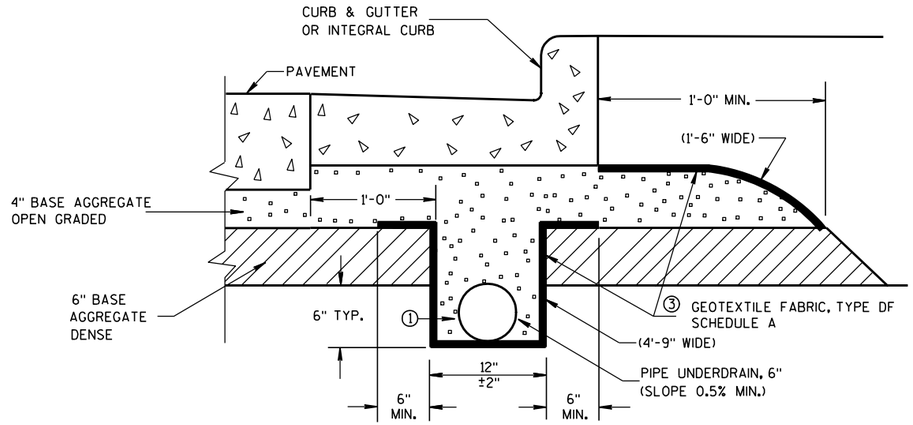
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

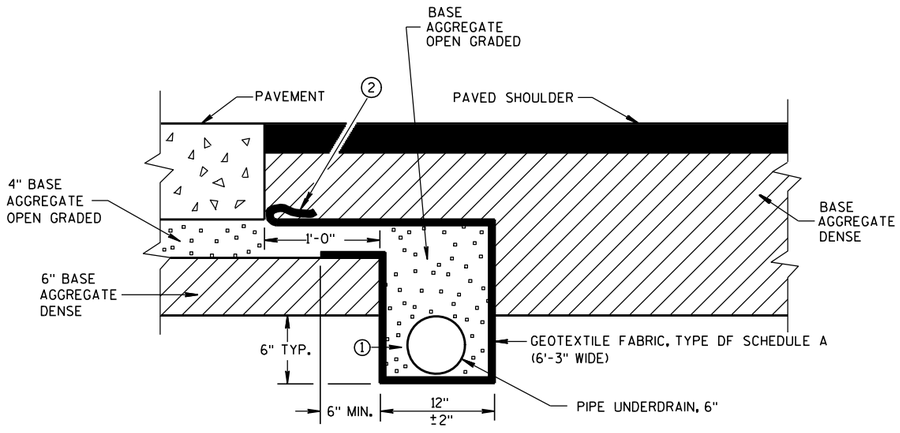
① TRENCH BACKFILL WILL BE PAID FOR AS BASE AGGREGATE OPEN GRADED.

② FOLD OVER EXCESS GEOTEXTILE FABRIC AT THIS LOCATION.

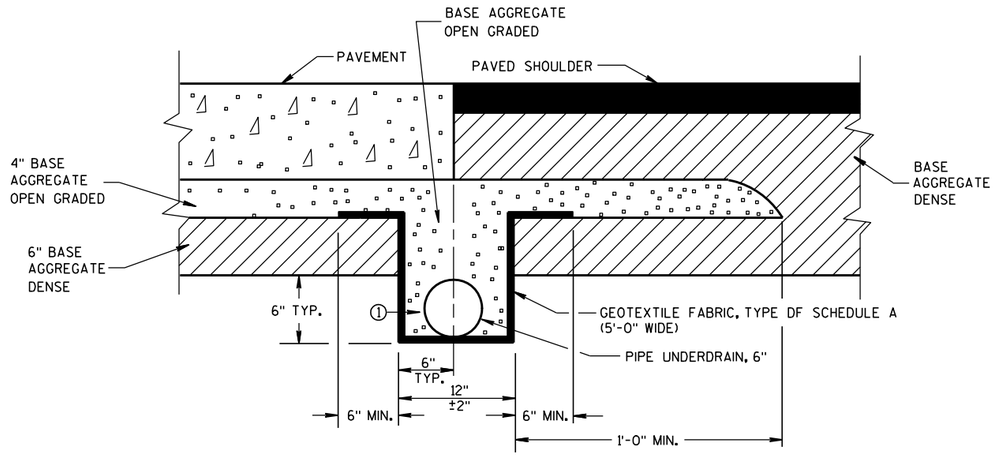
③ TOTAL FABRIC WIDTH IS 6'-3" FOR PAYMENT.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATE

EDGEDRAIN IN RURAL ROADWAY

EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

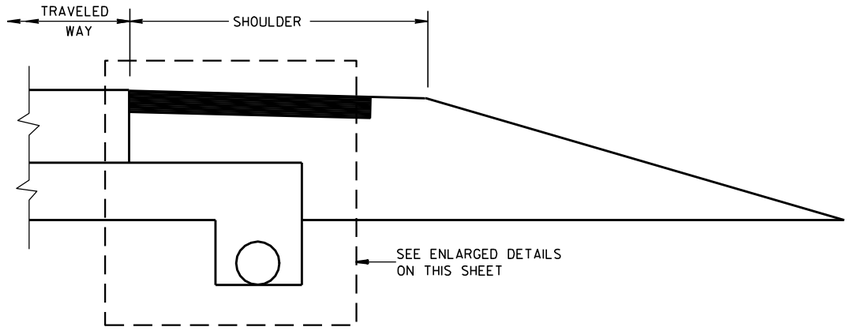
APPROVED

3/21/07 DATE — /S/ Steven W. [illegible] CHIEF MATERIALS MANAGER

FHWA

6

S.D.D. 8 D 15-4b



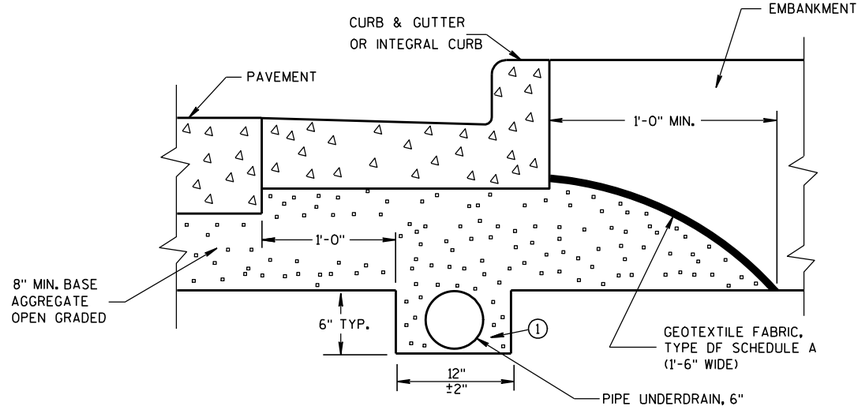
RURAL CROSS SECTION

GENERAL NOTES

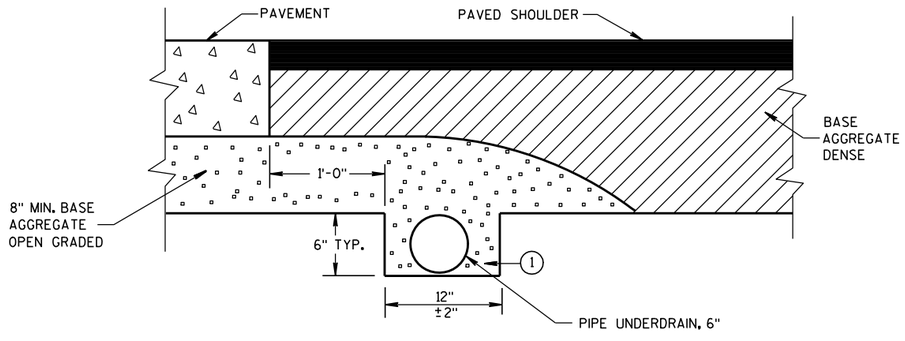
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

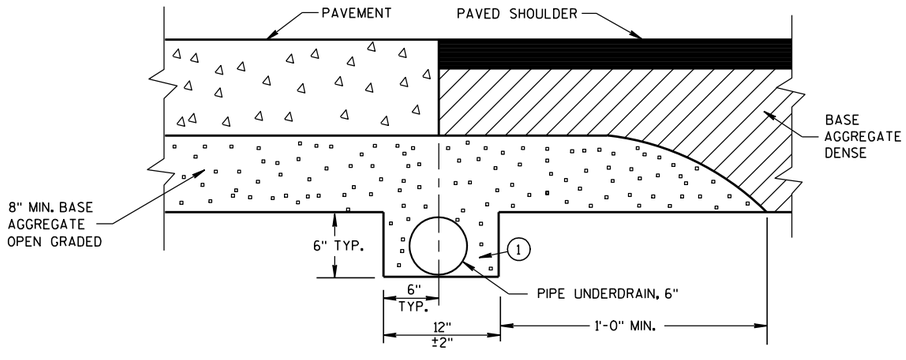
(1) TRENCH BACKFILL WILL BE PAID FOR AS BASE AGGREGATE OPEN GRADED.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

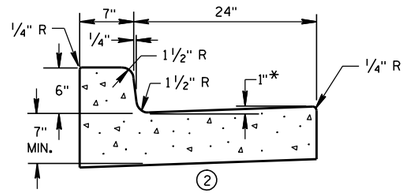
APPROVED
3/21/07 DATE
/S/ Steven W. Krebs
CHIEF MATERIALS MANAGI 896 GINEER
FHWA

6

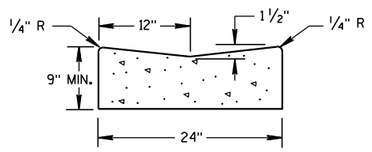
S.D.D. 8 D 15-4c

6

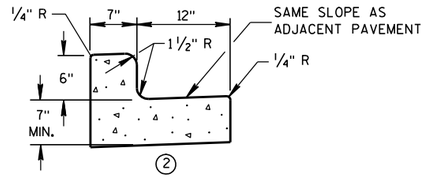
S.D.D. 8 D 15-4c



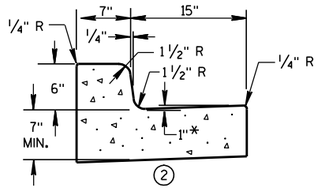
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

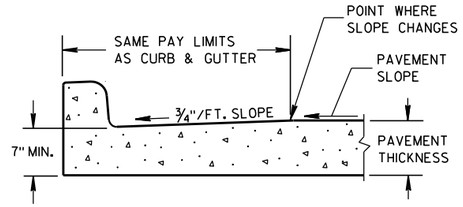


① CONCRETE CURB & GUTTER 19"



① CONCRETE CURB & GUTTER 22"

* TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

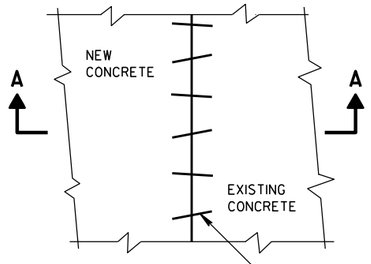
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURB.

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUIRED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MIMIMUM GUTTER THICKNESS IS MAINTAINED.

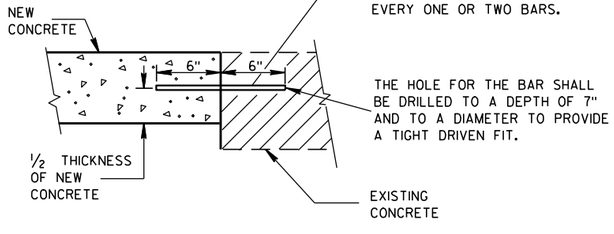
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

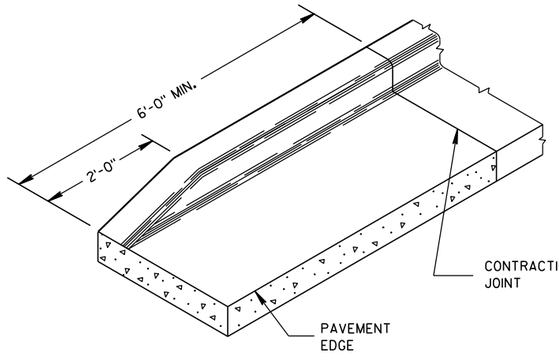
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



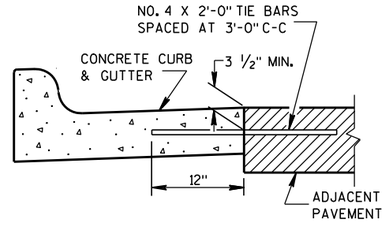
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

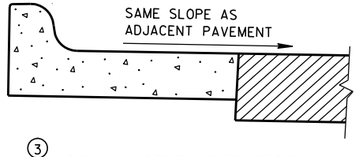
PAVEMENT TIES



END SECTION CURB & GUTTER



① TYPICAL TIE BAR LOCATION



③ HIGH SIDE SECTION

(TYPICAL FOR ALL CURB & GUTTER)

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

(For Optional Use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/2/2010 — DATE

/S/ Jerry Zogg — ROADWAY STANDARDS ENGINEER

897 — ENT

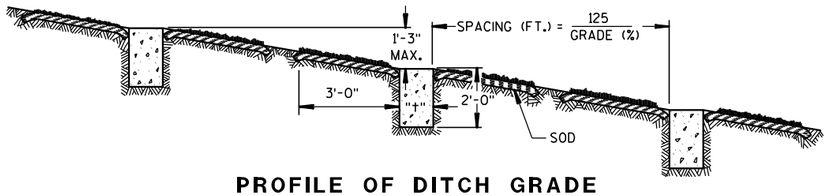
FHWA

6

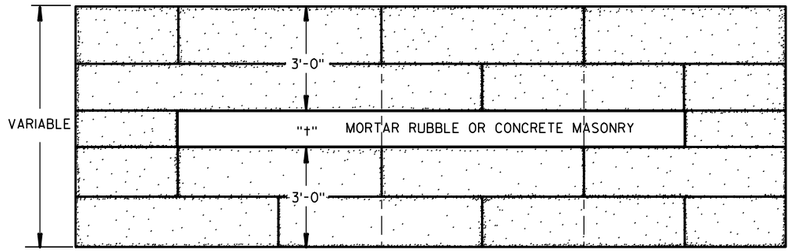
S.D.D. 8 D 16-10

6

S.D.D. 8 D 16-10

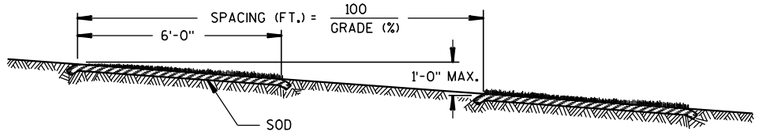


PROFILE OF DITCH GRADE

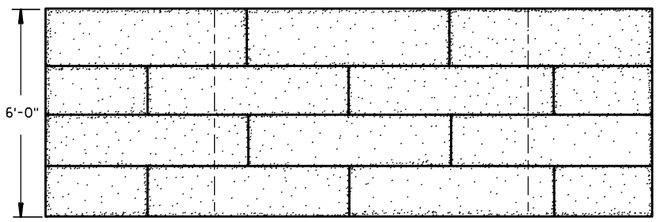


PLAN VIEW SHOWING MASONRY AND SOD

"+" - MASONRY THICKNESS SHALL BE 0'-9" FOR CONCRETE AND 1'-0" FOR MORTAR RUBBLE.



PROFILE OF DITCH GRADE



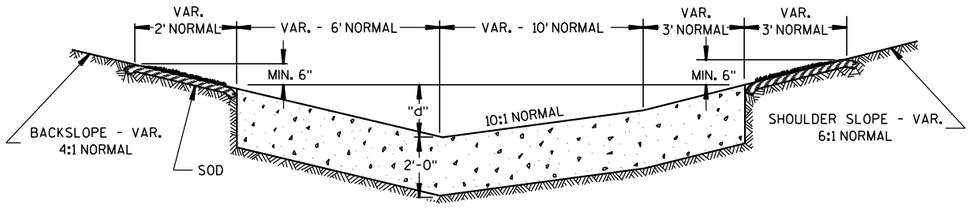
PLAN VIEW SHOWING SOD

GENERAL NOTES

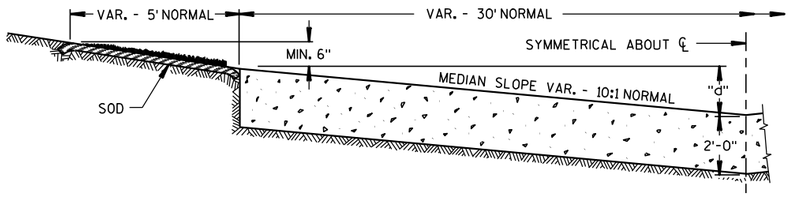
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALTERNATE DESIGNS FOR DITCH CHECKS, OF THE MATERIAL OR COMBINATION OF MATERIALS SHOWN HEREON, MAY BE USED UPON WRITTEN PERMISSION OF THE ENGINEER.

SOD STRIPS FOR DITCH CHECKS MAY BE PLACED EITHER TRANSVERSELY OR LONGITUDINALLY TO THE DIRECTION OF WATER FLOW.



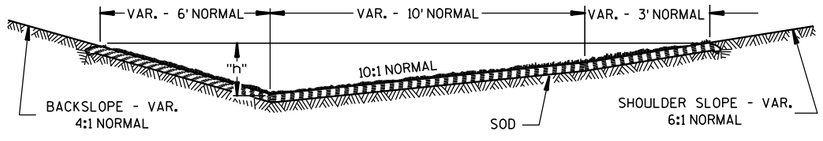
SIDE DITCH CROSS SECTION



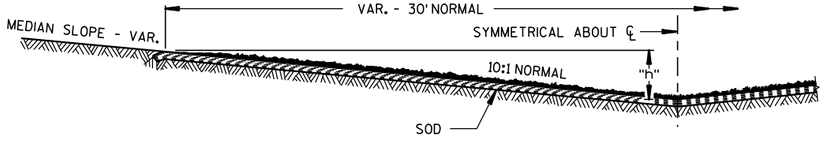
MEDIAN DITCH CROSS SECTION

"d" - THE MINIMUM DEPTH OF THE MASONRY PORTION OF THE DITCH CHECKS SHALL BE EQUAL TO THE MAXIMUM DEPTH OF FLOW. THE NORMAL "d" WILL BE 1'-6".

MASONRY AND SOD DITCH CHECKS



SIDE DITCH CROSS SECTION



MEDIAN DITCH CROSS SECTION

"h" - THE MINIMUM HEIGHT OF DITCH TO BE SODDED SHALL BE EQUAL TO THE MAXIMUM DEPTH OF FLOW PLUS 6". THE NORMAL "h" WILL BE 1'-6".

SOD DITCH CHECKS

SOD OR MASONRY AND SOD DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/7/71 — DATE

/S/ L.C. Harris — ACTING CHIEF DESIG 898 R

FHWA

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S.D.D. 8 E 4-2

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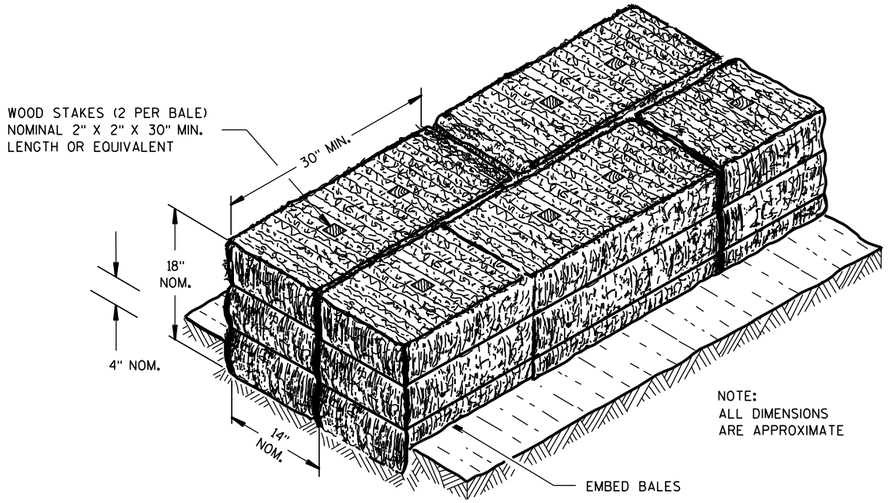
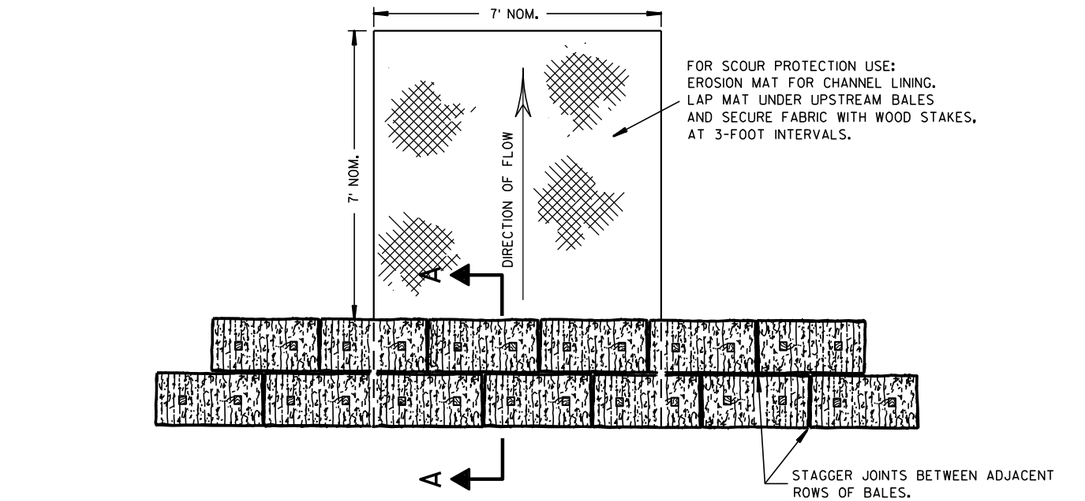
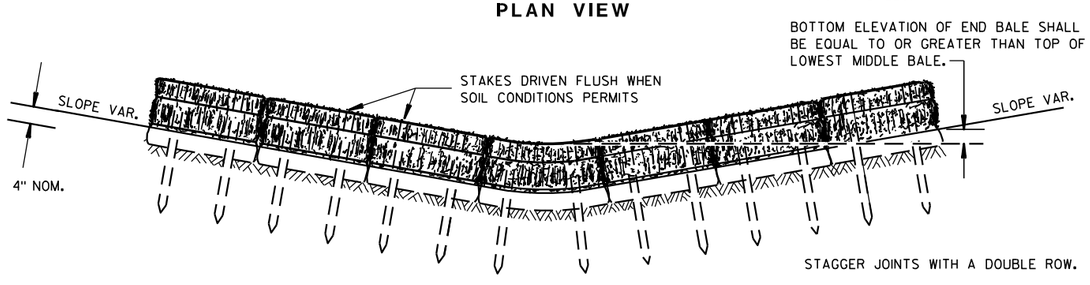
S.D.D. 8 E 4-2



SECTION A-A



PLAN VIEW



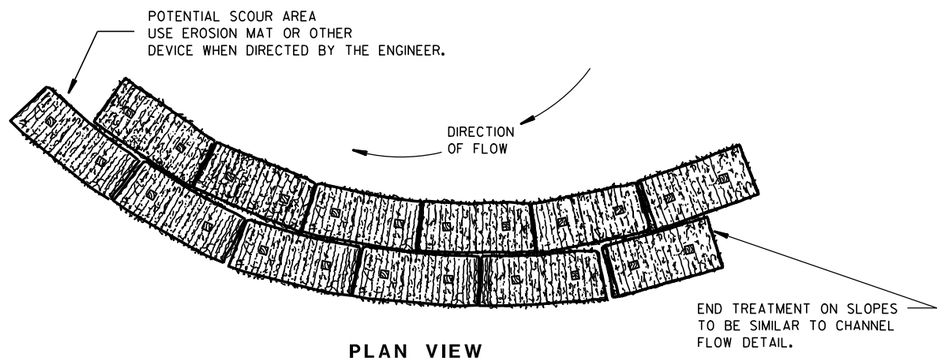
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

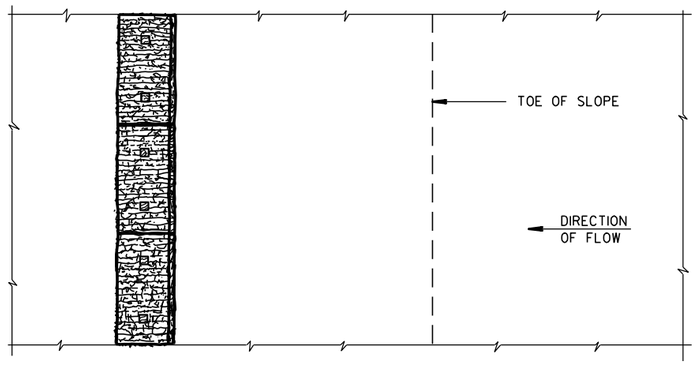
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

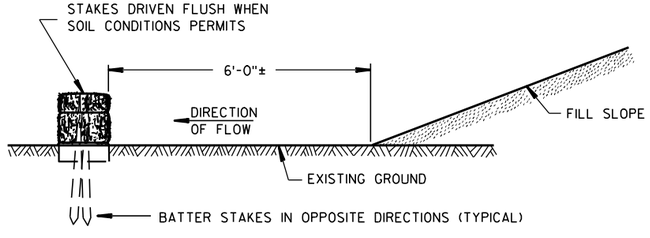


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 DATE — /S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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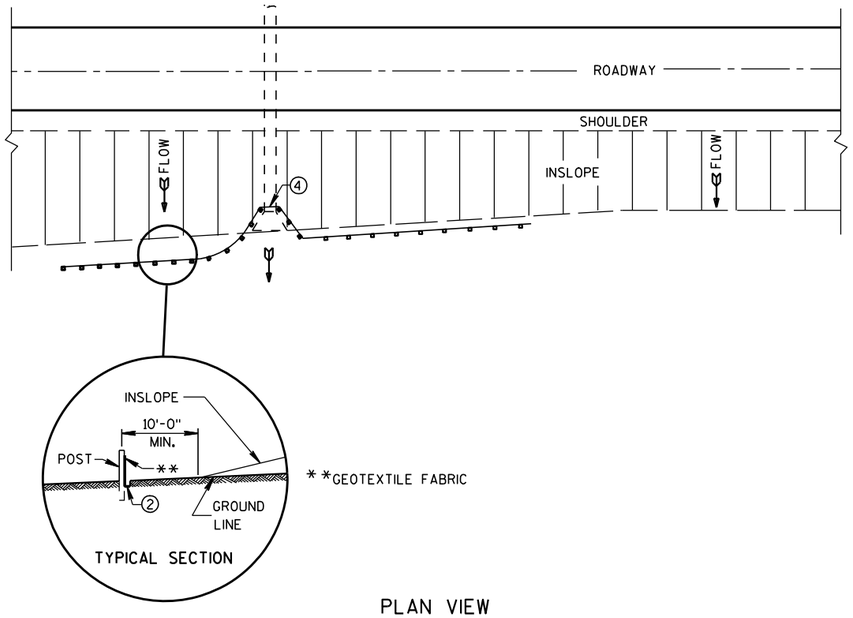
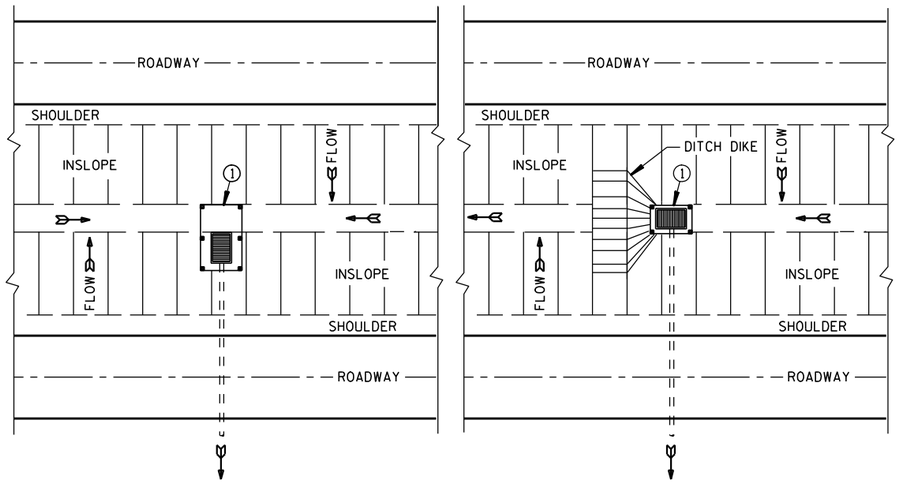


PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

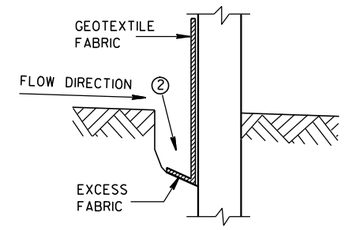
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

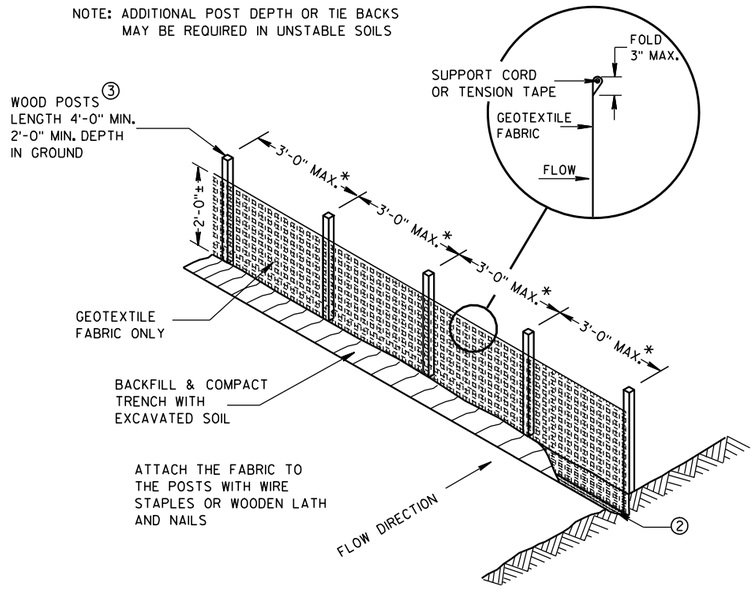
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

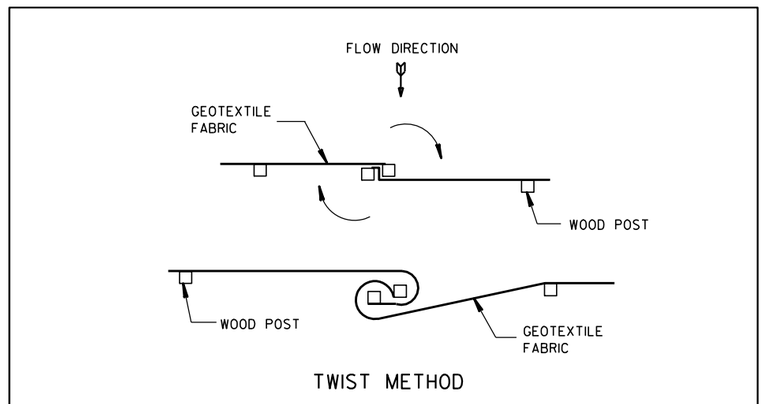
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



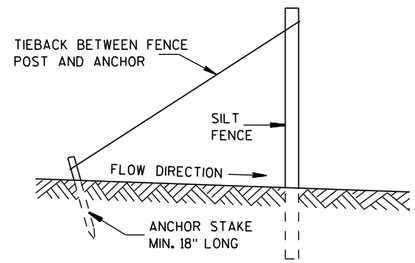
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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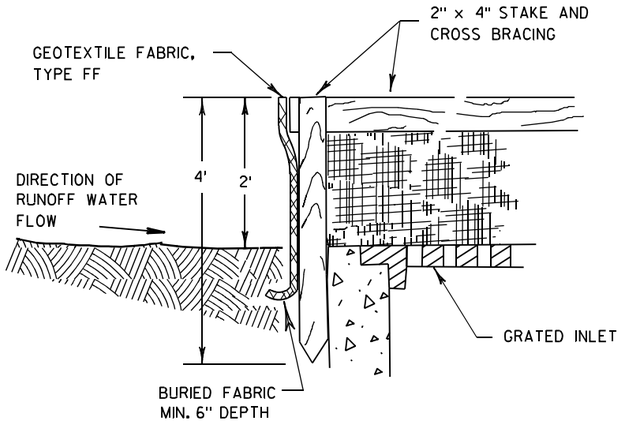
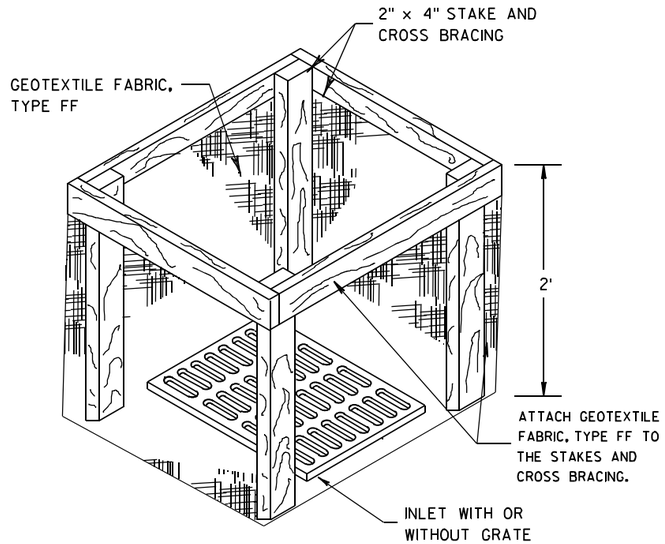
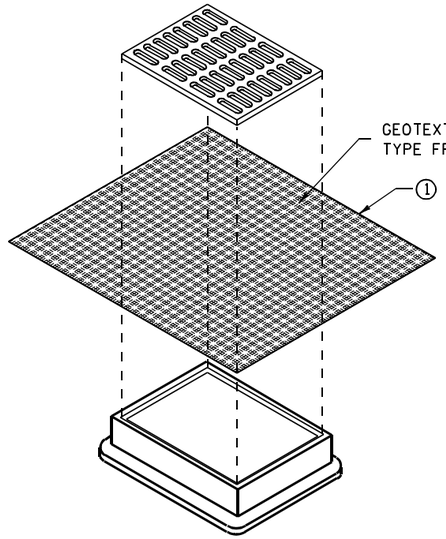


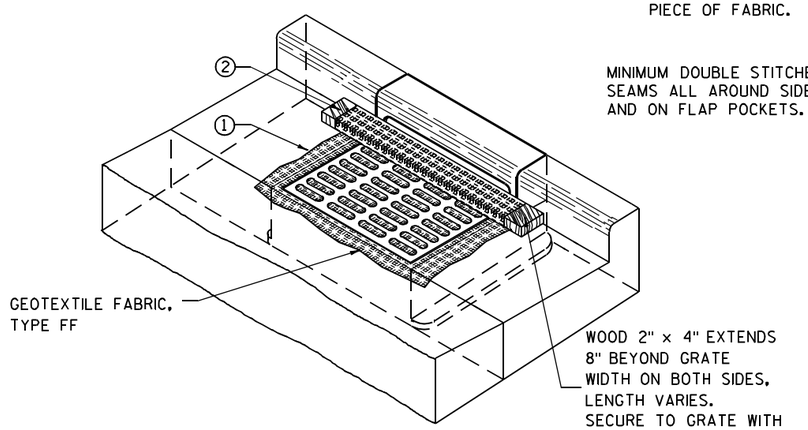


INLET PROTECTION, TYPE A

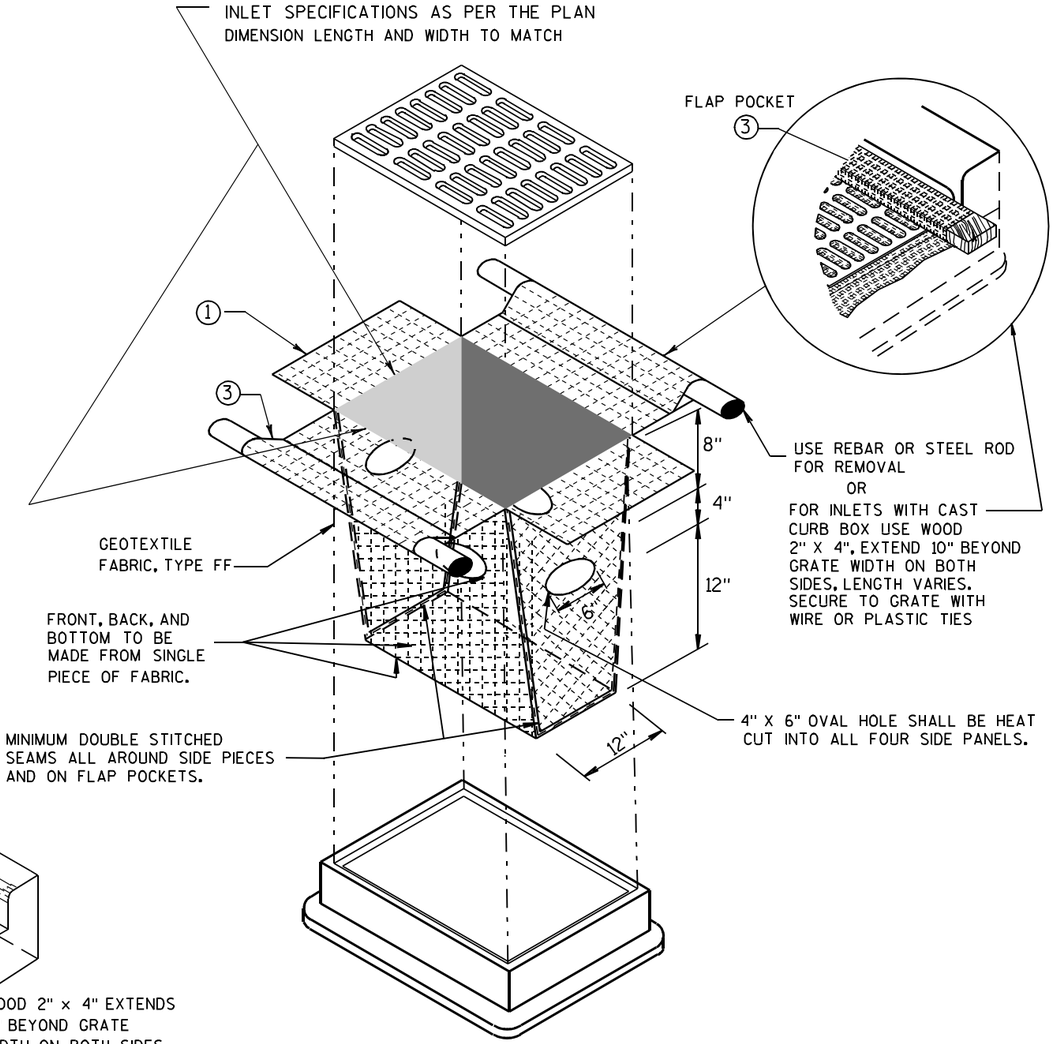


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

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.

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 A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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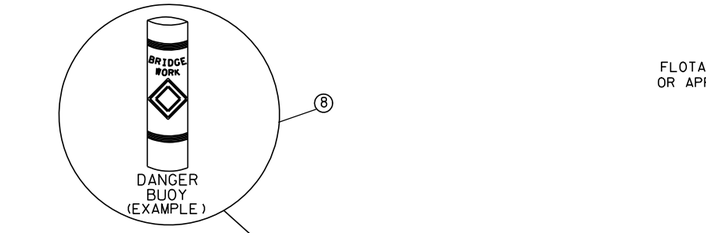
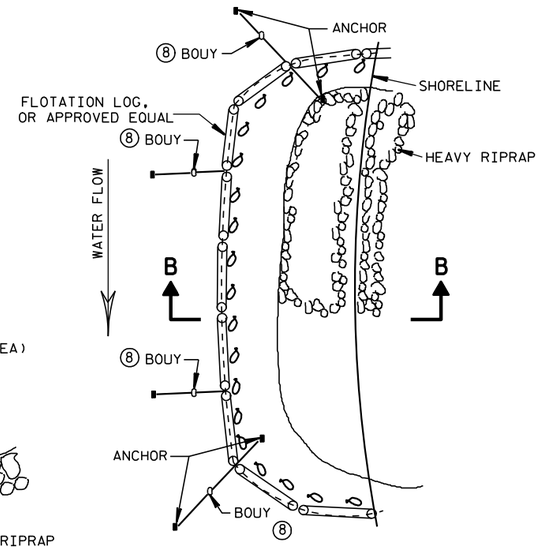
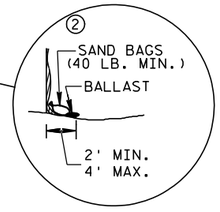
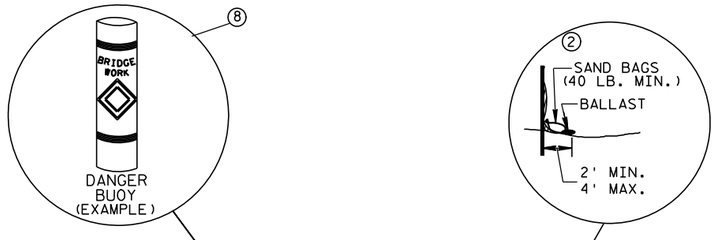


SECTION B-B

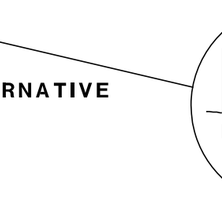


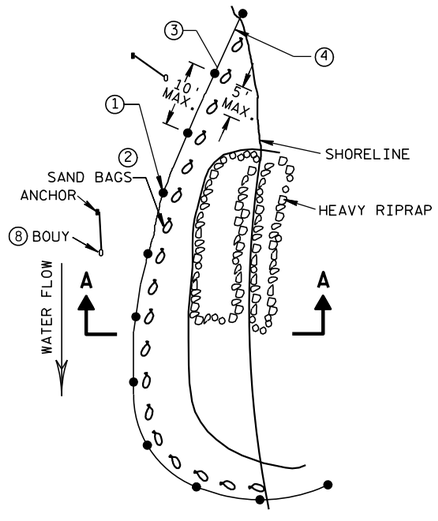


TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A





PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

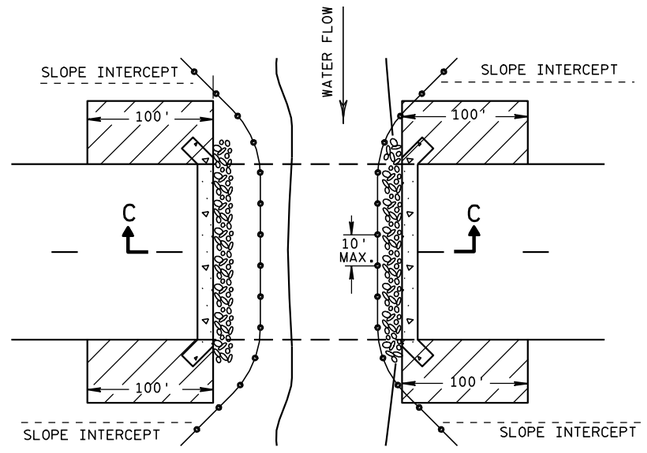
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

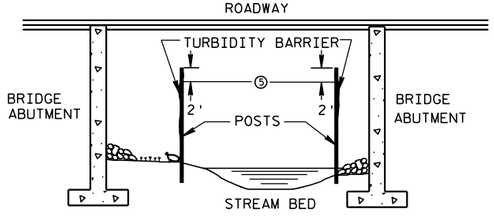
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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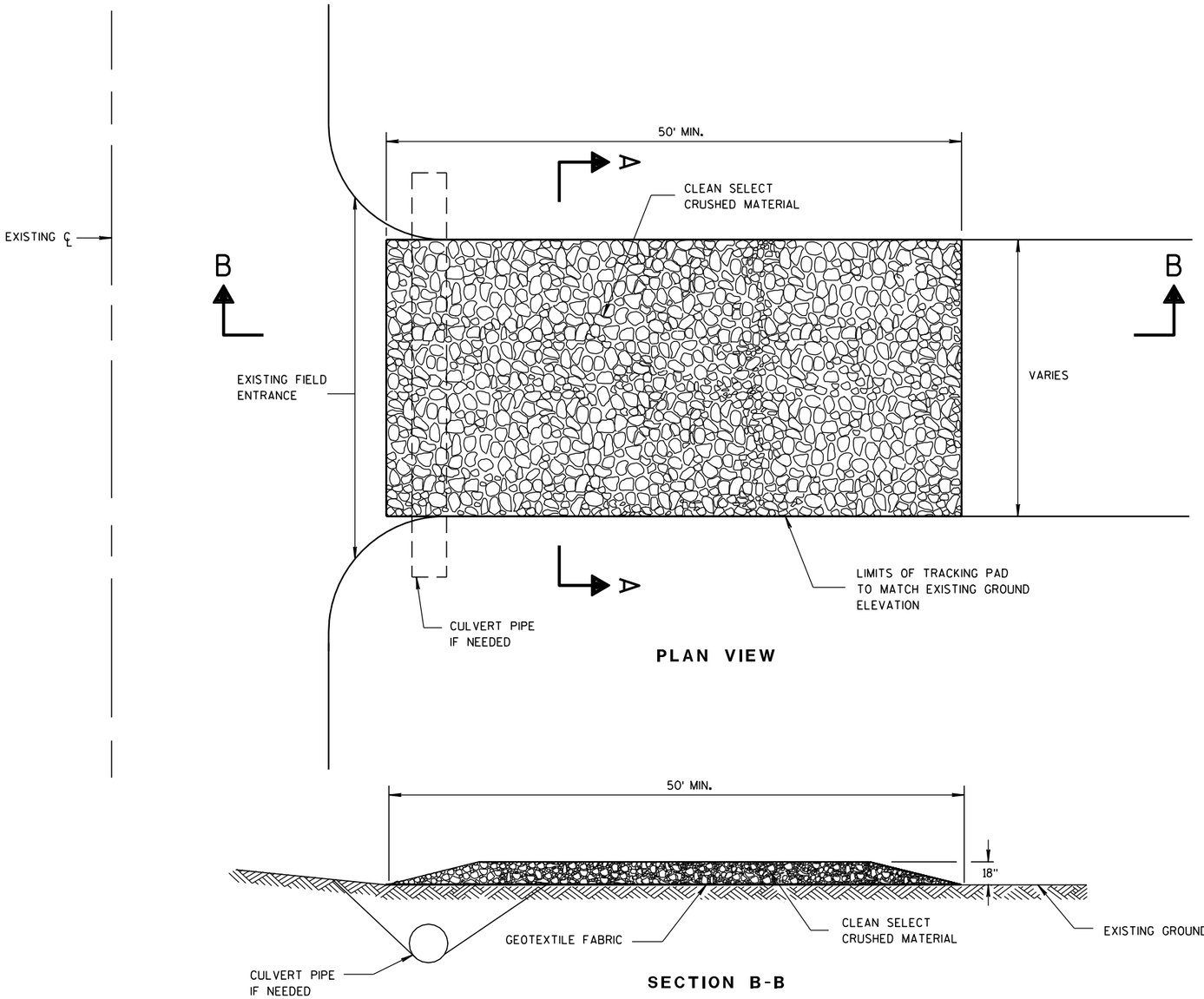
S.D.D. 8 E 11-2



PLAN VIEW

SECTION B-B

GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

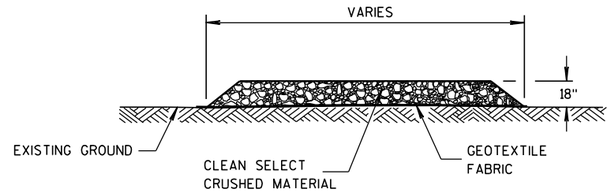
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

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S.D.D. 8 E 14-1

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011	/S/ Jerry H. Zoda	
DATE	ROADWAY STANDARDS ENGINEER 903	ENT

FHWA

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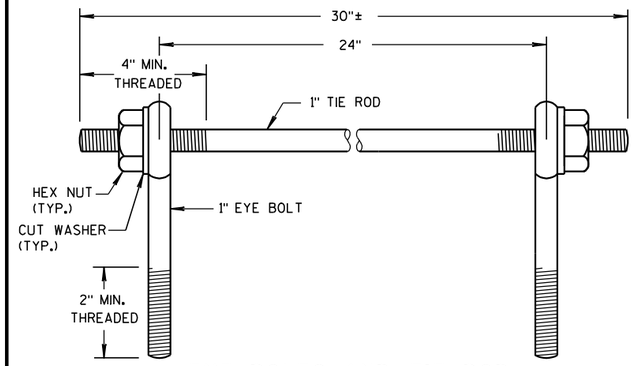
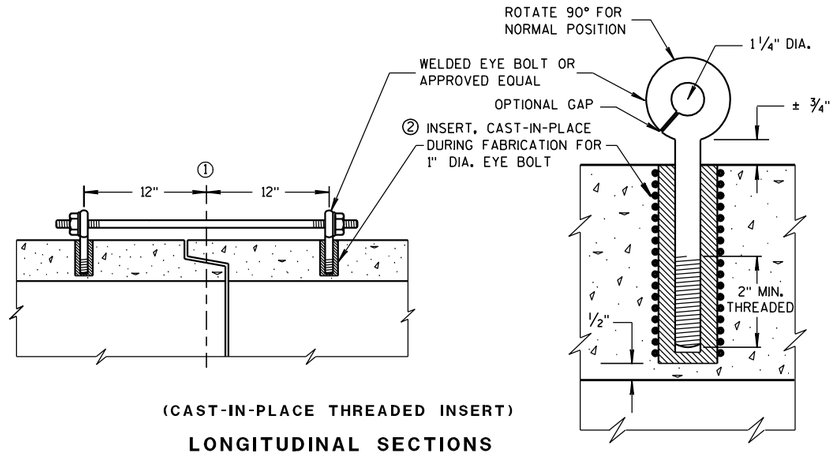
S.D.D. 8 E 14-1



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

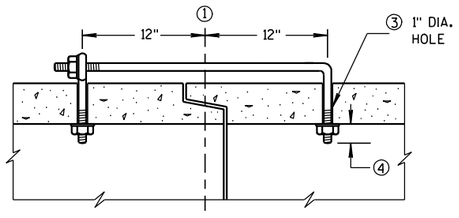
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

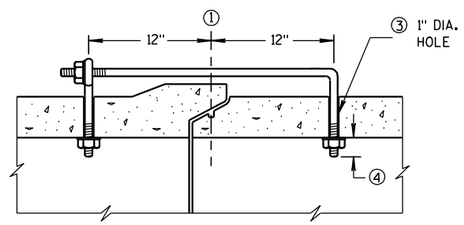
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

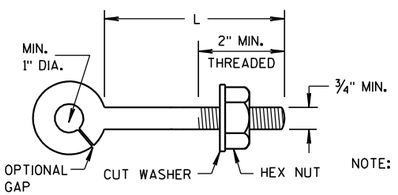


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

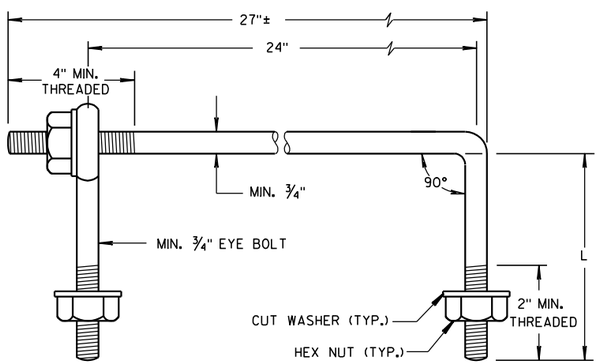
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

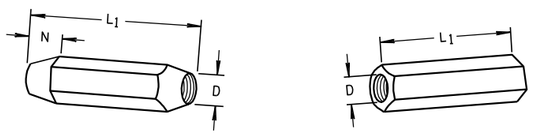
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

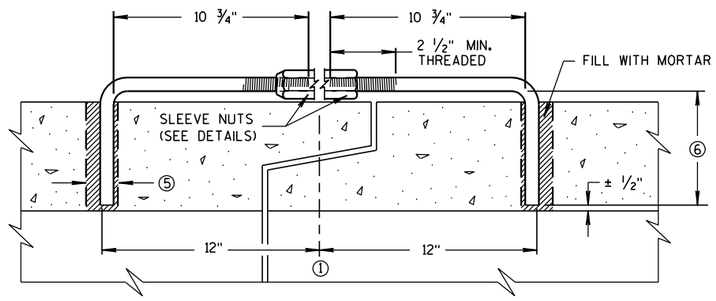
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

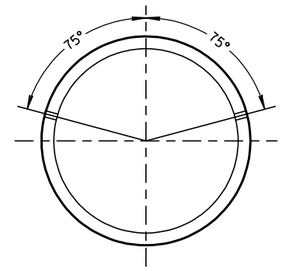
SLEEVE NUTS



LONGITUDINAL SECTION

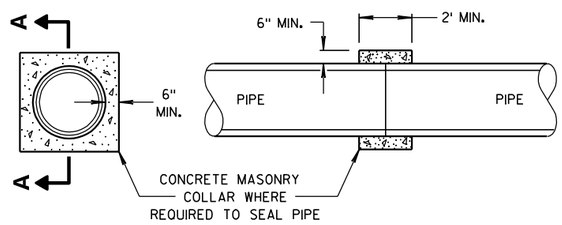
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
904 — MENT

FHWA

6

S.D.D. 8 F 4-7

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S.D.D. 8 F 4-7

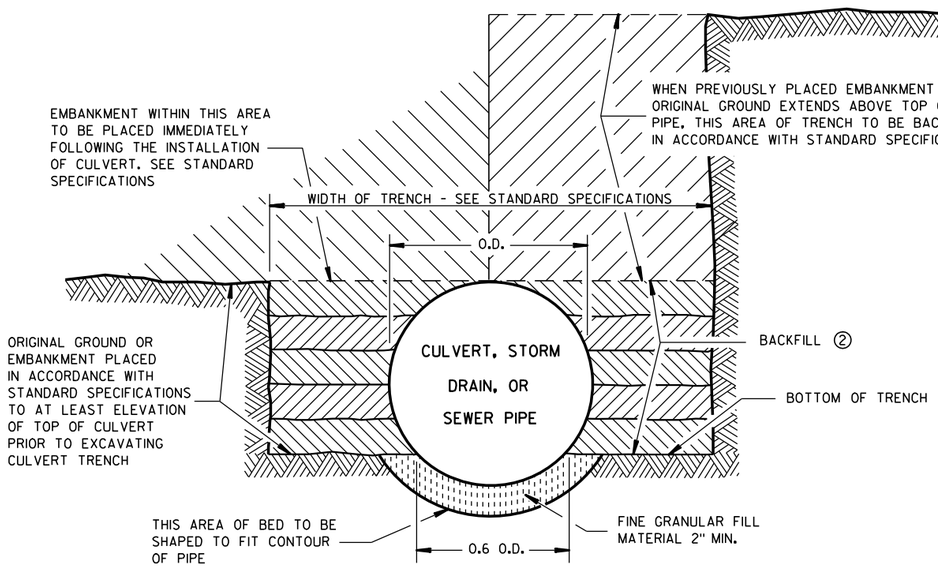
GENERAL NOTES

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

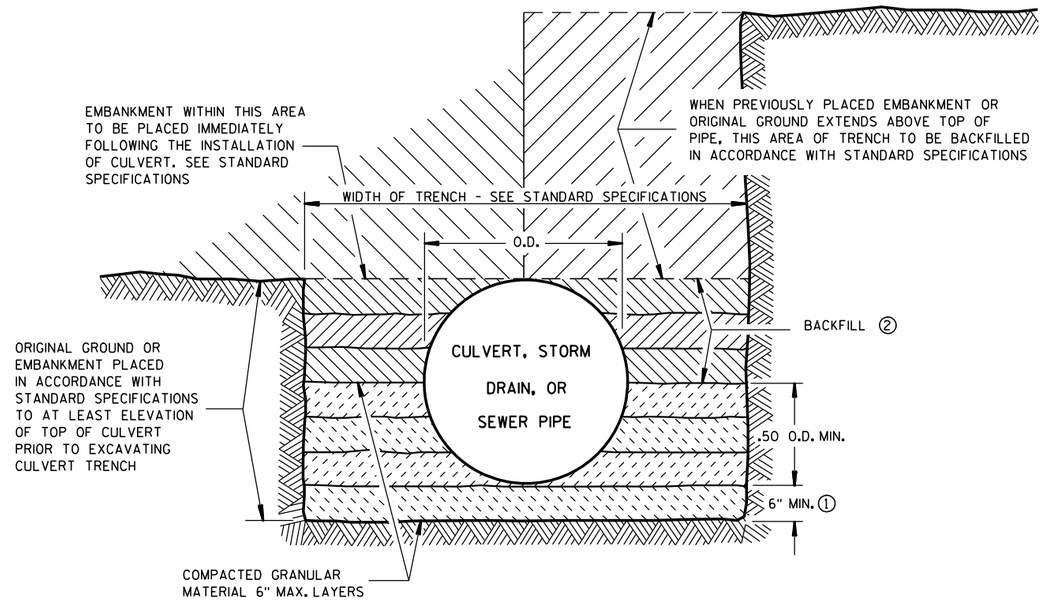
THE SHAPED SUBGRADE WITH GRANULAR FOUNDATION IS AN EQUAL ALTERNATE TO THE GRANULAR FOUNDATION EXCEPT WHERE ROCK IS ENCOUNTERED.

① WHERE ROCK, HARD PAN OR FRAGMENTED MATERIAL IS ENCOUNTERED, THE TRENCH SHALL BE EXCAVATED BELOW THE BOTTOM OF THE PIPE AN AMOUNT EQUAL TO ½ INCH PER FOOT OF PROPOSED EMBANKMENT ABOVE THE TOP OF THE PIPE, BUT NOT LESS THAN 6 INCHES.

② TRENCH SHALL BE BACKFILLED AS REQUIRED BY STANDARD SPECIFICATIONS; SECTION 520 FOR PIPE CULVERTS AND SECTION 607 FOR STORM SEWERS.



SHAPED SUBGRADE WITH GRANULAR FOUNDATION



GRANULAR FOUNDATION

CLASS "B" BEDDING

CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4/7/83 DATE	/S/ D. L. Strand STATE DESIGN ENGINEER
FHWA	905 HWYS

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S.D.D. 8 F 5-1

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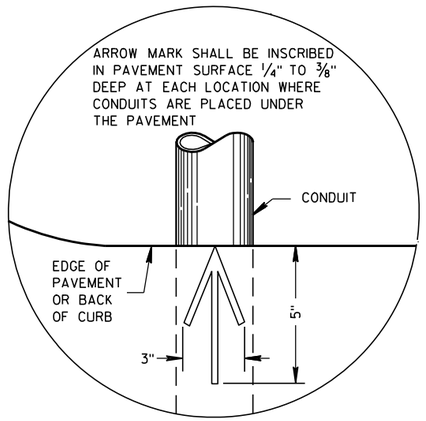
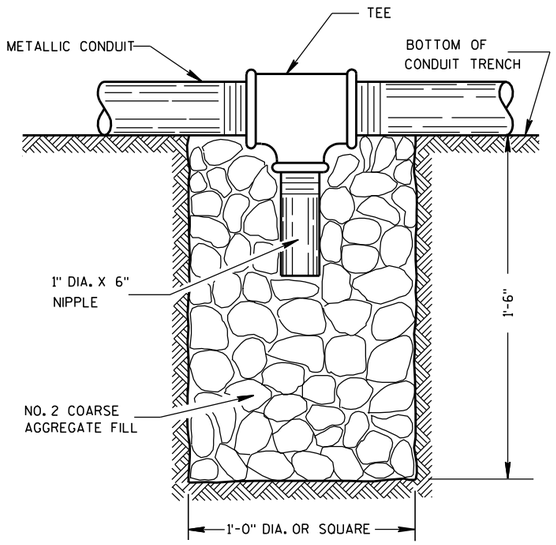
S.D.D. 8 F 5-1



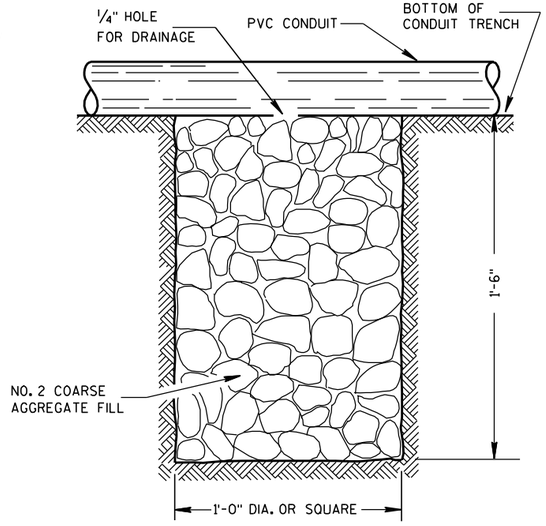
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

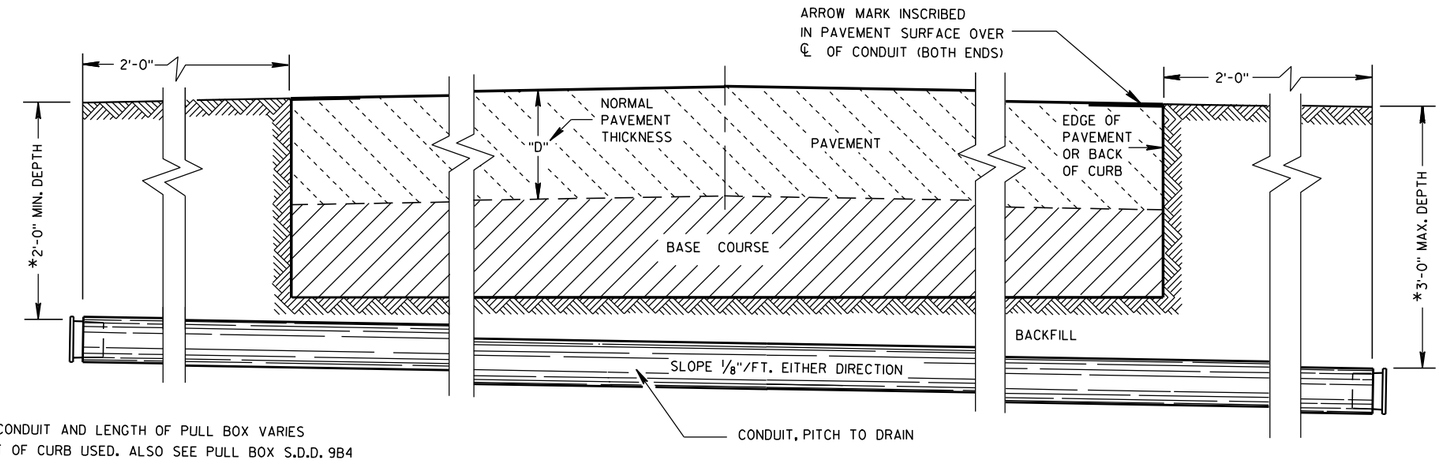
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 — DATE

/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI 906 HWYS

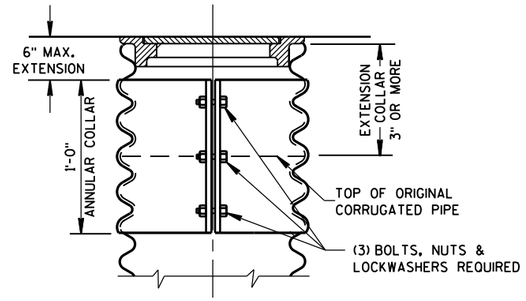
FHWA

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

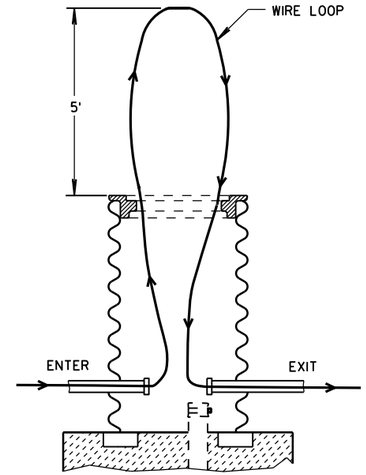
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

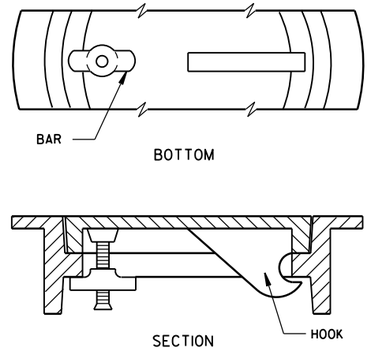
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

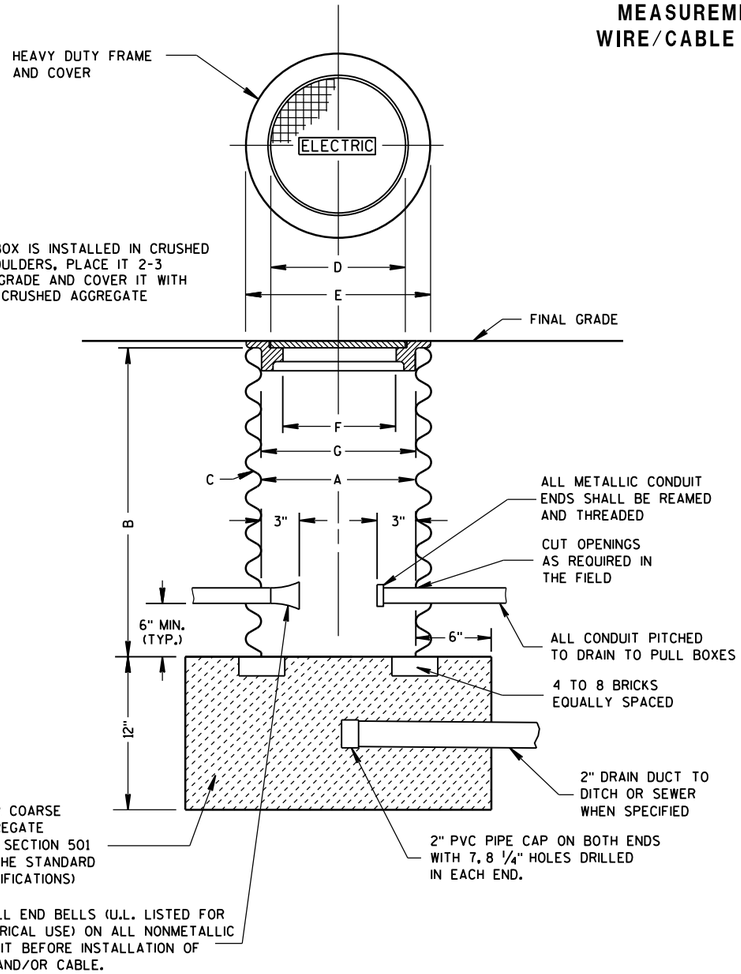


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



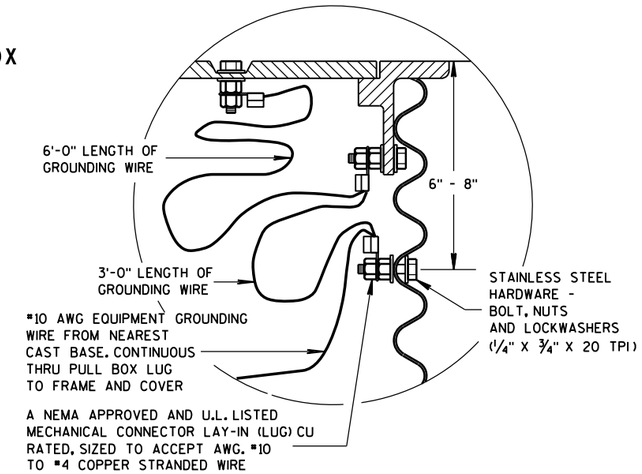
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

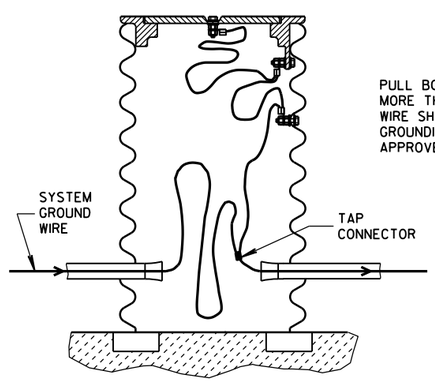


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-7-2013
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL 907

FHWA

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S.D.D. 9 B 4-10

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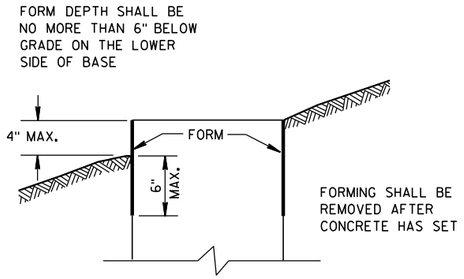
S.D.D. 9 B 4-10



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2 AND TYPE 5 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) I" DIA. X 3'-6" ANCHOR RODS.

(3) (4) I" DIA. X 5'-0" ANCHOR RODS.

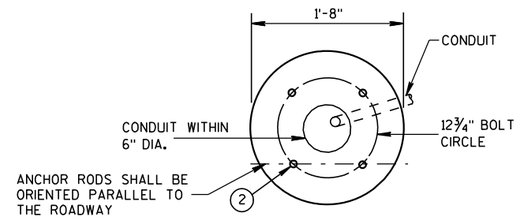
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

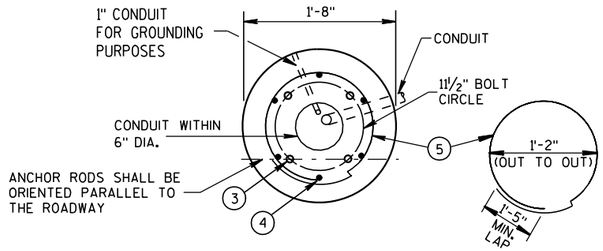
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

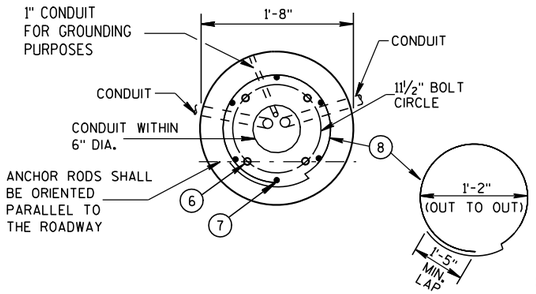
(6) (4) I" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

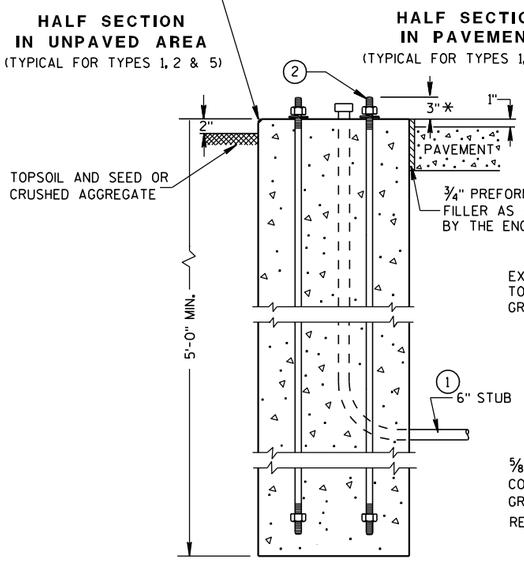






FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

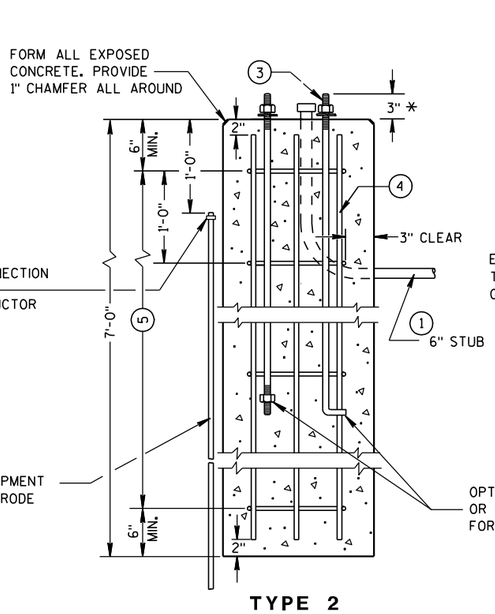
HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2 & 5)



HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2 & 5)

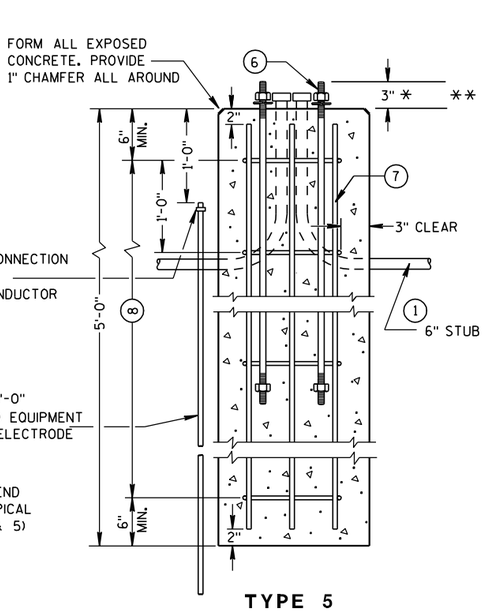
TYPE 1

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 2

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 5

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/3/10 — DATE
/S/ Joanna L. Rush — STATE ELECTRICAL ENGI 908 — HWYS
FHWA

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S.D.D. 9 C 2-6

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S.D.D. 9 C 2-6

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-325, (92,000 YIELD) HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

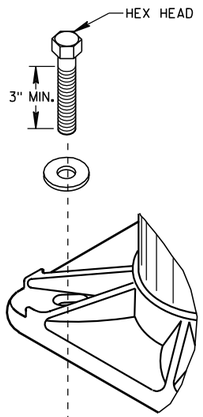
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

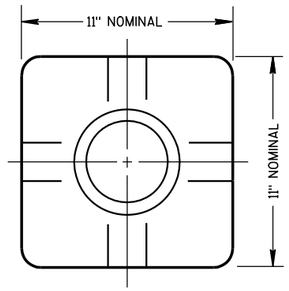
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

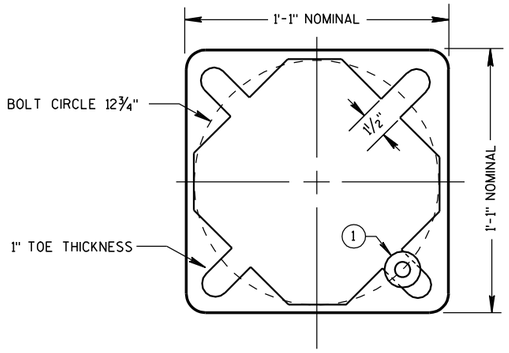
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1½", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

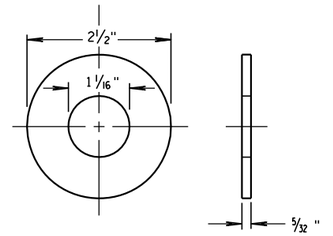




TOP VIEW
(PEDESTAL BASE)

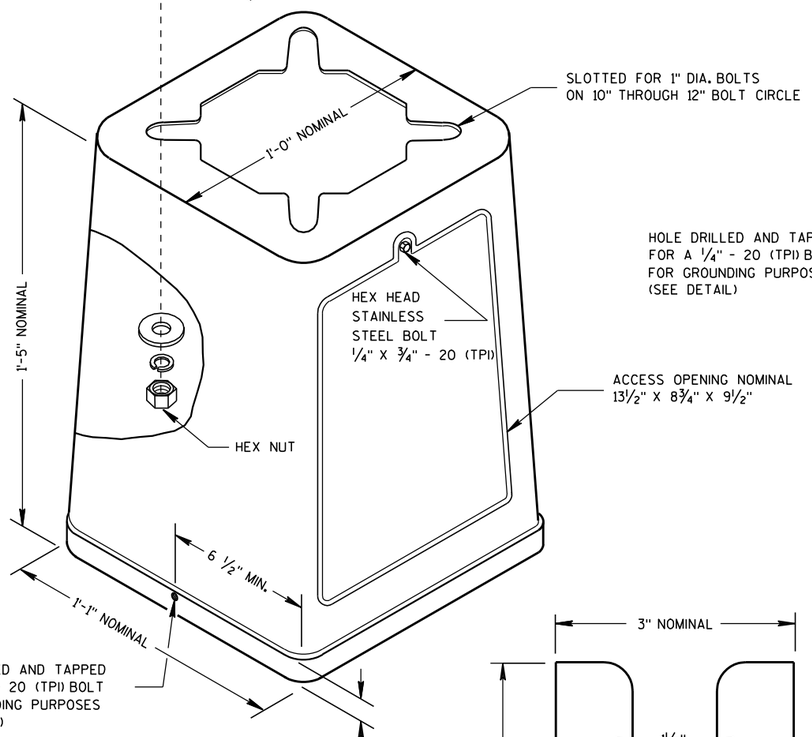


BOTTOM VIEW
(PEDESTAL BASE)

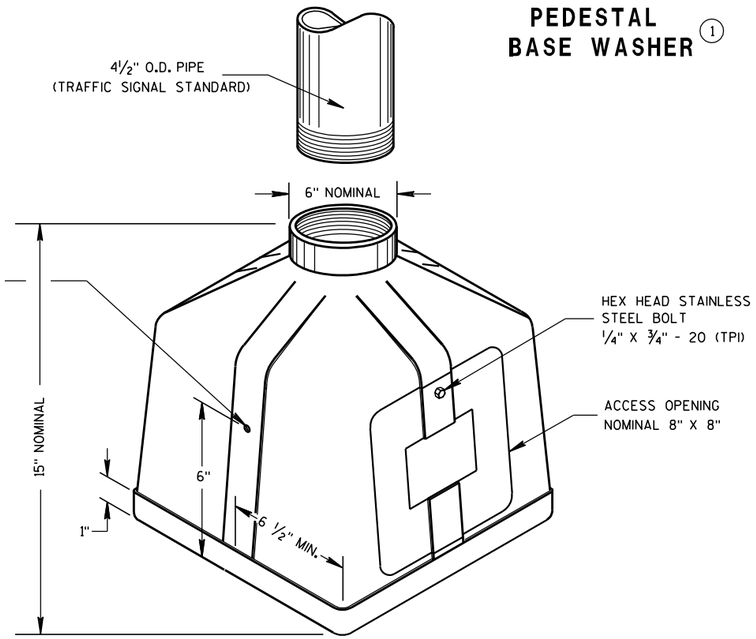


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

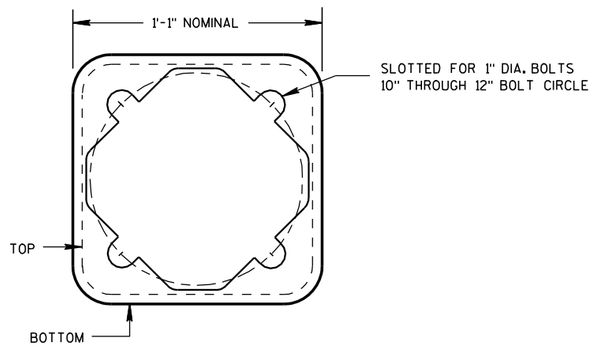


ISOMETRIC VIEW

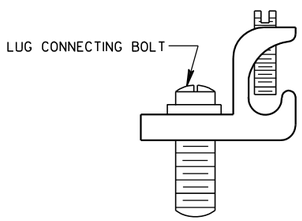


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

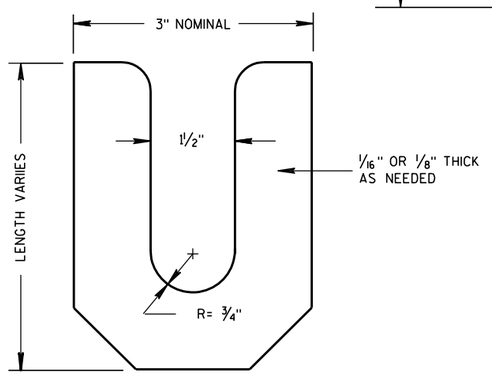


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/27/09 — DATE
/S/ Joanna L. Rich — STATE ELECTRICAL ENGI
909
HWYS
FHWA

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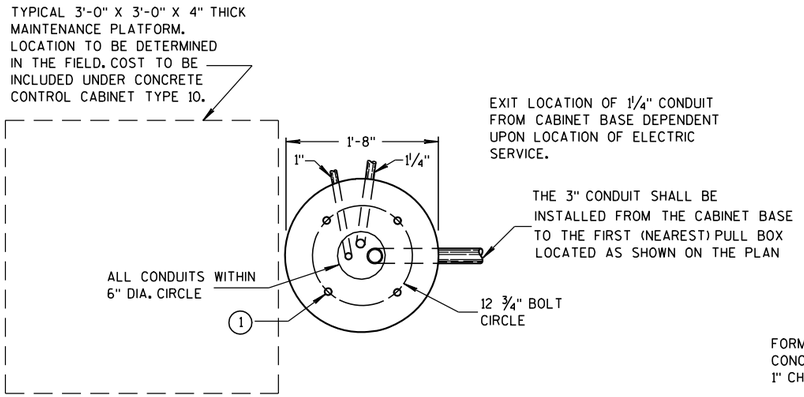
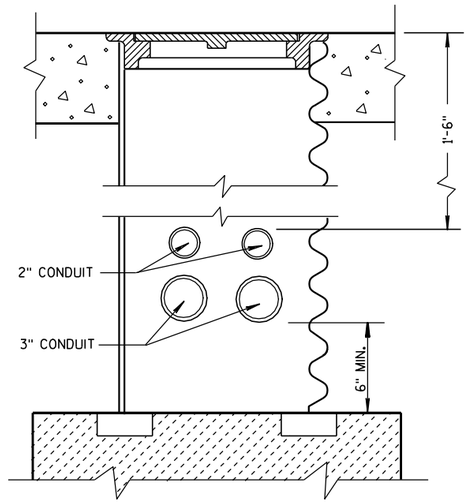
S.D.D. 9 C 3-3

CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	H	I	J	K	
TYPE 6 - 30" CABINET	34"	60"	10"	17"	.64
TYPE 7 - 38" CABINET	42"	60"	10"	21"	.93
TYPE 8 - 38" CABINET	42"	72"	12"	21"	1.29
TYPE 9 - VARIABLE	54"	72"	14"	27"	1.56
TYPE 10 - POST MOUNT	AS SHOWN				.65 *

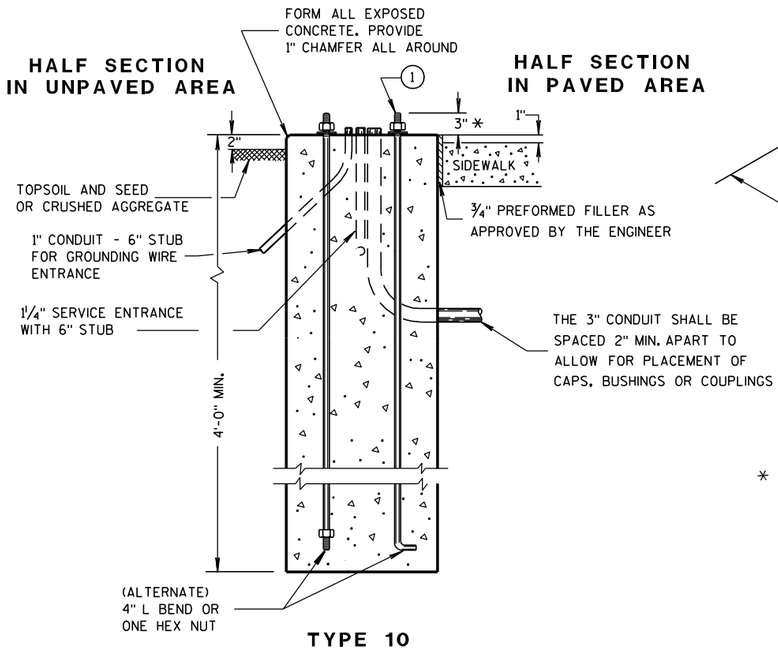
* INCLUDES MAINTENANCE PLATFORM.



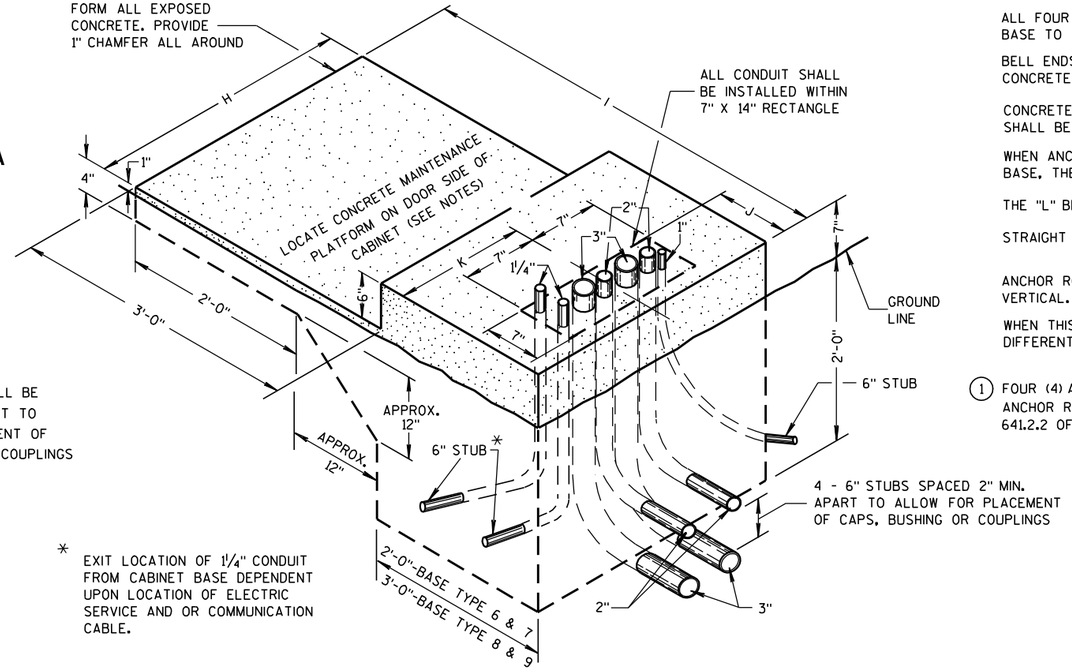


CONDUIT LOCATIONS IN 24" X 36" PULL BOX

(LEADING TO CONTROLLER CABINET BASE TYPE 6, 7, 8 AND 9)



TYPE 10



TYPE 6,7,8 AND 9
(ISOMETRIC VIEW)

* EXIT LOCATION OF 1¼" CONDUIT FROM CABINET BASE DEPENDENT UPON LOCATION OF ELECTRIC SERVICE AND OR COMMUNICATION CABLE.

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A 36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

ALL FOUR (TWO INCH AND THREE INCH) CONDUIT SHALL BE INSTALLED FROM THE CABINET BASE TO THE FIRST (NEAREST PULL BOX LOCATED AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10 BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

STRAIGHT ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WHEN THIS DRAWING IS USED FOR STREET LIGHTING CABINET BASES, CONDUIT MAY BE DIFFERENT AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

(1) FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6"
ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS.

CONCRETE CONTROL CABINET BASES

CONCRETE CONTROL CABINET BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/3/10 DATE
/S/ Joanna L. [illegible]
STATE ELECTRICAL ENGI
HWYS
FHWA

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S.D.D. 9 C 5-7

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE 1" X 60".

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

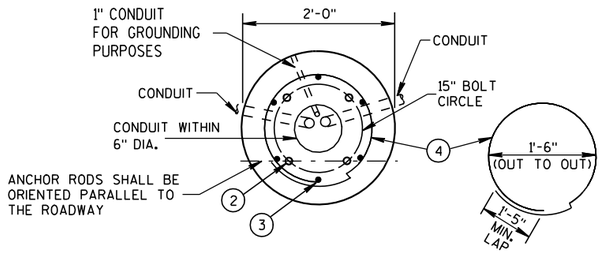
BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 5'-0" ANCHOR RODS

(3) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

(4) (7) NO. 4 X 6'-2" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

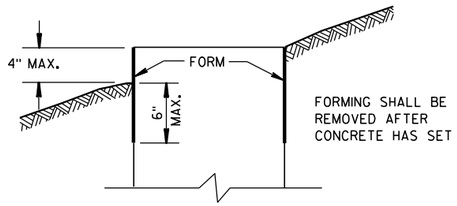


CONCRETE BASE, TYPE 7 (FOR 40' LIGHT POLES)

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

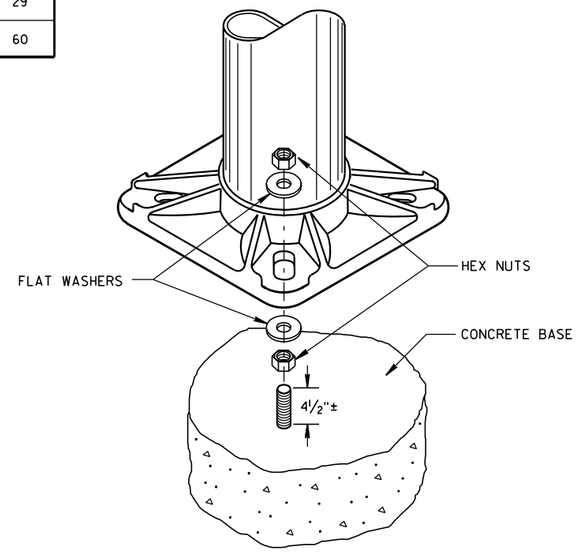
** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	0.8
LBS. OF HOOP BAR STEEL	29
LBS. OF VERTICAL BAR STEEL	60



NON-BREAKAWAY INSTALLATION (LEVELING NUT)

CONCRETE BASE, TYPE 7

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/3/10 DATE

/S/ Joanna L. Rich
STATE ELECTRICAL ENGI 911

HWYS

FHWA

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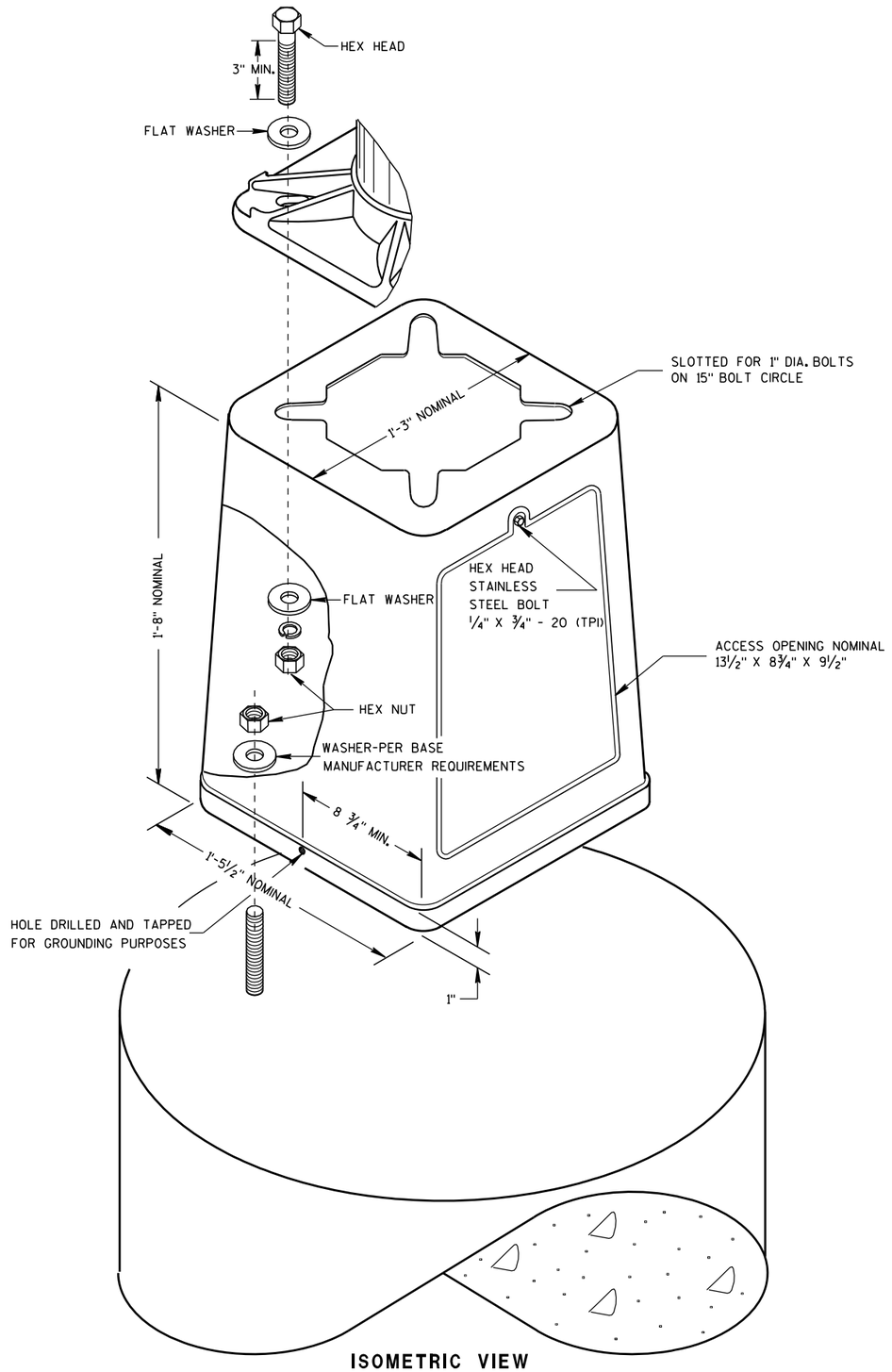
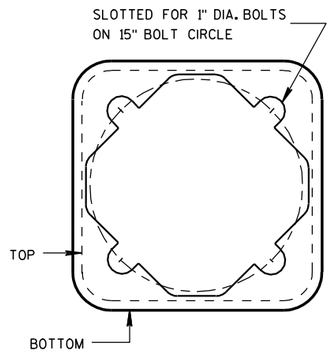
S.D.D. 9 C 8-4

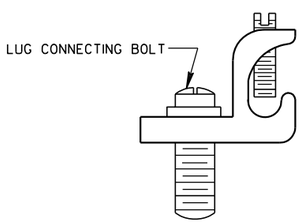


ISOMETRIC VIEW

TRANSFORMER BASE



BOTTOM VIEW



TYPICAL MECHANICAL
CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BREAKAWAY BASES (WHERE REQUIRED) WILL BE MEASURED AND PAID AS SEPARATE ITEMS OF WORK IN ADDITION TO THE LIGHT POLE.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-325, (92,000 YIELD), HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIMS SHALL BE SIZED TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

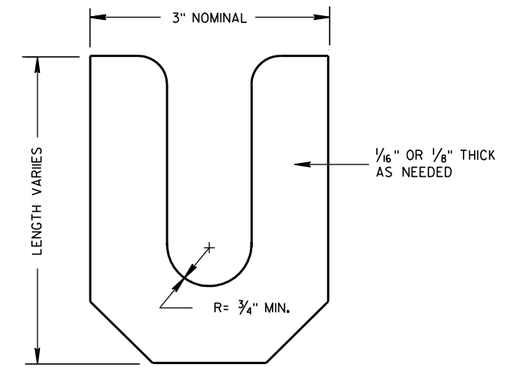
A NEMA APPROVED AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE TRANSFORMER BASES.

THE MECHANICAL CONNECTOR (GROUNDING LUG) SHALL BE INSTALLED USING THE TAPPED HOLE PROVIDED BY THE MANUFACTURER. THE MOUNTING BOLT HEXHEAD), NUT, WASHER AND LOCK WASHER SHALL BE STAINLESS STEEL, SIZED TO FIT THE THREADING AND HOLE SIZE, AND BE OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

SHOULD A GROUNDING LUG MOUNTING HOLE NOT BE PROVIDED, THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" X 3/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE. IT SHALL BE MOUNTED IN THE SAME LOCATION AS IS SHOWN ON THE DRAWING.

SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, AND LOCK WASHERS, THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

THE ACCESS DOOR SHALL BE MANUFACTURED OF THE SAME MATERIAL AS THE BASE.



LEVELING SHIM

TRANSFORMER BASE FOR 15" BOLT CIRCLE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/2/07 DATE	/S/ Balu Ananthanarayanan STATE ELECTRICAL ENGI
FHWA	912 HWYS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUIT IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

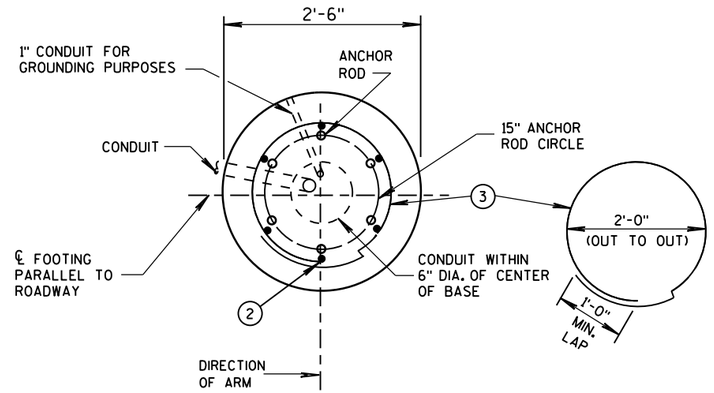
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

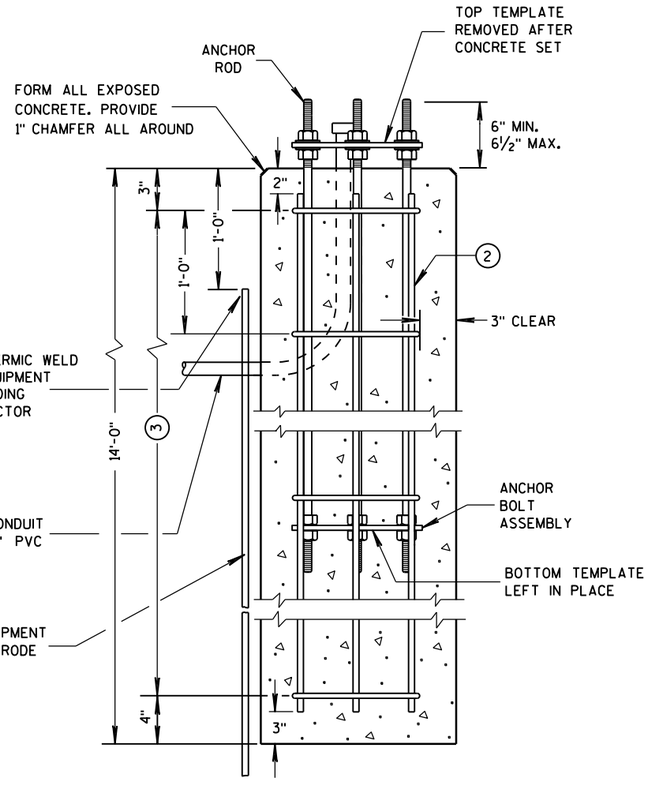
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (15) NO. 4 X 7'-4" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

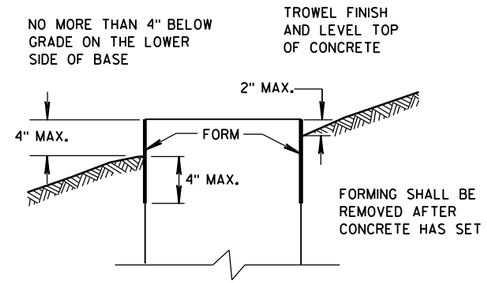
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



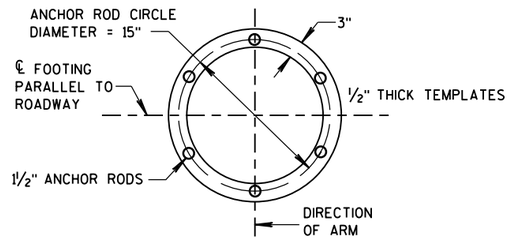


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

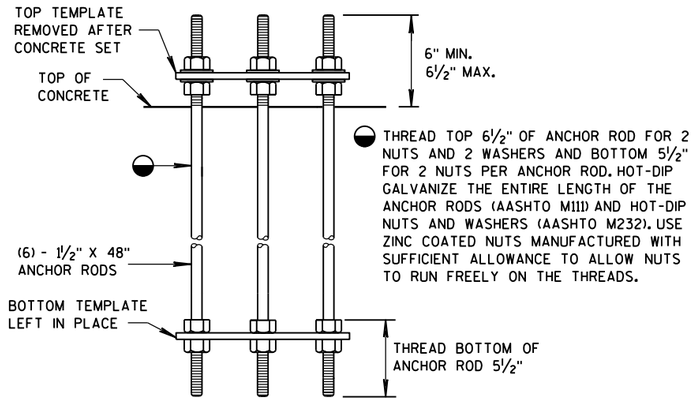
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
1-16-2013 DATE
/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA

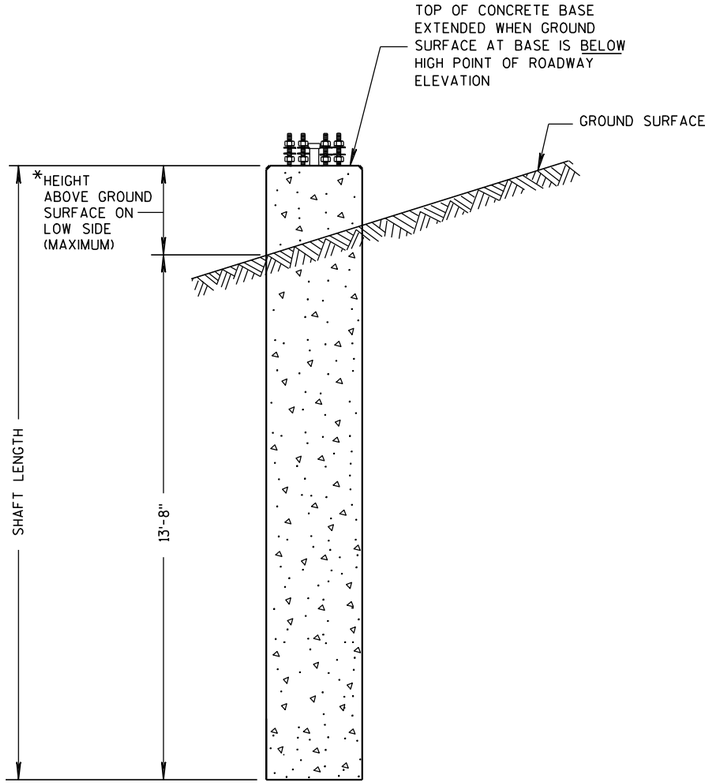
6
S.D.D. 9 C 11-3

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 10 CONCRETE BASE

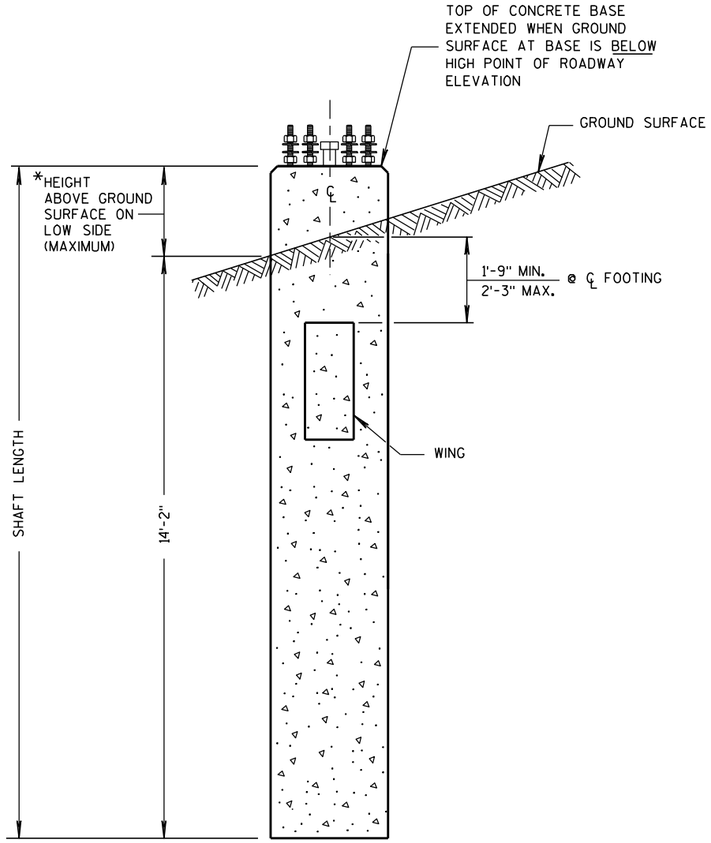
HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF HOOP BAR STEEL	LBS. OF VERTICAL BAR STEEL
>0" TO 6"	10"	14'-6"	14'-1"	16	2.6	78	127
>6" TO 1'-0"	1'-4"	15'-0"	14'-7"	16	2.7	78	131
>1'-0" TO 1'-6"	1'-10"	15'-6"	15'-1"	17	2.8	83	136
>1'-6" TO 2'-0"	2'-4"	16'-0"	15'-7"	17	2.9	83	141

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 13 CONCRETE BASE

HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF H.S. BAR STEEL
>0" TO 6"	10"	15'-0"	14'-7"	16	6.5	447
>6" TO 1'-0"	1'-4"	15'-6"	15'-1"	16	6.6	454
>1'-0" TO 1'-6"	1'-10"	16'-0"	15'-7"	17	6.8	469
>1'-6" TO 2'-0"	2'-4"	16'-6"	16'-1"	17	7.0	476



CONCRETE BASE TYPE 10 (EXTENDED)



CONCRETE BASE TYPE 13 (EXTENDED)

CONCRETE BASE
TYPE 10 & TYPE 13 EXTENSION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3-3-10 DATE — /S/ Joanna L. Rush STATE ELECTRICAL ENGI — HWYS

FHWA

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S.D.D. 9 C 13-1

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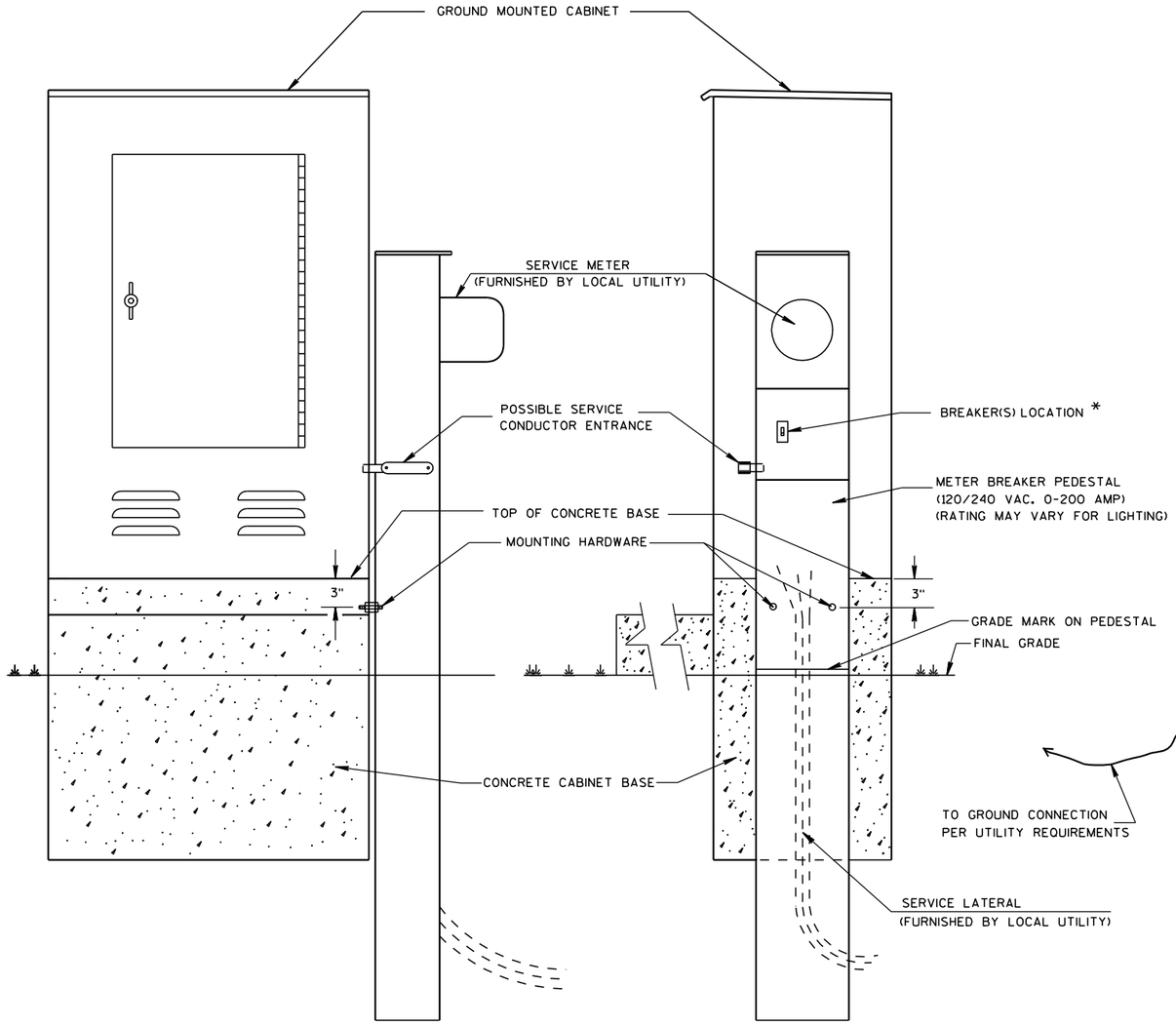
S.D.D. 9 C 13-1



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

6

S.D.D. 9 D 1-4

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S.D.D. 9 D 1-4

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

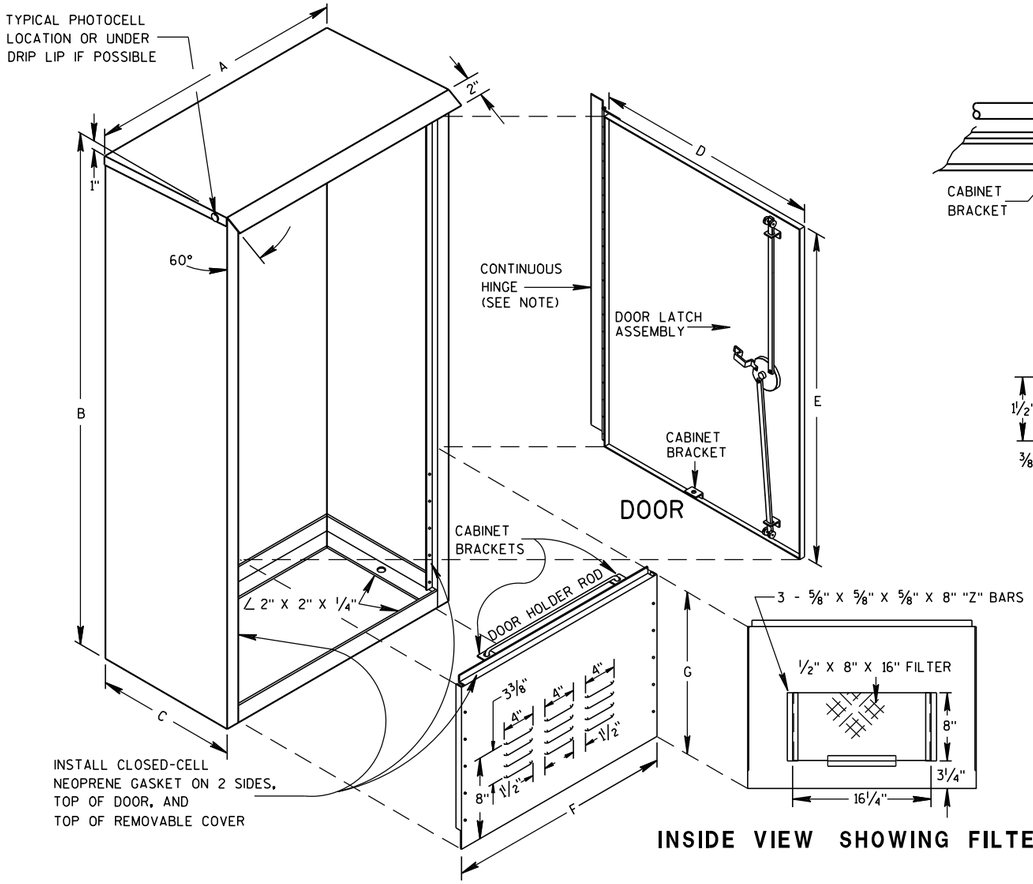
10/27/09 — DATE

/S/ Joanna L. Bush — STATE ELECTRICAL ENGI

915

HWYS

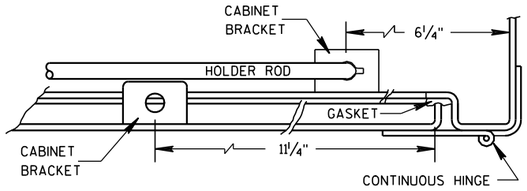
FHWA



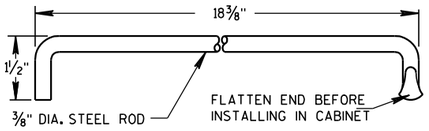
DOOR

REMOVABLE COVER

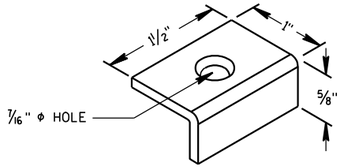
INSIDE VIEW SHOWING FILTER



HINGE & DOOR HOLDER



HOLDER ROD

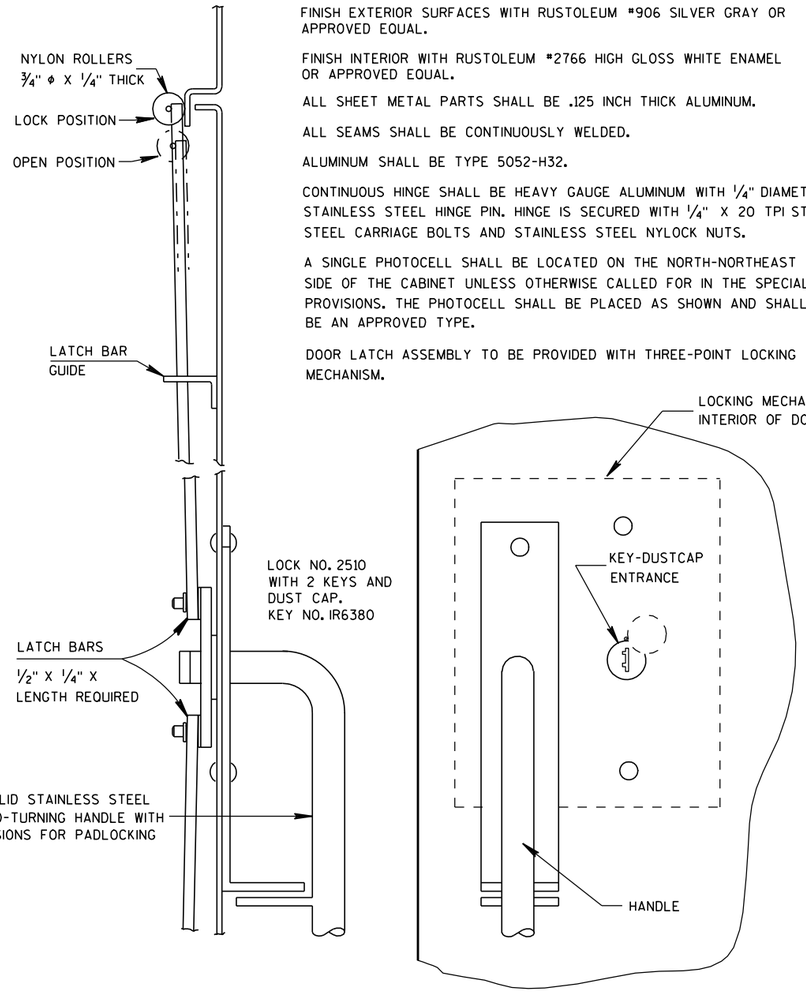


CABINET BRACKET

MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

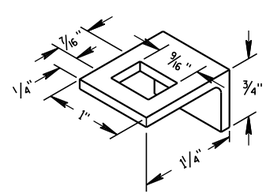
MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2



SIDE VIEW

FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

GENERAL NOTES

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

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE AN APPROVED TYPE.

DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.

SIGNAL OR LIGHTING CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/21/96 — DATE
/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI
HWYS
FHWA

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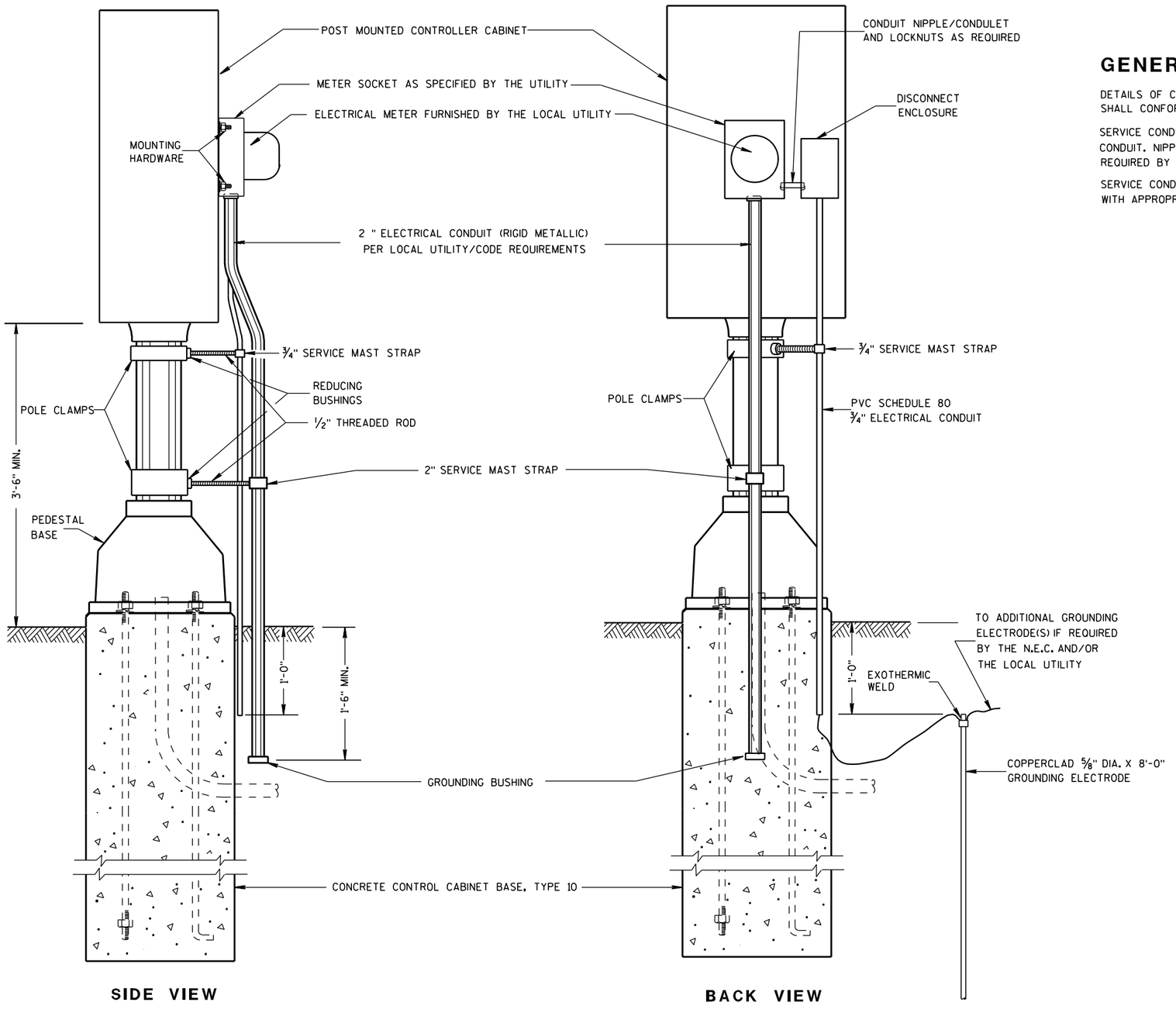
S.D.D. 9 D 2-2



POST MOUNTED CONTROLLER SERVICE INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID STEEL OR SCHEDULE 80 PVC ELECTRICAL CONDUIT. NIPPLES AND/OR CONDULETS, WITH LOCK NUTS AND GROUNDING BUSHINGS AS REQUIRED BY THE N.E.C. OR THE LOCAL UTILITY.

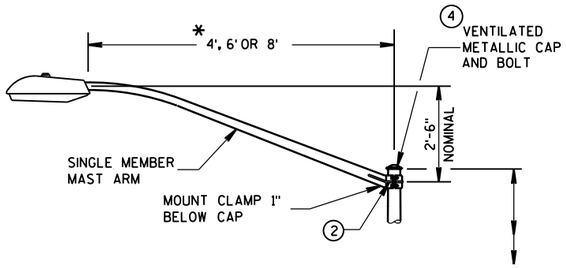
SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AS REQUIRED AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED ELECTRICAL CODE.

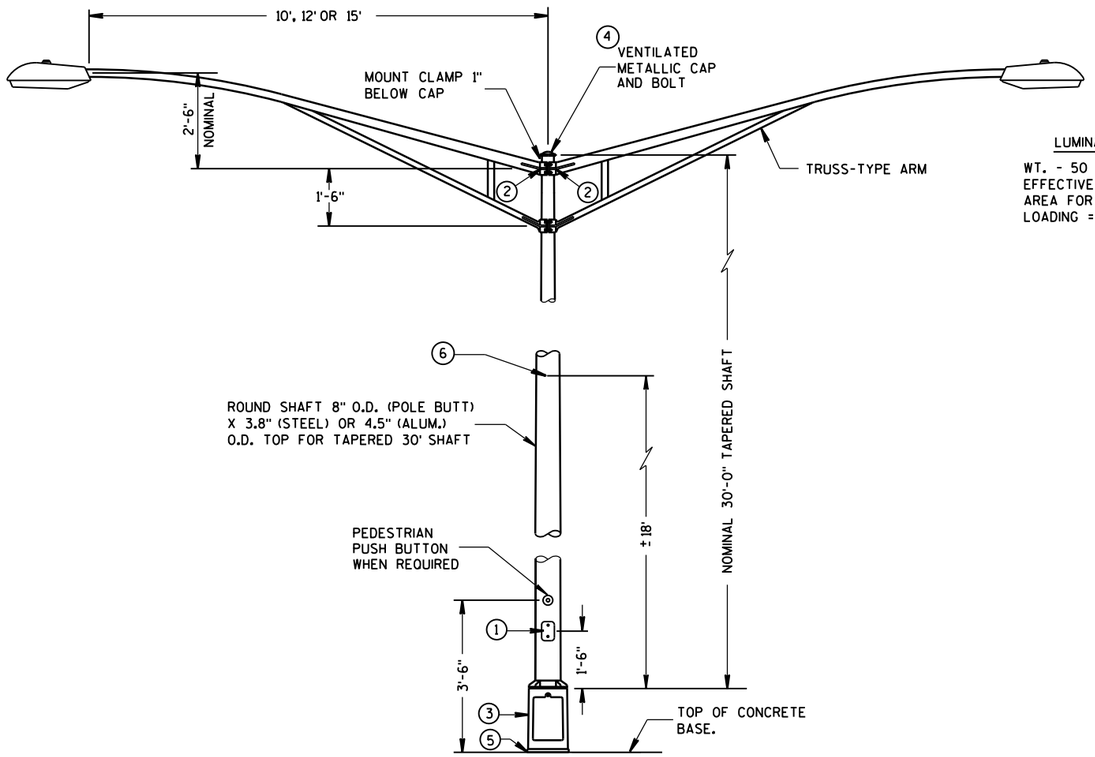
POST MOUNTED CONTROLLER SERVICE INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

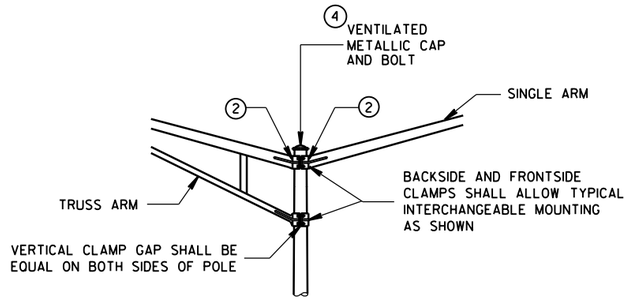
APPROVED
3/24/2003 DATE
/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI 917 HWYS
FHWA

*RISE FOR 4' ARM SHALL BE 2'-0".





TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONEECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(6) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

6

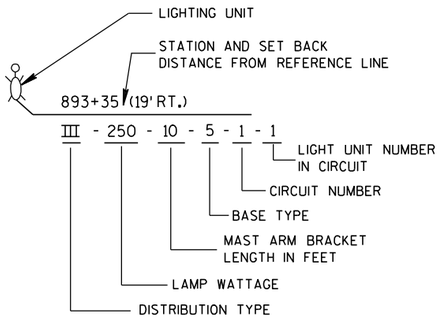
S.D.D. 9 E 1-12d

POLE MONTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)

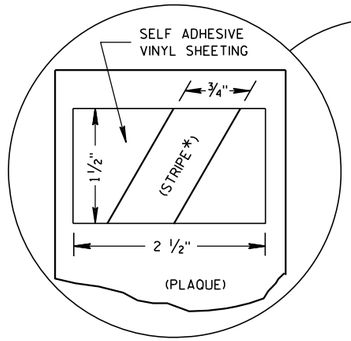
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 9 E 1-12d



LIGHTING UNIT CODE
(TYPICAL)



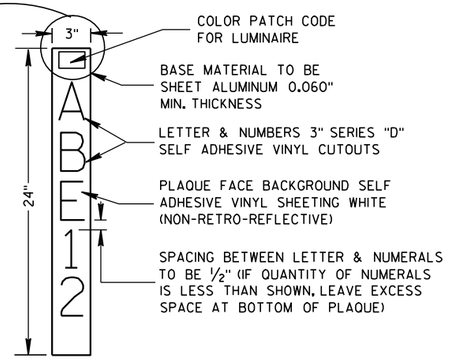
COLOR PATCH CODE FOR LUMINAIRES

(HIGH PRESSURE SODIUM)

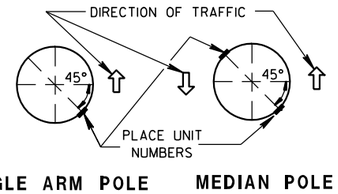
1000 WATT - NO PATCH
400 WATT - ORANGE
310 WATT - BLUE
250 WATT - ORANGE W/WHITE STRIPE*
200 WATT - RED
150 WATT - GREEN
100 WATT - BROWN

(MERCURY VAPOR)

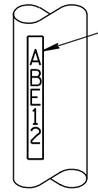
400 WATT - (NO PATCH)
250 WATT - YELLOW



IDENTIFICATION PLAQUE



SINGLE ARM POLE MEDIAN POLE



FASTEN TOP, CENTER AND BOTTOM OF PLAQUE WITH 3 ALUMINUM POP RIVETS (ALUM. POLES) OR STAINLESS STEEL POP RIVETS (STEEL POLES)

NOTES:

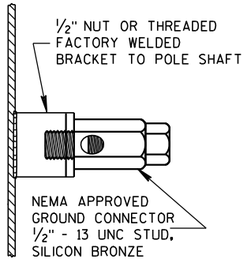
1) PLACE BOTTOM OF UNIT NUMBER PLAQUE 5'-0" ABOVE ELEVATION OF ADJACENT CURB OR SHOULDER.

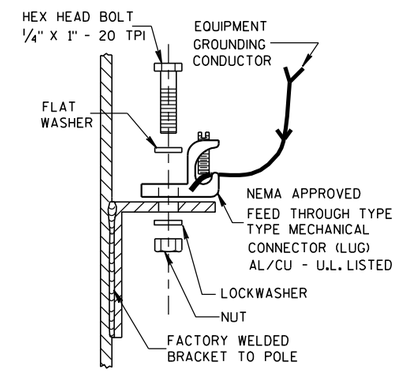
2) UNIT NUMBERS: ONE REQUIRED FOR SINGLE ARM POLES TWO REQUIRED FOR MEDIAN MOUNT POLES.

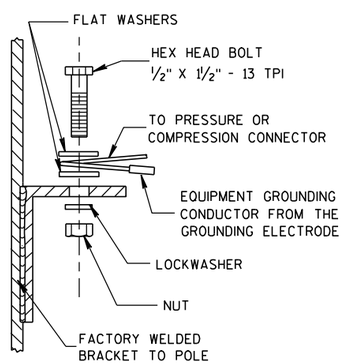
LIGHTING UNIT IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENT

(TYPICAL ALL LIGHTING UNITS)

FURNISH PLAQUE WHEN CALLED FOR BY SPECIAL PROVISIONS

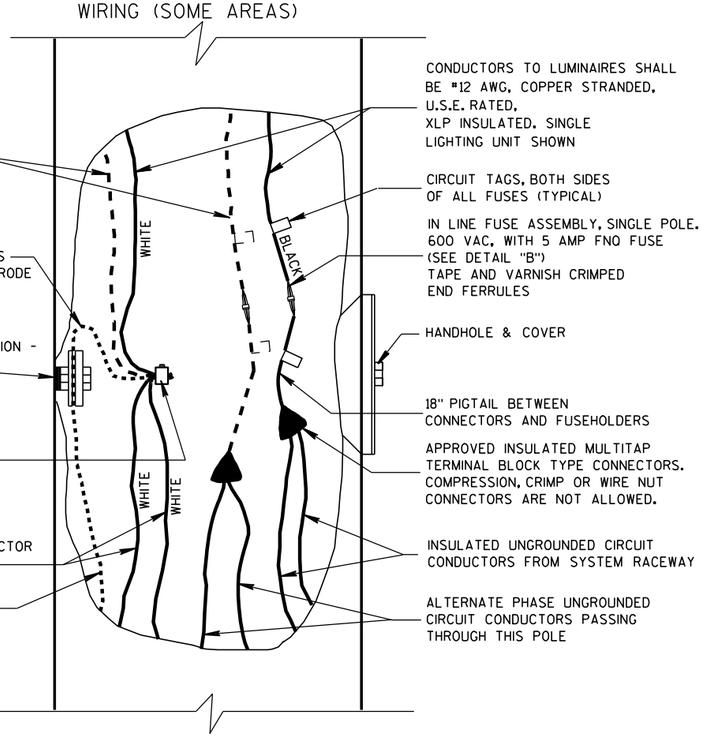




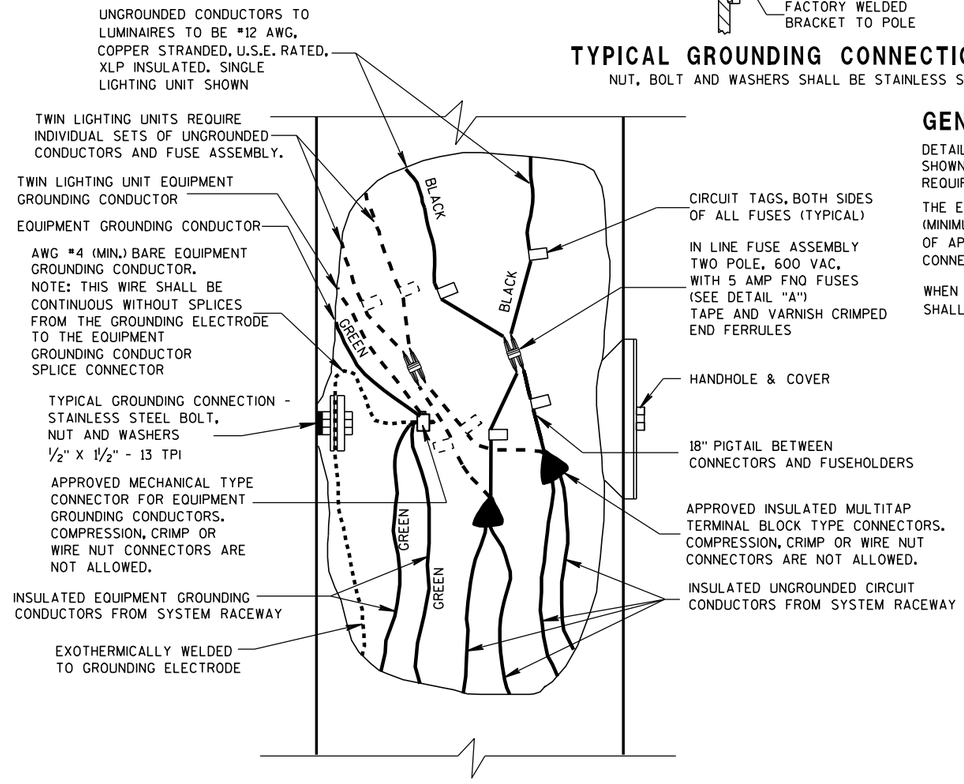


TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



2 WIRE - 120, 240 OR 480 VAC TO GROUND



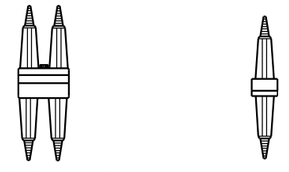
2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT

DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT

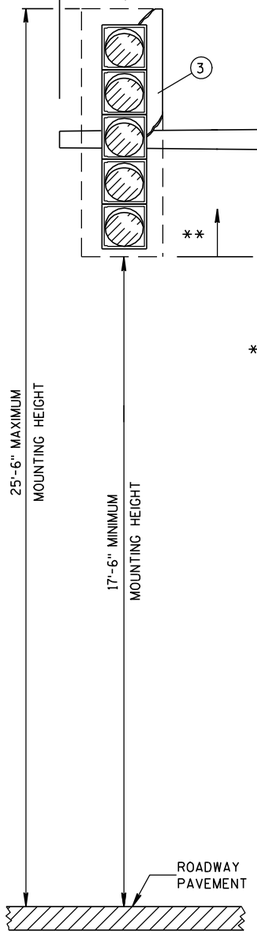
FREEWAY LIGHTING UNIT POLE WIRING

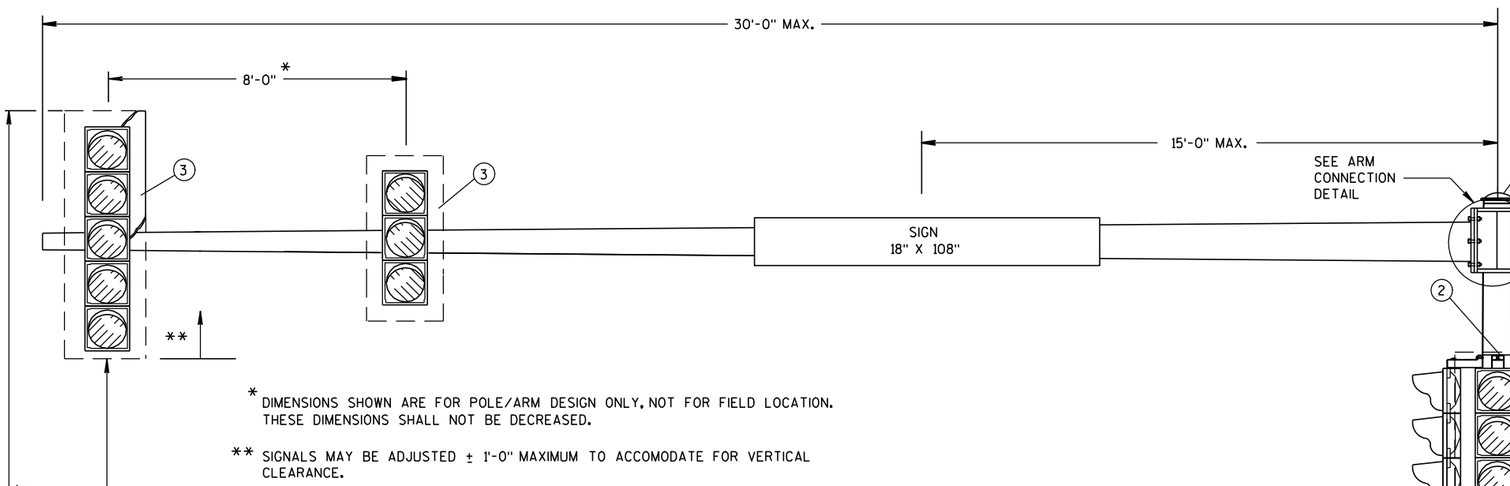
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/2/2011 DATE
/S/ Thomas J. Gorrlan
STATE ELECTRICAL ENGI 919 HWYS
FHWA

6

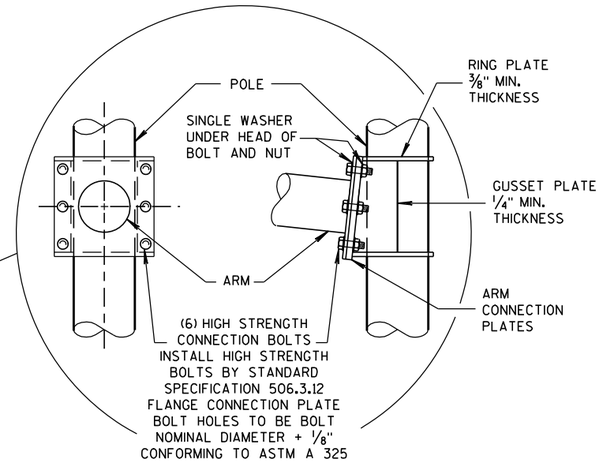
S.D.D. 9 E 2-3



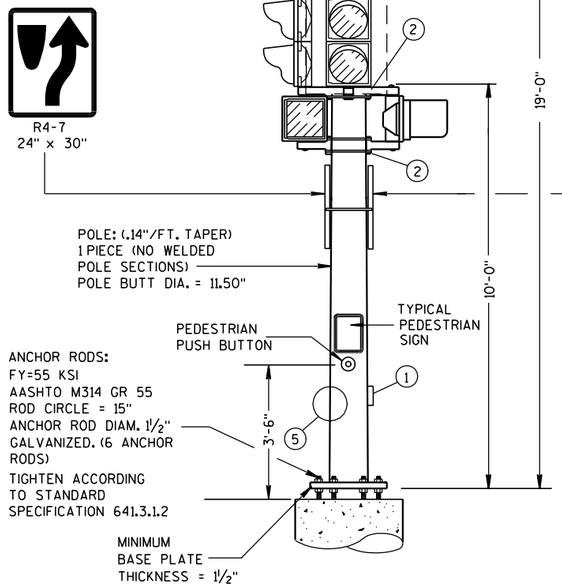


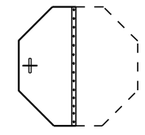
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY. NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

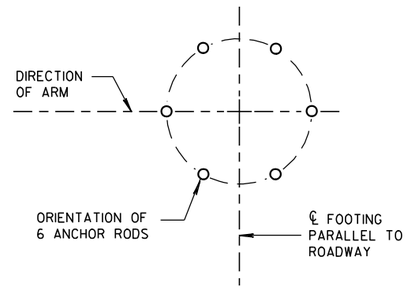
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL







ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

TYPE 9 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/2/2011 DATE	/S/ Thomas J. Gosling STATE ELECTRICAL ENGI 920 HWYS
FHWA	

6
S.D.D. 9 E 8-4a

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE LATEST AASHTO AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

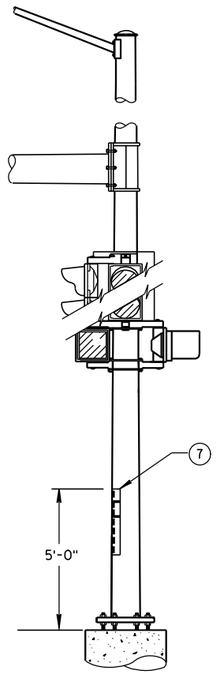
(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

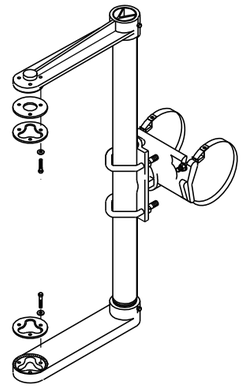
(7) INSTALL DEPARTMENT PROVIDED STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 5'-0" ABOVE THE CURB OR SHOULDER . ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

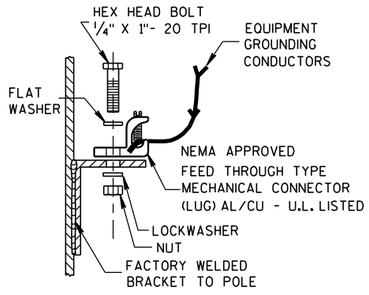


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



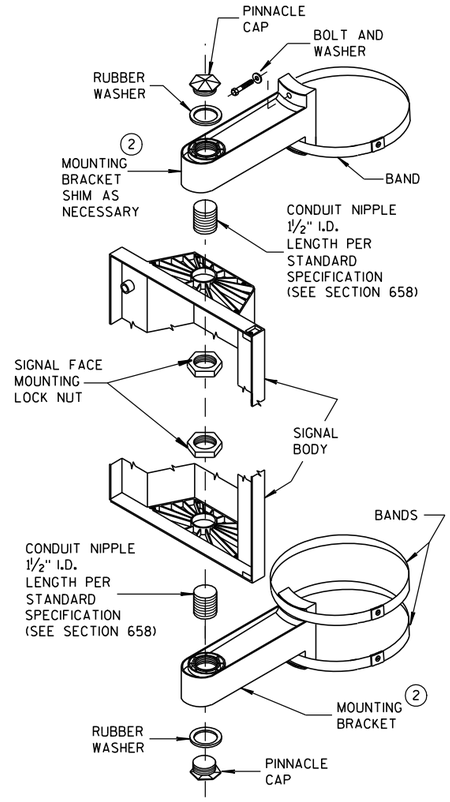
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

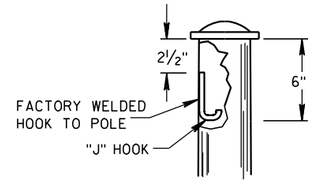


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 DATE

/S/ Thomas J. Corrigan
STATE ELECTRICAL ENGI 921 HWYS

FHWA

6

S.D.D. 9 E 8-4e

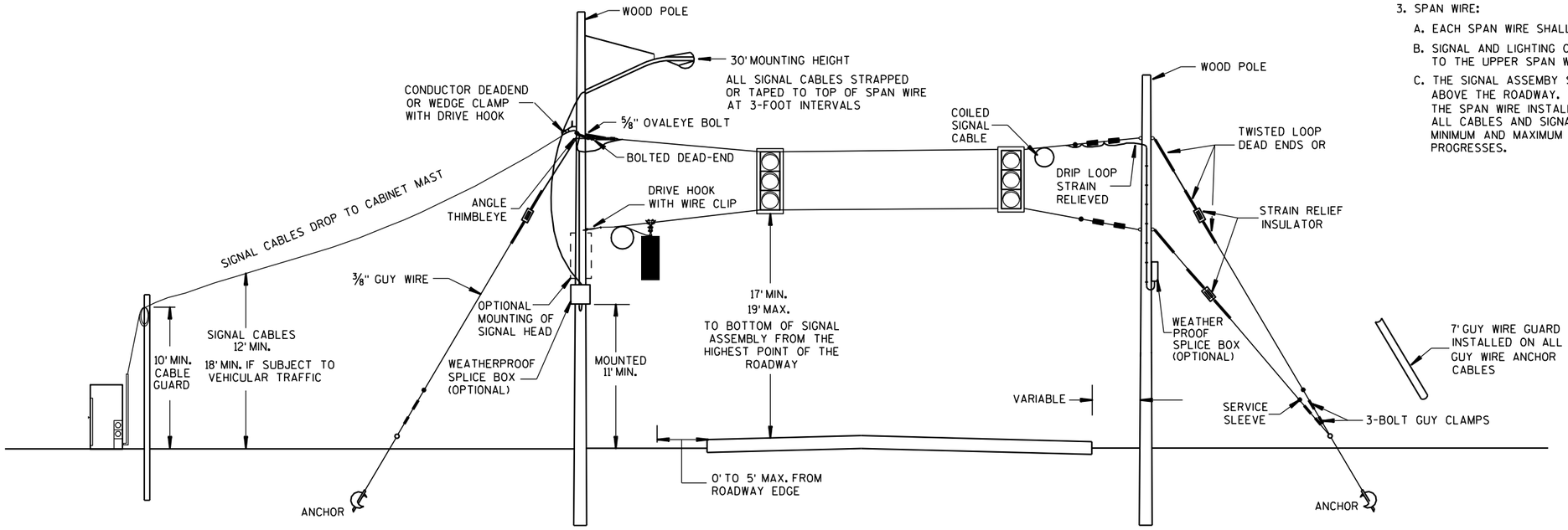
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 DATE

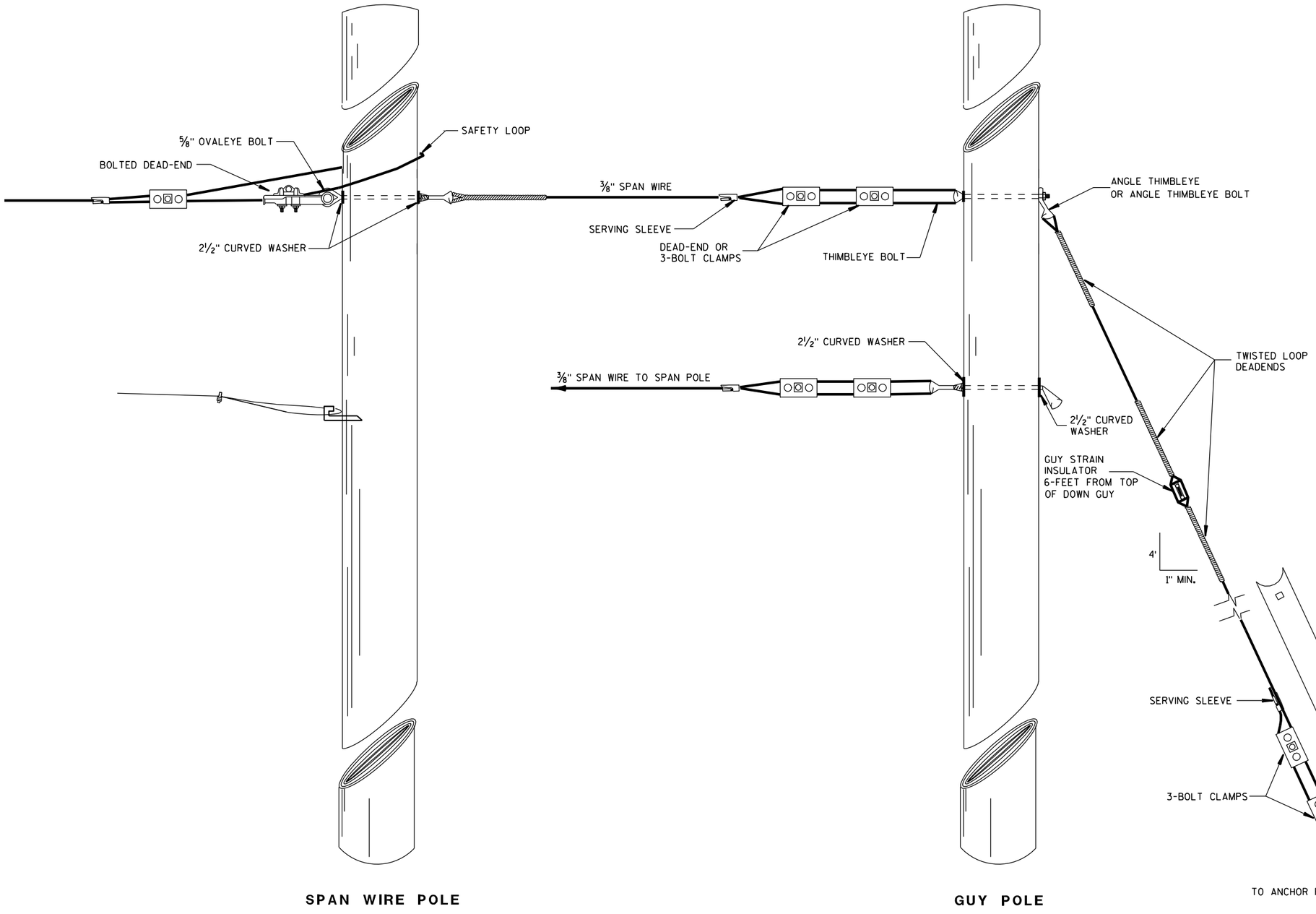
/S/ Balu Ananthar[illegible]n
STATE ELECTRICAL ENGI 922 HWYS

FHWA

6
S.D.D. 9 G 1-3a

GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE

GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 DATE
/S/ Balu Aganthanarayanan
STATE ELECTRICAL ENGI 923 HWYS
FHWA

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S.D.D. 9 G 1-3e

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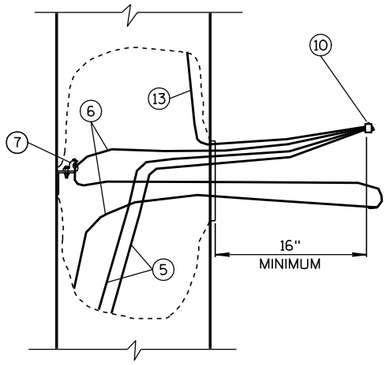
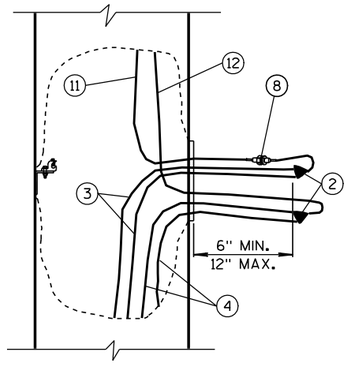
S.D.D. 9 G 1-3e

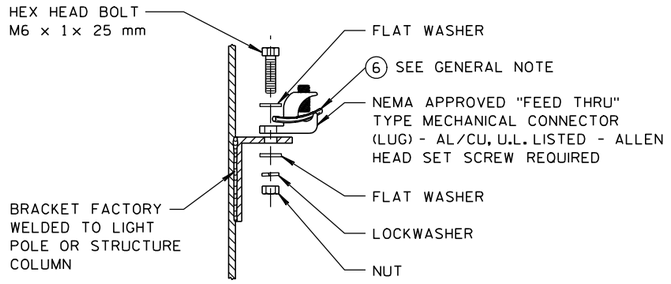


EQUIPMENT GROUNDING CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK (AND GROUNDED NEUTRAL SLACK IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



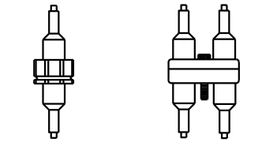
HANDHOLE GROUNDING LUG

(NUT, BOLT, WASHERS, AND LOCK WASHERS SHALL BE STAINLESS STEEL)

CONDUCTOR COLOR CODES

KEY	CONDUCTOR	COLOR
3	UNGROUNDED LINE WIRE	*
4	GROUNDED LINE WIRE	WHITE
5	SYSTEM GROUNDING LINE WIRE	GREEN
6	GROUNDING ELECTRODE CONDUCTOR	BARE
11	UNGROUNDED POLE WIRE	*
12	GROUNDED POLE WIRE	WHITE
13	EQUIPMENT GROUNDING POLE WIRE	GREEN

* FOLLOW COLOR CODING SHOWN IN THE PLANS. WHERE THE PLANS DO NOT SHOW COLOR CODING, USE BLACK FOR SINGLE LUMINAIRE POLES; BLACK AND RED FOR TWIN LUMINAIRE POLES.



FUSE ASSEMBLIES

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

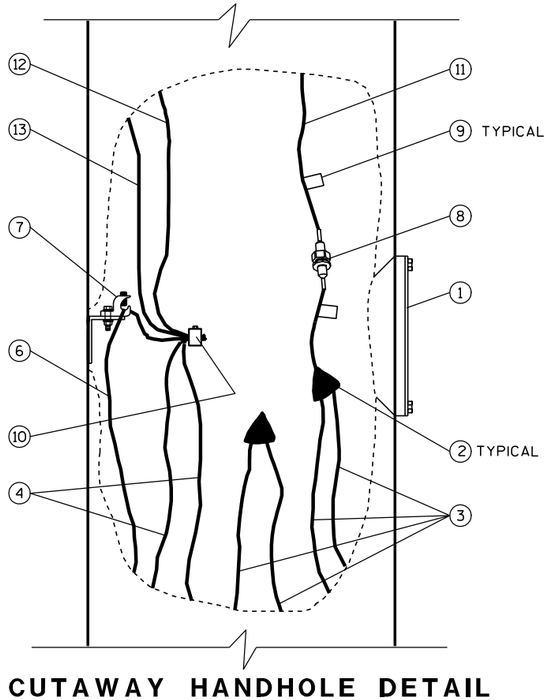
USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

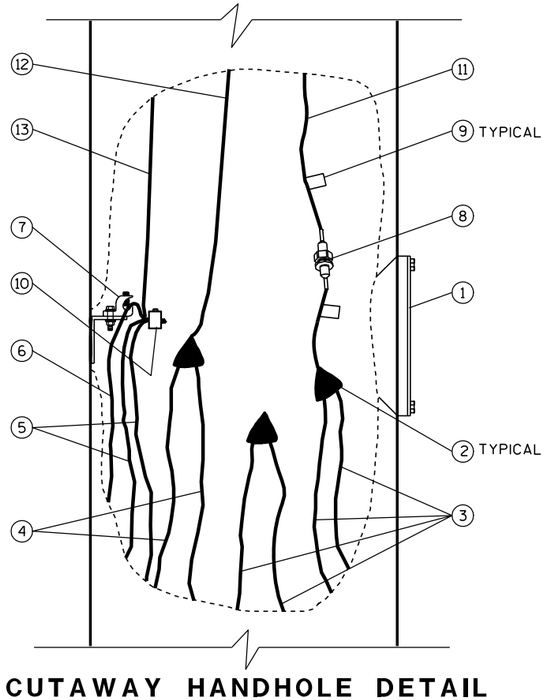
THREE POLE WIRES ARE SHOWN FOR A SINGLE LUMINAIRE LIGHT POLE. THREE ADDITIONAL POLE WIRES REQUIRED FOR TWIN LUMINAIRE LIGHT POLES ARE OMITTED FROM THE DRAWING FOR CLARITY. IN THE TWIN POLE CASE, BUNDLE EACH SET OF THREE WIRES WITH A NYLON CABLE TIE.

IN 3-PHASE SYSTEMS, THERE WILL BE ONE MORE UNGROUNDED LINE WIRE, WHICH IS OMITTED FROM THE DRAWING FOR CLARITY.

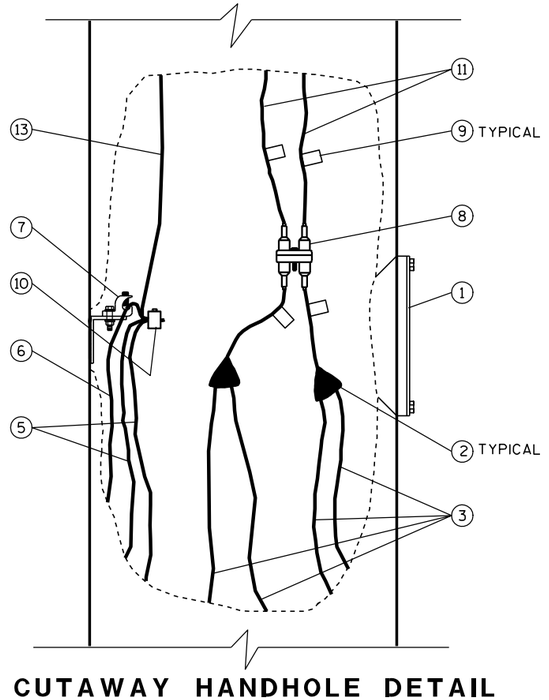
CIRCUIT TAGS SHALL BE INSTALLED ONLY WHERE REQUIRED IN THE SPECIAL PROVISIONS.



CUTAWAY HANDHOLE DETAIL
GROUNDED NEUTRAL SYSTEMS
1-φ



CUTAWAY HANDHOLE DETAIL
ISOLATED NEUTRAL SYSTEMS
1-φ SHOWN; 3-φ WYE SIMILAR
(SEE GENERAL NOTE)



CUTAWAY HANDHOLE DETAIL
PHASE-TO-PHASE SYSTEMS
1-φ SHOWN; 3-φ DELTA SIMILAR
(SEE GENERAL NOTE)

NOTE: REQUIRED CONDUCTOR SLACK NOT SHOWN ON "CUTAWAY HAND HOLE" DETAILS FOR DRAWING CLARITY, SEE "TYPICAL CONDUCTOR SLACK AT HANDHOLES" ON THIS SHEET.

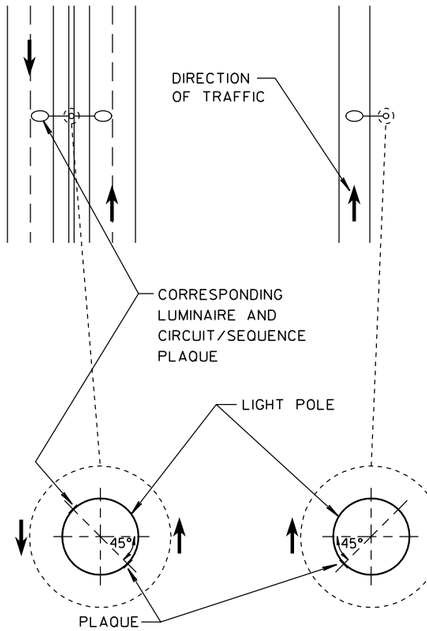
1. HANDHOLE AND COVER
2. INSULATED SPLICE
3. UNGROUNDED LINE WIRE
4. GROUNDED LINE WIRE
5. SYSTEM GROUNDING LINE WIRE
6. GROUNDING ELECTRODE CONDUCTOR
7. HANDHOLE GROUNDING LUG
8. FUSE ASSEMBLY, 1P OR 2P AS REQUIRED
9. CIRCUIT TAG (SEE GENERAL NOTE)
10. REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTOR (NOT INSULATED)
11. UNGROUNDED POLE WIRE
12. GROUNDED POLE WIRE
13. EQUIPMENT GROUNDING POLE WIRE

ELECTRICAL HANDHOLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/25/2010 DATE
/S/ John Corbin STATE ELECTRICAL ENGI 924
FHWA HWYS

6
S.D.D. 10 A 1-2



MEDIAN POLE SINGLE ARM POLE

LOCATION OF LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

WHERE SHOWN IN THE PLANS, REPLACEMENT PLAQUES WILL BE MEASURED AND PAID SEPARATELY.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

LINES - BLACK, 1/2" WIDE, SELF-ADHESIVE

CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

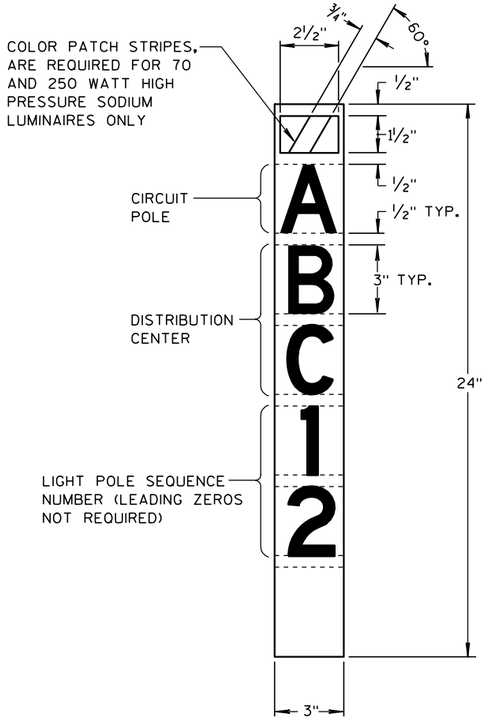
COLOR PATCHES - VARIOUS COLORS, SELF-ADHESIVE VINYL SHEETING

WITH THE APPROVAL OF THE ENGINEER, THE BASE MATERIAL MAY BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE SURFACE, IN CASES SUCH AS SMOOTH, CLEAN ALUMINUM POLES.

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.

COLOR PATCH CODE FOR HPS LUMINAIRES

1000 WATT - NO PATCH
400 WATT - ORANGE
310 WATT - BLUE
250 WATT - ORANGE WITH WHITE STRIPE
200 WATT - RED
150 WATT - GREEN
100 WATT - BROWN
70 WATT - BROWN WITH WHITE STRIPE



LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

6

S.D.D. 10 A 2-2

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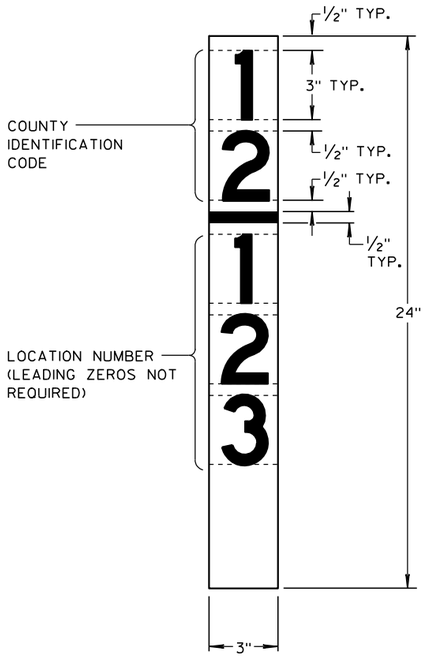
S.D.D. 10 A 2-2

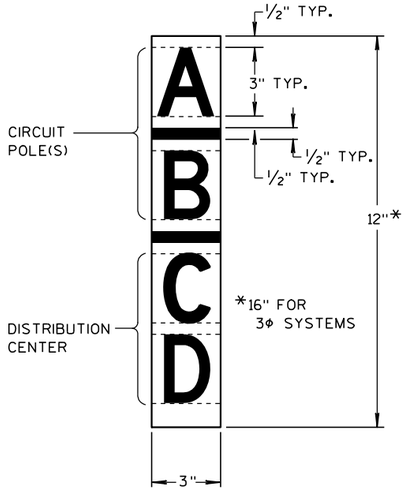
IDENTIFICATION PLAQUES LIGHT POLES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

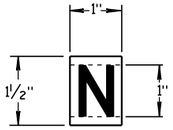
APPROVED
10/25/2010 DATE
/S/ John Corbin
STATE ELECTRICAL ENGI 925 HWYS
FHWA



HIGH MAST LIGHT TOWER STRUCTURE PLAQUE

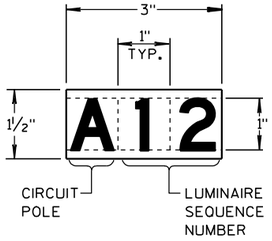


UNDERDECK LIGHTING OR HIGH MAST LIGHT TOWER CIRCUIT PLAQUE



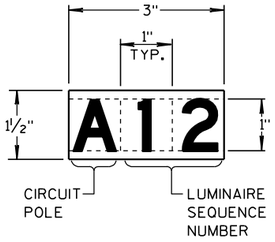
HIGH MAST LIGHT TOWER NORTH PLAQUE

(MOUNT ON LOWERING RING - INDICATING NORTH HEADING ^{2} ± $10^{\circ 3}$ WHEN RING IS RAISED AND LATCHED)



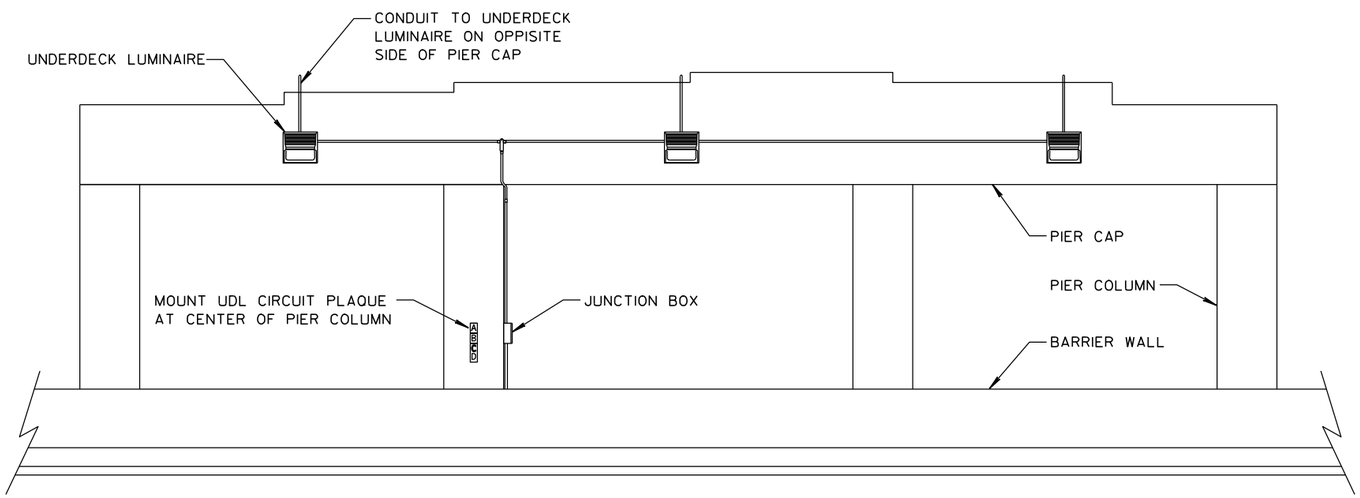
HIGH MAST LIGHT TOWER LUMINAIRE SEQUENCE PLAQUE

(MOUNT ON LUMINAIRE RING)



UNDER DECK LUMINAIRE SEQUENCE DECAL

(MOUNT ON LUMINAIRE)



LOCATION OF UNDERDECK LIGHTING CIRCUIT PLAQUE

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

WHERE SHOWN IN THE PLANS, REPLACEMENT PLAQUES WILL BE MEASURED AND PAID SEPARATELY.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

CONCRETE SURFACE - MASONRY ANCHORS

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

PLAQUE MATERIALS:

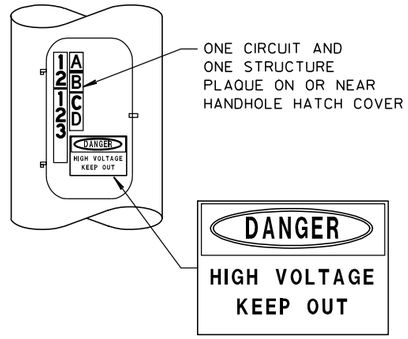
BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.



NOTE: NEMA PLAQUE SHOWN ABOVE IS REQUIRED ONLY IN PARK AND RIDE LOTS OR IN OTHER PEDESTRIAN ACCESSIBLE AREAS.

LOCATION OF HIGH MAST LIGHT TOWER STRUCTURE PLAQUE AND CIRCUIT PLAQUE

IDENTIFICATION PLAQUES UNDERDECK AND HIGH MAST LIGHTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/25/2010 DATE
/S/ John Corbin
STATE ELECTRICAL ENGI 926
HWYS
FHWA

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S.D.D. 10 A 4-2

6

S.D.D. 10 A 4-2

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

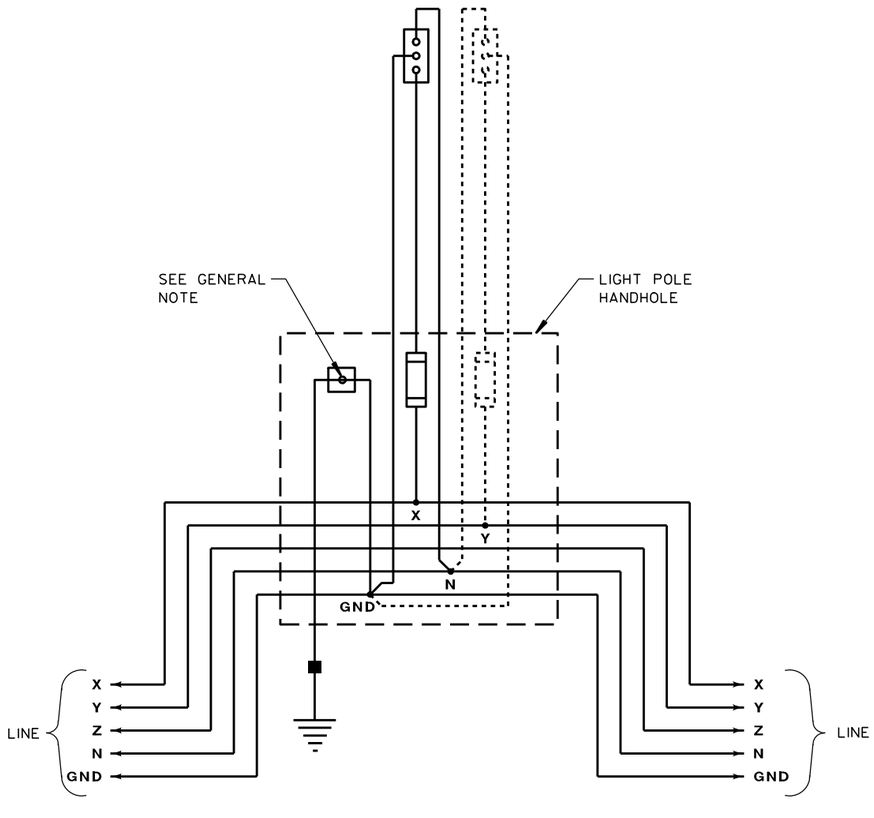
THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

HANDHOLE FUSE SCHEDULES

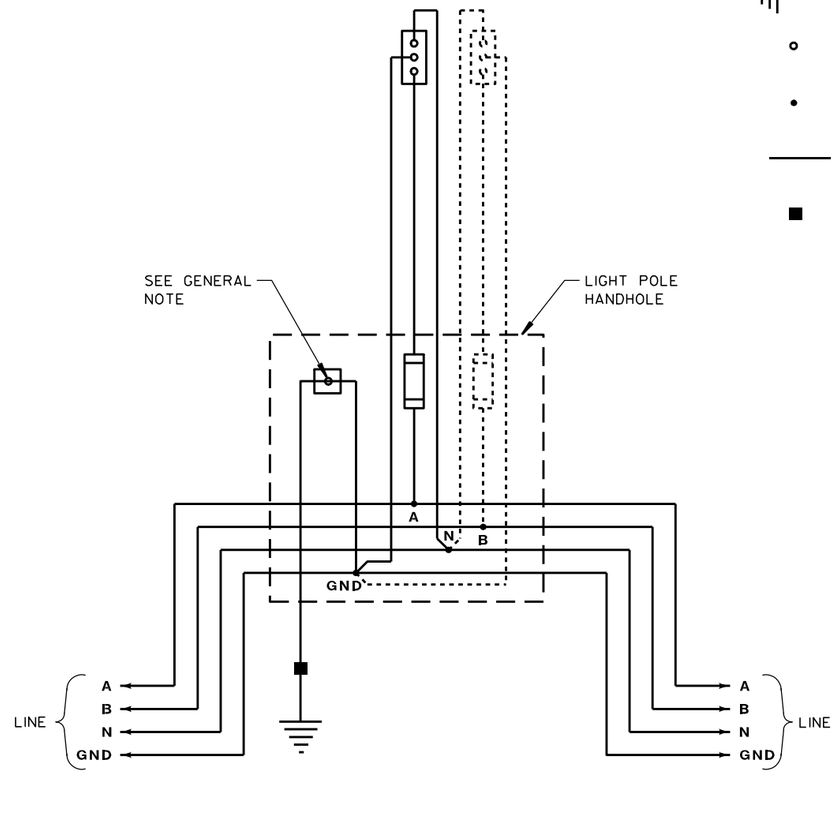
LINE VOLTAGE	BALLAST WATTAGE	
φ-GROUND	70-200 W	250-400 W
120 VAC	5 A	10 A
240 VAC	5 A	5 A
277 VAC	5 A	5 A
480 VAC	3 A	5 A

LEGEND

A,B,X,Y,Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
φ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	TWO-POLE (2P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD



TYPICAL WIRING DIAGRAM
ISOLATED NEUTRAL SYSTEM
3-φ 208Y/120VAC OR 480Y/277VAC 4 WIRE



TYPICAL WIRING DIAGRAM
ISOLATED NEUTRAL SYSTEM
1-φ 120/240VAC OR 240/480VAC 3 WIRE

ELECTRICAL DETAILS
GROUND MOUNT LIGHT POLES
ISOLATED NEUTRAL SYSTEM

STATE OF WISCONSIN
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10/25/2010
DATE
/S/ John Corbin
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HWYS
FHWA

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S.D.D. 10 A 5-2

6

S.D.D. 10 A 5-2

HANDHOLE FUSE SCHEDULES

LINE VOLTAGE φ-GROUND	BALLAST WATTAGE	
	70-200 W	250-400 W
120 VAC	5 A	10 A
240 VAC	5 A	5 A
277 VAC	5 A	5 A
480 VAC	3 A	5 A

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

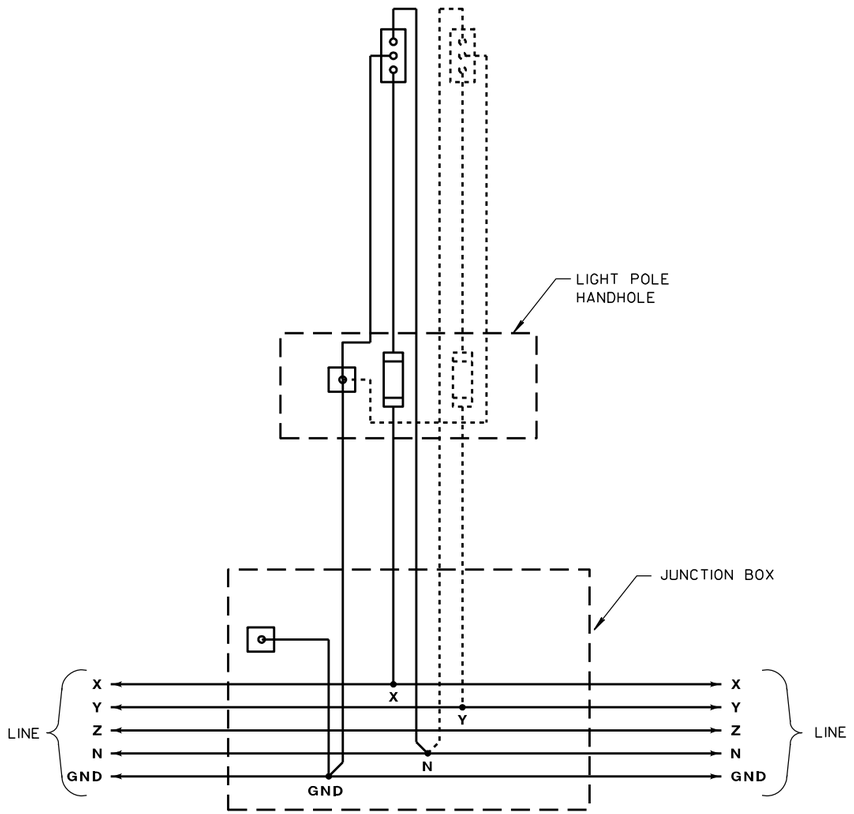
THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

WIRE SIZE FROM THE JUNCTION BOX TO THE POLE HANDHOLE SHALL EQUAL THE SIZE OF THE POLE WIRE.

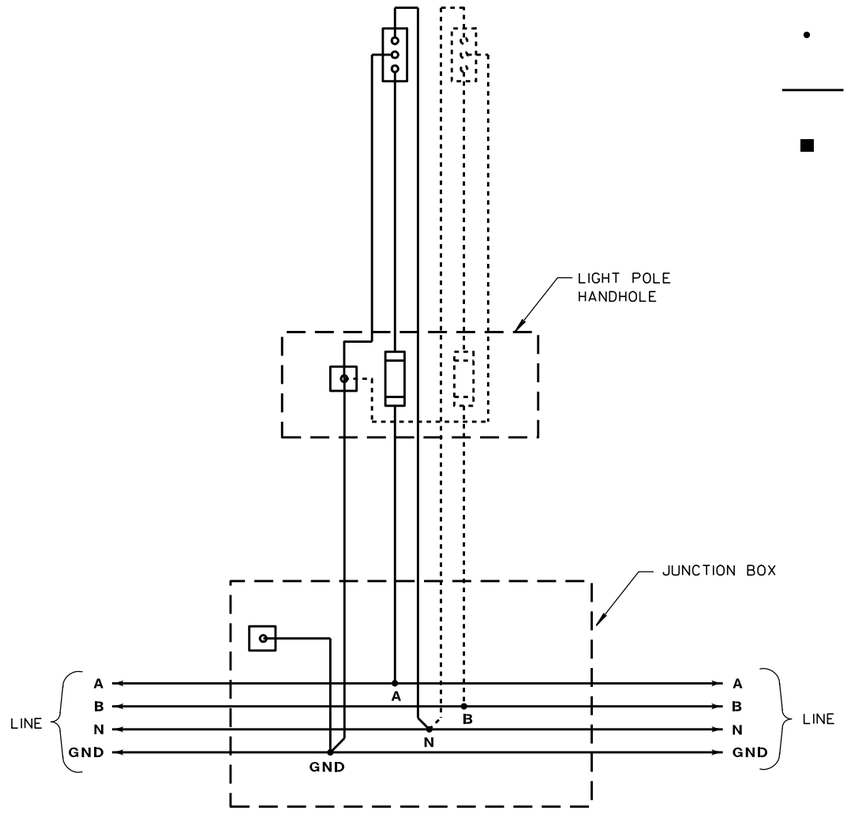
THE INTENT OF JUNCTION BOX SPLICES AS SHOWN IN THIS DETAIL IS FOR LIGHTING SYSTEMS WITH HEAVY LINE WIRE TOO LARGE TO PULL THROUGH THE CONDUIT INTO THE POLE HANDHOLE, DUE TO CONDUIT FILL REQUIREMENTS OF N.E.C., AND/OR THE STIFFNESS OF THE WIRE COMPARED TO THE NUMBER OF BENDS IN THE CONDUIT. IN CASES WHERE LINE WIRE IS LIGHTER, SUCH AS SMALLER SYSTEMS OR TOWARD THE FURTHEST END OF A LARGER SYSTEM, PULL THE LINE WIRE INTO THE POLE HANDHOLE FOR SPLICING.

LEGEND

A,B,X,Y,Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
φ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	TWO-POLE (2P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD



TYPICAL WIRING DIAGRAM
ISOLATED NEUTRAL SYSTEM
3-φ 208Y/120VAC OR 480Y/277VAC 4 WIRE

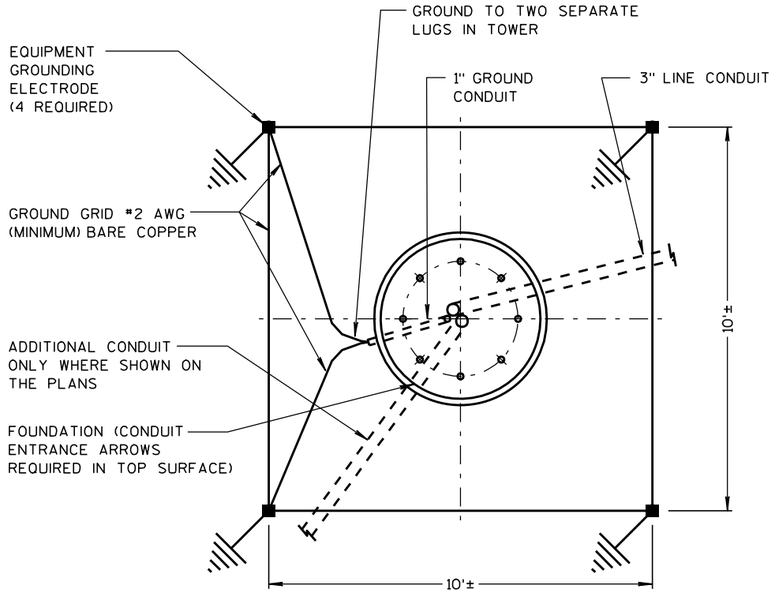


TYPICAL WIRING DIAGRAM
ISOLATED NEUTRAL SYSTEM
1-φ 120/240VAC OR 240/480VAC 3 WIRE

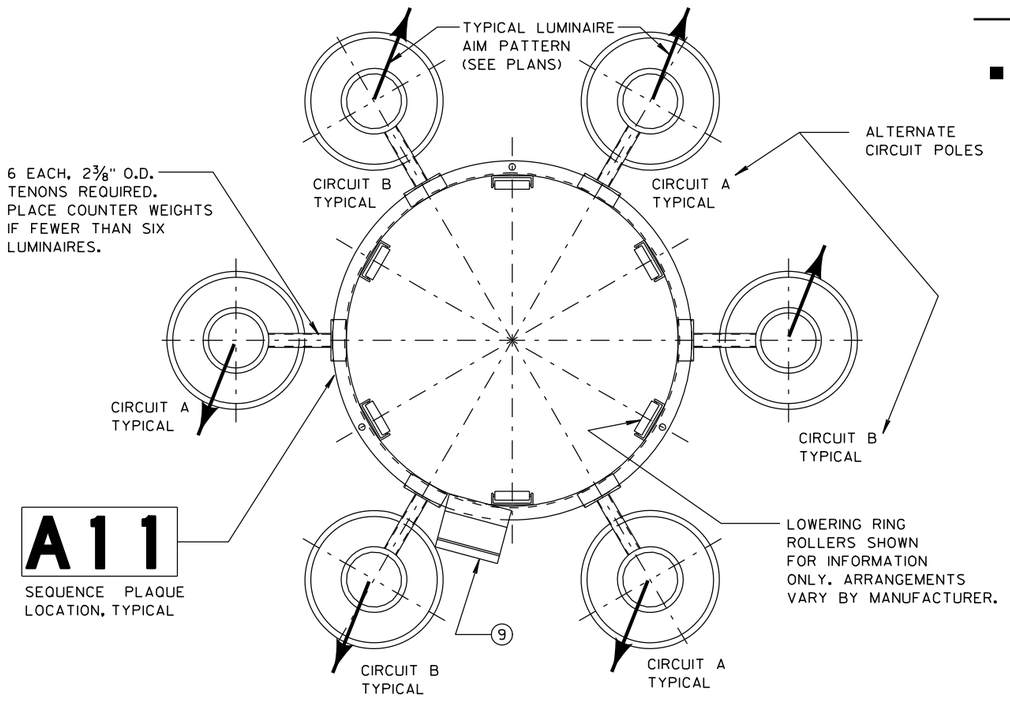
ELECTRICAL DETAILS
STRUCTURE MOUNT LIGHT POLES
ISOLATED NEUTRAL SYSTEMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/25/2010 — DATE
/S/ John Corbin — STATE ELECTRICAL ENGI
928
HWYS
FHWA



EQUIPMENT GROUNDING GRID AND FOUNDATION ELECTRICAL DETAILS



LOWERING RING OPTICS PLAN

1-φ CASE SHOWN; 3-φ CASE SIMILAR

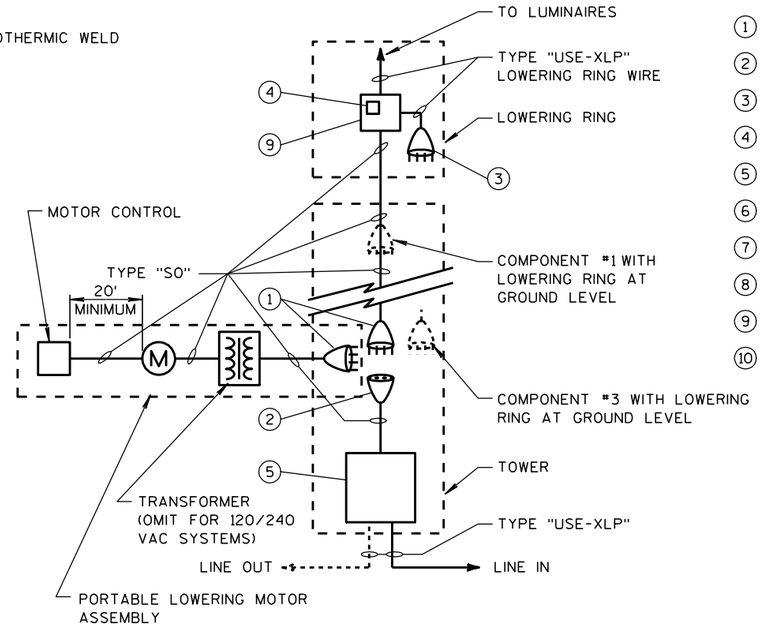
OVER CURRENT AND POWER CORD SCHEDULE

LINE VOLTAGE	HAND HOLE BREAKERS	INDIVIDUAL LUMINAIRE FUSES	POWER CORD	PRONGS ON LOAD BREAK DISCONNECT
1-φ 120/240VAC: 3 WIRE	2-30A, 1P, 277VAC	20A	10-3 + GND "SO"	A,B,N,GND
1-φ 240/480VAC: 3 WIRE	2-30A, 1P, 277VAC	10A	10-3 + GND "SO"	A,B,N,GND
3-φ 480Y/277VAC: 4 WIRE	3-30A, 1P, 277VAC	10A	10-4 + GND "SO"	X,Y,Z,N,GND
3-φ 208Y/120VAC: 4 WIRE	3-30A, 1P, 277VAC	20A	10-4 + GND "SO"	X,Y,Z,N,GND
1-φ 480VAC: 2 WIRE	1-20A, 2P, 600VAC	5A	10-3 + GND "SO"	A,B,N,GND

LEGEND

- HANDHOLE GROUND LUG
- CIRCUIT BREAKER 1P
- SURGE ARRESTOR
- FUSED LUMINAIRE
- EQUIPMENT GROUNDING ELECTRODE
- TERMINAL
- SPLICE
- CONDUCTOR
- EXOTHERMIC WELD

A,B,X,Y,Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
φ	PHASE (ELECTRICAL CURRENT)
AIC	AMPERE INTERUPTING CAPACITY



ONE LINE DIAGRAM

ANY LINE VOLTAGE PER OVER CURRENT AND POWER CORD SCHEDULE

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

IN CASES WHERE THE PLANS SHOW LINE IN/LINE OUT DISTRIBUTION SYSTEMS, FURNISH FEED-THROUGH LUGS IN THE CIRCUIT BREAKER ENCLOSURE.

THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

FIELD RECODING OF UNGROUNDED CONDUCTORS IN TYPE "SO" CABLE MAY BE REQUIRED TO CONFORM TO SYSTEM COLOR CODING AS SHOWN IN THE PLANS.

CIRCUIT BREAKERS SHALL BE MINIMUM 14 kAIC AT THE VOLTAGE SHOWN.

LOADBREAK DISCONNECTS SHALL BE MELTRIC TYPE "DR", 30 AMP, 600 VOLT. DO NOT SUBSTITUTE. FURNISH "FDP" FINGER/PALM DRAW PLATES (APPLIES TO THE PLUG AND RECEPTACLE ONLY, NOT TO THE APPLIANCE INLET). FURNISH "LP" MOISTURE PROTECTION (APPLIES TO THE PLUG ONLY, NOT TO THE RECEPTACLE OR THE APPLIANCE INLET).

SURGE ARRESTORS SHALL BE 650 VAC, 2P OR 3P AS REQUIRED.

CIRCUIT BREAKER ENCLOSURES SHALL BE NEMA 1, 100 AMP, 600 VOLT, 2P OR 3P AS REQUIRED, SURFACE MOUNT. IN ALL SYSTEMS, FURNISH A MINIMUM 4-TERMINAL GROUND BUS. IN ISOLATED NEUTRAL SYSTEMS, ADDITIONALLY FURNISH A MINIMUM 1-TERMINAL NEUTRAL BUS. BUSSES SHALL BE RATED FOR NO. 10 AWG THROUGH NO. 2 AWG CU.

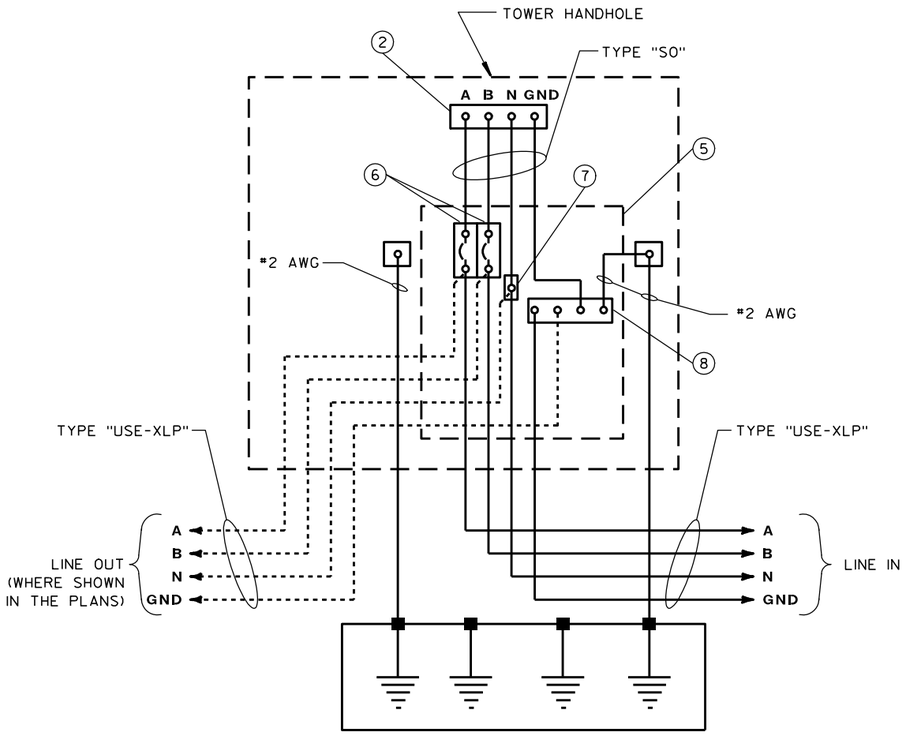
1. LOADBREAK DISCONNECT - MALE PLUG
2. LOADBREAK DISCONNECT - FEMALE RECEPTACLE
3. LOADBREAK DISCONNECT - MALE APPLIANCE INLET
4. SURGE ARRESTOR - 2P OR 3P AS REQUIRED
5. CIRCUIT BREAKER ENCLOSURE
6. CIRCUIT BREAKER
7. CIRCUIT BREAKER ENCLOSURE NEUTRAL BUS
8. CIRCUIT BREAKER ENCLOSURE EQUIPMENT GROUNDING BUS
9. LOWERING RING JUNCTION BOX (WEEP HOLE REQUIRED)
10. TERMINAL STRIP

ELECTRICAL DETAILS
HIGH MAST LIGHTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

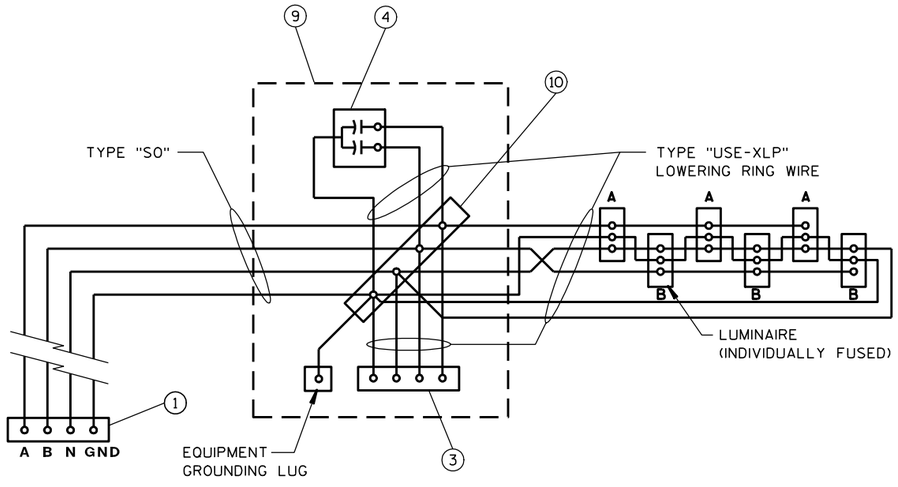
6

S.D.D. 10 A 14-2a



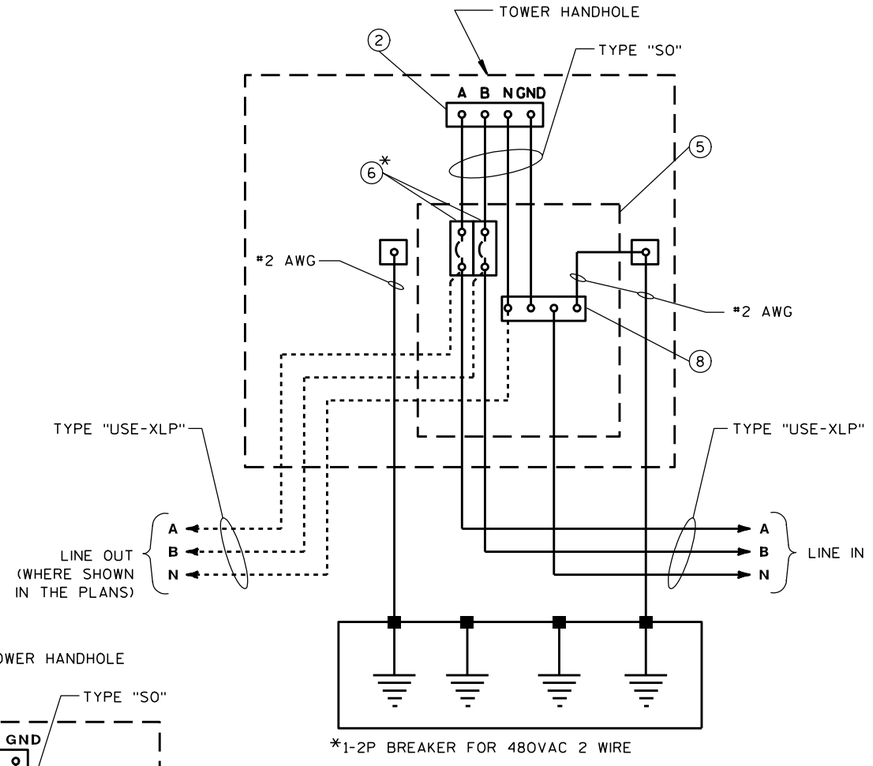
TYPICAL WIRING DIAGRAM-HANDHOLE

ISOLATED NEUTRAL SYSTEM
1-ϕ 120/240VAC OR 240/480VAC 3 WIRE



LOWERING RING JUNCTION BOX WIRING DIAGRAM

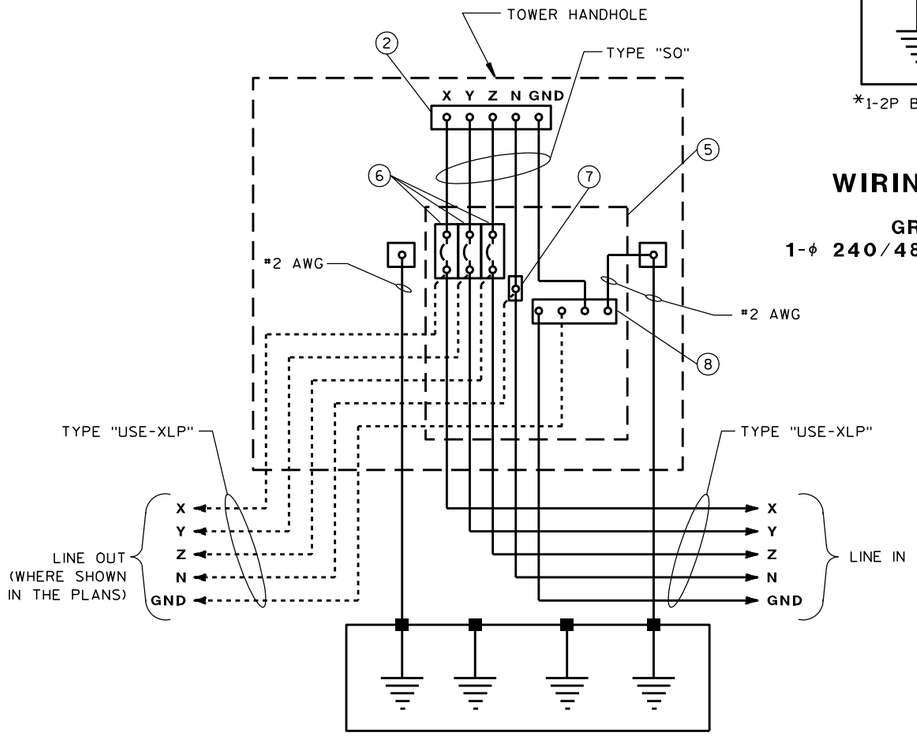
TYPICAL 1-ϕ CASE SHOWN; 3-ϕ CASE SIMILAR



*1-2P BREAKER FOR 480VAC 2 WIRE

TYPICAL WIRING DIAGRAM-HANDHOLE

GROUNDED NEUTRAL SYSTEM
1-ϕ 240/480VAC 3 WIRE OR 480VAC 2 WIRE



TYPICAL WIRING DIAGRAM-HANDHOLE

ISOLATED NEUTRAL SYSTEM
3-ϕ 480Y/277VAC 4 WIRE
OR 3-ϕ 208Y/120VAC 4 WIRE

ELECTRICAL DETAILS
HIGH MAST LIGHTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/25/2010 DATE
/S/ John Corbin
STATE ELECTRICAL ENGI 930 HWYS
FHWA

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S.D.D. 10 A 14-2b

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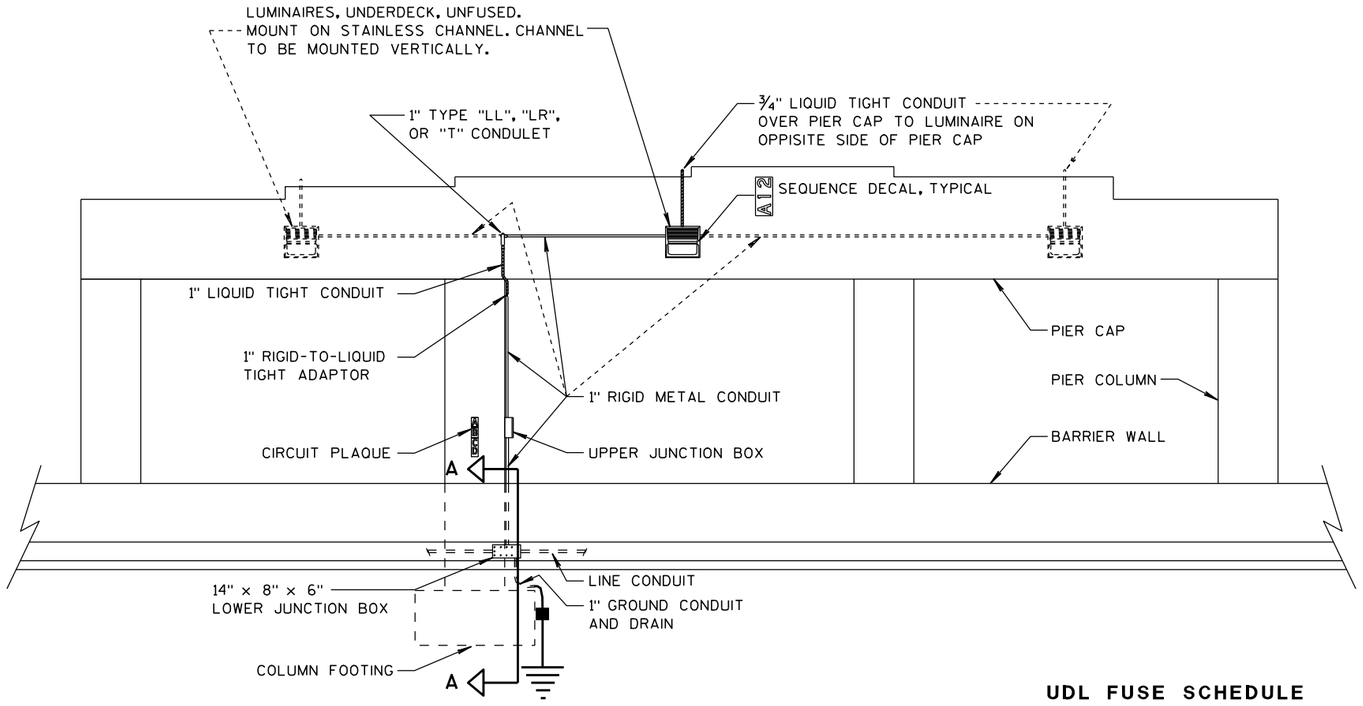
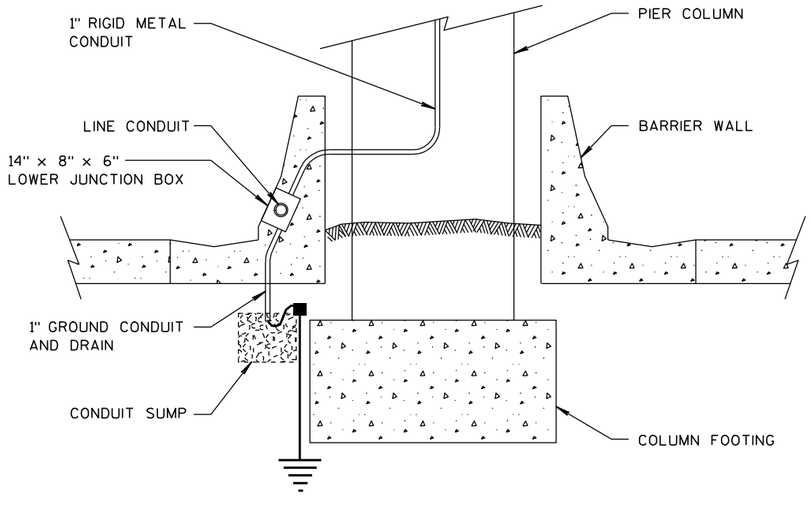
S.D.D. 10 A 14-2b



TYPICAL UNDERDECK LIGHTING INSTALLATION



SECTION "A-A"

UDL FUSE SCHEDULE

LINE VOLTAGE ϕ-GROUND	TOP JUNCTION BOX FUSES
120VAC	5 A
208VAC	5 A
240VAC	5 A
480VAC	3 A

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING, SUBSTITUTING THE LOWER JUNCTION BOX FOR THE HANDHOLE SHOWN IN THAT DETAIL.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE LUG OF THE LOWER JUNCTION BOX TO THE SPLICE.

THE PLANS WILL SHOW WHICH CIRCUIT LEGS(S) ARE CONNECTED TO EACH INSTALLATION AND THE REQUIRED NUMBER OF LUMINAIRES.

THE UPPER JUNCTION BOX (FOR FUSE ASSEMBLIES) SHALL CONFORM TO THE APPLICABLE PROVISIONS OF SECTION 653.2.2 OF THE STANDARD SPECIFICATIONS; SHALL BE SUITABLE FOR SURFACE MOUNTING WITH EXTERNAL MOUNTING LUGS; AND SHALL HAVE A HINGED COVER, WING-NUT FASTENERS, AND PADLOCK HASP. ALL HARDWARE SHALL BE STAINLESS STEEL. FURNISH O-Z/GEDNEY YW-120603, SPRING CITY HC-12-06-04, CROUSE-HINDS WTB-120604, OR APPROVED EQUAL.

MEDIAN CONFIGURATIONS VARY; NOT ALL CASES CAN BE SHOWN IN THIS DETAIL.

WIRING FOR THE FIRST LUMINAIRE PAIR IS SHOWN IN SOLID LINES. WIRING FOR ADDITIONAL LUMINAIRE PAIRS, WHERE REQUIRED, IS SHOWN IN DOTTED LINES.

LEGEND

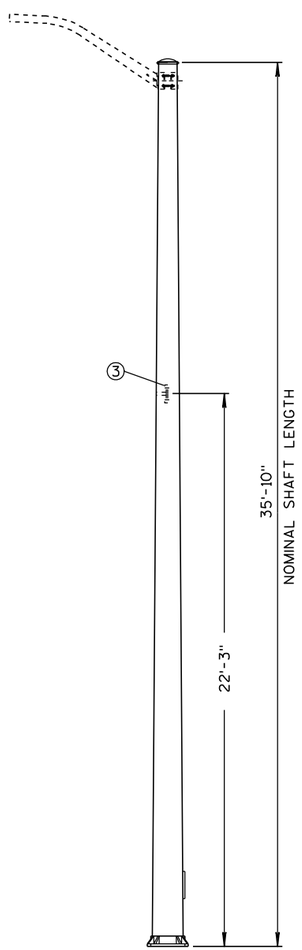
A,B,X,Y,Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
ϕ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	UNFUSED LUMINAIRE
	SINGLE POLE (1P) FUSE ASSEMBLY
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD

ELECTRICAL DETAILS
UNDERDECK LIGHTING

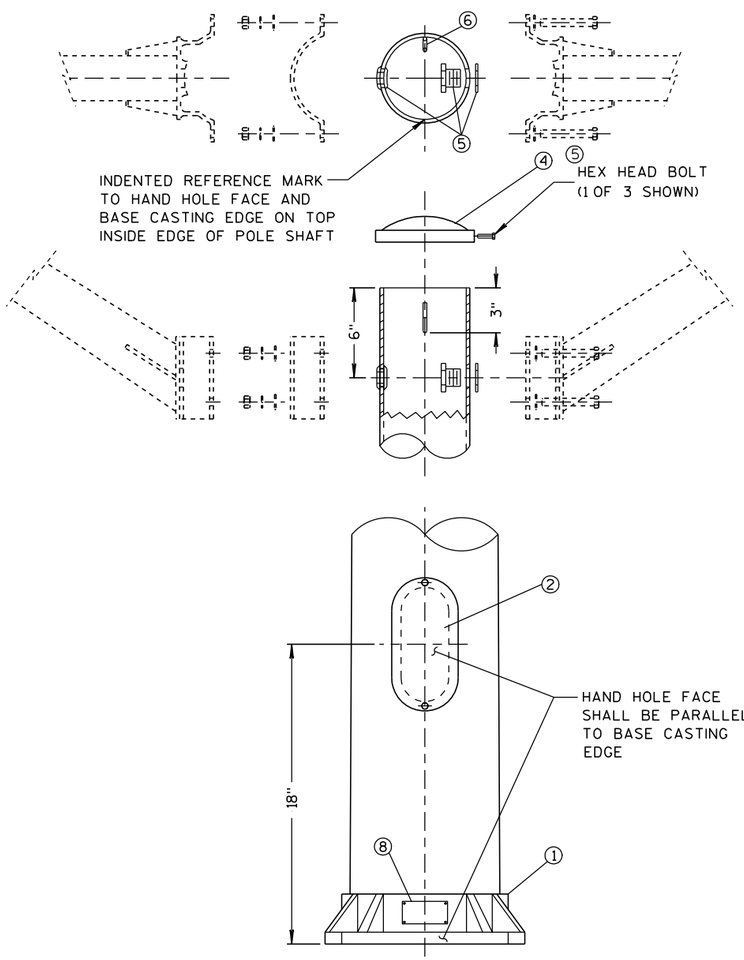
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

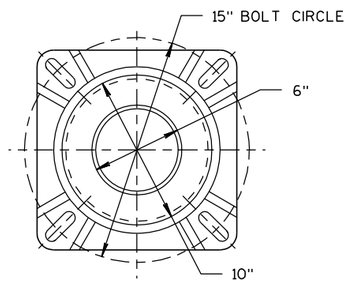
6

S.D.D. 10 A 15-3a

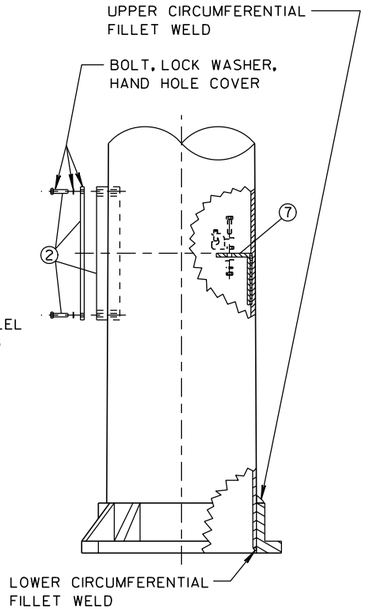


POLE, TYPE 7





(TOP VIEW)



POLES COVERED BY THIS DRAWING	
TYPE 7	NATURAL FINISH, SLOTTED FOR 1" ANCHOR RODS
TYPE 7BR	DARK BROWN ANODIZED, SLOTTED FOR 1" ANCHOR RODS

POLE TYPE (NOM. SHAFT LENGTH)	TYPICAL APPLICATION	ARM & LUMINAIRE LOADS (MAX.)	ADDITIONAL (MAX.) LOADS
TYPE 7 & 7BR (35'-10")	ARTERIALS	TWIN ARMS UP TO 10 FT. (SINGLE MEMBER)	UP TO 20 SQ. FT. ON TRAFFIC SIGNS, MOUNTED AS HIGH AS 15 FT. TO TOP OF SIGN, PLUS 1-3 SECTION, 1-5 SECTION, AND 2-PED. TRAFFIC HEAD
	FREEWAY	SINGLE ARM, UP TO 20 FT. TRUSS TYPE	UP TO 20 SQ. FT. OF TRAFFIC SIGNS, MOUNTED AS HIGH AS 15 FT. TO TOP OF SIGN

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SLOTTED ANCHOR ROD HOLES FOR 1"-8 UNC ANCHOR RODS (4 EACH, 15" BOLT CIRCLE), SHALL BE PROVIDED IN BASE CASTING.

POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM. EXCEPT THAT BASE CASTINGS SHALL BE CONSTRUCTED OF 356-T6 ALUMINUM. THE SHAFT SHALL BE ROUND AND UNIFORMLY TAPERED FROM A 10" O.D. BUTT TO A 6" O.D. TOP.

HEAT TREATMENT OF WELDMENTS IN STRUCTURAL AREAS (e.g. BASE CASTING, HAND HOLE, BRACKET FOR GROUNDING LUG) REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE ARMS AND CLAMP ASSEMBLIES SHOWN FOR INFORMATION ONLY (PAID SEPARATELY).

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A.

① SHOE BASE.

② 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY SECURED BY TWO (2) 1/4" X 3/4" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

HANDHOLE SHALL BE 90 DEGREES FROM LUMINAIRE ARMS OF TWIN LUMINAIRE POLES; 180 DEGREES FROM LUMINAIRE ARM OF SINGLE LUMINAIRE POLES; 0 DEGREES FROM LUMINAIRE ARM FOR STRUCTURE MOUNTED POLES.

③ INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

④ FURNISH AND INSTALL CAST OR METALLIC (ALUMINUM ALLOY) POLE CAP. FASTEN CAP WITH THREE 1/4" X 3/4" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

⑤ 1 3/8" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET), PER EACH REQUIRED LUMINAIRE ARM.

⑥ FACTORY-WELDED "J" HOOK FOR POLE WIRE STRAIN RELIEF.

⑦ FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE. (LUG AND HARDWARE PAID UNDER SEPARATE ITEMS; SHOWN FOR INFORMATION ONLY). PROVIDE HOLE IN BRACKET FOR 1/4" X 3/4" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

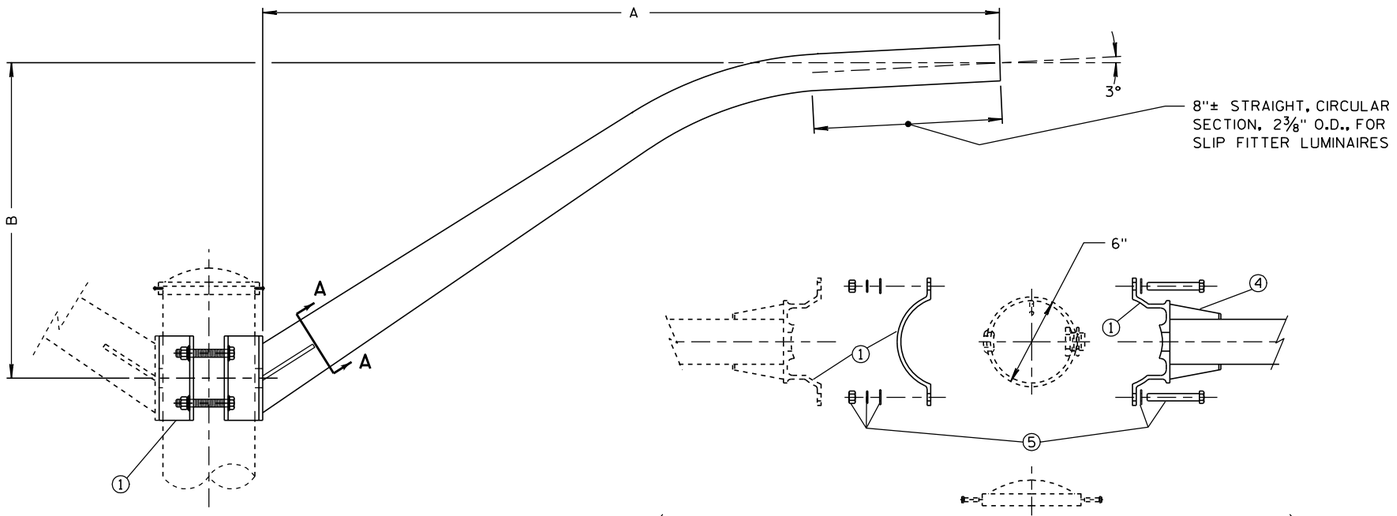
⑧ MANUFACTURER'S PLATE SHOWING WisDOT POLE TYPE, MANUFACTURER, AND DATE.

POLES, TYPES 7 & 7BR
ALUMINUM - 35'-10" SHAFT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

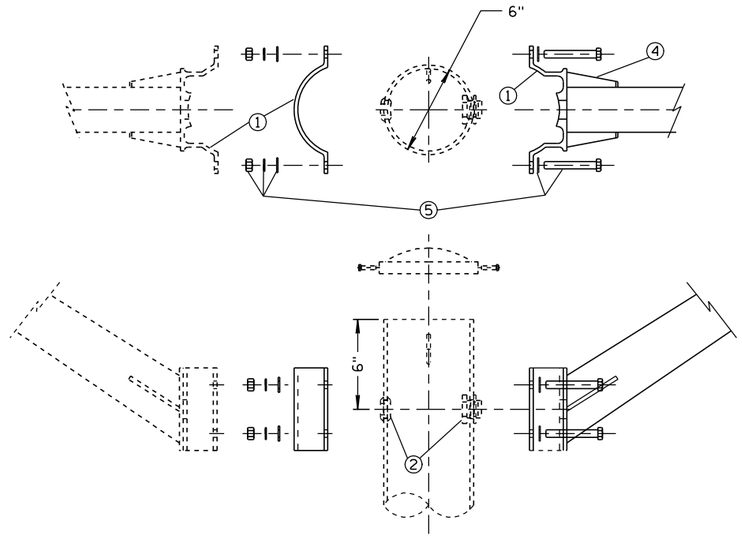
APPROVED
10/25/2010 DATE
/S/ John Corbin
STATE ELECTRICAL ENGI 932 HWYS
FHWA

6
S.D.D. 10 A 17-3a



LUMINAIRE ARMS, SINGLE MEMBER, 6-INCH CLAMP - FOR POLES, TYPE 7, A OR E

VARIOUS LENGTHS (SEE TABLE)



CLAMP ASSEMBLY

SINGLE MEMBER CLAMP SHOWN

TYPE	DIM. A NOMINAL ARM LENGTH (FT)	DIM. B APPROX. RISE (FT)
SINGLE MEMBER	4.0	2.0
SINGLE MEMBER	8.0	3.0
SINGLE MEMBER	10.0	3.0
SINGLE MEMBER	15.0	3.0

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ARMS AND CLAMP EXTRUSIONS SHALL BE CONSTRUCTED OF NATURAL FINISH 6063-T6 ALUMINUM (OR DARK BRONZE ANODIZED IF SO STATED IN THE CONTRACT).

HEAT TREATMENT OF WELDS IN STRUCTURAL AREAS IS REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A..

① CLAMPS SHALL BE EXTRUDED ALUMINUM.

② RACE WAY: 1⅜" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET) PER EACH REQUIRED LUMINAIRE ARM. PROVIDE 1½" HOLE IN CLAMP EXTRUSION TO CONTINUE RACEWAY.

③ STIFFENER

④ GUSSETS REQUIRED.

⑤ CLAMP BOLT ASSEMBLY (BOLT - ½"-13 UNC, 2 EACH - FLAT WASHER, LOCK WASHER, NUT) - 4 EACH PER CLAMP.

LUMINAIRE ARMS, SINGLE MEMBER 6-INCH CLAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/25/2010 DATE — /S/ John Corbin STATE ELECTRICAL ENGI — HWYS

FHWA

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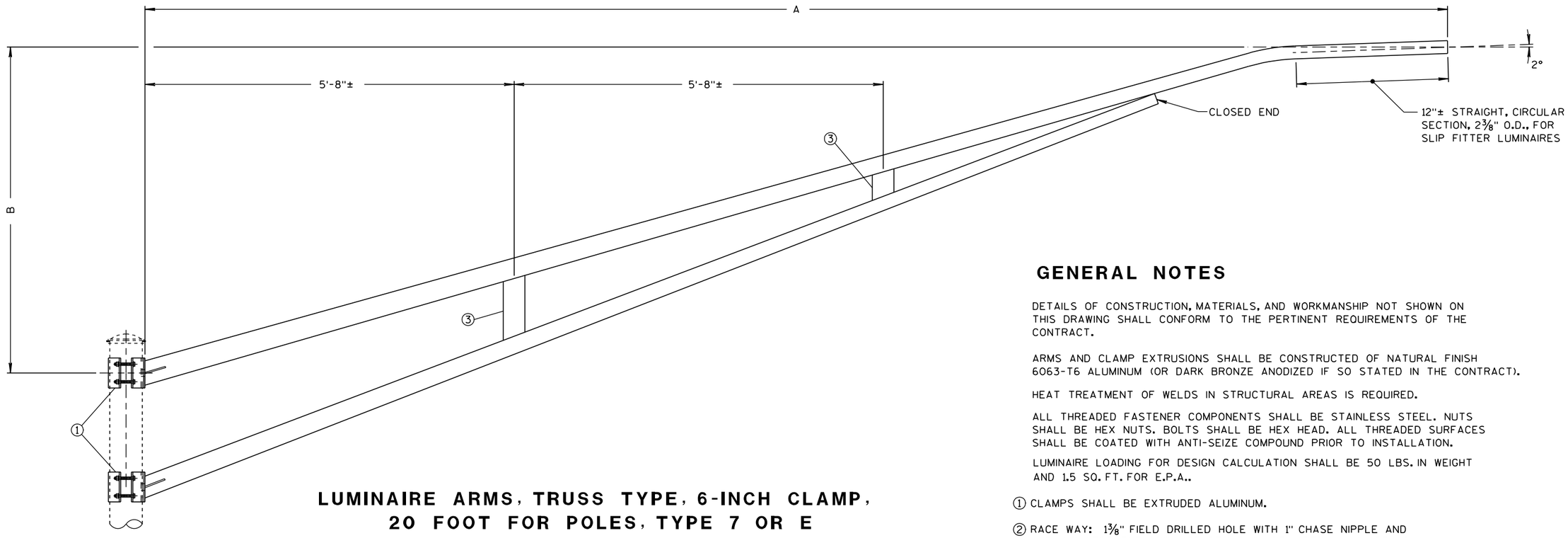
S.D.D. 10 A 18-4a



LUMINAIRE ARMS, TRUSS TYPE, 6-INCH CLAMP, 20 FOOT FOR POLES, TYPE 7 OR E

UPPER AND LOWER TRUSS CHORD CLAMPS SIMILIAR

TYPE	DIM. A NOMINAL ARM LENGTH (FT)	DIM. B APPROX. RISE (FT)
TRUSS TYPE	20.0	5.0

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ARMS AND CLAMP EXTRUSIONS SHALL BE CONSTRUCTED OF NATURAL FINISH 6063-T6 ALUMINUM (OR DARK BRONZE ANODIZED IF SO STATED IN THE CONTRACT).

HEAT TREATMENT OF WELDS IN STRUCTURAL AREAS IS REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A..

① CLAMPS SHALL BE EXTRUDED ALUMINUM.

② RACE WAY: 1⅜" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET) PER EACH REQUIRED LUMINAIRE ARM. PROVIDE 1½" HOLE IN CLAMP EXTRUSION TO CONTINUE RACEWAY. NOTE: NO RACEWAY ON LOWER TRUSS CORD CLAMP. FOR INFORMATION ONLY.

③ STIFFENER.

④ GUSSETS REQUIRED.

⑤ CLAMP BOLT ASSEMBLY (BOLT - ½"-13 UNC, 2 EACH - FLAT WASHER, LOCK WASHER, NUT) - 4 EACH PER CLAMP.

LUMINAIRE ARMS, TRUSS TYPE 6-INCH CLAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/25/2010 DATE

/S/ John Corbin STATE ELECTRICAL ENGI

934 HWYS

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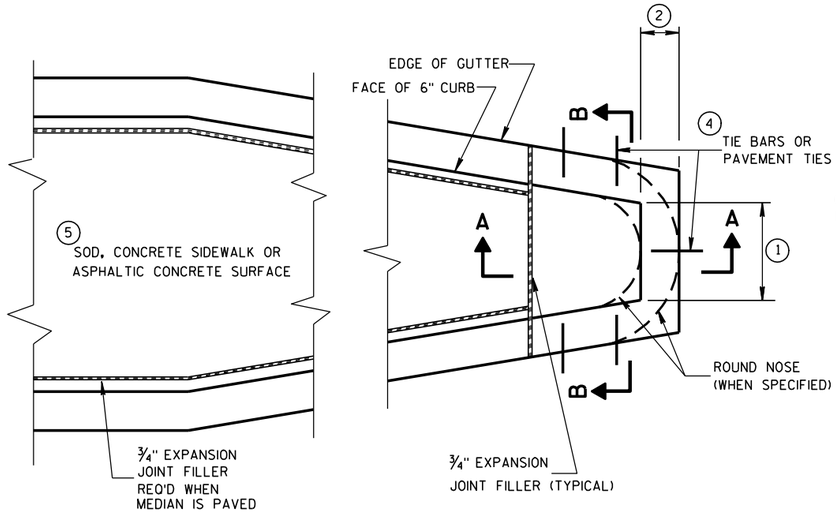
S.D.D. 10 A 18-4b



CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

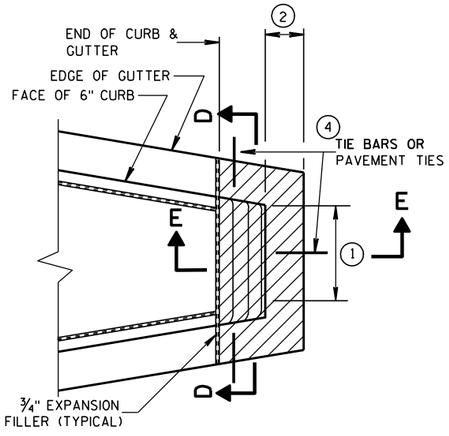
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

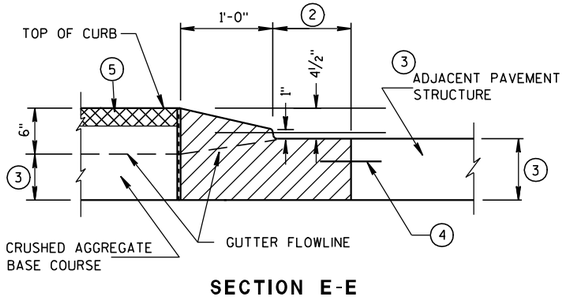
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

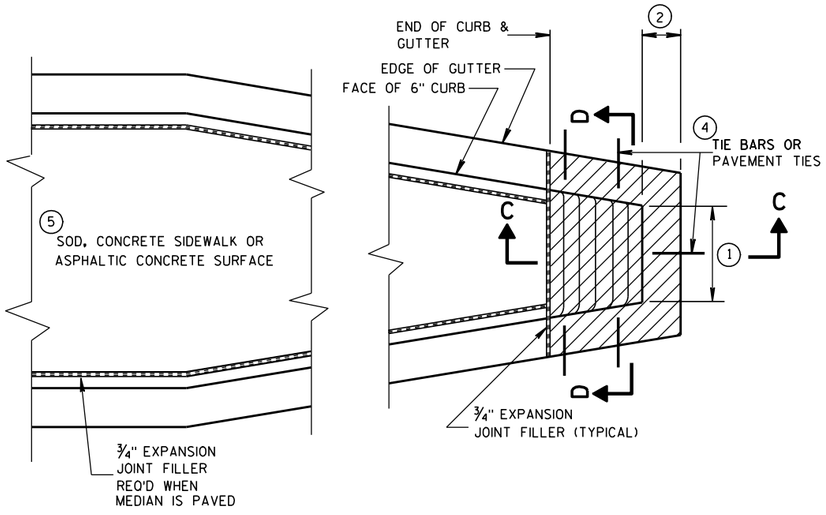
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



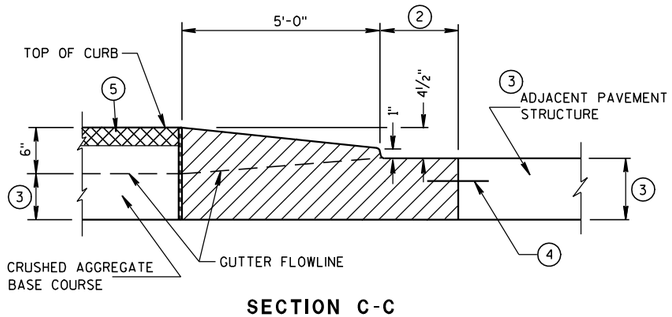


SECTION E-E

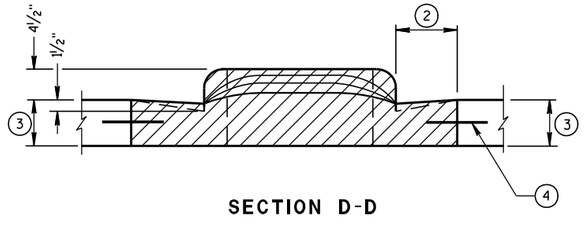
CONCRETE MEDIAN SLOPED NOSE TYPE 2



CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION C-C



SECTION D-D

CONCRETE MEDIAN NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/8/2006 DATE	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER | 1935 NT
FHWA	

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S.D.D. 11 B 2-2

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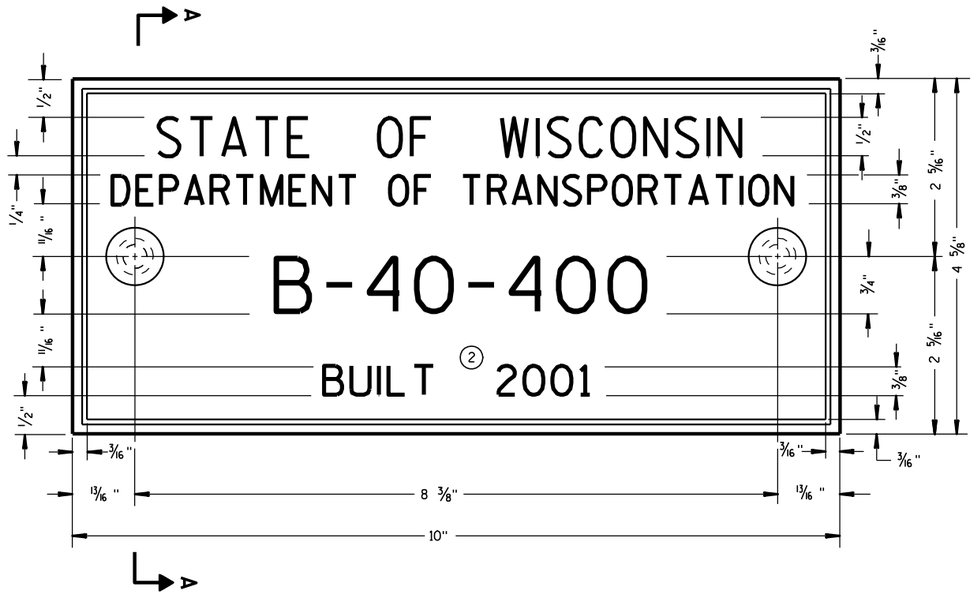
S.D.D. 11 B 2-2



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

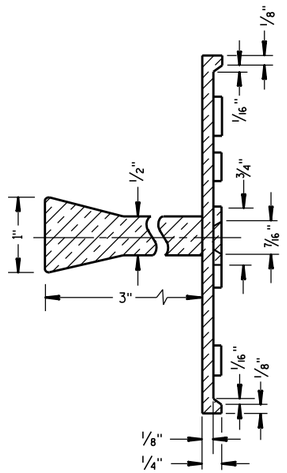
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

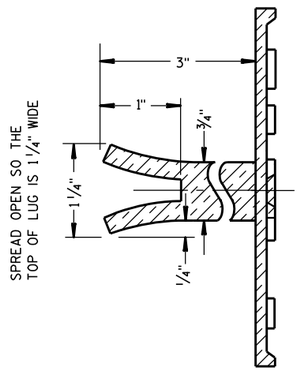
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

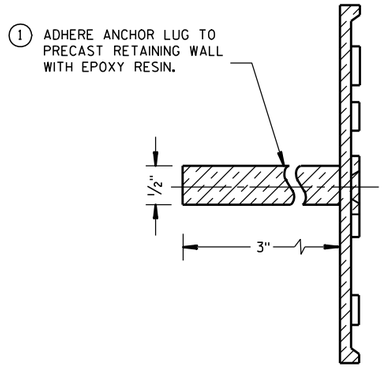
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP 936 ENGINEER

FHWA

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S.D.D. 12 A 3-10

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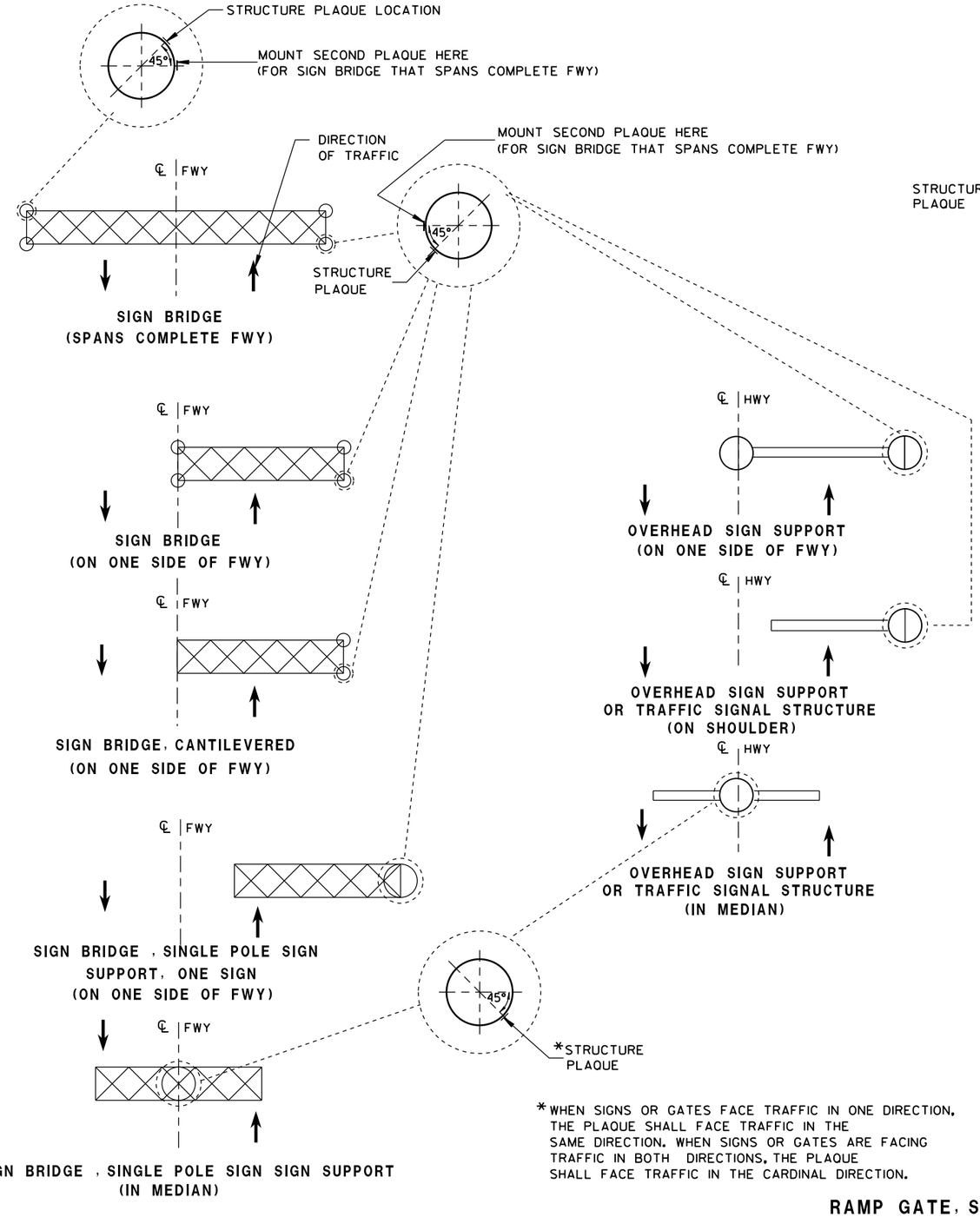
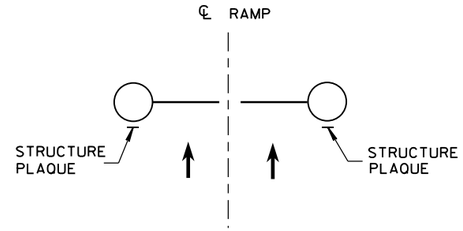
S.D.D. 12 A 3-10

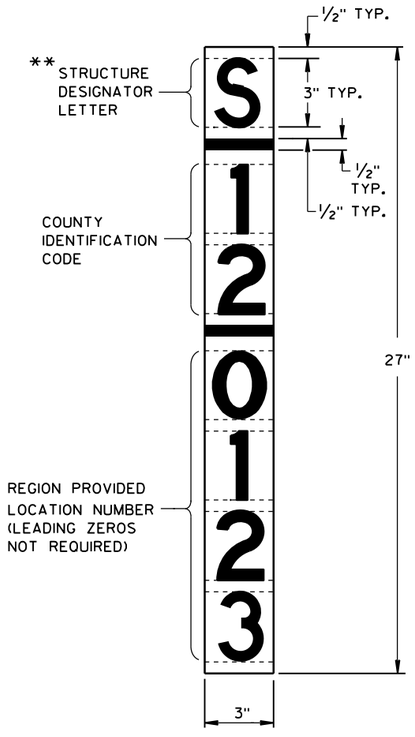


* WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



**RAMP GATE
(ACROSS FWY ON-RAMP)**



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

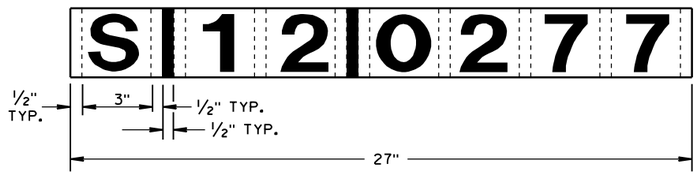
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 12 A 4-3

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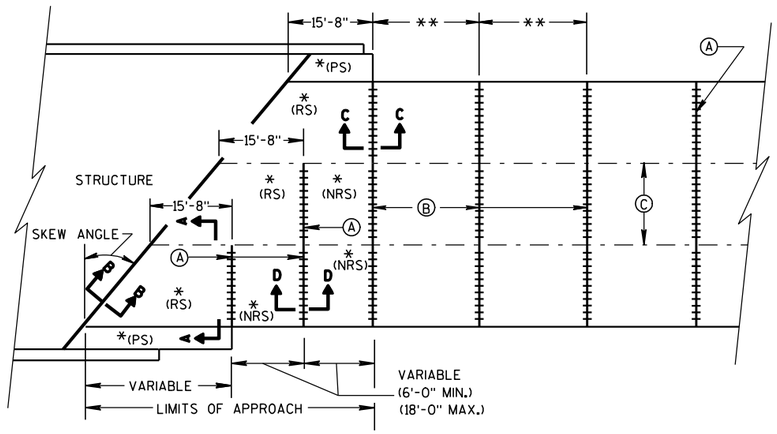
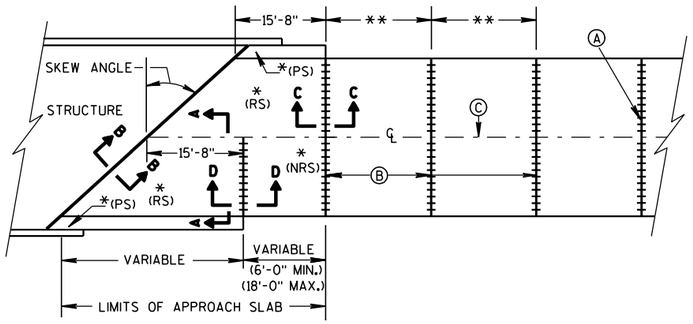
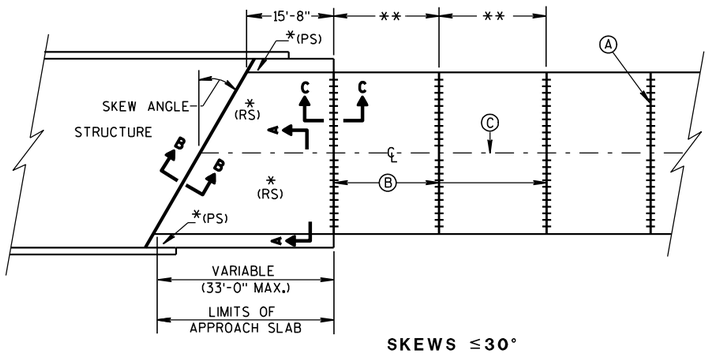
S.D.D. 12 A 4-3



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >30°
(PAVEMENT WIDTH ≤30')



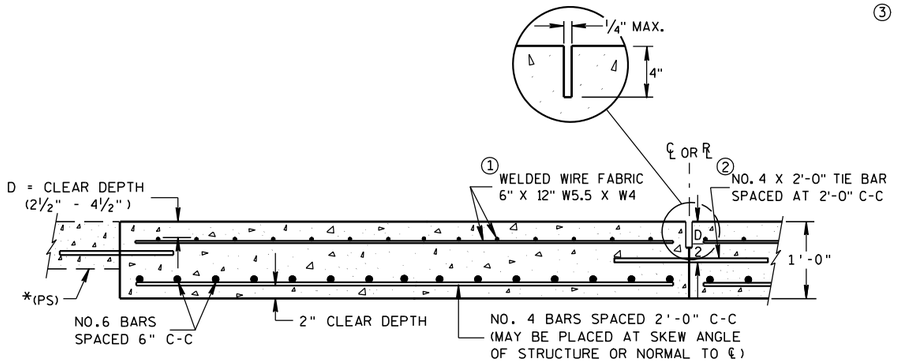
SKEWS ≤30°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

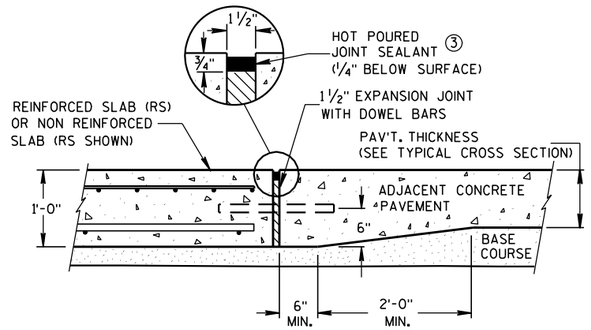
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING
(SEE SDD 13C4, SDD 13C11, & SDD 13C13)

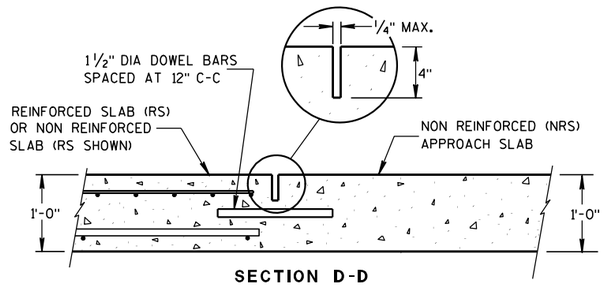
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
(B) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄
(C) STANDARD LONGITUDINAL JOINT AND TIE BARS.



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



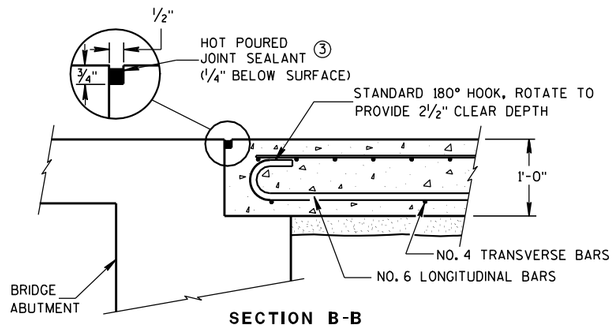
SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

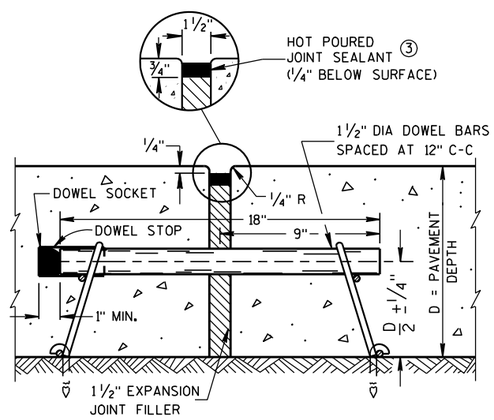
APPROACH SLABS ABUTTING AN HMA PAVEMENT OVER BASE COURSE DO NOT NEED TO BE DOWELED.

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

1. THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
2. THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
3. USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT

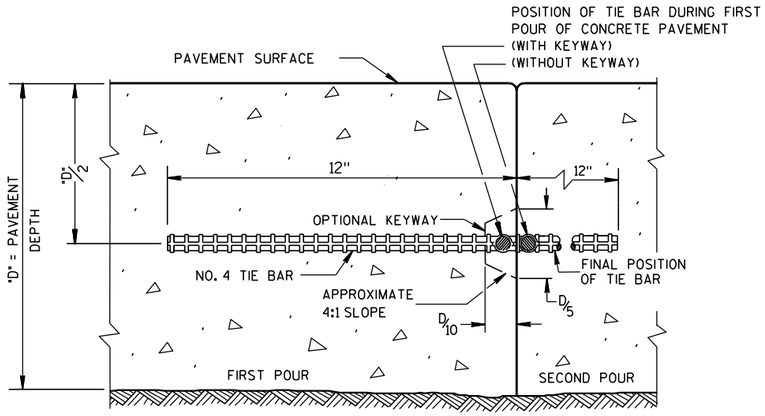


EXPANSION JOINT

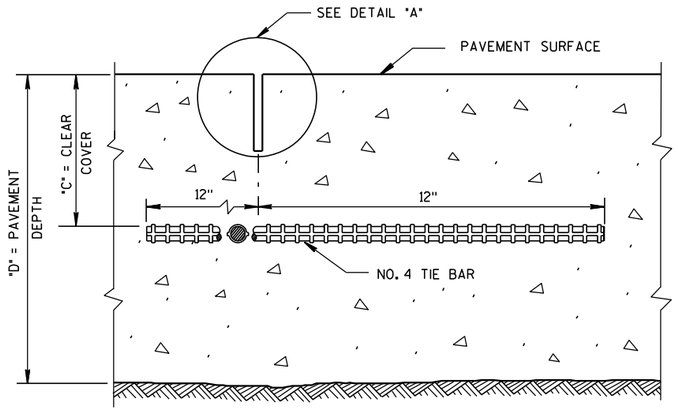
CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/11/2009 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & DESIGN ENGINEER
FHWA



CONSTRUCTION JOINT



SAWED JOINT

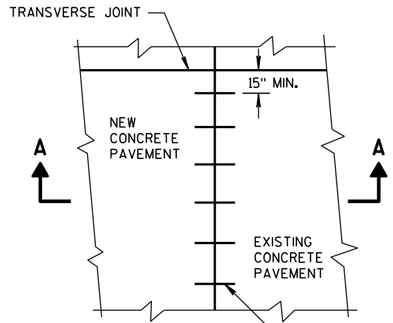
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

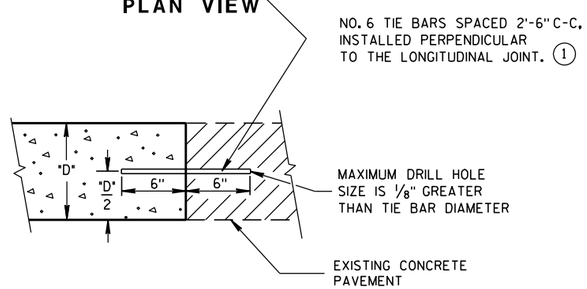
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

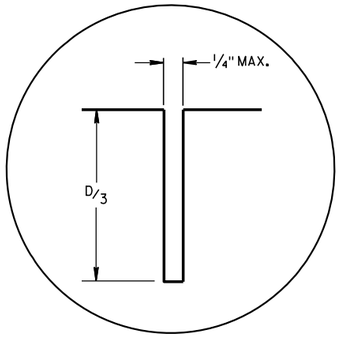
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

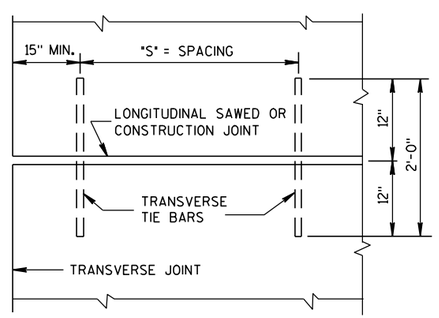


SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
9, 9 1/2"	4 1/4"±1"	33"	27"
10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
12"	5 3/4"±1"	24"	21"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10-5-2010
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DI939 INEER

FHWA

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S.D.D. 13 C 1-15

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S.D.D. 13 C 1-15

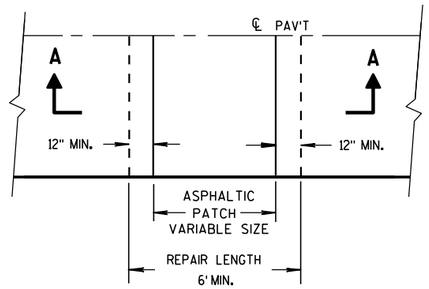
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

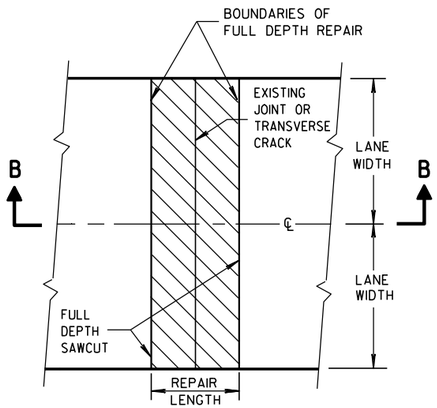
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

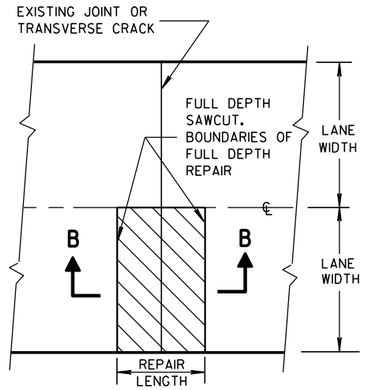
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW



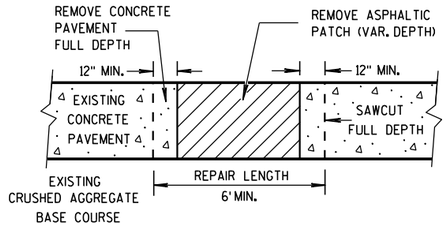
PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

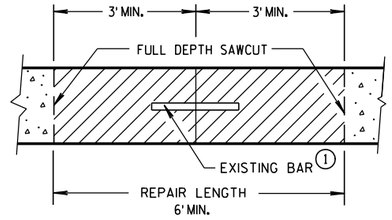
FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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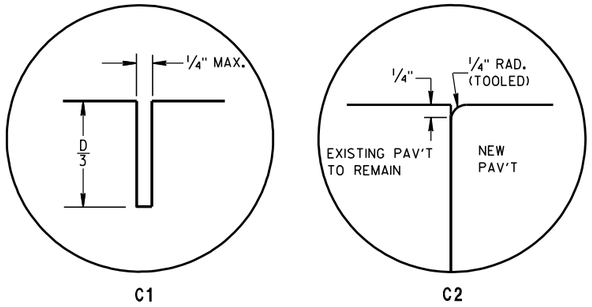
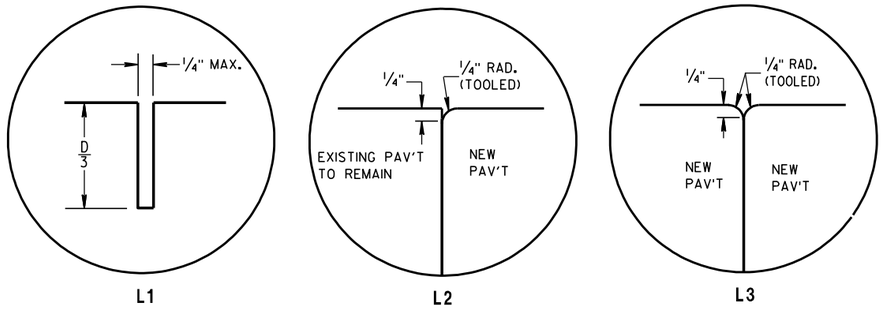
S.D.D. 13 C 9-9a



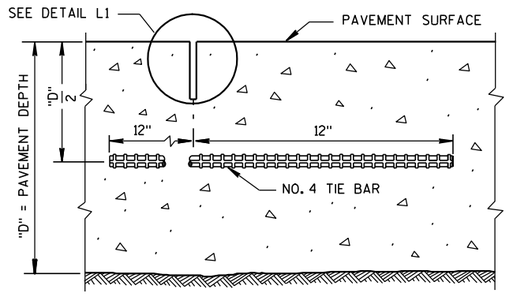
C1 C2

TRANSVERSE JOINTS



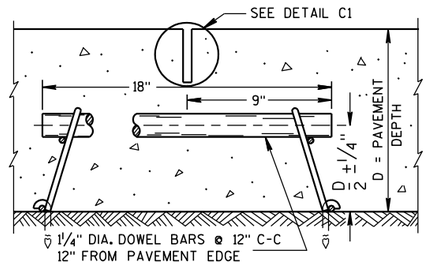
L1 L2 L3

LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

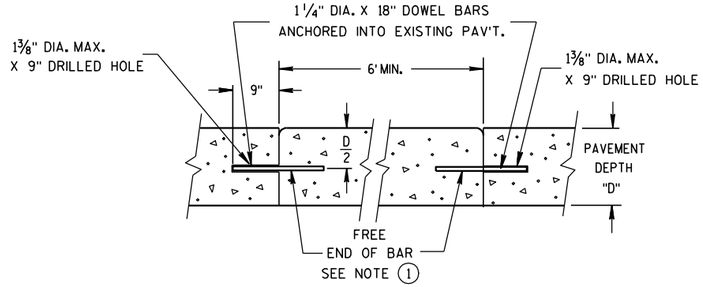
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

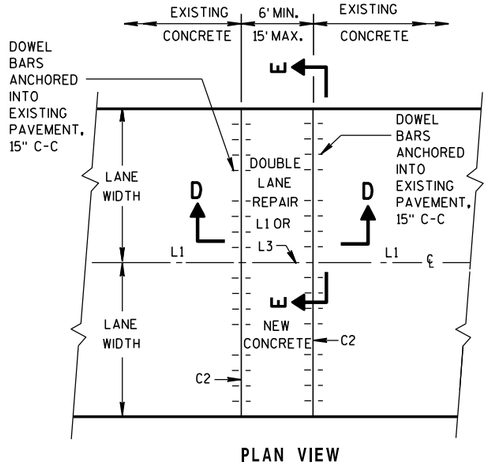
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 24 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

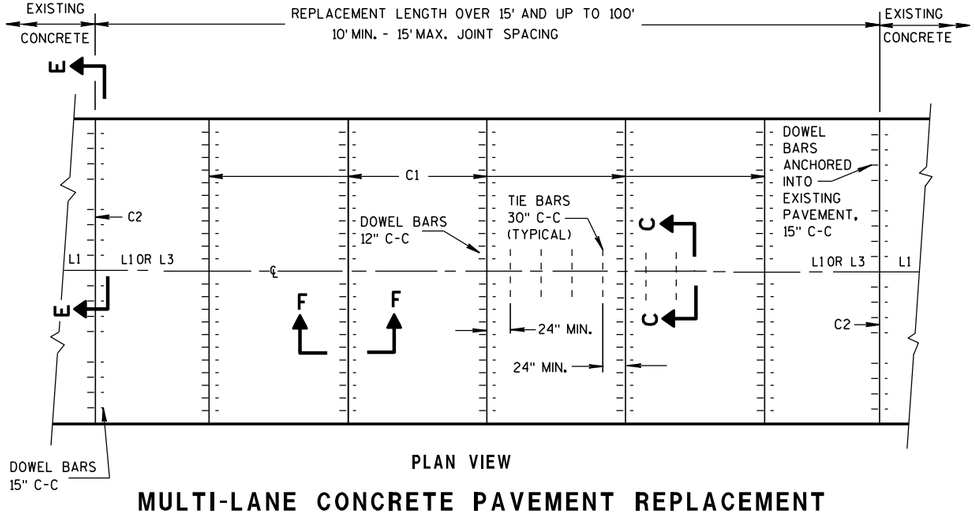


SECTION D-D



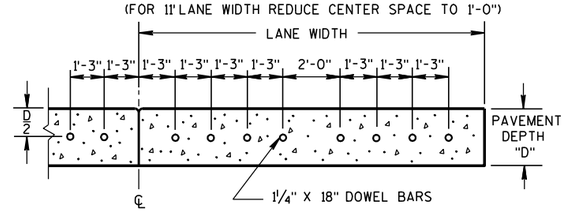
PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 13 C 9-9b

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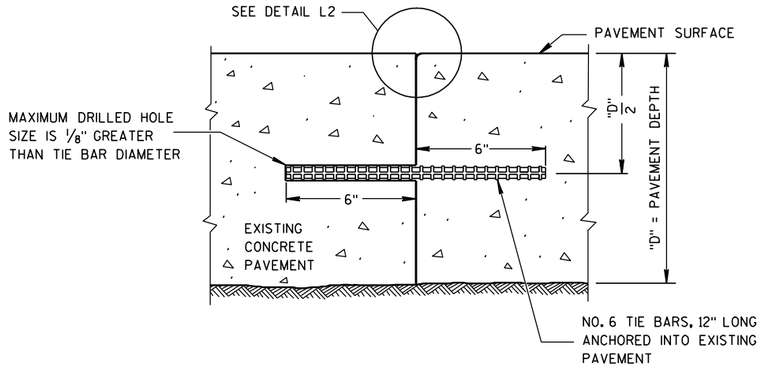


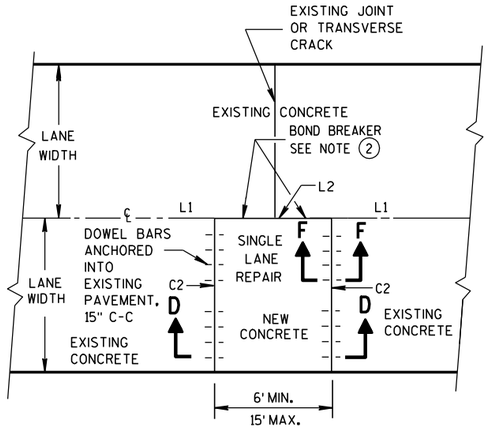
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

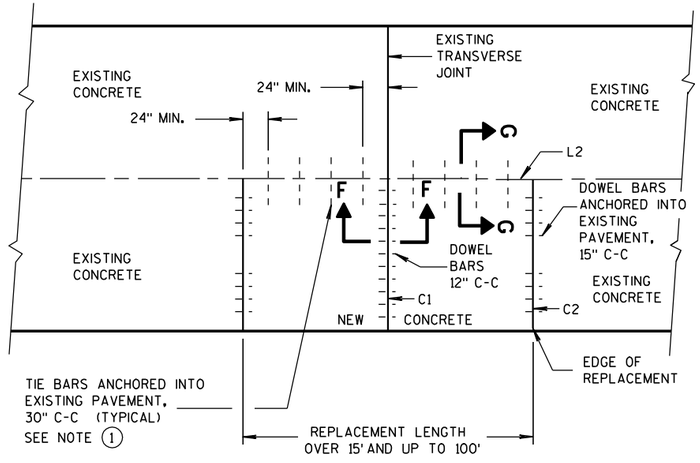
(1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11-1-2011 DATE — /S/ Deb Bischoff PAVEMENT POLICY & DESIGN ENGINEER

FHWA

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S.D.D. 13 C 9-9c

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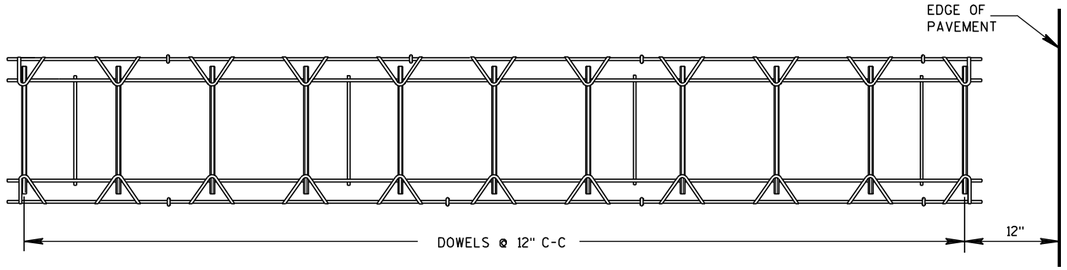
S.D.D. 13 C 9-9c



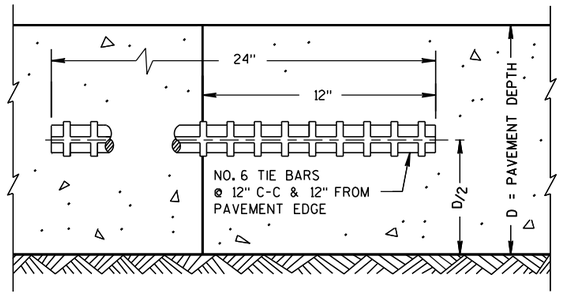
PLAN VIEW

SIDE VIEW

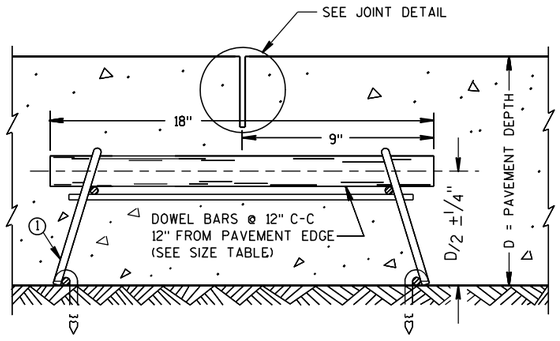
CONTRACTION JOINT DOWEL ASSEMBLY ①

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

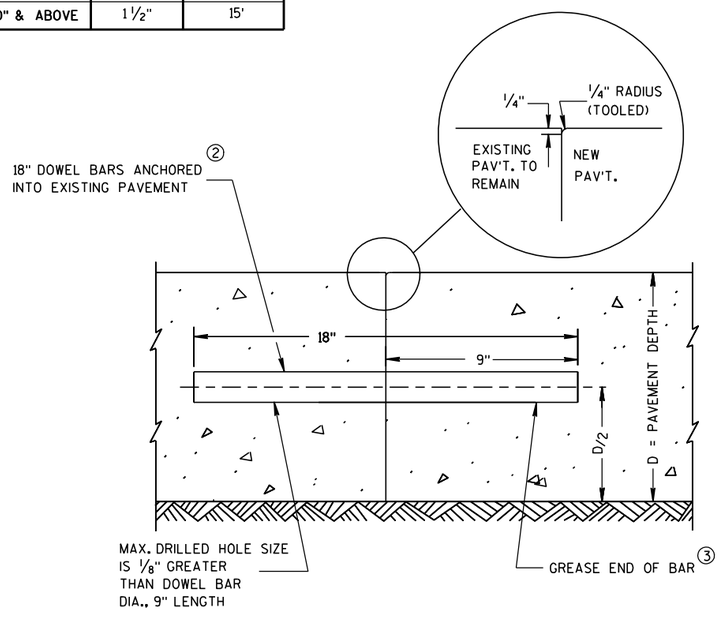
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



TRANSVERSE CONSTRUCTION JOINT

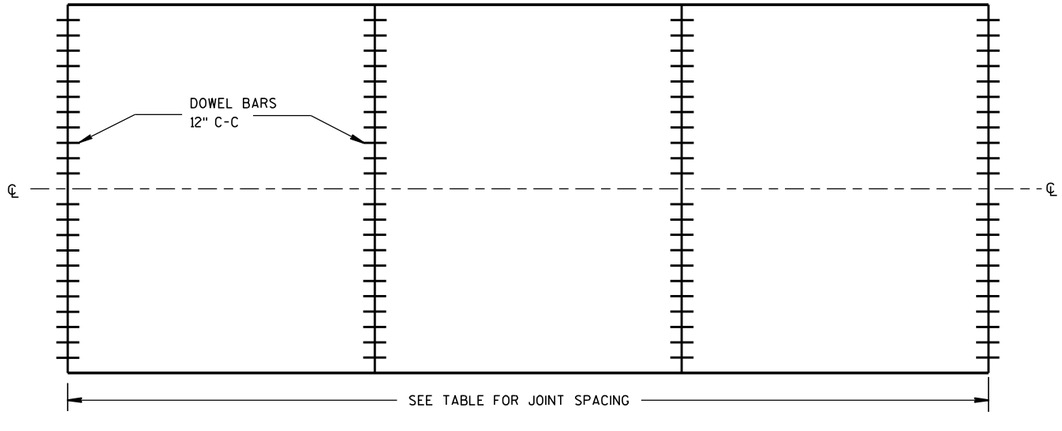


DOWELED CONTRACTION JOINT

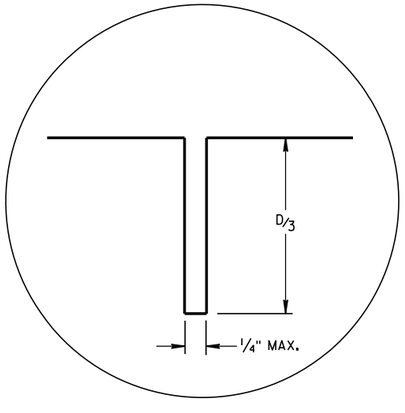


TRANSVERSE CONTRACTION JOINTS ABUTTING EXISTING PAVEMENT

④ DOWEL BAR DETAIL



CONTRACTION JOINT LOCATIONS



JOINT DETAIL

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, CENTER THE DOWEL ASSEMBLY ACROSS THE LANES. LOCATE THE INNER AND OUTER MOST DOWEL BARS SO THAT THE CENTER OF THE BARS ARE A MINIMUM OF 6 INCHES AND A MAXIMUM OF 12 INCHES FROM THE LONGITUDINAL JOINT AND THE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

① THE ENGINEER MAY APPROVE THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. THE CONTRACTOR MAY USE MECHANICAL DOWEL BAR INSERTERS INSTEAD OF DOWEL ASSEMBLIES.

② ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

③ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

④ SPACE DOWEL BARS INSTALLED BY DRILLING 1'-3" ON CENTER. CENTER THE GROUPING OF DOWEL BARS INSIDE THE SLAB BASED ON ALL THE FOLLOWING SITUATIONS:

BETWEEN THE EDGES OF PAVEMENTS WITHOUT LONGITUDINAL JOINTS OR BETWEEN THE EDGE OF PAVEMENT AND NEAREST LONGITUDINAL JOINT OR BETWEEN TWO ADJACENT LONGITUDINAL JOINTS.

⑤ SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/11/2009 — DATE

/S/ Deb Bischoff — PAVEMENT POLICY & DE — NEER

FHWA

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S.D.D. 13 C 13-7

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S.D.D. 13 C 13-7

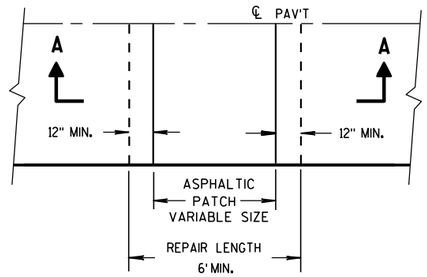
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

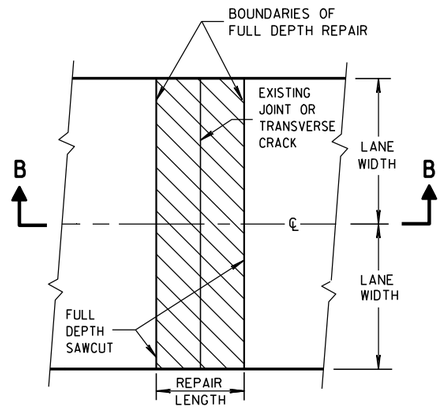
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

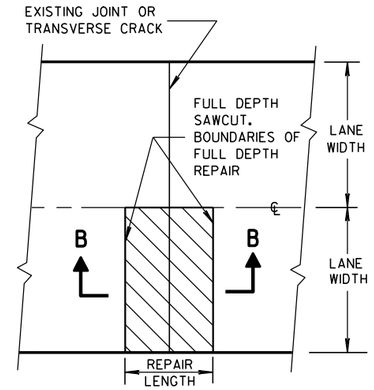
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW



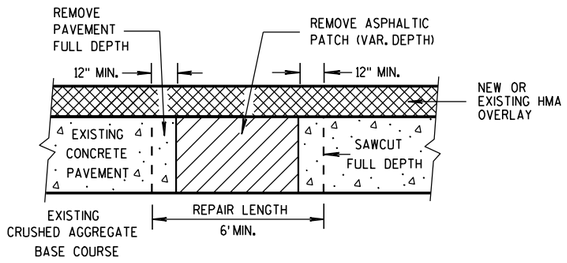
PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

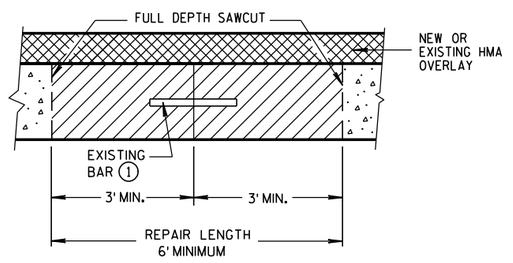
FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

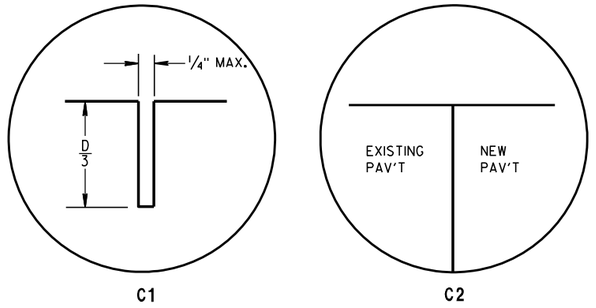
CONCRETE REMOVAL

BASE PATCHING CONCRETE

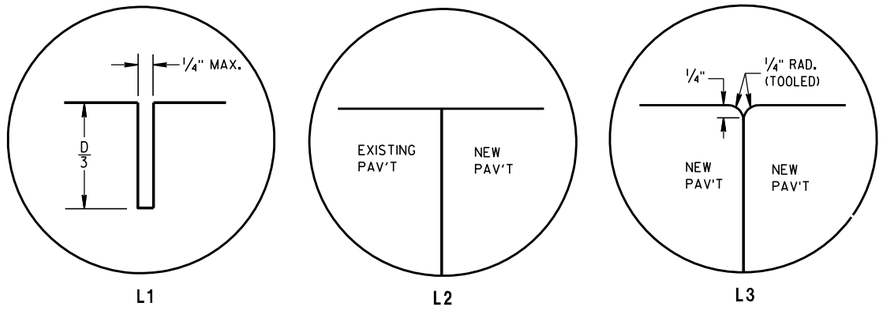
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 13 C 14-4a

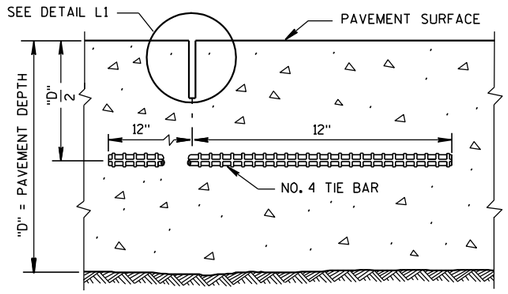
S.D.D. 13 C 14-4a



TRANSVERSE JOINTS

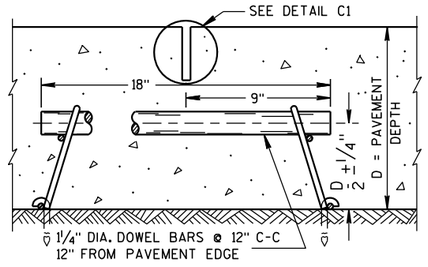


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

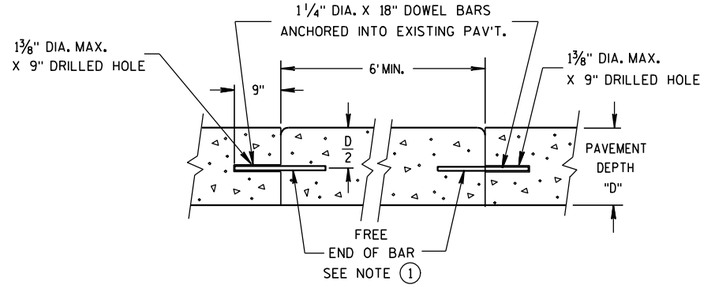
CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

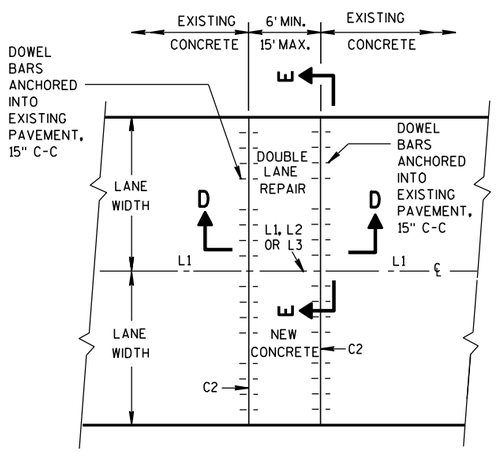
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 24 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

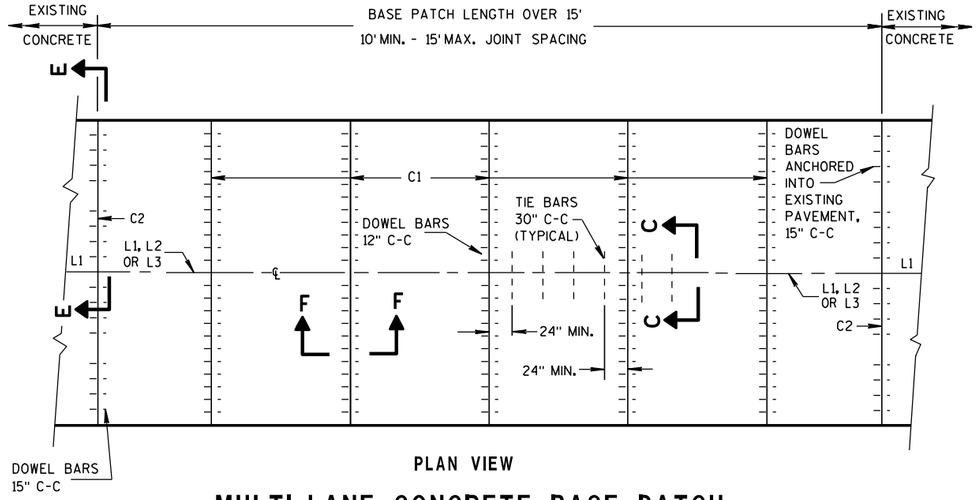


SECTION D-D



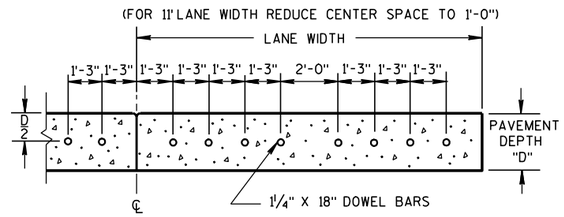
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

BASE PATCHING CONCRETE

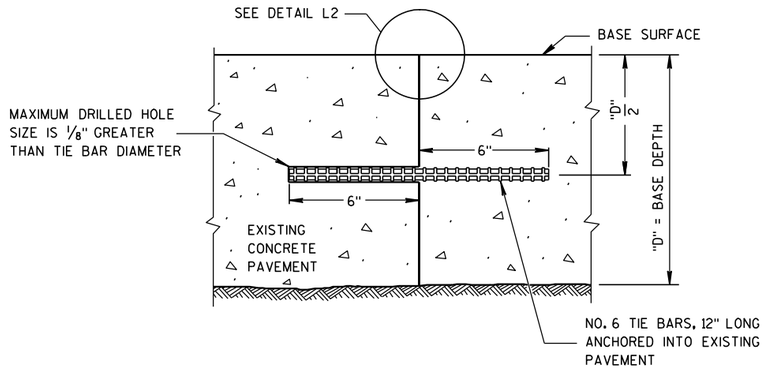
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 14-4b

6

S.D.D. 13 C 14-4b



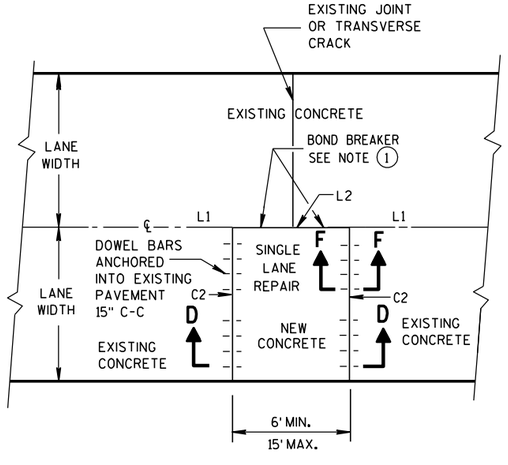
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

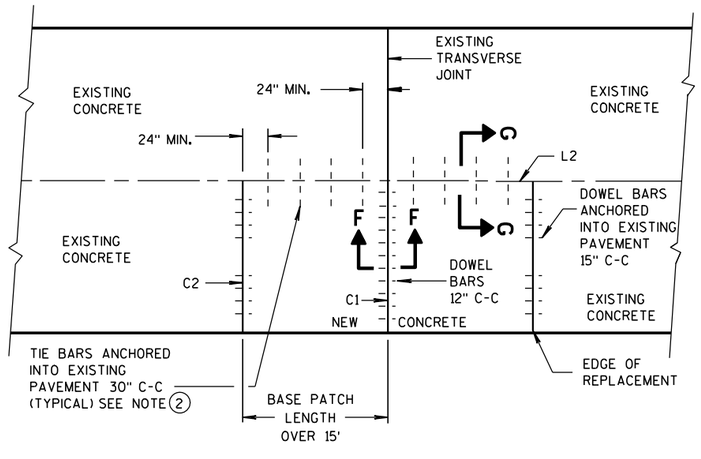
1. USE AN ENGINEER-APPROVED BOND BREAKER FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

2. WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

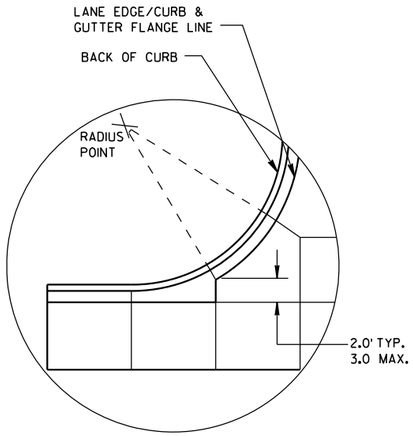
BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

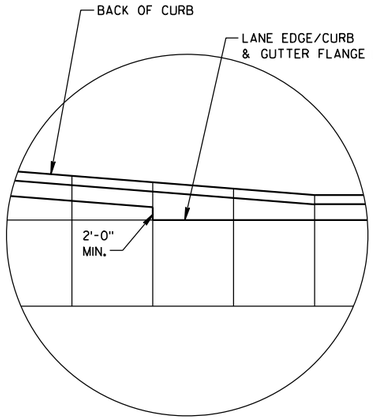
APPROVED
12-11-2009 DATE
/S/ Deb Bischoff PAVEMENT POLICY & DE NEER
FHWA

6

S.D.D. 13 C 14-4c



DETAIL "A"



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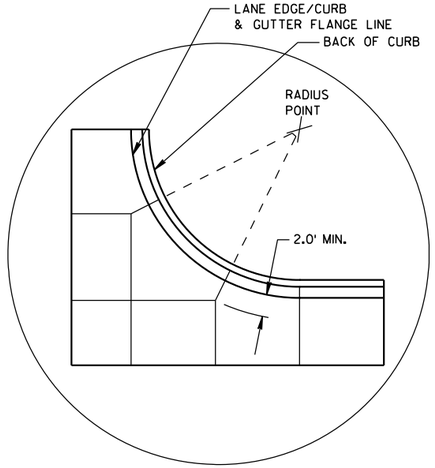
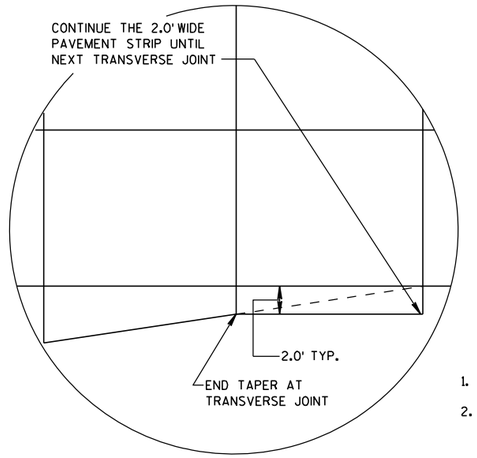


DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

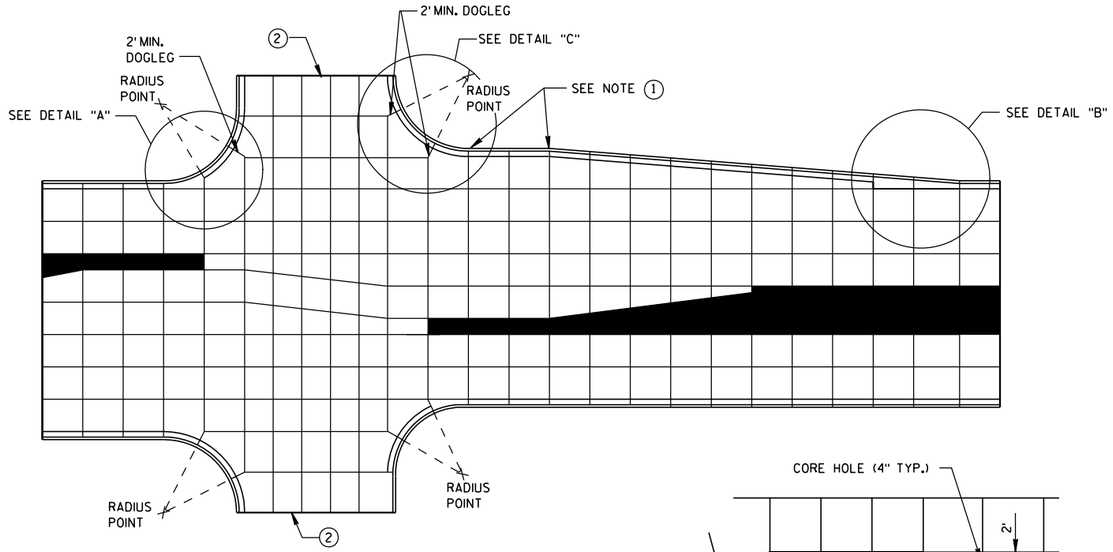
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

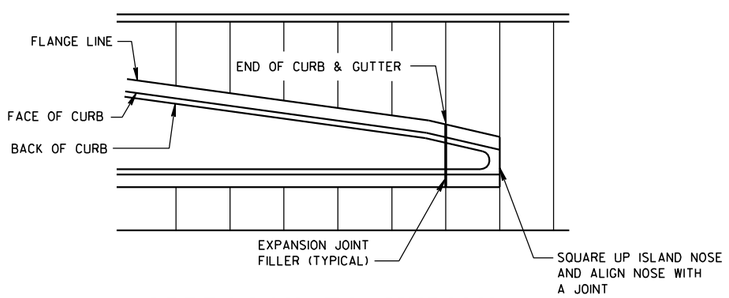
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



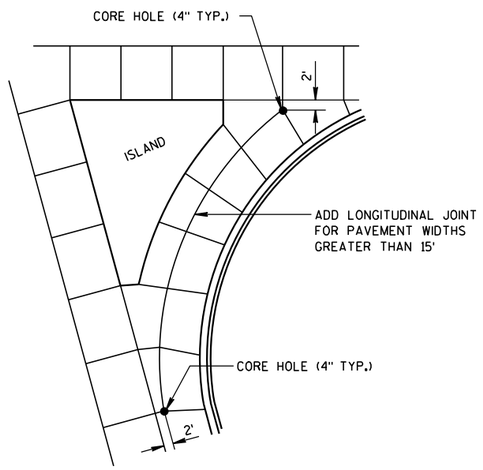
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

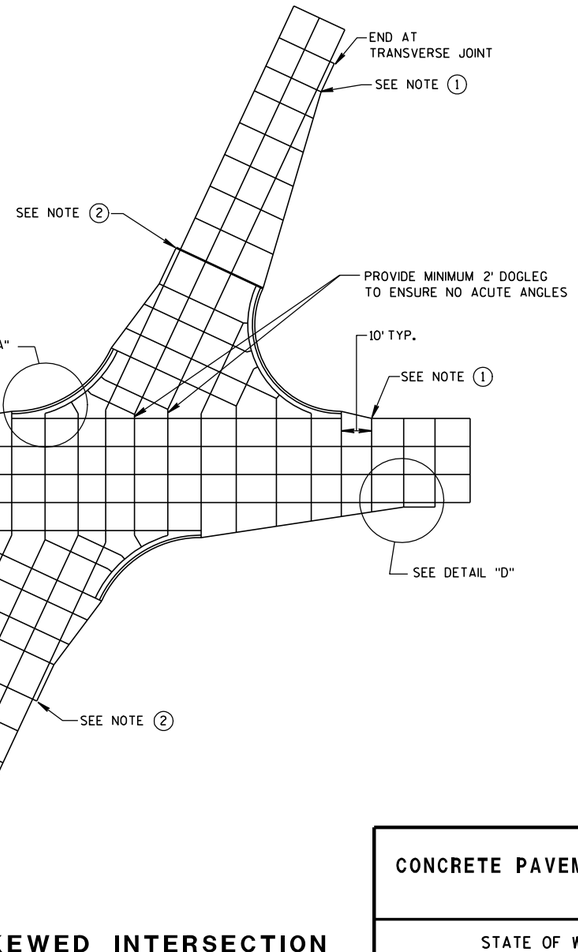
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



APPROACH TO MEDIAN



LARGE RIGHT TURN



SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

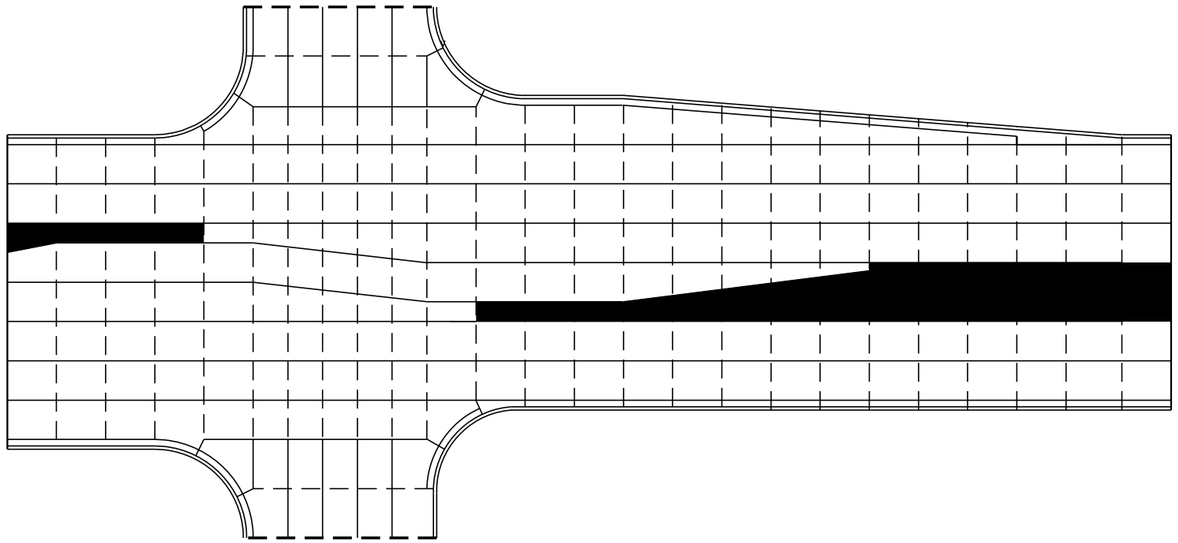
6
S.D.D. 13 C 18-1a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

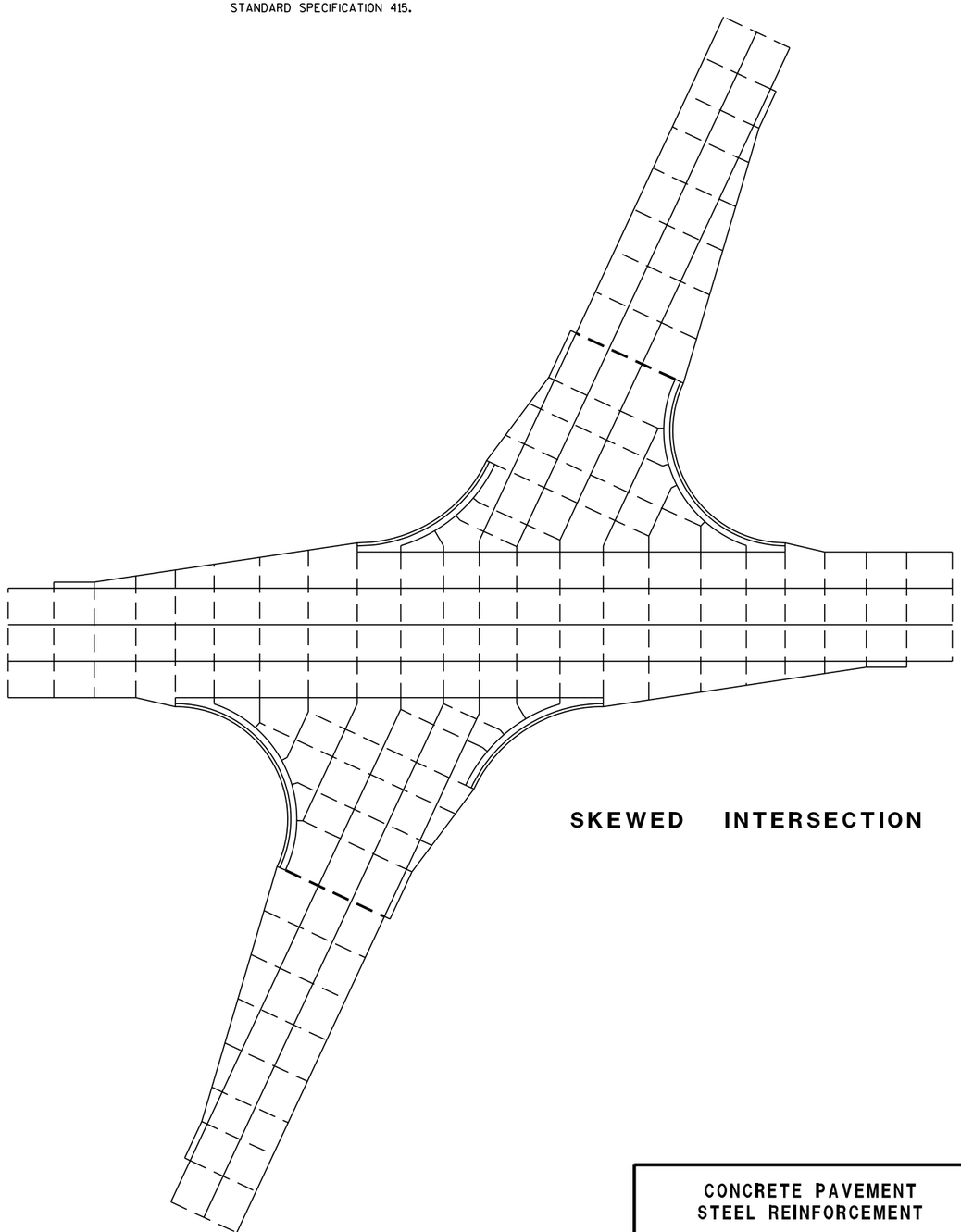
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

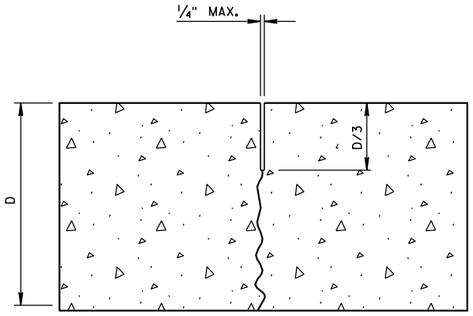
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

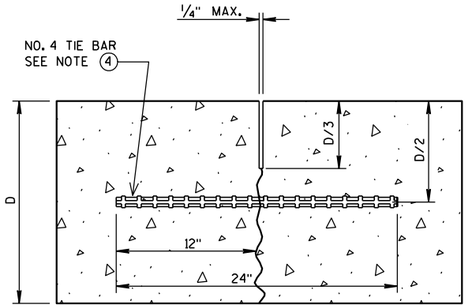
S.D.D. 13 C 18-1b

6

S.D.D. 13 C 18-1b



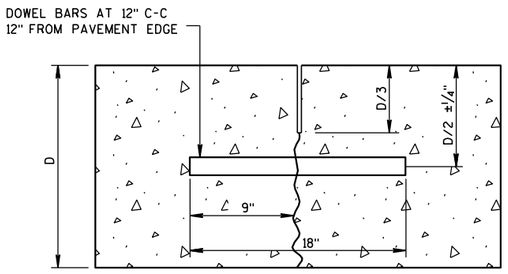
UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

GENERAL NOTES

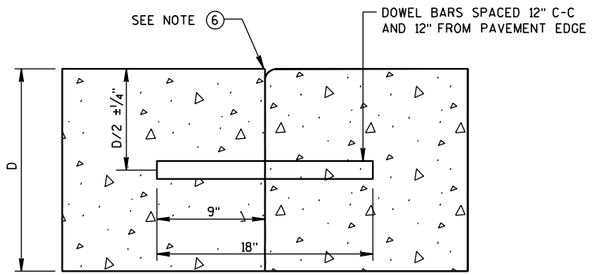
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.
4. SPACE TIE BARS AT LONGITUDINAL CONSTRUCTION OR CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C1.
5. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
6. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.



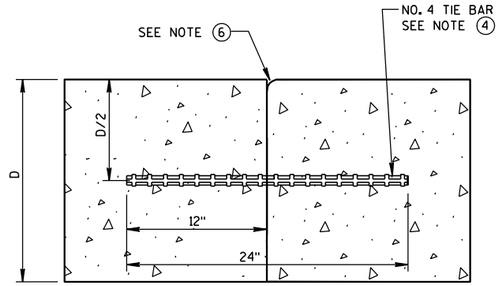
DOWELED-TRANSVERSE

CONTRACTION JOINTS

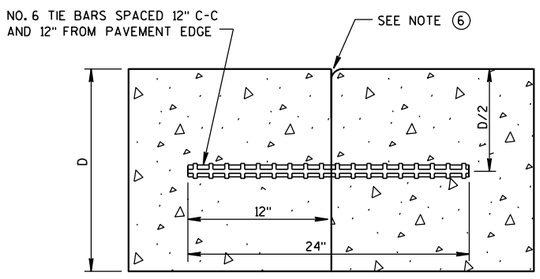
SEE NOTE (2)



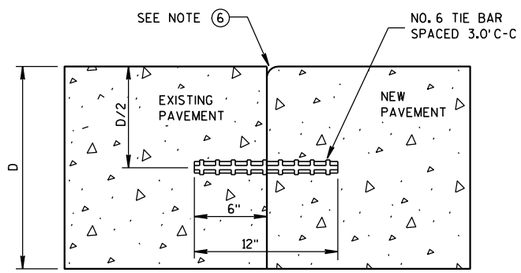
DOWELED TRANSVERSE



TIED LONGITUDINAL



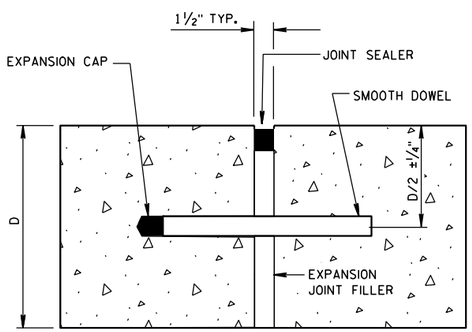
TIED TRANSVERSE
SEE NOTE (3)



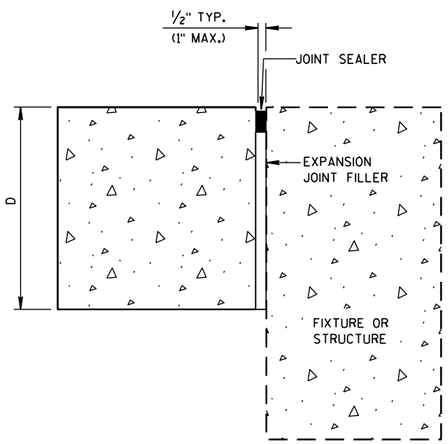
TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS

SEE NOTE (5)



DOWELED-TRANSVERSE
SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

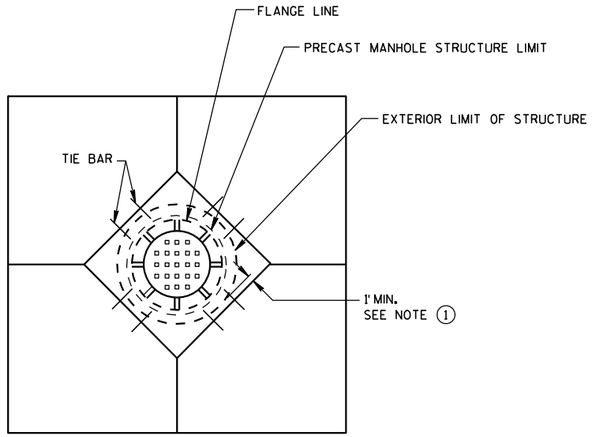
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

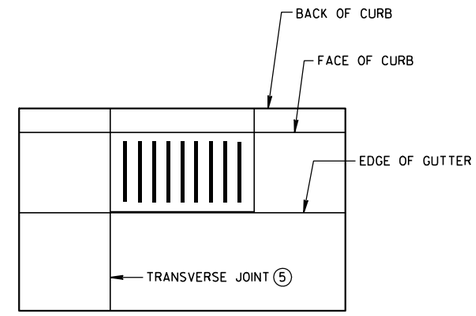
S.D.D. 13 C 18-1c

6

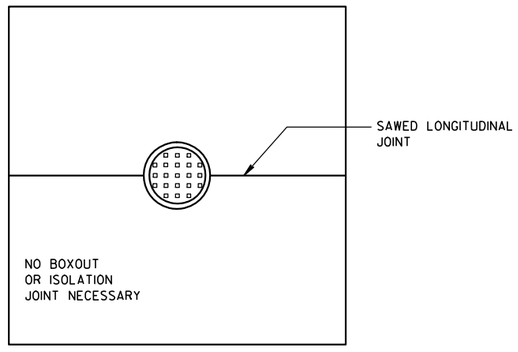
S.D.D. 13 C 18-1c



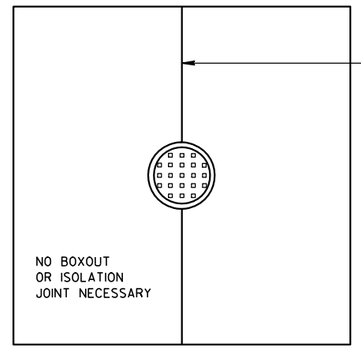
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



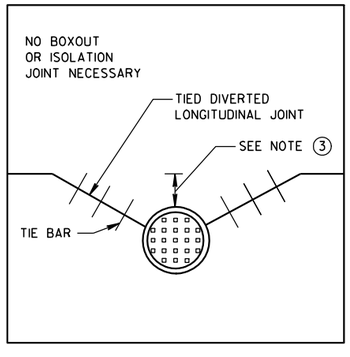
INLET WITH TRANSVERSE JOINT



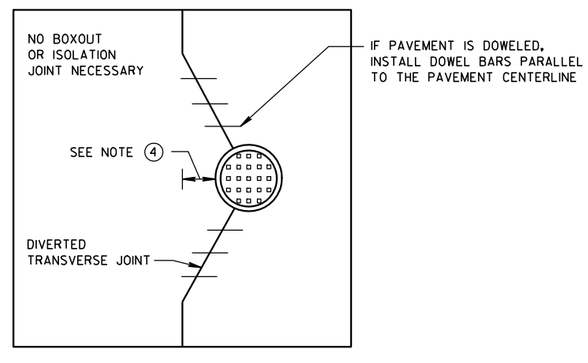
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

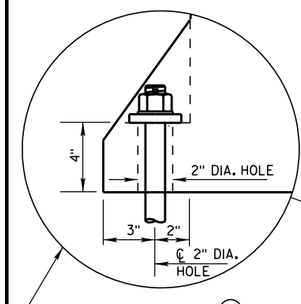
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS GREATER THAN 2 FEET, DO NOT DIVERT JOINT AND SAW LONGITUDINAL JOINT AS NORMAL. IF DISTANCE IS 2 FEET OR LESS, DIVERT LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE.
4. IF DISTANCE FROM THE EDGE OF MANHOLE TO THE NEAREST TRANSVERSE JOINT IS GREATER THAN 4 FEET, REDIRECT JOINT TO INTERSECT MANHOLE. IF DISTANCE IS 4 FEET OR LESS, PLACE REBAR REINFORCEMENT AROUND MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

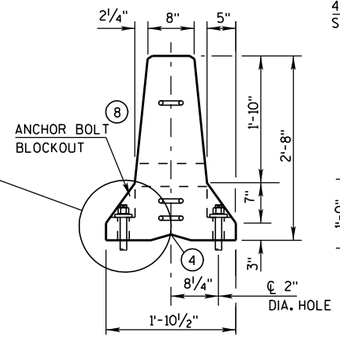
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-5-2010 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & D 950 ENGINEER
FHWA

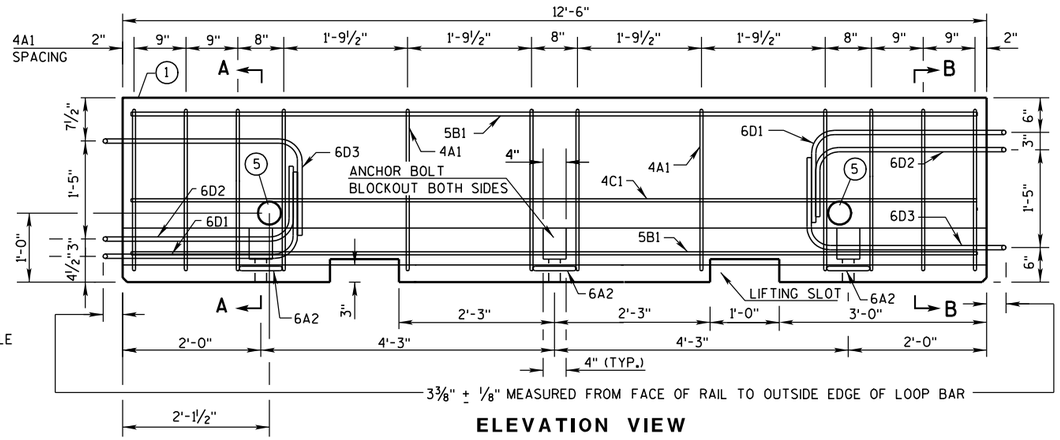
6
S.D.D. 13 C 18-1d



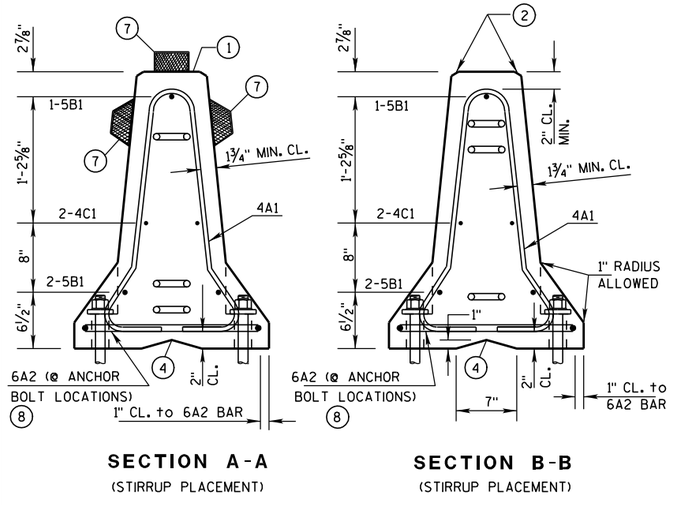
ANCHOR ON TRAFFIC SIDE (8) ONLY WHEN REQUIRED (SEE SHEET D FOR ADDITIONAL ANCHOR DETAIL)



END VIEW

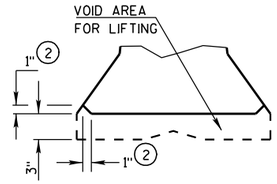


ELEVATION VIEW

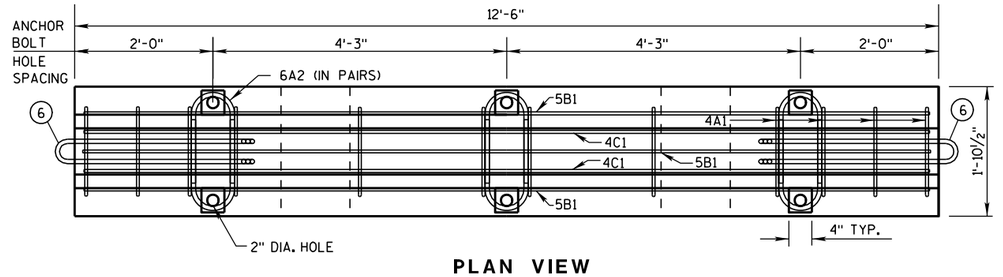


SECTION A-A
(STIRRUP PLACEMENT)

SECTION B-B
(STIRRUP PLACEMENT)

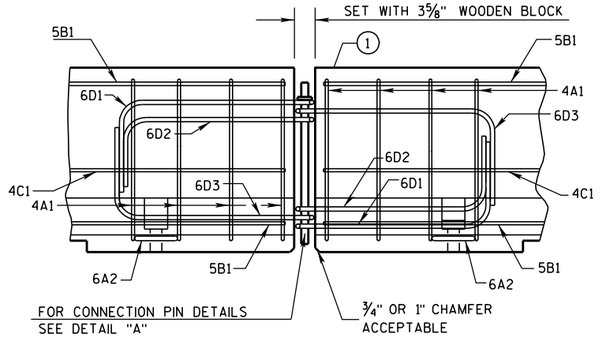


DETAIL "B"
LIFTING SLOT DETAIL

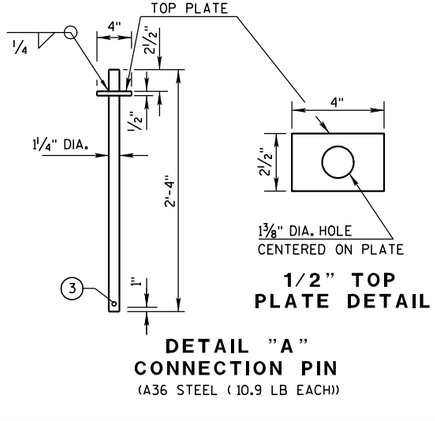


PLAN VIEW

DETAILS OF BARRIER SECTION

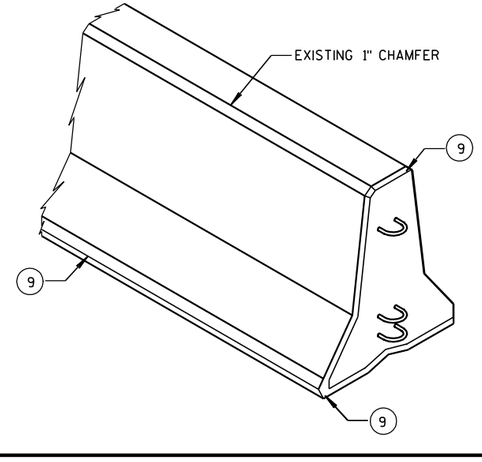


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

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



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-13(a) THRU 14B7-13(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 ¾" 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 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

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

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

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

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WICBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

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

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

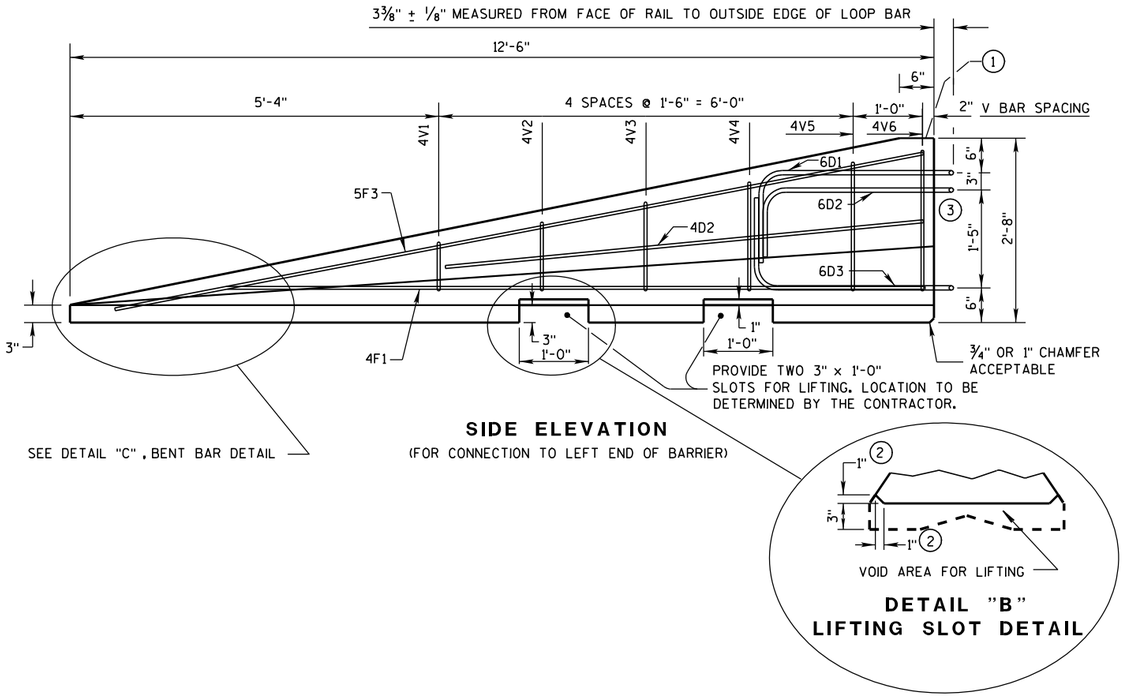
(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6

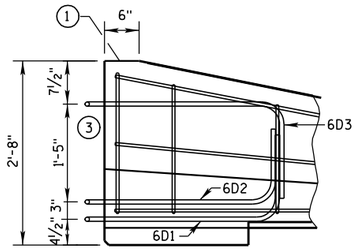
S.D.D. 14 B 7-13a



SIDE ELEVATION

(FOR CONNECTION TO LEFT END OF BARRIER)

DETAIL "B"
LIFTING SLOT DETAIL

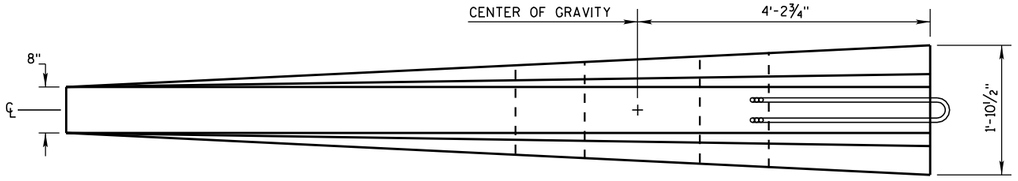


SIDE ELEVATION

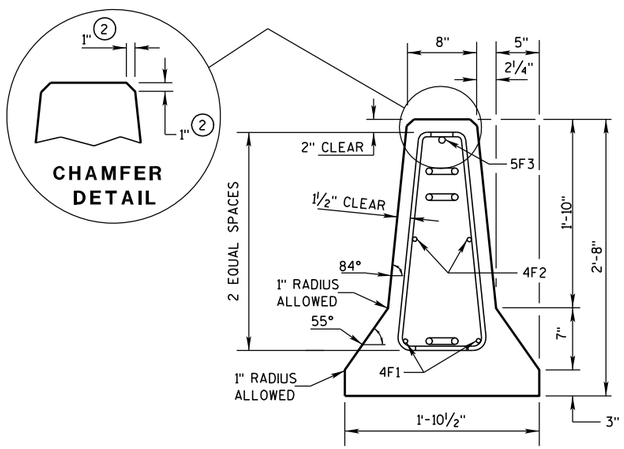
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

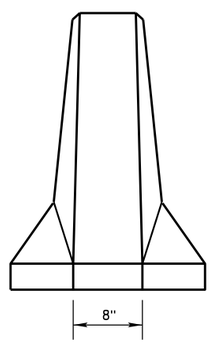
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



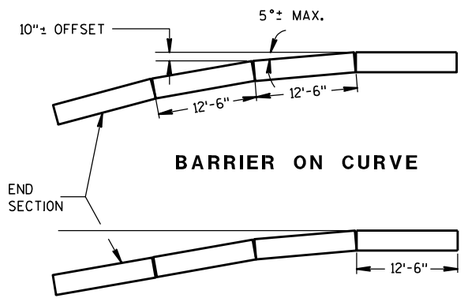
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

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

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

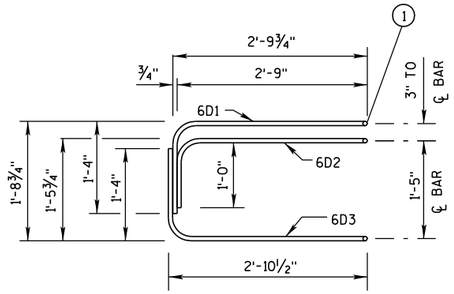
6

S.D.D. 14 B 7-13b

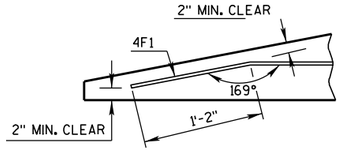
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

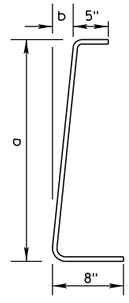
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

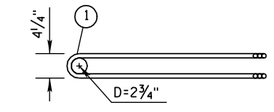
GENERAL NOTES

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

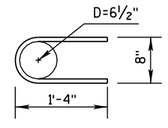
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

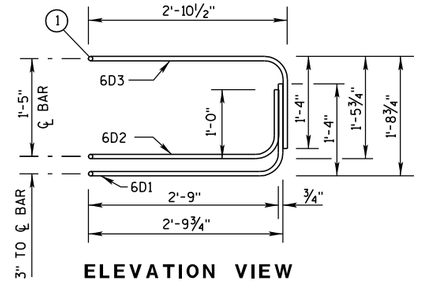
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



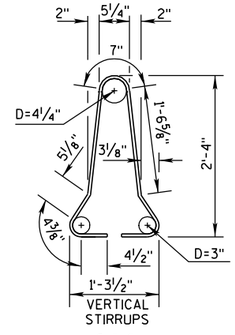
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



ELEVATION VIEW



4A1

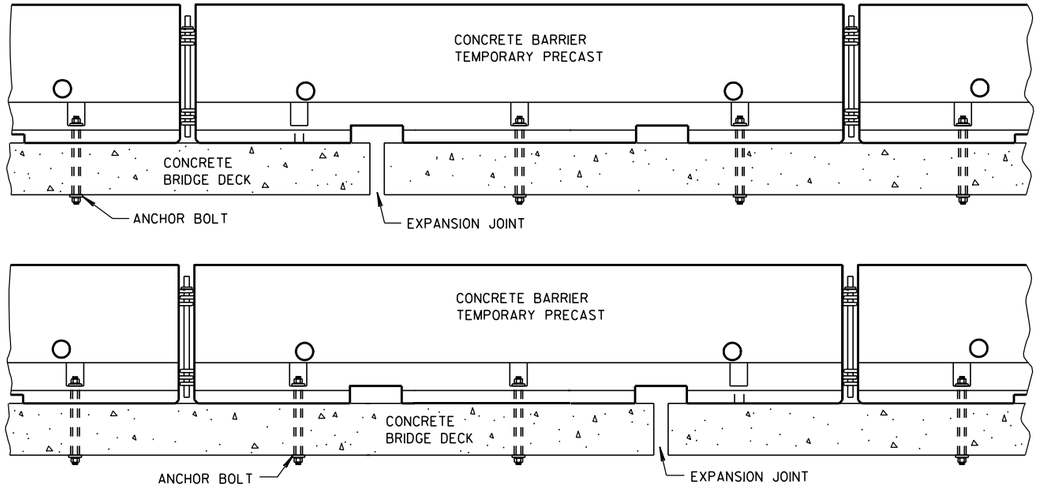
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

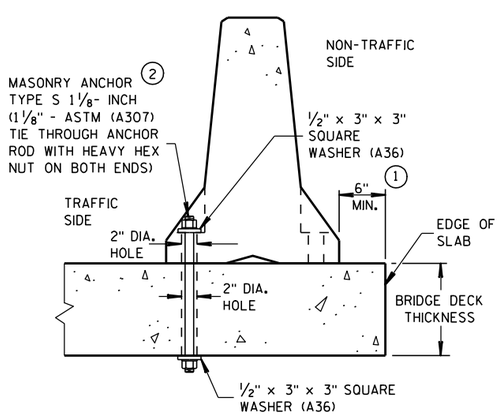
6

S.D.D. 14 B 7-13c



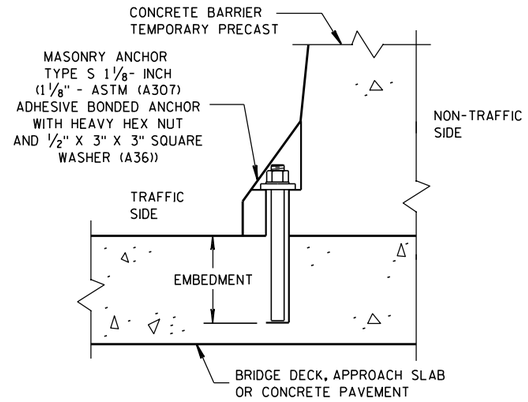
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(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 NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR (2) INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

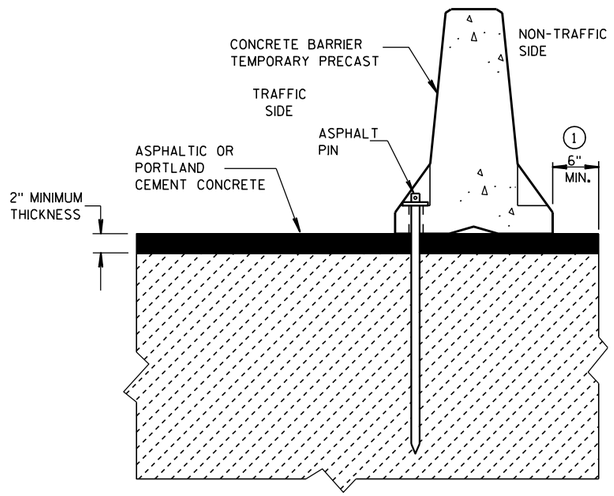
(1) CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED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

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

(2) ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

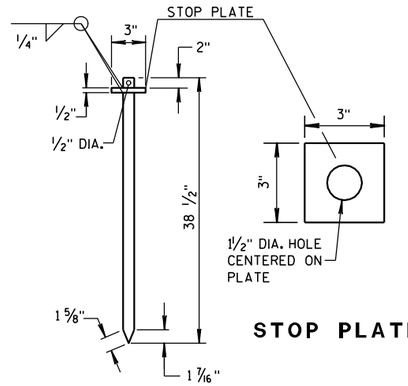
WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALLANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

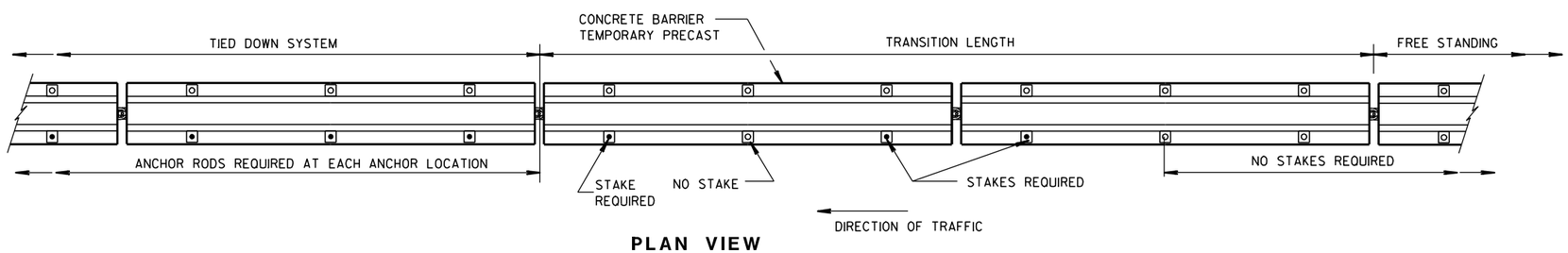
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

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.)

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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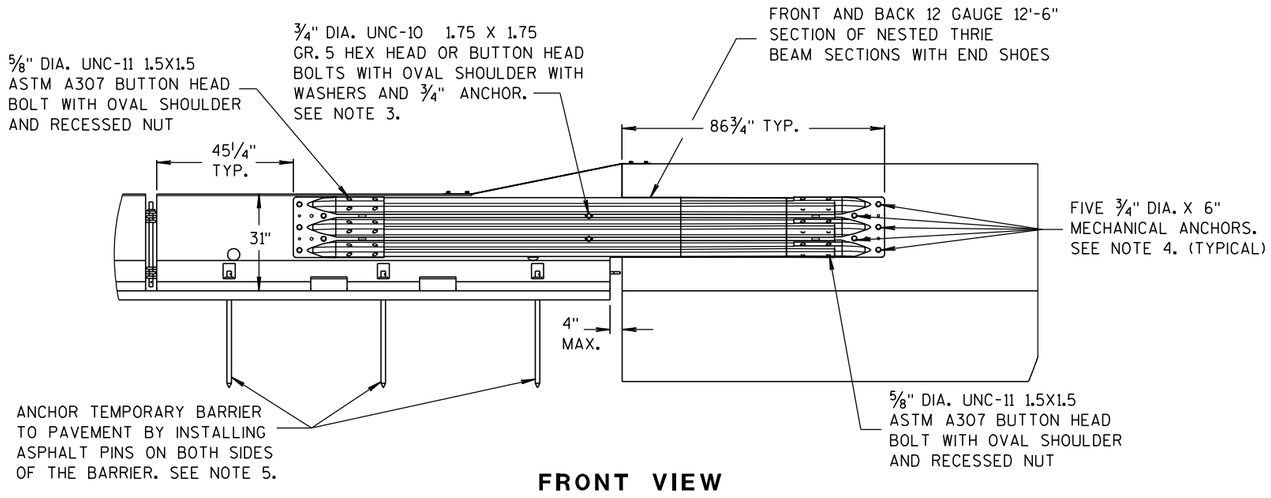
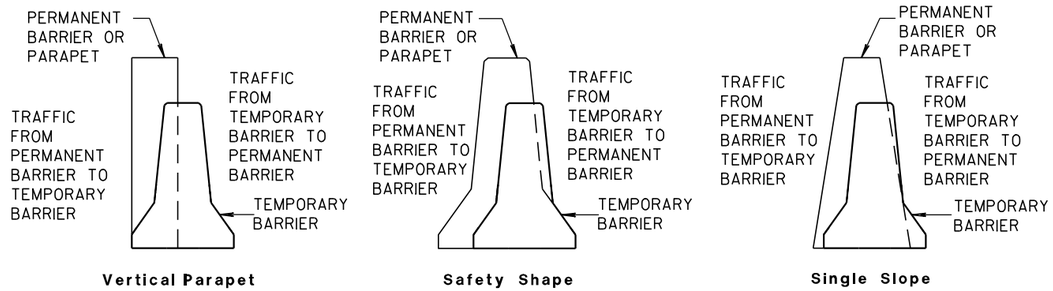
S.D.D. 14 B 7-13d

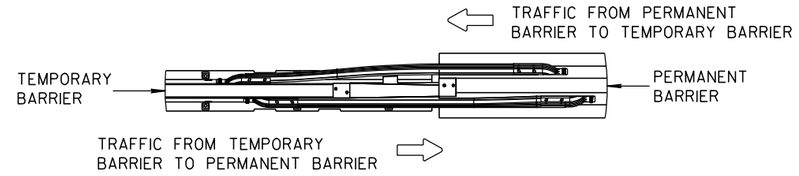


FRONT VIEW

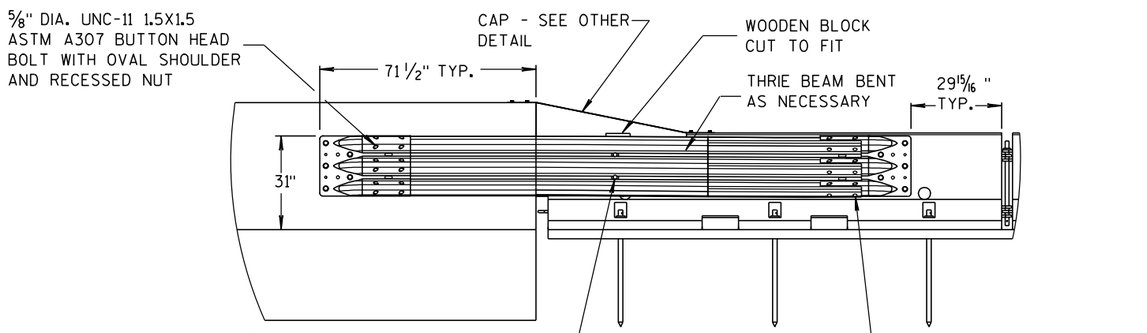
NOTES

1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY 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 EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

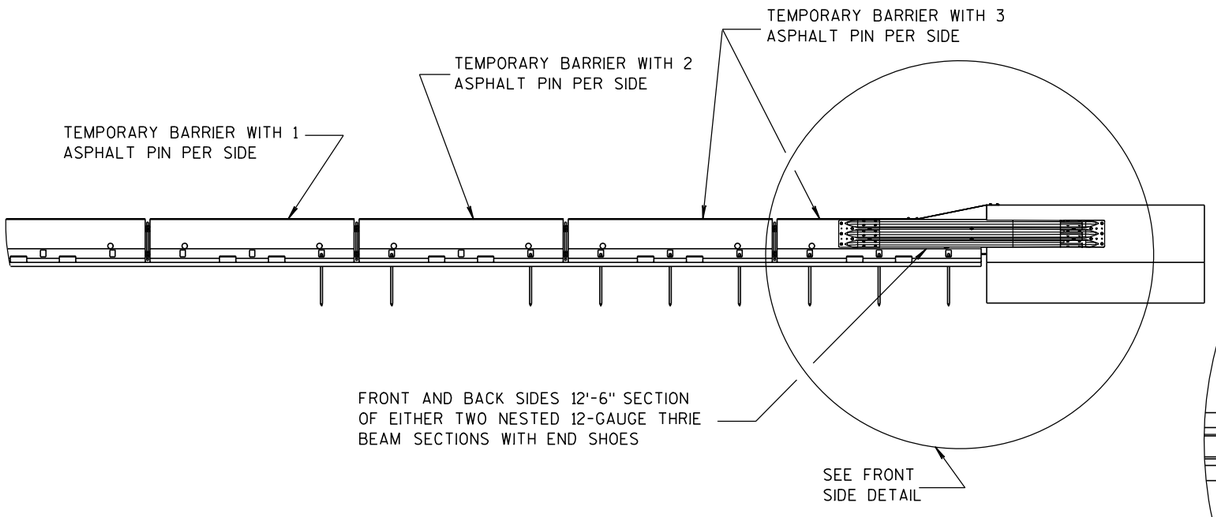




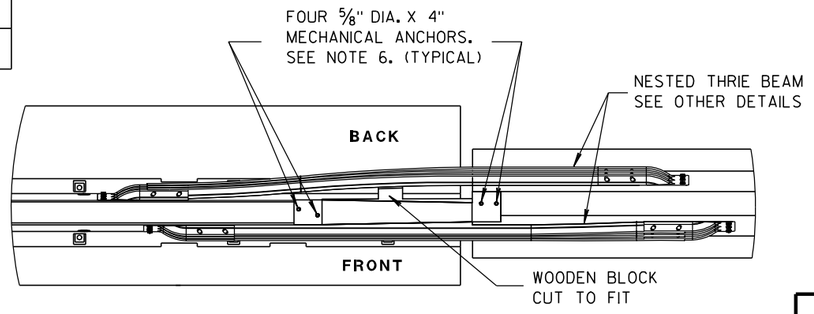
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



BACK VIEW



FRONT VIEW



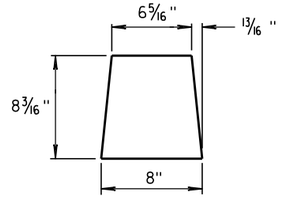
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

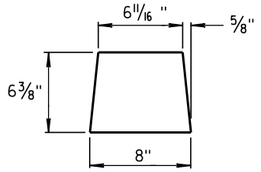
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 7-13e



GUSSET 1



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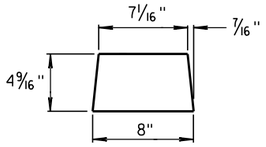

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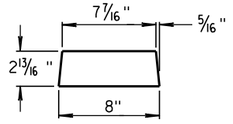
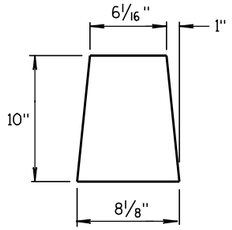
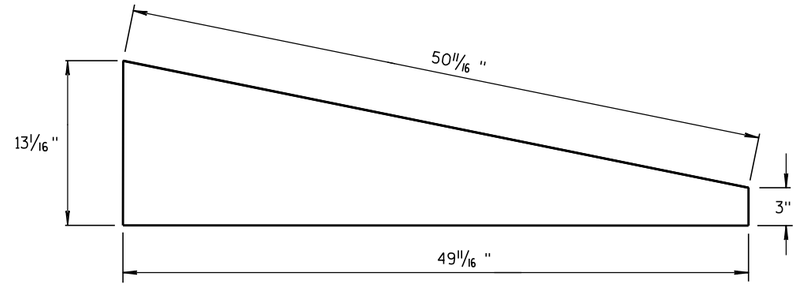


GUSSET 4

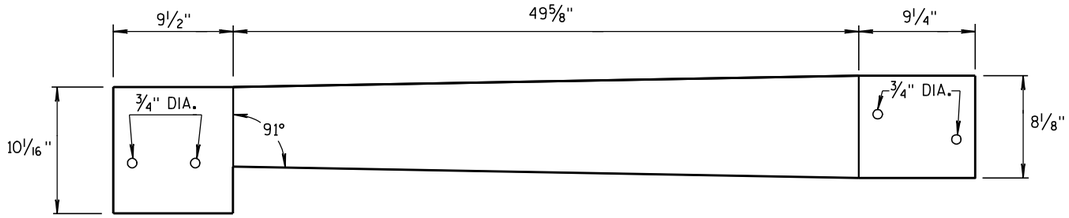
GUSSETS

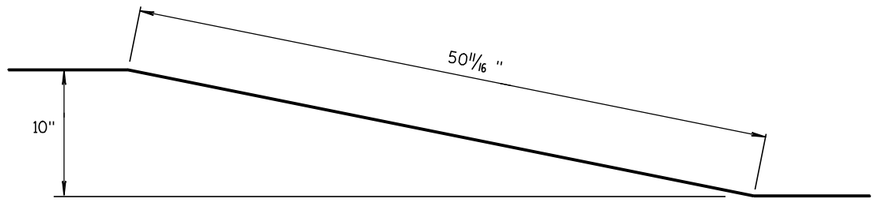


END PLATE

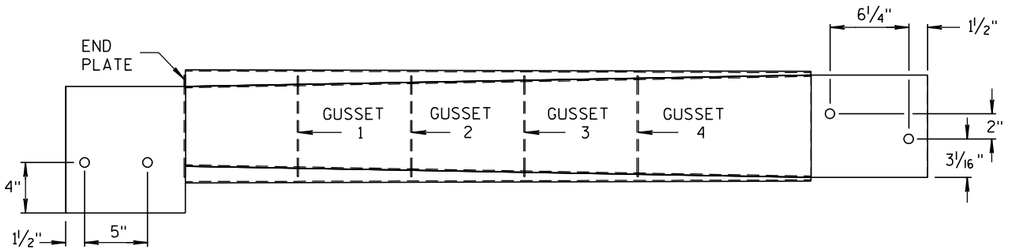


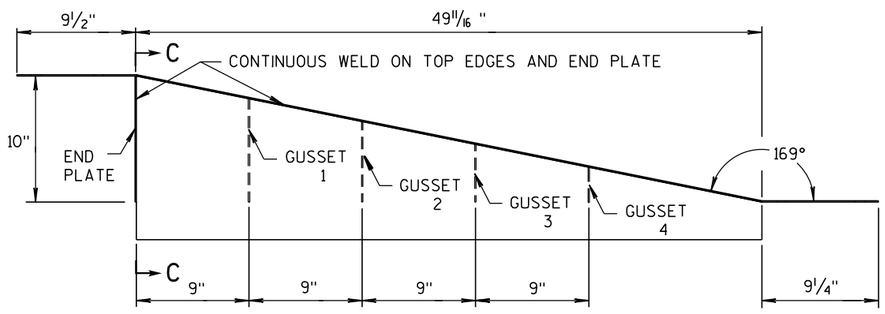
SIDE PLATE

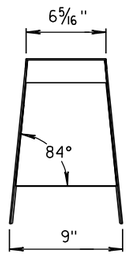




TOP PLATE







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

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

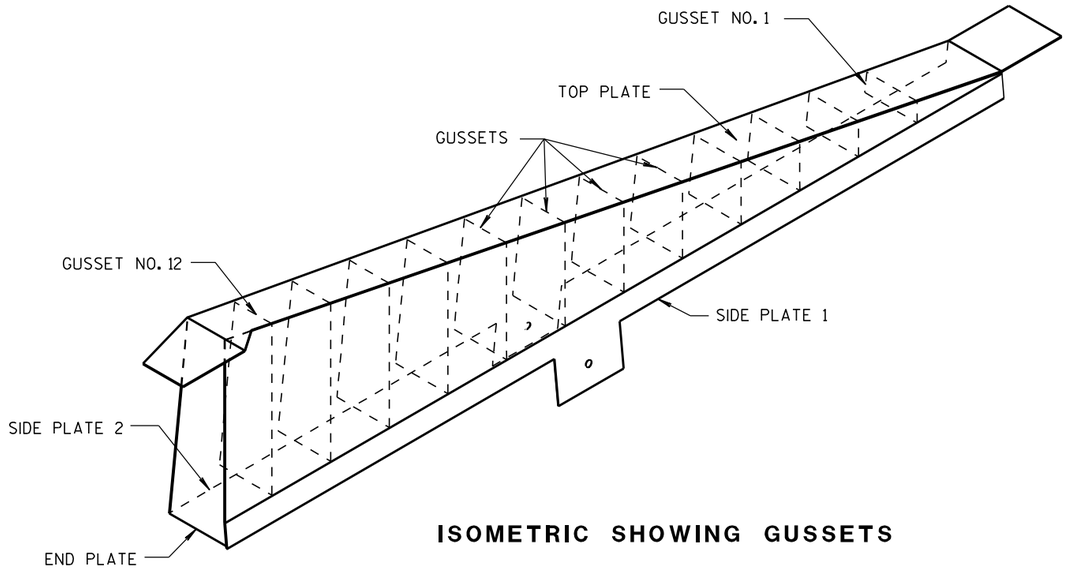
SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

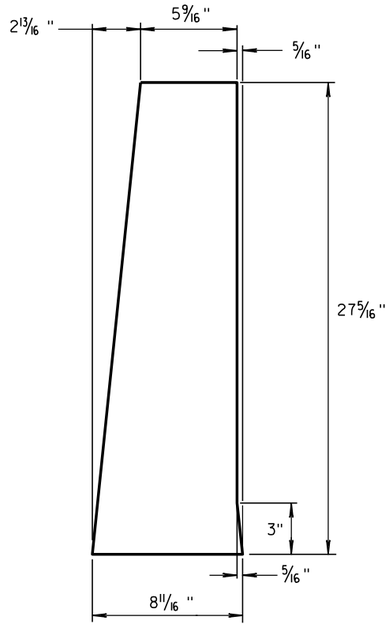
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6

S.D.D. 14 B 7-13f

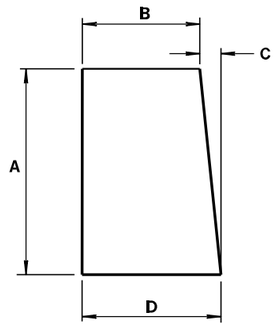


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



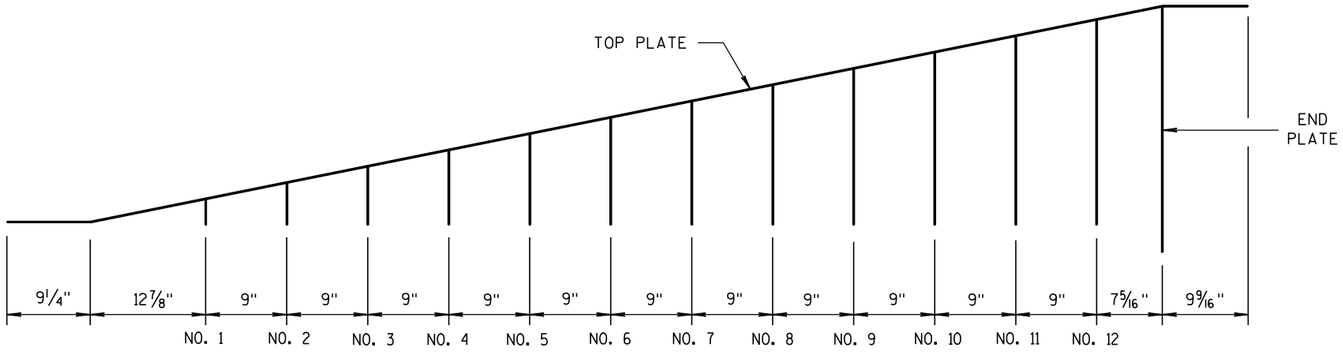
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	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.



GUSSET LOCATION

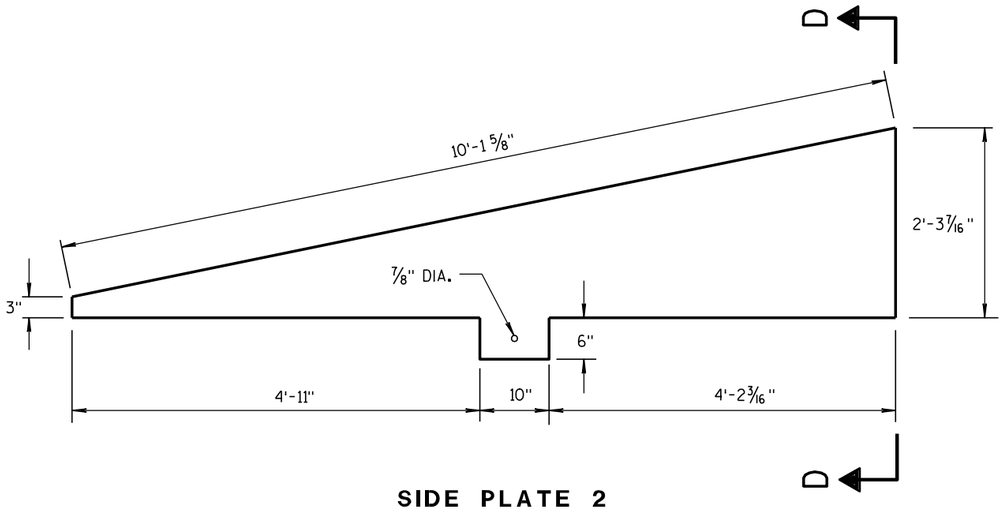
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

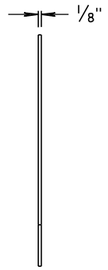
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6

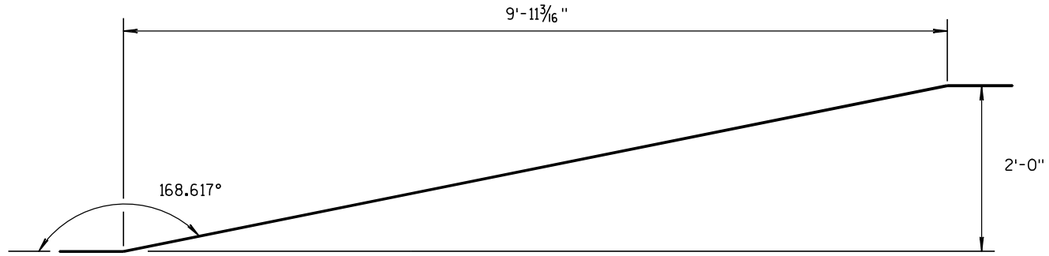
S.D.D. 14 B 7-13g



SIDE PLATE 2

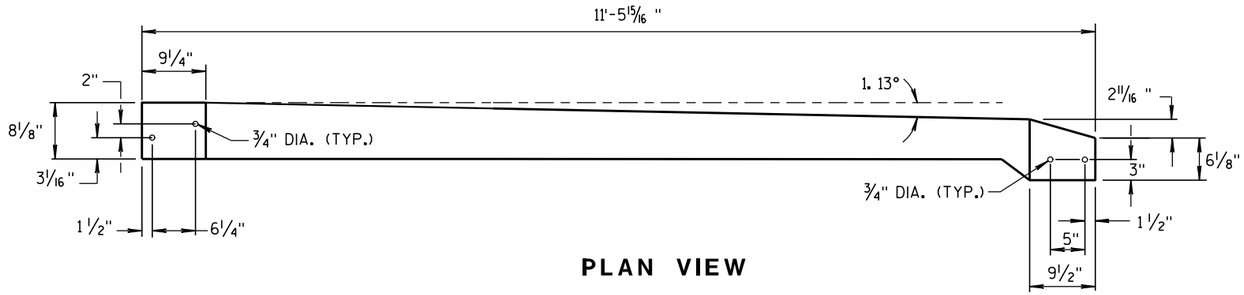


END VIEW



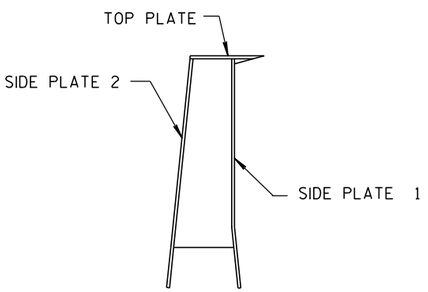
SIDE VIEW

TOP PLATE

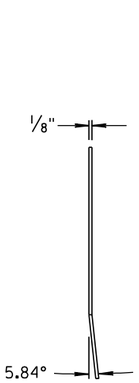


PLAN VIEW

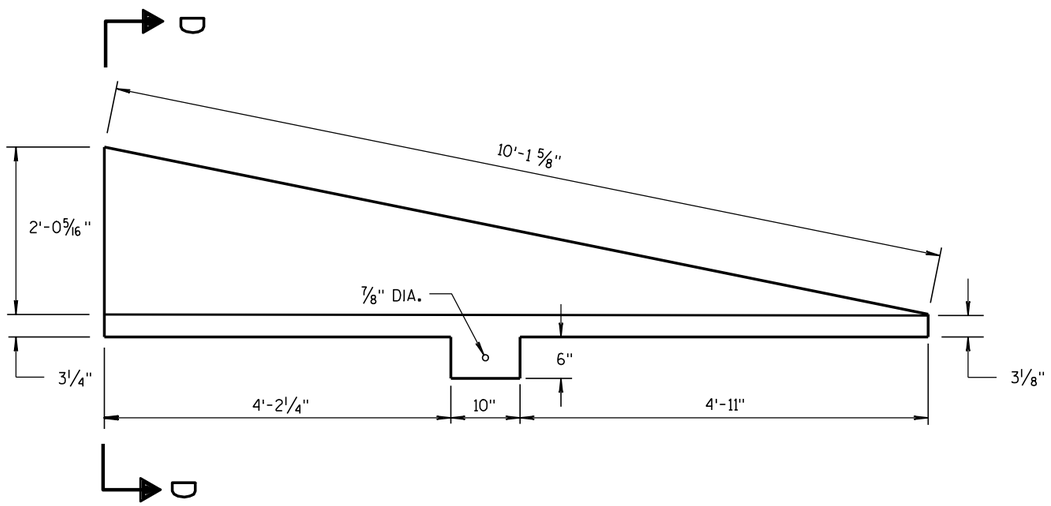
TOP PLATE



SECTION D-D



END VIEW



SIDE PLATE 1

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

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 8/31/2012 DATE /S/ Jerry H. ROADWAY STANDARDS ENGINEER 958 ENT FHWA

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S.D.D. 14 B 7-13h

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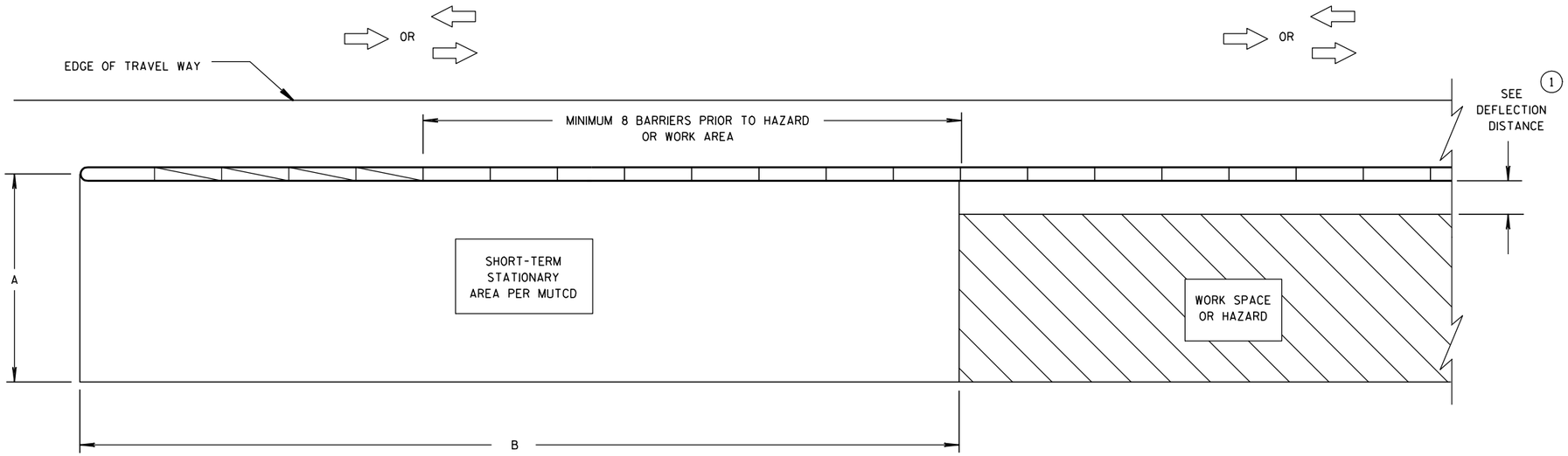
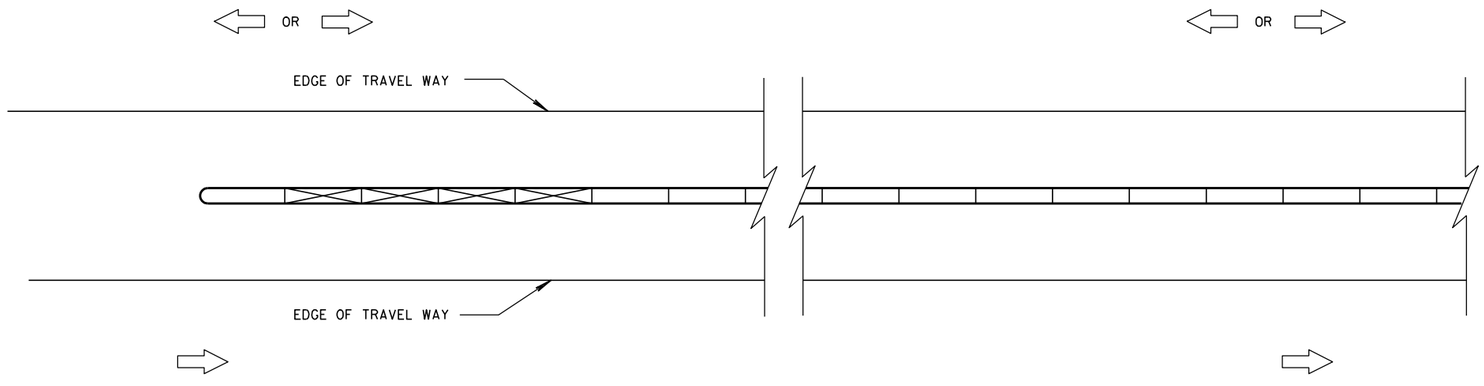
S.D.D. 14 B 7-13h



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

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

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

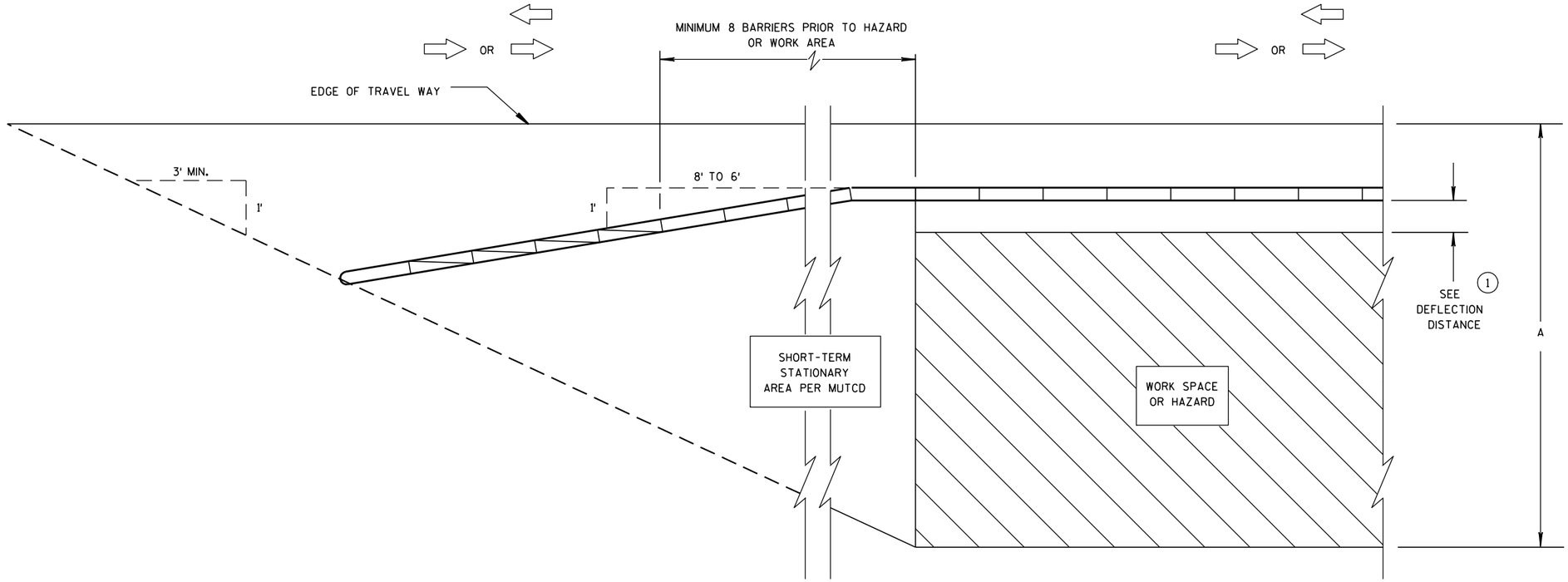
(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

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

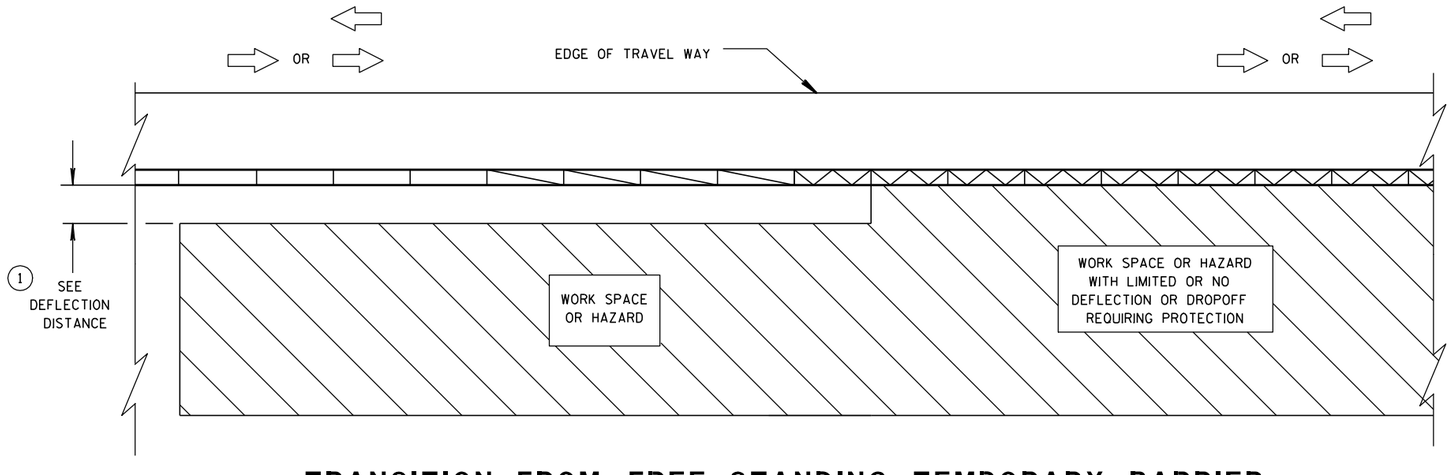
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 8-1a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

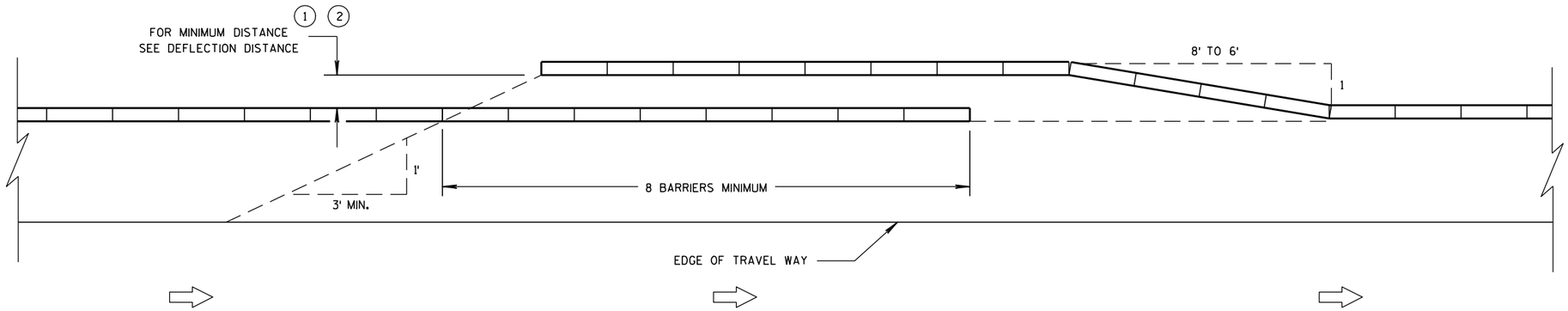
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

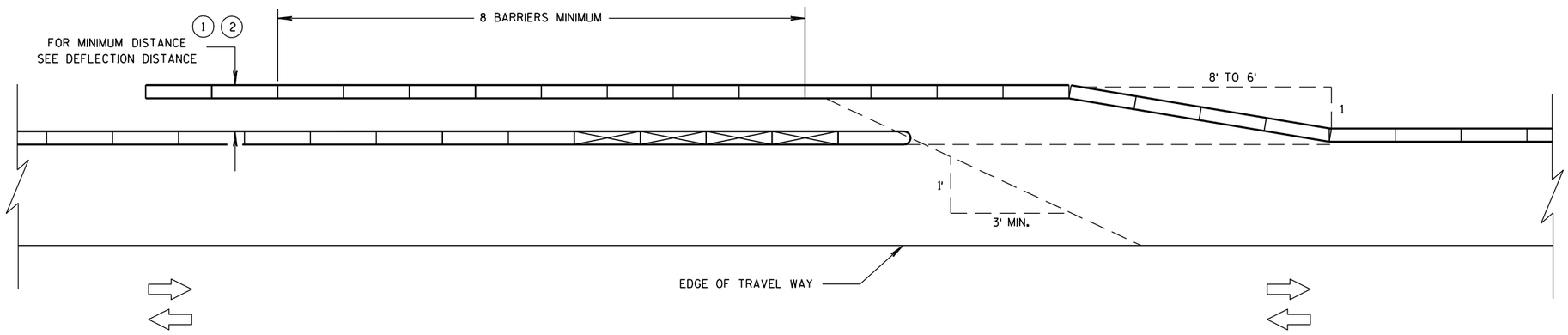
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

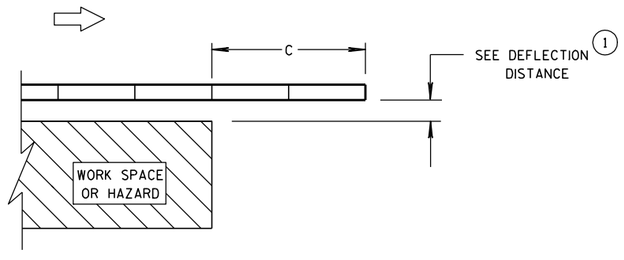
S.D.D. 14 B 8-1b



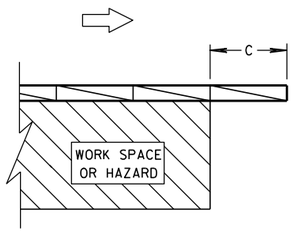
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

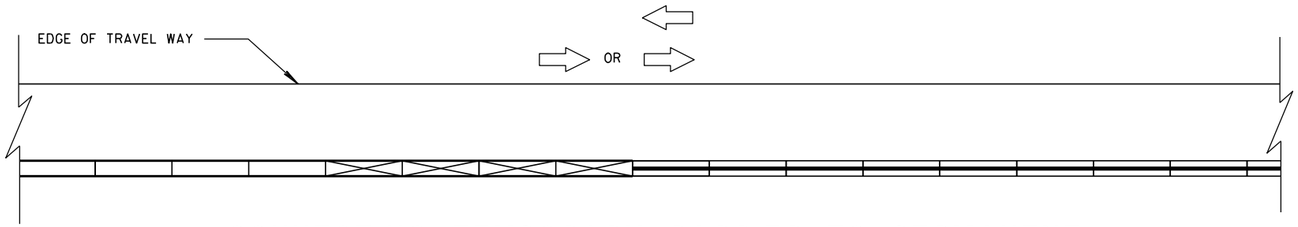
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

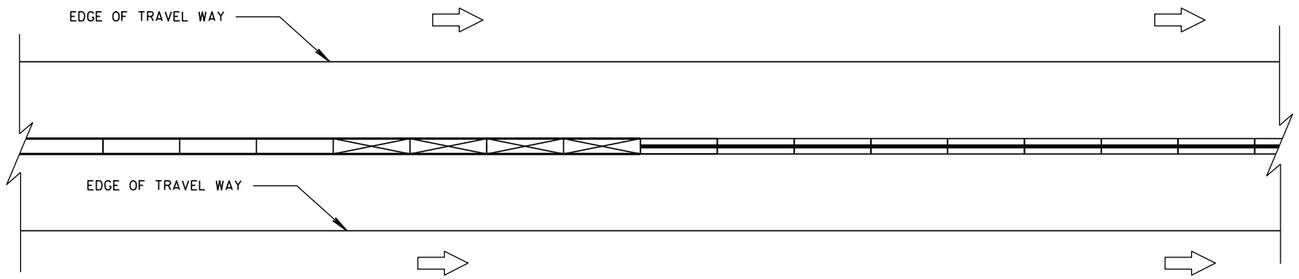
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 8-1c



CONNECTING TEMPORARY BARRIER TO PERMANENT CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

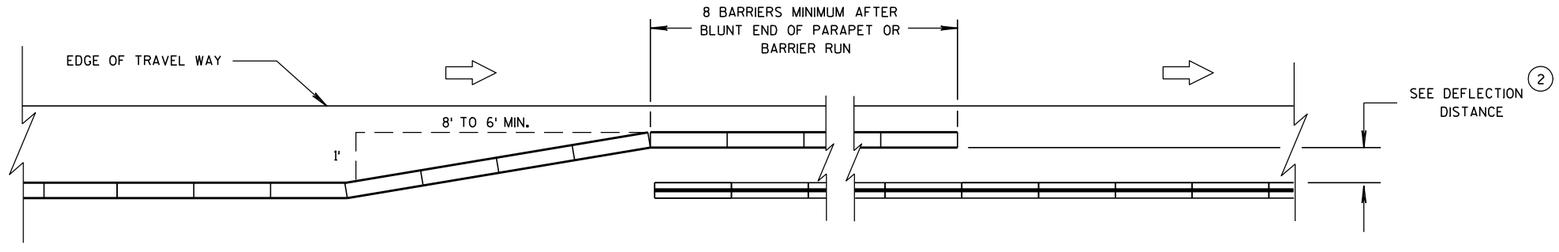
SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

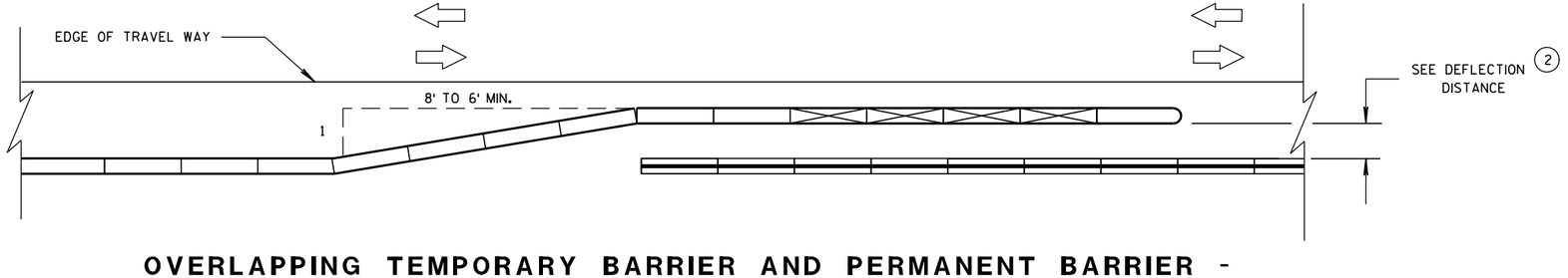
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER - ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER - TWO WAY TRAFFIC

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 8-1d

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

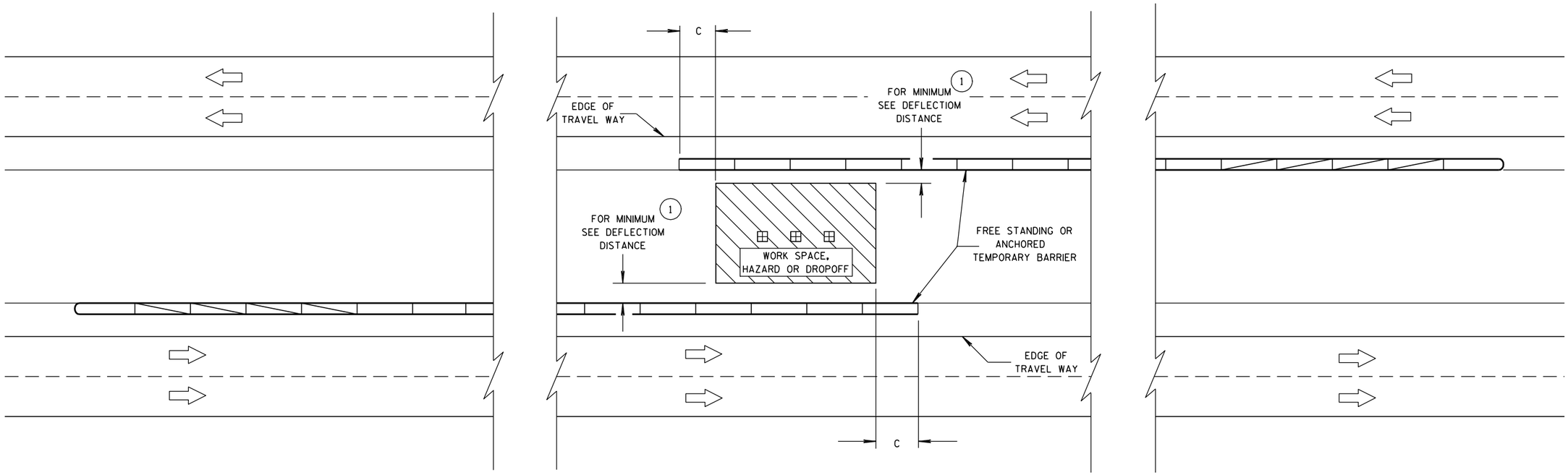
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

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

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER

963

FHWA

6

S.D.D. 14 B 8-1e

6

S.D.D. 14 B 8-1e

GENERAL NOTES

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

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

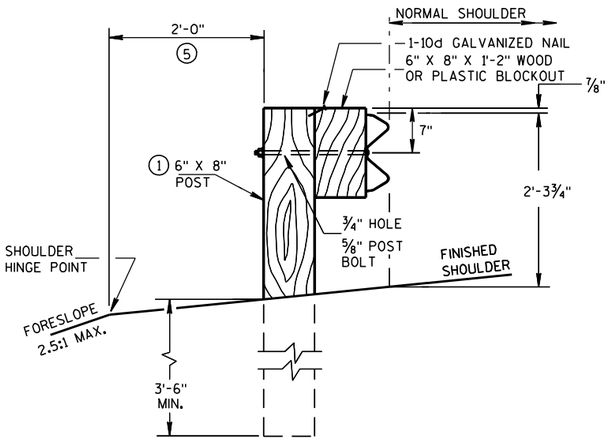
(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

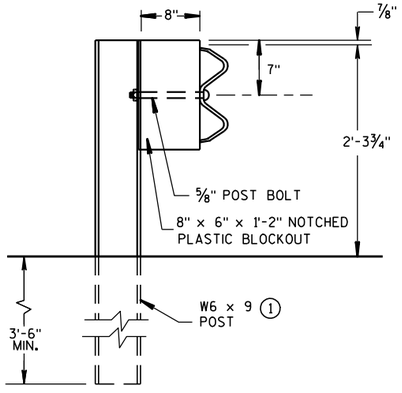
(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

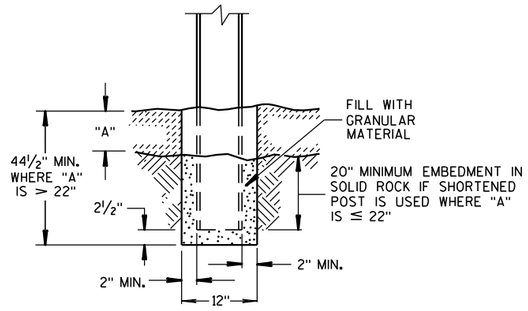
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



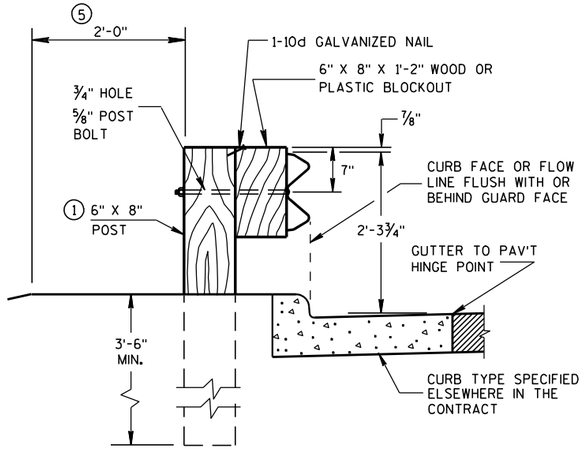
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



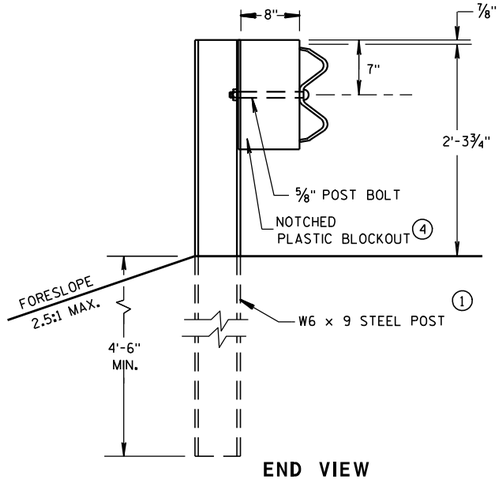
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



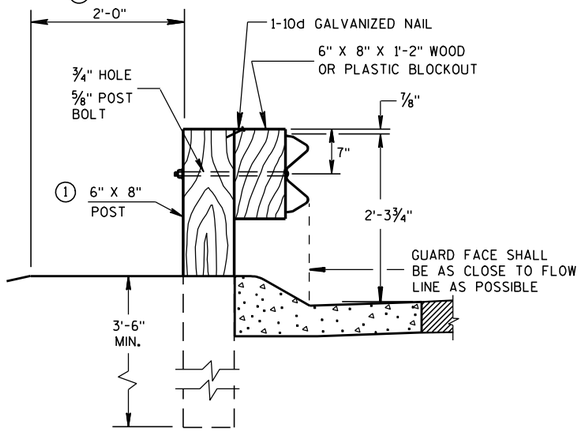
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



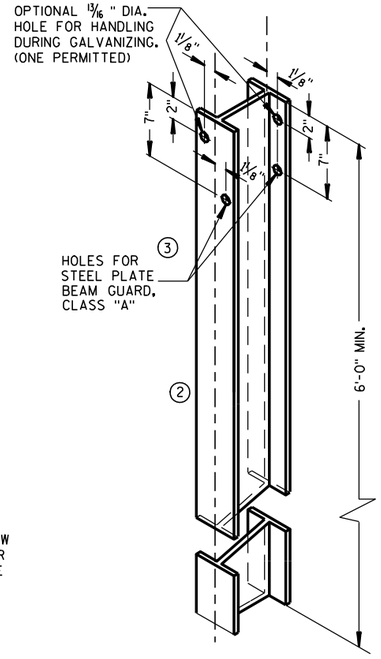
END VIEW
LOCATED ALONG A CURBED ROADWAY



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

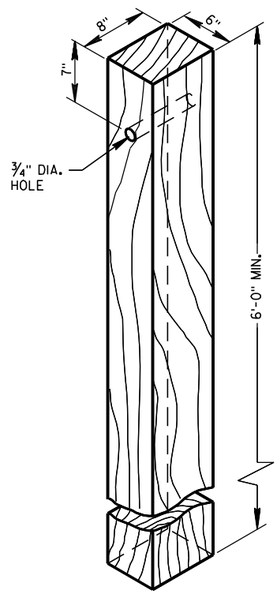


END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

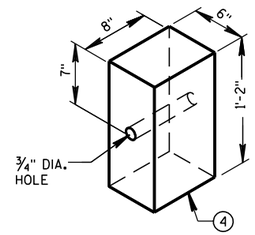


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

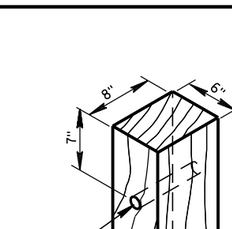
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



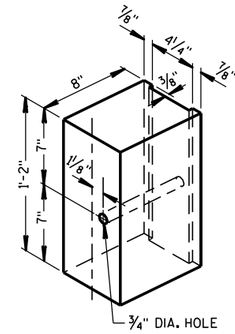
WOOD POST
(6"X8") NOMINAL



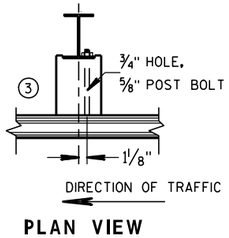
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



TYPICAL NOTCHED
PLASTIC BLOCKOUT (1)
FOR STEEL POSTS



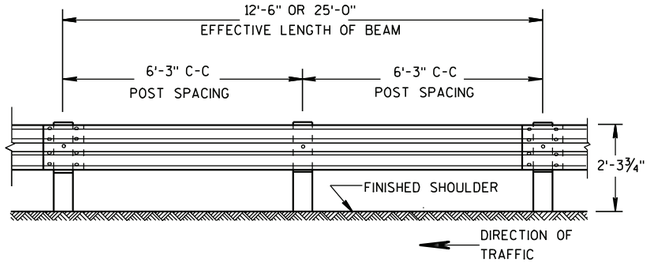
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

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

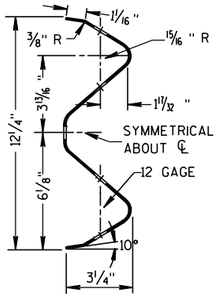
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 15-7a

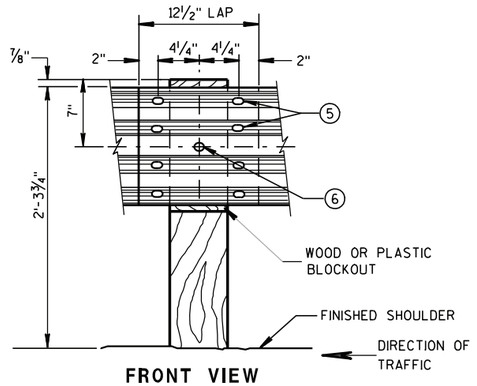


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM

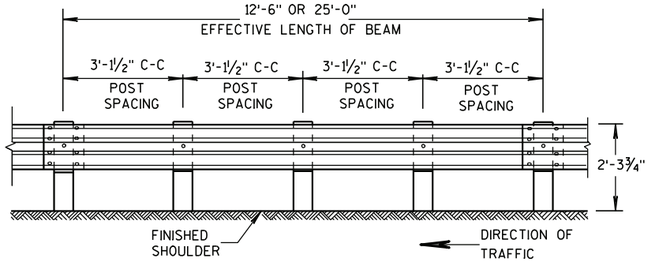


FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

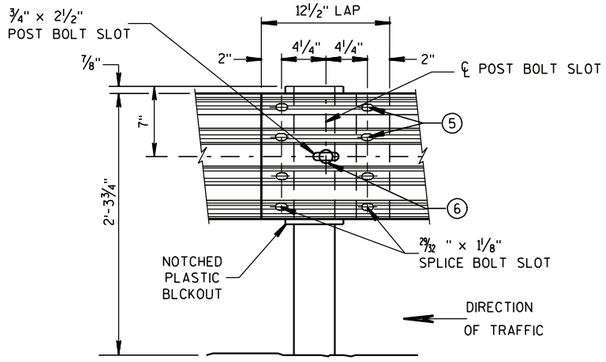
GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 8 - 5/8" ϕ X 2 " BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
6. 5/8" ϕ X 1'-6" BUTTON HEAD BOLT AND AND RECESS NUT WITH ROUND WASHER UNDER NUT.



FRONT VIEW

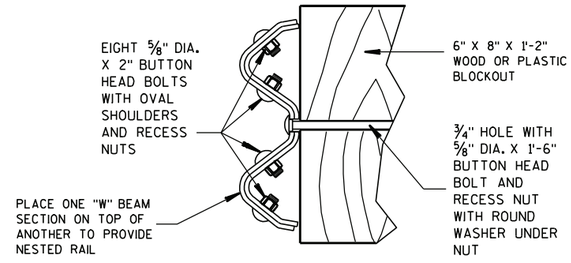
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

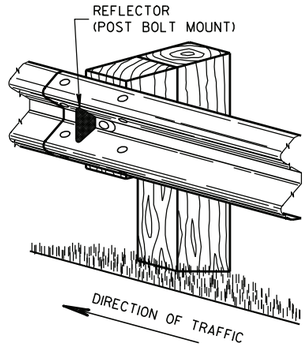


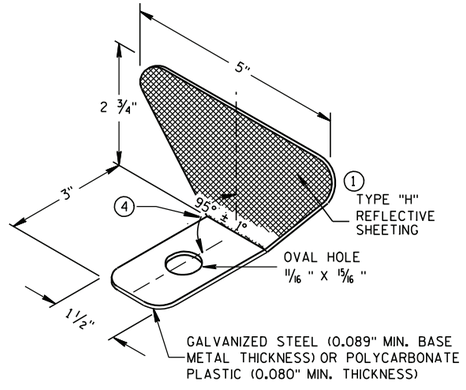
NESTED W BEAM (NW)

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

REFLECTOR SPACING (2)

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (3)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (4)	



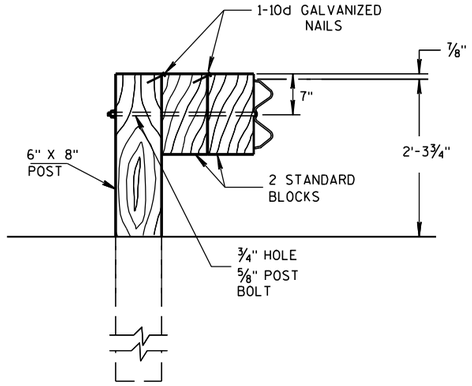


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (1)

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

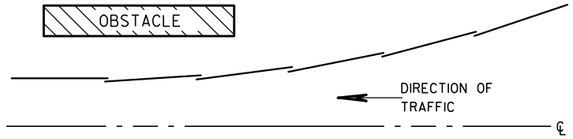
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 15-7b

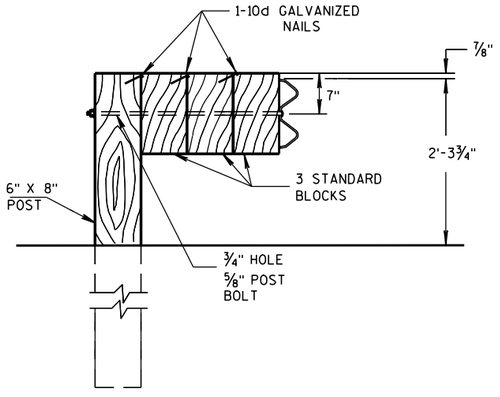


DETAIL FOR DOUBLE BLOCKS

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

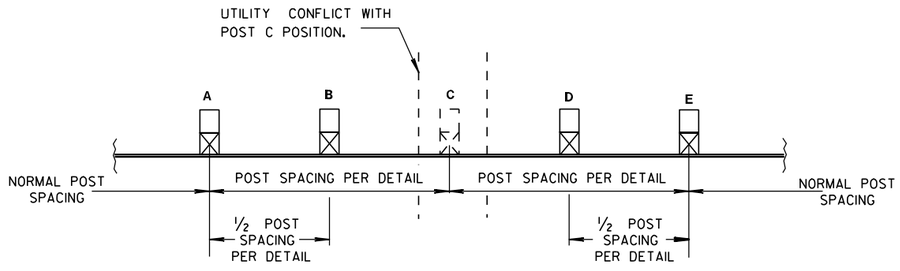


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

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



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/11	/S/ Jerry H. Zogg	
DATE	ROADWAY STANDARDS ENGINEER	ENT

FHWA

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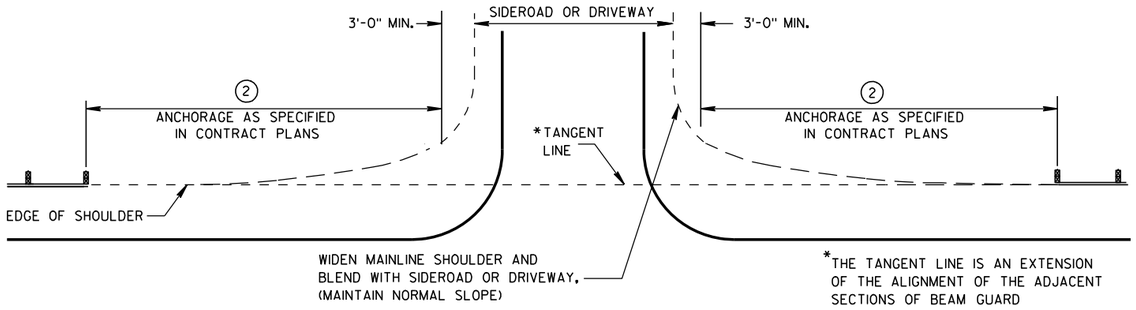
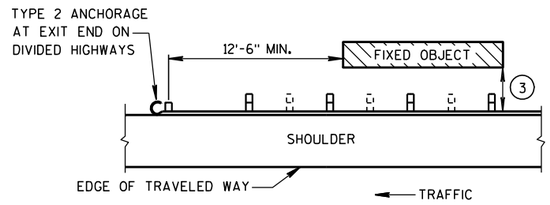
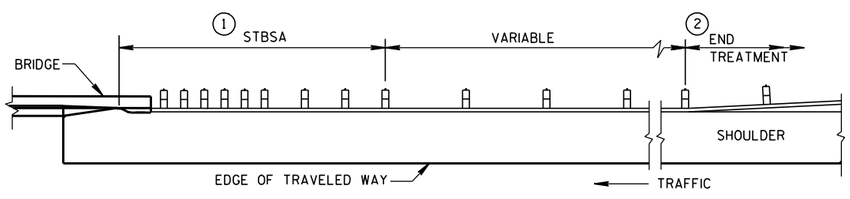
S.D.D. 14 B 15-7c



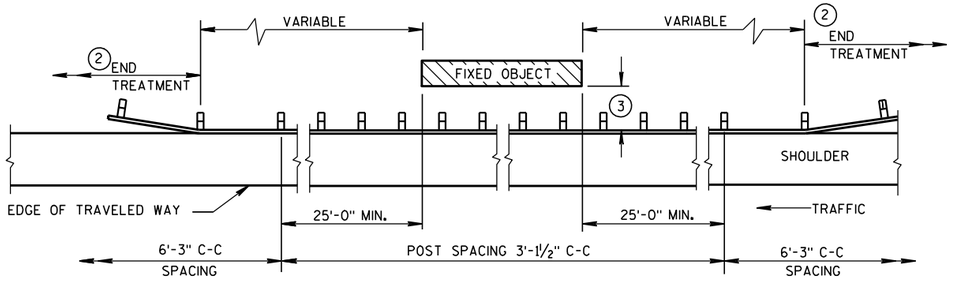
BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

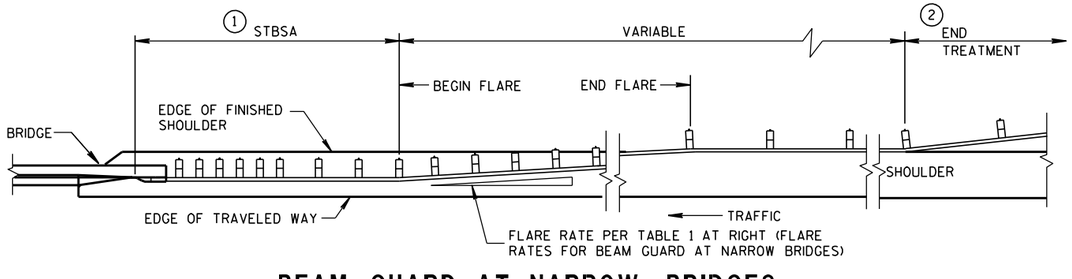


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

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



BEAM GUARD AT NARROW BRIDGES

(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

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

GENERAL NOTES

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

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

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

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-21-07
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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S.D.D. 14 B 18-6a

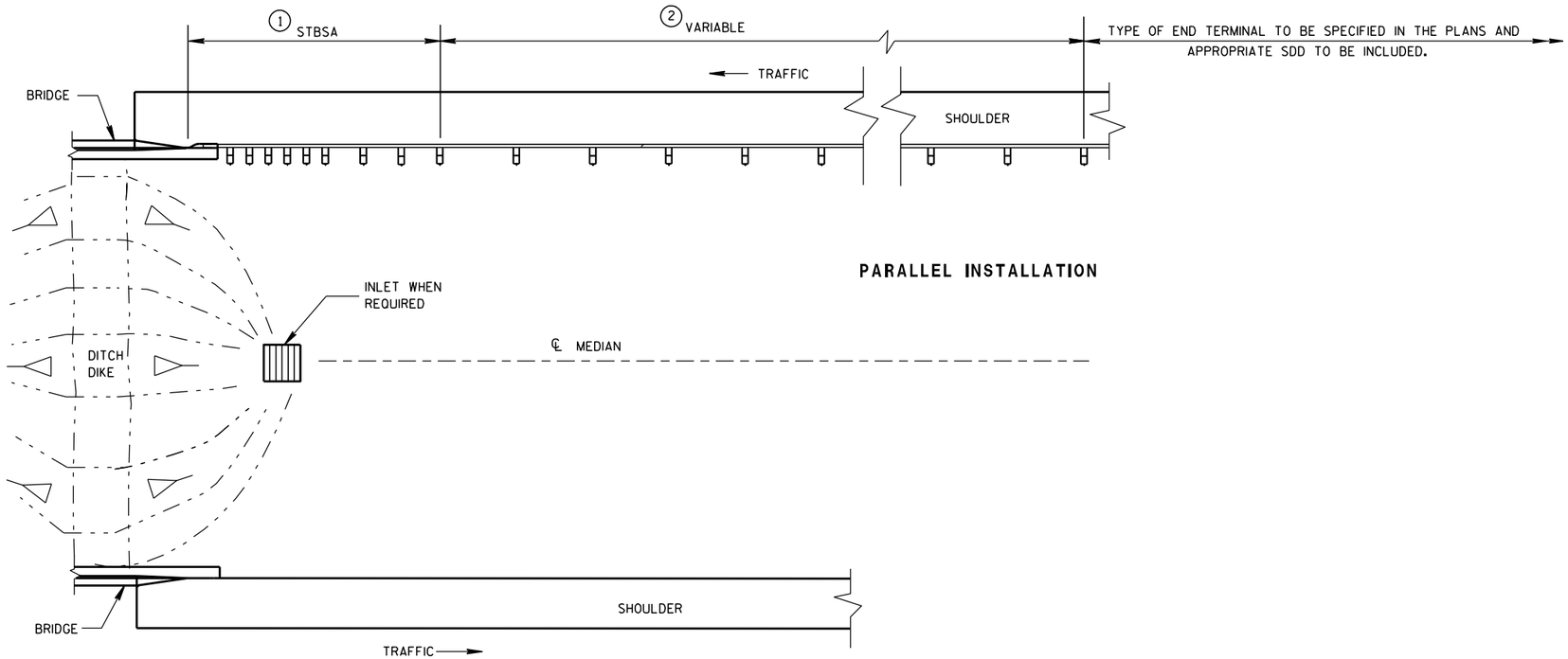
6

S.D.D. 14 B 18-6a

GENERAL NOTES

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

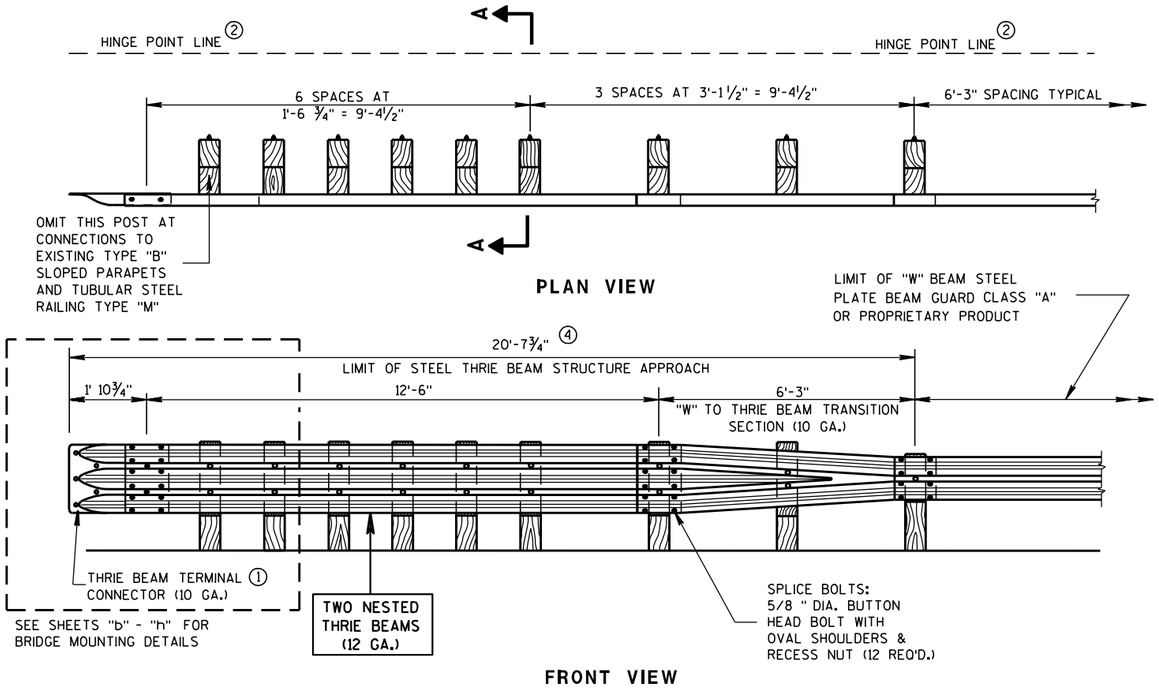
(2) LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.



PARALLEL INSTALLATION

BEAM GUARD AT MEDIAN APPROACH TO BRIDGES

STEEL PLATE BEAM GUARD CLASS "A" AT MEDIAN APPROACH TO BRIDGES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8-21-07 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



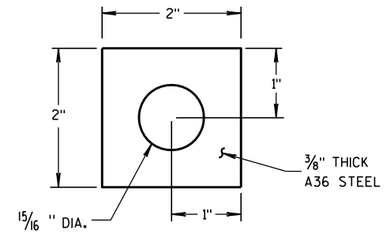


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

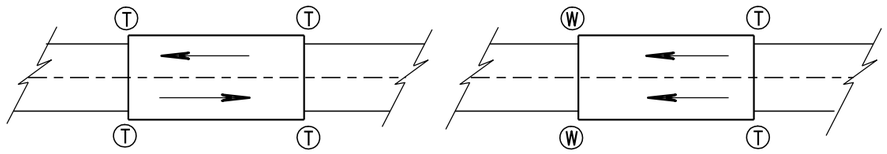
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



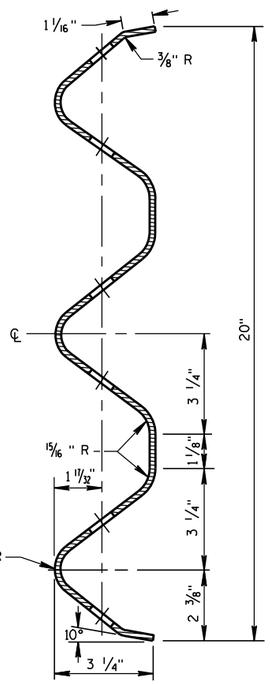
TWO WAY TRAFFIC

ONE WAY TRAFFIC

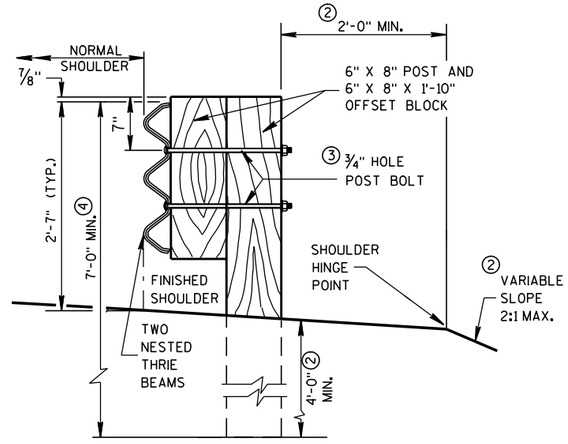
T THRIE BEAM CONNECTION

W W-BEAM CONNECTION WHEN REQUIRED

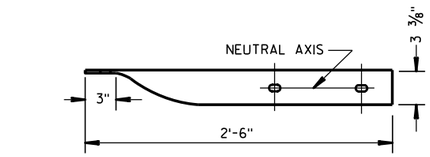
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

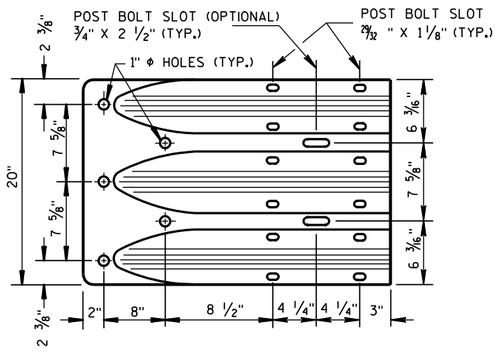


SECTION THRU THRIE BEAM RAIL ELEMENT

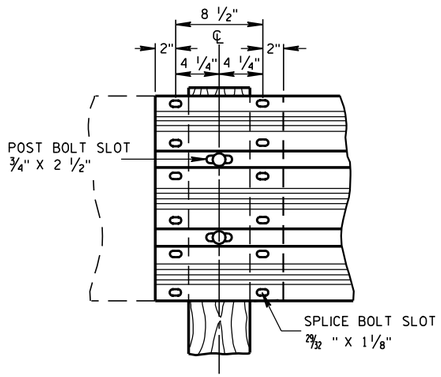


SECTION A-A





THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS 1969
ENGINEER

FHWA

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S.D.D. 14 B 20-11a

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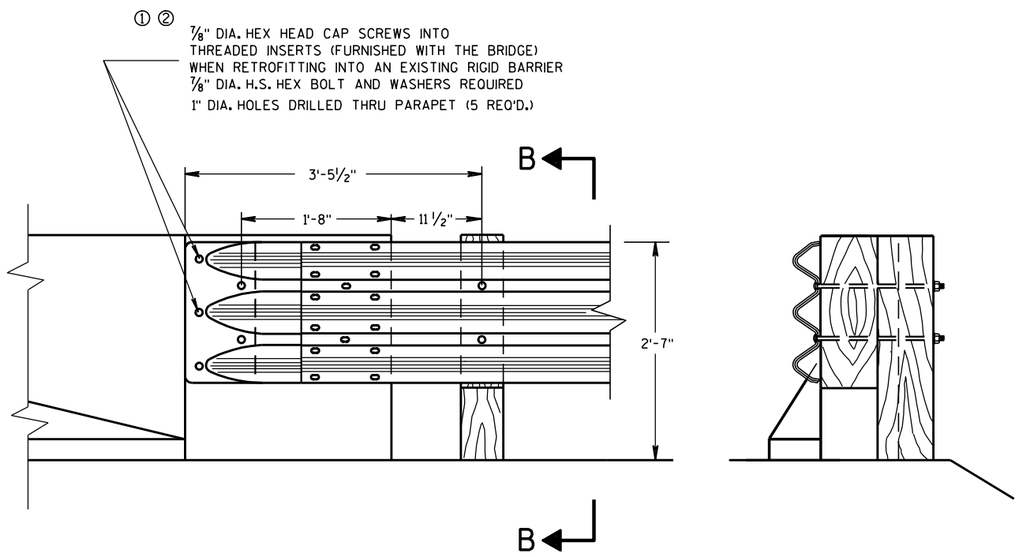
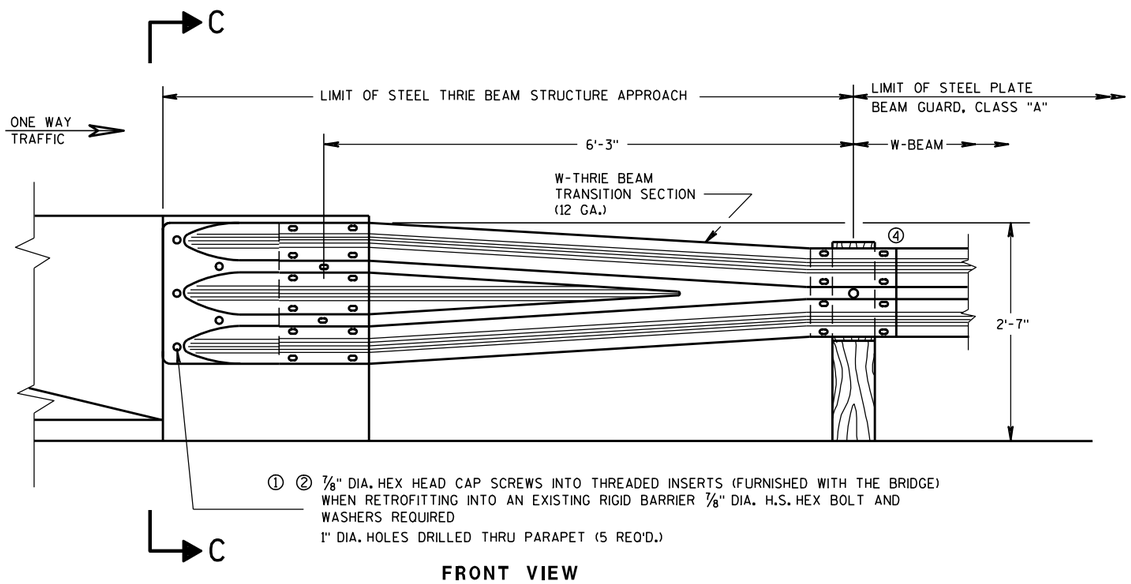


FRONT VIEW

SECTION B-B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED
1" DIA. HOLES DRILLED THRU PARAPET (5 REQ'D.)

FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

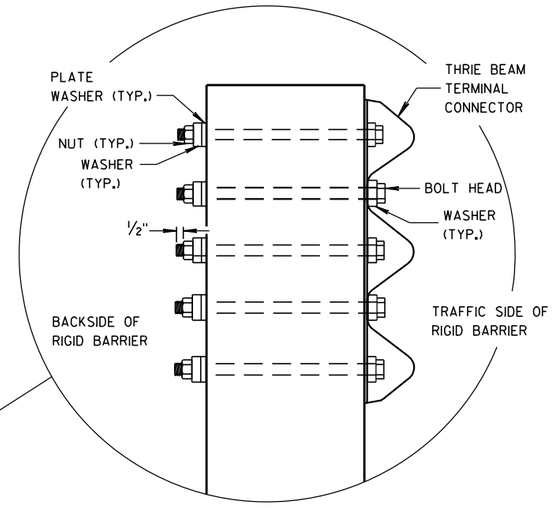
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

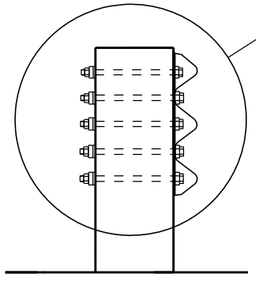
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.





SECTION C-C

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS (970)
ENGINEER
FHWA

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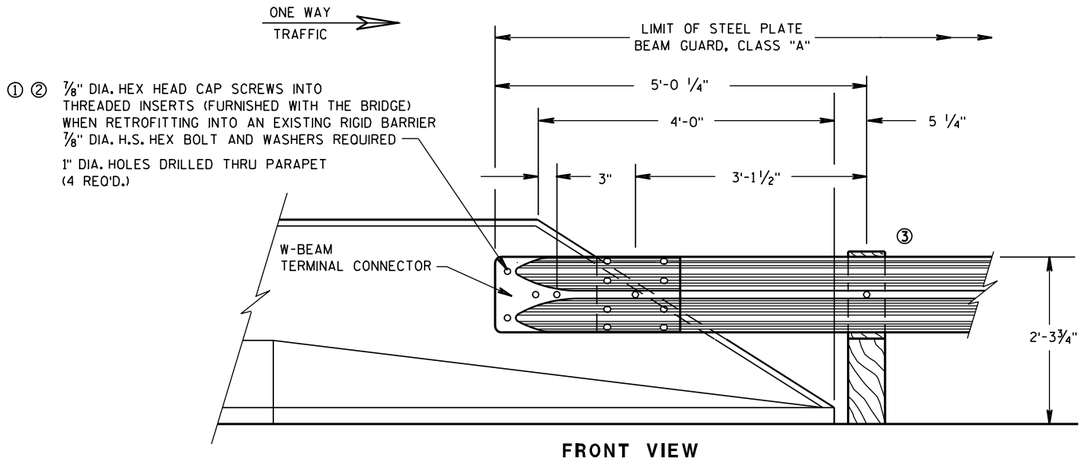

FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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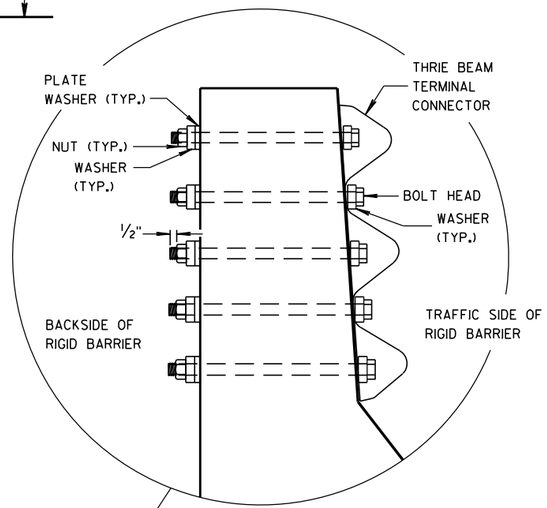
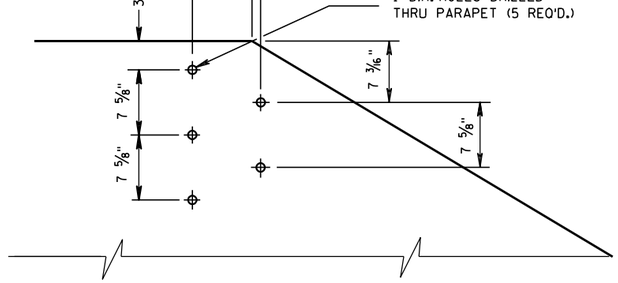
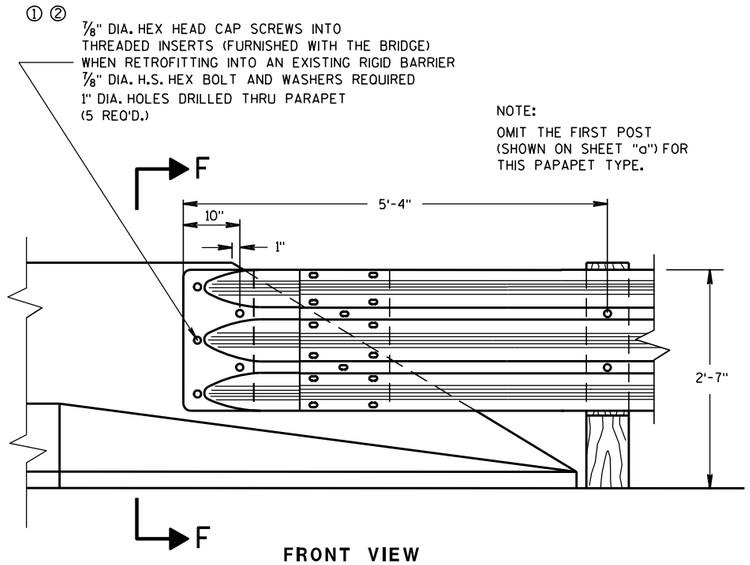
③ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

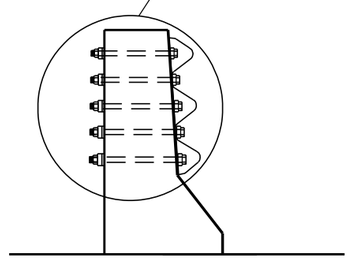




DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION F-F

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS [illegible] ENGINEER
FHWA

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S.D.D. 14 B 20-11d

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S.D.D. 14 B 20-11d

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

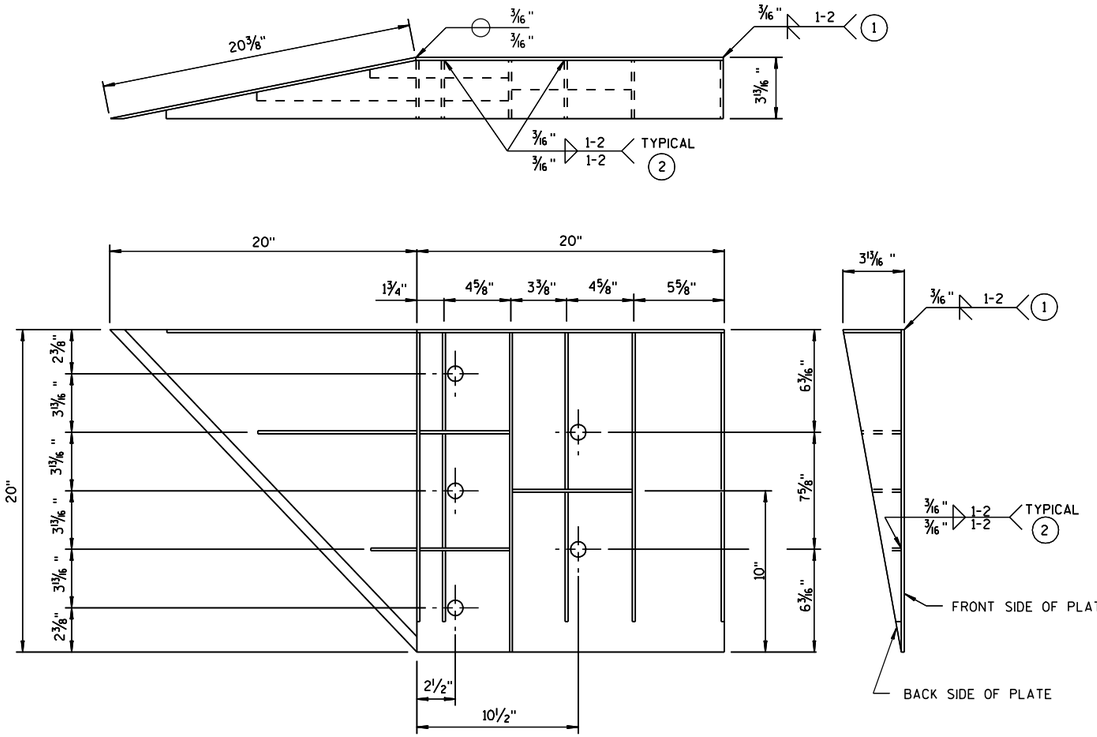
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

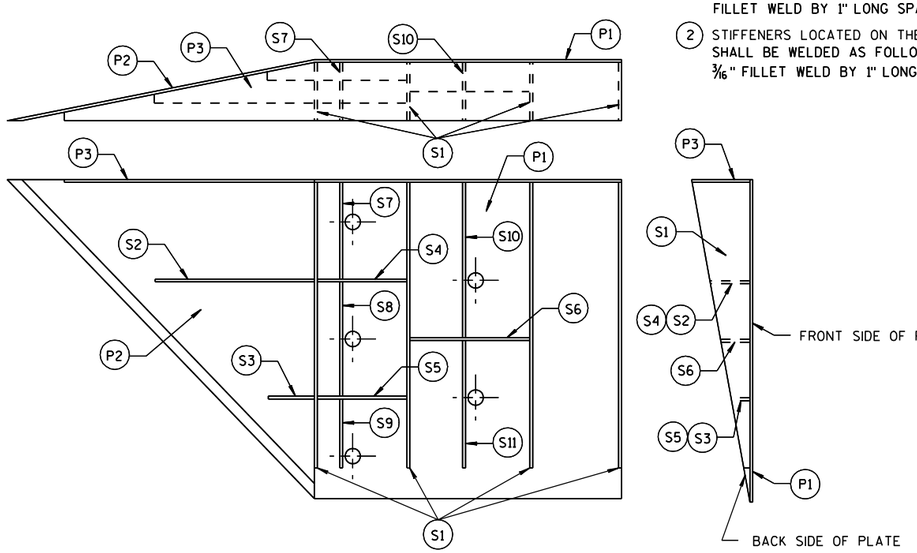


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

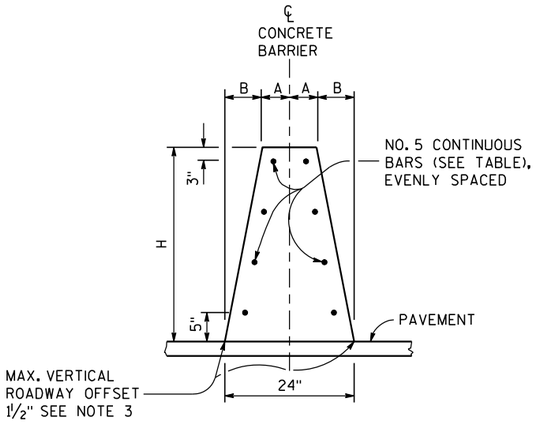
PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

STEEL THRIE BEAM STRUCTURE APPROACH

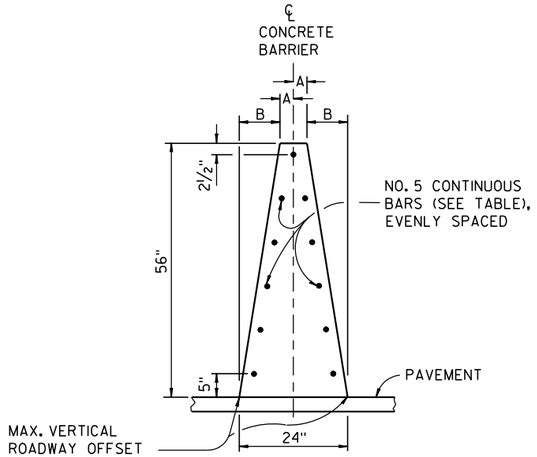
STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

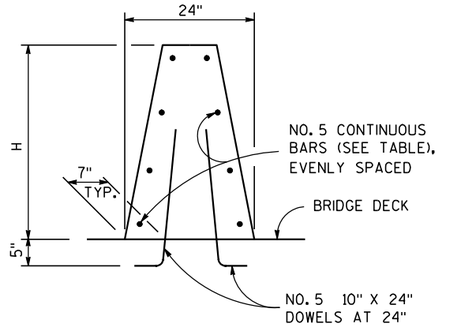
APPROVED
8/31/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA



32-INCH, 36-INCH OR 42-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S32, TYPE S36, AND TYPE S42)



56-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S56)



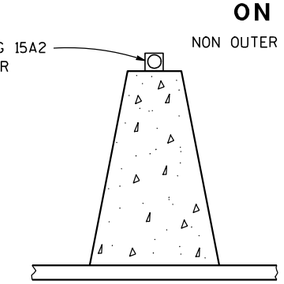
SINGLE SLOPE CONCRETE BARRIER ON BRIDGE

NON OUTER PARAPET APPLICATION

GENERAL NOTES

1. WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.
2. EXPANSION JOINTS IN CONCRETE BARRIER SHALL BE LOCATED AT ALL DECK, PAVEMENT AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL SHALL BE THE SAME SIZE AS JOINT OR ½" MINIMUM.
3. WHERE VERTICAL ROADWAY OFFSET IS GREATER THAN 1½", USE TYPE A
4. PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.
5. EXCEPT IN ANCHORS, VERTICAL REINFORCING STIRRUP NOT REQUIRED FOR ROADWAY OFFSETS LESS THAN 1'-0".
6. FOR TYPE S32, TYPE S36, TYPE S42, AND S56 MONOLITHIC FOOTING OR DOWELED FOOTING WITH 2-#8 x 8" @ 2'-0".
7. STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL 2 FEET. BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.
8. 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.
9. WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.
10. USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
11. 2" CLEAR COVER TYPICAL.
12. COLD-JOINTS MAY BE USED BETWEEN ANCHOR INSTALLATIONS. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED. LAPS TO BE FIRMLY TIED
13. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 NO ADDITIONAL VERTICAL STEEL NEEDED. IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A REQUIRES VERTICAL STEEL. SEE OTHER DETAIL
14. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 DEPTH OF FOOTING 10". IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A MATCH TOTAL HEIGHT OF SINGLE SLOPE BARRIER RETAINING WALL.
15. FOR ALL BARRIER TYPES SHOWN, ANCHOR IS REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN ON DRAWING OR DETAILS SHOWN ON S.D.D. 14B33. ANCHORS INCIDENTAL TO CBSS.

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6¼	5¾	8
42	5¼	6¾	10
56	3	9	11



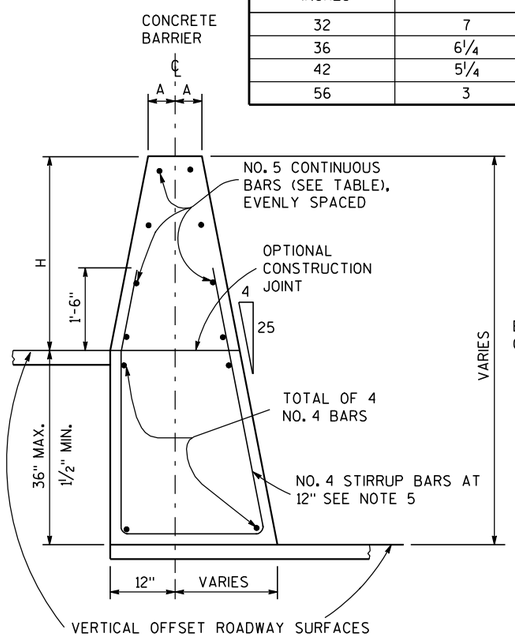
DELINEATION

DELINEATOR SPACING ON HORIZONTAL CURVES

RADIUS OF CURVE	APPROXIMATE SPACING ON CURVE
50 FEET	20 FEET
115 FEET	25 FEET
180 FEET	35 FEET
250 FEET	40 FEET
300 FEET	50 FEET
400 FEET	55 FEET
500 FEET	65 FEET
600 FEET	70 FEET
700 FEET	75 FEET
800 FEET	80 FEET
900 FEET	85 FEET
1000 FEET	90 FEET

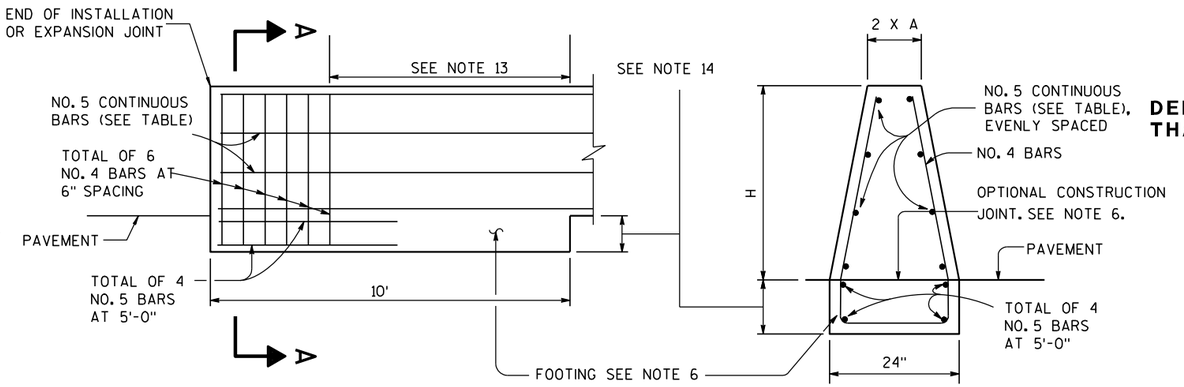
DELINEATOR SPACING ON RADIUS GREATER THAN 1000 FEET OR TANGENT SECTIONS

	LENGTH OF BARRIER	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2	



SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL (TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)

(BETWEEN ADJACENT ROADWAYS)



END ANCHOR SINGLE SLOPE CONCRETE BARRIER

AT CONSTRUCTION JOINT

SECTION A-A

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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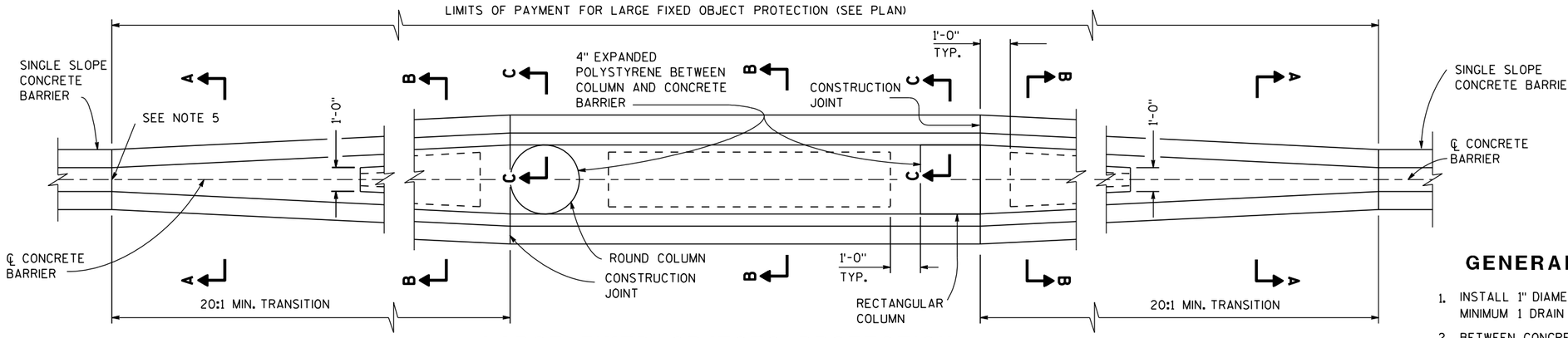
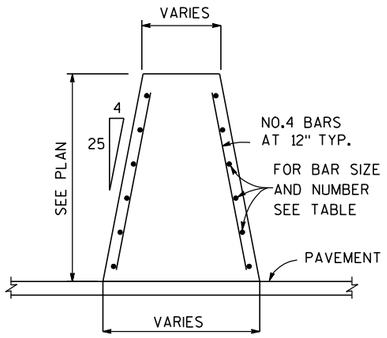
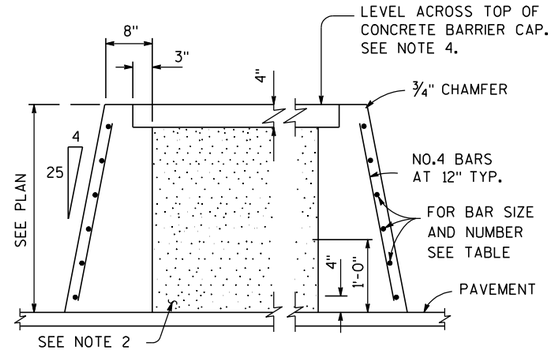
S.D.D. 14 B 32-1a



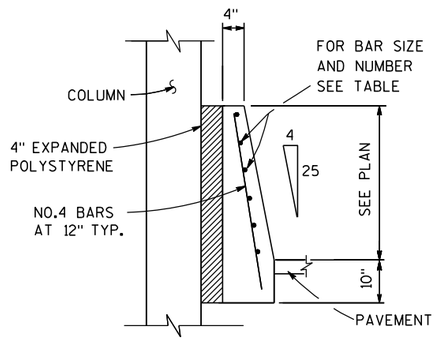
LARGE FIXED OBJECTS PROTECTION
TYPE S32, TYPE S36, TYPE S42, TYPE S56



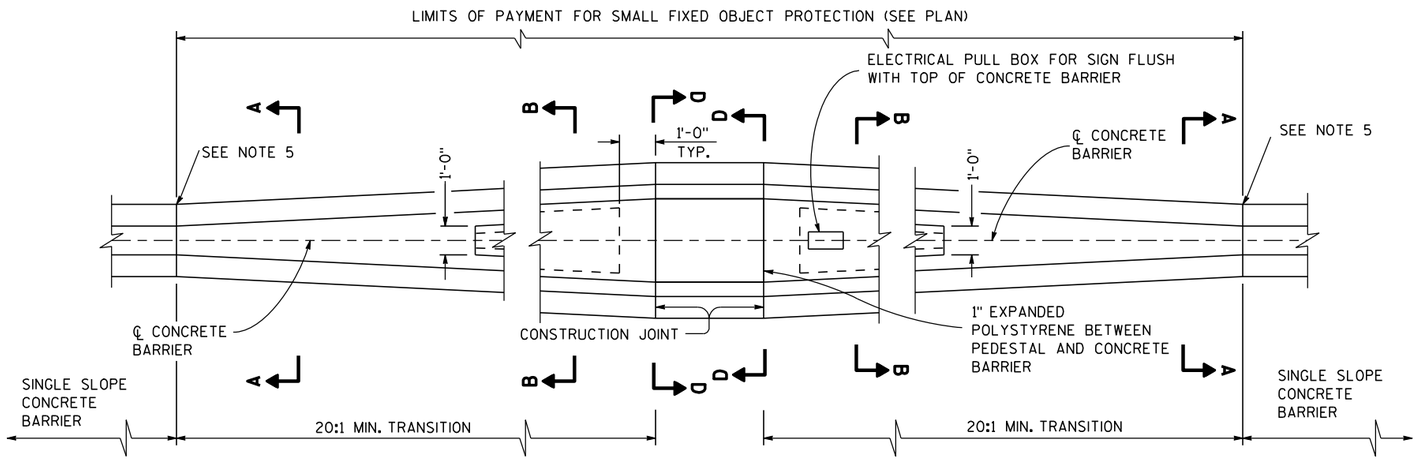
SECTION A-A



SECTION B-B



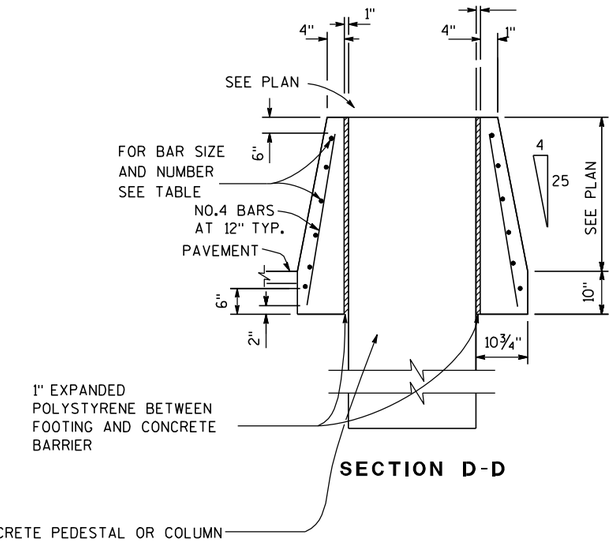
SECTION C-C



SMALL FIXED OBJECTS PROTECTION
TYPE S32, TYPE S36, TYPE S42, TYPE S56

GENERAL NOTES

1. INSTALL 1" DIAMETER DRAIN PIPE EVERY 20' OF CROSS SECTION B-B. MINIMUM 1 DRAIN PER CAVITY.
2. BETWEEN CONCRETE BARRIER WALLS FILL WITH GRANULAR BACKFILL GRADE 2
3. REINFORCING STEEL SHALL EXTEND CONTINUOUS THROUGH CONSTRUCTION JOINTS.
4. ADJUST HEIGHT OF CONCRETE BARRIER WALL ON LOW SIDE OF OFFSET OR SUPERELEVATED ROADWAYS TO PROVIDE LEVEL GRADE ACROSS TOP OF CONCRETE CAP.
5. IF FIXED OBJECT PROTECTION IS INSTALLED FIRST, USE COLD JOINTS. IF CBSS PLACED FIRST, USE EXPANSION JOINT.



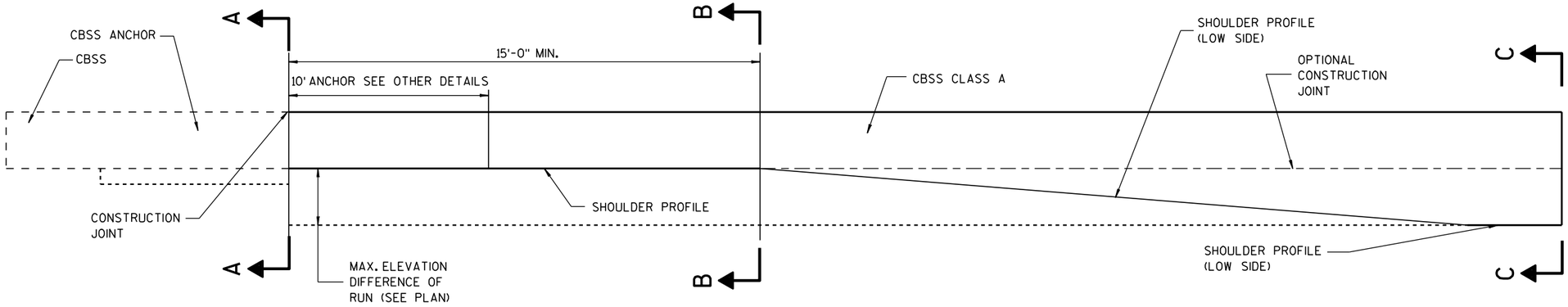
SECTION D-D

BARRIER HEIGHT H INCHES	BAR SIZE	NUMBER OF BARS EACH
32	4	6
36	4	6
42	5	6
56	5	9

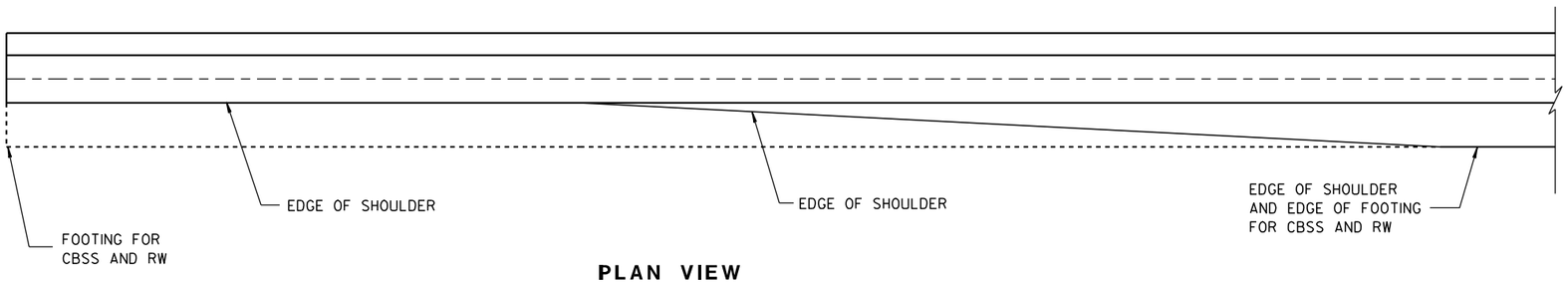
CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

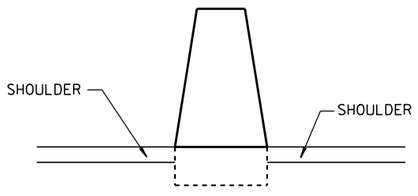
6
S.D.D. 14 B 32-1b



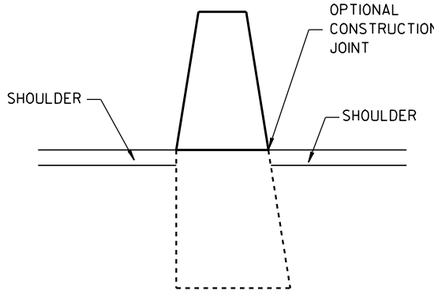
ELEVATION VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



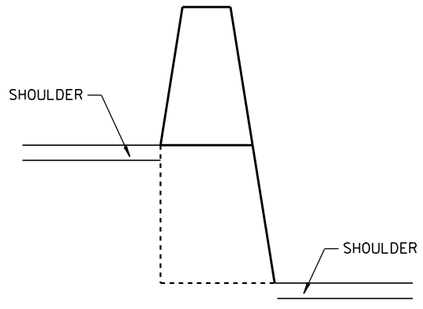
PLAN VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



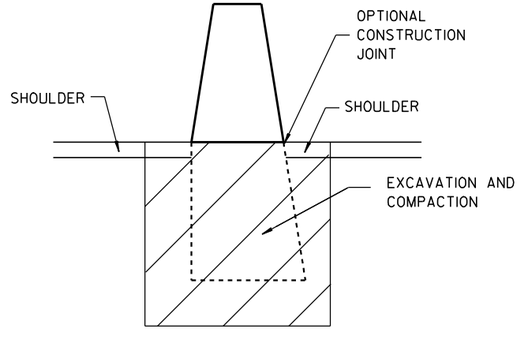
SECTION A-A



SECTION B-B



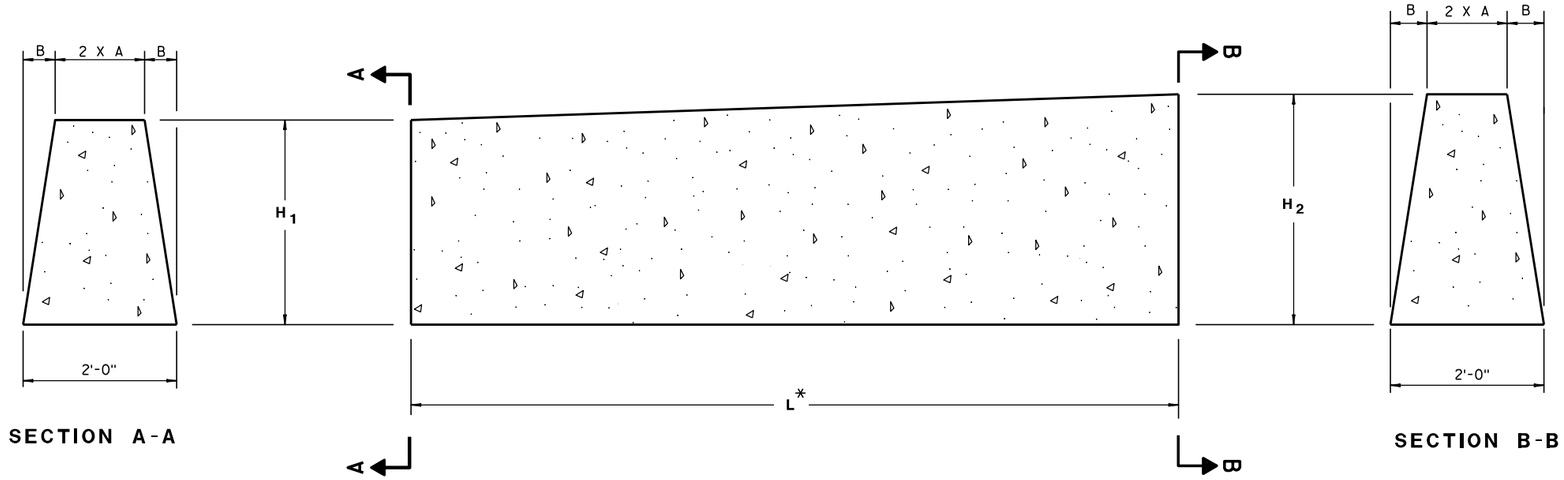
SECTION C-C



CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 32-1c



DOUBLE COLD JOINT HEIGHT TRANSITION

BARRIER DIMENSIONS

BARRIER HEIGHT INCHES	A INCHES	B INCHES
32	7	5
36	6 1/4	5 3/4
42	5 1/4	6 3/4
56	3	9

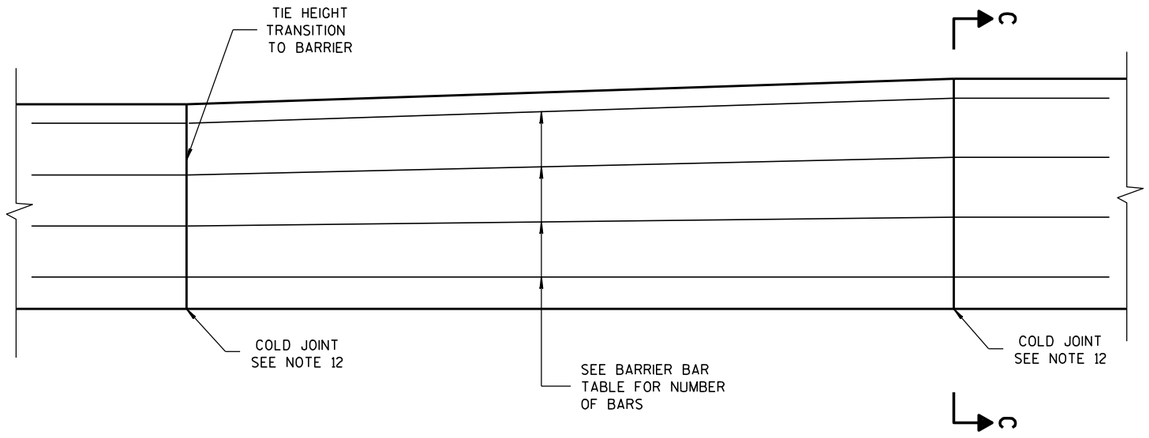
MULTIPLE HEIGHT TRANSITIONS MAY BE USED IN SEQUENCE TO GET TO APPROPRIATE HEIGHT.

USE COLD JOINT TO CONNECT MULTIPLE HEIGHT TRANSITIONS.

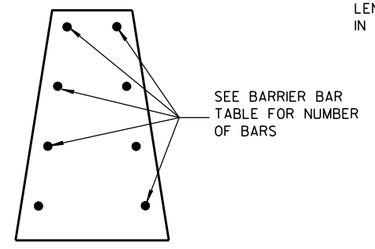
BARRIER BARS

H_1	H_2	L*	NUMBER OF NO. 5 BARS
32"	36"	10'-0"	8
36"	42"	10'-6"	10
42"	56"	24'-6"	11

* LENGTH OF DOUBLE COLD JOINT INCLUDED IN THE TOTAL LENGTH OF CBSS.



STEEL REINFORCEMENT DETAIL



SECTION C-C

CONCRETE BARRIER SINGLE SLOPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6-3-2010
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

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S.D.D. 14 B 32-1d

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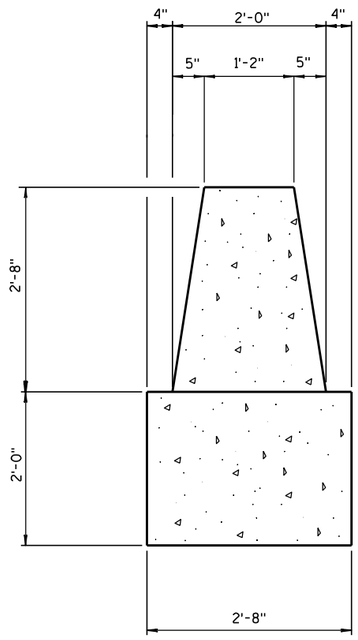
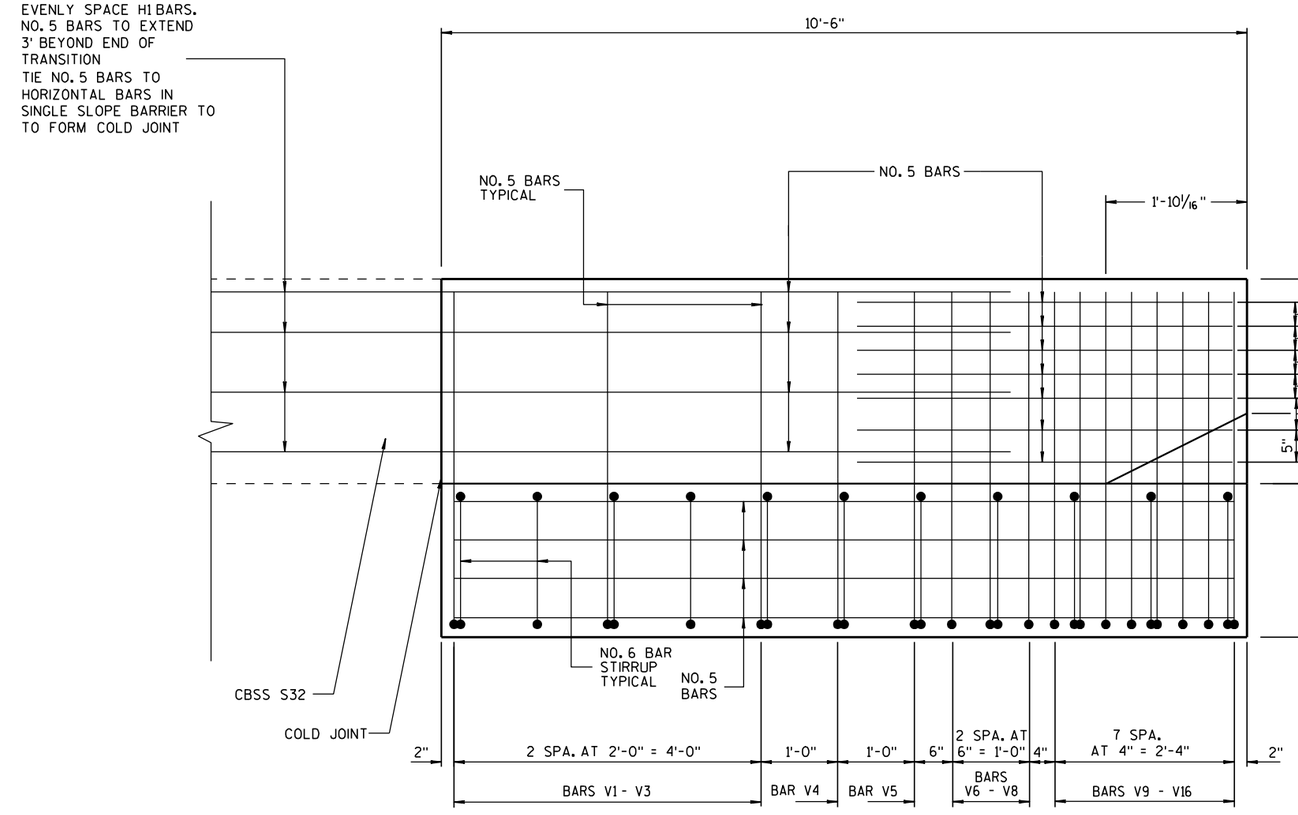
S.D.D. 14 B 32-1d

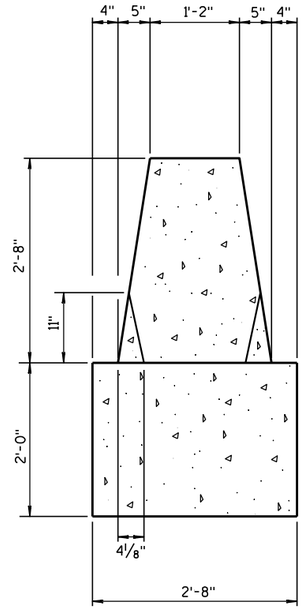


SECTION A-A

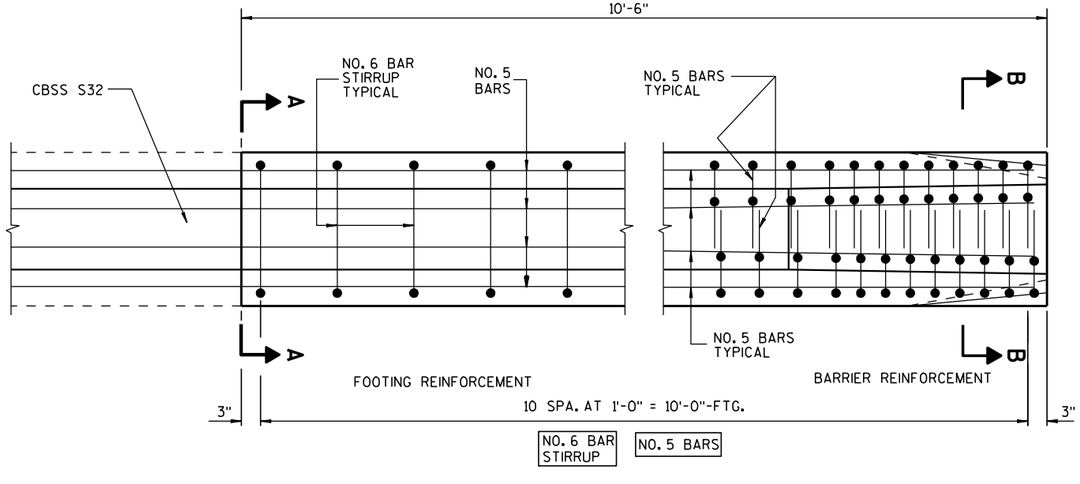


SEE SECTIONS (1) THRU (16)

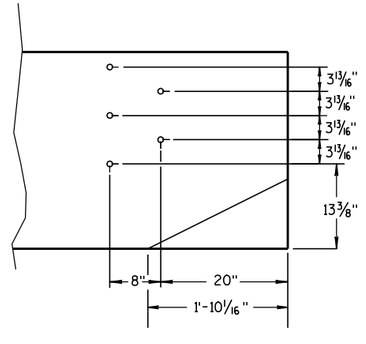
ELEVATION VIEW



SECTION B-B



PLAN VIEW



PVC PIPE LOCATIONS

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THRIE BEAM ANCHOR INCIDENTAL TO CONCRETE BARRIER ITEM.

INSTALL SCHEDULE 40 PVC PIPE 1" DIAMETER AT LOCATIONS INDICATED.

EXTEND PVC PIPE COMPLETELY THROUGH BARRIER.

CUT ENDS OF PVC PIPE FLUSH WITH FINISHED FACE of BARRIER.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

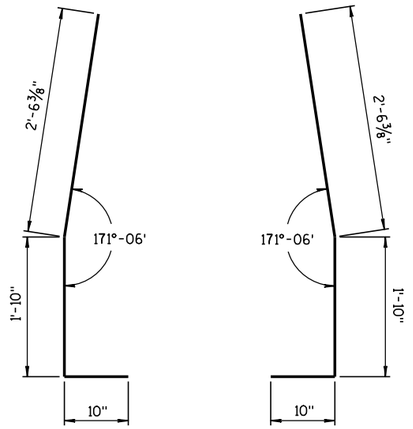
2" CLEAR COVER TYPICAL.

CONCRETE BARRIER
SINGLE SLOPE 32"
THRIE BEAM ANCHOR

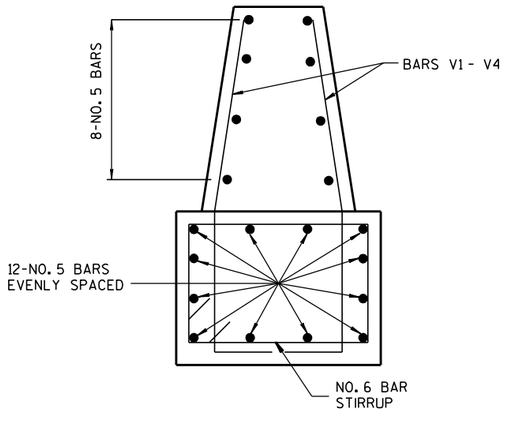
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6

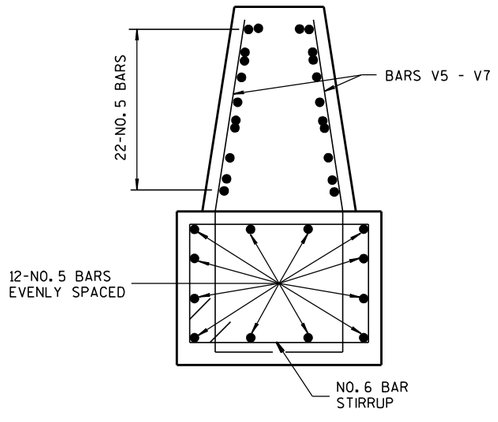
S.D.D. 14 B 33-1a



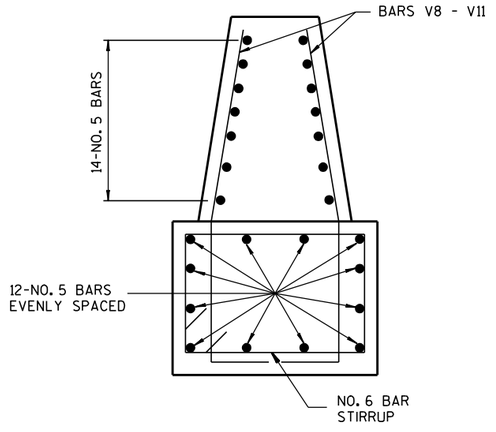
BAR BENDING DETAIL
FOR BARS V1 - V11



BAR DETAIL
SECTIONS 1 - 4



BAR DETAIL
SECTIONS 5 - 7



BAR DETAIL
SECTIONS 8 - 11

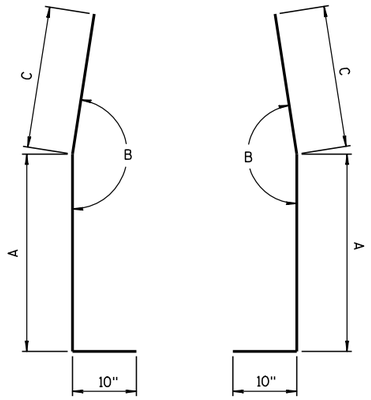
CONCRETE BARRIER
SINGLE SLOPE 32"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 33-1b

BAR CHART
SECTIONS V12 - V13

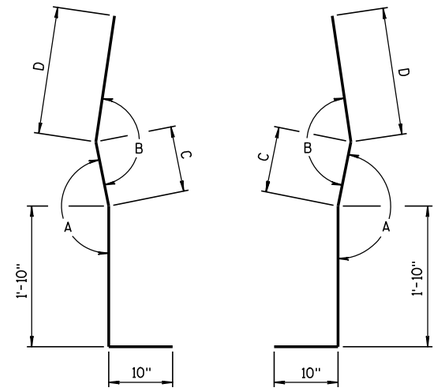
BAR	A	B	C
V12	2'-2"	171°-15'	2'-1 3/4"
V13	2'-7"	171°-05'	1'-9 3/8"



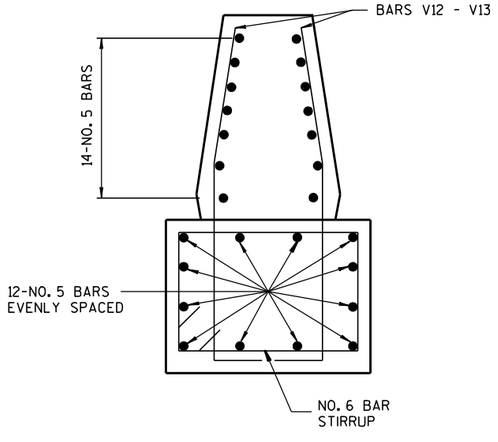
BAR BENDING DETAIL
FOR BARS V12 - V13

BAR CHART
SECTIONS V14 - V16

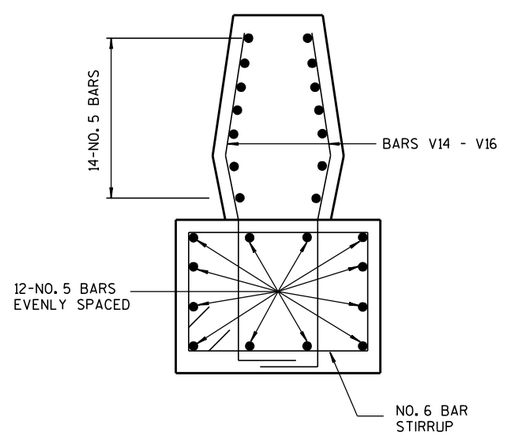
BAR	A	B	C	D
V14	168°-15'	159°-15'	6"	2'-0"
V15	169°-20'	161°-00'	8"	1'-10"
V16	168°-40'	160°-10'	10"	1'-8"



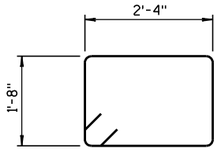
BAR BENDING DETAIL
FOR BARS V14 - V16



BAR DETAIL
SECTIONS 12 - 13



BAR DETAIL
SECTIONS 14 - 16



STIRRUP BAR
BENDING DETAIL

CONCRETE BARRIER
SINGLE SLOPE 32"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6-3-2010
DATE

/S/ Jerry H. Zoss
ROADWAY STANDARDS ENGINEER

979

FHWA

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S.D.D. 14 B 33-1c

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S.D.D. 14 B 33-1c

GENERAL NOTES

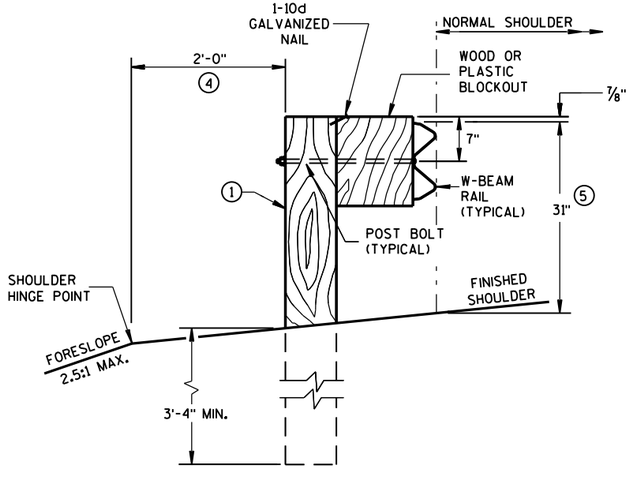
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

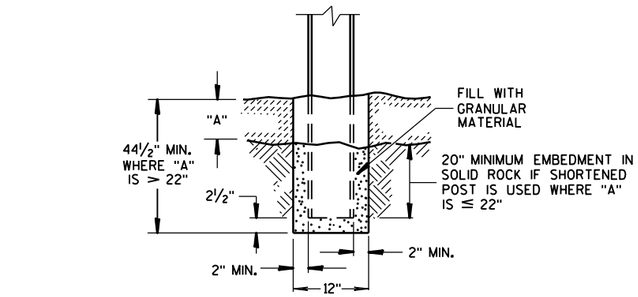
4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".



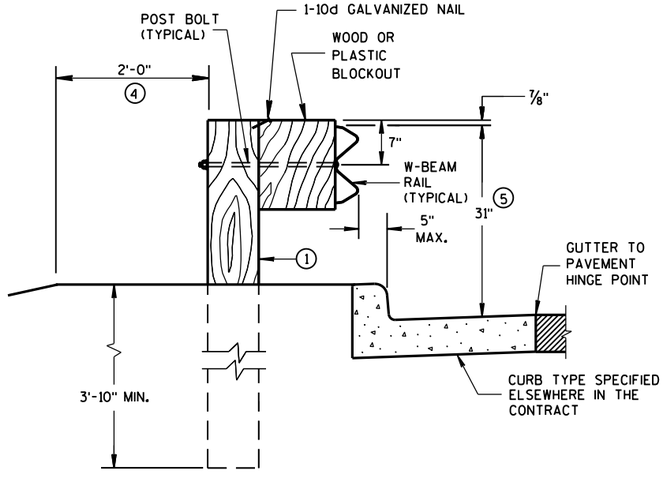
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



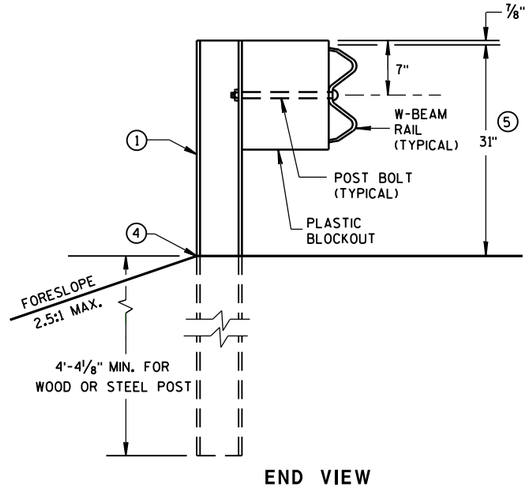
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



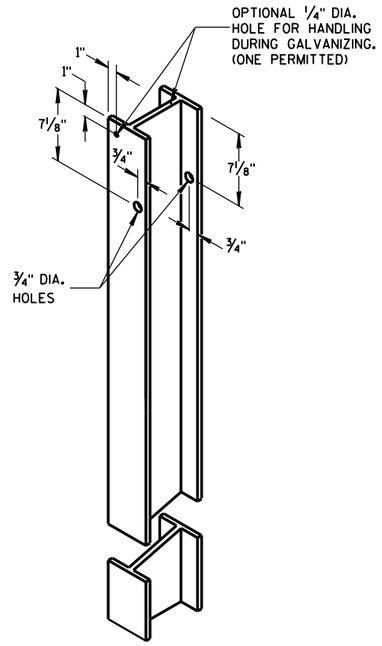
END VIEW

LOCATED ALONG A CURBED ROADWAY

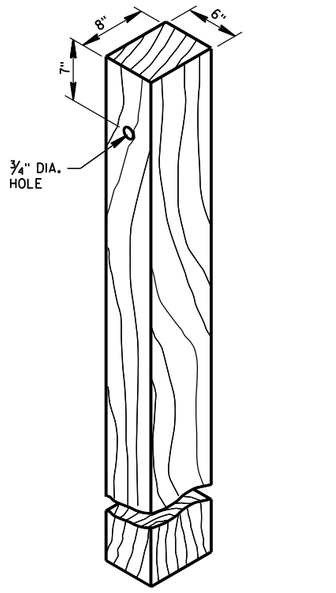


END VIEW

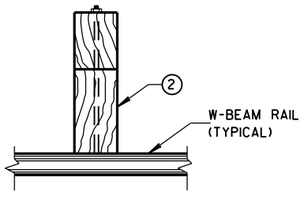
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



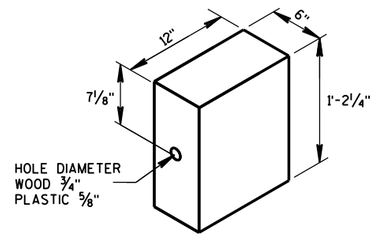
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



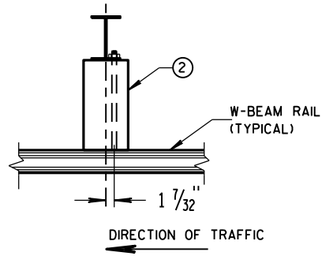
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO 980

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S.D.D. 14 B 42-2a

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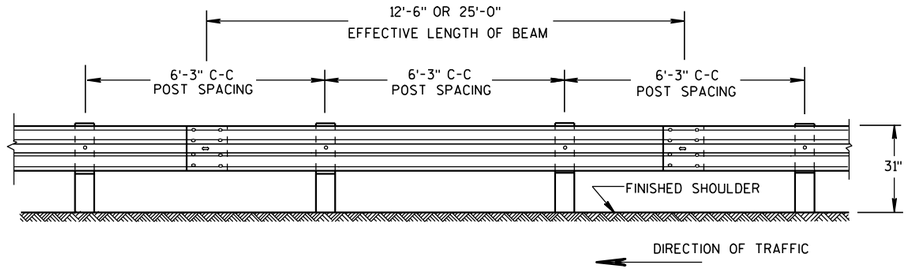
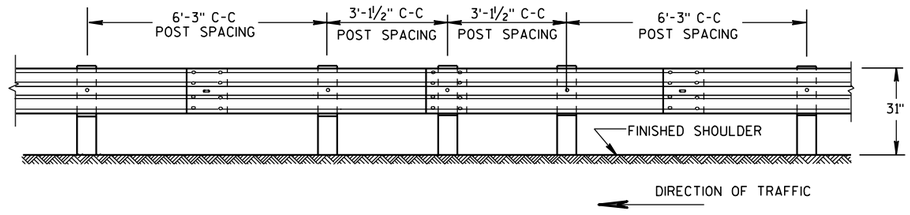
S.D.D. 14 B 42-2a



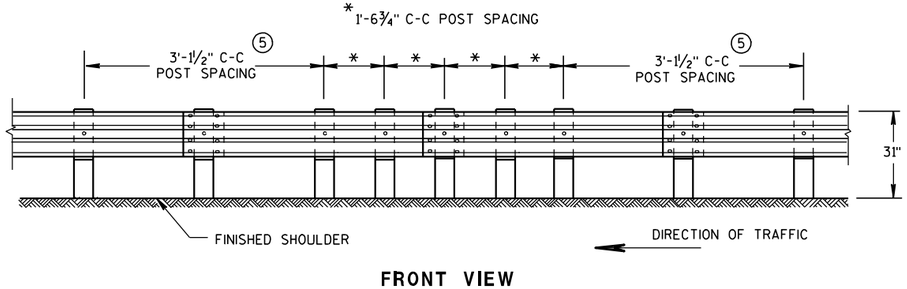
FRONT VIEW

POST SPACING STANDARD INSTALLATION



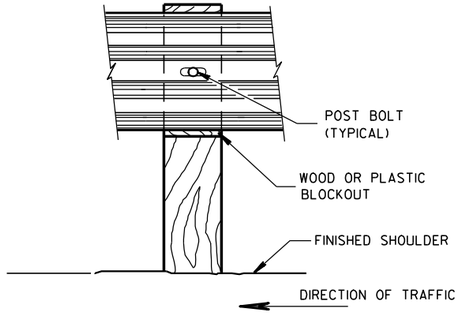
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

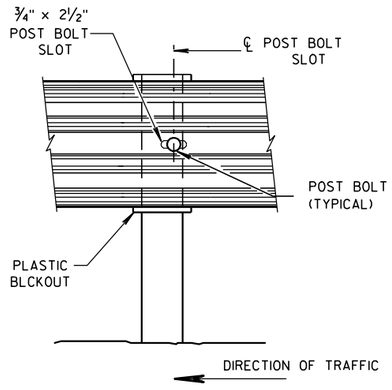


FRONT VIEW

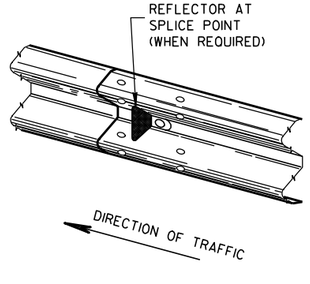
QUARTER POST SPACING (QS)

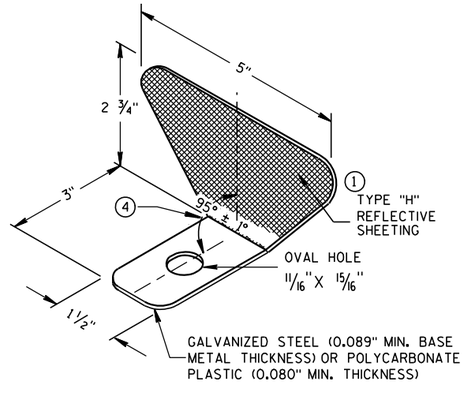


FRONT VIEW AT WOOD POST

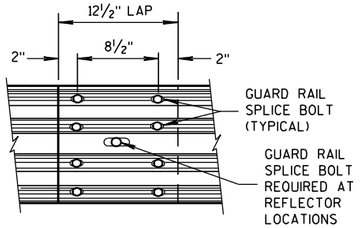


FRONT VIEW AT STEEL POST



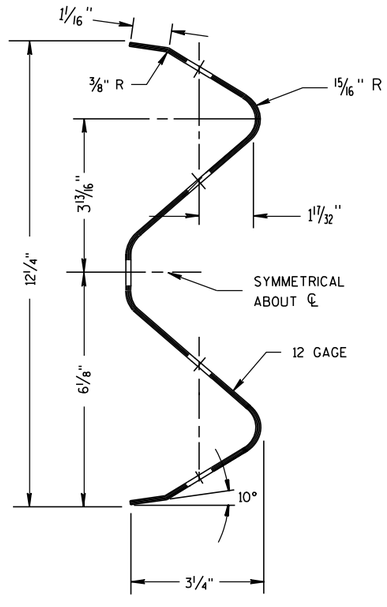


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①



FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL

GENERAL NOTES

① PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.

② DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

③ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

④ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑤ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

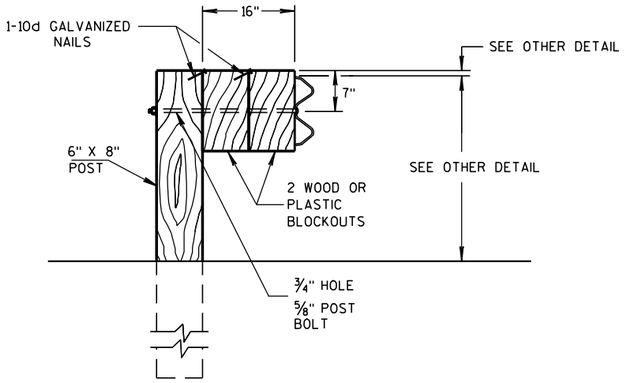
REFLECTOR SPACING ②

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ③ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 ④ 2	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

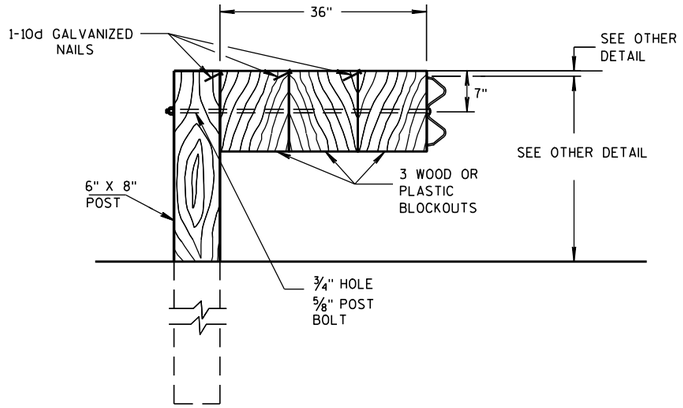
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 42-2b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

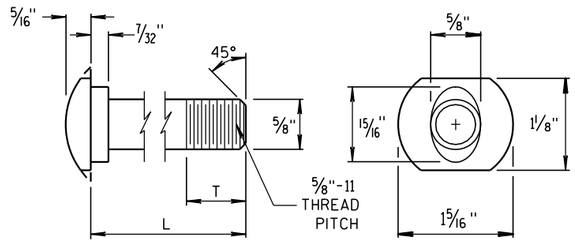


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

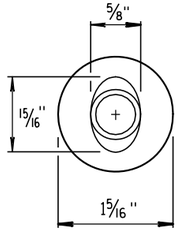
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

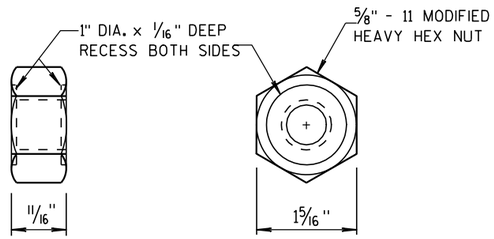


POST BOLT TABLE

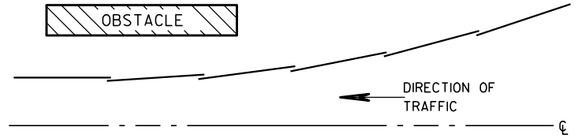
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

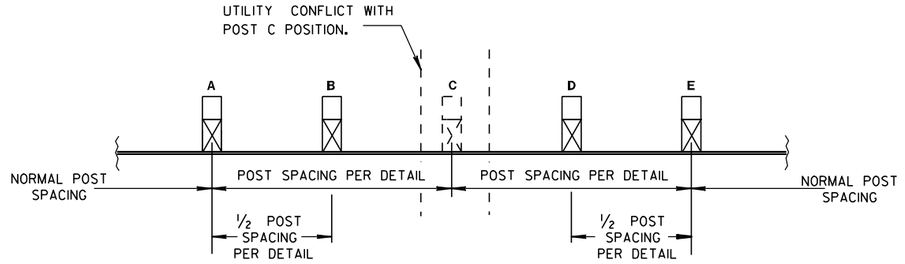


POST BOLT AND RECESS NUT

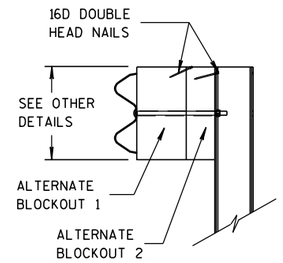


PLAN VIEW

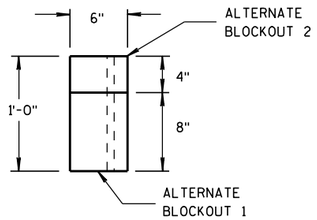
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

982

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6

S.D.D. 14 B 42-2c

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S.D.D. 14 B 42-2c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

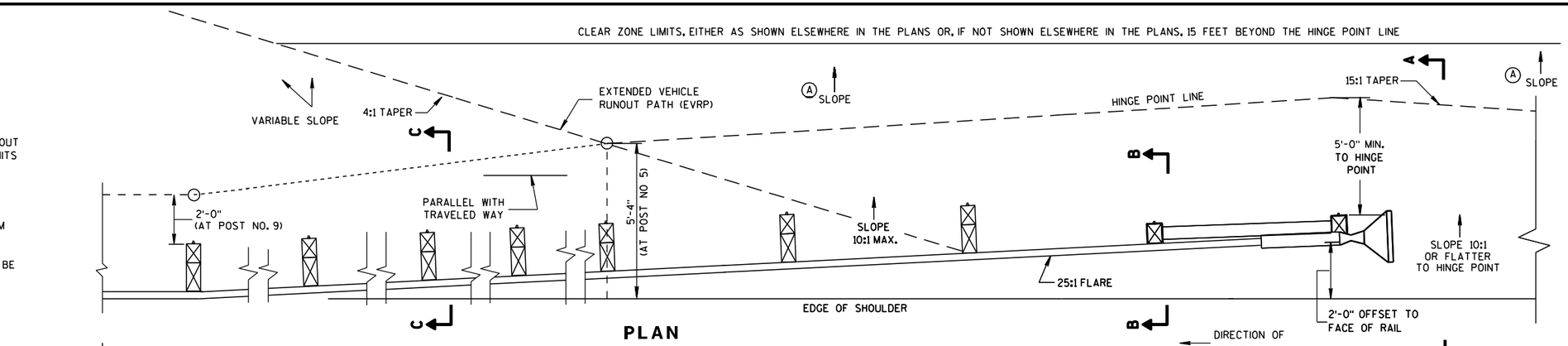
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

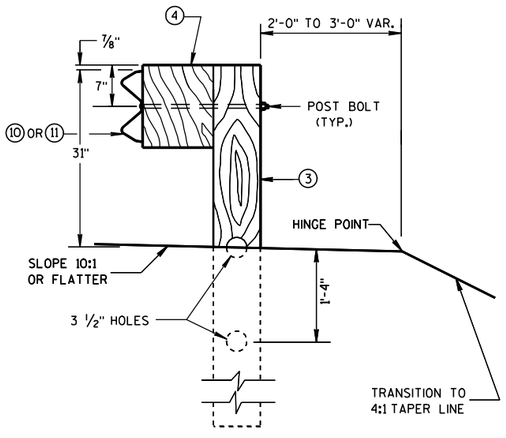
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

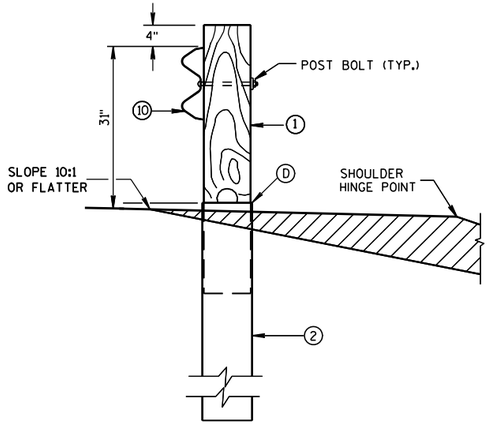
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

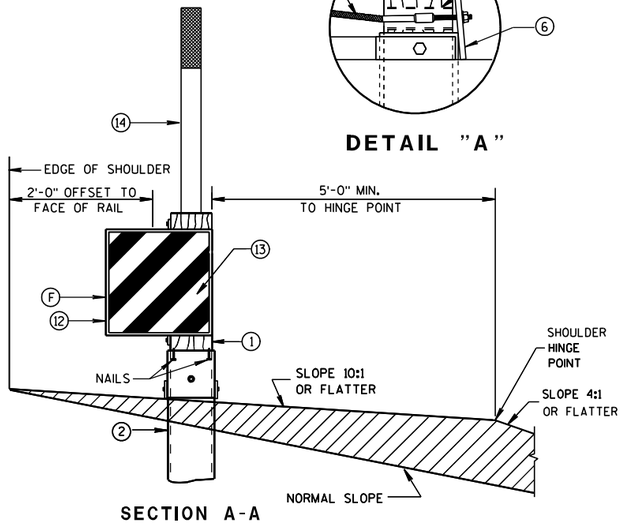




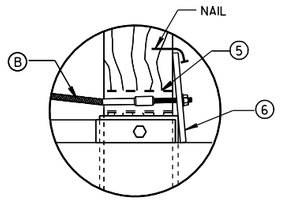
SECTION C-C
TYPICAL AT POST NOS. 3-9



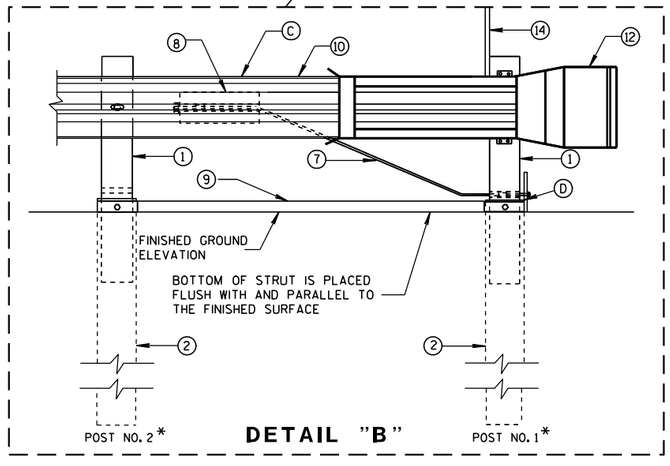
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

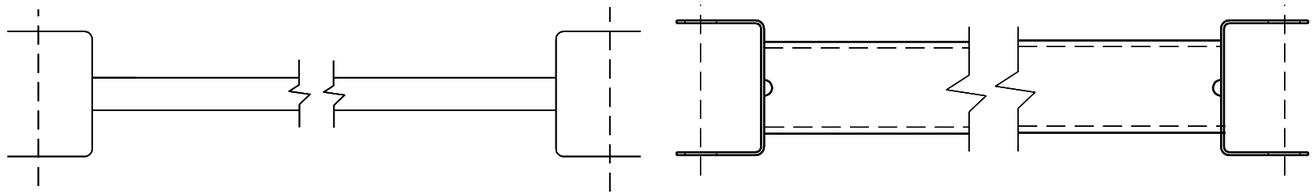
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1a

6

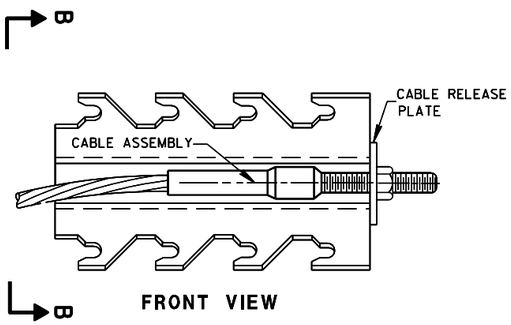
S.D.D. 14 B 44-1a



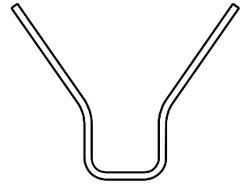
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

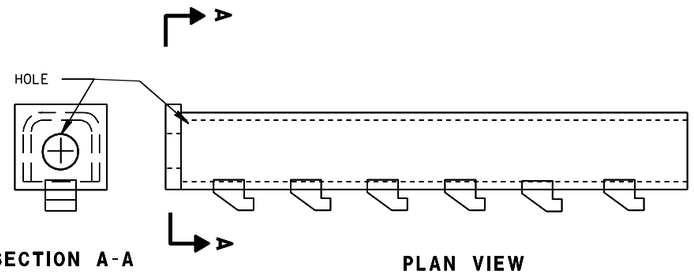
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



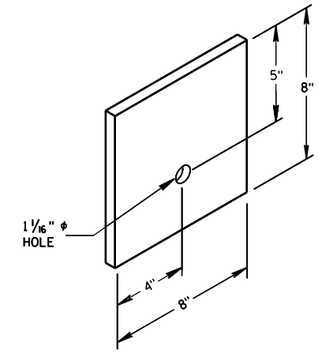
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



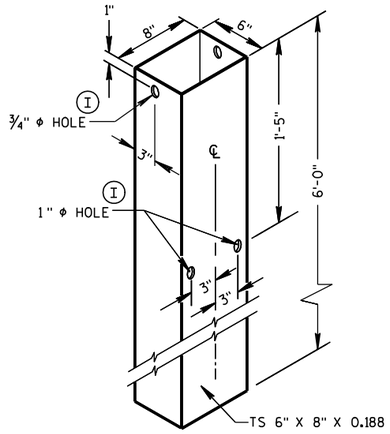
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

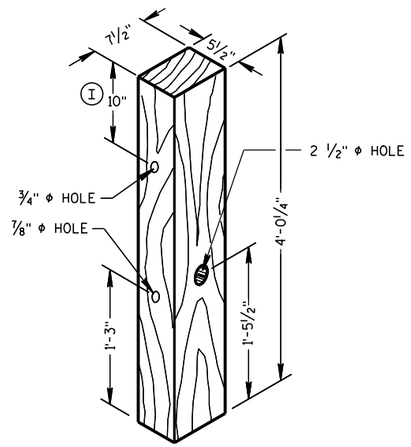
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1b

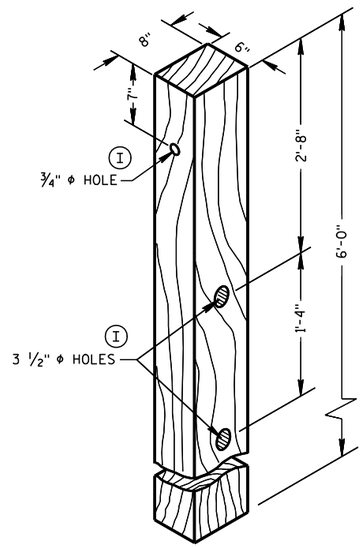


FOUNDATION TUBE (2)



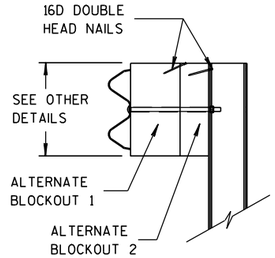
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

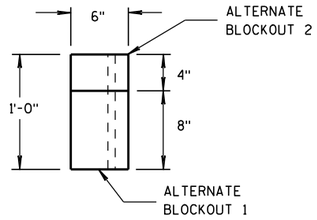


POSTS NUMBER 3-9

WOOD CRT POST (3)

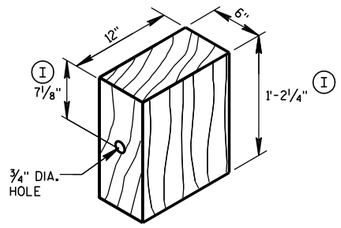


SIDE VIEW



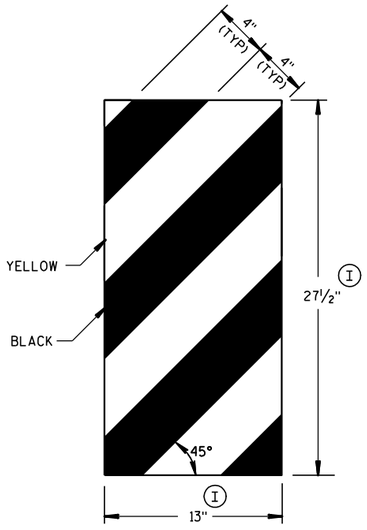
TOP VIEW

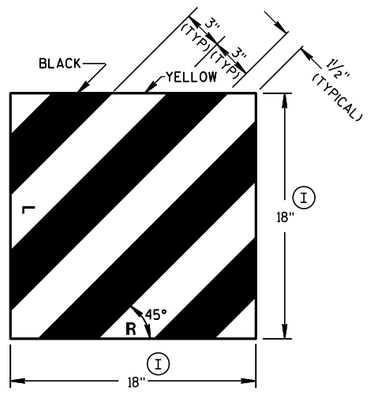
ALTERNATE WOOD BLOCKOUT DETAIL



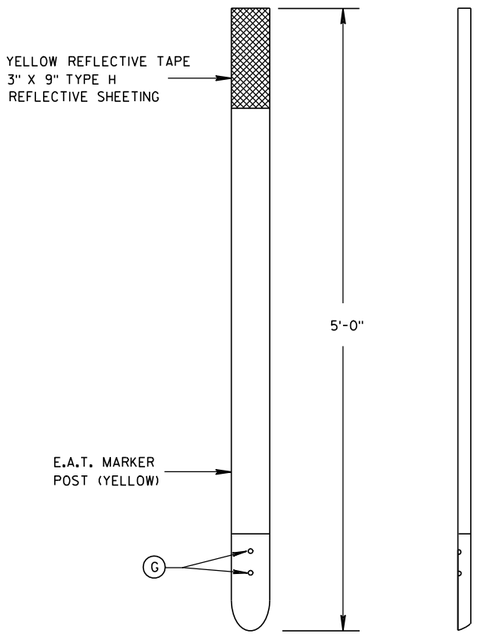
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





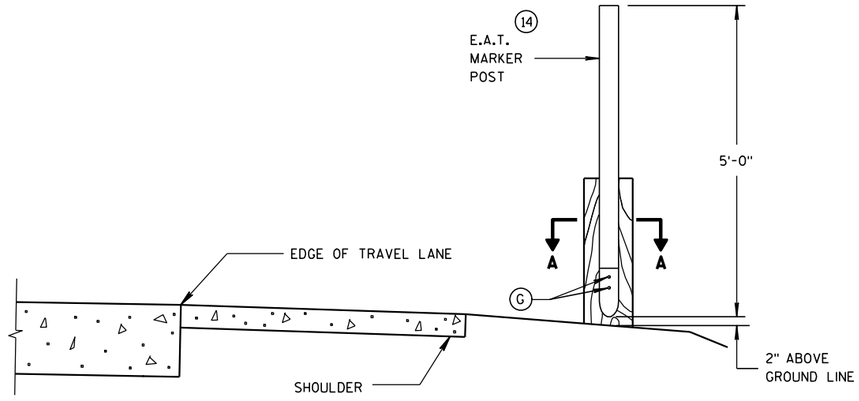
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

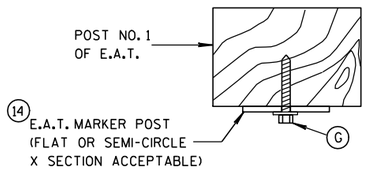
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

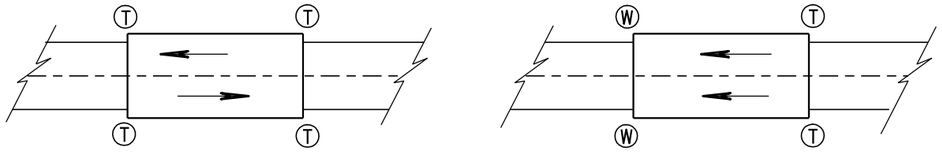
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS 985
ENGINEER
FHWA

6

S.D.D. 14 B 44-1c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

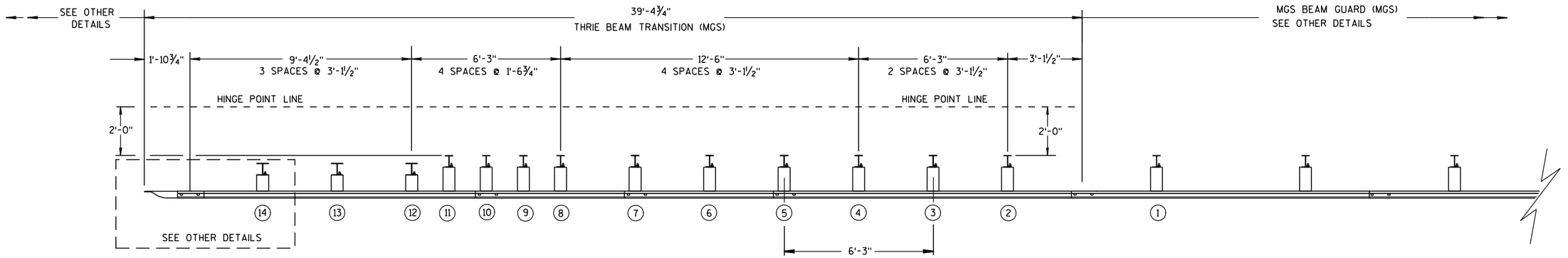
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

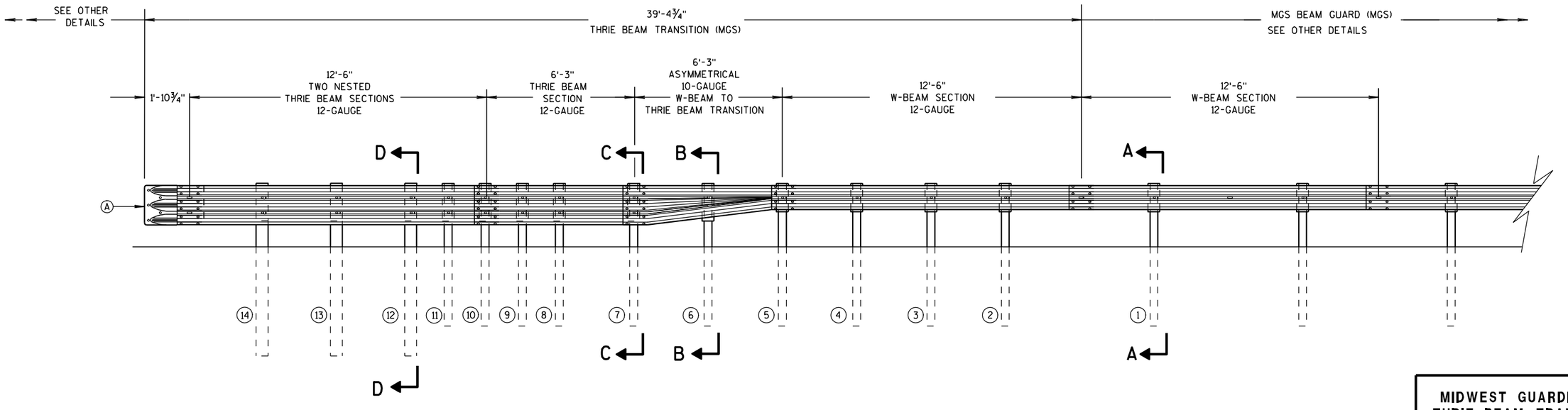
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

Ⓐ BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

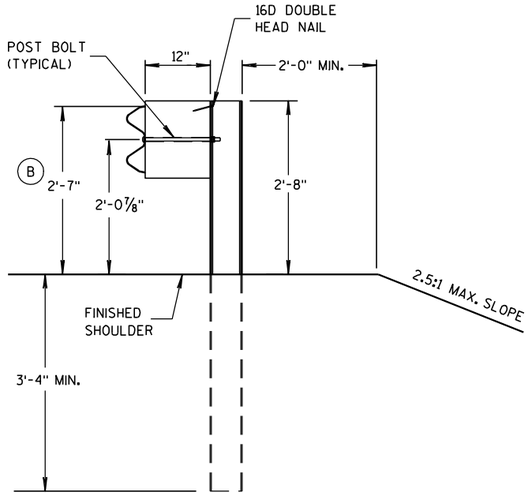
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6
S.D.D. 14 B 45-3a

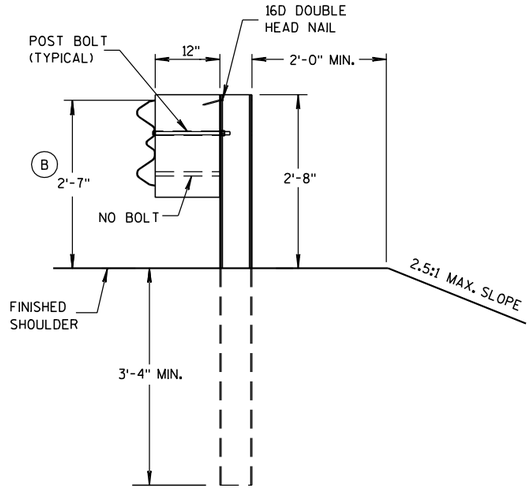
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



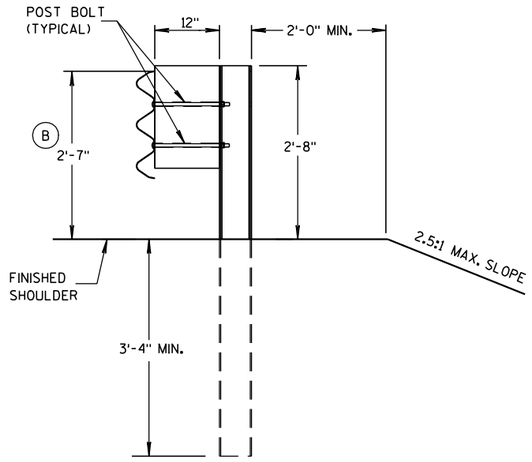
SECTION A-A

POSTS 1-5



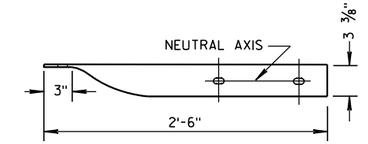
SECTION B-B

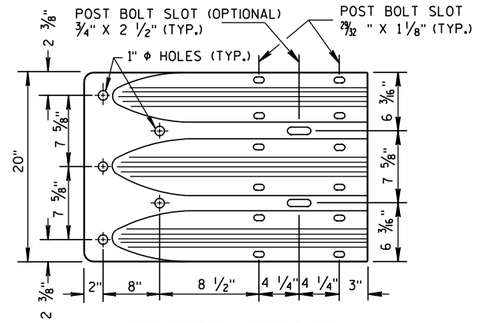
POST 6



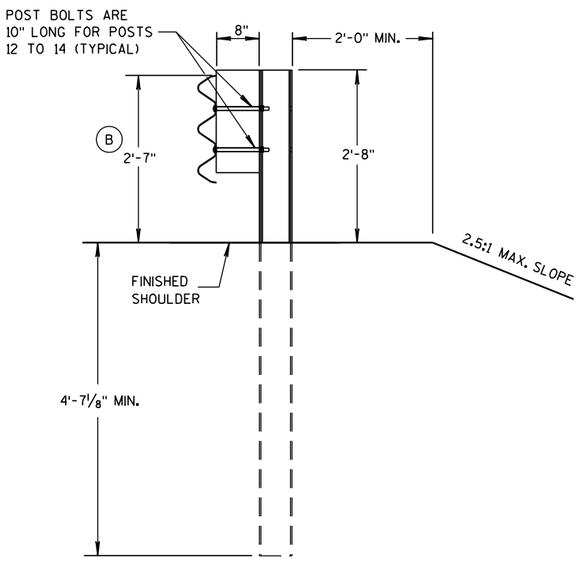
SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14

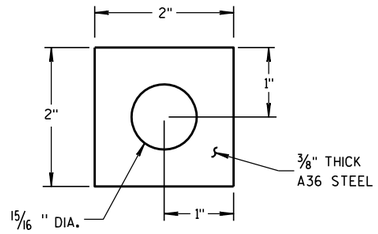
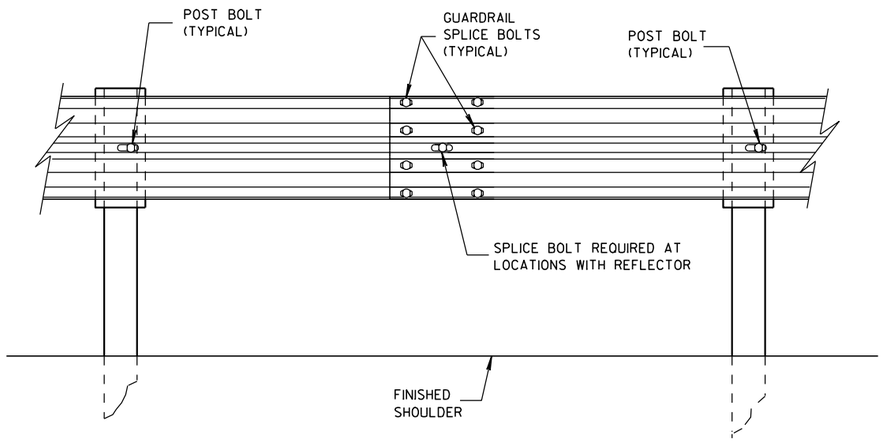
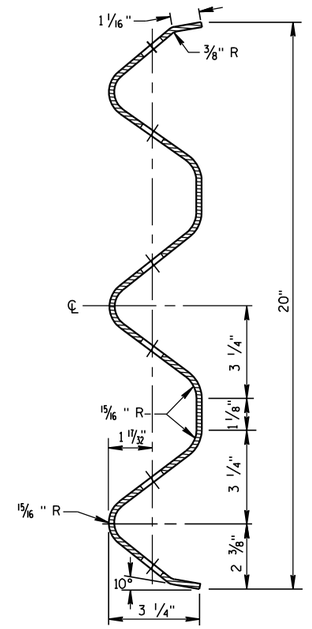


PLATE WASHER DETAIL



SPLICE DETAIL



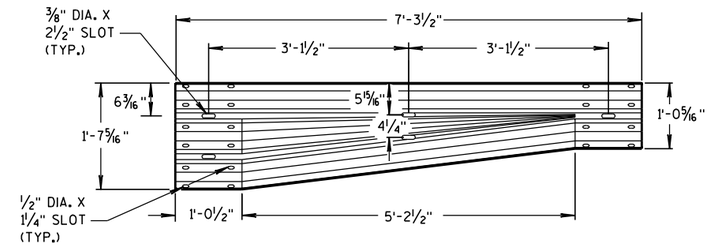
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

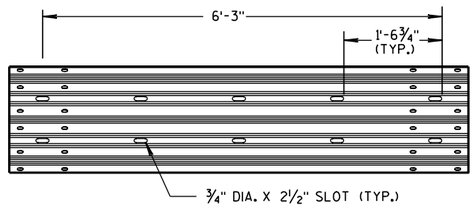
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

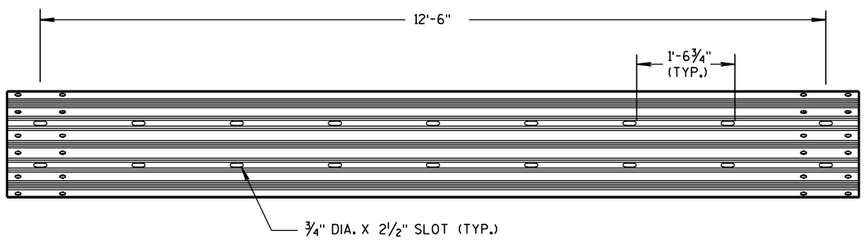
S.D.D. 14 B 45-3b



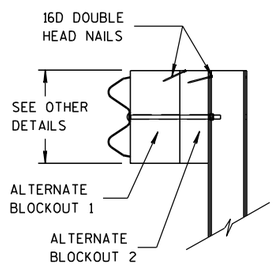
W-BEAM TO THRIE BEAM TRANSITION SECTION



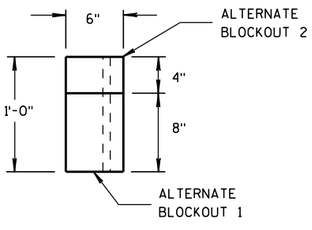
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

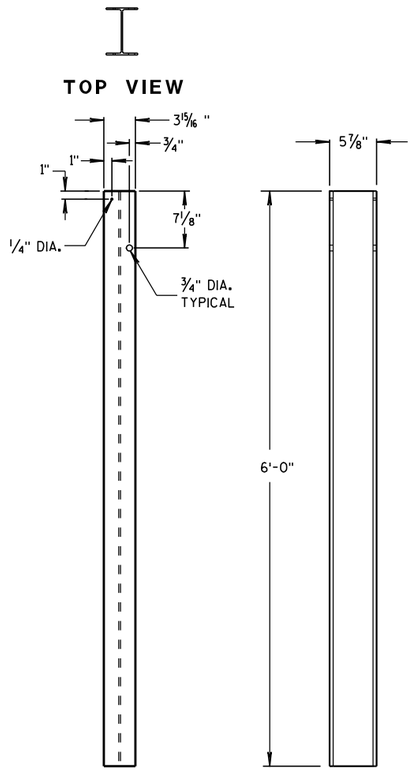


SIDE VIEW



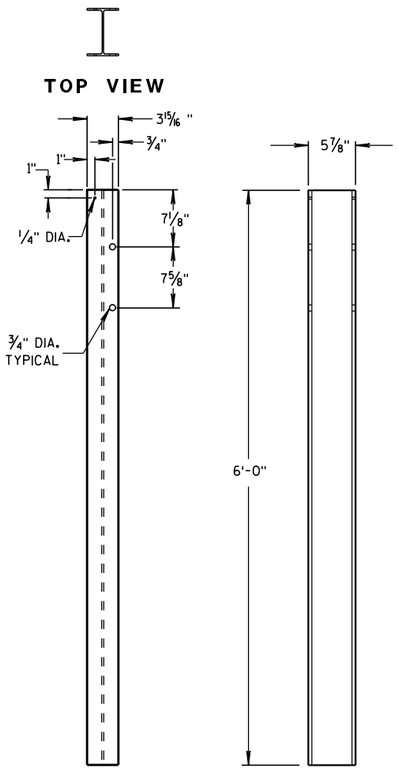
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



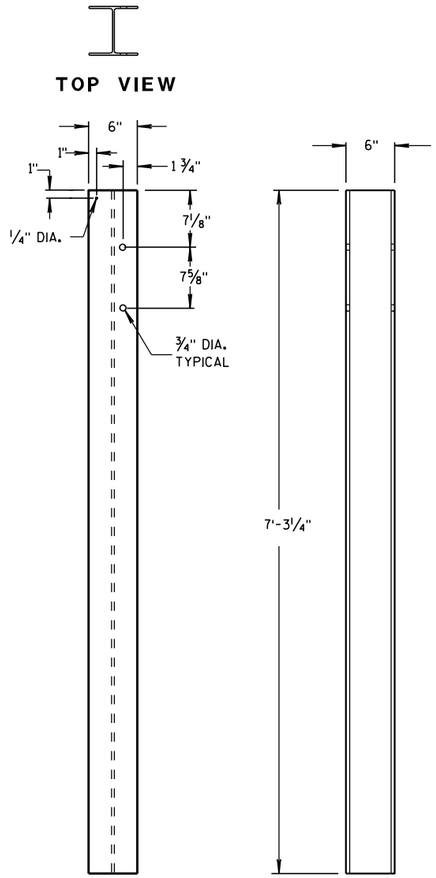
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5



FRONT VIEW SIDE VIEW

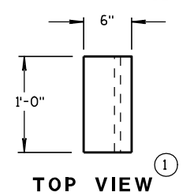
STEEL POSTS 6-11



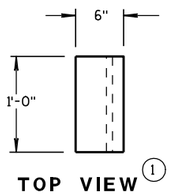
FRONT VIEW SIDE VIEW

STEEL POSTS 12-14

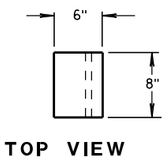
(1) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



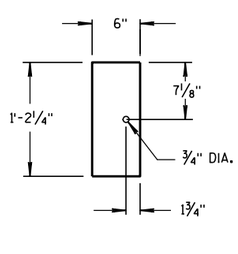
TOP VIEW (1)



TOP VIEW (1)

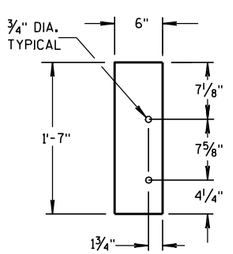


TOP VIEW



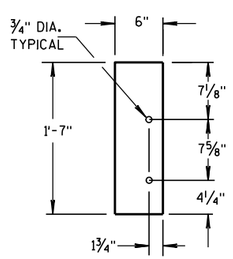
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

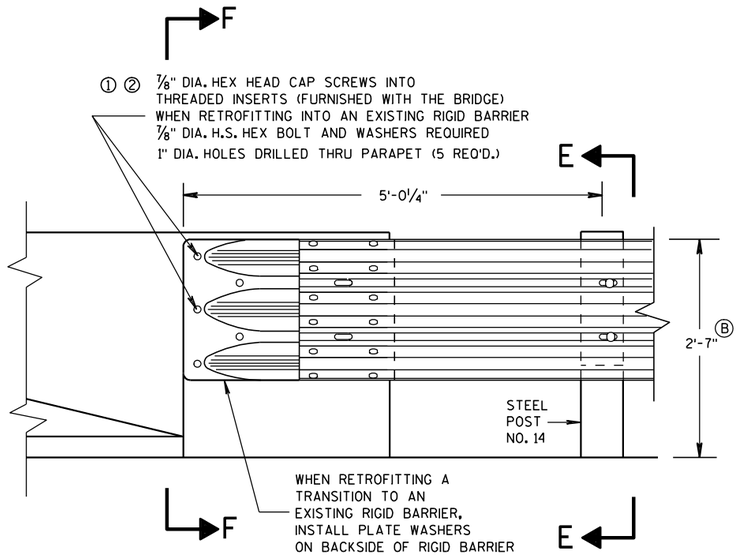
BLOCKOUT POSTS 12-14

STEEL POST SIZES

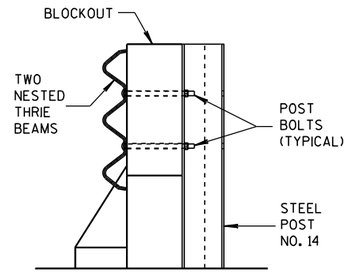
POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



FRONT VIEW



SECTION E-E

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

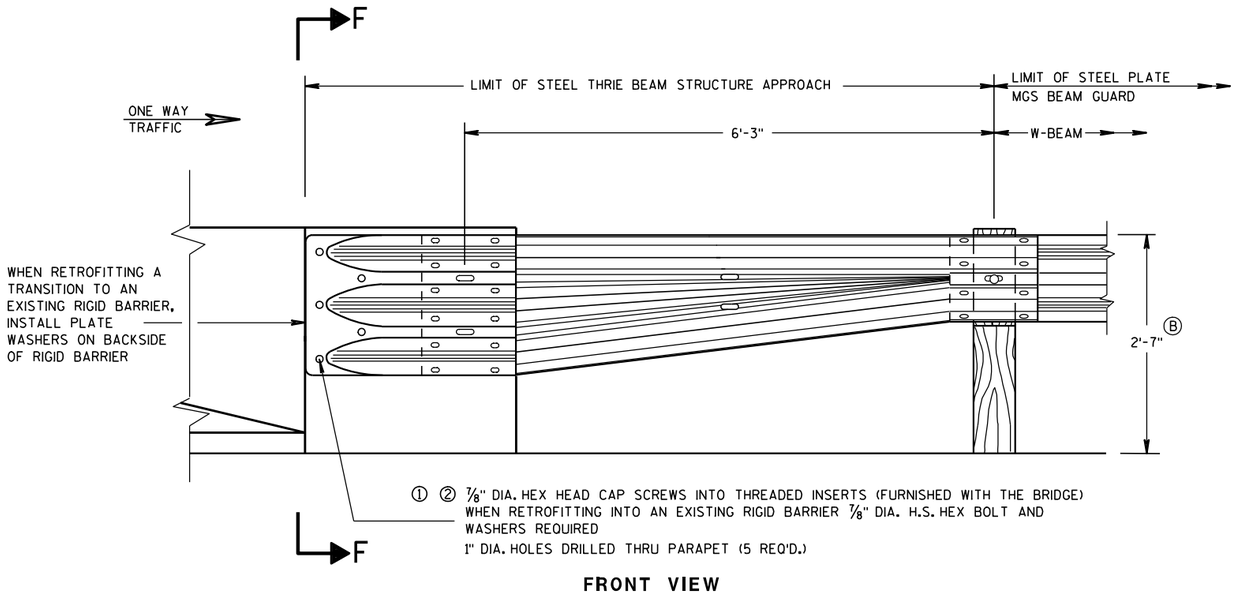
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

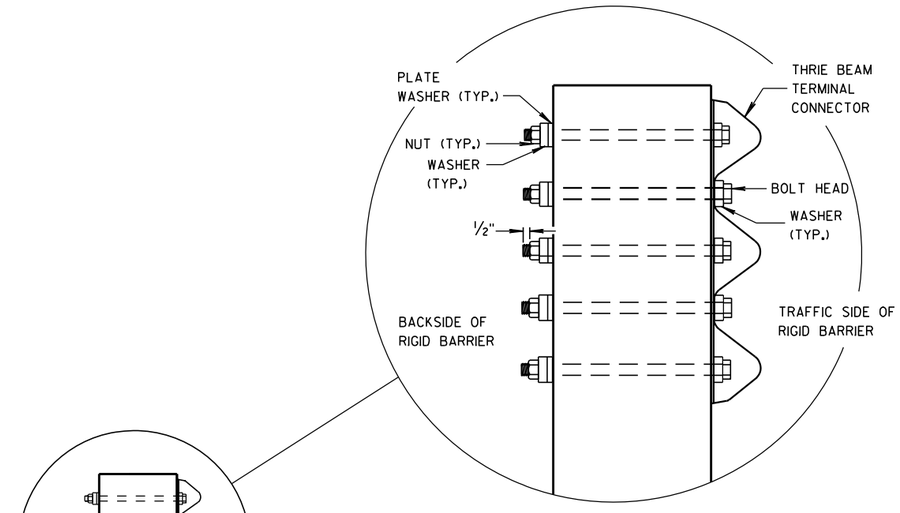
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

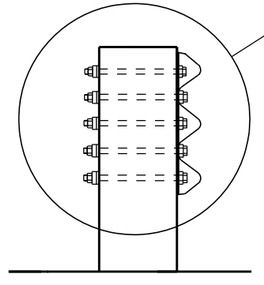
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW





SECTION F-F

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. [illegible] — ROADWAY STANDARDS (1989) — ENGINEER

FHWA

6

S.D.D. 14 B 45-3d

6

S.D.D. 14 B 45-3d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

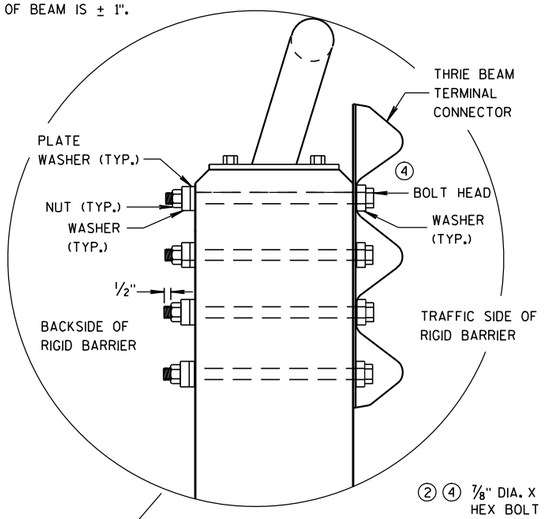
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

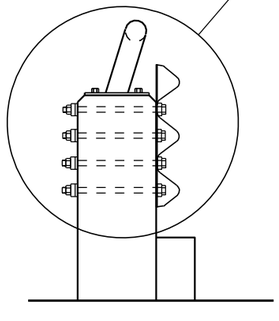
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2". BLOCK IS INCIDENTAL TO THE CONTRACT.

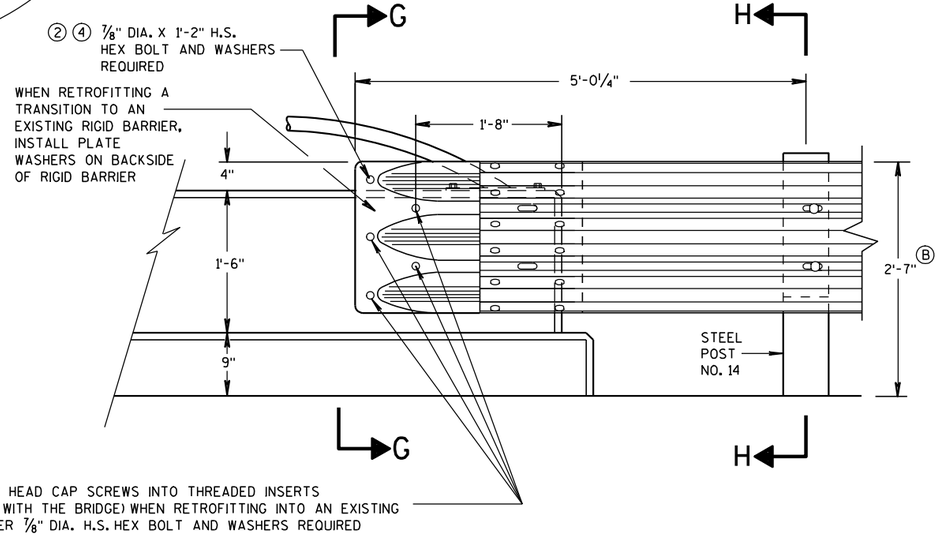
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

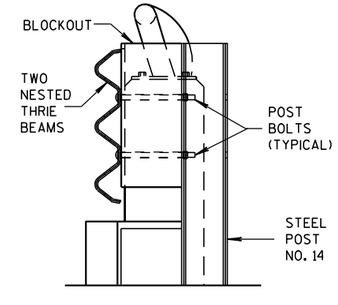




SECTION G-G

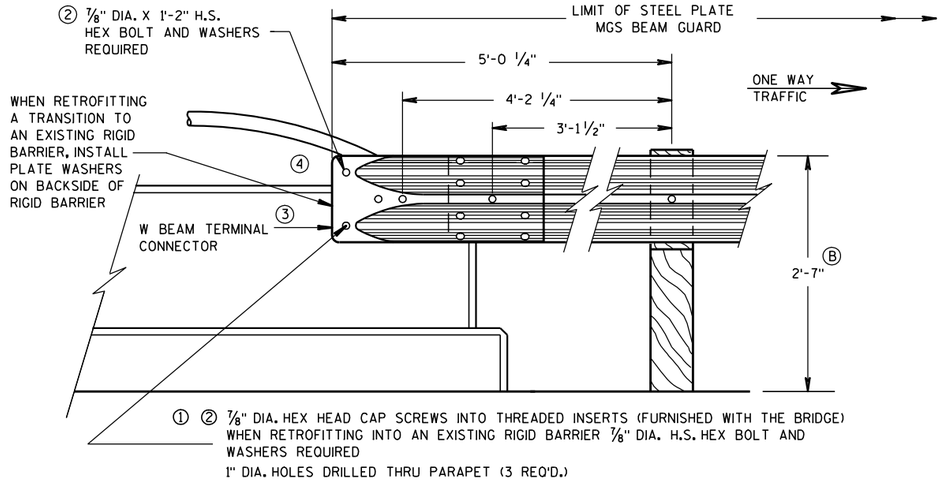


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-31-2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS 1990
ENGINEER

FHWA

6

S.D.D. 14 B 45-3e

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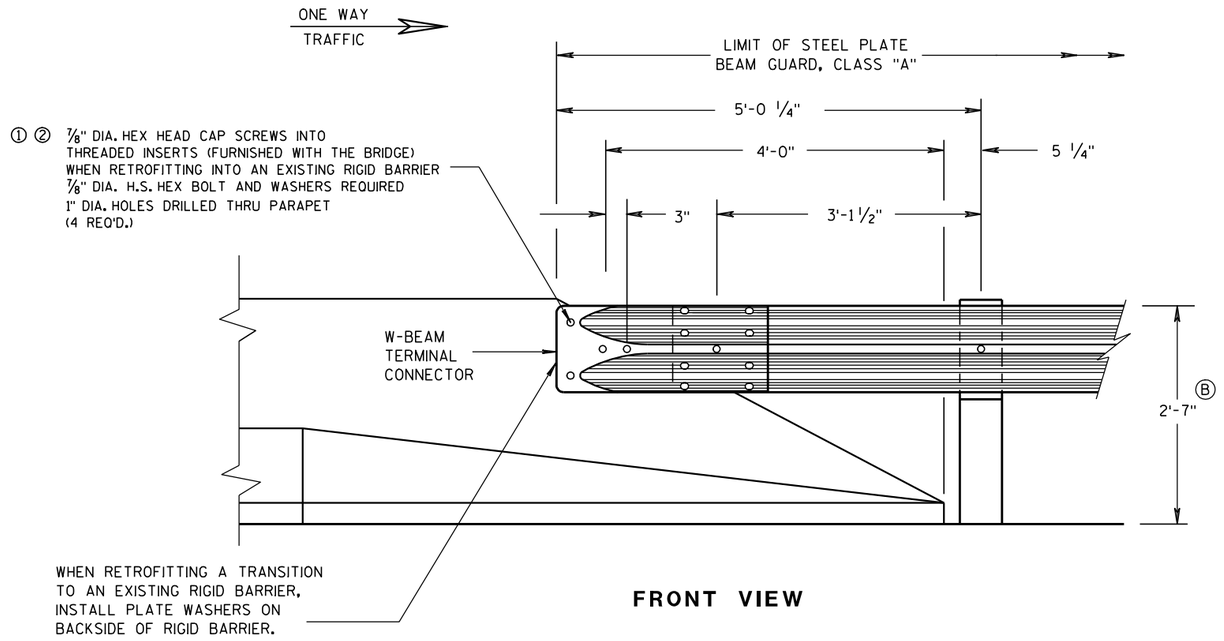
S.D.D. 14 B 45-3e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

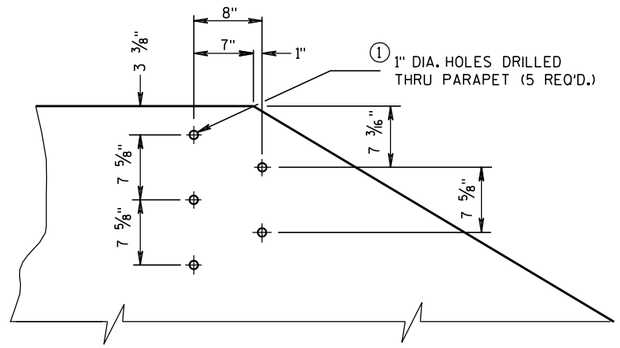
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

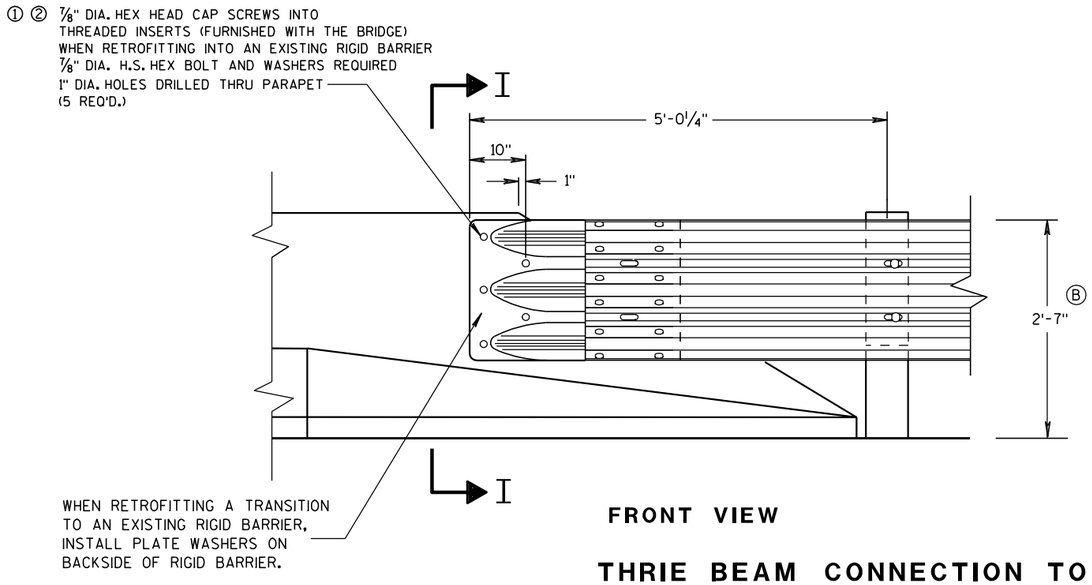
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

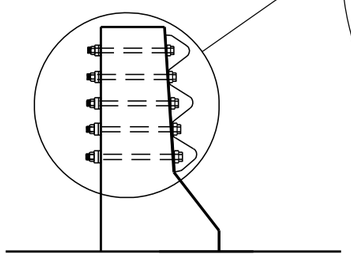
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



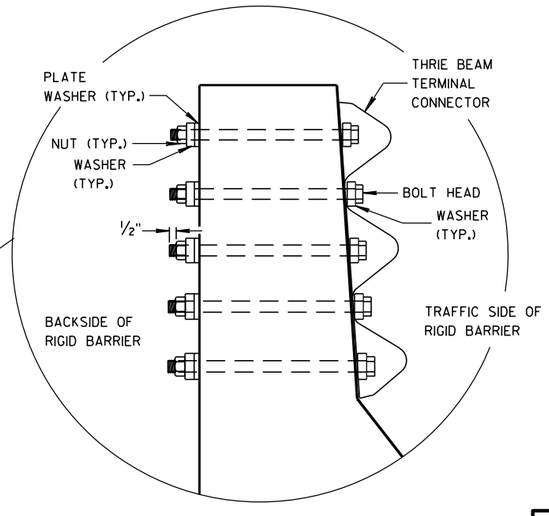
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

991 — ENT

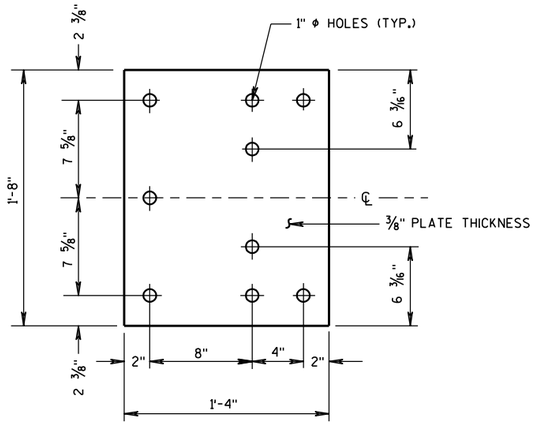
FHWA

6

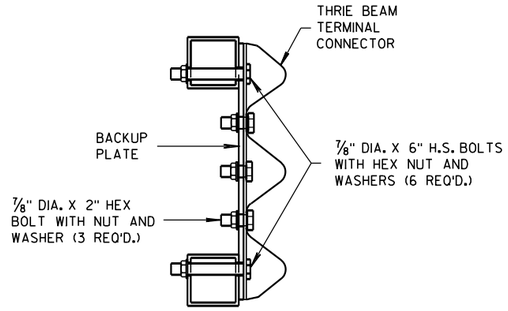
S.D.D. 14 B 45-3f

6

S.D.D. 14 B 45-3f



BACK-UP PLATE DETAIL

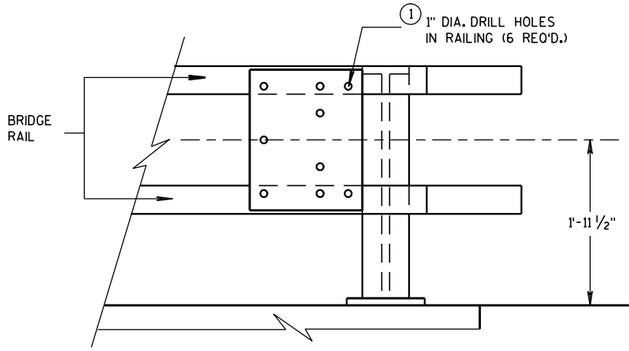


SECTION J-J

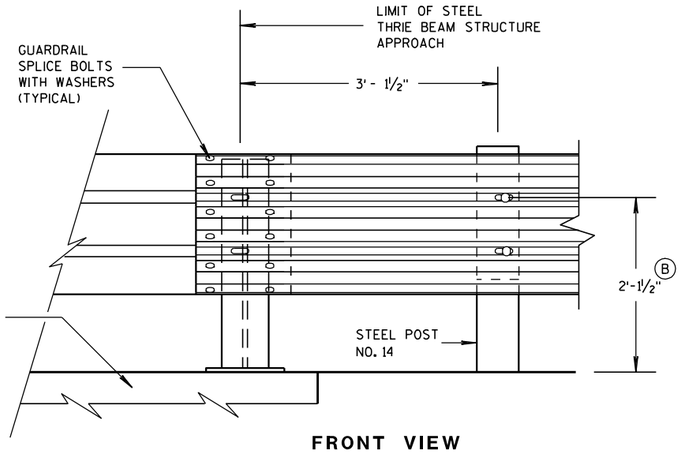
GENERAL NOTES

(1) DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(B) TOLERANCE FOR TOP OF BEAM IS ± 1".

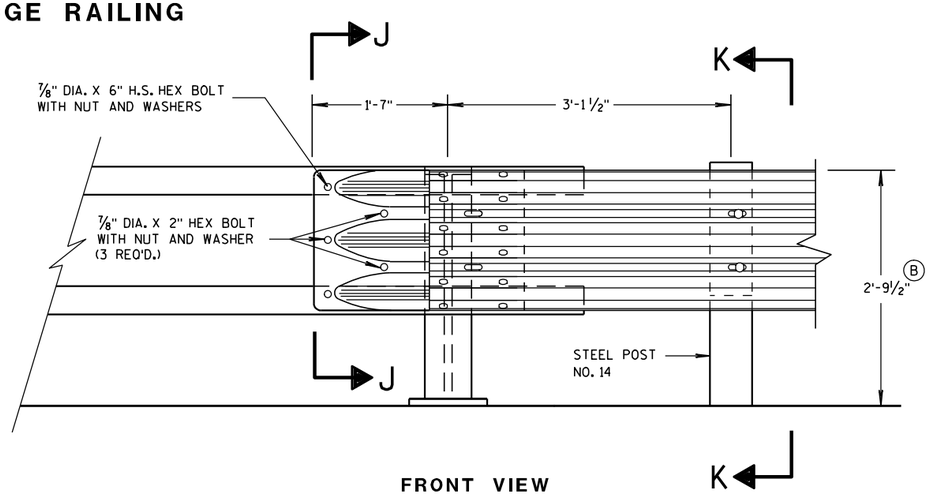


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

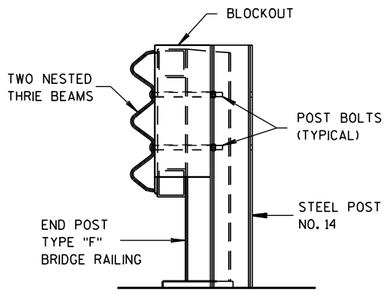


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 45-3g

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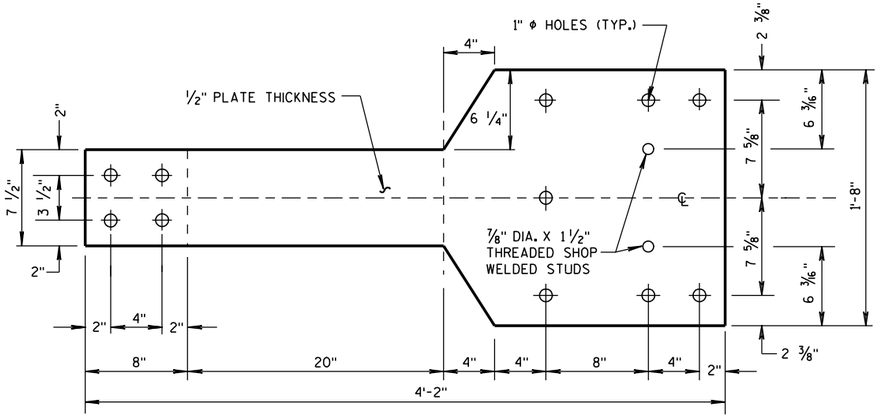
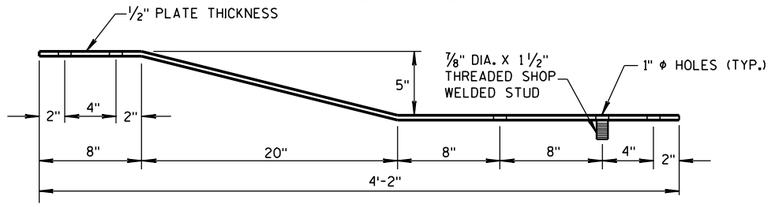
S.D.D. 14 B 45-3g

GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

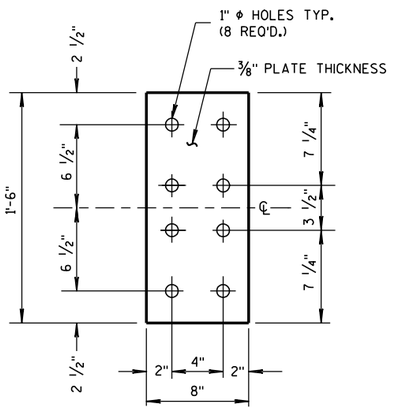


FRONT VIEW



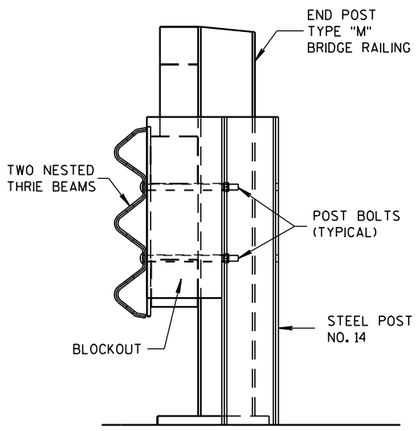
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

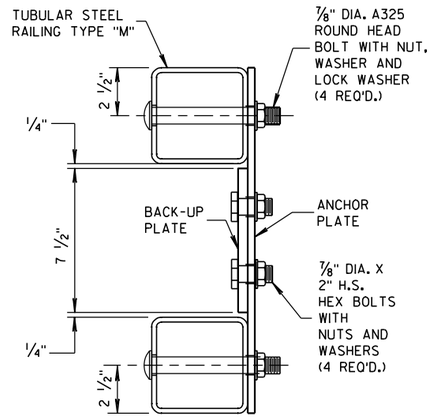


FRONT VIEW

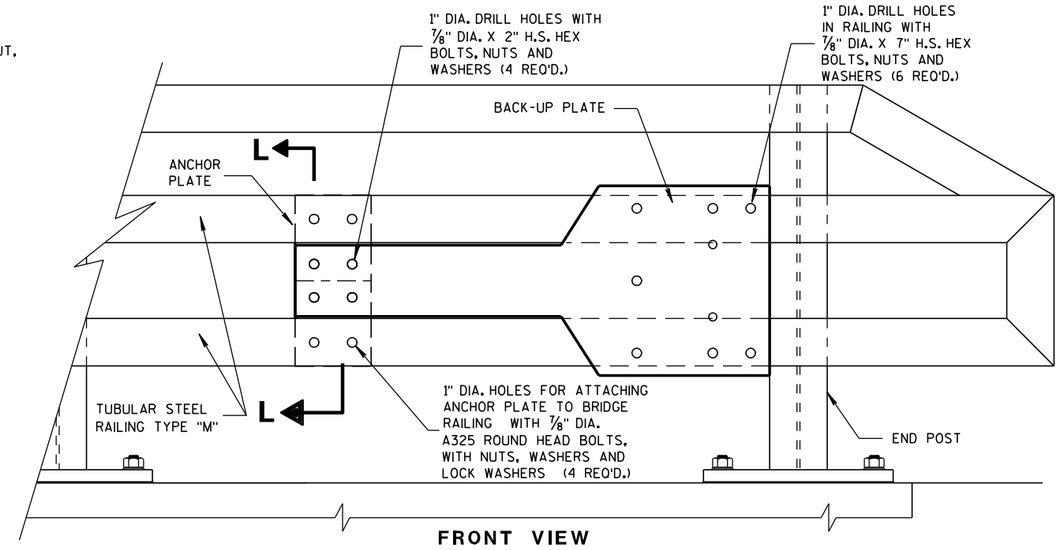
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

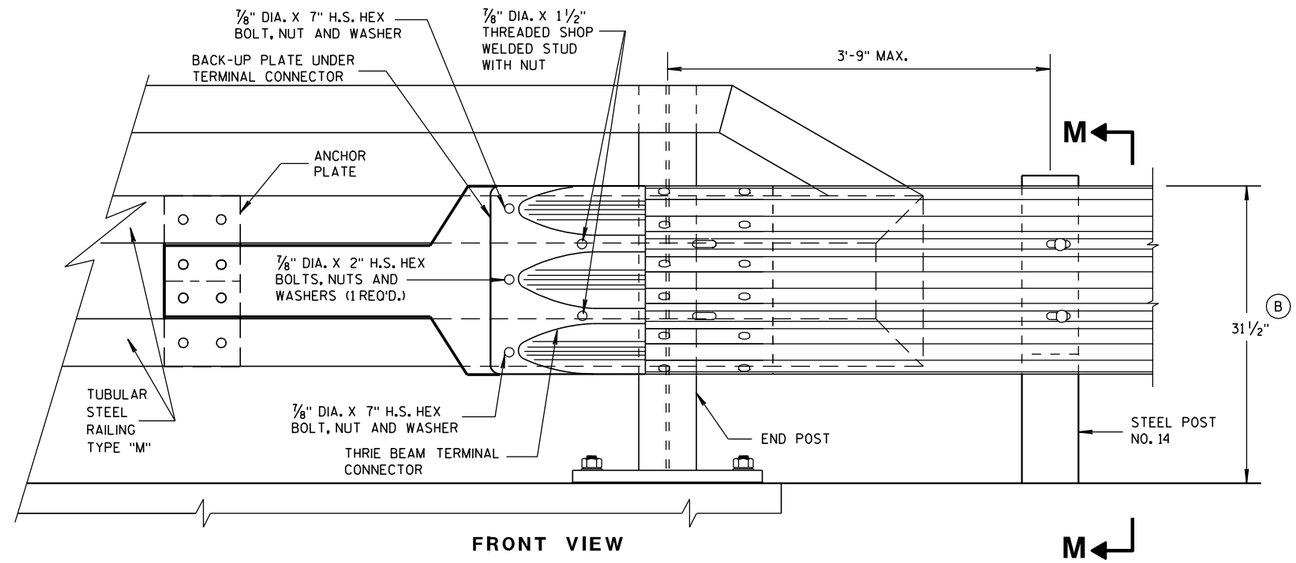


SECTION L-L

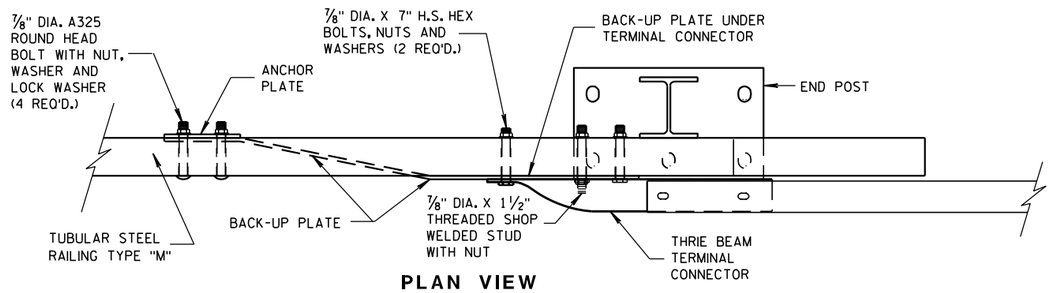


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-31-2012 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
993 ENT
FHWA

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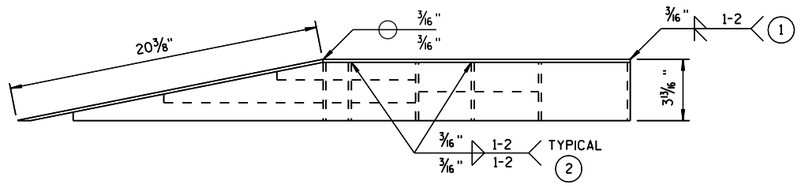
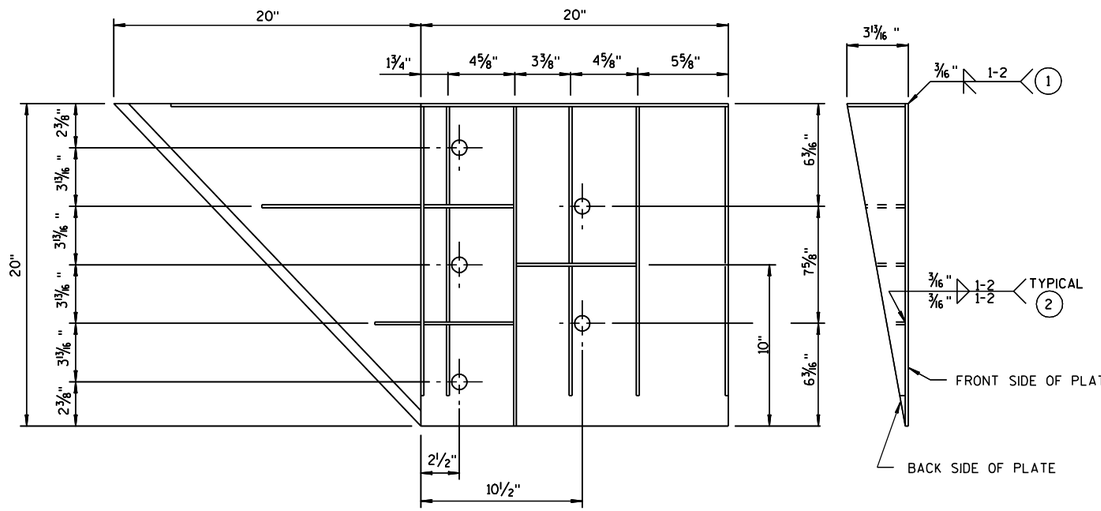
S.D. 14 B 45-3h





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

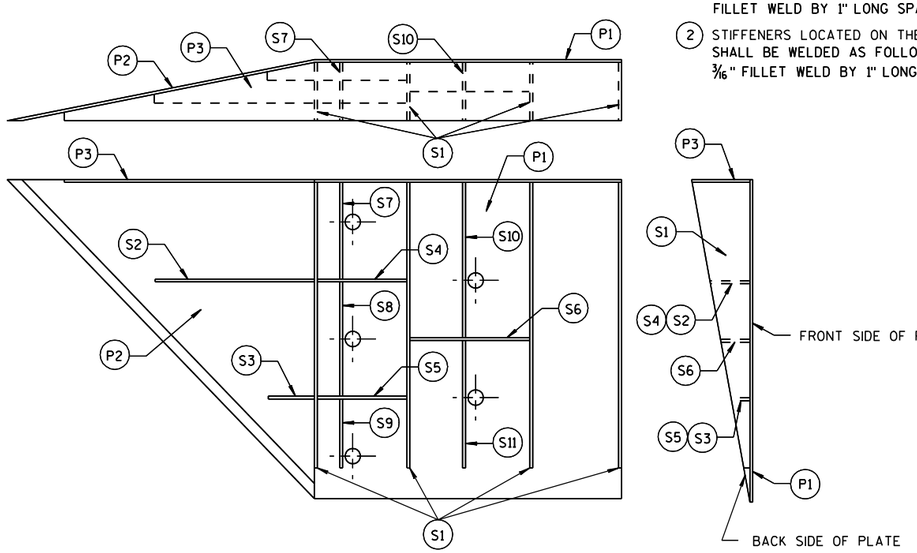


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)				
PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
/S/ Jerry H ...
ROADWAY STANDARDS 994
ENGINEER
...MENT
FHWA

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S.D.D. 14 B 45-3i

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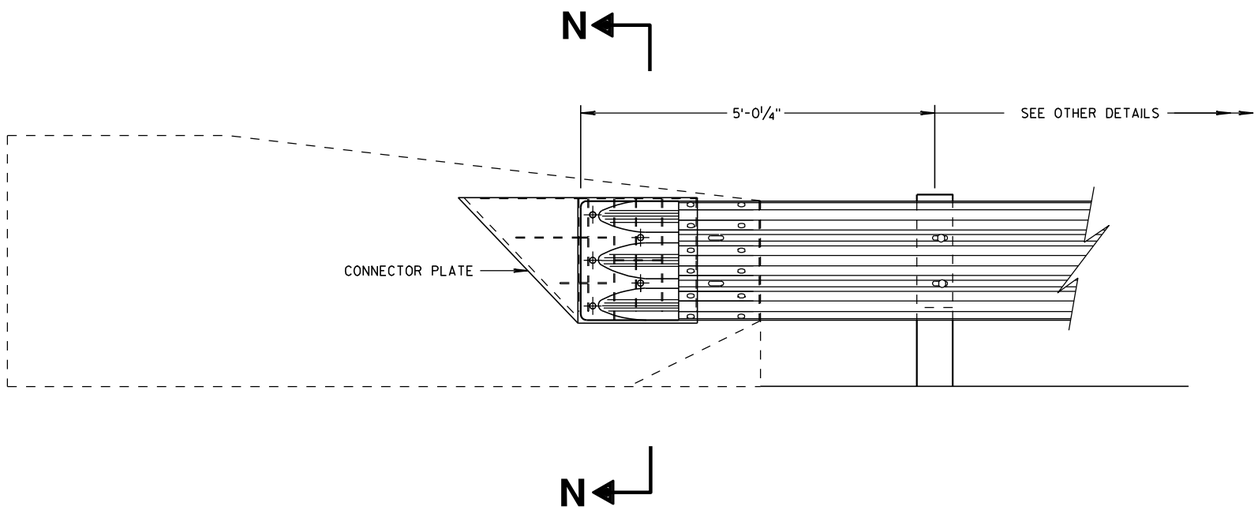
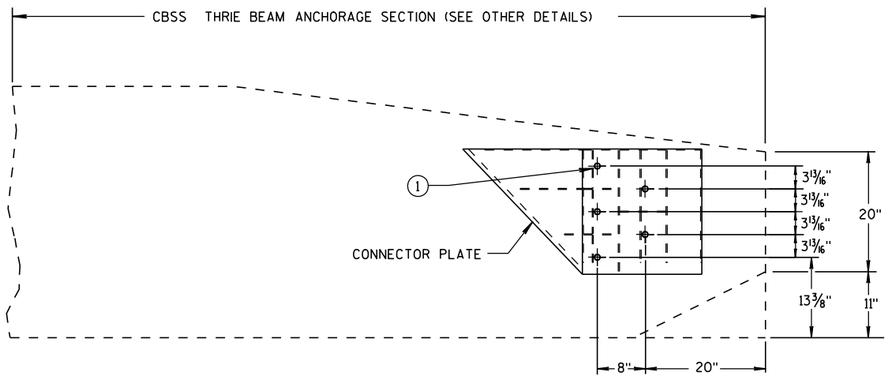
S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

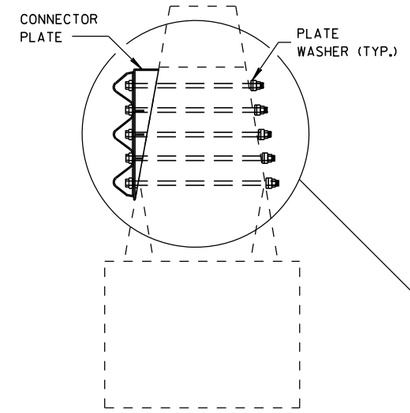


SINGLE SLOPE CONNECTION PLATE PLACEMENT

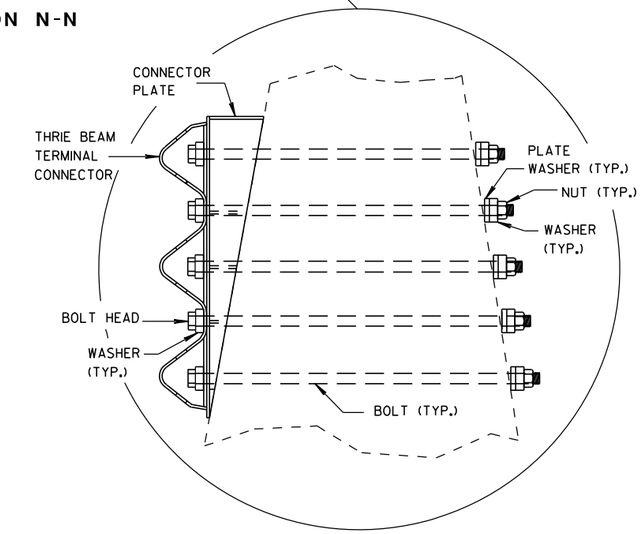
GENERAL NOTES

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible]995
ENGINEER

FHWA

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S.D.D. 14 B 45-3j

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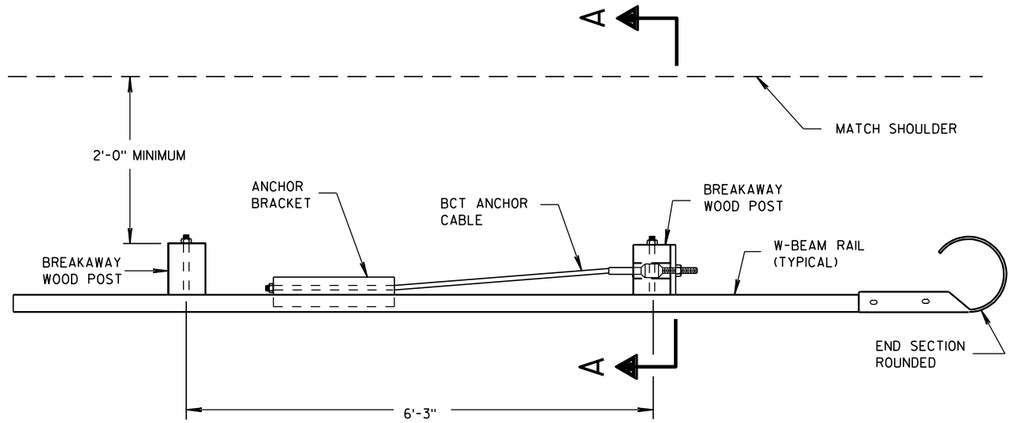
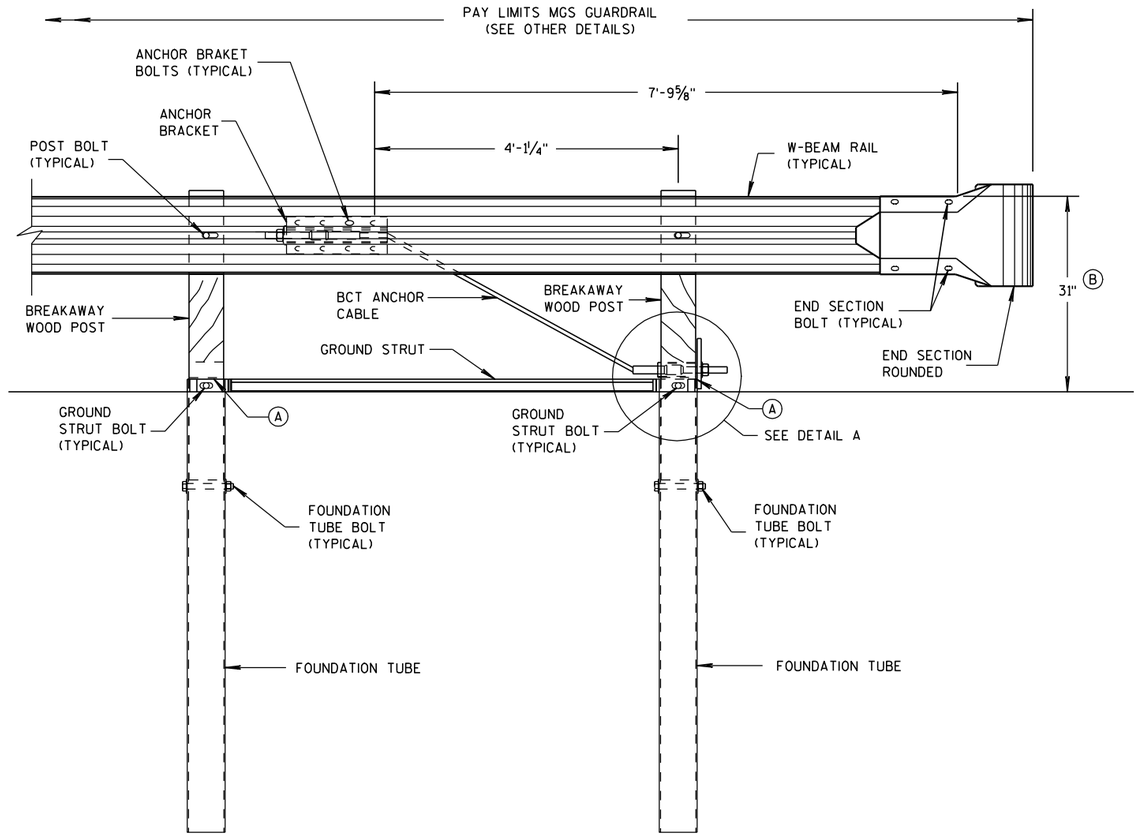
S.D.D. 14 B 45-3j

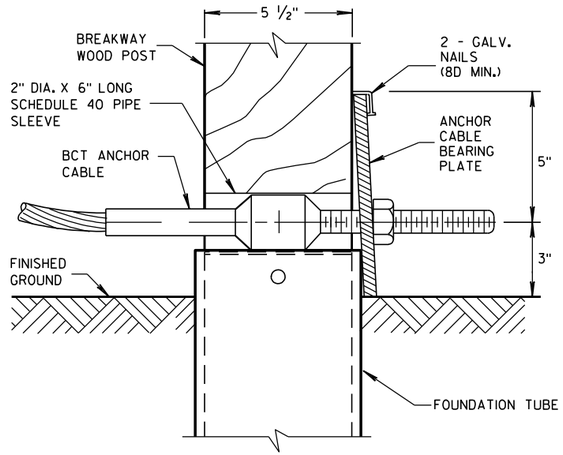


PLAN VIEW



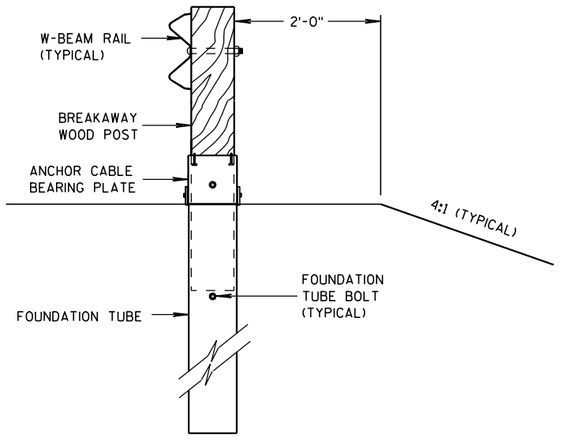
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

POST BOLTS ARE A ⅝" DIAMETER X 10" LONG GUARDRAIL BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER DH MODIFIED (RECESSED) HEAVY HEX NUT AND ⅝" DIAMETER FLAT WASHER.

FOUNDATION TUBE BOLTS ARE A ⅞" DIAMETER X 7½" LONG HEAVY HEX HEAD BOLT. A FOUNDATION TUBE BOLT REQUIRES A ⅞" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

GROUND STRUT BOLTS ARE A ⅝" DIAMETER X 10" LONG HEAVY HEX HEAD BOLT. A GROUND STRUT BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

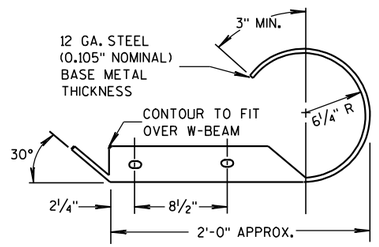
ANCHOR BRAKET BOLTS ARE A ⅝" DIAMETER X 1½" LONG HEAVY HEX HEAD BOLT. AN ANCHOR BRAKET BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A FLAT WASHER.

END SECTION BOLTS ARE A ⅝" DIAMETER X 1½" HEAVY HEX HEAD BOLT. AN END SECTION BOLT REQUIRES ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

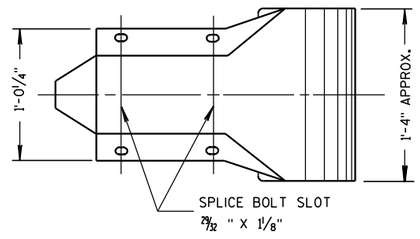
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



FRONT VIEW

W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 47-1a

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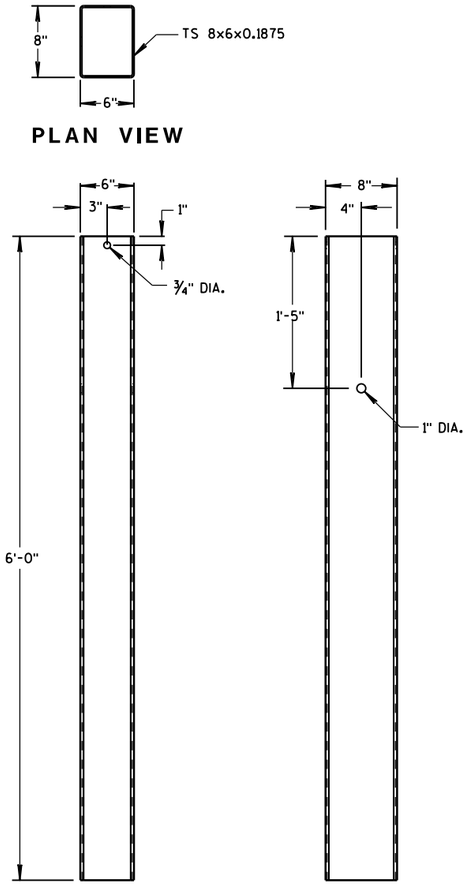
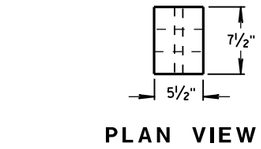
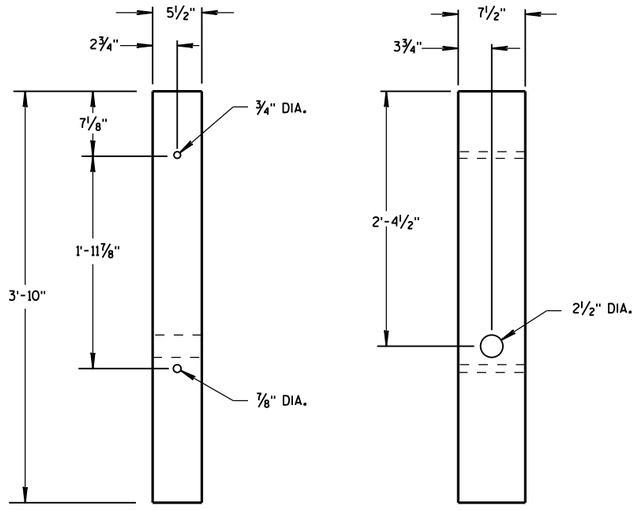
S.D.D. 14 B 47-1a



FOUNDATION TUBE

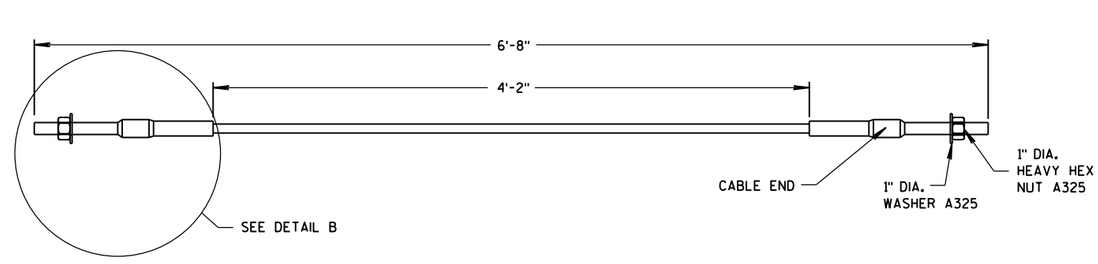




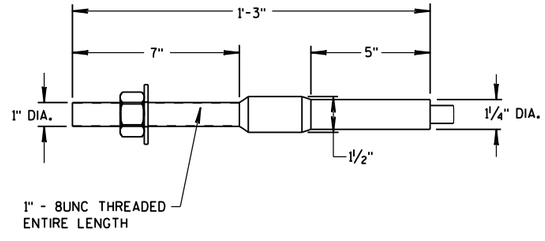
BREAKAWAY WOOD POST

GENERAL NOTES

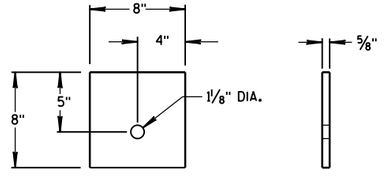
BCT ANCHOR CABLE IS A ⅜" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. THE END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. THE TREADED STUD SHOULD CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.



BCT ANCHOR CABLE



DETAIL B



ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI 997

6

S.D.D. 14 B 47-1b

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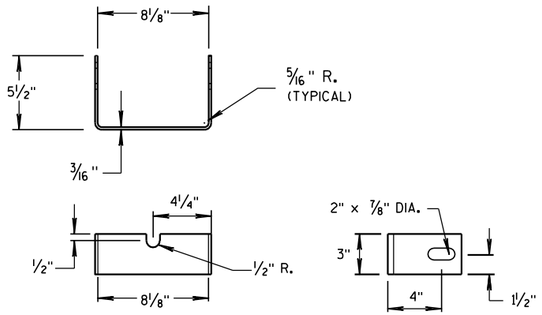
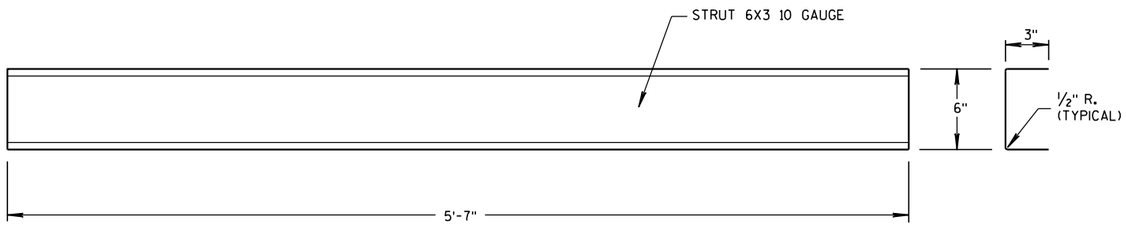
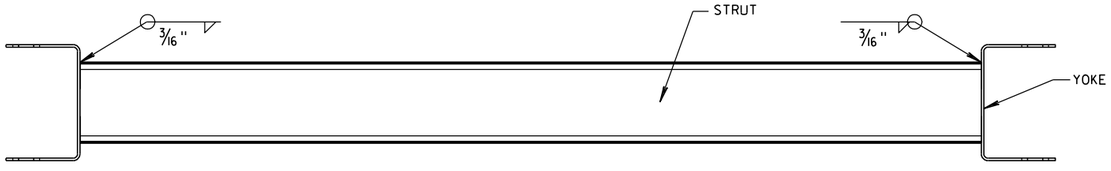
S.D.D. 14 B 47-1b



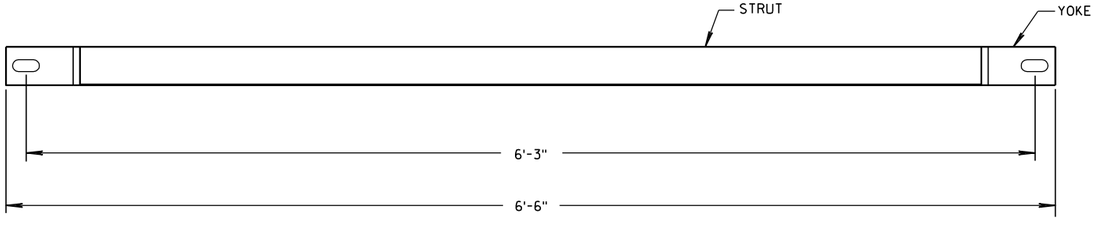
YOKE DETAIL



STRUT DETAIL

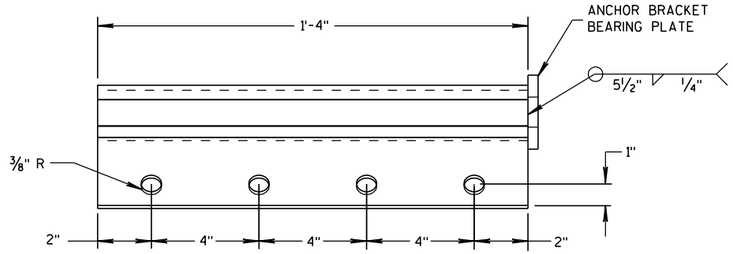


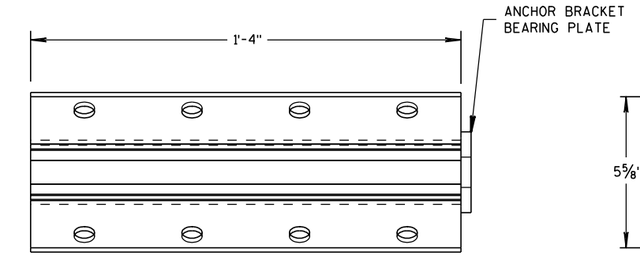
PLAN VIEW

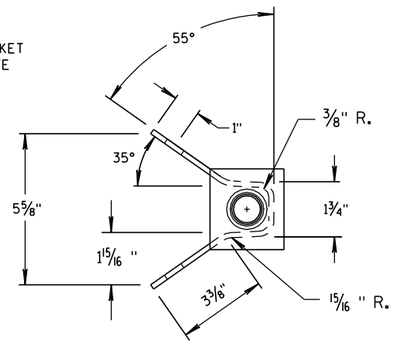


FRONT VIEW

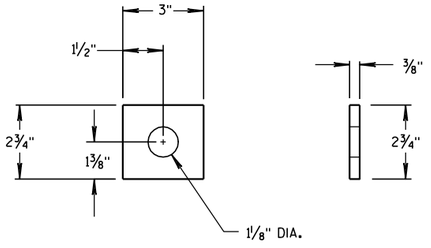
GROUND STRUT DETAIL







ANCHOR BRACKET



ANCHOR BRACKET BEARING PLATE

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S.D.D. 14 B 47-1c

S.D.D. 14 B 47-1c

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

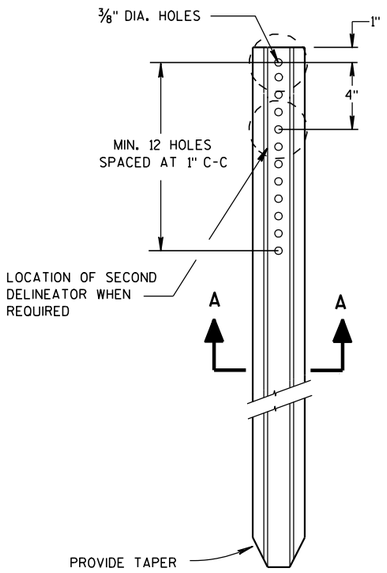
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

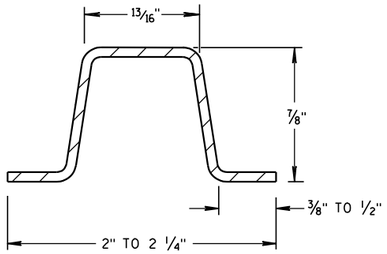
5/23/2011
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS 998 [illegible]
ENGINEER

FHWA

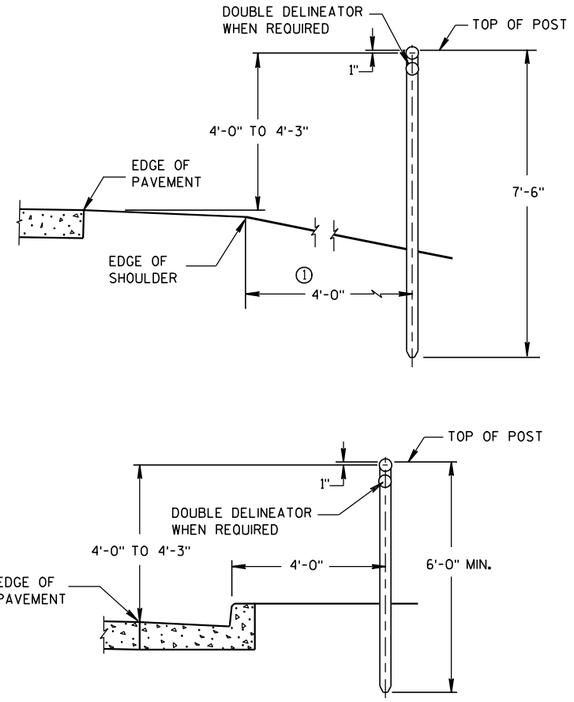


DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

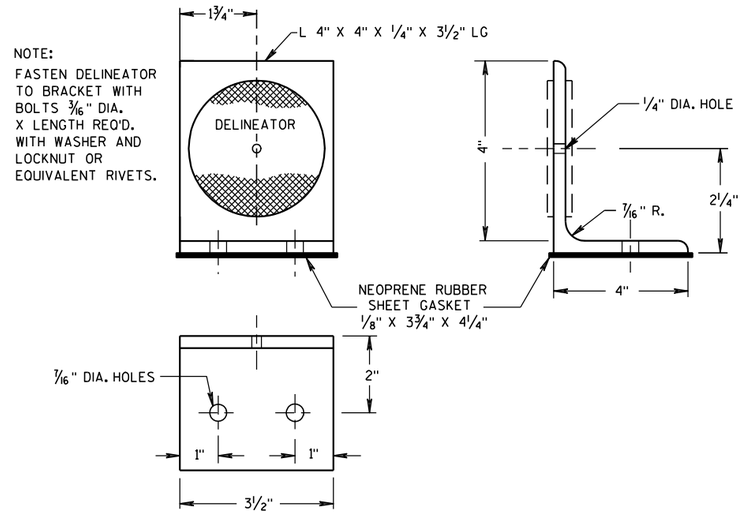


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

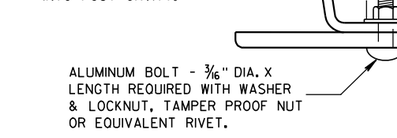
GENERAL NOTES

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

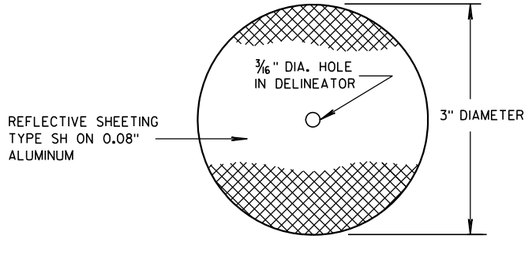
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



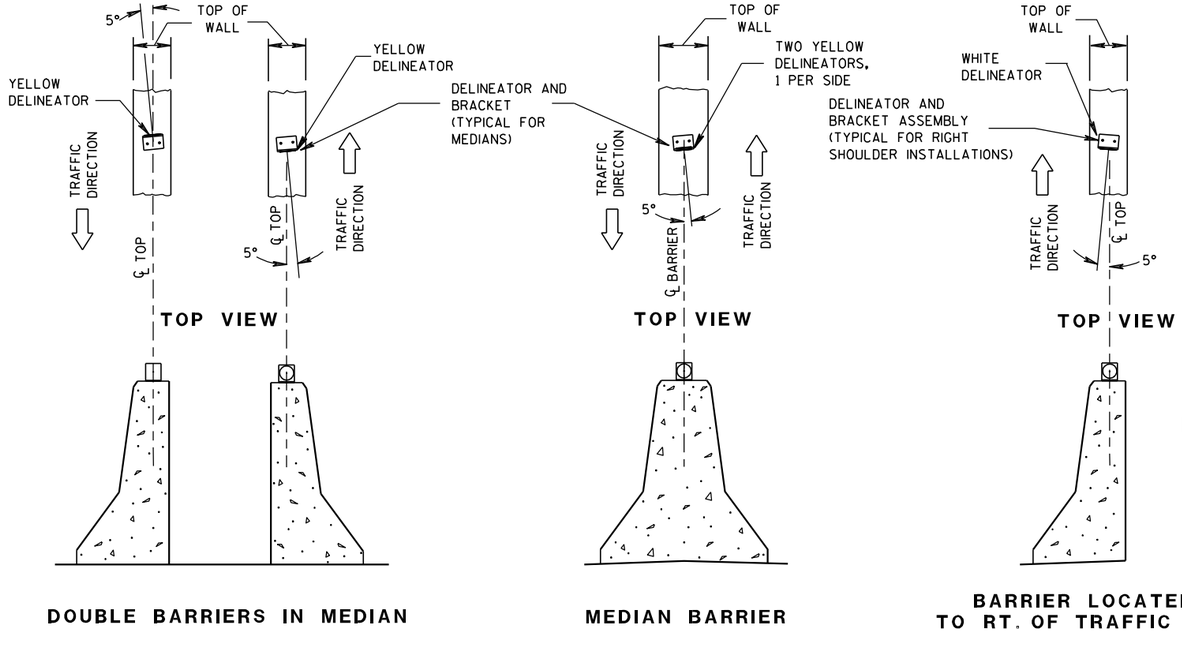
DELINEATOR BRACKET



MOUNTING DETAIL FOR DELINEATOR



DELINEATOR

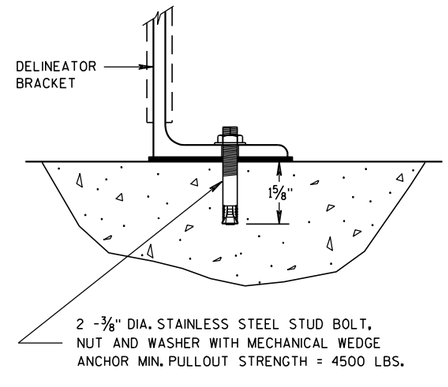


DOUBLE BARRIERS IN MEDIAN

MEDIAN BARRIER

BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATORS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
1/25/2011 — DATE
/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER 999 DESIGN

FHWA

6

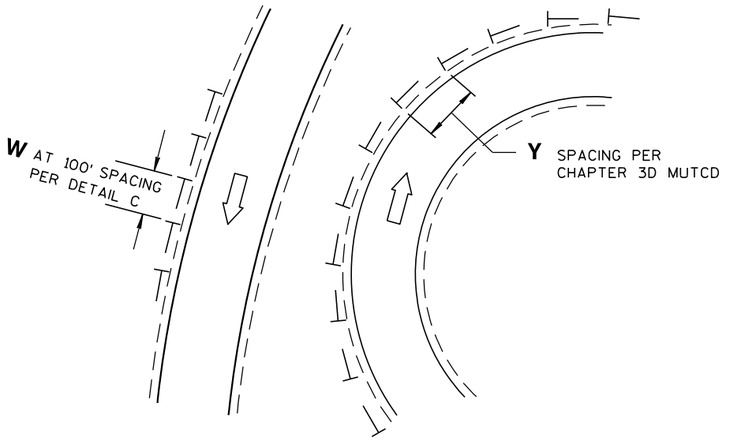
S.D.D. 15 A 2-7

6

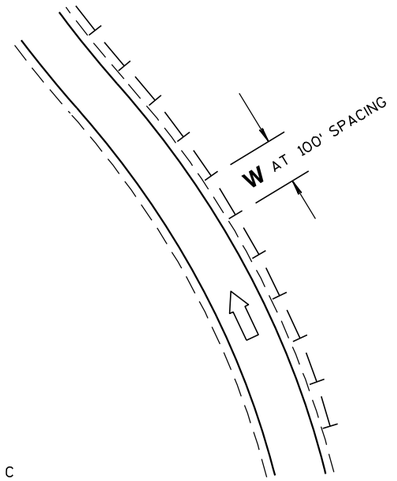
S.D.D. 15 A 2-7

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



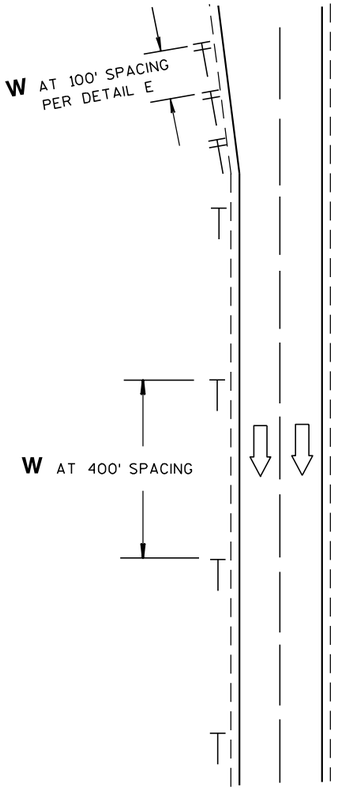
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



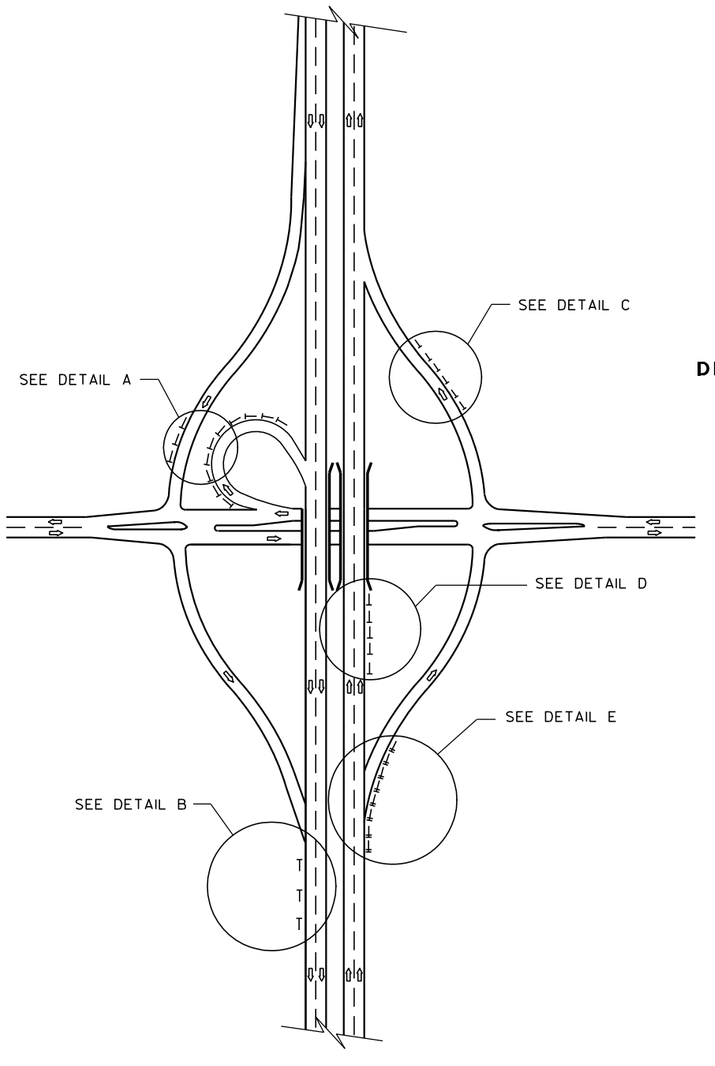
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

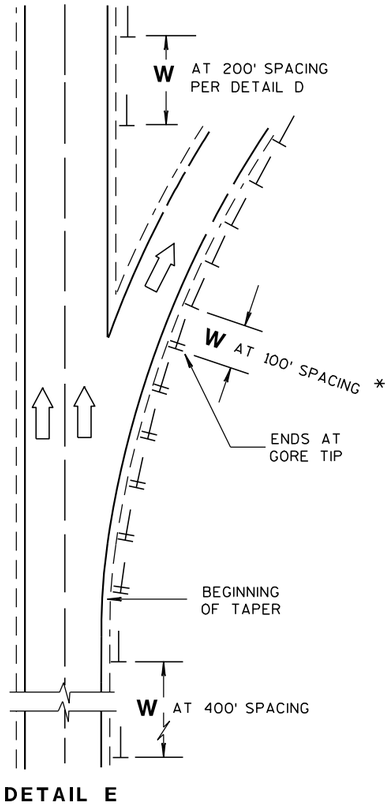
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



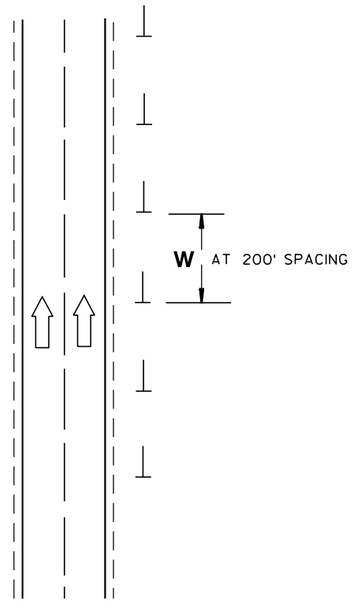
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



DELINEATOR LAYOUT



DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION - DECELERATION LANES AND TAPERS AT RAMPS



DETAIL D
DELINEATOR LAYOUT BETWEEN INTERCHANGE RAMPS

DELINEATOR LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

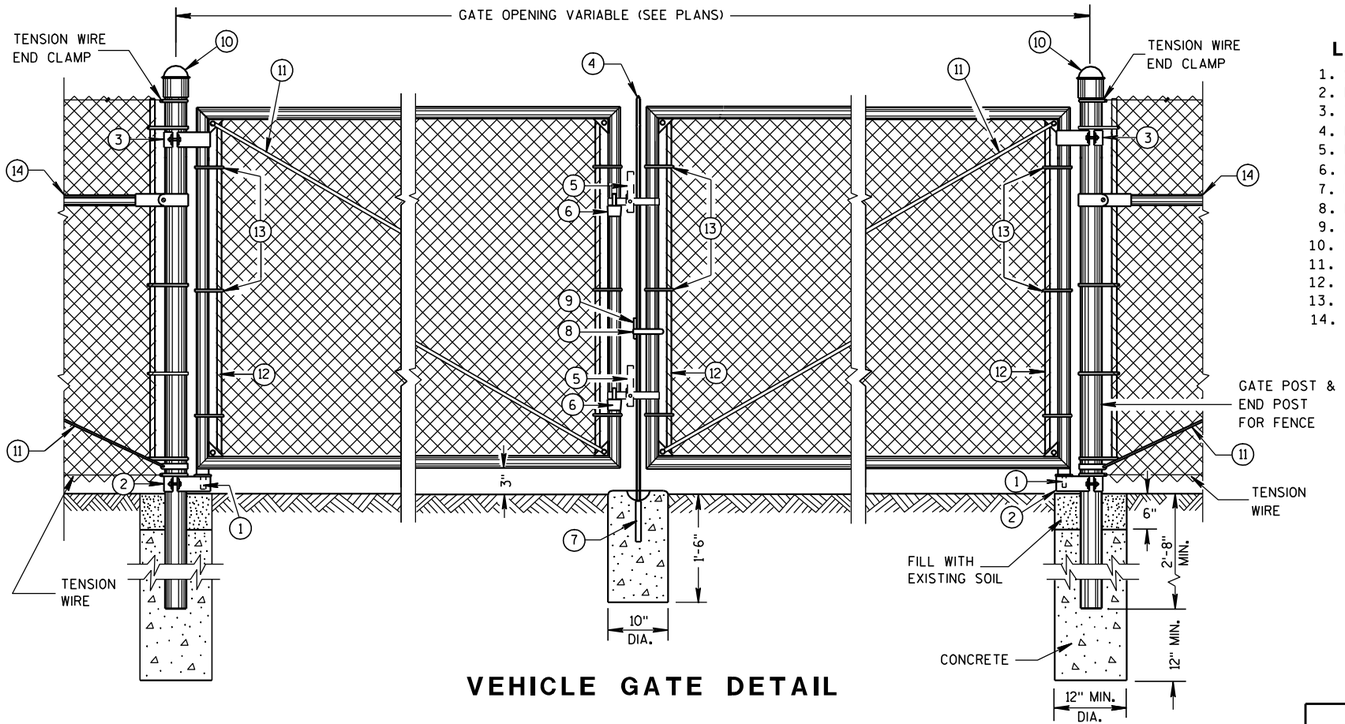
APPROVED
2/5/09 DATE
/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
1000 SIGN
FHWA

6

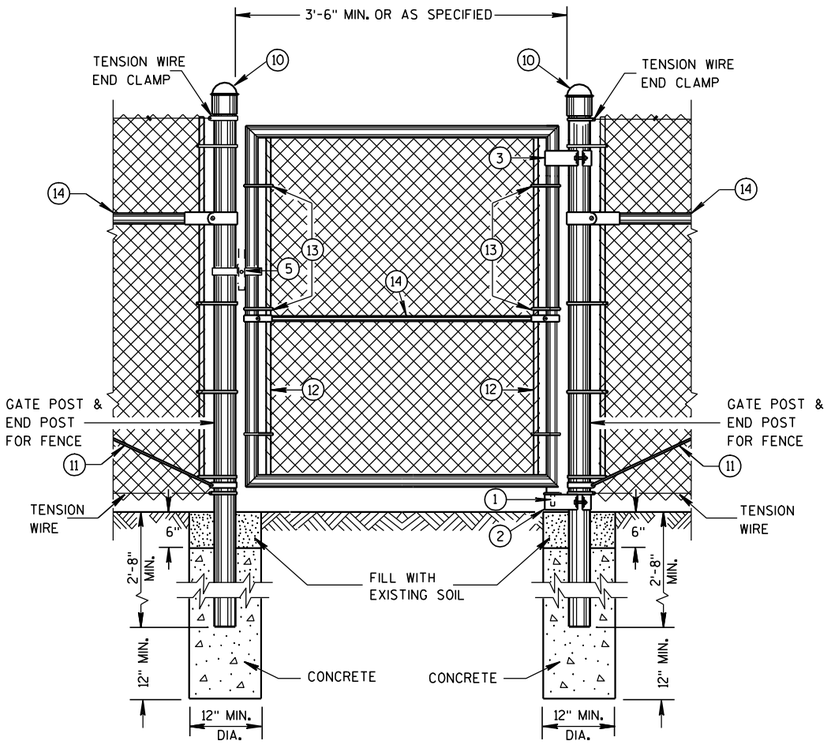
S.D.D. 15 A 6-2

6

S.D.D. 15 A 6-2



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

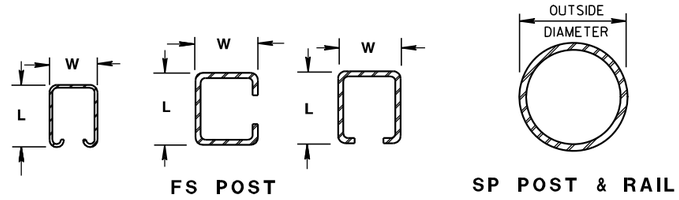
FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.



FS POST

SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR FORMED STEEL FENCE POST

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

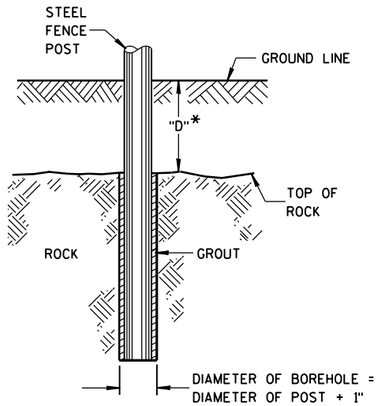
SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR ROUND STEEL FENCE POST

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

FENCE CHAIN LINK

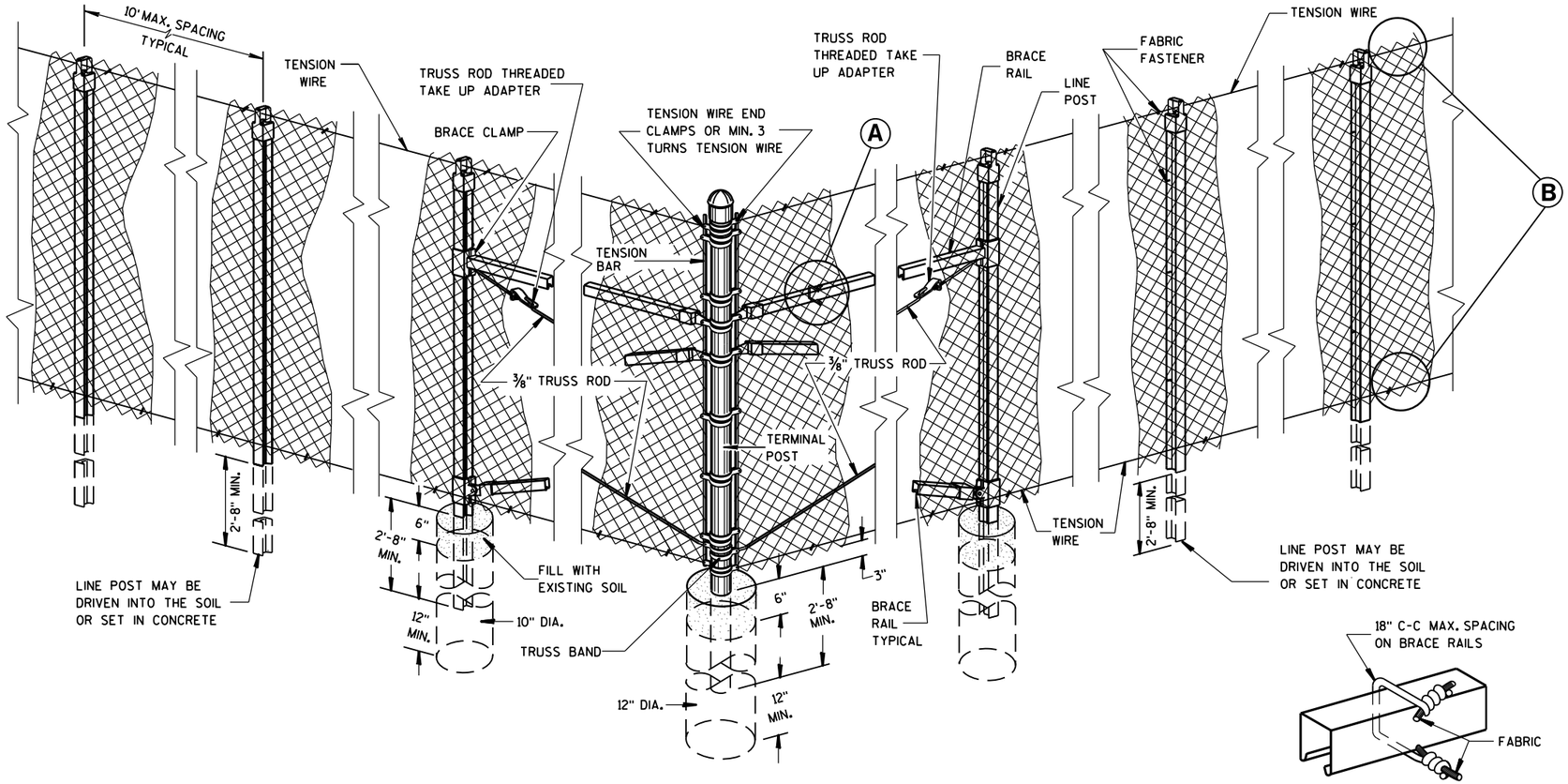
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 15 B 3-12a

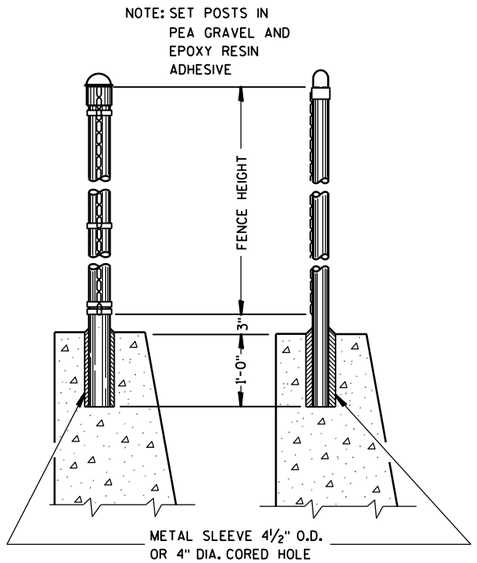


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST

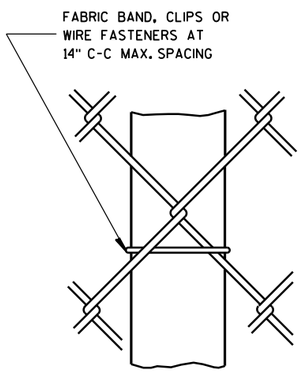


END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



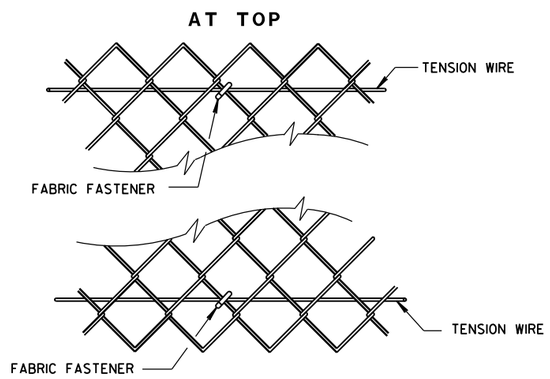
END POST & CORNER POST LINE POST

DETAILS OF FENCE ON WALL



LINE POST

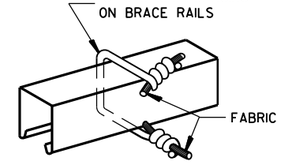
FABRIC FASTENER



AT BOTTOM

SELVAGES

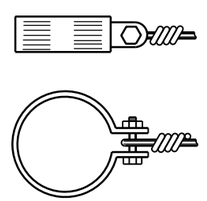
Ⓑ



BRACE RAIL

FABRIC FASTENER

Ⓐ



TENSION WIRE END CLAMP

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/19/2010
DATE
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

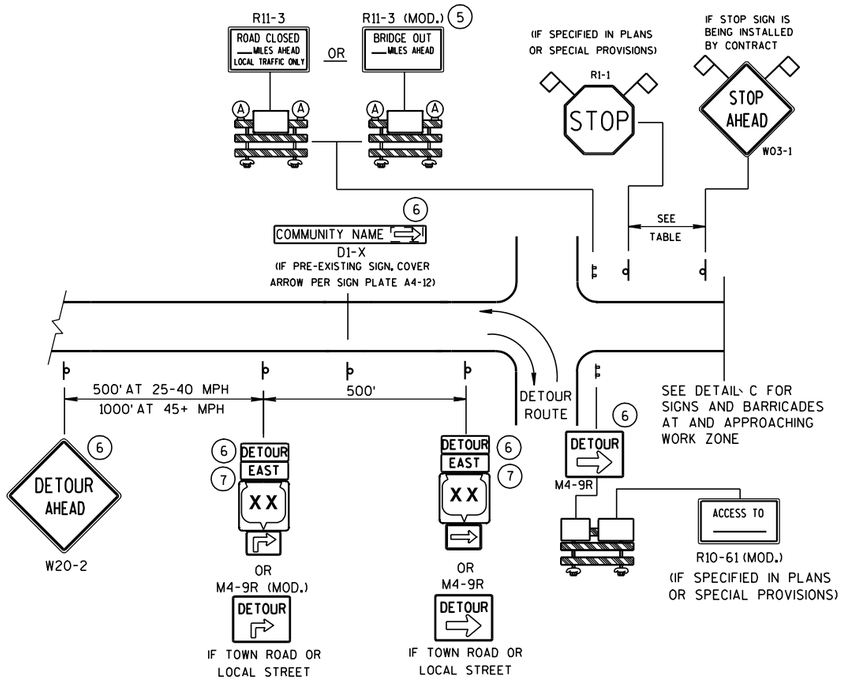
1002

6

S.D.D. 15 B 3-12b

6

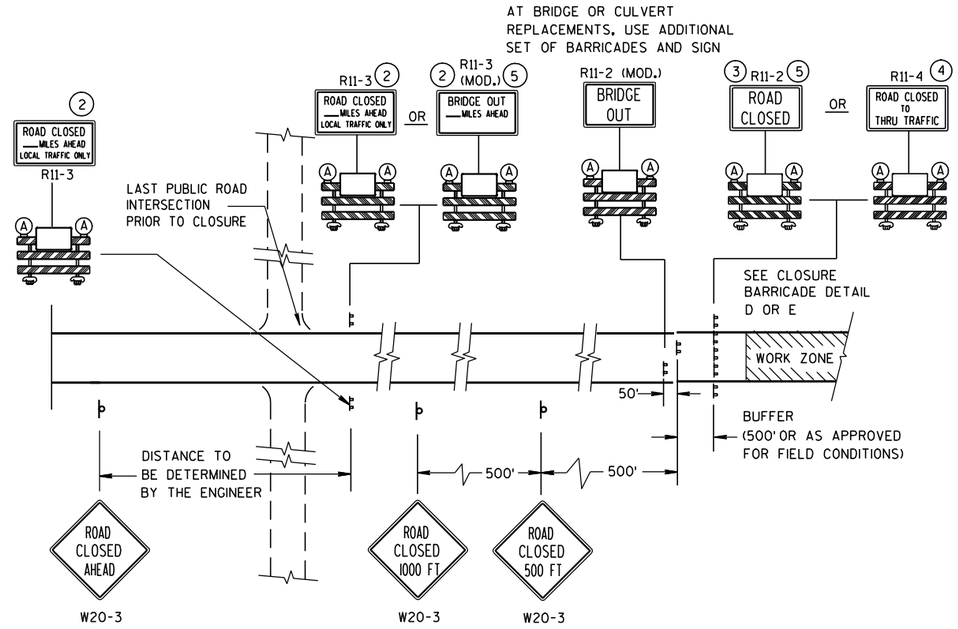
S.D.D. 15 B 3-12b



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

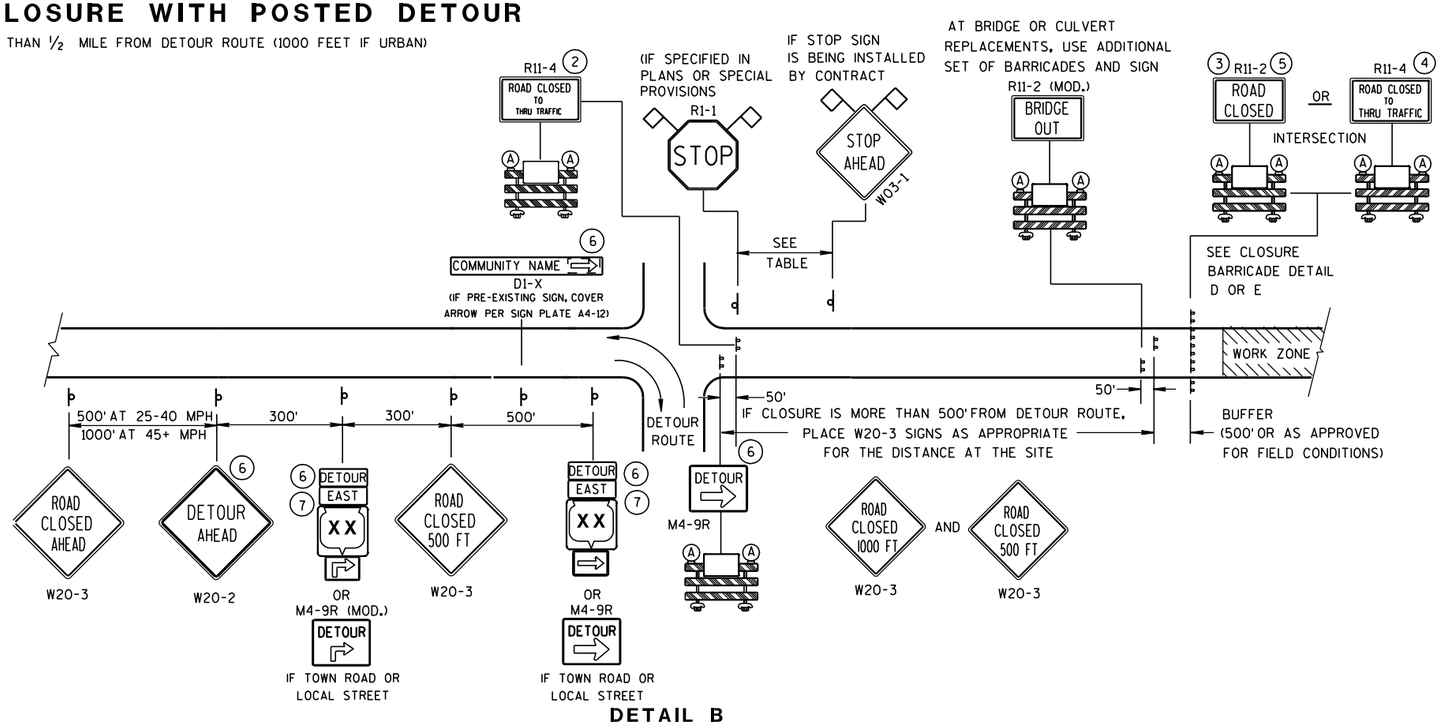


DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

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 15C2-4b
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

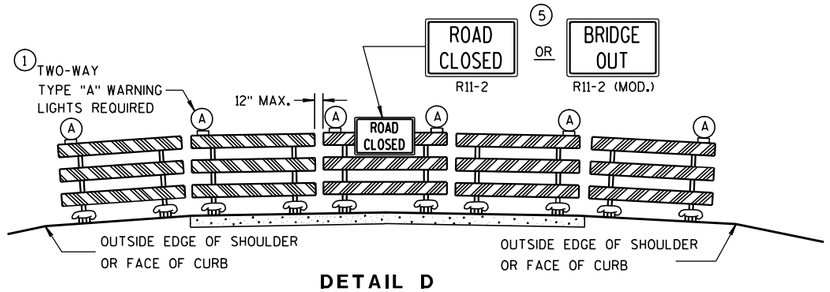
- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1; M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

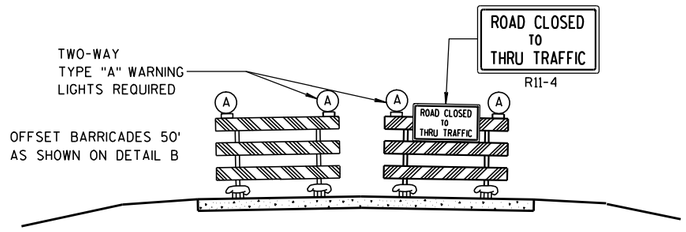
S.D.D. 15 C 2-4a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-4a 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 BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

"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, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" 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.)
- M05-1 AND M06-1 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 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 LANE 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 MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/16/03
DATE

/S/ Thomas N. N[illegible]
CHIEF SIGNS AND MAR 1004 INEER

FHWA

6

S.D.D. 15 C 2-4b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

GENERAL NOTES

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

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. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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.

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

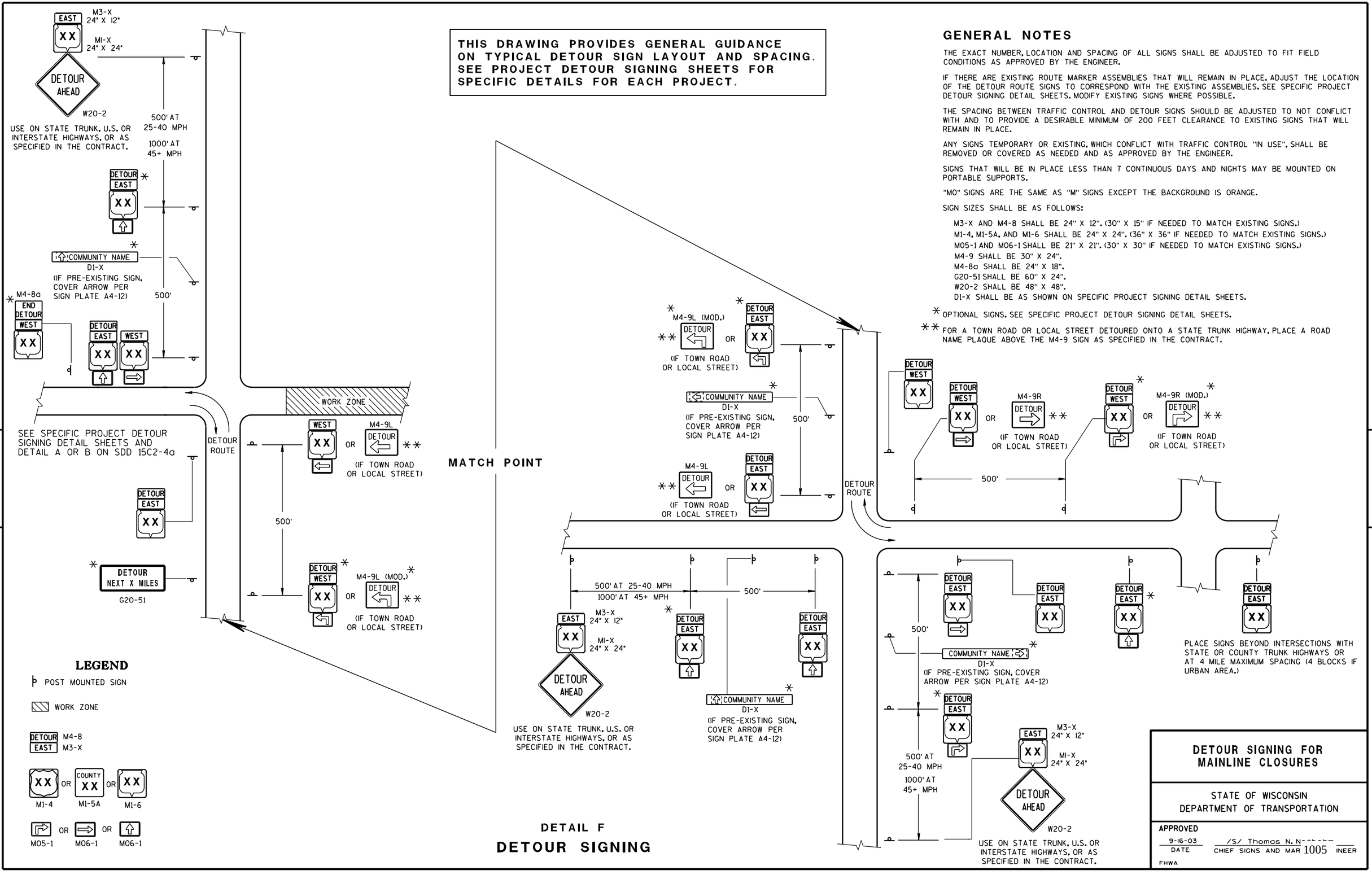
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" 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.)
M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
M4-9 SHALL BE 30" X 24".
M4-8a SHALL BE 24" X 18".
G20-51 SHALL BE 60" X 24".
W20-2 SHALL BE 48" X 48".
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



LEGEND

- POST MOUNTED SIGN
- WORK ZONE
- DETOUR EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4 / M1-5A / M1-6
- M05-1 OR M06-1 OR M06-1

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-16-03 DATE
/S/ Thomas N. Nabbefeld 1005
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

6

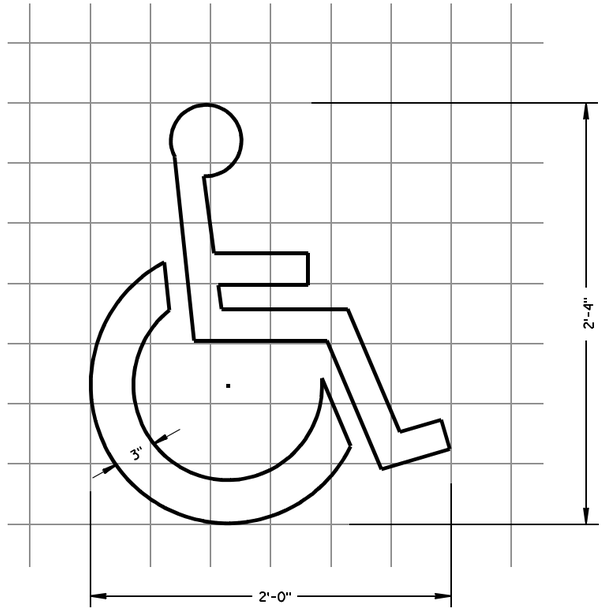
S.D.D. 15 C 2-4c

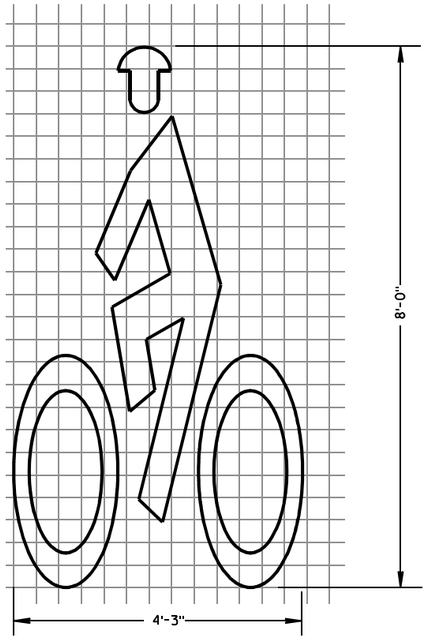
GENERAL NOTES

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

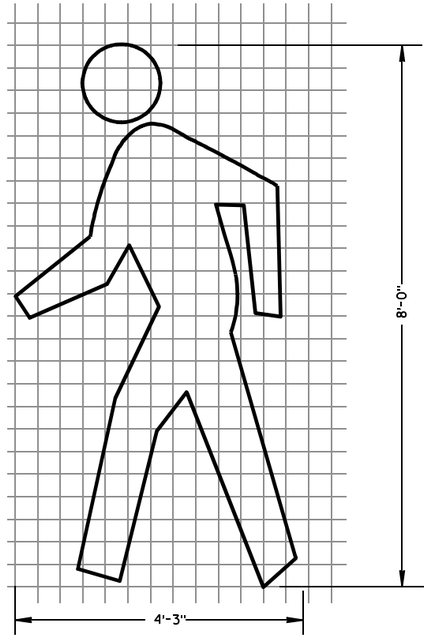
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.

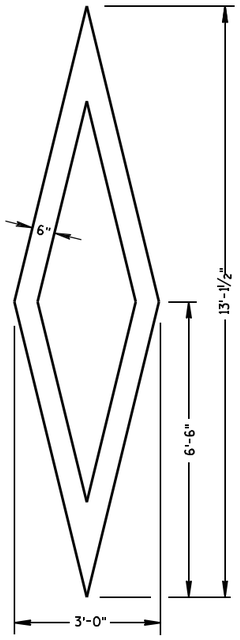




BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

S.D.D. 15 C 7-12a

S.D.D. 15 C 7-12a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 DATE

/S/ Thomas N Nathan STATE TRAFFIC ENGINEER

1006

IGN

FHWA

GENERAL NOTES

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

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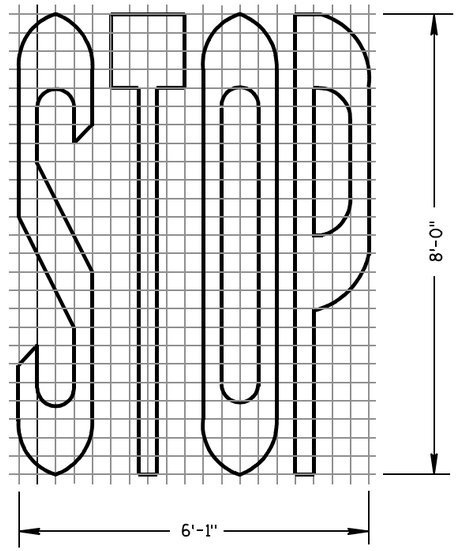
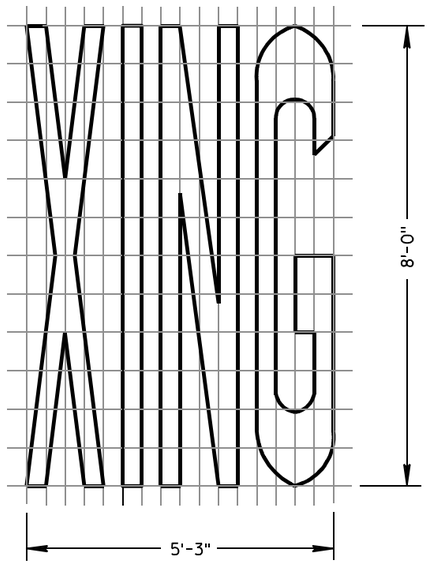
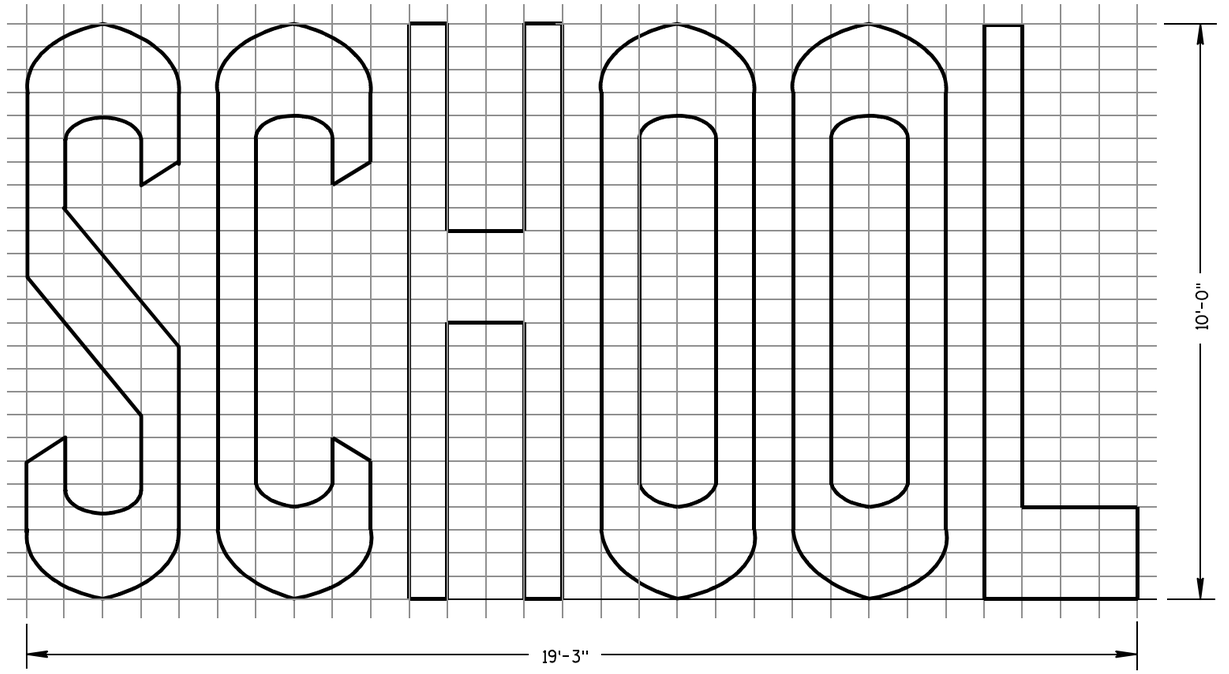
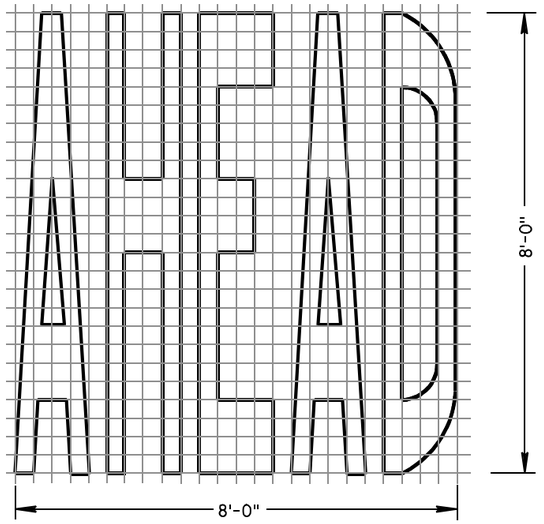
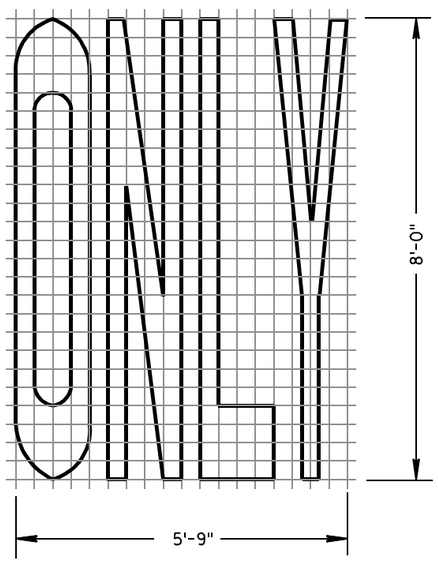


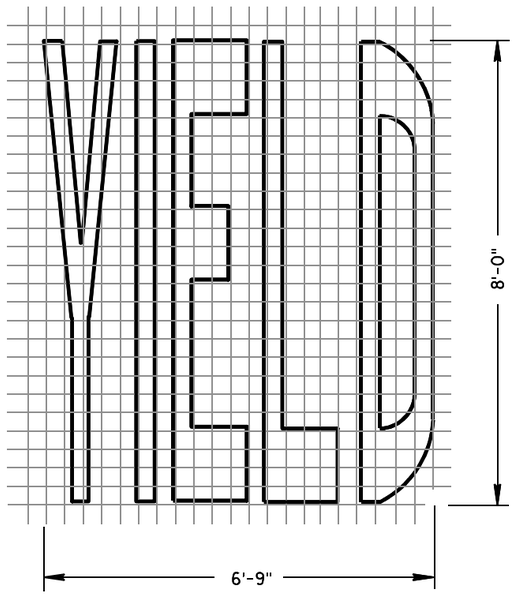


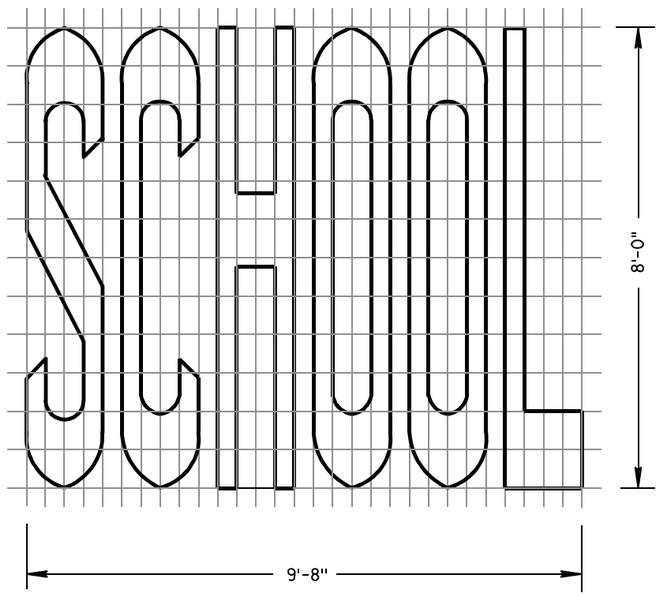


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE

/S/ Thomas N. Nottbohm
STATE TRAFFIC ENGINEER

1007 IGN

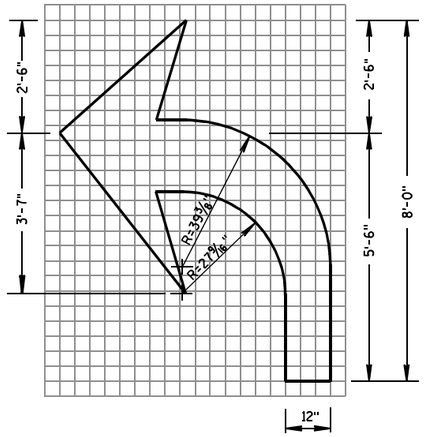
FHWA

6

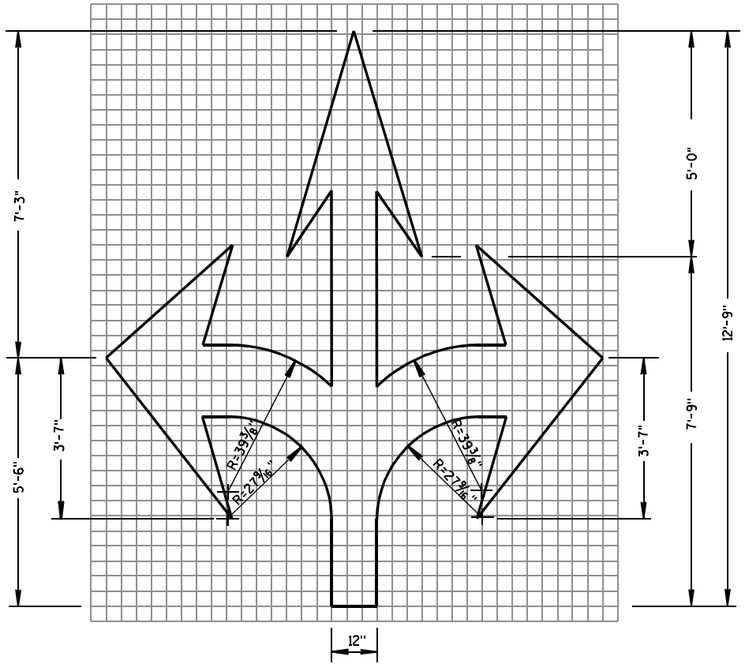
S.D.D. 15 C 7-12b

6

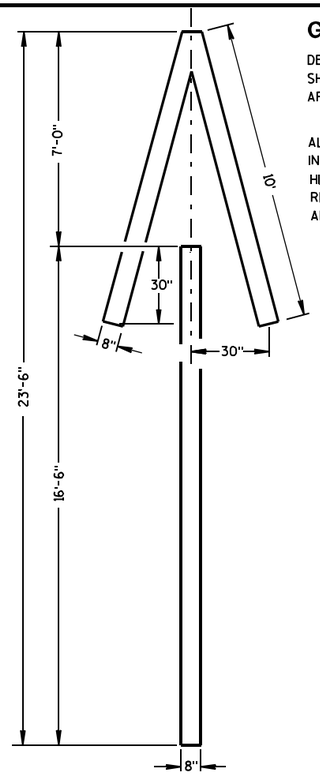
S.D.D. 15 C 7-12b



TYPE 2



TYPE 6

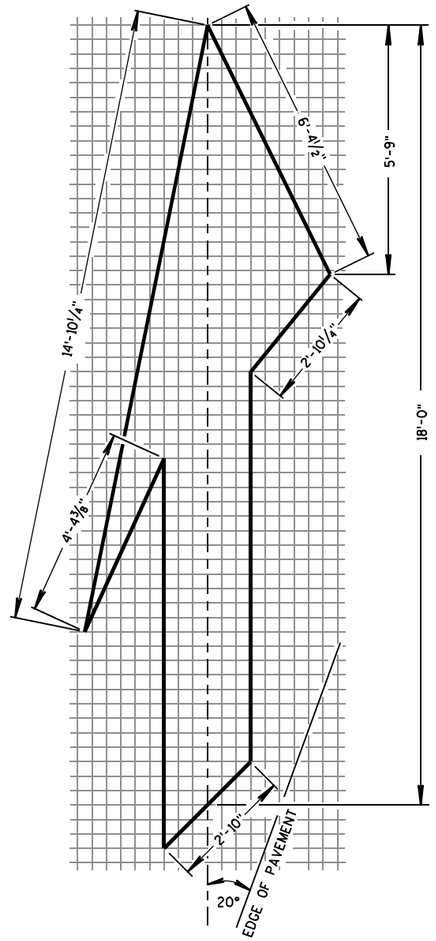


TYPE 4

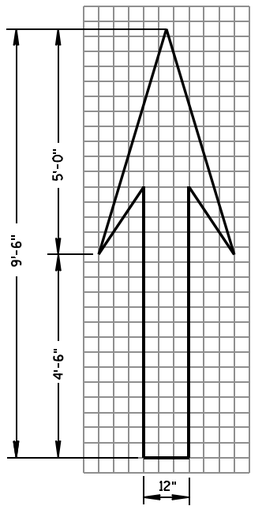
GENERAL NOTES

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

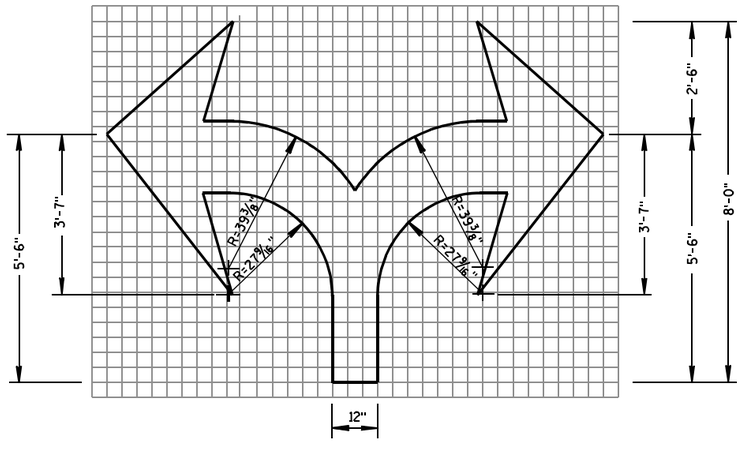
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



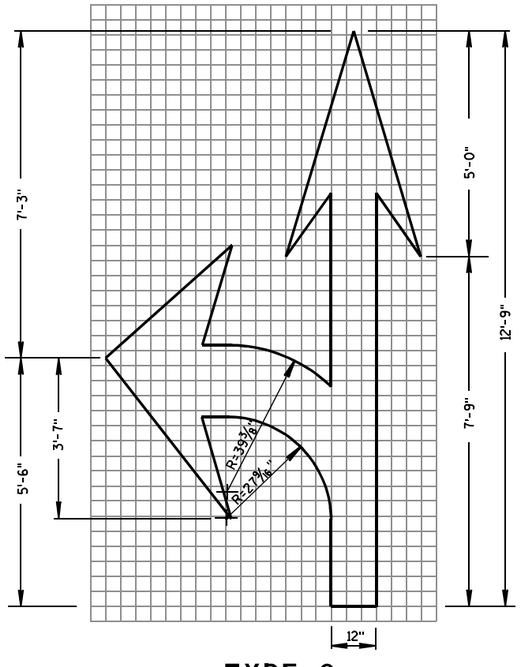
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nathaam — STATE TRAFFIC ENGINEER

1008 — SIGN

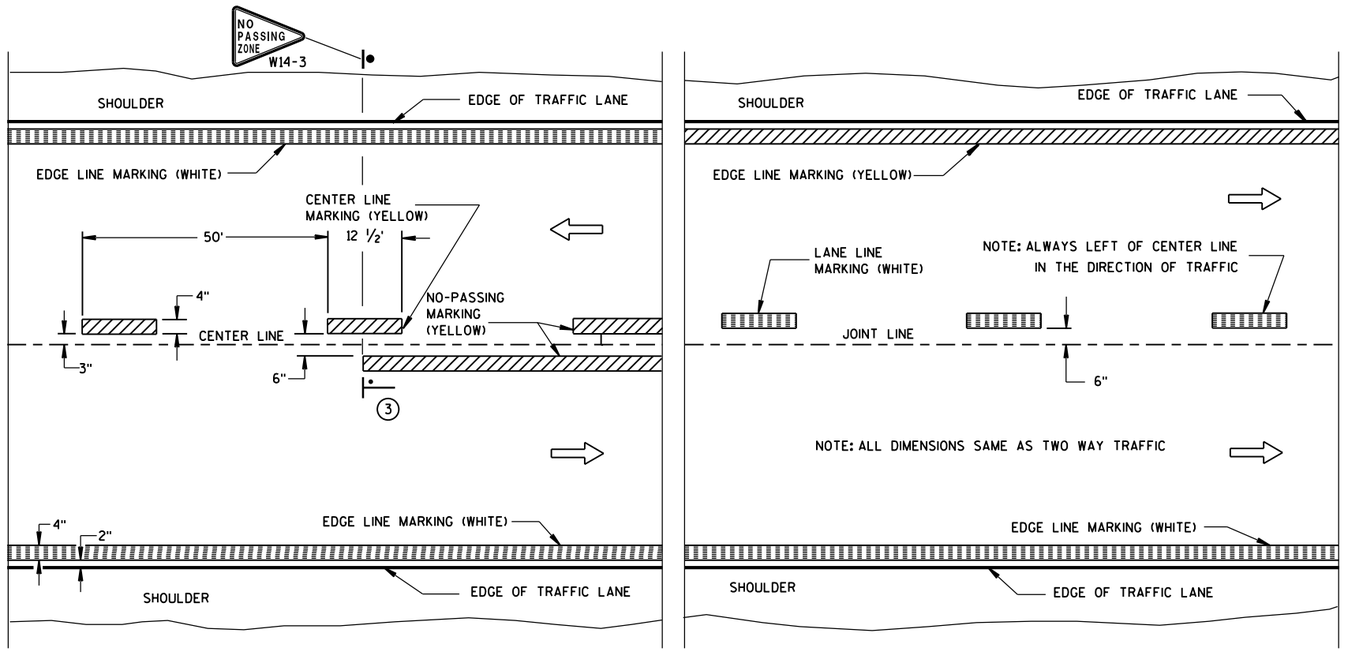
FHWA

6

S.D.D. 15 C 7-12c

6

S.D.D. 15 C 7-12c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

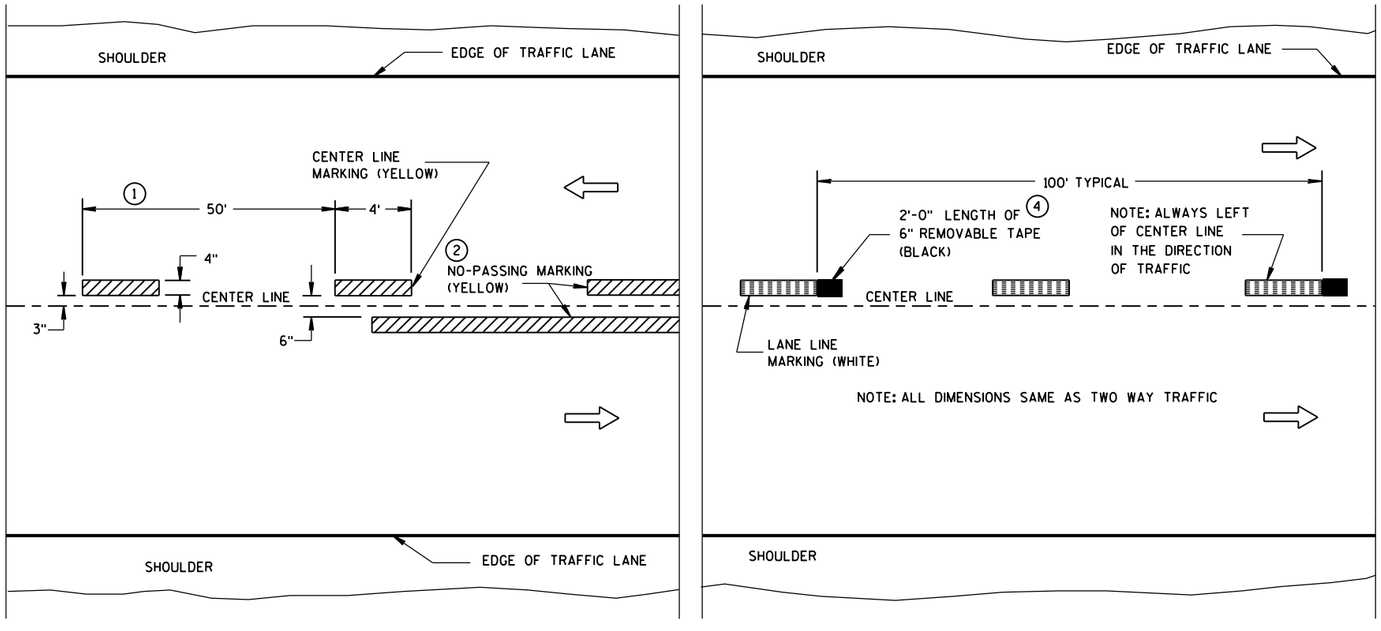
GENERAL NOTES

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

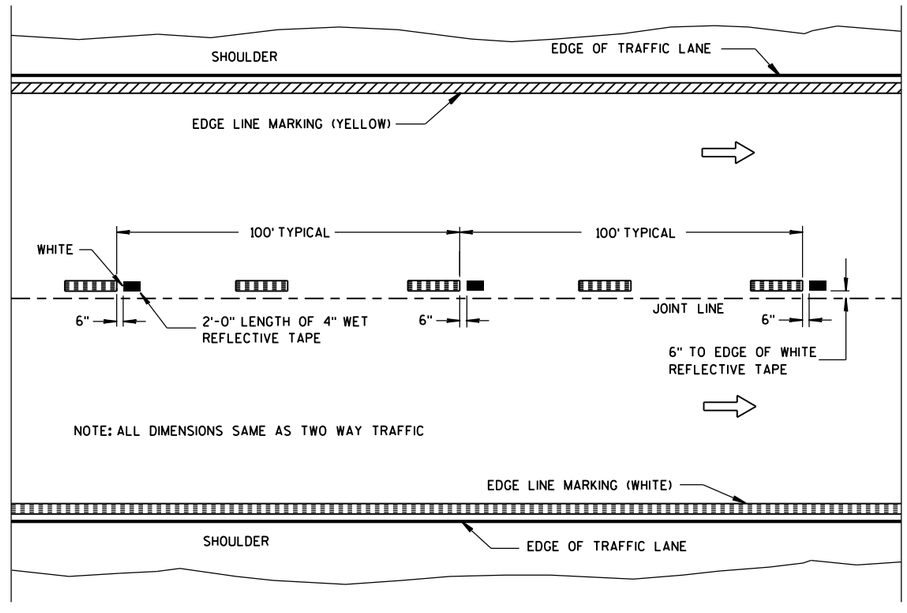


TWO WAY TRAFFIC

ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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



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
10-1-2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

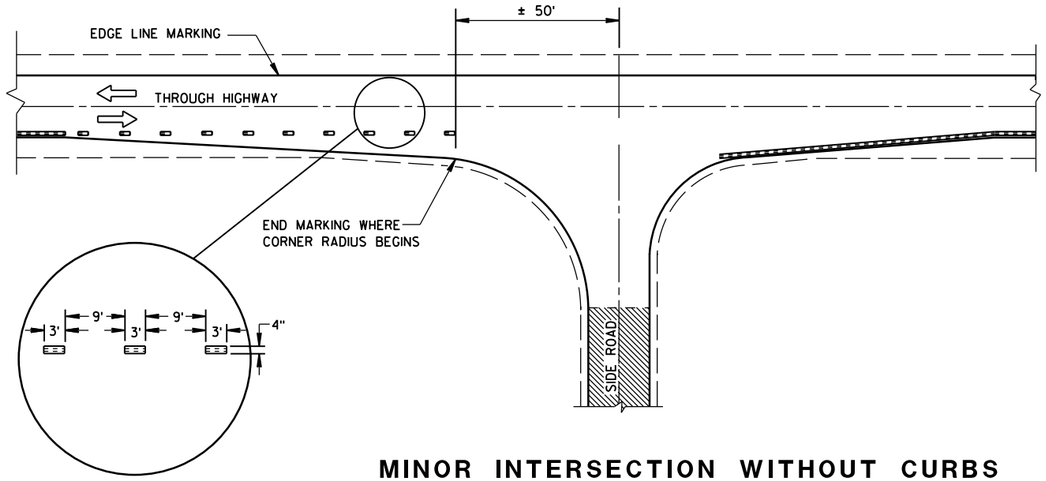
1009 — SIGN

6

S.D.D. 15 C 8-15a

6

S.D.D. 15 C 8-15a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

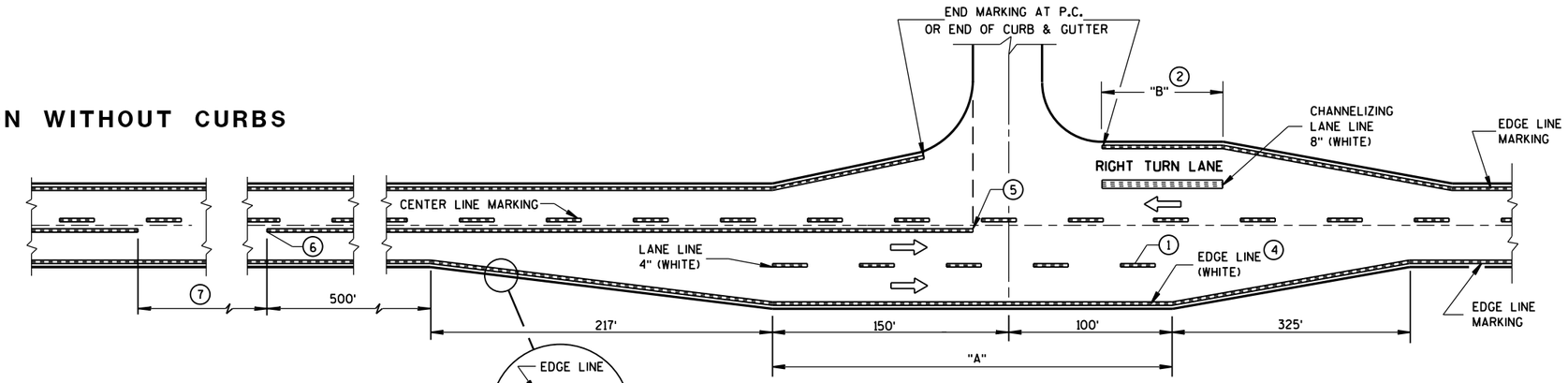
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

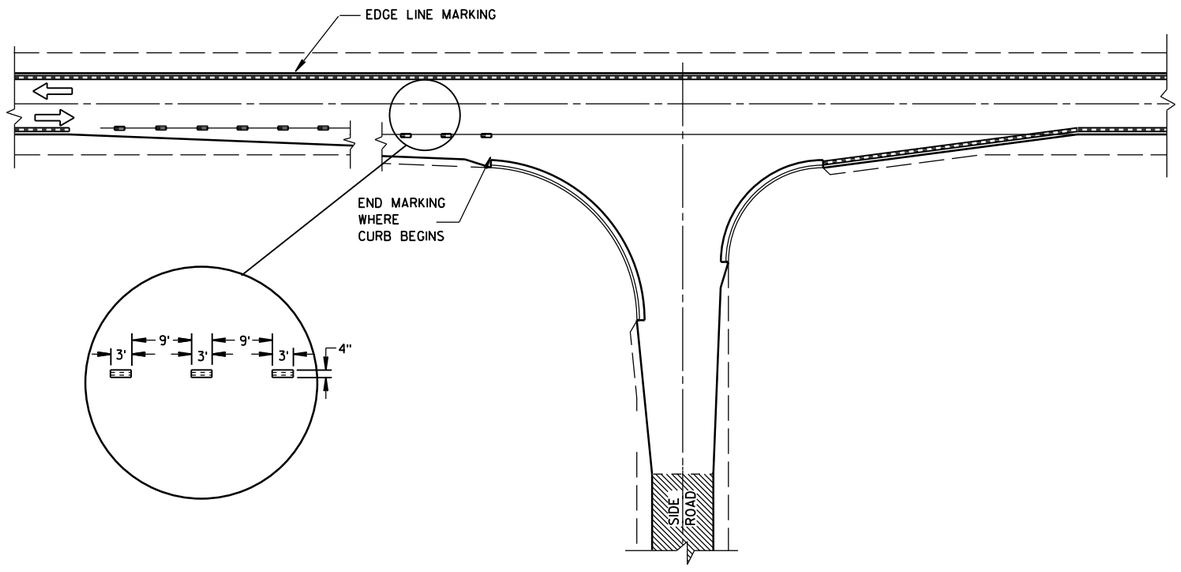
(7)

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



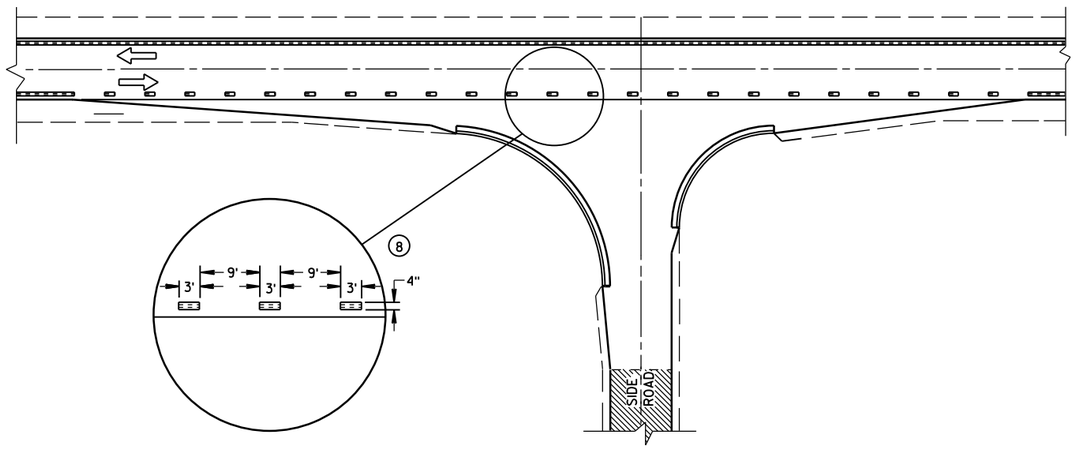
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

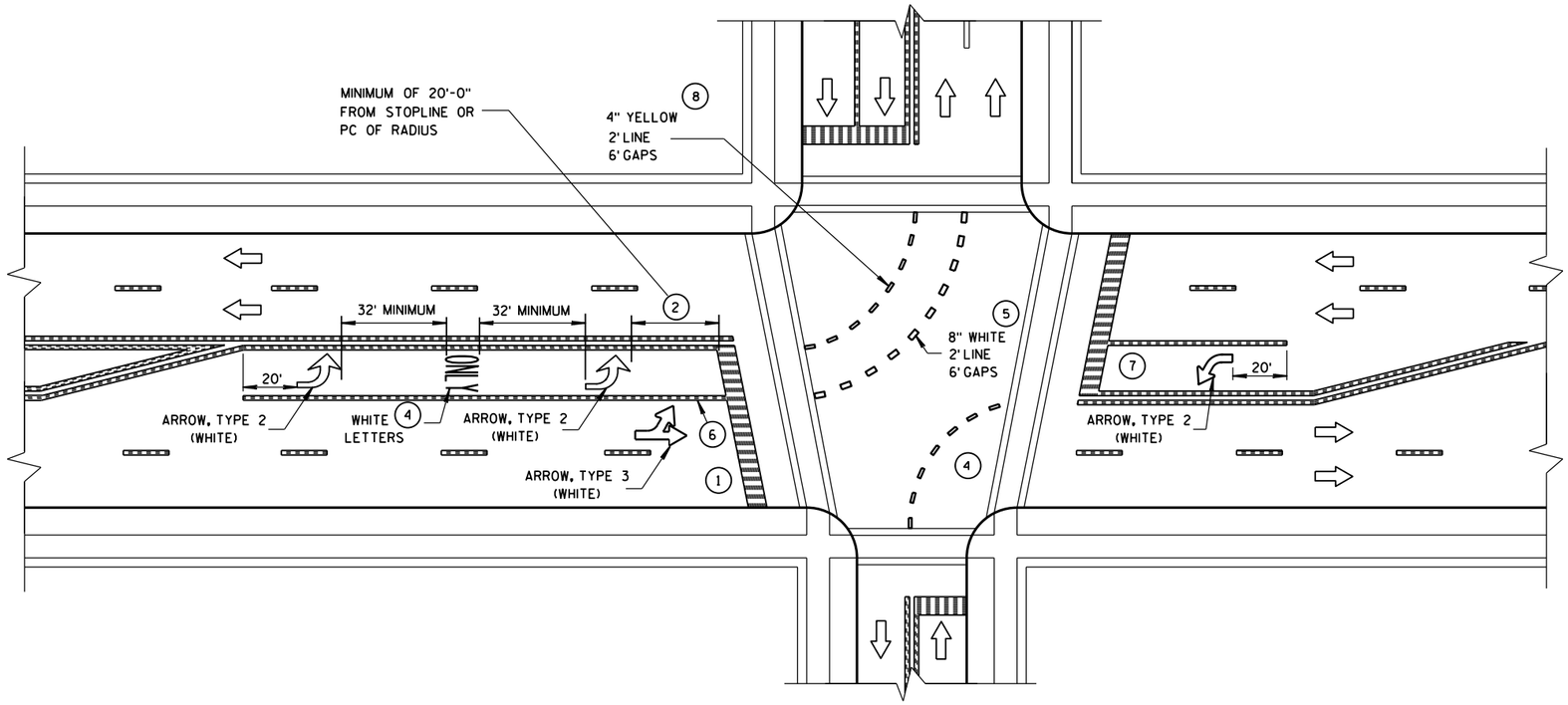
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 1010

6

S.D.D. 15 C 8-15b

6

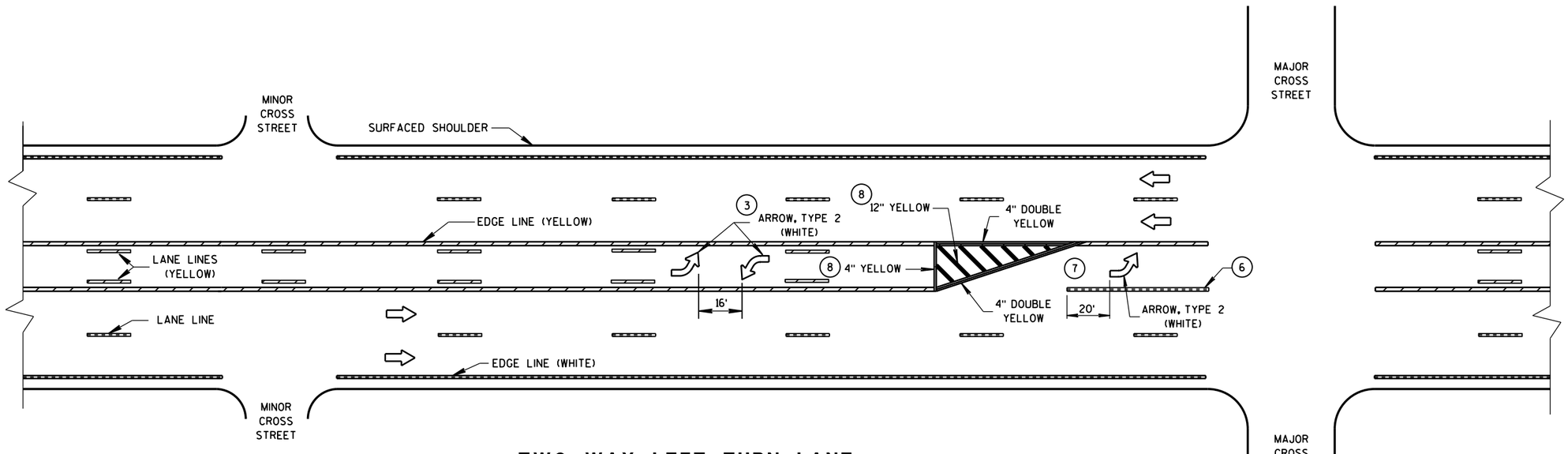
S.D.D. 15 C 8-15b



GENERAL NOTES

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

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



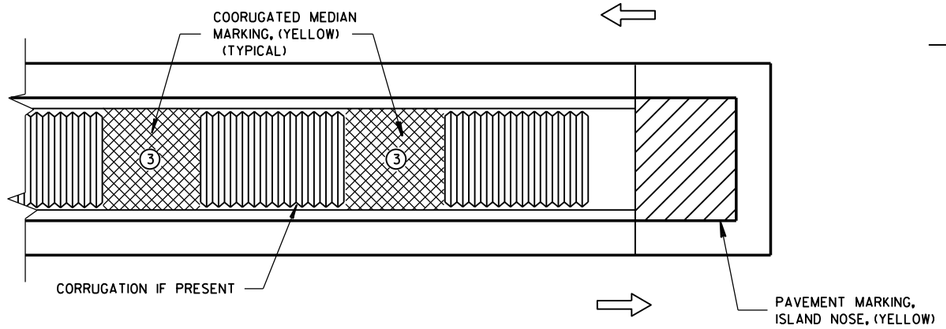
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

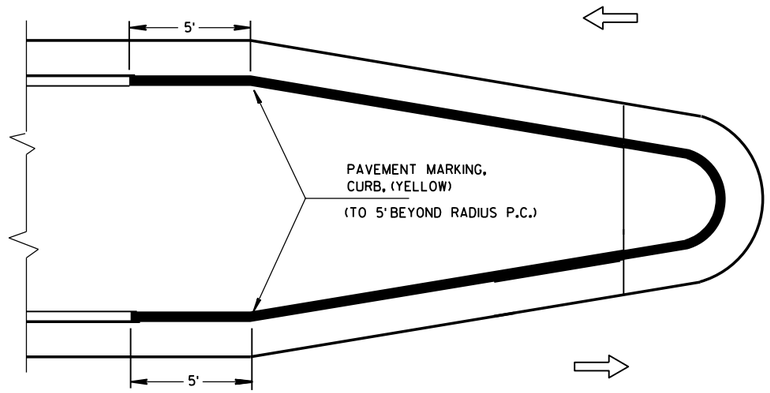
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

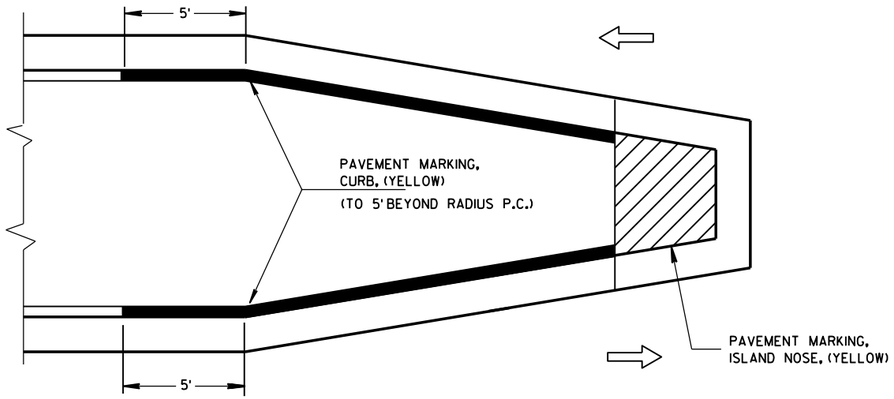
S.D.D. 15 C 8-15e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

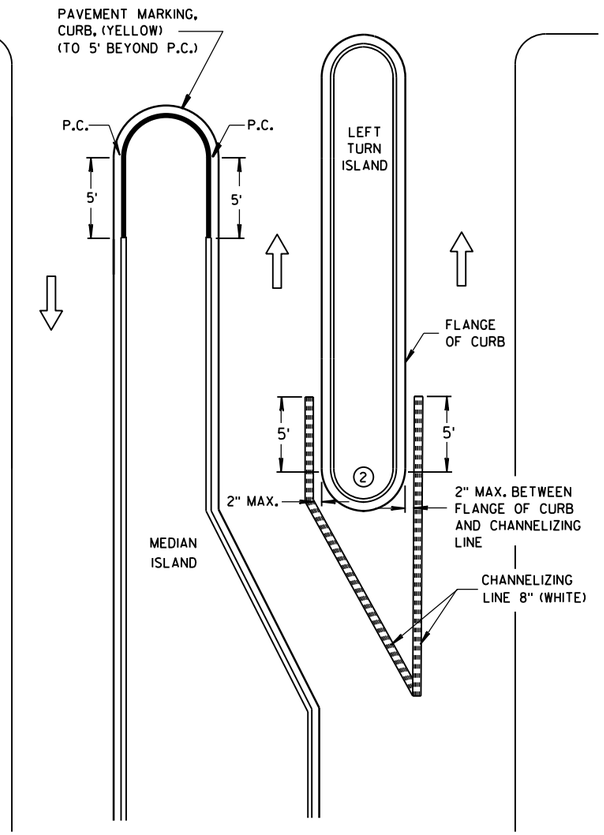


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

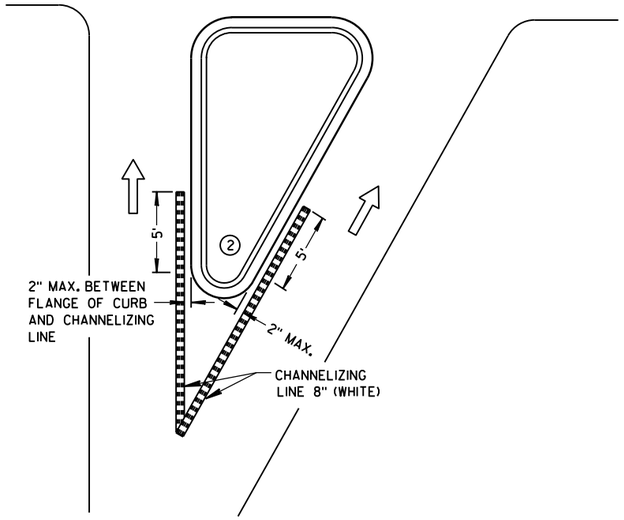
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



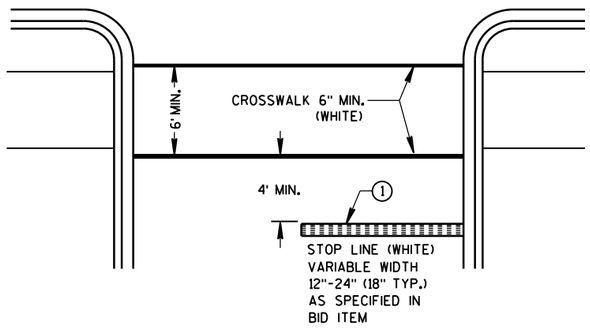
LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

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



RIGHT TURN ISLAND



STOP LINE AND CROSSWALK

LEGEND

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

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)

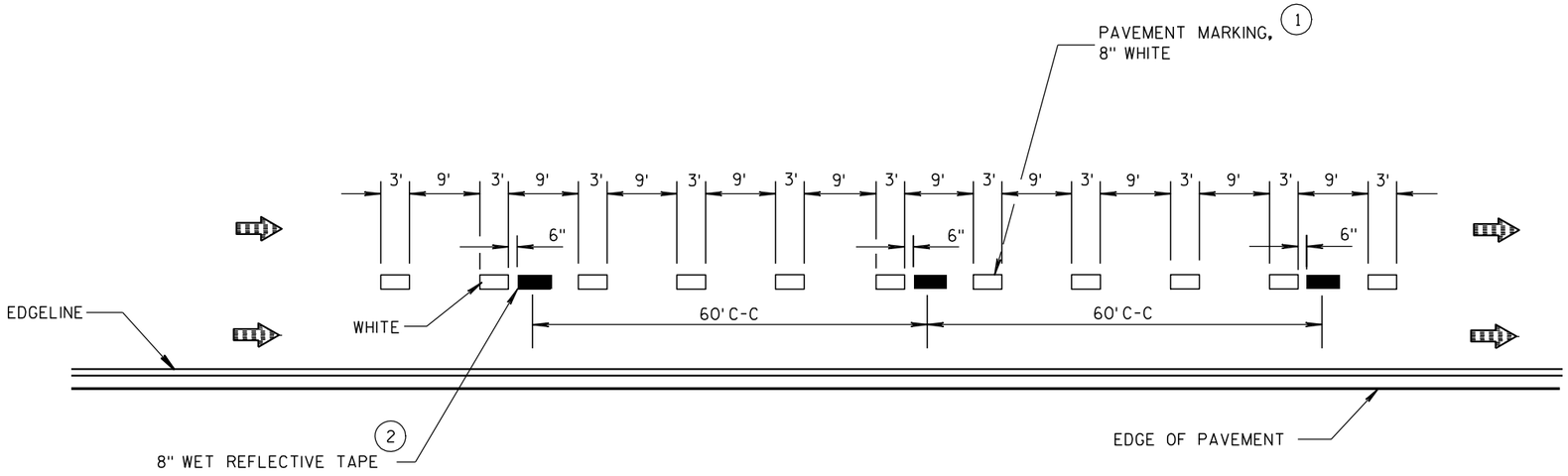
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI 1012

6

S.D.D. 15 C 8-15f

6

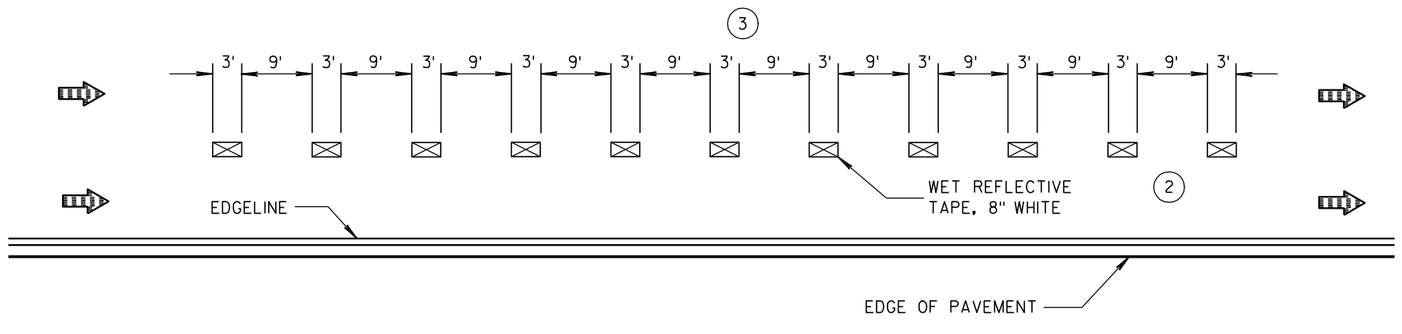
S.D.D. 15 C 8-15f



SPRAYED OR NON WET REFLECTIVE DROP LANE
LINE SUPPLEMENTED BY WET REFLECTIVE TAPE SEGMENT

GENERAL NOTES

1. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE. RETRACE EXISTING 4" MARKING WITH 8" MARKING.
2. REPLACE SAME 4" WET REFLECTIVE TAPE WHERE EXISTING 4" TAPE IS IN PLACE.
3. 3' LINE 9' GAP, EXCEPT REPLACE THE EXISTING LINE - GAP PATTERN AND WIDTH OF TAPE WHERE EXISTING TAPE IS IN PLACE.



DROP LANE DETAIL FOR
NEW WET REFLECTIVE TAPE INSTALLATIONS

LEGEND

- 2.0' LENGTH OF WET REFLECTIVE TAPE
- 3.0' LENGTH OF WET REFLECTIVE TAPE
- DROP LANE MARKING SPRAYED OR NON WET REFLECTIVE TAPE
- DIRECTION OF TRAFFIC

PAVEMENT MARKINGS FOR DROP LANES FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/13/10 DATE
/S/ Thomas N. Nothohm
STATE TRAFFIC ENGINEER 1013 DESIGN
FHWA

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S.D.D. 15 C 10-10

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S.D.D. 15 C 10-10

GENERAL NOTES

ORIENT ANCHOR BOLTS IN FOOTING AND PROVIDE ANCHOR BOLT STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER FABRICATION DRAWING.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

SIGN SUPPORTS SHALL BE LOCATED NORMAL TO ROADWAY.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR BOLTS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR CAGE TO BE ASSEMBLED USING TIE WIRES ONLY, NO WELDING.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACK FILLING AROUND THE BASE. ANY REQUIRED BACKFILL SHALL BE WELL COMPACTED IN LAYERS OF 1 FOOT OR LESS. COMPACTION SHALL BE BY MECHANICAL MEANS. CARE SHALL BE TAKEN SO NO DAMAGE OCCURS TO THE CONCRETE BASE DURING COMPACTION.

EXCAVATION OF MATERIALS NOT OCCUPIED BY CONCRETE SHALL BE MINIMIZED TO REDUCE DISTURBANCE OF THE SURROUNDING SOILS.

THE BOTTOM OF THE DRILLED HOLE SHALL BE FIRM AND THOROUGHLY CLEANED SO NO LOOSE OR COMPRESSIBLE MATERIALS ARE PRESENT AT THE TIME OF THE CONCRETE PLACEMENT.

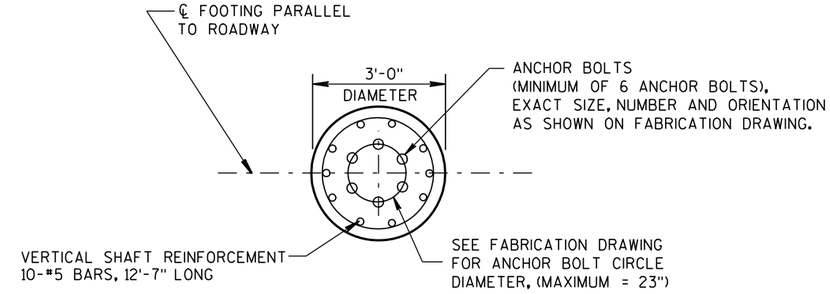
IF THE DRILLED HOLE CONTAINS STANDING WATER, THE CONCRETE SHALL BE PLACED USING A TREMIE TO DISPLACE THE WATER.

THE REINFORCEMENT AND ANCHOR BOLTS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

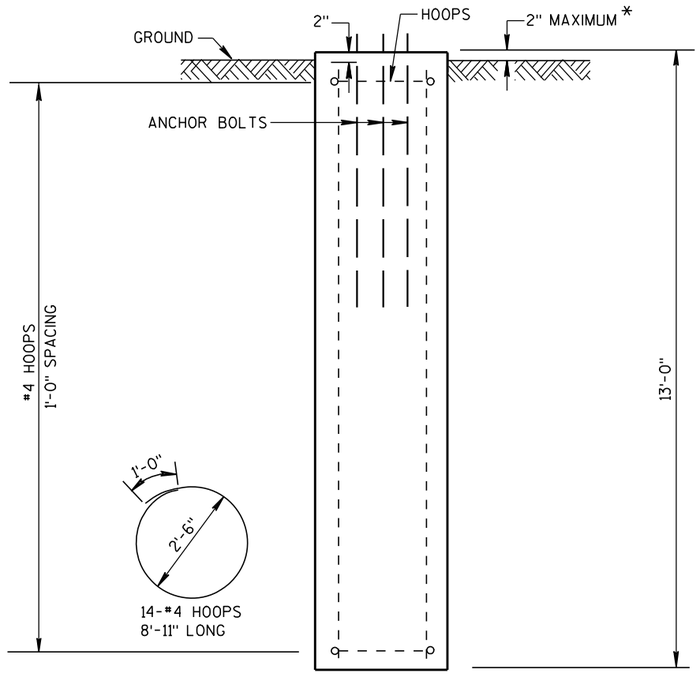
ANY DAMAGE TO THE CONCRETE BASE DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR BOLTS	AASHTO M314 GRADE 55

THIS FOOTING HAS BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 20 DEGREES (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 350 PSF (COHESIVE SOILS).



PLAN VIEW



ELEVATION VIEW

* FOR OVERHEAD SIGN SUPPORTS THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE BASE SHALL BE POURED FLUSH WITH THE GROUND.

CONCRETE - 3.4 C.Y. PER FOOTING
H.S. REINFORCEMENT - 215 LBS. PER FOOTING

36" DIAMETER FULL SPAN OVERHEAD SIGN SUPPORT BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/17/09 DATE

/S/ Thomas N. Nothohm
STATE TRAFFIC ENGINEER

FHWA

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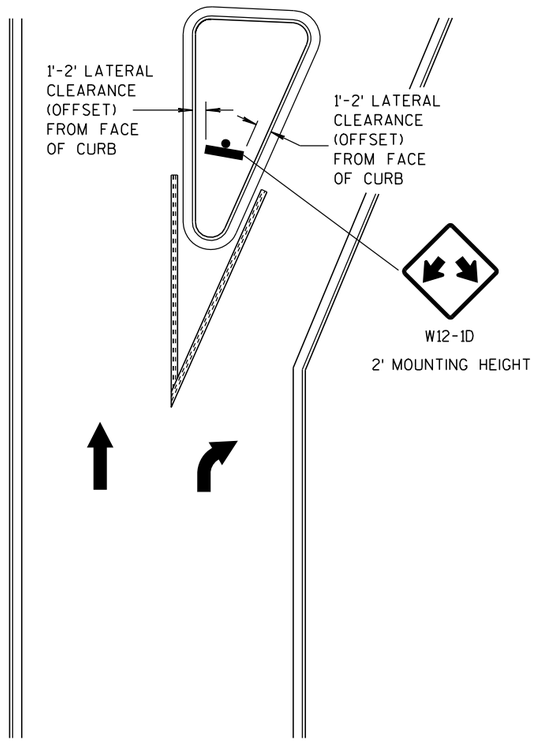
S.D.D. 15 C 15-3

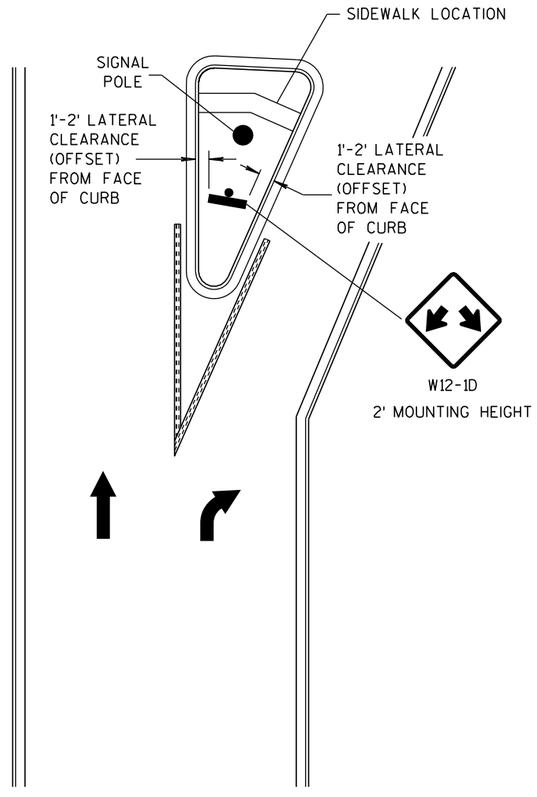
GENERAL NOTE

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

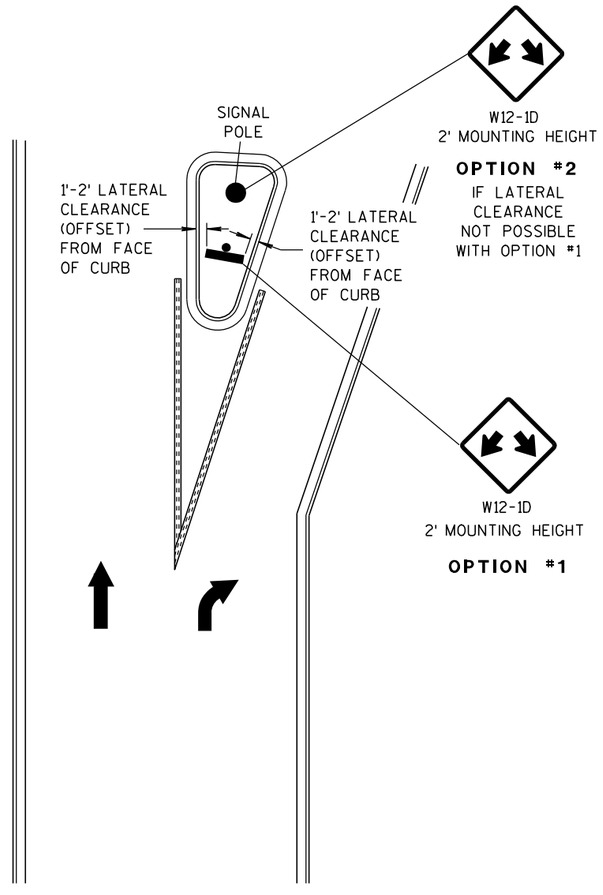
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.



LARGE RIGHT TURN ISLAND



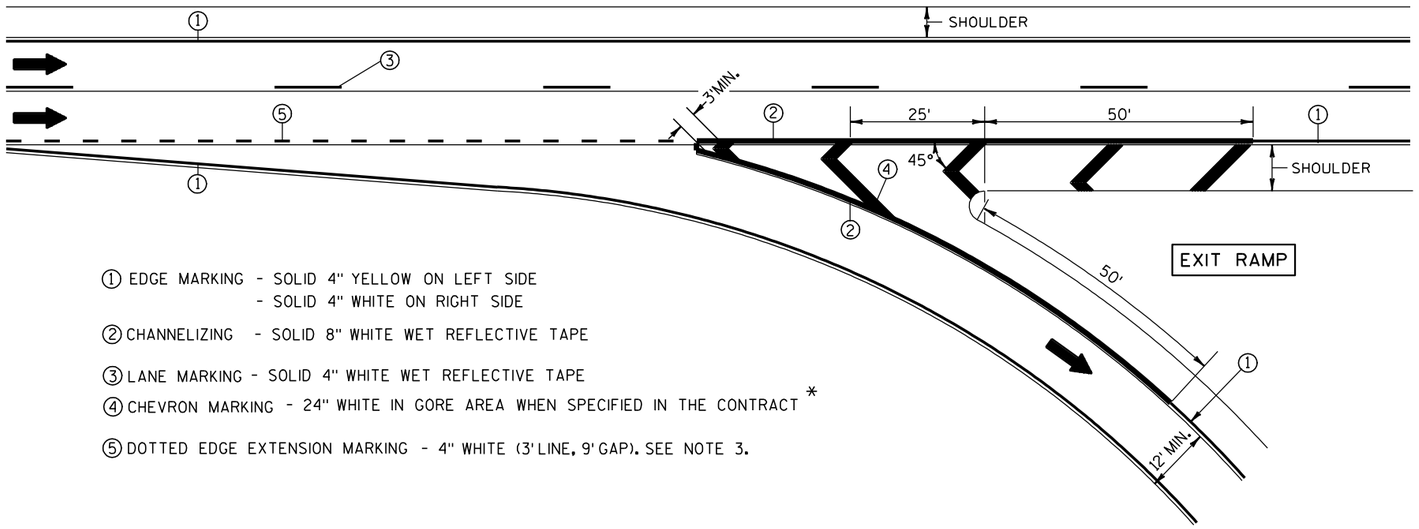
LARGE RIGHT TURN ISLAND
WITH SIGNAL POLE



SMALL RIGHT TURN ISLAND

DOUBLE ARROW WARNING SIGN PLACEMENT

DOUBLE ARROW WARNING SIGN PLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10-22-08 DATE	/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER 1015 IGN
FHWA	



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE

③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE

④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *

⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

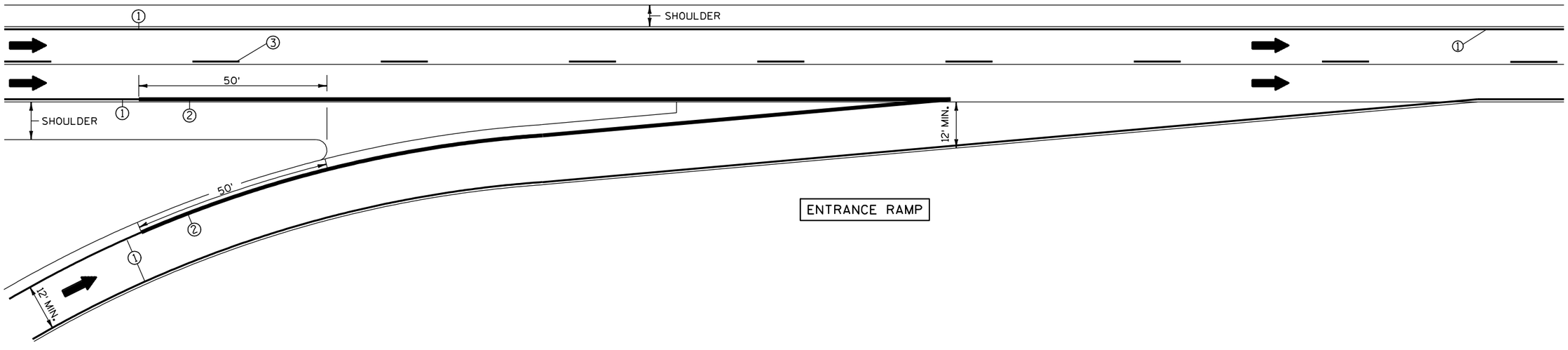
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



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S.D.D. 15 C 31-1a

S.D.D. 15 C 31-1a

PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

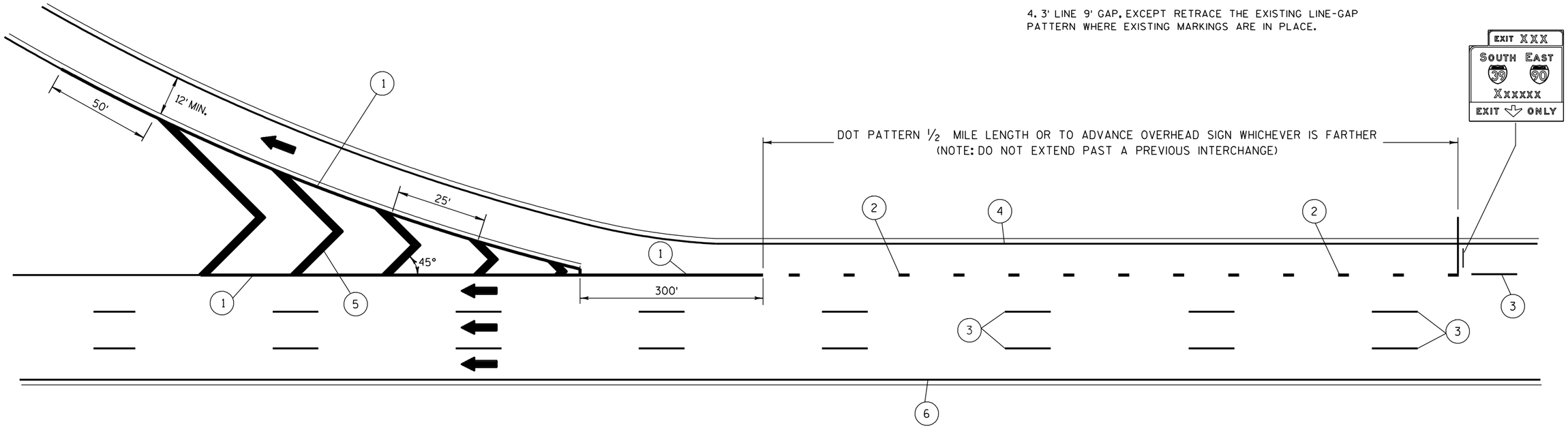
NOTES:

1. SEE STANDARD DETAIL DRAWING 15 C 10 FOR SPRAYED OR NON WET REFLECTIVE LINE SEGMENTS.

2. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

3. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

4. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.



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

LANE DROP
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 31-1b

6

S.D.D. 15 C 31-1b

NOTES:

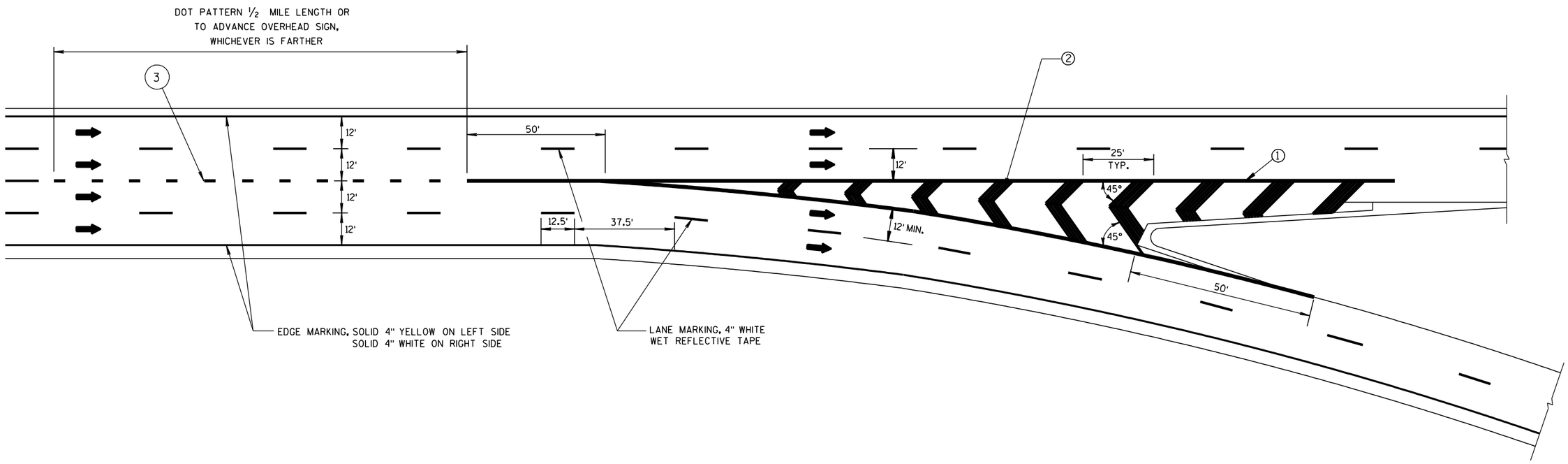
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

① CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE.

② CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT.

③ 3' LINE, 9' GAP SOLID 8" WHITE WET REFLECTIVE TAPE.



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S.D.D. 15 C 31-1c

S.D.D. 15 C 31-1c

PAVEMENT MARKING
MAJOR SPLIT
FREEWAY TO FREEWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- POST WITH ATTACHED SIGN
- DRUM WITH WARNING LIGHT (TYPE C)
- DRUM
- ARROW BOARD
- REMOVING PAVEMENT MARKING
- TEMPORARY PRECAST CONCRETE BARRIER
- DIRECTION OF TRAFFIC
- WORK ZONE

GENERAL NOTES :

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

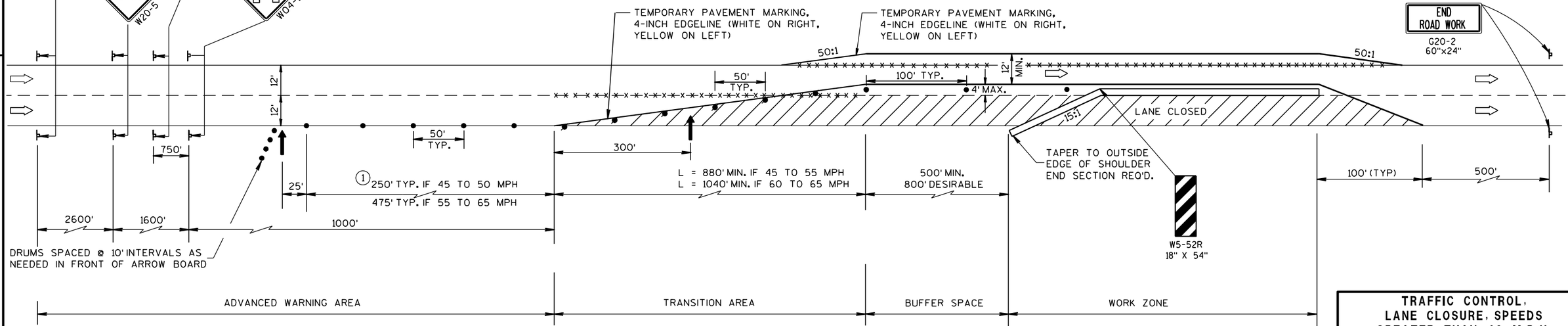
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

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

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

NO EQUIPMENT OR MATERIAL SHALL BE LOCATED WITHIN THE WORK ZONE OTHER THAN BEHIND THE PRECAST CONCRETE BARRIER.



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-94
DATE

/S/ Chester J. [illegible]
DIRECTOR, OFFICE OF 1019 IC

FHWA

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S.D.D. 15 D 3-1

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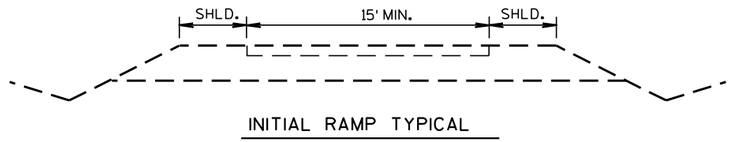
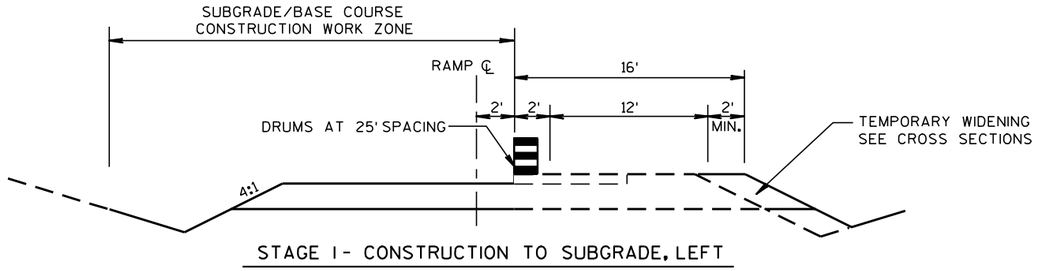
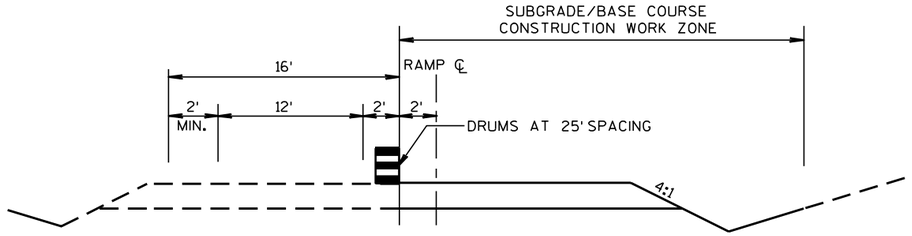
S.D.D. 15 D 3-1



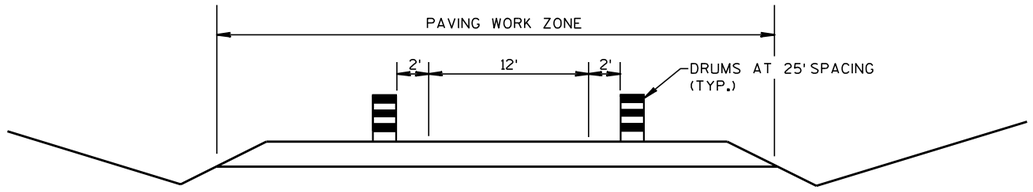
INITIAL RAMP TYPICAL



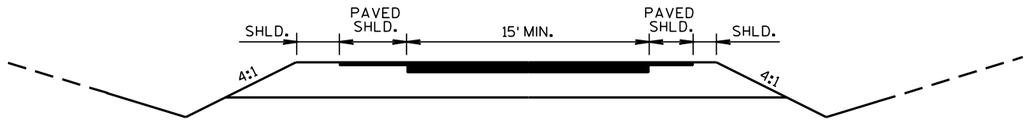
STAGE I - CONSTRUCTION TO SUBGRADE, LEFT



STAGE II - CONSTRUCTION TO SUBGRADE, RIGHT



STAGE III - TRAFFIC ON BASE COURSE



STAGE IV - PAVING

GENERAL NOTES :

WORK SHALL BE SCHEDULED FOR ALL STAGES TO MINIMIZE INCONVENIENCE TO THE TRAFFIC USING THE RAMP WHILE IT IS ONLY BASE COURSE.

IN STAGE III, A MINIMUM 12' LANE WIDTH SHALL BE DELINEATED WITH DRUMS ALONG BOTH EDGES AT ALL TIMES UNTIL PAVED AND PAVEMENT MARKINGS ARE PLACED.

TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-94
DATE

/S/ Chester J. [illegible]
DIRECTOR, OFFICE [illegible] 1020 [illegible]IC

FHWA

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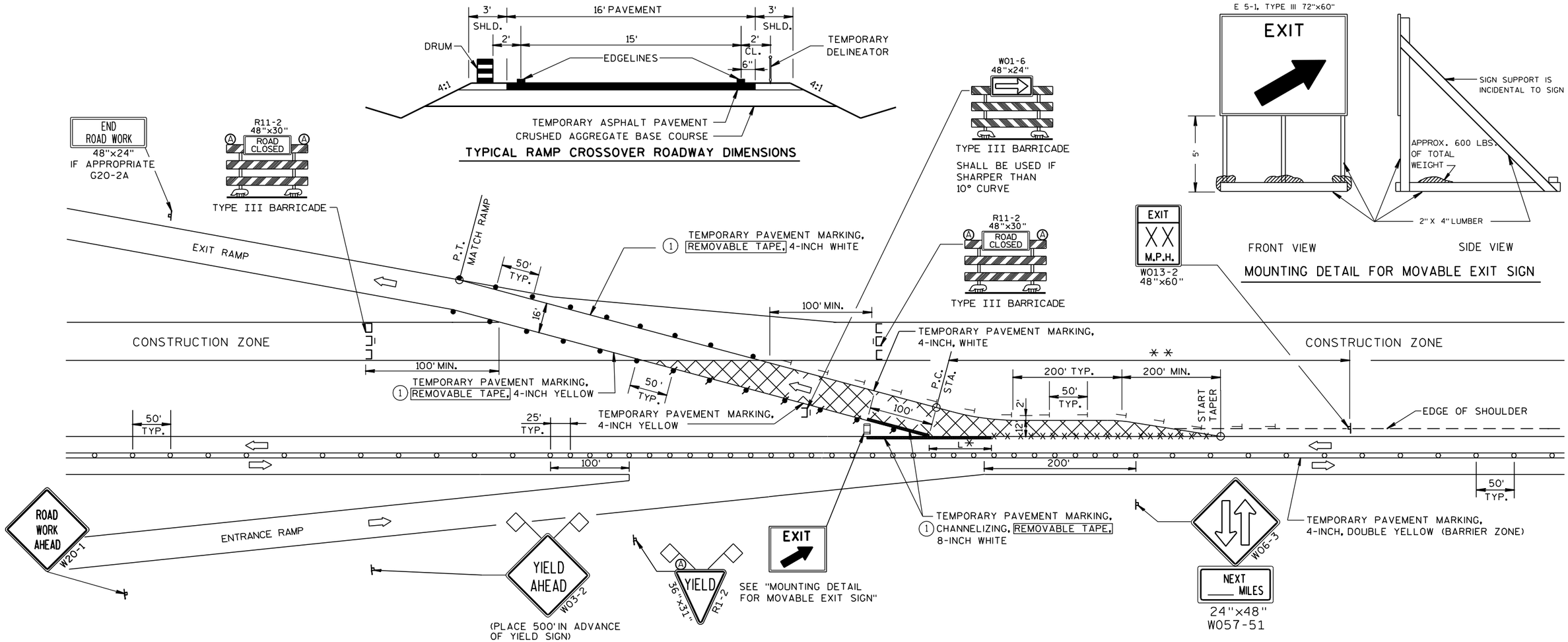
S.D.D. 15 D 4-1



LEGEND

- 8' TYPE III BARRICADE WITHOUT/WITH ATTACHED SIGN
- POST WITH ATTACHED SIGN
- DRUM WITH WARNING LIGHT (TYPE C)
- DRUM
- TEMPORARY DELINEATOR - WHITE (STEEL POST W/SINGLE DELINEATOR)
- (A) WARNING LIGHT, TYPE A
- TEMPORARY CROSSOVER ASPHALTIC PAVEMENT
- REMOVING PAVEMENT MARKINGS
- FLEXIBLE TUBULAR MARKER POST AND BASE
- FLAGS, 12" X 12", RED
- DIRECTION OF TRAFFIC

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) DISTANCE TO EXISTING SIGNS.

(1) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER. OTHERWISE TEMPORARY PAVEMENT MARKING MAY BE USED.

TRAFFIC CONTROL FOR RAMP CROSSOVERS ARE TYPICAL FOR ALL CONSTRUCTION PHASES.

* LENGTH L SHALL BE REQUIRED WHEN TANGENT LENGTH OF EXIT RAMP PARALLEL TO MAINLINE EXCEEDS 300'. LENGTH SHALL BE EQUAL TO THE EXIT RAMP TANGENT LENGTH MINUS 300' OR AS APPROVED BY THE ENGINEER AND SHALL CHANGE TO ACCOMODATE PAVING GAPS.

** ADJUST EXIT RAMP SPEED AS NEEDED IN THE FIELD. DISTANCE TO SIGN LOCATION SHALL ALSO BE PLACED ACCORDING TO TABLE.

WORK ALONG EDGES OF RAMP SHALL MAINTAIN A 10 FOOT AREA CLEAR OF PHYSICAL OBSTRUCTIONS SUCH AS DROP OFFS FROM PAVEMENT REMOVAL OR BROKEN CONCRETE CHUNKS DURING PAVEMENT REMOVAL. THESE AREAS SHALL BE LEVELED WITH TEMPORARY FILL TO PROTECT THE TRAVELING PUBLIC WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE CROSSOVER.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH 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.

** TABLE FOR ADVANCE WARNING SIGN PLACEMENT DISTANCE

POSTED SPEED MPH	DESIRED SPEED AT CONDITION (MPH)				
	10	20	30	40	50
45	350	300	250		
50	425	400	325	225	
55	500	475	400	300	
60	575	550	500	400	300
65	650	625	575	500	375

TRAFFIC CONTROL, TEMPORARY EXIT RAMP CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12-4-95
DATE

/S/ Chester J. [illegible]
DIRECTOR, OFFICE O 1021 C

FHWA

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S.D.D. 15 D 7-3

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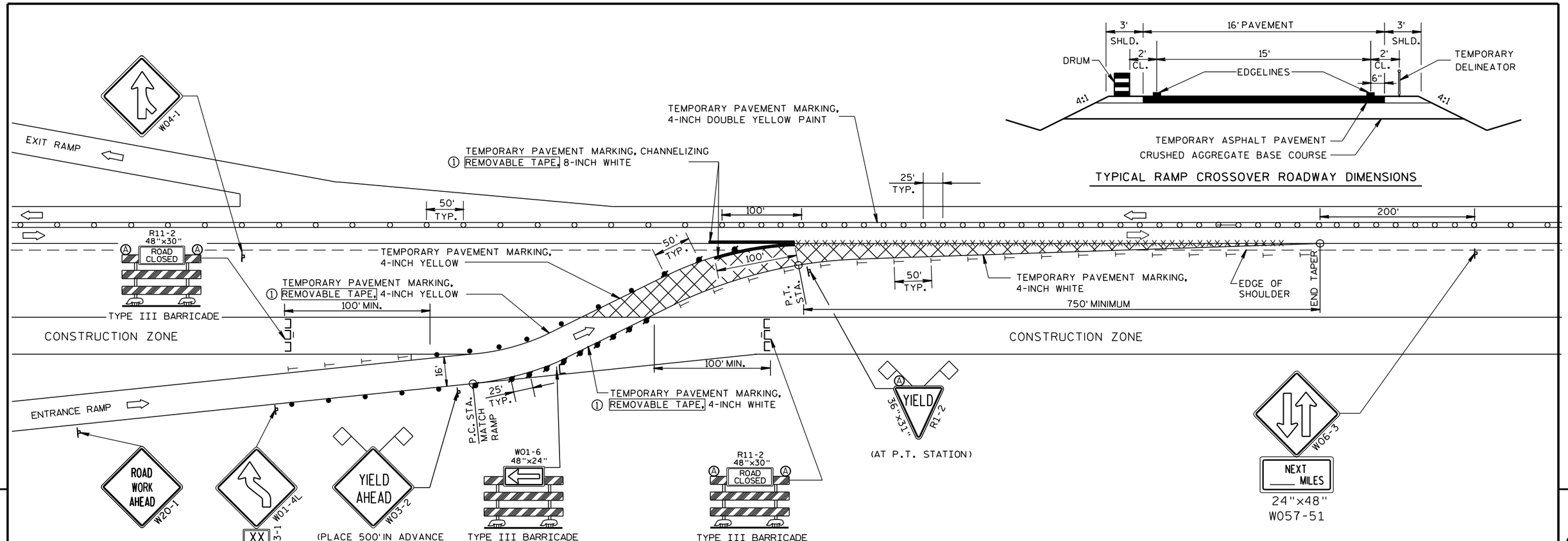
S.D.D. 15 D 7-3



TYPICAL RAMP CROSSOVER ROADWAY DIMENSIONS

LEGEND

- ⊏/I⊏ 8' TYPE III BARRICADE WITHOUT/WITH ATTACHED SIGN
- POST WITH ATTACHED SIGN
- DRUM WITH WARNING LIGHT (TYPE C)
- DRUM
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
- Ⓐ WARNING LIGHT, TYPE A (SAME COLOR AS SIGN IT SUPPLEMENTS)
- TEMPORARY CROSSOVER ASPHALTIC PAVEMENT
- ~~XXXX~~ REMOVING PAVEMENT MARKINGS
- FLEXIBLE TUBULAR MARKER POST AND BASE
- FLAGS, 12" X 12", RED
- DIRECTION OF TRAFFIC

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) DISTANCE TO EXISTING SIGNS.

① TEMPORARY PAVEMENT MARKING REMOVABLE, TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER.

TRAFFIC CONTROL FOR RAMP CROSSOVERS ARE TYPICAL FOR ALL CONSTRUCTION PHASES.

WORK ALONG EDGES OF RAMP SHALL MAINTAIN A 10 FOOT AREA CLEAR OF PHYSICAL OBSTRUCTIONS SUCH AS DROP OFFS FROM PAVEMENT REMOVAL OR BROKEN CONCRETE CHUNKS DURING PAVEMENT REMOVAL. THESE AREAS SHALL BE LEVELED WITH TEMPORARY FILL TO PROTECT THE TRAVELING PUBLIC WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE CROSSOVER.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH 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.

TRAFFIC CONTROL, TEMPORARY ENTRANCE RAMP CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12-4-95
DATE

/S/ Chester J. [illegible]
DIRECTOR, OFFICE OF [illegible]

1022

FHWA

6

S.D.D. 15 D 8-3

6

S.D.D. 15 D 8-3

LEGEND

- POST WITH ATTACHED SIGN
- POST WITH ATTACHED SIGN IN DRUM
- DRUM WITH WARNING LIGHT (TYPE C)
- DRUM
- ARROW BOARD
- 8' TYPE III BARRICADE
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC

GENERAL NOTES :

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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

GENERAL NOTES CONTINUED:

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

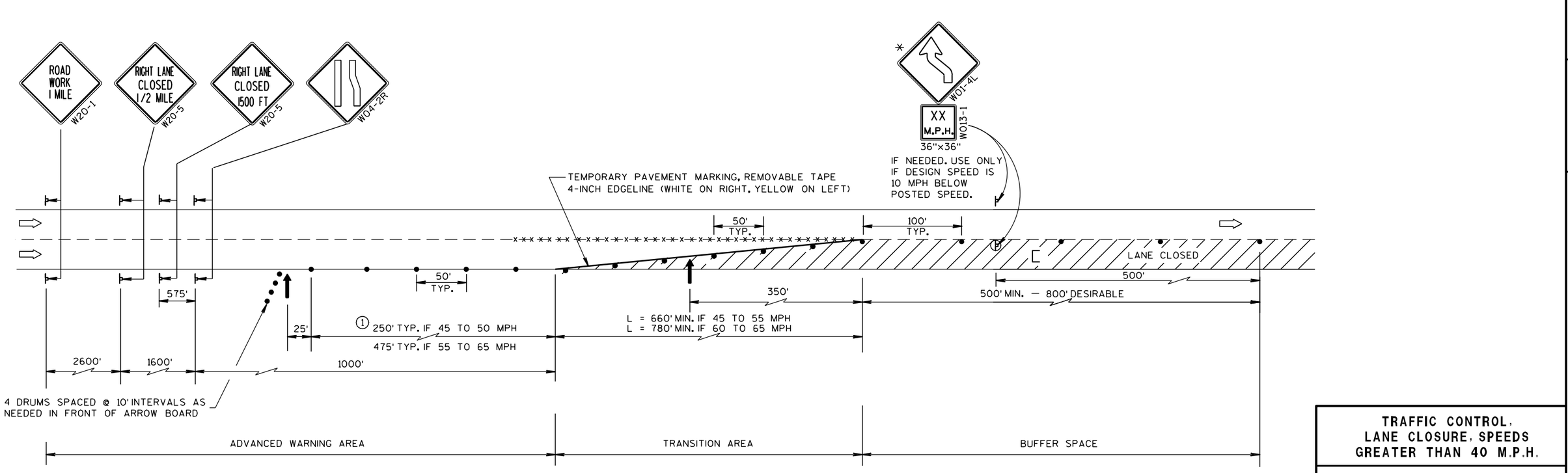
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1/4 MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

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

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



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-7-95 DATE
/S/ Chester J. [illegible]
DIRECTOR, OFFICE O 1023 C
FHWA

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S.D.D. 15 D 12-2

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S.D.D. 15 D 12-2

SYMBOLS

IC/C	TYPE III BARRICADE (8' EQUIVALENT) WITH/WITHOUT SIGN
•	DRUM
⊢	POST MOUNTED SIGN
(A)	WARNING LIGHT, TYPE A (FLASHING)
⇨	DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

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

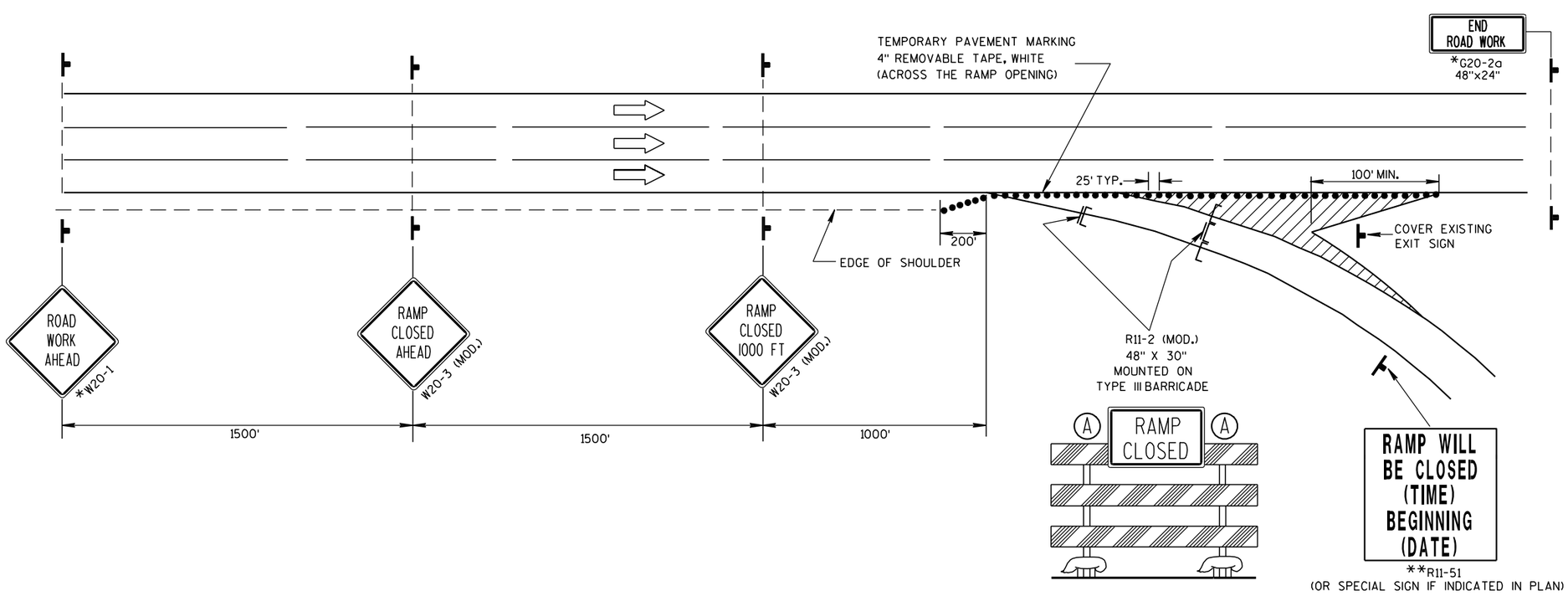
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

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.

**USE THE "RAMP WILL BE CLOSED" SIGN IF INDICATED IN MISCELLANEOUS QUANTITIES. PLACE 10 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/2000
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MAR 1024 INEER

FHWA

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S.D.D. 15 D 16-1

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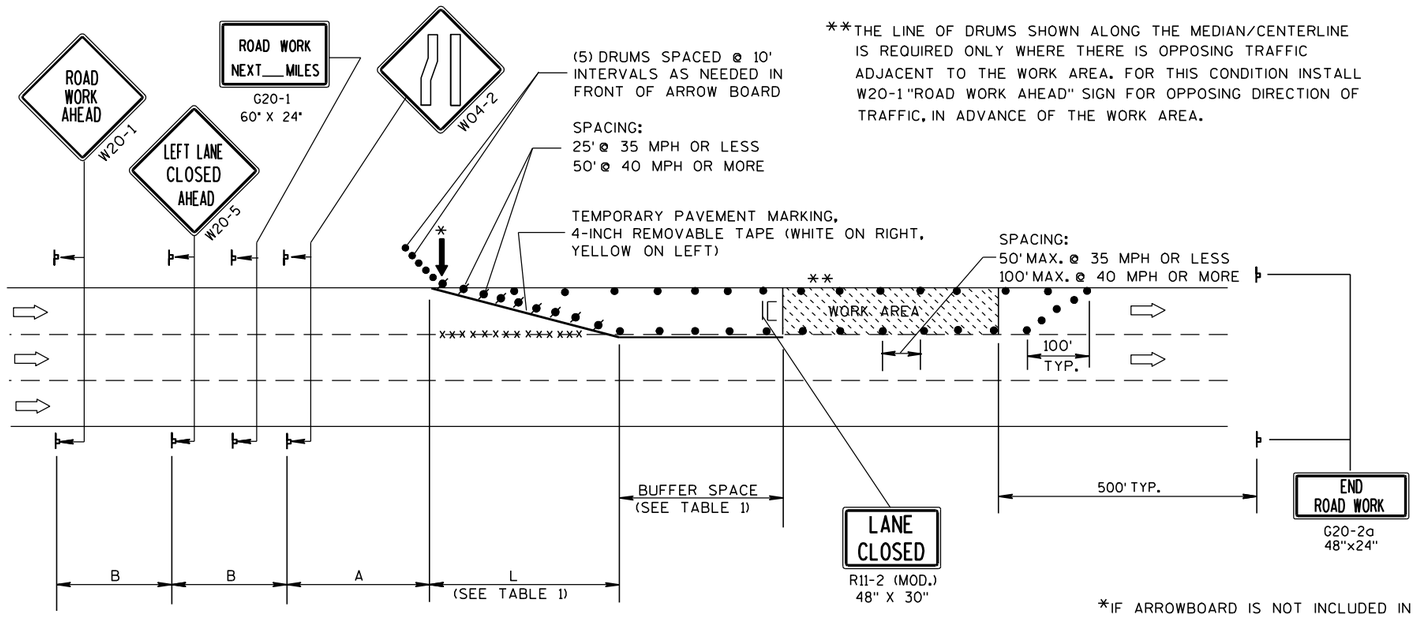
S.D.D. 15 D 16-1



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

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

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

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

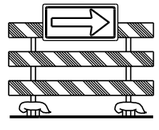


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

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

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- POST MOUNTED SIGN
- ARROW BOARD
- TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHTS, TYPE A (FLASHING) WITH/WITHOUT SIGN
- DIRECTION OF TRAFFIC FLOW
- xxxx REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

GENERAL NOTES

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

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

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

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

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

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

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER

FHWA

1025

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S.D.D. 15 D 20-1

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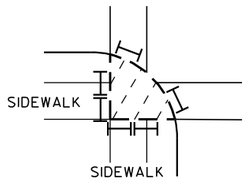
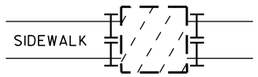
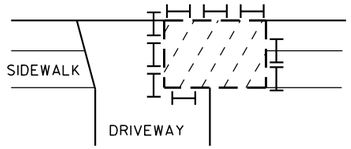
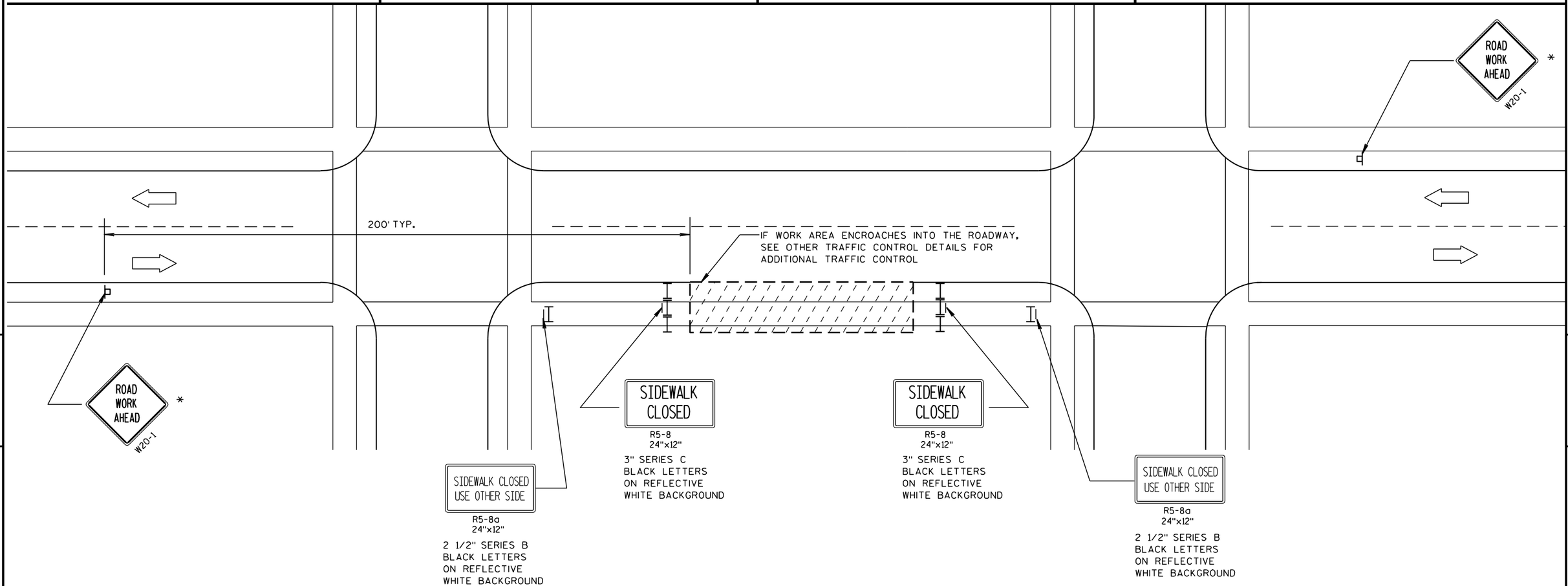
S.D.D. 15 D 20-1

WARNING OF LOCALIZED SIDEWALK WORK AREAS









LEGEND

- POST MOUNTED SIGN
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES :

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

THE EXACT LOCATION AND PLACEMENT OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

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

* "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

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

TRAFFIC CONTROL, SIDEWALK CLOSURE

TRAFFIC CONTROL, SIDEWALK CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK 1026 NEER
FHWA

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S.D.D. 15 D 30-1

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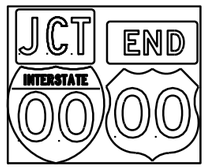
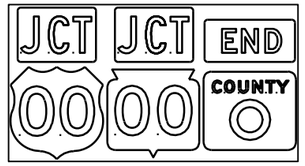
S.D.D. 15 D 30-1

TYPICAL ASSEMBLIES

J1-1

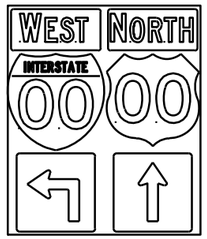


J1-2

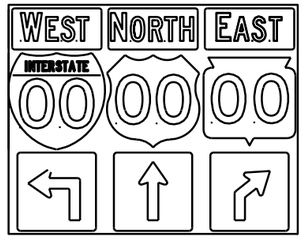


J1-3

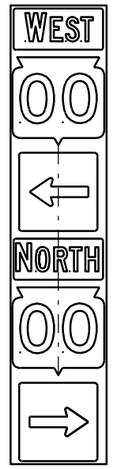
J2-1



J2-2

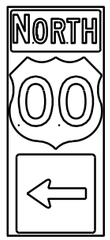


J2-3

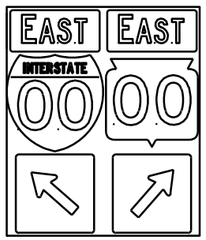


JV

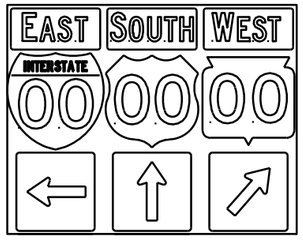
(Typical Vertical J-Assembly
See Note 10 and 11)



J3-1

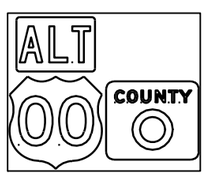


J3-2

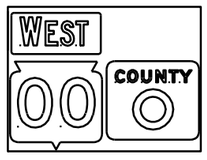


J3-3

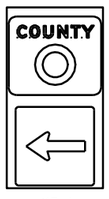
J4-1



J4-2



J4-2



J13-1

J12-1

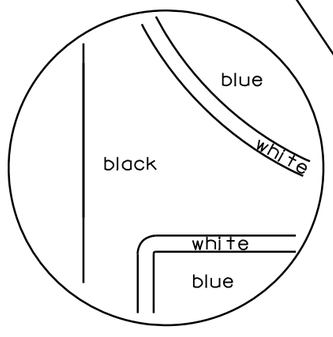
J32-1

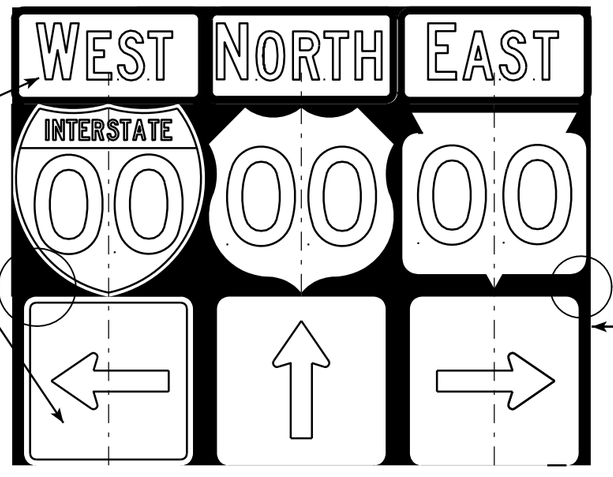
J33-1

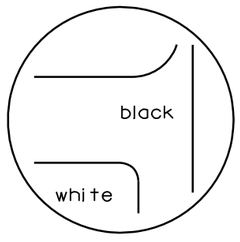
J23-1

J22-1

blue background
with interstate







black background

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of interstate and non interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

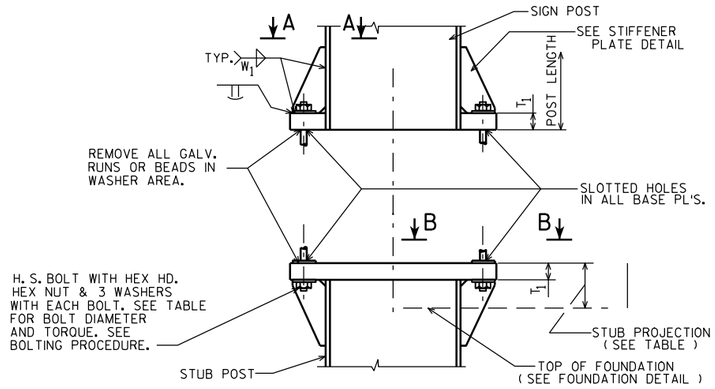
DATE 3/25/13 PLATE NO. A2-1S.7

7

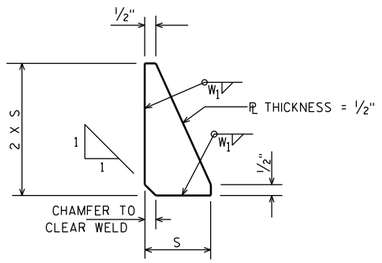
7

PROJECT NO:

SHEET NO: 1027 E

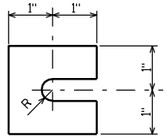


SIGN POST AND STUB POST ELEVATION



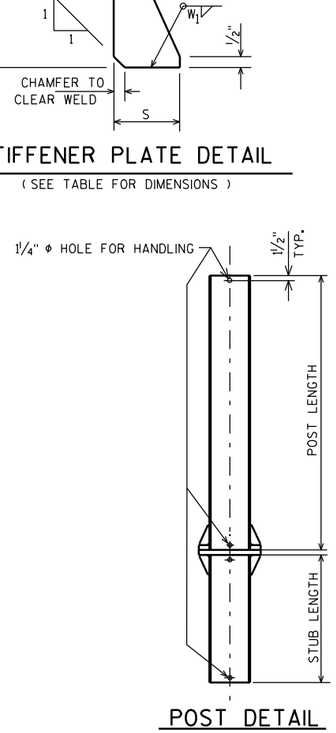
STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)



FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

SHIM DETAIL



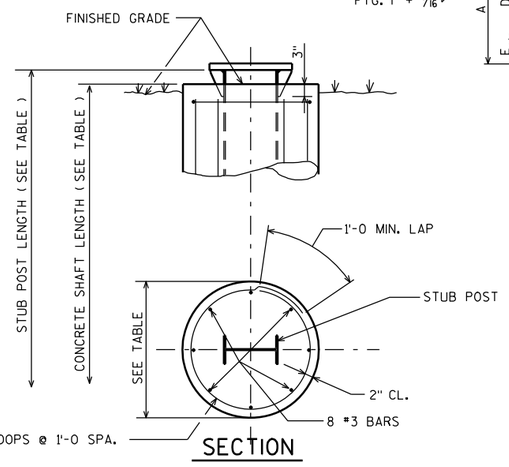
POST DETAIL

	QUANTITIES FOR 1 FOOTING	
	CONC. MASONRY C.Y.	REINF. STEEL LBS.
A	0.6	34
B	0.8	49
C	0.9	50
D	0.9	56
E	1.0	62

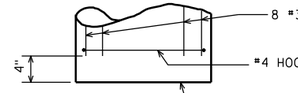
⑦

REINF.	TYPE	#3	#4
	A	8 @ 4'-5	5 @ 6'-3
	B	8 @ 6'-5	7 @ 6'-3
	C	8 @ 6'-11	7 @ 6'-3
	D	8 @ 7'-5	8 @ 6'-3
	E	8 @ 7'-11	9 @ 6'-3

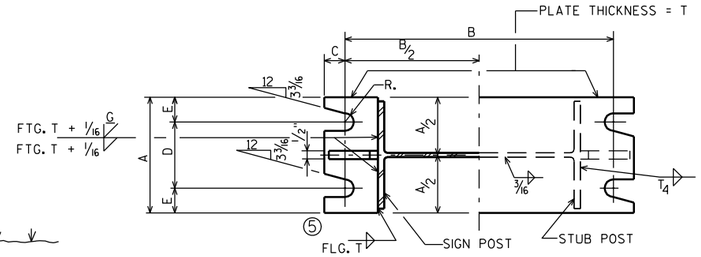
⑦



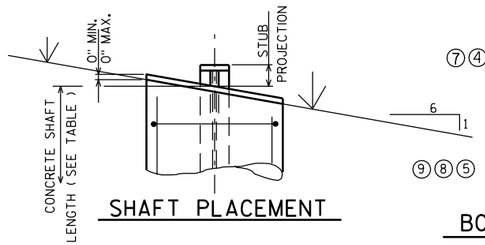
SECTION



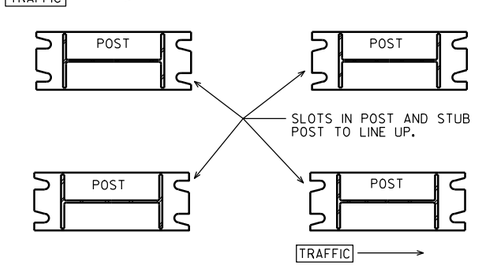
FOUNDATION DETAIL



SECTION A-A SECTION B-B



SHAFT PLACEMENT



POST SLOT ORIENTATION ⑦

DESIGN DATA

WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

GROUP LOADS	PERCENT OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD & WIND	140
3. DEAD, ICE & 1/2 WIND△	140 △25 P.S.F. MIN.

ALLOWABLE SOIL PRESSURE = 1½T / SQ. FT.
WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.
ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985.
ALL POSTS, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709 GRADE 50.
⑨ THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.
H.S. BOLTS, WASHERS & NUTS SHALL BE A325 GALVANIZED WHEN POSTS, POST STUBS AND ATTACHMENTS ARE A709 GRADE 50 AND GALVANIZED.

BOLTING PROCEDURE - BASE CONNECTION

1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETW. PLATES.
2. SHIM AS REQ'D. TO PLUMB POST.
3. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
4. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE:
TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.

	TYPE	DIMENSION: POST SIZE	BASE CONNECTION DATA TABLE: BOLT SIZE & TORQUE	A	B	C	D	E	T_1	T_4	W_1	R	S	FOUNDATION DATA: STUB LENGTH	STUB PROJECTION	SHAFT DIAMETER	SHAFT LENGTH	② K
④	A	W10"X12.0 #/FT.	3/4" Φ @ 75#-FT.	5 1/4"	1'-0 3/8	7/8"	3 1/2"	7/8"	1"	3/16"	5/16"	13/32 "	2 1/8"	3'-6	3"	2'-0 Φ	5'-0	76.0# ④
④	B	W12"X16.0 #/FT.	7/8" Φ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/4"	1/4"	5/16"	15/32 "	3"	5'-6	3"	2'-0 Φ	7'-0	146.5# ④
	C	W12"X19.0 #/FT.	7/8" Φ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/2"	5/16"	5/16"	15/32 "	3"	6'-0	3"	2'-0 Φ	7'-6	182.1#
	D	W12"X22.0 #/FT.	7/8" Φ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/2"	3/8"	5/16"	15/32 "	3"	6'-6	3"	2'-0 Φ	8'-0	210.5#
③	E	W12"X26.0 #/FT.	1" Φ @ 90#-FT.	7"	1'-4 1/4	1 1/4"	4"	1 1/2"	1 1/2"	3/8"	5/16"	17/32 "	3"	7'-0	3"	2'-0 Φ	8'-6	293.0# ③

① ⑥ ①

STRUCTURAL CARBON STEEL PAY WTS. (1 POST) = K+ (POST LENGTH X POST WT.)
" K " INCLUDES STUB, BASE PLATES, STIFFS., BOLTS, AND WASHERS.

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer
DATE 4/26/11 PLATE NO. A3-1.13

NO.	DATE	REVISION
⑨	4-26-11	REMOVE NON-GALVANIZED
⑧	10-30-96	NOT GALVANIZED/GALVANIZED
⑦	10-30-92	QUANT., A588 EXCEPT., ADD SLOT VIEW
⑥	8-24-87	BASE CONN. WELD
⑤	10-13-81	BASE CONN. WELD & FUSE PL WASHERS
④	10-19-79	POST A & B, A572 GR. 50, & K
②	11-28-78	"K" ③ 4-23-79 TYPE "E"
①	5-4-78	T_1 , T_2 & W_1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

TYPE A, B, C, D, & E

CONST. SPEC. 2011	DRAWN BY JPH	PLANS CK'D.

FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS

SHEET

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1028 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\A31.DGN PLOT DATE : 26-APR-2011 14:07 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 87399.319456:1.000000 WISDOT/CADDS SHEET 42

VERTICAL DIMENSION ⇨

HORIZONTAL DIMENSION ⇩

Type "A" (2 Posts) 1.2 CY Conc. 68 LBs Bar Steel

⇩ \ ⇨	2.5 ft.	3 ft.	3.5 ft.	4 ft.	4.5 ft.	5 ft.	5.5 ft.	6 ft.	6.5 ft.	7 ft.	7.5 ft.	8 ft.	8.5 ft.	9 ft.	9.5 ft.	10 ft.	10.5 ft.	11 ft.	11.5 ft.	12 ft.	12.5 ft.	13 ft.	13.5 ft.	14 ft.	14.5 ft.	15 ft.	15.5 ft.	16 ft.
22 ft.	55 Sq. Ft	66 Sq. Ft	77 Sq. Ft	88 Sq. Ft	99 Sq. Ft	110 Sq. Ft	121 Sq. Ft	132 Sq. Ft	143 Sq. Ft	154 Sq. Ft	165 Sq. Ft	176 Sq. Ft	187 Sq. Ft	198 Sq. Ft	209 Sq. Ft	220 Sq. Ft	231 Sq. Ft	242 Sq. Ft	253 Sq. Ft	264 Sq. Ft	275 Sq. Ft	286 Sq. Ft	297 Sq. Ft	308 Sq. Ft	319 Sq. Ft	330 Sq. Ft	341 Sq. Ft	352 Sq. Ft
23 ft.	57.5 Sq. Ft	69 Sq. Ft	80.5 Sq. Ft	92 Sq. Ft	103.5 Sq. Ft	115 Sq. Ft	126.5 Sq. Ft	138 Sq. Ft	149.5 Sq. Ft	161 Sq. Ft	172.5 Sq. Ft	184 Sq. Ft	195.5 Sq. Ft	207 Sq. Ft	218.5 Sq. Ft	230 Sq. Ft	241.5 Sq. Ft	253 Sq. Ft	264.5 Sq. Ft	276 Sq. Ft	287.5 Sq. Ft	299 Sq. Ft	310.5 Sq. Ft	322 Sq. Ft	333.5 Sq. Ft	345 Sq. Ft	356.5 Sq. Ft	368 Sq. Ft
24 ft.	60 Sq. Ft	72 Sq. Ft	84 Sq. Ft	96 Sq. Ft	108 Sq. Ft	120 Sq. Ft	132 Sq. Ft	144 Sq. Ft	156 Sq. Ft	168 Sq. Ft	180 Sq. Ft	192 Sq. Ft	204 Sq. Ft	216 Sq. Ft	228 Sq. Ft	240 Sq. Ft	252 Sq. Ft	264 Sq. Ft	276 Sq. Ft	288 Sq. Ft	300 Sq. Ft	312 Sq. Ft	324 Sq. Ft	336 Sq. Ft	348 Sq. Ft	360 Sq. Ft	372 Sq. Ft	384 Sq. Ft
25 ft.	62.5 Sq. Ft	75 Sq. Ft	87.5 Sq. Ft	100 Sq. Ft	112.5 Sq. Ft	125 Sq. Ft	137.5 Sq. Ft	150 Sq. Ft	162.5 Sq. Ft	175 Sq. Ft	187.5 Sq. Ft	200 Sq. Ft	212.5 Sq. Ft	225 Sq. Ft	237.5 Sq. Ft	250 Sq. Ft	262.5 Sq. Ft	275 Sq. Ft	287.5 Sq. Ft	300 Sq. Ft	312.5 Sq. Ft	325 Sq. Ft	337.5 Sq. Ft	350 Sq. Ft	362.5 Sq. Ft	375 Sq. Ft	387.5 Sq. Ft	400 Sq. Ft
26 ft.	65 Sq. Ft	78 Sq. Ft	91 Sq. Ft	104 Sq. Ft	117 Sq. Ft	130 Sq. Ft	143 Sq. Ft	156 Sq. Ft	169 Sq. Ft	182 Sq. Ft	195 Sq. Ft	208 Sq. Ft	221 Sq. Ft	234 Sq. Ft	247 Sq. Ft	260 Sq. Ft	273 Sq. Ft	286 Sq. Ft	299 Sq. Ft	312 Sq. Ft	325 Sq. Ft	338 Sq. Ft	351 Sq. Ft	364 Sq. Ft	377 Sq. Ft	390 Sq. Ft	403 Sq. Ft	416 Sq. Ft
27 ft.	67.5 Sq. Ft	81 Sq. Ft	94.5 Sq. Ft	108 Sq. Ft	121.5 Sq. Ft	135 Sq. Ft	148.5 Sq. Ft	162 Sq. Ft	175.5 Sq. Ft	189 Sq. Ft	202.5 Sq. Ft	216 Sq. Ft	229.5 Sq. Ft	243 Sq. Ft	256.5 Sq. Ft	270 Sq. Ft	283.5 Sq. Ft	297 Sq. Ft	310.5 Sq. Ft	324 Sq. Ft	337.5 Sq. Ft	351 Sq. Ft	364.5 Sq. Ft	378 Sq. Ft	391.5 Sq. Ft	405 Sq. Ft	418.5 Sq. Ft	432 Sq. Ft
28 ft.	70 Sq. Ft	84 Sq. Ft	98 Sq. Ft	112 Sq. Ft	126 Sq. Ft	140 Sq. Ft	154 Sq. Ft	168 Sq. Ft	182 Sq. Ft	196 Sq. Ft	210 Sq. Ft	224 Sq. Ft	238 Sq. Ft	252 Sq. Ft	266 Sq. Ft	280 Sq. Ft	294 Sq. Ft	308 Sq. Ft	322 Sq. Ft	336 Sq. Ft	350 Sq. Ft	364 Sq. Ft	378 Sq. Ft	392 Sq. Ft	406 Sq. Ft	420 Sq. Ft	434 Sq. Ft	448 Sq. Ft
29 ft.	72.5 Sq. Ft	87 Sq. Ft	101.5 Sq. Ft	116 Sq. Ft	130.5 Sq. Ft	145 Sq. Ft	159.5 Sq. Ft	174 Sq. Ft	188.5 Sq. Ft	203 Sq. Ft	217.5 Sq. Ft	232 Sq. Ft	246.5 Sq. Ft	261 Sq. Ft	275.5 Sq. Ft	290 Sq. Ft	304.5 Sq. Ft	319 Sq. Ft	333.5 Sq. Ft	348 Sq. Ft	362.5 Sq. Ft	377 Sq. Ft	391.5 Sq. Ft	406 Sq. Ft	420.5 Sq. Ft	435 Sq. Ft	449.5 Sq. Ft	464 Sq. Ft
30 ft.	75 Sq. Ft	90 Sq. Ft	105 Sq. Ft	120 Sq. Ft	135 Sq. Ft	150 Sq. Ft	165 Sq. Ft	180 Sq. Ft	195 Sq. Ft	210 Sq. Ft	225 Sq. Ft	240 Sq. Ft	255 Sq. Ft	270 Sq. Ft	285 Sq. Ft	300 Sq. Ft	315 Sq. Ft	330 Sq. Ft	345 Sq. Ft	360 Sq. Ft	375 Sq. Ft	390 Sq. Ft	405 Sq. Ft	420 Sq. Ft	435 Sq. Ft	450 Sq. Ft	465 Sq. Ft	480 Sq. Ft
31 ft.	77.5 Sq. Ft	93 Sq. Ft	108.5 Sq. Ft	124 Sq. Ft	139.5 Sq. Ft	155 Sq. Ft	170.5 Sq. Ft	186 Sq. Ft	201.5 Sq. Ft	217 Sq. Ft	232.5 Sq. Ft	248 Sq. Ft	263.5 Sq. Ft	279 Sq. Ft	294.5 Sq. Ft	310 Sq. Ft	325.5 Sq. Ft	341 Sq. Ft	356.5 Sq. Ft	372 Sq. Ft	387.5 Sq. Ft	403 Sq. Ft	418.5 Sq. Ft	434 Sq. Ft	449.5 Sq. Ft	465 Sq. Ft	480.5 Sq. Ft	496 Sq. Ft
32 ft.	80 Sq. Ft	96 Sq. Ft	112 Sq. Ft	128 Sq. Ft	144 Sq. Ft	160 Sq. Ft	176 Sq. Ft	192 Sq. Ft	208 Sq. Ft	224 Sq. Ft	240 Sq. Ft	256 Sq. Ft	272 Sq. Ft	288 Sq. Ft	304 Sq. Ft	320 Sq. Ft	336 Sq. Ft	352 Sq. Ft	368 Sq. Ft	384 Sq. Ft	400 Sq. Ft	416 Sq. Ft	432 Sq. Ft	448 Sq. Ft	464 Sq. Ft	480 Sq. Ft	496 Sq. Ft	512 Sq. Ft
33 ft.	82.5 Sq. Ft	99 Sq. Ft	115.5 Sq. Ft	132 Sq. Ft	148.5 Sq. Ft	165 Sq. Ft	181.5 Sq. Ft	198 Sq. Ft	214.5 Sq. Ft	231 Sq. Ft	247.5 Sq. Ft	264 Sq. Ft	280.5 Sq. Ft	297 Sq. Ft	313.5 Sq. Ft	330 Sq. Ft	346.5 Sq. Ft	363 Sq. Ft	379.5 Sq. Ft	396 Sq. Ft	412.5 Sq. Ft	429 Sq. Ft	445.5 Sq. Ft	462 Sq. Ft	478.5 Sq. Ft	495 Sq. Ft	511.5 Sq. Ft	528 Sq. Ft
34 ft.	85 Sq. Ft	102 Sq. Ft	119 Sq. Ft	136 Sq. Ft	153 Sq. Ft	170 Sq. Ft	187 Sq. Ft	204 Sq. Ft	221 Sq. Ft	238 Sq. Ft	255 Sq. Ft	272 Sq. Ft	289 Sq. Ft	306 Sq. Ft	323 Sq. Ft	340 Sq. Ft	357 Sq. Ft	374 Sq. Ft	391 Sq. Ft	408 Sq. Ft	425 Sq. Ft	442 Sq. Ft	459 Sq. Ft	476 Sq. Ft	493 Sq. Ft	510 Sq. Ft	527 Sq. Ft	544 Sq. Ft
35 ft.	87.5 Sq. Ft	105 Sq. Ft	122.5 Sq. Ft	140 Sq. Ft	157.5 Sq. Ft	175 Sq. Ft	192.5 Sq. Ft	210 Sq. Ft	227.5 Sq. Ft	245 Sq. Ft	262.5 Sq. Ft	280 Sq. Ft	297.5 Sq. Ft	315 Sq. Ft	332.5 Sq. Ft	350 Sq. Ft	367.5 Sq. Ft	385 Sq. Ft	402.5 Sq. Ft	420 Sq. Ft	437.5 Sq. Ft	455 Sq. Ft	472.5 Sq. Ft	490 Sq. Ft	507.5 Sq. Ft	525 Sq. Ft	542.5 Sq. Ft	560 Sq. Ft
36 ft.	90 Sq. Ft	108 Sq. Ft	126 Sq. Ft	144 Sq. Ft	162 Sq. Ft	180 Sq. Ft	198 Sq. Ft	216 Sq. Ft	234 Sq. Ft	252 Sq. Ft	270 Sq. Ft	288 Sq. Ft	306 Sq. Ft	324 Sq. Ft	342 Sq. Ft	360 Sq. Ft	378 Sq. Ft	396 Sq. Ft	414 Sq. Ft	432 Sq. Ft	450 Sq. Ft	468 Sq. Ft	486 Sq. Ft	504 Sq. Ft	522 Sq. Ft	540 Sq. Ft	558 Sq. Ft	576 Sq. Ft

Type "B" (2 Posts)
1.6 CY Conc.
98 LBs Bar Steel

Type "C" (2 Posts)
1.8 CY Conc.
100 LBs Bar Steel

Type "D" (2 Posts)
1.8 CY Conc.
112 LBs Bar Steel

Type "C" (3 Posts)
2.7 CY Conc.
150 LBs Bar Steel

Type "D" (3 Posts)
2.7 CY Conc.
168 LBs Bar Steel

STEEL POST SIZE

"A" - W10" x 12"
"B" - W12" x 16"
"C" - W12" x 19"
"D" - W12 x 22"

DETERMINATION OF HIGH STRENGTH STRUCTURAL STEEL SIGN SUPPORT TYPE

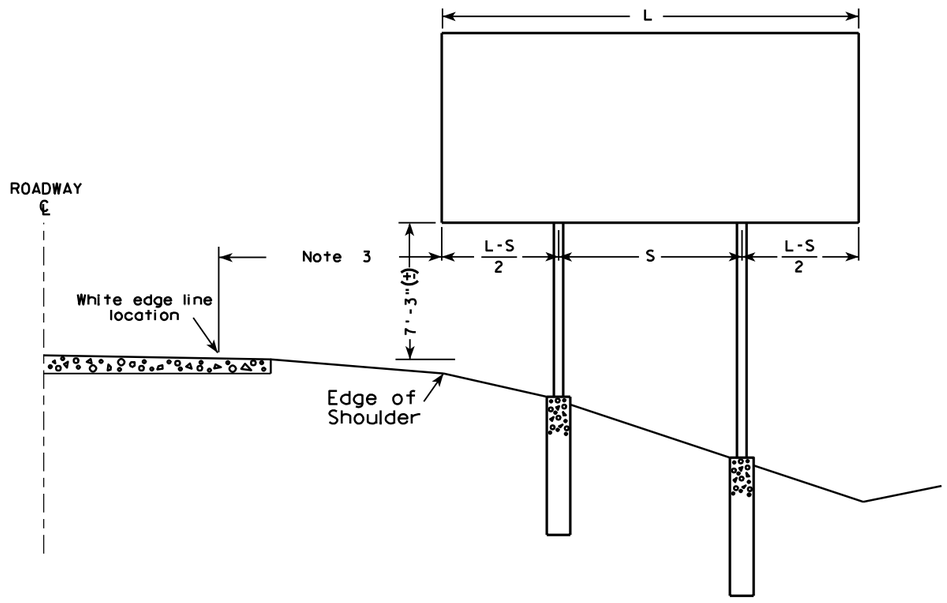
WISCONSIN DEPT OF TRANSPORTATION

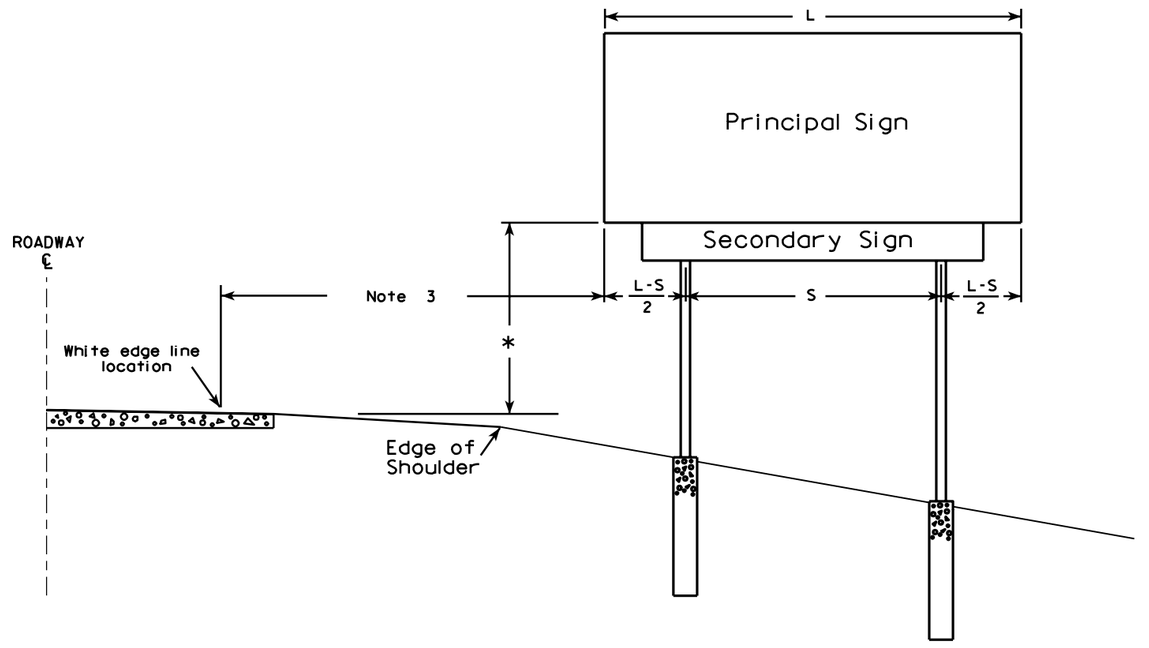
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/5/10 PLATE NO. A3-3.2

PROJECT NO: | SHEET NO: E

FILE NAME : C:\users\PROJECTS\tr_stdplate\A33.DGN PLOT DATE : 05-MAR-2010 10:07 PLOT BY : ditjph





GENERAL NOTES

1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3"(±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3"(±).

7

7

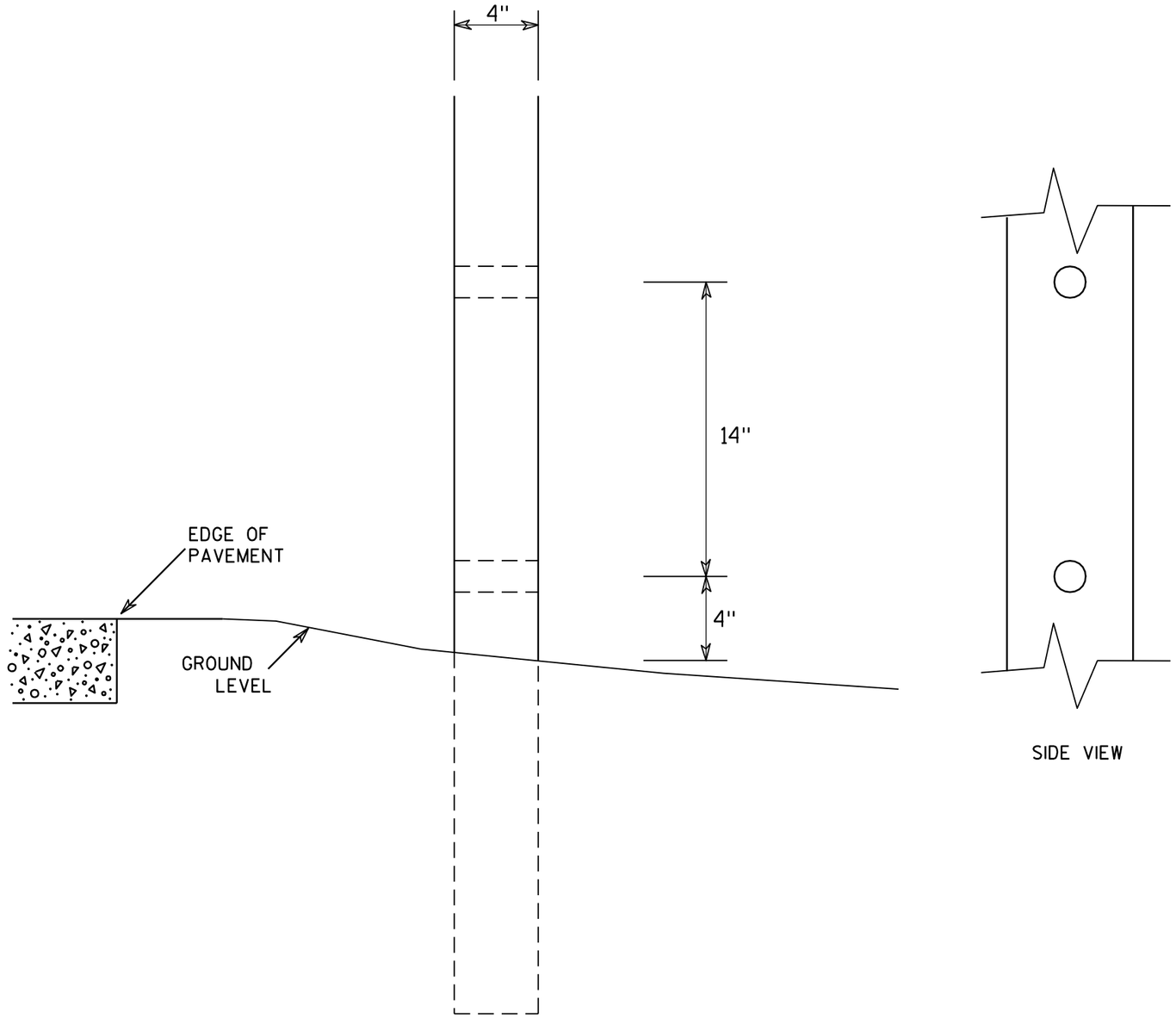
TYPICAL INSTALLATION OF TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/02/08 PLATE NO. A4-1.9

PROJECT NO:				SHEET NO: 1030	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

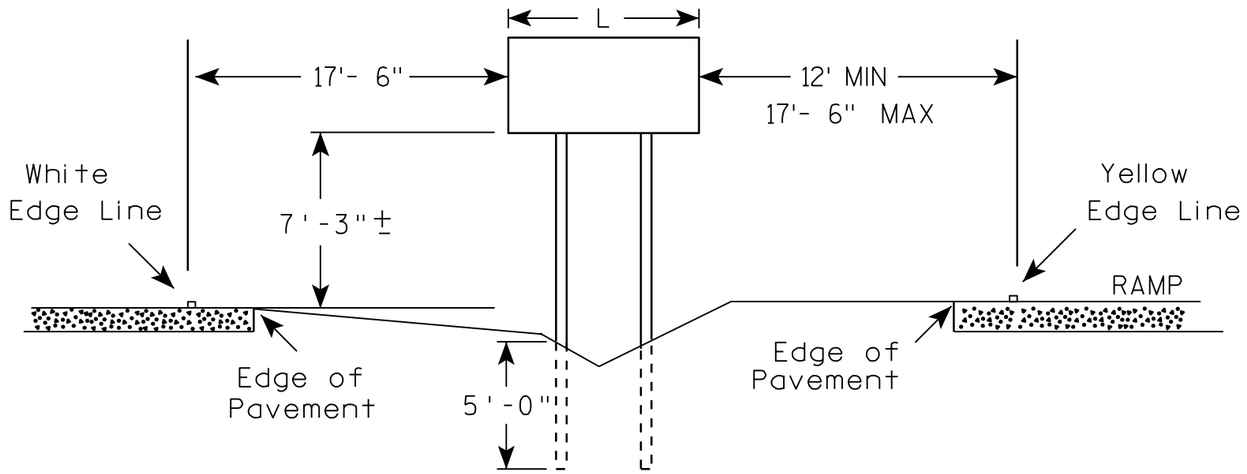
4 X 6 WOOD POST MODIFICATIONS

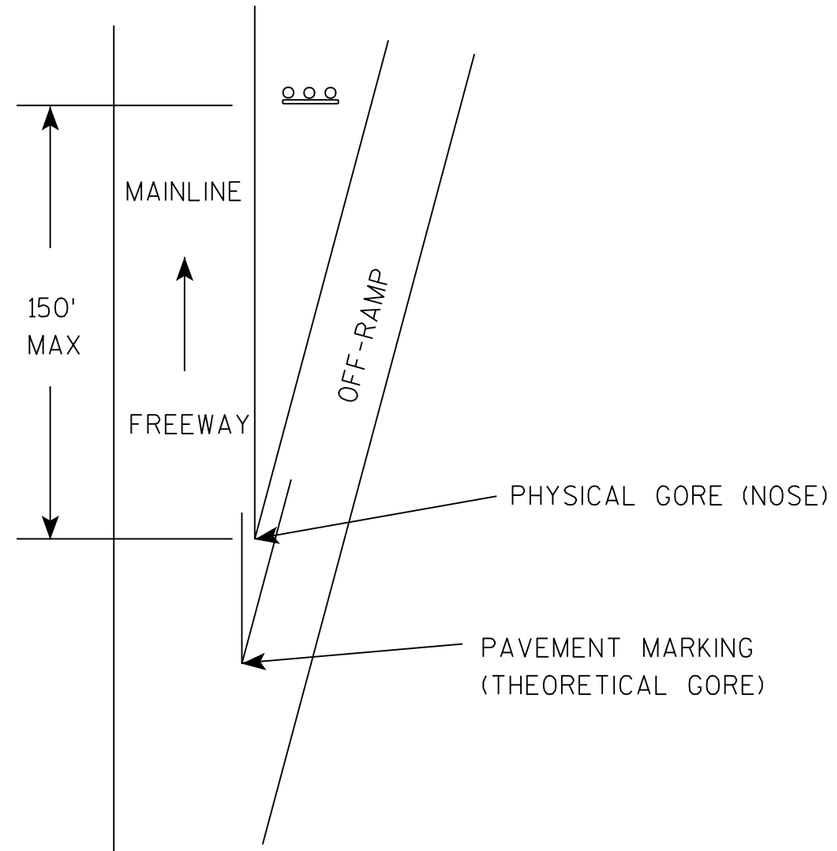
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1031	E





GENERAL NOTES

1. The 150 foot distance from the physical gore (where pavement ends) will normally provide the offsets as shown.
2. If roadway geometrics permit, the sign may be closer than the 150 foot distance as long as the offsets are maintained.
3. At no time shall the location be greater than 150 feet. If the normal offsets cannot be maintained, they can be reduced to 6 feet from the edge of the paved shoulder (both freeway and ramp).
4. The offset from edge of sign to the yellow edge line on the ramp is shown as a minimum of 12 feet and a maximum of 17 feet, 6 inches. Preference is adhering to the maximum rather than the minimum dimension.
5. When L is equal to or exceeds 9 feet, use 3 posts as per A4-4.
6. The (∓) tolerance for the mounting height is 3 inches.

7

7

TYPICAL INSTALLATION
OF TYPE II SIGNS ON
WOOD POSTS IN GORE

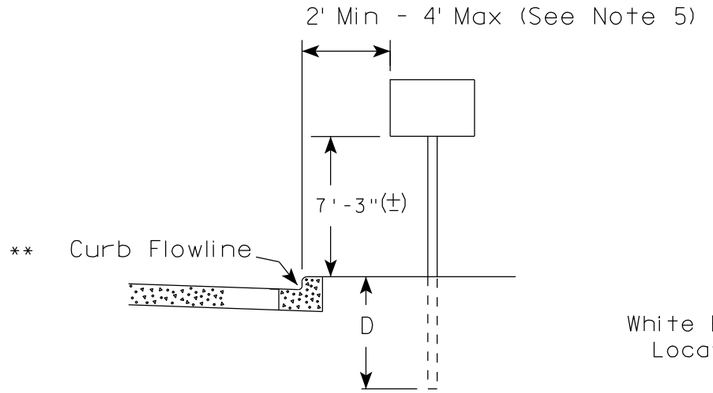
WISCONSIN DEPT OF TRANSPORTATION

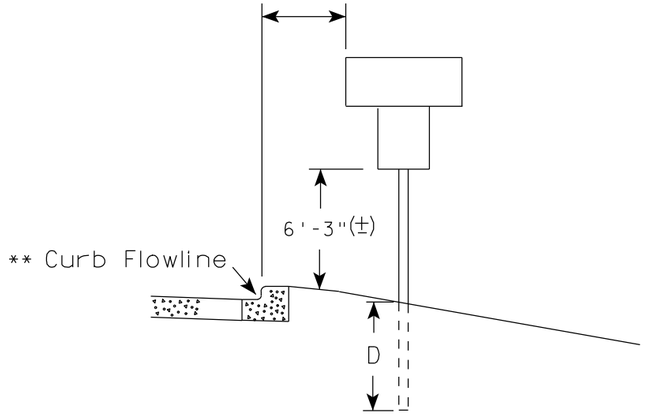
APPROVED Chester J Spang
for State Traffic Engineer

DATE 4/4/00 PLATE NO. A4-2.2

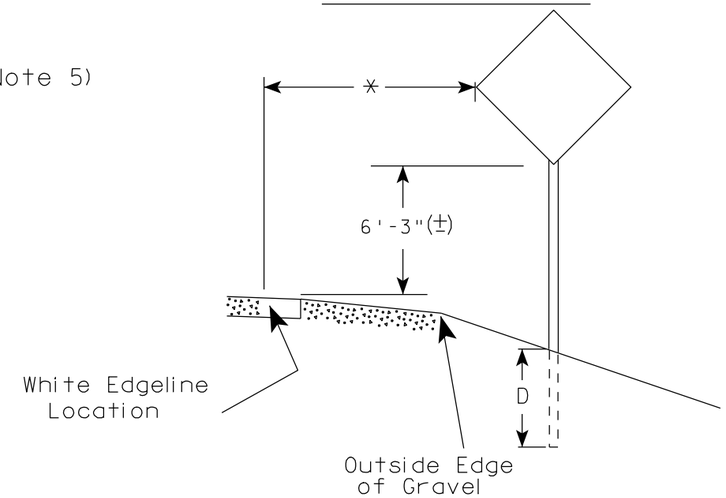
PROJECT NO:				SHEET NO: 1032	E

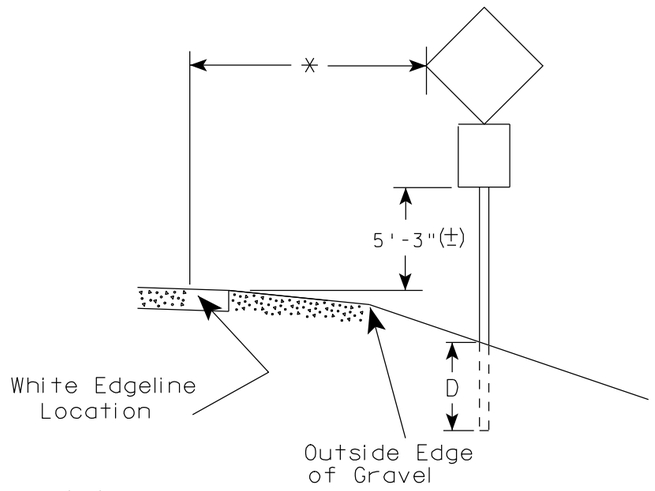
URBAN AREA





RURAL AREA (See Note 2)





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

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

GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

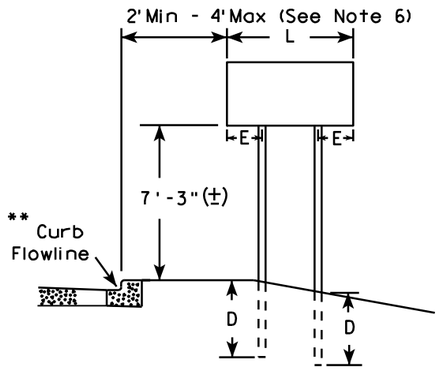
DATE 9/21/2011 PLATE NO. A4-3.16

7

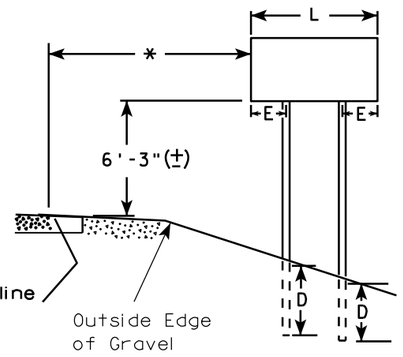
7

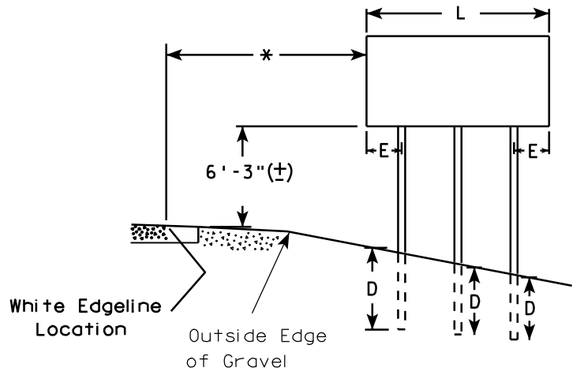
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1033 | E

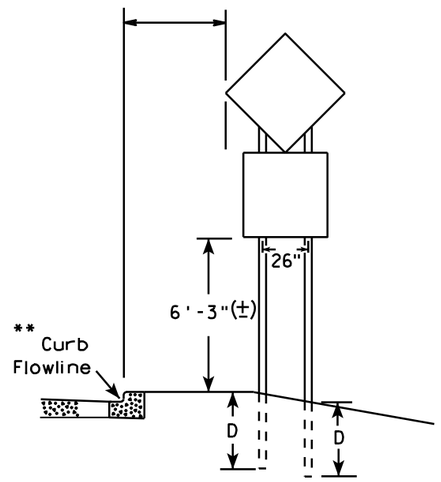
URBAN AREA



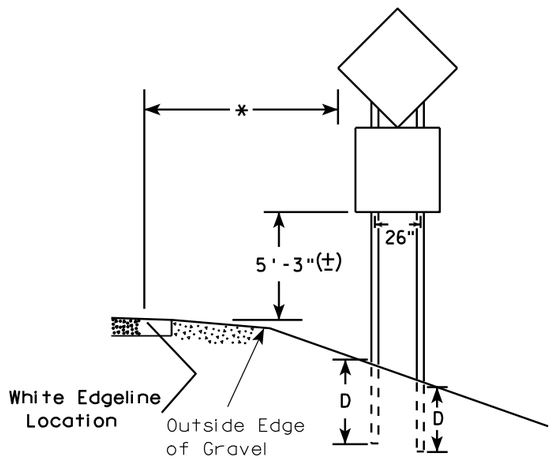
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. For multiple post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

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

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

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

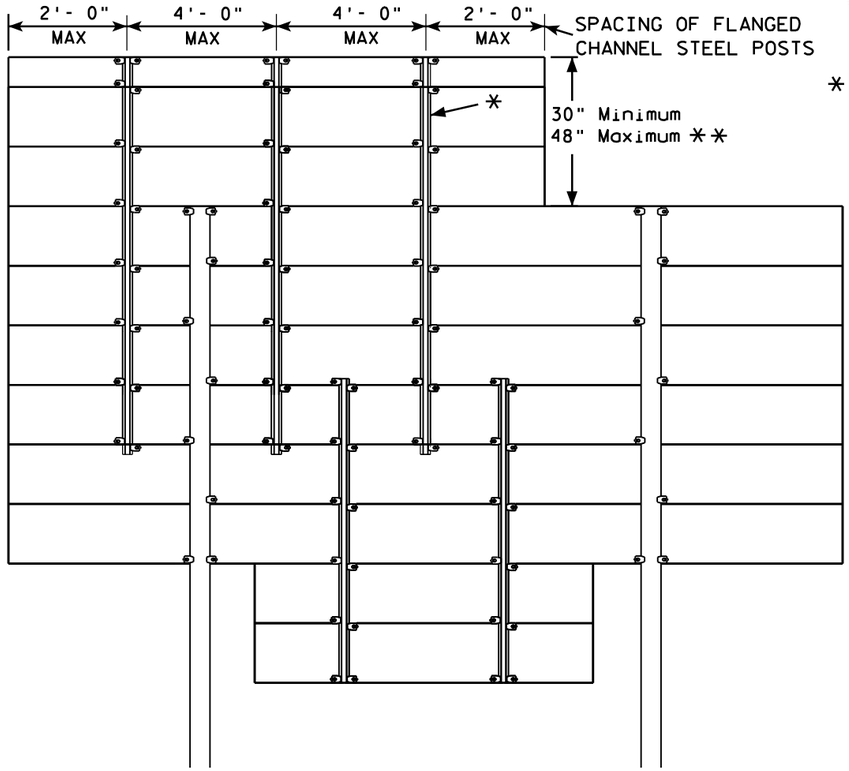
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1034	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\A44.DGN PLOT DATE : 21-SEP-2011 13:36 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 109.249131:1.000000 WISDOT/CADDS SHEET 42

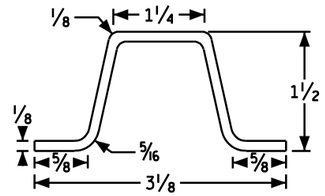
GROUND MOUNTED SIGN



*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

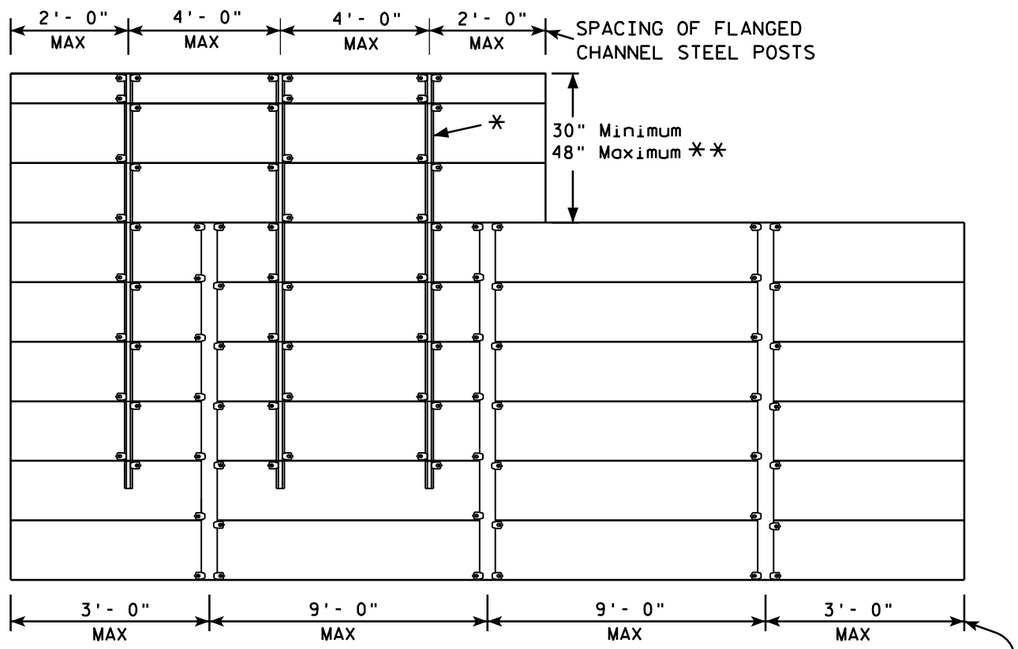
**=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)

7

7

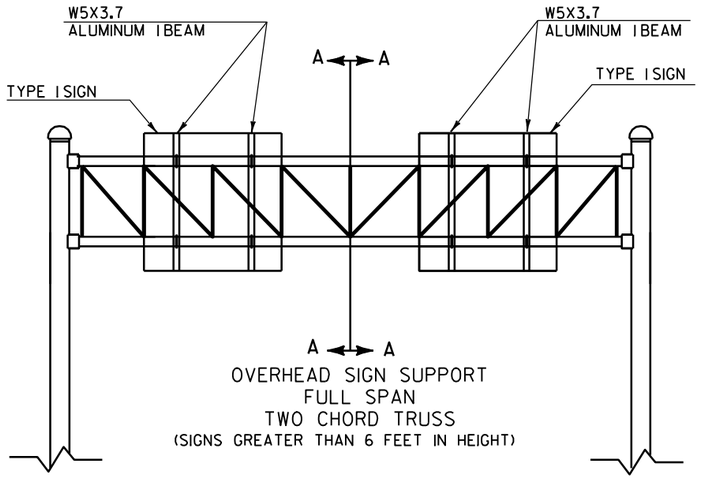
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

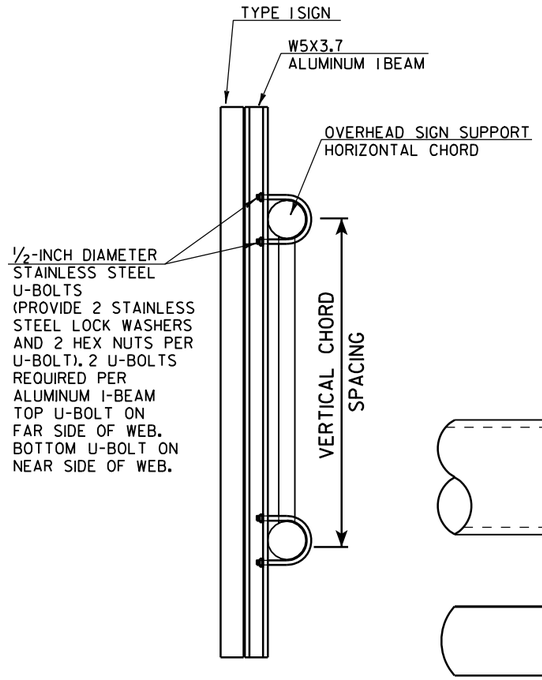
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/7/10 PLATE NO. A4-6.11

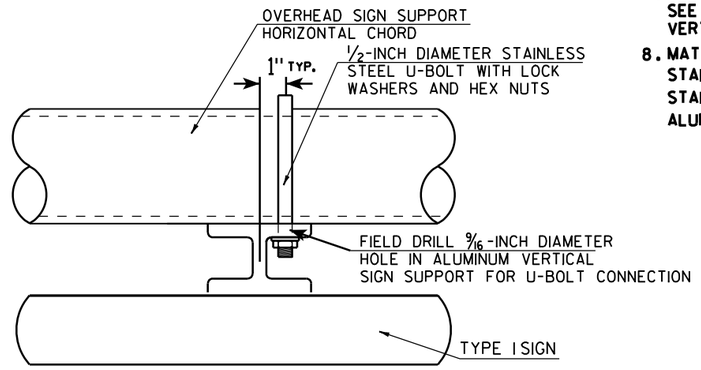
PROJECT NO:				SHEET NO: 1035	E



OVERHEAD SIGN SUPPORT
FULL SPAN
TWO CHORD TRUSS
(SIGNS GREATER THAN 6 FEET IN HEIGHT)



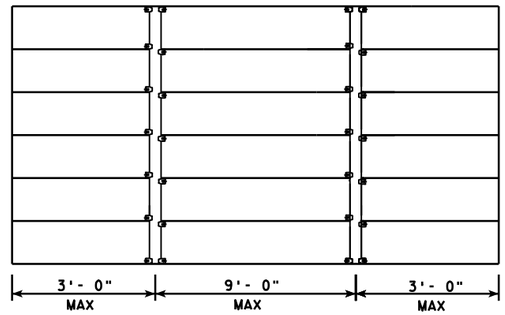
CUT SECTION A-A



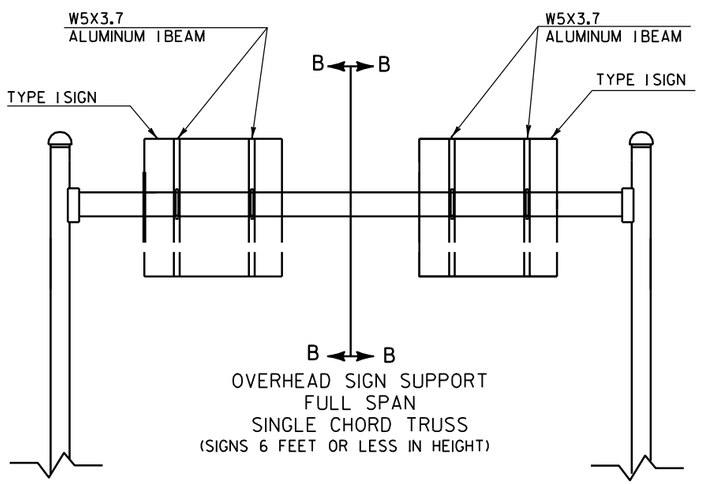
TYPICAL SIGN CONNECTION FOR
TWO CHORD TRUSS
PLAN VIEW

GENERAL NOTES

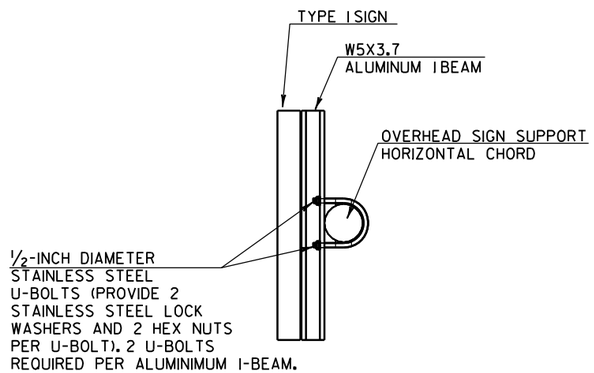
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.



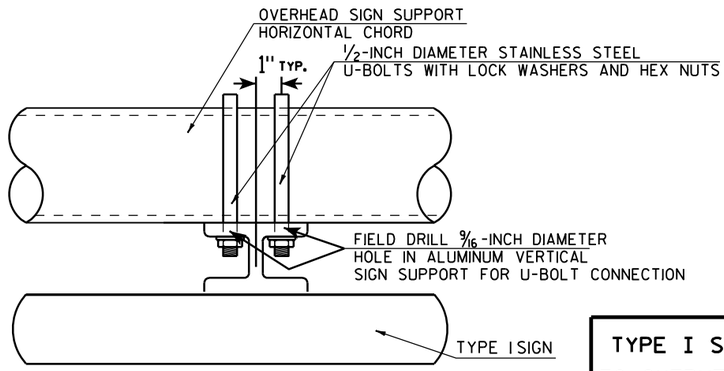
SPACING OF W5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
SINGLE CHORD TRUSS
(SIGNS 6 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
SINGLE CHORD TRUSS
PLAN VIEW

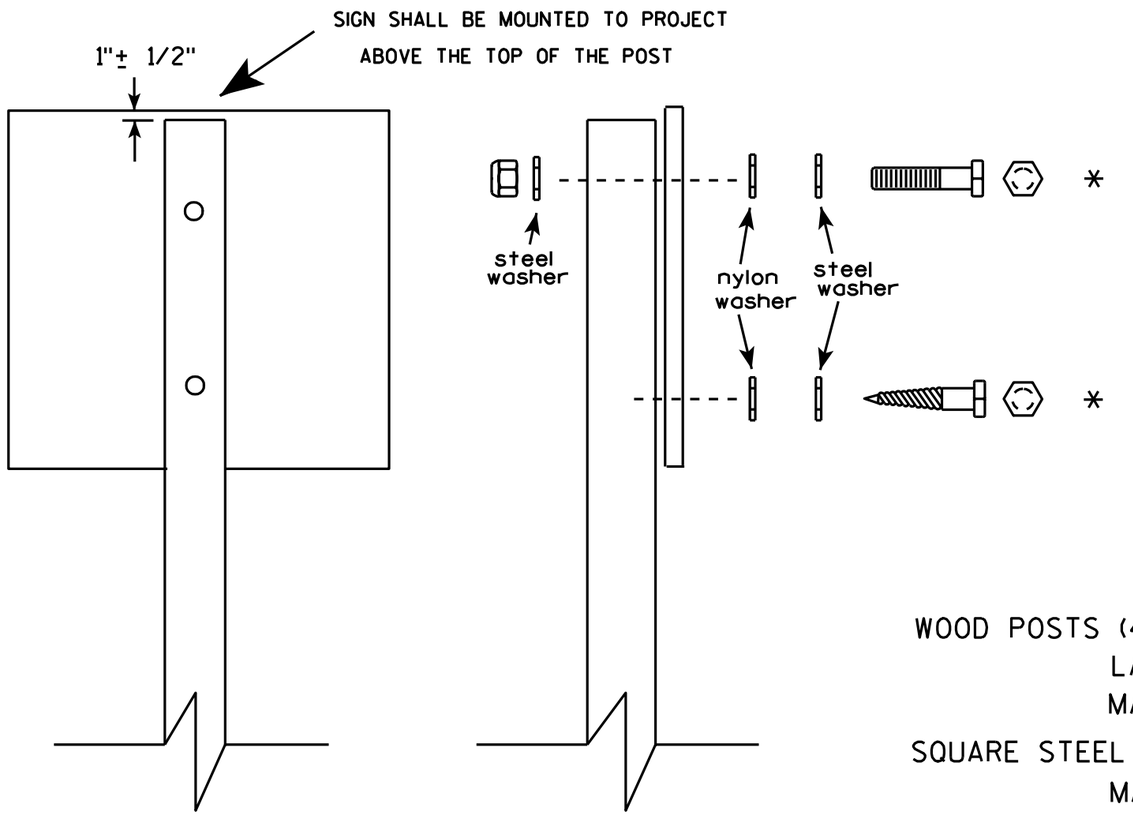
TYPE I SIGN CONNECTION TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/12/12 PLATE NO. A4-7.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1036	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

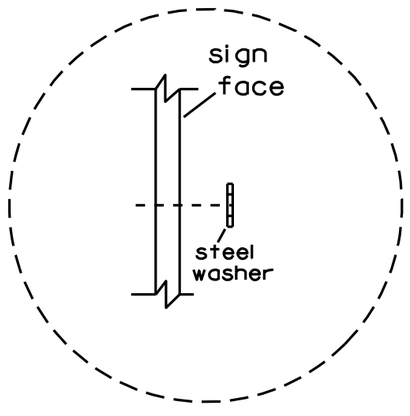
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

7

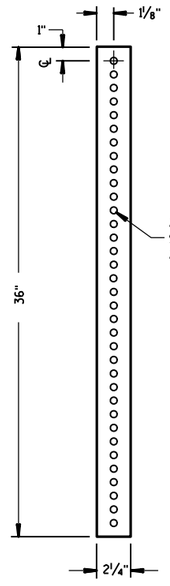
7

PROJECT NO:

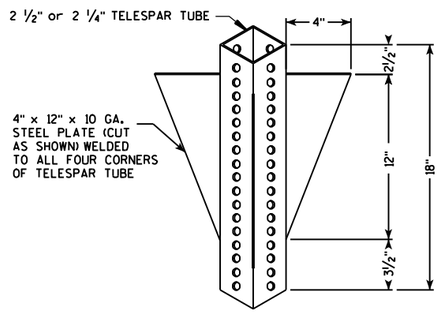
SHEET NO: 1037 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

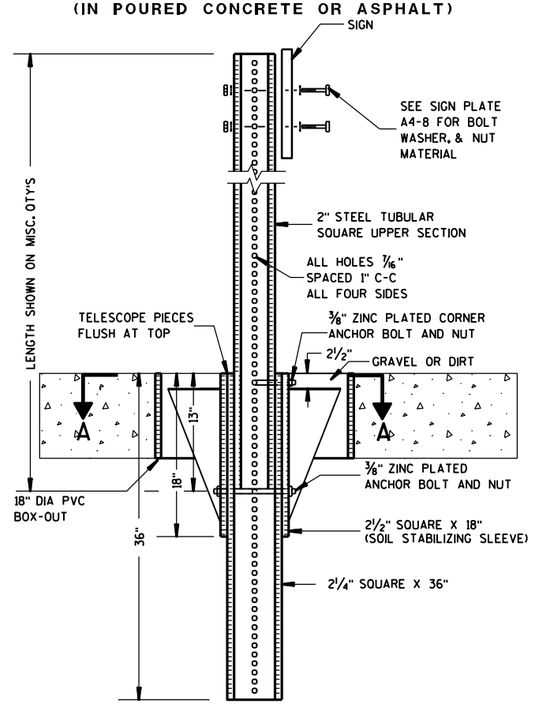
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



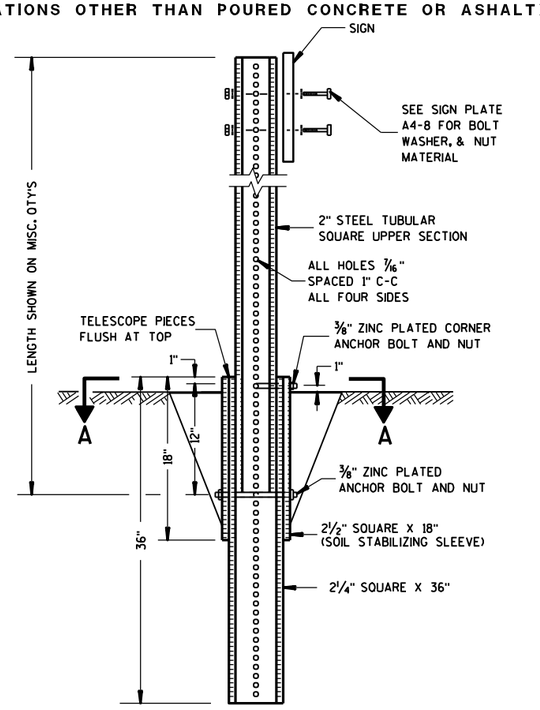
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

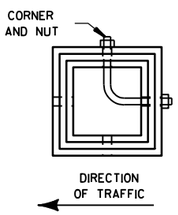


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL SIGN POST A4-9

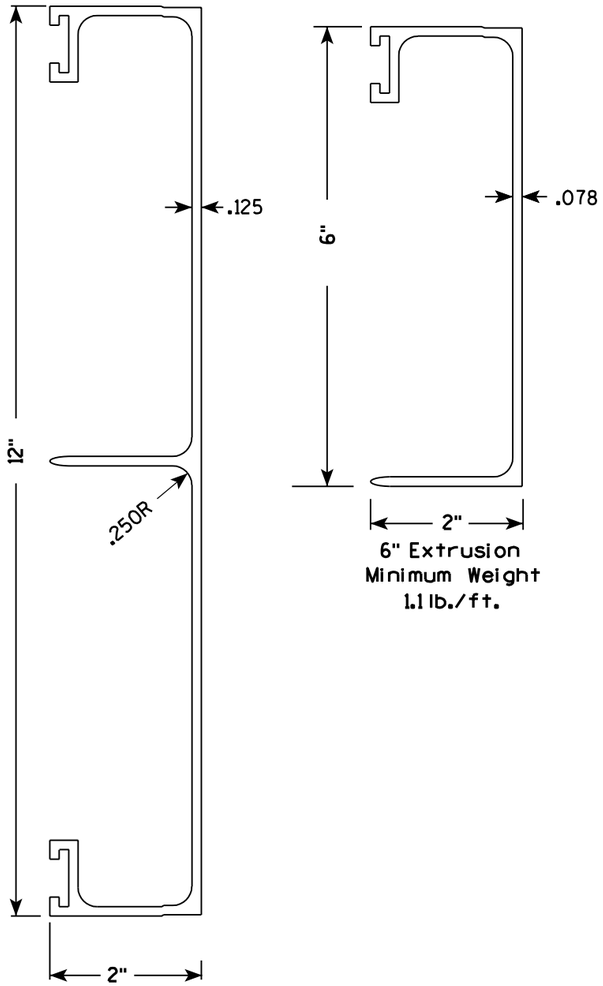
WISCONSIN DEPT OF TRANSPORTATION

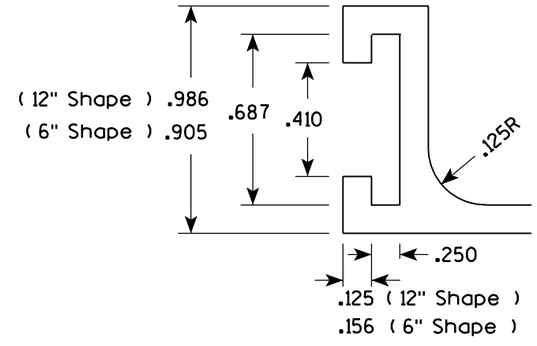
APPROVED Matthew R Rauch
for State Traffic Engineer

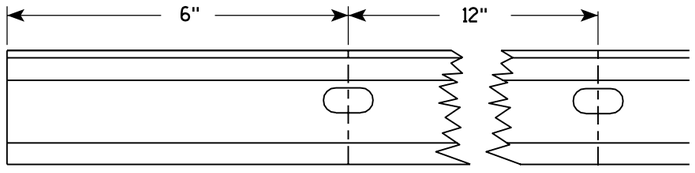
DATE 5/30/12 PLATE NO. A4-9.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1038	E

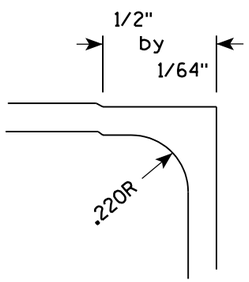
Extruded Shape







Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

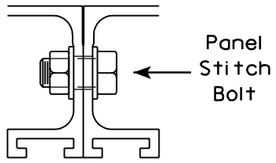


Hardware

STITCH BOLT, WASHER & NUT

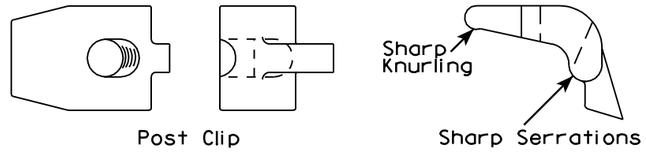
The hardware includes:

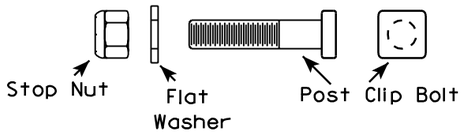
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

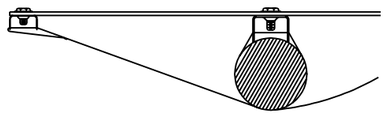
APPROVED Chester J Spang
for State Traffic Engineer

DATE 11/18/99 PLATE NO. A5-2.9

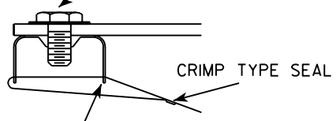
PROJECT NO:

SHEET NO: 1039 E

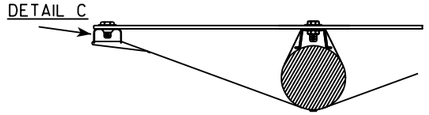
BRACE BANDING

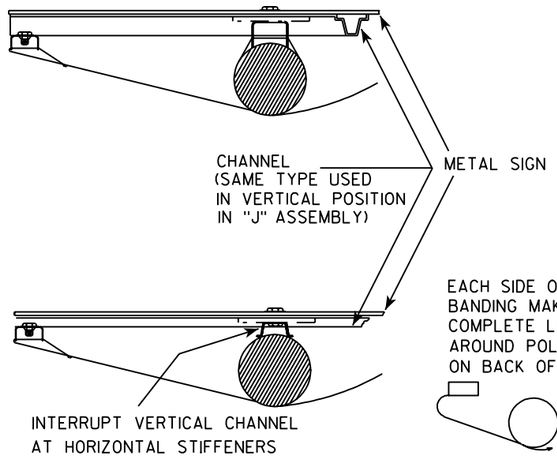


DETAIL C
CADMIUM PLATED STEEL BOLT
THROUGH BLACK BORDER



DETAIL C

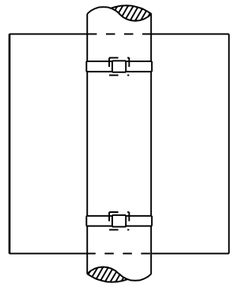


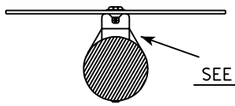


EACH SIDE OF BRACE
BANDING MAKES ONE
COMPLETE LOOP
AROUND POLE-SEAL
ON BACK OF POLE

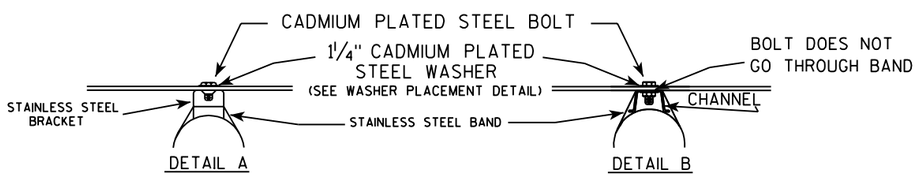
BRACKET BANDING

SINGLE SIGN





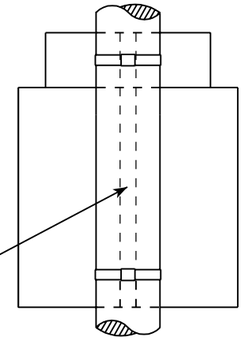
SEE DETAIL A



DETAIL A

DETAIL B

"J" ASSEMBLY

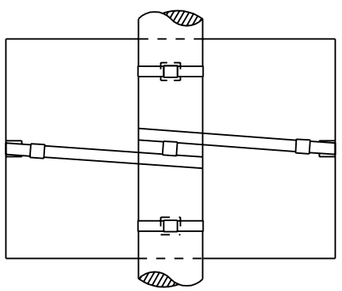


CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

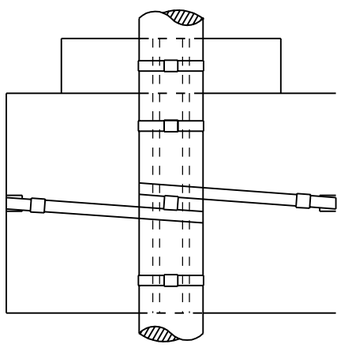
GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

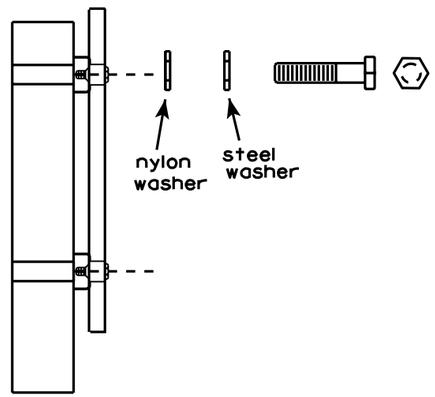


BRACE BANDING

BRACE BANDING SHALL BE TIGHTENED FIRMLY BUT NOT SO TIGHT AS TO APPRECIABLY CURVE FACE OF SIGN.



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

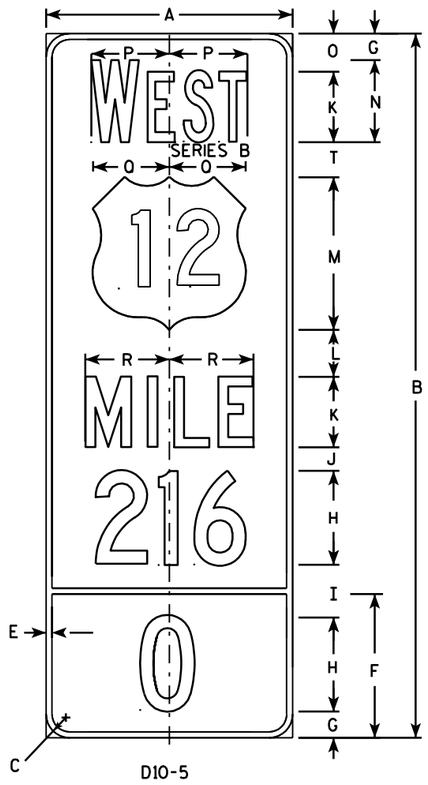
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

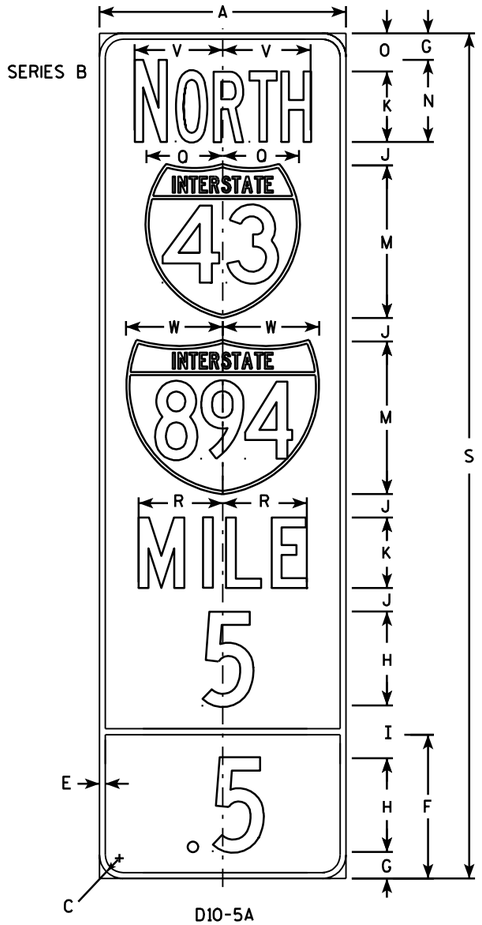
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/08/05 PLATE NO. A5-9.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1040	E



D10-5

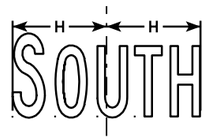


D10-5A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - BLUE
   Message - WHITE
3. Interstate Shield Color
   Background - Top Red
   - Bottom Blue
   Message - White
4. Message Series - C or as noted on the Sign.
5. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
6. The decimal point is required for all digits except "0".
7. Optically adjust mileage numbers about the centerline of the sign to achieve proper balance.

SERIES B



SERIES B

Metric equivalent for this sign is:		Metric equivalent for this sign is:	
SIZE	D10-5	SIZE	D10-5A
1		1	
2		2	
3		3	
4	525 mm X 1500 mm	4	525 mm X 1950 mm
5	525 mm X 1500 mm	5	525 mm X 1950 mm

																										D10-5		D10-5A	
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2	Area sq. ft.	Area m2
1																														
2																														
3																														
4	21	60	1 ½		½	12 ¼	2 ¼	8	4 ½	2	6	4	13	7	3 ¼	6 ⅝	6 ½	7 ⅛	72	3		7 ½	8 ¼				8.75	0.79	10.5	1.03
5	21	60	1 ½		½	12 ¼	2 ¼	8	4 ½	2	6	4	13	7	3 ¼	6 ⅝	6 ½	7 ⅛	72	3		7 ½	8 ¼				8.75	0.79	10.5	1.03

STANDARD SIGN
D10-5

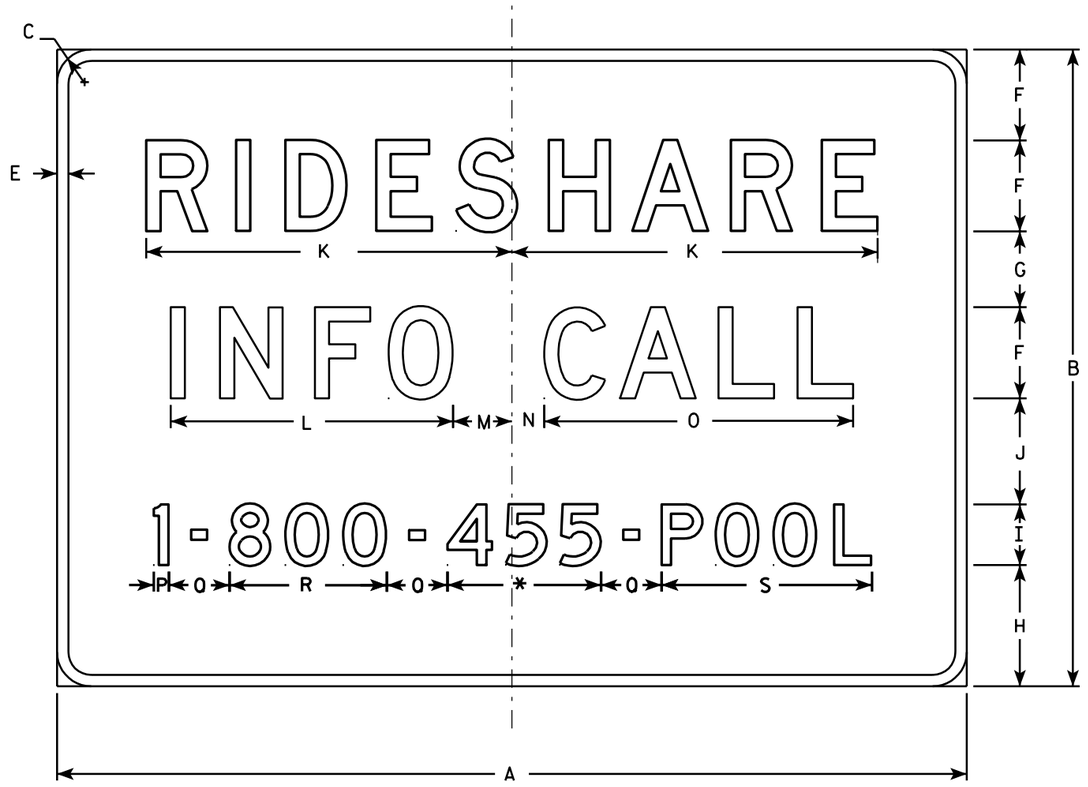
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/09/05 PLATE NO. D10-5.1

PROJECT NO:

SHEET NO: 1041 E



D12-2A

NOTES

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

* Variable (See note 5)

Metric equivalent for this sign is:

SIZE	
1	1200 mm X 525 mm
2	1500 mm X 1050 mm
3	
4	1500 mm X 1050 mm
5	1950 mm X 1350 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	48	21	1 1/2		1/2	3	2 3/4	3 1/2	3	2 3/4	12 1/8	9 3/8	2	1 1/8	10 1/4	3/4	3	7 3/4	10 5/8								7.0	0.63
2	60	42	2 1/4		3/4	6	5	8	4	7	24 1/8	18 5/8	3 7/8	2 1/8	20 1/8	1	4	10 3/8	13 7/8								17.5	1.58
3																												
4	60	42	2 1/4		3/4	6	5	8	4	7	24 1/8	18 5/8	3 7/8	2 1/8	20 1/8	1	4	10 3/8	13 7/8								17.5	1.58
5	78	54	3		1	8	6	10	6	8	30 7/8	23 5/8	4 7/8	2 1/8	26 3/8	1 1/2	5	15 1/2	21 1/4								29.25	2.63

STANDARD SIGN
D12-2A

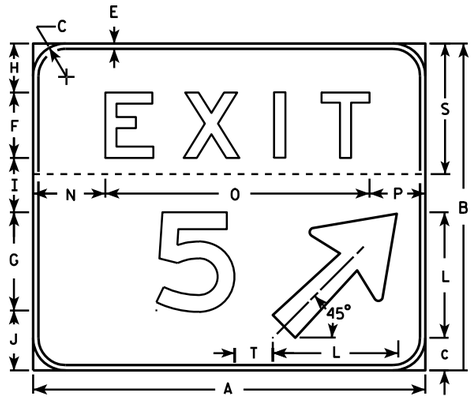
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spay for State Traffic Engineer

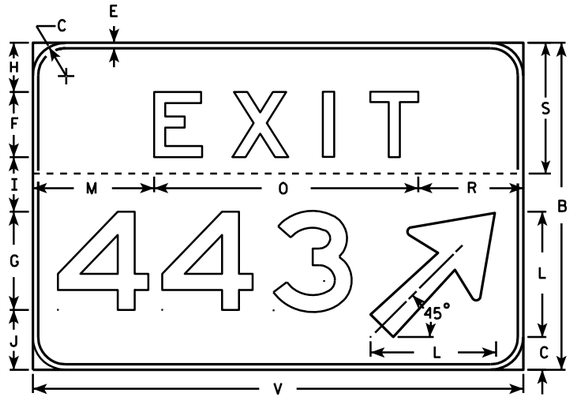
DATE 1/16/02 PLATE NO. D12-2A.3

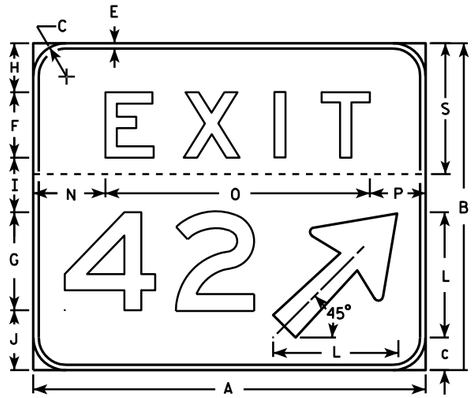
PROJECT NO:

SHEET NO: 1042 E



NOTE: T diminision shall be measured from the back of the number to the front of the arrow





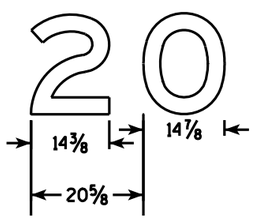
NOTES

1. Sign is Type II - Type H reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White (Type H reflective)
3. Message Series - E
4. Corners may be square or rounded but the border shall be rounded as shown.
5. Base material for this sign shall be plywood and shall be split into two seperate pieces as shown on each detail by the dashed line (----------).
6. Arrow is Type "A" from sign plate A1-1.
7. Substitute appropriate message, space per the table and adjust placement on sign to achieve proper balance.
8. As per the Standard Spec's, these signs shall not have a vertical joint.

SPACING CHART FOR 18" NUMERALS

NUMBERS	WIDTH	0	1	2	3	4	5	6	7	8	9	A	B	C
0	14 7/8	21 5/8	21 5/8	21 1/4	20 3/8	21 1/4	21 1/4	21 5/8	19 7/8	22 1/8	21 5/8			
1	5 7/8	14	14	14	13 1/8	12 1/8	14	14	12 1/4	14	14			
2	14 3/8	20 5/8	21 1/8	20 5/8	19 3/4	20 1/4	20 5/8	20 5/8	18 7/8	21 1/8	20 5/8			
3	14 3/8	20 3/4	21 1/8	20 3/4	20 1/4	19 3/4	20 3/4	20 3/4	19 3/8	21 1/8	20 3/4			
4	16 5/8	22 7/8	22	22 1/2	21 5/8	21 5/8	22 7/8	22 7/8	20 5/8	23 3/8	22 7/8			
5	14 1/4	20 5/8	20 5/8	20 1/8	18 3/4	18 3/4	20 5/8	20 5/8	18 3/8	20 5/8	20 5/8			
6	14 1/2	21 1/4	20 3/4	20 3/4	19 7/8	19 1/2	20 3/8	20 3/4	19	20 3/4	20 3/8			
7	14 3/8	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4			
8	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8			
9	14 1/2	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4			
A	18	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4	21 5/8	23 7/8	23
B	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8	19 1/2	22 3/8	21 1/2
C	14 1/4	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4	18 3/8	21	19 3/4

EXAMPLE FOR USING SPACING CHART



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
2																										
3																										
4																										
5	72	60	6		1	12	18	9	10	11	8 7/8	23	22 1/4	13 1/4	48 1/2	10 1/4		19 1/4	24	7		90		96	7 1/2	

1-2 Digit Bid Area	3 Digit Bid Area
Sq. Ft.	
30	37.5

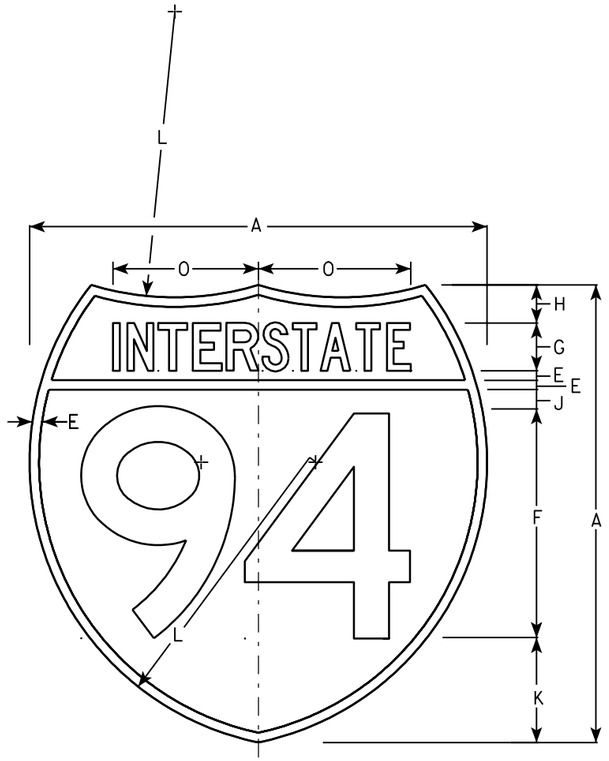
STANDARD SIGN E5-1A

WISCONSIN DEPT OF TRANSPORTATION

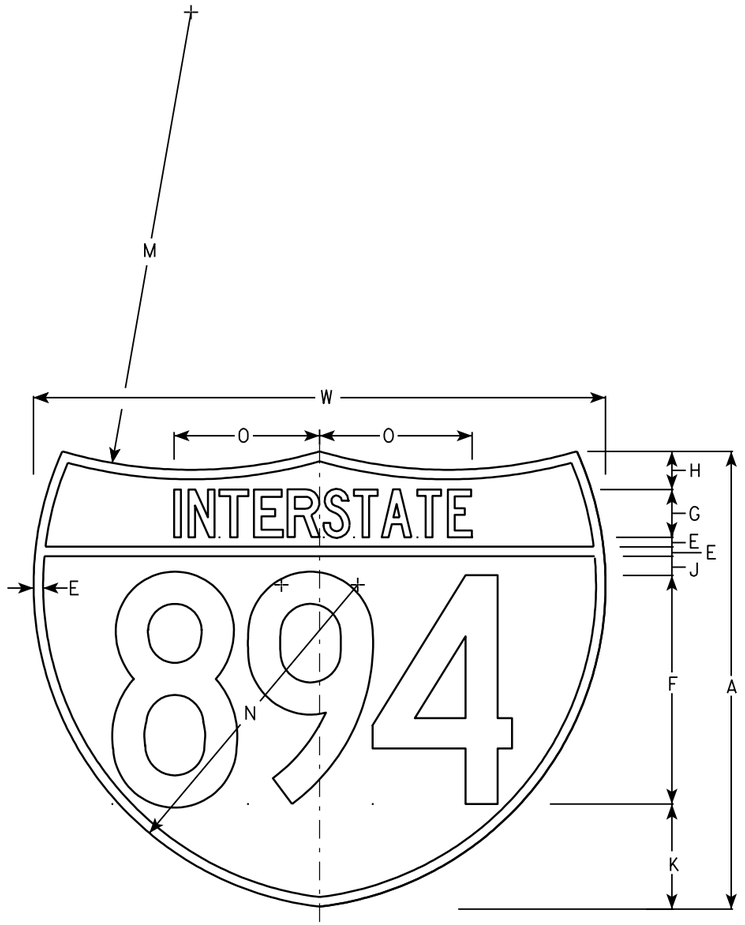
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/11/10 PLATE NO. E5-1A.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1043	E



M1-1



M1-1A

NOTES

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

Metric equivalent for these signs are:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

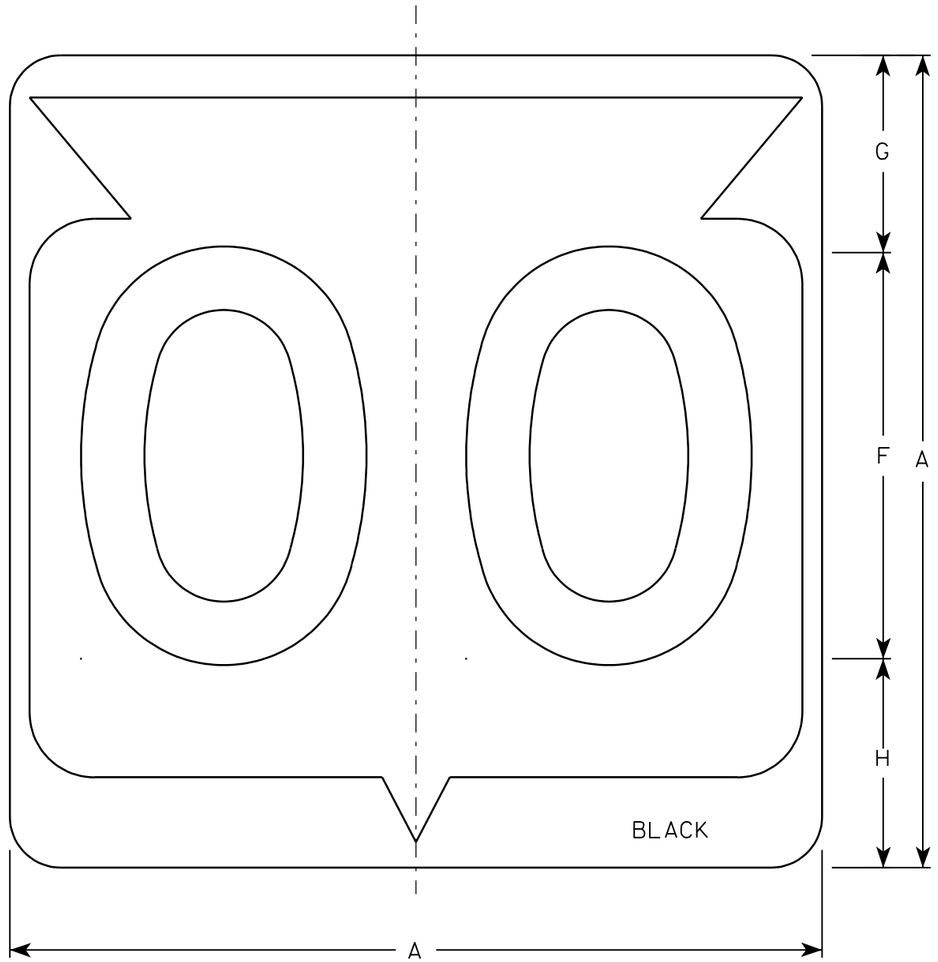
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

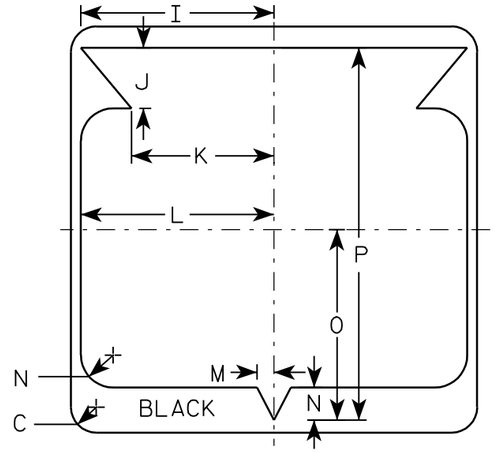
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1044	E



M1-6

NOTES

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



Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

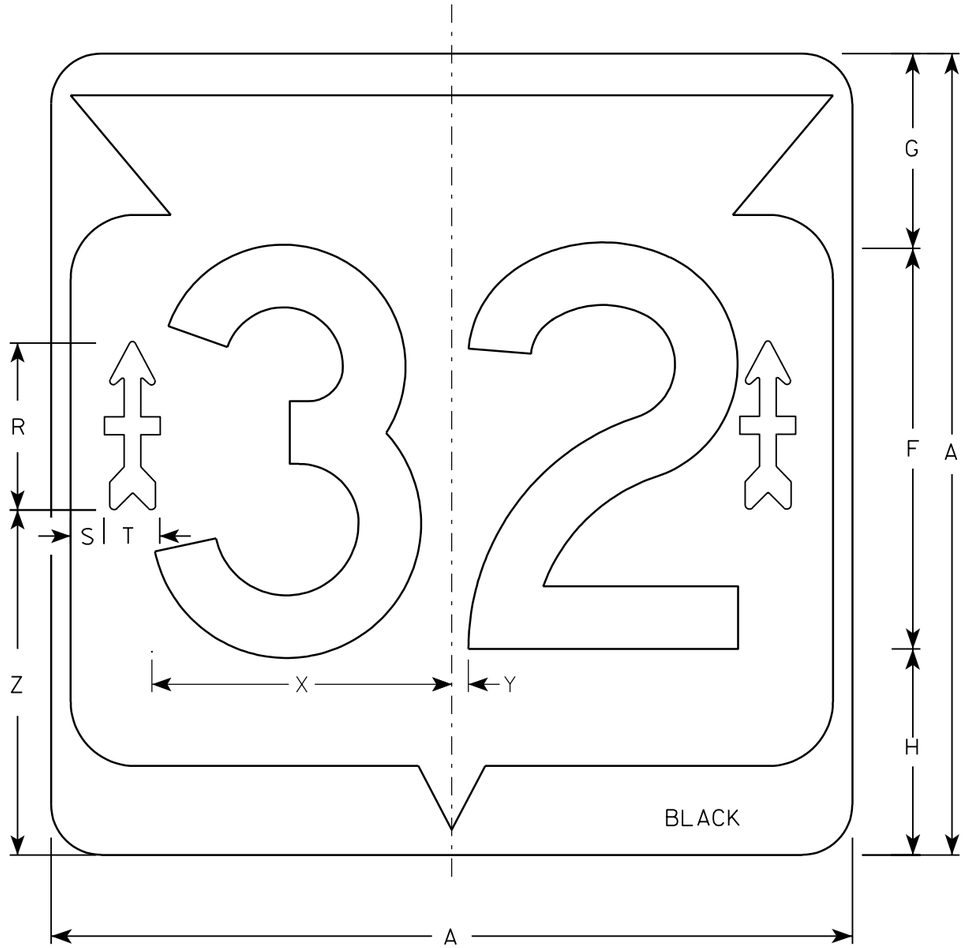
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

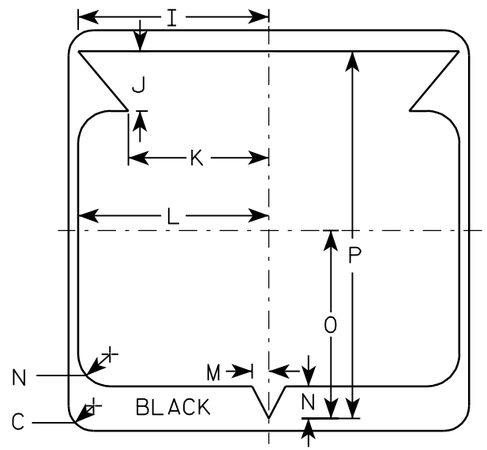
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1045	E



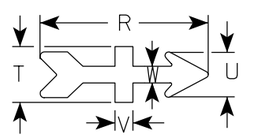
M1-6B

NOTES

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



32nd DIVISION ARROW
ACTUAL SIZE



Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8		5 1/8	3/4	1 7/8	1 1/2	5/8	5/8	9	1/2	10 1/2	4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81

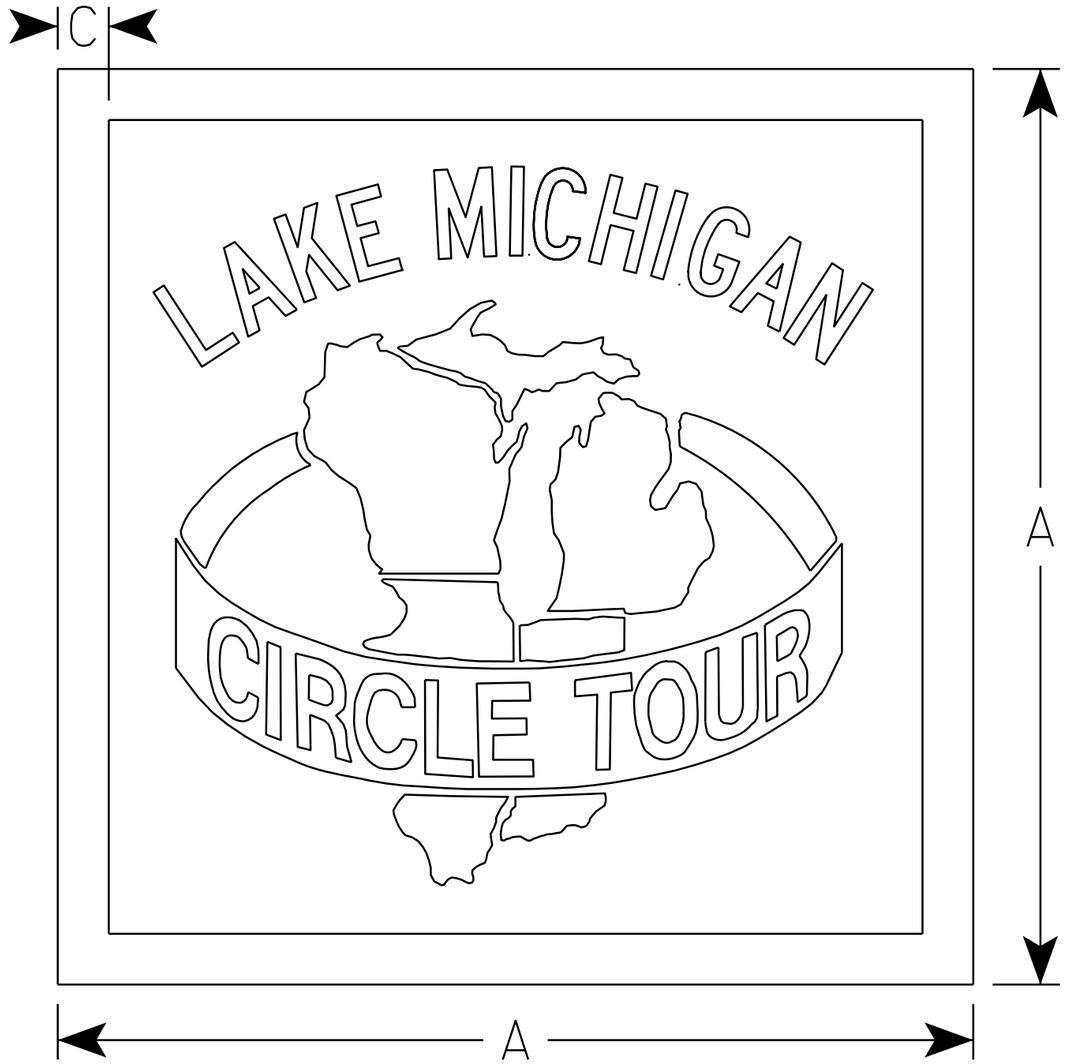
STATE ROUTE MARKER "32"
M1-6B FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 12/5/05 PLATE NO. M1-6B.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1046	E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 ½																								4.0	.36
3																												
4	36		2																								9.0	.81
5																												

STANDARD SIGN
M1-93

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 10/05/09 PLATE NO. M1-93.1

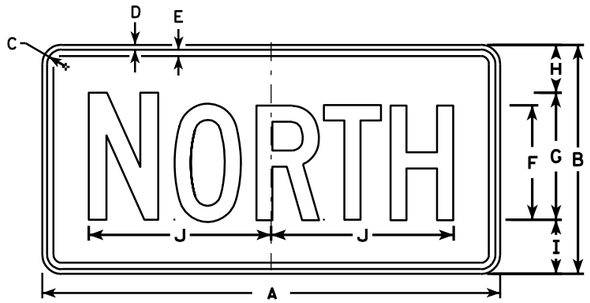
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1047	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\M193.DGN PLOT DATE : 05-OCT-2009 13:39 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 5.959043:1.000000

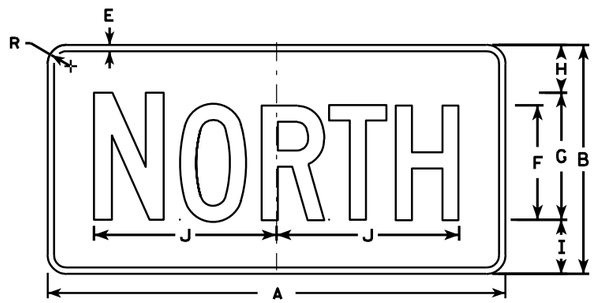
WISDOT/CADDS SHEET 42

7

7



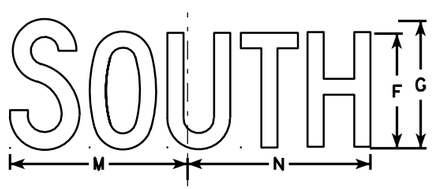
M3-1
MK3-1
MO3-1



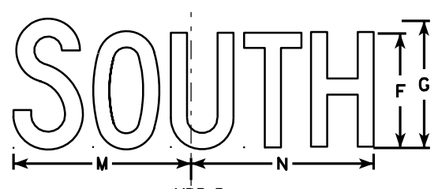
MB3-1
MG3-1
MM3-1
MN3-1

M3-2
MK3-2
MO3-2

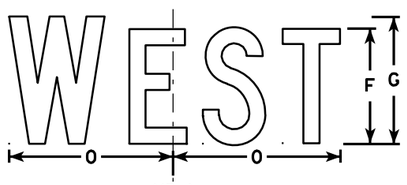
MB3-2
MG3-2
MM3-2
MN3-2



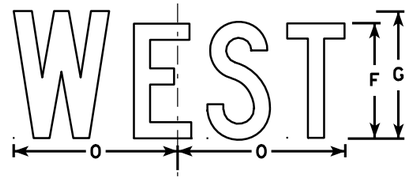
M3-3
MK3-3
MO3-3



MB3-3
MG3-3
MM3-3
MN3-3



M3-4
MK3-4
MO3-4



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   MG3-1 thru MG3-4 Background - Green
   Message - White - Type H Reflective
   MK3-1 thru MK3-4 Background - Green
   Message - White - Type H Reflective
   MM3-1 thru MM3-4 Background - White - Type H Reflective
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White - Type H Reflective
   M03-1 thru M03-4 Background - Orange - Reflective
   Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

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

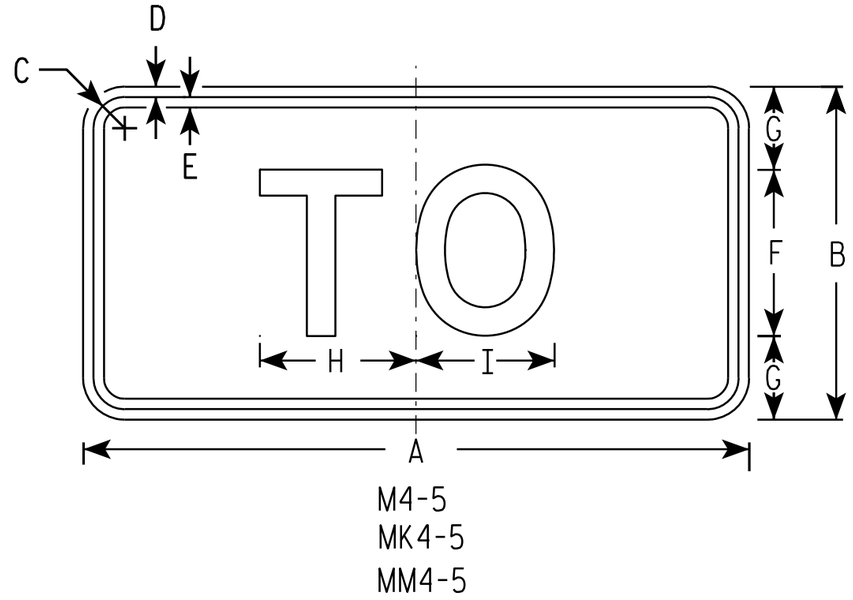
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

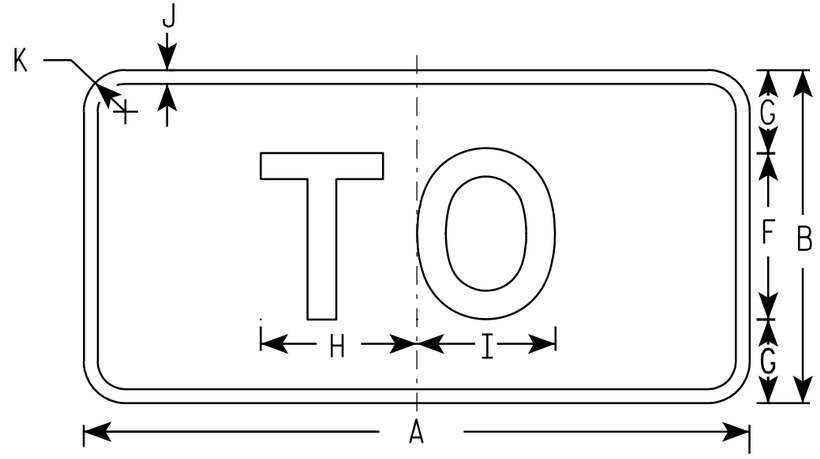
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1048	E



M4-5
MK4-5
MM4-5



MB4-5
MG4-5
MN4-5

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White - Type H Reflective (Detour or temporary Signs - Reflective)
   Message - Black
   MB4-5 Background - Blue
   Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG4-5 Background - Green
   Message - White - Type H Reflective
   MK4-5 Background - Green
   Message - White - Type H Reflective
   MM4-5 Background - White - Type H Reflective
   Message - Green
   MN4-5 Background - Brown
   Message - White - Type H Reflective

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

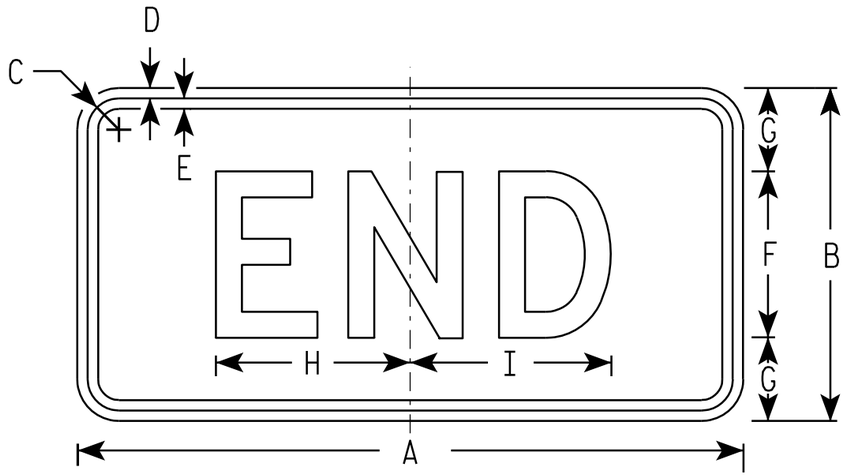
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

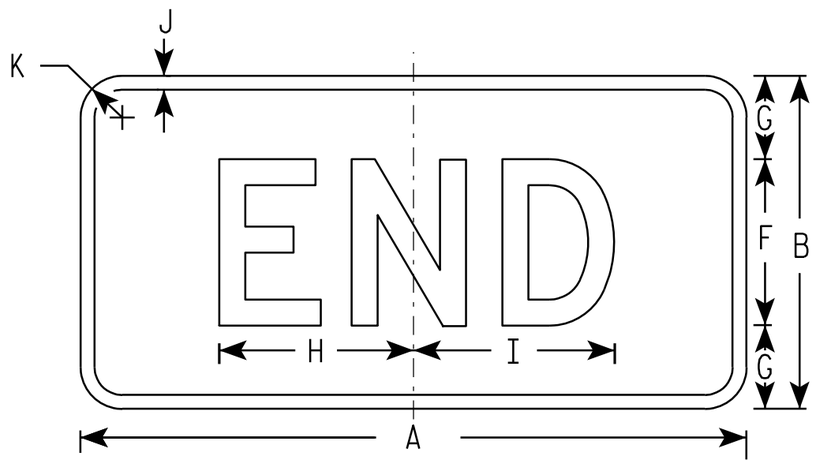
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-5.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1049 | E



M4-6
MK4-6
MM4-6
MR4-6



MB4-6
MG4-6
MN4-6

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-6 Background - White - Type H Reflective (Detour or temporary Signs - Reflective)
   Message - Black

   MB4-6 Background - Blue
   Message - White - Type H Reflective (Detour or temporary Signs - Reflective)

   MG4-6 Background - Green
   Message - White - Type H Reflective

   MK4-6 Background - Green
   Message - White - Type H Reflective

   MM4-6 Background - White - Type H Reflective
   Message - Green

   MN4-6 Background - Brown
   Message - White - Type H Reflective

   MR4-6 Background - Brown
   Message - Yellow - Type H Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-6

WISCONSIN DEPT OF TRANSPORTATION

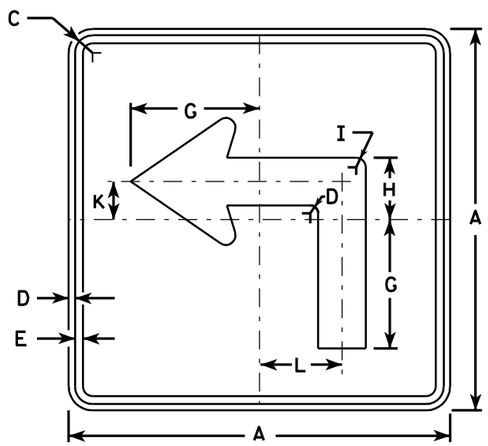
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-6.7

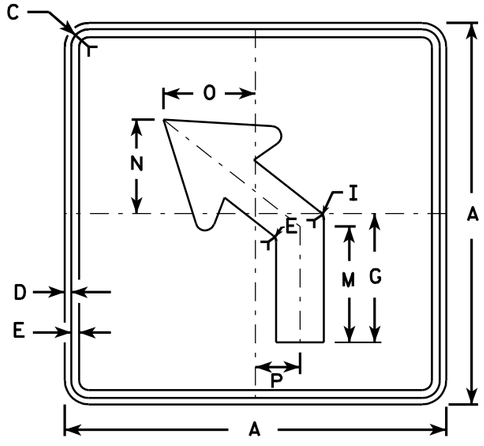
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1050 | E

7

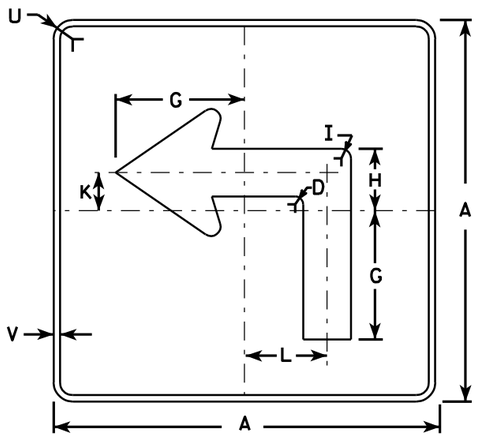
FILE NAME : C:\Users\PROJECTS\tr_stdplate\M46.DGN PLOT DATE : 10-NOV-2010 12:57 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 5.462457:1.000000
WISDOT/CADDS SHEET 42



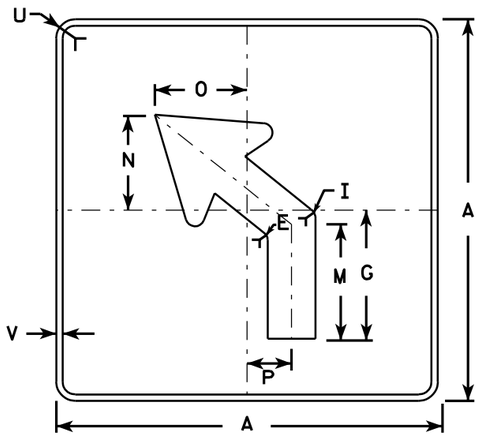
M5-1L
MK5-1L
MM5-1L
MO5-1L
MR5-1L



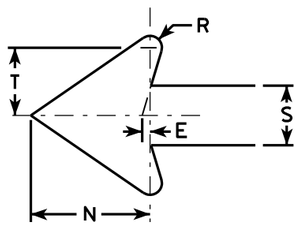
M5-2L
MK5-2L
MM5-2L
MO5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective) Message - Black
   MB5-1 and MB5-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG5-1 and MG5-2 Background - Green Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective Message - Green
   MN5-1 and MN5-2 Background - Brown Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Reflective Message - Black
   MR5-1 and MR5-2 Background - Brown Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m²
1																												
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56

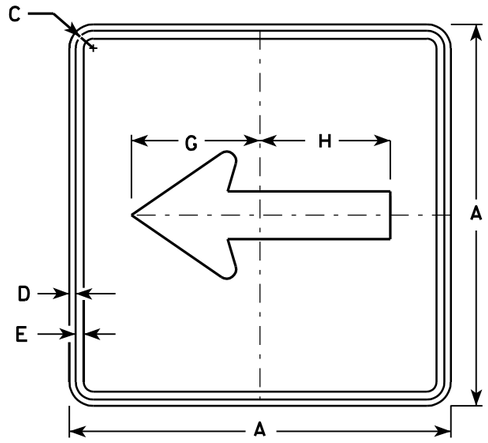
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

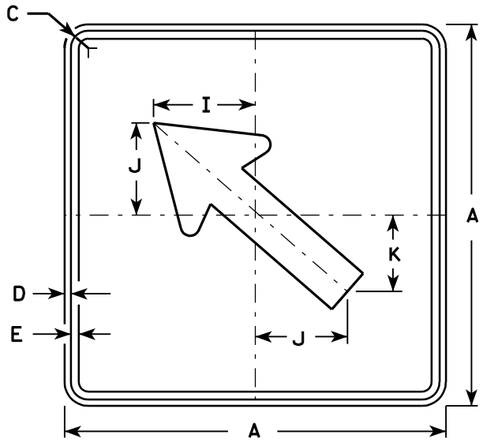
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M5-1.11

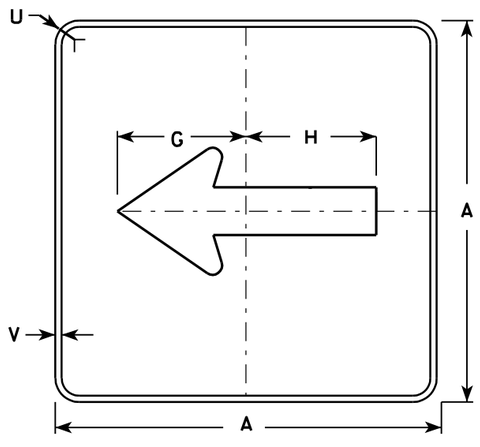
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1051	E



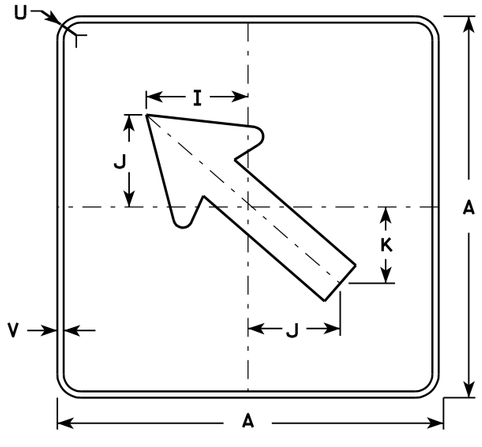
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MR6-2



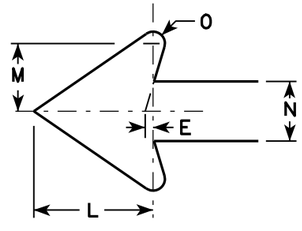
MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective) Message - Black
   MB6-1 and MB6-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG6-1 and MG6-2 Background - Green Message - White - Type H Reflective
   MK6-1 and MK6-2 Background - Green Message - White - Type H Reflective
   MM6-1 and MM6-2 Background - White - Type H Reflective Message - Green
   MN6-1 and MN6-2 Background - Brown Message - White - Type H Reflective
   MO6-1 and MO6-2 Background - Orange - Reflective Message - Black
   MR6-1 and MR6-2 Background - Brown Message - Yellow - Type H Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56

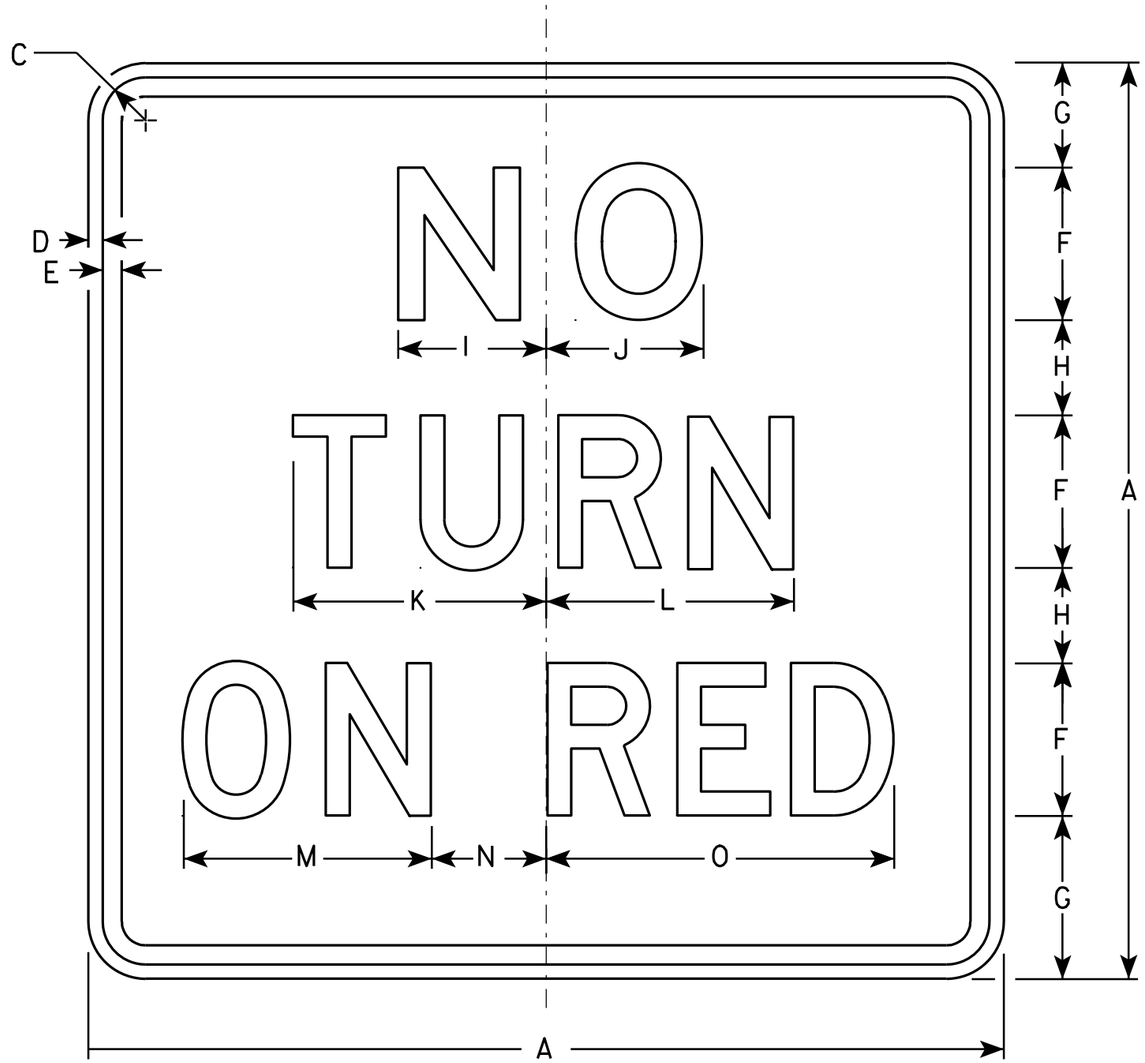
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M6-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1052	E



R10-11B

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8	3/8	3/8	3	2 3/4	1 3/4	3	3 1/8	5	4 7/8	5 1/4	1 7/8	7 1/8												2.25
2S	24		1 1/8	3/8	1/2	4	3 1/2	2 1/2	3 7/8	4 1/8	6 5/8	6 1/2	6 1/2	3	9 1/8												4.0
2M	24		1 1/8	3/8	1/2	4	3 1/2	2 1/2	3 7/8	4 1/8	6 5/8	6 1/2	6 1/2	3	9 1/8												4.0
3	30		1 3/8	1/2	5/8	5	4 1/2	3	4 7/8	5 1/4	8 1/4	8 1/8	7 3/4	4 1/8	11 7/8												6.25
4																											
5																											

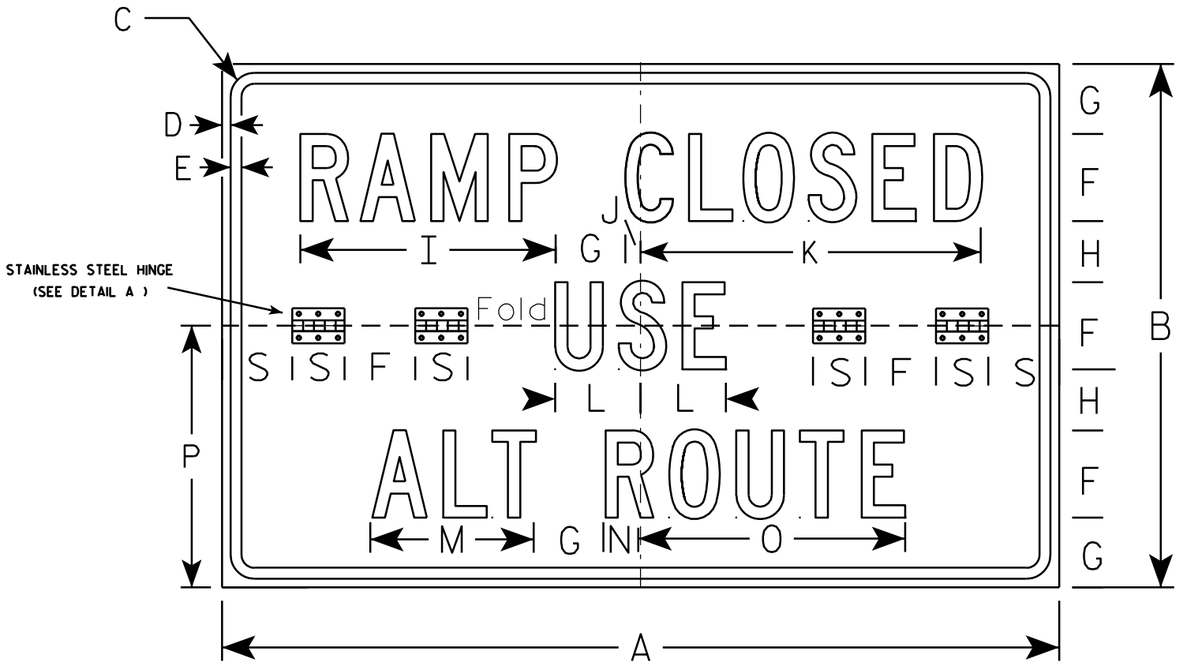
STANDARD SIGN
R10-11B

WISCONSIN DEPT OF TRANSPORTATION

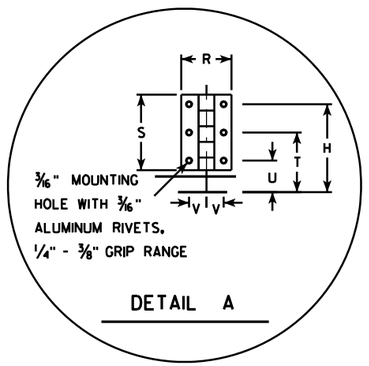
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-11B.4

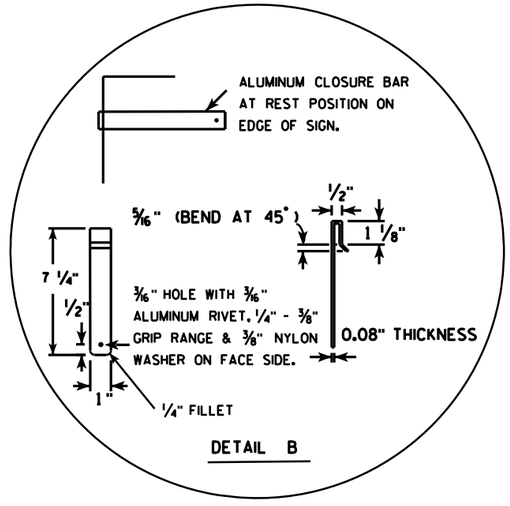
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1053 | E



R11-54F



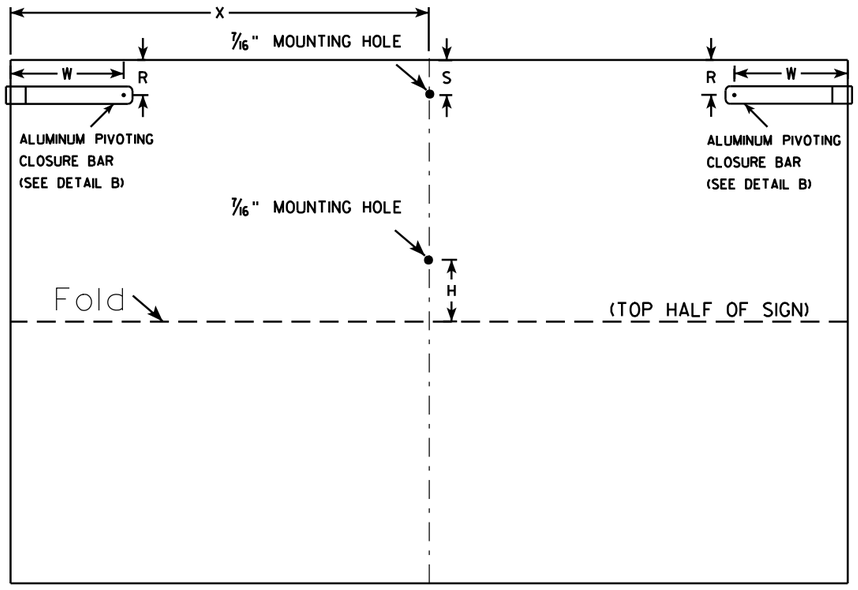
DETAIL A



DETAIL B

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - C
4. Sign Base Material shall be aluminum corners and borders shall be rounded.
5. All hardware used on the folding sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



(BACK VIEW)

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
2M	48	30	1 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
3																											
4																											
5																											

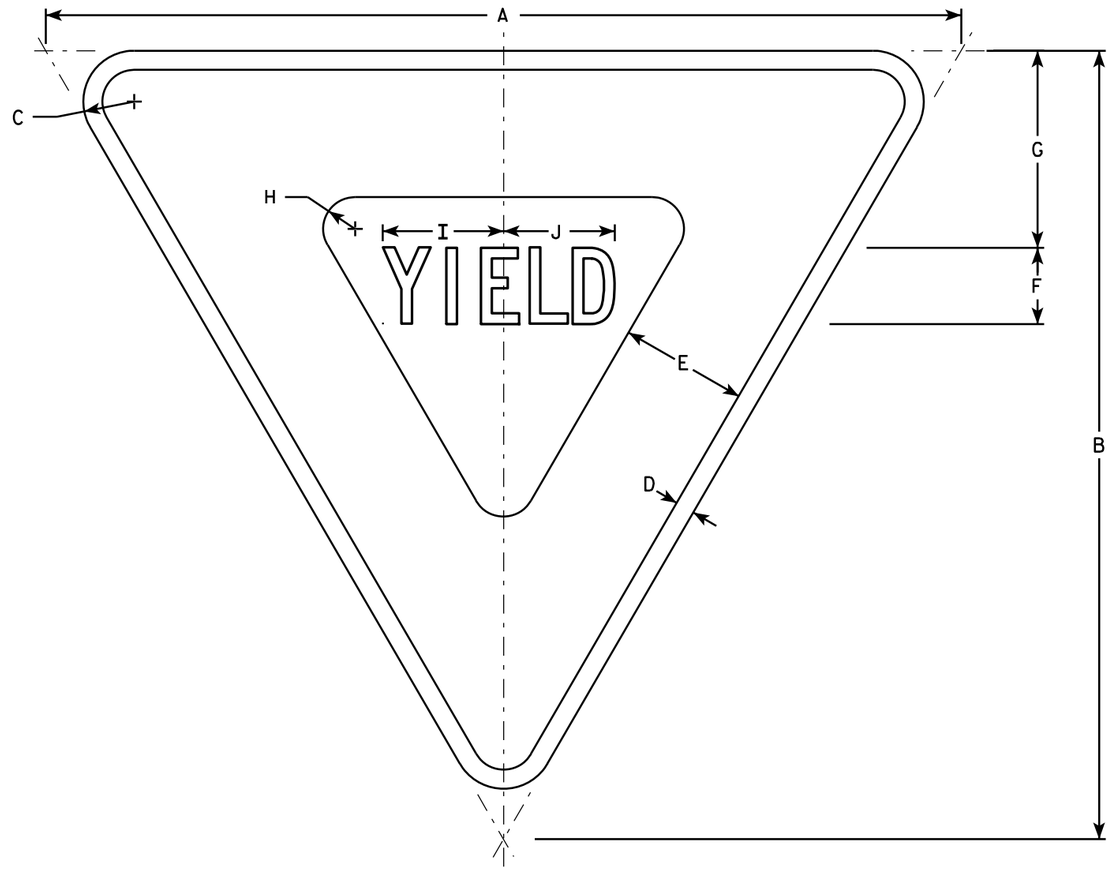
STANDARD SIGN
R11-54F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-54F.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1054	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6	24	21	1 1/2	3/8	3	2	4 3/4	7/8	3 1/4	3																	1.75
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

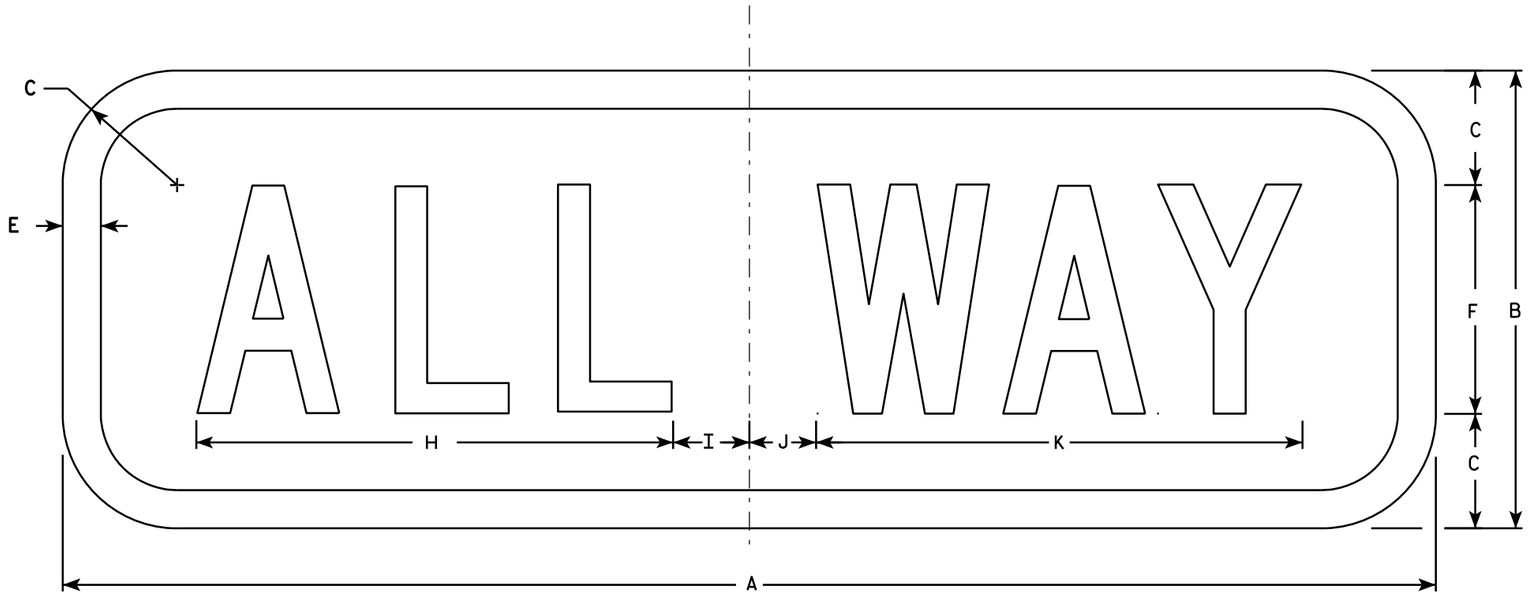
STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. R1-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1055 | E



R1-3P

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																0.75
2S	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																1.5
2M	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
3	30	12	2 1/4		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5
4																											
5																											

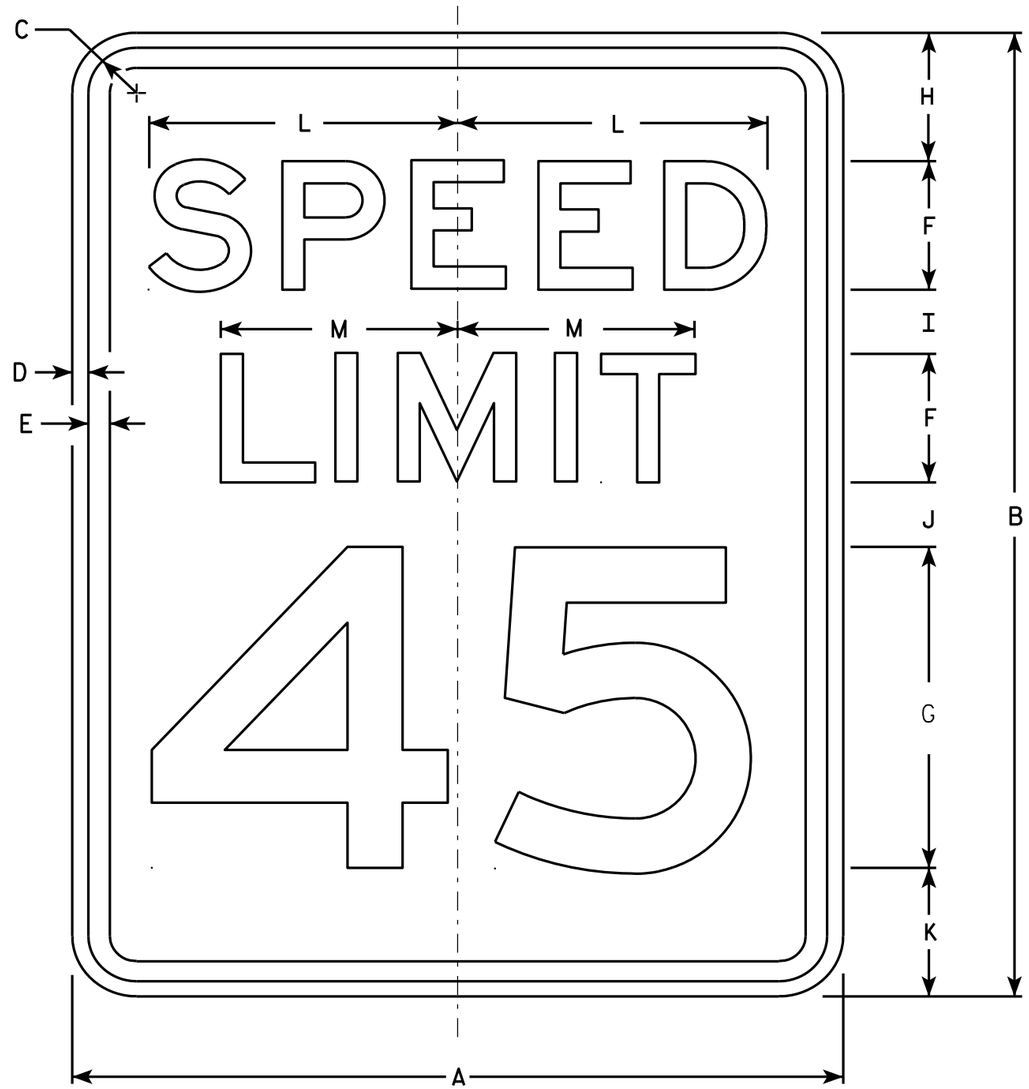
STANDARD SIGN
R1-3P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. R1-3P.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1056 | E



R2-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

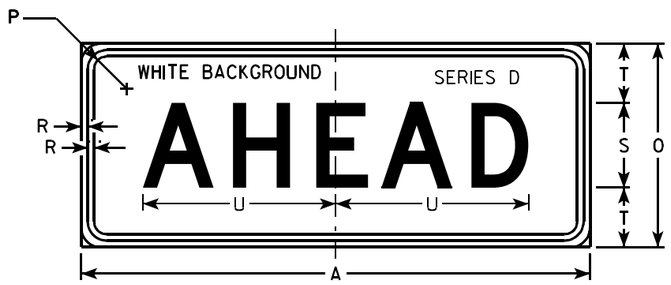
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1057	E

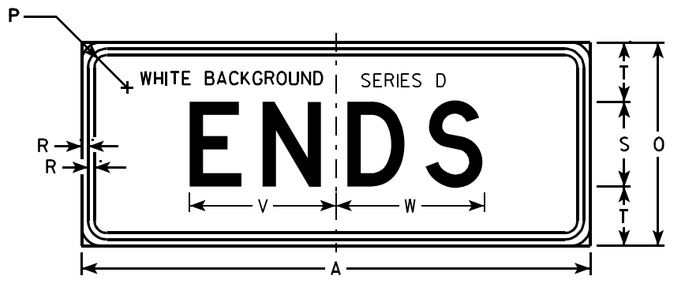
R3-17

NOTES

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



R3-17ap



R3-17bp

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	R3-17 Area sq. ft.	R3-17ap Area sq. ft.	R3-17bp Area sq. ft.
1																													
2S	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
2M	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
3																													
4																													
5																													

STANDARD SIGN
R3-17 & R3-17a&bp

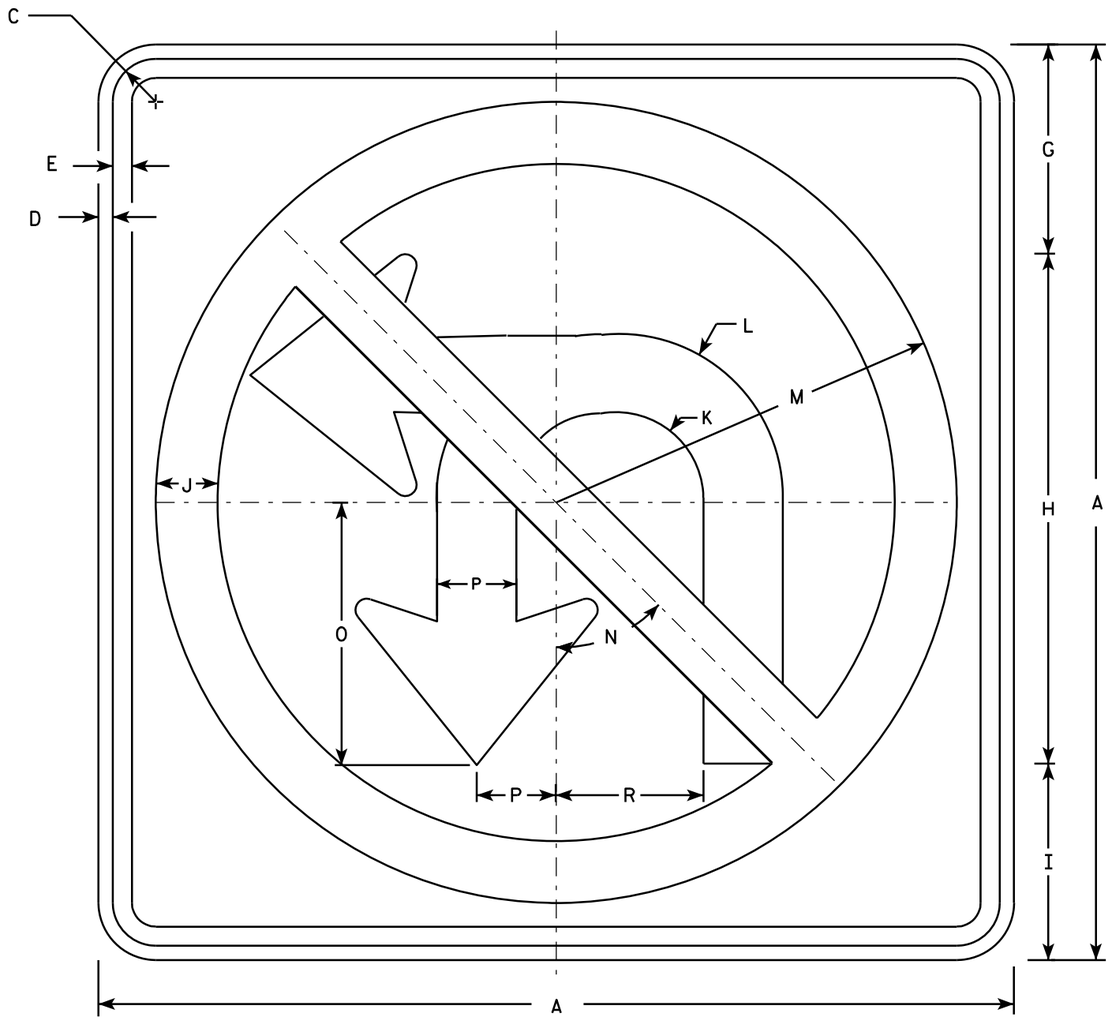
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/12/2011 PLATE NO. R3-17.2

PROJECT NO:

SHEET NO: 1058 E



R3-18

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		5 1/2	13 3/8	5 1/8	1 5/8	2 1/4	4 1/4	10 1/2	45°	6 7/8	2 1/8		3 7/8									4.0
2M	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45°	10 3/8	3 1/8		5 3/4									9.0
3	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
4	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
5	48		2 1/4	3/4	1		11	26 3/4	10 1/4	3 1/4	4 5/8	8 5/8	21	45°	13 3/4	4 1/8		7 3/4									16.0

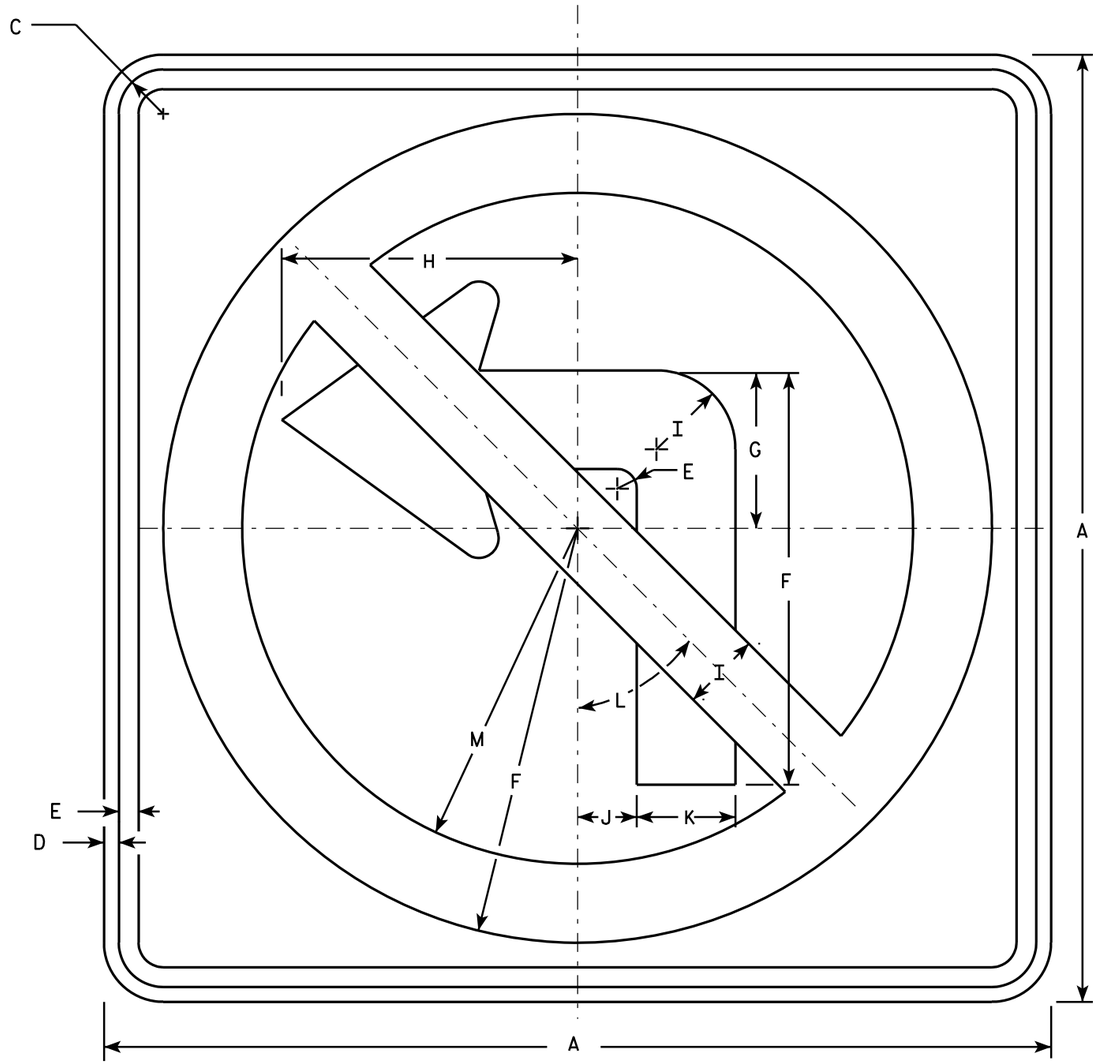
STANDARD SIGN
R3-18

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/10 PLATE NO. R3-18.2

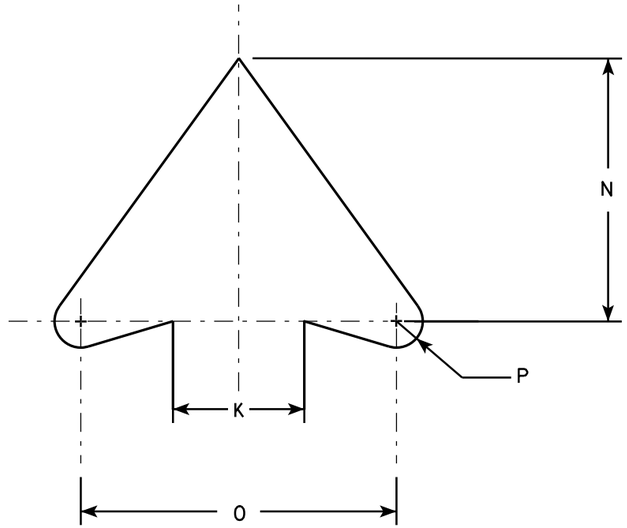
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1059	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

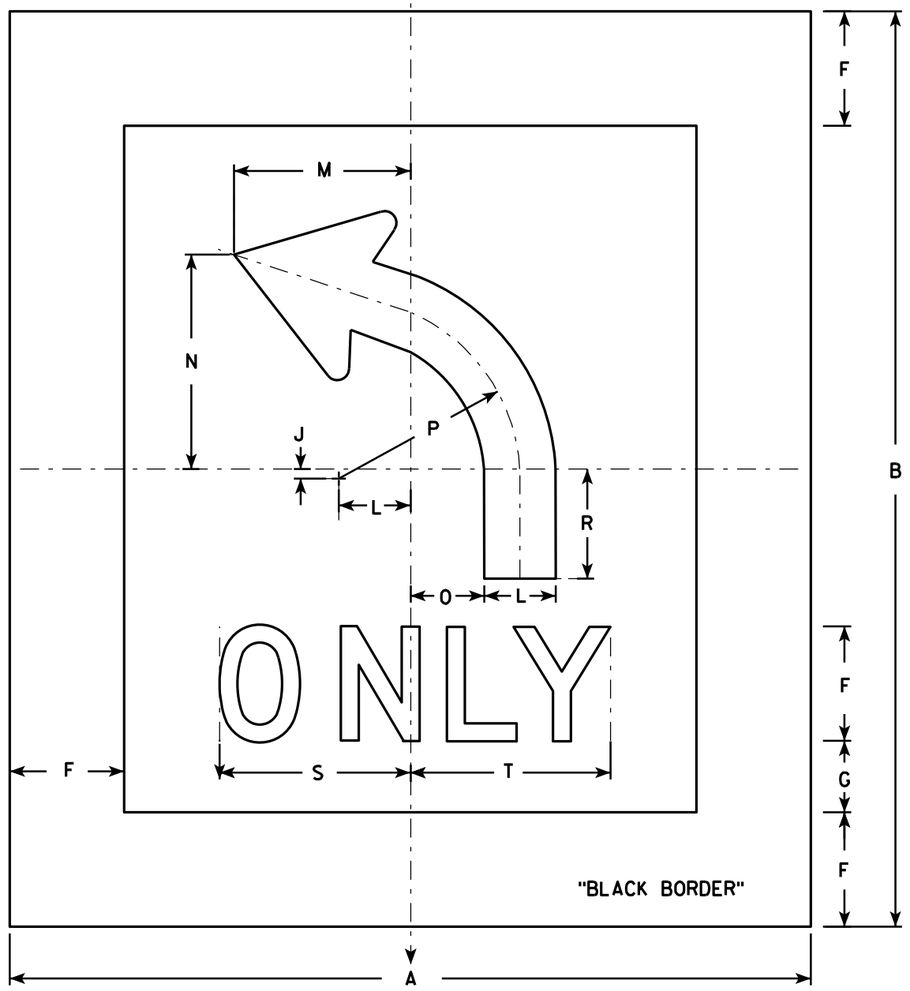
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

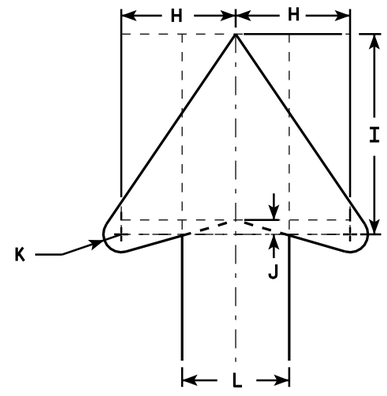
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1060	E



R3-5L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
5. R3-5R is the same as R3-5L except curved portion of arrow points right.
6. The 6" border is non-reflective black.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
2M	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
3																											
4																											
5																											

STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

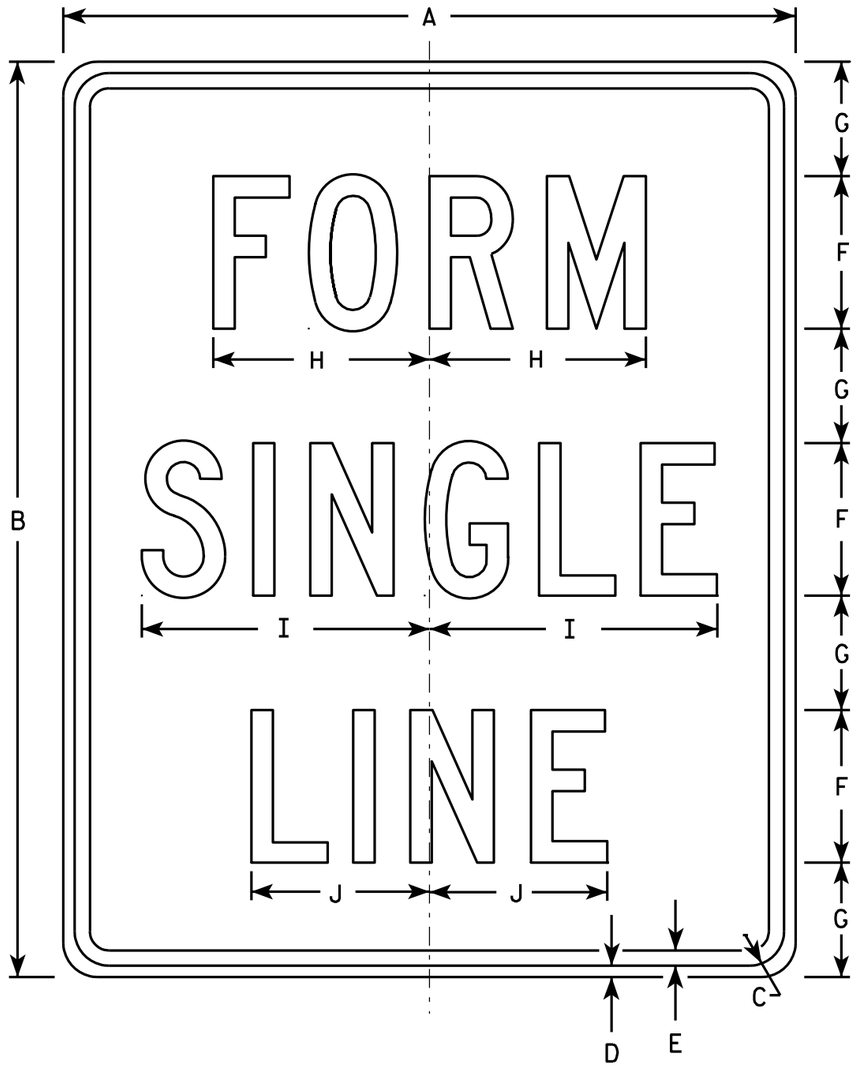
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1061 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R35.DGN PLOT DATE : 24-FEB-2011 14:53 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 7.945391:1.000000

WISDOT/CADDS SHEET 42

7

7



R3-58

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	30	1 1/8	3/8	1/2	5	3 3/4	7 1/8	9 3/8	5 7/8																	5.0
2S	24	30	1 1/8	3/8	1/2	5	3 3/4	7 1/8	9 3/8	5 7/8																	5.0
2M	24	30	1 1/8	3/8	1/2	5	3 3/4	7 1/8	9 3/8	5 7/8																	5.0
3	36	48	1 3/8	1/2	5/8	8	6	11 3/8	15 1/8	9 3/8																	12.0
4	36	48	1 3/8	1/2	5/8	8	6	11 3/8	15 1/8	9 3/8																	12.0
5																											

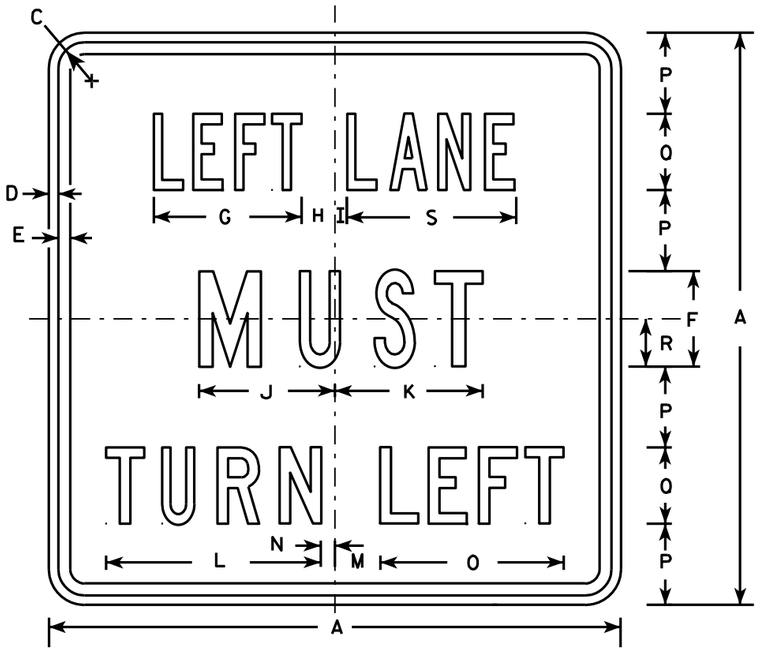
STANDARD SIGN
R3-58

WISCONSIN DEPT OF TRANSPORTATION

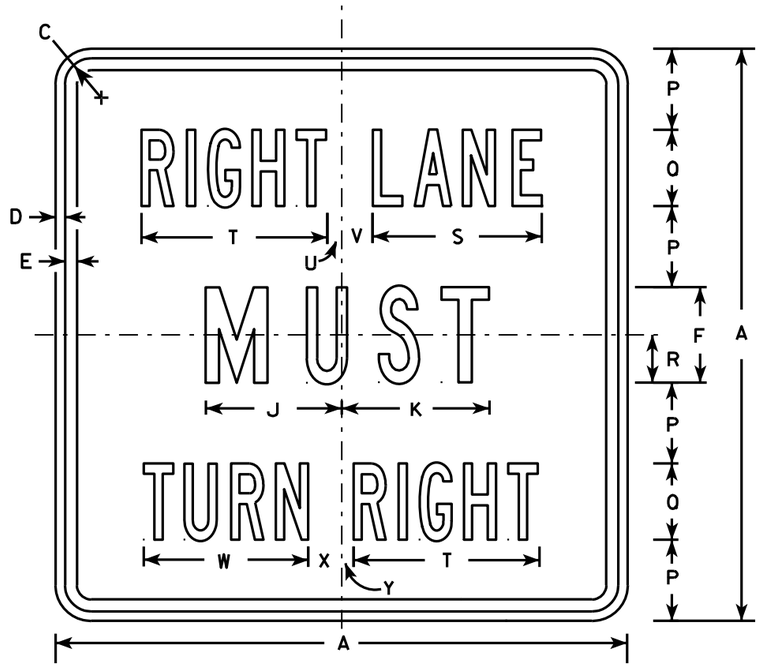
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-58.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1062	E



R3-7L



R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

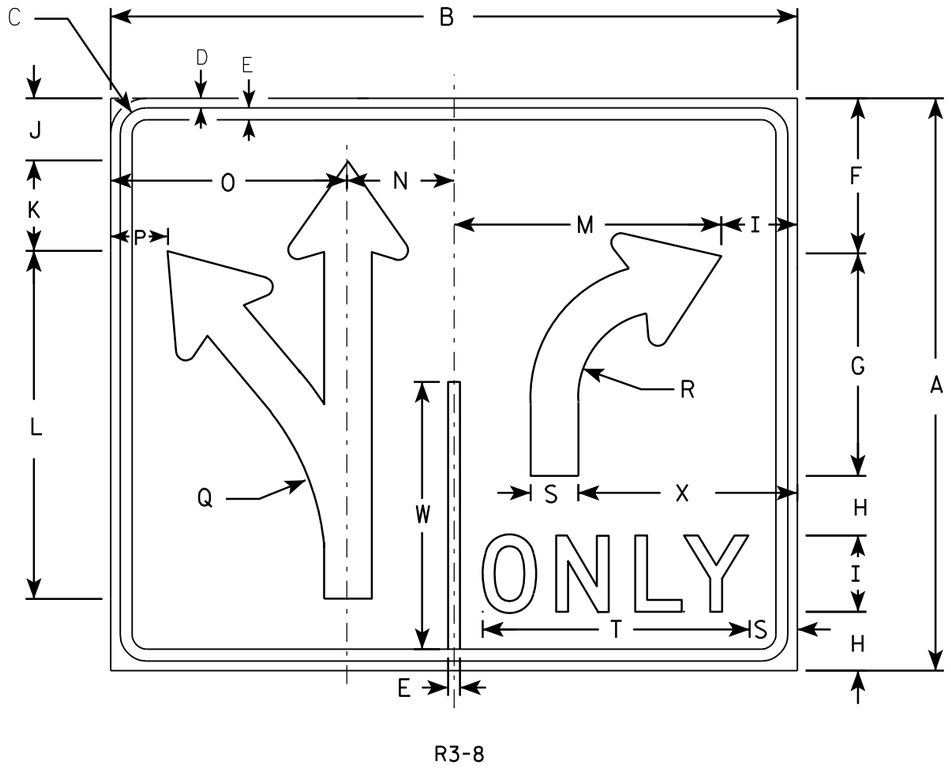
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

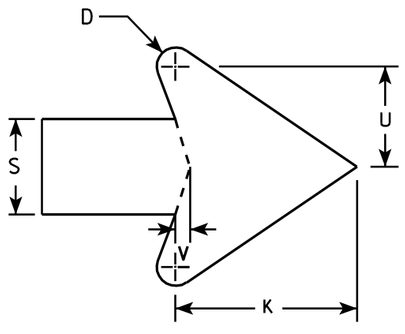
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1063	E



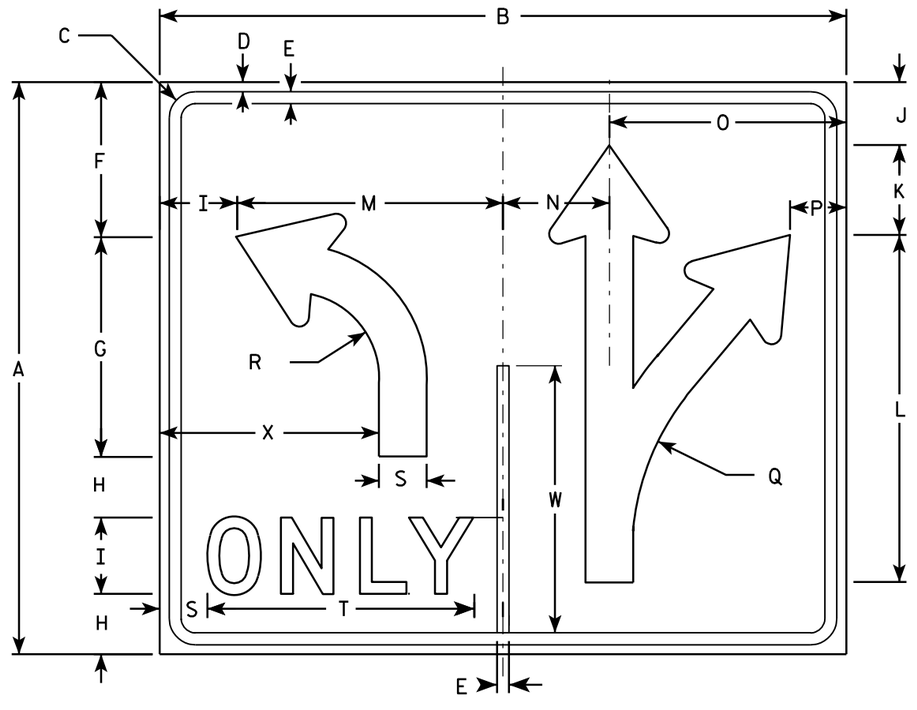
R3-8



ARROW DETAIL

NOTES

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



R3-8A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14	5 5/8	12 3/8	3	13 1/4	4 1/2	2 1/2	14	2 5/8	3/8	14	11 1/2			7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14	5 5/8	12 3/8	3	13 1/4	4 1/2	2 1/2	14	2 5/8	3/8	14	11 1/2			7.5
3																											
4	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	21	8 3/8	18 5/8	4 3/8	21 7/8	7 1/4	3 3/4	20 5/8	4	5/8	22 3/8	17 1/4			18.0
5	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	21	8 3/8	18 5/8	4 3/8	21 7/8	7 1/4	3 3/4	20 5/8	4	5/8	22 3/8	17 1/4			18.0

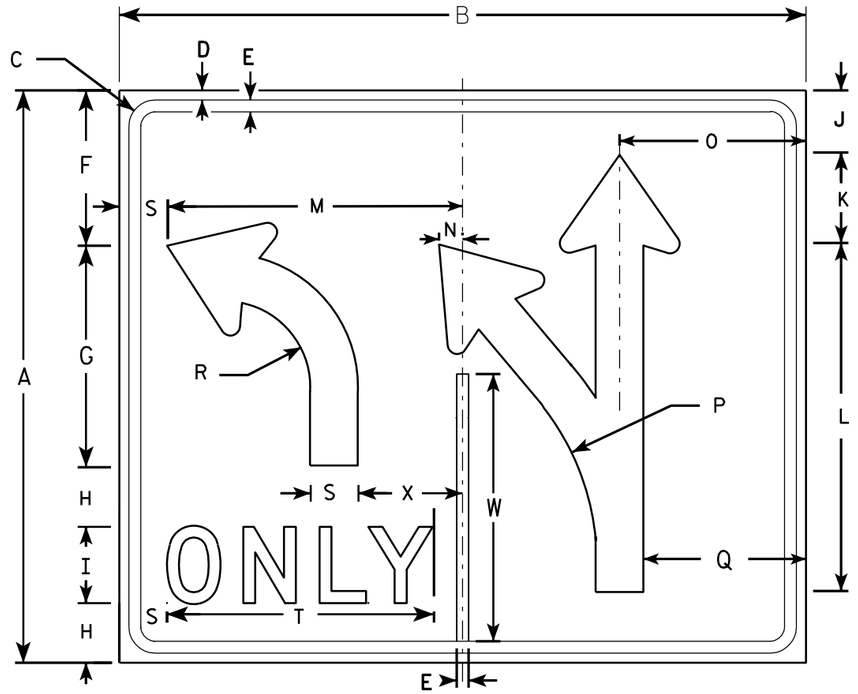
STANDARD SIGN
R3-8 & R3-8A

WISCONSIN DEPT OF TRANSPORTATION

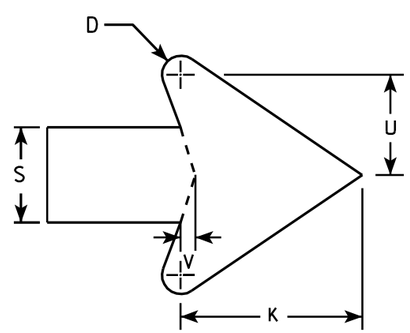
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1064	E



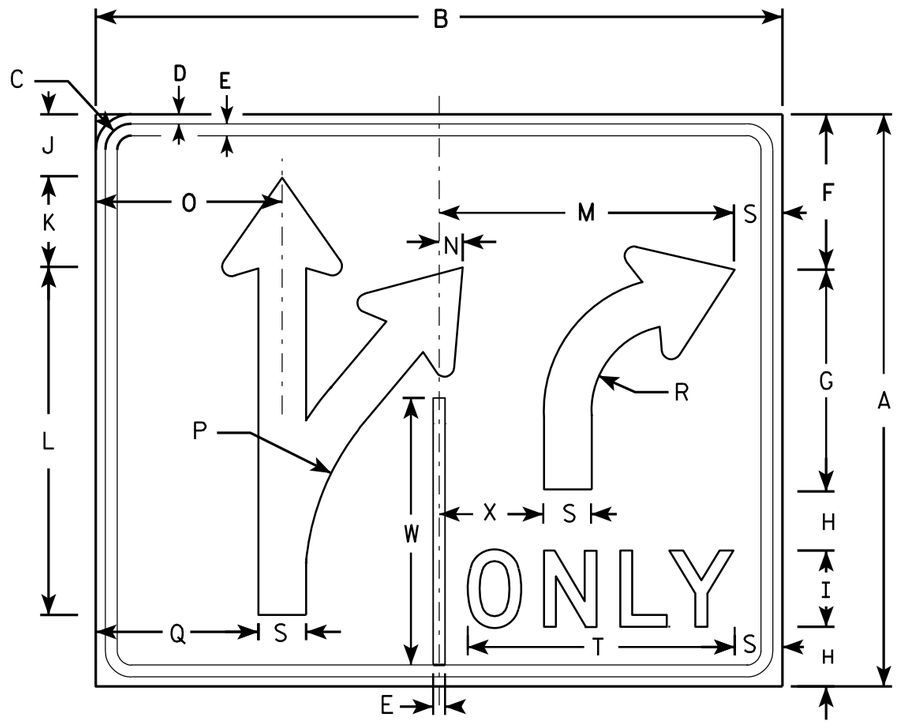
R3-8B



ARROW DETAIL

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R3-8B & R3-8C is the same but reversed.



R3-8C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	15 1/2	1 1/4	9 3/4	13 1/4	8 1/2	4 1/2	2 1/2	14	2 5/8	3/8	14	5 1/4			7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	15 1/2	1 1/4	9 3/4	13 1/4	8 1/2	4 1/2	2 1/2	14	2 5/8	3/8	14	5 1/4			7.5
3																											
4	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 5/8	23 1/8	1 7/8	14 5/8	21 7/8	12 3/4	7 1/4	3 3/4	20 5/8	4	5/8	22 3/8	8 1/8			18.0
5	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 5/8	23 1/8	1 7/8	14 5/8	21 7/8	12 3/4	7 1/4	3 3/4	20 5/8	4	5/8	22 3/8	8 1/8			18.0

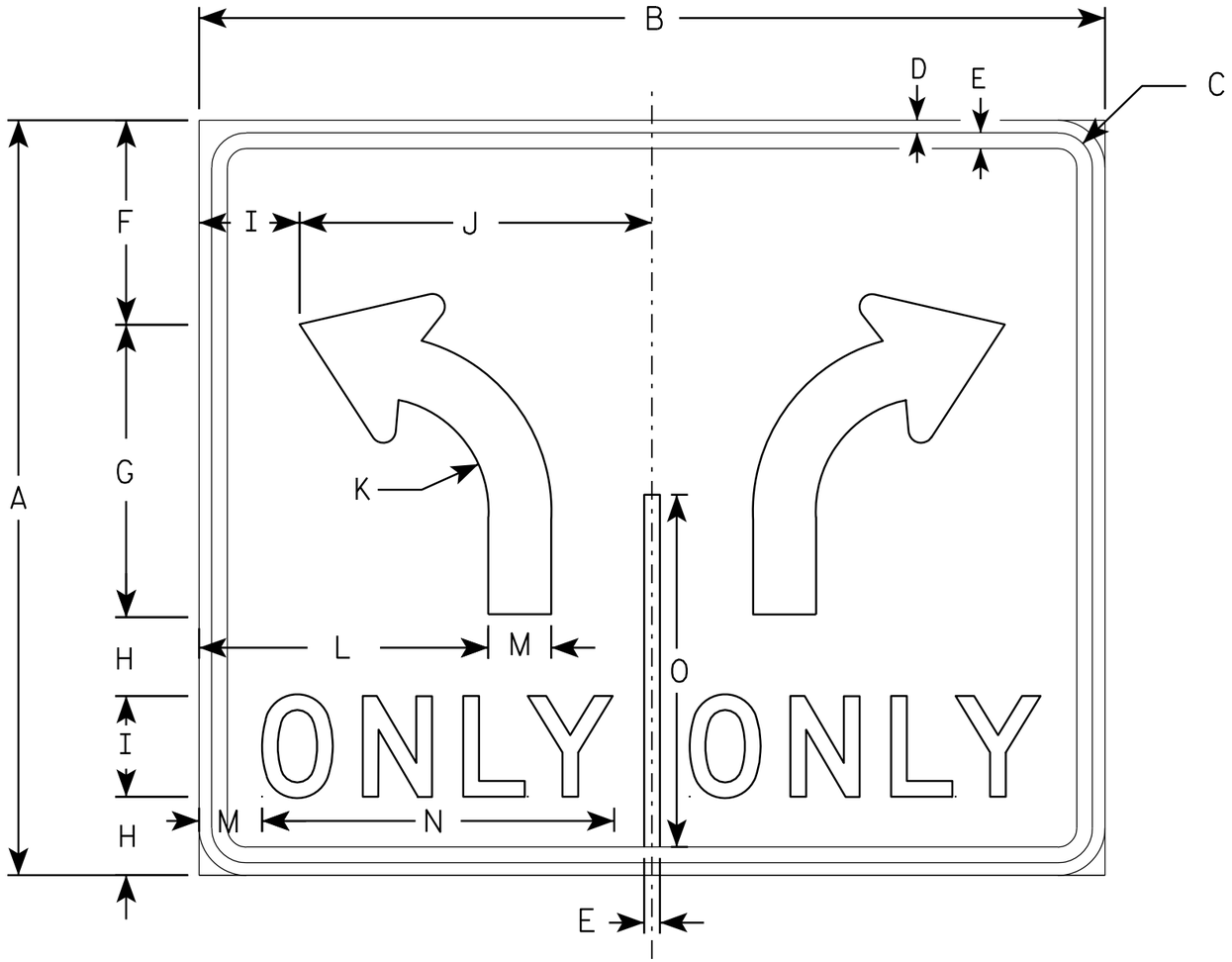
STANDARD SIGN
R3-8B & R3-8C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8B.2

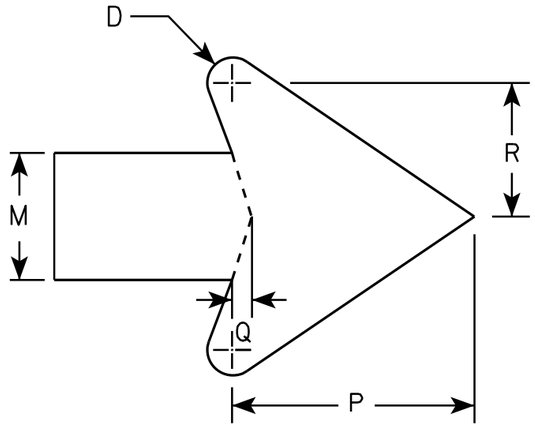
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1065	E



R3-8F

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	14	4 1/2	11 1/2	2 1/2	14	14	4 3/4	3/8	2 5/8									7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	14	4 1/2	11 1/2	2 1/2	14	14	4 3/4	3/8	2 5/8									7.5
3																											
4	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	21	7 1/4	17 1/4	3 3/4	20 5/8	22 3/8	7 1/8	5/8	4									18.0
5	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	21	7 1/4	17 1/4	3 3/4	20 5/8	22 3/8	7 1/8	5/8	4									18.0

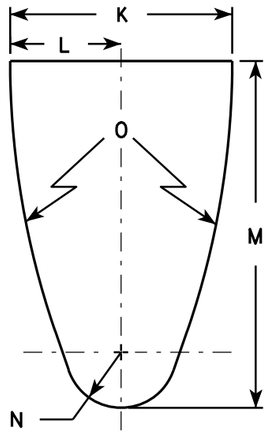
STANDARD SIGN
R3-8F

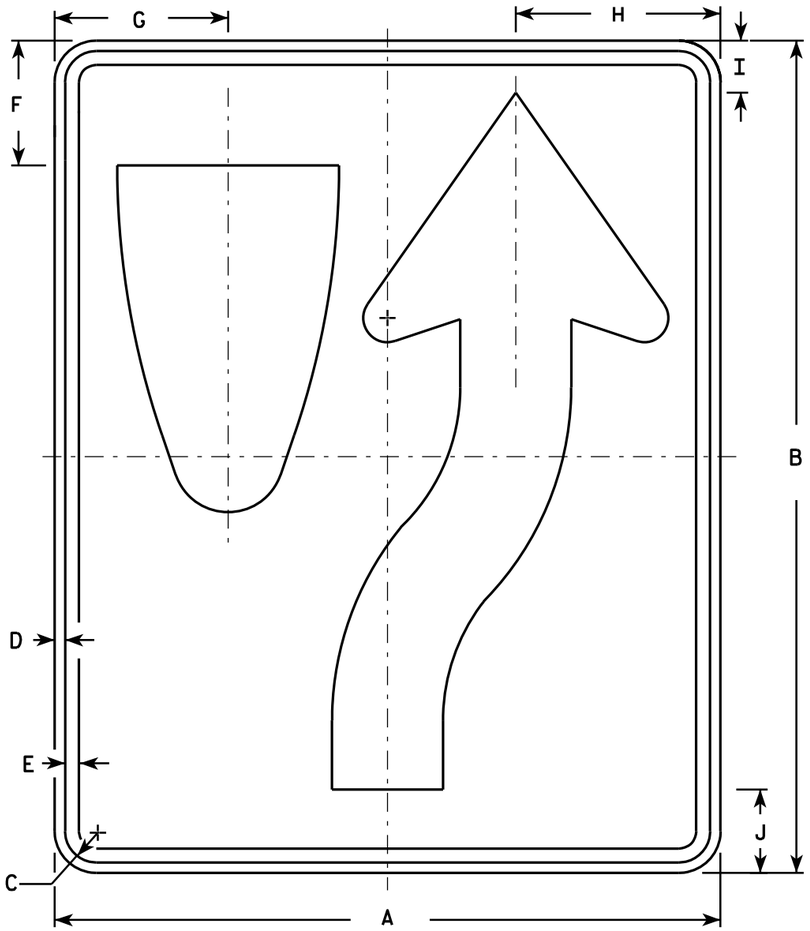
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8F.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1066 | E

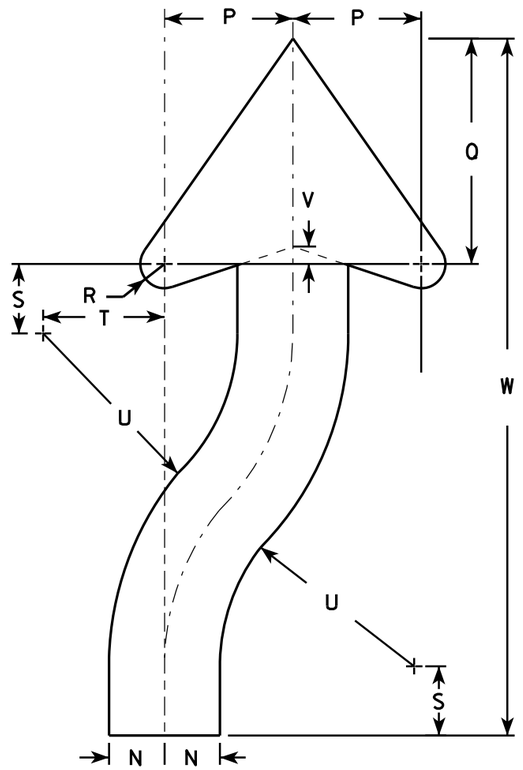




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

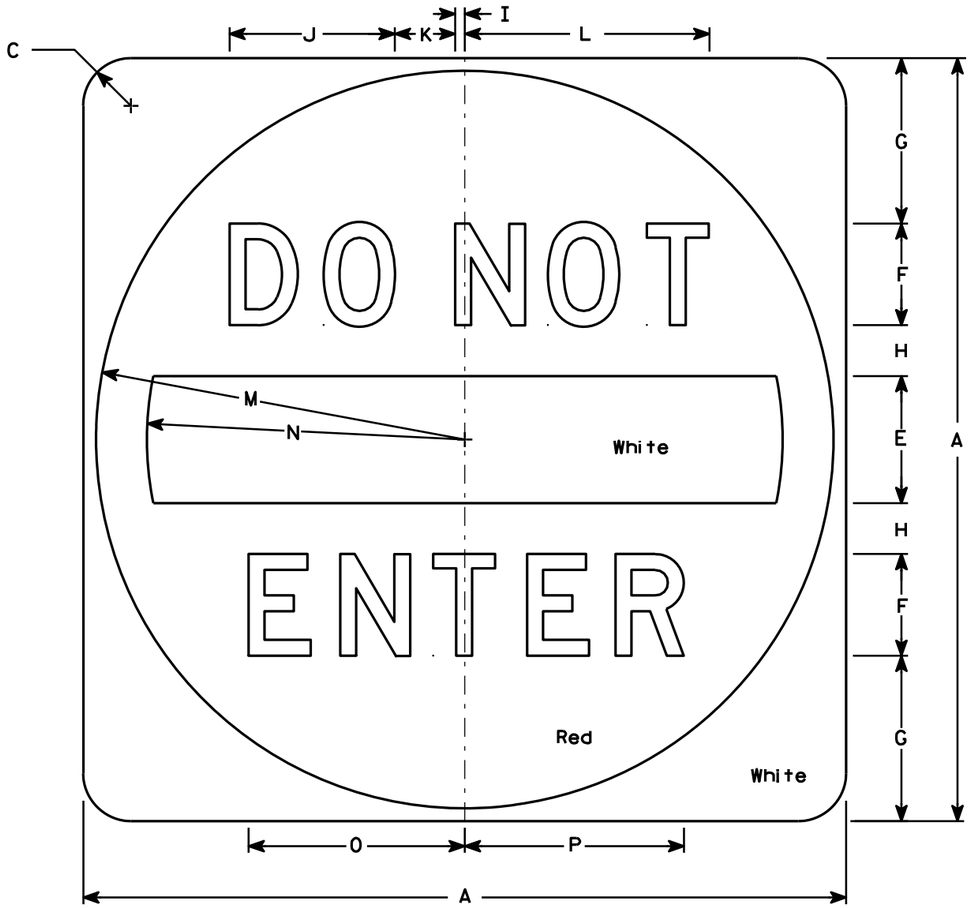
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1067	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See detail
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

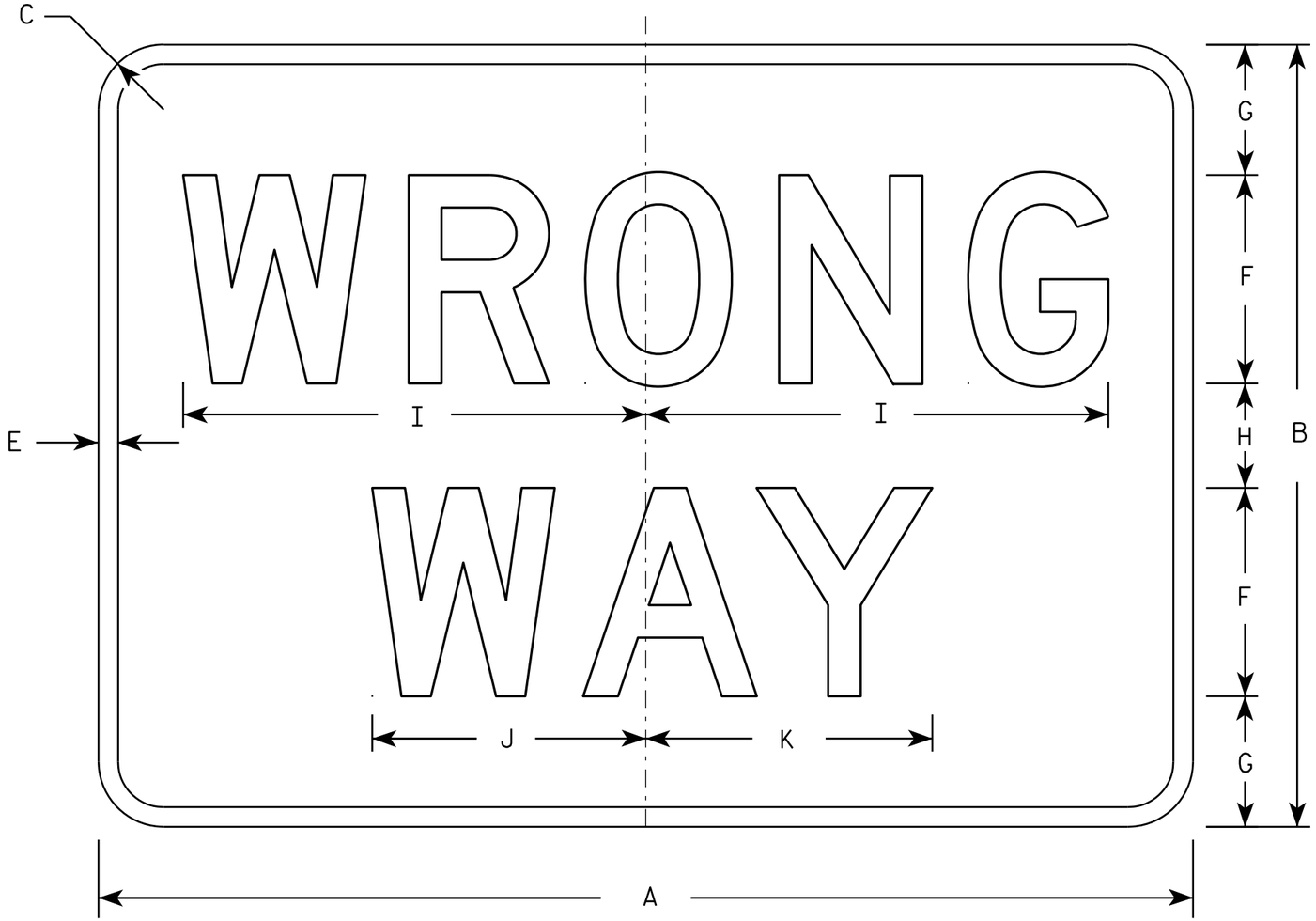
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1068 | E



R5-1A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1069	E

R5-57

NOTES

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

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

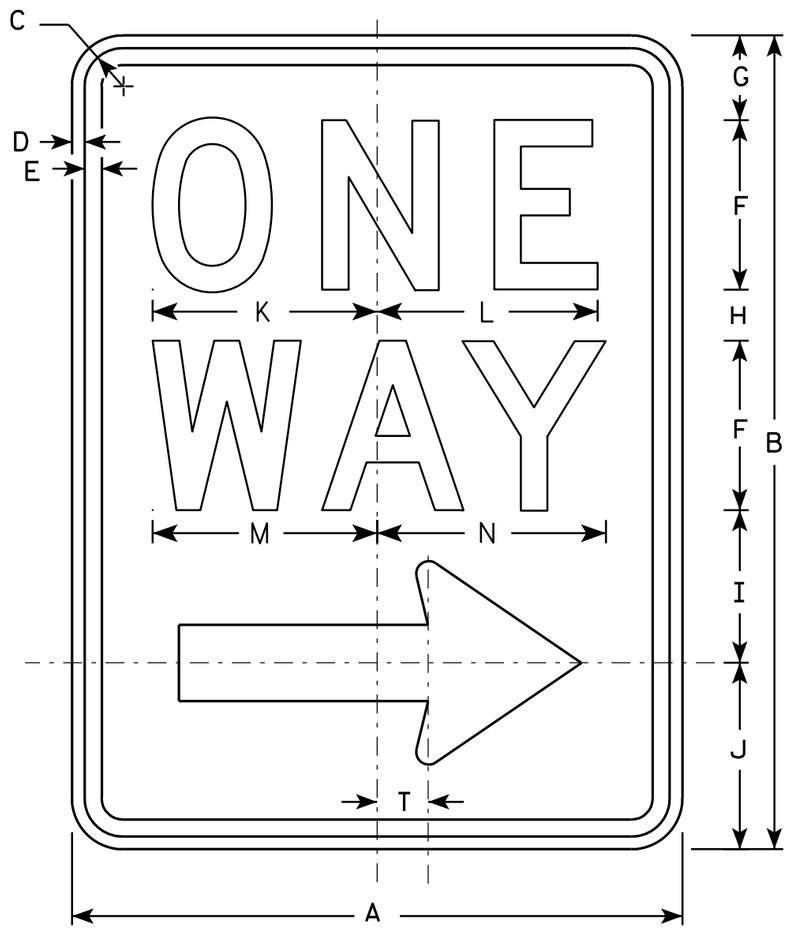
STANDARD SIGN
R5-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-57.10

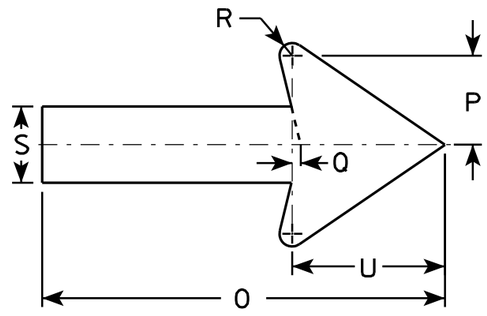
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1070	E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

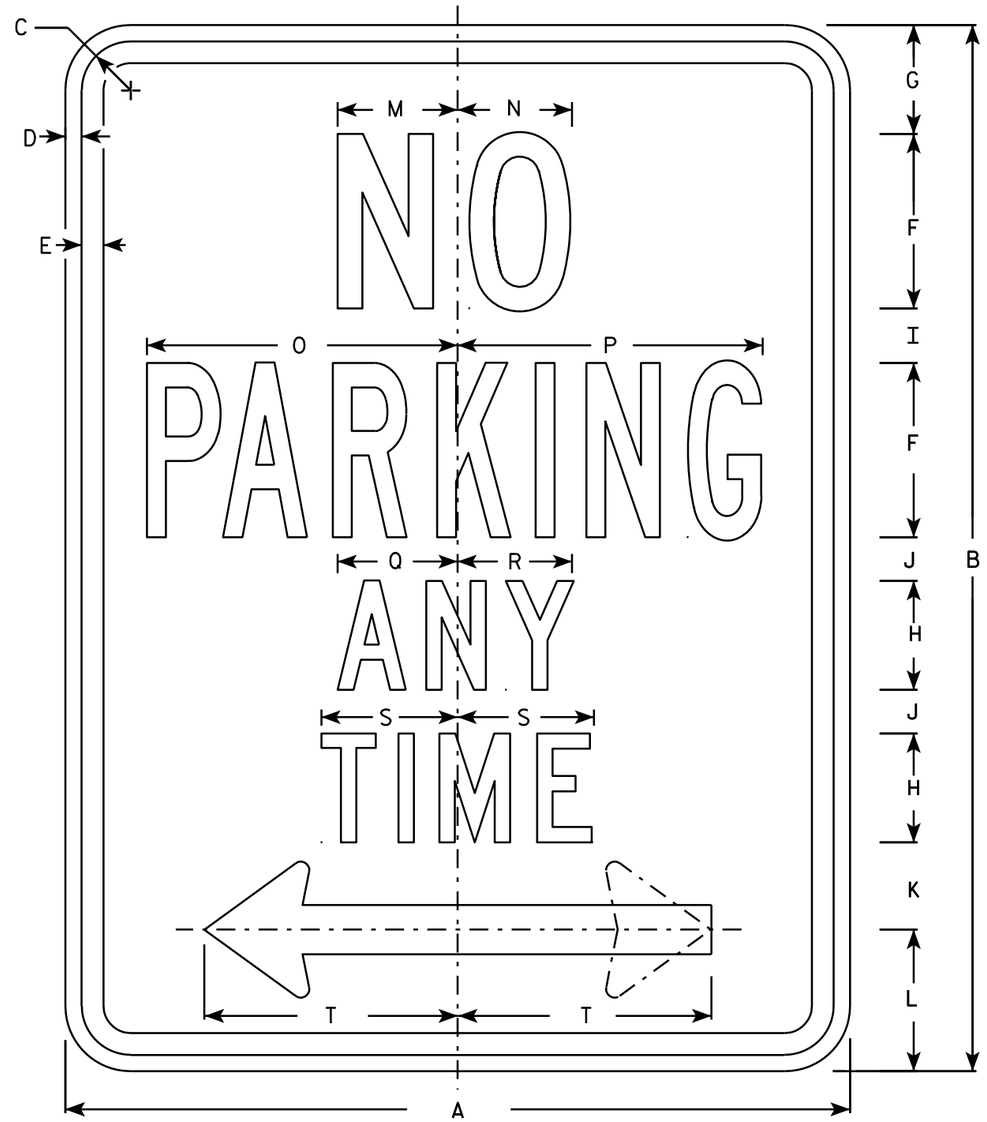
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

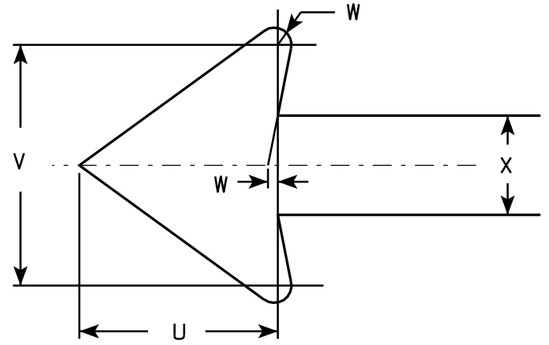
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1071	E



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1072	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R71.DGN PLOT DATE : 31-MAR-2011 09:20 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.476110:1.000000

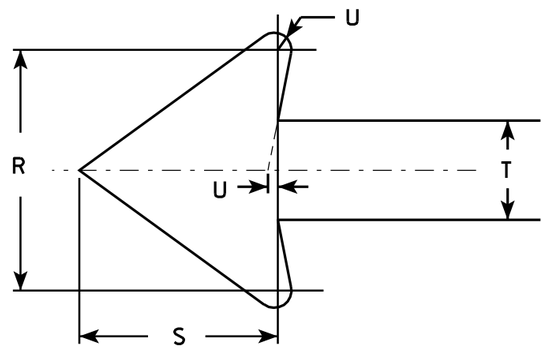
WISDOT/CADDS SHEET 42

R7-2

*- See Note 5

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 7
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals as required & adjust spacing to achieve proper balance.
6. R7-2D (double arrow)
   R7-2L (left arrow)
   R7-2R (right arrow)
7. Lines 1, 3 and 4 are series C, line 2 is series B.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	1 1/2	7/8	7/8	2	2 1/2	2	2	4 7/8	4 7/8	3 7/8	1 3/4	1 1/2	3/4	1/8						1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	5 7/8	2 5/8	2 1/4	1 1/8	1/4						3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 3/4	3 1/2	3	1 1/2	1/4						5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 3/4	3 1/2	3	1 1/2	1/4						5.0
4																											
5																											

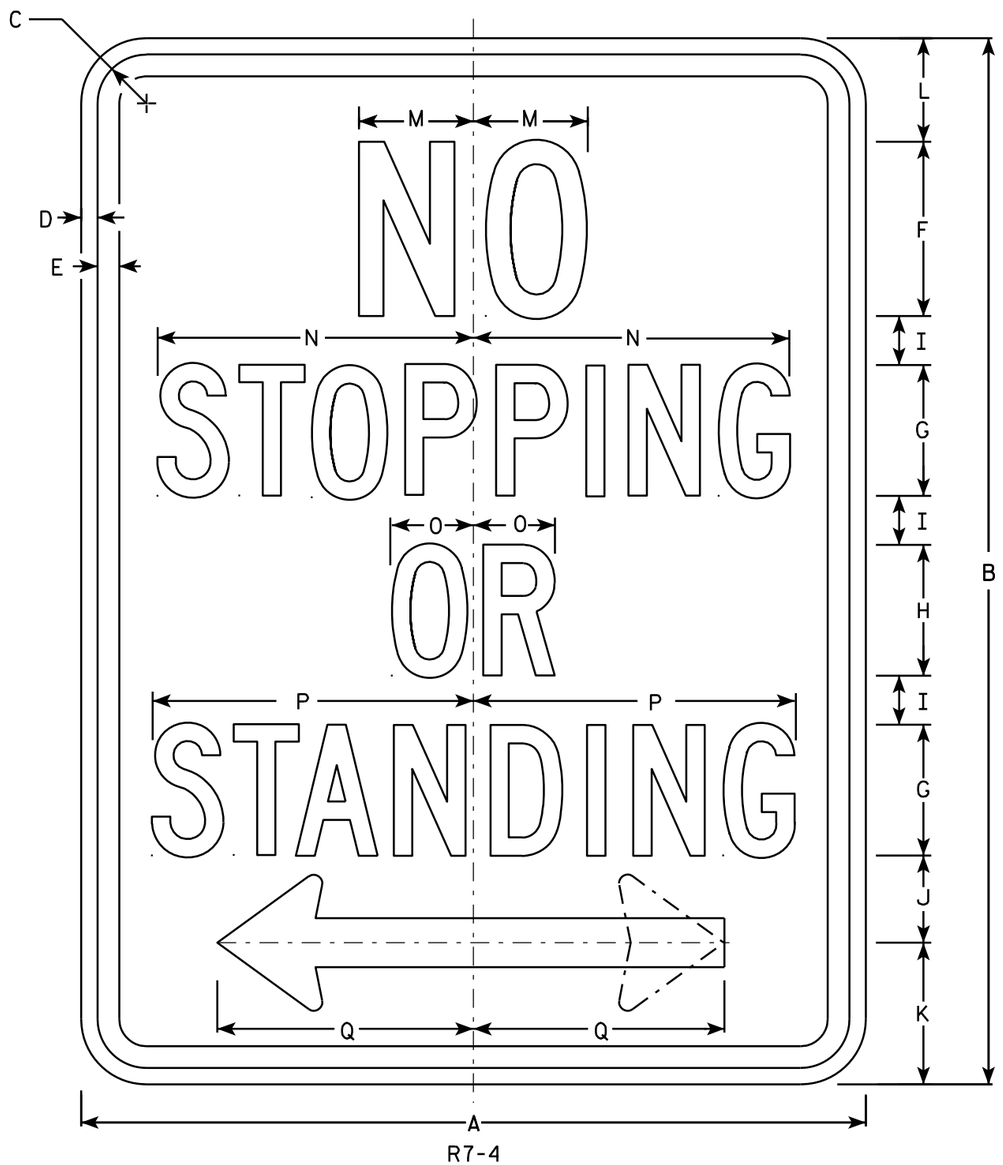
STANDARD SIGN
R7-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-2.9

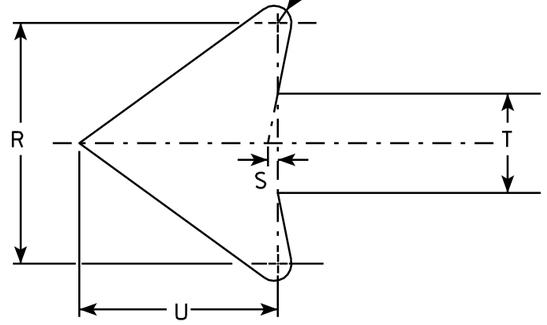
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1073	E



R7-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R7-4L (left arrow)
   R7-4R (right arrow)
   R7-4D (double arrow)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	2	2	1	1 1/2	2 1/2	2	2	4 7/8	1 1/4	4 7/8	3 7/8	1 3/4	1/8	3/4	1 1/2						1.5
2S	18	24	1 1/8	3/8	1/2	4	3	3	1 1/8	2	3 1/4	2 3/8	2 5/8	7 1/4	1 1/8	7 3/8	5 7/8	2 5/8	1/4	1 1/8	2 1/4						3.0
2M	24	30	1 1/8	3/8	1/2	5	4	3	1 1/2	3	4	2 1/2	3 3/8	10	2 1/2	10 1/4	7 3/4	3 1/2	1/4	1 1/2	3						5.0
3	24	30	1 1/8	3/8	1/2	5	4	3	1 1/2	3	4	2 1/2	3 3/8	10	2 1/2	10 1/4	7 3/4	3 1/2	1/4	1 1/2	3						5.0
4																											
5																											

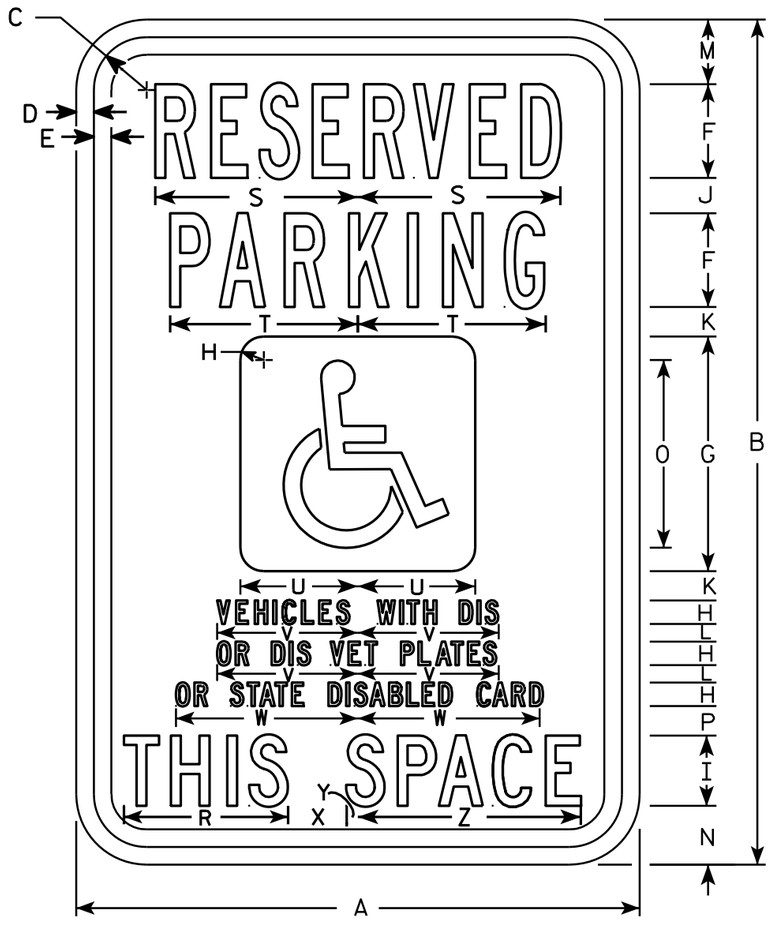
STANDARD SIGN
R7-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-4.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1074	E



R7-8A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Sign is white Type H Reflective; paraplegic background is blue.
   Message - Legend and border are green; paraplegic symbol is white
3. Message Series - Lines 1 & 2 are Series B
   Lines 3, 4, 5 & 6 are Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	18	1 1/8	3/8	3/8	2	5	1/2	1 1/2	3/4	5/8	3/8	1 3/8	1 1/4	4	5/8		3 1/2	4 3/8	4	2 1/2	3	3 7/8	1 1/4	1/4	4 3/4	1.5
2M	18	24	1 1/8	3/8	1/2	3	6	3/4	2	7/8	5/8	1/2	1 7/8	2	5	3/4		4 5/8	6 1/2	5 3/8	3	4 1/2	5 7/8	1 1/2	1/4	6 3/8	3.0
3	18	24	1 1/8	3/8	1/2	3	6	3/4	2	7/8	5/8	1/2	1 7/8	2	5	3/4		4 5/8	6 1/2	5 3/8	3	4 1/2	5 7/8	1 1/2	1/4	6 3/8	3.0
4																											
5																											

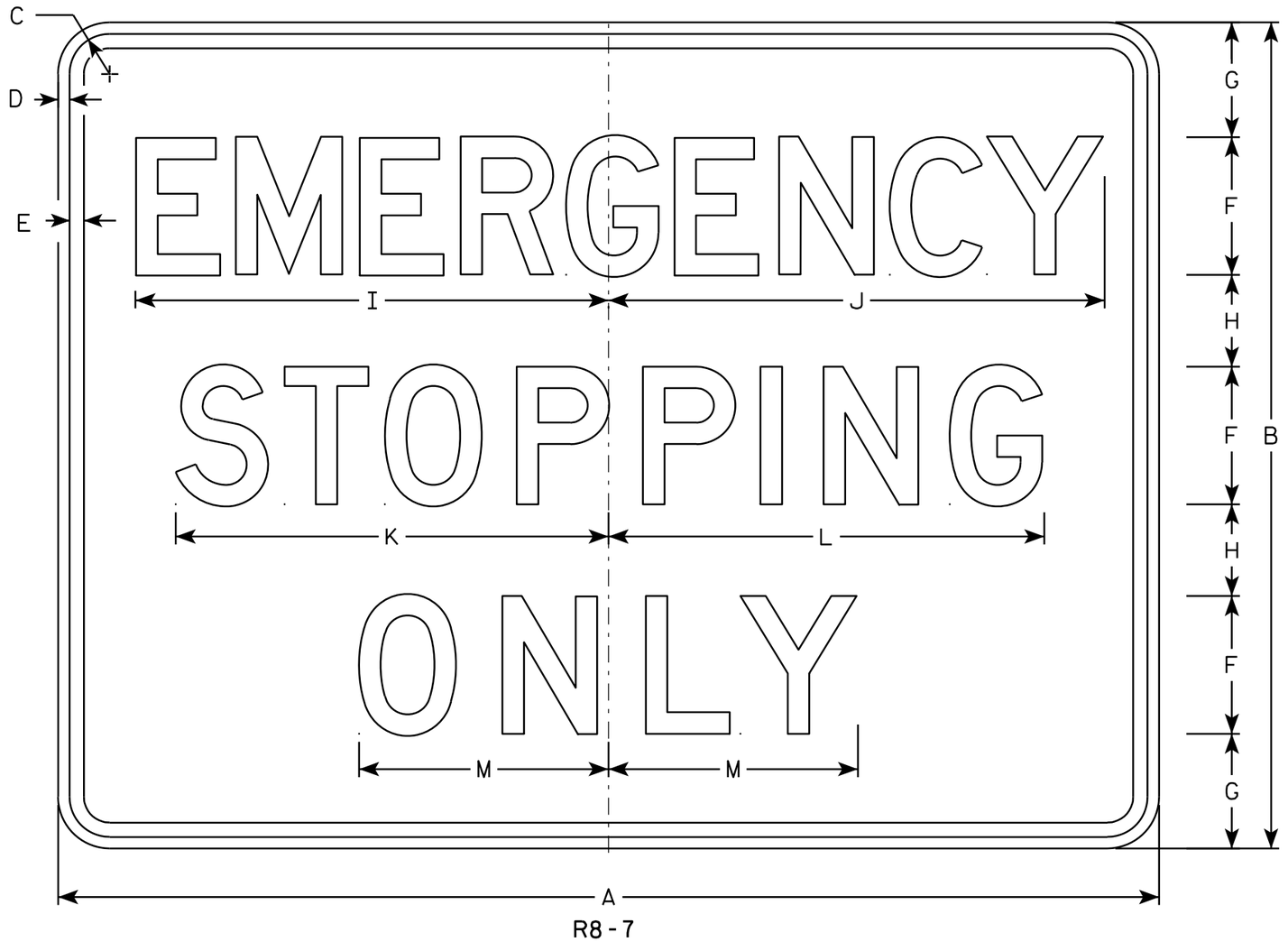
STANDARD SIGN
R7-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/25/2011 PLATE NO. R7-8A.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1075 | E



R8-7

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0
5	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0

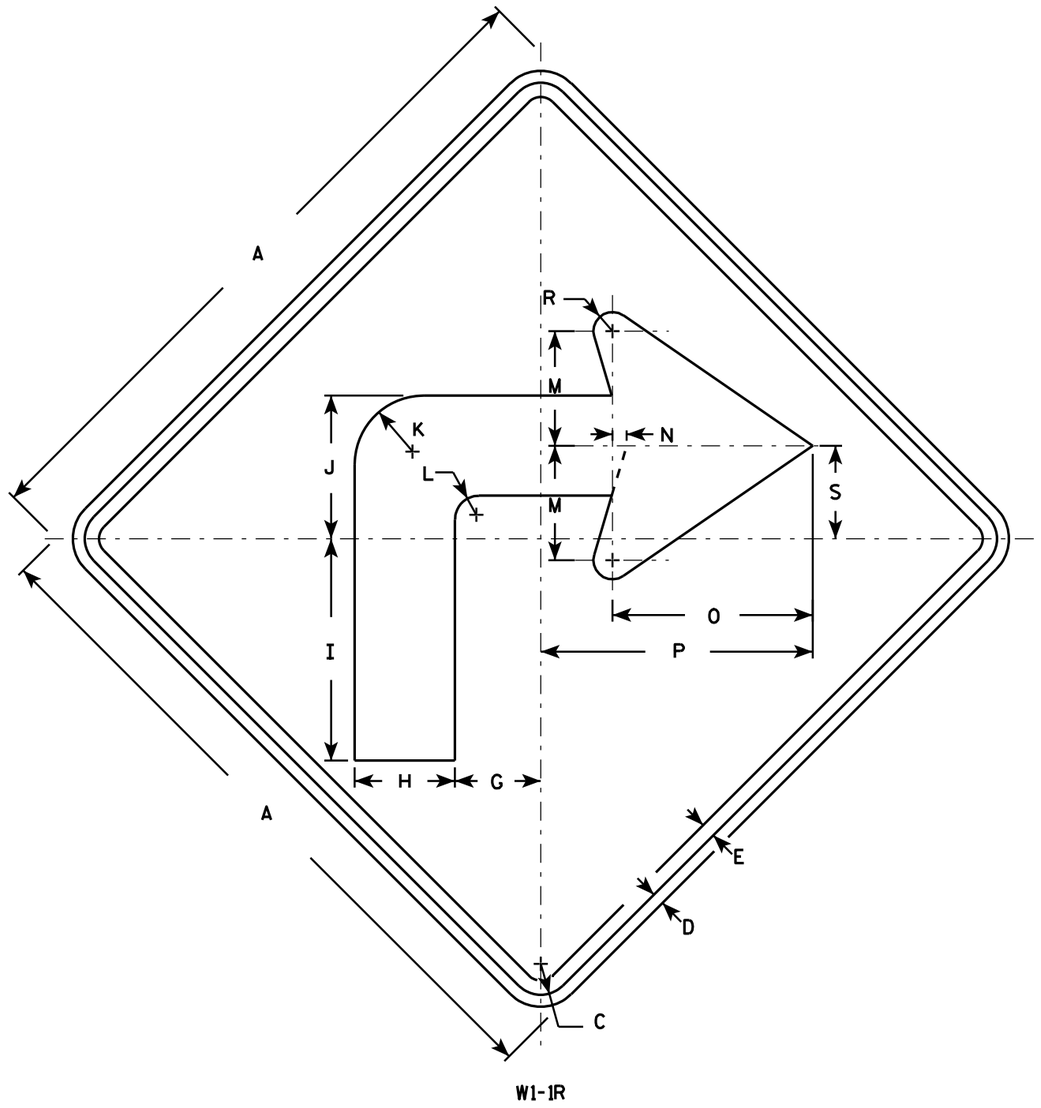
STANDARD SIGN
R8-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R8-7.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1076 | E



W1-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-1L is the same as W1-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		3	3 1/2	7 3/4	5	2 1/2	7/8	4	1/2	7	9 1/2		5/8	3 1/4								4.0
2S	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2M	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
3	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0

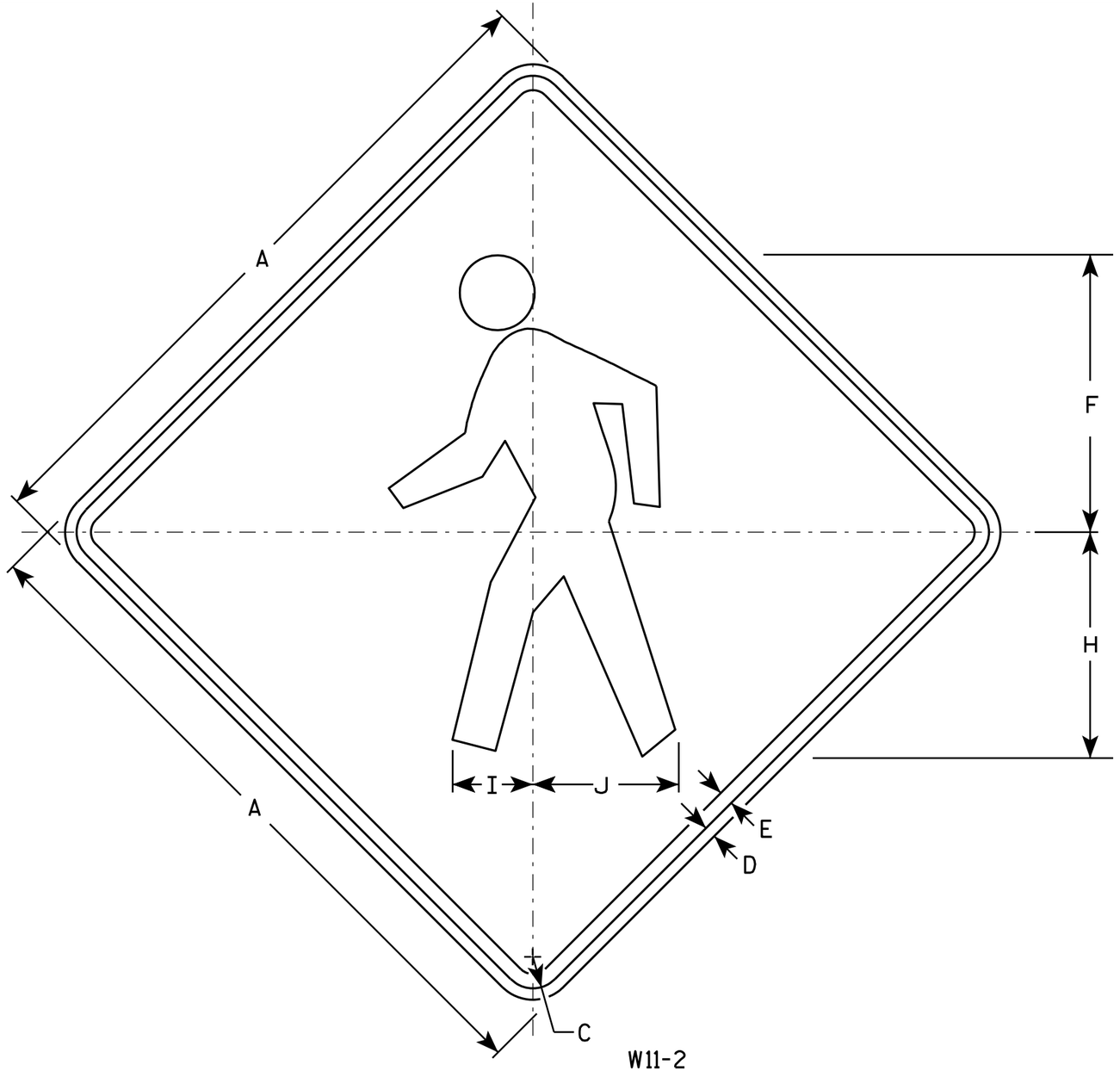
STANDARD SIGN
W1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-1.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1077 | E



W11-2

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

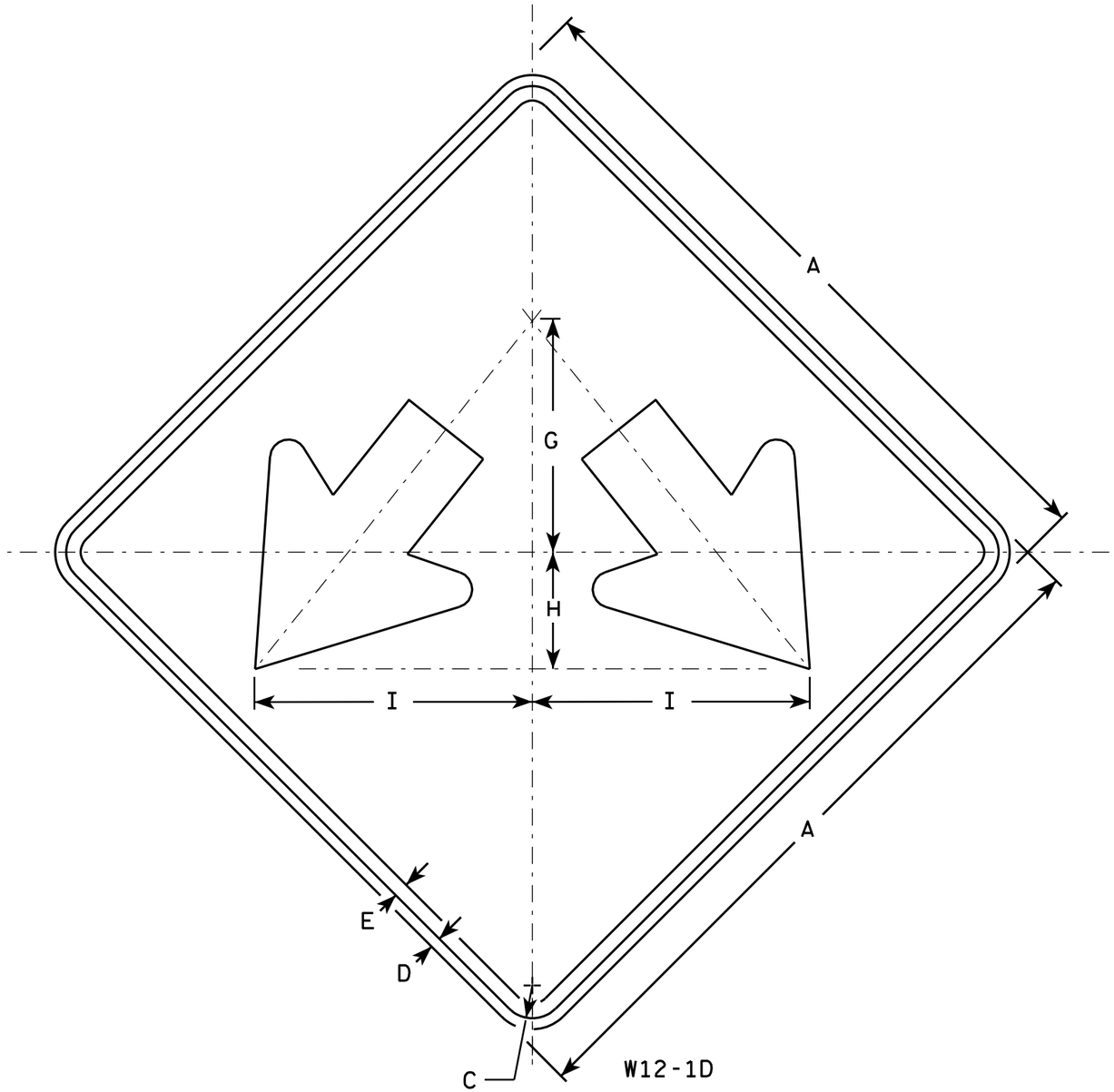
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

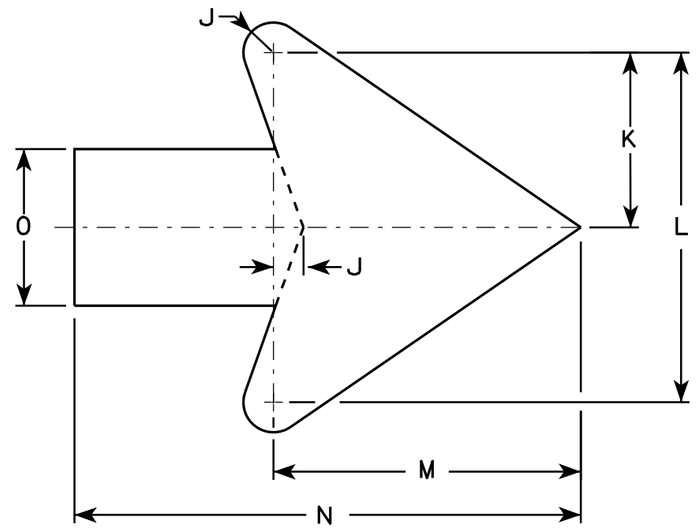
DATE 6/7/10 PLATE NO. W11-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1078	E



NOTES

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



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

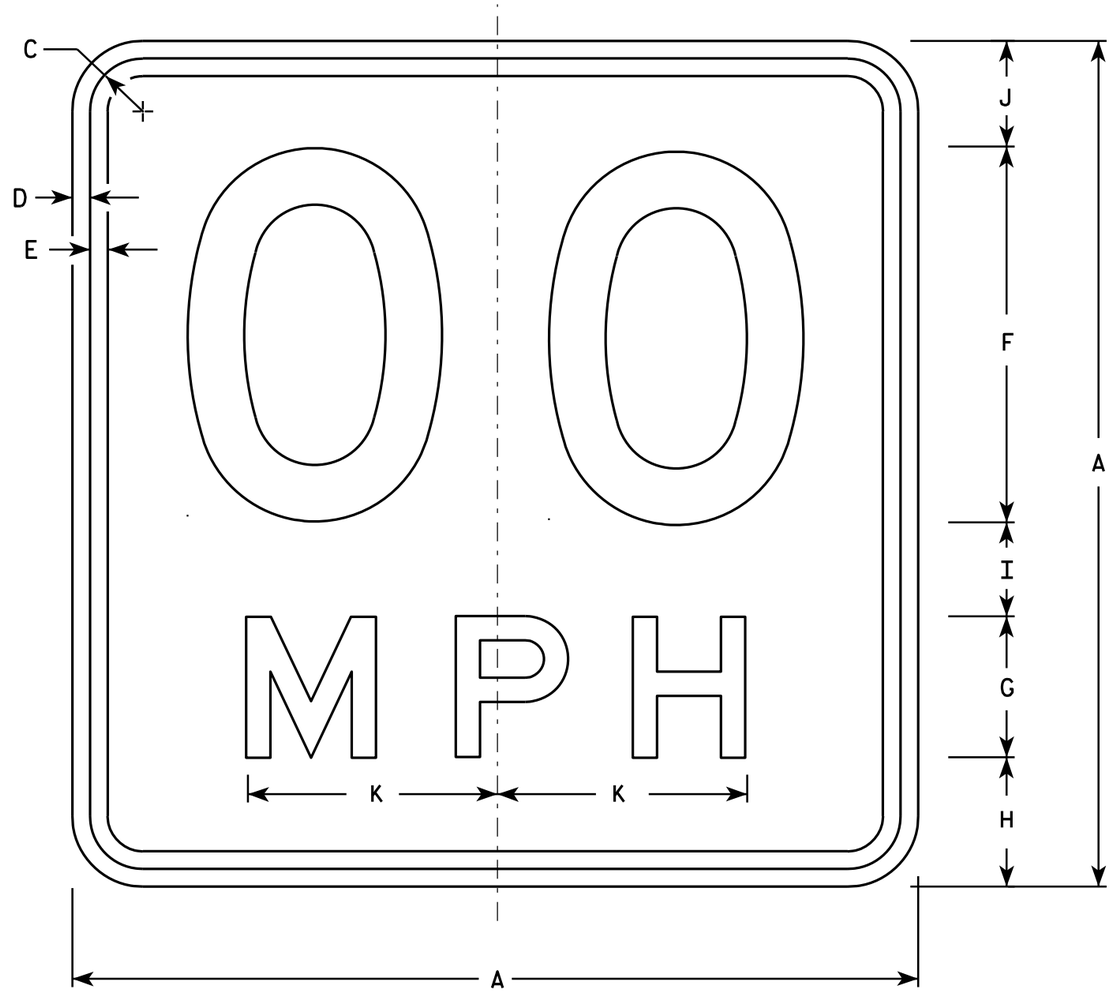
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1079	E



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
	1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

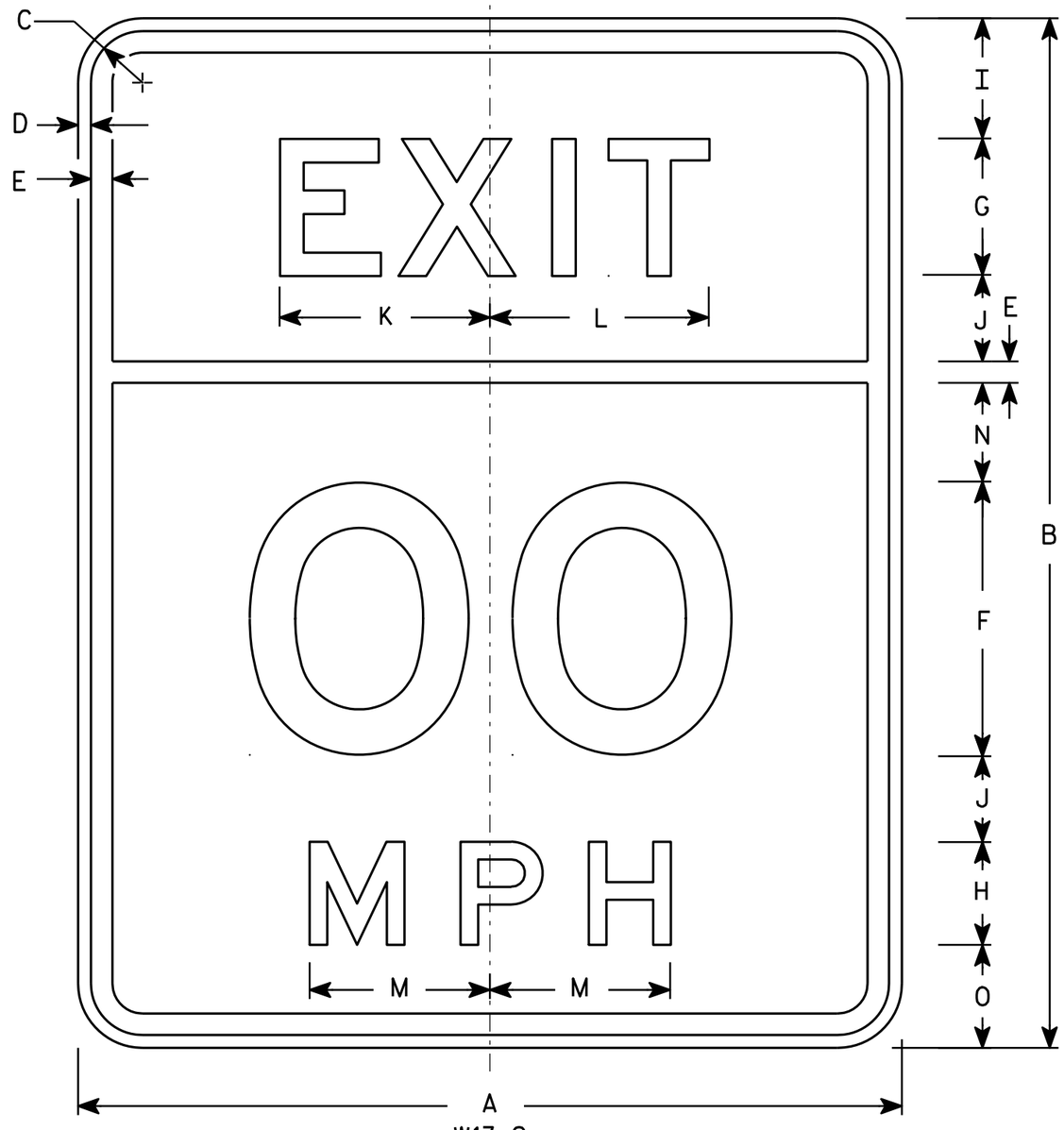
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1080 | E



W13-2

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/2	3/8	5/8	8	4	3	3 1/2	2 1/2	6 1/8	6 3/8	5 1/4	2 7/8	3												5.0
2M	24	30	1 1/2	3/8	5/8	8	4	3	3 1/2	2 1/2	6 1/8	6 3/8	5 1/4	2 7/8	3												5.0
3	36	48	2 1/4	5/8	7/8	12	6	4	6	4	9 1/4	9 1/2	7 1/8	5 1/8	6												12.0
4	36	48	2 1/4	5/8	7/8	12	6	4	6	4	9 1/4	9 1/2	7 1/8	5 1/8	6												12.0
5	48	60	2 1/4	3/4	1	16	8	6	7	5	12 1/4	12 3/4	10 5/8	5 3/4	6												20.0

STANDARD SIGN
W13-2

WISCONSIN DEPT OF TRANSPORTATION

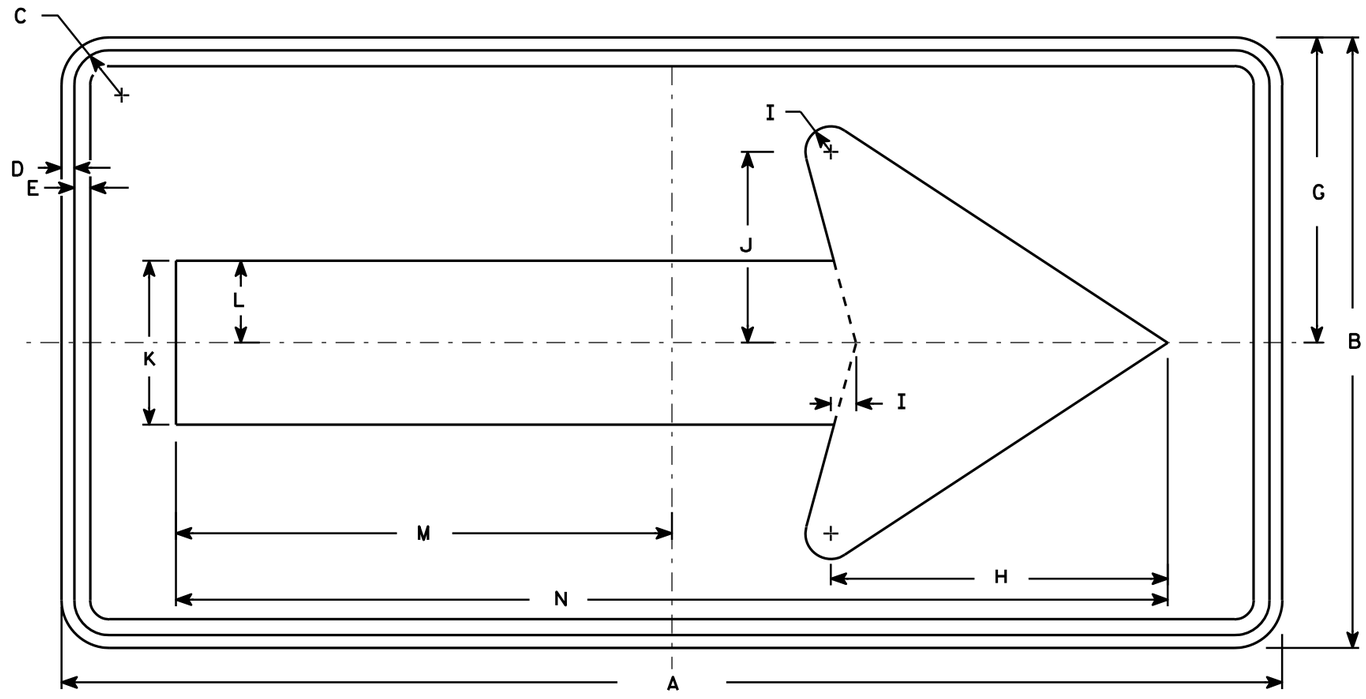
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-2.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1081 | E

NOTES

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



W1-6

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

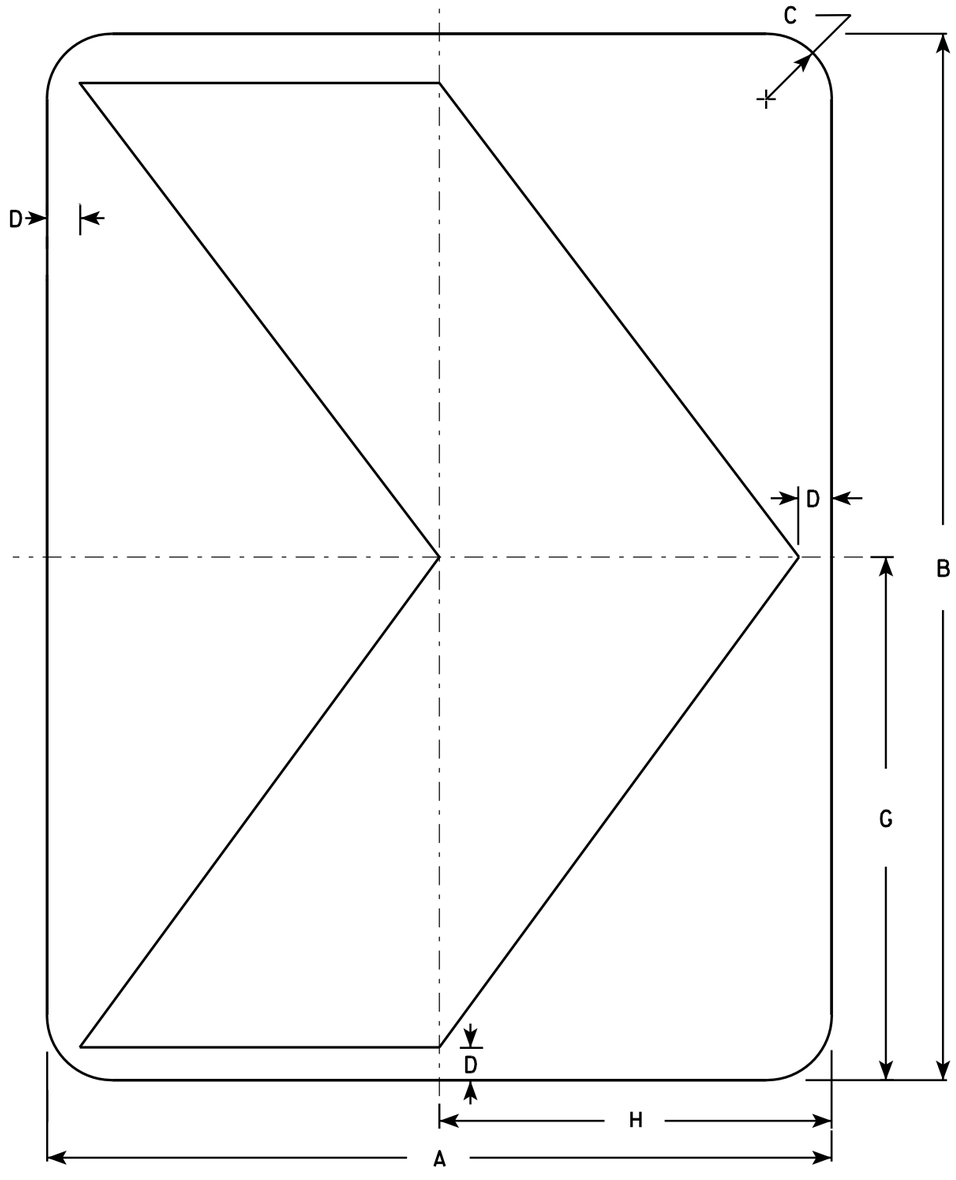
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1082



NOTES

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

W1-8

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 ½	½			9	6																			1.5
2S	18	24	1 ½	¾			12	9																			3.0
2M	18	24	1 ½	¾			12	9																			3.0
3	24	30	1 ½	1			15	12																			5.0
4	30	36	1 ⅞	1 ¼			18	15																			7.5
5	36	48	2 ¼	1 ½			24	18																			12.0

STANDARD SIGN
W1-8

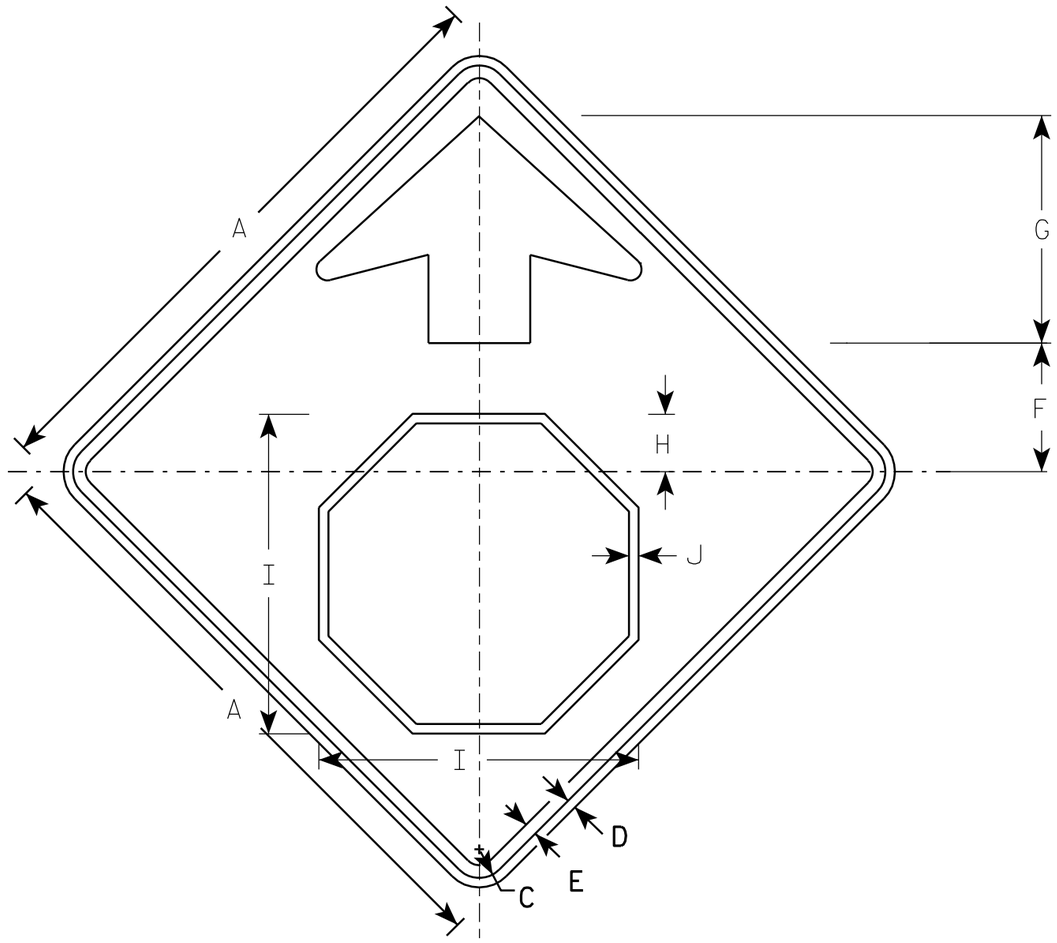
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

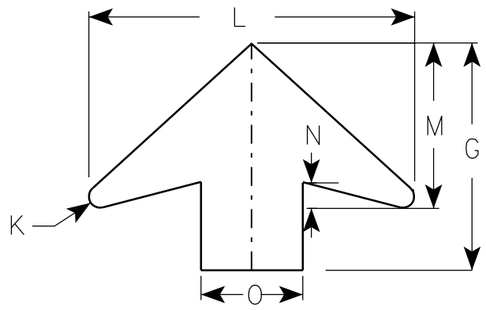
SHEET NO: 1083 E



W3-1

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

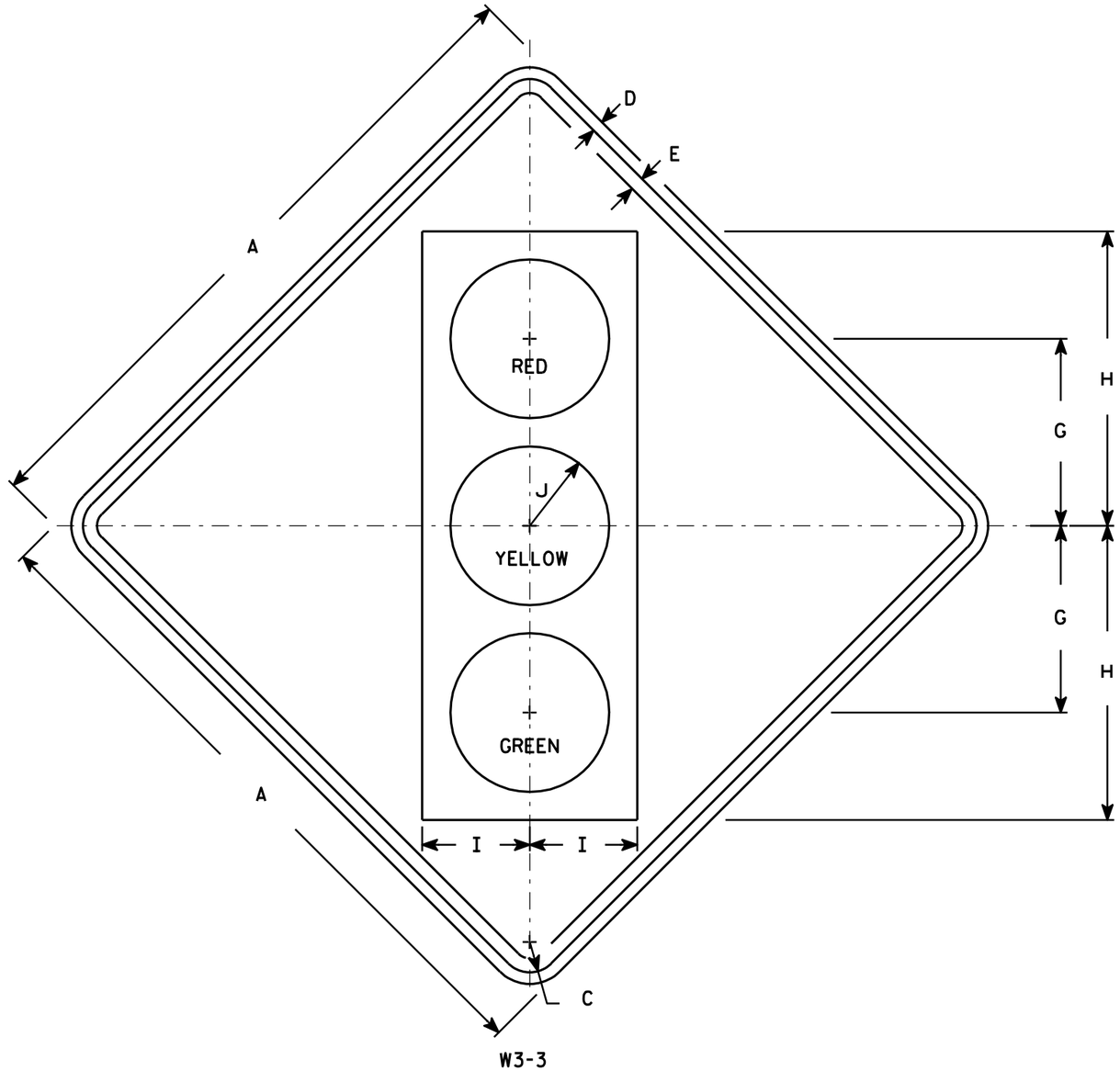
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 1084 E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

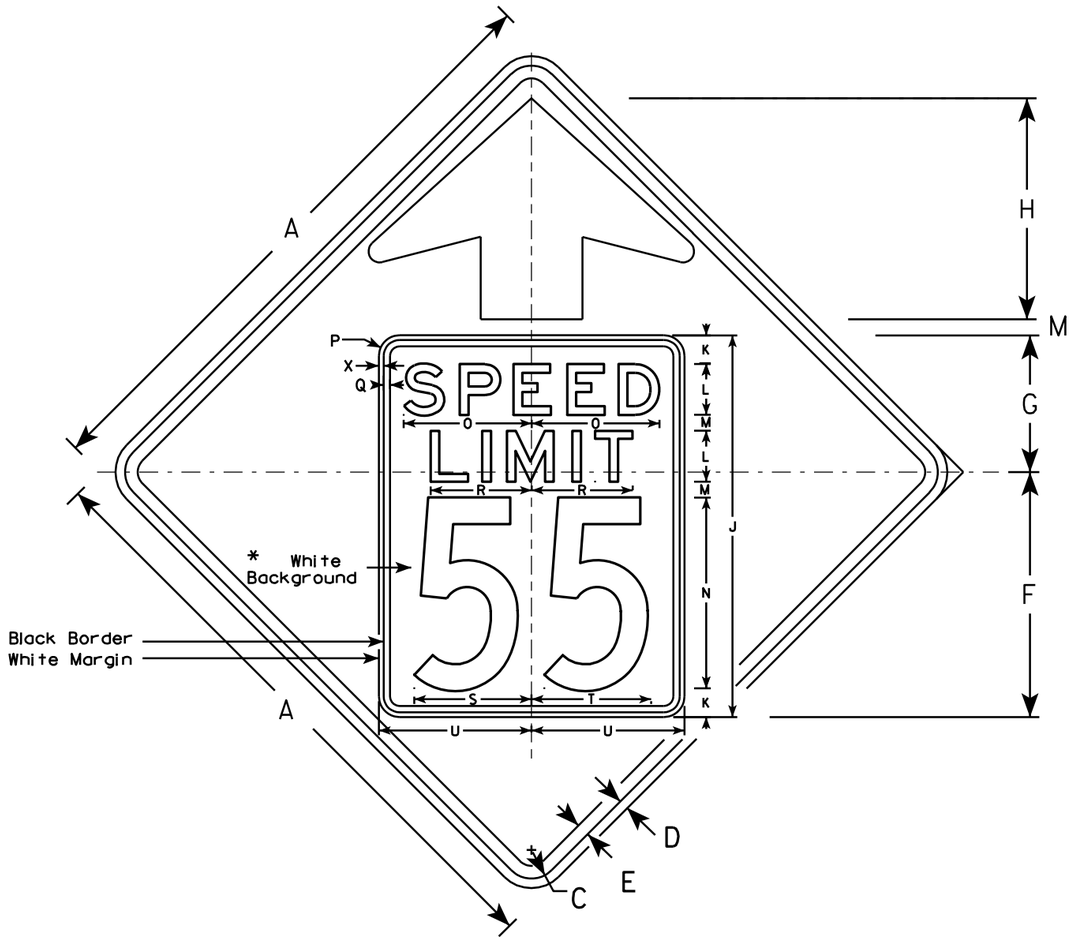
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1085 | E

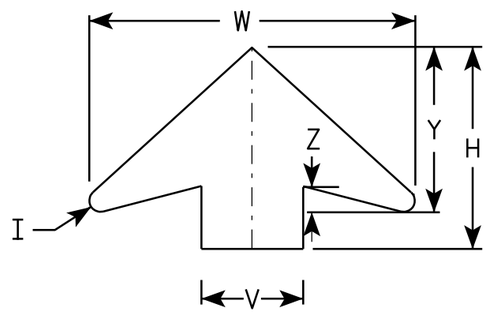


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - YELLOW*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W3-5

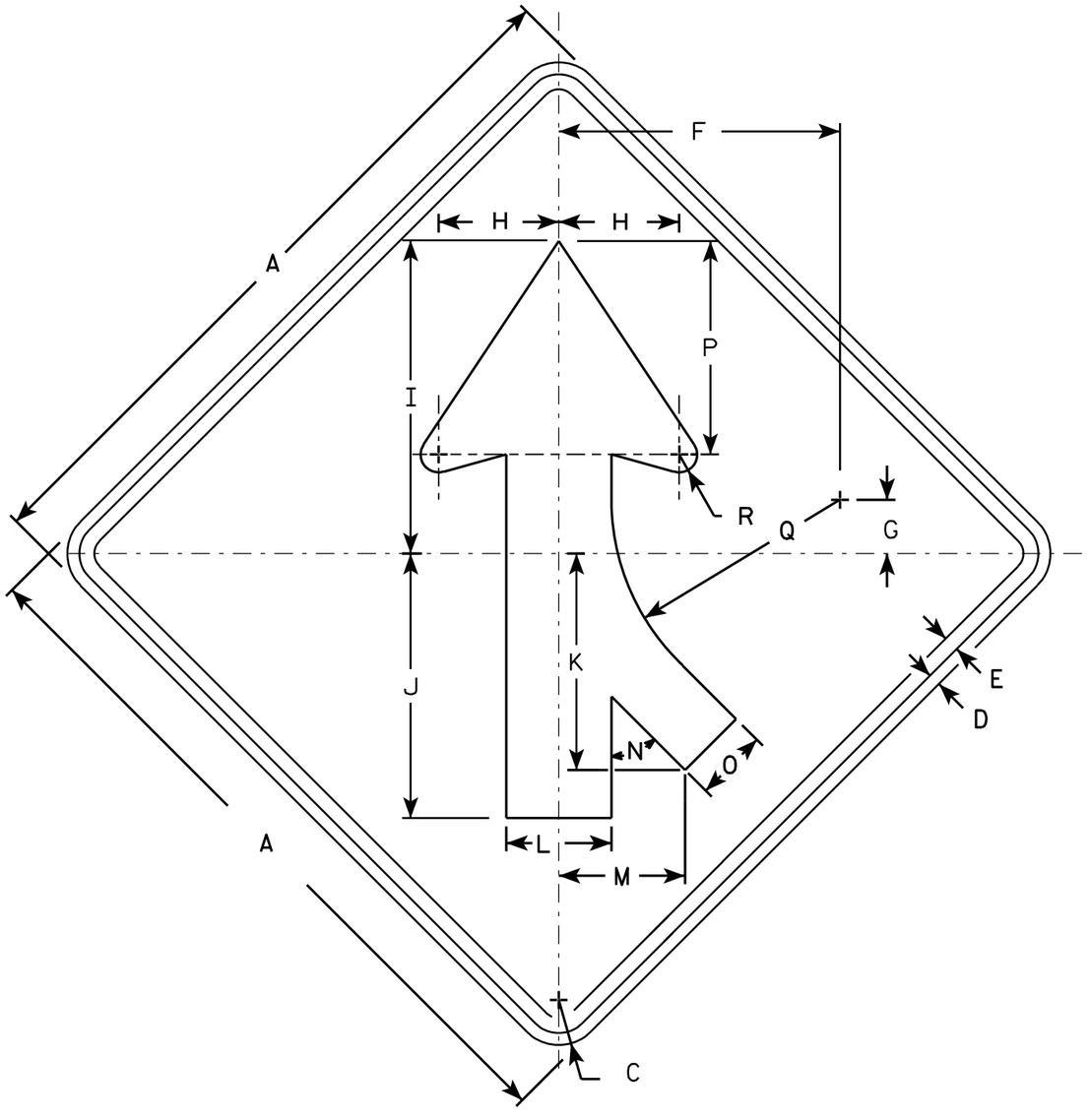
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 1086 E



W4-1 R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2M	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
3	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

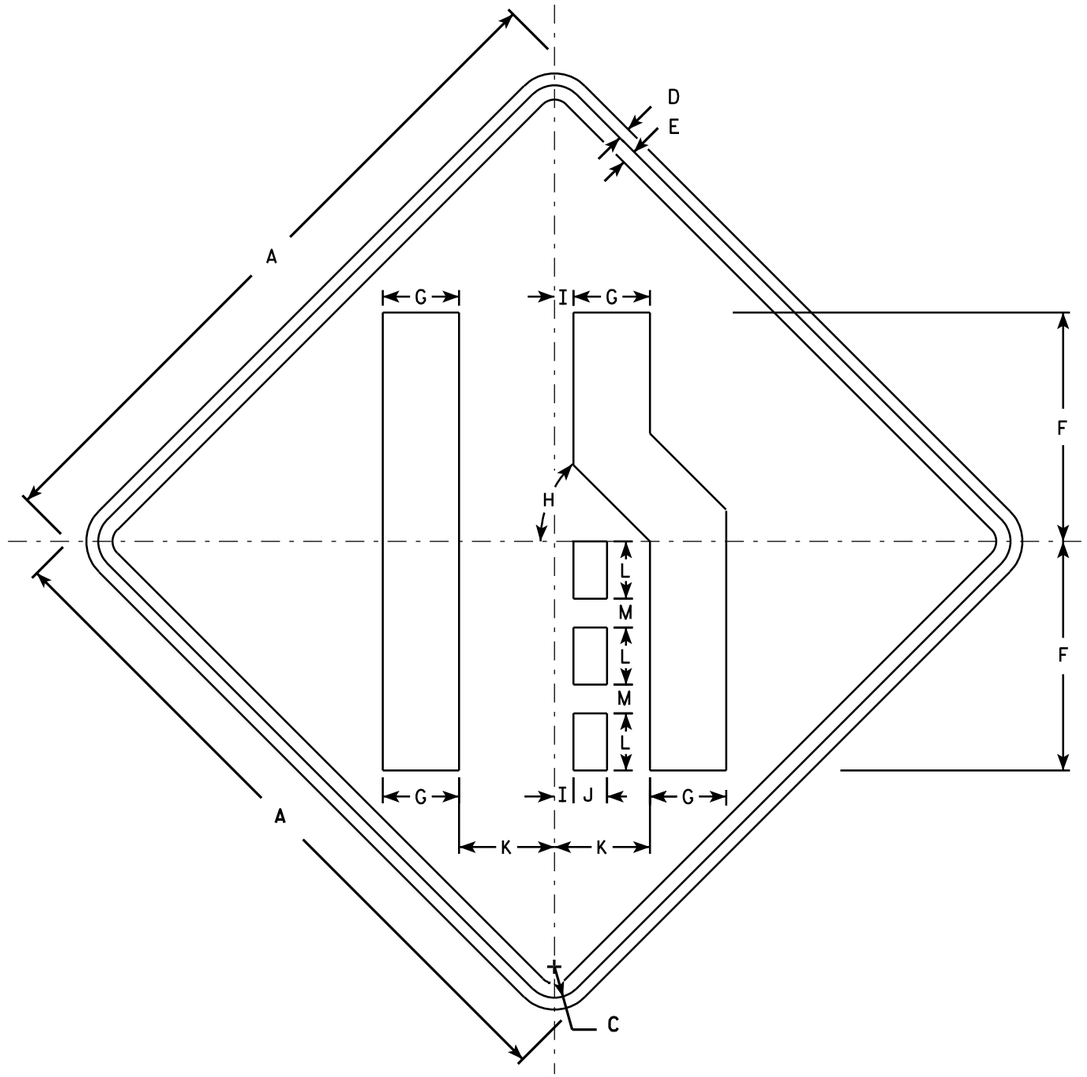
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rausch for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 1087	E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

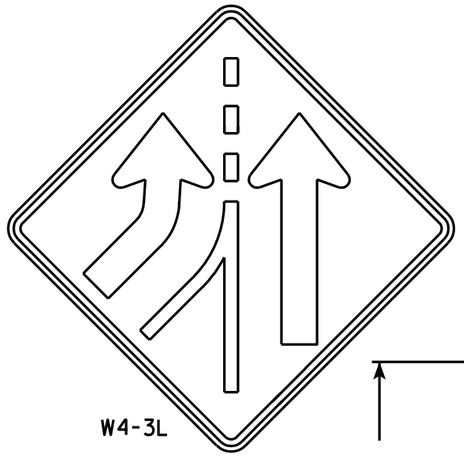
WISCONSIN DEPT OF TRANSPORTATION

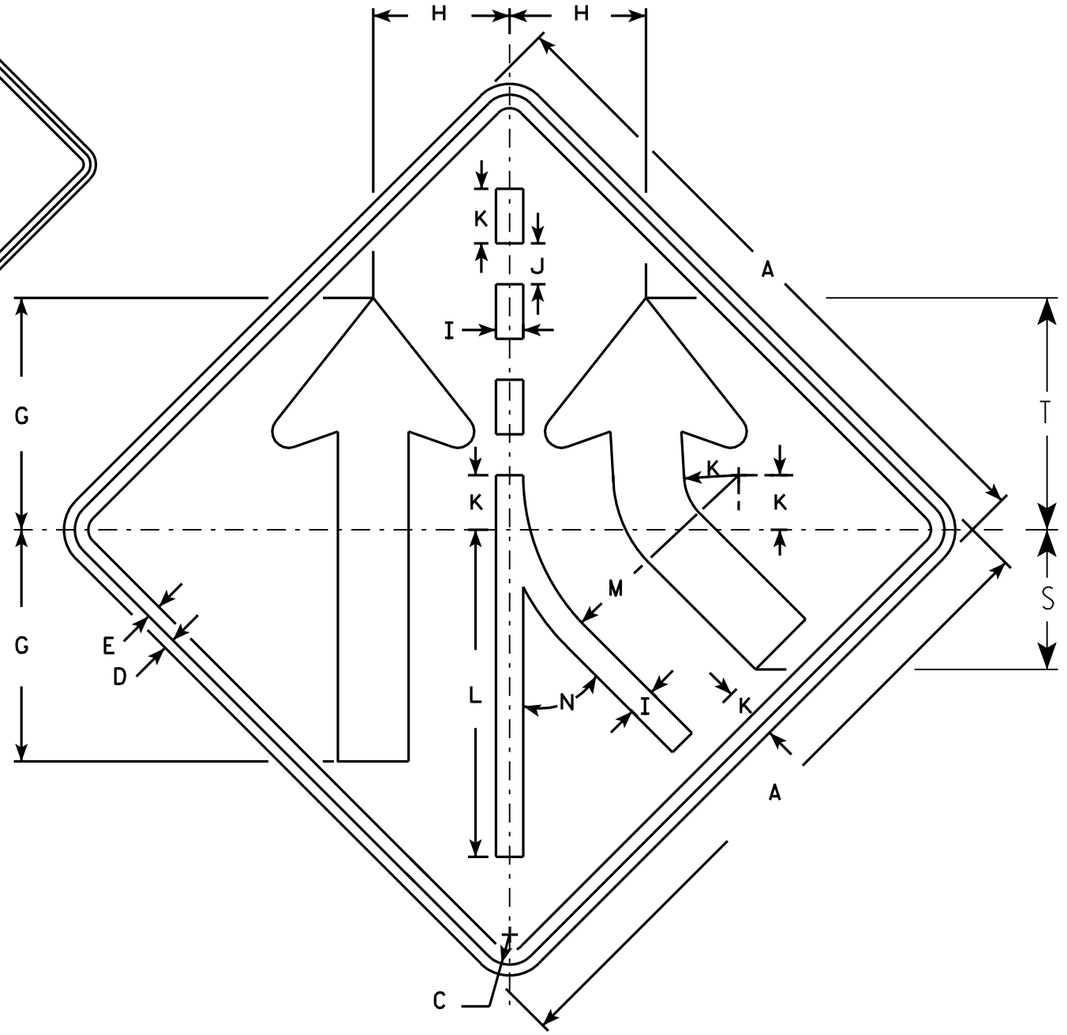
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 1088 E

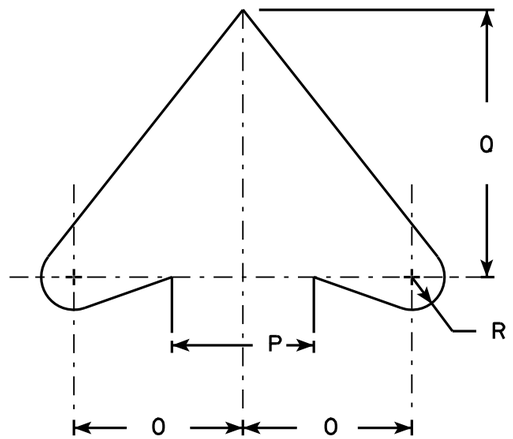




W4-3R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-3 L is the same as W4-3 R except the arrow is reversed along the vertical centerline.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		10 5/8	6 1/4	1 1/4	1 7/8	2 1/2	15	9 7/8	45°	3 7/8	3 1/4	6 1/8	3/4	6 3/8	10 5/8							6.25
2S	36		1 5/8	5/8	3/4		12 3/4	7 1/2	1 1/2	2 1/4	3	18	11 7/8	45°	4 5/8	4	7 3/8	7/8	7 3/4	12 3/4							9.0
2M	36		1 5/8	5/8	3/4		12 3/4	7 1/2	1 1/2	2 1/4	3	18	11 7/8	45°	4 5/8	4	7 3/8	7/8	7 3/4	12 3/4							9.0
3																											
4	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
5	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0

STANDARD SIGN
W4-3

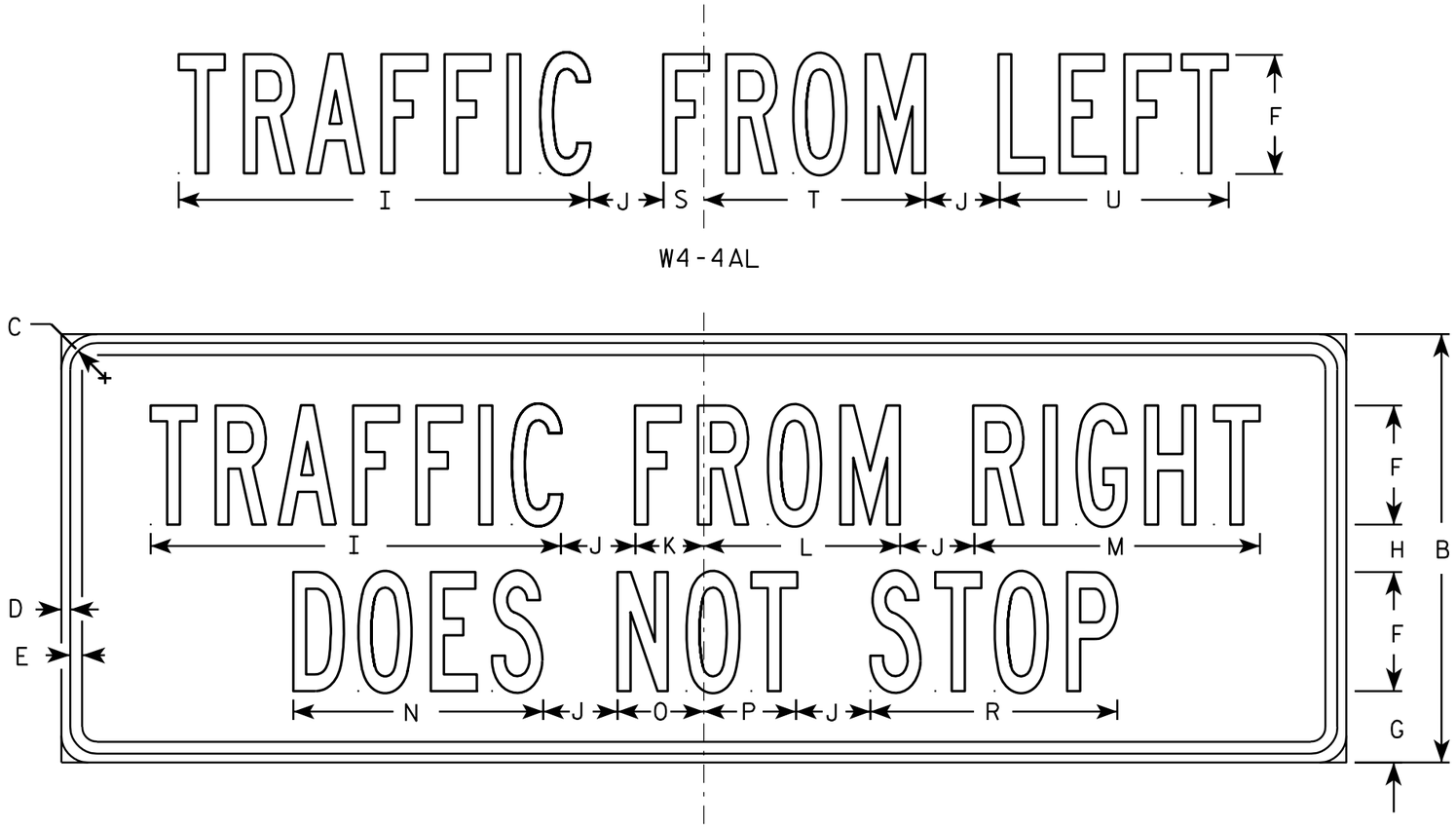
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-3.8

PROJECT NO:

SHEET NO: 1089 E



W4-4AL

W4-4AR

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	10 3/8	1 1/2	1 3/4	4 7/8	7 1/4	6 1/4	2 1/4	2 1/4		6 1/4	1	5 5/8	5 3/4						2.5
2M	30	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	10 3/8	1 1/2	1 3/4	4 7/8	7 1/4	6 1/4	2 1/4	2 1/4		6 1/4	1	5 5/8	5 3/4						2.5
3	42	15	1 1/8	3/8	1/2	4	2 5/8	1 3/4	13 7/8	2 3/8	2 1/8	6 3/4	9 3/4	8 3/8	2 3/4	3 3/8		8 3/8	1 1/8	7 3/4	7 3/4						4.4
4	54	18	1 1/8	3/8	1/2	5	3	2	17 1/4	3 1/8	2 7/8	8 1/4	12	10 1/2	3 5/8	3 7/8		10 3/8	1 3/4	9 3/8	9 5/8						6.8
5																											

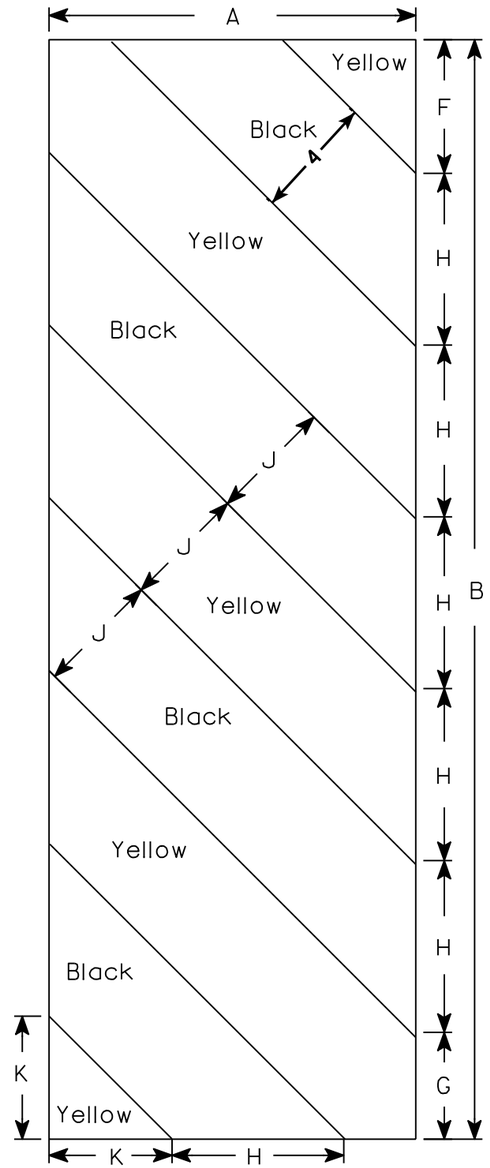
STANDARD SIGN
W4-4AL & W4-4AR

WISCONSIN DEPT OF TRANSPORTATION

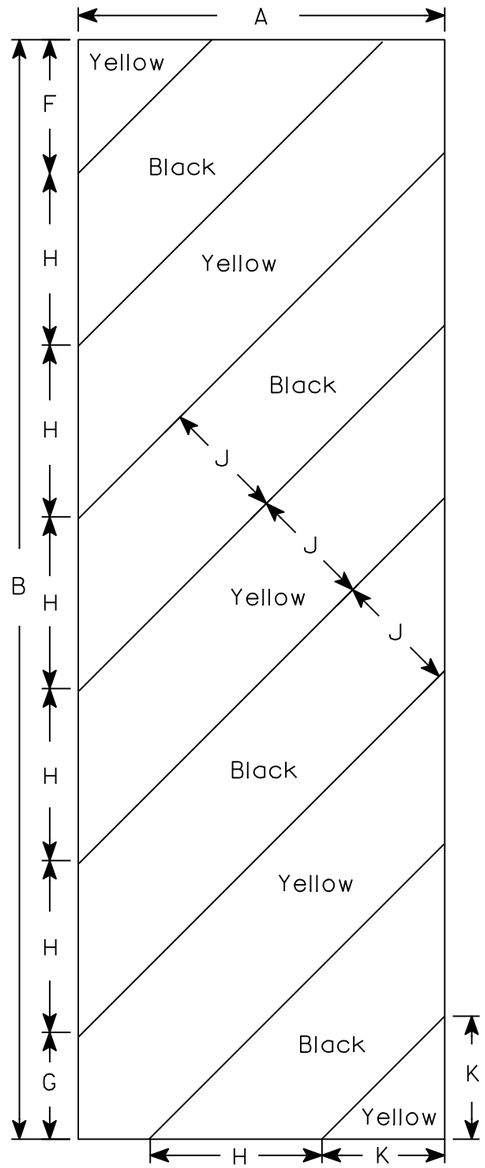
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-4A.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1090 | E



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

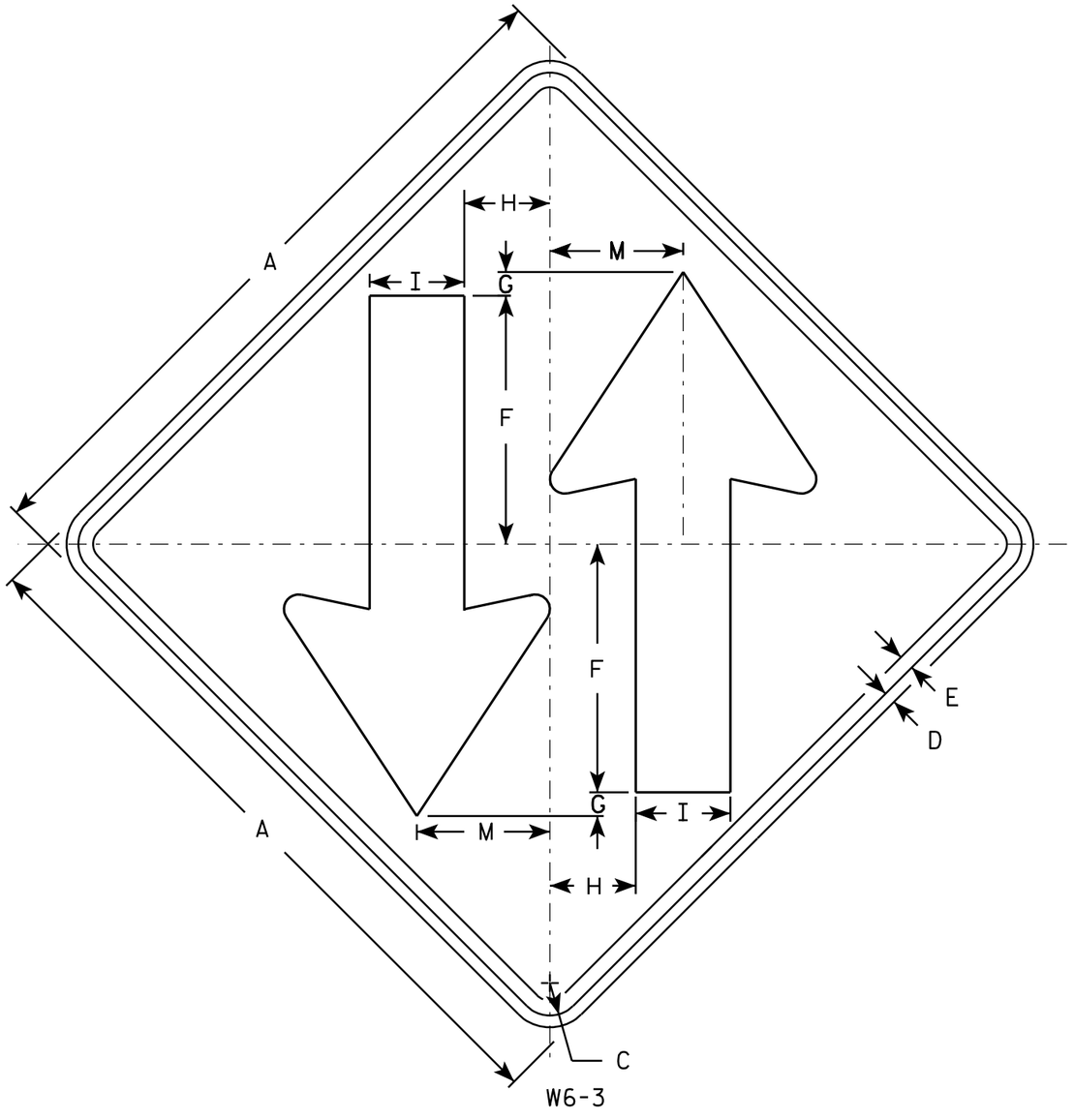
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

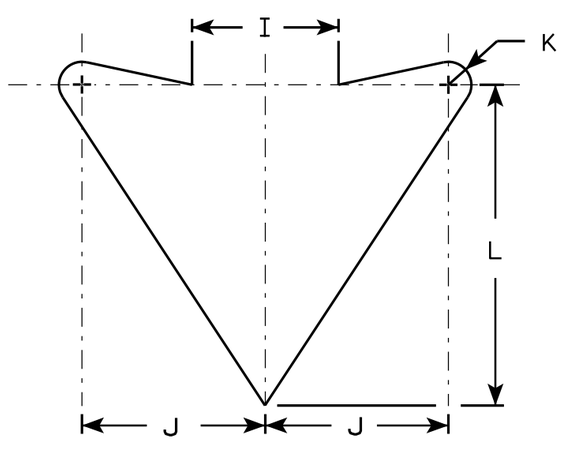
DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1091 | E



NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10 1/2	1	3 5/8	4	5	5/8	8 3/4	5 5/8														6.25
2S	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2M	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
3																											
4	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

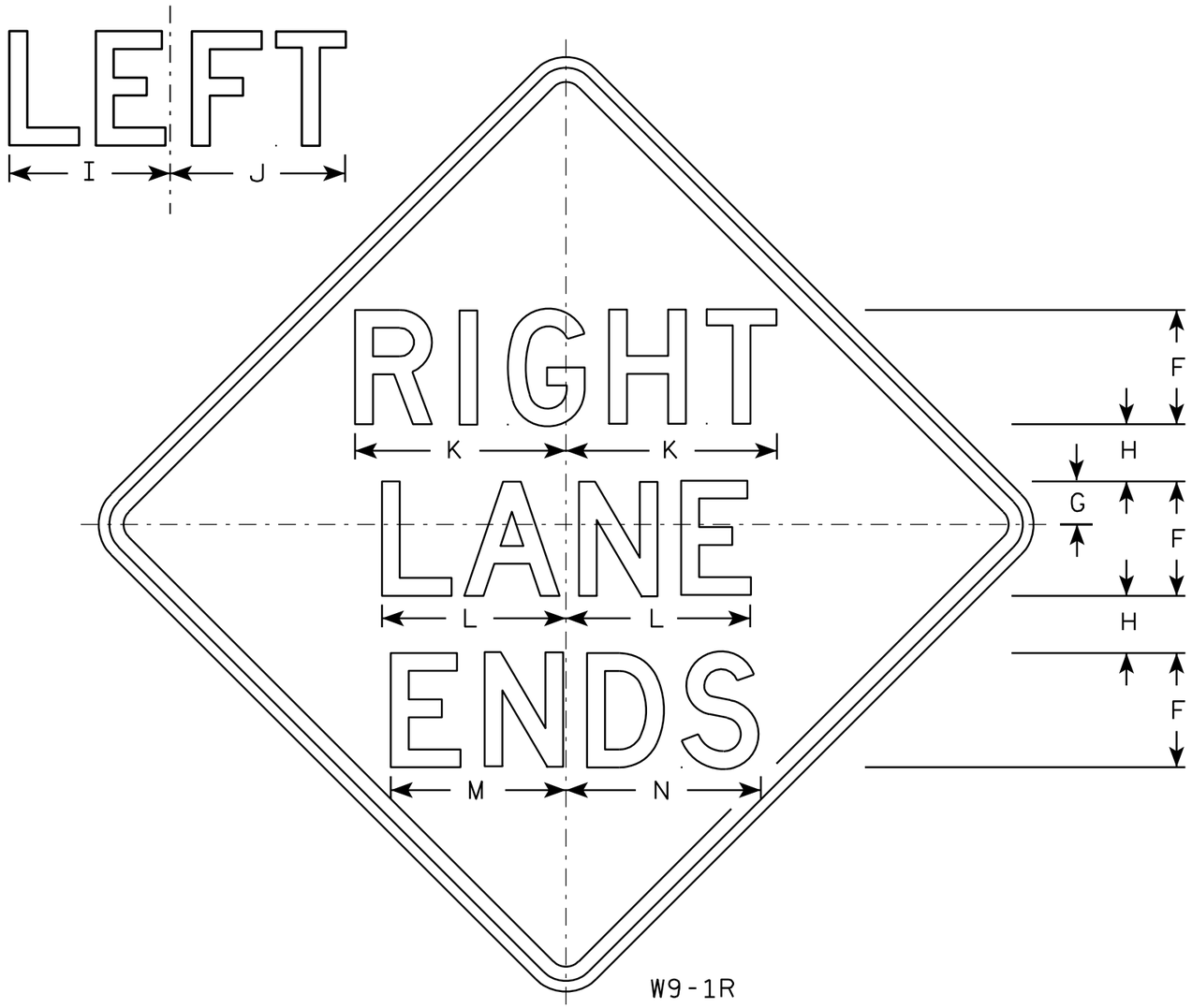
STANDARD SIGN
W6-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-3.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 1092 | E



W9-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. W9-1L same as W9-1R except the word Left replaces Right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	1 1/2	2 1/2	7 1/8	7 5/8	9 1/4	8 1/8	7 5/8	8 5/8													6.25
2S	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
2M	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
3	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
4	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
5	48		2 1/4	3/4	1	8	3	4	11 1/4	12 1/4	14 3/4	12 7/8	12 1/4	13 5/8													16.0

STANDARD SIGN
W9-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

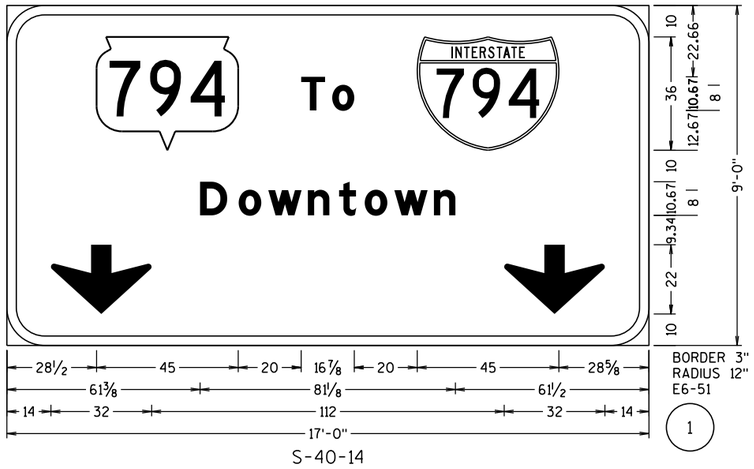
DATE 03/18/13 PLATE NO. W9-1.8

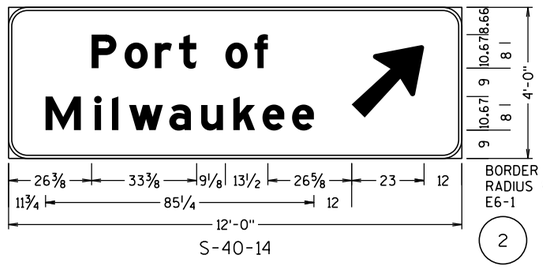
PROJECT NO:

SHEET NO: 1093 E

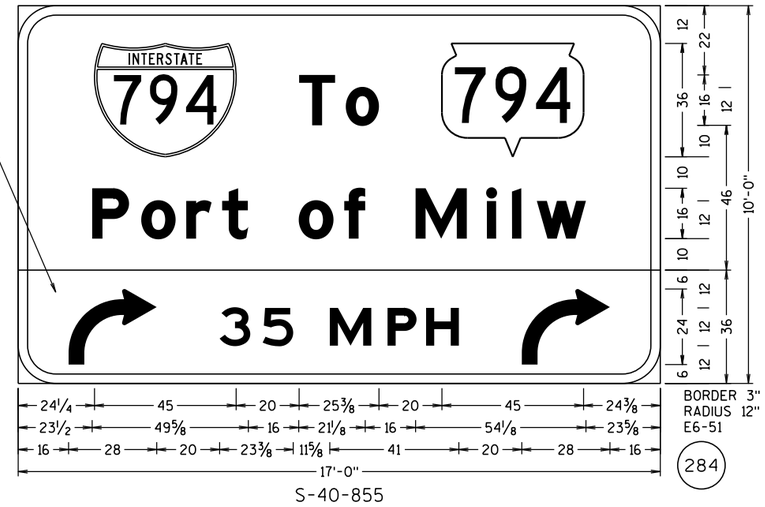
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W91.DGN PLOT DATE : 18-MAR-2013 11:42 PLOT BY : mscsja

WISDOT/CADDS SHEET 42





EXIT PANEL:
BACKGROUND - YELLOW
MESSAGE - BLACK



GENERAL NOTES:

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

2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I".

3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.

4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.

5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.

6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"

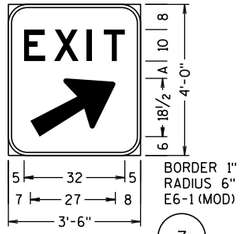
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.

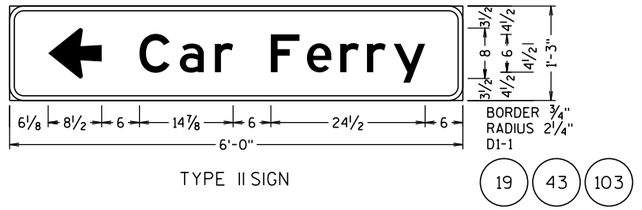
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.

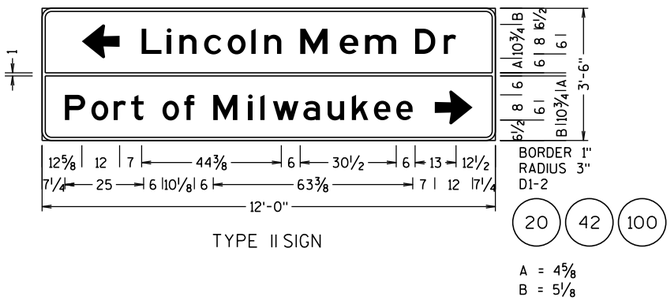
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.

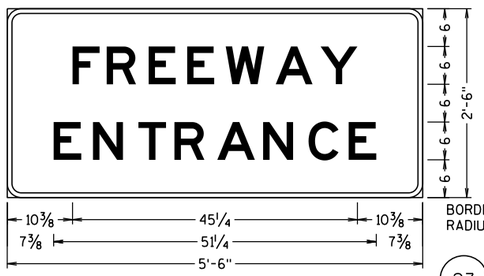
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10

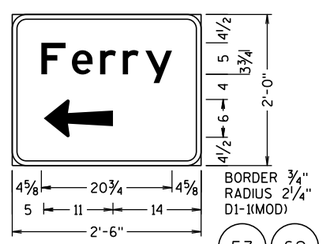
11. DO NOT SCALE.









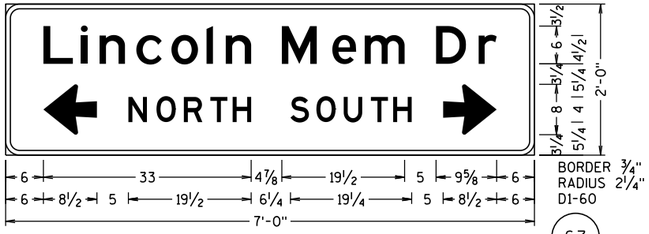


7

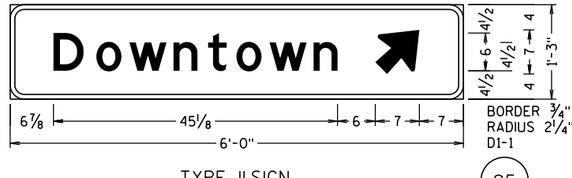
7

SHEET 1 OF 9

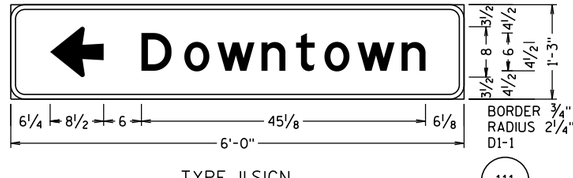
PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING DETAIL - TYPE I & II SIGNS	SCALE: 0 ½" 1"	SHEET 1094	E



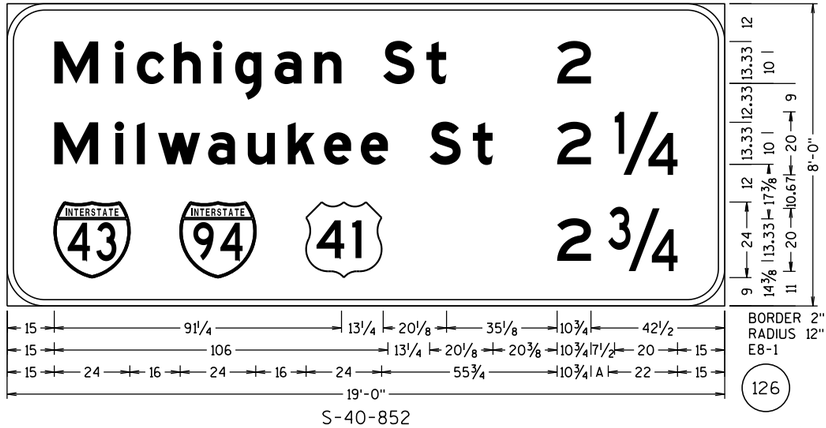
TYPE II SIGN



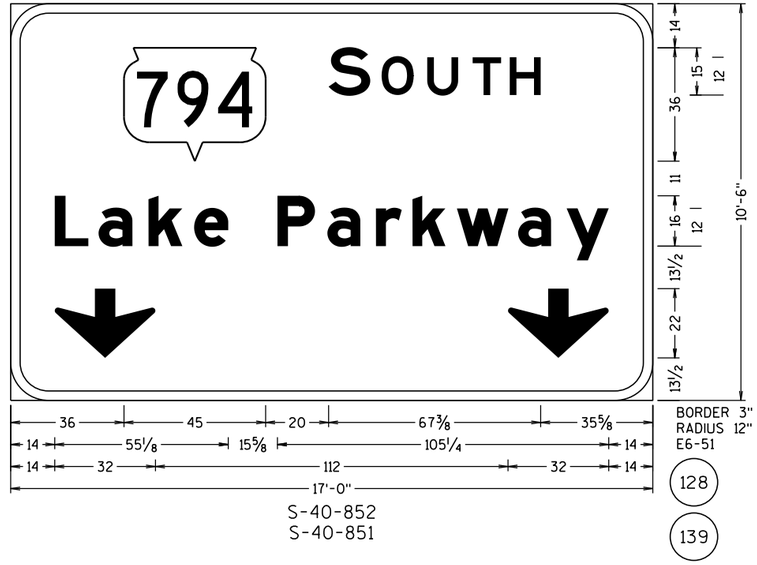
TYPE II SIGN



TYPE II SIGN



S-40-852

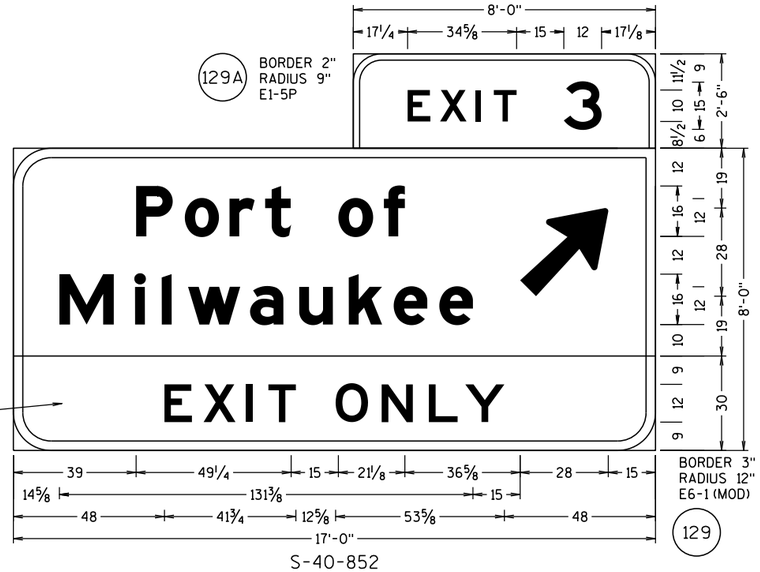


S-40-852
S-40-851

139

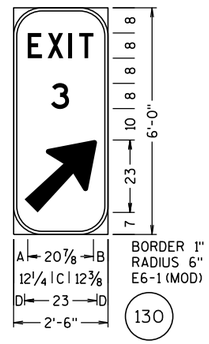
GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I".
3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.
4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.
5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.
6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10
11. DO NOT SCALE.



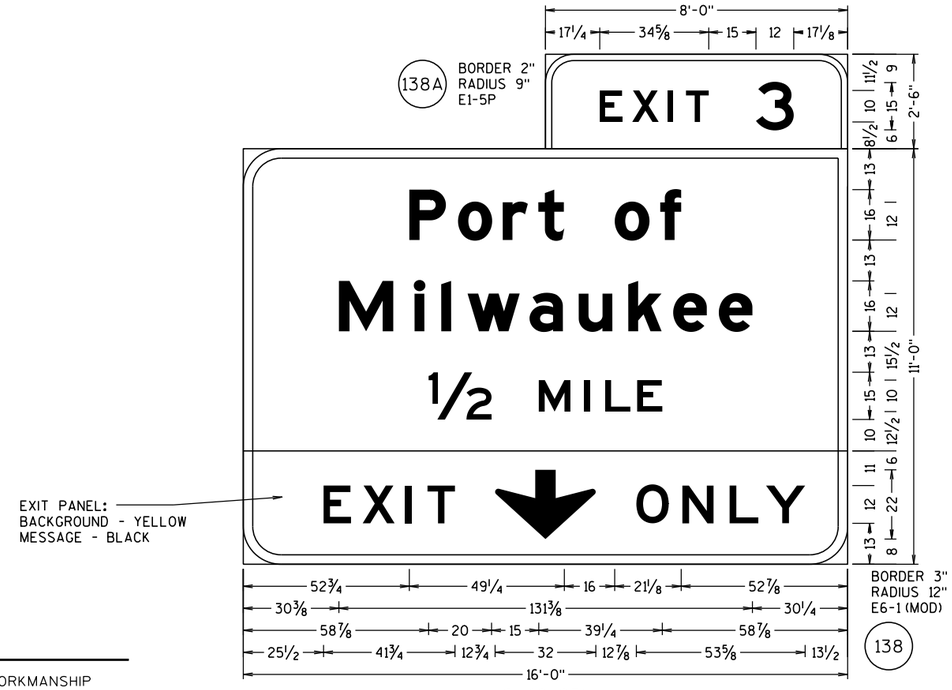
EXIT PANEL:
BACKGROUND - YELLOW
MESSAGE - BLACK

S-40-852

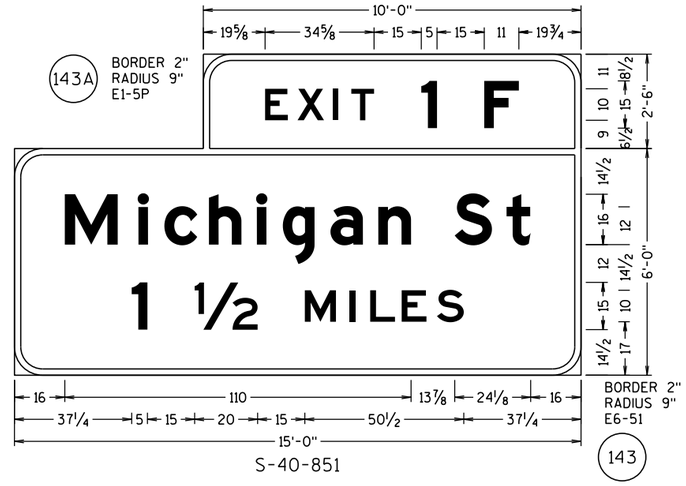


A = 4 1/2
B = 4 5/8
C = 5 3/8
D = 3 1/2

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING DETAIL - TYPE I & II SIGNS	SCALE: 0 1/2" 1"	SHEET 1095	E



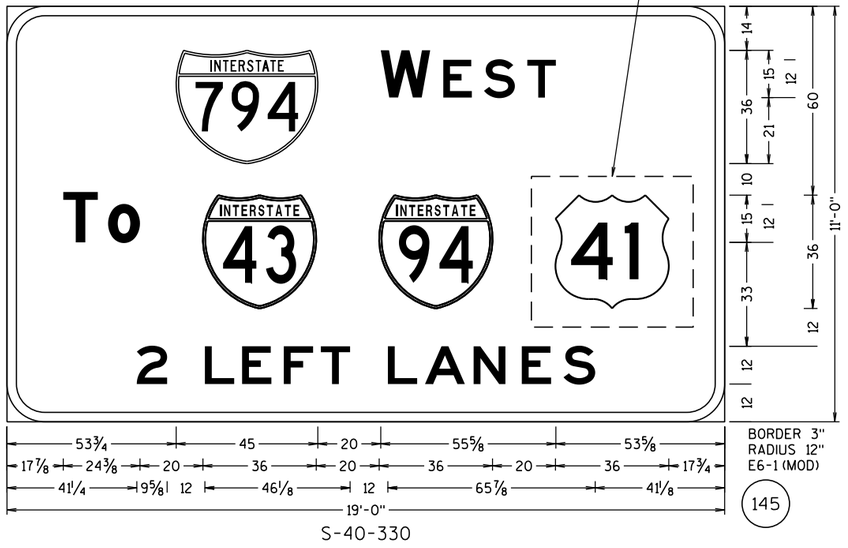
EXIT PANEL:
BACKGROUND - YELLOW
MESSAGE - BLACK

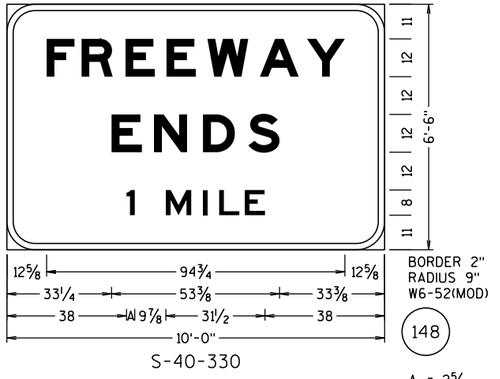


GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I".
3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.
4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.
5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.
6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10
11. DO NOT SCALE.

COVER PLAQUE OVER SHIELD
(GREEN PLAQUE 0.063 MIN
THICKNESS & GREEN SHEETING SH

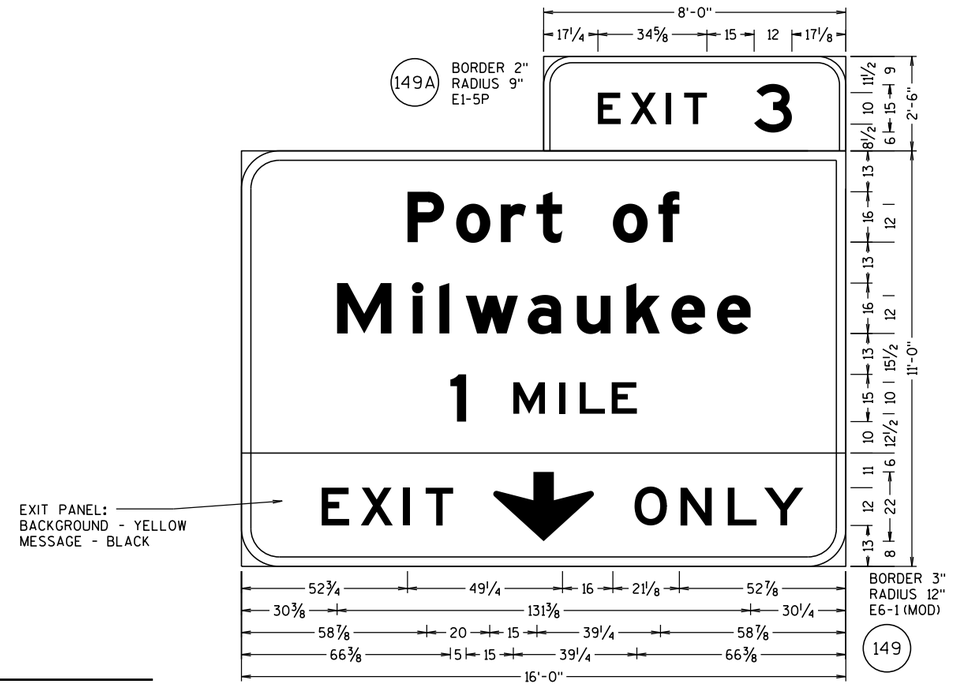




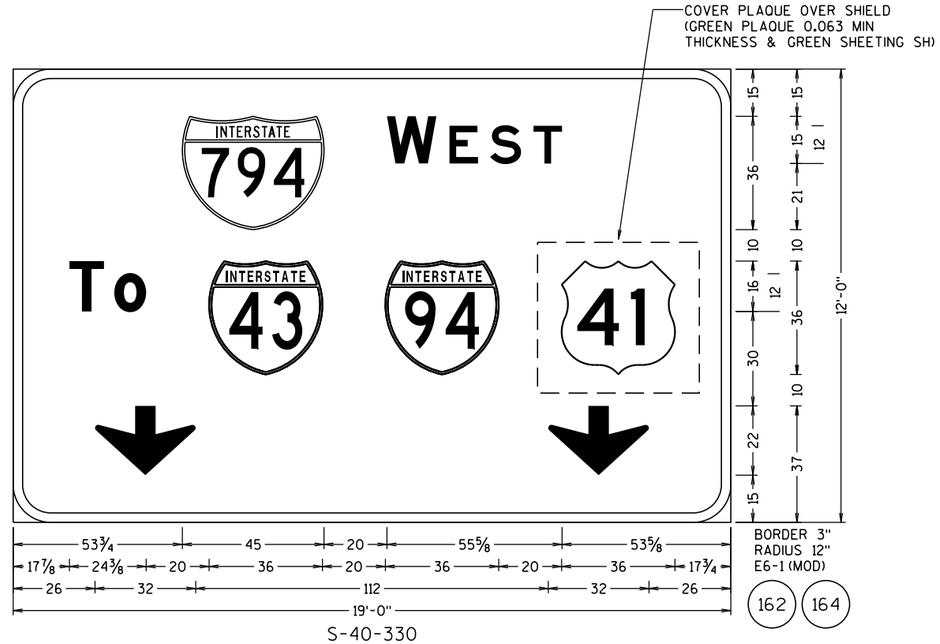
BACKGROUND - YELLOW
MESSAGE - BLACK

SHEET 3 OF 9

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING DETAIL - TYPE I & II SIGNS	SCALE: 0 ½" 1"	SHEET 1096	E



S-40-330



S-40-330
S-40-331
S-40-850

GENERAL NOTES:

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

2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I".

3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.

4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.

5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.

6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"

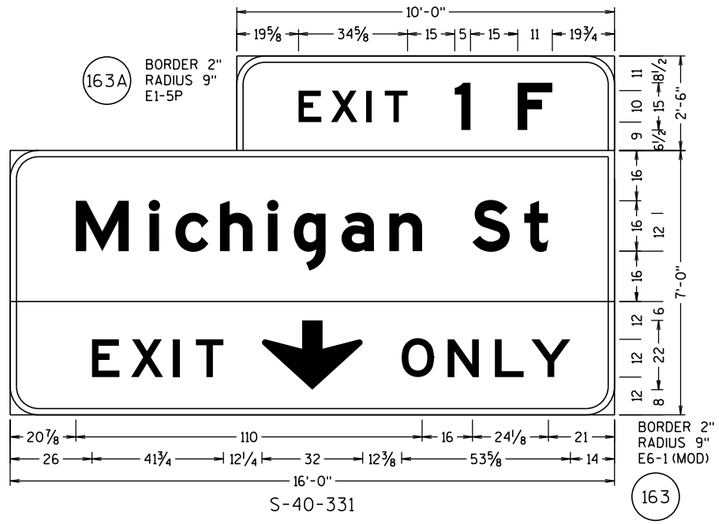
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.

8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.

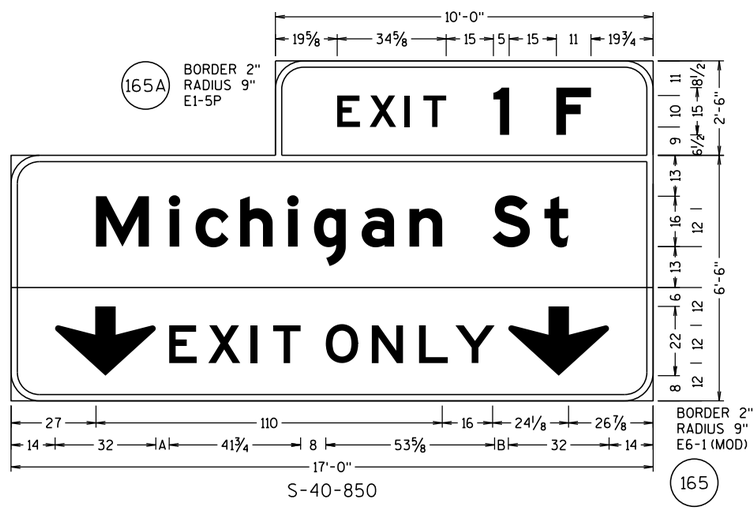
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.

10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10

11. DO NOT SCALE.



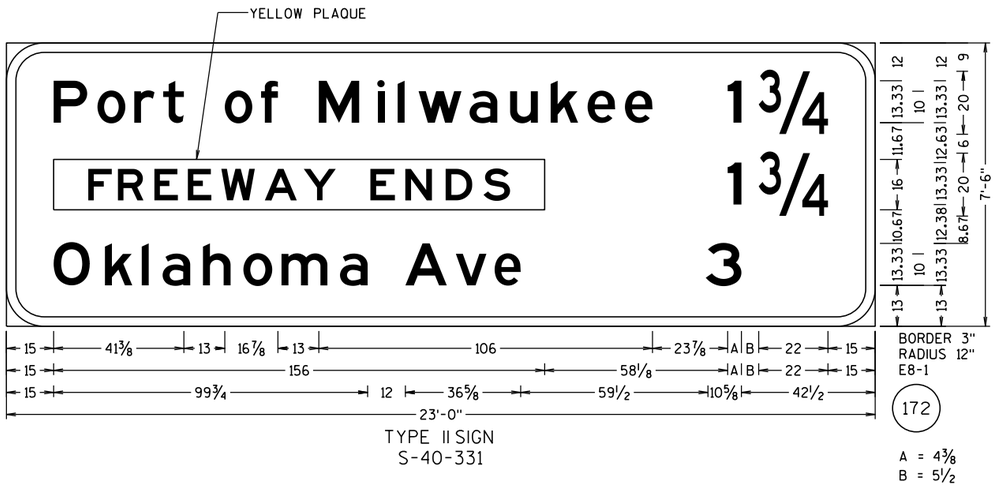
S-40-331



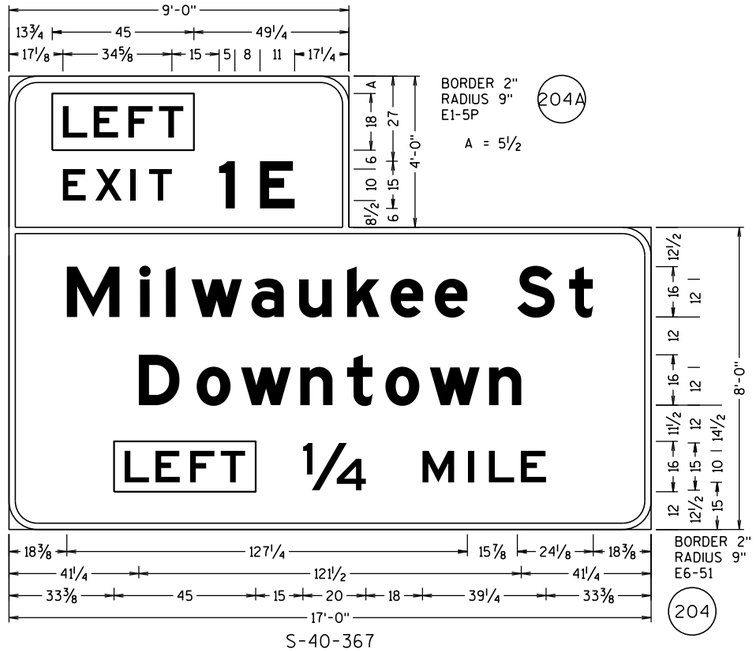
S-40-850

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING DETAIL - TYPE I & II SIGNS	SCALE: 0 ½" 1"	SHEET 1097	E

FILE NAME : J:\projects\d2_130013794\70\Sign\070101_ms.dgn PLOT DATE : 17-APR-2013 15:05 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 48.125:1
WISDOT/CADDS SHEET 47



TYPE II SIGN
S-40-331

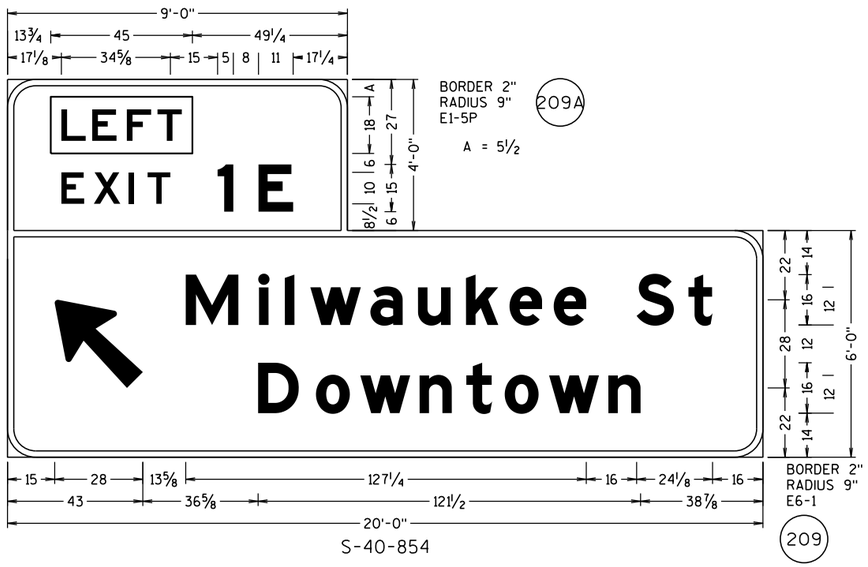


S-40-367

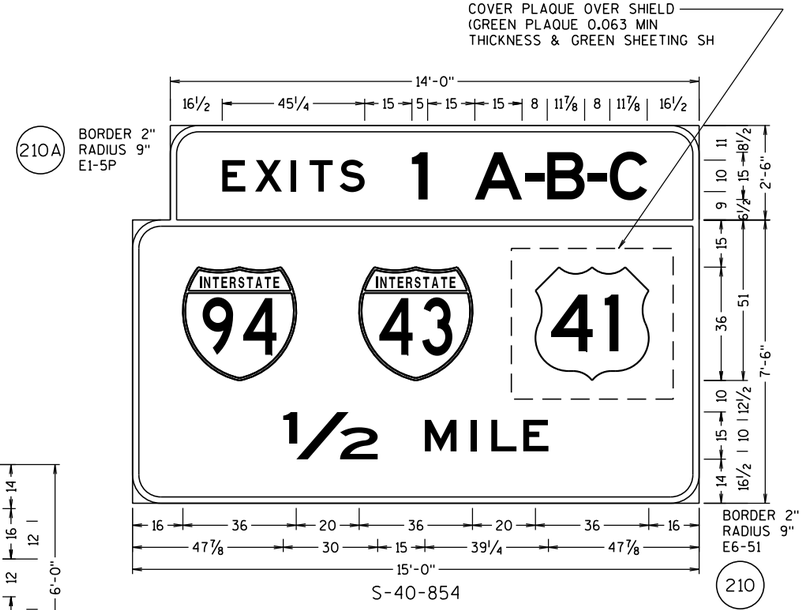
BACKGROUND - YELLOW TYPE SH REFLECTIVE SHEETING
MESSAGE - NON-REFLECTIVE BLACK
0.063 MIN THICKNESS NON-CORROSIVE STEEL

GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I".
3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.
4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.
5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.
6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10
11. DO NOT SCALE.



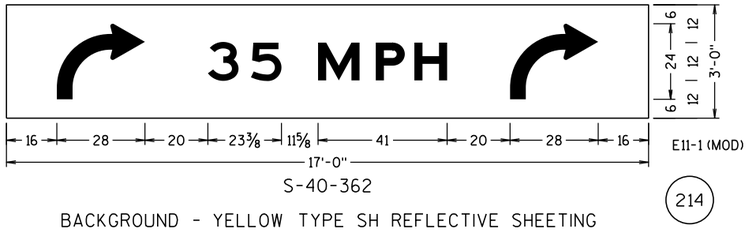
S-40-854



S-40-854

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING DETAIL - TYPE I & II SIGNS	SCALE: 0 1/2" 1"	SHEET 1098	E

FILE NAME : J:\projects\d2_130013794\70\Sign\070101_ms.dgn PLOT DATE : 17-APR-2013 15:05 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 48.125:1
WISDOT/CADDS SHEET 47

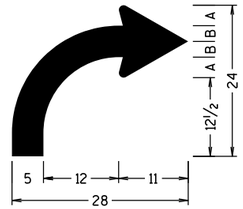


E11-1 (MOD)

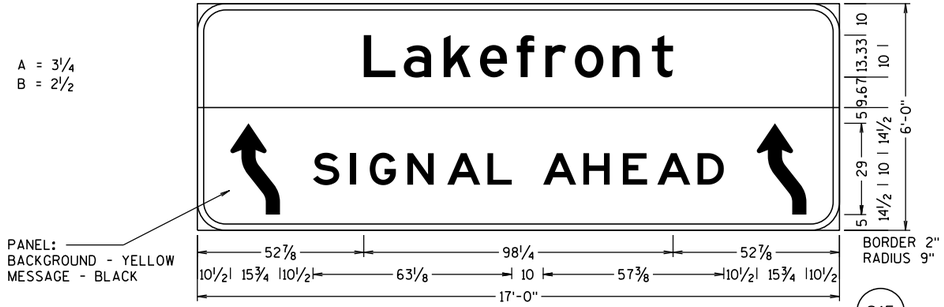
S-40-362

214

BACKGROUND - YELLOW TYPE SH REFLECTIVE SHEETING
MESSAGE - NON-REFLECTIVE BLACK



A = 3¼
B = 2½

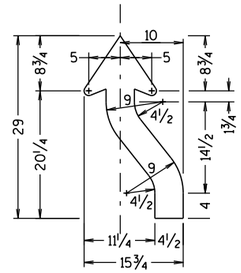


PANEL:
BACKGROUND - YELLOW
MESSAGE - BLACK

BORDER 2"
RADIUS 9"

TYPE II SIGN
S-40-362

215



GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
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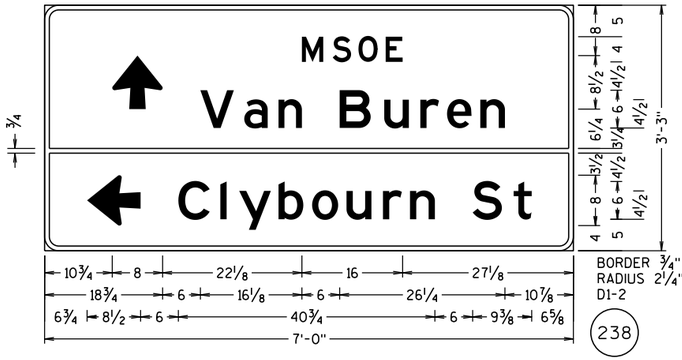
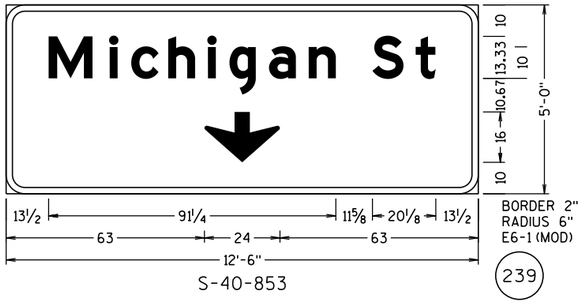
3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.
4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.
5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.
6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10
11. DO NOT SCALE.



BORDER ¾"
RADIUS 2¼"
D1-2

238

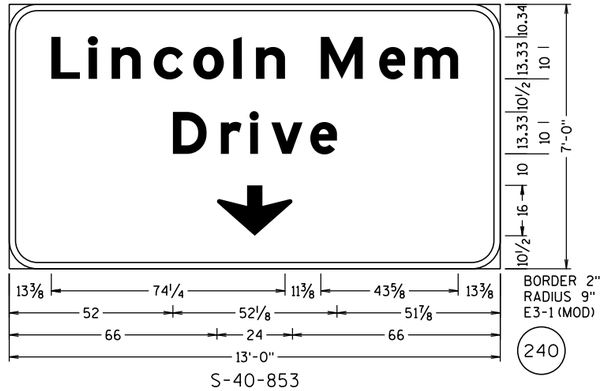
TYPE II SIGN



BORDER 2"
RADIUS 6"
E6-1 (MOD)

239

S-40-853



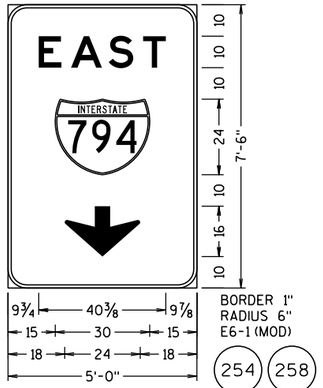
BORDER 2"
RADIUS 9"
E3-1 (MOD)

240

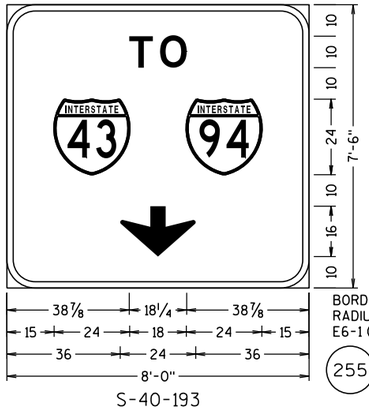
S-40-853

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING DETAIL - TYPE I & II SIGNS	SCALE: 0 ½" 1"	SHEET 1099	E

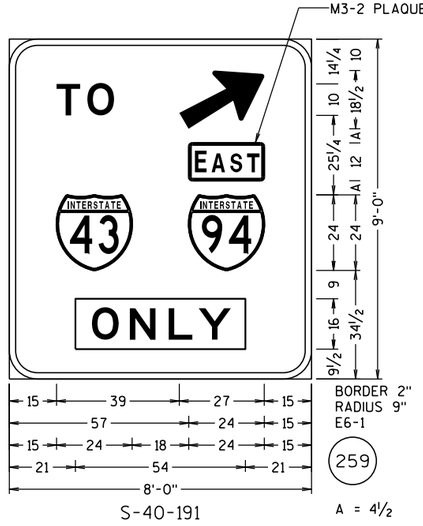
FILE NAME : J:\projects\d2_130013794\70\Sign\070101_ms.dgn PLOT DATE : 17-APR-2013 15:05 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 48.125:1
WISDOT/CADDS SHEET 47



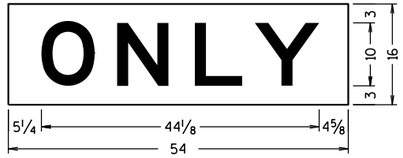
S-40-191
S-40-193



S-40-193



S-40-191



BACKGROUND - YELLOW TYPE SH REFLECTIVE SHEETING
MESSAGE - NON-REFLECTIVE BLACK
0.063 MIN THICKNESS NON-CORROSIVE STEEL

GENERAL NOTES:

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

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6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"

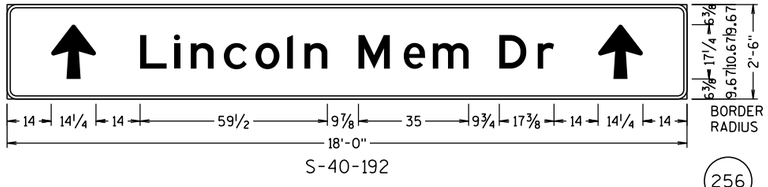
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.

8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.

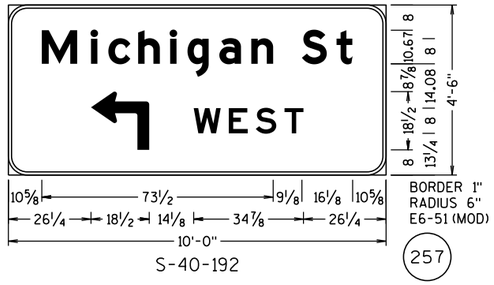
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.

10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10

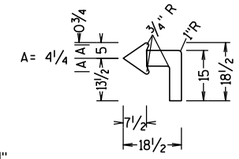
11. DO NOT SCALE.

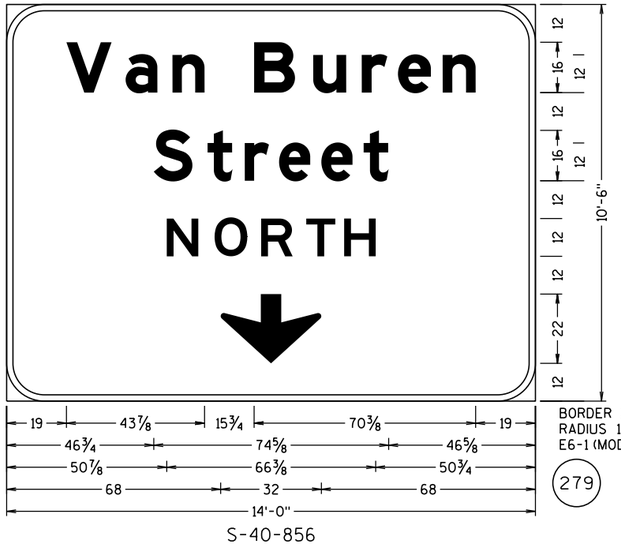


S-40-192

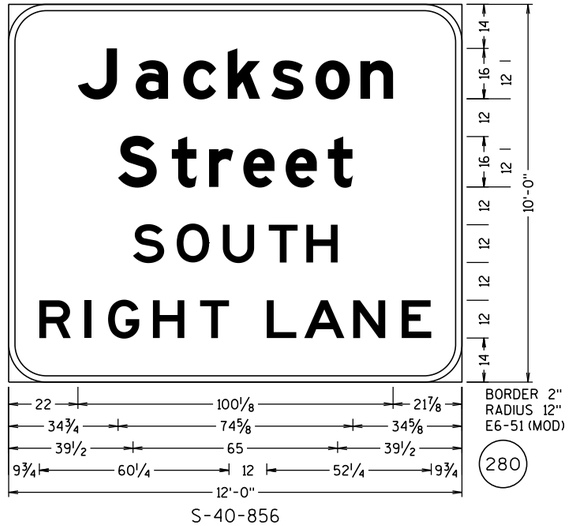


S-40-192





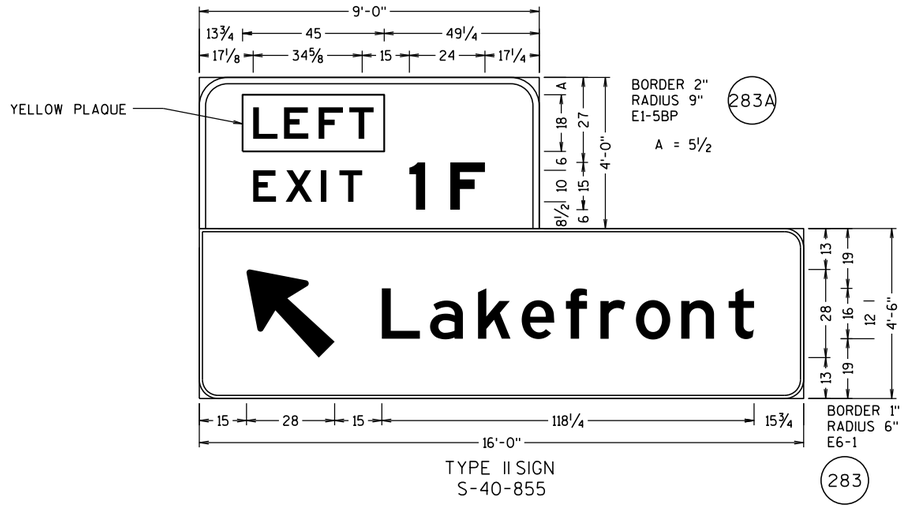
S-40-856

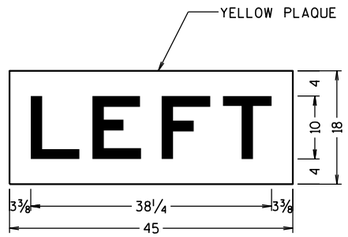


S-40-856

PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING DETAIL - TYPE I & II SIGNS	SCALE: 0 ½" 1"	SHEET 1100	E

FILE NAME : J:\projects\d2_130013794\70\Sign\070101_ms.dgn PLOT DATE : 17-APR-2013 15:05 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 48.125:1
WISDOT/CADDS SHEET 47





GENERAL NOTES:

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5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.
6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"
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8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
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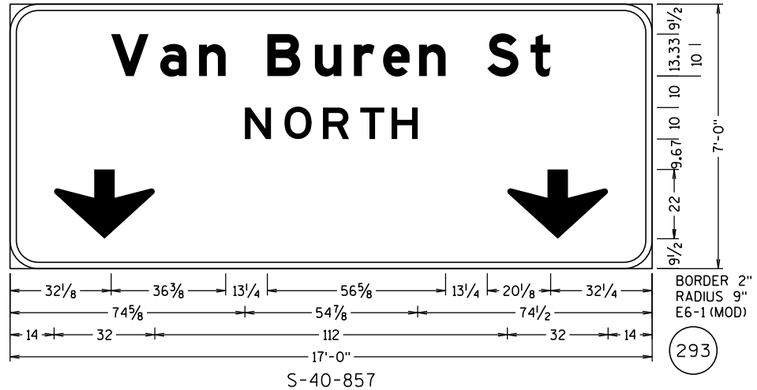
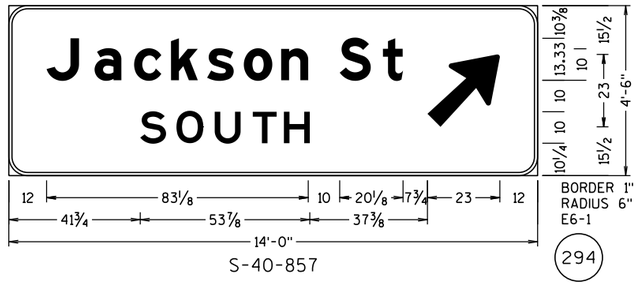
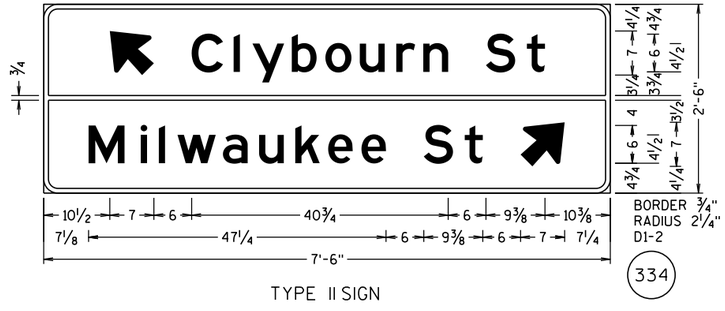
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10
11. DO NOT SCALE.







PROJECT NO: 1300-13-70	HWY: IH-794	COUNTY: MILWAUKEE	SIGNING DETAIL - TYPE I & II SIGNS	SCALE: 0 ½" 1"	SHEET 1101	E

FILE NAME : J:\projects\d2_130013794\70\Sign\070101_ms.dgn PLOT DATE : 17-APR-2013 15:05 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 48.125:1
WISDOT/CADDS SHEET 47

GENERAL NOTES:

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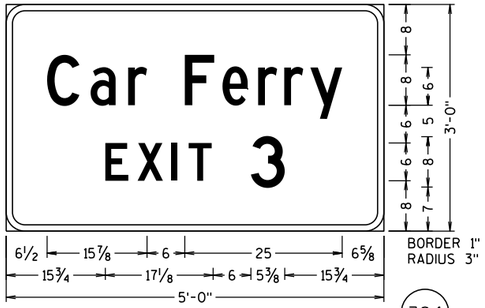
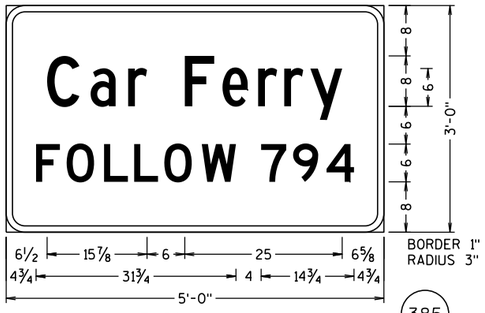
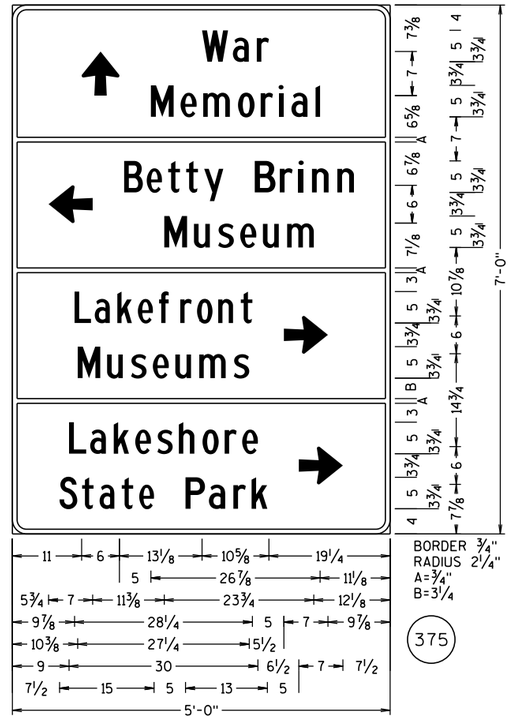
11. DO NOT SCALE.



TYPE II SIGN
SERIES D GREEN/WHITE
TYPE H SHEETING



TYPE II SIGN
SERIES D GREEN/WHITE
TYPE H SHEETING



TYPE II SIGN
SERIES C
TOP THREE PANELS - GREEN/WHITE
BOTTOM PANEL - BROWN/WHITE