WKE

FEB 11, 2020

PROJECT ID: 1228-22-72

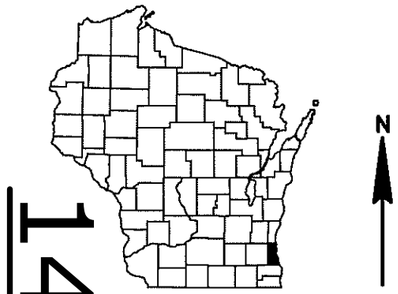
WITH:

COUNTY: MILWAUKEE

ORDER OF SHEETS

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

TOTAL SHEETS = 722



14

N

DESIGN DESIGNATION IH 43

A.A.D.T.	2018	= 89,000
A.A.D.T.	2038	= 97,000
D.H.V.		= 9,506
D.D.		= 58/42
T.		= 6.5%
DESIGN SPEED		= 60 MPH
ESALS		= 10,896,000

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EP)
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

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

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

NORTH SOUTH FREEWAY

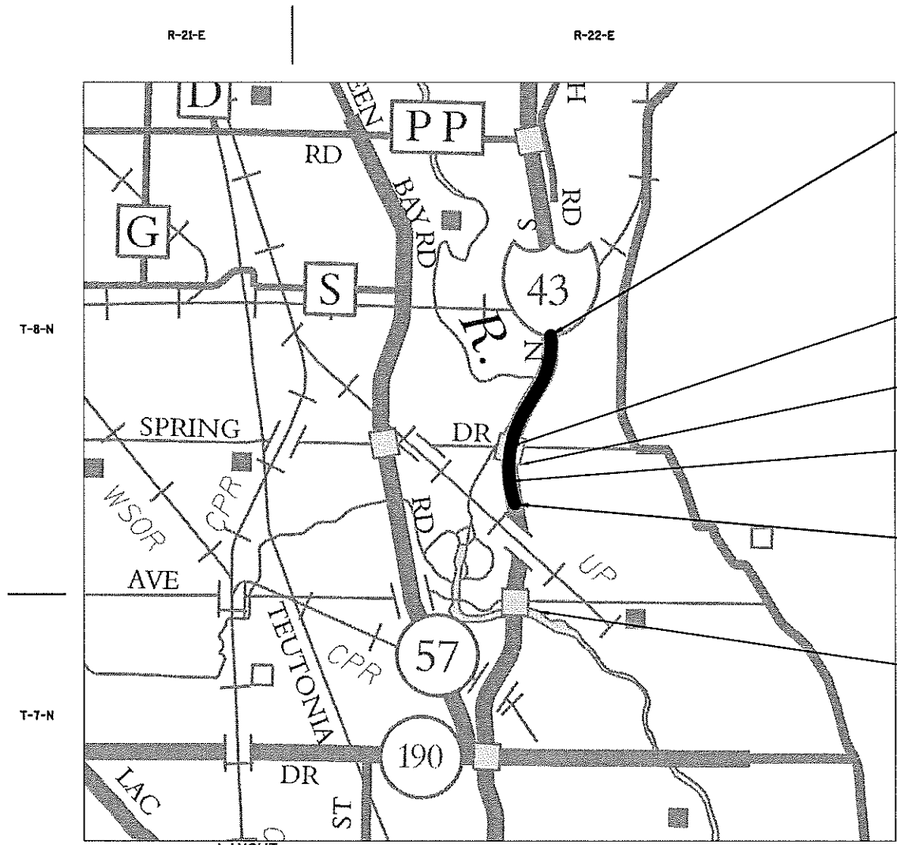
HAMPTON RD TO BENDER RD

IH 43

MILWAUKEE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1228-22-72	WISC 2020042	1

STATE PROJECT NUMBER
1228-22-72



END PROJECT
STA 1089+00

STRUCTURE
B-40-0583, 0584, 0585, 0586

STRUCTURE
B-40-0587

STRUCTURE
B-40-0581, 0582, 0602

BEGIN PROJECT
STA 1017+00
X= 603685.667
Y= 326900.117

STRUCTURE
B-40-0010

TOTAL NET LENGTH OF CENTERLINE = 0.000

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	EVAN LIMBERATOS
Project Manager	DAVID PITTMAN
Regional Examiner	
Regional Supervisor	JOE GALLAMORE

APPROVED FOR THE DEPARTMENT
DATE: 8/1/19 (Signature)

E

GENERAL NOTES

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.

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND ALL UTILITIES IN THE VICINITY OF THE PROJECT TO LOCATE THEIR FACILITIES AT LEAST THREE WORKING DAYS PRIOR TO BEGINNING WORK.

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES SHALL BE FILLED WITH GRANULAR BACKFILL.

PIPE ELEVATIONS SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER TO FIT EXISTING FIELD CONDITIONS.

ALL PAVEMENT MARKING STATIONS ARE APPROXIMATE AND ARE TO BE VERIFIED BY THE ENGINEER IN THE FIELD.

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

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS.

THE EROSION CONTROL FEATURES ARE SHOWN ON THE PLAN AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE FIELD ENGINEER.

EROSION CONTROL DEVICES ARE TO BE PLACED IN PROPER SEQUENCE WITH CONSTRUCTION OPERATIONS AND MAINTAINED THROUGHOUT THE PROJECT TO COMPLETION OR AS DETERMINED BY THE ENGINEER.

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

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 AND MULCH.

OTHER CONTACTS

WISDOT DESIGN
DAVID PITTMAN, PROJECT MANAGER
141 NW BARSTOW ST.
WAUKESHA, WI 53187-0798
PHONE: (262) 548-6439
DAVID.PITTMAN@DOT.WI.GOV

WISCONSIN DNR
KRISTINA BETZOLD
2300 N MARTIN LUTHER KING DR
MILWAUKEE, WI 53213
PHONE: (414) 263-8517
KRISTINA.BETZOLD@WISCONSIN.GOV

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
EROSION CONTROL
STORM SEWER
PERMANENT SIGNING
LIGHTING REMOVAL
LIGHTING PLAN
TRAFFIC SIGNAL REMOVAL
TRAFFIC SIGNAL TEMPORARY
TRAFFIC SIGNAL PLAN
PAVEMENT MARKING
TRAFFIC CONTROL
DETOURS
ALIGNMENT PLAN

MILWAUKEE COUNTY SHERIFF

COLIN BRIGGS, CAPTAIN
PATROL DIVISION - COMMANDER
10320 W. WATERTOWN PLANK ROAD
WAUWATOSA, WI 53226
OFFICE: (414) 454-4084
CELL: (414) 659-4275
COLIN.BRIGGS@MILWAUKEECOUNTYWI.GOV

MILWAUKEE COUNTY TRANSIT SYSTEM (MCTS)

MELANIE FLYNN
MILWAUKEE COUNTY TRANSIT SYSTEM - ROUTES
1942 N 17TH ST.
MILWAUKEE, WI 53205
PHONE: (414) 343-1764
MFLYNN@MCTS.ORG

ANDY TILLMAN
MILWAUKEE COUNTY TRANSIT SYSTEM - BUS STOPS
1942 N 17TH ST.
MILWAUKEE, WI 53205
PHONE: (414) 343-1728
ATILLMAN@MCTS.ORG

STANDARD ABBREVIATIONS

AC	ACRES
BLK	BLOCK
BM	BENCHMARK
C/L	CENTERLINE
CONC	CONCRETE
D	LANE DISTRIBUTION
DHV	DESIGN HOURLY VOLUME
DIM	DIMENSION
EB	EASTBOUND
EL	ELEVATION
HMA	HOT MIX ASPHALT
L	LENGTH
LT	LEFT
LC	LONG CHORD
MAX	MAXIMUM
MIN	MINIMUM
MON	MONUMENT
NB	NORTHBOUND
NORM	NORMAL
P	PAGE
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENT
PP	POWER POLE
PL	PROPERTY LINE
R	RADIUS
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RT	RIGHT
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SE	SUPERELEVATION
SEC	SECTION
SF	SQUARE FOOT
SI	SLOPE INTERCEPT
STA	STATION
SY	SQUARE YARD
TAN	TANGENT
TYP	TYPICAL
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
WB	WESTBOUND
V	DESIGN SPEED

	PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS
A	4 HT 58-28 H	2”	2” UPPER LAYER
B	4 HT 58-28 S	2”	2” UPPER LAYER

UTILITY CONTACTS

JENNIFER NAVARRO
AT&T LOCAL NETWORK - COMMUNICATION LINE
6070 N FLINT RD
GLENDALE, WI 53209
(414) 651-0036 CELL
J.NAVARRO@NORTHWINDTECH.COM

DENNIS CAULEY
WISCONSIN DEPARTMENT OF TRANSPORTATION - WISCONSIN SIGNAL
141 NW BARSTOW STREET
WAUKESHA, WI 53187-0798
(414) 750-1443
DENNIS.CAULEY@DOT.WI.GOV

MICKI KLAPPA-SULLIVAN
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT - SEWER
260 W SEEBOTH ST
MILWAUKEE, WI 53204
(414) 225-2178
MKLAPPASULLIVAN@MMSD.COM

CHRIS DAILEY
ATC MANAGEMENT, INC. - ELECTRICITY TRANSMISSION
P.O. BOX 47
WAUKESHA, WI 53187
(262) 506-6884
CDAILEY@ATCLLC.COM

JOHN MITTELSTADT
WISCONSIN DEPARTMENT OF TRANSPORTATION - COMMUNICATION LINE
STE. 300
433 W. ST. PAUL AVE.
MILWAUKEE, WI 53203-3007
(608) 205-7859
JOHN.MITTELSTADT@DOT.WI.GOV

CHARLIE IMIG
CITY OF GLENDALE - WATER
5909 N MILWAUKEE RIVER PKWY
GLENDALE, WI 53209
(414) 228-1742
C.IMIG@GLENDALE-WI.GOV

DAVE GOLDAPP
CITY OF MILWAUKEE - WATER
3850 N 35TH ST
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(414) 286-6301
(414) 708-2695 CELL
DAVE.M.GOLDAPP@MILWAUKEE.GOV

ERIC KIEFER
NORTH SHORE WATER COMMISSION - WATER
400 W BENDER RD
GLENDALE, WI 53217
(414) 963-0160
(414) 217-7160 CELL
EKIEFER@NORTHSHOREWC.COM

ZAFAR YOUSUF
CITY OF MILWAUKEE - SEWER
841 N BROADWAY
MILWAUKEE, WI 53202
(414) 286-2467
ZAFAR.YOUSUF@MILWAUKEE.GOV

KEN BARRETT
MIDWEST FIBER NETWORKS LLC - COMMUNICATION LINE
6070 NORTH FLINT RD
GLENDALE, WI 53209
(414) 459-3571
(414) 793-5171 CELL
KBARRETT@CABLECOMLLC.COM

JAY BULANEK
AT&T WISCONSIN - COMMUNICATION LINE
2005 PEWAUKEE RD
WAUKESHA, WI 53188
(262) 491-2855 CELL
JB5175@ATT.COM

BEAU ABUYA
CHARTER - COMMUNICATION LINE
1320 N DR MARTIN LUTHER KING JR DR
MILWAUKEE, WI 53212-4002
(414) 908-1343
(414)758-9241 CELL
WIS.ENGINEERING@CHARTER.COM

BLAKE PRUSAK
MILWAUKEE COUNTY PARKS DEPARTMENT-ELECTRICITY
1150 N 68TH ST
WAUWATOSA, WI 53213
(414) 258-2322
BLAKE.PRUSAK@MILWAUKEECOUNTYWI.GOV

ALEX DANTINNE
WE ENERGIES - ELECTRIC
500 S 116TH ST
WEST ALLIS, WI 53214
(920) 621-6903
ALEX.DANTINNE@WE-ENERGIES.COM

WE ENERGIES 24 HOUR ELECTRIC DISPATCH
1-800-662-4797

CHARLIE IMIG
CITY OF GLENDALE - SEWER
5909 N MILWAUKEE RIVER PKWY
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(414) 228-1742
C.IMIG@GLENDALE-WI.GOV

MARK MACRAE
CITY OF MILWAUKEE - STREET LIGHTING
1540 W CANAL ST
MILWAUKEE, WI 53233
(414) 286-5928
(414)708-0434 CELL
MWRAY@MILWAUKEE.GOV

KAREN ROGNEY
CITY OF MILWAUKEE
CITY UNDERGROUND CONDUIT
841 N BROADWAY
MILWAUKEE, WI 53202
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KAREN.ROGNEY@MILWAUKEE.GOV

ALEX DANTINNE
WE ENERGIES - GAS
500 S 116TH ST
WEST ALLIS, WI 53214
(920) 621-6903
ALEX.DANTINNE@WE-ENERGIES.COM

WE ENERGIES 24 HOUR GAS DISPATCH
1-800-261-5325

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5909 N MILWAUKEE RIVER PKWY
GLENDALE, WI 53209
(414) 228-1742
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ERIC PEREA
WISCONSIN DEPARTMENT OF TRANSPORTATION - STREET LIGHTING
141 NW BARSTOW STREET
WAUKESHA, WI 53087-0798
(414) 750-0935
ERIC.PEREA@DOT.WI.GOV

PARWINDER VIRK
WISCONSIN DEPARTMENT OF TRANSPORTATION - WISCONSIN SIGNAL
141 NW BARSTOW STREET
WAUKESHA, WI 53187-0798
(414) 852-0829
PARWINDER.VIRK@DOT.WI.GOV

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

2

N

MILWAUKEE RIVER

965 970 975 IH 43 SB 980 985 990

IH 43 NB

IH 43 SB ON RAMP & HAMPTON AVE INTERSECTION
NEW SIGNAL AND GEOMETRIC MODIFICATIONS

GOLF GREEN

GOLF COURSE

15"HA"

HAMPTON AVE

PORT WASHINGTON RD & HAMPTON AVE INTERSECTION
FULL SIGNAL RECONSTRUCTION, GEOMETRIC MODIFICATIONS &
NEW CURB RAMPS

PORT WASHINGTON RD

100"PW"

105"PW"

B-40-0010
PORT WASHINGTON RD OVER MILWAUKEE RIVER
PMA OVERLAY & PARTIAL MEDIAN REMOVAL

MILWAUKEE RIVER

20"HA"

N

LEXINGTON AVE

ATHLETIC FIELD

B-40-0584
IH 43 SB OVER SILVER SPRING DR
PMA OVERLAY, GIRDER PAINTING & JOINT REPAIR

B-40-0583
IH 43 NB OVER SILVER SPRING DR
PMA OVERLAY, GIRDER PAINTING & JOINT REPAIR

IH 43 SB OFF RAMP & SILVER SPRING DR
PARTIAL SIGNAL RECONSTRUCTION GEOMETRIC MODIFICATIONS &
NEW CURB RAMPS

20"SS"

B-40-0582
IH 43 SB OVER LEXINGTON AVE
PMA OVERLAY, GIRDER PAINTING,
JOINT REPAIR & PARAPET REPAIR

BEGIN PROJECT
STA 1017+00

1015 1020 1025 IH 43 SB 1030 1035

IH 43 NB

MILWAUKEE RIVER

CONCRETE REPLACEMENT

APPROACH SLAB REPLACEMENT

1035"SS RAMP D"

1040

1015"SS RAMP B"

1020"SS RAMP B"

1025"SS RAMP B"

1030"SS RAMP B"

1035"SS RAMP B"

1040"SS RAMP D"

1045

1045"SS RAMP D"

B-40-0587
IH 43 NB OFF RAMP OVER IH 43 NB ON RAMP
PMA OVERLAY, GIRDER PAINTING & JOINT REPAIR

1030"SS RAMP D"

B-40-0585
IH 43 NB ON RAMP OVER SILVER SPRING DR
PMA OVERLAY, GIRDER PAINTING & JOINT REPAIR

B-40-0586
IH 43 NB OFF RAMP OVER SILVER SPRING DR
PMA OVERLAY, GIRDER PAINTING & JOINT REPAIR

25"SS"

SILVER SPRING DR

1040"SS RAMP B"

B-40-0581
IH 43 NB OVER LEXINGTON AVE
PMA OVERLAY, GIRDER PAINTING & JOINT REPAIR

B-40-0602
IH 43 NB OFF RAMP OVER LEXINGTON AVE
PMA OVERLAY, GIRDER PAINTING & JOINT REPAIR

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 4	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PROJECT OVERVIEW\12282272_PROJECT OVERVIEW.DWG
LAYOUT NAME - 020201-PO

PLOT DATE : 3/19/2019 10:43 AM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

N

1045"SS RAMP D"

1050

1050"SS RAMP D"

IH 43 SB

IH 43 NB

1055

REMOVE AND REPLACE FENCE
ON PORT WASHINGTON RD

1060

1065

1065

IH 43 SB

IH 43 NB

1070

1075

1080

1085

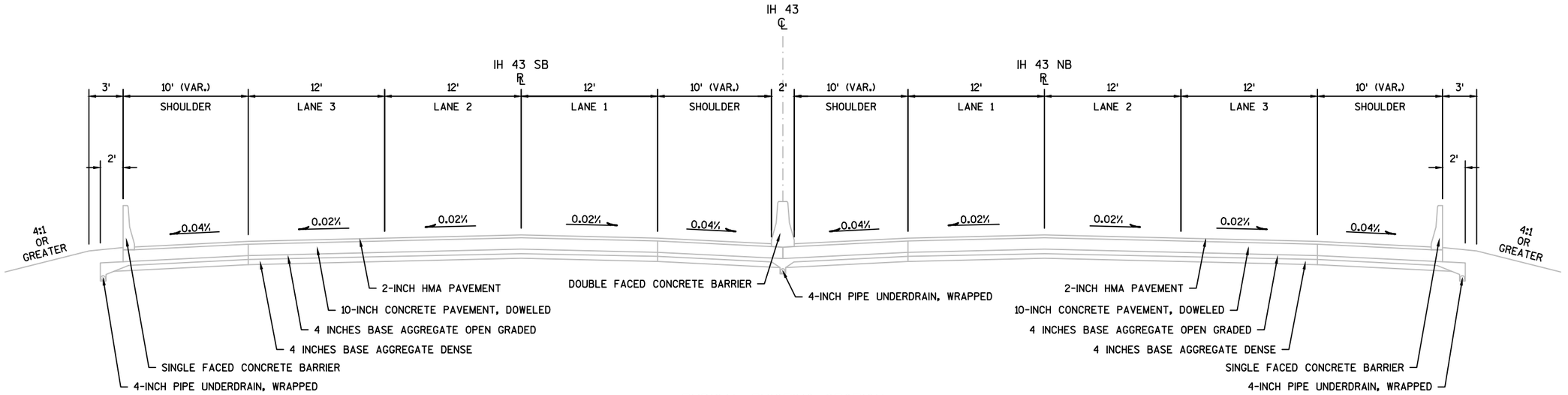
1090

BENDER RD

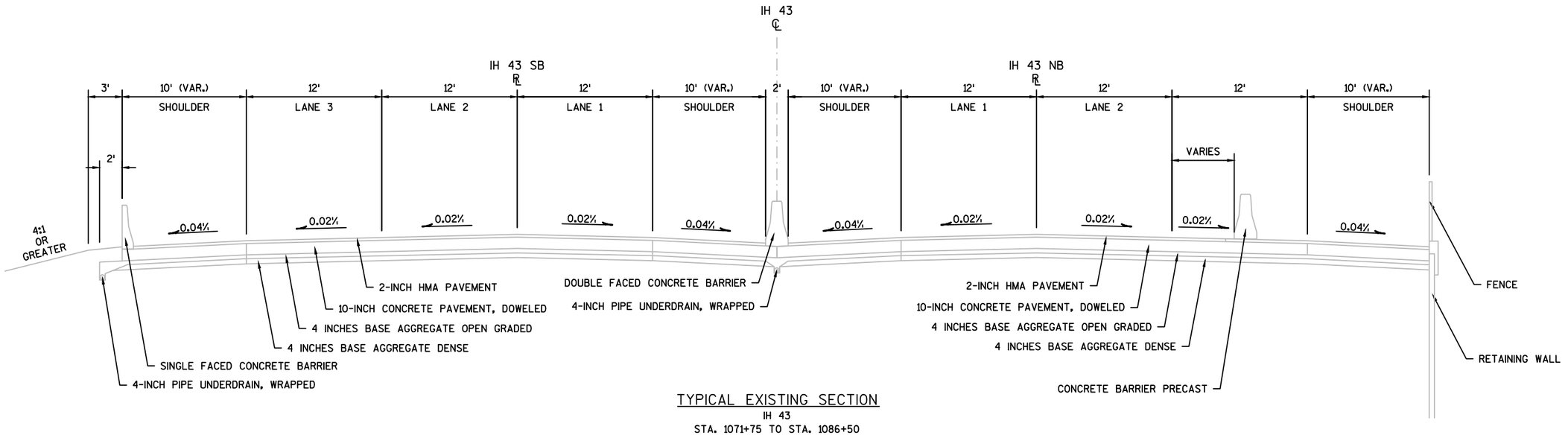
N

END PROJECT
STA 1089+00

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 5	E



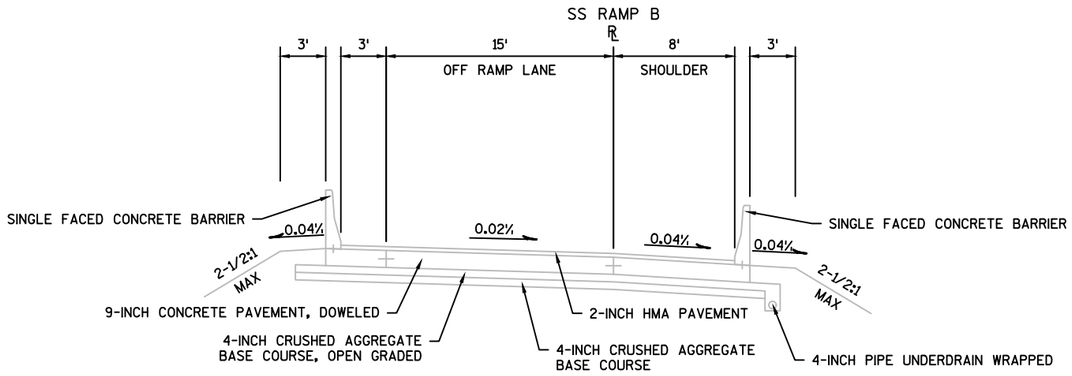
TYPICAL EXISTING SECTION
IH 43
STA. 1003+50 TO STA. 1071+75



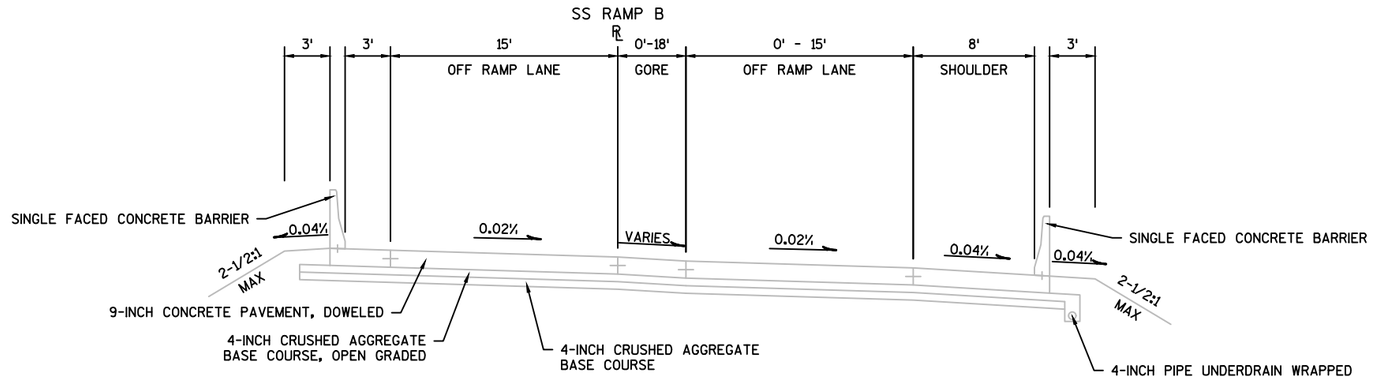
TYPICAL EXISTING SECTION
IH 43
STA. 1071+75 TO STA. 1086+50

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 6	E

2

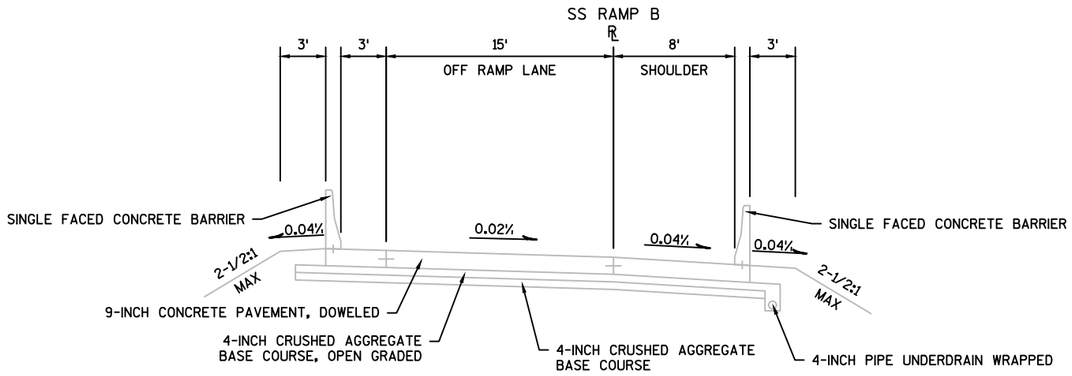


TYPICAL EXISTING SECTION
SS RAMP B
STA. 1017+38 TO STA. 1019+81
STA. 1028+39 TO STA. 1030+74

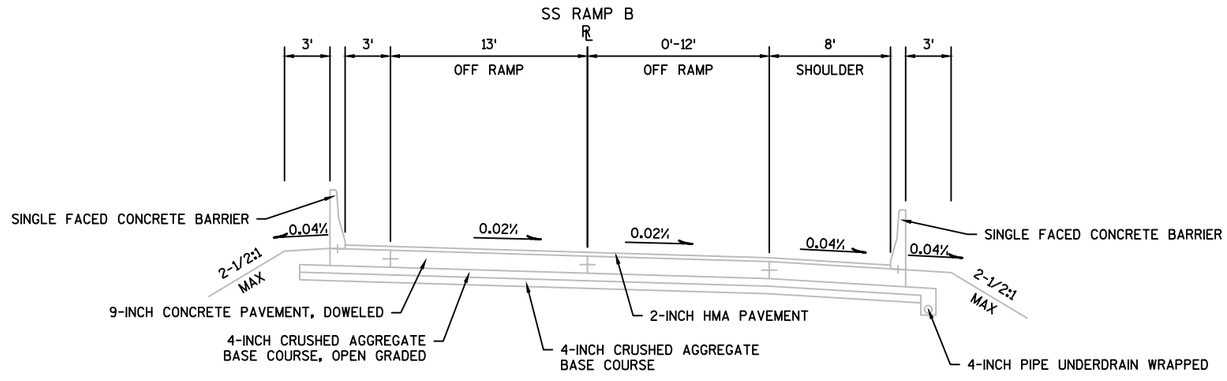


TYPICAL EXISTING SECTION
SS RAMP B
STA. 1019+81 TO STA. 1024+35

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 7	E

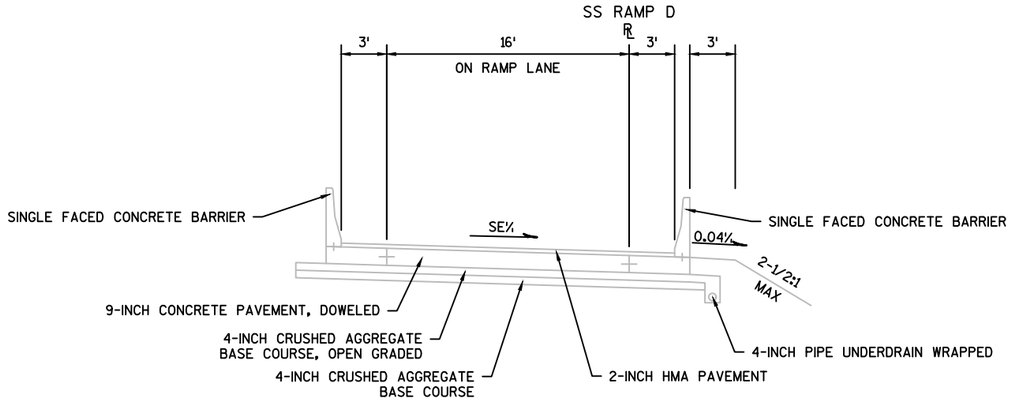


TYPICAL EXISTING SECTION
SS RAMP B
STA. 1024+35 TO STA. 1028+39



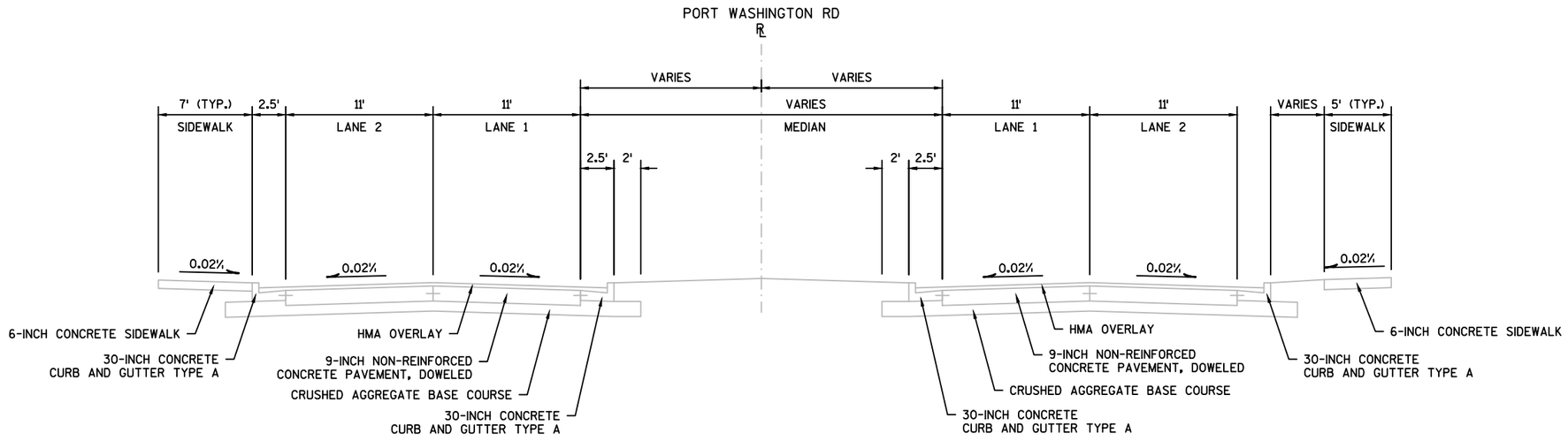
TYPICAL EXISTING SECTION
SS RAMP B
STA. 1030+74 TO STA. 1036+72

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 8	E



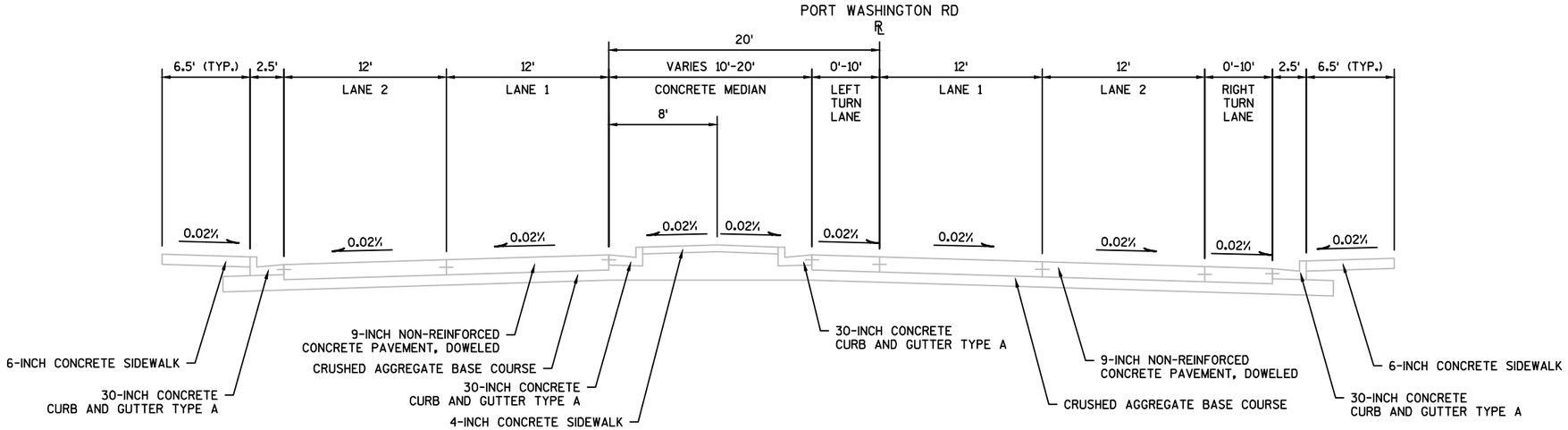
TYPICAL EXISTING SECTION

SS RAMP D
STA. 1034+55 TO STA. 1037+40



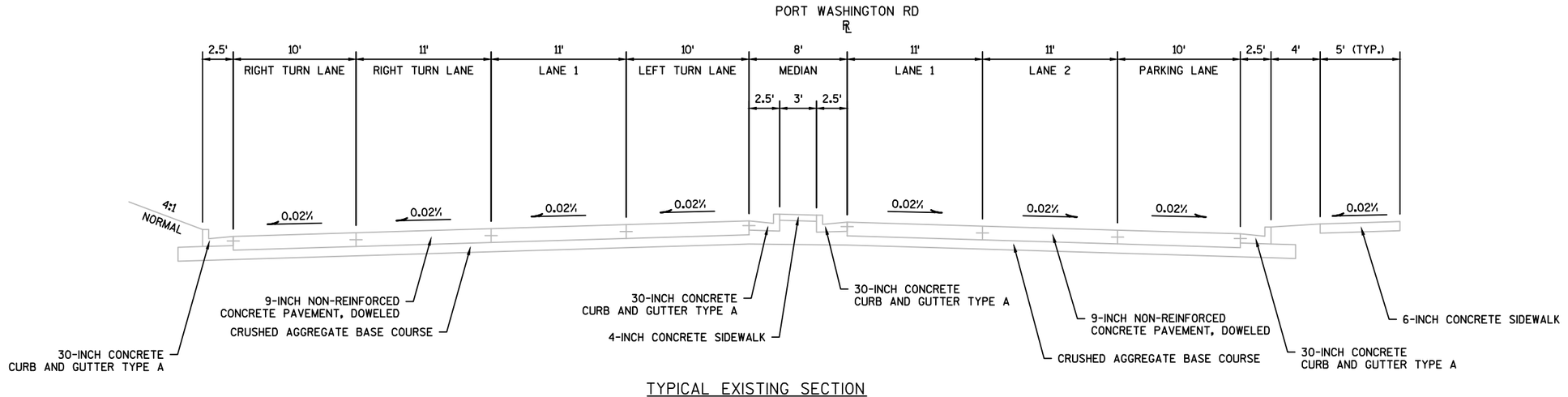
TYPICAL EXISTING SECTION

PORT WASHINGTON RD
STA. 97+50 TO STA. 99+85



TYPICAL EXISTING SECTION

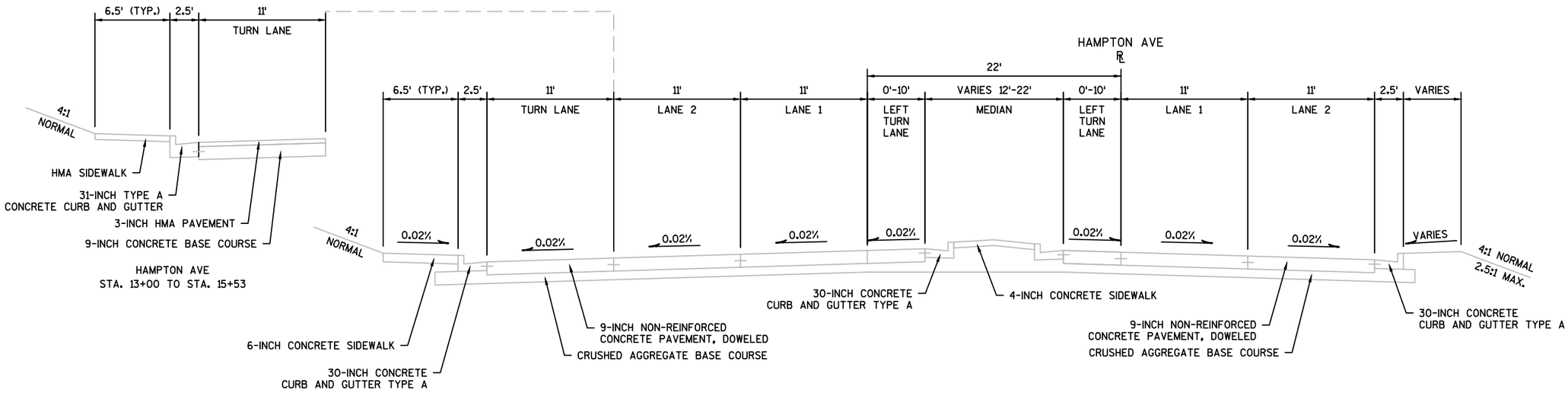
PORT WASHINGTON RD
STA. 100+99 TO STA. 105+69



TYPICAL EXISTING SECTION

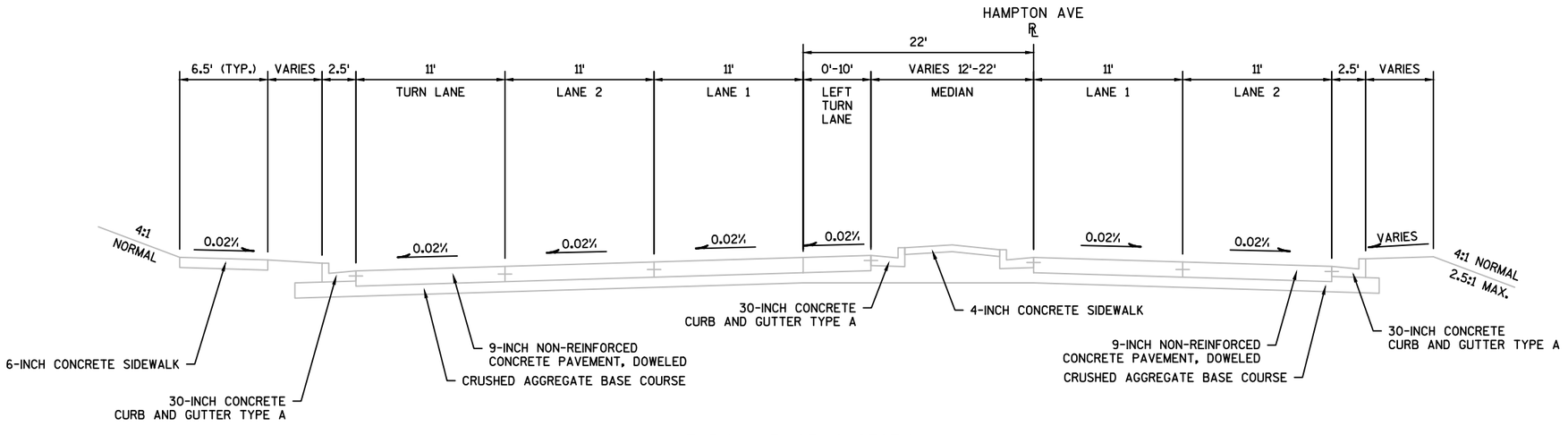
PORT WASHINGTON RD
STA. 105+69 TO STA. 107+60

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 10	E



TYPICAL EXISTING SECTION

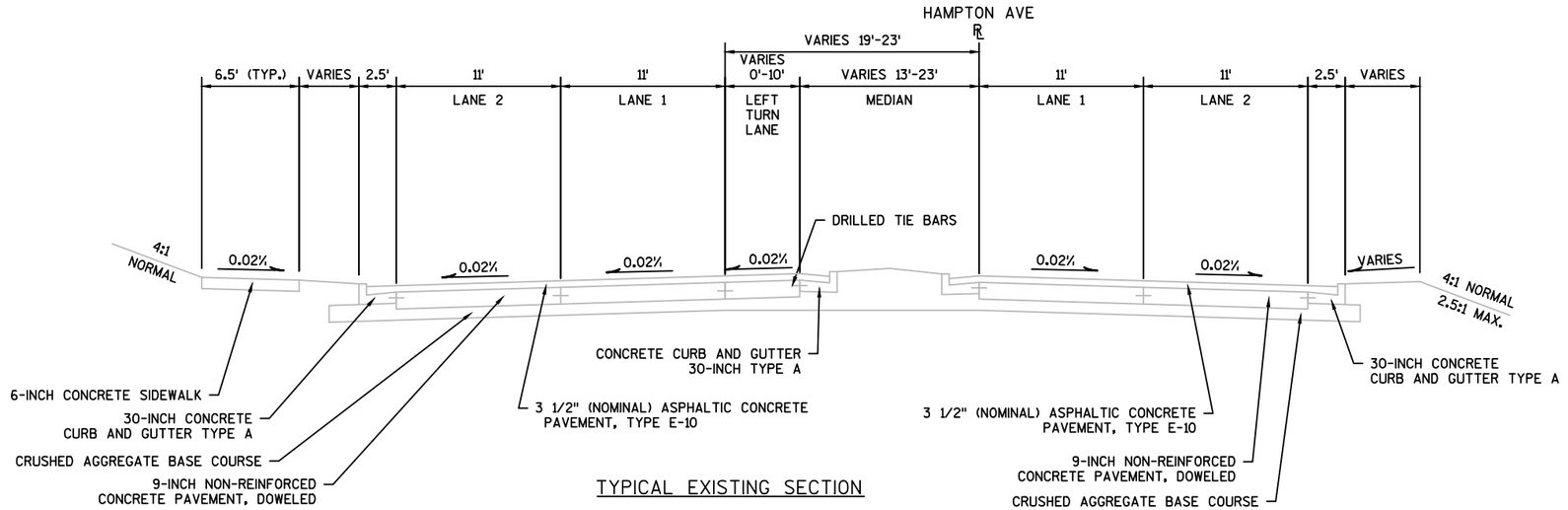
HAMPTON AVE
STA. 13+00 TO STA. 17+58



TYPICAL EXISTING SECTION

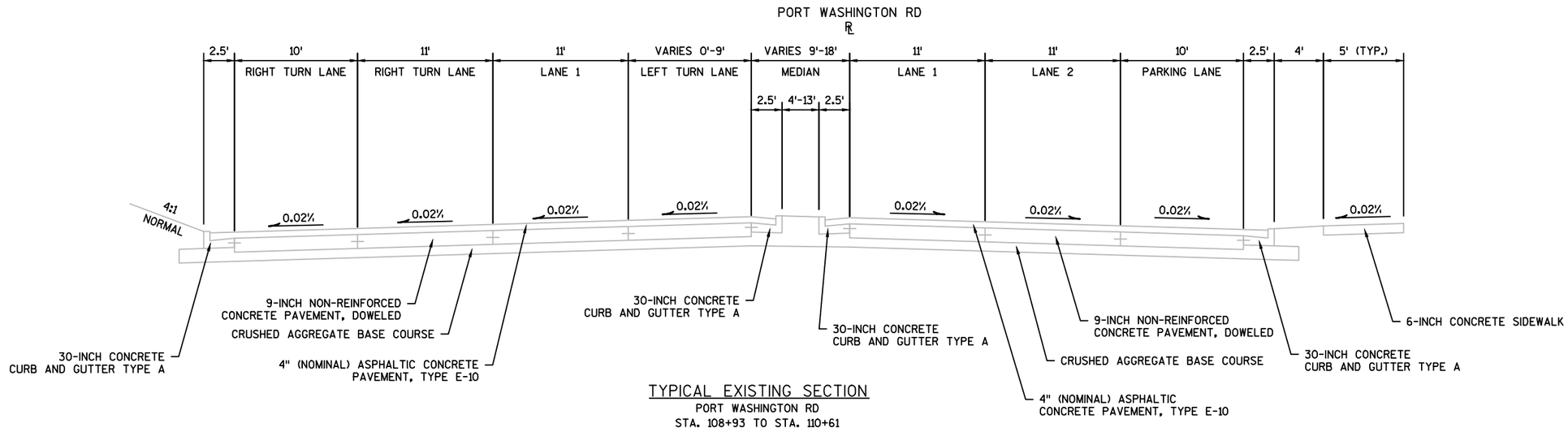
HAMPTON AVE
STA. 17+58 TO STA. 19+24

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 11	E



TYPICAL EXISTING SECTION

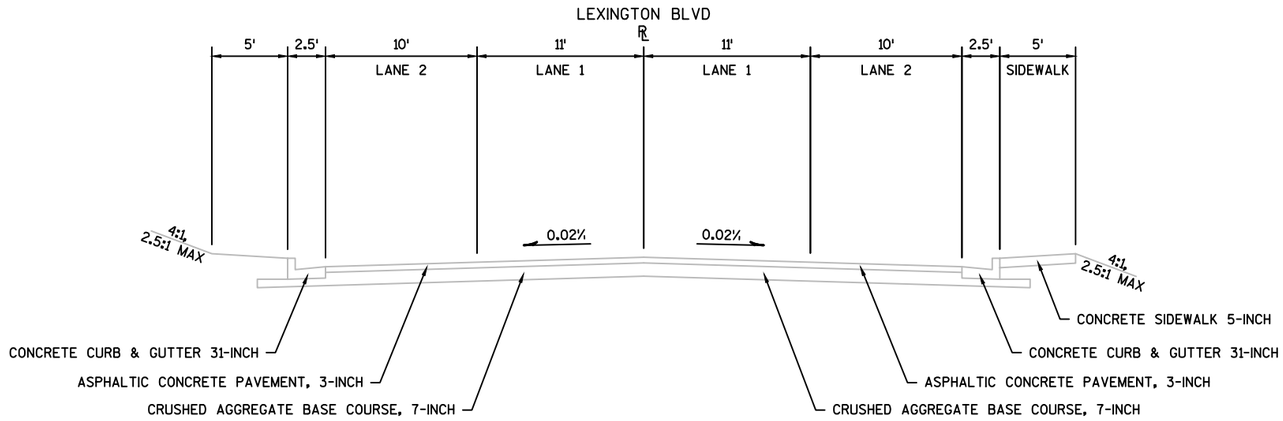
HAMPTON AVE
STA. 19+42 TO STA. 20+32



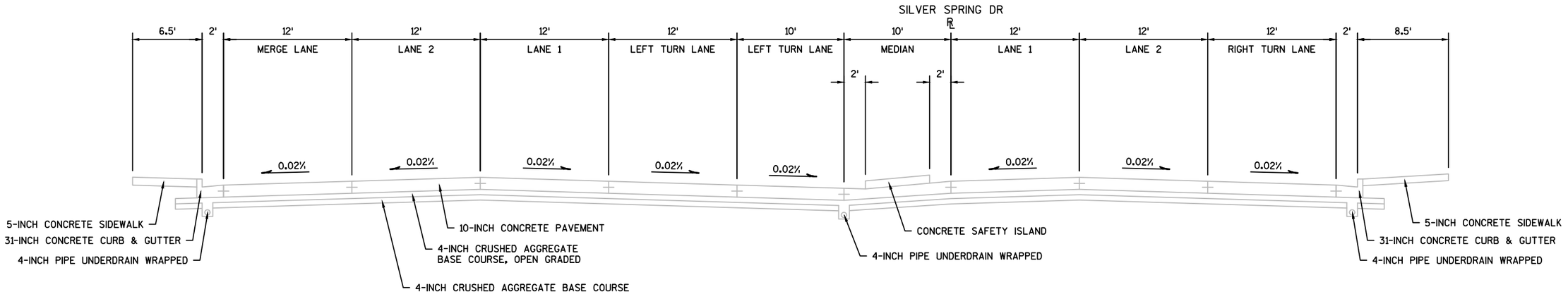
TYPICAL EXISTING SECTION

PORT WASHINGTON RD
STA. 108+93 TO STA. 110+61

2



TYPICAL EXISTING SECTION
LEXINGTON BLVD
STA. 12+99 TO STA. 13+41

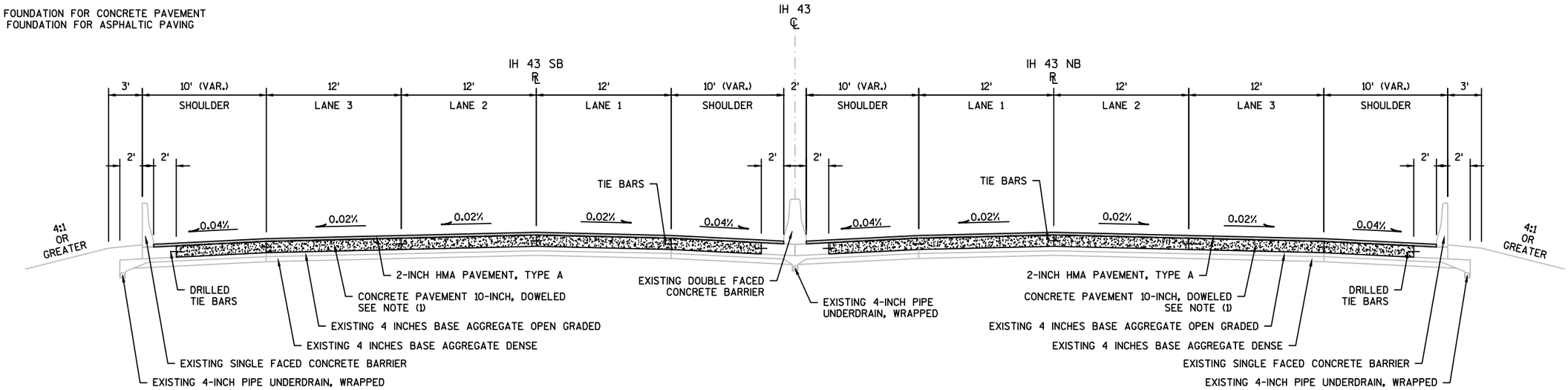


TYPICAL EXISTING SECTION
SILVER SPRING DR
FOR INFORMATION ONLY

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 13	E

2

NOTE:
(1) PREPARE FOUNDATION FOR CONCRETE PAVEMENT
(2) PREPARE FOUNDATION FOR ASPHALTIC PAVING



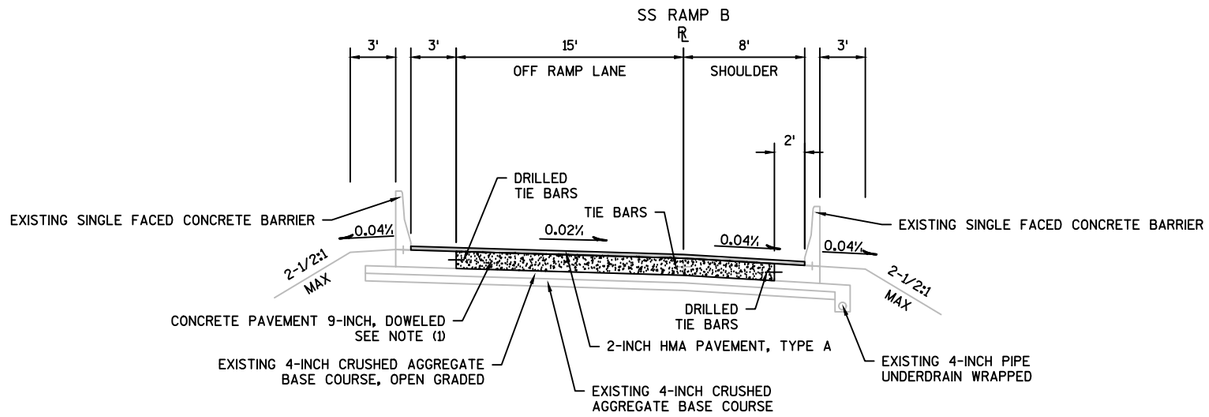
TYPICAL FINISHED SECTION

IH 43
STA. 1003+50 TO STA. 1071+75

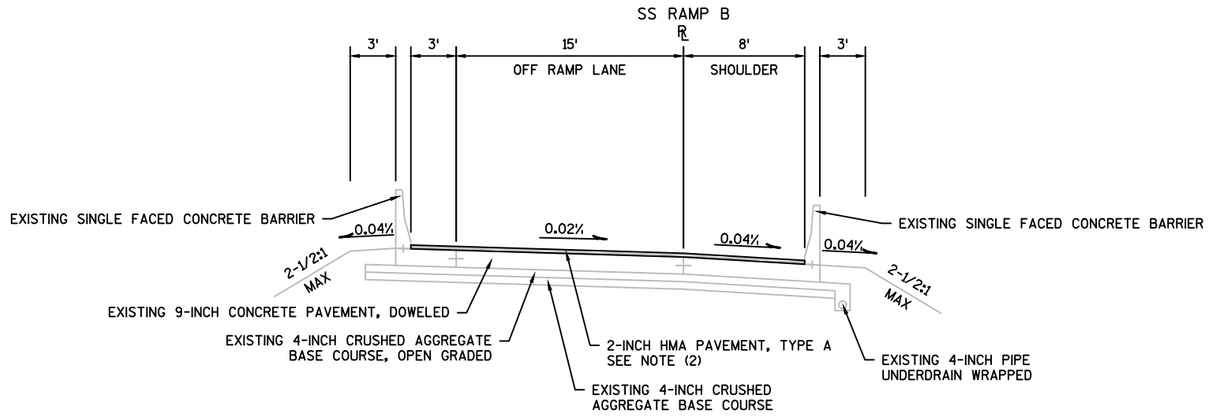
STA 1017+95 TO SOUTHERN ABUTMENT B-40-0582
NORTHERN ABUTMENT B-40-0582 TO STA 1019+64
STA 1034+55 TO SOUTHERN ABUTMENT B-40-0584
NORTHERN ABUTMENT B-40-0584 TO STA 1036+52

STA 1017+83 TO SOUTHERN ABUTMENT B-40-0581
NORTHERN ABUTMENT B-40-0581 TO STA 1019+50
STA 1034+64 TO SOUTHERN ABUTMENT B-40-0583
NORTHERN ABUTMENT B-40-0583 TO STA 1036+65

NOTE:
(1) PREPARE FOUNDATION FOR CONCRETE PAVEMENT
(2) PREPARE FOUNDATION FOR ASPHALTIC PAVING



TYPICAL FINISHED SECTION
SS RAMP B
STA. 1017+75 TO SOUTHERN ABUTMENT B-40-0602
NORTHERN ABUTMENT B-40-0602 TO STA. 1019+36

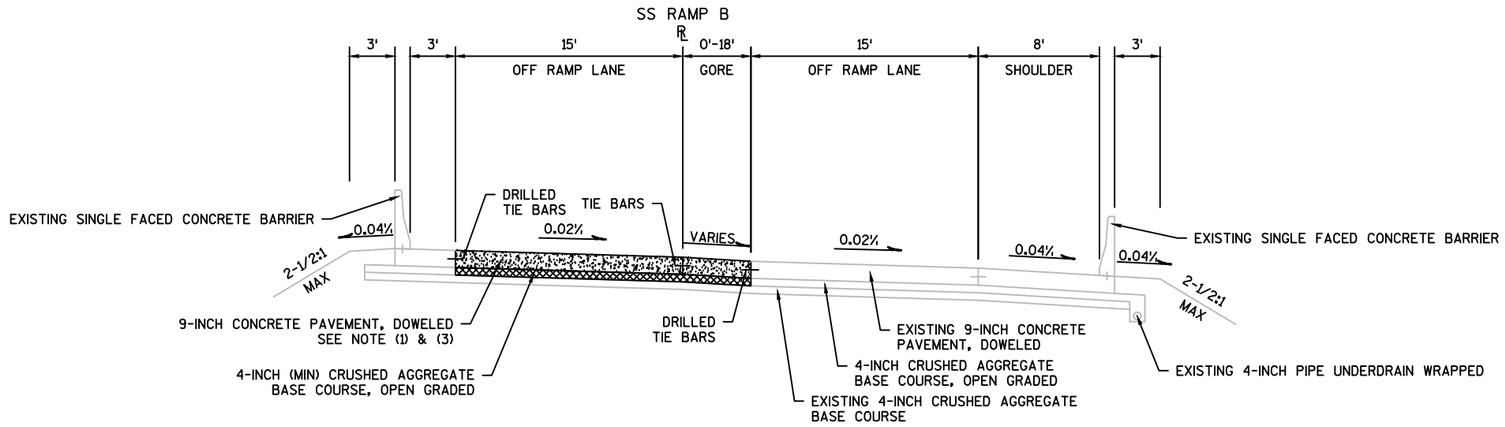


TYPICAL FINISHED SECTION
SS RAMP B
1019+36 TO STA. 1019+81

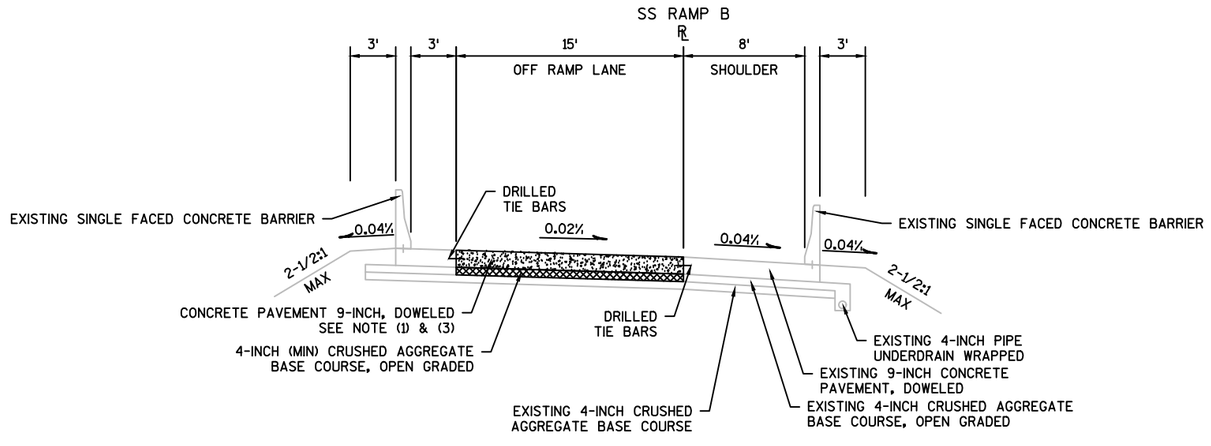
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 15	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TYPICAL SECTION\12282272_TYP SEC.DWG
LAYOUT NAME - 020310-TS
PLOT DATE : 4/23/2018 3:32 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

NOTE:
(1) PREPARE FOUNDATION FOR CONCRETE PAVEMENT
(3) LONGITUDINAL TINED



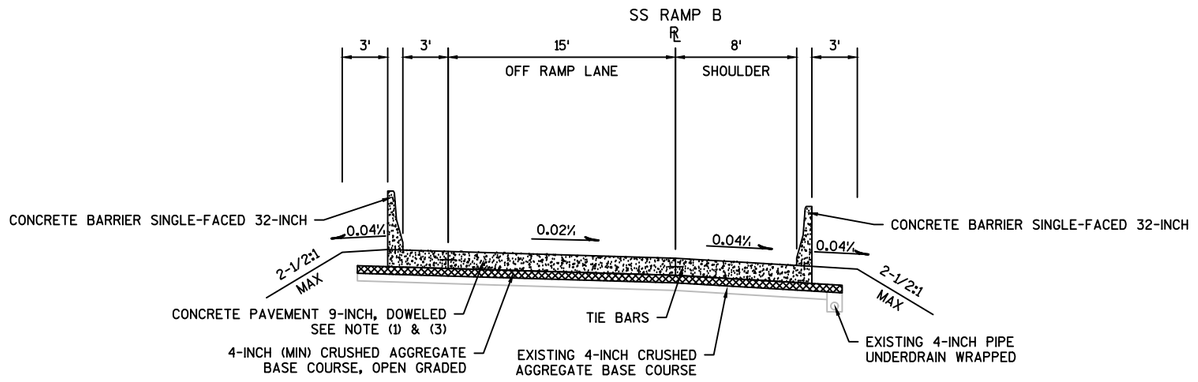
TYPICAL FINISHED SECTION
SS RAMP B
STA. 1022+11 TO STA. 1024+35



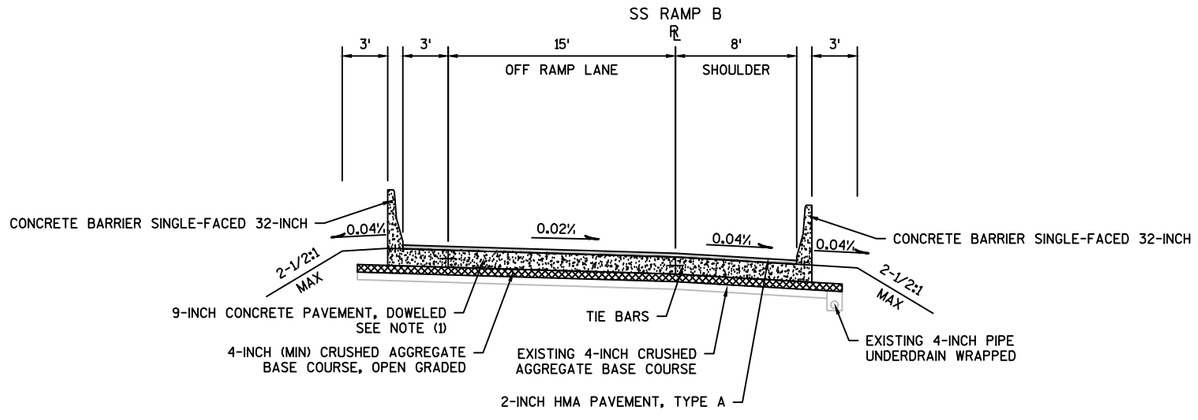
TYPICAL FINISHED SECTION
SS RAMP B
STA. 1024+35 TO STA. 1028+84

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 16	E

NOTE:
(1) PREPARE FOUNDATION FOR CONCRETE PAVEMENT
(3) LONGITUDINAL TINED



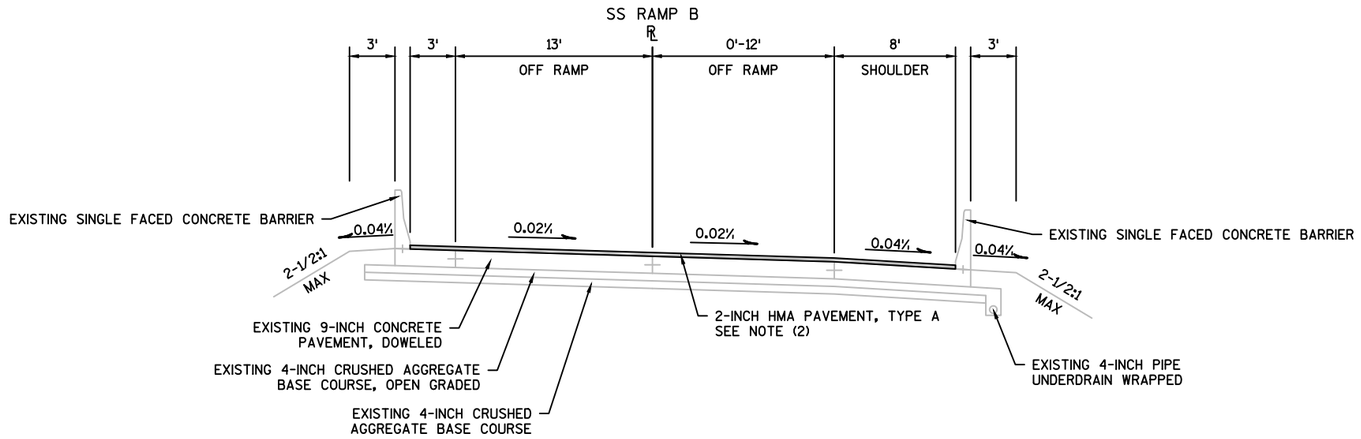
TYPICAL FINISHED SECTION
SS RAMP B
STA. 1028+84 TO SOUTHERN ABUTMENT B-40-0587



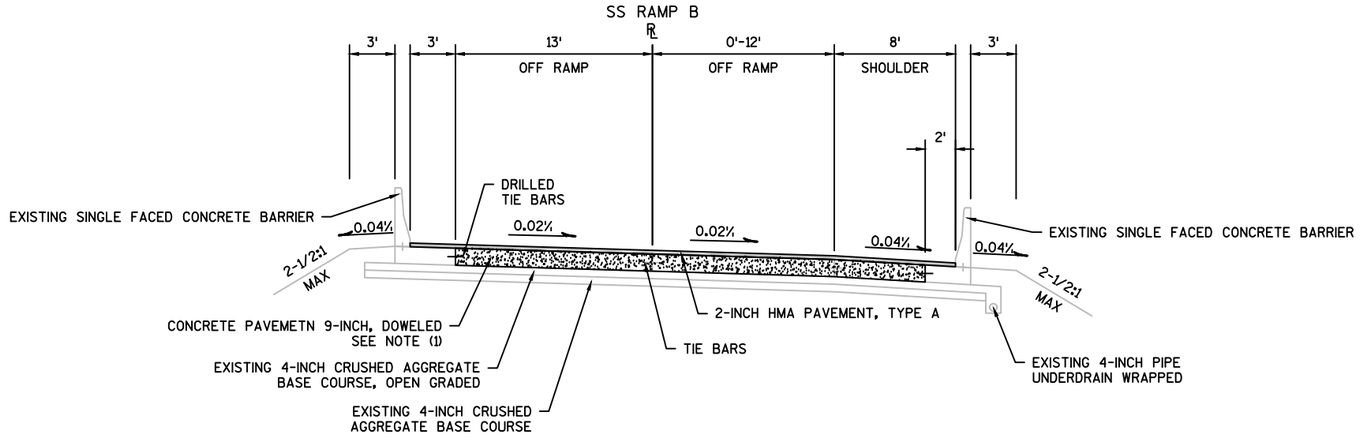
TYPICAL FINISHED SECTION
SS RAMP B
NORTHERN ABUTMENT B-40-0587 TO STA. 1030+73

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 17	E

NOTE:
(1) PREPARE FOUNDATION FOR CONCRETE PAVEMENT
(2) PREPARE FOUNDATION FOR ASPHALTIC PAVING
(3) LONGITUDINAL TINED



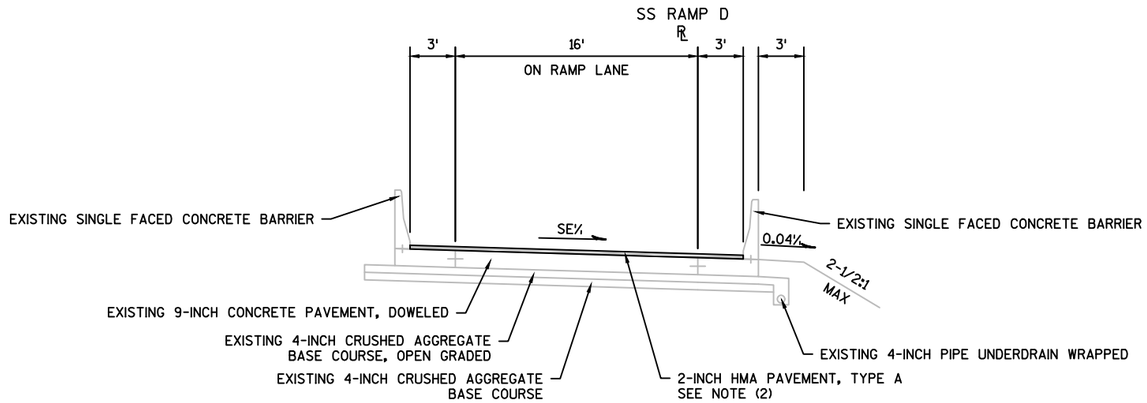
TYPICAL FINISHED SECTION
SS RAMP B
STA. 1030+73 TO STA. 1034+35
STA. 1036+26 TO STA. 1036+72



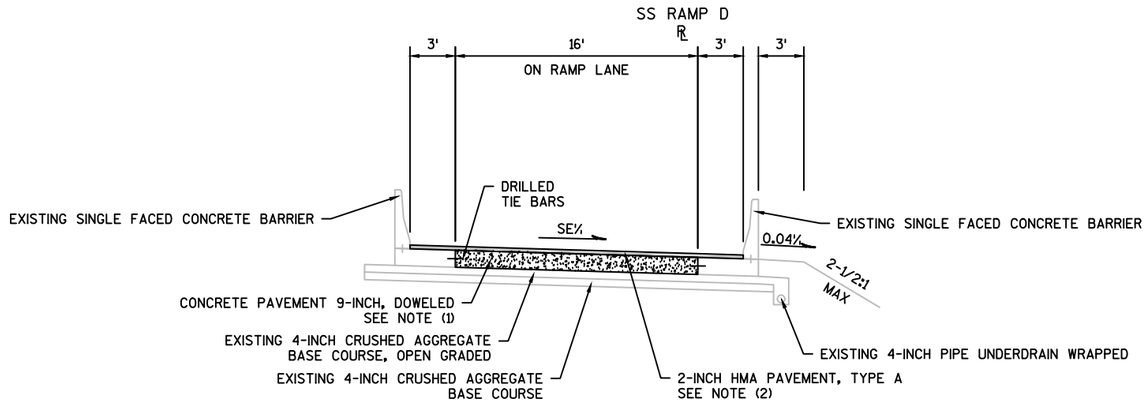
TYPICAL FINISHED SECTION
SS RAMP B
STA. 1034+35 TO SOUTHERN ABUTMENT B-40-0586
NORTHERN ABUTMENT B-40-0586 TO STA. 1036+26

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 18	E

NOTE:
(1) PREPARE FOUNDATION FOR CONCRETE PAVEMENT
(2) PREPARE FOUNDATION FOR ASPHALTIC PAVING

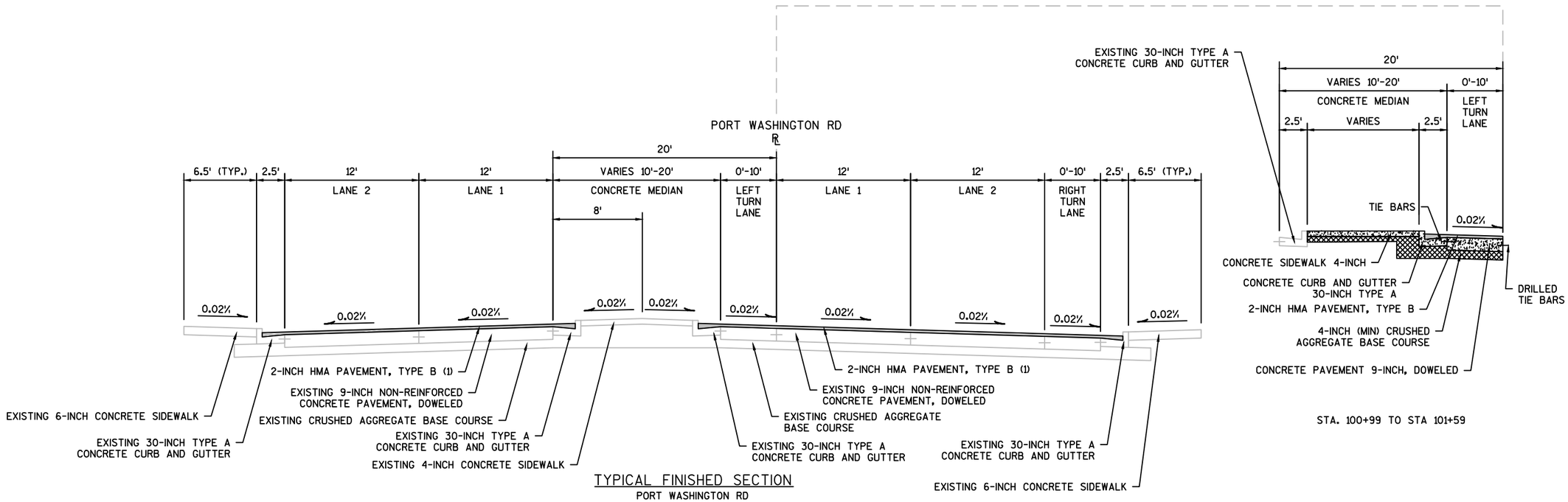


TYPICAL FINISHED SECTION
SS RAMP D
STA. 1034+55 TO STA. 1035+00
STA. 1036+95 TO STA. 1037+40



TYPICAL FINISHED SECTION
SS RAMP D
STA. 1035+00 TO SOUTHERN ABUTMENT OF B-40-0585
NORTHERN ABUTMENT OF B-40-0585 TO STA. 1036+95

NOTE:
(1) PREPARE FOUNDATION FOR ASPHALTIC PAVING



TYPICAL FINISHED SECTION
PORT WASHINGTON RD
STA. 100+99 TO SOUTHERN ABUTMENT B-40-0010
NORTHERN ABUTMENT B-40-0010 TO STA. 104+68

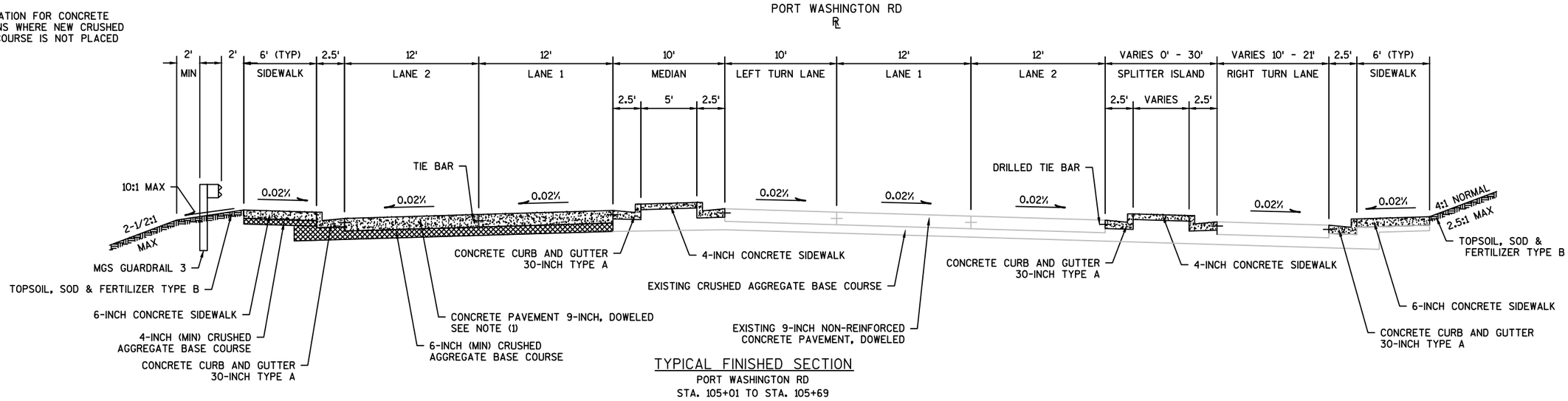
STA. 100+99 TO STA 101+59

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 20	E

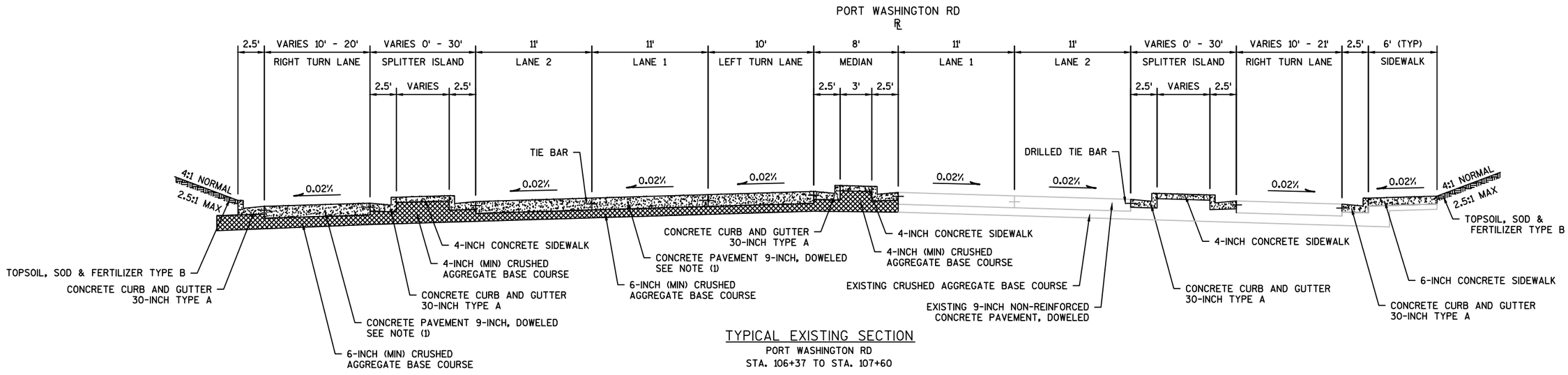
FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TYPICAL SECTION\12282272_TYP SEC.DWG
LAYOUT NAME - 020315-TS
PLOT DATE : 3/19/2019 10:57 AM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:10 FT

NOTE:
SEE PLAN DETAILS FOR LOCATIONS OF PAVEMENT REPLACEMENT

(1) PREPARE FOUNDATION FOR CONCRETE PAVING IN LOCATIONS WHERE NEW CRUSHED AGGREGATE BASE COURSE IS NOT PLACED



TYPICAL FINISHED SECTION
PORT WASHINGTON RD
STA. 105+01 TO STA. 105+69



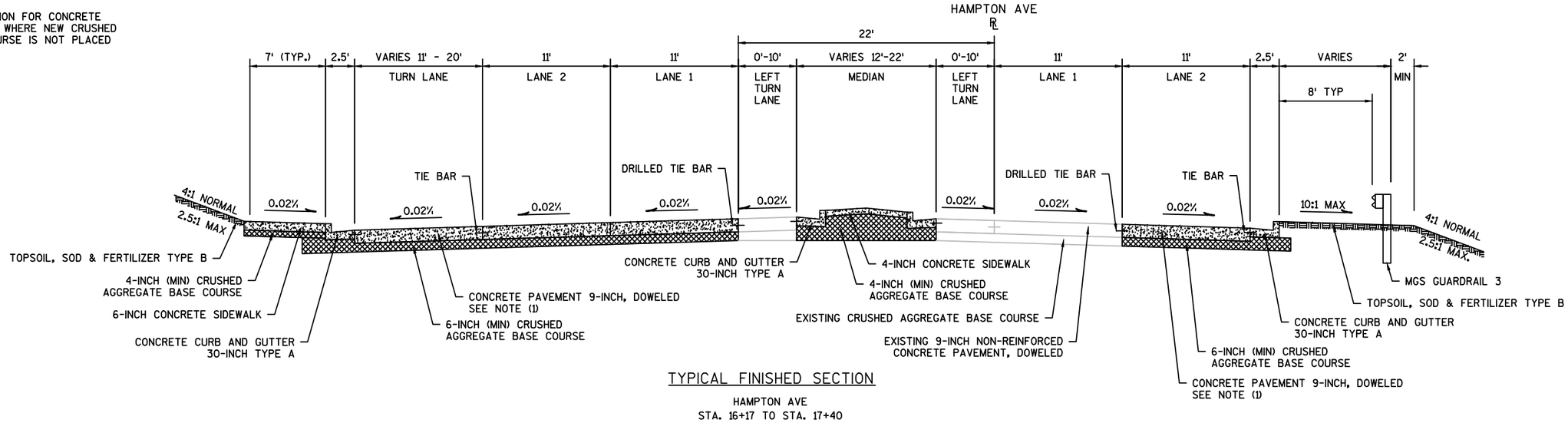
TYPICAL EXISTING SECTION
PORT WASHINGTON RD
STA. 106+37 TO STA. 107+60

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 21	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TYPICAL SECTION\12282272_TYP SEC.DWG
LAYOUT NAME - 020316-TS
PLOT DATE : 4/23/2018 3:32 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:10 FT

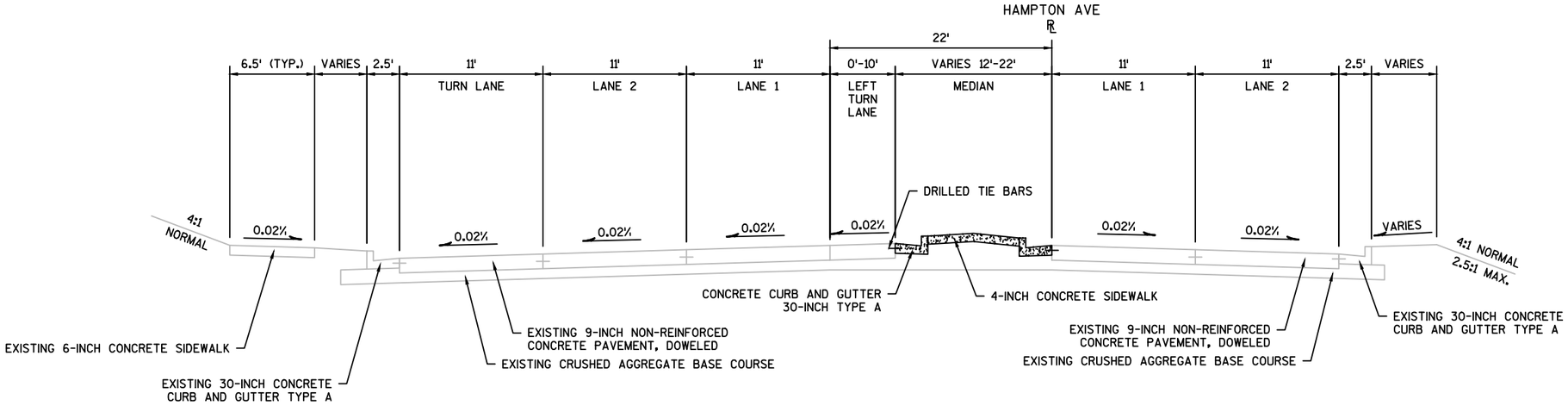
NOTE:
SEE PLAN DETAILS FOR LOCATIONS OF PAVEMENT REPLACEMENT

(1) PREPARE FOUNDATION FOR CONCRETE PAVING IN LOCATIONS WHERE NEW CRUSHED AGGREGATE BASE COURSE IS NOT PLACED



TYPICAL FINISHED SECTION

HAMPTON AVE
STA. 16+17 TO STA. 17+40



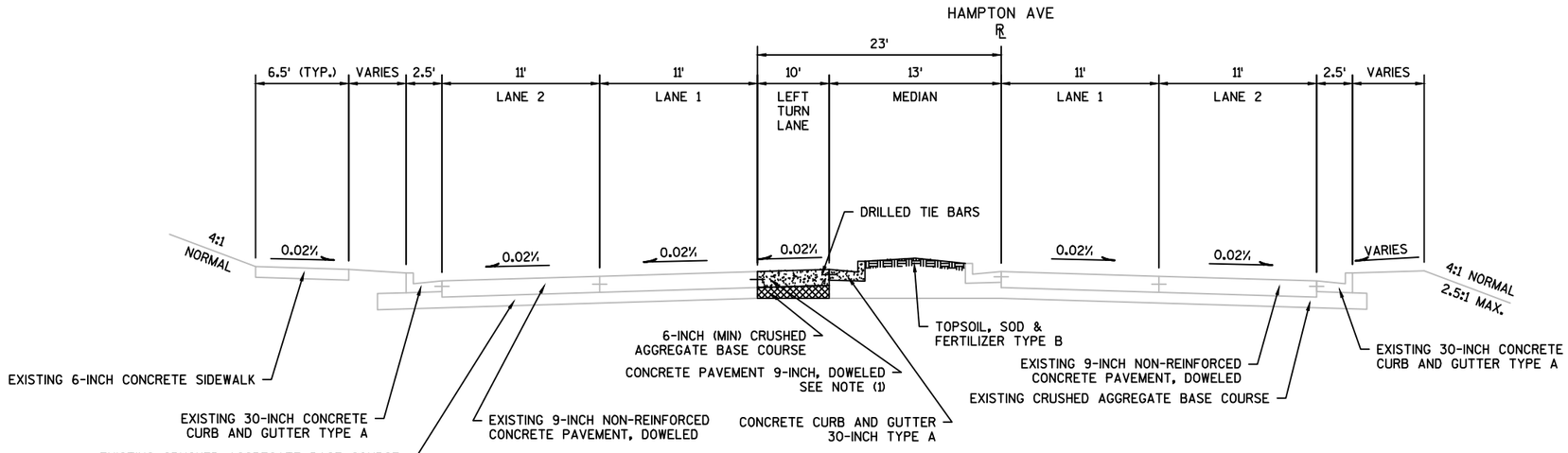
TYPICAL FINISHED SECTION

HAMPTON AVE
STA. 18+14 TO STA. 18+74

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 22	E

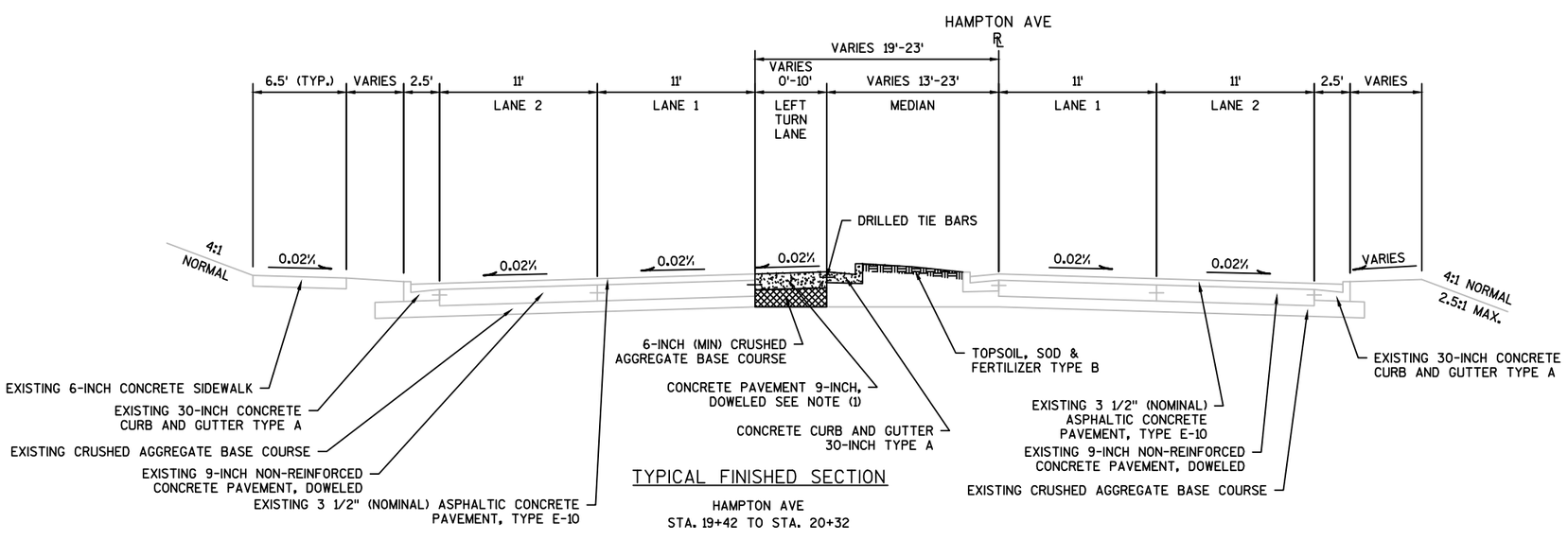
NOTE:
SEE PLAN DETAILS FOR LOCATIONS OF PAVEMENT REPLACEMENT

(1) PREPARE FOUNDATION FOR CONCRETE PAVING IN LOCATIONS WHERE NEW CRUSHED AGGREGATE BASE COURSE IS NOT PLACED



TYPICAL FINISHED SECTION

HAMPTON AVE
STA. 19+13 TO STA. 19+42



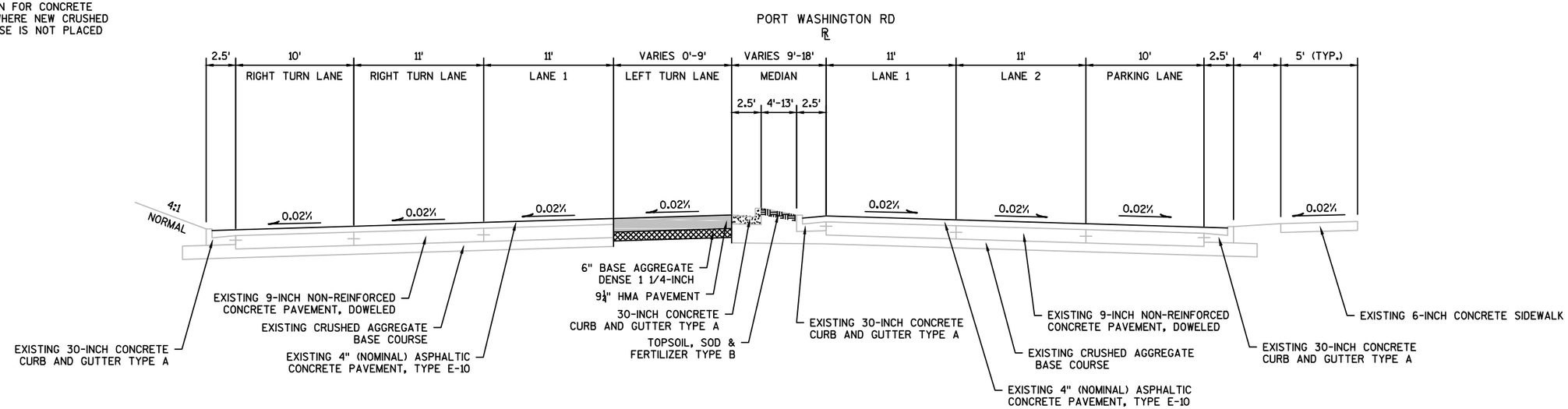
TYPICAL FINISHED SECTION

HAMPTON AVE
STA. 19+42 TO STA. 20+32

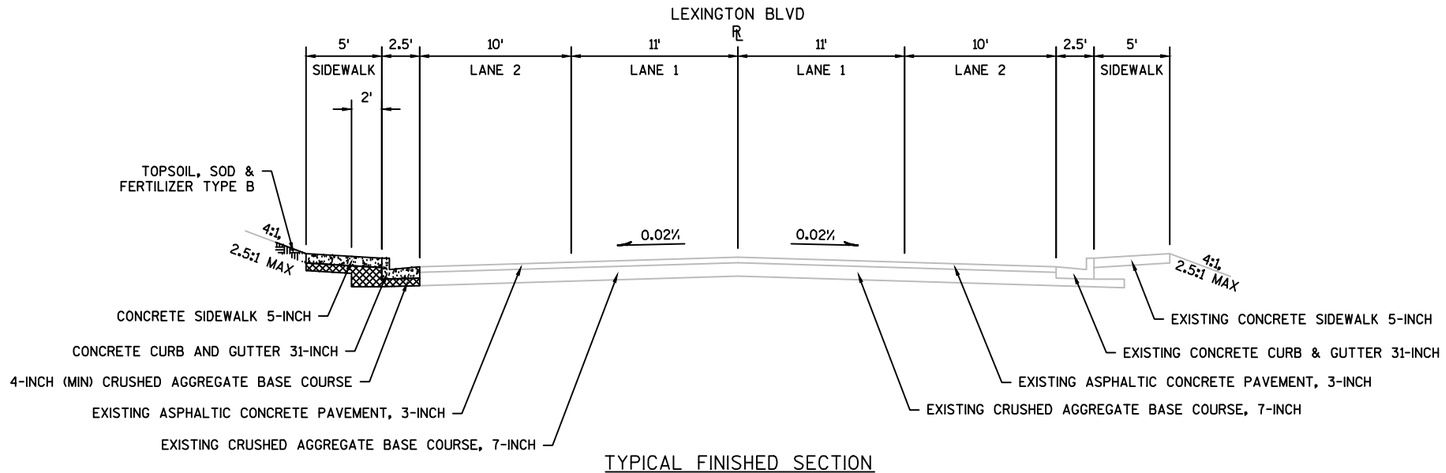
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 23	E

NOTE:
SEE PLAN DETAILS FOR LOCATIONS OF PAVEMENT REPLACEMENT

(1) PREPARE FOUNDATION FOR CONCRETE PAVING IN LOCATIONS WHERE NEW CRUSHED AGGREGATE BASE COURSE IS NOT PLACED



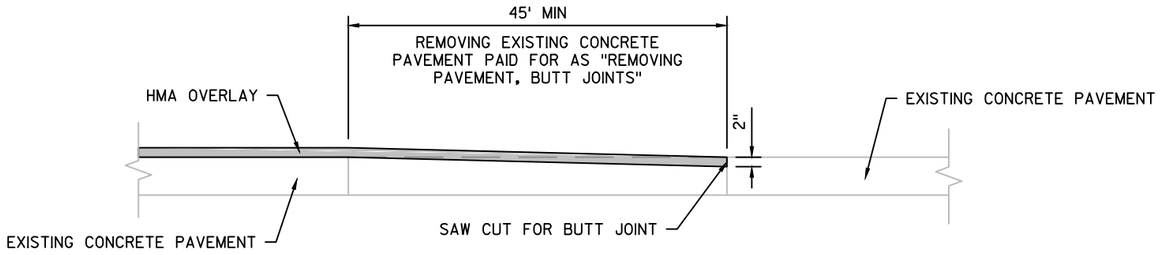
TYPICAL FINISHED SECTION
PORT WASHINGTON RD
STA. 108+93 TO STA. 110+61



TYPICAL FINISHED SECTION
LEXINGTON BLVD
STA. 12+99 TO STA. 13+41

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 24	E

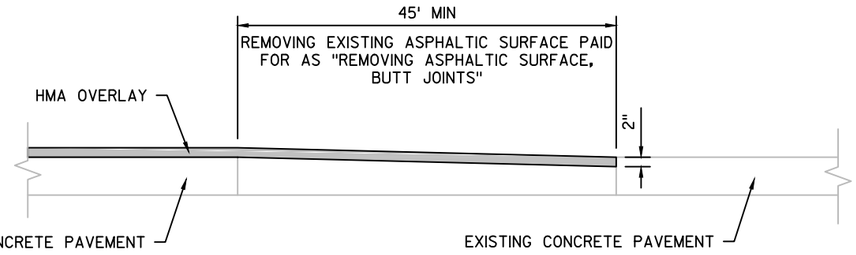
2



CONCRETE PAVEMENT

PORT WASHINGTON RD NB & SB
STA 100+99 - STA 101+44
STA 104+68 - STA 105+13

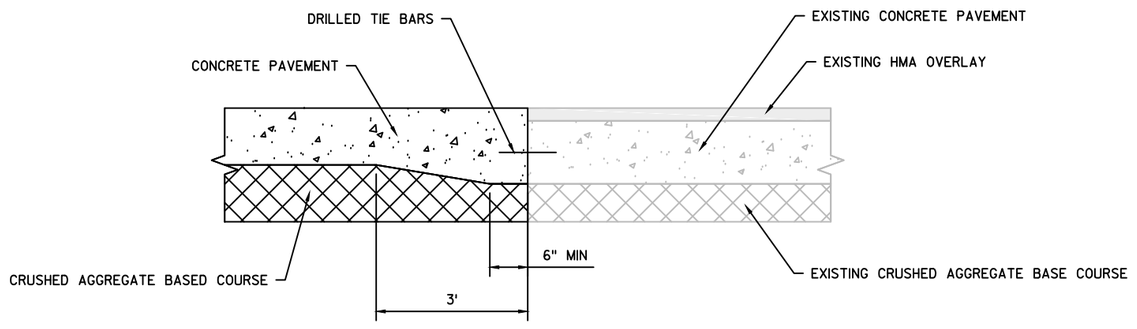
BUTT JOINT DETAIL



ASPHALT OVERLAY

SS RAMP B
STA 1019+36 - STA 1019+81
STA 1036+26 - STA 1036+72

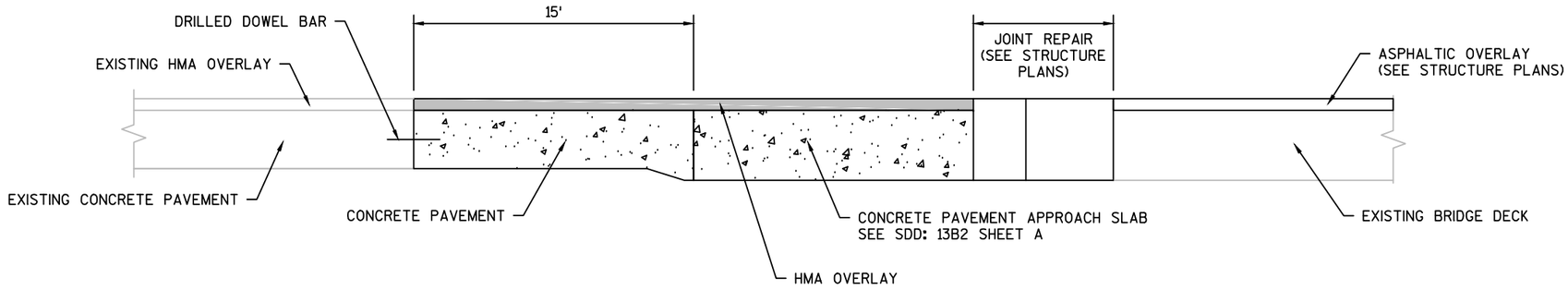
SS RAMP D
STA 1033+86 - STA 1034+31
STA 1036+23 - STA 1036+67



MATCH AT EXISTING CONCRETE PAVEMENT WITH ASPHALT OVERLAY

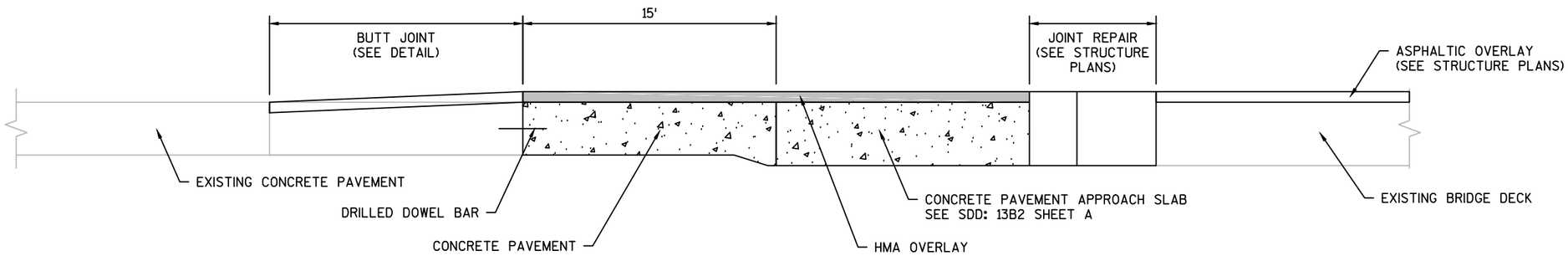
HAMPTON AVE AND "HA RAMP A" SE QUADRANT

2



BRIDGE APPROACH DETAIL

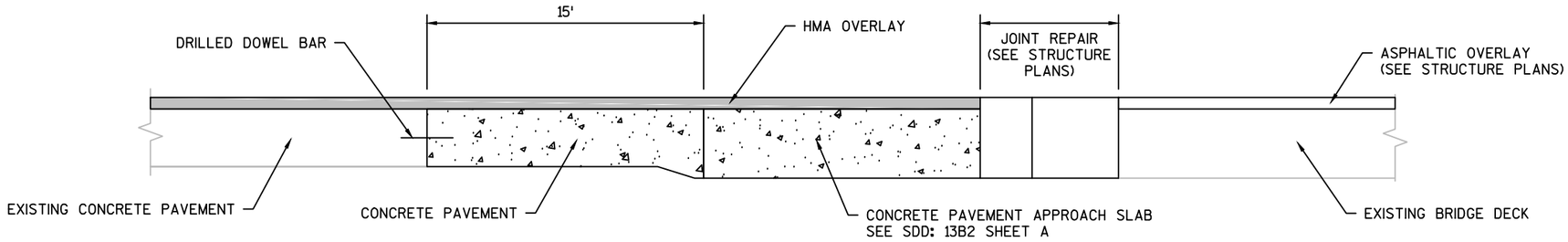
B-40-0581
B-40-0582
B-40-0583
B-40-0584
B-40-0602 (SOUTH APPROACH)



BRIDGE APPROACH DETAIL

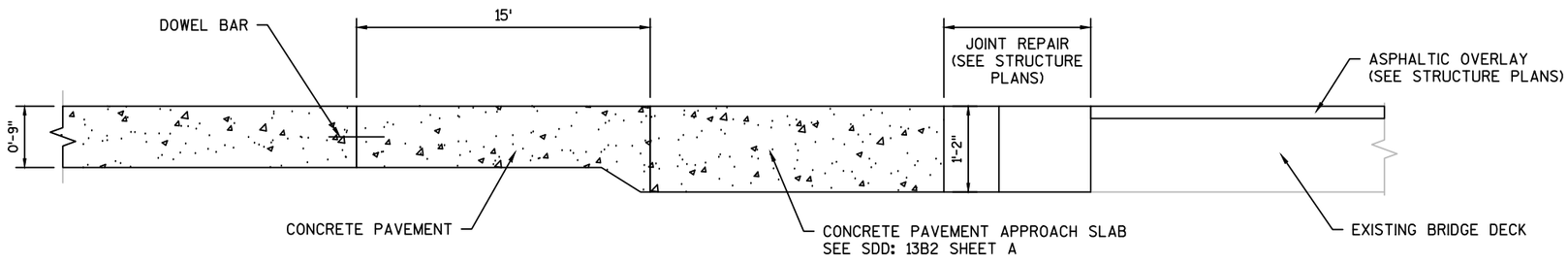
B-40-0585
B-40-0586 (NORTH APPROACH)
B-40-0602 (NORTH APPROACH)

2



BRIDGE APPROACH DETAIL

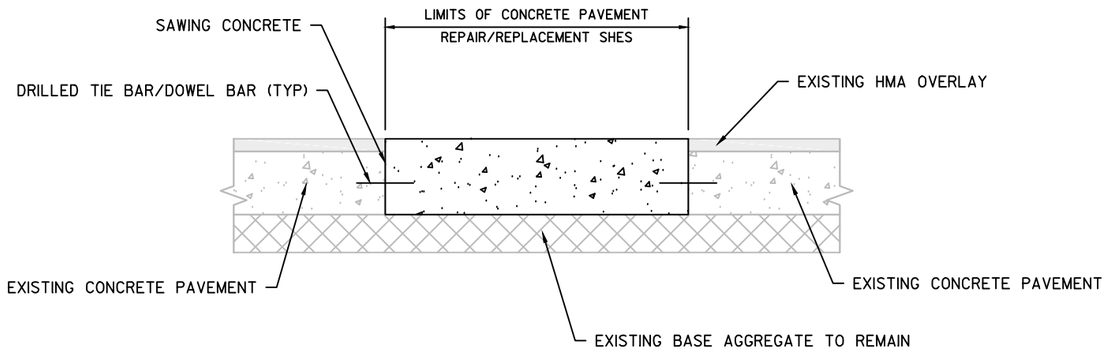
B-40-0586 (SOUTH APPROACH)
B-40-0587 (NORTH APPROACH)



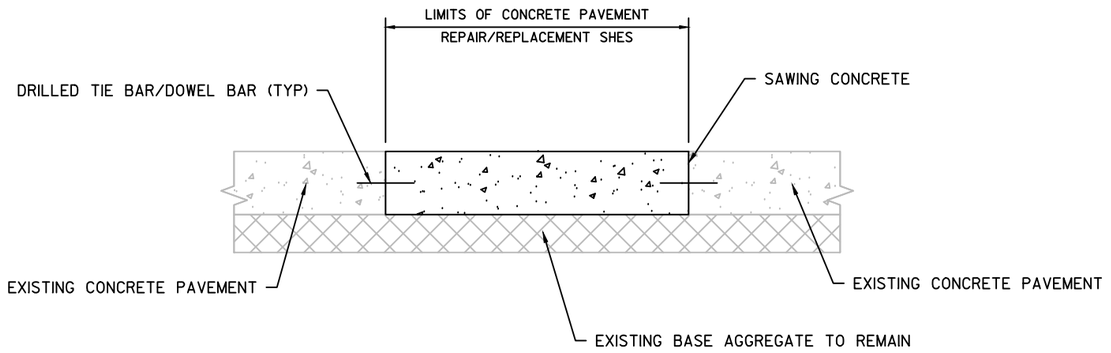
BRIDGE APPROACH DETAIL

B-40-0587 (SOUTH APPROACH)

2

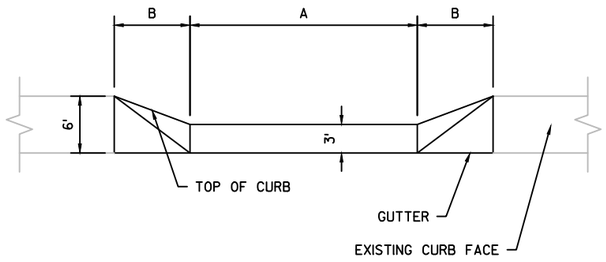


WITH EXISTING HMA OVERLAY

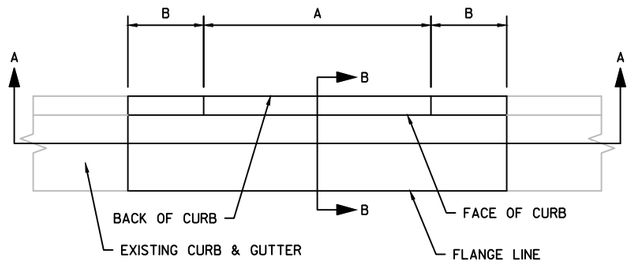


WITH OUT EXISTING HMA OVERLAY

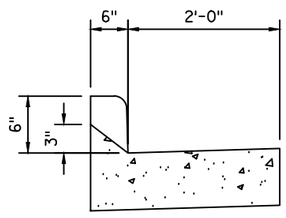
CONCRETE PAVEMENT REPAIR/REPLACEMENT SHES DETAIL



SECTION A-A



PLAN VIEW



SECTION B-B

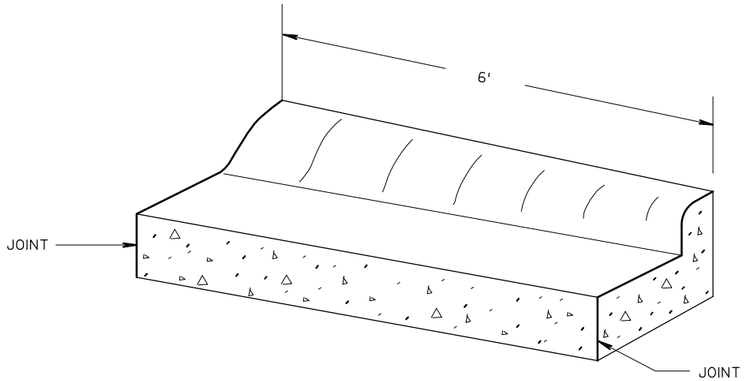
LOCATION	A	B
STA 107+00 "PW" LT	30'	2'

MAINTENANCE OPENING

LOCATIONS AS NOTED ON THE PLAN DETAILS

STA 107+00 "PW" LT

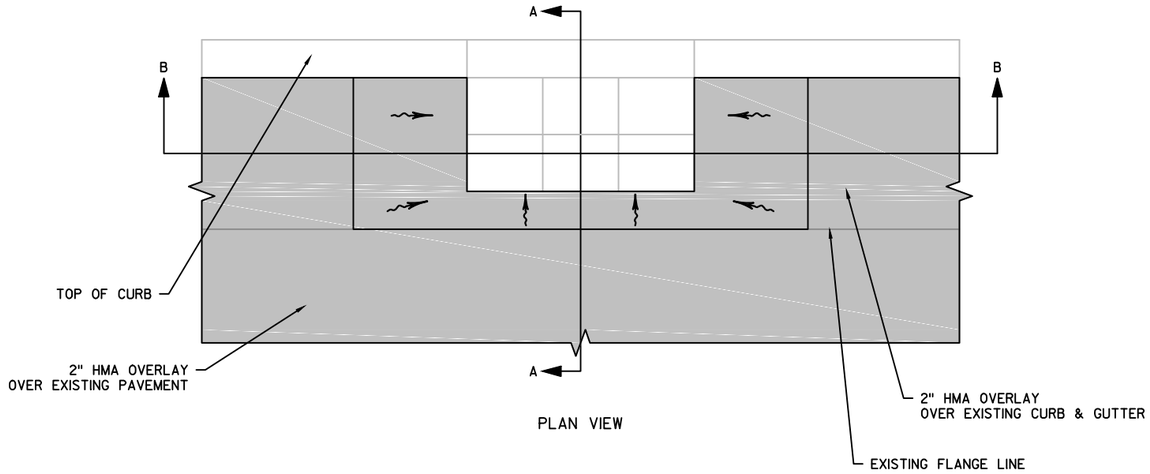
NOTE: PAID FOR AS CURB AND GUTTER, MEASURED ALONG FLOW LINE.



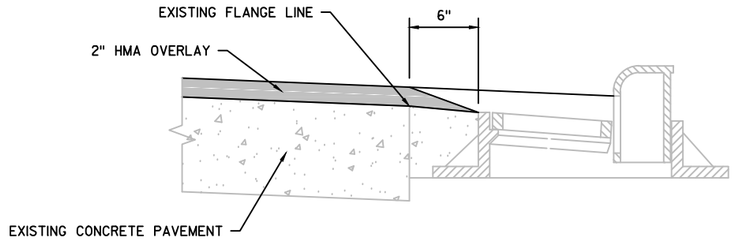
CURB AND GUTTER TRANSITION

HAMPTON AVE AND "HA RAMP A" SE QUADRANT

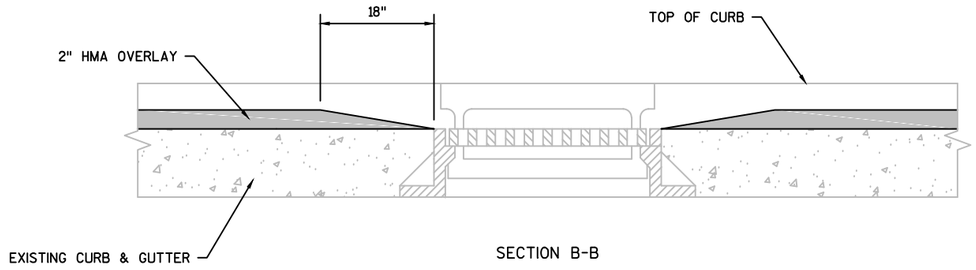
CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A TO CONCRETE CURB AND GUTTER 31-INCH
(TO BE MEASURED & PAID FOR AS CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A)



PLAN VIEW



SECTION A-A



SECTION B-B

CURB AND GUTTER OVERLAY

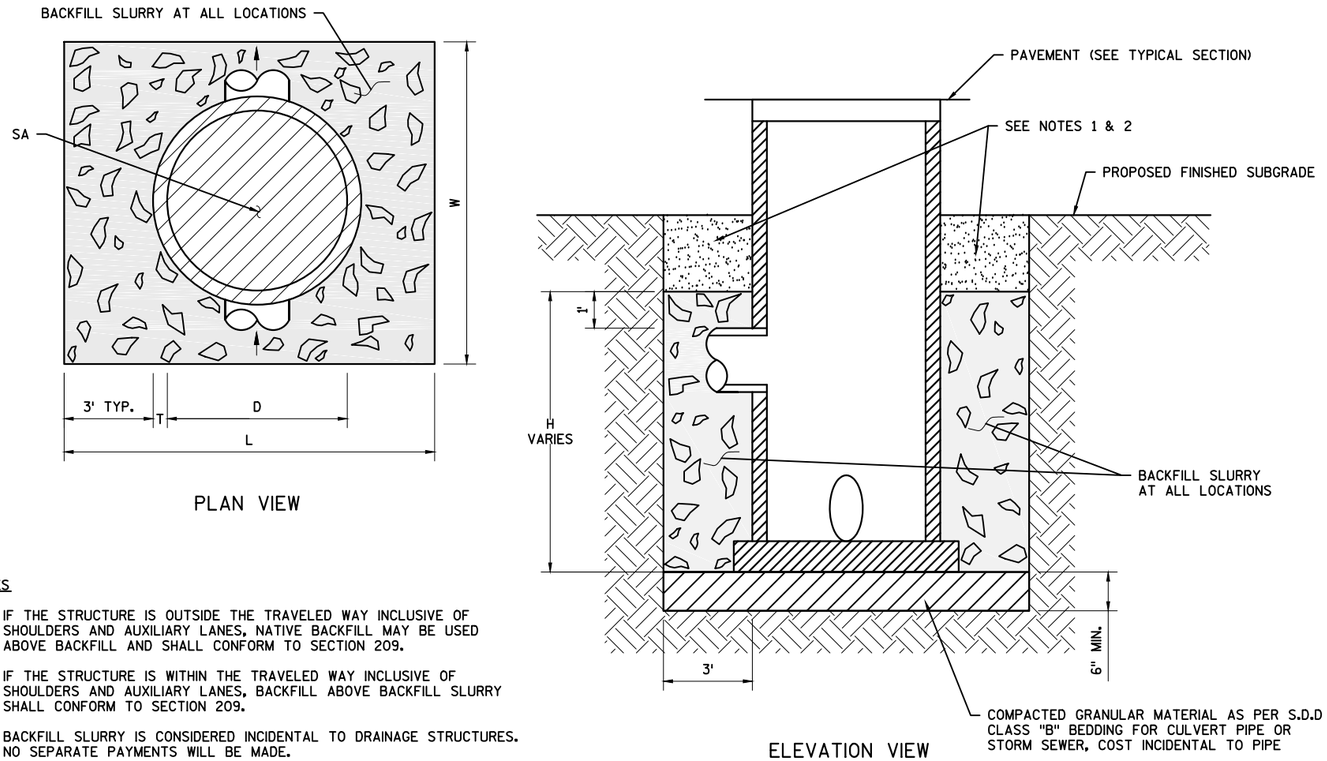
PORT WASHINGTON RD
STA 104+74, 9' LT
STA 104+74, 43' LT
STA 104+75, 37' RT
STA 104+76, 17' LT
STA 104+84, 43 LT
STA 104+84, 38 RT

NOTE:
DURING PLACEMENT OF HMA OVERLAY, INLETS SHALL BE COVERED WITH EITHER PLYWOOD OR STEEL PLATE IN ADDITION TO PROVIDING INLET PROTECTION. COVERING AND UNCOVERING INLETS IS INCIDENTAL TO PROVIDING INLET PROTECTION.

BACKFILL SLURRY STRUCTURES (FOR INFORMATION ONLY)

DESCRIPTION	DIAMETER/ STR. LENGTH D FT	RECTANGULAR STR. WIDTH D FT	WALL THICKNESS T INCH	STRUCTURE EXCAVATION LENGTH L FT	STRUCTURE EXCAVATION WIDTH W FT	STRUCTURE EXCAVATION AREA SF	STRUCTURE AREA SA SF	BACKFILL SLURRY AREA SF
INLETS 2X2.5-FT	2	2.5	5	8.83	9.33	82	9	73
INLETS 2X3-FT	2	3	5	8.83	9.83	87	11	76
INLETS MEDIAN 1 GRATE	2.5	2.5	8	9.83	9.83	97	15	82
INLETS MEDIAN 2 GRATE	2.5	5.33	8	9.83	12.66	125	26	99
INLETS 3-FT DIAMETER	3	---	4	9.67	9.67	93	11	83
MANHOLES 3-FT DIAMETER	3	---	4	9.67	9.67	93	11	83
INLETS 4-FT DIAMETER	4	---	5	10.83	10.83	117	18	99
MANHOLES 4-FT DIAMETER	4	---	5	10.83	10.83	117	18	99
MANHOLES 5-FT DIAMETER	5	---	6	12.00	12.00	144	28	116
MANHOLES 5-FT DIAMETER	6	---	7	13.17	13.17	173	40	133
MANHOLES 5-FT DIAMETER	7	---	8	14.33	14.33	205	55	151
MANHOLES 5-FT DIAMETER	8	---	9	15.50	15.50	240	71	169
MANHOLES 5-FT DIAMETER	9	---	10	16.7	16.67	278	89	188
MANHOLES 5-FT DIAMETER	10	---	11	17.83	17.83	318	110	208

BACKFILL SLURRY VOLUME (CUBIC YARDS) = $\frac{\text{BACKFILL SLURRY AREA X H}}{27}$



NOTES

(1) IF THE STRUCTURE IS OUTSIDE THE TRAVELED WAY INCLUSIVE OF SHOULDERS AND AUXILIARY LANES, NATIVE BACKFILL MAY BE USED ABOVE BACKFILL AND SHALL CONFORM TO SECTION 209.

(2) IF THE STRUCTURE IS WITHIN THE TRAVELED WAY INCLUSIVE OF SHOULDERS AND AUXILIARY LANES, BACKFILL ABOVE BACKFILL SLURRY SHALL CONFORM TO SECTION 209.

(3) BACKFILL SLURRY IS CONSIDERED INCIDENTAL TO DRAINAGE STRUCTURES. NO SEPARATE PAYMENTS WILL BE MADE.

(4) WHEN TEMPORARY SUBGRADE IS HIGHER THAN PROPOSED FINISHED GRADE, PROVIDE GRANULAR BACKFILL AT ALL LOCATIONS. COST FOR GRANULAR BACKFILL IS CONSIDERED INCIDENTAL TO CONSTRUCTION.

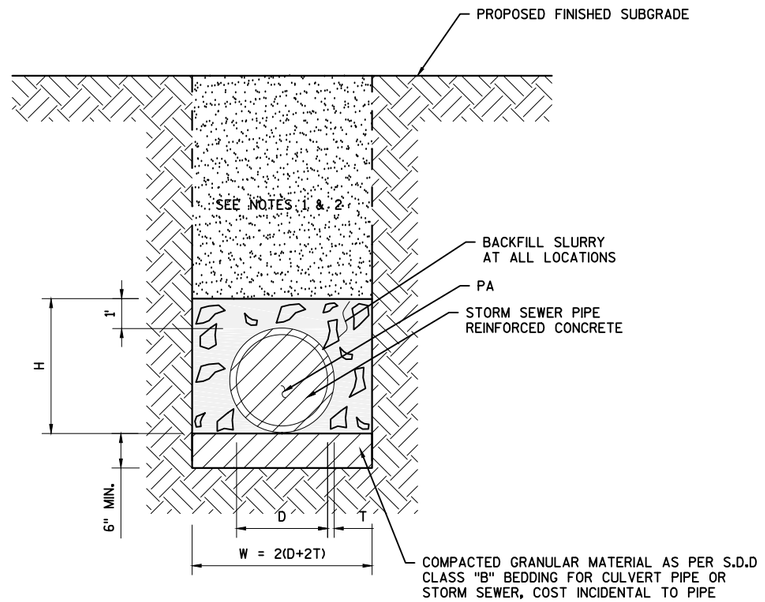
(5) H = UP TO 1' ABOVE THE TOP OF THE HIGHEST PIPE IN THE STRUCTURE.

BACKFILL SLURRY DETAIL - STORM SEWER STRUCTURES

BACKFILL SLURRY TRENCHES (FOR INFORMATION ONLY)

PIPE DIAMETER D INCHES	WALL THICKNESS T INCHES	TRENCH WIDTH W FT	HEIGHT OF PIPE ZONE (FROM PIPE BOTTOM TO 1' ABOVE TOP OF PIPE) H FT	AREA OF PIPE ZONE SF	AREA OF PIPE PA SF	BACKFILL SLURRY AREA SF
12	2.00	2.67	2.33	6.22	1.40	4.83
15	2.25	3.25	2.63	8.53	2.07	6.46
18	2.50	3.83	2.92	11.18	2.88	8.30
24	3.00	5.00	3.50	17.50	4.91	12.59
30	3.50	6.17	4.08	25.18	7.46	17.72
36	4.00	7.33	4.67	34.22	10.55	23.67
42	4.50	8.50	5.25	44.63	14.18	30.45
48	5.00	9.67	5.83	56.39	18.34	38.05
54	6.25	11.08	6.54	72.50	24.11	48.40
60	6.75	12.25	7.13	87.28	29.45	57.83
66	7.25	13.42	7.71	103.42	35.33	68.09

BACKFILL SLURRY VOLUME (CUBIC YARDS) = $\frac{\text{(PIPE ZONE AREA - PIPE AREA) X PIPE PLAN LENGTH}}{27}$



NOTES

(1) IF THE PIPE IS OUTSIDE THE TRAVELED WAY INCLUSIVE OF SHOULDERS AND AUXILIARY LANES, NATIVE BACKFILL MAY BE USED ABOVE BACKFILL AND SHALL CONFORM TO SECTION 209.

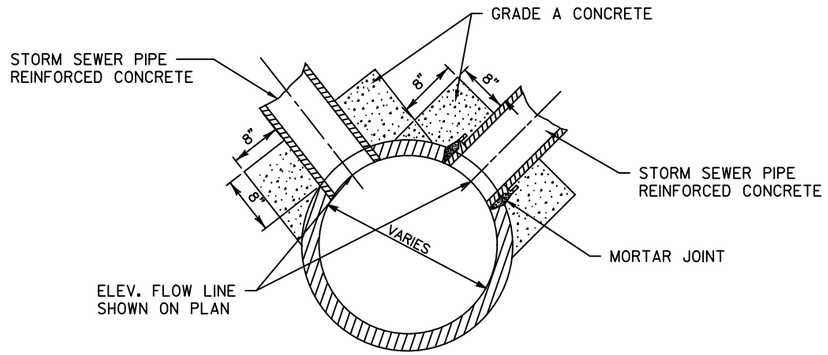
(2) IF THE PIPE IS WITHIN THE TRAVELED WAY INCLUSIVE OF SHOULDERS AND AUXILIARY LANES, BACKFILL ABOVE BACKFILL SLURRY SHALL CONFORM TO SECTION 209.

(3) BACKFILL SLURRY IS CONSIDERED INCIDENTAL TO DRAINAGE PIPE. NO SEPARATE PAYMENTS WILL BE MADE.

(4) WHEN TEMPORARY SUBGRADE IS HIGHER THAN PROPOSED FINISHED GRADE, PROVIDE GRANULAR BACKFILL AT ALL LOCATIONS. COST FOR GRANULAR BACKFILL IS CONSIDERED INCIDENTAL TO CONSTRUCTION.

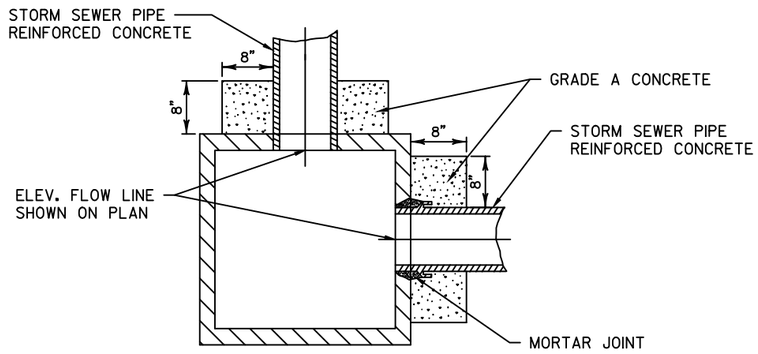
(5) H = UP TO 1' ABOVE THE TOP OF THE HIGHEST PIPE IN THE STRUCTURE.

BACKFILL SLURRY DETAIL - STORM SEWER PIPE



AT MANHOLE

INCIDENTAL TO NEW STRUCTURE ITEMS WHEN
NEW PIPE CONNECTS TO NEW STRUCTURE



AT STORM SEWER INLET

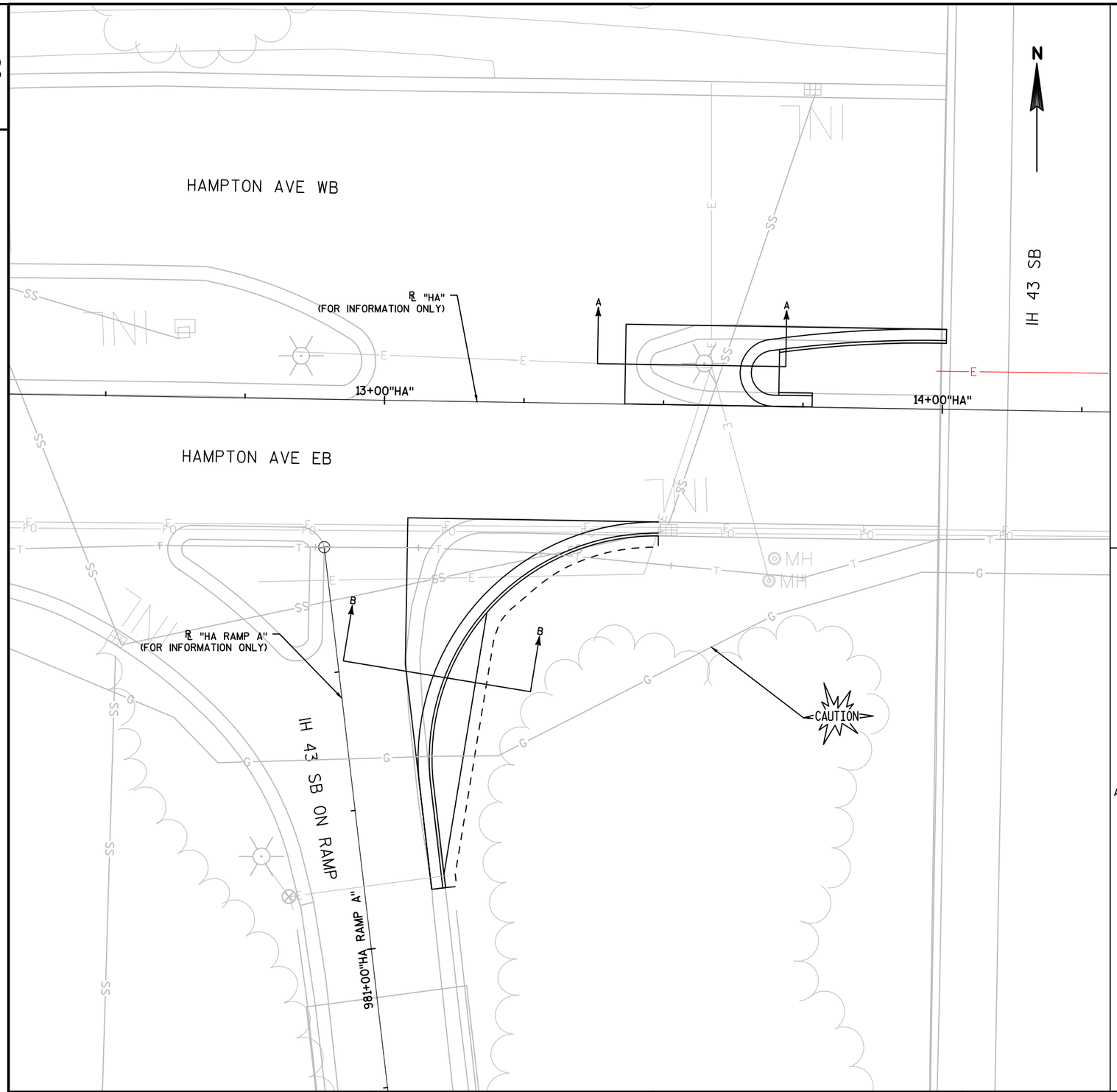
INCIDENTAL TO NEW STRUCTURE ITEMS WHEN
NEW PIPE CONNECTS TO NEW STRUCTURE

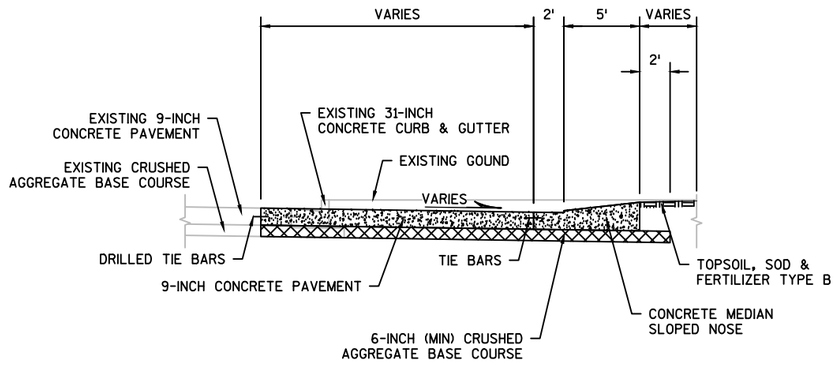
NOTES:

- CONCRETE COLLAR INCIDENTAL TO THE SPECIAL PROVISION "RECONNECT STORM SEWER LATERAL" WHEN CONNECTING AND EXISTING PIPE TO A NEW STRUCTURE.
- CONCRETE COLLAR TO BE PAID AS A BID ITEM WHEN CONNECTING A NEW PIPE TO AN EXISTING STRUCTURE

CONCRETE COLLAR DETAIL

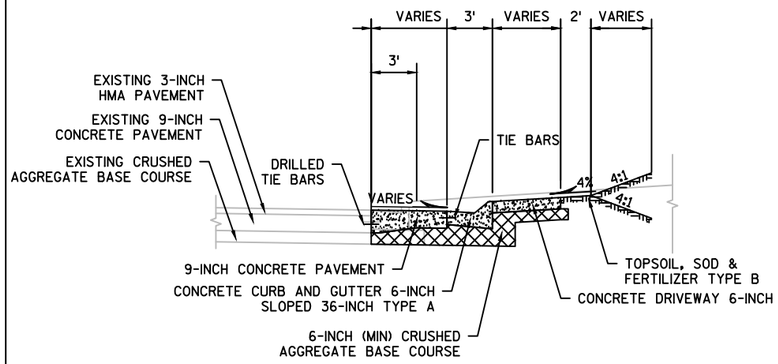
FOR LOCATIONS SEE MISCELLANEOUS
QUANTITY SHEETS





SECTION A-A

HAMPTON AVE MEDIAN



SECTION B-B

HAMPTON AVE/IH 43 SB ON RAMP
CURB LINE

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - HAMPTON AVE & IH 43 SB ON RAMP	SHEET 32	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\CONSTRUCTION DETAILS\12282272_CONSTRUCTION DETAIL - HAMPTON & IH43 SB ON RAMP.DWGPLOT DATE : 1/3/2019 3:57 PM
LAYOUT NAME - 021013-CD
PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

9+00"SS"

20+00"SS"

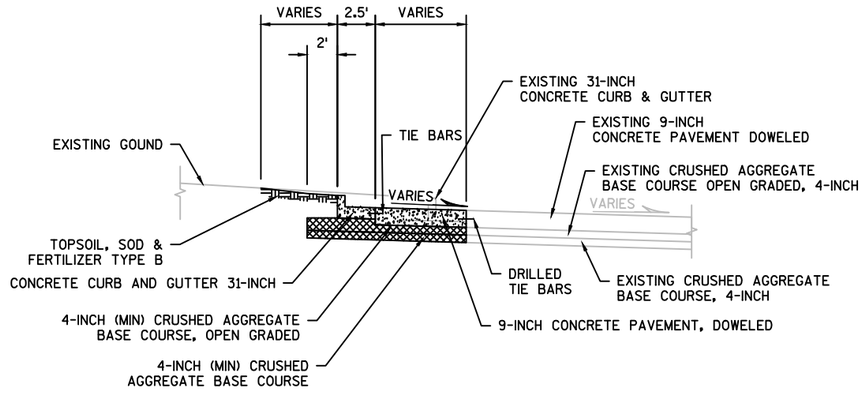
℄ "SS"
(FOR INFORMATION ONLY)

SILVER SPRING DR

CAUTION

N

IH 43 SB ON RAMP



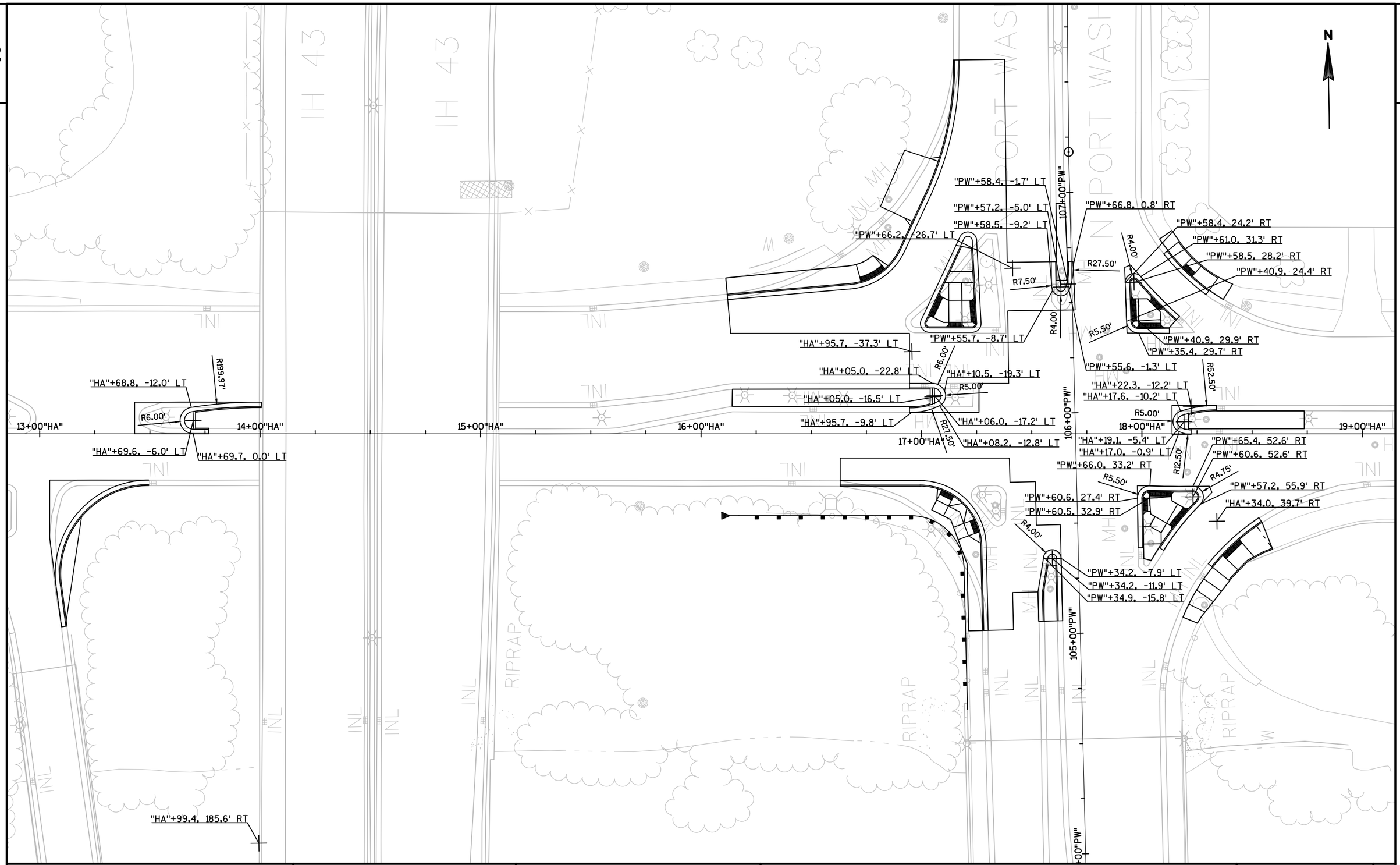
SECTION A-A

SILVER SPRING DR ISLAND

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - SILVER SPRING DR & IH 43 SB ON RAMP	SHEET 33	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\CONSTRUCTION DETAILS\12282272_CONSTRUCTION DETAIL - SILVER SPRING & SB ON RAMP.DWG PLOT DATE : 1/3/2019 3:58 PM
LAYOUT NAME - 021014-CD
PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - MEDIAN LAYOUT	SHEET 34	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\CONSTRUCTION DETAILS\12282272_CONSTRUCTION DETAIL - MEDIAN NOSE LAYOUTS.DWG PLOT DATE : 1/3/2019 4:00 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:40 FT
LAYOUT NAME - 021030-CD

LEGEND

CLEARING AND GRUBBING

REMOVING PAVEMENT

REMOVING PAVEMENT BUTT JOINTS

REMOVING ASPHALTIC SURFACE

REMOVING ASPHALTIC SURFACE BUTT JOINTS

REMOVING ASPHALTIC SURFACE MILLING

REMOVING CURB & GUTTER

REMOVING CONCRETE SIDEWALK

REMOVING CONCRETE BARRIER

REMOVING GUARDRAIL

REMOVING FENCE

XXXX SAWCUT

- - - - - SLOPE INTERCEPT

GENERAL NOTES:

1. ALL ITEMS ASSOCIATED WITH STORM SEWER REMOVALS ARE SHOWN IN STORM SEWER PLAN.
2. ALL ITEMS ASSOCIATED WITH LIGHTING REMOVALS ARE SHOWN IN LIGHTING PLAN.
3. ALL ITEMS ASSOCIATED WITH SIGNAL REMOVALS ARE SHOWN IN SIGNAL PLAN.
4. ALL ITEMS ASSOCIATED WITH BRIDGE REMOVALS ARE SHOWN IN BRIDGE PLAN.
5. THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN, INCLUDING BUILDING SERVICES AND LATERALS.

2

2

2

IRONWOOD RD

IH 43 SB

IH 43 SB

IH 43 NB

IH 43 NB

BEGIN PROJECT
STA 1017+00

IH 43 NB OFF RAMP

LEXINGTON BLVD

1016+00

1017+00

1018+00

1019+00

1020+00

1021+00

1016+00"SS RAMP B"

1017+00"SS RAMP B"

1018+00"SS RAMP B"

1019+00"SS RAMP B"

1020+00"SS RAMP B"

1021+00"SS RAMP B"

1022+0

+95.0, -69.3' LT

+95.0, -67.3' LT

+95.0, -3.0' LT

+95.0, -1.4' LT

+83.1, 1.1' RT

+83.1, 3.0' RT

+83.1, 56.5' RT

+83.1, 58.5' RT

+75.2, -17.8' LT

+75.2, -14.8' LT

+75.2, 5.8' RT

+75.2, 7.8' RT

+63.6, -69.4' LT

+63.6, -67.4' LT

+63.6, -3.0' LT

+63.6, -1.4' LT

+49.7, 1.0' RT

+49.7, 3.0' RT

+49.7, 55.0' RT

+49.7, 57.0' RT

+35.6, -17.9' LT

+35.6, -14.9' LT

+35.6, 6.6' RT

+35.6, 8.6' RT

+81.0, -17.9' LT

+81.0, 12.7' RT

℄ IH 43

℄ "SS RAMP B"
(FOR INFORMATION ONLY)

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - LEXINGTON BLVD TO BENDER RD	SHEET 36	E

2

2

N

MH
INL
MH
MH
INL
INL
MH
MH
INL
INL
IH 43 SB
IH 43 SB
INL
MH
1022+00
1023+00
1024+00
1025+00
1026+00
1027+00
MH
INL
℄ IH 43
INL
IH 43 NB
IH 43 NB
INL
INL
MH
MH
MH
MH
+11.5, -15.0' LT
+72.6, 0.0'
℄ "SS RAMP B"
(FOR INFORMATION ONLY)
MH
1022+00"SS RAMP B"
1023+00"SS RAMP B"
1024+00"SS RAMP B"
1025+00"SS RAMP B"
IH 43 NB OFF RAMP
1026+00"SS RAMP B"
1027+00"SS RAMP B"
+11.1, 0.0'
+72.2, 10.9' RT
+51.9, 0.0'
+51.5, 15.0' RT
INL
INL
MH
IH 43 NB OFF RAMP
MH
MH

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - LEXINGTON BLVD TO BENDER RD	SHEET 37	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_REMOVAL DETAIL - LEXINGTON TO BENDER.DWG
LAYOUT NAME - 021202-PD-RM
PLOT DATE : 4/24/2018 8:42 AM
PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

IH 43 SB ON RAMP

IH 43 SB

IH 43 NB

IH 43 NB ON RAMP

IH 43 NB OFF RAMP

1028+00

1029+00

1030+00

1031+00

1032+00

1033+00

℄ IH 43

+00"SS RAMP B"

1028+00"SS RAMP B"

1029+00"SS RAMP B"

1030+00"SS RAMP B"

1031+00"SS RAMP B"

1032+00"SS RAMP B"

1033+00"SS RAMP

1030+00"SS RAMP D"

1031+00"SS RAMP D"

1032+00"SS RAMP D"

1033+00"SS RAMP D"

℄ "SS RAMP B"
(FOR INFORMATION ONLY)

℄ "SS RAMP D"
(FOR INFORMATION ONLY)

+09.6, -18.0' LT

+84.0, -18.0' LT

+84.0, -15.0' LT

+84.0, 0.0'

+84.0, 7.9' RT

+95.0, 7.6' RT

+59.2, -18.0' LT

+73.2, -18.0' LT

+73.2, 9.0' RT

+46.5, 8.0' RT

MH

INL

W

SLAB

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - LEXINGTON BLVD TO BENDER RD	SHEET 38	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_REMOVAL DETAIL - LEXINGTON TO BENDER.DWG
LAYOUT NAME - 021203-PD-RM

PLOT DATE : 4/24/2018 8:42 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

HI 43 SB OFF RAMP

SILVER SPRING DR EB

SILVER SPRING DR WB

IH 43 SB

IH 43 NB

IH 43 NB OFF RAMP

IH 43 NB ON RAMP

RIPRAP

INL

MH

+55.1, -57.1' LT
+55.1, -55.1' LT
+55.1, -3.0' LT
+55.1, -1.2' LT
+64.5, 1.5' RT
+64.5, 3.0' RT
+00.2, -18.5' LT
+00.2, -15.5' LT
+64.5, 55.0' RT
+64.5, 57.0' RT
+55.0, -18.5' LT
+00.2, 1.0' RT
+00.2, 3.0' RT
+55.0, 3.0' RT
+34.9, -18.0' LT
+34.9, -15.0' LT
+34.9, 16.0' RT
+34.9, 18.0' RT

+52.2, -57.1' LT
+52.2, -55.1' LT
+52.2, -3.0' LT
+52.2, -1.5' LT
+64.5, 1.5' RT
+64.5, 3.0' RT
+64.5, 55.0' RT
+64.5, 57.0' RT
+94.8, -18.5' LT
+94.8, -15.5' LT
+94.8, 1.0' RT
+94.8, 3.0' RT
+39.7, -17.3' LT
+26.3, -18.0' LT
+26.3, -15.0' LT
+40.0, 3.0' RT
+72.0, -17.0' LT
+26.3, 16.0' RT
+26.3, 18.0' RT
+72.0, 19.2' RT

1033+00
1034+00
1035+00
1036+00
1037+00
1038+00
1039+00

℄ IH 43

1034+00"SS RAMP D"
1035+00"SS RAMP D"
1036+00"SS RAMP D"
1037+00"SS RAMP D"
1038+00"SS RAMP D"
1039+00"SS RAMP D"

℄ "SS RAMP D"
(FOR INFORMATION ONLY)

1033+00"SS RAMP B"
1034+00"SS RAMP B"
1035+00"SS RAMP B"
1036+00"SS RAMP B"
1037+00"SS RAMP B"
1038+00"SS RAMP B"

℄ "SS RAMP B"
(FOR INFORMATION ONLY)

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - LEXINGTON BLVD TO BENDER RD	SHEET 39	E

2

2

N

INL

MH

1048+00

1049+00

1050+00

1051+00

1052+00

1053+00

1048+00"SS RAMP D"

1049+00"SS RAMP D"

1050+00"SS RAMP D"

1051+00"SS RAMP D"

1052+00"SS RAMP D"

1053+00"SS RAMP D"

1054+00"SS R

+23.1, 88.2' RT

BEGIN REMOVING FENCE

SLAB

+14.6, 64.6' RT

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - LEXINGTON BLVD TO BENDER RD	SHEET 40	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_REMOVAL DETAIL - LEXINGTON TO BENDER.DWG
LAYOUT NAME - 021220-PD-RM

PLOT DATE : 4/4/2019 2:38 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

1051+00
1052+00
1053+00
1054+00
1055+00
1056+00
1057+00

00"SS RAMP D"
1052+00"SS RAMP D"
1053+00"SS RAMP D"
1054+00"SS RAMP D"

+14.6, 64.6' RT
END REMOVING FENCE

INL
MH
SLAB

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - LEXINGTON BLVD TO BENDER RD	SHEET 41	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_REMOVAL DETAIL - LEXINGTON TO BENDER.DWG
LAYOUT NAME - 021221-PD-RM
PLOT DATE : 4/4/2019 2:38 PM
PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

N

IH 43 NB OFF RAMP

MILWAUKEE RIVER

PORT WASHINGTON RD SB

PORT WASHINGTON RD NB

97+00"PW" 98+00"PW" 99+00"PW" 100+00"PW" 101+00"PW" 102+00"PW" 103+00"PW"

"PW"+99.2, -30.2' LT

"PW"+44.3, -30.2' LT

"PW"+99.2, 13.6' RT

"PW"+59.4, 2.5' RT

"PW"+44.3, 13.4' RT

℄ "PW"
(FOR INFORMATION ONLY)

CAUTION

CAUTION

CAUTION

SIGN

SIGN

RIPRAP

RIPRAP

MILWAUKEE RIVER

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - PORT WASHINGTON RD	SHEET 42	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_REMOVAL DETAIL - PORT WASHINGTON RD.DWG
LAYOUT NAME - 021209-PD-RM
PLOT DATE : 3/19/2019 2:33 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

MILWAUKEE RIVER

CAUTION

CAUTION

"HA"+29.5, 35.9' RT

"HA"+63.2, 11.0' RT

"HA"+63.2, 21.3' RT

"HA"+26.1, -22.8' LT

"HA"+26.1, -9.8' LT

"PW"+45.8, -61.5' LT

RIPRAP

"PW"+19.2, -30.3' LT

"PW"+12.5, -30.3' LT

"PW"+02.3, -41.8' LT

"PW"+67.7, -52.0' LT

"PW"+02.3, -30.3' LT

"PW"+67.5, -30.2' LT

"PW"+05.9, -16.3' LT

"PW"+05.9, -10.4' LT

"PW"+67.6, 13.7' RT

"PW"+12.5, 14.1' RT

103+00"PW"

104+00"PW"

105+00"PW"

106+00"PW"

107+00"PW"

108+00"PW"

℄ "PW"
(FOR INFORMATION ONLY)

HAMPTON AVE EB

HAMPTON AVE WB

16+00"HA"

17+00"HA"

18+00"HA"

19+00"HA"

20+00"HA"

"HA"+14.1, -12.4' LT

"HA"+14.3, -20.2' LT

"HA"+13.4, -45.5' LT

"HA"+12.1, -60.8' LT

"HA"+94.6, -45.5' LT

"HA"+94.6, -22.8' LT

"HA"+94.6, -9.8' LT

CAUTION

"HA"+61.4, -81.2' LT

"PW"+60.5, -49.4' LT

"PW"+60.6, -28.7' LT

"PW"+69.0, -29.1' LT

"PW"+68.7, -9.1' LT

"PW"+95.0, -6.3' LT

"PW"+95.0, -2.3' LT

PORT WASHINGTON RD SB

PORT WASHINGTON RD NB

"PW"+14.0, -29.7' LT

"PW"+80.2, -30.3' LT

"PW"+69.2, -30.3' LT

"PW"+68.1, -18.8' LT

"PW"+47.0, -29.4' LT

"PW"+49.5, -18.8' LT

"PW"+49.5, -7.9' LT

"PW"+19.2, -18.8' LT

"PW"+38.2, 27.2' RT

"PW"+66.3, 27.5' RT

"PW"+68.6, 0.8' RT

"PW"+46.6, 1.2' RT

"PW"+35.6, 24.5' RT

"PW"+65.4, 24.1' RT

"PW"+66.4, 26.9' RT

"PW"+35.0, 43.7' RT

"PW"+77.8, 40.3' RT

"PW"+71.1, 42.0' RT

CAUTION

"PW"+42.6, 48.5' RT

"HA"+13.6, -12.9' LT

"HA"+33.9, -12.8' LT

"PW"+52.2, 60.7' RT

"PW"+49.7, 68.5' RT

"PW"+06.2, 46.8' RT

"PW"+36.7, 38.7' RT

"PW"+30.1, 58.8' RT

"PW"+62.4, 61.3' RT

"PW"+65.3, 60.1' RT

"HA"+13.7, 0.2' RT

"HA"+22.4, 0.3' RT

"PW"+50.4, 82.3' RT

℄ "HA"
(FOR INFORMATION ONLY)

"HA"+73.7, -10.4' LT

"HA"+73.7, -2.3' LT

"HA"+13.4, -10.3' LT

"HA"+13.4, -22.8' LT

"HA"+13.4, -10.3' LT

"HA"+13.4, -22.8' LT

"HA"+68.3, -23.3' LT

"HA"+91.9, -10.1' LT

"HA"+31.2, -19.1' LT

"HA"+31.3, -16.6' LT

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - PORT WASHINGTON RD	SHEET 43 E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_REMOVAL DETAIL - PORT WASHINGTON RD.DWG
LAYOUT NAME - 021210-PD-RM
PLOT DATE : 6/20/2019 1:18 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

-60.8' LT

"HA"+61.4, -81.2' LT

"PW"+60.5, -49.4' LT

"PW"+60.6, -28.7' LT

PW"+69.0, -29.1' LT

'PW"+68.7, -9.1' LT

"PW"+95.0, -6.3' LT

"PW"+95.0, -2.3' LT

PORT WASHINGTON RD SB

PORT WASHINGTON RD NB

107+00"PW"

108+00"PW"

109+00"PW"

110+00"PW"

111+00"PW"

112+00"PW"

113+00

"PW"+92.6, -7.5' LT

"PW"+92.7, -16.4' LT

"PW"+45.3, -16.0' LT

"PW"+60.6, -14.7' LT

"PW"+60.5, -12.2' LT

'PW"+05.5, -3.7' LT

'PW"+92.6, -5.0' LT

'PW"+68.6, 0.8' RT

2' RT

RT

"PW"+65.4, 24.1' RT

"PW"+66.4, 26.9' RT

"PW"+77.8, 40.3' RT

"PW"+71.1, 42.0' RT

52.2, 60.7' RT

68.5' RT

CAUTION

CAUTION

N

U/C

INL

MH

SLAB

FLAG

POLE

W

G

SS

E

OH

ESS

SAN

PROJECT NO: 1228-22-72	HWY: XXX	COUNTY: MILWAUKEE	REMOVAL PLAN - PORT WASHINGTON RD	SHEET 44 E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_REMOVAL DETAIL - PORT WASHINGTON RD.DWG
LAYOUT NAME - 021215-PD-RM

PLOT DATE : 6/20/2019 1:19 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

HAMPTON AVE WB

HAMPTON AVE EB

11+00"HA"

12+00"HA"

13+00"HA"

14+00"HA"

15+00"HA"

16+00"HA"

"HA"+43.1, -14.3' LT

"HA"+43.1, 0.0' LT

"HA"+00.5, -14.3' LT

"HA"+76.6, 0.0' LT

℄ "HA"
(FOR INFORMATION ONLY)

"HA"+04.5, 21.0' RT

"HA"+49.8, 21.0' RT

"HA RAMP A"+50.0, 12.0' RT

"HA RAMP A"+09.4, 12.0' RT

981+00"HA RAMP A"

℄ "HA RAMP A"
(FOR INFORMATION ONLY)

RAMP A"

CAUTION

GUY

GUY POLE

CAUTION

RIPRAP

EXISTING WETLAND BOUNDRY

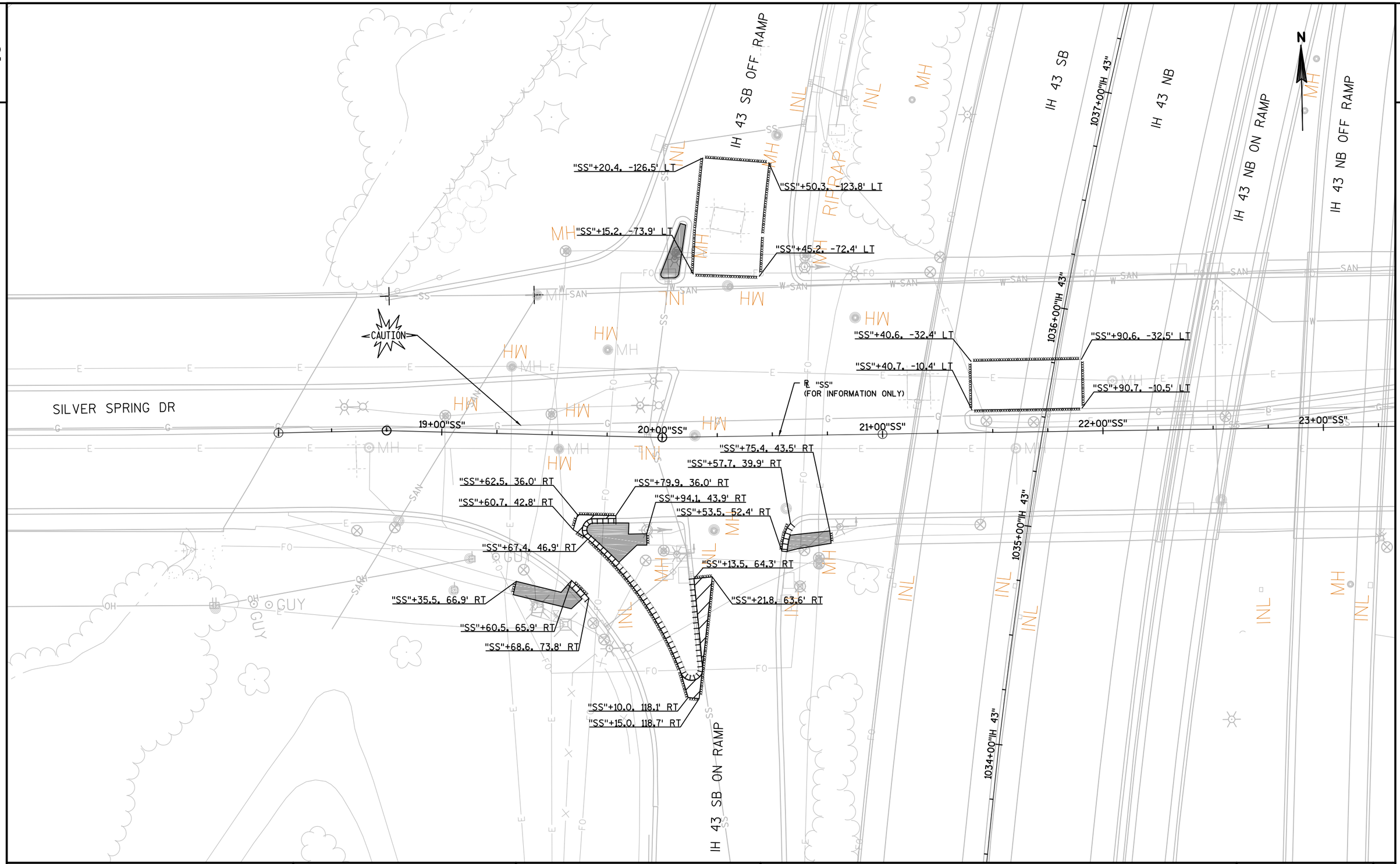
IH 43 SB

IH 43 NB

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - HAMPTON AVE & IH 43 SB ON RAMP	SHEET 45	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_REMOVAL DETAIL - HAMPTON & IH43 SB ON RAMP.DWG
LAYOUT NAME - 021211-PD-RM
PLOT DATE : 4/24/2018 8:51 AM
PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2



PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - SILVER SPRING DR	SHEET 46	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_REMOVAL DETAIL - SILVER SPRING DR.DWG
LAYOUT NAME - 021212-PD-RM
PLOT DATE : 4/24/2018 8:52 AM
PLOT BY : LIMBERATOS, EVAN P
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

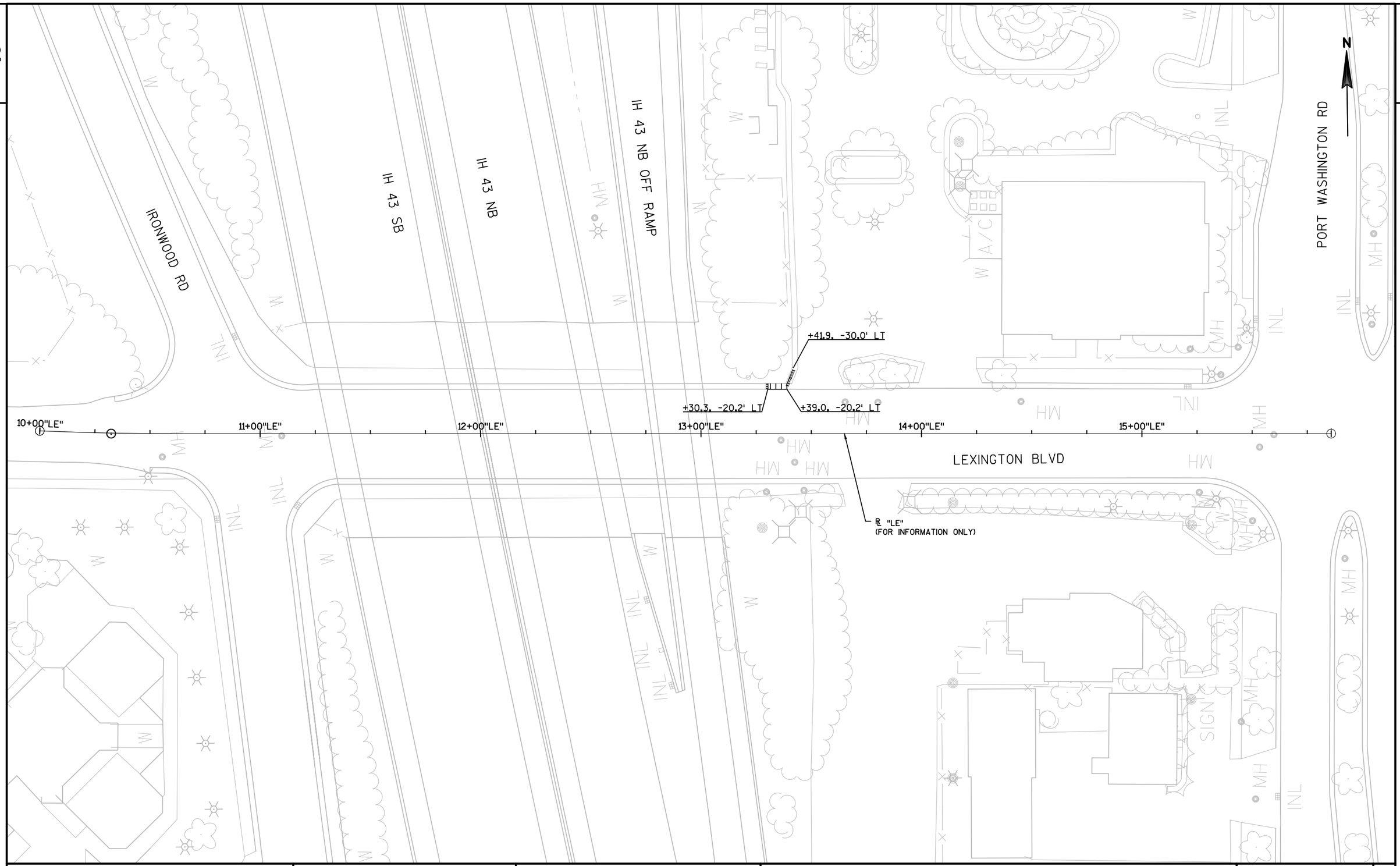
2

"SS"+20.4, -126.5' LT
"SS"+15.2, -73.9' LT
"SS"+50.3, -123.8' LT
"SS"+45.2, -72.4' LT
IH 43 SB OFF RAMP
"IH 43"+70.5, -163.8' LT
"IH 43"+79.9, -162.2' LT
"IH 43"+64.3, -122.3' LT
"IH 43"+73.8, -120.7' LT
RIPRAP
21+00"SS"
"SS"+40.6, -32.4' LT
"SS"+40.7, -10.4' LT
"SS"+90.6, -32.5' LT
"SS"+90.7, -10.5' LT
22+00"SS"
IH 43 SB
IH 43 NB
IH 43 NB ON RAMP
1036+00"IH 43"
1037+00"IH 43"
1038+00"IH 43"
1039+00"IH 43"
1040+00"IH 43"
1041+00"IH 43"

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - SILVER SPRING DR	SHEET 47	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_REMOVAL DETAIL - SILVER SPRING DR.DWG
LAYOUT NAME - 021213-PD-RM
PLOT DATE : 4/24/2018 8:52 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - LEXINGTON BLVD	SHEET 48	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_REMOVAL DETAIL - LEXINGTON BLVD.DWG
LAYOUT NAME - 021214-PD-RM
PLOT DATE : 4/24/2018 8:54 AM
PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

CP08	CONCRETE PAVEMENT 9-INCH, DOWELED
CP09	CONCRETE PAVEMENT 9-INCH, DOWELED AND TINED
CP30	CONCRETE PAVEMENT 10-INCH, DOWELED
CP33	CONCRETE PAVEMENT 9-INCH, DOWELED
CP34	CONCRETE PAVEMENT REPAIR SHES
CP35	CONCRETE PAVEMENT REPLACEMENT SHES
PV01	CONCRETE PAVEMENT APPROACH SLAB
PV28	CONCRETE PAVEMENT APPROACH SLAB HES
CG16	CONCRETE CURB AND GUTTER 31-INCH
CG22	CONCRETE CURB PEDESTRIAN
CG24	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
CG46	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CM04	MAINTENANCE OPENING
CM06	CONCRETE SIDEWALK 4-INCH
CM07	CONCRETE SIDEWALK 5-INCH
CM08	CONCRETE SIDEWALK 6-INCH
CM14	CONCRETE MEDIAN SLOPED NOSE
DR01	CONCRETE DRIVEWAY 6-INCH
CB09	CONCRETE BARRIER SINGLE-FACED 32-INCH
BG15	MGS GUARDRAIL 3
BG16	MGS THRIE BEAM TRANSITION
BG17	MGS GUARDRAIL TERMINAL EAT
BG26	MGS GUARDRAIL SHORT RADIUS
A	HMA PAVEMENT 4 HT 58-28 H, 2-INCH
B	HMA PAVEMENT 4 HT 58-28 S, 2-INCH
C	HMA PAVEMENT 4 LT 58-28 S, 1 3/4-INCH OVER HMA PAVEMENT 3 LT 58-28 S, 3 3/4-INCH OVER HMA PAVEMENT 3 LT 58-28 S, 3 3/4-INCH

NOTE

SEE GENERAL NOTES FOR ADDITIONAL INFORMATION ON HMA PAVEMENT LAYERS.

2

2

IRONWOOD RD

IH 43 SB

IH 43 SB

IH 43 NB

IH 43 NB

IH 43 NB OFF RAMP

LEXINGTON BLVD

B-40-0582
PMA OVERLAY, GIRDER PAINTING,
JOINT REPAIR & PARAPET REPAIR

+95.02, -69.30' LT

+63.56, -69.38' LT

+95.02, -1.36' LT

BEGIN CONSTRUCTION
STA 1017+83

+63.56, -1.40' LT

1016+00

1017+00

1018+00

1019+00

1020+00

1021+00

+83.09, 1.06' RT

END CONSTRUCTION
STA 1019+64

+49.72, 0.96' RT

℄ IH 43

BEGIN PROJECT
STA 1017+00

+49.72, 57.02' RT

+83.09, 58.53' RT

+75.23, -17.76' LT

B-40-0581
PMA OVERLAY, GIRDER PAINTING &
JOINT REPAIR

+35.63, -17.90' LT

BUTT JOINT
SEE DETAIL

+81.01, -17.93' LT

1016+00"SS RAMP B"

1017+00"SS RAMP B"

1018+00"SS RAMP B"

1019+00"SS RAMP B"

1020+00"SS RAMP B"

1021+00"SS RAMP B"

1022+0

BEGIN CONSTRUCTION
STA 1017+75 "SS RAMP B"

+75.23, 7.84' RT

+35.63, 8.57' RT

END CONSTRUCTION
STA 1019+81 "SS RAMP B"

+81.01, 12.71' RT

℄ "SS RAMP B"
(FOR INFORMATION ONLY)

B-40-0602
PMA OVERLAY, GIRDER PAINTING &
JOINT REPAIR

A CP30 A PV01

A PV01 A CP30

A CP33 A PV28

A PV28 A CP33

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - LEXINGTON BLVD TO BENDER RD	SHEET 50	E

2

2

N

MH
INL
MH
MH
INL
INL
MH
MH
INL
INL
IH 43 SB
IH 43 SB
INL
MH
1022+00
1023+00
1024+00
1025+00
1026+00
1027+00
MH
INL
℄ IH 43
INL
IH 43 NB
IH 43 NB
INL
INL
MH
MH
MH
MH
MH
+11.54, -15.00' LT
+72.60, 0.00'
℄ "SS RAMP B"
(FOR INFORMATION ONLY)
1022+00"SS RAMP B"
1023+00"SS RAMP B"
1024+00"SS RAMP B"
CP09
1025+00"SS RAMP B"
IH 43 NB OFF RAMP
1026+00"SS RAMP B"
1027+00"SS RAMP B"
+11.06, 0.00'
+72.21, 10.91' RT
+51.88, 0.00'
+51.49, 14.99' RT
INL
INL
MH
IH 43 NB OFF RAMP
MH
BEGIN CONSTRUCTION
STA 1022+11 "SS RAMP B"
MH

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - LEXINGTON BLVD TO BENDER RD	SHEET 51	E

2

2

N

INL

W

MH

IH 43 SB ON RAMP

INL

INL

INL

MH

INL

INL

MH

SLAB

INL

IH 43 SB

1028+00

1029+00

1030+00

1031+00

1032+00

1033+00

℄ IH 43

INL

INL

IH 43 NB

MH

MH

INL

IH 43 NB ON RAMP

1032+00"SS RAMP D"

1033+00"SS RAMP D"

1031+00"SS RAMP D"

℄ "SS RAMP D"
(FOR INFORMATION ONLY)

MH

W

INL

INL

MH

B-40-0587
PMA OVERLAY, GIRDER PAINTING &
JOINT REPAIR

CB09

+84.02, -15.00' LT

W

CB09

+73.24, -18.00' LT

W

CP09

CP09

PV01

A

PV01

A

CP08

IH 43 NB OFF RAMP

+00"SS RAMP B"

1028+00"SS RAMP B"

1029+00"SS RAMP B"

1030+00"SS RAMP B"

1031+00"SS RAMP B"

1032+00"SS RAMP B"

A

1033+00"SS RAMP

+84.02, 0.00'

1030+00"SS RAMP D"

CB09

+73.24, 8.98' RT

℄ "SS RAMP B"
(FOR INFORMATION ONLY)

W

W

MH

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - LEXINGTON BLVD TO BENDER RD	SHEET 52	E

2

2

SILVER SPRING DR EB

SILVER SPRING DR WB

HI 43 SB OFF RAMP

IH 43 SB

IH 43 NB OFF RAMP

IH 43 NB ON RAMP

RIPRAP

INL

MH

N

B-40-0584
PMA OVERLAY, GIRDER PAINTING &
JOINT REPAIR

B-40-0583
PMA OVERLAY, GIRDER PAINTING &
JOINT REPAIR

B-40-0585
PMA OVERLAY, GIRDER PAINTING &
JOINT REPAIR

B-40-0586
PMA OVERLAY, GIRDER PAINTING &
JOINT REPAIR

+55.07, -57.07' LT

+52.17, -57.12' LT

+52.17, -1.47' LT

END CONSTRUCTION
STA 1036+65

+55.07, -1.25' LT

1033+00

1034+00

1035+00

1036+00

1037+00

1038+00

1039+00

BEGIN CONSTRUCTION
STA 1034+55

+64.48, 1.48' RT

+64.51, 1.51' RT

℄ IH 43

+00.16, -18.50' LT

+64.48, 56.98' RT

+64.51, 57.00' RT

+94.79, -18.50' LT

+55.00, -18.50' LT

BUTT JOINT
SEE DETAIL

+39.70, -17.32' LT

END CONSTRUCTION
STA 1037+40 "SS RAMP D"

1034+00"SS RAMP D"

1035+00"SS RAMP D"

1036+00"SS RAMP D"

1037+00"SS RAMP D"

1038+00"SS RAMP D"

1039+00"SS RAMP D"

+94.79, 3.00' RT

+40.00, 3.00' RT

+26.30, -17.98' LT

BEGIN CONSTRUCTION
STA 1034+55 "SS RAMP D"

+00.16, 3.00' RT

+55.00, 3.00' RT

+72.00, -17.02' LT

℄ "SS RAMP D"
(FOR INFORMATION ONLY)

+34.89, -18.00' LT

1033+00"SS RAMP B"

1034+00"SS RAMP B"

1035+00"SS RAMP B"

1036+00"SS RAMP B"

1037+00"SS RAMP B"

1038+00"SS RAMP B"

BUTT JOINT
SEE DETAIL

END CONSTRUCTION
STA 1036+72 "SS RAMP B"

+72.00, 19.25' RT

+26.30, 18.01' RT

+34.89, 18.00' RT

℄ "SS RAMP B"
(FOR INFORMATION ONLY)

A
CP30

A
PV01

A
CP08

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - LEXINGTON BLVD TO BENDER RD	SHEET 53	E

2

N

1048+00 1049+00 1050+00 1051+00 1052+00 1053+00

1048+00"SS RAMP D" 1049+00"SS RAMP D" 1050+00"SS RAMP D" 1051+00"SS RAMP D" 1052+00"SS RAMP D" 1053+00"SS RAMP D"

+23.15, 88.21' RT

BEGIN FENCE CHAIN LINK 4-FT

INL MH SLAB W

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - LEXINGTON BLVD TO BENDER RD	SHEET 54	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_PLAN DETAIL - LEXINGTON TO BENDER.DWG
LAYOUT NAME - 021220-PD
PLOT DATE : 4/4/2019 2:57 PM
PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

1051+00
1052+00
1053+00
1054+00
1055+00
1056+00
1057+00

00"SS RAMP D"
1052+00"SS RAMP D"
1053+00"SS RAMP D"
1054+00"SS RAMP D"

END FENCE CHAIN LINK 4-FT
+14.57, 64.62' RT

INL
MH
SLAB
W

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - LEXINGTON BLVD TO BENDER RD	SHEET 55	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_PLAN DETAIL - LEXINGTON TO BENDER.DWG
LAYOUT NAME - 021221-PD

PLOT DATE : 4/4/2019 2:58 PM

PLOT BY : LIMBERATOS, EVAN P PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

2

IH 43 NB OFF RAMP

MILWAUKEE RIVER

RIPRAP

B-40-0010
PMA OVERLAY &
MEDIAN MODIFICATION

BUTT JOINT
SEE DETAIL

15'
B

CM06
CG46

97+00"PW"
98+00"PW"
99+00"PW"
100+00"PW"
101+00"PW"
102+00"PW"
103+00"PW"

B
CP08

B
15'

℄ "PW"
(FOR INFORMATION ONLY)

BEGIN CONSTRUCTION
STA 100+99 "PW"

BUTT JOINT
SEE DETAIL

PORT WASHINGTON RD SB

PORT WASHINGTON RD NB

CAUTION

CAUTION

CAUTION

SIGN

SIGN

MH

MH

MH

MH

MH

MH

MH

LAB

INL

INL

INL

2

MILWAUKEE RIVER

HAMPTON AVE EB

HAMPTON AVE WB

PORT WASHINGTON RD SB

PORT WASHINGTON RD NB

CAUTION

"HA"+17.2, 37.2' RT

SLOPE INTERCEPT

BG17

ADJUSTING CUC MANHOLE COVER

"HA"+70.3, 37.2' RT

BG15

"HA"+95.3, 37.2' RT

BG26

"PW"+31.1, -76.0' LT

"PW"+31.1, -52.0' LT

BUTT JOINT
SEE DETAIL

"PW"+06.1, -52.0' LT

BG16

RIPRAP

R24

CG46

CM08

CP08

CM06

CM14

CMO4

DR01

CG22

SW02

B
15'

103+00"PW"

104+00"PW"

105+00"PW"

106+00"PW"

107+00"PW"

108+00"PW"

16+00"HA"

17+00"HA"

18+00"HA"

19+00"HA"

20+00"HA"

℄ "PW"
(FOR INFORMATION ONLY"

END CONSTRUCTION
STA 105+13 "PW"

72"*

B-40-0010
PMA OVERLAY &
MEDIAN MODIFICATION

"HA"+13.7, 0.2' RT

"HA"+22.4, 0.3' RT

"HA"+13.6, -12.9' LT

"HA"+33.9, -12.8' LT

℄ "HA"
(FOR INFORMATION ONLY)

"HA"+73.7, -10.4' LT

"HA"+73.7, -2.3' LT

"HA"+13.4, -10.3' LT

"HA"+13.4, -22.8' LT

"HA"+91.9, -10.1' LT

"HA"+31.3, -16.6' LT

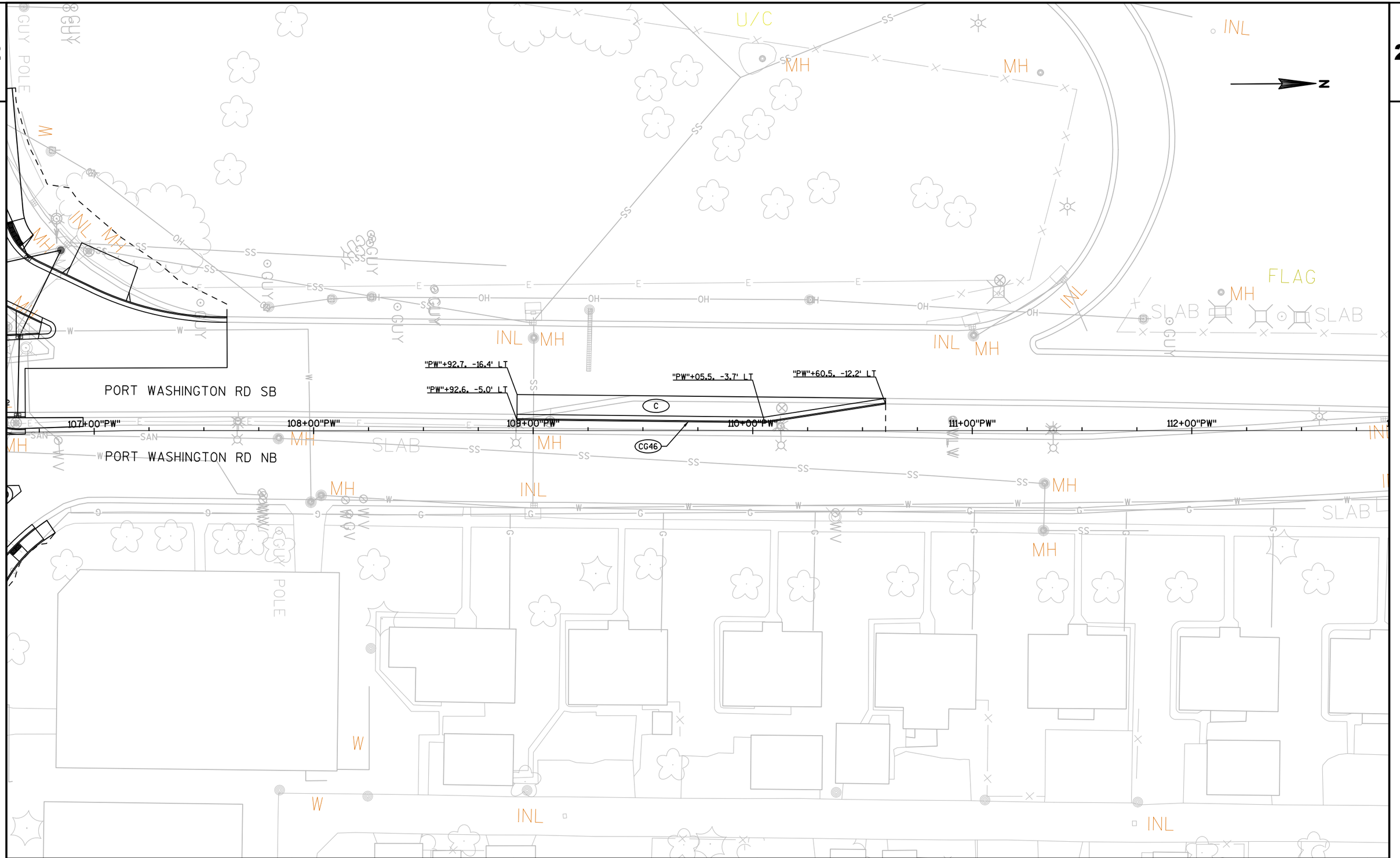
"PW"+92.7, -16.4' LT

"PW"+92.6, -5.0' LT

NOTE
SEE ADDITIONAL PLAN DETAILS FOR STA/OFFSET AND ELEVATIONS AT CURB RAMP LOCATIONS.

*MAINTAIN A MINIMUM OF 72" BETWEEN THE SOUTHBOUND AND NORTHBOUND FACE OF CURB AT LOCATION OF SB10, SEE SIGNAL PLANS FOR LOCATION OF SB 10.

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - PORT WASHINGTON RD	SHEET 57	E



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - PORT WASHINGTON RD	SHEET 58 E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\1228272_PLAN DETAIL - PORT WASHINGTON RD.DWG
LAYOUT NAME - 021215-PD
PLOT DATE : 6/20/2019 1:40 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

N

HAMPTON AVE WB

HAMPTON AVE EB

11+00"HA"

12+00"HA"

13+00"HA"

14+00"HA"

15+00"HA"

16+00"HA"

"HA"+43.1, -14.3' LT

"HA"+43.1, 0.0' LT

CP08

CG16

"HA"+00.5, -14.3' LT

"HA"+76.6, 0.0' LT

CM14

"HA"+04.5, 21.0' RT

"HA"+49.8, 21.0' RT

℄ "HA"
(FOR INFORMATION ONLY)

BEGIN CONSTRUCTION
STA 13+05 "HA"

"HA RAMP A"+59.3, 25.9' RT

"HA RAMP A"+50.0, 12.0' RT

CP08

SLOPE INTERCEPT

CG16

CG24

DR01

"HA RAMP A"+09.4, 12.0' RT

BEGIN CONSTRUCTION
STA 981+09 "HA RAMP A"

981+00"HA RAMP A"

℄ "HA RAMP A"
(FOR INFORMATION ONLY)

RAMP A"

END CONSTRUCTION
STA 14+00 "HA"

EXISTING WETLAND BOUNDRY

IH 43 SB

IH 43 NB

CAUTION

GUY POLE

GUY

CAUTION

RIPRAP

INL

MH

SLAB

AG

FO

SS

W

G

E

T

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - HAMPTON AVE & IH 43 SB ON RAMP	SHEET 59	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_PLAN DETAIL - HAMPTON & IH43 SB ON RAMP.DWG
LAYOUT NAME - 021211-PD

PLOT DATE : 1/3/2019 8:40 AM

PLOT BY : LIMBERATOS, EVAN P PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

IH 43 SB OFF RAMP

IH 43 SB

IH 43 NB

IH 43 NB ON RAMP

IH 43 NB OFF RAMP

1037+00"IH 43"

1036+00"IH 43"

1035+00"IH 43"

1034+00"IH 43"

"SS"+20.4, -126.5' LT

"SS"+50.3, -123.8' LT

"SS"+15.2, -73.9' LT

"SS"+45.2, -72.4' LT

CP35

CM07

"SS"+40.6, -32.4' LT

"SS"+90.6, -32.5' LT

"SS"+40.7, -10.4' LT

"SS"+90.7, -10.5' LT

CP35

℄ "SS"
(FOR INFORMATION ONLY)

CAUTION

SILVER SPRING DR

19+00"SS"

20+00"SS"

21+00"SS"

22+00"SS"

23+00"SS"

CM14

"SS"+62.5, 36.0' RT

"SS"+79.9, 36.0' RT

CM07

"SS"+60.7, 42.8' RT

"SS"+67.4, 46.9' RT

CG16

CM07

CG16

"SS"+21.8, 63.6' RT

CP08

"SS"+10.0, 118.1' RT

"SS"+15.0, 118.7' RT

IH 43 SB ON RAMP

N

NOTE
SEE ADDITIONAL PLAN DETAILS FOR STA/OFFSET AND ELEVATIONS AT CURB RAMP LOCATIONS.

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAIL - SILVER SPRING DR	SHEET 60	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_PLAN DETAIL - SILVER SPRING DR.DWG
LAYOUT NAME - 021212-PD

PLOT DATE : 1/3/2019 8:42 AM

PLOT BY : LIMBERATOS, EVAN P PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

IH 43 SB OFF RAMP

"SS"+20.4, -126.5' LT
"SS"+15.2, -73.9' LT
"SS"+50.3, -123.8' LT
"SS"+45.2, -72.4' LT
CP35

"IH 43"+70.5, -163.8' LT
"IH 43"+79.9, -162.2' LT
CP34
"IH 43"+64.3, -122.3' LT
"IH 43"+73.8, -120.7' LT

21+00"SS"
"SS"+40.6, -32.4' LT
"SS"+40.7, -10.4' LT

IH 43 SB

1036+00"IH 43"
1037+00"IH 43"
1038+00"IH 43"
1039+00"IH 43"
1040+00"IH 43"
1041+00"IH 43"

"SS"+90.6, -32.5' LT
"SS"+90.7, -10.5' LT
22+00"SS"

IH 43 NB

IH 43 NB ON RAMP

RIPRAP

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAIL - SILVER SPRING DR	SHEET 61	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_PLAN DETAIL - SILVER SPRING DR.DWG
LAYOUT NAME - 021213-PD
PLOT DATE : 1/3/2019 8:42 AM
PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

IRONWOOD RD

IH 43 SB

IH 43 NB

IH 43 NB OFF RAMP

PORT WASHINGTON RD

N

CM07

CG22

CG16

+99.4, -28.7' LT

+41.4, -28.8' LT

+99.4, -22.7' LT

+39.0, -22.7' LT

10+00"LE"

11+00"LE"

12+00"LE"

13+00"LE"

14+00"LE"

15+00"LE"

LEXINGTON BLVD

℄ "LE"
(FOR INFORMATION ONLY)

SIGN

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAIL - LEXINGTON BLVD	SHEET 62	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_PLAN DETAIL - LEXINGTON BLVD.DWG
LAYOUT NAME - 021214-PD

PLOT DATE : 1/3/2019 8:43 AM

PLOT BY : LIMBERATOS, EVAN P PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

16+50"HA" 17+00"HA" 17+50"HA"

N

HAMPTON AVE EB

"HA"+63.2, 11.0' RT
635.20P
MATCH EXISTING

"HA"+63.2, 21.3' RT
634.78F
MATCH EXISTING

"PW"+66.8, -61.1' LT
634.11T
634.10G

"PW"+69.4, -62.4' LT
634.22F

"PW"+67.5, -63.0' LT
634.64T
634.14G

"PW"+62.0, -63.6' LT
634.21P

"PW"+68.7, -60.3' LT
634.18F

"PW"+63.9, -55.7' LT
633.98T
633.98G

"PW"+65.5, -54.5' LT
634.06F

"PW"+60.5, -51.7' LT
634.37T
633.87G

"PW"+61.9, -50.3' LT
633.95F

"PW"+58.2, -49.7' LT
634.31T
633.81G

"HA"+39.9, 11.0' RT
634.24P
MATCH EXISTING

"HA"+40.1, 22.0' RT
634.00P
MATCH EXISTING

"PW"+69.2, -18.8' LT
633.94P
MATCH EXISTING

"PW"+59.5, -48.1' LT
633.89F

"PW"+53.8, -44.6' LT
633.76F

"PW"+54.7, -60.8' LT
634.31P

"PW"+57.6, -66.0' LT
634.10P

"PW"+52.9, -57.5' LT
634.21P

"PW"+49.4, -56.3' LT
634.11P

"PW"+49.5, -7.9' LT
633.64P
MATCH EXISTING

"PW"+49.5, -18.8' LT
633.67P
MATCH EXISTING

"PW"+52.9, -46.4' LT
633.69T
633.68G

"PW"+47.6, -42.5' LT
633.64F

"PW"+47.1, -44.4' LT
633.57T
633.56G

"PW"+42.1, -41.8' LT
633.54F

"PW"+42.0, -43.8' LT
633.96T
633.46G

"PW"+32.8, -50.6' LT
633.86P

"PW"+02.3, -43.8' LT
633.08T
632.58G

"PW"+02.3, -50.6' LT
633.25P
MATCH EXISTING

"PW"+19.2, -30.3' LT
633.19P
MATCH EXISTING

"PW"+19.2, -18.8' LT
632.99F
MATCH EXISTING

"PW"+02.3, -41.8' LT
632.70F
MATCH EXISTING

"PW"+05.9, -18.8' LT
632.76F
MATCH EXISTING

"PW"+02.3, -30.3' LT
632.87P
MATCH EXISTING

"PW"+05.9, -7.9' LT
632.85F
MATCH EXISTING

CAUTION

PORT WASHINGTON RD SB

PORT WASHINGTON RD NB

NOTE
ELEVATIONS AND SLOPES AT MATCH POINTS WITH EXISTING PAVEMENT ARE PROVIDED FOR REFERENCE ONLY. VERIFY MATCH POINT GRADES AND SLOPES IN THE FIELD.

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - CURB RAMPS	SHEET 63	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_CURB RAMP DETAIL - HAMPTON & PORT RD.DWG
LAYOUT NAME - 021254-PD
PLOT DATE : 1/2/2019 11:25 AM
PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

18+00"HA" 18+50"HA" 19+00"HA"

105+50"PW"

HAMPTON AVE EB

PORT WASHINGTON RD NB

N

CAUTION

"PW"+60.5, 32.9' RT
633.46T
632.96P

"PW"+63.3, 31.9' RT
633.44T
632.94G

"PW"+66.0, 32.9' RT
633.03F MATCH EXISTING

"PW"+64.0, 32.8' RT
632.95T
632.94G

"PW"+65.6, 43.0' RT
632.99F MATCH EXISTING

"PW"+66.3, 27.5' RT
633.20P
MATCH EXISTING

"PW"+63.6, 42.9' RT
632.91T
632.91G

"PW"+61.3, 30.0' RT
633.42T
632.92G

"PW"+60.9, 42.9' RT
633.42T
632.92P

"PW"+60.3, 29.4' RT
632.90T
632.90G

"PW"+63.0, 43.8' RT
633.40T
632.90G

"PW"+60.3, 27.4' RT
632.98F
MATCH EXISTING

"PW"+59.0, 43.0' RT
633.40T
632.90P

"PW"+57.5, 45.6' RT
633.37T
632.87P

"PW"+65.3, 60.1' RT
633.03P MATCH EXISTING

"PW"+62.4, 61.3' RT
632.99P MATCH EXISTING

"PW"+54.5, 33.2' RT
633.39T
632.89P

"PW"+55.5, 50.7' RT
633.30T
632.80G

"PW"+42.6, 71.5' RT
632.59F
MATCH EXISTING

"PW"+54.2, 29.4' RT
632.83T
632.82G

"PW"+54.4, 50.3' RT
632.80T
632.79G

"PW"+41.1, 72.8' RT
632.52T
632.51G

"PW"+54.2, 27.4' RT
632.90F
MATCH EXISTING

"PW"+53.1, 51.8' RT
632.87F
MATCH EXISTING

"PW"+50.4, 82.3' RT
632.75F
MATCH EXISTING

"PW"+53.2, 29.8' RT
633.31T
632.81G

"PW"+46.8, 43.7' RT
632.70T
632.69G

"PW"+48.7, 83.3' RT
633.12T
632.62G MATCH EXISTING

"PW"+53.3, 33.2' RT
633.37T
632.87P

"PW"+45.6, 45.2' RT
632.77F
MATCH EXISTING

"PW"+32.8, 79.7' RT
633.17T
632.67P

"PW"+52.0, 35.2' RT
633.34T
632.84P

"PW"+34.0, 65.1' RT
632.39T
632.38G

"PW"+34.9, 83.8' RT
633.23T
632.99P

"PW"+46.4, 42.7' RT
633.18T
632.68G

"PW"+35.4, 63.7' RT
632.46F
MATCH EXISTING

"PW"+36.4, 88.0' RT
633.31T
633.29P
MATCH EXISTING

"PW"+47.8, 29.8' RT
633.21T

"PW"+48.9, 40.4' RT
633.24T
632.74P

"PW"+31.2, 76.5' RT
633.12T
632.62P

"PW"+47.8, 32.6' RT
633.19P

"PW"+39.7, 37.7' RT
633.17T

"PW"+27.0, 72.2' RT
633.03T
632.53P

"PW"+38.2, 27.2' RT
632.66F
MATCH EXISTING

"PW"+36.7, 38.7' RT
632.84F
MATCH EXISTING

"PW"+30.1, 58.8' RT
632.38F
MATCH EXISTING

"PW"+37.8, 37.0' RT
633.22T
632.72G MATCH EXISTING

"PW"+39.8, 29.7' RT
633.05T

"PW"+23.3, 56.6' RT
632.80T
MATCH EXISTING

"PW"+28.8, 60.4' RT
632.75T
632.25G MATCH EXISTING

"PW"+38.1, 29.2' RT
633.04T
632.54G MATCH EXISTING

"PW"+22.4, 67.9' RT
632.95T
632.94P

"PW"+18.3, 53.2' RT
632.73T
MATCH EXISTING

"PW"+44.7, 37.8' RT
633.09P

"PW"+17.5, 64.5' RT
632.93P

"PW"+12.0, 49.6' RT
632.65T
MATCH EXISTING

"PW"+12.8, 60.7' RT
632.86P

"PW"+06.2, 46.8' RT
632.55T
MATCH EXISTING

"PW"+08.2, 56.8' RT
632.75P

"PW"+03.3, 53.2' RT
632.63P
MATCH EXISTING

NOTE
ELEVATIONS AND SLOPES AT MATCH POINTS WITH EXISTING PAVEMENT ARE PROVIDED FOR REFERENCE ONLY. VERIFY MATCH POINT GRADES AND SLOPES IN THE FIELD.

LEGEND
BUS STOP LANDING PAD

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - CURB RAMPS	SHEET 64	E

2

N

"HA"+85.2, -75.9' LT
634.52T
634.02G

"HA"+86.6, -74.5' LT
634.10F

"HA"+78.1, -80.9' LT
634.15P

"HA"+70.4, -76.8' LT
634.21P

"HA"+62.4, -75.7' LT
634.75P

"HA"+11.2, -70.7' LT
635.40P
MATCH EXISTING

"HA"+63.2, -67.3' LT
634.63T
634.13G

"HA"+11.9, -62.8' LT
634.99T
634.49G
MATCH EXISTING

"HA"+63.3, -65.3' LT
634.21F

"HA"+12.1, -60.8' LT
634.62F
MATCH EXISTING

"HA"+72.7, -68.6' LT
634.09T
634.08G

"HA"+73.2, -66.6' LT
634.16F

"HA"+83.7, -74.5' LT
634.03T
634.02G

"HA"+13.4, -45.5' LT
635.21P
MATCH EXISTING

"HA"+85.0, -73.0' LT
634.10F

"PW"+65.3, -55.2' LT
635.15T

"PW"+60.3, -55.9' LT
635.10P

"PW"+60.4, -57.7' LT
635.11T

"PW"+52.3, -56.0' LT
635.04T
634.54P

"PW"+55.6, -60.1' LT
635.07T
634.57G

"PW"+54.9, -61.0' LT
634.58T
634.57G

"PW"+55.8, -62.7' LT
634.65F

"PW"+45.9, -65.4' LT
634.51T
634.50G

"PW"+46.8, -67.2' LT
634.58F

"PW"+44.8, -65.4' LT
635.00T
634.50G

"HA"+94.6, -45.5' LT
634.56P
MATCH EXISTING

"PW"+42.3, -56.2' LT
634.84T
634.34P

"PW"+40.4, -57.3' LT
634.71T
634.21G

"PW"+39.9, -56.4' LT
634.22T
634.20G

"PW"+37.9, -56.4' LT
634.28F

"HA"+94.6, -22.8' LT
634.51F
MATCH EXISTING

"HA"+94.6, -9.8' LT
634.50F
MATCH EXISTING

"PW"+65.1, -44.8' LT
635.09T

"PW"+69.0, -29.1' LT
634.96P
MATCH EXISTING

"PW"+60.2, -49.9' LT
635.01P

"PW"+60.1, -44.6' LT
635.00T

"PW"+53.1, -44.4' LT
634.88T
634.38G

"PW"+52.2, -43.9' LT
634.37T
634.36G

"PW"+52.2, -41.9' LT
634.44F

"PW"+47.0, -29.4' LT
634.26P
MATCH EXISTING

"PW"+52.2, -50.0' LT
634.95T
634.45P

"PW"+42.2, -41.6' LT
634.24F

"PW"+42.1, -43.6' LT
634.17T
634.16G

"PW"+41.1, -44.2' LT
634.62T
634.12G

"PW"+40.2, -49.3' LT
634.59T
634.09G

"PW"+42.2, -50.2' LT
634.75T
634.25P

"PW"+39.7, -50.4' LT
634.12T
634.11G

"PW"+37.7, -50.4' LT
634.19F

"HA"+14.3, -20.2' LT
636.01T
MATCH EXISTING

"HA"+14.1, -12.4' LT
636.00T
MATCH EXISTING

"HA"+39.6, -22.8' LT
634.32P
MATCH EXISTING

"HA"+26.1, -22.8' LT
634.28P
MATCH EXISTING

"HA"+26.1, -9.8' LT
634.28P
MATCH EXISTING

HAMPTON AVE WB

PORT WASHINGTON RD SB

16+50"HA"

17+00"HA"

NOTE
ELEVATIONS AND SLOPES AT MATCH POINTS WITH EXISTING PAVEMENT ARE PROVIDED FOR REFERENCE ONLY. VERIFY MATCH POINT GRADES AND SLOPES IN THE FIELD.

LEGEND

BUS STOP LANDING PAD

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - CURB RAMPS	SHEET 65	E

2

N

"PW"+68.7, -9.1' LT
634.55F
MATCH EXISTING

"PW"+68.6, 0.8' RT
634.82F
MATCH EXISTING

"PW"+46.6, 1.2' RT
634.54P
MATCH EXISTING

"PW"+71.1, 42.0' RT
633.77F

"PW"+81.6, 46.0' RT
634.46P

"PW"+72.3, 43.6' RT
634.14T
633.64G

"PW"+77.8, 40.3' RT
634.33T

"PW"+76.2, 48.8' RT
634.24T
634.23P

"PW"+68.9, 54.7' RT
634.14T
633.64P

"PW"+50.9, 34.1' RT
634.51T
634.01P

"PW"+60.3, 54.3' RT
633.43T
633.42G

"PW"+65.0, 58.8' RT
634.02T
633.53P

"PW"+66.4, 26.9' RT
634.35P
MATCH EXISTING

"PW"+64.6, 50.1' RT
633.55T
633.55G

"PW"+58.8, 52.9' RT
633.50F

"PW"+63.2, 48.6' RT
633.63F

"PW"+59.5, 66.3' RT
633.69T
633.69P

"PW"+65.4, 24.1' RT
634.39P
MATCH EXISTING

"PW"+51.9, 35.9' RT
634.35T
633.85G

"PW"+53.8, 62.0' RT
633.59T
633.09G

"PW"+50.9, 30.1' RT
634.60T
634.10P

"PW"+51.5, 36.9' RT
633.84T
633.83G

"PW"+52.2, 60.7' RT
633.21F

"PW"+52.0, 26.8' RT
634.60T
634.10G

"PW"+52.9, 38.4' RT
633.91F
MATCH EXISTING

"PW"+56.6, 72.9' RT
633.74P

"PW"+47.2, 41.0' RT
633.77T
633.76G

"PW"+51.0, 24.3' RT
634.16F
MATCH EXISTING

"PW"+48.5, 42.5' RT
633.84F
MATCH EXISTING

"PW"+51.0, 26.3' RT
634.09T
634.08G

"PW"+46.1, 41.4' RT
634.25T
633.75G

"PW"+49.7, 68.5' RT
633.58T

"PW"+41.0, 24.4' RT
633.98F
MATCH EXISTING

"PW"+44.9, 39.8' RT
634.40T
633.90P

"PW"+41.0, 26.4' RT
633.91T
633.90G

"PW"+42.6, 48.5' RT
633.73F MATCH EXISTING

"PW"+40.0, 27.1' RT
634.37T
633.87G

"PW"+41.1, 47.1' RT
634.02T MATCH EXISTING
633.61G

"PW"+35.6, 24.5' RT
633.81P
MATCH EXISTING

"PW"+37.0, 43.7' RT
634.02T
633.52G MATCH EXISTING

"PW"+41.3, 39.9' RT
634.34T
633.84P

"PW"+40.9, 29.9' RT
634.47T
633.97P

"PW"+35.0, 43.7' RT
633.64F
MATCH EXISTING

"PW"+37.1, 40.0' RT
633.63T
633.63G

"PW"+37.6, 41.0' RT
634.11T
633.61G

"PW"+38.1, 29.0' RT
634.33T
633.83G

"PW"+37.4, 30.0' RT
633.81T
633.80G

"PW"+35.1, 40.0' RT
633.70F
MATCH EXISTING

"PW"+35.4, 30.0' RT
633.88F
MATCH EXISTING

PORT WASHINGTON RD NB

PORT WASHINGTON RD SB

HAMPTON AVE WB

106+50"PW"

CAUTION

NOTE
ELEVATIONS AND SLOPES AT MATCH POINTS WITH EXISTING PAVEMENT ARE PROVIDED FOR REFERENCE ONLY. VERIFY MATCH POINT GRADES AND SLOPES IN THE FIELD.

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - CURB RAMPS	SHEET 66	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN SHEETS\12282272_CURB RAMP DETAIL - HAMPTON & PORT RD.DWG
LAYOUT NAME - 021257-PD
PLOT DATE : 1/2/2019 11:26 AM
PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:10 FT

2

2

N

"PW"+60.5, -49.4' LT
635.09F
MATCH EXISTING

"PW"+60.6, -28.7' LT
635.78P
MATCH EXISTING

6.2%

PORT WASHINGTON RD SB

PORT WASHINGTON RD NB

107+50"PW"

107+00"PW"

"PW"+19.8, -74.4' LT
635.45P

"PW"+17.4, -58.6' LT
634.93T
634.43G

"PW"+15.5, -59.3' LT
634.65T
634.40G

"PW"+95.6, -86.0' LT
635.12P

"PW"+88.5, -71.6' LT
634.32T
634.07G

"PW"+86.7, -72.5' LT
634.56T
634.06G

"PW"+95.0, -2.3' LT
635.53P
MATCH EXISTING

"PW"+95.0, -6.3' LT
635.27P
MATCH EXISTING

NOTE
ELEVATIONS AND SLOPES AT MATCH POINTS WITH EXISTING PAVEMENT ARE PROVIDED FOR REFERENCE ONLY. VERIFY MATCH POINT GRADES AND SLOPES IN THE FIELD.

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - UTILITY PAD	SHEET 67	E

NOTE
ELEVATIONS AND SLOPES AT MATCH POINTS WITH EXISTING PAVEMENT ARE PROVIDED FOR REFERENCE ONLY. VERIFY MATCH POINT GRADES AND SLOPES IN THE FIELD.

20+00"SS"

20+50"SS"

N

SILVER SPRING DR EB

IH 43 SB ON RAMP

"SS"+79.0, 51.7' RT
631.91T
631.91G

"SS"+77.2, 50.6' RT
632.42T
631.92G

"SS"+77.9, 53.4' RT
631.87F

"SS"+76.2, 52.3' RT
631.88F

"SS"+85.7, 39.6' RT
632.26P

"SS"+86.2, 44.2' RT
632.31P

"SS"+89.8, 49.1' RT
632.25P

"SS"+94.1, 43.9' RT
632.42P

"SS"+94.3, 49.0' RT
632.32P

"SS"+59.2, 67.4' RT
631.81T
631.31G
MATCH EXISTING

"SS"+58.9, 72.0' RT
631.37P

"SS"+60.5, 65.9' RT
631.44F MATCH EXISTING

"SS"+84.2, 54.9' RT
631.89T
631.88G

"SS"+83.2, 56.6' RT
631.84F

"SS"+56.9, 71.6' RT
631.39P

"SS"+61.5, 69.4' RT
631.32T
631.31G

"SS"+62.8, 67.9' RT
631.39F
MATCH EXISTING

"SS"+86.0, 56.0' RT
632.37T
631.87G

"SS"+84.9, 57.7' RT
631.83F

"SS"+35.5, 66.9' RT
632.53P
MATCH EXISTING

"SS"+41.3, 68.2' RT
632.44P

"SS"+67.2, 72.3' RT
631.30F MATCH EXISTING

"SS"+68.6, 73.8' RT
631.27F
MATCH EXISTING

"SS"+65.7, 73.6' RT
631.22T
631.22G

"SS"+67.1, 75.1' RT
631.64T
631.14G
MATCH EXISTING

"SS"+40.0, 74.3' RT
632.47P

"SS"+55.6, 77.7' RT
631.40P

"SS"+60.7, 78.8' RT
631.33P

"SS"+34.2, 73.0' RT
632.56P
MATCH EXISTING

"SS"+75.4, 43.5' RT
630.71P
MATCH EXISTING

"SS"+59.1, 41.2' RT
631.02T
630.52G
MATCH EXISTING

"SS"+69.6, 43.5' RT
630.87P

"SS"+57.7, 39.9' RT
630.64F
MATCH EXISTING

"SS"+64.1, 43.6' RT
630.79P

"SS"+57.7, 43.3' RT
630.61T
630.60G
MATCH EXISTING

"SS"+55.9, 42.4' RT
630.68F

"SS"+54.0, 48.6' RT
630.65F
MATCH EXISTING

"SS"+56.0, 49.0' RT
630.58T
630.57G

"SS"+53.5, 52.4' RT
630.63F
MATCH EXISTING

"SS"+55.5, 52.6' RT
631.01T
630.51G
MATCH EXISTING

"SS"+64.1, 49.1' RT
630.78P

"SS"+69.6, 49.0' RT
630.86P

"SS"+75.9, 49.2' RT
630.92P
MATCH EXISTING

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - CURB RAMPS	SHEET 68	E

LEGEND

- SOD LAWN
- SILT FENCE
- EROSION MAT
- INLET PROTECTION TYPE (X)
- SURFACE WATER FLOW
- SLOPE INTERCEPT

SIGN

IRONWOOD RD

IH 43 SB

℄ IH 43

IH 43 NB

1014

1016

1018

1020

1014"SS RAMP B"

1016"SS RAMP B"

℄ "SS RAMP B"

1018"SS RAMP B"

1020"SS RAMP B"

10+00"LE"

11+00"LE"

12+00"LE"

13+00"LE"

14+00"LE"

LEXINGTON BLVD

INL

W

MH

M

A/C

N

2

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 69	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\EROSION CONTROL\12282272_EROSION CONTROL.DWG
LAYOUT NAME - 022001-EC

PLOT DATE : 4/19/2018 11:29 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

LEGEND

- SOD LAWN
- SILT FENCE
- EROSION MAT
- INLET PROTECTION TYPE (X)
- SURFACE WATER FLOW
- SLOPE INTERCEPT

IRONWOOD RD

IH 43 SB

IH 43 NB

℄ IH 43

1022

1024

1026

1022"SS RAMP B"

1024"SS RAMP B"

1026"SS RAMP B"

1028"SS

℄ "SS RAMP B"
(FOR INFORMATION ONLY)

MH

INL

D

W

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 70	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\EROSION CONTROL\12282272_EROSION CONTROL.DWG
LAYOUT NAME - 022002-EC

PLOT DATE : 4/19/2018 11:29 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:50 FT

LEGEND

- SOD LAWN
- SILT FENCE
- EROSION MAT
- INLET PROTECTION TYPE (X)
- SURFACE WATER FLOW
- SLOPE INTERCEPT

IH 43 SB

IH 43 NB

℄ IH 43

1028

1030

1032

1034

1028"SS RAMP B"

1030"SS RAMP B"

1032"SS RAMP B"

1034"SS RAMP B"

1030"SS RAMP D"

1032"SS RAMP D"

1034"SS RAMP D"

℄ "SS RAMP D"
(FOR INFORMATION ONLY)

℄ "SS RAMP B"
(FOR INFORMATION ONLY)

INL

MH

SLAB

SIGN

W

SS

D

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 71	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\EROSION CONTROL\12282272_EROSION CONTROL.DWG
LAYOUT NAME - 022003-EC

PLOT DATE : 4/19/2018 11:30 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME :

PLOT SCALE : 1 IN:50 FT

LEGEND

- SOD LAWN
- SILT FENCE
- EROSION MAT
- INLET PROTECTION TYPE (X)
- SURFACE WATER FLOW
- SLOPE INTERCEPT

MILWAUKEE RIVER

IH 43 SB

IH 43 NB

℄ IH 43

1038

1038"SS RAMP B"

1038"SS RAMP D"

℄ "SS RAMP D"
(FOR INFORMATION ONLY)

℄ "SS RAMP B"
(FOR INFORMATION ONLY)

1036

1036"SS RAMP B"

1036"SS RAMP D"

RAMP B"

1044"SS RAMP B"

℄ "SS"
(FOR INFORMATION ONLY)

20"SS"

22"SS"

24"SS"

26"SS"

SILVER SPRING DR

RIPRAP

MH

INL

SS

N

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 72	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\EROSION CONTROL\12282272_EROSION CONTROL.DWG
LAYOUT NAME - 022004-EC

PLOT DATE : 4/19/2018 11:30 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

SOD LAWN

SILT FENCE

EROSION MAT

INLET PROTECTION TYPE (X)

SURFACE WATER FLOW

SLOPE INTERCEPT

N

JEAN NICOLET DR

IH 43 SB

IH 43 NB

PORT WASHINGTON RD

1068

1070

1072

1074

D

D

D

D

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\EROSION CONTROL\12282272_EROSION CONTROL.DWG
LAYOUT NAME - 022005-EC

PLOT DATE : 11/26/2019 3:59 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND

- SOD LAWN
- SILT FENCE
- EROSION MAT
- INLET PROTECTION TYPE (X)
- SURFACE WATER FLOW
- SLOPE INTERCEPT

BENDER RD

JEAN NICOLET DR

SLAB

SLAB

SLAB

N

(D) INLETS LOCATED ON BENDER RD

D

D

D

D

IH 43 SB

IH 43 NB

1076

1078

1080

1082

PORT WASHINGTON RD

2

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 74	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\EROSION CONTROL\12282272_EROSION CONTROL.DWG
LAYOUT NAME - 022006-EC

PLOT DATE : 11/26/2019 4:00 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:50 FT

LEGEND

- SOD LAWN
- SILT FENCE
- EROSION MAT
- INLET PROTECTION TYPE (X)
- SURFACE WATER FLOW
- SLOPE INTERCEPT

N

SEPV

JEAN NICOLET DR

INL

MH

IH 43 SB

IH 43 NB

1082

1084

1086

1088

D

PORT WASHINGTON RD

SLAB

SIGN

HW

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 75	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\EROSION CONTROL\12282272_EROSION CONTROL.DWG
LAYOUT NAME - 022007-EC

PLOT DATE : 11/26/2019 4:00 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:50 FT

LEGEND

- SOD LAWN
- SILT FENCE
- EROSION MAT
- INLET PROTECTION TYPE (X)
- SURFACE WATER FLOW
- SLOPE INTERCEPT

N

PORT WASHINGTON RD

℄ "PW" (FOR INFORMATION ONLY)

98"PW"

100"PW"

102"PW"

RIPRAP

SIGN

FLAG

BG

MILWAUKEE RIVER

LEGEND

- SOD LAWN
- SILT FENCE
- EROSION MAT
- INLET PROTECTION TYPE (X)
- SURFACE WATER FLOW
- SLOPE INTERCEPT

RIPRAP

104"PW"

106"PW"

108"PW"

℄ "PW"
(FOR INFORMATION ONLY)

16"HA"

18"HA"

20"HA"

℄ "HA"
(FOR INFORMATION ONLY)

U/C

PORT WASHINGTON RD

HAMPTON AVE

MILWAUKEE RIVER

2

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 77	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\EROSION CONTROL\12282272_EROSION CONTROL.DWG
LAYOUT NAME - 022009-EC

PLOT DATE : 4/26/2019 10:31 AM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

LEGEND

- SOD LAWN
- SILT FENCE
- EROSION MAT
- INLET PROTECTION TYPE (X)
- SURFACE WATER FLOW
- SLOPE INTERCEPT

HAMPTON AVE

IH 43 SB

IH 43 NB

12"HA"

14"HA"

16"HA"

℄ "HA"
(FOR INFORMATION ONLY)

EXISTING WETLAND BOUNDRY

MILWAUKEE RIVER

RIPRAP

984

982

980

N

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 78	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\EROSION CONTROL\12282272_EROSION CONTROL.DWG
LAYOUT NAME - 022010-EC

PLOT DATE : 4/19/2018 11:32 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

GENERAL DRAINAGE NOTES

RIM ELEVATIONS ARE GIVEN AT FLOW LINE OF INLET GRATE OR CENTER OF MANHOLE GRATE.

ADJUSTMENT RINGS MAY BE USED TO A COMBINED MAXIMUM THICKNESS OF 6-INCHES.

LENGTH IS MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE. IF END STRUCTURE IS AN APRON ENDWALL, THE LENGTH OF PIPE IS MEASURED FROM THE CENTER OF THE UPSTREAM STRUCTURE TO THE END OF THE APRON ENDWALL.

OFFSET IS MEASURED FROM THE REFERENCE LINE TO THE CENTER OF THE STRUCTURE. LOCATION OF STRUCTURE MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

DEPTH IS MEASURED FROM THE RIM ELEVATION TO THE BOTTOM INSIDE OF THE STRUCTURE AND DOES NOT INCLUDE THE THICKNESS OF THE STRUCTURE BASE OR BEDDING MATERIAL.

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

UTILITY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE. LOCATIONS SHOWN ARE TAKEN FROM EXISTING RECORDS AND BEST INFORMATION AVAILABLE FROM EXISTING PLANS. IT IS EXPECTED THAT THERE MAY BE DISCREPANCIES AND OMISSIONS IN THE LOCATION OF UTILITIES AND STRUCTURES SHOWN. VERIFY ALL LOCATIONS IN THE FIELD.

COORDINATE WITH DIGGERS HOTLINE TO FIELD LOCATE UTILITIES. SHEETING SHALL NOT GO THROUGH UTILITIES. ANY UTILITY DAMAGED DUE TO CONTRACTOR ACTIVITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE COMPLETE SATISFACTION OF THE UTILITY FACILITY.

VERIFY THE STORM SEWER SYSTEM CONNECTIONS, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING DRAINAGE STRUCTURES AND PIPES. NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE INFORMATION SHOWN ON THE PLANS PRIOR TO INSTALLING THE PROPOSED STORM SEWER.

PROVIDE TEMPORARY POSITIVE DRAINAGE THROUGHOUT THE PROJECT DURING ALL PROJECT STAGES. PROVIDING TEMPORARY POSITIVE DRAINAGE IS INCIDENTAL TO CONSTRUCTION.

SUPPORTING UTILITIES DURING STORM SEWER CONSTRUCTION IS INCIDENTAL TO STORM SEWER PIPE AND/OR STORM SEWER STRUCTURE.

STORM SEWER LEGEND

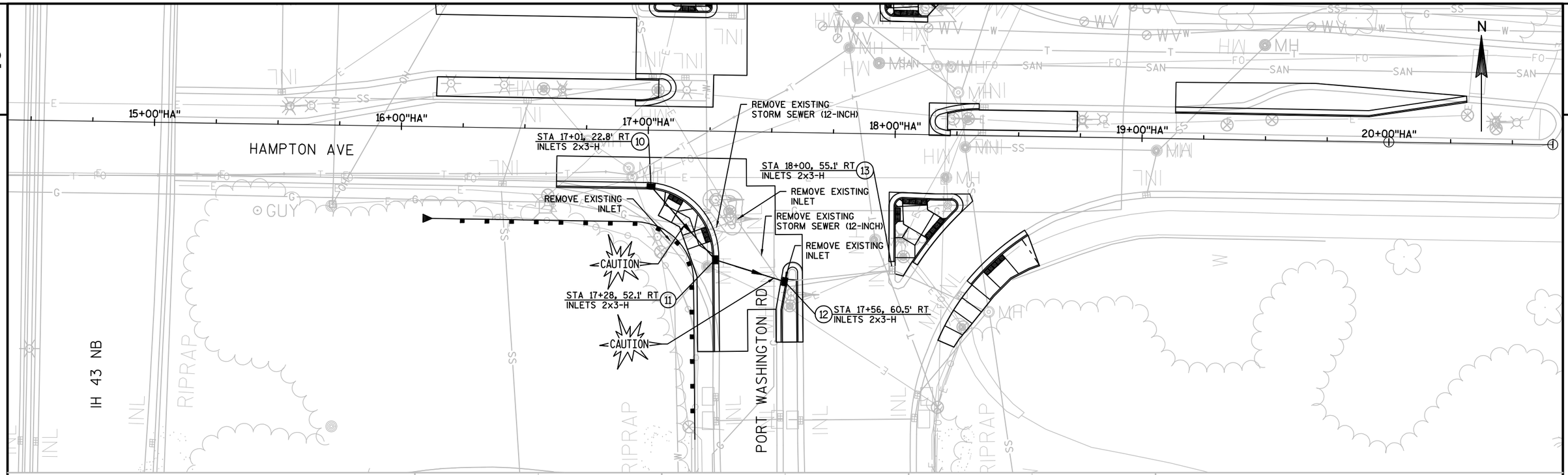
(XX) PROPOSED DRAINAGE STRUCTURE

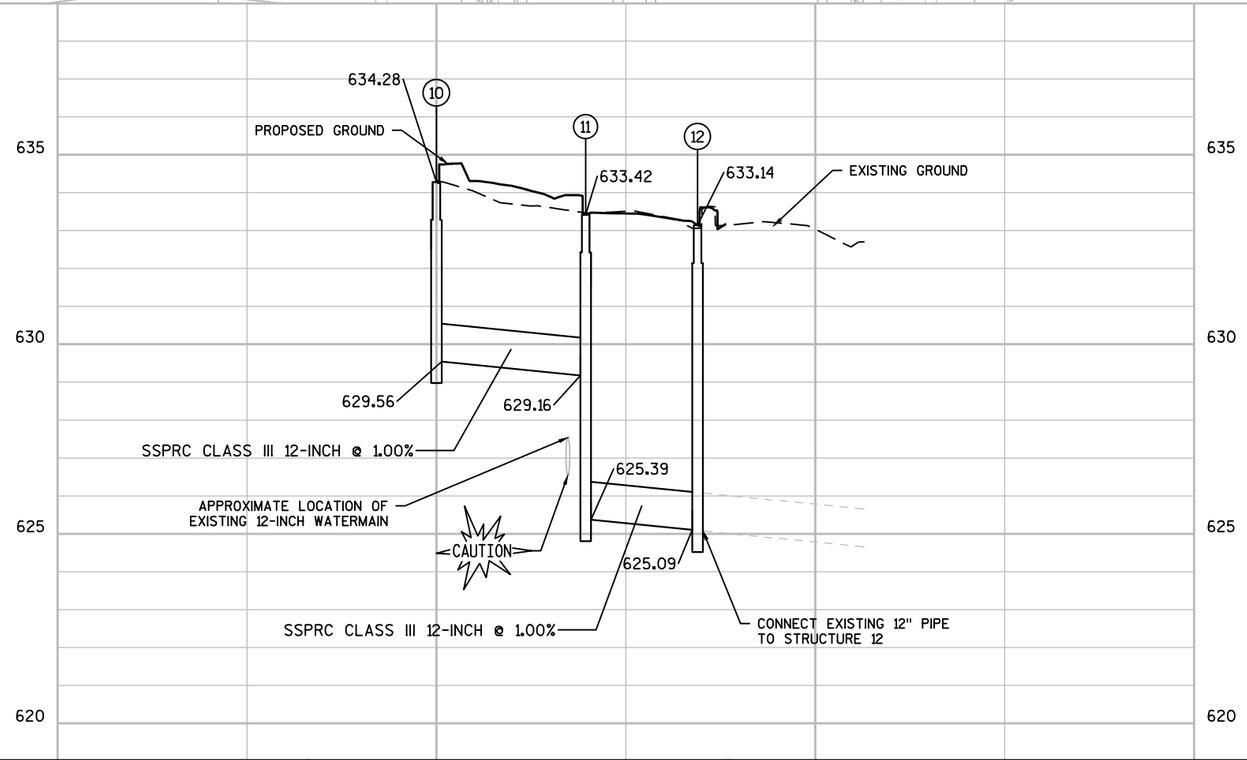
PROPOSED MANHOLE

PROPOSED INLET

PROPOSED PIPE (PLAN VIEW)

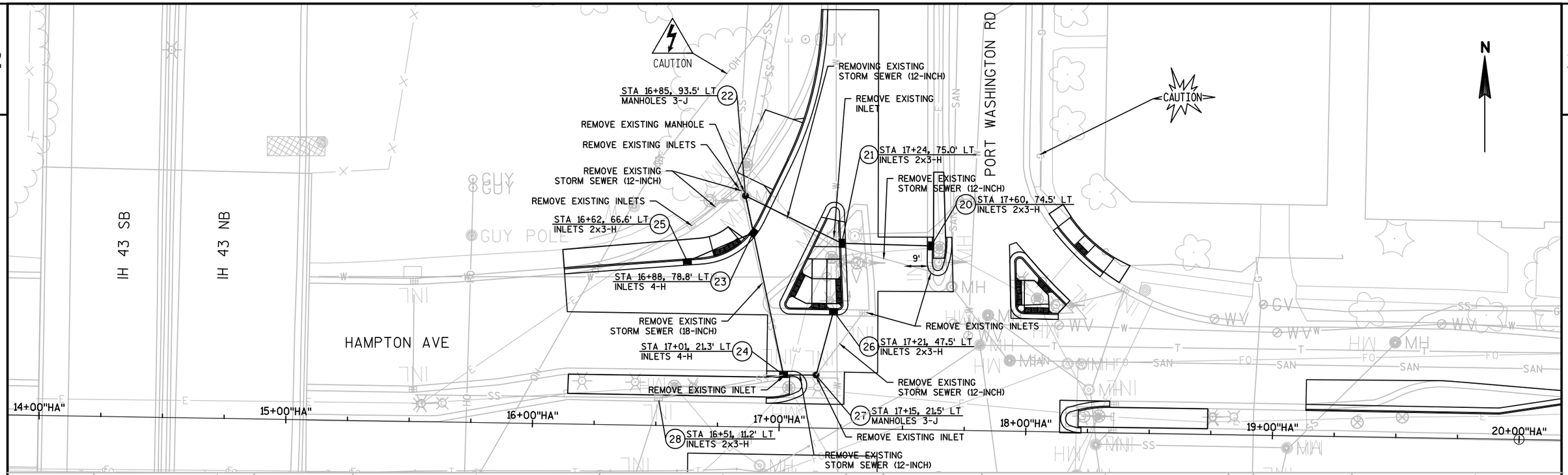
FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\STORM SEWER\12282272_PORT RD MEDIAN STORM SEWER.DWG
LAYOUT NAME - 022500-SS
PLOT DATE : 4/19/2018 9:32 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 41

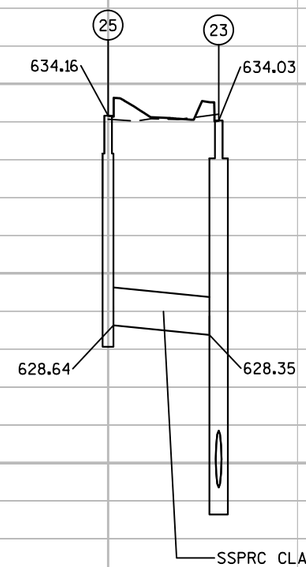


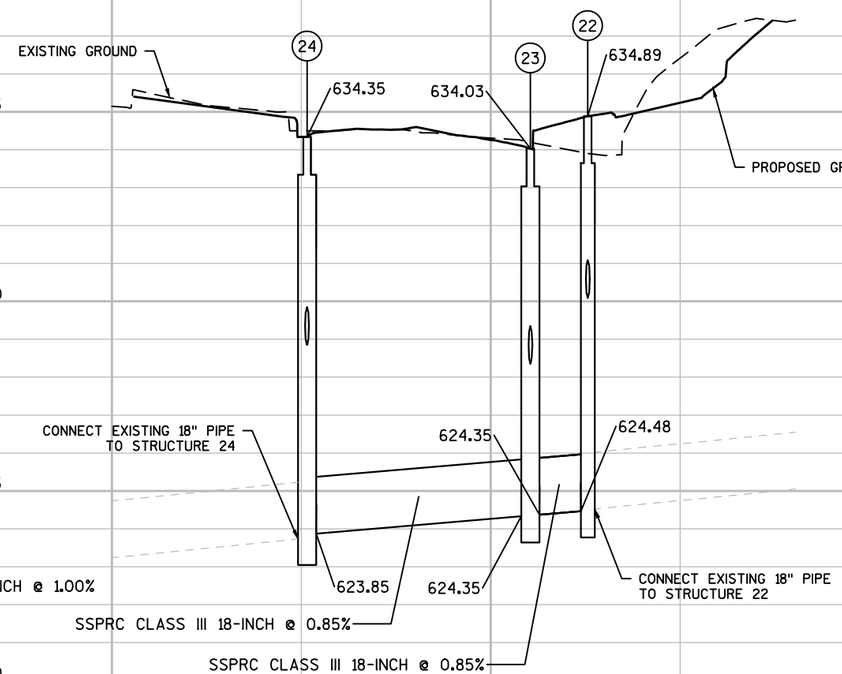


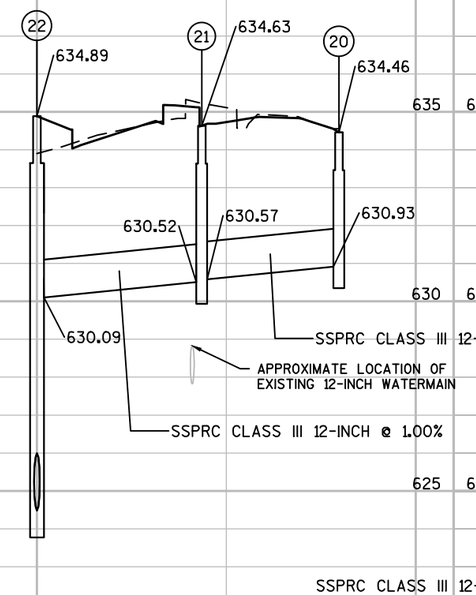
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER	SHEET 80	E

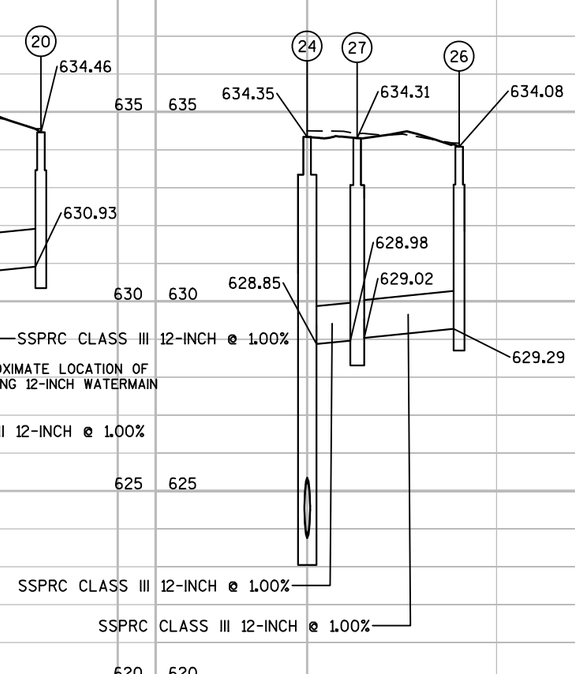
FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\STORM SEWER\12282272_PORT RD & HAMPTON SW QUAD STORM SEWER.DWG
LAYOUT NAME - 022502-SS
PLOT DATE : 8/1/2019 8:56 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41











PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER	SHEET 81	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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [XX] INDICATES SIGN DATE

N

1 EXIT 77B (REMOVE)
E5-1B (5)
1A W5-54S (2M)
1B W5-54S (2M)

2 EMERGENCY STOPPING ONLY (REMOVE)
R8-7 (5) ON LIGHT POLE (NB)

3 NORTH INTERSTATE 43 (REMOVE)
M3-1 NORTH INTERSTATE 43
M1-1 (5) ON LIGHT POLE (NB)

4 4A EXIT 78
Silver Spring Dr
½ MILE
F1-1A TYPE 1 NEW STEEL SUPPORTS

5 SPEED LIMIT 55 (REMOVE)
R2-1 (5)

6 SPEED LIMIT 55 (REMOVE)
R2-1 (5) ON SIGNAL POLE (SB)

7 EMERGENCY STOPPING ONLY (REMOVE)
R8-7 (5) ON LIGHT POLE (SB)

8 SOUTH INTERSTATE 43 (REMOVE)
M3-3 SOUTH INTERSTATE 43
M1-1 (5)

S-40-229 EXISTING SIGN BRIDGE TO REMAIN

9 SPEED LIMIT 55 (REMOVE)
SPEED LIMIT 55
R2-1 (5) ON SIGNAL POLE (SB)

10
Silver Spring Dr ¼
Good Hope Rd 2½
Brown Deer Rd 4½
F8-1 TYPE 1

IH 43 SB
IH 43 NB
EXIT TO HAMPTON AVE
PORT WASHINGTON RD
GOLF COURSE
988 990 992 994 996 998 1000 1002

Signing notes

Type II aluminum signs removed under the contract shall be delivered to the County sign shop. Contact Dennis Newton, 414-266-1165 for distribution county location.

Signs shall be carefully removed from sign supports. The signs shall be palletized for handling with a forklift (see special provision 638.3.4). The Regional sign shop (414-266-1165) shall be notified three working days prior to delivery of the signs.

When an existing stop sign support is to be removed and a new stop sign and support erected, the work shall be done concurrently. For other signs and supports that are to be removed and new signs and supports erected, the removal of the existing sign/support and erection of the new sign/support should be done as concurrently as possible. In no case shall a new sign/support be down for more than 24 hours and there shall not be more than one sign of the same legend missing in a row.

Wood posts sizes, for type ii signs are estimated lengths and the actual length will be determined in the field.

Street name signs are property of the municipality (city, village or town). The municipality shall be contacted to remove their street name signs prior to construction and it is their responsibility to reinstall the old signs or replace them following construction. WisDOT does not furnish or install street name signs. The street name signs shall not be placed on top of the STOP signs.

Locate no passing pennants based on establishing no passing zones pay item. Place signs based on where the pavement marking for no passing zones begin.

SHEET 1 OF 13

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 82	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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [XX] INDICATES SIGN DATE

N

11A EXIT 76 A-B

11 57 190

Green Bay Ave
Capitol Dr
1 MILE

E1-1A
TYPE 1
REUSE
STEEL
SUPPORTS

[2014]
ESTR

IH 43 SB

IH 43 NB

PORT WASHINGTON RD

1002 1004 1006 1008 1010 1012 1014 1016

1014"SS RAMP B" 1016"SS RAMP B"

S-40-257
EXISTING SIGN BRIDGE
TO REMAIN

12A EXIT 78

12 Silver Spring Dr

E4-1A
TYPE 1

BAYSHORE
PARK & RIDE
EXIT 7B

ESTR
TYPE 1

RIPRAP RIPRAP FLAG FLAG

SHEET 2 OF 13

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 83	E

FILE NAME : N:\PDS\C3D\CAD\12282202\SIGN\023201_PS.DWG
LAYOUT NAME - 023202_PS

PLOT DATE : 11/27/2019 8:30 AM PLOT BY : VANDE LEEST, CYNTHIAPLOT NAME : PLOT SCALE : 1 IN:100 FT

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [XX] INDICATES SIGN DATE

IRONWOOD RD

ATHLETIC FIELD

PARK & RIDE REMOVE

14 PARK & RIDE D4-2(MOD) ON UPRIGHT

[2014] W4-1R ESTR

[2015] D10-2 ESTR

[2014] ESTR NORTH 43 MILE 78 .0 D10-5

[2014] ESTR SOUTH 43 MILE 78 .0 D10-5

FORM SINGLE LINE REMOVE

153 154 FORM SINGLE LINE R3-58 (2M)

STOP HERE ON RED REMOVE

155 STOP HERE ON RED R10-6 (2M) ON SIGNAL POLE

STOP HERE ON RED REMOVE

156 157 STOP HERE ON RED R10-6 (MOD)(2M) ON SIGNAL POLE

REMOVE

158 W4-2R (2M) ON LIGHT POLE

27 W4-1R (5)

IH 43 SB

IH 43 NB

1018 1020 1022 1024 1026 1028 1030

S40-56
EXISTING SIGN BRIDGE
TO REMAIN

RAMP B" 1018"SS RAMP B" 1020"SS RAMP B" 1022"SS RAMP B" 1024"SS RAMP B" 1026"SS RAMP B" 1028"SS RAMP B" 1030"SS RAMP B" 1032"SS RAMP

1028"SS RAMP D" 1030"SS RAMP D"

EXIT 78 REMOVE

13 EXIT 78 E5-1A (5)

13A 20 MPH E13-1P (2S)

13B W5-54S (2M)

13C W5-54S (2M)

LEXINGTON BLVD

15 Silver Spring Dr WEST N Port Washington Rd TYPE 1

16 TO Silver Spring Dr EAST TYPE 1

PORT WASHINGTON RD

EXIT 20 M.P.H. REMOVE

19 RAMP 20 MPH W13-3B (2S)

20 W3-3 (3)

159 W1-6 (2M)

17 W1-1R (3)

18 20 M.P.H. W13-1 (3)

21 W1-60 (3)

22 20 M.P.H.

23 W13-1 (3) RIGHT LANE

24 W1-60 (3)

25 20 M.P.H. W13-1 (3) RIGHT LANE

26 RIGHT LANE REMOVE

SHEET 3 OF 13

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 84	E

FILE NAME : N:\PDS\C3D\CAD\12282202\SIGN\023201_PS.DWG
LAYOUT NAME - 023203_PS

PLOT DATE : 11/27/2019 8:30 AM PLOT BY : VANDE LEEST, CYNTHIAPLOT NAME :

PLOT SCALE : 1 IN:100 FT

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
EXISTING LIGHT OR SIGNAL POLE
SIGN BRIDGE
CANTILEVER SIGN BRIDGE
(XXX) DENOTES SIGN NUMBER
(X) INDICATES SIGN SIZE
ESTR EXISTING SIGN TO REMAIN
[XX] INDICATES SIGN DATE

MILWAUKEE RIVER

IH 43 SB

IH 43 NB

SILVER SPRING DR

PORT WASHINGTON RD

28 N Port Washington Rd
TYPE 1

29 Silver Spring Dr WEST
EXIT 20 MPH
TYPE 1

30 PARK & RIDE
D4-2(MOD)

160 RAMP 20 MPH
W13-3B (2M)
ON UPRIGHT

[2014] NORTH 43 MILE 78 .2
D10-5
ESTR

[2014] SOUTH 43 MILE 78 .2
D10-5
ESTR

31 W1-1R (3)
32 20 M.P.H. W13-1 (3)

33 34 35 36 37 38 38A
W1-8 (3)
4' MOUNT HEIGHT

[2016]
W4-3L
ESTR

39 W12-1D (4)
MOUNT ON BARRIER WALL

W1-6
ESTR

40 W3-3 (3)

41 Port Washington Rd
NORTH SOUTH
To Silver Spring Dr
TYPE II

42 43 44
ONLY
R3-5-L (2S) R3-6-L (2S) R3-5-R (2S)
S-40-911

45 PARK & RIDE
D4-2-R (2S)

46 47 WRONG WAY
R5-1A (3)
ON UPRIGHT

48 W1-6 (3)

49 EXIT 78
E5-1B (5)

49A W5-54S (2M)
49B W5-54S (2M)

50 EXIT 78
Silver Spring Dr
TYPE 1

50A EXIT 78

S-40-806
EXISTING SIGN SUPPORT TO REMAIN

S-40-911
EXISTING SIGN SUPPORT TO REMAIN

S-40-101
EXISTING SIGN SUPPORT TO REMAIN

1032"SS RAMP B"
1032"SS RAMP D"
1034"SS RAMP B"
1034"SS RAMP D"
1036"SS RAMP B"
1036"SS RAMP D"
1038"SS RAMP B"
1038"SS RAMP D"
1040"SS RAMP B"
1040"SS RAMP D"
1042"SS RAMP B"
1042"SS RAMP D"
1044"SS RAMP B"
1044"SS RAMP D"
1046"SS RAMP D"
1028"SS RAMP D"

SHEET 4 OF 13

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 85	E

FILE NAME : N:\PDS\C3D\CAD\12282202\SIGN\023201_PS.DWG
LAYOUT NAME - 023204_PS
PLOT DATE : 11/27/2019 8:30 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME :
PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

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

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

[XX] INDICATES SIGN DATE

N

MILWAUKEE RIVER

IH 43 SB

IH 43 NB

PORT WASHINGTON RD

1046 1048 1050 1052 1054 1056 1058 1060

1046"SS RAMP D" 1048"SS RAMP D" 1050"SS RAMP D" 1052"SS RAMP D" 1054"SS RAMP D"

[2014] NORTH 43 MILE 78 .4 D10-5 ESTR

[2014] SOUTH 43 MILE 78 .4 D10-5 ESTR

[2014] NORTH 43 MILE 78 .6 D10-5 ESTR

[2014] SOUTH 43 MILE 78 .6 D10-5 ESTR

[2014] RIGHT LANE ENDS W9-1R ESTR

[2014] THIS LANE ENDS W9-62 ESTR

[2014] LANE ENDS MERGE LEFT W9-2L ESTR

S-40-64 EXISTING SIGN STRUCTURE TO REMAIN

SHEET 5 OF 13

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 86	E

FILE NAME : N:\PDS\C3D\CAD\12282202\SIGN\023201_PS.DWG
LAYOUT NAME - 023205_PS

PLOT DATE : 11/27/2019 8:30 AM PLOT BY : VANDE LEEST, CYNTHIAPLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [XX] INDICATES SIGN DATE

N

BAYSHORE PARK & RIDE EXIT 7B
ESTR
TYPE 1

[2014]
NORTH 43 MILE 78 .8
D10-5
ESTR

[2014]
SOUTH 43 MILE 78 .8
D10-5
ESTR

JEAN NICOLET RD

1062 1064 1066 1068 1070 1072 1074 1076

IH 43 SB

IH 43 NB

PORT WASHINGTON RD

[2014]
W4-2R
ESTR

SHEET 6 OF 13

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 87	E

FILE NAME : N:\PDS\C3D\CAD\12282202\SIGN\023201_PS.DWG
LAYOUT NAME - 023206_PS

PLOT DATE : 11/27/2019 8:30 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:100 FT

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [XX] INDICATES SIGN DATE

51
W5-52R(3)
4' MOUNT HEIGHT"

[2014]
BENDER RD
ESTR
52
REMOVE

[2014]
EXIT 78
SILVERSPRING DR
½ MILE
E1-1A
ESTR

JEAN NICOLET RD

IH 43 SB
IH 43 NB

1076 1078 1080 1082 1084 1086 1088 1090

PORT WASHINGTON RD

BENDER RD

[2014]
NORTH 43
MILE 79 .0
D10-5
ESTR

[2014]
SOUTH 43
MILE 79 .0
D10-5
ESTR

UNION PACIFIC

ATHLETIC FIELD

SHEET 7 OF 13

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 88 E

FILE NAME : N:\PDS\C3D\CAD\12282202\SIGN\023201_PS.DWG
LAYOUT NAME - 023207_PS

PLOT DATE : 11/27/2019 8:31 AM PLOT BY : VANDE LEEST, CYNTHIAPLOT NAME :

PLOT SCALE : 1 IN:100 FT

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [XX] INDICATES SIGN DATE

IH 43 NB OFF RAMP TO PORT WASHINGTON RD

PORT WASHINGTON RD SB

PORT WASHINGTON RD NB

MILWAUKEE RIVER

97+00"PW" 98+00"PW" 99+00"PW" 100+00"PW" 101+00"PW" 102+00"PW" 103+00"PW"

53 ONE WAY WRONG WAY REMOVE

54 YIELD R1-2(2M)

55 DIVIDED HIGHWAY R6-3-A(2S)

56 STOP R1-1F(3) ON SIGNAL POLE

57 ONE WAY R6-2-L(2S) ON SIGNAL POLE

58 REMOVE

59 R3-4(2S)

60 STOP R1-1F(3)

63 R3-1(2S)

64 STOP R1-1F(3) ON SIGNAL POLE

65 R3-18(2S)

66 STOP R1-1F(3) ON SIGNAL POLE

67 R4-7(2S) ON SIGNAL POLE

68 ONE WAY R6-2-L(2S) ON SIGNAL POLE

69 DO NOT ENTER R5-1(3) ON SIGNAL POLE

70 WRONG WAY R5-1A(2S) 3' HEIGHT

71 STOP R1-1F(3) ON SIGNAL POLE

72 REMOVE

73 R3-18(2S)

74 STOP R1-1F(3) ON SIGNAL POLE

61 DO NOT ENTER R5-1(3)

62 WRONG WAY R5-1A(2S) 3' MOUNT HEIGHT

SHEET 8 OF 13

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 89	E

FILE NAME : N:\PDS\C3D\CAD\12282202\SIGN\023208_PS.DWG
LAYOUT NAME - 023208_PS

PLOT DATE : 11/27/2019 8:31 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:40 FT

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [XX] INDICATES SIGN DATE

MILWAUKEE RIVER

HAMPTON AVE EB

HAMPTON AVE WB

16+00"HA"

17+00"HA"

18+00"HA"

19+00"HA"

103+00"PW"

104+00"PW"

105+00"PW"

106+00"PW"

107+00"PW"

108+00"PW"

PORT WASHINGTON RD SB

PORT WASHINGTON RD NB

MATCH LINE - SEE SHEET 9A

RIPRAP

SLAB

PB15

164 TO SOUTH MILWAUKEE 43 M6-1 J33-1(2S)

76 R4-7 (2S)

77 R3-4 (2S)

78 DIVIDED HIGHWAY R6-3 (2S)

79 STOP R1-1F (3) ON SIGNAL POLE

80 YIELD REMOVE

81 STOP R1-1F (3) ON SIGNAL POLE

83 DIVIDED HIGHWAY R6-3 (2S)

84 STOP R1-1F (3) ON SIGNAL POLE

85 LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50 (2S) ON MAST ARM

86 R4-7 (2S)

87 R3-4 (2S)

88 STOP R1-1F (3) ON SIGNAL POLE

89 TO SOUTH MILWAUKEE 43 M4-5 M3-3 M1-1 M6-1 J33-1(2S)

90 W12-1D (2S) 2' MOUNT HEIGHT

91 92 STOP R1-1F

93 DIVIDED HIGHWAY R6-3 (2S)

94 R4-7 (2S)

95 R3-4 (2S)

97 STOP R1-1F (3)

98 W12-1D (2S) 2' MOUNT HEIGHT ON SIGNAL POLE

99 YIELD R1-2 (2M)

100 R4-7 (2S)

101 W5-52L (2S)

102 DIVIDED HIGHWAY R6-3 (2S)

103 STOP R1-1F (3) ON SIGNAL POLE

104 LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50 (2S) ON MAST ARM

105 STOP R1-1F (3) ON SIGNAL POLE

106 YIELD R1-2 (2M) ON LIGHT POLE

107 NO MOTOR VEHICLES R5-3 MOVE

108 STOP R1-1 MOVE

109 PARKS OAK LEAF TRAIL PARK SIGN MOVE

OAK LEAF TRAIL BY OTHERS COUNTY PARKS

ESTR

SHEET 9 OF 13

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 90	E

FILE NAME : N:\PDS\C3D\CAD\12282202\SIGN\023202_PS.DWG
LAYOUT NAME - 023209_PS

PLOT DATE : 11/27/2019 8:33 AM PLOT BY : VANDE LEEST, CYNTHIAPLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

103+00"PW" 104+00"PW" 105+00"PW" 106+00"PW" 107+00"PW" 108+00"PW"

PORT WASHINGTON RD NB

MILWAUKEE RIVER

HAMPTON AVE EB

HAMPTON AVE WB

MATCH LINE - SEE SHEET 9A

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [XX] INDICATES SIGN DATE

18+00"HA"

19+00"HA"

20+00"HA"

35'

25'

ONLY

169

BEGIN LEFT TURN LANE

R3-20-L(2S)

RIPRAP

SLAB

MH INL W

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

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

[XX] INDICATES SIGN DATE

N

ONLY ONLY
REMOVE

RIGHT LANE MUST TURN RIGHT
R3-7-R(3)
165

Hampton Ave
166
REMOVE

EXISTING OVERHEAD SIGN SUPPORT S-40-264

MATCH LINE - SEE SHEET 9

PORT WASHINGTON RD SB

PORT WASHINGTON RD NB

22

108+00"PW"

109+00"PW"

110+00"PW"

111+00"PW"

112+00"PW"

113+00"PW"

BEGIN LEFT TURN LANE
168
R3-20-L
MOVE

TO SOUTH
INTERSTATE 43
Hampton Ave
167
MOVE OVER
RIGHT LANE

U/C
MH
INL
SLAB
FLAG
W

SHEET 9B OF 13

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 92	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

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

[XX] INDICATES SIGN DATE

N

HAMPTON AVE WB

HAMPTON AVE EB

11+00"HA" 12+00"HA" 13+00"HA" 14+00"HA" 15+00"HA" 16+00"HA"

100' 325' +/-

30'

25'

113 LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50(2S) ON MAST ARM

114 R4-7(2S) ON SIGNAL POLE

SOUTH INTERSTATE 43 REMOVE

SOUTH 116 INTERSTATE 43 J3-1(2S)

122 STOP 123 R1-1F(3)

124 W3-3(2S) 16X16 TEMP ORANGE FLAGS

R5-2 3 TONS OR OVER ESTR

115 STOP R1-1F(3)

117 STOP R1-1F(3) ON SIGNAL POLE

SOUTH INTERSTATE 43 ESTR

121 R4-7(2S)

112 RAMP CLOSED USE ALT ROUTE R11-54-F(2S)

125 W3-3(2S) 16X16 TEMP ORANGE FLAGS ON LIGHT POLE

110 NEW TRAFFIC PATTERN AHEAD W23-2(2S) 16X16 TEMP ORANGE FLAGS

111 W3-3(2S) 16X16 TEMP ORANGE FLAGS

REMOVE YIELD 118 R1-2(2M) ON LIGHT POLE

161 RAMP CLOSED USE ALT ROUTE R11-54-F(2S)

REMOVE YIELD 119 R1-2(2M)

RAMP METERED WHEN FLASHING REMOVE 120 W3-8(2S) ON SIGNAL POLE

I-43 SB

I-43 NB

RIPRAP

SHEET 10 OF 13

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - HAMPTON AVE	SHEET 93	E

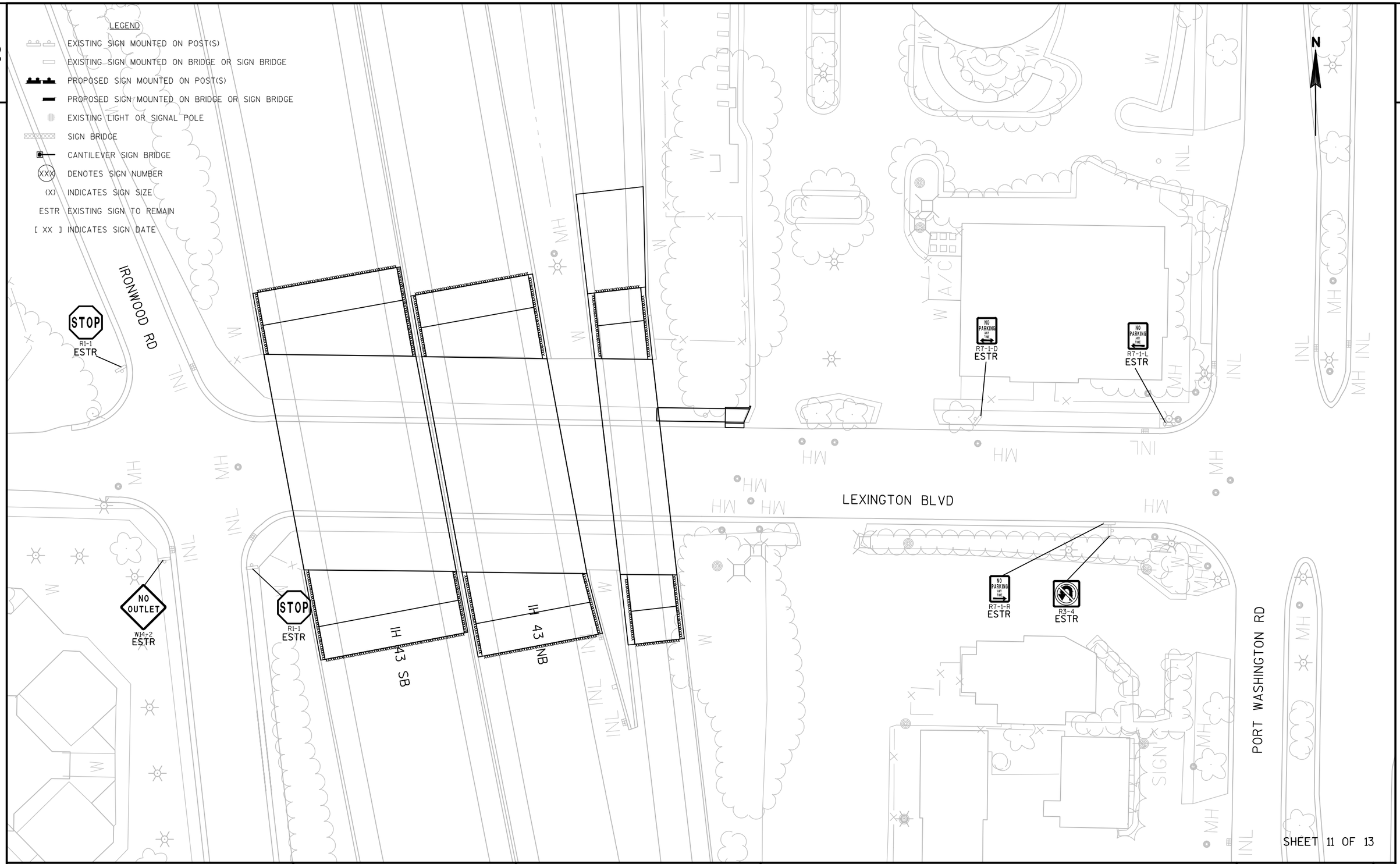
FILE NAME : N:\PDS\C3D\CAD\12282202\SIGN\023202_PS.DWG
LAYOUT NAME - 023210_PS

PLOT DATE : 11/27/2019 8:34 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:40 FT

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [XX] INDICATES SIGN DATE



SHEET 11 OF 13

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 94 E

FILE NAME : N:\PDS\C3D\CAD\12282202\SIGN\023203_PS.DWG
LAYOUT NAME - 023211_PS

PLOT DATE : 11/27/2019 8:35 AM PLOT BY : VANDE LEEST, CYNTHIAPLOT NAME : PLOT SCALE : 1 IN:40 FT

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [XX] INDICATES SIGN DATE

MILWAUKEE RIVER

SILVER SPRING DR

19+00"SS"

20+00"SS"

IH 43 SB OFF RAMP

IH 43 SB ON RAMP

N

W5-52R
ESTR

SPEED LIMIT 30
R2-1

NO PARKING ANY TIME
R7-1-L
ESTR

DO NOT ENTER
WRONG WAY
REMOVE

126 DO NOT ENTER
R5-1 (3)

127 WRONG WAY
R5-1A (2S)
3' MOUNT HEIGHT

YIELD
REMOVE

128 YIELD
R1-2 (2M)

STOP
REMOVE

129 STOP
R1-1F (3)
ON SIGNAL POLE

130 DIVIDED HIGHWAY
R6-3 (2S)
ON SIGNAL POLE

ONE WAY
REMOVE

131 ONE WAY
R6-2-L (2S)
ON SIGNAL POLE

137
R3-1B (2S)

STOP
REMOVE

138 STOP
R1-1F (3)
ON SIGNAL POST

ONE WAY
REMOVE

132 ONE WAY
R6-2-R (2S)

133
R4-7 (2S)

REMOVE
134
R3-4 (2S)

136 STOP
R1-1F (3)
ON SIGNAL POLE

SOUTH INTERSTATE 43
135 SOUTH INTERSTATE 43
REMOVE
J3-1 (2S)
ON SIGNAL POLE

SOUTH INTERSTATE 43
J3-1
ESTR

YIELD
REMOVE
139 YIELD
R1-2 (2M)

TURNING VEHICLES TO
REMOVE
140 TURNING VEHICLES TO
R10-15-R (2S)

162 RAMP CLOSED USE ALT ROUTE
R11-54-F (2S)

YIELD
REMOVE

SHEET 12 OF 13

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 95 E

FILE NAME : N:\PDS\C3D\CAD\12282202\SIGN\023204_PS.DWG
LAYOUT NAME - 023212_PS

PLOT DATE : 11/27/2019 8:35 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

IH 43 SB OFF RAMP

STOP R1-1F (3) ON SIGNAL POLE 144

R3-1 (2S) 145

STOP R1-1F (3) ON SIGNAL POLE 146

DIVIDED HIGHWAY R6-3 (2S) ON SIGNAL POLE 163

DO NOT ENTER R5-1 (3) 147

WRONG WAY R5-1A (2S) 3' MOUNT HEIGHT 148

R4-7 (2S) ON SIGNAL POLE 149

STOP HERE ON RED R10-6 (MOD) 150

STOP R1-1F (3) ON SIGNAL POLE 151

LEFT TURN LANE R3-55L ESTR

SOUTH INTERSTATE 43 ESTR

SILVER SPRING DR

ONLY R3-5-L ESTR

RIGHT LANE MUST TURN RIGHT R3-7-R ESTR

ONE WAY R6-2-L (2S) ON SIGNAL POLE 152

TO NORTH INTERSTATE 43 J3-1 ESTR

LEFT TURN LANE R3-55L ESTR

LEFT LANE BUSES MOTORCYCLES AND 2 OR MORE OCCUPANT CAR POOLS ONLY R3-51-L ESTR

RAMP CLOSED USE ALT ROUTE 163 R11-54-F (2S)

IH 43 SB ON RAMP

IH 43 SB

IH 43 NB

IH 43 NB ON RAMP

IH 43 NB OFF RAMP

SLAB

21+00"SS" 22+00"SS" 23+00"SS" 24+00"SS" 25+00"SS" 26+00"SS"

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [XX] INDICATES SIGN DATE

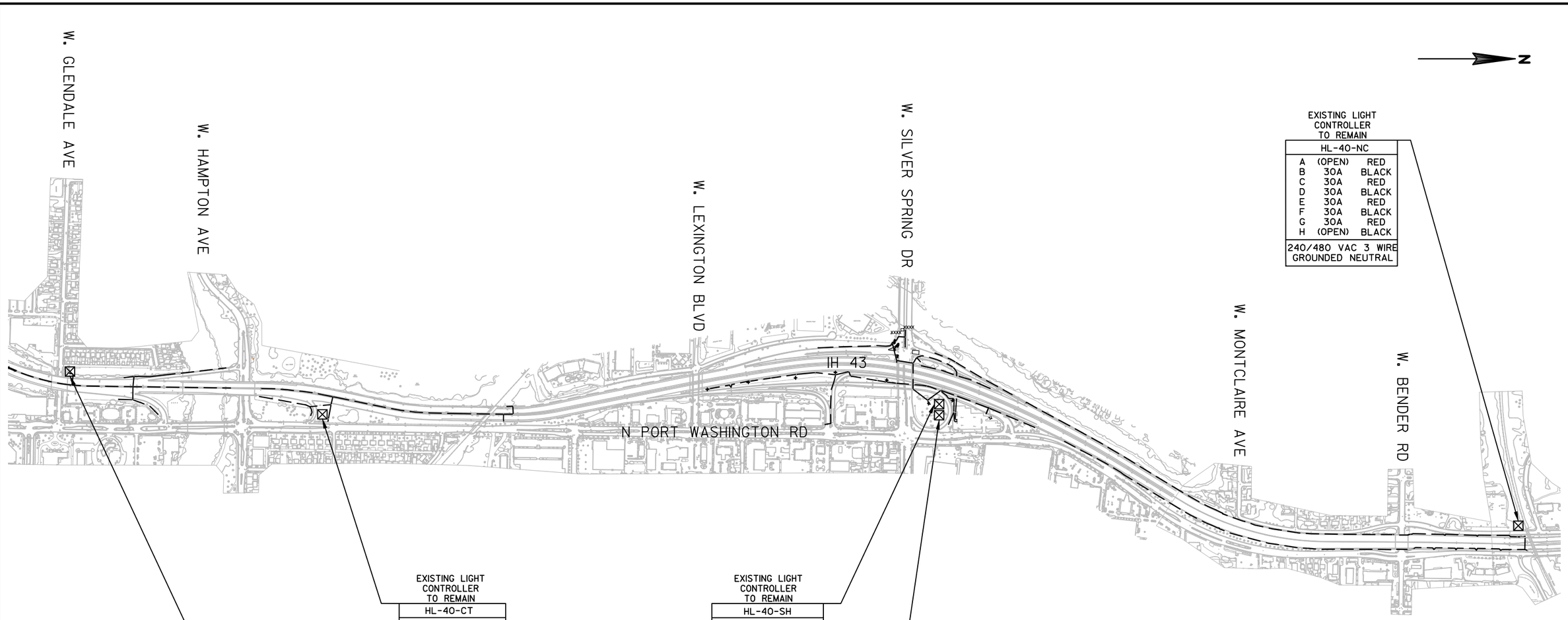
N

SHEET 13 OF 13

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 96 E

FILE NAME : N:\PDS\C3D\CAD\12282202\SIGN\023204_PS.DWG
LAYOUT NAME - 023213_PS

PLOT DATE : 11/27/2019 8:36 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:40 FT



EXISTING LIGHT CONTROLLER TO REMAIN

HL-40-NC		
A	(OPEN)	RED
B	30A	BLACK
C	30A	RED
D	30A	BLACK
E	30A	RED
F	30A	BLACK
G	30A	RED
H	(OPEN)	BLACK
240/480 VAC 3 WIRE GROUNDED NEUTRAL		

EXISTING LIGHT CONTROLLER TO REMAIN

HL-40-CT	
A,B,C,D,E	BLACK
N	WHITE
GND	GREEN OR BARE
A,B,C,D,E	30 A
480 VAC 2 WIRE GROUNDED NEUTRAL	

EXISTING LIGHT CONTROLLER TO REMAIN

HL-40-SH	
A,C,E	RED
B,D,F	BLACK
N	WHITE
240/480 VAC 3 WIRE ISOLATED NEUTRAL	

EXISTING LIGHT CONTROLLER TO REMAIN

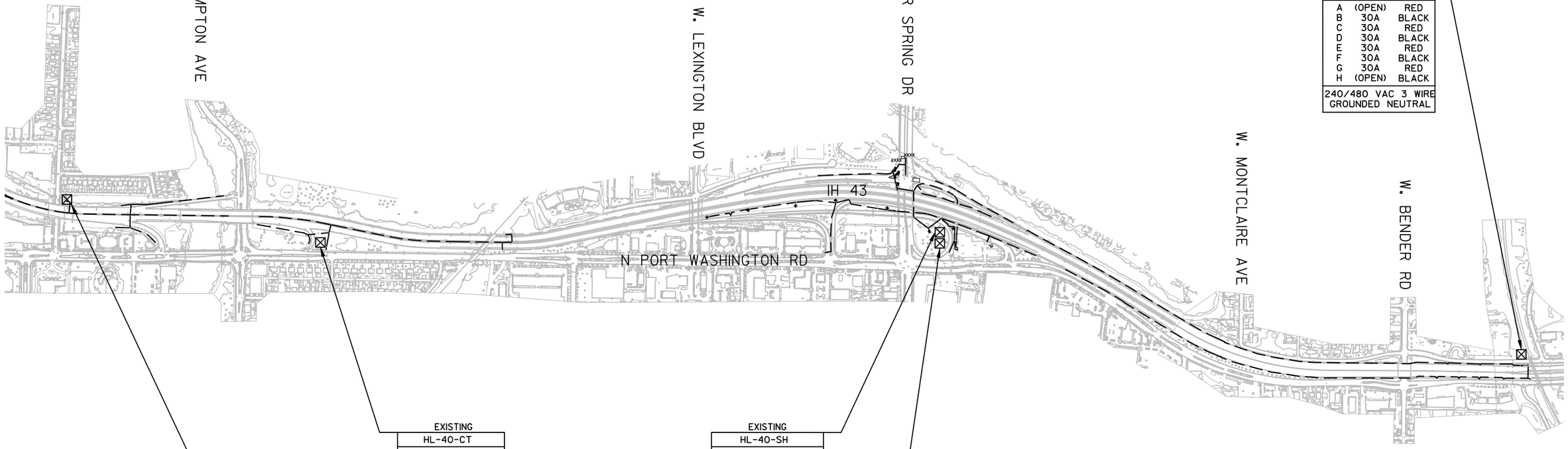
HL-40-GL	
A,B,C,D	BLACK
N	WHITE
GND	GREEN OR BARE
A,B,C,D	
480 VAC 2 WIRE GROUNDED NEUTRAL	

EXISTING LIGHT CONTROLLER TO REMAIN

HL-40-BY	
A,C,E	RED
B,D,F	BLACK
N	WHITE
240/480 VAC 3 WIRE ISOLATED NEUTRAL	

SHEET 1 OF 1

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - REMOVALS OVERVIEW	SHEET 97	E



EXISTING
HL-40-NC

A	(OPEN)	RED
B	30A	BLACK
C	30A	RED
D	30A	BLACK
E	30A	RED
F	30A	BLACK
G	30A	RED
H	(OPEN)	BLACK

240/480 VAC 3 WIRE GROUNDED NEUTRAL

EXISTING
HL-40-CT

A,B,C,D,E	BLACK
N	WHITE
GND	GREEN OR BARE
A,B,C,D,E	30 A

480 VAC 2 WIRE GROUNDED NEUTRAL

EXISTING
HL-40-SH

A,C,E	RED
B,D,F	BLACK
N	WHITE

240/480 VAC 3 WIRE ISOLATED NEUTRAL

EXISTING
HL-40-GL

A,B,C,D	BLACK
N	WHITE
GND	GREEN OR BARE
A,B,C,D	

480 VAC 2 WIRE GROUNDED NEUTRAL

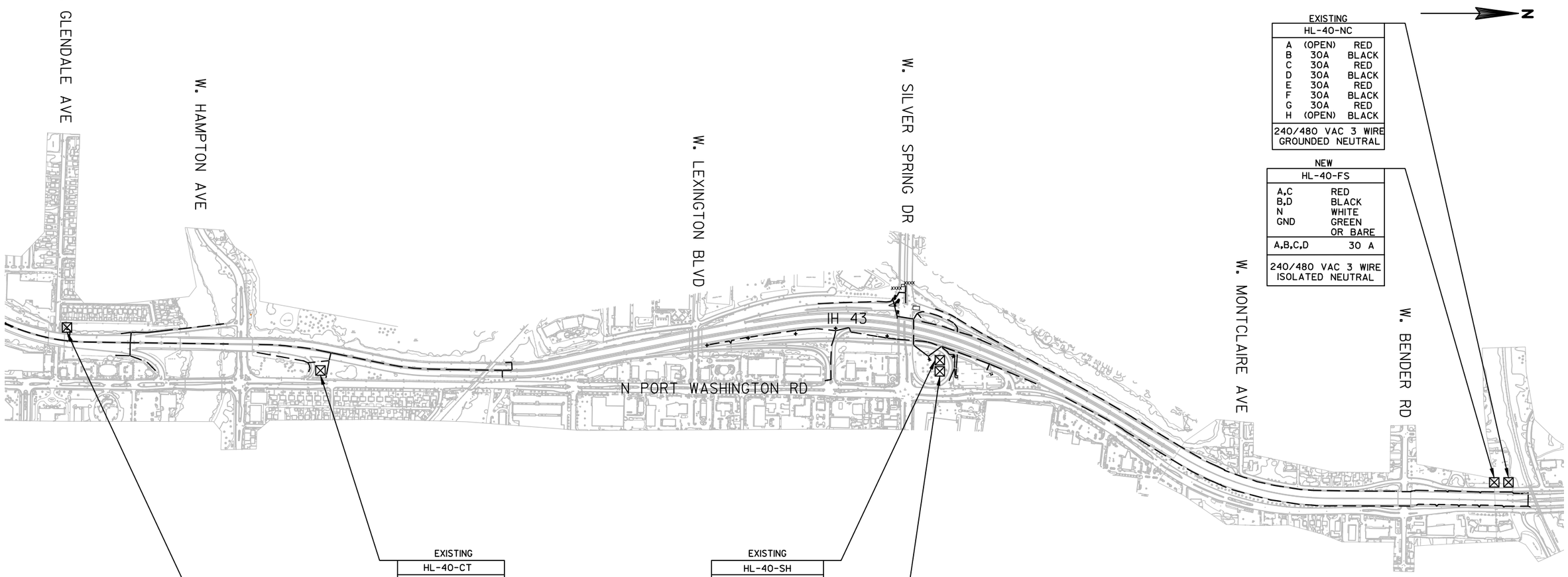
EXISTING
HL-40-BY

A,C,E	RED
B,D,F	BLACK
N	WHITE

240/480 VAC 3 WIRE ISOLATED NEUTRAL

SHEET 1 OF 1

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - TEMPORARY OVERVIEW	SHEET 98	E



EXISTING
HL-40-NC

A	(OPEN)	RED
B	30A	BLACK
C	30A	RED
D	30A	BLACK
E	30A	RED
F	30A	BLACK
G	30A	RED
H	(OPEN)	BLACK

240/480 VAC 3 WIRE GROUNDED NEUTRAL

NEW
HL-40-FS

A,C	RED
B,D	BLACK
N	WHITE
GND	GREEN OR BARE
A,B,C,D	30 A

240/480 VAC 3 WIRE ISOLATED NEUTRAL

EXISTING
HL-40-CT

A,B,C,D,E	BLACK
N	WHITE
GND	GREEN OR BARE
A,B,C,D,E	30 A

480 VAC 2 WIRE GROUNDED NEUTRAL

EXISTING
HL-40-SH

A,C,E	RED
B,D,F	BLACK
N	WHITE

240/480 VAC 3 WIRE ISOLATED NEUTRAL

EXISTING
HL-40-GL

A,B,C,D	BLACK
N	WHITE
GND	GREEN OR BARE
A,B,C,D	

480 VAC 2 WIRE GROUNDED NEUTRAL

EXISTING
HL-40-BY

A,C,E	RED
B,D,F	BLACK
N	WHITE

240/480 VAC 3 WIRE ISOLATED NEUTRAL

SHEET 1 OF 1

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - FINAL OVERVIEW	SHEET 99	E

2

GENERAL NOTES

DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOCATIONS OF THE PVC CONDUITS ARE IDENTIFIED IN THE PLANS WHERE THEY ARE REQUIRED. APPROPRIATE ADJUSTMENT ON 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.

THE TRENCH SHALL NOT BE BACK FILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL CONDUITS SHALL BE CAPPED OR PLUGGED WITH ENGINEER APPROVED FITTINGS IMMEDIATELY AFTER INSTALLATION.

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.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS.

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, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

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.) UNLESS OTHERWISE NOTED ON PLANS.

PULL ROPE (3/8–INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUITS.

CONTRACTOR SHALL SUPPLY AS–BUILT DRAWING FOR ALL THE WORK BEING DONE.

INSTALLATION OF LATERAL UNDERGROUND CONDUIT UNDER PAVEMENT SHALL BE INSTALLED MINIMUM 30 INCHES 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.

PITCH ALL CONDUITS TOWARD PULL BOXES. INSTALL A 2" DRAIN DUCT TO STORM SEWER OR DRAIN SUMP AS REQUIRED FOR DRAINAGE. THE 2" DRAIN DUCT OR SUMP IS INCIDENTAL TO THE PULL BOX BID ITEM AND IS NOT SHOWN.

THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE, IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

HAND DIGGING MAY BE REQUIRED FOR LOCATIONS ADJACENT TO EXISTING GAS AND POWER LINES. HAND EXCAVATION SHOULD BE ANTICIPATED & WILL BE CONSIDERED INCIDENTAL TO THE CONCRETE BASES BID ITEM. COORDINATE ALL WORK NEAR GAS LINE WITH WE ENERGIES.

EXISTING CONDUIT AND CID NO LONGER BEING USED IS ABANDONED IN PLACE. THE CONTRACTOR MAY REMOVE ABANDONED WIRING AT THE CONTRACTOR'S EXPENSE. ABANDONED PULL BOX REMOVAL IS INCIDENTAL TO THE ROAD CONSTRUCTION.

ALL UNDERGROUND WIRING AND CONDUIT FOR POLES BEING REMOVED IS ABANDONED IN PLACE UNLESS NOTED OTHERWISE. CONTRACTOR MAY SALVAGE ABANDONED WIRING AT HIS OWN EXPENSE.

IF CID CONTAINS PHASE CONDUCTOR(S) THAT WILL NOT BE USED FOR FURTHER POLES, I.E. AT THE END OF A CIRCUIT, DO NOT ENERGIZE THE CONDUCTOR(S) LEAVING THE LAST POLE THE PHASE WAS UTILIZED. REMOVE EXCESS CONDUCTOR(S) IN ALL SUBSEQUENT POLES.

SEAL THE ENDS OF ALL CID RACEWAY WITH A UL RECOGNIZED CONDUIT SEALANT. PROVIDE A 1#2" NYLON ROPE EXTENDING BEYOND THE PLUG TO ASSIST IN REMOVING THE PLUG IN THE FUTURE.

SEE DETAIL "CONDUIT DETAILS AT STRUCTURE PARAPET TO ROADWAY BARRIER INTERFACE" WHEN CONDUIT EXITS TO GRADE FROM A BRIDGE PARAPET OR RETAINING WALL. RIGID METALLIC CONDUIT IN CONCRETE BARRIER IS INCIDENTAL TO THE RIGID NONMETALLIC CONDUIT.

PROVIDE MINIMUM CABLE SLACK AS NOTED BELOW:

PULL BOXES:	5–FT ONE WAY IN OR OUT
EMBEDDED JUNCTION BOXES:	3–FT
DISTRIBUTION CENTER/LOAD CENTER:	10–FT

STAGING NOTES

MAINTAIN LIGHTING AT ALL TIMES DURING CONSTRUCTION USING EXISTING LIGHTING, PROPOSED TEMPORARY, FINAL LIGHTING OR COMBINATIONS.

DO NOT REMOVE EXISTING LIGHTING UNTIL THE NEW OR TEMPORARY LIGHTING IS OPERATIONAL. REFER TO DRAWINGS FOR STAGING INFORMATION.

MAINTAINING SYSTEM CONTINUITY SHALL BE INCIDENTAL TO THE "REMOVE EXISTING STREET LIGHTS" BID ITEM.

DUE TO THE PHASING OF CONSTRUCTION SOME FINAL LIGHTING UNITS MAY BE ORPHANED UNTIL A LATER STAGE IS COMPLETE. IT IS AT THE DISCRETION OF THE CONTRACTOR TO SCHEDULE
THESE ITEMS. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THE PLACEMENT OF RACEWAY THAT SPANS TWO DIFFERENT PHASES OF CONSTRUCTION.

TEMPORARY OR FINAL LIGHTING MUST ILLUMINATE AN AREA BEFORE EXISTING LIGHTING UNITS IN AN AREA CAN BE REMOVED. THE SCHEDULING OF REMOVAL IS AT THE DISCRETION OF THE
CONTRACTOR WITH THE PROVISION THAT LIGHTING OF THE ROADWAY IS PROVIDED AT ALL TIMES.

COORDINATE POLE REMOVAL WITH TRAFFIC CONTROL.

CONSTRUCTION STAGE IDENTIFIER

1 – CONSTRUCTION STAGE 1	3A – CONSTRUCTION STAGE 3A
1A – CONSTRUCTION STAGE 1A	3B – CONSTRUCTION STAGE 3B
1B – CONSTRUCTION STAGE 1B	4A – CONSTRUCTION STAGE 4A
2A – CONSTRUCTION STAGE 2A	4B – CONSTRUCTION STAGE 4B
2B – CONSTRUCTION STAGE 2B	

LEGEND – LIGHTING REMOVALS

- CONDUIT – 2" UNLESS OTHERWISE SHOWN
- C.I.D. (CABLE IN DUCT)
- (*) DENOTES THE STAGE NUMBER FOR REMOVAL SEE REMOVAL LIGHTING GENERAL NOTES ON SHEET 2 OF 2
- XYYZ — EXISTING SINGLE ARM FREEWAY LIGHTING UNIT
  X – CIRCUIT
  YY – DISTRIBUTION CENTER
  Z – POLE/LUMINAIRE ID NUMBER
- XYYZ — EXISTING TWIN ARM FREEWAY LIGHTING UNIT
  X – CIRCUIT
  YY – DISTRIBUTION CENTER
  Z – POLE/LUMINAIRE ID NUMBER
- XXYZ — EXISTING SINGLE ARM LOCAL LIGHTING UNIT
  XX – DISTRIBUTION CENTER
  Y – CIRCUIT (AS NOTED)
  Z – POLE/LUMINAIRE ID NUMBER
- DISTRIBUTION CENTER
- TRANSFORMER
- ELECTRIC METER SOCKET
- EXISTING HANDHOLE
- EXISTING PULLBOX
- EXISTING UDL (UNDER DECK LIGHTING)
- PHOTOCELL

LEGEND – TEMPORARY LIGHTING

- LIGHTING CONTROL CABINET
- V, W / T–PB–XX–YY — PULL BOX, 24" x 36"
  V – STATION, W – OFFSET
  T – TEMPORARY
  PB – PULLBOX
  XX – DISTRIBUTION CENTER
  YY – PULLBOX NUMBER
- EXISTING SINGLE ARM LOCAL LIGHTING UNIT
- EXISTING SINGLE ARM FREEWAY LIGHTING UNIT
- EXISTING TWIN ARM FREEWAY LIGHTING UNIT
- —OH— OVERHEAD CABLE (AERIAL ALUMINUM)
- CONDUIT, 2" UNLESS OTHERWISE NOTED
- (*) DENOTES THE CONSTRUCTION STAGE FOR INSTALLATION/REMOVAL
- (X/Y) EXISTING TO BE REMOVED IN STAGE "Y"

LEGEND – PROPOSED LIGHTING

- CID (CABLE IN DUCT)
- CONDUIT – 2" UNLESS OTHERWISE SHOWN
- PROPOSED SINGLE ARM FREEWAY LIGHTING UNIT
- PROPOSED TWIN ARM FREEWAY LIGHTING UNIT
- EXISTING FREEWAY LIGHTING UNIT TO REMAIN
- LIGHTING CONTROL CABINET
- PULL BOX 24" x 36"
- PULL BOX 24" x 42"
- X/Y/ZZ — HIGH MAST LIGHTS
  HML–40–W
  X/Y/ZZ
  X&Y–CKT
  ZZ–LIGHTING CABINET
  W–ID NUMBER
- ELECTRIC METER SOCKET
- SM DENOTES STRUCTURE MOUNTED
- (*) DENOTES THE STAGE FOR INSTALLATION NUMBER FOR INSTALLATION – SEE FINAL LIGHTING GENERAL NOTE 1 ON SHEET 2 OF 2
- STUBOUT
- LUMINAIRE IDENTIFICATION
  STATION – OFFSET (TWO CALLOUTS IF TWIN)
  LED–X–X(T)–4–XYYZ
  - LUMINAIRE NUMBER
  - LIGHTING CONTROL CABINET
  - CIRCUIT
  - LUMINAIRE ARM LENGTH
  - POLE TYPE, (T) WITH TRANSFORMER BASE BREAKAWAY
  - LUMINAIRE UTILITY CATEGORY
  - LUMINAIRE TYPE SOURCE

  PLAQUE SEQUENCE INDENTIFICATION
- UNDERDECK LUMINAIRE

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - GENERAL NOTES	SHEET 100	E

FILE NAME : W:\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023801_LP_MOD.DWG PLOT DATE : 12/6/2019 1:36 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1" = 50'
WISDOT/CADDS SHEET 42

2

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.

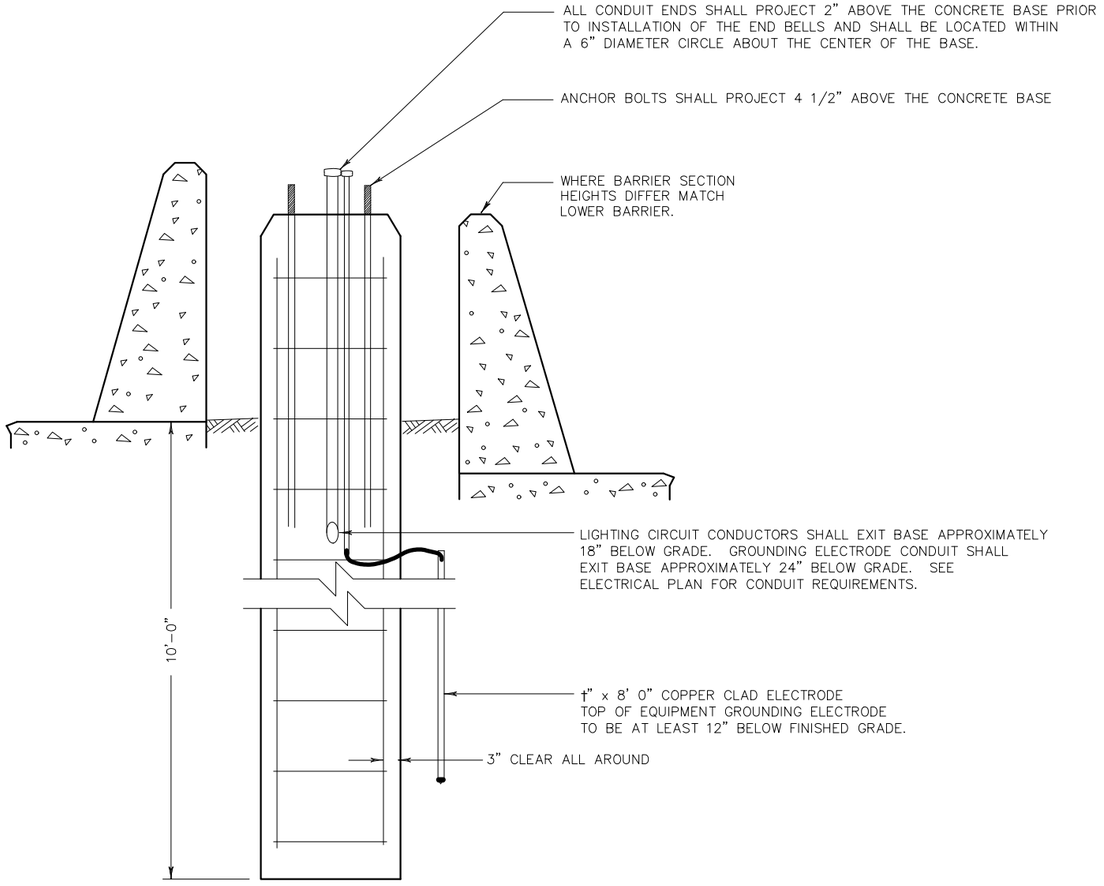
. LIGHTING PLAN REMOVAL – GENERAL NOTES:

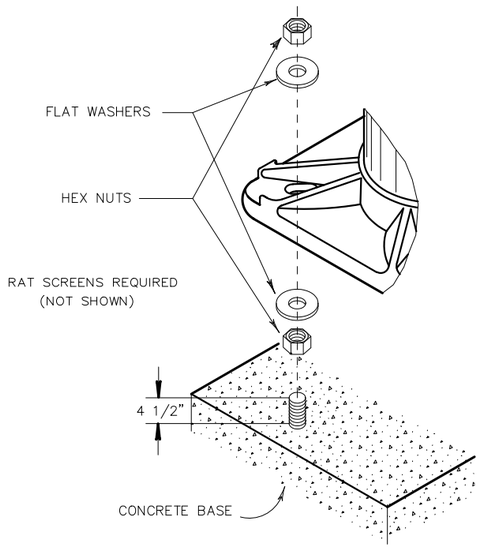
1. THE FREEWAY LIGHTING WORK SHOWN ON FINAL LIGHTING PLANS SHALL BE INSTALLED AND MADE OPERATIONAL BEFORE THE CONSTRUCTION STAGE INDICATED ON PLANS PRIOR TO THE CHANGE OF TRAFFIC PATTERN FOR NEXT CONSTRUCTION STAGE UNLESS NOTED OTHERWISE.
2. INSTALLATION OF UNDERGROUND CONDUIT LATERAL UNDER PAVEMENT 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.

NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

DETAILS OF CONSTRUCTION WITH THE EXCEPTION OF HEIGHT ABOVE GRADE AND CONDUIT SIZE SHALL BE AS DEFINED IN THE STANDARD DETAIL FOR TYPE 8 BASE.



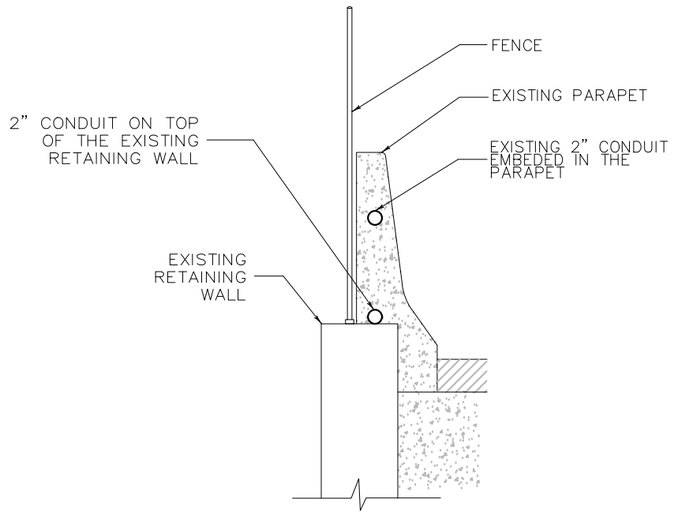


CONCRETE BASE, TYPE "B"

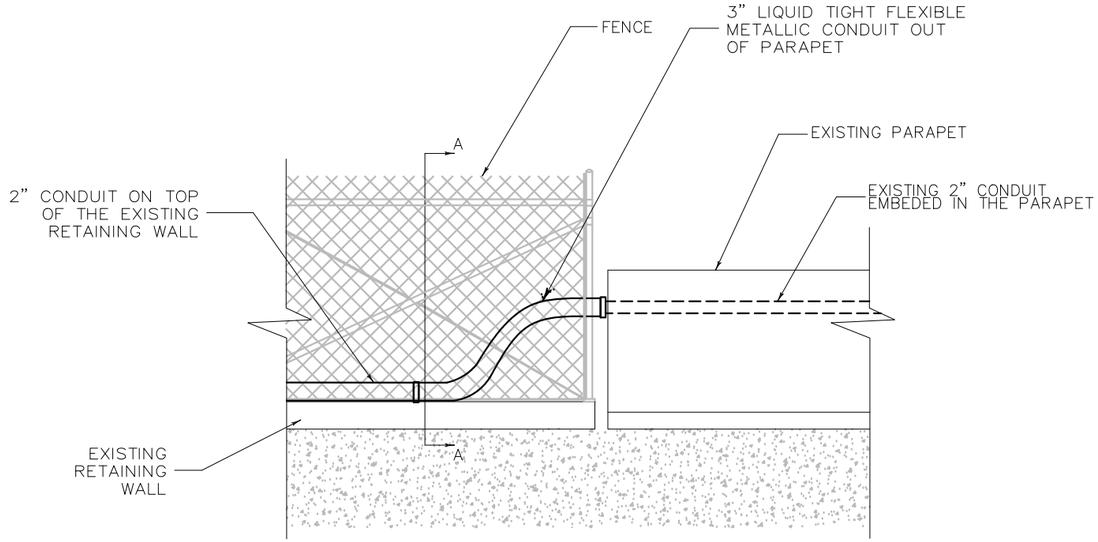
(1" ANCHOR RODS, 15" BOLT CIRCLE, 4 1/2" PROJECTION)

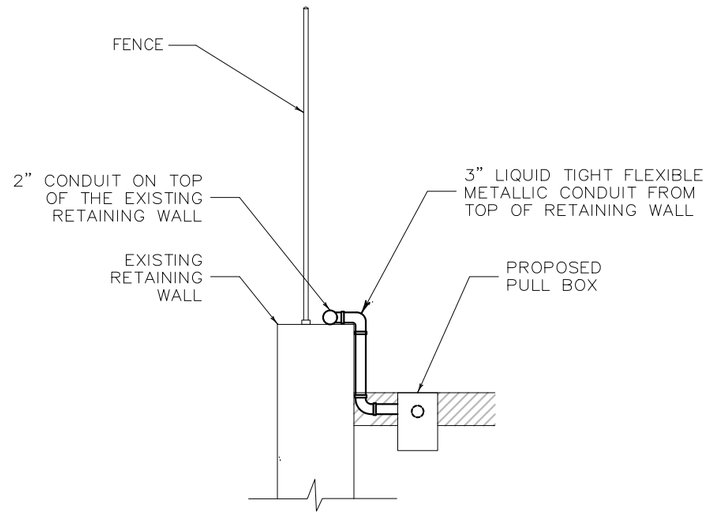
SHEET 1 OF 3

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - DETAILS	SHEET 102	E



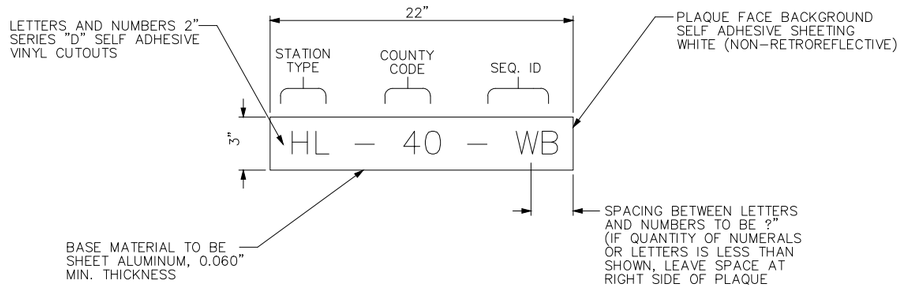
SECTION A–A





PARAPET LIGHTING CONDUIT DETAIL

NOT TO SCALE



DISTRIBUTION CENTER
IDENTIFICATION PLAQUE

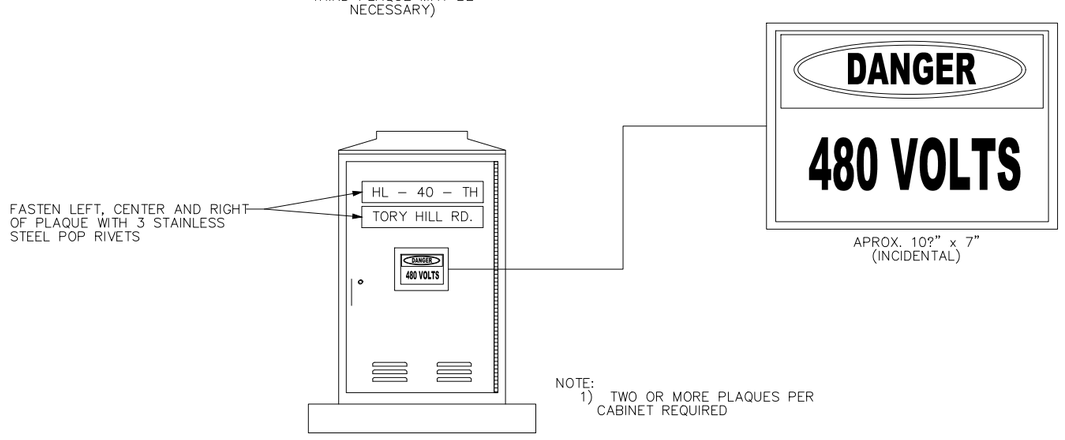
WISCONSIN AVE.

MNEMONIC

(SEE MISCELLANEOUS QUANTITIES)
(NUMBER OF CHARACTERS VARIES
THIRD PLAQUE MAY BE
NECESSARY)

GENERAL NOTE:

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

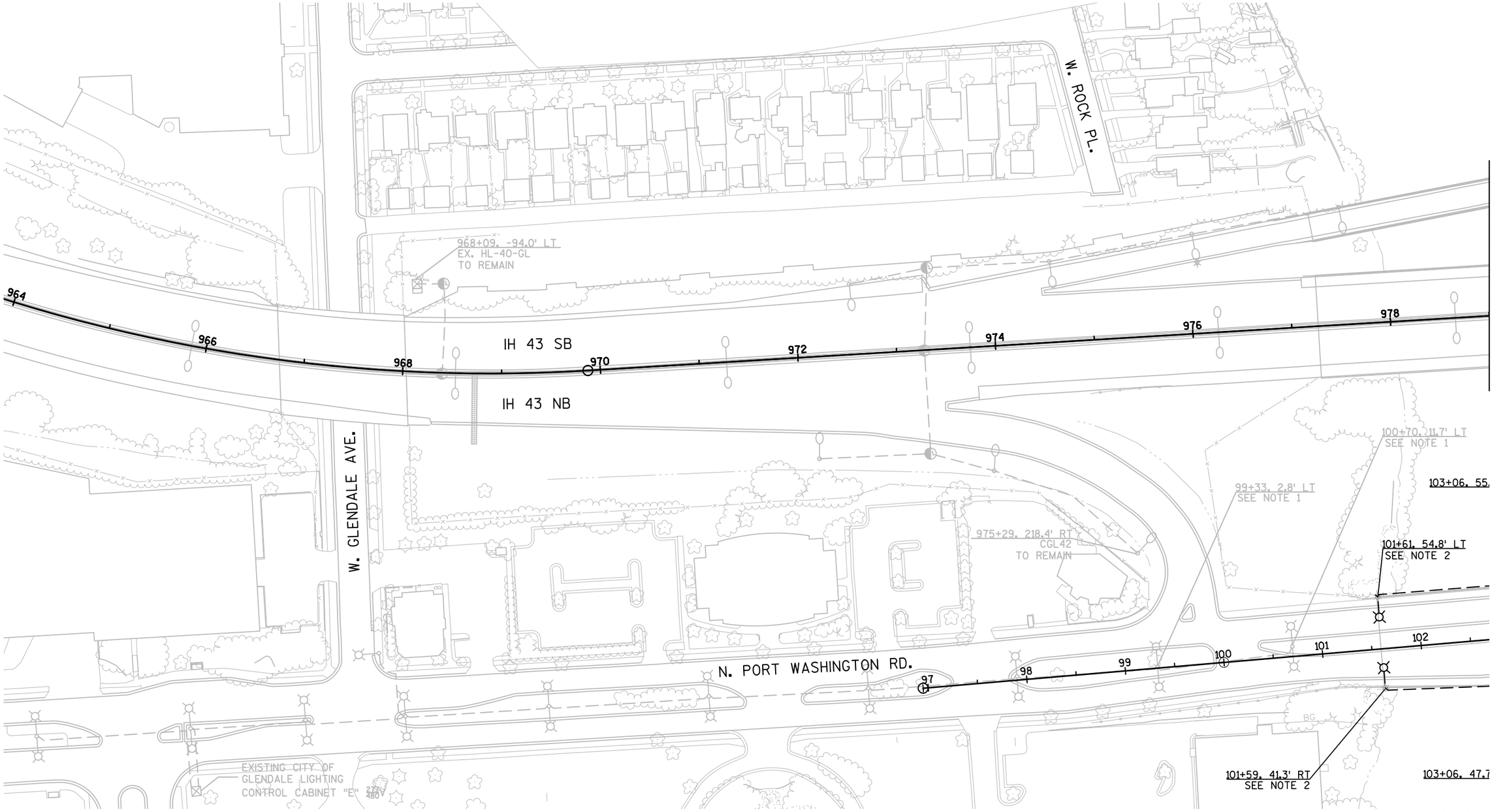


DISTRIBUTION CENTER IDENTIFICATION PLAQUE
REQUIREMENTS AND PLACEMENTS

(TYPICAL ALL CONTROL CABINETS)

NOTES:

1. EXISTING CITY OF GLENDALE LIGHTING TO REMAIN.
2. EXISTING CITY OF MILWAUKEE LIGHTING TO BE MODIFIED AND TRANSFERRED TO CITY OF GLENDALE.



SHEET 1 OF 9

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - REMOVALS	SHEET 105	E

NOTES:

1. EXISTING MILWAUKEE COUNTY PARKS LIGHTING TO REMAIN.
2. EXISTING CITY OF MILWAUKEE LIGHTING TO BE REMOVED BY CITY OF MILWAUKEE.
3. EXISTING CITY OF GLENDALE LIGHTING TO REMAIN.
4. EXISTING CITY OF MILWAUKEE LIGHTING TO BE MODIFIED AND TRANSFERRED TO CITY OF GLENDALE

N

982+08, 422.3' LT
SEE NOTE 1

11+55, 10.7' LT
SEE NOTE 1

12+83, 7.7' LT
SEE NOTE 2

13+55, 7.5' LT
SEE NOTE 2

12+89, 132.2' RT
DGL 45
TO REMAIN

W. HAMPTON AVE.

IH 43 SB

IH 43 NB

MATCHLINE STA. 979+00.00

MATCHLINE STA. 994+00.00

15+53, 8.3' LT

SEE NOTE 2
16+63, 16.9' LT

SEE NOTE 2
17+02, 44.1' RT

SEE NOTE 4

5.1' LT

SEE NOTE 2
104+52, 54.5' LT

SEE NOTE 4

106+60, 39.1' LT
SEE NOTE 2

107+67, 4.7' LT
SEE NOTE 2

109+26, 57.3' LT
S-40-264
NO SIGN LIGHTING

SIGN
EX. HL-40-CT
TO REMAIN
112+80, 53.0' LT

SEE NOTE 3

991+61, 169.0' RT
SEE NOTE 3

112+58, 8.0' LT

N. PORT WASHINGTON RD.

W. CHATEAU PL.

106+53, 28.6' RT
SEE NOTE 2

108+94, 2.2' LT
SEE NOTE 2

110+14, 16' LT
SEE NOTE 2

111+38, 0.7' RT
SEE NOTE 2

SEE NOTE 3

SEE NOTE 3

992+98, 221.

990+48, 267.9' RT

SEE NOTE 4

104+51, 47.7' RT
SEE NOTE 2

SEE NOTE 4

105+46, 32.0' RT

18+78, 7.5' LT
SEE NOTE 2

SHEET 2 OF 9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - REMOVALS	SHEET 106	E

2

N

1001+03, 1.8' LT
CCT5/DCT5

#6-2-6
C, N, D

MATCHLINE STA. 994+00.00

996 998 1000 1002 1004 1006 1008

IH 43 SB

IH 43 NB

MATCHLINE STA. 1009+00.00

N. PORT WASHINGTON RD.

W. MARNE DR.

1001+05, 1.1' RT
S-40-229
1 FAMV CCT
REMOVE SIGN
LIGHTING ONLY

NOTES:

1. EXISTING CITY OF GLENDALE LIGHTING CONTROL CABINET "PS" LOCATED ON NE CORNER OF PORT WASHINGTON RD AND HENRY CLAY ST.

LIGHTING CONTROL CABINET "PS"
CITY OF GREENDALE

W. HENRY CLAY ST.

SHEET 3 OF 9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - REMOVALS	SHEET 107	E

2

2

N

N. IRONWOOD RD.

N. IRONWOOD RD.

1014+57, 79.7' LT
CCT 34

1016+82, 79.8' LT
DCT 34

1012+24, 79.7' LT
DCT 33

1010+04, 80.2' LT
CCT 33

*6 C, D
*2 N

*8 C, D, N

*8 D, N

*6 C, D
*2 N

IH 43 SB

IH 43 NB

1010 1012 1014 1016 1018 1020 1022

1014 1016 1018 1020 1022

MATCHLINE STA. 1009+55.00

MATCHLINE STA. 1023+50.00

*8 D, N

1015+81, 82.7' RT
DCT 23

1023+02, 57.1' RT
EX. LPB-BY-116

1022+78, 69.3' RT
HML-40-082
CBY7/DBY7
4B

W. LEXINGTON BLVD.

1021+37, 145.0' RT
S-40-56
2MV-EBY/FBY
REMOVE SIGN
LIGHTING ONLY
4B

1019+74, 70.9' RT
EX. LPB-BY-117

1019+51, 75.3' RT
HML-40-083
EBY8 / FBY8
4B

1010+81, 64.0' RT

N. PORT WASHINGTON RD.

DCT 22

1012+55, 71.3' RT
EX. LPB-CT-101

1012+70, 66.3' RT
S-40-257
2MV-CCT
REMOVE SIGN
LIGHTING ONLY
1B

1013+33, 65.5' RT
CCT 23

SHEET 4 OF 9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - REMOVALS	SHEET 108	E

2

N

N IRONWOOD DR

IH 43 SB

IH 43 NB

MATCHLINE STA. 1023+50.00

MATCHLINE STA. 1038+00.00

W. SILVER SPRING DR.

1035+07, 314.7' LT
FSH14/ESH14
3B

1035+18, 264.3' LT
EX. LPB-SH-110

1035+26, 182.2' LT
FSH13/ESH13
3B

1036+09, 72.9' LT
EX. LPB-SH-107

EX. LJB-SH-101
TO REMAIN

1036+78, 62.8' LT
ESH20
3B

1037+57, 188.2' LT
ESH12
3B

1034+25, 205.1' LT
EX. LPB-SH-112

1034+22, 180.6' LT
ESH5

1034+76, 67.7' LT
EX. LPB-SH-111
3B

1032+42, 150.3' LT
FSH5
3B

1030+61, 138.1' LT
ESH6
3B

1028+67, 132.8' LT
ESH11
3B

*8 E, N

*8 E, F, N

1028+32, 56.9' RT
EX. LPB-BY-113

1026+78, 57.9' RT
EX. LPB-BY-114

EX. LJB-SH-102
TO REMAIN

8 UDL
4E/4F

*6 E, F, N

*8 A, B, N
*2 C, D, N
*2 E, F, N

*2 C, D, N
*2 E, F, N

1029+94, 70.2' RT
HML-40-080
ABY5 / BBY5
4B

1031+06, 66.4' RT
EX. LPB-BY-110

1031+23, 101.5' RT
EX. LPB-BY-109

1033+11, 183.5' RT
S-40-806
2MV-EBY/FBY
REMOVE SIGN
LIGHTING ONLY
4B

1033+46, 121.5' RT
EX. LPB-BY-108

1034+20, 109.0' RT
HML-40-079
ABY4/BBY4
4B

1034+26, 123.7' RT
EX. LPB-BY-107

1035+07, 121.3' RT
EX. LPB-BY-106

1036+55, 154.8' RT
EX. LPB-SH-106

1036+97, 98.1' RT
EX. LPB-BY-105

1037+09, 148.1' RT
EX. LPB-BY-104

*4 A, B, N
*2 C, D, N
*2 E, F, N

*6 E, F, N

*8 A, B, N

*8 A, N

1024+70, 69.7' RT
EX. LPB-BY-115

1029+94, 92.9' RT
EX. LPB-BY-111

1028+33, 25.4' LT
BBY1/ABY1
4B

1026+63, 96.2' RT
HML-40-081
CBY6/DBY6
4B

1027+03, 22.0' LT
EX. LPB-BY-112

1026+88, 65.4' LT
ABY2
REMOVED LUMINAIRE
ONLY
4B

SHEET 5 OF 9

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - REMOVALS	SHEET 109	E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023501_LP_MOD.DWG
LAYOUT NAME - 023501_LP
PLOT DATE : 7/31/2019 5:43 PM
PLOT BY : WILLIAM NEAVE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

1038+84, 170' LT
S-40-910
NO SIGN LIGHTING

1039+27, 166.5' LT
EX. LPB-SH-109

1039+09, 114.3' LT
EX. LPB-SH-108

1039+49, 157.0' LT
FSH6
3B

1039+66, 63.2' LT
FSH20
3B

1041+80, 114.5' LT
ESH7
3B

1042+47, 65.2' LT
ESH21
3B

1044+27, 88.6' LT
FSH7
3B

1045+52, 78.3' LT
S-40-101
3MV FNC
REMOVE SIGN
LIGHTING ONLY
1B

1046+81, 70.8' LT
FNC1
1B

1049+49, 64.0' LT
FNC2
1B

1052+19, 61.0' LT
ENC3
1B

#8 E, F, N

MATCHLINE STA. 1038+00.00

IH 43 SB

1040 1042 1044 1046 1048 1050 1052

IH 43 NB

1040 1042 1044 1046 1048 1050 1052

MATCHLINE STA. 1053+20.00

#6 E, F, N
#6 C, D, N

#6 A, B, N

1038

1046+99, 77.4' RT
ASH20
3B

1042+96, 141.3' RT
S-40-911
NO SIGN LIGHTING

1040+44, 151.1' RT
EX. LPB-BY-102

1040+21, 141.8' RT
EX. LPB-BY-102

1043+38, 159.4' RT
HML-40-108
ASH3/BSH3
LUMINAIRES ONLY
3B

1044+71, 192.4' RT
ASH21
3B

N. PORT WASHINGTON RD.

1052+63, 63.7' RT
DNC7
2B

#4 A, B, N
#2 C, D, N
#2 E, F, N

1040

1038+02, 182.7' RT
EX. LPB-BY-103

1040+59, 327.2' RT
EX. LPB-SH-101

1040+82, 329.6' RT
EX. HL-40-BY
4B

1040+88, 342.0' RT
EX. HL-40-SH
3B

1043+57, 147.6' RT
EX. LPB-SH-103

1045+27, 84.2' RT
EX. LPB-SH-104

1045+50, 141.2' RT
BSH22
3B

1049+66, 69.8' RT
CNC8
2B

1038+18, 224.4' RT
HML-40-077
CSH3 / DSH3
3B

1037+96, 199.6' RT
EX. LPB-SH-105

1042

1040+61, 359.2' RT
EX. LPB-BY-101

SHEET 6 OF 9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - REMOVALS	SHEET 110	E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023501_LP_MOD.DWG
LAYOUT NAME - 023501_LP
PLOT DATE : 7/31/2019 5:43 PM
PLOT BY : WILLIAM NEAVE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

N

MATCHLINE STA. 1053+20.00

1054+87, 63.4' LT
FNC4
1B

1057+57, 63.8' LT
ENC5
1B

1060+32, 66.1' LT
FNC6
1B

1062+99, 65.5' LT
ENC7
1B

1065+69, 61.1' LT
FNC8
1B

N. JEAN NICOLET RD.

1054
1056
1058
1060
1062
1064
1066

IH 43 SB

IH 43 NB

MATCHLINE STA. 1067+50.00

SLAB

SIGN

SLAB

1055+12, 64.0' RT
CNC7
2B

1057+85, 63.6' RT
DNC6
2B

1059+48, 65.5' RT
S-40-64
1MV-CNC
REMOVE SIGN
LIGHTING ONLY
2B

1060+58, 63.6' RT
CNC6
2B

1063+14, 63.8' RT
DNC5
2B

1065+78, 63.0' RT
CNC5
2B

N. PORT WASHINGTON RD.

SHEET 7 OF 9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - REMOVALS	SHEET 111	E

2

N

1068+39, 60.7' LT
ENC9
1B

1071+10, 61.1' LT
FNC10
1B

1073+79, 61.4' LT
ENC11
1B

1076+49, 60.9' LT
FNC12
1B

1079+20, 66.5' LT
ENC13
1B

1081+83, 62.1' LT
FNC14
1B

W. RIVERFRONT DR.

W. BENDER RD.

N. JEAN NICOLET RD.

IH 43 SB

IH 43 NB

MATCHLINE STA. 1067+50.00

MATCHLINE STA. 1082+50.00

1068

1070

1072

1074

1076

1078

1080

1082

N. PORT WASHINGTON RD.

1068+38, 60.7' RT
DNC4
2B

1071+00, 61.1' RT
CNC4
2B

1073+72, 61.3' RT
DNC3
2B

1076+43, 61.3' RT
CNC3
2B

1079+30, 58.5' RT
EX. LPB-NC-104

1079+14, 59.9' RT
DNC2
2B

1080+95, 57.2' RT
CNC21
2B

W. BENDER RD.

SHEET 8 OF 9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - REMOVALS	SHEET 112	E

2

N

1088+26, 64.3' LT
EX. LPB-NC-101
TO REMAIN

*2 C, D, N
*2 B, N
*2 G, N

1087+87, 64.1' LT
HL-40-NC
TO REMAIN

1087+61, 60.6' LT
LPB-NC-103

1084+42, 57.3' LT
ENC15
1B

*4 E, F, N

*4 E, F, N
3-*10 PCNC

1087+18, 57.4' LT
FNC16
1B

*2 C, D, N
*2 B, N

W. FAIRFIELD CT.

W. BRENTWOOD LN.

1092+92, 53.9' LT
GNC3

1094+67, 54.2' LT
GNC4

1089+41, 54.4' LT
GNC1

1091+17, 54.2' LT
GNC2

IH 43 SB

1084 1086 1088 1090 1092 1094 1096

MATCHLINE STA. 1082+50.00

IH 43 NB

N. PORT WASHINGTON RD.

1088+44, 57.5' RT
BNC1
2B

1088+22, 51.4' RT
EX. LPB-NC-102
TO REMAIN

1086+31, 56.3' RT
DNC24
2B

1084+35, 58.9' RT
CNC23
2B

1082+73, 57.5' RT
DNC22
2B

3-*4 CID

1089+66, 56.5' RT
BNC2

1091+40, 56.1' RT
BNC3

1093+29, 55.9' RT
BNC4

1095+03, 56.5' RT
BNC5

UNION PACIFIC

W. BRENTWOOD LN.

SHEET 9 OF 9

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - REMOVALS	SHEET 113	E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023501_LP_MOD.DWG
LAYOUT NAME - 023501_LP
PLOT DATE : 7/31/2019 5:45 PM
PLOT BY : WILLIAM NEAVE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

NOTES:

1. EXISTING CITY OF GLENDALE LIGHTING TO REMAIN.
2. EXISTING CITY OF MILWAUKEE LIGHTING TO BE MODIFIED AND TRANSFERRED TO CITY OF GLENDALE.

N

N IRONWOOD LN

W. ROCK PL.

SLAB

968+09, 94.0' LT
EX. HL-40-GL
TO REMAIN

966 968 970 972 974 976 978

IH 43 NB

IH 43 NB

W. GLENDALE AVE.

99+21, 117.2' LT
CGL42
TO REMAIN

N. PORT WASHINGTON RD.

97 98 99 100 101 102 103

100+71, 11.4' LT
SEE NOTE 1

99+33, 2.7' LT
SEE NOTE 1

103+06, 54.7' LT
SEE NOTE 5

101+61, 54.7' LT
SEE NOTE 2

BG

101+59, 41.4' RT
SEE NOTE 2

103+06, 47.7' RT
SEE NOTE 5

MATCHLINE STA. 980+00.00

SHEET 1 OF 9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - TEMPORARY	SHEET 114	E

FILE NAME : W:\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023701_LP_MOD 7-15-2019.DWG
LAYOUT NAME - 023701_lp

PLOT DATE : 7/31/2019 5:50 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

NOTES:

1. SEE TEMPORARY SIGNAL PLANS FOR INTERSECTION TEMPORARY LIGHTING.
2. EXISTING MILWAUKEE COUNTY PARKS LIGHTING TO REMAIN.
3. EXISTING CITY OF MILWAUKEE LIGHTING TO BE REMOVED BY CITY OF MILWAUKEE.
4. EXISTING CITY OF GLENDALE LIGHTING TO REMAIN.
5. EXISTING CITY OF MILWAUKEE LIGHTING TO BE MODIFIED AND TRANSFERRED TO CITY OF GLENDALE

N

W. HAMPTON AVE.

982+08, 422.3' LT
SEE NOTE 2

+54.52, -11.34' LT
SEE NOTE 2

12+83, 8.8' LT
SEE NOTE 3

13+56, 7.9' LT
SEE NOTE 3

12+89, 132.1' RT
DGL45
TO REMAIN

IH 43 NB

IH 43 NB

MATCHLINE STA. 980+00.00

MATCHLINE STA. 995+00.00

15+57, 7.1' LT
SEE NOTE 2

16+63, 16.9' LT
SEE NOTE 3

SEE NOTE 1

106+60, 39.1' LT
SEE NOTE 3

107+67, 4.7' LT
SEE NOTE 3

109+26, 57.3' LT
S-40-264
NO SIGN LIGHTING

112+91, 54.2' LT
EX. HL-40-CT
TO REMAIN

112+60, 6.4' LT
SEE NOTE 4

991+61, 169.0' RT
SEE NOTE 4

N. PORT WASHINGTON RD.

17+02, 44.1' RT
SEE NOTE 3

104+51, 54.4' LT
SEE NOTE 5

992+98, 221.0' RT
SEE NOTE 5

990+48, 267.9' RT
SEE NOTE 4

W. CHATEAU PL.

106+53, 28.6' RT
(TO BE REMOVED
BY OTHERS)

108+94, 2.9' LT
SEE NOTE 3

110+14, 2.3' LT
SEE NOTE 3

111+38, 0.0' LT
SEE NOTE 3

104+51, 47.8' RT
SEE NOTE 5

18+78, 7.5' LT
(TO BE REMOVED
BY OTHERS)

105+46, 32.0' RT
SEE NOTE 3

SHEET 2 OF 9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - TEMPORARY	SHEET 115	E

FILE NAME : W:\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023701_LP_MOD 7-15-2019.DWG
LAYOUT NAME - 023702_lp
PLOT DATE : 7/31/2019 5:50 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

FOR INFORMATION ONLY
NO TEMPORARY WORK ON
THIS SHEET

#6-2-6
C, N, D

MATCHLINE STA. 995+00.00

996
998
1000
1002
1004
1006
1008

IH 43 NB

IH 43 NB

MATCHLINE STA. 1009+50.00

N. PORT WASHINGTON RD.

W. MARNE DR.

LIGHTING CONTROL CABINET "PS"
CITY OF GREENDALE

W. HENRY CLAY ST.

SHEET 3 OF 9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - TEMPORARY	SHEET 116	E

FILE NAME : W:\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023701_LP_MOD 7-15-2019.DWG
LAYOUT NAME - 023703_lp
PLOT DATE : 7/31/2019 5:50 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

1014+57, 79.7' LT
CCT 34

1016+82, 79.8' LT
DCT 34

1012+24, 79.7' LT
DCT 33

1010+04, 80.2' LT
CCT 33

N. IRONWOOD RD.

N. IRONWOOD RD.

#6 C, D
#2 N

#8 C, D, N

#8 D, N

#6 C, D
#2 N

1023+02, 57.1' RT
EX. LPB-BY-116

1022+82, 63.4' RT
HML-40-082
CBY7/DBY7
4/4B

IH 43 SB

1010 1012 1014 1016 1018 1020 1022

IH 43 NB

MATCHLINE STA. 1009+50.00

MATCHLINE STA. 1023+50.00

1014 1016 1018 1020 1022 1022

#8 D, N

#8 C, N

1015+81, 82.7' RT
DCT 23

W. LEXINGTON BLVD.

1019+73, 71.9' RT
EX. LPB-BY-117

1021+37, 144.1' RT
S-40-56
2MV-EBY/FBY
REMOVE SIGN
LIGHTING ONLY

N. PORT WASHINGTON RD.

64.0' RT
DCT 22

1012+55, 71.3' RT
EX. LPB-CT-101

1012+70, 66.3' RT
S-40-257
2MV-CCT
REMOVE SIGN
LIGHTING ONLY

1013+33, 65.5' RT
CCT 23

1019+52, 75.3' RT
HML-40-083
EBY8/FBY8
4/4B

SHEET 4 OF 9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - TEMPORARY	SHEET E

FILE NAME : W:\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023701_LP_MOD 7-15-2019.DWG
LAYOUT NAME - 023701_LP

PLOT DATE : 7/31/2019 5:50 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

N. IRONWOOD RD.

IH 43 SB

IH 43 NB

SLAB

1035+07, 314.7' LT
FSH14/ESH14
3/3B

1035+18, 264.8' LT
EX. LPB-SH-110

1035+26, 182.2' LT
FSH13/ESH13
3/3B

1036+09, 72.9' LT
EX. LPB-SH-107

EX. LJB-SH-101
TO REMAIN

1036+77, 62.3' LT
T-ESH20
3/3B

1037+56, 186.4' LT
T-ESH12
3/3B

1034+24, 206.2' LT
EX. LPB-SH-112

1034+22, 180.6' LT
T-ESH5
3/3B

1034+76, 67.9' LT
EX. LPB-SH-111

1032+42, 150.3' LT
T-FSH5
3/3B

*8 E, F, N

1030+61, 138.1' LT
T-ESH6
3/3B

1028+67, 132.8' LT
T-ESH11
3/3B

*8 E, N

1028+34, 58.1' RT
EX. LPB-BY-113

1026+78, 57.9' RT
EX. LPB-BY-114

EX. LJB-SH-102
TO REMAIN

8 UDL
4E/4F

*6 E, F, N

*2 C, D, N
*2 E, F, N

1029+94, 74.2' RT
HML-40-080
ABY5/BBY5
4/4B

1029+98, 91.9' RT
EX. LPB-BY-111

1031+06, 66.4' RT
EX. LPB-BY-110

1031+23, 103.9' RT
EX. LPB-BY-109

*8 A, B, N

*8 A, N

*8 A, B, N
*2 C, D, N
*2 E, F, N

1033+11, 183.5' RT
S-40-806
2MV-EBY/FBY
REMOVE SIGN
LIGHTING ONLY

1033+46, 121.5' RT
EX. LPB-BY-108

1034+20, 109.0' RT
HML-40-079
ABY4/BBY4
4/4B

1034+26, 123.7' RT
EX. LPB-BY-107

1035+07, 121.9' RT
EX. LPB-BY-106

1036+55, 155.6' RT
EX. LPB-SH-106

1036+93, 98.7' RT
EX. LPB-BY-105

1037+09, 148.1' RT
EX. LPB-BY-104

*4 A, B, N
*2 C, D, N
*2 E, F, N

*6 E, F, N

1024+70, 69.7' RT
EX. LPB-BY-115
4/4B

1026+63, 95.9' RT
HML-40-081
CBY6/DBY6
4/4B

1028+33, 25.4' LT
BBY1/ABY1
4/4B

1027+03, 20.0' LT
EX. LPB-BY-112

1026+88, 65.4' LT
ABY2
REMOVED LUMINAIRE
ONLY
4/4B

MATCHLINE STA. 1023+50.00

MATCHLINE STA. 1038+00.00

W. SILVER SPRING DR.

SHEET 5 OF 9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - TEMPORARY	SHEET E

FILE NAME : W:\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023701_LP_MOD 7-15-2019.DWG
LAYOUT NAME - 023701_LP

PLOT DATE : 7/31/2019 5:51 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

1038+83, 169.1' LT
S-40-910
NO SIGN LIGHTING

1039+27, 167.0' LT
EX. LPB-SH-109

1039+07, 115.0' LT
EX. LPB-SH-108

1039+51, 158.8' LT
T-FSH6
3/3B

1039+64, 62.9' LT
T-FSH20
3/3B

1041+80, 114.1' LT
T-ESH7
3/3B

1042+46, 64.5' LT
T-ESH21
3/3B

1044+27, 88.6' LT
T-FSH7
3/3B

1045+51, 77.6' LT
S-40-101
3MV FNC
REMOVE SIGN
LIGHTING ONLY

1046+81, 70.8' LT
T-FNC1
1/1B

1049+49, 64.0' LT
T-FNC2
1/1B

1052+19, 62.9' LT
T-ENC3
1/1B

#8 E, F, N

IH 43 SB

IH 43 NB

MATCHLINE STA. 1038+00.00

MATCHLINE STA. 1053+20.00

1040 1042 1044 1046 1048 1050 1052

#6 E, F, N
#6 C, D, N

#6 A, B, N

1043+55, 135.4' RT
EX. LPB-SH-103

1045+27, 83.7' RT
EX. LPB-SH-104

1042+96, 141.3' RT
S-40-101
ASH3/BSH3

1043+38, 158.9' RT
HML-40-076
ASH3/BSH3
3/3B

1040+44, 151.1' RT
EX. LPB-BY-102

1040+21, 141.8' RT
EX. LPB-BY-102

#4 A, B, N
#2 C, D, N
#2 E, F, N

1038+03, 183.4' RT
EX. LPB-BY-103

1038+21, 221.6' RT
HML-40-077
CSH3 / DSH3
3/3B

1037+98, 199.4' RT
EX. LPB-SH-105

1040+59, 327.2' RT
EX. LPB-SH-101

1040+82, 329.6' RT
EX. HL-40-BY
4/4B

1040+88, 342.0' RT
EX. HL-40-SH
3/3B

1040+61, 360.0' RT
EX. LPB-BY-101

1047+00, 78.6' RT
T-ASH20
3/3B

1049+66, 69.8' RT
T-CNC8
2/2B

1045+50, 141.5' RT
T-BSH22
3/3B

1044+72, 192.8' RT
T-ASH21
3/3B

1052+63, 63.7' RT
T-DNC7
2/2B

N. PORT WASHINGTON RD.

PORT WASHINGTON RD

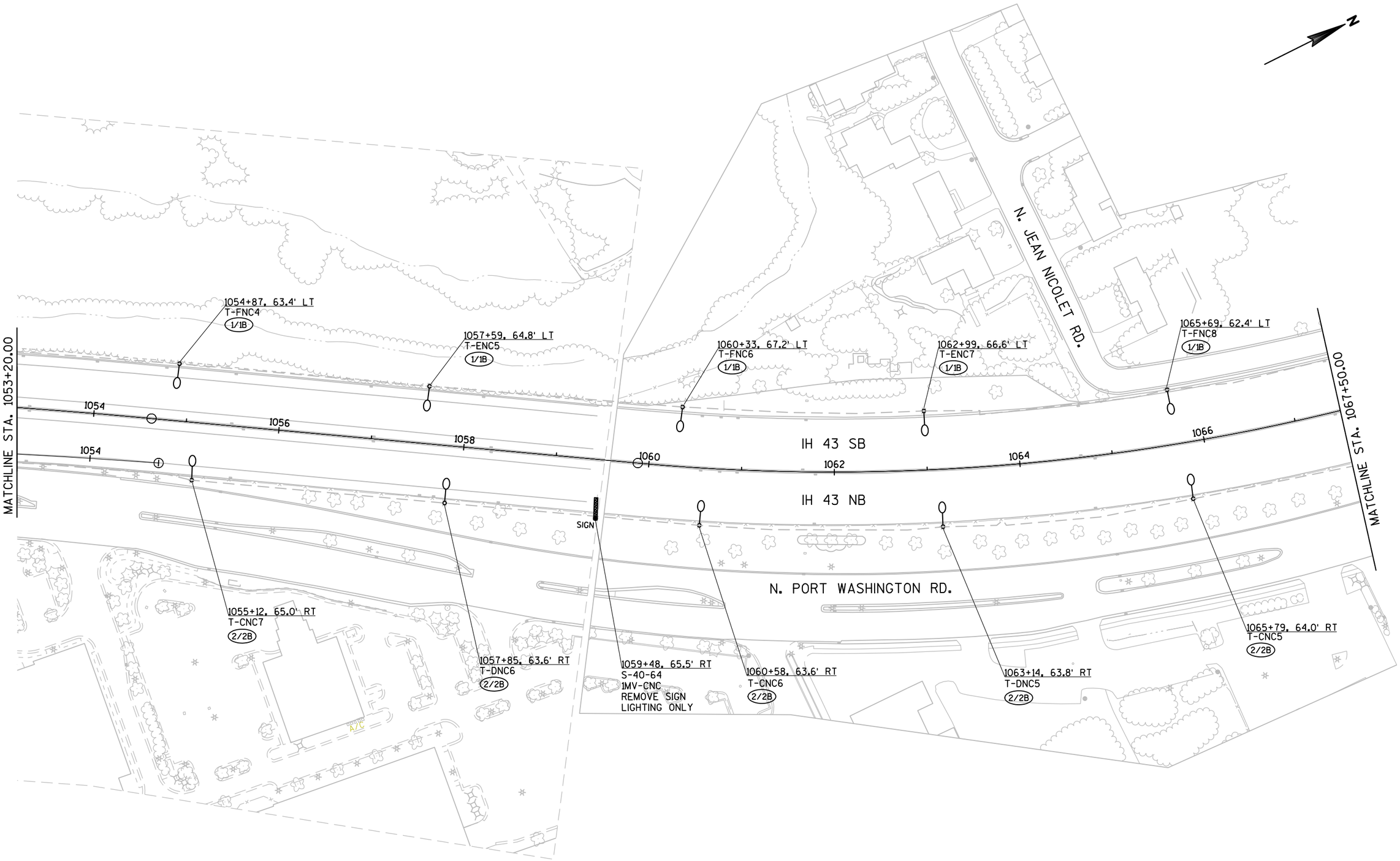
SHEET 6 OF 9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - TEMPORARY	SHEET E

FILE NAME : W:\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023701_LP_MOD 7-15-2019.DWG
LAYOUT NAME - 023701_LP

PLOT DATE : 7/31/2019 5:51 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



SHEET 7 OF 9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - TEMPORARY	SHEET 120	E

2

2

N

W. BENDER RD.

1068+40, 61.0' LT
T-ENC9
1/1B

W. RIVERFRONT DR.

1071+11, 61.4' LT
T-FNC10
1/1B

1073+79, 61.5' LT
T-ENC11
1/1B

1076+49, 61.8' LT
T-FNC12
1/1B

1079+21, 67.7' LT
T-ENC13
1/1B

1081+83, 62.1' LT
T-FNC14
1/1B

N. JEAN NICOLET RD.

MATCHLINE STA. 1067+50.00

1068 1070 1072 1074 1076 1078 1080 1082

IH 43 SB

IH 43 NB

MATCHLINE STA. 1082+50.00

N. PORT WASHINGTON RD.

1068+39, 60.7' RT
T-DNC4
2/2B

1071+00, 61.2' RT
T-CNC4
2/2B

1073+73, 61.4' RT
T-DNC3
2/2B

1076+44, 62.6' RT
T-CNC3
2/2B

1079+32, 58.9' RT
EX. LPB-NC-104

1079+15, 61.9' RT
T-DNC2
2/2B

1080+96, 58.8' RT
T-CNC21
2/2B

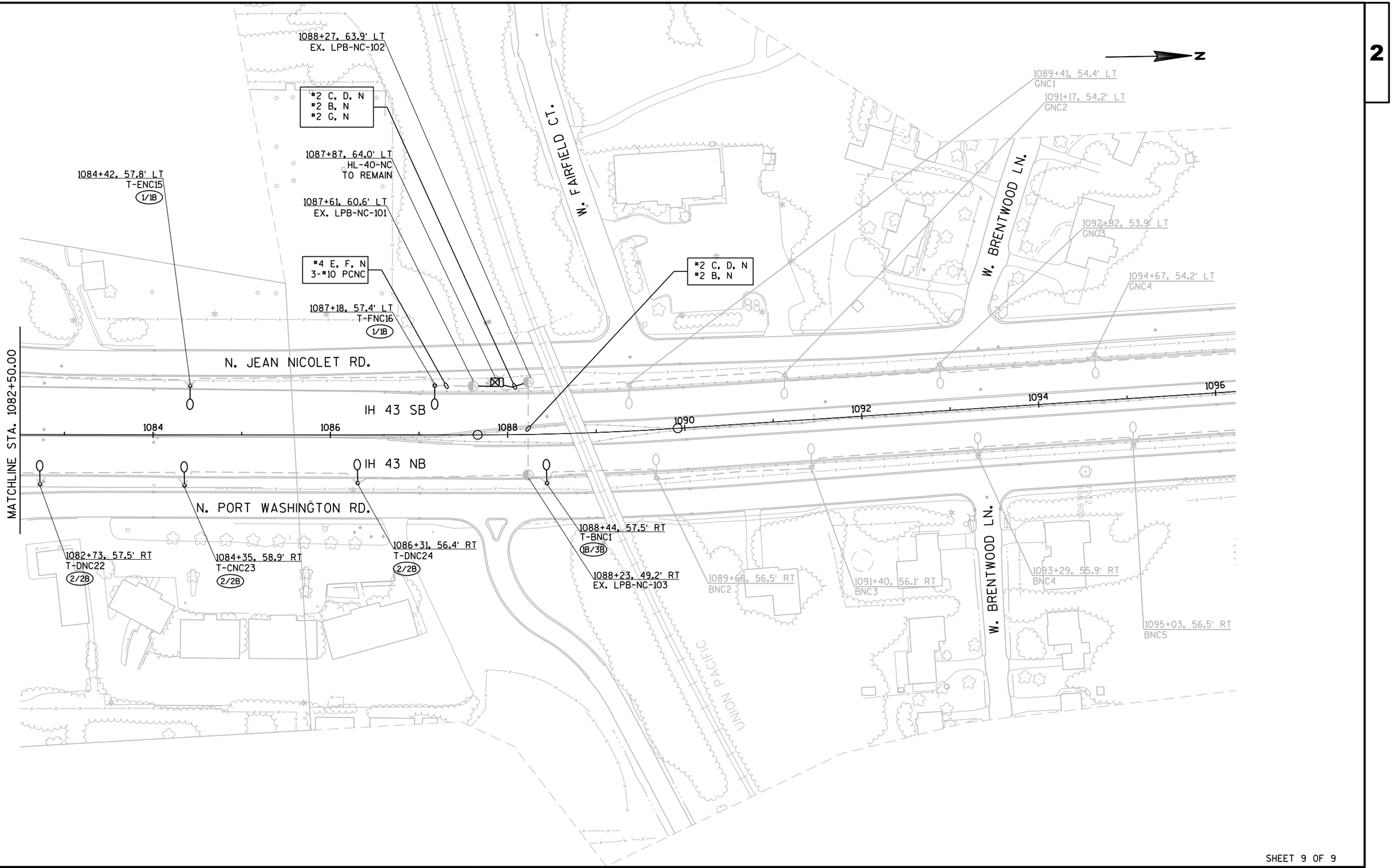
W. BENDER RD.

SHEET 8 OF 9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - TEMPORARY	SHEET	E

FILE NAME : W:\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023701_LP_MOD 7-15-2019.DWG
LAYOUT NAME - 023701_LP
PLOT DATE : 7/31/2019 5:52 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



SHEET 9 OF 9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - TEMPORARY	SHEET 122 E

NOTES:

1. EXISTING CITY OF GLENDALE LIGHTING TO REMAIN.
2. EXISTING CITY OF MILWAUKEE LIGHTING MODIFIED AND TRANSFERRED TO CITY OF GLENDALE.

N

N IRONWOOD LN

W. ROCK PL.

SIGN

SLAB

968+16, 94.7' LT
EX. HL-40-GL
TO REMAIN

964 966 968 970 972 974 976 978

IH 43

IH 43 SB

IH 43 NB

IH 43

99+34, 2.6' LT
2E47/6E46
SEE NOTE 1

99+64, 9.3' LT
LPB-E-101
INTERCEPT EX.
CONDUIT

100+18, 70.1' LT
LPB-E-103

100+71, 11.4' LT
6E49/4E48
SEE NOTE 1

101+61, 54.4' LT
4E51
SEE NOTE 2

975+29, 218.0' RT
CGL42
TO REMAIN

W. GLENDALE AVE.

N. PORT WASHINGTON RD.

N PORT WASHINGTON RD

97 98 99 100 101 102

976+01, 386.9' RT
LPB-E-102

101+60, 41.1' RT
2E50
SEE NOTE 2

EXISTING CITY OF
GLENDALE LIGHTING
CONTROL CABINET "E"
240V
480V

MATCHLINE STA. 979+00.00

SHEET 1 OF 18

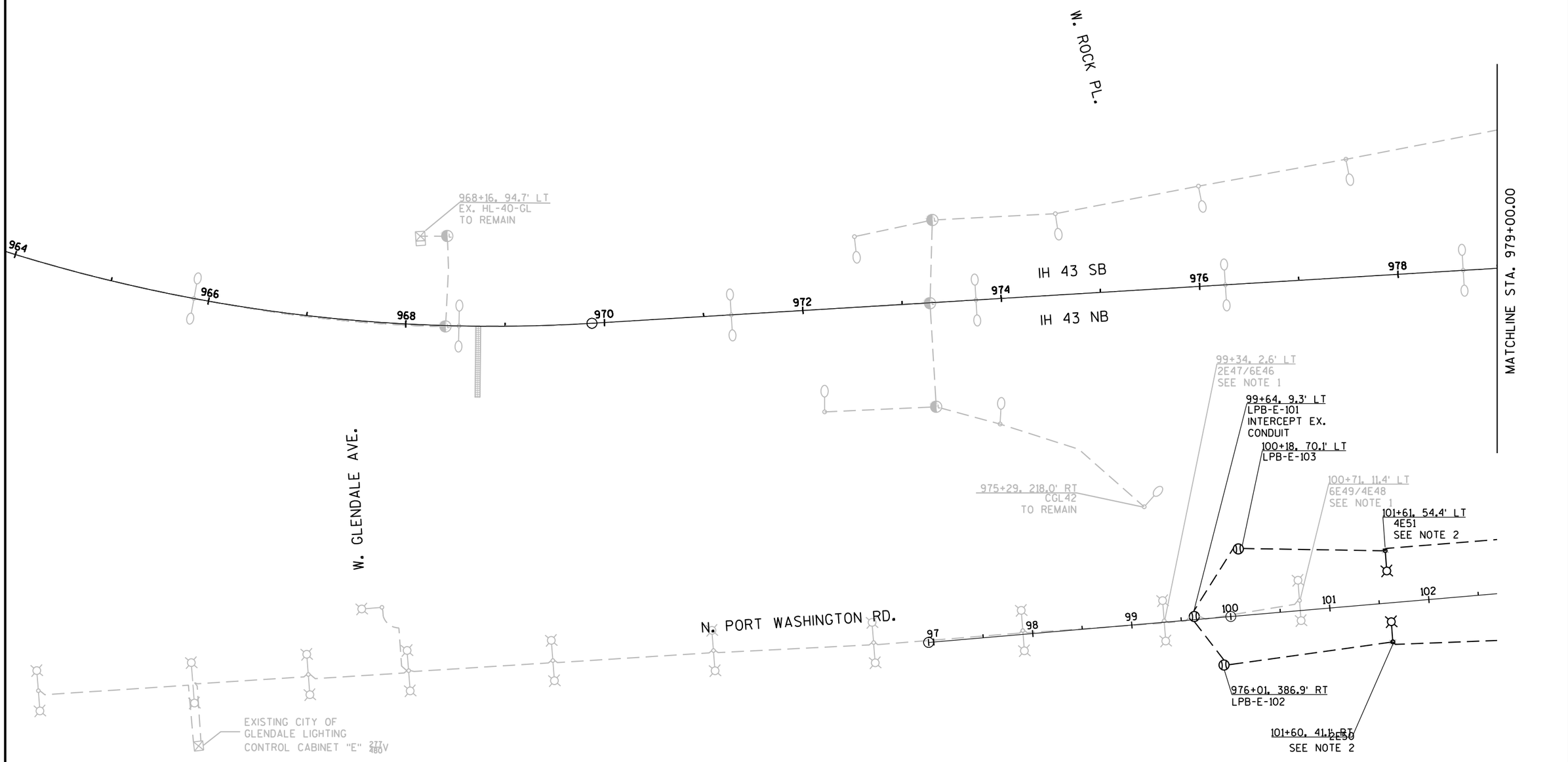
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - PROPOSED	SHEET E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP

PLOT DATE : 7/31/2019 6:06 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

NOTES:

1. EXISTING CITY OF GLENDALE LIGHTING TO REMAIN.
2. EXISTING CITY OF MILWAUKEE LIGHTING MODIFIED AND TRANSFERRED TO CITY OF GLENDALE.



SHEET 2 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - SCHEMATIC	SHEET E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP
PLOT DATE : 7/31/2019 6:07 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

NOTES:

1. SEE SIGNAL PLANS FOR INTERSECTION LIGHTING.
2. EXISTING CITY OF MILWAUKEE LIGHTING MODIFIED AND TRANSFERRED TO CITY OF GLENDALE.
3. EXISTING MILWAUKEE COUNTY PARKS LIGHTING TO REMAIN.
4. PROPOSED/NEW CITY OF GLENDALE LIGHTING.
5. EXISTING CITY OF GLENDALE LIGHTING TO REMAIN.

N

W. HAMPTON AVE.

982+07, 422.8' LT
SEE NOTE 3

12+74, 92.8' RT
LPB-GL-101

#8 C.N.D.GND

12+89, 132.6' RT
DGL45

11+58, 10.7' LT
SEE NOTE 3

SEE NOTE 1

13+27, 92.3' RT
LPB-GL-102

13+94, 44.0' RT
LPB-GL-103
INTERCEPT EXISTING
CONDUIT EAST

13+93, 11.9' LT
LPB-GL-104

13+89, 64.9' LT
LPB-GL-105
INTERCEPT EXISTING
CONDUIT EAST

IH 43 SB

IH 43 NB

5 UDL
3D/2C

MATCHLINE STA. 979+00.00

MATCHLINE STA. 994+00.00

SEE NOTE 1

103+06, 54.7' LT
2E53
SEE NOTE 2

104+52, 54.1' LT
6E55
SEE NOTE 2

104+51, 48.2' RT
4E54
SEE NOTE 2

103+06, 48.2' RT
6E52
SEE NOTE 2

109+26, 55.6' LT
S-40-264
NO SIGN LIGHTING

111+94, 10.3' LT
LPB-PS-102

989+43, 198.7' RT
SIGN
EX. HL-40-CT
TO REMAIN

112+60, 6.6' LT
PS1/2 (PS1/1)
SEE NOTE 5

991+61, 169.0' RT
PS3/1
SEE NOTE 5

N. PORT WASHINGTON RD.

111+94, 47.0' RT
LPB-PS-101

W. CHATEAU PL.

PS4/2
SEE NOTE 5

PS2/2
SEE NOTE 5

992+98, 221.0' RT

990+48, 267.9' RT

107+67, 3.0' LT
PS34/1 (PS34/2)
SEE NOTE 4

109+34, 1.5' LT
PS35/2 (PS35/1)
SEE NOTE 4

111+00, 0.7' LT
PS36/1 (PS36/2)
SEE NOTE 4

SHEET 3 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - PROPOSED	SHEET E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP
PLOT DATE : 7/31/2019 6:07 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

NOTES:

1. SEE SIGNAL PLANS FOR INTERSECTION LIGHTING.
2. EXISTING CITY OF MILWAUKEE LIGHTING MODIFIED AND TRANSFERRED TO CITY OF GLENDALE.
3. EXISTING MILWAUKEE COUNTY PARKS LIGHTING TO REMAIN.
4. PROPOSED/NEW CITY OF GLENDALE LIGHTING.
5. EXISTING CITY OF GLENDALE LIGHTING TO REMAIN.

N

W. HAMPTON AVE.

982+07, 422.8' LT
SEE NOTE 3

11+58, 10.7' LT
SEE NOTE 3

12+74, 92.8' RT
LPB-GL-101

#8 C.N.D.GND

12+89, 132.6' RT
DGL45

SEE NOTE 1

13+27, 92.3' RT
LPB-GL-102

13+94, 44.0' RT
LPB-GL-103
INTERCEPT EXISTING
CONDUIT EAST

13+93, 11.9' LT
LPB-GL-104

13+89, 64.9' LT
LPB-GL-105
INTERCEPT EXISTING
CONDUIT EAST

IH 43 SB

IH 43 NB

5 UDL
3D/2C

MATCHLINE STA. 979+00.00

980 982 984 986 988 990 992

SEE NOTE 1

103+06, 54.7' LT
2E53
SEE NOTE 2

104+52, 54.1' LT
6E55
SEE NOTE 2

104+51, 48.2' RT
4E54
SEE NOTE 2

103+06, 48.2' RT
6E52
SEE NOTE 2

103 104 105 106 107 108 109 110 111 112 113

109+26, 55.6' LT
S-40-264
NO SIGN LIGHTING

111+94, 10.3' LT
LPB-PS-102

989+43, 198.7' RT SIGN
EX. HL-40-CT
TO REMAIN

112+60, 6.6' LT
PS1/2 (PS1/1)
SEE NOTE 5

991+61, 169.0' RT
PS3/1
SEE NOTE 5

N. PORT WASHINGTON RD.

PS4/2
SEE NOTE 5

PS2/2
SEE NOTE 5

107+67, 3.0' LT
PS34/1 (PS34/2)
SEE NOTE 4

109+34, 1.5' LT
PS35/2 (PS35/1)
SEE NOTE 4

111+00, 0.7' LT
PS36/1 (PS36/2)
SEE NOTE 4

111+94, 47.0' RT
LPB-PS-101

990+48, 267.9' RT

992+98, 221.0' RT

SHEET 4 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - SCHEMATIC	SHEET E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP
PLOT DATE : 7/31/2019 6:07 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

1001+04, 2.1' LT
CCT5/DCT5

#6-2-6
C, N, D

MATCHLINE STA. 994+00.00

MATCHLINE STA. 1009+00.00

996 998 1000 1002 1004 1006 1008

IH 43 SB

IH 43 NB

N. PORT WASHINGTON RD.

W. MARNE DR.

W. HENRY CLAY ST.

1001+05, 1.5' RT
S-40-229
NO SIGN LIGHTING

NOTES:

1. EXISTING CITY OF GLENDALE LIGHTING CONTROL CABINET "PS" LOCATED ON NE CORNER OF PORT WASHINGTON RD AND HENRY CLAY ST.

LIGHTING CONTROL CABINET "PS"
CITY OF GREENDALE

SHEET 5 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - FINAL	SHEET	E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP

PLOT DATE : 7/31/2019 6:08 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

MATCHLINE STA. 994+00.00

996

998

1000

1002

1004

1006

1008

MATCHLINE STA. 1009+00.00

IH 43 SB

IH 43 NB

1001+04, 2.1' LT
CCT5/DCT5

*6-2-6
C, N, D

N. PORT WASHINGTON RD.

1001+05, 1.5' RT
S-40-229
NO SIGN LIGHTING

W. MARNE DR.

W. HENRY CLAY ST.

NOTES:

1. EXISTING CITY OF GLENDALE LIGHTING CONTROL CABINET "PS" LOCATED ON NE CORNER OF PORT WASHINGTON RD AND HENRY CLAY ST.

CONTROL CABINET "PS"
CITY OF GLENDALE

SHEET 6 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - SCHEMATIC	SHEET	E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP
PLOT DATE : 7/31/2019 6:08 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

1023+01, 57.1' RT
LPB-BY-113

1022+82, 63.2' RT
HML-40-140
CBY2/DBY2
4A

1014+57, 79.7' LT
CCT 34

1016+82, 79.8' LT
DCT 34

1012+24, 79.7' LT
DCT 33

1010+04, 80.2' LT
CCT 33

N. IRONWOOD RD.

N. IRONWOOD RD.

#6 C, D
#2 N

#8 C, D, N

#8 D, N

MATCHLINE STA. 1009+50.00

MATCHLINE STA. 1023+50.00

IH 43 SB

1010 1012 1014 1016 1018 1020 1022

IH 43 NB

1014 1016 1018 1020 1022 1022

#8 D, N

#6 C, D
#2 N

1015+81, 82.7' RT
DCT 23

W. LEXINGTON BLVD.

3"

1019+74, 69.6' RT
LPB-BY-114

1019+53, 75.2' RT
HML-40-141
EBY1/FBY1
4A

1021+37, 144.2' RT
S-40-56
NO SIGN LIGHTING

#6 E, N, F
#6 GND

N. PORT WASHINGTON RD.

1010+81, 64.0' RT
DCT 22

1012+70, 66.6' RT
S-40-257
2MV-CCT
NO SIGN LIGHTING

1013+33, 65.5' RT
CCT 23

SHEET 7 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - PROPOSED	SHEET	E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP

PLOT DATE : 7/31/2019 6:08 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

1023+01, 57.1' RT
LPB-BY-113

1022+82, 63.2' RT
HML-40-140
CBY2/DBY2
4A

1014+57, 79.7' LT
CCT 34

1016+82, 79.8' LT
DCT 34

1012+24, 79.7' LT
DCT 33

1010+04, 80.2' LT
CCT 33

N. IRONWOOD RD.

N. IRONWOOD RD.

*6 C, D
*2 N

*8 C, D, N

*8 D, N

IH 43 SB

1010 1012 1014 1016 1018 1020 1022

IH 43 NB

MATCHLINE STA. 1009+50.00

MATCHLINE STA. 1023+50.00

1014 1016 1018 1020 1022

3"

*8 D, N

*6 C, D
*2 N

1015+81, 82.7' RT
DCT 23

W. LEXINGTON BLVD.

1019+74, 69.6' RT
LPB-BY-114

1019+53, 75.2' RT
HML-40-141
EBY1/FBY1
4A

1021+37, 144.2' RT
S-40-56
NO SIGN LIGHTING

*6 E, N, F
*6 GND

N. PORT WASHINGTON RD.

1010+81, 64.0' RT
DCT 22

1012+70, 66.6' RT
S-40-257
2MV-CCT
NO SIGN LIGHTING

1013+33, 65.5' RT
CCT 23

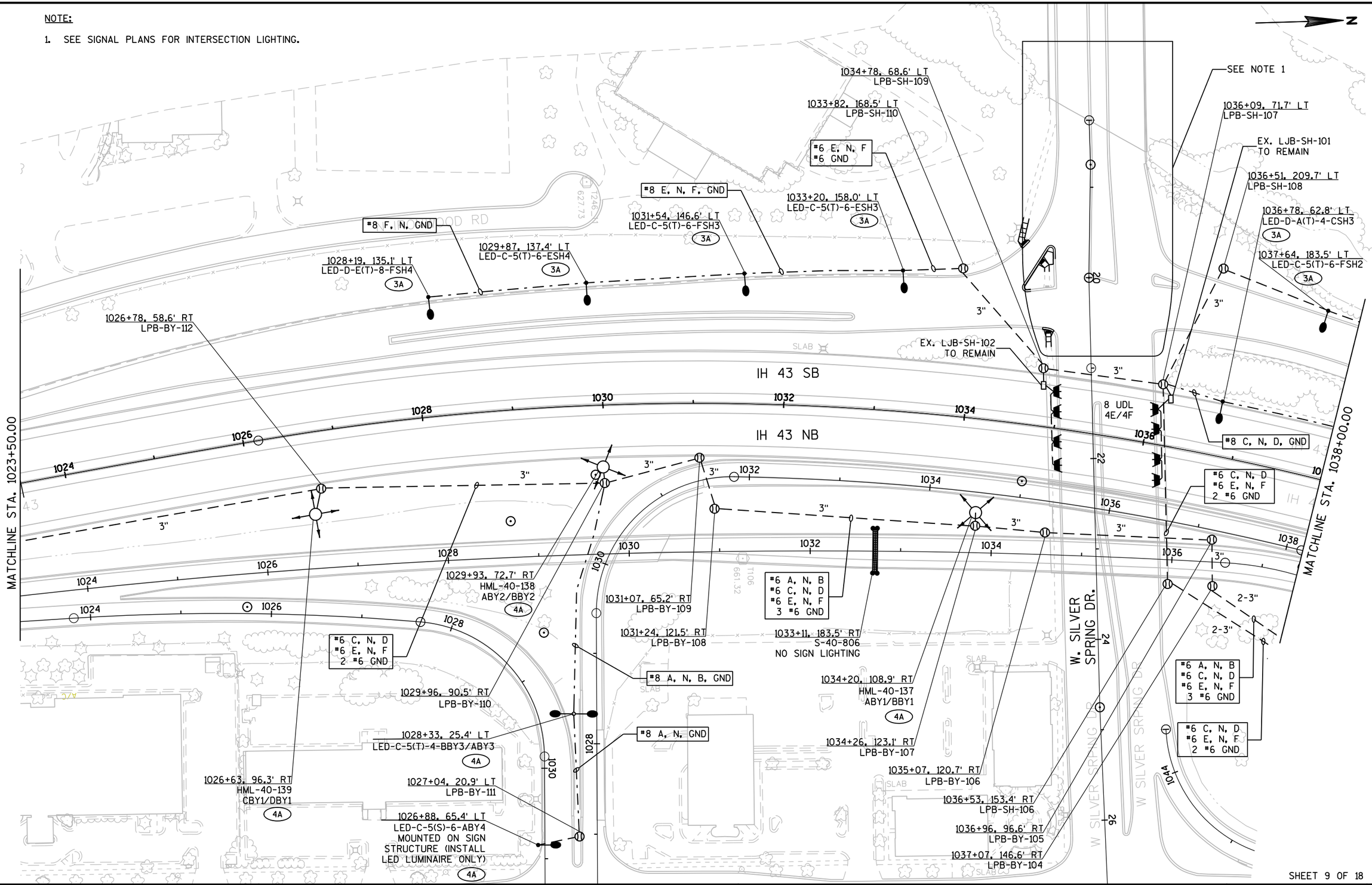
SHEET 8 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - SCHEMATIC	SHEET E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP
PLOT DATE : 7/31/2019 6:09 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

NOTE:

1. SEE SIGNAL PLANS FOR INTERSECTION LIGHTING.



SHEET 9 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - PROPOSED	SHEET E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP
PLOT DATE : 7/31/2019 6:09 PM
PLOT BY : WILLIAM NEAVE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

NOTE:

1. SEE SIGNAL PLANS FOR INTERSECTION LIGHTING.

N

IH 43 SB

IH 43 NB

MATCHLINE STA. 1023+50.00

MATCHLINE STA. 1038+00.00

W. SILVER SPRING DR.

1026+78, 58.6' RT
LPB-BY-112

1028+19, 135.1' LT
LED-D-E(T)-8-FSH4
3A

*8 F, N, GND

1029+87, 137.4' LT
LED-C-5(T)-6-ESH4
3A

1031+54, 146.6' LT
LED-C-5(T)-6-FSH3
3A

*8 E, N, F, GND

1033+20, 158.0' LT
LED-C-5(T)-6-ESH3
3A

*6 E, N, F
*6 GND

1034+78, 68.6' LT
LPB-SH-111

1033+82, 168.5' LT
LPB-SH-110

SEE NOTE 1

1036+09, 71.7' LT
LPB-SH-107

EX. LJB-SH-101
TO REMAIN

1036+51, 209.7' LT

1036+78, 62.8' LT
LED-D-A(T)-4-CSH3
3A

1037+64, 183.5' LT
LED-C-5(T)-6-FSH2
3A

EX. LJB-SH-102
TO REMAIN

8 UDL
4E/4F

*8 C, N, D, GND

*6 C, N, D
*6 E, N, F
2 *6 GND

*6 A, N, B
*6 C, N, D
*6 E, N, F
3 *6 GND

1026+63, 96.3' RT
HML-40-139
CBY1/DBY1
4A

1027+04, 20.9' LT
LPB-BY-111

1026+88, 65.4' LT
LED-C-5(S)-6-ABY2
MOUNTED ON SIGN
STRUCTURE (INSTALL
LED LUMINAIRE ONLY)
4A

1028+33, 25.4' LT
LED-C-5(T)-4-BBY1/ABY1
4A

*8 A, N, GND

1029+96, 90.5' RT
LPB-BY-110

*8 A, N, B, GND

1029+93, 72.7' RT
HML-40-138
ABY3/BBY3
4A

1031+07, 65.2' RT
LPB-BY-109

1031+24, 121.5' RT
LPB-BY-108

1033+11, 183.5' RT
S-40-806
NO SIGN LIGHTING

1034+20, 108.9' RT
HML-40-137
ABY4 / BBY4
4A

1034+26, 123.1' RT
LPB-BY-107

1035+07, 120.7' RT
LPB-BY-106

1036+53, 153.4' RT
LPB-SH-106

1036+96, 96.6' RT
LPB-BY-105

1037+07, 146.6' RT
LPB-BY-104

SHEET 10 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - SCHEMATIC	SHEET

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP
PLOT DATE : 7/31/2019 6:10 PM
PLOT BY : WILLIAM NEAVE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

*8 E, N, F, GND

1038+84, 169.6' LT
S-40-910
NO SIGN LIGHTING

1039+67, 153.7' LT
LED-C-5(T)-6-ESH2
3A

1039+66, 63.2' LT
LED-D-A(T)-4-DSH2
3A

*8 E, N, F, GND

1041+80, 114.5' LT
LED-C-5(T)-6-FSH1
3A

1042+47, 65.2' LT
LED-D-A(T)-4-CSH2
3A

*8 E, N, GND

1044+27, 88.6' LT
LED-D-E(T)-8-ESH1
3A

1045+52, 78.3' LT
S-40-101
NO SIGN LIGHTING

1046+81, 70.8' LT
LED-D-E(T)-8-BFS8
1A

*6 C, N, GND

1049+49, 64.0' LT
LED-D-E(T)-8-AFS8
1A

1052+19, 61.0' LT
LED-D-E(T)-8-BFS7
1A

*6 C, N, GND

*6 C, N, GND

*6 C, N, D, GND

MATCHLINE STA. 1038+00.00

1038

1040

1042

1044

1046

1048

1050

1052

IH 43 SB

IH 43 NB

MATCHLINE STA. 1053+20.00

*6 A, N, B
*6 GND

*8 A, N, B, GND

*8 A, N, GND

1046+99, 75.6' RT
LED-D-E(T)-8-ASH3
3A

SIGN
1042+96, 141.0' RT
S-40-911
NO SIGN LIGHTING

1043+39, 159.5' RT
HML-40-108
ASH1/BSH1
3A

1040+46, 151.1' RT
LPB-SH-102

1040+21, 142.3' RT
LPB-BY-102

1043+60, 142.2' RT
LPB-SH-103

*8 A, N, GND

N. PORT WASHINGTON RD.

*6 C, N, GND

1052+63, 61.9' RT
LED-D-A(T)-4-DFS7
2A

2-3"
2-3"
2-3"

*6 A, N, B
*6 C, N, D
*6 E, N, F
3 *6 GND

1038+05, 180.7' RT
LPB-BY-103

1038+19, 224.2' RT
HML-40-136
CSH1/DSH1
3A

1037+97, 198.8' RT
LPB-SH-105

1040+59, 328.6' RT
LPB-SH-101

1040+82, 329.4' RT
EX. HL-40-BY
4A

1040+88, 342.1' RT
EX. HL-40-SH
3A

SIGN

1045+27, 83.6' RT
LPB-SH-104

1049+66, 67.9' RT
LED-D-A(T)-4-CFS8
2A

*8 A, N, B, GND
*8 A, N, GND

1045+50, 142.1' RT
LED-C-5(T)-6-BSH2
3A

1044+71, 193.4' RT
LED-C-5(T)-6-ASH2
3A

1040+63, 360.9' RT
LPB-BY-101

*6 A, N, B
*6 C, N, D
*6 E, N, F
3 *6 GND

SHEET 11 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - PROPOSED	SHEET	E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP
PLOT DATE : 7/31/2019 6:10 PM
PLOT BY : WILLIAM NEAVE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

*8 E, N, F, GND

1038+84, 169.6' LT
S-40-910
NO SIGN LIGHTING

1039+67, 153.7' LT
LED-C-5(T)-6-ESH2
3A

1039+66, 63.2' LT
LED-D-A(T)-4-DSH2
3A

*8 E, N, F, GND

1041+80, 114.5' LT
LED-C-5(T)-6-FSH1
3A

1042+47, 65.2' LT
LED-D-A(T)-4-CSH2
3A

*8 E, N, GND

1044+27, 88.6' LT
LED-D-E(T)-8-ESH1
3A

1045+52, 78.3' LT
S-40-101
NO SIGN LIGHTING

1046+81, 70.8' LT
LED-D-E(T)-8-BFS8
1A

*6 C, N, GND

1049+49, 64.0' LT
LED-D-E(T)-8-AFS8
1A

1052+19, 61.0' LT
LED-D-E(T)-8-BFS7
1A

*6 C, N, D, GND

*6 C, N, GND

*6 C, N, GND

IH 43 SB

IH 43 NB

MATCHLINE STA. 1038+00.00

MATCHLINE STA. 1053+20.00

1038

1040

1042

1044

1046

1048

1050

1052

*6 A, N, B
*6 GND

*8 A, N, B, GND

*8 A, N, GND

1046+99, 75.6' RT
LED-D-E(T)-8-ASH3
3A

N. PORT WASHINGTON RD.

1042+96, 141.0' RT
S-40-911
NO SIGN LIGHTING

1040+46, 151.1' RT
LPB-SH-102

1040+21, 142.3' RT
LPB-BY-102

1043+39, 159.5' RT
HML-40-108
ASH1/BSH1
3A

1043+60, 142.2' RT
LPB-SH-103

*8 A, N, GND

*6 C, N, GND

1052+63, 61.9' RT
LED-D-A(T)-4-DFS7
2A

1049+66, 67.9' RT
LED-D-A(T)-4-CFS8
2A

1045+27, 83.6' RT
LPB-SH-104

*8 A, N, B, GND
*8 A, N, GND

1045+50, 142.1' RT
LED-C-5(T)-6-BSH2
3A

1044+71, 193.4' RT
LED-C-5(T)-6-ASH2
3A

2-3"
2-3"
2-3"
2-3"

*6 A, N, B
*6 C, N, D
*6 E, N, F
3 *6 GND

1038+05, 180.7' RT
LPB-BY-103

1038+19, 224.2' RT
HML-40-136
CSH1/DSH1
3A

1037+97, 198.8' RT
LPB-SH-105

1040+59, 328.6' RT
LPB-SH-101

1040+82, 329.4' RT
EX. HL-40-SH
3A

1040+88, 342.1' RT
EX. HL-40-BY
4A

1040+63, 360.9' RT
LPB-BY-101

*6 A, N, B
*6 C, N, D
*6 E, N, F
3 *6 GND

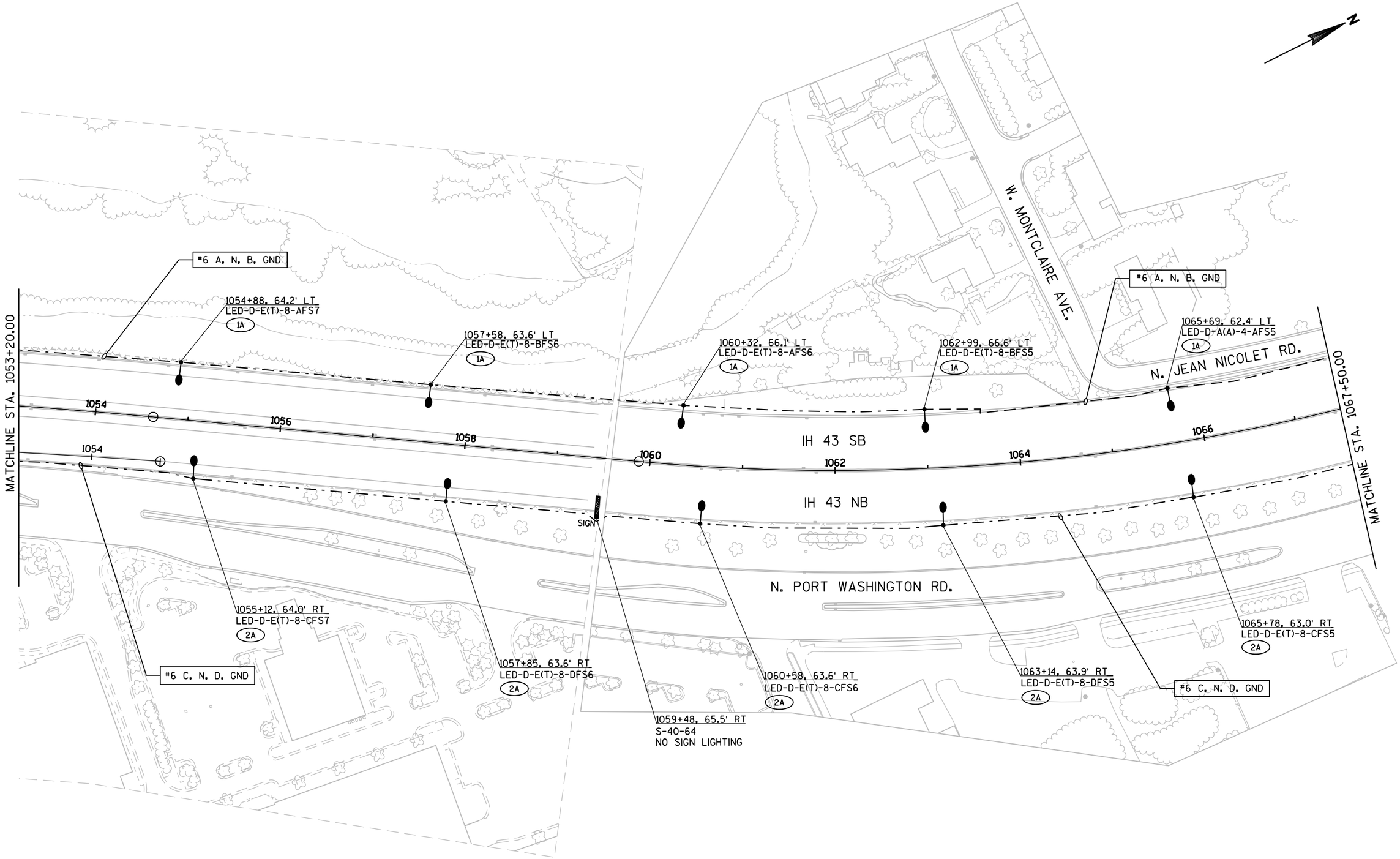
SHEET 12 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - SCHEMATIC	SHEET	E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP

PLOT DATE : 7/31/2019 6:10 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



SHEET 13 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - PROPOSED	SHEET E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP
PLOT DATE : 7/31/2019 6:11 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

N. JEAN NICOLET RD.

*6 A, N, B, GND

1054+88, 64.2' LT
LED-D-E(T)-8-AFS7
1A

1057+58, 63.6' LT
LED-D-E(T)-8-BFS6
1A

1060+32, 66.1' LT
LED-D-E(T)-8-AFS6
1A

1062+99, 66.6' LT
LED-D-E(T)-8-BFS5
1A

*6 A, N, B, GND

1065+69, 62.4' LT
LED-D-A(A)-4-AFS5
1A

MATCHLINE STA. 1053+20.00

1054 1056 1058 1060 1062 1064 1066

IH 43 SB

IH 43 NB

MATCHLINE STA. 1067+50.00

1054

1055+12, 64.0' RT
LED-D-E(T)-8-CFS7
2A

*6 C, N, D, GND

1057+85, 63.6' RT
LED-D-E(T)-8-DFS6
2A

1059+48, 65.5' RT
S-40-64
NO SIGN LIGHTING

1060+58, 63.6' RT
LED-D-E(T)-8-CFS6
2A

1063+14, 63.9' RT
LED-D-E(T)-8-DFS5
2A

1065+78, 63.0' RT
LED-D-E(T)-8-CFS5
2A

*6 C, N, D, GND

N. PORT WASHINGTON RD.

SHEET 14 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - SCHEMATIC	SHEET E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP
PLOT DATE : 7/31/2019 6:11 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

1068+40, 61.0' LT
LED-D-A(A)-4-BFS4
1A

*6 A, N, B, GND

1071+11, 61.4' LT
LED-D-A(A)-4-AFS4
1A

1073+79, 61.5' LT
LED-D-A(A)-4-BFS3
1A

1076+49, 61.8' LT
LED-D-A(A)-4-AFS3
1A

1079+28, 67.7' LT
LED-D-E(T)-8-BFS2
1A

1081+93, 62.2' LT
LED-D-E(T)-8-AFS2
1A

W. RIVERFRONT DR.

W. BENDER RD.

N. JEAN NICOLET RD.

*6 C, N, D, GND

MATCHLINE STA. 1067+50.00

1068 1070 1072 1074 1076 1078 1080 1082

IH 43 SB

IH 43 NB

MATCHLINE STA. 1082+50.00

N. PORT WASHINGTON RD.

*6 C, N, D, GND

1079+31, 57.7' RT
LPB-NC-103

1079+14, 59.9' RT
LED-D-A(A)-4-DFS2
2A

1081+79, 57.4' RT
LED-D-E(T)-8-CFS2
2A

1071+00, 61.2' RT
LED-D-A(A)-4-CFS4
2A

1073+73, 61.4' RT
LED-D-A(A)-4-DFS3
2A

1076+43, 61.2' RT
LED-D-A(A)-4-CFS3
2A

*6 C, N, D, GND

1068+39, 60.7' RT
LED-D-A(A)-4-DFS4
2A

W. BENDER RD.

SHEET 15 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - PROPOSED	SHEET E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP

PLOT DATE : 7/31/2019 6:11 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

1068+40, 61.0' LT
LED-D-A(A)-4-BFS4
1A

*6 A, N, B, GND

1071+11, 61.4' LT
LED-D-A(A)-4-AFS4
1A

1073+79, 61.5' LT
LED-D-A(A)-4-BFS3
1A

1076+49, 61.8' LT
LED-D-A(A)-4-AFS3
1A

1079+28, 67.7' LT
LED-D-E(T)-8-BFS2
1A

1081+93, 62.2' LT
LED-D-E(T)-8-AFS2
1A

W. RIVERFRONT DR.

W. BENDER RD.

N. JEAN NICOLET RD.

*6 C, N, D, GND

MATCHLINE STA. 1067+50.00

1068 1070 1072 1074 1076 1078 1080 1082

IH 43 SB

IH 43 NB

MATCHLINE STA. 1082+50.00

MATCHLINE

N. PORT WASHINGTON RD.

1068+39, 60.7' RT
LED-D-A(A)-4-DFS4
2A

1071+00, 61.2' RT
LED-D-A(A)-4-CFS4
2A

1073+73, 61.4' RT
LED-D-A(A)-4-DFS3
2A

*6 C, N, D, GND

1076+43, 61.2' RT
LED-D-A(A)-4-CFS3
2A

*6 C, N, D, GND

1079+31, 57.7' RT
LPB-NC-103

1079+14, 59.9' RT
LED-D-A(A)-4-DFS2
2A

1081+79, 57.4' RT
LED-D-E(T)-8-CFS2
2A

W. BENDER RD.

2

SHEET 16 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - SCHEMATIC	SHEET E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP
PLOT DATE : 7/31/2019 6:12 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

1087+98, 63.8' LT
HL-40-NC
EXISTING TO REMAIN

#2 B, N
#2 G, N

1088+27, 63.2' LT
EX. LPB-NC-101

#2 G, N
C.I.D.

1087+55, 63.9' LT
HL-40-FS
SEE NOTE 1
1A

2-3" CONDUIT
#6 A, N, B
#6 GND

1084+53, 56.8' LT
LED-D-E(T)-8-BFS1
1A

#6 A, N, B
#6 GND

1087+36, 60.4' LT
LPB-FS-101
1A

#6 A, N, B
#6 GND

1087+13, 57.3' LT
LED-D-E(T)-8-AFS1
1A

W. FAIRFIELD CT.

W. BRENTWOOD RD.

1089+41, 54.4' LT
GNC1
EXISTING TO REMAIN

1091+17, 54.2' LT
GNC2

1092+92, 53.9' LT
GNC3

1094+67, 54.2' LT
GNC4

N. JEAN NICOLET RD.

IH 43 SB

IH 43 NB

1084 1086 1088 1090 1092 1094 1096

#6 C, N, D
#6 GND
2-3"

MATCHLINE STA. 1082+50.00

N. PORT WASHINGTON RD.

1084+44, 60.1' RT
LED-D-E(T)-8-DFS1
2A

#6 C, N, D
#6 GND

#2 B, N
C.I.D.

1088+22, 62.0' RT
EX. LPB-NC-102

INTERCEPT
EXISTING
CONDUIT
AT THE BASE

1087+09, 57.7' RT
LED-D-E(T)-8-CFS1
2A

1087+36, 60.4' RT
LPB-FS-102

UNION PACIFIC

1089+66, 56.5' RT
BNC2
EXISTING TO REMAIN

1091+40, 56.1' RT
BNC3

1093+29, 55.9' RT
BNC4

1095+03, 56.5' RT
BNC5

W. BRENTWOOD RD.

NOTE:

1. INSTALL 3-INCH CONDUIT STUBOUT GOING NORTH FOR FUTURE USE

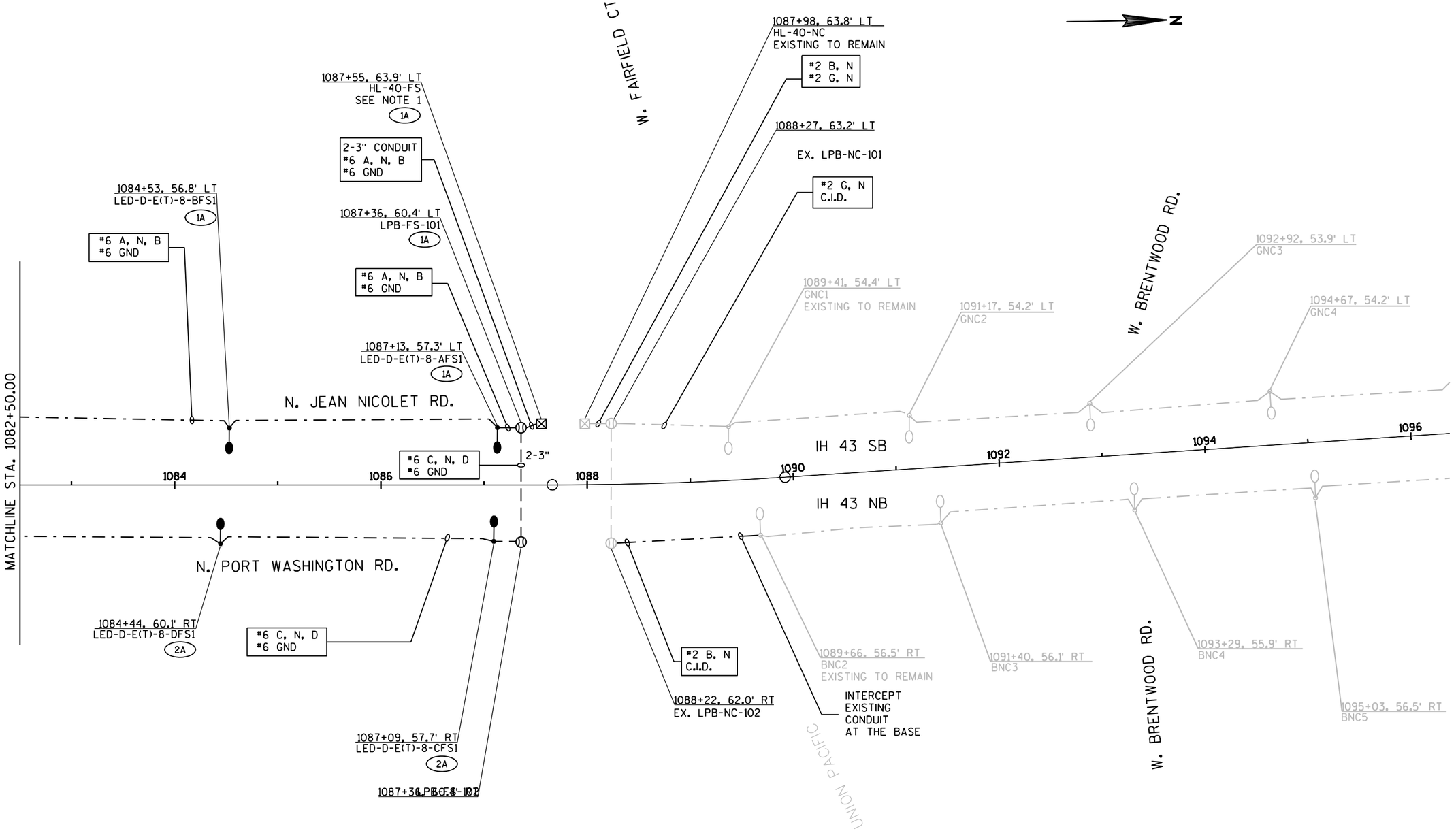
SHEET 17 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - PROPOSED	SHEET	E

FILE NAME : \\DC201\MILWAUKEE OFFICE\PROJECTS\15158.01 - ID 1228-22-72 IH 43 - LIGHTING\DRAWINGS\CADD SHEETS\023601_LP_MOD.DWG
LAYOUT NAME - 023601_LP

PLOT DATE : 7/31/2019 6:12 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



NOTE:

1. INSTALL 3-INCH CONDUIT STUBOUT GOING NORTH FOR FUTURE USE

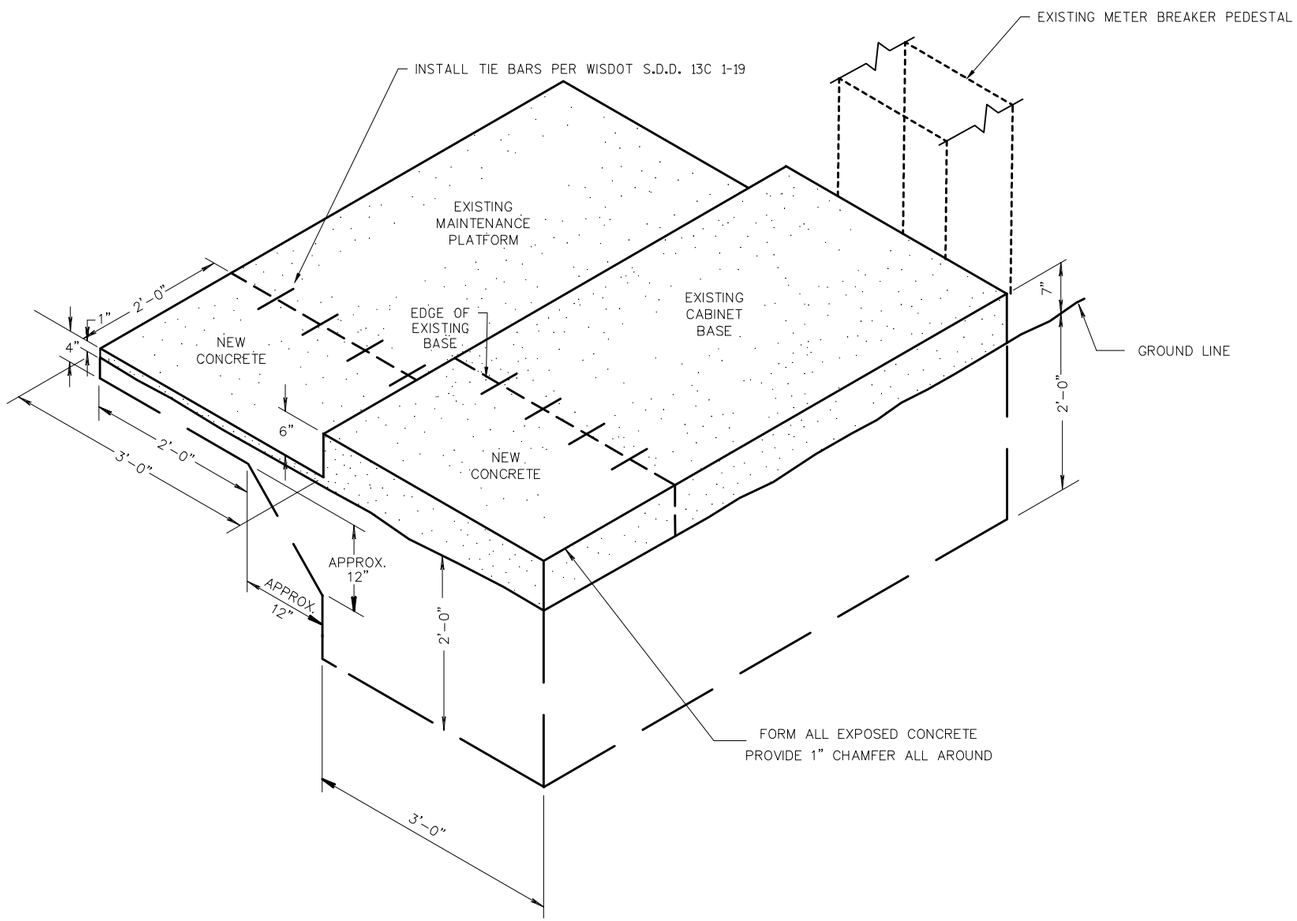
SHEET 18 OF 18

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - SCHEMATIC	SHEET 140	E

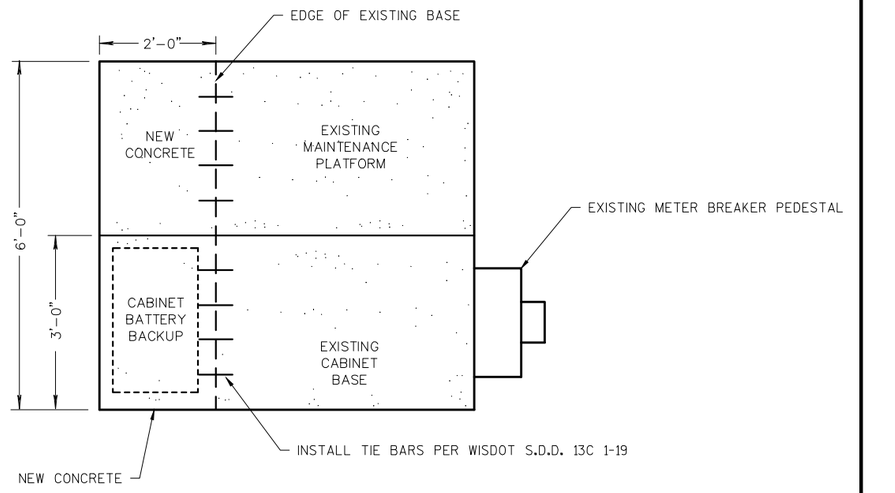
2

NOTES: REFERENCE GENERAL NOTES IN WISDOT SDD 9C 6-7

REFERENCE TIE BAR DIMENSIONS, DEPTH, AND SPACING IN WISDOT S.D.D. 13C 1-19



ISOMETRIC VIEW



PLAN VIEW

CONCRETE CONTROL CABINET BASE EXTENSION

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SHEET 141	E

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING THIER OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.
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 BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE 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.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

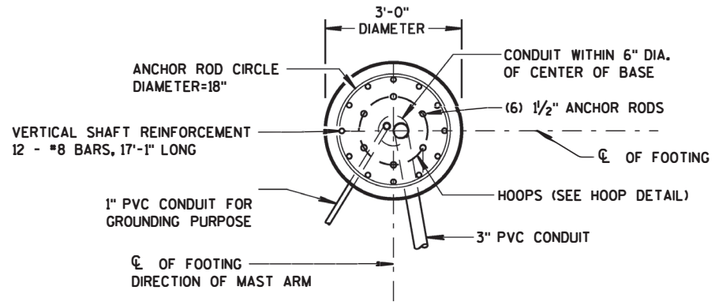
THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

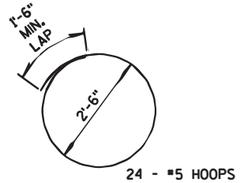
THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

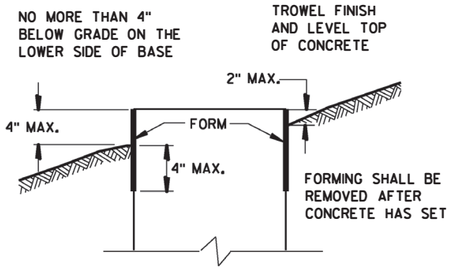
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATIONS	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.



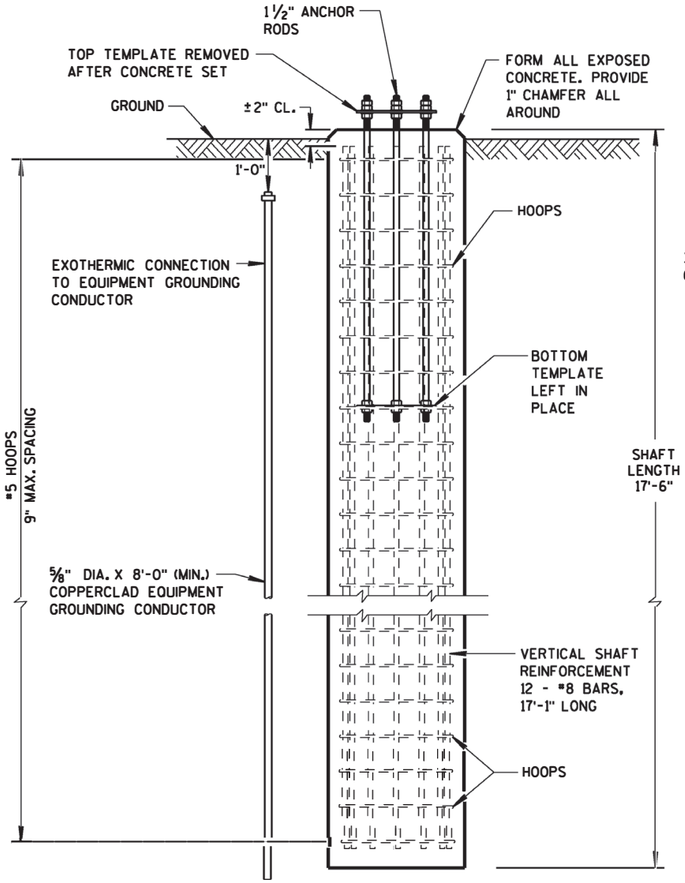
PLAN VIEW



HOOP DETAIL

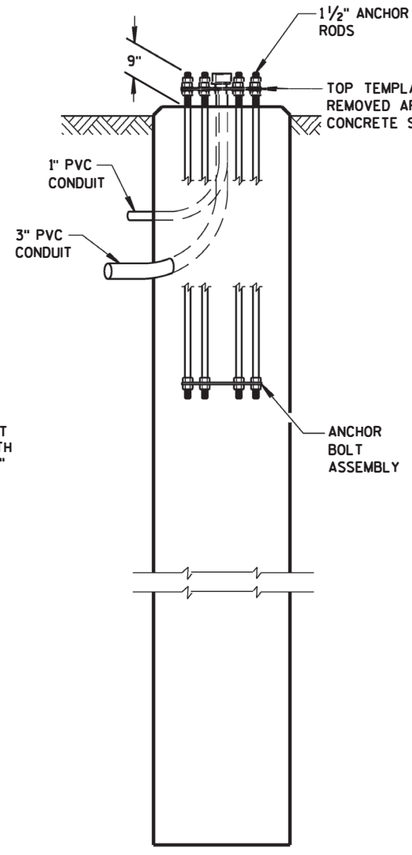


FORMING DETAIL



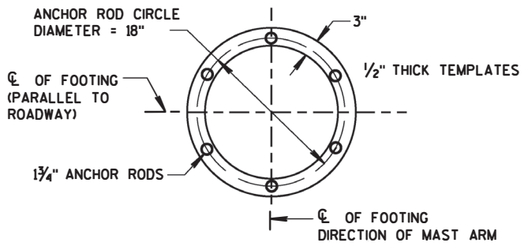
ELEVATION VIEW*

* CONDUITS ARE NOT SHOWN ON THIS VIEW FOR CLARITY

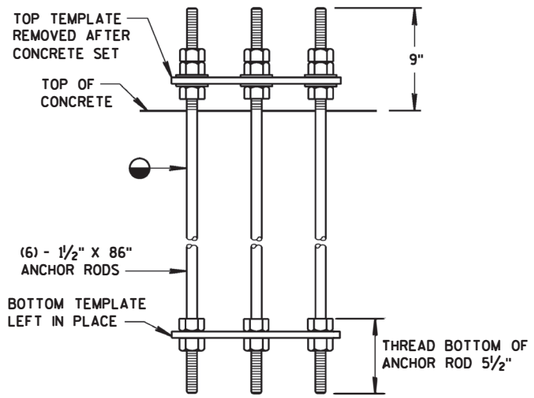


SIDE VIEW **

** HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

(FOR TYPE 9 & 10 SPECIAL POLES)

CONCRETE = 4.6 C.Y.
H.S. REINFORCEMENT = 779 LBS.

TO BE USED WHEN GROUND ELEVATION, AT BASE, EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.

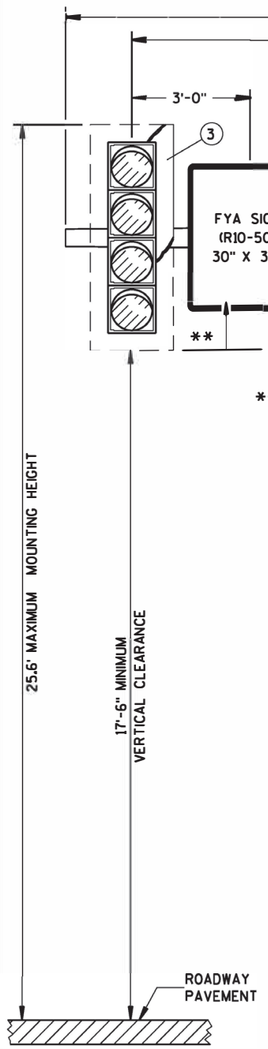
CONCRETE BASE ANCHOR ASSEMBLY

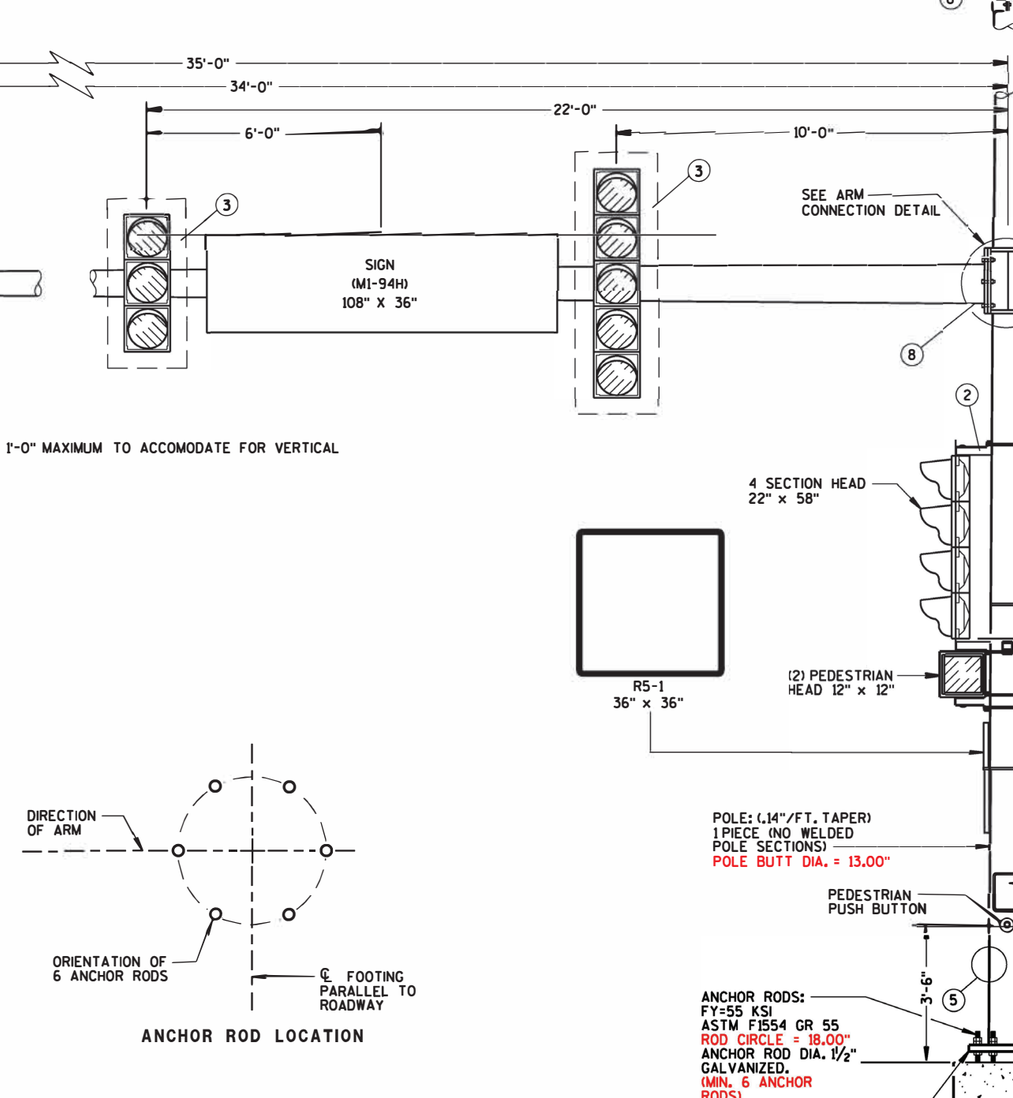
◒ THREAD TOP 9" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5½" FOR 2 NUTS PER ANCHOR ROD. HOT-DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR RODS (ASTM A123) AND HOT-DIP NUTS AND WASHERS (ASTM A153). USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SHEET E

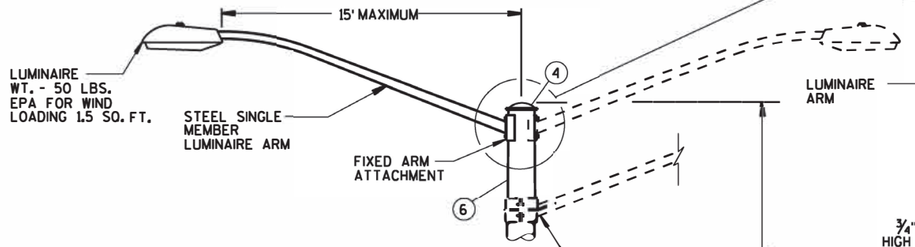
FILE NAME : C:\Users\dotarc\Desktop\T9_T10_Special\T10 Special Base - Construction Detail 20181019.dgn PLOT DATE : 23-OCT-2018 15:40 PLOT BY : dotarc PLOT NAME : PLOT SCALE : 1:3.47652
WISDOT/CADDS SHEET --

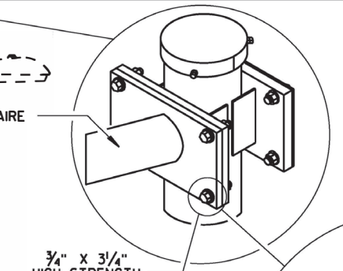
2

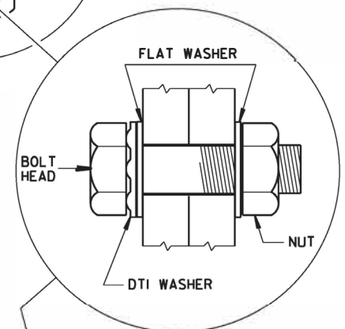




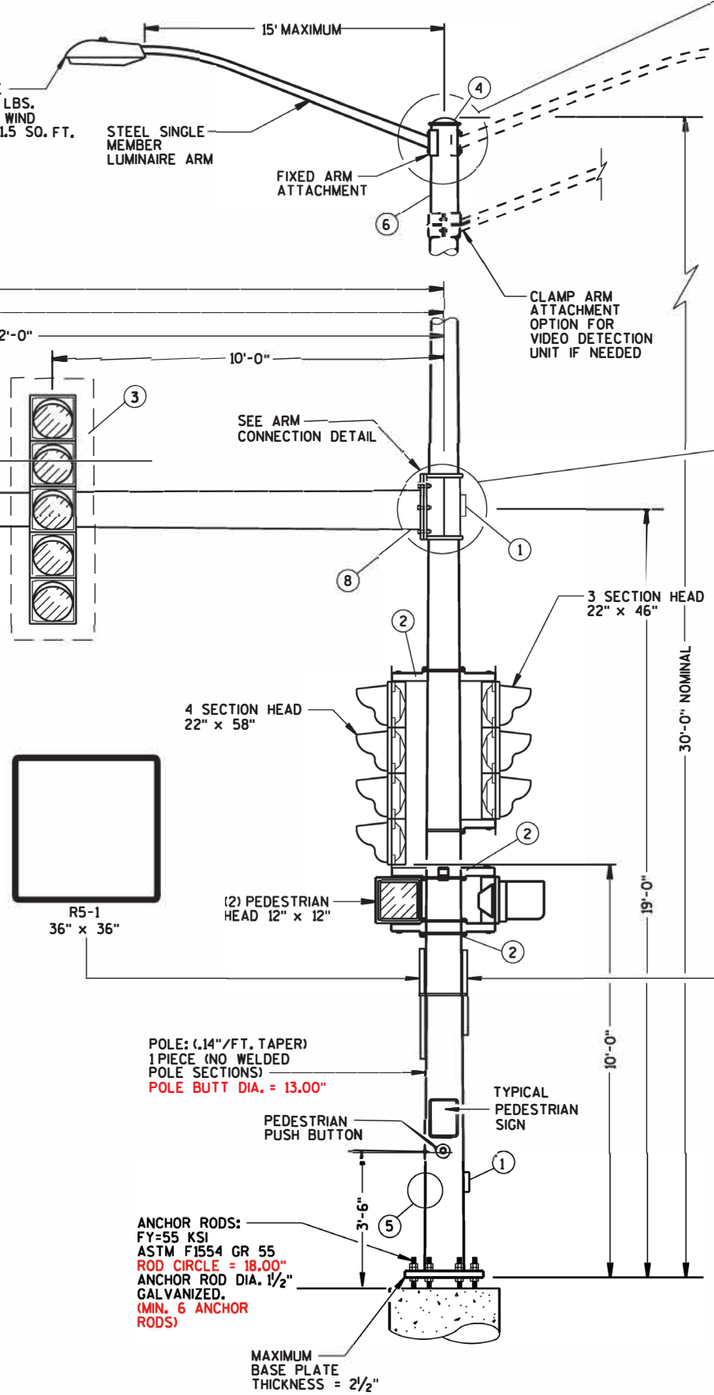
ANCHOR ROD LOCATION

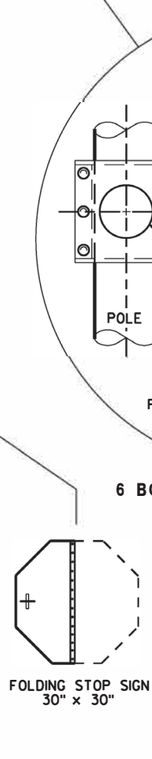


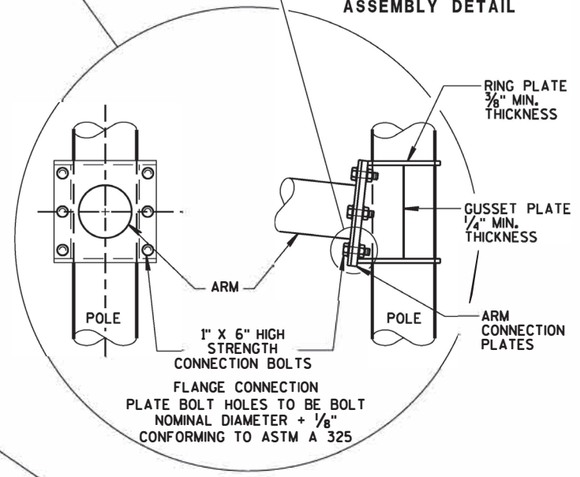




RECOMMENDED BOLT ASSEMBLY DETAIL







6 BOLT ARM CONNECTION DETAIL

(MAXIMUM LOAD)

TYPE 10 SPECIAL POLE 35' MONOTUBE ARM

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SHEET	E

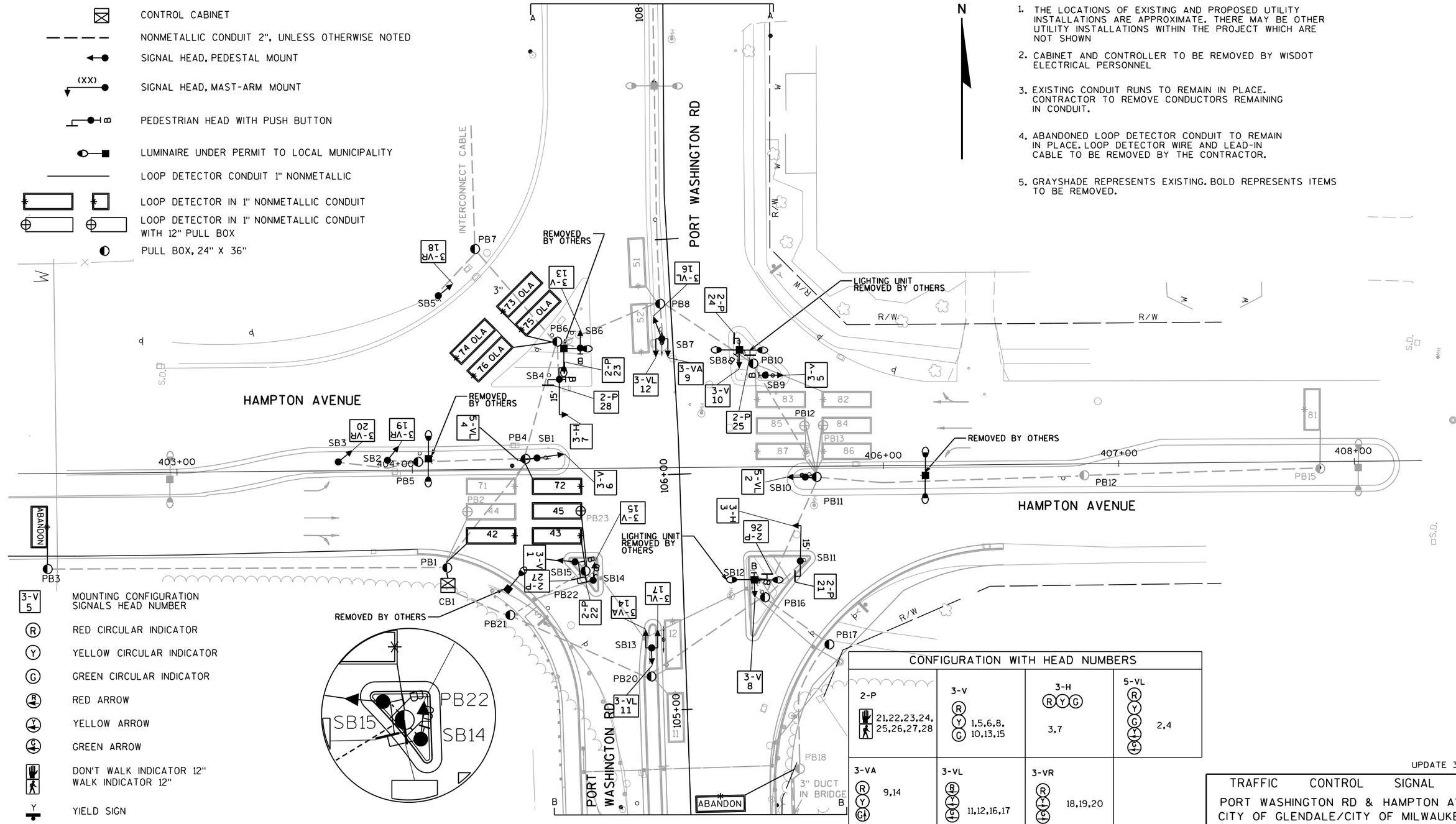
FILE NAME : C:\Users\dotarc\Desktop\T9_T10_Special\Final DGNs\Type10S_35.DGN PLOT DATE : 26-NOV-2018 15:00 PLOT BY : dotarc PLOT NAME : PLOT SCALE : 1:15.9436
WISDOT/CADDS SHEET --

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, PEDESTAL MOUNT
- (XX) SIGNAL HEAD, MAST-ARM MOUNT
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT WITH 12" PULL BOX
- PULL BOX, 24" X 36"

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN
2. CABINET AND CONTROLLER TO BE REMOVED BY WISDOT ELECTRICAL PERSONNEL
3. EXISTING CONDUIT RUNS TO REMAIN IN PLACE. CONTRACTOR TO REMOVE CONDUCTORS REMAINING IN CONDUIT.
4. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
5. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.



MOUNTING CONFIGURATION SIGNALS HEAD NUMBER

- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"
- Y YIELD SIGN
- S STOP SIGN

CONFIGURATION WITH HEAD NUMBERS

2-P	3-V	3-H	5-VL
21,22,23,24, 25,26,27,28	(R) (Y) (G) 1,5,6,8, 10,13,15	(R) (Y) (G) 3,7	(R) (Y) (G) (Y) (G) 2,4

3-VA	3-VL	3-VR
(R) (Y) (G) 9,14	(R) (Y) (G) 11,12,16,17	(R) (Y) (G) 18,19,20

UPDATE 3-05

TRAFFIC CONTROL SIGNAL

PORT WASHINGTON RD & HAMPTON AVE.
CITY OF GLENDALE/CITY OF MILWAUKEE

SIGNAL NO. S40-1101

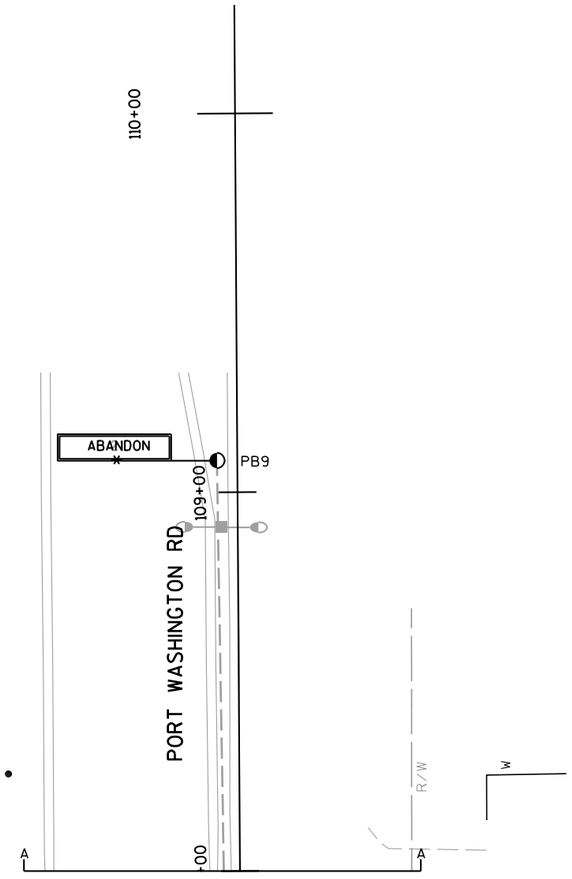
REGION CONTACT: P. VIRK
DESIGNED BY: raSmith

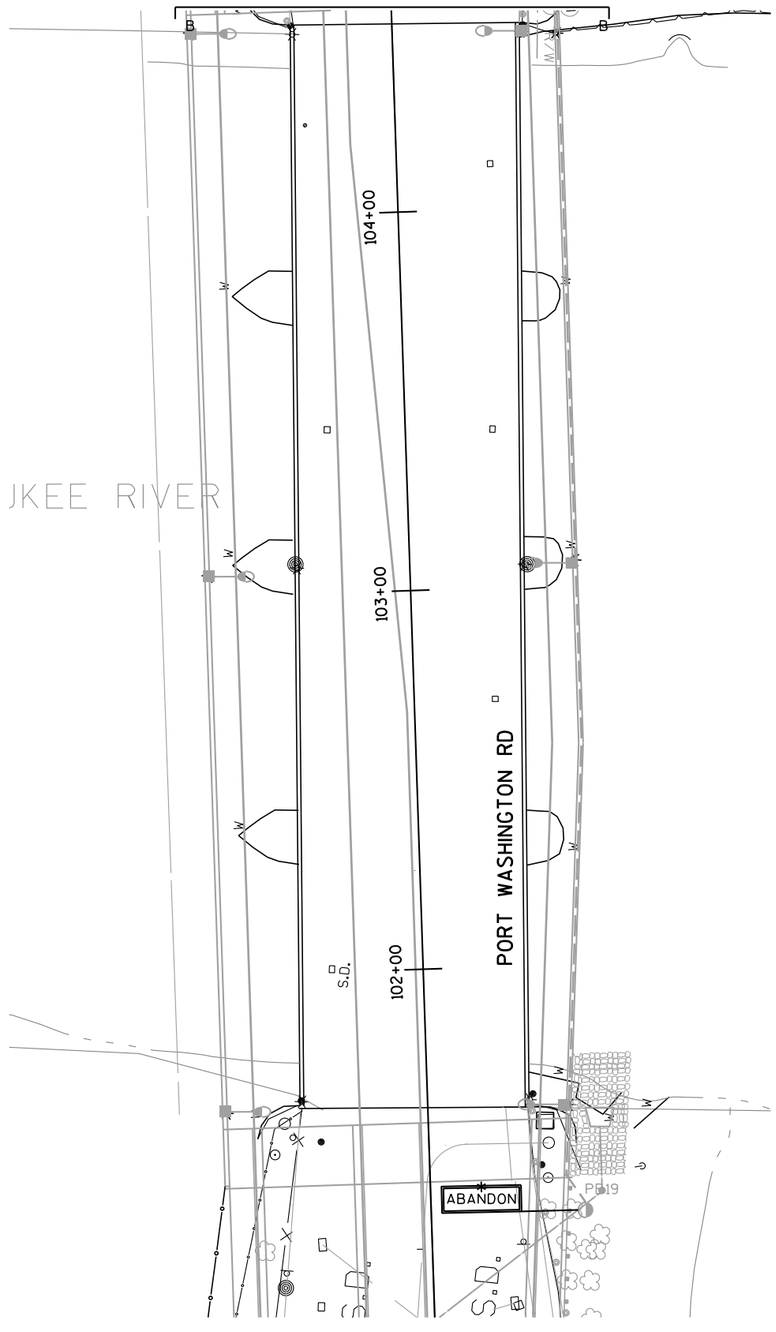
PAGE 1 OF 2

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 144 E

FILE NAME : T:\1162705.05\Traffic\Signal Design\S40-1101.DGN | PLOT DATE : 5/14/2018 | PLOT BY : trg | PLOT NAME : | PLOT SCALE : $$.....plotscale.....$$

2





TRAFFIC CONTROL SIGNAL

PORT WASHINGTON RD & HAMPTON AVE.
CITY OF GLENDALE/CITY OF MILWAUKEE

SIGNAL NO. S40-1101

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith

PAGE 2 OF 2

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 145	E

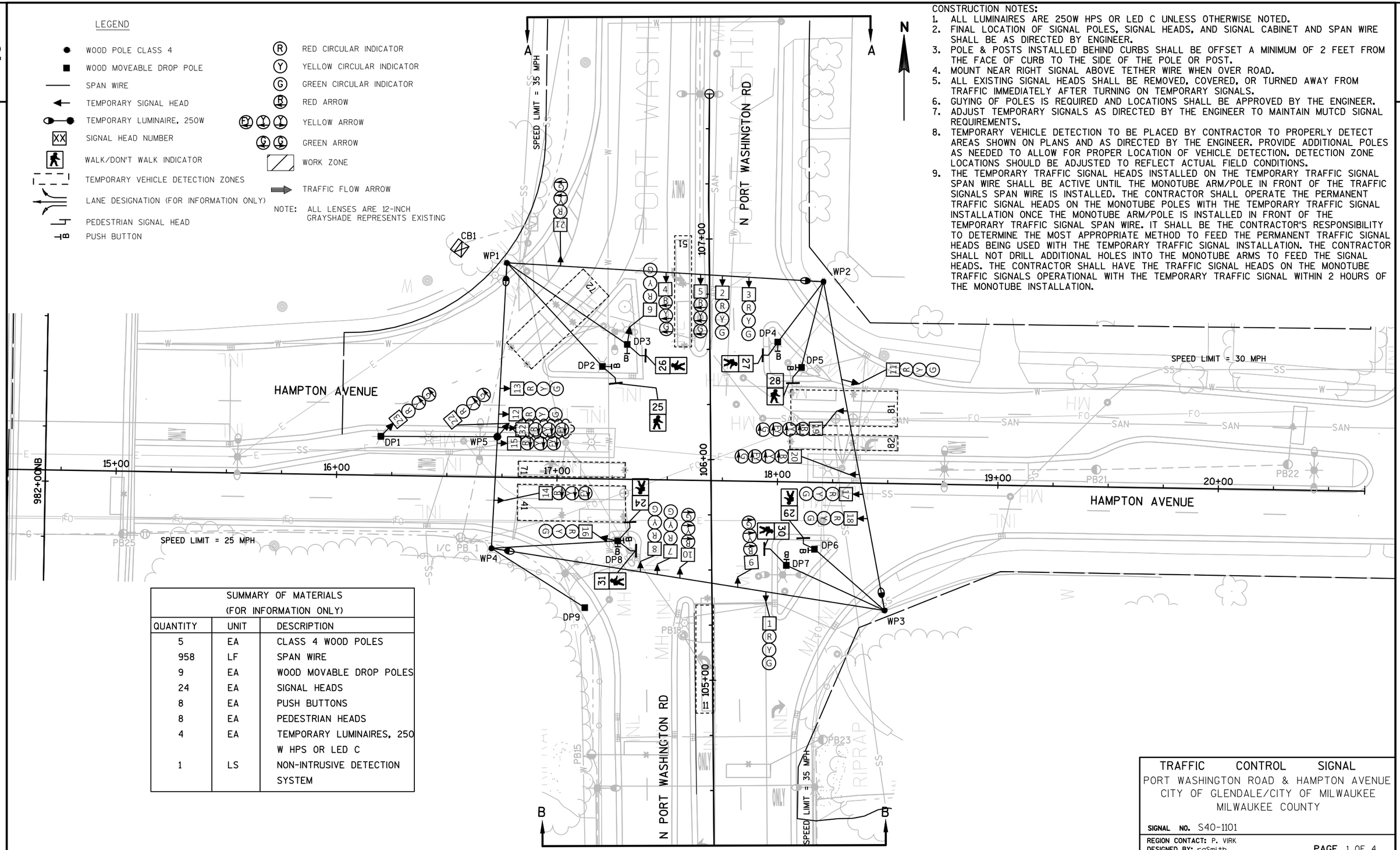
LEGEND

- WOOD POLE CLASS 4
- WOOD MOVEABLE DROP POLE
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W
- XX SIGNAL HEAD NUMBER
- WALK/DON'T WALK INDICATOR
- TEMPORARY VEHICLE DETECTION ZONES
- LANE DESIGNATION (FOR INFORMATION ONLY)
- PEDESTRIAN SIGNAL HEAD
- B PUSH BUTTON
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R YELLOW ARROW
- G GREEN ARROW
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. ALL LUMINAIRES ARE 250W HPS OR LED C UNLESS OTHERWISE NOTED.
2. FINAL LOCATION OF SIGNAL POLES, SIGNAL HEADS, AND SIGNAL CABINET AND SPAN WIRE SHALL BE AS DIRECTED BY ENGINEER.
3. POLE & POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POLE OR POST.
4. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
5. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
6. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
7. ADJUST TEMPORARY SIGNALS AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
8. TEMPORARY VEHICLE DETECTION TO BE PLACED BY CONTRACTOR TO PROPERLY DETECT AREAS SHOWN ON PLANS AND AS DIRECTED BY THE ENGINEER. PROVIDE ADDITIONAL POLES AS NEEDED TO ALLOW FOR PROPER LOCATION OF VEHICLE DETECTION. DETECTION ZONE LOCATIONS SHOULD BE ADJUSTED TO REFLECT ACTUAL FIELD CONDITIONS.
9. THE TEMPORARY TRAFFIC SIGNAL HEADS INSTALLED ON THE TEMPORARY TRAFFIC SIGNAL SPAN WIRE SHALL BE ACTIVE UNTIL THE MONOTUBE ARM/POLE IN FRONT OF THE TRAFFIC SIGNALS SPAN WIRE IS INSTALLED. THE CONTRACTOR SHALL OPERATE THE PERMANENT TRAFFIC SIGNAL HEADS ON THE MONOTUBE POLES WITH THE TEMPORARY TRAFFIC SIGNAL INSTALLATION ONCE THE MONOTUBE ARM/POLE IS INSTALLED IN FRONT OF THE TEMPORARY TRAFFIC SIGNAL SPAN WIRE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE MOST APPROPRIATE METHOD TO FEED THE PERMANENT TRAFFIC SIGNAL HEADS BEING USED WITH THE TEMPORARY TRAFFIC SIGNAL INSTALLATION. THE CONTRACTOR SHALL NOT DRILL ADDITIONAL HOLES INTO THE MONOTUBE ARMS TO FEED THE SIGNAL HEADS. THE CONTRACTOR SHALL HAVE THE TRAFFIC SIGNAL HEADS ON THE MONOTUBE TRAFFIC SIGNALS OPERATIONAL WITH THE TEMPORARY TRAFFIC SIGNAL WITHIN 2 HOURS OF THE MONOTUBE INSTALLATION.



SUMMARY OF MATERIALS
(FOR INFORMATION ONLY)

QUANTITY	UNIT	DESCRIPTION
5	EA	CLASS 4 WOOD POLES
958	LF	SPAN WIRE
9	EA	WOOD MOVABLE DROP POLES
24	EA	SIGNAL HEADS
8	EA	PUSH BUTTONS
8	EA	PEDESTRIAN HEADS
4	EA	TEMPORARY LUMINAIRES, 250 W HPS OR LED C
1	LS	NON-INTRUSIVE DETECTION SYSTEM

TRAFFIC CONTROL SIGNAL
PORT WASHINGTON ROAD & HAMPTON AVENUE
CITY OF GLENDALE/CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S40-1101

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:

PAGE 1 OF 4

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - PRE-CONSTRUCTION, STAGE 1	SHEET 146	E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1101\S40-1101_SP-TEMPPRECONSTR.DWG
LAYOUT NAME - S40-1101_SP-TEMPPRECONSTR - S40-1101_PG1

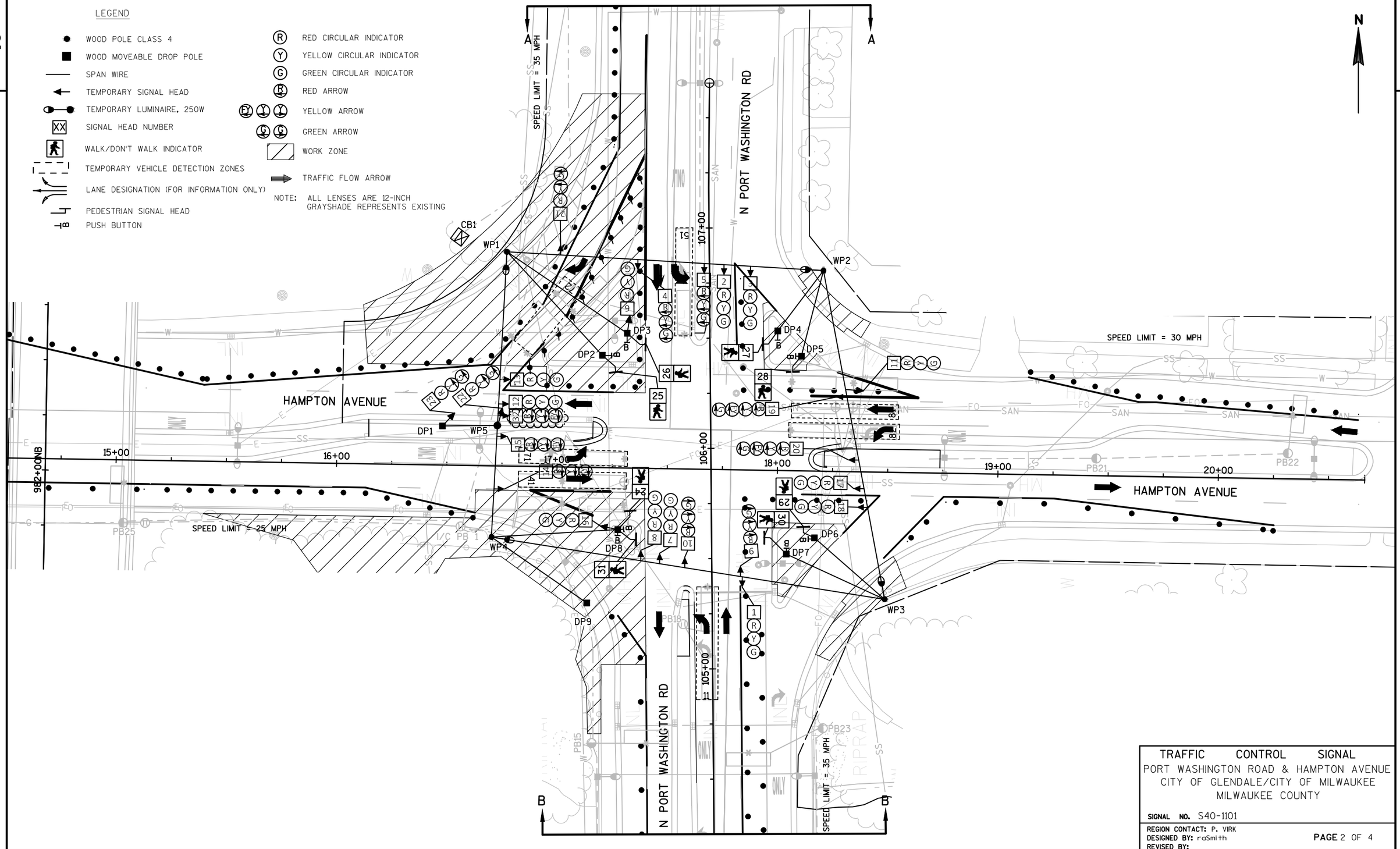
PLOT DATE : 5/11/2018 11:57 AM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- WOOD MOVEABLE DROP POLE
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W
- SIGNAL HEAD NUMBER (XX)
- WALK/DON'T WALK INDICATOR
- TEMPORARY VEHICLE DETECTION ZONES
- LANE DESIGNATION (FOR INFORMATION ONLY)
- PEDESTRIAN SIGNAL HEAD
- PUSH BUTTON
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TRAFFIC CONTROL SIGNAL
PORT WASHINGTON ROAD & HAMPTON AVENUE
CITY OF GLENDALE/CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S40-1101

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:

PAGE 2 OF 4

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A	SHEET 147 E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1101\S40-1101_SP-TEMP2A.DWG
LAYOUT NAME - S40-1101_SP-TEMP2A - S40-1101_PG1

PLOT DATE : 5/14/2018 4:14 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

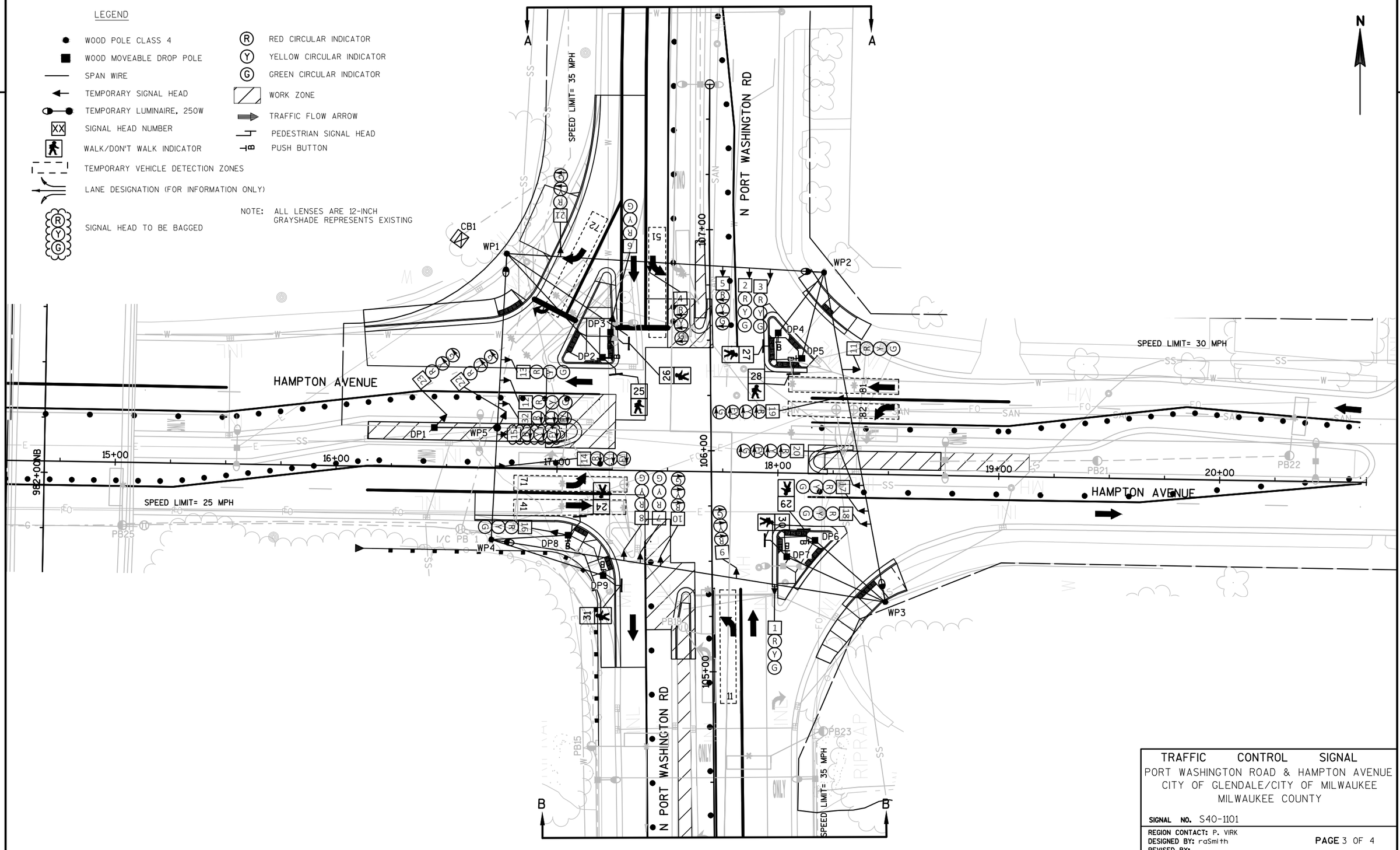
WISDOT/CADDS SHEET 42

2

LEGEND

- WOOD POLE CLASS 4
- WOOD MOVEABLE DROP POLE
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W
- XX SIGNAL HEAD NUMBER
- WALK/DON'T WALK INDICATOR
- TEMPORARY VEHICLE DETECTION ZONES
- LANE DESIGNATION (FOR INFORMATION ONLY)
- R Y G SIGNAL HEAD TO BE BAGGED
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- WORK ZONE
- TRAFFIC FLOW ARROW
- PEDESTRIAN SIGNAL HEAD
- PB PUSH BUTTON

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



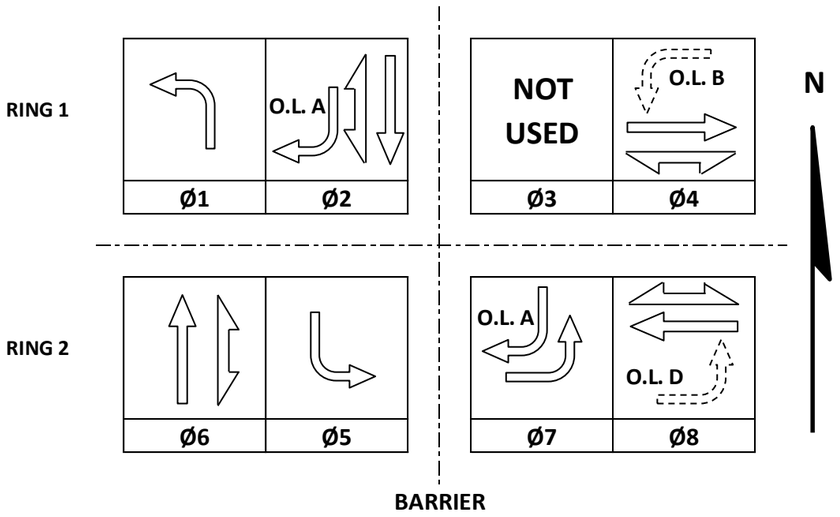
TRAFFIC	CONTROL SIGNAL
PORT WASHINGTON ROAD & HAMPTON AVENUE	
CITY OF GLENDALE/CITY OF MILWAUKEE	
MILWAUKEE COUNTY	
SIGNAL NO.	S40-1101
REGION CONTACT: P. VIRK	
DESIGNED BY: raSmith	PAGE 3 OF 4
REVISED BY:	

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2B	SHEET 148 E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1101\S40-1101_SP-TEMP2B.DWG
LAYOUT NAME - S40-1101_SP-TEMP2B - S40-1101_PG1

PLOT DATE : 5/14/2018 4:39 PM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
Ø1	4,5	R ←
Ø2	6,7,8	R
Ø3		
Ø4	16,17,18	R
Ø5	9,10	R
Ø6	1,2,3	R ←
Ø7	19,20	R ←
Ø8	11,12,13	R
Ø2P	24,25	
Ø4P	30,31	
Ø6P	28,29	
Ø8P	26,27	
OLA	21,22,23	R
OLB	14,15, 32	R ←
OLC		
OLD	19,20	-



DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11		X			1	1					N/A
41		X			4	4					N/A
51		X			5	5					N/A
71		X			7	7					N/A
72		X			7	7		X			N/A
81		X			8	8					N/A
82		X			4	4					N/A

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MAX	X
3				
4		8		X
5		2		X
6	X	2	MAX	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL.
3. PHASES 1 AND 5 ARE IN CONFLICT AND NOT ALLOWED TO TIME CONCURRENTLY.

PORT WASHINGTON ROAD & HAMPTON AVENUE

CITY OF GLENDALE / CITY OF MILWAUKEE

MILWAUKEE COUNTY

SIGNAL NO: S40-1101 CABINET TYPE: TEMP

CONTROLLER TYPE: TEMP

DATE: 08/2019 PAGE NO. 4 OF 4

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC INTERCONNECT CONDUIT
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-45' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LUMINAIRE UNDER PERMIT TO MUNICIPALITY
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- VIDEO DETECTION AREA
- VX VIDEO DETECTOR

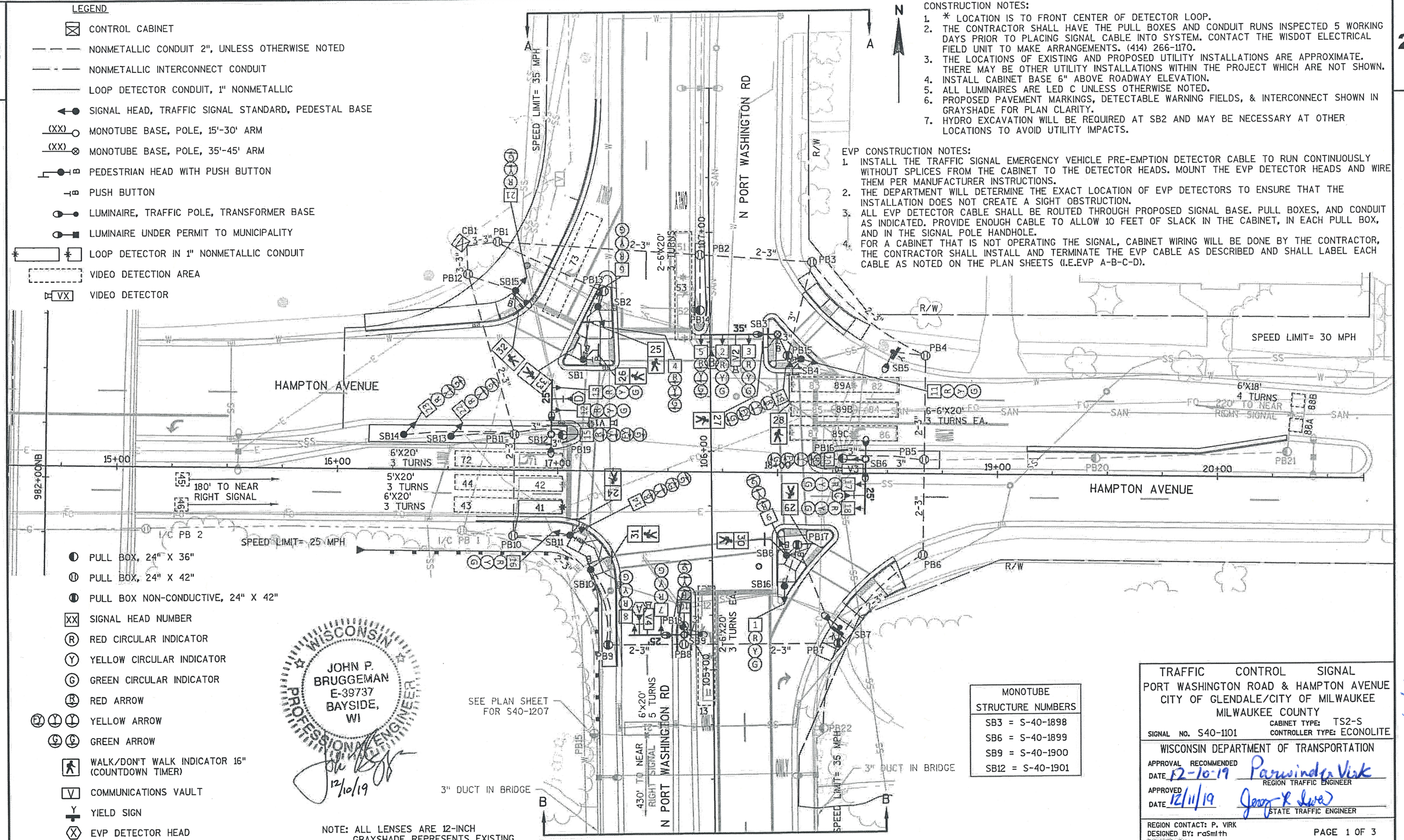
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- PULL BOX NON-CONDUCTIVE, 24" X 42"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- V COMMUNICATIONS VAULT
- Y YIELD SIGN
- X EVP DETECTOR HEAD
- EVP DESIGNATOR

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
5. ALL LUMINAIRES ARE LED C UNLESS OTHERWISE NOTED.
6. PROPOSED PAVEMENT MARKINGS, DETECTABLE WARNING FIELDS, & INTERCONNECT SHOWN IN GRAYSHADE FOR PLAN CLARITY.
7. HYDRO EXCAVATION WILL BE REQUIRED AT SB2 AND MAY BE NECESSARY AT OTHER LOCATIONS TO AVOID UTILITY IMPACTS.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY WITHOUT SPLICES FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH PROPOSED SIGNAL BASE. PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.
4. FOR A CABINET THAT IS NOT OPERATING THE SIGNAL, CABINET WIRING WILL BE DONE BY THE CONTRACTOR, THE CONTRACTOR SHALL INSTALL AND TERMINATE THE EVP CABLE AS DESCRIBED AND SHALL LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E.EVP A-B-C-D).



NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

WISCONSIN PROFESSIONAL ENGINEER
JOHN P. BRUGGEMAN
E-39737
BAYSIDE, WI
12/10/19

MONOTUBE STRUCTURE NUMBERS
SB3 = S-40-1898
SB6 = S-40-1899
SB9 = S-40-1900
SB12 = S-40-1901

TRAFFIC CONTROL SIGNAL
PORT WASHINGTON ROAD & HAMPTON AVENUE
CITY OF GLENDALE/CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL NO. S40-1101
CABINET TYPE: TS2-S
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED DATE 12-10-19 Parwinder Virk REGION TRAFFIC ENGINEER

APPROVED DATE 12/11/19 Jeremy K Lowe STATE TRAFFIC ENGINEER

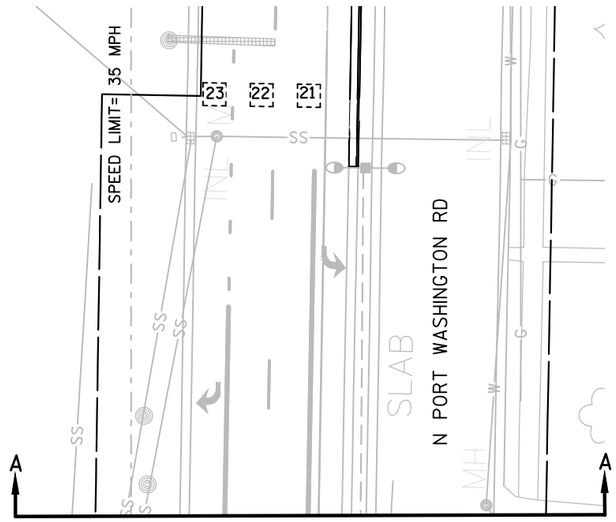
REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:

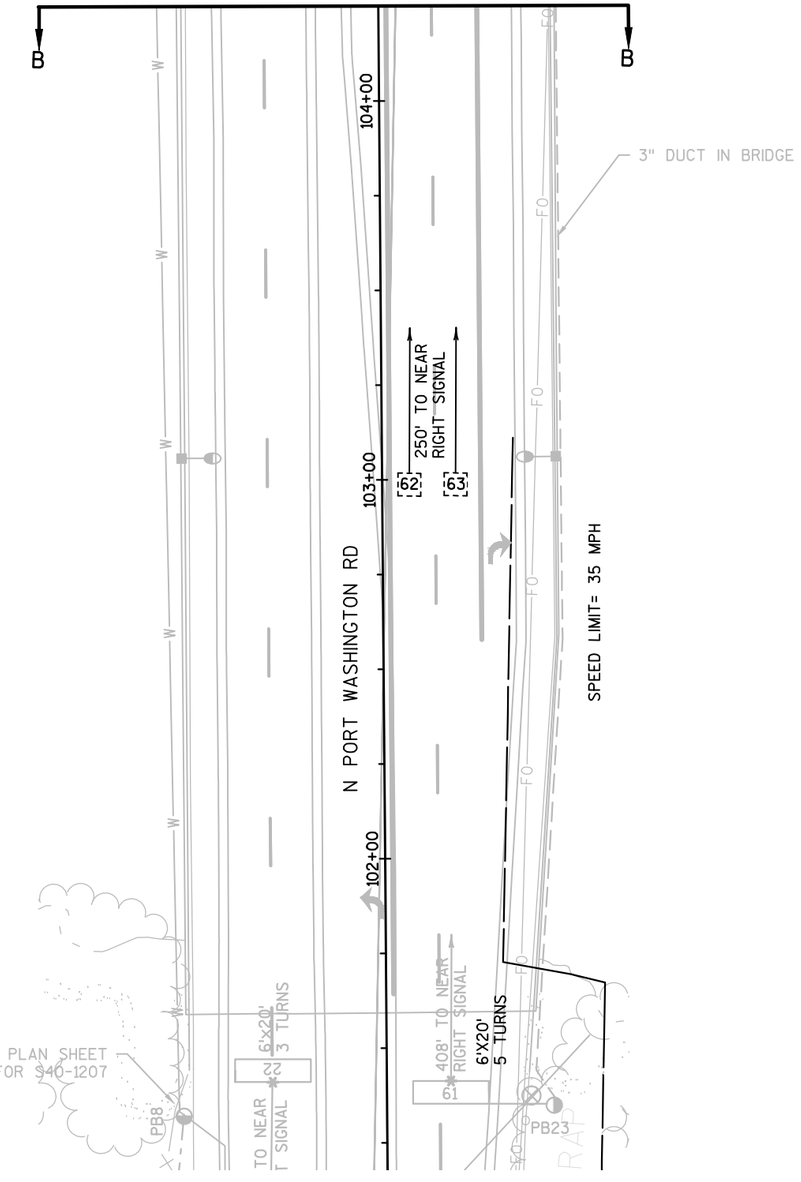
PAGE 1 OF 3

MM 12/10/19

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 150	E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1101\S40-1101.DWG
LAYOUT NAME - S40-1101 - S40-1101_PG1
PLOT DATE : 6/27/2019 3:06 PM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42





TRAFFIC CONTROL SIGNAL
PORT WASHINGTON ROAD & HAMPTON AVENUE
CITY OF GLENDALE/CITY OF MILWAUKEE
MILWAUKEE COUNTY

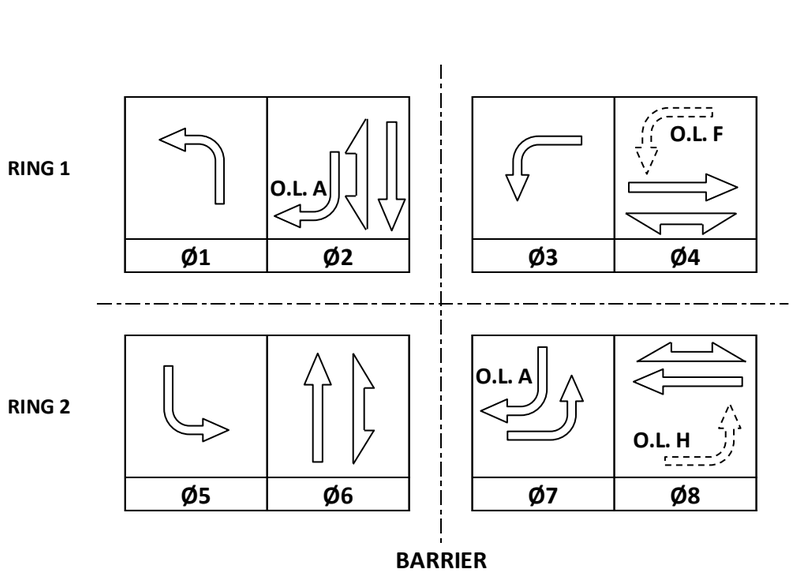
SIGNAL NO. S40-1101

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 151	E

	HEAD NUMBERS	FLASH
Ø1	4,5	R ←
Ø2	6,7,8	R
Ø3	14,15	R ←
Ø4	16,17,18	R
Ø5	9,10	R ←
Ø6	1,2,3	R
Ø7	19,20	R ←
Ø8	11,12,13	R
Ø2P	24,25	
Ø4P	30,31	
Ø6P	28,29	
Ø8P	26,27, 32, 33	
OLA	21,22,23	R
OLE		
OLF	14,15	-
OLG		
OLH	19,20	-



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS- 40-0027

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	11	41	51	61	71	82	84	86
CALLED PHASE	1	4	5	6	7	8	8	8
CALL OPTION	X	X	X	X	X	X	X	X
DELAY TIME								
EXTENSION OPTION	X	X	X	X	X	X	X	X
EXTEND TIME								
USE ADDED INITIAL				X				
CROSS SWITCH PHASE					8			

	19	17	23	21	27	25	31	29
	13	21	23	43	45	53	62	72
	1	2	2	4	4	5	6	7
	X	X	X	X		X	X	X
	X	X	X	X	X	X	X	X
					X			
		X	X				X	
								8

DETECTOR INPUT	33	31	37	35	41	39	45	43	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	73	88A	89A	89C					PLAN LOOP DETECTOR*(S)
CALLED PHASE	7	8	8	8					CALLED PHASE
CALL OPTION	X		X	X					CALL OPTION
DELAY TIME	X								DELAY TIME
EXTENTION OPTION	X	X	X	X					EXTENTION OPTION
EXTEND TIME		X							EXTEND TIME
USE ADDED INITIAL									USE ADDED INITIAL
CROSS SWITCH PHASE									CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)	12	42	52		81	83	85	87
CALLED PHASE	1	4	5		8	8	8	8
CALL OPTION	X	X	X			X	X	X
DELAY TIME								
EXTENSION OPTION	X	X	X		X	X	X	X
EXTEND TIME					X			
USE ADDED INITIAL								
CROSS SWITCH PHASE								

	20	18	24	22	28	26	32	30
		22		44	46		63	
		2		4	4		6	
		X		X			X	
		X		X	X		X	
					X			
		X					X	

DETECTOR INPUT	34	32	38	36	42	40	46	44	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)		88B	89B						PLAN LOOP DETECTOR*(S)
CALLED PHASE		8	8						CALLED PHASE
CALL OPTION			X						CALL OPTION
DELAY TIME									DELAY TIME
EXTENTION OPTION		X	X						EXTENTION OPTION
EXTEND TIME		X							EXTEND TIME
USE ADDED INITIAL									USE ADDED INITIAL
CROSS SWITCH PHASE									CROSS SWITCH PHASE

PORT WASHINGTON ROAD & HAMPTON AVENUE
CITY OF GLENDALE/CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO: S40-1101 CABINET TYPE: TS2-S
CONTROLLER TYPE: ECONOLITE
DATE: 08/2019 PAGE NO. 3 OF 3

PROJECT ID:	1228-22-72
INTERSECTION:	Port Washington Rd & Hampton Ave

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

DATE	8/1/19

CB1 TO	# OF COND.	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK		
SB1	15	26								BLK	BLU		
		33								BLK/WHT	BLU/WHT		
		BUTTON										WHT/BLK	
		BUTTON										BLU/BLK	
SB2	12	4				RED	ORG	GRN					
		6	RED/BLK	ORG/BLK	GRN/BLK								
		25								BLK	BLU		
SB3	12	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		5				RED/BLK	ORG/BLK	GRN/BLK					
		27								BLK	BLU		
		BUTTON										WHT/BLK	
SB4	12	19				RED	ORG	GRN	BLU/BLK				
		11	RED/BLK	ORG/BLK	GRN/BLK								
		28								BLK	BLU		
		BUTTON										WHT/BLK	
SB6	12	17	RED	ORG	BLK								
		18	RED	ORG	BLK								
		20				RED/BLK	ORG/BLK	GRN/BLK	BLU/BLK				
SB8	15	9				RED	ORG	GRN					
		29								BLK	BLU		
		30								BLK/WHT	BLU/WHT		
		BUTTON										WHT/BLK	
		BUTTON										BLU/BLK	
SB9	12	7	RED	ORG	BLK								
		8	RED	ORG	BLK								
		10				RED/BLK	ORG/BLK	GRN/BLK					
SB10	7	31								BLK	BLU		
		BUTTON										WHT/BLK	
SB11	12	16	RED	ORG	BLK								
		14				RED/BLK	ORG/BLK	GRN/BLK	BLU/BLK				
		24								BLK	BLU		
		BUTTON										WHT/BLK	
SB12	12	12	RED	ORG	GRN								
		13	RED	ORG	GRN								
		15				RED/BLK	ORG/BLK	GRN/BLK	BLU/BLK				
SB13	7	22	RED				ORG	GRN					
SB14	7	23	RED				ORG	GRN					
SB15	7	21	RED				ORG	GRN					
		32								BLK	BLU		
		BUTTON										WHT/BLK	
SB16	7	1	RED	ORG	GRN								

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP

FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB6
SB6	SB8
SB8	SB16
SB16	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	SB14
SB14	SB15
SB15	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP

FROM	TO
PB1	CB1
PB2	SB3
PB3	SB3
PB4	SB6
PB5	SB6
PB6	SB6
PB8	SB9
PB10	SB11
PB11	SB13
PB12	SB15
PB13	SB2
PB19	SB12

VIDEO DETECTION CABLE

FROM	TO
CB1	V1 (SB12)
CB1	V2 (SB3)
CB1	V3 (SB6)
CB1	V4 (SB9)

LIGHTING UF 2-10 AWG W/GROUND

FROM	TO
CB1	SB3
SB3	SB5
SB5	SB6
SB6	SB7
CB1	SB15
SB15	SB12
SB12	SB9

EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR CABLE

FROM	TO
CB1	HEAD A (SB9)
CB1	HEAD B (SB3)
CB1	HEAD C (SB6)
CB1	HEAD D (SB12)

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.

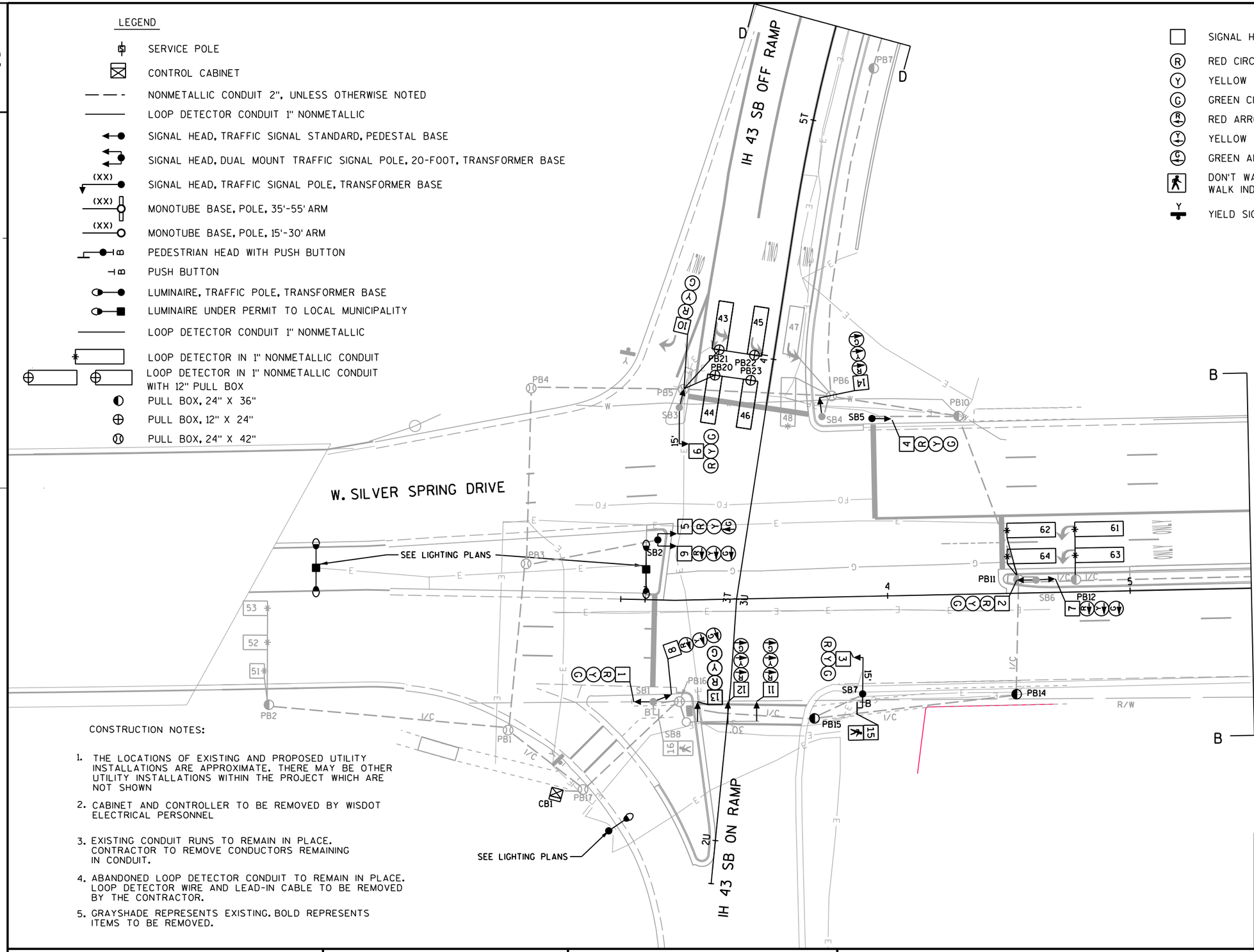
2

LEGEND

- SERVICE POLE
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- SIGNAL HEAD, DUAL MOUNT TRAFFIC SIGNAL POLE, 20-FOOT, TRANSFORMER BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT WITH 12" PULL BOX
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- PULL BOX, 24" X 42"

- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"
- Y YIELD SIGN

N



CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN
2. CABINET AND CONTROLLER TO BE REMOVED BY WISDOT ELECTRICAL PERSONNEL
3. EXISTING CONDUIT RUNS TO REMAIN IN PLACE. CONTRACTOR TO REMOVE CONDUCTORS REMAINING IN CONDUIT.
4. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
5. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.

TRAFFIC CONTROL SIGNAL

IH 43 & SILVER SPRING DRIVE
CITY OF GLENDALE
MILWAUKEE COUNTY

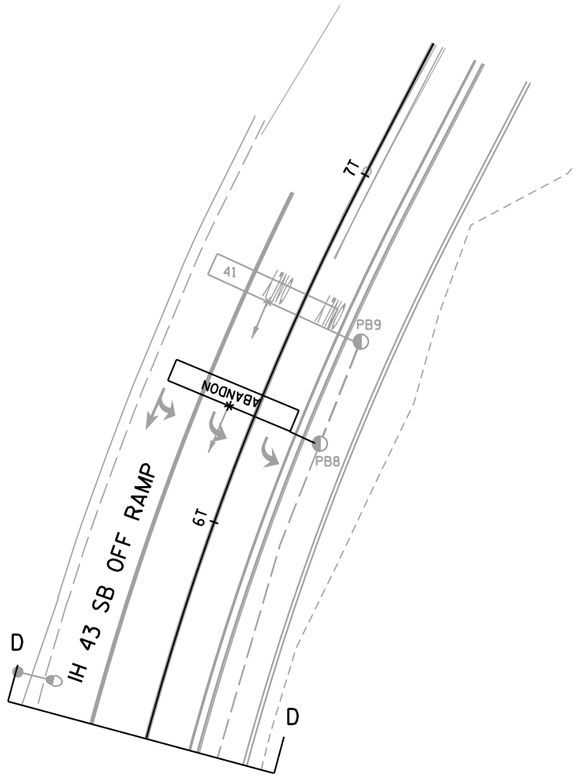
SIGNAL NO. S40-1194

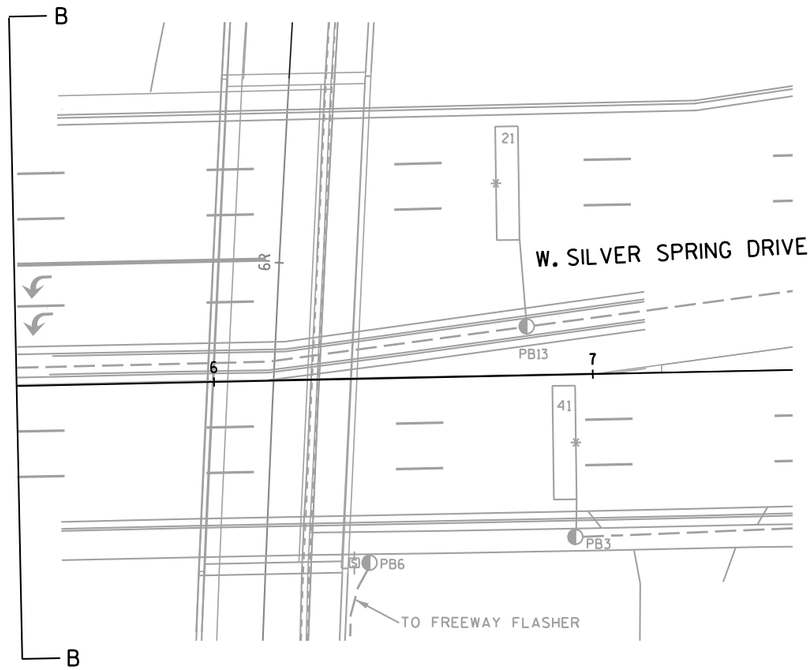
REGION CONTACT: P. VIRK
DESIGNED BY: raSmith

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 154 E

2

N





TRAFFIC CONTROL SIGNAL
IH 43 & SILVER SPRING DRIVE
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-1194

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith

PAGE 2 OF 2

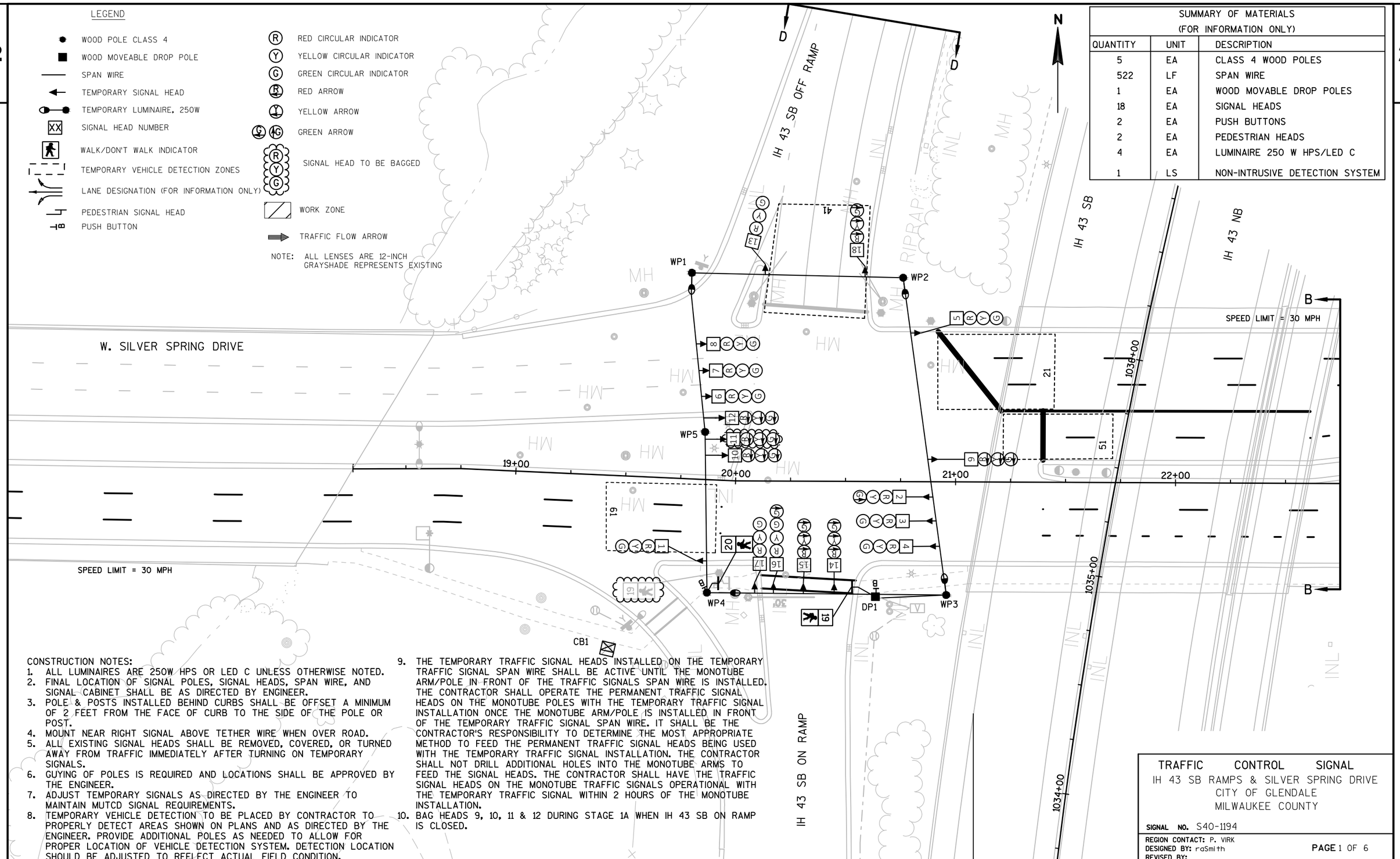
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 155	E

LEGEND

- WOOD POLE CLASS 4
- WOOD MOVEABLE DROP POLE
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W
- SIGNAL HEAD NUMBER (XX)
- WALK/DON'T WALK INDICATOR
- TEMPORARY VEHICLE DETECTION ZONES
- LANE DESIGNATION (FOR INFORMATION ONLY)
- PEDESTRIAN SIGNAL HEAD
- PUSH BUTTON
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

SUMMARY OF MATERIALS (FOR INFORMATION ONLY)		
QUANTITY	UNIT	DESCRIPTION
5	EA	CLASS 4 WOOD POLES
522	LF	SPAN WIRE
1	EA	WOOD MOVABLE DROP POLES
18	EA	SIGNAL HEADS
2	EA	PUSH BUTTONS
2	EA	PEDESTRIAN HEADS
4	EA	LUMINAIRE 250 W HPS/LED C
1	LS	NON-INTRUSIVE DETECTION SYSTEM



CONSTRUCTION NOTES:

1. ALL LUMINAIRES ARE 250W HPS OR LED C UNLESS OTHERWISE NOTED.
2. FINAL LOCATION OF SIGNAL POLES, SIGNAL HEADS, SPAN WIRE, AND SIGNAL CABINET SHALL BE AS DIRECTED BY ENGINEER.
3. POLE & POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POLE OR POST.
4. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
5. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
6. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
7. ADJUST TEMPORARY SIGNALS AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
8. TEMPORARY VEHICLE DETECTION TO BE PLACED BY CONTRACTOR TO PROPERLY DETECT AREAS SHOWN ON PLANS AND AS DIRECTED BY THE ENGINEER. PROVIDE ADDITIONAL POLES AS NEEDED TO ALLOW FOR PROPER LOCATION OF VEHICLE DETECTION SYSTEM. DETECTION LOCATION SHOULD BE ADJUSTED TO REFLECT ACTUAL FIELD CONDITION.
9. THE TEMPORARY TRAFFIC SIGNAL HEADS INSTALLED ON THE TEMPORARY TRAFFIC SIGNAL SPAN WIRE SHALL BE ACTIVE UNTIL THE MONOTUBE ARM/POLE IN FRONT OF THE TRAFFIC SIGNALS SPAN WIRE IS INSTALLED. THE CONTRACTOR SHALL OPERATE THE PERMANENT TRAFFIC SIGNAL HEADS ON THE MONOTUBE POLES WITH THE TEMPORARY TRAFFIC SIGNAL INSTALLATION ONCE THE MONOTUBE ARM/POLE IS INSTALLED IN FRONT OF THE TEMPORARY TRAFFIC SIGNAL SPAN WIRE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE MOST APPROPRIATE METHOD TO FEED THE PERMANENT TRAFFIC SIGNAL HEADS BEING USED WITH THE TEMPORARY TRAFFIC SIGNAL INSTALLATION. THE CONTRACTOR SHALL NOT DRILL ADDITIONAL HOLES INTO THE MONOTUBE ARMS TO FEED THE SIGNAL HEADS. THE CONTRACTOR SHALL HAVE THE TRAFFIC SIGNAL HEADS ON THE MONOTUBE TRAFFIC SIGNALS OPERATIONAL WITH THE TEMPORARY TRAFFIC SIGNAL WITHIN 2 HOURS OF THE MONOTUBE INSTALLATION.
10. BAG HEADS 9, 10, 11 & 12 DURING STAGE 1A WHEN IH 43 SB ON RAMP IS CLOSED.

TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & SILVER SPRING DRIVE
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-1194

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:

PAGE 1 OF 6

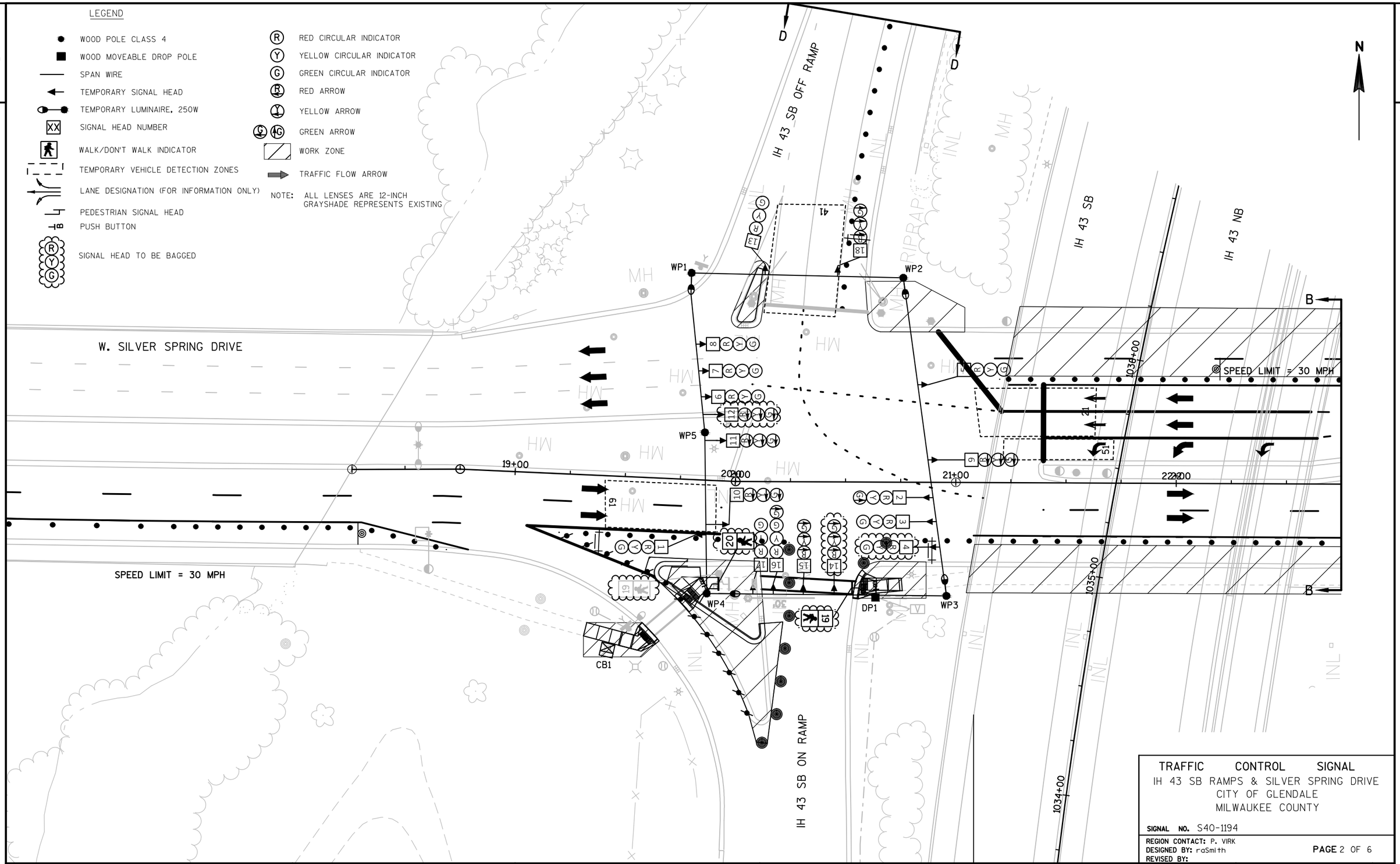
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - PRE-CONSTRUCTION, STAGE 1-3	SHEET 156	E

2

LEGEND

- WOOD POLE CLASS 4
- WOOD MOVEABLE DROP POLE
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W
- SIGNAL HEAD NUMBER
- WALK/DON'T WALK INDICATOR
- TEMPORARY VEHICLE DETECTION ZONES
- LANE DESIGNATION (FOR INFORMATION ONLY)
- PEDESTRIAN SIGNAL HEAD
- PUSH BUTTON
- SIGNAL HEAD TO BE BAGGED
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & SILVER SPRING DRIVE
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-1194

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:

PAGE 2 OF 6

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 4A	SHEET 157	E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1194\S40-1194_F-STAGE4A.DWG
LAYOUT NAME - S40-1194_F_PG1

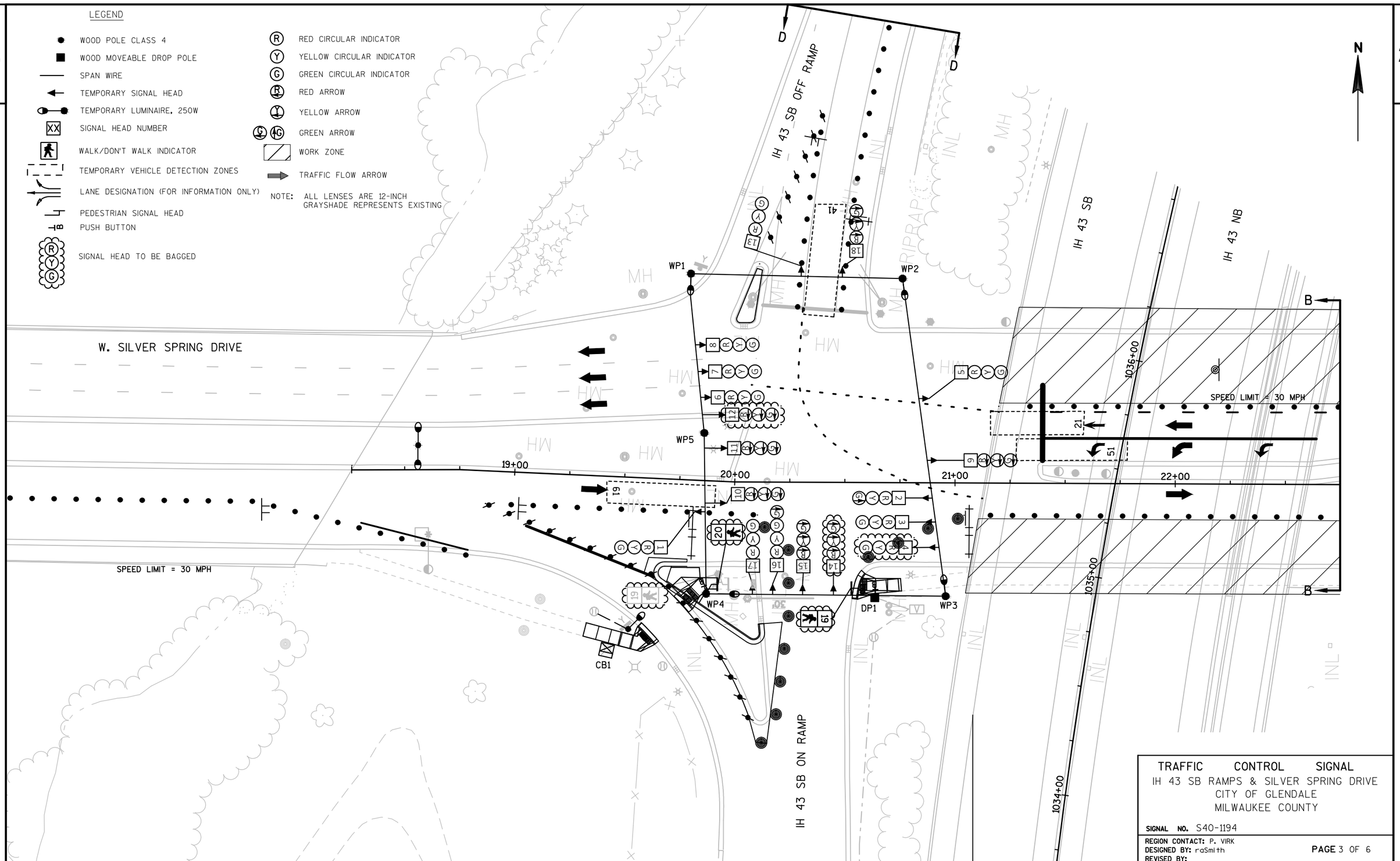
PLOT DATE : 1/24/2018 6:46 PM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- WOOD MOVEABLE DROP POLE
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W
- SIGNAL HEAD NUMBER
- WALK/DON'T WALK INDICATOR
- TEMPORARY VEHICLE DETECTION ZONES
- LANE DESIGNATION (FOR INFORMATION ONLY)
- PEDESTRIAN SIGNAL HEAD
- PUSH BUTTON
- SIGNAL HEAD TO BE BAGGED
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & SILVER SPRING DRIVE
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-1194

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:

PAGE 3 OF 6

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 4B	SHEET 158	E

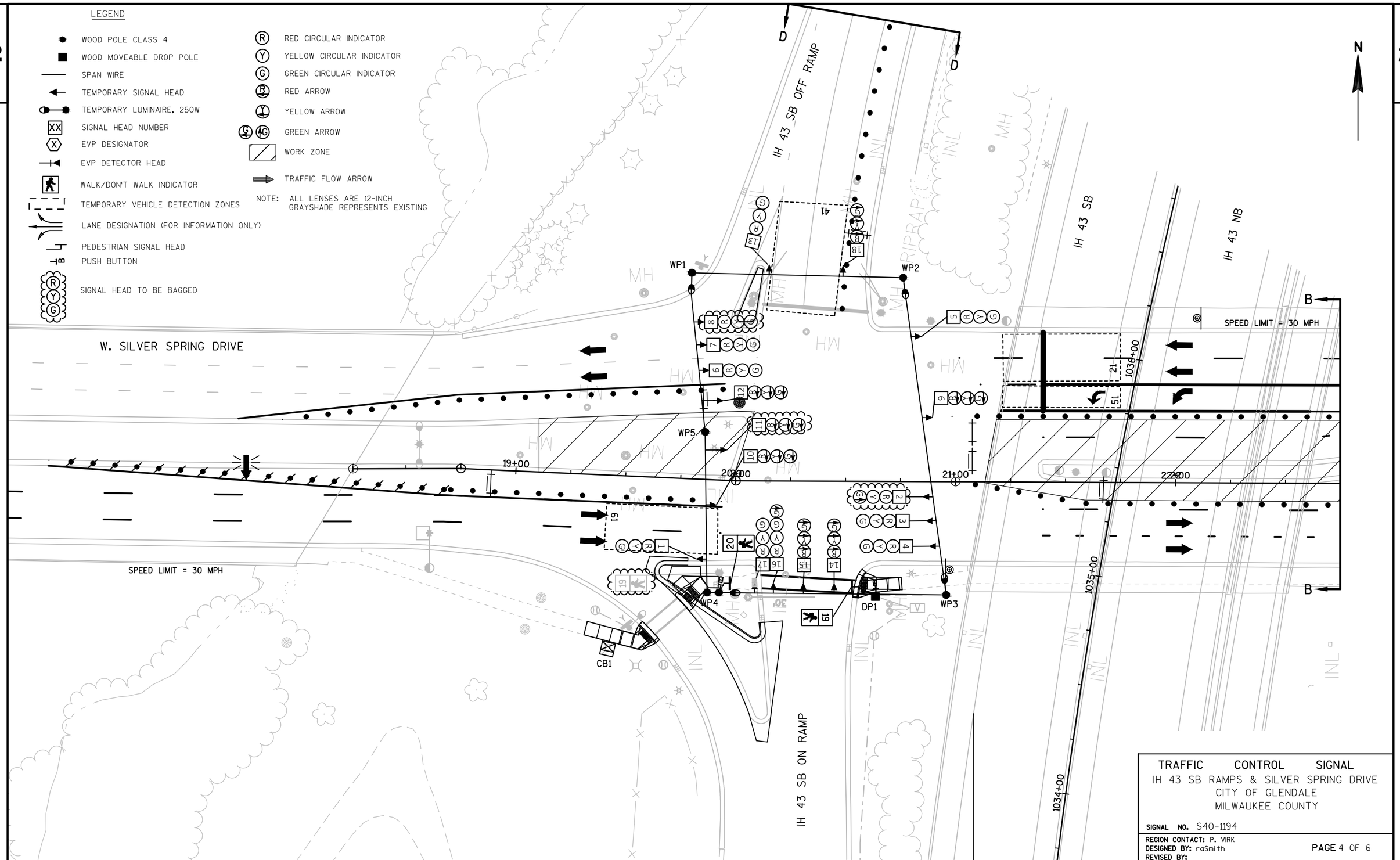
FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1194\S40-1194_F-STAGE4B.DWG
LAYOUT NAME - S40-1194_F_PG1

PLOT DATE : 1/31/2018 10:59 AM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- WOOD POLE CLASS 4
- WOOD MOVEABLE DROP POLE
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W
- SIGNAL HEAD NUMBER
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WALK/DON'T WALK INDICATOR
- TEMPORARY VEHICLE DETECTION ZONES
- LANE DESIGNATION (FOR INFORMATION ONLY)
- PEDESTRIAN SIGNAL HEAD
- PUSH BUTTON
- SIGNAL HEAD TO BE BAGGED
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & SILVER SPRING DRIVE
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-1194

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:

PAGE 4 OF 6

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 4C	SHEET 159	E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1194\S40-1194_F-STAGE4C.DWG
LAYOUT NAME - S40-1194_F_PG1

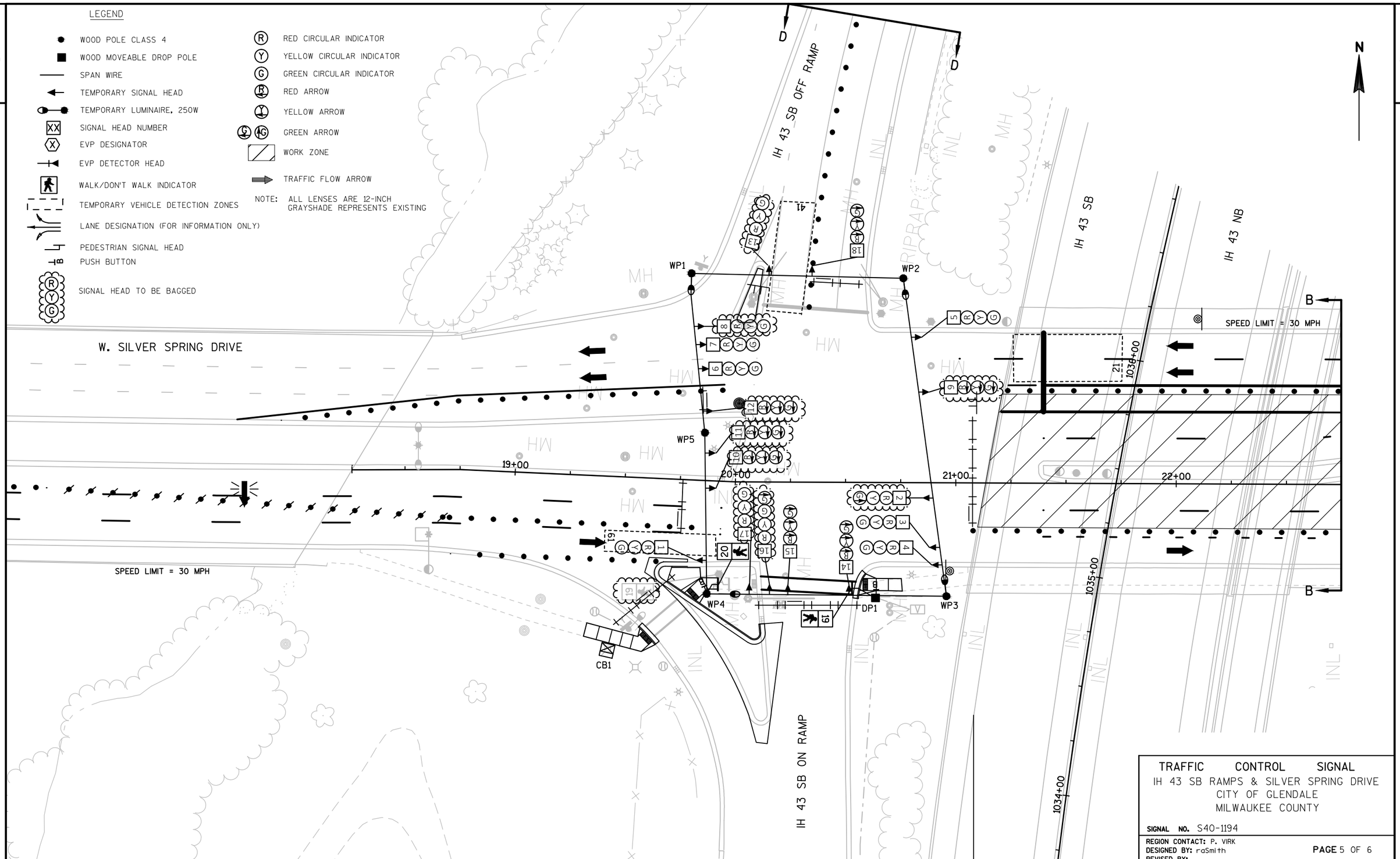
PLOT DATE : 1/22/2019 12:45 PM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- WOOD POLE CLASS 4
- WOOD MOVEABLE DROP POLE
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W
- SIGNAL HEAD NUMBER
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WALK/DON'T WALK INDICATOR
- TEMPORARY VEHICLE DETECTION ZONES
- LANE DESIGNATION (FOR INFORMATION ONLY)
- PEDESTRIAN SIGNAL HEAD
- PUSH BUTTON
- SIGNAL HEAD TO BE BAGGED
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & SILVER SPRING DRIVE
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-1194

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:

PAGE 5 OF 6

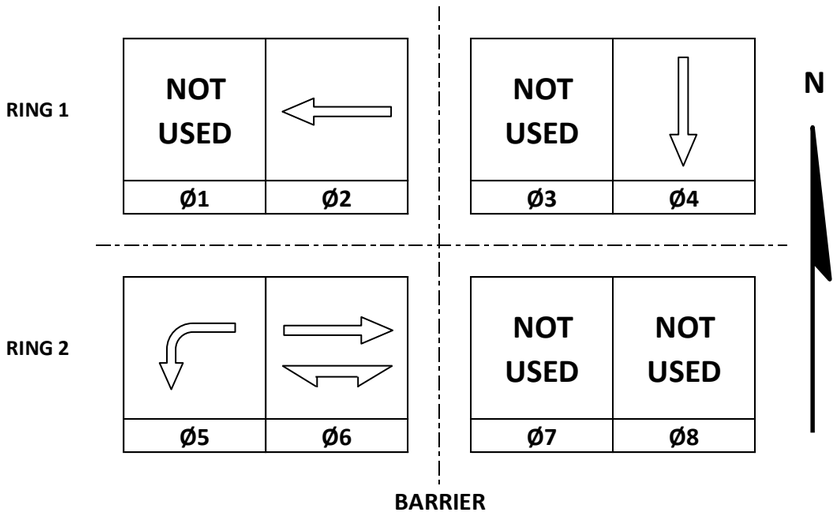
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 4D	SHEET 160	E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1194\S40-1194_F-STAGE4D.DWG
LAYOUT NAME - S40-1194_F_PG1

PLOT DATE : 1/22/2019 12:48 PM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1		
Ø2	5,6,7,8	R
Ø3		
Ø4	13,14,15,16,17,18	R
Ø5	9,10,11,12	R ←
Ø6	1,2,3,4	R
Ø7		
Ø8		
Ø2P		
Ø4P		
Ø6P	19,20	
Ø8P		
OLA		
OLB		
OLC		
OLD		



DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
21		X			2	2					N/A
41		X			4	4					N/A
51		X			5	5					N/A
61		X			6	6					N/A

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MIN	X
3				
4		8		X
5		2		X
6	X	2	MIN	X
7				
8				

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

GENERAL NOTES:

1. OMIT PHASE 5 DURING STAGE 4D OR WHENEVER ACCESS TO SB ON-RAMP IS CLOSED.
2. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
3. WHEN ONE PHASE IS ON ALONE, ANY NON-CONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL.

IH 43 SB RAMPS & SILVER SPRING DRIVE
CITY OF GLENDALE
MILWAUKEE COUNTY
SIGNAL NO: S40-1194 CABINET TYPE: TEMP
CONTROLLER TYPE: TEMP
DATE: 08/2019 PAGE NO. 6 OF 6

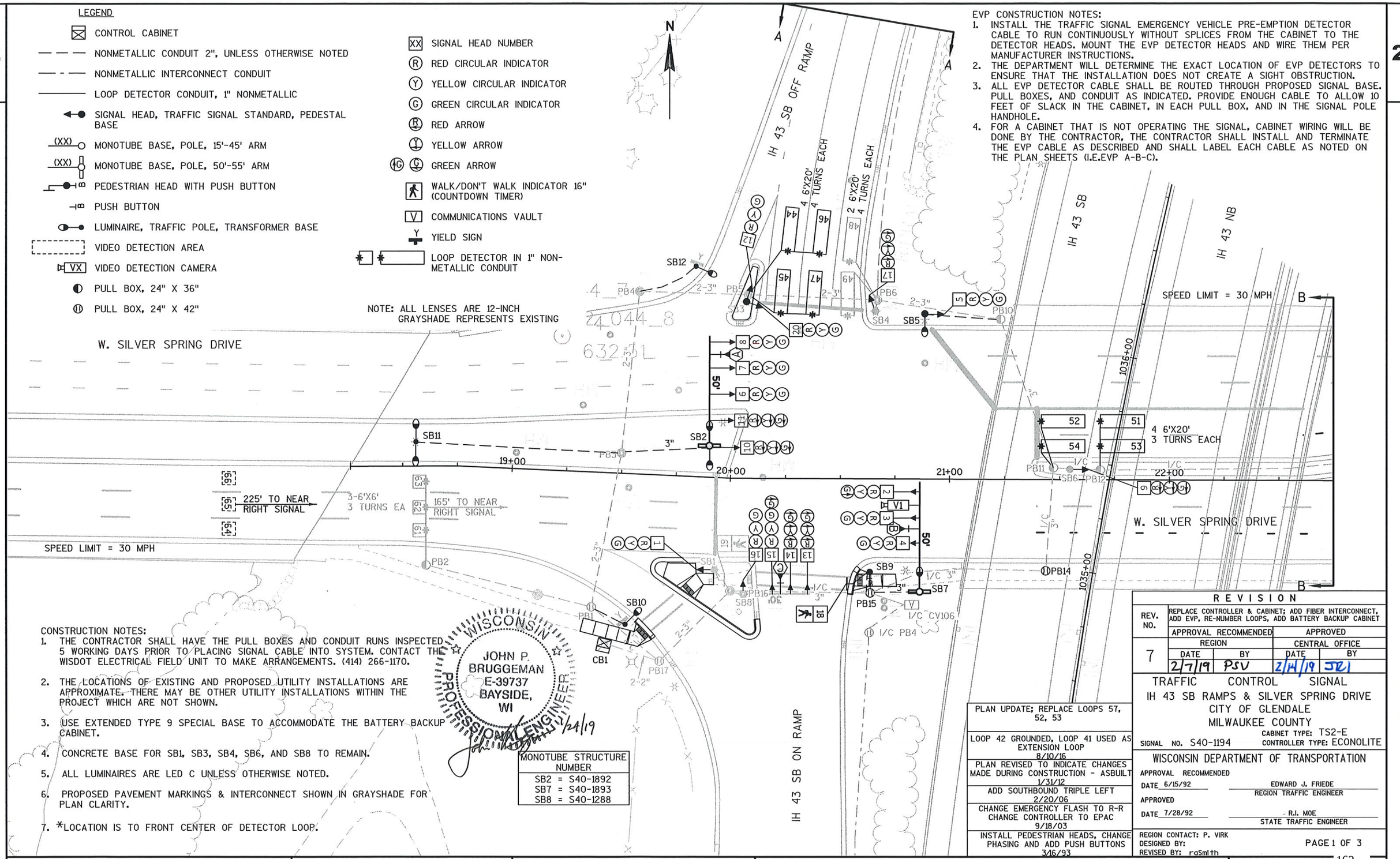
LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC INTERCONNECT CONDUIT
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-45' ARM
- (XX) MONOTUBE BASE, POLE, 50'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- VIDEO DETECTION AREA
- VX VIDEO DETECTION CAMERA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- HG GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- V COMMUNICATIONS VAULT
- Y YIELD SIGN
- LOOP DETECTOR IN 1" NON-METALLIC CONDUIT

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY WITHOUT SPLICES FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH PROPOSED SIGNAL BASE. PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.
4. FOR A CABINET THAT IS NOT OPERATING THE SIGNAL, CABINET WIRING WILL BE DONE BY THE CONTRACTOR, THE CONTRACTOR SHALL INSTALL AND TERMINATE THE EVP CABLE AS DESCRIBED AND SHALL LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E.EVP A-B-C).



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. USE EXTENDED TYPE 9 SPECIAL BASE TO ACCOMMODATE THE BATTERY BACKUP CABINET.
4. CONCRETE BASE FOR SB1, SB3, SB4, SB6, AND SB8 TO REMAIN.
5. ALL LUMINAIRES ARE LED C UNLESS OTHERWISE NOTED.
6. PROPOSED PAVEMENT MARKINGS & INTERCONNECT SHOWN IN GRAYSHADE FOR PLAN CLARITY.
7. *LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.

WISCONSIN PROFESSIONAL ENGINEER
JOHN P. BRUGGEMAN
E-39737
BAYSIDE, WI
1/24/19

MONOTUBE STRUCTURE NUMBER
SB2 = S40-1892
SB7 = S40-1893
SB8 = S40-1288

PLAN UPDATE; REPLACE LOOPS 57, 52, 53
LOOP 42 GROUNDED, LOOP 41 USED AS EXTENSION LOOP 8/10/16
PLAN REVISED TO INDICATE CHANGES MADE DURING CONSTRUCTION - ASBUILT 1/31/12
ADD SOUTHBOUND TRIPLE LEFT 2/20/06
CHANGE EMERGENCY FLASH TO R-R CHANGE CONTROLLER TO EPAC 9/18/03
INSTALL PEDESTRIAN HEADS, CHANGE PHASING AND ADD PUSH BUTTONS 3/16/93

REVISION

REV. NO.	REPLACE CONTROLLER & CABINET; ADD FIBER INTERCONNECT, ADD EVP, RE-NUMBER LOOPS, ADD BATTERY BACKUP CABINET			
	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
	DATE	BY	DATE	BY
7	2/7/19	PSV	2/14/19	JDJ

TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & SILVER SPRING DRIVE
CITY OF GLENDALE
MILWAUKEE COUNTY
SIGNAL NO. S40-1194
CABINET TYPE: TS2-E
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 6/15/92 — EDWARD J. FRIEDE, REGION TRAFFIC ENGINEER
APPROVED
DATE 7/28/92 — R.I. MOE, STATE TRAFFIC ENGINEER

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: rgSmith

PAGE 1 OF 3

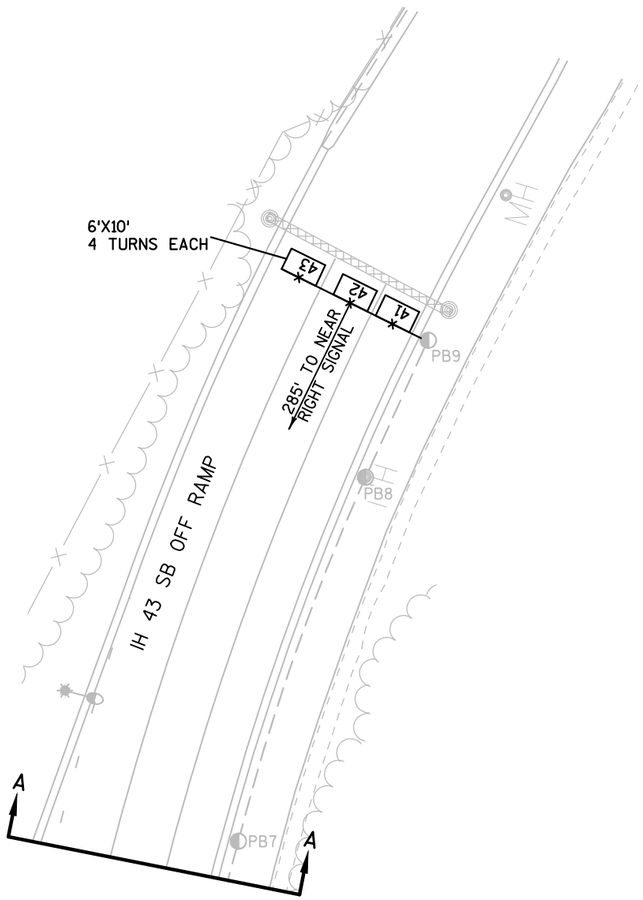
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 162 E

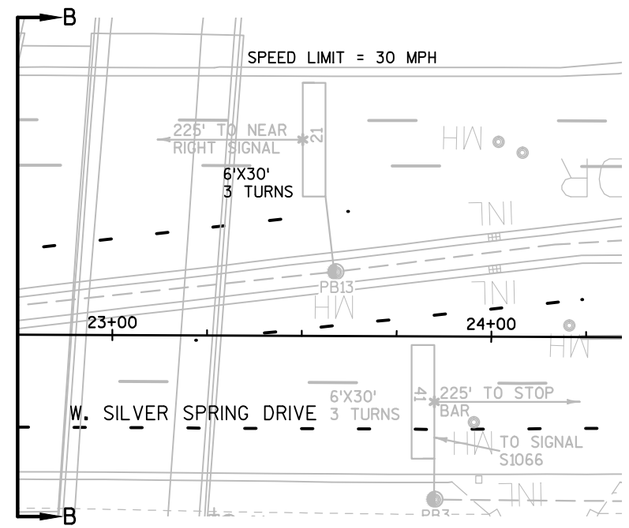
2/7/19 JMM

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1194\S40-1194_F.DWG
LAYOUT NAME - S40-1194_F_PG1
PLOT DATE : 1/22/2019 11:07 AM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2





TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & SILVER SPRING DRIVE
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-1194

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: raSmith

PAGE 2 OF 3

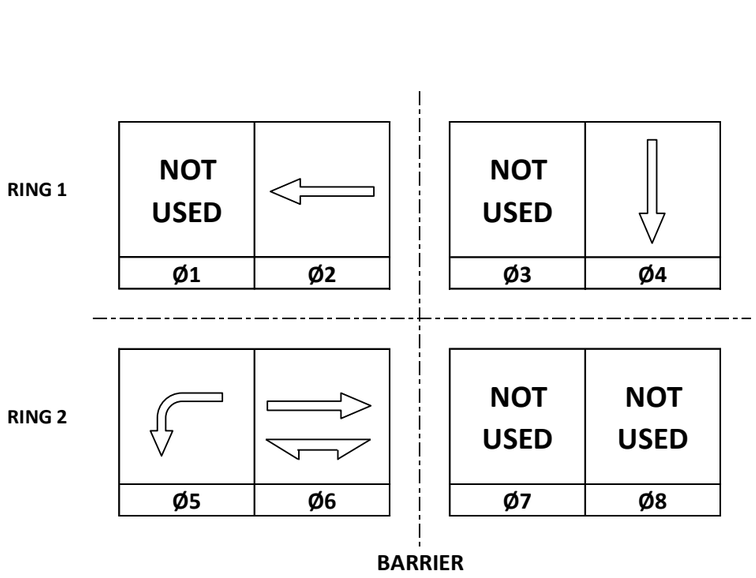
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 163	E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1194\S40-1194_F.DWG
LAYOUT NAME - S40-1194_F_PG2

PLOT DATE : 1/22/2019 11:07 AM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1		
Ø2	5,6,7,8,20	R
Ø3		
Ø4	12,13,14,15,16,17	R, R
Ø5	9,10,11	R
Ø6	1,2,3,4	R
Ø7		
Ø8		
Ø2P		
Ø4P		
Ø6P	18,19	
Ø8P		
OLE		
OLF		
OLG		
OLH		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MIN	X
3				
4				X
5		2		X
6	X	2	MIN	X
7				
8				

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C
MOVEMENT			
PHASE	2+5	6+2	4

AFTER PREEMPTION SEQUENCE 2+5 OR 6+2, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4, CONTROLLER SHALL RETURN TO PHASE 4.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS- 40-0026

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17					33	35	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	21	42	44	46	48	51	53	61	63						64	66	PLAN LOOP DETECTOR*(S)
CALLED PHASE	2	4	4	4	4	5	5	6	6						6	6	CALLED PHASE
CALL OPTION	X		X	X	X	X	X	X	X						X	X	CALL OPTION
DELAY TIME																	DELAY TIME
EXTENSION OPTION	X	X	X	X	X	X	X	X	X						X	X	EXTENTION OPTION
EXTEND TIME		X															EXTEND TIME
USE ADDED INITIAL	X							X	X						X	X	USE ADDED INITIAL
CROSS SWITCH PHASE																	CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18					34	36	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	41	43	45	47	49	52	54	62							65		PLAN LOOP DETECTOR*(S)
CALLED PHASE	4	4	4	4	4	5	5	6							6		CALLED PHASE
CALL OPTION			X	X	X	X	X	X							X		CALL OPTION
DELAY TIME																	DELAY TIME
EXTENSION OPTION	X	X	X	X	X	X	X	X							X		EXTENTION OPTION
EXTEND TIME	X	X															EXTEND TIME
USE ADDED INITIAL								X							X		USE ADDED INITIAL
CROSS SWITCH PHASE																	CROSS SWITCH PHASE

GENERAL NOTES:

1. CABINET IS EQUIPPED WITH BATTERY BACKUP UNIT.

IH 43 SB RAMPS & SILVER SPRING DRIVE
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO: S40-1194 CABINET TYPE: TS2-E
CONTROLLER TYPE: ECONOLITE
DATE: 08/2019 PAGE NO. 3 OF 3

PROJECT ID:	**1228-22-72**
INTERSECTION:	**IH-43 SB Ramps & Silver Spring Dr**

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

DATE	8/1/19

			SIGNAL INDICATION WIRE COLOR									PED	
CB1 TO	**# OF COND.**	**HEAD NO.**	**RED**	**YELLOW**	**GREEN**	**<RED>**	**<YELLOW>**	**<GREEN>**	**<FLASHING YELLOW>**	**D/WALK**	**WALK**	**BUTTON**	**OTHER**
SB1	12	1	RED	ORG	GRN								
		19								BLK	BLU		
		BUTTON										WHT/BLK	
SB2	12	6	RED	ORG	GRN								
		7	RED	ORG	GRN								
		8	RED	ORG	GRN								
		10				RED/BLK	ORG/BLK	GRN/BLK					
		11				RED/BLK	ORG/BLK	GRN/BLK					
SB3	12	12	RED	ORG	GRN								
		20	RED/BLK	ORG/BLK	GRN/BLK								
SB4	7	17				RED	ORG	GRN					
SB5	7	5	RED	ORG	GRN								
SB6	7	9				RED	ORG	GRN					
SB7	12	2	RED	ORG				GRN					
		3	RED	ORG	GRN								
		4	RED	ORG	GRN								
SB8	12	13				RED/BLK	ORG/BLK	GRN/BLK					
		14				RED/BLK	ORG/BLK	GRN/BLK					
		15	RED	ORG	GRN			GRN/BLK					
		16	RED	ORG	GRN								
SB9	7	18								BLK	BLU		
		BUTTON										WHT/BLK	

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	**TO**
CB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB9
SB9	SB8
SB8	SB1
SB1	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	**TO**
PB1	CB1
PB3	SB2
PB4	SB3
PB5	SB3
PB6	SB4
PB10	SB5
PB11	SB6
PB14	SB6
PB15	SB9
PB16	SB8
PB17	CB1

VIDEO DETECTION CABLE	
FROM	**TO**
CB1	V1(SB7)

LIGHTING UF 2-10 AWG W/GROUND	
FROM	**TO**
CB1	SB10
SB10	SB7
SB7	SB5
SB5	SB12
CB1	SB2
SB2	SB11

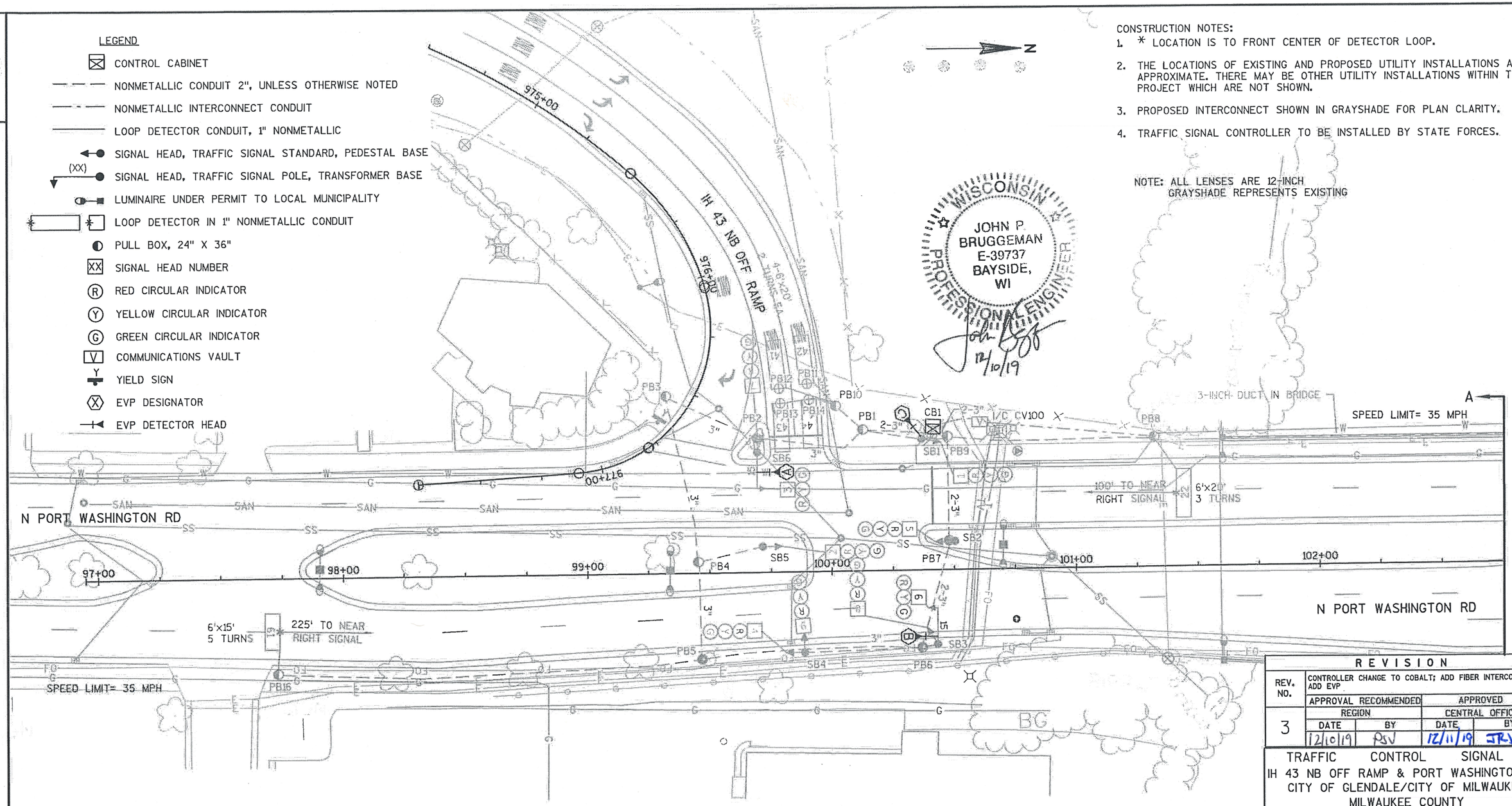
EMERGENCY VEHICLE PREEMPTION (EVP) CABLE	
FROM	**TO**
CB1	HEAD A (SB2)
CB1	HEAD B (SB7)
CB1	HEAD C (SB8)

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications.
*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC INTERCONNECT CONDUIT
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- V COMMUNICATIONS VAULT
- Y YIELD SIGN
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. PROPOSED INTERCONNECT SHOWN IN GRAYSHADE FOR PLAN CLARITY.
4. TRAFFIC SIGNAL CONTROLLER TO BE INSTALLED BY STATE FORCES.

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

WISCONSIN
JOHN P. BRUGGEMAN
E-39737
BAYSIDE, WI
PROFESSIONAL ENGINEER
12/10/19

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY WITHOUT SPLICES FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH PROPOSED SIGNAL BASE. PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.
4. FOR A CABINET THAT IS NOT OPERATING THE SIGNAL, CABINET WIRING WILL BE DONE BY THE CONTRACTOR, THE CONTRACTOR SHALL INSTALL AND TERMINATE THE EVP CABLE AS DESCRIBED AND SHALL LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E.EVP A-B-C).

REVISION				
REV. NO.	CONTROLLER CHANGE TO COBALT; ADD FIBER INTERCONNECT; ADD EVP			
	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
	DATE	BY	DATE	BY
3	12/10/19	PSV	12/11/19	JRJ

TRAFFIC CONTROL SIGNAL
IH 43 NB OFF RAMP & PORT WASHINGTON RD
CITY OF GLENDALE/CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL NO. S40-1207
CABINET TYPE: TS2-S
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 2/10/97 — Gary P. Knerr, REGION TRAFFIC ENGINEER

APPROVED
DATE 2/14/97 — William C. Gilding, STATE TRAFFIC ENGINEER

ADJUSTED LOOPS 21 & 22 DISTANCE TO NEAR RT SIGNAL 6/7/05

N. APPR. GEOM. CHANGES - PARTIAL SIGNAL REHAB. W/ NEW CONTROLLER 2/5/03

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:

PAGE 1 OF 3

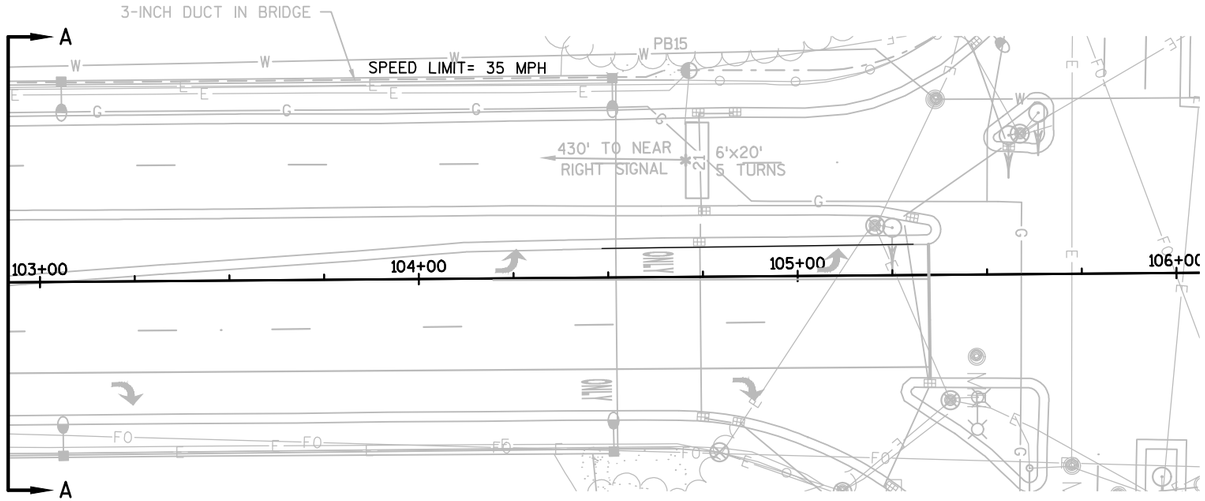
JMM 12/10/19

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 166	E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1207\S40-1207-REVISION.DWG
LAYOUT NAME - S40-1207 - S40-1207 PG1
PLOT DATE : 4/24/2019 10:57 AM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N



TRAFFIC CONTROL SIGNAL
IH-43 NB OFF RAMP & PORT WASHINGTON RD
CITY OF GLENDALE/CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S40-1207

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:

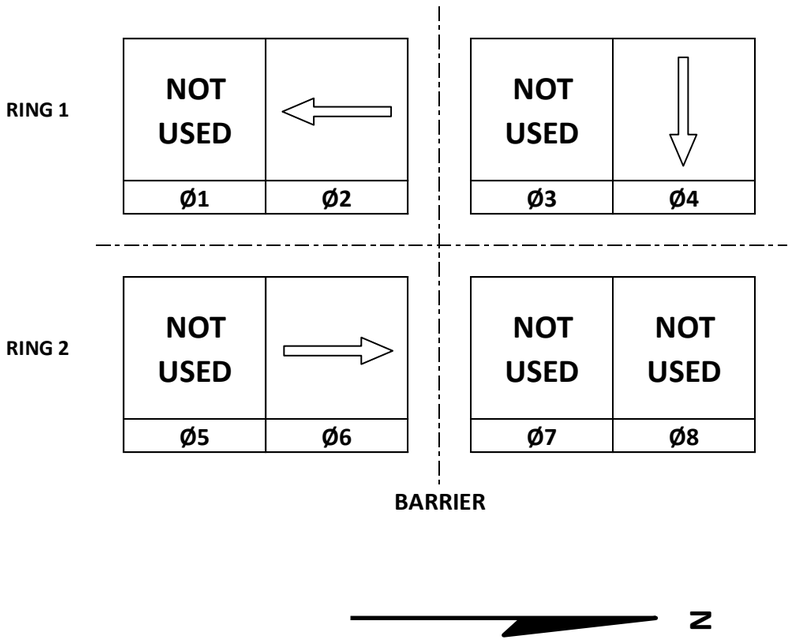
PAGE 2 OF 3

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 167	E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1207\S40-1207-REVISION.DWG
LAYOUT NAME - S40-1207_pg2

PLOT DATE : 3/20/2019 3:02 PM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
Ø1		
Ø2	1,2,3	R
Ø3		
Ø4	7,8,9	R
Ø5		
Ø6	4,5,6	R
Ø7		
Ø8		
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA		
OLB		
OLC		
OLD		



DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
21	1	X			2	2			X	6'X20'	5
22	2	X			2	2				6'X20'	3
41	3	X			4	4				6'X20'	2
42	4	X			4	4				6'X20'	2
43	3	X			4	4				6'X20'	2
44	4	X			4	4				6'X20'	2
61	5	X			6	6				6'X15'	5

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MIN	X
3				
4				X
5				
6	X	2	MIN	X
7				
8				

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS- 40-0027

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC CABINET	
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C
MOVEMENT	← →	← →	↓
PHASE	2+6	6+2	4

AFTER PREEMPTION SEQUENCE 2+6 OR 6+2, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4, CONTROLLER SHALL RETURN TO PHASE 4.

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT CLEARANCE INTERVAL.

IH-43 NB OFF RAMP & PORT WASHINGTON RD
CITY OF GLENDALE/CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL NO: S40-1207 CABINET TYPE: TS1
CONTROLLER TYPE: ECONOLITE
DATE: 08/2019 PAGE NO. 3 OF 3

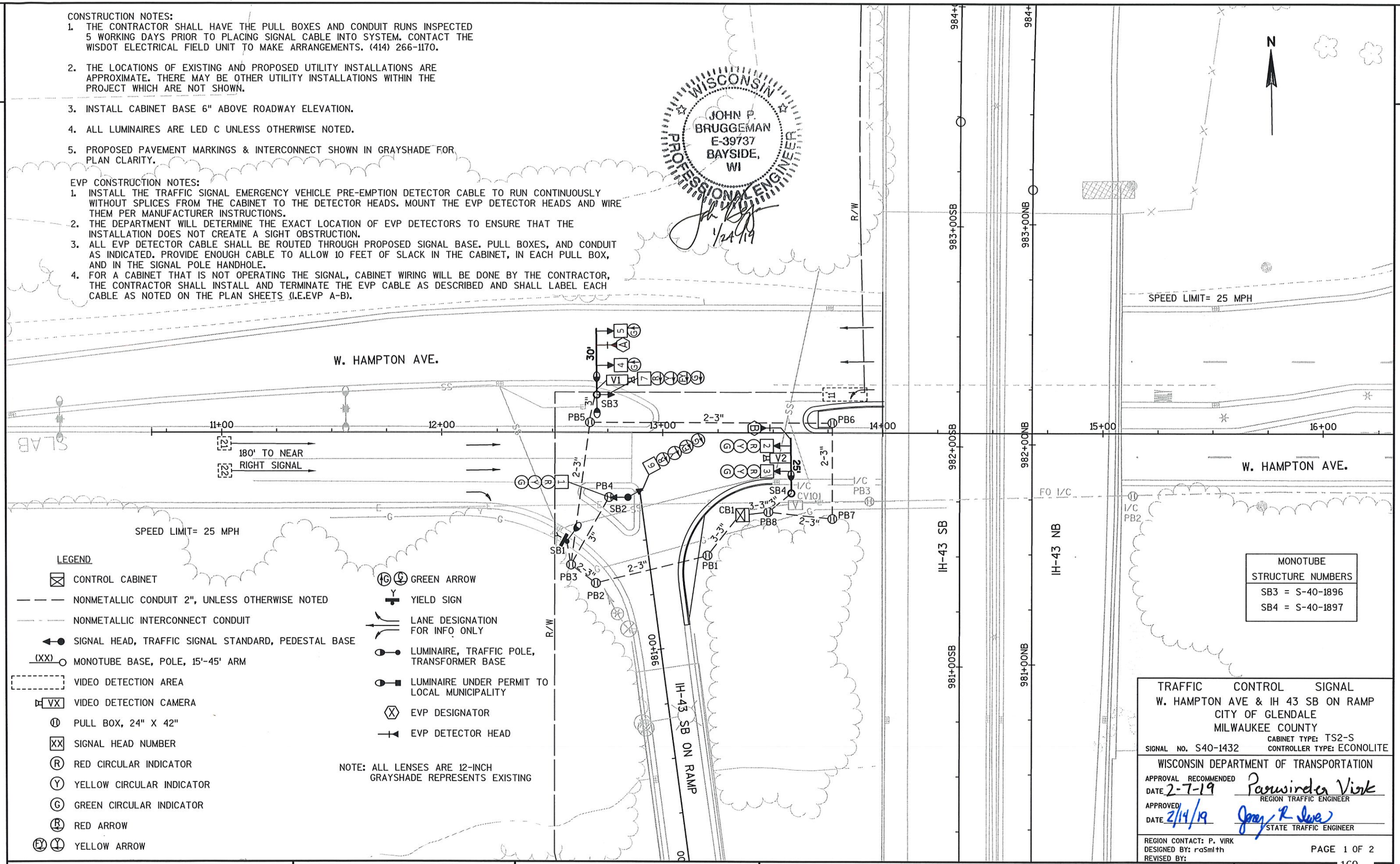
CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
4. ALL LUMINAIRES ARE LED C UNLESS OTHERWISE NOTED.
5. PROPOSED PAVEMENT MARKINGS & INTERCONNECT SHOWN IN GRAYSHADE FOR PLAN CLARITY.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY WITHOUT SPLICES FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH PROPOSED SIGNAL BASE. PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.
4. FOR A CABINET THAT IS NOT OPERATING THE SIGNAL, CABINET WIRING WILL BE DONE BY THE CONTRACTOR, THE CONTRACTOR SHALL INSTALL AND TERMINATE THE EVP CABLE AS DESCRIBED AND SHALL LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E.EVP A-B).

WISCONSIN
JOHN P. BRUGGEMAN
E-39737
BAYSIDE, WI
PROFESSIONAL ENGINEER
1/24/19



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC INTERCONNECT CONDUIT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-45' ARM
- VIDEO DETECTION AREA
- VX VIDEO DETECTION CAMERA
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (FY) (Y) YELLOW ARROW
- (4G) (G) GREEN ARROW
- Y YIELD SIGN
- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

MONOTUBE STRUCTURE NUMBERS
SB3 = S-40-1896
SB4 = S-40-1897

TRAFFIC CONTROL SIGNAL
W. HAMPTON AVE & IH 43 SB ON RAMP
CITY OF GLENDALE
MILWAUKEE COUNTY
CABINET TYPE: TS2-S
SIGNAL NO. S40-1432 CONTROLLER TYPE: ECONOLITE

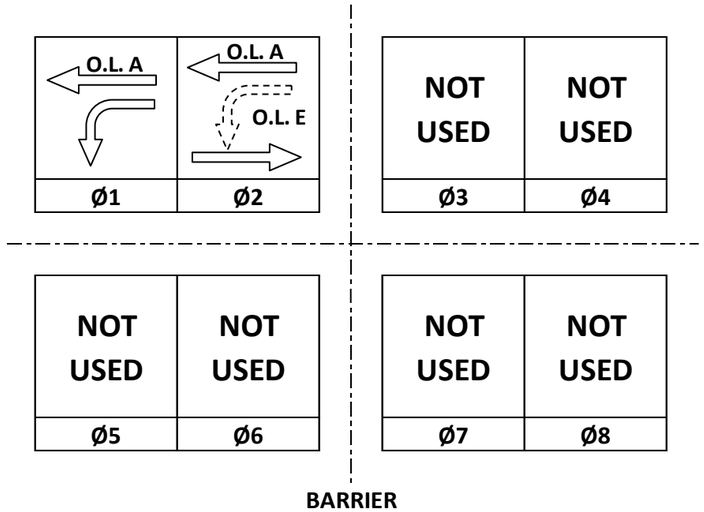
WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVAL RECOMMENDED DATE 2-7-19 Parwinder Virk REGION TRAFFIC ENGINEER
APPROVED DATE 2/14/19 Jerry R Sweet STATE TRAFFIC ENGINEER
REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:
PAGE 1 OF 2

2/7/19 JMM

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 169 E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1432\S40-1432.DWG
LAYOUT NAME - S40-1432 - S40-1432_PG1
PLOT DATE : 1/22/2019 11:31 AM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	6,7	R ←
Ø2	1,2,3	R
Ø3		
Ø4		
Ø5		
Ø6		
Ø7		
Ø8		
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA	4,5	-
OLB		
OLC		
OLD		
OLE	6,7	-



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				X
2	X		MIN	X
3				
4				
5				
6				
7				
8				

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B
MOVEMENT	← ↙	← →
PHASE	1	2

AFTER PREEMPTION SEQUENCE 1 OR 2,
CONTROLLER SHALL RETURN TO PHASE 2.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS- 40-0027

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	11	22						
CALLED PHASE	1	2						
CALL OPTION	X	X						
DELAY TIME								
EXTENSION OPTION	X	X						
EXTEND TIME								
USE ADDED INITIAL		X						
CROSS SWITCH PHASE								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)	21							
CALLED PHASE	2							
CALL OPTION	X							
DELAY TIME								
EXTENSION OPTION	X							
EXTEND TIME								
USE ADDED INITIAL	X							
CROSS SWITCH PHASE								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

W. HAMPTON AVE & IH 43 SB ON RAMP
CITY OF GLENDALE
MILWAUKEE COUNTY
SIGNAL NO: S40-1432 CABINET TYPE: TS2-S
CONTROLLER TYPE: ECONOLITE
DATE: 08/2019 PAGE NO. 2 OF 2

2

PROJECT ID:	**1228-22-72**
INTERSECTION:	**IH-43 SB On-Ramp & Hampton Ave**

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

DATE	8/1/19

			SIGNAL INDICATION WIRE COLOR										
CB1 TO	**# OF COND.**	**HEAD NO.**	**RED**	**YELLOW**	**GREEN**	**<RED>**	**<YELLOW>**	**<GREEN>**	**<FLASHING YELLOW>**	**D/WALK**	**WALK**	**PED BUTTON**	**OTHER**
SB2	12	1	RED	ORG	GRN								
		6				RED/BLK	ORG/BLK	GRN/BLK	BLU/BLK				
SB3	12	4						GRN					
		5						GRN					
		7				RED/BLK	ORG/BLK	GRN/BLK	BLU/BLK				
SB4	7	2	RED	ORG	GRN								
		3	RED	ORG	GRN								

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP

FROM	TO
CB1	SB2
SB2	SB3
SB3	SB4
SB4	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP

FROM	TO
PB1	CB1
PB2	SB2
PB3	SB2
PB4	SB2
PB5	SB3
PB6	SB4
PB7	SB4
PB8	SB4

VIDEO DETECTION CABLE

FROM	TO
CB1	SB3
CB1	SB4

LIGHTING UF 2-10 AWG W/GROUND

FROM	TO
CB1	SB1
CB1	SB4
SB4	SB3

EMERGENCY VEHICLE PREEMPTION (EVP) CABLE

FROM	TO
CB1	HEAD A (SB3)
CB1	HEAD B (SB4)

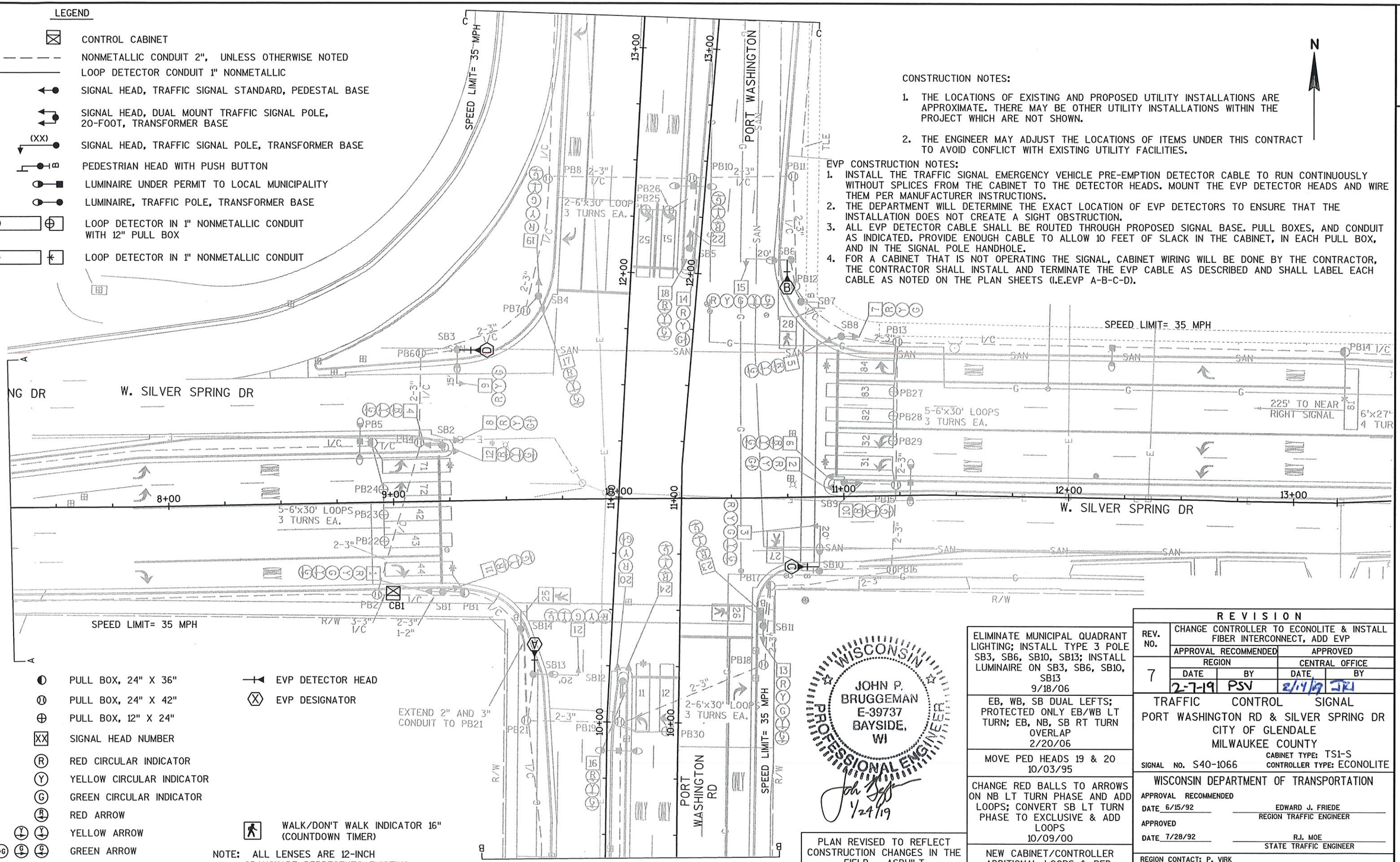
*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.

2

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- SIGNAL HEAD, DUAL MOUNT TRAFFIC SIGNAL POLE, 20-FOOT, TRANSFORMER BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT WITH 12" PULL BOX
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT



- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- PULL BOX, 12" X 24"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- GA GREEN ARROW
- EVP DETECTOR HEAD
- X EVP DESIGNATOR
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

N

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY WITHOUT SPLICES FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH PROPOSED SIGNAL BASE. PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.
4. FOR A CABINET THAT IS NOT OPERATING THE SIGNAL, CABINET WIRING WILL BE DONE BY THE CONTRACTOR, THE CONTRACTOR SHALL INSTALL AND TERMINATE THE EVP CABLE AS DESCRIBED AND SHALL LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E.EVP A-B-C-D).

WISCONSIN
JOHN P. BRUGGEMAN
E-39737
BAYSIDE, WI
PROFESSIONAL ENGINEER
1/24/19

PLAN REVISED TO REFLECT CONSTRUCTION CHANGES IN THE FIELD - ASBUILT
10/22/12

ELIMINATE MUNICIPAL QUADRANT LIGHTING; INSTALL TYPE 3 POLE SB3, SB6, SB10, SB13; INSTALL LUMINAIRE ON SB3, SB6, SB10, SB13
9/18/06

EB, WB, SB DUAL LEFTS; PROTECTED ONLY EB/WB LT TURN; EB, NB, SB RT TURN OVERLAP
2/20/06

MOVE PED HEADS 19 & 20
10/03/95

CHANGE RED BALLS TO ARROWS ON NB LT TURN PHASE AND ADD LOOPS; CONVERT SB LT TURN PHASE TO EXCLUSIVE & ADD LOOPS
10/09/00

NEW CABINET/CONTROLLER ADDITIONAL LOOPS & PED. LENSES

REVISION				
REV. NO.	CHANGE CONTROLLER TO ECONOLITE & INSTALL FIBER INTERCONNECT, ADD EVP			
	APPROVAL RECOMMENDED		APPROVED	
7	REGION		CENTRAL OFFICE	
	DATE	BY	DATE	BY
	2-7-19	PSV	2/14/19	JRJ

TRAFFIC CONTROL SIGNAL
PORT WASHINGTON RD & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY
SIGNAL NO. S40-1066
CABINET TYPE: TS1-S
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVAL RECOMMENDED
DATE 6/15/92 — EDWARD J. FRIEDE, REGION TRAFFIC ENGINEER
APPROVED
DATE 7/28/92 — R.J. MOE, STATE TRAFFIC ENGINEER

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: rgSmith

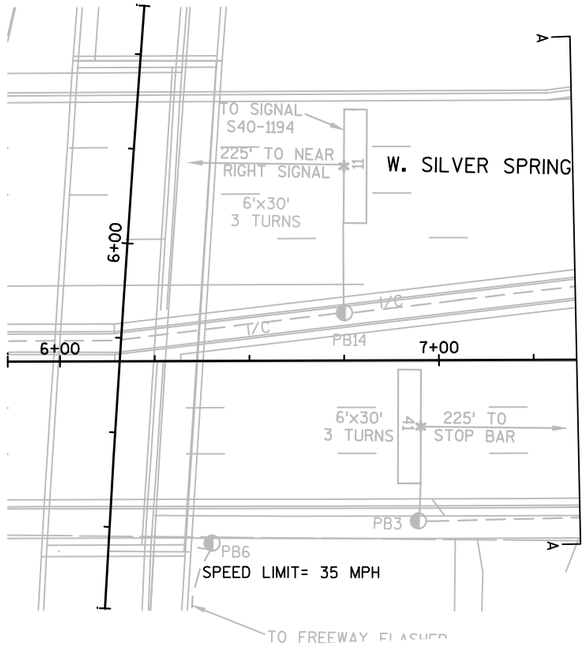
PAGE 1 OF 3

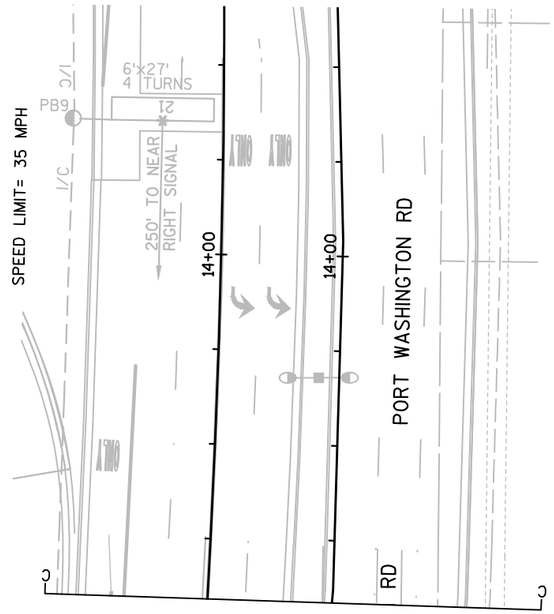
2/7/19 JMM

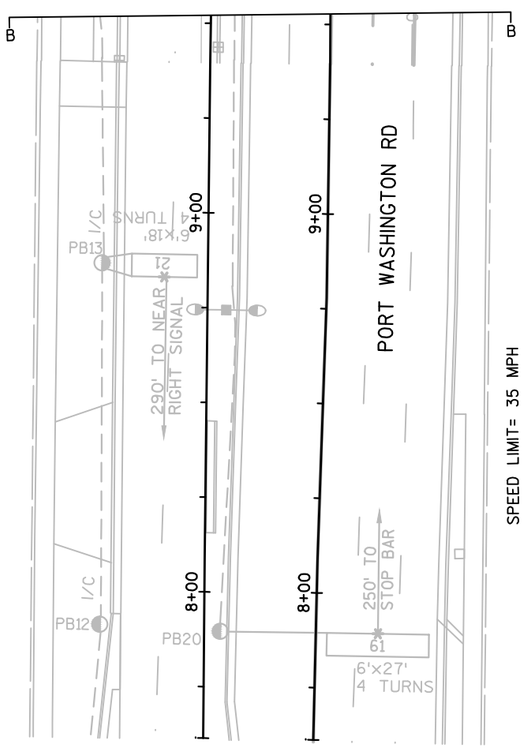
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 172 E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1066\S40-1066_G.DWG
LAYOUT NAME - S40-1066_G_PG1
PLOT DATE : 1/22/2019 11:34 AM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2







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TRAFFIC CONTROL SIGNAL
PORT WASHINGTON RD & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-1066

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: raSmith

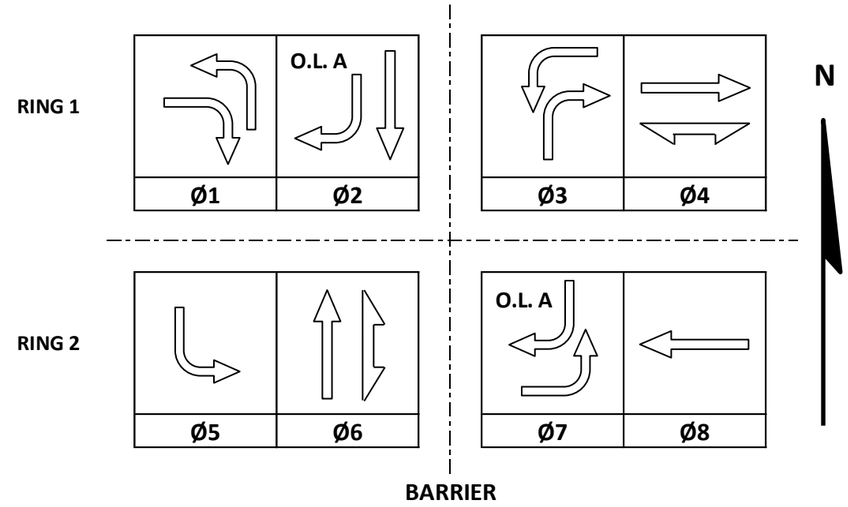
PAGE 2 OF 3

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 173	E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1066\S40-1066_G.DWG
LAYOUT NAME - S40-1066_PG2

PLOT DATE : 11/22/2017 2:18 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
Ø1	1,3,16,17,18	R ←
Ø2	19,20,21	R
Ø3	10,11,12,13,15	R ←
Ø4	1,2,3	R
Ø5	22,23,24	R ←
Ø6	13,14,15	R
Ø7	4,5,6	R ←
Ø8	7,8,9	R
Ø2P		
Ø4P	25,26	
Ø6P	27,28	
Ø8P		
OLA	19,21	
OLB		
OLC		
OLD		



DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11	1	X			1	1				6X30	3
12	1	X			1	1				6X30	3
21	2	X			2	2				6X27	4
31	3	X			3	3				6X30	3
32	3	X			3	3				6X30	3
41	4			X		4			X	6X30	3
42	5	X			4	4				6X30	3
43	5	X			4	4				6X30	3
44	6	X			4	4		X		6X30	3
51	7	X			5	5				6X30	3
52	7	X			5	5				6X30	3
61	8	X			6	6				6X27	4
71	9	X			7	7				6X30	3
72	9	X			7	7				6X30	3
81	10			X		8			X	6X27	4
82	11	X			8	8				6X30	3
83	11	X			8	8				6X30	3
84	12	X			8	8		X		6X30	3

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS- 40-0026

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC CABINET	
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

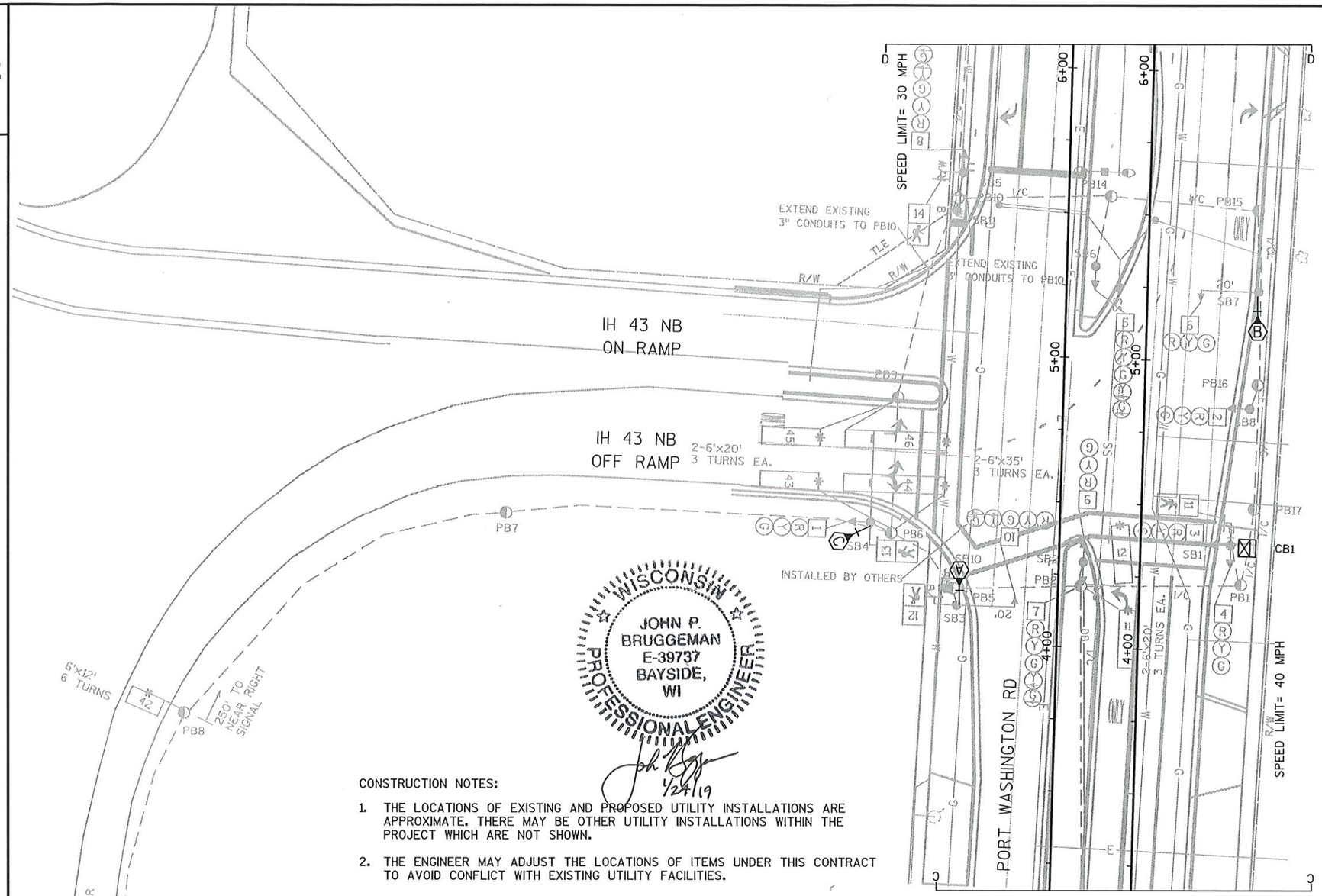
GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL

PORT WASHINGTON RD & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY
SIGNAL NO: S40-1066 CABINET TYPE: TS1-S
CONTROLLER TYPE: ECONOLITE
DATE: 08/2019 PAGE NO. 3 OF 3

PROJECT NO: 1228-22-72	HWY: PORT WASHINGTON RD	COUNTY: MILWAUKEE	SEQUENCE OF OPERATIONS	SHEET NO: E

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ PLOT SCALE : 1:1



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- DB — DIRECT BURIED CABLE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- EVP DETECTOR HEAD
- (X) EVP DESIGNATOR

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

N

WISCONSIN
JOHN P. BRUGGEMAN
E-39737
BAYSIDE, WI
PROFESSIONAL ENGINEER
1/24/19

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY WITHOUT SPLICES FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH PROPOSED SIGNAL BASE. PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.
4. FOR A CABINET THAT IS NOT OPERATING THE SIGNAL, CABINET WIRING WILL BE DONE BY THE CONTRACTOR, THE CONTRACTOR SHALL INSTALL AND TERMINATE THE EVP CABLE AS DESCRIBED AND SHALL LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E.EVP A-B-C).

REVISION				
REV. NO.	CHANGE CONTROLLER TO ECONOLITE & INSTALL FIBER INTERCONNECT, ADD EVP			
	APPROVAL RECOMMENDED		APPROVED	
3	REGION		CENTRAL OFFICE	
	DATE	BY	DATE	BY
	2-7-19	PSV	2/11/19	JRI

TRAFFIC CONTROL SIGNAL
IH 43 NB ON/OFF RAMP &
PORT WASHINGTON ROAD
CITY OF GLENDALE
MILWAUKEE COUNTY
SIGNAL NO. S40-1149
CABINET TYPE: TS1-S
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVAL RECOMMENDED
DATE 6/23/92 — EDWARD J. FRIEDE, REGION TRAFFIC ENGINEER
APPROVED
DATE 7/28/92 — R. I. MOE, STATE TRAFFIC ENGINEER

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: raSmith

PAGE 1 OF 3

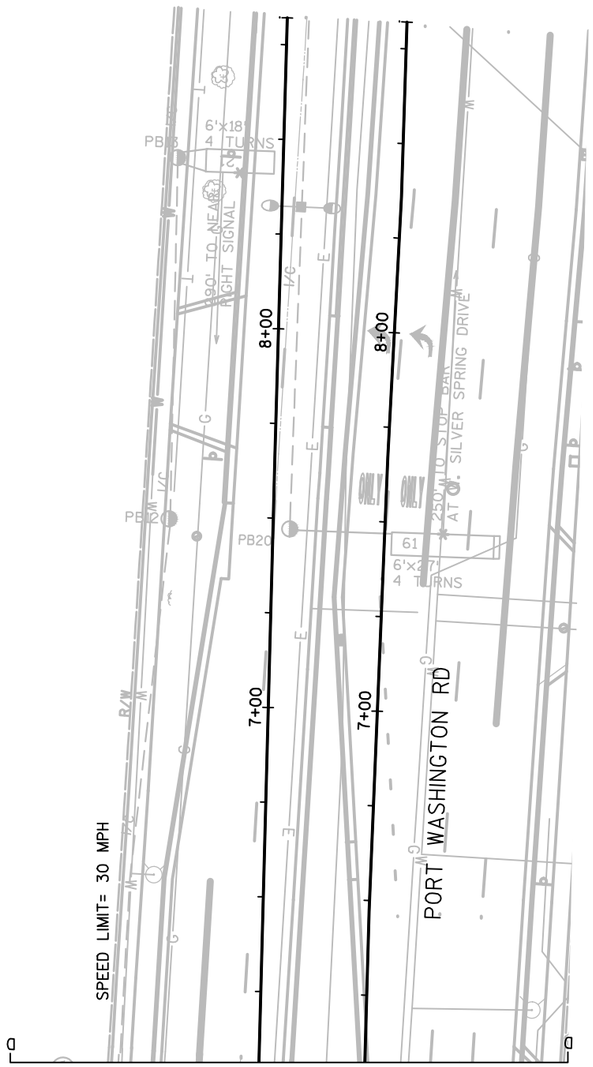
NEW GEOMETRICS NORTH APPROACH 3/10/06
NEW CABINET/CONTROLLER & RECONSTURCT INTERSECTION 9/25/02

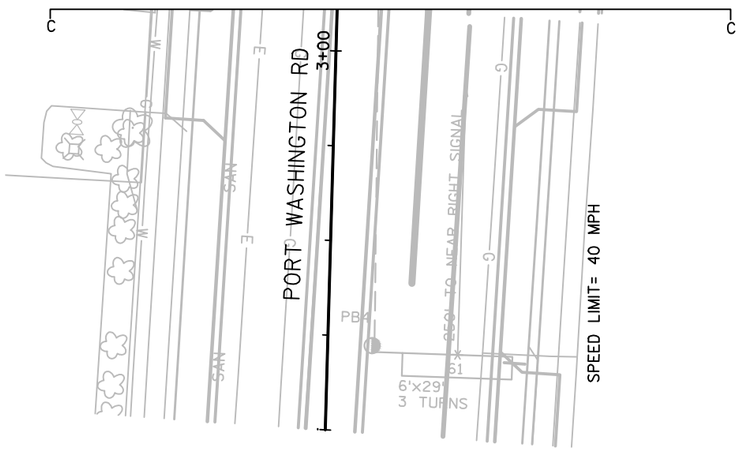
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 175 E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1149\S40-1149_D.DWG
LAYOUT NAME - S40-1149_D_PG1
PLOT DATE : 1/22/2019 11:37 AM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2/7/19 JMM

2





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TRAFFIC CONTROL SIGNAL
IH 43 NB ON/OFF RAMP &
PORT WASHINGTON ROAD
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-1149

REGION CONTACT: P. VICK
DESIGNED BY: DESIGNED BY
REVISED BY: rgSmith

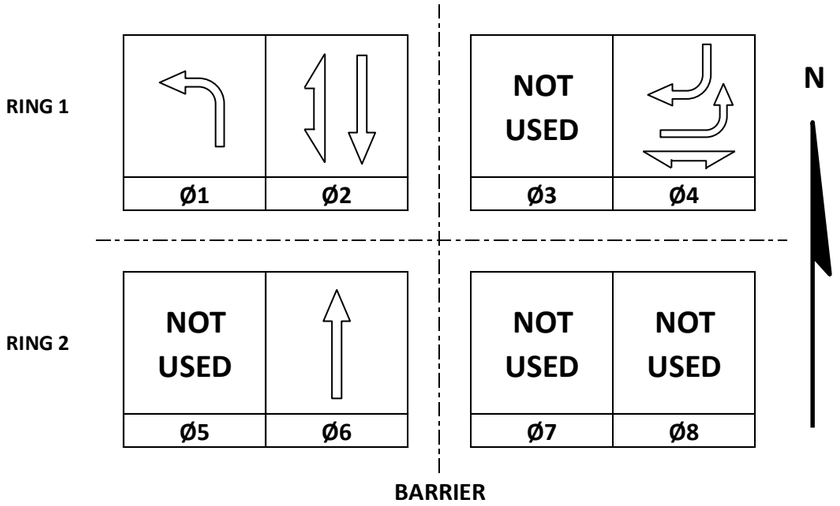
PAGE 2 OF 3

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 176	E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1149\S40-1149_D.DWG
LAYOUT NAME - S40-1149_D_PG2

PLOT DATE : 11/22/2017 2:19 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
Ø1	5,7	
Ø2	8,9,10	R
Ø3		
Ø4	1,2,3,8,10	R
Ø5		
Ø6	4,5,6,7	R
Ø7		
Ø8		
Ø2P	12,14	
Ø4P	11,13	
Ø6P		
Ø8P		
OLA		
OLB		
OLC		
OLD		



DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11	1	X			1	1				6X20	3
12	1	X			1	1				6X20	3
21	2	X			2	2				6X18	4
41*	3	QUEUE			4			X		6X10	6
42	4			X		4			X	6X12	6
43	5	X			4	4		X		6X20	3
44	5	X			4	4		X		6X35	3
45	6	X			4	4				6X20	3
46	6	X			4	4				6X35	3
61	7	X			6	6				6X29	3

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4				X
5				
6	X	2	MIN	X
7				
8				

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS- 40-0026

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C
MOVEMENT			
PHASE	2+6	6+2	4

AFTER PREEMPTION SEQUENCE 2+6 OR 6+2, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4, CONTROLLER SHALL RETURN TO PHASE 4.

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL
3. IF ANY OPPOSING THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICTS
4. *LOOP 41 USED TO CALL A PRE-EMPT THAT CLEARS SIGNAL TO PHASE 4 GREEN

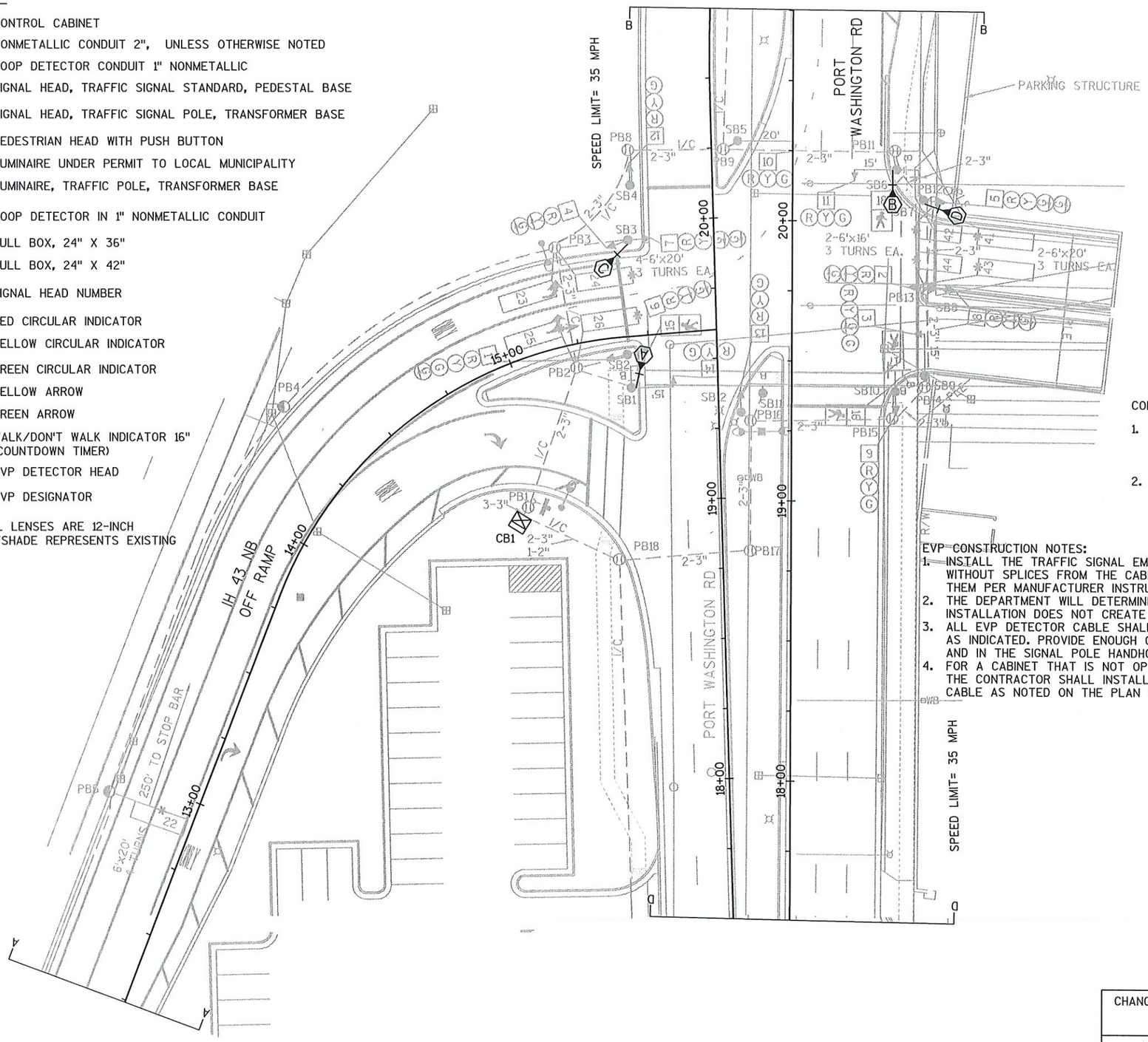
IH 43 NB ON/OFF RAMP & PORT WASHINGTON RD
CITY OF GLENDALE
MILWAUKEE COUNTY
SIGNAL NO: S40-1149 CABINET TYPE: TS1-S
CONTROLLER TYPE: ECONOLITE
DATE: 08/2019 PAGE NO. 3 OF 3

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- EVP DETECTOR HEAD
- EVP DESIGNATOR

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



N

WISCONSIN
JOHN P. BRUGGEMAN
E-39737
BAYSIDE, WI
PROFESSIONAL ENGINEER
1/24/19

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY WITHOUT SPLICES FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH PROPOSED SIGNAL BASE. PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.
4. FOR A CABINET THAT IS NOT OPERATING THE SIGNAL, CABINET WIRING WILL BE DONE BY THE CONTRACTOR, THE CONTRACTOR SHALL INSTALL AND TERMINATE THE EVP CABLE AS DESCRIBED AND SHALL LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E.EVP A-B-C-D).

REVISION				
REV. NO.	CHANGE CONTROLLER TO ECONOLITE & INSTALL FIBER INTERCONNECT, ADD EVP			
	APPROVAL RECOMMENDED		APPROVED	
3	REGION		CENTRAL OFFICE	
	DATE	BY	DATE	BY
	2-7-19	PSV	2/14/19	JRJ

TRAFFIC CONTROL SIGNAL
IH 43 NB OFF RAMP & PORT WASHINGTON RD
CITY OF GLENDALE
MILWAUKEE COUNTY
SIGNAL NO. S40-1241
CABINET TYPE: TS1-S
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 2/20/06 — MITZI M. DOBERSEK, REGION TRAFFIC ENGINEER

APPROVED
DATE 10/06/06 — BALU ANANTHANARAYANAN, STATE TRAFFIC ENGINEER

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: rgSmith

PAGE 1 OF 4

CHANGE PHASING TO 4 PHASE SEQUENTIAL 09/12/06

INITIAL INSTALLATION 10/2006

2/7/19 JRJ

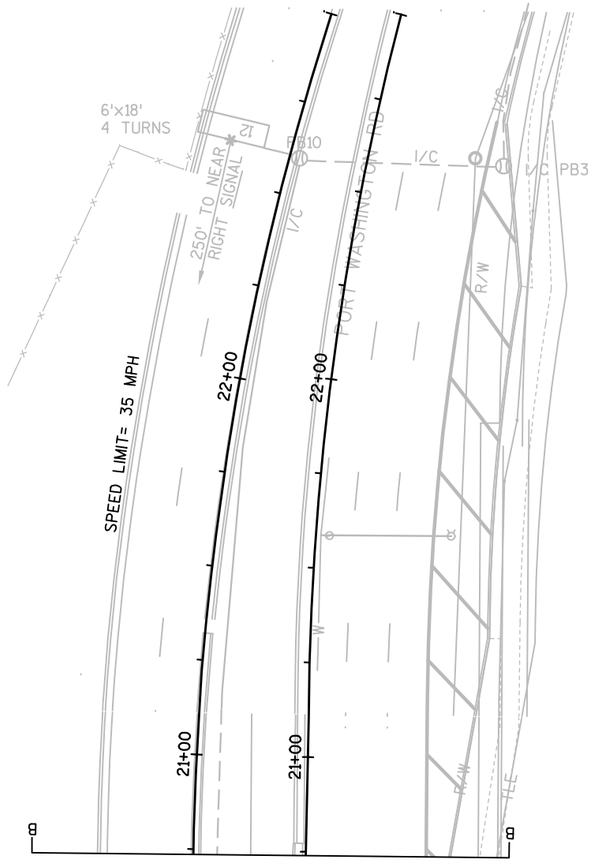
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 178 E

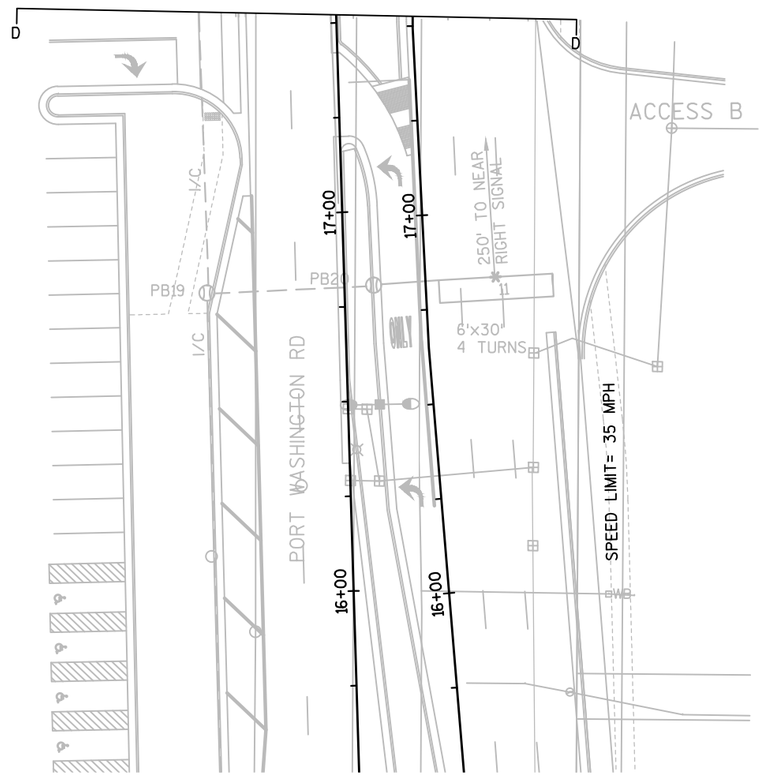
FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1241\S40-1241_F.DWG
LAYOUT NAME - S40-1241_F_PG1

PLOT DATE : 1/22/2019 11:42 AM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2





TRAFFIC CONTROL SIGNAL
IH 43 NB OFF RAMP & PORT WASHINGTON RD
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-1241

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: raSmith

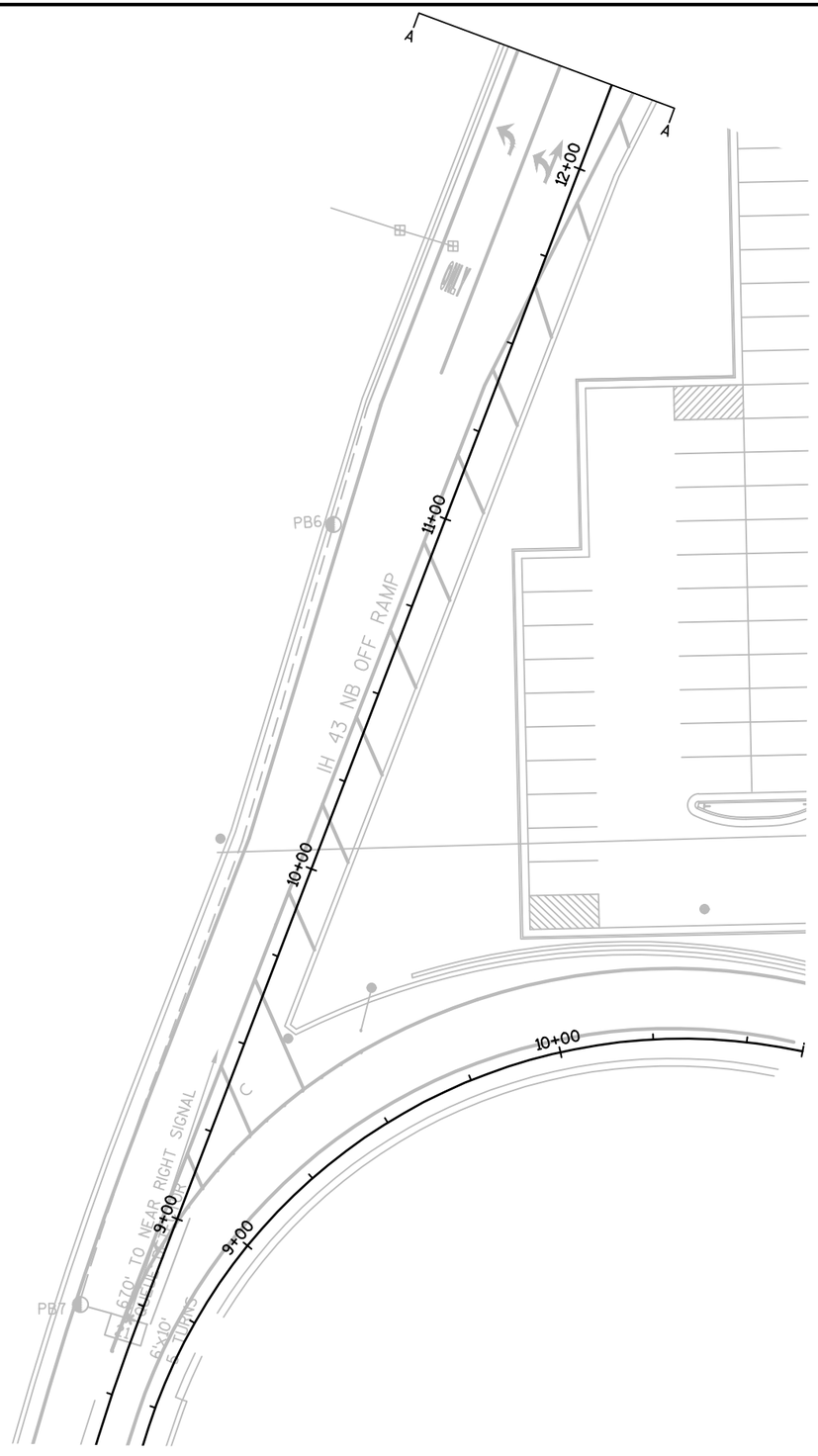
PAGE 2 OF 4

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 179	E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1241\S40-1241_F.DWG
LAYOUT NAME - S40-1241_F_PG2

PLOT DATE : 11/22/2017 2:19 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



N

TRAFFIC CONTROL SIGNAL
IH 43 NB OFF RAMP & PORT WASHINGTON RD
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-1241

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: raSmith

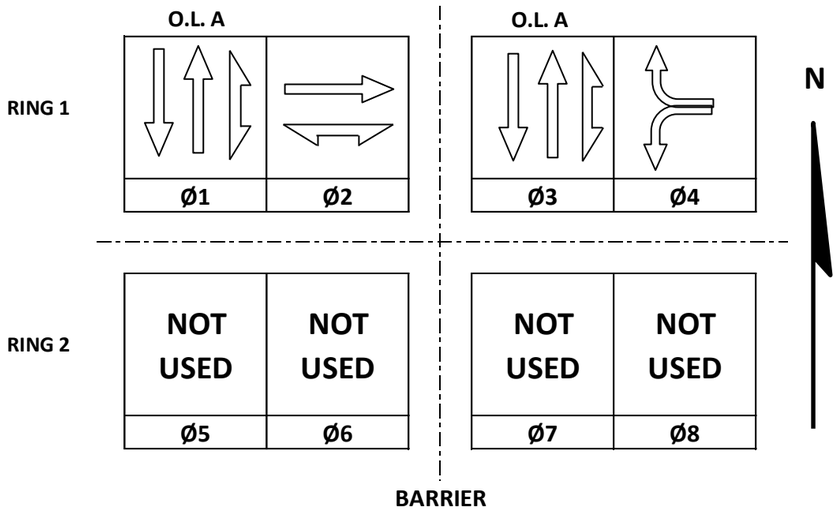
PAGE 3 OF 4

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 180	E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\S40-1241\S40-1241_F.DWG
LAYOUT NAME - S40-1241_F_PG3

PLOT DATE : 11/22/2017 2:19 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
Ø1		-
Ø2	1,2,3,4	R
Ø3		-
Ø4	5,6,7,8	R
Ø5		
Ø6		
Ø7		
Ø8		
Ø1P	17,18	
Ø2P	15,16	
Ø3P	17,18	
Ø8P		
OLA	9,10,11,12,13,14	R
OLB		
OLC		
OLD		



DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11	1	X			1,3	1,3				6X30	4
12	2	X			1,3	1,3				6X18	4
21*	3	QUEUE			2			X		6X10	5
22	4			X		2			X	6X20	4
23	5	X			2	2				6X20	3
24	5	X			2	2				6X20	3
25	6	X			2	2				6X20	3
26	6	X			2	2				6X20	3
41	7	X			4	4		X		6X20	3
42	7	X			4	4		X		6X16	3
43	8	X			4	4				6X20	3
44	8	X			4	4				6X16	3

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1	X		MIN	X
2				X
3	X			X
4				X
5				
6				
7				
8				

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS- 40-0026

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC CABINET	
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	↓↑	↓↑	→	←
PHASE	1	3	2	4

AFTER PREEMPTION SEQUENCE 1 OR 3, CONTROLLER SHALL RETURN TO PHASE 1.
AFTER PREEMPTION SEQUENCE 2, CONTROLLER SHALL RETURN TO PHASE 2.
AFTER PREEMPTION SEQUENCE 4, CONTROLLER SHALL RETURN TO PHASE 4.

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED
2. WHEN ONE PHASE IS ON ALONE. ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANC INTERVAL
3. *LOOP 21 USED TO CALL A PRE-EMPT THAT CLEARS SIGNAL TO PHASE 2 GREEN

IH 43 NB OFF RAMP & PORT WASHINGTON RD
CITY OF GLENDALE
MILWAUKEE COUNTY
SIGNAL NO: S40-1241 CABINET TYPE: TS1-S
CONTROLLER TYPE: ECONOLITE
DATE: 08/2019 PAGE NO. 4 OF 4

2

TRAFFIC SIGNAL CABINET, CB1 (S40-1207)
IH 43 NB OFF RAMP & PORT WASHINGTON RD

SIGNAL CONTROLLER

E-NET SWITCH

TX
RX
10/100
TX
RX
10/100

Blu Or
Gr Br
Sl Wh
Red Blk

8

NORTH TO I/C CV101

36

INTERCONNECT COMMUNICATIONS VAULT (I/C CV100)

FIBER OPTIC SPLICE ENCLOSURE

GREEN TUBE

BLUE TUBE

ORANGE TUBE

BLUE
ORANGE
GREEN
BROWN
SLATE
WHITE
RED
BLACK
YELLOW
VIOLET
ROSE
AQUA

SMFO PIGTAIL

PIGTAIL

BLUE
ORANGE
GREEN
BROWN
SLATE
WHITE
RED
BLACK

GREEN TUBE

36

NORTH TO I/C CV102

24

ORANGE TUBE

BLUE TUBE

NOTES:
1. COORDINATE FIBER ASSIGNMENTS WITH DON SCHELL, STOC, AT 414-227-2151 BEFORE SPLICING FIBER OPTIC CABLE.
2. MAXIMUM SPLICE LOSS SHALL BE 0.1DB.
3. NO INTERMEDIATE SPLICES ALLOWED.
4. ALL SPLICES SHALL BE FUSION SPLICES.
5. USE THE FOLLOWING TERMINATION SCHEDULE IN THE CABINETS:
   - 1,2 NORTH OR EAST
   - 3,4 SOUTH OR WEST

LEGEND

- CAT 5E PATCH CORD
- SM FIBER JUMPER
- 36 — SM FIBER OPTIC CABLE (# STRANDS)
- BARE FIBER LEFT COILED IN SPLICE TRAY
- × PROPOSED FUSION SPLICE

TRAFFIC SIGNAL INTERCONNECT
IH 43
CITY OF GLENDALE
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL SYSTEM SS-40-0027

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	FIBER ASSIGNMENT DETAIL	SHEET:	E

2

TRAFFIC SIGNAL CABINET, CB1 (S40-1432)
IH 43 SB ON RAMP & HAMPTON AVENUE

SIGNAL CONTROLLER

MMU

A

E-NET SWITCH

TX
RX
10/100
TX
RX
10/100

INTERFACE PANEL

VIDEO DETECTION UNIT

Blu Or
Gr Br
Sl Wh
Red Blk

8

SMFO PIGTAIL

PIGTAIL

BLUE
ORANGE
GREEN
BROWN
SLATE
WHITE
RED
BLACK

INTERCONNECT COMMUNICATIONS VAULT (I/C CV101)

FIBER OPTIC SPLICE ENCLOSURE

24

BLUE TUBE
ORANGE TUBE
GREEN TUBE

EAST TO I/C CV102

36

BLUE TUBE
ORANGE TUBE
GREEN TUBE

BLUE
ORANGE
GREEN
BROWN
SLATE
WHITE
RED
BLACK
YELLOW
VIOLET
ROSE
AQUA

36

EAST TO I/C CV100

NOTES:
1. COORDINATE FIBER ASSIGNMENTS WITH DON SCHELL, STOC, AT 414-227-2151 BEFORE SPLICING FIBER OPTIC CABLE.
2. MAXIMUM SPLICE LOSS SHALL BE 0.1DB.
3. NO INTERMEDIATE SPLICES ALLOWED.
4. ALL SPLICES SHALL BE FUSION SPLICES.
5. USE THE FOLLOWING TERMINATION SCHEDULE IN THE CABINETS:
   - 1,2 NORTH OR EAST
   - 3,4 SOUTH OR WEST

LEGEND

- CAT 5E PATCH CORD
- SM FIBER JUMPER
- 36 SM FIBER OPTIC CABLE (# STRANDS)
- BARE FIBER LEFT COILED IN SPLICE TRAY
- × PROPOSED FUSION SPLICE

TRAFFIC SIGNAL INTERCONNECT
IH 43
CITY OF GLENDALE
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL SYSTEM SS-40-0027

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	FIBER ASSIGNMENT DETAIL	SHEET:	E

2

TRAFFIC SIGNAL CABINET, CB1 (S40-1101)
PORT WASHINGTON RD & HAMPTON AVE

SIGNAL CONTROLLER

MMU

A

E-NET SWITCH

TX
RX
10/100
TX
RX
10/100

INTERFACE PANEL

VIDEO DETECTION UNIT

Blu Or
Gr Br
Sl Wh
Red Blk

8

SMFO PIGTAIL

PIGTAIL

BLUE
ORANGE
GREEN
BROWN
SLATE
WHITE
RED
BLACK

INTERCONNECT COMMUNICATIONS VAULT (I/C CV102)

FIBER OPTIC SPLICE ENCLOSURE

NORTH TO I/C CV103

36

36

GREEN TUBE

BLUE TUBE
ORANGE TUBE

BLUE
ORANGE
GREEN
BROWN
SLATE
WHITE
RED
BLACK
YELLOW
VIOLET
ROSE
AQUA

BLUE TUBE
ORANGE TUBE
GREEN TUBE

GREEN TUBE

36

SOUTH TO I/C CV101

36

SOUTH TO I/C CV100

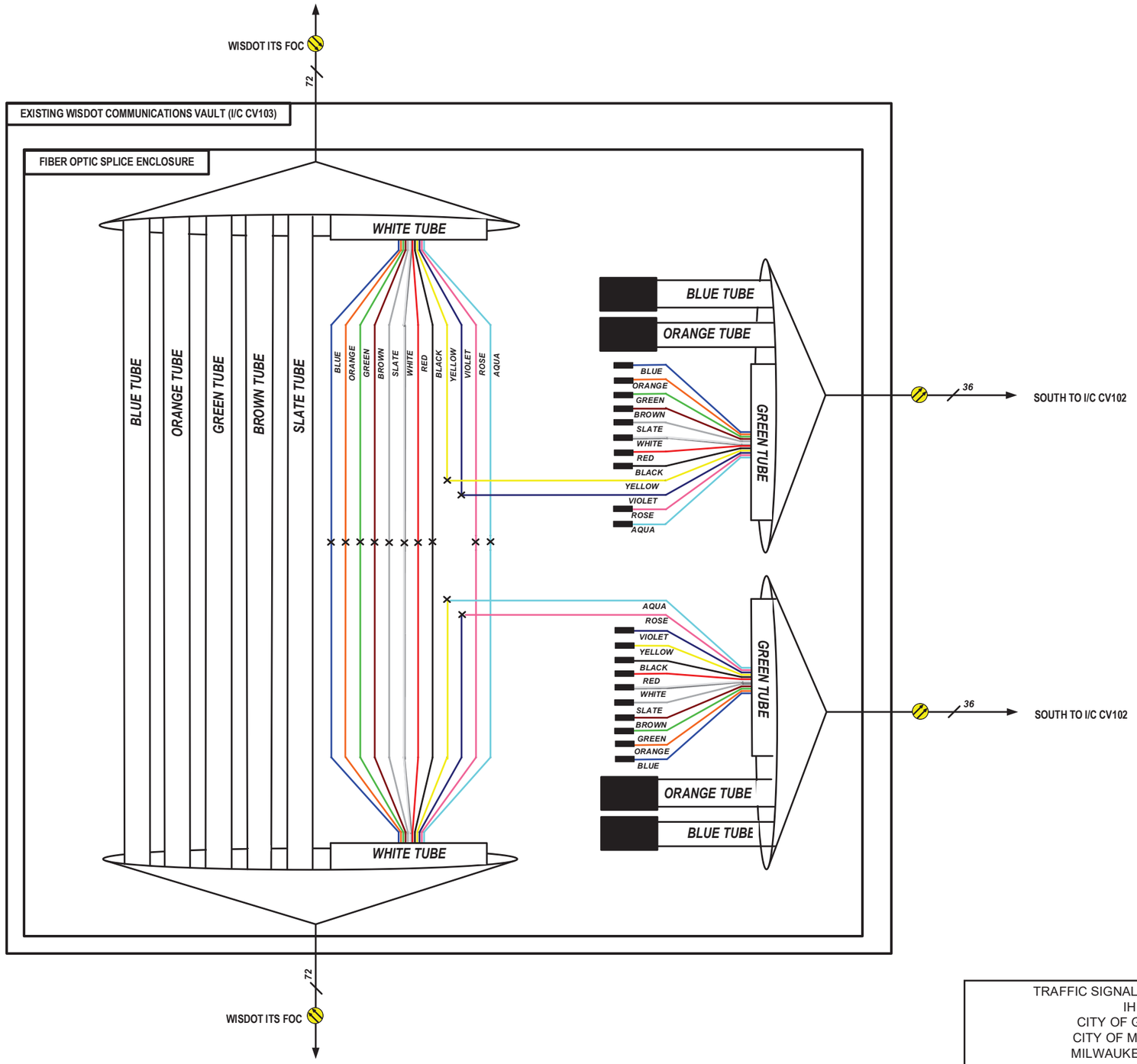
NOTES:
1. COORDINATE FIBER ASSIGNMENTS WITH DON SCHELL, STOC, AT 414-227-2151 BEFORE SPLICING FIBER OPTIC CABLE.
2. MAXIMUM SPLICE LOSS SHALL BE 0.1DB.
3. NO INTERMEDIATE SPLICES ALLOWED.
4. ALL SPLICES SHALL BE FUSION SPLICES.
5. USE THE FOLLOWING TERMINATION SCHEDULE IN THE CABINETS:
   - 1,2 NORTH OR EAST
   - 3,4 SOUTH OR WEST

LEGEND

- CAT 5E PATCH CORD
- SM FIBER JUMPER
- 36 SM FIBER OPTIC CABLE (# STRANDS)
- BARE FIBER LEFT COILED IN SPLICE TRAY
- × PROPOSED FUSION SPLICE

TRAFFIC SIGNAL INTERCONNECT
IH 43
CITY OF GLENDALE
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL SYSTEM SS-40-0027

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	FIBER ASSIGNMENT DETAIL	SHEET:	E



NOTES:
1. COORDINATE FIBER ASSIGNMENTS WITH DON SCHELL, STOC, AT 414-227-2151 BEFORE SPLICING FIBER OPTIC CABLE.
2. MAXIMUM SPLICE LOSS SHALL BE 0.1DB.
3. NO INTERMEDIATE SPLICES ALLOWED.
4. ALL SPLICES SHALL BE FUSION SPLICES.

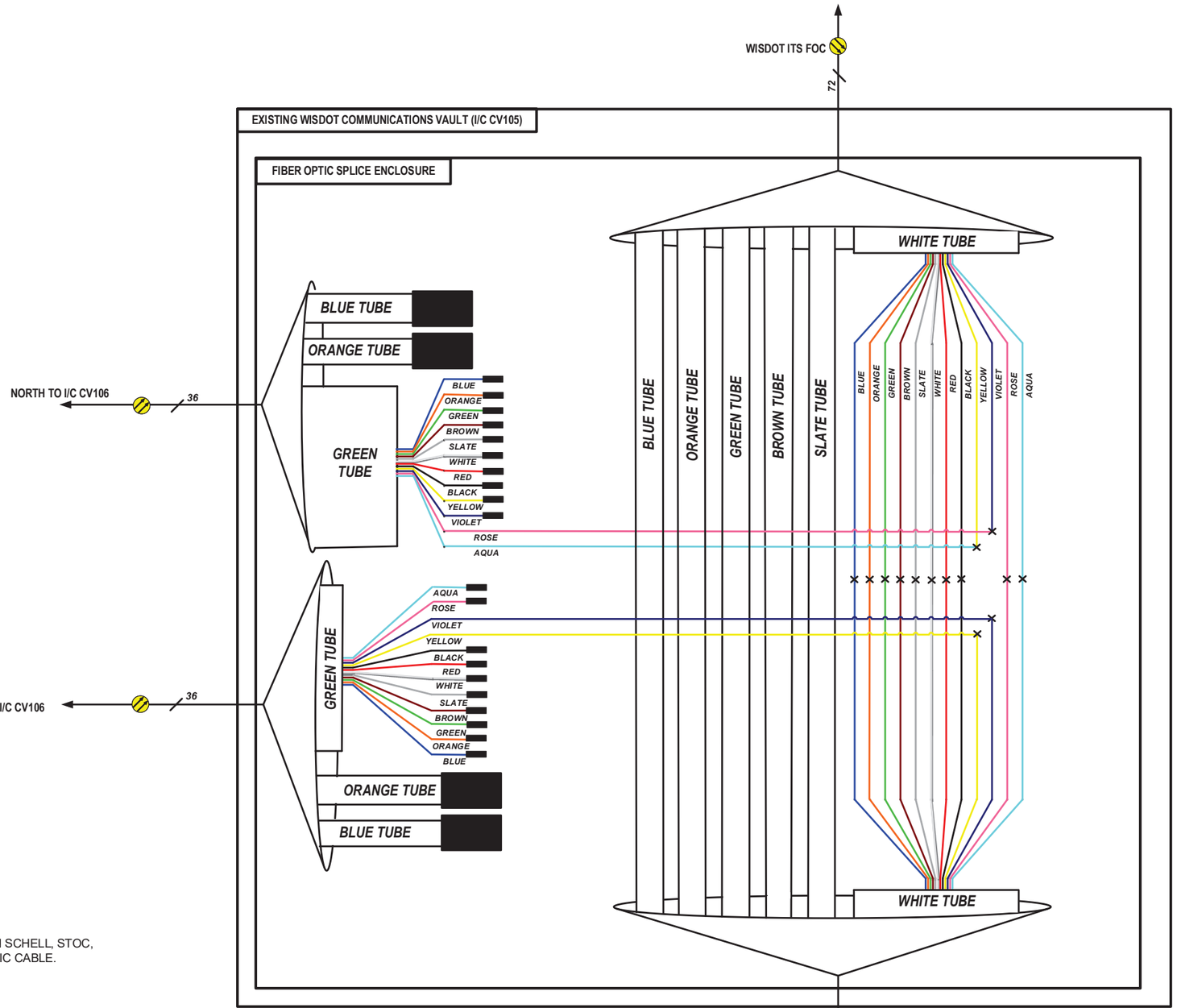
LEGEND

- CAT 5E PATCH CORD
- SM FIBER JUMPER
- 36 — SM FIBER OPTIC CABLE (# STRANDS)
- BARE FIBER LEFT COILED IN SPLICE TRAY
- × PROPOSED FUSION SPLICE

TRAFFIC SIGNAL INTERCONNECT
IH 43
CITY OF GLENDALE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	FIBER ASSIGNMENT DETAIL	SHEET:	E

2



NOTES:
1. COORDINATE FIBER ASSIGNMENTS WITH DON SCHELL, STOC, AT 414-227-2151 BEFORE SPLICING FIBER OPTIC CABLE.
2. MAXIMUM SPLICE LOSS SHALL BE 0.1DB.
3. NO INTERMEDIATE SPLICES ALLOWED.
4. ALL SPLICES SHALL BE FUSION SPLICES.

LEGEND

- CAT 5E PATCH CORD
- SM FIBER JUMPER
- 36 — SM FIBER OPTIC CABLE (# STRANDS)
- BARE FIBER LEFT COILED IN SPLICE TRAY
- × PROPOSED FUSION SPLICE

TRAFFIC SIGNAL INTERCONNECT
IH 43
CITY OF GLENDALE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	FIBER ASSIGNMENT DETAIL	SHEET:	E

2

TRAFFIC SIGNAL CABINET, CB1 (S40-1194)
I-43 SB RAMPS & SILVER SPRING DRIVE

SIGNAL CONTROLLER

MMU

A

E-NET SWITCH

TX
RX
10/100
TX
RX
10/100

INTERFACE PANEL

VIDEO DETECTION UNIT

Blu Or
Gr Br
Sl Wh
Red Blk

8

SMFO PIGTAIL

PIGTAIL

BLUE
ORANGE
GREEN
BROWN
SLATE
WHITE
RED
BLACK

INTERCONNECT COMMUNICATIONS VAULT (I/C CV6)

FIBER OPTIC SPLICE ENCLOSURE

SOUTH TO I/C CV105

36

36

GREEN TUBE

BLUE TUBE
ORANGE TUBE

BLUE
ORANGE
GREEN
BROWN
SLATE
WHITE
RED
BLACK
YELLOW
VIOLET
ROSE
AQUA

BLUE TUBE
ORANGE TUBE
GREEN TUBE

GREEN TUBE

36

EAST TO CB1 (S40-1066)

36

EAST TO CB1 (S40-1241)

NOTES:
1. COORDINATE FIBER ASSIGNMENTS WITH DON SCHELL, STOC, AT 414-227-2151 BEFORE SPLICING FIBER OPTIC CABLE.
2. MAXIMUM SPLICE LOSS SHALL BE 0.1DB.
3. NO INTERMEDIATE SPLICES ALLOWED.
4. ALL SPLICES SHALL BE FUSION SPLICES.
5. USE THE FOLLOWING TERMINATION SCHEDULE IN THE CABINETS:
   - 1,2 NORTH OR EAST
   - 3,4 SOUTH OR WEST

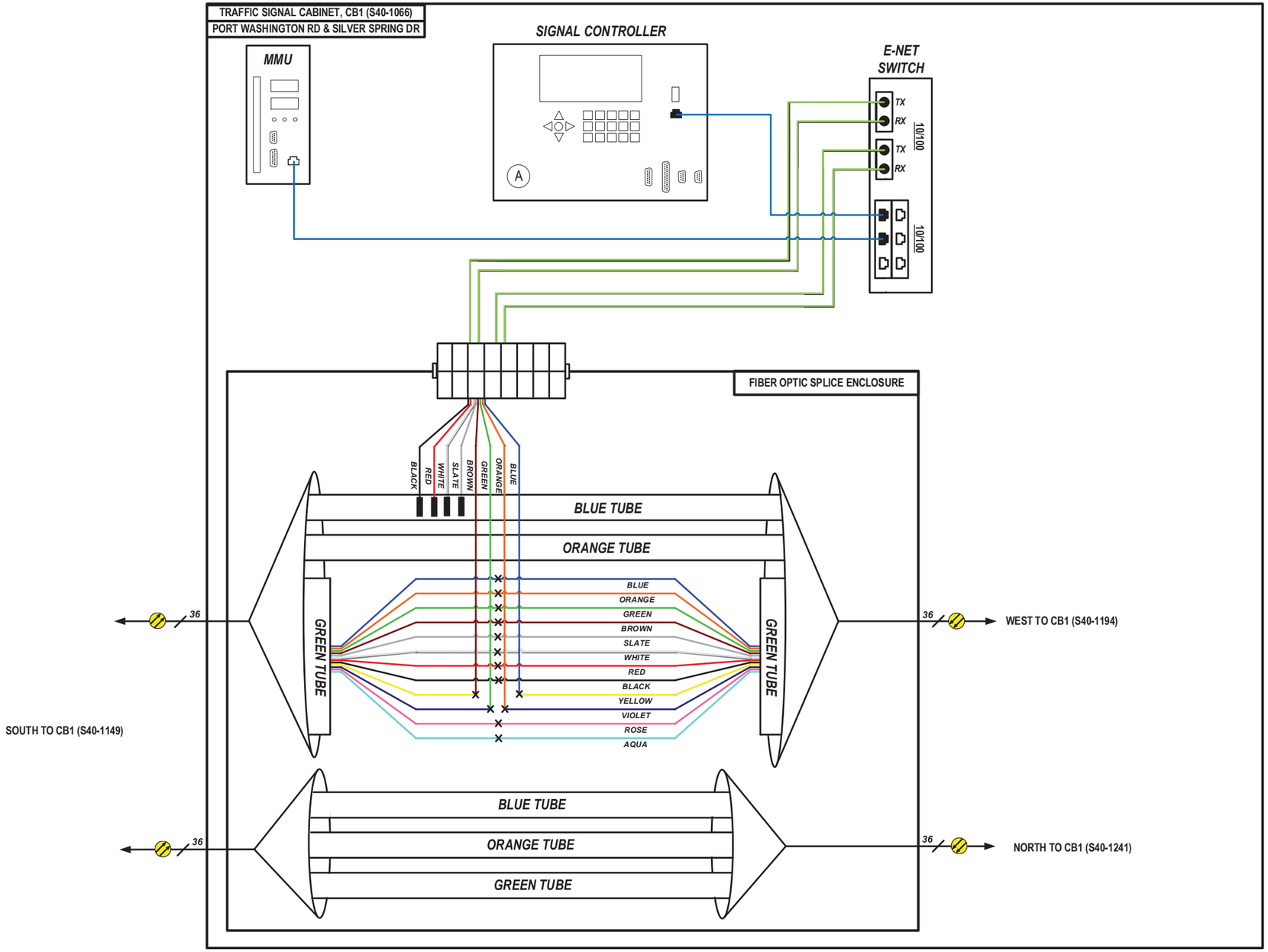
LEGEND

- CAT 5E PATCH CORD
- SM FIBER JUMPER
- 36 SM FIBER OPTIC CABLE (# STRANDS)
- BARE FIBER LEFT COILED IN SPLICE TRAY
- × PROPOSED FUSION SPLICE

TRAFFIC SIGNAL INTERCONNECT
IH 43
CITY OF GLENDALE
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL SYSTEM SS-40-0026

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	FIBER ASSIGNMENT DETAIL	SHEET:	E

2



LEGEND

- CAT 5E PATCH COND
- SM FIBER JUMPER
- SM FIBER OPTIC CABLE (# STRANDS)
- BARE FIBER LEFT COILED IN SPLICE TRAY
- × PROPOSED FUSION SPLICE

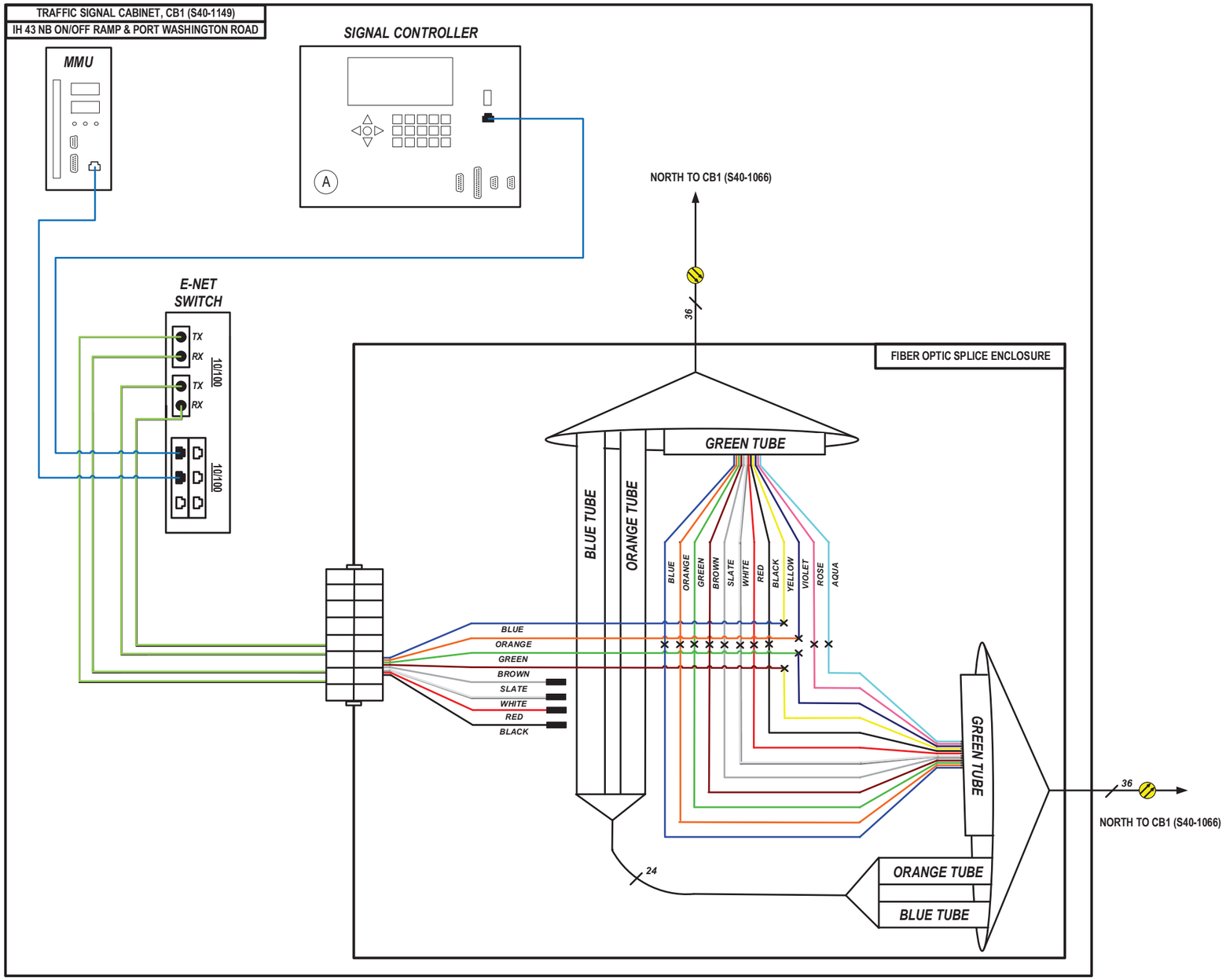
NOTES:
1. COORDINATE FIBER ASSIGNMENTS WITH DON SCHELL, STOC, AT 414-227-2151 BEFORE SPLICING FIBER OPTIC CABLE.
2. MAXIMUM SPLICE LOSS SHALL BE 0.1DB.
3. NO INTERMEDIATE SPLICES ALLOWED.
4. ALL SPLICES SHALL BE FUSION SPLICES.
5. USE THE FOLLOWING TERMINATION SCHEDULE IN THE CABINETS:
   - 1,2 NORTH OR EAST
   - 3,4 SOUTH OR WEST

TRAFFIC SIGNAL INTERCONNECT
IH 43
CITY OF GLENDALE
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL SYSTEM SS-40-0026

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	FIBER ASSIGNMENT DETAIL	SHEET:	E

2

TRAFFIC SIGNAL CABINET, CB1 (S40-1149)
IH 43 NB ON/OFF RAMP & PORT WASHINGTON ROAD



LEGEND

- CAT 5E PATCH CORD
- SM FIBER JUMPER
- 36 — SM FIBER OPTIC CABLE (# STRANDS)
- BARE FIBER LEFT COILED IN SPLICE TRAY
- × PROPOSED FUSION SPLICE

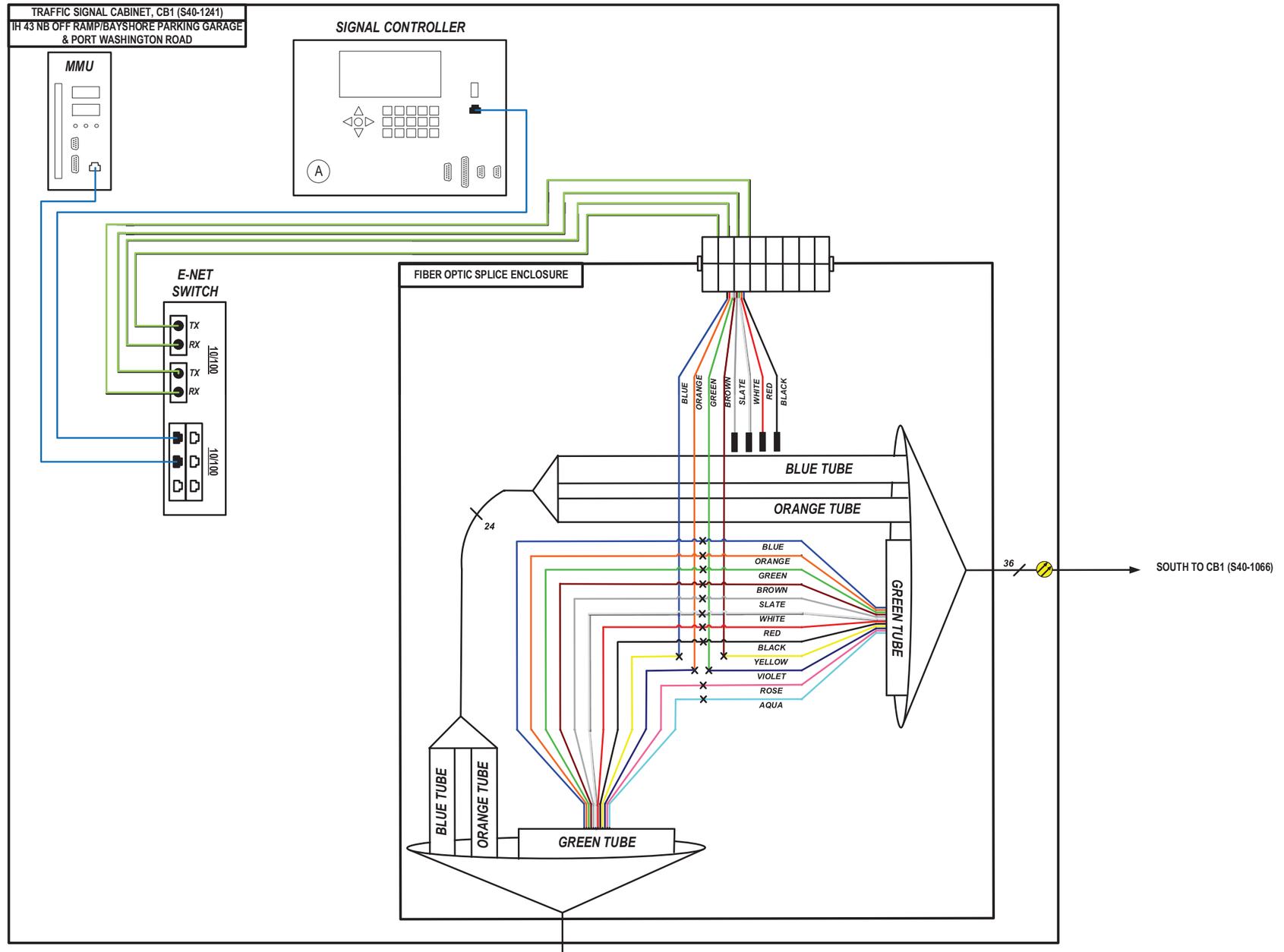
NOTES:
1. COORDINATE FIBER ASSIGNMENTS WITH DON SCHELL, STOC, AT 414-227-2151 BEFORE SPLICING FIBER OPTIC CABLE.
2. MAXIMUM SPLICE LOSS SHALL BE 0.1DB.
3. NO INTERMEDIATE SPLICES ALLOWED.
4. ALL SPLICES SHALL BE FUSION SPLICES.
5. USE THE FOLLOWING TERMINATION SCHEDULE IN THE CABINETS:
   - 1,2 NORTH OR EAST
   - 3,4 SOUTH OR WEST

TRAFFIC SIGNAL INTERCONNECT
IH 43
CITY OF GLENDALE
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL SYSTEM SS-40-0026

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	FIBER ASSIGNMENT DETAIL	SHEET:	E

2

TRAFFIC SIGNAL CABINET, CB1 (S40-1241)
IH 43 NB OFF RAMP/BAYSHORE PARKING GARAGE & PORT WASHINGTON ROAD



LEGEND

- CAT 5E PATCH CORD
- SM FIBER JUMPER
- 36 SM FIBER OPTIC CABLE (# STRANDS)
- BARE FIBER LEFT COILED IN SPLICE TRAY
- × PROPOSED FUSION SPLICE

NOTES:
1. COORDINATE FIBER ASSIGNMENTS WITH DON SCHELL, STOC, AT 414-227-2151 BEFORE SPLICING FIBER OPTIC CABLE.
2. MAXIMUM SPLICE LOSS SHALL BE 0.1DB.
3. NO INTERMEDIATE SPLICES ALLOWED.
4. ALL SPLICES SHALL BE FUSION SPLICES.
5. USE THE FOLLOWING TERMINATION SCHEDULE IN THE CABINETS:
   - 1,2 NORTH OR EAST
   - 3,4 SOUTH OR WEST

TRAFFIC SIGNAL INTERCONNECT
IH 43
CITY OF GLENDALE
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL SYSTEM SS-40-0026

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	FIBER ASSIGNMENT DETAIL	SHEET:	E

LEGEND

CONDUIT HDPE 3-DUCT 2", UNLESS OTHERWISE NOTED

COMMUNICATIONS VAULT

CONTROL CABINET

PULL BOX, 24" X 42"

GRAYSCALE REPRESENTS EXISTING
BOLD REPRESENTS PROPOSED

N

W ROCK PL

IH 43 SB ON RAMP

ETHERNET SWITCH

INSTALL 8 CT FIBER OPTIC PIGTAIL W/TRACER CABLE

S40-1432

I/C CV101

FO I/C

FIBER OPTIC SPLICE (14)
FIBER OPTIC SPLICE ENCLOSURE

I/C PB3

HAMPTON AVE

IH 43 SB

IH 43 NB

971+00SB 972+00SB 973+00SB 974+00SB 975+00SB 976+00SB 977+00SB 978+00SB 979+00SB 980+00SB 981+00SB 982+00SB 983+00SB 984+00SB 985+00SB

971+00NB 972+00NB 973+00NB 974+00NB 975+00NB 976+00NB 977+00NB 978+00NB 979+00NB 980+00NB 981+00NB 982+00NB 983+00NB 984+00NB 985+00NB

I/C PB2

FO I/C

973+00 974+00 IH 43 NB OFF RAMP 975+00 976+00 977+00

ETHERNET SWITCH

INSTALL 8 CT FIBER OPTIC PIGTAIL W/TRACER CABLE

FIBER OPTIC SPLICE (14)
FIBER OPTIC SPLICE ENCLOSURE

INSTALL FO CABLE OUTDOOR PLANT 36 CT
INSTALL FIBER OPTIC TRACER CABLE

INSTALL FIBER OPTIC 36 CT CABLE IN EXISTING CONDUIT

S40-1207

I/C CV100

PB8 (S40-1207)

(S40-1207) EX PB15 FO I/C

I/C PB1

INSTALL FO CABLE OUTDOOR PLANT 36 CT
INSTALL FIBER OPTIC TRACER CABLE

ETHERNET SWITCH

S40-1101

INSTALL 8 CT FIBER OPTIC PIGTAIL W/TRACER CABLE

FIBER OPTIC SPLICE (14)
FIBER OPTIC SPLICE ENCLOSURE

I/C CV102

FO I/C

3" CONDUIT IN BRIDGE

97+00 98+00 99+00 100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00

PORT WASHINGTON ROAD

INSTALL CONDUIT INTO EXISTING ITEM

INSTALL CONDUIT INTO EXISTING ITEM

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN. CONTACT DIGGERS HOTLINE FOR FIELD LOCATES.
3. FIBER OPTIC WARNING TAPE IS REQUIRED WITH CONDUIT INSTALLATION.
4. PROPOSED PAVEMENT MARKING, PROPOSED TRAFFIC SIGNALS AND STORM SEWER SHOWN GREY SHADED FOR PLAN CLARITY.
5. BORE ALL CONDUIT BENEATH PAVED SURFACES AND WITHIN 10 FEET OF TREES TO REMAIN AND/OR AS SHOWN ON QUANTITY SHEETS.
6. LEAVE 100' OF FIBER OPTIC CABLE COILED IN EACH COMMUNICATION VAULT, LEAVE MIN. 15' OF FIBER OPTIC CABLE COILED IN EACH PULL BOX.

TRAFFIC SIGNAL INTERCONNECT

PORT WASHINGTON ROAD & HAMPTON AVENUE
CITY OF GLENDALE/CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S40-1066, S40-1101, S40-1149, S40-1194, S40-1207, S40-1241, S40-1432

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:

PAGE 1 OF 5

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 191 E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\INTERCONNECT\024201_SP.DWG
LAYOUT NAME - 024201_SP

PLOT DATE : 4/17/2019 4:08 PM PLOT BY : UTIC, ANDY PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

LEGEND

CONDUIT HDPE 3-DUCT 2", UNLESS OTHERWISE NOTED

COMMUNICATIONS VAULT

CONTROL CABINET

PULL BOX, 24" X 42"

GRAYSCALE REPRESENTS EXISTING
BOLD REPRESENTS PROPOSED

N

GOLF GREEN

GOLF COURSE

GOLF COURSE

GOLF COURSE

985+00SB 986+00SB 987+00SB 988+00SB 989+00SB 990+00SB 991+00SB 992+00SB 993+00SB 994+00SB 995+00SB 996+00SB 997+00SB 998+00SB 999+00SB 1000+00SB

IH 43 SB

985+00NB 986+00NB 987+00NB 988+00NB 989+00NB 990+00NB 991+00NB 992+00NB 993+00NB 994+00NB 995+00NB 996+00NB 997+00NB 998+00NB 999+00NB 1000+00NB

IH 43 NB

IH 43

FIBER OPTIC SPLICE (14)
IN EXISTING SPLICE ENCLOSURE

INSTALL FO CABLE OUTDOOR PLANT 36 CT
INSTALL FIBER OPTIC TRACER CABLE

INSTALL 36 CT FO CABLE
IN EXISTING CONDUIT

INSTALL CONDUIT INTO EXISTING ITEM

EXISTING WISDOT
72-CT FO CABLE

FO I/C

CAUTION

PORT WASHINGTON ROAD N PORT WASHINGTON RD

W CHATEAU PL

W MARINE DR

TRAFFIC SIGNAL INTERCONNECT

PORT WASHINGTON ROAD & HAMPTON AVENUE
CITY OF GLENDALE/CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S40-1066, S40-1101, S40-1149, S40-1194, S40-1207, S40-1241, S40-1432

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:

PAGE 2 OF 5

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 192 E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\INTERCONNECT\024201_SP.DWG
LAYOUT NAME - 024202_SP

PLOT DATE : 1/24/2018 5:44 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

LEGEND

—— - —— NONMETALLIC INTERCONNECT CONDUIT 2", UNLESS OTHERWISE NOTED

[V] COMMUNICATIONS VAULT

[⊠] CONTROL CABINET

(H) PULL BOX, 24" X 42"

GRAYSCALE REPRESENTS EXISTING
BOLD REPRESENTS PROPOSED

N

EXISTING WISDOT
72-CT FO CABLE

N IRONWOOD RD

IH 43 SB

00SB 1001+00SB 1002+00SB 1003+00SB 1004+00SB 1005+00SB 1006+00SB 1007+00SB 1008+00SB 1009+00SB 1010+00SB 1011+00SB 1012+00SB 1013+00SB 1014+00SB 1015+00SB

IH 43 NB

00NB 1001+00NB 1002+00NB 1003+00NB 1004+00NB 1005+00NB 1006+00NB 1007+00NB 1008+00NB 1009+00NB 1010+00NB 1011+00NB 1012+00NB 1013+00NB 1014+00NB 1015+00NB

I/C CV104

PORT WASHINGTON ROAD

HENRY CLAY ST

RIPRAP

FLAG

SIGN

SIGN PB

TRAFFIC SIGNAL INTERCONNECT

PORT WASHINGTON ROAD & HAMPTON AVENUE
CITY OF GLENDALE/CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S40-1066, S40-1101, S40-1149, S40-1194, S40-1207, S40-1241, S40-1432

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:

PAGE 3 OF 5

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 193 E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\INTERCONNECT\024201_SP.DWG
LAYOUT NAME - 024203_SP

PLOT DATE : 1/24/2018 5:45 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

LEGEND

NONMETALLIC INTERCONNECT CONDUIT 2", UNLESS OTHERWISE NOTED

COMMUNICATIONS VAULT

CONTROL CABINET

PULL BOX, 24" X 42"

GRAYSCALE REPRESENTS EXISTING
BOLD REPRESENTS PROPOSED

INSTALL FO CABLE OUTDOOR PLANT 36 CT
INSTALL FIBER OPTIC TRACER CABLE IN
EXISTING CONDUIT

FIBER OPTIC SPLICE (14)
IN EXISTING SPLICE ENCLOSURE

EXISTING WISDOT
72-CT FO CABLE

IH 43 SB OFF RAMP

FO I/C

IH 43 SB

IH 43 NB

IH 43 NB OFF RAMP

IH 43 NB ON RAMP

1015+00SB 1016+00SB 1017+00SB 1018+00SB 1019+00SB 1020+00SB 1021+00SB 1022+00SB 1023+00SB 1024+00SB 1025+00SB 1026+00SB 1027+00SB 1028+00SB 1029+00SB 1030+00SB

1015+00NB 1016+00NB 1017+00NB 1018+00NB 1019+00NB 1020+00NB 1021+00NB 1022+00NB 1023+00NB 1024+00NB 1025+00NB 1026+00NB 1027+00NB 1028+00NB 1029+00NB 1030+00NB

W. LEXINGTON BLVD.

N PORT WASHINGTON RD

PORT WASHINGTON ROAD

N PORT WASHINGTON RD

N TERRACE RD

ATHLETIC FIELD

INSTALL FO CABLE OUTDOOR PLANT 36 CT
INSTALL FIBER OPTIC TRACER CABLE IN
EXISTING CONDUIT

ETHERNET SWITCH FIBER OPTIC SPLICE ENCLOSURE

CB1 (S40-1149)

TRAFFIC SIGNAL INTERCONNECT

PORT WASHINGTON ROAD & HAMPTON AVENUE
CITY OF GLENDALE/CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S40-1066, S40-1101, S40-1149, S40-1194, S40-1207, S40-1241, S40-1432

REGION CONTACT: P. VIRK
DESIGNED BY: S. WAGNER
REVISED BY:

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 194 E

FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\INTERCONNECT\024201_SP.DWG
LAYOUT NAME - 024204_SP
PLOT DATE : 1/24/2018 5:46 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

LEGEND

CONDUIT HDPE 3-DUCT 2", UNLESS OTHERWISE NOTED

COMMUNICATIONS VAULT

CONTROL CABINET

PULL BOX, 24" X 42"

GRAYSCALE REPRESENTS EXISTING
BOLD REPRESENTS PROPOSED

ETHERNET SWITCH

S40-1194

INSTALL 8-CT FIBER OPTIC PIGTAIL WITH TRACER CABLE

F0 I/C

I/C PB4

PB15 (S40-1194)

INSTALL FO CABLE OUTDOOR PLANT 36 CT
INSTALL FIBER OPTIC TRACER CABLE IN EXISTING CONDUIT

I/C CV106

FIBER OPTIC SPLICE (14)
FIBER OPTIC SPLICE ENCLOSURE

0+00SB 1031+00SB 1032+00SB 1033+00SB 1034+00SB 1035+00SB 1036+00SB 1037+00SB 1038+00SB 1039+00SB 1040+00SB 1041+00SB 1042+00SB 1043+00SB 1044+00SB 1045+00SB 1046+00SB

0+00NB 1031+00NB 1032+00NB 1033+00NB 1034+00NB 1035+00NB 1036+00NB 1037+00NB 1038+00NB 1039+00NB 1040+00NB 1041+00NB 1042+00NB 1043+00NB 1044+00NB 1045+00NB 1046+00NB

IH 43 SB

IH 43 NB

IH 43 SB OFF RAMP

IH 43 NB OFF RAMP

W. SILVER SPRING DR.

INSTALL FO CABLE OUTDOOR PLANT 36 CT
INSTALL FIBER OPTIC TRACER CABLE IN EXISTING CONDUIT

S40-1066

F0 I/C

ETHERNET SWITCH
FIBER OPTIC SPLICE ENCLOSURE

PORT WASHINGTON ROAD

N PORT WASHINGTON RD

S40-1241

ETHERNET SWITCH
FIBER OPTIC SPLICE ENCLOSURE

TRAFFIC CONTROL INTERCONNECT

PORT WASHINGTON ROAD & HAMPTON AVENUE
CITY OF GLENDALE/CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S40-1066, S40-1101, S40-1149, S40-1194, S40-1207, S40-1241, S40-1432

REGION CONTACT: P. VIRK
DESIGNED BY: raSmith
REVISED BY:

PAGE 5 OF 5

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 195	E

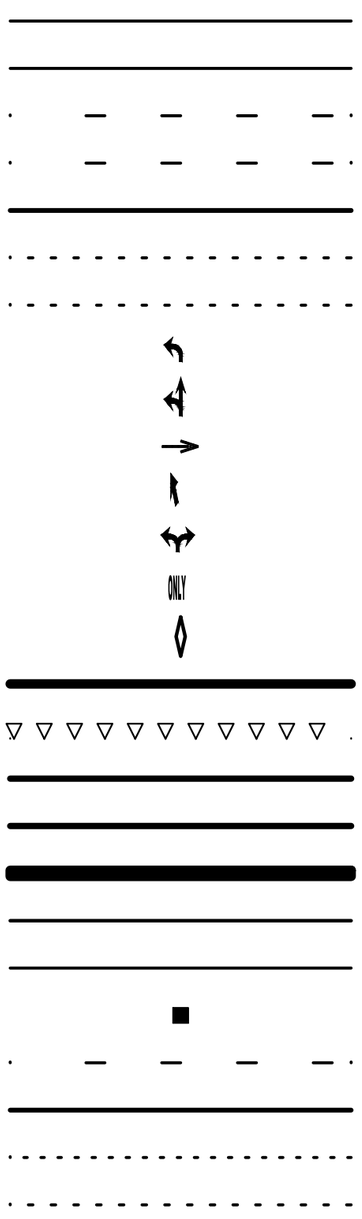
FILE NAME : T:\1162705.05\TRAFFIC\SIGNAL DESIGN\INTERCONNECT\024201_SP.DWG
LAYOUT NAME - 024205_SP

PLOT DATE : 1/24/2018 5:47 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

PAVEMENT MARKING LEGEND



1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
3. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. MARKING LINE EPOXY 8-INCH (WHITE)
6. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
7. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
8. MARKING ARROW EPOXY (WHITE) (TYPE 2)
9. MARKING ARROW EPOXY (WHITE) (TYPE 3)
10. MARKING ARROW EPOXY (WHITE) (TYPE 4)
11. PAVEMENT MARKING CONTRAST EPOXY SPECIAL MARKING ARROW (WHITE) (TYPE 5)
12. MARKING ARROW EPOXY (WHITE) (TYPE 7)
13. MARKING WORD EPOXY (WHITE)
14. MARKING SYMBOL EPOXY (PREFERENTIAL LANE SYMBOL)
15. MARKING STOP LINE EPOXY 18-INCH (WHITE)
16. MARKING YIELD LINE EPOXY 18-INCH (WHITE)
17. MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
18. MARKING DIAGONAL EPOXY 12-INCH (WHITE)
19. MARKING CHEVRON EPOXY 24-INCH (WHITE)
20. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
21. MARKING CURB EPOXY (YELLOW)
22. MARKING ISLAND NOSE EPOXY (YELLOW)
23. PAVEMENT MARKING CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
24. PAVEMENT MARKING CONTRAST EPOXY 8-INCH (WHITE)
25. PAVEMENT MARKING CONTRAST EPOXY 8-INCH (DOT PATTERN WHITE) (2 FT LINE 6 FT SKIP)
26. PAVEMENT MARKING CONTRAST EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

2

2

MILWAUKEE RIVER

HAMPTON AVE

GOLF GREEN

IH 43 SB

IH 43 NB

974 976 978 980 982 984 986 988

MATCH EXISTING
PAVEMENT MARKING
STA 979+50

+02. 41' RT

+23. 44' RT

+09. 103' RT

40' 50'

PORT WASHINGTON RD

RIPRAP

SIGN

SLAB

U/C

A/C

INL

MH

W

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 197	E

2

N

GOLF COURSE

GOLF COURSE

IH 43 SB

IH 43 NB

PORT WASHINGTON RD

+23. 44' RT

+09. 103' RT

40'

50'

FLAG

SIGN

SLAB

INL

W

MH

A/C

988 990 992 994 996 998 1000 1002

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 198	E

2

2

MATCH EXISTING
PAVEMENT MARKING
STA 1003+50

IH 43 SB

IH 43 NB

PORT WASHINGTON RD

1014"SS RAMP B"

1016"SS RAMP B"

+00. -47' LT

+65. 47' RT

RIPRAP

FLAG

SIGN

SLAB

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 199	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PAVEMENT MARKING\12282272_IH 43 MAINLINE & RAMP.DWG
LAYOUT NAME - 024503-PM

PLOT DATE : 1/2/2019 11:51 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

IRONWOOD RD

ATHLETIC FIELD

ATHLETIC FIELD

FLAG

A/C

IH 43 SB

IH 43 NB

+47, -87' LT

+27, -47' LT

+90, -47' LT

+22, -86' LT

+88, 47' RT

"SS RAMP B"+85, 0' LT

"SS RAMP B"+04, 0' LT

"SS RAMP B"+85, 22' RT

RAMP B"

1018"SS RAMP B"

1020"SS RAMP B"

1022"SS RAMP B"

1024"SS RAMP B"

1026"SS RAMP B"

1028"SS RAMP B"

1030"SS RAMP B"

1028"SS RAMP D"

LEXINGTON BLVD

PORT WASHINGTON RD

SIGN

SLAB

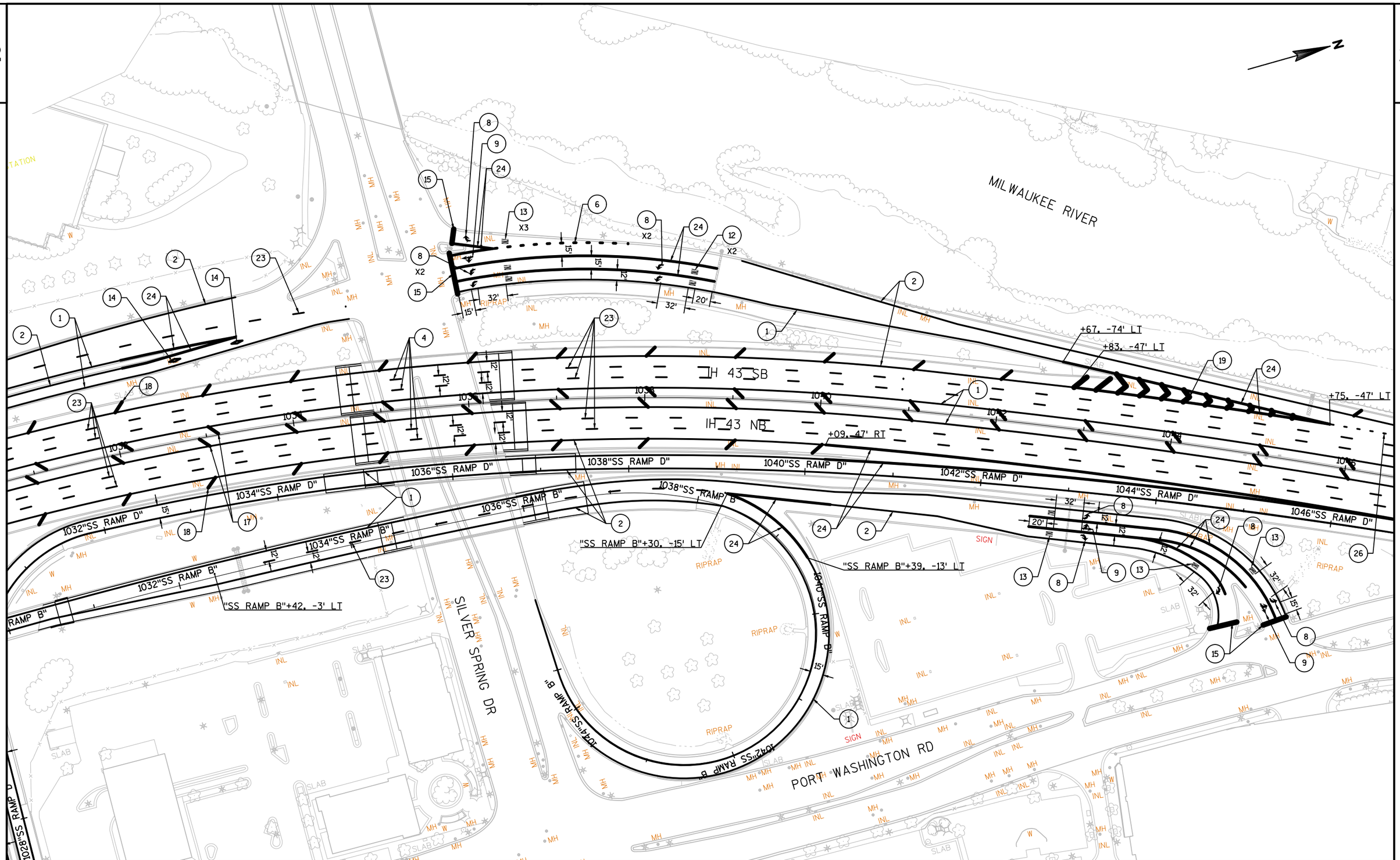
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 200	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PAVEMENT MARKING\12282272_IH 43 MAINLINE & RAMP.DWG
LAYOUT NAME - 024504-PM

PLOT DATE : 1/2/2019 11:51 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 201	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PAVEMENT MARKING\12282272_IH 43 MAINLINE & RAMP.DWG
LAYOUT NAME - 024505-PM
PLOT DATE : 1/2/2019 11:51 AM
PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

MILWAUKEE RIVER

IH 43 SB

IH 43 NB

PORT WASHINGTON RD

1046"SS RAMP D"

1048"SS RAMP D"

1050"SS RAMP D"

1052"SS RAMP D"

1054"SS RAMP D"

+75. -47' LT

+50. -47' LT

+00. 47' RT

RIPRAP

SLAB

RAMP

SIGN

A/C

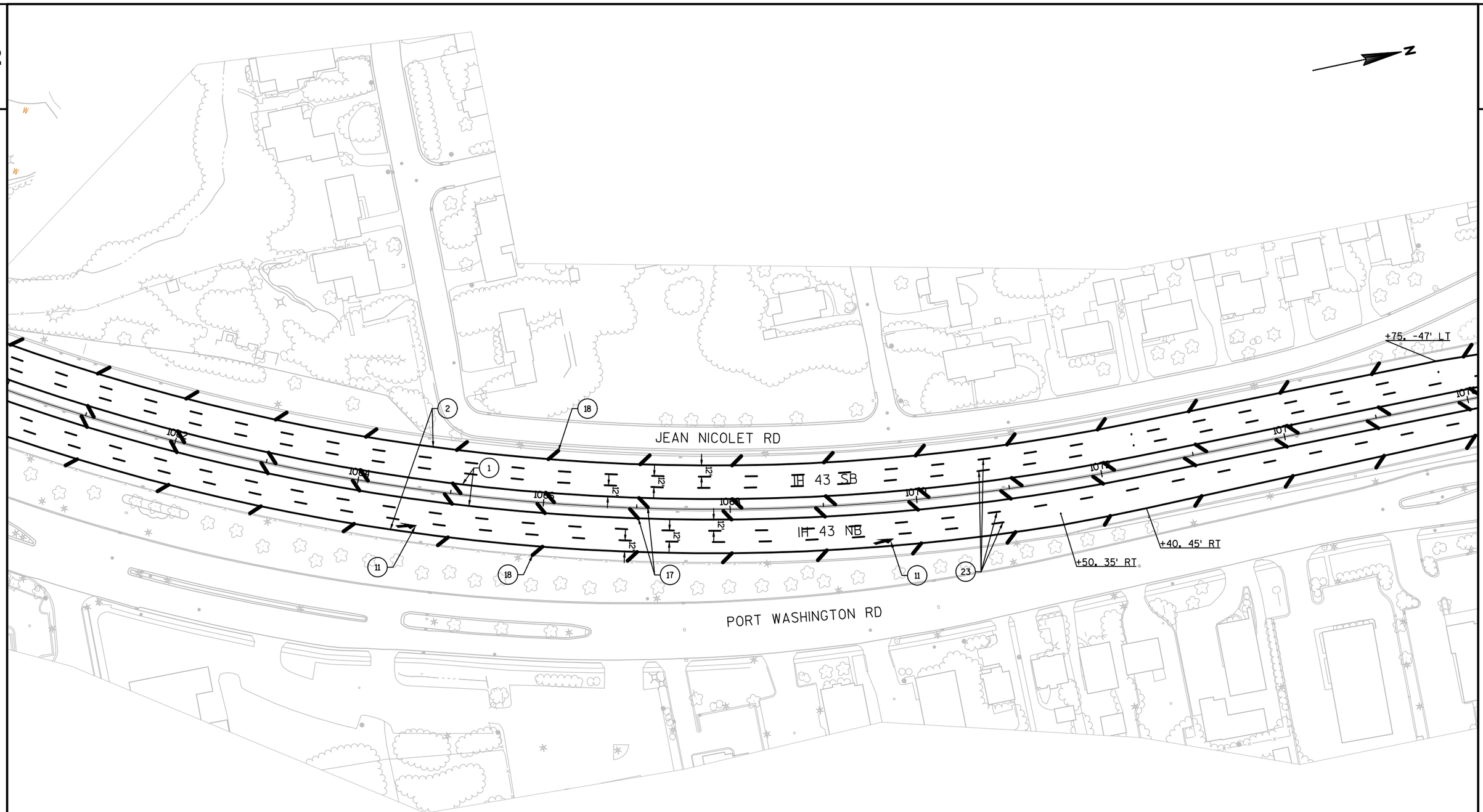
PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 202	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PAVEMENT MARKING\12282272_IH 43 MAINLINE & RAMP.DWG
LAYOUT NAME - 024506-PM

PLOT DATE : 1/2/2019 11:52 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 203	E

2

2

JEAN NICOLET RD

PORT WASHINGTON RD

BENDER RD

IH 43 SB

IH 43 NB

+75. -47' LT

+00. -35' LT

+50. 35' RT

MATCH EXISTING PAVEMENT MARKING STA 1089+88

MATCH EXISTING PAVEMENT MARKING STA 1087+46

SLAB

SEPV

INL

MH

SIGN

UNION PACIFIC

ATHLETIC FIELD

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 204	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PAVEMENT MARKING\12282272_IH 43 MAINLINE & RAMP.DWG
LAYOUT NAME - 024508-PM

PLOT DATE : 12/2/2019 8:38 AM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

IH 43 NB OFF RAMP TO PORT WASHINGTON RD

MH
W
INL
INL
INL
INL
INL SIGN
W
W
MH
MH
INL
INL
MH
MH
15
MH
INL
INL
MH
MH
W
INL
SIGN
INL
MH
MH
RIPRAP
BG
W
RIPRAP
MILWAUKEE RIVER

MATCH EXISTING PAVEMENT MARKINGS "PW" STA 100+41

PORT WASHINGTON RD SB

PORT WASHINGTON RD NB

MATCH EXISTING PAVEMENT MARKINGS "PW" STA 100+99

98+00"PW" 99+00"PW" 100+00"PW" 101+00"PW" 102+00"PW" 103+00"PW" 104+00"

"PW"+99, 14' RT

"PW"+64, 3' RT

"PW"+58, 26' RT

20' 20'

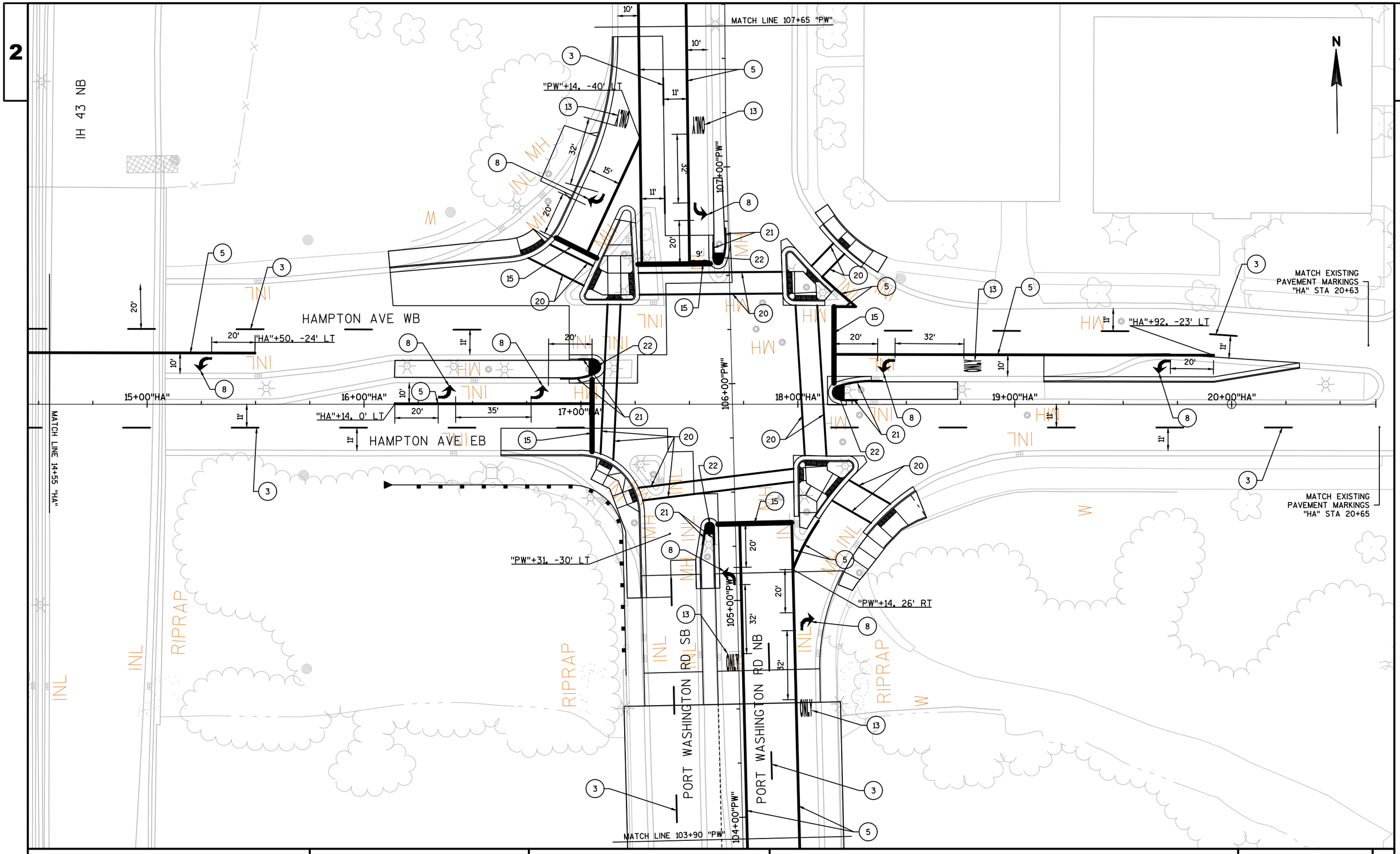
12' 12' 12' 12' 12' 12'

3 8 5 5 8

MATCH LINE 103+90 "PW"

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKING - PORT WASHINGTON RD	SHEET 205	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PAVEMENT MARKING\12282272_HAMPTON & PORT RD_PAVEMENT MARKINGS.DWG
LAYOUT NAME - 024530-PM
PLOT DATE : 4/15/2019 9:34 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:40 FT



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKING - PORT WASHINGTON RD & HAMPTON AVE	SHEET 206	E

2

N

U/C

MH

MH

INL

234'

SEE OTHER SHEETS FOR
ADDITIONAL PAVEMENT MARKING

FLAG

MH

SLAB

SLAB

MATCH EXISTING
PAVEMENT MARKINGS

5

8

6

3

8

8

10'

20'

INL

MH

INL

MH

20'

"PW"+05. -15' LT

10'

11'

11'

PORT WASHINGTON RD SB

INL

SLAB

108+00"PW"

109+00"PW"

110+00"PW"

111+00"PW"

354'

112+00"PW"

113+00"PW"

MH

SLAB

MH

INL

MATCH LINE 107+65 "PW"

PORT WASHINGTON RD NB

MH

INL

SLAB

MH

MH

INL

W

W

INL

INL

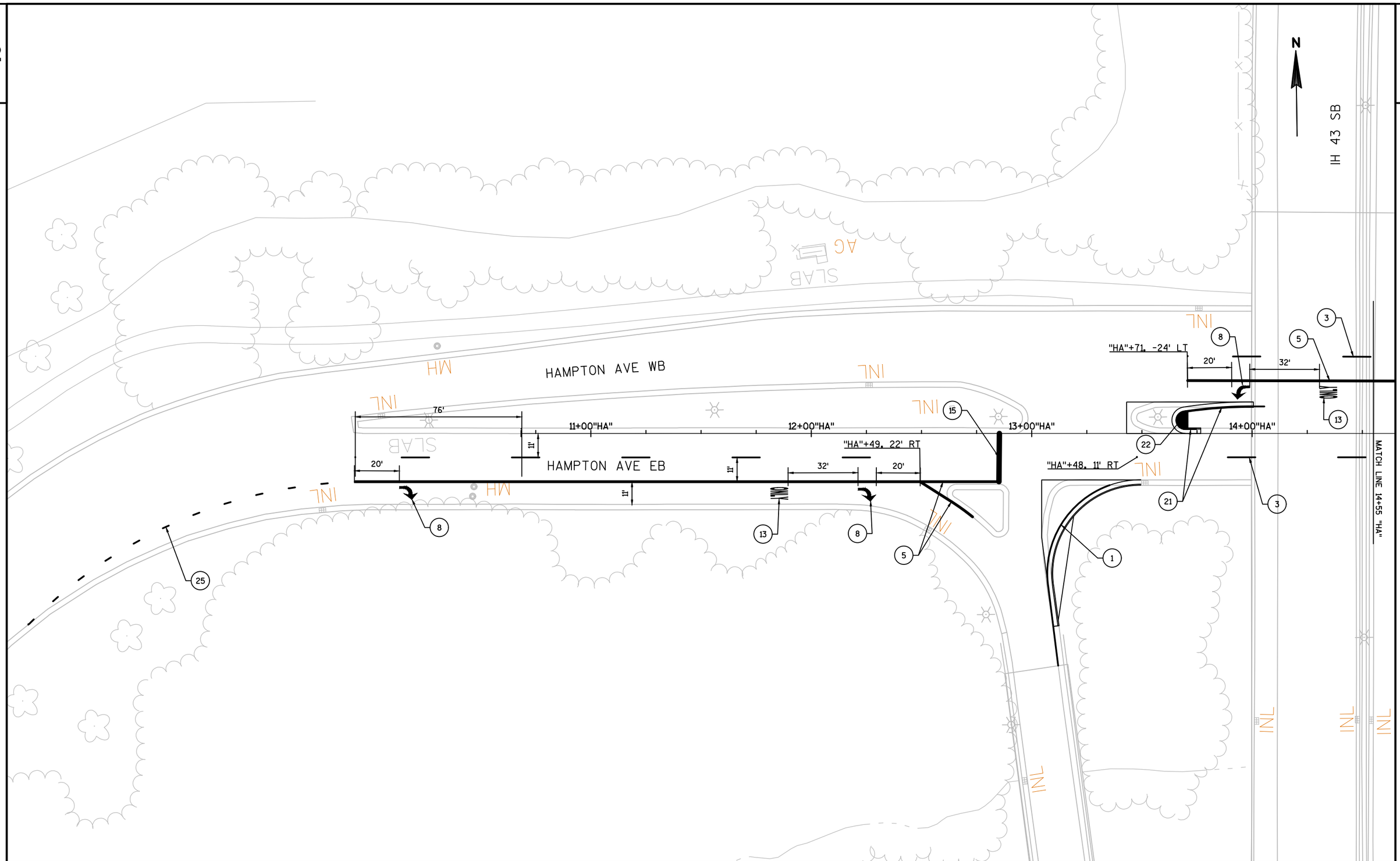
INL

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKING - PORT WASHINGTON RD	SHEET 207	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PAVEMENT MARKING\12282272_HAMPTON & PORT RD_PAVEMENT MARKINGS.DWG
LAYOUT NAME - 024532-PM

PLOT DATE : 4/25/2019 10:57 AM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKING - HAMPTON AVE	SHEET 208	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PAVEMENT MARKING\12282272_HAMPTON & PORT RD_PAVEMENT MARKINGS.DWG
LAYOUT NAME - 024533-PM
PLOT DATE : 4/25/2019 10:58 AM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

IRONWOOD RD

LEXINGTON BLVD

IH 43 SB

IH 43 NB

PORT WASHINGTON RD

"LE"+11.19, 0' LT

11+00"LE"

12+00"LE"

13+00"LE"

14+00"LE"

15+00"LE"

"LE"+34, 0' RT

1
DOUBLE

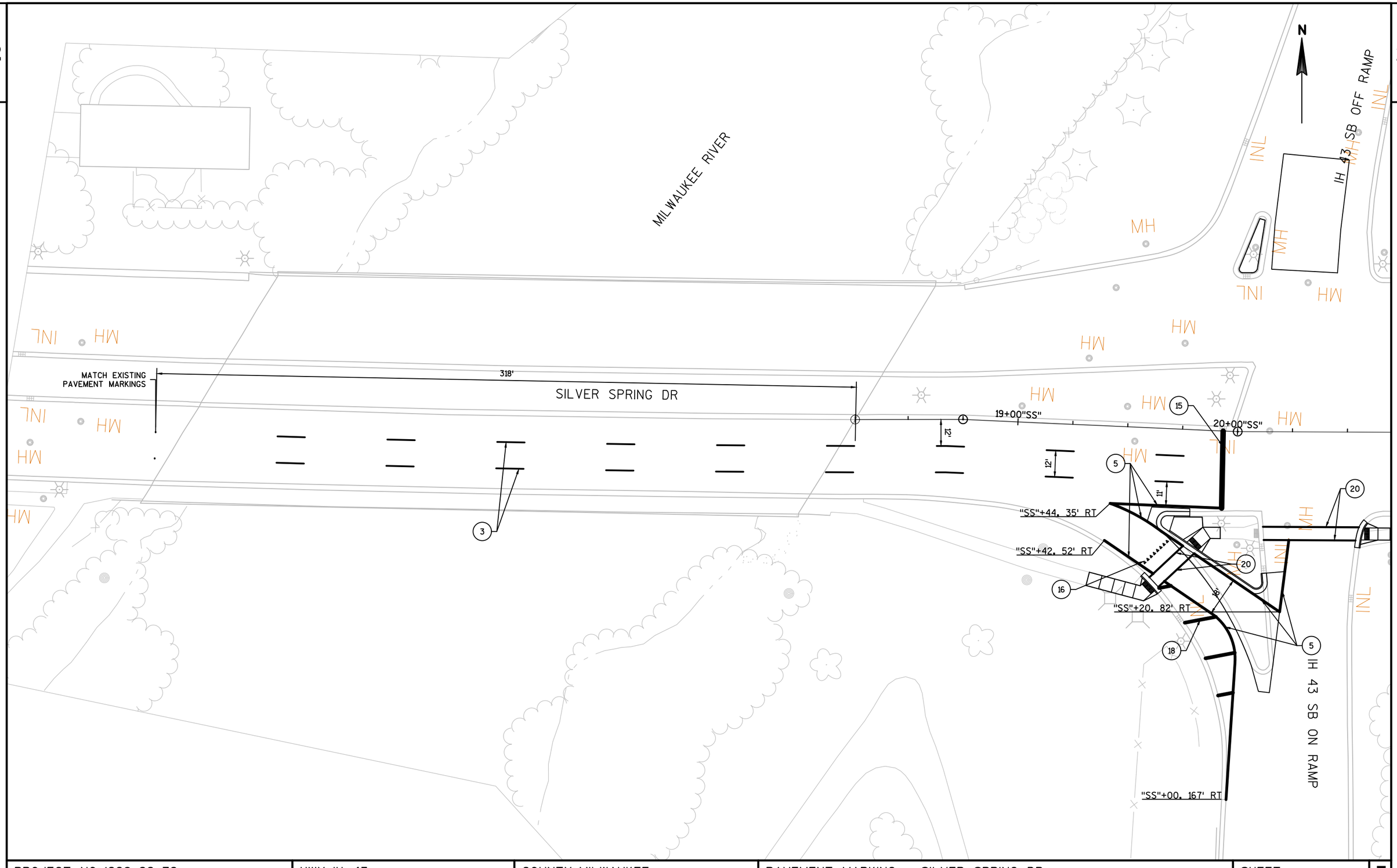
SIGN

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKING - LEXINGTON BLVD	SHEET 209	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PAVEMENT MARKING\12282272_LEXINGTON BLVD.DWG
LAYOUT NAME - 024534-PM

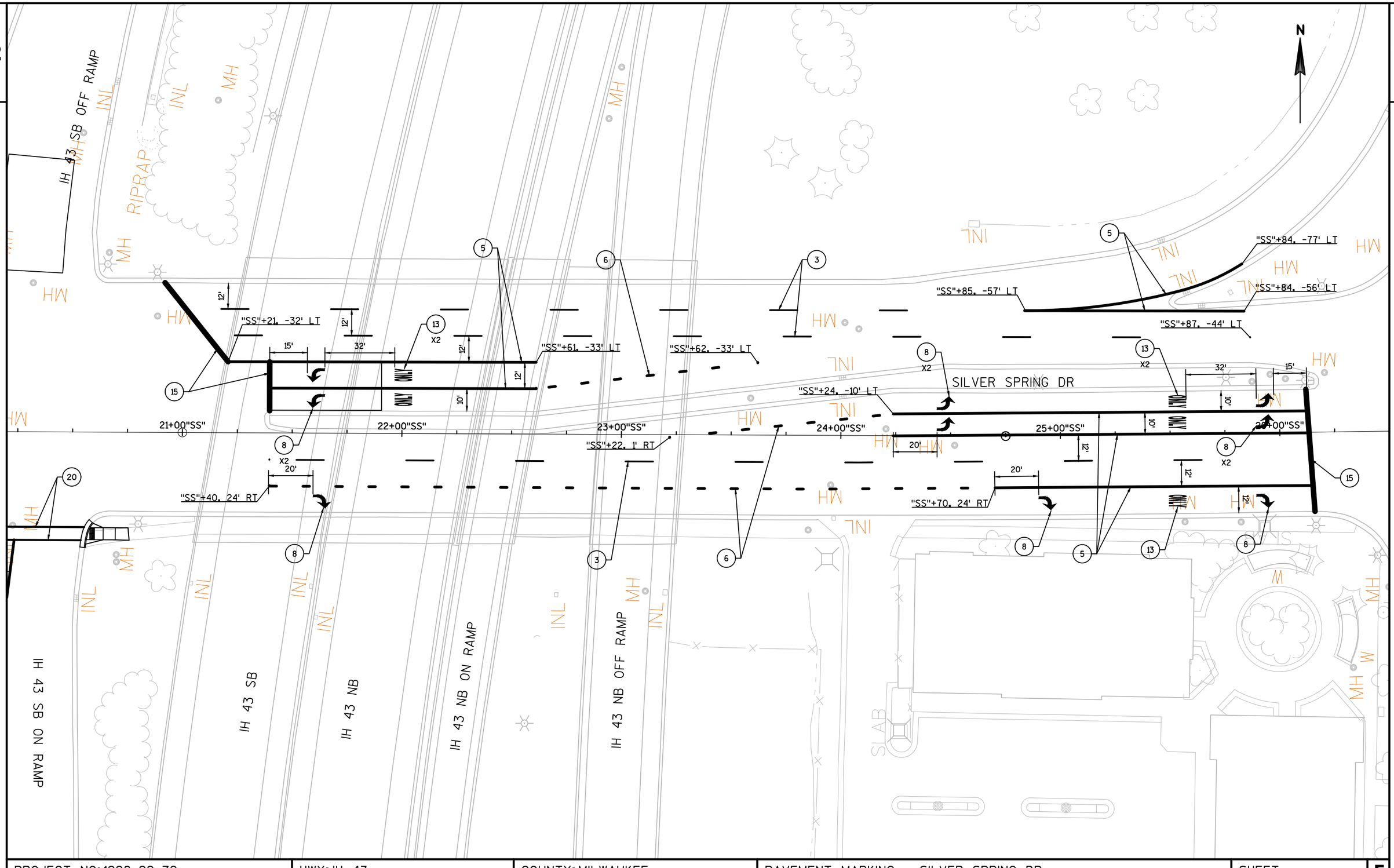
PLOT DATE : 1/2/2019 11:56 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKING - SILVER SPRING DR	SHEET 210	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PAVEMENT MARKING\12282272_SILVER SPRING DR.DWG
LAYOUT NAME - 024535-PM
PLOT DATE : 1/2/2019 11:56 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKING - SILVER SPRING DR	SHEET 211 E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PAVEMENT MARKING\12282272_SILVER SPRING DR.DWG
LAYOUT NAME - 024536-PM

PLOT DATE : 1/2/2019 11:57 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

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) A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE WORK AREAS IF WARRANTED BY CONDITIONS OR AS DIRECTED BY THE ENGINEER. FLAGGING IS NOT PERMITTED ON FREEWAY LANES.

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

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

5) FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.

6) ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE "A" (LOW INTENSITY FLASHING) LIGHTS.

7) 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 FACE OF BARRIER.

8) WORK AREAS SHOWN MAY NOT ILLUSTRATE ALL REMOVALS. SEE REMOVAL SHEETS FOR ADDITIONAL INFORMATION.

9) ALL TRAFFIC CONTROL SIGNS LOCATED IN MEDIANS SHALL BE MOUNTED ON CONCRETE BARRIER UNLESS OTHERWISE NOTED, SEE TRAFFIC CONTROL DETAILS.

10) WHEN A SEGMENT OF THE PROJECT IS NOT SHOWN ON THE STAGING PLANS, USE THE SAME TRAFFIC CONTROL AS THE PREVIOUS STAGE FOR THAT SEGMENT.

11) TRAFFIC CONTROL DRUM SPACING SHALL BE 50' UNLESS OTHERWISE NOTED.

12) 16" X 16" ORANGE FLAGS SHALL BE INCIDENTAL TO TRAFFIC CONTROL SIGN BID ITEM.

13) 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.

TEMPORARY PAVEMENT MARKING LEGEND

1. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
2. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
3. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
5. TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. TEMPORARY MARKING ARROW REMOVABLE TAPE (WHITE) (TYPE 1)
7. TEMPORARY MARKING ARROW REMOVABLE TAPE (WHITE) (TYPE 2)
8. TEMPORARY MARKING WORD REMOVABLE TAPE (WHITE)
9. TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
10. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
11. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH
12. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

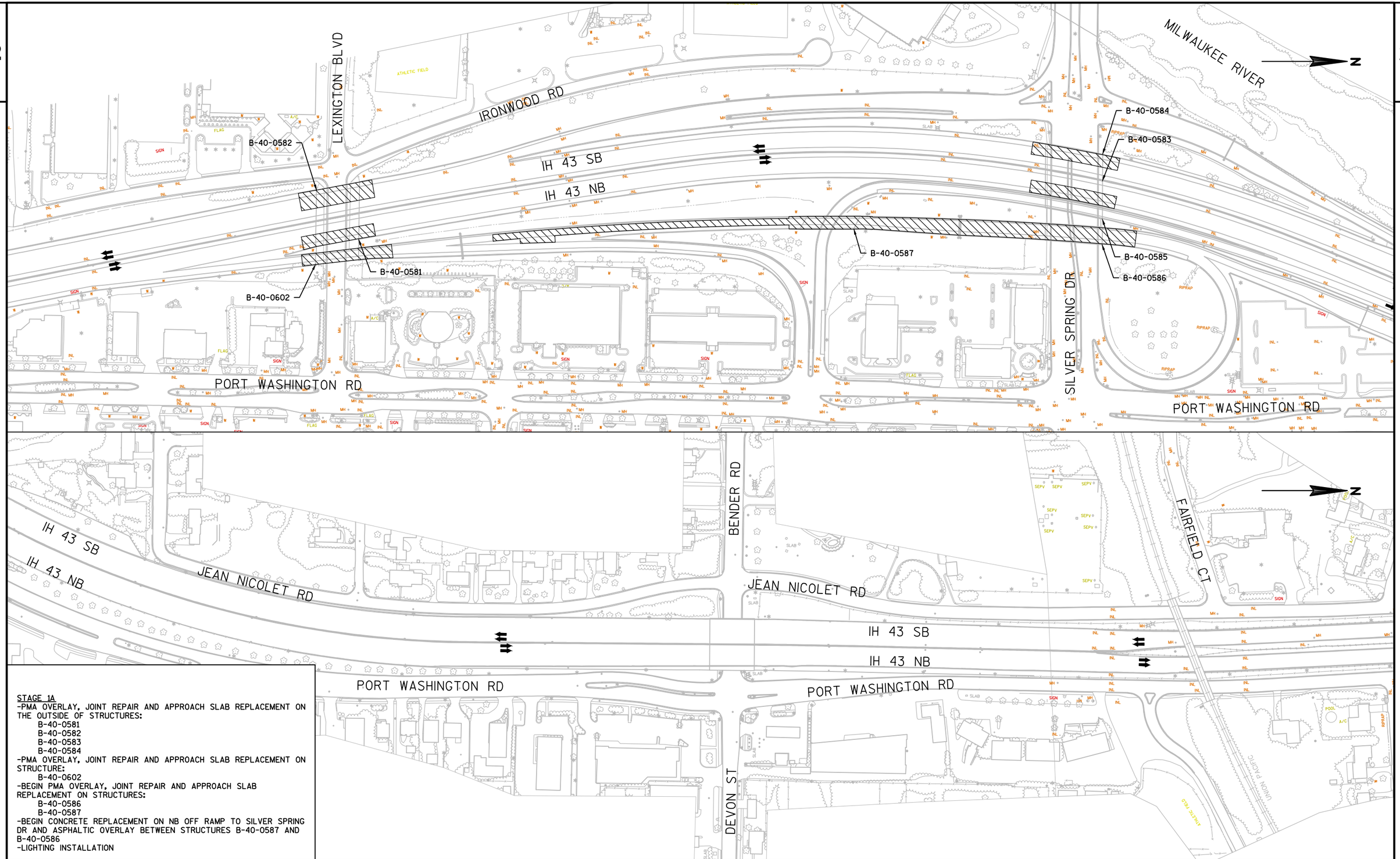
PAVEMENT MARKING REMOVAL LEGEND

- WB1 MARKING REMOVAL LINE WATER BLASTING 4-INCH
- WB2 MARKING REMOVAL LINE WATER BLASTING 8-INCH
- WB3 MARKING REMOVAL LINE WATER BLASTING WIDE
- WB4 MARKING REMOVAL SPECIAL MARKING WATER BLASTING
- RM1 MARKING REMOVAL SPECIAL MARKING

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION
- FLAGS, 16" X 16" MIN., (ORANGE)
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

2



STAGE 1A
-PMA OVERLAY, JOINT REPAIR AND APPROACH SLAB REPLACEMENT ON THE OUTSIDE OF STRUCTURES:
B-40-0581
B-40-0582
B-40-0583
B-40-0584
-PMA OVERLAY, JOINT REPAIR AND APPROACH SLAB REPLACEMENT ON STRUCTURE:
B-40-0602
-BEGIN PMA OVERLAY, JOINT REPAIR AND APPROACH SLAB REPLACEMENT ON STRUCTURES:
B-40-0586
B-40-0587
-BEGIN CONCRETE REPLACEMENT ON NB OFF RAMP TO SILVER SPRING DR AND ASPHALTIC OVERLAY BETWEEN STRUCTURES B-40-0587 AND B-40-0586
-LIGHTING INSTALLATION

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL OVERVIEW - STAGE 1A	SHEET 213	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_OVERVIEW_STAGE 1A.DWG
LAYOUT NAME - 025001-TC
PLOT DATE : 12/2/2019 1:12 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

2

LEXINGTON BLVD

IRONWOOD RD

MILWAUKEE RIVER

N

B-40-0582

B-40-0584

B-40-0583

IH 43 SB

IH 43 NB

B-40-0587

B-40-0581

B-40-0585

B-40-0586

B-40-0602

SILVER SPRING DR

PORT WASHINGTON RD

PORT WASHINGTON RD

BENDER RD

IH 43 SB

IH 43 NB

JEAN NICOLET RD

JEAN NICOLET RD

FAIRFIELD CT

PORT WASHINGTON RD

PORT WASHINGTON RD

DEVON ST

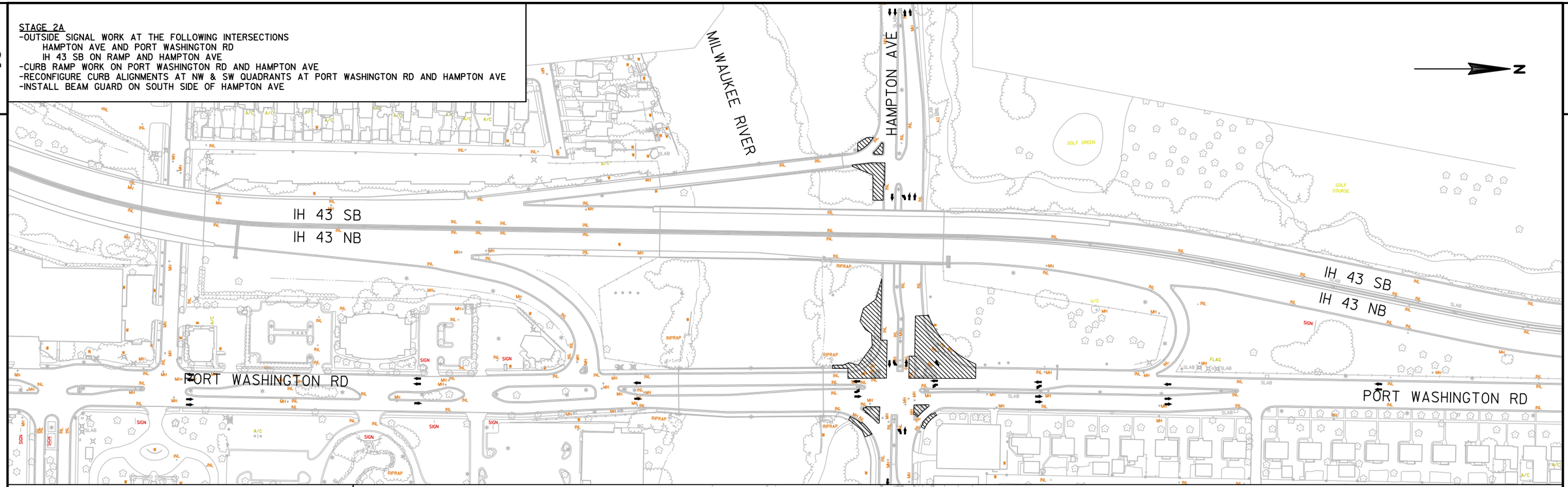
STAGE 1B
-PMA OVERLAY, JOINT REPAIR AND APPROACH SLAB REPLACEMENT ON THE INSIDE OF STRUCTURES:
B-40-0581
B-40-0582
B-40-0583
B-40-0584
-PMA OVERLAY, LINT REPAIR AND APPROACH SLAB REPLACEMENT ON STRUCTURE B-40-0585
-FINISH PMA OVERLAY, JOINT REPAIR AND APPROACH SLAB REPLACEMENT ON STRUCTURES:
B-40-0586
B-40-0587
-FINISH CONCRETE REPLACEMENT ON NB OFF RAMP TO SILVER SPRING DR AND ASPHALTIC OVERLAY BETWEEN STRUCTURES B-40-0587 AND B-40-0586

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL OVERVIEW - STAGE 1B	SHEET 214	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_OVERVIEW_STAGE 1B.DWG
LAYOUT NAME - 025002-TC
PLOT DATE : 12/2/2019 5:28 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

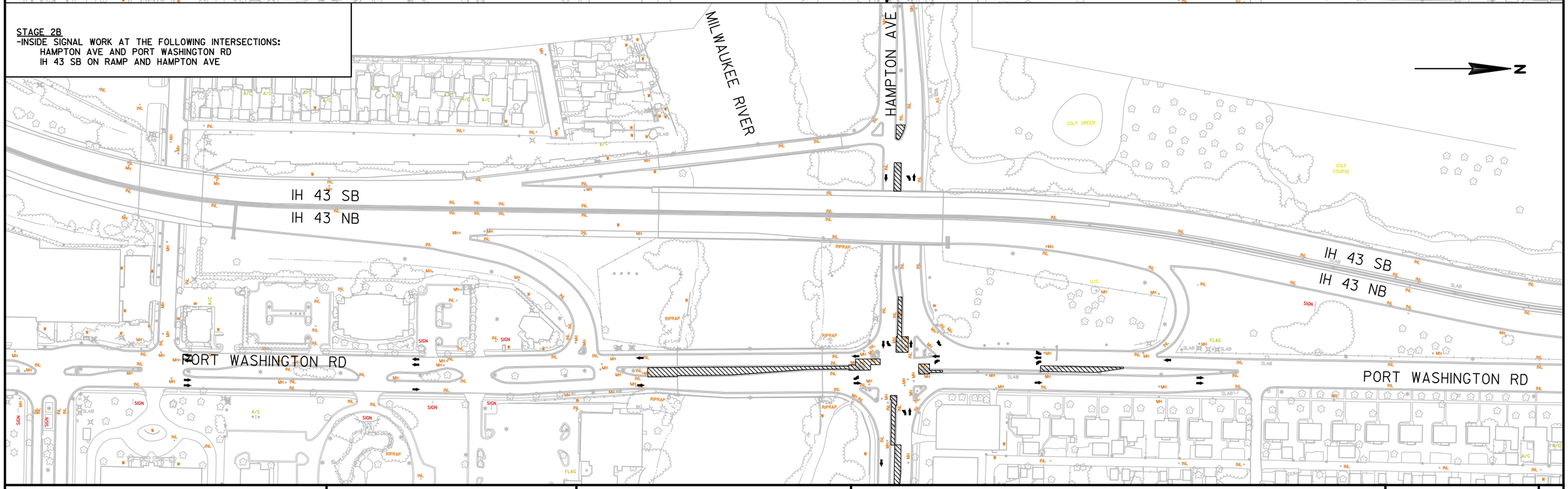
2

STAGE 2A
-OUTSIDE SIGNAL WORK AT THE FOLLOWING INTERSECTIONS
HAMPTON AVE AND PORT WASHINGTON RD
IH 43 SB ON RAMP AND HAMPTON AVE
-CURB RAMP WORK ON PORT WASHINGTON RD AND HAMPTON AVE
-RECONFIGURE CURB ALIGNMENTS AT NW & SW QUADRANTS AT PORT WASHINGTON RD AND HAMPTON AVE
-INSTALL BEAM GUARD ON SOUTH SIDE OF HAMPTON AVE



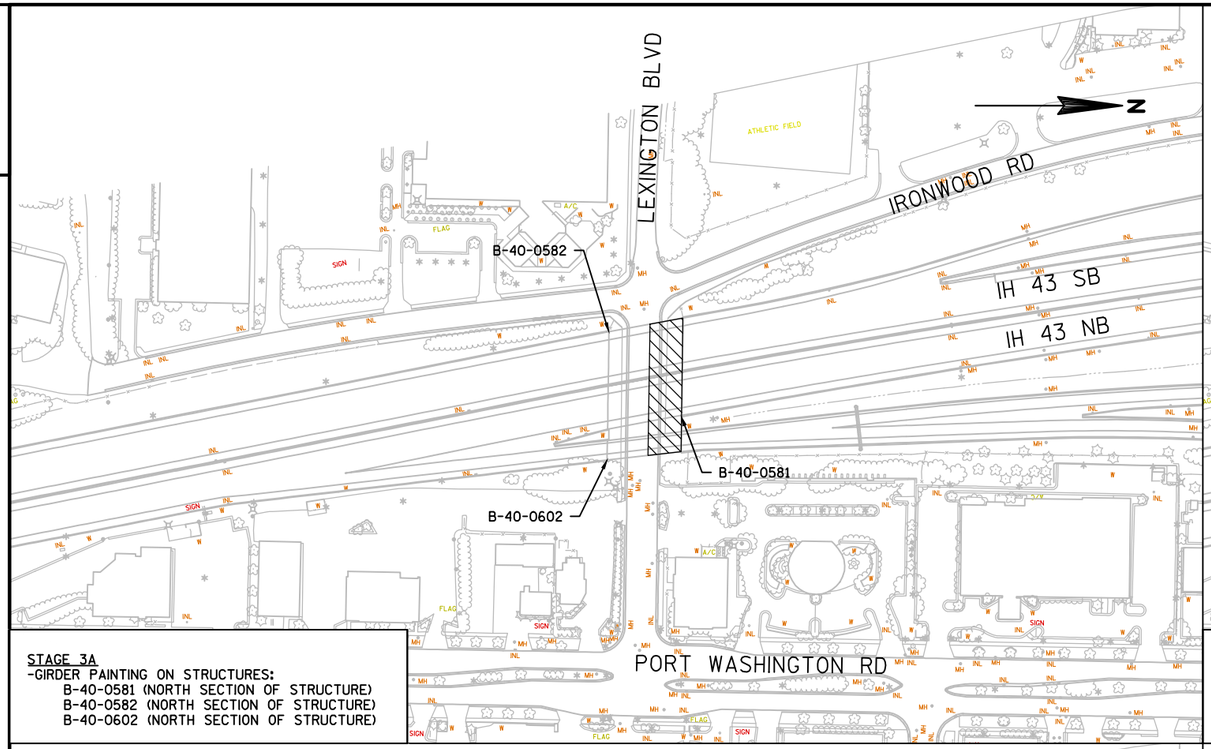
2

STAGE 2B
-INSIDE SIGNAL WORK AT THE FOLLOWING INTERSECTIONS:
HAMPTON AVE AND PORT WASHINGTON RD
IH 43 SB ON RAMP AND HAMPTON AVE

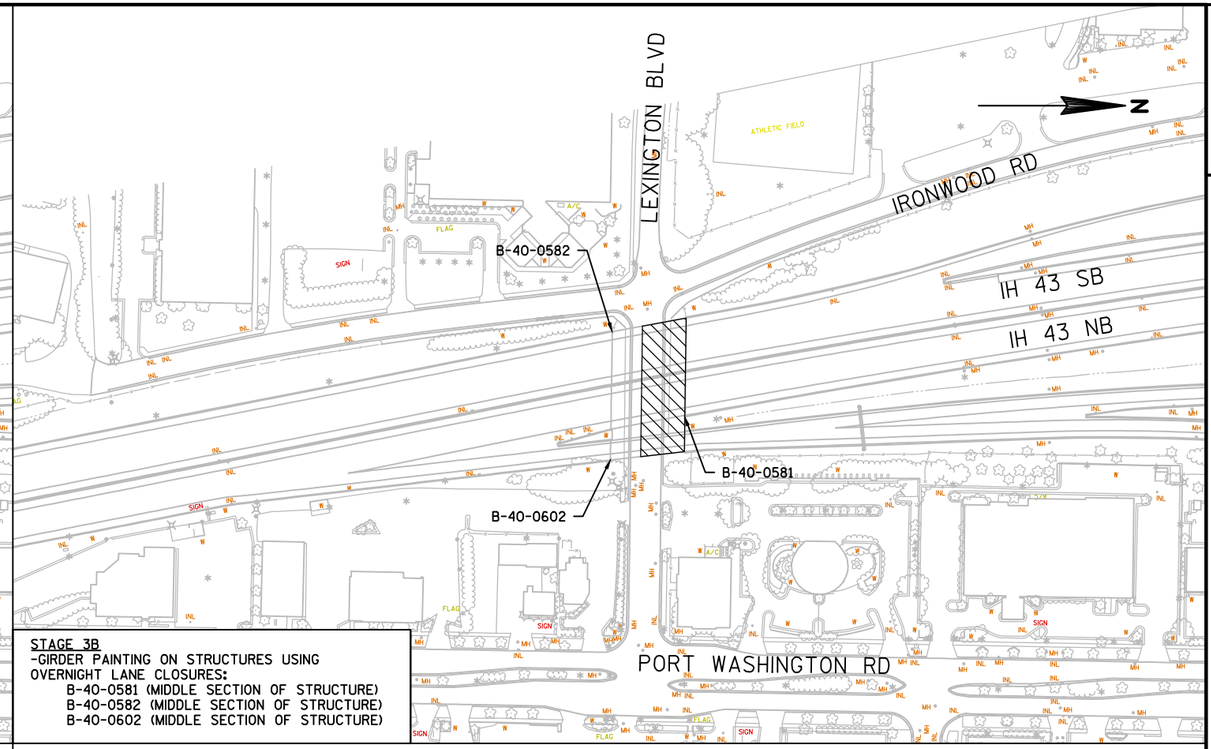


PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL OVERVIEW - STAGE 2A & 2B	SHEET 215	E

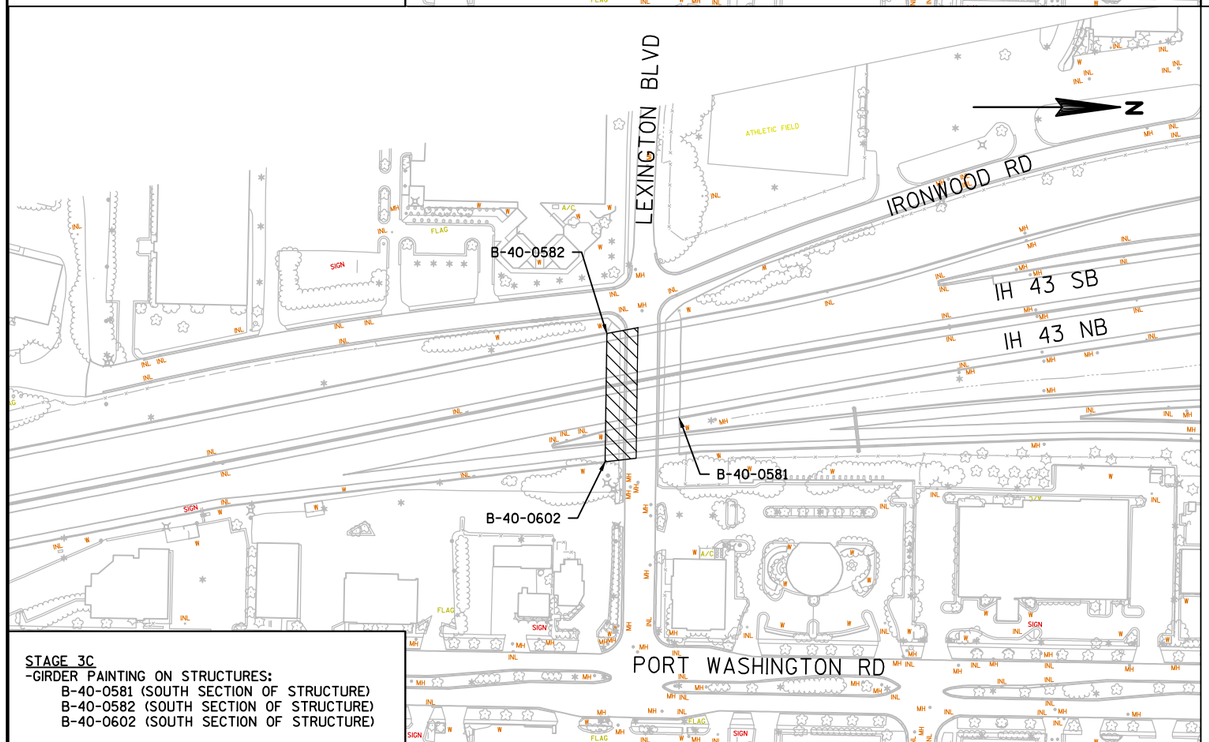
FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_OVERVIEW_STAGE 2A & B.DWG
LAYOUT NAME - 025003-TC
PLOT DATE : 4/24/2019 7:16 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42



STAGE 3A
-GIRDER PAINTING ON STRUCTURES:
B-40-0581 (NORTH SECTION OF STRUCTURE)
B-40-0582 (NORTH SECTION OF STRUCTURE)
B-40-0602 (NORTH SECTION OF STRUCTURE)

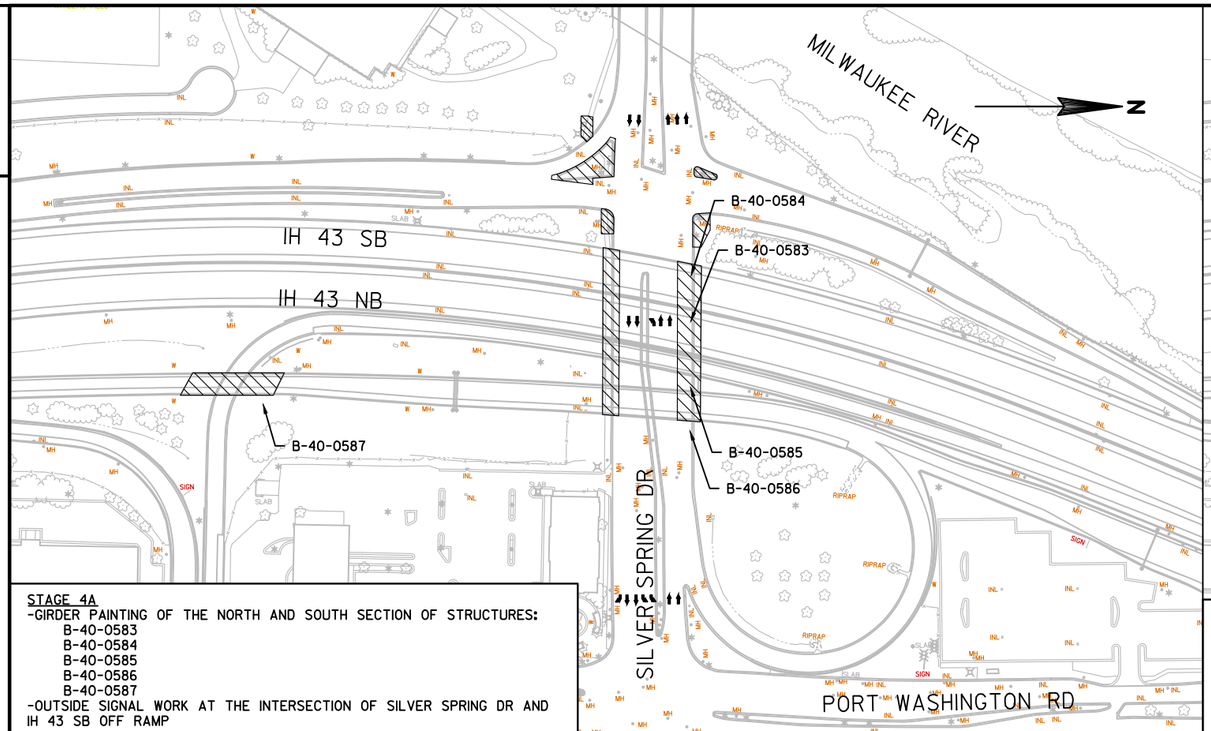


STAGE 3B
-GIRDER PAINTING ON STRUCTURES USING OVERNIGHT LANE CLOSURES:
B-40-0581 (MIDDLE SECTION OF STRUCTURE)
B-40-0582 (MIDDLE SECTION OF STRUCTURE)
B-40-0602 (MIDDLE SECTION OF STRUCTURE)

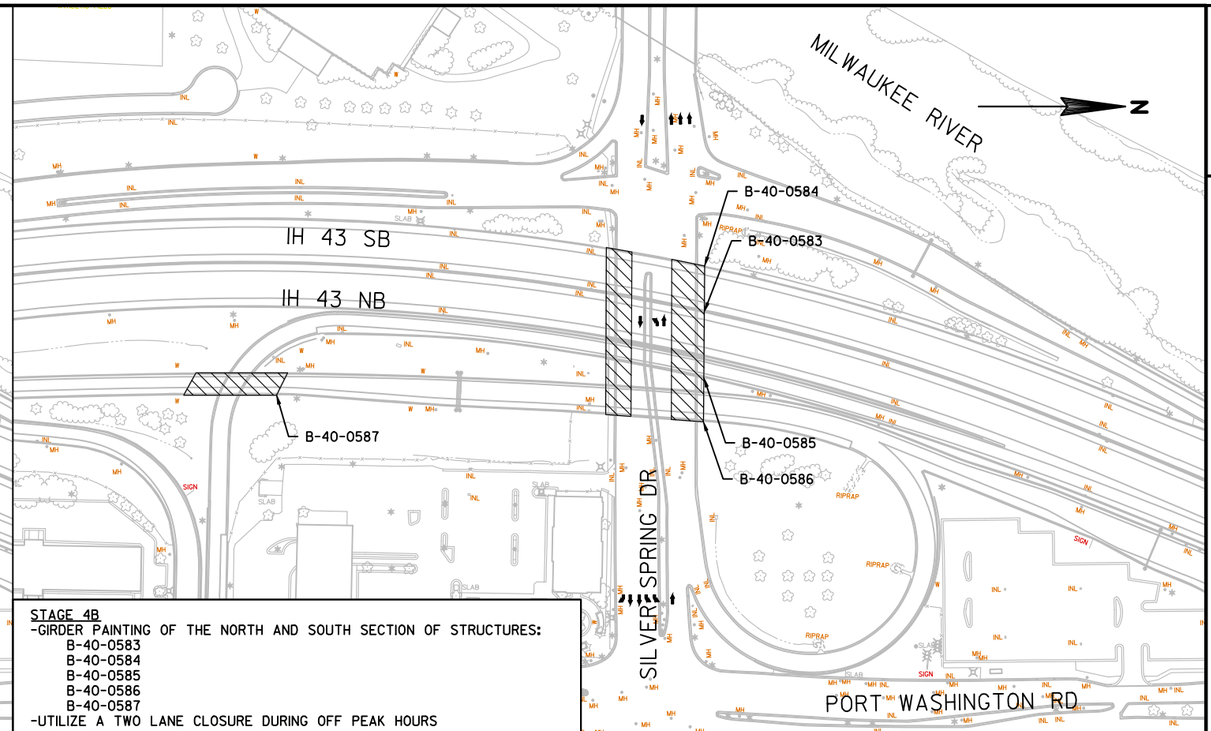


STAGE 3C
-GIRDER PAINTING ON STRUCTURES:
B-40-0581 (SOUTH SECTION OF STRUCTURE)
B-40-0582 (SOUTH SECTION OF STRUCTURE)
B-40-0602 (SOUTH SECTION OF STRUCTURE)

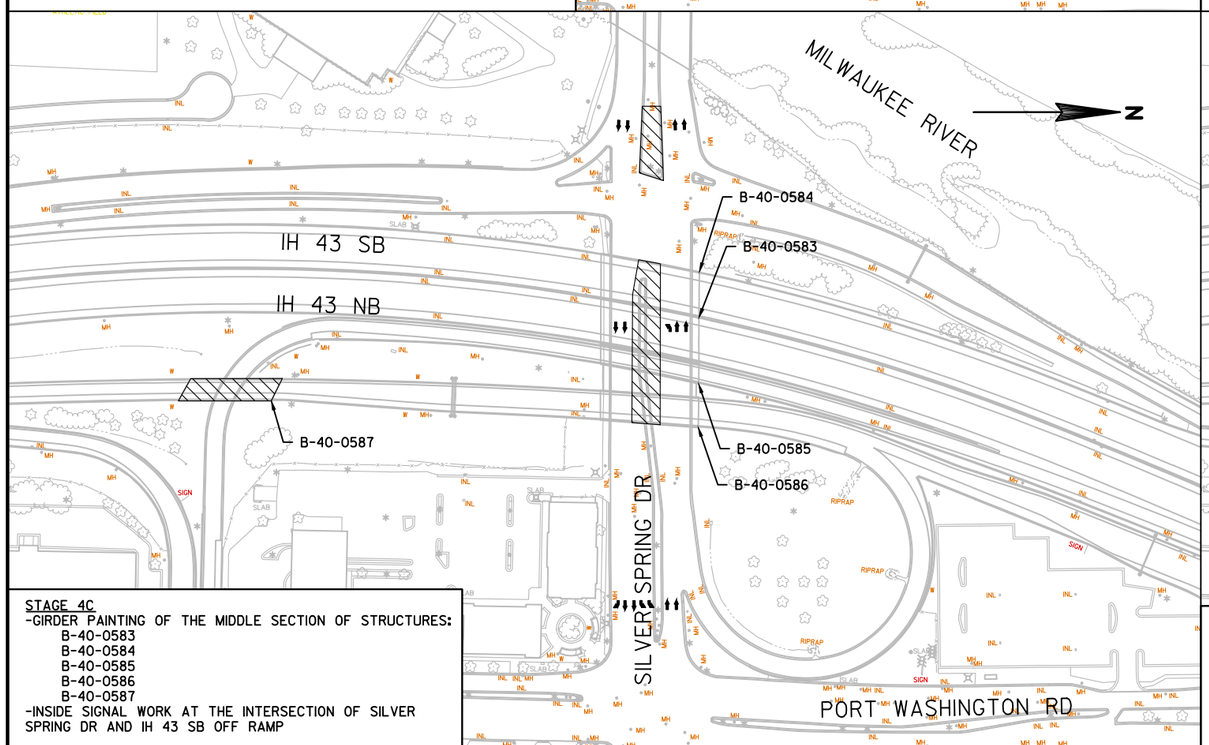
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL OVERVIEW - STAGE 3	SHEET 216	E



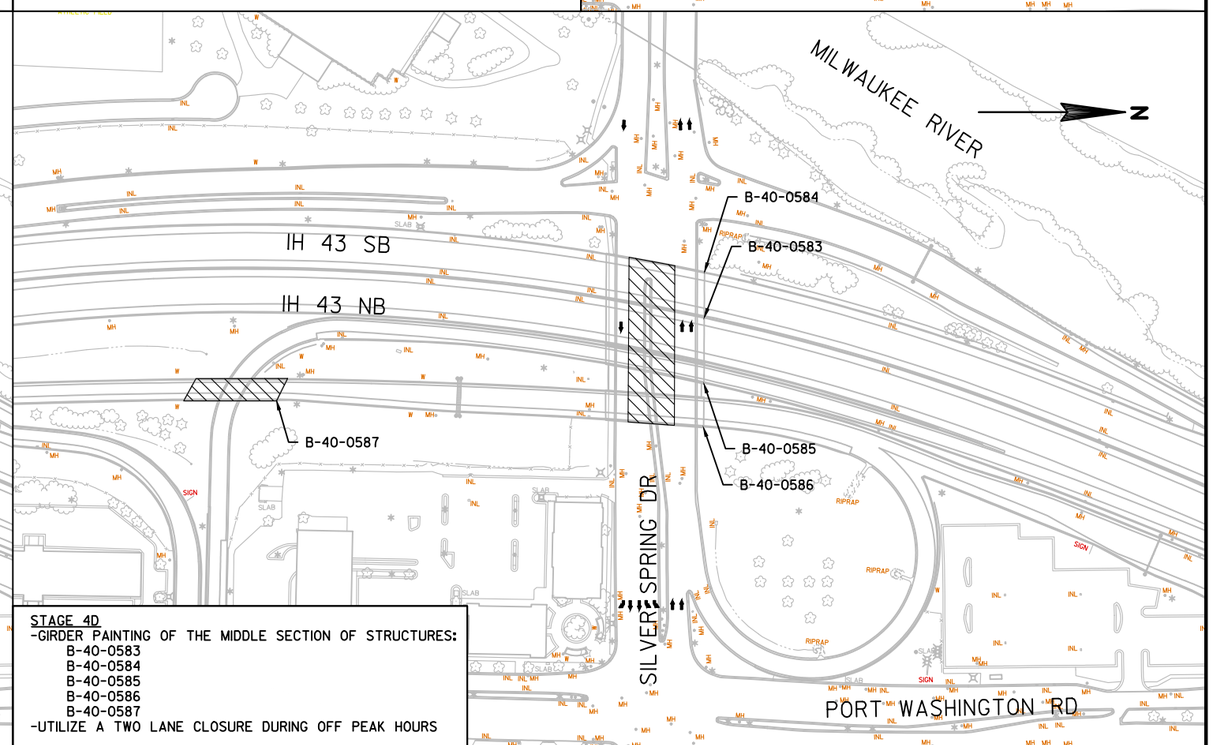
STAGE 4A
-GIRDER PAINTING OF THE NORTH AND SOUTH SECTION OF STRUCTURES:
B-40-0583
B-40-0584
B-40-0585
B-40-0586
B-40-0587
-OUTSIDE SIGNAL WORK AT THE INTERSECTION OF SILVER SPRING DR AND IH 43 SB OFF RAMP



STAGE 4B
-GIRDER PAINTING OF THE NORTH AND SOUTH SECTION OF STRUCTURES:
B-40-0583
B-40-0584
B-40-0585
B-40-0586
B-40-0587
-UTILIZE A TWO LANE CLOSURE DURING OFF PEAK HOURS



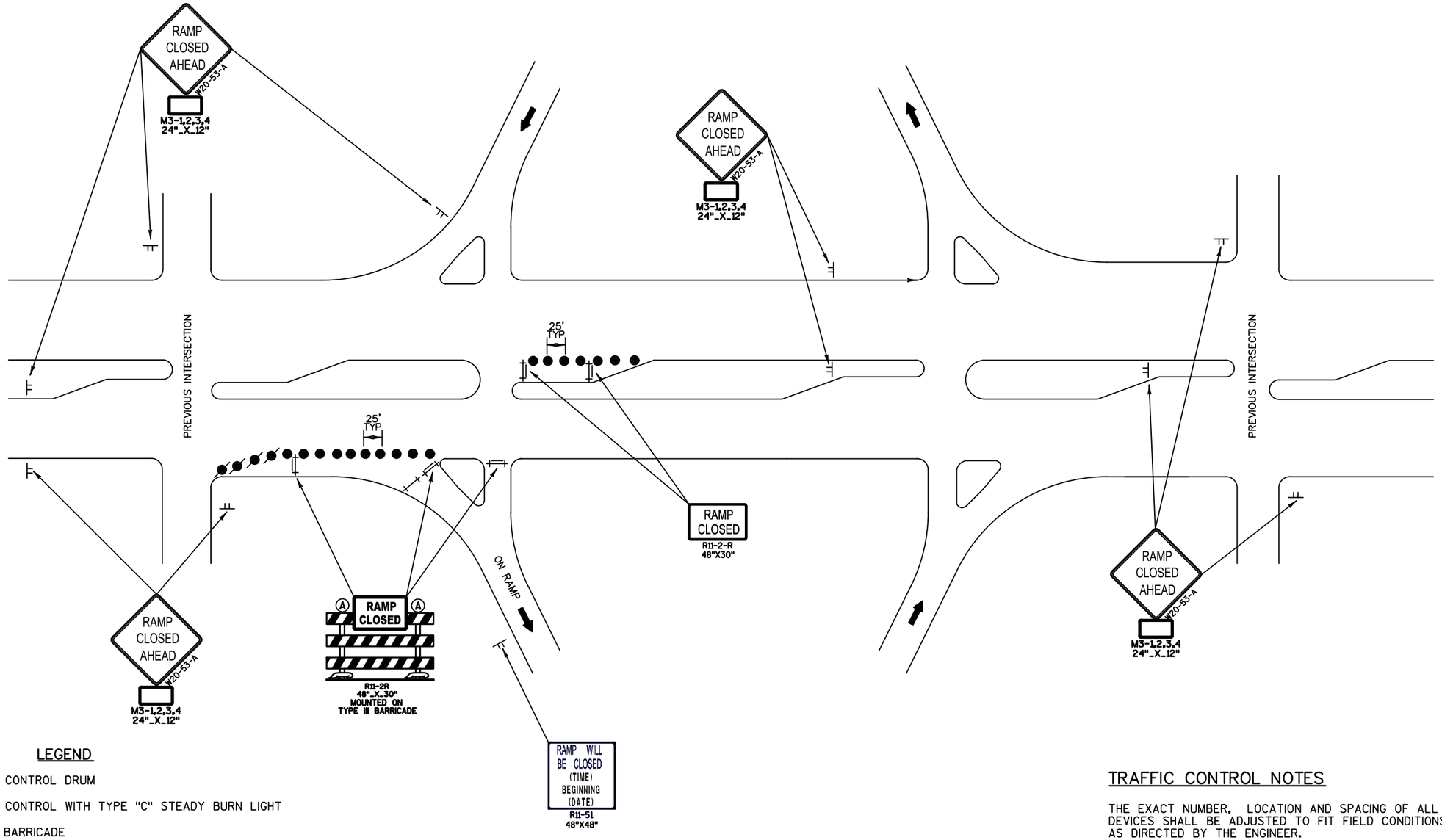
STAGE 4C
-GIRDER PAINTING OF THE MIDDLE SECTION OF STRUCTURES:
B-40-0583
B-40-0584
B-40-0585
B-40-0586
B-40-0587
-INSIDE SIGNAL WORK AT THE INTERSECTION OF SILVER SPRING DR AND IH 43 SB OFF RAMP



STAGE 4D
-GIRDER PAINTING OF THE MIDDLE SECTION OF STRUCTURES:
B-40-0583
B-40-0584
B-40-0585
B-40-0586
B-40-0587
-UTILIZE A TWO LANE CLOSURE DURING OFF PEAK HOURS

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL OVERVIEW - STAGE 4	SHEET 217 E

2



NORTH M3-1 24"_X_12"
EAST M3-2 24"_X_12"
SOUTH M3-3 24"_X_12"
WEST M3-4 24"_X_12"

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH 2 TYPE "A" WARNING LIGHT (FLASHING)
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
SHORT TERM ONLY

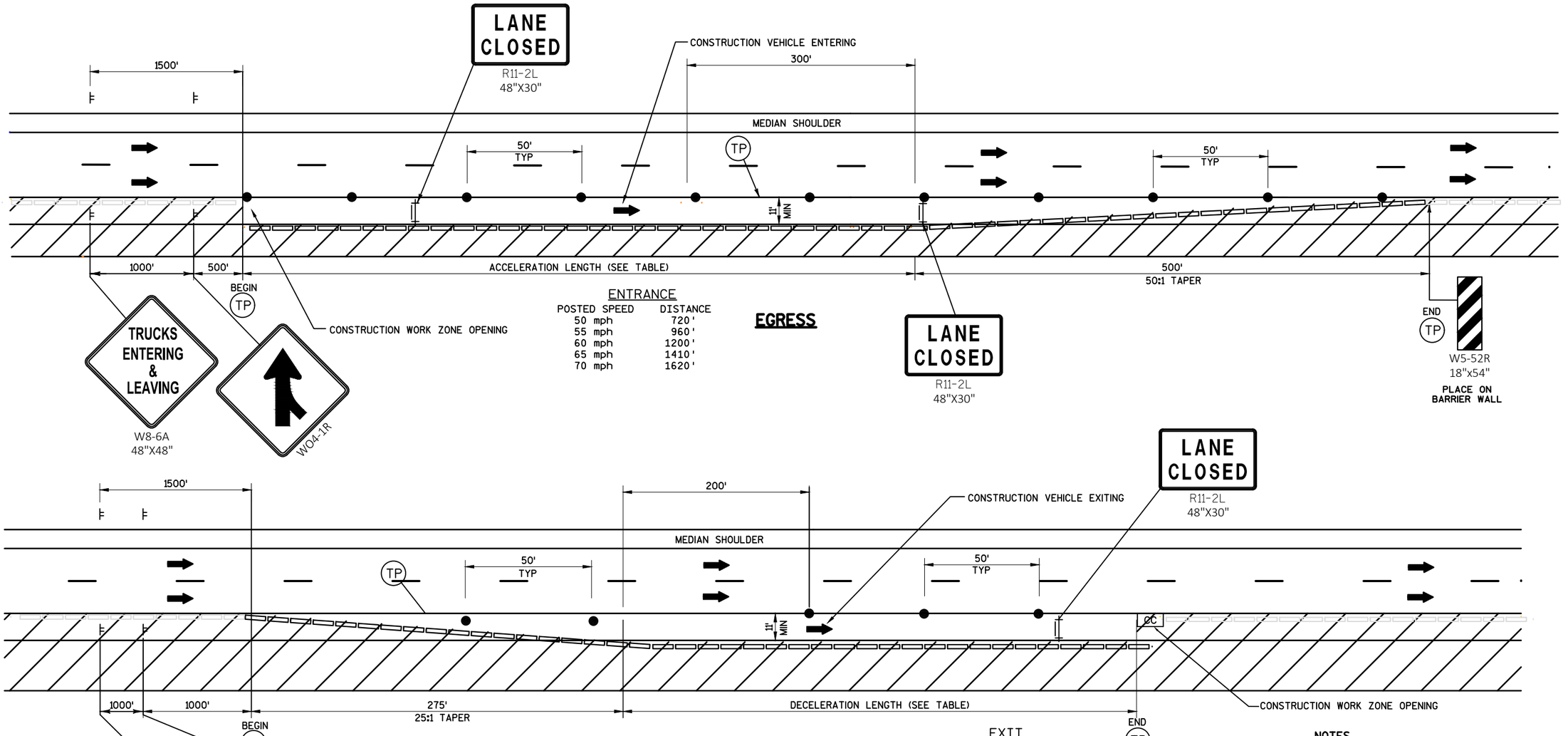
TRAFFIC CONTROL NOTES

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

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

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

SHORT TERM DEFINED AS 7 DAYS/NIGHTS OR LESS. FOR NIGHT TIME OPERATIONS ALL DRUMS IN TAPERS SHALL HAVE WARNING LIGHT, TYPE C (STEADY BURN). MAY BE APPLIED TO ARTERIALS OR LOCAL ROADS.



LEGEND

- CONCRETE BARRIER TEMPORARY PRECAST
- EXISTING CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- CC — CRASH CUSHION TEMPORARY

INGRESS

- SIGN ON TEMPORARY SUPPORT
- SIGN MOUNTED ON PERMANENT POST(S)
- TRAFFIC CONTROL BARRICADE TYPE III W/ SIGN W/ TWO (2) TYPE "A" WARNING LIGHTS (FLASHING) (USED WHEN INGRESS/EGRESS NOT IN USE)
- TRAFFIC CONTROL DRUMS (USED WHEN EGRESS/INGRESS NOT IN USE)
- TP — TEMPORARY MARKING LINE REFLECTIVE PAINT 4-INCH (WHITE, SOLID) (USE YELLOW, SOLID FOR MEDIAN INGRESS/EGRESS)

EXIT

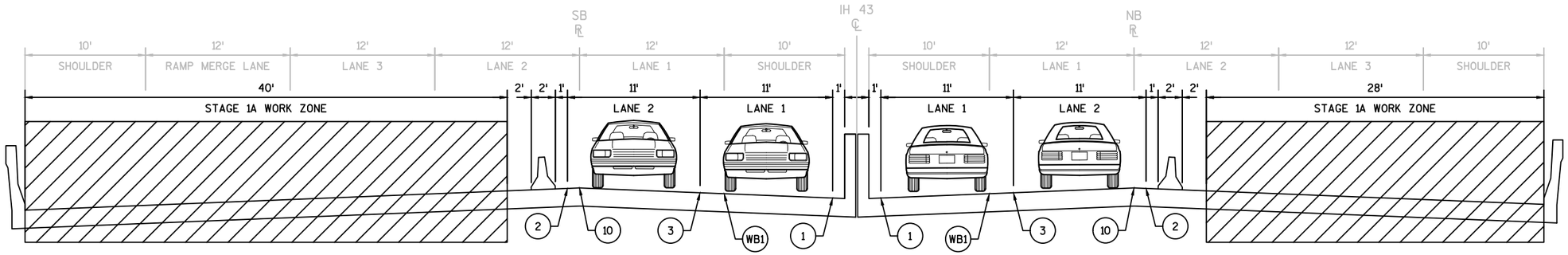
POSTED SPEED	DISTANCE
50 mph	435'
55 mph	480'
60 mph	530'
65 mph	570'
70 mph	615'

NOTES

1. RIGHT LANE ACCESS SHOWN (MEDIAN LANE ACCESS SIMILAR).
2. WORK ZONE INGRESS/EGRESS LOCATIONS SHALL BE APPROVED BY THE ENGINEER. LOCATIONS FOR WORK ZONE ACCESS TO/FROM THE FREEWAY SHALL NOT BE USED FOR INGRESS AND EGRESS AT THE SAME TIME.
3. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
4. TEMPORARY SUPPORTS MAYBE USED IF PLACED BEHIND TEMPORARY BARRIER WALL.
5. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
6. THE "WO" SINGS ARE THE SAME AS "W" SIGNS.
7. TRUCKS SHALL USE FLASHING YELLOW BEACON WHEN ENTERING AND EXITING LIVE TRAFFIC.
8. FREE FLOW TRAFFIC LANES SHALL BE A MINIMUM WIDTH OF ELEVEN FEET AND ACCOMMODATE A ONE FOOT SHY DISTANCE FROM TRAFFIC CONTROL DEVICES.
9. ITEMS ON THIS SHEET TO BE PAID USING STANDARD BID ITEMS.

WORK ZONE INGRESS/EGRESS - 4 LANE

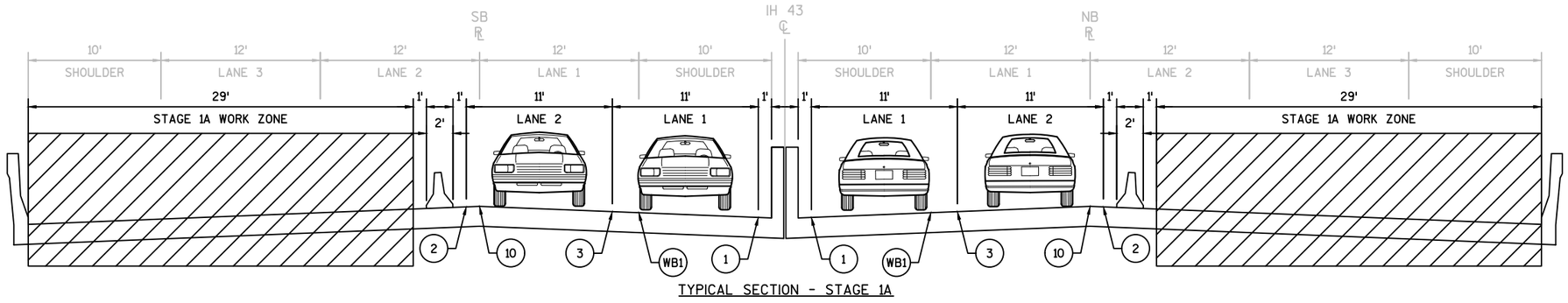
2



TYPICAL SECTION - STAGE 1A

IH 43 SB
STA 1014+70 TO STA 1023+00

IH 43 NB
STA 1007+30 TO STA 1074+00



TYPICAL SECTION - STAGE 1A

IH 43 SB
STA 1023+00 TO STA 1083+10

IH 43 NB
STA 1074+00 TO STA 1082+40

PAVEMENT MARKING REMOVAL LEGEND

(WB1) MARKING REMOVAL LINE WATER BLASTING 4-INCH

TEMPORARY PAVEMENT MARKING LEGEND

(1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

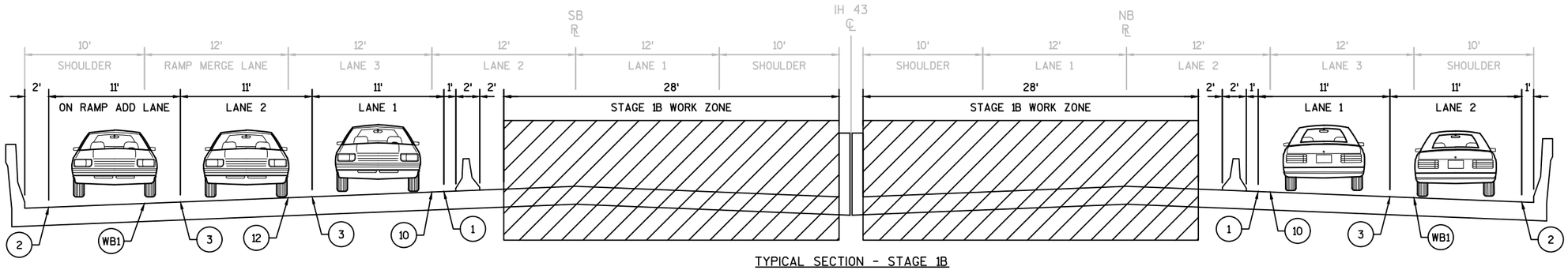
(2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

(3) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

(10) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - TYPICAL SECTION	SHEET 220	E

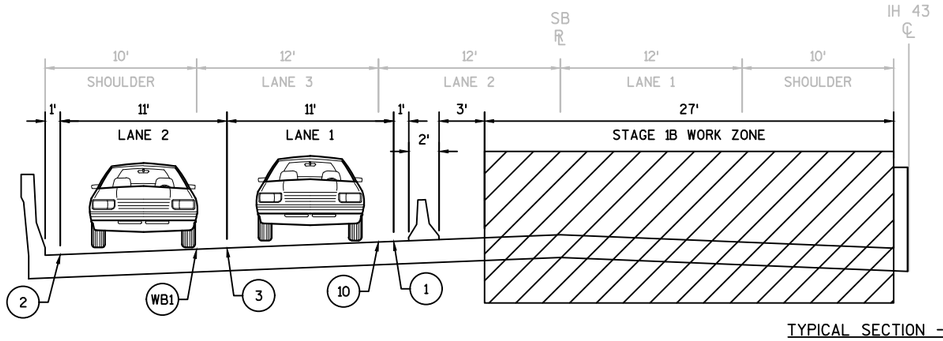
2



TYPICAL SECTION - STAGE 1B

IH 43 SB
STA 1014+70 TO STA 1023+00

IH 43 NB
STA 1007+30 TO STA 1041+35



TYPICAL SECTION - STAGE 1B

IH 43 SB
STA 1023+00 TO STA 1084+30

PAVEMENT MARKING REMOVAL LEGEND

(WB1) MARKING REMOVAL LINE WATER BLASTING 4-INCH

TEMPORARY PAVEMENT MARKING LEGEND

(1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

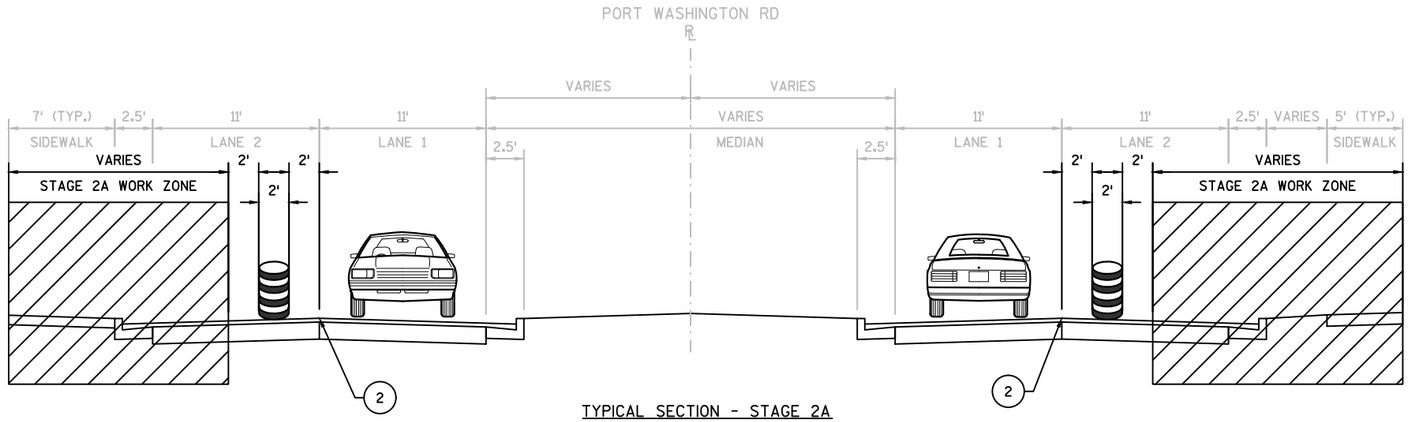
(2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

(3) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

(10) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)

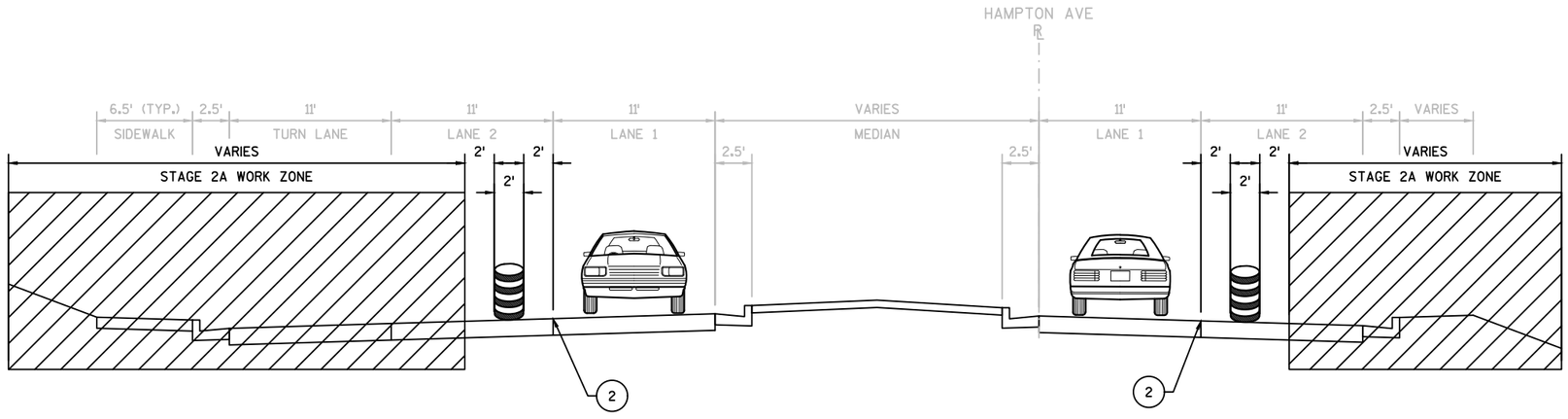
(12) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - TYPICAL SECTION	SHEET 221	E



TYPICAL SECTION - STAGE 2A

PORT WASHINGTON RD



TYPICAL SECTION - STAGE 2A

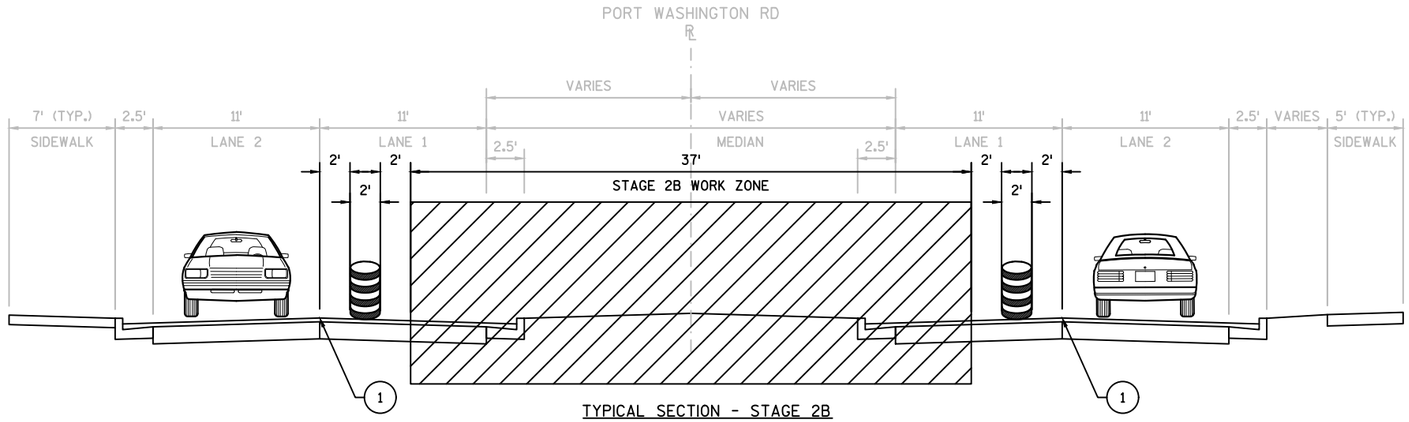
HAMPTON AVE

TEMPORARY PAVEMENT MARKING LEGEND

(1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

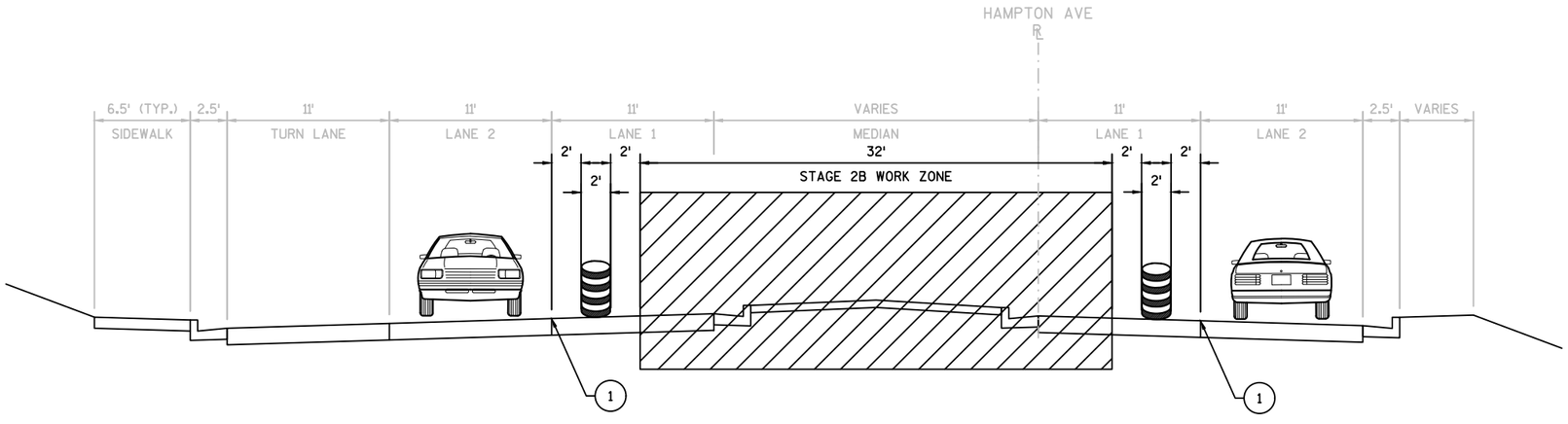
(2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - TYPICAL SECTION	SHEET 222	E



TYPICAL SECTION - STAGE 2B

PORT WASHINGTON RD



TYPICAL SECTION - STAGE 2B

HAMPTON AVE

NOTE: MAINTAIN SIDEWALK ACCESS ON AT LEAST ONE SIDE OF ROADWAY AT ALL TIMES.

TEMPORARY PAVEMENT MARKING LEGEND

1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - TYPICAL SECTION	SHEET 223	E

2

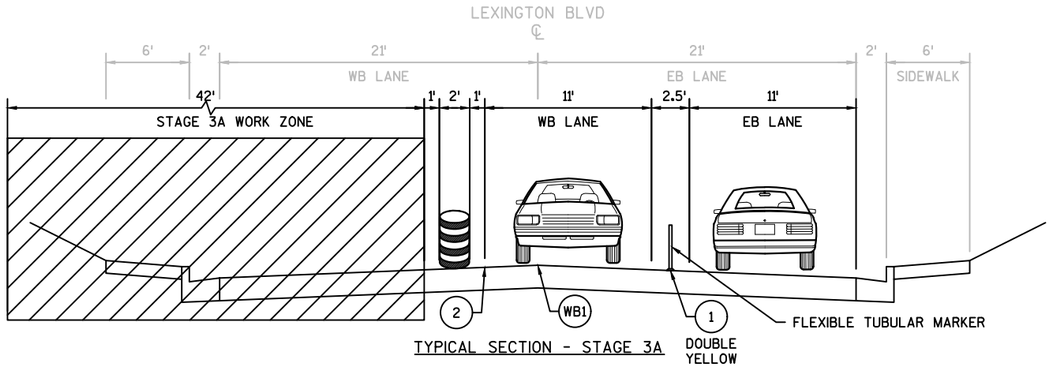
TEMPORARY PAVEMENT MARKING LEGEND

(1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

(2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

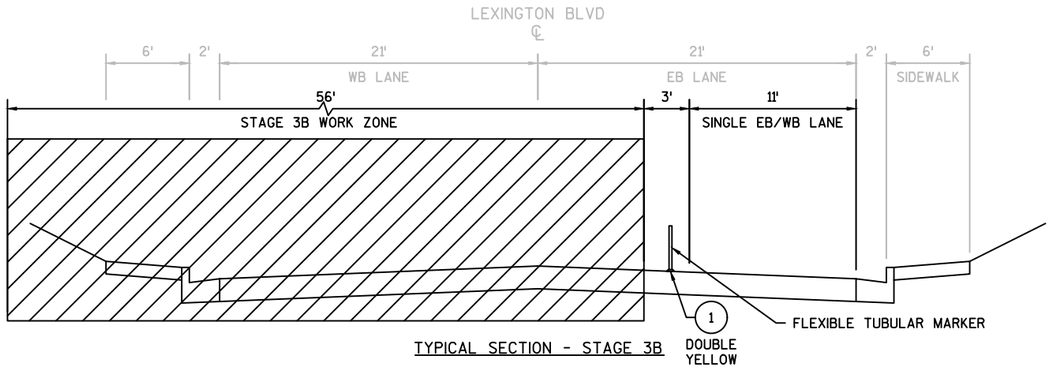
PAVEMENT MARKING REMOVAL LEGEND

(WB1) MARKING REMOVAL LINE WATER BLASTING 4-INCH



TYPICAL SECTION - STAGE 3A

LEXINGTON BLVD



TYPICAL SECTION - STAGE 3B

LEXINGTON BLVD
(NIGHT WORK ONLY)

2

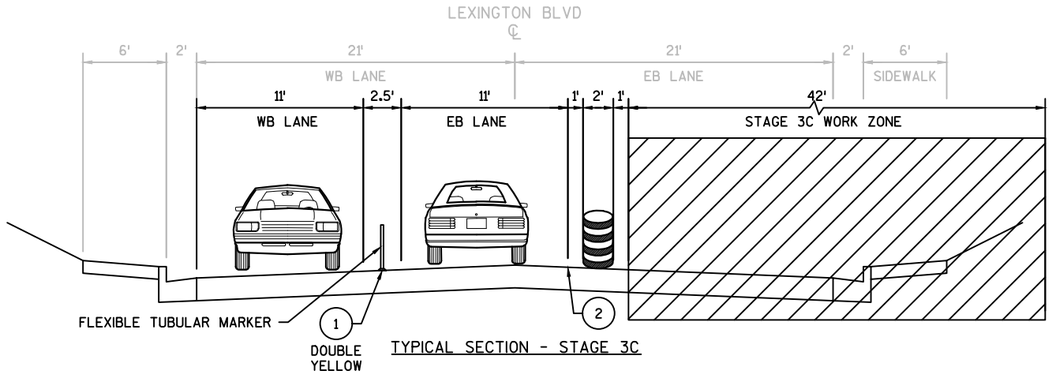
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - TYPICAL SECTION	SHEET 224	E

2

TEMPORARY PAVEMENT MARKING LEGEND

(1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

(2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)



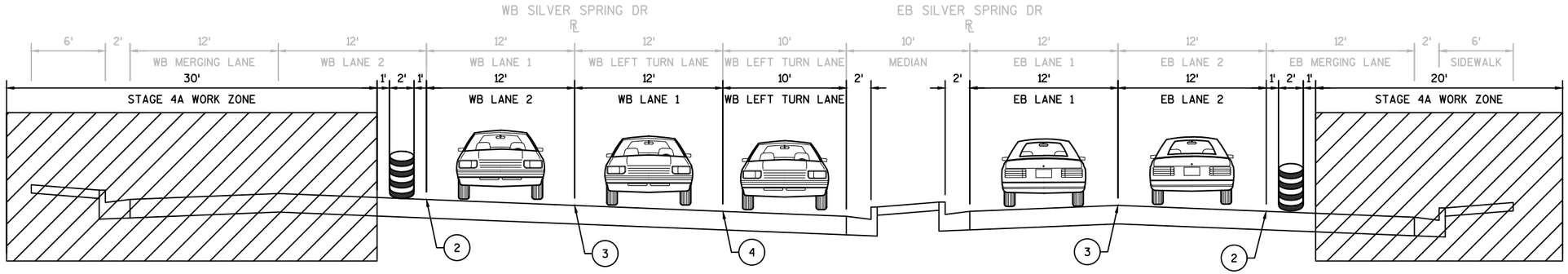
TYPICAL SECTION - STAGE 3C

LEXINGTON BLVD

2

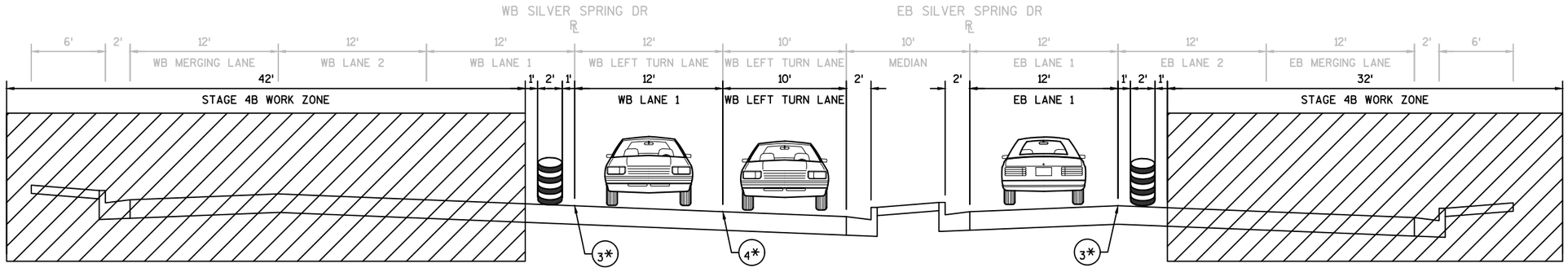
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - TYPICAL SECTION	SHEET 225	E

2



TYPICAL SECTION - STAGE 4A

SILVER SPRING DR



TYPICAL SECTION - STAGE 4B

SILVER SPRING DR
(NIGHT WORK ONLY)

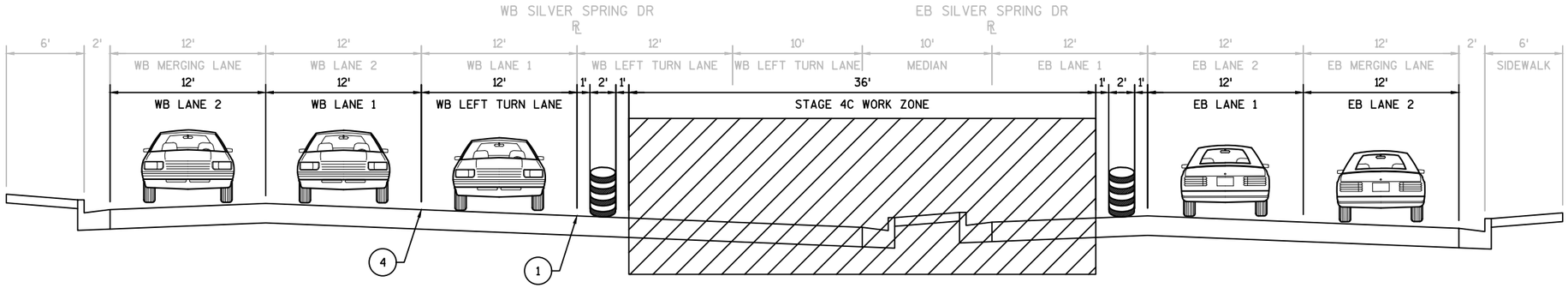
*PAVEMENT MARKING REMAIN FROM STAGE 4A

TEMPORARY PAVEMENT MARKING LEGEND

2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
3	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

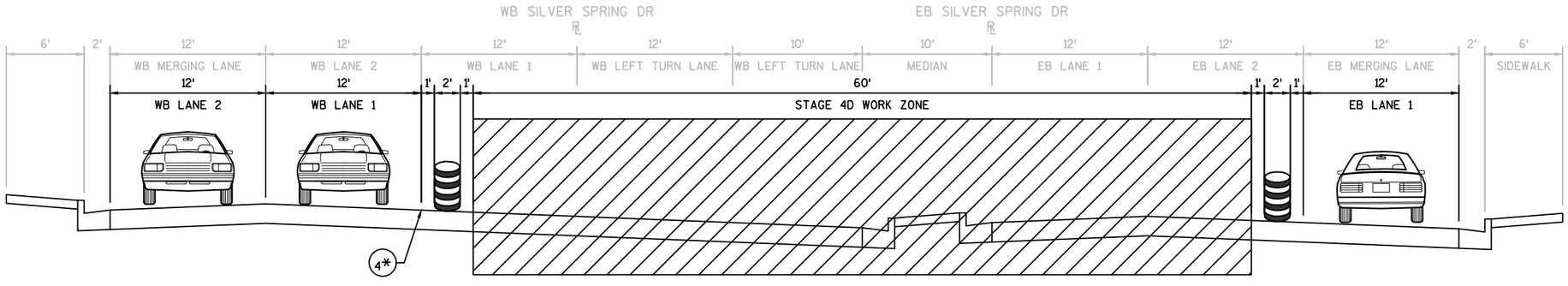
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - TYPICAL SECTION	SHEET 226	E

2



TYPICAL SECTION - STAGE 4C

SILVER SPRING DR



TYPICAL SECTION - STAGE 4D

SILVER SPRING DR
(NIGHT WORK ONLY)

*PAVEMENT MARKING REMAIN FROM STAGE 4C

TEMPORARY PAVEMENT MARKING LEGEND

(1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

(4) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - TYPICAL SECTION	SHEET 227	E

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID FOR AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

NOTE: PLACEMENT OF SIGNS AND DEVICES FOR "PORTABLE AUTOMATED REAL-TIME TRAFFIC QUEUE WARNING SYSTEM (QWS)" AND "DYNAMIC LATE MERGE SYSTEM (DLMS)" ARE SHOWN AS SUGGESTED LOCATIONS. FINAL LOCATIONS WILL BE DETERMINED IN THE FIELD.

PCMS TO BE BLANK DURING FREE FLOW TRAFFIC (> 40 MPH)
PCMS PAID AS PART OF "PORTABLE AUTOMATED REAL-TIME TRAFFIC QUEUE WARNING SYSTEM (QWS)"

SLOW TRAFFIC (20 TO 39 MPH)	STOPPED TRAFFIC (0 TO 20 MPH)
SLOW TRAFFIC AHEAD	TRAFFIC STOPPED AHEAD
PREPARE TO STOP	EXPECT DELAYS

FINES DOUBLE IN WORK ZONES
Give 'em a BRAKE SLOW-DOWN
$200 MINIMUM
W21-62 96"X48"
W21-62-P 96"X12"

GLENDALE AVE
IH 43 SB
IH 43 NB
954 956 958 960 962 964 966 968

STOPPED TRAFFIC AHEAD
USE BOTH LANES
CONGESTION MESSAGE PCMS TO BE BLANK AT OTHER TIMES PCMS PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"

BE PREPARED TO STOP W3-4 48"X48"
WHEN FLASHING W016-13 30"X24"

STAY IN LANE
DO NOT MERGE
CONGESTION MESSAGE PCMS TO BE BLANK AT OTHER TIMES PCMS PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"

WORK ZONE
SPEED LIMIT 55 R2-1 48"X60"
FINES DOUBLE W21-62-R 30"X48"
W21-62-Q 30"X48"

3140' 500' 2640' 500' 500' 500' 1200' 500'
5280' 5280' 2600' 1100' 300' 200'

ROAD WORK 3 MILE W20-1
ROAD WORK 2 MILE W20-1-E
ROAD WORK 1 MILE W20-1-F
RIGHT LANE CLOSED 1/2 MILE W20-5-G
RIGHT LANE CLOSED 1500 FT W20-5-B
BE PREPARED TO STOP W3-4 48"X48"
WHEN FLASHING W016-13 30"X24"
W04-2R

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 228 E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 1A_IH 43 MAINLINE.DWG
LAYOUT NAME - 026000-S1
PLOT DATE : 1/2/2019 1:21 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

TRAFFIC CONTROL LEGEND

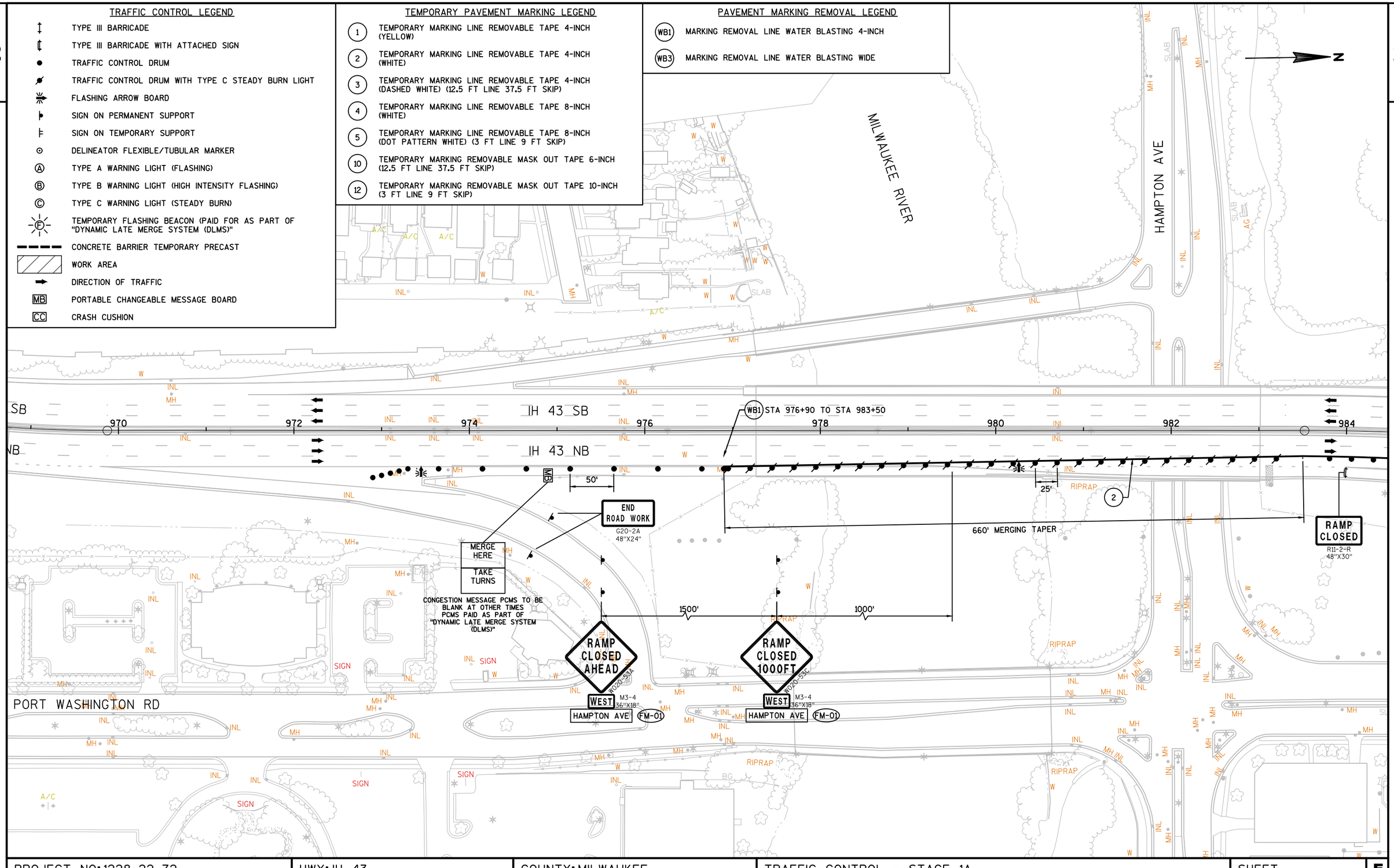
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID FOR AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

- (1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (3) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (4) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (5) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (10) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
- (12) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

PAVEMENT MARKING REMOVAL LEGEND

- (WB1) MARKING REMOVAL LINE WATER BLASTING 4-INCH
- (WB3) MARKING REMOVAL LINE WATER BLASTING WIDE



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 229	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 1A_IH 43 MAINLINE.DWG
LAYOUT NAME - 026001-S1

PLOT DATE : 1/2/2019 1:21 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

TRAFFIC CONTROL LEGEND

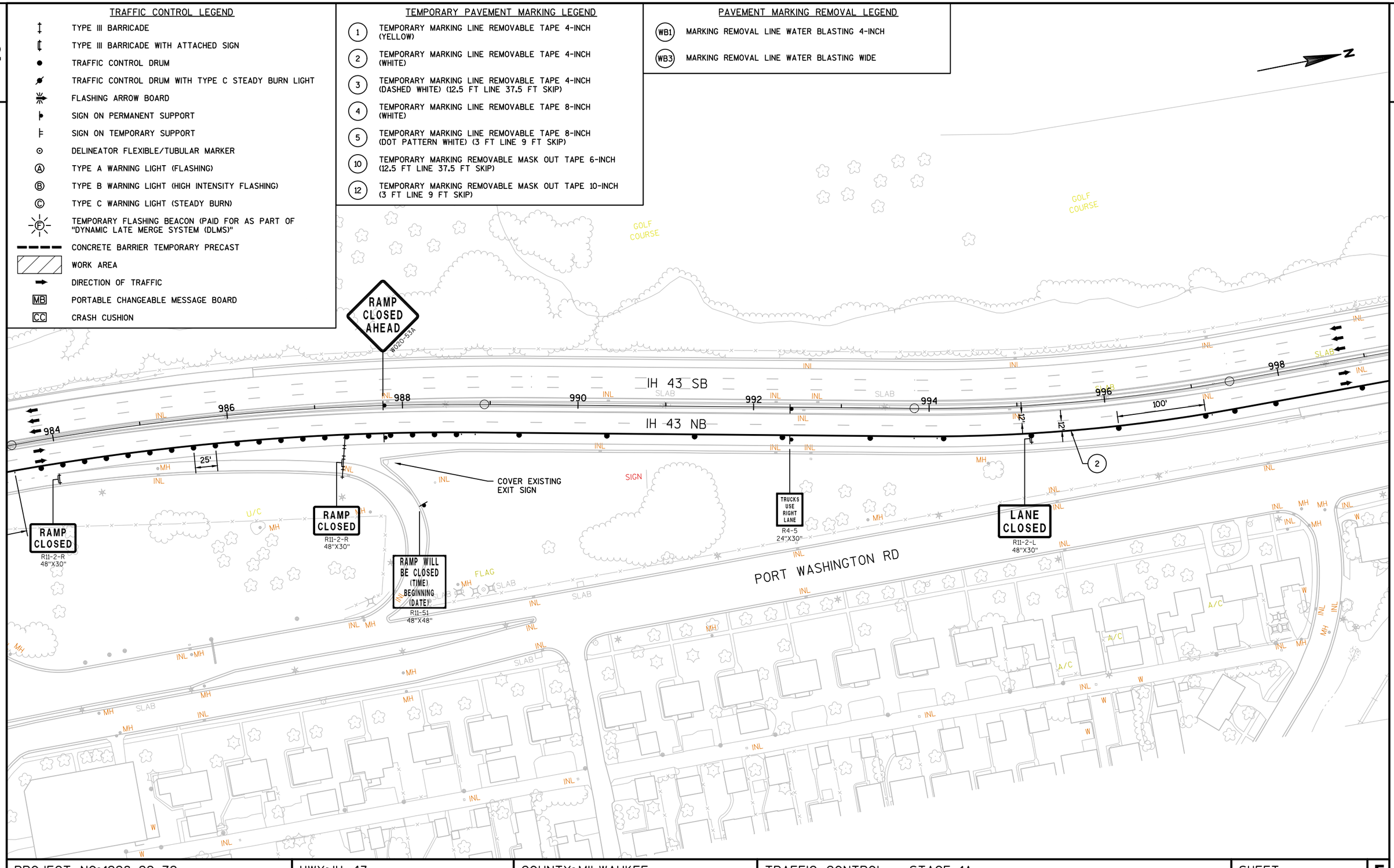
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID FOR AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

- (1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (3) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (4) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (5) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (10) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
- (12) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

PAVEMENT MARKING REMOVAL LEGEND

- (WB1) MARKING REMOVAL LINE WATER BLASTING 4-INCH
- (WB3) MARKING REMOVAL LINE WATER BLASTING WIDE



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 230	E

2

G20-2A
48"X24"
END
ROAD WORK

W01-4DL

WB1 STA 999+39 TO STA 1003+50

200' REDUCE LANE WIDTH

10 STA 1003+50 TO STA 1087+79

100'

STA 1009+78 TO STA 1088+00 WB1

STA 1009+23 TO STA 1092+00 10

STA 1008+50 TO STA 1087+34 WB1

STA 1008+50 TO STA 1087+34 WB3

WB3 STA 1009+78 TO STA 1088+00

495' SHIFTING TAPER

50'

25'

IH 43 SB

IH 43 NB

250' SHIFTING TAPER

LANE CLOSED
R11-2-L
48"X30"

RAMP CLOSED
R11-2-R
48"X30"

RAMP CLOSED 1000FT
W020-53L

PORT WASHINGTON RD

RIPRAP

FLAG

SLAB

SIGN

INL

MH

W

1000 1002 1004 1006 1008 1010 1012 1014

12'

11'

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID FOR AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

1. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
2. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
3. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
5. TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
10. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
12. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

NOTE: SEE TRAFFIC CONTROL DETAIL: "TRAFFIC CONTROL - STAGE 1A - NB OFF RAMP OPEN" WHEN THE IH 43 NB OFF RAMP TO SILVER SPRING DR IS OPEN.

PAVEMENT MARKING REMOVAL LEGEND

- WB1 MARKING REMOVAL LINE WATER BLASTING 4-INCH
- WB3 MARKING REMOVAL LINE WATER BLASTING WIDE

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 231	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 1A_IH 43 MAINLINE.DWG
LAYOUT NAME - 026003-S1
PLOT DATE : 1/2/2019 1:22 PM
PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:100 FT

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID FOR AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

1. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
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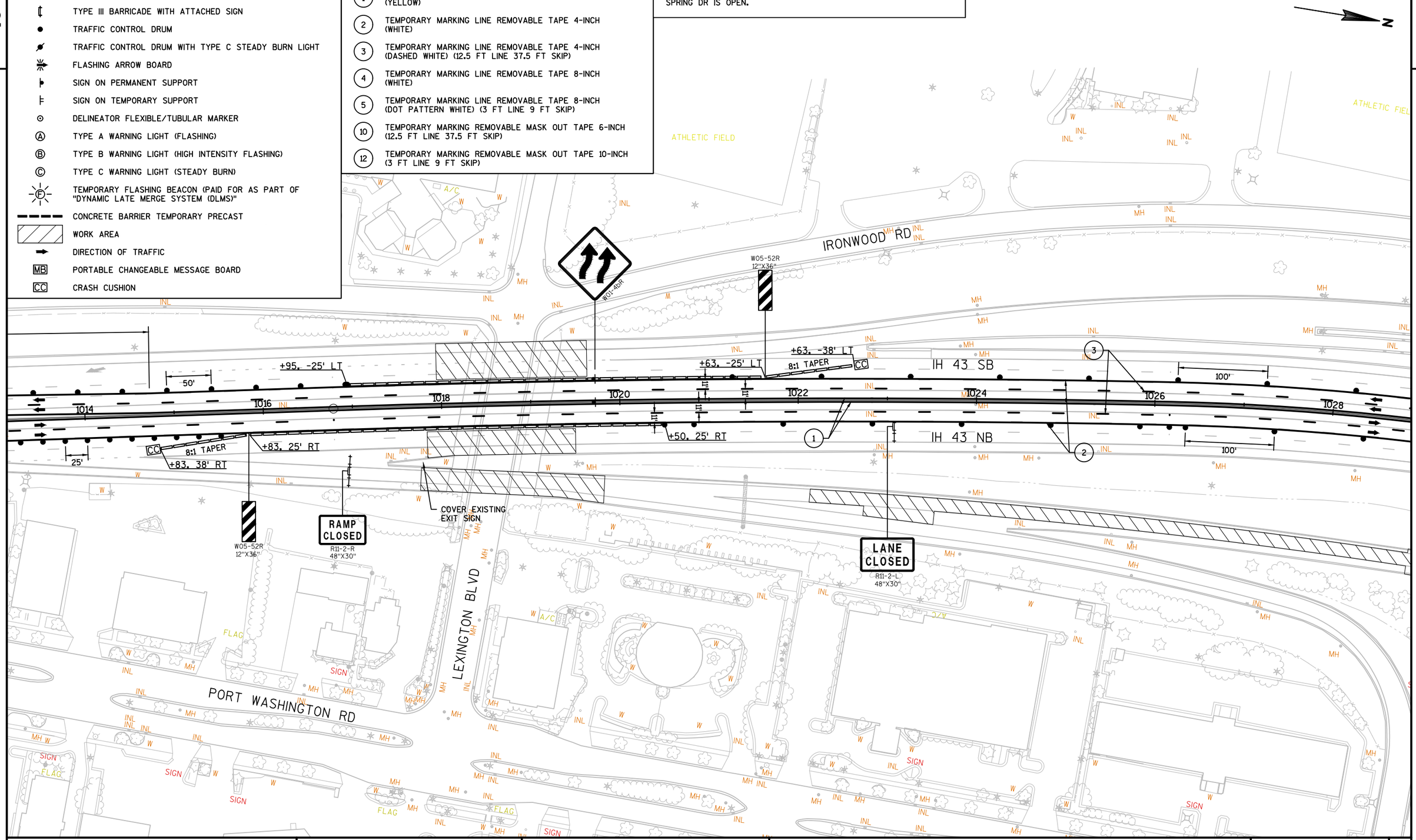
12. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

NOTE: SEE TRAFFIC CONTROL DETAIL: "TRAFFIC CONTROL - STAGE 1A - NB OFF RAMP OPEN" WHEN THE IH 43 NB OFF RAMP TO SILVER SPRING DR IS OPEN.



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 232 E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 1A_IH 43 MAINLINE.DWG
LAYOUT NAME - 026004-S1

PLOT DATE : 1/2/2019 1:22 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID FOR AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

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10. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
12. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

MILWAUKEE RIVER

G20-2A 48"X24" END ROAD WORK

W05-52R 12"X36"

ON RAMP CLOSED, SEE CONSTRUCTION DETAIL: TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE SHORT TERM ONLY

R11-2-L 48"X30" LANE CLOSED

IH 43 SB

IH 43 NB

+56, -25' LT

+50, -25' LT

+49, -38' LT

8:1 TAPER

+63, 25' RT

+62, 38' RT

+65, 25' RT

100'

50'

COVER EXISTING EXIT SIGN

ROAD WORK AHEAD W20-1-4

SILVER SPRING DR

PORT WASHINGTON RD

RIPRAP

SLAB

SIGN

FLAG

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 233	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 1A_IH 43 MAINLINE.DWG
LAYOUT NAME - 026005-S1

PLOT DATE : 1/2/2019 1:22 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID FOR AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

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10. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
12. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

N

MILWAUKEE RIVER

E5-1
72"X60"
EXIT

STA 1045+75 TO STA 1047+65 (12)
(10) STA 1047+39 TO STA 1053+39
(10) STA 1050+36 TO STA 1058+22

+76, -62' LT
+73, -24' LT
+23, -36' LT
+23, -24' LT
+00, 47' RI
+47, 24' RI
+97, 24' RI

IH 43 SB
IH 43 NB
PORT WASHINGTON RD

LANE CLOSED
R11-2-L
48"X30"

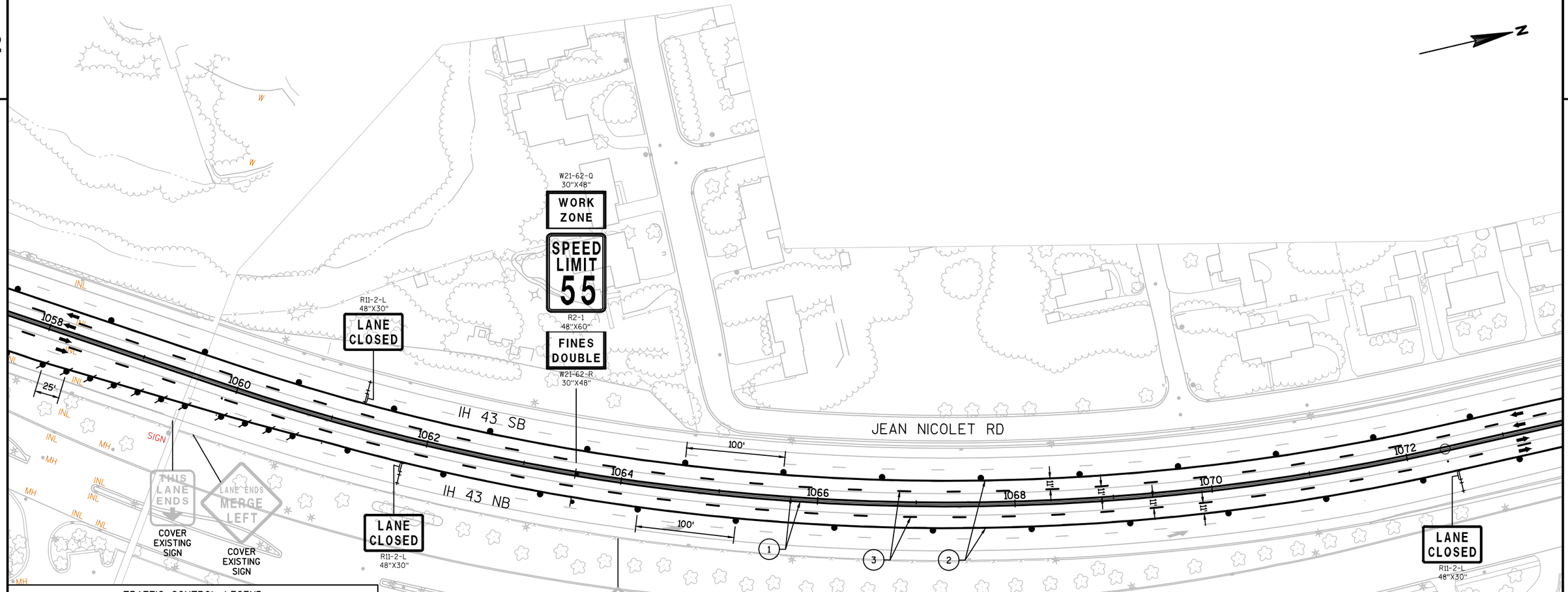
W04-1R
W04-5

SLAB
RIPRAP
RAMP
A/C
INL
MH
W

1044 1046 1048 1050 1052 1054 1056 1058

25' 100' 50'

2



TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
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- (F) TEMPORARY FLASHING BEACON (PAID FOR AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
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- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
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12	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 235	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 1A_IH 43 MAINLINE.DWG
LAYOUT NAME - 026007-S1
PLOT DATE : 12/2/2019 2:23 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:100 FT

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID FOR AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

1. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
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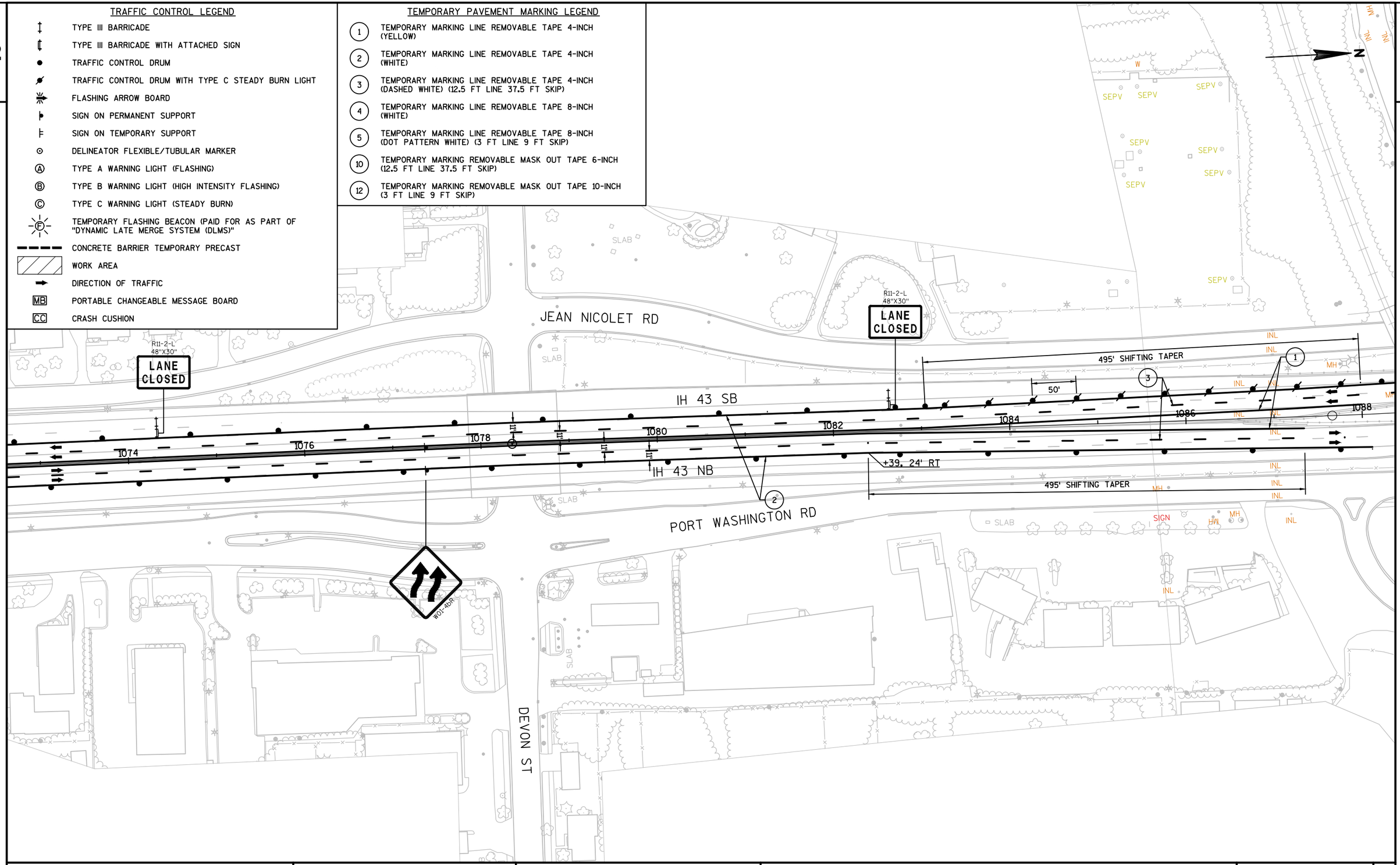

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 236	E

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID FOR AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

1. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
2. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
3. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
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10. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
12. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

NOTE: IT IS ANTICIPATED THAT PROJECT NO. 1228-18-70 WILL BE UNDER CONSTRUCTION AT THIS TIME AND THAT ADDITIONAL TRAFFIC CONTROL DEVICES WILL BE IN PLACE ALONG IH 43. COORDINATE WITH PROJECT FOR PLACEMENT OF ALL TRAFFIC CONTROL DEVICES.

N

W21-62 96"X48" FINES DOUBLE IN WORK ZONES — Give 'em a BRAKE SLOW DOWN
W21-62-P 96"X12" $200 MINIMUM
W21-62-Q 30"X48" WORK ZONE
SPEED LIMIT 55
R2-1 48"X60" FINES DOUBLE
W21-62-R 30"X48"
W01-4bL
RIGHT SHOULDER CLOSED W21-5-A
RIGHT SHOULDER CLOSED AHEAD W21-5-B
ROAD WORK 1500 FT W20-1-B
ROAD WORK 1/2 MILE W20-1-D
ROAD WORK 1 MILE W20-1-F
500' 500' 500' 650' 500' 1600' 1000'
200' REDUCE LANE WIDTH
+00. -37' LT
50'
300'
+45. 40' RT
JEAN NICOLET RD
IH 43 NB
PORT WASHINGTON RD
BRENTWOOD LN
CLOVERNOOK LN
ACACIA RD
TRUCKS USE RIGHT LANE R4-5 24"X30"
END ROAD WORK G20-2A 48"X24"
SIGN
POOL
A/C
RIPRAP
MH
INL
W
1088 1090 1092 1094 1096 1098 1100 1102
UNION PACIFIC
ATHLETIC FIELD

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 237	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 1A_IH 43 MAINLINE.DWG
LAYOUT NAME - 026009-S1
PLOT DATE : 12/2/2019 2:31 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

- (1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (3) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
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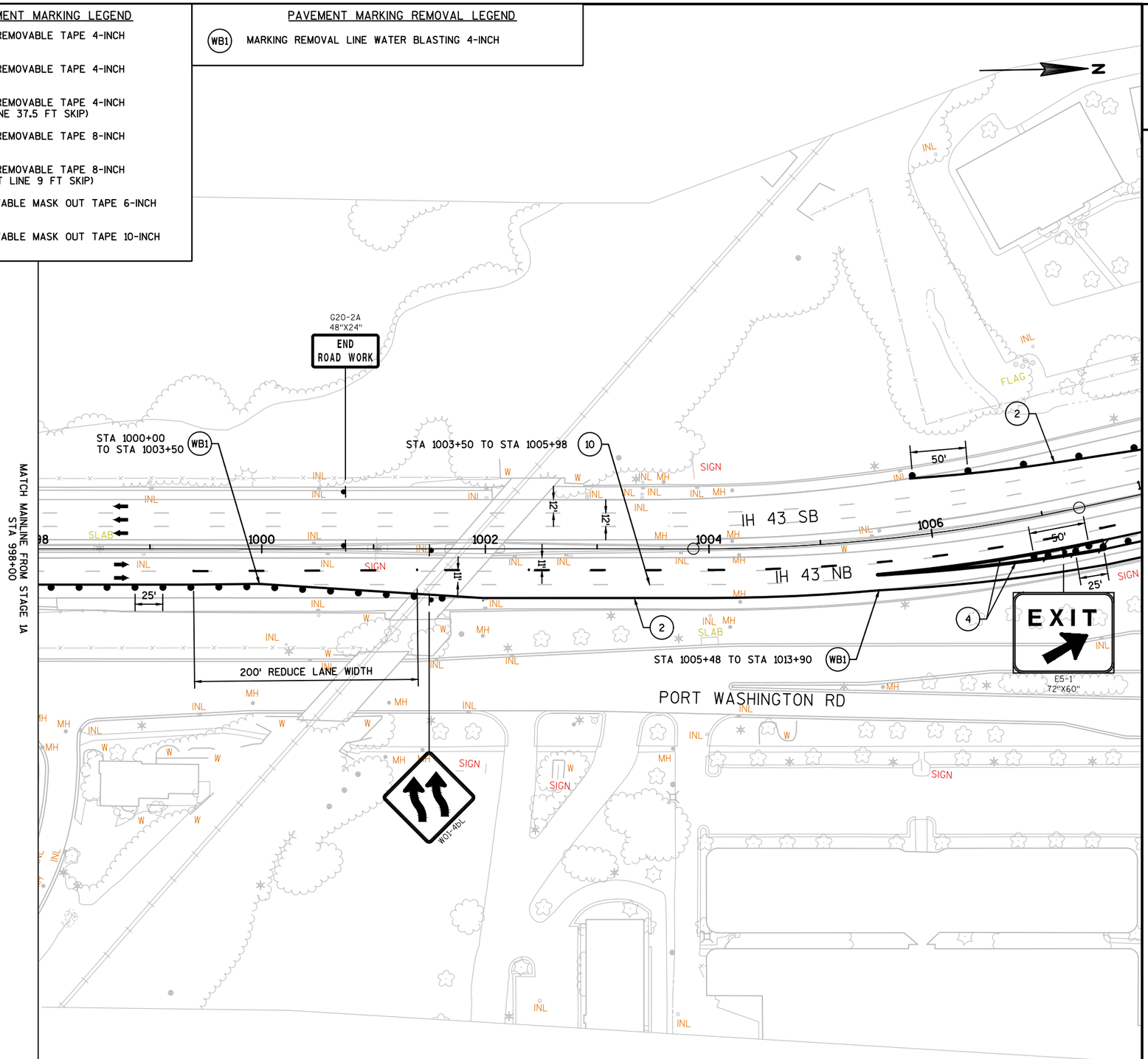
PAVEMENT MARKING REMOVAL LEGEND

- (WB1) MARKING REMOVAL LINE WATER BLASTING 4-INCH



PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A - NB OFF RAMP OPEN	SHEET 238	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 1A_NB OFF RAMP FULL CLOSURE.DWG
LAYOUT NAME - 026010-S1

PLOT DATE : 1/2/2019 1:24 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
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- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

1. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
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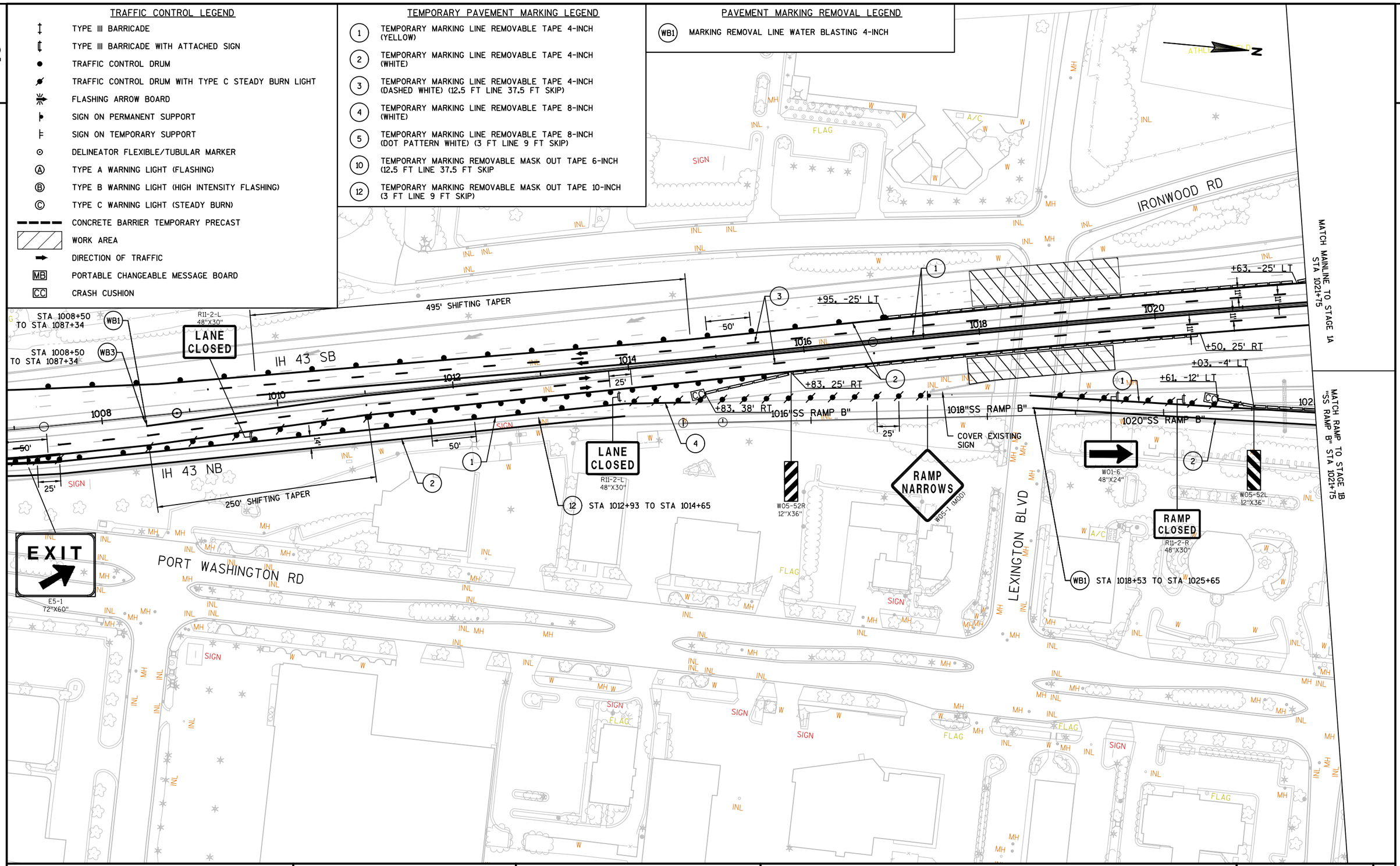
PAVEMENT MARKING REMOVAL LEGEND

WB1 MARKING REMOVAL LINE WATER BLASTING 4-INCH



TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
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- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

NOTE: PLACEMENT OF SIGNS AND DEVICES FOR "PORTABLE AUTOMATED REAL-TIME TRAFFIC QUEUE WARNING SYSTEM (QWS)" AND "DYNAMIC LATE MERGE SYSTEM (DLMS)" ARE SHOWN AS SUGGESTED LOCATIONS. FINAL LOCATIONS WILL BE DETERMINED IN THE FIELD.

PCMS TO BE BLANK DURING FREE FLOW TRAFFIC (> 40 MPH)
PCMS PAID AS PART OF "PORTABLE AUTOMATED REAL-TIME TRAFFIC QUEUE WARNING SYSTEM (QWS)"

SLOW TRAFFIC (20 TO 39 MPH)	STOPPED TRAFFIC (0 TO 20 MPH)
SLOW TRAFFIC AHEAD	TRAFFIC STOPPED AHEAD
PREPARE TO STOP	EXPECT DELAYS

FINES DOUBLE IN WORK ZONES — Give 'em a BRAKE SLOW-DOWN — $200 MINIMUM
W21-62 96"X48"
W21-62-P 96"X12"

GLENDALE AVE
IH 43 SB
IH 43 NB
954 956 958 960 962 964 966 968

3140' STOPPED TRAFFIC AHEAD / USE BOTH LANES
CONGESTION MESSAGE PCMS TO BE BLANK AT OTHER TIMES PCMS PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
500'
2640' BE PREPARED TO STOP W3-4 48"X48" / WHEN FLASHING W016-13 30"X24"
500'
BE PREPARED TO STOP W3-4 48"X48" / WHEN FLASHING W016-13 30"X24"
500'
1200' STAY IN LANE / DO NOT MERGE
CONGESTION MESSAGE PCMS TO BE BLANK AT OTHER TIMES PCMS PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
500'
W21-62-Q 30"X48" WORK ZONE / SPEED LIMIT 55 R2-1 48"X60" / FINES DOUBLE W21-62-R 30"X48"

5280' ROAD WORK 3 MILE W20-1
5280' ROAD WORK 2 MILE W20-1-E
2600' ROAD WORK 1 MILE W20-1-F
1100' RIGHT LANE CLOSED 1/2 MILE W20-5-G
300' RIGHT LANE CLOSED 1500 FT W20-5-B
200' BE PREPARED TO STOP W3-4 48"X48" / WHEN FLASHING W016-13 30"X24"
W04-2R

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 240	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 1B_IH 43 MAINLINE.DWG
LAYOUT NAME - 026020-S1
PLOT DATE : 1/2/2019 1:26 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

- (1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (3) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (4) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (5) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (10) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
- (12) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

PAVEMENT MARKING REMOVAL LEGEND

- (WB1) MARKING REMOVAL LINE WATER BLASTING 4-INCH
- (WB3) MARKING REMOVAL LINE WATER BLASTING WIDE
- (RM1) MARKING REMOVAL SPECIAL MARKING

MILWAUKEE RIVER

HAMPTON AVE

IH 43 SB

IH 43 NB

PORT WASHINGTON RD

970 972 974 976 978 980 982 984

WB1 STA 976+90 TO STA 983+50

MB

50'

END ROAD WORK
G20-2A
48"X24"

MERGE HERE
TAKE TURNS

CONGESTION MESSAGE PCMS TO BE BLANK AT OTHER TIMES PCMS PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"

1500'

RAMP CLOSED AHEAD
W020-53A
WEST M3-4 36"X18"
HAMPTON AVE FM-01

1000'

RAMP CLOSED 1000FT
W020-53C
WEST M3-4 36"X18"
HAMPTON AVE FM-01

25'

RIPRAP

2

660' MERGING TAPER

RAMP CLOSED
R11-2-R
48"X30"

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 241	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 1B_IH 43 MAINLINE.DWG
LAYOUT NAME - 026021-S1

PLOT DATE : 1/2/2019 1:26 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

- (1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (3) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (4) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (5) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (10) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
- (12) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

PAVEMENT MARKING REMOVAL LEGEND

- (WB1) MARKING REMOVAL LINE WATER BLASTING 4-INCH
- (WB3) MARKING REMOVAL LINE WATER BLASTING WIDE
- (RM1) MARKING REMOVAL SPECIAL MARKING

N

IH 43 SB

IH 43 NB

PORT WASHINGTON RD

GOLF COURSE

984 986 988 990 992 994 996 998

25' 100'

12 12

2

RAMP CLOSED
R11-2-R
48"X30"

RAMP CLOSED
R11-2-R
48"X30"

RAMP WILL BE CLOSED (TIME) BEGINNING (DATE)
R11-51
48"X48"

COVER EXISTING EXIT SIGN

SIGN

TRUCKS USE LEFT LANE
R4-5-L
24"X30"

LANE CLOSED
R11-2-L
48"X30"

INL MH SLAB FLAG U/C W A/C

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 242	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 1B_IH 43 MAINLINE.DWG
LAYOUT NAME - 026022-S1

PLOT DATE : 1/2/2019 1:26 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

G20-2A
48"X24"
END
ROAD WORK

W01-4bR

SLAB

1000

1002

1004

1006

1008

1010

1012

1014

+64, -44' LT

+08, -11' LT

100'

100'

50'

50'

12'

12'

12'

12'

WB1 STA 999+39 TO STA 1003+50

200' REDUCE LANE WIDTH

STA 1003+50 TO STA 1041+35 10

STA 1008+37 TO STA 1011+55 10

10 STA 1008+66 TO STA 1075+75

STA 1012+42 TO STA 1022+91 WB1

578' SHIFTING TAPER

RM1

IH 43 SB

IH 43 NB

1014"SS RA

10 STA 1008+50 TO STA 1041+35

STA 1011+66 TO STA 1017+37 WB1

STA 1011+66 TO STA 1012+93 WB3

STA 1012+93 TO STA 1014+65 12

578' SHIFTING TAPER

LANE CLOSED
R11-2-L
48"X30"

RAMP NARROWS
W05-1 (MOD)

PORT WASHINGTON RD

RIPRAP

RIPRAP

FLAG

SIGN

INL

MH

W

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

- (1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (3) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
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- (5) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
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- (12) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

PAVEMENT MARKING REMOVAL LEGEND

- (WB1) MARKING REMOVAL LINE WATER BLASTING 4-INCH
- (WB3) MARKING REMOVAL LINE WATER BLASTING WIDE
- (RM1) MARKING REMOVAL SPECIAL MARKING

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 243	E

2

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

1. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
2. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
3. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
5. TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
10. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
12. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

PAVEMENT MARKING REMOVAL LEGEND

- WB1 MARKING REMOVAL LINE WATER BLASTING 4-INCH
- WB3 MARKING REMOVAL LINE WATER BLASTING WIDE
- RM1 MARKING REMOVAL SPECIAL MARKING

N

ATHLETIC FIELD

IRONWOOD RD

W01-4c 48"X48"

W4-6 48"X48"

W05-52L 12"X36"

WB1 STA 1023+27 TO STA 1042+70

W04-3R 48"X48"

COVER EXISTING SIGN

578' SHIFTING TAPER

RM1

12 STA 1015+00 TO STA 1019+90

3

STA 1019+00 TO STA 1023+27

11

4

+95, -33' LT

+63, -33' LT

8:1 TAPER

1022

CC

IH 43 SB

IH 43 NB

1014

50'

+83, 20' RT

8:1 TAPER

1016

+83, 33' RT

1018

1020

+50, 33' RT

1024

1026

100'

1028

+74, 56' RT

1014"SS RAMP B"

1016"SS RAMP B"

1018"SS RAMP B"

1020"SS RAMP B"

1022"SS RAMP B"

1024"SS RAMP B"

1026"SS RAMP B"

1028"SS RAMP B"

+63, -4' LT

+04, 4' RT

25'

500'

+26, 26' RT

+75, 29' RT

G20-2A 48"X24"

END ROAD WORK

LANE CLOSED

R11-2-L 48"X30"

WB3 STA 1014+65 TO STA 1017+88

11 STA 1014+65 TO STA 1017+88

W05-52L 12"X36"

RAMP NARROWS

W05-1 (MODI)

WB1 STA 1017+88 TO STA 1040+10

W01-6 48"X24"

RAMP CLOSED

R11-2-R 48"X30"

LEXINGTON BLVD

PORT WASHINGTON RD

FLAG

SIGN

A/C

SS RAMP B

VARIES 4' - 37'

STAGE 2B WORK ZONE

VARIES 8' - 41'

3'

15'

2'

14'

TYPICAL SECTION - STAGE 1B

SS RAMP B

STA 1023+00

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 244 E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\1228272_STAGE 1B_IH 43 MAINLINE.DWG
LAYOUT NAME - 026024-S1

PLOT DATE : 12/2/2019 5:08 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

TRAFFIC CONTROL LEGEND

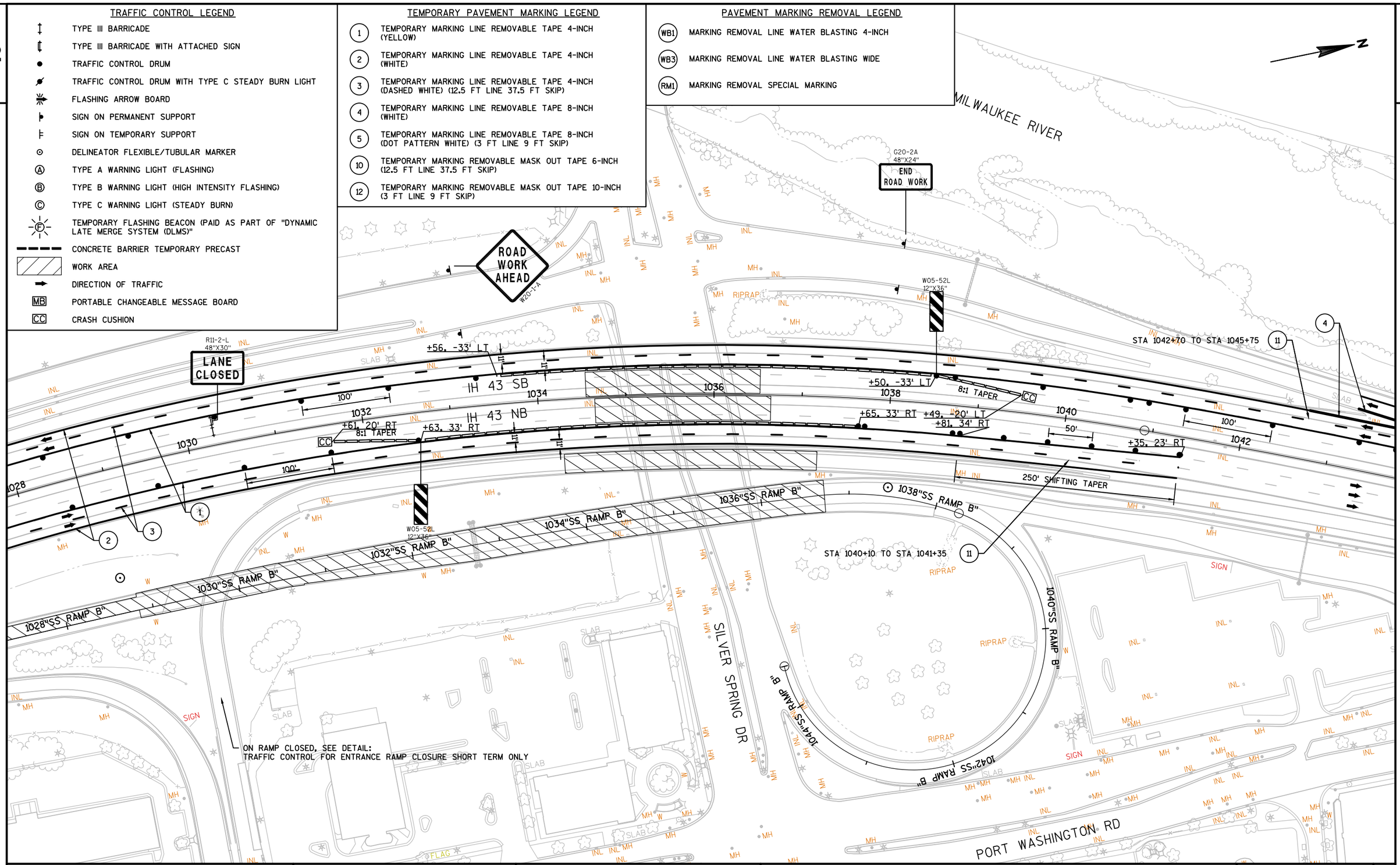
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

- (1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (3) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (4) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (5) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (10) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
- (12) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

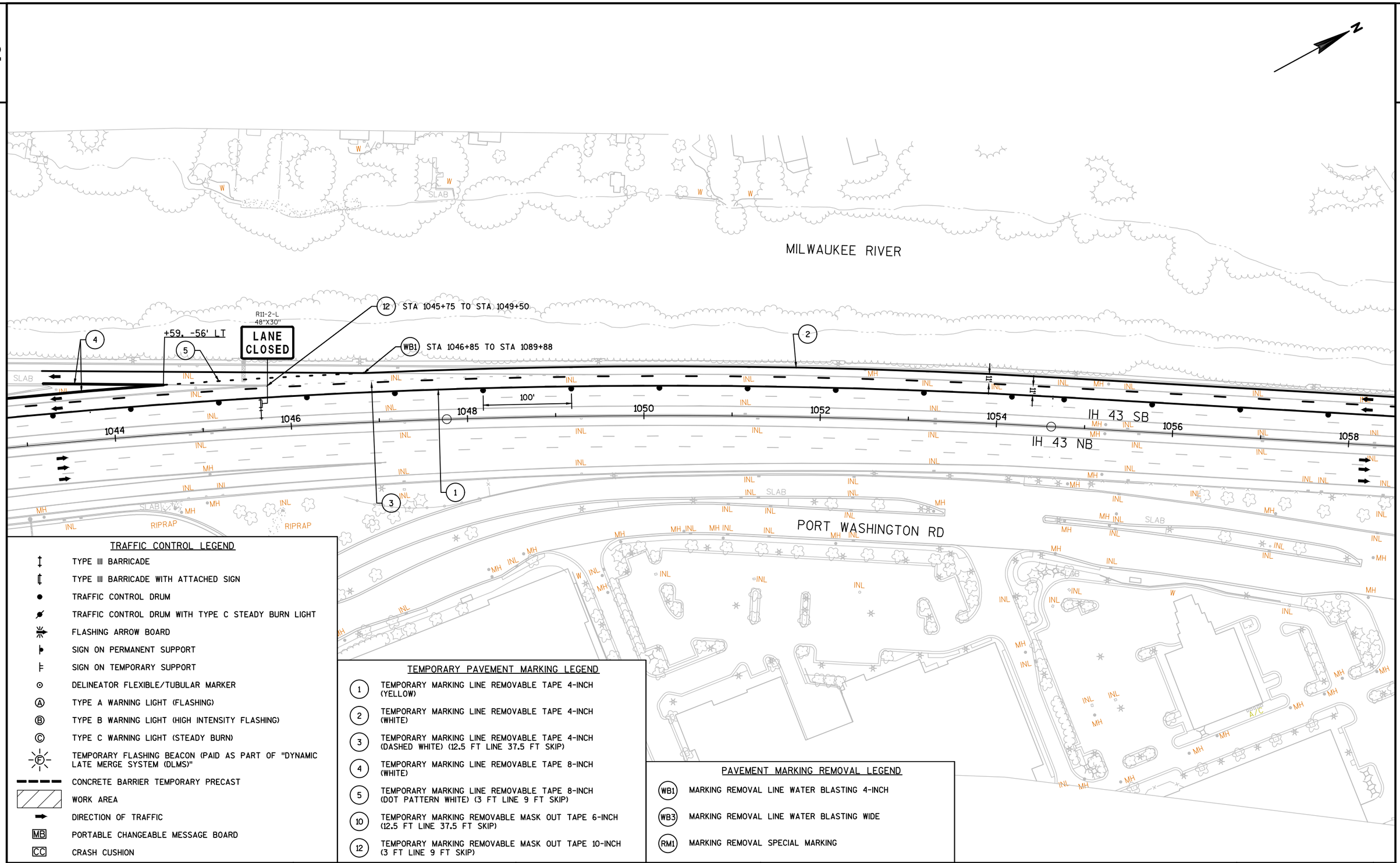
PAVEMENT MARKING REMOVAL LEGEND

- (WB1) MARKING REMOVAL LINE WATER BLASTING 4-INCH
- (WB3) MARKING REMOVAL LINE WATER BLASTING WIDE
- (RM1) MARKING REMOVAL SPECIAL MARKING



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 245	E

2



TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

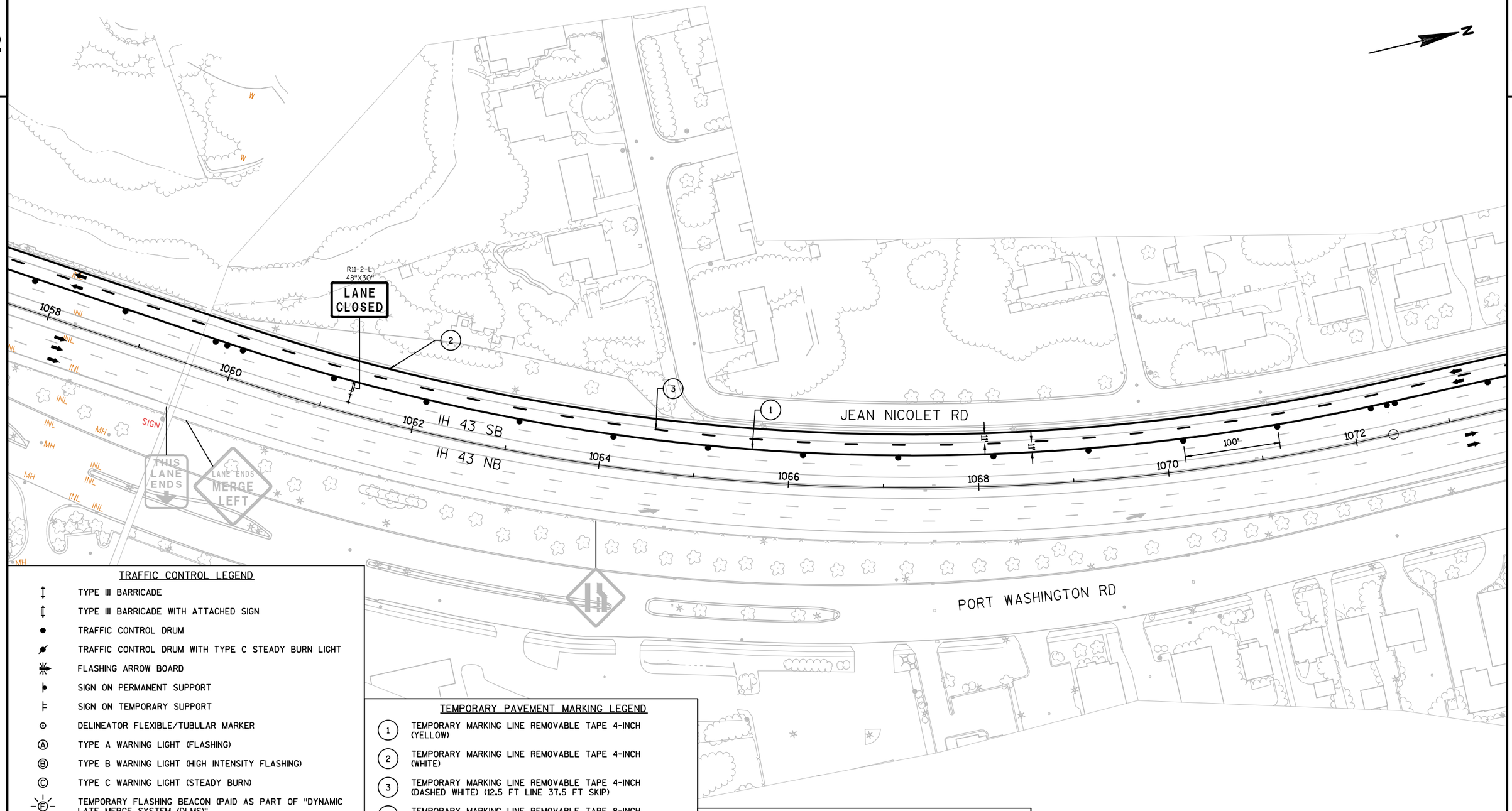
1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
3	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
5	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
10	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
12	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

PAVEMENT MARKING REMOVAL LEGEND

WB1	MARKING REMOVAL LINE WATER BLASTING 4-INCH
WB3	MARKING REMOVAL LINE WATER BLASTING WIDE
RM1	MARKING REMOVAL SPECIAL MARKING

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 246	E

2



TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

- (1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
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- (12) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

PAVEMENT MARKING REMOVAL LEGEND

- (WB1) MARKING REMOVAL LINE WATER BLASTING 4-INCH
- (WB3) MARKING REMOVAL LINE WATER BLASTING WIDE
- (RM1) MARKING REMOVAL SPECIAL MARKING

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 247	E

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

1. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
2. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
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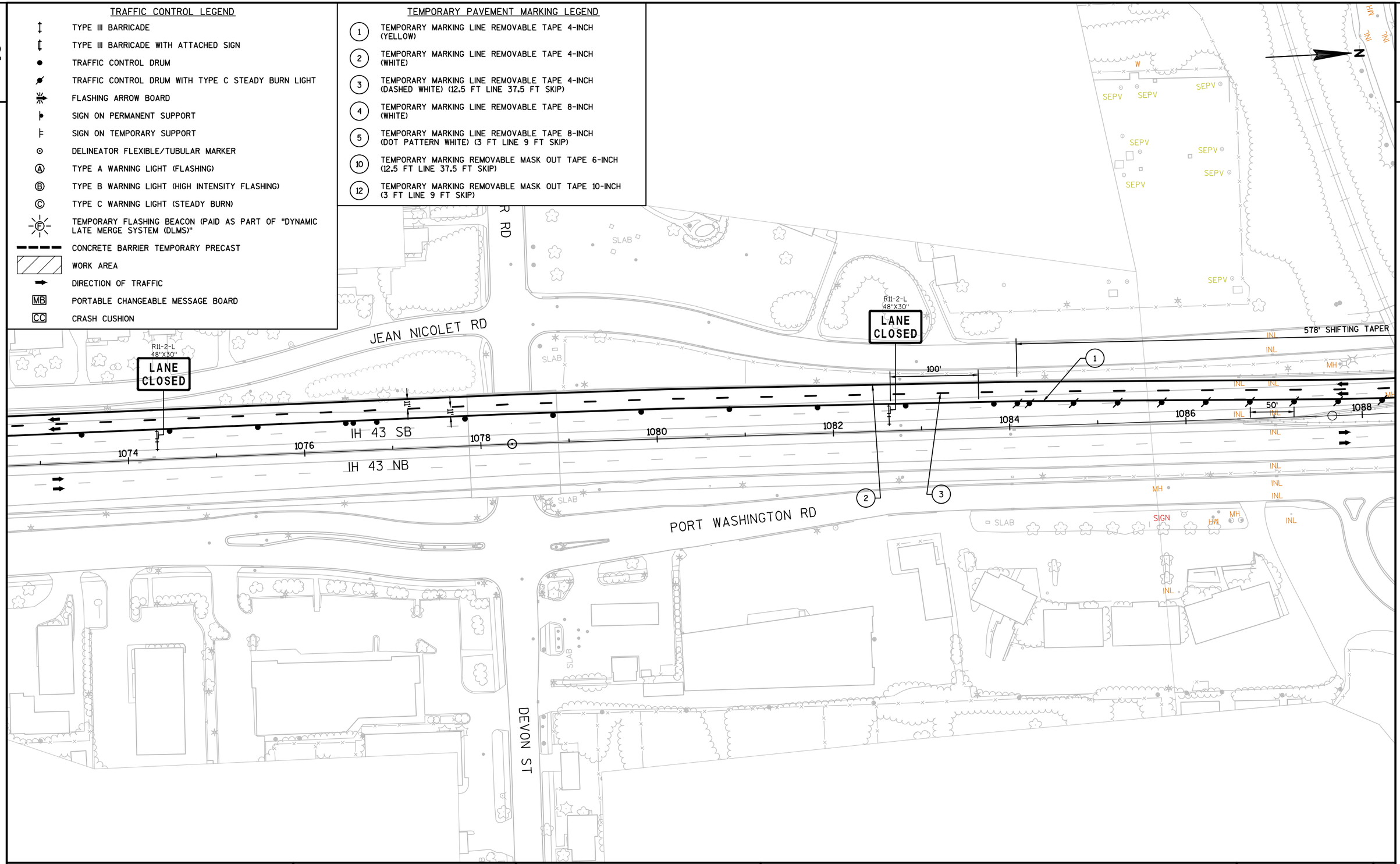
12. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 248	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 1B_IH 43 MAINLINE.DWG
LAYOUT NAME - 026028-S1

PLOT DATE : 12/2/2019 5:44 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- (F) TEMPORARY FLASHING BEACON (PAID AS PART OF "DYNAMIC LATE MERGE SYSTEM (DLMS)"
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

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10. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
12. TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

NOTE: IT IS ANTICIPATED THAT PROJECT NO. 1228-18-70 WILL BE UNDER CONSTRUCTION AT THIS TIME AND THAT ADDITIONAL TRAFFIC CONTROL DEVICES WILL BE IN PLACE ALONG IH 43. COORDINATE WITH PROJECT FOR PLACEMENT OF ALL TRAFFIC CONTROL DEVICES.

N

W21-62 96"X48" FINES DOUBLE IN WORK ZONES (Give 'em a BRAKE SLOW DOWN) / W21-62-P 96"X12" $200 MINIMUM

W21-62-Q 30"X48" WORK ZONE SPEED LIMIT 55

R2-1 48"X60" FINES DOUBLE W21-62-R 30"X48"

LEFT SHOULDER CLOSED W21-5-AL — 500' — LEFT SHOULDER CLOSED AHEAD W21-5-BL — 500' — ROAD WORK 1500 FT W20-1-B — 650' — ROAD WORK 1/2 MILE W20-1-D — 1600' — ROAD WORK 1 MILE W20-1-F

578' SHIFTING TAPER — 88. -37' LT — 200' REDUCE LANE WIDTH — 50' — 300'

JEAN NICOLET RD

IH 43 NB

PORT WASHINGTON RD

ACACIA RD

BRENTWOOD LN

CLOVERNOOK LN

END ROAD WORK G20-2A 48"X24"

TRUCKS USE LEFT LANE R4-5-L 24"X30"

W01-4DR

1 2 3

1088 1090 1092 1094 1096 1098 1100 1102

POOL A/C RIPRAP SIGN W INL MH

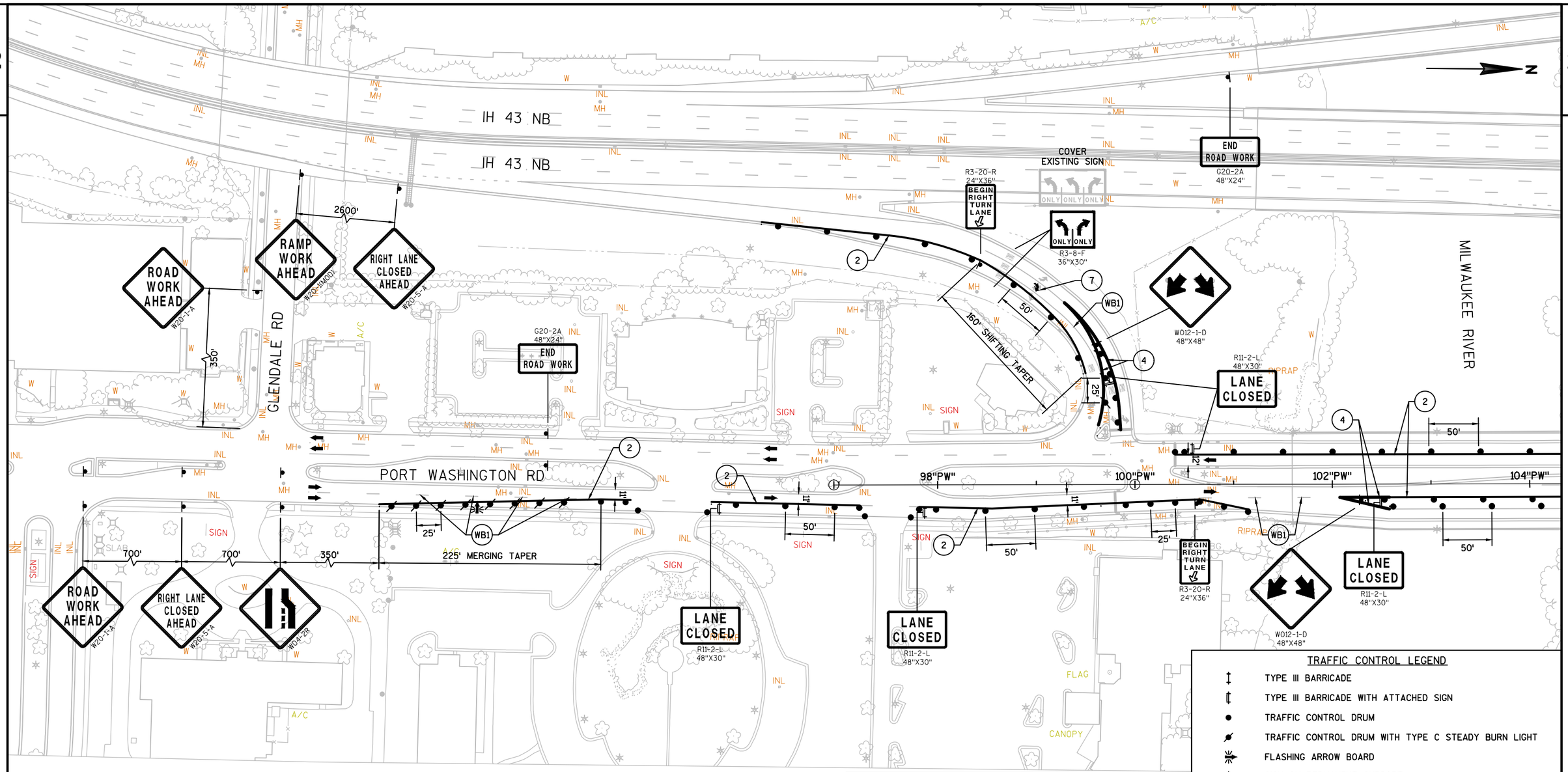
UNION PACIFIC

ATHLETIC FIELD

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 249	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 1B_IH 43 MAINLINE.DWG
LAYOUT NAME - 026029-S1

PLOT DATE : 12/2/2019 5:13 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:100 FT



NOTE: MAINTAIN SIDEWALK ACCESS ON ONE SIDE AT ALL TIMES.
SEE THE FOLLOWING FOR ADDITIONAL SIDEWALK CLOSURE DETAILS:

-TRAFFIC CONTROL - STAGE 2A - SW QUAD SIDEWALK CLOSURE
-TRAFFIC CONTROL - STAGE 2A - SE QUAD SIDEWALK CLOSURE
-TRAFFIC CONTROL - STAGE 2A - NE QUAD SIDEWALK CLOSURE
-DETOUR - OAK LEAF TRAIL

TEMPORARY PAVEMENT MARKING LEGEND

2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
4	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
7	TEMPORARY MARKING ARROW REMOVABLE TAPE (WHITE) (TYPE 2)

PAVEMENT MARKING REMOVAL LEGEND

WB1	MARKING REMOVAL LINE WATER BLASTING 4-INCH
WB2	MARKING REMOVAL LINE WATER BLASTING 8-INCH

TRAFFIC CONTROL LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
A	TYPE A WARNING LIGHT (FLASHING)
B	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
C	TYPE C WARNING LIGHT (STEADY BURN)
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
MB	PORTABLE CHANGEABLE MESSAGE BOARD

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET 250 E

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

NOTE: MAINTAIN SIDEWALK ACCESS ON ONE SIDE AT ALL TIMES.
SEE THE FOLLOWING FOR ADDITIONAL SIDEWALK CLOSURE DETAILS:

-TRAFFIC CONTROL - STAGE 2A - SW QUAD SIDEWALK CLOSURE
-TRAFFIC CONTROL - STAGE 2A - SE QUAD SIDEWALK CLOSURE
-TRAFFIC CONTROL - STAGE 2A - NE QUAD SIDEWALK CLOSURE
-DETOUR - OAK LEAF TRAIL

RAMP CLOSED, SEE SDD 15D16:
TRAFFIC CONTROL, EXIT RAMP CLOSURE

IH 43 NB

IH 43 NB

PORT WASHINGTON RD

IROQUOIS AVE

HAMPTON AVE

HAMPTON AVE

MILWAUKEE RIVER

END ROAD WORK
G20-2A
48"X24"

R11-2-L
48"X30"
LANE CLOSED

COVER EXISTING SIGN

BEGIN RIGHT TURN LANE
R3-20-R
24"X36"

W012-1-D
48"X48"

W04-3R
48"X48"

ROAD WORK AHEAD
W20-1-A

RIGHT LANE CLOSED AHEAD
W20-5-A

W04-2R

W01-6
48"X24"

M3-3
24"X12"
SOUTH

M1-1
24"X24"
INTERSTATE 43

M6-2
21"X21"

WB1

WB2

50'

500'

25'

12"HA"

14"HA"

16"HA"

18"HA"

20"HA"

115' MERGING TAPER

200'

400'

400'

106"PW"

108"PW"

104"PW"

RIPRAP

SLAB

INL

MH

U/C

N

TEMPORARY PAVEMENT MARKING LEGEND

- (2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (4) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (7) TEMPORARY MARKING ARROW REMOVABLE TAPE (WHITE) (TYPE 2)

PAVEMENT MARKING REMOVAL LEGEND

- (WB1) MARKING REMOVAL LINE WATER BLASTING 4-INCH
- (WB2) MARKING REMOVAL LINE WATER BLASTING 8-INCH

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET 251 E

2

N

GOLF COURSE

GOLF COURSE

IH 43 NB

IH 43 NB

U/C

MH

SIGN

R11-2-L
48"X30"
LANE CLOSED

225' MERGING TAPER

350'

W4-3R

700'

RIGHT LANE CLOSED AHEAD
W20-5R-A

700'

ROAD WORK AHEAD
W20-1-A

SLAB

FLAG

50'

2

WB1

PORT WASHINGTON RD

LANE CLOSED
R11-2-L
48"X30"

END ROAD WORK
G20-2A
48"X24"

CHATEAU PL

A/C

INL

W

TEMPORARY PAVEMENT MARKING LEGEND

2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
4	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
7	TEMPORARY MARKING ARROW REMOVABLE TAPE (WHITE) (TYPE 2)

PAVEMENT MARKING REMOVAL LEGEND

WB1	MARKING REMOVAL LINE WATER BLASTING 4-INCH
WB2	MARKING REMOVAL LINE WATER BLASTING 8-INCH

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET 252	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 2A_PORT RD OUTSIDE.DWG
LAYOUT NAME - 026003-S2

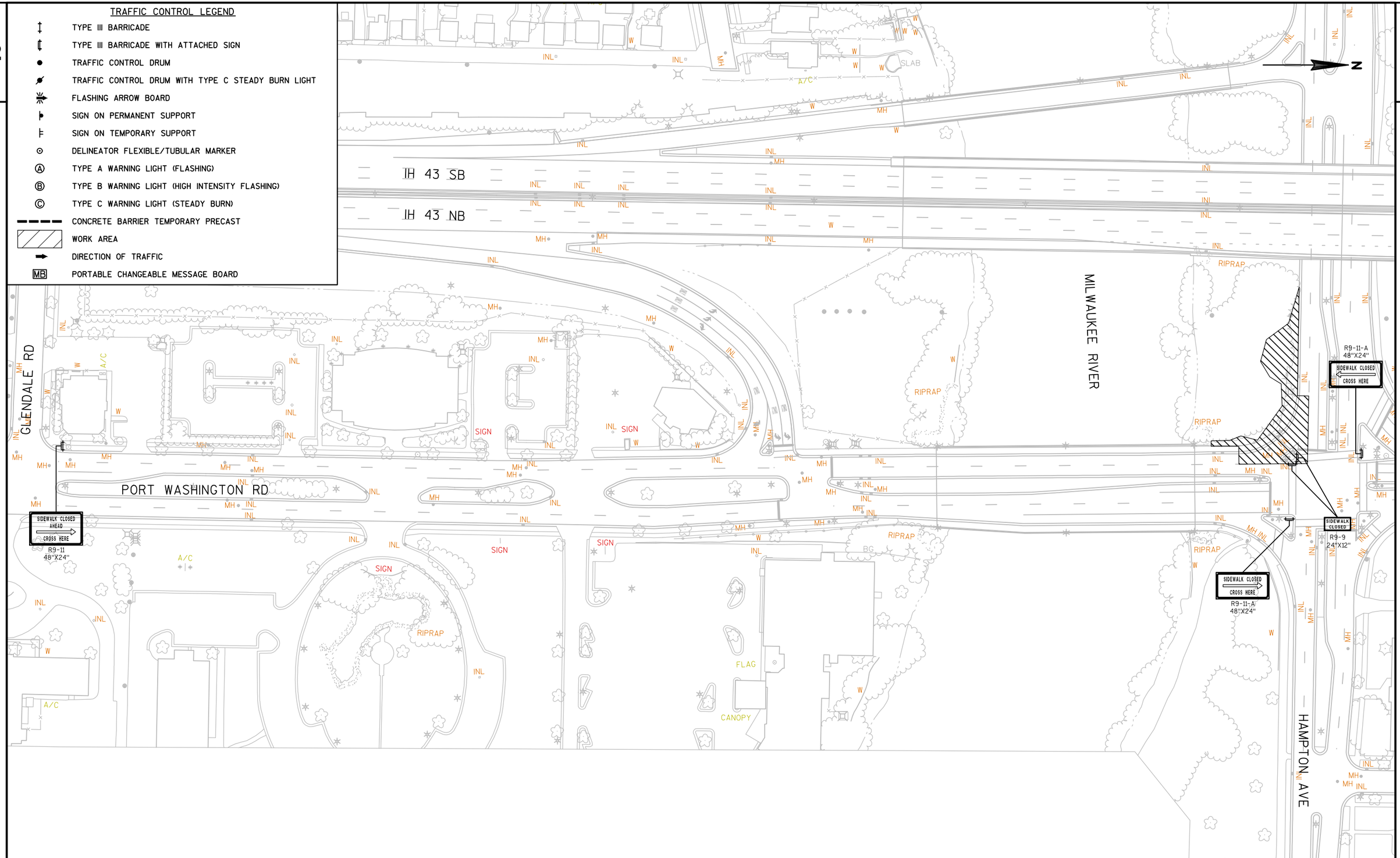
PLOT DATE : 4/17/2018 8:50 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

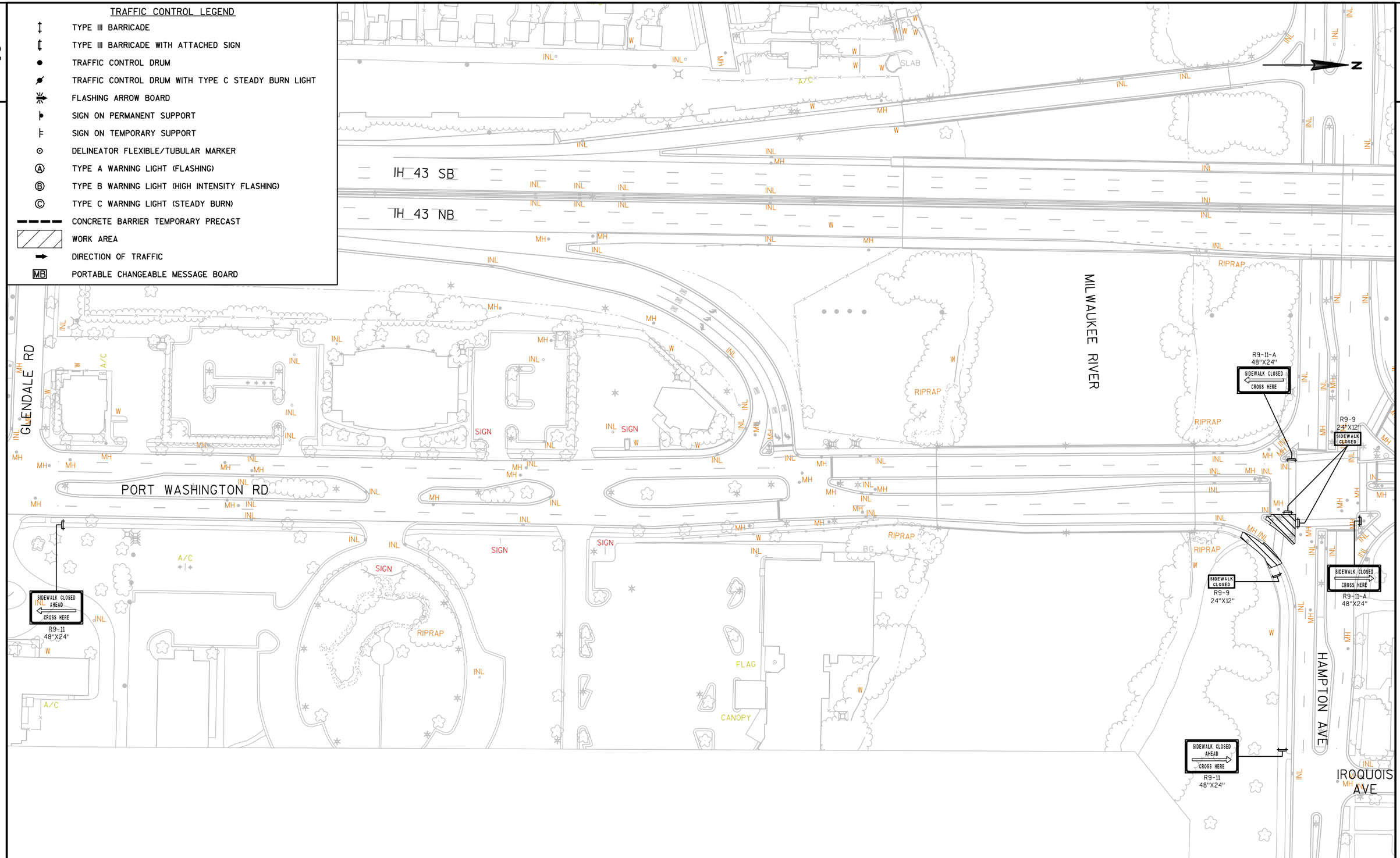
TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD



TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - SE QUAD SIDEWALK CLOSURE	SHEET 254	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 2A_SE QUAD CLOSURE.DWG
LAYOUT NAME - 026006-S2

PLOT DATE : 4/15/2019 10:21 AM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

N

HAMPTON AVE

IH 43 NB

IH 43 NB

MILWAUKEE RIVER

PORT WASHINGTON RD

IROQUOIS AVE

CHATEAU PL

MARNE AVE

NAVAJO AVE

HAMPTON AVE

SIDEWALK CLOSED CROSS HERE
R9-11-A
48"X24"

SIDEWALK CLOSED
R9-9
24"X12"

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
48"X24"

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BR
30"X24"

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
48"X24"

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BR
30"X24"

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
48"X24"

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BR
30"X24"

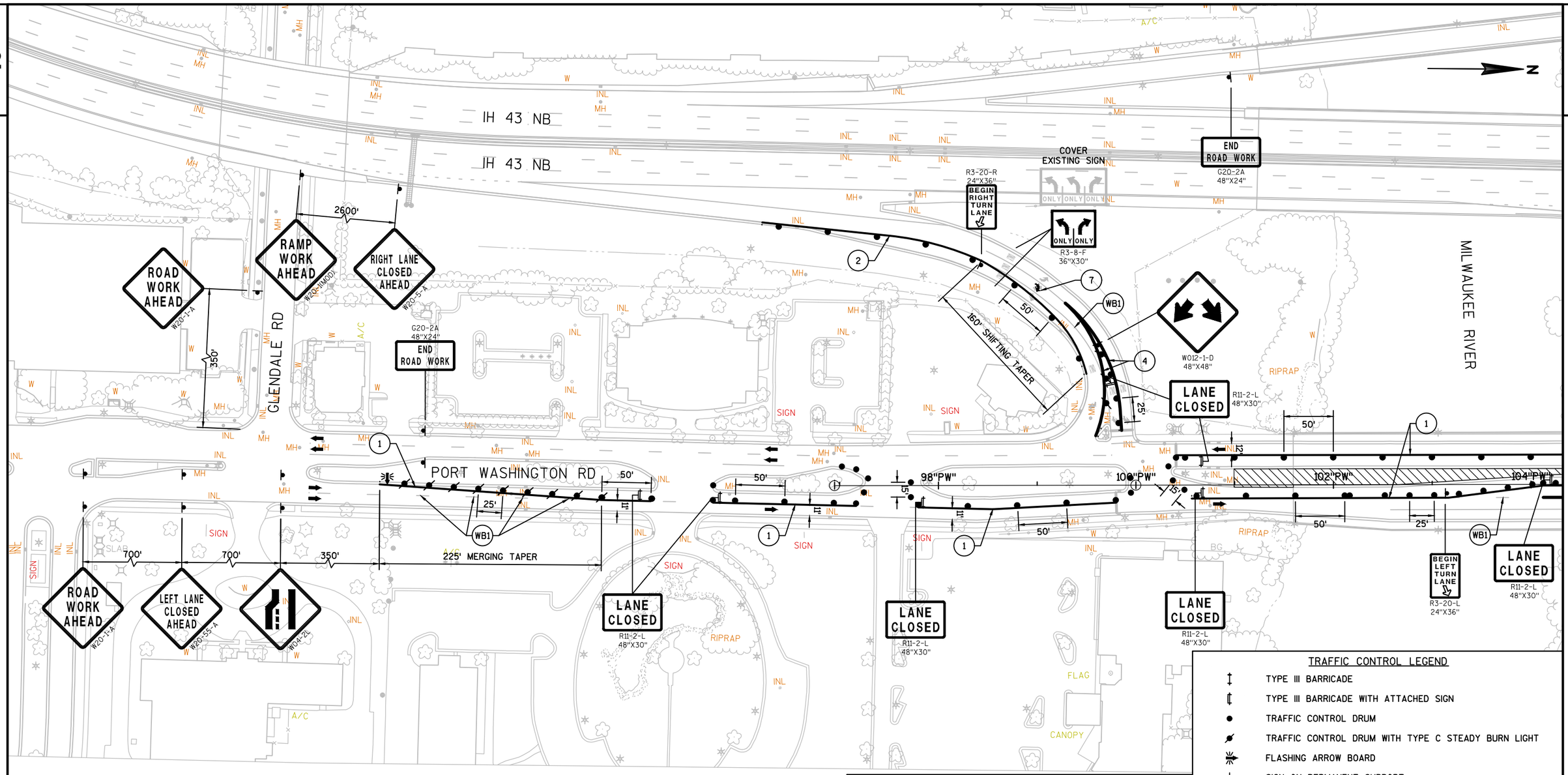
DETOUR
M4-9BL
30"X24"

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A - NE QUAD SIDEWALK CLOSURE	SHEET 255	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 2A_NE QUAD CLOSURE.DWG
LAYOUT NAME - 026007-S2

PLOT DATE : 4/17/2018 8:53 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42



TEMPORARY PAVEMENT MARKING LEGEND

1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
4	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
5	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
9	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

PAVEMENT MARKING REMOVAL LEGEND

WB1	MARKING REMOVAL LINE WATER BLASTING 4-INCH

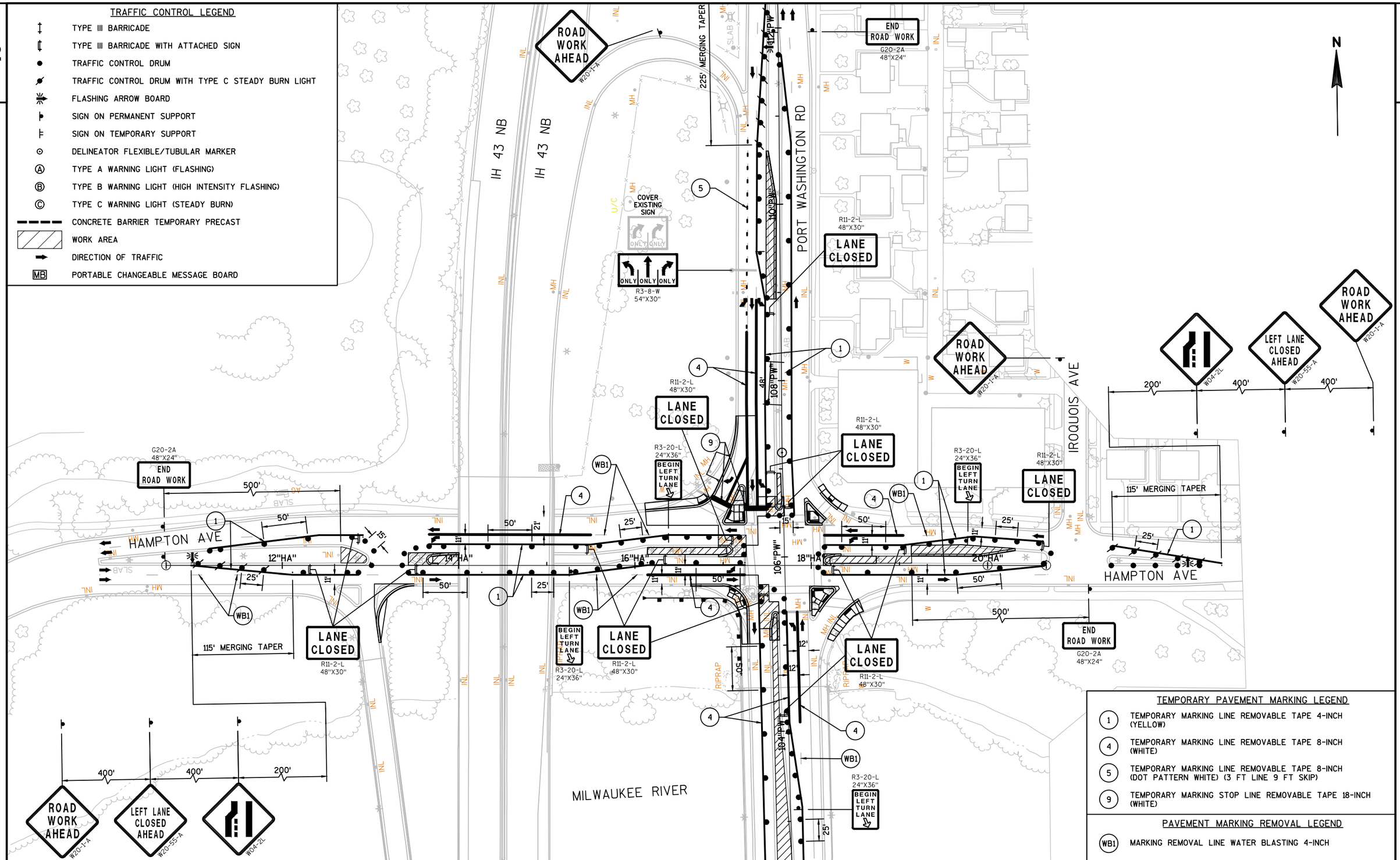
TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B	SHEET 256 E

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD



TEMPORARY PAVEMENT MARKING LEGEND

- (1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (4) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (5) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (9) TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

PAVEMENT MARKING REMOVAL LEGEND

- (WB1) MARKING REMOVAL LINE WATER BLASTING 4-INCH

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B	SHEET 257 E

2

N

GOLF COURSE

GOLF COURSE

IH 43 NB

IH 43 NB

SLAB

ROAD WORK AHEAD
W20-1-A

225' MERGING TAPER

350'

W04-2L

700'

LEFT LANE CLOSED AHEAD
W20-5S-A

700'

ROAD WORK AHEAD
W20-1-A

5

WB1

FLAG

SLAB

12' PW

25'

WASHINGTON RD

2

1

END ROAD WORK
G20-2A
48"X24"

CHATEAU PL

SIGN

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

TEMPORARY PAVEMENT MARKING LEGEND

1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
4	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
5	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
9	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

PAVEMENT MARKING REMOVAL LEGEND

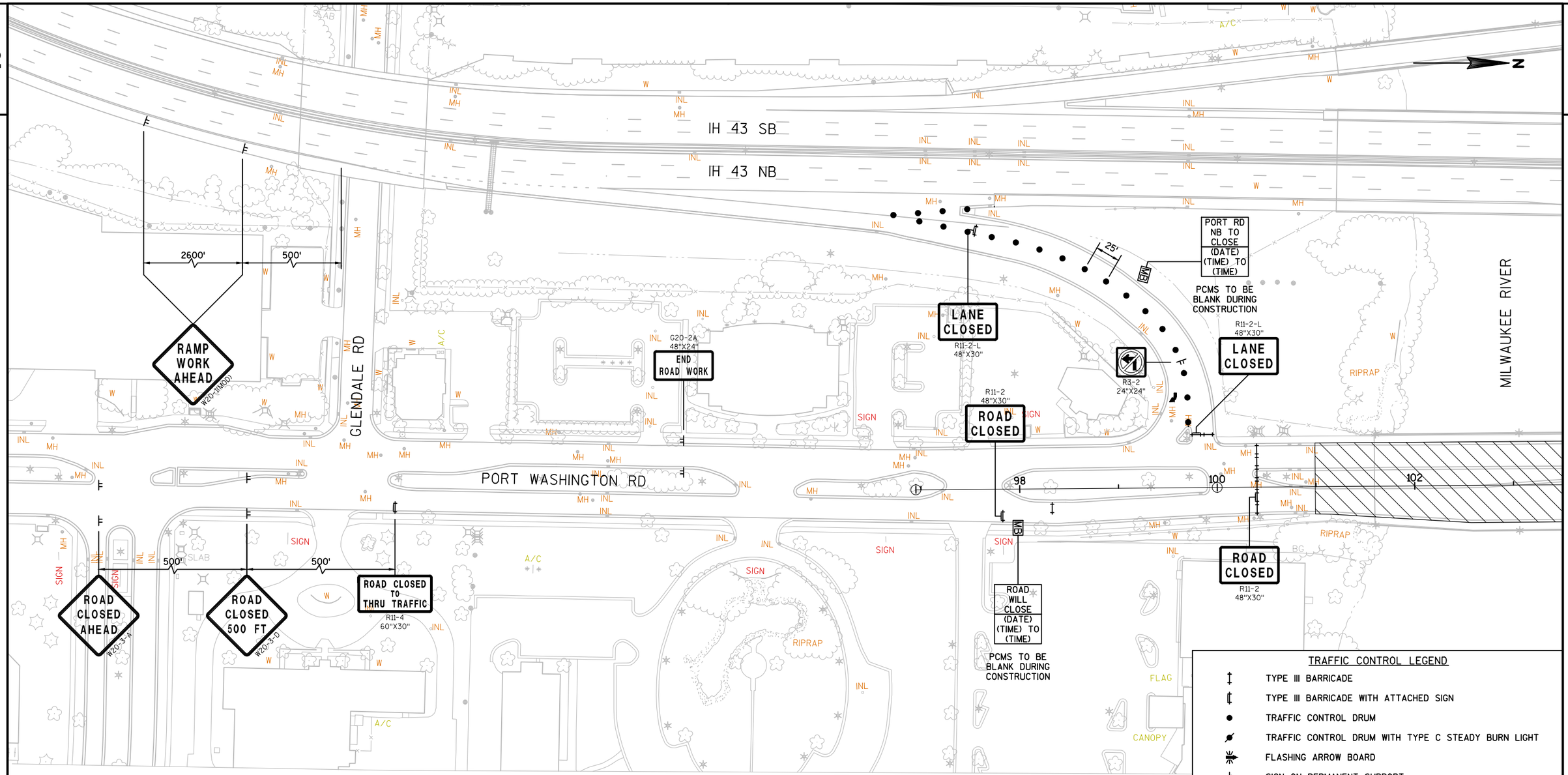
WB1	MARKING REMOVAL LINE WATER BLASTING 4-INCH

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B	SHEET 258	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 2B_PORT RD INSIDE.DWG
LAYOUT NAME - 026013-S2

PLOT DATE : 4/24/2019 8:13 AM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

NOTE: FOR ADDITIONAL SIGNING, SEE PORT WASHINGTON RD DETOUR DETAIL. MAINTAIN ACCESS ACROSS PORT WASHINGTON RD BRIDGE FOR EMERGENCY VEHICLES.

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2 - PORT WASHINGTON RD CLOSURE	SHEET 259	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 2_PORT RD CLOSURE.DWG
LAYOUT NAME - 026021-S2
PLOT DATE : 1/30/2018 3:52 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

N

GOLF COURSE

IH 43 SB

IH 43 NB

MILWAUKEE RIVER

PORT WASHINGTON RD

HAMPTON AVE

CHATEAU PL

ROAD CLOSED AHEAD
W20-3-A
SOUTH
M3-3
24"X12"
PORT WASHINGTON RD
FM-04

END ROAD WORK
G20-2A
48"X24"

ROAD CLOSED 500 FT
W20-3-D

PCMS TO BE BLANK DURING CONSTRUCTION

ROAD WILL CLOSE
(DATE)
(TIME) TO
(TIME)

MB

R3-1
24"X24"

LANE CLOSED
R11-2-L
48"X30"

BEGIN LEFT TURN LANE
R3-20-L
24"X36"

225' MERGING TAPER

350'

SIGN
W04-2L

700'

LEFT LANE CLOSED AHEAD
W20-55-A

700'

25'

104

106

108

ROAD CLOSED
R11-2
48"X30"

R3-2
24"X24"

W012-1-D
48"X48"

FLAG

SLAB

RIPRAP

U/C

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

NOTE: FOR ADDITIONAL SIGNING, SEE PORT WASHINGTON RD DETOUR DETAIL. MAINTAIN ACCESS ACROSS PORT WASHINGTON RD BRIDGE FOR EMERGENCY VEHICLES.

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2 - PORT WASHINGTON RD CLOSURE	SHEET 260	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 2_PORT RD CLOSURE.DWG
LAYOUT NAME - 026022-S2
PLOT DATE : 1/30/2018 3:52 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

G20-2A
48"X24"
END
ROAD WORK

+64. -44' LT

100'

IH 43 SB

IH 43 NB

PORT WASHINGTON RD

1000 1002 1004 1006 1008 1010 1012 1014

RIPRAP RIPRAP

FLAG FLAG FLAG

SLAB SLAB

SIGN

INL

MH

W

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

- (2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (4) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (5) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (10) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
- (11) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (WHITE)
- (12) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3 - IH 43 SB LANE CLOSURE	SHEET 261	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 3_IH 43 SB LANE CLOSURE.DWG
LAYOUT NAME - 026001-S3
PLOT DATE : 1/3/2019 2:41 PM
PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

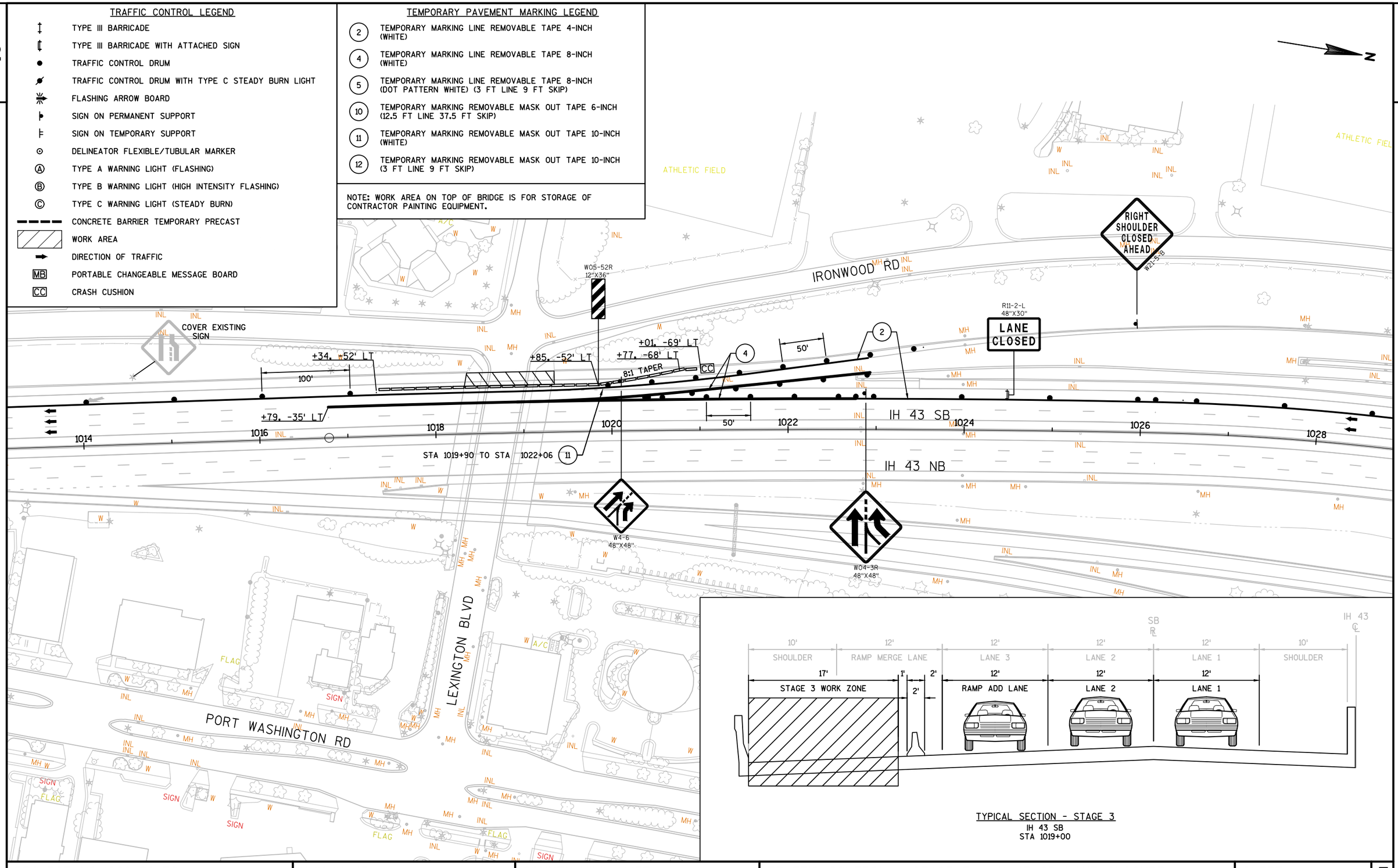
TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

- (2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (4) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (5) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (10) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
- (11) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (WHITE)
- (12) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

NOTE: WORK AREA ON TOP OF BRIDGE IS FOR STORAGE OF CONTRACTOR PAINTING EQUIPMENT.



TYPICAL SECTION - STAGE 3
IH 43 SB
STA 1019+00

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3 - IH 43 SB LANE CLOSURE	SHEET 262	E

2

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

- (2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (4) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (5) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (10) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
- (11) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (WHITE)
- (12) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

MILWAUKEE RIVER

N

G20-2A
48"X24"
END
ROAD WORK

ROAD
WORK
AHEAD
W20-1-A

R11-2-L
48"X30"
LANE
CLOSED

2

100'

COVER EXISTING
EXIT SIGN

IH 43 SB

IH 43 NB

1028 1030 1032 1034 1036 1038 1040 1042

SILVER SPRING DR

PORT WASHINGTON RD

RIPRAP

SLAB

SIGN

FLAG

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3 - IH 43 SB LANE CLOSURE	SHEET 263	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 3_IH 43 SB LANE CLOSURE.DWG
LAYOUT NAME - 026003-S3

PLOT DATE : 1/3/2019 2:42 PM

PLOT BY : LIMBERATOS, EVAN P PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

- (2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (4) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (5) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (10) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
- (11) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (WHITE)
- (12) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

N

MILWAUKEE RIVER

10 STA 1047+75 TO STA 1053+25

12 STA 1045+75 TO STA 1049+50

R11-2-L 48"X30" LANE CLOSED

25' 100' 25' 100'

+25, -47' LT

+25, -35' LT

2

4

1044 1046 1048 1050 1052 1054 1056 1058

IH 43 SB

IH 43 NB

PORT WASHINGTON RD

EXIT E5-1 72"X60"

RIPRAP RIPRAP

RAMP

SLAB A/C

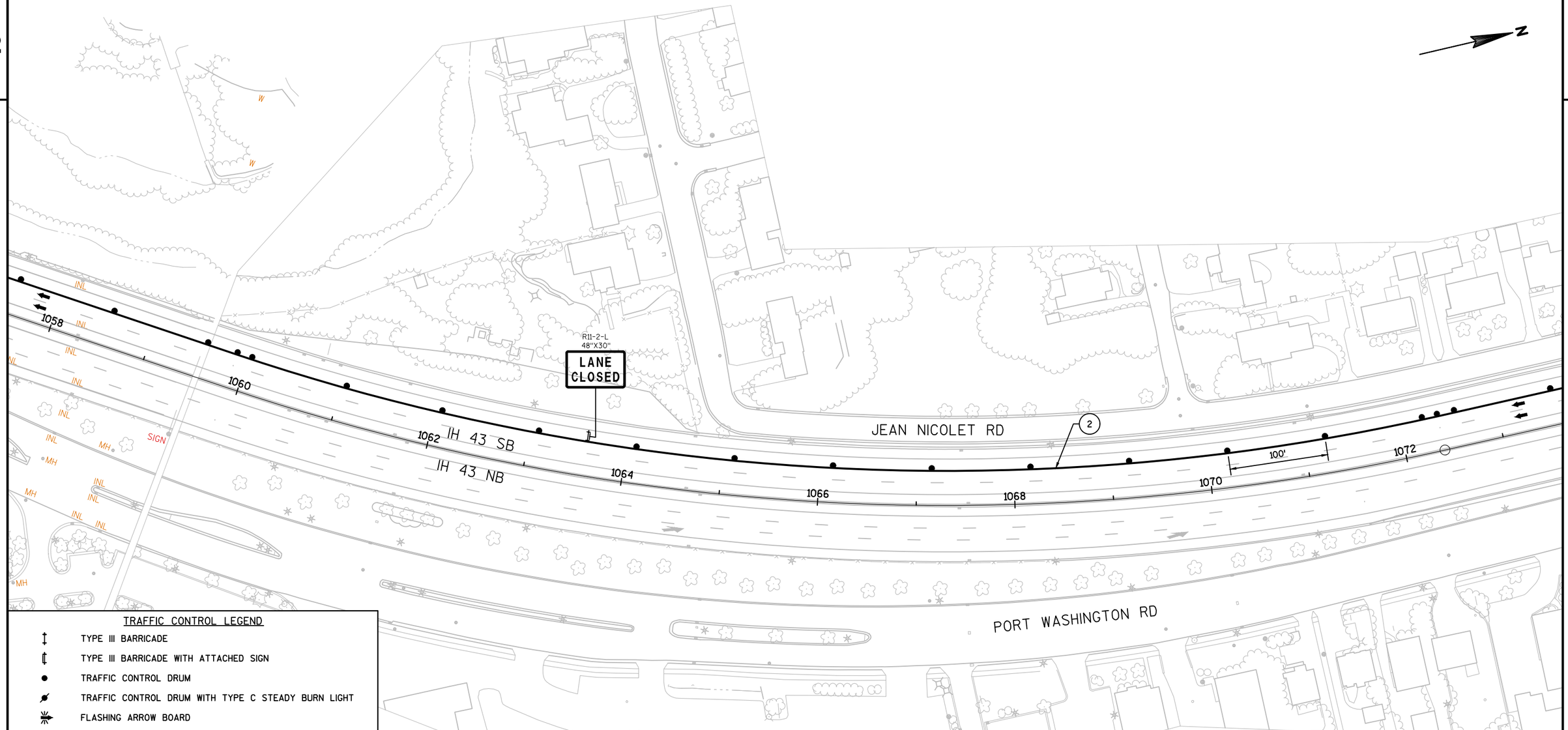
PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3 - IH 43 SB LANE CLOSURE	SHEET 264	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 3_IH 43 SB LANE CLOSURE.DWG
LAYOUT NAME - 026004-S3

PLOT DATE : 1/3/2019 2:42 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2


N
W
W
INL
INL
INL

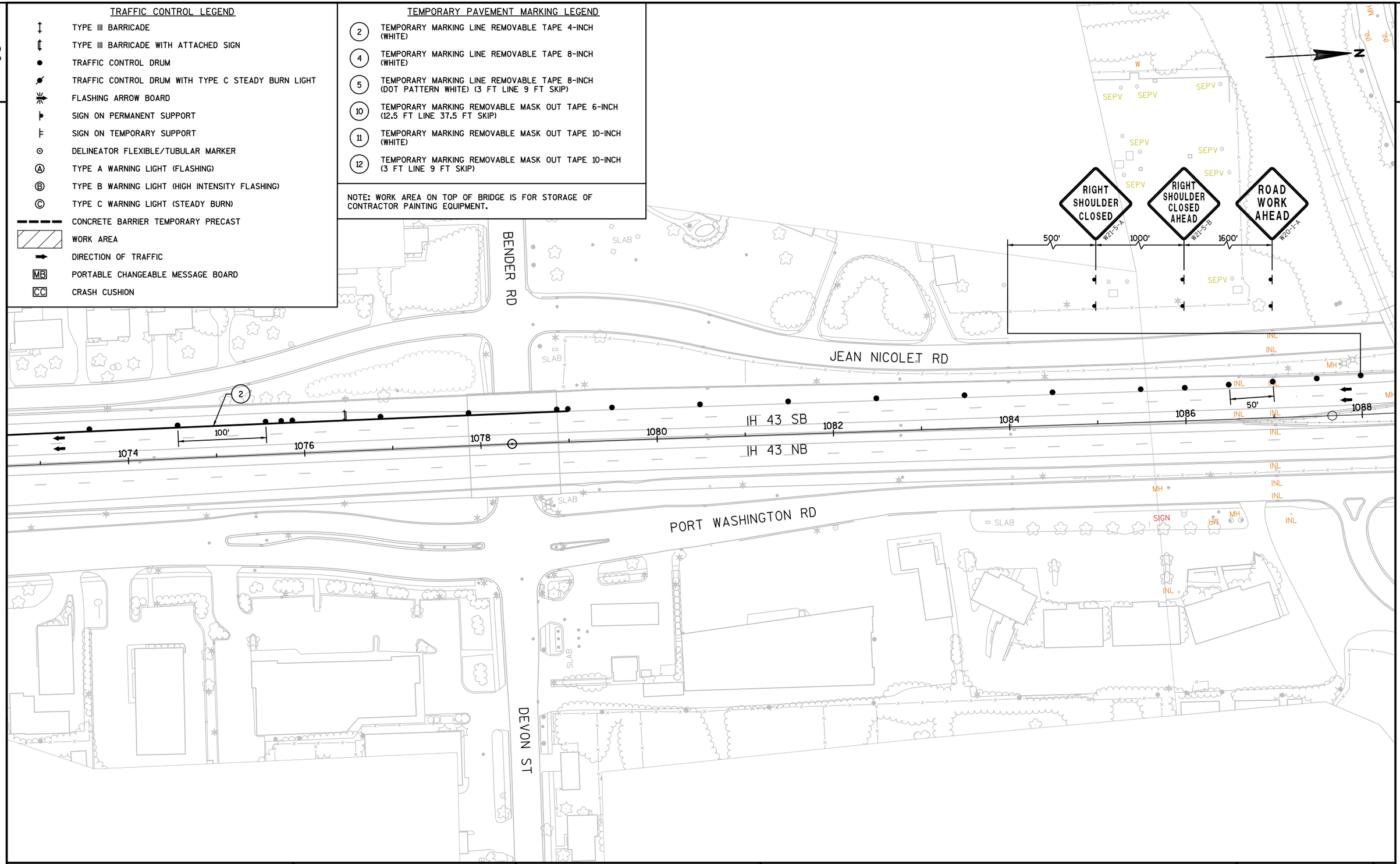
TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

- (2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (4) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (5) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (10) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH (12.5 FT LINE 37.5 FT SKIP)
- (11) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (WHITE)
- (12) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH (3 FT LINE 9 FT SKIP)

NOTE: WORK AREA ON TOP OF BRIDGE IS FOR STORAGE OF CONTRACTOR PAINTING EQUIPMENT.



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3 - IH 43 SB LANE CLOSURE	SHEET 266	E

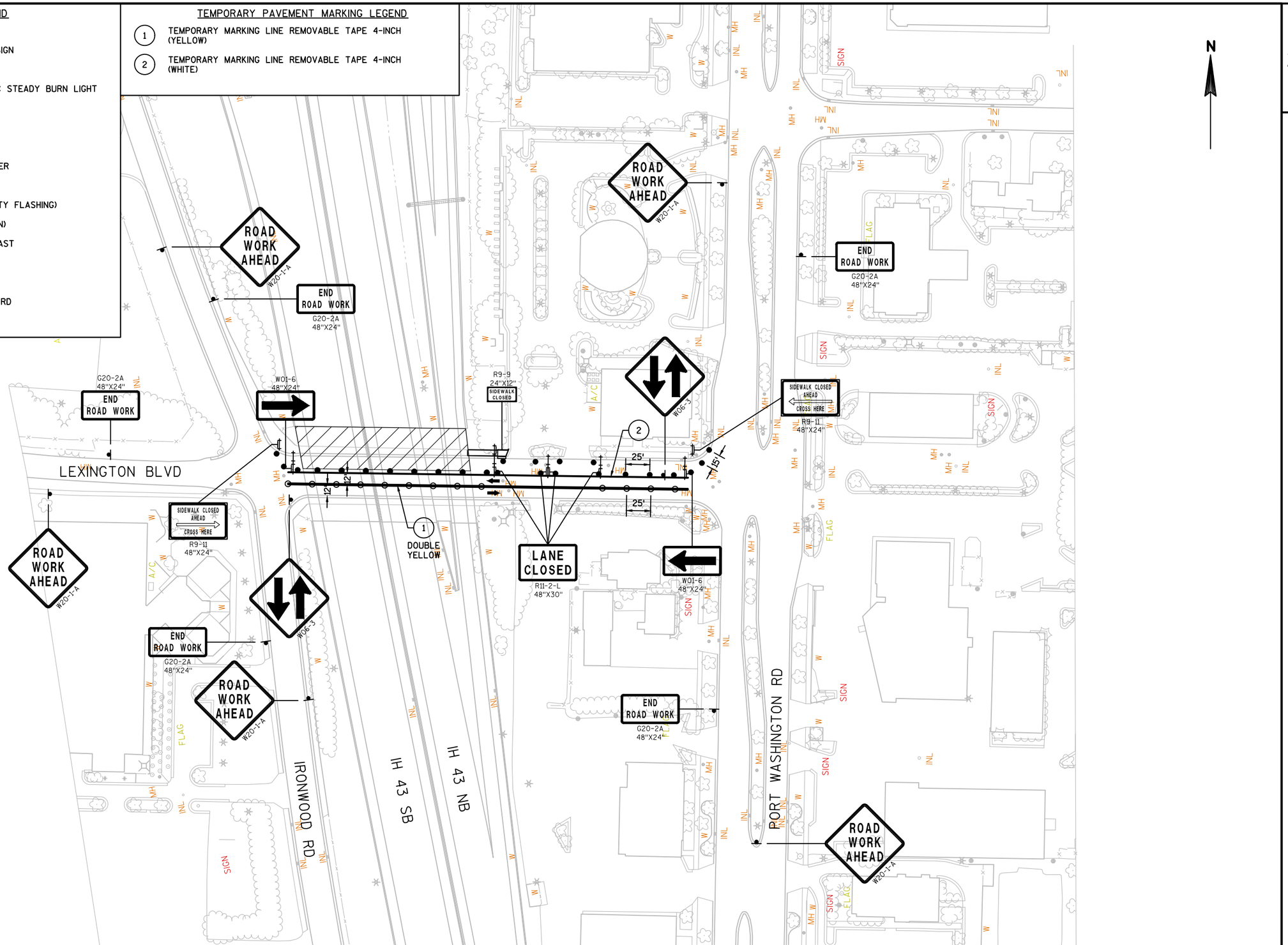
FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 3_IH 43 SB LANE CLOSURE.DWG
LAYOUT NAME - 026006-S3
PLOT DATE : 12/2/2019 5:50 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

1. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
2. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3A - LEXINGTON BLVD	SHEET 267 E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 3A_LEXINGTON.DWG
LAYOUT NAME - 026021-S3

PLOT DATE : 1/30/2018 3:56 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

IH 43 SB

IH 43 NB

LEXINGTON BLVD

FM-05

IRONWOOD RD

PORT WASHINGTON RD

ROAD WORK AHEAD W20-1-A

RUMBLE STRIPS AHEAD W021-65

ONE LANE ROAD AHEAD W20-4-A

W20-7A

END ROAD WORK G20-2A 48"X24"

TEMPORARY PORTABLE RUMBLE STRIPS ARRAY SEE NOTE 3

100' 200' 200' 200' 200'

SIDEWALK CLOSED AHEAD CROSS HERE R9-11 48"X24"

R9-9 24"X12" SIDEWALK CLOSED

LANE CLOSED

R11-2-L 48"X30"

W06-3

W01-6 48"X24"

1 DOUBLE YELLOW

2

25'

12'

15'

SIGN

FLAG

N

TEMPORARY PAVEMENT MARKING LEGEND

1. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
2. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

NOTES:
1) TEMPORARY PAVEMENT MARKINGS SHOWN REMAIN FROM STAGE 3A.
2) SEE SDD 15C12: TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS FOR ADDITIONAL FLAGGING DETAILS AND NOTES.
3) EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

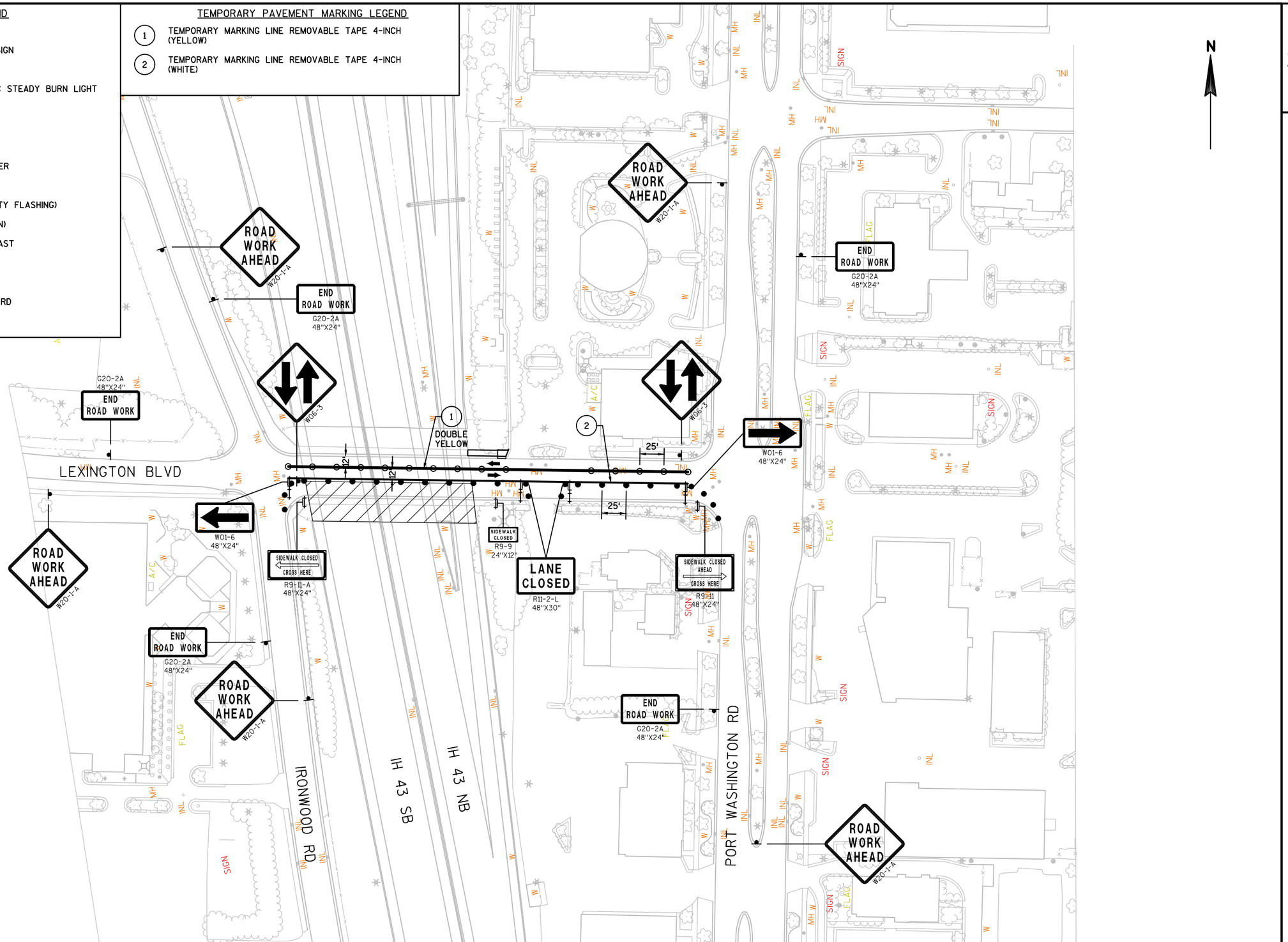
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3B - LEXINGTON BLVD	SHEET 268	E

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

1. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
2. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3C - LEXINGTON BLVD	SHEET 269	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 3C_LEXINGTON.DWG
LAYOUT NAME - 026023-S3

PLOT DATE : 1/30/2018 3:58 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

(2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

NOTE: WORK AREA ON TOP OF BRIDGE IS FOR STORAGE OF CONTRACTOR PAINTING EQUIPMENT.

N

IH 43 SB

IH 43 NB

IH 43 NB OFF RAMP

IH 43 NB ON RAMP

COVER EXISTING

R11-2-R 48"X30" RAMP CLOSED

R11-51 48"X48" RAMP WILL BE CLOSED (TIME) BEGINNING (DATE)

1026 1028 1030 1032 1034 1036 1038 1040 1042

500' 500' 500' 500'

ROAD WORK AHEAD W20-1-A

RAMP CLOSED 500FT W20-53D

RAMP CLOSED AHEAD W20-53A

WEST M3-4 36"X18" SILVER SPRING DR FM-07

N Port Washington Road

Silver Spring Drive WEST

RAMP CLOSED

G20-63 (4)

RAMP CLOSED, SEE TRAFFIC CONTROL DETAIL: TRAFFIC CONTROL FOR ON-RAMP CLOSURE (SHORT TERM ONLY)

SILVER SPRING DR

PORT WASHINGTON RD

RIPRAP

SLAB

FLAG

FILLER CAP

END ROAD WORK G20-2A 48"X24"

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4 - SILVER SPRING RAMP CLOSURE	SHEET 270	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 4_SILVER SPRING WB OFF RAMP CLOSURE.DWG
LAYOUT NAME - 026001-S4
PLOT DATE : 1/30/2018 3:59 PM
PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

PAVEMENT MARKING REMOVAL LEGEND

- WB1 MARKING REMOVAL LINE WATER BLASTING 4-INCH
- WB2 MARKING REMOVAL LINE WATER BLASTING 8-INCH
- WB3 MARKING REMOVAL LINE WATER BLASTING WIDE

TEMPORARY PAVEMENT MARKING LEGEND

- (2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (3) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (4) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (5) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (6) TEMPORARY MARKING ARROW REMOVABLE TAPE (WHITE) (TYPE 2)
- (7) TEMPORARY MARKING ARROW REMOVABLE TAPE (WHITE) (TYPE 2)
- (9) TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

NOTE:
FOR ADDITIONAL SIGNING SEE DETOUR DETAIL: PEDESTRIAN SILVER SPRING DR.

ROAD WORK AHEAD W20-1-A
LEFT LANE CLOSED AHEAD W20-55-A
700'
350'
N Port Washington Rd Silver Spring Dr EAST
Silver Spring Dr EAST
Silver Spring Dr EAST WEST
RAMP CLOSED
G20-63 (4)
MIL WAUKEE RIVER
IH 43 SB
IH 43 NB
LANE CLOSED R11-2-L 48"X30"
OFF RAMP CLOSED, SEE TRAFFIC CONTROL DETAIL: STAGE 4 - SILVER SPRING RAMP CLOSURE
WB2 STA 21+21 TO STA 22+61
R3-8-RR 54"X30"
ONLY ONLY ONLY
W01-4DR
25 M.P.H. W013-1 36"X36"
W01-4DL
ROAD WORK AHEAD W20-1-A
RIGHT LANE CLOSED AHEAD W20-5-A
END ROAD WORK G20-2A 48"X24"
400'
SILVER SPRING DR
WB1
WB3
110' SHIFTING TAPER
100' SHIFTING TAPER
180' MERGING TAPER
50'
25'
12'
11'
BEGIN RIGHT TURN LANE R3-20-R 24"X36"
W01-6 48"X24"
REMOVING PAVEMENT MARKINGS WATER BLASTING STA 23+49 TO STA 24+48
PORT WASHINGTON RD
RIPRAP
SLAB
SIGN
INL
MH
W
N
20
22
24
26
400'
400'
200'
ROAD WORK AHEAD W20-1-A
RIGHT LANE CLOSED AHEAD W20-5-A
W04-2R

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4A - SILVER SPRING DR	SHEET 271	E

2

2

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

N

ROAD WORK AHEAD W20-1-A

R3-20-R 24"X36" BEGIN RIGHT TURN LANE

SILVER SPRING DR

12' 12' 25' 25'

400' 400' 200' 135' MERGING TAPER

ROAD WORK AHEAD W20-1-A

RIGHT TWO LANES CLOSED AHEAD W20-5R-A

W04-2R

LANE CLOSED R11-2-L 48"X30"

W04-2R

ROAD WORK AHEAD W20-1-A

N 13TH ST

N 12TH ST

N 11TH ST

MILWAUKEE RIVER PWKY

MH

MH

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4B - SILVER SPRING DR	SHEET 272	E

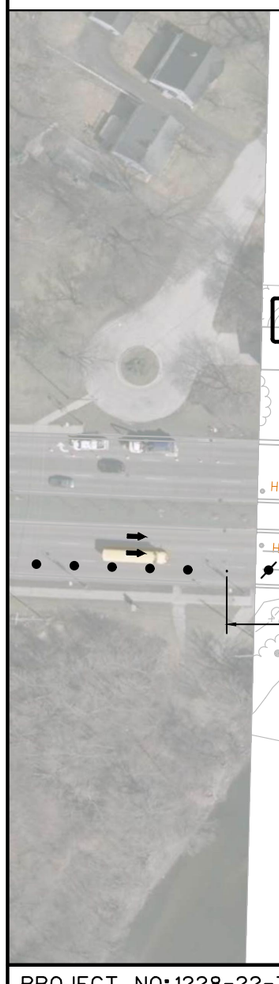
TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

TEMPORARY PAVEMENT MARKING LEGEND

- (2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (3) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (4) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (5) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (6) TEMPORARY MARKING ARROW REMOVABLE TAPE (WHITE) (TYPE 2)
- (7) TEMPORARY MARKING ARROW REMOVABLE TAPE (WHITE) (TYPE 2)
- (9) TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

NOTE: TEMPORARY PAVEMENT MARKINGS SHOWN REMAIN FROM STAGE 4A. FOR ADDITIONAL SIGNING SEE DETOUR DETAIL: PEDESTRIAN SILVER SPRING DR.



N Port Washington Rd / Silver Spring Dr EAST
Silver Spring Dr EAST
Silver Spring Dr EAST WEST
RAMP CLOSED
G20-63 (4) (REMAIN FROM STAGE 4A)
BEGIN RIGHT TURN LANE
R3-20-R 24"X36"
ROAD WORK AHEAD W20-1-A
LEFT LANE CLOSED AHEAD W20-5S-A
RIGHT LANE CLOSED AHEAD W20-5-A
700'
350'
25'
LANE CLOSED R11-2-L 48"X30"
IH 43 SB
IH 43 NB
OFF RAMP CLOSED, SEE TRAFFIC CONTROL DETAIL: STAGE 4 - SILVER SPRING RAMP CLOSURE
MILWAUKEE RIVER
SILVER SPRING DR
PORT WASHINGTON RD
END ROAD WORK G20-2A 48"X24"
W012-1-D 48"X48"
W01-4R
25 M.P.H. W013-1 36"X36"
R3-8-RR 54"X30" ONLY ONLY ONLY
COVER SIGN FROM STAGE 4A
W01-6 48"X24"
110' SHIFTING TAPER
100' SHIFTING TAPER
180' MERGING TAPER
12'
10'
15'
RIPRAP
SIGN
SLAB
INL
MH
N

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4B - SILVER SPRING DR	SHEET 273	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 4B_SILVER SPRING.DWG
LAYOUT NAME - 026022-S4
PLOT DATE : 1/30/2018 4:02 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4B - SILVER SPRING DR	SHEET 274	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 4B_SILVER SPRING.DWG
LAYOUT NAME - 026023-S4

PLOT DATE : 1/30/2018 4:02 PM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

PAVEMENT MARKING REMOVAL LEGEND

- WB1 MARKING REMOVAL LINE WATER BLASTING 4-INCH

TEMPORARY PAVEMENT MARKING LEGEND

1. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
2. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
3. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
5. TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
7. TEMPORARY MARKING ARROW REMOVABLE TAPE (WHITE) (TYPE 2)
9. TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

ROAD WORK AHEAD W20-1-A
LEFT LANE CLOSED AHEAD W20-55-A
700'
350'
N Port Washington Rd Silver Spring Dr EAST
Silver Spring Dr EAST
Silver Spring Dr EAST WEST
RAMP CLOSED
G20-63 (4)
(REMAIN FROM STAGE 4A)
LANE CLOSED R11-2-L 48"X30"
IH 43 SB
IH 43 NB
OFF RAMP CLOSED, SEE TRAFFIC CONTROL DETAIL: STAGE 4 - SILVER SPRING RAMP CLOSURE
ROAD WORK AHEAD W20-1-A
END ROAD WORK G20-2A 48"X24"
N
MILWAUKEE RIVER
25'
STA 23+48 TO STA 25+29
WB1
LANE CLOSED R11-2-L 48"X30"
W01-40L
R3-8-RR 54"X30"
ONLY ONLY ONLY
180' SHIFTING TAPER
R3-20-L 24"X36"
BEGIN LEFT TURN LANE
W01-40R
400'
ROAD WORK AHEAD W20-1-A
W01-6 48"X24"
SILVER SPRING DR
12'
25'
20
22
24
26
10
11'
WB1
400'
400'
200'
180' MERGING TAPER
ROAD WORK AHEAD W20-1-A
LEFT LANE CLOSED AHEAD W20-55-A
W04-2L
LANE CLOSED R11-2-L 48"X30"
STA 23+59 TO STA 24+59
WB1
LANE CLOSED R11-2-L 48"X30"
BEGIN LEFT TURN LANE R3-20-L 24"X36"
BEGIN RIGHT TURN LANE R3-20-R 24"X36"
LANE CLOSED R11-2-L 48"X30"
100' SHIFTING TAPER
END ROAD WORK G20-2A 48"X24"
END ROAD WORK G20-2A 48"X24"
END ROAD WORK G20-2A 48"X24"
ROAD WORK AHEAD W20-1-A
HINGTON RD
RIPRAP
SIGN
SLAB
CANOPY
FLAGPOLE
INL
MH
W

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4C - SILVER SPRING DR	SHEET 275	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\TRAFFIC CONTROL\12282272_STAGE 4C_SILVER SPRING.DWG
LAYOUT NAME - 026031-S4
PLOT DATE : 1/3/2019 2:44 PM
PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

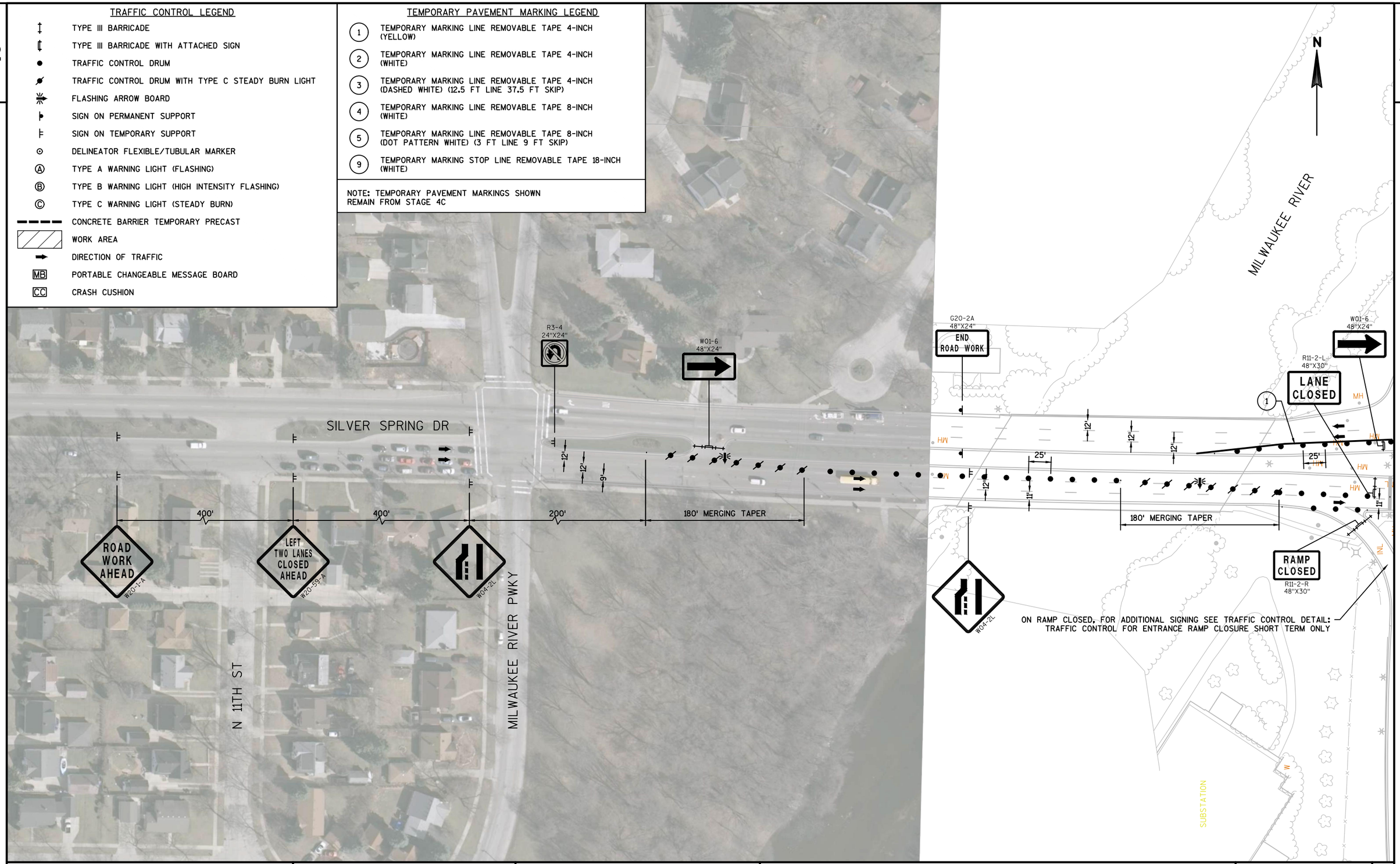
TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION

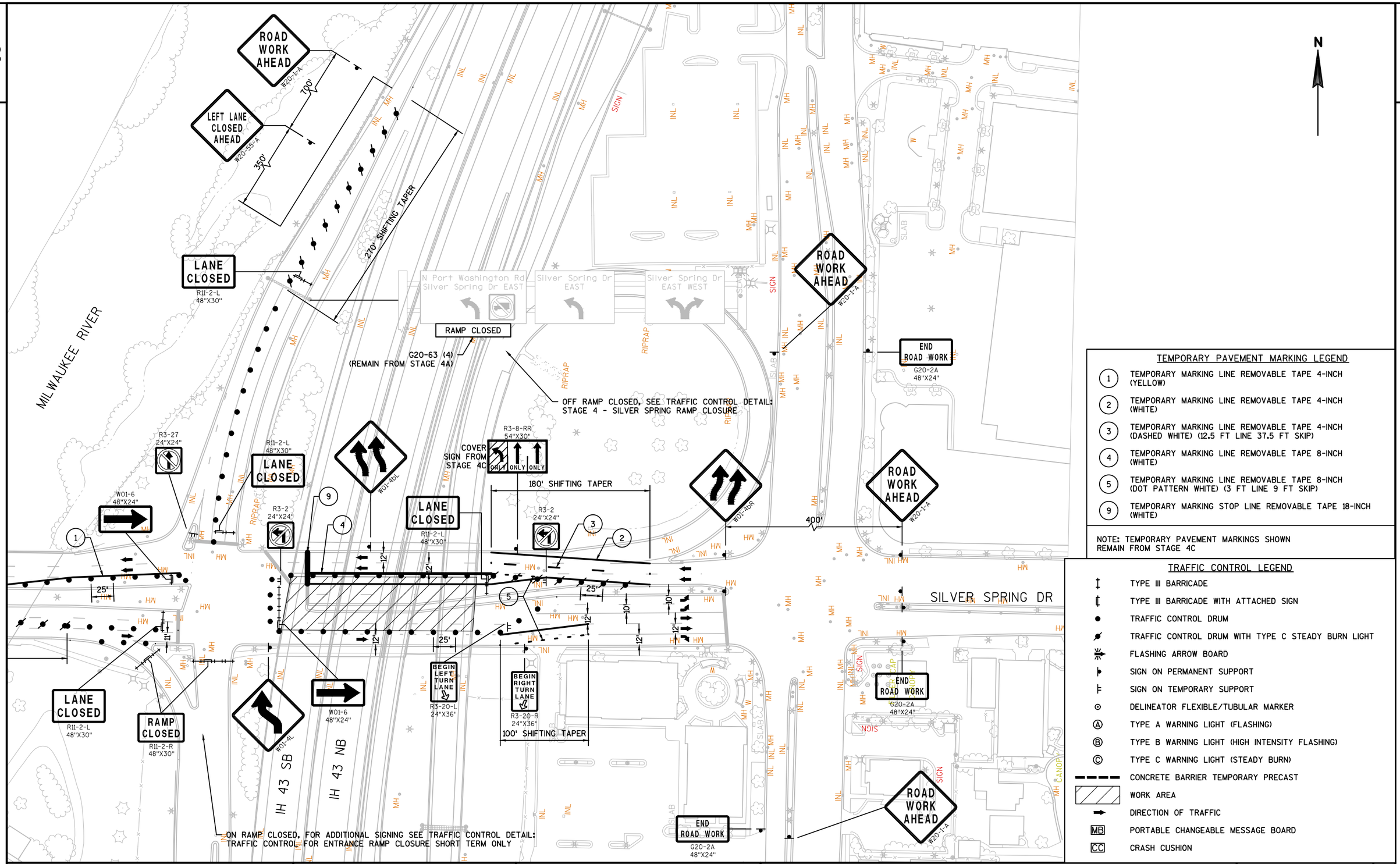
TEMPORARY PAVEMENT MARKING LEGEND

1. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
2. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
3. TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
5. TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
9. TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

NOTE: TEMPORARY PAVEMENT MARKINGS SHOWN REMAIN FROM STAGE 4C



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4D - SILVER SPRING DR	SHEET 276	E



TEMPORARY PAVEMENT MARKING LEGEND

1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
3	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
5	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
9	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

NOTE: TEMPORARY PAVEMENT MARKINGS SHOWN REMAIN FROM STAGE 4C

TRAFFIC CONTROL LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
A	TYPE A WARNING LIGHT (FLASHING)
B	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
C	TYPE C WARNING LIGHT (STEADY BURN)
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
MB	PORTABLE CHANGEABLE MESSAGE BOARD
CC	CRASH CUSHION

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4D - SILVER SPRING DR	SHEET 277	E

2

N

GLENDALE AVE

HAMPTON AVE

IH 43 SB

IH 43 NB

PORT WASHINGTON RD

MILWAUKEE RIVER

EXIT 77 B
Hampton Ave
WEST
RAMP CLOSED
G20-63 (4)

EXIT 77 A
Hampton Ave
EAST

EXIT 77 B
Hampton Ave
WEST
RAMP CLOSED
G20-63 (4)

GOLF GREEN

1 2A 2B 2C 2C 2D 3E 3F 4

LEGEND

- PERMANENT SIGN SUPPORT
- DETOUR ROUTE
- WORK AREA
- MB PORTABLE CHANGEABLE MESSAGE BOARDS

NOTES

1. THE EXACT NUMBER, LOCATION AND SPACING BETWEEN ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.
3. ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AND UNCOVERED DURING EACH CLOSURE AS NEEDED AND APPROVED BY THE ENGINEER.

1 — W20-2-A — DETOUR AHEAD
WEST M3-4 36"X18"
HAMPTON AVE FM-01

2 — M4-8 36"X18"
DETOUR
WEST M3-4 36"X18"
HAMPTON AVE FM-01

3 — M4-8 24"X12"
DETOUR
WEST M3-4 24"X12"
HAMPTON AVE FM-02

4 — M4-8A 24"X18"
END DETOUR
WEST M3-4 24"X12"
HAMPTON AVE FM-02

A	B	C	D	E	F
M05-2R 30"X30"	M06-2 30"X30"	M05-1L 30"X30"	M06-1 30"X30"	M05-1L 21"X21"	M06-1 21"X21"

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - IH 43 NB OFF RAMP TO WB HAMPTON AVE	SHEET 278	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\DETOURS\12282272_NB OFF RAMP TO WB HAMPTON.DWG
LAYOUT NAME - 027001-DT
PLOT DATE : 1/24/2018 8:29 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

2

N

MILWAUKEE RIVER

HAMPTON AVE

PORT WASHINGTON RD

IH 43

LEXINGTON BLVD

SILVER SPRING DR

COVER EXISTING

COVER EXISTING

DETOUR M4-8 24"X12"
SOUTH
43

TO NORTH 43 SOUTH 43
M06-1 21"X21"

LEGEND

- PERMANENT SIGN SUPPORT
- DETOUR ROUTE
- WORK AREA
- MB PORTABLE CHANGEABLE MESSAGE BOARDS

NOTES

1. THE EXACT NUMBER, LOCATION AND SPACING BETWEEN ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.
3. ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AND UNCOVERED DURING EACH CLOSURE AS NEEDED AND APPROVED BY THE ENGINEER.

1 DETOUR AHEAD W20-2-A; SOUTH M3-3 24"X12"; INTERSTATE 43 M1-1 24"X24"

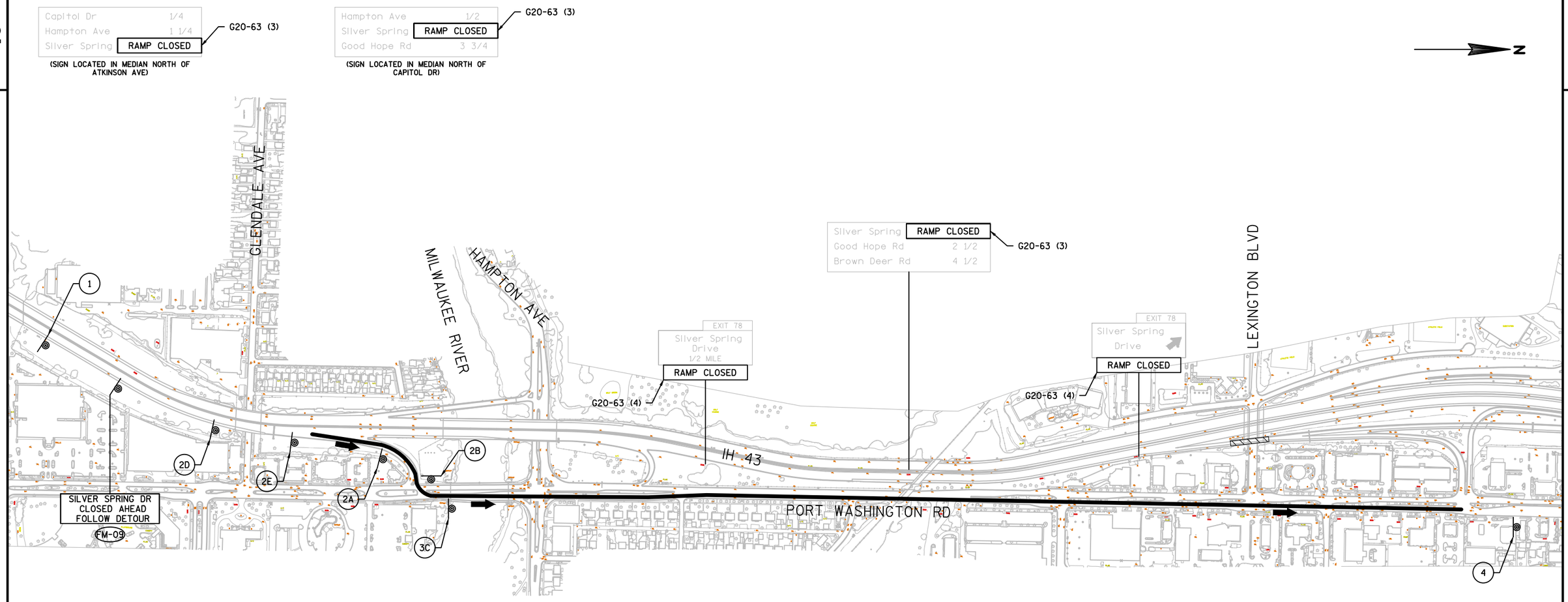
2 DETOUR M4-8 24"X12"; SOUTH M3-3 24"X12"; INTERSTATE 43 M1-1 24"X24"

3 END DETOUR M4-8A 24"X18"; SOUTH M3-3 24"X12"; INTERSTATE 43 M1-1 24"X24"

A M05-1L 21"X21" | B M06-1 21"X21" | C M06-1 21"X21" | D M05-1R 21"X21"

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - IH 43 SB ON RAMP FROM SILVER SPRING DR	SHEET 279	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\DETOURS\12282272_SB ON RAMP FROM SILVER SPRING.DWG
LAYOUT NAME - 027002-DT
PLOT DATE : 1/24/2018 8:30 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42

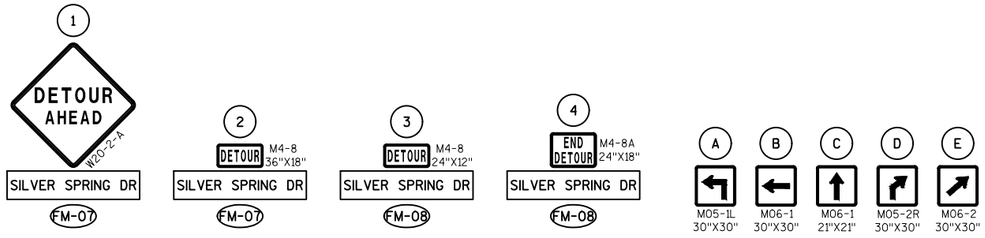


LEGEND

- PERMANENT SIGN SUPPORT
- DETOUR ROUTE
- WORK AREA
- MB PORTABLE CHANGEABLE MESSAGE BOARDS

NOTES

1. THE EXACT NUMBER, LOCATION AND SPACING BETWEEN ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.
3. ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AND UNCOVERED DURING EACH CLOSURE AS NEEDED AND APPROVED BY THE ENGINEER.



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - IH 43 NB OFF RAMP TO SILVER SPRING DR	SHEET 280	E

LEGEND

- PERMANENT SIGN SUPPORT
- DETOUR ROUTE
- WORK AREA
- MB PORTABLE CHANGEABLE MESSAGE BOARDS

NOTES

1. THE EXACT NUMBER, LOCATION AND SPACING BETWEEN ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.
3. ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AND UNCOVERED DURING EACH CLOSURE AS NEEDED AND APPROVED BY THE ENGINEER.

1 — DETOUR M4-8 36"X18" — SILVER SPRING DR — FM-07

2 — DETOUR M4-8 24"X12" — SILVER SPRING DR — FM-08

3 — END DETOUR M4-8A 24"X18" — SILVER SPRING DR — FM-08

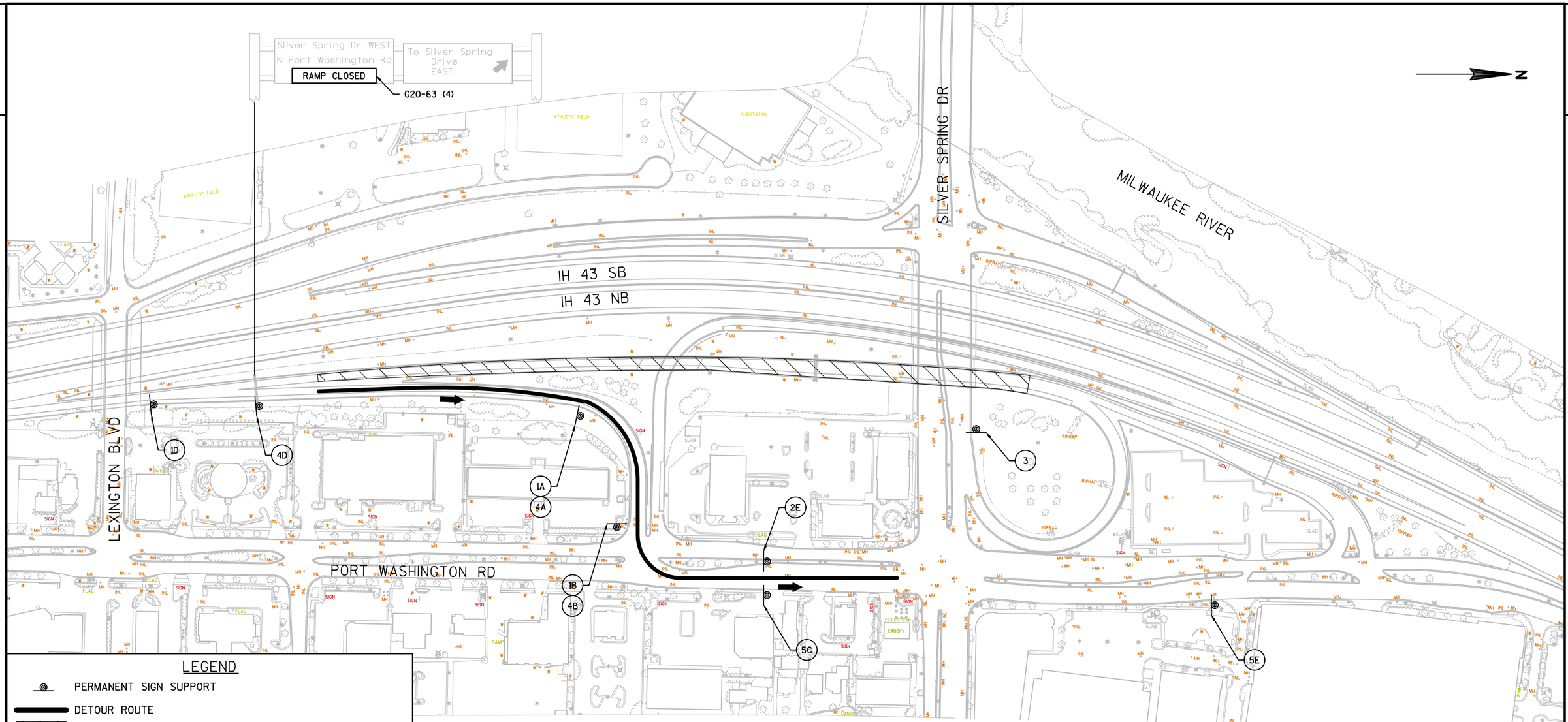
A	B	C	D	E	F
M05-1R 21"X21"	M06-1 21"X21"	M06-1 21"X21"	M05-2R 30"X30"	M06-2 30"X30"	M06-1 30"X30"

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - IH 43 NB OFF RAMP TO SILVER SPRING DR ALTERNATE	SHEET 281	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\DETOURS\12282272_NB OFF RAMP TO SILVER SPRING DR ALTERNATE.DWG
LAYOUT NAME - 027004-DT
PLOT DATE : 1/24/2018 8:33 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:1000 FT

WISDOT/CADDS SHEET 42

2



LEGEND

- PERMANENT SIGN SUPPORT
- DETOUR ROUTE
- WORK AREA
- MB PORTABLE CHANGEABLE MESSAGE BOARDS

NOTES

1. THE EXACT NUMBER, LOCATION AND SPACING BETWEEN ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.
3. ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AND UNCOVERED DURING EACH CLOSURE AS NEEDED AND APPROVED BY THE ENGINEER.

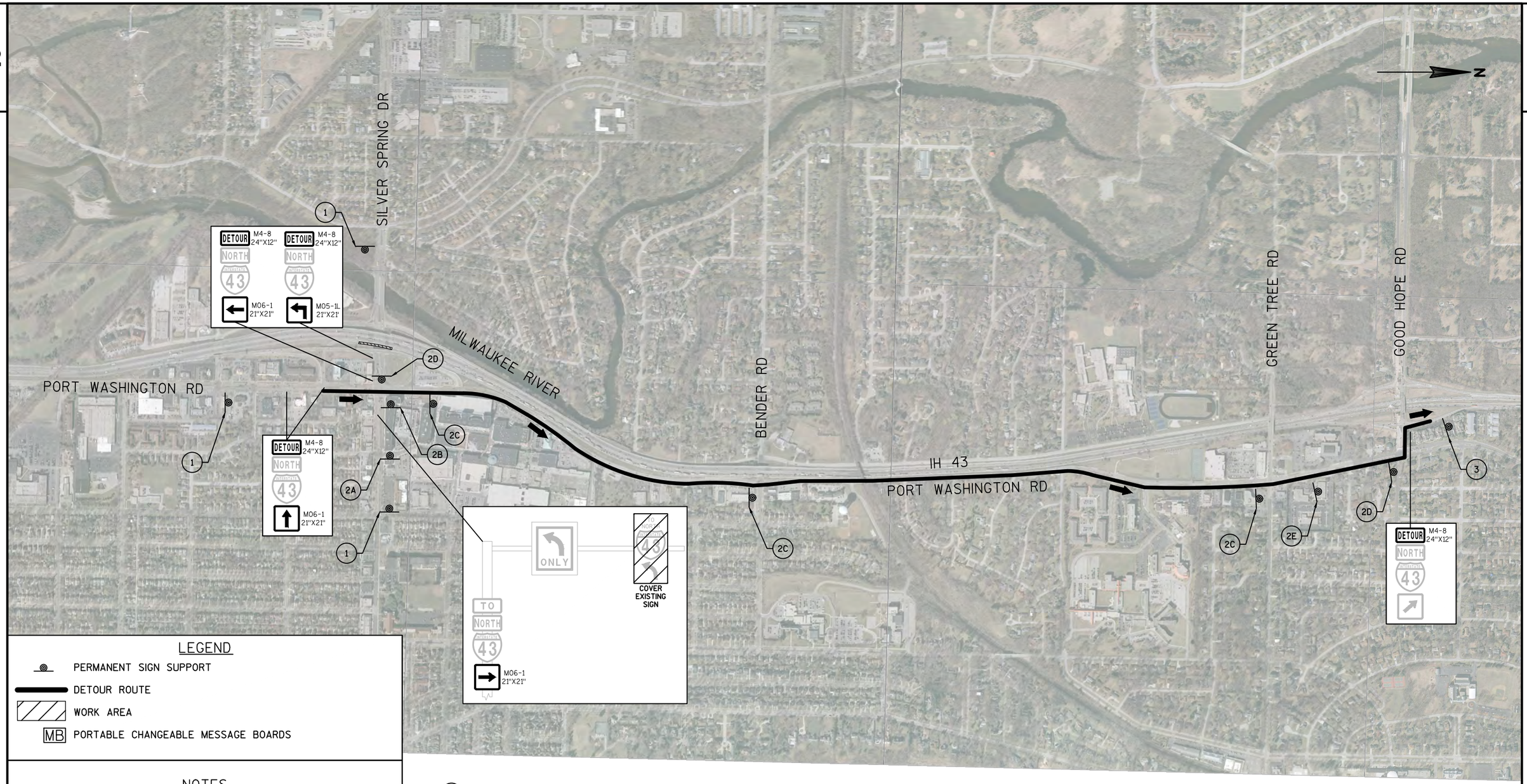
1	2	3	4	5
DETOUR M4-8 36"X18"	DETOUR M4-8 24"X12"	END DETOUR M4-8A 24"X18"	PARK & RIDE	PARK & RIDE
WEST M3-4 36"X18"	WEST M3-4 24"X12"	WEST M3-4 24"X12"		
SILVER SPRING DR	SILVER SPRING DR	SILVER SPRING DR		
FM-07	FM-08	FM-08	FM-10	FM-11

A	B	C	D	E
M05-1L 30"X30"	M06-1 30"X30"	M06-1 21"X21"	M06-2 30"X30"	M06-1 21"X21"

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - IH 43 NB OFF RAMP TO SILVER SPRING DR/PARK & RIDE	SHEET 282	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\DETOURS\12282272_NB OFF RAMP TO WEST SILVER SPRING.DWG
LAYOUT NAME - 027005-DT
PLOT DATE : 1/24/2018 8:34 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:200 FT

2



LEGEND

- PERMANENT SIGN SUPPORT
- DETOUR ROUTE
- WORK AREA
- MB PORTABLE CHANGEABLE MESSAGE BOARDS

NOTES

1. THE EXACT NUMBER, LOCATION AND SPACING BETWEEN ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.
3. ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AND UNCOVERED DURING EACH CLOSURE AS NEEDED AND APPROVED BY THE ENGINEER.

1
DETOUR AHEAD W20-2-A
NORTH M3-1 24"X12"
INTERSTATE 43 M1-1 24"X24"

2
DETOUR M4-8 24"X12"
NORTH M3-1 24"X12"
INTERSTATE 43 M1-1 24"X24"

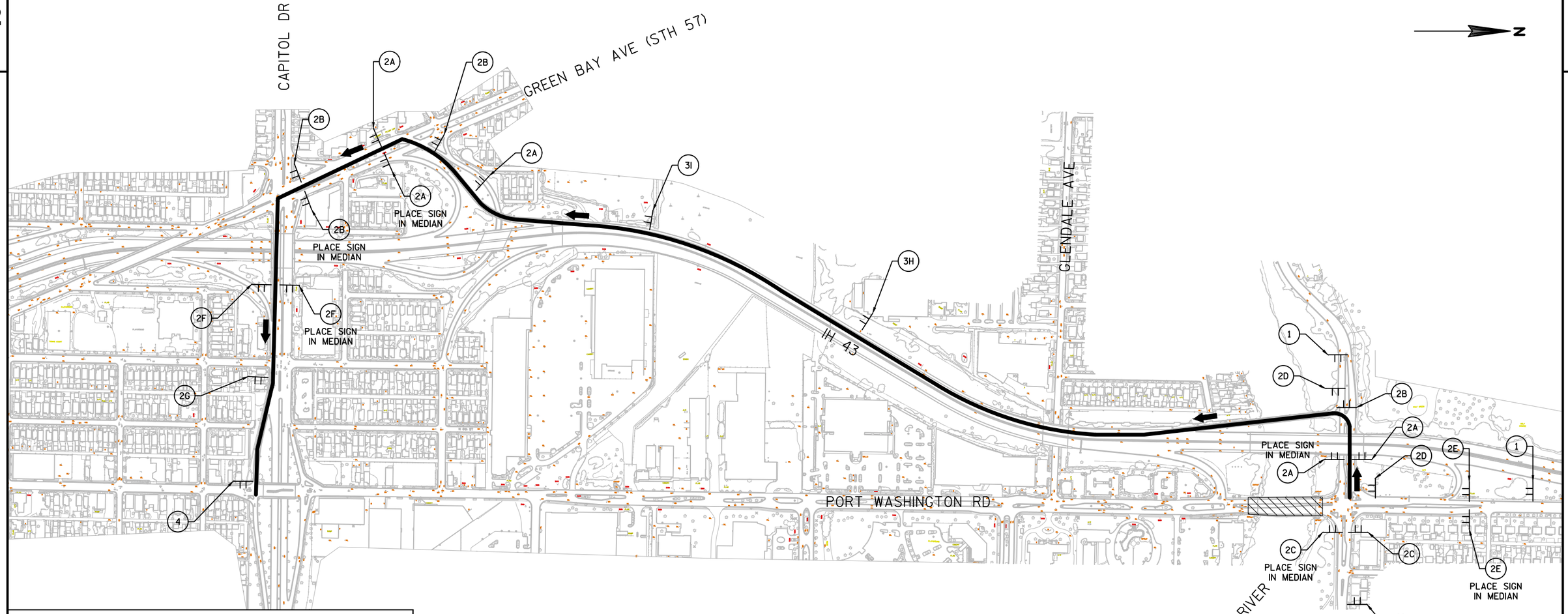
3
END DETOUR M4-8A 24"X18"
NORTH M3-1 24"X12"
INTERSTATE 43 M1-1 24"X24"

A M05-1R 21"X21"
B M06-1 21"X21"
C M06-1 21"X21"
D M06-1 21"X21"
E M05-1L 21"X21"

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - IH 43 NB ON RAMP FROM SILVER SPRING DR	SHEET 283 E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\DETOURS\12282272_NB ON RAMP FROM SILVER SPRING.DWG
LAYOUT NAME - 027006-DT
PLOT DATE : 1/24/2018 8:35 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:1000 FT

2



LEGEND

- TEMPORARY SIGN SUPPORT
- DETOUR ROUTE
- WORK AREA
- MB PORTABLE CHANGEABLE MESSAGE BOARDS

NOTES

1. THE EXACT NUMBER, LOCATION AND SPACING BETWEEN ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.
3. ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AND UNCOVERED DURING EACH CLOSURE AS NEEDED AND APPROVED BY THE ENGINEER.

(1) DETOUR AHEAD W20-2-A
SOUTH M3-3 24"X12"
PORT WASHINGTON RD
FM-04

(2) DETOUR M4-8 24"X12"
SOUTH M3-3 24"X12"
PORT WASHINGTON RD
FM-04

(3) DETOUR M4-8 36"X18"
SOUTH M3-3 36"X18"
PORT WASHINGTON RD
FM-03

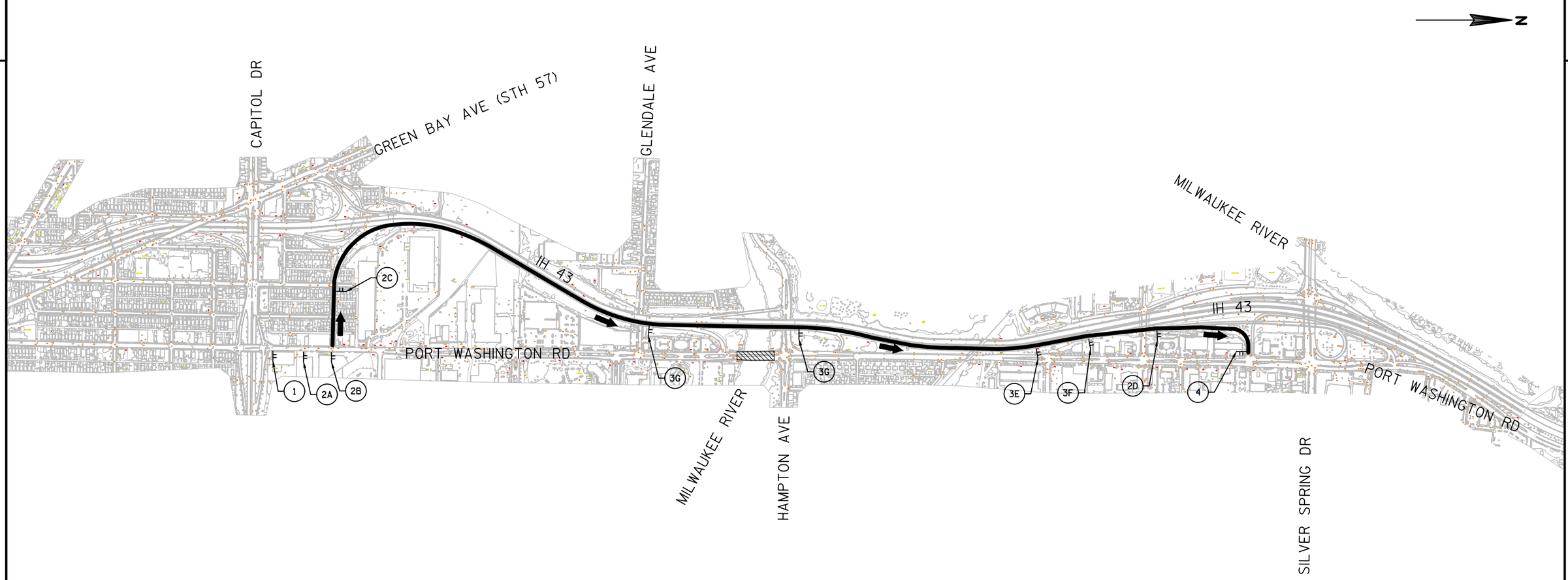
(4) END DETOUR M4-8A 24"X18"
SOUTH M3-3 24"X12"
PORT WASHINGTON RD
FM-04

A	B	C	D	E	F	G	H	I
M05-1L 21"X21"	M06-1 21"X21"	M06-1 21"X21"	M06-1 21"X21"	M05-1R 21"X21"	M05-2R 21"X21"	M06-2 21"X21"	M05-2R 30"X30"	M06-2 30"X30"

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - SOUTHBOUND PORT WASHINGTON RD	SHEET 284	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\DETOURS\12282272_SB PORT WASHINGTON RD.DWG
LAYOUT NAME - 027008-DT
PLOT DATE : 1/24/2018 8:37 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:500 FT

2

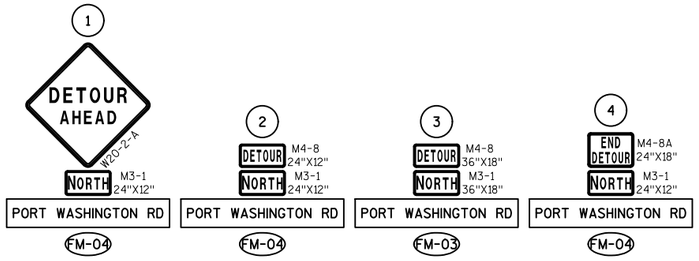


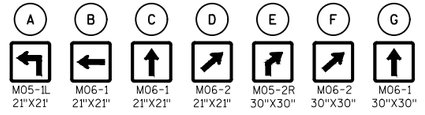
LEGEND

- TEMPORARY SIGN SUPPORT
- DETOUR ROUTE
- WORK AREA
- MB PORTABLE CHANGEABLE MESSAGE BOARDS

NOTES

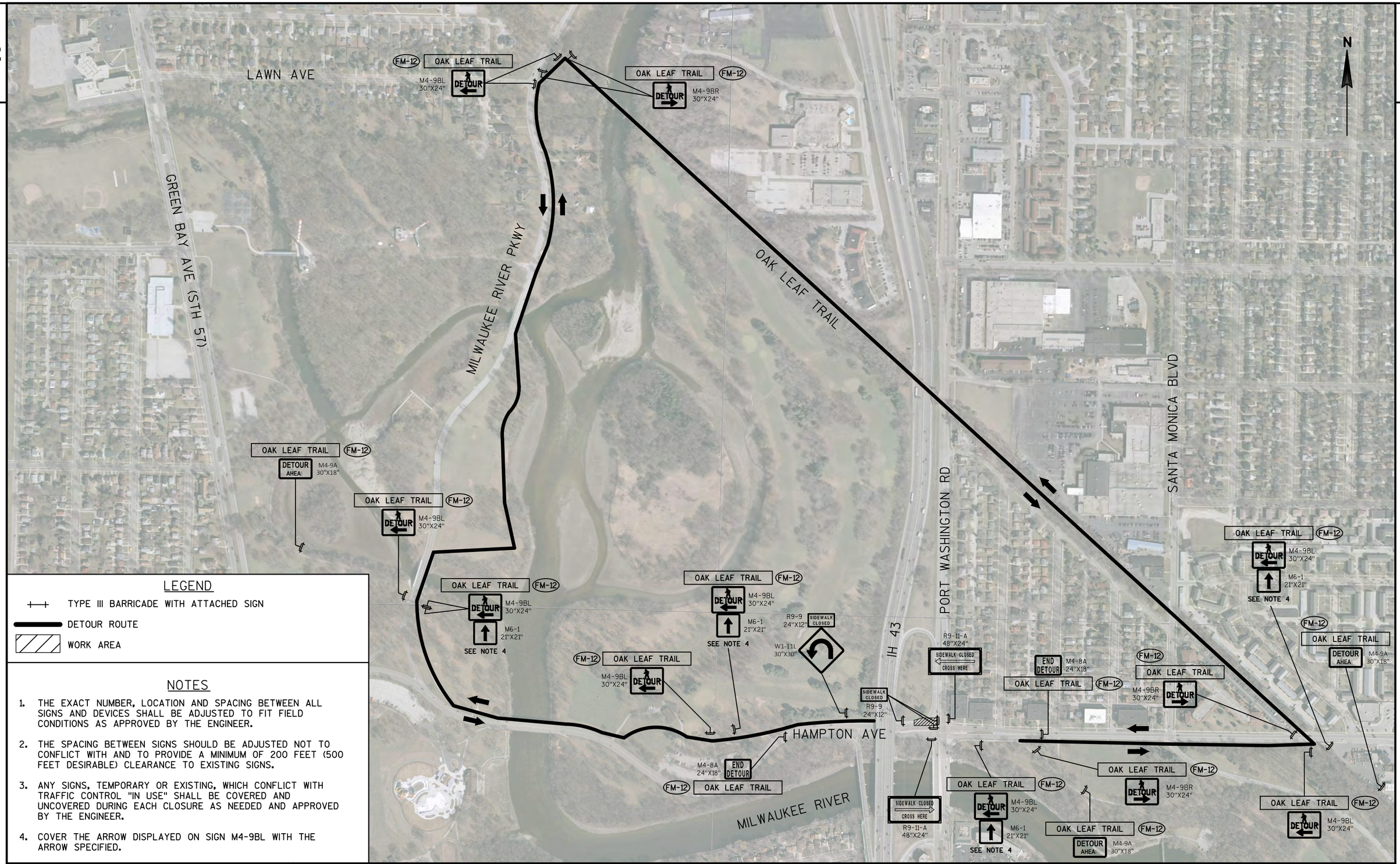
1. THE EXACT NUMBER, LOCATION AND SPACING BETWEEN ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.
3. ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AND UNCOVERED DURING EACH CLOSURE AS NEEDED AND APPROVED BY THE ENGINEER.





PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - NORTHBOUND PORT WASHINGTON RD	SHEET 285	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\DETOURS\12282272_NB PORT WASHINGTON RD.DWG
LAYOUT NAME - 027009-DT
PLOT DATE : 1/24/2018 8:38 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:1000 FT



LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- DETOUR ROUTE
- WORK AREA

NOTES

1. THE EXACT NUMBER, LOCATION AND SPACING BETWEEN ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.
3. ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AND UNCOVERED DURING EACH CLOSURE AS NEEDED AND APPROVED BY THE ENGINEER.
4. COVER THE ARROW DISPLAYED ON SIGN M4-9BL WITH THE ARROW SPECIFIED.

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - OAK LEAF TRAIL	SHEET 286 E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\DETOURS\12282272_OAK LEAF TRAIL DETOUR.DWG
LAYOUT NAME - 027010-DT

PLOT DATE : 1/24/2018 8:40 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:500 FT

WISDOT/CADDS SHEET 42

2

SILVER SPRING DR

MILWAUKEE RIVER PKWY

LAWN AVE

GREEN BAY AVE (STH 57)

OAK LEAF TRAIL

IH 43

PORT WASHINGTON RD

SANTA MONICA BLVD

N

ETOUR AHEA
M4-9BA
30"X24"

DETOUR
M4-9BR
30"X24"

SIDEWALK CLOSED
R9-9
24"X12"

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

ETOUR AHEA
M4-9BA
30"X24"

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

LEGEND

TYPE III BARRICADE WITH ATTACHED SIGN

DETOUR ROUTE

WORK AREA

NOTES

1. THE EXACT NUMBER, LOCATION AND SPACING BETWEEN ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.
3. ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AND UNCOVERED DURING EACH CLOSURE AS NEEDED AND APPROVED BY THE ENGINEER.

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - PEDESTRIAN SILVER SPRING DR	SHEET 287 E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\DETOURS\12282272_PEDESTRIAN SILVER SPRING.DWG
LAYOUT NAME - 027011-DT
PLOT DATE : 1/24/2018 8:40 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME :
PLOT SCALE : 1 IN:500 FT

2

N

N1° 06' 56"E
2741.50'

QUARTER SECTION CORNER
CONCRETE MONUMENT
w/SEWRPC BRASS CAP
Y: 320755.00
X: 601344.86

N89° 21' 33"W
2620.46'

NORTH SECTION CORNER
CONCRETE MONUMENT
w/SEWRPC BRASS CAP
Y: 323495.98
X: 601398.24

S89° 02' 13"E
2616.63'

S89° 02' 06"E
2617.59'

SOUTH SECTION CORNER
CONCRETE MONUMENT
w/SEWRPC BRASS CAP
Y: 323496.31
X: 601370.32

"HA" STA 10+68.35
N=323445.30
E=603304.61

"HA" STA 12+89.63, 26.5' RT
"HA RAMP A" STA 981+72.50
N=323415.21
E=603525.43

℄ "HA"
(FOR INFORMATION ONLY)

"IH 43" STA 973+37.97, 49.1' LT
"HA RAMP A" STA 973+28.37
N=322576.80
E=603623.56

℄ "HA RAMP A"
(FOR INFORMATION ONLY)

N6°40'35"W
844.13'

975"HA RAMP A"

980"HA RAMP A"

S89°04'23"E
998.06'

970

975

N0°58'04"E
1364.84'

980

985

PI

CURVE 1

PC

PT

990

N11°51'20"E
489.73'

995

PI

CURVE 2

PC

PT

℄ IH 43

"IH 43" STA 982+01.22
"HA" STA 14+51.07
N=323439.11
E=603687.27

15"HA"

"PW" STA 96+94.83
N=322538.33
E=604013.21

"PW" STA 105+90.48
"HA" STA 17+69.87
N=323433.95
E=604006.04

℄ "PW"
(FOR INFORMATION ONLY)

N1° 03' 25"E
2726.67'

N0°27'30"W
1023.46'

100"PW"

105"PW"

N0°23'31"E
1631.71'

110"PW"

PI

"PW" STA 113+50.00
N=324193.4510
E=604009.3390

"HA" STA 20+66.41
N=323429.15
E=604302.54

20"HA"

CENTER SECTION CORNER
CONCRETE MONUMENT
w/SEWRPC BRASS CAP
Y: 320725.69
X: 603965.16

SOUTH QUARTER SECTION CORNER
CONCRETE MONUMENT
w/SEWRPC BRASS CAP
Y: 323452.34
X: 603986.58

NORTH QUARTER SECTION CORNER
CONCRETE MONUMENT
w/SEWRPC BRASS CAP
Y: 323451.89
X: 604015.46

IH 43 CURVE 1	
PI STA	= 986+23.63
Y	= 323861.453
X	= 603694.409
DELTA	= 10°53'16"
D	= 2°00'41"
T	= 271.47'
L	= 541.31'
R	= 2848.59'
PC STA	= 983+52.16
Y	= 323590.020
X	= 603689.823
PT STA	= 988+93.47
Y	= 324127.135
X	= 603750.182
BK	= N00°58'04.4"E
AH	= N11°51'20.4"E

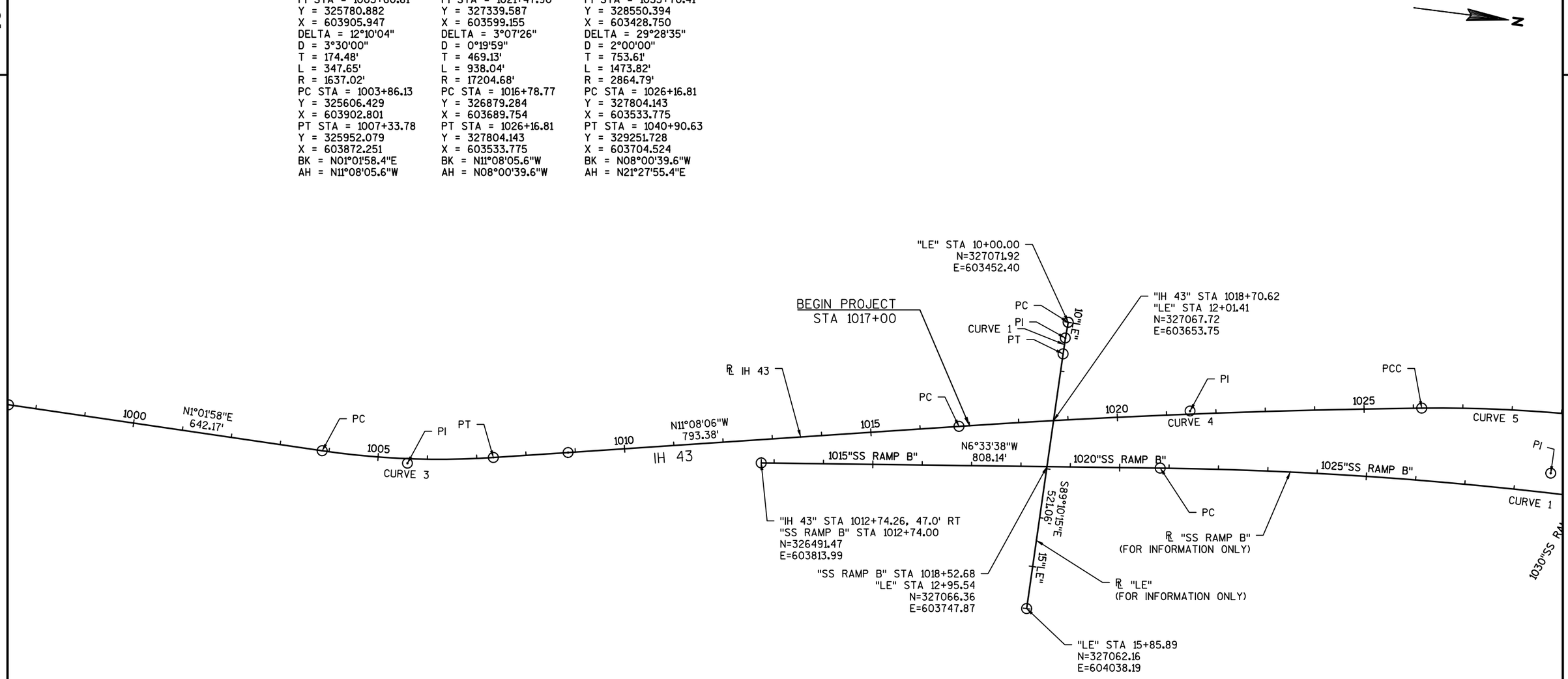
IH 43 CURVE 2	
PI STA	= 995+64.11
Y	= 324783.474
X	= 603887.964
DELTA	= 10°49'22"
D	= 3°00'00"
T	= 180.92'
L	= 360.76'
R	= 1909.86'
PC STA	= 993+83.19
Y	= 324606.415
X	= 603850.795
PT STA	= 997+43.95
Y	= 324964.363
X	= 603891.226
BK	= N11°51'20.4"E
AH	= N01°01'58.4"E

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 288	E

IH 43 CURVE 3
PI STA = 1005+60.61
Y = 325780.882
X = 603905.947
DELTA = 12°10'04"
D = 3°30'00"
T = 174.48'
L = 347.65'
R = 1637.02'
PC STA = 1003+86.13
Y = 325606.429
X = 603902.801
PT STA = 1007+33.78
Y = 325952.079
X = 603872.251
BK = N01°01'58.4"E
AH = N11°08'05.6"W

IH 43 CURVE 4
PI STA = 1021+47.90
Y = 327339.587
X = 603599.155
DELTA = 3°07'26"
D = 0°19'59"
T = 469.13'
L = 938.04'
R = 17204.68'
PC STA = 1016+78.77
Y = 326879.284
X = 603689.754
PT STA = 1026+16.81
Y = 327804.143
X = 603533.775
BK = N11°08'05.6"W
AH = N08°00'39.6"W

IH 43 CURVE 5
PI STA = 1033+70.41
Y = 328550.394
X = 603428.750
DELTA = 29°28'35"
D = 2°00'00"
T = 753.61'
L = 1473.82'
R = 2864.79'
PC STA = 1026+16.81
Y = 327804.143
X = 603533.775
PT STA = 1040+90.63
Y = 329251.728
X = 603704.524
BK = N08°00'39.6"W
AH = N21°27'55.4"E



"LE" CURVE 1
PI STA = 10+32.42"LE"
Y = 327070.170
X = 603484.772
DELTA = 2°16'08"
D = 3°30'00"
T = 32.42'
L = 64.83'
R = 1637.02'
PC STA = 10+00.00"LE"
Y = 327071.922
X = 603452.402
PT STA = 10+64.83"LE"
Y = 327069.701
X = 603517.185
BK = S86°54'07.1"E
AH = S89°10'15.1"E

"SS RAMP B" CURVE 1
PI STA = 1028+73.23"SS RAMP B"
Y = 328080.224
X = 603631.271
DELTA = 11°36'12"
D = 0°44'09"
T = 791.08'
L = 1576.76'
R = 7785.80'
PC STA = 1020+82.14"SS RAMP B"
Y = 327294.321
X = 603721.657
PT STA = 1036+58.90"SS RAMP B"
Y = 328868.247
X = 603700.807
BK = N06°33'38.4"W
AH = N05°02'33.8"E

PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 289	E

2

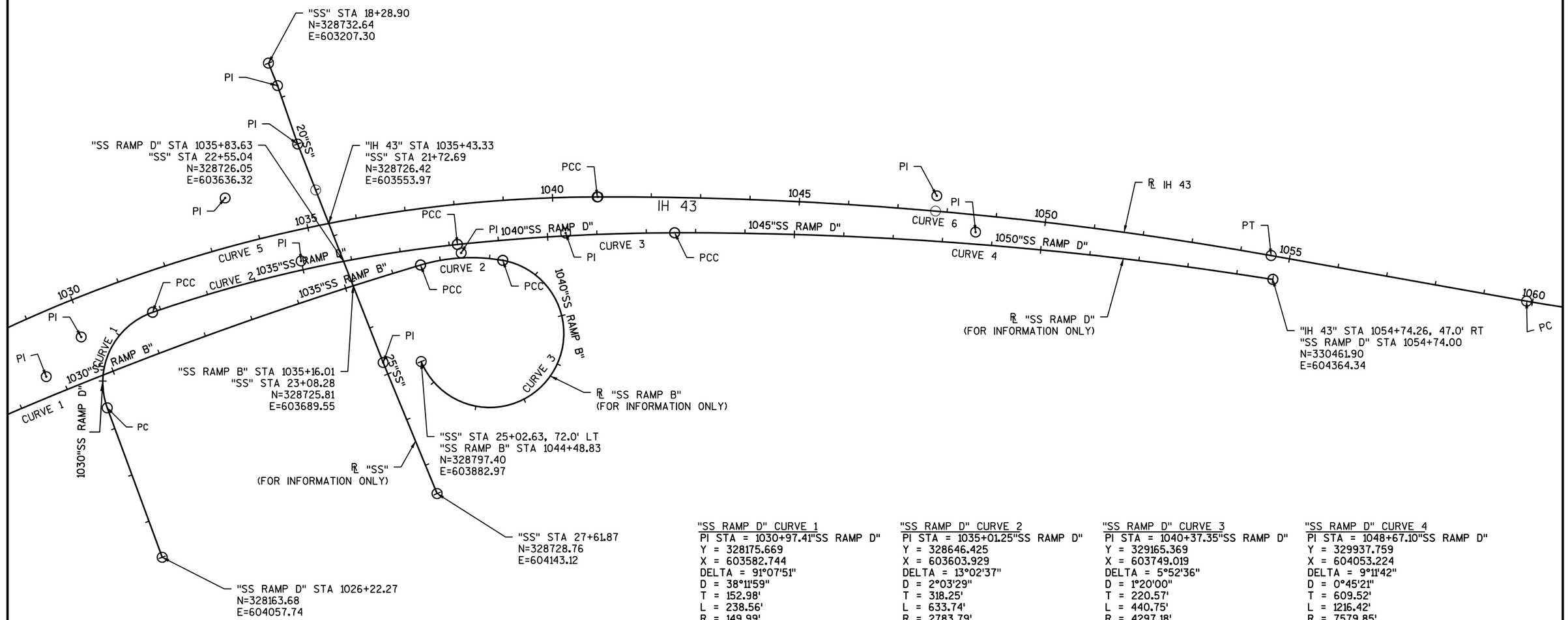
IH 43 CURVE 5	
PI STA =	1033+70.41
Y =	328550.394
X =	603428.750
DELTA =	29°28'35"
D =	2°00'00"
T =	753.61'
L =	1473.82'
R =	2864.79'
PC STA =	1026+16.81
Y =	327804.143
X =	603533.775
PT STA =	1040+90.63
Y =	329251.728
X =	603704.524
BK =	N08°00'39.6"W
AH =	N21°27'55.4"E

IH 43 CURVE 6	
PI STA =	1047+78.32
Y =	329891.727
X =	603956.180
DELTA =	10°17'11"
D =	0°45'00"
T =	687.70'
L =	1371.70'
R =	7640.52'
PC STA =	1040+90.63
Y =	329251.728
X =	603704.524
PT STA =	1054+62.33
Y =	330476.503
X =	604318.075
BK =	N21°27'55.6"E
AH =	N31°45'06.3"E

"SS RAMP B" CURVE 1	
PI STA =	1028+73.23"SS RAMP B"
Y =	328080.224
X =	603631.271
DELTA =	11°36'12"
D =	0°44'09"
T =	791.08'
L =	1576.76'
R =	7785.80'
PC STA =	1020+82.14"SS RAMP B"
Y =	327294.321
X =	603721.657
PT STA =	1036+58.90"SS RAMP B"
Y =	328868.247
X =	603700.807
BK =	N06°33'38.4"W
AH =	N05°02'33.8"E

"SS RAMP B" CURVE 2	
PI STA =	1037+44.65"SS RAMP B"
Y =	328953.668
X =	603708.344
DELTA =	26°48'04"
D =	15°55'12"
T =	85.74'
L =	168.35'
R =	359.90'
PC STA =	1036+58.91"SS RAMP B"
Y =	328868.255
X =	603700.807
PT STA =	1038+27.26"SS RAMP B"
Y =	329026.507
X =	603753.583
BK =	N05°02'33.8"E
AH =	N31°50'38.2"E

"SS RAMP B" CURVE 3	
PI STA =	1035+53.38"SS RAMP B"
Y =	328793.850
X =	603609.083
DELTA =	237°24'47"
D =	38°11'50"
T =	273.91'
L =	621.55'
R =	150.00'
PC STA =	1038+27.29"SS RAMP B"
Y =	329026.531
X =	603753.598
PT STA =	1044+48.83"SS RAMP B"
Y =	328797.402
X =	603882.967
BK =	N31°50'38.2"E
AH =	S89°15'24.9"W



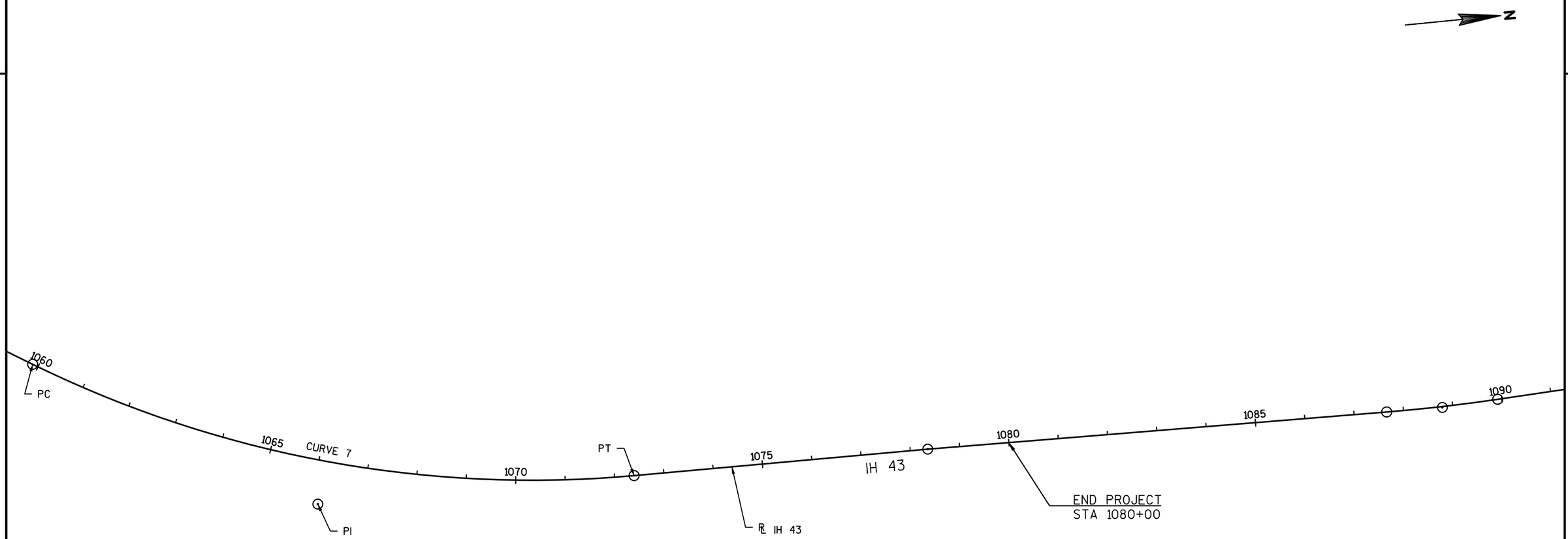
"SS RAMP D" CURVE 1	
PI STA =	1030+97.41"SS RAMP D"
Y =	328175.669
X =	603582.744
DELTA =	91°07'51"
D =	38°11'59"
T =	152.98'
L =	238.56'
R =	149.99'
PC STA =	1029+44.44"SS RAMP D"
Y =	328171.809
X =	603735.675
PT STA =	1031+83.00"SS RAMP D"
Y =	328328.494
X =	603589.622
BK =	N88°33'15.1"W
AH =	N02°34'35.9"E

"SS RAMP D" CURVE 2	
PI STA =	1035+01.25"SS RAMP D"
Y =	328646.425
X =	603603.929
DELTA =	13°02'37"
D =	2°03'29"
T =	318.25'
L =	633.74'
R =	2783.79'
PC STA =	1031+83.00"SS RAMP D"
Y =	328328.500
X =	603589.622
PT STA =	1038+16.75"SS RAMP D"
Y =	328952.918
X =	603689.620
BK =	N02°34'35.9"E
AH =	N15°37'13.0"E

"SS RAMP D" CURVE 3	
PI STA =	1040+37.35"SS RAMP D"
Y =	329165.369
X =	603749.019
DELTA =	5°52'36"
D =	1°20'00"
T =	220.57'
L =	440.75'
R =	4297.18'
PC STA =	1038+16.78"SS RAMP D"
Y =	328952.946
X =	603689.628
PT STA =	1042+57.53"SS RAMP D"
Y =	329370.594
X =	603829.846
BK =	N15°37'13.0"E
AH =	N21°29'49.0"E

"SS RAMP D" CURVE 4	
PI STA =	1048+67.10"SS RAMP D"
Y =	329937.759
X =	604053.224
DELTA =	9°11'42"
D =	0°45'21"
T =	609.52'
L =	1216.42'
R =	7579.85'
PC STA =	1042+57.58"SS RAMP D"
Y =	329370.640
X =	603829.864
PT STA =	1054+74.00"SS RAMP D"
Y =	330461.901
X =	604364.335
BK =	N21°29'49.0"E
AH =	N30°41'30.6"E

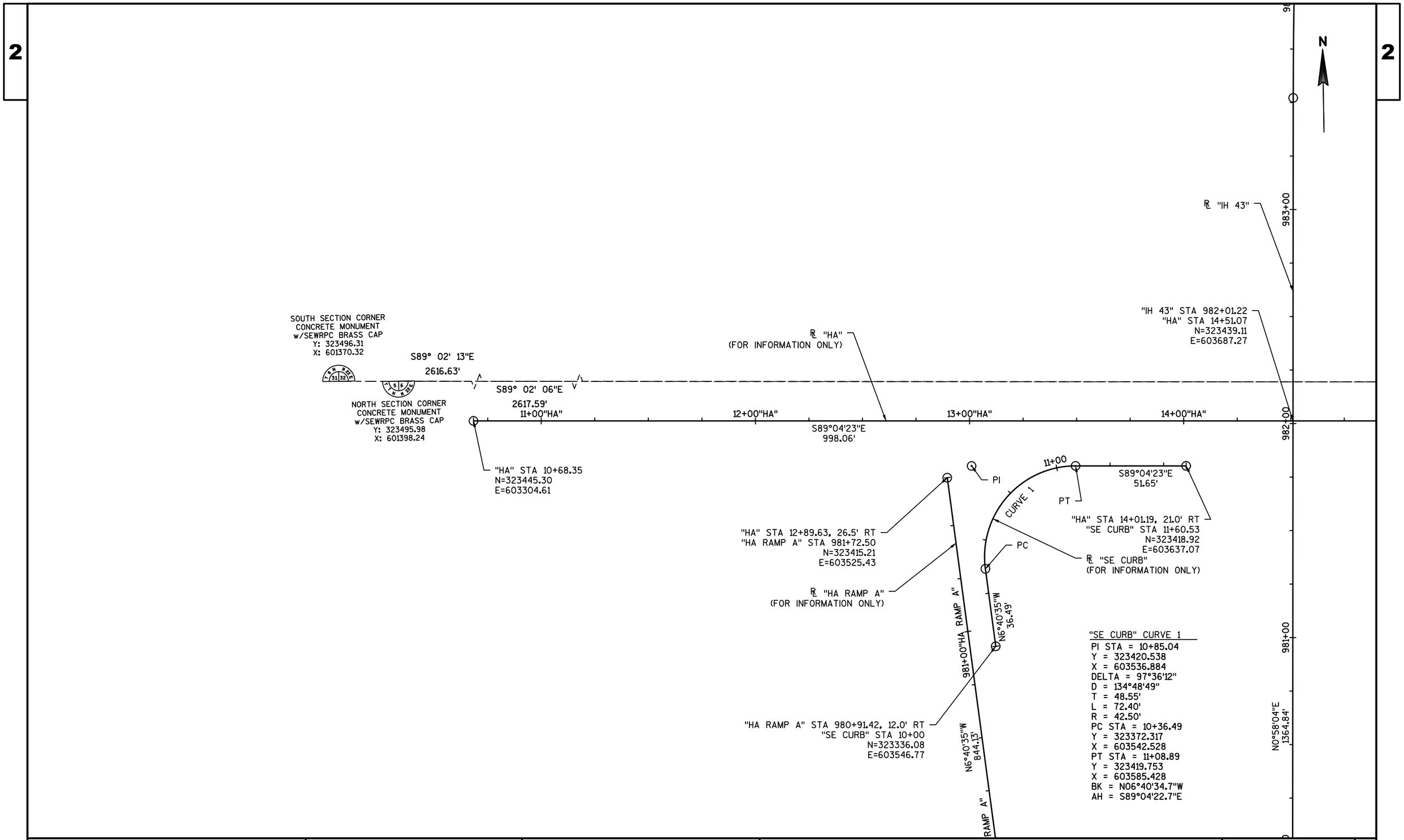
2



IH 43 CURVE 7
PI STA = 1066+29.89
Y = 331469.325
X = 604932.494
DELTA = 31°17'30"
D = 2°30'00"
T = 641.87'
L = 1251.67'
R = 2291.84'
PC STA = 1059+88.02
Y = 330923.521
X = 604594.717
PT STA = 1072+39.69
Y = 332111.174
X = 604937.648
BK = N31°45'06.3"E
AH = N00°27'36.3"E

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 291	E

2



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 292	E

2

"NW CURB" CURVE 1

PI STA = 1+34.30
Y = 323502.485
X = 603922.352
DELTA = 60°01'32"
D = 190°59'09"
T = 17.33'
L = 31.43'
R = 30.00'
PC STA = 1+16.97
Y = 323501.262
X = 603905.066
PT STA = 1+48.40
Y = 323518.070
X = 603929.929
BK = N85°57'09.2"E
AH = N25°55'37.3"E

"NW CURB" CURVE 2

PI STA = 2+07.58
Y = 323571.289
X = 603955.802
DELTA = 25°45'10"
D = 40°55'32"
T = 32.00'
L = 62.93'
R = 140.00'
PC STA = 1+75.58
Y = 323542.507
X = 603941.809
PT STA = 2+38.50
Y = 323603.293
X = 603955.899
BK = N25°55'37.3"E
AH = N00°10'27.3"E

"NW ISLAND" CURVE 1

PI STA = 0+23.72
Y = 323480.633
X = 603964.199
DELTA = 93°05'24"
D = 1432°23'40"
T = 4.22'
L = 6.50'
R = 4.00'
PC STA = 0+19.50
Y = 323480.701
X = 603959.978
PT STA = 0+26.00
Y = 323484.851
X = 603964.039
BK = S89°04'22.7"E
AH = N02°09'47.0"W

"NW ISLAND" CURVE 2

PI STA = 0+79.52
Y = 323538.335
X = 603962.019
DELTA = 151°54'36"
D = 1432°23'40"
T = 15.99'
L = 10.61'
R = 4.00'
PC STA = 0+63.53
Y = 323522.357
X = 603962.623
PT STA = 0+74.14
Y = 323523.955
X = 603955.028
BK = N02°09'47.0"W
AH = S25°55'37.3"W

"NW ISLAND" CURVE 3

PI STA = 1+21.77
Y = 323481.118
X = 603934.203
DELTA = 115°00'00"
D = 1432°23'40"
T = 6.28'
L = 8.03'
R = 4.00'
PC STA = 1+15.49
Y = 323486.765
X = 603936.948
PT STA = 1+23.52
Y = 323481.016
X = 603940.481
BK = S25°55'37.3"W
AH = S89°04'22.7"E

"PW" STA 107+75.40, 49.46' LT
"NW CURB" STA 2+54.41
N=323619.20
E=603955.95

N0°10'27"E
15.91'

PT

CURVE 2

℄ "NW CURB"
(FOR INFORMATION ONLY)

2+00

PC

PI

N25°55'37"E
27.17'

PI

CURVE 2

PT

PC

℄ "NW ISLAND"
(FOR INFORMATION ONLY)

"HA" STA 15+51.29, 55.53' LT
"NW CURB" STA 0+00.00
N=323493.01
E=603788.38

CURVE 1

PT

PI

PC

1+00

N85°57'09"E
116.97'

S25°55'37"W
41.35'

1+00

0+50

N2°09'47"W
37.53'

PC

CURVE 3

S89°04'23"E
19.50'

PT

PI

PT

CURVE 1

PI

PC

"HA" STA 17+03.56, 46.0' LT
"NW ISLAND" STA 0+00.00
N=323481.02
E=603940.48

SOUTH QUARTER SECTION CORNER
CONCRETE MONUMENT
w/SEWRPC BRASS CAP
Y: 323452.34
X: 603986.58

NORTH QUARTER SECTION CORNER
CONCRETE MONUMENT
w/SEWRPC BRASS CAP
Y: 323451.89
X: 604015.46

℄ "HA"
(FOR INFORMATION ONLY)

S89° 02' 13"E
2616.63'

S89° 02' 06"E
2617.59'

S89°04'23"E
998.06'

N0°23'31"E
131.71'

107+00"PW"

106+00"PW"

15+00"HA"

16+00"HA"

17+00"HA"

18+00"HA"

19+00"HA"

20+00"HA"

S89°04'23"E
199.34'

1+00

2+00

"HA" STA 15+00.00, 21.25' RT
"SW CURB" STA 0+00.00
N=323417.07
E=603735.86

PC

PI

PT

℄ "SW CURB"
(FOR INFORMATION ONLY)

S0°27'30"E
80.95'

3+00

"PW" STA 104+60, 21.25' LT
"SW CURB" STA 3+26.69
N=323303.14
E=603965.33

"SW CURB" CURVE 1

PI STA = 2+28.63
Y = 323413.370
X = 603964.453
DELTA = 88°36'52"
D = 190°59'09"
T = 29.28'
L = 46.40'
R = 30.00'
PC STA = 1+99.34
Y = 323413.843
X = 603935.174
PT STA = 2+45.74
Y = 323384.087
X = 603964.687
BK = S89°04'22.7"E
AH = S00°27'30.5"E

"PW" STA 105+90.48
"HA" STA 17+69.87
N=323433.95
E=604006.04

N1° 03' 25"E
2726.67'

℄ "PW"
(FOR INFORMATION ONLY)

105+00"PW"

NO°27'30"W
1023.46'

00"PW"

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 293	E

2

N

1037+00

1036+00

1035+00

1034+00

IH 43

CURVE 5

"IH 43" STA 1035+43.33
"SS" STA 21+72.69
N=328726.42
E=603553.97

N89°51'33"E
49.10'

19+00"SS"

S87°27'04"E
125.10'

℄ "SS"
(FOR INFORMATION ONLY)

20+00"SS"

21+00"SS"

S89°44'31"E
475.00'

22+00"SS"

23+00"SS"

"SS" STA 18+25.90
N=328732.64
E=603207.30

"SS" STA 19+86.06, 37.07' RT
"SB ON RAMP ISLAND" STA 0+00.00
N=328690.78
E=603365.71

"SS" STA 20+12.85, 57.34' RT
"SB ON RAMP ISLAND" STA 1+00.00
N=328669.80
E=603393.87

PC
CURVE 1
PI
PT
16.21'
N89°33'52"W
0+32
0+50
S55°44'01"E
48.79'
0+75
N04°41'18"W
10.99'
PT
PC
CURVE 2
PI

℄ "SB ON RAMP ISLAND"
(FOR INFORMATION ONLY)

"SB ON RAMP ISLAND"
CURVE 1

PI STA	0+32.65
Y	328691.032
X	603333.061
DELTA	146°10'09"
D	1145°54'56"
T	16.44'
L	12.76'
R	5.00'
PC STA	0+16.21
Y	328690.907
X	603349.502
PT STA	0+28.96
Y	328681.775
X	603346.649
BK	N89°33'51.7"W
AH	S55°44'00.8"E

"SB ON RAMP ISLAND"
CURVE 2

PI STA	0+88.23
Y	328648.407
X	603395.626
DELTA	128°57'17"
D	1145°54'56"
T	10.47'
L	11.25'
R	5.00'
PC STA	0+77.75
Y	328654.303
X	603386.972
PT STA	0+89.01
Y	328658.844
X	603394.770
BK	S55°44'00.8"E
AH	N04°41'18.3"W

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 294	E

2

N

231
BM SIGN BRIDGE BOLT
STA 985+48, 217.9' RT
Y=323767
X=603917
ELEV.=639.01

235
BM DISK
STA 983+13, 50.2' LT
Y=323552
X=603639
ELEV.=659.31

HAMPTON AVE

984

982

980

978

976

IH-43 SB

IH-43 NB

MILWAUKEE RIVER

PORT WASHINGTON RD

SLAB

RIPRAP

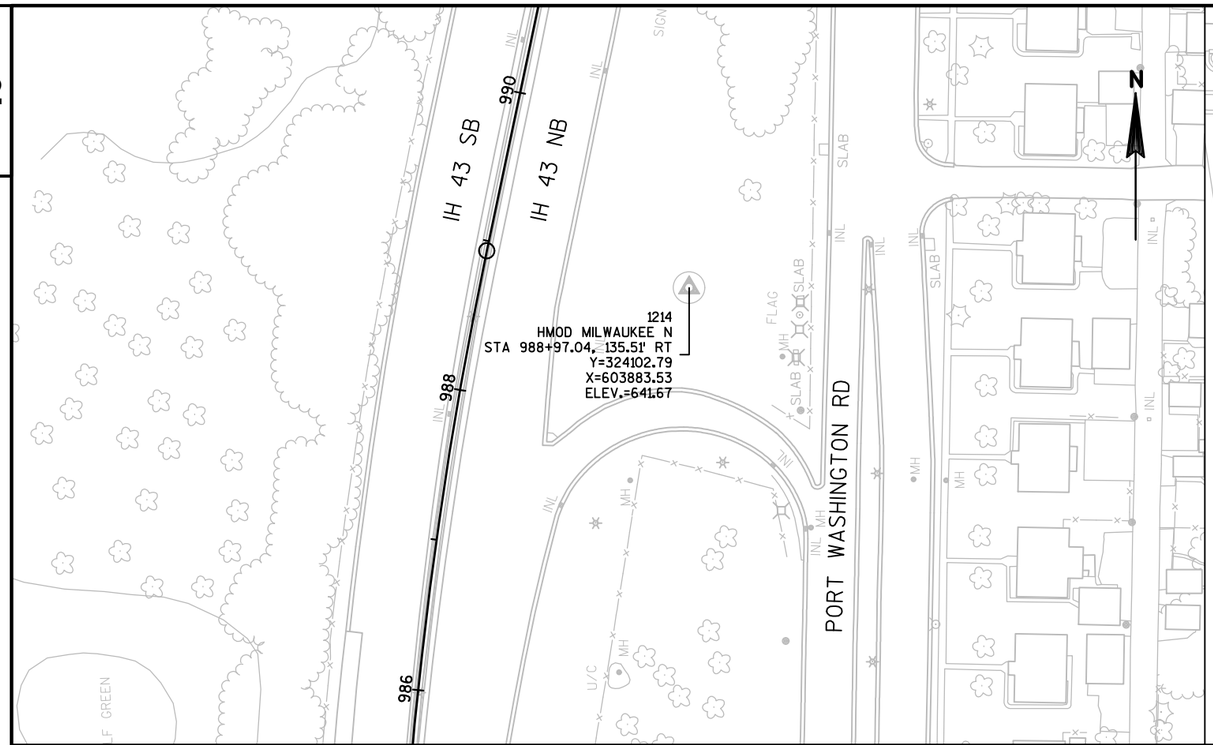
101
BM DISK
STA 977+27, 86.3' LT
Y=322966
X=603593
ELEV.=643.44

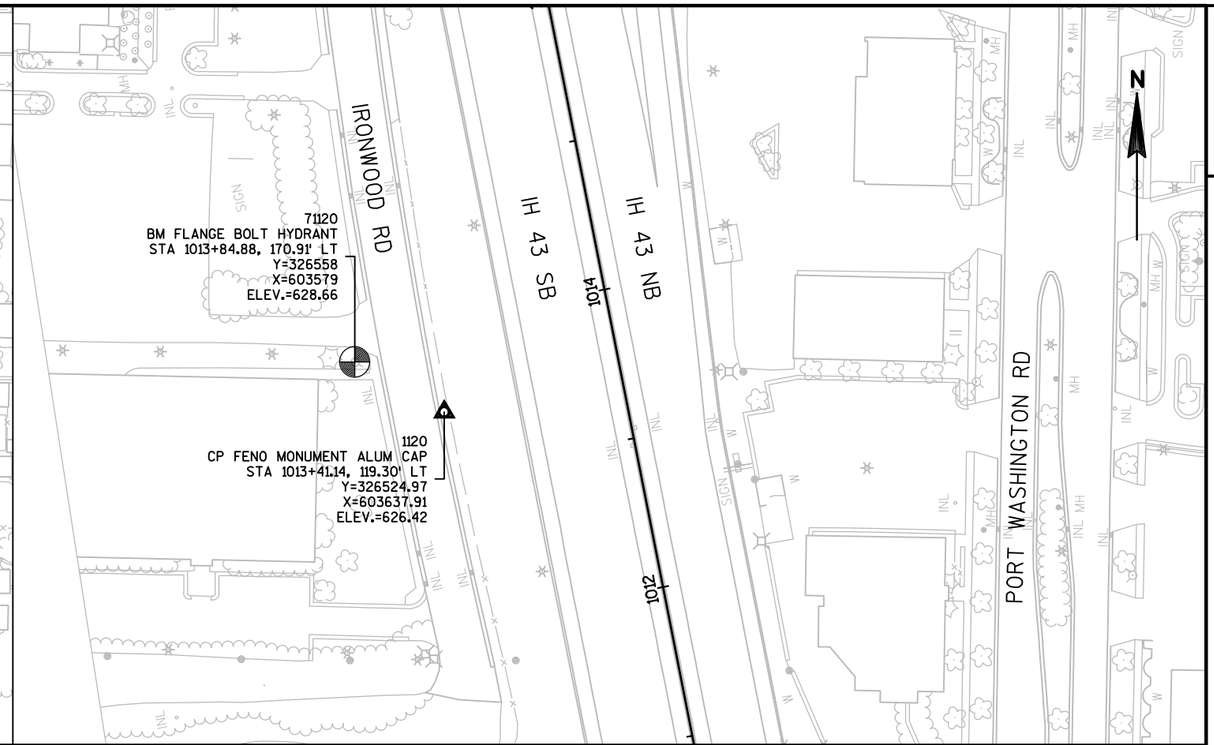
1
CP FENO
STA 976+83, 75.1' LT
Y=322921.87
X=603603.45
ELEV.=641.31

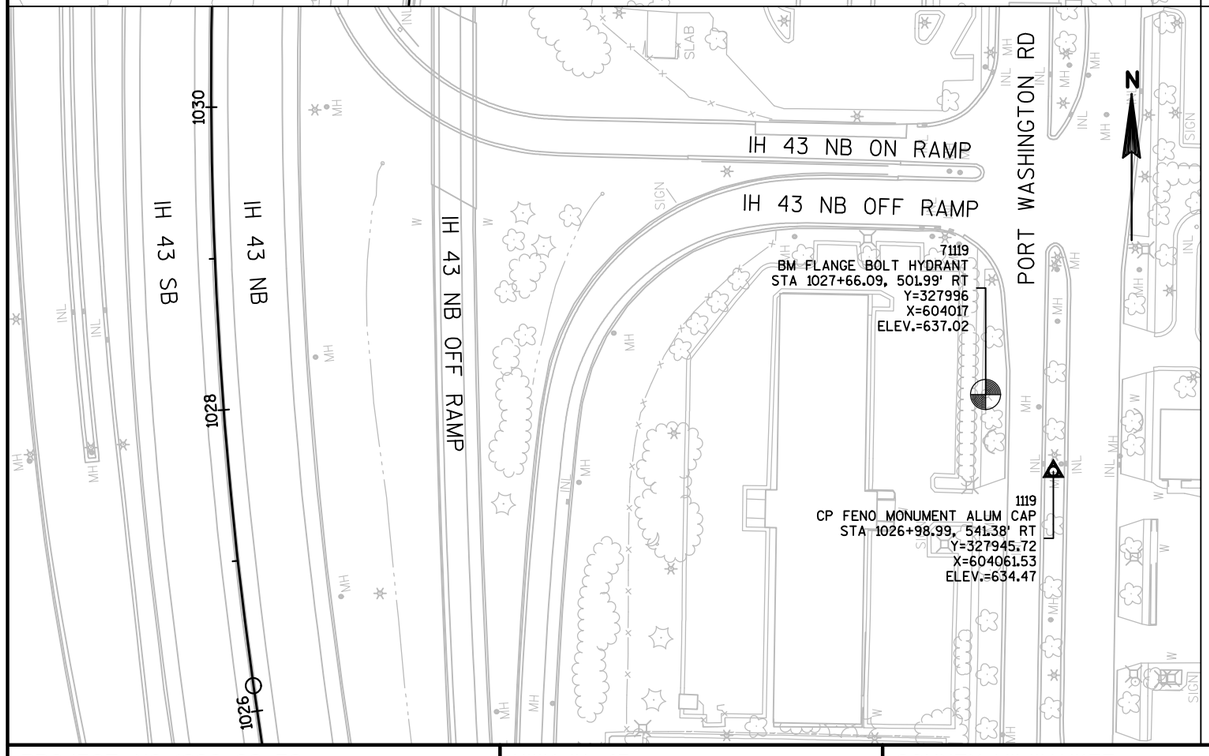
230
BM HYD BOLT
STA 976+45, 274.2' RT
Y=322878
X=603952
ELEV.=631.82

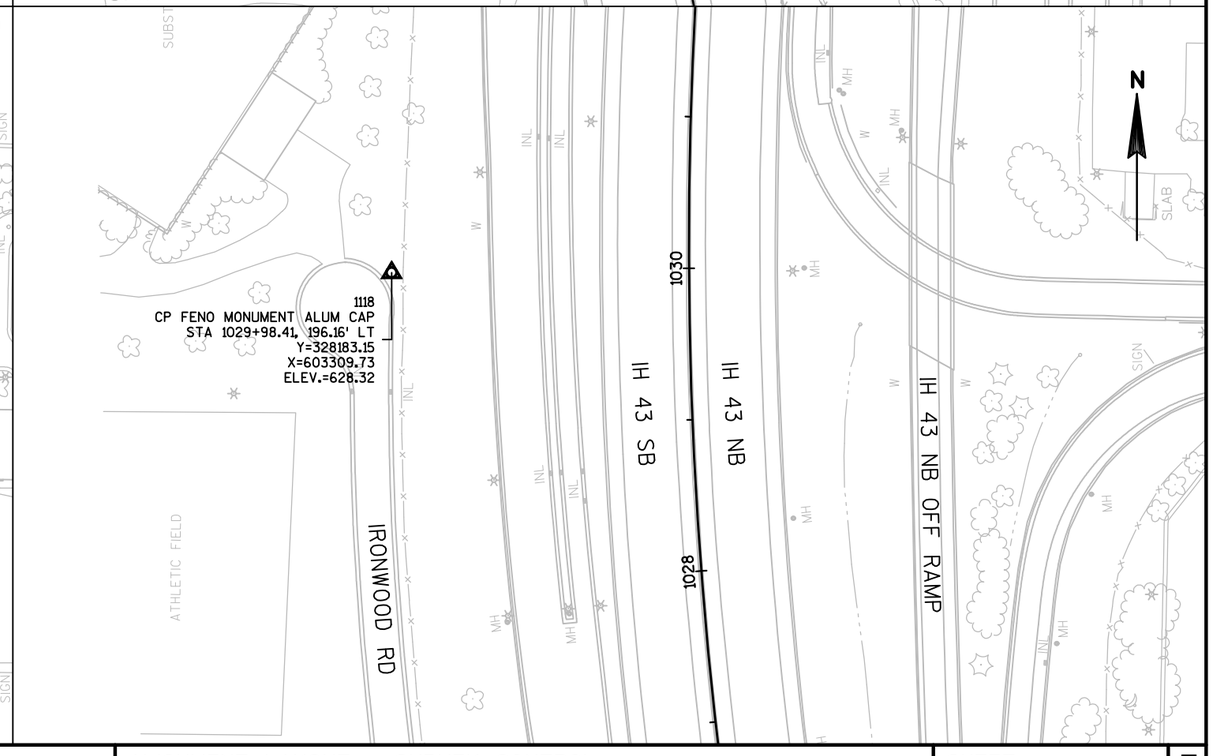
PROJECT NO:1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 295	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\ALIGNMENT\12282272_SURVEY CONTROL.DWG
LAYOUT NAME - 027211-AD
PLOT DATE : 4/1/2019 2:21 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42









PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 296	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\ALIGNMENT\12282272_SURVEY CONTROL.DWG
LAYOUT NAME - 027212-AD
PLOT DATE : 4/1/2019 2:23 PM
PLOT BY : JELACIC, JOSEPH C PLOT NAME :
PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

N

MILWAUKEE RIVER

IH 43 SB OFF RAMP

IH 43 SB

IH 43 NB

IH 43 NB ON RAMP

IH 43 NB OFF RAMP

1040

1038

1036

1034

1032

7220
BM CAP B-40-580-91
STA 1035+54.16, 310.23' LT
Y=328795
X=603251
ELEV.=635.34

1191
CP
STA 1035+30.15, 175.58' LT
Y=328744.71
X=603378.82
ELEV.=632.76

7020
BM BOLT ON LIGHT BASE
STA 1034+66.15, 156.80' LT
Y=328675
X=603386
ELEV.=632.59

1115
CP FENO MONUMENT ALUM CAP
STA 1039+57.11, 290.78' RT
Y=329032.70
X=603933.85
ELEV.=638.44

7039
BM
STA 1038+07.65, 555.93' RT
Y=328832
X=604149
ELEV.=640.30

1190
CP
STA 1037+33.11, 440.73' RT
Y=328802.75
X=604021.82
ELEV.=637.13

1192
CP
STA 1035+36.12, 223.98' RT
Y=328678.99
X=603772.97
ELEV.=630.90

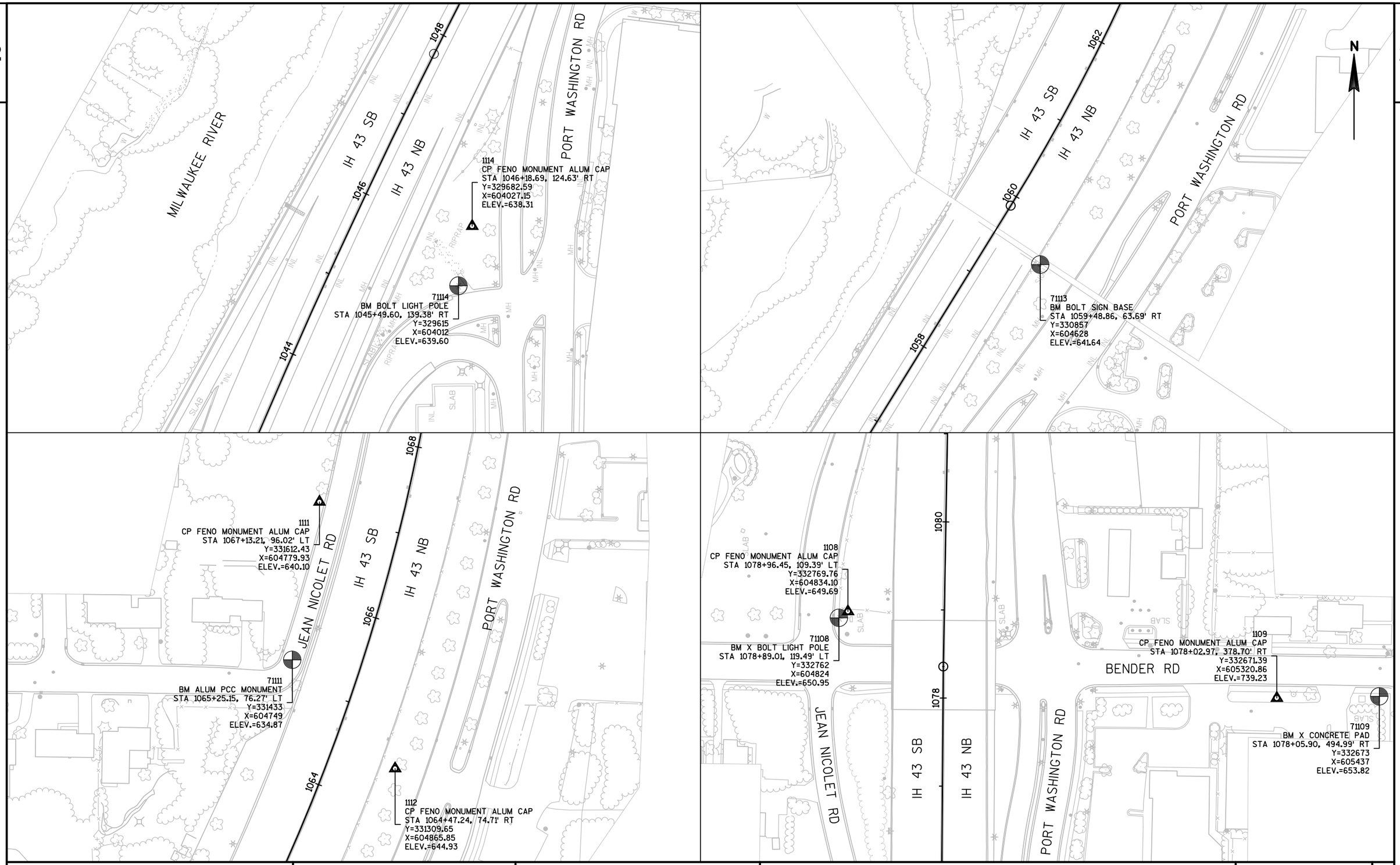
SILVER SPRING DR

IH 43 SB ON RAMP

PORT WASHINGTON RD

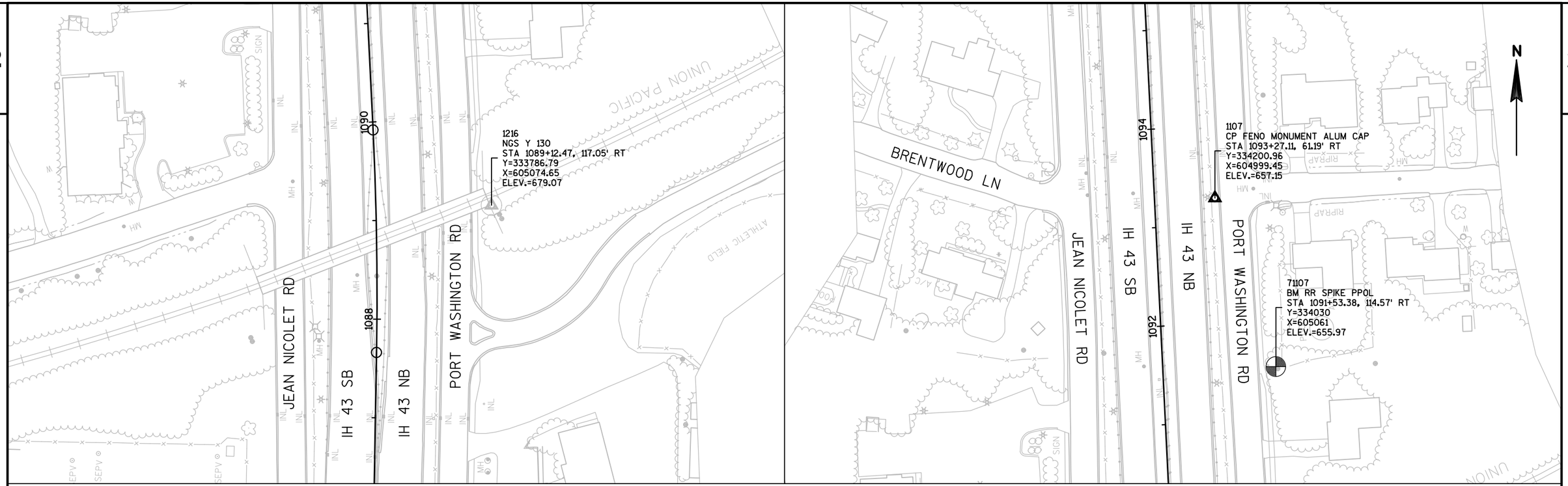
SUBSTATION

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 297	E



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 298	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\ALIGNMENT\12282272_SURVEY CONTROL.DWG
LAYOUT NAME - 027214-AD
PLOT DATE : 4/1/2019 2:25 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : **********
WISDOT/CADDS SHEET 42



2

PROJECT NO:1228-22-72	HWY:IH 43	COUNTY:MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 299	E

1228-22-72

Line	Item	Item Description	Unit	Total	Qty
0002	108.4400	CPM Progress Schedule	EACH	1.000	1.000
0004	201.0110	Clearing	SY	602.000	602.000
0006	201.0210	Grubbing	SY	602.000	602.000
0008	204.0100	Removing Pavement	SY	4,859.000	4,859.000
0010	204.0105	Removing Pavement Butt Joints	SY	608.000	608.000
0012	204.0110	Removing Asphaltic Surface	SY	222.000	222.000
0014	204.0115	Removing Asphaltic Surface Butt Joints	SY	547.000	547.000
0016	204.0120	Removing Asphaltic Surface Milling	SY	1,359.000	1,359.000
0018	204.0150	Removing Curb & Gutter	LF	1,668.000	1,668.000
0020	204.0155	Removing Concrete Sidewalk	SY	728.000	728.000
0022	204.0157	Removing Concrete Barrier	LF	78.000	78.000
0024	204.0165	Removing Guardrail	LF	156.000	156.000
0026	204.0170	Removing Fence	LF	588.000	588.000
0028	204.0195	Removing Concrete Bases	EACH	54.000	54.000
0030	204.0210	Removing Manholes	EACH	1.000	1.000
0032	204.0220	Removing Inlets	EACH	10.000	10.000
0034	204.0245	Removing Storm Sewer (size) 0001. 12-INCH	LF	215.000	215.000
0036	204.0245	Removing Storm Sewer (size) 0002. 18-INCH	LF	74.000	74.000
0038	204.9060.S	Removing (item description) 1001. LUMINAIRES	EACH	13.000	13.000
0040	204.9060.S	Removing (item description) 1002. LIGHTING UNITS	EACH	50.000	50.000
0042	204.9060.S	Removing (item description) 1003. SIGN LIGHTING	EACH	6.000	6.000
0044	204.9060.S	Removing (item description) 4011. High Mast Lighting Tower L-40-136	EACH	1.000	1.000
0046	204.9060.S	Removing (item description) 4012. High Mast Lighting Tower L-40-137	EACH	1.000	1.000
0048	204.9060.S	Removing (item description) 4013. High Mast Lighting Tower L-40-138	EACH	1.000	1.000
0050	204.9060.S	Removing (item description) 4014. High Mast Lighting Tower L-40-139	EACH	1.000	1.000
0052	204.9060.S	Removing (item description) 4015. High Mast Lighting Tower L-40-140	EACH	1.000	1.000
0054	204.9060.S	Removing (item description) 4016. High Mast Lighting Tower L-40-141	EACH	1.000	1.000
0056	204.9105.S	Removing (item description) 3001. TRAFFIC SIGNALS (PORT WASHINGTON ROAD & HAMPTON AVENUE)	LS	1.000	1.000
0058	204.9105.S	Removing (item description) 3002. TRAFFIC SIGNALS (IH 43 SB RAMPS & SILVER SPRING DRIVE)	LS	1.000	1.000
0060	204.9105.S	Removing (item description) 3003. LOOP DETECTOR WIRE AND LEAD-IN CABLE (PORT WASHINGTON RD & HAMPTON AVENUE)	LS	1.000	1.000
0062	204.9105.S	Removing (item description) 3004. LOOP DETECTOR WIRE AND LEAD-IN CABLE (IH 43 SB RAMPS &	LS	1.000	1.000

1228-22-72

Line	Item	Item Description	Unit	Total	Qty
		SILVER SPRING DR)			
0064	205.0100	Excavation Common	CY	845.000	845.000
0066	209.2100	Backfill Granular Grade 2	CY	130.000	130.000
0068	211.0100	Prepare Foundation for Asphaltic Paving (project) 0001. 1228-22-72	LS	1.000	1.000
0070	211.0200	Prepare Foundation for Concrete Pavement (project) 0001. 1228-22-72	LS	1.000	1.000
0072	213.0100	Finishing Roadway (project) 0001. 1228-22-72	EACH	1.000	1.000
0074	305.0110	Base Aggregate Dense 3/4-Inch	TON	51.000	51.000
0076	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	500.000	500.000
0078	310.0110	Base Aggregate Open-Graded	TON	327.000	327.000
0080	311.0115	Breaker Run	CY	359.000	359.000
0082	415.0090	Concrete Pavement 9-Inch	SY	2,859.000	2,859.000
0084	415.0100	Concrete Pavement 10-Inch	SY	740.000	740.000
0086	415.0410	Concrete Pavement Approach Slab	SY	1,205.000	1,205.000
0088	415.1090	Concrete Pavement HES 9-Inch	SY	98.000	98.000
0090	415.1410	Concrete Pavement Approach Slab HES	SY	75.000	75.000
0092	415.5110.S	Concrete Pavement Joint Layout	LS	1.000	1.000
0094	416.0160	Concrete Driveway 6-Inch	SY	73.000	73.000
0096	416.0610	Drilled Tie Bars	EACH	1,576.000	1,576.000
0098	416.0620	Drilled Dowel Bars	EACH	776.000	776.000
0100	416.1715	Concrete Pavement Repair SHES	SY	47.000	47.000
0102	416.1725	Concrete Pavement Replacement SHES	SY	298.000	298.000
0104	450.4000	HMA Cold Weather Paving	TON	30.000	30.000
0106	455.0605	Tack Coat	GAL	400.000	400.000
0108	460.2000	Incentive Density HMA Pavement	DOL	620.000	620.000
0110	460.5223	HMA Pavement 3 LT 58-28 S	TON	63.000	63.000
0112	460.5224	HMA Pavement 4 LT 58-28 S	TON	15.000	15.000
0114	460.7224	HMA Pavement 4 HT 58-28 S	TON	114.000	114.000
0116	460.7424	HMA Pavement 4 HT 58-28 H	TON	520.000	520.000
0118	465.0110	Asphaltic Surface Patching	TON	212.000	212.000
0120	465.0125	Asphaltic Surface Temporary	TON	36.000	36.000
0122	502.0100	Concrete Masonry Bridges	CY	134.000	134.000
0124	502.3101	Expansion Device (structure) 4003. B-40-581	LF	114.000	114.000
0126	502.3101	Expansion Device (structure) 4004. B-40-582	LF	129.000	129.000
0128	502.3101	Expansion Device (structure) 4005. B-40-583	LF	148.000	148.000
0130	502.3101	Expansion Device (structure) 4005. B-40-584	LF	114.000	114.000
0132	502.3101	Expansion Device (structure) 4007. B-40-585	LF	45.000	45.000
0134	502.3101	Expansion Device (structure) 4008. B-40-586	LF	73.000	73.000
0136	502.3101	Expansion Device (structure) 4010. B-40-602	LF	53.000	53.000

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Line	Item	Item Description	Unit	Total	Qty
0138	502.3200	Protective Surface Treatment	SY	309.000	309.000
0140	502.3210	Pigmented Surface Sealer	SY	53.000	53.000
0142	502.4205	Adhesive Anchors No. 5 Bar	EACH	770.000	770.000
0144	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	23,120.000	23,120.000
0146	505.0905	Bar Couplers No. 5	EACH	96.000	96.000
0148	509.0301	Preparation Decks Type 1	SY	60.000	60.000
0150	509.0302	Preparation Decks Type 2	SY	21.000	21.000
0152	509.0310.S	Sawing Pavement Deck Preparation Areas	LF	81.000	81.000
0154	509.1000	Joint Repair	SY	311.000	311.000
0156	509.1500	Concrete Surface Repair Special	SF	123.000	123.000
0158	509.2000	Full-Depth Deck Repair	SY	10.000	10.000
0160	509.2100.S	Concrete Masonry Deck Repair	CY	9.000	9.000
0162	509.3500.S	HMA Overlay Polymer-Modified	TON	932.000	932.000
0164	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 4003. B-40-581	SY	587.000	587.000
0166	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 4004. B-40-582	SY	713.000	713.000
0168	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 4005. B-40-583	SY	786.000	786.000
0170	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 4006. B-40-584	SY	785.000	785.000
0172	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 4007. B-40-585	SY	310.000	310.000
0174	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 4008. B-40-586	SY	503.000	503.000
0176	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 4009. B-40-587	SY	350.000	350.000
0178	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 4010. B-40-602	SY	269.000	269.000
0180	517.1800.S	Structure Repainting Recycled Abrasive (structure) 4003. B-40-581	LS	1.000	1.000
0182	517.1800.S	Structure Repainting Recycled Abrasive (structure) 4004. B-40-582	LS	1.000	1.000
0184	517.1800.S	Structure Repainting Recycled Abrasive (structure) 4005. B-40-583	LS	1.000	1.000
0186	517.1800.S	Structure Repainting Recycled Abrasive (structure) 4006. B-40-584	LS	1.000	1.000
0188	517.1800.S	Structure Repainting Recycled Abrasive (structure) 4007. B-40-585	LS	1.000	1.000
0190	517.1800.S	Structure Repainting Recycled Abrasive (structure) 4008. B-40-586	LS	1.000	1.000
0192	517.1800.S	Structure Repainting Recycled Abrasive (structure) 4009. B-40-587	LS	1.000	1.000

1228-22-72

Line	Item	Item Description	Unit	Total	Qty
0194	517.1800.S	Structure Repainting Recycled Abrasive (structure) 4010. B-40-602	LS	1.000	1.000
0196	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 4003. B-40-581	LS	1.000	1.000
0198	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 4004. B-40-582	LS	1.000	1.000
0200	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 4005. B-40-583	LS	1.000	1.000
0202	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 4006. B-40-584	LS	1.000	1.000
0204	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 4007. B-40-585	LS	1.000	1.000
0206	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 4008. B-40-586	LS	1.000	1.000
0208	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 4009. B-40-587	LS	1.000	1.000
0210	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 4010. B-40-602	LS	1.000	1.000
0212	517.6001.S	Portable Decontamination Facility	EACH	8.000	8.000
0214	601.0331	Concrete Curb & Gutter 31-Inch	LF	165.000	165.000
0216	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	1,076.000	1,076.000
0218	601.0555	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A	LF	60.000	60.000
0220	601.0600	Concrete Curb Pedestrian	LF	61.000	61.000
0222	602.0405	Concrete Sidewalk 4-Inch	SF	2,039.000	2,039.000
0224	602.0410	Concrete Sidewalk 5-Inch	SF	913.000	913.000
0226	602.0415	Concrete Sidewalk 6-Inch	SF	3,047.000	3,047.000
0228	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	232.000	232.000
0230	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	24.000	24.000
0232	603.0105	Concrete Barrier Single-Faced 32-Inch	LF	78.000	78.000
0234	603.8000	Concrete Barrier Temporary Precast Delivered	LF	5,550.000	5,550.000
0236	603.8125	Concrete Barrier Temporary Precast Installed	LF	5,550.000	5,550.000
0238	603.8505	Anchoring Concrete Barrier on Bridge Decks	LF	928.000	928.000
0240	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	217.000	217.000
0242	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	74.000	74.000
0244	611.0530	Manhole Covers Type J	EACH	2.000	2.000
0246	611.0624	Inlet Covers Type H	EACH	9.000	9.000
0248	611.2003	Manholes 3-FT Diameter	EACH	2.000	2.000
0250	611.3004	Inlets 4-FT Diameter	EACH	2.000	2.000
0252	611.3230	Inlets 2x3-FT	EACH	7.000	7.000
0254	614.0905	Crash Cushions Temporary	EACH	10.000	10.000

1228-22-72

Line	Item	Item Description	Unit	Total	Qty
0256	614.2300	MGS Guardrail 3	LF	50.000	50.000
0258	614.2350	MGS Guardrail Short Radius	LF	37.000	37.000
0260	614.2500	MGS Thrie Beam Transition	LF	39.400	39.400
0262	614.2610	MGS Guardrail Terminal EAT	EACH	1.000	1.000
0264	616.0204	Fence Chain Link 4-FT	LF	588.000	588.000
0266	619.1000	Mobilization	EACH	1.000	1.000
0268	620.0300	Concrete Median Sloped Nose	SF	359.000	359.000
0270	624.0100	Water	MGAL	11.000	11.000
0272	625.0100	Topsoil	SY	483.000	483.000
0274	628.1504	Silt Fence	LF	715.000	715.000
0276	628.1520	Silt Fence Maintenance	LF	72.000	72.000
0278	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0280	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0282	628.2002	Erosion Mat Class I Type A	SY	30.000	30.000
0284	628.7005	Inlet Protection Type A	EACH	12.000	12.000
0286	628.7015	Inlet Protection Type C	EACH	69.000	69.000
0288	628.7020	Inlet Protection Type D	EACH	96.000	96.000
0290	628.7570	Rock Bags	EACH	20.000	20.000
0292	629.0210	Fertilizer Type B	CWT	1.000	1.000
0294	630.0170	Seeding Mixture No. 70	LB	9.000	9.000
0296	631.0300	Sod Water	MGAL	13.000	13.000
0298	631.1000	Sod Lawn	SY	450.000	450.000
0300	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	52.000	52.000
0302	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	6.000	6.000
0304	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	8.000	8.000
0306	635.0200	Sign Supports Structural Steel HS	LB	1,000.000	1,000.000
0308	635.0300	Sign Supports Replacing Base Connection Bolts	EACH	2.000	2.000
0310	636.0100	Sign Supports Concrete Masonry	CY	1.600	1.600
0312	636.0500	Sign Supports Steel Reinforcement	LB	98.000	98.000
0314	637.1220	Signs Type I Reflective SH	SF	1,444.500	1,444.500
0316	637.2210	Signs Type II Reflective H	SF	699.250	699.250
0318	637.2215	Signs Type II Reflective H Folding	SF	226.500	226.500
0320	637.2230	Signs Type II Reflective F	SF	298.000	298.000
0322	638.2102	Moving Signs Type II	EACH	5.000	5.000
0324	638.2601	Removing Signs Type I	EACH	8.000	8.000
0326	638.2602	Removing Signs Type II	EACH	83.000	83.000
0328	638.3000	Removing Small Sign Supports	EACH	48.000	48.000
0330	638.3100	Removing Structural Steel Sign Supports	EACH	2.000	2.000
0332	643.0300	Traffic Control Drums	DAY	45,584.000	45,584.000
0334	643.0420	Traffic Control Barricades Type III	DAY	6,657.000	6,657.000

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Line	Item	Item Description	Unit	Total	Qty
0336	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	27.000	27.000
0338	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	27.000	27.000
0340	643.0705	Traffic Control Warning Lights Type A	DAY	10,149.000	10,149.000
0342	643.0715	Traffic Control Warning Lights Type C	DAY	8,524.000	8,524.000
0344	643.0800	Traffic Control Arrow Boards	DAY	412.000	412.000
0346	643.0900	Traffic Control Signs	DAY	23,721.000	23,721.000
0348	643.0910	Traffic Control Covering Signs Type I	EACH	10.000	10.000
0350	643.0920	Traffic Control Covering Signs Type II	EACH	38.000	38.000
0352	643.1000	Traffic Control Signs Fixed Message	SF	1,380.500	1,380.500
0354	643.1050	Traffic Control Signs PCMS	DAY	180.000	180.000
0356	643.1100.S	Dynamic Late Merge System	DAY	55.000	55.000
0358	643.1200.S	Portable Automated Real-Time Traffic Queue Warning System	DAY	55.000	55.000
0360	643.4100.S	Traffic Control Interim Lane Closure	EACH	32.000	32.000
0362	643.5000	Traffic Control	EACH	1.000	1.000
0364	646.1020	Marking Line Epoxy 4-Inch	LF	55,957.000	55,957.000
0366	646.1555	Marking Line Grooved Contrast Permanent Tape 4-Inch	LF	449.000	449.000
0368	646.3020	Marking Line Epoxy 8-Inch	LF	3,064.000	3,064.000
0370	646.3555	Marking Line Grooved Contrast Permanent Tape 8-Inch	LF	43.000	43.000
0372	646.5020	Marking Arrow Epoxy	EACH	39.000	39.000
0374	646.5120	Marking Word Epoxy	EACH	23.000	23.000
0376	646.5220	Marking Symbol Epoxy	EACH	4.000	4.000
0378	646.6120	Marking Stop Line Epoxy 18-Inch	LF	499.000	499.000
0380	646.6220	Marking Yield Line Epoxy 18-Inch	EACH	9.000	9.000
0382	646.7120	Marking Diagonal Epoxy 12-Inch	LF	4,434.000	4,434.000
0384	646.7220	Marking Chevron Epoxy 24-Inch	LF	646.000	646.000
0386	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	755.000	755.000
0388	646.8120	Marking Curb Epoxy	LF	109.000	109.000
0390	646.8220	Marking Island Nose Epoxy	EACH	5.000	5.000
0392	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	34,028.000	34,028.000
0394	646.9110	Marking Removal Line Water Blasting 8-Inch	LF	565.000	565.000
0396	646.9210	Marking Removal Line Water Blasting Wide	LF	4,910.000	4,910.000
0398	646.9300	Marking Removal Special Marking	EACH	5.000	5.000
0400	646.9310	Marking Removal Special Marking Water Blasting	EACH	11.000	11.000
0402	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	103,798.000	103,798.000
0404	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	8,468.000	8,468.000
0406	649.0550	Temporary Marking Arrow Removable Tape	EACH	9.000	9.000
0408	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	88.000	88.000
0410	649.0960	Temporary Marking Removable Mask Out Tape 6-Inch	LF	8,285.000	8,285.000
0412	649.0970	Temporary Marking Removable Mask Out Tape 10-Inch	LF	2,011.000	2,011.000

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Line	Item	Item Description	Unit	Total	Qty
0414	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	5,728.000	5,728.000
0416	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	3,086.000	3,086.000
0418	652.0605	Conduit Special 2-Inch	LF	104.000	104.000
0420	652.0615	Conduit Special 3-Inch	LF	5,215.000	5,215.000
0422	652.0700.S	Install Conduit into Existing Item	EACH	7.000	7.000
0424	652.0800	Conduit Loop Detector	LF	1,024.000	1,024.000
0426	653.0135	Pull Boxes Steel 24x36-Inch	EACH	4.000	4.000
0428	653.0140	Pull Boxes Steel 24x42-Inch	EACH	62.000	62.000
0430	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	4.000	4.000
0432	653.0905	Removing Pull Boxes	EACH	56.000	56.000
0434	654.0101	Concrete Bases Type 1	EACH	11.000	11.000
0436	654.0102	Concrete Bases Type 2	EACH	2.000	2.000
0438	654.0105	Concrete Bases Type 5	EACH	18.000	18.000
0440	654.0108	Concrete Bases Type 8	EACH	22.000	22.000
0442	654.0110	Concrete Bases Type 10	EACH	5.000	5.000
0444	654.0113	Concrete Bases Type 13	EACH	2.000	2.000
0446	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	2.000	2.000
0448	654.0230	Concrete Control Cabinet Bases Type L30	EACH	1.000	1.000
0450	655.0126	Cable In Duct 3-6 AWG	LF	570.000	570.000
0452	655.0128	Cable In Duct 3-8 AWG	LF	570.000	570.000
0454	655.0146	Cable In Duct 4-6 AWG	LF	4,180.000	4,180.000
0456	655.0148	Cable In Duct 4-8 AWG	LF	1,190.000	1,190.000
0458	655.0230	Cable Traffic Signal 5-14 AWG	LF	1,885.000	1,885.000
0460	655.0240	Cable Traffic Signal 7-14 AWG	LF	2,399.000	2,399.000
0462	655.0260	Cable Traffic Signal 12-14 AWG	LF	3,175.000	3,175.000
0464	655.0270	Cable Traffic Signal 15-14 AWG	LF	574.000	574.000
0466	655.0320	Cable Type UF 2-10 AWG Grounded	LF	3,162.000	3,162.000
0468	655.0510	Electrical Wire Traffic Signals 12 AWG	LF	10,272.000	10,272.000
0470	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	6,011.000	6,011.000
0472	655.0610	Electrical Wire Lighting 12 AWG	LF	11,486.000	11,486.000
0474	655.0615	Electrical Wire Lighting 10 AWG	LF	4,620.000	4,620.000
0476	655.0620	Electrical Wire Lighting 8 AWG	LF	14,880.000	14,880.000
0478	655.0625	Electrical Wire Lighting 6 AWG	LF	54,970.000	54,970.000
0480	655.0635	Electrical Wire Lighting 2 AWG	LF	1,560.000	1,560.000
0482	655.0640	Electrical Wire Lighting 1 AWG	LF	72.000	72.000
0484	655.0700	Loop Detector Lead In Cable	LF	9,195.000	9,195.000
0486	655.0800	Loop Detector Wire	LF	6,232.000	6,232.000
0488	655.0900	Traffic Signal EVP Detector Cable	LF	5,530.000	5,530.000
0490	656.0200	Electrical Service Meter Breaker Pedestal (location) 3001. (PORT WASHINGTON ROAD & HAMPTON	LS	1.000	1.000

Line	Item	Item Description	Unit	Total	Qty
		AVENUE)			
0492	656.0200	Electrical Service Meter Breaker Pedestal (location) 3002. (W. HAMPTON AVENUE & IH 43 SB ON RAMP)	LS	1.000	1.000
0494	656.0400	Electrical Service Main Lugs Only Meter Pedestal (location) 1001. (HL-40-FS)	LS	1.000	1.000
0496	657.0100	Pedestal Bases	EACH	11.000	11.000
0498	657.0210	Transformer Bases Breakaway 15-17 Inch Bolt Circle	EACH	24.000	24.000
0500	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	21.000	21.000
0502	657.0310	Poles Type 3	EACH	3.000	3.000
0504	657.0322	Poles Type 5-Aluminum	EACH	18.000	18.000
0506	657.0375	Poles Type A	EACH	15.000	15.000
0508	657.0380	Poles Type E	EACH	22.000	22.000
0510	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	6.000	6.000
0512	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	2.000	2.000
0514	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	3.000	3.000
0516	657.0605	Luminaire Arms Single Member 4 1/2-Inch Clamp 4-FT	EACH	3.000	3.000
0518	657.0609	Luminaire Arms Single Member 4-Inch Clamp 6-FT	EACH	3.000	3.000
0520	657.0610	Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	EACH	21.000	21.000
0522	657.0620	Luminaire Arms Single Member 6-Inch Clamp 4-FT	EACH	15.000	15.000
0524	657.0630	Luminaire Arms Single Member 6-Inch Clamp 8-FT	EACH	22.000	22.000
0526	658.0171	Traffic Signal Face 1S 12-Inch	EACH	2.000	2.000
0528	658.0173	Traffic Signal Face 3S 12-Inch	EACH	39.000	39.000
0530	658.0174	Traffic Signal Face 4S 12-Inch	EACH	7.000	7.000
0532	658.0416	Pedestrian Signal Face 16-Inch	EACH	11.000	11.000
0534	658.0500	Pedestrian Push Buttons	EACH	10.000	10.000
0536	658.5069	Signal Mounting Hardware (location) 3001. (PORT WASHINGTON ROAD & HAMPTON AVENUE)	LS	1.000	1.000
0538	658.5069	Signal Mounting Hardware (location) 3002. (IH 43 SB RAMPS & SILVER SPRING DRIVE)	LS	1.000	1.000
0540	658.5069	Signal Mounting Hardware (location) 3003. (W. HAMPTON AVENUE & IH 43 SB ON RAMP)	LS	1.000	1.000
0542	659.0400	Luminaires High Mast Lighting LED	EACH	28.000	28.000
0544	659.0600	Underdeck Lighting (location) 1001. (B-40-66)	LS	1.000	1.000
0546	659.0600	Underdeck Lighting (location) 1002. (B-40-583)	LS	1.000	1.000
0548	659.0600	Underdeck Lighting (location) 1003. (B-40-584)	LS	1.000	1.000
0550	659.1125	Luminaires Utility LED C	EACH	46.000	46.000
0552	659.1130	Luminaires Utility LED D	EACH	37.000	37.000
0554	659.1215	Luminaires Underdeck LED C	EACH	13.000	13.000
0556	659.2230	Lighting Control Cabinets 240/480 30-Inch	EACH	1.000	1.000
0558	660.0100	High Mast Foundation (location) 4011. L-40-136	LS	1.000	1.000
0560	660.0100	High Mast Foundation (location) 4012. L-40-137	LS	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0562	660.0100	High Mast Foundation (location) 4013. L-40-138	LS	1.000	1.000
0564	660.0100	High Mast Foundation (location) 4014. L-40-139	LS	1.000	1.000
0566	660.0100	High Mast Foundation (location) 4015. L-40-140	LS	1.000	1.000
0568	660.0100	High Mast Foundation (location) 4016. L-40-141	LS	1.000	1.000
0570	660.0200	High Mast Lighting Tower (location) 4011. L-40-136	LS	1.000	1.000
0572	660.0200	High Mast Lighting Tower (location) 4012. L-40-137	LS	1.000	1.000
0574	660.0200	High Mast Lighting Tower (location) 4013. L-40-138	LS	1.000	1.000
0576	660.0200	High Mast Lighting Tower (location) 4014. L-40-139	LS	1.000	1.000
0578	660.0200	High Mast Lighting Tower (location) 4015. L-40-140	LS	1.000	1.000
0580	660.0200	High Mast Lighting Tower (location) 4016. L-40-141	LS	1.000	1.000
0582	661.0200	Temporary Traffic Signals for Intersections (location) 3001. (PORT WASHINGTON ROAD & HAMPTON AVENUE)	LS	1.000	1.000
0584	661.0200	Temporary Traffic Signals for Intersections (location) 3002. (IH 43 SB RAMPS & SILVER SPRING DRIVE)	LS	1.000	1.000
0586	670.0100	Field System Integrator	LS	1.000	1.000
0588	670.0200	ITS Documentation	LS	1.000	1.000
0590	671.0132	Conduit HDPE 3-Duct 2-Inch	LF	837.000	837.000
0592	671.0232	Conduit HDPE Directional Bore 3-Duct 2-Inch	LF	251.000	251.000
0594	673.0105	Communication Vault Type 1	EACH	4.000	4.000
0596	678.0036	Install Fiber Optic Cable Outdoor Plant 36-CT	LF	12,603.000	12,603.000
0598	678.0200	Fiber Optic Splice Enclosure	EACH	7.000	7.000
0600	678.0300	Fiber Optic Splice	EACH	126.000	126.000
0602	678.0400	Fiber Optic Termination	EACH	12.000	12.000
0604	678.0500	Communication System Testing	LS	1.000	1.000
0606	678.0600	Install Ethernet Switches	EACH	7.000	7.000
0608	690.0250	Sawing Concrete	LF	5,577.000	5,577.000
0610	715.0415	Incentive Strength Concrete Pavement	DOL	1,620.000	1,620.000
0612	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	9,000.000	9,000.000
0614	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	6,000.000	6,000.000
0616	SPV.0035	Special 0001. BACK FILL SLURRY	CY	193.000	193.000
0618	SPV.0060	Special 0001. RECONNECT STORM SEWER LATERALS	EACH	3.000	3.000
0620	SPV.0060	Special 0002. TRAFFIC CONTROL LOCAL ROAD LANE CLOSURES	EACH	44.000	44.000
0622	SPV.0060	Special 0003. MOBILIZATIONS EMERGENCY PAVEMENT REPAIR	EACH	4.000	4.000
0624	SPV.0060	Special 0004. FIELD FACILITIES OFFICE SPACE	EACH	1.000	1.000
0626	SPV.0060	Special 0005. PAVEMENT MARKING CONTRAST EPOXY SPECIAL MARKING ARROW	EACH	5.000	5.000
0628	SPV.0060	Special 0007. ADJUSTING CUC MANHOLE COVER	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0630	SPV.0060	Special 3001. CONCRETE CABINET BASE EXTENSION	EACH	1.000	1.000
0632	SPV.0060	Special 3002. INSTALL POLES TYPE 10	EACH	5.000	5.000
0634	SPV.0060	Special 3003. INSTALL POLES TYPE 10 SPECIAL	EACH	1.000	1.000
0636	SPV.0060	Special 3004. INSTALL POLES TYPE 13	EACH	2.000	2.000
0638	SPV.0060	Special 3005. INSTALL MONOTUBE ARMS 25-FT	EACH	4.000	4.000
0640	SPV.0060	Special 3006. INSTALL MONOTUBE ARMS 30-FT	EACH	1.000	1.000
0642	SPV.0060	Special 3007. INSTALL MONOTUBE ARMS 35-FT	EACH	1.000	1.000
0644	SPV.0060	Special 3008. INSTALL MONOTUBE ARMS 50-FT	EACH	2.000	2.000
0646	SPV.0060	Special 3009. INSTALL LUMINAIRE ARMS STEEL 15-FT	EACH	13.000	13.000
0648	SPV.0060	Special 3010. CONCRETE BASE TYPE 10 SPECIAL	EACH	1.000	1.000
0650	SPV.0060	Special 4011. Abandon High Mast Foundation L-40-136	EACH	1.000	1.000
0652	SPV.0060	Special 4012. Abandon High Mast Foundation L-40-137	EACH	1.000	1.000
0654	SPV.0060	Special 4013. Abandon High Mast Foundation L-40-138	EACH	1.000	1.000
0656	SPV.0060	Special 4014. Abandon High Mast Foundation L-40-139	EACH	1.000	1.000
0658	SPV.0060	Special 4015. Abandon High Mast Foundation L-40-140	EACH	1.000	1.000
0660	SPV.0060	Special 4016. Abandon High Mast Foundation L-40-141	EACH	1.000	1.000
0662	SPV.0075	Special 0001. PAVEMENT CLEANUP PROJECT (1228-22-72)	HRS	110.000	110.000
0664	SPV.0090	Special 0003. PAVEMENT MARKING CONTRAST EPOXY 4-INCH	LF	8,847.000	8,847.000
0666	SPV.0090	Special 0004. PAVEMENT MARKING CONTRAST EPOXY 8-INCH	LF	7,374.000	7,374.000
0668	SPV.0090	Special 3001. FIBER OPTIC WARNING TAPE	LF	10,173.000	10,173.000
0670	SPV.0090	Special 4009. Bridge Joint Repair B-40-587	LF	60.000	60.000
0672	SPV.0105	Special 0001. SURVEY PROJECT (1228-22-72)	LS	1.000	1.000
0674	SPV.0105	Special 1001. MAINTENANCE OF LIGHTING SYSTEMS	LS	1.000	1.000
0676	SPV.0105	Special 1002. LIGHTING SYSTEM INTEGRATOR	LS	1.000	1.000
0678	SPV.0105	Special 1003. LIGHITING SYSTEM SURVEY	LS	1.000	1.000
0680	SPV.0105	Special 3001. TRANSP & INSTALL STATE FURN TRAFFIC SIGNAL CABINET (PT WASH & HAMPTON)	LS	1.000	1.000
0682	SPV.0105	Special 3002. TRANSP & INST STATE FURN TRAFFIC SGNL CABNT (W HAMPTON & IH 43 SB ON RAMP)	LS	1.000	1.000
0684	SPV.0105	Special 3003. TRANSP & INST STATE FURN TRAF SGNL CABNT (IH 43 SB RAMPS & SILVER SPRING)	LS	1.000	1.000
0686	SPV.0105	Special 3004. INST FIBER OPTIC COM IN CABINET (IH 43 NB OFF RAMP & PORT WASHINGTON)	LS	1.000	1.000
0688	SPV.0105	Special 3005. INSTALL FIBER OPTIC COMMUNICATIONS IN CABINET (PORT WASHINGTON & HAMPTON)	LS	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0690	SPV.0105	Special 3006. INST FIBER OPTIC COMMUNICATIONS IN CABINET (W. HAMPTON & IH 43 SB ON RAMP)	LS	1.000	1.000
0692	SPV.0105	Special 3007. INST FIBER OPTIC COMMUNICATIONS IN CABINET (IH 43 SB RAMP & SILVER SPRING)	LS	1.000	1.000
0694	SPV.0105	Special 3008. TRANSPORT SIGNAL AND LIGHTING MATERIALS (PORT WASHINGTON RD & HAMPTON AVE)	LS	1.000	1.000
0696	SPV.0105	Special 3009. TRANSPORT SIGNAL AND LIGHTING MATERIALS (W. HAMPTON & IH 43 SB ON RAMP)	LS	1.000	1.000
0698	SPV.0105	Special 3010. TRANSPORT SIGNAL AND LIGHTING MATERIALS (IH 43 SB RAMPS & SILVER SPRING)	LS	1.000	1.000
0700	SPV.0105	Special 3011. TEMPORARY VEHICLE DETECTION SYSTEM (W. HAMPTON AVE & N. PORT WASHINGTON)	LS	1.000	1.000
0702	SPV.0105	Special 3012. TEMPORARY VEHICLE DETECTION SYSTEM (IH 43 SB RAMPS & SILVER SPRING DRIVE)	LS	1.000	1.000
0704	SPV.0105	Special 3013. TRANSP & INST STATE FURN VIDEO DETECTION SYSTEM (PRT WASHINGTON & HAMPTON)	LS	1.000	1.000
0706	SPV.0105	Special 3014. TRANS & INST STATE FURN VIDEO DETECT SYSTM (W. HAMPTON & IH 43 SB ON RAMP)	LS	1.000	1.000
0708	SPV.0105	Special 3015. TRANS & INST STATE FURN VID DETECT SYSTEM (IH 43 SB RAMP & SILVER SPRING)	LS	1.000	1.000
0710	SPV.0105	Special 3016. TRANS & INST STATE FURN EVP DETECTOR HEADS (IH 43 NB OFF RAMP & PORT WASH)	LS	1.000	1.000
0712	SPV.0105	Special 3017. TRANS & INST STATE FURN EVP DETECTOR HEADS (PORT WASHINGTON & HAMPTON)	LS	1.000	1.000
0714	SPV.0105	Special 3018. TRANS & INST STATE FURN EVP DETECTOR HEADS (w. HAMPTON & IH 43 SB ON RAMP)	LS	1.000	1.000
0716	SPV.0105	Special 3019. TRANS & INST STATE FURN EVP DETECTOR HEADS (IH 43 SB RAMP & SILVER SPRING)	LS	1.000	1.000
0718	SPV.0105	Special 3020. TRANS & INST ST FURN EVP DETECTOR HEADS (IH 43 NB ON/OFF RAMP & PORT WASH)	LS	1.000	1.000
0720	SPV.0105	Special 3021. TRANS & INST STATE FURN EVP DETECTOR HEADS (PORT WASH & SILVER SPRING)	LS	1.000	1.000
0722	SPV.0105	Special 3022. TRNS & INS ST FURN EVP DTCTR	LS	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
		HEAD (IH 43 NB OFF RAMP/BAYSHORE & PORT WASH)			
0724	SPV.0180	Special 4000. Removing Concrete Median B-40-10	SY	204.000	204.000

3

REMOVING PAVEMENT

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	204.0100 REMOVING PAVEMENT SY
1000	MAINLINE					
	IH 43 NB	1017+83	-	1018+17	RT	196
		1019+16	-	1019+50	RT	194
		1034+64	-	1034+97	RT	189
		1036+31	-	1036+65	RT	194
	IH 43 SB	1017+95	-	1018+30	LT	249
		1019+29	-	1019+64	LT	249
		1034+55	-	1034+88	LT	192
		1036+18	-	1036+52	LT	197
	RAMPS					
	SS RAMP B	1017+75	-	1018+06	RT/LT	70
		1019+04	-	1019+36	RT/LT	74
		1022+11	-	1029+17	RT/LT	1332
		1030+38	-	1030+73	RT/LT	102
		1034+35	-	1034+66	RT/LT	108
		1035+96	-	1036+26	RT/LT	106
	SS RAMP D	1035+00	-	1035+31	RT/LT	58
		1036+63	-	1036+95	RT/LT	58
	SIDE ROADS					
	PORT WASHINGTON RD	105+02	-	105+80	LT	258
		106+14	-	107+61	LT	498
		108+93	-	109+45	LT	27
	HAMPTON AVE	13+05	-	13+17	RT	8
		13+46	-	13+56	LT	9
		16+63	-	17+40	RT	330
		16+63	-	17+40	RT	91
		19+13	-	19+68	LT	37
	SILVER SPRING DR	19+61	-	19+80	RT	7
		20+07	-	20+16	RT	7
		20+13	-	20+22	RT	19
TOTAL						4859

CLEARING AND GRUBBING

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	201.0110 CLEARING SY	201.0210 GRUBBING SY
1000							
	HAMPTON AVE	15+40	-	16+84	38' RT	250	250
	IH 43 SB OFF RAMP TO SILVER SPRING	1039+00	-	1044+27	165.6' LT	352	352
TOTAL						602	602

REMOVING PAVEMENT BUTT JOINTS

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	204.0105 REMOVING PAVEMENT BUTT JOINTS SY
1000	SIDE ROADS					
	PORT WASHINGTON RD NB	100+99	-	101+44	RT	139
		104+68	-	105+13	RT	236
	PORT WASHINGTON RD SB	100+99	-	101+44	LT	116
		104+68	-	105+13	LT	117
TOTAL						608

REMOVING ASPHALTIC SURFACE

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	204.0110 REMOVING ASPHALTIC SURFACE SY
1000	MAINLINE					
	IH 43 NB	1017+83	-	1018+17	RT	15
		1019+16	-	1019+50	RT	15
		1034+64	-	1034+97	RT	14
		1036+31	-	1036+65	RT	13
	IH 43 SB	1017+95	-	1018+30	LT	15
		1019+29	-	1019+64	LT	13
		1034+55	-	1034+88	LT	14
		1036+18	-	1036+52	LT	15
	RAMPS					
	SS RAMP B	1017+75	-	1018+06	RT/LT	18
		1019+04	-	1019+36	RT/LT	18
		1034+35	-	1034+66	RT/LT	18
		1035+96	-	1036+26	RT/LT	18
	SS RAMP D	1035+00	-	1035+31	RT/LT	18
		1036+63	-	1036+95	RT/LT	18
TOTAL						222

3

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY
1000	RAMPS					
	SS RAMP B	1019+36	-	1019+81	RT/LT	145
		1036+26	-	1036+72	RT/LT	184
	SS RAMP D	1034+55	-	1035+00	RT/LT	109
		1036+95	-	1037+40	RT/LT	109
	TOTAL					547

REMOVING CONCRETE SIDEWALK

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	204.0155 REMOVING CONCRETE SIDEWALK SY
1000	SIDE ROADS					
	PORT WASHINGTON RD	100+99	-	101+59	LT 6	108
		105+02	-	105+46	LT 50	34
		105+06	-	105+32	LT 12	15
		105+06	-	105+48	RT 65	58
		105+32	-	105+64	RT 33	50
		105+52	-	105+65	LT 40	11
		106+38	-	106+60	RT 35	29
		106+40	-	106+80	LT 40	97
		106+50	-	106+82	RT 54	30
		106+52	-	106+95	LT 4	23
		106+58	-	106+79	LT 129	40
	HAMPTON AVE	16+14	-	17+23	LT 16	97
		18+16	-	18+74	LT 6	52
	SILVER SPRING DR	19+34	-	19+66	RT 74	23
		19+67	-	19+94	RT 46	31
		19+98	-	20+12	LT 90	16
		20+56	-	20+76	RT 46	14
	TOTAL					728

REMOVING CURB & GUTTER

CATEGORY	LOCATION	STATION	OFFSET	TO	STATION	OFFSET	204.0150 REMOVING CURB & GUTTER LF
1000	SIDE ROADS						
	PORT WASHINGTON RD	100+99	RT 2	-	101+59	RT 2	60
		105+02	LT 42	-	105+72	LT 107	104
		105+06	LT 19	-	105+06	LT 8	68
		105+30	RT 59	-	105+50	RT 82	31
		105+37	RT 39	-	105+38	RT 27	89
		105+52	LT 33	-	105+52	LT 33	56
		106+35	RT 43	-	106+43	RT 48	75
		106+37	LT 30	-	106+37	LT 30	154
		106+52	RT 61	-	106+71	RT 42	27
		106+55	LT 156	-	107+61	LT 49	164
		106+69	LT 9	-	106+69	RT 1	49
		108+93	LT 5	-	110+61	LT 12	169
	HAMPTON AVE	13+10	RT 87	-	13+50	RT 21	105
		13+77	LT 0	-	14+01	LT 14	93
		16+95	LT 23	-	16+95	LT 10	76
		18+22	LT 0	-	18+34	LT 13	42
		19+13	LT 10	-	20+31	LT 17	120
	LEXINGTON BLVD	13+30	LT 20	-	13+39	LT 20	9
	SILVER SPRING DR	19+61	RT 66	-	19+69	RT 74	11
		19+80	RT 37	-	20+13	RT 64	153
		20+53	RT 52	-	20+58	RT 40	13
	TOTAL						1668

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
1000	RAMPS					
	SS RAMP B	1030+73	-	1032+67	RT/LT	679
		1032+67	-	1034+35	RT/LT	680
	TOTAL					1359

REMOVING CONCRETE BARRIER

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	204.0157 REMOVING CONCRETE BARRIER LF
1000	RAMPS					
	IH 43 NB OFF RAMP	1028+84	-	1028+95	RT 8	11
		1028+84	-	1029+10	LT 18	26
		1030+46	-	1030+73	RT 8	27
		1030+59	-	1030+73	LT 18	14
	TOTAL					78

REMOVING GUARDRAIL

CATEGORY	LOCATION	STATION	OFFSET	TO	STATION	OFFSET	204.0165 REMOVING GUARDRAIL LF
1000	SIDE ROADS						
	HAMPTON AVE	16+30	RT 36	-	16+96	RT 44	156
	TOTAL						156

REMOVING FENCE

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	204.0170 REMOVING FENCE LF
1000	MAINLINE					
	IH 43 NB	1048+23		1054+15	RT	588
	TOTAL					588

REMOVING MANHOLES

CATEGORY	LOCATION	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH
1000	SIDE ROADS			
	HAMPTON AVE	16+85	LT 94	1
	TOTAL			1

REMOVING INLETS

CATEGORY	LOCATION	STATION	OFFSET	204.0220 REMOVING INLETS EACH
1000	SIDE ROADS			
	HAMPTON AVE	16+63	LT 81	1
		16+82	LT 97	1
		17+01	LT 21	1
		17+10	RT 45	1
		17+15	LT 21	1
		17+22	LT 76	1
		17+33	LT 47	1
		17+37	RT 35	1
		17+56	RT 60	1
		17+60	LT 64	1
	TOTAL			10

REMOVING STORM SEWER

CATEGORY	LOCATION	STATION	OFFSET	TO	STATION	OFFSET	204.0245.0001 REMOVING STORM SEWER 12-INCH EACH	204.0245.0002 REMOVING STORM SEWER 18-INCH EACH
1000	SIDE ROADS							
	HAMPTON AVE	16+64	LT 82		16+83	LT 96	24	--
		16+83	LT 96		16+85	LT 94	4	--
		16+85	LT 94		17+22	LT 76	41	--
		16+85	LT 94		17+01	LT 21	--	74
		17+01	LT 21		17+15	LT 22	13	--
		17+10	RT 45		17+37	RT 35	29	--
		17+15	LT 22		17+33	LT 47	32	--
		17+22	LT 76		17+60	LT 64	40	--
		17+37	RT 35		17+56	RT 60	32	--
TOTAL							215	74

SAWING ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	690.0250 SAWING CONCRETE LF
1000	MAINLINE					
	IH 43 NB	1017+83	-	1088+52	RT	476
	IH 43 SB	1017+95	-	1079+19	LT	506
	RAMPS					
	SS RAMP B	1017+75		1036+72	RT/LT	1781
	SS RAMP D	1034+55		1037+40	RT/LT	159
	HA RAMP B	974+36		976+66	RT/LT	229
	SIDE ROADS					
	PORT WASHINGTON RD	97+07		108+05	RT/LT	1219
	HAMPTON AVE	13+05		20+31	RT/LT	550
	SILVER SPRING DR	18+44		20+76	RT/LT	657
TOTAL						5577

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EARTHWORK SUMMARY

CATEGORY	LOCATION	STATION	TO	STATION	205.0100 COMMON EXCAVATION (1) CY CUT (2)	EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	311.0115 BREAKER RUN CY EXPANDED EBS BACKFILL (6) FACTOR 1.30	UNEXPANDED FILL	EXPANDED FILL (7) FACTOR 1.25	MASS ORDINATE +/- (8)	WASTE
1000													
	RAMPS												
	SS RAMP B	1022+11		1028+84	138	276	0	138	359	0	0	138	414
	SIDE ROADS												
	PORT WASHINGTON RD	97+80		108+05	209	0	0	209	0	68	85	124	124
	HAMPTON AVE	13+05		17+10	161	0	0	161	0	9	11	150	150
	LEXINGTON BLVD	12+99		13+41	7	0	0	7	0	0	0	7	7
	SILVER SPRING DR	19+61		20+22	54	0	0	54	0	0	0	54	54
	SUBTOTAL				569	276	0	569	359	77	96	473	749
	TOTAL				845				359				

1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
3) EBS EXCAVATION TO BE BACKFILLED WITH BREAKER RUN AND IS ASSUMED AT 8" WITHIN THE CONCRETE PAVEMENT REPLACEMENT AREA, QUANTITY TO BE VERIFIED IN THE FIELD BY THE ENGINEER
4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
6) EXPANDED EBS BACKFILL - THIS IS TO BE FILLED WITH BREAKER RUN. EBS BACKFILL FACTOR = 1.3
7) EXPANDED FILL FACTOR = 1.25
8) 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

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CPM PROGRESS SCHEDULE

108.4400

CATEGORY	PROJECT	CPM PROGRESS SCHEDULE EACH
1000		
	1228-22-72	1
	TOTAL	1

BACKFILL GRANULAR

209.2100

CATEGORY	LOCATION	BACKFILL GRANULAR GRADE 2 CY
1000		
	UNDISTRIBUTED	130
	TOTAL	130

PREPARE FOUNDATION FOR ASPHALTIC PAVING PROJECT (1228-22-72)

211.0100.0001

CATEGORY	PROJECT	PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) LS
1000		
	1228-22-72	1
	TOTAL	1

PREPARE FOUNDATION FOR CONCRETE PAVEMENT PROJECT (1228-22-72)

211.0200.0001

CATEGORY	PROJECT	PREPARE FOUNDATION FOR CONCRETE PAVEMENT (PROJECT) LS
1000		
	1228-22-72	1
	TOTAL	1

BASE AGGREGATE ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	310.0110 BASE AGGREGATE OPEN-GRADED TON
1000	RAMPS							
	SS RAMP B	1022+11	-	1030+73	RT/LT	--	--	327
	SIDE ROADS							
	PORT WASHINGTON RD	97+80	-	108+05	RT/LT	31	337	--
	HAMPTON AVE	13+05	-	19+14	RT/LT	15	97	--
	LEXINGTON BLVD	12+99	-	13+42	LT	--	7	--
	SILVER SPRING DR	19+34	-	20+76	RT	5	59	--
	SUBTOTAL					51	500	327
	UNDISTRIBUTED					--	--	--
	TOTAL					51	500	327

FINISHING ROADWAY PROJECT (1228-22-72)

213.0100.0001

CATEGORY	PROJECT	FINISHING ROADWAY (PROJECT) EACH
1000		
	1228-22-72	1
	TOTAL	1

CONCRETE PAVEMENT JOINT LAYOUT

415.5110.S

CATEGORY	PROJECT	CONCRETE PAVEMENT JOINT LAYOUT LS
1000		
	1228-22-72	1
	TOTAL	1

MOBILIZATION

619.1000

CATEGORY	PROJECT	MOBILIZATION EACH
1000		
	1228-22-72	1
	TOTAL	1

CONCRETE PAVEMENT 9-INCH

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	415.0090 CONCRETE PAVEMENT 9-INCH SY
1000	RAMPS					
	SS RAMP B	1022+11	-	1028+99	RT/LT	1280
		1030+58	-	1030+73	RT/LT	45
		1034+35	-	1034+50	RT/LT	52
		1036+11	-	1036+26	RT/LT	52
	SS RAMP D	1035+00	-	1035+15	RT/LT	28
		1036+80	-	1036+95	RT/LT	28
	SIDE ROADS					
	PORT WASHINGTON RD	100+99	-	101+59	RT/LT	36
		105+02	-	105+69	LT	188
		106+37		107+61	LT	439
	HAMPTON AVE	13+05	-	13+50	RT	54
		13+43	-	14+01	LT	39
		16+12	-	17+40	LT	295
		16+63	-	17+40	RT	90
		18+14	-	18+34	LT	5
		19+13	-	20+31	LT	109
	SILVER SPRING DR	19+61	-	20+22	RT	119
	TOTAL					2859

CONCRETE PAVEMENT 10-INCH

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	415.0100 CONCRETE PAVEMENT 10-INCH SY
1000	MAINLINE					
	IH 43 NB	1017+83	-	1017+98	RT	89
		1019+35	-	1019+50	RT	87
		1034+64	-	1034+78	RT	86
		1036+50	-	1036+65	RT	86
	IH 43 SB	101795	-	101810	LT	108
		101949	-	101964	LT	108
		103455	-	103470	LT	88
		103637	-	103652	LT	88
	TOTAL					740

CONCRETE PAVEMENT APPROACH SLAB

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY
1000	MAINLINE					
	IH 43 NB	1017+98	-	1018+17	RT	108
		1019+16	-	1019+35	RT	107
		1034+79	-	1034+97	RT	103
		1036+31	-	1036+50	RT	108
	IH 43 SB	1018+10	-	1018+30	LT	142
		1019+29	-	1019+49	LT	141
		1034+70	-	1034+88	LT	105
		1036+19	-	1036+37	LT	109
	RAMPS					
	SS RAMP B	1028+99	-	1029+17	RT/LT	52
		1030+38	-	1030+58	RT/LT	58
		1034+50	-	1034+66	RT/LT	56
		1035+96	-	1036+11	RT/LT	54
	SS RAMP D	1035+07	-	1035+24	RT/LT	31
		1036+54	-	1036+72	RT/LT	31
	TOTAL					1205

HES CONCRETE PAVEMENT ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	415.1090 CONCRETE PAVEMENT HES 9-INCH SY	415.1410 CONCRETE PAVEMENT APPROACH SLAB HES SY
1000	RAMPS						
	SS RAMP B	1017+75	-	1017+90	RT	35	--
		1017+90	-	1018+06	RT	--	36
		1019+04	-	1019+21	RT	--	39
		1019+21	-	1019+36	RT	36	--
	SIDE ROADS						
	PORT WASHINGTON RD	106+47		106+69	LT	27	--
	TOTAL					98	75

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CONCRETE DRIVEWAY 6-INCH

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	416.0160 CONCRETE DRIVEWAY 6-INCH SY
1000	SIDE ROADS					
	PORT WASHINGTON RD	106+87	-	107+17	LT	53
	HAMPTON AVE	13+09	-	13+19	RT	20
	TOTAL					73

CONCRETE PAVEMENT REPAIR/REPLACEMENT

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	416.1715 CONCRETE PAVEMENT REPAIR SHES SY	416.1725 CONCRETE PAVEMENT REPLACEMENT SHES SY
1000	SIDE ROADS						
	SILVER SPRING DR	20+15	-	20+45	LT	--	175
		20+92	-	21+35	LT	47	--
		21+36	-	21+91	LT	--	123
	TOTAL					47	298

DRILLED TIE AND DOWEL BARS

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
1000	MAINLINE						
	IH 43 NB	1017+83	-	1079+19	RT	111	144
	IH 43 SB	1017+95	-	1079+19	LT	113	160
	RAMPS						
	SS RAMP B	1017+75	-	1036+26	RT/LT	641	112
	SS RAMP D	1035+00	-	1036+95	RT/LT	52	16
	HA RAMP B	974+36	-	976+75	RT/LT	79	64
	SIDE ROADS						
	PORT WASHINGTON RD	97+07	-	108+05	RT/LT	212	80
	HAMPTON AVE	13+05	-	18+53	RT/LT	191	88
	SILVER SPRING DR	18+44	-	20+58	RT/LT	177	112
	TOTAL					1576	776

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						HMA ITEMS							
						450.4000 HMA COLD WEATHER PAVING	455.0605 TACK COAT	460.5223 HMA PAVEMENT 3 LT 58-28 S	460.5224 HMA PAVEMENT 4 LT 58-28 S	460.7224 HMA PAVEMENT 4 HT 58-28 S	460.7424 HMA PAVEMENT 4 HT 58-28 H	465.0110 ASPHALTIC SURFACE PATCHING	465.0125 ASPHALTIC SURFACE TEMPORARY
CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	TON	GAL	TON	TON	TON	TON	TON	TON
1000	MAINLINE												
	IH 43 NB	1017+83	-	1018+17	RT	--	15	--	--	--	25	--	--
		1019+16	-	1019+50	RT	--	15	--	--	--	25	--	--
		1034+64	-	1034+97	RT	--	15	--	--	--	24	--	--
		1036+31	-	1036+65	RT	--	15	--	--	--	25	--	--
	IH 43 SB	1017+95	-	1018+30	LT	--	19	--	--	--	32	--	--
		1019+29	-	1019+64	LT	--	19	--	--	--	31	--	--
		1034+55	-	1034+88	LT	--	15	--	--	--	25	--	--
		1036+18	-	1036+52	LT	--	15	--	--	--	25	--	--
	RAMPS												
	SS RAMP B	1017+75	-	1018+06	RT/LT	--	7	--	--	--	11	--	--
		1019+04	-	1019+81	RT/LT	--	17	--	--	--	28	--	--
		1030+38	-	1034+66	RT/LT	--	112	--	--	--	188	--	--
		1035+96	-	1036+72	RT/LT	--	22	--	--	--	37	--	--
	SS RAMP D	1034+55	-	1035+32	RT/LT	--	13	--	--	--	22	--	--
		1036+63	-	1037+40	RT/LT	--	13	--	--	--	22	--	--
	SIDE ROADS												
	PORT WASHINGTON RD	100+99	-	101+59	RT	7	16	--	--	27	--	--	--
		100+99	-	101+59	LT	6	14	--	--	23	--	--	--
		104+52	-	105+12	RT	11	24	--	--	41	--	--	--
		104+52	-	105+12	LT	6	14	--	--	23	--	--	--
		108+93	-	110+61	LT	--	10	63	--	--	--	--	--
		108+93	-	110+61	LT	--	10	--	15	--	--	--	--
	SUBTOTAL					30	400	63	15	114	520	--	--
	UNDISTRIBUTED					--	--	--	--	--	--	212	36
	TOTAL					30	400	63	15	114	520	212	36

CURB & GUTTER ITEMS

CATEGORY	LOCATION	STATION	OFFSET	TO	STATION	OFFSET	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0555 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A LF	601.0600 CONCRETE CURB PEDESTRIAN LF
1000	SIDE ROADS									
	PORT WASHINGTON RD	100+99	RT 2	-	101+59	LT 8	--	61	--	--
		105+02	LT 42	-	105+71	LT 71	--	85	--	--
		105+06	LT 19	-	105+32	LT 16	--	26	--	--
		105+06	LT 8	-	105+31	LT 8	--	25	--	--
		105+22	RT 68	-	105+36	RT 88	--	--	--	25
		105+30	RT 59	-	105+50	RT 82	--	31	--	--
		105+38	RT 27	-	105+37	RT 39	--	89	--	--
		106+35	RT 43	-	106+43	RT 48	--	75	--	--
		106+52	RT 61	-	106+71	RT 42	--	27	--	--
		106+59	RT 66	-	106+76	RT 49	--	--	--	24
		106+59	LT 100	-	107+61	LT 49	--	123	--	--
		106+60	RT 0	-	106+69	RT 1	--	9	--	--
		106+60	LT 9	-	106+69	LT 9	--	9	--	--
		106+75	LT 43	-	106+77	LT 52	--	105	--	--
		108+93	LT 5	-	110+61	LT 12	--	169	--	--
	HAMPTON AVE	13+10	RT 87	-	13+22	RT 32	--	--	60	--
		13+22	RT 32		13+50	RT 21	30	--	--	--
		13+71	LT 0		13+77	LT 0	6	--	--	--
		13+71	LT 12	-	14+01	LT 14	30	--	--	--
		16+12	LT 61		16+68	LT 66	--	56	--	--
		16+63	RT 21		16+99	RT 21	--	36	--	--
		16+95	LT 10		17+04	LT 11	--	9	--	--
		16+95	LT 23		17+04	LT 23	--	9	--	--
		18+21	RT 0		18+22	RT 0	--	1	--	--
		18+21	LT 11		18+34	LT 13	--	13	--	--
		19+13	LT 10		20+31	LT 10	--	118	--	--
	LEXINGTON BLVD	13+30	LT 20	-	13+39	LT 20	9	--	--	--
		13+30	LT 29		13+42	LT 30	--	--	--	12
	SILVER SPRING DR	19+61	RT 66	-	19+69	RT 74	11	--	--	--
		19+73	RT 38		19+80	RT 37	6	--	--	--
		19+71	RT 49	-	20+13	RT 64	60	--	--	--
		20+53	RT 52	-	20+58	RT 40	13	--	--	--
TOTAL							165	1076	60	61

3

CONCRETE SIDEWALK

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	602.0405 CONCRETE SIDEWALK 4-INCH SF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0415 CONCRETE SIDEWALK 6-INCH SF
1000	SIDE ROADS							
	PORT WASHINGTON RD	100+99	-	101+59	LT 10	621	--	--
		105+02		105+62	LT 47	--	--	529
		105+03		105+48	RT 64	--	--	505
		105+06		105+31	LT 12	135	--	--
		105+32		105+63	RT 42	--	--	442
		106+37		106+60	RT 36	--	--	258
		106+40		106+77	LT 53	--	--	505
		106+50		106+82	RT 54	--	--	250
		106+60		106+95	LT 5	159	--	--
	HAMPTON AVE	16+12	-	16+85	LT 70	--	--	558
		16+14	-	17+06	LT 16	707	--	--
		18+21	-	18+73	LT 7	417	--	--
	LEXINGTON BLVD	13+30	-	13+41	LT 26	--	248	--
	SILVER SPRING DR	19+34	-	19+66	RT 74	--	199	--
		19+71	-	19+94	RT 46	--	213	--
		19+98	-	20+12	LT 90	--	136	--
		20+56	-	20+76	RT 46	--	117	--
TOTAL						2039	913	3047

CONCRETE BARRIER

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	603.0105 CONCRETE BARRIER SINGLE-FACED 32-INCH LF
1000	RAMPS					
	IH 43 NB OFF RAMP	1028+84	-	1028+95	RT 8	11
		1028+84	-	1029+10	LT 18	26
		1030+46	-	1030+73	RT 8	27
		1030+59	-	1030+73	LT 18	14
	TOTAL					78

CURB RAMP DETECTABLE WARNING FIELD ITEMS

CATEGORY	LOCATION	STATION	OFFSET	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW SF
1000	SIDE ROADS				
	PORT WASHINGTON RD	105+37	RT 69	20	--
		105+50	LT 46	12	--
		105+51	RT 47	19	--
		105+58	RT 30	10	--
		105+63	RT 38	19	--
		105+65	LT 59	12	--
		106+38	RT 35	19	--
		106+40	LT 53	10	--
		106+46	RT 27	19	--
		106+47	LT 44	19	--
		106+49	RT 39	10	--
		106+50	LT 63	19	--
		106+63	RT 53	10	--
	HAMPTON AVE	16+78	LT 71	--	24
	SILVER SPRING DR	19+63	RT 72	12	--
		19+82	RT 52	12	--
		20+58	RT 46	10	--
TOTAL				232	24

BEAM GUARD ITEMS

CATEGORY	LOCATION	STATION	OFFSET	TO	STATION	OFFSET	614.2300 MGS GUARDRAIL 3 LF	614.2350 MGS GUARDRAIL SHORT RADIUS LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
1000	SIDE ROADS									
	PORT WASHINGTON RD	104+67	LT 52		105+31	LT 52	25	37	39.4	--
	HAMPTON AVE	16+17	RT 37		16+95	RT 37	25	--	--	1
TOTAL							50	37	39.4	1

3

TEMPORARY BARRIER ITEMS

CATEGORY	STAGE	LOCATION	STATION	OFFSET	TO	STATION	OFFSET	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	603.8505 ANCHORING CONCRETE BARRIER ON BRIDGE DECKS LF	614.0905 CRASH CUSHIONS TEMPORARY EACH
1000		MAINLINE									
	1A	IH 43 NB	1014+83	RT 38		1020+50	RT 25	575	575	100	1
			1031+62	RT 38		1037+65	RT 25	600	600	132	1
	1A	IH 43 SB	1016+95	LT 25		1022+63	LT 38	575	575	100	1
			1033+56	LT 25		1039+49	LT 38	600	600	132	1
	1B	IH 43 NB	1014+83	RT 21		1020+50	RT 33	575	575	100	1
			1031+62	RT 21		1037+65	RT 33	600	600	132	1
	1B	IH 43 SB	1016+95	LT 33		1022+63	LT 21	575	575	100	1
			1033+56	LT 33		1039+49	LT 21	600	600	132	1
	3	IH 43 SB	1017+34	LT 52		1021+01	LT 69	375	375	--	1
		RAMPS									
	1A/1B	SS RAMP B	1020+63	LT 4		1025+24	RT 26	475	475	--	1
TOTAL								5550	5550	928	10

STORM SEWER ITEMS

CATEGORY	LOCATION	STATION	OFFSET	STRUCTURE NUMBER	RIM ELEVATION	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	611.0530 MANHOLE COVERS TYPE J EACH	611.0624 INLET COVERS TYPE H EACH	611.2003 MANHOLES 3-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	SPV.0035.0001 BACKFILL SLURRY CY	SPV.0060.0001 RECONNECT STORM SEWER LATERALS EACH	DEPTH IN FEET (1)	FROM STRUCTURE	TO STRUCTURE	INLET ELEVATION	DISCHARGE ELEVATION
1000	SIDE ROADS																		
	HAMPTON AVE	17+12	RT 25.9	10	634.28	39	--	--	1	--	--	1	15	--	4.72	10	11	629.56	629.16
		17+28	RT 52.1	11	633.42	30	--	--	1	--	--	1	14	--	8.03	11	12	625.39	625.09
		17+56	RT 60.5	12	633.14	--	--	--	1	--	--	1	8	1	8.05	--	--	--	--
		17+60	LT 74.5	20	634.46	36	--	--	1	--	--	1	15	--	3.53	20	21	630.93	630.57
		17+24	LT 75.0	21	634.63	43	--	--	1	--	--	1	16	--	4.11	21	22	630.52	630.09
		16+85	LT 93.5	22	634.89	--	15	1	--	1	--	--	26	1	10.41	22	23	624.48	624.35
		16+88	LT 78.8	23	634.03	--	59	--	1	--	1	--	31	--	9.68	23	24	624.35	623.85
		17+01	LT 21.3	24	634.35	--	--	--	1	--	1	--	29	1	10.60	--	--		
		16+62	LT 66.6	25	634.16	29	--	--	1	--	--	1	14	--	5.52	25	23	628.64	628.35
		17+21	LT 47.5	26	634.08	27	--	--	1	--	--	1	13	--	4.79	26	27	629.29	929.02
		17+15	LT 21.5	27	634.31	13	--	1	--	1	--	--	12	--	5.33	27	24	628.98	628.85
	TOTAL					217	74	2	9	2	2	7	193	3					

NOTES:
(1) DEPTH OF STRUCTURE IS CALCULATED FROM RIM TO THE INVERT OF THE LOWEST PIPE CONNECTED TO THE STRUCTURE (EXISTING OR PROPOSED).

CONCRETE MEDIAN SLOPED NOSE

CATEGORY	LOCATION	STATION	OFFSET	620.0300 CONCRETE MEDIAN SLOPED NOSE SF
1000	SIDE ROADS			
	PORT WASHINGTON RD	105+38	LT 12	50
		106+53	LT 5	52
	HAMPTON AVE	13+64	LT 6	69
		17+13	LT 18	64
		18+14	LT 6	62
	SILVER SPRING DR	19+65	RT 41	62
	TOTAL			359

FENCE CHAIN LINK 4-FT

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	616.0204 FENCE CHAIN LINK 4-FT LF
1000	IH 43 NB	1048+23		1054+15	RT	588
	TOTAL					588

MOBILIZATION EROSION CONTROL

CATEGORY	PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATION EMERGENCY EROSIOIN CONTROL EACH
1000			
	1228-22-72	8	4
	TOTAL	8	4

RESTORATION ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	625.0100 TOPSOIL SY	628.2002 EROSION MAT CLASS I TYPE A SY	629.0210 FERTILIZER TYPE B CWT	630.0170 SEEDING MIXTURE NO. 70 LB	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
1000	RAMPS										
	SS RAMP B	1028+00	-	1031+50	RT/LT	30	30	--	--	--	--
	SIDE ROADS										
	HAMPTON AVE	13+00	-	18+50	RT/LT	357	--	--	--	9	357
	LEXINGTON BLVD	13+00	-	13+50	LT	9	--	--	--	1	9
	SILVER SPRING DR	19+25	-	20+75	RT	43	--	--	--	1	43
	MAINLINE										
	IH 43	1028+19	-	1089+41	RT/LT	--	--	--	9	--	--
	SUBTOTAL					439	30	0	9	11	409
	UNDISTRIBUTED					44	--	1	0	2	41
	TOTAL					483	30	1	9	13	450

3

SILT FENCE ITEMS

CATEGORY	STAGE	LOCATION	STATION	TO	STATION	OFFSET	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
1000		RAMPS						
	1A/1B	SS RAMP B	1028+00	-	1031+00	RT/LT	297	--
		SIDE ROADS						
	2A/2B	HAMPTON AVE	13+00	-	18+50	RT	275	--
		SUBTOTAL					572	--
		UNDISTRIBUTED					143	72
		TOTAL					715	72

WATER

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	624.0100 WATER MGAL
1000	SIDE ROADS					
	PORT WASHINGTON RD	97+80	-	108+05	RT/LT	6
	HAMPTON AVE	13+05	-	19+14	RT/LT	2
	LEXINGTON BLVD	12+99	-	13+42	LT	1
	SILVER SPRING DR	19+34	-	20+76	RT	1
	SUBTOTAL					10
	UNDISTRIBUTED					1
	TOTAL					11

EROSION CONTROL ITEMS

CATEGORY	STAGE	LOCATION	STATION	TO	STATION	OFFSET	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	628.7570 ROCK BAGS EACH
1000		MAINLINE								
	1A	IH 43 NB	1067+00	-	1075+00	RT (INSIDE SHOULDER)	--	--	2	--
			1016+00	-	1089+00	RT (OUTSIDE SHOULDER)	--	--	12	--
	1A	IH 43 SB	1034+00	-	1039+00	LT (INSIDE SHOULDER)	--	--	2	--
			1016+00	-	1081+00	LT (OUTSIDE SHOULDER)	--	--	6	--
	1B	IH 43 NB	1016+00	-	1089+00	RT (INSIDE SHOULDER)	--	--	9	--
			1016+00	-	1089+00	RT (OUTSIDE SHOULDER)	--	--	12	--
	1B	IH 43 SB	1016+00	-	1081+00	LT (INSIDE SHOULDER)	--	--	6	--
			1016+00	-	1081+00	LT (OUTSIDE SHOULDER)	--	--	6	--
		RAMPS								
	1A/1B	SS RAMP B	1060+00	-	1035+00	RT/LT	--	--	7	--
	1A/1B	SS RAMP D	1028+00	-	1040+00	RT/LT	--	--	5	--
	2A/2B	HA RAMP B	975+50	-	976+50	RT	--	--	--	--
	4	SS RAMP D	1028+00	-	1031+00	RT/LT	--	--	3	--
		SIDE ROADS								
	2A/2B	PORT WASHINGTON RD	97+00	-	107+00	RT/LT	8	24	8	--
	2A/2B	HAMPTON AVE	12+00	-	19+00	RT/LT	1	14	--	--
	3A/3B/3C	LEXINGTON BLVD	10+50	-	11+50	RT/LT	--	2	--	--
	3D	BENDER RD	--		--	RT/LT	--	--	2	--
	4	SILVER SPRING DR	19+00	-	23+00	RT/LT	1	17	--	--
		UNDISTRIBUTED					2	12	16	20
		TOTAL					12	69	96	20

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 POSTS WOOD 4"X 6"x18' [EA]	634.0622 POSTS WOOD 4"X6"X22' [EA]	634.0814 POSTS TUBULAR STEEL 2"X2"X14' [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.]	637.1220 SIGNS TYPE I REFLC SH [SF]	638.2601 REMOVING SIGNS TYPE I [EA]	638.3100 REMOVING STR STEEL SIGN SUPPORTS [EA]	STEEL POST TYPE	636.0100 SIGN SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS [EA]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
1	E5-1B(5)	II	EXIT 77B	96 x 60	40.000	--	--	1	2	--	2	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
1A	W5-54(2M)	II	--	18 x 18	--	2.250	--	--	--	--	--	--	--	#1	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
1B	W5-54(2M)	II	--	18 x 18	--	2.250	--	--	--	--	--	--	--	#1	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
2	R8-7(5)	II	--	48 x 36	12.000	--	--	1	--	--	--	--	--	--	MOUNT ON LIGHT POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
3	J4-1(5) MB3-1 M1-1	II	-- -- IH 43	36 x 54 36 x 18 36 x 36	13.500	--	--	1	--	--	--	--	--	--	MOUNT ON LIGHT POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
4	E1-1A	I	SILVER SPRING DR 1/2 MILE	-- x --	--	--	--	--	--	--	--	--	--	--	NEW STEEL SUPPORTS LOCATE SIGN 10' IN FRONT OF EXISTING	25 x 6.5	162.50	1	2	B	1.6	98	1000	--	--	--	--	--
4A	E1-5P	I	EXIT 78	-- x --	--	--	--	--	--	--	--	--	--	#4	--	8 x 2.5	20.00	--	--	--	--	--	--	--	--	--	--	--
5	R2-1(5)	II	55 MPH	48 x 60	20.000	--	--	1	1	2	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
6	R2-1(5)	II	55 MPH	48 x 60	20.000	--	--	1	--	--	--	--	--	--	MOUNT ON LIGHT POLE - FACE NB	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
7	R8-7(5)	II	--	48 x 36	12.000	--	--	1	--	--	--	--	--	--	MOUNT ON LIGHT POLE - FACE SB	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
8	J4-1(5) MB3-3 M1-1	II	-- -- IH 43	36 x 54 36 x 18 36 x 36	13.500	--	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
9	R2-1(5)	II	55 MPH	48 x 60	20.000	--	--	1	--	--	--	--	--	--	MOUNT ON LIGHT POLE - FACE SB	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
10	E8-1	I	SILVER SPRING DR 1/4 GOOD HOPE RD 2 1/2 BROWN DEER RD 4 1/2	-- x --	--	--	--	--	--	--	--	--	--	--	INSTALL ON S-40-229 REUSE I-BEAMS	21 x 7.5	157.50	--	--	--	--	--	--	--	--	--	--	--	--
11	E1-1A	I	[57] [190] GREEN BAY AVE CAPITOL DR 1 MILE	-- x --	--	--	--	--	--	--	--	--	--	--	REUSE STEEL SUPPORTS	23 x 13.5	310.50	1	--	--	--	--	--	2	--	--	--	--	--
11A	E1-5P	I	EXIT 76 A-B	-- x --	--	--	--	--	--	--	--	--	--	#11	--	12 x 2.5	30.00	--	--	--	--	--	--	--	--	--	--	--
12	E6-1	I	SILVER SPRING DR [A]	-- x --	--	--	--	--	--	--	--	--	--	--	INSTALL ON S-40-257 REUSE I-BEAMS	20 x 5.5	110.00	1	--	--	--	--	--	--	--	--	--	--	--
12A	E1-5P	I	EXIT 78	-- x --	--	--	--	--	--	--	--	--	--	#12	--	8 x 2.5	20.00	--	--	--	--	--	--	--	--	--	--	--
13	E5-1A(5)	II	EXIT 78	72 x 60	30.000	--	--	1	2	--	2	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
13A	E13-1P(2S)	II	20 MPH	72 x 24	--	12.000	--	--	--	--	--	--	--	#13	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
13B	W5-54(2M)	II	--	18 x 18	--	2.250	--	--	--	--	--	--	--	#13	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
13C	W5-54(2M)	II	--	18 x 18	--	2.250	--	--	--	--	--	--	--	#13	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
14	D4-2(MOD)	II	--	30 x 42	8.750	--	--	1	--	--	--	--	--	--	MOUNT ON UPRIGHT S-40-56	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
15	E6-51	I	SILVER SPRING DR WEST N PORT WASHINGTON RD [DA]	-- x --	--	--	--	--	--	--	--	--	--	--	INSTALL ON S-40-56 REUSE I-BEAMS	20 x 7.5	150.00	1	--	--	--	--	--	--	--	--	--	--	--
16	E6-1	I	TO SILVER SPRING DR EAST [A]	-- x --	--	--	--	--	--	--	--	--	--	--	INSTALL ON S-40-56 NEW I-BEAMS INCIDENTAL	20 x 5	100.00	1	--	--	--	--	--	--	--	--	--	--	--
17	W1-1R(3)	II	--	36 x 36	--	9.000	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
18	W13-1(3)	II	20 MPH	24 x 24	--	4.000	--	--	--	--	--	--	--	#17	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
19	W13-3B(2S)	II	20 MPH	36 x 60	--	15.000	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
20	W3-3(3)	II	--	36 x 36	--	9.000	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
21	W1-60(3)	II	--	36 x 36	--	9.000	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
22	W13-1(3)	II	20 MPH	24 x 24	--	4.000	--	--	--	--	--	--	--	#21	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
23	--	II	RIGHT LANE	36 x 24	--	6.000	--	--	--	--	--	--	--	#21	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
24	W1-60(3)	II	--	36 x 36	--	9.000	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
25	W13-1(3)	II	20 MPH	24 x 24	--	4.000	--	--	--	--	--	--	--	#24	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
26	--	II	RIGHT LANE	36 x 24	--	6.000	--	--	--	--	--	--	--	#24	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
27	W4-1R(5)	II	--	48 x 48	--	16.000	--	--	--	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
28	E6-51	I	N PORT WASHINGTON RD [DA]	-- x --	--	--	--	--	--	--	--	--	--	--	INSTALL ON S-40-806 REUSE I-BEAMS	18 x 7.5	135.00	1	--	--	--	--	--	--	--	--	--	--	--
29	E6-1	I	SILVER SPRING DR WEST [A] EXIT 20 MPH	-- x --	--	--	--	--	--	--	--	--	--	--	INSTALL ON S-40-806 NEW I-BEAMS INCIDENTAL	17 x 7	119.00	1	--	--	--	--	--	--	--	--	--	--	--
30	D4-2(MOD)	II	--	30 x 42	8.750	--	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
31	W1-1R(3)	II	--	36 x 36	--	9.000	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
32	W13-1(3)	II	20 MPH	24 x 24	--	4.000	--	1	1	--	--	--	--	#31	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
33	W1-8(3)	II	--	24 x 30	--	5.000	--	1	1	--	--	1	--	--	4 FT MOUNT HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
34	W1-8(3)	II	--	24 x 30	--	5.000	--	1	1	--	--	1	--	--	4 FT MOUNT HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--

3

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 POSTS WOOD 4"X6"x18' [EA]	634.0622 POSTS WOOD 4"X6"X22' [EA]	634.0814 POSTS TUBULAR STEEL 2"X2"X14' [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.]	637.1220 SIGNS TYPE I REFLC SH [SF]	638.2601 REMOVING SIGNS TYPE I [EA]	638.3100 REMOVING STR STEEL SIGN SUPPORTS [EA]	STEEL POST TYPE	636.0100 SIGN SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS [EA]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
35	W1-8(3)	II	--	24 x 30	--	5.000	--	1	1	--	--	1	--	--	4 FT MOUNT HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
36	W1-8(3)	II	--	24 x 30	--	5.000	--	1	1	1	--	--	--	--	4 FT MOUNT HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
37	W1-8(3)	II	--	24 x 30	--	5.000	--	1	1	1	--	--	--	--	4 FT MOUNT HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
38	W1-8(3)	II	--	24 x 30	--	5.000	--	1	1	1	--	--	--	--	4 FT MOUNT HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
38A	W1-8(3)	II	--	24 x 30	--	5.000	--	1	1	--	--	1	--	--	4 FT MOUNT HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
39	W12-1D(4)	II	--	30 x 30	--	6.250	--	1	1	--	--	1	--	--	MOUNT ON BARRIER WALL	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
40	W3-3(3)	II	--	36 x 36	--	9.000	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
41	D1-60A	II	PORT WASHINGTON RD [A] NORTH SOUTH[A] TO SILVER SPRING DR [A]	120 x 36	30.000	--	--	1	2	2	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
42	R3-5R(2S)	II	--	42 x 48	14.000	--	--	1	--	--	--	--	--	--	INSTALL ON S-40-911; BRACKET INCIDENTA	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
43	R3-6L(2S)	II	--	42 x 48	14.000	--	--	1	--	--	--	--	--	--	INSTALL ON S-40-911; BRACKET INCIDENTA	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
44	R3-5L(2S)	II	--	42 x 48	14.000	--	--	1	--	--	--	--	--	--	INSTALL ON S-40-911; BRACKET INCIDENTA	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
45	D4-2R(2S)	II	--	30 x 36	7.500	--	--	1	--	--	--	--	--	--	MOUNT ON UPRIGHT S-40-911	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
46	R5-1A(3)	II	--	42 x 30	8.750	--	--	1	--	--	--	--	--	--	MOUNT ON UPRIGHT S-40-911	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
47	R5-1A(3)	II	--	42 x 30	8.750	--	--	1	--	--	--	--	--	--	MOUNT ON UPRIGHT S-40-911	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
48	W1-6(3)	II	--	60 x 30	--	12.500	--	1	2	2	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
49	E5-1A(5)	II	EXIT 78	72 x 60	30.000	--	--	1	2	--	2	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
49A	W5-54(2M)	II	--	18 x 18	--	2.250	--	--	--	--	--	--	--	#49	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
49B	W5-54(2M)	II	--	18 x 18	--	2.250	--	--	--	--	--	--	--	#49	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
50	E4-1A	I	SILVER SPRING DRIVE [A]	-- x --	--	--	--	--	--	--	--	--	--	--	INSTALL ON S-40-101 REUSE I-BEAMS	20 x 5.5	110.00	1	--	--	--	--	--	--	--	--	--	--	--
50A	E1-5P	I	EXIT 78	-- x --	--	--	--	--	--	--	--	--	--	#50	--	8 x 2.5	20.00	--	--	--	--	--	--	--	--	--	--	--
51	W5-52R(3)	II	--	18 x 54	--	6.750	--	--	--	1	--	--	--	--	4 FT MOUNT HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
52	W5-52L	--	--	-- x --	--	--	--	1	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
53	R6-2L R5-1A	--	--	-- x --	--	--	-- --	1	--	--	--	--	--	--	REMOVE FROM SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
54	R1-2(2M)	II	--	48 x 42	7.000	--	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
55	R6-3A(2S)	II	--	30 x 24	5.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
56	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
57	R6-2L(2S)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
58	R3-4	--	--	-- x --	--	--	--	1	1	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
59	R3-4(2S)	II	--	24 x 24	4.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
60	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
61	R5-1(3)	II	--	36 x 36	9.000	--	--	--	--	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
62	R5-1A(2S)	II	--	36 x 24	6.000	--	--	--	--	--	--	--	--	#61	3 FT MOUNT HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
63	R3-1(2S)	II	--	24 x 24	4.000	--	--	--	--	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
64	R1-1F(3)	II	--	36 x 36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
65	R3-18(2S)	II	--	24 x 24	4.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
66	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
67	R4-7(2S)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
68	R6-2L(2S)	II	--	24 x 30	5.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
69	R5-1(3)	II	--	36 x 36	9.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
70	R5-1A(2S)	II	--	36 x 24	6.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
71	R1-1F(3)	II	--	36 x 36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
72	R3-18	--	--	-- x --	--	--	--	1	--	--	--	--	--	--	REMOVE FROM SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
73	R3-18(2S)	II	--	24 x 24	4.000	--	--	--	--	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
74	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	#73	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
75	NOT USED	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
76	R4-7(2S)	II	--	24 x 30	5.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
77	R3-4(2S)	II	--	24 x 24	4.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
78	R6-3(2S)	II	--	30 x 24	5.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
79	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
80	NOT USED	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
81	R1-1F(3)	II	--	36 x 36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
82	W12-1D(2S)	II	--	24 x 24	--	4.000	--	--	1	--	--	--	--	--	MOUNT ON SIGNAL POLE - 2 FT HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
83	R6-3(2S)	II	--	30 x 24	5.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
84	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
85	R10-50(2S)	II	--	30 x 36	7.500	--	--	--	--	--	--	--	--	--	MOUNT ON MAST ARM	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
86	R4-7(2S)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
87	R3-4(2S)	II	--	24 x 24	4.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
88	R1-1F(3)	II	--	36 x 36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 POSTS WOOD 4"X 6"x18' [EA]	634.0622 POSTS WOOD 4"X6"X22' [EA]	634.0814 POSTS TUBULAR STEEL 2"X2"X14' [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.]	637.1220 SIGNS TYPE I REFLC SH [SF]	638.2601 REMOVING SIGNS TYPE I [EA]	638.3100 REMOVING STR STEEL SIGN SUPPORTS [EA]	STEEL POST TYPE	636.0100 SIGN SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS [EA]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
89	J33-1(2S)	II	--	24 x 69	11.500	--	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
	MB4-5		--	24 x 12																								
	MB3-3		--	24 x 12																								
	M1-1		IH 43	24 x 24																								
	MB6-1		--	21 x 21																								
90	W12-1D(2S)	II	--	24 x 24	--	4.000	--	--	--	--	--	1	--	--	2 FT MOUNT HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
91	R1-1F(3)	II	--	36 x 36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
92	R1-1F(3)	II	--	36 x 36	--	--	7.460	1	--	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
93	R6-3(2S)	II	--	30 x 24	5.000	--	--	--	--	--	--	--	--	#92	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
94	R4-7(2S)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	--	#92	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
95	R3-4(2S)	II	--	24 x 24	4.000	--	--	--	--	--	--	--	--	#92	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
96	NOT USED	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
97	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
98	W12-1D(2S)	II	--	24 x 24	--	4.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE - 2 FT HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
99	R1-2(2M)	II	--	48 x 42	7.000	--	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
100	R4-7(2S)	II	--	24 x 30	5.000	--	--	1	--	1	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
101	W5-52L(2S)	II	--	12 x 36	--	3.000	--	--	--	--	--	--	--	#100	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
102	R6-3(2S)	II	--	30 x 24	5.000	--	--	--	--	--	--	--	--	#100	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
103	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	#100	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
104	R10-50(2S)	II	--	30 x 36	7.500	--	--	--	--	--	--	--	--	--	MOUNT ON MAST ARM	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
105	R1-1F(3)	II	--	36 x 36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
106	R1-2(2M)	II	--	48 x 42	7.000	--	--	1	1	--	--	--	--	--	MOUNT ON LIGHT POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
107	R5-3	--	--	-- x --	--	--	--	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
108	R1-1	--	--	-- x --	--	--	--	--	--	--	--	--	1	#107	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
109	--	--	OAK LEAF TRAIL SIGN	-- x --	--	--	--	--	--	--	--	--	1	#107	4 FT MOUNT HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
110	W23-2(2S)	II	--	36 x 36	--	9.000	--	--	--	1	--	--	--	--	TEMP ORANGE FLAGS INCIDENTAL	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
111	W3-3(2S)	II	--	36 x 36	--	9.000	--	1	1	1	--	--	--	--	TEMP ORANGE FLAGS INCIDENTAL	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
112	R11-54F(2S)	II	--	48 x 30	--	--	10.000	--	--	2	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
113	R10-50(2S)	II	--	30 x 36	7.500	--	--	--	--	--	--	--	--	--	MOUNT ON MAST ARM	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
114	R4-7(2S)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
115	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
116	J3-1(2S)	II	--	24 x 57	9.500	--	--	1	--	--	--	--	--	#115	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
	MB3-3		--	24 x 12																								
	M1-1		IH 43	24 x 24																								
	MB6-1		--	21 x 21																								
117	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
118	R1-2(2M)	II	--	48 x 42	7.000	--	--	1	1	--	--	--	--	--	MOUNT ON LIGHT POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
119	R1-2(2M)	II	--	48 x 42	7.000	--	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
120	W3-8(2S)	II	--	48 x 48	--	16.000	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
121	R4-7(2S)	II	--	24 x 30	5.000	--	--	--	--	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
122	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	#121	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
123	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
124	W3-3(2S)	II	--	36 x 36	--	9.000	--	--	--	1	--	--	--	--	TEMP ORANGE FLAGS INCIDENTAL	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
125	W3-3(2S)	II	--	36 x 36	--	9.000	--	--	--	--	--	--	--	--	TEMP ORANGE FLAGS INCIDENTAL MOUNT ON LIGHT POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
126	R5-1(3)	II	--	36 x 36	9.000	--	--	1	1	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
127	R5-1A(2S)	II	--	36 x 24	6.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE - 3 FT HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
128	R1-2(2M)	II	--	48 x 42	7.000	--	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
129	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
130	R6-3(2S)	II	--	30 x 24	5.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
131	R6-2L(2S)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
132	R6-2R(2S)	II	--	24 x 30	5.000	--	--	1	--	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
133	R4-7(2S)	II	--	24 x 30	5.000	--	--	1	--	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
134	R3-4(2S)	II	--	24 x 24	4.000	--	--	--	--	--	--	--	--	#133	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
135	J3-1(2S)	II	--	24 x 57	9.500	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
	MB3-3		--	24 x 12																								
	M1-1		IH 43	24 x 24																								
	MB6-1		--	21 x 21																								
136	R1-1F(3)	II	--	36 x 36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
137	R3-18(2S)	II	--	24 x 24	4.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
138	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
139	R1-2(2M)	II	--	48 x 42	7.000	--	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
140	R10-15R(2S)	II	--	30 x 30	6.250	--	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 POSTS WOOD 4"X 6"x18' [EA]	634.0622 POSTS WOOD 4"X6"X22' [EA]	634.0814 POSTS TUBULAR STEEL 2"X2"X14' [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.]	637.1220 SIGNS TYPE I REFLC SH [SF]	638.2601 REMOVING SIGNS TYPE I [EA]	638.3100 REMOVING STR STEEL SIGN SUPPORTS [EA]	STEEL POST TYPE	636.0100 SIGN SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS [EA]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
141	R1-2	--	--	-- x --	--	--	--	1	1	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
142	R1-2	--	--	-- x --	--	--	--	1	1	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
143	R6-3(2S)	II	--	30 x 24	5.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
144	R1-1F(3)	II	--	36 x 36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
145	R3-1(2S)	II	--	24 x 24	4.000	--	--	--	--	--	--	--	--	#147	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
146	R1-1F(3)	II	--	36 x 36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
147	R5-1(3)	II	--	36 x 36	9.000	--	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
148	R5-1A(2S)	II	--	36 x 24	6.000	--	--	--	--	--	--	--	--	#147	3 FT MOUNT HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
149	R4-7(2S)	II	--	24 x 30	5.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
150	R10-6(MOD)(2M)	II	--	24 x 36	6.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
151	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
152	R6-2L(2S)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
153	R3-58(2M)	II	--	24 x 30	5.000	--	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
154	R3-58(2M)	II	--	24 x 30	5.000	--	--	1	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
155	R10-6(2M)	II	--	24 x 36	6.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE - SHEET 3	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
156	R10-6(MOD)(2M)	II	--	24 x 36	6.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE - SHEET 3	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
157	R10-6(MOD)(2M)	II	--	24 x 36	6.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE - SHEET 3	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
158	W4-2R(2M)	II	--	36 x 36	--	9.000	--	1	--	--	--	--	--	--	MOUNT ON LIGHT POLE - SHEET 3	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
159	W1-6(2M)	II	--	48 x 24	--	8.000	--	--	--	1	--	--	--	--	SHEET 3	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
160	W13-3B(2M)	II	20 MPH	36 x 60	--	15.000	--	--	--	--	--	--	--	--	MOUNT ON UPRIGHT - S-40-806 - SHEET 4	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
161	R11-54F(2S)	II	--	48 x 30	--	--	10.000	--	--	2	--	--	--	--	SHEET 10	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
162	R11-54F(2S)	II	--	48 x 30	--	--	10.000	--	--	2	--	--	--	--	SHEET 12	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
163	R11-54F(2S)	II	--	48 x 30	--	--	10.000	--	--	2	--	--	--	--	SHEET 13	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
164	J3-1(2S)	II	--	24 x 69	11.500	--	--	1	1	--	--	1	--	--	SHEET 9	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
	MB4-5		--	24 x 12																								
	MB3-3		--	24 x 12																								
	M1-1		IH 43	24 x 24																								
	MB6-1		--	21 x 21																								
165	R3-7R(3)	II	--	36 x 36	9.000	--	--	1	--	--	--	--	--	--	MOUNT ON UPRIGHT - S-40-264 - SHEET 9A	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
166	--	--	HAMPTON AVE [A]	-- x --	--	--	--	1	--	--	--	--	--	--	REMOVE FROM OVERHEAD SIGN SUPPORT S-40-264 SHEET 9A	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
167	--	--	TO SOUTH [43] HAMPTON AVE [A]	-- x --	--	--	--	--	--	--	--	--	1	--	ON OVERHEAD SIGN SUPPORT - SHEET 9A S-40-264 MOVE OVER RIGHT LANE EXISTING I-BEAM BRACKET INCIDENTAL	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
168	R3-20L			-- x --	--	--	--	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
169	R3-20L(2S)	II		24 x 36	6.000	--	--	--	--	--	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
	TOTALS				699.250	298.000	226.500	83	48	52	6	8	5				1444.500	8	2	--	1.6	98	1000	2				

SHEET 4 OF 4

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES – PERMANENT SIGNING	SHEET:	E

TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	STAGE DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH**	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH**	643.0800 TRAFFIC CONTROL ARROW BOARDS DAY	643.0900 TRAFFIC CONTROL SIGNS EACH**	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.1100.S DYNAMIC LATE MERGE SYSTEM DAY	643.1200.S PORTABLE AUTOMATED REAL-TIME TRAFFIC QUEUE WARNING SYSTEM DAY	643.4100.S TRAFFIC CONTROL INTERIM LANE CLOSURE EACH	643.5000 TRAFFIC CONTROL EACH	SPV.0060.0002 TRAFFIC CONTROL LOCAL ROAD LANE CLOSURES EACH
1000																								
	1A	IH 43 NB	25	257	6425	21	525	--	--	40	1000	44	1100	2	50	97	2425	2	6	25	25	2	--	--
	1A	IH 43 SB	29	150	4350	10	290	--	--	20	580	31	899	0	0	36	1044	1	3	--	--	2	--	--
	1A	SS RAMP B CLOSED	17	--	--	--	--	--	--	--	--	--	--	--	--	31	527	1	7	--	--	--	--	--
	1A	SS RAMP B PARTIAL OPEN	13	57	741	2	26	--	--	2	26	28	364	--	--	23	299	--	--	--	--	--	--	--
	1A	SILVER SPRING SB ON RAMP	29	18	522	9	261	--	--	18	522	--	--	--	--	60	1740	1	7	--	--	--	--	--
	1A	PORT WASHINGTON RD LANE CLOSURE	2	36	72	2	4	--	--	4	8	10	20	1	2	10	20	1	7	--	--	--	--	2
	1B	IH 43 NB	25	178	4450	12	300	--	--	20	500	53	1325	2	50	102	2550	1	3	25	25	2	--	--
	1B	IH 43 SB	29	122	3538	10	290	--	--	20	580	24	696	--	--	40	1160	1	3	--	--	2	--	--
	1B	SS RAMP D CLOSED	20	28	560	6	120	--	--	12	240	--	--	--	--	54	1080	1	7	--	--	--	--	--
	1A/1B	IH 43 NB/SB SINGLE LANE CLOSURE	20	51	1020	2	40	--	--	4	80	14	280	1	20	6	120	--	--	--	--	20	--	--
	2A	PORT WASHINGTON RD/HAMPTON AVE	25	245	6125	76	1900	--	--	44	1100	49	1225	4	100	154	3850	4	12	--	--	--	--	4
	2B	PORT WASHINGTON RD/HAMPTON AVE	25	186	4650	20	500	--	--	40	1000	32	800	4	100	53	1325	4	12	--	--	--	--	4
	2	PORT WASHINGTON RD CLOSURE	2	71	142	25	50	--	--	50	100	28	56	1	2	142	284	3	21	--	--	--	--	4
	3	IH 43 SB	14	130	1820	5	70	--	--	10	140	15	210	--	--	21	294	1	3	--	--	1	--	
	3A	LEXINGTON BLVD	5	20	100	13	65	11	11	26	130	--	--	--	--	21	105	2	16	--	--	--	--	1
	3B	LEXINGTON BLVD	4	20	80	13	52	--	--	26	104	--	--	--	--	37	148	2	8	--	--	--	--	4
	3C	LEXINGTON BLVD	5	18	90	11	55	13	13	22	110	--	--	--	--	19	95	2	10	--	--	--	--	1
	4	SS RAMP B PARTIAL CLOSED	38	46	1748	5	190	--	--	10	380	--	--	--	--	10	380	1	7	--	--	--	--	
	4	SS RAMP D CLOSED	38	28	1064	6	228	--	--	12	456	--	--	--	--	54	2052	1	7	--	--	--	--	
	4A	SILVER SPRING DR	15	91	1365	25	375	--	--	50	750	14	210	1	15	53	795	2	6	--	--	--	--	2
	4B	SILVER SPRING DR	4	234	936	39	156	--	--	78	312	46	184	3	12	78	312	2	6	--	--	--	--	8
	4C	SILVER SPRING DR	15	82	1230	26	390	--	--	52	780	16	240	1	15	49	735	2	6	--	--	--	--	2
	4D	SILVER SPRING DR	4	103	412	41	164	--	--	82	328	35	140	2	8	56	224	2	6	--	--	--	--	8
		SUBTOTAL			41440		6051	24	24		9226		7749		374		21564		163	50	50	29	--	40
		UNDISTRIBUTED			4144		606	3	3		923		775		38		2157		17	5	5	3	1	4
		TOTAL			45584		6657	27	27		10149		8524		412		23721		180	55	55	32	1	44

**FOR INFROMATION ONLY

COVERING SIGNS ITEMS

643.0910 643.0920

CATEGORY	STAGE	TRAFFIC CONTROL COVERING SIGNS TYPE I EACH	# OF CYCLES	# OF SIGNS	TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	# OF CYCLES	# OF SIGNS
1000							
	1A	5	1	5	14	1	14
	1B	2	1	2	7	1	7
	2A	--	--	--	1	1	1
	2B	--	--	--	1	1	1
	3	--	--	--	1	1	1
	4	1	1	1	2	1	2
	4A	1	1	1	--	--	--
	4B	--	--	--	4	4	1
	4D	--	--	--	4	4	1
	SUBTOTAL	9			34		
	UNDISTRIBUTED	1			4		
	TOTAL	10			38		

TRAFFIC CONTROL SIGNS FIXED MESSAGE

CATEGORY	SIGN NO.	NUMBER REQUIRED	SIGN SIZE LENGTH FT	SIGN SIZE WIDTH FT	SIGN AREA SF	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	SIGN MESSAGE
1000							
	FM-01	8	4.0	2.5	10.00	80.00	HAMPTON AVE
	FM-02	3	3.0	2.0	6.00	18.00	HAMPTON AVE
	FM-03	10	4.0	3.5	14.00	140.00	PORT WASHINGTON RD
	FM-04	31	4.0	2.5	10.00	310.00	PORT WASHINGTON RD
	FM-05	8	3.5	2.0	7.00	56.00	LEXINGTON BLVD
	FM-07	16	3.5	3.5	12.25	196.00	SILVER SPRING DR
	FM-08	9	2.5	2.5	6.25	56.25	SILVER SPRING DR
	FM-09	1	12.0	4.5	54.00	54.00	SILVER SPRING DR CLOSED AHEAD FOLLOW DETOUR
	FM-10	3	4.0	1.0	4.00	12.00	PARK & RIDE
	FM-11	1	2.5	2.0	5.00	5.00	PARK & RIDE
	FM-12	19	2.5	1.5	3.75	71.25	OAK LEAF TRAIL
	G20-63 (3)	3	6.0	1.0	6.00	18.00	RAMP CLOSED
	G20-63 (4)	7	9.0	2.0	18.00	126.00	RAMP CLOSED
	R11-51	7	4.0	4.0	16.00	112.00	RAMP WILL BE CLOSED (TIME) BEGINNING (DATE)
	SUBTOTAL					1254.50	
	UNDISTRIBUTED					126.00	
	TOTAL					1380.50	

ADJUSTING CUC MANHOLE COVER

SPV.0060.0007

ADJUSTING CUC MANHOLE COVER

CATEGORY	LOCATION	STATION	OFFSET	EACH
1000	SIDE ROADS			
	HAMPTON AVE	16+92	RT 15	1
	TOTAL			1

3

PAVEMENT MARKING ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	646.1020 MARKING LINE EPOXY 4-INCH SOLID YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH SOLID WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH 12.5 FT LINE 37.5 FT SKIP WHITE LF	646.1555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH 12.5 FT LINE 37.5 FT SKIP WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH SOLID WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH 3 FT LINE 9 FT SKIP WHITE LF	646.3555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH 3 FT LINE 9 FT SKIP WHITE LF	646.5020 MARKING ARROW EPOXY TYPE 2 WHITE EACH	646.5020 MARKING ARROW EPOXY TYPE 3 WHITE EACH	646.5020 MARKING ARROW EPOXY TYPE 4 WHITE EACH	646.5020 MARKING ARROW EPOXY TYPE 7 WHITE EACH	646.5120 MARKING WORD EPOXY WHTIE EACH	646.5220 MARKING SYMBOL EPOXY WHITE EACH
1000	MAINLINE																
	IH 43 NB	988+23	-	1087+46	10796	7978	--	225	--	--	--	--	--	--	--	--	--
	IH 43 SB	1008+85	-	1089+88	8638	5994	--	224	--	--	43	--	--	--	--	--	--
	RAMPS																
	WEST HAMPTON AVE NB OFF RAMP	--		--	106	1006	--	--	--	--	--	--	--	--	--	--	--
	SS RAMP B	1012+93	-	1044+49	3861	4316	--	--	--	--	--	5	2	1	1	5	--
	SS RAMP D	1026+74	-	1054+62	1328	2748	--	--	--	--	--	--	--	--	--	--	--
	SILVER SPRING DR SB OFF RAMP	--		--	697	1070	--	--	--	39	--	5	1	--	--	5	--
	SILVER SPRING DR SB ON RAMP	--		--	1591	3452	--	--	--	--	--	--	--	--	--	--	4
	SIDE ROADS																
	PORT WASHINGTON RD	97+80	-	108+50	--	--	486	--	1282	59	--	9	--	--	--	4	--
	HAMPTON AVE	10+68	-	20+66	94	--	376	--	797	--	--	6	--	--	--	4	--
	SILVER SPRING DR	18+26	-	26+13	--	--	576	--	753	134	--	9	--	--	--	5	--
	LEXINGTON BLVD	11+11	-	15+34	844	--	--	--	--	--	--	--	--	--	--	--	--
	SUBTOTAL				27955	26564	1438	449	2832	232	43	34	3	1	1	23	4
	TOTAL					55957		449		3064	43		39			23	4

3

PAVEMENT MARKING ITEMS CONTINUED

CATEGORY	LOCATION	STATION	TO	STATION	646.6120 MARKING STOP LINE EPOXY 18-INCH WHITE LF	646.6220 MARKING YIELD LINE EPOXY 18-INCH WHITE EACH	646.7120 MARKING DIAGONAL EPOXY 12-INCH YELLOW LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH WHITE LF	646.7220 MARKING CHEVRON EPOXY 24-INCH WHITE LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE LF	646.8120 MARKING CURB EPOXY YELLOW LF	646.8220 MARKING ISLAND NOSE EPOXY YELLOW EACH	SPV.0060.0005 PAVEMENT MARKING CONTRAST EPOXY SPECIAL MARKING ARROW WHITE EACH	SPV.0090.0003 PAVEMENT MARKING CONTRAST EPOXY 4-INCH 12.5 FT LINE 37.5 FT SKIP WHITE LF	SPV.0090.0004 PAVEMENT MARKING CONTRAST EPOXY 8-INCH SOLID WHITE LF	SPV.0090.0004 PAVEMENT MARKING CONTRAST EPOXY 8-INCH 2 FT LINE 6 FT SKIP WHITE LF	SPV.0090.0004 PAVEMENT MARKING CONTRAST EPOXY 8-INCH 3 FT LINE 9 FT SKIP WHITE LF
1000	MAINLINE																
	IH 43 NB	988+23	-	1087+46	--	--	1115	1089	224	--	--	--	2	4775	1435	--	156
	IH 43 SB	1008+85	-	1089+88	--	--	1063	1127	188	--	--	--	3	3743	632	--	168
	RAMPS																
	WEST HAMPTON AVE NB OFF RAMP	--		--	--	--	--	--	--	--	--	--	--	--	590	--	--
	SS RAMP B	1012+93	-	1044+49	97	--	--	--	234	--	--	--	--	148	2139	--	--
	SS RAMP D	1026+74	-	1054+62	--	--	--	--	--	--	--	--	--	--	686	--	--
	SILVER SPRING DR SB OFF RAMP	--		--	--	--	--	--	--	--	--	--	--	--	695	--	--
	SILVER SPRING DR SB ON RAMP	--		--	42	--	--	--	--	--	--	--	--	181	831	--	--
	SIDE ROADS																
	PORT WASHINGTON RD	97+80	-	108+50	111	--	--	0	--	316	27	2	--	--	--	0	--
	HAMPTON AVE	10+68	-	20+66	90	--	--	--	--	310	82	3	--	--	--	42	--
	SILVER SPRING DR	18+26	-	26+13	159	9	--	40	--	129	--	--	--	--	--	--	--
	LEXINGTON BLVD	11+11	-	15+34	--	--	--	--	--	--	--	--	--	--	--	--	--
	SUBTOTAL				499	9	2178	2256	646	755	109	5	5	8847	7008	42	324
	TOTAL				499	9	4434		646	755	109	5	5	8847	7374		

3

MARKING REMOVAL ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	646.9110 MARKING REMOVAL LINE WATER BLASTING 8-INCH LF	646.9210 MARKING REMOVAL LINE WATER BLASTING WIDE LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH	646.9310 MARKING REMOVAL SPECIAL MARKING WATER BLASTING EACH
1000	MAINLINE								
	IH 43 NB	988+23	-	1087+46	15580	--	2428	2	--
	IH 43 SB	1008+85	-	1089+88	15117	--	2378	3	--
	RAMPS								
	HA RAMP B	974+53	-	976+56	--	178	--	--	1
	SS RAMP B	1012+93	-	1044+49	1157	--	--	--	--
	SIDE ROADS								
	PORT WASHINGTON RD	97+80	-	108+50	188	247	58	--	4
	HAMPTON AVE	10+68	-	20+66	874	--	--	--	--
	SILVER SPRING DR	18+26	-	26+13	268	140	46	--	4
	BENDER RD	--		--	--	--	--	--	2
	LEXINGTON BLVD	11+11	-	15+34	844	--	--	--	--
TOTAL					34028	565	4910	5	11

3

TEMPORARY MARKING ITEMS

CATEGORY	STAGE	LOCATION	STATION TO STATION	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH 12.5 FT LINE 37.5 FT SKIP SOLID YELLOW LF	649.0150 SOLID WHITE LF	649.0150 WHITE LF	649.0250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH 3 FT LINE 9 FT SKIP SOLID WHITE LF	649.0250 WHITE LF	649.0550 TEMPORARY MARKING ARROW REMOVABLE TAPE TYPE 1 WHITE EACH	649.0550 TYPE 2 WHITE EACH	649.0850 TEMPORARY MARKING STOP LINE REMOVABLE WHITE LF	649.0960 TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH 12.5 FT LINE 37.5 FT SKIP BLACK LF	649.0970 TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH SOLID BLACK LF	649.0970 3 FT LINE 9 BLACK LF
1000														
	1A	IH 43 NB		7883	11120	2210	1044	63	--	--	--	2304	--	--
	1A	IH 43 SB		7822	8615	2070	796	--	--	--	--	2220	--	48
	1A/1B	SS RAMP B PARTIAL OPEN		1442	1352	--	408	--	--	--	--	62	--	43
	1B	IH 43 NB		4196	6444	1049	328	102	--	--	--	984	434	43
	1B	IH 43 SB		8480	8518	2487	865	57	--	--	--	1823	732	217
	2A	PORT WASHINGTON RD/HAMPTON AVE		--	4135	--	749	--	--	1	--	--	--	--
	2B	PORT WASHINGTON RD/HAMPTON AVE		4185	--	--	1001	59	--	--	44	--	--	--
	3	IH 43 SB		--	6759	--	1639	--	--	--	--	138	216	94
	3A	LEXINGTON BLVD		826	413	--	--	--	--	--	--	--	--	--
	3C	LEXINGTON BLVD		826	413	--	--	--	--	--	--	--	--	--
	4	SS RAMP B PARTIAL CLOSED		--	770	--	--	--	--	--	--	--	--	--
	4A	SILVER SPRING DR		--	1025	78	274	63	2	2	--	--	--	--
	4C	SILVER SPRING DR		917	281	45	208	41	--	2	36	--	--	--
SUBTOTAL				36577	49845	7939	7312	385	2	5	80	7531	1382	445
UNDISTRIBUTED				3658	4985	794	732	39	1	1	8	754	139	45
TOTAL					103798		8468		9		88	8285	2011	

SURVEY PROJECT (1228-22-72)

SPV.0105.0001

CATEGORY	PROJECT	SURVEY PROJECT LS
1000		
	1228-22-72	1
	TOTAL	1

MOBILIZATIONS EMERGENCY PAVEMENT REPAIR

SPV.0060.0003

CATEGORY	LOCATION				MOBILIAZATIONS EMERGENCY PAVEMENT REPAIR EACH
1000					
	IH 43 NB	988+23	-	1087+46	2
	IH 43 SB	1008+85	-	1089+88	2
	TOTAL				4

3

FIELD FACILITIES

SPV.0060.0004

CATEGORY	PROJECT	FIELD FACILITIES OFFICE SPACE EACH
1000		
	1228-22-72	1
	TOTAL	1

PAVEMENT CLEANUP PROJECT (1228-22-72)

SPV.0075.0001

CATEGORY	PROJECT	PAVEMENT CLEANUP PROJECT (1228-22-72) HRS
1000		
	1228-22-72	110
	TOTAL	110

LIGHTING - REMOVALS

204.0195 REMOVING CONCRETE BASES
204.9060.S.1001 REMOVING LUMINAIRES
204.9060.S.1002 REMOVING LIGHTING UNITS
204.9060.S.1003 REMOVING SIGN LIGHTING
653.0905 REMOVING PULL BOXES

CATEGORY	STAGE	SYSTEM	DESCRIPTION / SEQUENCE	LOCATION STATION	LOCATION OFFSET	204.0195 REMOVING CONCRETE BASES EACH	204.9060.S.1001 REMOVING LUMINAIRES EACH	204.9060.S.1002 REMOVING LIGHTING UNITS EACH	204.9060.S.1003 REMOVING SIGN LIGHTING EACH	653.0905 REMOVING PULL BOXES EACH	COMMENTS
1100	1B	HL-40-CT	CCT	1001+05	1.1' RT	--	--	--	1	--	SIGN STRUCTURE LIGHTING - S-40-229
			CCT	1012+67	66.3' RT	--	--	--	1	--	SIGN STRUCTURE LIGHTING - S-40-257
	1B	HL-40-CT			SUBTOTAL	0	0	0	2	0	
	4B	HL-40-BY	EX. LPB-BY-117	1019+74	70.9' RT	--	--	--	--	1	--
			EBY / FBY	1021+37	145.0' RT	--	--	--	1	--	SIGN STRUCTURE LIGHTING - S-40-56
			EX. LPB-BY-116	1023+02	57.1' RT	--	--	--	--	1	--
			EX. LPB-BY-115	1024+70	69.7' RT	--	--	--	--	1	--
			EX. LPB-BY-114	1026+78	57.9' RT	--	--	--	--	1	--
			EX. LPB-BY-113	1028+32	56.9' RT	--	--	--	--	1	--
			ABY2	1026+88	65.4' LT	--	1	--	--	--	LUMINAIRE ONLY - MOUNTED ON A SIGN STRUCTURE S-40-72
			EX. LPB-BY-112	1027+03	22.0' LT	--	--	--	--	1	--
			BBY1 / ABY1	1028+33	25.4' LT	1	--	1	--	--	--
			EX. LPB-BY-111	1029+94	92.9' RT	--	--	--	--	1	--
			EX. LPB-BY-110	1031+06	66.4' RT	--	--	--	--	1	--
			EX. LPB-BY-109	1031+23	101.5' RT	--	--	--	--	1	--
			EBY/FBY	1033+11	183.5' RT	--	--	--	1	--	SIGN STRUCTURE LIGHTING - S-40-806
			EX. LPB-BY-108	1033+46	121.5' RT	--	--	--	--	1	--
			EX. LPB-BY-107	1034+26	123.7' RT	--	--	--	--	1	--
			EX. LPB-BY-106	1035+07	121.3' RT	--	--	--	--	1	--
			EX. LPB-BY-105	1036+97	98.1' RT	--	--	--	--	1	--
			EX. LPB-BY-104	1037+09	148.1' RT	--	--	--	--	1	--
			EX. LPB-BY-103	1038+02	182.7' RT	--	--	--	--	1	--
			EX. LPB-BY-102	1040+21	141.8' RT	--	--	--	--	1	--
			EX. LPB-BY-101	1040+49	333.5' RT	--	--	--	--	1	--
			HL-40-BY	1040+82	329.6' RT	--	--	--	--	--	EXISTING DISTRIBUTION CENTER TO REMAIN
	4B	HL-40-BY			SUBTOTAL	1	1	1	2	17	

3

LIGHTING - REMOVALS CONTINUED

204.0195	REMOVING CONCRETE BASES
204.9060.S.1001	REMOVING LUMINAIRES
204.9060.S.1002	REMOVING LIGHTING UNITS
204.9060.S.1003	REMOVING SIGN LIGHTING
653.0905	REMOVING PULL BOXES

CATEGORY	STAGE	SYSTEM	DESCRIPTION / SEQUENCE	LOCATION		204.0195 REMOVING CONCRETE BASES	204.9060.S.1001 REMOVING LUMINAIRES	204.9060.S.1002 REMOVING LIGHTING UNITS	204.9060.S.1003 REMOVING SIGN LIGHTING	653.0905 REMOVING PULL BOXES	COMMENTS
				STATION	OFFSET						
						EACH	EACH	EACH	EACH	EACH	
1100	3B	HL-40-SH	ESH11	1028+67	132.8' LT	1	--	1	--	--	--
			ESH6	1030+61	138.1' LT	1	--	1	--	--	--
			FSH5	1032+42	150.3' LT	1	--	1	--	--	--
			ESH5	1034+22	180.6' LT	1	--	1	--	--	--
			EX. LPB-SH-112	1034+25	205.1' LT	--	--	--	--	1	--
			EX. LPB-SH-111	1034+76	67.7' LT	--	--	--	--	1	--
			FSH14 / ESH14	1035+07	314.7' LT	1	--	1	--	--	--
			EX. LPB-SH-110	1035+18	264.3' LT	--	--	--	--	1	--
			ESH13 / FSH13	1035+26	182.2' LT	1	--	1	--	--	--
			EX. LJB-SH-102	--	--	--	--	--	--	--	EXISTING JUNCTION BOX TO REMAIN
			2EBY / 2FBY	--	--	--	4	--	--	--	SILVER SPRING BRDIGE UDL - B-40-583
			2FBY / 2EBY	--	--	--	4	--	--	--	SILVER SPRING BRDIGE UDL - B-40-584
			EX. LPB-SH-107	1036+09	72.9' LT	--	--	--	--	1	--
			EX. LPB-SH-108	1039+09	116.3' LT	--	--	--	--	1	--
			EX. LPB-SH-109	1039+27	166.5' LT	--	--	--	--	1	--
			ESH12	1037+57	188.2' LT	1	--	1	--	--	--
			FSH6	1039+49	157.0' LT	1	--	1	--	--	--
			ESH7	1041+80	114.5' LT	1	--	1	--	--	--
			FSH7	1044+27	88.6' LT	1	--	1	--	--	--
			ESH20	1036+78	62.8' LT	1	--	1	--	--	--
			FSH20	1039+66	63.2' LT	--	--	1	--	--	MOUNTED ON TYPE C BASE (SPREAD FOOTING)
			ESH21	1042+47	65.2' LT	1	--	1	--	--	--
			EX. LJB-SH-101	--	--	--	--	--	--	--	EXISTING JUNCTION BOX TO REMAIN
			EX. LPB-SH-106	1036+55	154.8' RT	--	--	--	--	1	--
			EX. LPB-SH-105	1037+96	199.6' RT	--	--	--	--	1	--
			EX. LPB-SH-102	1040+44	151.1' RT	--	--	--	--	1	--
			EX. LPB-SH-101	1040+61	359.2' RT	--	--	--	--	1	--
			HL-40-SH	1040+82	329.6' RT	--	--	--	--	--	EXISTING DISTRIBUTION CENTER TO REMAIN
			ASH3 / BSH3	1043+38	159.4' RT	--	4	--	--	--	HIGH MAST LIGHTING - HML-40-108
			EX. LPB-SH-103	1043+57	147.6' RT	--	--	--	--	1	--
			ASH21	1044+71	192.4' RT	1	--	1	--	--	--
			EX. LPB-SH-104	1045+27	84.2' RT	--	--	--	--	1	--
			BSH22	1045+50	141.2' RT	1	--	1	--	--	--
			ASH20	1046+99	75.6' RT	1	--	1	--	--	--
3B		HL-40-SH			SUBTOTAL	15	12	16	0	12	

LIGHTING - REMOVALS CONTINUED

204.0195	REMOVING CONCRETE BASES
204.9060.S.1001	REMOVING LUMINAIRES
204.9060.S.1002	REMOVING LIGHTING UNITS
204.9060.S.1003	REMOVING SIGN LIGHTING
653.0905	REMOVING PULL BOXES

CATEGORY	STAGE	SYSTEM	DESCRIPTION / SEQUENCE	LOCATION STATION	LOCATION OFFSET	204.0195 REMOVING CONCRETE BASES	204.9060.S.1001 REMOVING LUMINAIRES	204.9060.S.1002 REMOVING LIGHTING UNITS	204.9060.S.1003 REMOVING SIGN LIGHTING	653.0905 REMOVING PULL BOXES	COMMENTS
						EACH	EACH	EACH	EACH	EACH	
1100	1B	HL-40-NC	FNC	1045+52	78.3' LT	--	–	–	1	–	SIGN STRUCTURE LIGHTING - S-40-101
			FNC1	1046+81	70.8' LT	1	–	1	--	–	–
			FNC2	1049+49	64.0' LT	1	–	1	--	–	–
			ENC3	1052+19	61.0' LT	1	–	1	--	–	–
			FNC4	1054+87	63.4' LT	1	–	1	--	–	–
			ENC5	1057+57	63.8' LT	1	–	1	--	–	–
			FNC6	1060+32	66.1' LT	1	–	1	--	–	–
			ENC7	1062+99	66.6' LT	1	–	1	--	–	–
			FNC8	1065+69	62.4' LT	--	–	1	--	–	STRUCTURE MOUNTED
			ENC9	1068+39	60.7' LT	--	–	1	--	–	"
			FNC10	1071+10	61.1' LT	--	–	1	--	–	"
			ENC11	1073+79	61.4' LT	--	–	1	--	–	"
			FNC12	1076+49	60.9' LT	--	–	1	--	–	"
			ENC13	1079+20	66.5' LT	1	–	1	--	–	–
			FNC14	1081+83	62.1' LT	1	–	1	--	–	–
			ENC15	1084+42	57.3' LT	1	–	1	--	–	PHOTOCELL ATTACHED TO THE POLE
			FNC16	1087+18	57.4' LT	1	–	1	--	–	–
			EX. LPB-NC-103	1087+61	60.6' LT	--	–	–	--	1	–
			HL-40-NC	1087+87	64.1' LT	--	–	–	--	–	EXISTING DISTRIBUTION CENTER TO REMAIN
	2B		EX. LPB-NC-101	1088+26	64.3' LT	--	–	–	--	1	–
			EX. LPB-NC-102	1088+22	51.4' RT	--	–	–	--	1	–
			BNC1	1088+44	57.5' RT	1	–	1	--	–	–
			DNC24	1086+31	56.3' RT	1	–	1	--	–	–
			CNC23	1084+35	58.9' RT	1	–	1	--	–	–
			DNC22	1082+73	57.5' RT	1	–	1	--	–	–
			CNC21	1080+95	57.2' RT	1	–	1	--	–	–
			EX. LPB-NC-104	1079+30	58.5' RT	--	–	–	--	1	–
			DNC2	1079+14	59.9' RT	--	–	1	--	–	STRUCTURE MOUNTED
			CNC3	1076+43	61.3' RT	--	–	1	--	–	"
			DNC3	1073+72	61.3' RT	--	–	1	--	–	"
			CNC4	1071+00	61.1' RT	--	–	1	--	–	"
			DNC4	1068+38	60.7' RT	--	–	1	--	–	"
			CNC5	1065+78	63.0' RT	1	–	1	--	–	–
			DNC5	1063+14	63.8' RT	1	–	1	--	–	–
			CNC6	1060+58	63.6' RT	1	–	1	--	–	–
			CNC	1059+48	65.5' RT	--	–	–	1	–	SIGN STRUCTURE LIGHTING - S-40-64
			DNC6	1057+85	63.6' RT	1	–	1	--	–	–
			CNC7	1055+12	64.0' RT	1	–	1	--	–	–
			DNC7	1052+63	63.7' RT	--	–	1	--	–	TYPE C BASE
			CNC8	1049+66	69.8' RT	--	–	1	--	–	"
		HL-40-NC			SUBTOTAL	21	0	33	2	4	
					SUBTOTAL STAGE	37	13	50	4	33	
1100					TOTALS	37	13	50	6	33	

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET:	E

LIGHTING - PULL BOXES

653.0140 PULL BOXES STEEL 24X42-INCH
655.0615 ELECTRICAL WIRE LIGHTING 10 AWG

CATEGORY	STAGE	SYSTEM	DESCRIPTION / SEQUENCE	LOCATION STATION	LOCATION OFFSET	LOCATION FROM	LOCATION TO	653.0140 PULL BOX 24x42	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG	COMMENTS
								EACH	LF	
1100	1A	GLENDALE - E	LPB-E-101	99+64	9.3' LT	2E47/6E46	LPB-E-101	1	30	CITY OF GLANDALE LIGHTING SYSTEM
			LPB-E-102	99+89	53.1' RT	2E47/6E46	LPB-E-102	1	100	"
			LPB-E-103	100+18	70.1' LT	2E47/6E46	LPB-E-103	1	120	CITY OF GLANDALE LIGHTING SYSTEM
		HL-40-GL	LPB-GL-101	12+74	92.8' RT	DGL45	LPB-GL-101	1	40	--
			LPB-GL-102	13+27	92.3' RT	DGL45	LPB-GL-102	1	80	--
			LPB-GL-103	13+94	44.0' RT	DGL45	LPB-GL-103	1	180	--
			LPB-GL-104	13+93	11.9' LT	DGL45	LPB-GL-104	1	230	--
			LPB-GL-105	13+89	64.9' LT	DGL45	LPB-GL-105	1	280	--
		GLENDALE - PS	LPB-PS-101	111+94	47.0' RT	PS2/2	LPB-PS-101	1	200	CITY OF GLANDALE LIGHTING SYSTEM
			LPB-PS-102	111+94	10.3' LT	PS1/2 (PS1/1)	LPB-PS-102	1	70	CITY OF GLANDALE LIGHTING SYSTEM
		HL-40-BY	LPB-BY-114	1019+74	69.6' RT	HML-40-141	LPB-BY-114	1	30	--
			LPB-BY-113	1023+01	57.1' RT	HML-40-140	LPB-BY-113	1	30	--
			LPB-BY-112	1026+78	58.6' RT	HML-40-139	LPB-BY-112	1	40	--
			LPB-BY-110	1029+96	90.5' RT	HML-40-138	LPB-BY-110	1	20	--
			LPB-BY-111	1027+04	20.9' LT	ABY2	LPB-BY-111	1	60	--
			LPB-BY-109	1031+07	65.2' RT	HML-40-138	LPB-BY-109	1	120	--
			LPB-BY-108	1031+24	121.5' RT	HML-40-138	LPB-BY-108	1	160	--
			LPB-BY-107	1034+26	123.1' RT	HML-40-137	LPB-BY-107	1	20	--
			LPB-BY-106	1035+07	120.7' RT	HML-40-137	LPB-BY-106	1	90	--
			LPB-BY-105	1036+96	96.6' RT	HML-40-137	LPB-BY-105	1	270	--
			LPB-BY-104	1037+07	146.6' RT	HML-40-137	LPB-BY-104	1	320	--
			LPB-BY-103	1038+05	180.7' RT	HL-40-BY	LPB-BY-103	1	420	--
			LPB-BY-102	1040+21	142.3' RT	HL-40-BY	LPB-BY-102	1	220	--
			LPB-BY-101	1040+46	334.2' RT	HL-40-BY	LPB-BY-105	1	20	--
		HL-40-SH	LPB-SH-101	1040+61	358.7' RT	HL-40-SH	LPB-BY-101	1	20	--
			LPB-SH-102	1040+46	151.1' RT	HL-40-SH	LPB-BY-102	1	200	--
			LPB-SH-103	1043+60	142.2' RT	HL-40-SH	LPB-SH-103	1	30	--
			LPB-SH-104	1045+27	83.6' RT	BSH22	LPB-SH-104	1	60	--
			LPB-SH-105	1037+97	198.8' RT	HL-40-SH	LPB-SH-105	1	50	--
			LPB-SH-106	1036+53	153.4' RT	HL-40-SH	LPB-SH-106	1	200	--
			LPB-SH-107	1036+09	71.7' LT	CH3	LPB-SH-107	1	80	--
			LPB-SH-108	1036+51	209.7' LT	FSH2	LPB-SH-108	1	120	--
			LPB-SH-109	1034+78	68.6' LT	ESH3	LPB-SH-109	1	250	--
			LPB-SH-110	1033+82	168.5' LT	ESH3	LPB-SH-110	1	80	--
		HL-40-NC	EX. LPB-NC-101	1088+27	63.2' LT	EX. GNC1	EX. LPB-NC-101	--	120	EXISTING TO REMAIN
			EX. LPB-NC-102	1088+22	62.0' RT	EX. BNC2	EX. LPB-NC-102	--	150	EXISTING TO REMAIN
		HL-40-FS	LPB-FS-101	1087+36	60.4' LT	AFS1	LPB-FS-101	1	40	--
			LPB-FS-102	1087+36	60.4' RT	CFS1	LPB-FS-102	1	40	--
			LPB-FS-103	1079+31	57.7' RT	DFS2	LPB-FS-103	1	30	--
1100							TOTALS	37	4,620	

LIGHTING - CONDUIT AND WIRE

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH
652.0615 CONDUIT SPECIAL 3-INCH
655.0126 CABLE IN DUCT 3-6 AWG
655.0128 CABLE IN DUCT 3-8 AWG
655.0146 CABLE IN DUCT 4-6 AWG
655.0148 CABLE IN DUCT 4-8 AWG
655.0620 ELECTRICAL WIRE LIGHTING 8 AWG
655.0625 ELECTRICAL WIRE LIGHTING 6 AWG*
655.0635 ELECTRICAL WIRE LIGHTING 2 AWG

CATEGORY	STAGE	SYSTEM	CIRCUIT	LOCATION FROM	LOCATION TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF	655.0126 CABLE IN DUCT 3-6 AWG LF	655.0128 CABLE IN DUCT 3-8 AWG LF	655.0146 CABLE IN DUCT 4-6 AWG LF	655.0148 CABLE IN DUCT 4-8 AWG LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0635 ELECTRICAL WIRE LIGHTING 2 AWG LF	COMMENTS
1100	1A	GLENDALE - E	2/4/6/N/GND	2E47/6E46	LPB-E-101	30	--	--	–	--	--	–	150	--	–	–
				LPB-E-101	LPB-E-102	60	--	--	–	--	--	–	300	--	–	–
				LPB-E-102	2E50	170	--	--	–	--	--	–	850	--	–	–
				2E50	6E52	--	--	--	–	--	--	–	600	--	–	EXISTING EMBEDDED CONDUIT
				6E52	4E54	--	--	--	–	--	--	–	450	--	–	EXISTING EMBEDDED CONDUIT
				2E47/6E46	LPB-E-101	30	--	--	–	--	--	–	150	--	–	–
				LPB-E-101	LPB-E-103	80	--	--	–	--	--	–	400	--	–	–
				LPB-E-103	4E51	150	--	--	–	--	--	–	750	--	–	–
				4E51	2E53	--	--	--	–	--	--	–	600	--	–	EXISTING EMBEDDED CONDUIT
				2E53	6E55	--	--	--	–	--	--	–	450	--	–	EXISTING EMBEDDED CONDUIT
		GLENDALE - PS	1/2/N/GND	PS2/2	LPB-PS-101	120	--	80	–	--	--	–	760	--	–	–
				LPB-PS-101	LPB-PS-102	--	--	70	–	--	--	–	240	--	–	–
				LPB-PS-102	PS1/2(PS1/1)	70	--	--	–	--	--	–	280	--	–	–
				PS1/2(PS1/1)	PS36/1(PS36/2)	100	--	--	–	--	--	–	400	--	–	–
				PS36/1(PS36/2)	PS35/2(PS35/1)	190	--	--	–	--	--	–	760	--	–	–
				PS35/2(PS35/1)	PS34/1(PS34/2)	190	--	--	–	--	--	–	760	--	–	–
	1A	GLENDALE			SUBTOTAL	1,190	0	150	0	0	0	0	7,900	0	0	
	1A	HL-40-GL	C/N/D/GND	DGL45	LPB-GL-101	50	--	--	–	--	--	–	200	--	–	–
				LPB-GL-101	LPB-GL-102	--	--	70	–	--	--	–	280	--	–	–
				LPB-GL-102	LPB-GL-103	100	--	--	–	--	--	–	400	--	–	–
				LPB-GL-103	UDL 1E/2F/3E	--	--	--	–	--	--	–	600	--	–	–
				LPB-GL-103	LPB-GL-104	--	--	60	–	--	--	–	240	--	–	–
				LPB-GL-104	LPB-GL-105	--	--	80	–	--	--	–	320	--	–	–
				LPB-GL-105	UDL 4F/5E	--	--	--	–	--	--	–	600	--	–	–
	1A	HL-40-GL			SUBTOTAL	150	0	210	0	0	0	0	2,640	0	0	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

LIGHTING - CONDUIT AND WIRE CONTINUED

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH
652.0615 CONDUIT SPECIAL 3-INCH
655.0126 CABLE IN DUCT 3-6 AWG
655.0128 CABLE IN DUCT 3-8 AWG
655.0146 CABLE IN DUCT 4-6 AWG
655.0148 CABLE IN DUCT 4-8 AWG
655.0620 ELECTRICAL WIRE LIGHTING 8 AWG
655.0625 ELECTRICAL WIRE LIGHTING 6 AWG*
655.0635 ELECTRICAL WIRE LIGHTING 2 AWG

CATEGORY	STAGE	SYSTEM	CIRCUIT	LOCATION FROM	LOCATION TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF	655.0126 CABLE IN DUCT 3-6 AWG LF	655.0128 CABLE IN DUCT 3-8 AWG LF	655.0146 CABLE IN DUCT 4-6 AWG LF	655.0148 CABLE IN DUCT 4-8 AWG LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0635 ELECTRICAL WIRE LIGHTING 2 AWG LF	COMMENTS
1100	4A	HL-40-BY	E/N/F/GND	HML-40-141	LPB-BY-114	–	–	--	--	--	30	--	--	--	--	--
				LPB-BY-114	LPB-BY-113	–	–	--	--	--	340	--	--	--	--	--
				LPB-BY-113	HML-40-140	–	–	--	--	--	30	--	--	--	--	--
			E/N/F/GND	LPB-BY-113	LPB-BY-112	–	400	--	--	--	--	--	--	1,600	--	--
			C/N/D/GND	LPB-BY-112	HML-40-139	–	40	--	--	--	--	--	--	160	--	--
			E/N/F/GND, C/N/D/GND	LPB-BY-112	LPB-BY-110	–	300	--	--	--	--	--	--	2,400	--	--
			C/N/D/GND	LPB-BY-110	HML-40-138	–	30	--	--	--	--	--	--	120	--	--
				LPB-BY-110	BBY2 / ABY2	250	–	--	--	--	--	--	1,000	--	--	SPLICE ON HML-40-138
				BBY2 / ABY2	LPB-BY-111	–	–	--	--	150	--	--	--	--	--	--
				LPB-BY-111	ABY2	–	–	60	--	--	--	--	180	--	--	--
				LPB-BY-110	LPB-BY-109	–	100	--	--	--	--	--	--	1,200	--	--
				LPB-BY-109	LPB-BY-108	–	–	100	--	--	--	--	--	1,200	--	--
				LPB-BY-108	LPB-BY-107	–	300	--	--	--	--	--	--	3,600	--	--
				LPB-BY-107	HML-40-137	–	20	--	--	--	--	--	--	80	--	--
				LPB-BY-107	LPB-40-106	–	100	--	--	--	--	--	--	1,200	--	--
				LPB-40-106	LPB-BY-105	–	–	200	--	--	--	--	--	2,400	--	--
				LPB-BY-105	LPB-BY-104	–	–	100	--	--	--	--	--	1,200	--	--
				LPB-BY-104	LPB-BY-103	–	240	--	--	--	--	--	--	1,440	--	--
				LPB-BY-103	LPB-BY-102	–	–	400	--	--	--	--	--	2,400	--	--
				LPB-BY-102	LPB-BY-101	–	–	420	--	--	--	--	--	2,520	--	--
				LPB-BY-101	HL-40-BY	–	–	80	--	--	--	--	--	960	--	--
	4A	HL-40-BY			SUBTOTAL	250	1,530	1,360	0	150	400	0	1,180	22,480	0	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

LIGHTING - CONDUIT AND WIRE CONTINUED

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH
652.0615 CONDUIT SPECIAL 3-INCH
655.0126 CABLE IN DUCT 3-6 AWG
655.0128 CABLE IN DUCT 3-8 AWG
655.0146 CABLE IN DUCT 4-6 AWG
655.0148 CABLE IN DUCT 4-8 AWG
655.0620 ELECTRICAL WIRE LIGHTING 8 AWG
655.0625 ELECTRICAL WIRE LIGHTING 6 AWG*
655.0635 ELECTRICAL WIRE LIGHTING 2 AWG

CATEGORY	STAGE	SYSTEM	CIRCUIT	LOCATION FROM	LOCATION TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	652.0615 CONDUIT SPECIAL 3-INCH	655.0126 CABLE IN DUCT 3-6 AWG	655.0128 CABLE IN DUCT 3-8 AWG	655.0146 CABLE IN DUCT 4-6 AWG	655.0148 CABLE IN DUCT 4-8 AWG	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG	655.0635 ELECTRICAL WIRE LIGHTING 2 AWG	COMMENTS
						LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	
1100	3A	HL-40-SH		HL-40-SH	LPB-SH-101	–	80	--	--	–	--	--	--	480	--	--
				LPB-SH-101	LPB-SH-102	–	--	400	--	–	--	--	--	2,400	--	--
				LPB-SH-102	LPB-SH-103	–	300	--	--	–	--	--	--	1,200	--	--
				LPB-SH-103	HML-40-108	–	30	--	--	–	--	--	--	120	--	--
				LPB-SH-103	ASH2	120	--	--	--	–	--	--	360	–	--	SPLICE ON HML-40-108
				LPB-SH-103	LPB-SH-104	–	--	170	--	–	--	--	680	–	--	--
				LPB-SH-104	ASH3	170	--	--	--	–	--	--	510	–	--	--
				LPB-SH-104	BSH2	70	--	--	--	–	--	--	210	–	--	--
				LPB-SH-102	LPB-SH-105	–	--	230	--	–	--	--	--	2,760	--	--
				LPB-SH-105	HML-40-136	30	--	--	--	–	--	--	--	120	--	--
				LPB-SH-105	LPB-SH-106	–	320	--	--	–	--	--	--	1,280	--	--
				LPB-SH-106	LPB-SH-107	–	--	220	--	–	--	--	--	1,760	--	--
				LPB-SH-107	LPB-SH-109	–	--	110	--	–	--	--	--	255	--	--
				LPB-SH-109	LPB-SH-110	–	--	150	--	–	--	--	--	435	--	--
				LPB-SH-110	ESH3	70	--	--	--	–	--	--	--	280	--	--
				ESH3	FSH3	–	--	--	--	–	--	170	--	–	--	--
				FSH3	ESH4	–	--	--	--	–	--	170	--	–	--	--
				ESH4	FSH4	–	--	--	--	170	--	--	--	–	--	--
				LPB-SH-107	CSH3	–	--	--	--	–	--	70	--	–	--	--
				CSH3	DSH2	–	--	--	--	–	--	280	--	–	--	--
				DSH2	CSH2	–	--	--	--	–	--	280	--	–	--	--
				LPB-SH-107	LPB-SH-108	–	--	150	--	–	--	--	--	600	--	--
				LPB-SH-108	FSH2	120	--	--	--	–	--	--	--	480	--	--
				FSH2	ESH2	220	--	--	--	–	--	--	880	–	--	--
				ESH2	FSH1	–	--	--	--	–	--	220	--	–	--	--
				FSH1	ESH1	–	--	--	--	250	--	--	--	–	--	--
	3A	HL-40-SH			SUBTOTAL	800	730	1,430	0	420	0	1,190	2,640	12,170	0	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

LIGHTING - CONDUIT AND WIRE CONTINUED

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH
652.0615 CONDUIT SPECIAL 3-INCH
655.0126 CABLE IN DUCT 3-6 AWG
655.0128 CABLE IN DUCT 3-8 AWG
655.0146 CABLE IN DUCT 4-6 AWG
655.0148 CABLE IN DUCT 4-8 AWG
655.0620 ELECTRICAL WIRE LIGHTING 8 AWG
655.0625 ELECTRICAL WIRE LIGHTING 6 AWG*
655.0635 ELECTRICAL WIRE LIGHTING 2 AWG

CATEGORY	STAGE	SYSTEM	CIRCUIT	LOCATION FROM	LOCATION TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF	655.0126 CABLE IN DUCT 3-6 AWG LF	655.0128 CABLE IN DUCT 3-8 AWG LF	655.0146 CABLE IN DUCT 4-6 AWG LF	655.0148 CABLE IN DUCT 4-8 AWG LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0635 ELECTRICAL WIRE LIGHTING 2 AWG LF	COMMENTS
1100	1A	HL-40-FS	A/N/B/GND	BFS8	AFS8	--	--	--	270	–	--	--	--	–	–	--
				AFS8	BFS7	--	--	--	--	–	270	--	--	–	–	--
				BFS7	AFS7	--	--	--	--	–	270	--	--	–	–	--
				AFS7	BFS6	--	--	--	--	–	270	--	--	–	–	--
				BFS6	AFS6	--	--	--	--	–	275	--	--	–	–	--
				AFS6	BFS5	--	--	--	--	–	265	--	--	–	–	--
				BFS5	AFS5	--	--	--	--	–	--	--	--	1080	–	--
				AFS5	BFS4	--	--	--	--	–	--	--	--	1080	–	--
				BFS4	AFS4	--	--	--	--	–	--	--	--	1080	–	--
				AFS4	BFS3	--	--	--	--	–	--	--	--	1080	–	--
				BFS3	AFS3	--	--	--	--	–	--	--	--	1080	–	--
				AFS3	BFS2	--	--	--	--	–	--	--	--	1080	–	--
				BFS2	AFS2	--	--	--	--	–	265	--	--	1080	–	--
				AFS2	BFS1	--	--	--	--	–	260	--	--	–	–	--
				BFS1	AFS1	--	--	--	--	–	260	--	--	–	–	--
				AFS1	LPB-FS-101	50	--	--	--	–	--	--	--	200	–	--
				LPB-FS-101	HL-40-FS	--	50	--	--	–	--	--	--	200	–	--
	2A	HL-40-FS	C/N/D/GND	CFS8	DFS7	--	--	--	300	–	--	--	--	–	–	--
				DFS7	CFS7	--	--	--	--	–	270	--	--	–	–	--
				CFS7	DFS6	280	--	--	--	–	280	--	--	–	–	--
				DFS6	CFS6	280	--	--	--	–	280	--	--	–	–	--
				CFS6	DFS5	270	--	--	--	–	270	--	--	–	–	--
				DFS5	CFS5	275	--	--	--	–	275	--	--	–	–	--
				CFS5	DFS4	270	--	--	--	–	270	--	--	–	–	--
				DFS4	CFS4	--	--	--	--	–	--	--	--	1080	–	--
				CFS4	DFS3	--	--	--	--	–	--	--	--	1100	–	--
				DFS3	CFS3	--	--	--	--	–	--	--	--	1080	–	--
				CFS3	DFS2	275	--	--	--	–	--	--	--	1100	–	--
				DFS2	LPB-NC-103	20	--	--	--	–	--	--	--	80	–	--
				LPB-NC-103	CFS2	250	--	--	--	–	--	--	--	1000	–	--
				CFS2	DFS1	265	--	--	--	–	--	--	--	1060	–	--
				DFS1	CFS1	265	--	--	--	–	--	--	--	1060	–	--
				CFS1	LPB-NC-102	50	--	--	--	–	--	--	--	200	–	--
				LPB-NC-102	LPB-NC-101	--	--	150	--	–	--	--	--	600	–	--
				LPB-NC-101	HL-40-NC	--	50	--	--	–	--	--	--	200	–	--
		HL-40-FS			SUBTOTAL	2,550	100	150	570	0	3,780	0	0	16,520	0	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

LIGHTING - CONDUIT AND WIRE CONTINUED

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH
652.0615 CONDUIT SPECIAL 3-INCH
655.0126 CABLE IN DUCT 3-6 AWG
655.0128 CABLE IN DUCT 3-8 AWG
655.0146 CABLE IN DUCT 4-6 AWG
655.0148 CABLE IN DUCT 4-8 AWG
655.0620 ELECTRICAL WIRE LIGHTING 8 AWG
655.0625 ELECTRICAL WIRE LIGHTING 6 AWG*
655.0635 ELECTRICAL WIRE LIGHTING 2 AWG

CATEGORY	STAGE	SYSTEM	CIRCUIT	LOCATION FROM	LOCATION TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	652.0615 CONDUIT SPECIAL 3-INCH	655.0126 CABLE IN DUCT 3-6 AWG	655.0128 CABLE IN DUCT 3-8 AWG	655.0146 CABLE IN DUCT 4-6 AWG	655.0148 CABLE IN DUCT 4-8 AWG	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG	655.0635 ELECTRICAL WIRE LIGHTING 2 AWG	COMMENTS
						LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	
1100	1A	HL-40-NC	G/N/H/GND	EX. HL-40-NC	EX. LPB-NC-101	--	40	--	--	–	--	--	50	–	150	EXISTING CABINET
				EX. LPB-NC-101	EX. GNC1	120	--	--	--	–	--	--	130	–	360	EXISTING LIGHTING UNIT
			A/N/B/GND	EX. HL-40-NC	EX. LPB-NC-101	--	30	--	--	–	--	--	40	–	120	EXISTING CABINET
				EX. LPB-NC-101	EX. LPB-NC-102	--	--	130	--	–	--	--	140	–	450	--
				EX. LPB-NC-102	EX. BNC2	150	--	--	--	–	--	--	160	–	480	EXISTING LIGHTING UNIT
		HL-40-NC			SUBTOTAL	270	70	130	0	0	0	0	520	0	1,560	
	1A				SUBTOTAL STAGE 1A	5,210	2,430	3,430	570	570	4,180	1,190	14,880	51,170	1,560	
1100					TOTALS	5,210	2,430	3,430	570	570	4,180	1,190	14,880	51,170	1,560	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

3

LIGHTING - LUMINAIRE ARMS AND POLES

654.0105 CONCRETE BASES TYPE 5
654.0108 CONCRETE BASES TYPE 8
655.0610 ELECTRICAL WIRE LIGHTING 12 AWG
657.0210 TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE
657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2 - INCH BOLT CIRCLE
657.0322 POLES TYPE 5 - ALUMINUM
657.0375 POLES TYPE A
657.0380 POLES TYPE E
657.0605 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 4-FT
657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT
657.0620 LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 4-FT
657.0630 LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 8-FT
659.1125 LUMINAIRES UTILITY LED C
659.1130 LUMINAIRES UTILITY LED D

CATEGORY	STAGE	SYSTEM	DESCRIPTION / SEQUENCE	LOCATION STATION	LOCATION OFFSET	654.0105 CONCRETE BASES TYPE 5	654.0108 CONCRETE BASES TYPE 8	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG	657.0210 TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2 - INCH BOLT CIRCLE	657.0322 POLES TYPE 5 ALUMINUM	657.0375 POLES TYPE A	657.0380 POLES TYPE E	657.0605 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 4-FT	657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT	657.0620 LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 4-FT	657.0630 LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 8-FT	659.1125 LUMINAIRES UTILITY LED C	659.1130 LUMINAIRES UTILITY LED D	COMMENTS
						EACH	EACH	LF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
1100	1A	GLENDALE - E	2E50	101+60	41.1' RT	--	--	--	--	--	--	--	--	--	--	--	--	1	--	LUMINAIRE ONLY
			4E51	101+60	41.1' RT	--	--	--	--	--	--	--	--	--	--	--	--	1	--	"
			2E53	103+06	54.7' LT	--	--	--	--	--	--	--	--	--	--	--	--	1	--	"
			6E52	103+06	48.2' RT	--	--	--	--	--	--	--	--	--	--	--	--	1	--	"
			6E55	104+52	54.1' LT	--	--	--	--	--	--	--	--	--	--	--	--	1	--	"
			4E54	104+51	48.2' RT	--	--	--	--	--	--	--	--	--	--	--	--	1	--	LUMINAIRE ONLY
	1A	GLENDALE - E			SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	6	0	
	1A	GLENDALE - PS	PS34/1(PS34/2)	107+67	3.0' LT	1	--	234	--	1	1	--	--	--	2	--	--	2	--	--
			PS35/2(PS35/1)	109+34	1.5' LT	1	--	234	--	1	1	--	--	--	2	--	--	2	--	--
			PS36/1(PS36/2)	111+00	0.7' LT	1	--	234	--	1	1	--	--	--	2	--	--	2	--	--
	1A	GLENDALE - PS			SUBTOTAL	3	0	702	0	3	3	0	0	0	6	0	0	6	0	
	4A	HL-40-BY	BBY1 / ABY1	1028+33	25.4' LT	1	--	107	--	1	1	--	--	2	--	--	--	2	--	--
			ABY2	1026+88	65.4' LT	--	--	107	--	--	--	--	--	1	--	--	--	1	--	SIGN STRUCTURE
	4A	HL-40-BY			SUBTOTAL	1	0	214	0	1	1	0	0	3	0	0	0	3	0	
	3A	HL-40-SH	ASH2	1044+71	193.4' RT	1	--	117	--	1	1	--	--	--	1	--	--	1	--	--
			BSH2	1045+50	142.1' RT	1	--	117	--	1	1	--	--	--	1	--	--	1	--	--
			ASH3	1046+99	75.6' RT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			ESH1	1044+27	88.6' LT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			FSH1	1041+80	114.5' LT	1	--	117	--	1	1	--	--	--	1	--	--	1	--	--
			ESH2	1039+67	153.7' LT	1	--	117	--	1	1	--	--	--	1	--	--	1	--	--
			FSH2	1037+64	183.5' LT	1	--	117	--	1	1	--	--	--	1	--	--	1	--	--
			CSH2	1042+47	65.2' LT	--	--	171	--	--	--	1	--	--	--	1	--	--	1	--
			DSH2	1039+66	63.2' LT	--	--	171	--	--	--	1	--	--	--	1	--	--	1	--
			CSH3	1036+78	62.8' LT	--	--	171	--	--	--	1	--	--	--	1	--	--	1	--
			ESH3	1033+20	158.0' LT	1	--	117	--	1	1	--	--	--	1	--	--	1	--	--
			FSH3	1031+54	146.6' LT	1	--	117	--	1	1	--	--	--	1	--	--	1	--	--
			ESH4	1029+87	137.4' LT	1	--	117	--	1	1	--	--	--	1	--	--	1	--	--
			FSH4	1028+19	135.1' LT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
	3A	HL-40-SH			SUBTOTAL	8	3	1,998	3	8	8	3	3	0	8	3	3	8	6	

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET:	E

LIGHTING - LUMINAIRE ARMS AND POLES CONTINUED

654.0105 CONCRETE BASES TYPE 5
654.0108 CONCRETE BASES TYPE 8
655.0610 ELECTRICAL WIRE LIGHTING 12 AWG
657.0210 TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE
657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2 - INCH BOLT CIRCLE
657.0322 POLES TYPE 5 - ALUMINUM
657.0375 POLES TYPE A
657.0380 POLES TYPE E
657.0605 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 4-FT
657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT
657.0620 LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 4-FT
657.0630 LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 8-FT
659.1125 LUMINAIRES UTILITY LED C
659.1130 LUMINAIRES UTILITY LED D

CATEGORY	STAGE	SYSTEM	DESCRIPTION / SEQUAFSE	LOCATION STATION	LOCATION OFFSET	654.0105 CONCRETE BASES TYPE 5	654.0108 CONCRETE BASES TYPE 8	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG	657.0210 TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2 - INCH BOLT CIRCLE	657.0322 POLES TYPE 5 ALUMINUM	657.0375 POLES TYPE A	657.0380 POLES TYPE E	657.0605 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 4-FT	657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT	657.0620 LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 4-FT	657.0630 LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 8-FT	659.1125 LUMINAIRES UTILITY LED C	659.1130 LUMINAIRES UTILITY LED D	COMMENTS
						EACH	EACH	LF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
1100	1A	HL-40-FS	AFS1	1087+13	57.3' LT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			BFS1	1084+53	56.8' LT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			AFS2	1081+93	62.2' LT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			BFS2	1079+28	67.7' LT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			AFS3	1076+49	61.8' LT	--	--	171	--	--	--	1	--	--	--	1	--	--	1	--
			BFS3	1073+79	61.5' LT	--	--	171	--	--	--	1	--	--	--	1	--	--	1	--
			AFS4	1071+11	61.4' LT	--	--	171	--	--	--	1	--	--	--	1	--	--	1	--
			BFS4	1068+40	61.0' LT	--	--	171	--	--	--	1	--	--	--	1	--	--	1	--
			AFS5	1065+69	62.4' LT	--	--	171	--	--	--	1	--	--	--	1	--	--	1	--
			BFS5	1062+99	66.6' LT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			AFS6	1060+32	66.1' LT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			BFS6	1057+58	63.6' LT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			AFS7	1054+88	64.2' LT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			BFS7	1052+19	61.0' LT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			AFS8	1049+49	64.0' LT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			BFS8	1046+81	70.8' LT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
	2A	HL-40-FS	CFS1	1087+09	57.7' RT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			DFS1	1084+44	60.1' RT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			CFS2	1081+79	57.4' RT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			DFS2	1079+14	59.9' RT	--	--	171	--	--	--	1	--	--	--	1	--	--	1	--
			CFS3	1076+43	61.2' RT	--	--	171	--	--	--	1	--	--	--	1	--	--	1	--
			DFS3	1073+73	61.4' RT	--	--	171	--	--	--	1	--	--	--	1	--	--	1	--
			CFS4	1071+00	61.2' RT	--	--	171	--	--	--	1	--	--	--	1	--	--	1	--
			DFS4	1068+39	60.7' RT	--	--	171	--	--	--	1	--	--	--	1	--	--	1	--
			CFS5	1065+78	63.0' RT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			DFS5	1063+14	63.9' RT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			CFS6	1060+58	63.6' RT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			DFS6	1057+85	63.6' RT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			CFS7	1055+12	64.0' RT	--	1	183	1	--	--	--	1	--	--	--	1	--	1	--
			DFS7	1052+63	61.9' RT	--	--	171	1	--	--	1	--	--	--	1	--	--	1	--
			CFS8	1049+66	67.9' RT	--	--	171	1	--	--	1	--	--	--	1	--	--	1	--
		HL-40-FS			SUBTOTAL	0	19	5,529	21	0	0	12	19	0	0	12	19	0	31	
1100					TOTALS	12	22	8,443	24	12	12	15	22	3	14	15	22	23	37	

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET:	E

3

LIGHTING - HIGH MAST LIGHTING

655.0625 ELECTRICAL WIRE LIGHTING 6 AWG *
659.0400 LUMINAIRES HIGH MAST LIGHTING LED

CATEGORY	STAGE	SYSTEM	DESCRIPTION / SEQUENCE	LOCATION STATION	LOCATION OFFSET	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG	659.0400 LUMINAIRES HIGH MAST LIGHTING LED	COMMENT
						LF	EACH	
1100	1A	HL-40-BY	EBY1/FBY1	1019+53	75.2' RT	560	4	HML-40-141 (120-FT TOWER)
			CBY2/DBY2	1022+82	63.2' RT	560	4	HML-40-140 (120-FT TOWER)
			CBY1/DBY1	1026+63	96.3' RT	480	4	HML-40-139 (100-FT TOWER)
			ABY2/BBY2	1029+93	72.7' RT	480	4	HML-40-138 (100-FT TOWER)
			ABY1/BBY1	1034+20	108.9' RT	480	4	HML-40-137 (100-FT TOWER)
		HL-40-SH	CSH1/DSH1	1038+19	224.2' RT	680	4	HML-40-136 (150-FT TOWER)
			ASH1/BSH1	1043+39	156.5' RT	560	4	HML-40-108 (120-FT TOWER) LUMINAIRES ONLY
1100					TOTALS	3,800	28	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

3

3

UNDERDECK LIGHTING

659.0600.1001 UNDERDECK LIGHTING (B-40-66)
659.0600.1002 UNDERDECK LIGHTING (B-40-583)
659.0600.1003 UNDERDECK LIGHTING (B-40-584)
659.1215 LUMINAIRES UNDERDECK LED C

CATEGORY	STAGE	SYSTEM	DESCRIPTION / SEQUENCE	LOCATION STATION	LOCATION OFFSET	SEQUENCE	659.0600.1001 UNDERDECK LIGHTING (B-40-66)	659.0600.1002 UNDERDECK LIGHTING (B-40-583)	659.0600.1003 UNDERDECK LIGHTING (B-40-584)	659.1215 LUMINAIRES UNDERDECK LED C	COMMENT
							LS	LS	LS	EACH	
1100	1A	HL-40-GL	C/D/GL	--	--	C/N/D/GND	1	--	--	5	IH 43 OVER HAMPTON AVE.
		HL-40-SH	E/F/SH	--	--	E/N/F/GND	--	1	--	4	IH 43 NB OVER SILVER SPRING DR.
				--	--	E/N/F/GND	--	--	1	4	IH 43 SB OVER SILVER SPRING DR.
1100						TOTALS	1	1	1	13	

3

3

LIGHTING - CONTROL AND SERVICES
240/480 VAC 3-WIRE

654.0230 CONCRETE CONTROL CABINET BASES TYPE L30
655.0640 ELECTRICAL WIRE LIGHTING 1 AWG
656.0400.1001 ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (HL-40-FS)
659.2230 LIGHTING CONTROL CABINETS 240/480 30-INCH

CATEGORY	STAGE	DESCRIPTION / SEQUENCE	LOCATION STATION	LOCATION OFFSET	654.0230 CONCRETE CONTROL CABINET BASES TYPE L30	655.0640 ELECTRICAL WIRE LIGHTING 1 AWG	656.0400.1001 ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (HL-40-FS)	659.2230 LIGHTING CONTROL CABINETS 240/480 30-INCH	COMMENTS
					EACH	LF	LS	EACH	
1100		HL-40-GL	968+16	94.7' LT	--	--	--	--	EXISTING TO REMAIN
		HL-40-CT	989+43	198.7' RT	--	--	--	--	"
		HL-40-BY	1040+82	329.4' RT	--	18	--	--	"
		HL-40-SH	1040+88	342.1' RT	--	18	--	--	"
		HL-40-FS	1087+55	63.9' LT	1	18	1	1	NEW CABINET
		HL-40-NC	1087+98	63.8' LT	--	18	--	--	EXISTING TO REMAIN
1100				TOTALS	1	72	1	1	

PLAQUE TEXT HL-40-FS
SE FAIRFIELD COURT
2 - 480 VAC WARNING (2 REQUIRED PER LOCATION; METER PEDESTAL AND CABINET DOOR)

3

3

LIGHTING SYSTEM

SPV.0105.1001 MAINTENANCE OF LIGHTING SYSTEMS
SPV.0105.1002 LIGHTING SYSTEM INTEGRATOR
SPV.0105.1003 LIGHTING SYSTEM SURVEY

CATEGORY	DESCRIPTION / SYSTEM	LOCATION	SPV.0105.1001 MAINTENANCE OF LIGHTING SYSTEMS	SPV.0105.1002 LIGHTING SYSTEM INTEGRATOR	SPV.0105.1003 LIGHTING SYSTEM SURVEY
			LS	LS	LS
1100	HL-40-GL, HL-40-CT, HL-40-BY, HL-40-SH, HL-40-NC	IH 43	1	--	--
	HL-40-BY, HL-40-SH, HL-40-FS	IH 43	--	1	--
	HL-40-BY, HL-40-SH, HL-40-FS	IH 43	--	--	1
1100		TOTALS	1	1	1

SUMMARY OF STATE FURNISHED MATERIALS

QUANTITY	UNIT	DESCRIPTION
3	EACH	POLES TYPE 10
1	EACH	POLES TYPE 10 SPECIAL
3	EACH	MONOTUBE ARMS 25-FT
1	EACH	MONOTUBE ARMS 35-FT
7	EACH	LUMINAIRE ARMS STEEL 15-FT
1	EACH	TRAFFIC SIGNAL CONTROLLER, FULLY ACTUATED, 8-PHASE
1	EACH	TRAFFIC SIGNAL CABINET
4	EACH	VIDEO DETECTION CAMERAS
4	EACH	EVP DETECTOR HEADS

NOTE: THIS TABLE IS FOR INFORMATION ONLY.

3

REMOVAL QUANTITIES

LOCATION	ITEM NO.	204.0195 REMOVING CONCRETE BASES	653.0905 REMOVING PULL BOXES
PORT WASHINGTON RD & HAMPTON AVE	SB1	1	--
	SB2	1	--
	SB3	1	--
	SB4	1	--
	SB5	1	--
	SB6	1	--
	SB7	1	--
	SB9	1	--
	SB10	1	--
	SB11	1	--
	SB13	1	--
	SB14	1	--
	SB15	1	--
	PB1	--	1
	PB4	--	1
	PB5	--	1
	PB6	--	1
	PB7	--	1
	PB8	--	1
	PB10	--	1
	PB11	--	1
	PB16	--	1
	PB17	--	1
	PB20	--	1
	PB21	--	1
	PB22	--	1
	PB23		1
	PB24	--	1
	CB1	1	--
INTERSECTION TOTAL		14	15

PULL BOXES

LOCATION	PULL BOX NO.	ALIGNMENT	STATION	OFFSET	653.0135 PULL BOXES STEEL 24" x 36" EACH	653.0140 PULL BOXES STEEL 24" x 42" EACH	653.0164 PULL BOXES NON-CONDUCTIVE 24" x 42" EACH
PORT WASHINGTON RD & HAMPTON AVE	PB1	HAMPTON AVE	16+71	104.3' LT	--	1	--
	PB2	HAMPTON AVE	17+63	99.2' LT	--	1	--
	PB3	HAMPTON AVE	18+14	96.4' LT	--	1	--
	PB4	HAMPTON AVE	18+67	54.0' LT	--	1	--
	PB5	HAMPTON AVE	18+67	6.4' LT	--	1	--
	PB6	HAMPTON AVE	18+67	37.2' RT	--	1	--
	PB7	HAMPTON AVE	18+29	77.7' RT	--	--	1
	PB8	HAMPTON AVE	17+59	78.9' RT	--	1	--
	PB9	HAMPTON AVE	17+24	79.5' RT	--	--	1
	PB10	HAMPTON AVE	16+80	30.0' RT	--	1	--
	PB11	HAMPTON AVE	16+80	16.3' LT	--	1	--
	PB12	HAMPTON AVE	16+58	89.4' LT	--	1	--
	PB13	HAMPTON AVE	17+20	82.2' LT	--	1	--
	PB14	HAMPTON AVE	17+64	73.9' LT	1	--	--
	PB15	HAMPTON AVE	18+04	53.5' LT	--	--	1
	PB16	HAMPTON AVE	18+30	6.6' LT	1	--	--
	PB17	HAMPTON AVE	18+09	33.1' RT	--	--	1
	PB18	HAMPTON AVE	17+58	70.4' RT	1	--	--
	PB19	HAMPTON AVE	17+02	16.2' LT	1	--	--
INTERSECTION TOTAL					4	11	4

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

PORT WASHINGTON ROAD & HAMPTON AVENUE

SIGNAL NO: S40-1101

CONDUIT ITEMS

LOCATION	FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF.	652.0605 CONDUIT SPECIAL 2-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF.
PORT WASHINGTON RD & HAMPTON AVE	CB1	PB1	--	42	--	--
	PB1	PB2	--	--	--	184
	PB1	PB13	--	--	55	--
	PB13	SB1	33	--	--	--
	PB13	SB2	8	--	--	--
	PB2	PB14	25	--	--	--
	PB2	PB3	--	--	--	102
	PB3	PB15	--	--	--	44
	PB15	SB3	--	11	--	--
	PB15	SB4	6	--	--	--
	PB3	PB4	--	--	--	136
	PB4	SB5	15	--	--	--
	PB4	PB5	--	--	--	96
	PB5	PB16	--	39	--	--
	PB16	SB6	--	11	--	--
	PB5	PB6	--	--	--	88
	PB6	PB7	--	114	--	--
	PB7	SB7	7	--	--	--
	PB7	PB17	--	--	49	--
	PB17	SB8	7	--	--	--
	PB17	SB16	20	--	--	--
	PB7	PB8	--	--	--	140
	PB8	SB9	--	6	--	--
	PB8	PB9	--	--	--	70
	PB8	PB18	12	--	--	--
	PB9	SB10	38	--	--	--
	PB9	PB10	--	--	--	150
	PB10	SB11	26	--	--	--
	PB10	PB11	--	--	--	46
	PB11	PB19	--	24	--	--
	PB19	SB12	--	5	--	--
	PB11	SB13	29	--	--	--
	PB11	SB14	51	--	--	--
	PB11	PB12	--	--	--	152
	PB12	SB15	23	--	--	--
	PB12	CB1	--	39	--	--
INTERSECTION TOTAL			300	291	104	1208

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

PORT WASHINGTON ROAD & HAMPTON AVENUE

SIGNAL NO: S40-1101 PAGE 2 OF 9

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SIGNAL BASES AND POLES

LOCATION	SIG. BASE NO.	657.0100 PEDESTAL BASE EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2 INCH BOLT CIRCLE EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0310 POLES TYPE 3 EACH	657.0322 POLES TYPE 5 ALUMINUM EACH	657.0609 LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 6-FT EACH	657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT EACH	SPV.0060.3002 INSTALL POLES TYPE 10 EACH	SPV.0060.3003 INSTALL POLES TYPE 10 SPECIAL EACH	SPV.0060.3005 INSTALL MONOTUBE ARMS 25-FT EACH	SPV.0060.3007 INSTALL MONOTUBE ARMS 35-FT EACH	SPV.0060.3009 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	659.1125 LUMINAIRES UTILITY LED C EACH
PORT WASHINGTON RD & HAMPTON AVE	SB1	1	--	--	--	1	--	--	--	--	--	--	--	--	--	2	--
	SB2	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
	SB3	--	--	--	--	--	--	--	--	--	--	1	--	1	1	1	1
	SB4	1	--	--	1	--	--	--	--	--	--	--	--	--	--	1	--
	SB5	--	1	--	--	--	--	1	--	1	--	--	--	--	--	--	1
	SB6	--	--	--	--	--	--	--	--	--	1	--	1	--	2	--	2
	SB7	--	1	--	--	--	--	1	--	1	--	--	--	--	--	--	1
	SB8	1	--	1	--	--	--	--	--	--	--	--	--	--	--	2	--
	SB9	--	--	--	--	--	--	--	--	--	1	--	1	--	2	--	2
	SB10	1	--	--	--	1	--	--	--	--	--	--	--	--	--	1	--
	SB11	--	1	--	--	--	1	--	1	--	--	--	--	--	--	1	1
	SB12	--	--	--	--	--	--	--	--	--	1	--	1	--	2	--	2
	SB13	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
	SB14	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
	SB15	--	1	--	--	--	1	--	1	--	--	--	--	--	--	1	1
	SB16	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
INTERSECTION TOTAL		8	4	5	1	2	2	2	2	2	3	1	3	1	7	9	11

3

ELECTRICAL SERVICE METER BREAKER PEDESTAL

LOCATION	656.0200.3001 ELECTRICAL SERVICE METER BREAKER PEDESTAL (PORT WASHINGTON RD & HAMPTON AVE) L.S.
PORT WASHINGTON RD & HAMPTON AVE	1
TOTAL	1

SIGNAL MOUNTING HARDWARE

LOCATION	658.5069.3001 SIGNAL MOUNTING HARDWARE (PORT WASHINGTON RD & HAMPTON AVE) L.S.
PORT WASHINGTON RD & HAMPTON AVE	1
TOTAL	1

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

PORT WASHINGTON ROAD & HAMPTON AVENUE

SIGNAL NO: S40-1101

			SIGNAL FACES											
LOCATION	SIG. BASE NO.	SIG. HEAD NO.	TYPE OF MOUNT	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH	* BCKPLT 3-SEC. EACH	* BCKPLT 4-SEC. EACH	* LED RED BALL EACH	* LED YELLOW BALL EACH	* LED GREEN BALL EACH	* LED RED ARROW EACH	* LED YELLOW ARROW EACH	* LED GREEN ARROW EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	** PEDESTRIAN COUNTDOWN TIMER 16" EACH
	SB1	26	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
		33	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB2	4	POST MOUNT VERTICAL	1	--	1	--	--	--	--	1	1	1	--	--
		6	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		25	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB3	2	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		3	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		5	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	--	--	--	1	1	1	--	--
		27	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB4	11	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		19	POST MOUNT VERTICAL	--	1	--	1	--	--	--	1	2	1	--	--
		28	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB6	17	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		18	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		20	MONOTUBE POLE MOUNT VERTICAL	--	1	--	1	--	--	--	1	2	1	--	--
	SB8	9	POST MOUNT VERTICAL	1	--	1	--	--	--	--	1	1	1	--	--
		29	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
		30	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB9	7	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		8	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		10	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	--	--	--	1	1	1	--	--
	SB10	31	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB11	14	POST MOUNT VERTICAL	--	1	--	1	--	--	--	1	2	1	--	--
		16	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		24	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB12	12	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		13	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		15	MONOTUBE POLE MOUNT VERTICAL	--	1	--	1	--	--	--	1	2	1	--	--
	SB13	22	POST MOUNT VERTICAL	1	--	1	--	1	--	--	--	1	1	--	--
	SB14	23	POST MOUNT VERTICAL	1	--	1	--	1	--	--	--	1	1	--	--
	SB15	21	POST MOUNT VERTICAL	1	--	1	--	1	--	--	--	1	1	--	--
		32	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB16	1	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
INTERSECTION TOTAL				19	4	19	4	15	12	12	8	15	11	10	10

*INCIDENTAL TO 658.0173 OR 658.0174
**INCIDENTAL TO 658.0416

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

PORT WASHINGTON ROAD & HAMPTON AVENUE

SIGNAL NO: S40-1101

3

3

CONCRETE BASES

LOCATION	SIGNAL BASE NO.	ALIGNMENT	STATION	OFFSET	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0105 CONCRETE BASES TYPE 5 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	SPV.0060.3010 CONCRETE BASES TYPE 10 SPECIAL EACH	654.0217 CONCRETE CONTROL CABINET BASE TYPE 9 SPECIAL EACH
PORT WASHINGTON RD & HAMPTON AVE	CB1	HAMPTON AVE	16+55	103.0' LT	--	--	--	--	--	1
	SB1	HAMPTON AVE	17+11	50.9' LT	1	--	--	--	--	--
	SB2	HAMPTON AVE	17+17	75.0' LT	1	--	--	--	--	--
	SB3	HAMPTON AVE	17+99	63.3' LT	--	--	--	--	1	--
	SB4	HAMPTON AVE	18+10	52.0' LT	1	--	--	--	--	--
	SB5	HAMPTON AVE	18+52	55.8' LT	--	--	1	--	--	--
	SB6	HAMPTON AVE	18+40	6.4' LT	--	--	--	1	--	--
	SB7	HAMPTON AVE	18+29	70.6' RT	--	--	1	--	--	--
	SB8	HAMPTON AVE	18+05	37.8' RT	1	--	--	--	--	--
	SB9	HAMPTON AVE	17+59	74.6' RT	--	--	--	1	--	--
	SB10	HAMPTON AVE	17+16	45.1' RT	1	--	--	--	--	--
	SB11	HAMPTON AVE	17+06	29.5' RT	1	--	--	--	--	--
	SB12	HAMPTON AVE	16+97	16.5' LT	--	--	--	1	--	--
	SB13	HAMPTON AVE	16+51	15.2' LT	1	--	--	--	--	--
	SB14	HAMPTON AVE	16+30	15.8' LT	1	--	--	--	--	--
	SB15	HAMPTON AVE	16+80	82.1' LT	--	1	--	--	--	--
	SB16	HAMPTON AVE	18+04	51.9' LT	1	--	--	--	--	--
INTERSECTION TOTAL					9	1	2	3	1	1

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS

LOCATION	661.0200.3001 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (PORT WASHINGTON RD & HAMPTON AVE) L.S.
PORT WASHINGTON RD & HAMPTON AVE	1
TOTAL	1

TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET

LOCATION	SPV.0105.3001 TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET (PORT WASHINGTON RD & HAMPTON AVE) L.S.
W. HAMPTON AVE & N. PORT WASHINGTON RD	1
TOTAL	1

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

PORT WASHINGTON ROAD & HAMPTON AVENUE

SIGNAL NO: S40-1101 PAGE 5 OF 9

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TRAFFIC SIGNAL CABLE

LOCATION	LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF.	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG LF.	655.0320 CABLE TYPE UF 2-10 AWG GROUNDED L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.	655.0700^ LOOP DETECTOR LEAD-IN CABLE L.F.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.	(INCIDENTAL)+ VIDEO DETECTION COAXIAL CABLE L.F.
PORT WASHINGTON RD & HAMPTON AVE	CB1		SB1	--	--	--	127	--	--	--	--	--	--
	CB1		SB2	--	--	118	--	--	--	--	--	--	--
	CB1		SB3	--	--	269	--	269	--	--	--	286	386
	CB1		SB4	--	--	265	--	--	--	--	--	--	--
	CB1		SB6	--	--	400	--	--	--	--	--	402	517
	CB1		SB8	--	--	--	447	--	--	--	--	--	--
	CB1		SB9	--	--	313	--	--	--	--	--	317	430
	CB1		SB10	--	253	--	--	--	--	--	--	--	--
	CB1		SB11	--	--	253	--	--	--	--	--	--	--
	CB1		SB12	--	--	166	--	--	--	--	--	184	283
	CB1		SB13	--	163	--	--	--	--	--	--	--	--
	CB1		SB14	--	185	--	--	--	--	--	--	--	--
	CB1		SB15	--	49	--	--	49	--	--	--	--	--
	CB1		SB16	--	123	--	--	--	--	--	--	--	--
	SB1		SB2	--	--	--	--	--	65	--	--	--	--
	SB2		SB3	--	--	--	--	--	344	--	--	--	--
	SB3		SB4	--	--	--	--	--	39	--	--	--	--
	SB3		SB5	--	--	--	--	171	--	--	--	--	--
	SB4		SB6	--	--	--	--	--	280	--	--	--	--
	SB5		SB6	--	--	--	--	154	--	--	--	--	--
	SB6		SB7	--	--	--	--	225	--	--	--	--	--
	SB6		SB8	--	--	--	--	--	263	--	--	--	--
	SB8		SB16	--	--	--	--	--	51	--	--	--	--
	SB16		SB9	--	--	--	--	--	198	--	--	--	--
	SB9		SB10	--	--	--	--	--	135	--	--	--	--
	SB9		SB12	--	--	--	--	300	--	--	--	--	--
	SB10		SB11	--	--	--	--	--	147	--	--	--	--
	SB11		SB12	--	--	--	--	--	192	--	--	--	--
	SB12		SB13	--	--	--	--	--	102	--	--	--	--
	SB12		SB15	--	--	--	--	162	--	--	--	--	--
	SB13		SB14	--	--	--	--	--	121	--	--	--	--
	SB14		SB15	--	--	--	--	--	181	--	--	--	--
	PB1		CB1	--	--	--	--	--	35	--	--	--	--
	PB2		SB3	--	--	--	--	--	146	--	--	--	--
	PB3		SB3	--	--	--	--	--	84	--	--	--	--
	PB4		SB6	--	--	--	--	--	136	--	--	--	--
	PB5		SB6	--	--	--	--	--	77	--	--	--	--
	PB6		SB6	--	--	--	--	--	132	--	--	--	--
	PB8		SB9	--	--	--	--	--	25	--	--	--	--
	PB10		SB11	--	--	--	--	--	90	--	--	--	--
	PB11		SB13	--	--	--	--	--	57	--	--	--	--
	PB12		SB15	--	--	--	--	--	30	--	--	--	--
	PB13		SB2	--	--	--	--	--	27	--	--	--	--
	PB19		SB12	--	--	--	--	--	26	--	--	--	--

(CONTINUED ON NEXT PAGE)

^ADDITIONAL QUANTITIES FOR THIS ITEM SHOWN ELSEWHERE

+VIDEO DETECTION CABLE IS MEASURED FROM CB1 TO THE VIDEO DETECTION CAMERA.

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

PORT WASHINGTON ROAD & HAMPTON AVENUE

SIGNAL NO: S40-1101

TRAFFIC SIGNAL CABLE (CONTINUED FROM PREVIOUS PAGE)

LOCATION	LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF.	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG LF.	655.0320 CABLE TYPE UF 2-10 AWG GROUNDED L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.	655.0700^ LOOP DETECTOR LEAD-IN CABLE L.F.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.	(INCIDENTAL) VIDEO DETECTION COAXIAL CABLE L.F.
	SB1		HEAD 26	15	--	--	--	--	--	--	--	--	--
	SB1		HEAD 33	15	--	--	--	--	--	--	--	--	--
	SB1		PUSH BUTTON	--	--	--	--	--	--	--	6	--	--
	SB1		PUSH BUTTON	--	--	--	--	--	--	--	6	--	--
	SB2		HEAD 4	22	--	--	--	--	--	--	--	--	--
	SB2		HEAD 6	19	--	--	--	--	--	--	--	--	--
	SB2		HEAD 25	15	--	--	--	--	--	--	--	--	--
	SB3		HEAD 2	60	--	--	--	--	--	--	--	--	--
	SB3		HEAD 3	60	--	--	--	--	--	--	--	--	--
	SB3		HEAD 5	61	--	--	--	--	--	--	--	--	--
	SB3		HEAD 27	15	--	--	--	--	--	--	--	--	--
	SB3		PUSH BUTTON	--	--	--	--	--	--	--	6	--	--
	SB3		LUMINAIRE	--	--	--		--	--	144	--	--	--
	SB4		HEAD 11	19	--	--	--	--	--	--	--	--	--
	SB4		HEAD 19	--	22	--	--	--	--	--	--	--	--
	SB4		HEAD 28	15	--	--	--	--	--	--	--	--	--
	SB4		PUSH BUTTON	--	--	--	--	--	--	--	6	--	--
	SB5		LUMINAIRE	--	--	--	--	--	--	117	--	--	--
	SB6		HEAD 17	50	--	--	--	--	--	--	--	--	--
	SB6		HEAD 18	50	--	--	--	--	--	--	--	--	--
	SB6		HEAD 20	--	26	--	--	--	--	--	--	--	--
	SB6		LUMINAIRE	--	--	--	--	--	--	288	--	--	--
	SB7		LUMINAIRE	--	--	--	--	--	--	117	--	--	--
	SB8		HEAD 9	22	--	--	--	--	--	--	--	--	--
	SB8		HEAD 29	15	--	--	--	--	--	--	--	--	--
	SB8		HEAD 30	15	--	--	--	--	--	--	--	--	--
	SB8		PUSH BUTTON	--	--	--	--	--	--	--	12	--	--
	SB9		HEAD 7	50	--	--	--	--	--	--	--	--	--
	SB9		HEAD 8	50	--	--	--	--	--	--	--	--	--
	SB9		HEAD 10	26	--	--	--	--	--	--	--	--	--
	SB9		LUMINAIRE	--	--	--		--	--	288	--	--	--
	SB10		HEAD 31	15	--	--	--	--	--	--	--	--	--
	SB10		PUSH BUTTON	--	--	--	--	--	--	--	6	--	--
	SB11		HEAD 14	--	22	--	--	--	--	--	--	--	--
	SB11		HEAD 16	19	--	--	--	--	--	--	--	--	--
	SB11		HEAD 24	15	--	--	--	--	--	--	--	--	--
	SB11		PUSH BUTTON	--	--	--	--	--	--	--	6	--	--
	SB11		LUMINAIRE	--	--	--	--	--	--	117	--	--	--
	SB12		HEAD 12	50	--	--	--	--	--	--	--	--	--
	SB12		HEAD 13	50	--	--	--	--	--	--	--	--	--
	SB12		HEAD 15	--	26	--	--	--	--	--	--	--	--
	SB12		LUMINAIRE	--	--	--	--	--	--	288	--	--	--
	SB13		HEAD 22	19	--	--	--	--	--	--	--	--	--
	SB14		HEAD 23	19	--	--	--	--	--	--	--	--	--
	SB15		HEAD 21	15	--	--	--	--	--	--	--	--	--
	SB15		HEAD 32	15	--	--	--	--	--	--	--	--	--
	SB15		PUSH BUTTON	--	--	--	--	--	--	--	6	--	--
	SB15		LUMINAIRE	--	--	--	--	--	--	117	--	--	--
	SB16		HEAD 1	19	--	--	--	--	--	--	--	--	--
INTERSECTION TOTAL				830	869	1784	574	1330	2983	1476	54	1189	1616

^ADDITIONAL QUANTITIES FOR THIS ITEM SHOWN ELSEWHERE

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

PORT WASHINGTON ROAD & HAMPTON AVENUE

SIGNAL NO: S40-1101

3

REMOVING TRAFFIC SIGNALS

LOCATION	204.9105.S.3001 REMOVING TRAFFIC SIGNALS (PORT WASHINGTON RD & HAMPTON AVE) L.S.
PORT WASHINGTON RD & HAMPTON AVE	1
TOTAL	1

REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE

LOCATION	204.9105.S.3003 REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE (PORT WASHINGTON RD & HAMPTON AVE) L.S.
PORT WASHINGTON RD & HAMPTON AVE	1
TOTAL	1

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TRANSPORT TRAFFIC SIGNAL AND INTERSECTION LIGHTING MATERIALS

LOCATION	SPV.0105.3008 TRANSPORT TRAFFIC SIGNAL AND INTERSECTION LIGHTING MATERIALS (PORT WASHINGTON RD & HAMPTON AVE) L.S.
PORT WASHINGTON RD & HAMPTON AVE	1
TOTAL	1

TEMPORARY VEHICLE DETECTION SYSTEM PORT WASHINGTON ROAD & HAMPTON AVENUE

LOCATION	SPV.0105.3011 TEMPORARY VEHICLE DETECTION SYSTEM (PORT WASHINGTON RD & HAMPTON AVE) L.S.
PORT WASHINGTON RD & HAMPTON AVE	1
TOTAL	1

TRANSPORT AND INSTALL STATE FURNISHED VIDEO DETECTION SYSTEM

LOCATION	SPV.0105.3013 TRANSPORT AND INSTALL STATE FURNISHED VIDEO DETECTION SYSTEM (PORT WASHINGTON RD & HAMPTON AVE) L.S.
PORT WASHINGTON RD & HAMPTON AVE	1
TOTAL	1

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

PORT WASHINGTON ROAD & HAMPTON AVENUE

SIGNAL NO: S40-1101

3

3

TRAFFIC DETECTOR LOOPS

LOCATION	LOOP NO.	HOME RUN PB	STATION/OFFSET	SIZE	NO. OF TURNS	652.0800 CONDUIT LOOP DETECTOR LF	655.0700^ LOOP DETECTOR LEAD-IN CABLE LF	655.0800 LOOP DETECTOR WIRE LF
PORT WASHINGTON RD & HAMPTON AVE	11*	PB18	USE EXISTING LOOP LOCATION	6'x20'	3	-	235	198
	12*	PB18	USE EXISTING LOOP LOCATION	6'x20'	3	-	235	182
	41	PB10	17+02, 16.7' RT (HAMPTON AVE)	6'x20'	3	74	163	186
	42*	PB10	USE EXISTING LOOP LOCATION	5'x20'	3	-	163	200
	51*	PB14	USE EXISTING LOOP LOCATION	6'x20'	3	-	129	196
	52*	PB14	USE EXISTING LOOP LOCATION	6'x20'	3	-	129	182
	61*	PB23	USE EXISTING LOOP LOCATION	6'x20'	5	-	735	302
	71*	PB19	USE EXISTING LOOP LOCATION	6'x20'	3	-	140	182
	81*	PB21	USE EXISTING LOOP LOCATION	6'x18'	4	-	480	218
	82*	PB15	USE EXISTING LOOP LOCATION	6'x20'	3	-	240	230
	83*	PB15	USE EXISTING LOOP LOCATION	6'x20'	3	-	240	184
	84*	PB16	USE EXISTING LOOP LOCATION	6'x20'	3	-	357	206
	85*	PB16	USE EXISTING LOOP LOCATION	6'x20'	3	-	357	206
	86*	PB16	USE EXISTING LOOP LOCATION	6'x20'	3	-	357	184
	87*	PB16	USE EXISTING LOOP LOCATION	6'x20'	3	-	357	184
INTERSECTION TOTAL						74	4317	3040

*RE-WIRE LOOP ONLY

^ADDITIONAL QUANTITIES FOR THIS ITEM SHOWN ELSEWHERE

TRANSPORT AND INSTALL STATE FURNISHED EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS

LOCATION	SPV.0105.3017 TRANSPORT AND INSTALL STATE FURNISHED EVP DETECTOR HEADS (PORT WASHINGTON RD & HAMPTON AVE) L.S.
PORT WASHINGTON RD & HAMPTON AVE	1
TOTAL	1

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

PORT WASHINGTON ROAD & HAMPTON AVENUE

SIGNAL NO: S40-1101

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SUMMARY OF STATE FURNISHED MATERIALS

QUANTITY	UNIT	DESCRIPTION
2	EACH	POLES TYPE 13
2	EACH	MONOTUBE ARMS 50-FT
3	EACH	LUMINAIRE ARMS STEEL 15-FT
1	EACH	TRAFFIC SIGNAL CONTROLLER, FULLY ACTUATED, 8-PHASE
1	EACH	TRAFFIC SIGNAL CABINET
1	EACH	BATTERY BACKUP UNIT FOR TRAFFIC SIGNAL CABINET
1	EACH	VIDEO DETECTION CAMERAS
3	EACH	EVP DETECTOR HEADS

NOTE: THIS TABLE IS FOR INFORMATION ONLY.

REMOVAL QUANTITIES

LOCATION	ITEM NO.	204.0195 REMOVING CONCRETE BASES	653.0905 REMOVING PULL BOXES
IH 43 SB RAMPS & SILVER SPRING DR	SB2	1	--
	SB5	1	--
	SB7	1	--
	PB14	--	1
	PB15	--	1
	PB18	--	1
	PB19	--	1
	PB20	--	1
	PB21	--	1
	PB22	--	1
	PB23	--	1
INTERSECTION TOTAL		3	8

SIGNAL MOUNTING HARDWARE

LOCATION	658.5069.3002 SIGNAL MOUNTING HARDWARE (IH 43 SB RAMPS & SILVER SPRING DR) L.S.
IH 43 SB RAMPS & SILVER SPRING DR	1
TOTAL	1

PULL BOXES

LOCATION	PULL BOX NO.	ALIGNMENT	STATION	OFFSET	653.0140 PULL BOXES STEEL 24" x 42" EACH
IH 43 SB RAMPS & SILVER SPRING DR	PB14	SILVER SPRING DR	21+44	41.8' RT	1
	PB15	SILVER SPRING DR	20+64	52.2' RT	1
INTERSECTION TOTAL					2

TRANSPORT AND INSTALL STATE FURNISHED EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS

LOCATION	SPV.0105.3019 TRANSPORT AND INSTALL STATE FURNISHED EVP DETECTOR HEADS (IH 43 SB RAMPS & SILVER SPRING DR) L.S.
IH 43 SB RAMPS & SILVER SPRING DR	1
TOTAL	1

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

IH 43 SB RAMPS & SILVER SPRING DRIVE

SIGNAL NO: S40-1194

SIGNAL FACES

LOCATION	SIG. BASE NO.	SIG. HEAD NO.	TYPE OF MOUNT	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH	* BCKPLT 3-SEC. EACH	* BCKPLT 4-SEC. EACH	* LED RED BALL EACH	* LED YELLOW BALL EACH	* LED GREEN BALL EACH	* LED RED ARROW EACH	* LED YELLOW ARROW EACH	* LED GREEN ARROW EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	** PEDESTRIAN COUNTDOWN TIMER 16" EACH
IH 43 SB RAMPS & SILVER SPRING DR	SB1	1	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB2	6	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		7	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		8	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		10	MONOTUBE POLE MOUNT VERTICAL	1	--	1	--	--	--	--	1	1	1	--	--
		11	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	--	--	--	1	1	1	--	--
	SB3	12	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		20	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB4	17	POST MOUNT VERTICAL	1	--	1	--	--	--	--	1	1	1	--	--
	SB5	5	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB6	9	POST MOUNT VERTICAL	1	--	1	--	--	--	--	1	1	1	--	--
	SB7	2	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	--	--	--	1	--	--
		3	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
		4	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB8	13	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	--	--	--	1	1	1	--	--
		14	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	--	--	--	1	1	1	--	--
		15	MONOTUBE ARM MOUNT VERTICAL	--	1	--	1	1	1	1	--	--	1	--	--
		16	MONOTUBE POLE MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB9	18	POST MOUNT VERTICAL	--	--	--	--	--	--	--	--	--	--	1	1
INTERSECTION TOTAL				17	1	17	1	12	12	11	6	6	8	1	1

*INCIDENTAL TO 658.0173 OR 658.0174
**INCIDENTAL TO 658.0416

CONDUIT ITEMS

LOCATION	FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF.	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
IH 43 SB RAMPS & SILVER SPRING DR	PB1	SB10	17	--	1
	PB3	SB2	--	41	1
	PB3	SB11	94	--	--
	PB4	SB12	29	--	1
	PB10	SB5	35	--	1
	PB15	SB7	--	23	--
	PB15	SB9	9	--	--
INTERSECTION TOTAL			184	64	4

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

IH 43 SB RAMPS & SILVER SPRING DRIVE

SIGNAL NO: S40-1194

3

SIGNAL BASES AND POLES

LOCATION	SIG. BASE NO.	657.0100 PEDESTAL BASE EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2 INCH BOLT CIRCLE EACH	657.0310 POLES TYPE 3 EACH	657.0322 POLES TYPE 5 ALUMINUM EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0609 LUMINAIRE ARMS SINGLE MEMBER 4 -INCH CLAMP 6-FT EACH	657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT EACH	SPV.0060.3004 INSTALL POLES TYPE 13 EACH	SPV.0060.3008 INSTALL MONOTUBE ARMS 50-FT EACH	SPV.0060.3009 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	659.1125 LUMINAIRES UTILITY LED C EACH
IH 43 SB RAMPS & SILVER SPRING DR	SB2	--	--	--	--	--	--	--	--	1	1	2	--	2
	SB3	1	--	--	--	--	1	--	--	--	--	--	--	--
	SB5	--	1	1	--	--	--	1	--	--	--	--	--	1
	SB7	--	--	--	--	--	--	--	--	1	1	1	--	1
	SB9	1	--	--	--	1	--	--	--	--	--	--	1	--
	SB10	--	1	--	1	--	--	--	1	--	--	--	--	1
	SB11	--	1	--	1	--	--	--	2	--	--	--	--	2
	SB12	--	1	--	1	--	--	--	1	--	--	--	--	1
INTERSECTION TOTAL		2	4	1	3	1	1	1	4	2	2	3	1	8

3

CONCRETE BASES

LOCATION	SIGNAL BASE NO.	ALIGNMENT	STATION	OFFSET	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0105 CONCRETE BASES TYPE 5 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	SPV.0060.3001 CONCRETE CABINET BASE EXTENSION EACH
IH 43 SB RAMPS & SILVER SPRING DR	CB1	SILVER SPRING DR	19+45	78.0' RT	--	--	--	--	1
	SB2	SILVER SPRING DR	19+90	14.3' LT	--	--	--	1	--
	SB5	SILVER SPRING DR	20+88	75.5' LT	--	1	--	--	--
	SB7	SILVER SPRING DR	20+86	51.6' RT	--	--	--	1	--
	SB9	SILVER SPRING DR	20+64	42.8' RT	1	--	--	--	--
	SB10	SILVER SPRING DR	19+55	69.0' RT	--	--	1	--	--
	SB11	SILVER SPRING DR	18+56	11.1' LT	--	--	1	--	--
	SB12	SILVER SPRING DR	19+80	96.0' LT	--	--	1	--	--
INTERSECTION TOTAL					1	1	3	2	1

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

IH 43 SB RAMPS & SILVER SPRING DRIVE

SIGNAL NO: S40-1194

TRAFFIC SIGNAL CABLE

LOCATION	LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF.	655.0320 CABLE TYPE UF 2-10 AWG GROUNDED L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.	655.0700^ LOOP DETECTOR LEAD-IN CABLE L.F.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.	(INCIDENTAL)+ VIDEO DETECTION CABLE L.F.
IH 43 SB RAMPS & SILVER SPRING DR	CB1		SB1	--	--	117	--	117	--	--	--	--
	CB1		SB2	--	--	222	222	222	--	--	263	--
	CB1		SB3	--	--	335	--	--	--	--	--	--
	CB1		SB4	--	405	--	--	--	--	--	--	--
	CB1		SB5	--	447	--	--	--	--	--	--	--
	CB1		SB6	--	338	--	--	--	--	--	--	--
	CB1		SB7	--	--	201	--	--	--	--	244	318
	CB1		SB8	--	--	112	--	--	--	--	137	--
	CB1		SB9	--	189	--	--	--	--	--	--	--
	CB1		SB10	--	--	--	116	--	--	--	--	--
	SB1		SB8	--	--	--	--	40	--	--	--	--
	SB2		SB3	--	--	--	--	214	--	--	--	--
	SB2		SB11	--	--	--	154	--	--	--	--	--
	SB3		SB4	--	--	--	--	105	--	--	--	--
	SB4		SB5	--	--	--	--	129	--	--	--	--
	SB5		SB6	--	--	--	--	144	--	--	--	--
	SB5		SB7	--	--	--	329	--	--	--	--	--
	SB5		SB12	--	--	--	299	--	--	--	--	--
	SB6		SB7	--	--	--	--	200	--	--	--	--
	SB7		SB9	--	--	--	--	51	--	--	--	--
	SB7		SB10	--	--	--	260	--	--	--	--	--
	SB8		SB9	--	--	--	--	112	--	--	--	--
	PB1		CB1	--	--	--	--	96	--	--	--	--
	PB3		SB2	--	--	--	--	58	--	--	--	--
	PB4		SB3	--	--	--	--	86	--	--	--	--
	PB5		SB3	--	--	--	--	25	--	--	--	--
	PB6		SB4	--	--	--	--	25	--	--	--	--
	PB10		SB5	--	--	--	--	51	--	--	--	--
	PB11		SB6	--	--	--	--	25	--	--	--	--
	PB14		SB6	--	--	--	--	83	--	--	--	--
	PB15		SB9	--	--	--	--	27	--	--	--	--
	PB16		SB8	--	--	--	--	25	--	--	--	--
	PB17		CB1	--	--	--	--	45	--	--	--	--

(CONTINUED ON NEXT PAGE)

^ADDITIONAL QUANTITIES FOR THIS ITEM SHOWN ELSEWHERE

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

+VIDEO DETECTION CABLE IS MEASURED FROM CB1 TO THE VIDEO DETECTION CAMERA.

IH 43 SB RAMPS & SILVER SPRING DRIVE

SIGNAL NO: S40-1194

TRAFFIC SIGNAL CABLE (CONTINUED FROM PREVIOUS PAGE)

LOCATION	LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0320 CABLE TYPE UF 2-10 AWG GROUNDED L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.	655.0700^ LOOP DETECTOR LEAD-IN CABLE L.F.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.	(INCIDENTAL) VIDEO DETECTION CABLE L.F.
IH 43 SB RAMPS & SILVER SPRING DR	SB1		HEAD 1	19	--	--	--	--	--	--	--	--
	SB1		HEAD 19	15	--	--	--	--	--	--	--	--
	SB1		PUSH BUTTON	--	--	--	--	--	--	6	--	--
	SB2		HEAD 6	75	--	--	--	--	--	--	--	--
	SB2		HEAD 7	75	--	--	--	--	--	--	--	--
	SB2		HEAD 8	75	--	--	--	--	--	--	--	--
	SB2		HEAD 10	26	--	--	--	--	--	--	--	--
	SB2		HEAD 11	75	--	--	--	--	--	--	--	--
	SB2		LUMINAIRE	--	--	--	--	--	288	--	--	--
	SB3		HEAD 12	19	--	--	--	--	--	--	--	--
	SB3		HEAD 20	19	--	--	--	--	--	--	--	--
	SB4		HEAD 17	19	--	--	--	--	--	--	--	--
	SB5		HEAD 5	19	--	--	--	--	--	--	--	--
	SB5		LUMINAIRE	--	--	--	--	--	117	--	--	--
	SB6		HEAD 9	19	--	--	--	--	--	--	--	--
	SB7		HEAD 2	75	--	--	--	--	--	--	--	--
	SB7		HEAD 3	75	--	--	--	--	--	--	--	--
	SB7		HEAD 4	75	--	--	--	--	--	--	--	--
	SB7		LUMINAIRE	--	--	--	--	--	145	--	--	--
	SB8		HEAD 13	55	--	--	--	--	--	--	--	--
	SB8		HEAD 14	55	--	--	--	--	--	--	--	--
	SB8		HEAD 15	--	56	--	--	--	--	--	--	--
	SB8		HEAD 16	25	--	--	--	--	--	--	--	--
	SB9		HEAD 18	15	--	--	--	--	--	--	--	--
	SB9		PUSH BUTTON	--	--	--	--	--	--	6	--	--
	SB10		LUMINAIRE	--	--	--	--	--	117	--	--	--
	SB11		LUMINAIRE	--	--	--	--	--	234	--	--	--
	SB12		LUMINAIRE	--	--	--	--	--	117	--	--	--
INTERSECTION TOTAL				830	1435	987	1380	1880	1018	12	644	318

^ADDITIONAL QUANTITIES FOR THIS ITEM SHOWN ELSEWHERE

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

IH 43 SB RAMPS & SILVER SPRING DRIVE

SIGNAL NO: S40-1194

3

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS

LOCATION	661.0200.3002 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (IH 43 SB RAMPS & SILVER SPRING DR) L.S.
IH 43 SB RAMPS & SILVER SPRING DR	1
TOTAL	1

TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET

LOCATION	SPV.0105.3003 TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET (IH 43 SB RAMPS & SILVER SPRING DR) L.S.
IH 43 SB RAMPS & SILVER SPRING DR	1
TOTAL	1

3

TRANSPORT TRAFFIC SIGNAL AND INTERSECTION LIGHTING MATERIALS

LOCATION	SPV.0105.3010 TRANSPORT TRAFFIC SIGNAL AND INTERSECTION LIGHTING MATERIALS (IH 43 SB RAMPS & SILVER SPRING DR) L.S.
IH 43 SB RAMPS & SILVER SPRING DR	1
TOTAL	1

REMOVING TRAFFIC SIGNALS

LOCATION	204.9105.S.3002 REMOVING TRAFFIC SIGNALS (IH 43 SB RAMPS & SILVER SPRING DR) L.S.
IH 43 SB RAMPS & SILVER SPRING DR	1
TOTAL	1

REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE

LOCATION	204.9105.S.3004 REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE (IH 43 SB RAMPS & SILVER SPRING DR) L.S.
IH 43 SB RAMPS & SILVER SPRING DR	1
TOTAL	1

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

IH 43 SB RAMPS & SILVER SPRING DRIVE

SIGNAL NO: S40-1194

3

TEMPORARY VEHICLE DETECTION SYSTEM IH 43 SB RAMPS & SILVER SPRING DRIVE

LOCATION	SPV.0105.3012 TEMPORARY VEHICLE DETECTION SYSTEM (IH 43 SB RAMPS & SILVER SPRING DR) L.S.
IH 43 SB RAMPS & SILVER SPRING DR	1
TOTAL	1

TRANSPORT AND INSTALL STATE FURNISHED VIDEO DETECTION SYSTEM

LOCATION	SPV.0105.3015 TRANSPORT AND INSTALL STATE FURNISHED VIDEO DETECTION SYSTEM (IH 43 SB RAMPS & SILVER SPRING DR) L.S.
IH 43 SB RAMPS & SILVER SPRING DR	1
TOTAL	1

3

TRAFFIC DETECTOR LOOPS

LOCATION	LOOP NO.	HOME RUN PB	STATION/OFFSET**	SIZE	SDD INSTALLATION REFERENCE	NO. OF TURNS	PAVEMENT TYPE	652.0800 CONDUIT LOOP DETECTOR LF	655.0700^ LOOP DETECTOR LEAD-IN CABLE LF	655.0800 LOOP DETECTOR WIRE LF
IH 43 SB RAMPS & SILVER SPRING DR	21*	PB13	USE EXISTING LOOP LOCATION	6'x30'	-	3	-	-	454	268
	41	PB9	21+26, 351' LT	6'x10'	9F15-4A	4	CONCRETE	48	570	156
	42	PB9	21+14, 357' LT	6'x10'	9F15-4B	4	CONCRETE	68	570	176
	43	PB9	21+01, 363' LT	6'x10'	9F15-4B	4	CONCRETE	88	570	196
	44	PB5	20+26, 104' LT	6'x20'	9F15-4A	4	CONCRETE	102	250	270
	45	PB5	20+22, 75' LT	6'x20'	9F15-4A	4	CONCRETE	80	250	248
	46	PB5	20+40, 103' LT	6'x20'	9F15-4B	4	CONCRETE	132	250	300
	47	PB5	20+37, 75' LT	6'x20'	9F15-4B	4	CONCRETE	110	250	278
	48*	PB6	USE EXISTING LOOP LOCATION	6'x20'	-	4	-	-	305	260
	49*	PB6	USE EXISTING LOOP LOCATION	6'x20'	-	4	-	-	305	254
	51	PB12	21+69, 27' LT	6'x20'	9F15-4B	3	CONCRETE	90	267	206
	52	PB11	21+41, 26' LT	6'x20'	9F15-4B	3	CONCRETE	94	252	210
	53	PB12	21+68, 15' LT	6'x20'	9F15-4A	3	CONCRETE	68	267	184
	54	PB11	21+42, 15' LT	6'x20'	9F15-4A	3	CONCRETE	70	252	186
INTERSECTION TOTAL								950	4812	3192

*RE-WIRE LOOP ONLY

**LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

^ADDITIONAL QUANTITIES FOR THIS ITEM SHOWN ELSEWHERE

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

IH 43 SB RAMPS & SILVER SPRING DRIVE

SIGNAL NO: S40-1194

SUMMARY OF STATE FURNISHED MATERIALS

QUANTITY	UNIT	DESCRIPTION
1	EACH	TRAFFIC SIGNAL CONTROLLER, FULLY ACTUATED, 8-PHASE
3	EACH	EVP HEADS

NOTE: THIS TABLE IS FOR INFORMATION ONLY.

3

3

TRAFFIC SIGNAL EVP DETECTOR CABLE

LOCATION	LOC.	TO	LOC.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
IH 43 NB OFF RAMP & PORT WASHINGTON RD	CB1		HEAD A (SB6)	146
	CB1		HEAD B (SB3)	174
	CB1		HEAD C (SB1)	98
INTERSECTION TOTALS				418

TRANSPORT AND INSTALL STATE FURNISHED EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS

LOCATION	SPV.0105.3016 TRANSPORT AND INSTALL STATE FURNISHED EVP DETECTOR HEADS (IH 43 NB OFF RAMP & PORT WASHINGTON RD) L.S.
IH 43 NB OFF RAMP & PORT WASHINGTON RD	1
TOTAL	1

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

IH 43 NB OFF RAMP & PORT WASHINGTON ROAD

SIGNAL NO: S40-1207

PLOT DATE : 4/22/2019 11:29 AM PLOT BY : PLOT NAME : 030201_mq PLOT SCALE : 1.000000:1.000000 WISDOT / CADDS SHEET 42

3

3

SUMMARY OF STATE FURNISHED MATERIALS

QUANTITY	UNIT	DESCRIPTION
2	EACH	POLES TYPE 10
1	EACH	MONOTUBE ARMS 25-FT
1	EACH	MONOTUBE ARMS 30-FT
3	EACH	LUMINAIRE ARMS STEEL 15-FT
1	EACH	TRAFFIC SIGNAL CONTROLLER, FULLY ACTUATED, 8-PHASE
1	EACH	TRAFFIC SIGNAL CABINET
2	EACH	VIDEO DETECTION CAMERAS
2	EACH	EVP DETECTOR HEADS

NOTE: THIS TABLE IS FOR INFORMATION ONLY.

PULL BOXES

LOCATION	PULL BOX NO.	ALIGNMENT	STATION	OFFSET	653.0140 PULL BOXES STEEL 24" x 42" EACH
W. HAMPTON AVE & IH 43 SB ON RAMP	PB1	HAMPTON AVE	13+20	55.8' RT	1
	PB2	HAMPTON AVE	12+70	68.5' RT	1
	PB3	HAMPTON AVE	12+58	60.2' RT	1
	PB4	HAMPTON AVE	12+76	29.4' RT	1
	PB5	HAMPTON AVE	12+67	4.6' LT	1
	PB6	HAMPTON AVE	13+77	4.5' LT	1
	PB7	HAMPTON AVE	13+77	39.1' RT	1
	PB8	HAMPTON AVE	13+48	36.0' RT	1
INTERSECTION TOTAL					8

ELECTRICAL SERVICE METER BREAKER PEDESTAL

LOCATION	656.0200.3002 ELECTRICAL SERVICE METER BREAKER PEDESTAL (W. HAMPTON AVE & IH 43 SB ON RAMP) L.S.
W. HAMPTON AVE & IH 43 SB ON RAMP	1
TOTAL	1

SIGNAL MOUNTING HARDWARE

LOCATION	658.5069.3003 SIGNAL MOUNTING HARDWARE (W. HAMPTON AVE & IH 43 SB ON RAMP) L.S.
W. HAMPTON AVE & IH 43 SB ON RAMP	1
TOTAL	1

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

W. HAMPTON AVENUE & IH 43 SB ON RAMP

SIGNAL NO: S40-1432

3

3

SIGNAL FACES

LOCATION	SIG. BASE NO.	SIG. HEAD NO.	TYPE OF MOUNT	658.0171 TRAFFIC SIGNAL FACE 1S 12-INCH EACH	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH	* BCKPLT 1-SEC EACH	* BCKPLT 3-SEC. EACH	* BCKPLT 4-SEC. EACH	* LED RED BALL EACH	* LED YELLOW BALL EACH	* LED GREEN BALL EACH	* LED RED ARROW EACH	* LED YELLOW ARROW EACH	* LED GREEN ARROW EACH
W. HAMPTON AVE & IH 43 SB ON RAMP	SB2	1	POST MOUNT VERTICAL	--	1	--	--	1	--	1	1	1	--	--	--
		6	POST MOUNT VERTICAL	--	--	1	--	--	1	--	--	--	1	2	1
	SB3	4	MONOTUBE ARM MOUNT VERTICAL	1	--	--	1	--	--	--	--	--	--	--	1
		5	MONOTUBE ARM MOUNT VERTICAL	1	--	--	1	--	--	--	--	--	--	--	1
		7	MONOTUBE POLE MOUNT VERTICAL	--	--	1	--	--	1	--	--	--	1	2	1
	SB4	2	MONOTUBE ARM MOUNT VERTICAL	--	1	--	--	1	--	1	1	1	--	--	--
		3	MONOTUBE ARM MOUNT VERTICAL	--	1	--	--	1	--	1	1	1	--	--	--
INTERSECTION TOTAL				2	3	2	2	3	2	3	3	3	2	4	4

*INCIDENTAL TO 658.0171, 658.0173, OR 658.0174

CONDUIT ITEMS

LOCATION	FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF.	652.0615 CONDUIT SPECIAL 3-INCH LF.
W. HAMPTON AVE & IH 43 SB ON RAMP	CB1	PB1	--	63	--
	PB1	PB2	--	--	104
	PB2	PB3	--	28	--
	PB3	SB1	11	--	--
	PB3	PB4	--	--	35
	PB4	SB2	5	--	--
	PB3	PB5	--	--	130
	PB5	SB3	--	12	--
	PB5	PB6	--	--	220
	PB6	PB7	--	--	88
	PB7	PB8	--	58	--
	PB8	SB4	--	14	--
	PB8	CB1	--	27	--
INTERSECTION TOTAL			16	202	577

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

W. HAMPTON AVENUE & IH 43 SB ON RAMP

SIGNAL NO: S40-1432

3

3

SIGNAL BASES AND POLES

LOCATION	SIG. BASE NO.	657.0100 PEDESTAL BASE EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2 INCH BOLT CIRCLE EACH	657.0322 POLES TYPE 5 ALUMINUM EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT EACH	SPV.0060.3002 INSTALL POLES TYPE 10 EACH	SPV.0060.3005 INSTALL MONOTUBE ARMS 25-FT EACH	SPV.0060.3006 INSTALL MONOTUBE ARMS 30-FT EACH	SPV.0060.3009 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH
W. HAMPTON AVE & IH 43 SB ON RAMP	SB1	--	1	1	--	1	--	--	--	--	1
	SB2	1	--	--	1	--	--	--	--	--	--
	SB3	--	--	--	--	--	1	--	1	2	2
	SB4	--	--	--	--	--	1	1	--	1	1
INTERSECTION TOTAL		1	1	1	1	1	2	1	1	3	4

CONCRETE BASES

LOCATION	SIGNAL BASE NO.	ALIGNMENT	STATION	OFFSET	654.0101 CONCRETE BASES TYPE 1 EACH	654.0105 CONCRETE BASES TYPE 5 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0217 CONCRETE CONTROL CABINET BASE TYPE 9 SPECIAL EACH
W. HAMPTON AVE & IH 43 SB ON RAMP	CB1	HAMPTON AVE	13+35	37.4' RT	--	--	--	1
	SB1	HAMPTON AVE	12+57	49.7' RT	--	1	--	--
	SB2	HAMPTON AVE	12+84	29.5' RT	1	--	--	--
	SB3	HAMPTON AVE	12+70	17.0' LT	--	--	1	--
	SB4	HAMPTON AVE	13+58	27.5' RT	--	--	1	--
INTERSECTION TOTAL					1	1	2	1

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

W. HAMPTON AVENUE &
IH 43 SB ON RAMP

SIGNAL NO: S40-1432

3

TRAFFIC SIGNAL CABLE

LOCATION	LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF.	655.0320 CABLE TYPE UF 2-10 AWG GROUNDED L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.	(INCIDENTAL)+ VIDEO DETECTION COAXIAL CABLE L.F.
W. HAMPTON AVE & IH 43 SB ON RAMP	CB1		SB1	--	--	--	143	--	--	--	--
	CB1		SB2	--	--	185	--	185	--	--	--
	CB1		SB3	--	--	219	--	--	--	73	336
	CB1		SB4	--	47	--	47	47	--	239	164
	SB2		SB3	--	--	--	--	161	--	--	--
	SB3		SB4	--	--	--	262	262	--	--	--
	PB1		CB1	--	--	--	--	41	--	--	--
	PB2		SB2	--	--	--	--	96	--	--	--
	PB3		SB2	--	--	--	--	71	--	--	--
	PB4		SB2	--	--	--	--	25	--	--	--
	PB5		SB3	--	--	--	--	29	--	--	--
	PB6		SB4	--	--	--	--	127	--	--	--
	PB7		SB4	--	--	--	--	72	--	--	--
	PB8		SB4	--	--	--	--	32	--	--	--
	SB1		LUMINAIRE	--	--	--	--	--	117	--	--
	SB2		HEAD 1	19	--	--	--	--	--	--	--
	SB2		HEAD 6	--	22	--	--	--	--	--	--
	SB3		HEAD 4	53	--	--	--	--	--	--	--
	SB3		HEAD 5	53	--	--	--	--	--	--	--
	SB3		HEAD 7	--	26	--	--	--	--	--	--
	SB3		LUMINAIRE	--	--	--	--	--	288	--	--
	SB4		HEAD 2	50	--	--	--	--	--	--	--
	SB4		HEAD 3	50	--	--	--	--	--	--	--
	SB4		LUMINAIRE	--	--	--	--	--	144	--	--
INTERSECTION TOTAL				225	95	404	452	1148	549	312	500

+VIDEO DETECTION CABLE IS MEASURED FROM CB1 TO THE VIDEO DETECTION CAMERA.

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

W. HAMPTON AVENUE & IH 43 SB ON RAMP

SIGNAL NO: S40-1432

3

TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET

LOCATION	SPV.0105.3002 TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET (W. HAMPTON AVE & IH 43 SB ON RAMP) L.S.
W. HAMPTON AVE & IH 43 SB ON RAMP	1
TOTAL	1

TRANSPORT TRAFFIC SIGNAL AND INTERSECTION LIGHTING MATERIALS

LOCATION	SPV.0105.3009 TRANSPORT TRAFFIC SIGNAL AND INTERSECTION LIGHTING MATERIALS (W. HAMPTON AVE & IH 43 SB ON RAMP) L.S.
W. HAMPTON AVE & IH 43 SB ON RAMP	1
TOTAL	1

3

TRANSPORT AND INSTALL STATE FURNISHED VIDEO DETECTION SYSTEM

LOCATION	SPV.0105.3014 TRANSPORT AND INSTALL STATE FURNISHED VIDEO DETECTION SYSTEM (W. HAMPTON AVE & IH 43 SB ON RAMP) L.S.
W. HAMPTON AVE & IH 43 SB ON RAMP	1
TOTAL	1

TRANSPORT AND INSTALL STATE FURNISHED EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS

LOCATION	SPV.0105.3018 TRANSPORT AND INSTALL STATE FURNISHED EVP DETECTOR HEADS (W. HAMPTON AVE & IH 43 SB ON RAMP) L.S.
W. HAMPTON AVE & IH 43 SB ON RAMP	1
TOTAL	1

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

W. HAMPTON AVENUE & IH 43 SB ON RAMP

SIGNAL NO: S40-1432

SUMMARY OF STATE FURNISHED MATERIALS

QUANTITY	UNIT	DESCRIPTION
11	EACH	EVP DETECTOR HEADS

NOTE: THIS TABLE IS FOR INFORMATION ONLY.

3

TRANSPORT AND INSTALL STATE FURNISHED EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS

LOCATION	SPV.0105.3020 TRANSPORT AND INSTALL STATE FURNISHED EVP DETECTOR HEADS (IH 43 NB ON/OFF RAMP & PORT WASHINGTON RD) L.S.
IH 43 NB ON/OFF RAMP & PORT WASHINGTON ROAD	1
TOTAL	1

TRAFFIC SIGNAL EVP DETECTOR CABLE

LOCATION	LOC.	TO LOC.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
S40-1066	CB1	HEAD A (SB13)	187
	CB1	HEAD B (SB6)	492
	CB1	HEAD C (SB10)	426
	CB1	HEAD D (SB3)	200
S40-1149	CB1	HEAD A (SB3)	188
	CB1	HEAD B (SB7)	213
	CB1	HEAD C (SB4)	219
S40-1241	CB1	HEAD A (SB1)	138
	CB1	HEAD B (SB6)	383
	CB1	HEAD C (SB3)	179
	CB1	HEAD D (SB7)	342
INTERSECTION TOTALS			2967

3

TRANSPORT AND INSTALL STATE FURNISHED EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS

LOCATION	SPV.0105.3021 TRANSPORT AND INSTALL STATE FURNISHED EVP DETECTOR HEADS (PORT WASHINGTON ROAD & SILVER SPRING DR) L.S.
PORT WASHINGTON ROAD & SILVER SPRING DR	1
TOTAL	1

TRANSPORT AND INSTALL STATE FURNISHED EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS

LOCATION	SPV.0105.3022 TRANSPORT AND INSTALL STATE FURNISHED EVP DETECTOR HEADS (IH 43 NB OFF RAMP/BAYSHORE PARKING GARAGE & PORT WASHINGTON RD) L.S.
IH 43 NB OFF RAMP/BAYSHORE PARKING GARAGE & PORT WASHINGTON ROAD	1
TOTAL	1

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

IH 43 NB ON/OFF RAMP & PORT WASHINGTON ROAD
PORT WASHINGTON RD & SILVER SPRING DR
IH 43 NB OFF RAMP / BAYSHORE PARKING GARAGE & PORT WASHINGTON ROAD

SIGNAL NO: S40-1149, S40-1066, S40-1241 PAGE 1 OF 1

3

STATE FURNISHED MATERIALS SUMMARY (FOR INFORMATION ONLY)

FROM	TO	PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 8-CT EACH	PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 8-CT L.F.	ETHERNET SWITCH EACH	FIBER OPTIC CABLE OUTDOOR PLANT 36-CT L.F.
I/C CV100	CB1 (S40-1207)	1	100	1	---
I/C CV101	CB1 (S40-1432)	1	100	1	---
I/C CV102	CB1 (S40-1101)	1	100	1	---
I/C CV106	CB1 (S40-1194)	1	300	1	---
I/C CV100	PB2 (S40-1207)	---	---	---	200
PB2 (S40-1207)	EXPB15 (S40-1207)	---	---	---	732
EXPB15 (S40-1207)	I/C PB1	---	---	---	312
I/C PB1	I/C PB2	---	---	---	330
I/C PB2	I/C PB3	---	---	---	284
I/C PB3	I/C CV101	---	---	---	244
I/C PB1	I/C CV102	---	---	---	478
I/C CV102	EXPB1	---	---	---	818
EXPB1	I/C CV103	---	---	---	416
I/C CV105	I/C PB4	---	---	---	1542
I/C PB4	I/C CV106	---	---	---	224
I/C CV106	CB1 (S40-1066)	---	---	1	1614
CB1 (S40-1066)	CB1 (S40-1149)	---	---	1	1768
CB1 (S40-1066)	CB1 (S40-1241)	---	---	1	1996
15% Contingency		-	-	-	1645
PROJECT TOTAL		4	600	7	12603

STATE FURNISHED ITEMS SUMMARY (FOR INFORMATION ONLY)

LOCATION	TRAFFIC SIGNAL CONTROLLER UPGRADE EACH	TRAFFIC SIGNAL CABINET UPGRADE (TS2) EACH	1 GE OPTICS TRANSCEIVER EACH
IH 43 Northbound Off Ramp & Port Washington Rd	1	--	--
Port Washington Road & Hampton Avenue	1	1	--
W. Hampton Avenue & IH 43 SB On Ramp	1	1	--
IH 43 SB Ramps & Silver Spring Drive	1	1	--
IH 43 NB On/Off Ramp & Port Washington Road	1	--	--
Port Washington Rd & Silver Spring Dr	1	--	--
IH 43 NB Off Ramp/Bayshore Parking Garage & Port Washington Rd	1	--	--
FTMS Hut 1	--	--	1
FTMS Hut 6	--	--	1
PROJECT TOTAL	7	3	2

3

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL INTERCONNECT

SIGNAL NO. S40-1066, S40-1101, S40-1149, S40-1194, S40-1207, S40-1241, S40-1432

SIGNAL SYSTEM NO. SS-40,0026 & SS-40-0027

3

CONDUIT ITEMS

FROM	TO	671.0132 CONDUIT HDPE 3-DUCT 2-INCH LF	671.0232 CONDUIT HDPE DIRECTIONAL BORE 3-DUCT 2-INCH LF	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
CB1 (S40-1207)	I/C CV100	35	--	--
I/C CV100	EXPB8 (S40-1207)	70	--	1
EXPB15 (S40-1207)	I/C PB1	126	--	1
I/C PB1	I/C PB2	135	--	--
I/C PB2	I/C PB3	--	112	--
I/C PB3	I/C CV101	22	--	--
I/C CV101	CB1 (S40-1432)	13	--	--
I/C PB1	I/C CV102	--	139	--
I/C CV102	CB1 (S40-1101)	30	--	--
I/C CV102	EXPB1	379	--	1
PB15 (S40-1194)	I/C CV106	15	--	--
I/C CV106	I/C PB4	12	--	--
PROJECT TOTAL		837	251	3

I/C PULL BOXES & VAULTS

STRUCTURE NO.	673.0105 COMMUNICATION VAULT TYPE 1 EACH	653.0140 PULL BOXES STEEL 24" x 42" EACH
I/C CV100	1	--
I/C PB1	--	1
I/C PB2	--	1
I/C PB3	--	1
I/C CV101	1	--
I/C CV102	1	--
I/C PB4	--	1
I/C CV106	1	--
PROJECT TOTAL	4	4

3

FIBER OPTIC CABLE

LOC.	TO	LOC.	678.0036 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36-CT L.F.	SPV.0090.3001 FIBER OPTIC WARNING TAPE L.F.	655.0510 ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG L.F.
I/C CV100		PB2 (S40-1207)	200	140	146
PB2 (S40-1207)		EXPB13 (S40-1207)	732	672	678
EXPB13 (S40-1207)		I/C PB1	312	252	258
I/C PB1		I/C PB2	330	270	276
I/C PB2		I/C PB3	284	224	230
I/C PB3		I/C CV101	244	44	50
I/C PB1		I/C CV102	478	278	284
I/C CV102		EXPB1	818	758	764
EXPB1		I/C CV103	416	216	222
I/C CV105		I/C PB4	1542	1342	1348
I/C PB4		I/C CV106	224	24	30
I/C CV106		CB1 (S40-1066)	1614	1374	1380
CB1 (S40-1066)		CB1 (S40-1149)	1768	1468	1474
CB1 (S40-1066)		CB1 (S40-1241)	1996	1786	1792
15% Contingency			1645	1325	1340
PROJECT TOTAL			12603	10173	10272

FIBER OPTIC SPLICE

LOCATION	678.0200 FIBER OPTIC SPLICE ENCLOSURE EACH	678.0300 FIBER OPTIC SPLICE EACH	678.0400 FIBER OPTIC TERMINATION EACH
I/C CV100	1	14	--
I/C CV101	1	14	--
I/C CV102	1	14	--
I/C CV103	--	14	--
I/C CV105	--	14	--
I/C CV106	1	14	--
CB1 (S40-1066)	1	14	4
CB1 (S40-1149)	1	14	4
CB1 (S40-1241)	1	14	4
PROJECT TOTAL	7	126	12

ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL INTERCONNECT

SIGNAL NO. S40-1066, S40-1101, S40-1149, S40-1194, S40-1207, S40-1241, S40-1432

SIGNAL SYSTEM NO. SS-40,0026 & SS-40-0027

3

3

FIBER OPTIC COMMUNICATION EQUIPMENT

LOCATION	678.0600 INSTALL ETHERNET SWITCHES EACH	SPV.0105.3004 INSTALL FIBER OPTIC COMMUNICATIONS IN CABINET LS	SPV.0105.3005 INSTALL FIBER OPTIC COMMUNICATIONS IN CABINET LS	SPV.0105.3006 INSTALL FIBER OPTIC COMMUNICATIONS IN CABINET LS	SPV.0105.3007 INSTALL FIBER OPTIC COMMUNICATIONS IN CABINET LS	* ST-ST SINGLE MODE FIBER JUMPER 4-FEET EACH	** CAT-5E CABLE 5-FEET EACH
CB1 (S40-1207)	1	1	--	--	--	2	3
CB1 (S40-1432)	1	--	--	1	--	2	3
CB1 (S40-1101)	1	--	1	--	--	2	3
CB1 (S40-1194)	1	--	--	--	1	2	3
CB1 (S40-1066)	1	--	--	--	--	--	2
CB1 (S40-1149)	1	--	--	--	--	--	2
CB1 (S40-1241)	1	--	--	--	--	--	2
PROJECT TOTAL	7	1	1	1	1	8	18

*INDICENTAL TO INSTALL FIBER OPTIC COMMUNICATIONS IN CABINET
**INCIDENTAL TO INSTALL ETHERNET SWITCHES

FIELD SYSTEM INTEGRATOR

LOCATION	670.0100 FIELD SYSTEM INTEGRATOR LS
SS-40-0026 & SS-40-0027	1
PROJECT TOTAL	1

COMMUNICATION SYSTEM TESTING

LOCATION	678.0500 COMMUNICATION SYSTEM TESTING LS
SS-40-0026 & SS-40-0027	1
PROJECT TOTAL	1

ITS DOCUMENTATION

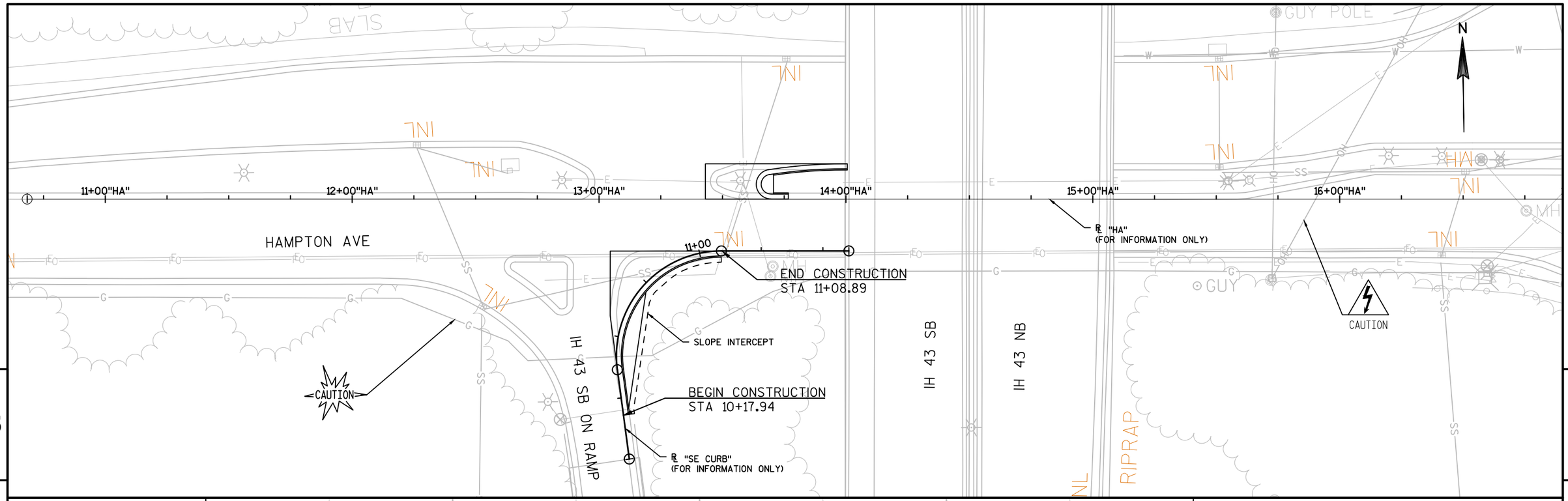
LOCATION	670.0200 ITS DOCUMENTATION LS
SS-40-0026 & SS-40-0027	1
PROJECT TOTAL	1

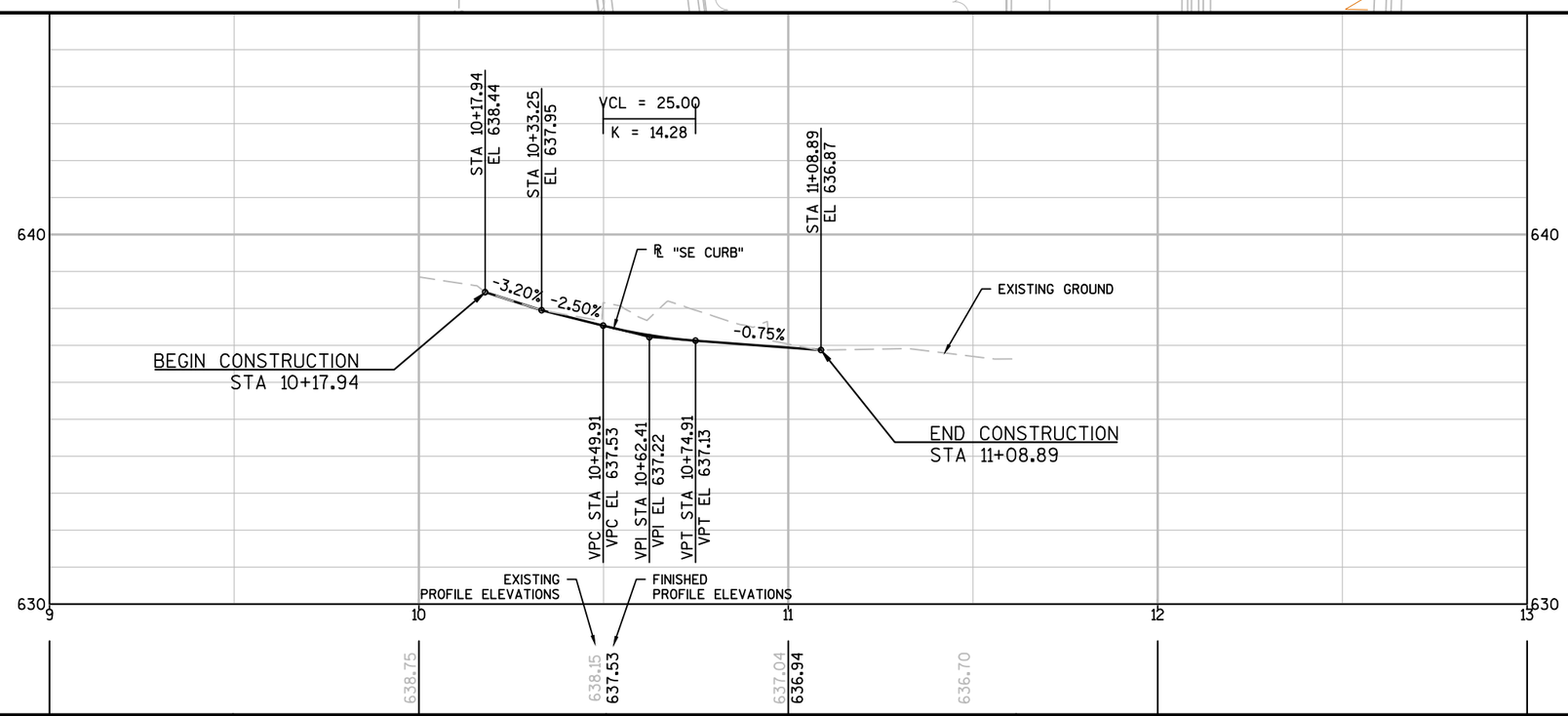
ALL ITEMS CATEGORY 1500 UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL INTERCONNECT

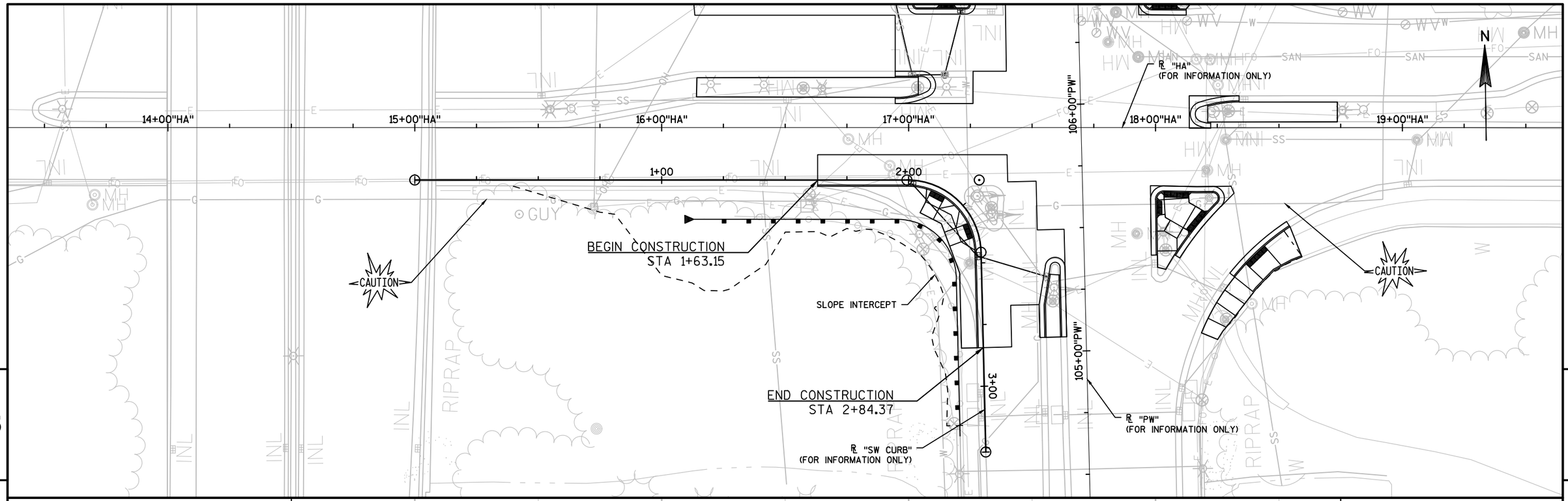
SIGNAL NO. S40-1066, S40-1101, S40-1149, S40-1194, S40-1207, S40-1241, S40-1432

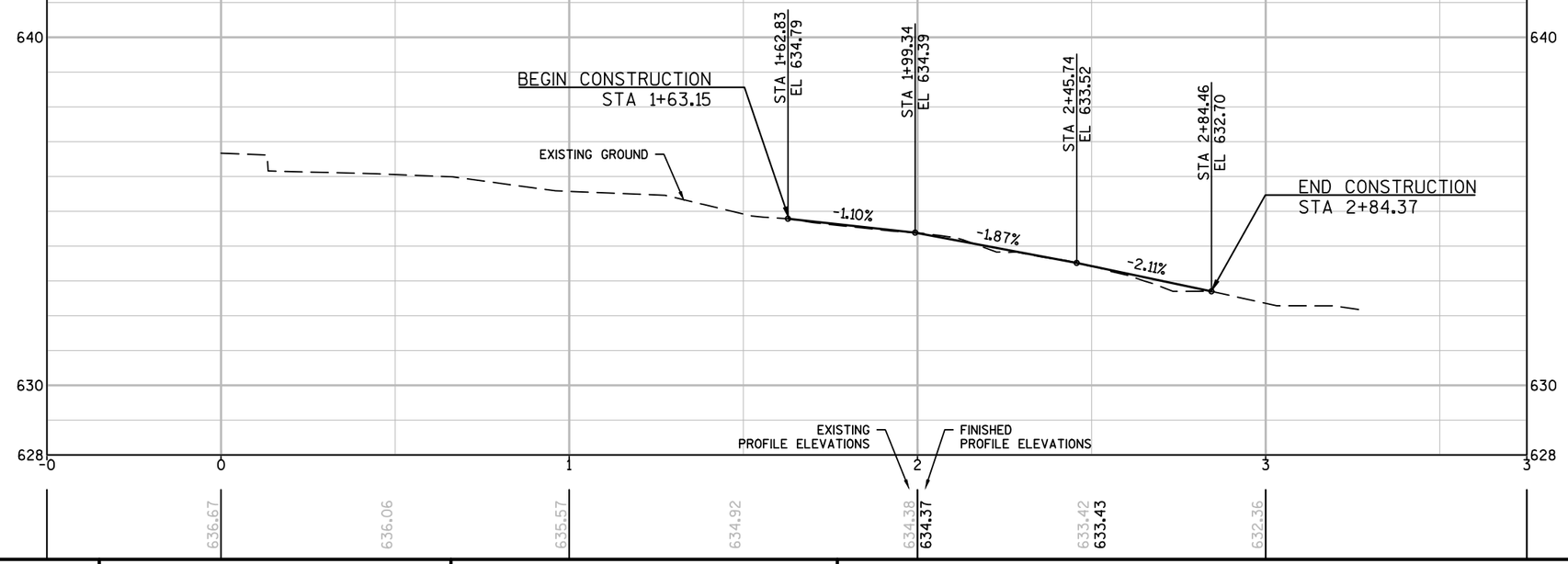
SIGNAL SYSTEM NO. SS-40,0026 & SS-40-0027





PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: HAMPTON AVE SB ON RAMP - SE QUAD CURB	SHEET 379	E

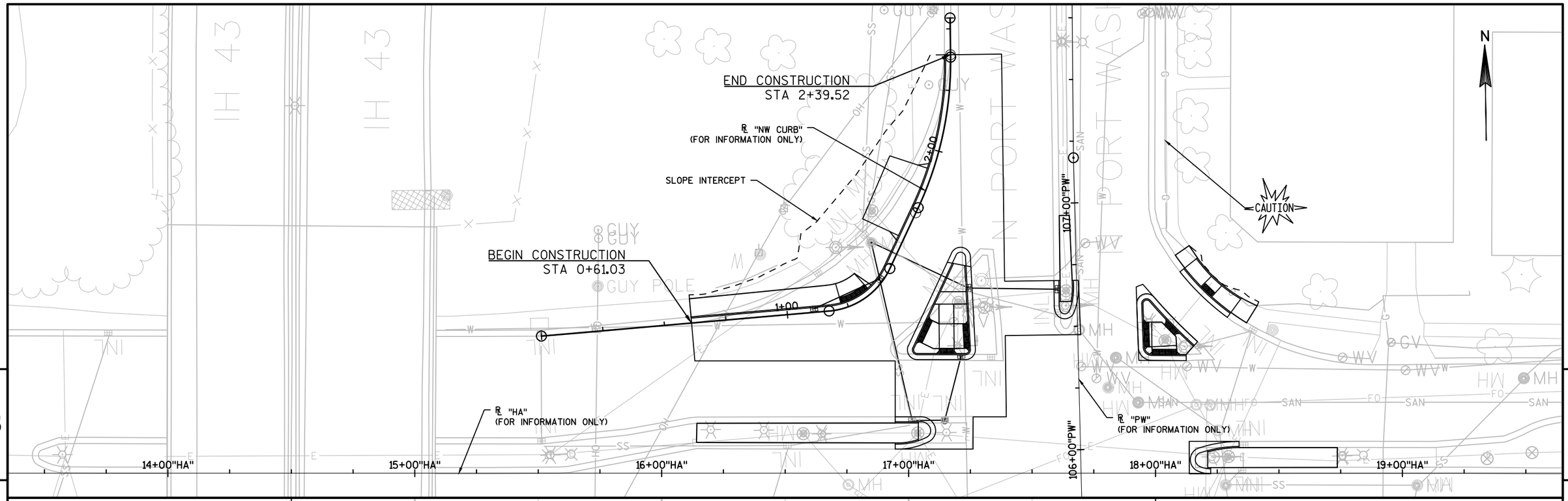


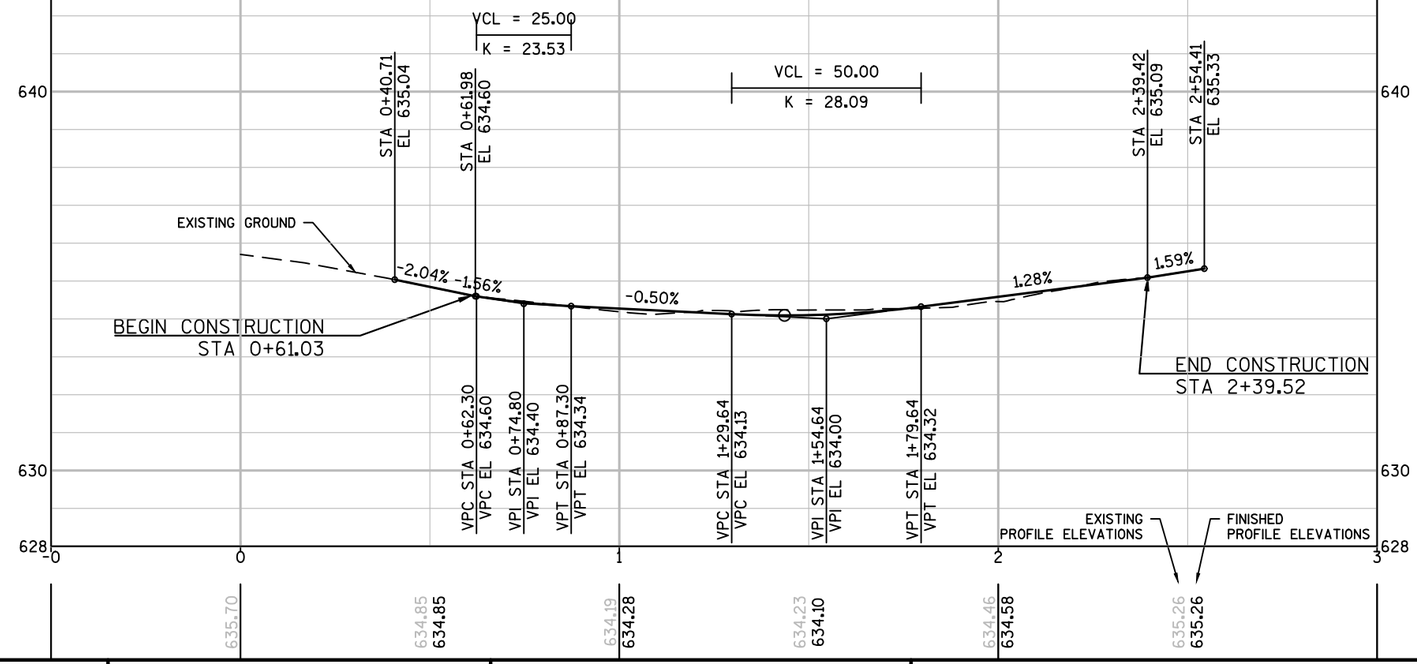


PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: PORT WASHINGTON RD & HAMPTON AVE - SW QUAD CURB	SHEET 380	E

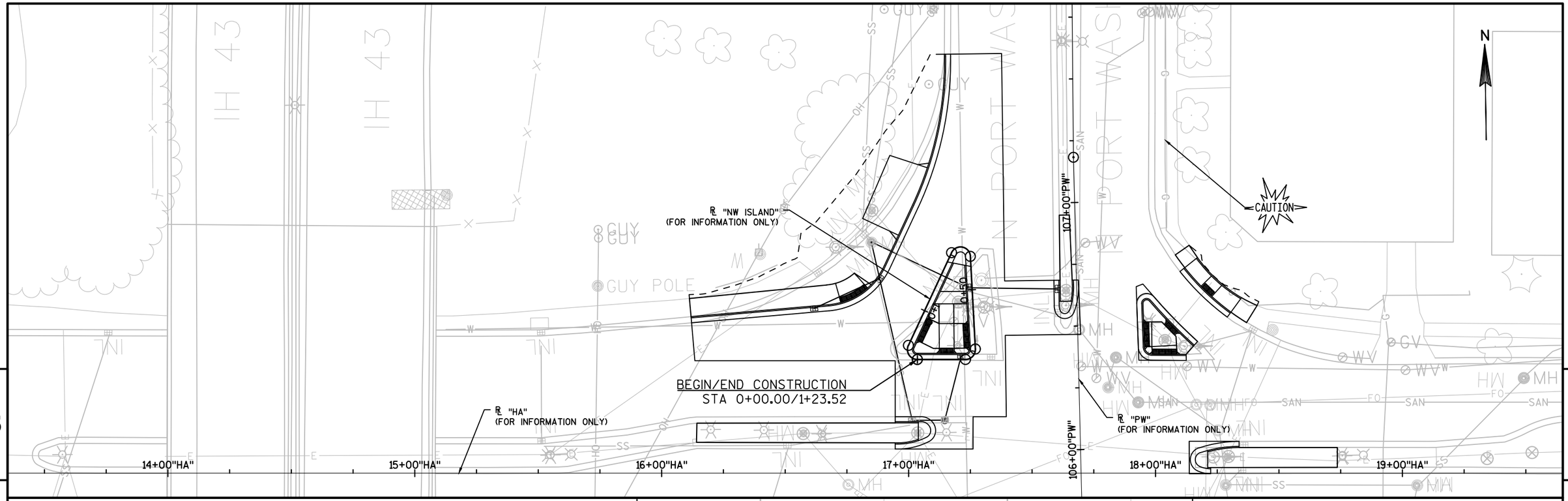
FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN & PROFILE\12282272_PORT RD & HAMPTON_SW CURB.DWG
LAYOUT NAME - 050104-PP

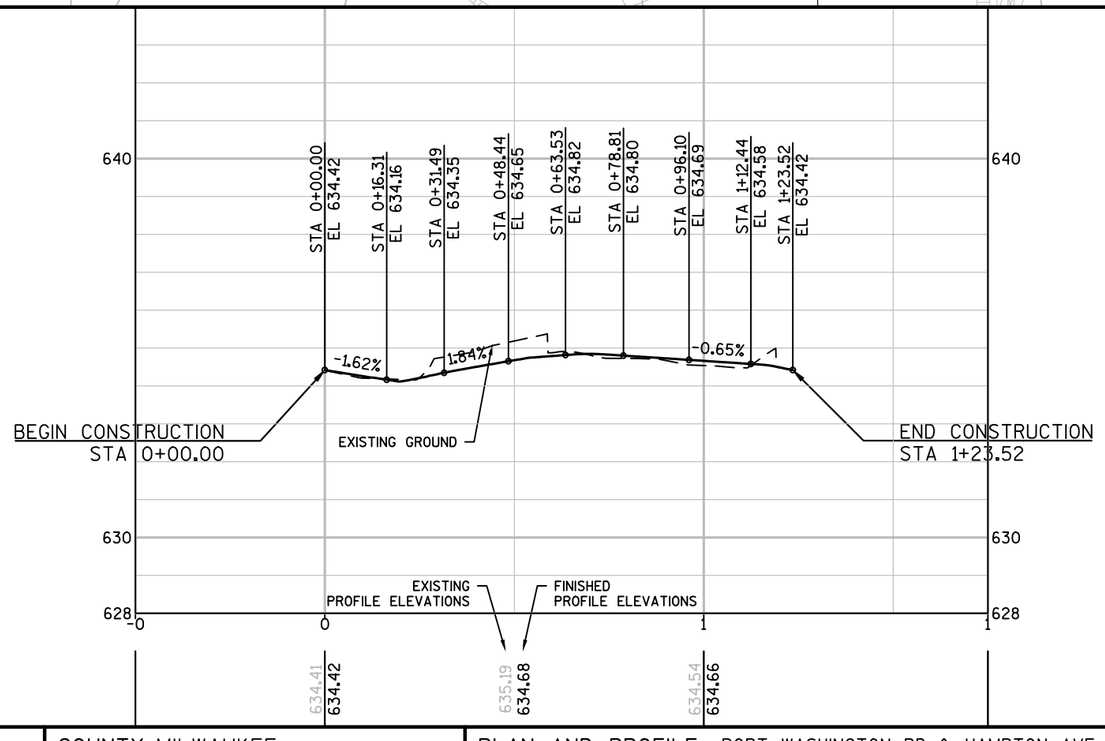
PLOT DATE : 4/19/2018 9:53 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:40 FT





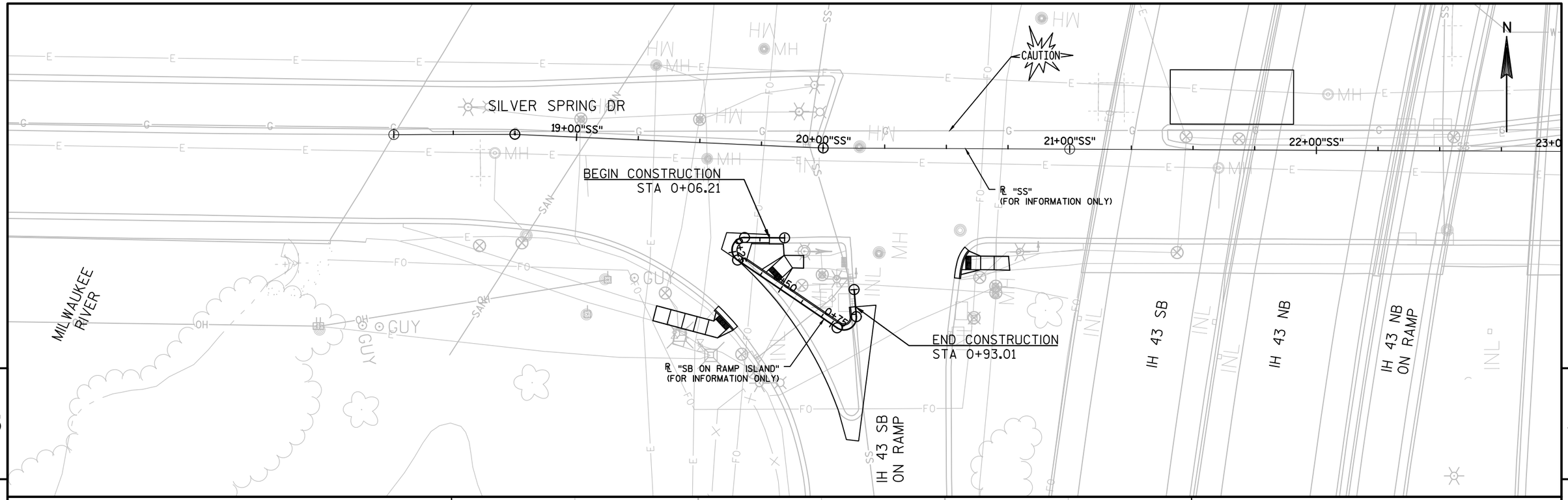
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: PORT WASHINGTON RD & HAMPTON AVE - NW QUAD CURB	SHEET 381	E

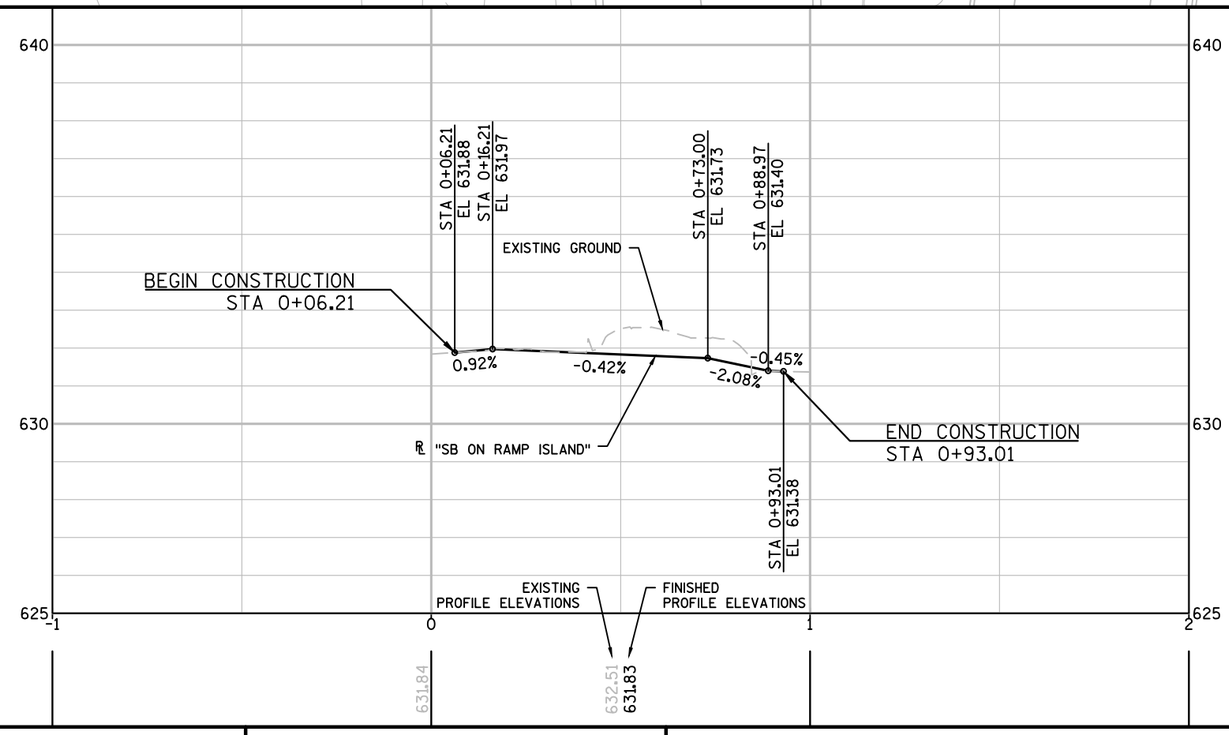




PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: PORT WASHINGTON RD & HAMPTON AVE - NW ISLAND	SHEET 382	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN & PROFILE\12282272_PORT RD & HAMPTON_NW ISLAND.DWG
LAYOUT NAME - 050106-PP
PLOT DATE : 4/19/2018 9:57 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44





PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 SB ON RAMP - ISLAND CURB	SHEET 383	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\PLAN & PROFILE\12282272_IH 43 SB ON RAMP ISLAND.DWG
LAYOUT NAME - 050107-PP

PLOT DATE : 4/19/2018 9:59 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:40 FT

Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08D18-02	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B04-11	PULL BOX
09B16-01	PULL BOX NON-CONDUCTIVE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C09-05	CONCRETE BASE, TYPE 8
09C10-03	TRANSFORMER BASE FOR 15" BOLT CIRCLE
09C11-10	CONCRETE BASE TYPE 10
09C12-09A	CONCRETE BASE TYPE 13
09C12-09B	CONCRETE BASE TYPE 13
09C13-02	CONCRETE BASE TYPE 10 & TYPE 13 EXTENSION
09C14-03	CONCRETE CONTROL CABINET BASE, TYPE L
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09D05-02	L30 LIGHTING CONTROL CABINET 240/480 VOLT
09E01-15B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E02-05	FREEWAY LIGHTING UNIT POLE WIRING
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-08A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-08B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-08C	TYPE 12 POLE 35'-55' MONOTUBE ARM
09E08-08D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F08-04	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)
09F15-04A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09H09-02	COMMUNICATION VAULT TYPE 1
10A01-03	ELECTRICAL HANDHOLE WIRING
10A02-03	IDENTIFICATION PLAQUES LIGHT POLES
10A04-03	IDENTIFICATION PLAQUES UNDERDECK AND HIGH MAST LIGHTING
10A05-03	ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES ISOLATED NEUTRAL SYSTEMS
10A08-03	ELECTRICAL DETAILS STRUCTURE MOUNT LIGHT POLES ISOLATED NEUTRAL SYSTEMS
10A14-03A	ELECTRICAL DETAILS HIGH MAST LIGHTING
10A14-03B	ELECTRICAL DETAILS HIGH MAST LIGHTING
10A15-04A	ELECTRICAL DETAILS UNDERDECK LIGHTING
10A15-04B	ELECTRICAL DETAILS UNDERDECK LIGHTING

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Standard Detail Drawing List

10A17-04B	POLES, TYPES A ALUMINUM 47'-6" SHAFT
10A17-04C	POLES, TYPES E, ALUMINUM 49'-0" SHAFT
10A18-05A	LUMINAIRE ARMS, SINGLE MEMBER 6-INCH CLAMP
10A18-05B	LUMINAIRE ARMS, TRUSS TYPE 6-INCH CLAMP
11B02-02	CONCRETE MEDIAN NOSE
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-15A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C13-09	URBAN DOWELED CONCRETE PAVEMENT
13C18-07A	CONCRETE PAVEMENT JOINTING
13C18-07B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B53-01A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-07A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-07B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-07C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-14A	PAVEMENT MARKING SYMBOLS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS

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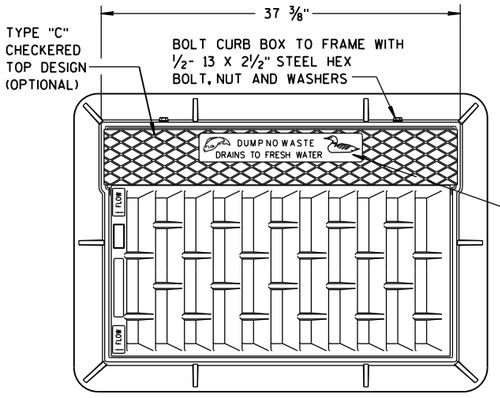
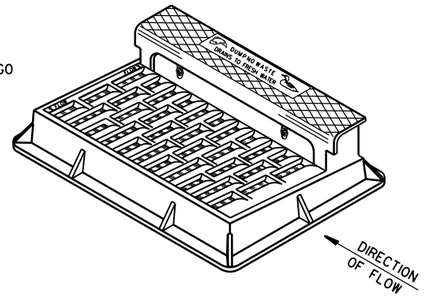
Standard Detail Drawing List

15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19B	PAVEMENT MARKING (TURN LANES)
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-05B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-05C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C20-02	YIELD MARKING
15C27-03A	DOUBLE ARROW WARNING SIGN PLACEMENT
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C31-03A	PAVEMENT MARKING (RAMPS AND GORES)
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D03-05	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D12-07A	TRAFFIC CONTROL, LANE CLOSURE
15D14-03	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D15-05A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05B	TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D16-04	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-06A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-06B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D22-03	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D23-06A	TRAFFIC CONTROL, INTERSECTION WITHIN TWO LANE CLOSURE
15D23-06B	TRAFFIC CONTROL, INTERSECTION WITHIN TWO LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

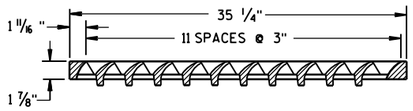
6

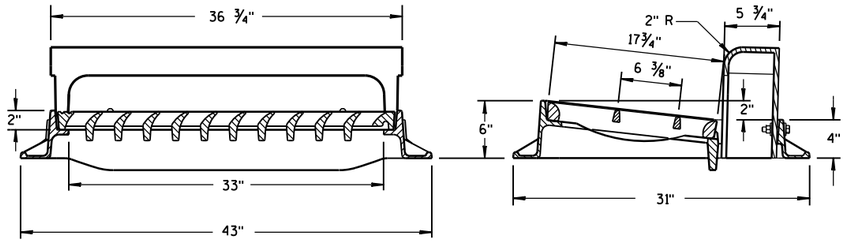


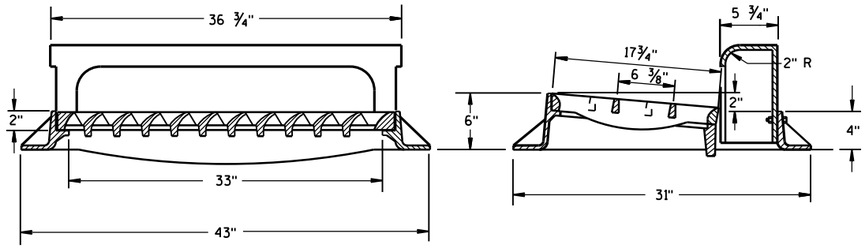
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

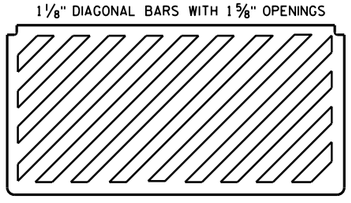






TYPE "H"

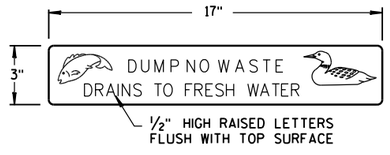
NOTE: EITHER CASTING IS ACCEPTABLE



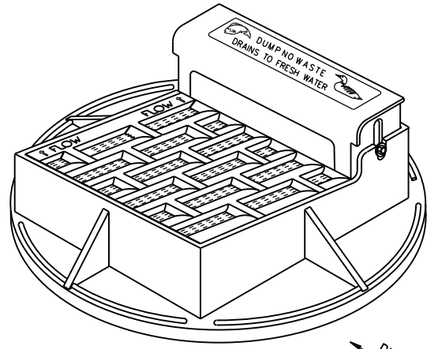
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

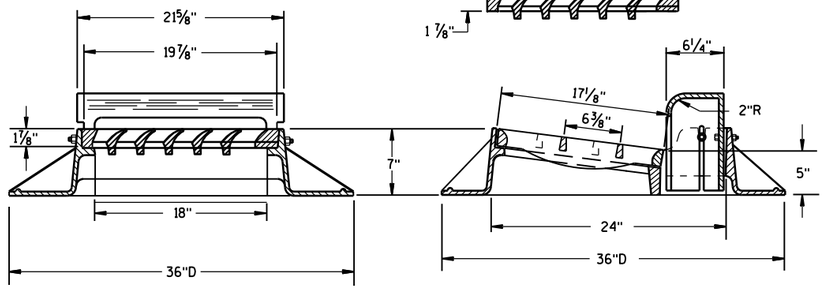


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



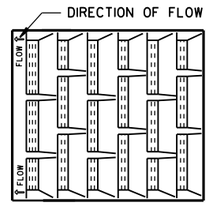
TYPE "A"

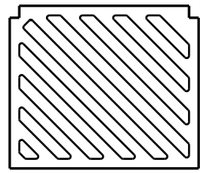
GENERAL NOTES

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.

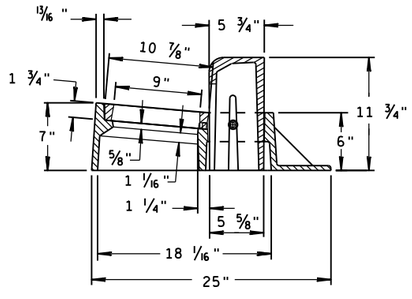


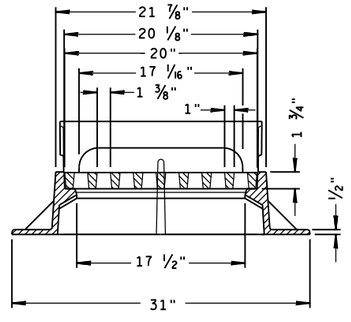


SPECIAL GRATE FOR TYPE "A" COVER

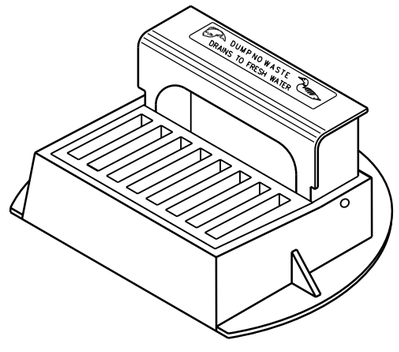
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"

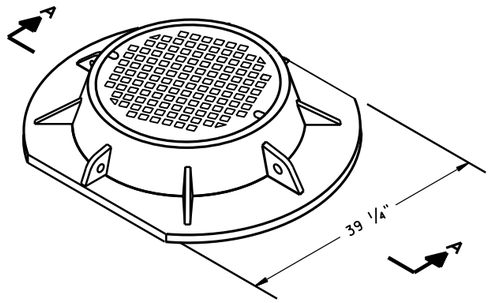


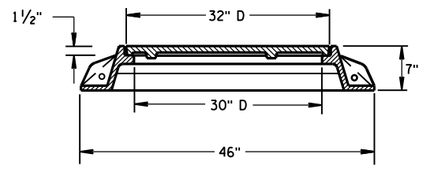
INLET COVERS TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

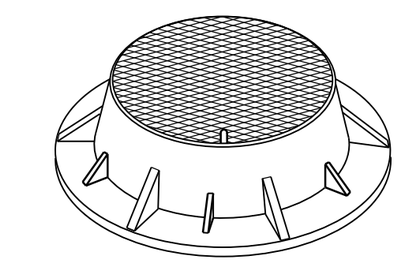
APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

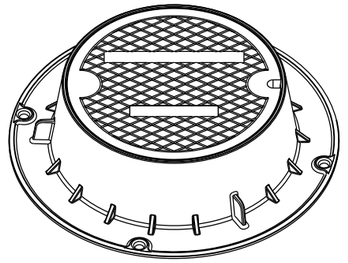
S.D.D. 8 A 5-19a

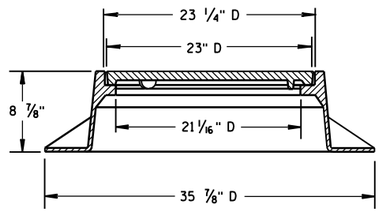


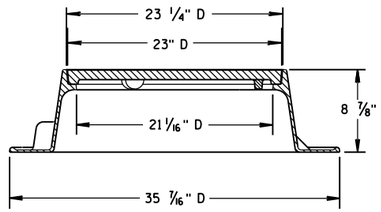


SECTION A-A
TYPE "K"









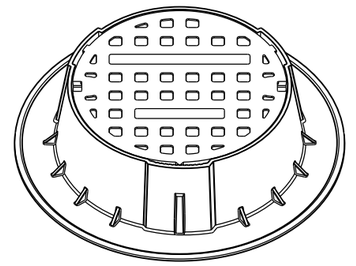
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

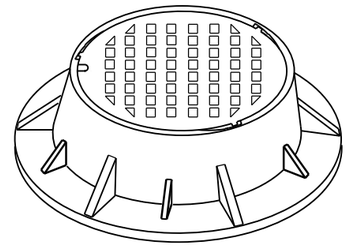
GENERAL NOTES

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.

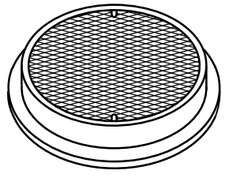
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

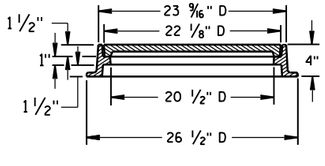
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



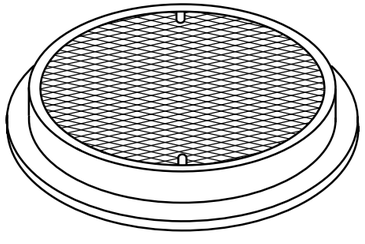


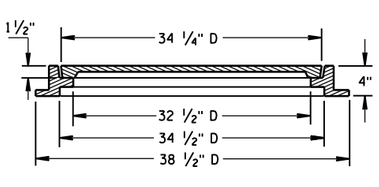
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE





TYPE "L"





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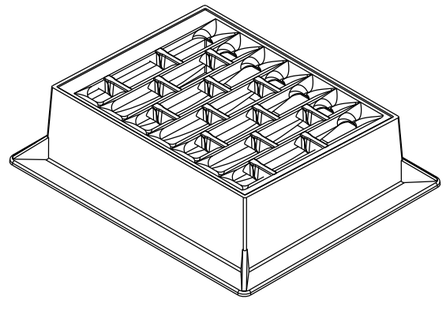
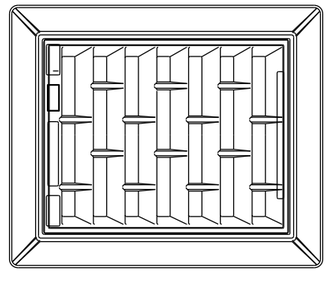
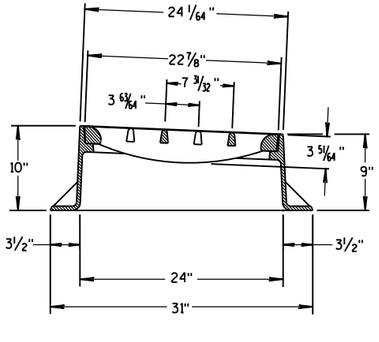
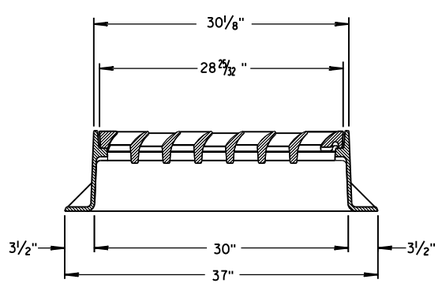








INLET COVER TYPE "BW"

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

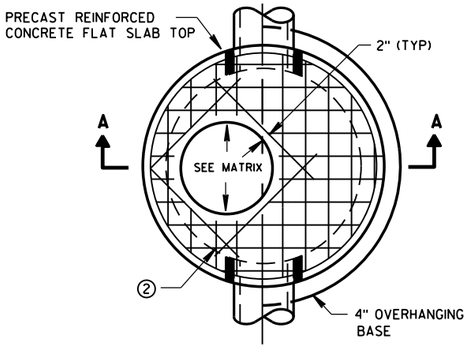
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

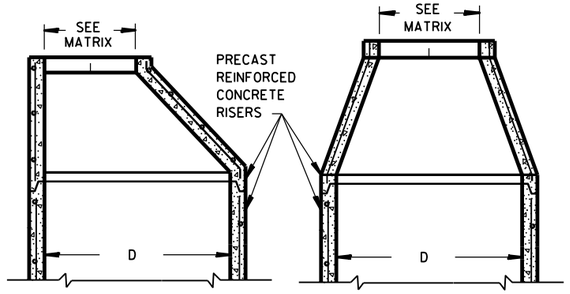
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

S.D.D. 8 A 5-19d

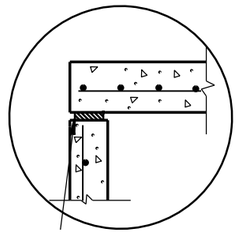


PLAN VIEW CIRCULAR OPENING

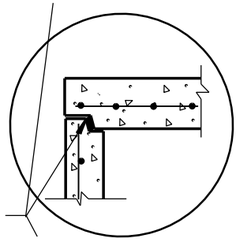


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

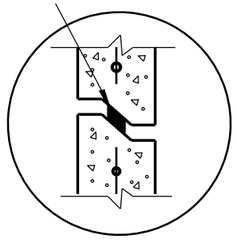


TOP WITH PLAIN END JOINT



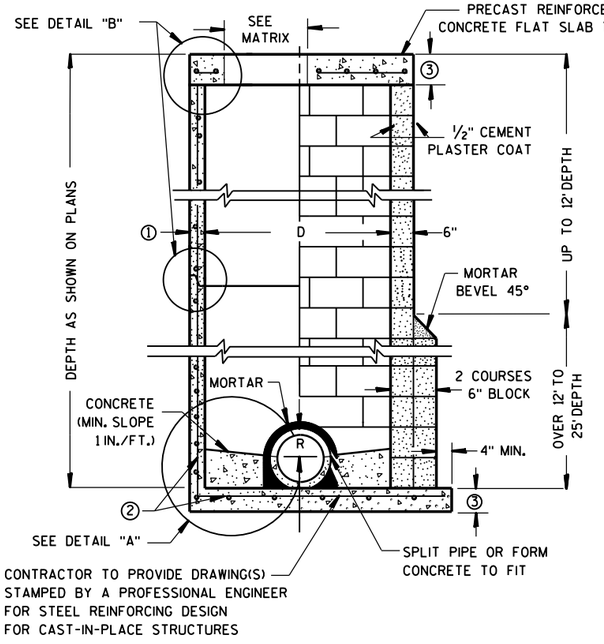
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



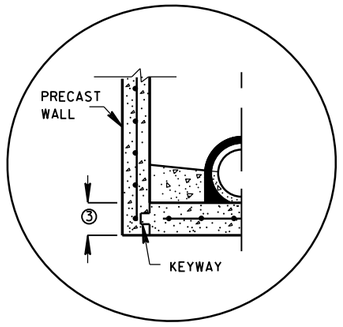
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

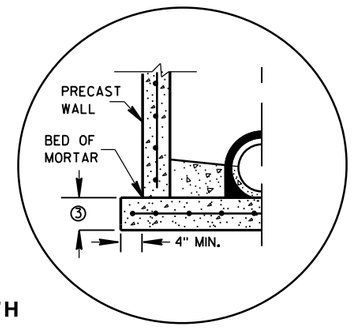


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

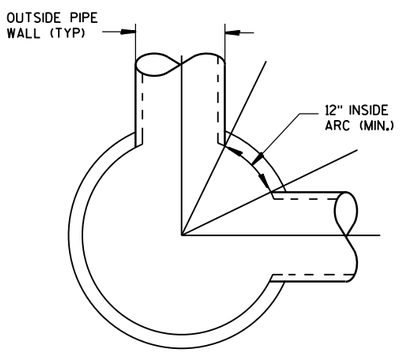


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

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 FOUNDATION 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.

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 SEPARATE 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

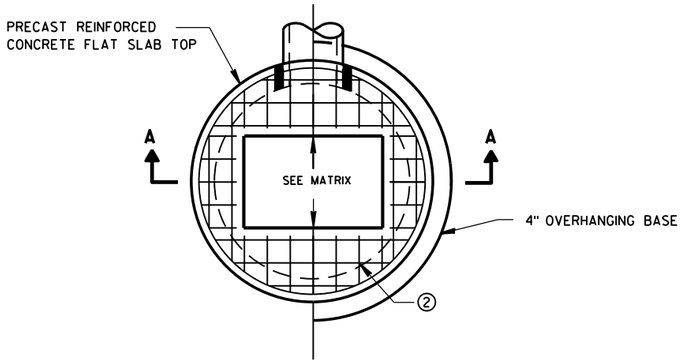
APPROVED

Sept., 2016
DATE

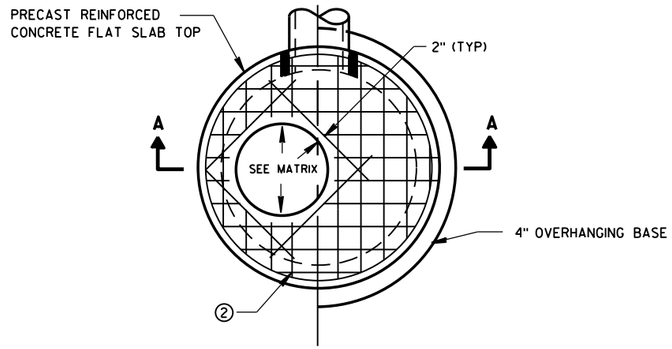
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV

FHWA

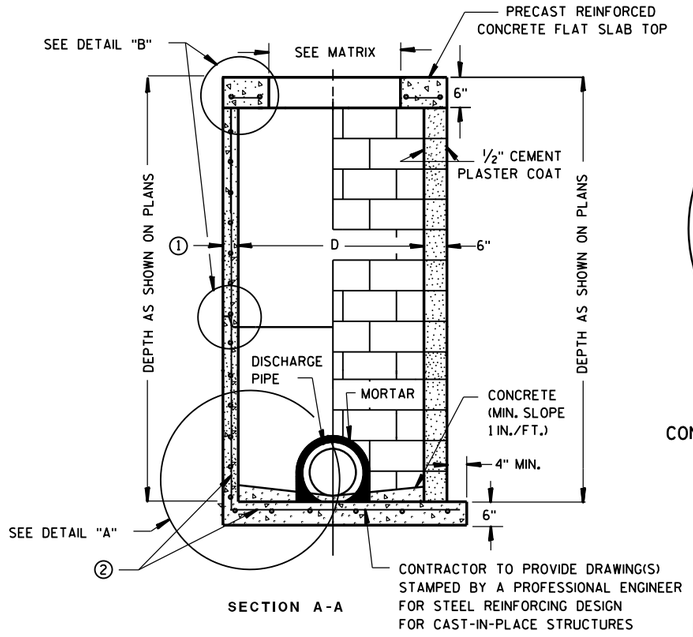
6
S.D.D. 8 B 9-2



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

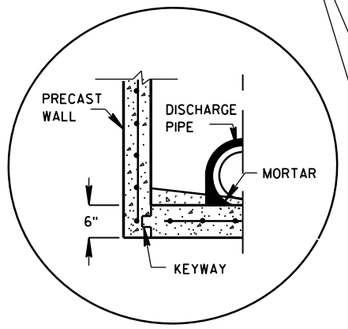


SECTION A-A

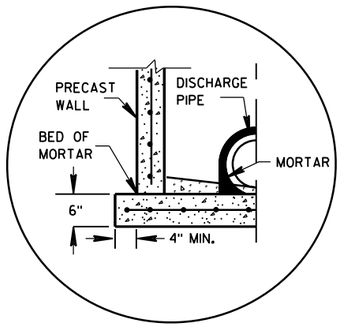
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

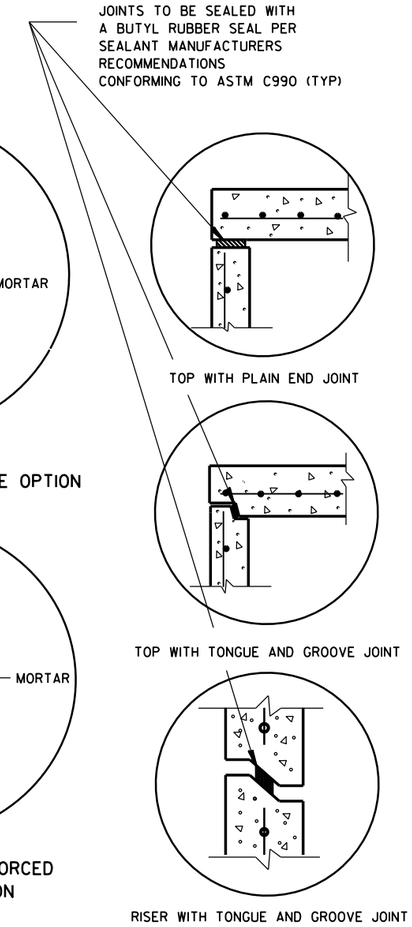


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



TOP WITH PLAIN END JOINT

TOP WITH TONGUE AND GROOVE JOINT

RISER WITH TONGUE AND GROOVE JOINT

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 INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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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 FOUNDATION 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.

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.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

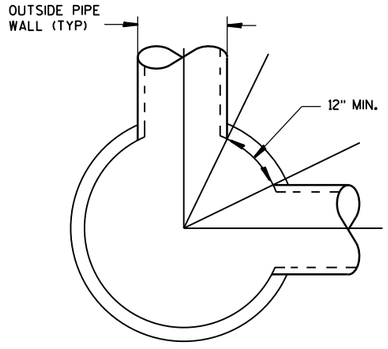
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

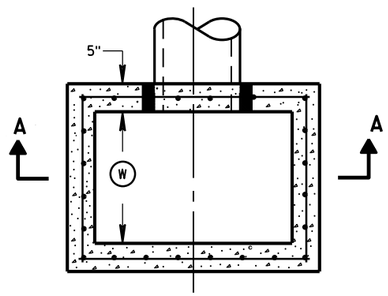
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept.. 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS | UNIT SUPERVI ENT
FHWA

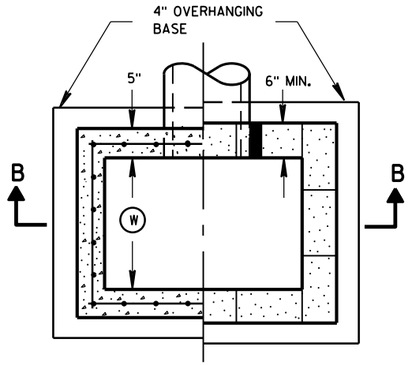
INLETS 3-FT AND 4-FT DIAMETER

6

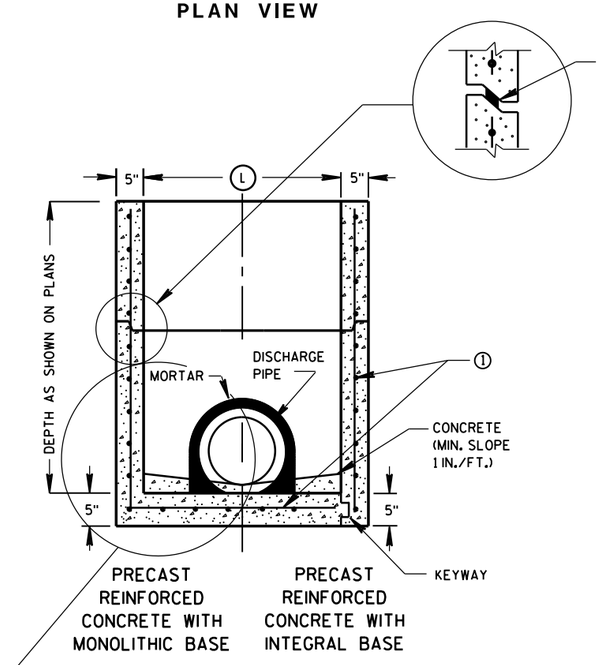
S.D.D. 8 C 6-2



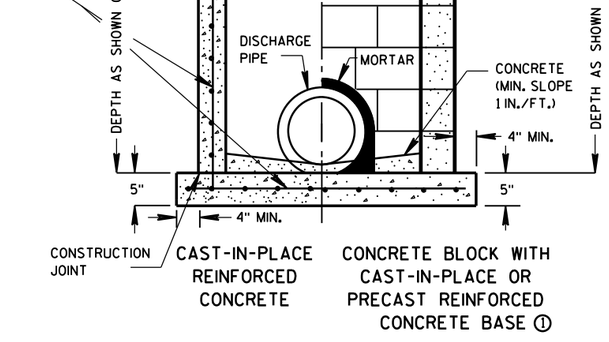
PLAN VIEW



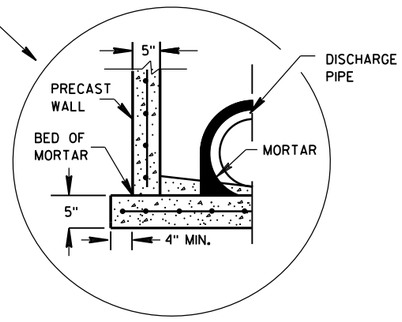
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE 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 FOUNDATION 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 SEPARATE 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.

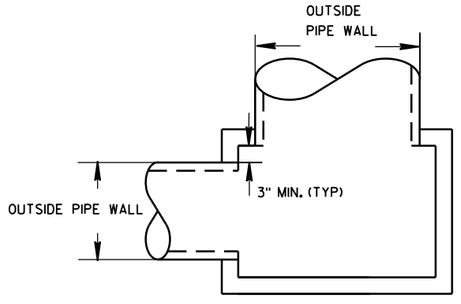
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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



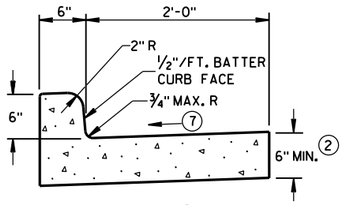
DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

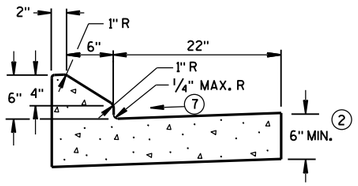
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D IT
UNIT SUPERVIS
FHWA

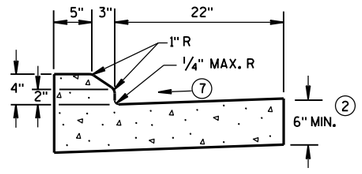
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT



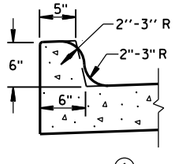
TYPES A (1) & D



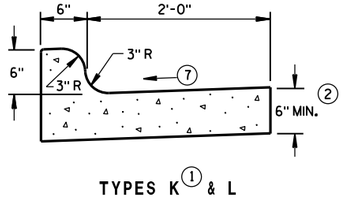
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

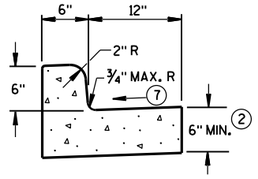


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



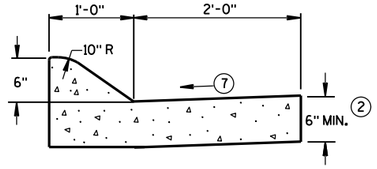
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

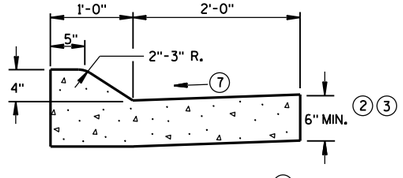


TYPES A (1) & D

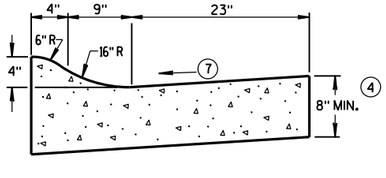
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

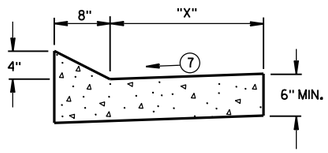


4" SLOPED CURB TYPES A (1) & D



4" SLOPED CURB TYPES R (1) & T (5)

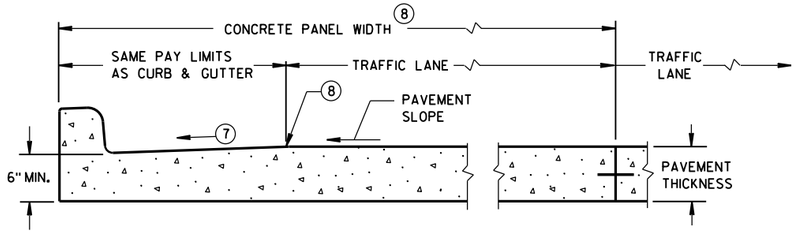
CONCRETE CURB & GUTTER 36"



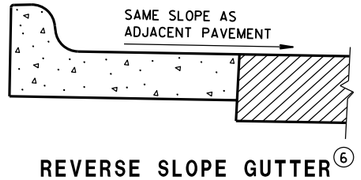
TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB & GUTTER



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

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.

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, R AND TBTT.

(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) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) 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.

(5) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'

* BIKE LANE IS NOT SHOWN.

CONCRETE CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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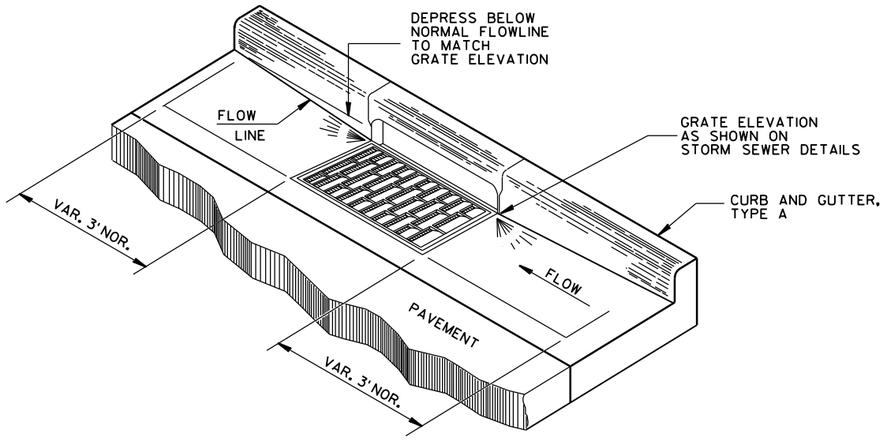
S.D.D. 8 D 1-20a



DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

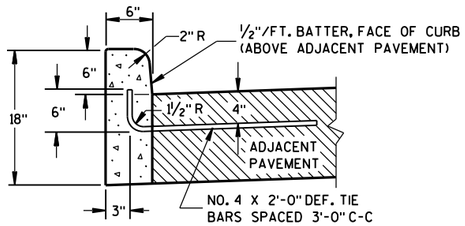
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

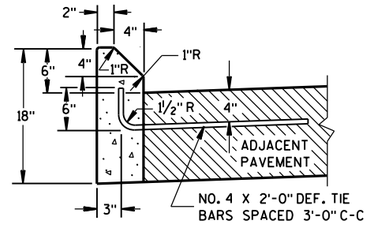
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(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.

(9) REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

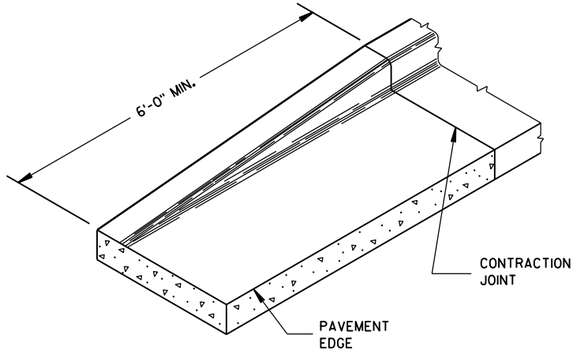


TYPES A (1) & D

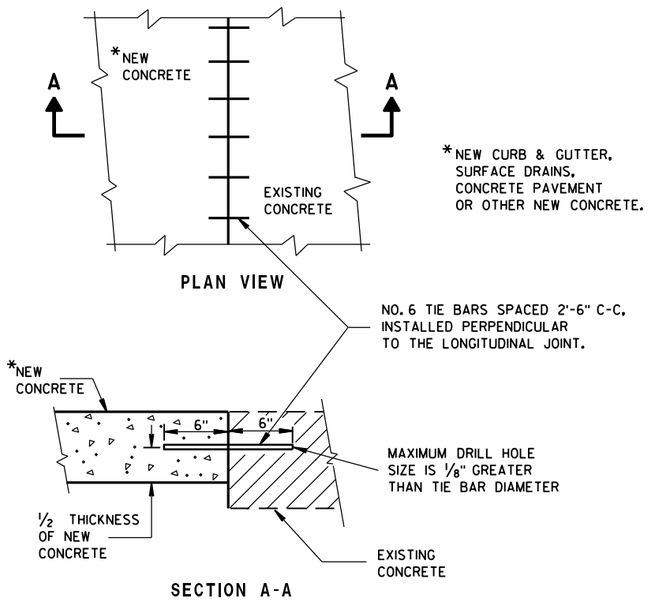


TYPES G (1) & J

CONCRETE CURB



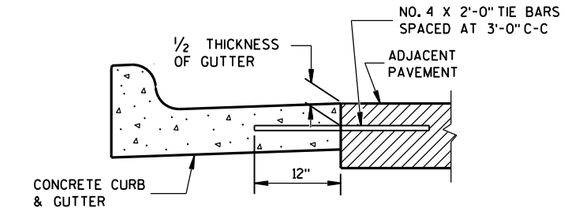
END SECTION CURB & GUTTER



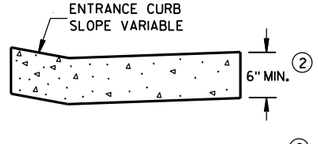
PLAN VIEW

SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
393 — ENT
FHWA

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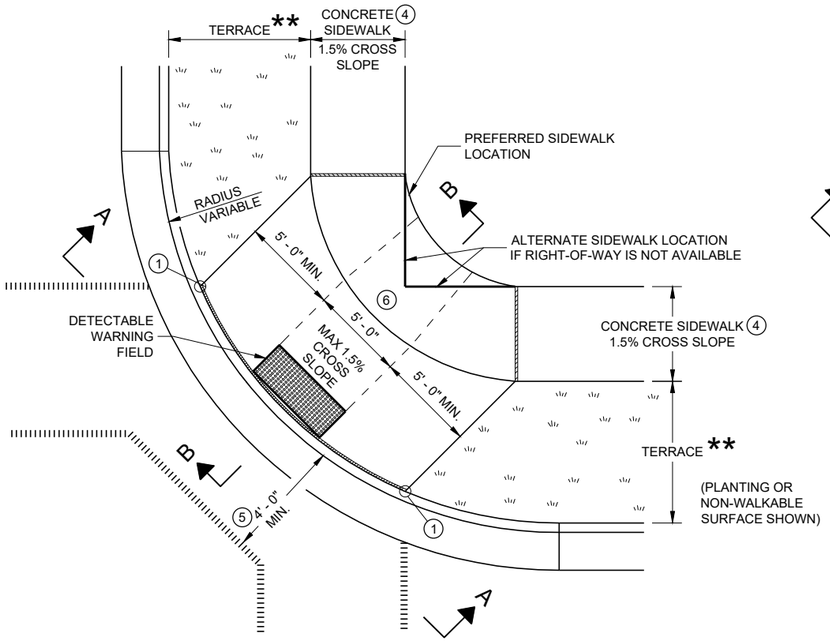
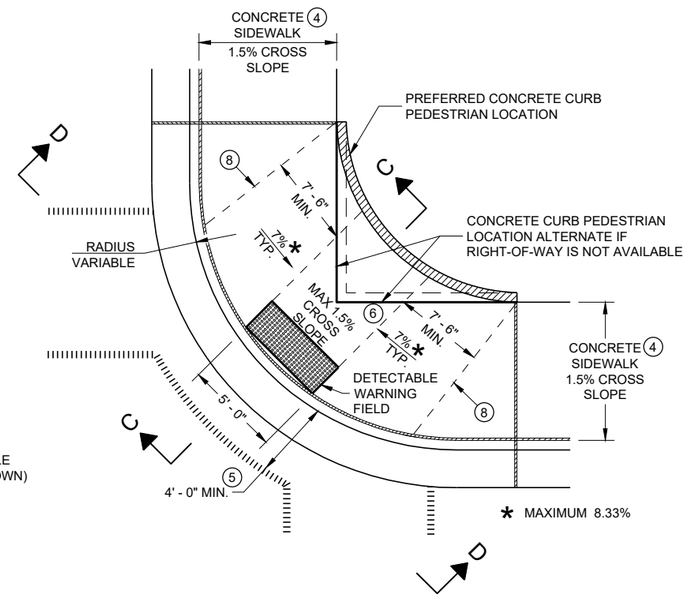
S.D.D. 8 D 1-20b



PLAN VIEW

CURB RAMP TYPE 1

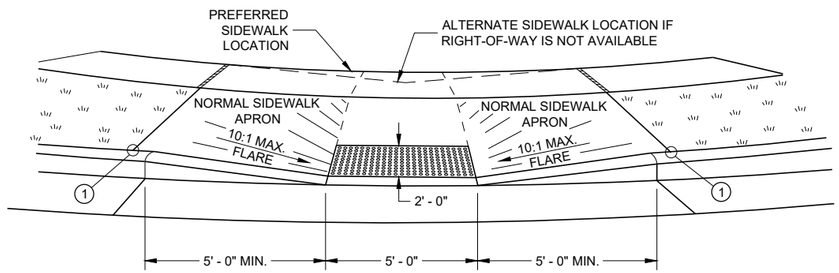
(CENTER OF CORNER RADIUS)



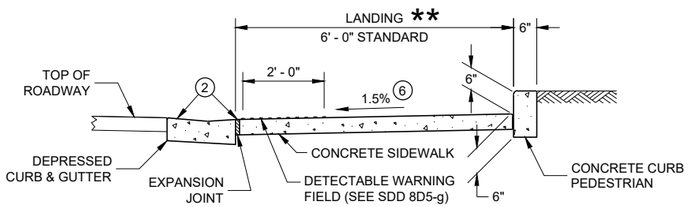
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

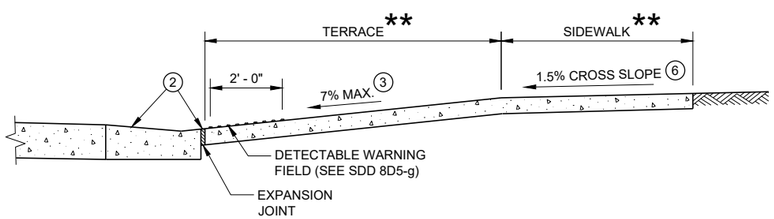


VIEW A - A FOR TYPE 1

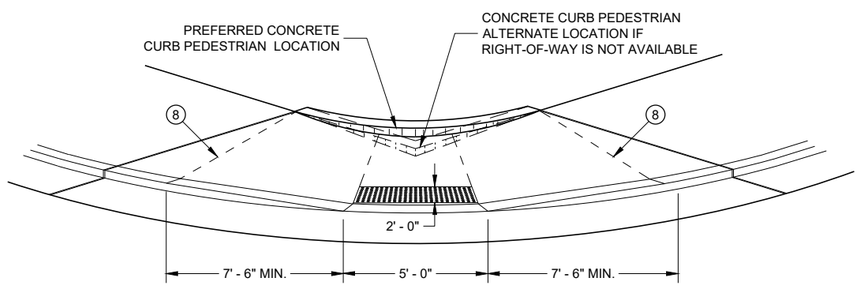


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED 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 LINEAR 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. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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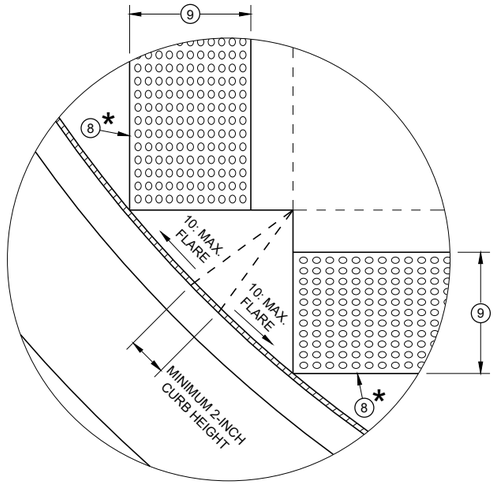
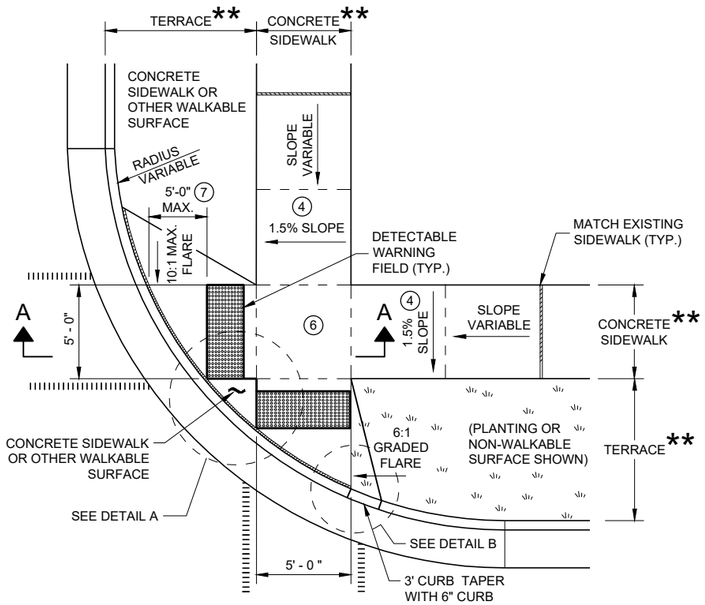
SDD 08D05 - 20a



DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

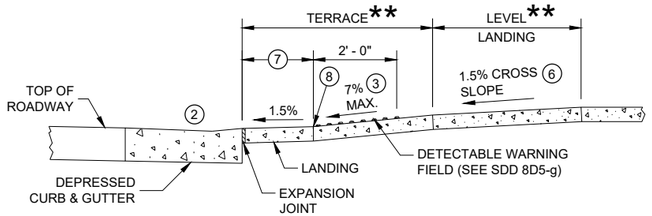
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

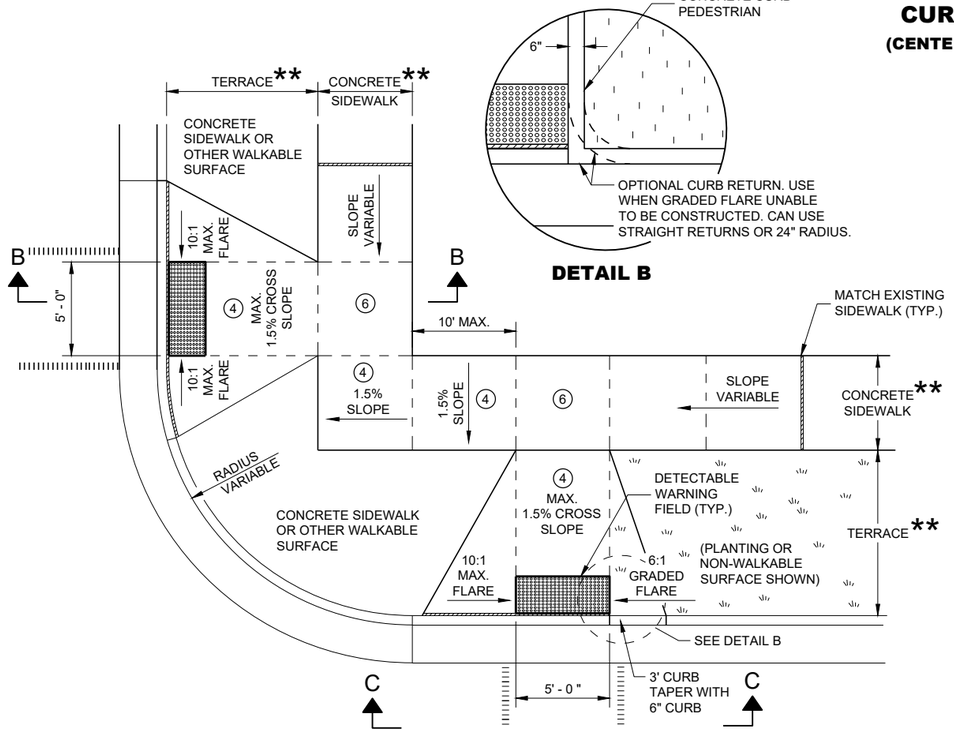
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2

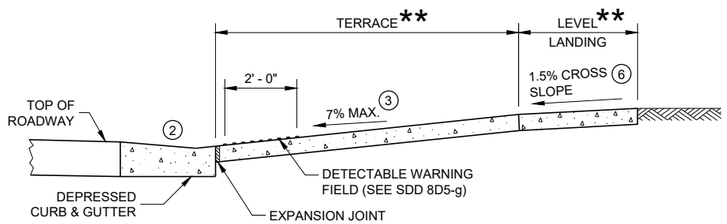
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

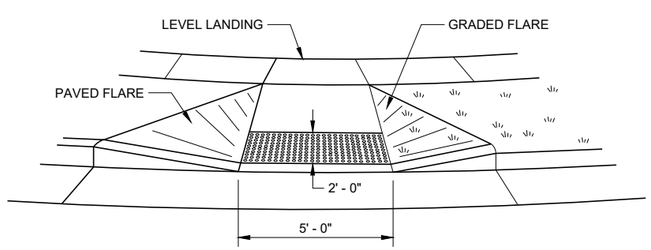


DETAIL B

PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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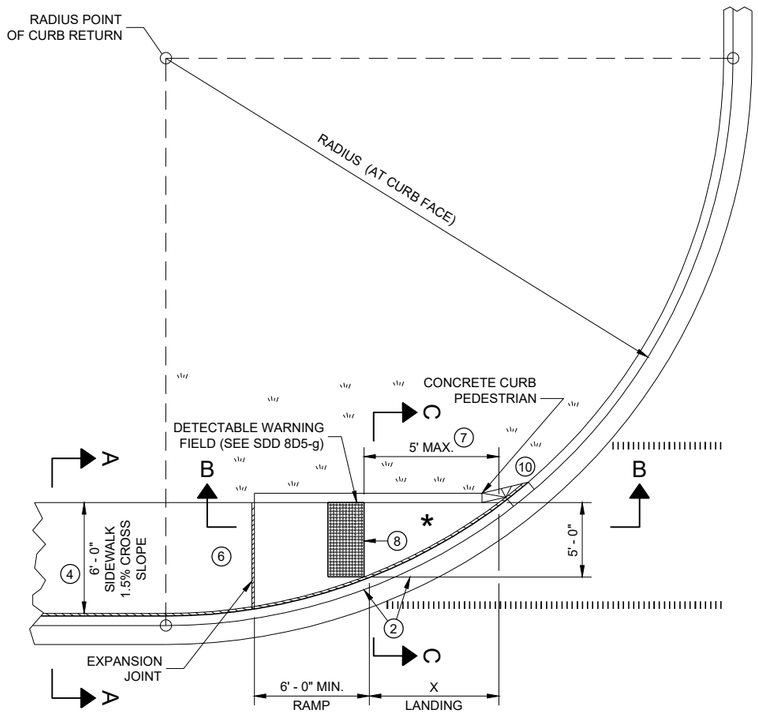
SDD 08D05 - 20b

6

SDD 08D05 - 20b

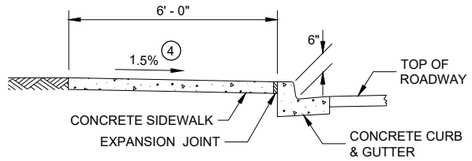


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5½"

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.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

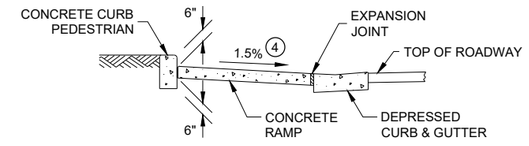
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

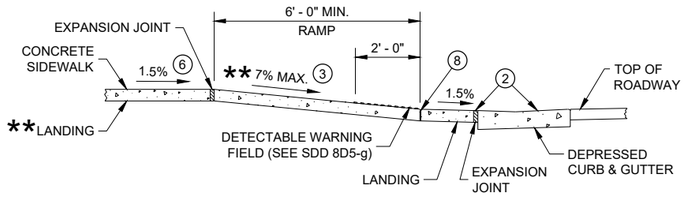
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



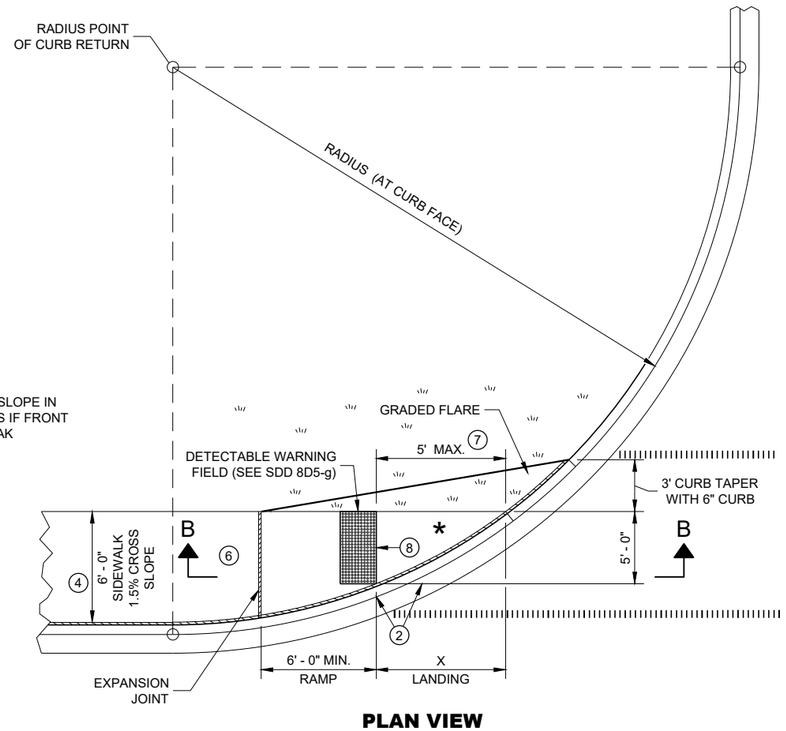
SECTION C - C FOR TYPE 4A



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

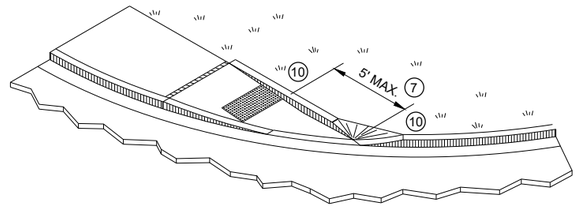
SECTION B - B FOR TYPE 4A AND TYPE 4A1

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

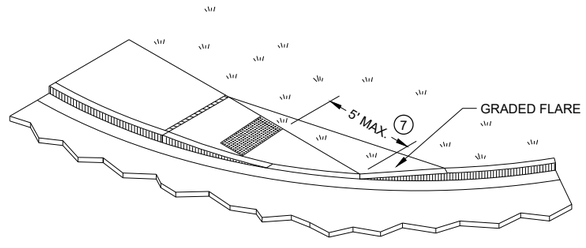


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



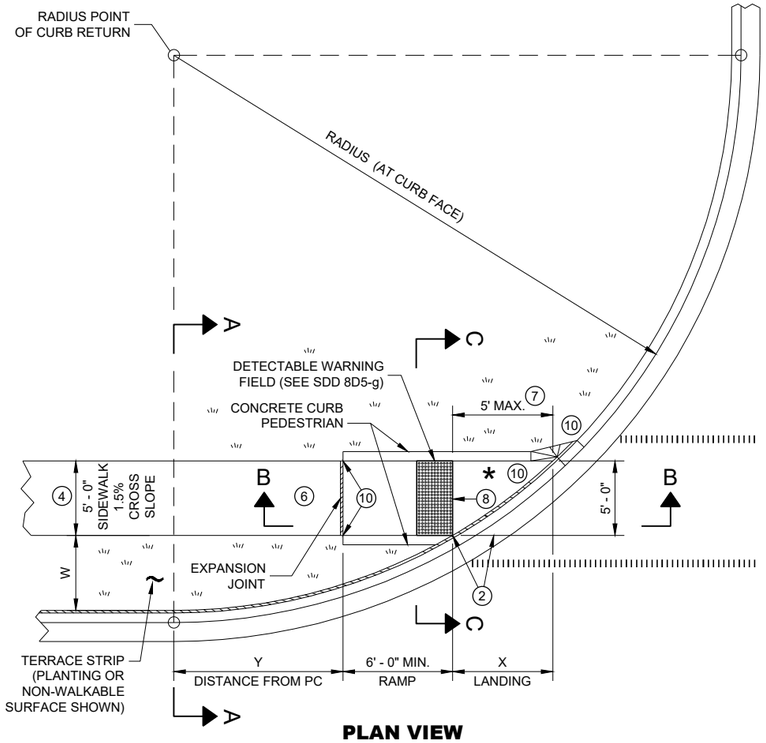
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20c

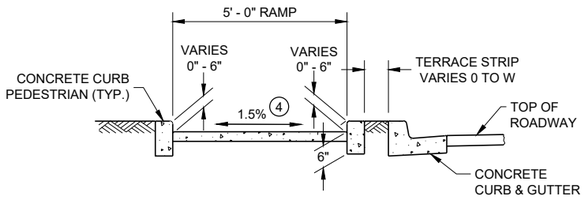


PLAN VIEW

CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	23' - 2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C - C FOR TYPE 4B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

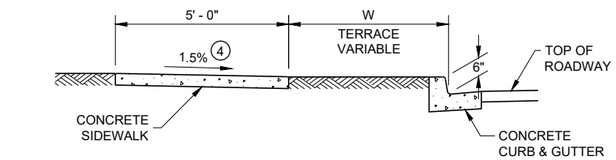
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

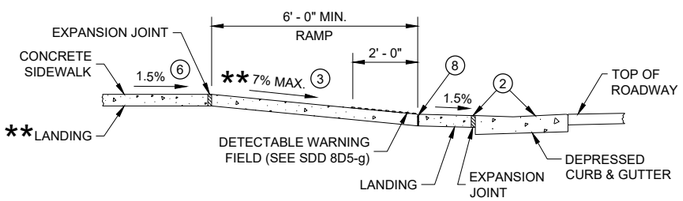
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

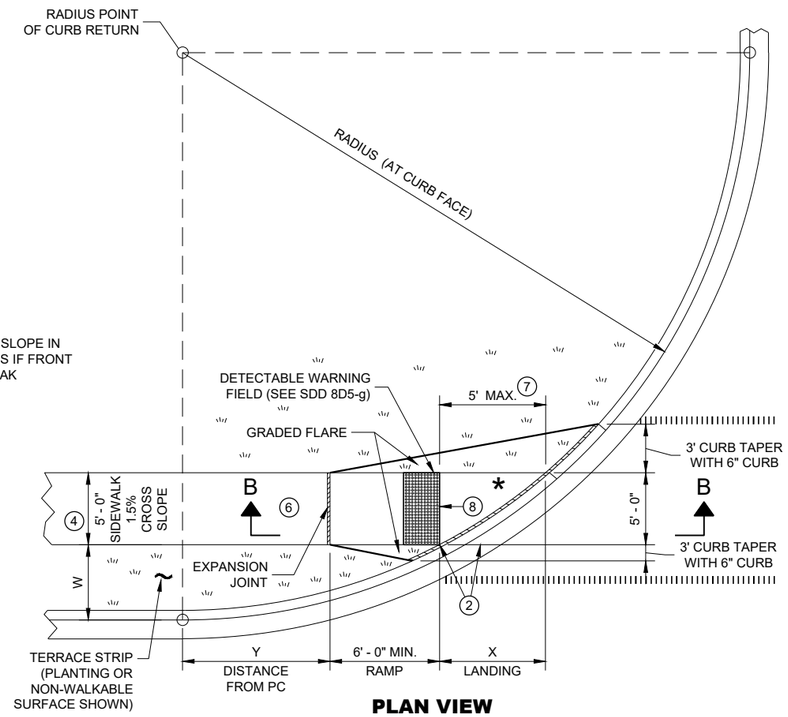


SECTION A - A FOR TYPE 4B



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

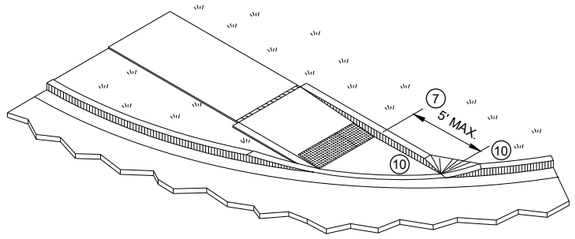
SECTION B - B FOR TYPE 4B AND TYPE 4B1



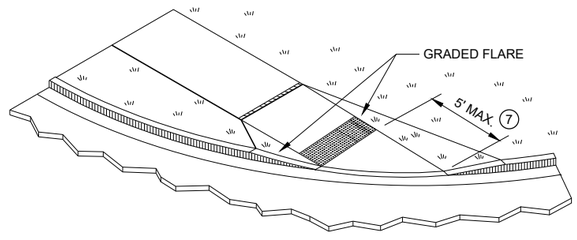
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



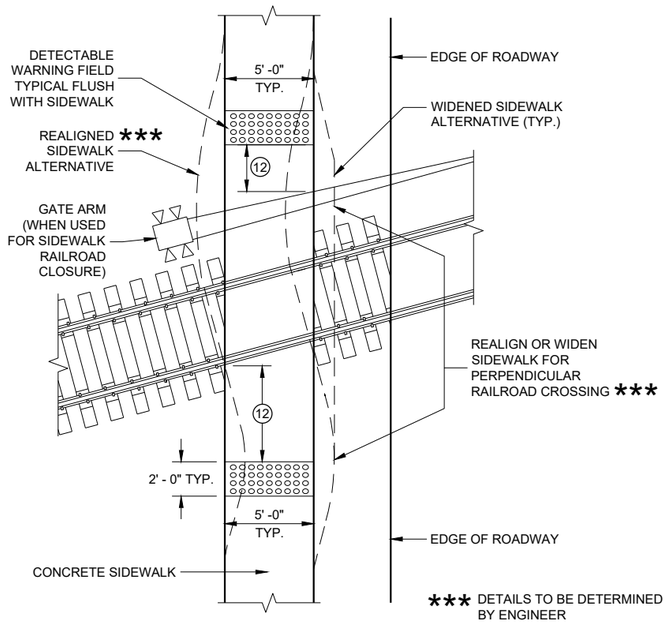
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

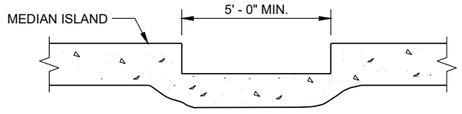
6

SDD 08D05 - 20d

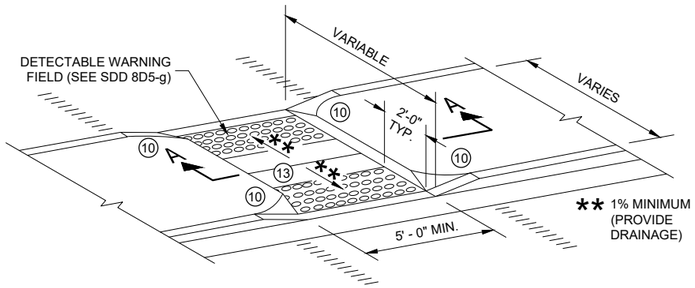


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

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.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ½ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

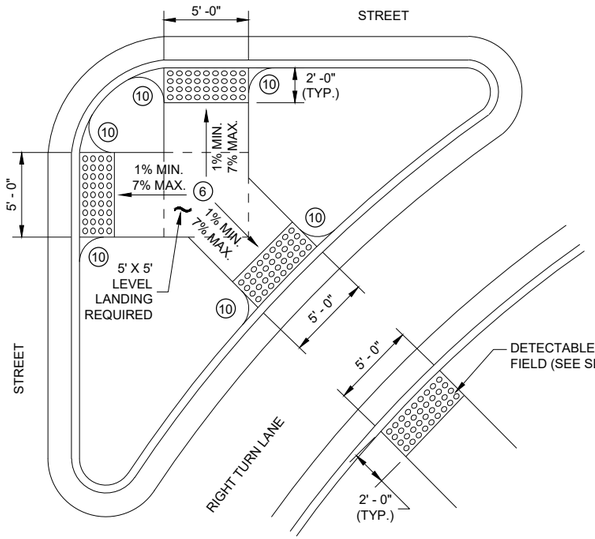
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) 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.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

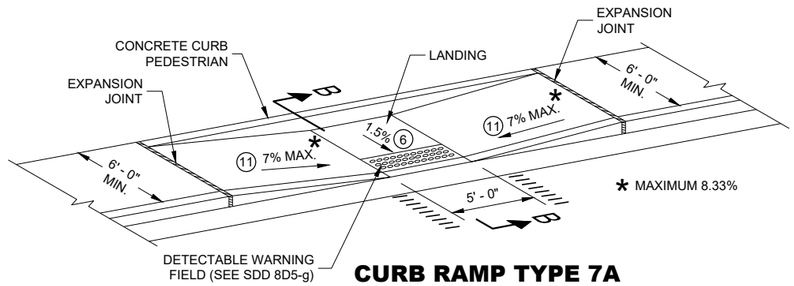
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

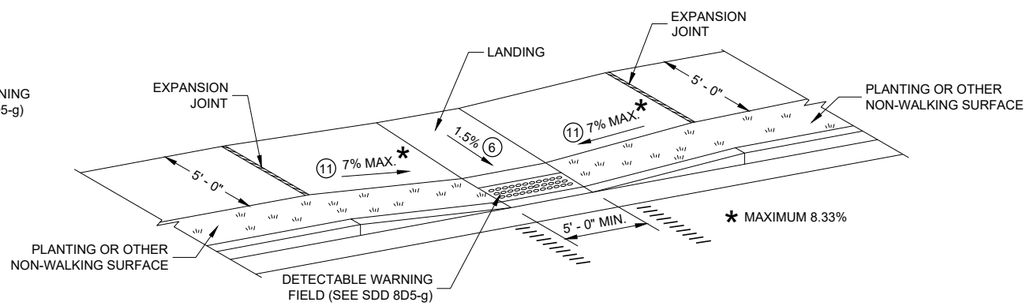
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 7A

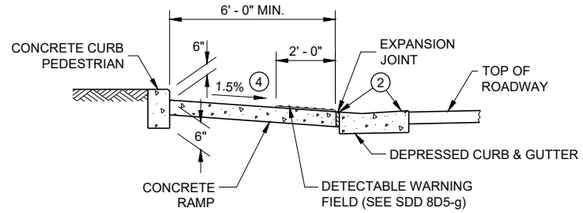
MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.



SECTION B - B FOR TYPE 7A

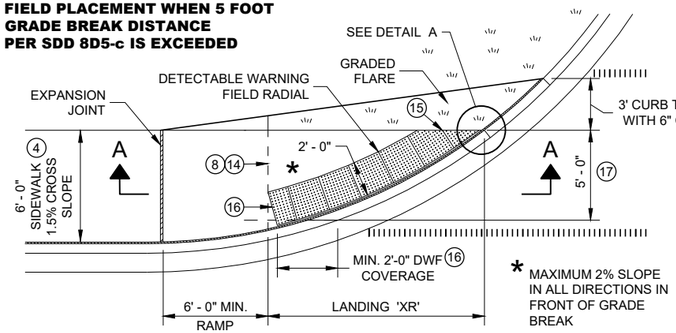
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20e

SDD 08D05 - 20e

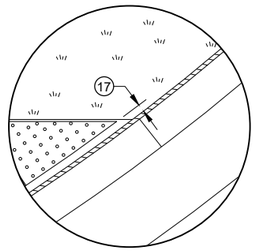
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



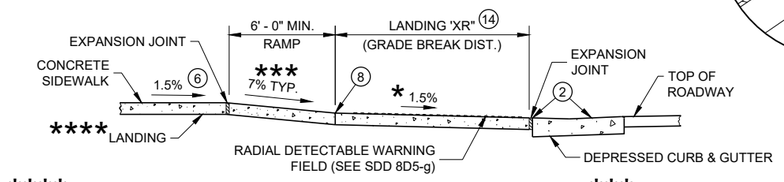
PLAN VIEW

CURB RAMP TYPE 4A1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL A



SECTION A - A FOR TYPE 4A1

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

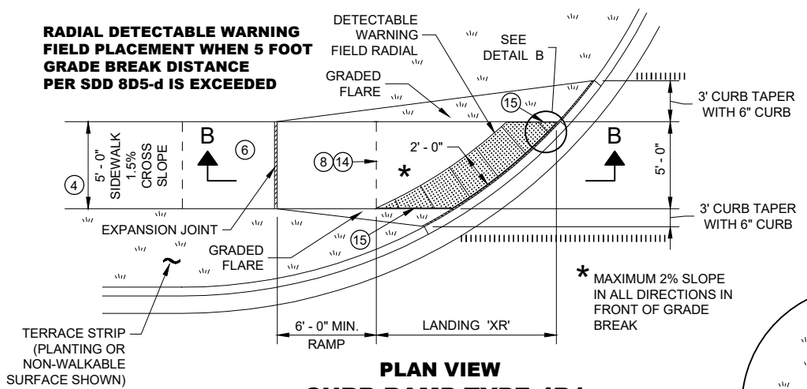
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

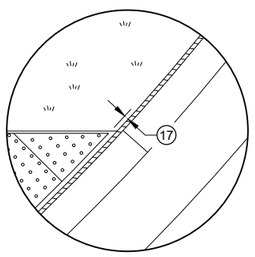
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



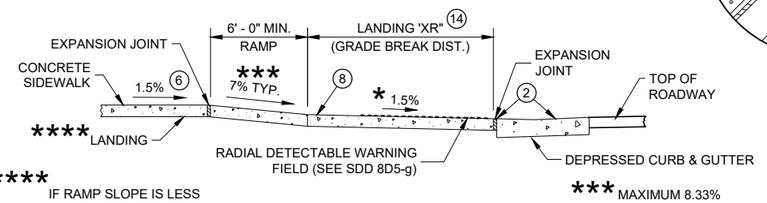
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

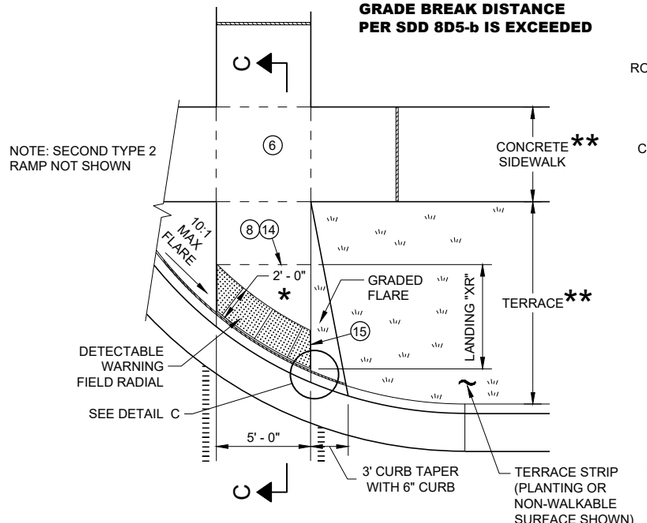


DETAIL B



SECTION B - B FOR TYPE 4B1

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

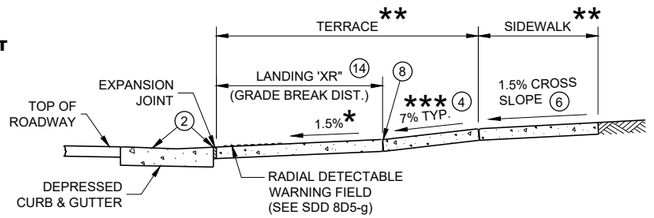


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

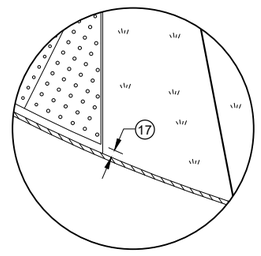


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



DETAIL C

CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS

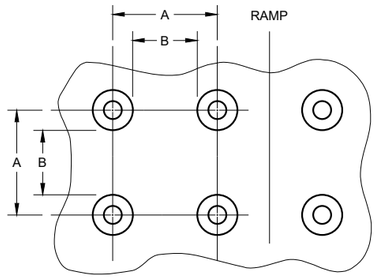
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20f

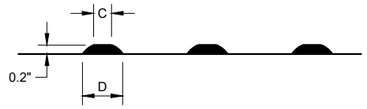
SDD 08D05 - 20f

	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.

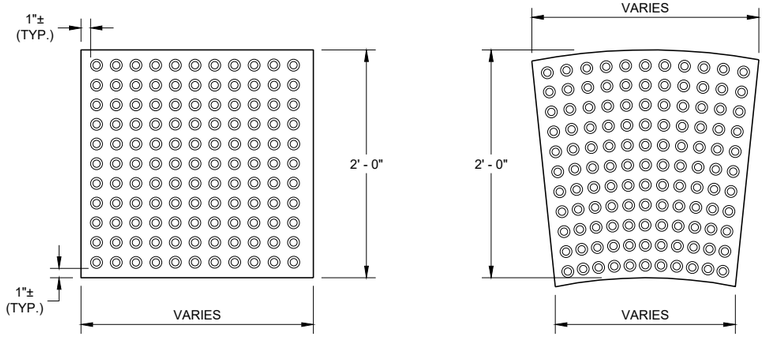


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

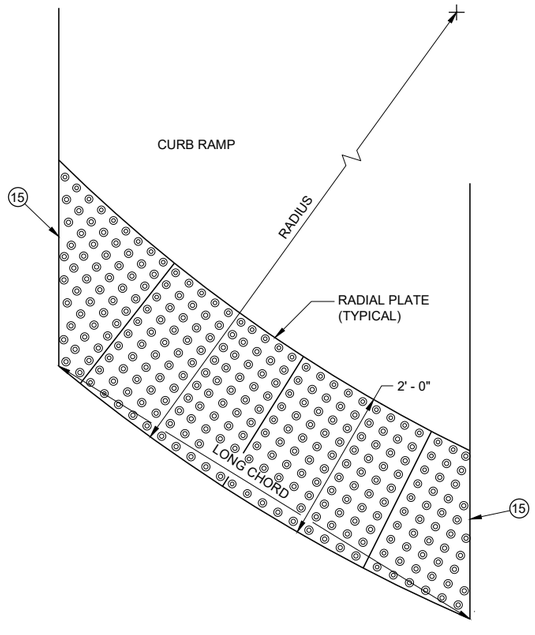
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

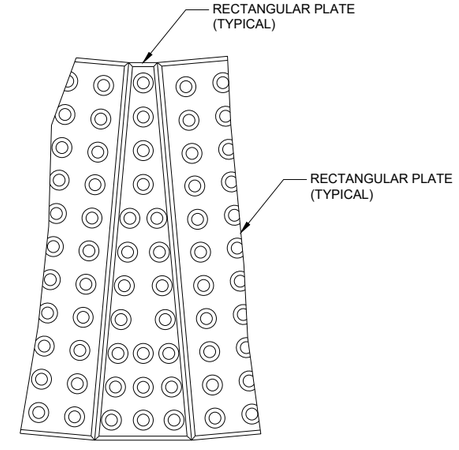
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

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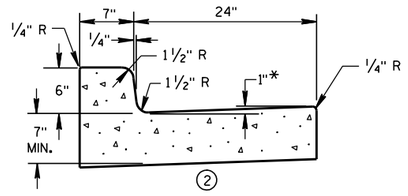
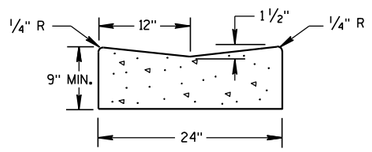
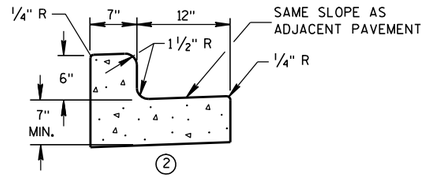
SDD 08D05 - 20g



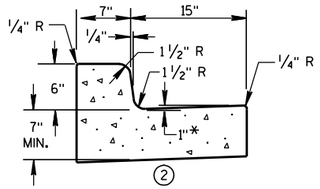
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

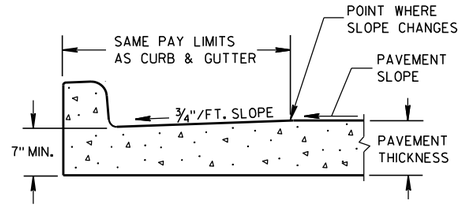


① CONCRETE CURB & GUTTER 19"



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.

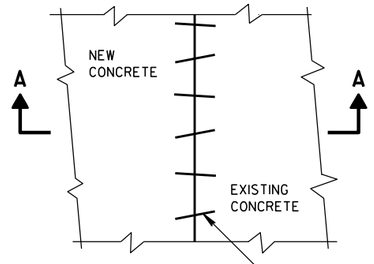
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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.

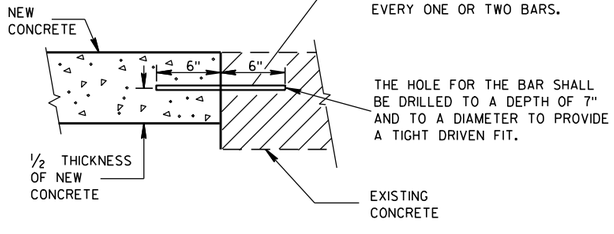
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

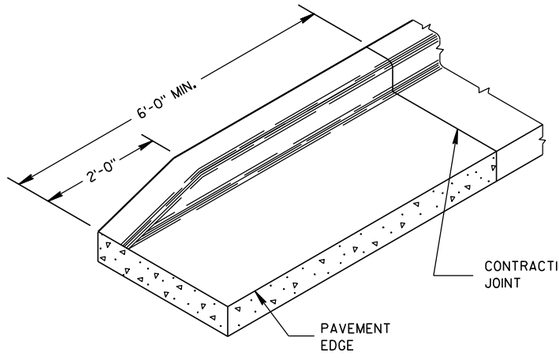
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



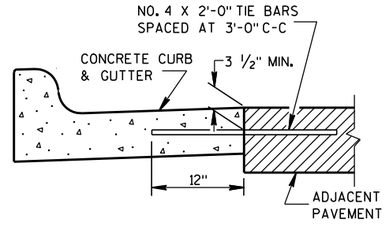
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

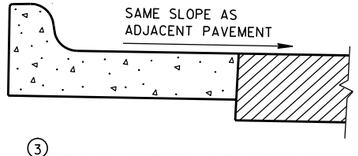
PAVEMENT TIES



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

401

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FHWA

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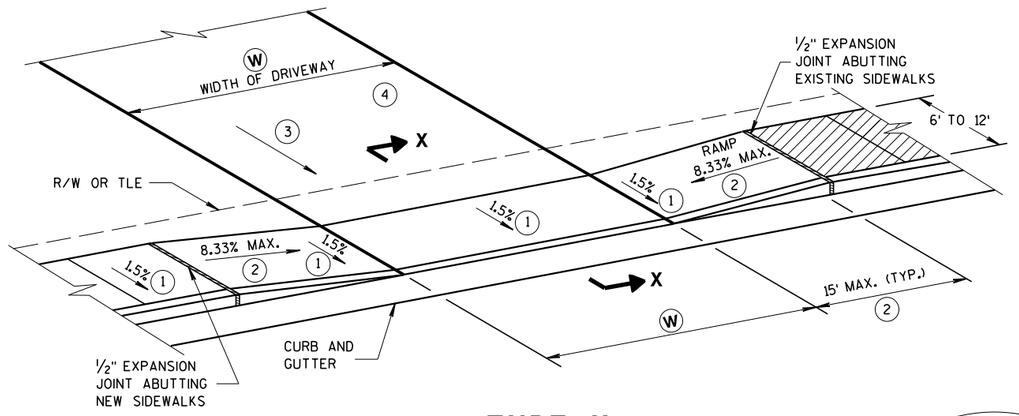
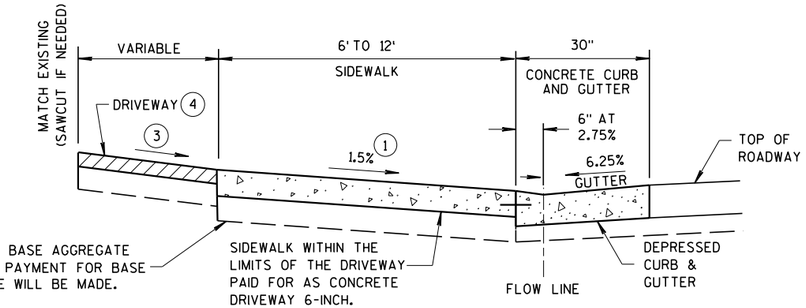
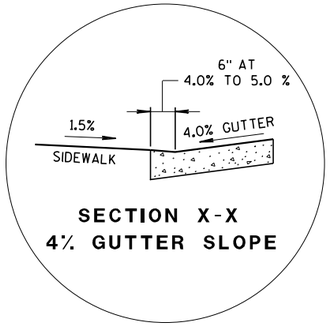
S.D.D. 8 D 16-10



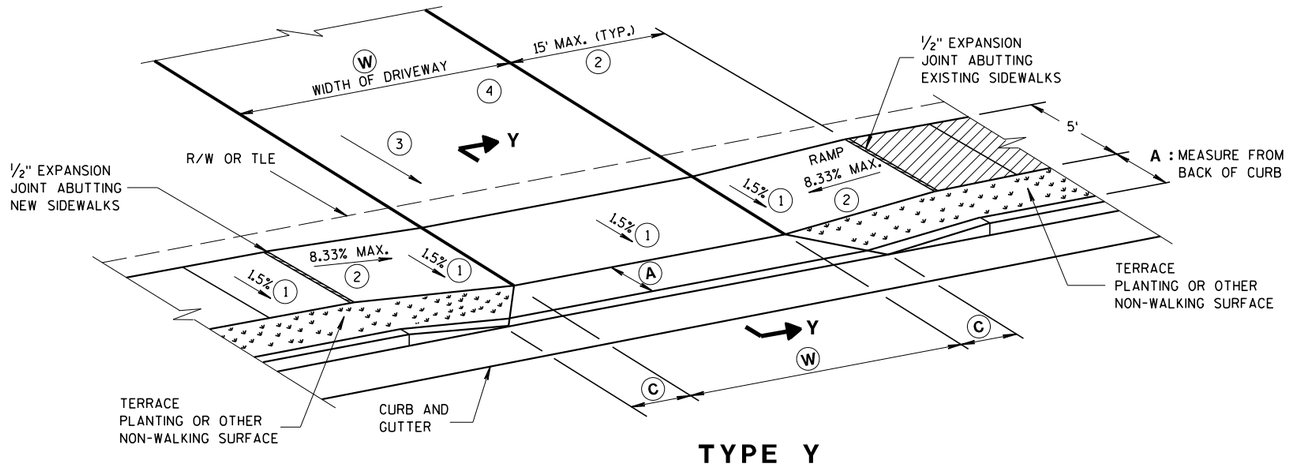
TYPE X
SIDEWALK ABUTS CURB & GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X-X



SECTION X-X
4% GUTTER SLOPE



TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

W: 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

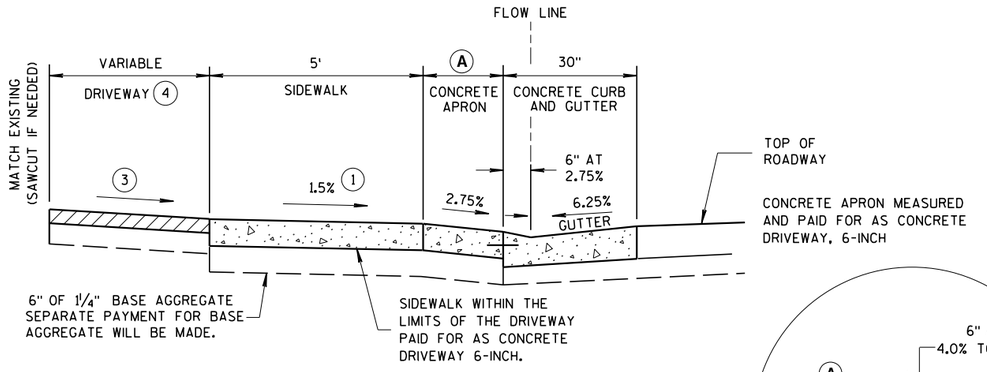
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

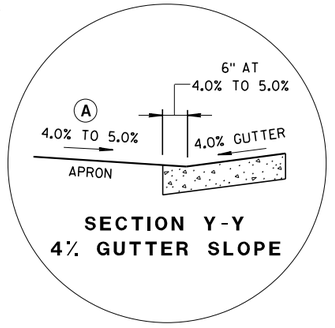
(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y-Y

DRIVEWAY DETAIL
WITH CONCRETE CURB & GUTTER
(URBAN AND SUBURBAN)



SECTION Y-Y
4% GUTTER SLOPE

TABLE Y

(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS
TYPES X & Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS 402 — UNIT SUPERVISOR
FHWA

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S.D.D. 8 D 18-2

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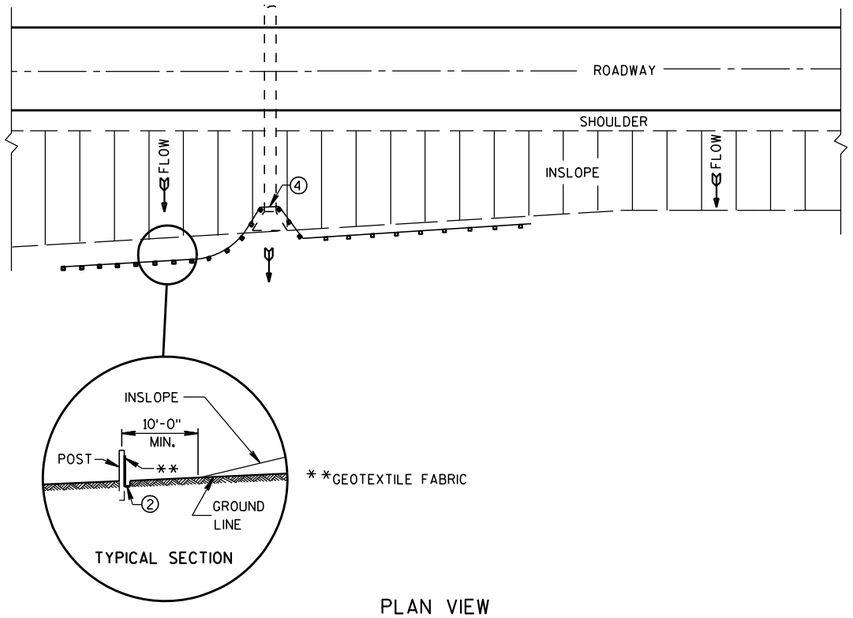
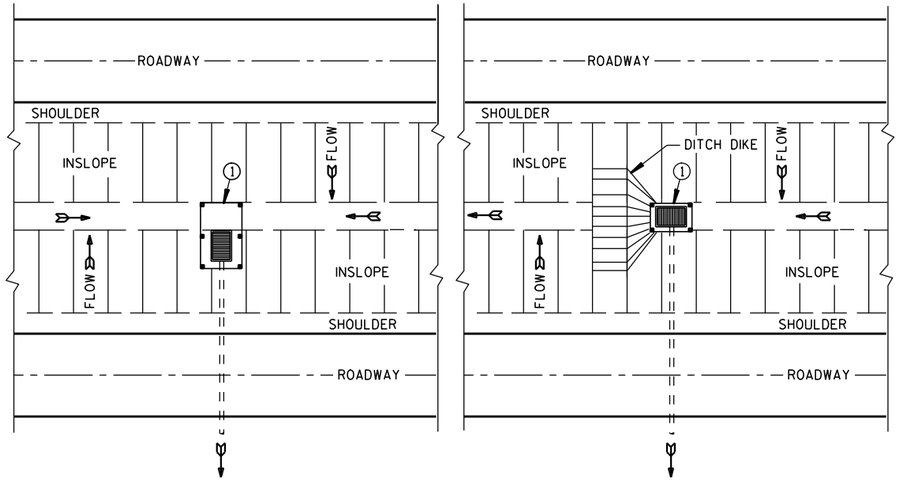
S.D.D. 8 D 18-2



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



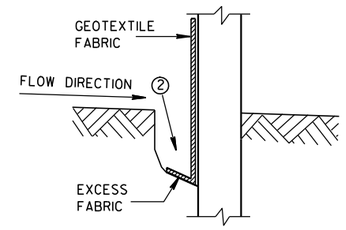
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

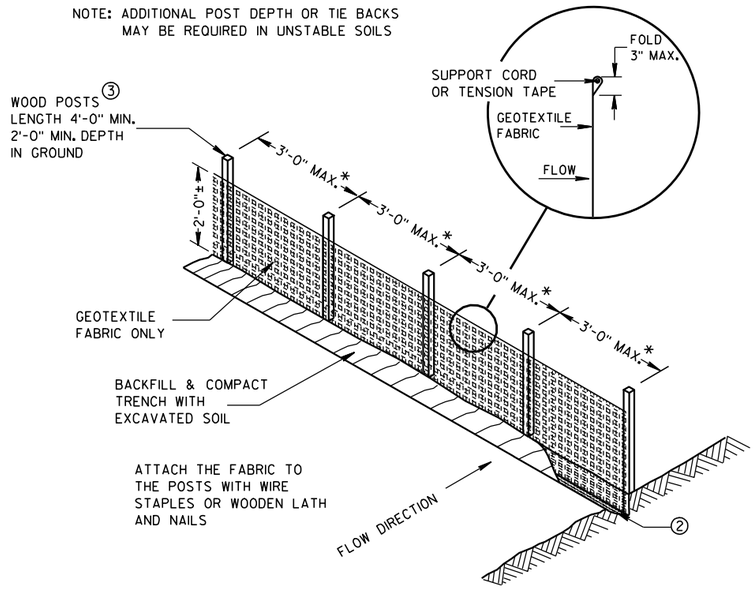
GENERAL NOTES

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.

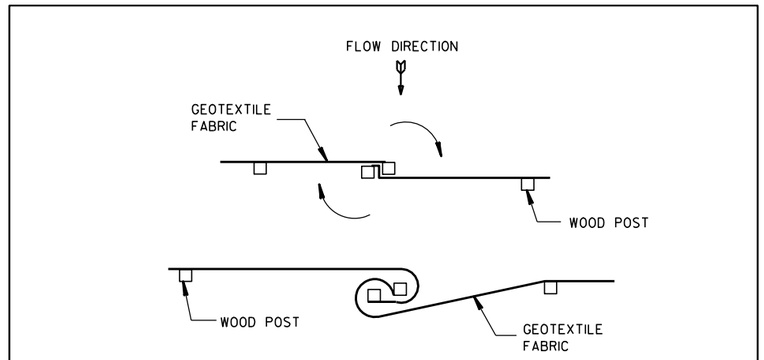


TRENCH DETAIL

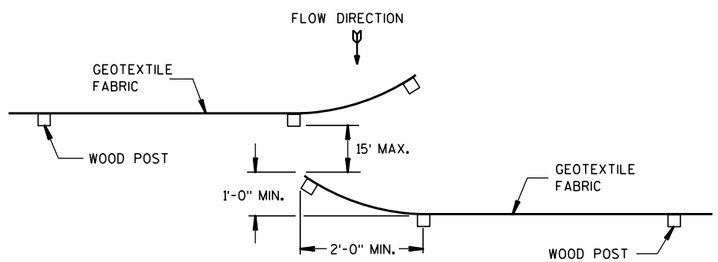


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

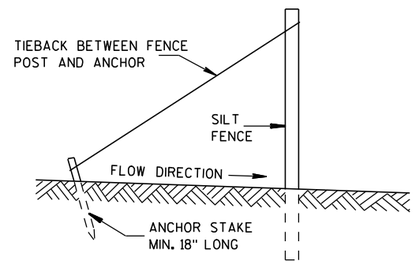


TWIST METHOD



HOOK METHOD

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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S.D.D. 8 E 9-6

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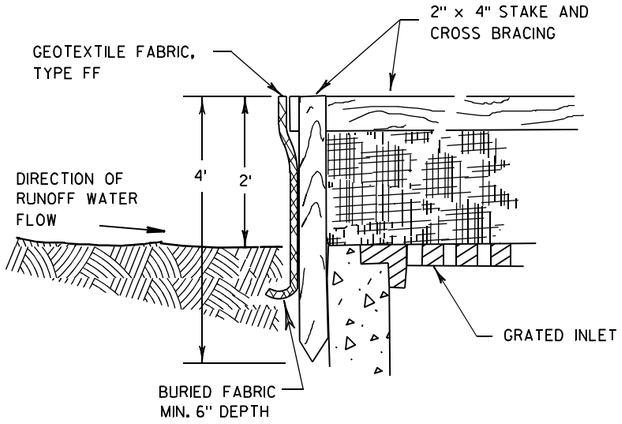
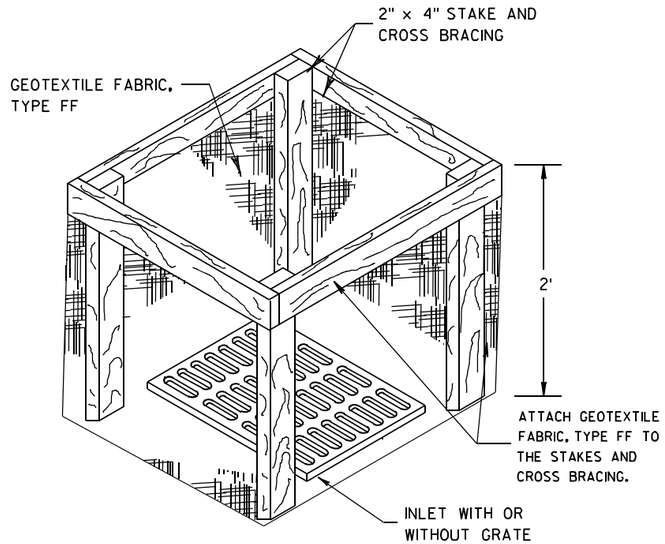
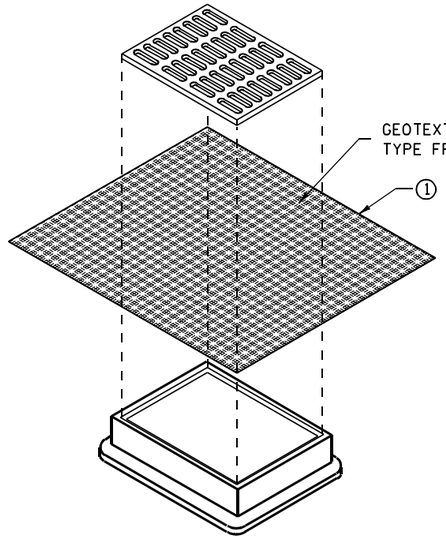
S.D.D. 8 E 9-6



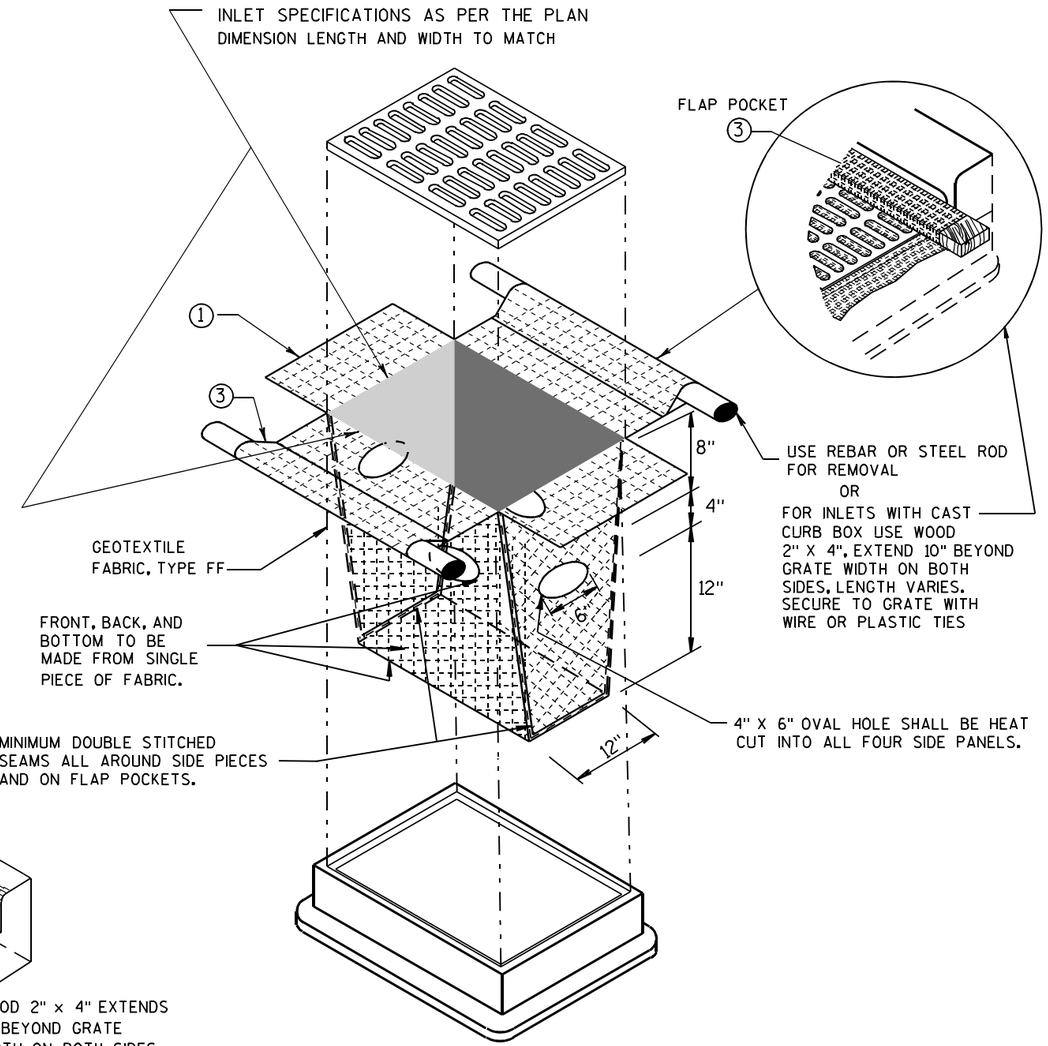


INLET PROTECTION, TYPE A



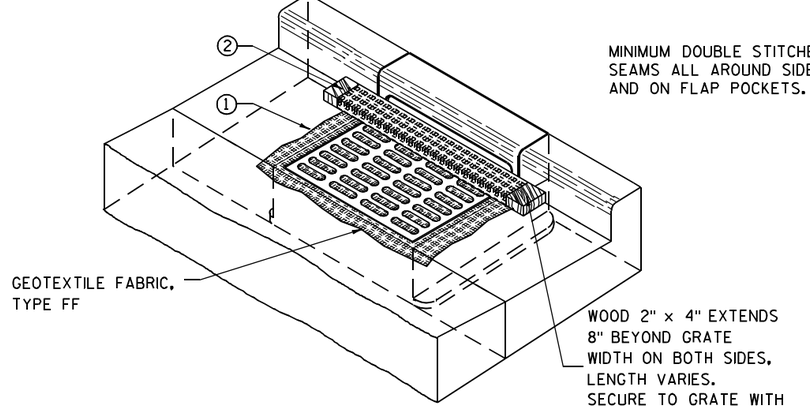
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

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.

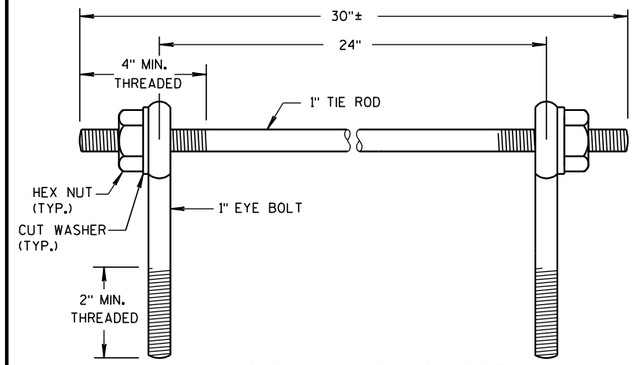
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

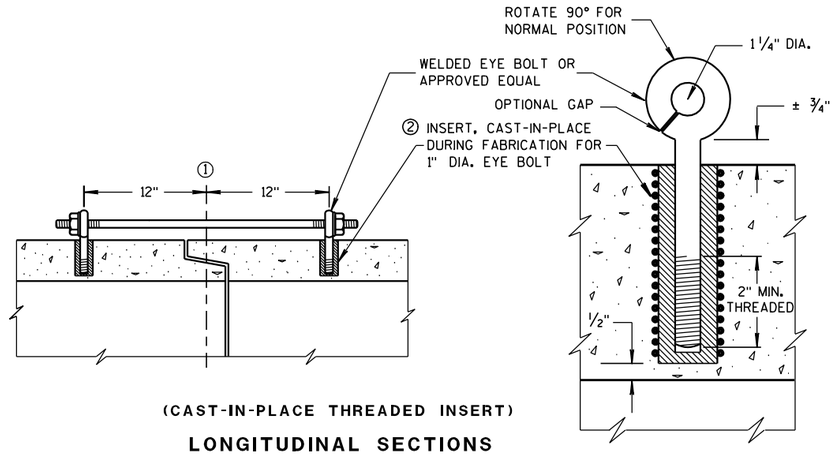
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 E 10-2



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.

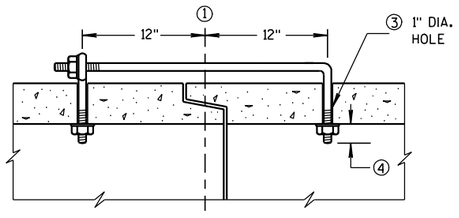
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

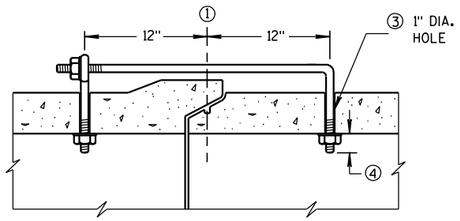
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

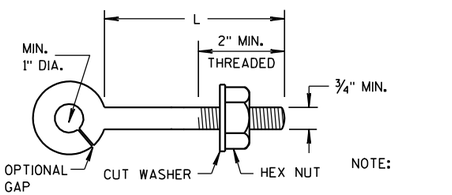


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

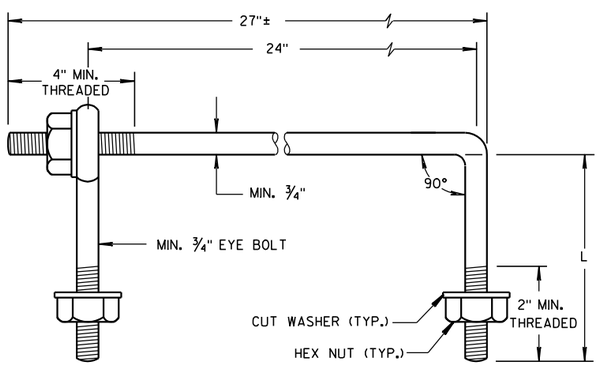
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

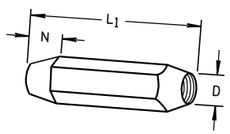
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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



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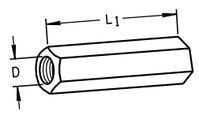
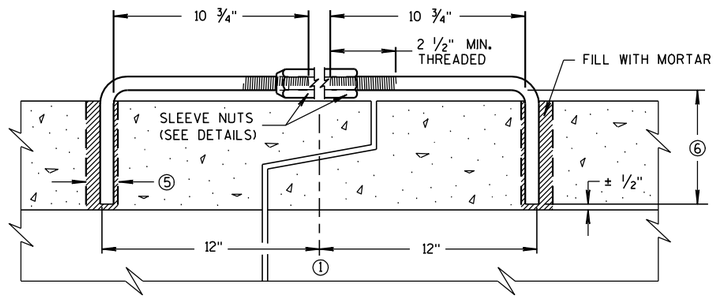


PLAIN

RIGHT AND LEFT THREADS

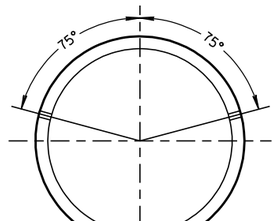
SLEEVE NUTS



LONGITUDINAL SECTION

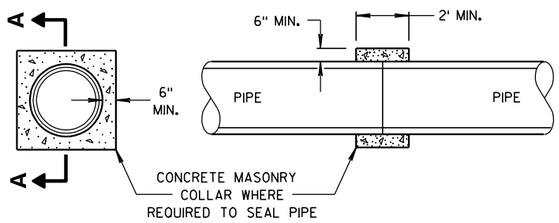
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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
405
FHWA

6

S.D.D. 8 F 4-7

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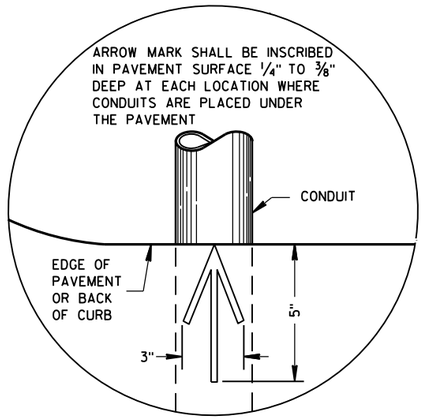
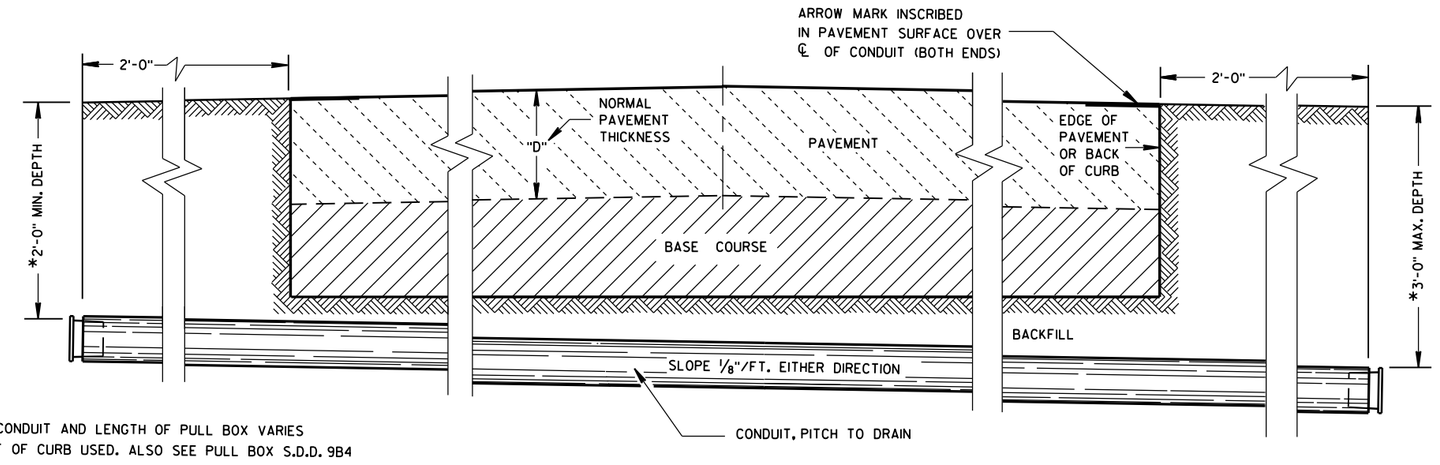
S.D.D. 8 F 4-7



PLAN VIEW

ARROW MARK



*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

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.).

TRACER 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.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

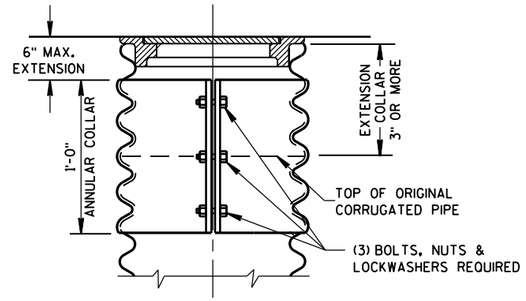
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

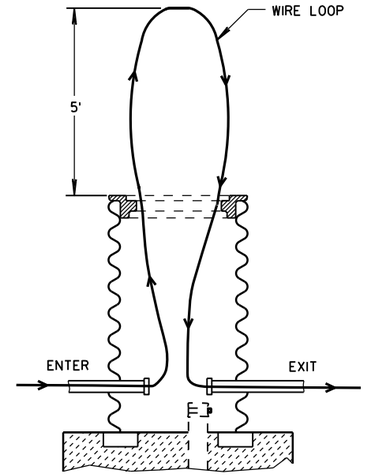
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	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.

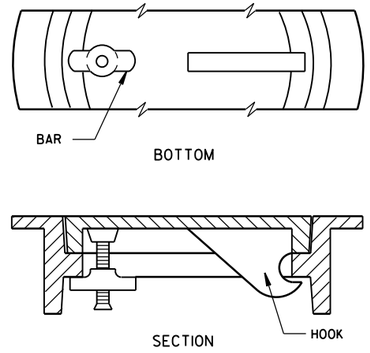
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

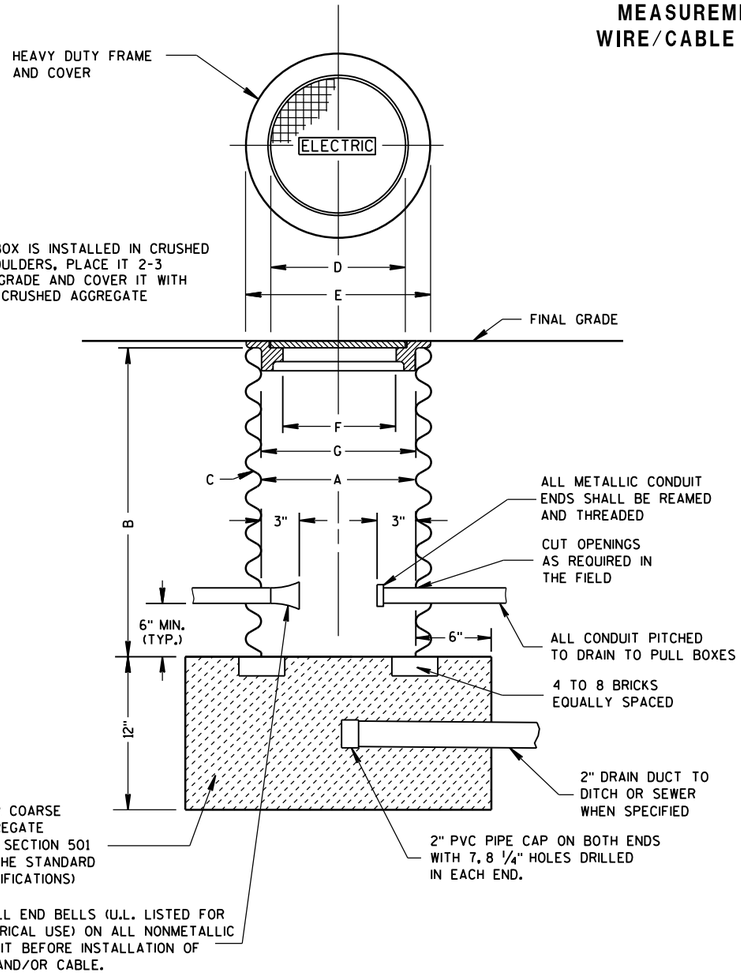


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



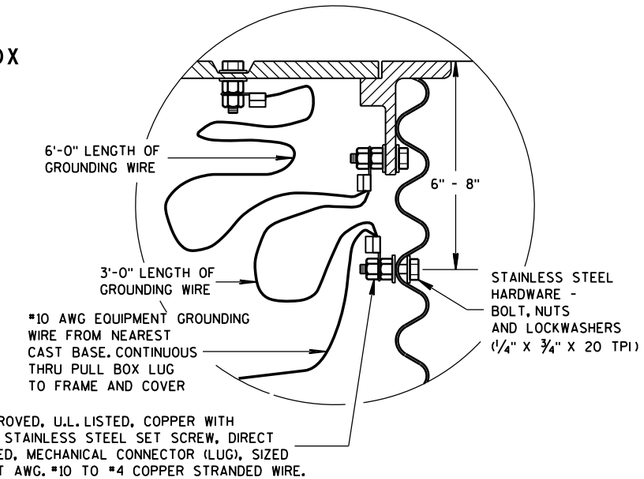
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

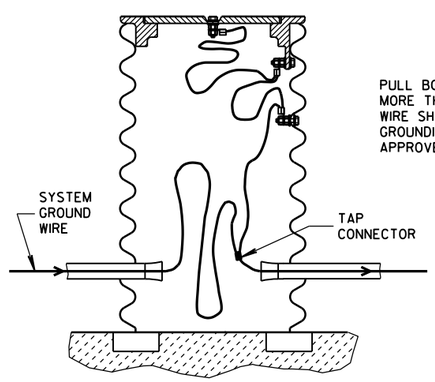


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

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.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

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
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 407
FHWA

6

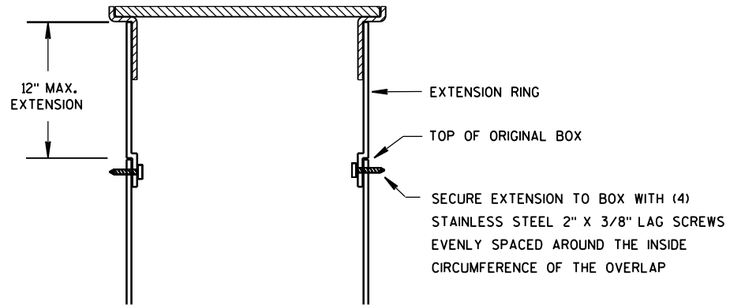
S.D.D. 9 B 4-11

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

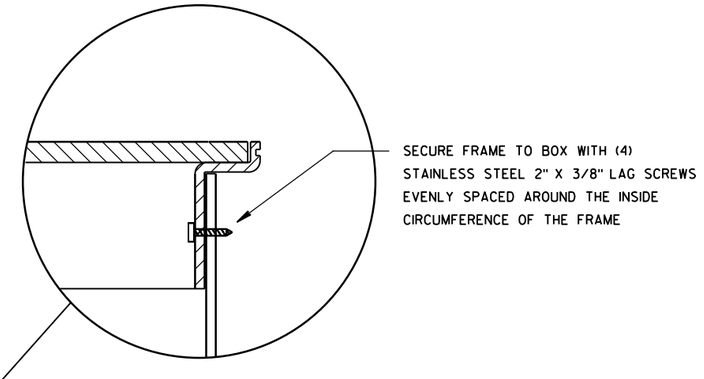
* THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE

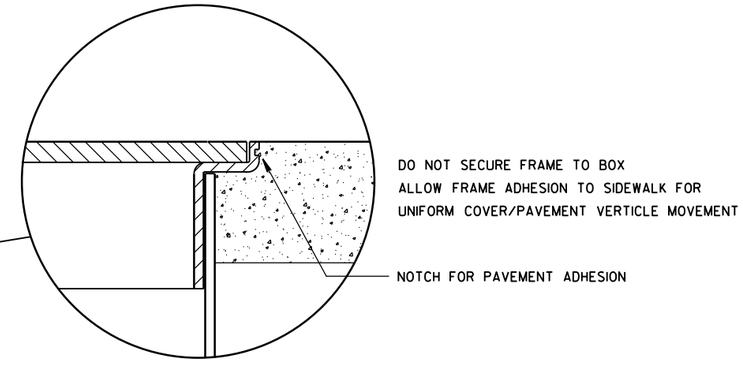


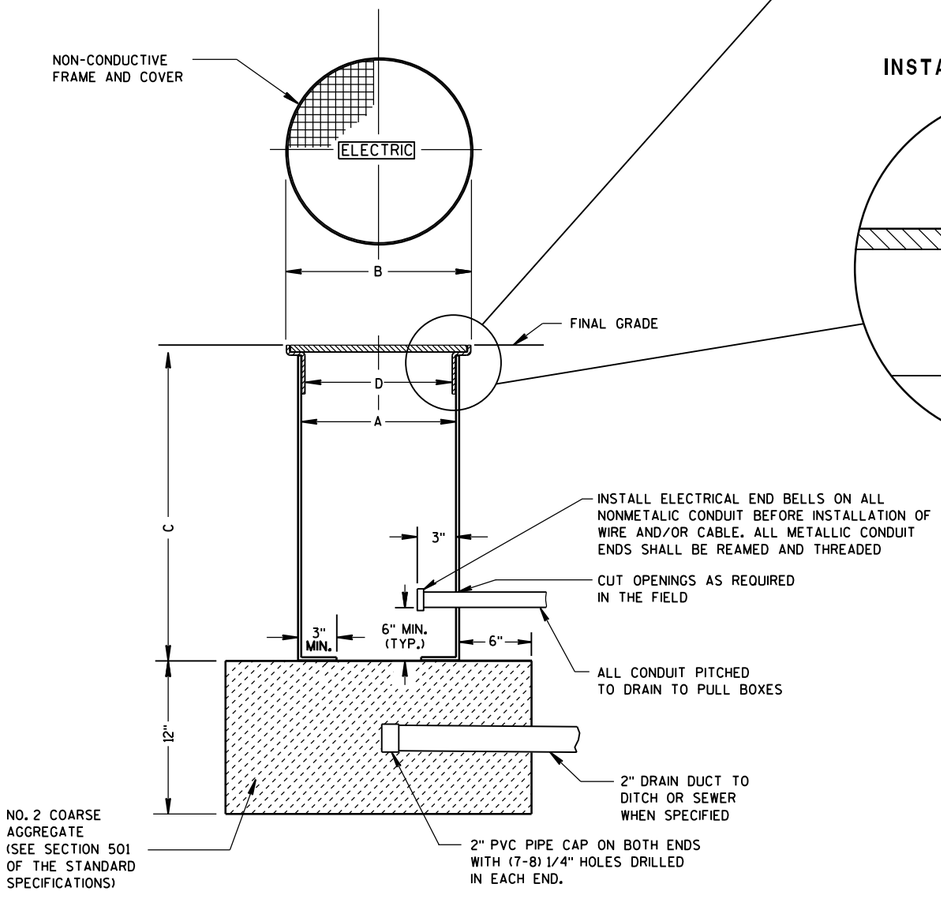
BOX EXTENSION

INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK





NON-CONDUCTIVE PULL BOX

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DICONTINUITIES LESS THAN 1/4".

COVER SHALL BE MAGNETICALLY LOCATABLE.

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

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.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS AND MAGNETIC LOCATABLE DEVICE.

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

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL AND LIGHTING SYSTEMS, "WISDOT ITS" FOR COMMUNICATIONS AND ITS EQUIPMENT SYSTEMS.

PULL BOX NON-CONDUCTIVE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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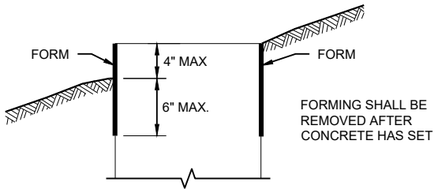
S.D.D. 9 B 16-1

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
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 DRAWINGSHALL 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 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 A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X 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 NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL BENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC 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, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES 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 OF THE STANDARD SPECIFICATIONS.

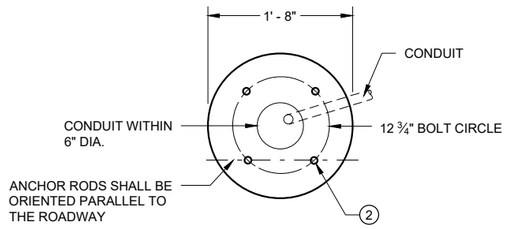
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

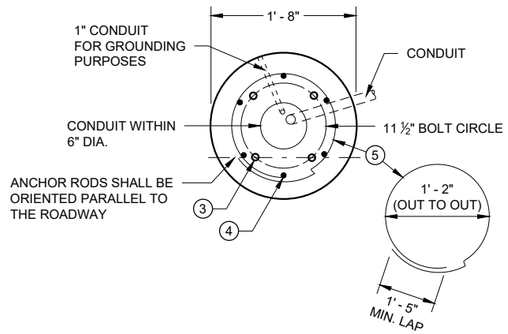
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

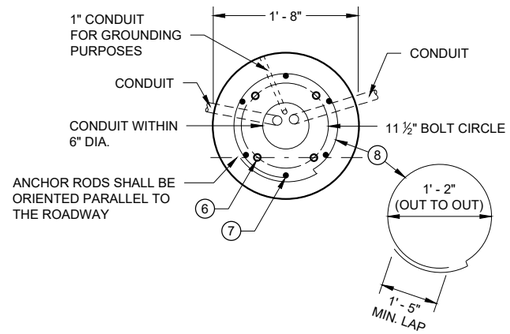
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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 OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" 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) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

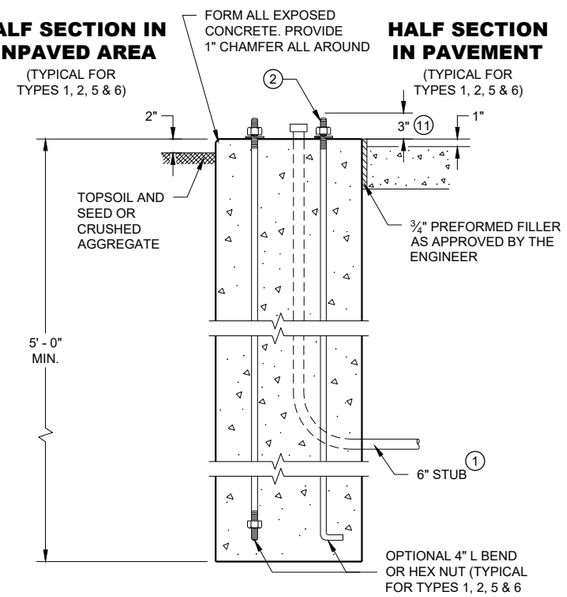
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

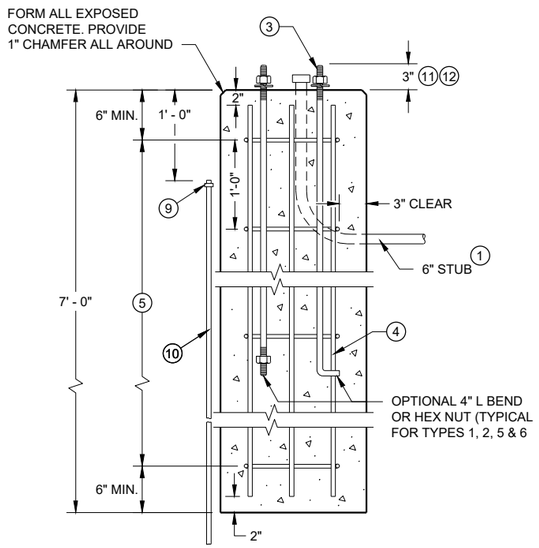
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



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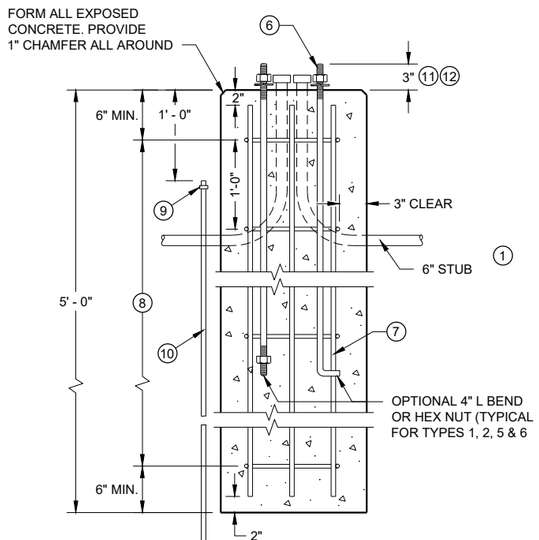


TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 409

FHWA

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.

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, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

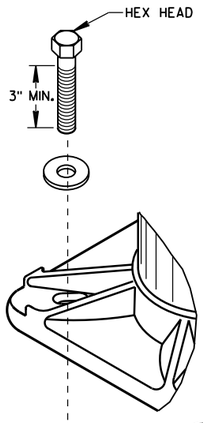
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

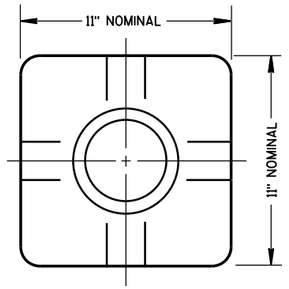
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

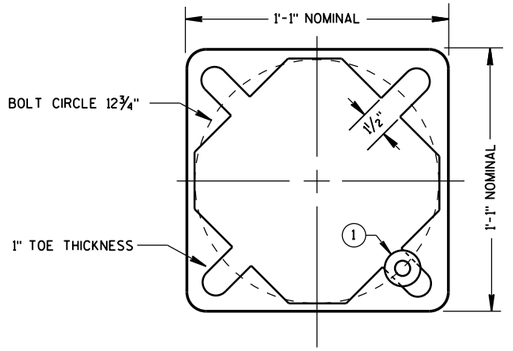
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

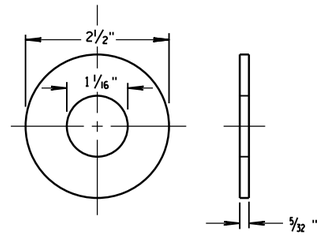




TOP VIEW
(PEDESTAL BASE)

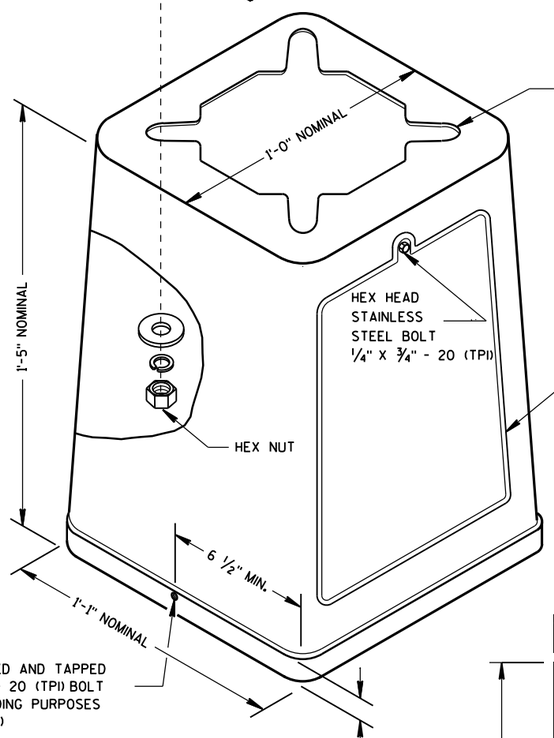


BOTTOM VIEW
(PEDESTAL BASE)

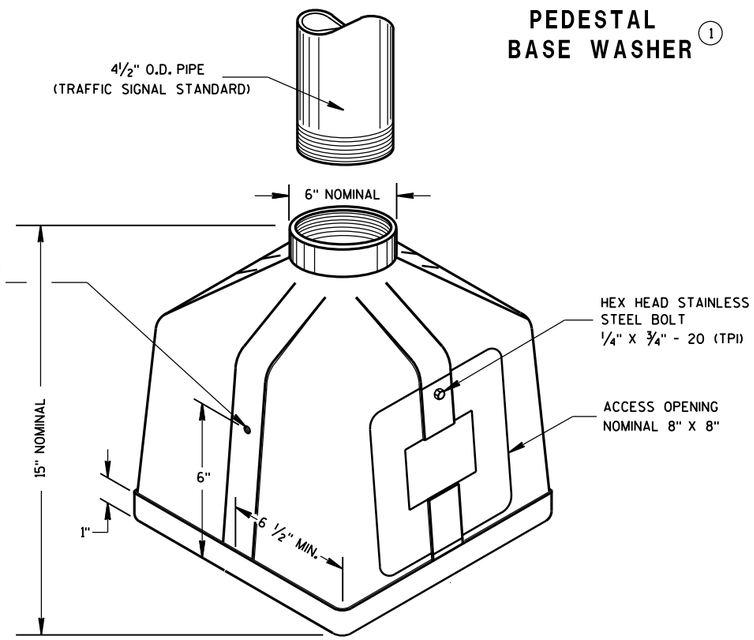


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

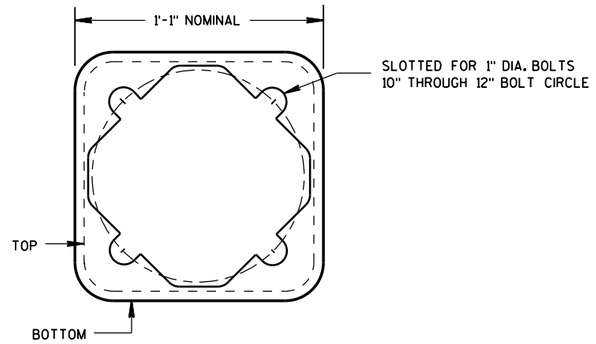


ISOMETRIC VIEW

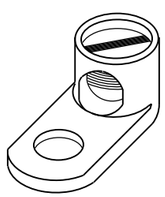


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

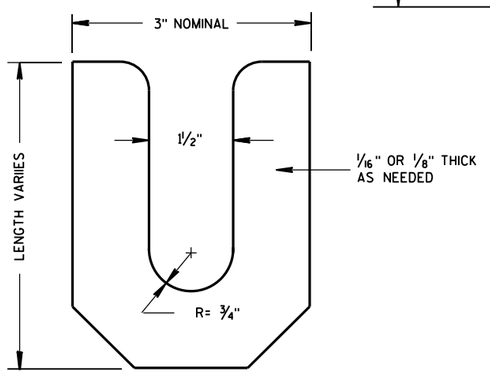


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

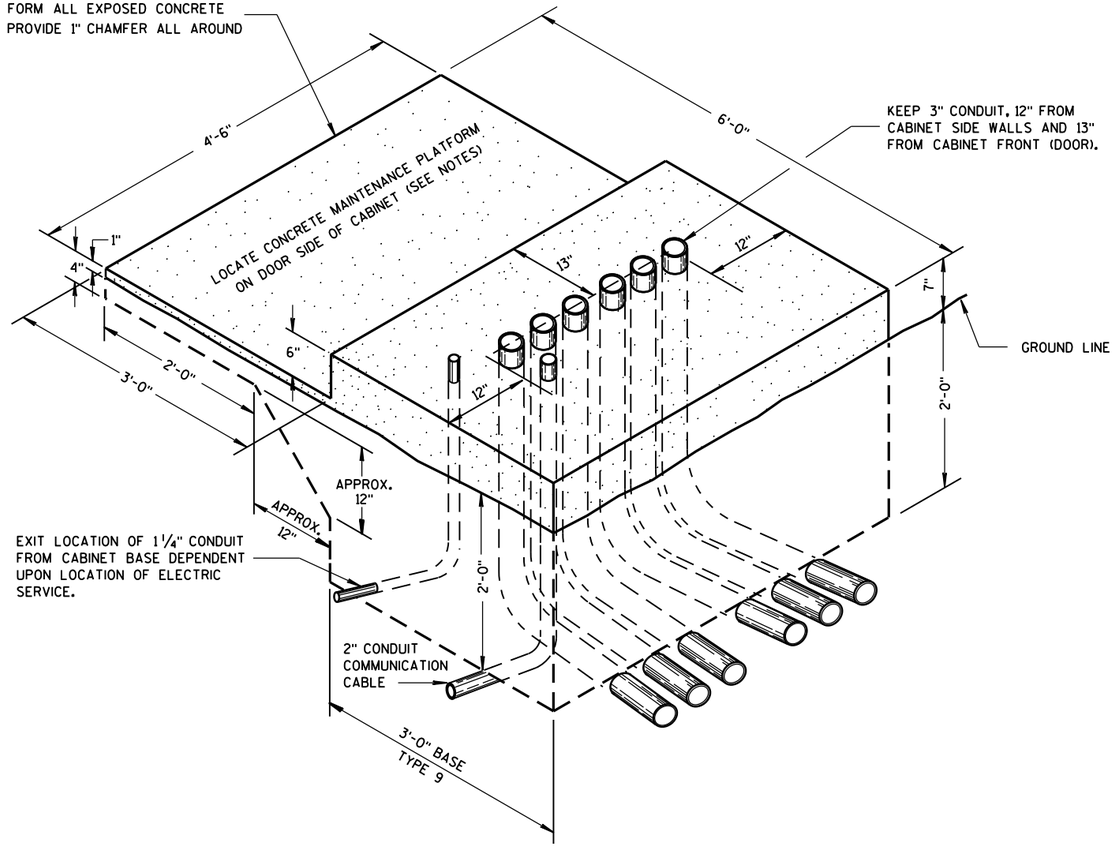
TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

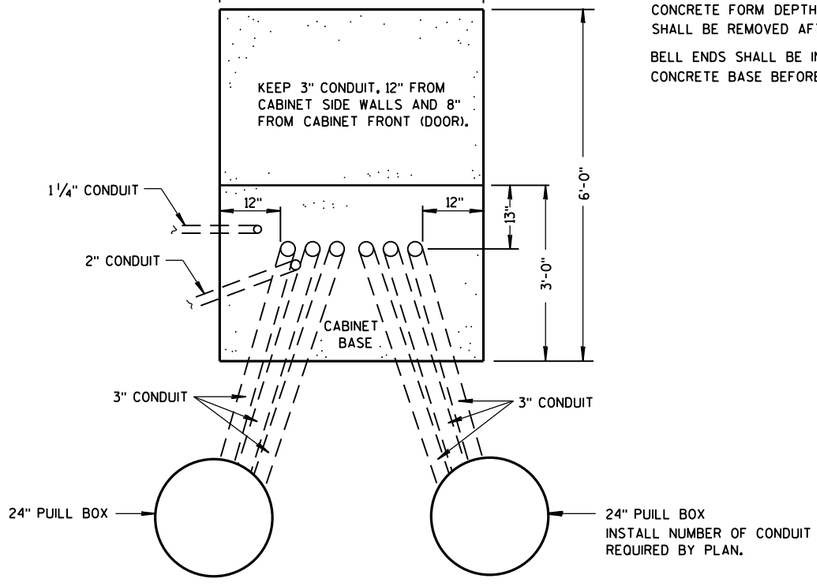
S.D.D. 9 C 3-4



ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

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 STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. 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 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.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 C 6-7

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.

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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 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.

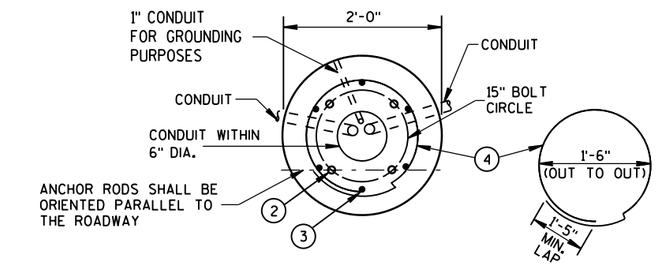
BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

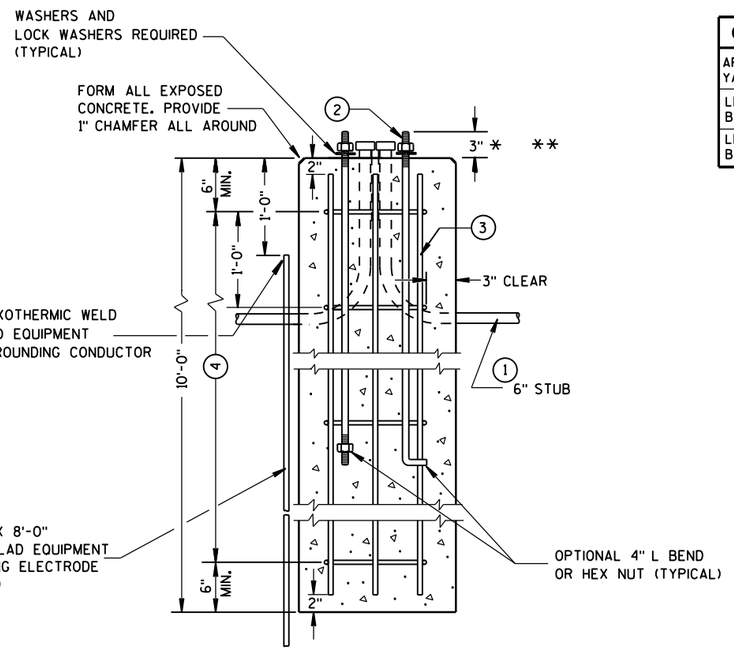
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 5'-0" ANCHOR RODS

(3) (6) NO. 6 X 9'-8" BAR STEEL REINFORCEMENT.

(4) (10) NO. 4 X 6'-2" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



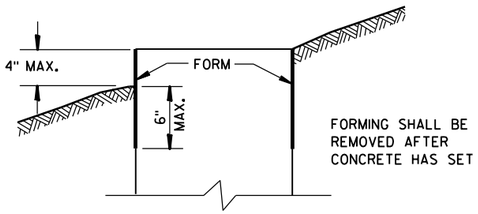


CONCRETE BASE, TYPE 8 (FOR 50' LIGHT POLES)

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

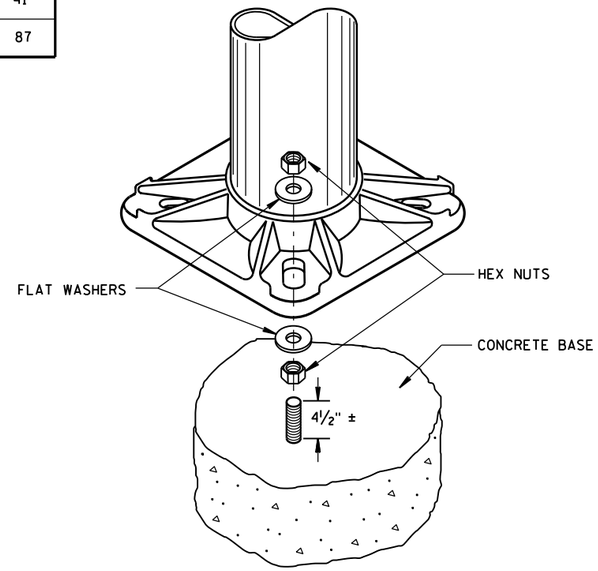
** FOR NONBREAKAWY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

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	1.2
LBS. OF HOOP BAR STEEL	41
LBS. OF VERTICAL BAR STEEL	87



NON-BREAKAWAY INSTALLATION (LEVELING NUT)

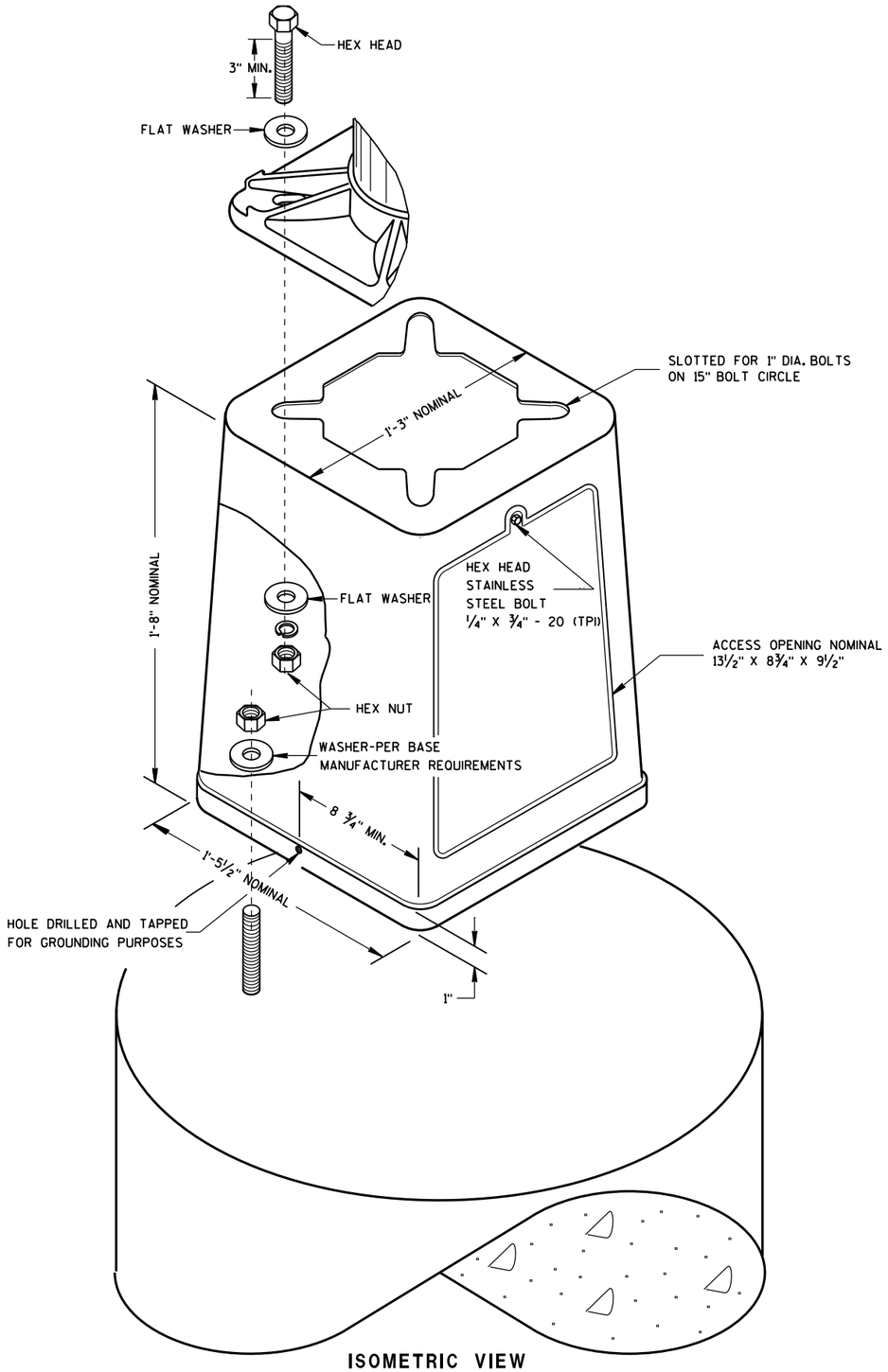
CONCRETE BASE, TYPE 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

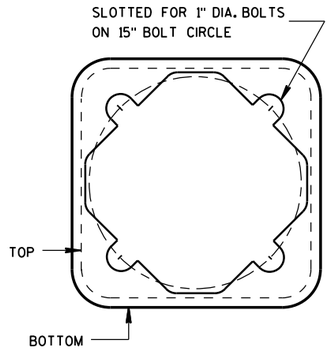
6

SDD 9 C 9-5



ISOMETRIC VIEW

TRANSFORMER BASE



BOTTOM VIEW

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.

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.

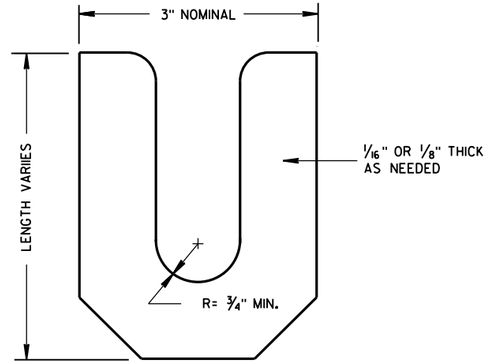
A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE TRANSFORMER BASE.

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.

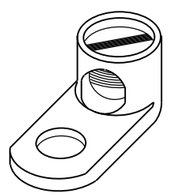
SHOULD A GROUNDING LUG MOUNTING HOLE NOT BE PROVIDED, THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" X 3/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE. IT SHALL BE MOUNTED IN THE SAME LOCATION AS IS SHOWN ON THE DRAWING.

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



TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE
FOR 15" BOLT CIRCLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA

6

S.D.D. 9 C 10-3

6

S.D.D. 9 C 10-3

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).

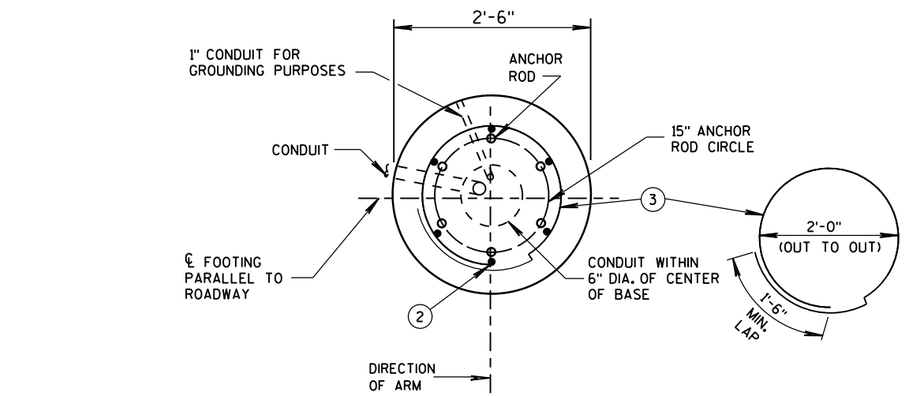
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

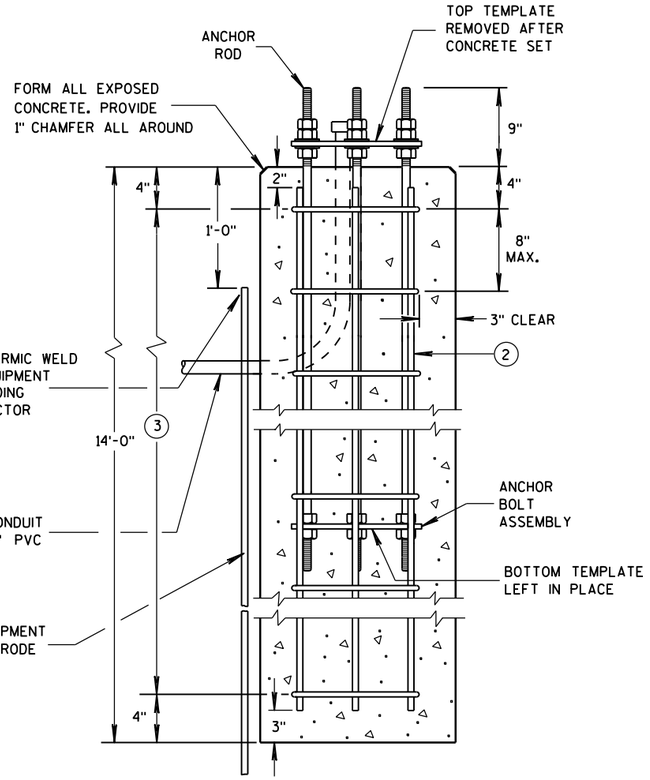
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES. (GREATER THAN 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) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. 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, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.

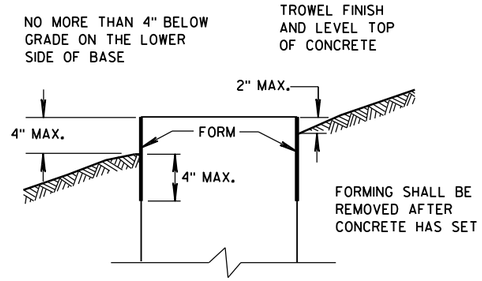




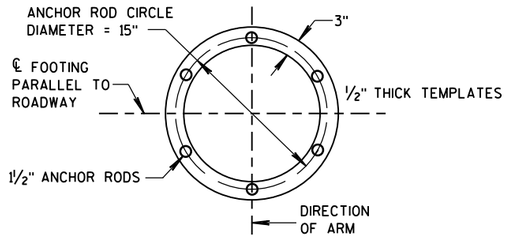
CONCRETE BASE TYPE 10

(FOR TYPE 9 & 10 & OVER HEIGHT (OH) POLES)

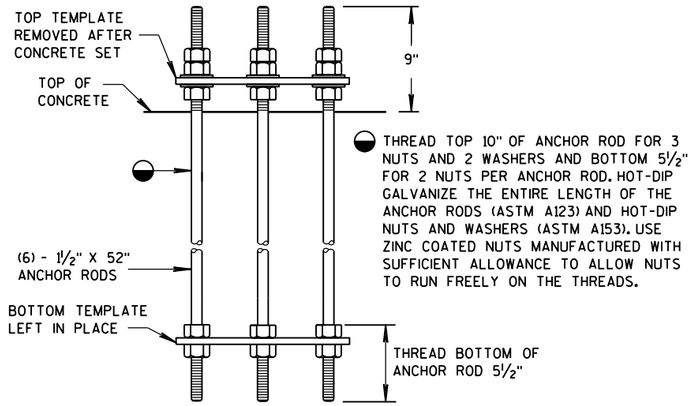
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



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	172
LBS. OF VERTICAL BAR STEEL	122

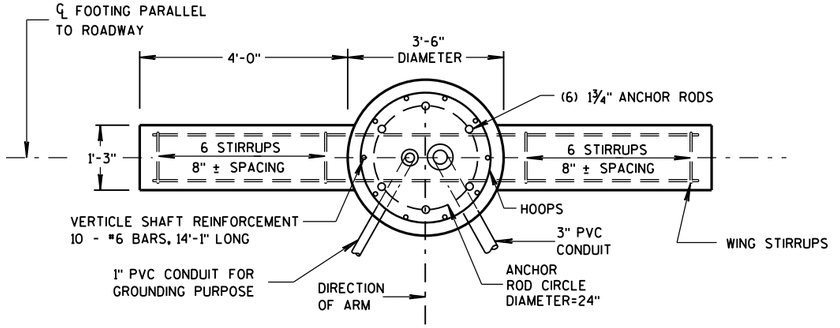
CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

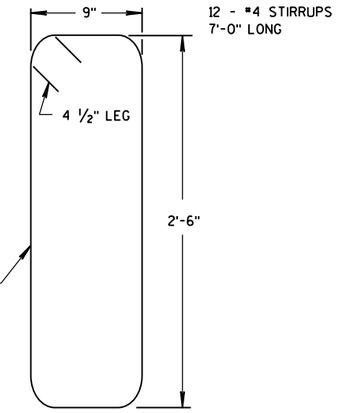
APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

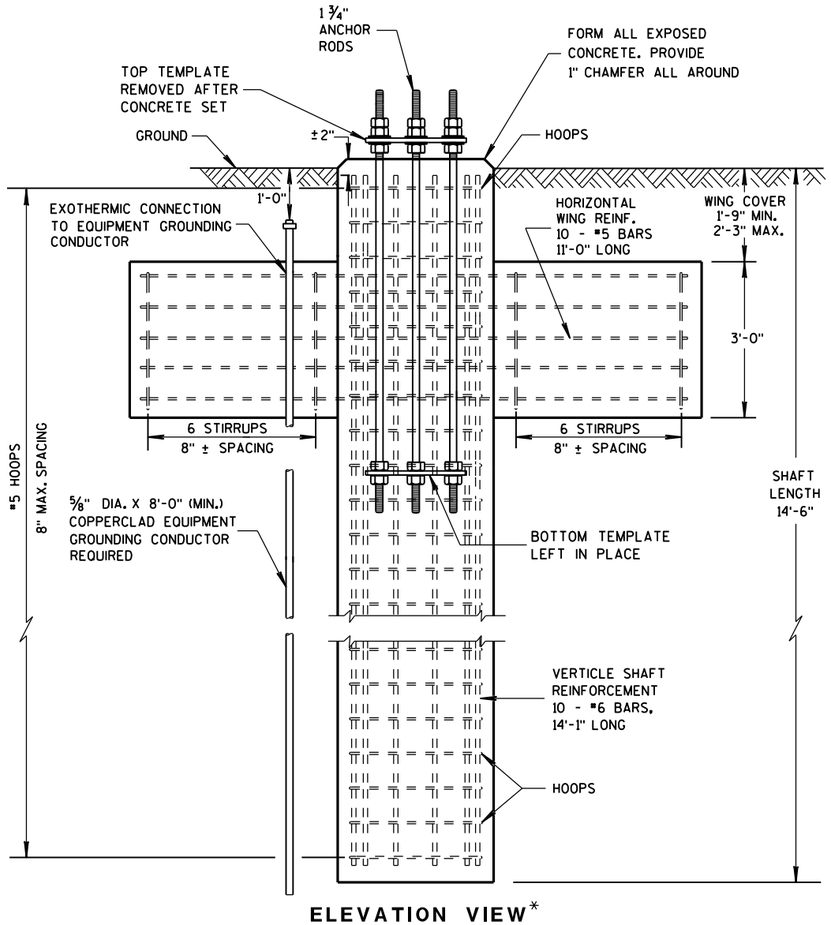
S.D.D. 9 C 11-10



PLAN VIEW

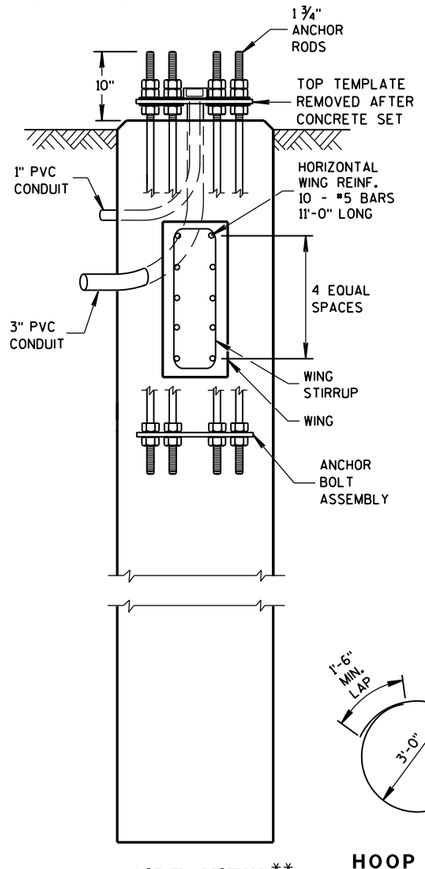


WING STIRRUP



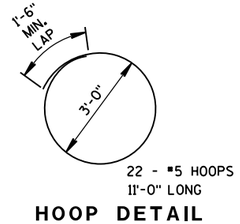
ELEVATION VIEW*

* CONDUITS ARE NOT SHOWN ON THIS VIEW FOR CLARITY



SIDE VIEW**

** HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY



HOOP DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BASES (SHAFT), BELOW THE WING, 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 BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE 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.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

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 BE FURNISHED AND INSTALLED TO 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.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL 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 THE WRITTEN APPROVAL OF THE ENGINEER.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATIONS	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 & OVER HEIGHT (OH) POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 635 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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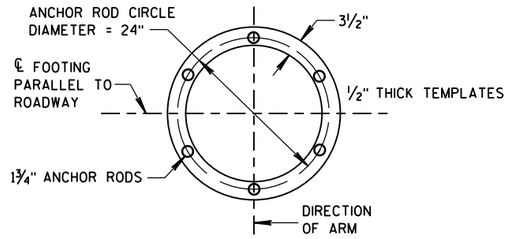
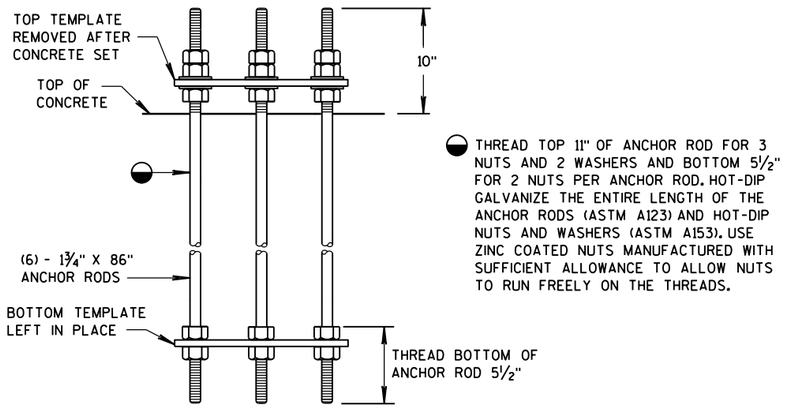
S.D.D. 9 C 12-9a

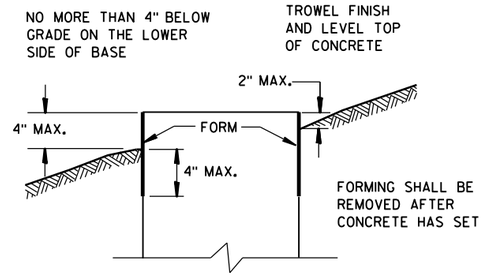


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2017 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL

6

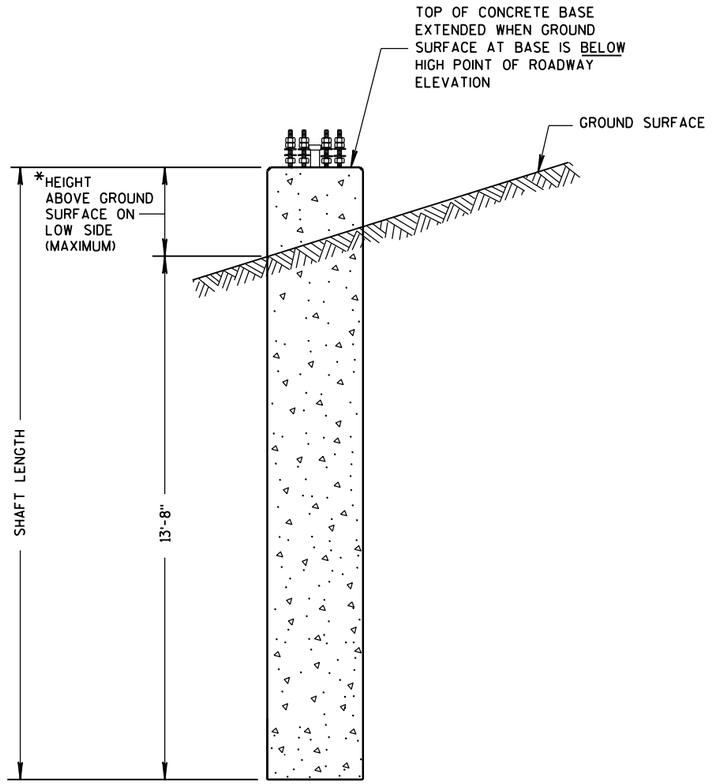
S.D.D. 9 C 12-9b

6

S.D.D. 9 C 12-9b

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 10 CONCRETE BASE

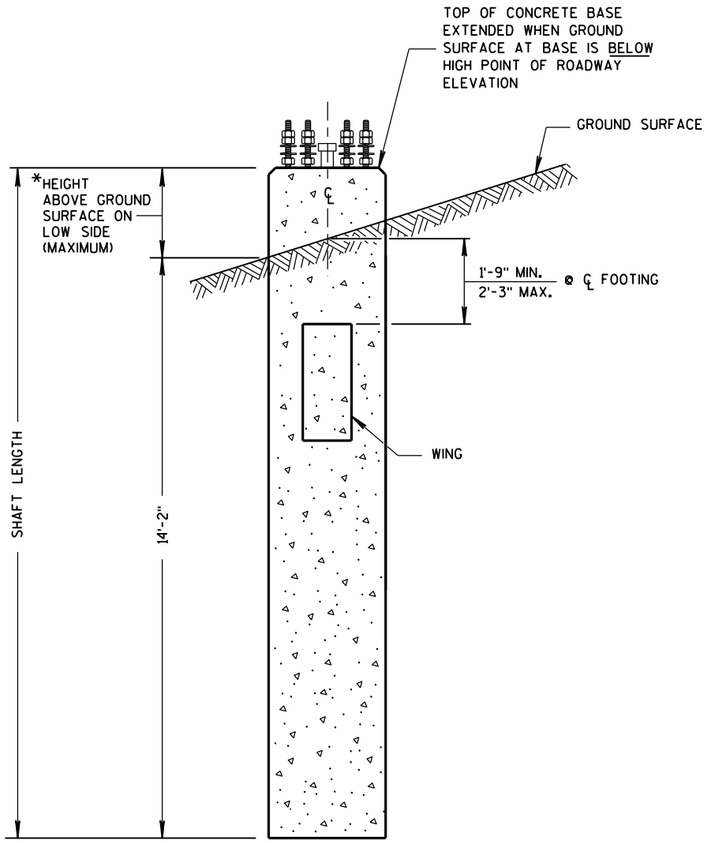
HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF HOOP BAR STEEL	LBS. OF VERTICAL BAR STEEL
>0" TO 6"	10"	14'-6"	14'-1"	16	2.6	78	127
>6" TO 1'-0"	1'-4"	15'-0"	14'-7"	16	2.7	78	131
>1'-0" TO 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



CONCRETE BASE TYPE 10 (EXTENDED)

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 13 (EXTENDED)

CONCRETE BASE
TYPE 10 & TYPE 13 EXTENSION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

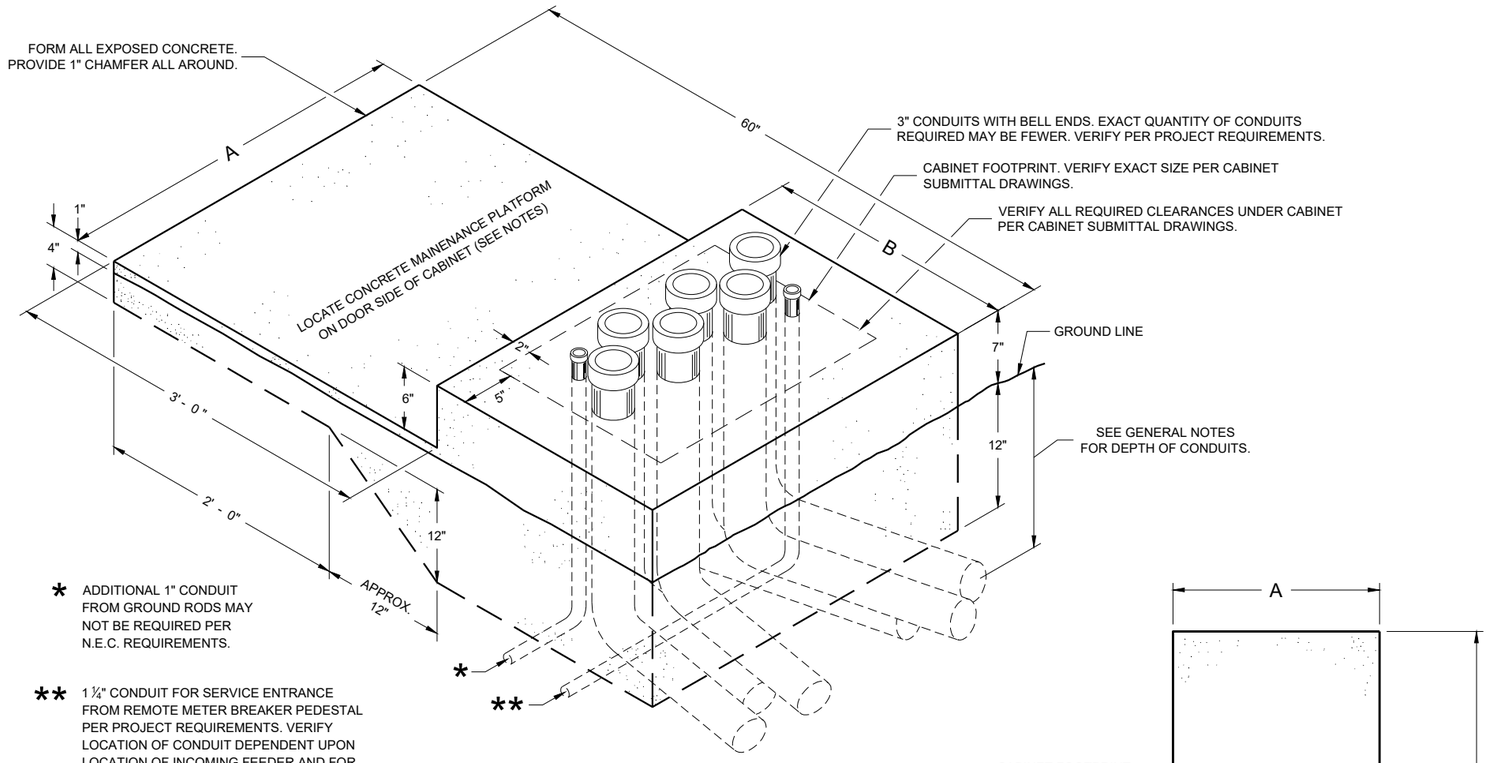
APPROVED
11-26-2013
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA

6

S.D.D. 9 C 13-2

6

S.D.D. 9 C 13-2



* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

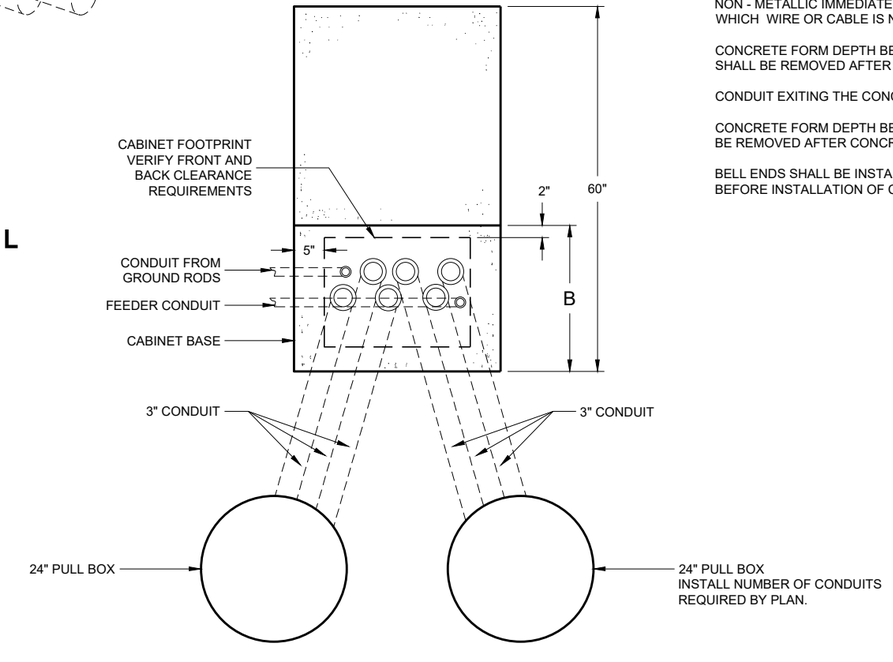
** 1 ¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL 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 NON - METALLIC 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.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS UNLESS DETERMINED BY THE ENGINEER IN THE FIELD.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES 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 NON - METALLIC 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 NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCH MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 418

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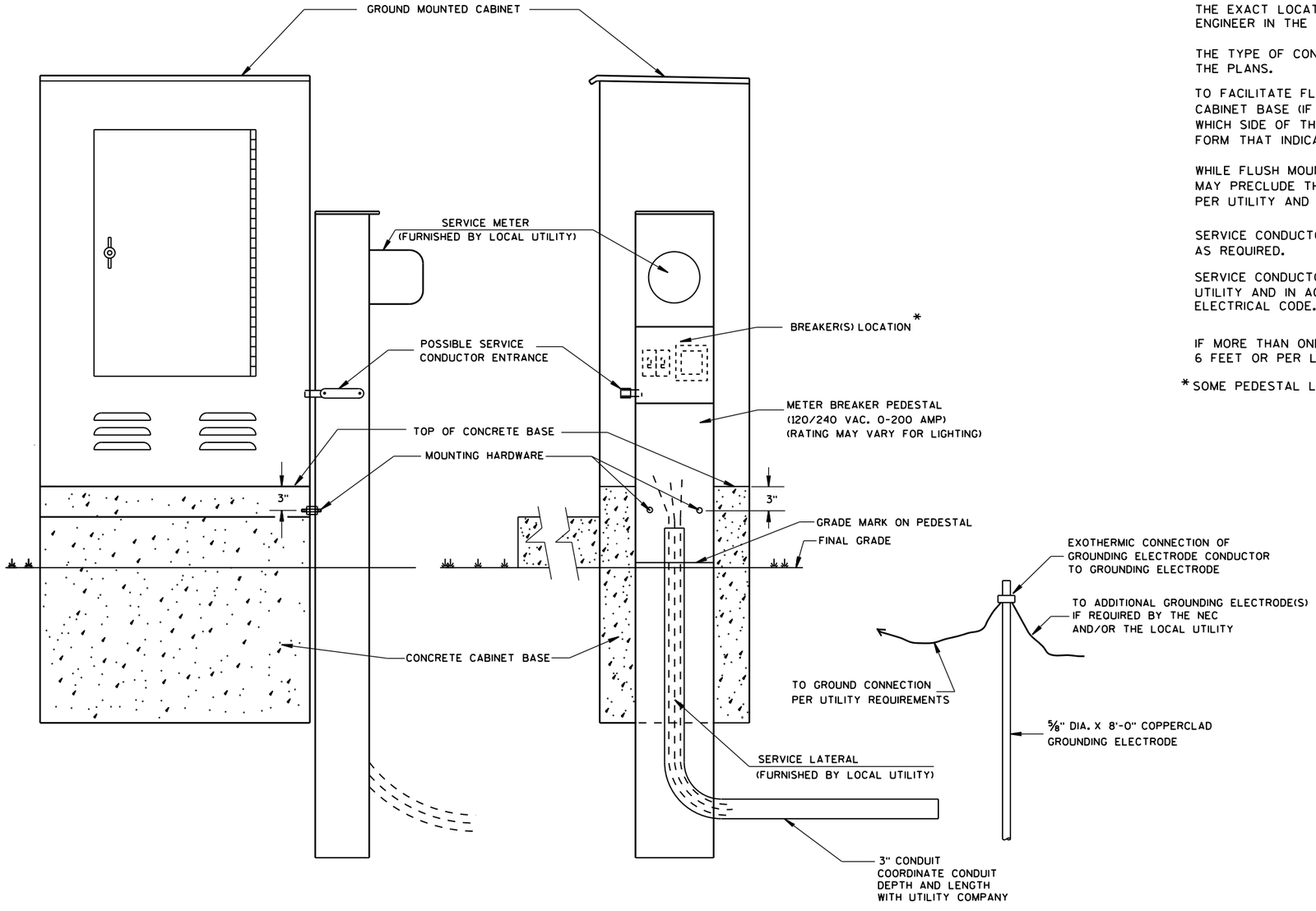

TYPICAL CABINET SERVICE INSTALLATION

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.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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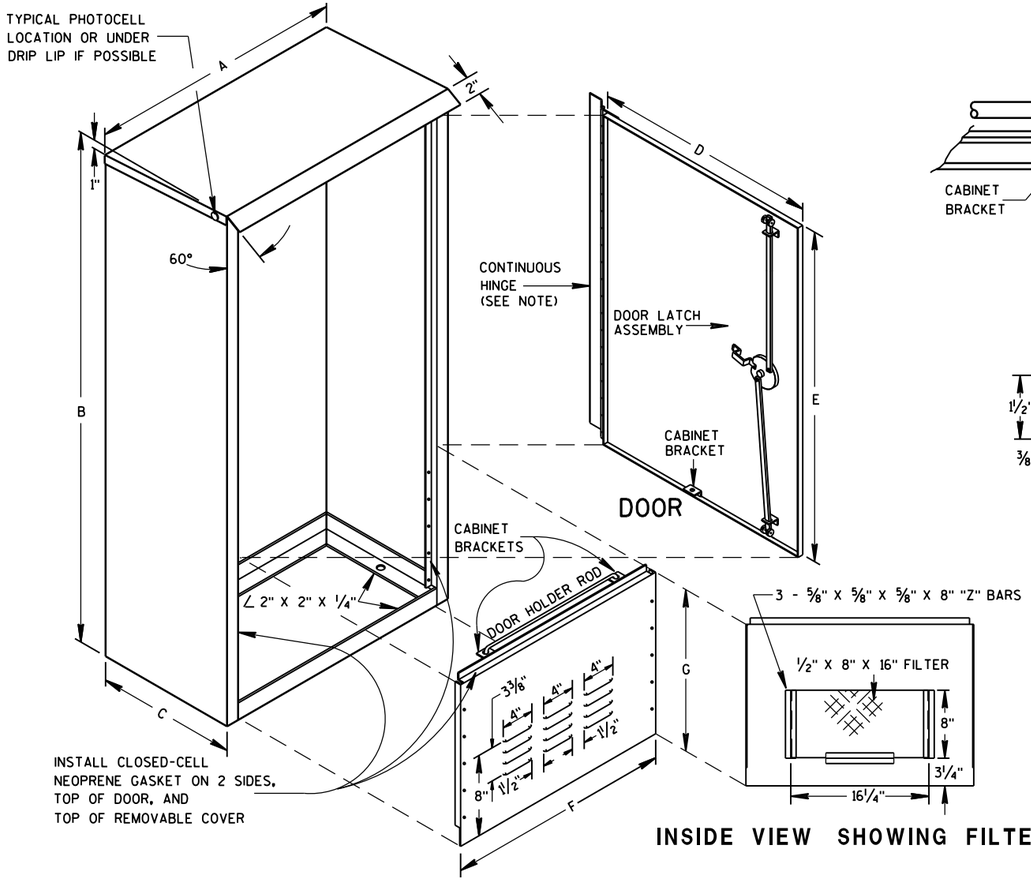
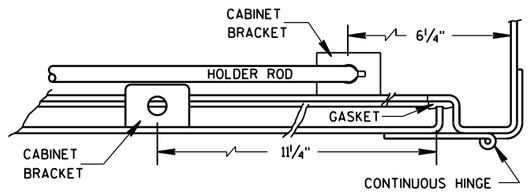
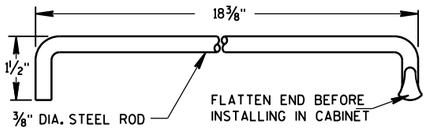


REMOVABLE COVER

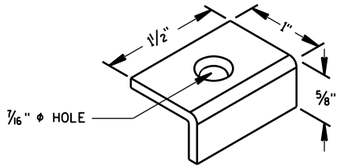
INSIDE VIEW SHOWING FILTER



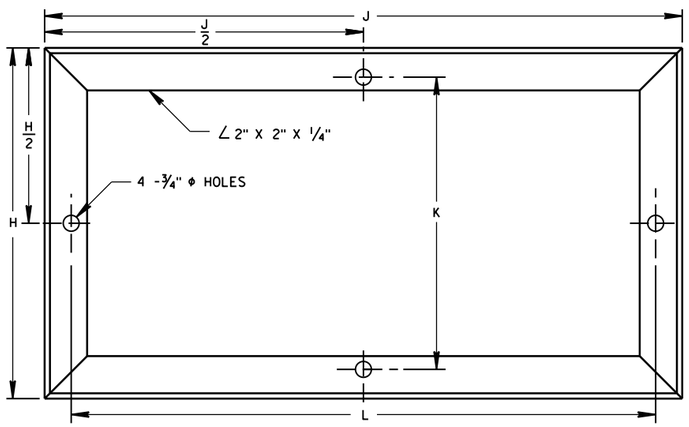
HINGE & DOOR HOLDER



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

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.

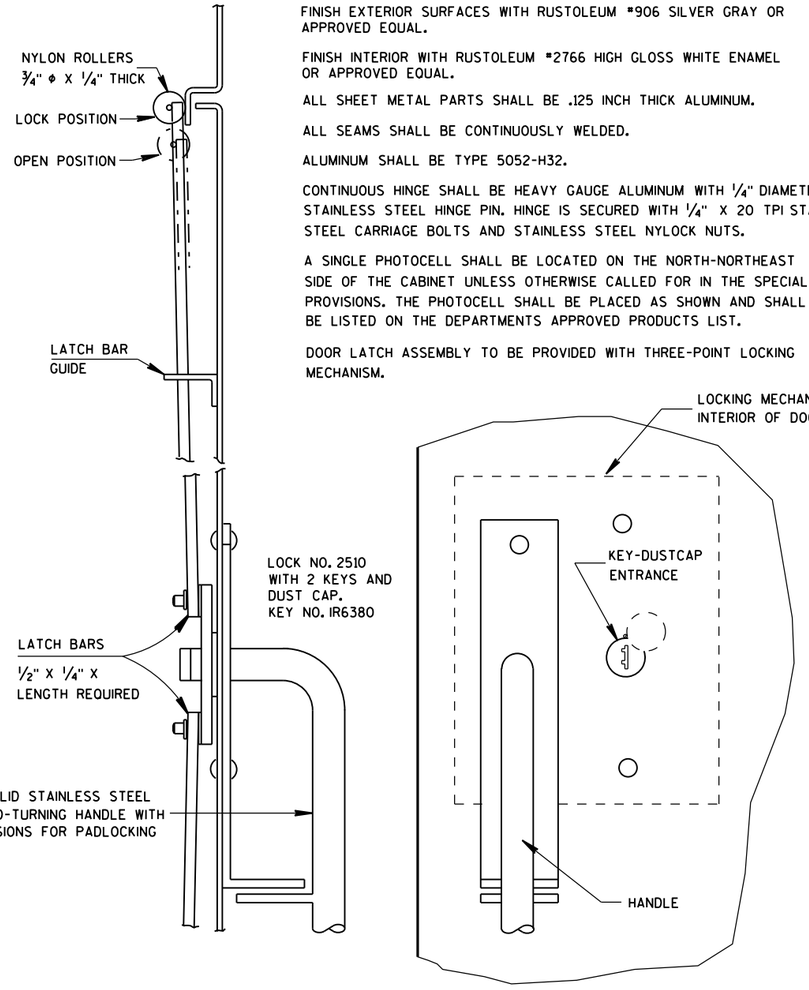
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

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 LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

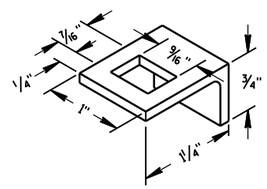
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



SIDE VIEW

FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

/S/ Ahmet Demirbilek
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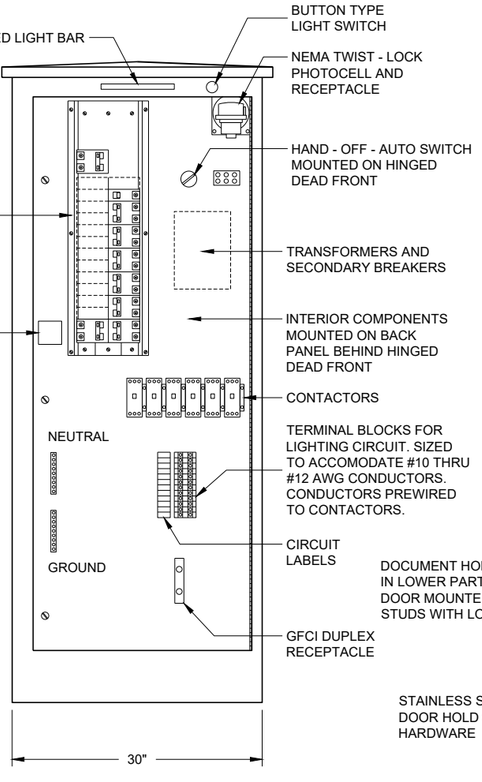
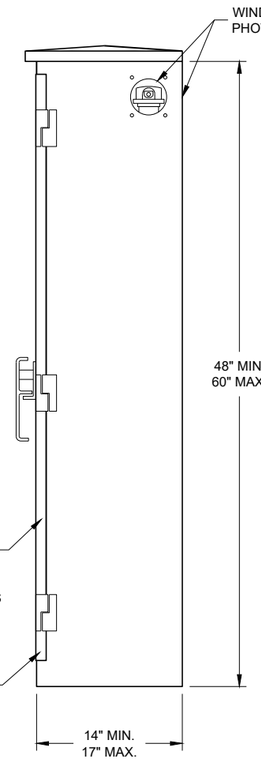
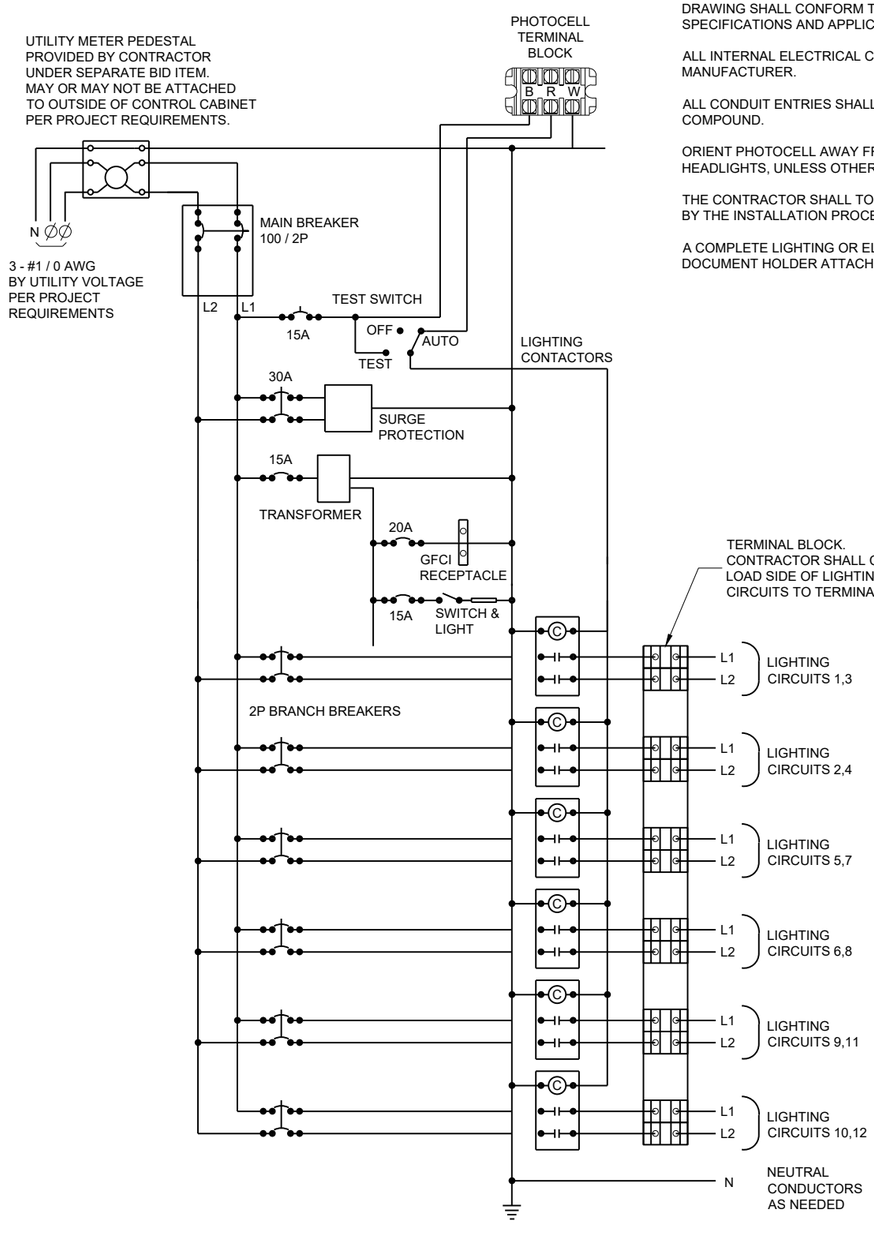
FRONT INTERIOR ELEVATION



SIDE VIEW



LIGHTING CONTROL CABINET



CONTROL CABINET SCHEMATIC

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.

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE - WIRED BY THE CABINENT MANUFACTURER.

ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS, UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISION.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

L30
LIGHTING CONTROL CABINET 240 / 480 VOLT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
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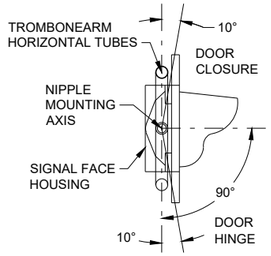
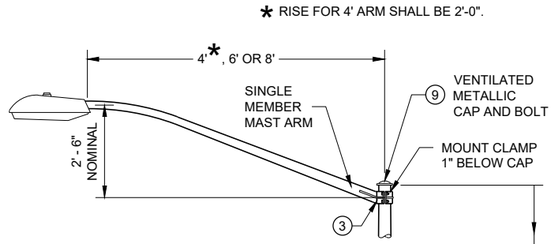
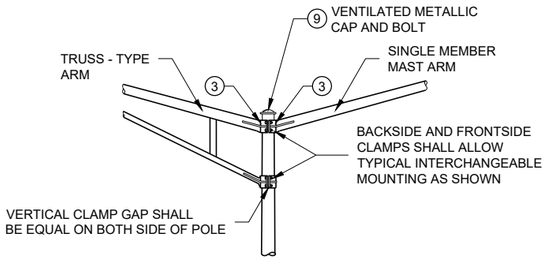
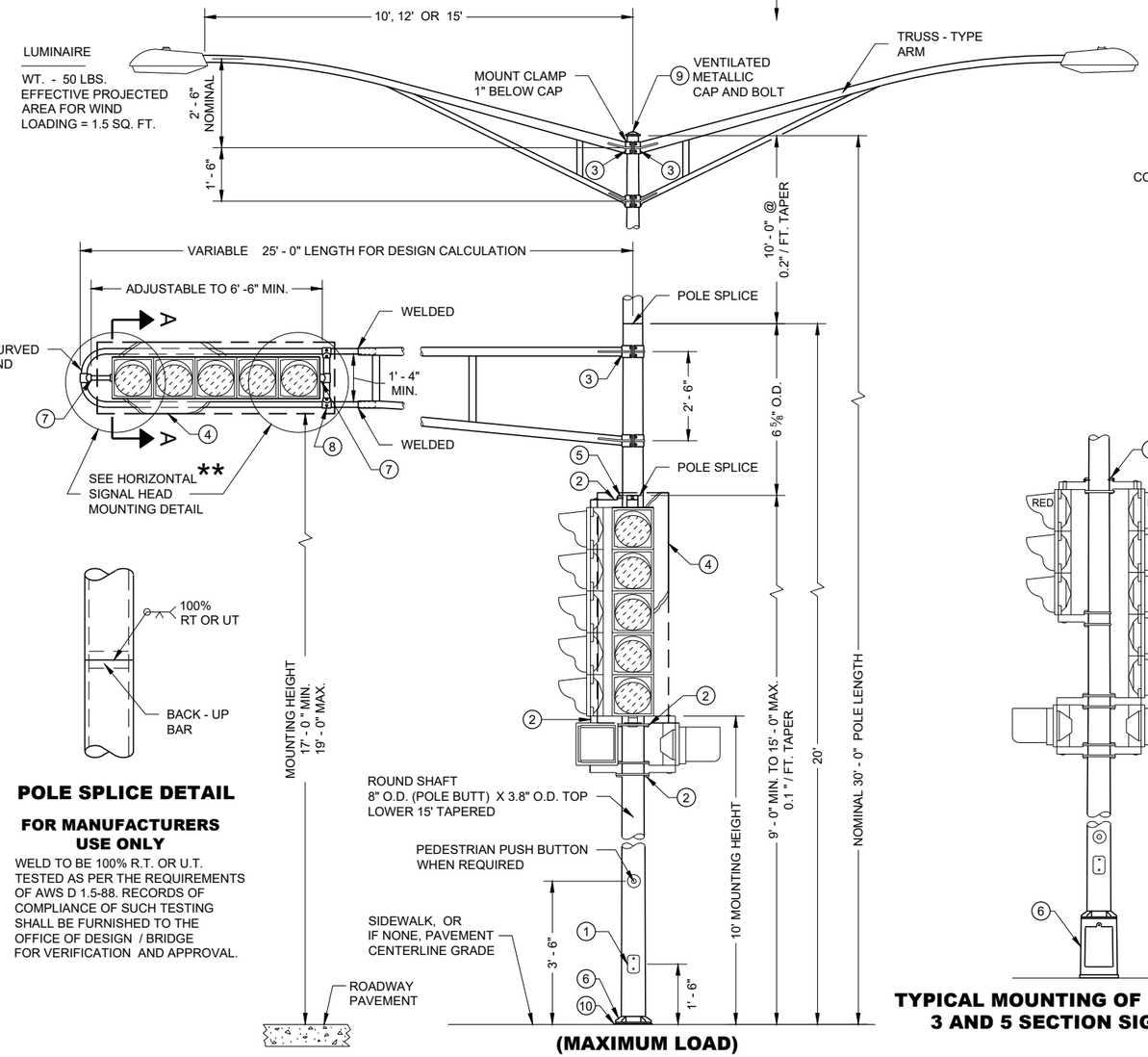


SECTION A-A

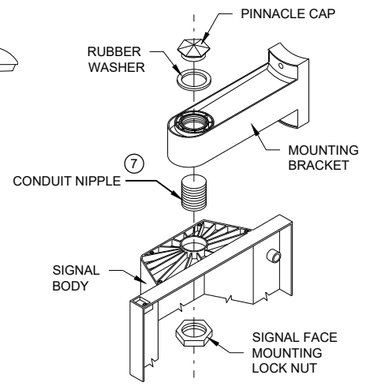




INTERCHANGEABLE MOUNTING DETAIL



(MAXIMUM LOAD)

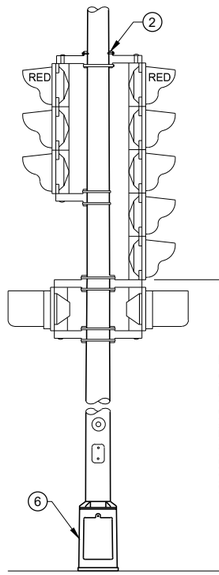


SIGNAL FACE MOUNTING DETAIL
(BANDED)

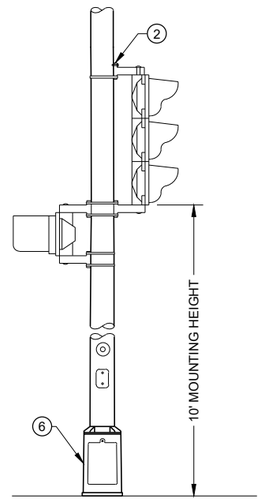
POLE SPLICE DETAIL

FOR MANUFACTURERS USE ONLY

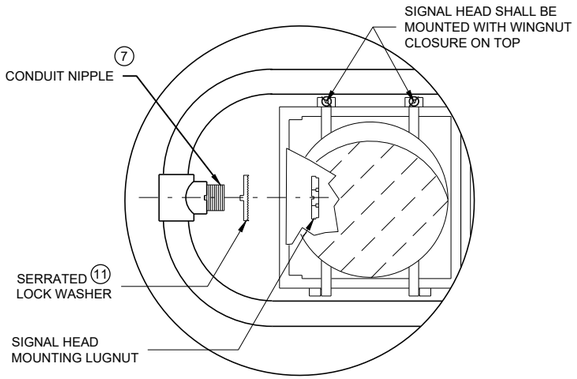
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD ** MOUNTING DETAIL

** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/8 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED. UNDER MAX LOADING, TYPE 3 POLE SHALL BE MOUNTED DIRECTLY TO ITS CONCRETE BASE.

(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

TYPE 3 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS TYPE 3 (HEAVY DUTY)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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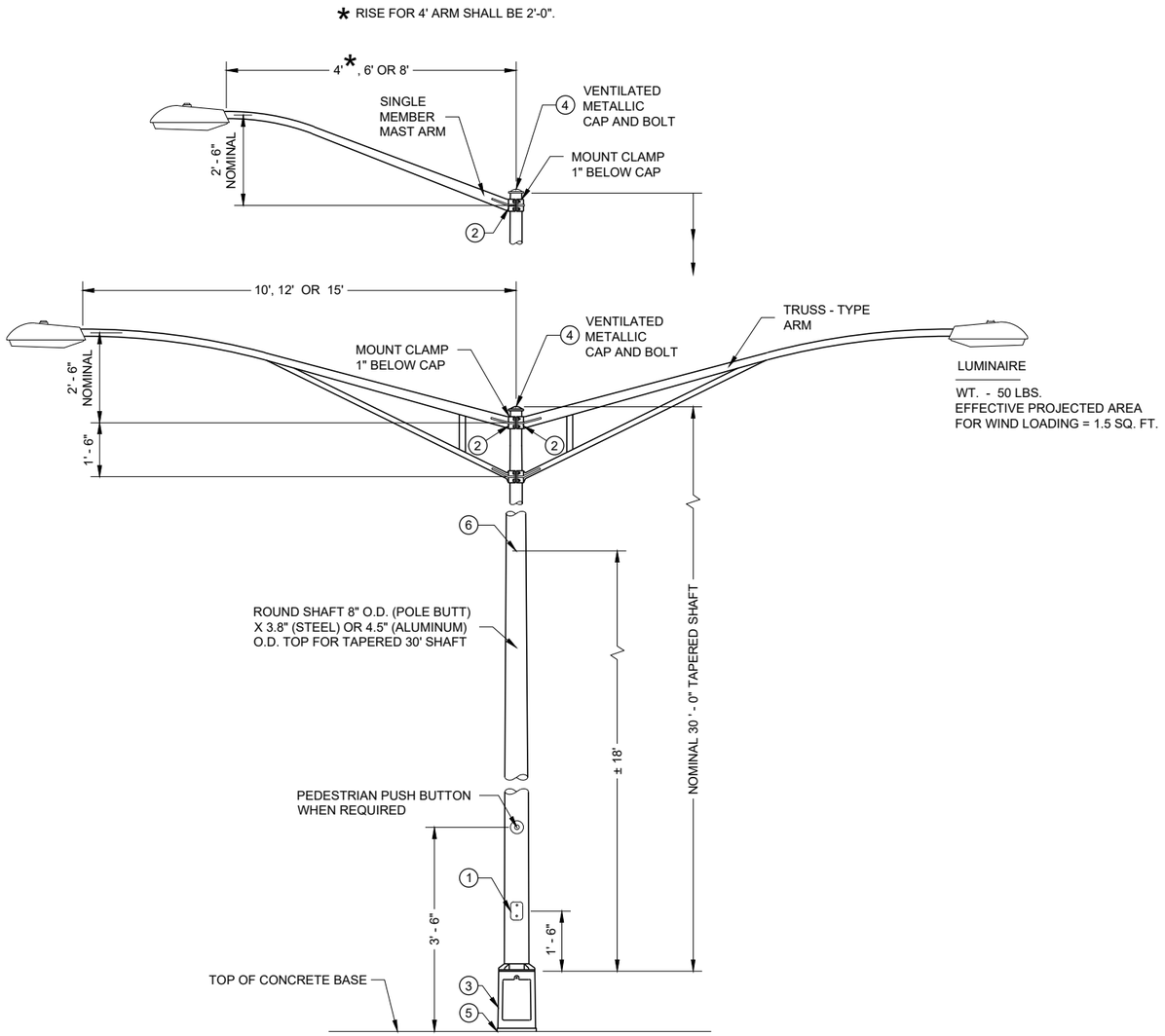


TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

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.

TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

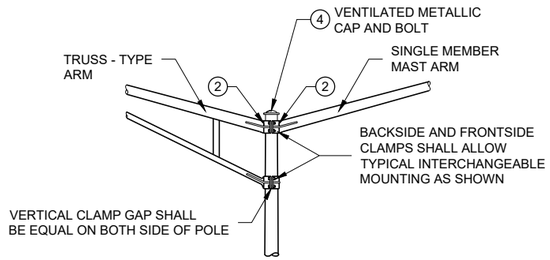
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(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 POLE.

(6) INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.



INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)

STATE OF WISCONSIN
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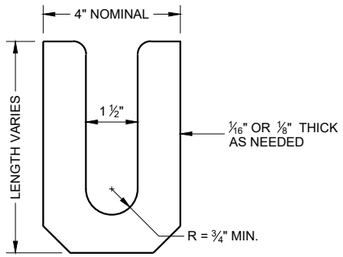
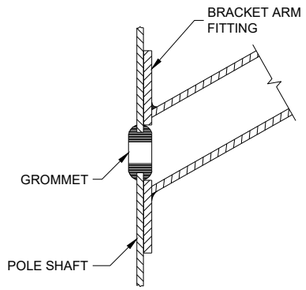
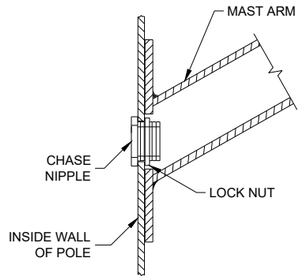


LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

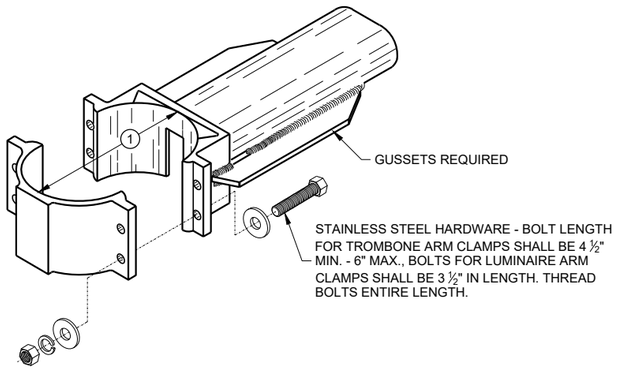
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

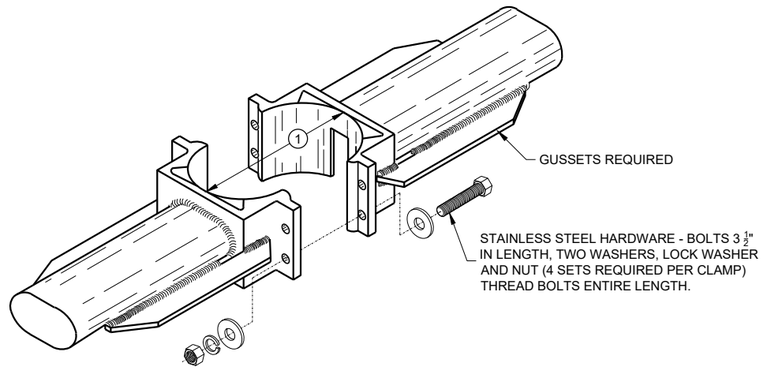
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

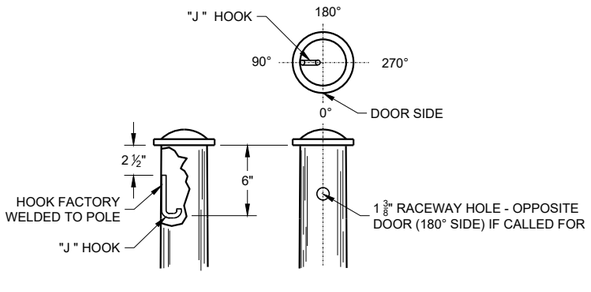
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



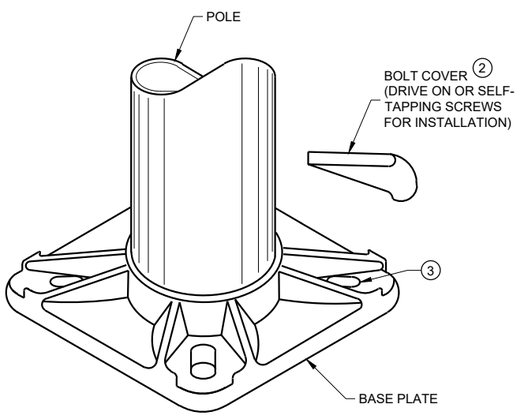
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



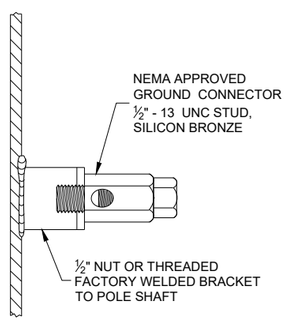
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

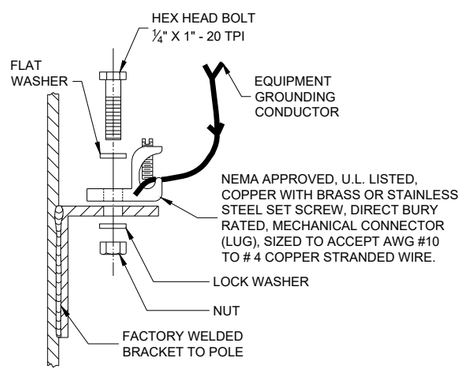


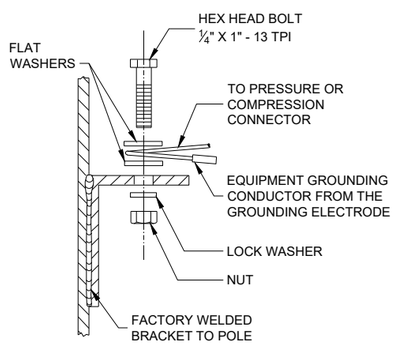
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 424

FHWA

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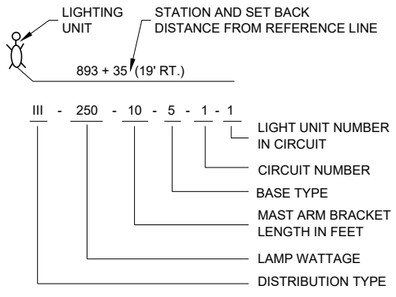
SDD 09A01 - 15g

GENERAL NOTES

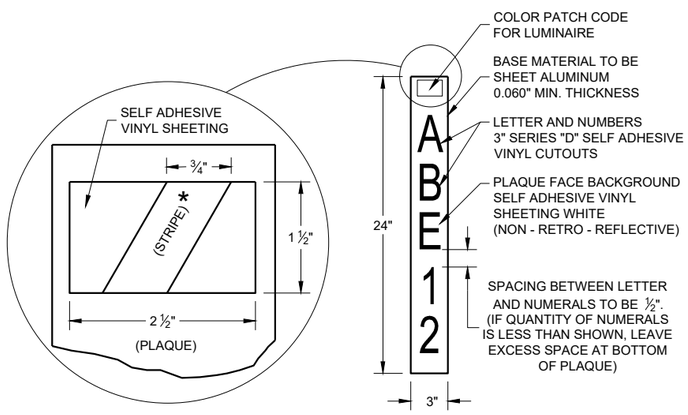
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 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.



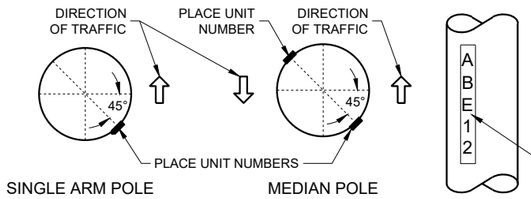
LIGHTING UNIT CODE
(TYPICAL)



COLOR PATCH CODE FOR LUMINAIRES

(HIGH PRESSURE SODIUM)	(MERCURY VAPOR)
1000 WATT - NO PATCH	400 WATT - NO PATCH
400 WATT - ORANGE	250 WATT - YELLOW
310 WATT - BLUE	
250 WATT - ORANGE W / WHITE STRIPE *	
200 WATT - RED	
150 WATT - GREEN	
100 WATT - BROWN	

IDENTIFICATION PLAQUE



NOTES

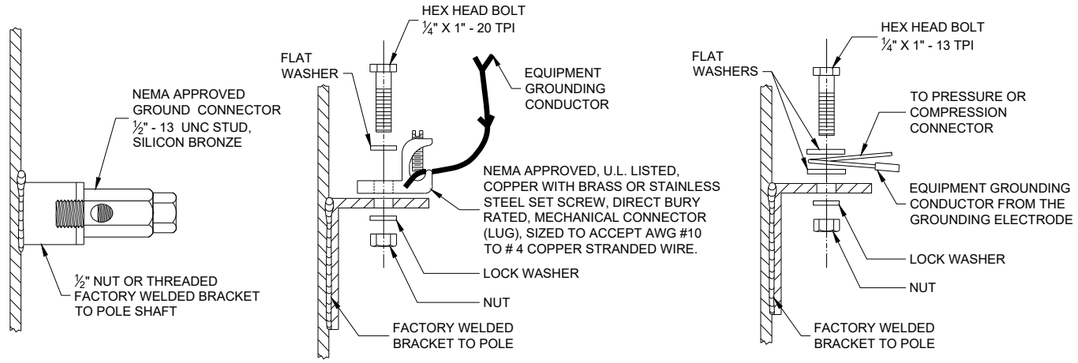
1) PLACE BOTTOM OF UNIT NUMBER PLAQUE 5'-0" ABOVE ELEVATION OF ADJACENT CURB OR SHOULDER.

2) UNIT NUMBER: ONE REQUIRED FOR SINGLE ARM POLES. TWO REQUIRED FOR MEDIAN MOUNT POLES.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE WITH 3 ALUMINUM POP RIVETS (ALUMINUM POLES) OR STAINLESS STEEL POP RIVETS (STEEL POLES).

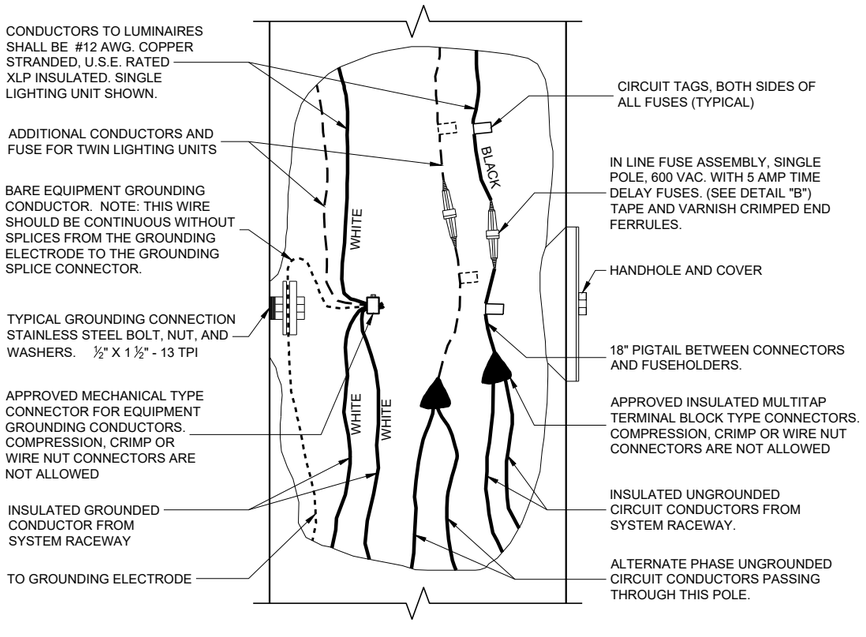
LIGHTING UNIT IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENT
(TYPICAL, ALL LIGHTING UNITS)

FURNISH PLAQUE WHEN CALLED FOR BY SPECIAL PROVISIONS

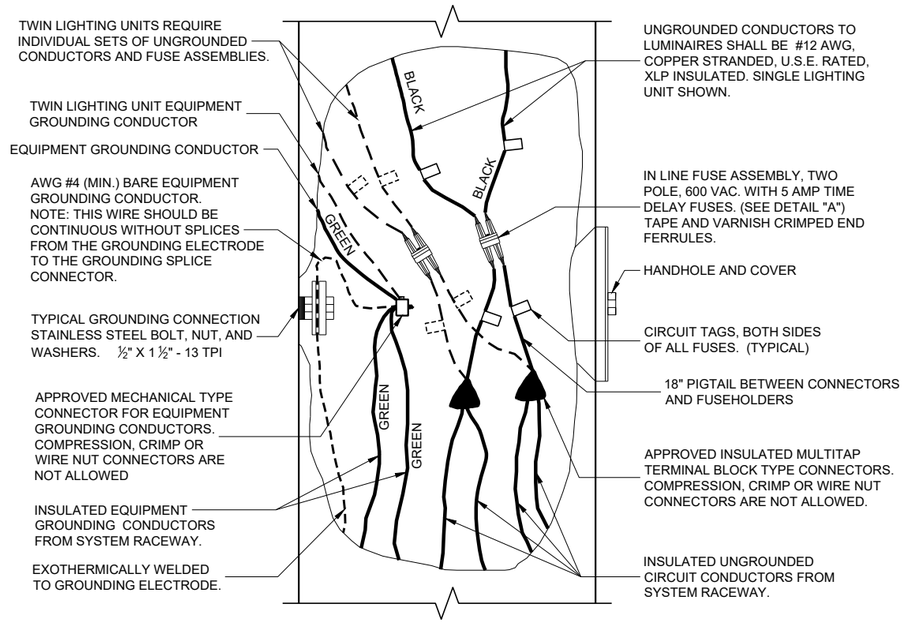


TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

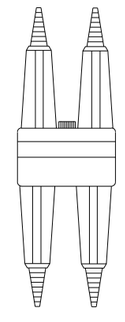
OLD EXISTING FREEWAY WIRING (SOME AREAS)



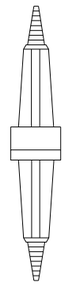
2 WIRE - 120, 240, OR 480 VAC TO GROUND



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR



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
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 425

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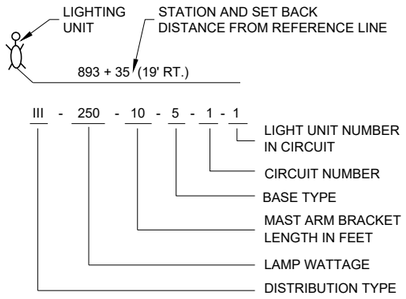
GENERAL NOTES

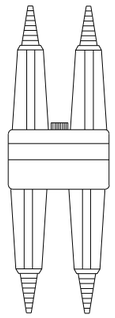
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

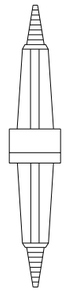
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



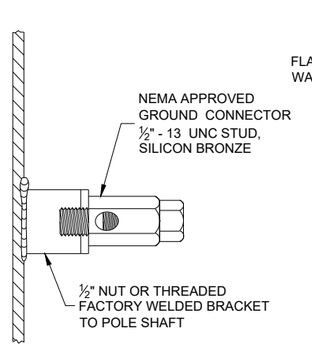
LIGHTING UNIT CODE
(TYPICAL)



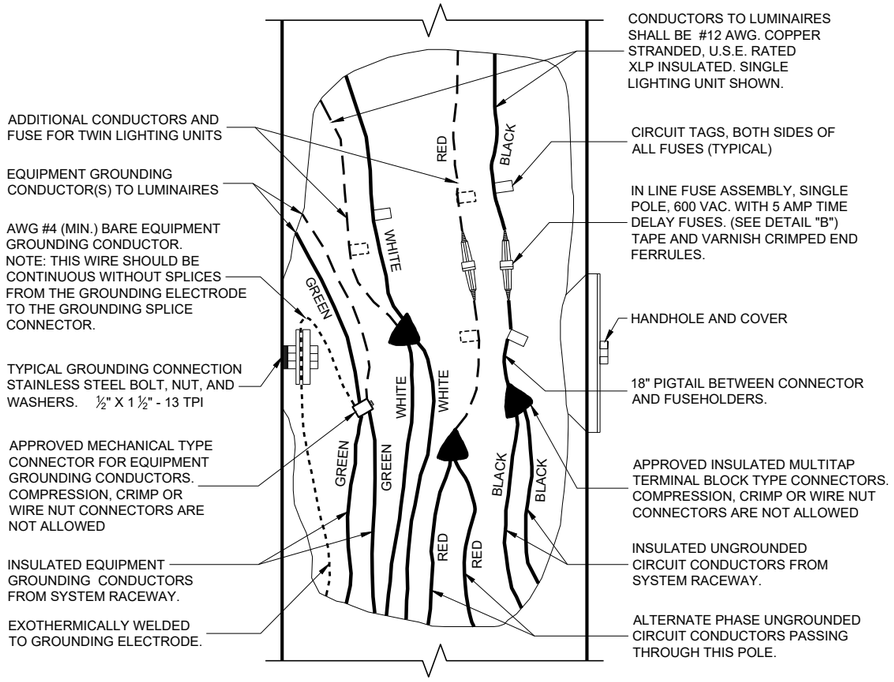
DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



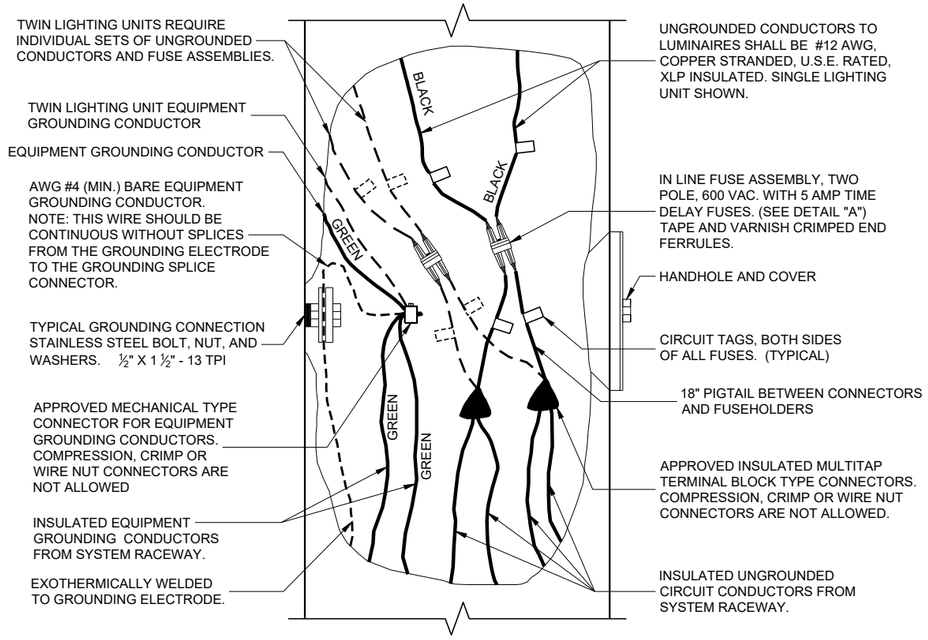
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 426

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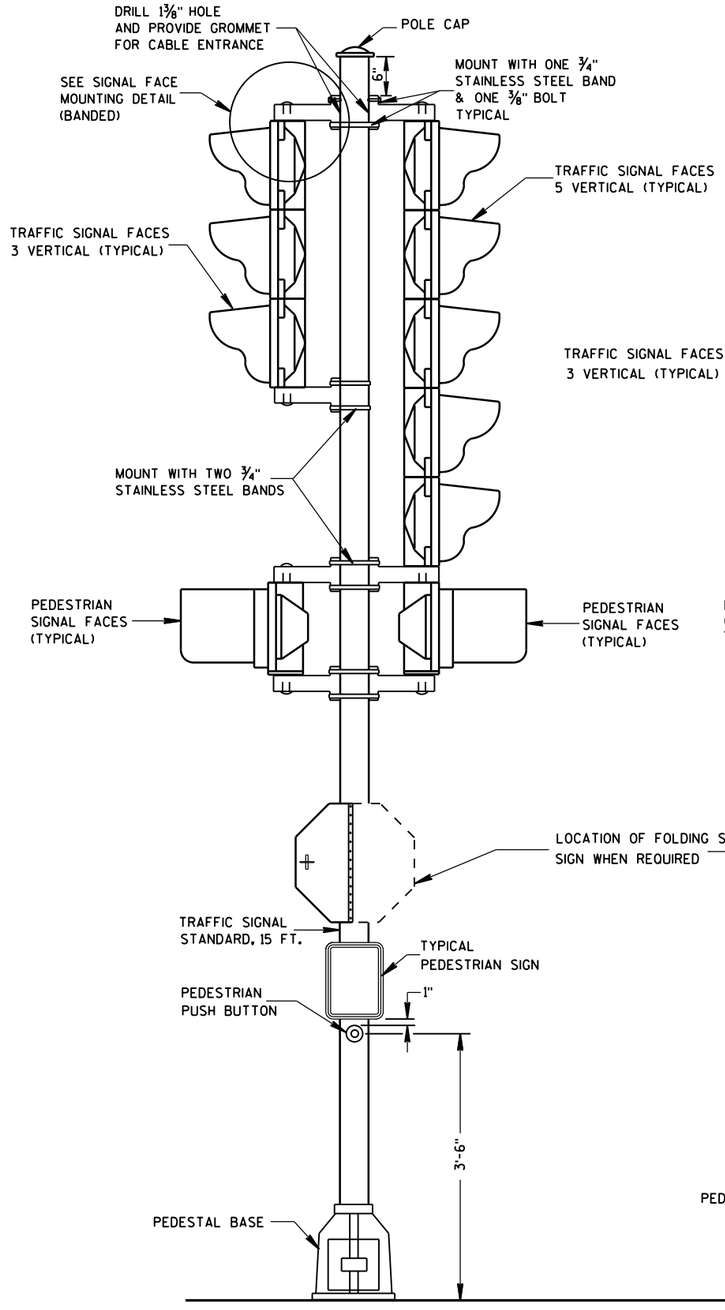
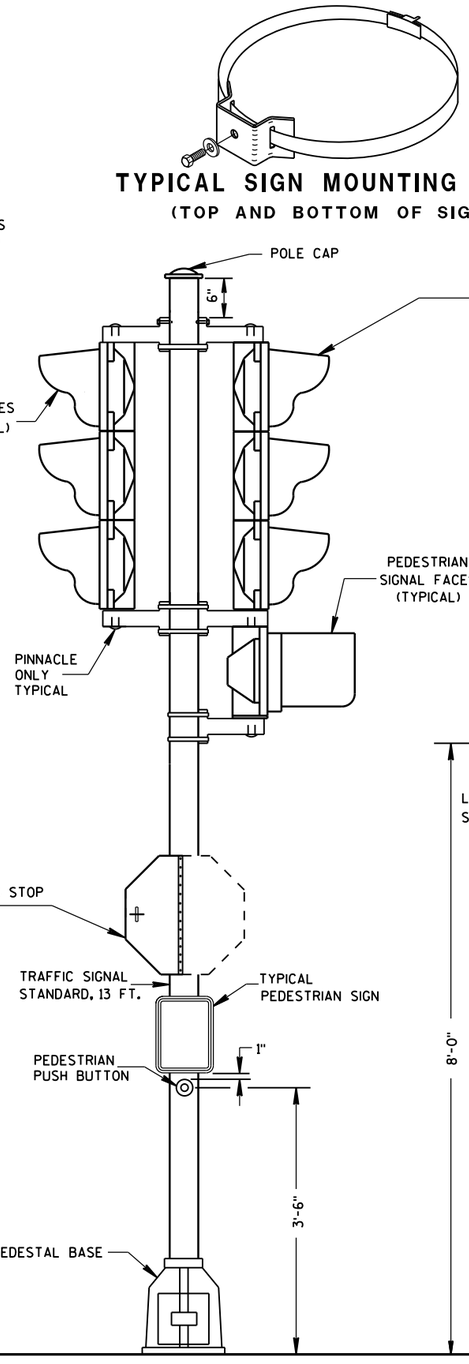
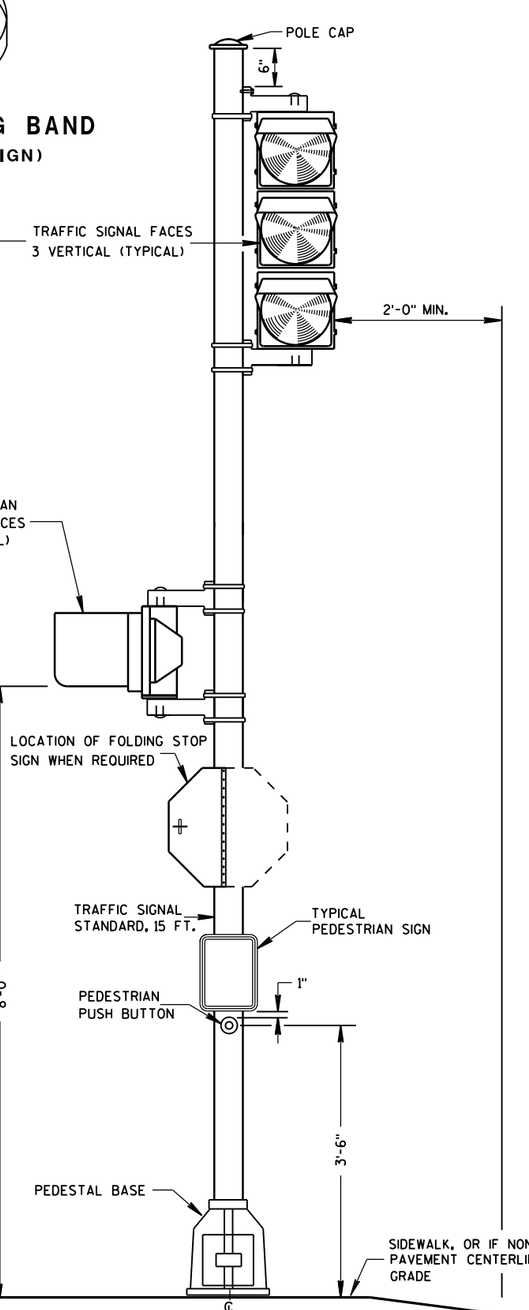


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

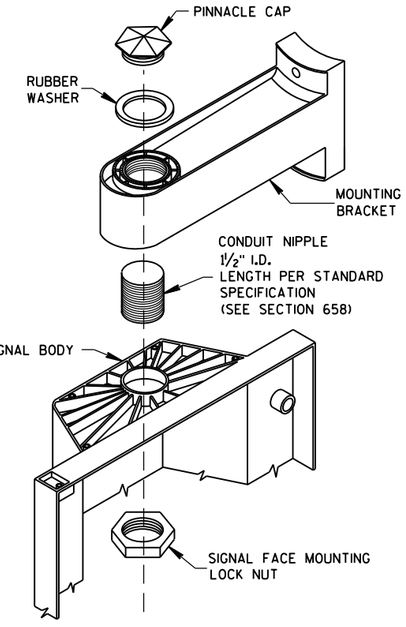
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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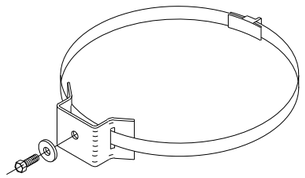
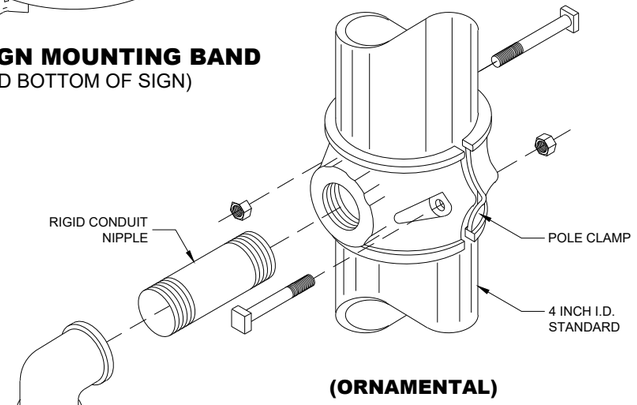


TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



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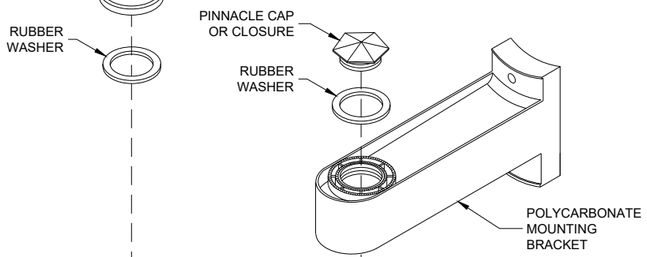

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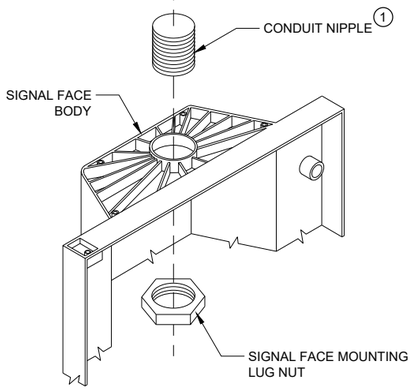
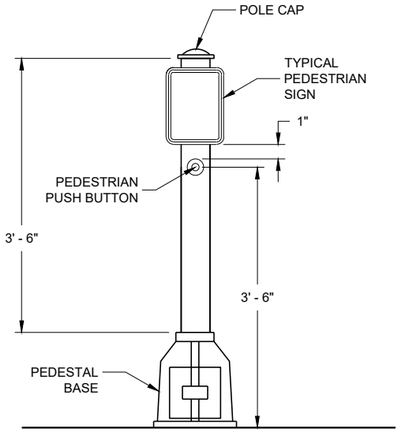
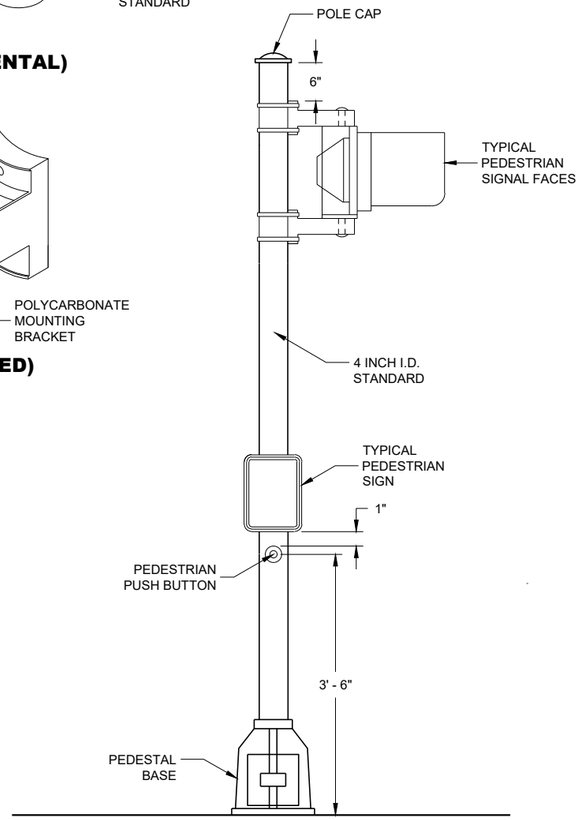


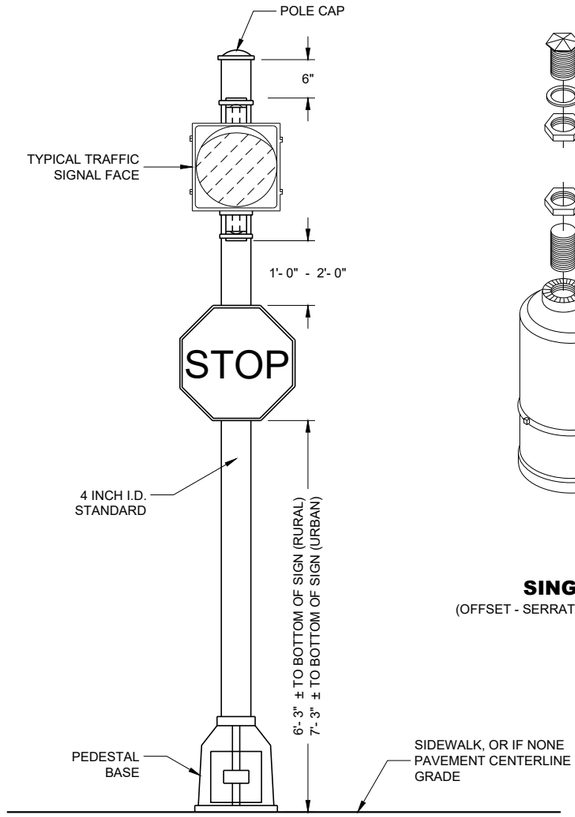
SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING



PEDESTRIAN FACE STANDARD - 10 FT.
(WALK - DON'T WALK)



STANDARD FLASHER
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

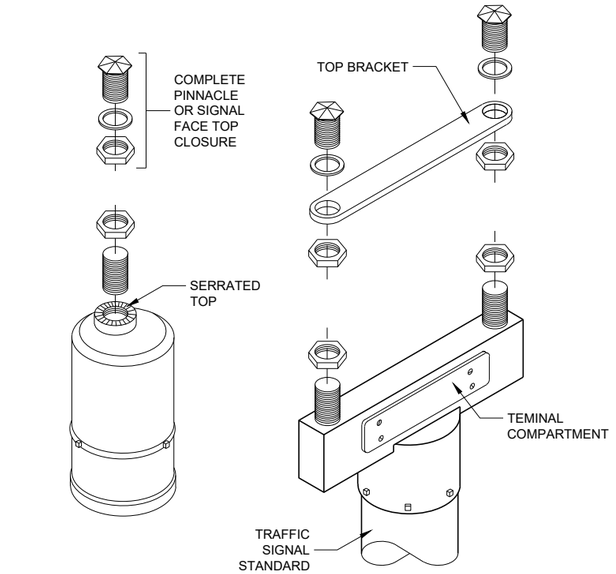
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD
PEDESTRIAN AND FLASHER
TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 428

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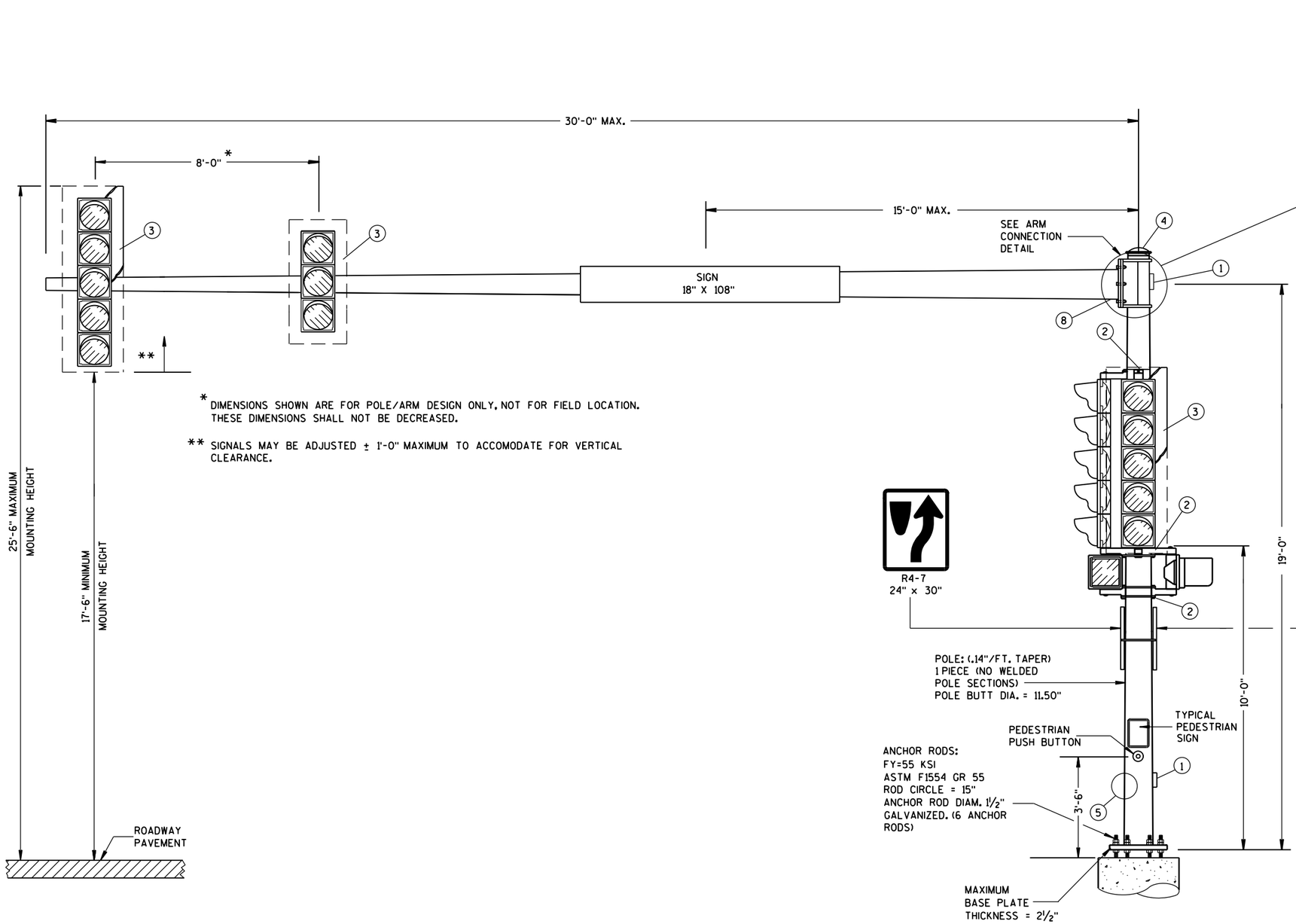
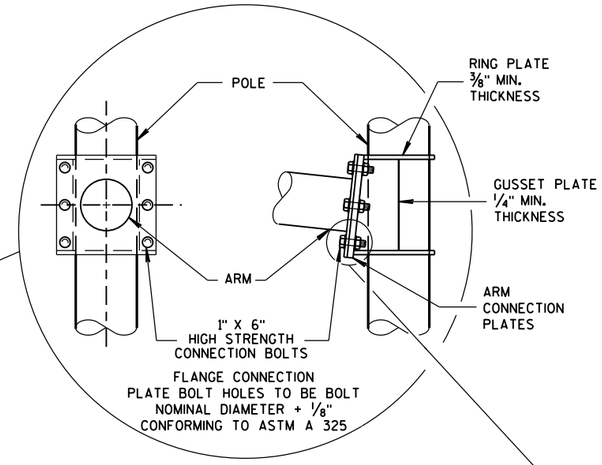
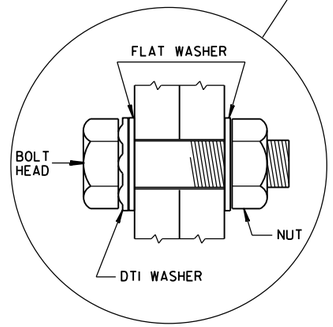


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

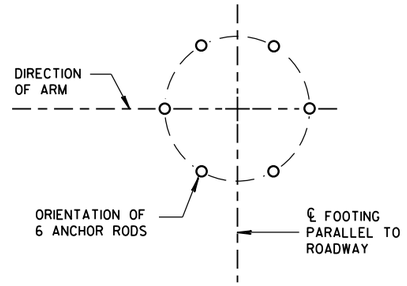
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY 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
May, 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL

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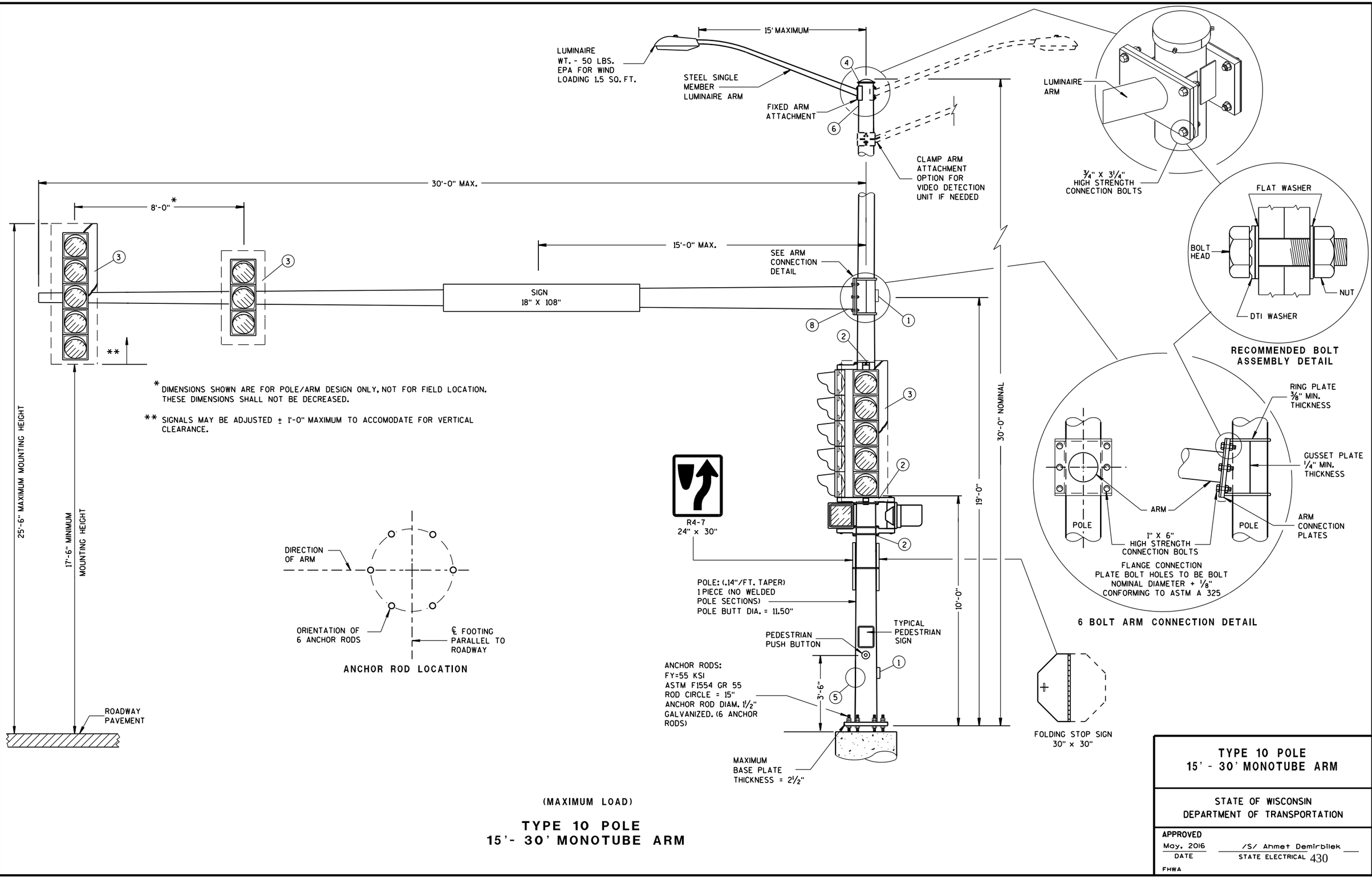

* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

(MAXIMUM LOAD)

TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
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/S/ Ahmet Demirbilek — STATE ELECTRICAL
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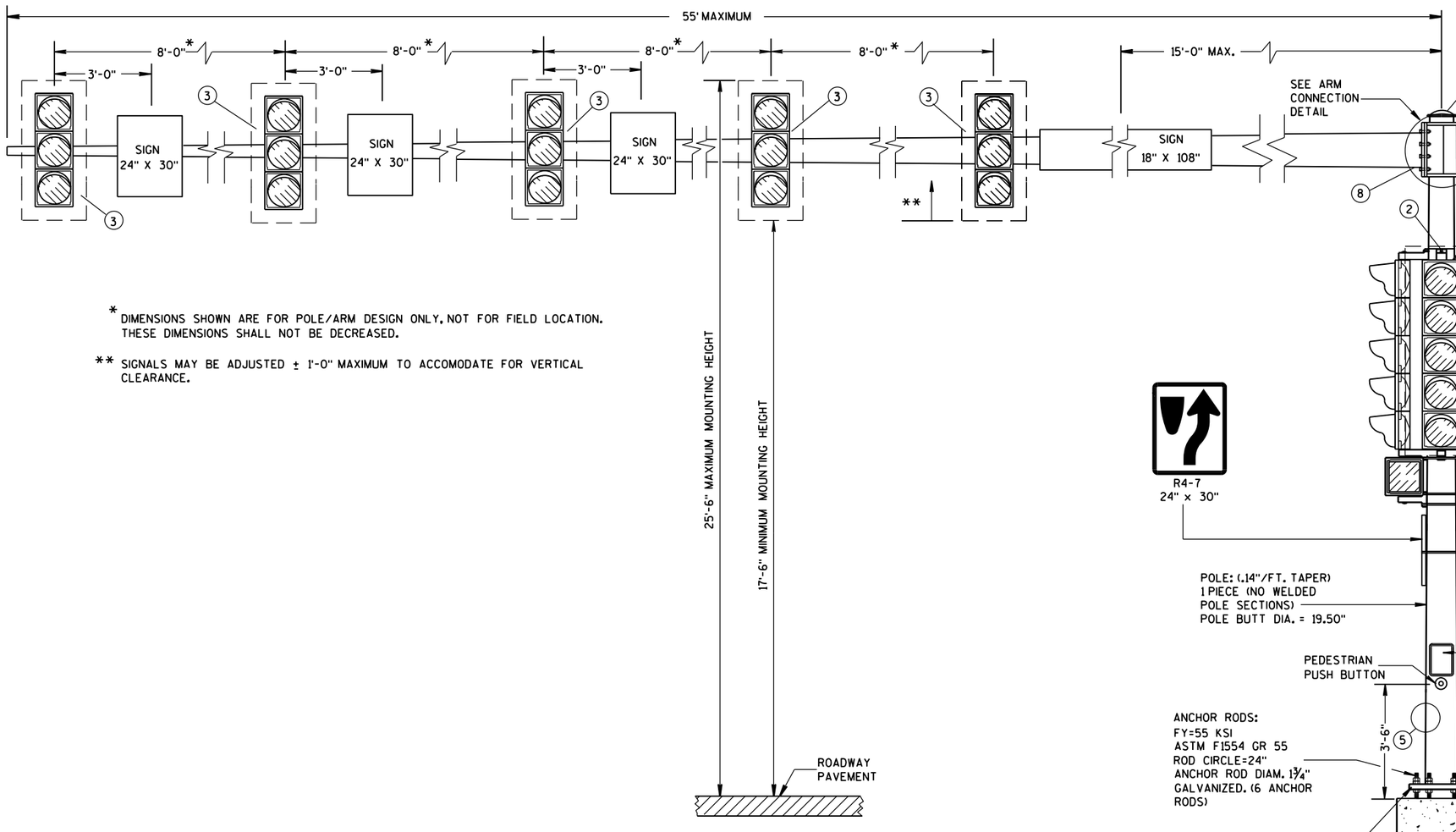
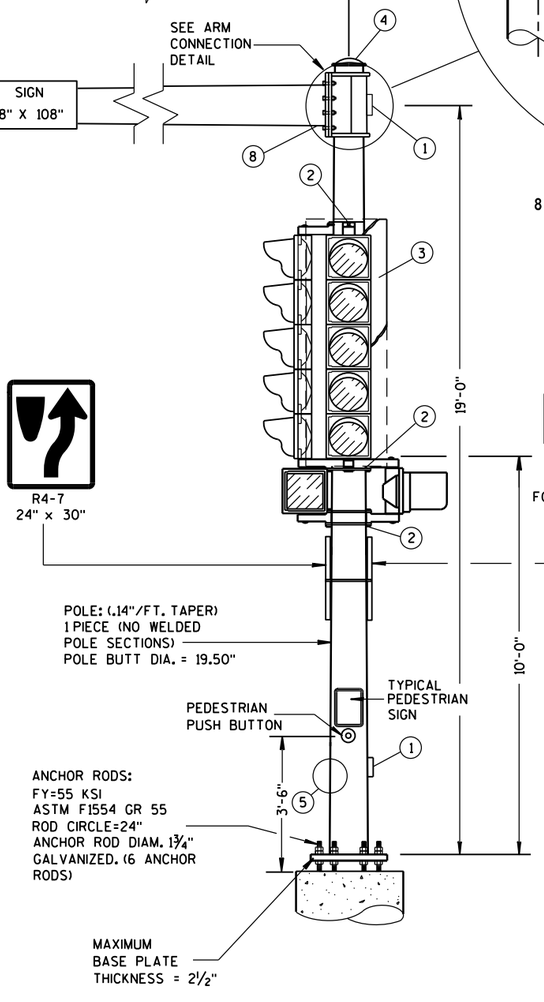
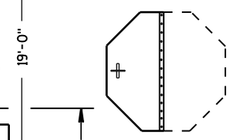
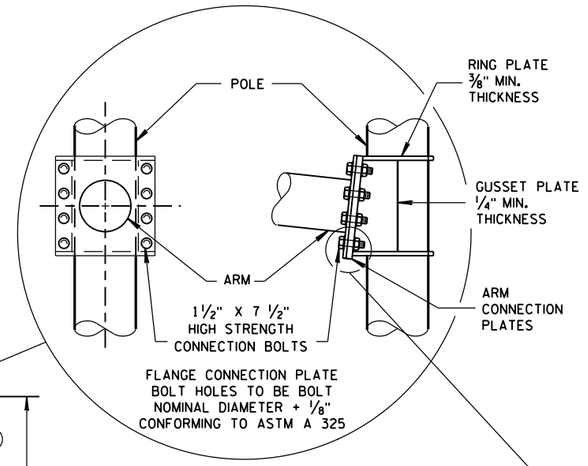


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

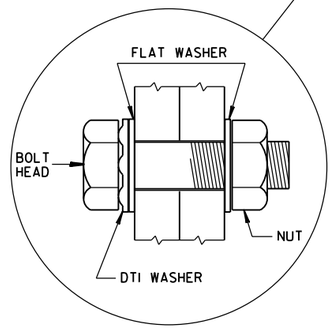
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



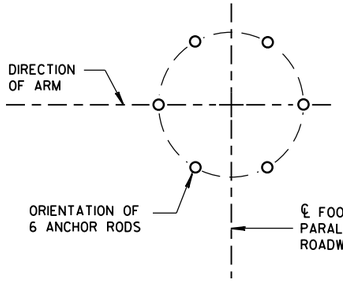




8 BOLT ARM CONNECTION DETAIL



RECOMMENDED
BOLT ASSEMBLY
DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE 35'- 55' MONOTUBE ARM

TYPE 12 POLE 35' - 55' MONOTUBE ARM
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED May, 2015 — DATE /S/ Ahmet Demirbilek — STATE ELECTRICAL
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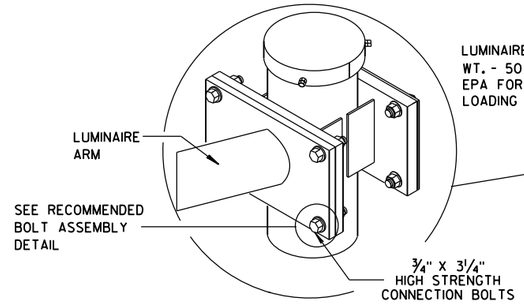
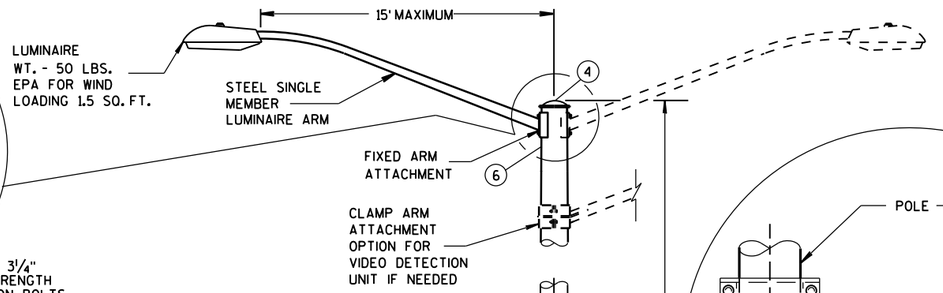
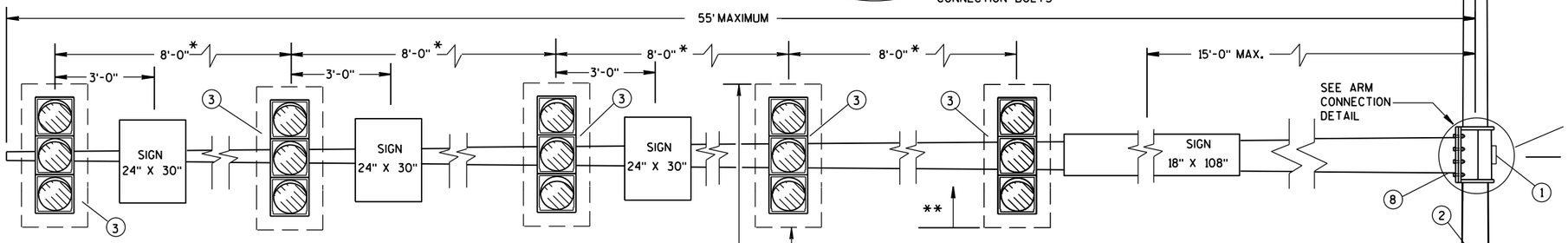
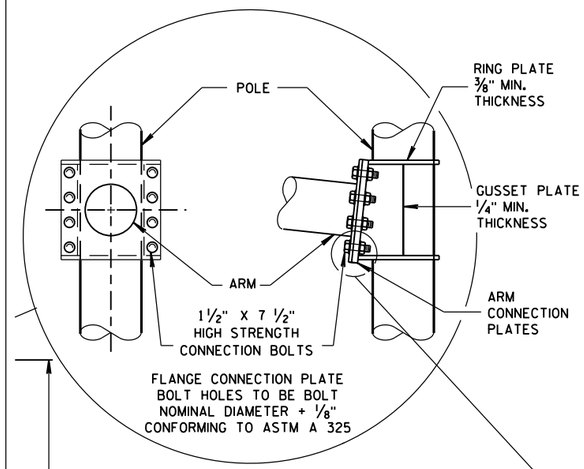




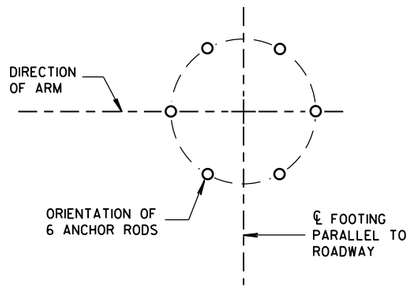




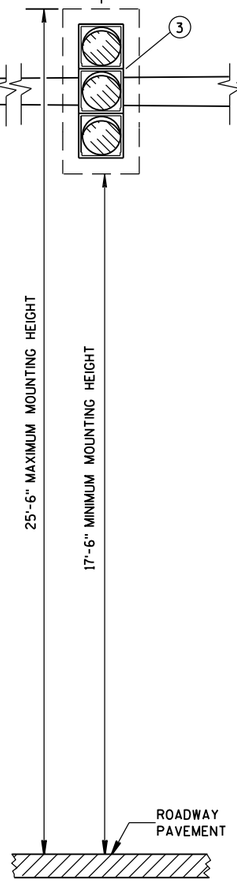
8 BOLT ARM CONNECTION DETAIL

* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

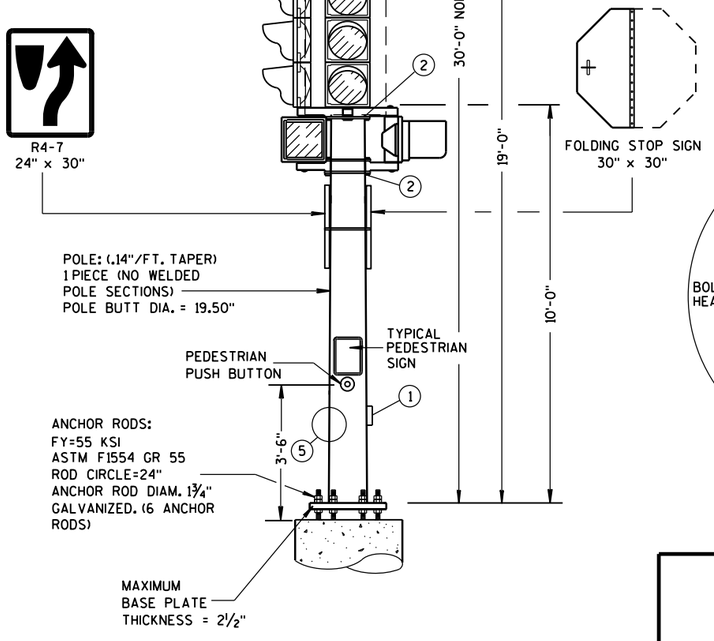
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

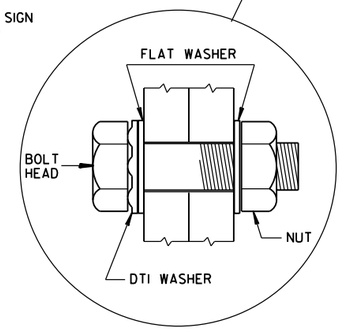


ANCHOR ROD LOCATION



(MAXIMUM LOAD)





RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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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 AASHTO 2013 6TH EDITION 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.

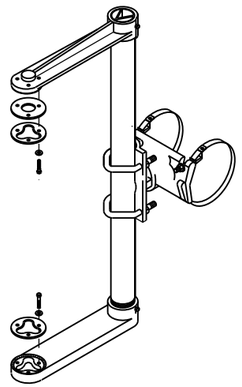
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

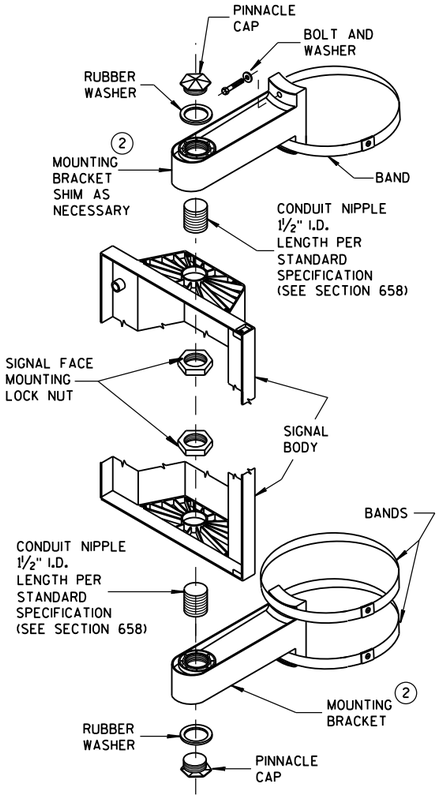
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

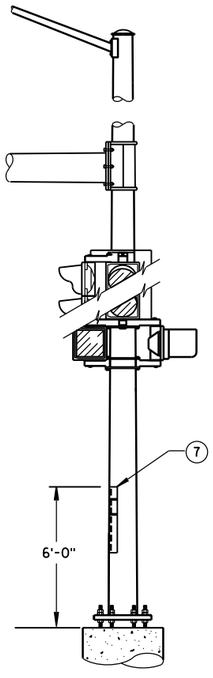


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

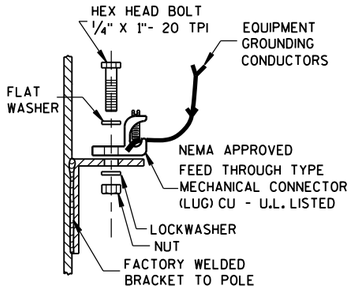
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

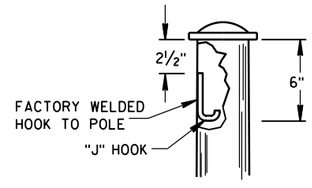


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL
BE STAINLESS STEEL



"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
May 2016
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

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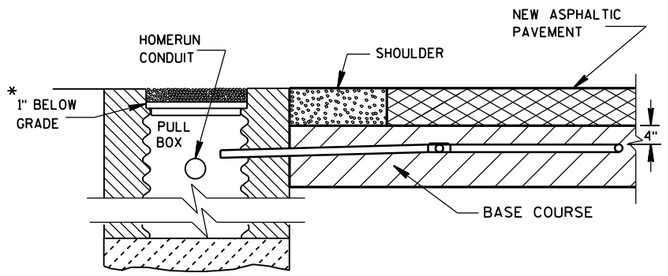
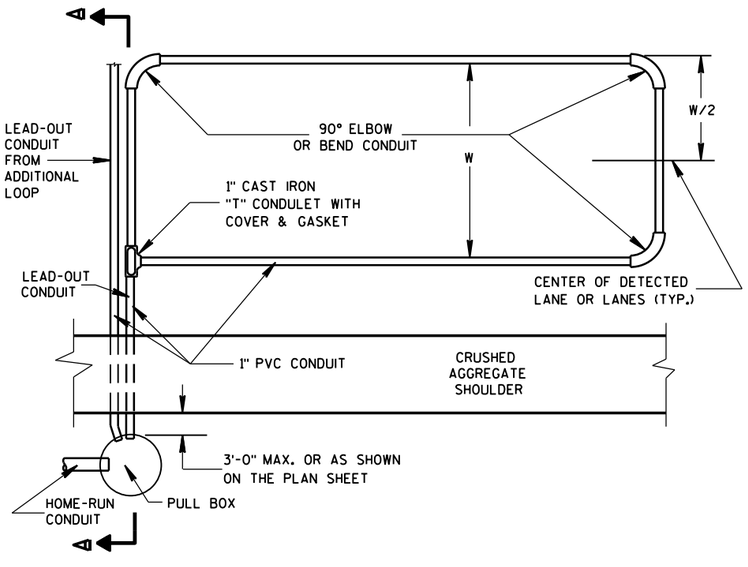


SECTION A-A
NO CURB & GUTTER

DETECTOR LOOP INSTALLATION DETAIL

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.



TYPICAL PLAN OF LOOP DETECTOR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD-OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

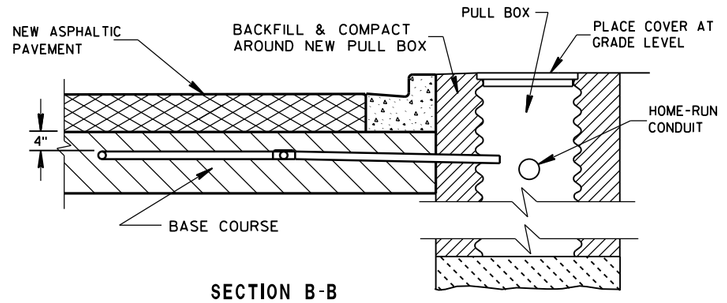
SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT AND CONDULET SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE ASPHALTIC PAVEMENT IS PLACED.

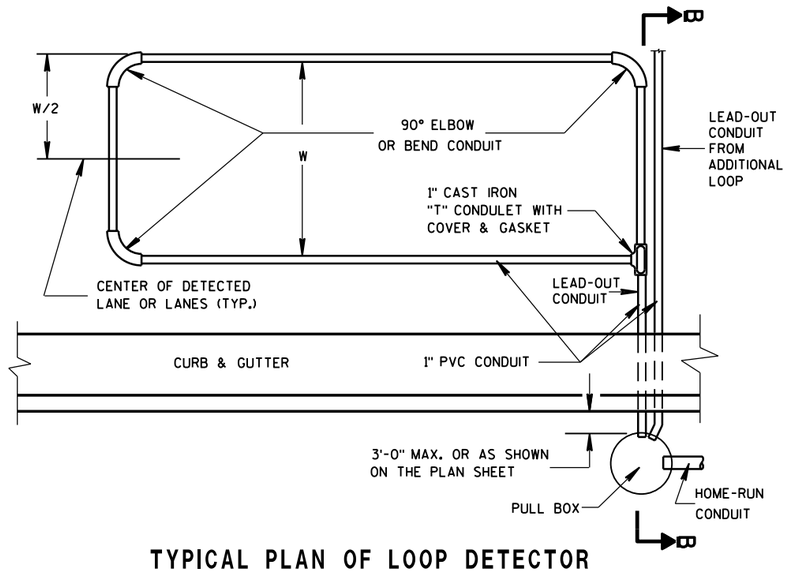
WHEN MULTIPLE LAYERS OF ASPHALTIC PAVEMENT ARE TO BE PLACED, LOOPS MAY BE INSTALLED BY SAWING A TWO INCH WIDE SLOT IN THE FIRST LAYER, DIG OUT THE ASPHALTIC MATERIAL AND BASE COURSE, PLACE THE LOOP, FILL THE SLOT WITH BASE COURSE MATERIAL AND NEW ASPHALTIC MATERIAL AND TAMP THE ASPHALTIC MATERIAL IN PLACE.

SHOULD TRAFFIC BE ALLOWED TO USE THE AREA OF ROADWAY WITH THE NEWLY INSTALLED LOOP BEFORE THE PLACEMENT OF THE NEXT LAYER OF ASPHALTIC PAVEMENT, THE SLOT/PAVEMENT OPENING SHALL BE SEALED WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".



SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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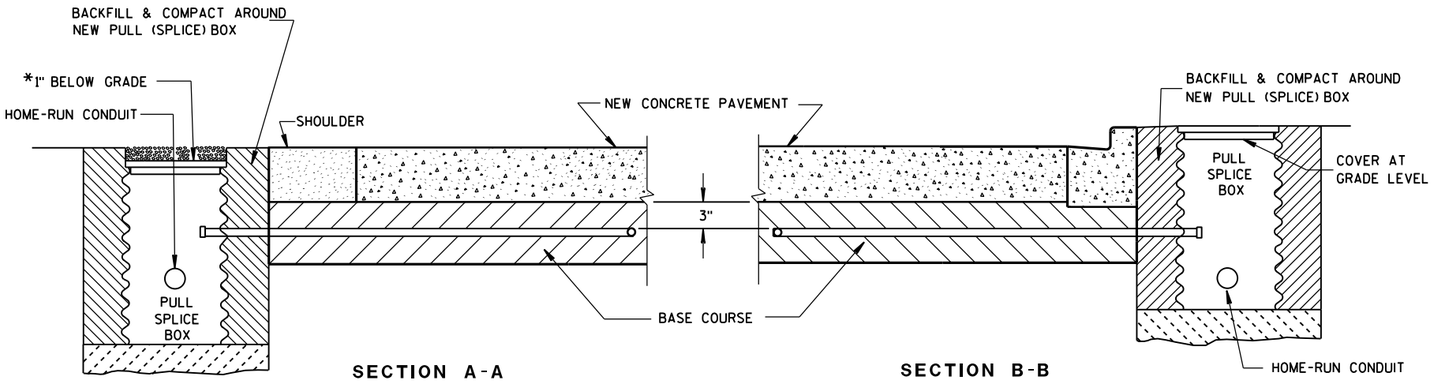


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

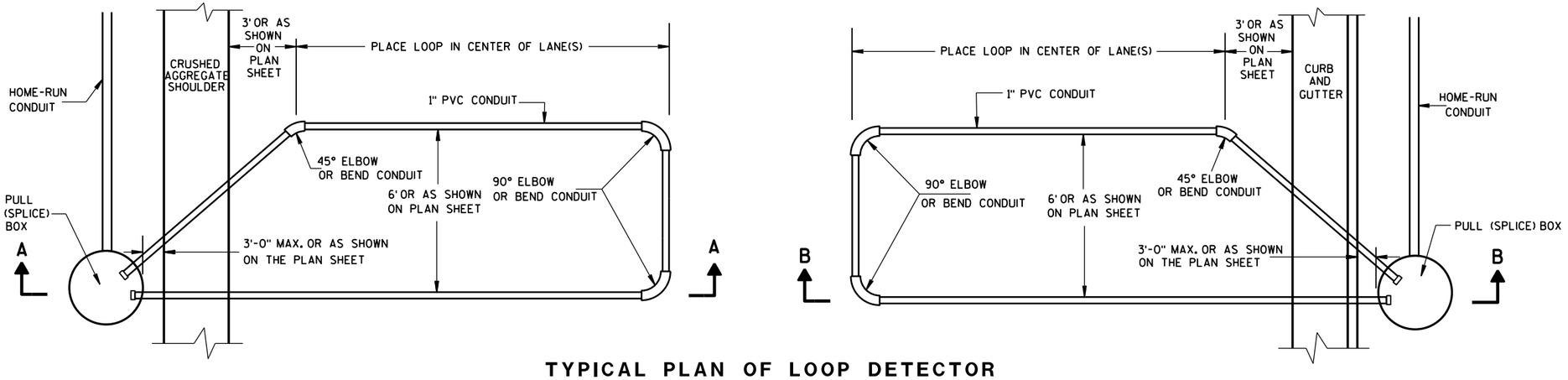
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICE CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE, SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
435
FHWA

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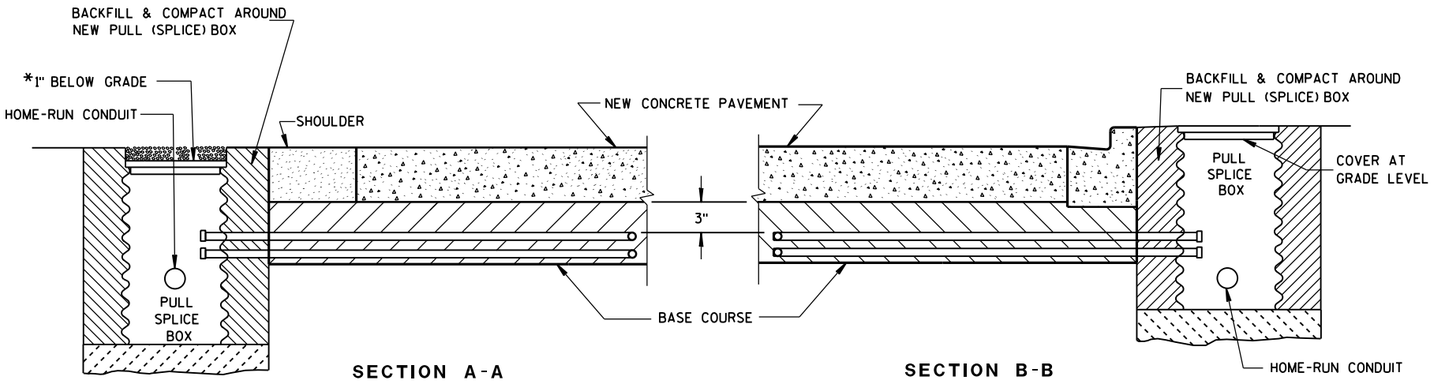


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

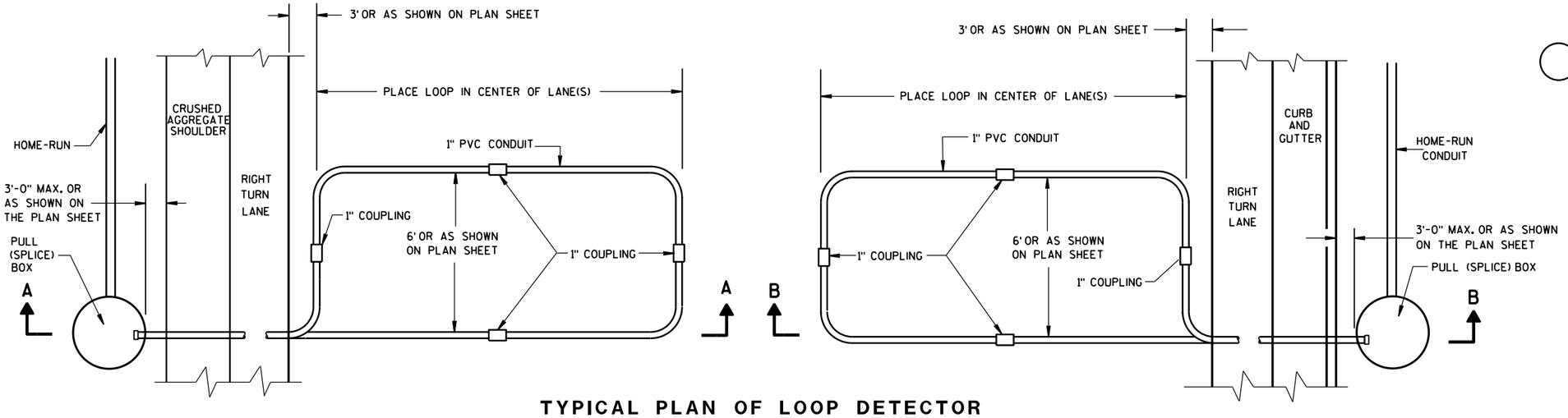
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

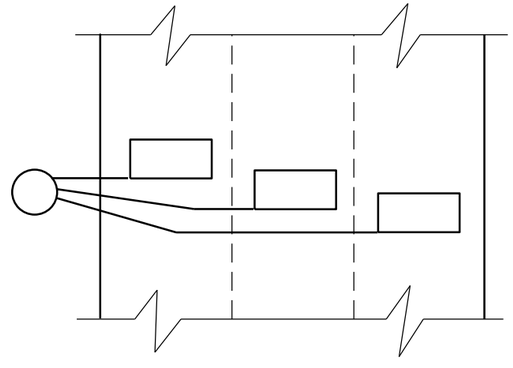
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



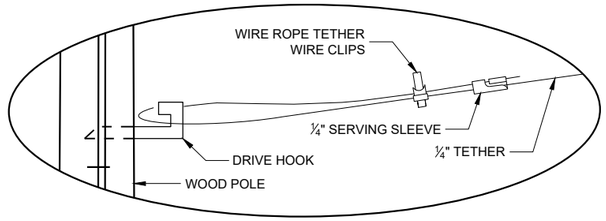
TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED Sept. 2014 — DATE /S/ Ahmet Demirbilek — STATE ELECTRICAL FHWA

MINIMUM POLE LENGTHS	POLE BURIAL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

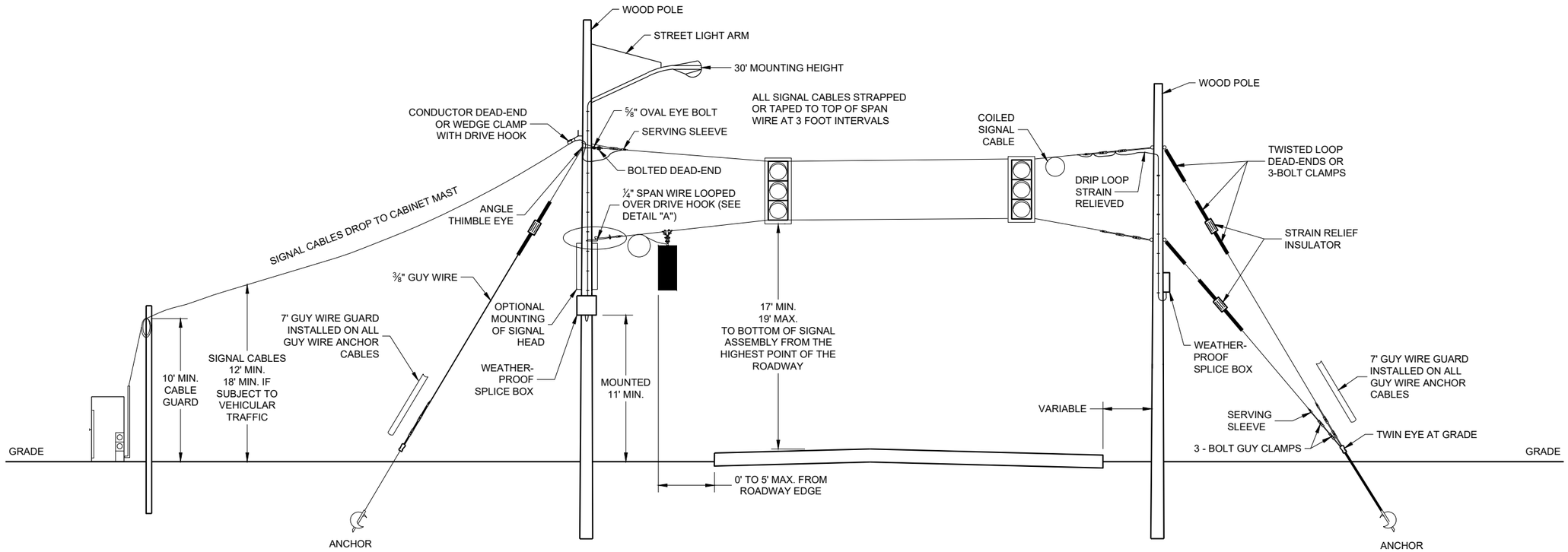


DETAIL "A"

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 ASSEMBLY 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

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE

/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI 437

FHWA

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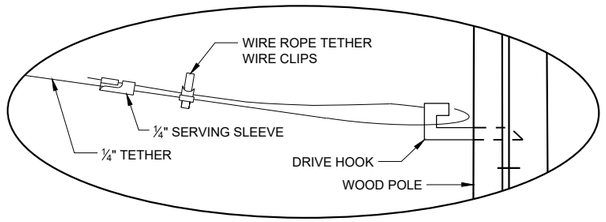
MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'



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   - E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
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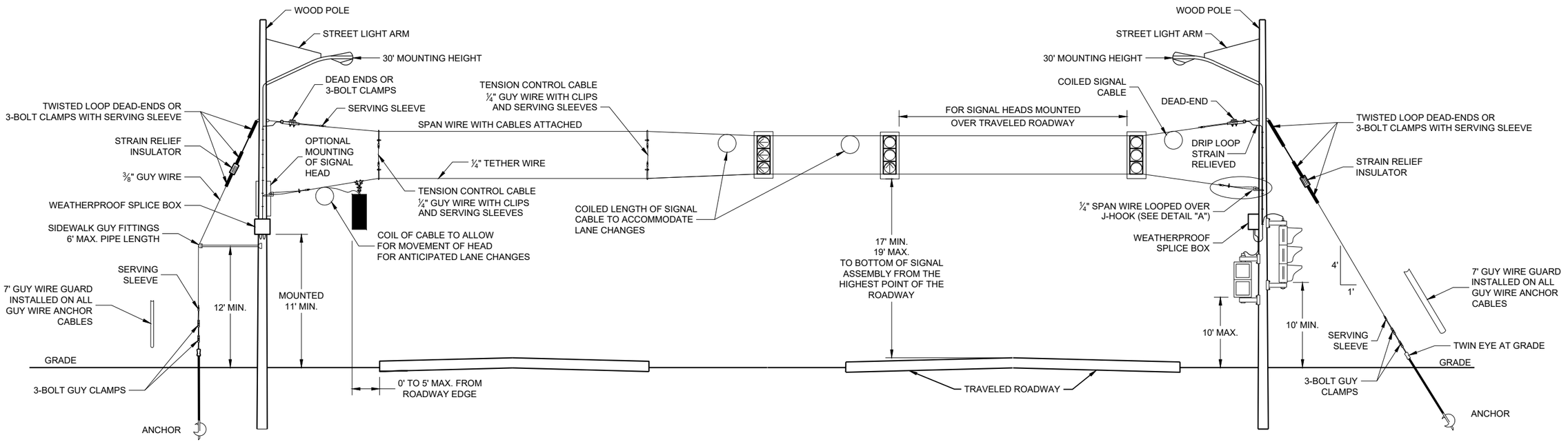

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE
/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI
FHWA

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SDD09G01 - 04b

MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
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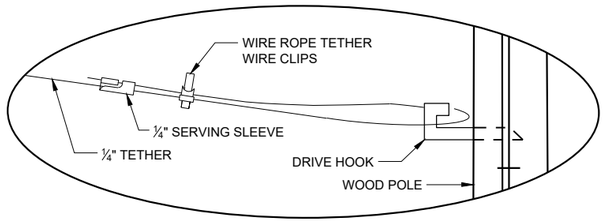
35'	IV	7'
40'	IV	8'
45'	IV	9'



DETAIL "A"

GENERAL NOTES

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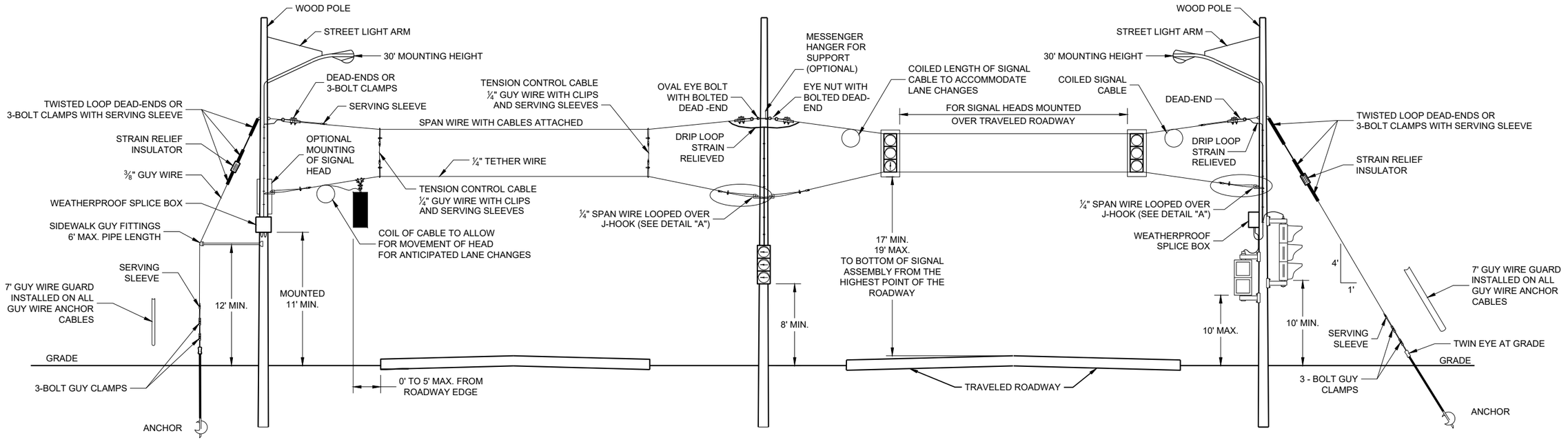

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE

/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI

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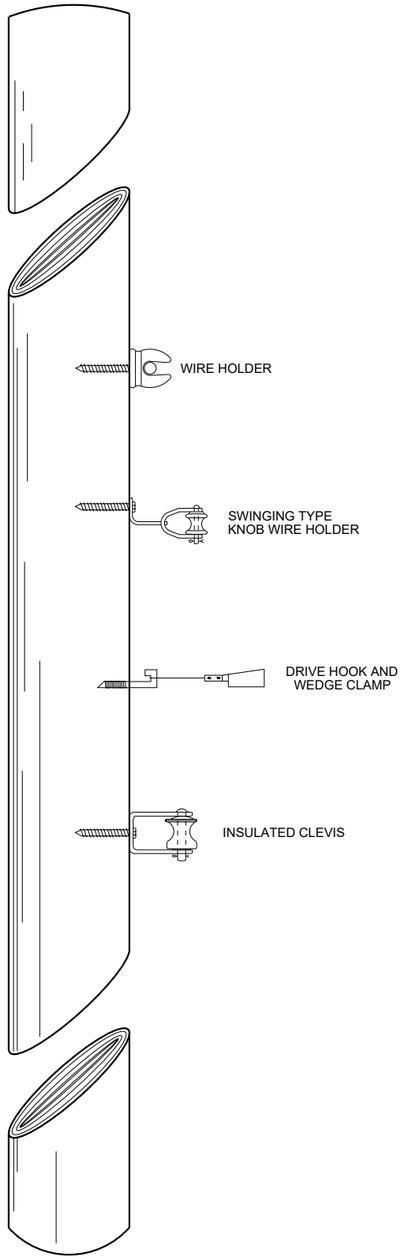

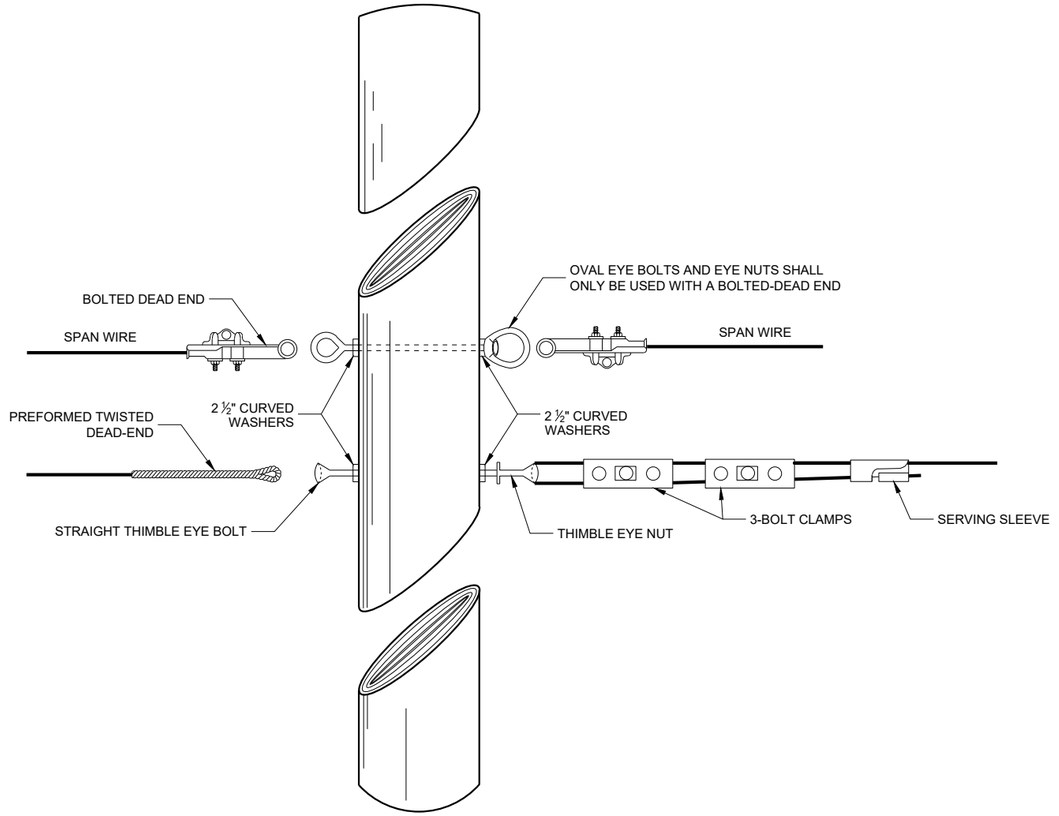

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SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

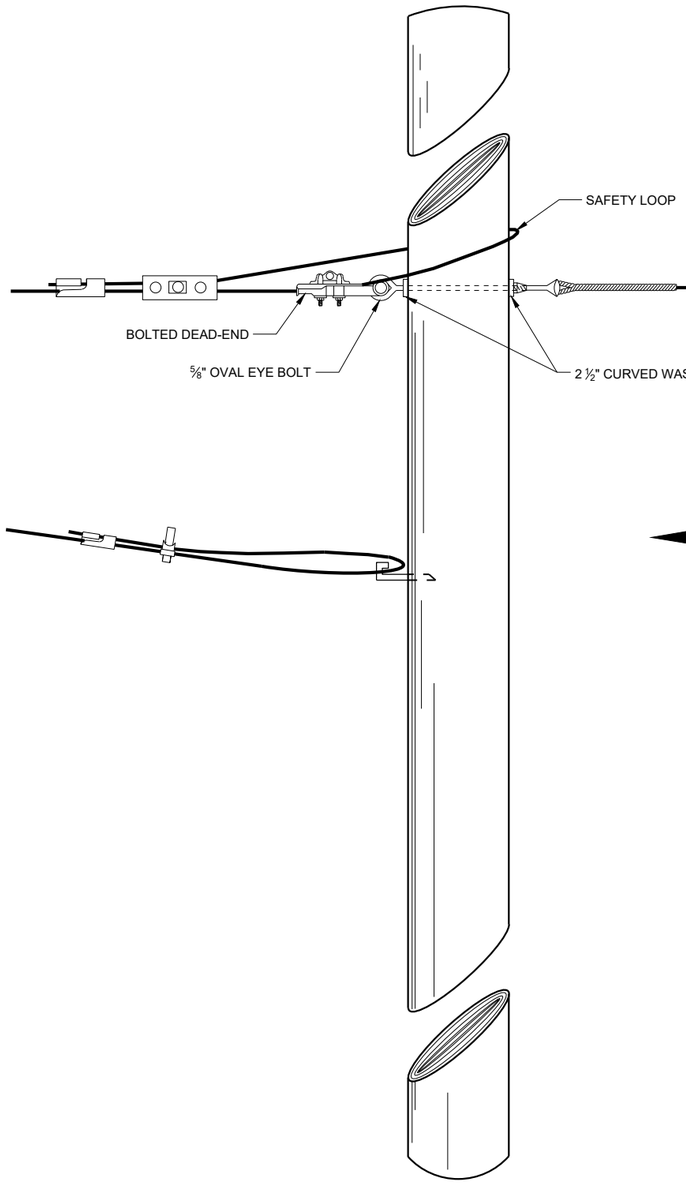
June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

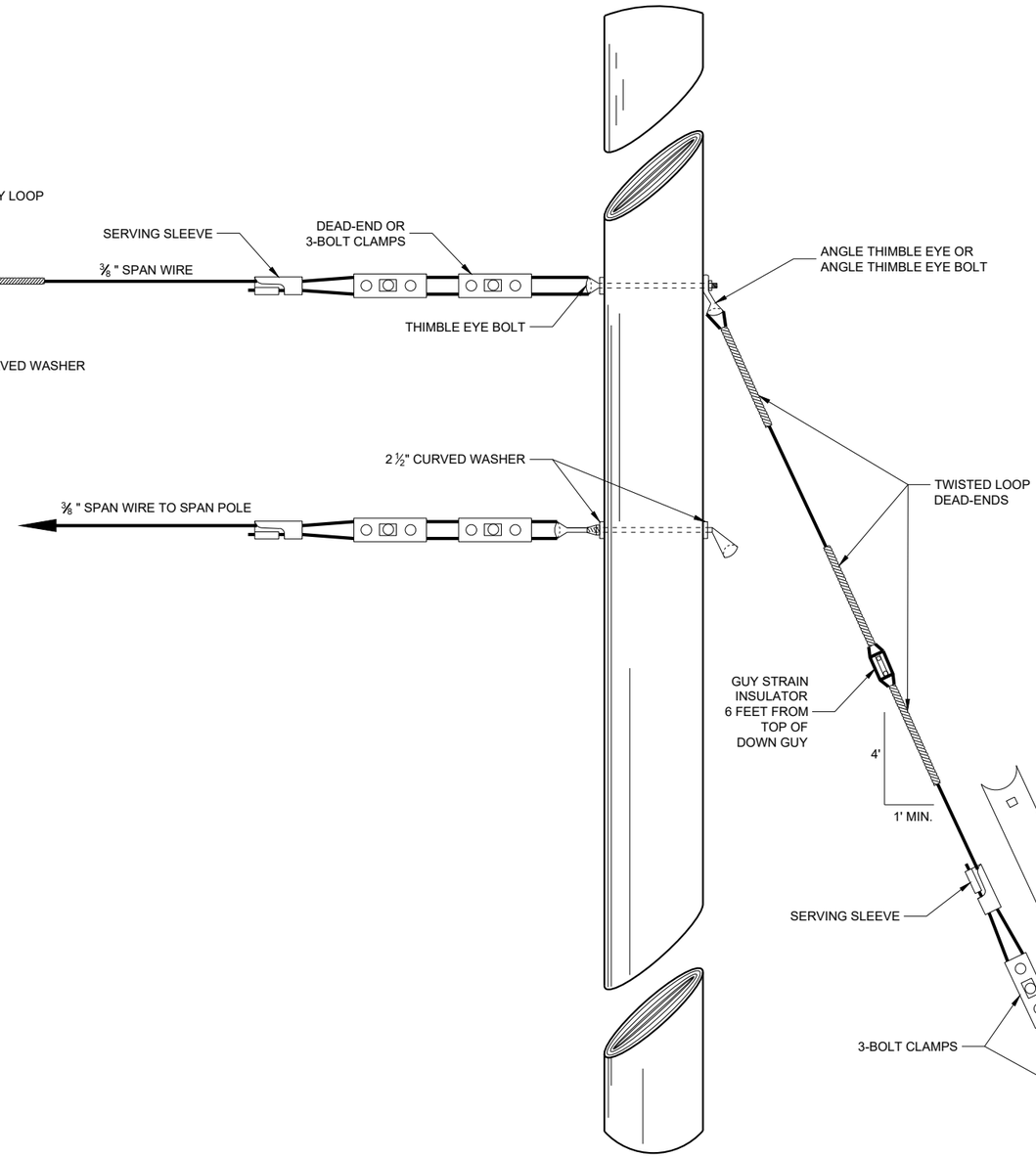
FHWA

GENERAL NOTES

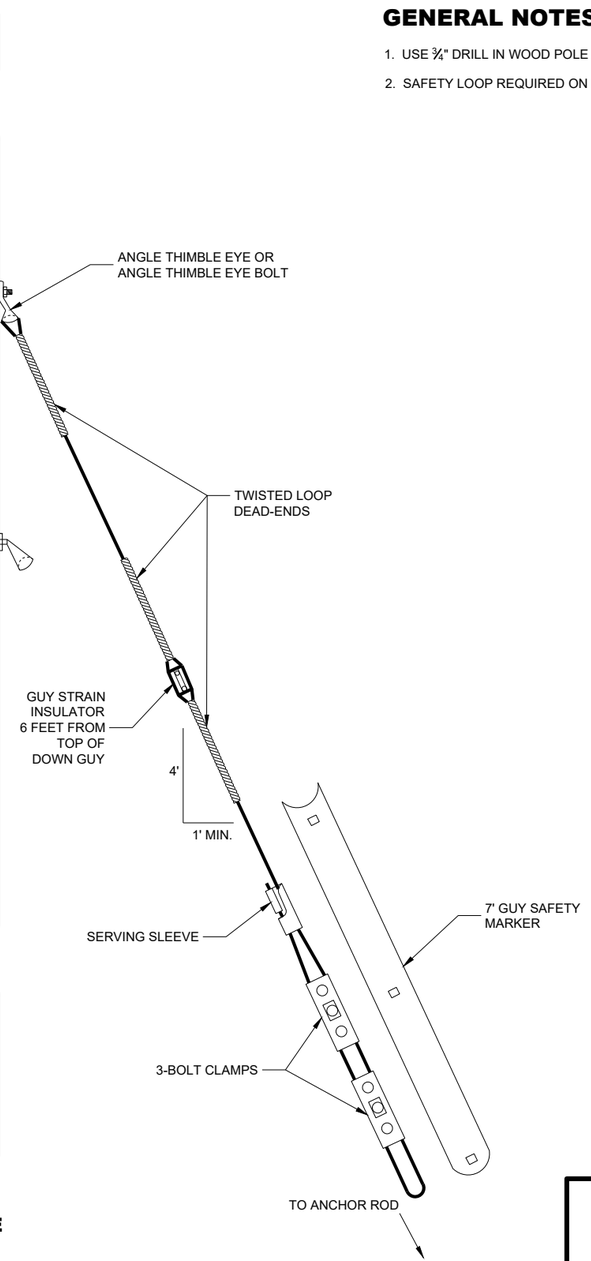
1. USE ¾" DRILL IN WOOD POLE TO PROVIDE FOR ⅝" BOLTS.
2. SAFETY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE



TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

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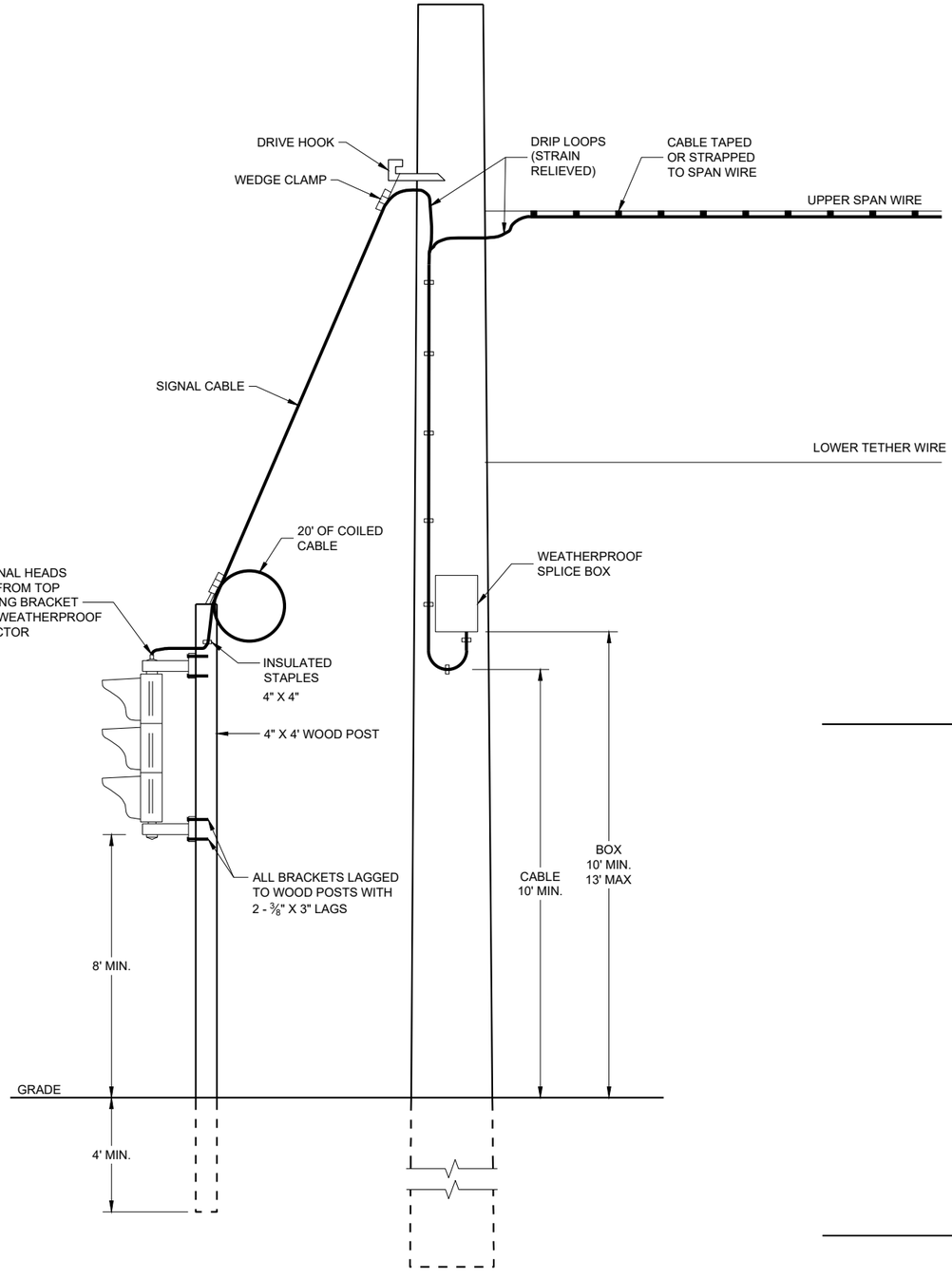
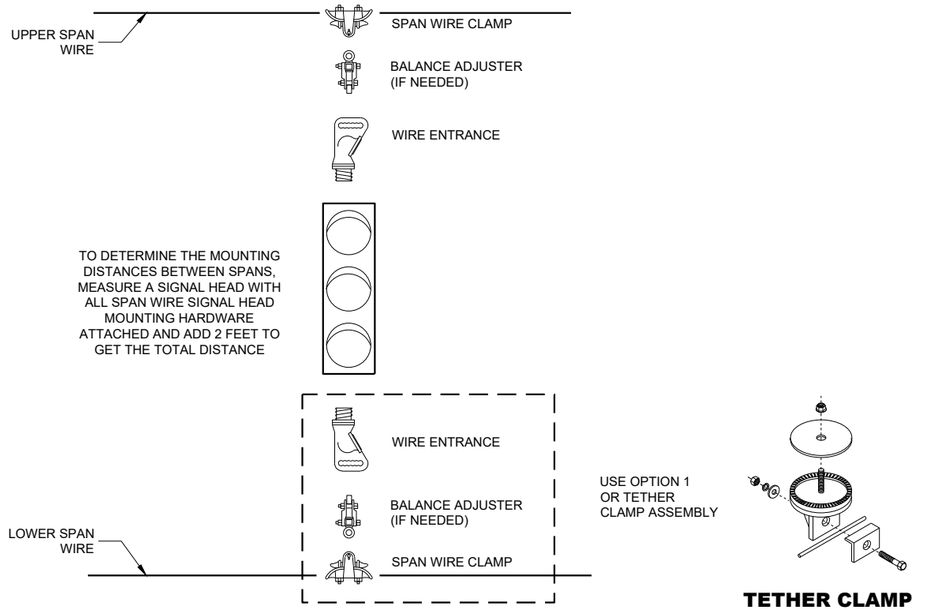
SDD 09G01 - 4e



TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL

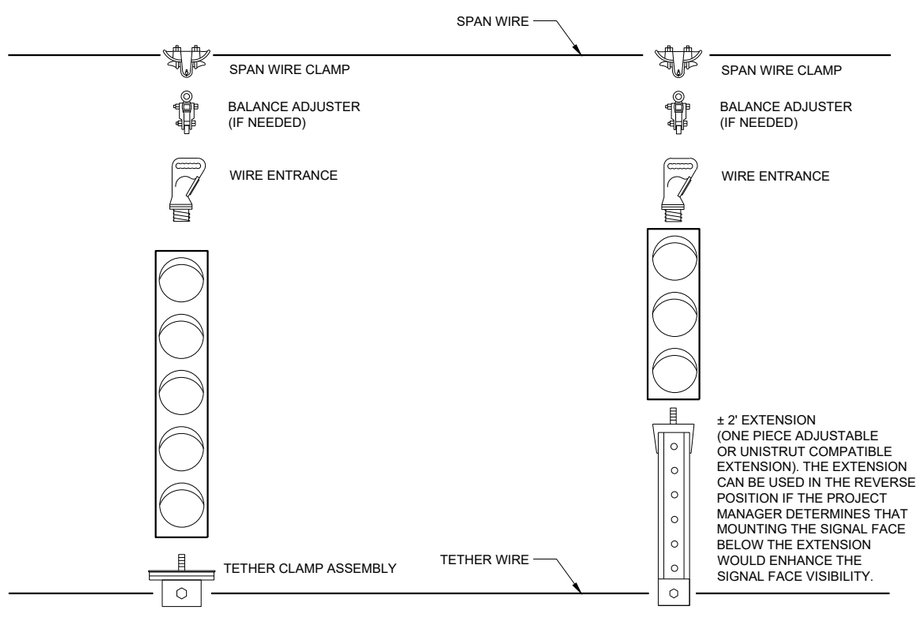


OPTION 1

USE OPTION 1 OR TETHER CLAMP ASSEMBLY

TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June 2015
DATE

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ROADWAY STANDARDS DEVE ENGINEER

FHWA

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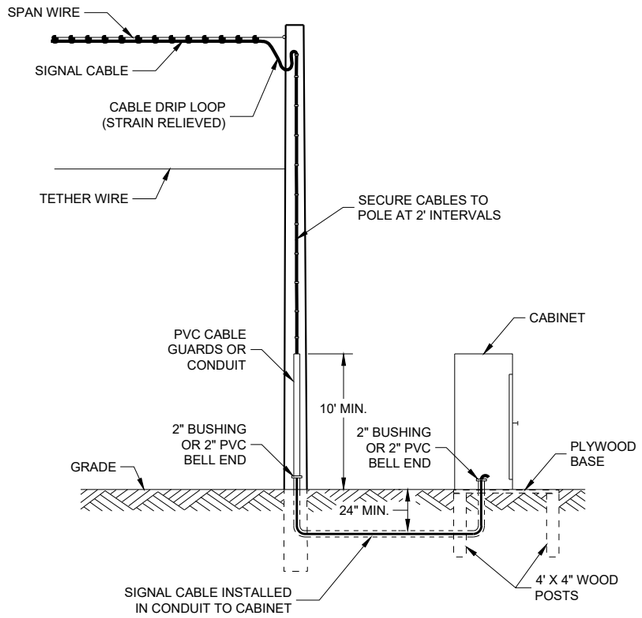
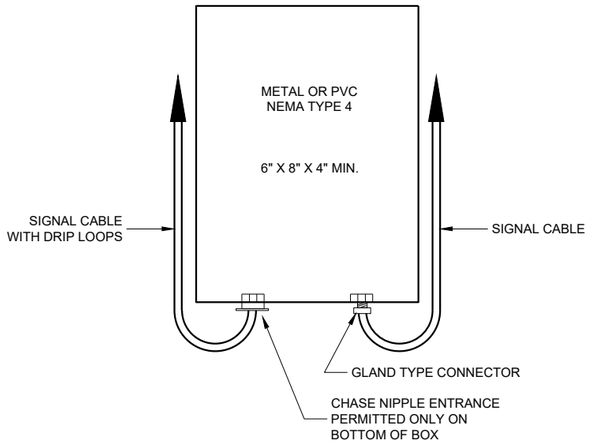
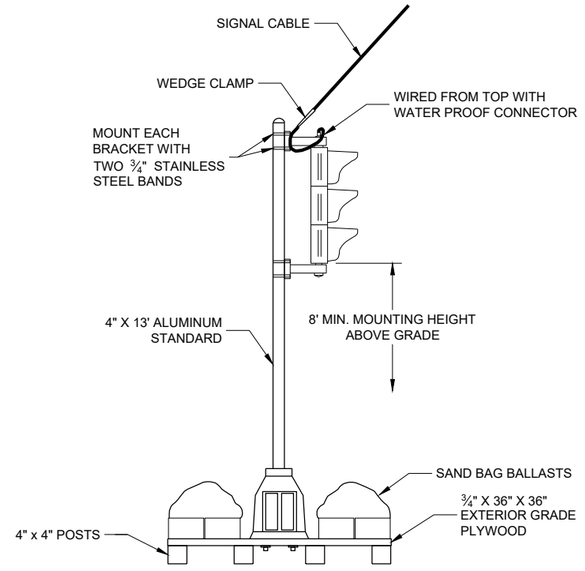
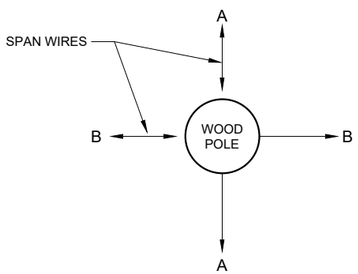




SPLICE BOX

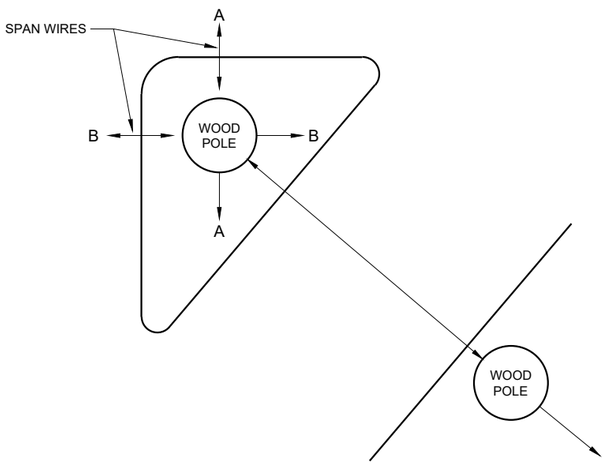


TYPICAL SKID TYPE TEMPORARY

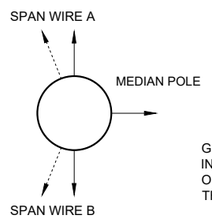


ALL DOWN OR SIDEWALK GUYS SHALL BE INSTALLED IN THE OPOSITE DIRECTION OF THE STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM INTERSECTION OR IN OPPOSITE DIRECTION OF THE SPAN LOADING

MEDIAN POLES

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
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ROADWAY STANDARDS DEVE ENGINEER

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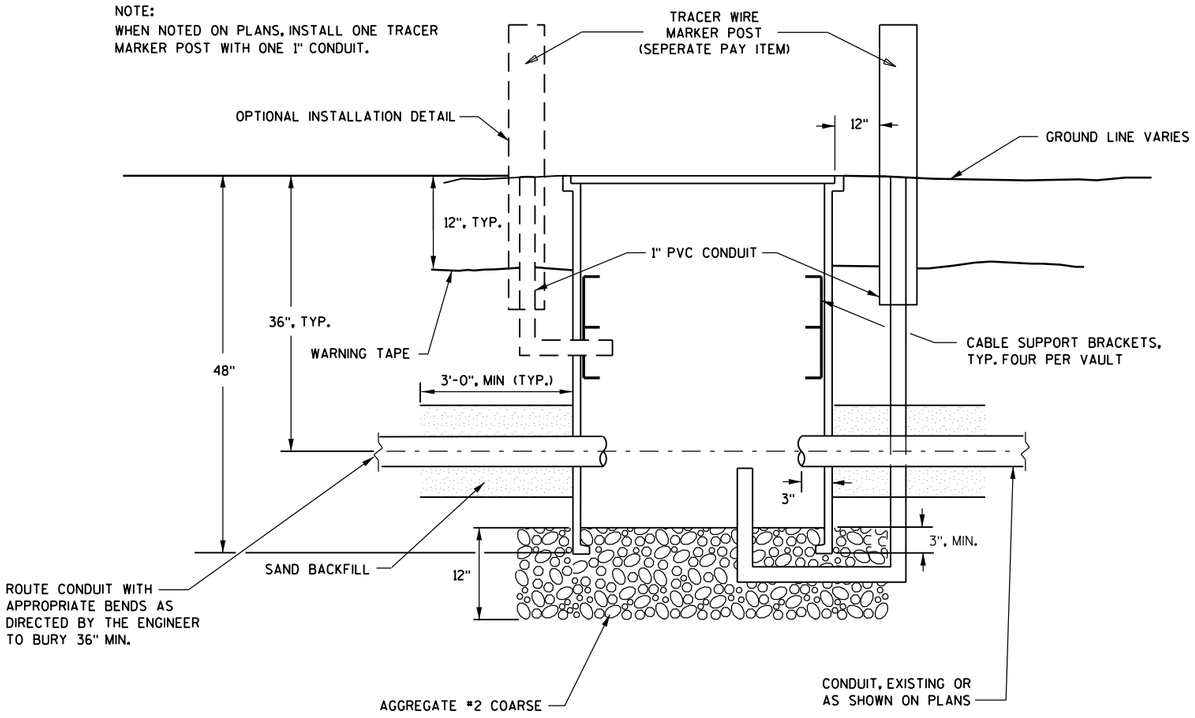
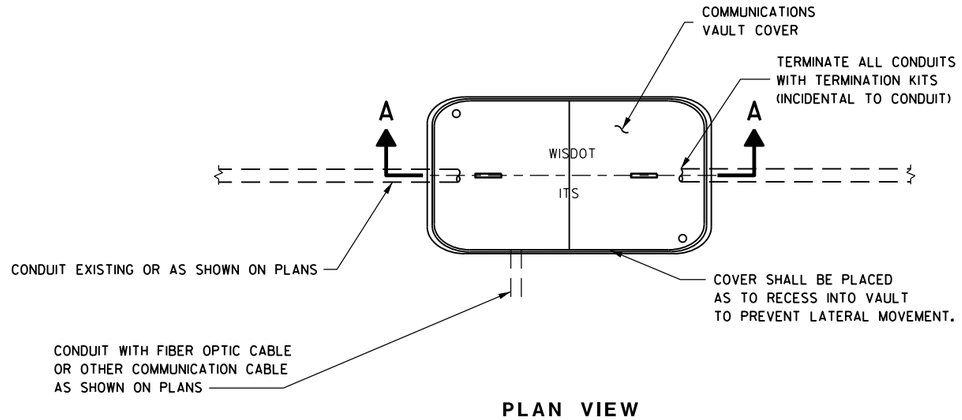
NOTE:
WHEN NOTED ON PLANS, INSTALL ONE TRACER MARKER POST WITH ONE 1" CONDUIT.



SECTION A-A



PLAN VIEW

COMMUNICATIONS VAULT TYPE 1

GENERAL NOTES

PROVIDE VAULT WITH OPEN BASE.

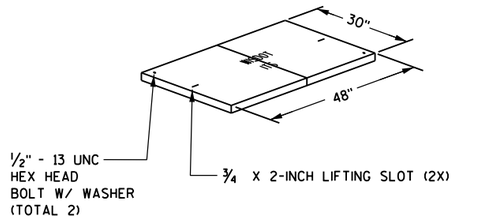
COVER SHALL HAVE A MINIMUM DESIGN LOAD OF 15,000 LBS AND SHALL LOCK.

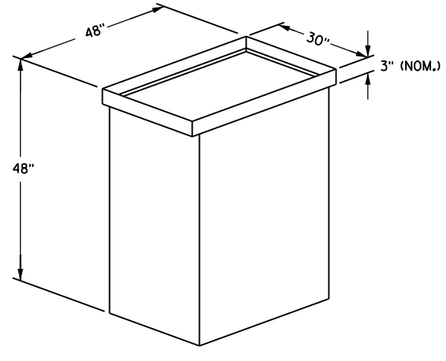
ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION, OR PUNCH DRIVEN AT TIME OF PLACEMENT.

VAULTS SHALL BE OF ONE-PIECE CONSTRUCTION. TWO-PIECE/STACKABLE VAULTS WILL NOT BE PERMITTED.

FIELD PLACEMENT OF COMMUNICATIONS VAULTS SHALL BE AS DIRECTED BY THE ENGINEER.

FIBER TRACER MARKER POSTS SHALL BE CONSTRUCTED WITH HIGH-IMPACT PLASTIC MATERIAL WHICH IS FADE RESISTANT AND UV STABLE. ALL HARDWARE SHALL BE STAINLESS STEEL AND CONTAIN A MINIMUM OF FIVE STANDARD TERMINALS.





ISOMETRIC VIEW

COMMUNICATION VAULT
TYPE 1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May, 2017
DATE
/S/Ahmet Demirbilek
STATE ELECTRICAL
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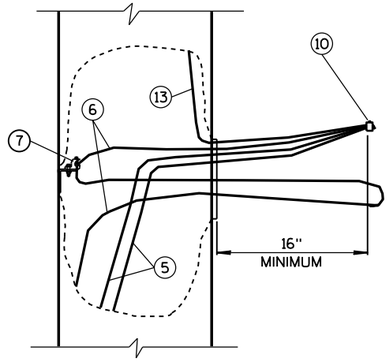
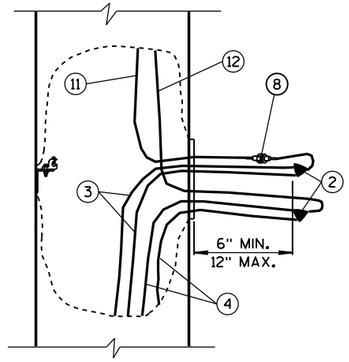
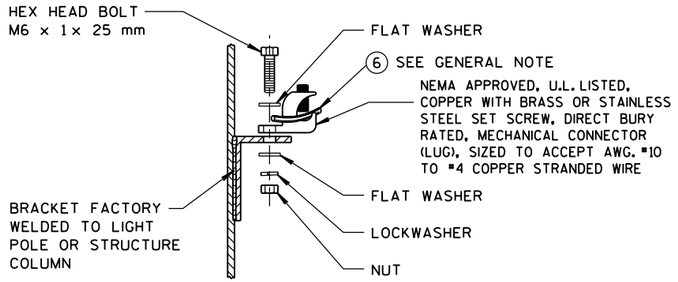


EQUIPMENT GROUNDING CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK (AND GROUNDED NEUTRAL SLACK IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



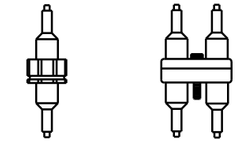
HANDHOLE GROUNDING LUG

(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.



1 POLE (1P) 2 POLE (2P)

FUSE ASSEMBLIES

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

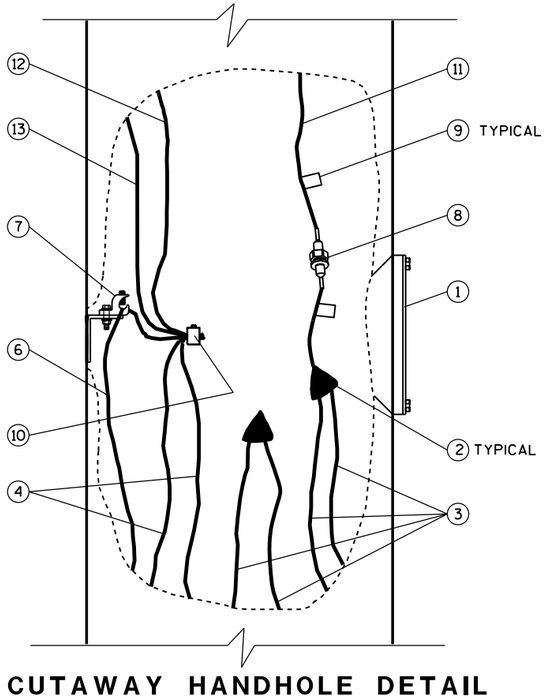
USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

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.

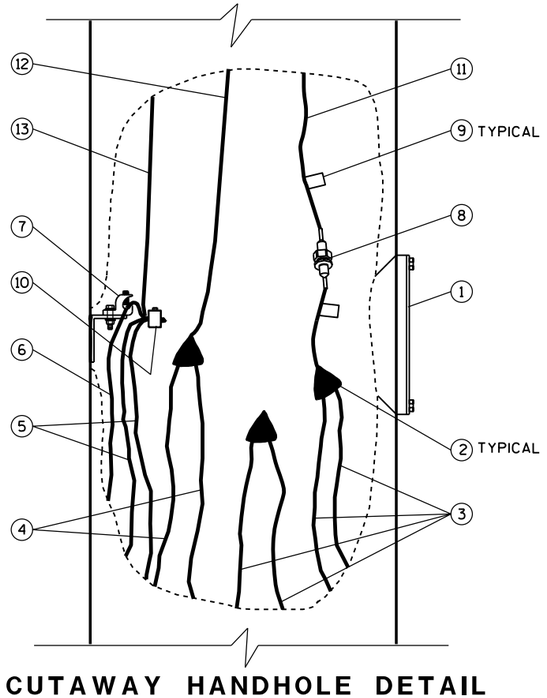
IN 3-PHASE SYSTEMS, THERE WILL BE ONE MORE UNGROUNDED LINE WIRE, WHICH IS OMITTED FROM THE DRAWING FOR CLARITY.

CIRCUIT TAGS SHALL BE INSTALLED ONLY WHERE REQUIRED IN THE SPECIAL PROVISIONS.



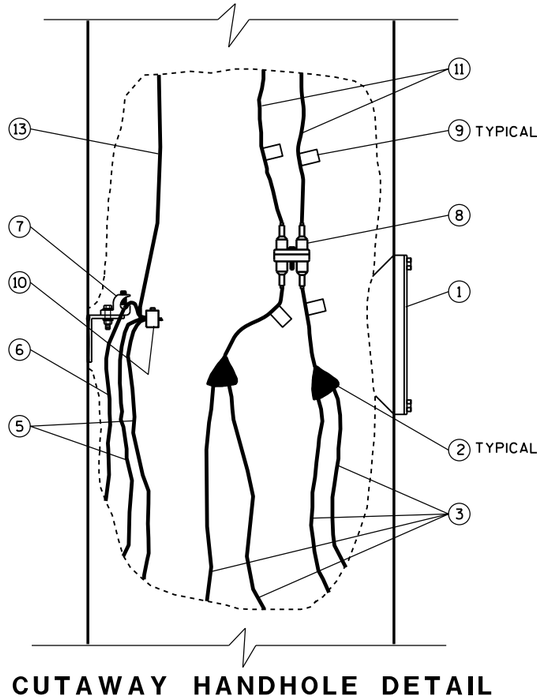
CUTAWAY HANDHOLE DETAIL

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
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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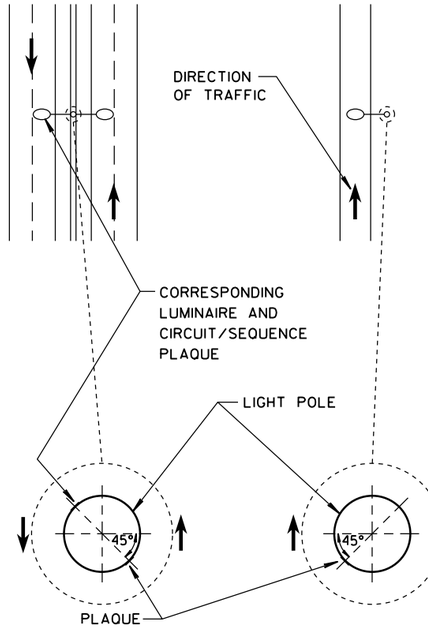
S.D.D. 10 A 1-3



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

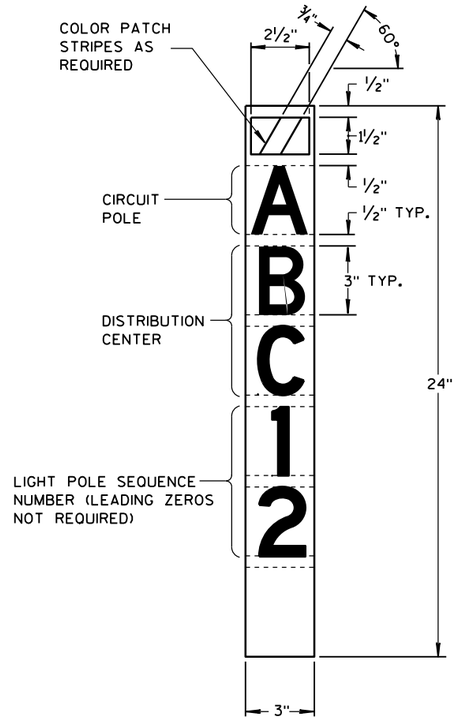
COLOR PATCHES - VARIOUS COLORS, SELF-ADHESIVE VINYL SHEETING

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 AND LED LUMINAIRES

HPS	LED	COLOR PATCH CODE
1000 WATT		NO PATCH
400 WATT	CATEGORY D	ORANGE
310 WATT		BLUE
250 WATT	CATEGORY C	ORANGE WITH WHITE STRIPE
200 WATT		RED
150 WATT	CATEGORY B	GREEN
100 WATT	CATEGORY A	BROWN
70 WATT	CATEGORY UDL	BROWN WITH WHITE STRIPE



LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

IDENTIFICATION PLAQUES LIGHT POLES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 DATE
/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA

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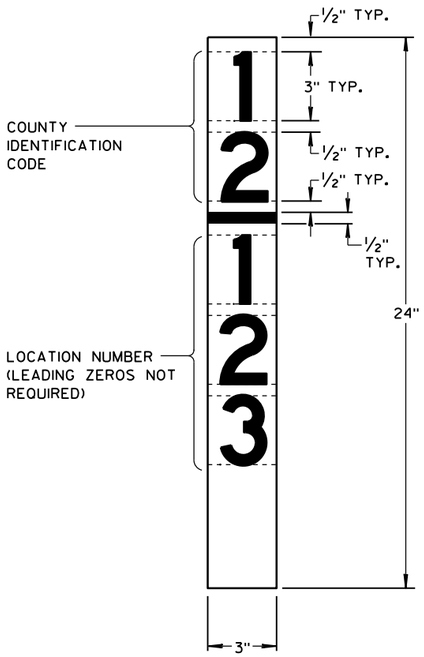
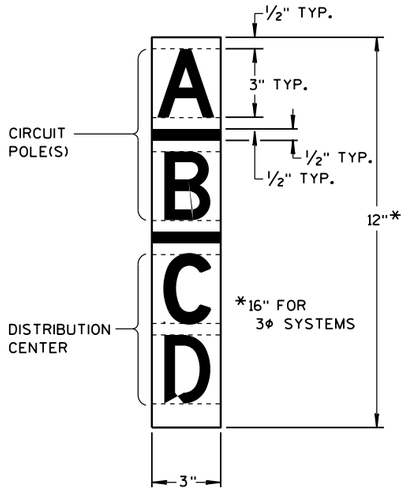
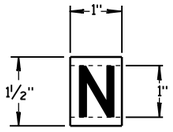
S.D.D. 10 A 2-3



HIGH MAST LIGHT TOWER STRUCTURE PLAQUE

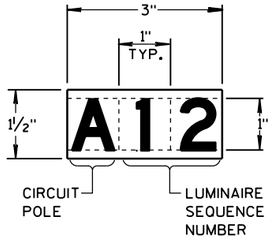


UNDERDECK LIGHTING OR HIGH MAST LIGHT TOWER CIRCUIT PLAQUE



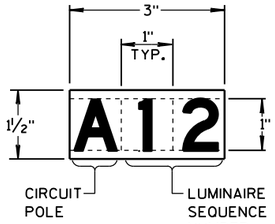
HIGH MAST LIGHT TOWER NORTH PLAQUE

(MOUNT ON LOWERING RING - INDICATING NORTH HEADING $^{2}\pm 10^{\circ 3}$ 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)

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.

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:

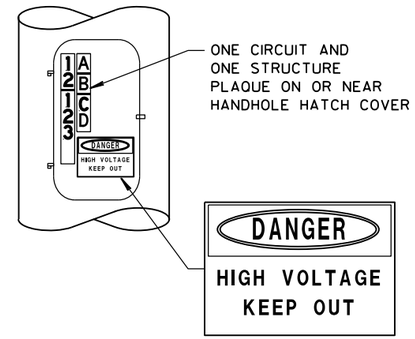
BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

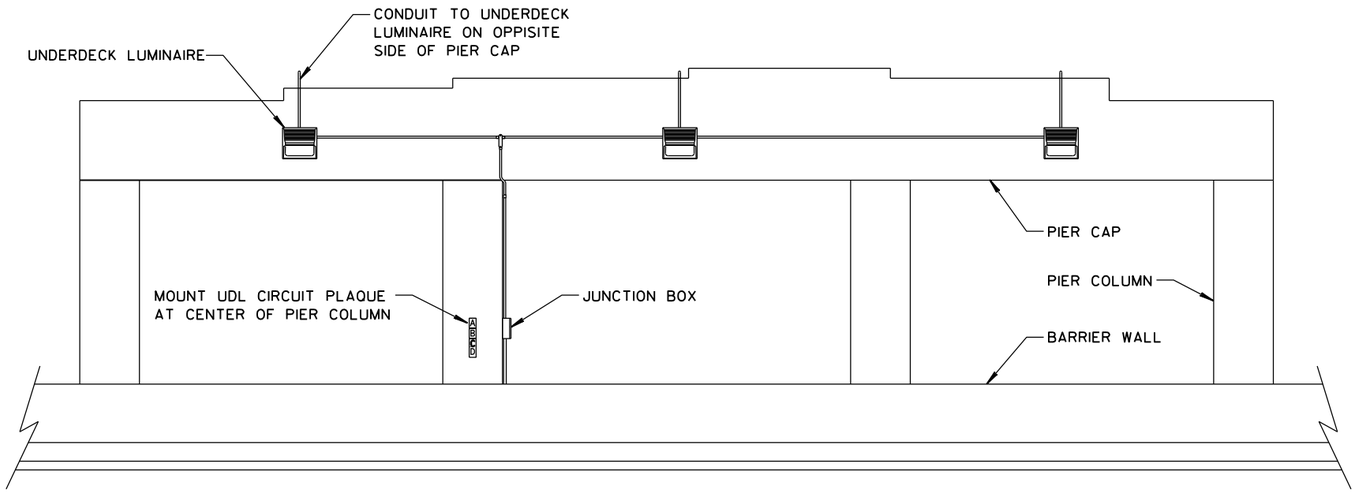
CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

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



LOCATION OF UNDERDECK LIGHTING CIRCUIT PLAQUE

IDENTIFICATION PLAQUES UNDERDECK AND HIGH MAST LIGHTING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
June, 2015 (DATE)	/S/ Ahmet Demriblek (STATE ELECTRICAL) 447
FHWA	

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, SDD10A01.

USE TIME DELAY FUSE PER LUMINAIRE MANUFACTURER RECOMMENDATION.

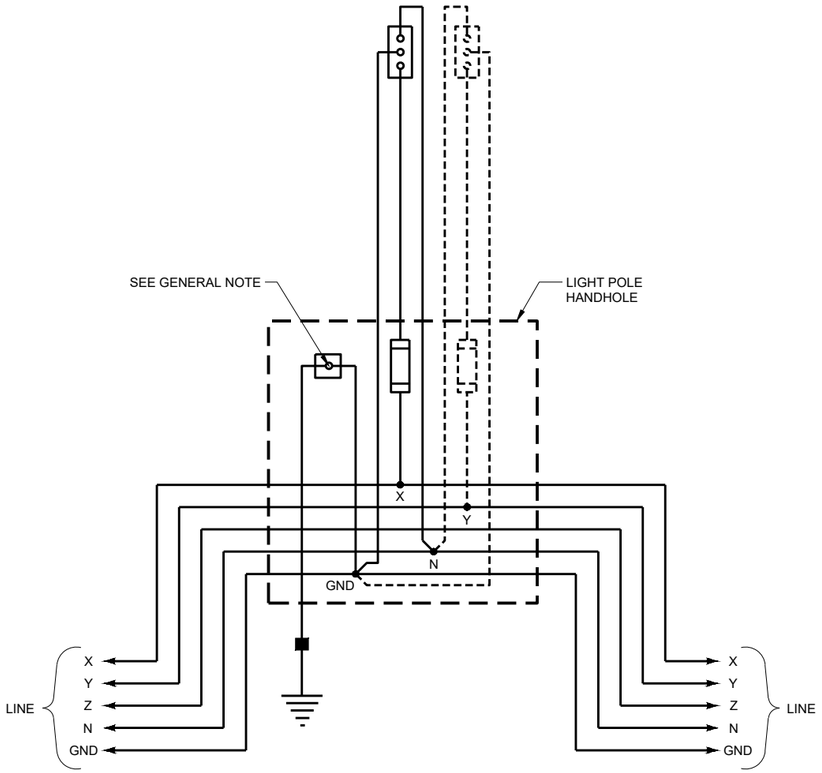
THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLD GROUNDING LUG TO THE CONNECTOR.

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.

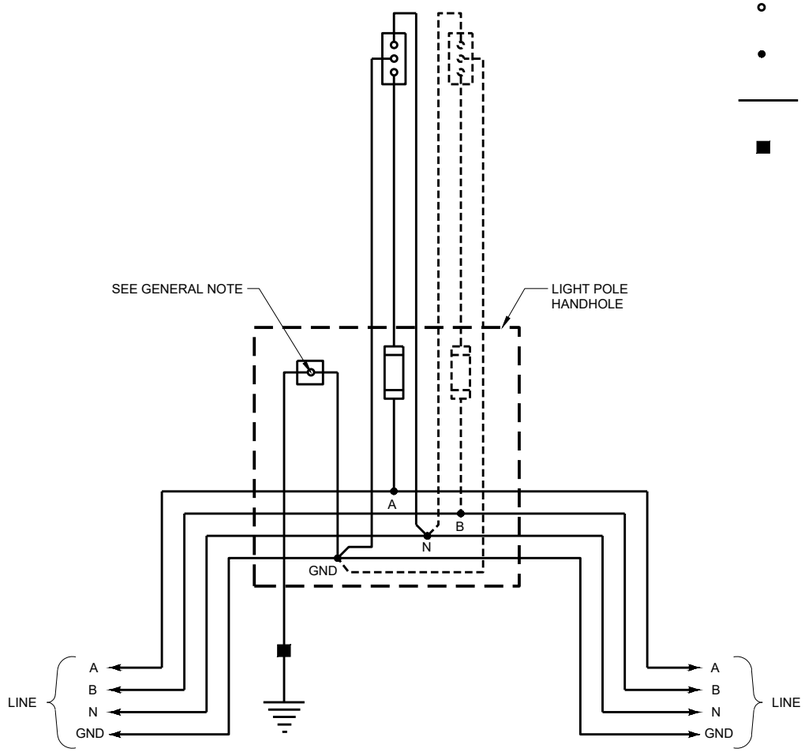
LEGEND

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
	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
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 448

FHWA

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SDD 10A05 - 03

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SDD 10A05 - 03

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, SDD10A01.

USE TIME DELAY FUSE PER LUMINAIRE MANUFACTURER RECOMMENDATION.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

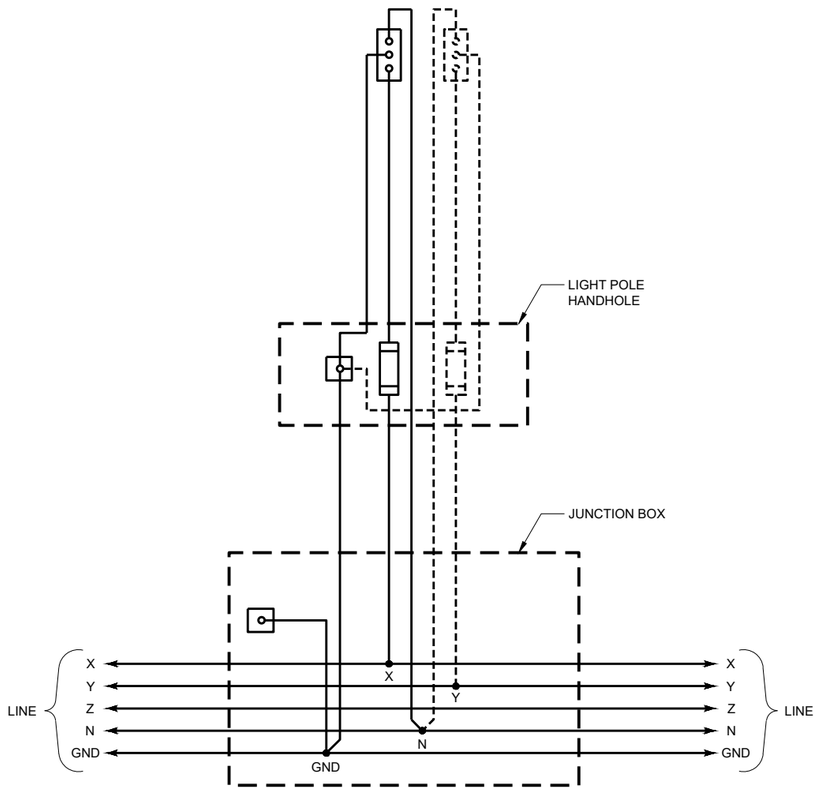
THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

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 SMALL ER SYSTEMS OR TOWARD THE FURTHEST END OF A LARGER SYSTEM PULL THE LINE WIRE INTO THE POLE HANDHOLE FOR SPLICING.

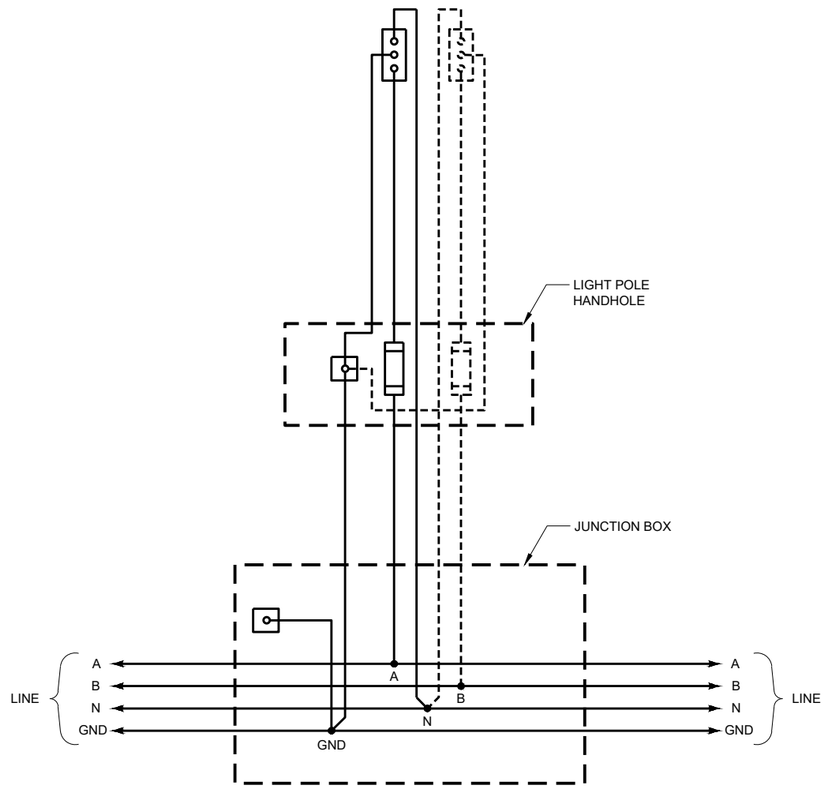
LEGEND

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
	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
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 449

FHWA

6

SDD 10A08 - 03

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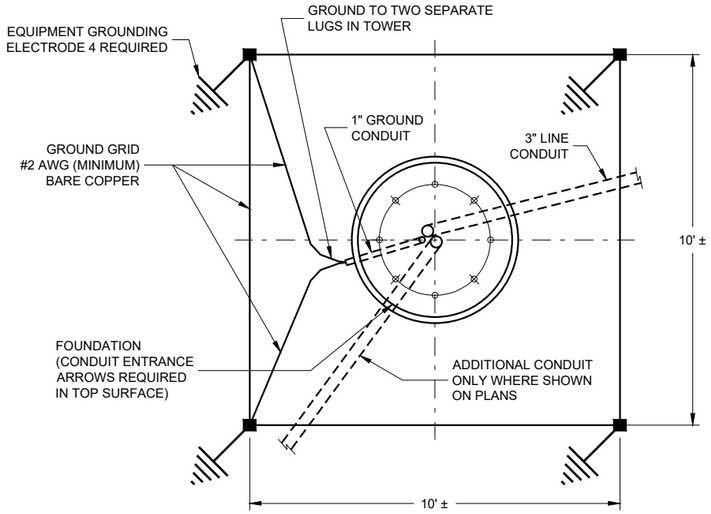
SDD 10A08 - 03



EQUIPMENT GROUNDING GRID AND FOUNDATION ELECTRICAL DETAILS

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

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.

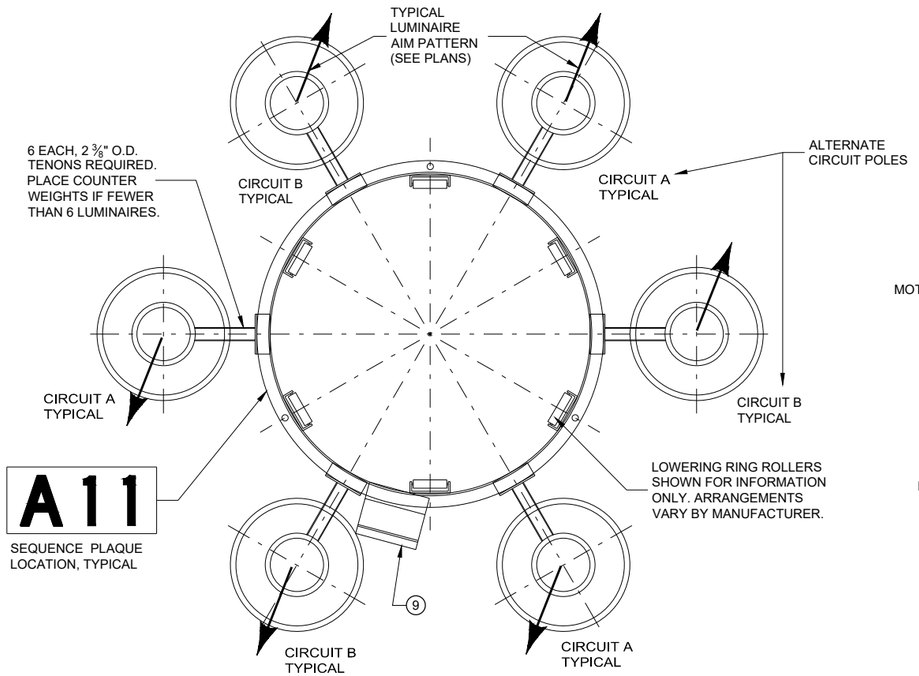
USE TIME DELAY FUSE PER LUMINAIRE MANUFACTURER RECOMMENDATION.

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).

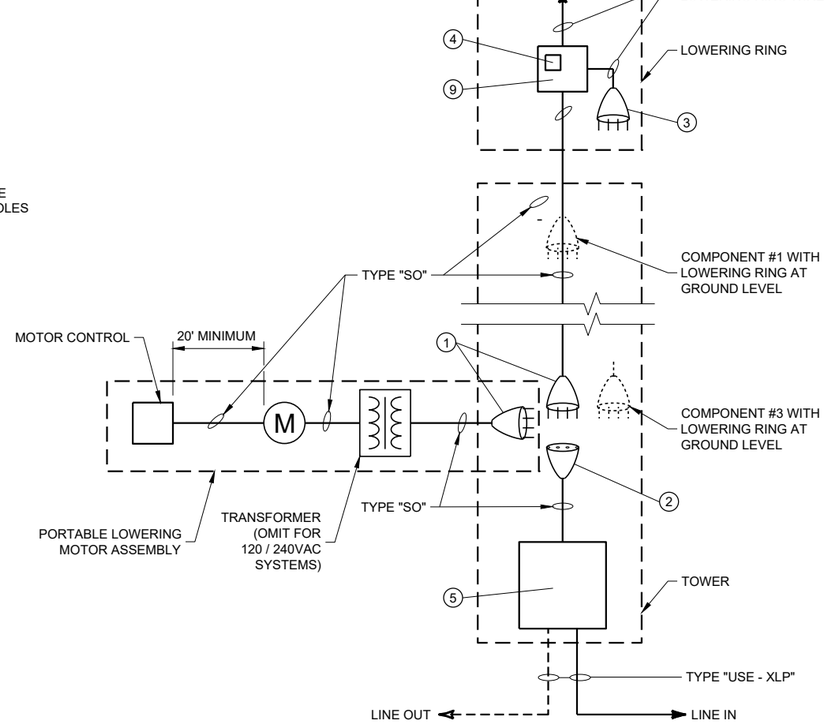
SURGE ARRESTORS SHALL BE 650 VAC, 2P OR 3P AS REQUIRED.

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.



LOWERING RING OPTICS PLAN

1 - ϕ CASE SHOWN; 3 - ϕ CASE SIMILAR



ONE LINE DIAGRAM

ANY LINE VOLTAGE PER OVER CURRENT AND POWER CORD SCHEDULE

LEGEND

P POLE (ELECTRICAL CIRCUIT)

ϕ PHASE (ELECTRICAL CURRENT)

EQUIPMENT GROUNDING ELECTRODE

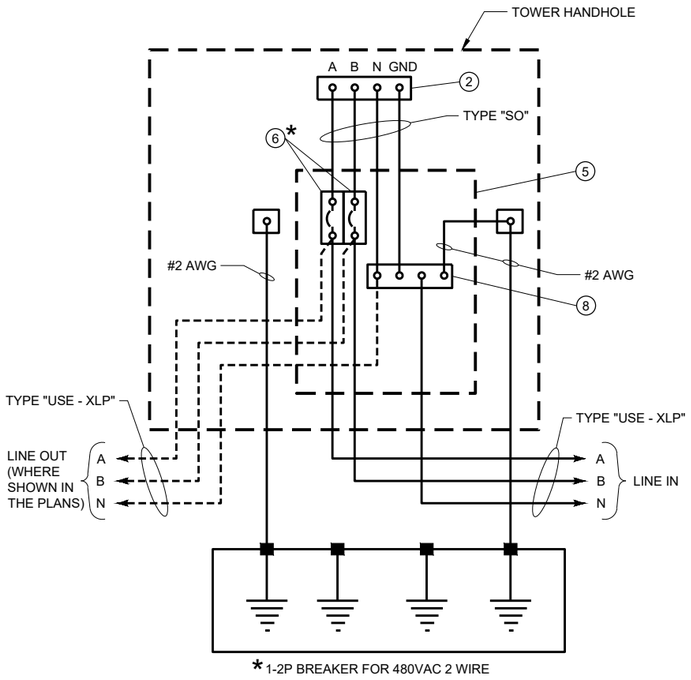
■ EXOTHERMIC WELD

(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

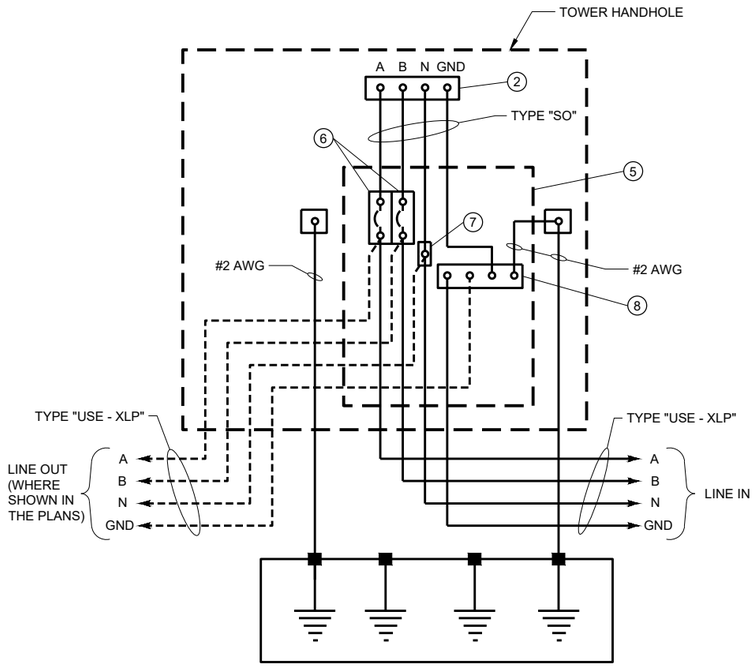
ELECTRICAL DETAILS
HIGH MAST LIGHTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

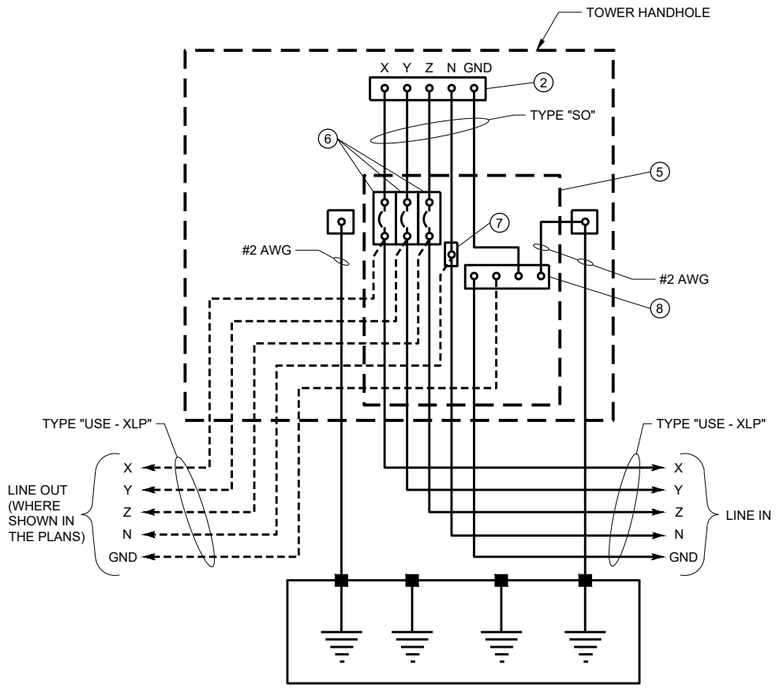
6
SDD 10A14 - 03a



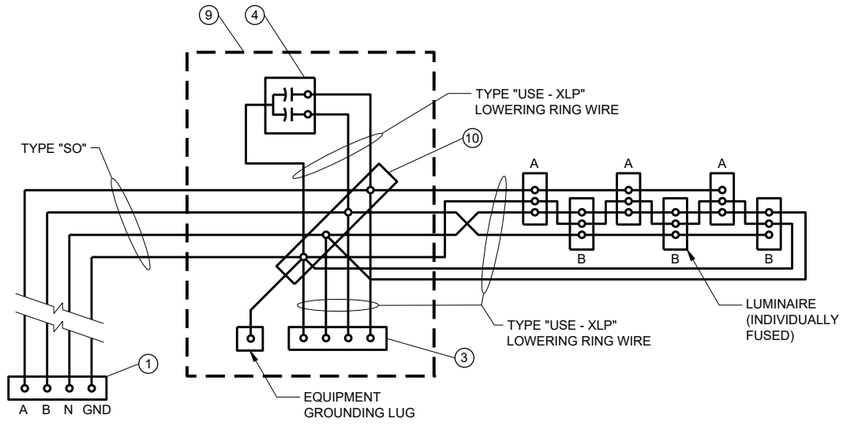
TYPICAL WIRING DIAGRAM-HANDHOLE
GROUNDED NEUTRAL SYSTEM
1 - ϕ 240 / 480VAC 3 WIRE OR 480VAC 2 WIRE



TYPICAL WIRING DIAGRAM-HANDHOLE
ISOLATED NEUTRAL SYSTEM
1 - ϕ 120 / 240VAC OR 240 / 480VAC 3 WIRE



TYPICAL WIRING DIAGRAM-HANDHOLE
ISOLATED NEUTRAL SYSTEM
3 - ϕ 480 / 277VAC 4 WIRE OR 3 - ϕ 208Y / 120VAC 4 WIRE



LOWERING RING JUNCTION BOX WIRING DIAGRAM
TYPICAL 1 - ϕ CASE SHOWN; 3 - ϕ CASE SIMILAR

LEGEND

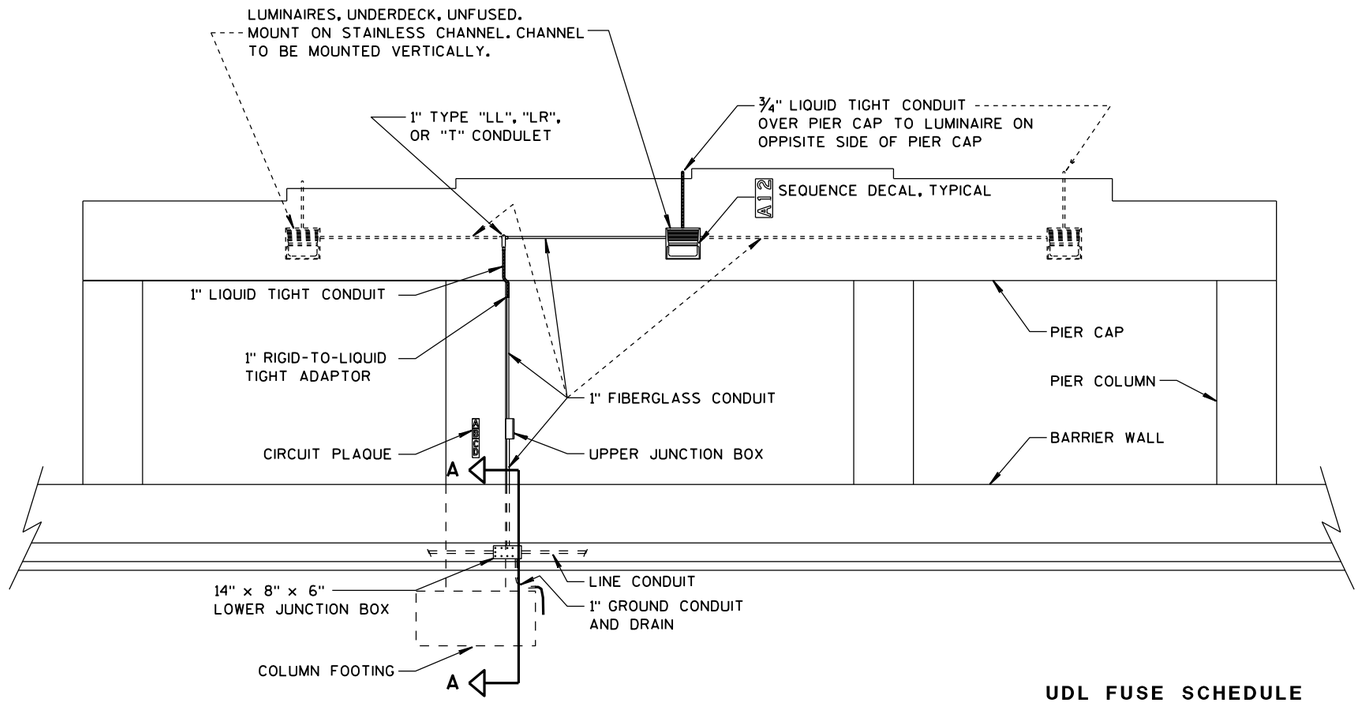
A, B, X, Y, Z,	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
ϕ	PHASE (ELECTRICAL CURRENT)
AIC	AMPERE INTERUPTING CAPACITY
	HANDHOLE GROUND LUG
	CIRCUIT BREAKER 1P
	SURGE ARRESTOR
	FUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD

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

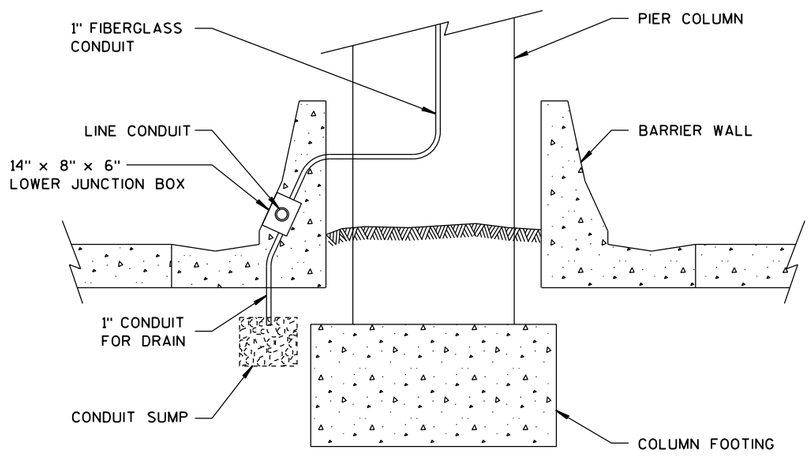
ELECTRICAL DETAILS
HIGH MAST LIGHTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 451
FHWA



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 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
	TERMINAL
	SPLICE
	CONDUCTOR

ELECTRICAL DETAILS
UNDERDECK LIGHTING

STATE OF WISCONSIN
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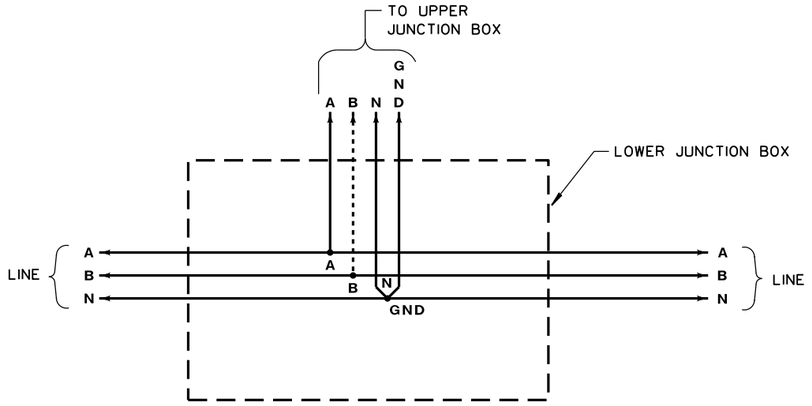
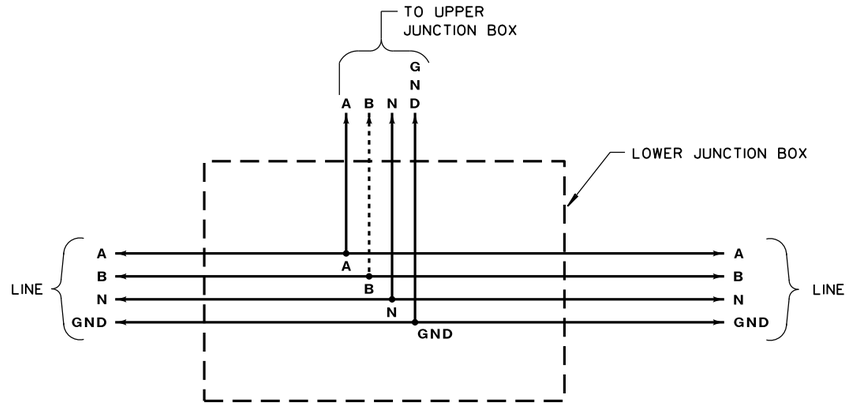
S.D.D. 10 A 15-4a



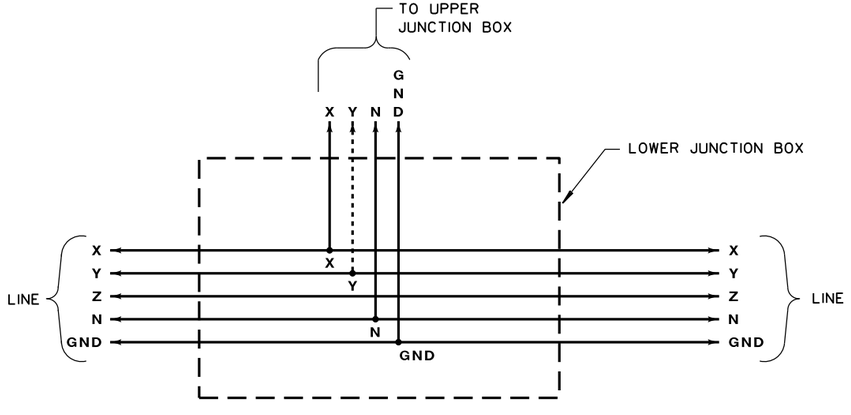
TYPICAL WIRING DIAGRAM, LOWER JUNCTION BOX

GROUNDED NEUTRAL SYSTEM
1-ϕ 240/480VAC OR 3 WIRE OR 480VAC 2 WIRE



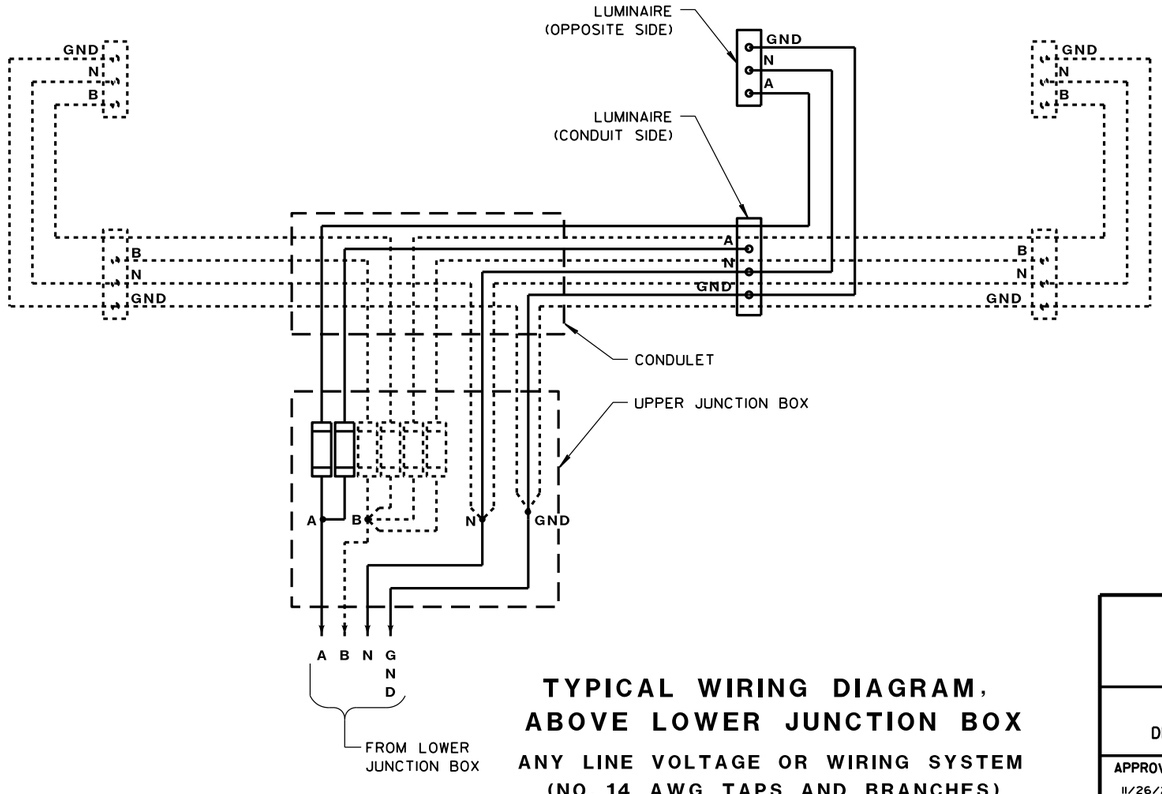
TYPICAL WIRING DIAGRAM, LOWER JUNCTION BOX

ISOLATED NEUTRAL SYSTEM
1-ϕ 120/240VAC OR 240/480VAC 3 WIRE



TYPICAL WIRING DIAGRAM, LOWER JUNCTION BOX

ISOLATED NEUTRAL SYSTEM
3-ϕ 208Y/120VAC OR 480Y/277VAC 4 WIRE



TYPICAL WIRING DIAGRAM, ABOVE LOWER JUNCTION BOX

ANY LINE VOLTAGE OR WIRING SYSTEM
(NO. 14 AWG TAPS AND BRANCHES)

ELECTRICAL DETAILS
UNDERDECK LIGHTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/26/2013
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/S/ Ahmet Demirbilek
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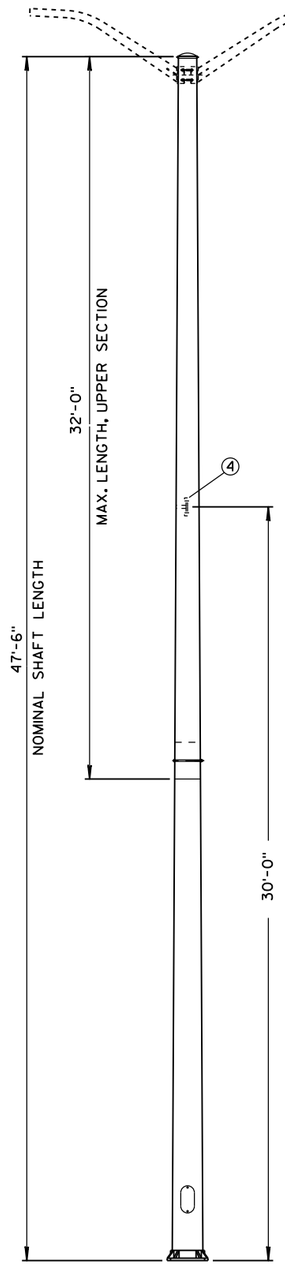
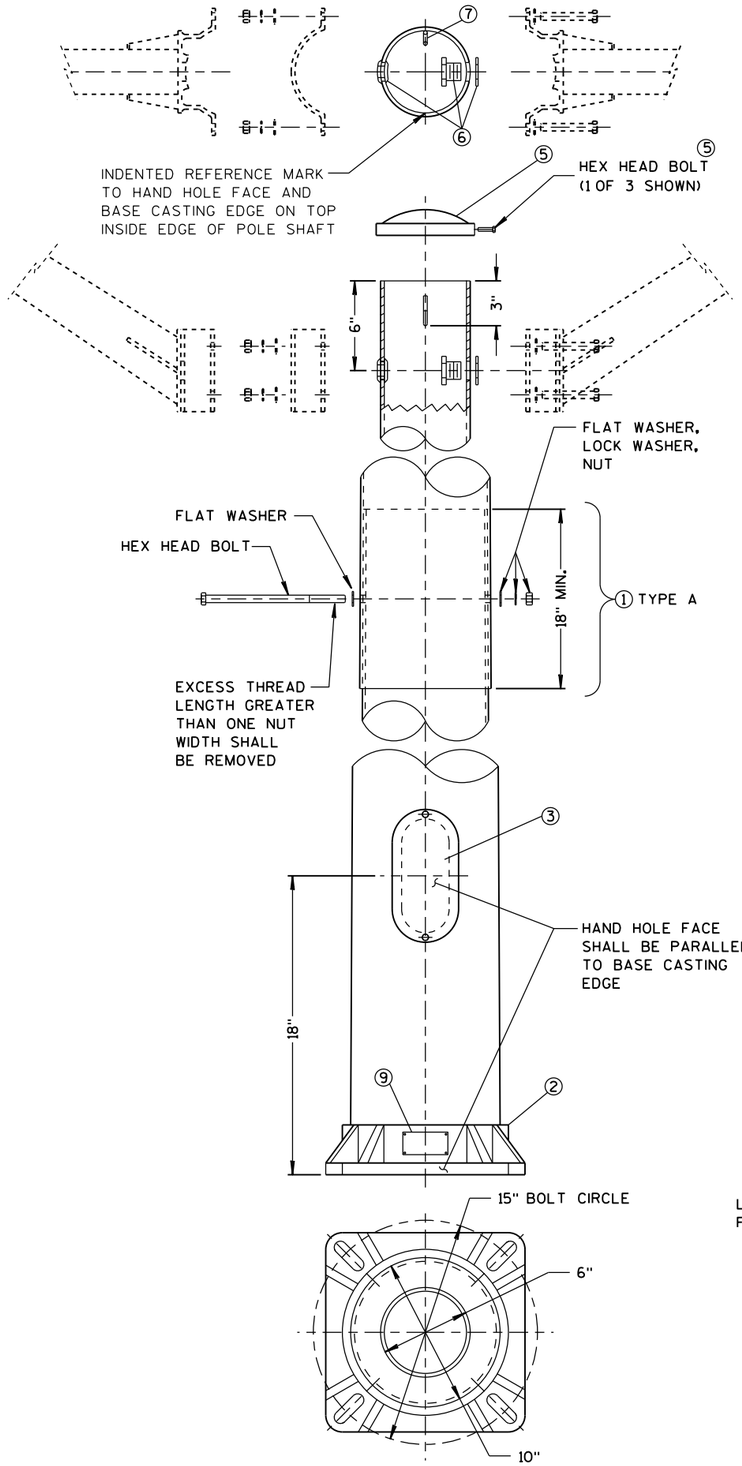
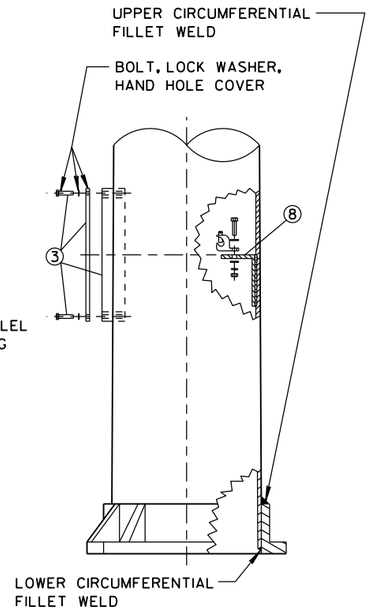
S.D.D. 10 A 15-4b



POLE, TYPE A



(TOP VIEW)



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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 OPTIONAL TELESCOPING FIELD JOINT SECURED BY A 5/8"-11 TPI THROUGH BOLT OR STUD.

THE OVERLAP OF THE UPPER AND LOWER SECTIONS SHALL BE NOT LESS THAN 18".

② SHOE BASE.

③ 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.

④ INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

⑤ 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.

⑥ 1 3/8" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET), PER EACH REQUIRED LUMINAIRE ARM.

⑦ FACTORY-WELDED "J" HOOK FOR POLE WIRE STRAIN RELIEF.

⑧ 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.

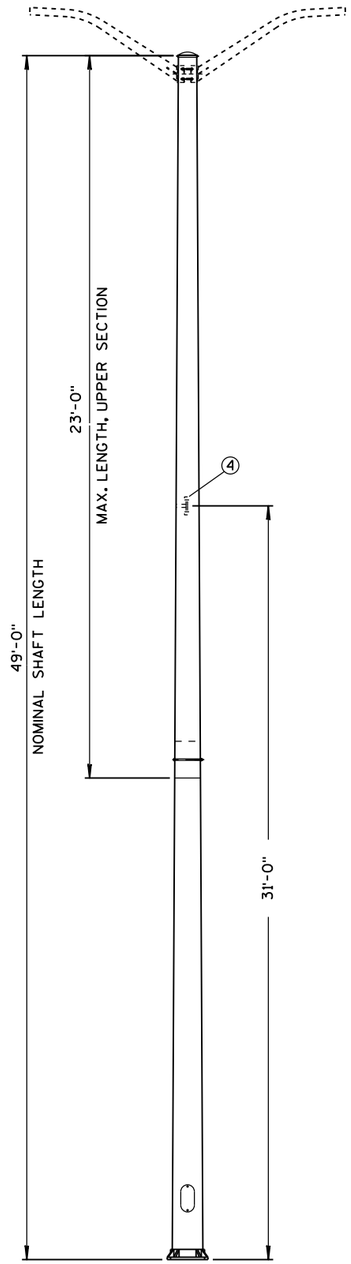
⑨ MANUFACTURER'S PLATE SHOWING WisDOT POLE TYPE, MANUFACTURER, AND DATE.

POLE TYPE (NOM. SHAFT LENGTH)	TYPICAL APPLICATION	ARM & LUMINAIRE LOADS (MAX.)	ADDITIONAL (MAX.) LOADS
TYPE A, (47'-6")	FREEWAY MEDIAN OR STRUCTURE MOUNT	SINGLE ARM, UP TO 10 FT., OR TWIN 4 FT. ARMS	UP TO 20 SQ. FT. OF TRAFFIC SIGNS, MOUNTED AS HIGH AS 15 FT. TO TOP OF SIGN

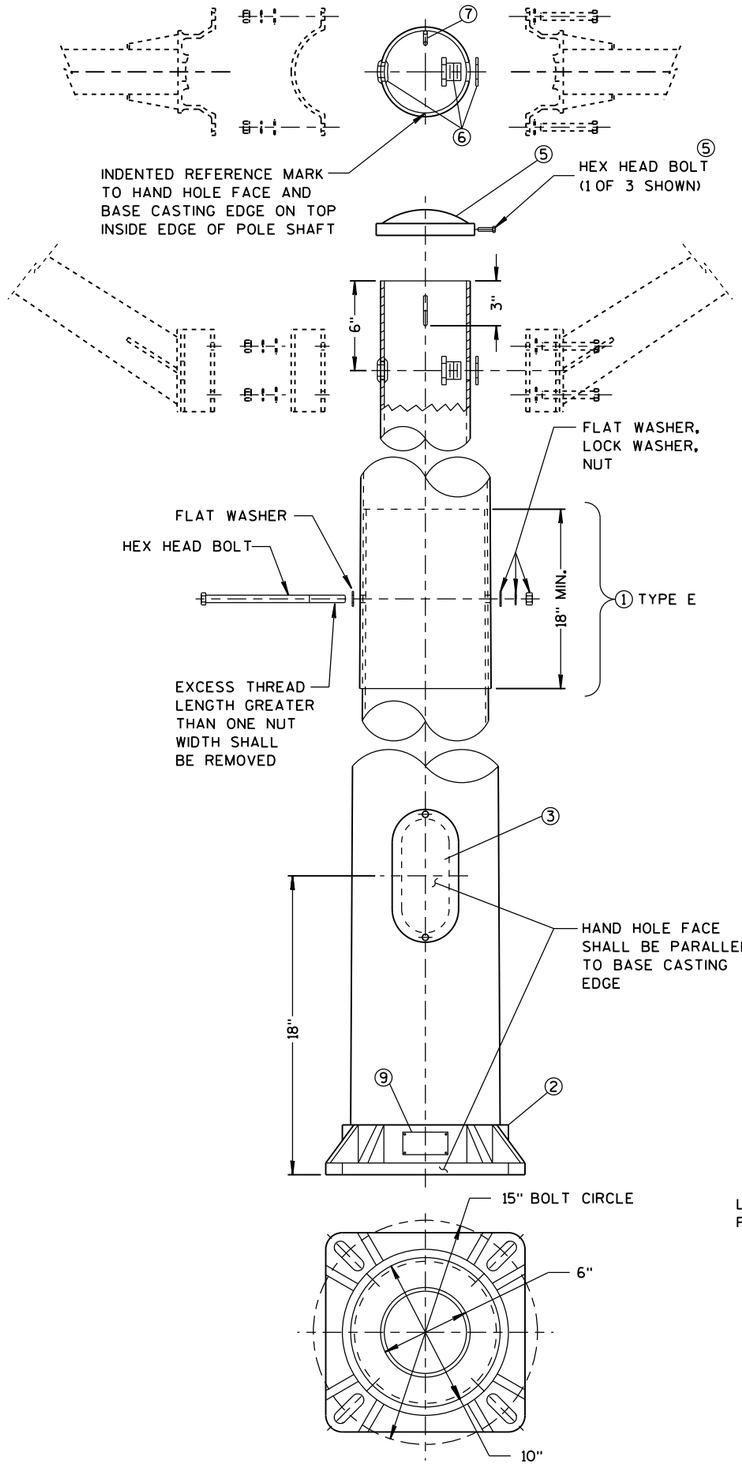
POLES, TYPE A
ALUMINUM 47'-6" SHAFT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

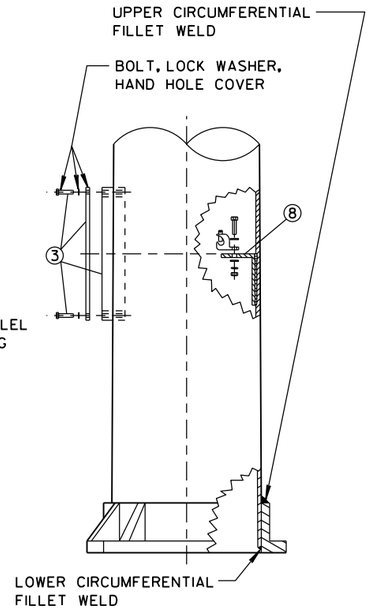
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA



POLE, TYPE E



(TOP VIEW)



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM.
EXCEPT THAT BASE CASTINGS SHALL BE CONSTRUCTED OF 356-T6 ALUMINUM.

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. E.P.A..

① OPTIONAL TELESCOPING FIELD JOINT SECURED BY A 5/8"-11 TPI THROUGH BOLT OR STUD.
THE OVERLAP OF THE UPPER AND LOWER SECTIONS SHALL BE NOT LESS THAN 18".

② SHOE BASE.

③ 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.

④ INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

⑤ FURNISH AND INSTRALL CAST OR METALLIC (ALUMINUM ALLOY) POLE CAP. FASTEN CAP WITH THREE 1/4" X 3/4" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

⑥ 1 3/8" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET), PER EACH REQUIRED LUMINAIRE ARM.

⑦ FACTORY-WELDED "J" HOOK FOR POLE WIRE STRAIN RELIEF.

⑧ 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.

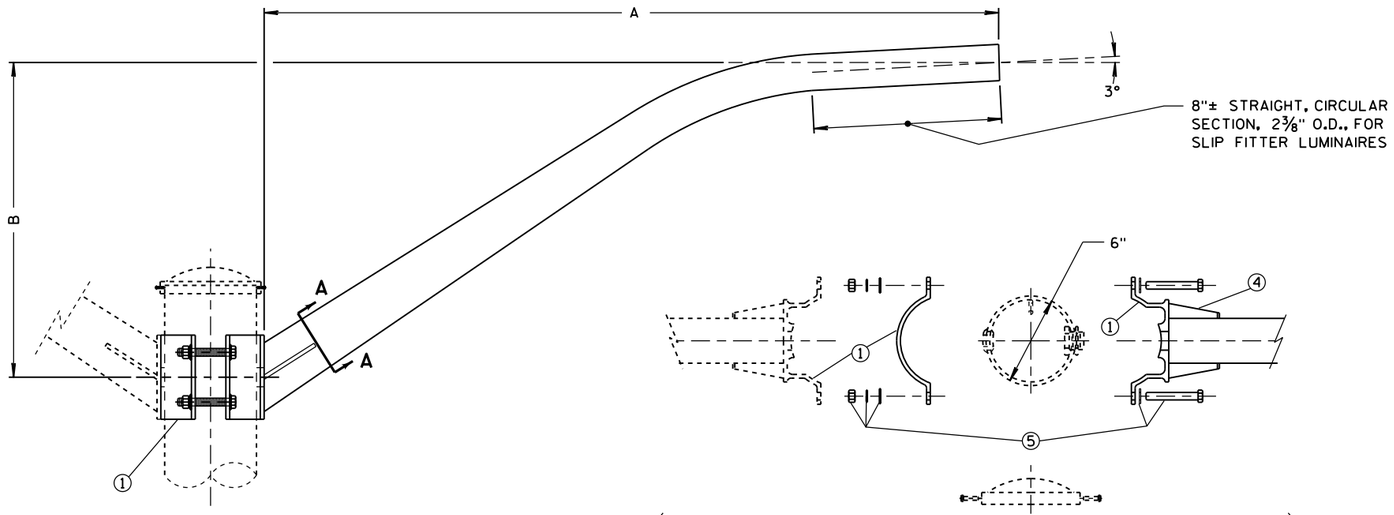
⑨ MANUFACTURER'S PLATE SHOWING WisDOT POLE TYPE, MANUFACTURER, AND DATE.

POLE TYPE (NOM. SHAFT LENGTH)	TYPICAL APPLICATION	ARM & LUMINAIRE LOADS (MAX.)	ADDITIONAL (MAX.) LOADS
TYPE E, (49')	FREEWAY SLOPE MOUNT	SINGLE ARM, UP TO 20 FT., TRUSS TYPE OR TWIN ARMS UP TO 10' SINGLE MEMBER	UP TO 20 SQ. FT. OF TRAFFIC SIGNS, MOUNTED AS HIGH AS 15 FT. TO TOP OF SIGN

POLES, TYPE E, ALUMINUM 49'-0" SHAFT

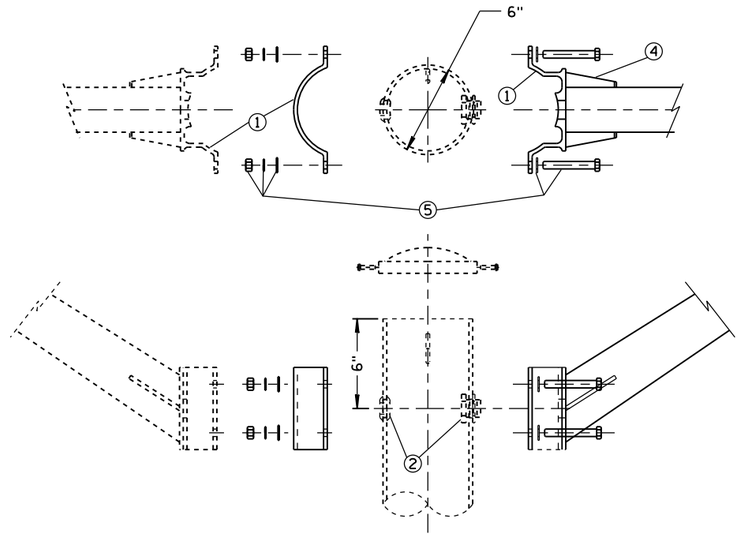
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA



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.

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
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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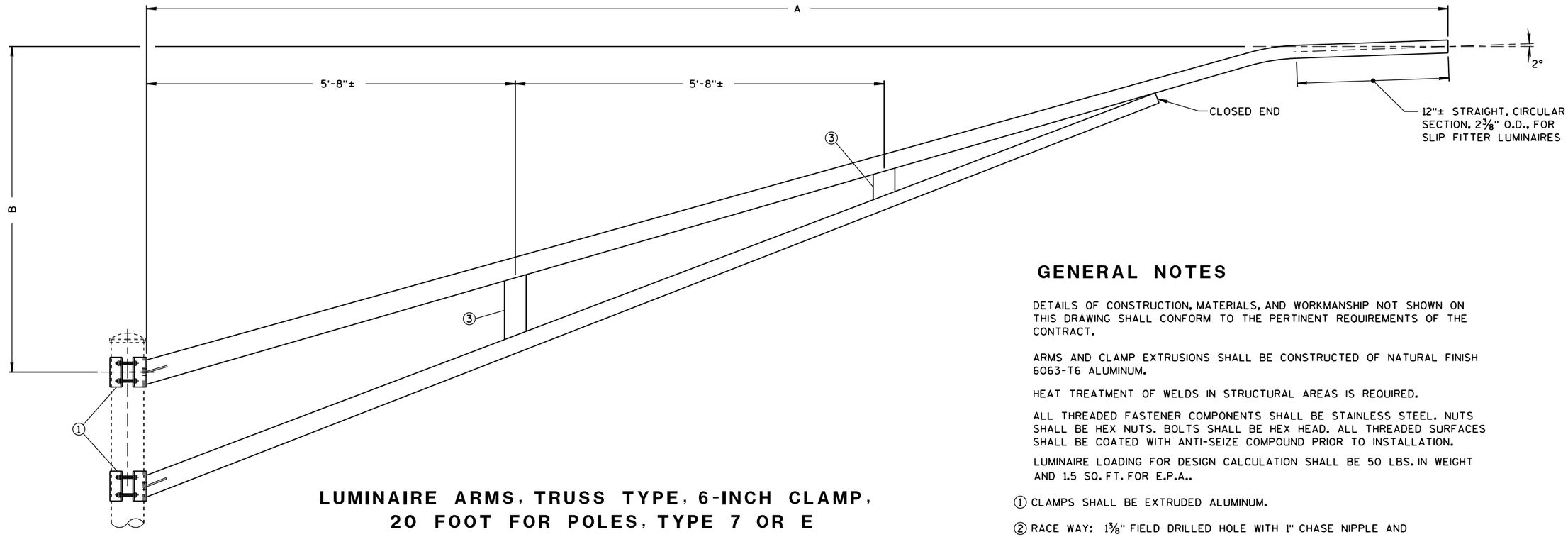
S.D.D. 10 A 18-5a



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.

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
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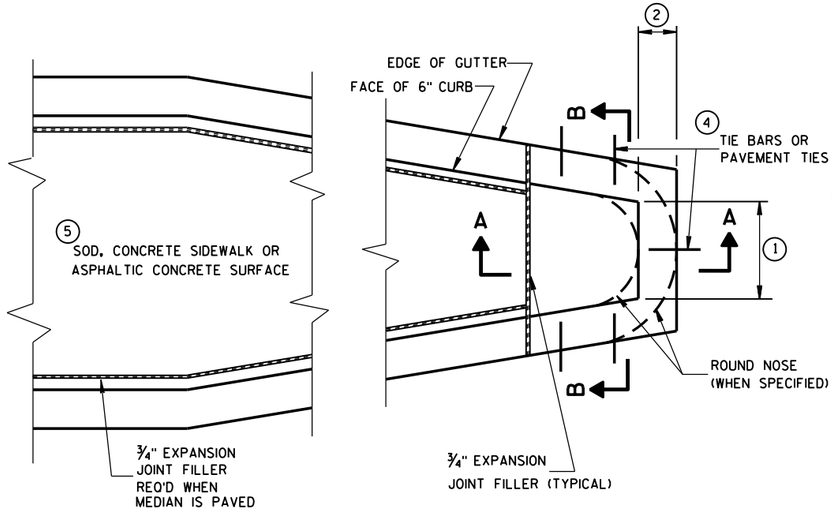
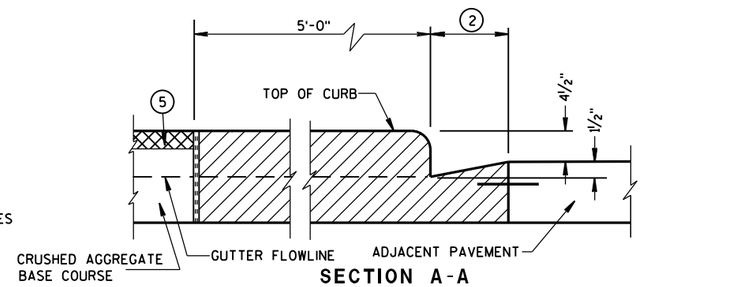
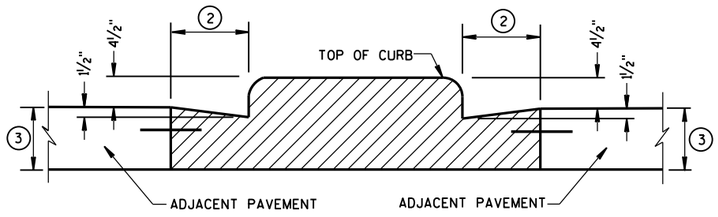
S.D.D. 10 A 18-5b







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.

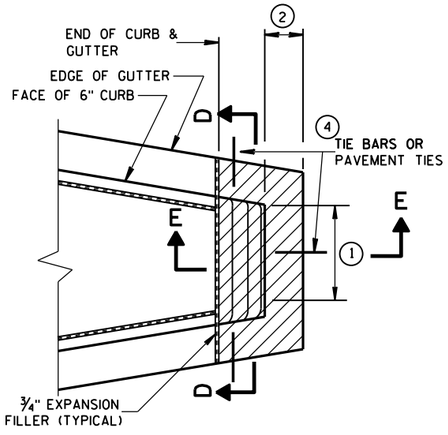
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

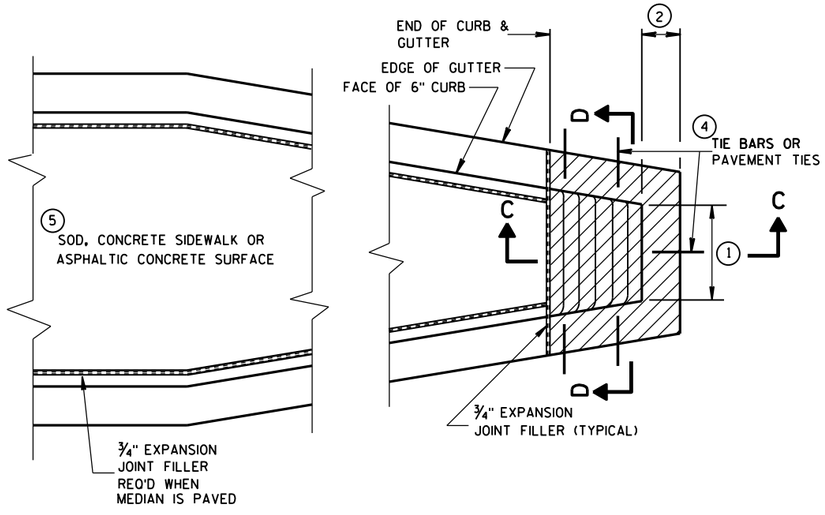
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

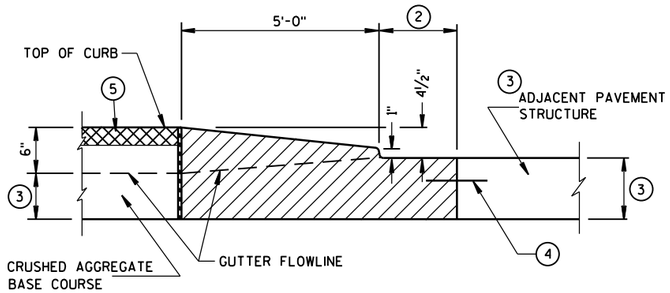
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

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.

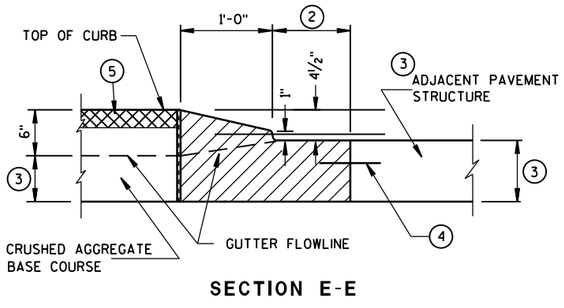
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



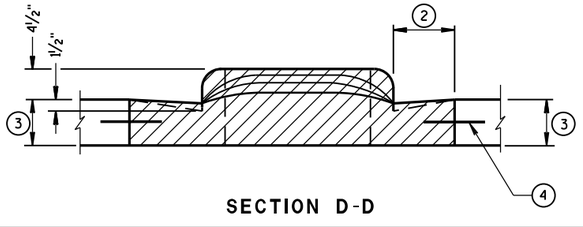




CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN SLOPED NOSE TYPE 2



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
458
FHWA

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S.D.D. 11 B 2-2

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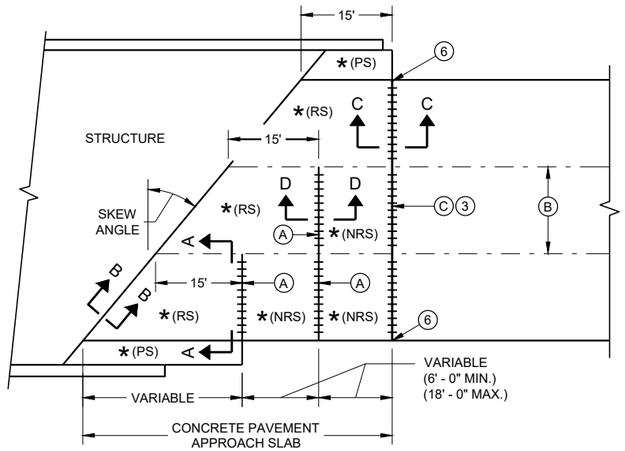


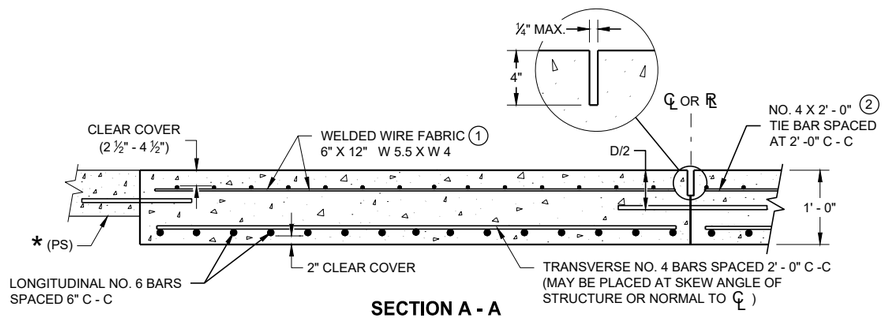
SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)

* (RS) = REINFORCED CONCRETE SLAB

* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL

GENERAL NOTES

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

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

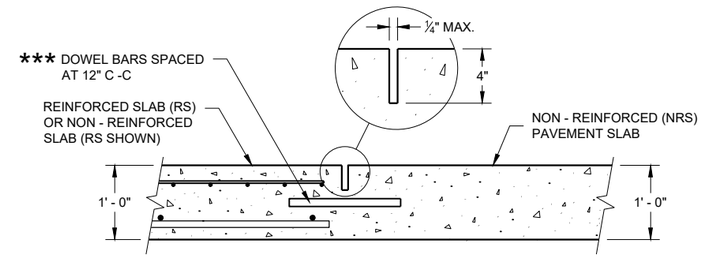
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

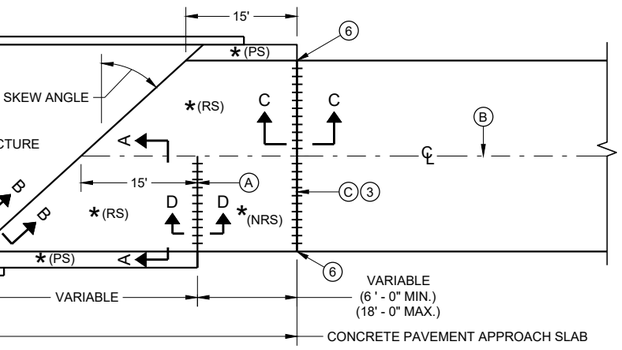
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞

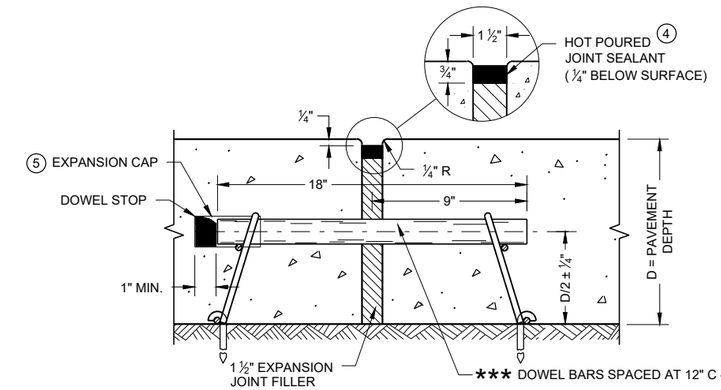


SECTION D - D
CONTRACTION JOINT

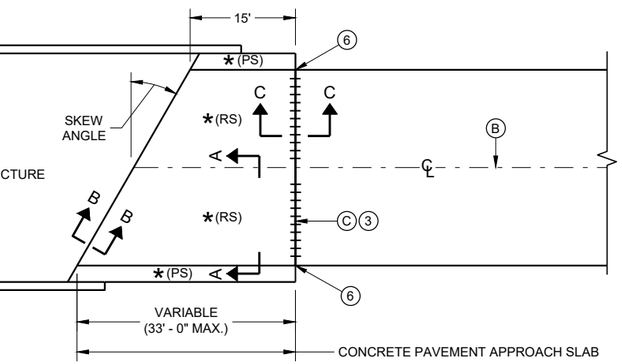


SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')

SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT

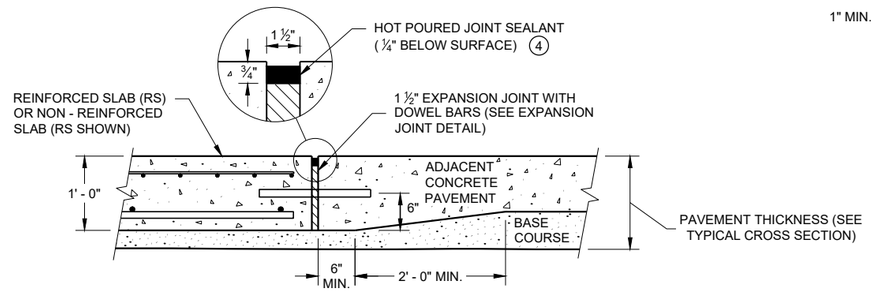


EXPANSION JOINT DETAIL



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

APPROACH SLAB AND ADJACENT PAVEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVISO

FHWA

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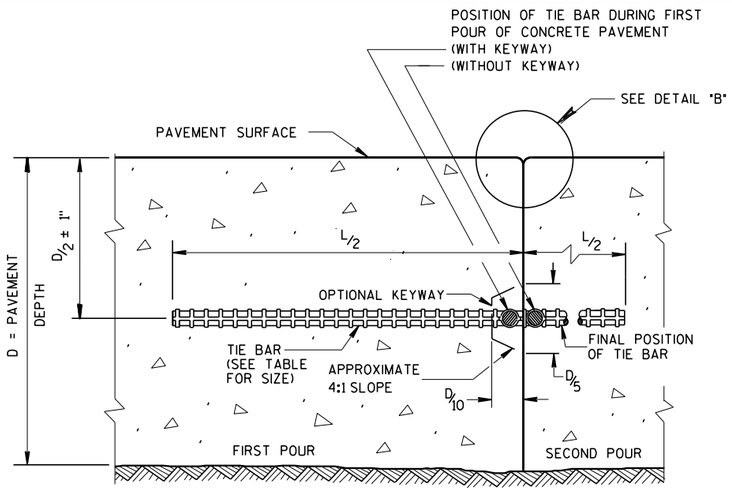
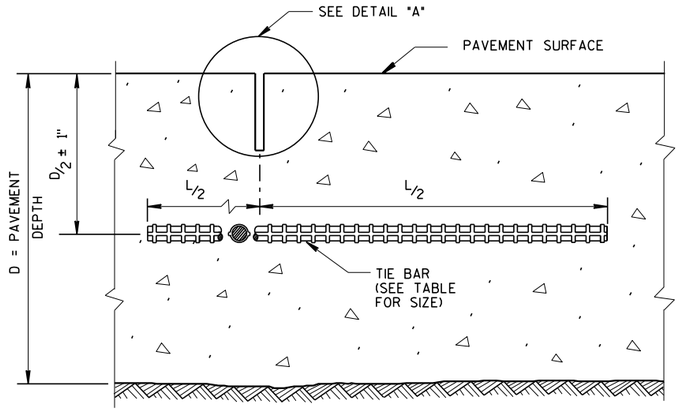
SDD 13B02 - 09a

SDD 13B02 - 09a



CONSTRUCTION JOINT



SAWED JOINT

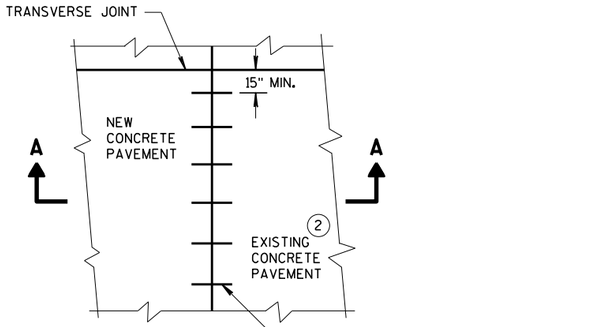
GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

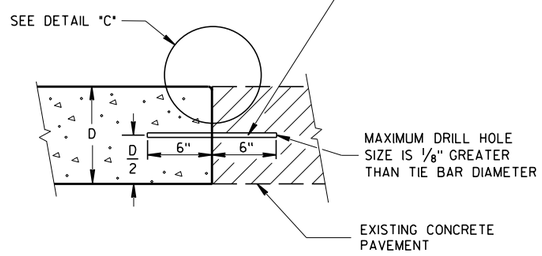
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

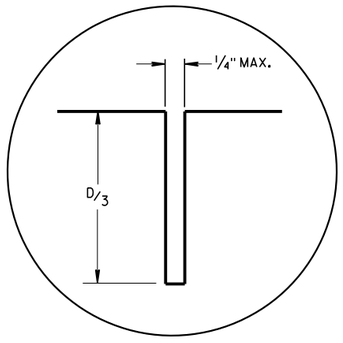


PLAN VIEW

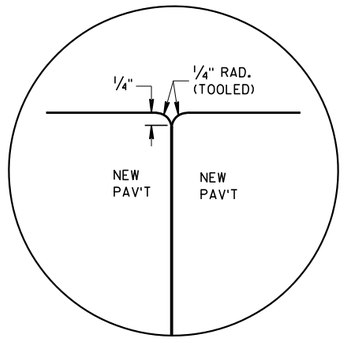


SECTION A-A

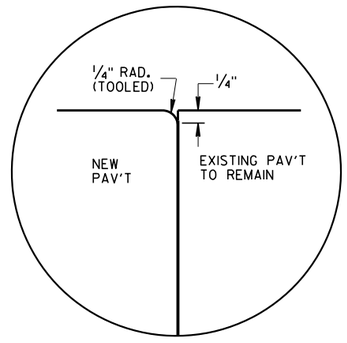
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



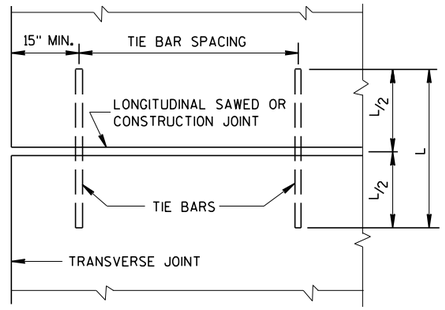
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Peter Kerr
PAVEMENT SUPE
FHWA

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S.D.D. 13 C 1-19

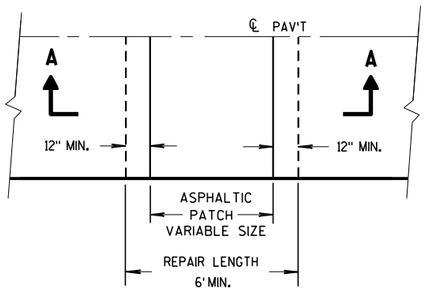
GENERAL NOTES

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.

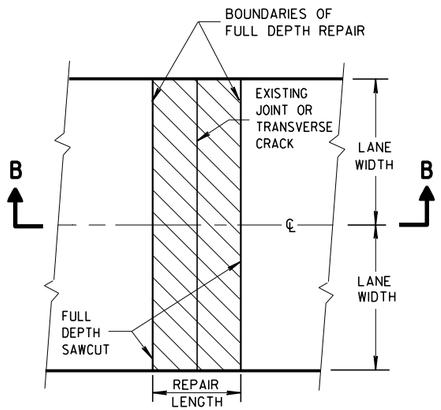
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

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.

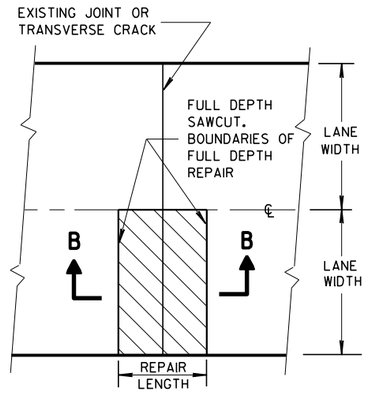
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

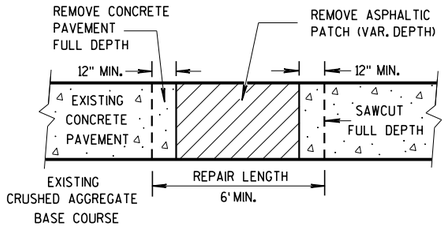


PLAN VIEW
(DOUBLE LANE REPAIR)



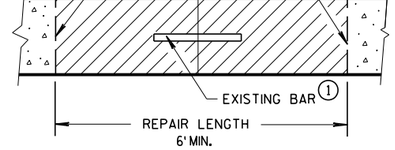
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

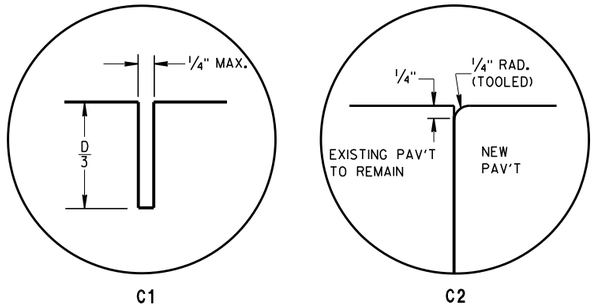
CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 9-15a



C1 C2

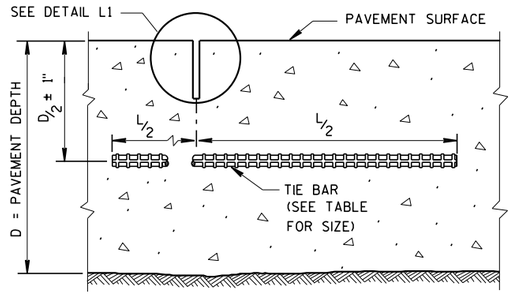
TRANSVERSE JOINTS

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

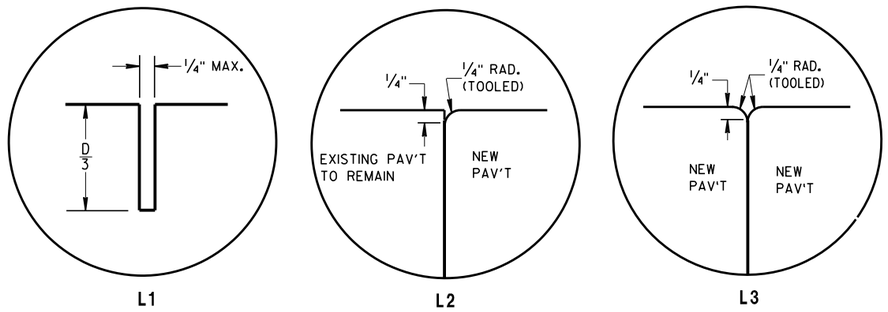
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

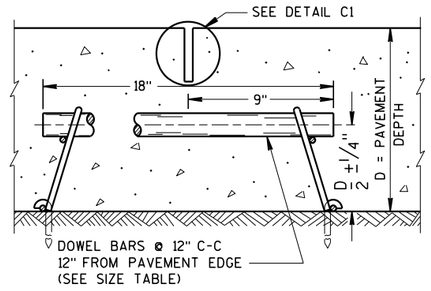
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



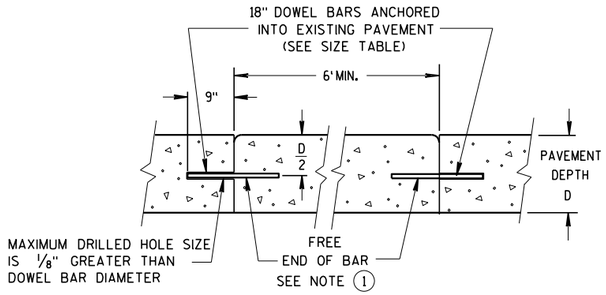
L1 L2 L3

LONGITUDINAL JOINTS

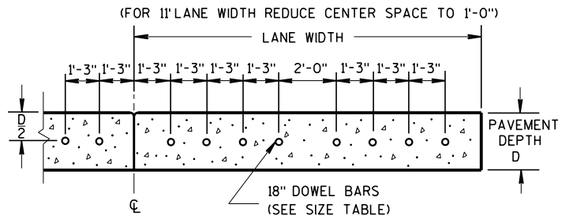


SECTION F-F

CONTRACTION JOINT



SECTION D-D

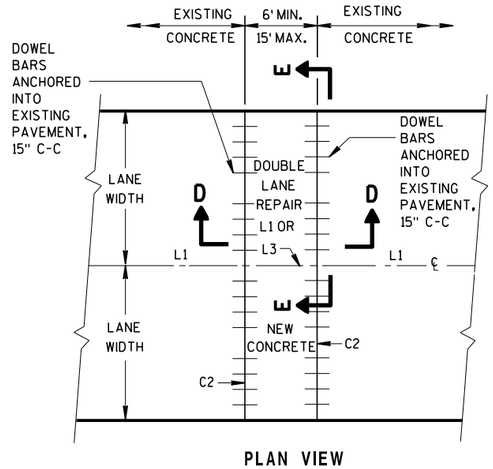


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

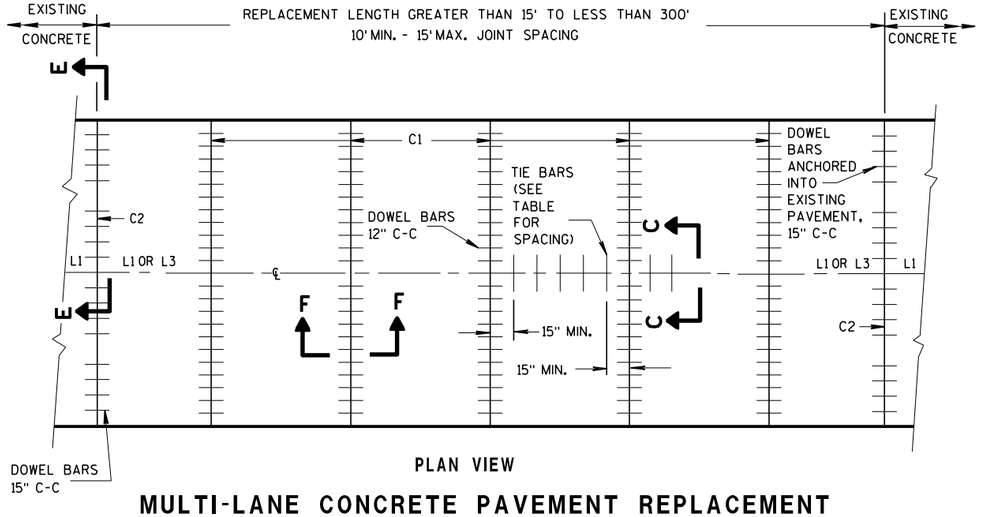
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	DRILLED DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	NONE	12'
7", 7 1/2"	1"	1"	14'
8", 8 1/2"	1 1/4"	1 1/4"	15'
9", 9 1/2"	1 1/4"	1 1/4"	15'
10" & ABOVE	1 1/2"	1 1/4"	15'



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

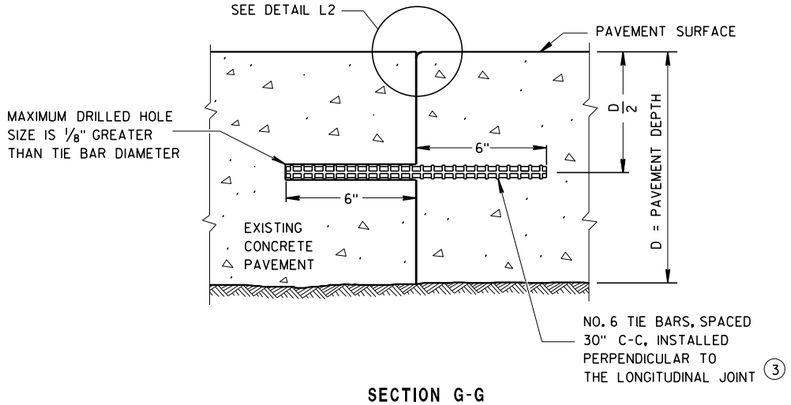
MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 9-15b



SECTION G-G

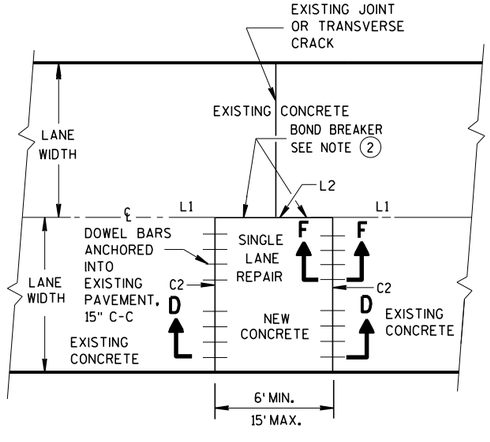
TIE BARS ANCHORED INTO EXISTING PAVEMENT

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 IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

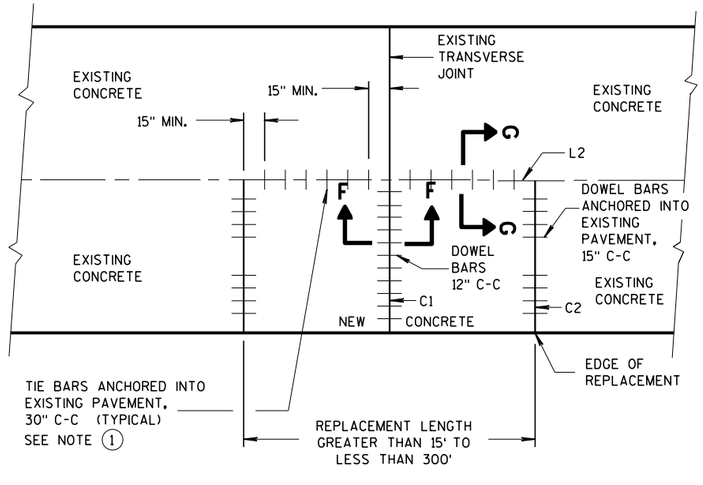
(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

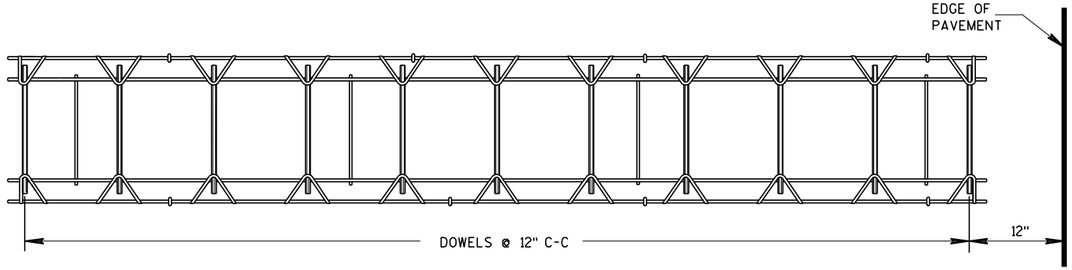
SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Ken... — PAVEMENT SUPE...
FHWA

S.D.D. 13 C 9-15c



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'

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② 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.

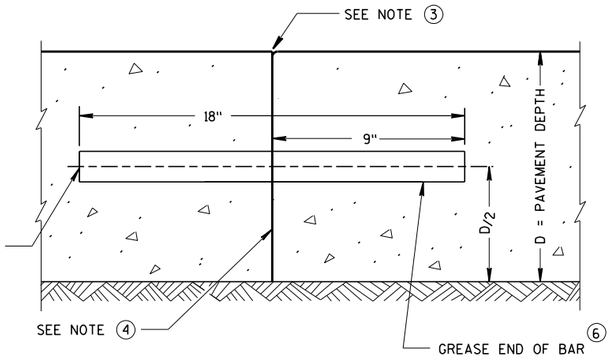
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

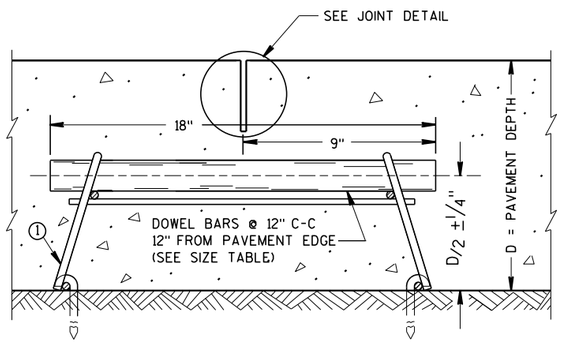
⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

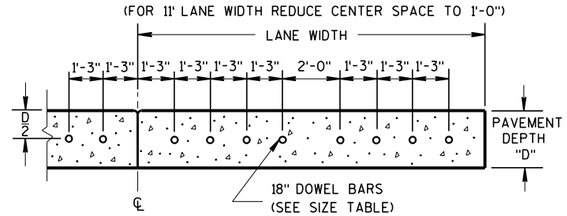
⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



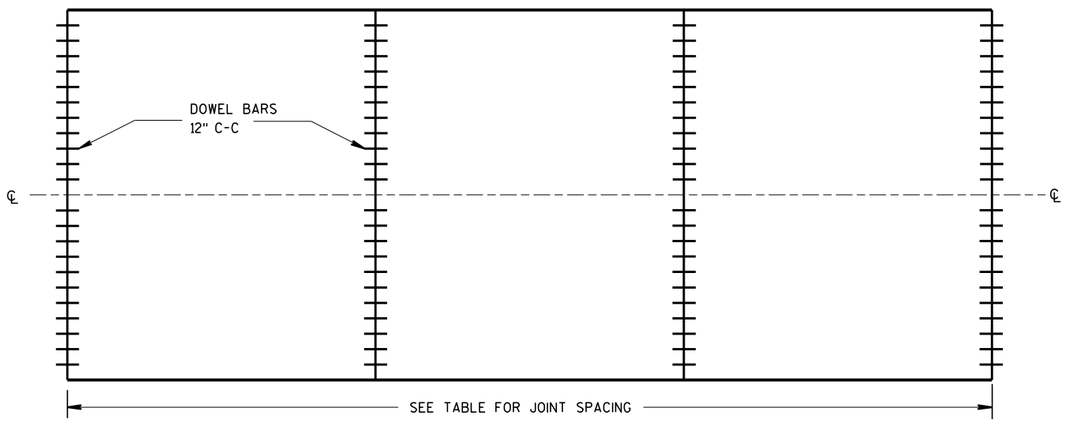
TRANSVERSE CONSTRUCTION JOINT



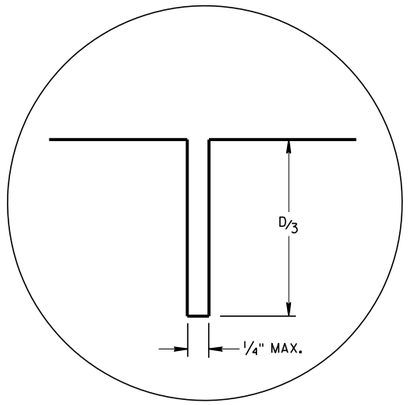
DOWELED CONTRACTION JOINT



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUP
FHWA

464

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S.D.D. 13 C 13-9

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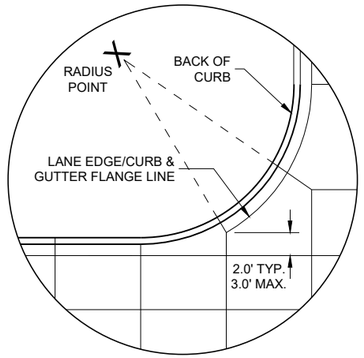
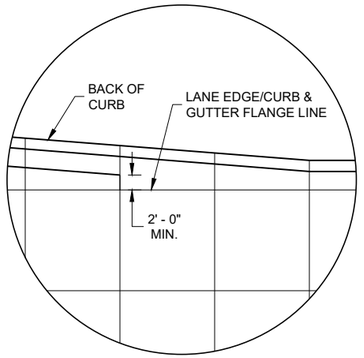
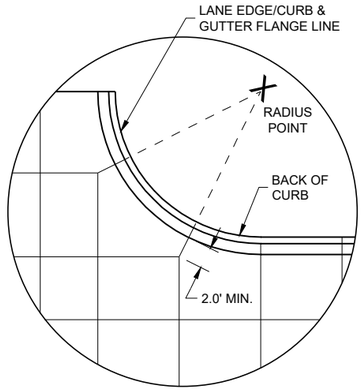
S.D.D. 13 C 13-9



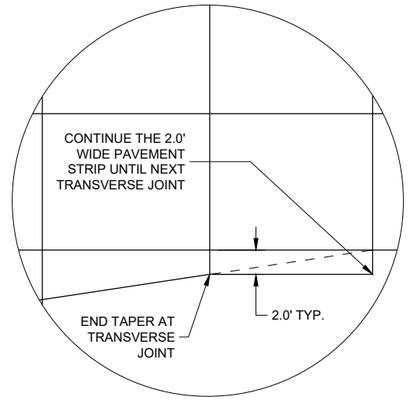
DETAIL "A"



DETAIL "B"



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.

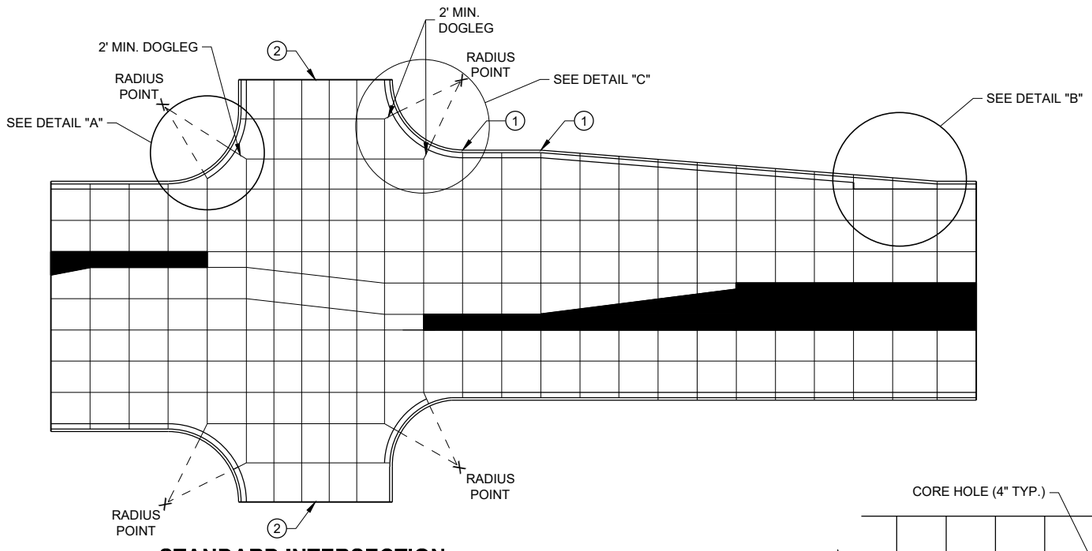
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

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 WITHEDGE OF RADIUS.

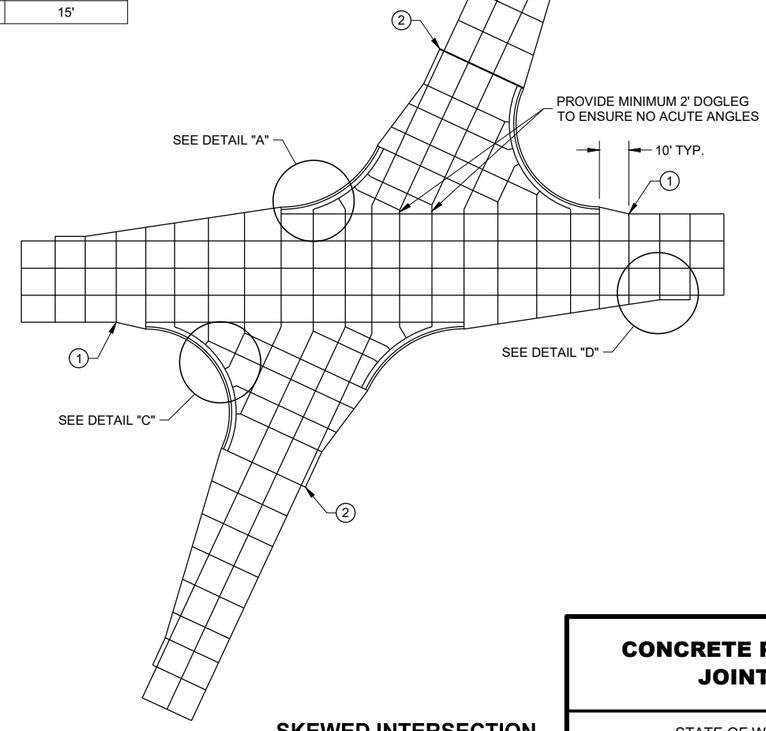
(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



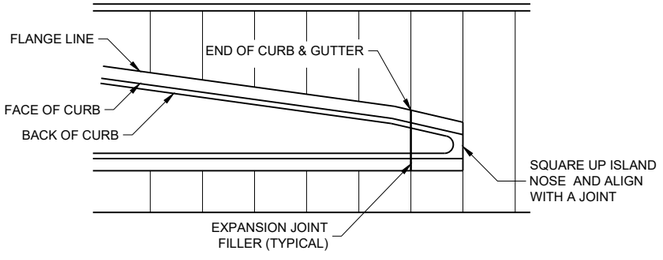
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

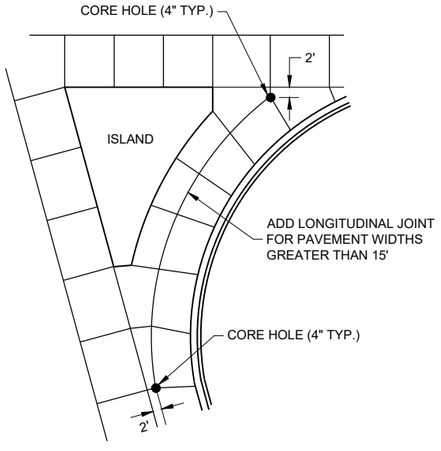
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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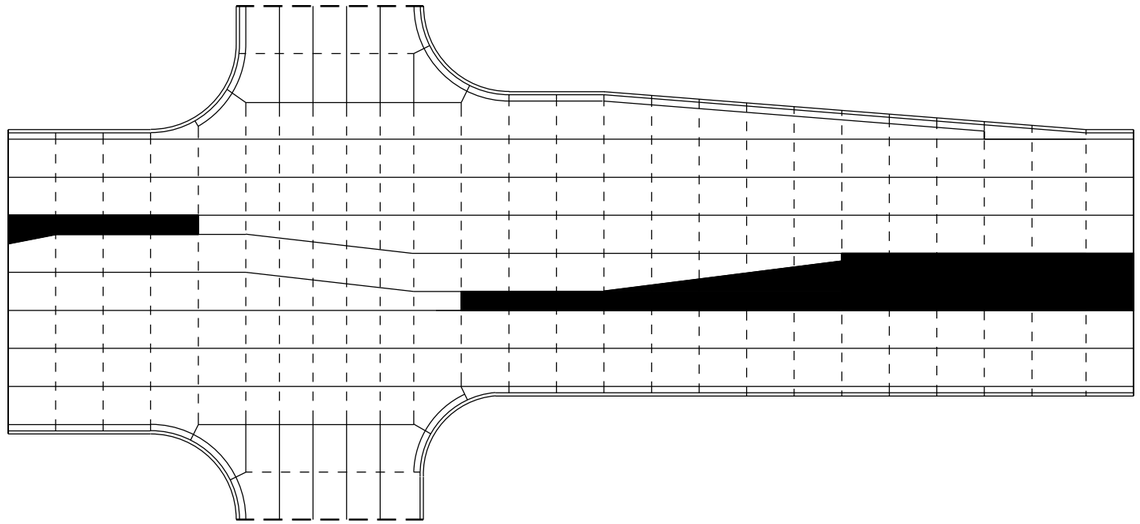
SDD 13C18 - 07a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

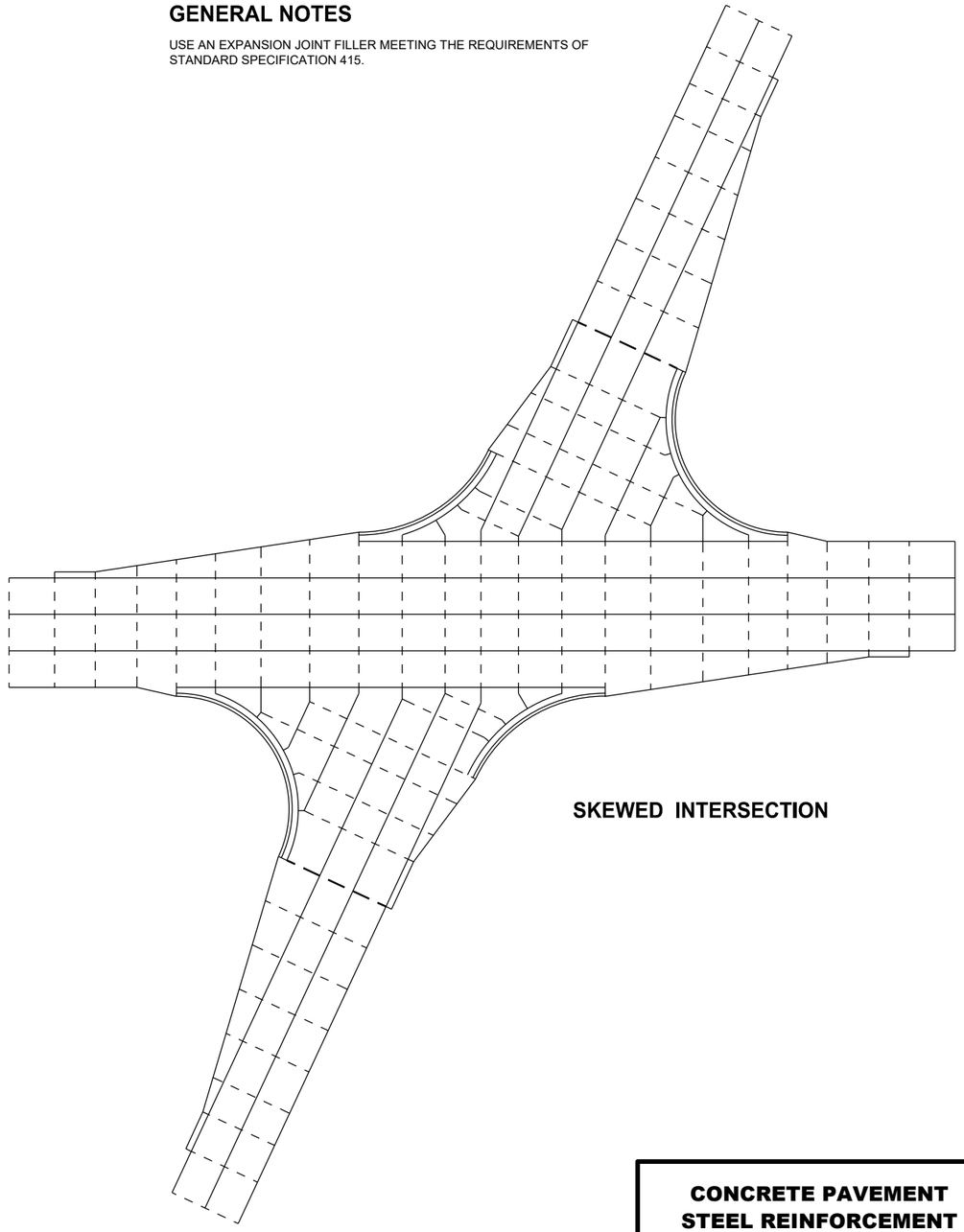
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

SDD 13C18 - 07b

CONCRETE PAVEMENT STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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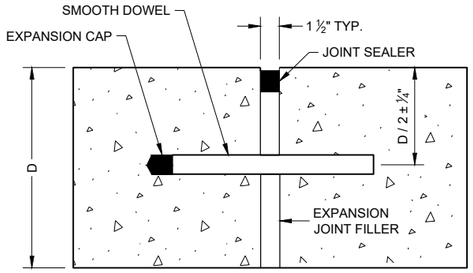
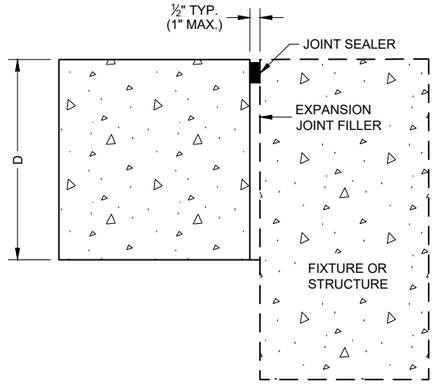
SDD 13C18 - 07b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

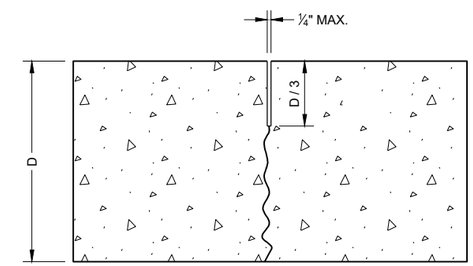
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

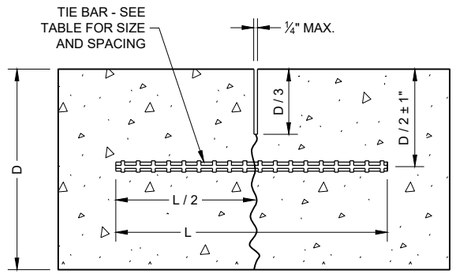
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

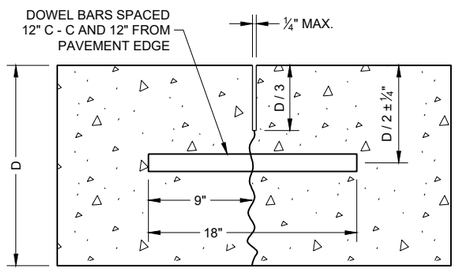
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

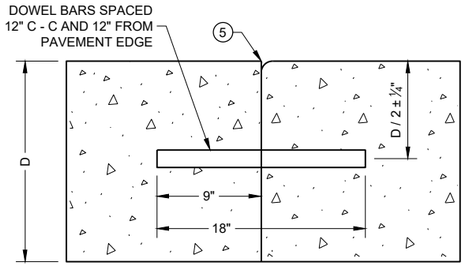


TIED LONGITUDINAL

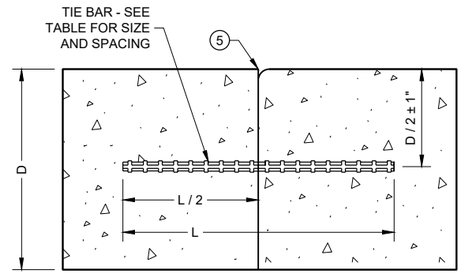


DOWELED TRANSVERSE

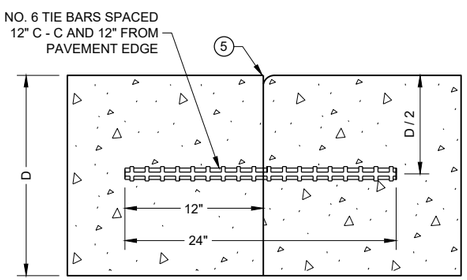
CONTRACTION JOINTS (2)



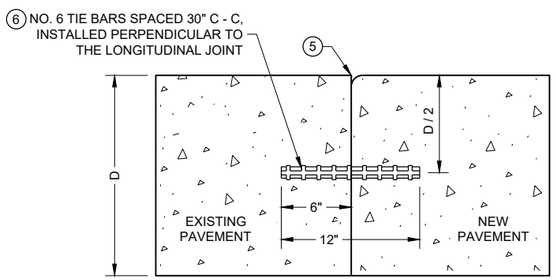
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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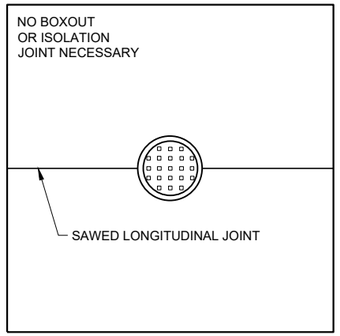
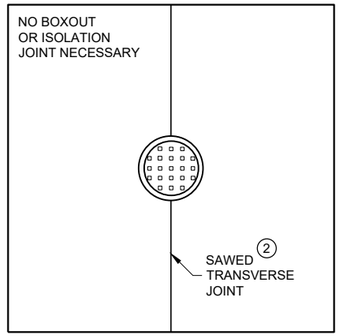
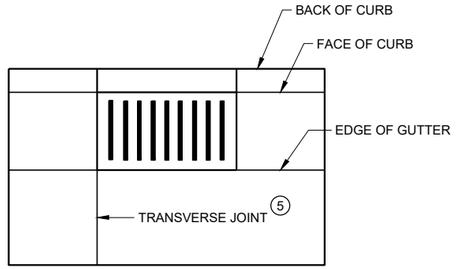
SDD 13C18 - 07c



MANHOLE WITH LONGITUDINAL JOINT



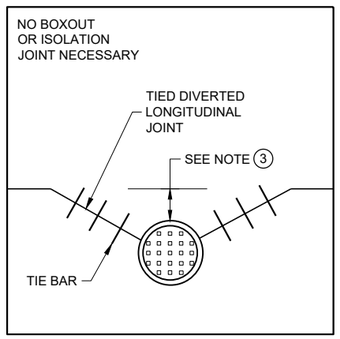
MANHOLE WITH TRANSVERSE JOINT



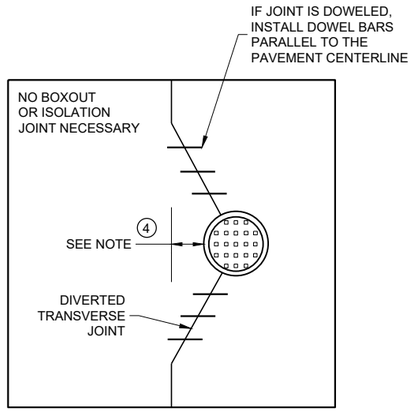
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

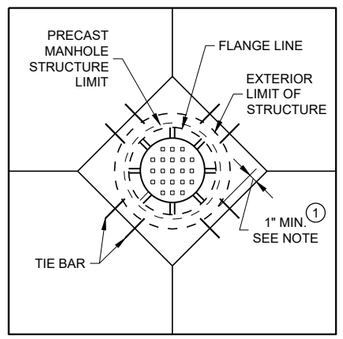
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVISO

FHWA

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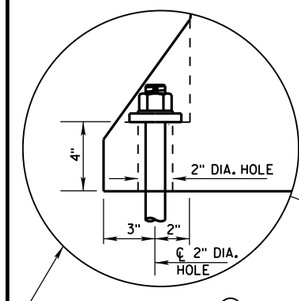
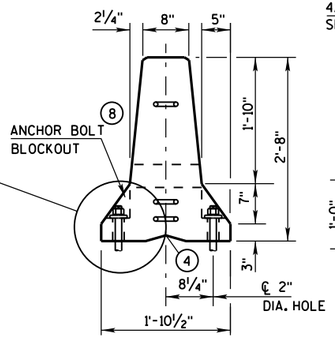
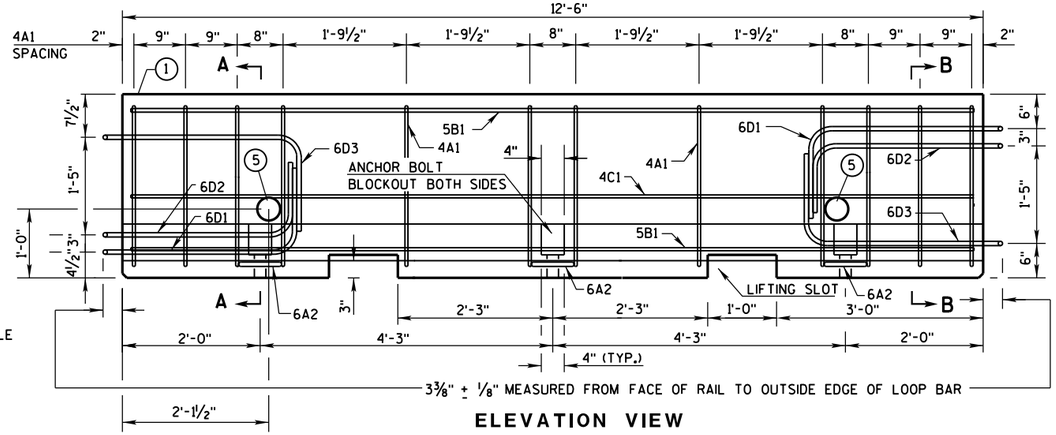
SDD 13C18 - 07d
SDD 13C18 - 07d



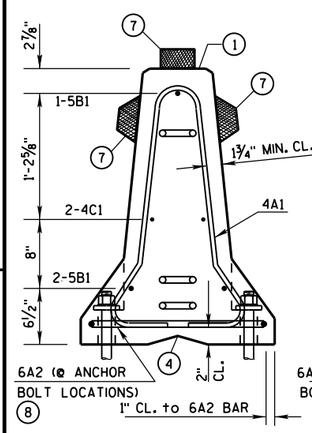
ANCHOR ON TRAFFIC SIDE (8) ONLY WHEN REQUIRED (SEE SHEET D FOR ADDITIONAL ANCHOR DETAIL)



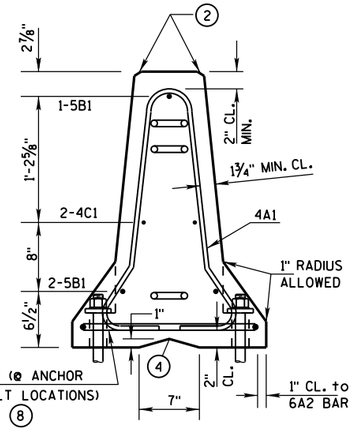
END VIEW



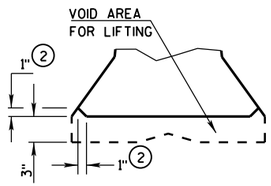
ELEVATION VIEW



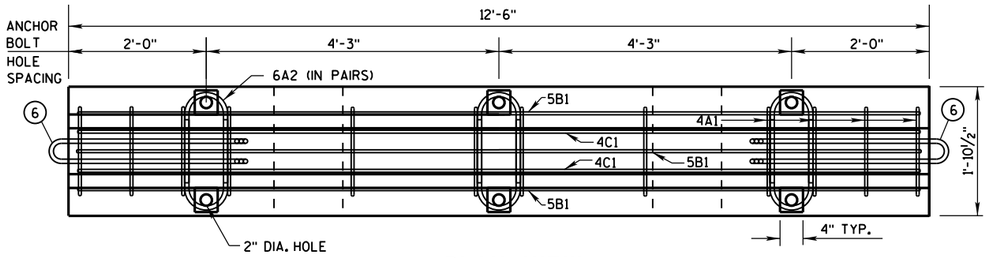
SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)

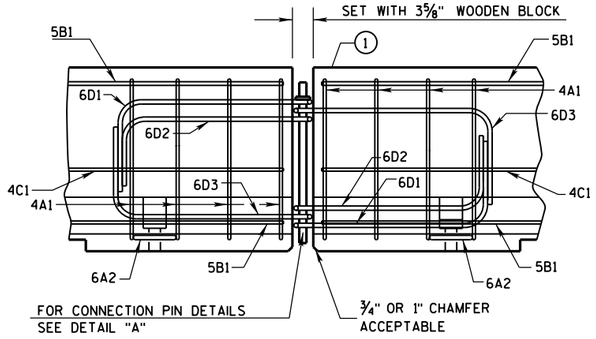


DETAIL "B"
LIFTING SLOT DETAIL

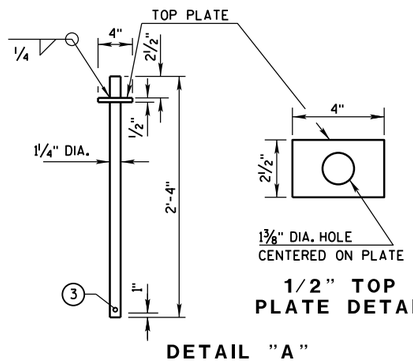


PLAN VIEW

DETAILS OF BARRIER SECTION

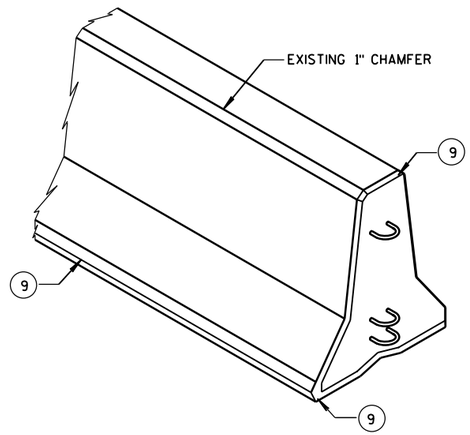


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

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



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).

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 ADHESIVE 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: WI CBTP
- 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.

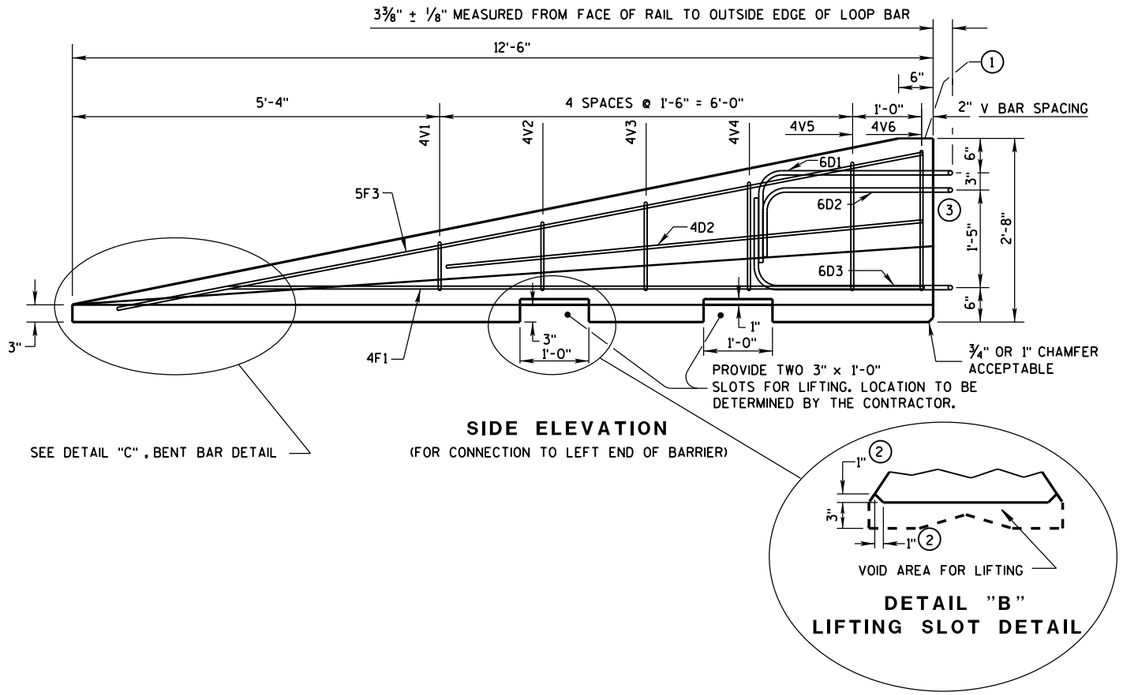
(8) SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.

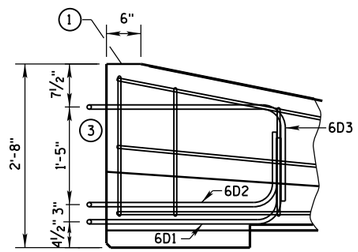
(9) 1" CHAMFER OPTIONAL.

f'c = 4,000 psi

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

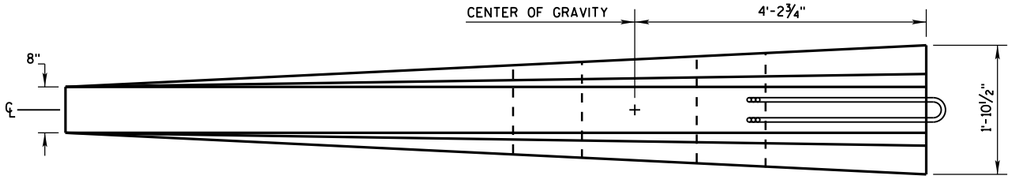
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 469

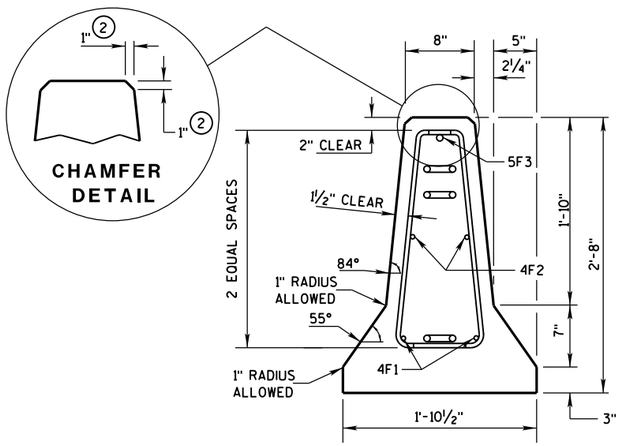


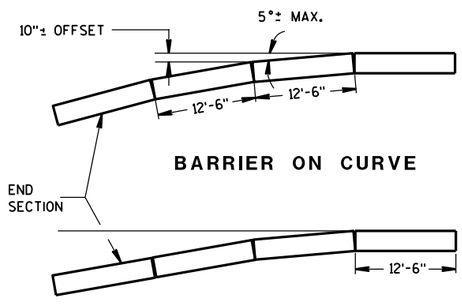


GENERAL NOTES

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.







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 TRANSPOI

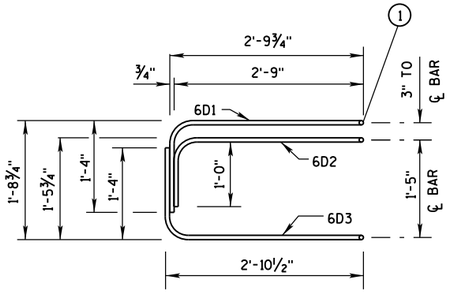
6

S.D.D. 14 B 7-15b

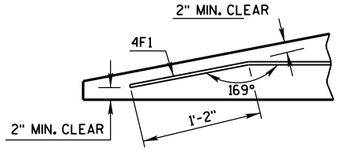
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

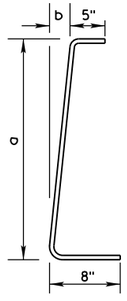
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



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

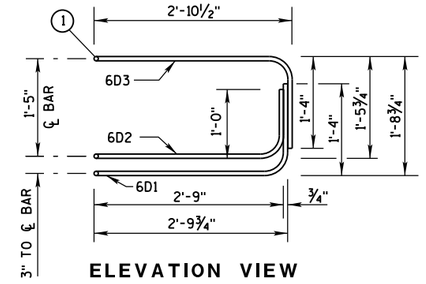
GENERAL NOTES

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

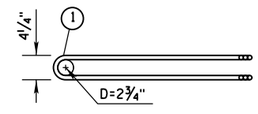
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

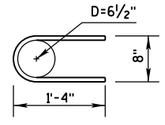
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



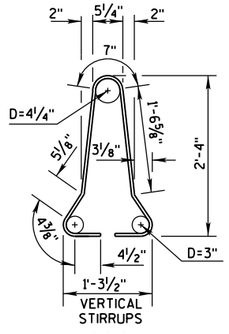
ELEVATION VIEW



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



6A2



4A1

BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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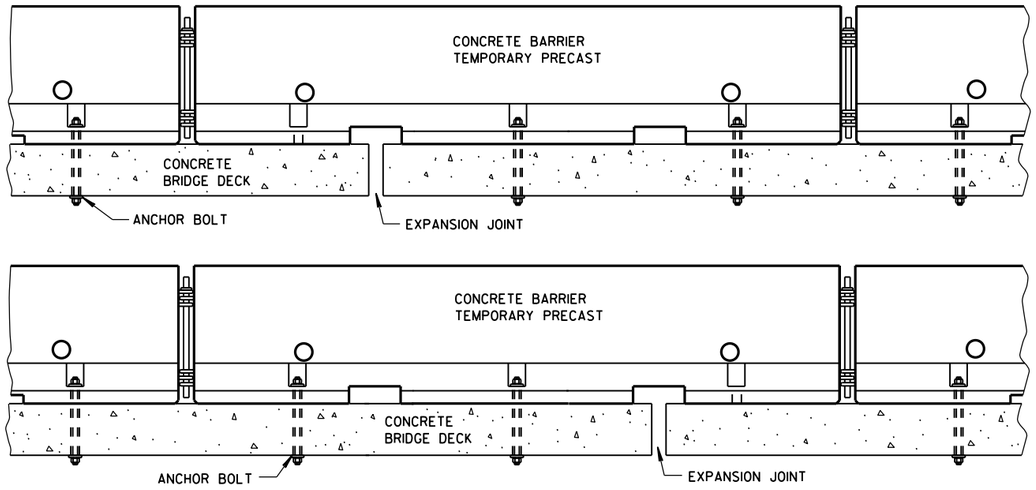
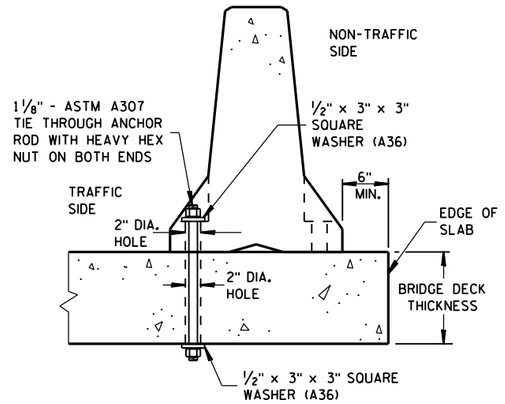
S.D.D. 14 B 7-15c



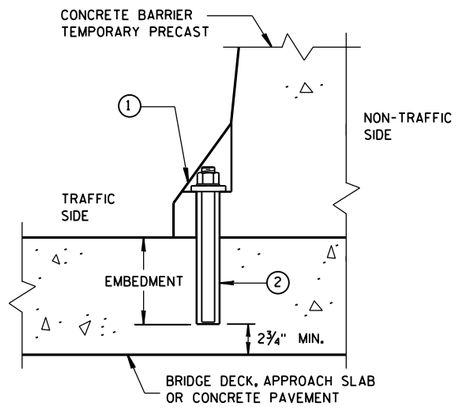
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(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 ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

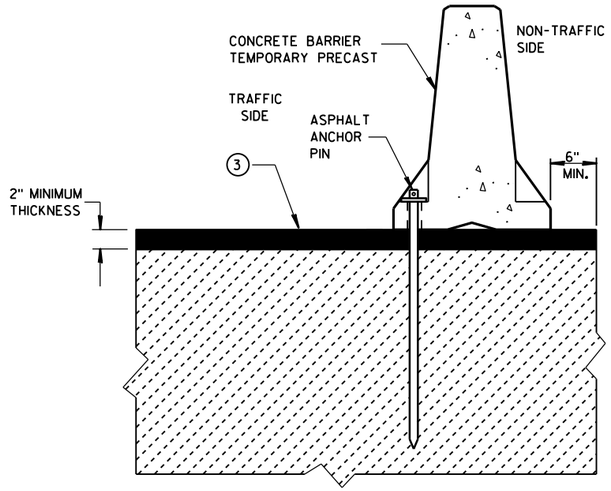
(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

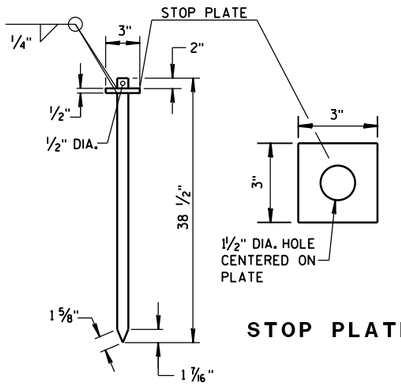
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERICAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

1. 1⅛" DIAMENTER A307 THREADED ROD. ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL. ASTM A563A HEAVY HEX NUT.
2. ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.
3. ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THAN DRIVE ASPHALT ANCHOR PIN.



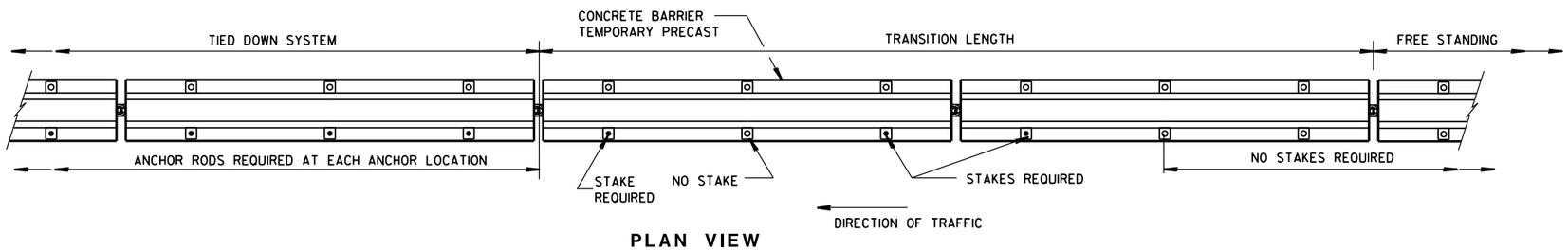
STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



STOP PLATE

ASPHALT ANCHOR 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 TRANSPOI

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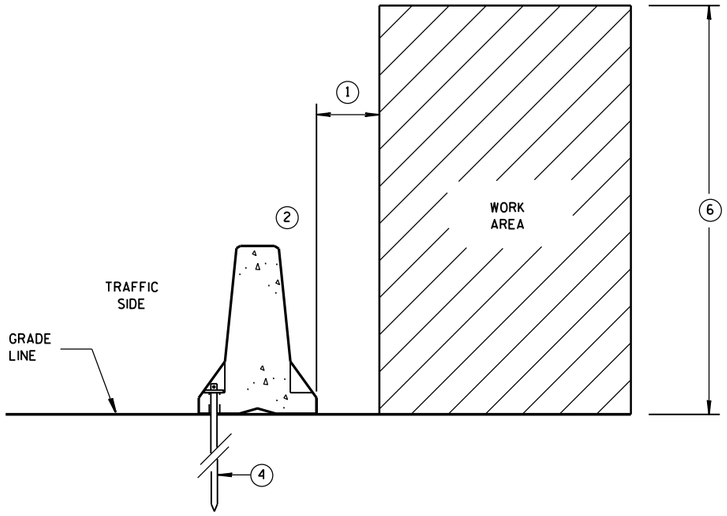
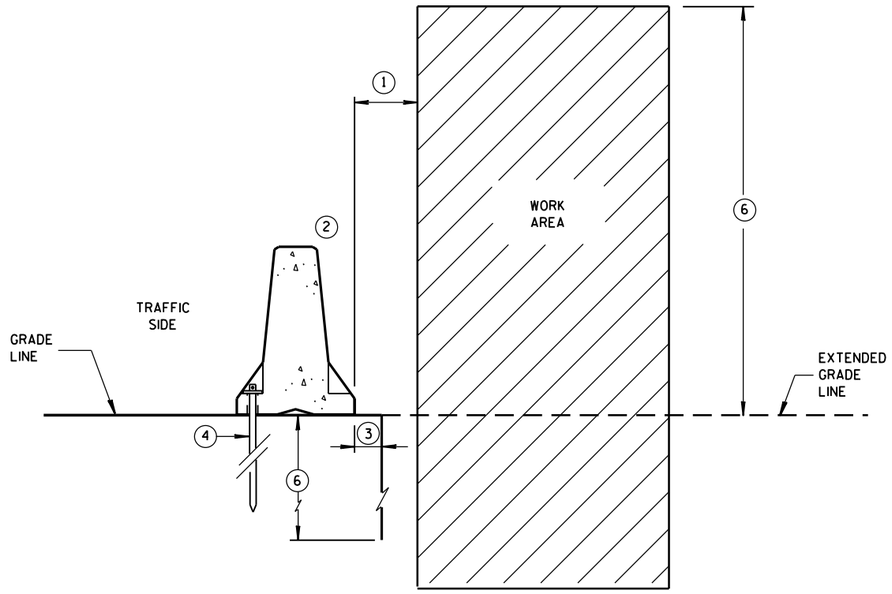
S.D.D. 14 B 7-15d



ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

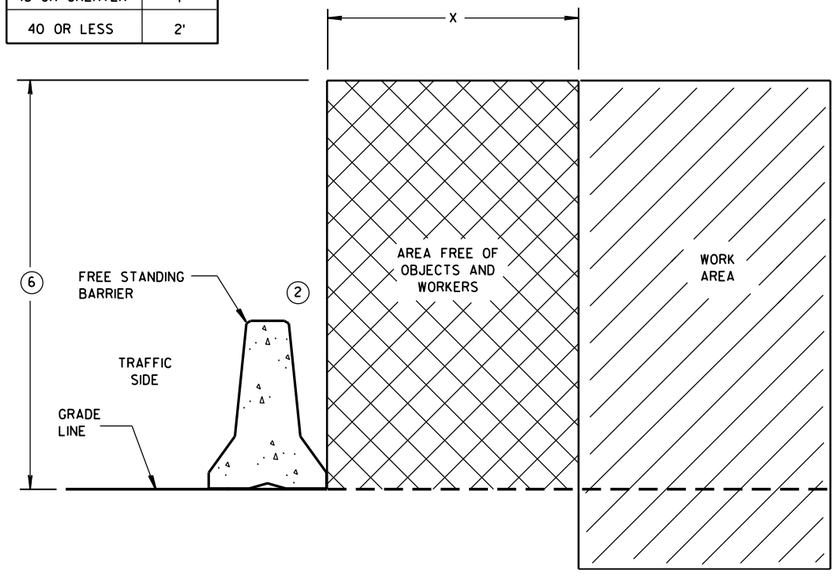


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

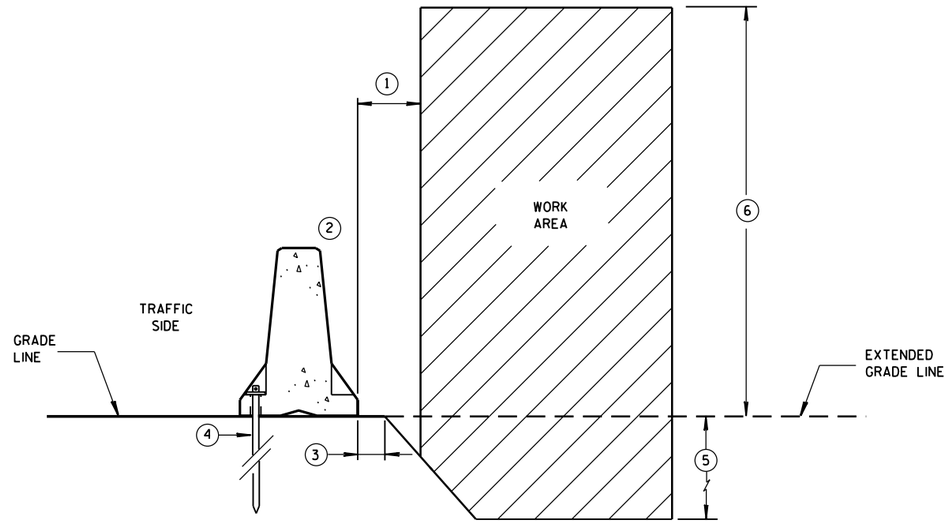
GENERAL NOTES

1. WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
2. OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
3. SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
4. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
5. DEPTH OF 3 FEET OR MORE.
6. Y = 6'-6".

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



FREE STANDING BARRIER SPACE REQUIREMENTS



ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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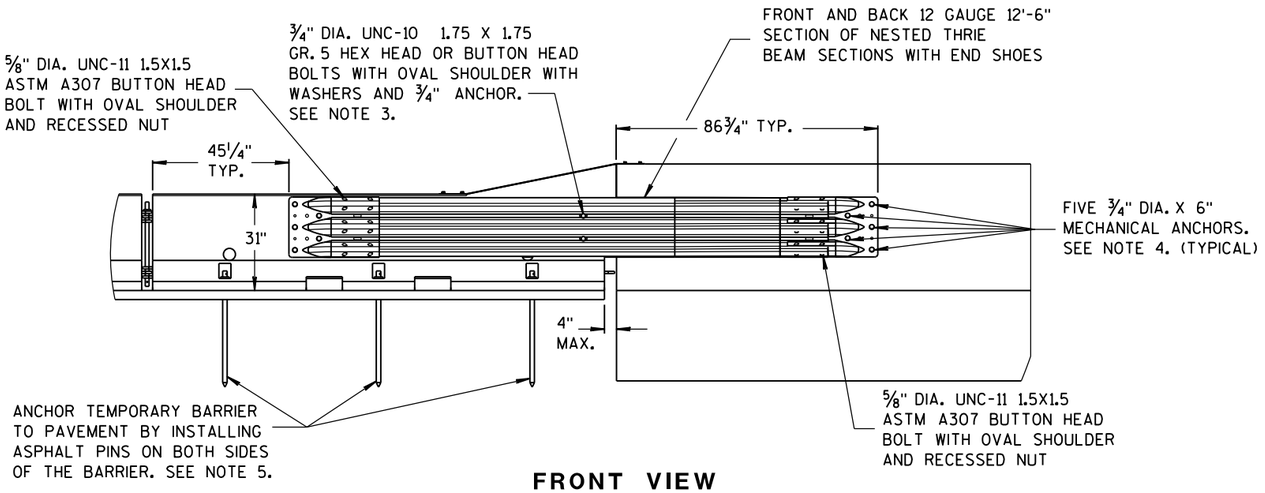
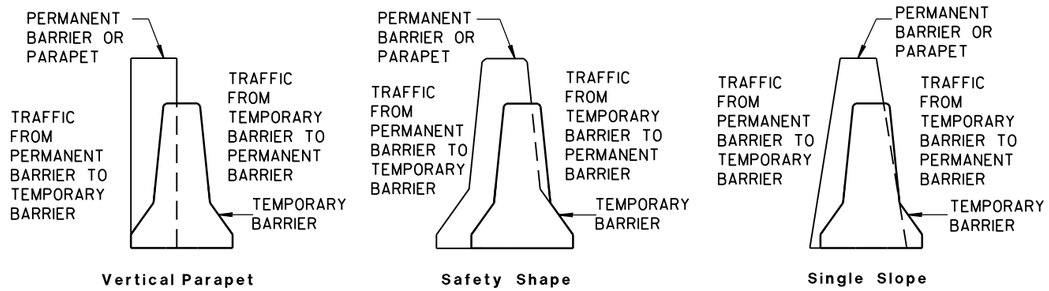
S.D.D. 14 B 7-15e



FRONT VIEW

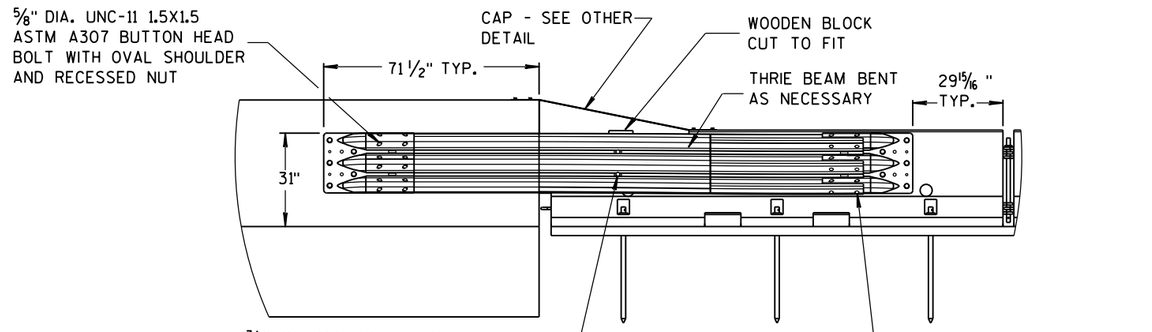


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

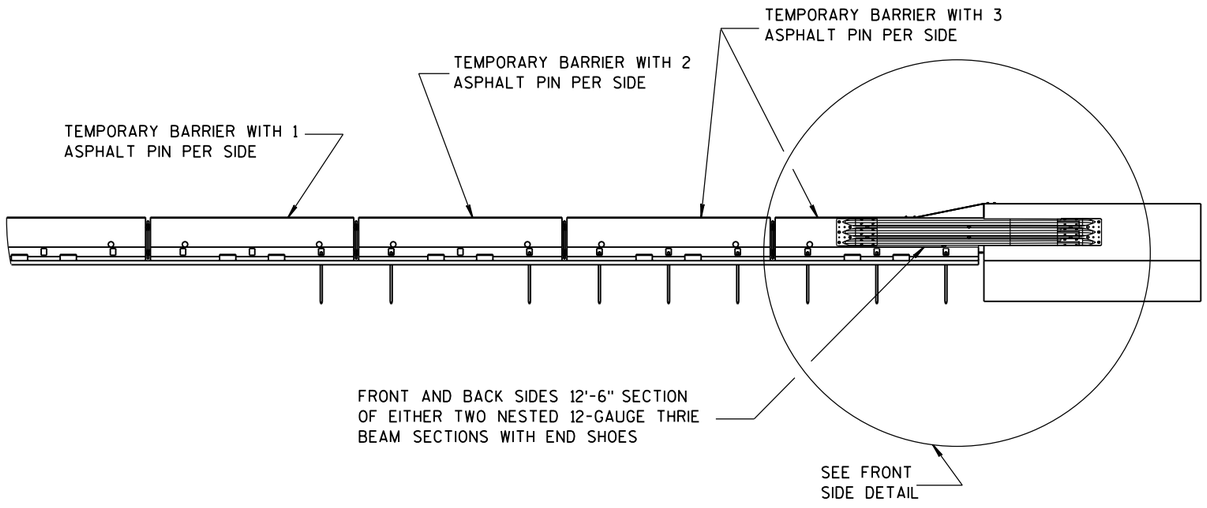
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS REGARDLESS OF TRAFFIC.

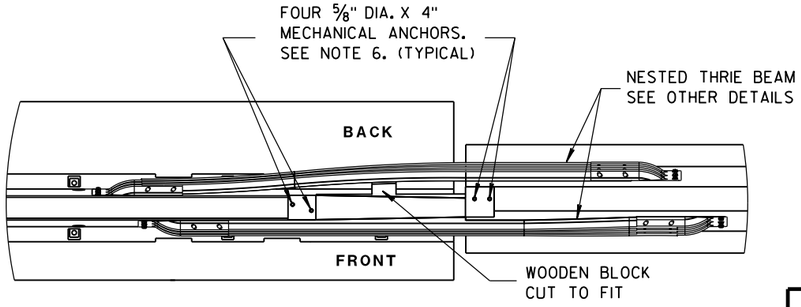
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD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



BACK VIEW



FRONT VIEW



PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

S.D.D. 14 B 7-15f

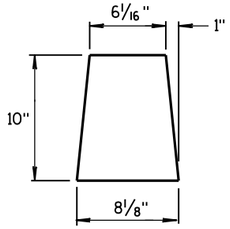
GUSSET 1

GUSSET 2

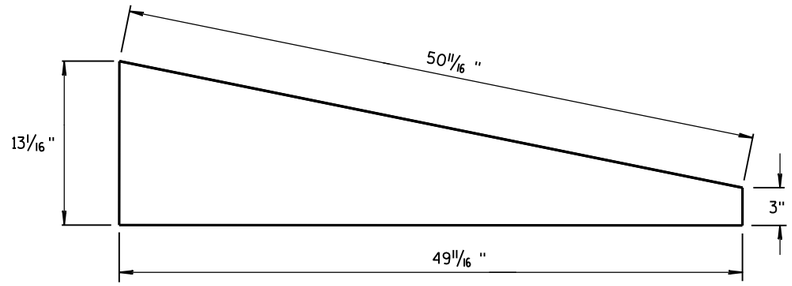
GUSSET 3

GUSSET 4

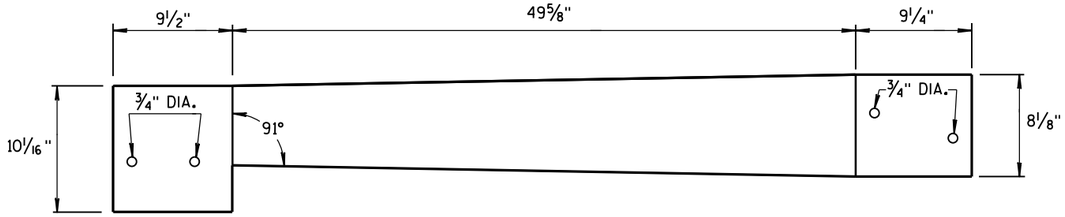
GUSSETS

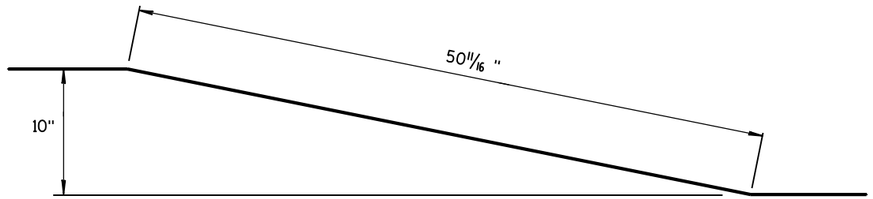


END PLATE

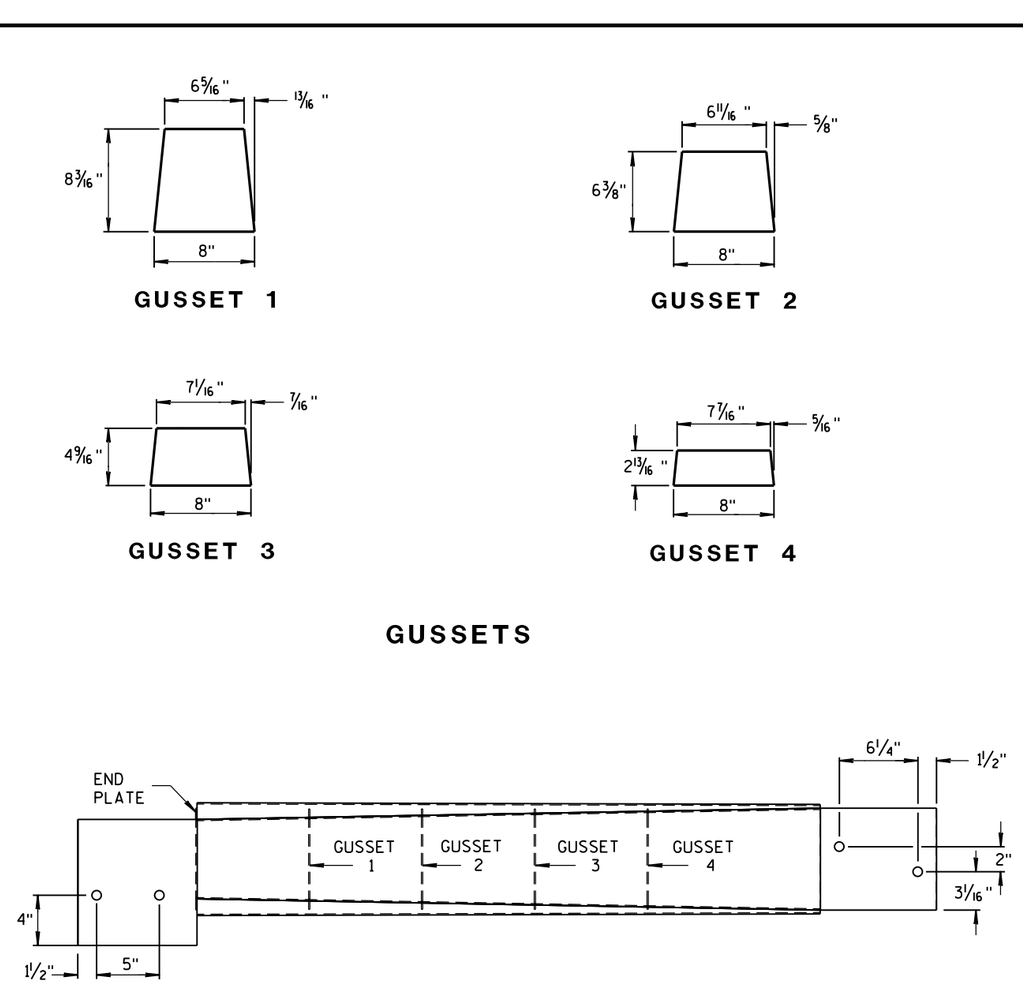


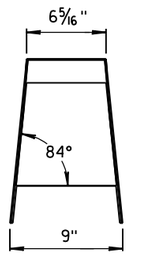
SIDE PLATE





TOP PLATE





SECTION C-C

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.

NOTES

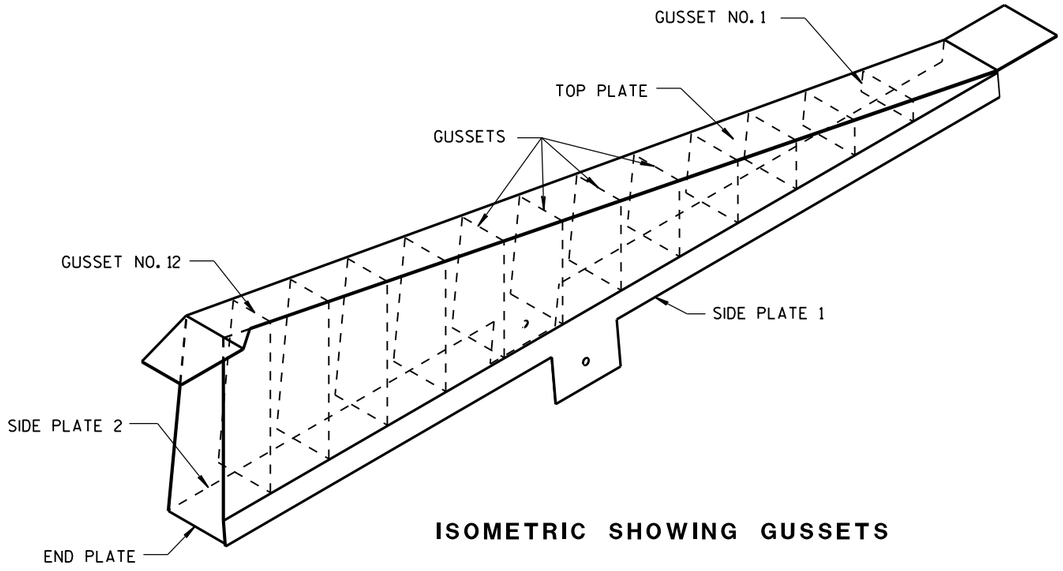
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

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

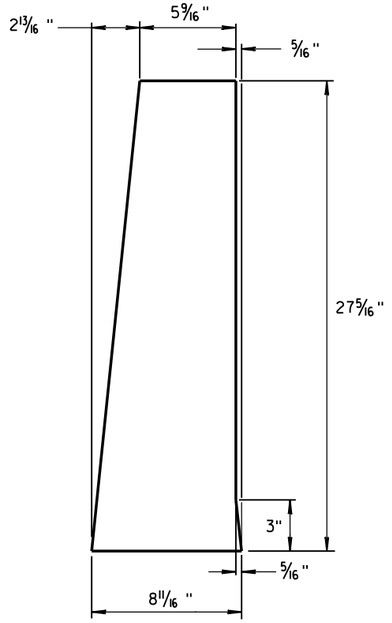
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-15g

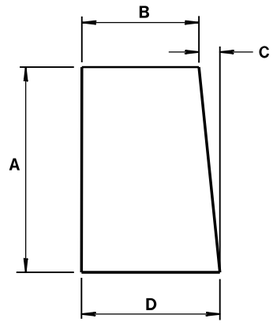


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



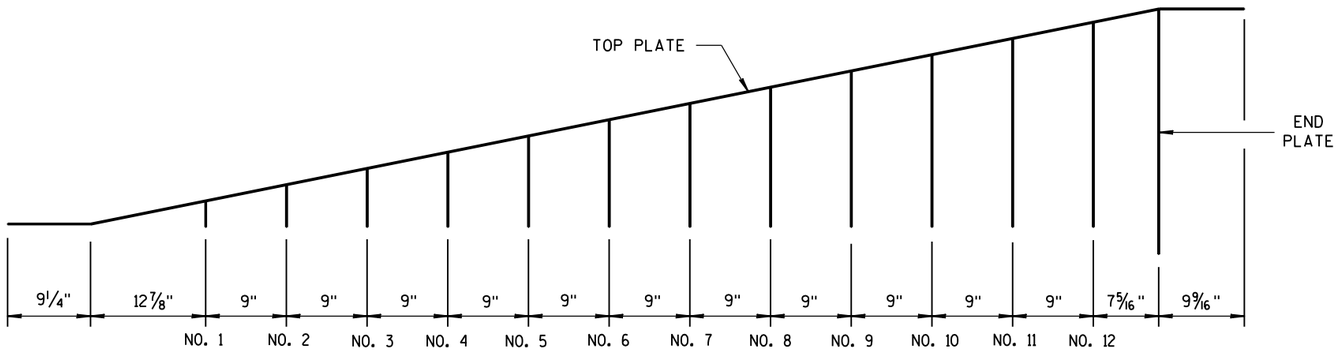
GUSSETS 1 - 12

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

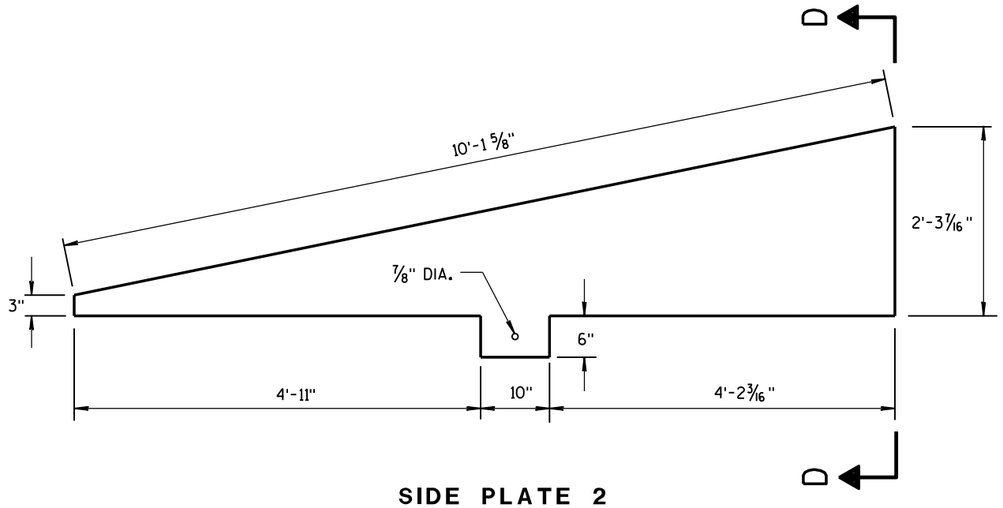
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

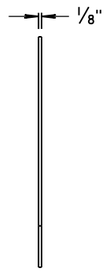
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

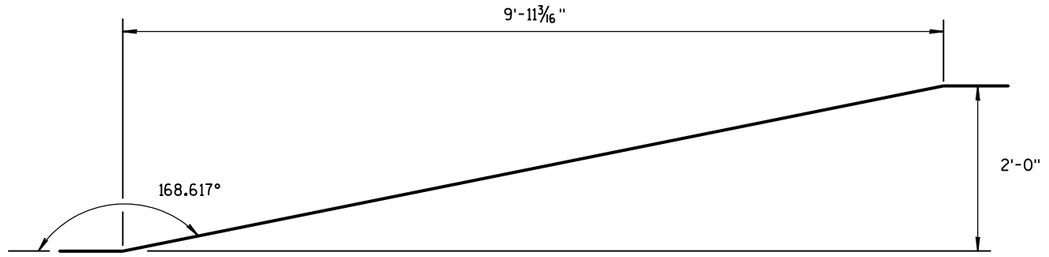
S.D.D. 14 B 7-15h



SIDE PLATE 2

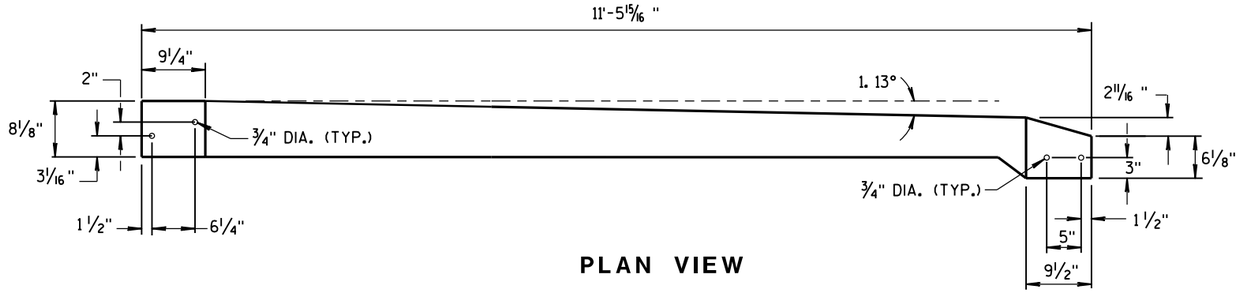


END VIEW



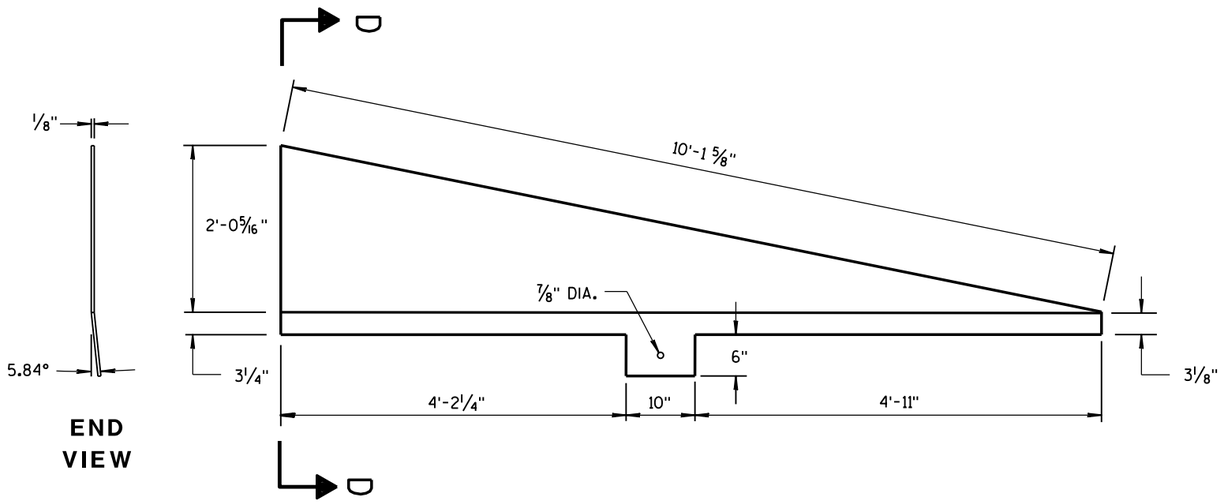
SIDE VIEW

TOP PLATE



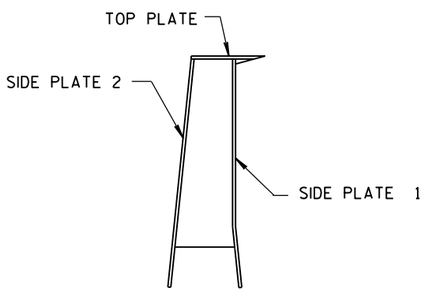
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

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

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV
477
ENT
FHWA

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S.D.D. 14 B 7-15i

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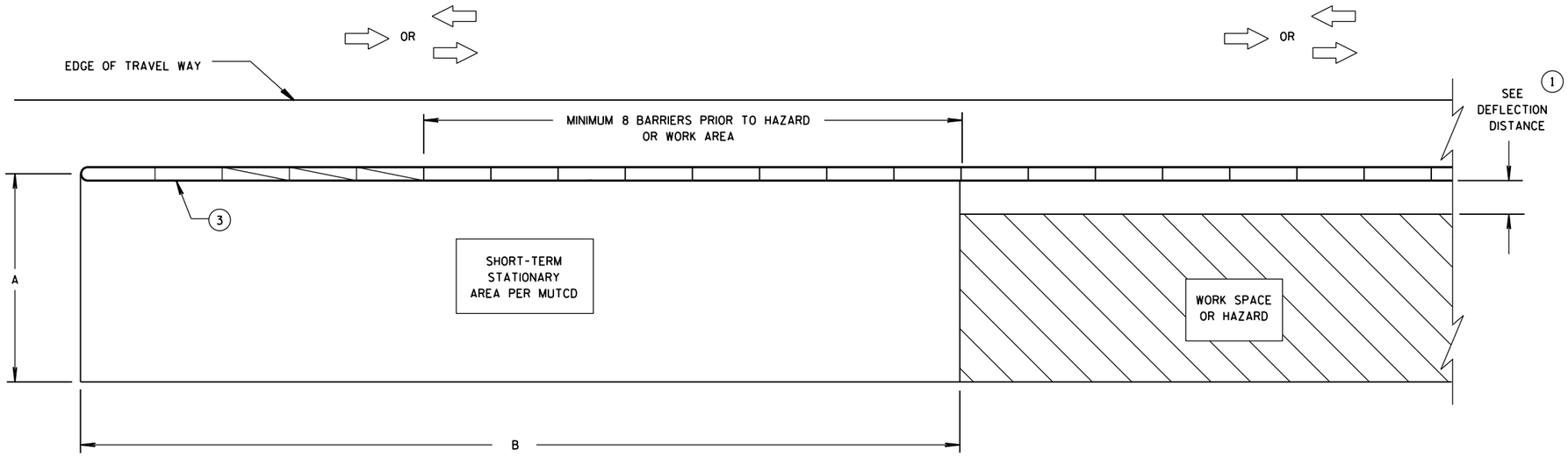
S.D.D. 14 B 7-15i



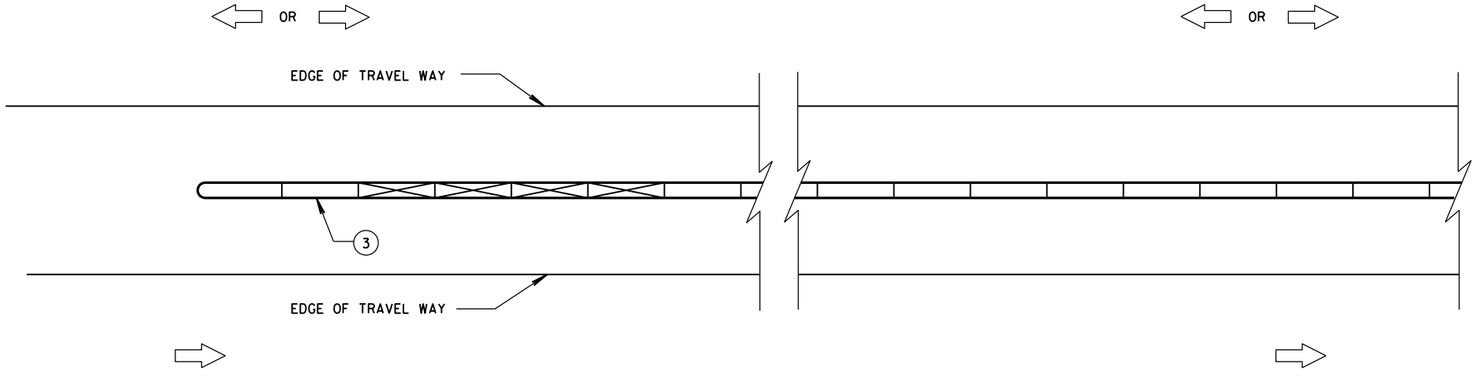
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

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



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF 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

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.

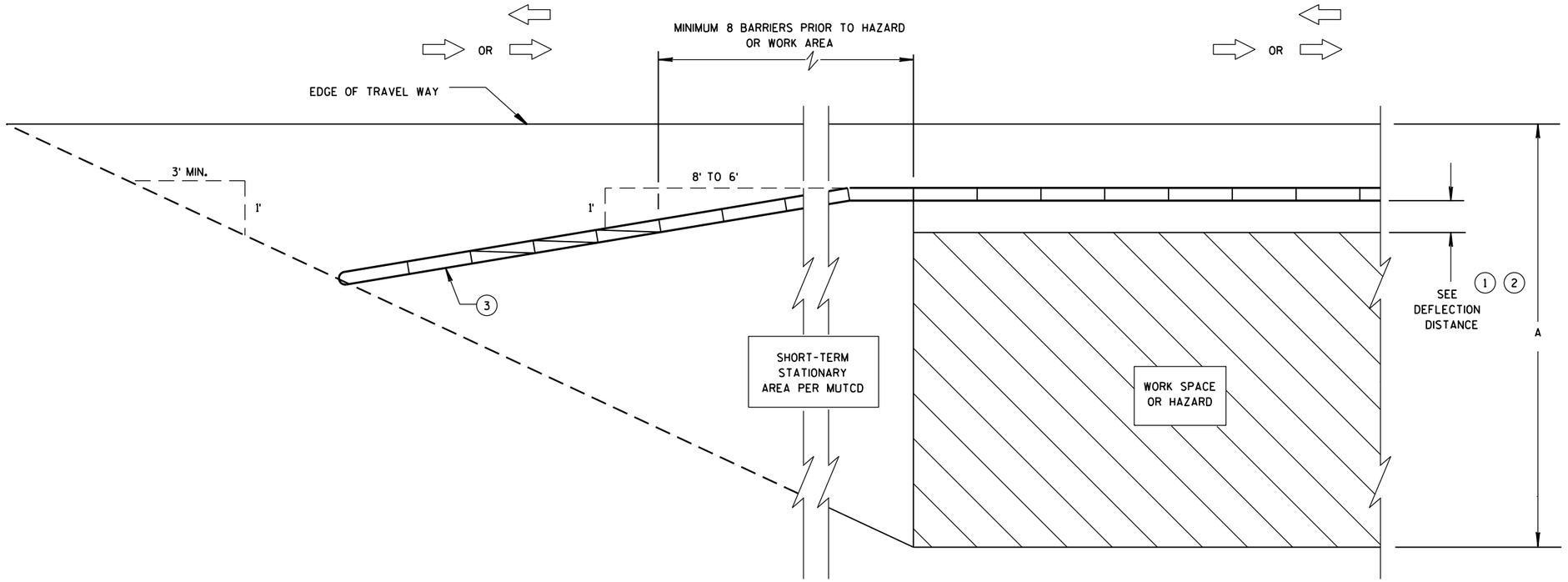
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

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

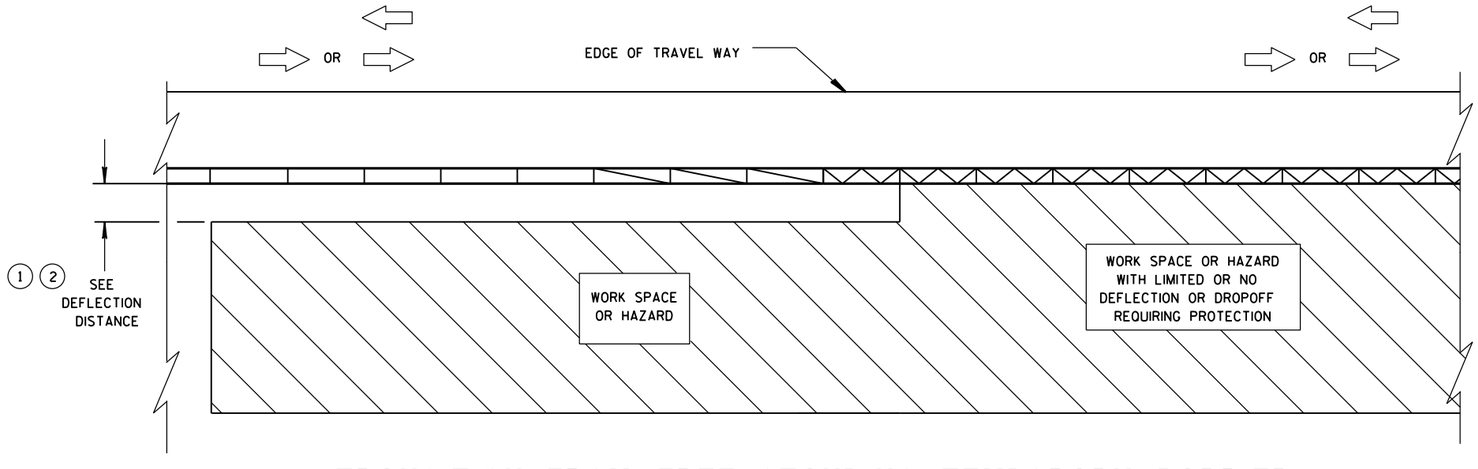
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2a



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

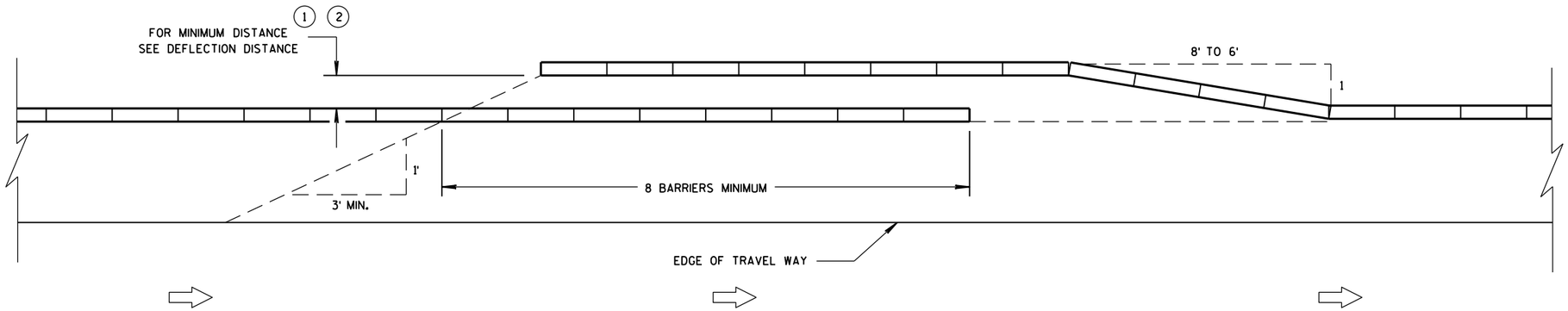
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

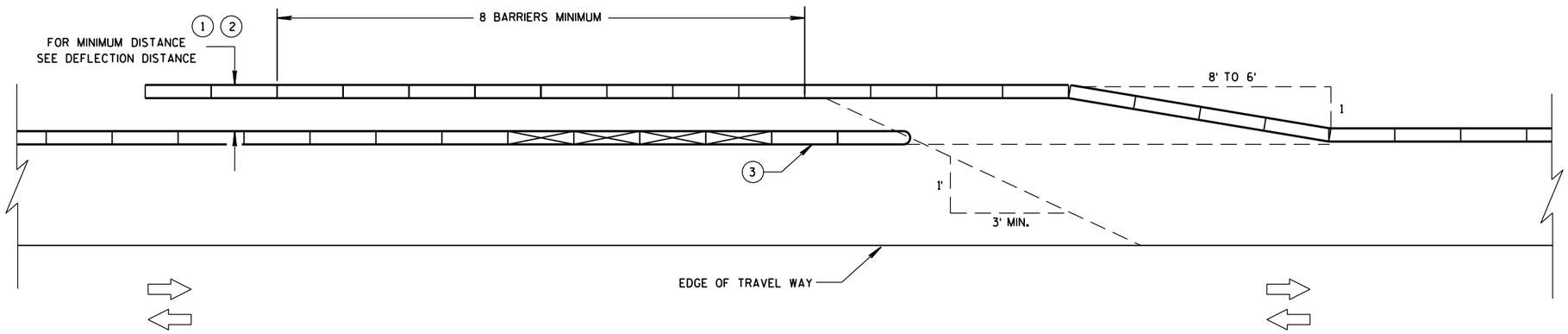
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

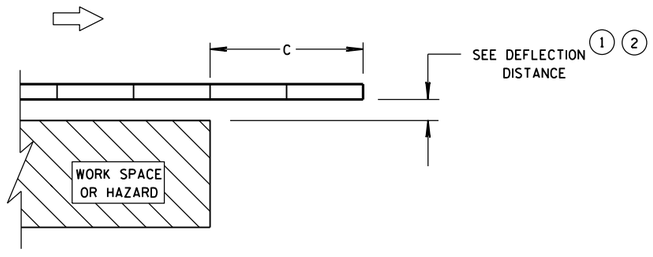
S.D.D. 14 B 8-2b



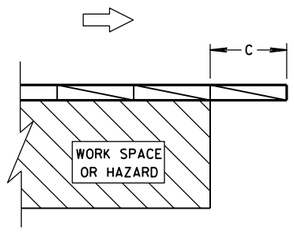
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

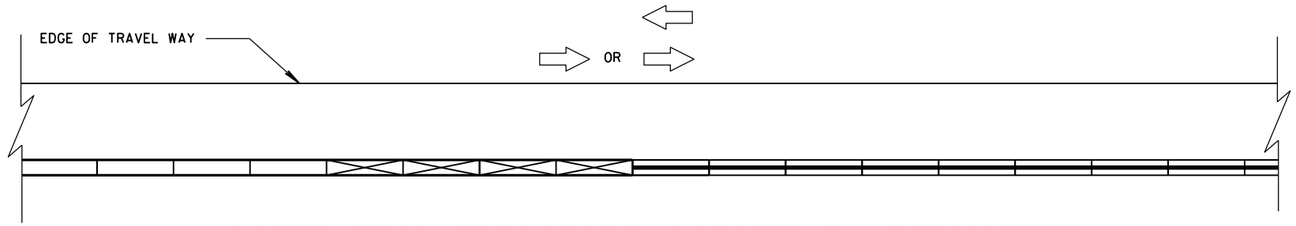
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

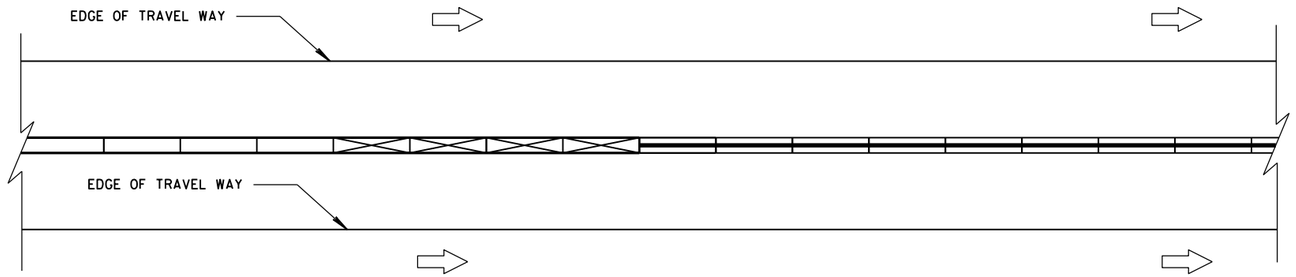
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



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

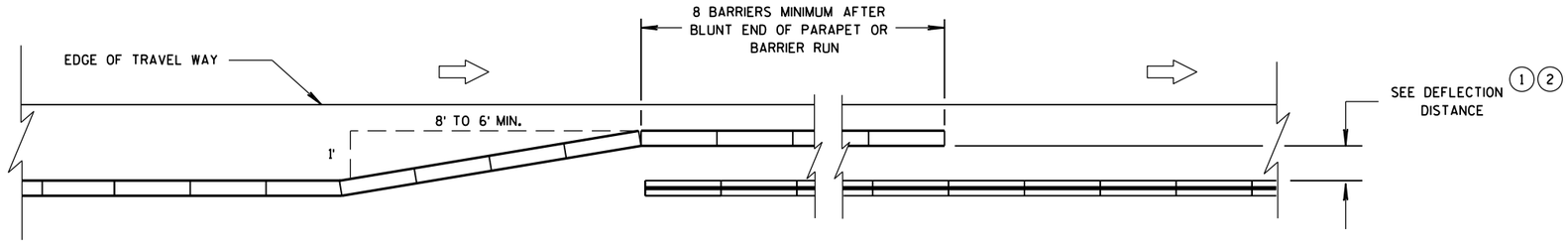
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

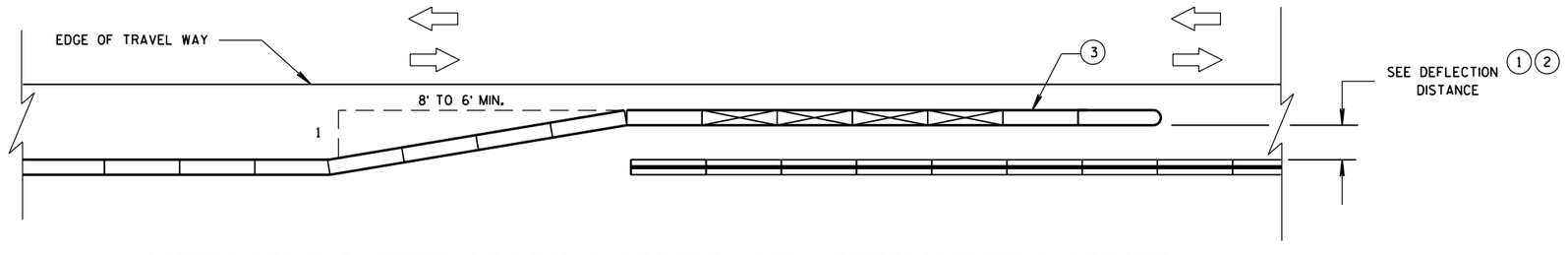
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

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 TRANSPOI

6

S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

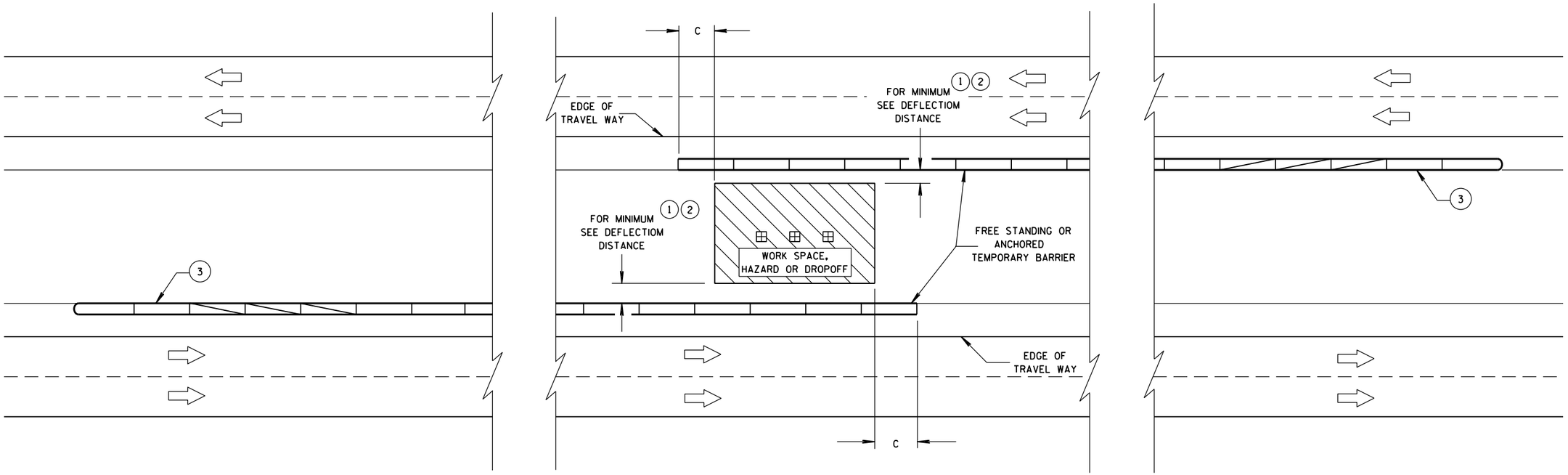
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 14 B 8-2e

(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.

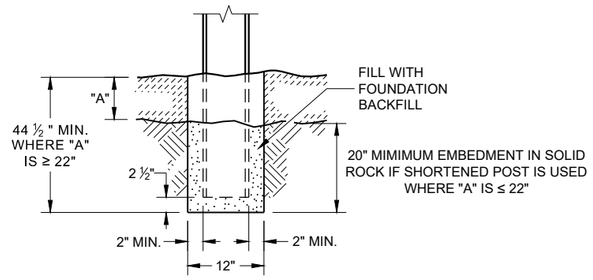
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL 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).

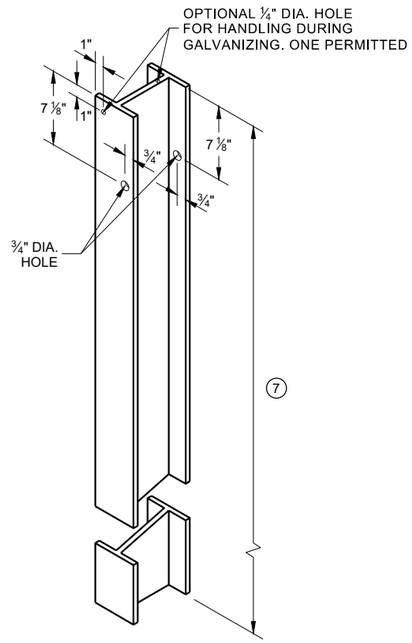
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

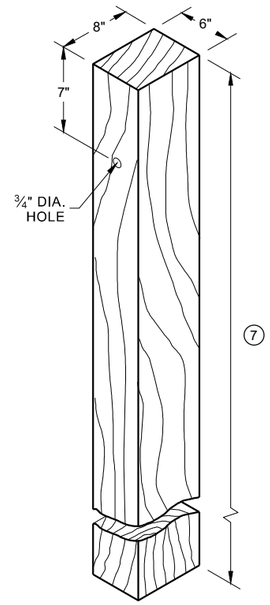
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



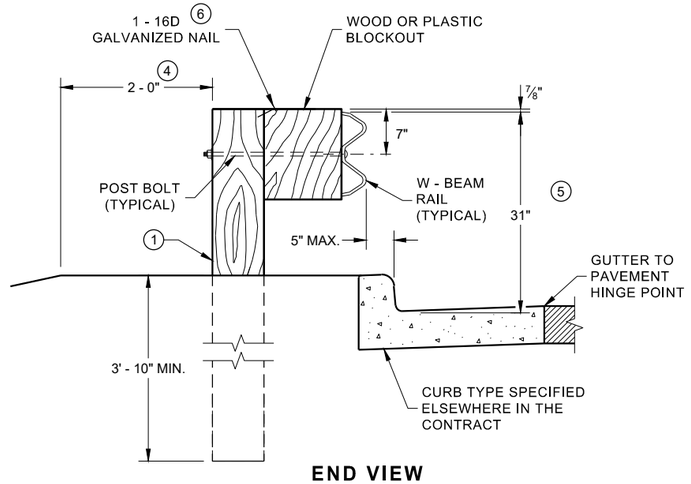
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



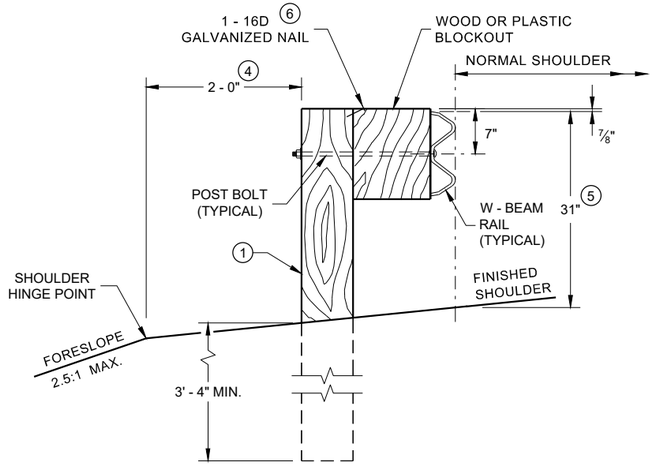
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



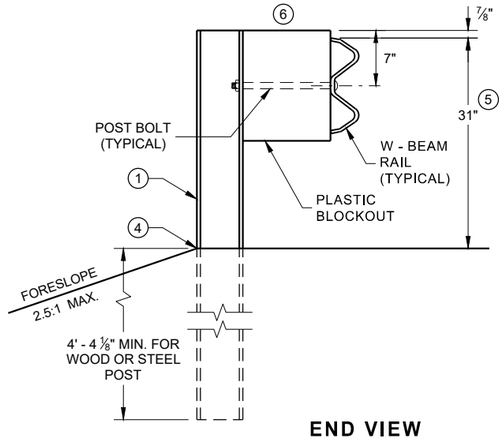
WOOD POST (6" X 8") NOMINAL (1)



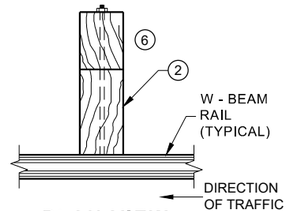
END VIEW
LOCATED ALONG A CURBED ROADWAY



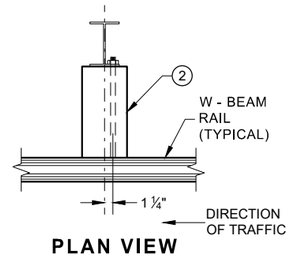
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



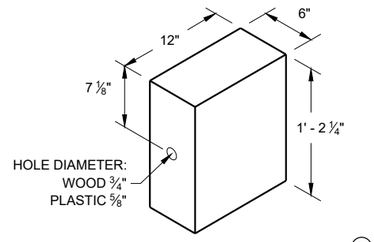
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

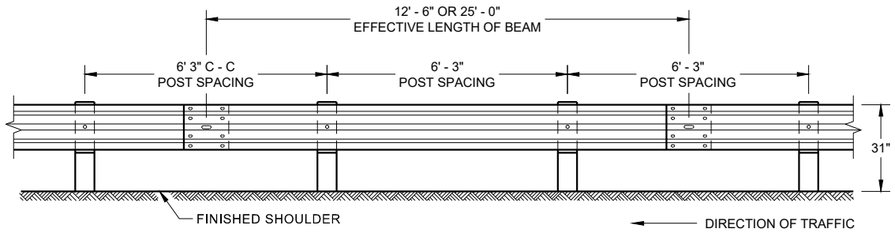
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

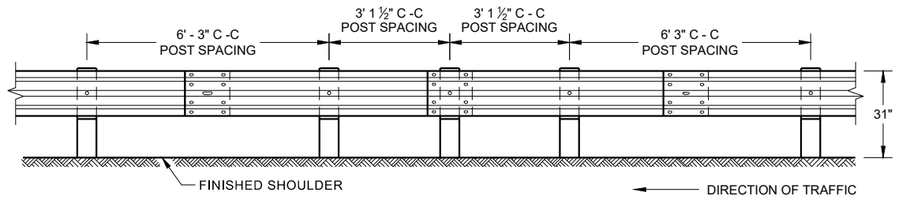
SDD 14B42 - 06a

6

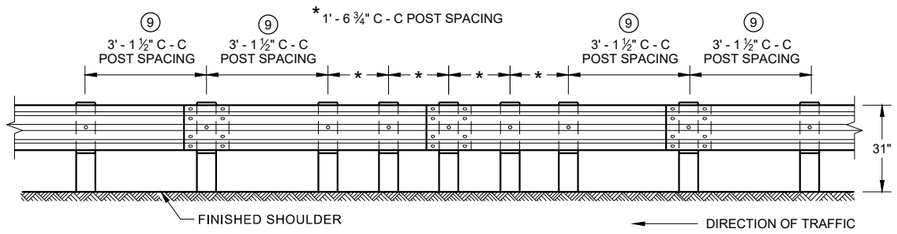
SDD 14B42 - 06a



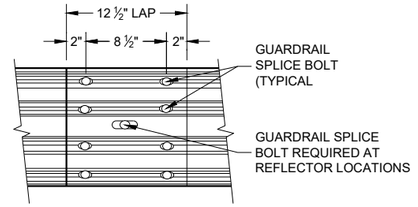
FRONT VIEW
POST SPACING STANDARD INSTALLATION



FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

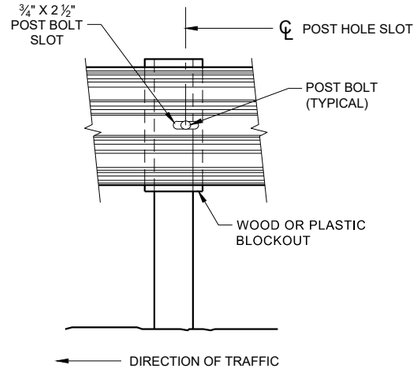
GENERAL NOTES

⑧ 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.

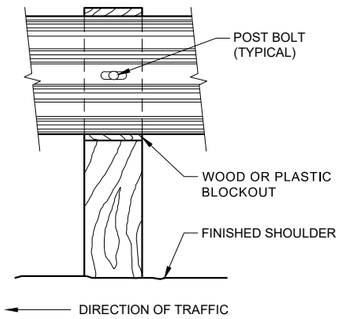
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ¾" 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.

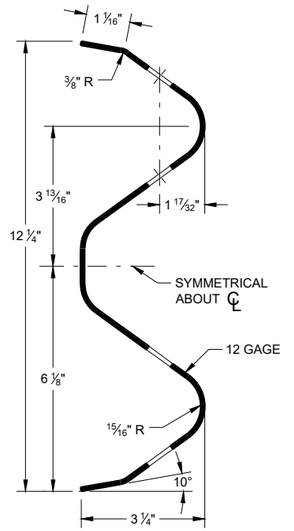
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



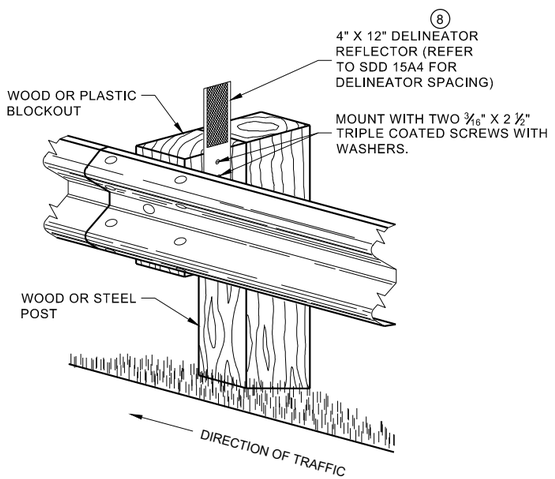
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



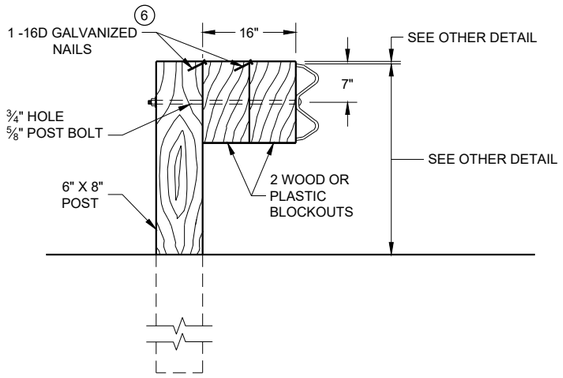
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 06b

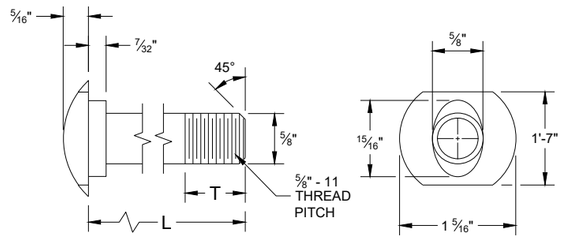


DETAIL FOR 16" BLOCKOUT DEPTH

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.

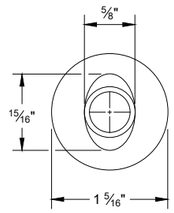
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

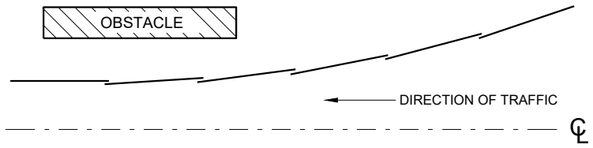


POST BOLT TABLE

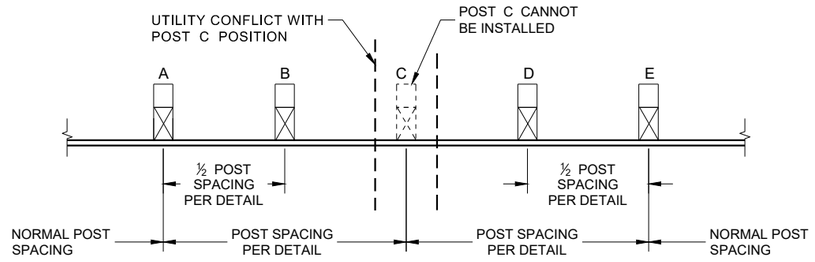
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



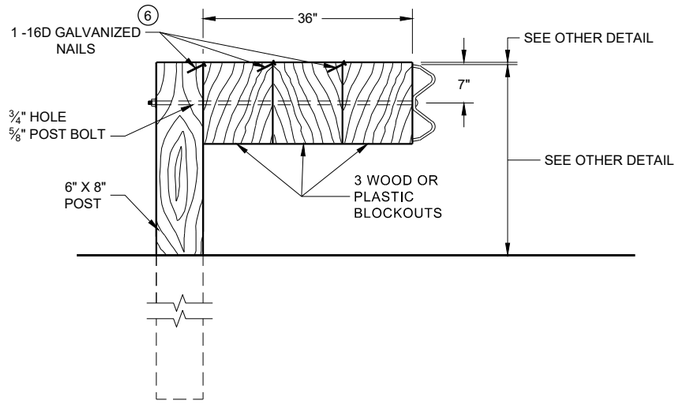
ALTERNATE BOLT HEAD



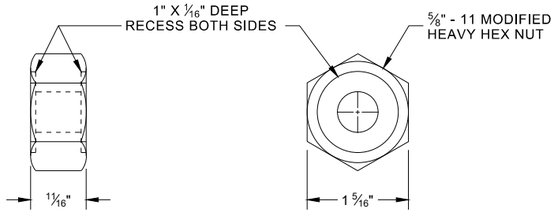
PLAN VIEW
BEAM LAPPING DETAIL



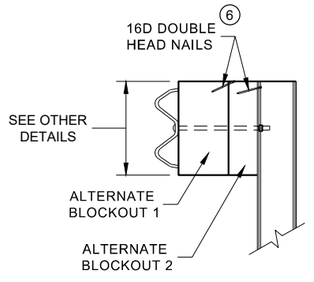
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



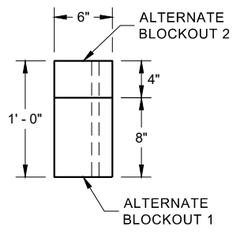
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

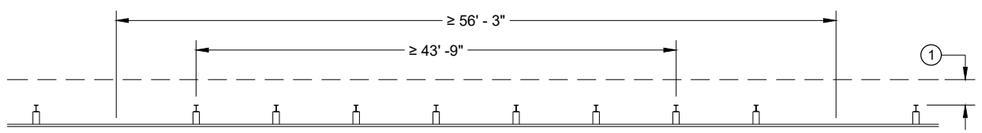
ALTERNATE WOOD BLOCKOUT DETAIL

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.

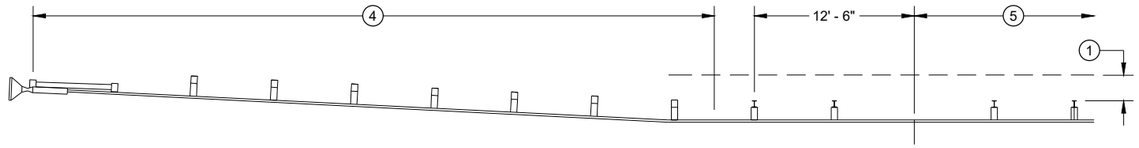
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

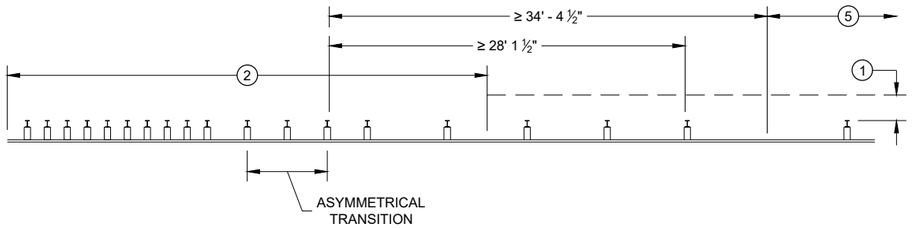
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



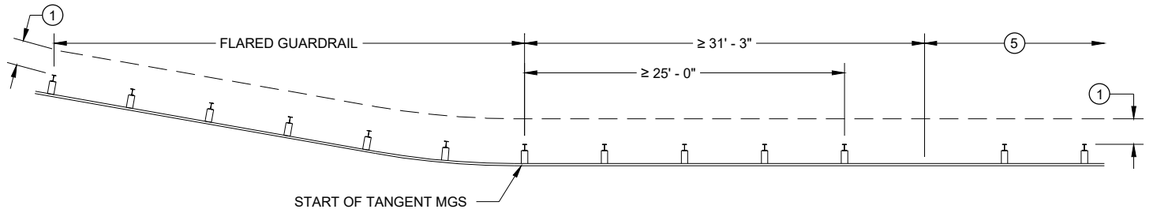
MISSING POST IN NORMAL BEAM GUARD RUN



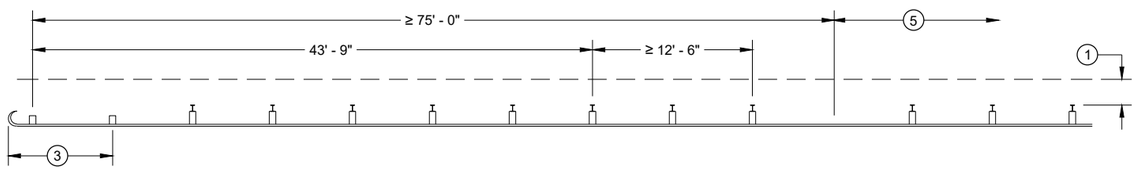
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



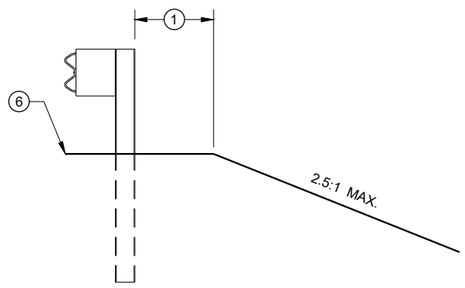
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

6

SDD 14B42 - 06d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, 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 MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

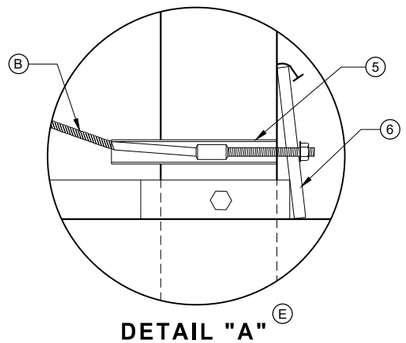
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

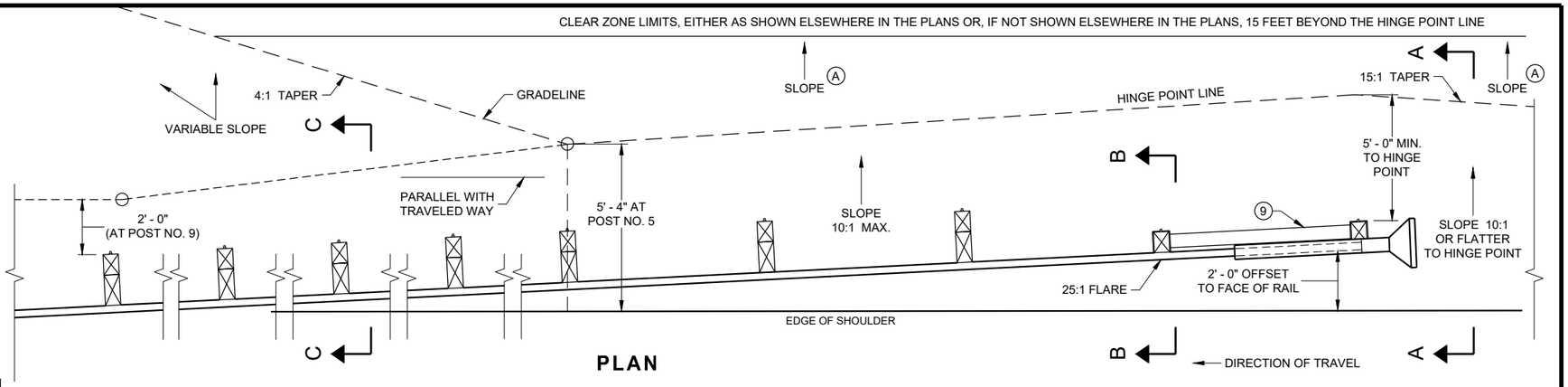
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

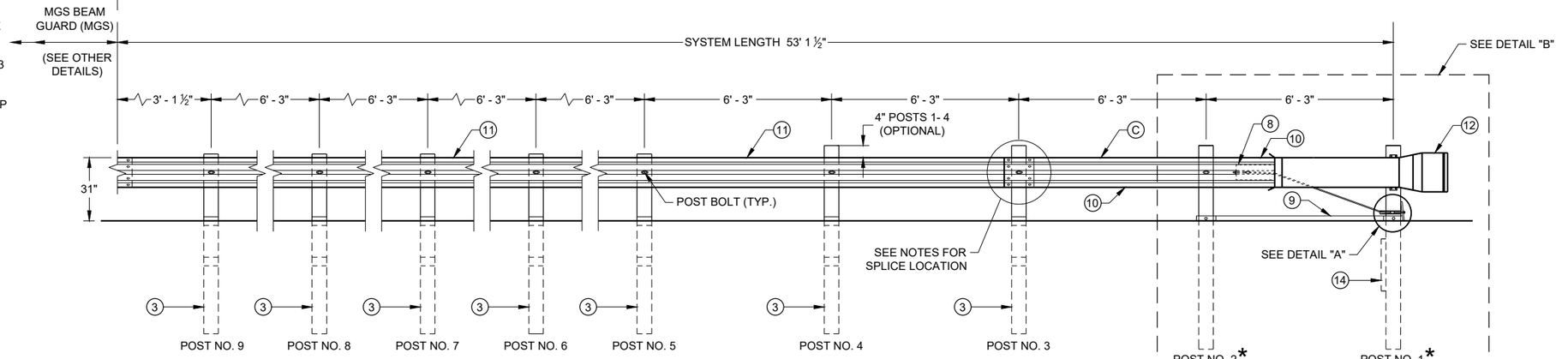
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



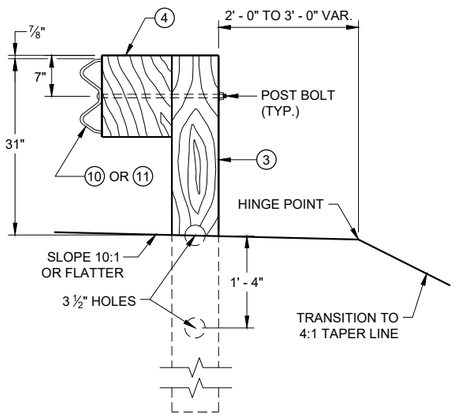
DETAIL "A" (E)



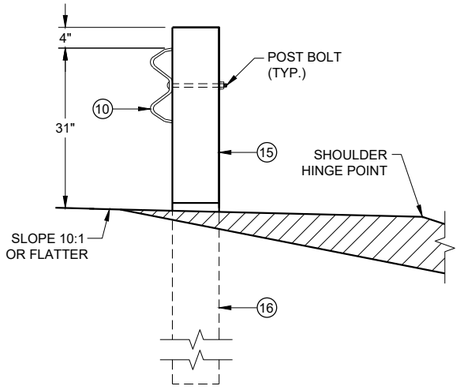
PLAN



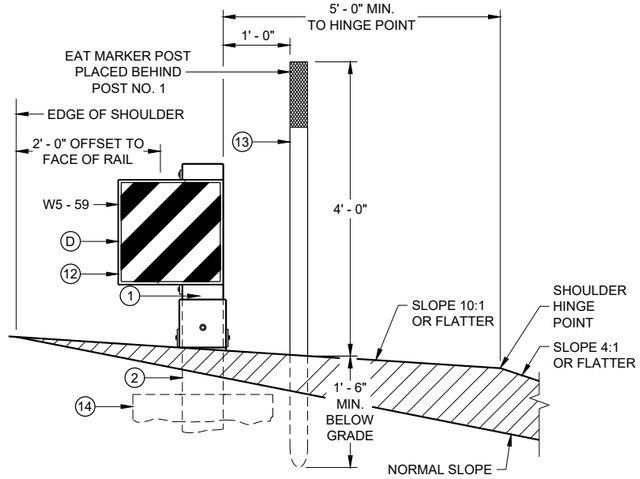
ELEVATION



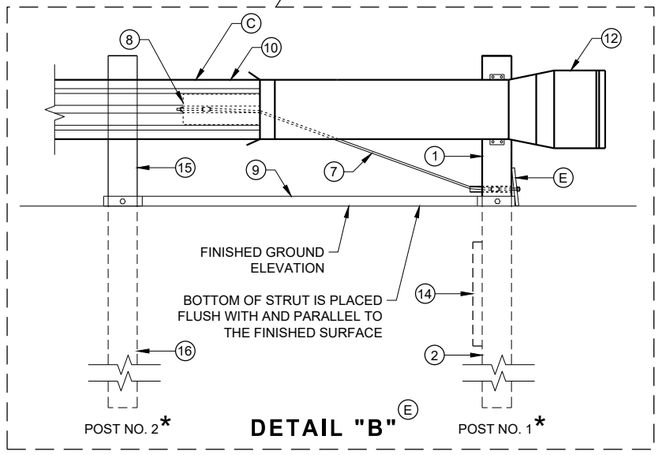
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



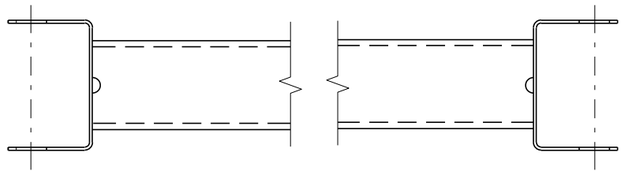
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

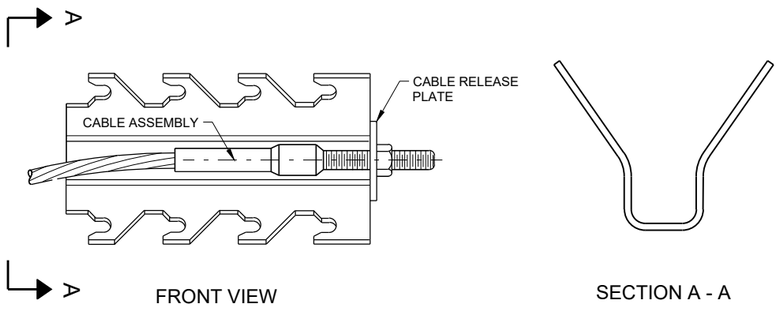
SDD 14B44 - 04a



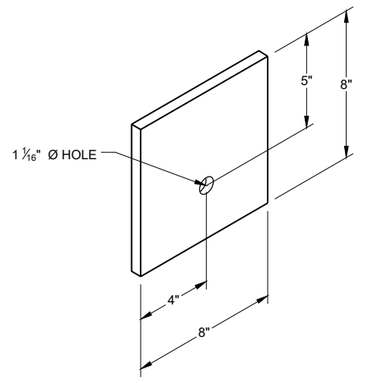
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
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	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

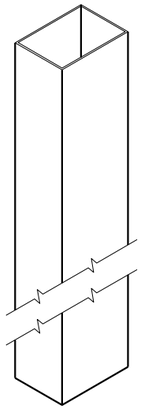
6

SDD 14B44 - 04b

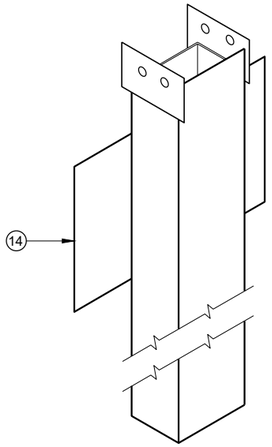
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

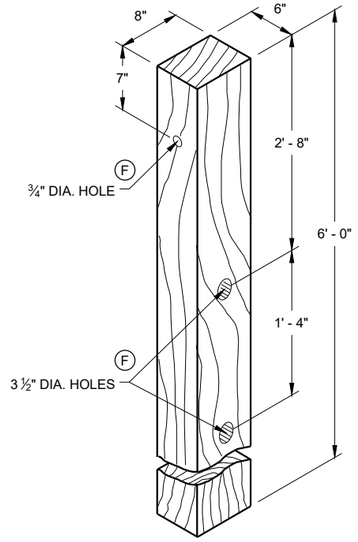
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



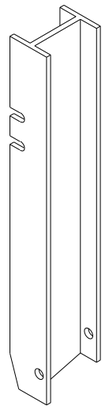
UPPER POST NO. 1 (1) (E)



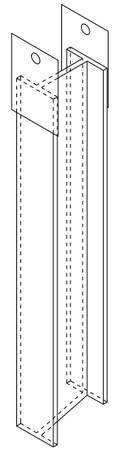
LOWER POST NO. 1 (2) (E)



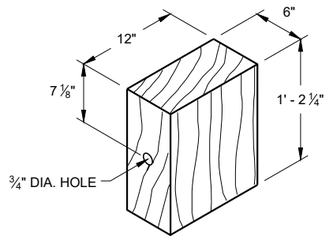
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



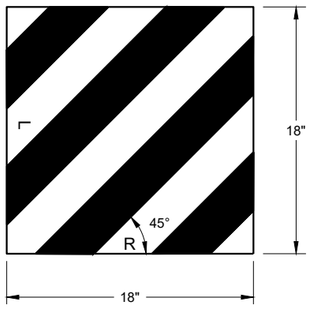
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)



WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



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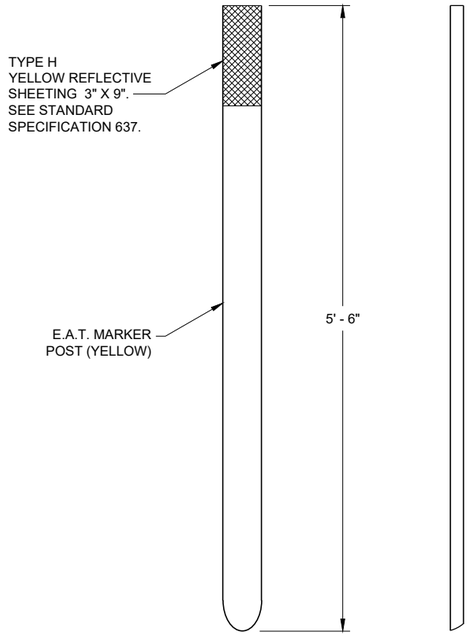
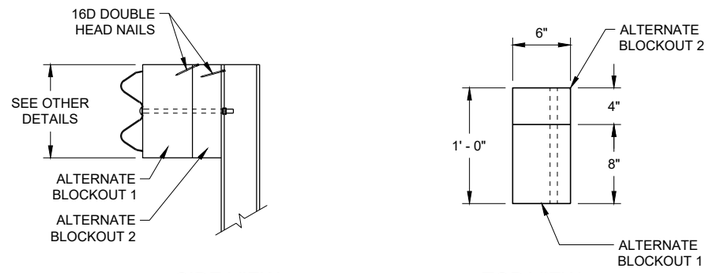
REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

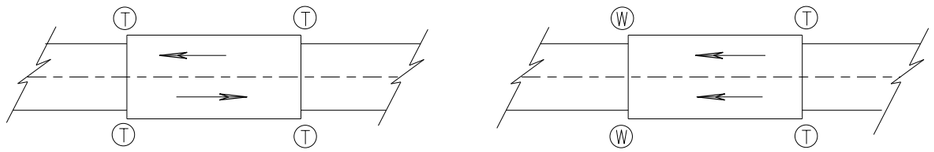
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

6

SDD 14B44 - 04c



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

GENERAL NOTES

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.

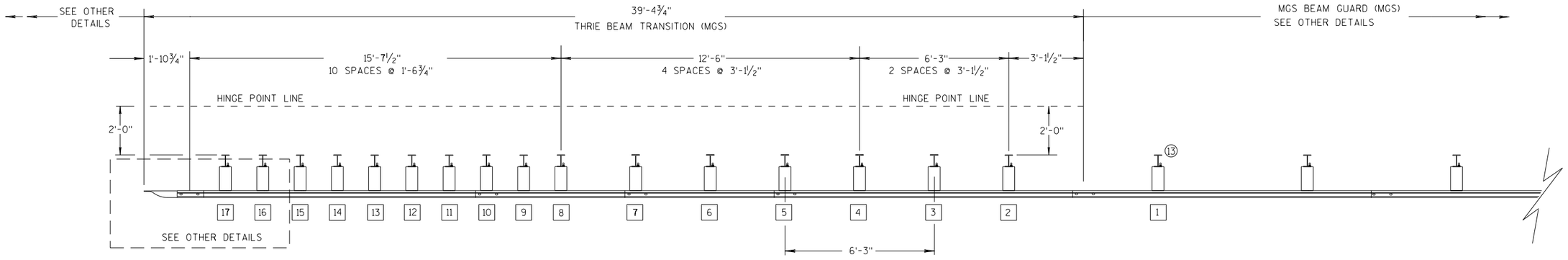
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

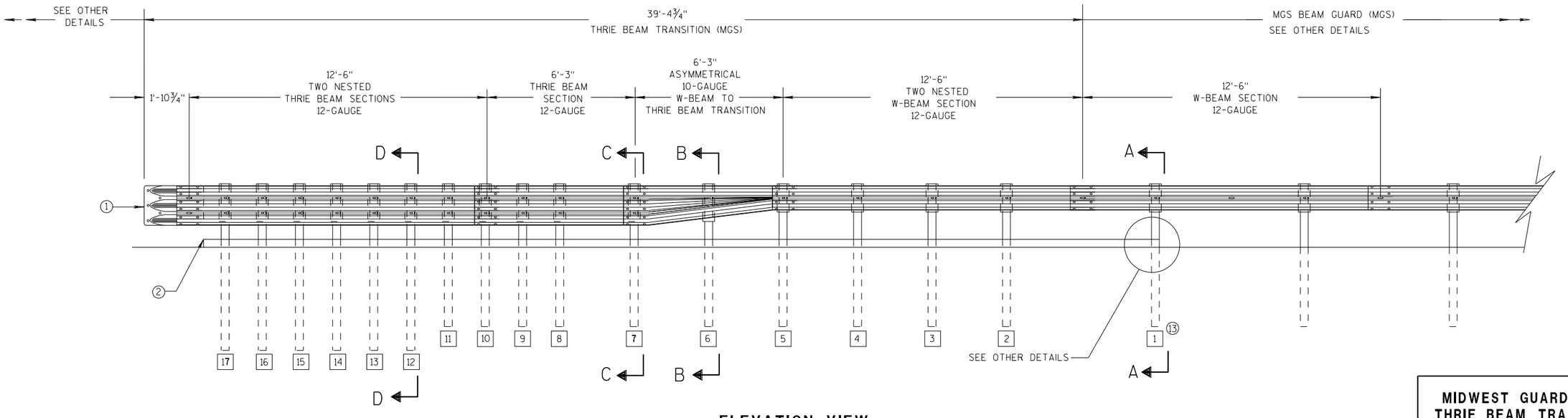
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 490

6

S.D.D. 14 B 45-5a

6

S.D.D. 14 B 45-5a

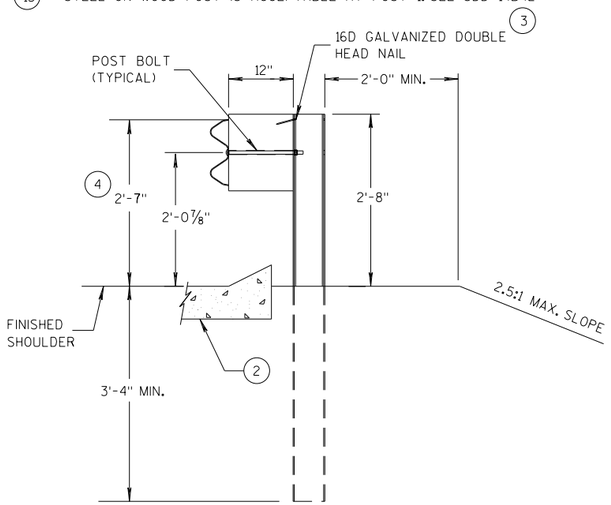
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

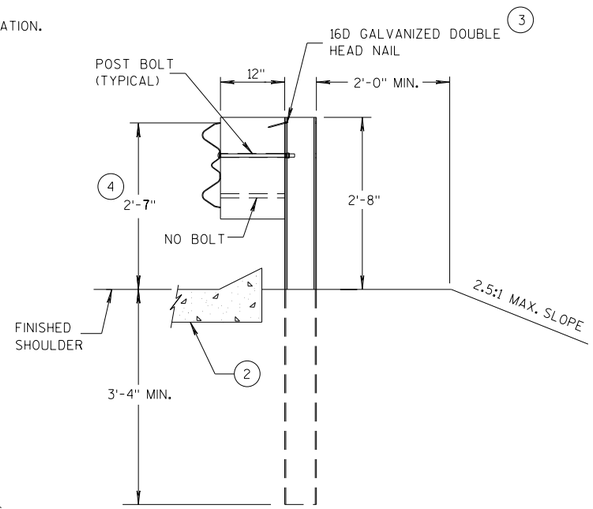
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



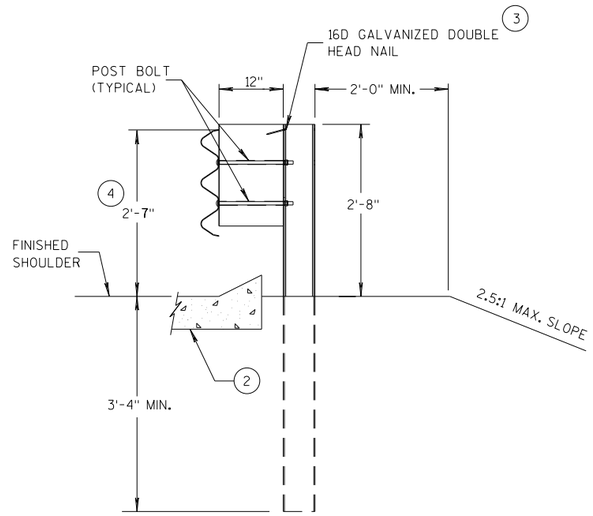
SECTION A-A (13)

POSTS 1-5



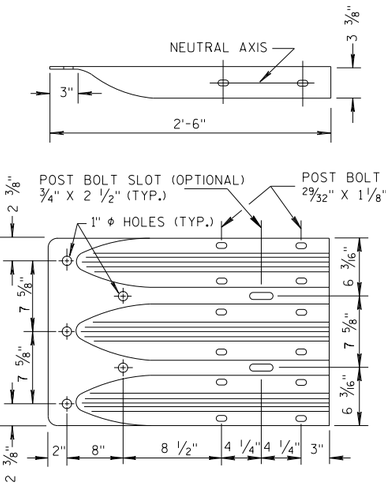
SECTION B-B

POST 6

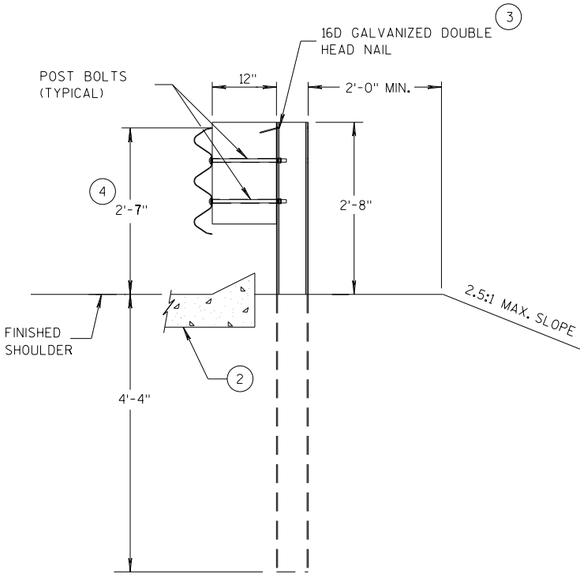


SECTION C-C

POSTS 7-11

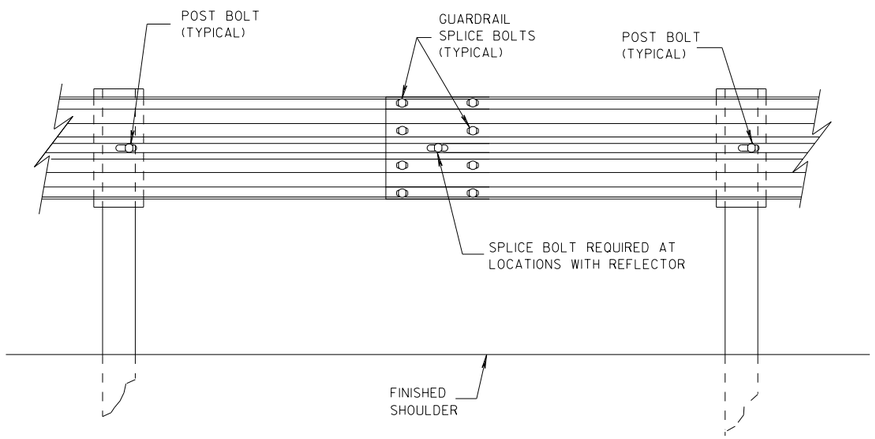


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

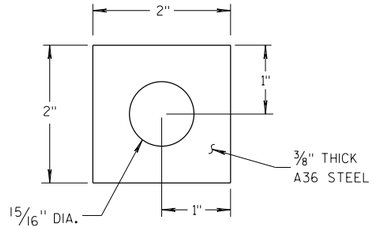
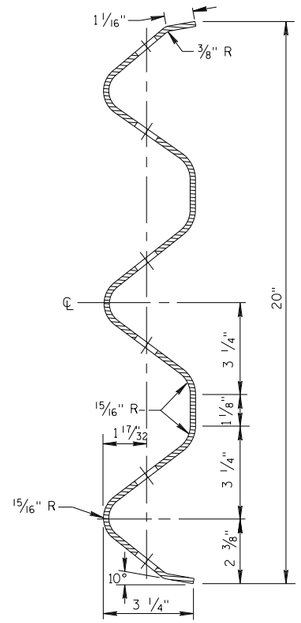


PLATE WASHER DETAIL



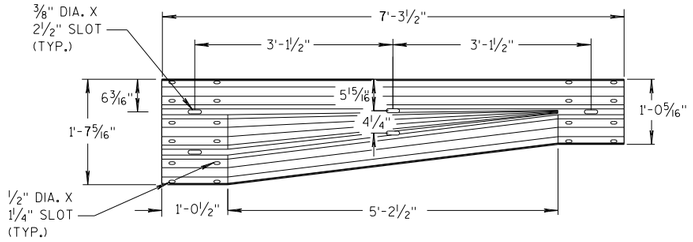
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

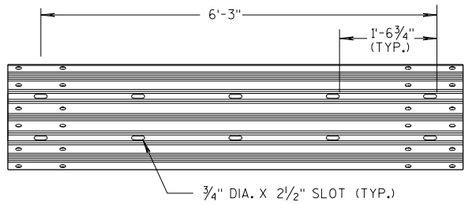
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

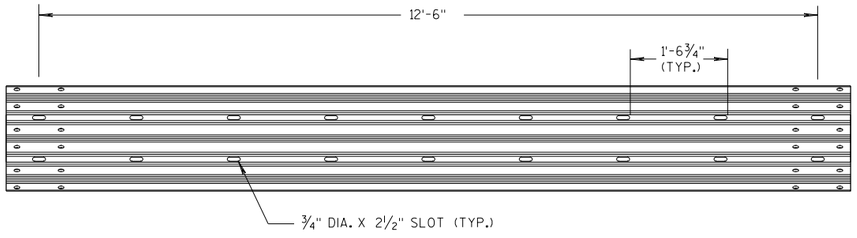
S.D.D. 14 B 45-5b



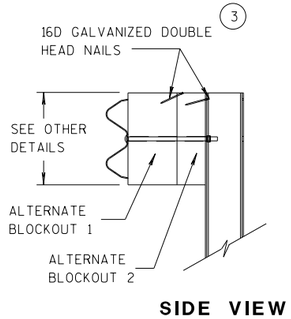
W-BEAM TO THRIE BEAM TRANSITION SECTION



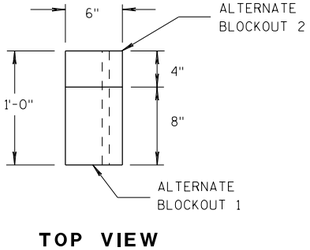
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

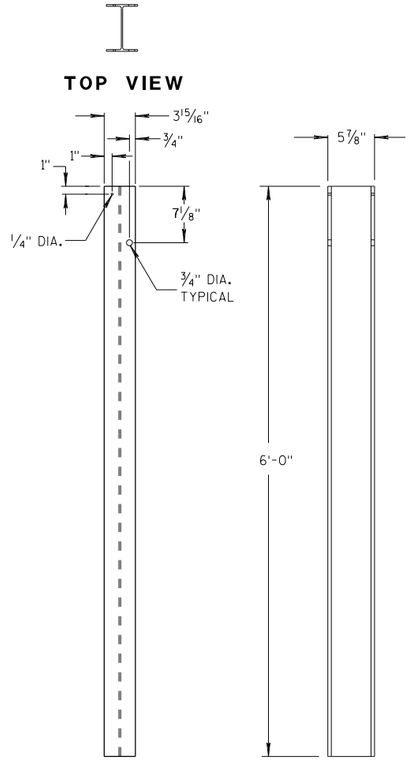


SIDE VIEW



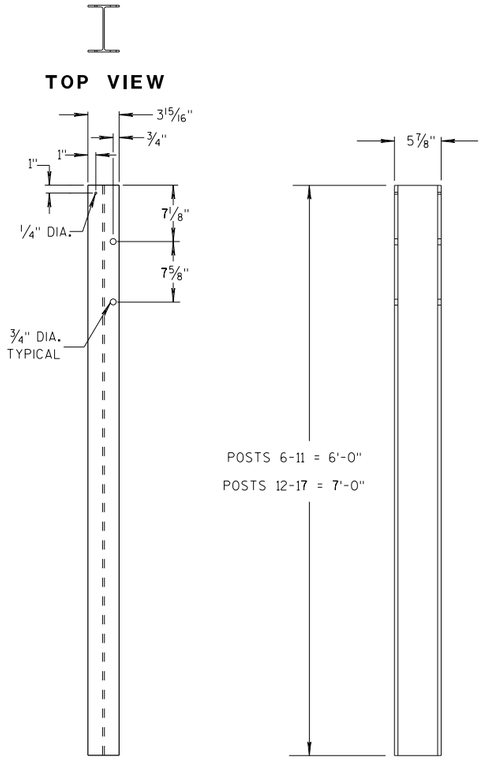
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



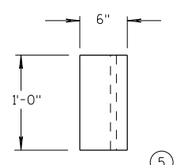
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

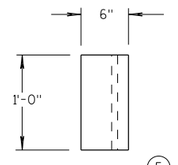


FRONT VIEW SIDE VIEW

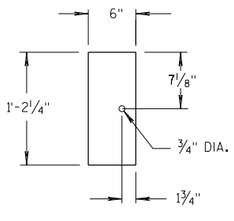
STEEL POSTS 6-17



TOP VIEW (5)

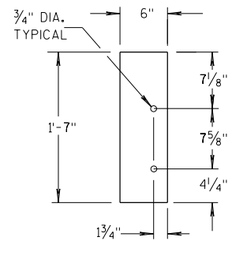


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

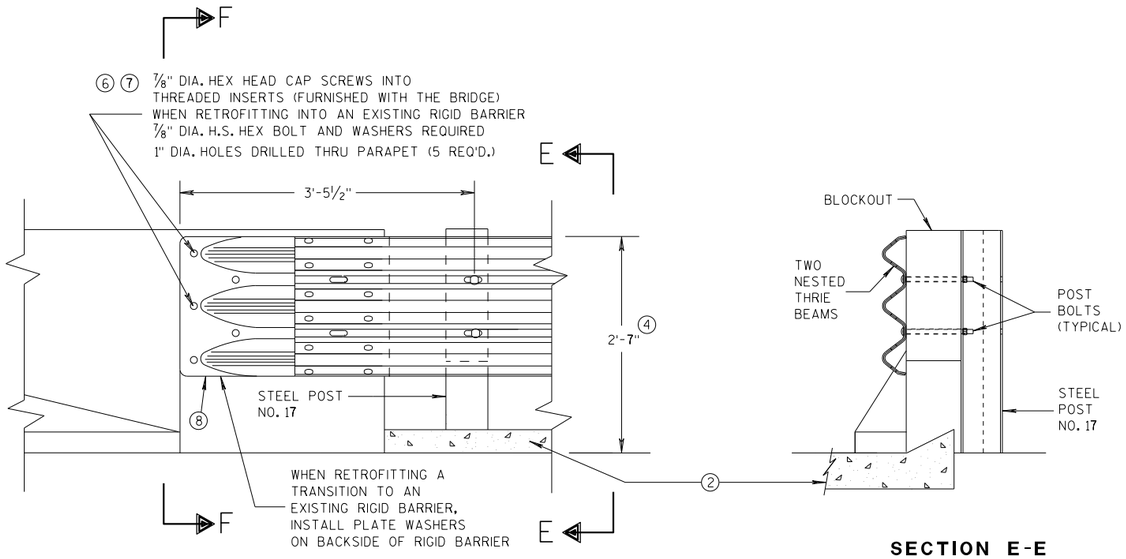
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 492

6
S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

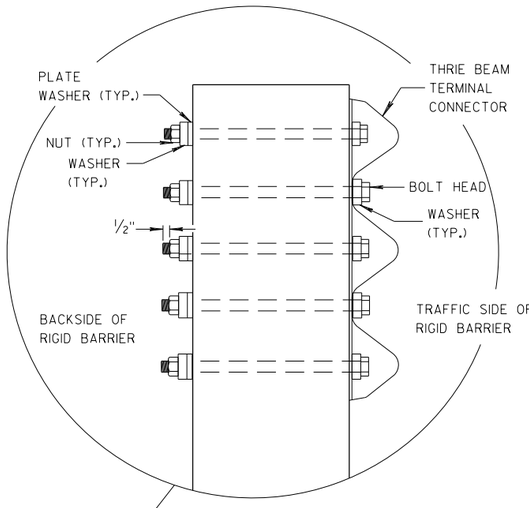
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

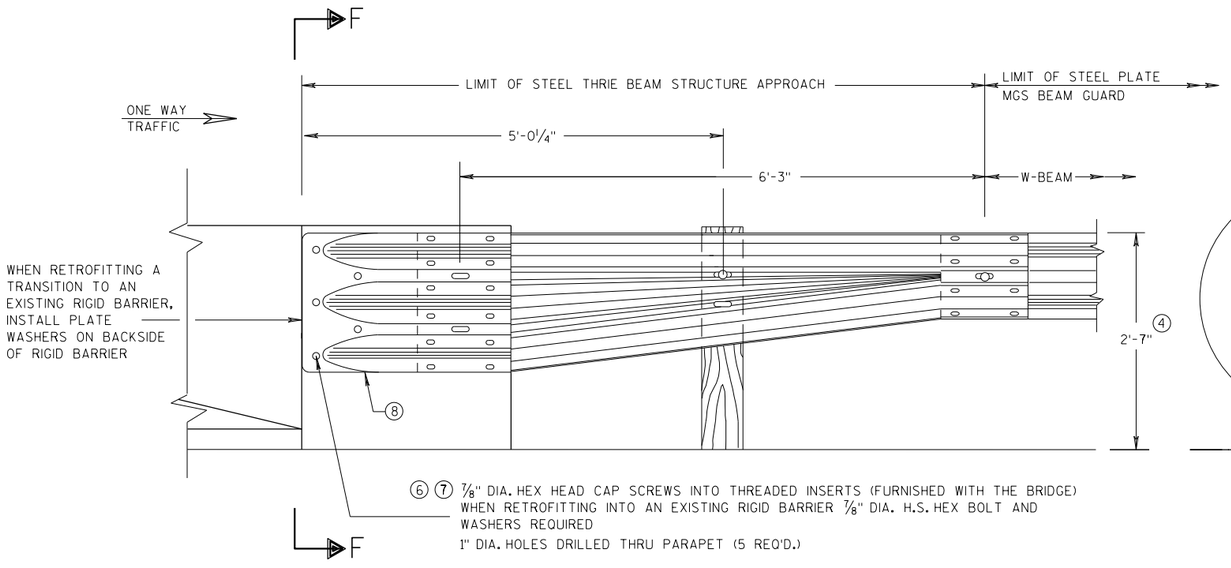
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

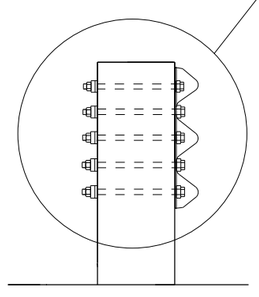
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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.

⑧ 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".

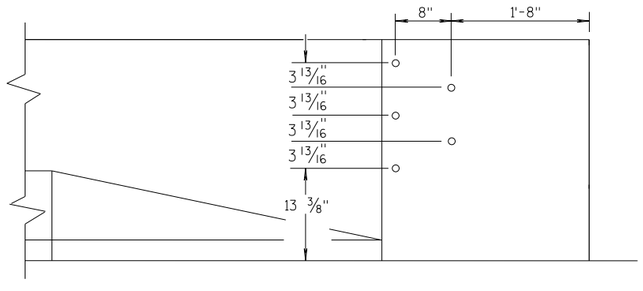




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

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
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D UNIT SUPERVIS NT
FHWA

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S.D.D. 14 B 45-5d

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S.D.D. 14 B 45-5d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

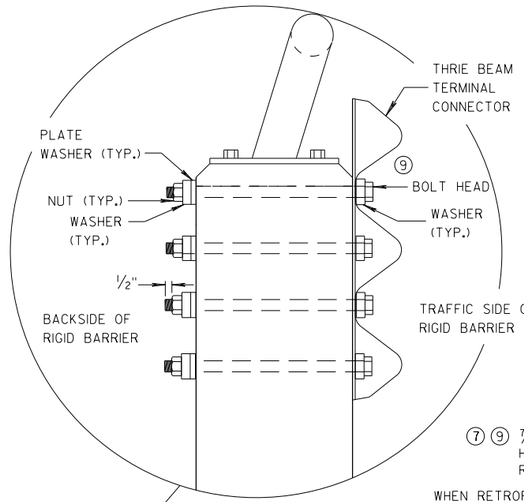
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

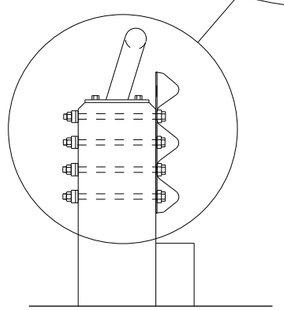
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) 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.

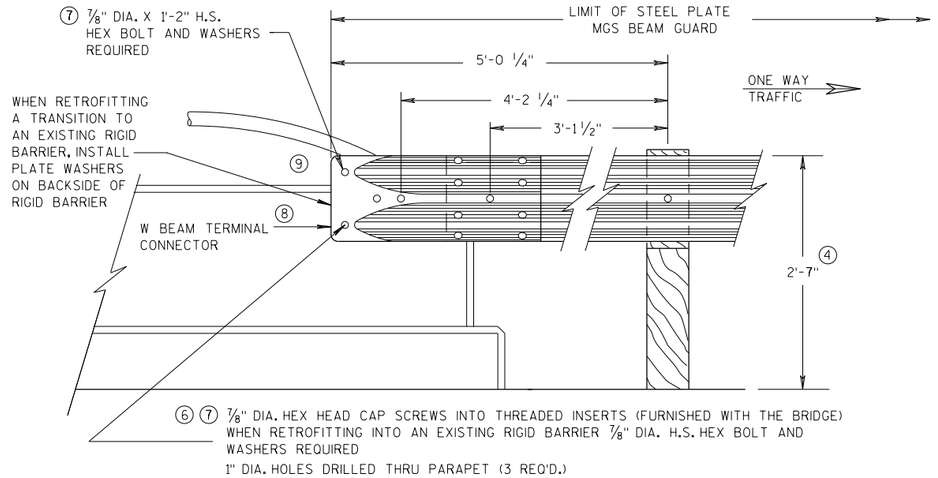
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) 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.





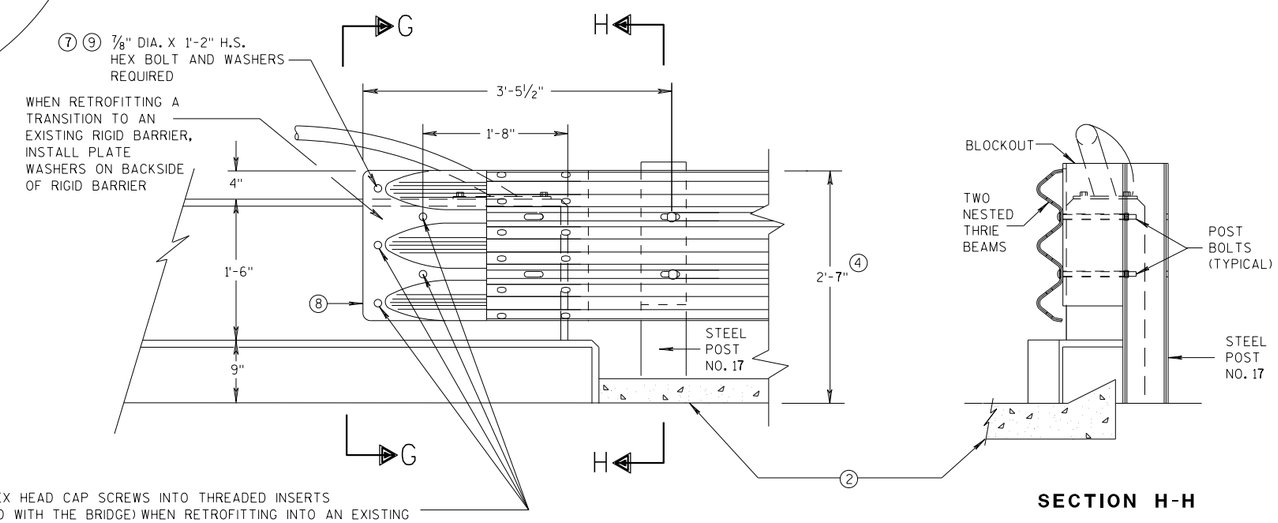
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
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FHWA

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S.D.D. 14 B 45-5e

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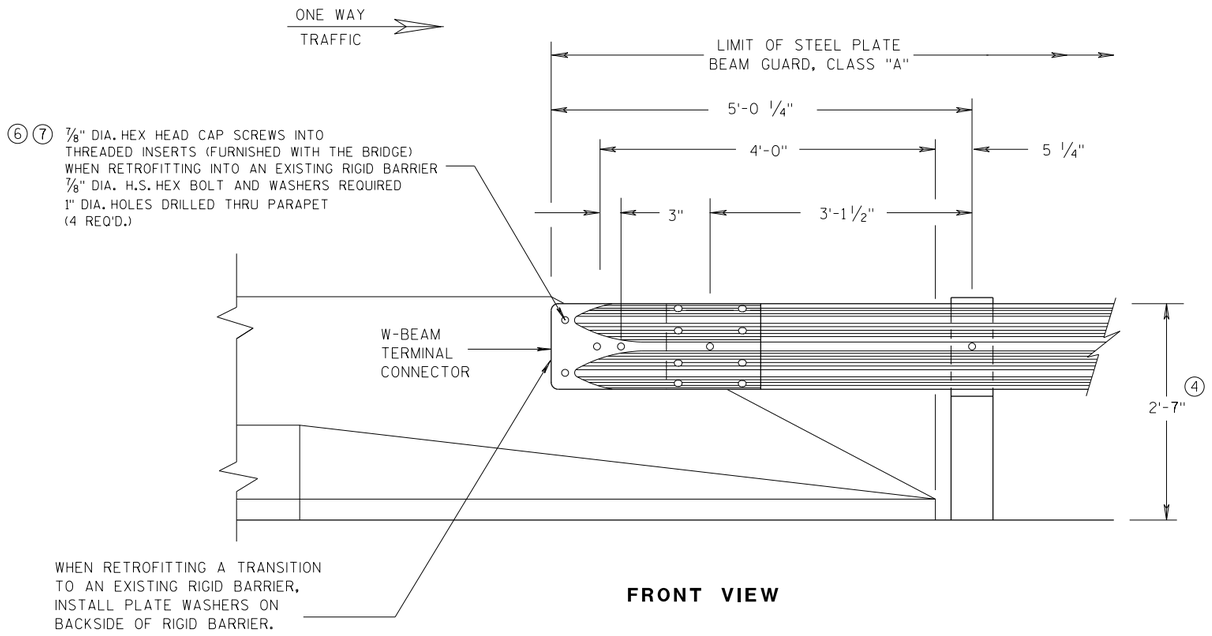
S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

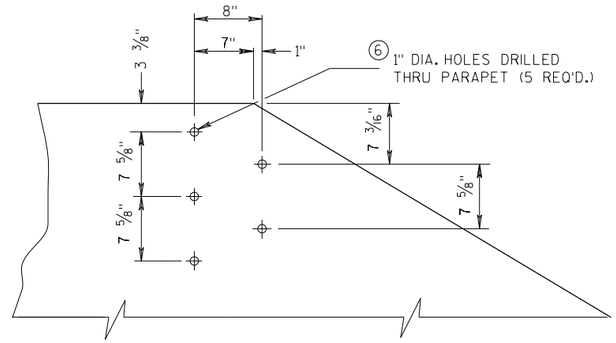
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

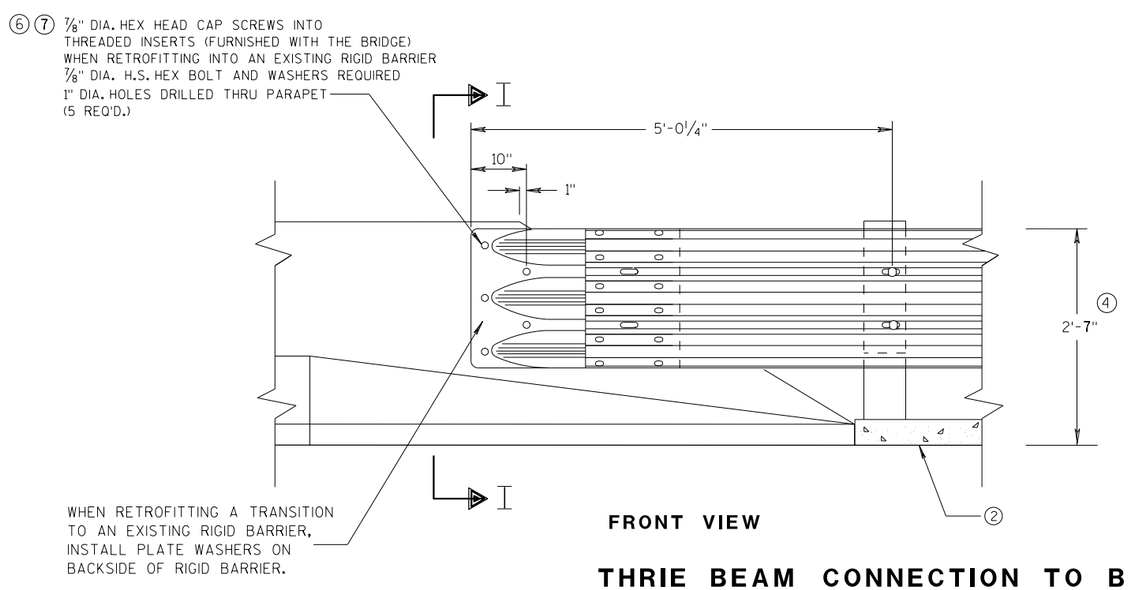
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

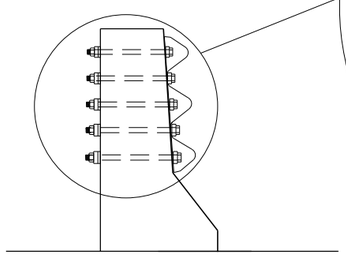
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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.



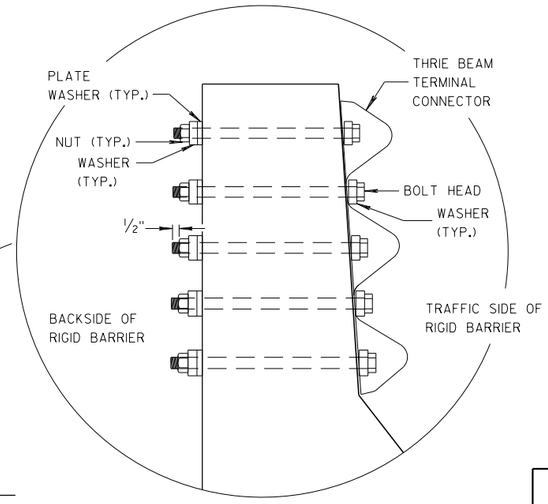
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



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
07/2018
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ROADWAY STANDARDS I
UNIT SUPERVI
ENT
FHWA

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S.D.D. 14 B 45-5f

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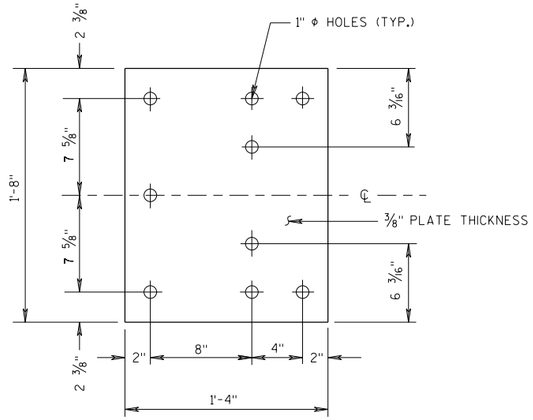
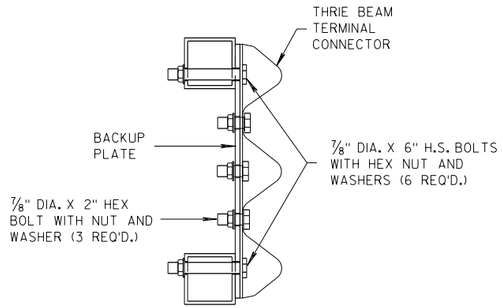
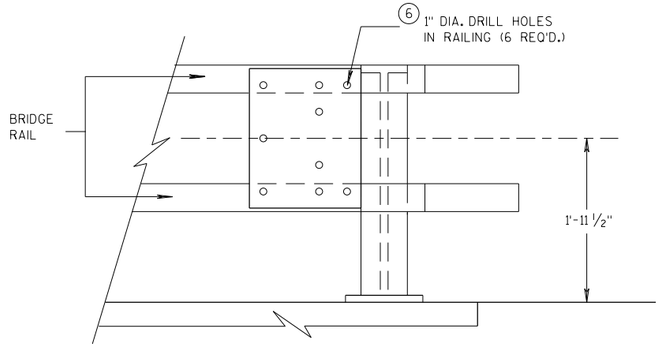
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

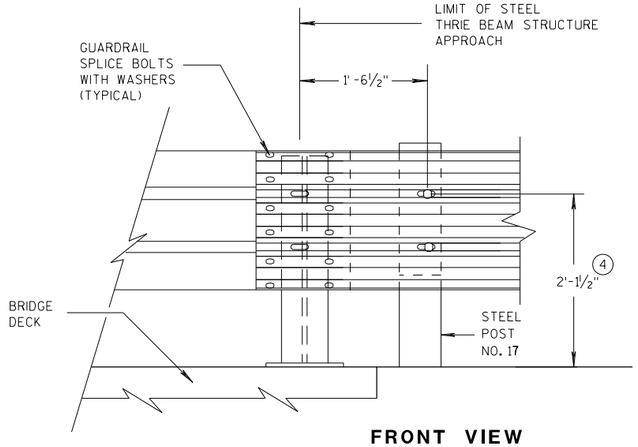


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

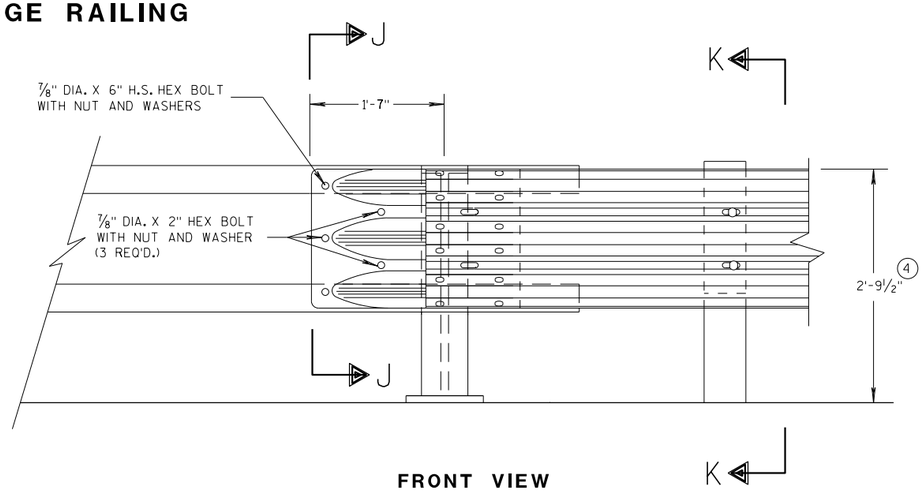
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

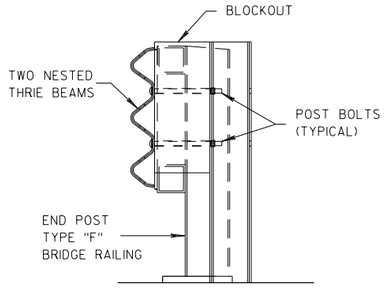


FRONT VIEW

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 07/2018 — DATE
FHWA

/S/ Rodney Taylor 496
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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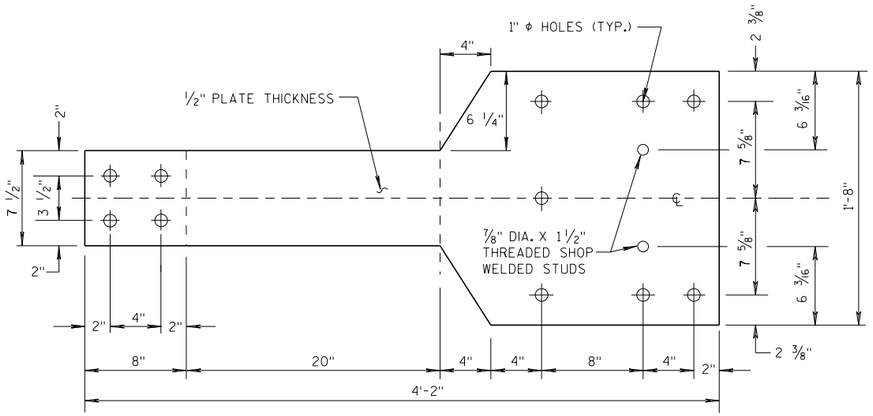
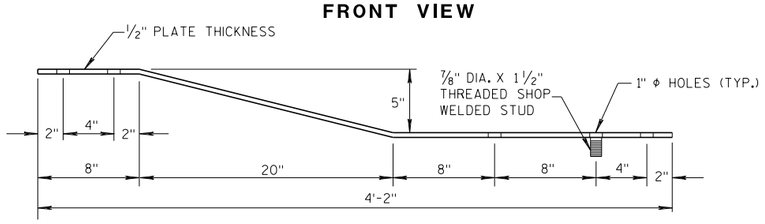
GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

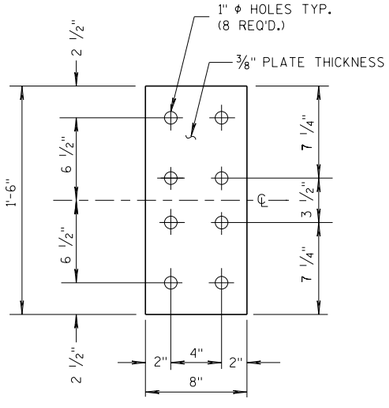


FRONT VIEW



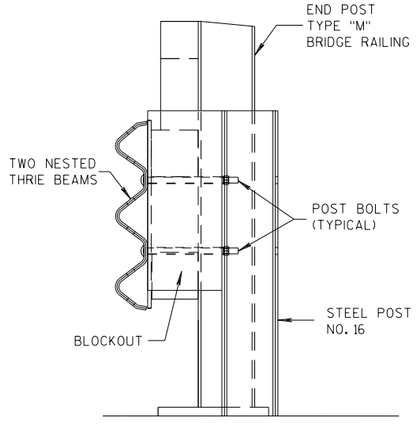
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

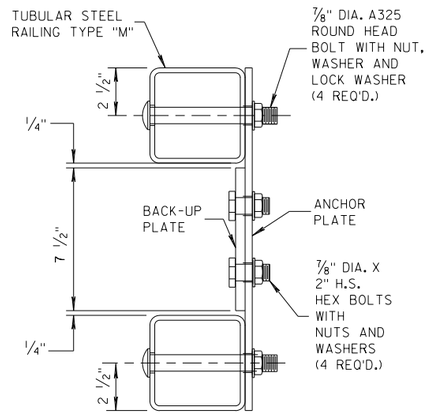


FRONT VIEW

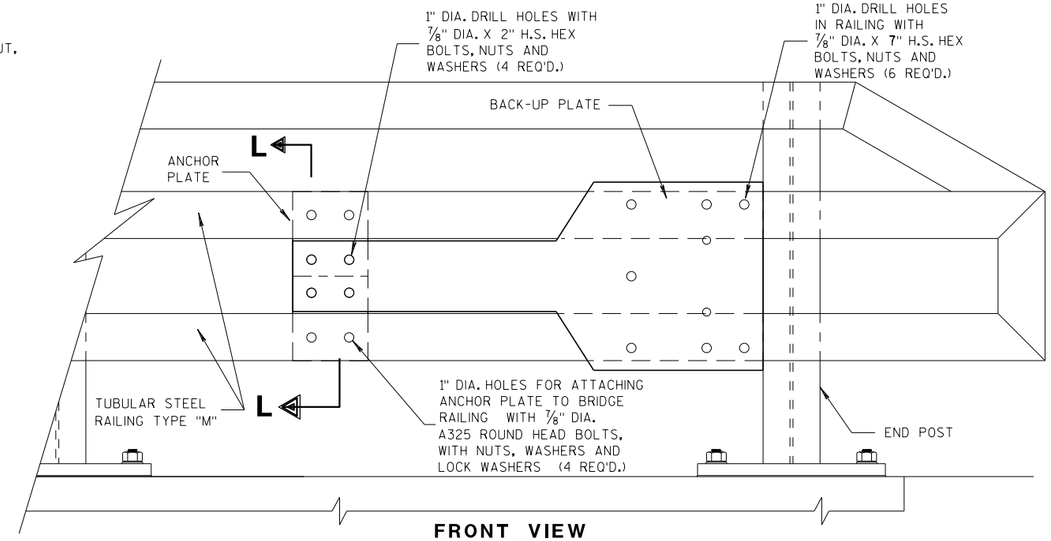
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

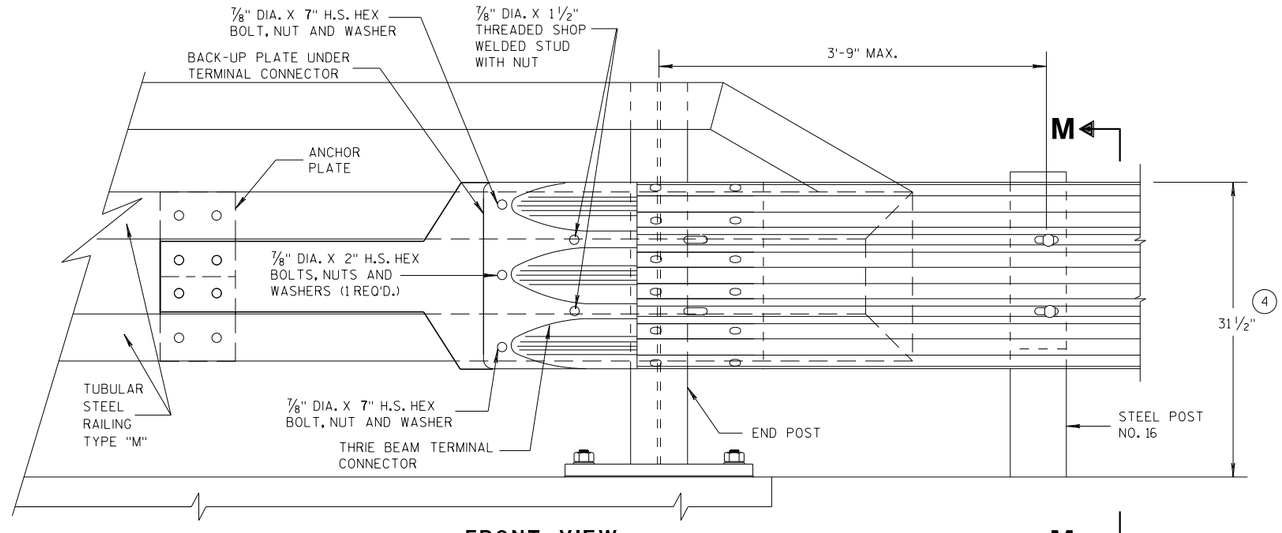


SECTION L-L

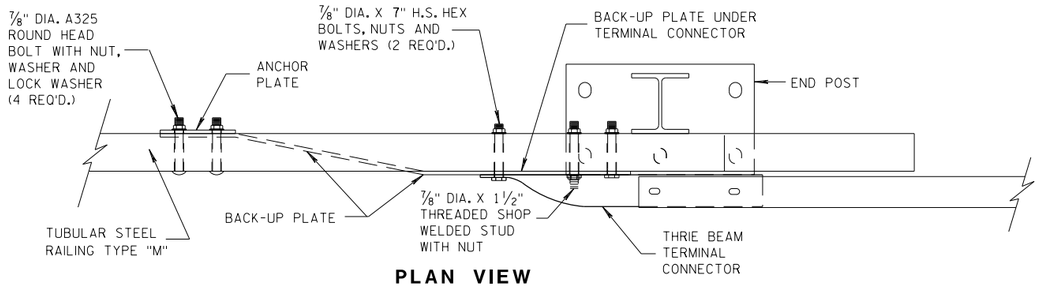


FRONT VIEW

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
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
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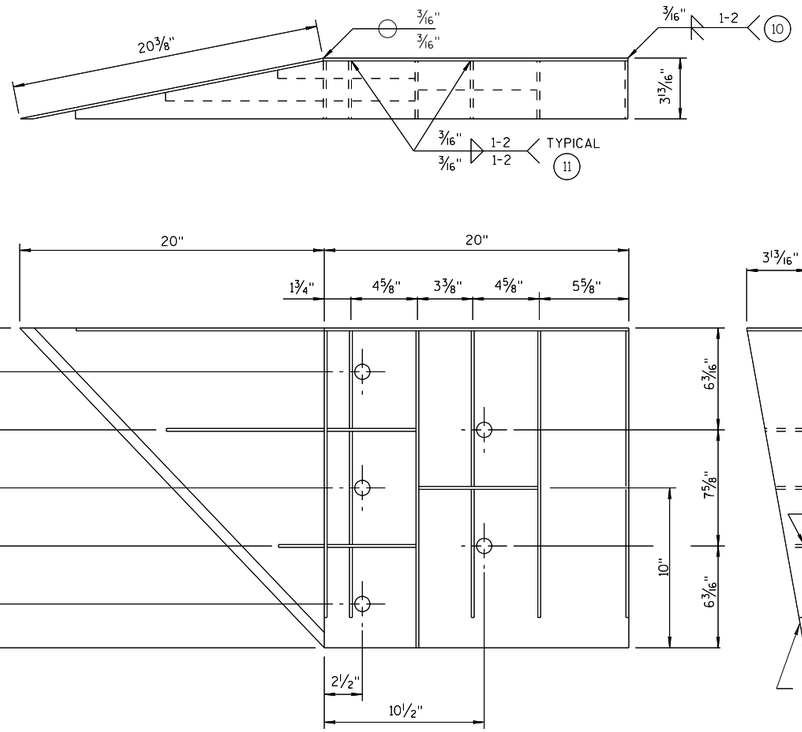

WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

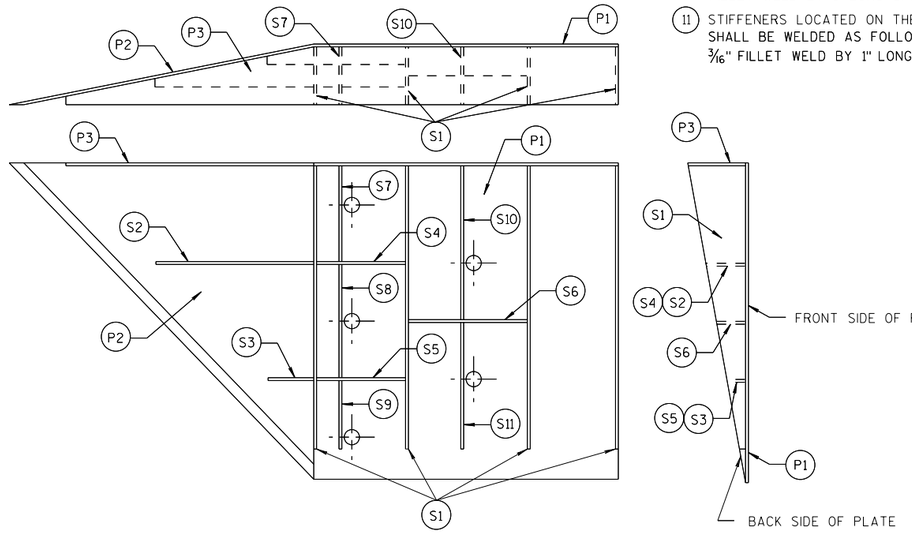

PLATE AND STIFFENER IDENTIFICATION

(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.

(10) 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.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

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

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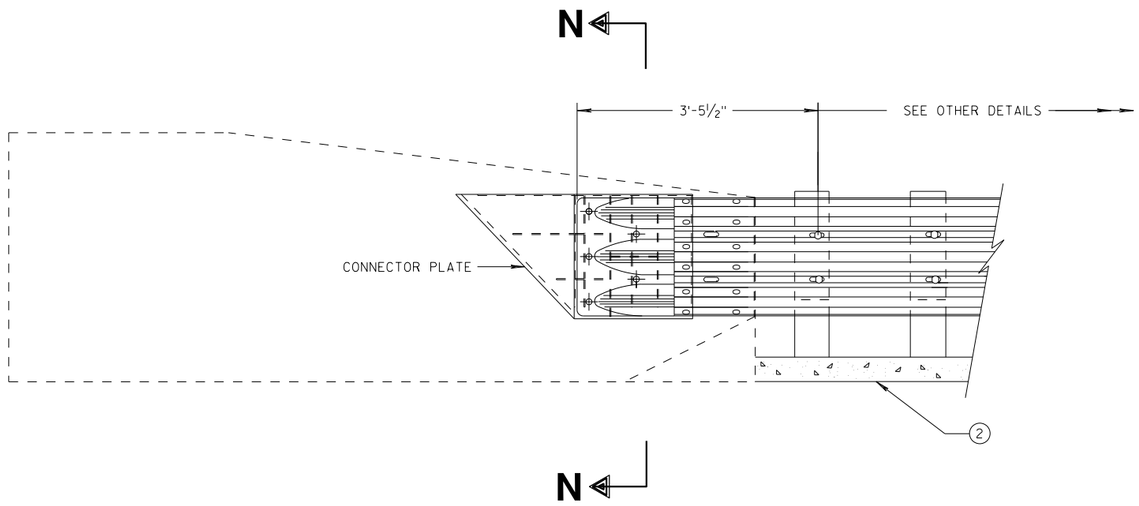
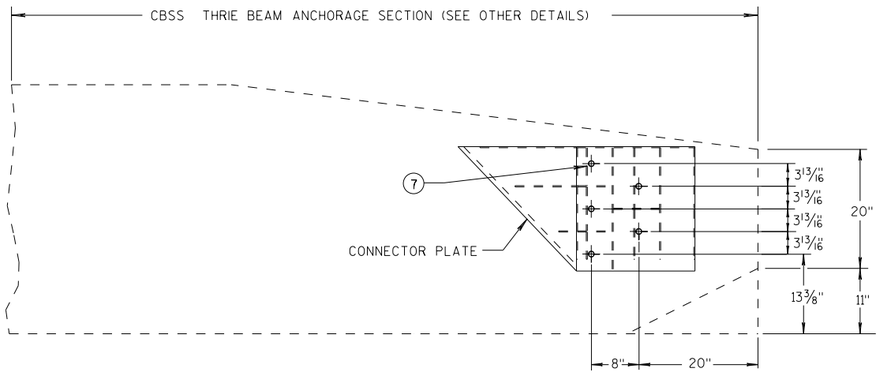
S.D.D. 14 B 45-5i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



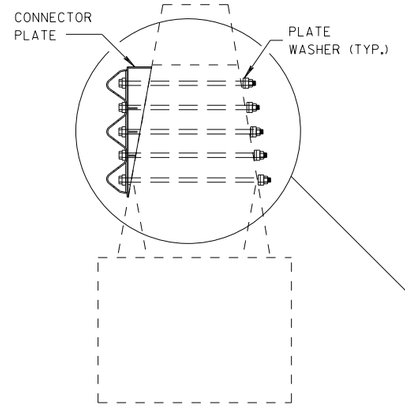
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

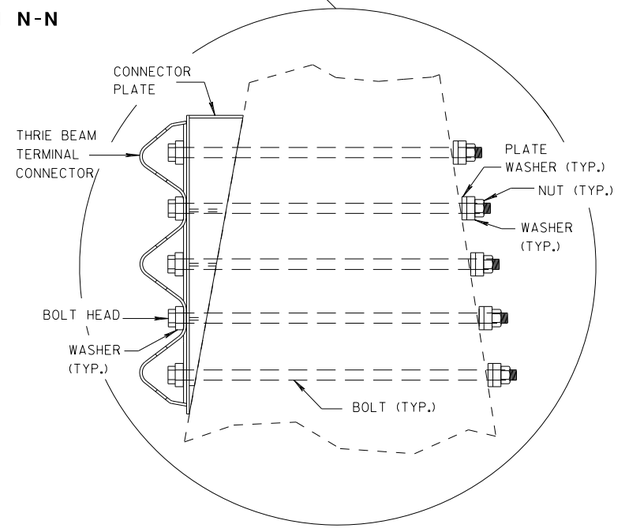
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) 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
7/2018
DATE
FHWA

/S/ Rodney Taylor
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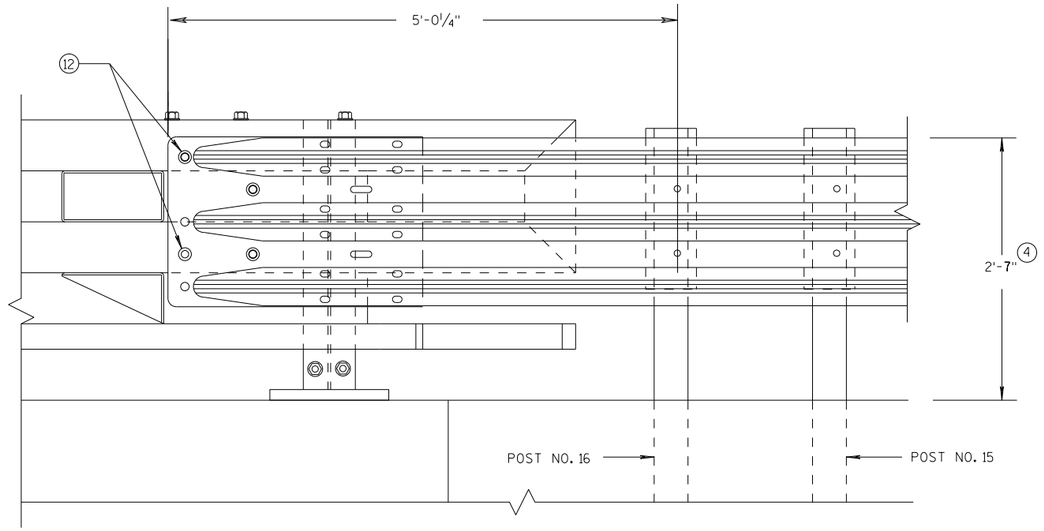
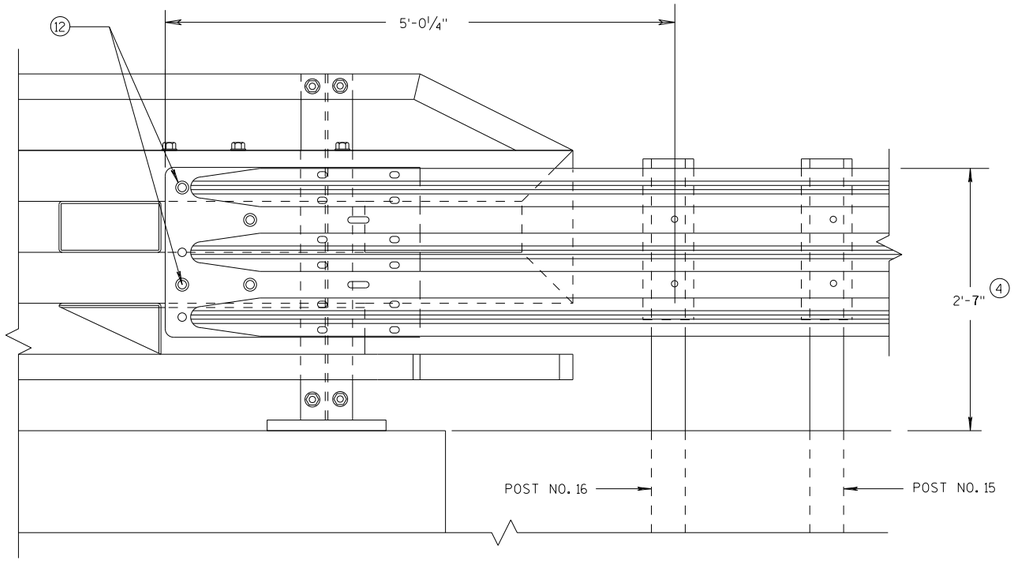


ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) 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. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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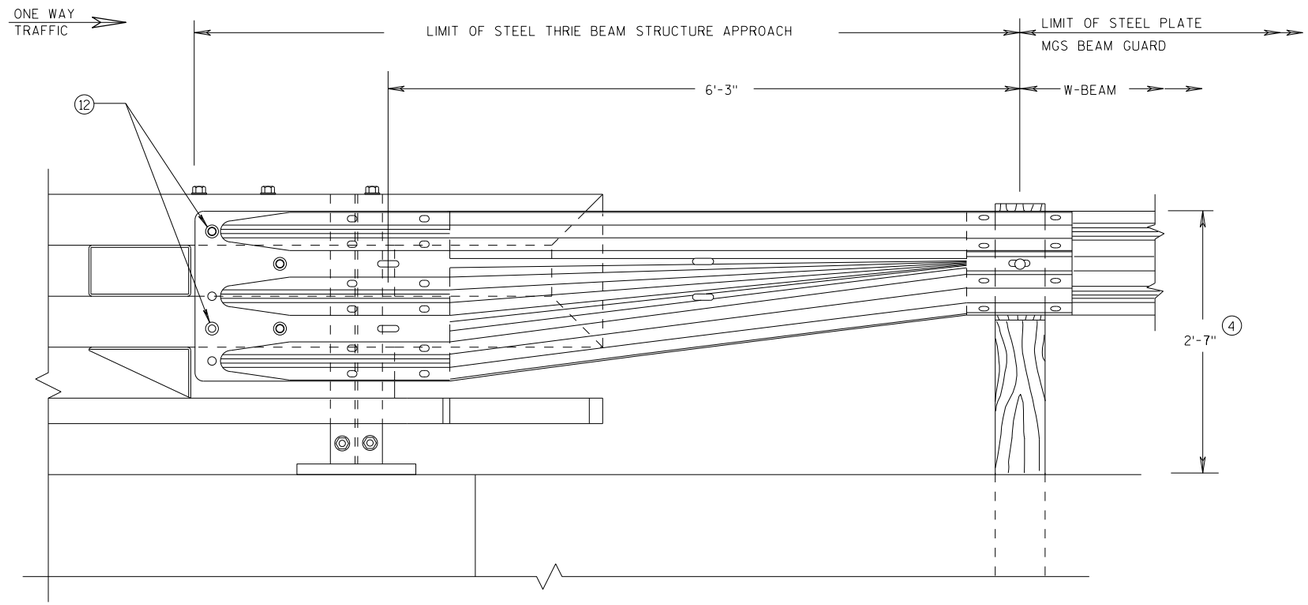


FRONT VIEW

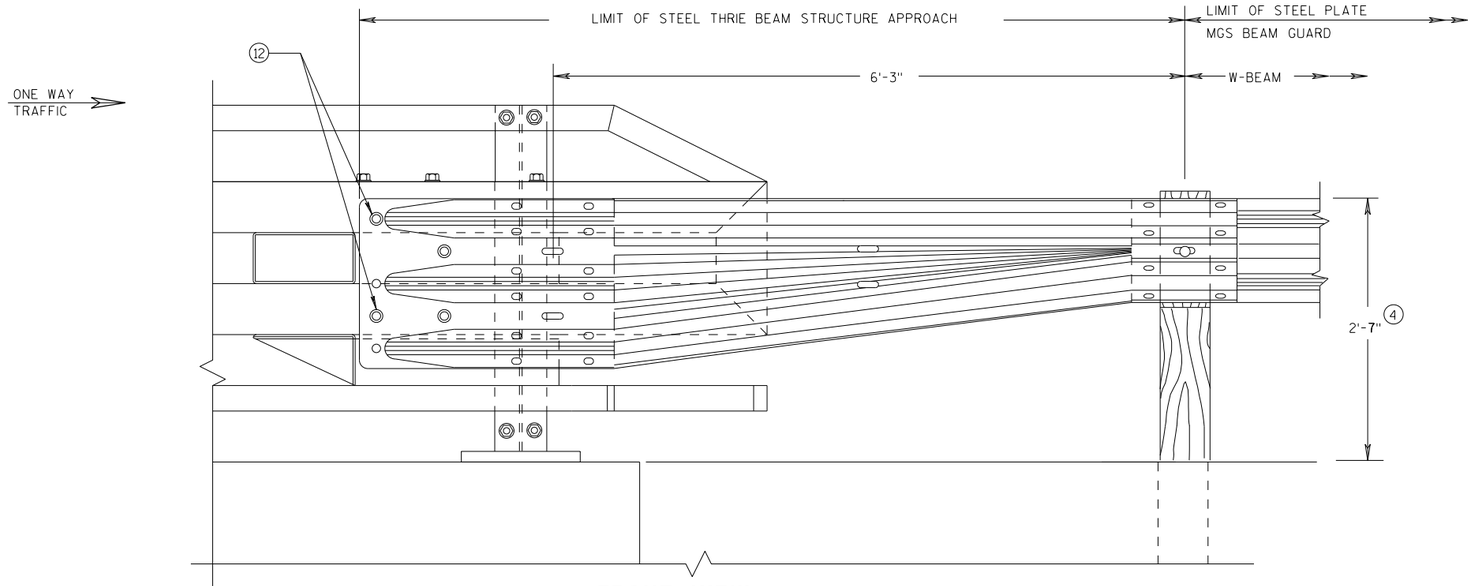
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) 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. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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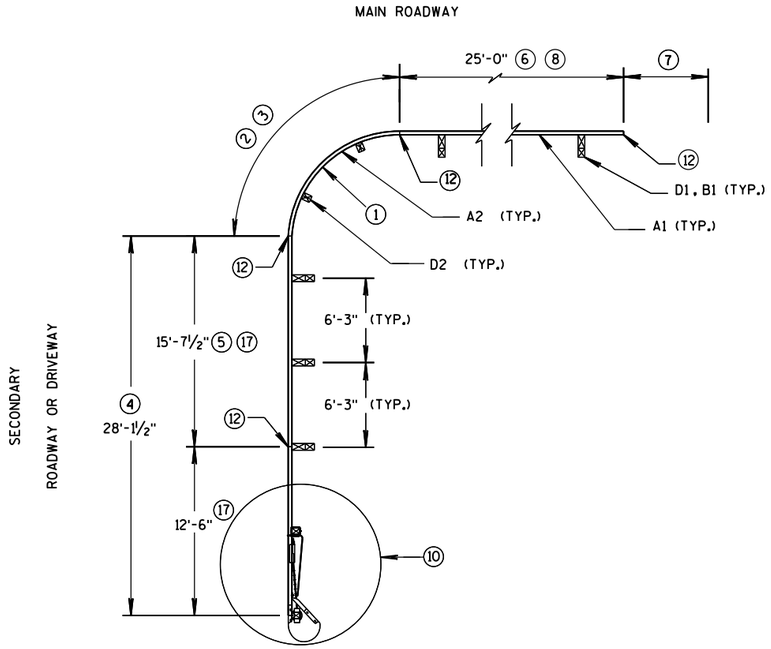
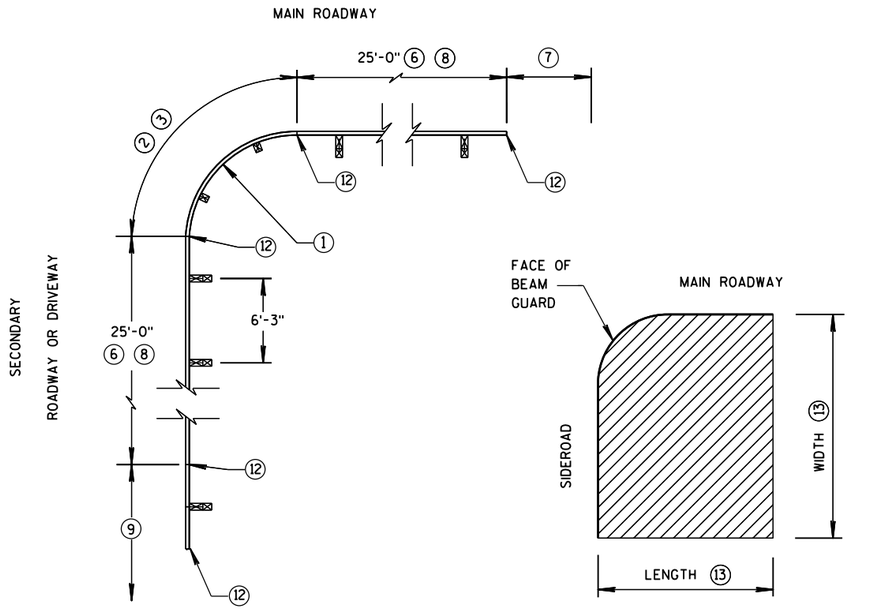


SHORT RADIUS BEAM GUARD WITH SHORT RADIUS TERMINAL ON SECONDARY ROAD OR DRIVEWAY PLAN VIEW



SHORT RADIUS BEAM GUARD WITH EAT, ADDITIONAL BEAM GUARD OR TRANSITION TO RIGID BARRIER ON SECONDARY ROAD OR DRIVEWAY PLAN VIEW

AREA FREE OF FIXED OBJECTS FOR RADIUS 32' AND LESS (16)

TABLE FOR RADIUS OF 32' AND LESS

RADIUS FT	LENGTH FT	WIDTH FT
8	25	15
16	30	15
24	40	20
32	50	30

GENERAL NOTES

SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.

SEE 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.

GALVANIZE PARTS AFTER FABRICATION.

WELDING IS TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1

UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.

UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERITCAL.

ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUTS.

UNLESS NOTED OTHERWISE CUT OR PROVIDE BOLTS THAT ARE ¼" TO ½" BEYOND THE NUT

DRAWINGS ARE NOT TO SCALE.

(1) RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.

(2) CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6'-3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE TERMINAL (CRT) POSTS.

(3) WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAILS RESTED ON TOP OF LAG SCREW.

(4) MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID FOR WITH BEAM GUARD ITEM.

(5) ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.

(6) MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.

(7) BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. SEE PLAN.

(8) TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.

(9) ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.

(10) SHORT RADIUS TERMINAL (SEE OTHER DETAILS)

(11) HEIGHT VARIES. SEE NOTE (8) AND (17).

(12) BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRE PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.

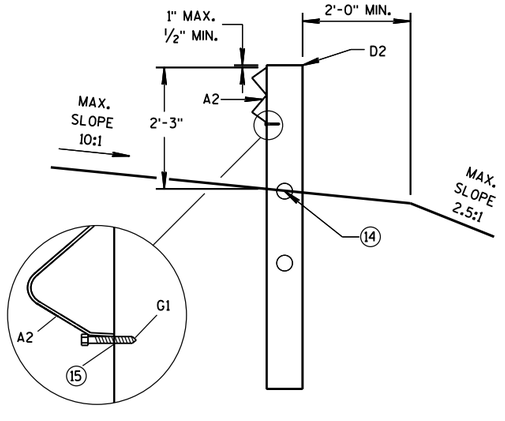
(13) SEE TABLE FOR VALUES.

(14) MAXIMUM HEIGHT FOR CENTER OF HOLE IS ¾" ABOVE FINISHED GROUND ±1".

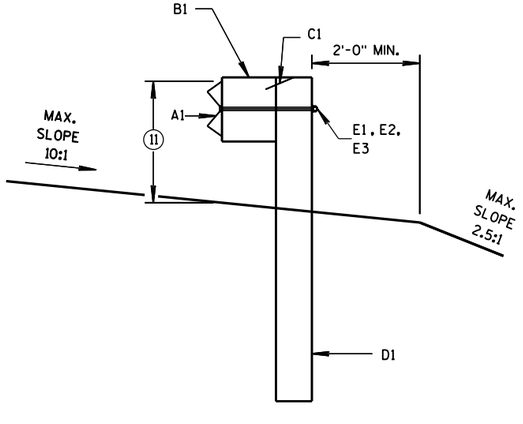
(15) DRILL 15/64" DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.

(16) SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.

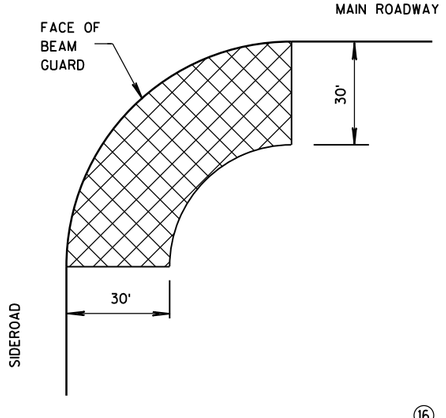
(17) TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL.



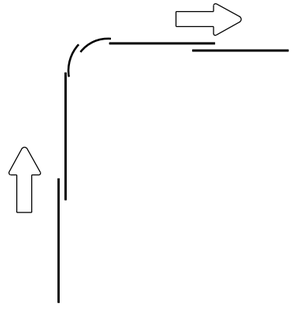
CONTROLLED RELEASE TERMINAL POST (CRT) IN RADIUS



BEAM GUARD POSTS IN HEIGHT TRANSITION



AREA FREE OF FIXED OBJECTS (16) RADIUS GREATER THAN 32'



LAP SPLICE DETAIL

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 502

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S.D.D. 14 B 53-1a

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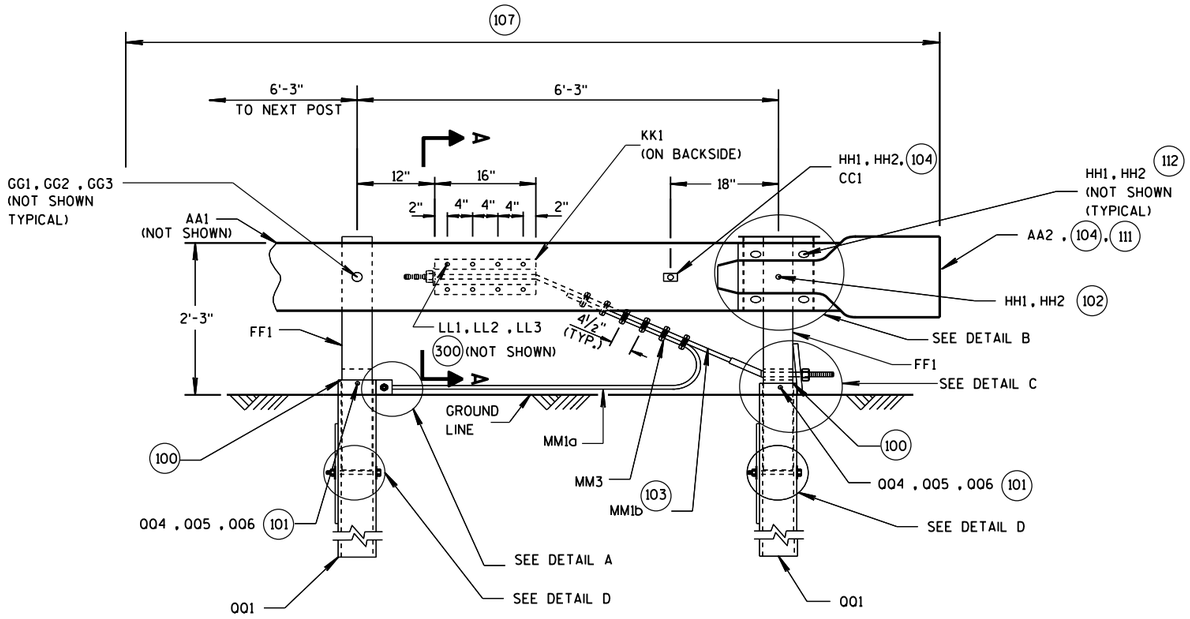
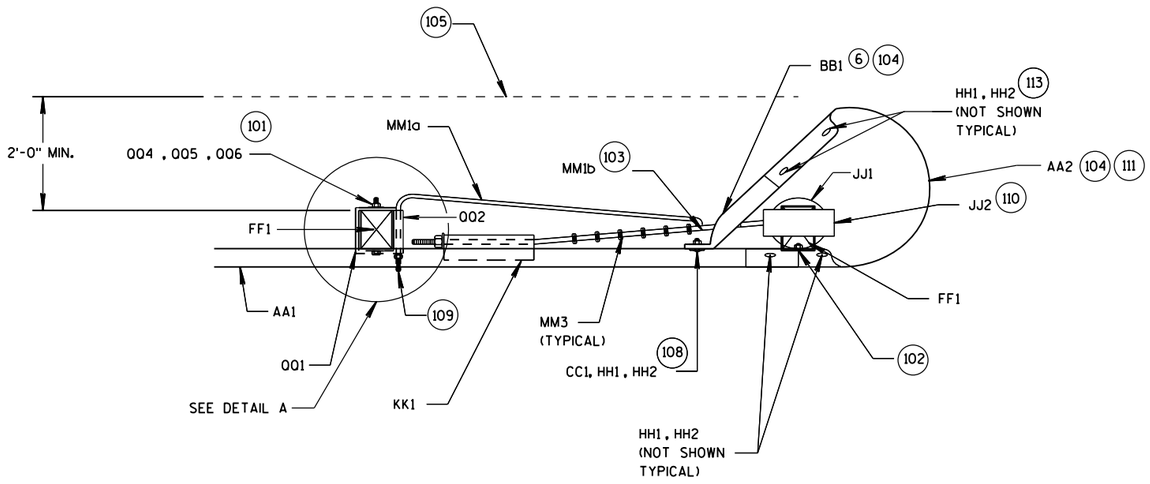
S.D.D. 14 B 53-1a



SHORT RADIUS TERMINAL
PROFILE VIEW



SHORT RADIUS TERMINAL
TOP VIEW

(100) TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.

(101) WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

(102) SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM END SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL B.

(103) CABLE IS TAUT.

(104) ADJUST AA2 AND BB1 TO FIT.

(105) BREAK POINT OF SHOULDER.

(106) TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL A PROFILE VIEW.

(107) PAY LIMIT FOR BEAM GUARD.

(108) SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.

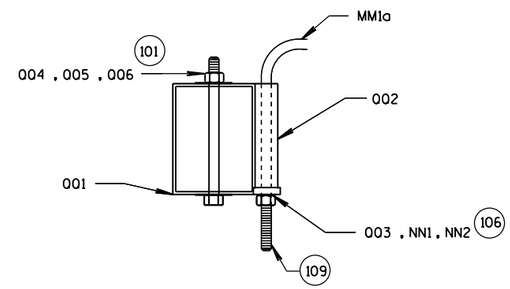
(109) CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS ½" TOLERANCE). DEBURR AFTER CUTTING.

(110) SEE STEEL PIPE ASSEMBLY DETAILS.

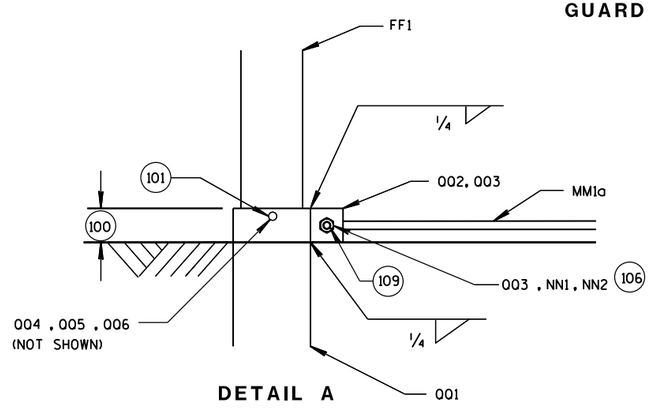
(111) ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.

(112) FOUR HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.

(113) FOUR HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.



DETAIL A
TOP VIEW
(WOOD BREAKAWAY AND BEAM GUARD RAIL POSTS NOT SHOWN)



DETAIL A
PROFILE VIEW

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL
MGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 503

6

S.D.D. 14 B 53-1b

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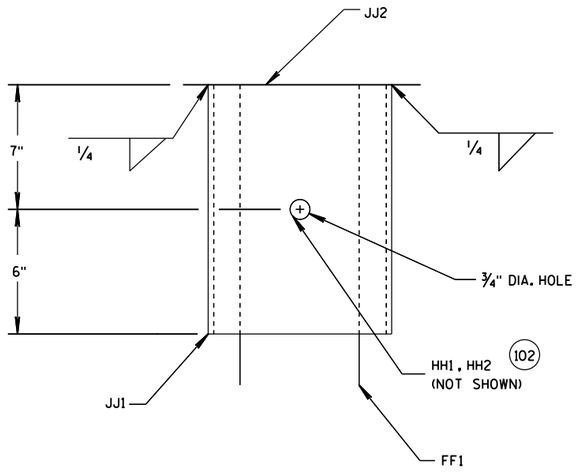
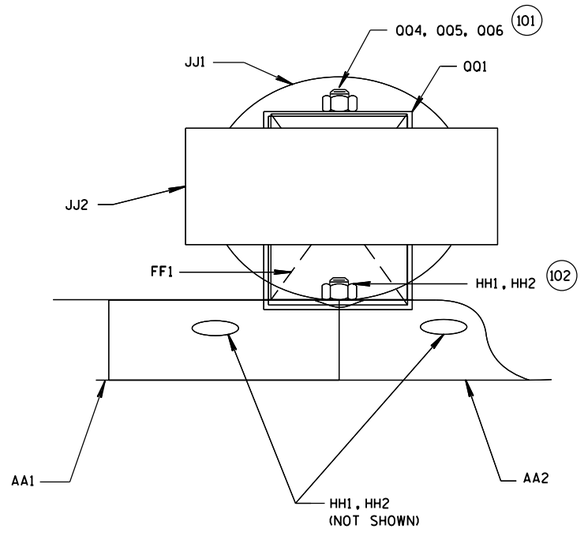
S.D.D. 14 B 53-1b

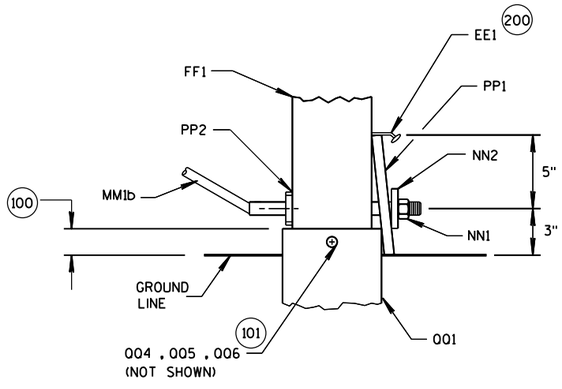


DETAIL B
PROFILE VIEW OF STEEL PIPE ASSEMBLY
(BEAM GUARD AND W-BEAM
END SECTION NOT SHOWN)

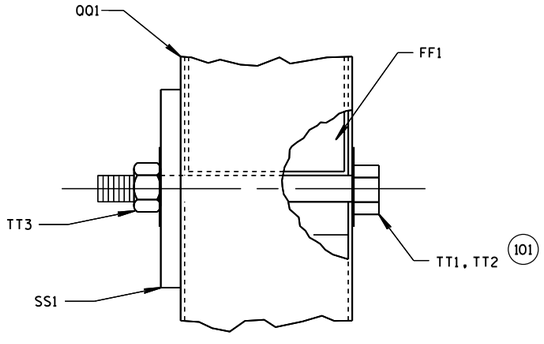


DETAIL B
PLAN VIEW OF STEEL PIPE ASSEMBLY

200 2 NAILS SPACED 4 INCHES CENTER TO CENTER.



DETAIL C
PROFILE VIEW



DETAIL D
PROFILE VIEW

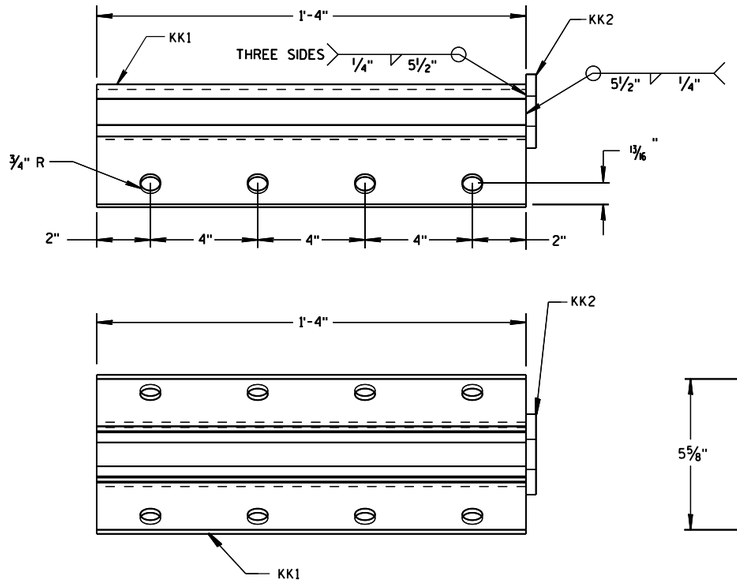
SHORT RADIUS BEAM GUARD
(MGS) SHORT RADIUS
TERMINAL (MGS)

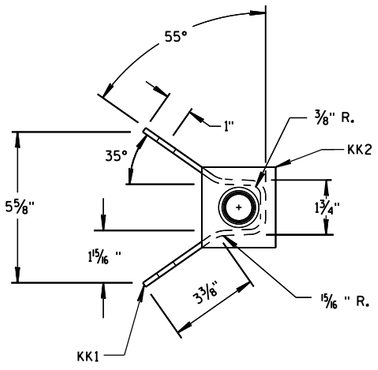
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

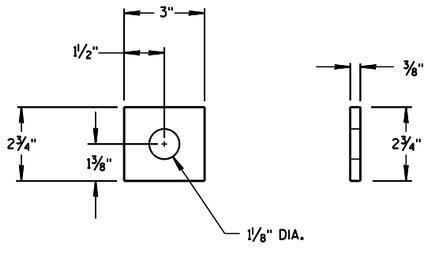
S.D.D. 14 B 53-1c

(300) WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT LL1 AND LL3 REQUIRED. SIXTEEN LL2 REQUIRED.

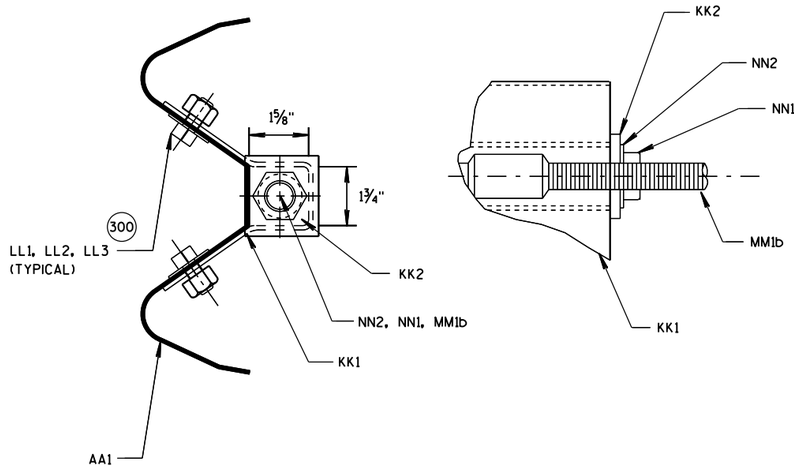




ANCHOR BRACKET (KK1, KK2)



ANCHOR BRACKET BEARING PLATE (KK2)

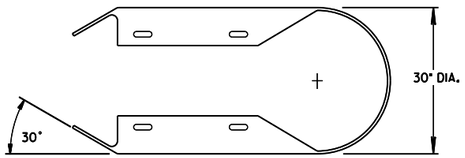


SECTION A-A

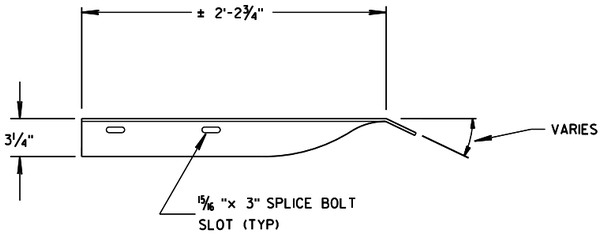
SHORT RADIUS BEAM GUARD
(MGS) SHORT RADIUS
TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 53-1d



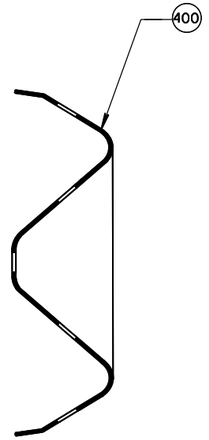
TOP VIEW



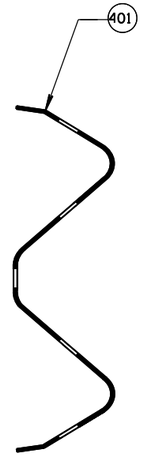
TOP VIEW

(400) CROSS SECTON OF PART IS TO FIT OVER AA1.

(401) CROSS SECTON OF PART IS TO FIT OVER OR UNDER AA1.

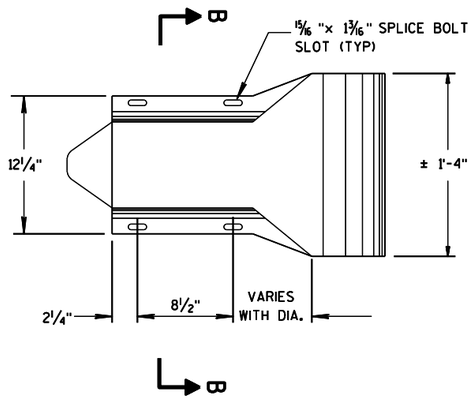


SECTION B-B



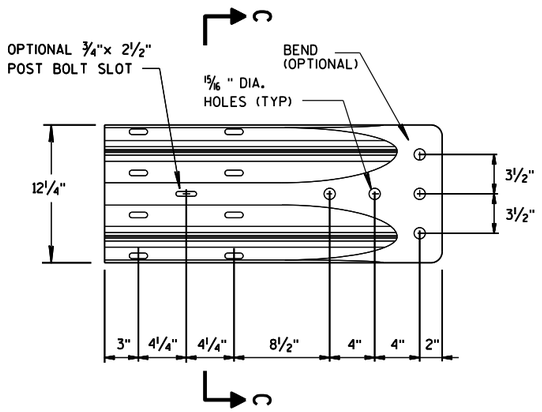
SECTION C-C

6



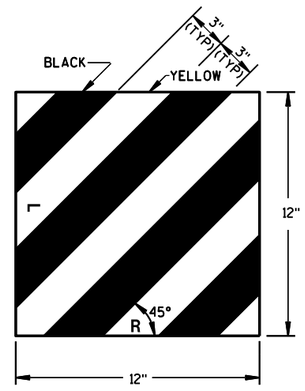
W-BEAM
END SECTION BUFFER (AA2)

PROFILE VIEW



W-BEAM
TERMINAL CONNECTOR (BB1)

PROFILE VIEW

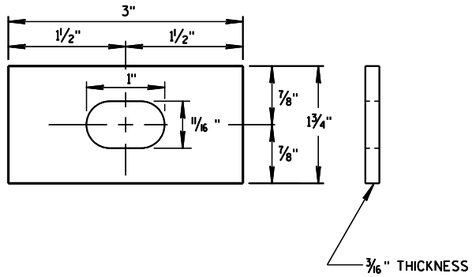


REFLECTIVE SHEETING
(UU1, UU2)

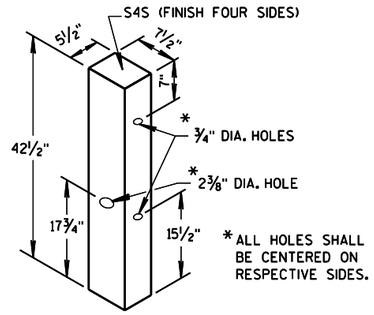
SHORT RADIUS BEAM GUARD
(MGS) SHORT RADIUS
TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

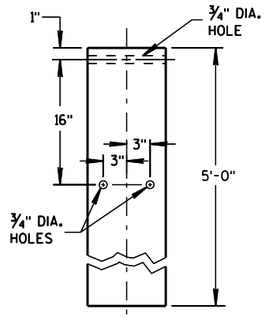
S.D.D. 14 B 53-1e



RECTANGULAR PLATE WASHER (CC1)



WOOD BREAKAWAY POST (FF1)



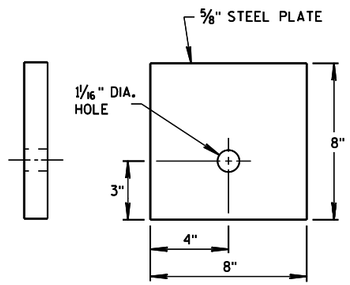
FOUNDATION TUBE (QQ1) (500)

(500) SEE DETAIL "D" FOR LOCATION AND ATTACHING SS1.

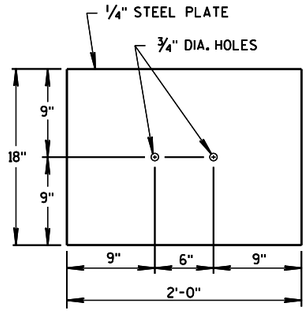
(501) FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.

(502) LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.

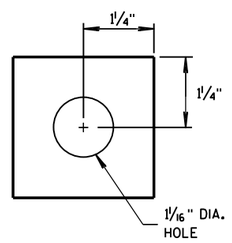
(503) MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE (109).



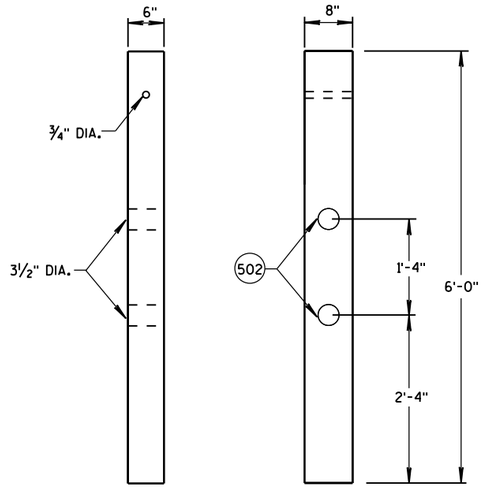
BEARING PLATE (PP1)



SOIL PLATE (SS1)

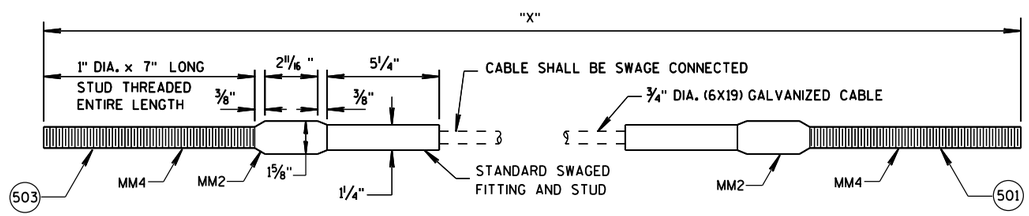


TUBE END PLATE (QQ3)



FRONT VIEW SIDE VIEW

CONTROLLED RELEASE TERMINAL POST (CRT) (D2)



"X" LENGTH

MM1a	9'-0"
MM1b	6'-8"

CABLE ASSEMBLY (MM1a , MM1b)

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN DEPARTMENT OF TRANSPOR

6 S.D.D. 14 B 53-1f

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	BEAM GUARD RAIL	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
A2	BEAM GUARD RAIL - SHOP BENT	INDICATE ON BACK OF RAIL RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION.	
		AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
B1	BLOCK - WOOD	WISDOT SPEC. 614	SEE SDD 14B42
C1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)	
D1	POST-STRONG POST-WOOD	WISDOT SPEC. 614	SEE SDD 14B42
D2	POST-CRT-WOOD	WISDOT SPEC. 614	
E1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
E2	POST BOLT-WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	5/8" DIA.
		GALV. AASHTO M111/ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329	
E3	POST BOLT - NUT		5/8" DIA. SEE SDD 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
F1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR GEOMETRY AND OTHER INFORMATION
		UNC	
		AASHTO M180	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
F2	SPLICE BOLT - NUT	ASTM A563 GRADE A	5/8" DIA. SEE SDD 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
G1	LAG SCREW	ASTM A308 GRADE A ASTM A153 CLASS D	
			3/8" DIA. 3" LONG
H1	DELINEATOR - BEAM GUARD		SEE SDD 14B42 FOR MORE INFORMATION
H2	DELINEATION - SHEETING	YELLOW OR WHITE	
		WISDOT SPEC 637 TYPE SH	
		APPROVED PRODUCT LIST	
J1	FOUNDATION BACKFILL	STANDARD SPEC. 614	
AA1	BEAM GUARD RAIL - PUNCHED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
AA2	BEAM GUARD RAIL - END SECTION BUFFER	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
BB1	BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
CC1	SHORT RADIUS - SQUARE WASHER	AASHTO M180	
		GALV. AASHTO M111 / ASTM A123	
EE1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)	
FF1	POST - BCT - WOOD	S4S FINISH ON 4 SIDES	
		WISDOT SPEC. 614	
GG1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	3/8" DIA. SEE SDD 14B42 FOR GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
GG2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	3/8" DIA.
		GALV. AASHTO M111 / ASTM A123 OR5 GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO 508

6

S.D.D. 14 B 53-1g

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A	3/8" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	SEE 14B42 FOR GEOMETRY
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	3/8" DIA. SEE 14B42 FOR GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180 HEAD GEOMETRY	
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A	3/8" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	SEE 14B42 FOR GEOMETRY
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 3/8" X 4" X 1'-0"
		GALV. AASHTO M111 / ASTM A123	
KK1	ANCHOR BRACKET	ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A123 OR5 GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A	5/8" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A563	
		UNC	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035	
		SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.	
		GALV. AASHTO M111 / ASTM A123	
		ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1	3/4"
		ASTM A153 HOT DIP CLASS D	
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A	1" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A563	
		UNC	
NN2	ANCHOR CABLE - NUT - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	1" DIA.
		GALV. AASHTO M111 / ASTM A123 OR5 GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
PP1	BEARING PLATE AT POST	ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X 3/16"
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 1/2" X 2 1/4" X 1/4" X 8"
		GALV. AASHTO M111 / ASTM A123	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 53-1h

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
003	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 2½" X 2½" X ¼"
		GALV. AASHTO M111 / ASTM A123	
004	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	⅝" DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
005	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	⅝" DIA.
		GALV. AASHTO M111 / ASTM A123 OR5 GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
006	GROUND STRUT AND YOKE - NUT	HEAVY HEX	⅝" DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
SS1	SOIL PLATE	ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	⅝" DIA.
		GALV. AASHTO M111 / ASTM A123 OR5 GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	⅝" DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING SHEETING TYPE FOR MARKER
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

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S.D.D. 14 B 53-1i

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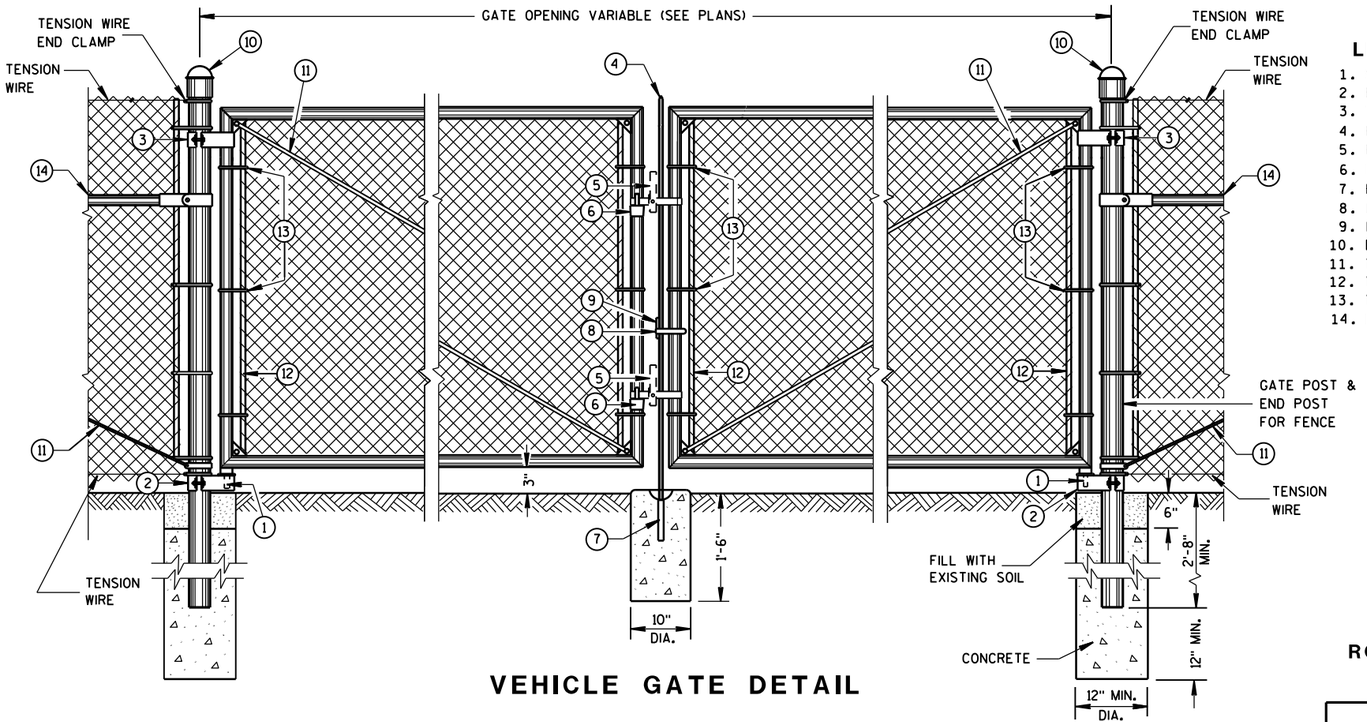
S.D.D. 14 B 53-1i

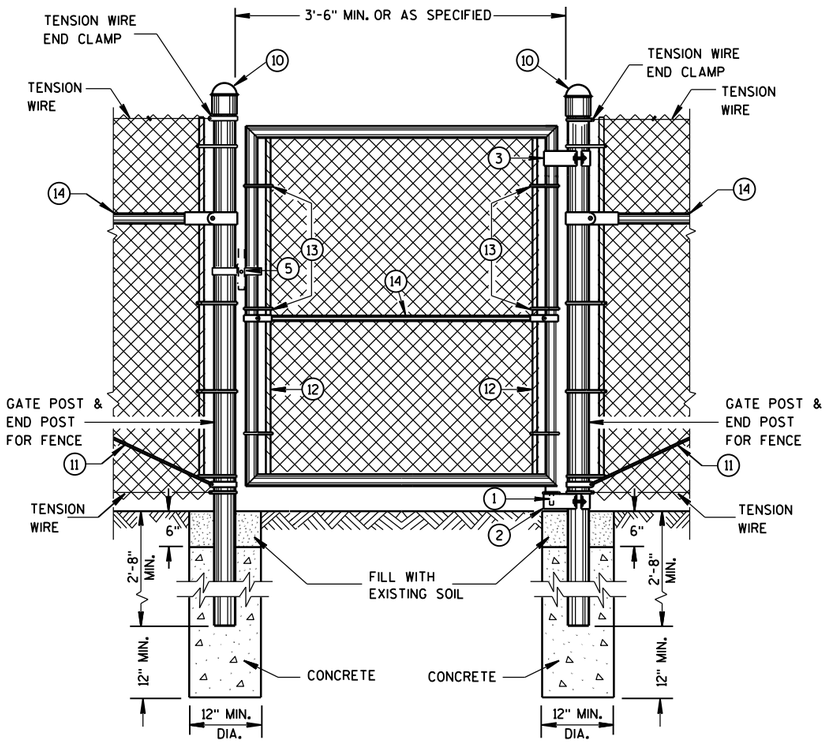
SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D UNIT SUPERVI
NT
FHWA



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.

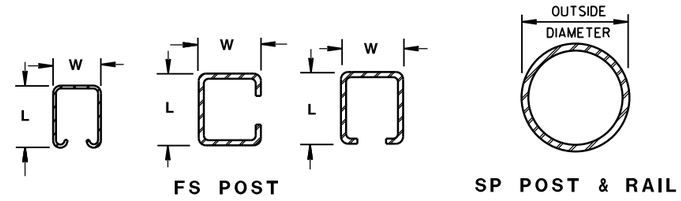
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

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.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



CROSS SECTIONS OF POSTS AND RAILS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

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

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

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

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

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

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

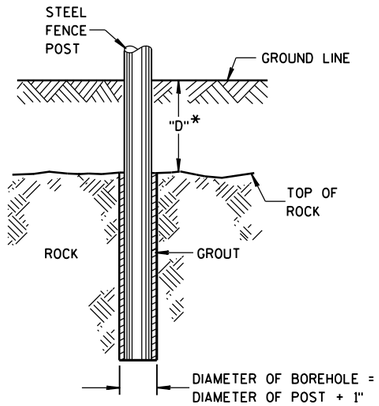
** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

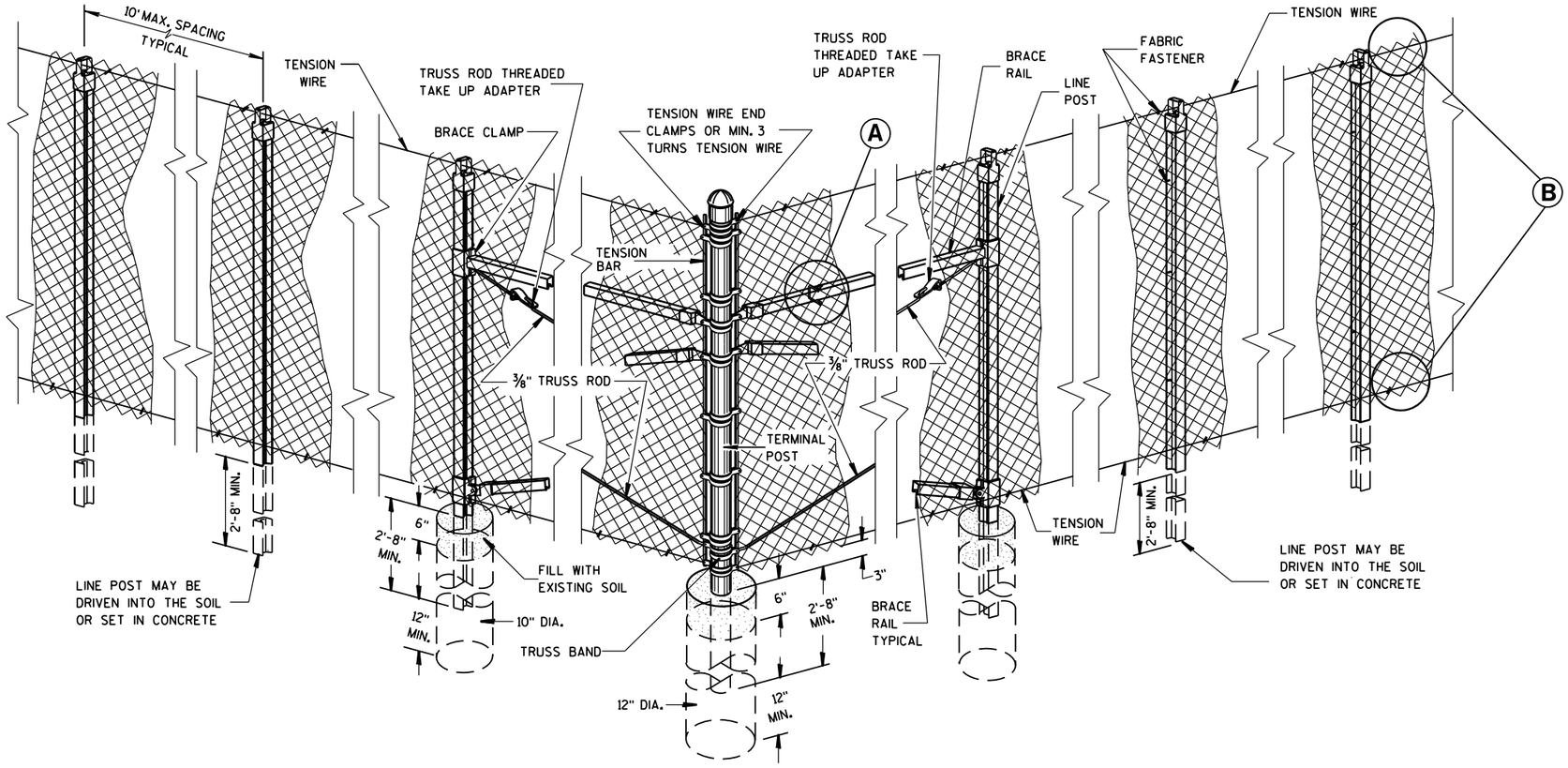
6

S.D.D. 15 B 3-15a

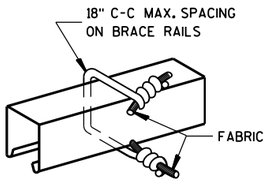


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



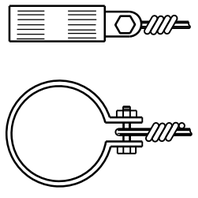
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



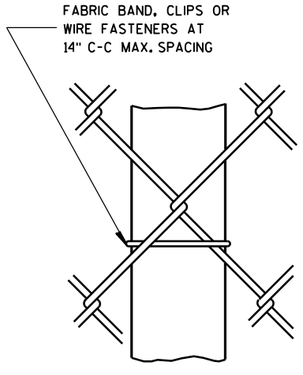
BRACE RAIL

FABRIC FASTENER

Ⓐ



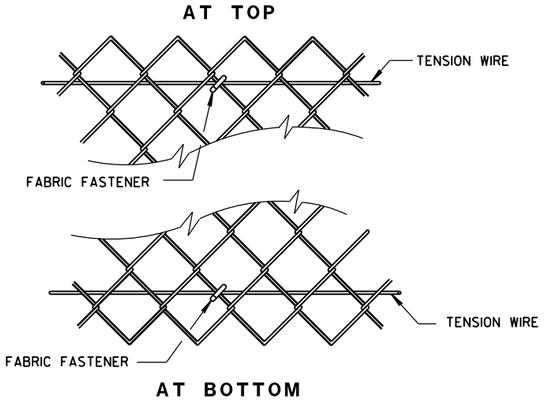
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

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FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
FEB. 2015 DATE
FHWA

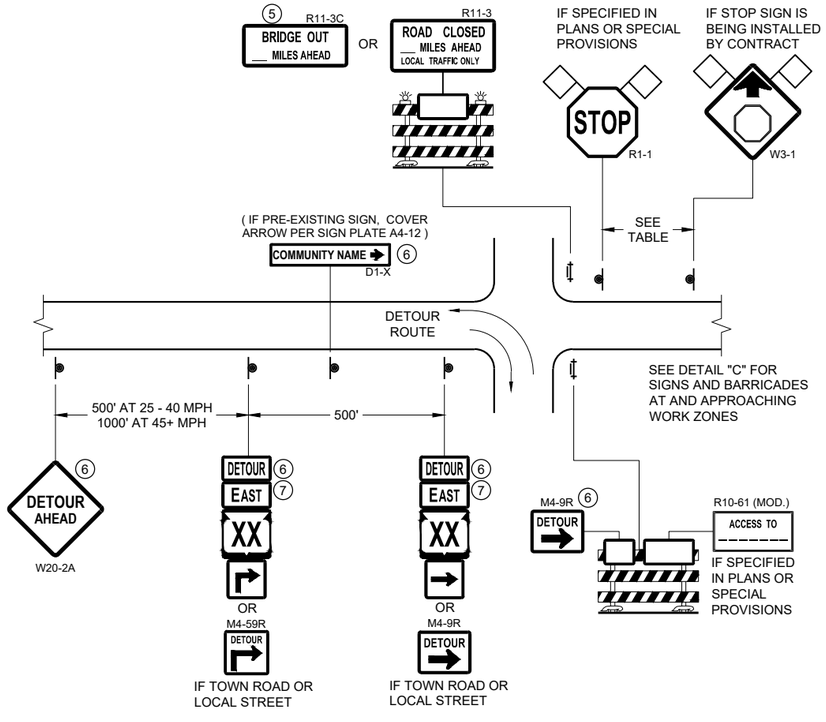
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

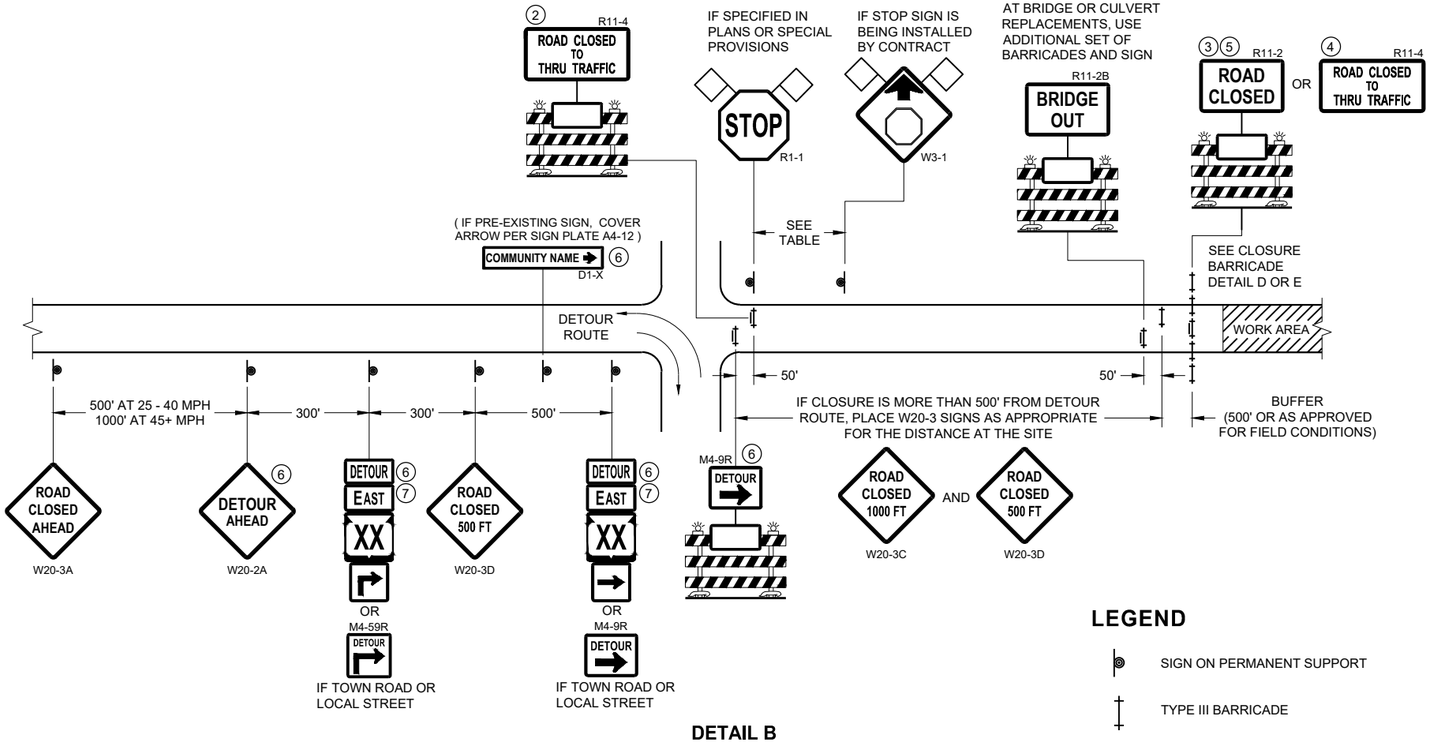
6

S.D.D. 15 B 3-15b

6

S.D.D. 15 B 3-15b



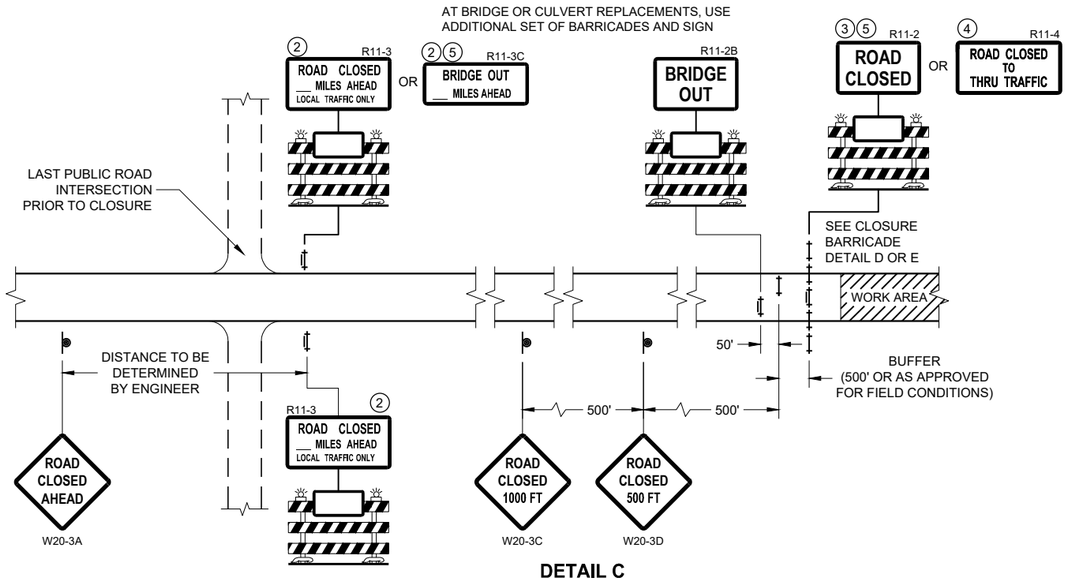


DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS 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-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

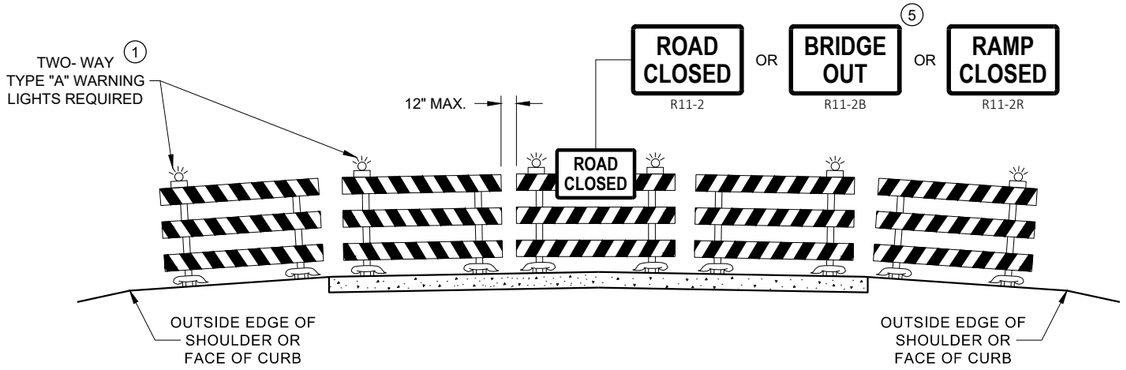
APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

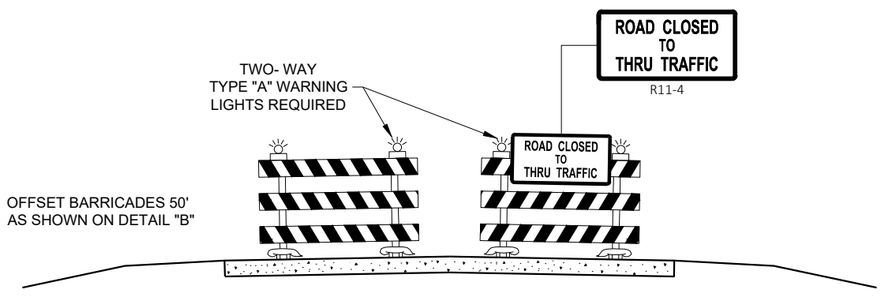
6

SDD 15C02 - 07a

SDD 15C02 - 07a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 07b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

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.

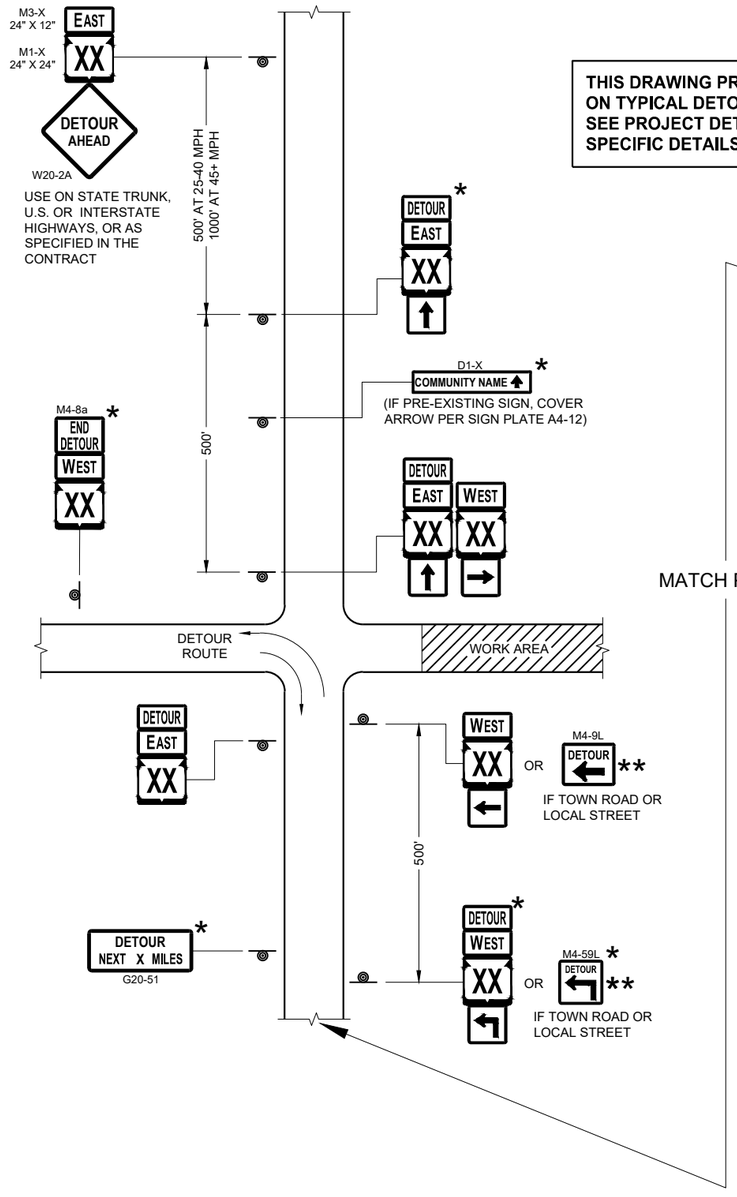
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

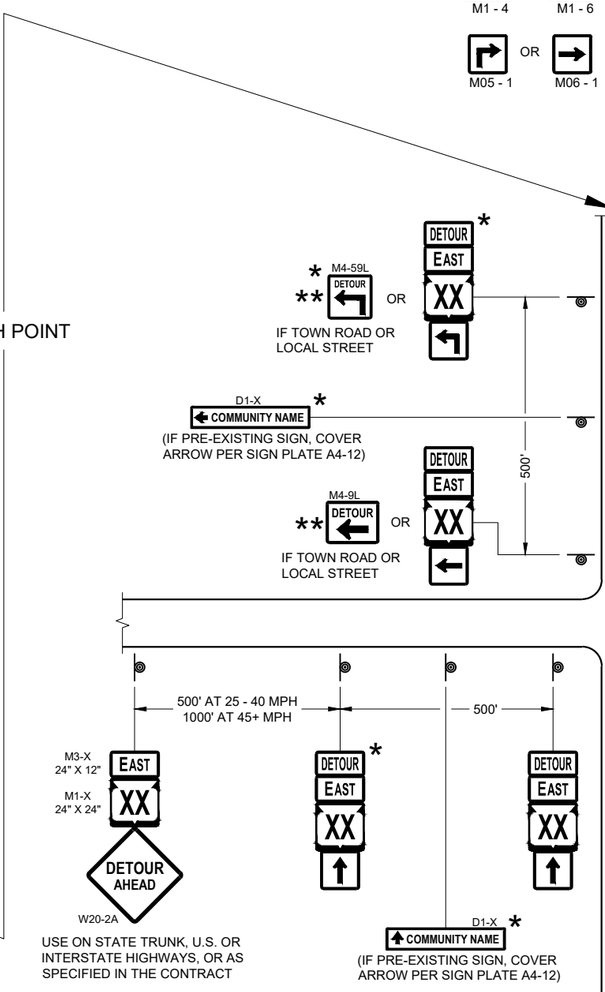
SIGN SIZES SHALL BE AS FOLLOWS:

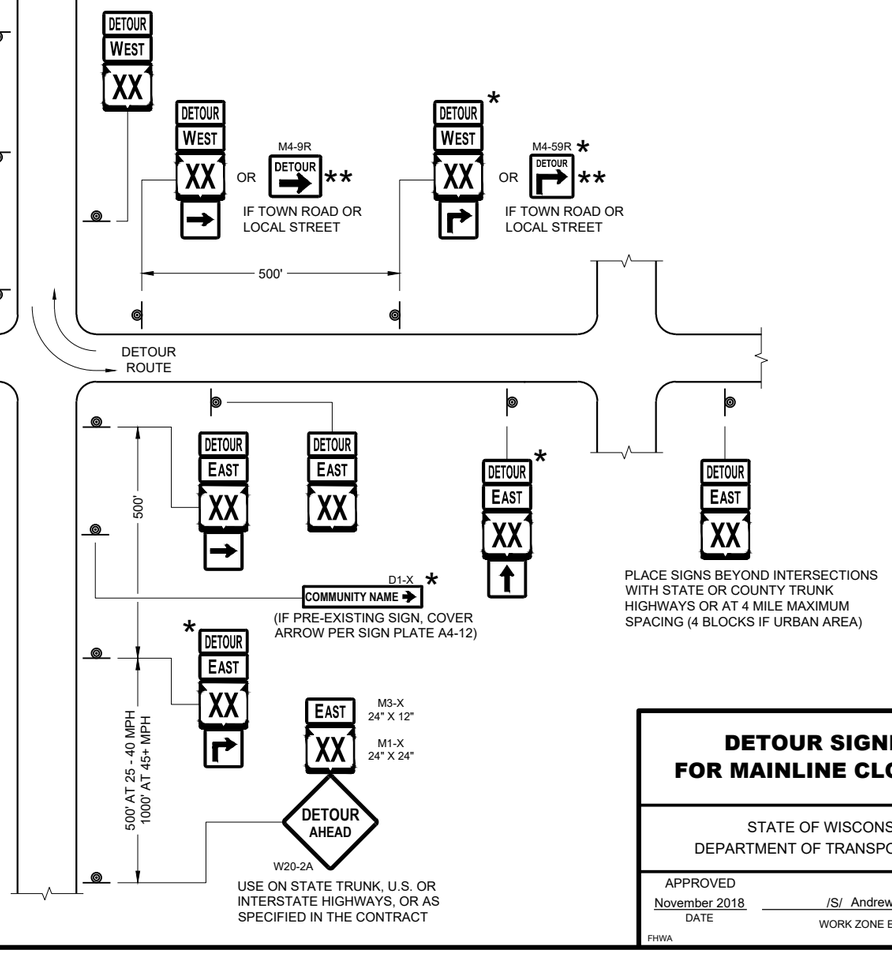
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A 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.







SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

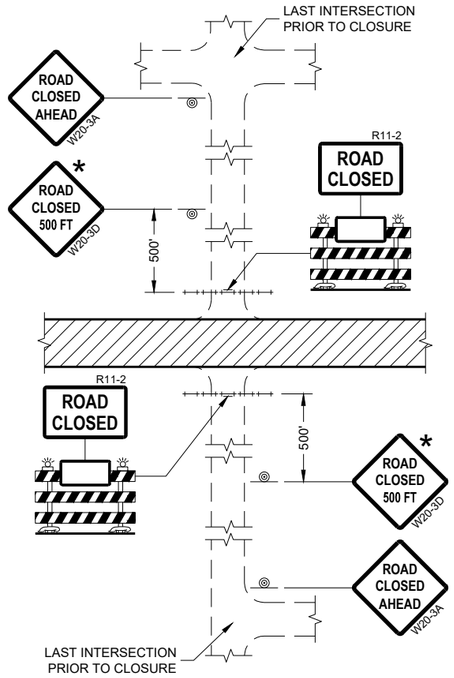
APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 07c

6



DETAIL 1
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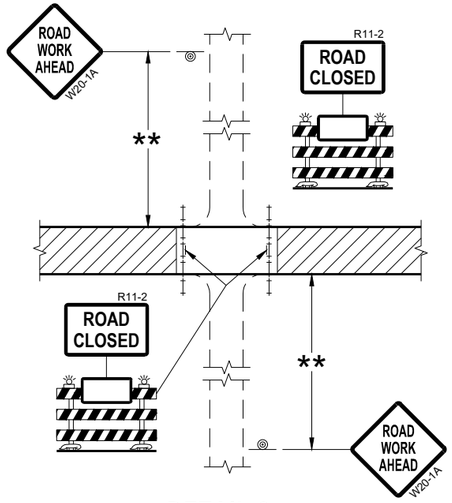

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(PUBLIC CROSS-TRAFFIC MAINTAINED.
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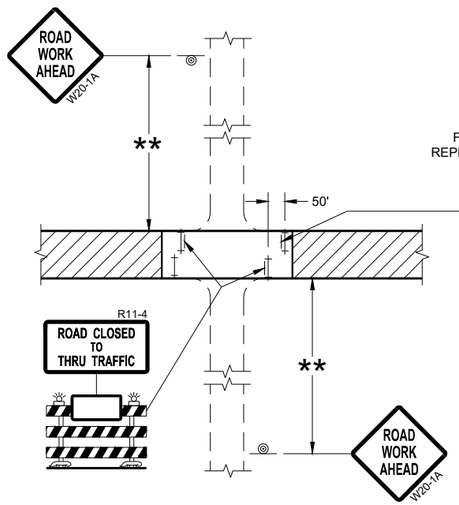
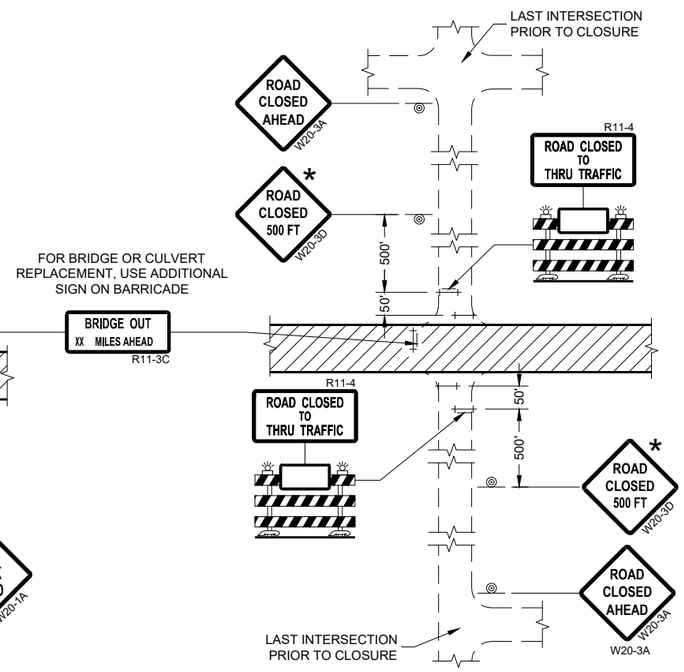


DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

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 (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

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

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN 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, AND R11-4 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.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C03 - 05

GENERAL NOTES

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

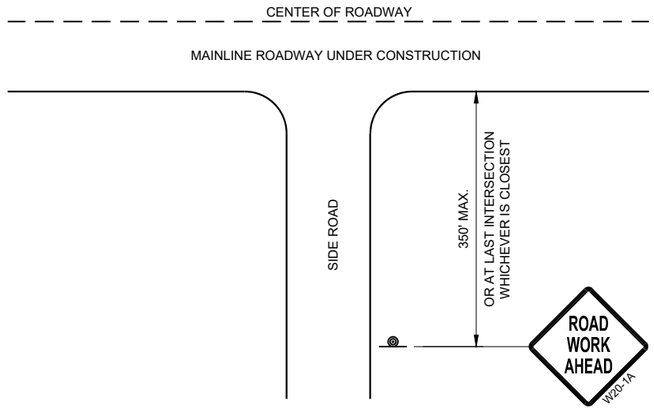
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

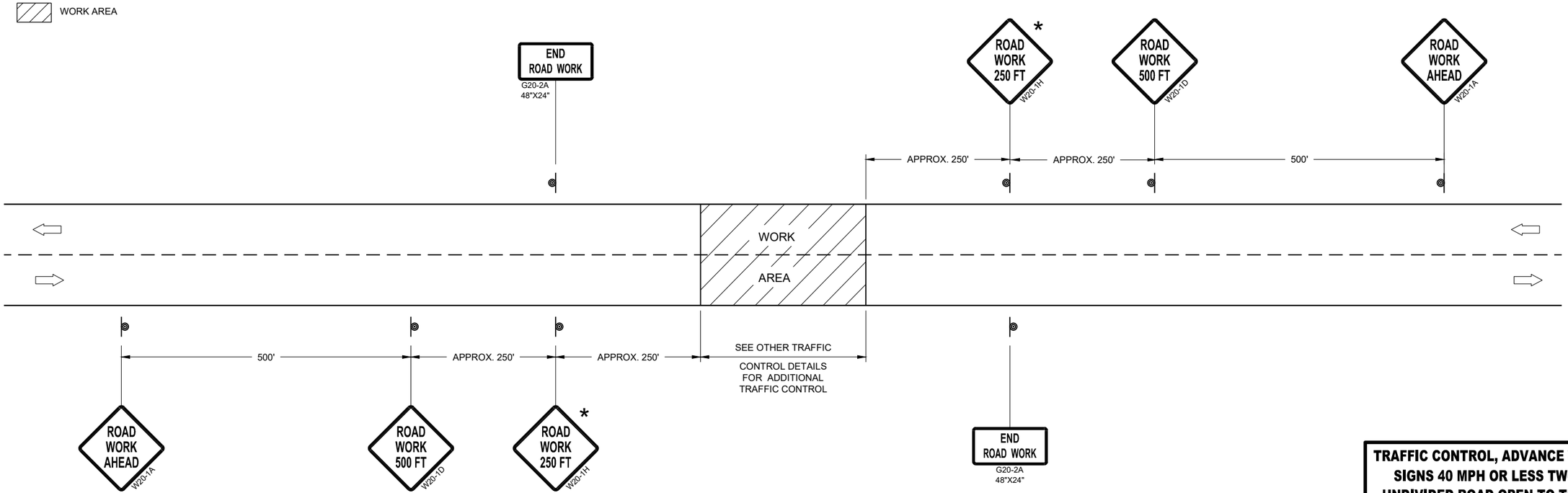
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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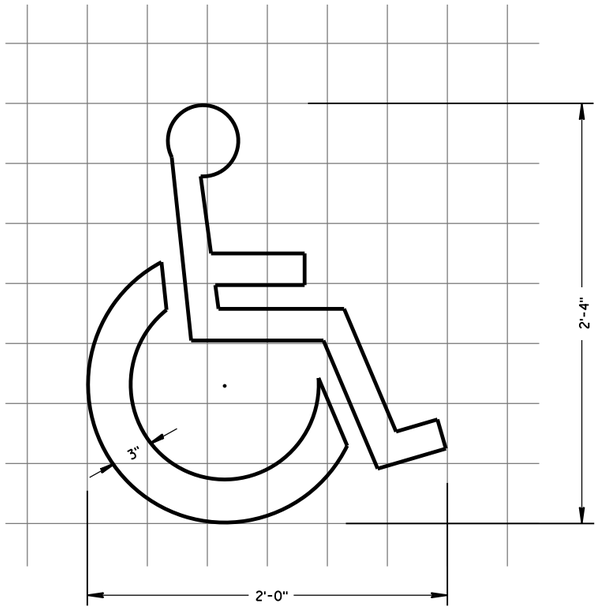
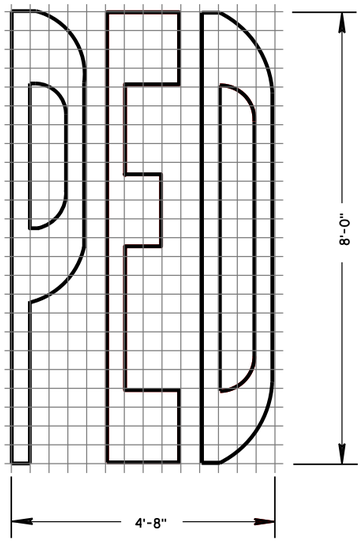
SDD 15C05 - 05

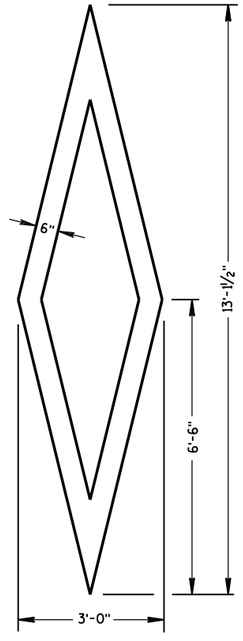
GENERAL NOTES

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.



HANDICAP SYMBOL





PREFERENTIAL LANE SYMBOL

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S.D.D. 15 C 7-14a

S.D.D. 15 C 7-14a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARK EER

FHWA

GENERAL NOTES

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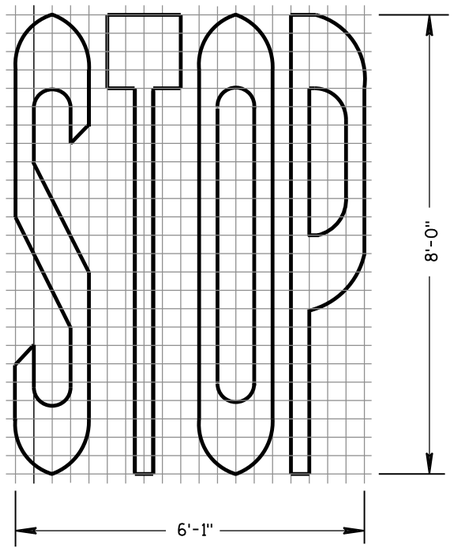
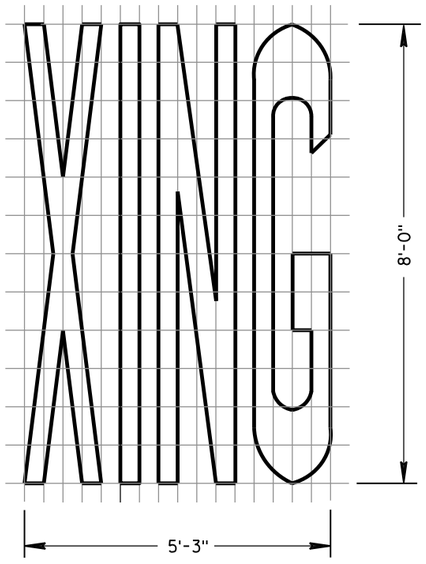
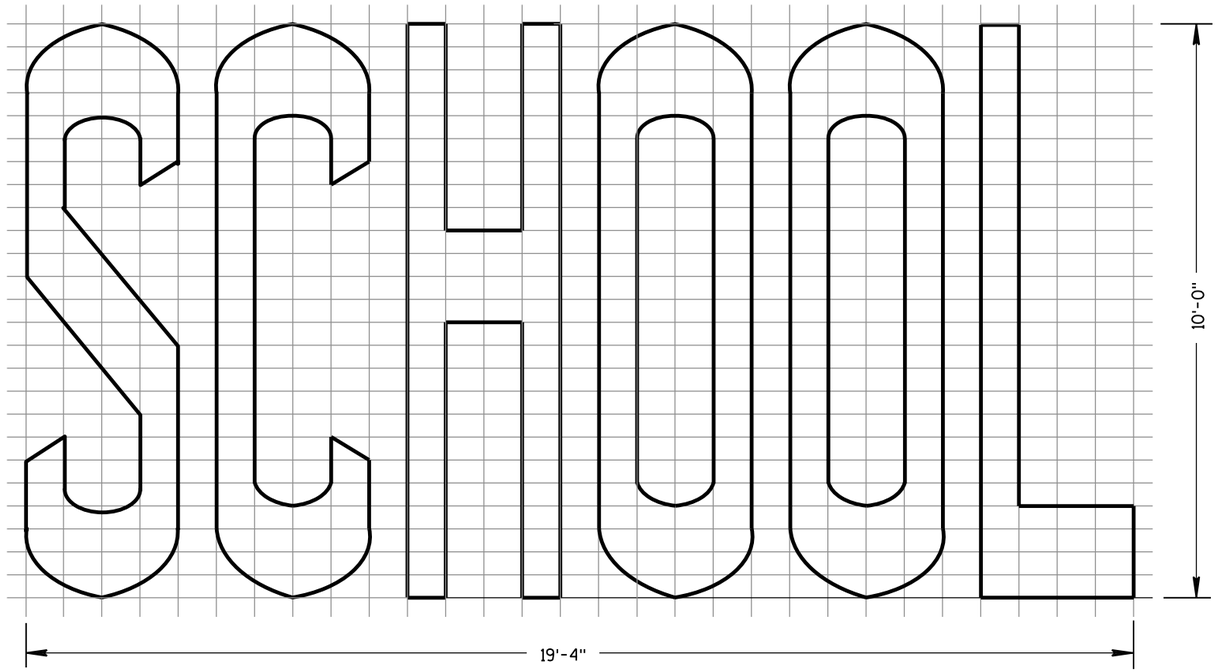
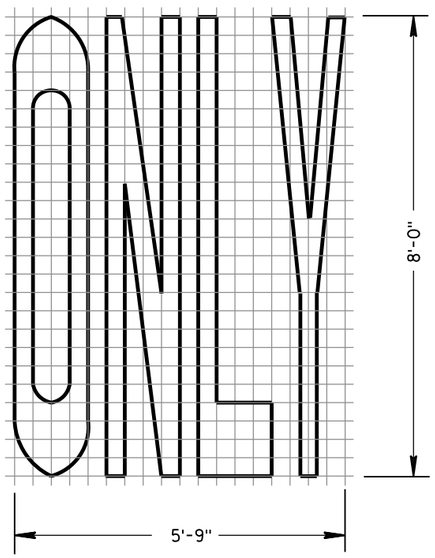
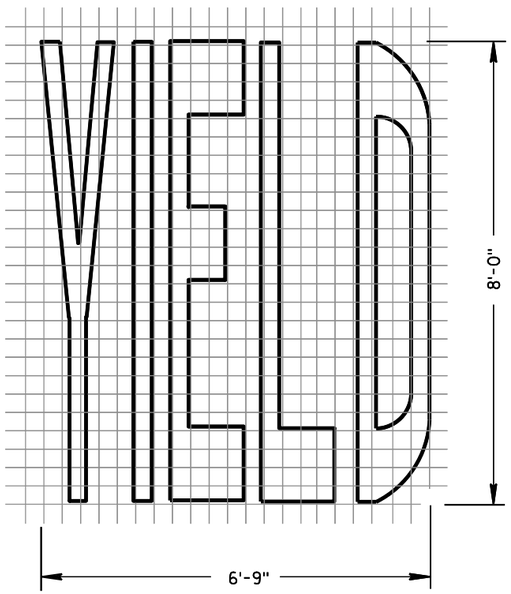


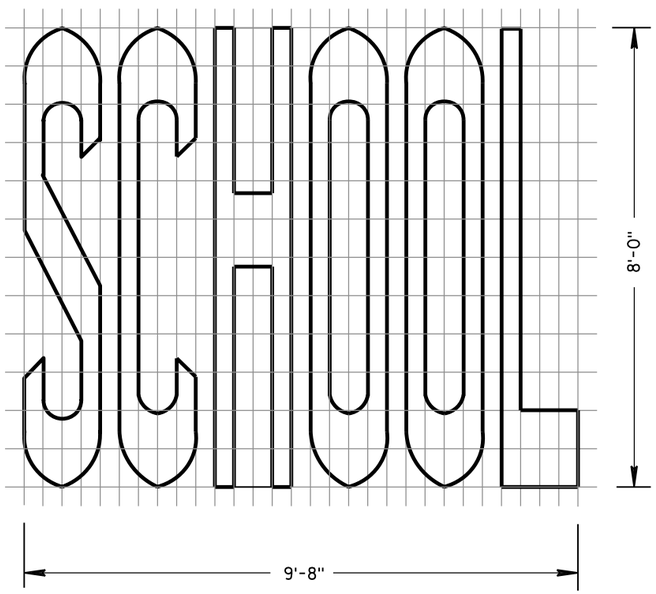




TWO-LANE







SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARK
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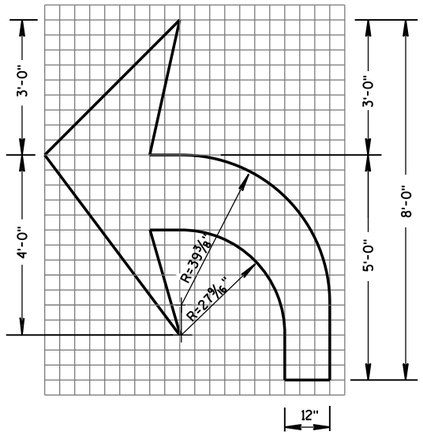
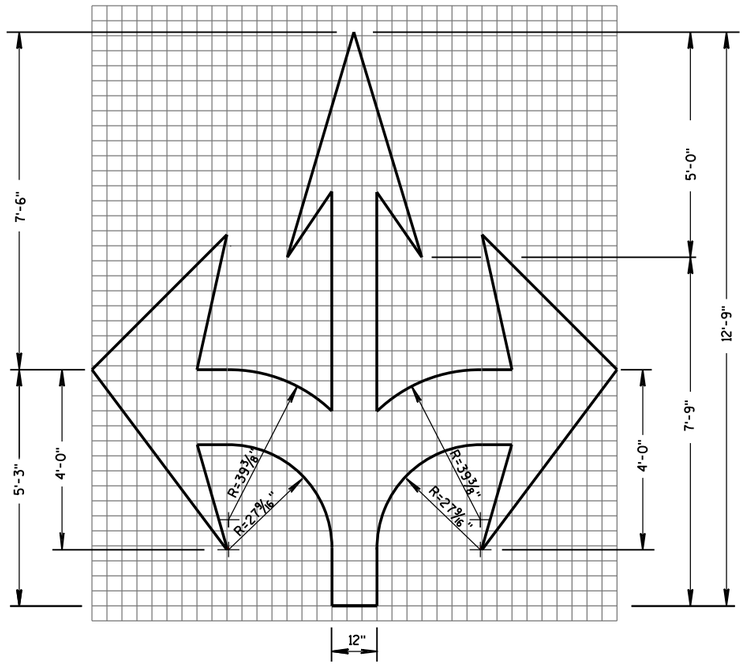
S.D.D. 15 C 7-14b

GENERAL NOTES

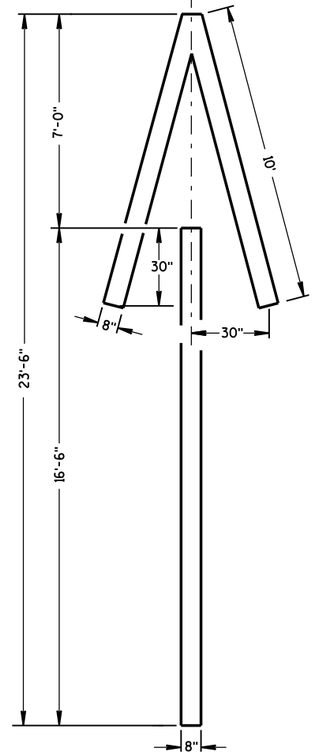
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



TYPE 2



TYPE 6



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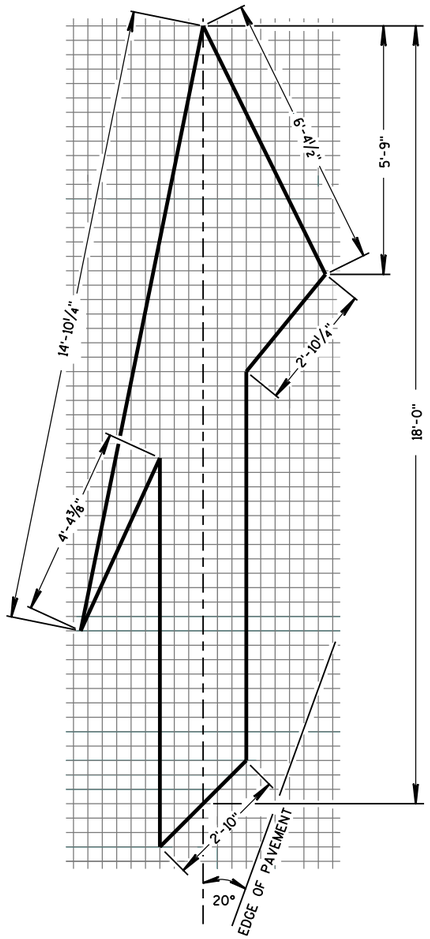
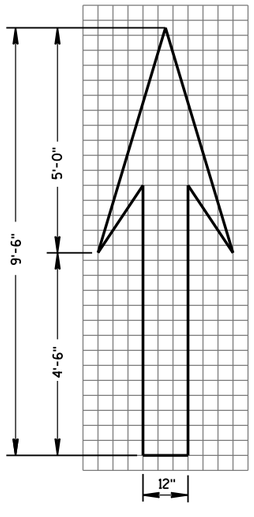
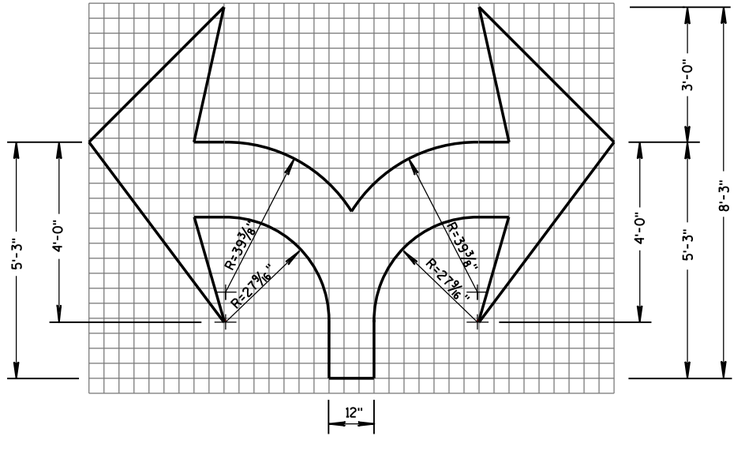


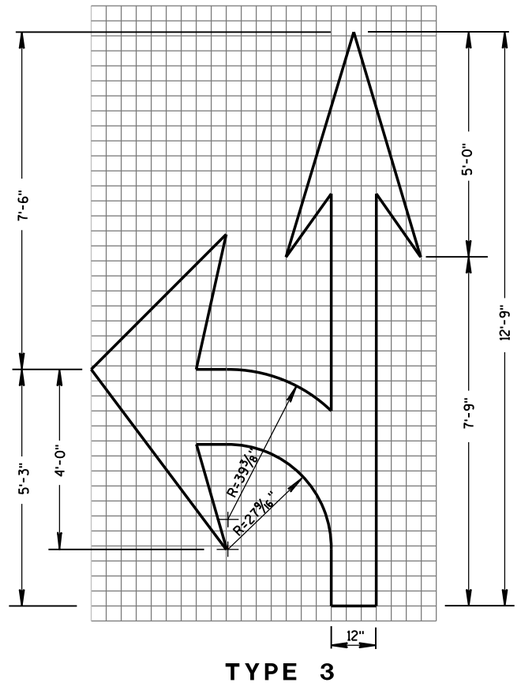
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

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S.D.D. 15 C 7-14c

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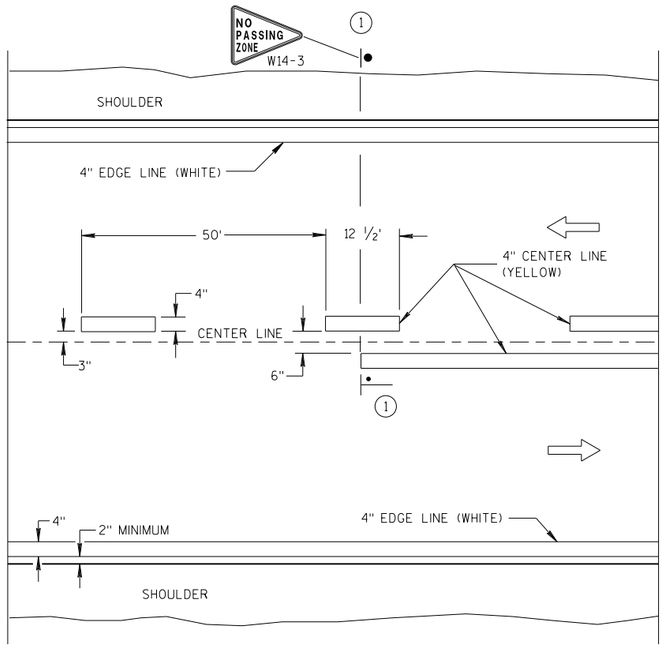
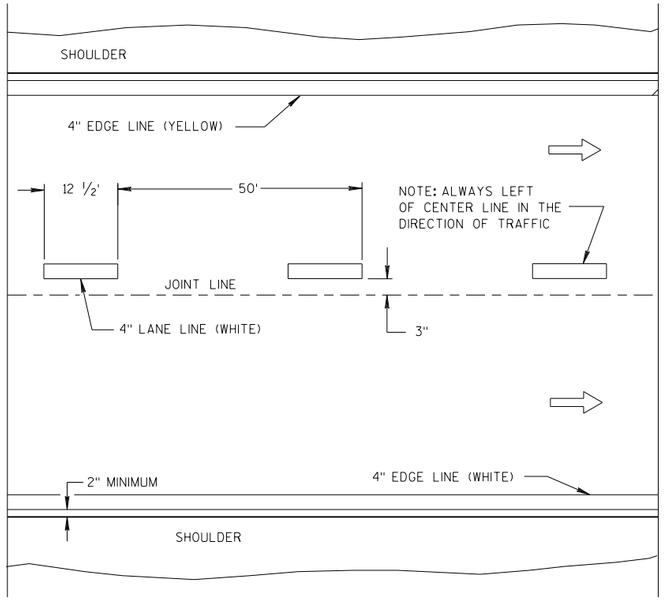
S.D.D. 15 C 7-14c



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) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

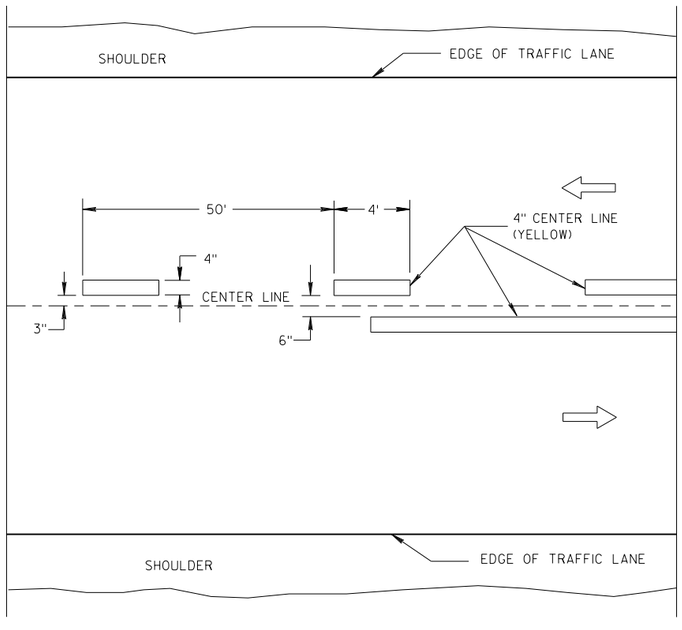
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

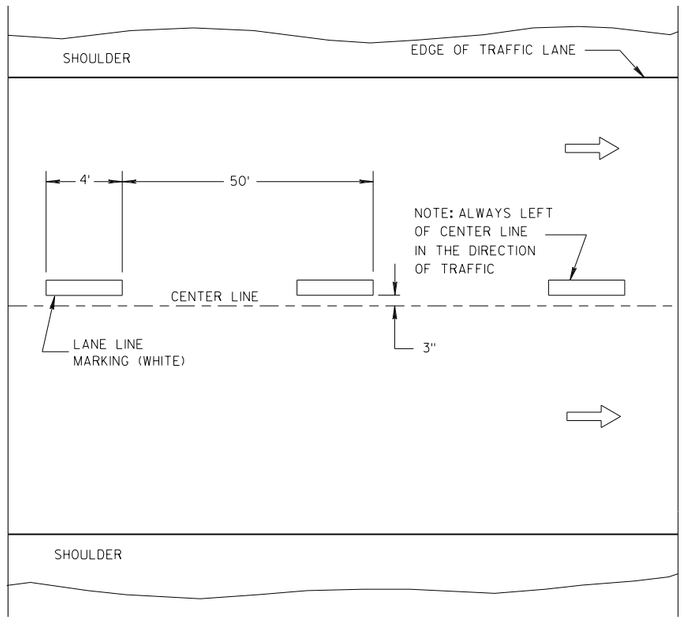
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

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S.D.D. 15 C 8-19a

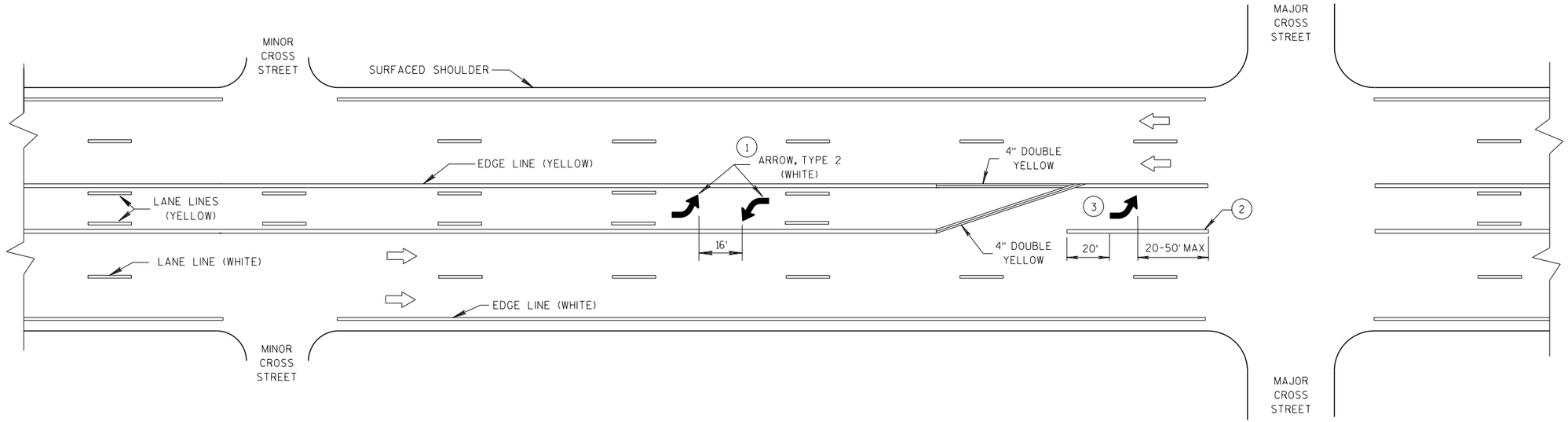
6

S.D.D. 15 C 8-19a

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48'DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 15 C 8-19b

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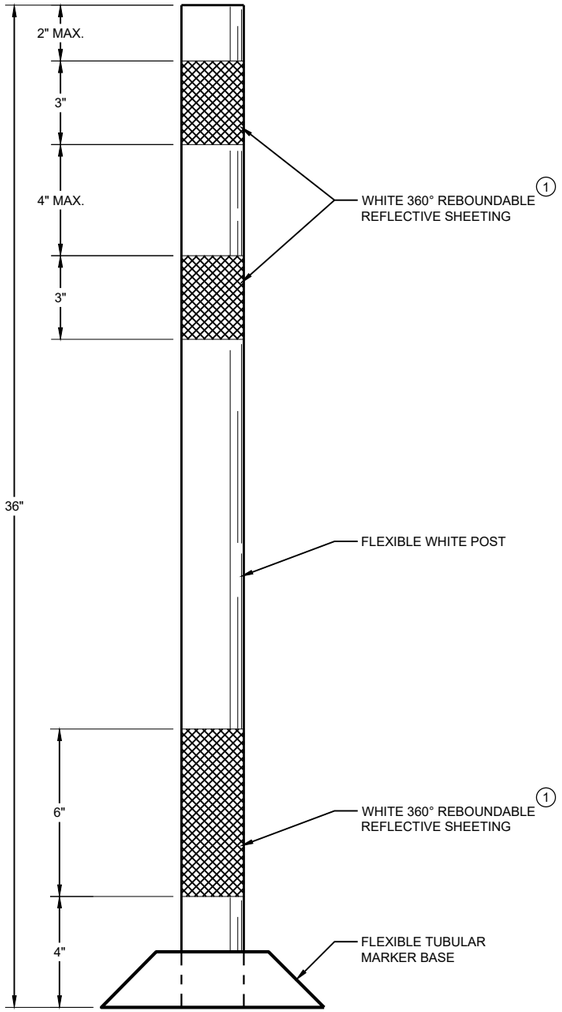
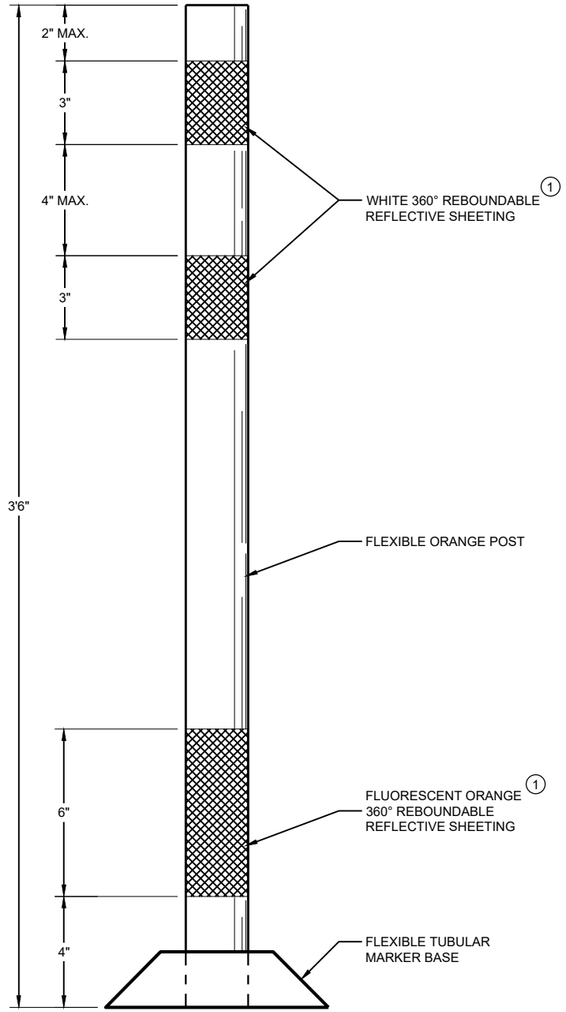
S.D.D. 15 C 8-19b



FLEXIBLE TUBULAR MARKER POST PERMANENT CROSSOVER



FLEXIBLE TUBULAR MARKER POST WORK ZONE

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.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

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SDD 15C11 - 07a

CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
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WORK ZONE ENGINEE

FHWA

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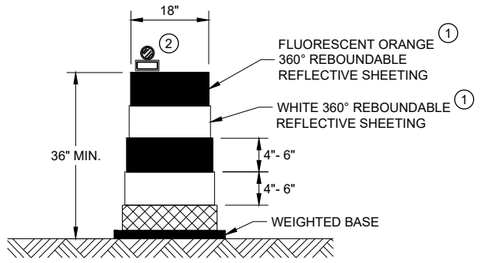
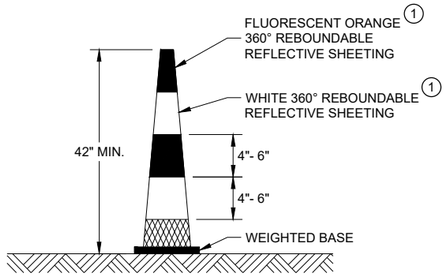
SDD 15C11 - 07a

GENERAL NOTES

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

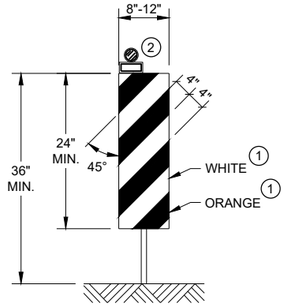


DRUM



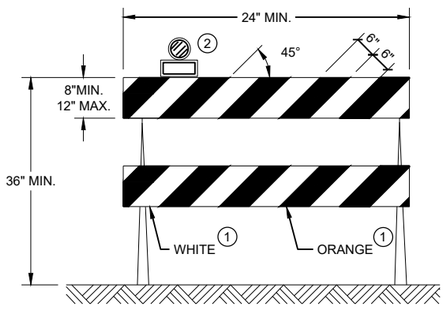
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



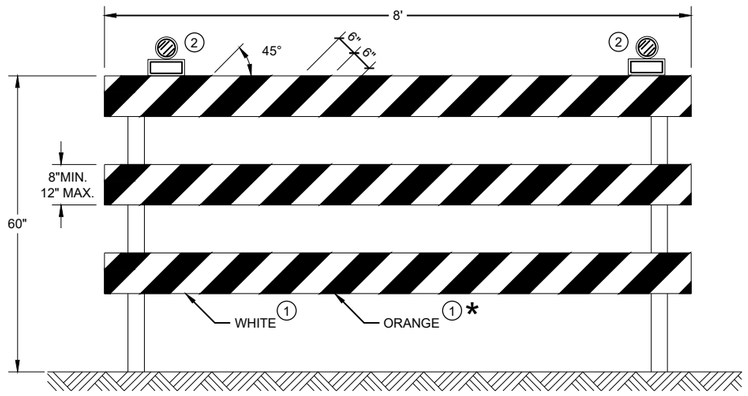
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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SDD 15C11 - 07b

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LEGEND

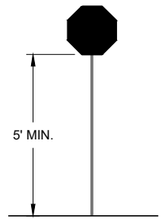
SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



STOP/SLOW PADDLE ON SUPPORT STAFF

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

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

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

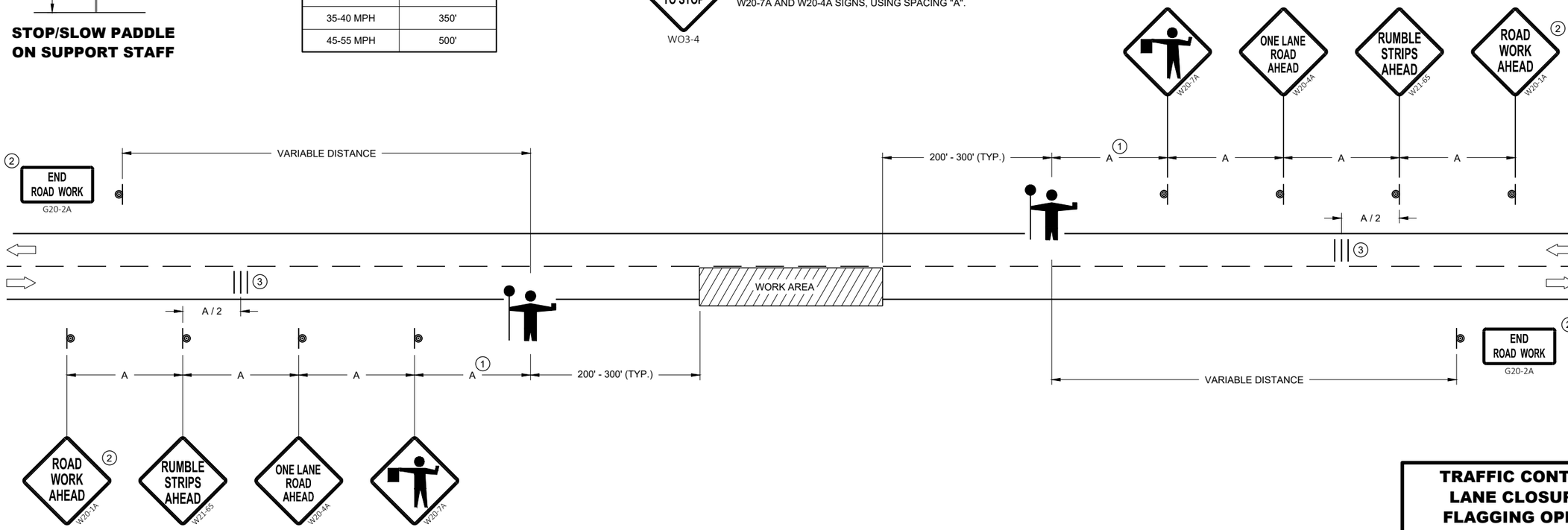
DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

525

FHWA

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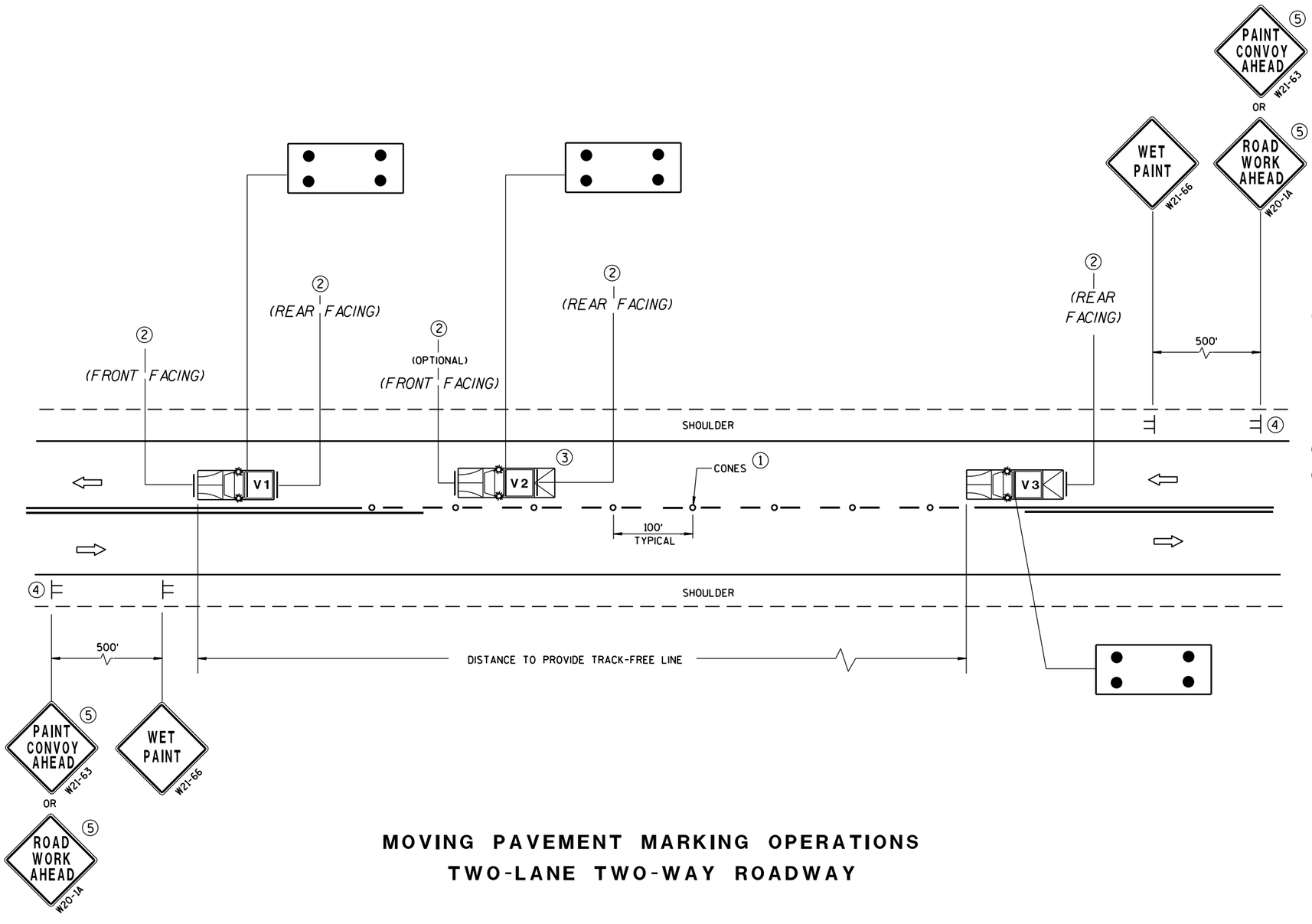
SDD 15C12 - 07



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

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

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(5) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

- **V1** LEAD VEHICLE
- **V2** SHADOW VEHICLE
- **V3** TRAIL VEHICLE WITH TMA
- **TMA** TRUCK-MOUNTED ATTENUATOR
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONES
- FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept., 2017 DATE	/S/ Andrew Heldtke WORK ZONE ENGR
FHWA	

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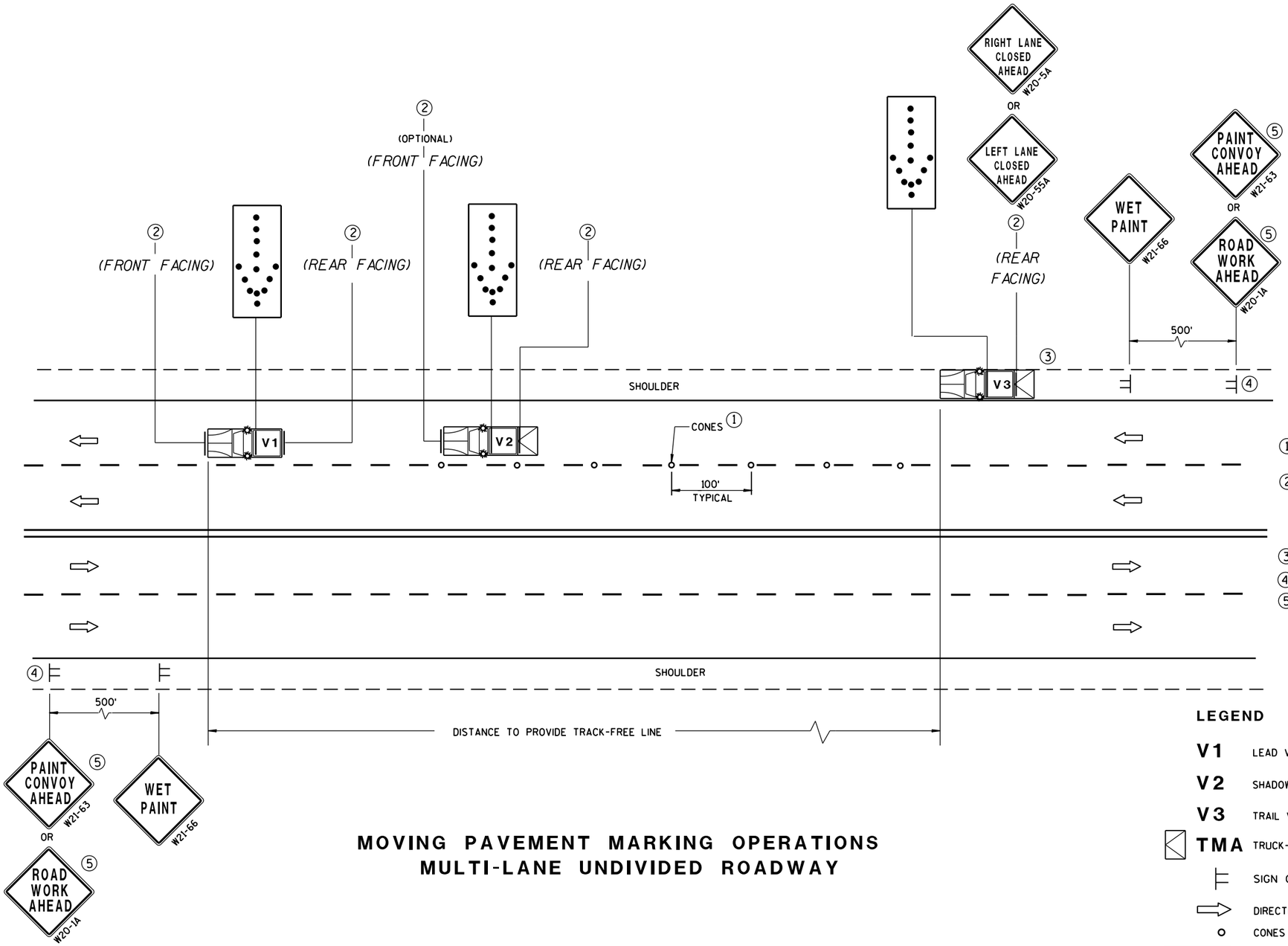
S.D.D. 15 C 19-5a



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE UNDIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE OR LANELINE MARKING FOR MULTILANE UNDIVIDED ROADWAYS.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(5) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING OPERATION
MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGIN
FHWA

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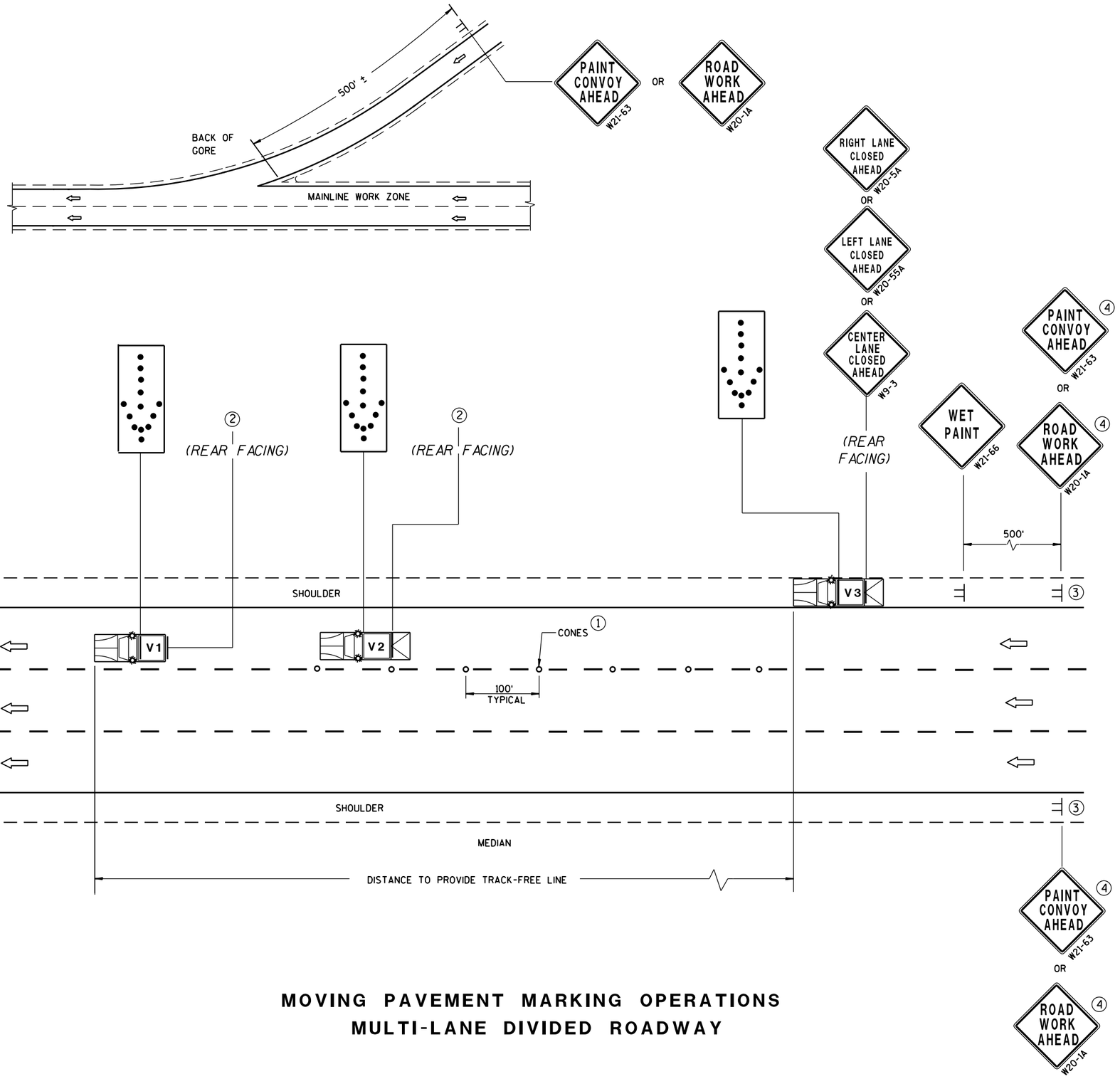
S.D.D. 15 C 19-5b



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.

(4) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING OPERATION
MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGR
FHWA

6

S.D.D. 15 C 19-5c

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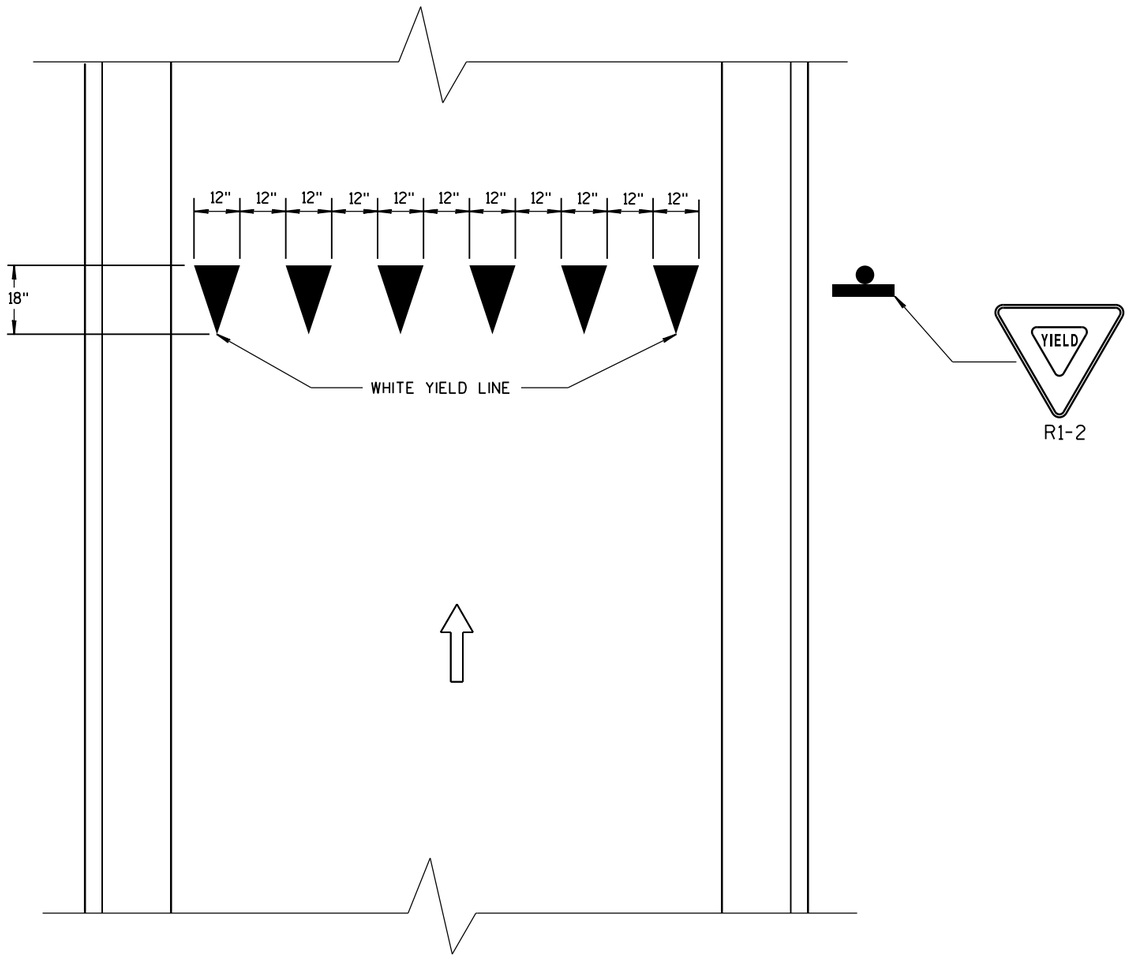
S.D.D. 15 C 19-5c



R1-2

DIRECTION OF TRAVEL

YIELD LINE

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S.D.D. 15 C 20-2

S.D.D. 15 C 20-2

YIELD MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

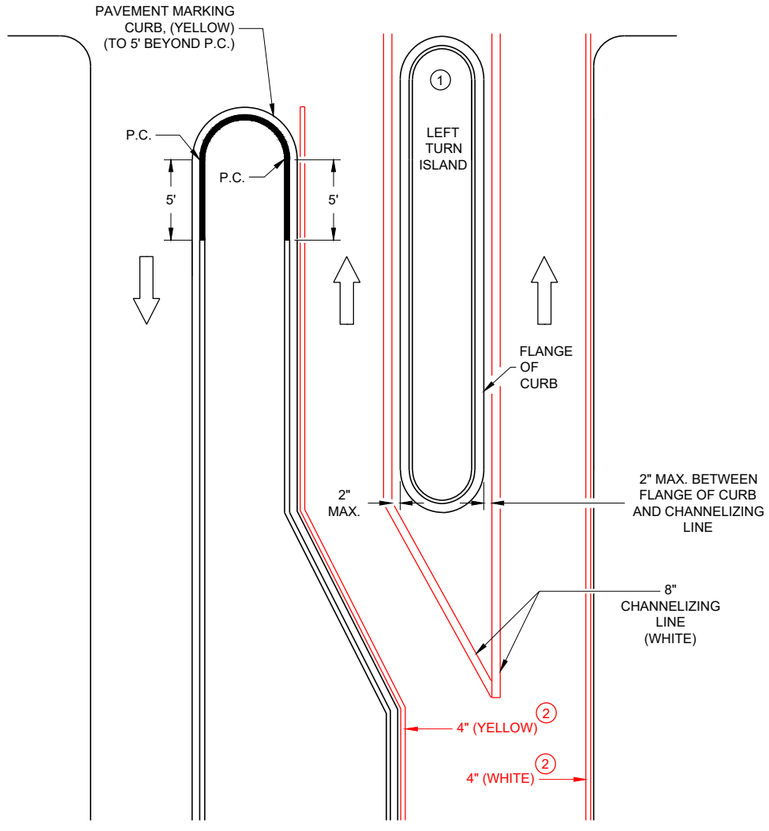
APPROVED

4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARI 529 IEER

FHWA

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



LEFT TURN & MEDIAN ISLAND

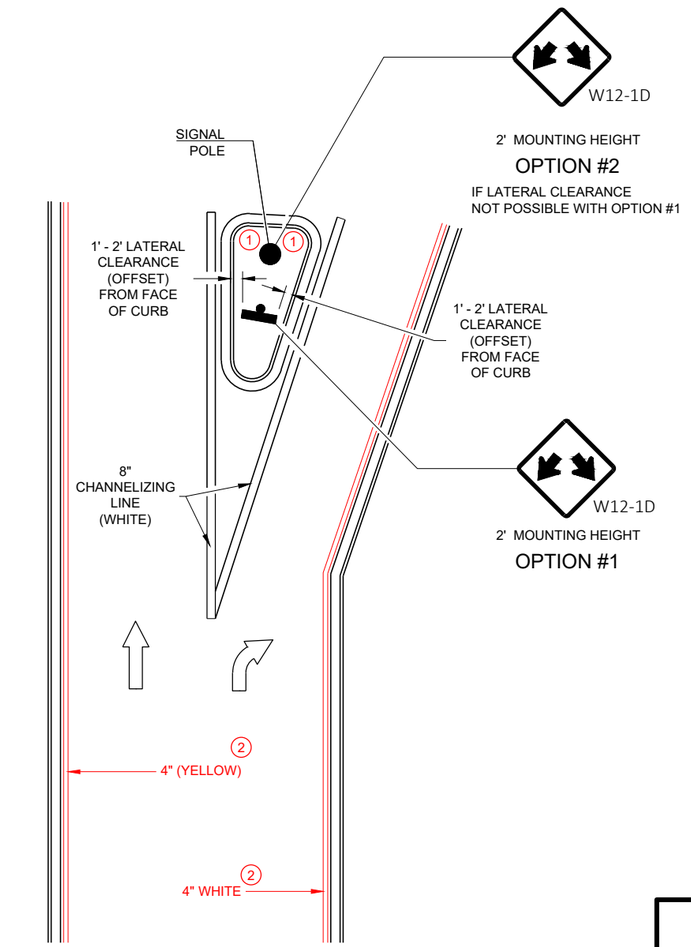
GENERAL NOTES

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

1. MARK CURB NOSES YELLOW.
2. MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

DOUBLE ARROW
WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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SDD 15C27 - 03a

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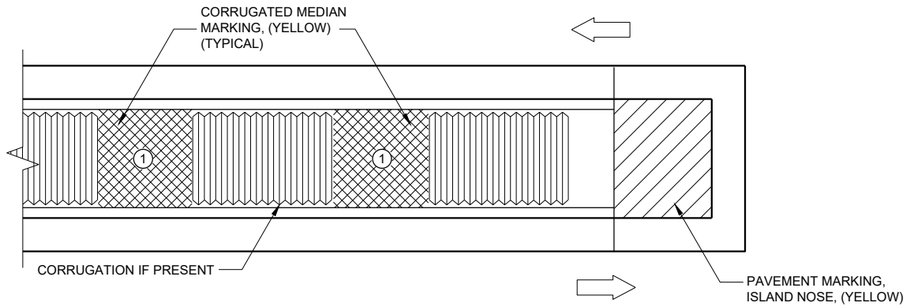
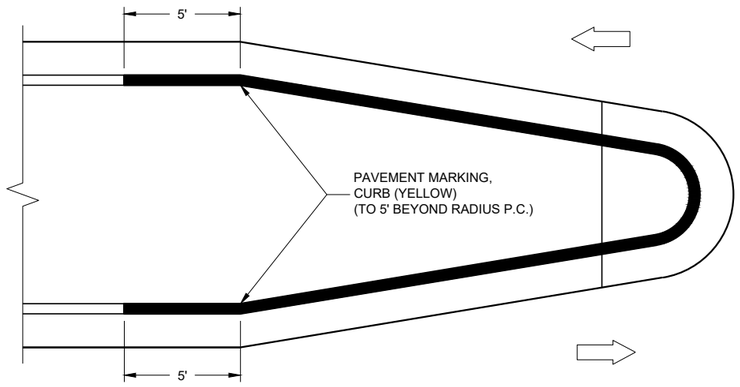
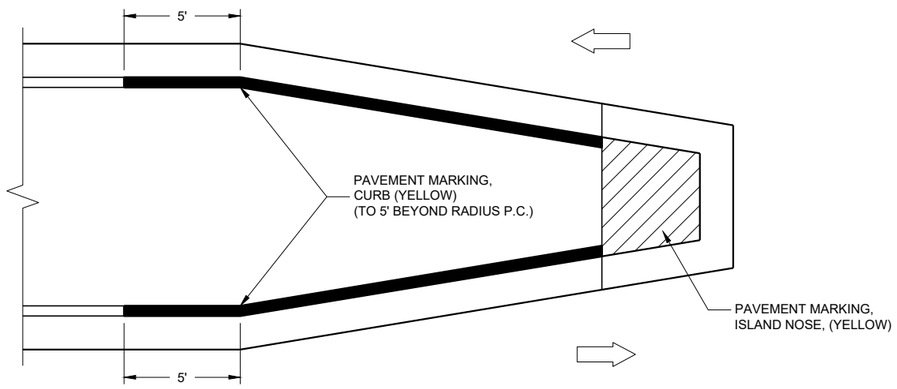
SDD 15C27 - 03a



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

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKINGS
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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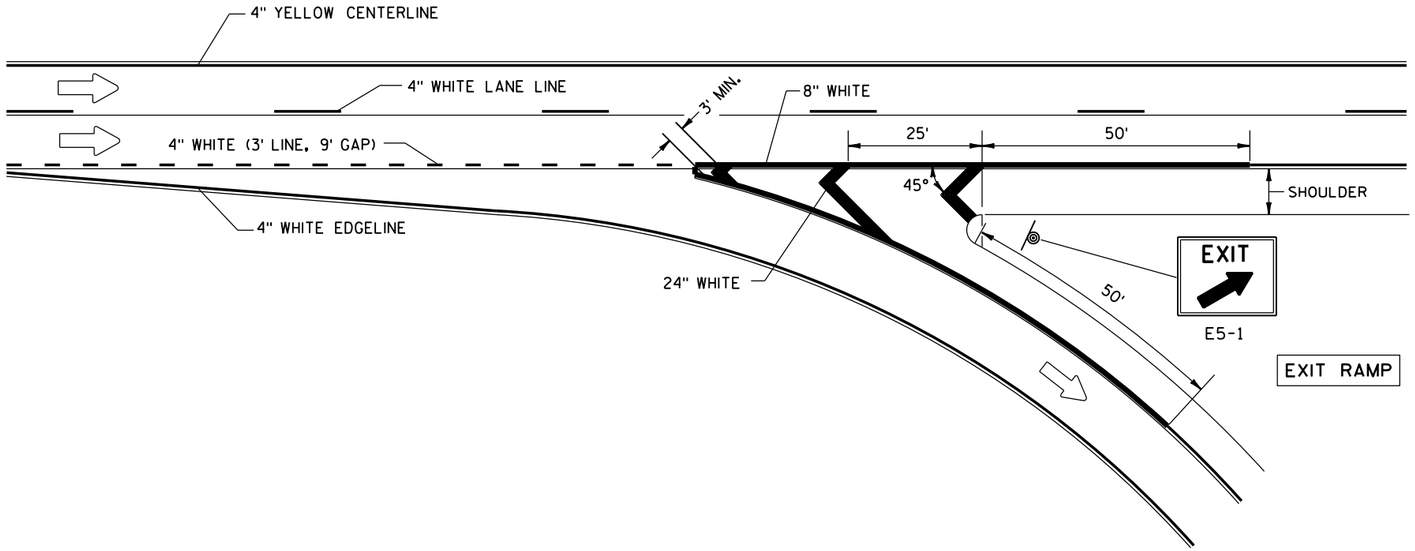
SDD 15C27 - 03b

SDD15C27 - 03b



PAVEMENT MARKING FOR EXIT RAMP

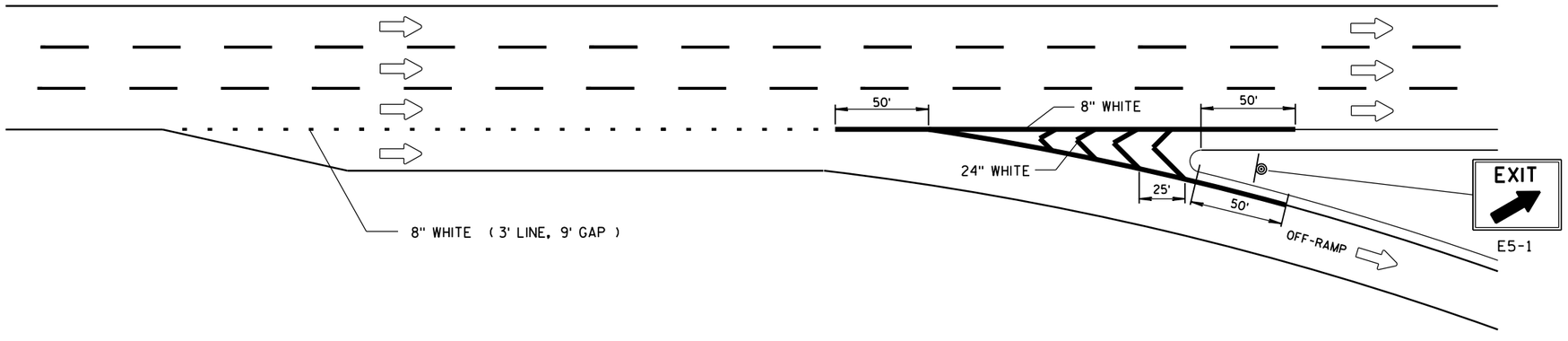
GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

DIRECTION OF TRAVEL

SIGN ON PERMANENT SUPPORT



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT-RAMP

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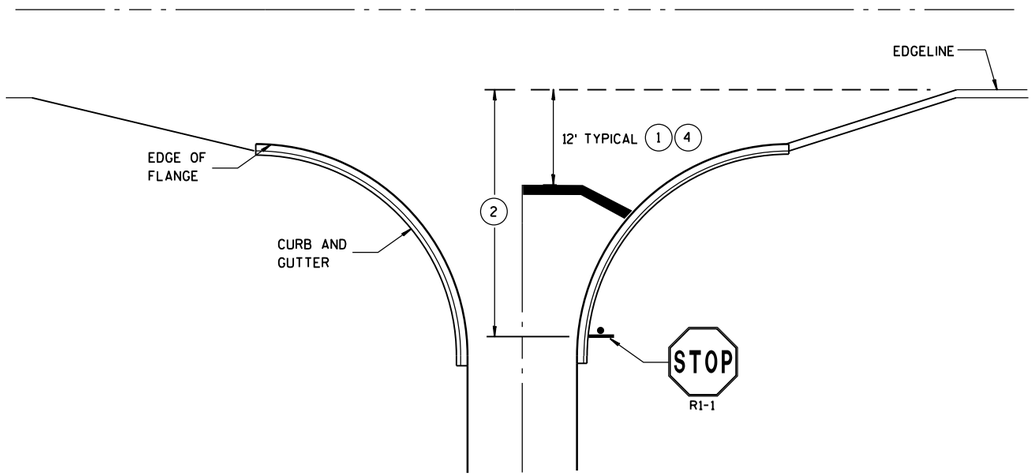
S.D.D. 15 C 31-3a

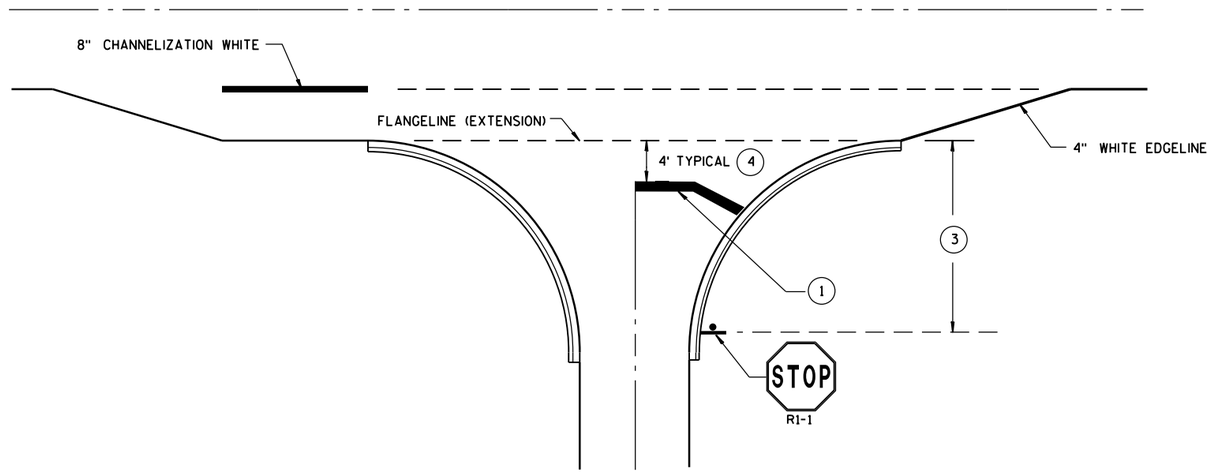
S.D.D. 15 C 31-3a

PAVEMENT MARKING (RAMPS AND GORES)

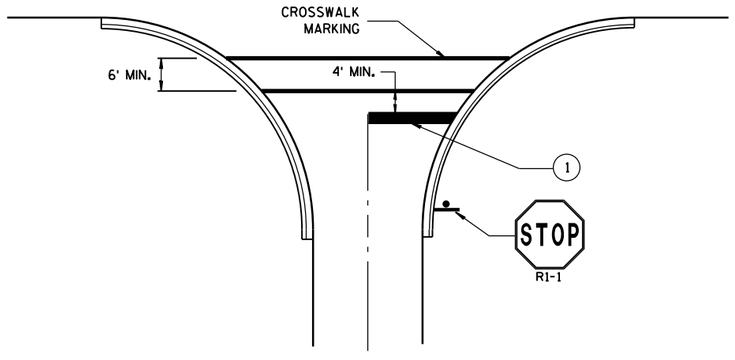
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



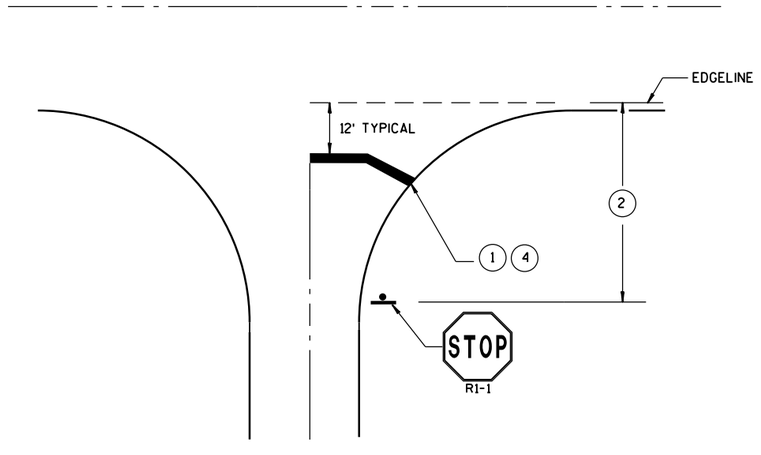
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

6

S.D.D. 15 C 33-3

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" x 48" UNLESS OTHERWISE NOTED.

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

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

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

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

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

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

(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.

(2) IF NEEDED. USE ONLY IF DESIGN SPEED IS 10 MPH LESS THAN POSTED SPEED.

LEGEND

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

OR

LOCATED 400 FEET BEYOND THE W20- 5G SIGN.

SEE SDD 15D12b FOR SIGN PLACEMENT.

R2-1
48"X60"

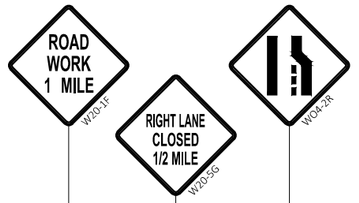
OR

R2-1
48"X60"

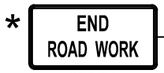
(BLACK AND WHITE)

LOCATED 700 FEET BEYOND W03-5 SIGN

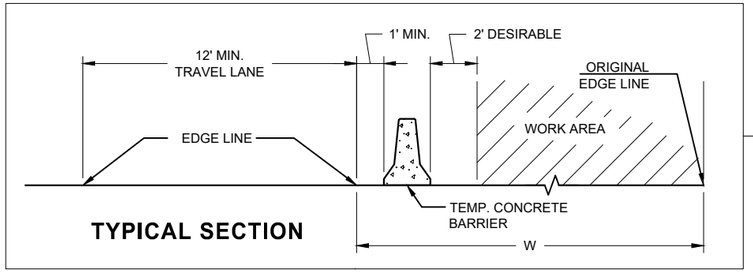
IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES.



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



L, TAPER LENGTH (MPH)												
SPEED (MPH)	W, LATERAL OFFSET (FT)											
	1	2	3	4	5	6	7	8	9	10	11	12
45	45	90	135	180	225	270	315	360	405	450	495	540
50	50	100	150	200	250	300	350	400	450	500	550	600
55	55	110	165	220	275	330	385	440	495	550	605	660
60	60	120	180	240	300	360	420	480	540	600	660	720
65	65	130	195	260	325	390	455	520	585	650	715	780
70	70	140	210	280	350	420	490	560	630	700	770	840



TYPICAL SECTION

TRAFFIC CONTROL LANE CLOSURE, SPEEDS GREATER THAN 40 MPH WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINE

FHWA

SDD 15D03-05

SDD 15D03-05

GENERAL NOTES

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

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

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

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

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

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

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

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

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

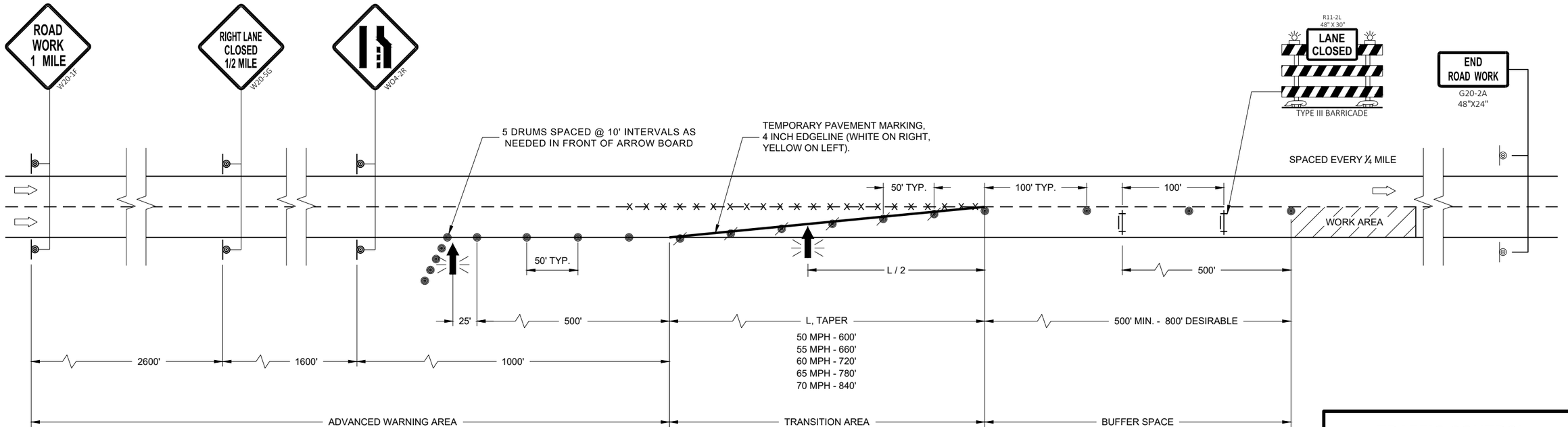
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

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

LEGEND

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



TRAFFIC CONTROL
LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

535

FHWA

6

SDD 15D12 - 07a

6

SDD 15D12 - 07a

LEGEND

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

GENERAL NOTES

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

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

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

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

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

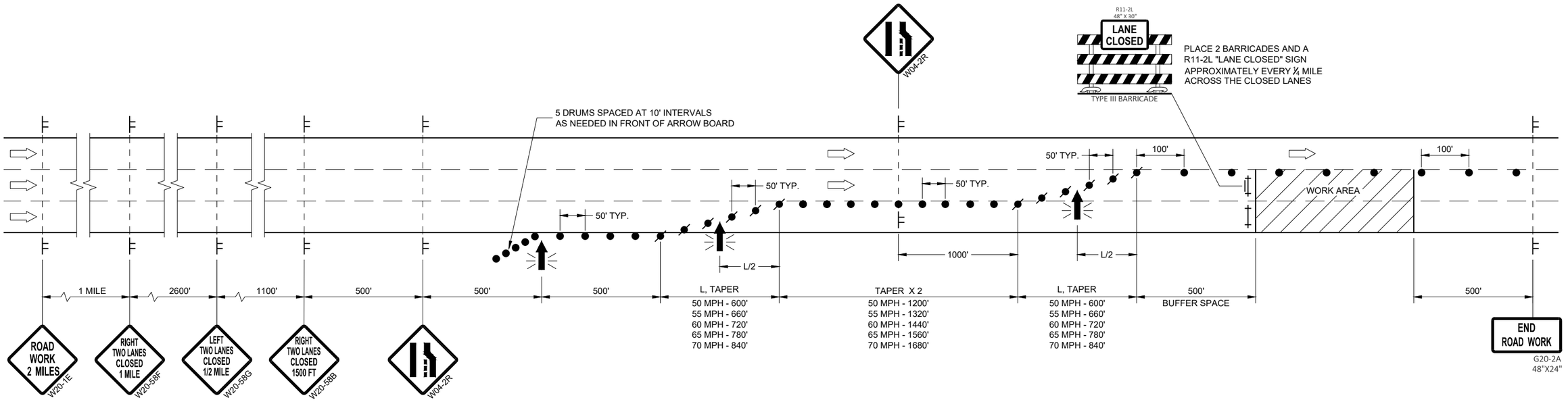
CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS.

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

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

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

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 2015
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

SDD 15D14 - 03

SDD 15D14 - 03

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

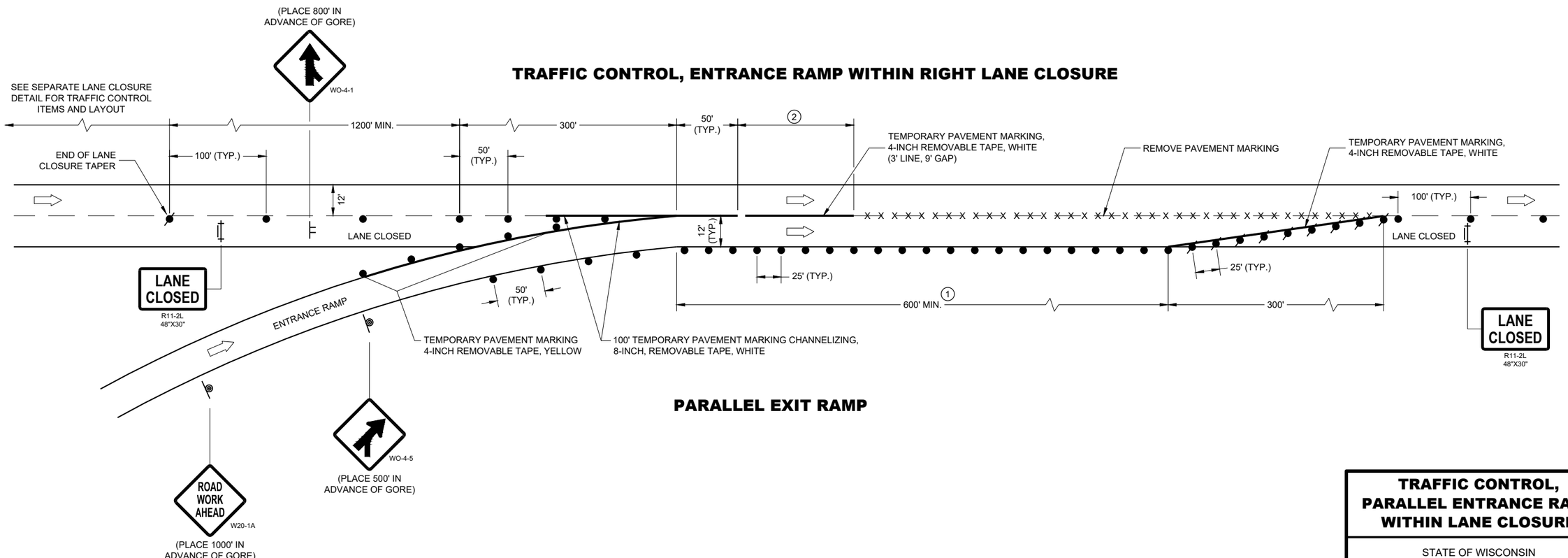
REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

(1) EXTEND THE LENGTH OF THE MERGE ARE IF THE ENTERING (DESIGN) SPEED IS LESS THAN 50MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.

(2) END TEMPORARY MARKING AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE



PARALLEL EXIT RAMP

TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE 537

FHWA

6

SDD 15D15 - 05a

6

SDD15D15 - 05a

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS /OR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

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

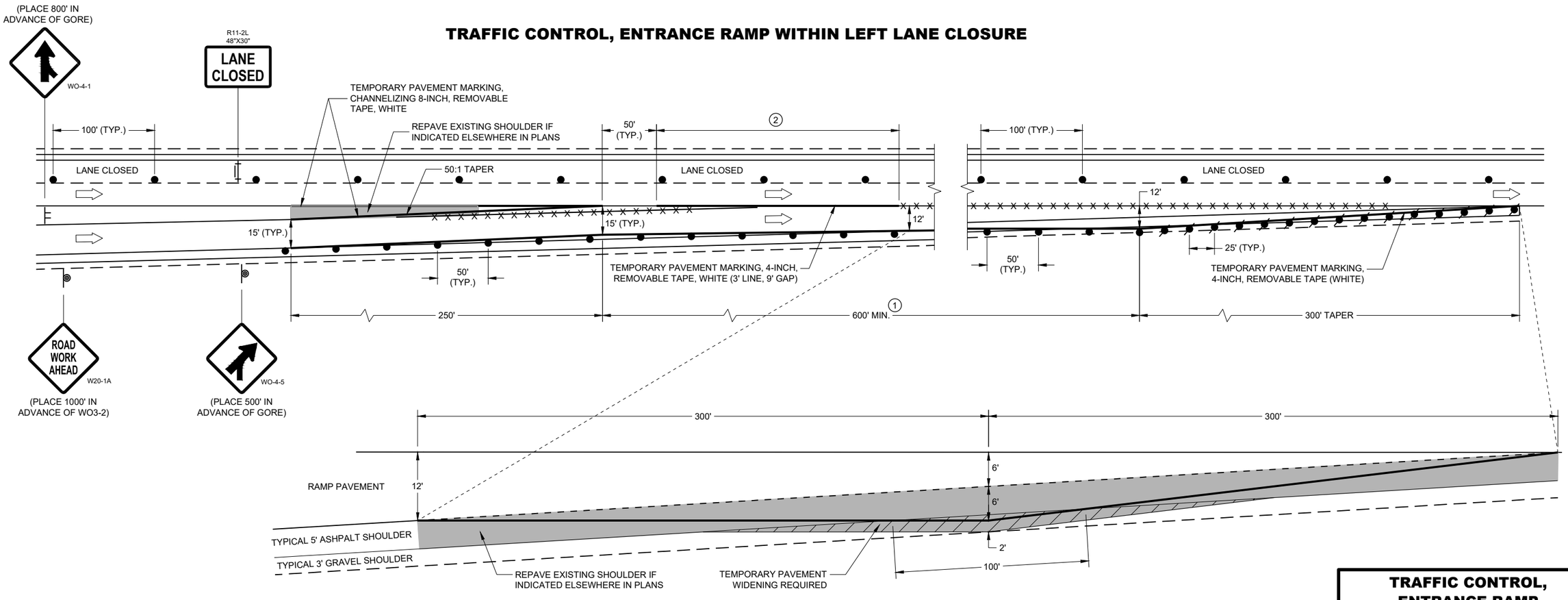
REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

(1) EXTEND THE LENGTH OF THE MERGE AREA IF THE ENTERING (DESIGN) SPEED OF THE RAMP IS LESS THAN 50 MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.

(2) END TEMPORARY MARKING AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LEFT LANE CLOSURE



TEMPORARY PAVEMENT DETAIL

(EXISTING RAMP DIMENSIONS MAY VARY, ADJUST TEMPORARY PAVEMENT ACCORDINGLY)

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 05b

6

SDD15D15 - 05b

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

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

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

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

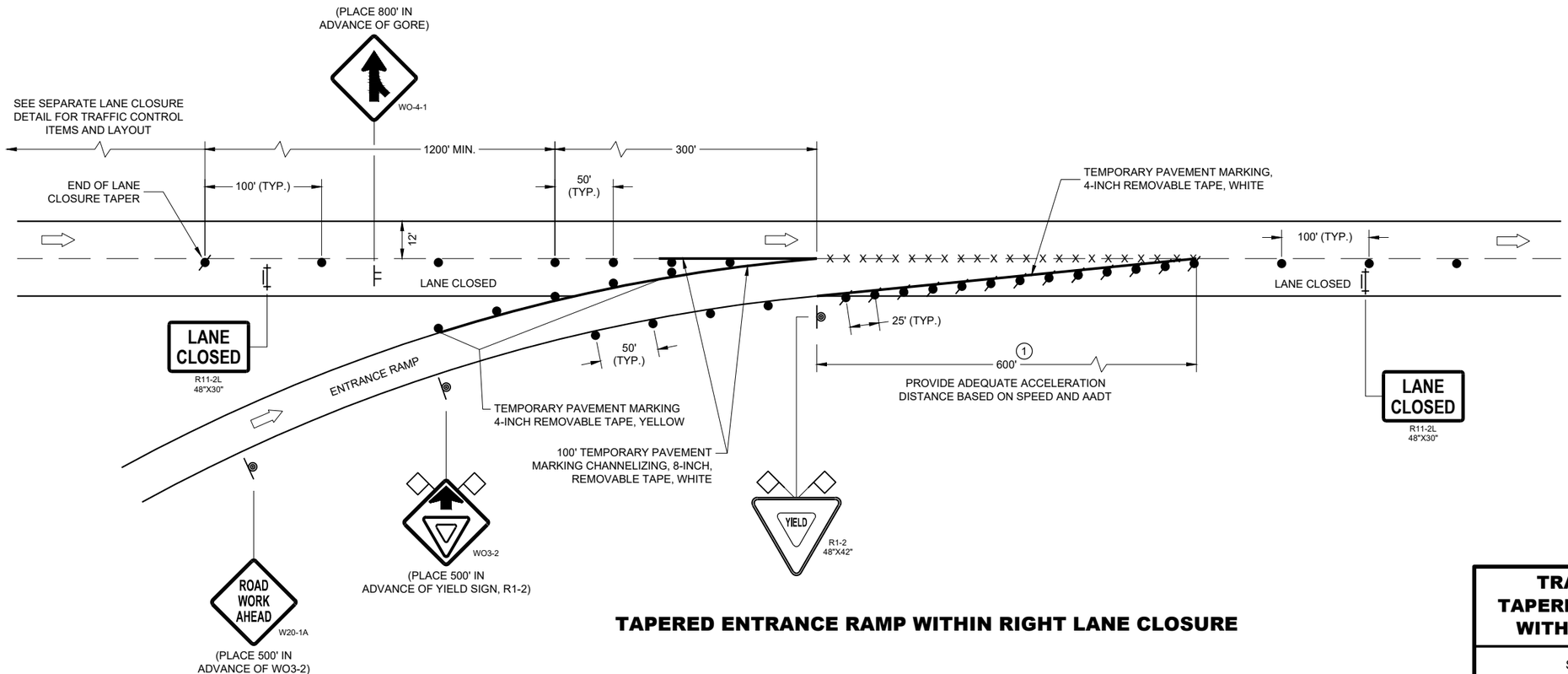
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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

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

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

(1) CONSULT WITH REGIONAL WORK ZONE ENGINEER IF NEED TO REDUCE LENGTH EXISTS.



TAPERED ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE

TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 05c

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

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

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

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

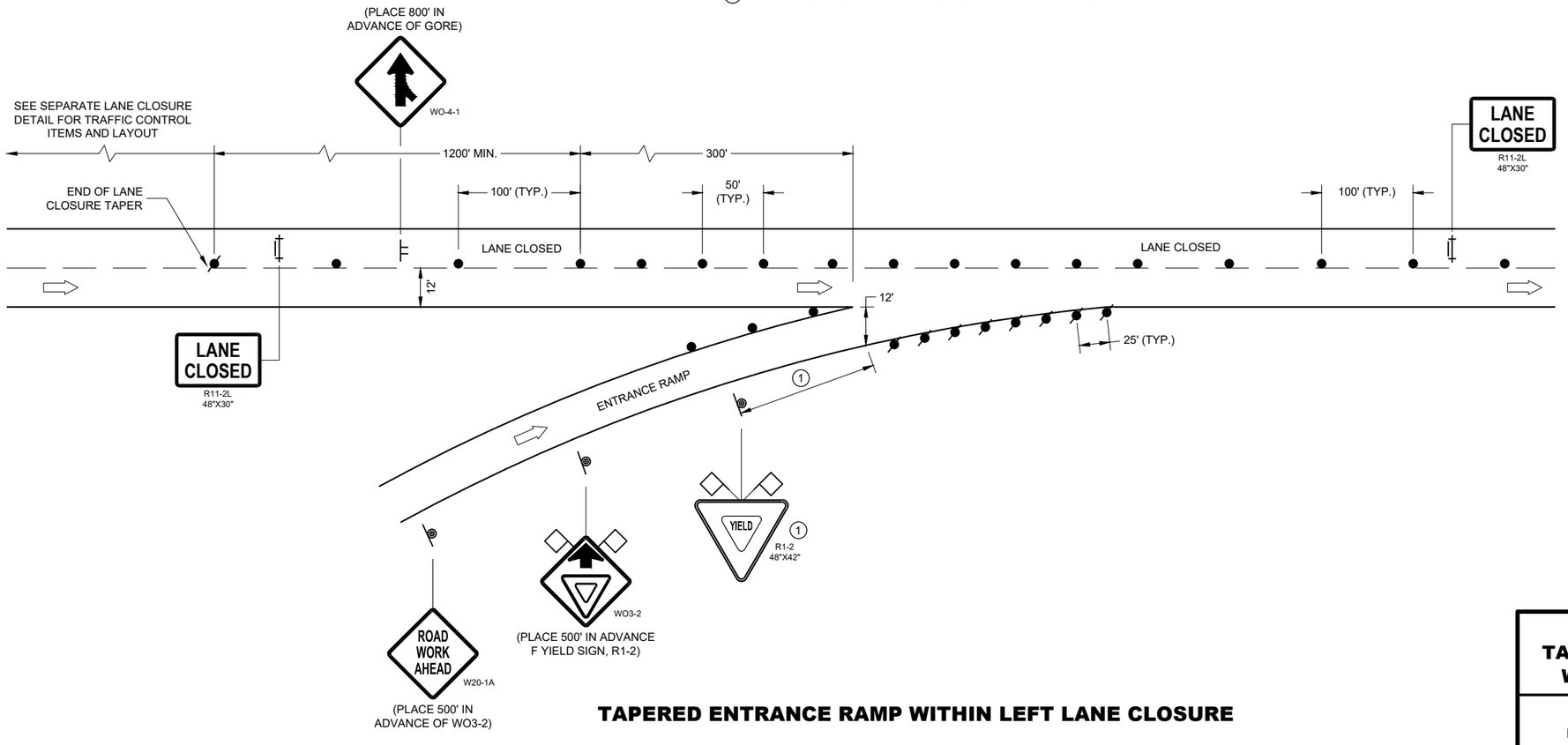
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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

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

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

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



TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE

TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 05d

6

SDD 15D15 - 05d

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

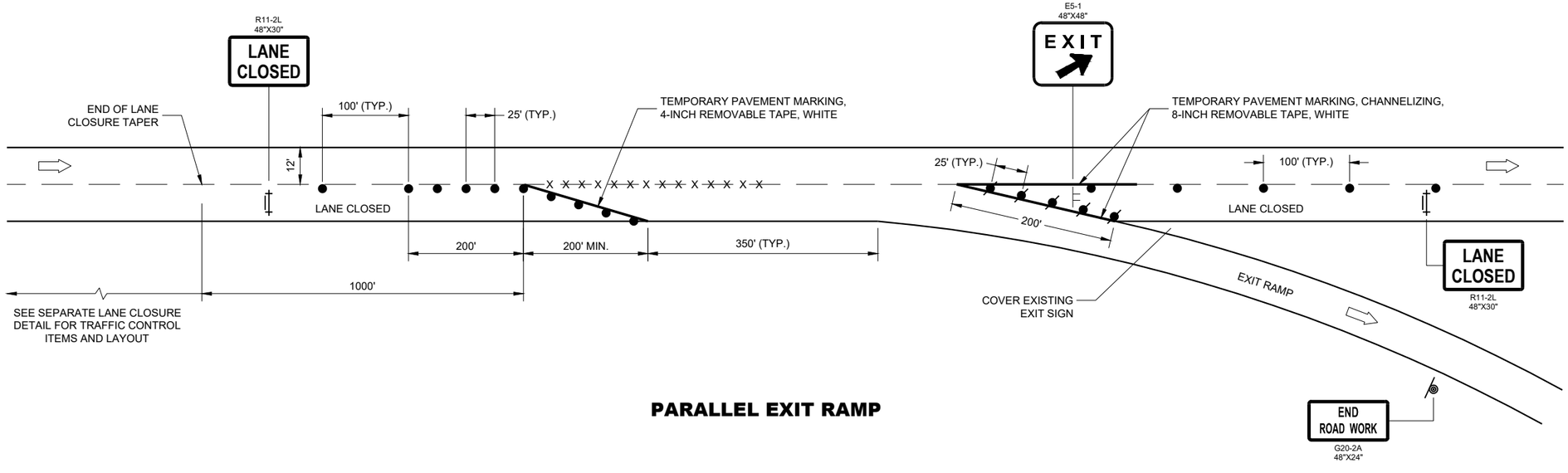
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

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



PARALLEL EXIT RAMP

TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD 15D15 - 05e

6

SDD 15D15 - 05e

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

WORK AREAS WITH A DROP OFF 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 WORK IS NOT IN PROGRESS.

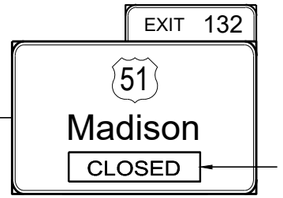
WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

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

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

G20 - 60
108" X 24"

OR



G20 - 60
108" X 24"

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

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

G20 - 61
120 ' X 30"

OR

PCMS MESSAGING

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

TRAFFIC CONTROL EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

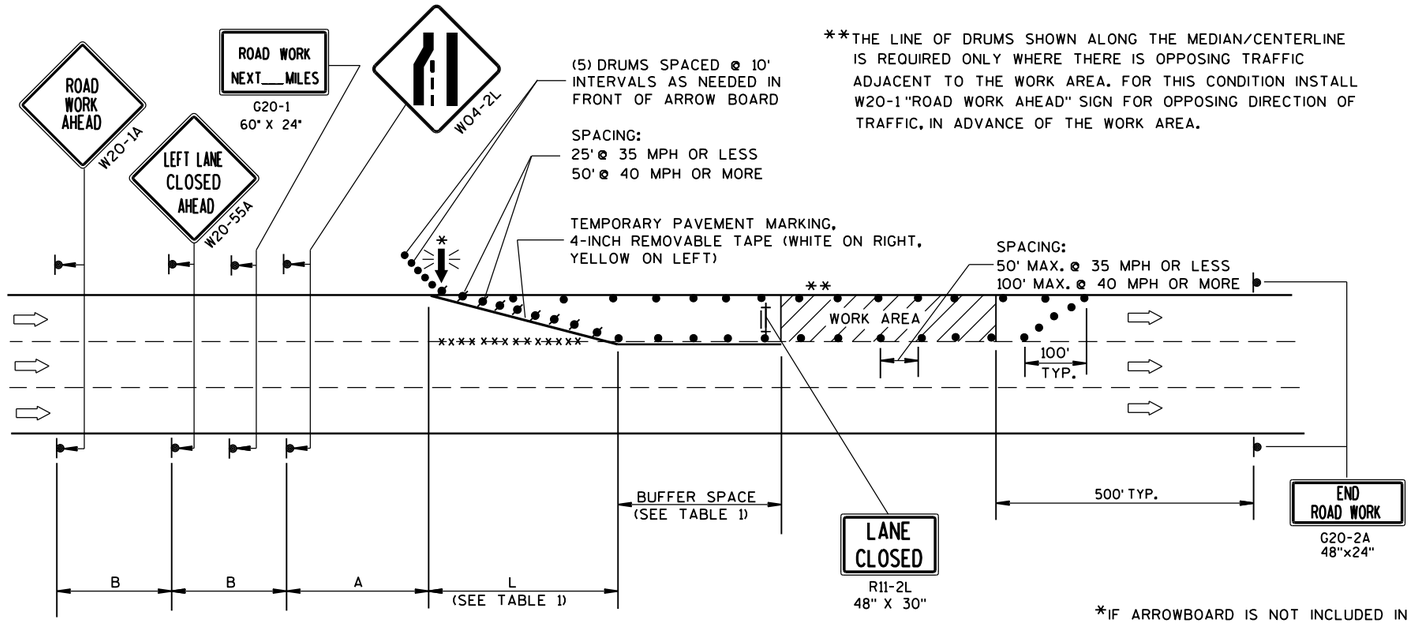
APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15D16 - 04

6
SDD 15D16 - 04



**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"

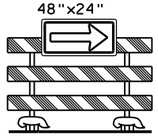


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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

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

GENERAL NOTES

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

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

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

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

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

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

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

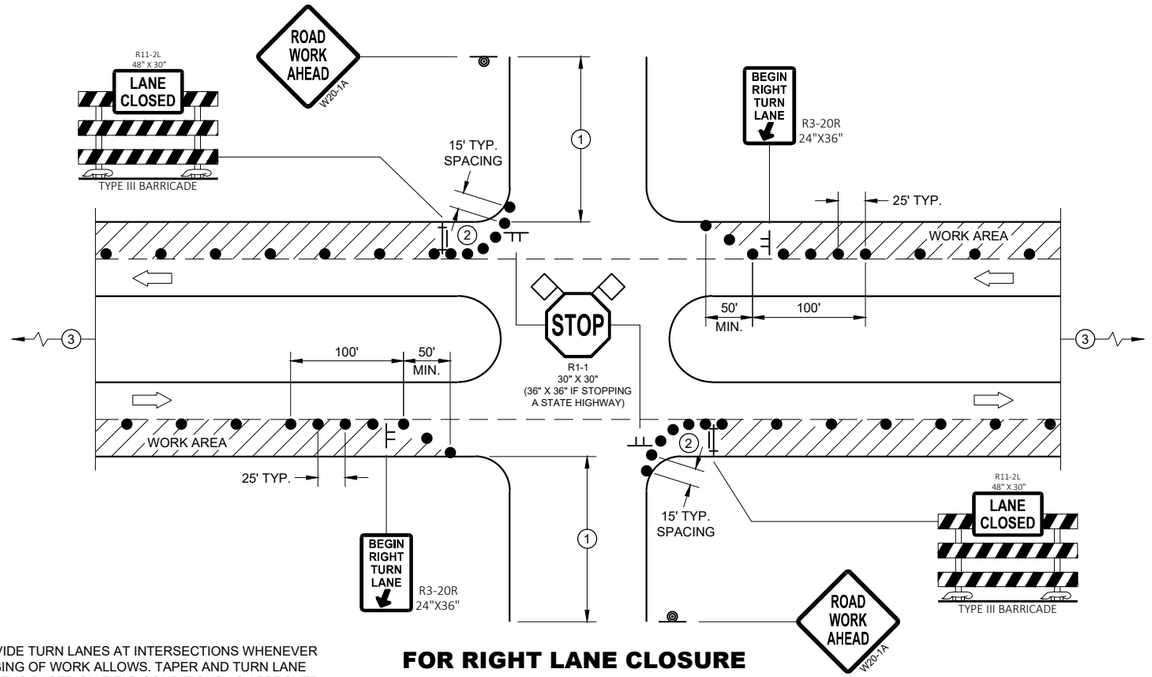
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER — IC

6

S.D.D. 15 D 20-4



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

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

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

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

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

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

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

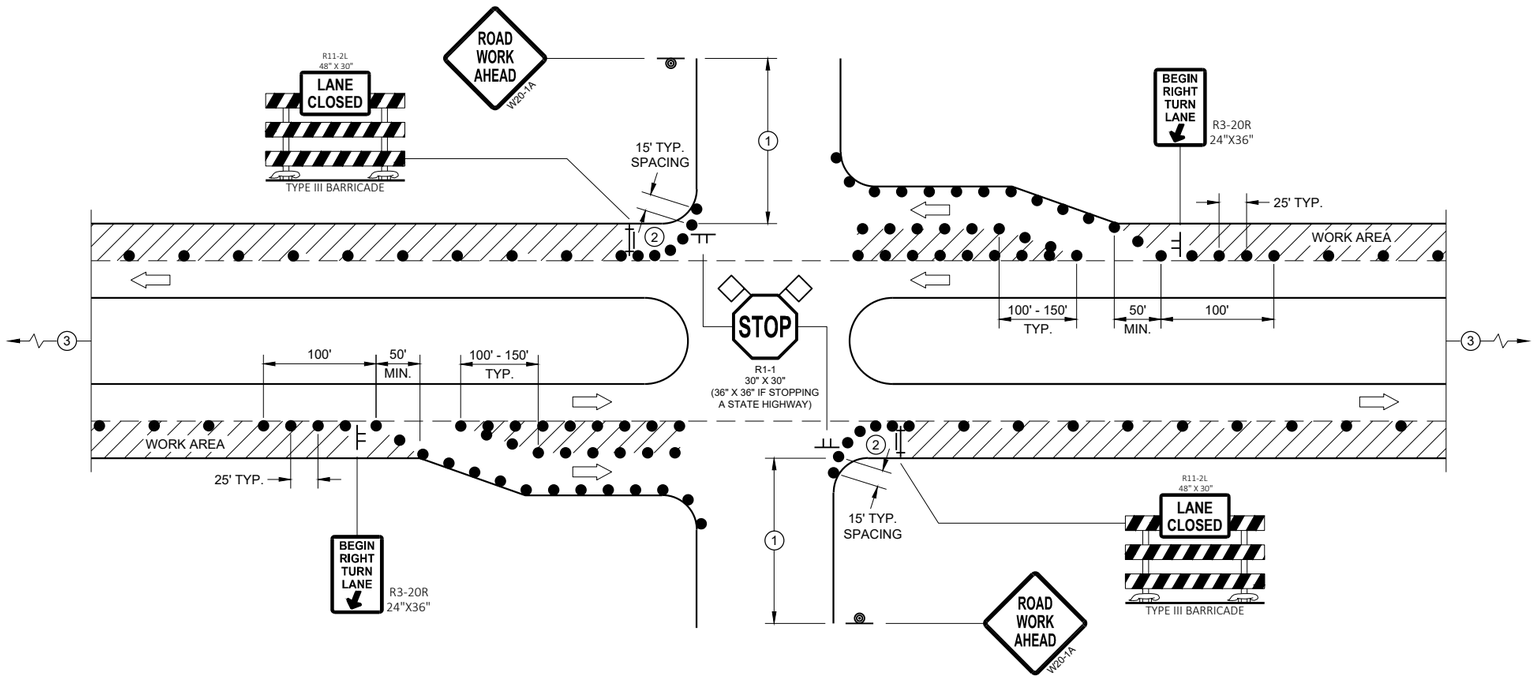
(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

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



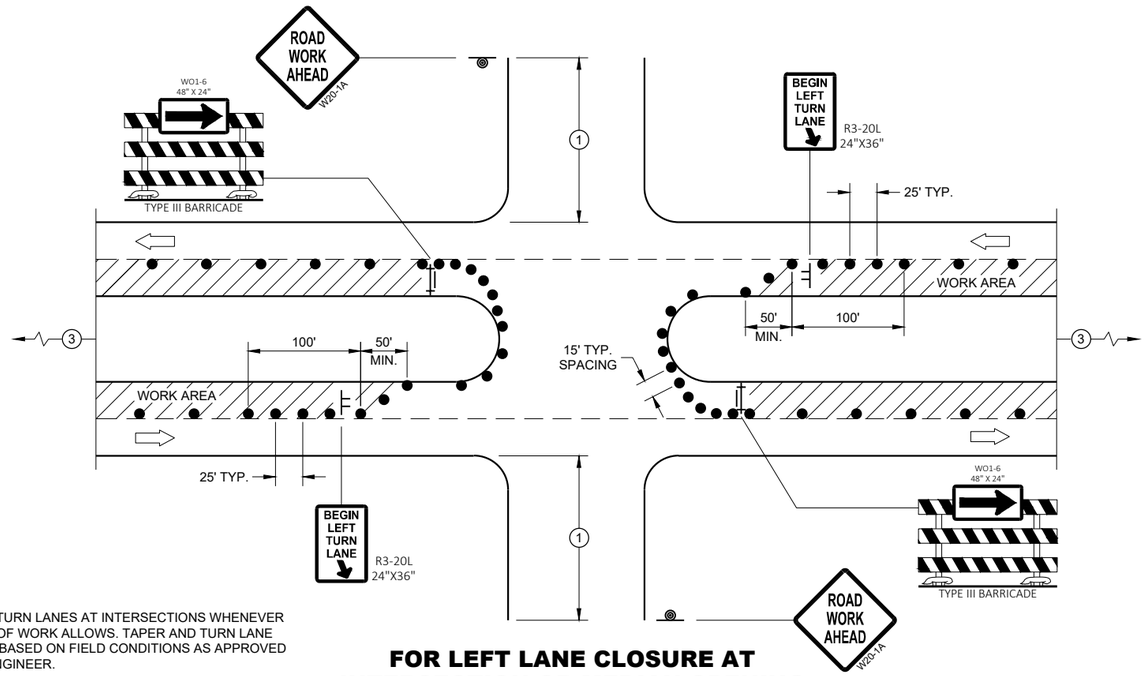
FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 15D21 - 06a

SDD 15D21 - 06a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

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

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

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

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

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

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

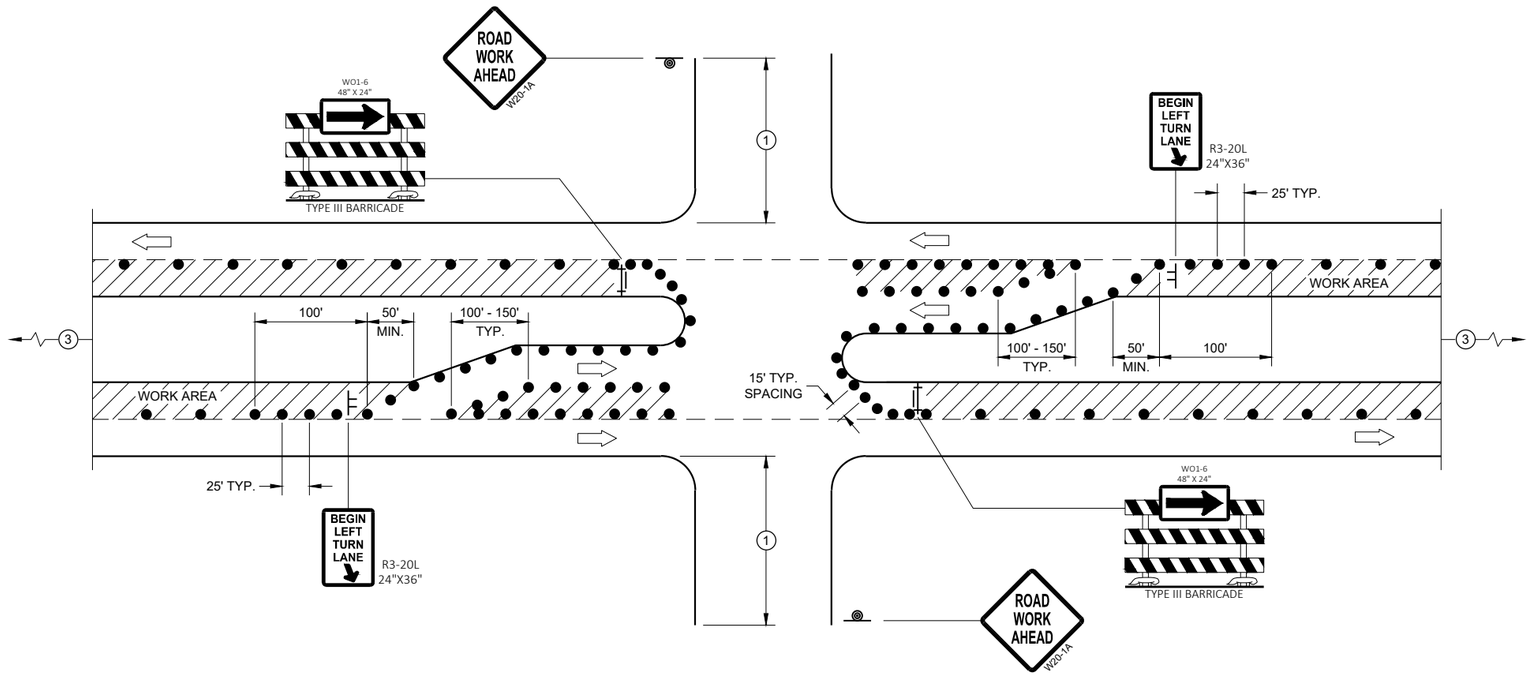
(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

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



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

SDD 15D21 - 06b

SDD 15D21 - 06b

TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

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

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

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

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TRAFFIC CONTROL DRUM

FLASHING ARROW BOARD

DIRECTION OF TRAFFIC

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

WORK AREA

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

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

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

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

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

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

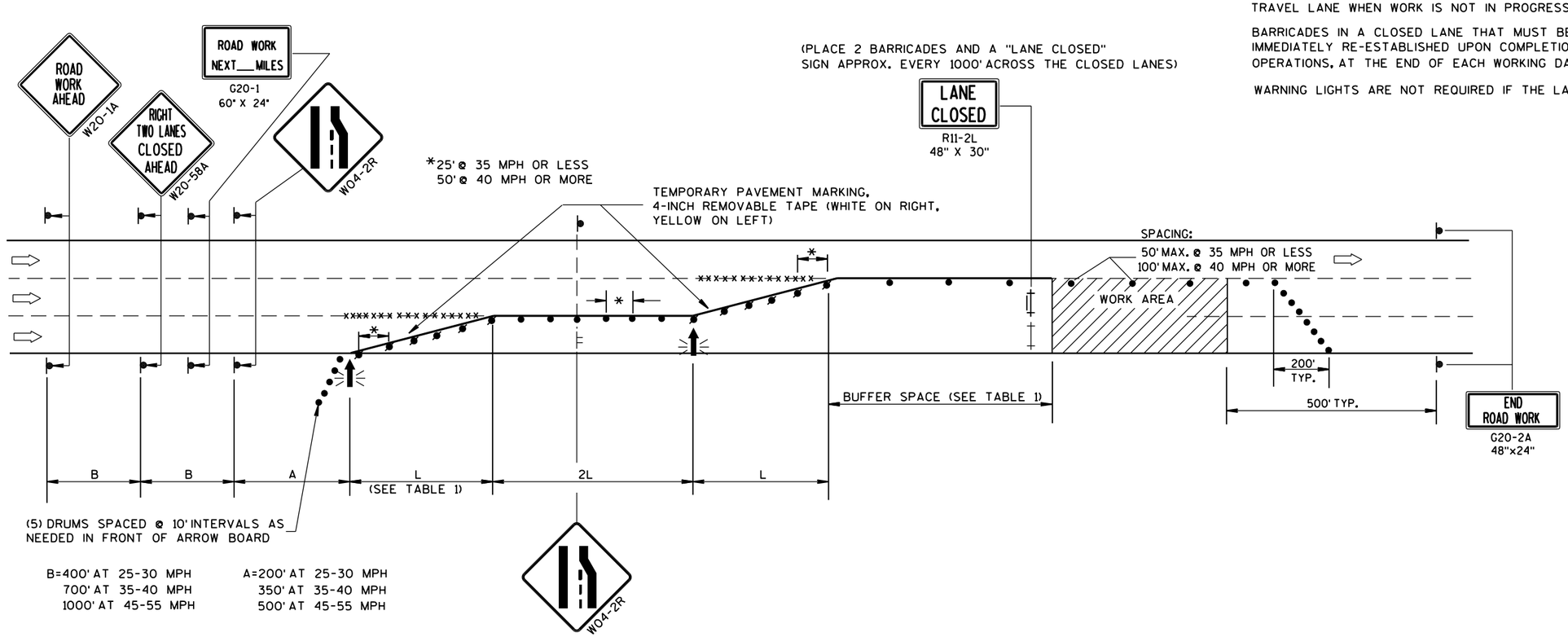
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

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

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

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

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



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

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

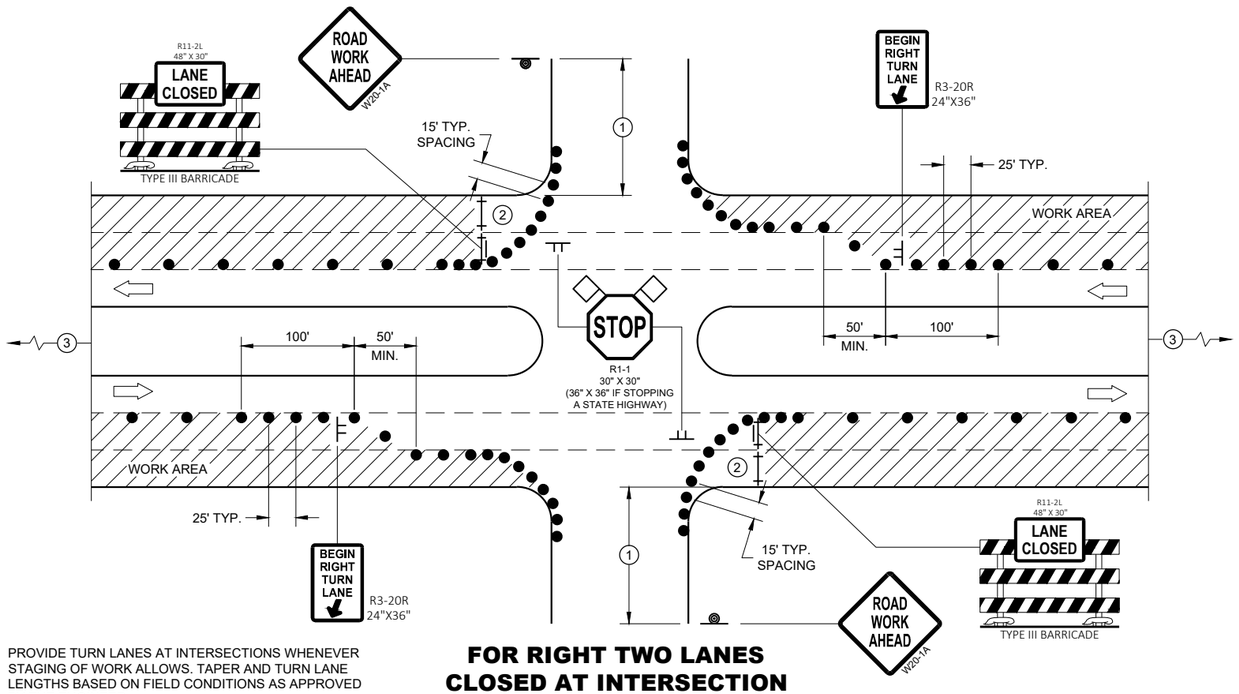
TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 D 22-3



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR RIGHT TWO LANES CLOSED AT INTERSECTION

GENERAL NOTES

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

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

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

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

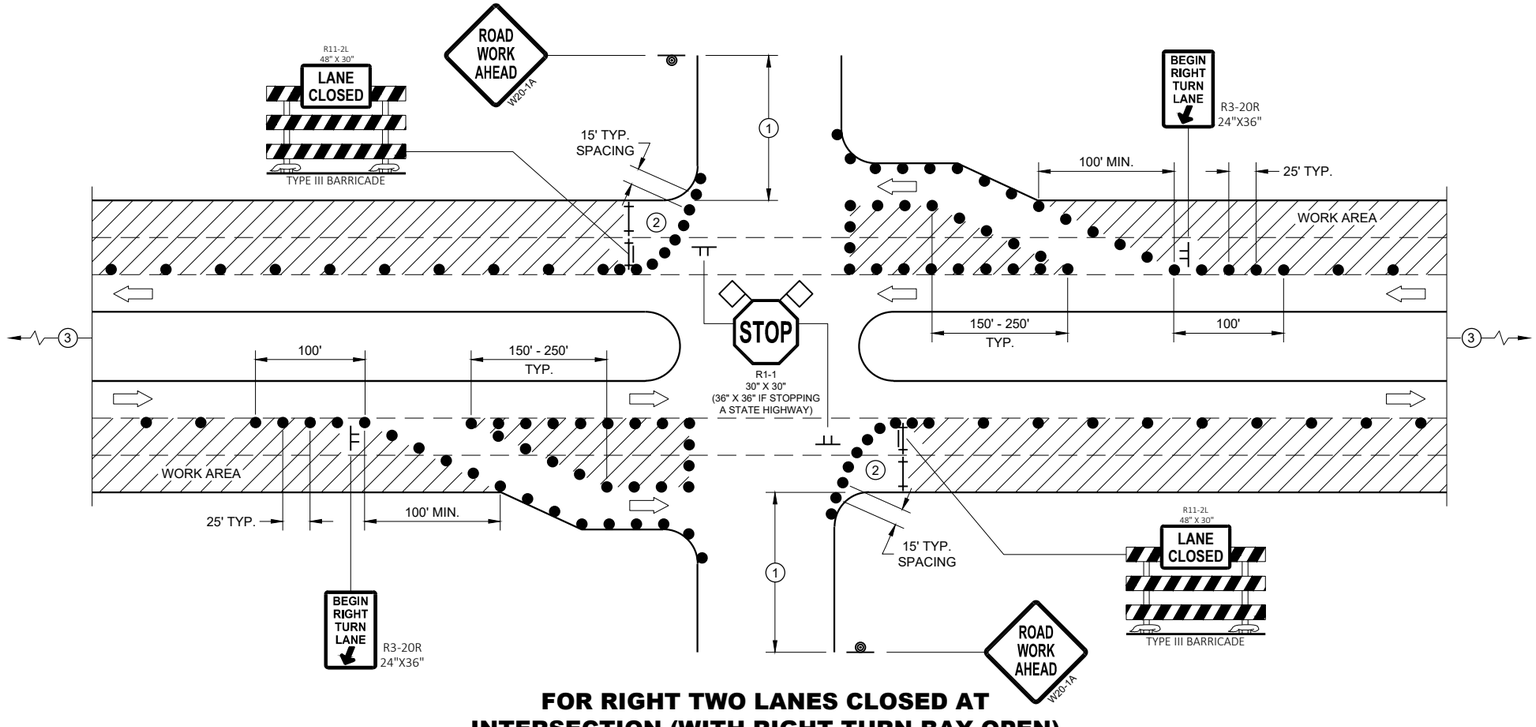
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



FOR RIGHT TWO LANES CLOSED AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

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

TRAFFIC CONTROL, INTERSECTION WITHIN TWO RIGHT LANE CLOSURE

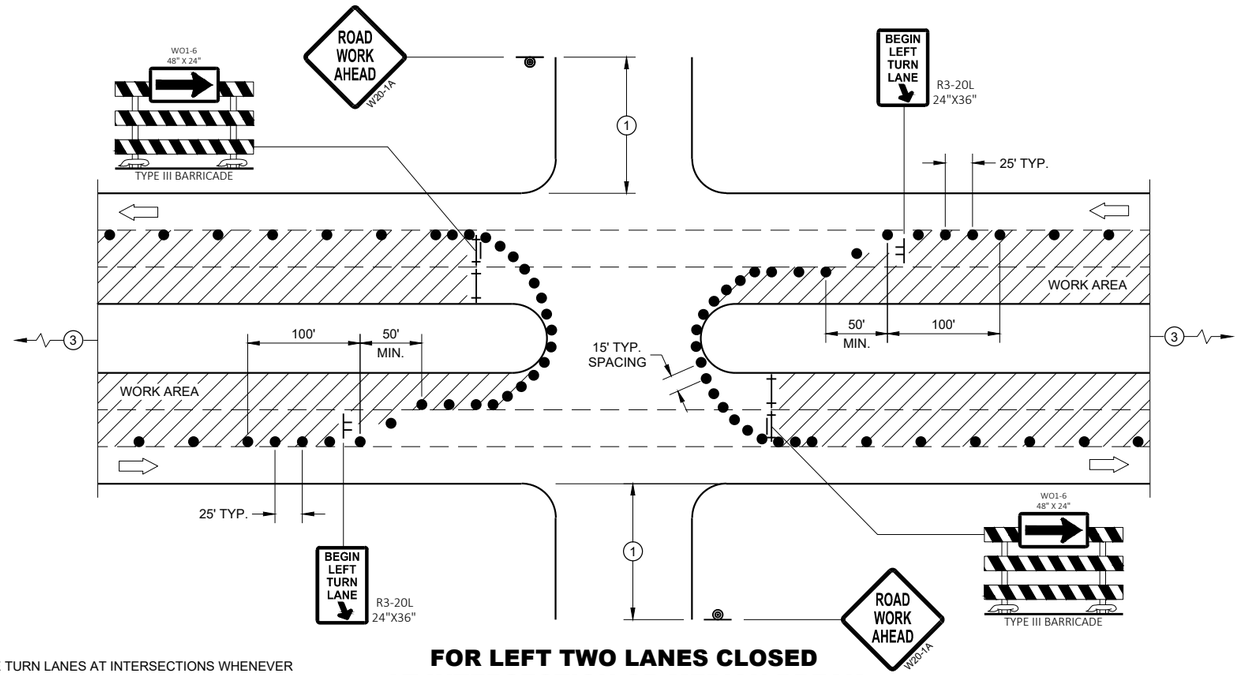
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D23 - 06a

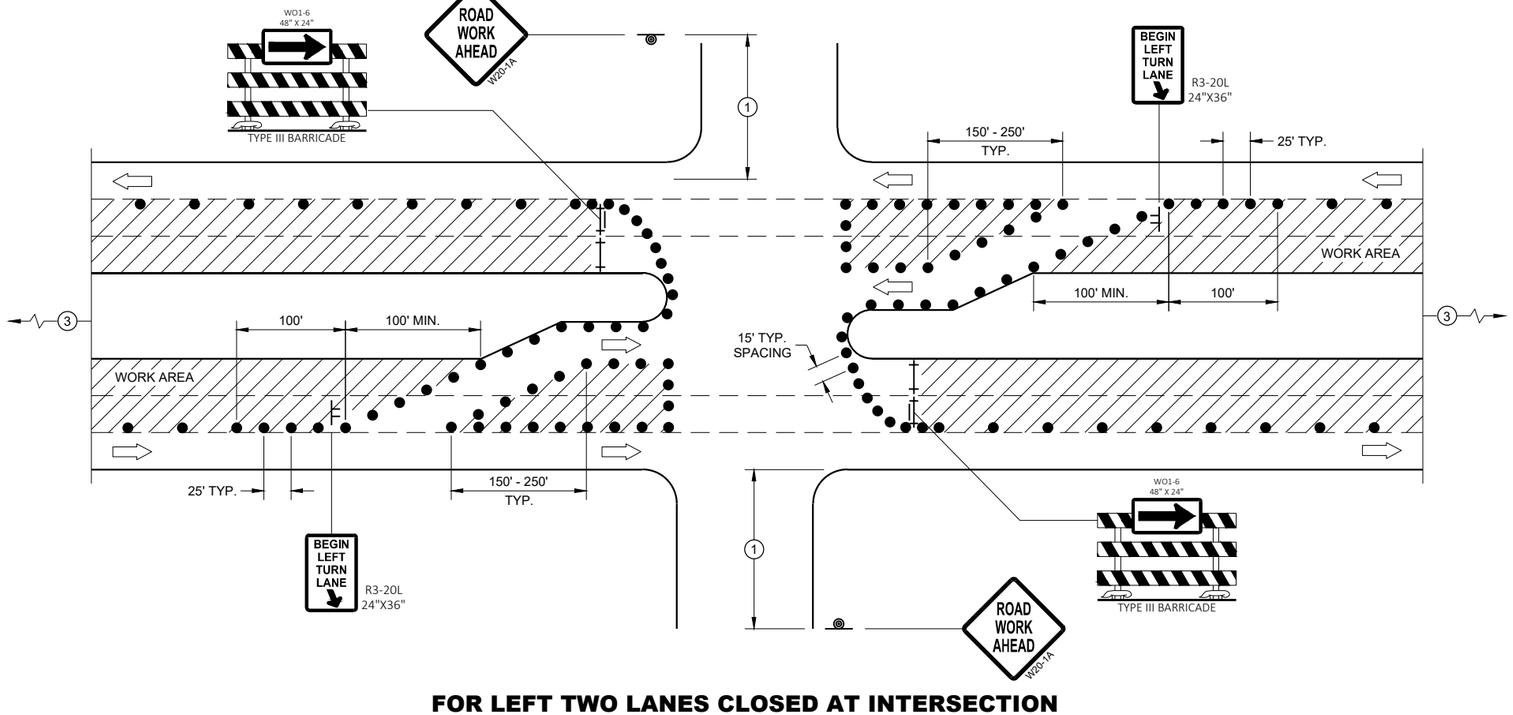
6

SDD 15D23 - 06a



FOR LEFT TWO LANES CLOSED AT INTERSECTION OR MEDIAN BREAK

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



FOR LEFT TWO LANES CLOSED AT INTERSECTION OR MEDIAN BREAK (WITH LEFT TURN BAY OPEN)

GENERAL NOTES

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

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

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

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

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

TRAFFIC CONTROL, INTERSECTION WITHIN TWO LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 — DATE
/S/ Amdrew Heidtke — WORK ZONE ENGINEE
FHWA

SDD 15D23 - 06b

6

SDD 15D23 - 06b

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

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

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

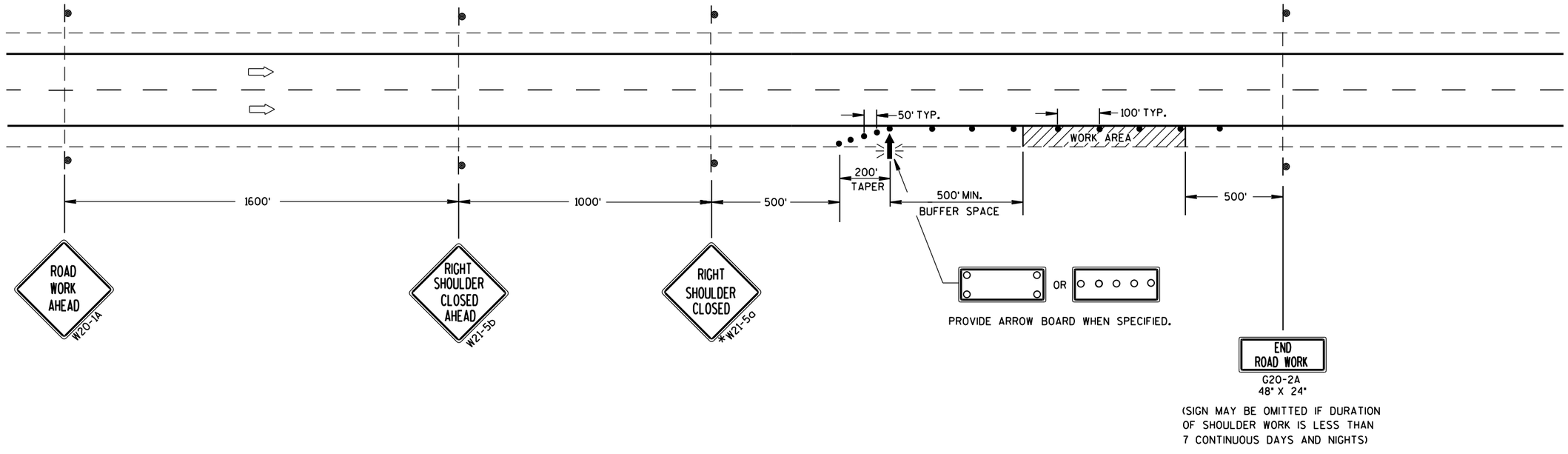
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

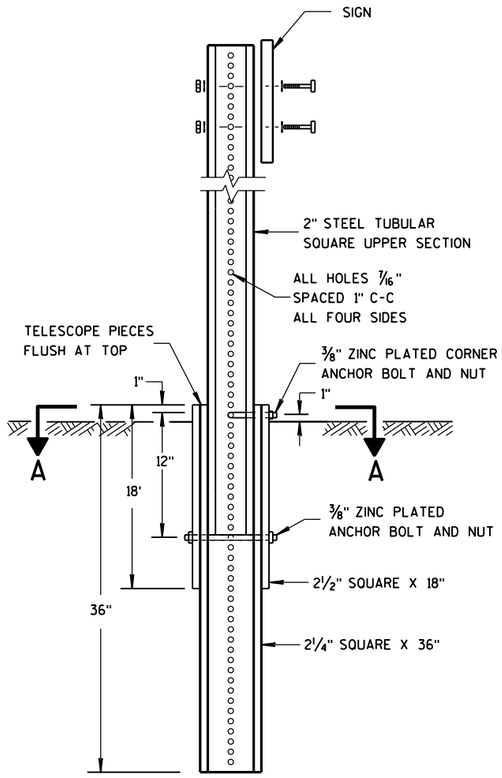
June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

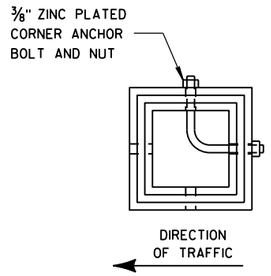
FHWA

6

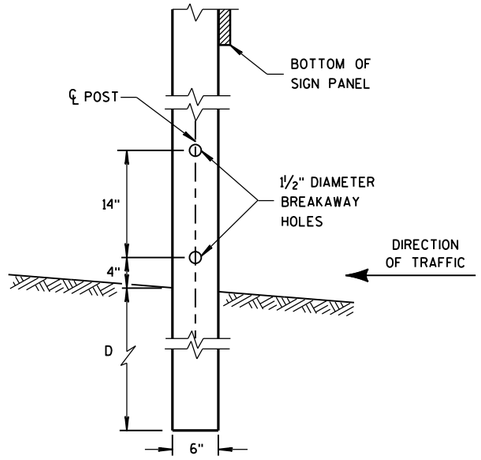
S.D.D. 15 D 27-3



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



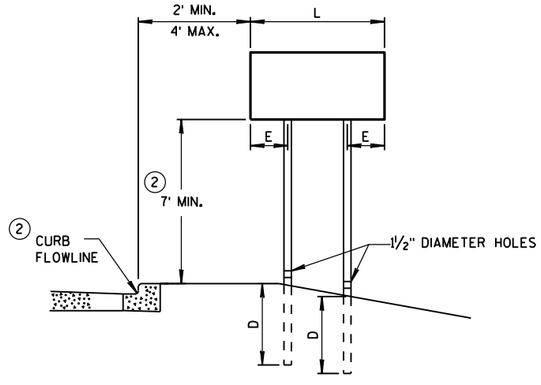
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

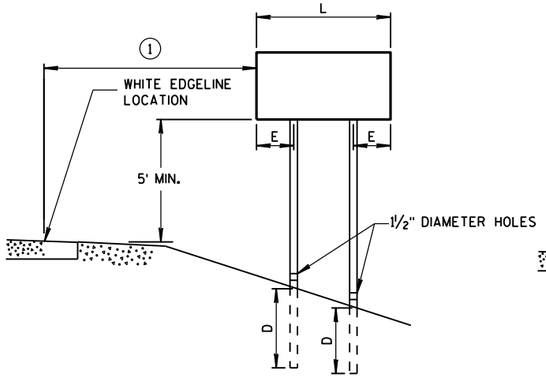
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

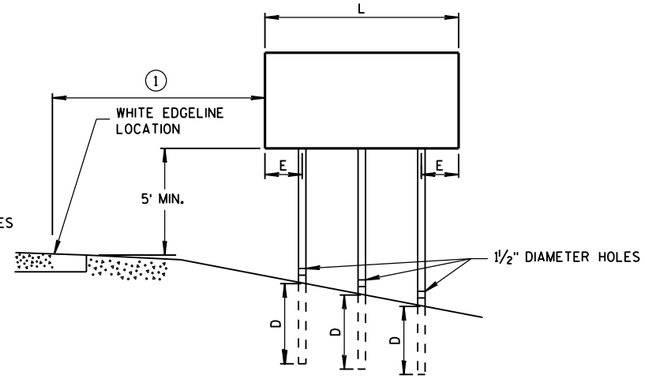
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

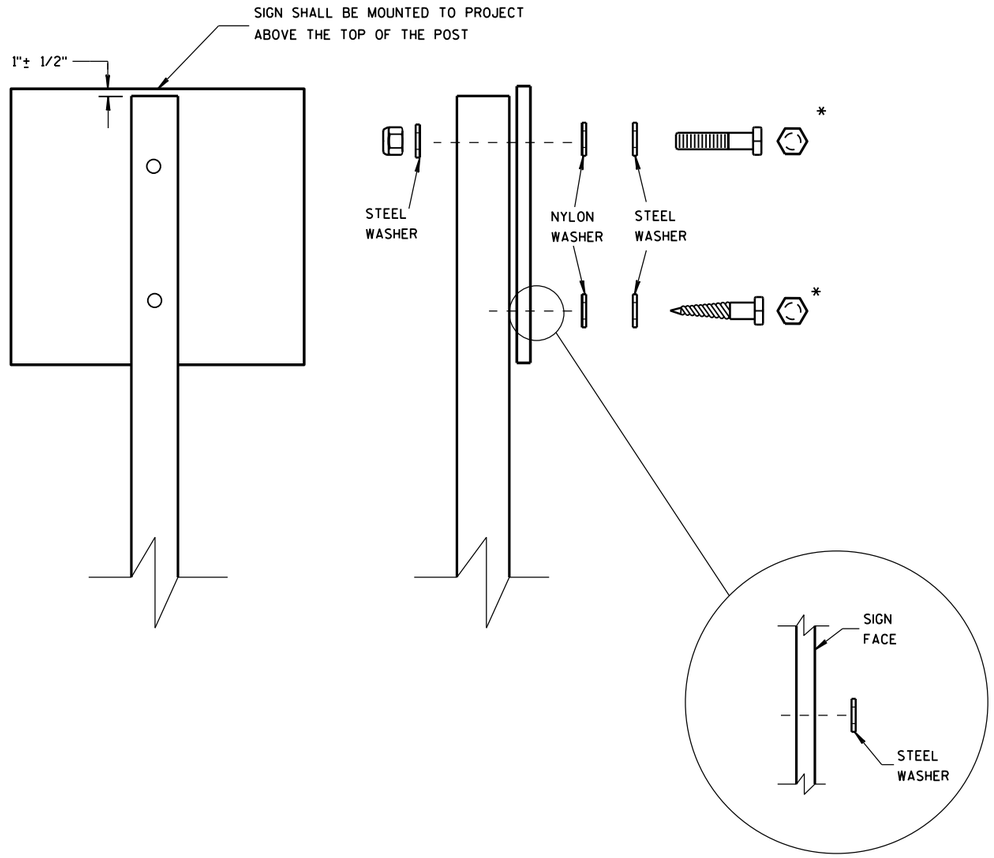
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

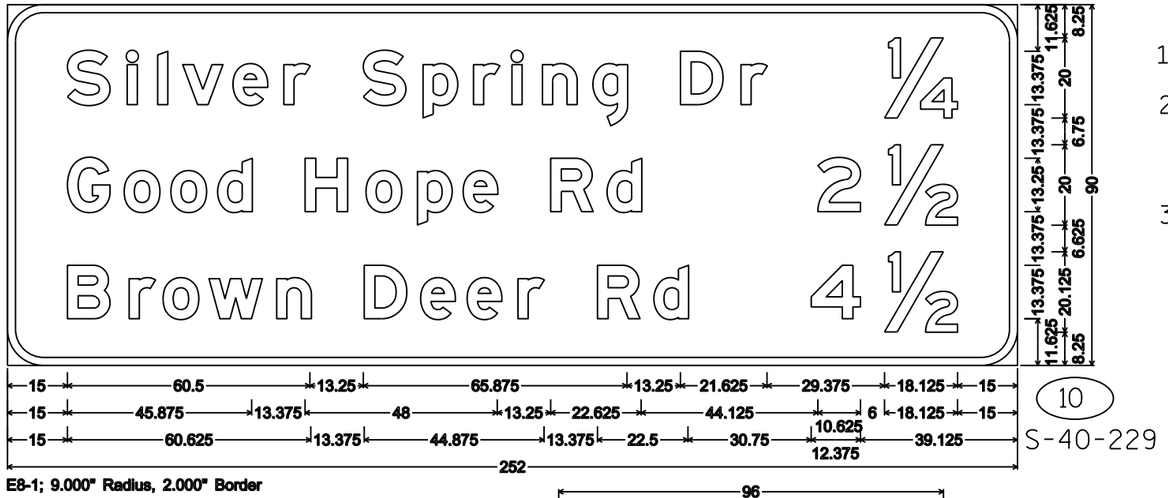
June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

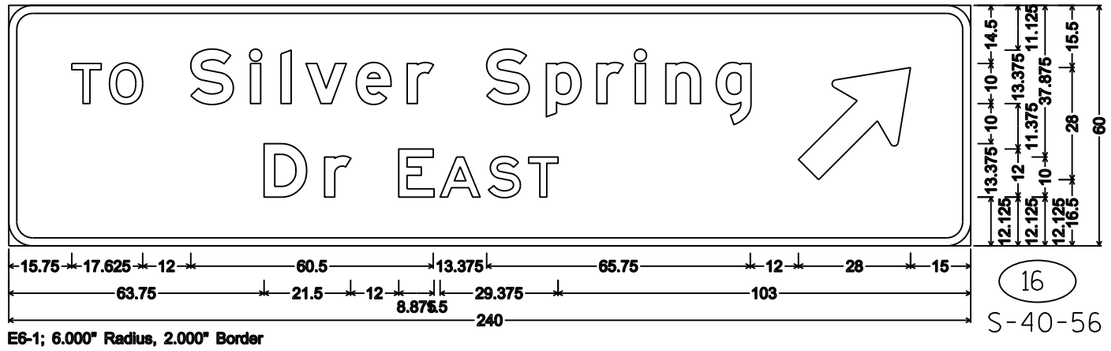
NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
   Background - Green except as noted
   Message - White
3. Message Series - E Modified except all CAP words Series E or as noted

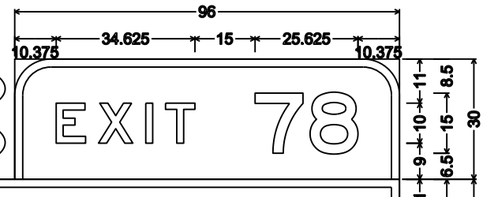


10
S-40-229

E8-1; 9.000" Radius, 2.000" Border



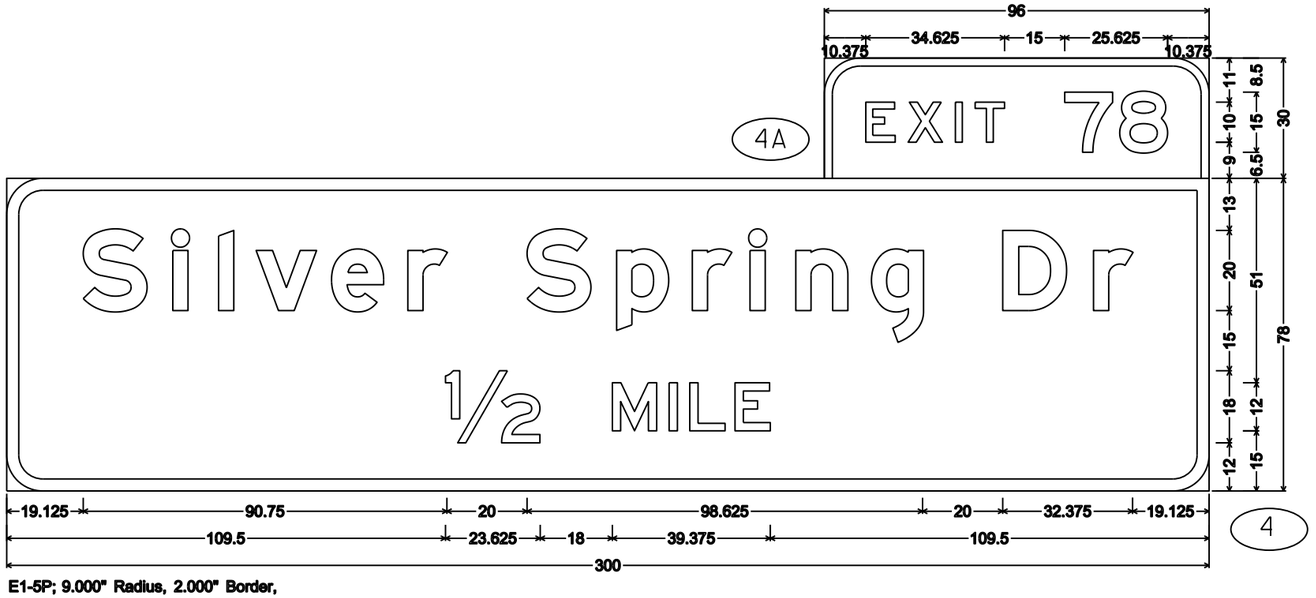
16
S-40-56



12A
50A

E1-5P; 9.000" Radius, 2.000" Border,
E6-1; 9.000" Radius, 2.000" Border

12 50
S-40-101
S-40-257



4A
4

E1-5P; 9.000" Radius, 2.000" Border,
E1-1A; 9.000" Radius, 3.000" Border

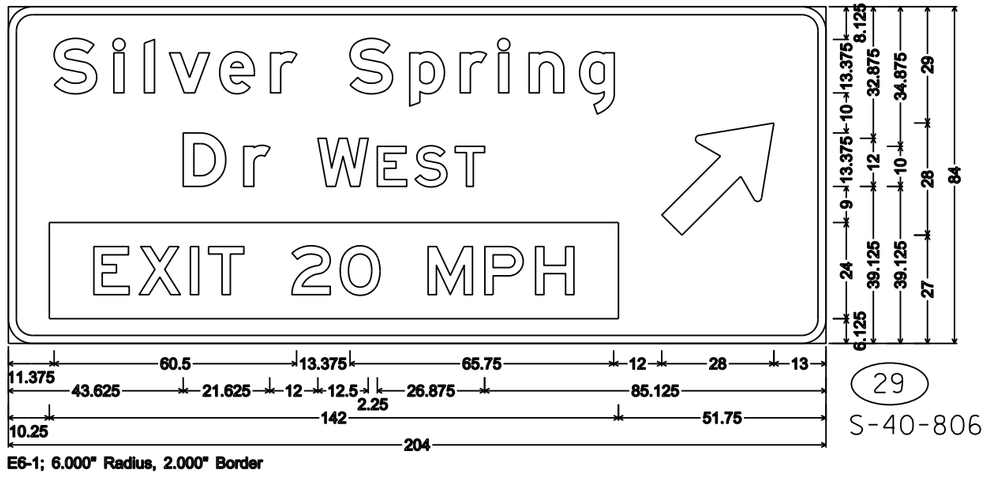
7

7

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET NO: 552	E

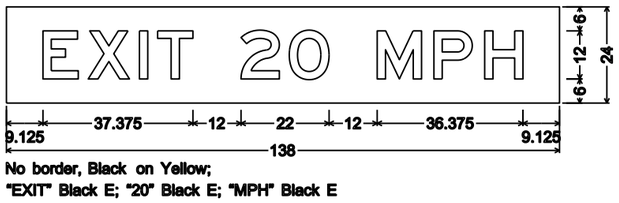
NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except all CAP words Series E or as noted
4. Exit 20 MPH Plaque is on Yellow Type F Reflective Sheeting with Black Non-Reflective Message
5. Exit 20 MPH Plaque base material is .040" aluminum

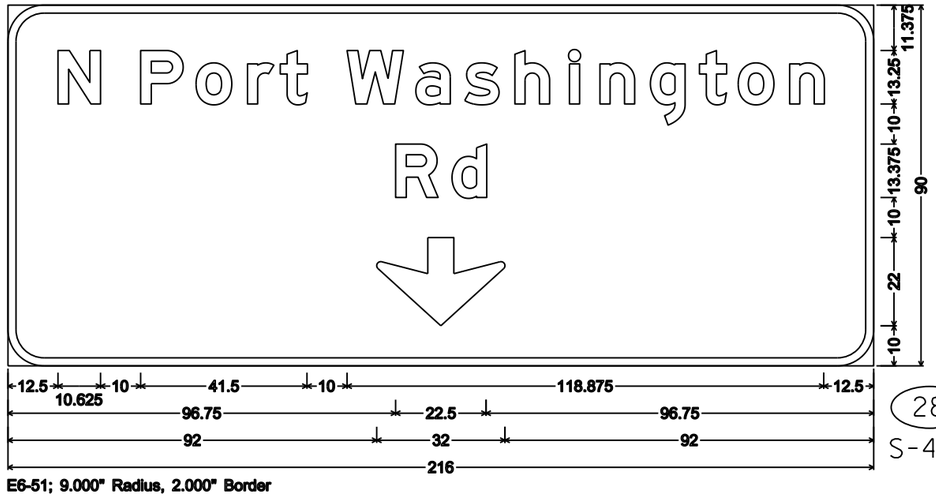


29
S-40-806

E6-1; 6.000" Radius, 2.000" Border

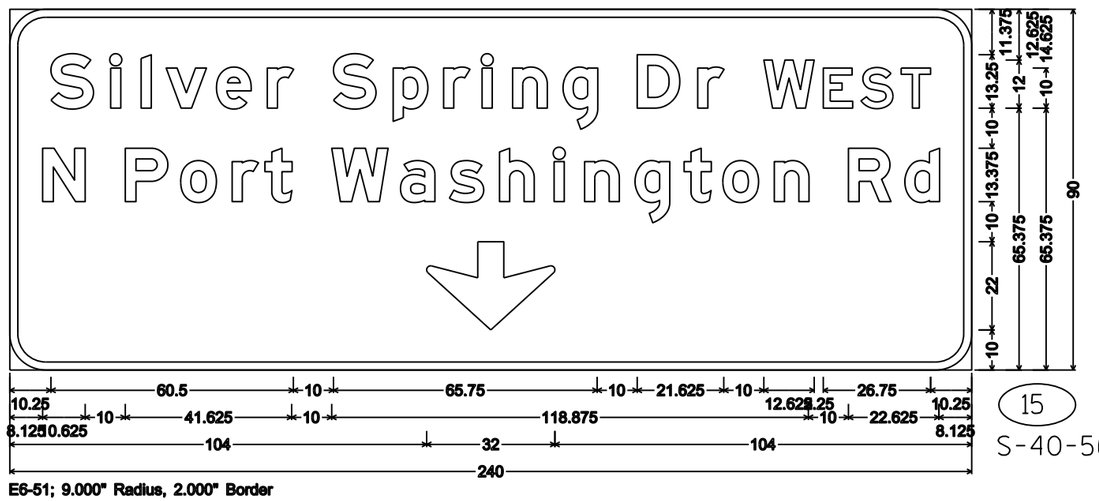


No border, Black on Yellow;
"EXIT" Black E; "20" Black E; "MPH" Black E



28
S-40-806

E6-51; 9.000" Radius, 2.000" Border



15
S-40-56

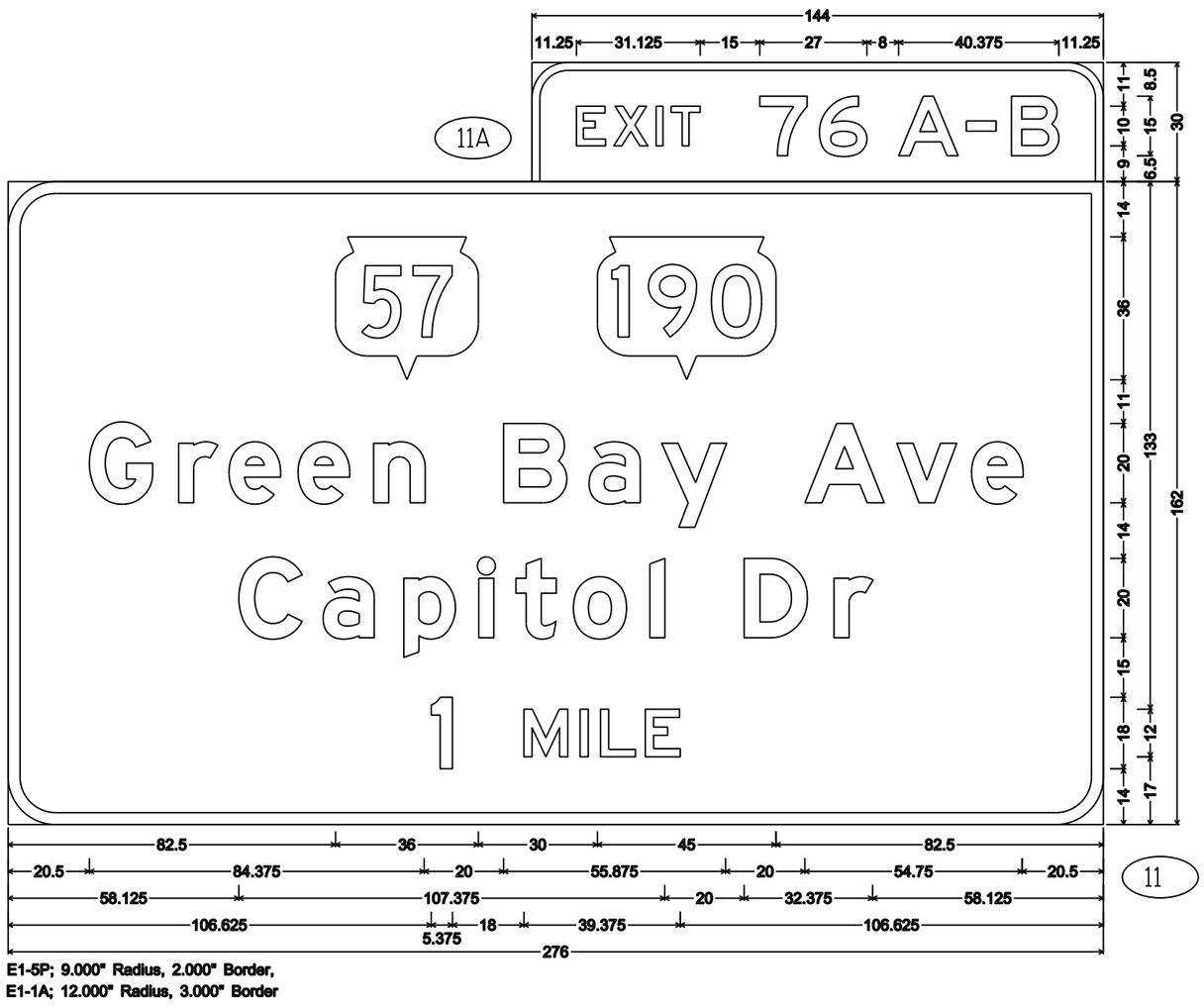
E6-51; 9.000" Radius, 2.000" Border

7

7

NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
   Background - Green except as noted
   Message - White
3. Message Series - E Modified except all CAP words Series E or as noted



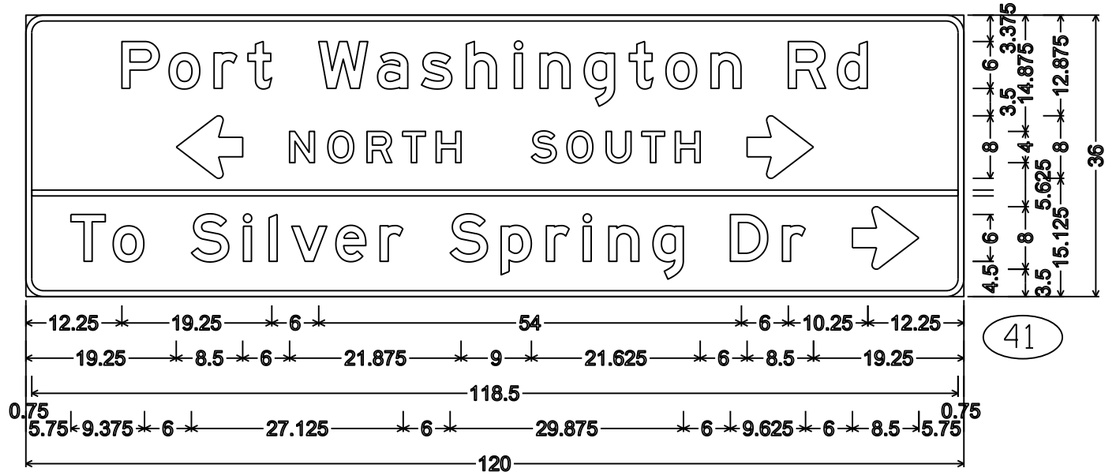
E1-5P; 9.000" Radius, 2.000" Border,
E1-1A; 12.000" Radius, 3.000" Border

7

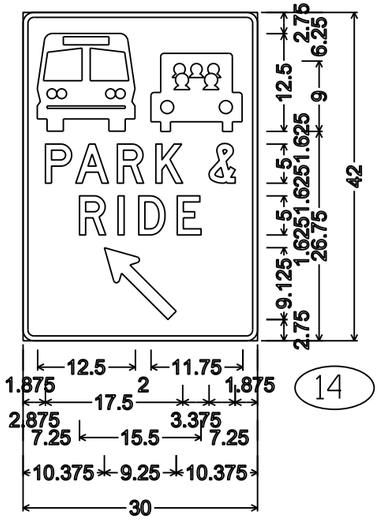
7

NOTES

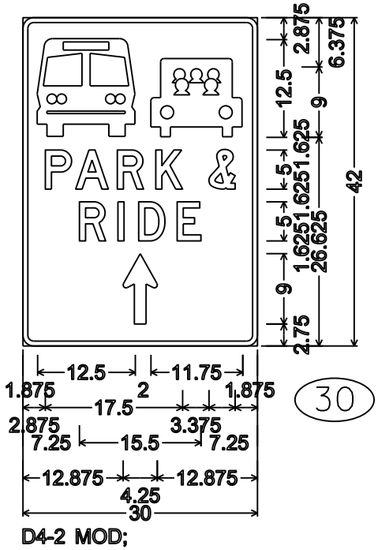
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted



D1-60A; 2.250" Radius, 0.750" Border



D4-2 MOD;
1.375" Radius, 0.625" Border,
"PARK" D; "&" D; "RIDE" D



D4-2 MOD;
1.375" Radius, 0.625" Border,
"PARK" D; "&" D; "RIDE" D

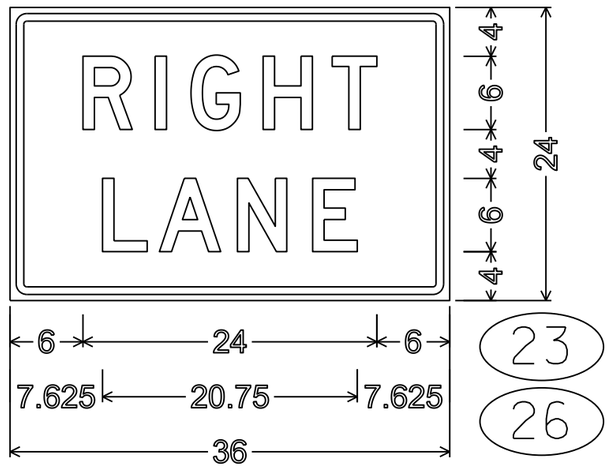
7

7

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET NO: 555	E

NOTES

1. All Signs Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D



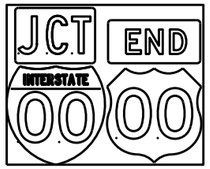
1.375" Radius, 0.625" Border, 0.500" Indent

7

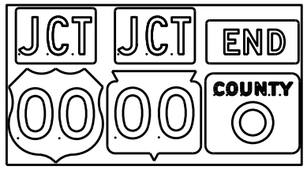
7

TYPICAL ASSEMBLIES

J1-1

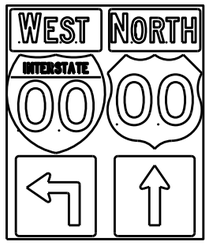


J1-2

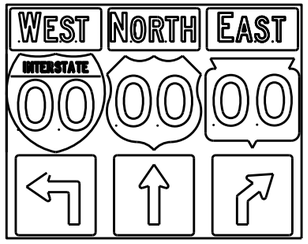


J1-3

J2-1



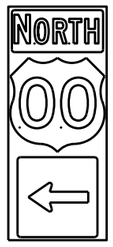
J2-2



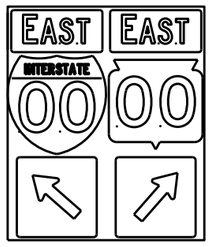
J2-3

JV

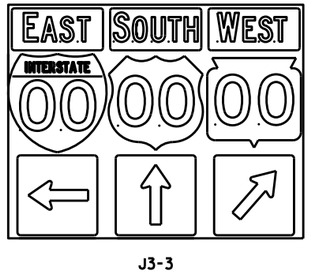
(Typical Vertical J-Assembly
See Note 10 and 11)



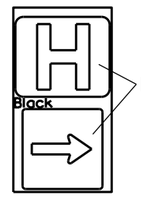
J3-1



J3-2



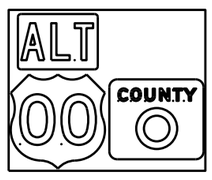
J3-3



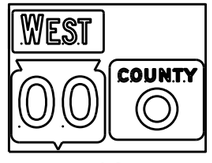
Blue Background

JH-1

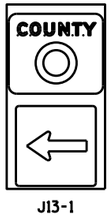
J4-1



J4-2



J4-2



J13-1

J12-1

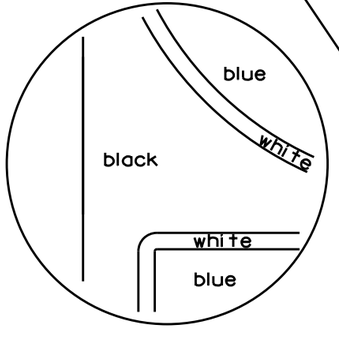
J32-1

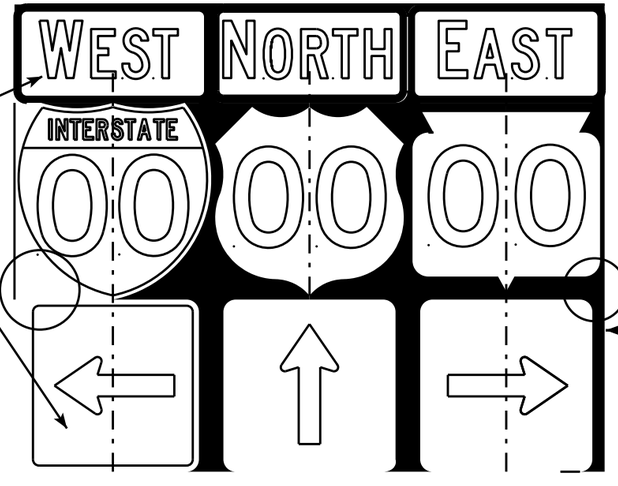
J33-1

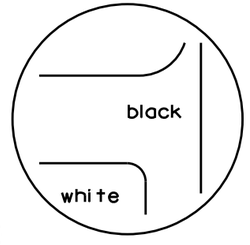
J23-1

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

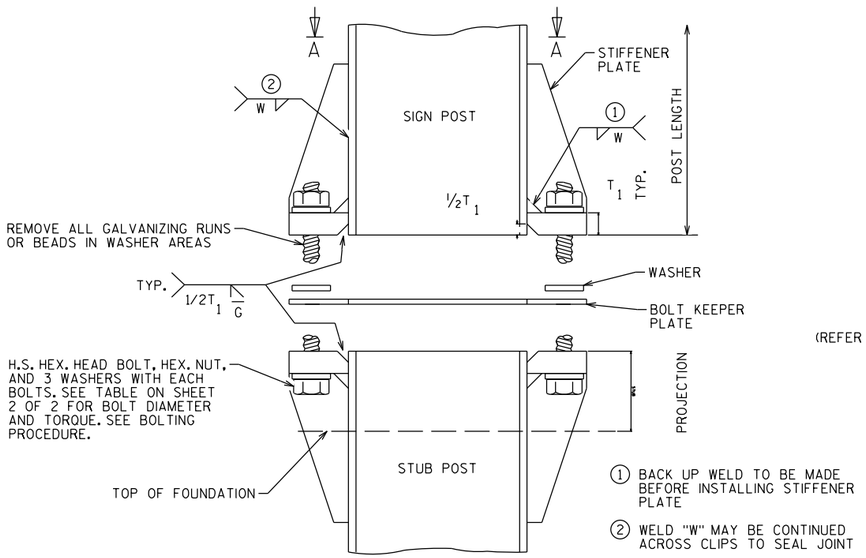
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PL... A2-1S.8

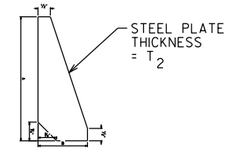
PROJECT NO: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

WISDOT/CADDS SHEET 42

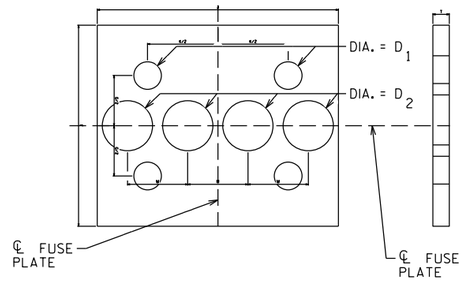


SIGN POST & STUB POST ELEVATION



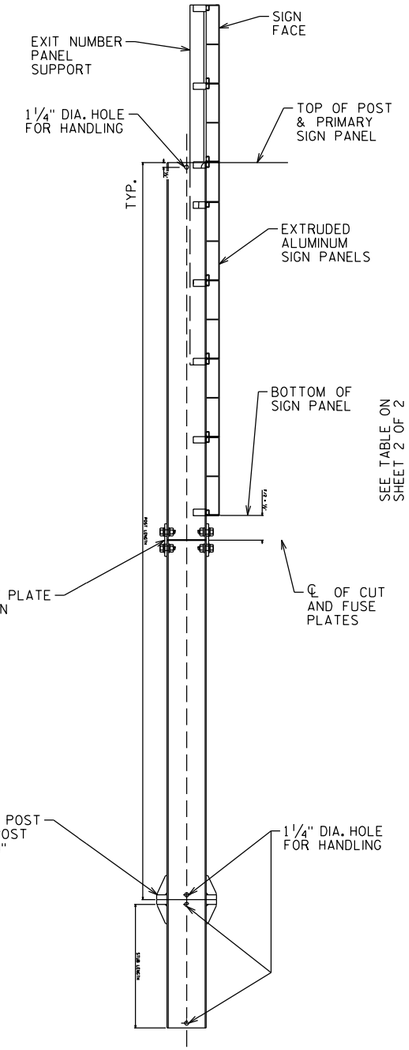
STIFFENER PLATE DETAIL

(REFER TO TABLE ON SHEET 2 OF 2 FOR DIMENSIONS)



PERFORATED FUSE PLATE DETAIL

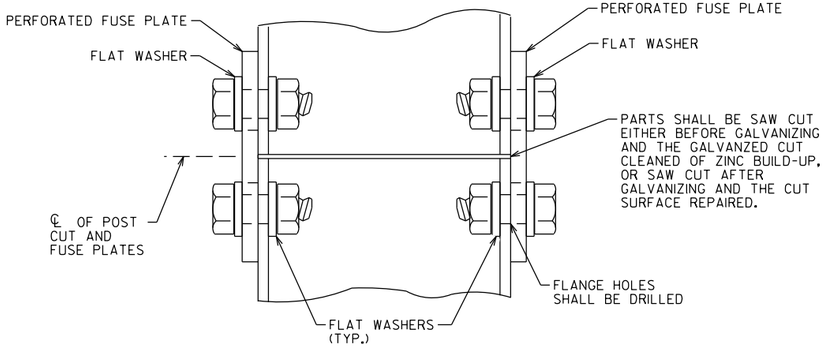
USE H.S. HEX HEAD BOLTS, HEX HEAD NUT AND FLAT WASHER UNDER NUT. ALL HOLES SHALL BE DRILLED, SUB-PUNCHED AND REAMED. ALL PLATE CUTS SHALL PREFERABLY BE SAW CUTS. HOWEVER, FLAME CUTTING WILL BE PERMITTED PROVIDED ALL EDGES ARE GROUND. METAL PROJECTING BEYOND THE PLANE OF THE PLATE FACE WILL NOT BE PERMITTED. STEEL FUSE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36. ASTM A572 GRADE 50 OR ASTM A588 MAY BE SUBSTITUTED FOR A36 AT THE OPTION OF THE FABRICATOR. MILL TEST REPORTS SHALL BE SUBMITTED FOR FUSE PLATES. STEEL USED SHALL HAVE AN ULTIMATE TENSILE STRENGTH NOT TO EXCEED 80 KSI.



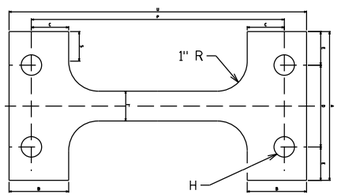
POST DETAIL

☆ WELD THICKNESS = FLANGE THICKNESS - 1/16"

SECTION A-A



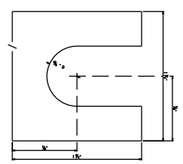
FUSE PLATE CONNECTION DETAIL



H = BOLT DIA. + 1/8"

BOLT KEEPER PLATE DETAIL

30 GA GALVANIZED SHEET STEEL



SHIM DETAIL

FURNISH TWO .012"± THICK AND TWO .032"± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO ASTM B36.

BOLTING PROCEDURE FOR BASE CONNECTION

1. ASSEMBLE SIGN POST, BOLT KEEPER PLATE, AND STUB POST WITH BOLTS AND THREE FLAT WASHERS PER BOLT AS SHOWN.
2. SHIM AS REQUIRED TO PLUMB POST.
3. PRIOR TO BOLT TIGHTENING, LUBRICATE BASE CONNECTION BOLTS WITH BEESWAX OR OTHER HIGH-WAX LUBRICANT.
4. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH A 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS.
5. LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PERSCRIBED TORQUE. (SEE TABLE FOR PERSCRIBED TORQUE). DO NOT OVER-TIGHTEN.
6. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

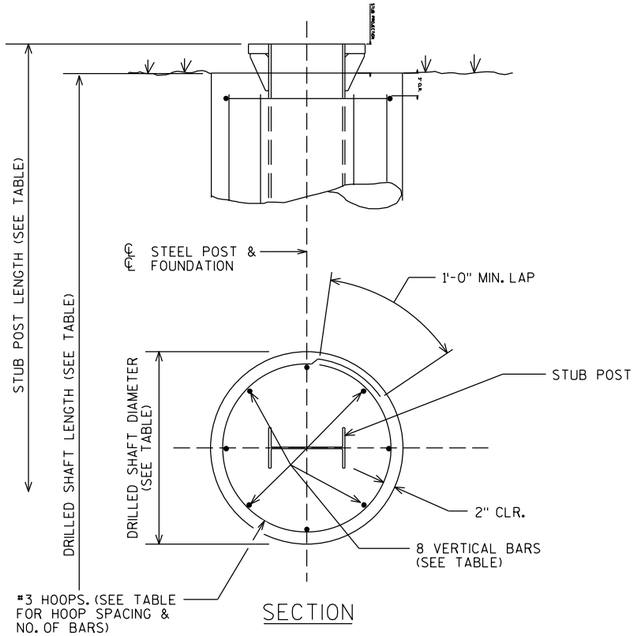
STRUCTURE BTO TYPE I SIGNS

DRAWN BY | PLANS CK'D.

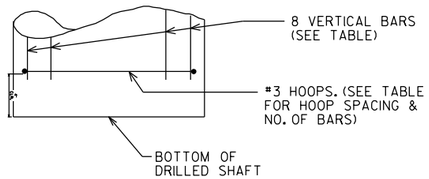
CONNECTION & FOUNDATION DETAILS 1 OF 2

SHEET A3-1.18

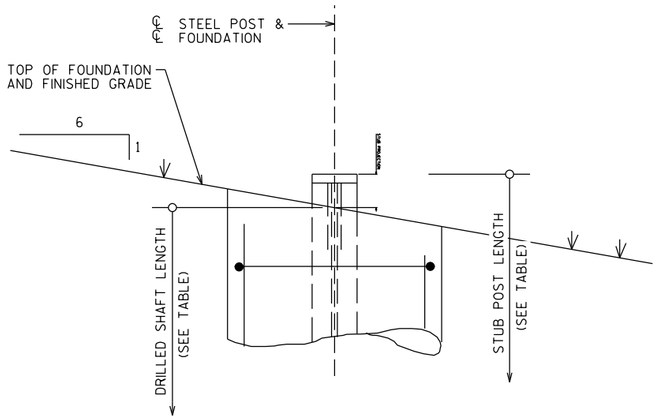
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 558	E



SECTION



FOUNDATION DETAIL



SHAFT PLACEMENT

FOUNDATION DATA TABLE

POST SHAPE	STUB LENGTH	STUB PROJECTION	DRILLED SHAFT DIAMETER	DRILLED SHAFT LENGTH	VERTICAL BARS		HOOPS		CONCRETE VOLUME	TOTAL REINF. WEIGHT
					SIZE	LENGTH	MAX SPA.	NO.		
W6X15	2'-6"	3"	24"	6'-0"	#5	5'-5"	10"	8	0.7 CY	64 LB
W8X18	2'-6"	3"	24"	7'-0"	#6	6'-5"	12"	8	0.8 CY	96 LB
W8X21	3'-0"	2½"	24"	7'-6"	#6	6'-11"	12"	8	0.9 CY	102 LB
W10X22	3'-0"	2½"	24"	8'-0"	#7	7'-5"	12"	9	1.0 CY	143 LB
W12X26	3'-0"	2½"	24"	9'-0"	#7	8'-5"	12"	10	1.1 CY	161 LB

◆ QUANTITIES SHOWN ARE FOR ONE DRILLED SHAFT

BASE CONNECTION & FUSE PLATE DATA TABLE

POST SHAPE	WEIGHT PER FOOT	BASE CONNECTION DATA									BOLT KEEPER PLATE DATA			PERFORATED FUSE PLATE DATA									V ◪
		BOLT SIZE & TORQUE	A	B	C	D	E	T1	T2	W	R	P	S	U	F	G	J	K	M	D1	D2	T3	BOLT DIA.	WGT. EA. LBS	BOLT LENGTH	
W6X15	15 LB	⅝" DIA. X 2¾" 36 TO 38 FT-LB	5"	2"	1¼"	2¾"	1⅛"	¾"	½"	¼"	11/32"	8½"	1"	10"	5"	2½"	6"	3½"	1½"	11/16"	1¼"	⅜"	⅝"	2.4	2¼"	61.5 LB
W8X18	18 LB											10⅝"		12⅛"	5"	2½"	5¼"	2¾"	1¼"	11/16"	1 1/16"	⅜"	⅝"	2.0	2¼"	68.5 LB
W8X21	21 LB	¾" DIA. X 3½" 62 TO 63 FT-LB	6"	2¼"	1⅜"	3½"	1¼"	1"	¾"	5/16"	11/32"	11"	1½"	12¾"	5½"	2½"	5¼"	2¾"	1¼"	13/16"	1"	½"	¾"	3.1	2¼"	98.5 LB
W10X22	22 LB											12⅞"		14⅝"	6"	3"	5¾"	2¾"	1⅜"	13/16"	1⅛"	½"	¾"	3.9	2¼"	103.1 LB
W12X26	26 LB											15"		16¾"	6"	3"	6½"	3½"	1⅝"	13/16"	1 5/16"	½"	¾"	4.5	2¼"	116.4 LB

◪ TOTAL STRUCTURAL CARBON STEEL WEIGHT FOR ONE POST = V + (POST LENGTH X POST WEIGHT PER FOOT)

"V" INCLUDES STUB POST, BASE PLATES, STIFFENER PLATES, PERFORATED FUSE PLATES, BOLTS, NUTS, AND WASHERS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

ALL POST, POST STUBS & ATTACHMENTS SHALL BE ASTM A709 GRADE 50, GALVANIZED IN ACCORDANCE WITH ASTM A123.

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.

MATERIAL PROPERTIES

CONCRETE MASONRY F'C = 3,500 P.S.I.
BAR STEEL REINFORCEMENT (UNCOATED), GRADE 60 FY = 60,000 P.S.I.

DESIGN DATA

DESIGN CONFORMS TO AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS 1ST EDITION 2015 (WITH 2017 & 2018 INTERIM REVISIONS).

DEAD LOADS (DL):

- STEEL POST SELF WEIGHT
- SIGN PANEL WEIGHT = 3 PSF

WIND LOADS (WL):

WIND LOADS WERE APPLIED TO THE PROJECTED AREAS OF THE SIGN PANELS AND THE STEEL SIGN POSTS.

- BASIC WIND SPEED = 76 MPH
- MEAN RECURRANCE INTERVAL (MRI) = 10 YEARS
- HEIGHT & EXPOSURE FACTOR = 1.00
- DIRECTIONALITY FACTOR = 0.85
- GUST EFFECT FACTOR = 1.14

WIND LOAD CASES:

- WL CASE 1: 1.0 X NORMAL WIND
- WL CASE 2: 1.0 X TRANSVERSE WIND
- WL CASE 3: 0.75 X NORMAL WIND + 0.75 X TRANSVERSE WIND

LOAD COMBINATIONS:

LOAD COMBINATION	TYPE	DL FACTOR	WL FACTOR
STRENGTH I	GRAVITY	1.25	-
EXTREME I	WIND	1.10	1.0
		0.9	1.0
SERVICE I	DEFLECTION	1.0	1.0

FOUNDATION DESIGN DATA

THE FOUNDATION DESIGN ASSUMED COHESIONLESS SOILS (LOOSE SAND) WITH THE FOLLOWING PROPERTIES:

- SOIL UNIT WEIGHT = 100 PCF
- ANGLE OF INTERNAL FRICTION = 30 DEGREES
- SOIL MODULUS PARAMETER = 25 LB/IN3

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

DRAWN BY | PLANS CK'D.

CONNECTION & FOUNDATION DETAILS 2 OF 2

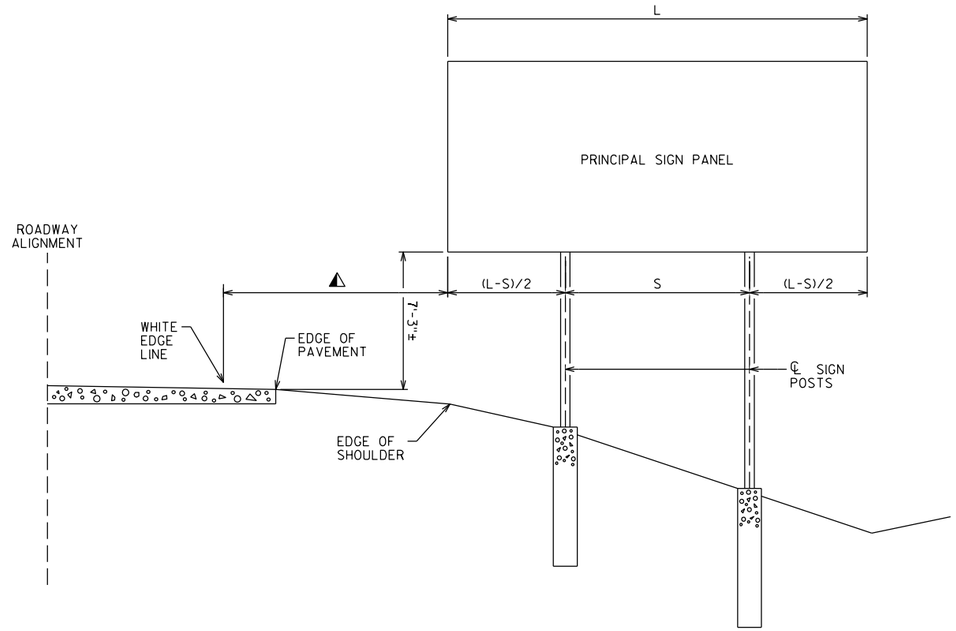
SHEET A3-1.18

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 559 | E

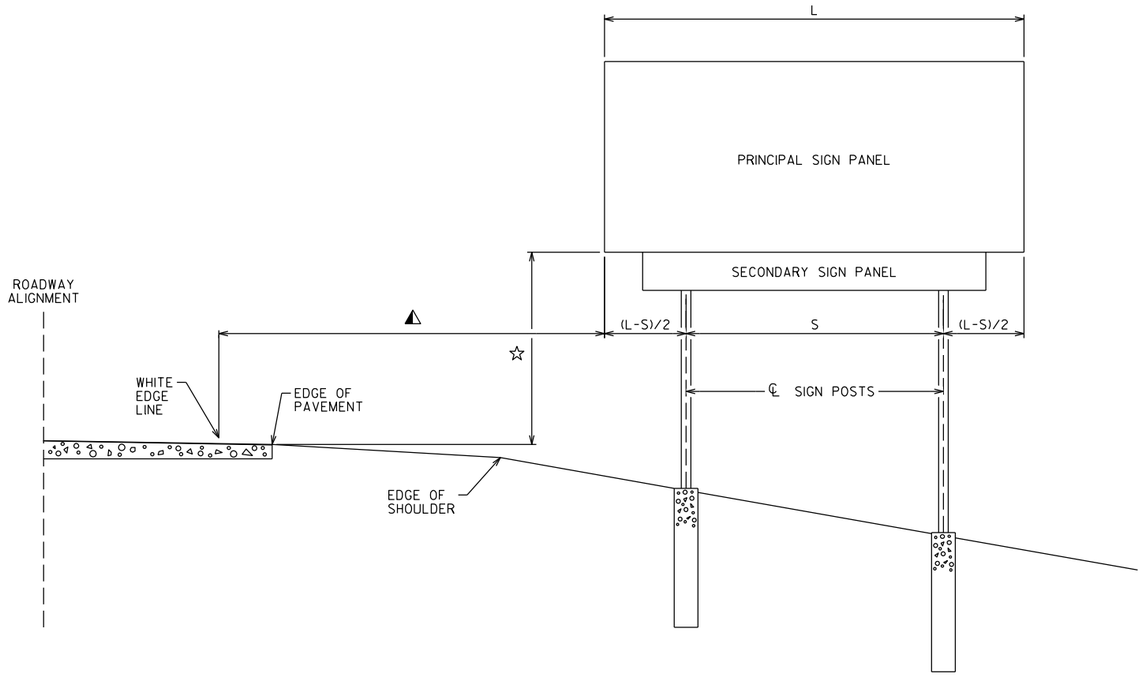
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A31.DGN PLOT DATE : 24-JUNE-2019 PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

7



INSTALLATION WITHOUT SECONDARY SIGN



INSTALLATION WITH SECONDARY SIGN

TYPE 1 SIGN INSTALLATION NOTES:

FOR A 2-POST INSTALLATION, "S" EQUALS 3L/5, BUT SHALL NOT BE LESS THAN 6'-0".

FOR A 3-POST INSTALLATION, "S" EQUALS 5L/7, BUT SHALL NOT BE LESS THAN 12'-0". THE SPACING BETWEEN ANY TWO POSTS SHALL NOT BE LESS THAN 6'-0".

◭ UNLESS NOTED IN THE PLANS, THE SIGN OFFSET DISTANCE SHALL BE A MINIMUM OF 17'-6" FROM THE WHITE EDGE LINE, DESIRABLE 30'-0".

THE ± TOLERANCE SHOWN ON THIS SHEETS IS 3".

THE VERTICAL SIGN HEIGHT CLEARANCES SHOWN ON THIS SHEET ARE MEASURED FROM THE BOTTOM OF THE SIGN PANEL TO THE NEAR EDGE OF PAVEMENT.

☆ THE VERTICAL CLEARANCE SHALL BE 8'-3"± WHEN THE SECONDARY SIGN HEIGHT IS 3'-0" OR LESS. FOR SECONDARY SIGN HEIGHTS LARGER THAN 3'-0", THE VERTICAL CLEARANCE TO THE BOTTOM OF THE SECONDARY SIGN PANEL SHALL BE 5'-3"±.

POST LENGTHS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE ESTIMATED LENGTHS. THE CONTRACTOR SHALL VERIFY POST LENGTHS AT THE TIME OF FINAL GRADING.

REFER TO THE TRAFFIC ENGINEERING OPERATIONS AND SAFETY MANUAL FOR FURTHER GUIDANCE ON MINIMUM VERTICAL CLEARANCE REQUIREMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

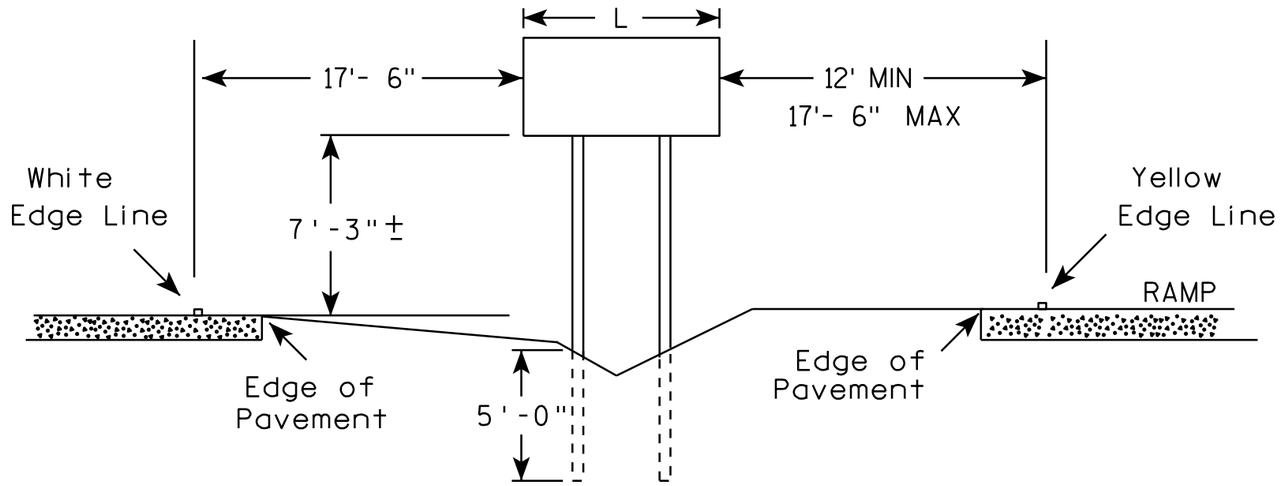
STRUCTURE BTO TYPE I SIGNS

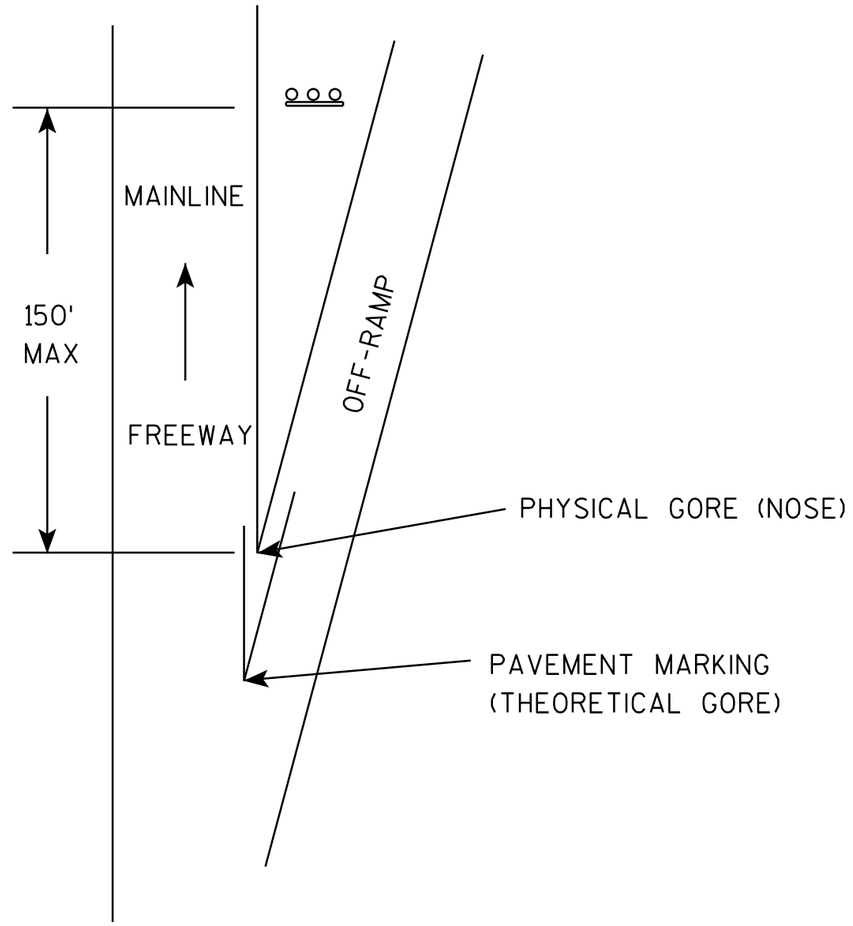
DRAWN BY | PLANS CK'D.

TYPICAL TYPE I SIGN INSTALLATION

SHEET A4-1.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 560	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 10 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 Matthew R Rauch
for State Traffic Engineer

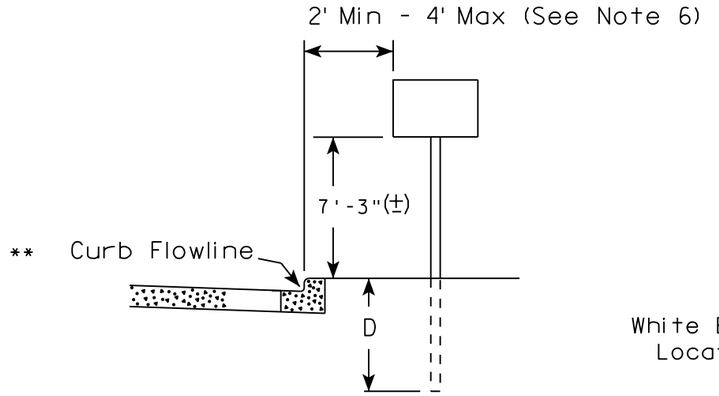
DATE 2/06/14 PLA... A4-2.3

PROJECT NO: | SHEET NO: E

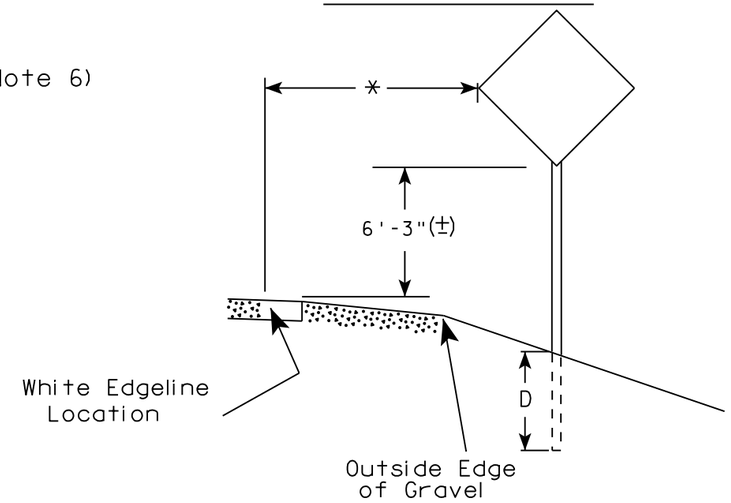
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A42.DGN PLOT DATE : 06-FEB-2014 12:36 PLOT BY : mscsja

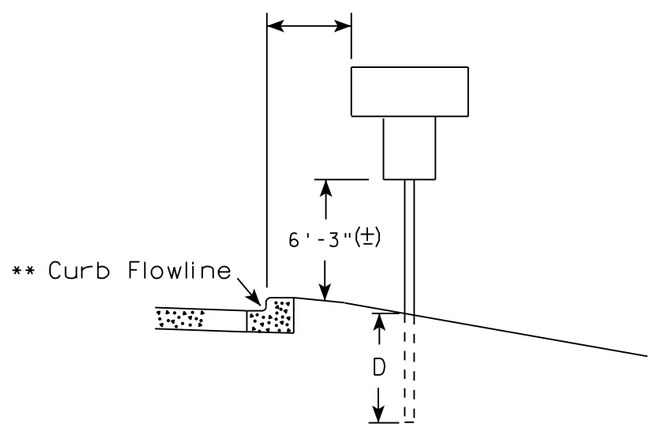
WISDOT/CADDS SHEET 42

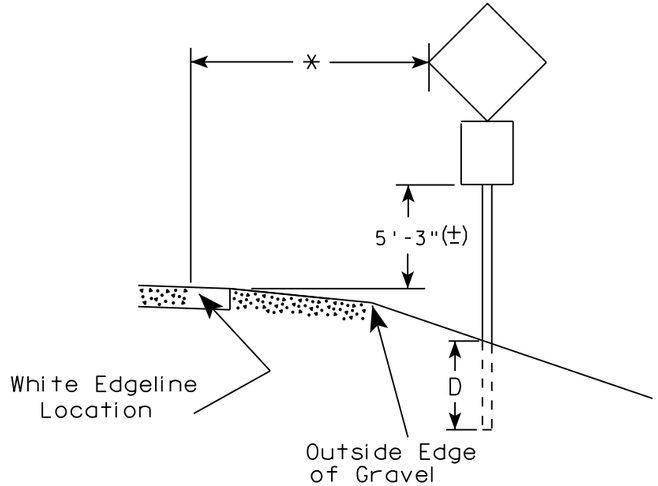
URBAN AREA



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.

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

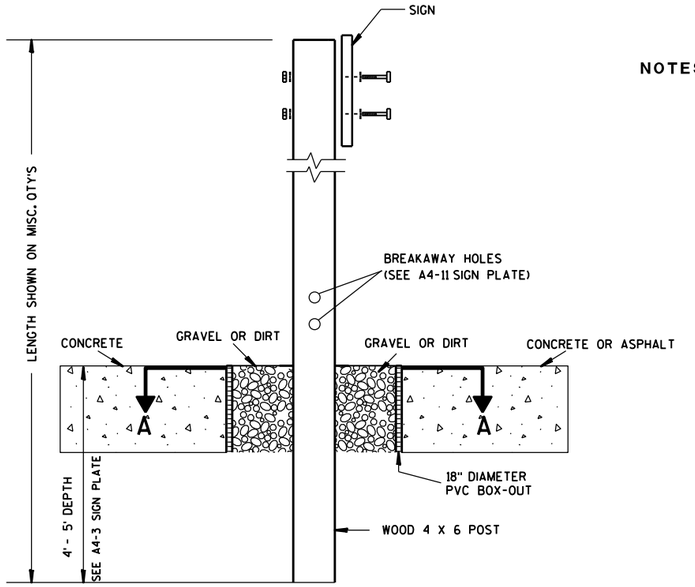
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

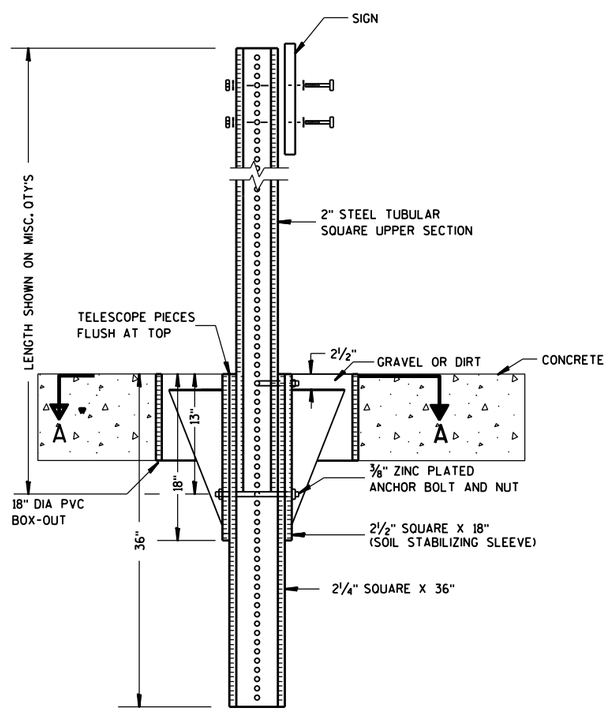
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 562	E



ELEVATION VIEW

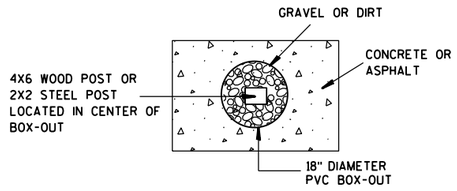
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

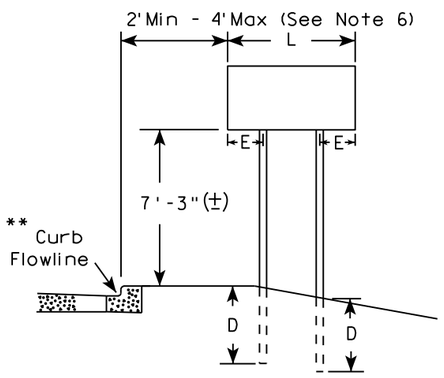
APPROVED Matthew R Rauch
for State Traffic Engineer

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

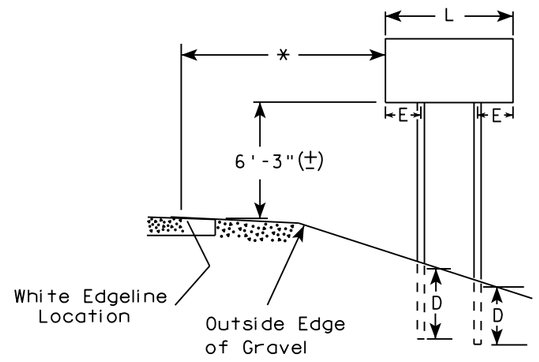
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

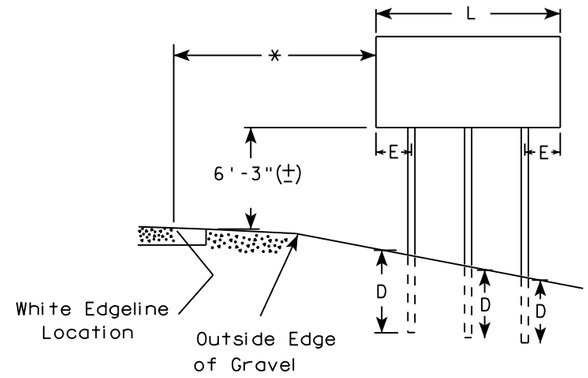
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

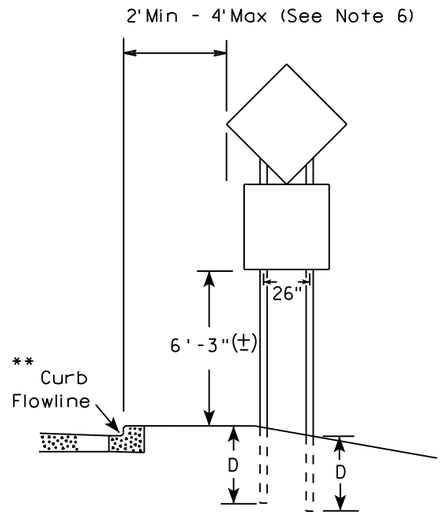
URBAN AREA



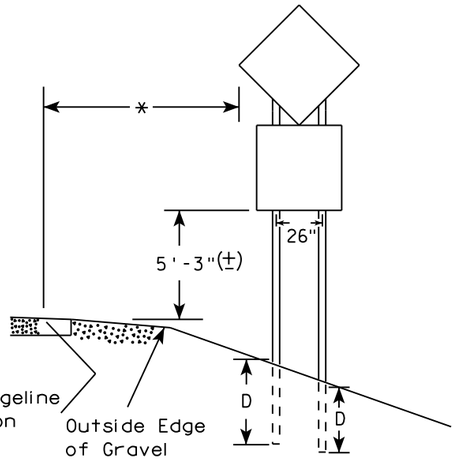
RURAL AREA (See Note 3)







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 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 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. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs 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), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

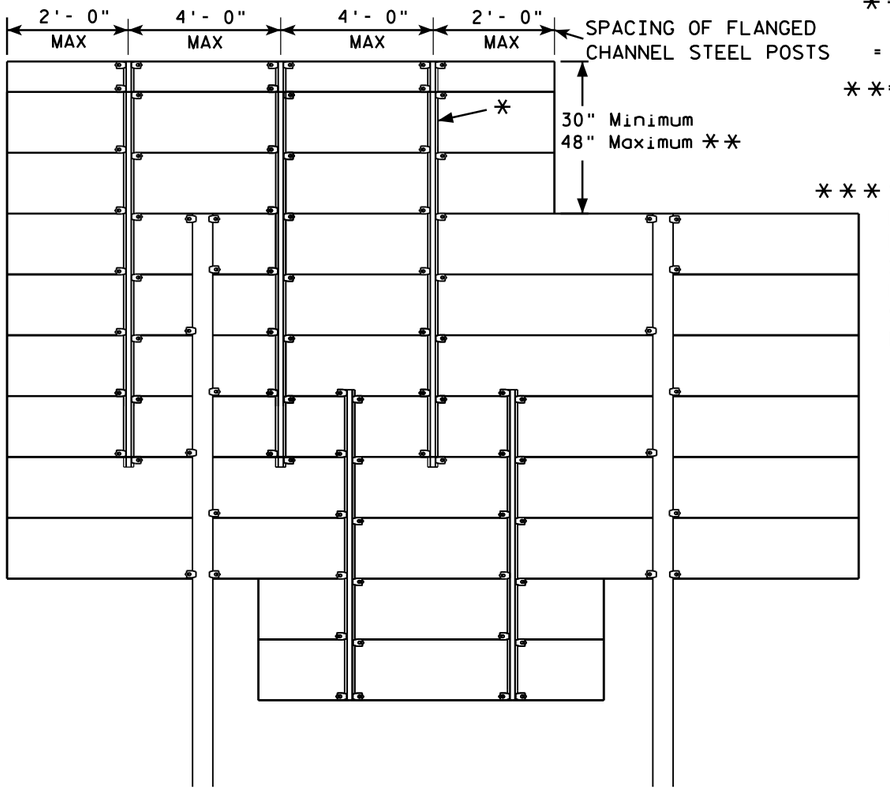
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 564	E

GROUND MOUNTED SIGN

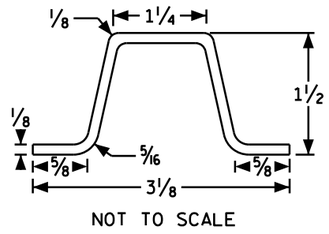


*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

**=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

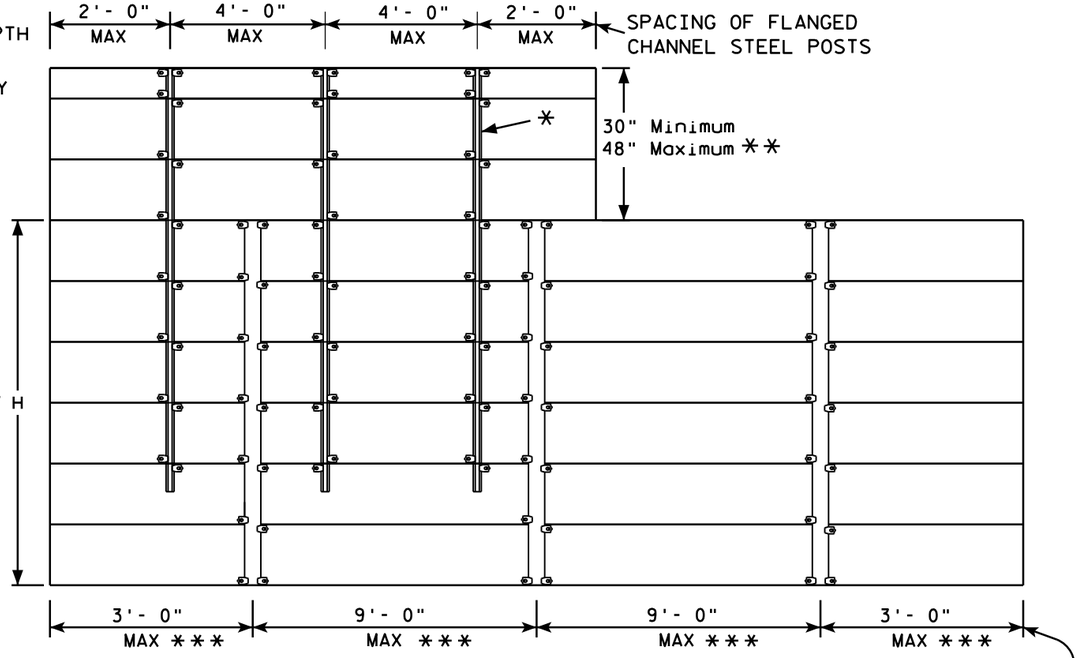
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



SPACING OF ALUMINUM SIGN SUPPORTS
5" X 3.5" X 3.7 LBS./ft.

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)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

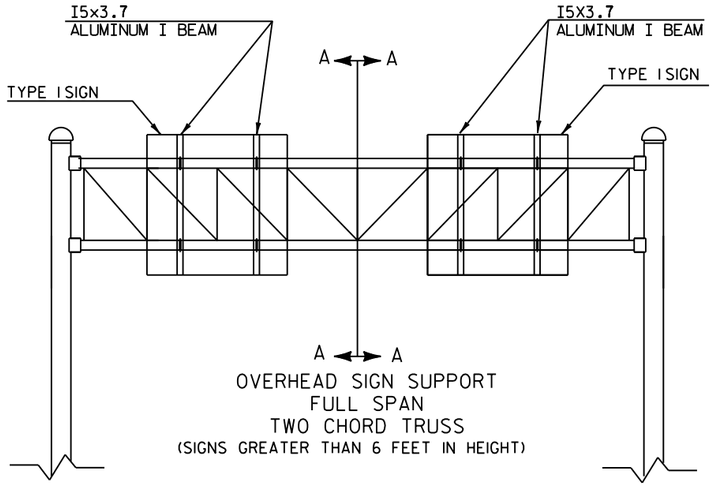
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

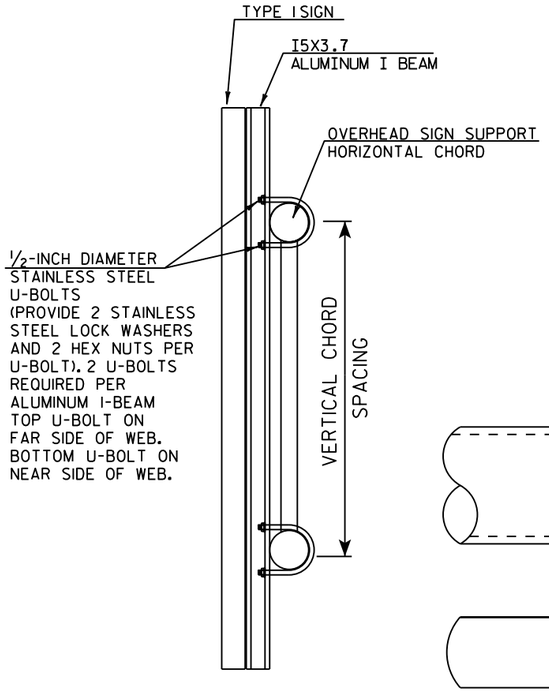
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 565 A4-6.12

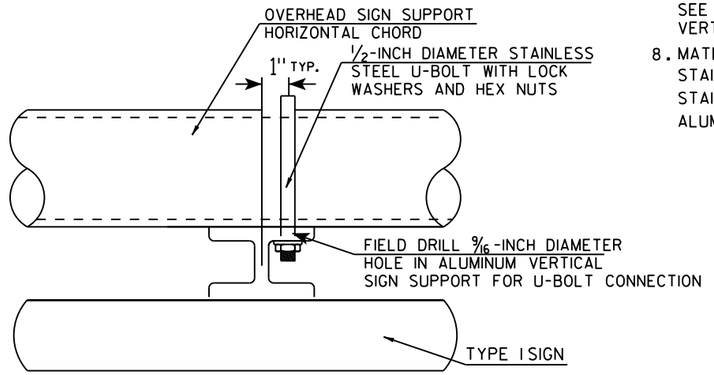
PROJECT NO:				SHEET NO:	E



OVERHEAD SIGN SUPPORT
FULL SPAN
TWO CHORD TRUSS
(SIGNS GREATER THAN 6 FEET IN HEIGHT)



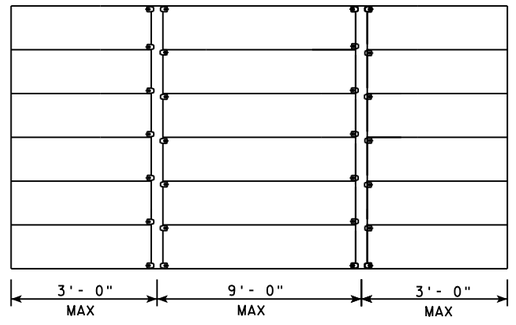
CUT SECTION A-A



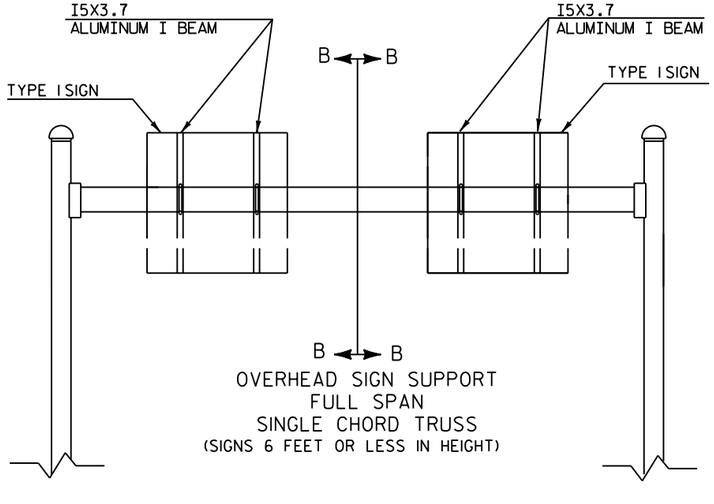
TYPICAL SIGN CONNECTION FOR
TWO CHORD TRUSS
PLAN VIEW

GENERAL NOTES

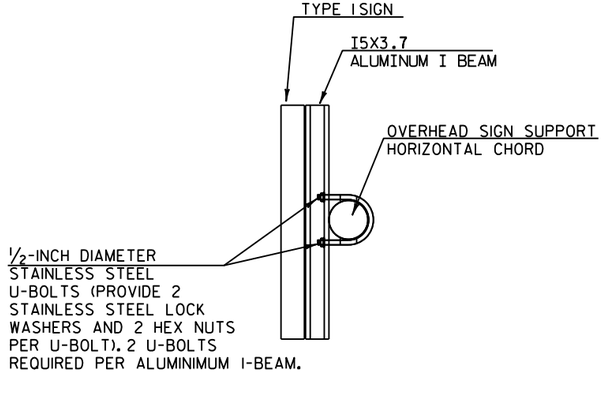
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE 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.



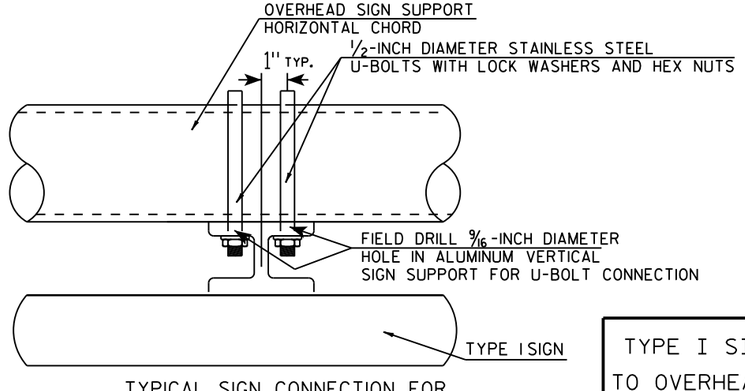
SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



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

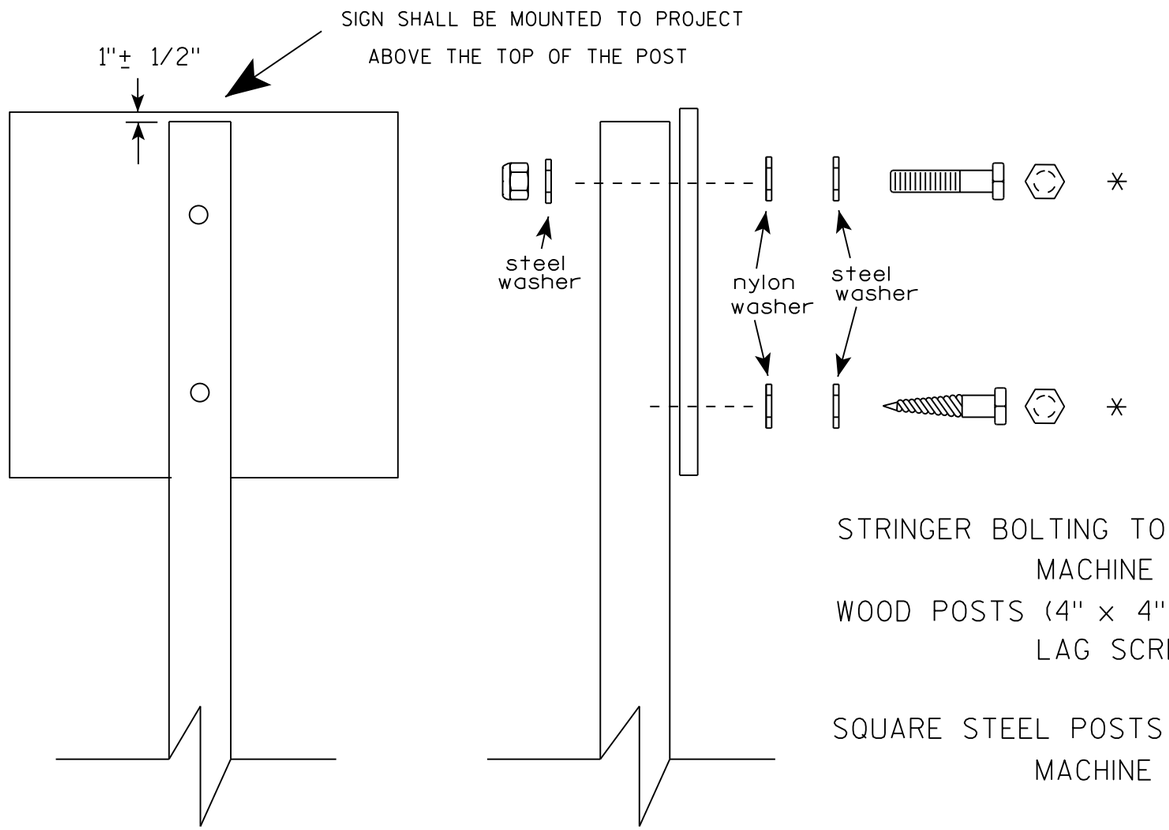
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/15 PLATE NO. A4-7.4

7

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A47.DGN PLOT DATE : 01-DEC-2015 17:42 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 38.916838:1.000000



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.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

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

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

* 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

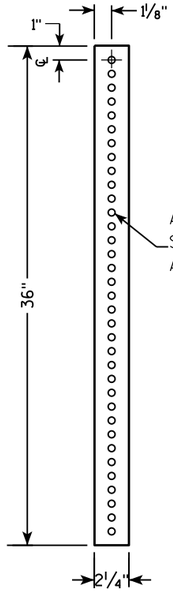
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

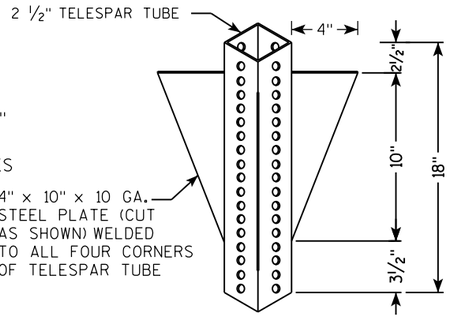
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

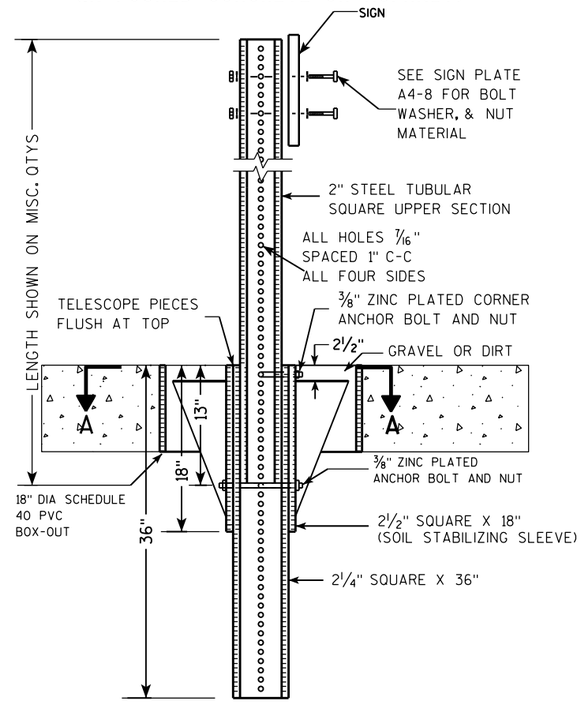
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



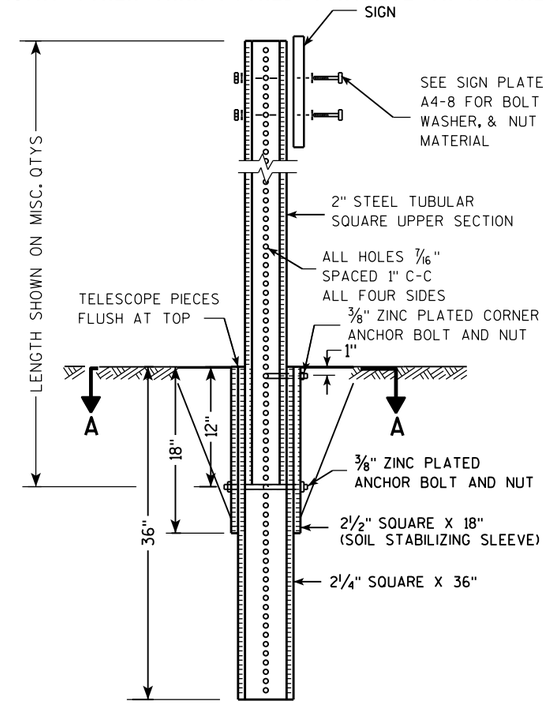
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

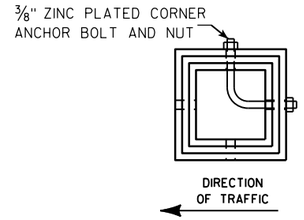


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





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 2/05/15 PLATE 568 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

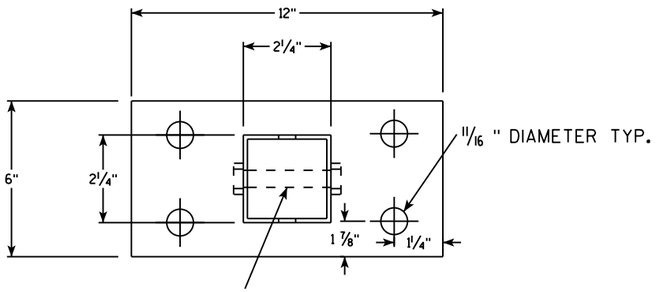
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42

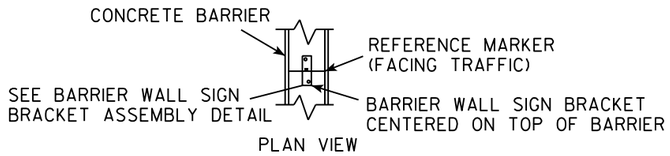
TYPICAL BARRIER WALL SIGN PLACEMENT DETAILS

TYPICAL REFERENCE MARKER MOUNTING DETAILS

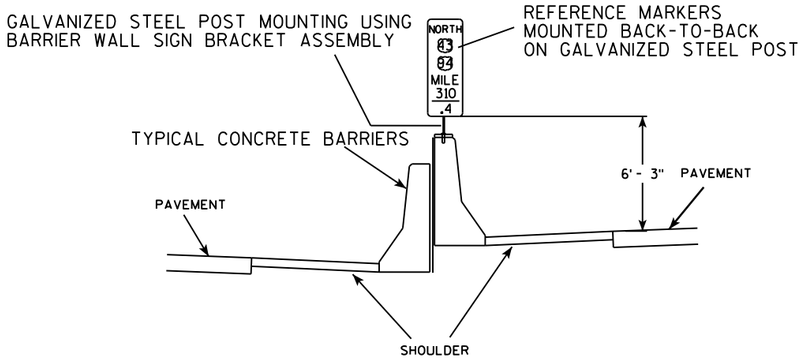
BARRIER WALL SIGN BRACKET ASSEMBLY
NOT TO SCALE



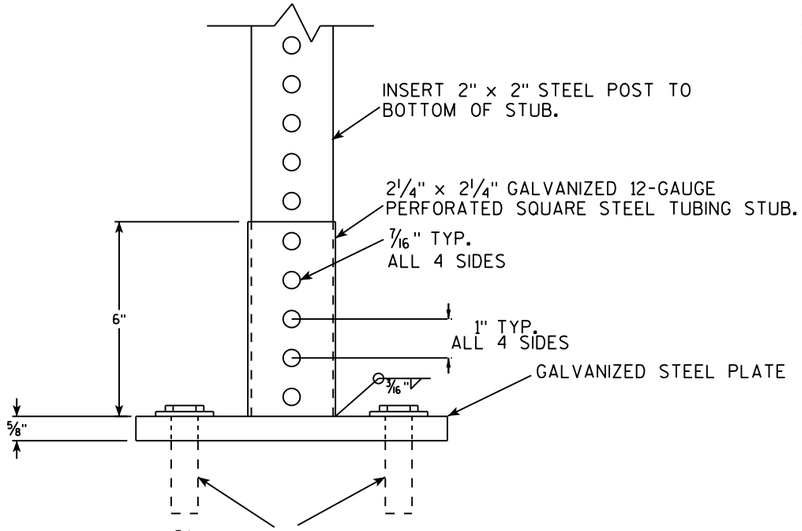
3½" X ⅜" GALVANIZED STEEL BOLT & HARDWARE
PLAN VIEW



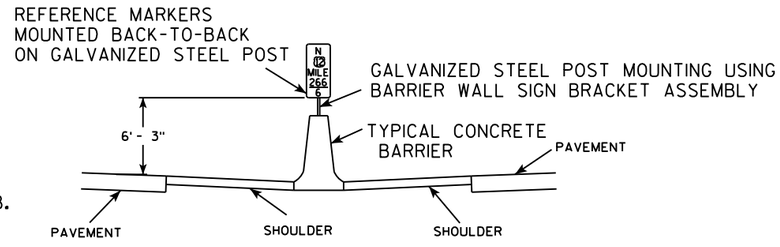
MEDIAN BARRIER MOUNTING DETAIL



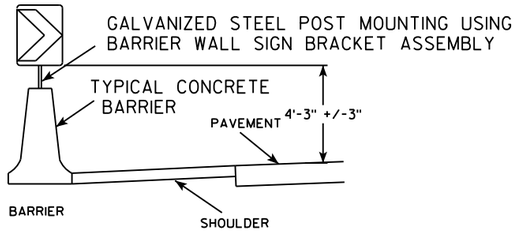
TYPICAL ENHANCED REFERENCE
MARKER PLACEMENT ON DOUBLE MEDIAN BARRIER



SIDE VIEW



TYPICAL ENHANCED REFERENCE
MARKER PLACEMENT ON SINGLE MEDIAN BARRIER



TYPICAL CHEVRON MARKER PLACEMENT

NOTES

1) ALL MATERIAL TO BE APPROVED BY ENGINEER BEFORE INSTALLATION
2) SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS.

SIGN MOUNTING ON BARRIER WALL

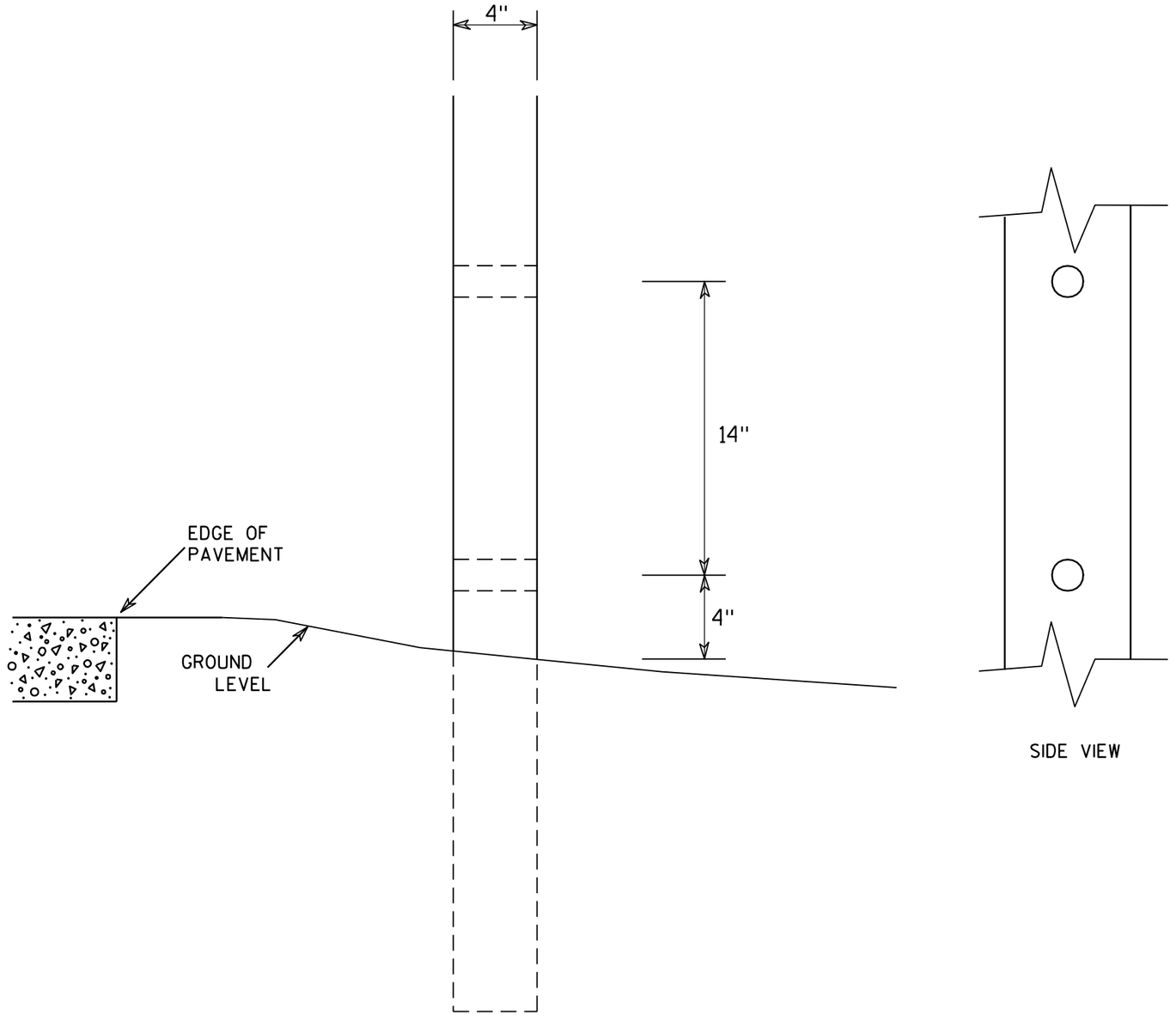
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/15 PLATE ... A4-10.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A410.DGN PLOT DATE : 16-MAR-2015 14:27 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 14.593816:1.000000
WISDOT/CADDS SHEET 42



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.

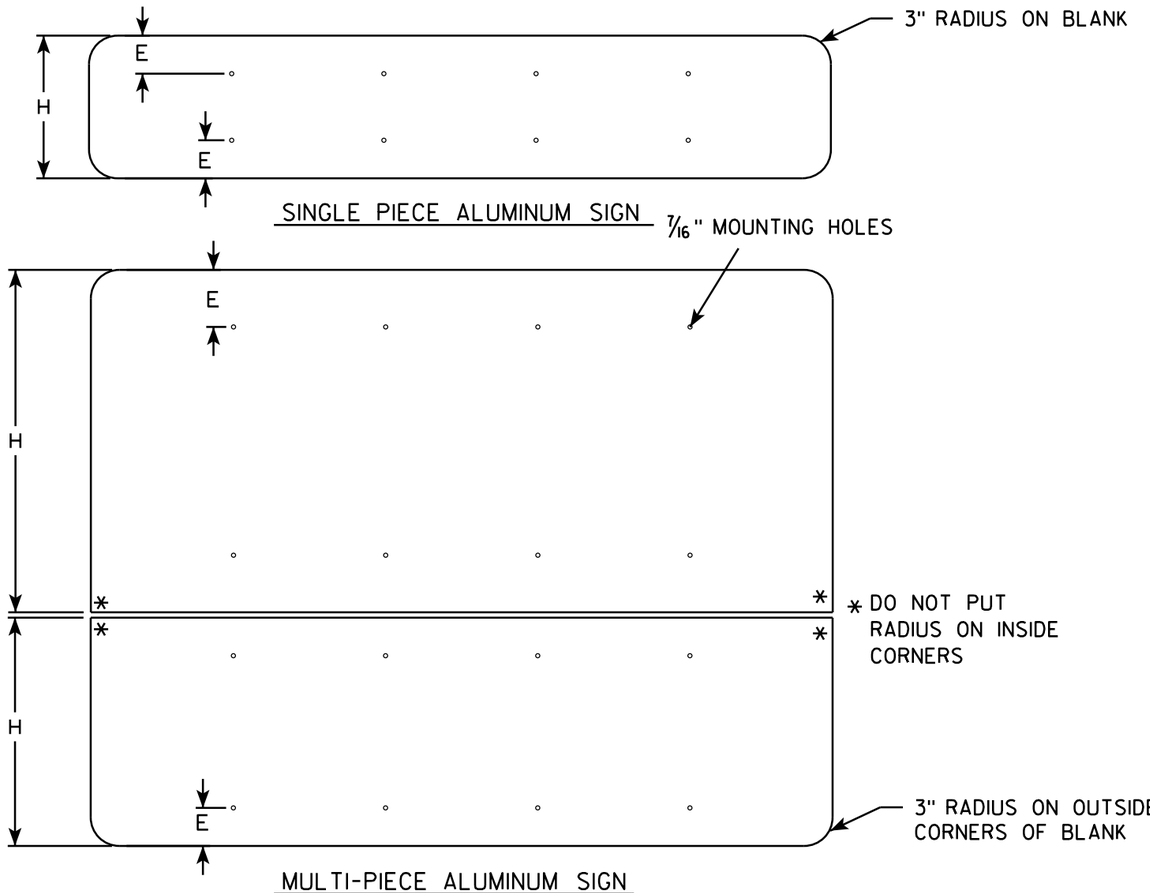
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

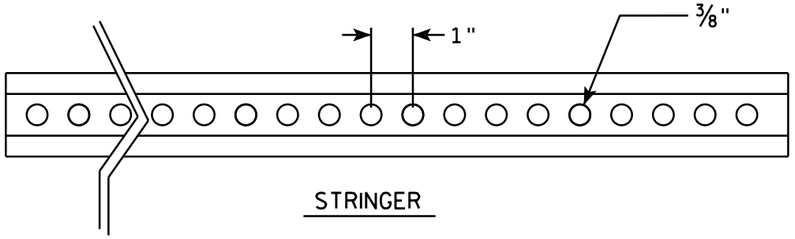
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 570	E



GENERAL NOTES

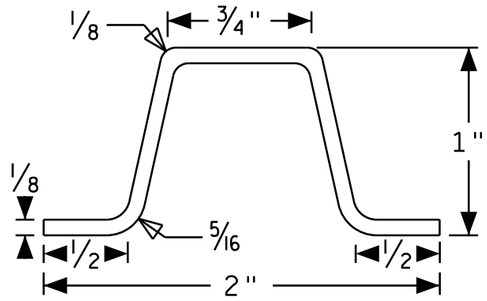
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

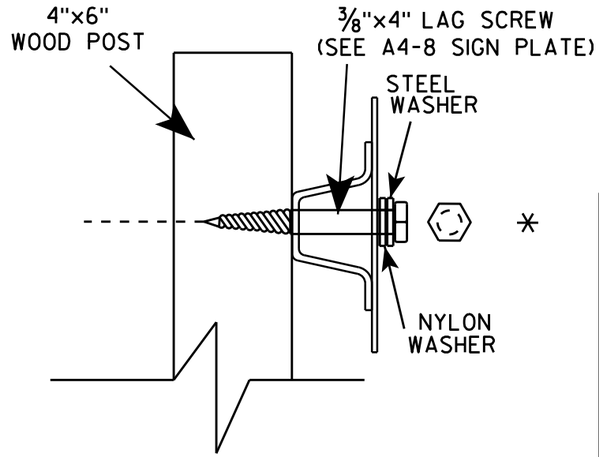


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

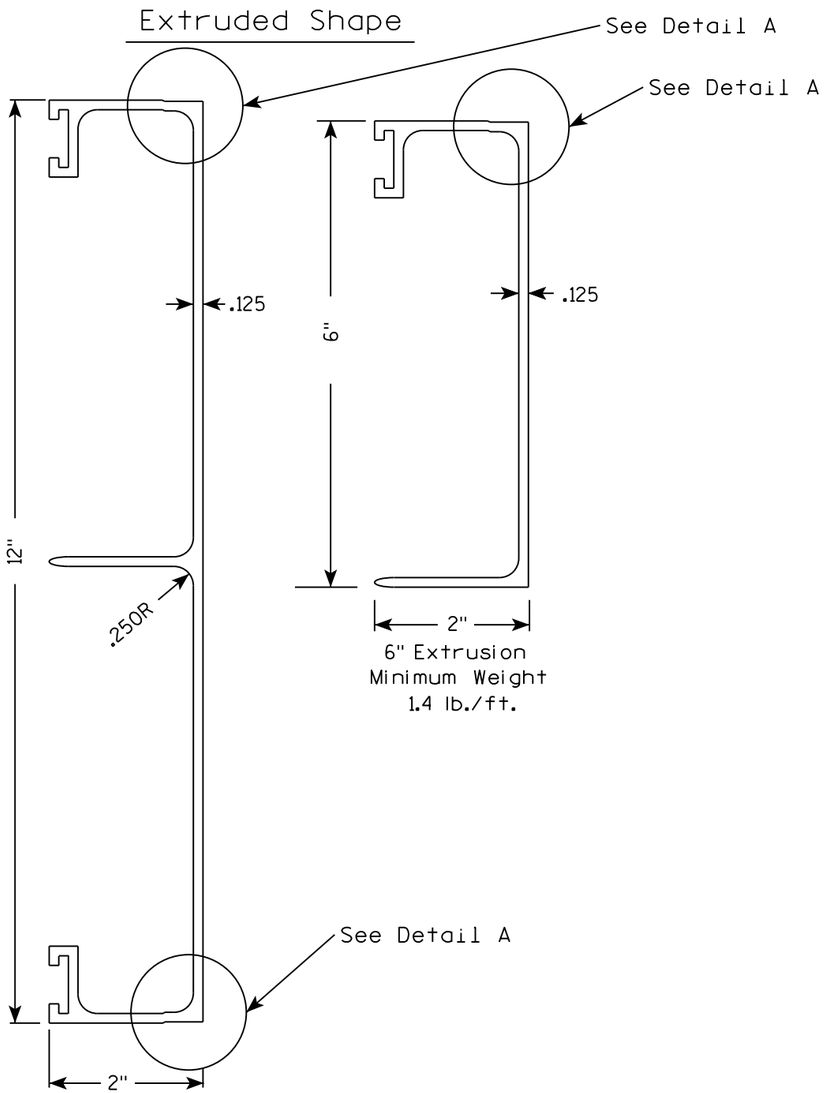
for State Traffic Engineer

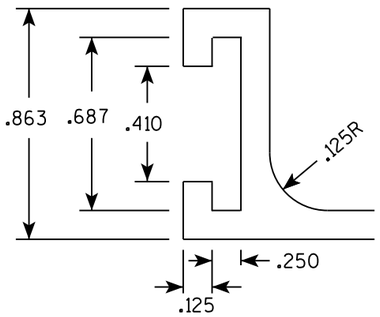
DATE 4/26/16 PLATE NO A4-18.1

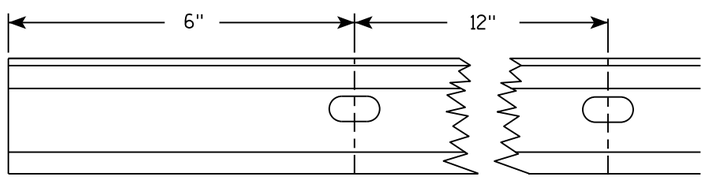
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

Extruded Shape







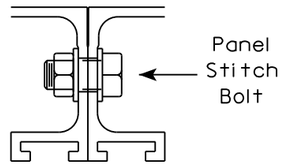
Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

Hardware

STITCH BOLT, WASHER & NUT

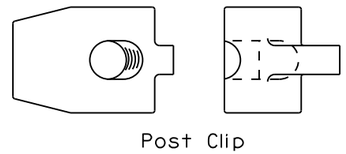
The hardware includes:

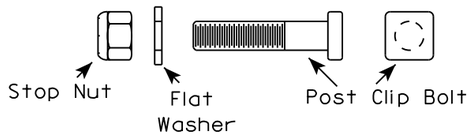
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

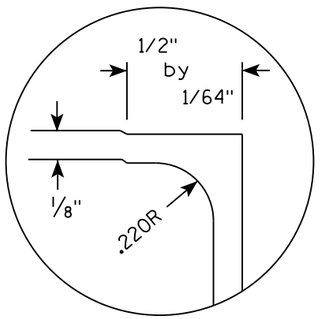
Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





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.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.



DETAIL A (EDGE WRAP JOINT)

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

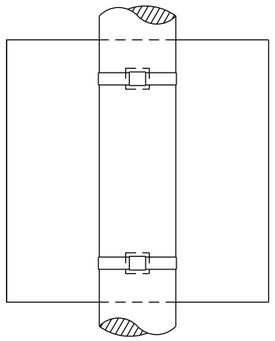
APPROVED Matthew R Rauch
for State Traffic Engineer

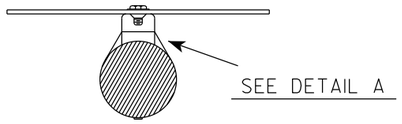
DATE 11/30/16 PLATE NO. A5-2.10

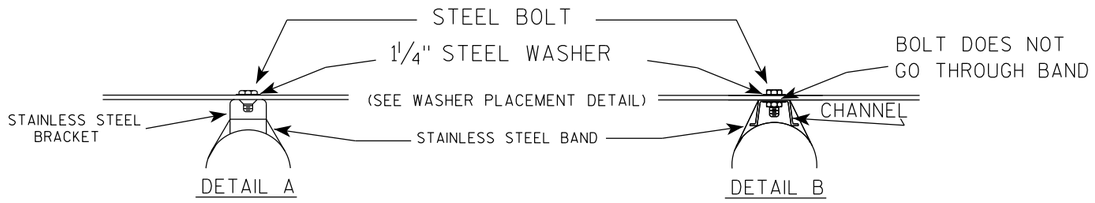
PROJECT NO:				SHEET NO: 572	E

BANDING

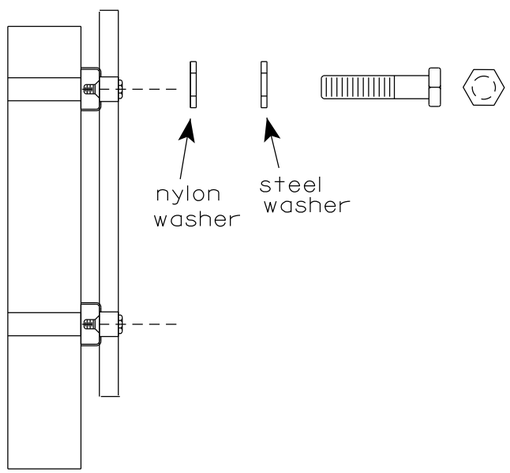
SINGLE SIGN







WASHER PLACEMENT

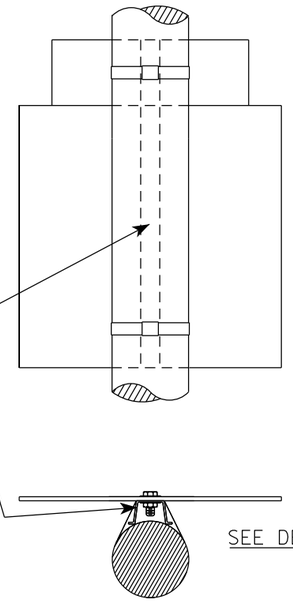


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet 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.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

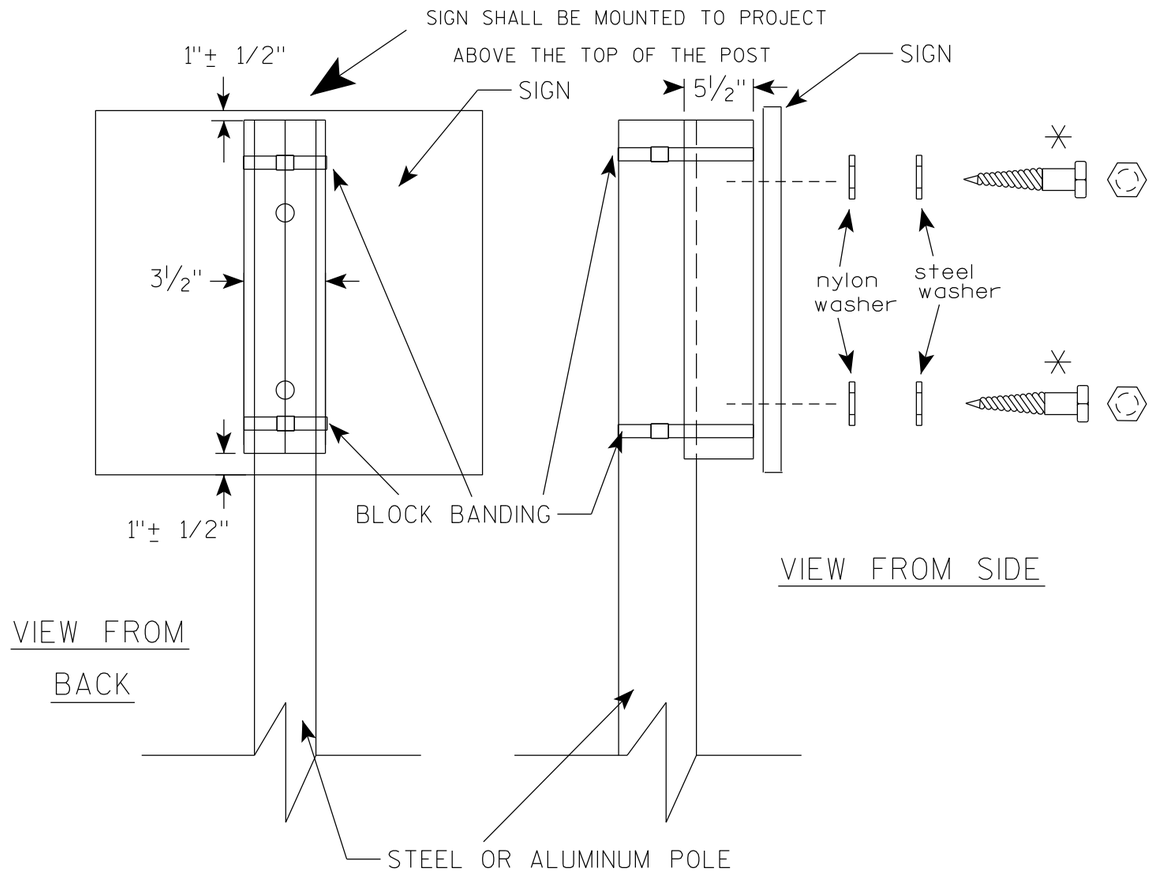
DATE 6/10/19 PLATE NO. A5-9.4

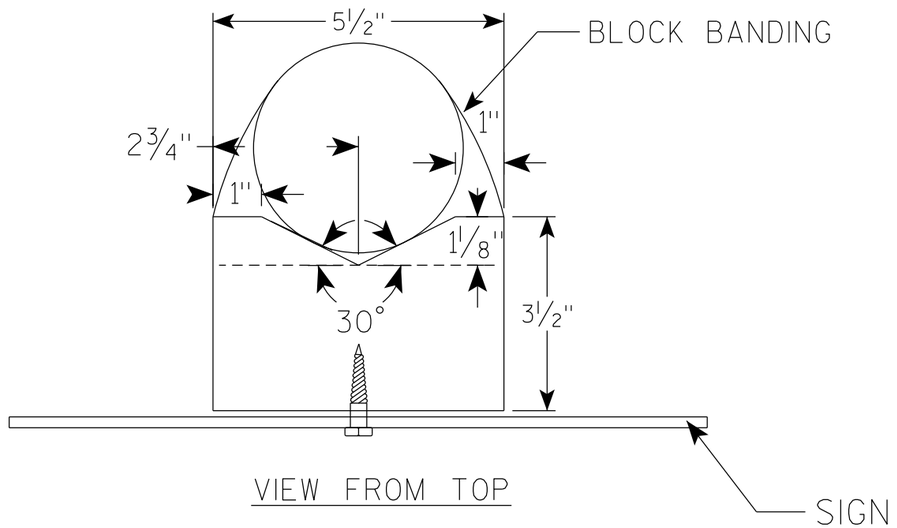
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 573	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

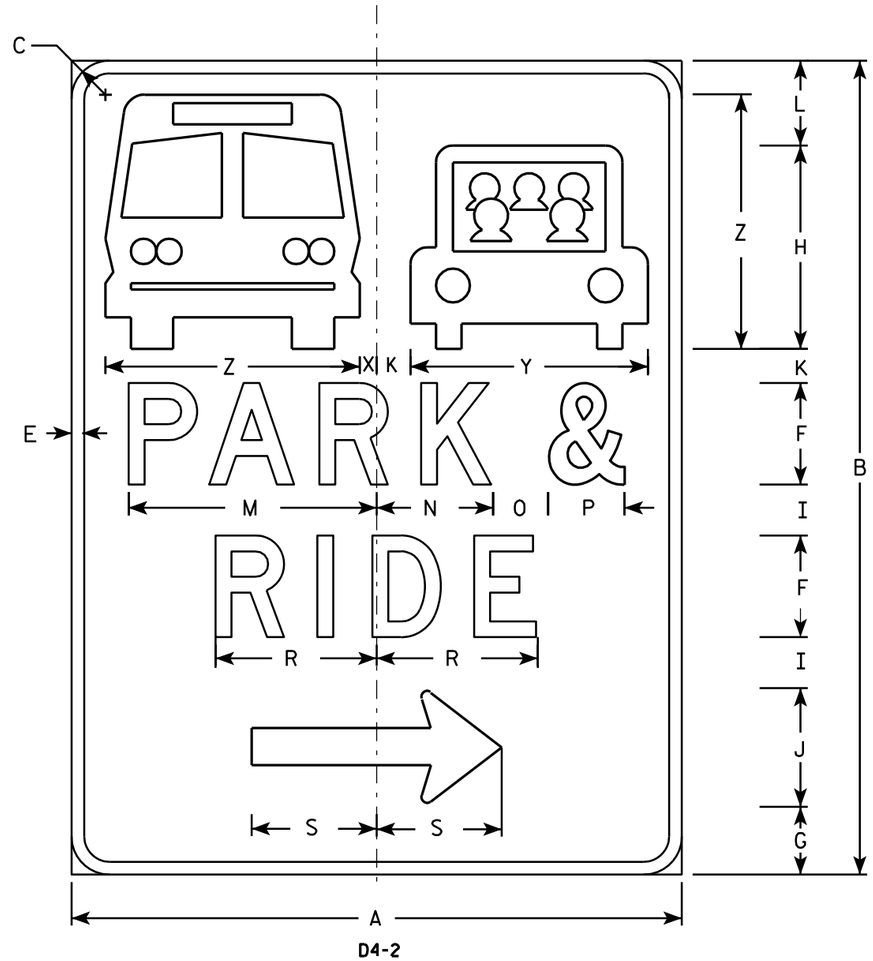
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

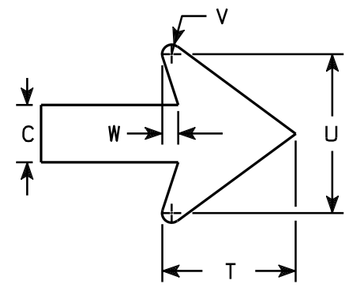
PROJECT NO:				SHEET NO: 574	E



D4-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   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. The D4-2L is the same as a D4-2R except the arrow is reversed.
6. The D4-2 sign may have either symbol or both symbols at the same time.



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	30	1 1/8		1/2	4	1 5/8	7 1/2	1 1/2	4 5/8	1 3/8	3 7/8	9 3/4	4	2 3/4	3		6 3/8	4 7/8	3 1/2	4 1/8	1/4	3/8	5/8	9 3/8	10	5.0
2	30	36	1 3/8		5/8	5	2	9	1 5/8	5 1/2	1 5/8	4 5/8	12 1/4	5 1/8	3 3/8	3 3/4		8	6 1/8	4 3/8	5 1/4	3/8	1/2	7/8	11 3/4	12 1/2	7.50
3	36	48	2 1/4		3/4	6	4	12	3	7	2	5	14 5/8	6 7/8	3 1/4	4 1/2		9 1/2	7 1/2	5 1/4	6 1/4	3/8	5/8	1	14	15	12.0
4																											
5																											

STANDARD SIGN
D4-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/20/10 PLATE NO. D4-2.5

PROJECT NO:

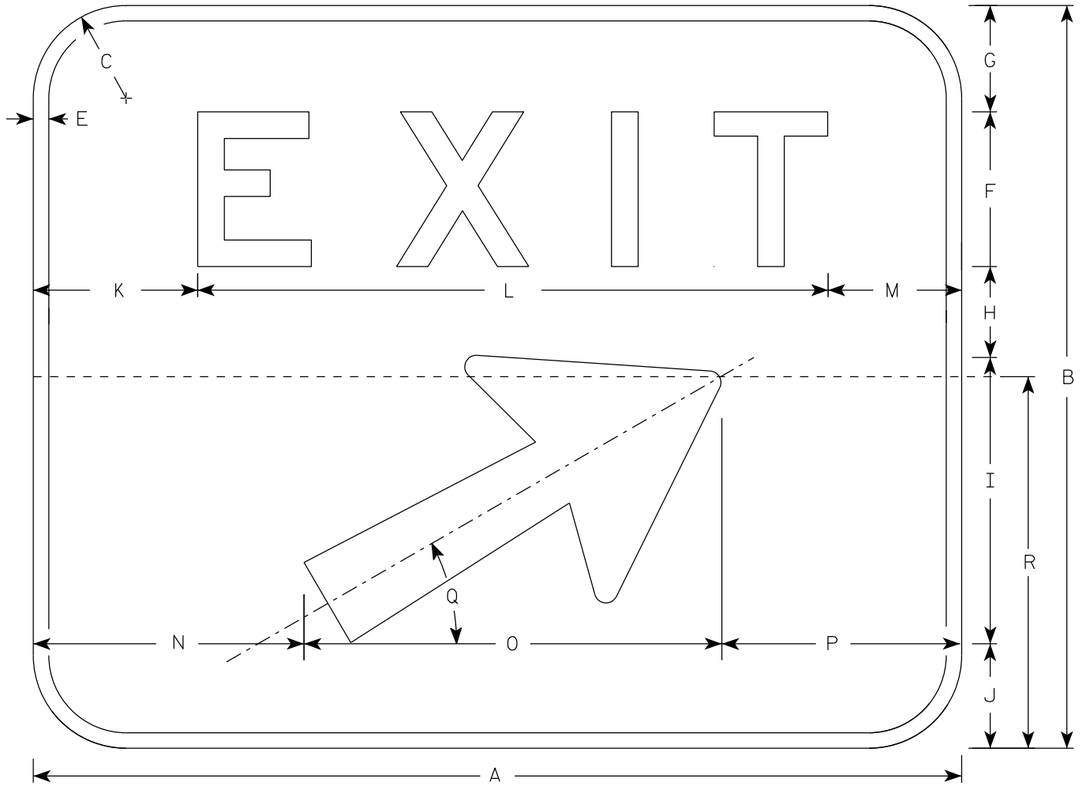
SHEET NO: 575 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\D42.dgn PLOT DATE : 10-FEB-2011 14:21 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7

7



E5-1

NOTES

1. Sign is Type II - Type H reflective
2. Color:
   Background - Green
   Message - White
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. When Base material for this sign is plywood sign shall be split into two seperate pieces for the 72 x 60 size as shown on the detail by the dashed line (----------).
6. Arrow is Type "A" from sign plate A1-1.
7. As per the Standard Spec's, this sign shall not have a vertical joint.
8. Size 3 E5-1 shall only be used in a Work Zone application with a Temporary Sign Support

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																											
3	48	48	6		1	10	6 7/8	5 7/8	18 1/2	6 3/4	8 1/2	31 1/8	8 3/8	11 1/2	27	9 1/2	30°	30									16.0
4	60	48	6		1	10	6 7/8	5 7/8	18 1/2	6 3/4	10 5/8	40 3/4	8 5/8	17 1/2	27	15 1/2	30°	30									20.0
5	72	60	6		1	12	9 3/4	10	18 1/2	9 3/4	13 1/4	48 1/2	10 1/4	23 1/2	27	21 1/2	30°	30									30.0

STANDARD SIGN
E5-1

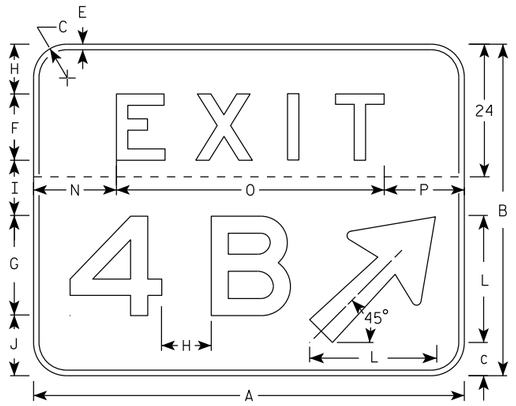
WISCONSIN DEPT OF TRANSPORTATION

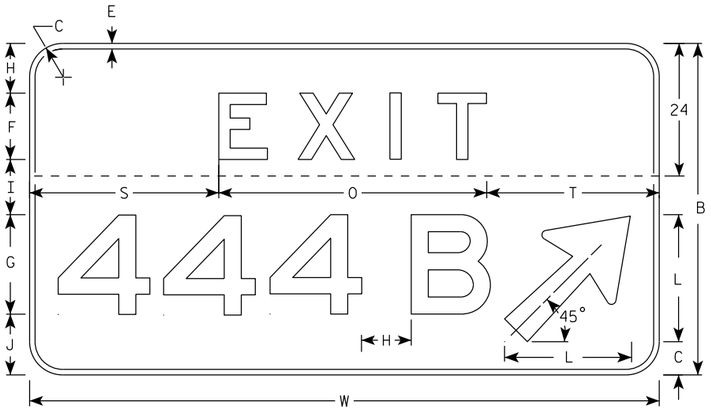
APPROVED Matthew R Rauch
for State Traffic Engineer

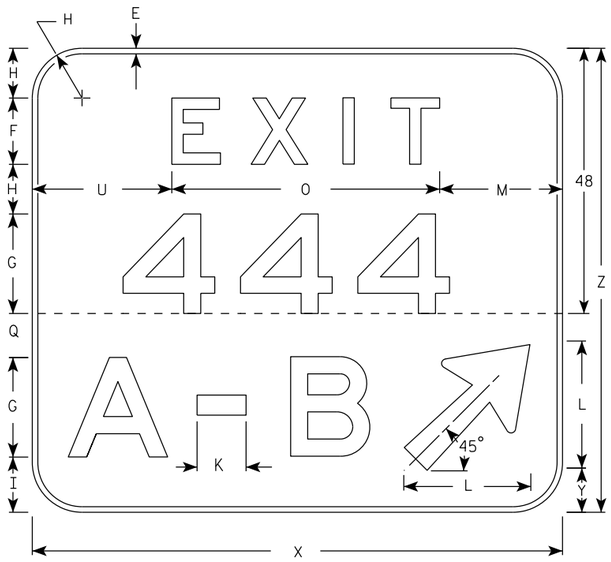
DATE 7/26/18 PLATE NO. E5-1.10

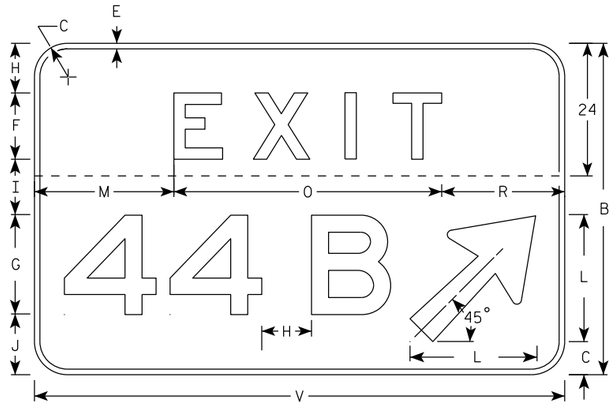
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 576 | E

7









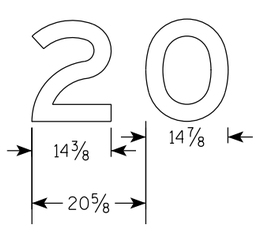
NOTES

1. Sign is Type II - Type H reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E
4. Corners may be square or rounded but the corners shall be rounded when base material is metal.
5. Sign 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. When two letters are hyphenated, the distance between them should be equal to two letter heights and the hyphen is spaced optically between them.
9. 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	19 7/8	22 1/8	22 1/8
1	5 7/8	14	14	14	13 1/8	12 1/8	14	14	12 1/4	14	14	9 7/8	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	20 1/4	21 1/8	21 1/8
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	20 1/4	21 1/8	21 1/8
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	22 1/2	25 1/2	23 3/8
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	19 1/4	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	18	20 3/4	20 3/4
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	20 1/4	20 5/8	20 5/8
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	19 1/4	21 1/2	21 1/2
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	18	21 3/4	21 3/4
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	Q	R	S	T	U	V	W	X	Y	Z
2																										
3																										
4																										
5	78	60	6		1	12	18	9	10	11	8 7/8	23	25 1/4	15	48 1/2	14 1/2	8	22 1/4	34 1/4	31 1/4	25 1/4	96	114	96	7 1/2	84

2 Digit Bid Area	3 Digit Bid Area	4 Digit Bid Area	5 Digit Bid Area
Sq. Ft.			
32.5	40.0	47.5	56.0

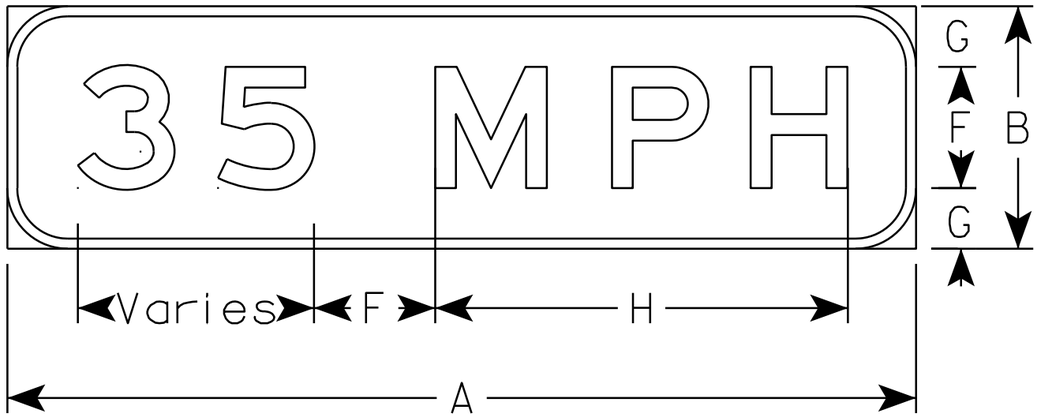
STANDARD SIGN
E5-1B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/18 PLATE NO. E5-1B.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 577 | E



E13-1P

NOTES

1. Panel is - Type F reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. The panel shown on this plate is for use with E5-1A.
5. Width, Radius and Border thickness shall match the E5-1A.
6. Substitute appropriate numerals and adjust placement 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	VARIES	24				12	6	40 7/8																			VARIES
2M																											
3																											
4																											
5																											

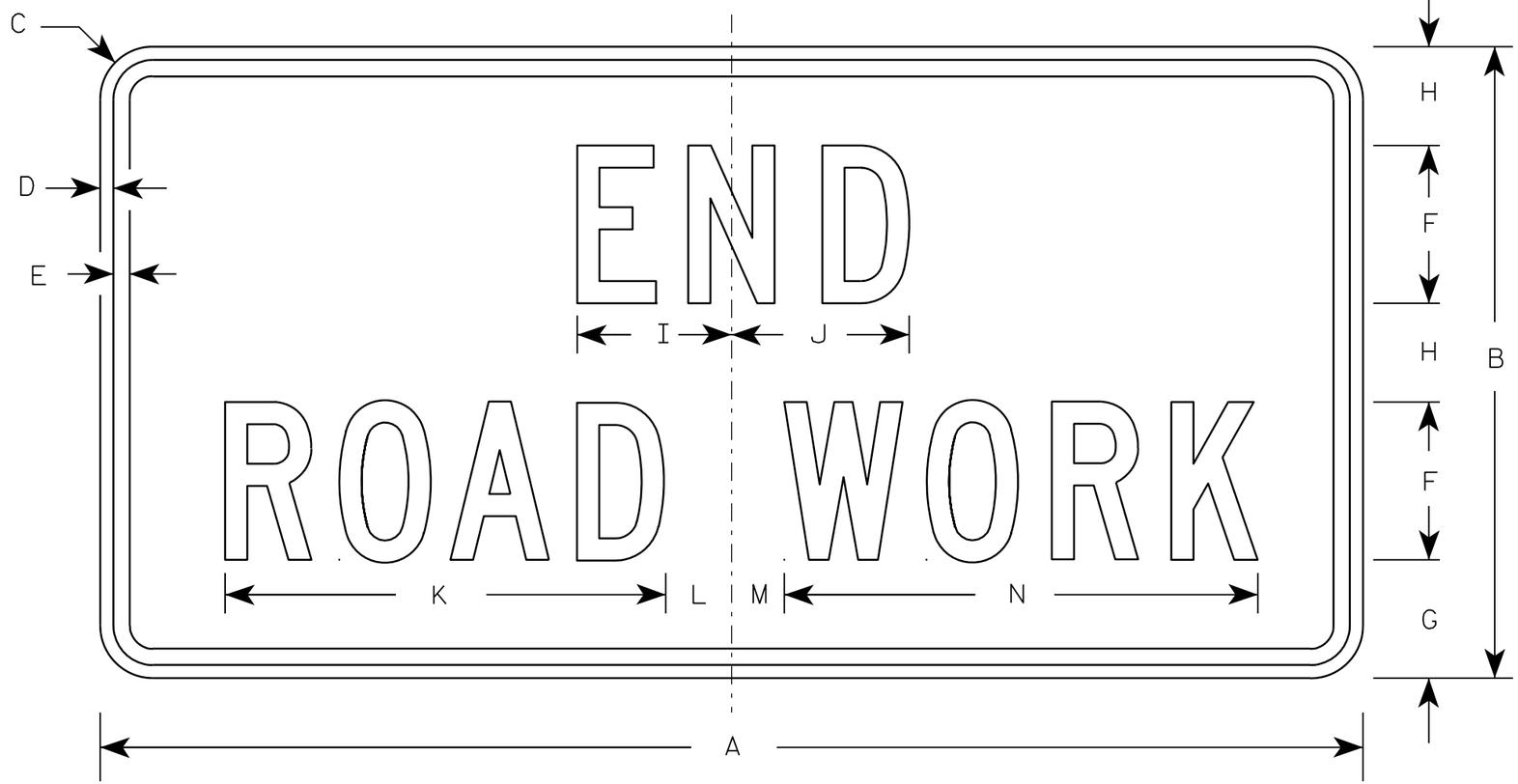
STANDARD SIGN
E13-1P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/5/2012 PLATE NO. E13-1P.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 578	E



G20-2A

NOTES

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

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

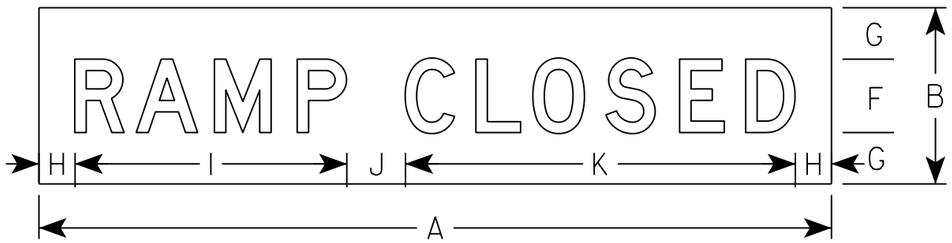
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 579	E

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Material shall be .040 aluminmum



G20-63

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																											
3	72	12				6	3	6	22 1/8	6	31 7/8																6.0
4	108	24				10	7	4 7/8	37	8	53 1/8																18.0
5																											

STANDARD SIGN
G20-63

WISCONSIN DEPT OF TRANSPORTATION

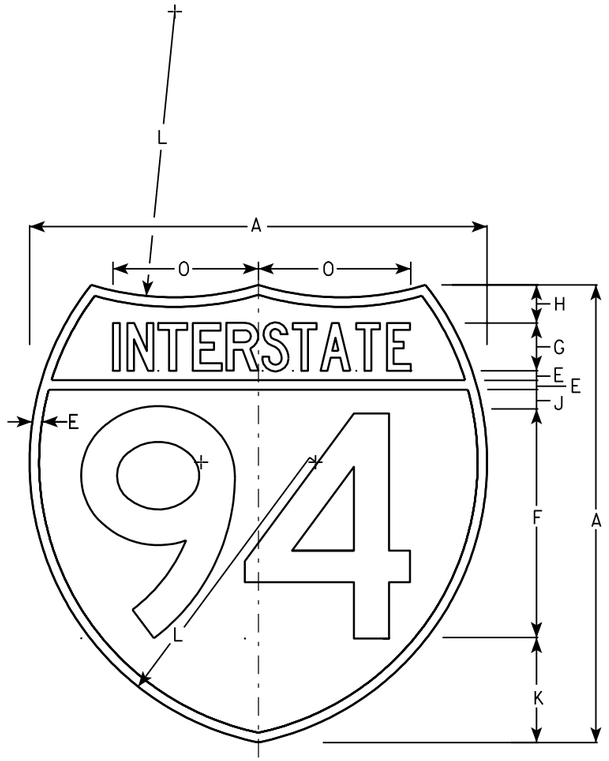
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 11/8/17 PLATE NO. G20-63.1

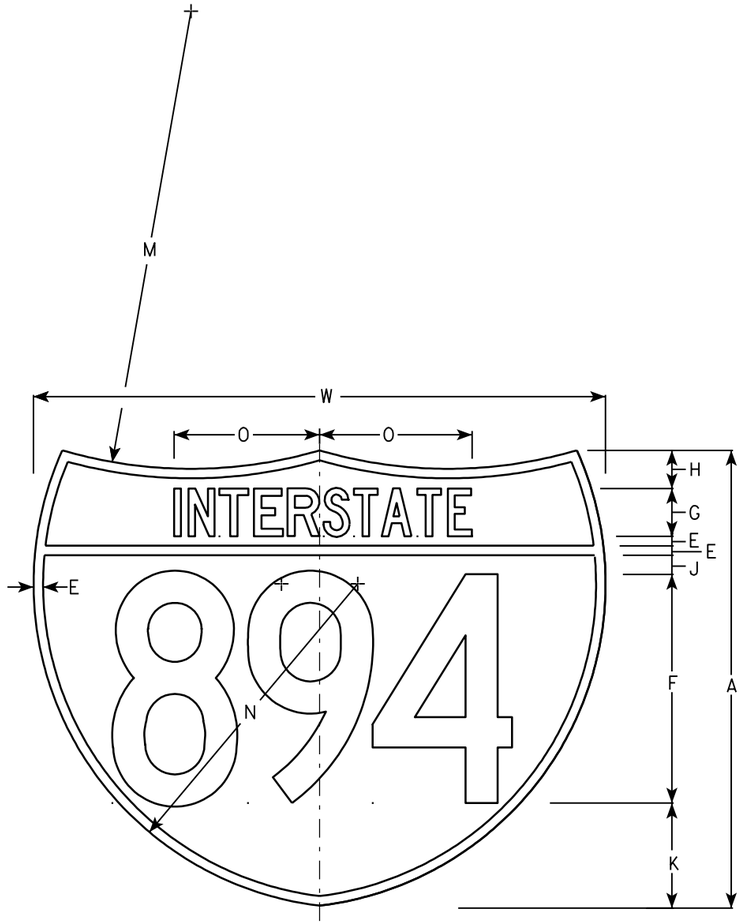
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 580 | E

7

7



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

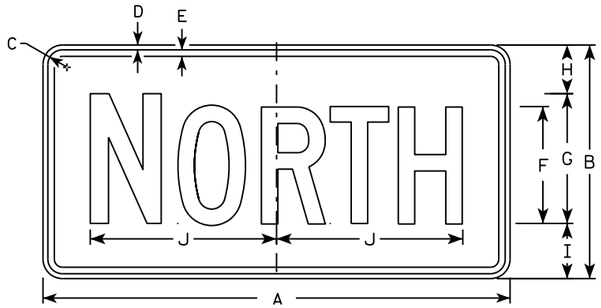
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

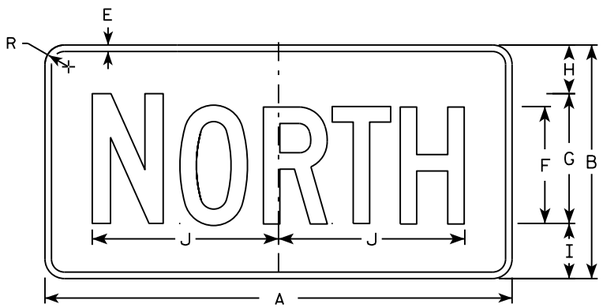
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 581	E



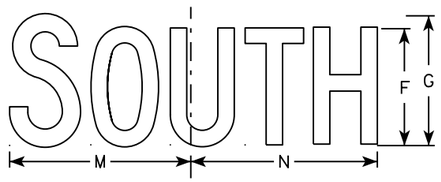
M3-1
MM3-1
MP3-1



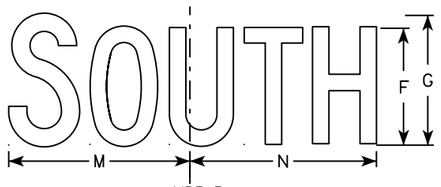
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

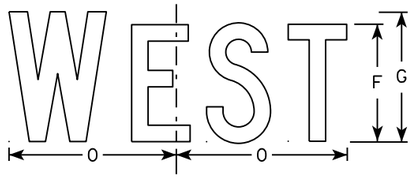
MB3-2
MK3-2
MN3-2



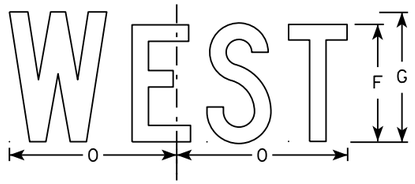
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
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
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
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

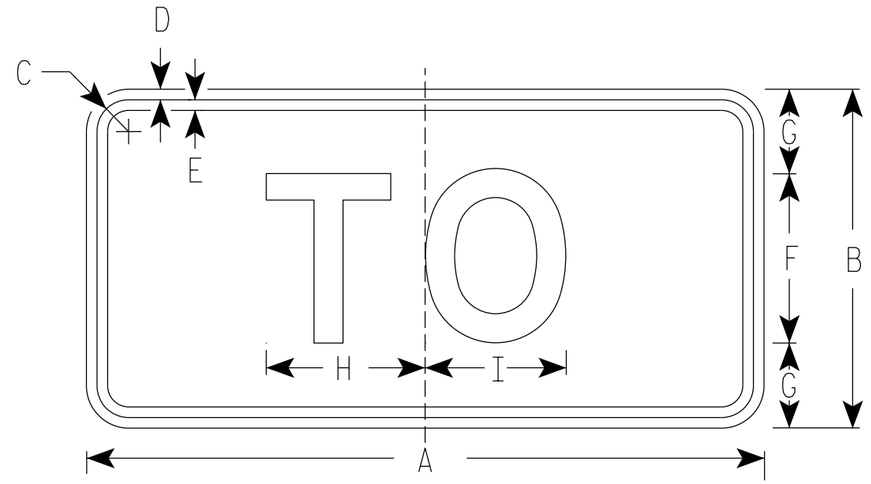
APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

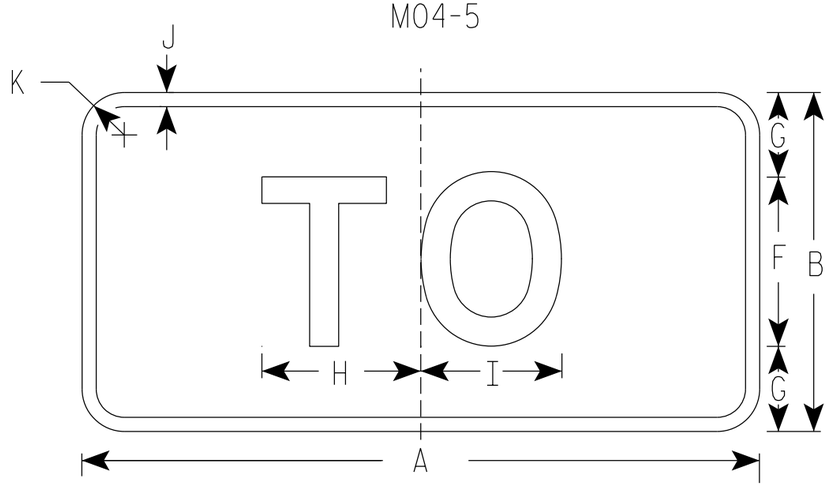
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000

7



M4-5
MM4-5
MP4-5
MO4-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
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
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

   MO4-5 Background - Orange Type F Reflective
   Message - Black

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

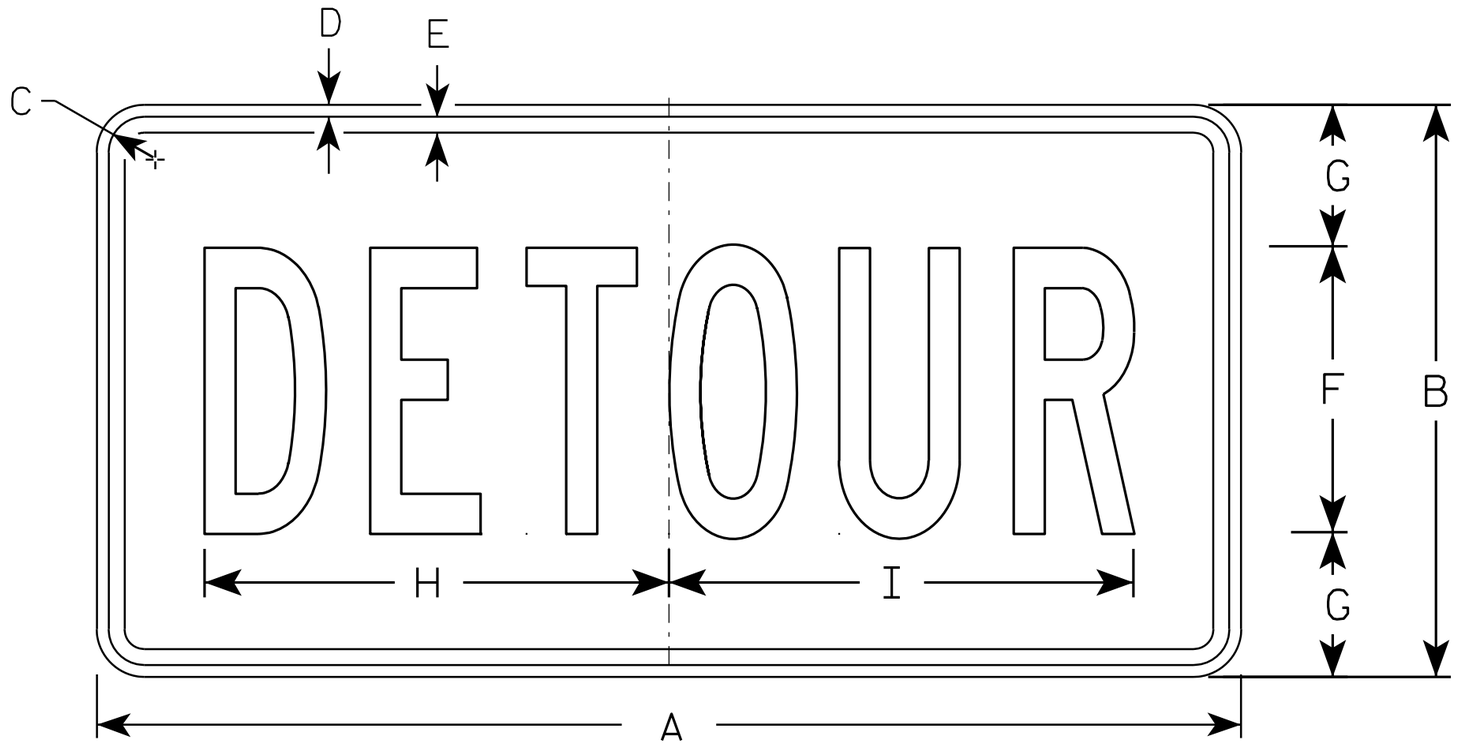
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/7/19 PLATE NO. M4-5.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 583 | E



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

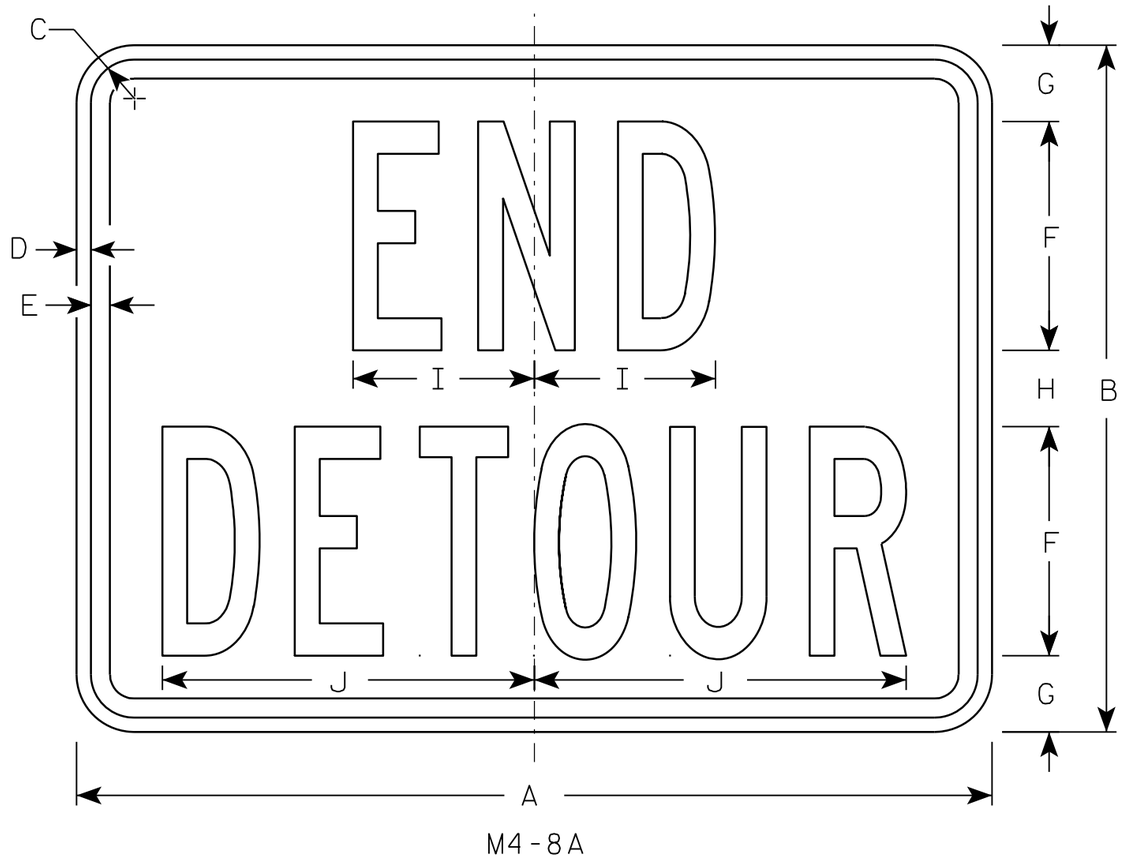
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 584	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

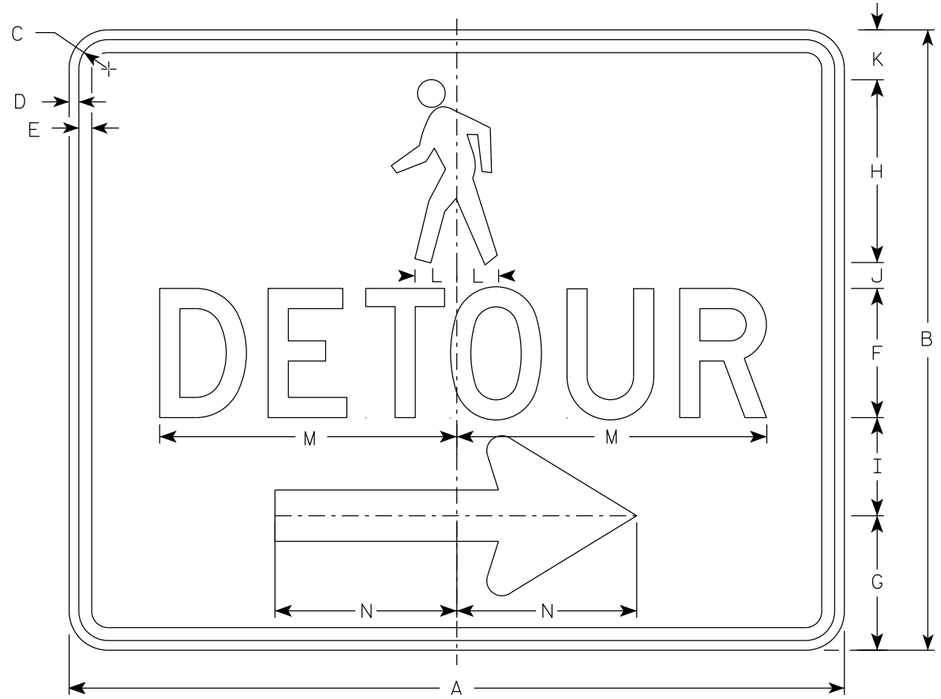
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

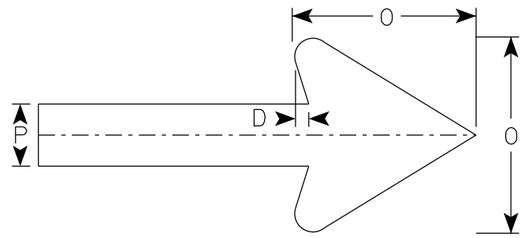
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 585	E



M4-9BR

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
   Background - Orange
   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. M4-9BL is the same as M4-9BR except the arrow 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																											
2	30	24	1 1/8	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.00
3																											
4																											
5																											

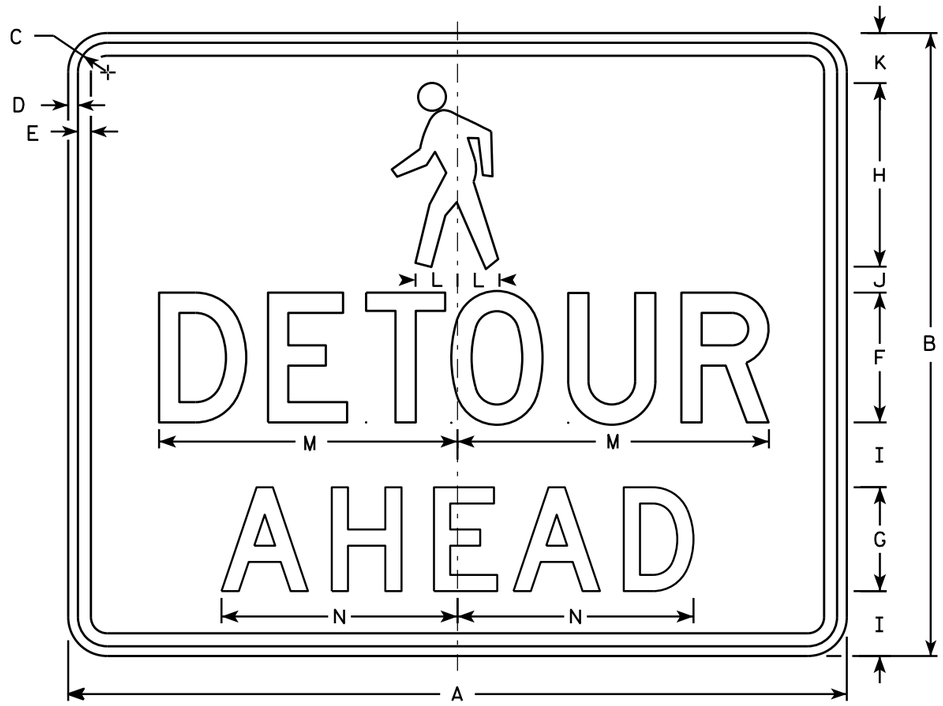
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 7/1/19 PLATE NO. M4-9B.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 586 | E



M4-9BA

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   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																											
2	30	24	1 1/8	3/8	1/2	5	4	7 1/8	2 1/2	1	1 7/8	1 5/8	11 3/4	9 1/8													5.0
3																											
4																											
5																											

STANDARD SIGN
M4-9BA

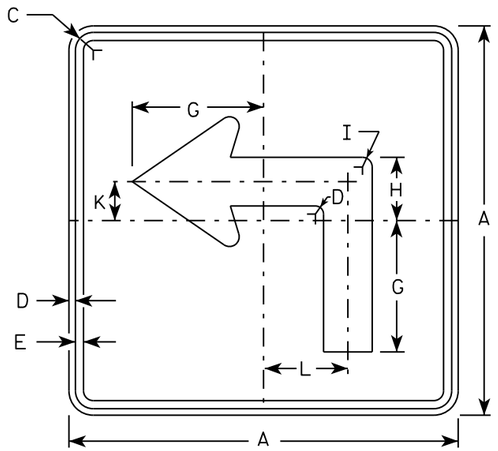
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

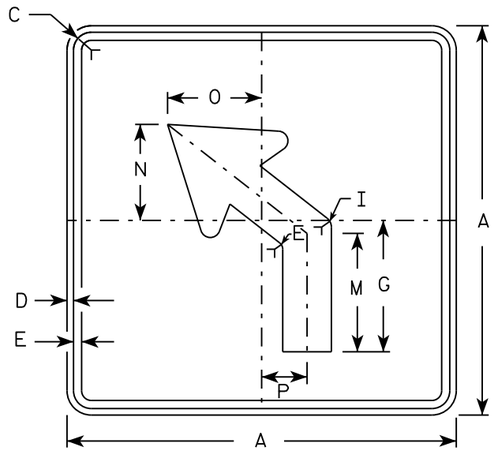
DATE 3/24/16 PLATE NO. M4-9BA.1

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

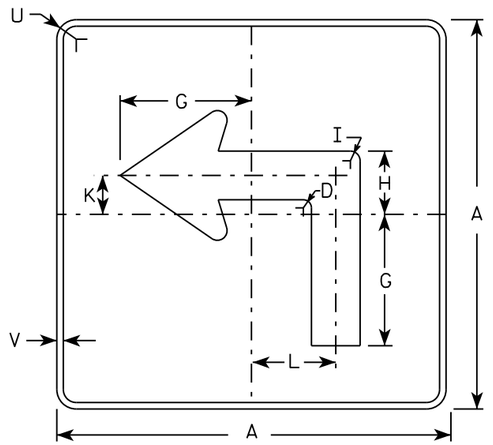
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M49BA.dgn PLOT DATE : 24-MAR-2016 14:57 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



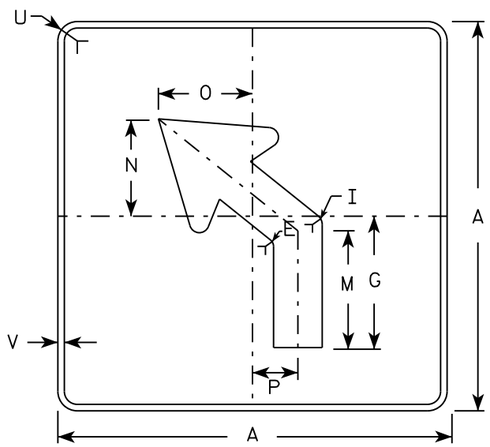
M5-1L
MM5-1L
MO5-1L
MP5-1L



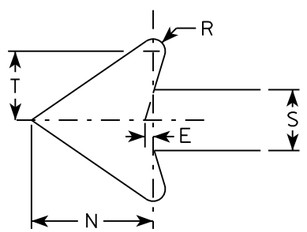
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
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
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts 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																											
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
3	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
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
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

STANDARD SIGN
M5-1 & M5-2

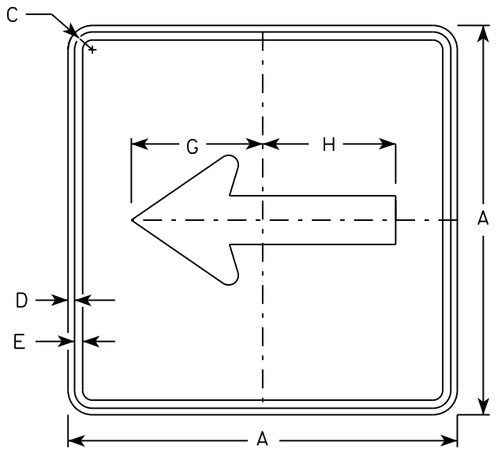
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

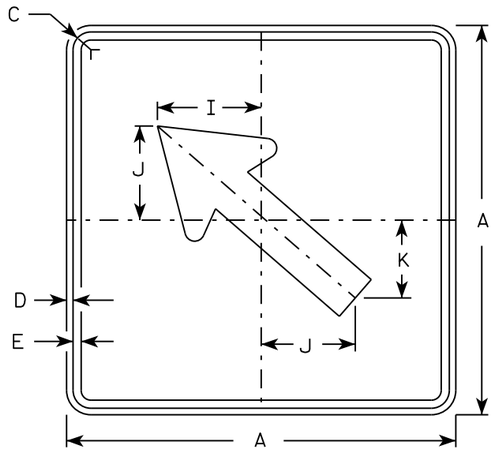
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



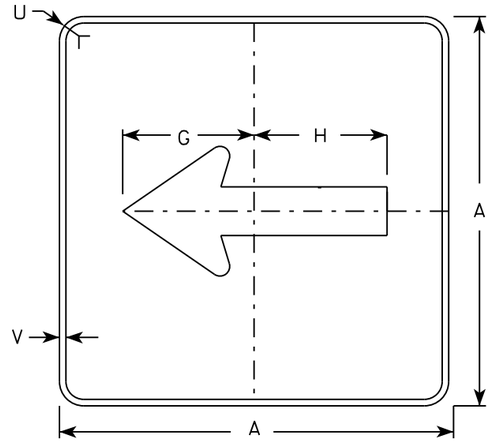
M6-1
MM6-1
MO6-1
MP6-1



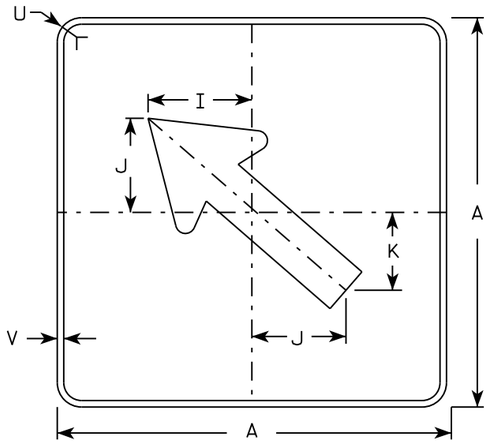
M6-2
MM6-2
MO6-2
MP6-2

NOTES

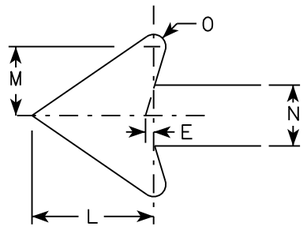
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



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	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
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
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
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

STANDARD SIGN
M6-1 & M6-2
SERIES

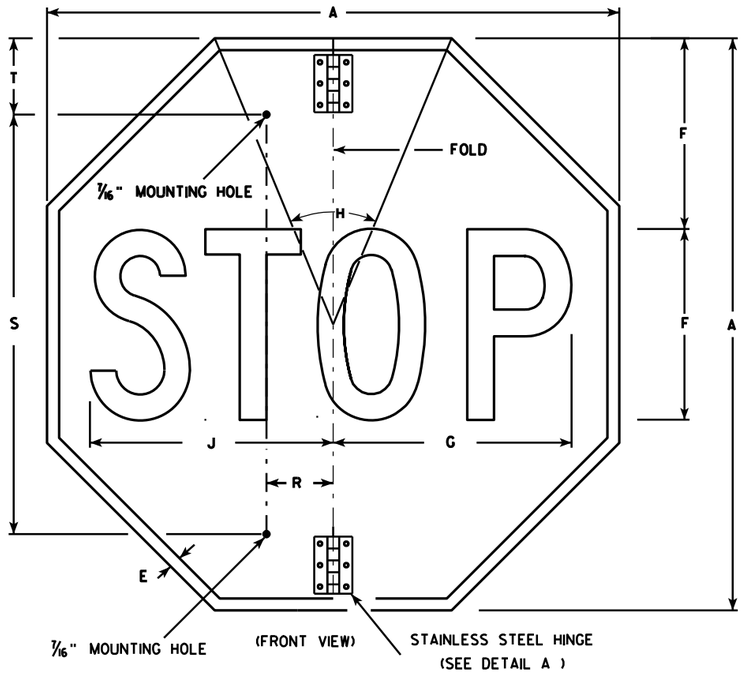
WISCONSIN DEPT OF TRANSPORTATION

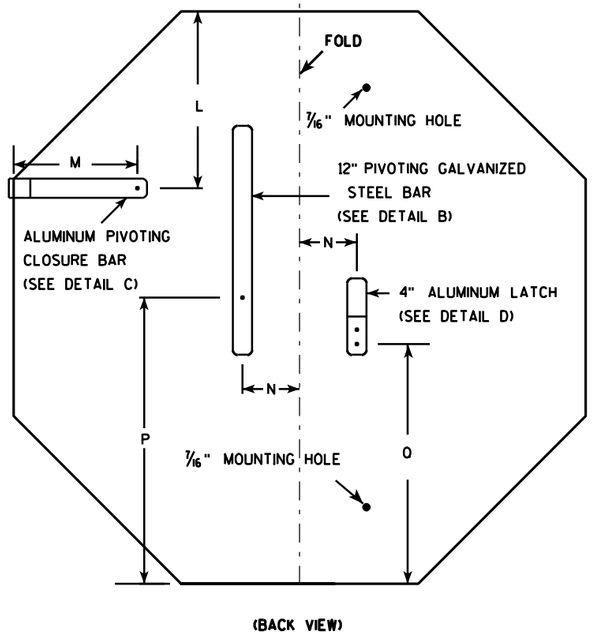
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 589 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

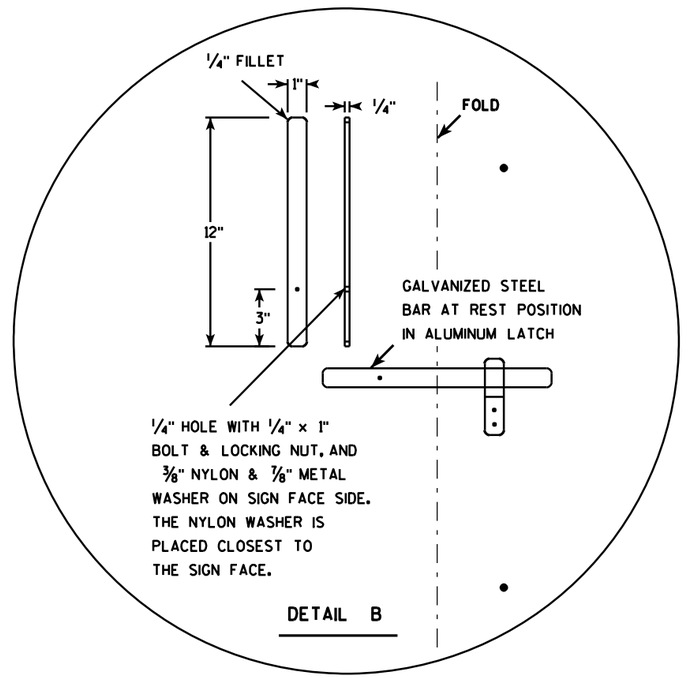
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000

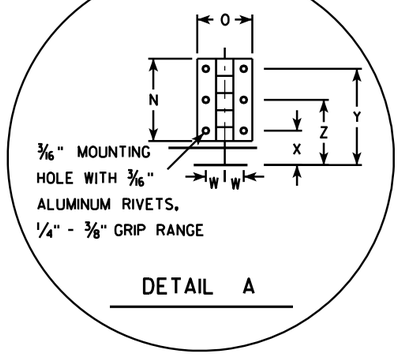


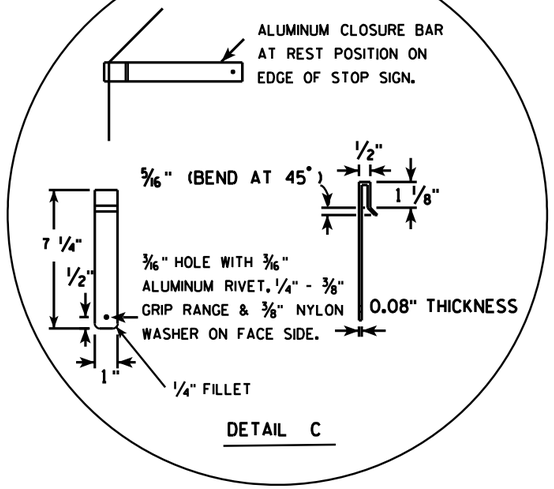


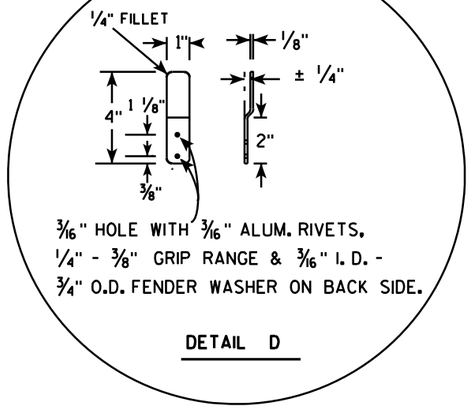
NOTES

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. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.









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				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

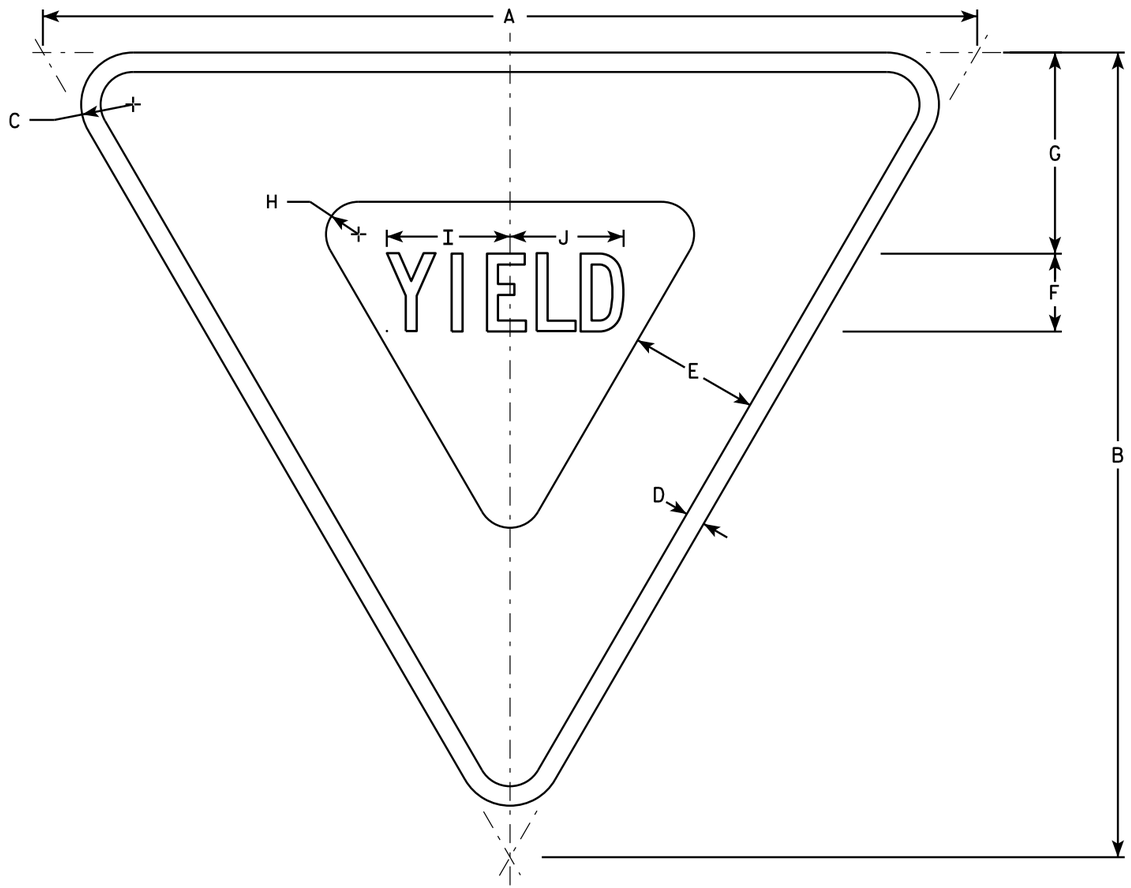
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 590	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																											
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

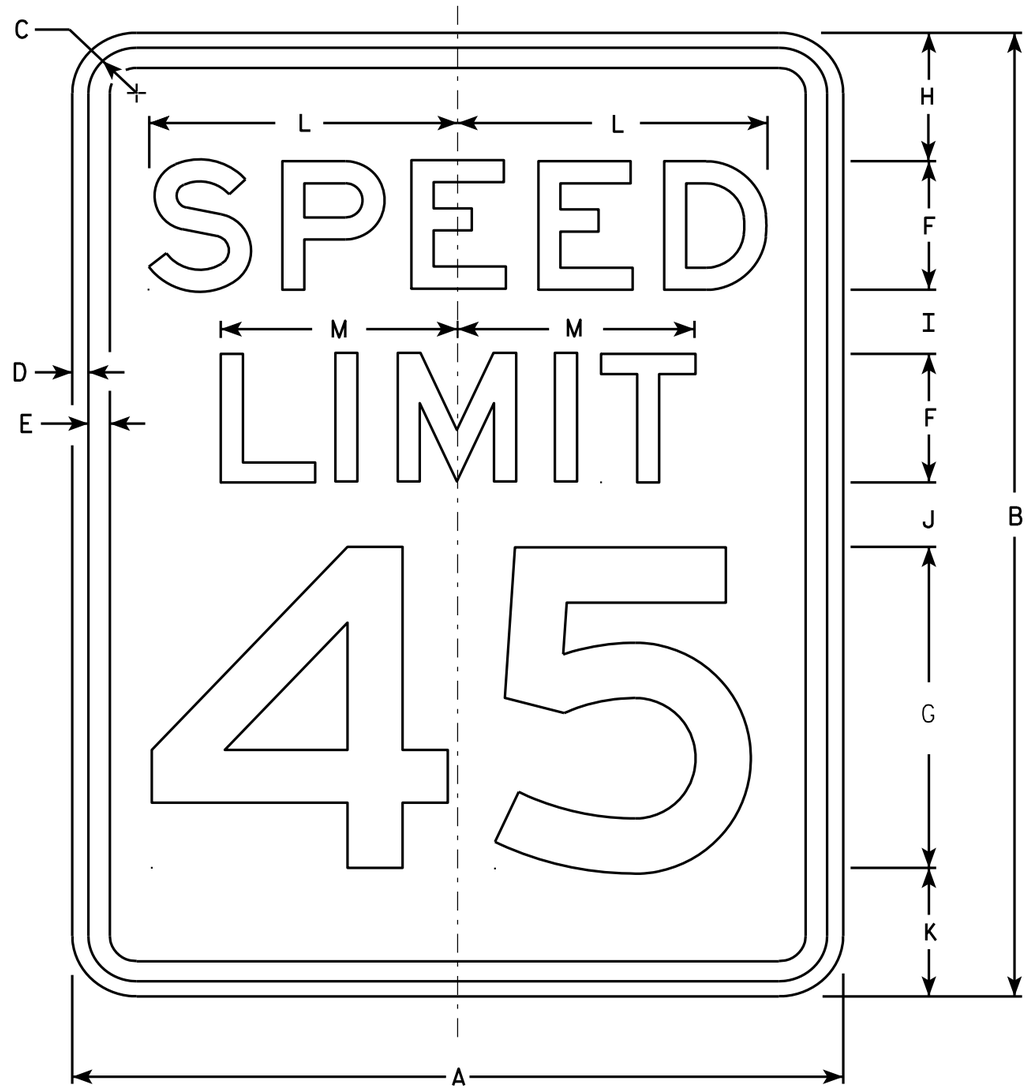
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



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

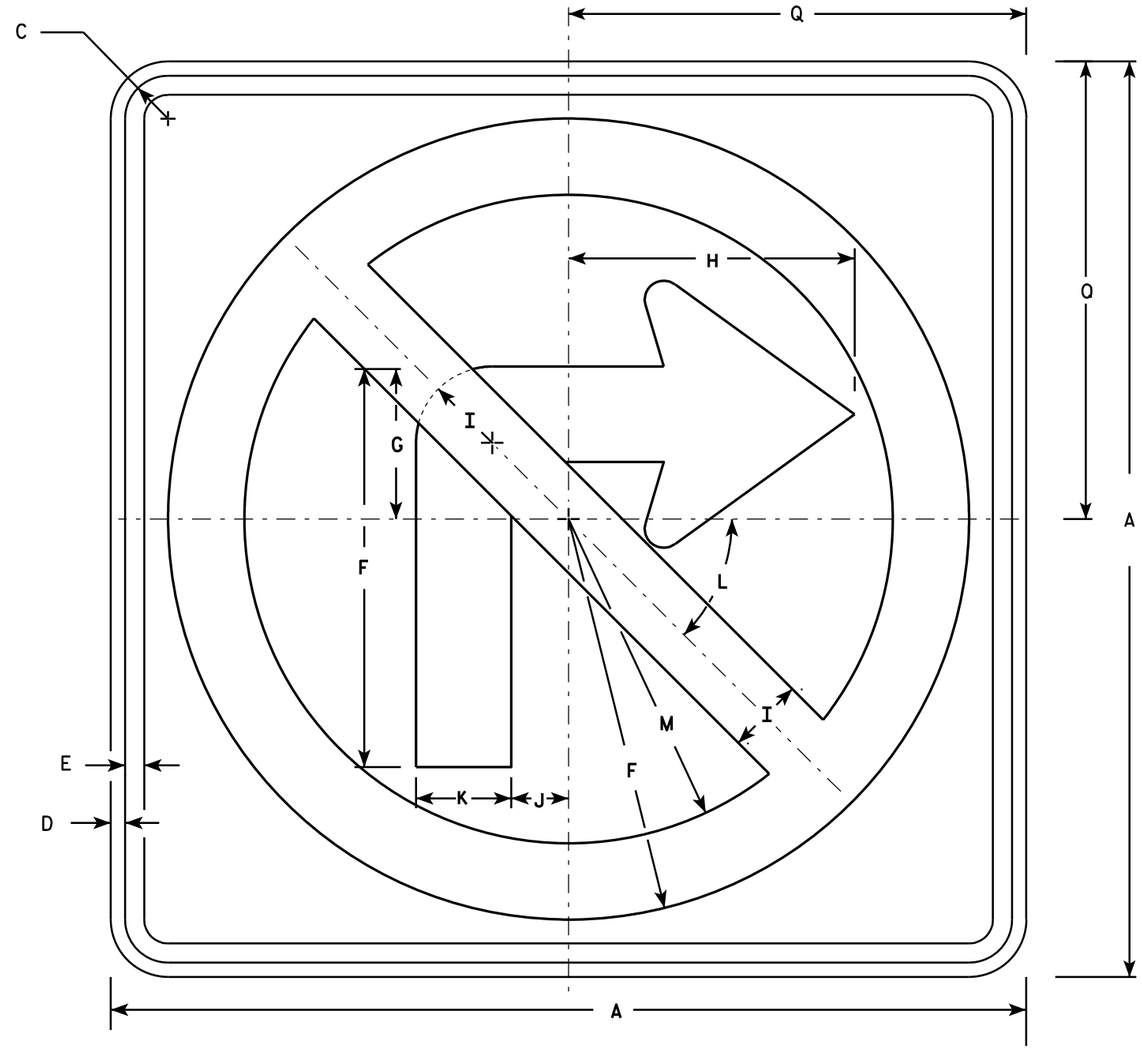
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 592 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000

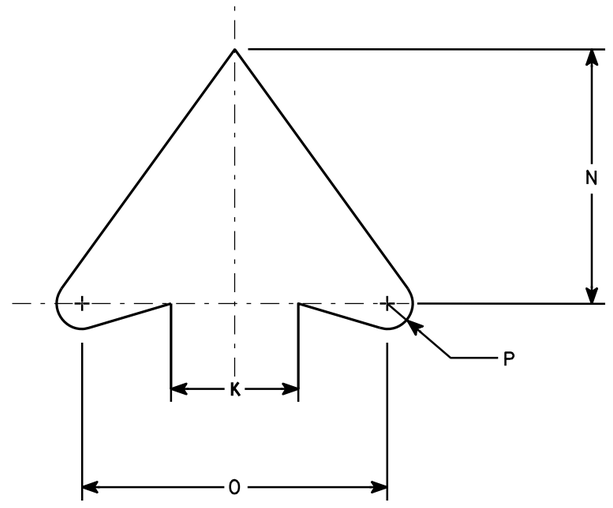
WISDOT/CADDS SHEET 42



R3-1

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 - 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	12										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	12										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	18										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	18										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	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

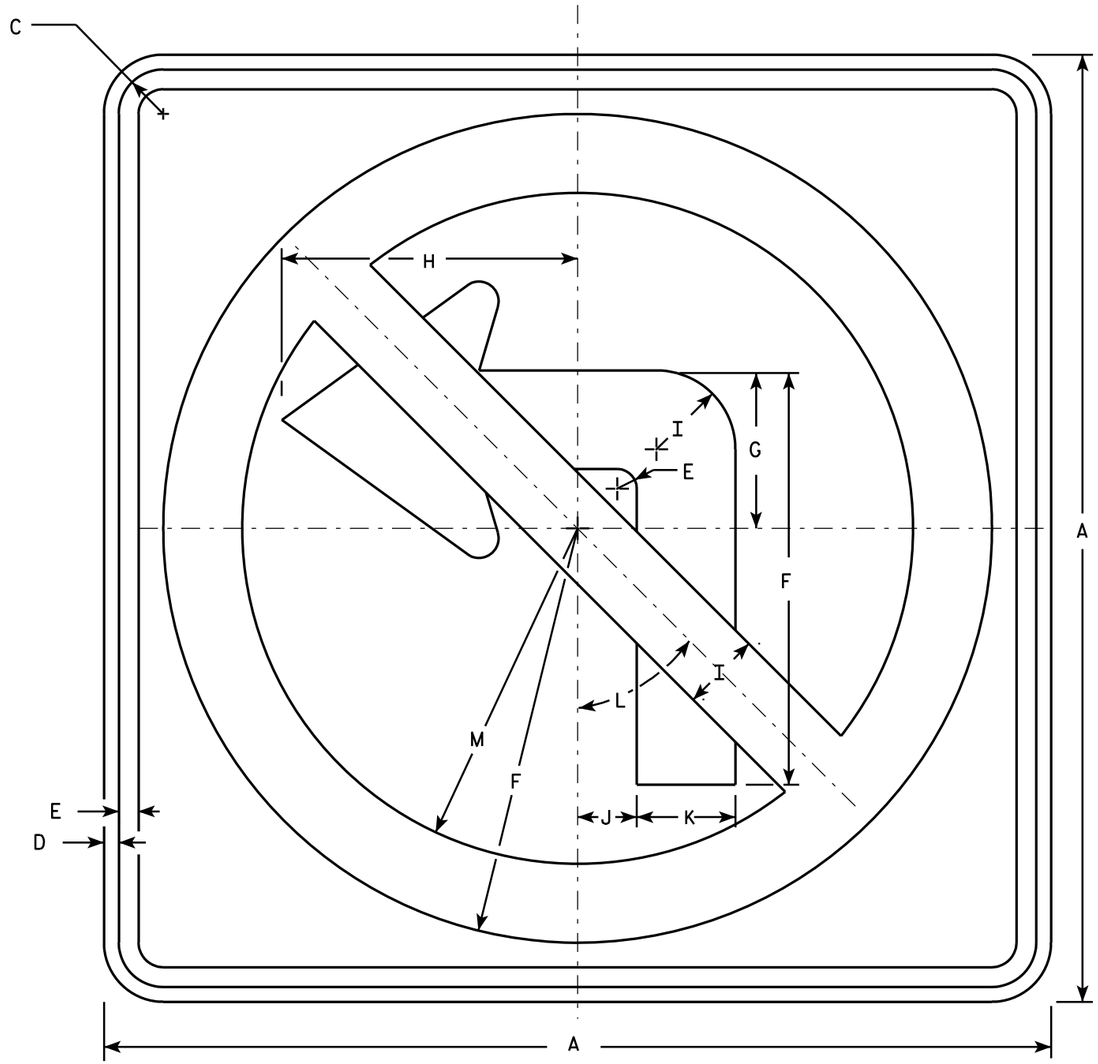
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

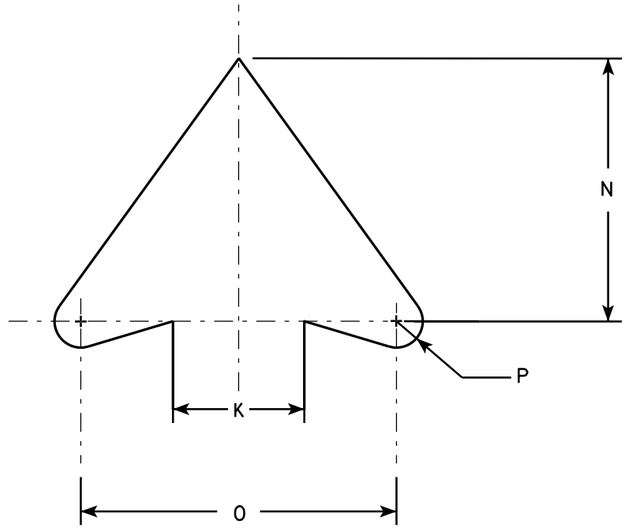
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 593	E



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

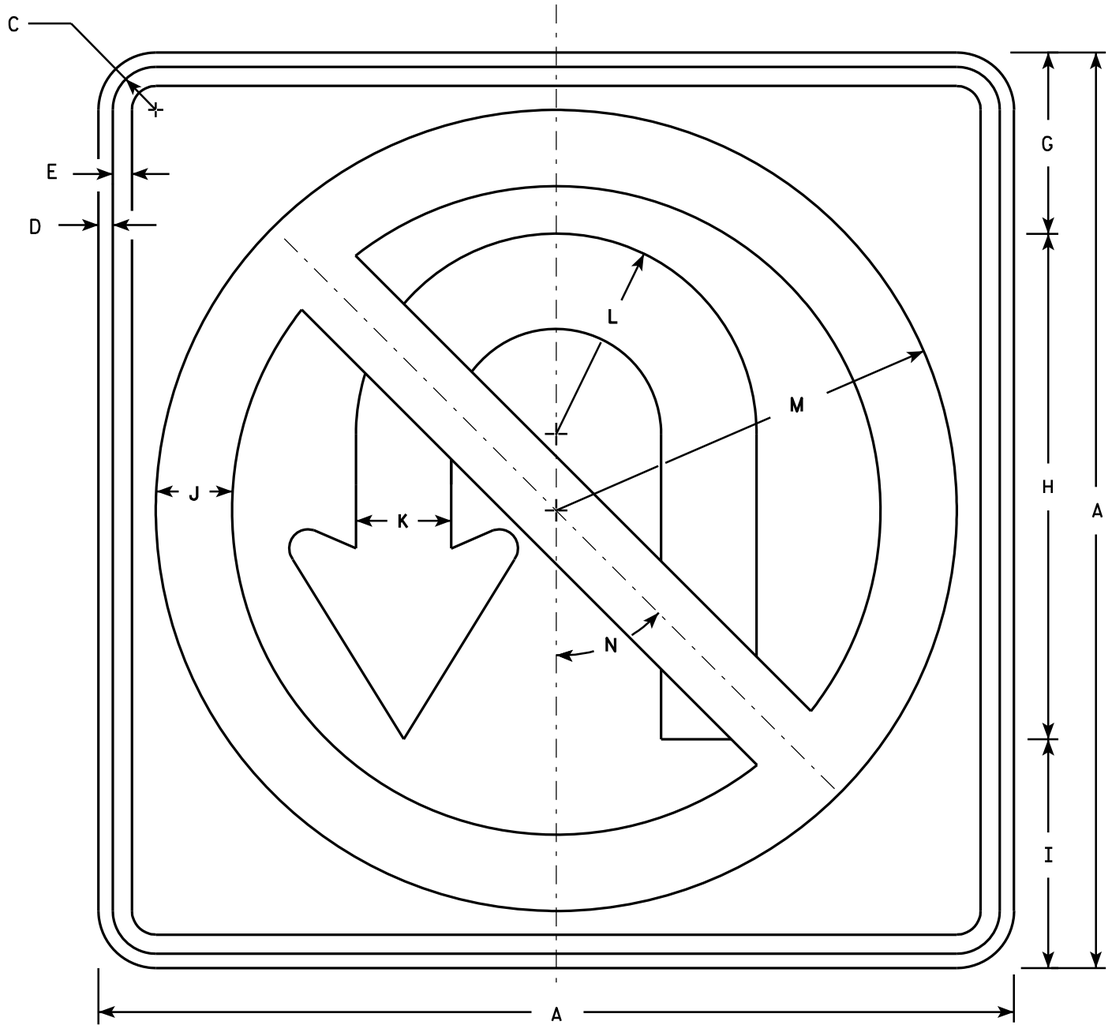
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 594	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R32.DGN PLOT DATE : 08-DEC-2010 14:41 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 5.760408:1.000000

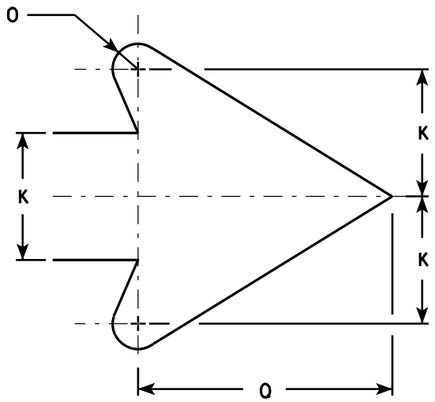
WISDOT/CADDS SHEET 42



R3-4

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 - 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																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

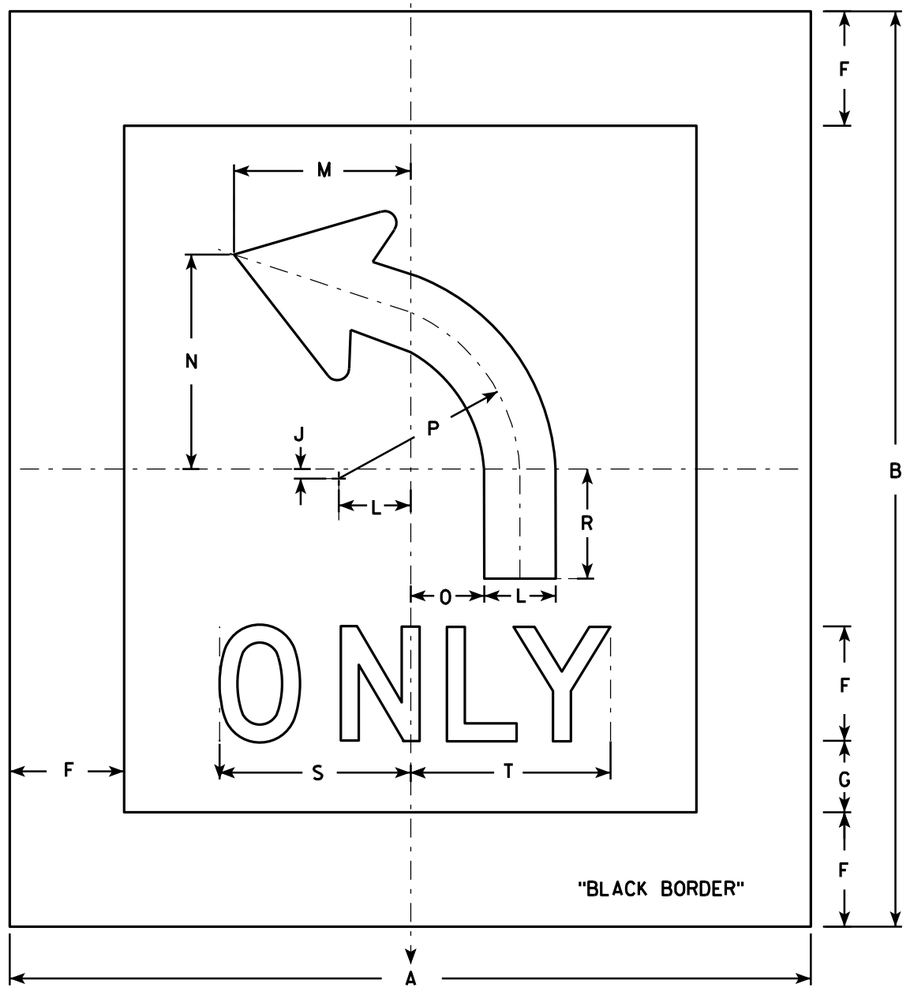
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

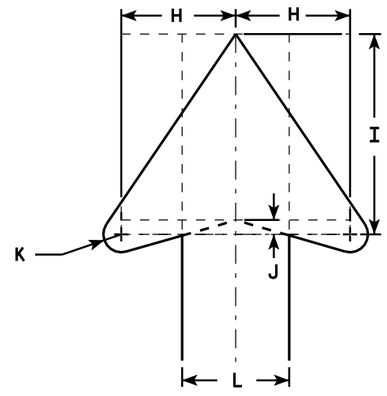
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 595	E



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																											

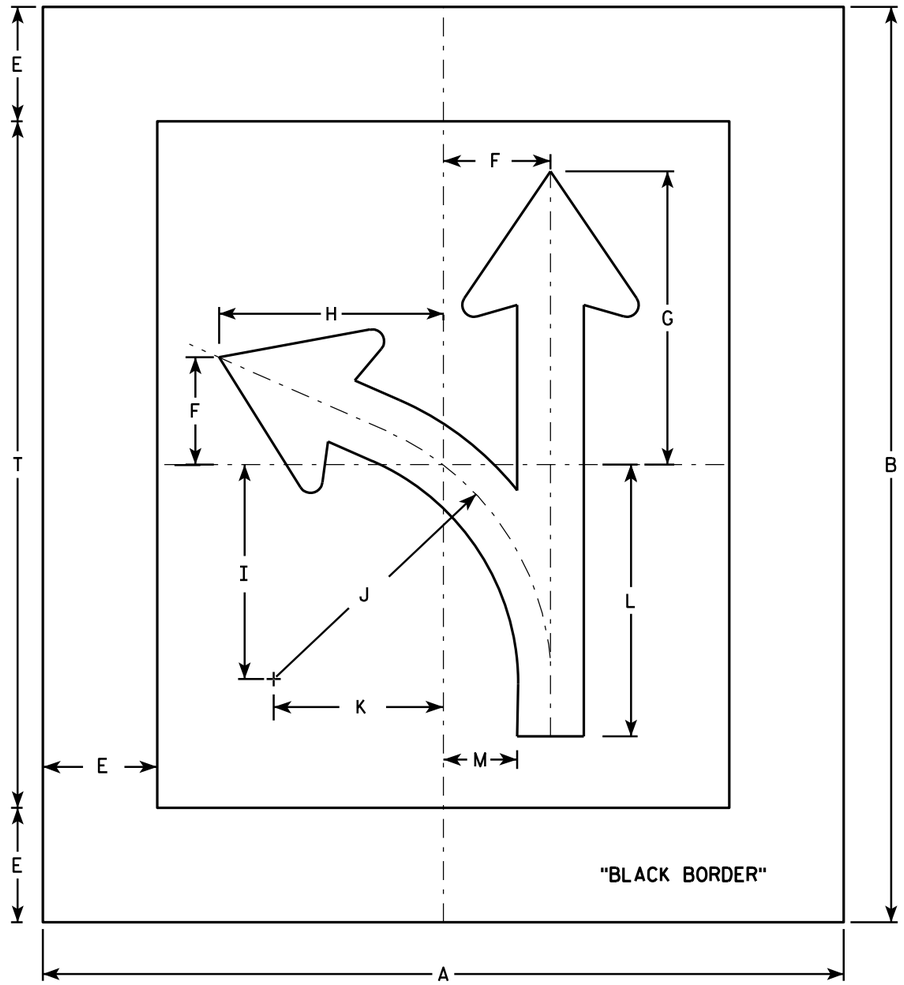
STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

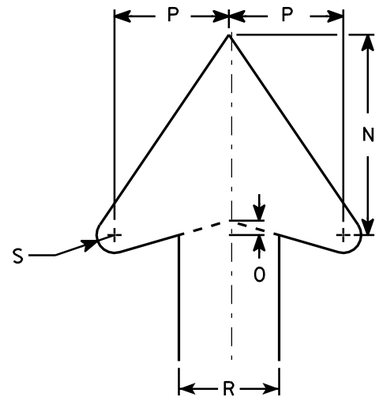
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 596	E



R3-6L

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. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
4. R3-6R is the same as R3-6L except curved portion of arrow points right.
5. 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	5 5/8	15 3/8	11 3/4	11 1/4	14 1/2	8 7/8	14 1/4	3 7/8	7	1/2	4		3 1/2	5/8	36							14.0
2M	42	48			6	5 5/8	15 3/8	11 3/4	11 1/4	14 1/2	8 7/8	14 1/4	3 7/8	7	1/2	4		3 1/2	5/8	36							14.0
3																											
4																											
5																											

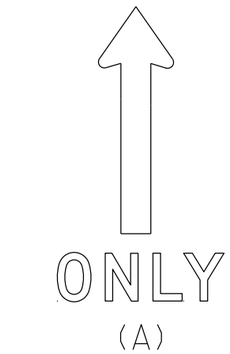
STANDARD SIGN
R3-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

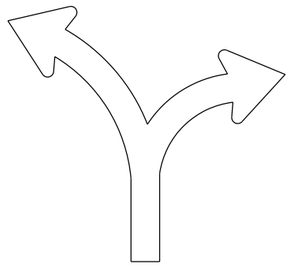
DATE 3/17/2011 PLATE NO. R3-6.5

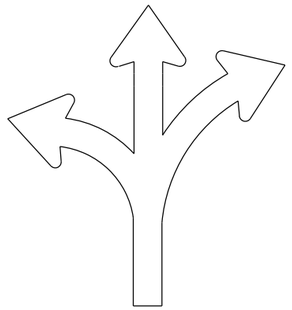
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 597 | E

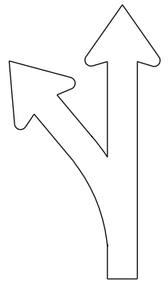


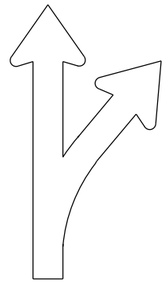
(A)

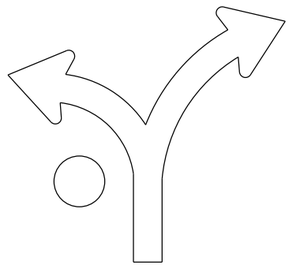
(B)

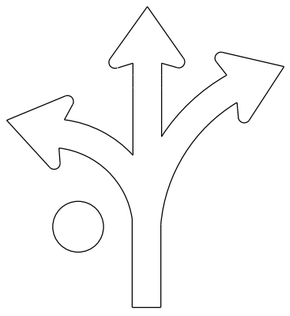

(C)

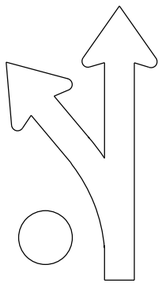

(D)


(E)

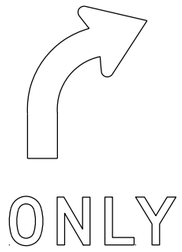

(F)


(G)

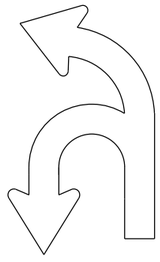

(H)


(I)

(L)



(R)


(U)

NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
   Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

1	Letter =	3.75 sq ft for Size 2
		6.0 sq ft for Size 3
		10.0 sq ft for Size 4 or 5
2	Letters =	7.5 sq ft for Size 2
		12.0 sq ft for Size 3
		20.0 sq ft for Size 4 or 5
3	Letters =	11.25 sq ft for Size 2
		18.0 sq ft for Size 3
		30.0 sq ft for Size 4 or 5
4	Letters =	15.0 sq ft for Size 2
		24.0 sq ft for Size 3
		40.0 sq ft for Size 4 or 5
5	Letters =	18.75 sq ft for Size 2
		30.0 sq ft for Size 3
		50.0 sq ft for Size 4 or 5
6	Letters =	22.5 sq ft for Size 2
		36.0 sq ft for Size 3
		60.0 sq ft for Size 4 or 5

6. When letters C,D,G,H are used on the Left or Right end of the sign the Sq. Ft. changes.
   Add the amounts when these letters are used:
   1.25 sq ft for Size 2
   1.5 sq ft for Size 3
   2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

7

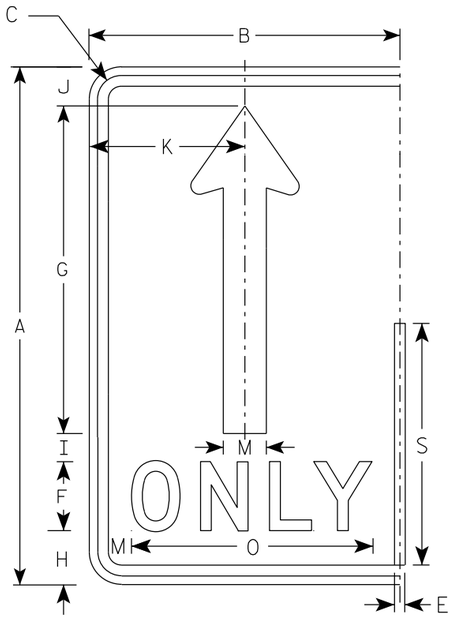
PROJECT NO:

SHEET NO: 598 E

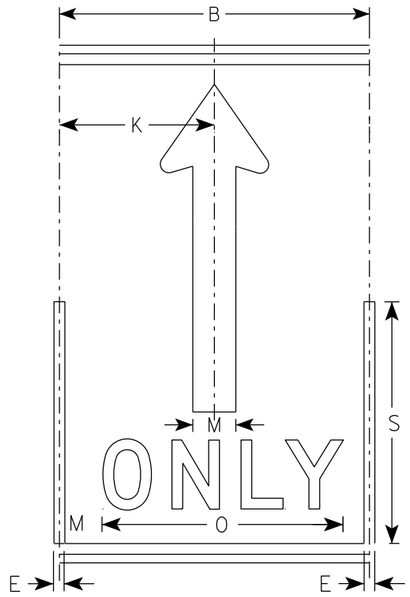
FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn
PLOT DATE : 21-MAY 2019 4:37
PLOT BY : mscj9h
PLOT NAME :
WISDOT/CADDS SHEET 42

NOTES

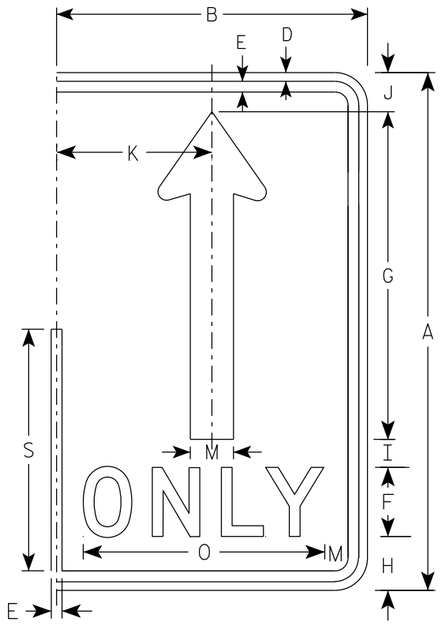
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



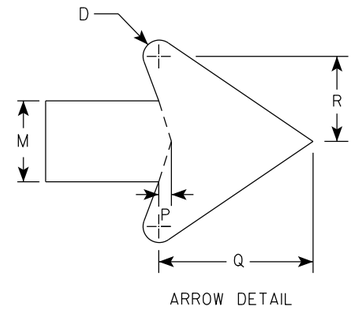
(A)



(A)



(A)



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	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

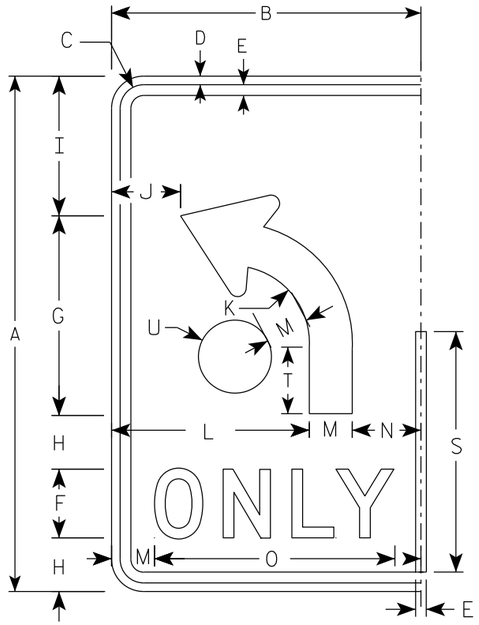
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

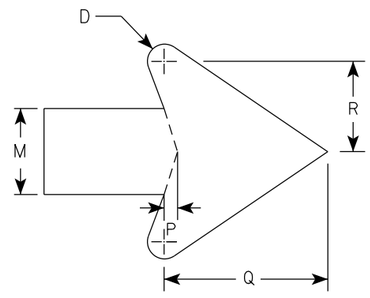
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 599	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
   Message Series - D



(B)



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	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8	2 1/2						6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0

STANDARD SIGN

R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

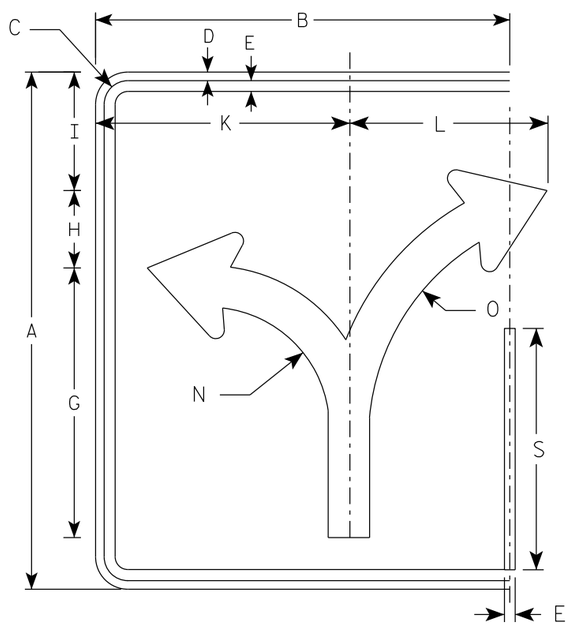
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

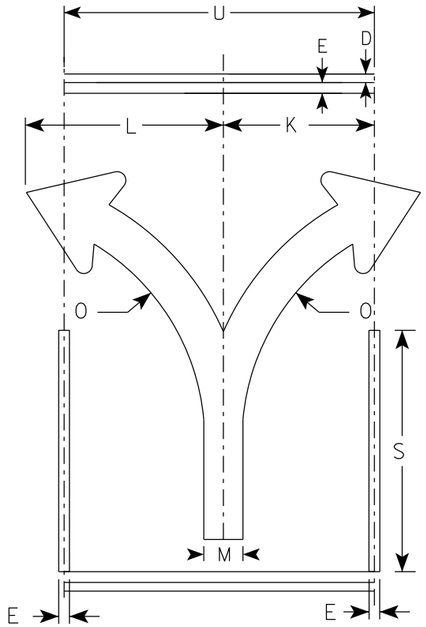
SHEET NO: 600 E

NOTES

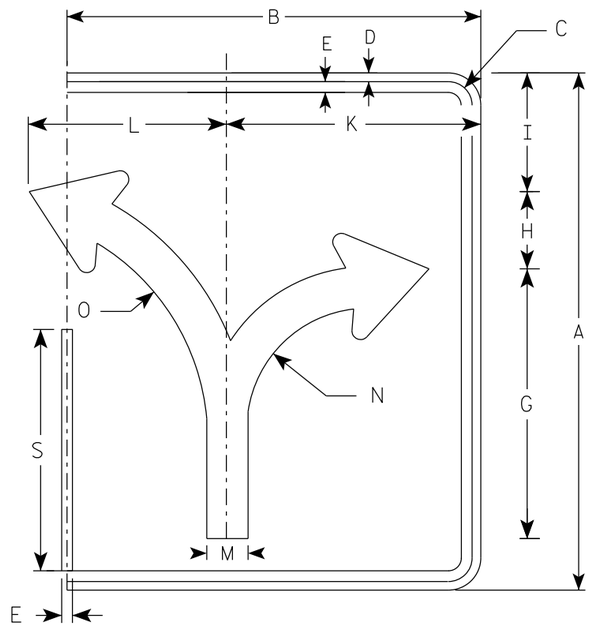
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



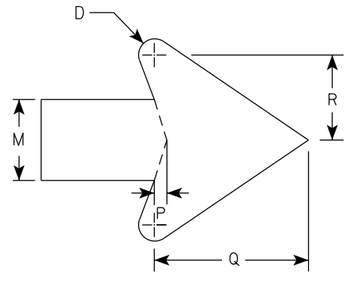
(C)



(C)



(C)



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	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (C) Arrow

WISCONSIN DEPT OF TRANSPORTATION

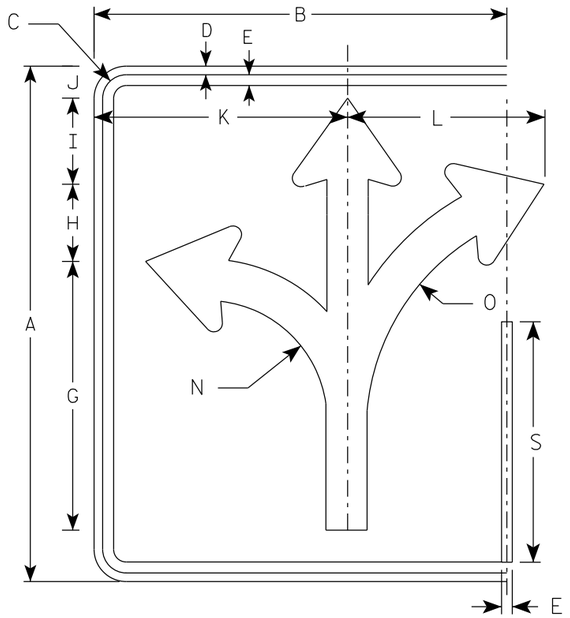
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

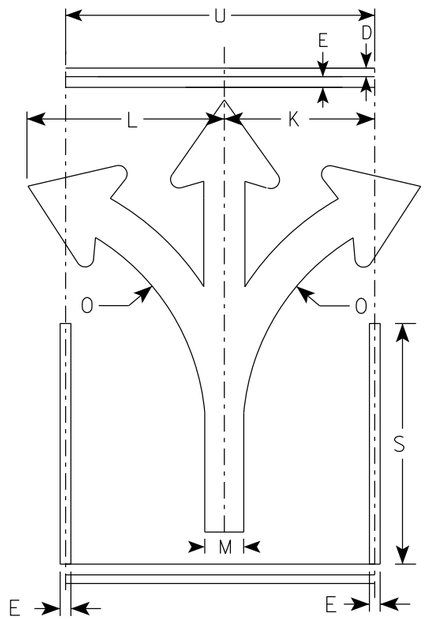
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 601 | E

NOTES

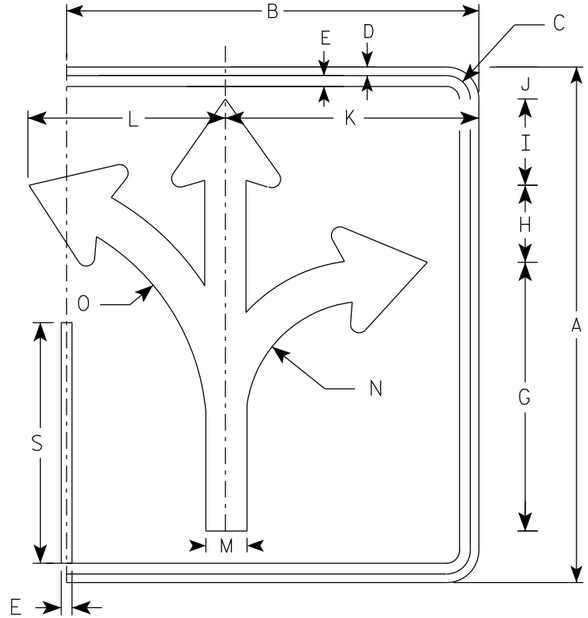
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



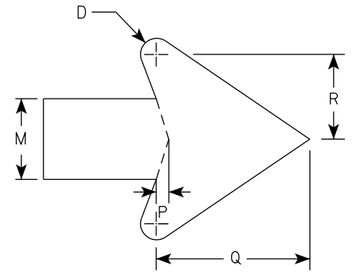
(D)



(D)



(D)



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	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	2 1/4	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (D) Arrow

WISCONSIN DEPT OF TRANSPORTATION

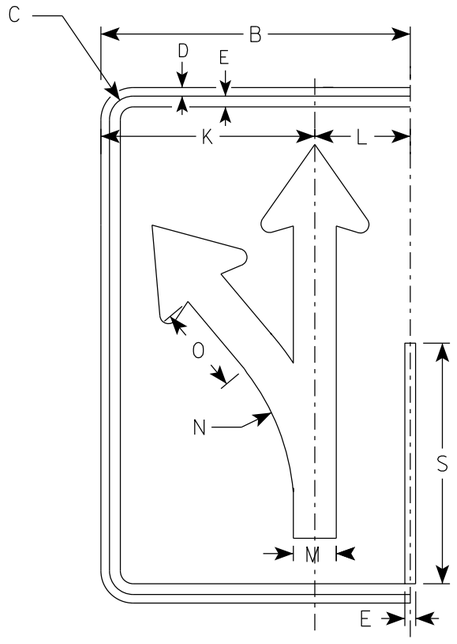
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

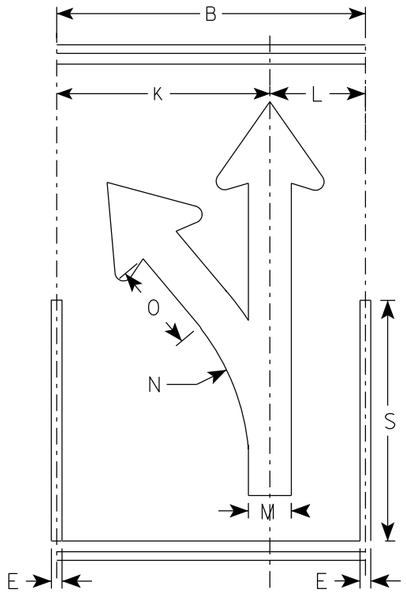
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 602 | E

NOTES

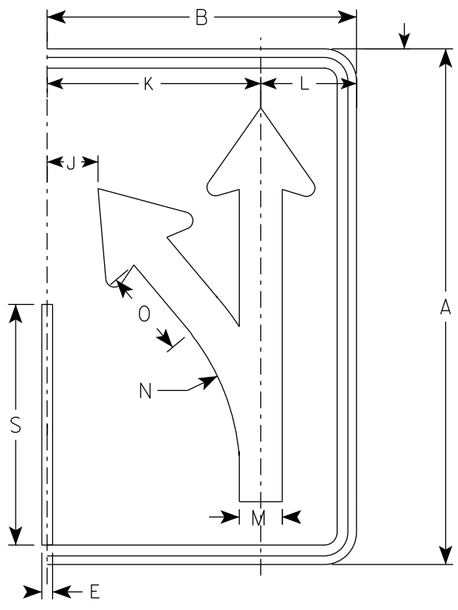
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



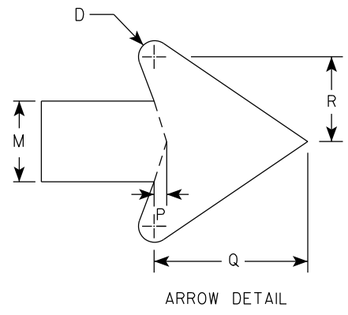
(E)



(E)



(E)



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	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

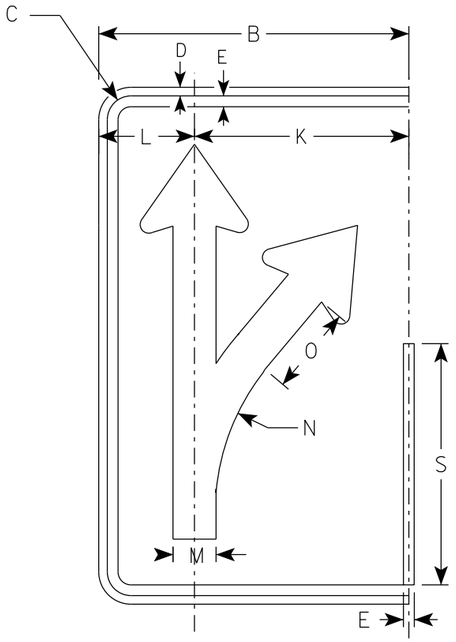
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

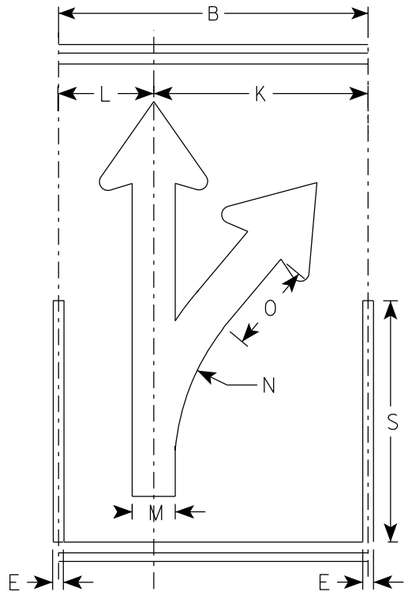
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 603 | E

NOTES

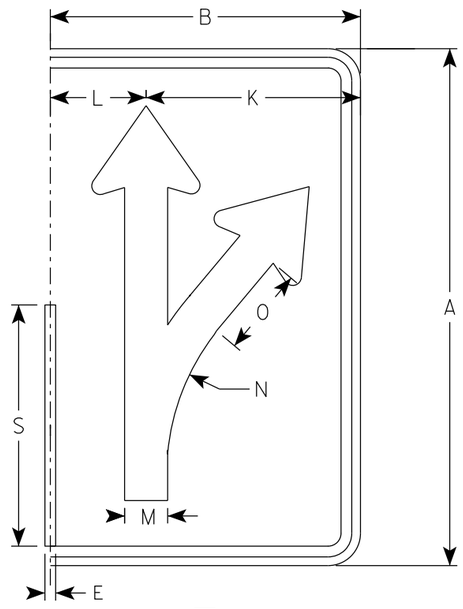
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



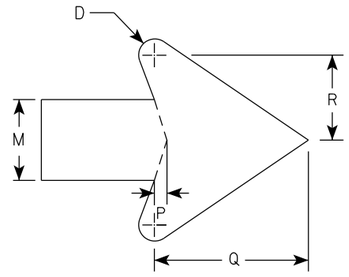
(F)



(F)



(F)



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	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

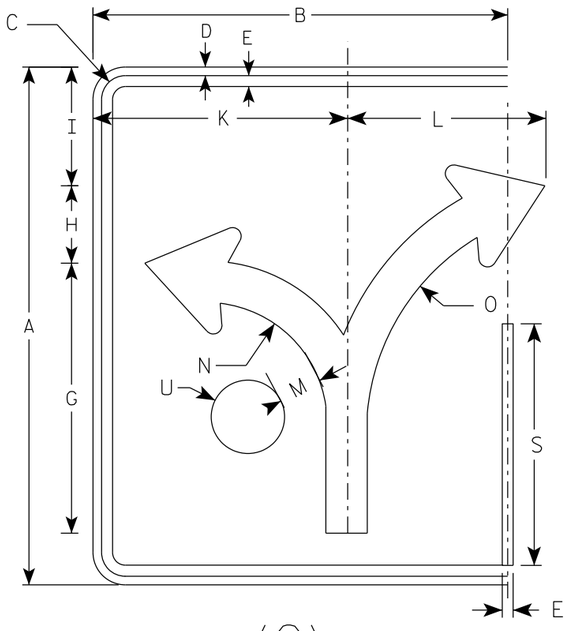
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

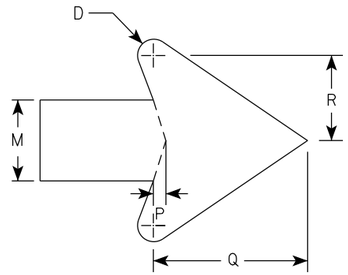
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 604 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(G)



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	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

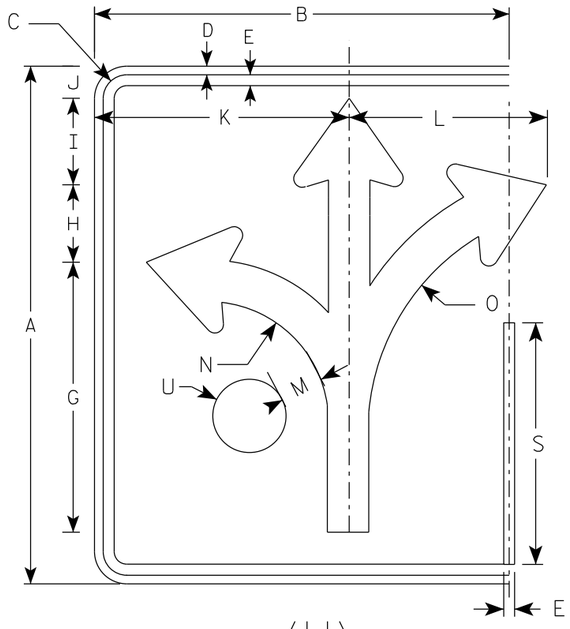
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

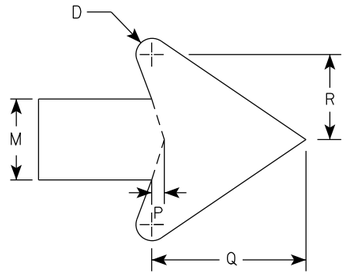
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 605 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(H)



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	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	3 1/8	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

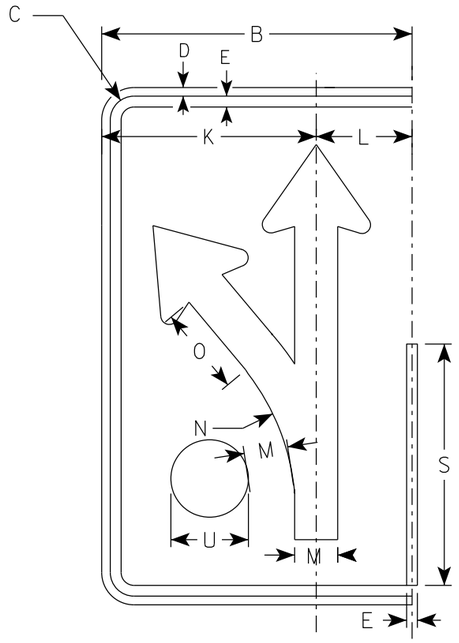
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

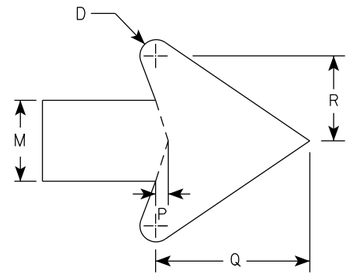
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 606	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(I)



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	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4		2 1/2						6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0

STANDARD SIGN
R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

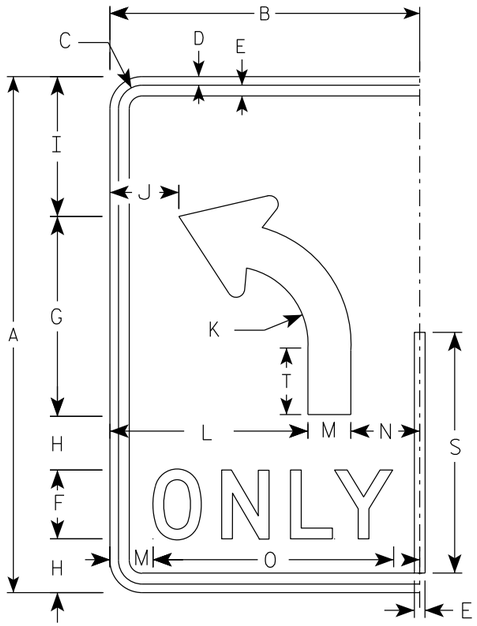
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

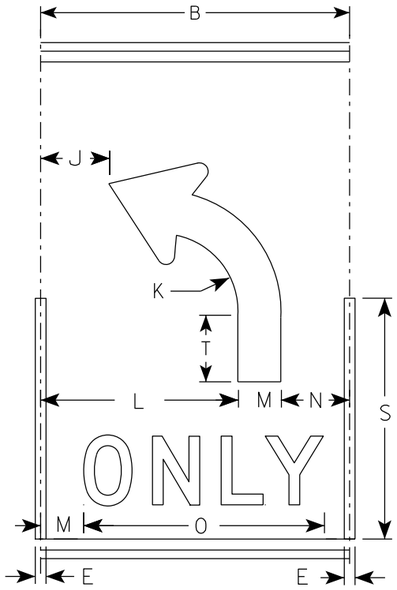
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 607 | E

NOTES

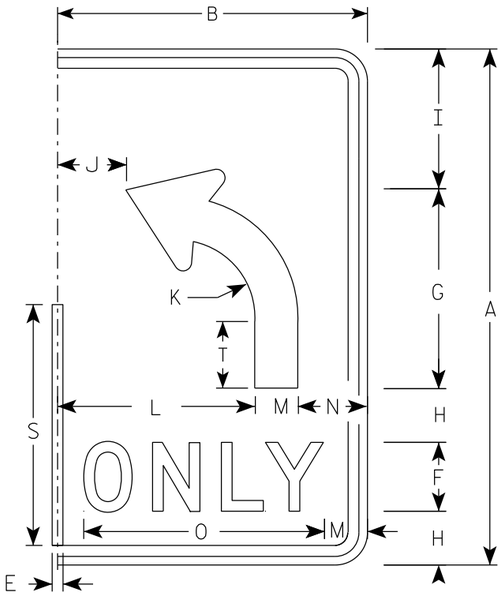
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



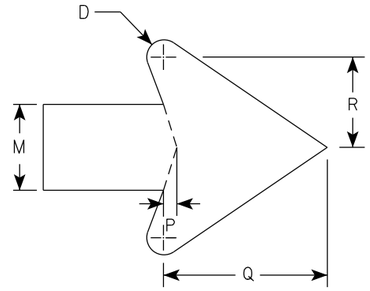
(L)



(L)



(L)



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	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4		5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

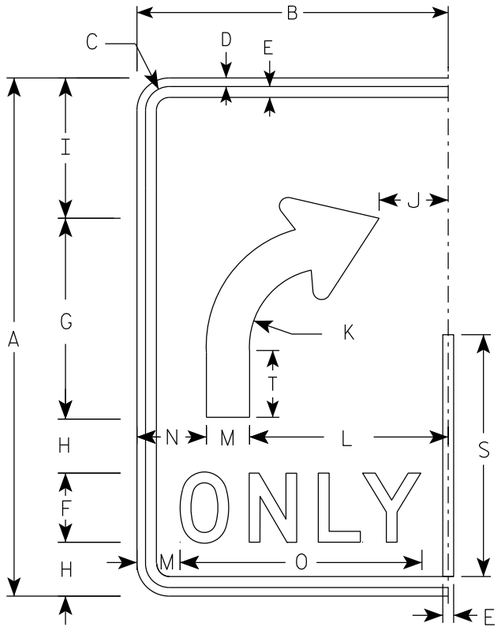
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

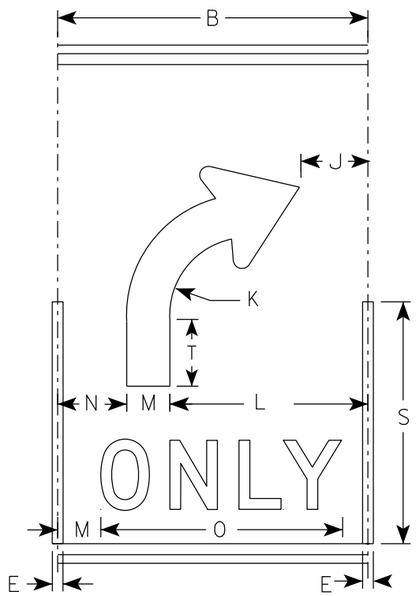
SHEET NO: 608 E

NOTES

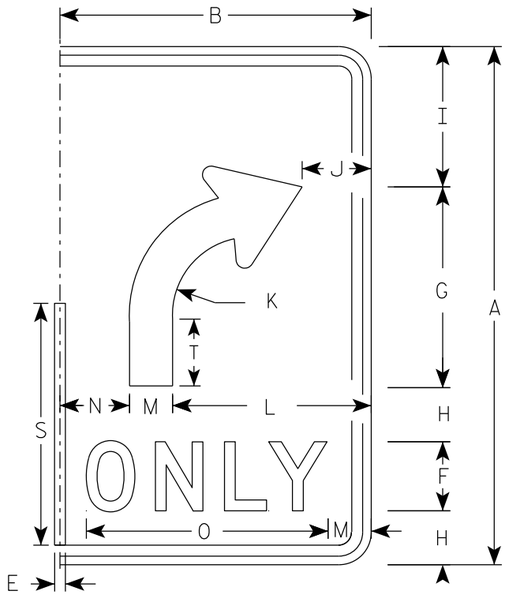
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



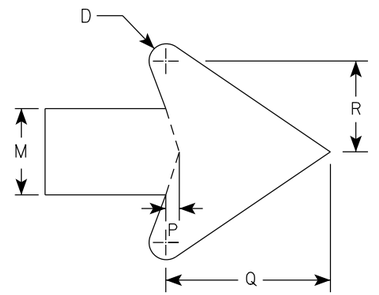
(R)



(R)



(R)



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	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN
R3-8 (R) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

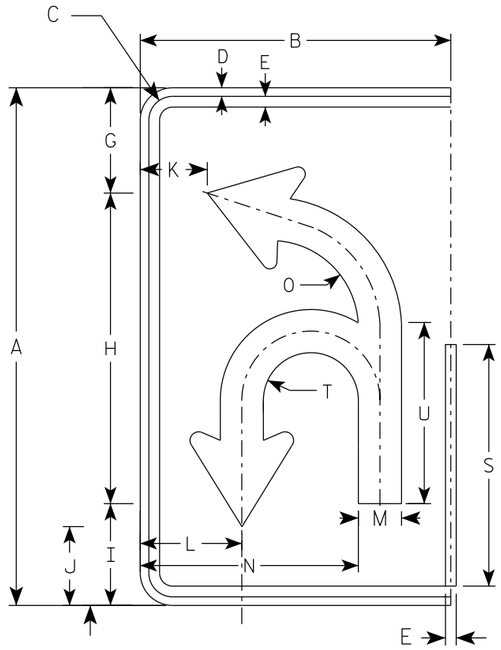
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

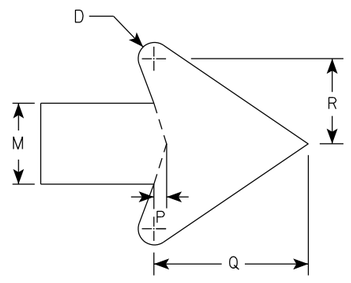
SHEET NO: 609 **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(U)



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	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
2M	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	21 5/8	7 1/8	5 1/2	5 7/8	8 1/4	3	16 3/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4	3 1/4	12 5/8						6.0
4	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0
5	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0

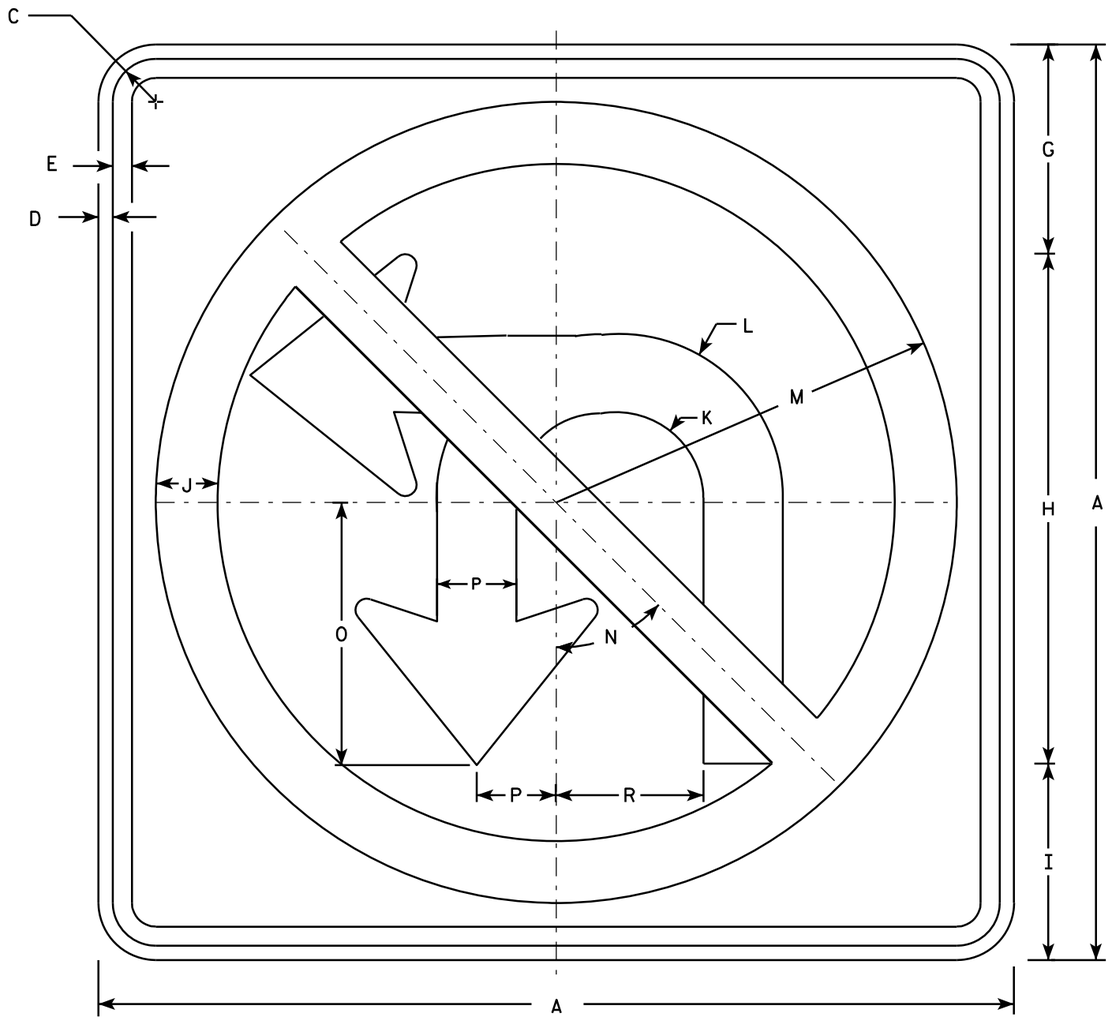
STANDARD SIGN
R3-8 (U) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 610 | 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

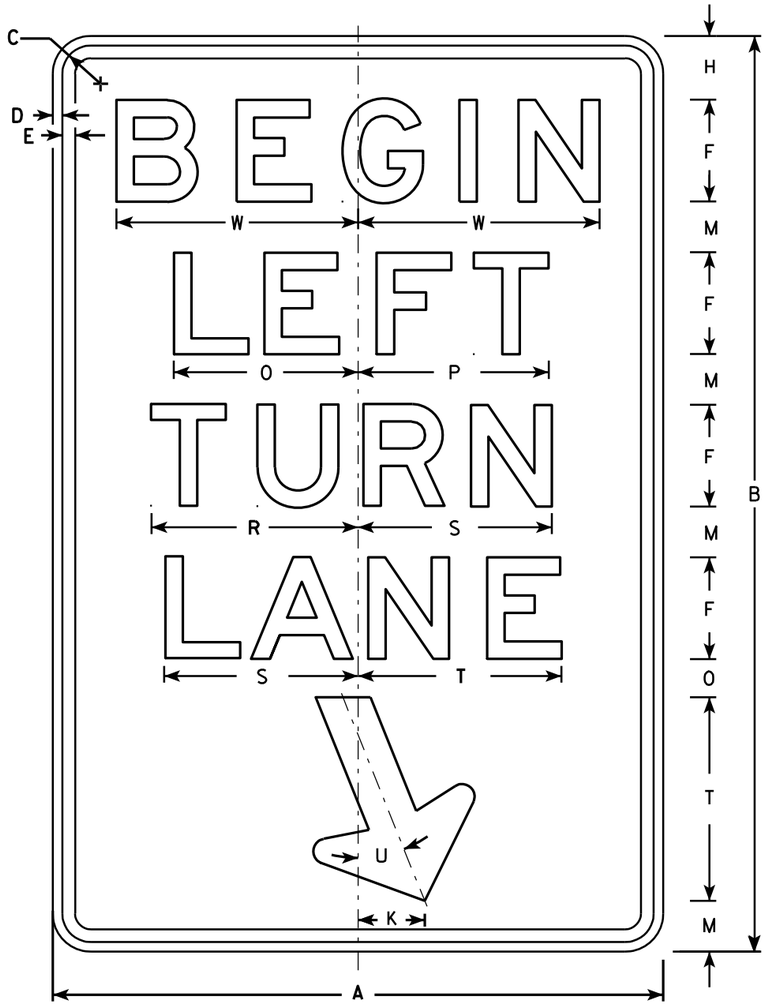
STANDARD SIGN
R3-18

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/10 PLATE NO. R3-18.2

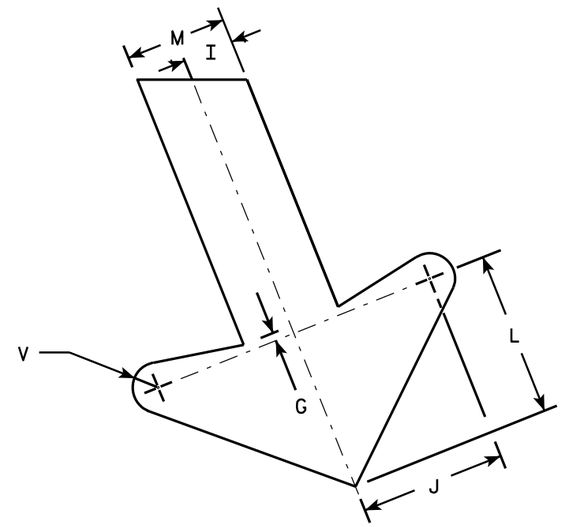
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 611	E



R3-20L

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.



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	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

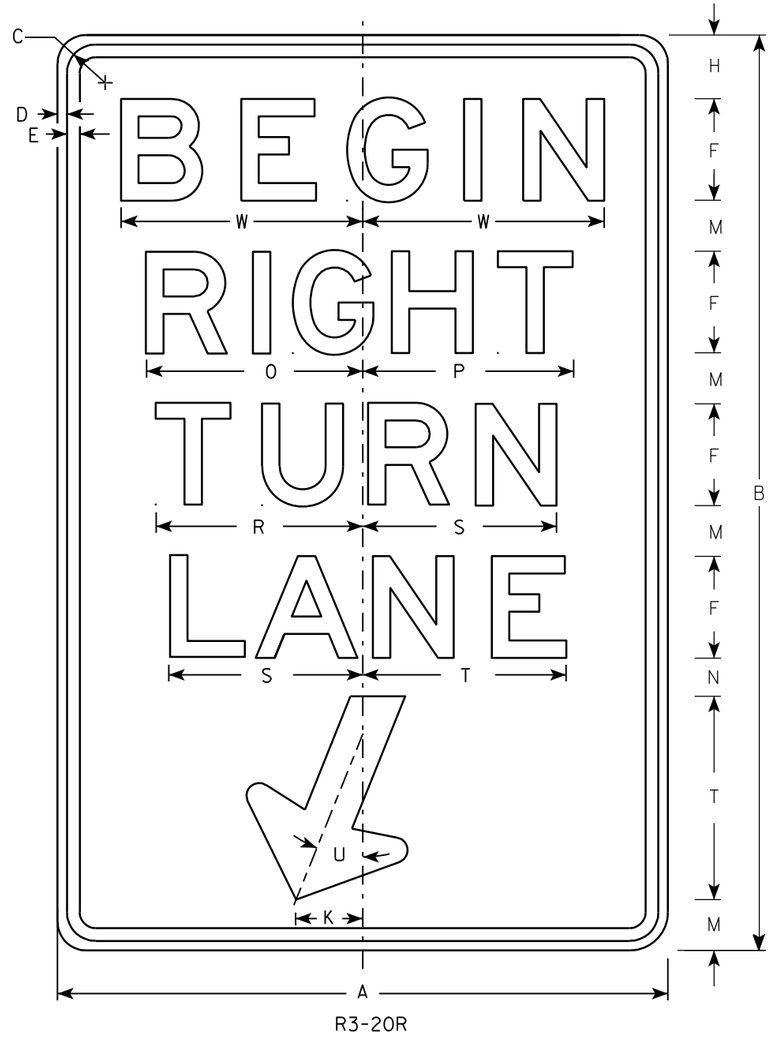
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

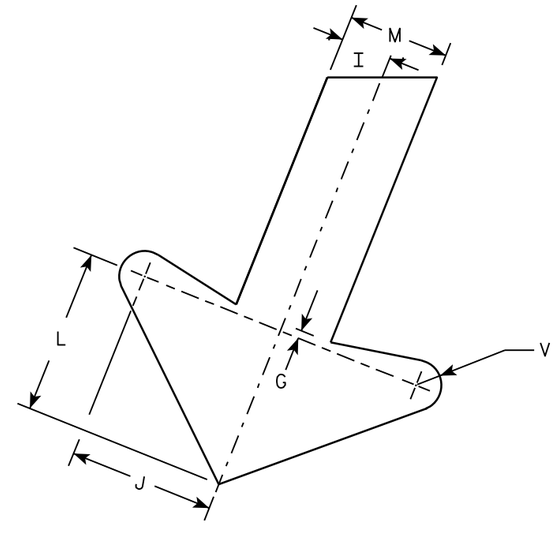
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 612 | E



R3-20R

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.



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	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

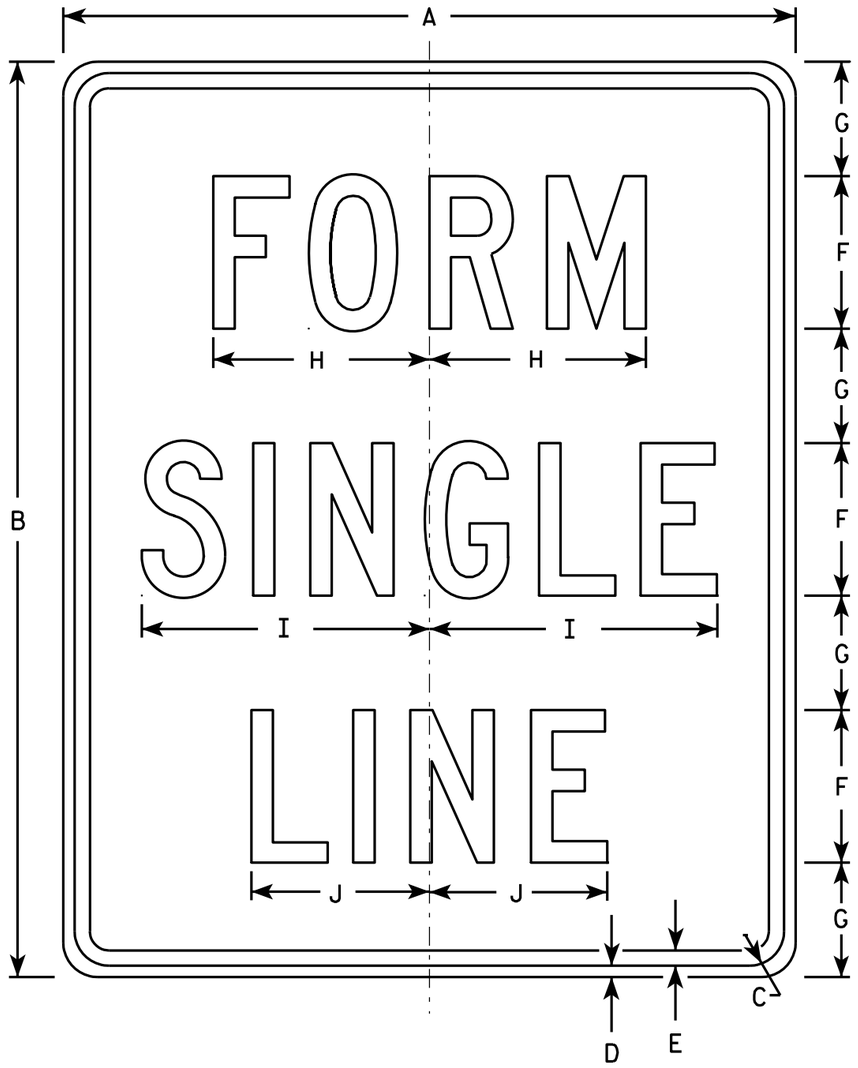
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 613 | E



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																											

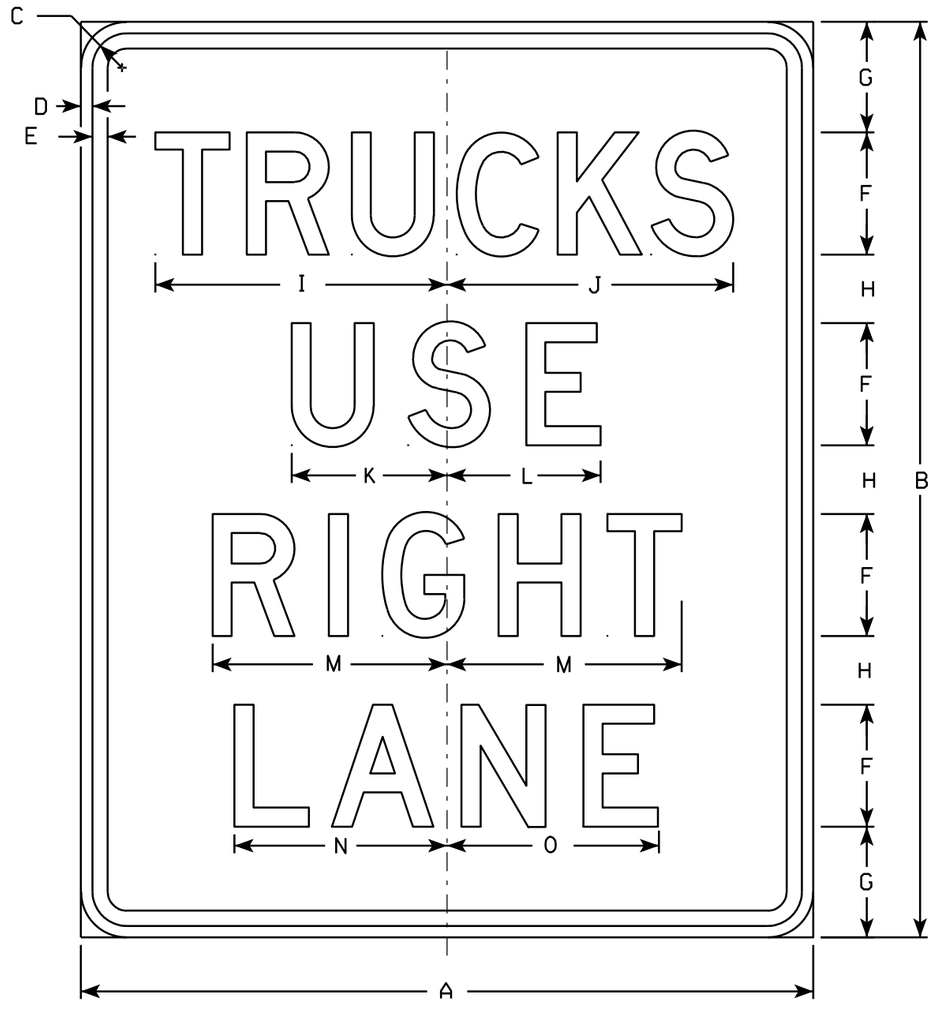
STANDARD SIGN
R3-58

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: 614	E

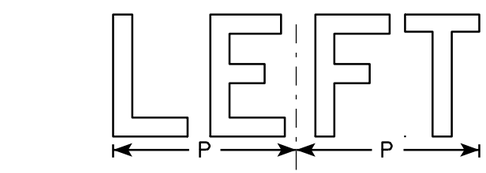


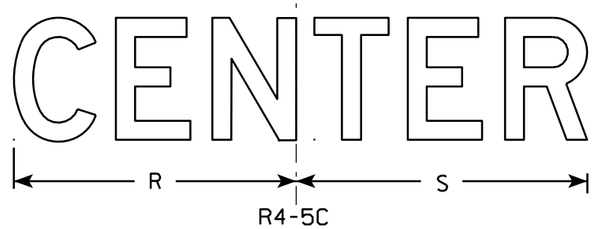
R4-5

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 - 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. R4-5L & R4-5C are the same as R4-5 except LEFT or CENTER replaces RIGHT as order by code.

R4-5L





R4-5C

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 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
3																											
4	36	48	2 1/4	5/8	3/4	6	6	4	14 3/8	14 1/8	7 7/8	7 7/8	12 1/4	10 3/4	10 1/2	9 5/8		13 7/8	14 1/4								12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/8	18 3/4	10 1/4	10 1/8	15 3/8	14	13 7/8	12		18 1/2	19 1/8								20.0

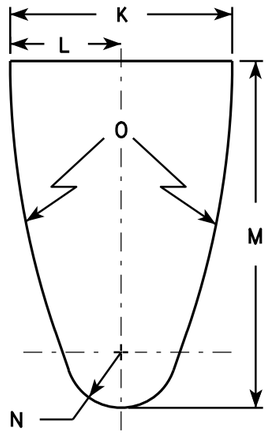
STANDARD SIGN
R4-5

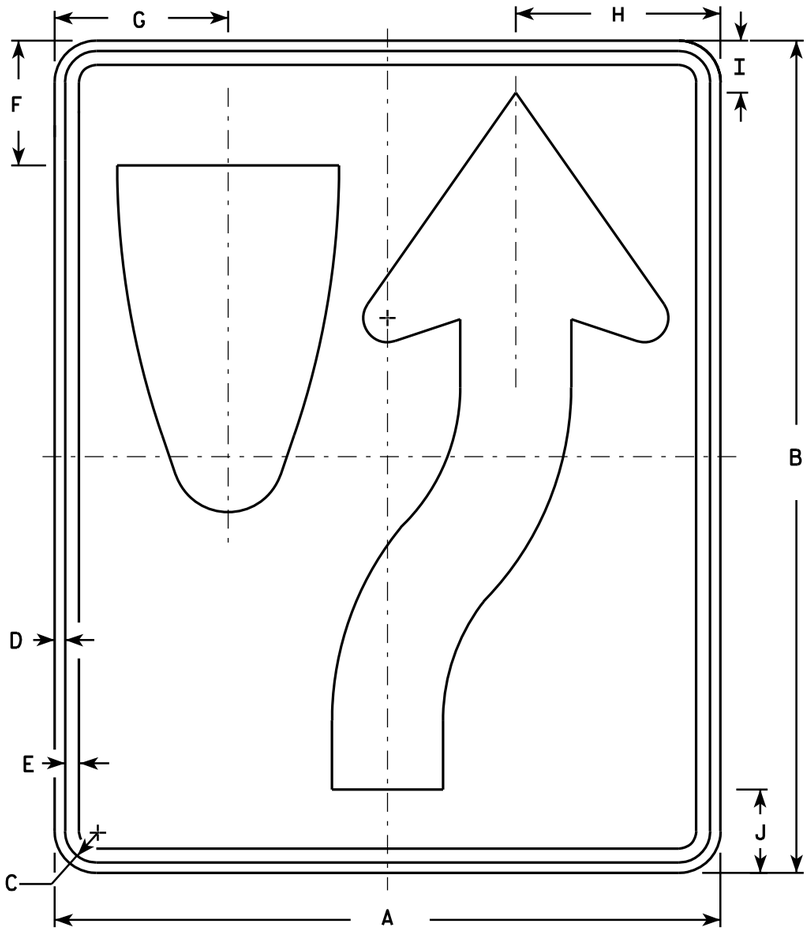
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-5.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 615 | E

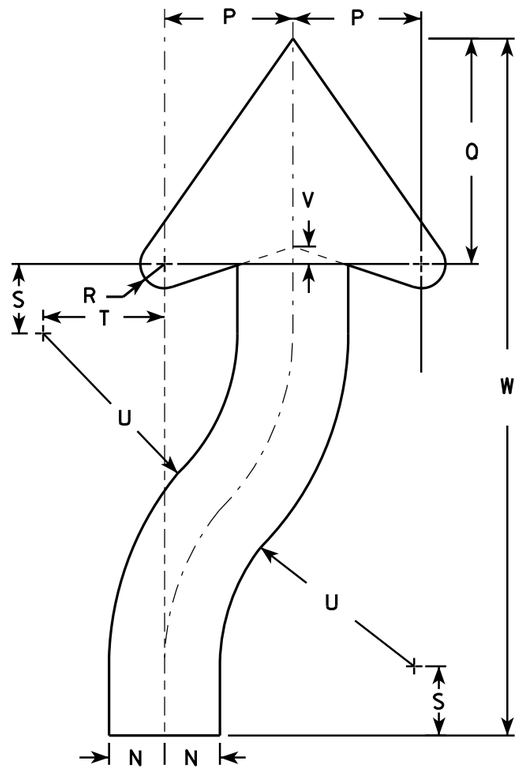




R4-7

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

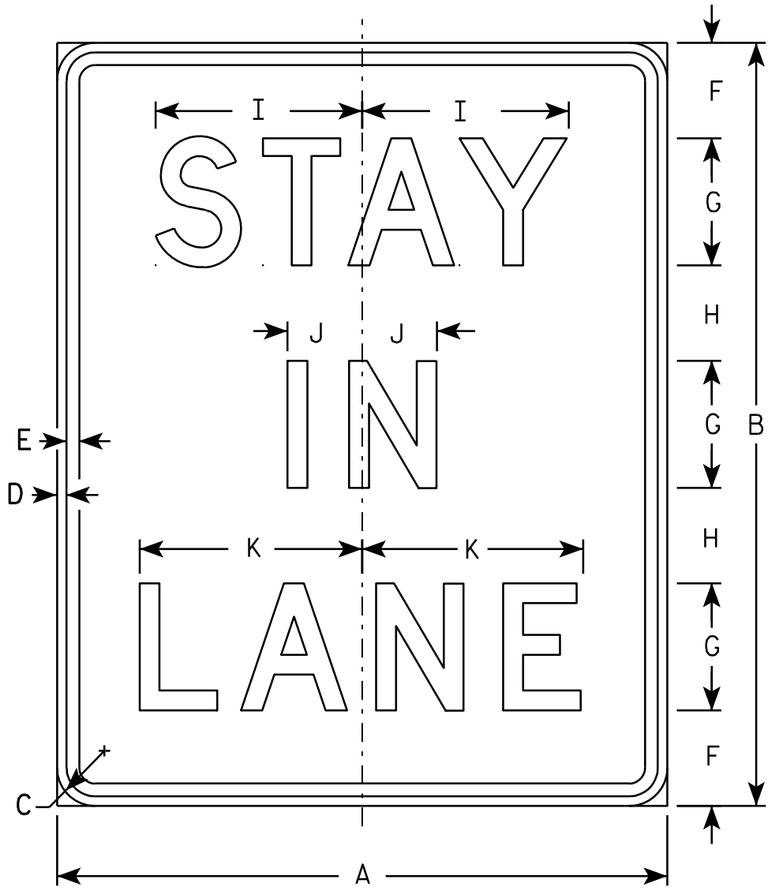
STANDARD SIGN
R4-7 & R4-8

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: 616	E



R4-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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	18	24	1 1/8	3/8	3/8	3	4	3	6 1/2	2 3/8	7																3.0
2S	24	30	1 1/8	3/8	1/2	3 5/8	5	3 7/8	8 1/8	3	8 3/4																5.0
2M	24	30	1 1/8	3/8	1/2	3 5/8	5	3 7/8	8 1/8	3	8 3/4																5.0
3	36	48	1 3/8	1/2	5/8	8 1/4	7	5 1/4	11 3/8	4 1/8	12 1/4																12.0
4	36	48	1 3/8	1/2	5/8	8 1/4	7	5 1/4	11 3/8	4 1/8	12 1/4																12.0
5	48	60	2 1/4	3/4	1	7 1/2	10	7 1/2	16 1/4	5 7/8	17 1/2																20.0

STANDARD SIGN
R4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

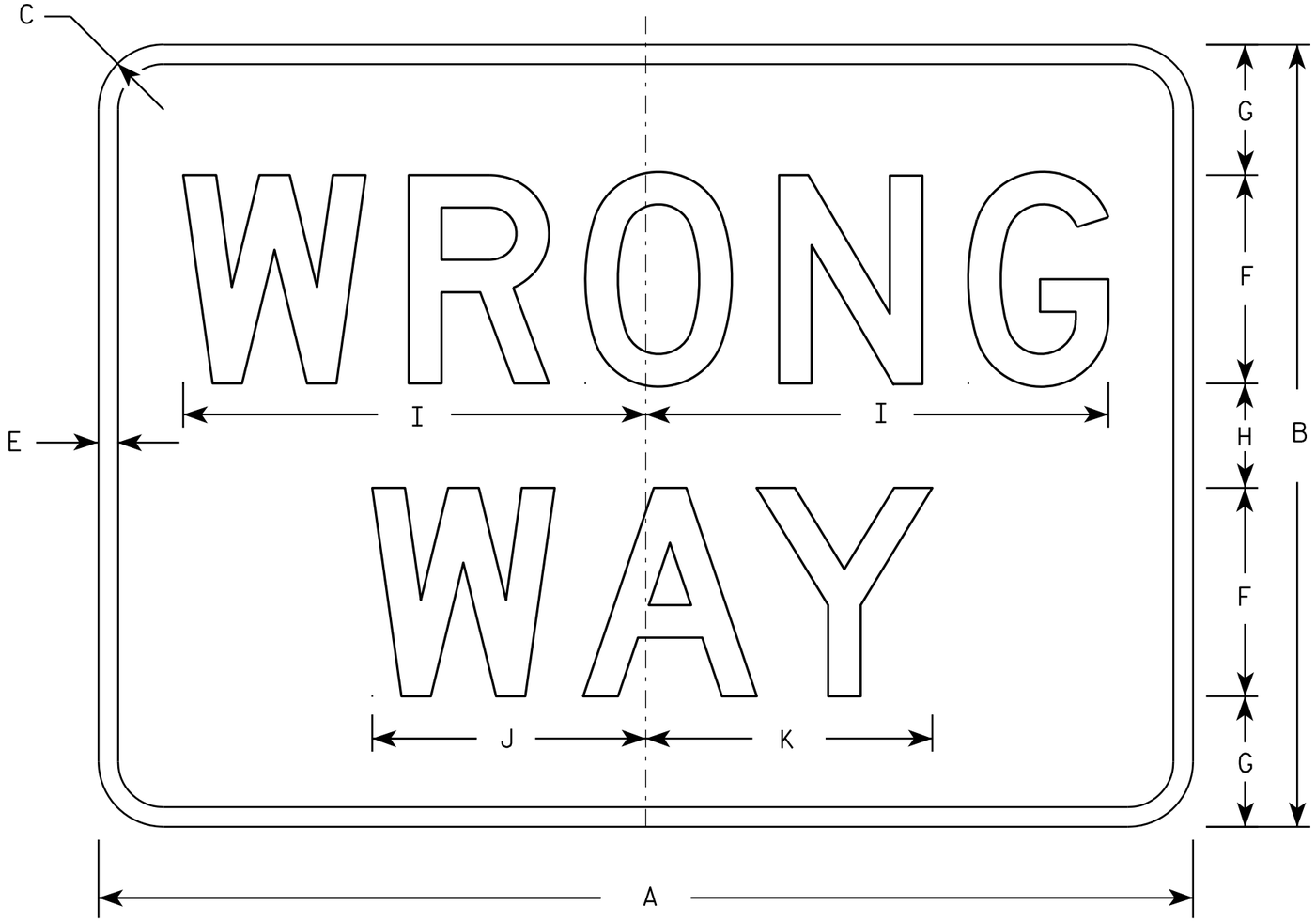
DATE 3/25/2011 PLATE NO. R4-9.2

PROJECT NO:

SHEET NO: 617 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R49.DGN PLOT DATE : 25-MAR-2011 14:17 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



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

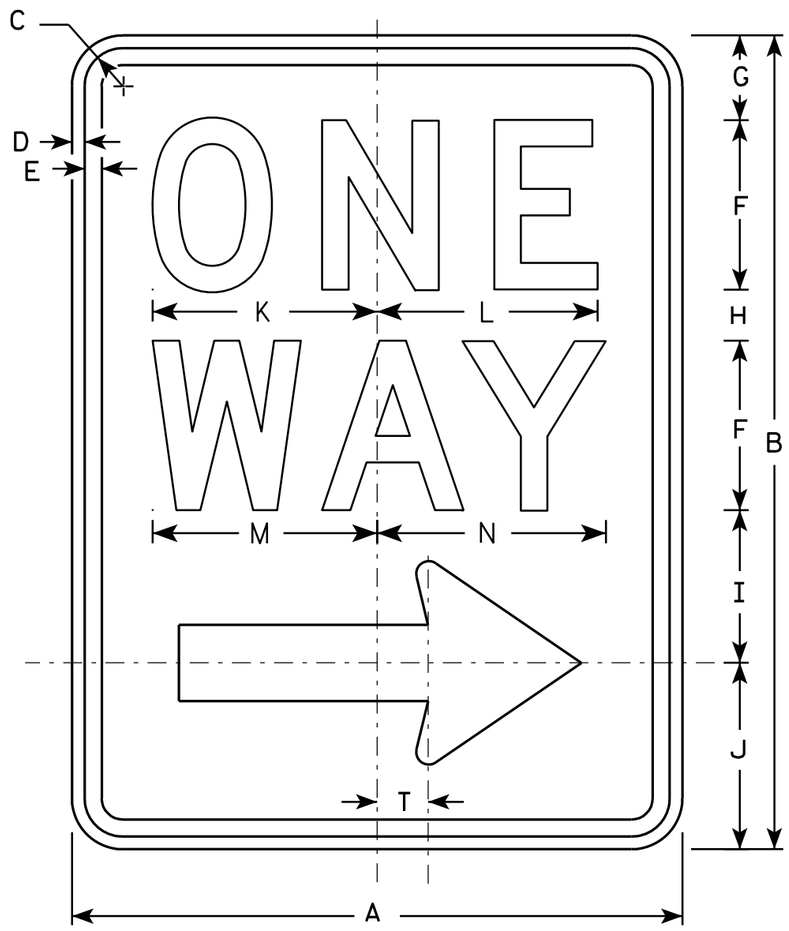
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

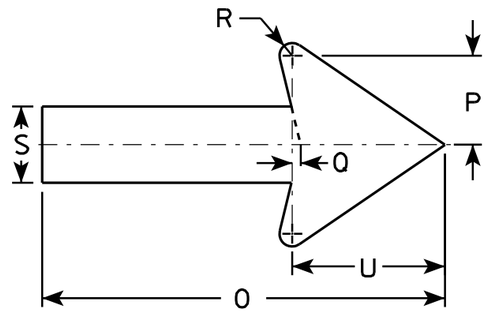
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 618 | E



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	Q	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																										

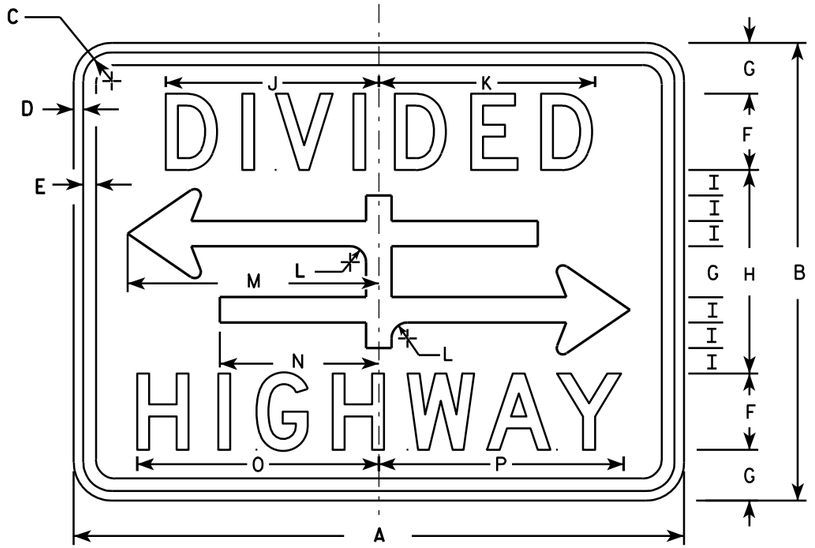
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

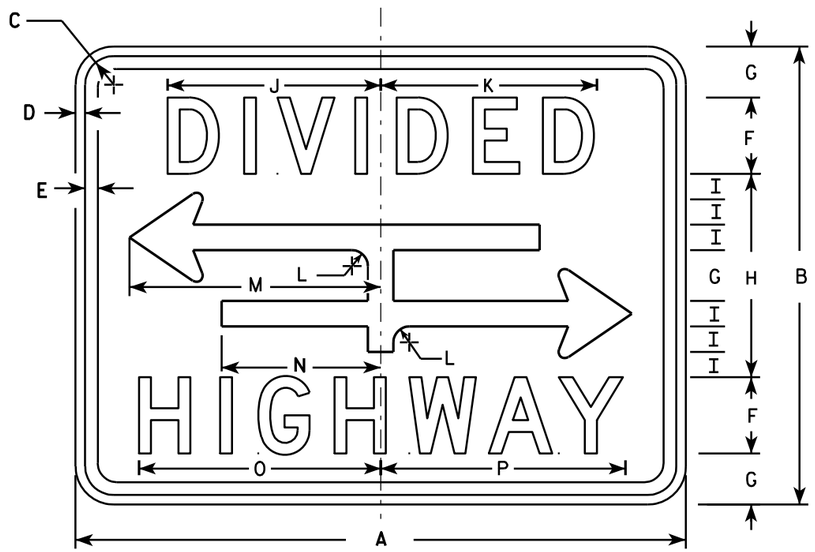
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 619	E



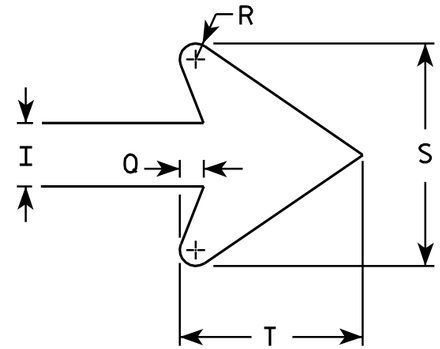
R6-3

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.



R6-3A



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	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

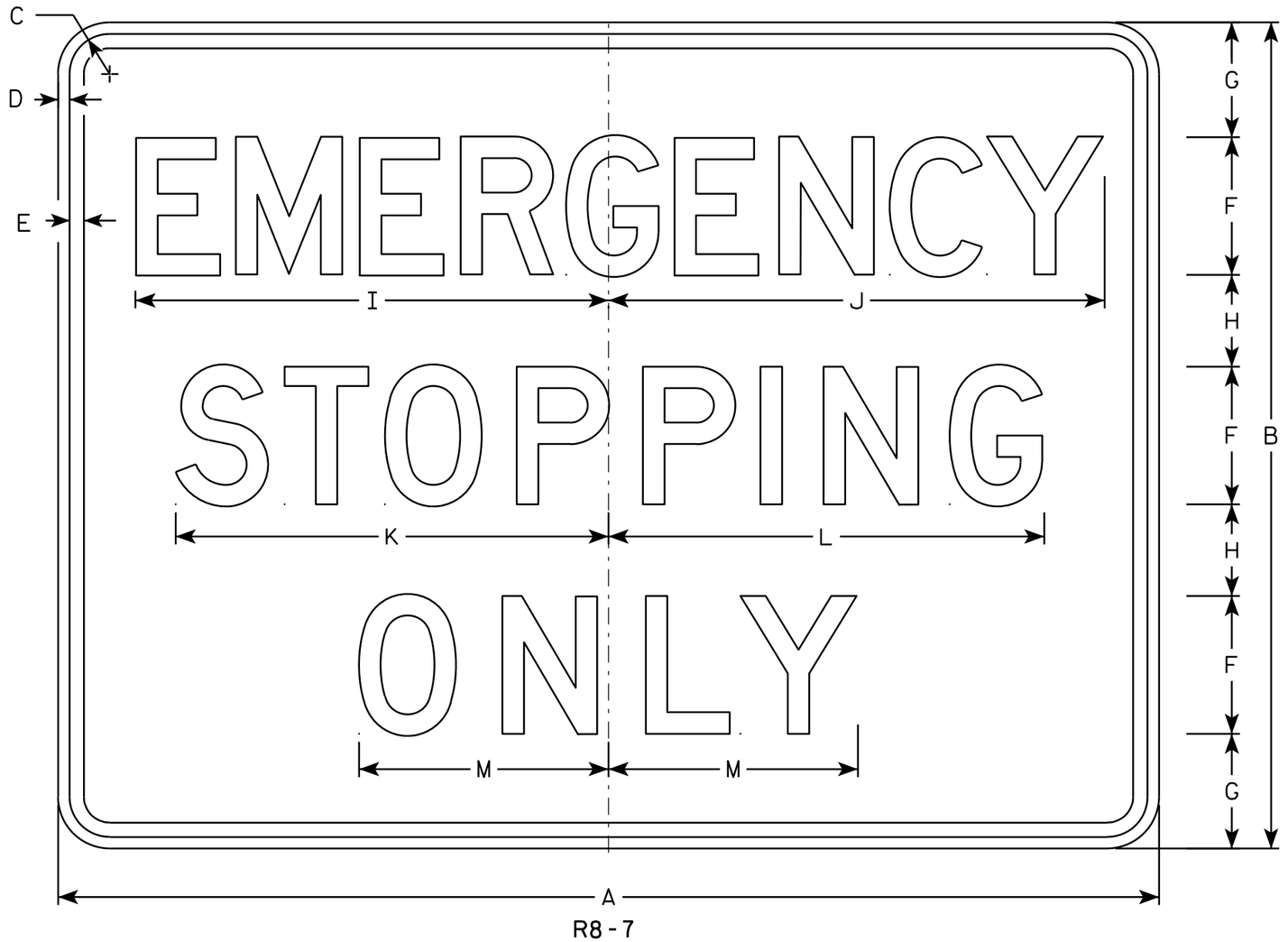
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

SHEET NO: 620 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

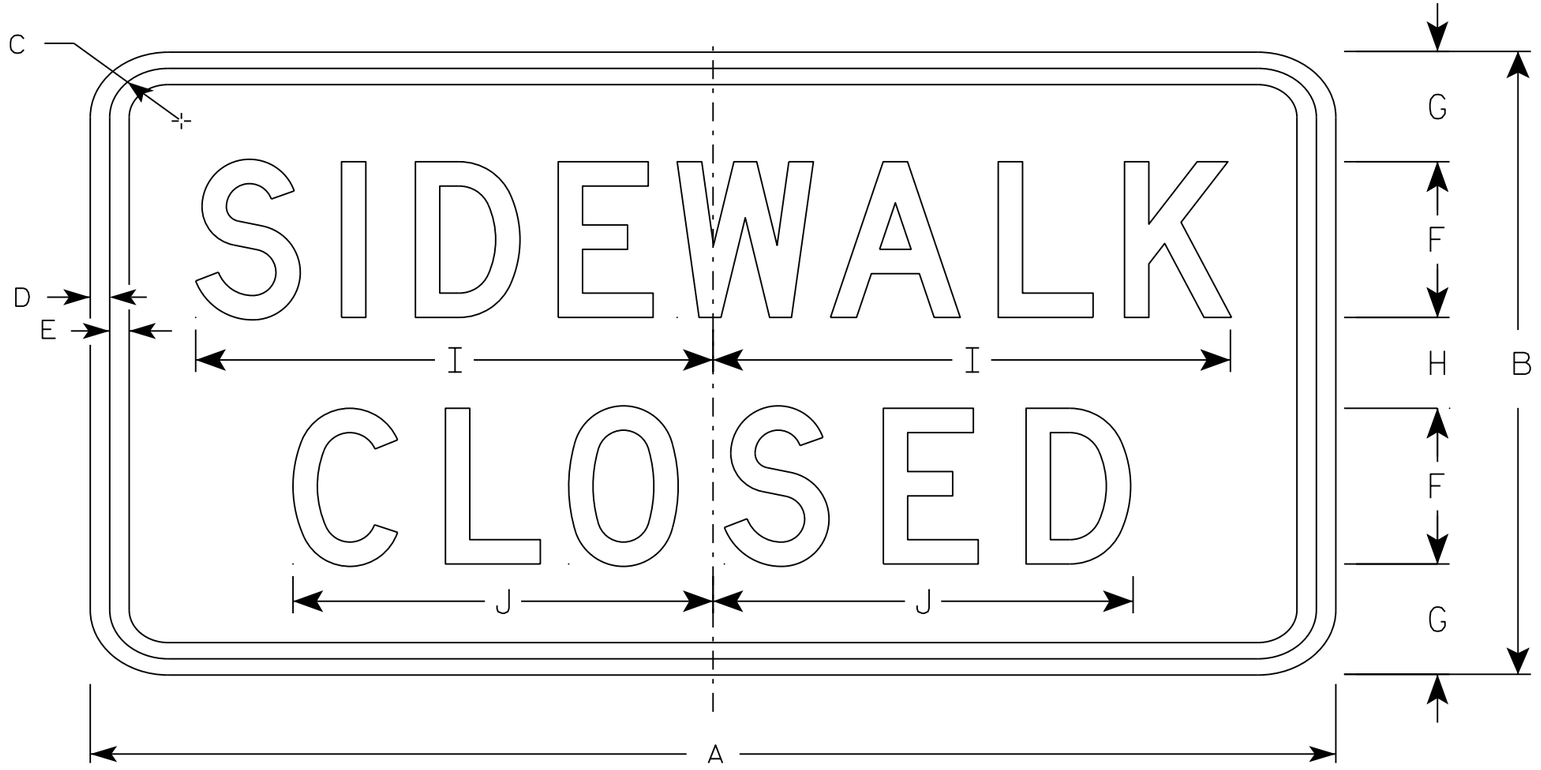
STANDARD SIGN
R8 - 7

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: 621 | E



R9-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

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	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

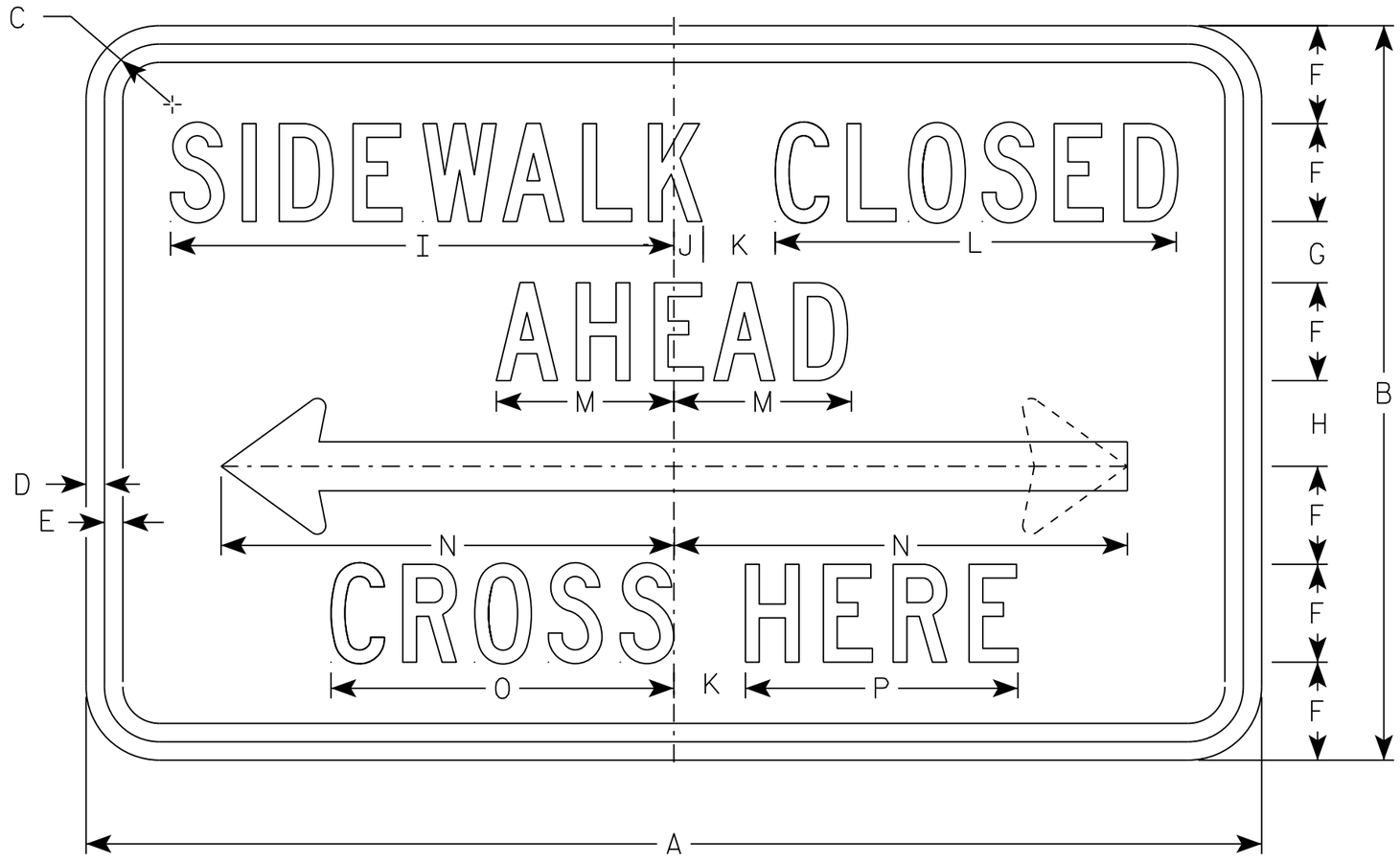
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

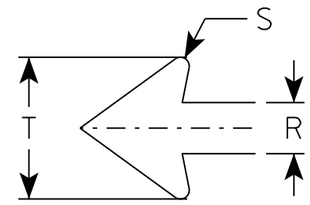
DATE 8/11/16 PLATE 622 R9-9.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R9-11



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C except Size 1 is 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. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

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	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

STANDARD SIGN
R9-11

WISCONSIN DEPT OF TRANSPORTATION

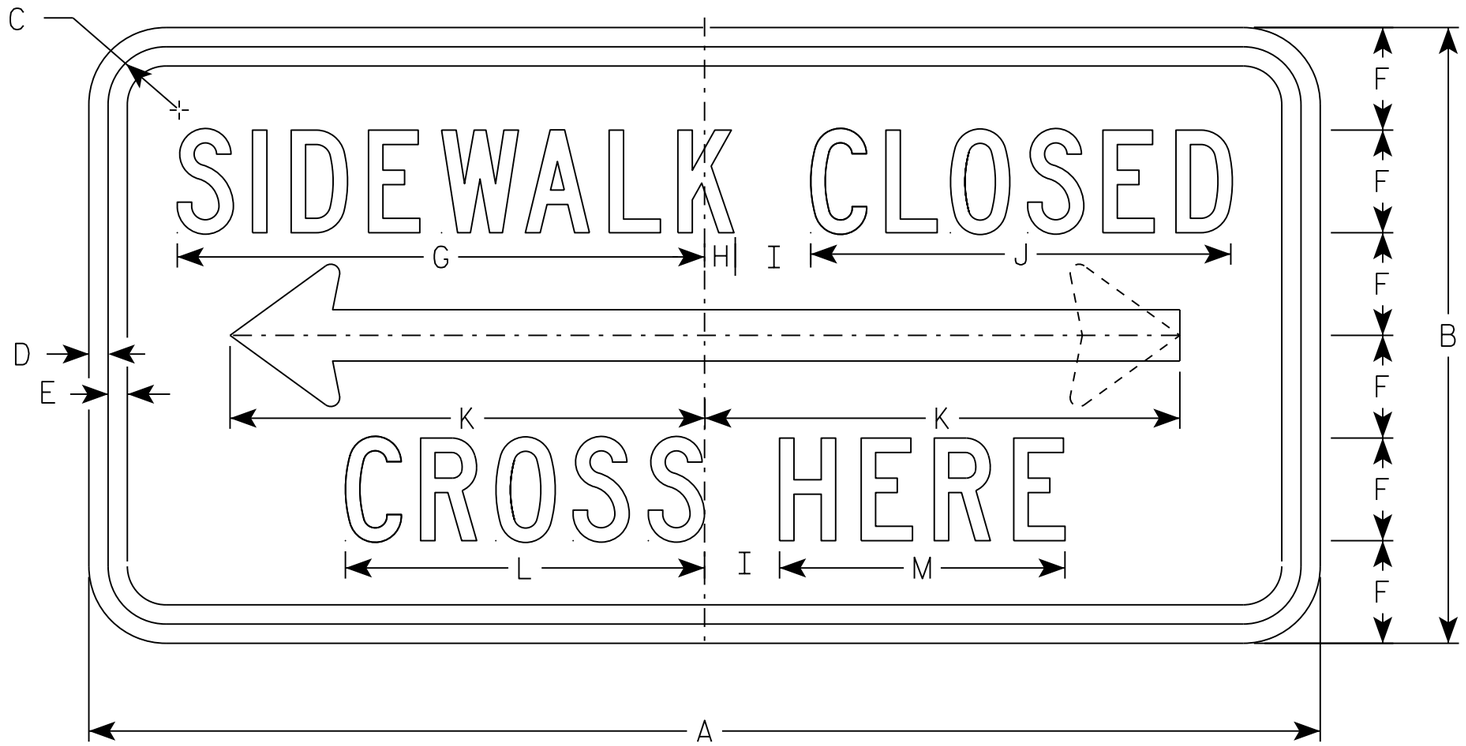
APPROVED Matthew R Rauch
for State Traffic Engineer

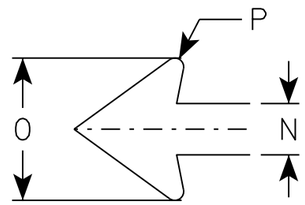
DATE 11/29/16 PLATE NO. R9-11.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 623	E

NOTES

1. Sign is Type II - Type H Reflective
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.
5. Use Size 2 for Sidewalks. Use Size 3 for paths and Trails.





R9-11A

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	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
3	30	15	1 1/8	3/8	1/2	2	13	3/4	2	10 1/4	12 3/8	8 7/8	6 7/8	1 1/4	3 5/8	1/4											3.125
4																											
5																											

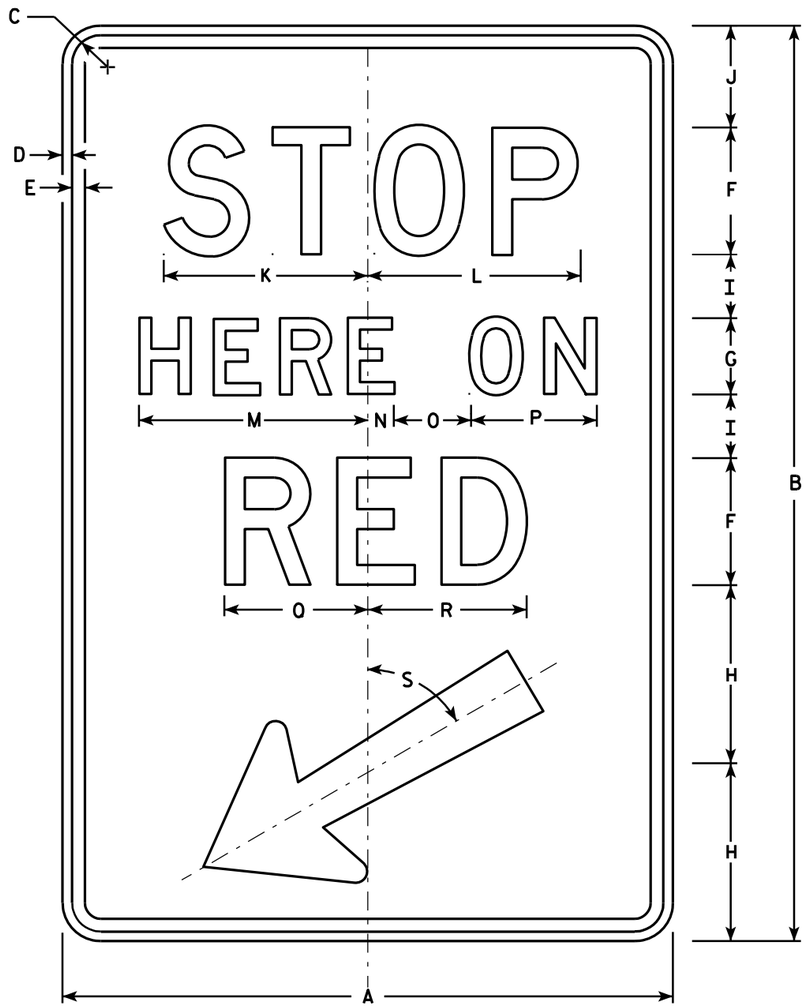
STANDARD SIGN
R9-11A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R9-11A.3

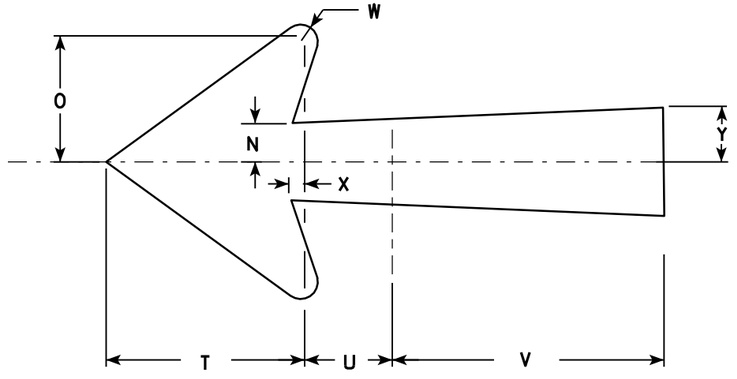
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 624 E



R10-6

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	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
2M	24	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
3																											
4																											
5																											

STANDARD SIGN
R10-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-6.6

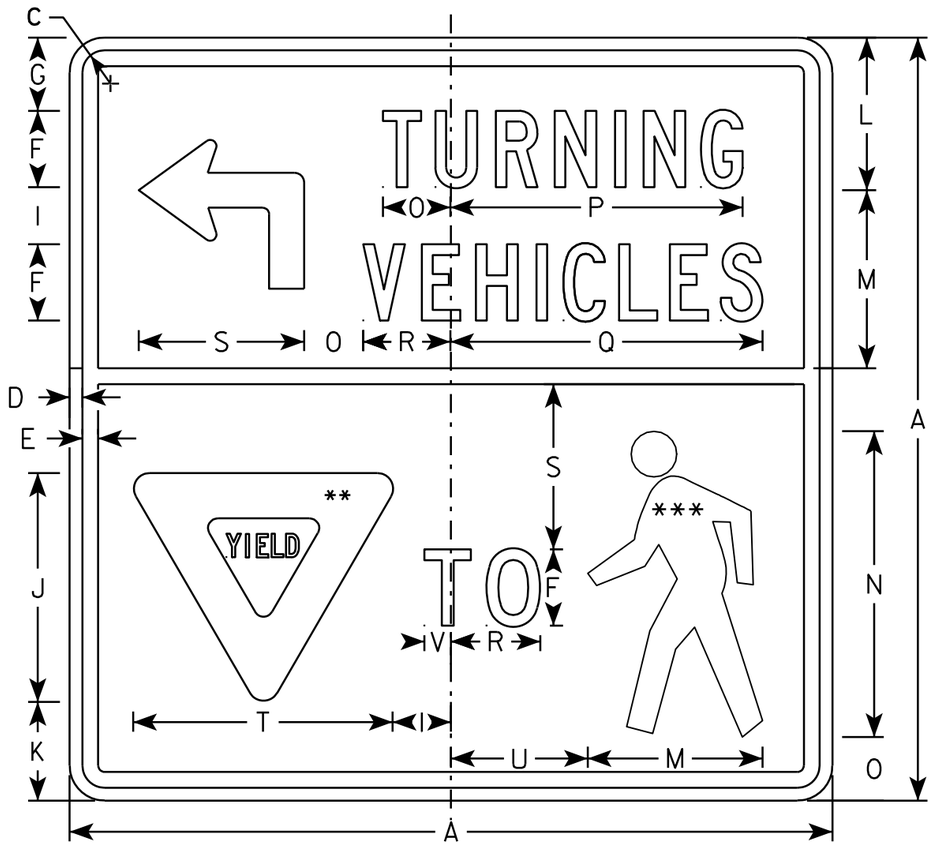
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 625	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R106.DGN PLOT DATE : 05-APR-2011 09:50 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

7



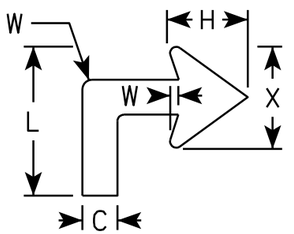
R10-15L

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Half- Yellow
   Bottom Half - WHITE
   Message - BLACK
   YIELD SYMBOL - RED ON WHITE
   PED SYMBOL - BLACK ON WHITE
3. Message Series - C except "TO" 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.

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT



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																											
2S	30		1 3/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
2M	30		1 3/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
3																											
4																											
5																											

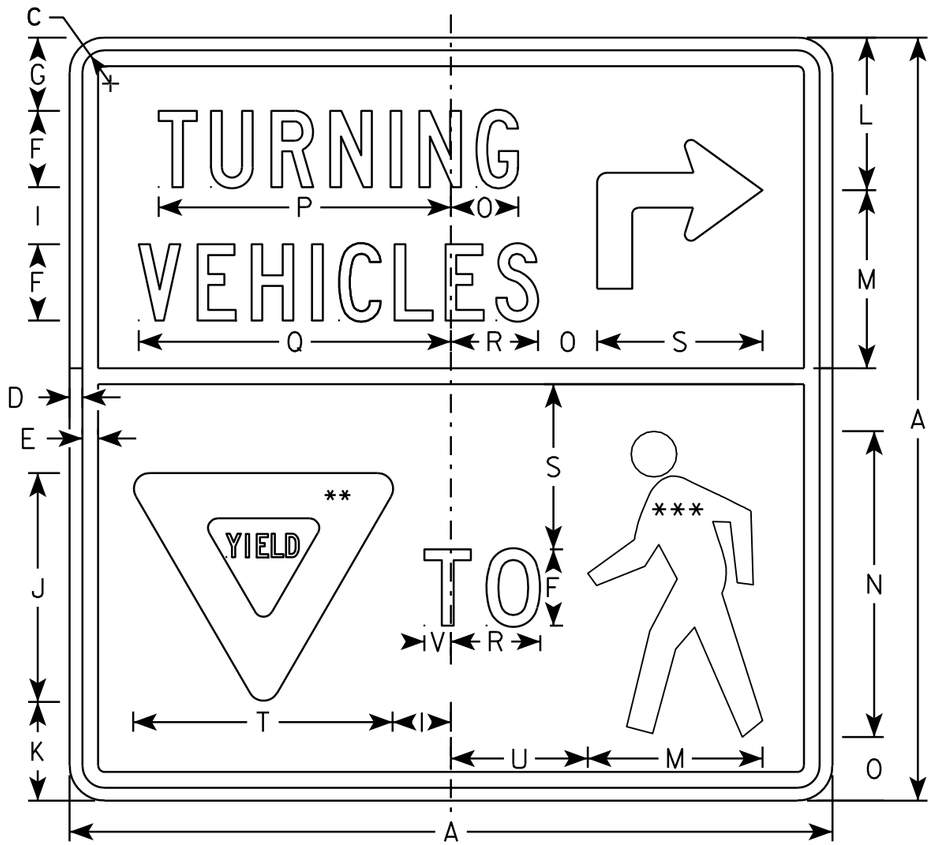
STANDARD SIGN
R10-15L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/2/10 PLATE NO. R10-15L.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 626	E



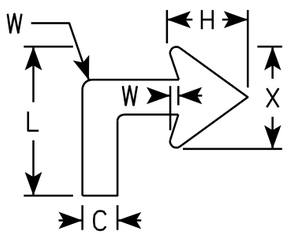
R10-15R

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Half- Yellow
   Bottom Half - WHITE
   Message - BLACK
   YIELD SYMBOL - RED ON WHITE
   PED SYMBOL - BLACK ON WHITE
3. Message Series - C except "TO" 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.

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT



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																											
2S	30		1 3/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
2M	30		1 3/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
3																											
4																											
5																											

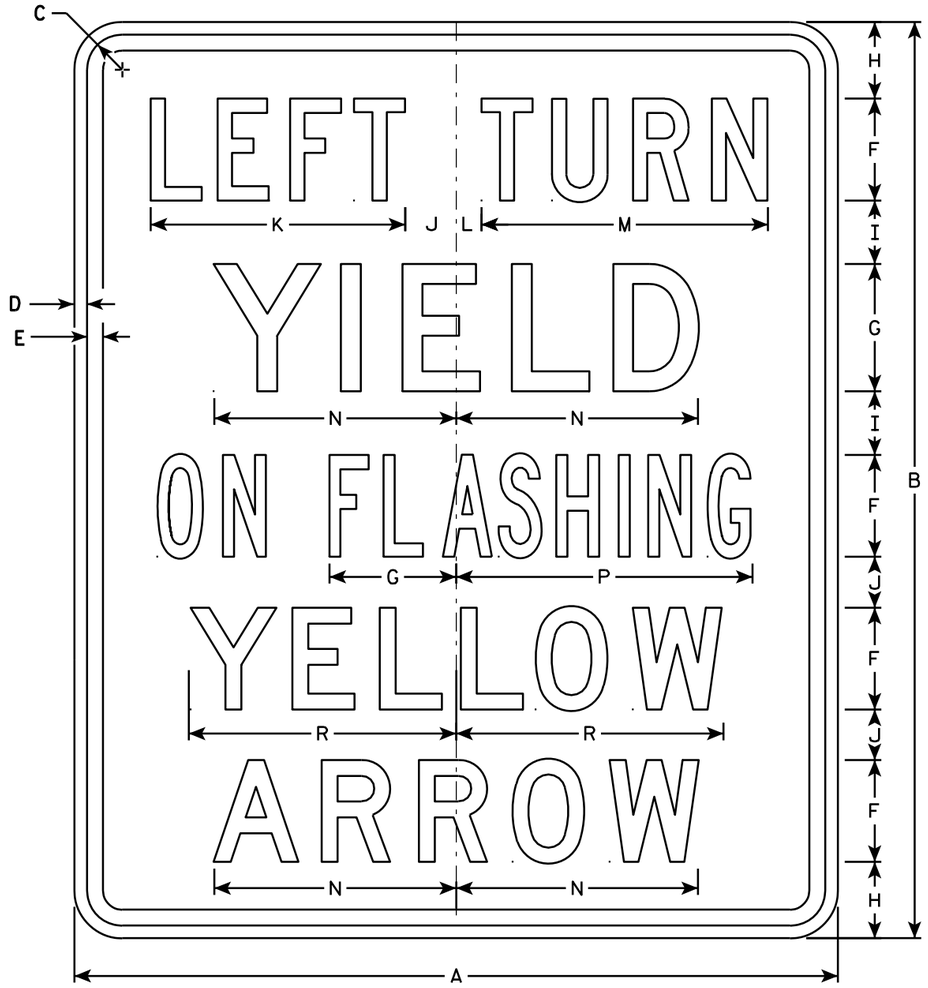
STANDARD SIGN
R10-15R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/2/10 PLATE NO. R10-15R.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 627	E

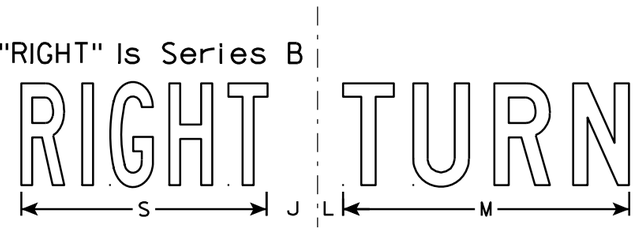


R10-50L

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 C.
   Lines 2, 4 and 5 are Series D.
   Line 3 is Series B.

"RIGHT" Is Series B



R10-50R

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	4	5	3	2 1/2	2	10	1	11 1/4	9 1/2	4 1/4	11 5/8		10 1/2	9 5/8								7.5
2M	30	36	1 3/8	1/2	5/8	4	5	3	2 1/2	2	10	1	11 1/4	9 1/2	4 1/4	11 5/8		10 1/2	9 5/8								7.5
3																											
4																											
5																											

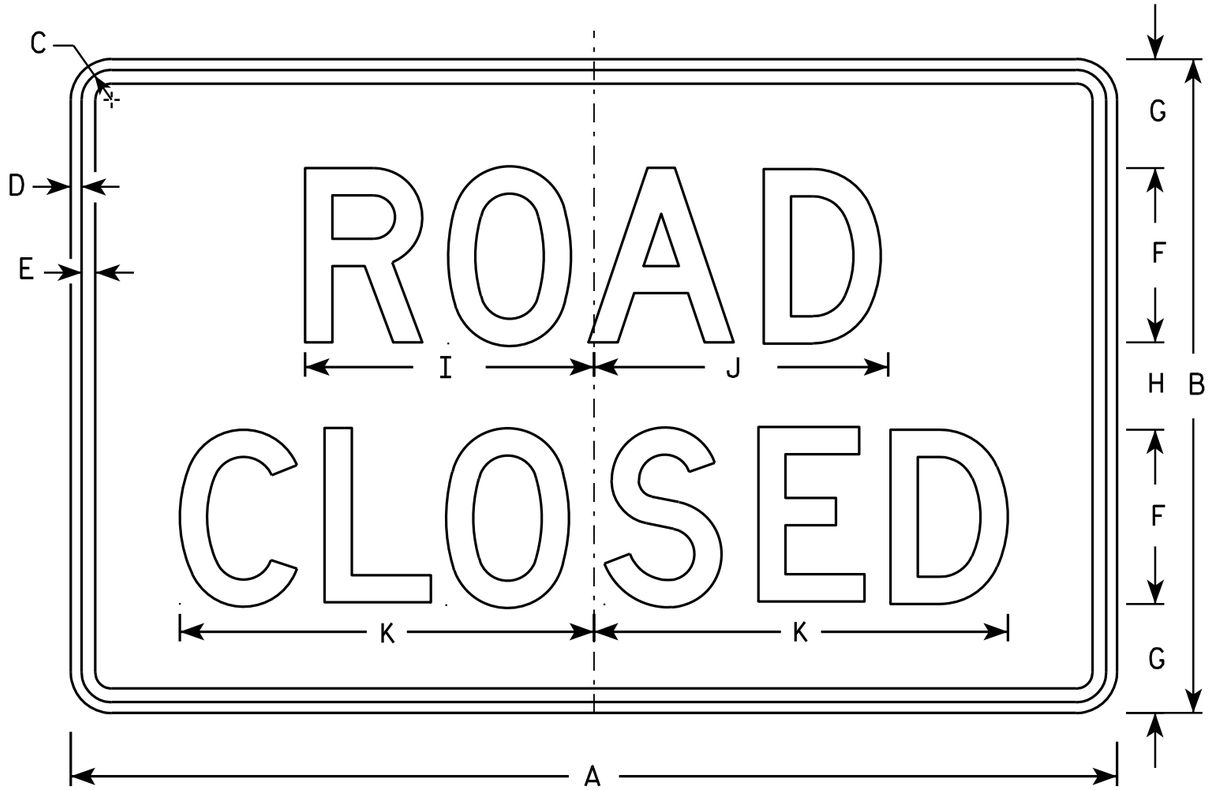
STANDARD SIGN
R10-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/11/13 PLATE NO. R10-50.2

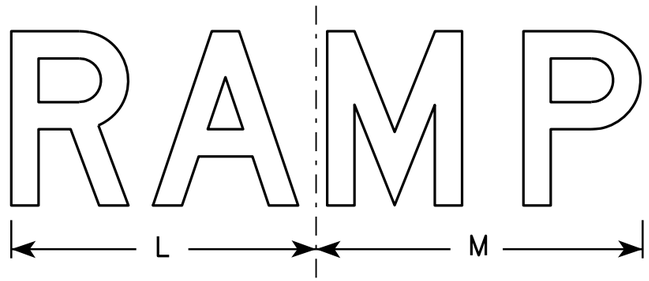
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 628	E



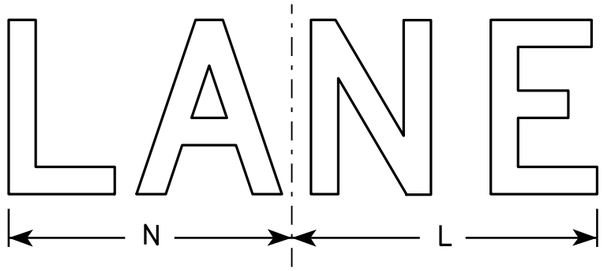
R11-2

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 - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2L

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

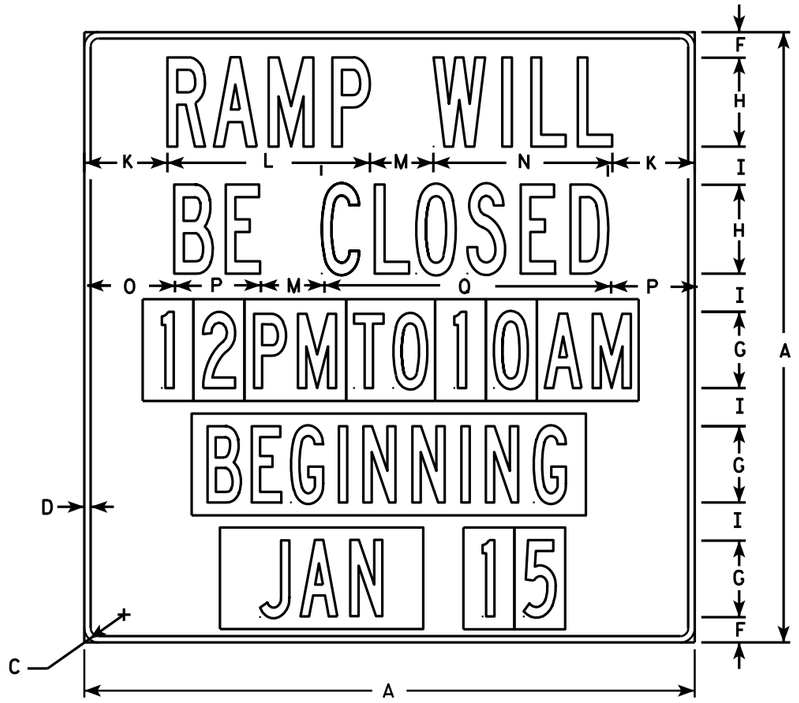
STANDARD SIGN
R11-2

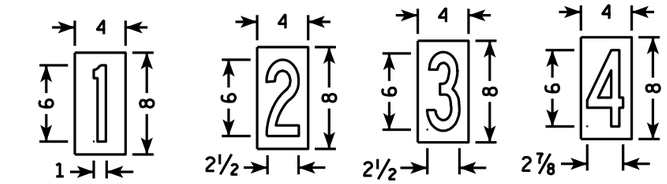
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

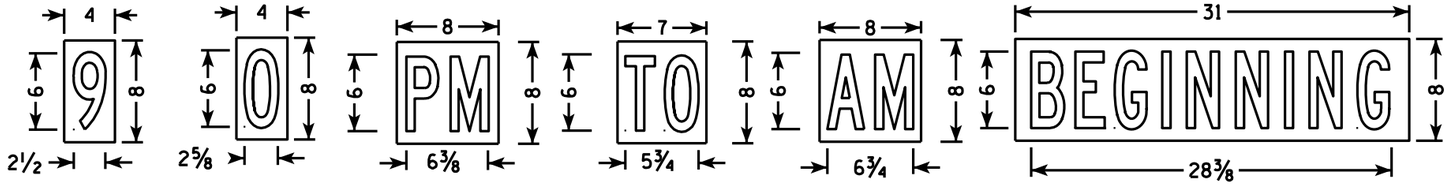
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 629	E

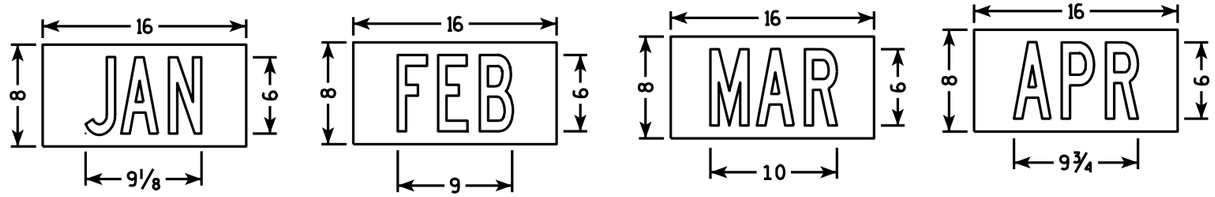


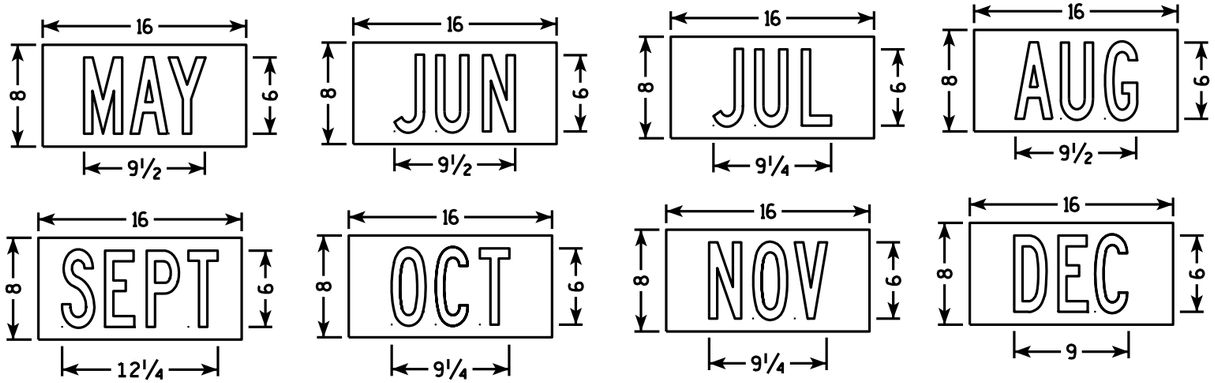


NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - B
4. Message plaques consist of Type H Reflective sheeting with the appropriate non-reflective black message applied to .040 aluminum and screwed to the base sign.







SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	1/2		2	6	7	3		6 1/2	15 7/8	5	14 1/8	6 7/8	6 3/4	22 1/2										16.0
2M	48		2 1/4	1/2		2	6	7	3		6 1/2	15 7/8	5	14 1/8	6 7/8	6 3/4	22 1/2										16.0
3																											
4																											
5																											

STANDARD SIGN
R11-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-51.4

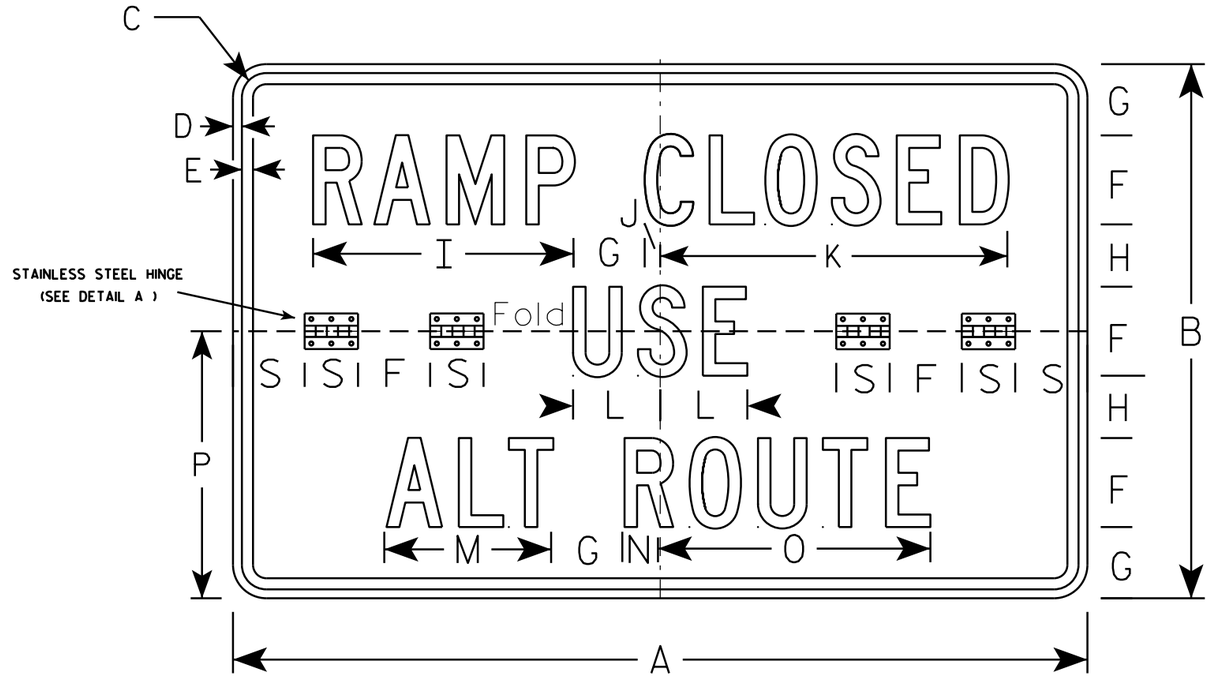
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 630	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R1151.DGN PLOT DATE : 01-APR-2011 14:07 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000

WISDOT/CADDS SHEET 42

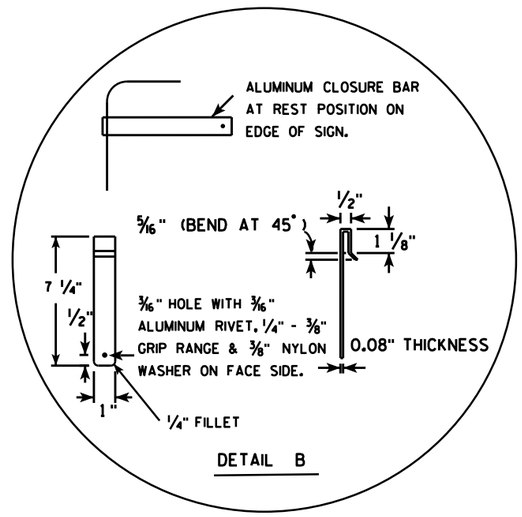
7

7



R11-54F

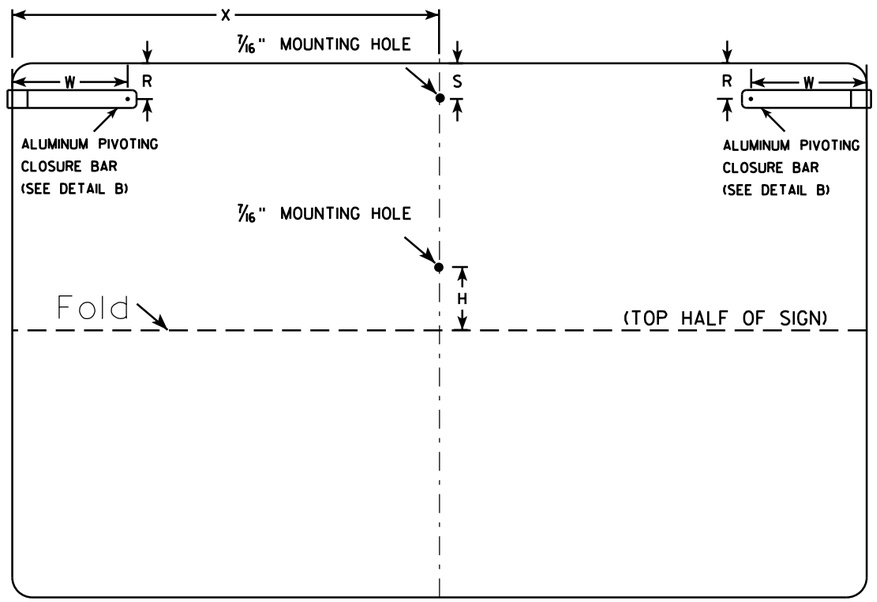
DETAIL A



DETAIL B

NOTES

1. Sign is Type II - Type H Reflective
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.
6. Refer to plate A5-3A for sign blank layout.



(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

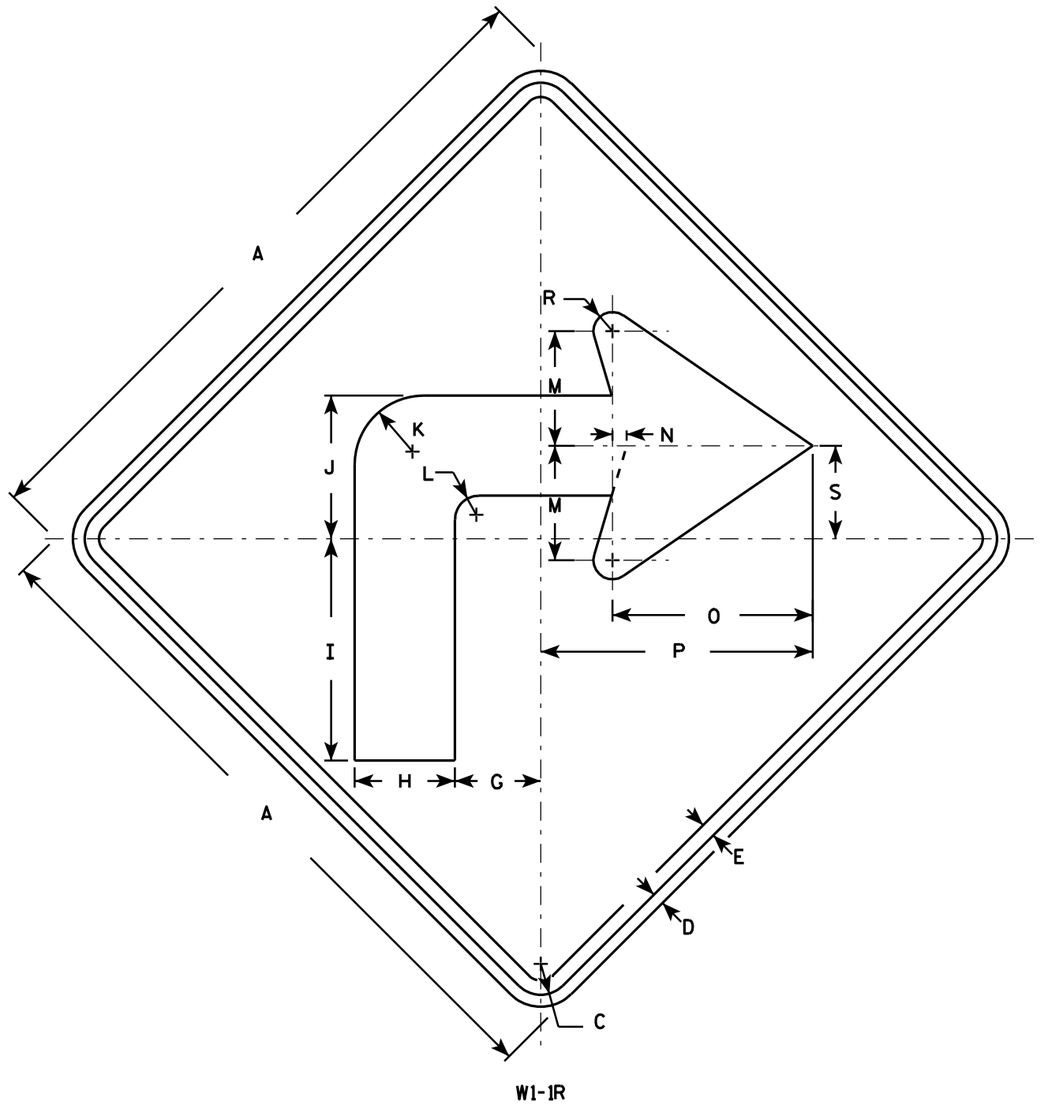
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/28/14 PLATE NO. R11-54F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R1154F.DGN PLOT DATE : 28-MAY-2014 14:15 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 8.511110:1.000000
WISDOT/CADDS SHEET 42



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

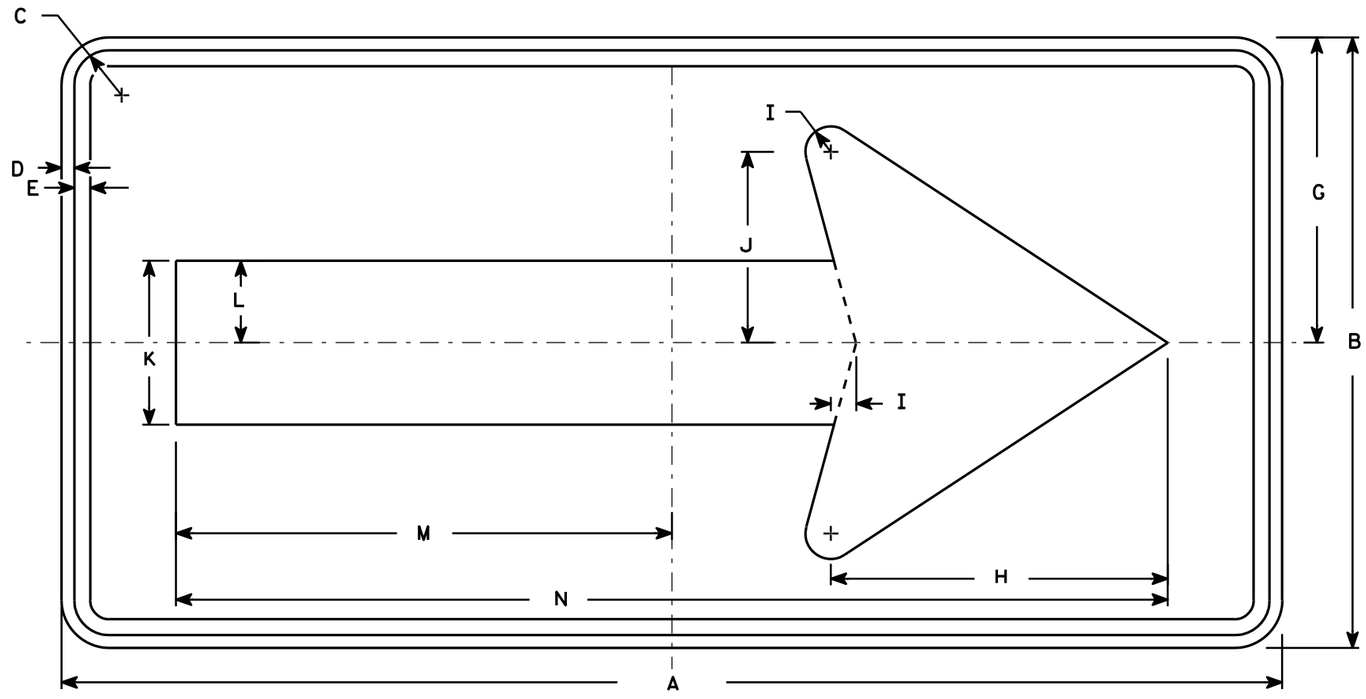
STANDARD SIGN
W1-1

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: 632 | E



W1-6

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	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

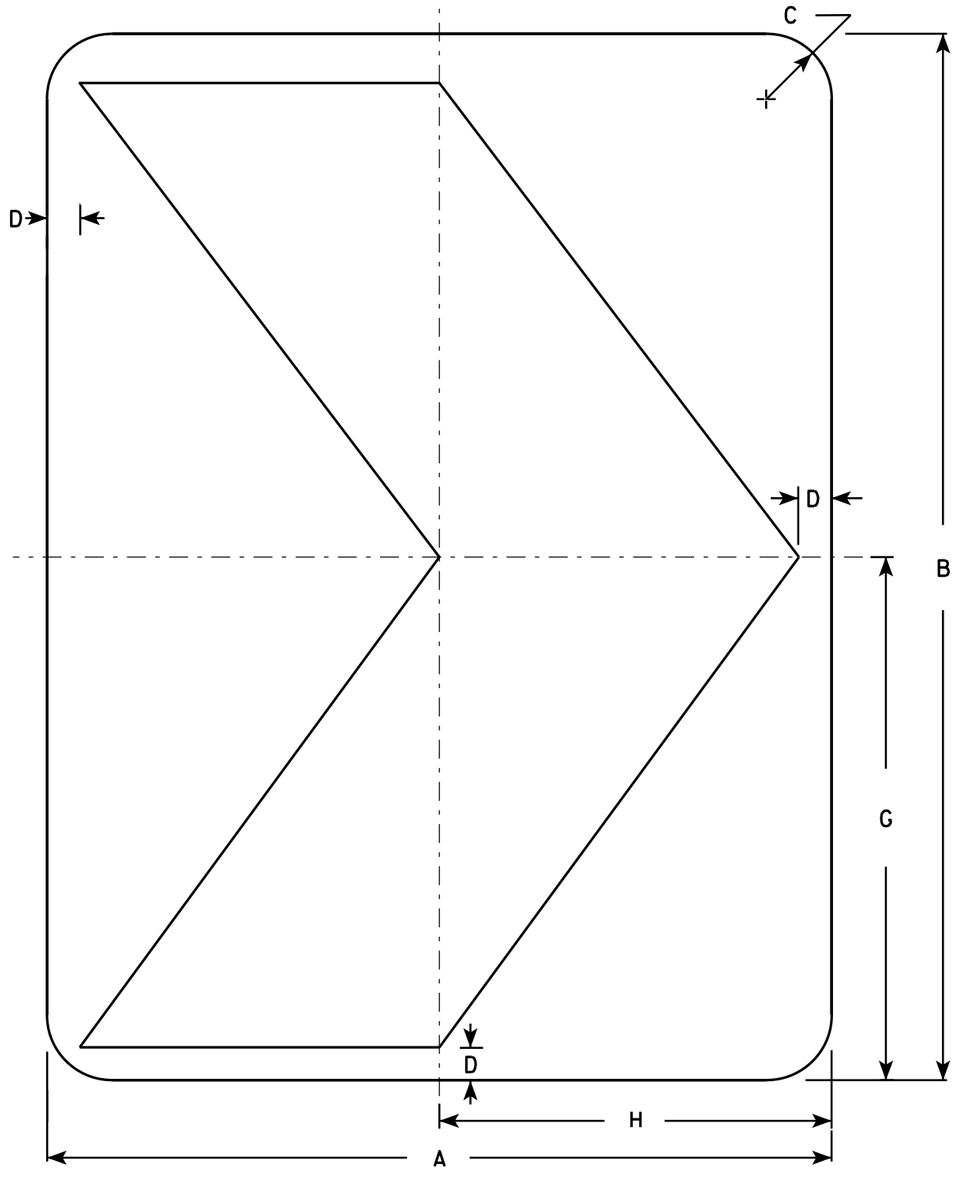
STANDARD SIGN
W1-6

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: 633



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:

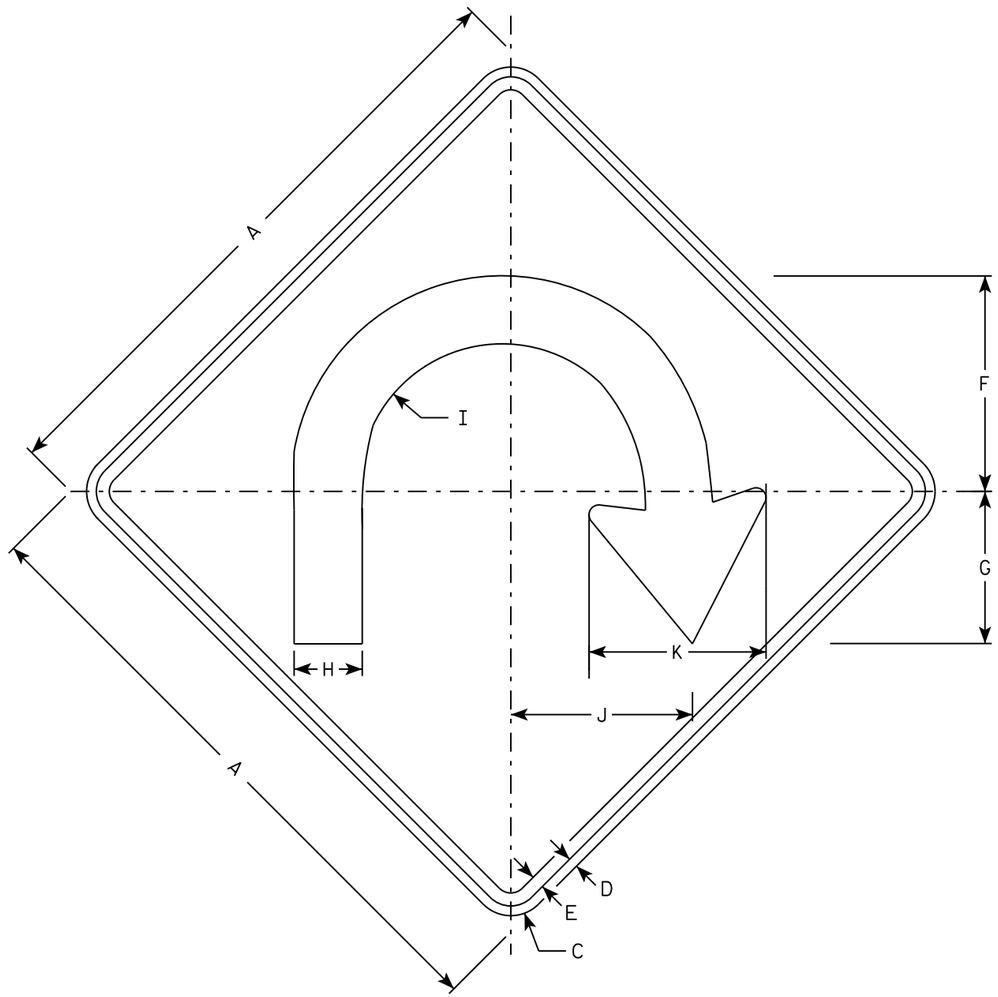
SHEET NO: 634 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W18.DGN PLOT DATE : 07-JUN-2010 12:55 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

7

7



W1-11R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. W1-11L is the same as W1-11R except 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																											
2S	36		1 5/8	5/8	3/4	12 1/2	8 3/4	4	8 1/4	10 1/2	10 1/4																9.0
2M	36		1 5/8	5/8	3/4	12 1/2	8 3/4	4	8 1/4	10 1/2	10 1/4																9.0
3	36		1 5/8	5/8	3/4	12 1/2	8 3/4	4	8 1/4	10 1/2	10 1/4																9.0
4	36		1 5/8	5/8	3/4	12 1/2	8 3/4	4	8 1/4	10 1/2	10 1/4																9.0
5	48		2 1/4	3/4	1	16 5/8	11 3/4	5 1/4	11	14	13 5/8																16.0

STANDARD SIGN
W1-11 L&R

WISCONSIN DEPT OF TRANSPORTATION

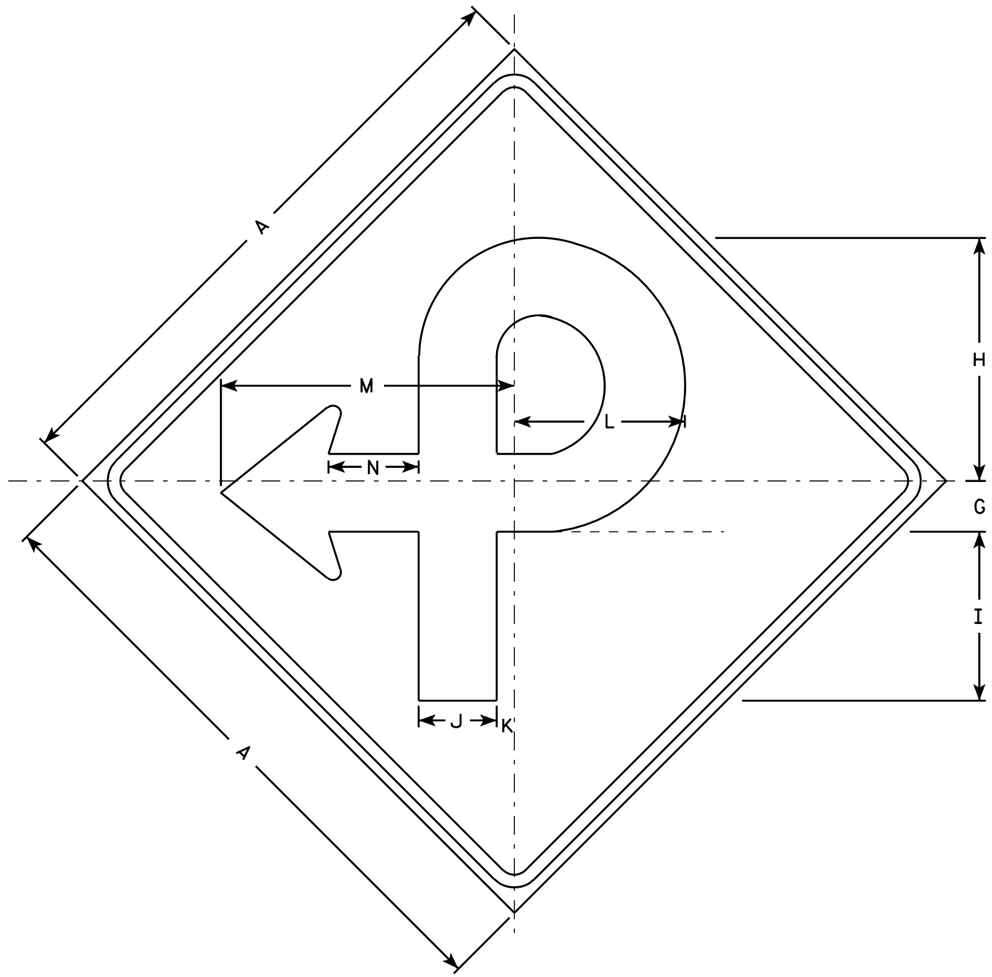
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/1/16 PLATE NO W1-11A.2

635

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W11A.DGN PLOT DATE : 04-AUG-2016 10:34 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



W1-60

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																											
2S	36		1 5/8	5/8	3/4		3	14 3/8	10	4 5/8	1	10	17 1/4	5 1/4													9.0
2M	36		1 5/8	5/8	3/4		3	14 3/8	10	4 5/8	1	10	17 1/4	5 1/4													9.0
3	36		1 5/8	5/8	3/4		3	14 3/8	10	4 5/8	1	10	17 1/4	5 1/4													9.0
4	48		2 1/4	3/4	1		4	19 1/8	13 1/4	6 1/8	1 3/8	13 3/8	23	7 1/8													16.0
5	48		2 1/4	3/4	1		4	19 1/8	13 1/4	6 1/8	1 3/8	13 3/8	23	7 1/8													16.0

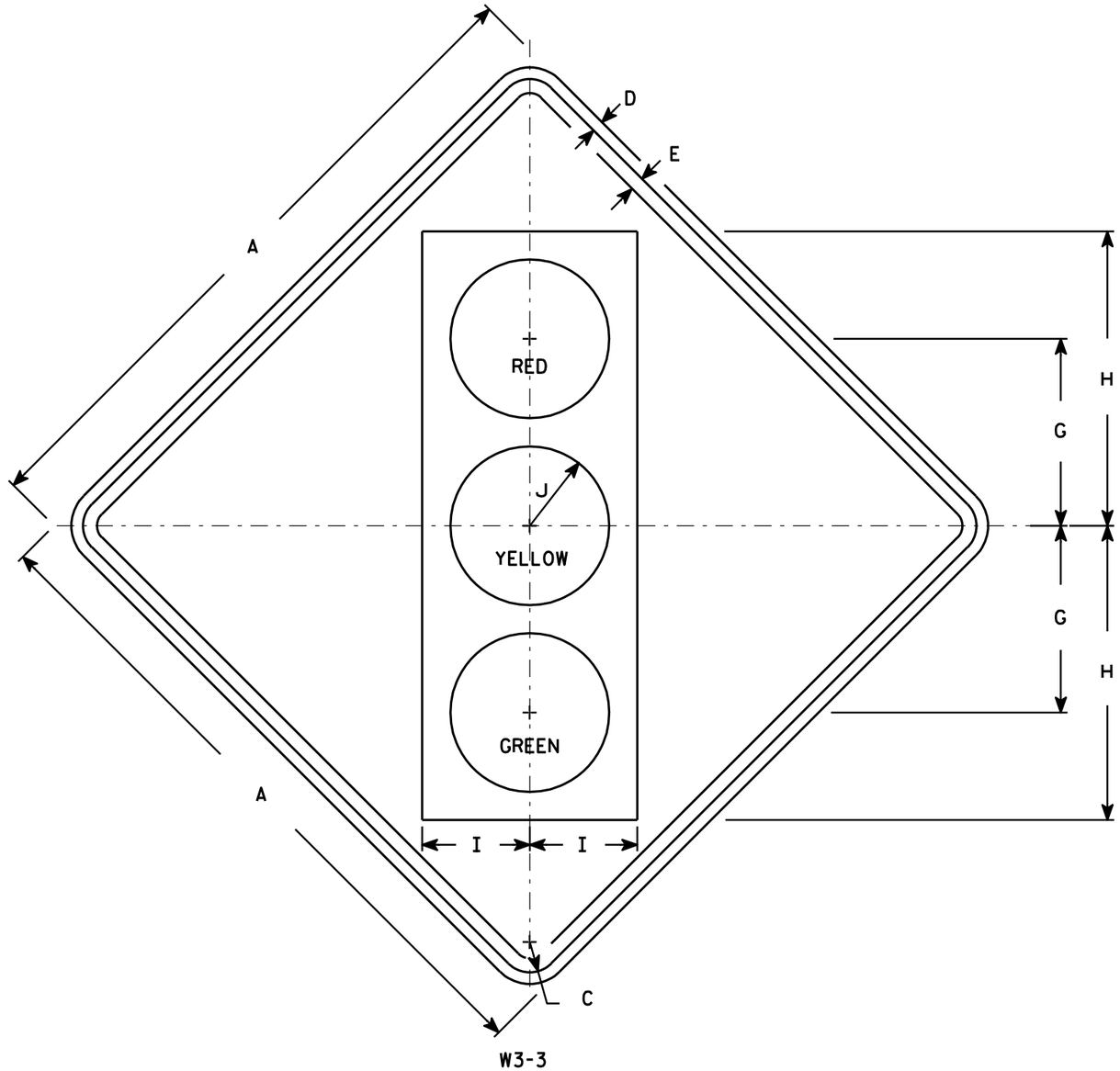
STANDARD SIGN
W1-60

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/18/12 PLATE NO. W1-60.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 636 | 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

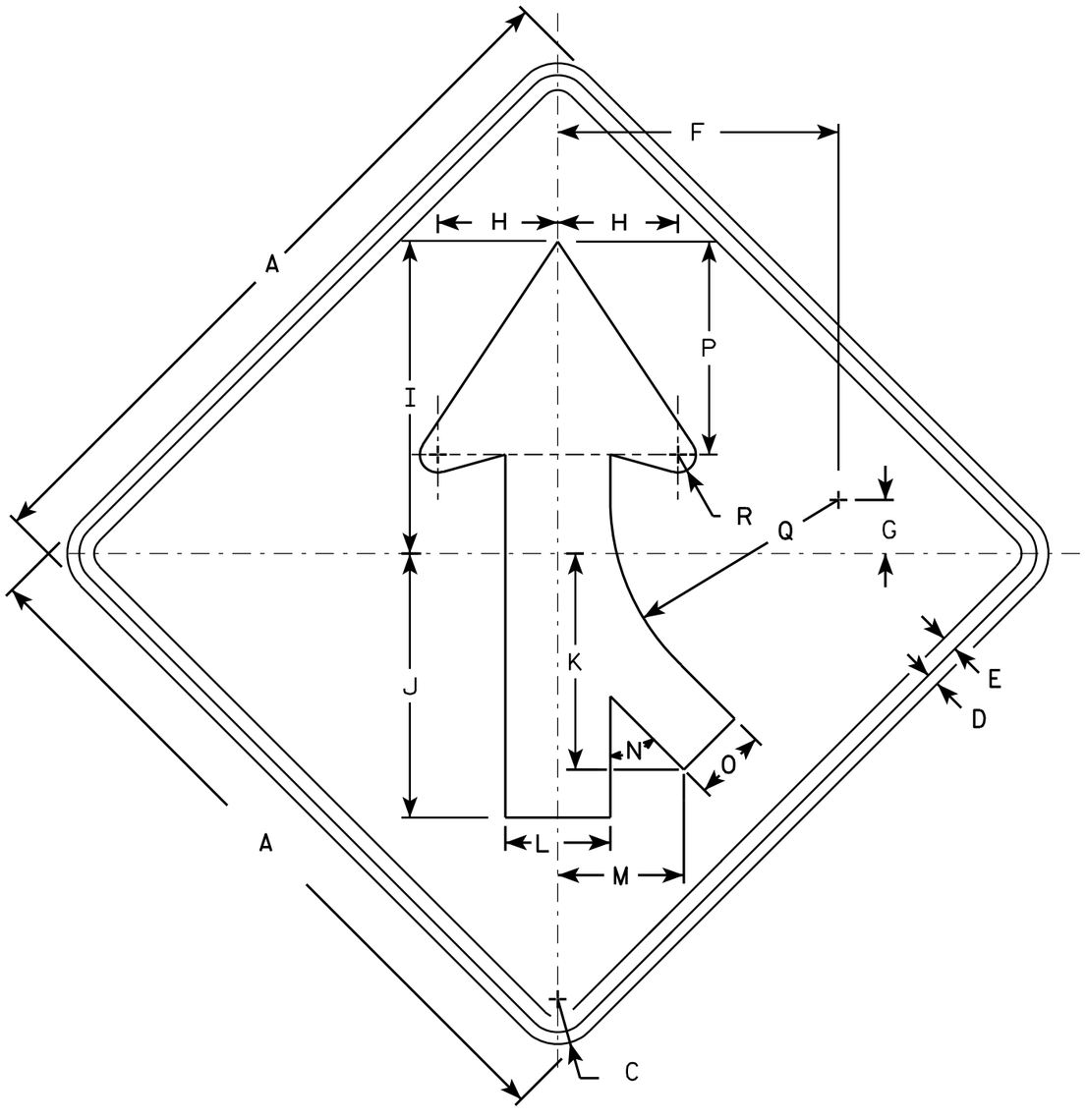
STANDARD SIGN
W3-3

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: 637 | 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

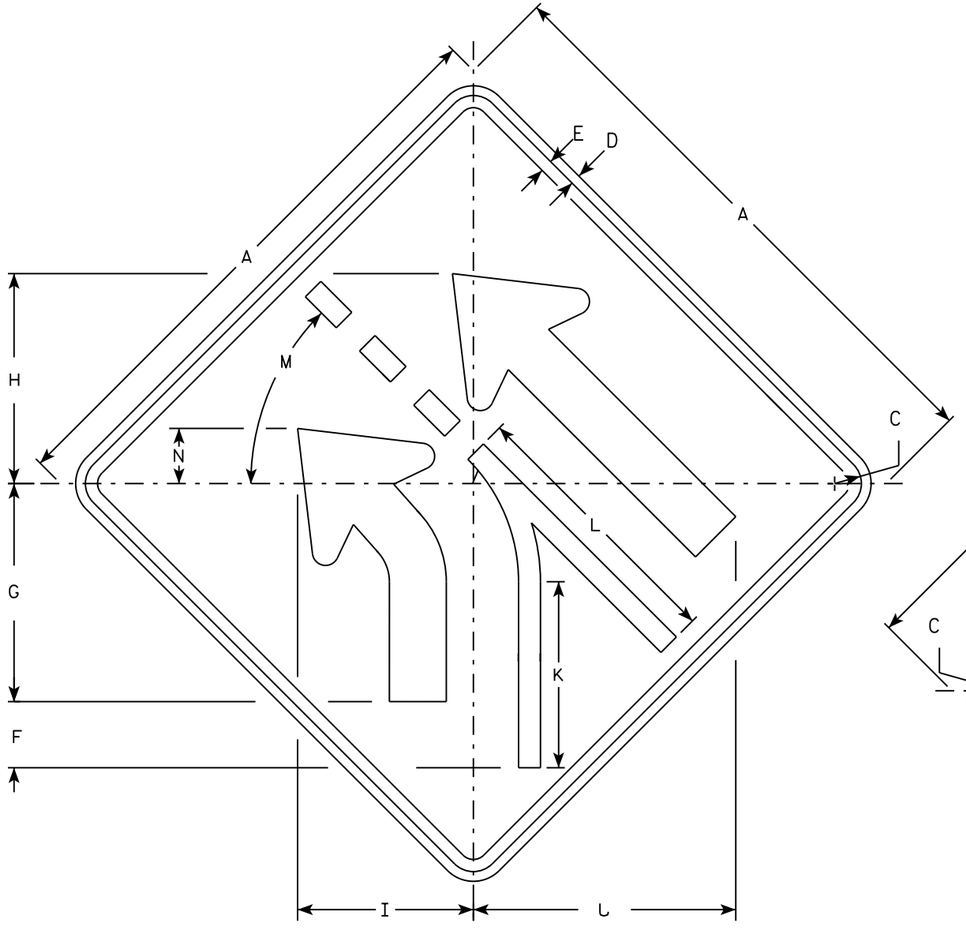
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

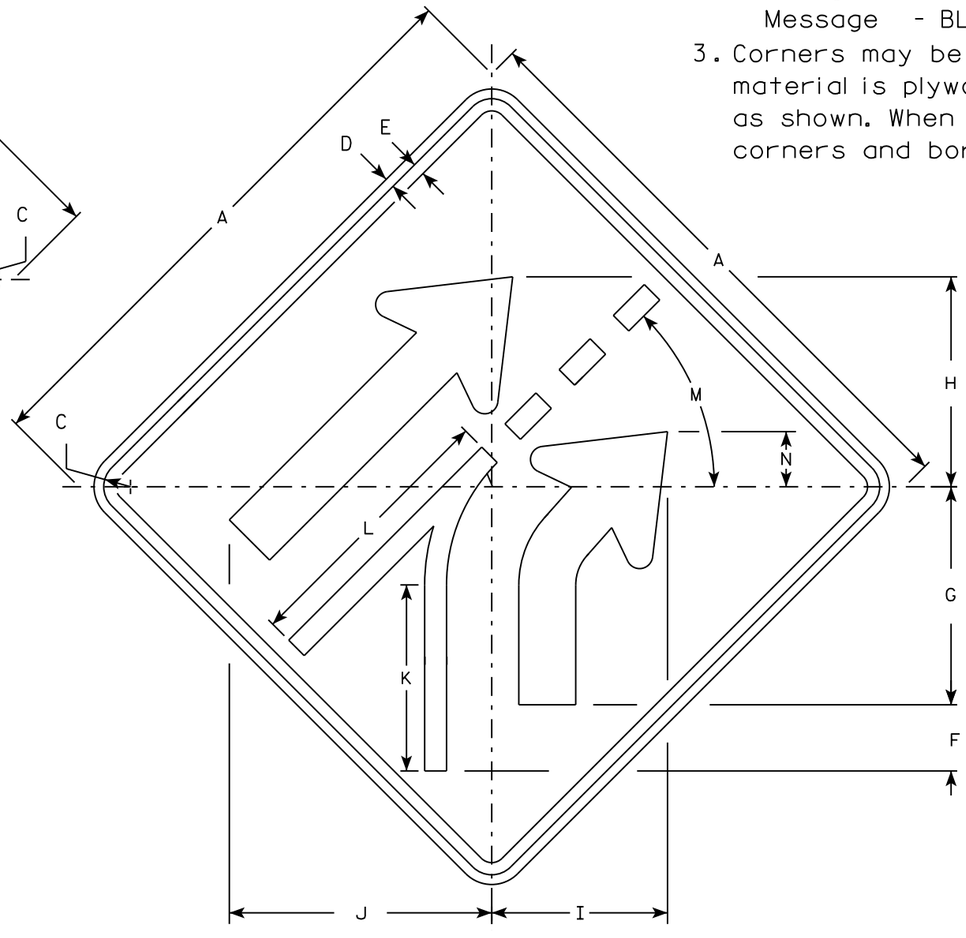
APPROVED Matthew R Rausch for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 638	E



W4-6L



W4-6R

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.

* Scale and Rotate W4-3 and make modifications.

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	3 3/8	11 1/4	10 3/4	9	13 1/2	9 1/2	14	45°	2 7/8													6.25
2S	36		1 5/8	5/8	3/4	4	13 1/2	13	10 7/8	16 1/4	11 1/2	16 7/8	45°	3 3/8													9.0
2M	36		1 5/8	5/8	3/4	4	13 1/2	13	10 7/8	16 1/4	11 1/2	16 7/8	45°	3 3/8													9.0
3																											
4	48		2 1/4	3/4	1	5 3/8	18	17 1/4	14 1/2	21 5/8	15 1/4	22 1/2	45°	4 1/2													16.0
5	48		2 1/4	3/4	1	5 3/8	18	17 1/4	14 1/2	21 5/8	15 1/4	22 1/2	45°	4 1/2													16.0

STANDARD SIGN
W4-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

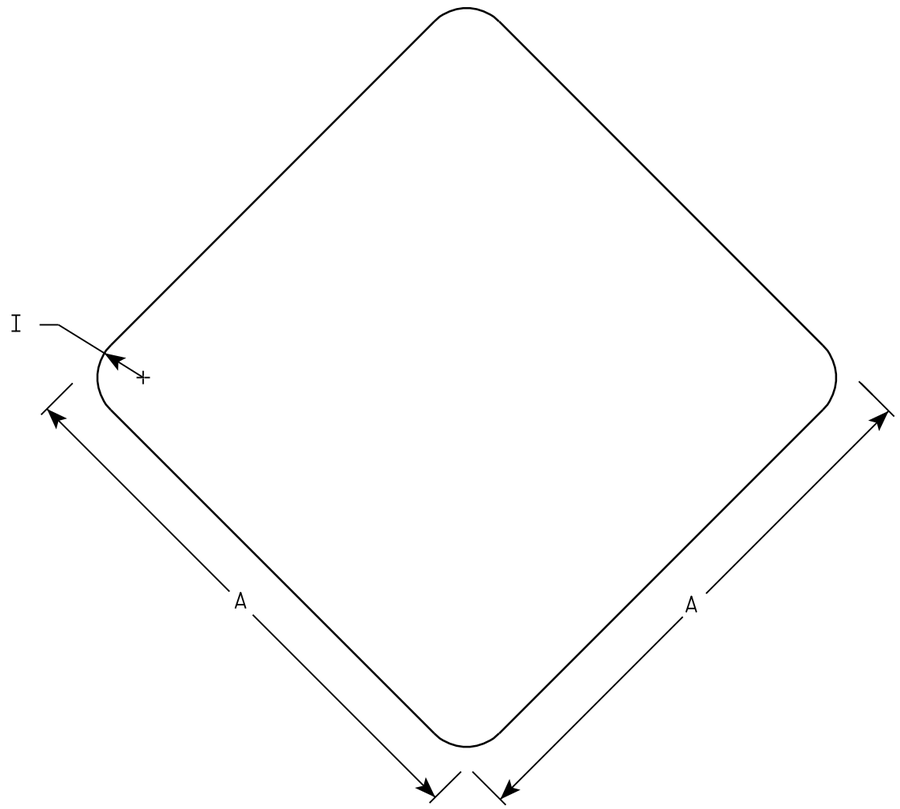
DATE 2/9/16 PLATE 639 W4-6.4

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W46.DGN PLOT DATE : 09-FEB-2016 10:16 PLOT BY : $$ platuser $$

7



W5-54

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
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners 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	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

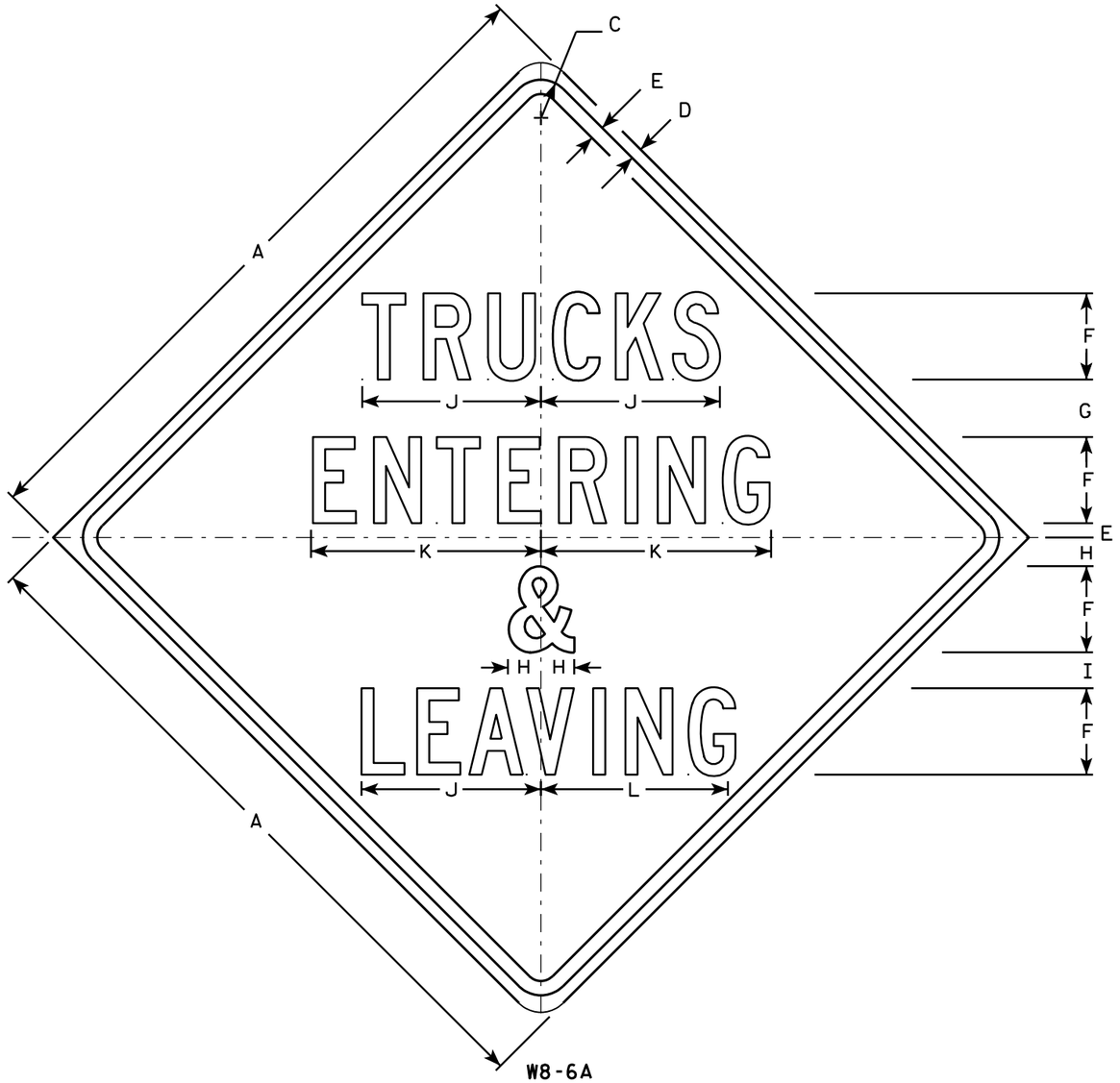
STANDARD SIGN
W5-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/3/10 PLATE NO. W5-54.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 640 | E



W8-6A

NOTES

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

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

STANDARD SIGN
W8-6A

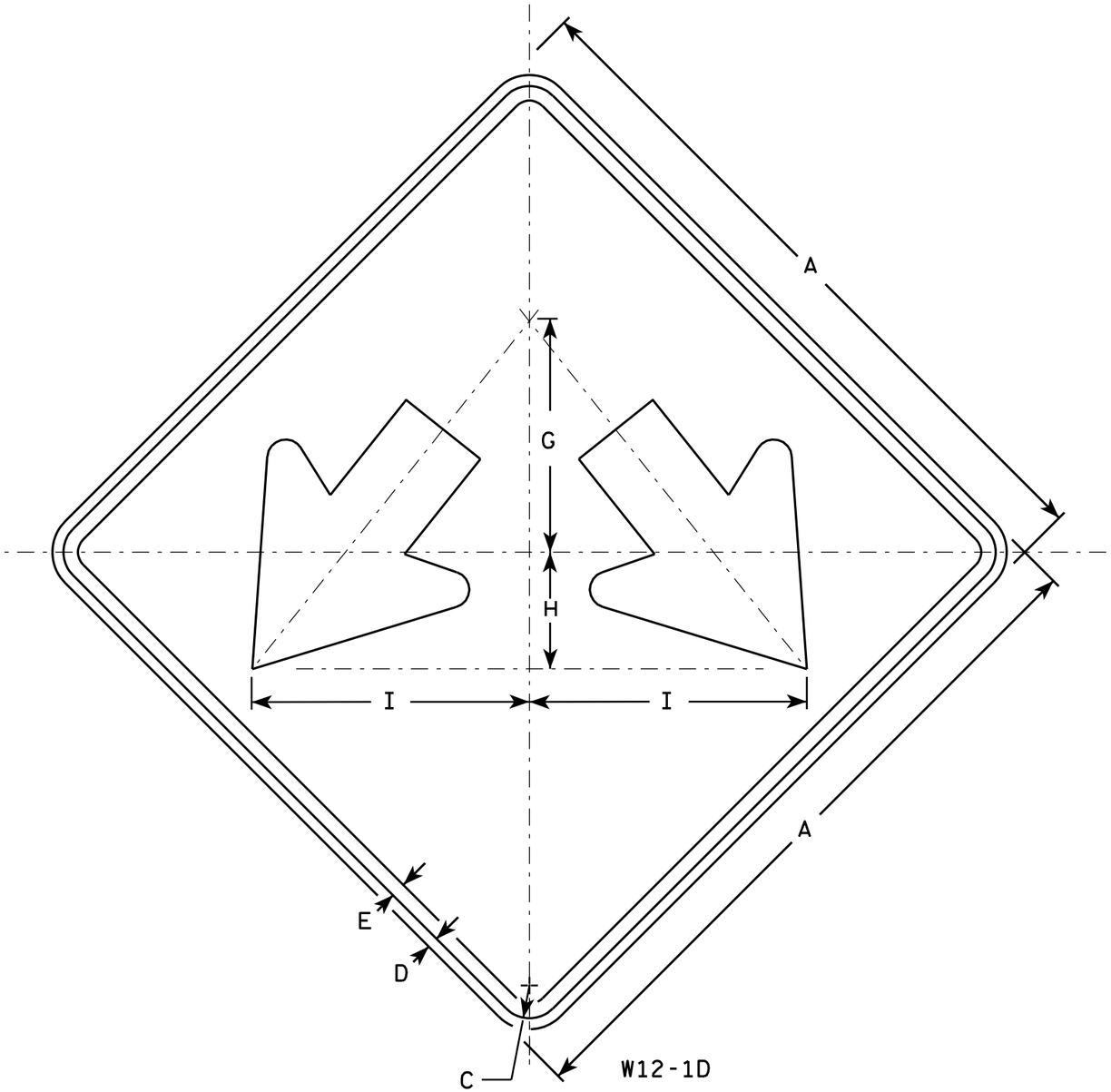
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/23/11 PLATE NO. W8-6A.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 641 | E

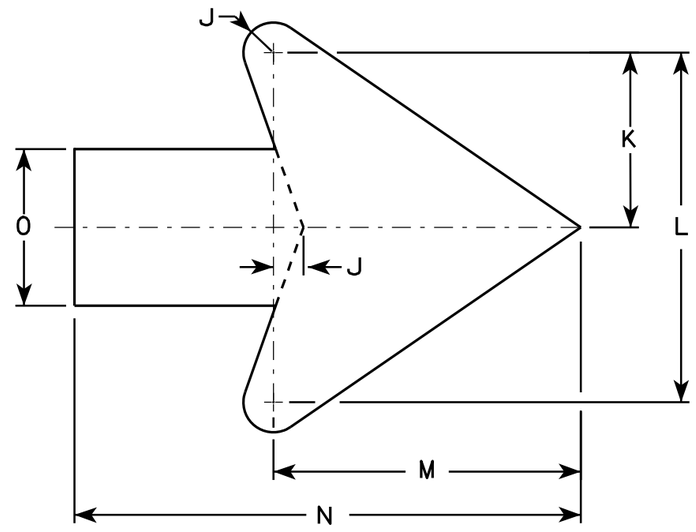
7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W86A.DGN PLOT DATE : 23-MAR-2011 10:02 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 10.136330:1.000000
WISDOT/CADDS SHEET 42



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

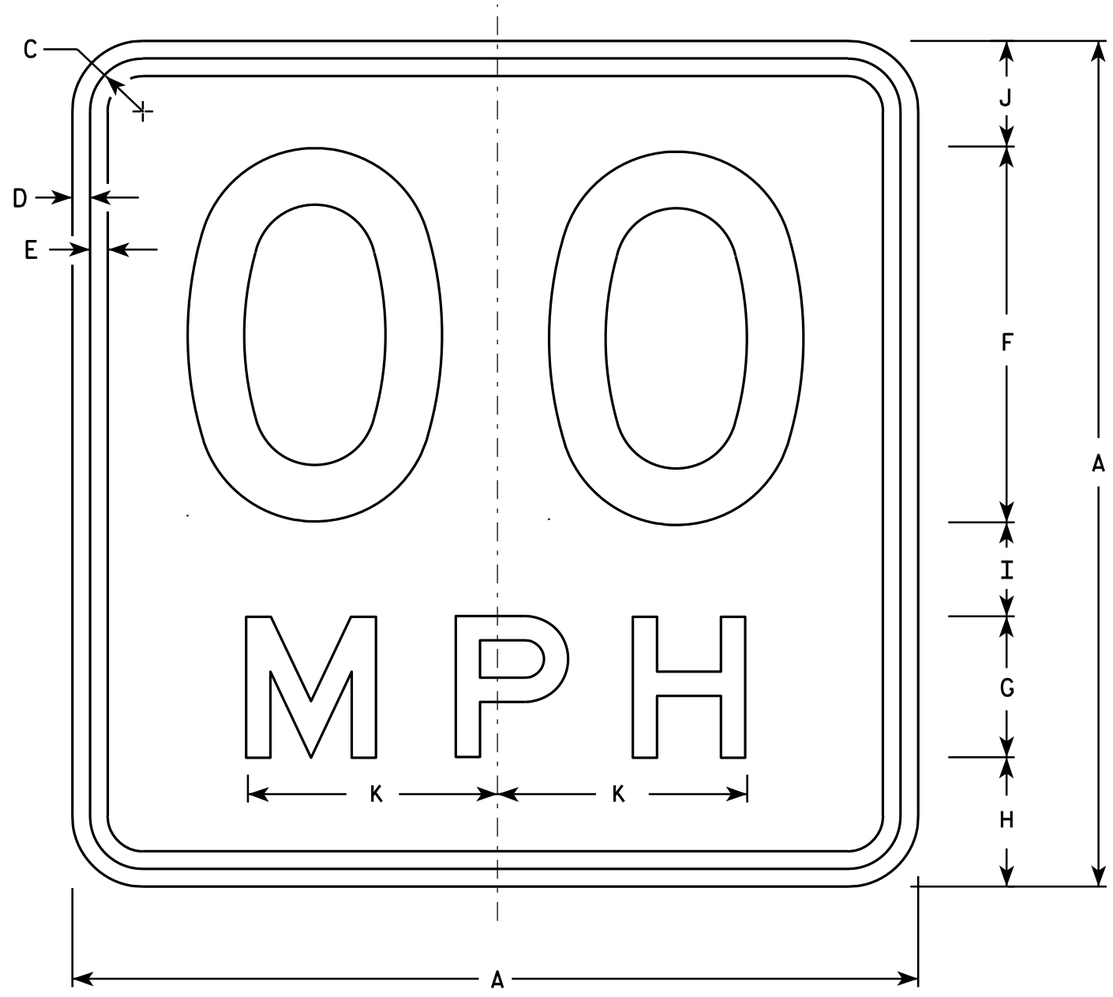
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 642	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W121D.DGN PLOT DATE : 13-MAR-2013 13:26 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.713802:1.000000

WISDOT/CADDS SHEET 42

7

7



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

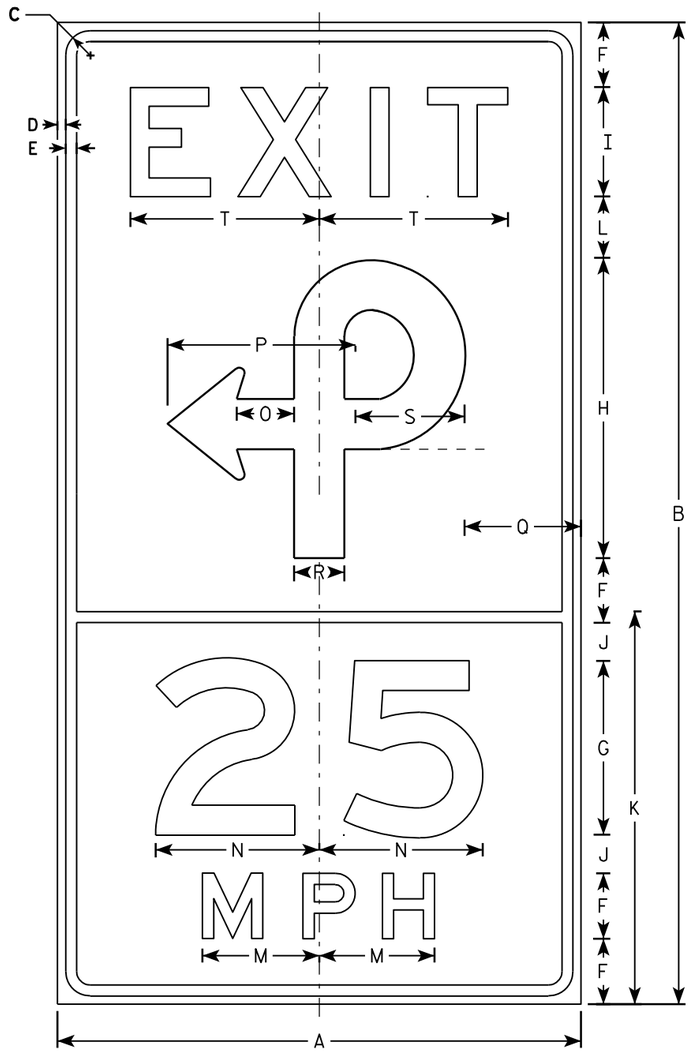
STANDARD SIGN
W13-1

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: 643 | E



W13-2B

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.

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	90	2 1/4	3/4	1	6	16	27 1/2	10	3 1/2	36	5 1/2	10 3/4	15	5 1/4	17 1/4	10 3/4	4 5/8	10	17 3/8							30
2M	48	90	2 1/4	3/4	1	6	16	27 1/2	10	3 1/2	36	5 1/2	10 3/4	15	5 1/4	17 1/4	10 3/4	4 5/8	10	17 3/8							30
3																											
4																											
5																											

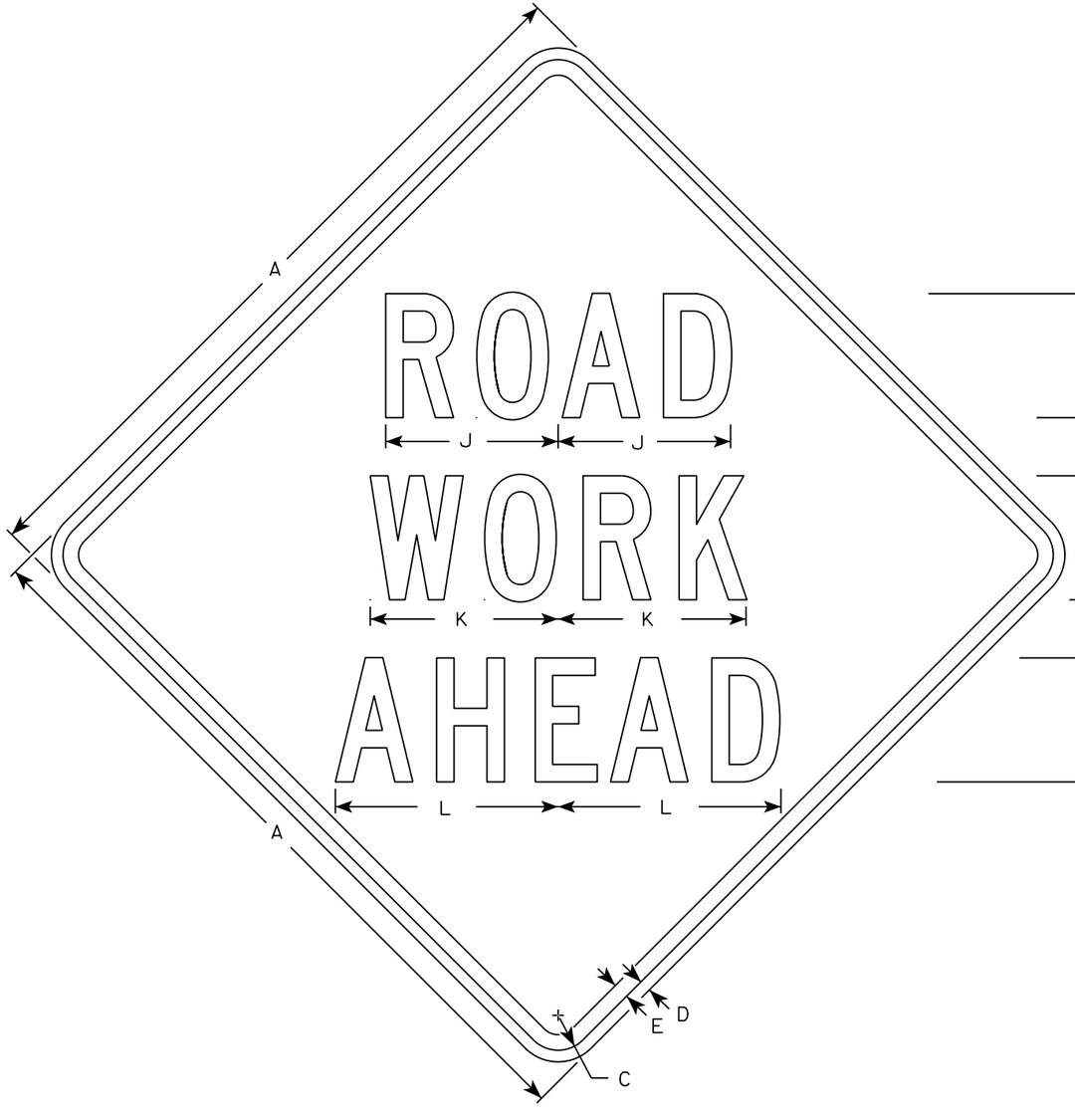
STANDARD SIGN
W13-2B

WISCONSIN DEPT OF TRANSPORTATION

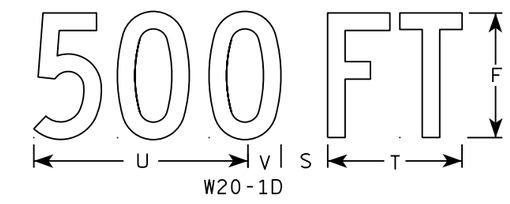
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-2B.3

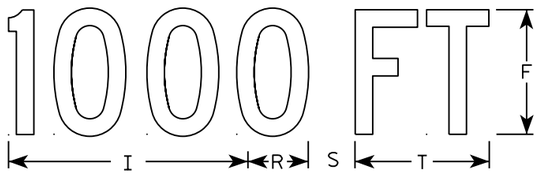
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 644 | E



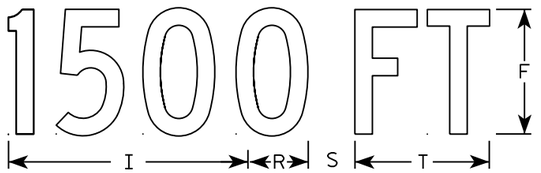
W20-1A



W20-1D

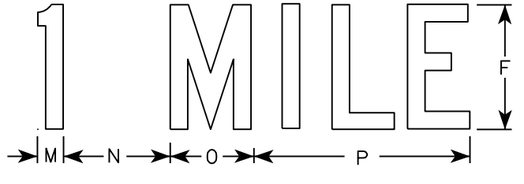


W20-1C

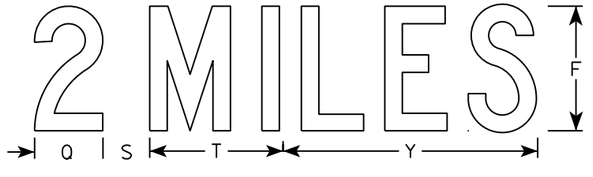


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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

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

WISCONSIN DEPT OF TRANSPORTATION

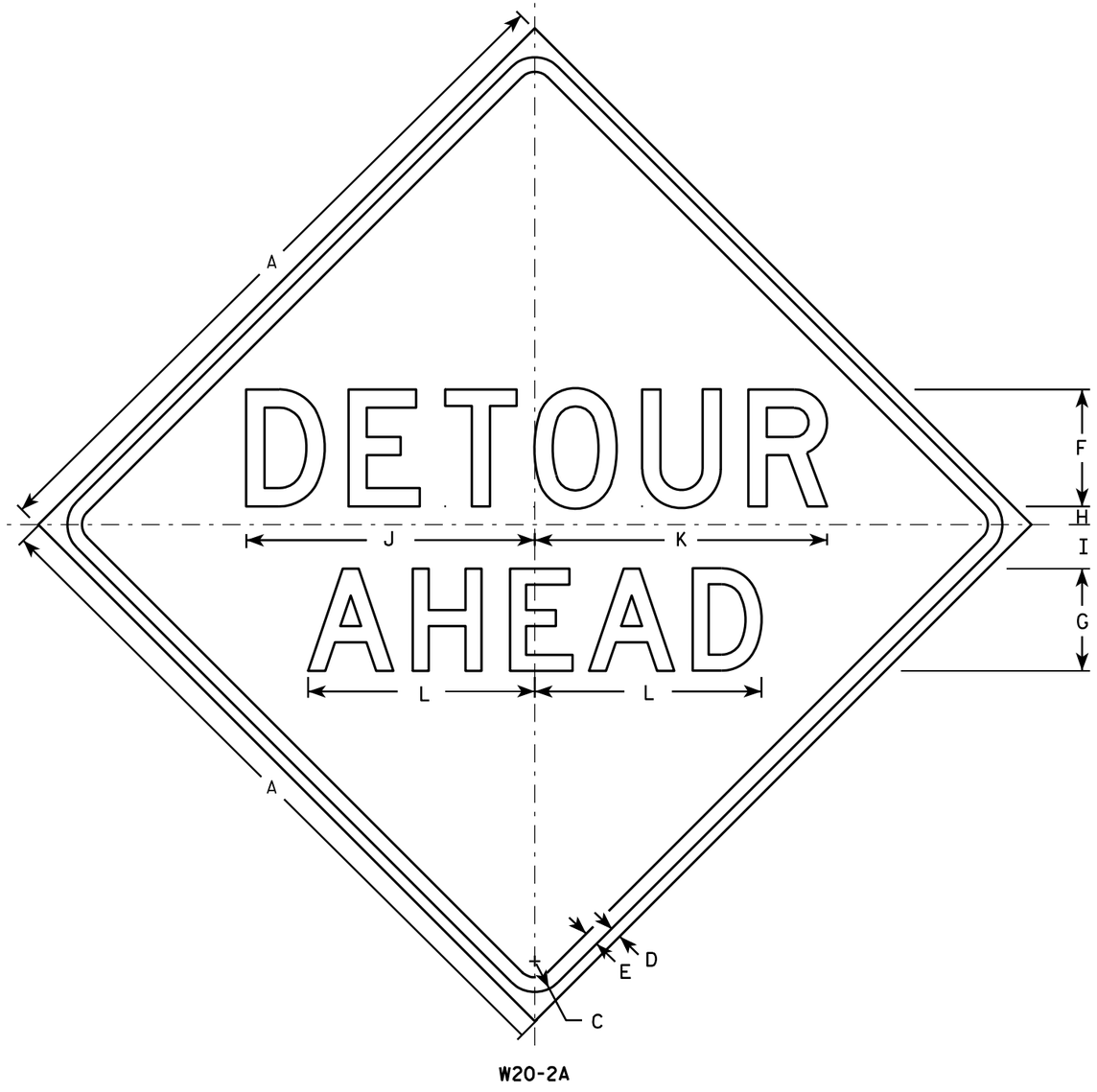
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

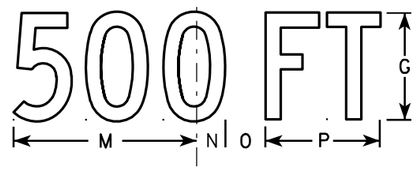
PROJECT NO:

SHEET NO: E

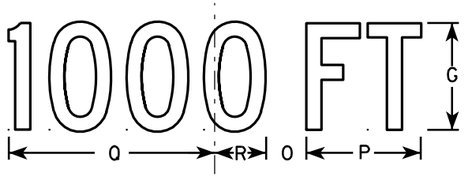
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



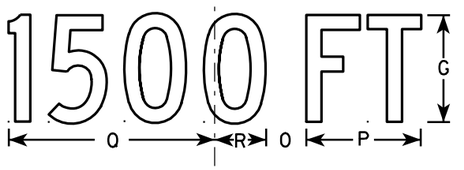
W20-2A



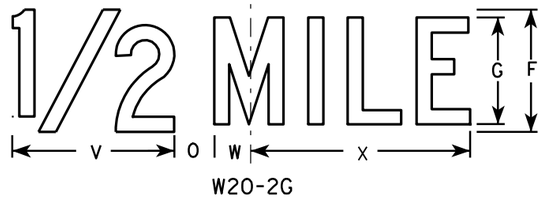
W20-2D



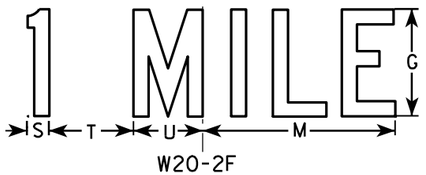
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

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

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	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

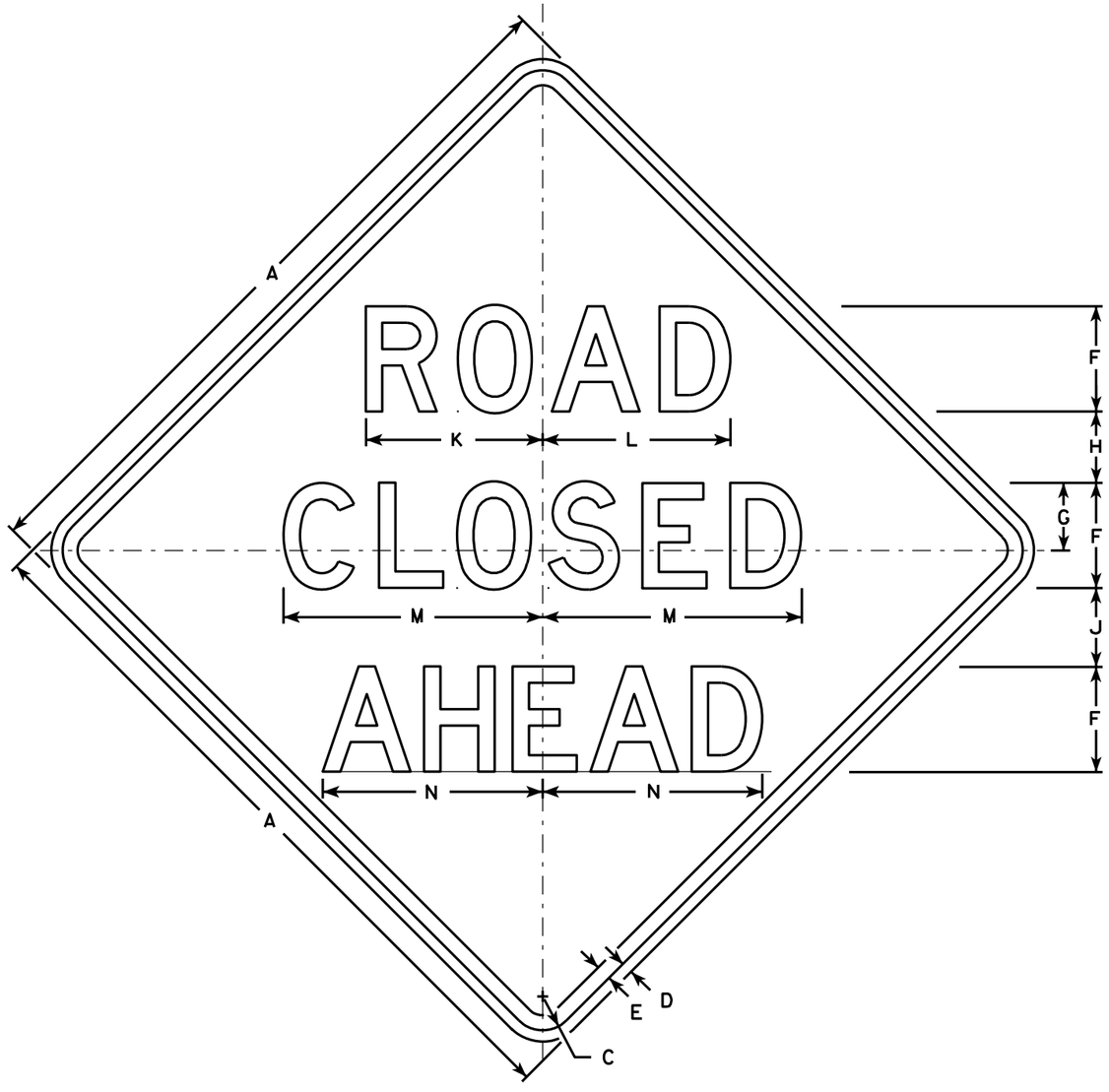
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

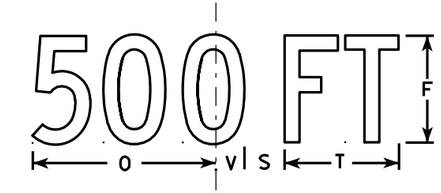
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

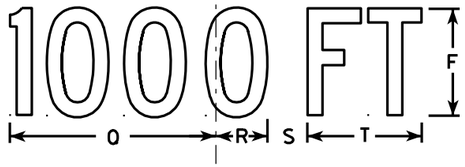
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 646 | E



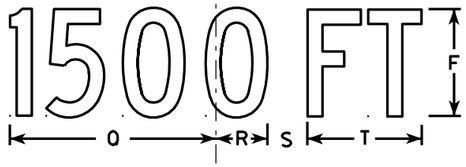
W20-3A



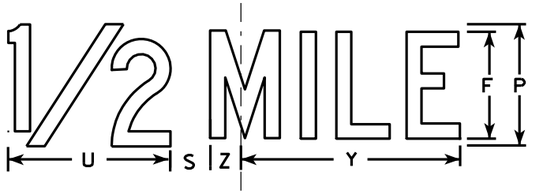
W20-3D



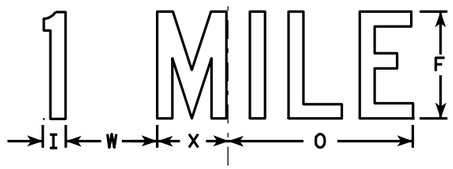
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

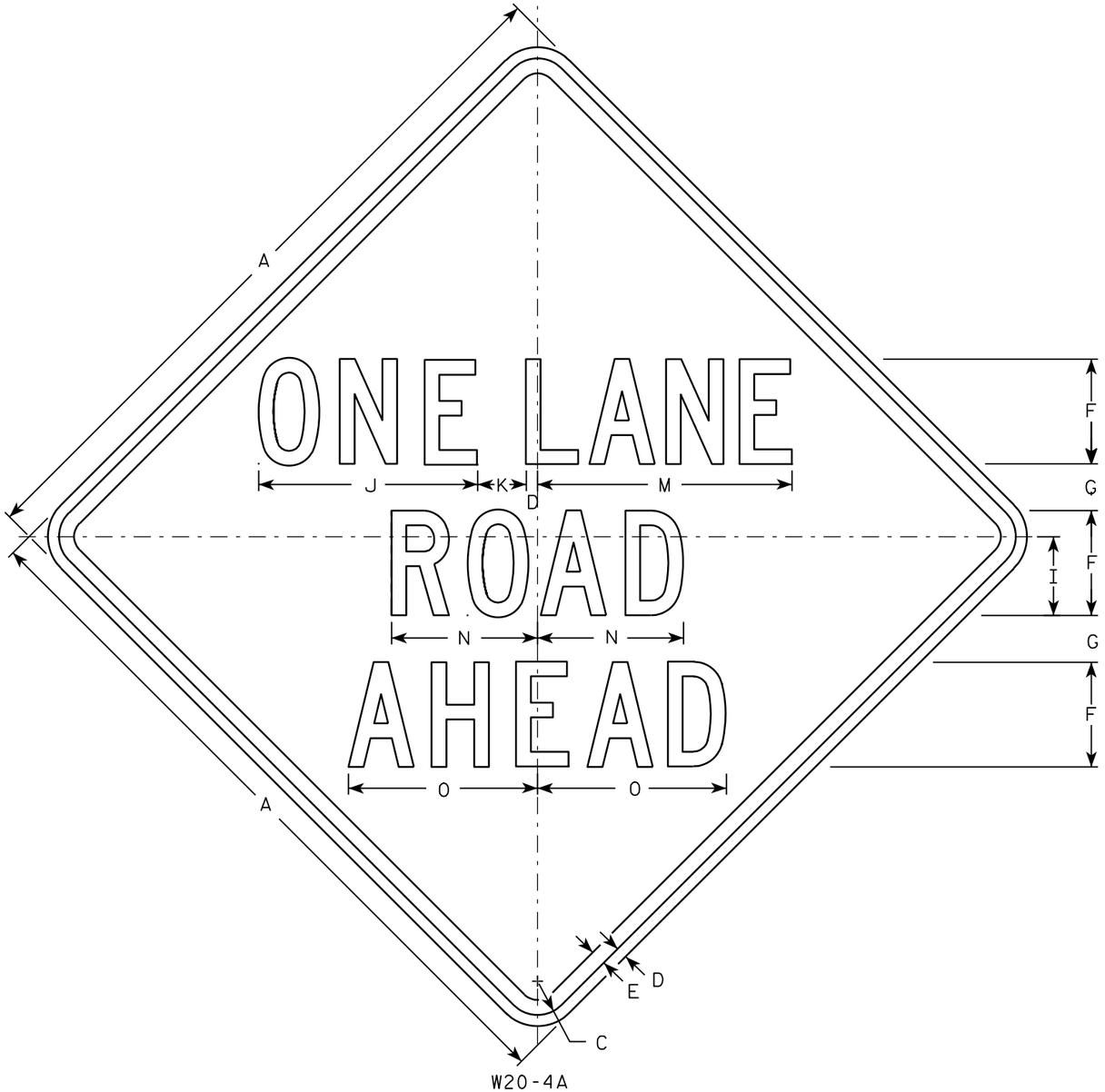
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

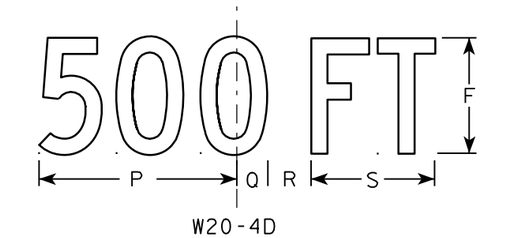
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

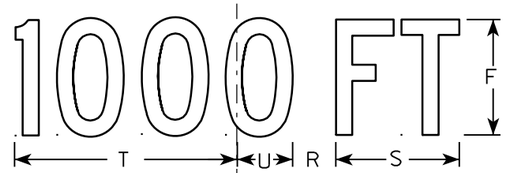
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 647 | E



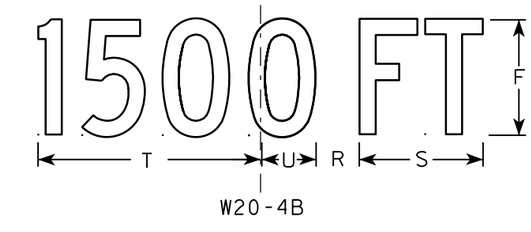
W20-4A



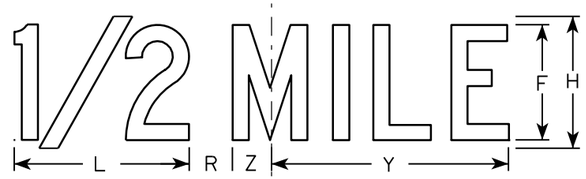
W20-4D



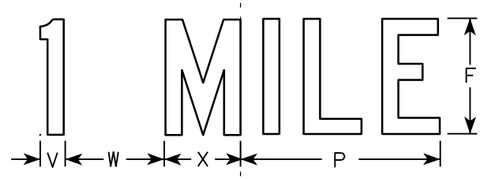
W20-4C



W20-4B



W20-4G



W20-4F

NOTES

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

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

STANDARD SIGN
W20-4A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

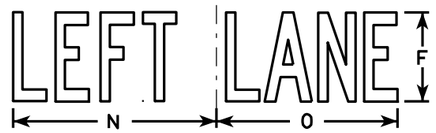
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-4.9

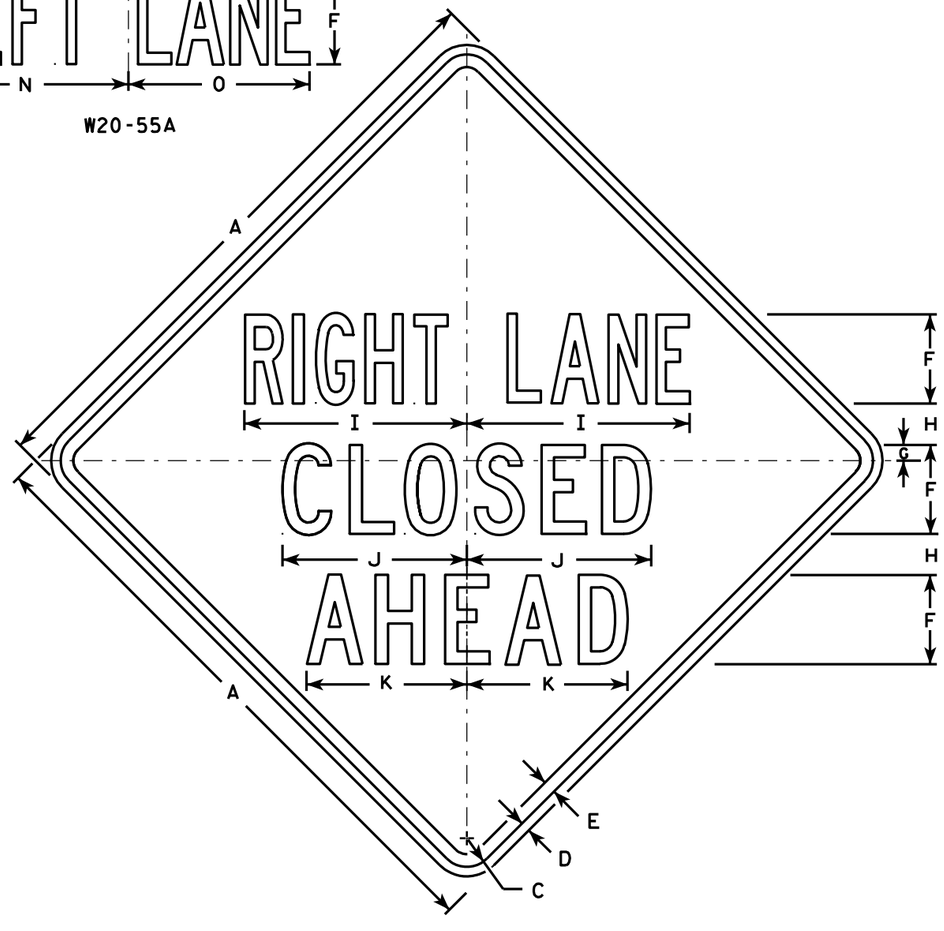
PROJECT NO:

SHEET NO: 648 E

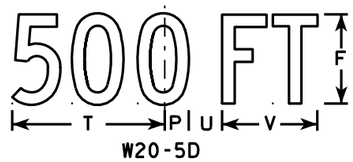
W20-56A



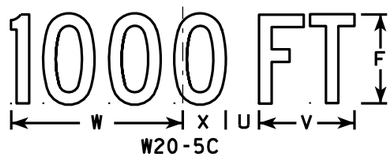
W20-55A



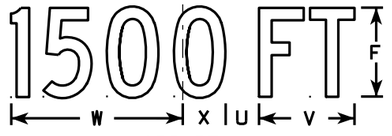
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

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

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

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

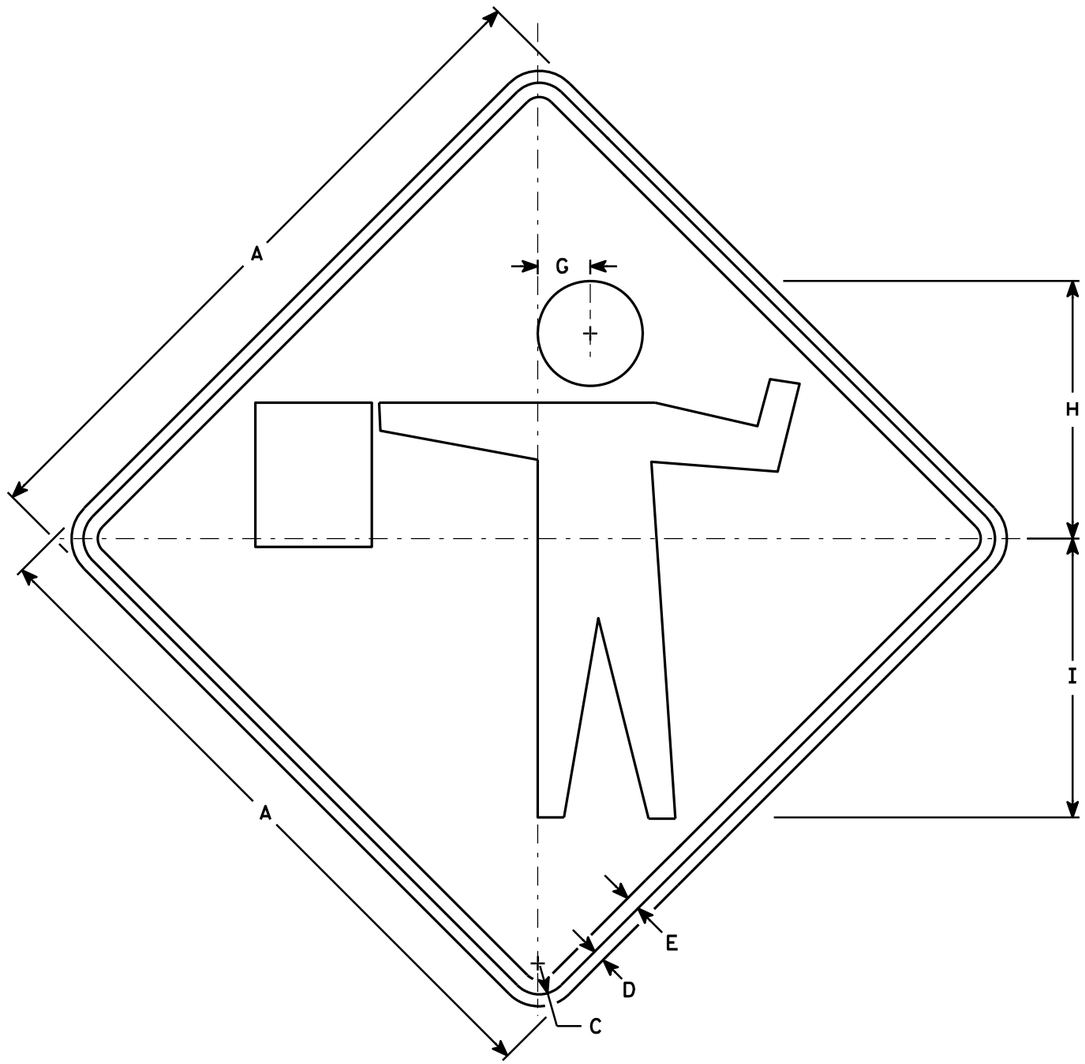
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 649 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W20-7A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		2 3/4	13 1/2	14 5/8																		9.00
2S	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
2M	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
3	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
4	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
5	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00

STANDARD SIGN
W20-7A

WISCONSIN DEPT OF TRANSPORTATION

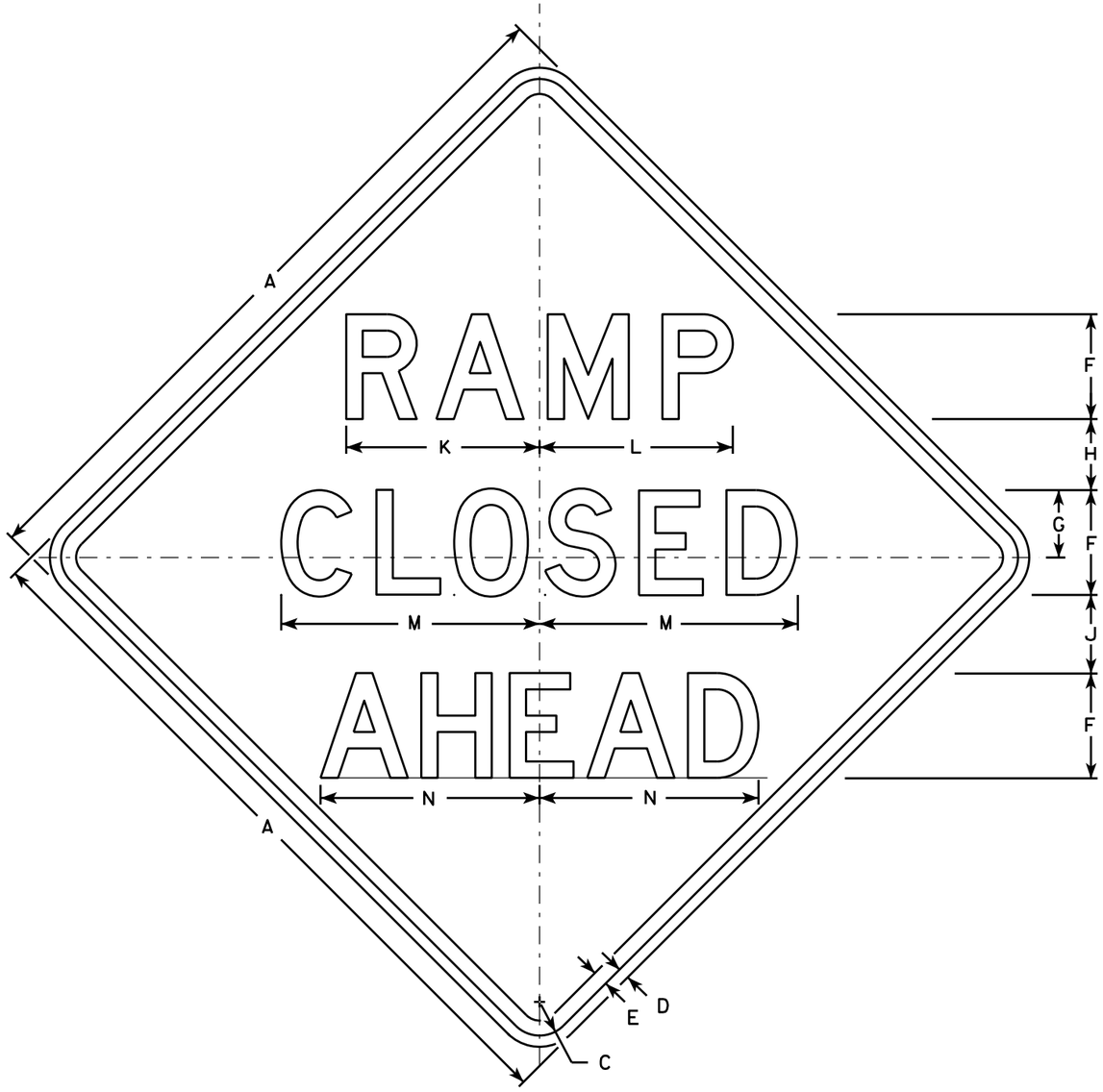
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-7A.5

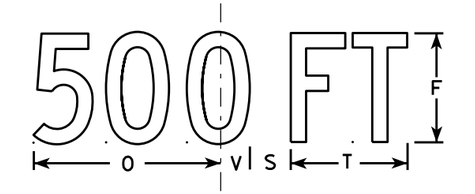
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 650 | E

7

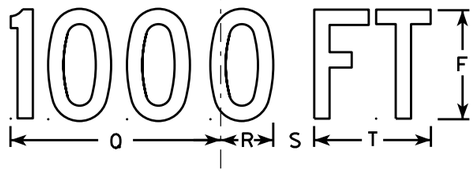
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W207A.DGN PLOT DATE : 18-MAR-2011 13:14 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 7.945391:1.000000 WISDOT/CADDS SHEET 42



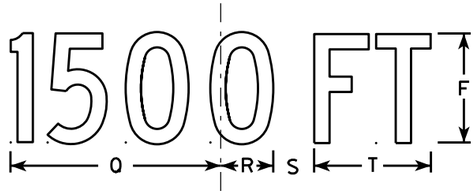
W20-53A



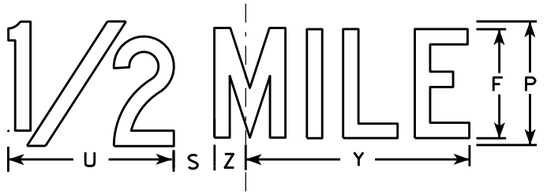
W20-53D



W20-53C



W20-53B



W20-53G

W20-53F

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	9 1/4	9 1/4	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

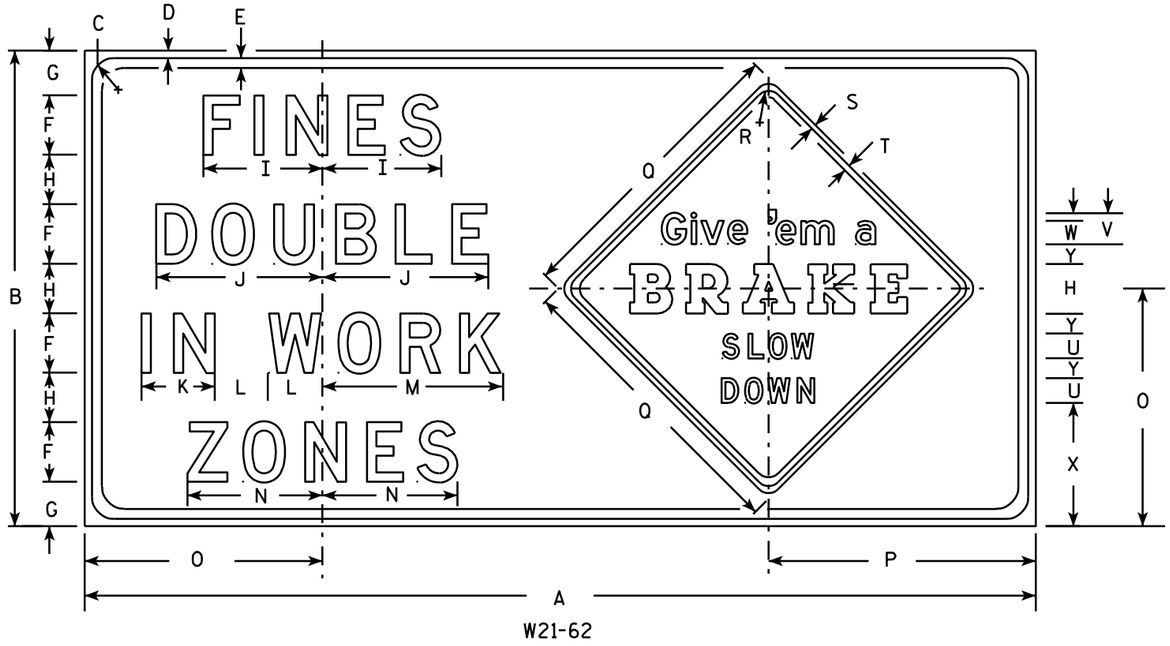
STANDARD SIGN
W20-53A,B,C,D,F,G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/27/15 PLATE NO. W20-53.1

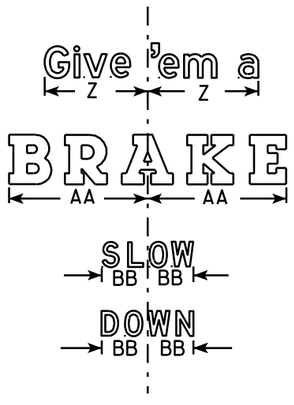
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

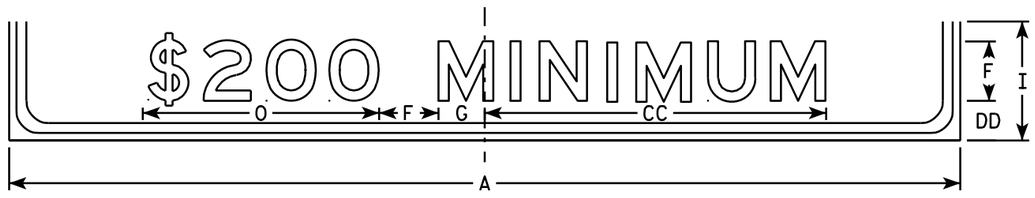


W21-62

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 - (See Note 5)
   Message - Black
3. Message Series -
   Fines Double Message - All lines are Series D
   Give 'em a Brake -
   Line one is Series E, line two is a Special Graphic Series and lines three and four are Series D.
4. The base material shall be plywood. Corners may be square or rounded, but borders shall be rounded as shown. The base material for Give 'em a Brake sign can be a seperate sheet of aluminum with the corners and borders rounded as shown. This seperate panel shall then be attached to the plywood with aluminum or stainless steel sheet metal screws.
5. Background for the Give 'em a Brake sign shall be Type F reflective orange.





W21-62P

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	AA	BB	CC	DD	Area sq. ft.
1																															
2S																															
2M																															
3	96	48	2 1/4	3/4	1	6	4 1/2	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24	27	30	1 3/8	1/2	5/8	2 1/2	3 1/8	2 3/8	12 1/2	2	10 3/4	14	4 5/8	34 1/2	4	32.0
4																															
5																															

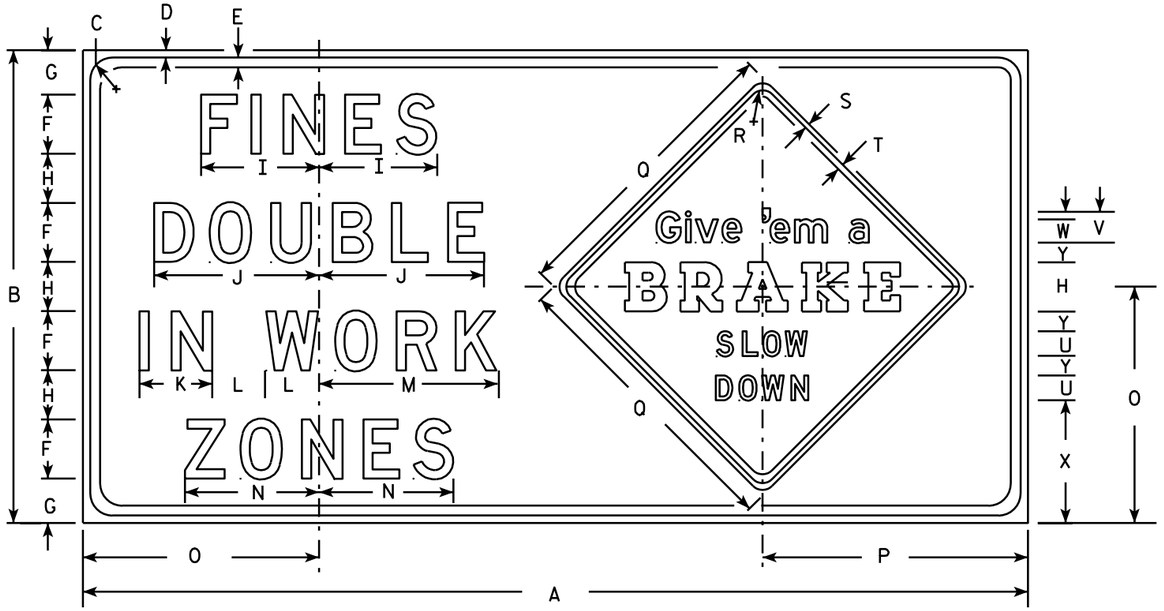
STANDARD SIGN
W21-62

WISCONSIN DEPT OF TRANSPORTATION

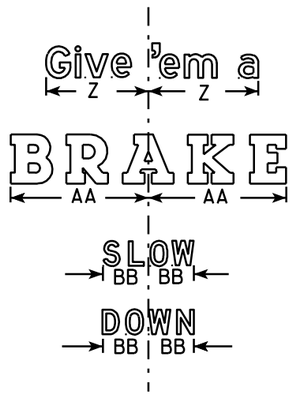
APPROVED Matthew R Rauch
for State Traffic Engineer

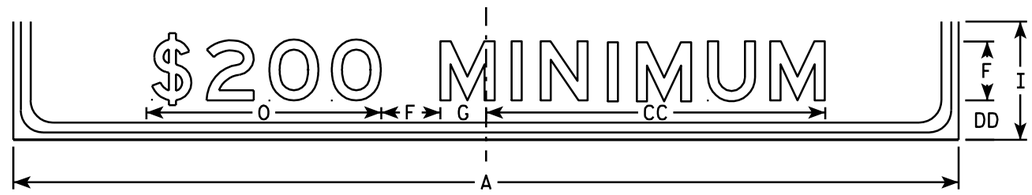
DATE 3/21/11 PLATE NO. W21-62.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 652	E



W21-62





W21-62P

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 - (See Note 5)
   Message - Black
3. Message Series -
   Fines Double Message - All lines are Series D
   Give 'em a Brake -
   Line one is Series E, line two is a Special Graphic Series and lines three and four are Series D.
4. The base material shall be plywood. Corners may be square or rounded, but borders shall be rounded as shown. The base material for Give 'em a Brake sign can be a seperate sheet of aluminum with the corners and borders rounded as shown. This seperate panel shall then be attached to the plywood with aluminum or stainless steel sheet metal screws.
5. Background for the Give 'em a Brake sign shall be Type F reflective orange.

Metric equivalent for this sign is:

SIZE	
1	
2	
3	2400 mm X 1200 mm
4	
5	

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	AA	BB	CC	DD	Area sq. ft.	Area m2
1																																
2																																
3	96	48	2 1/4	3/4	1	6	4 1/2	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24	27	30	1 3/8	1/2	5/8	2 1/2	3 1/8	2 3/8	12 1/2	2	10 3/4	14	4 5/8	34 1/2	4	32.0	2.88
4																																
5																																

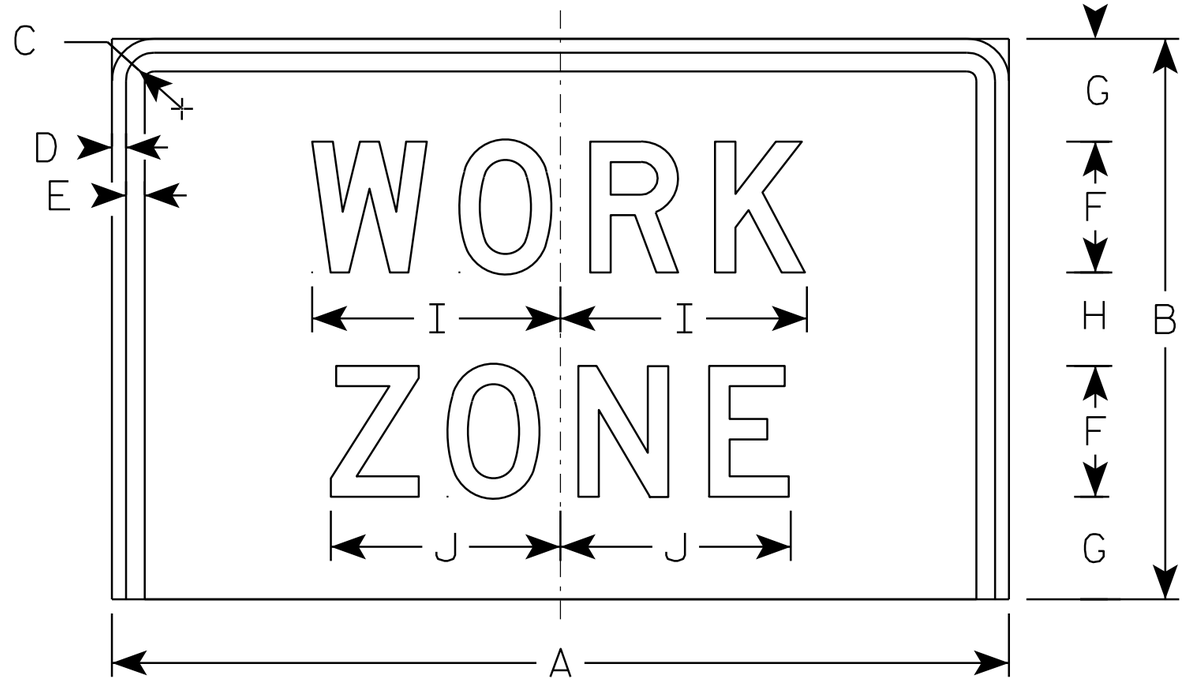
STANDARD SIGN
W21-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/16/07 PLATE NO. W21-62.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 653	E



W21-620

NOTES

1. Sign is Type II - Type F - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message 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																											
2S	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
2M	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
3																											
4																											
5																											

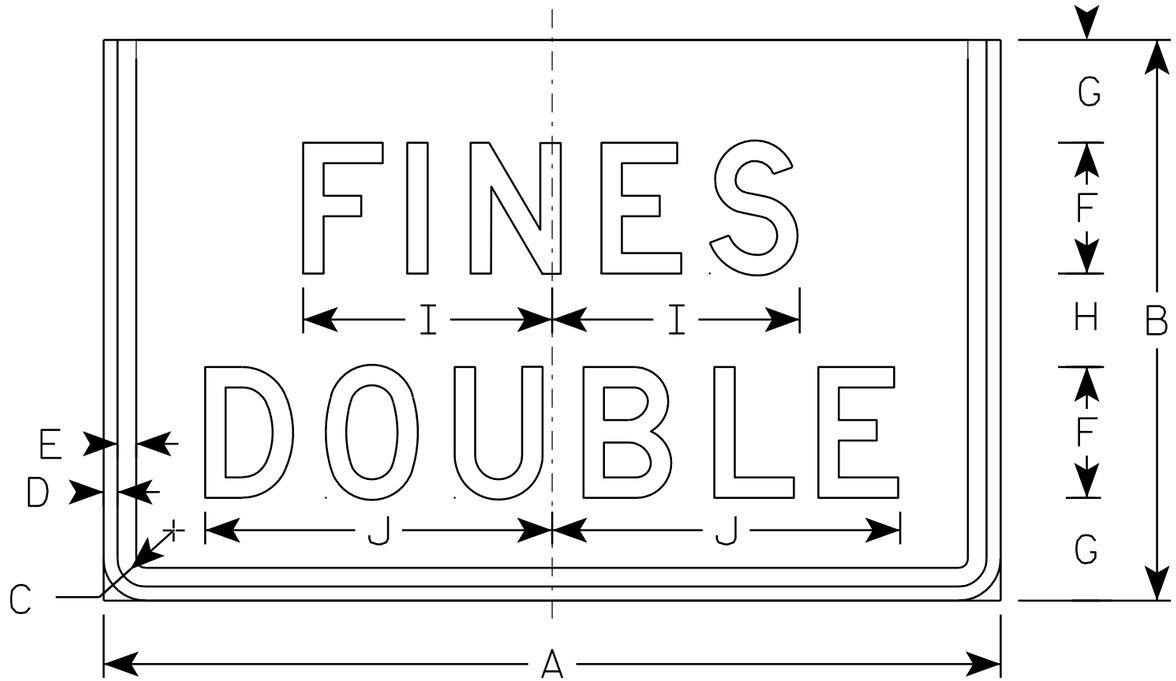
STANDARD SIGN
W21-620

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-620.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 654	E



W21-62R

NOTES

1. Sign is Type II - Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message 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																											
2S	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	18 5/8																	10.0
2M	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	18 5/8																	10.0
3																											
4																											
5																											

STANDARD SIGN
W21-62R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62R.2

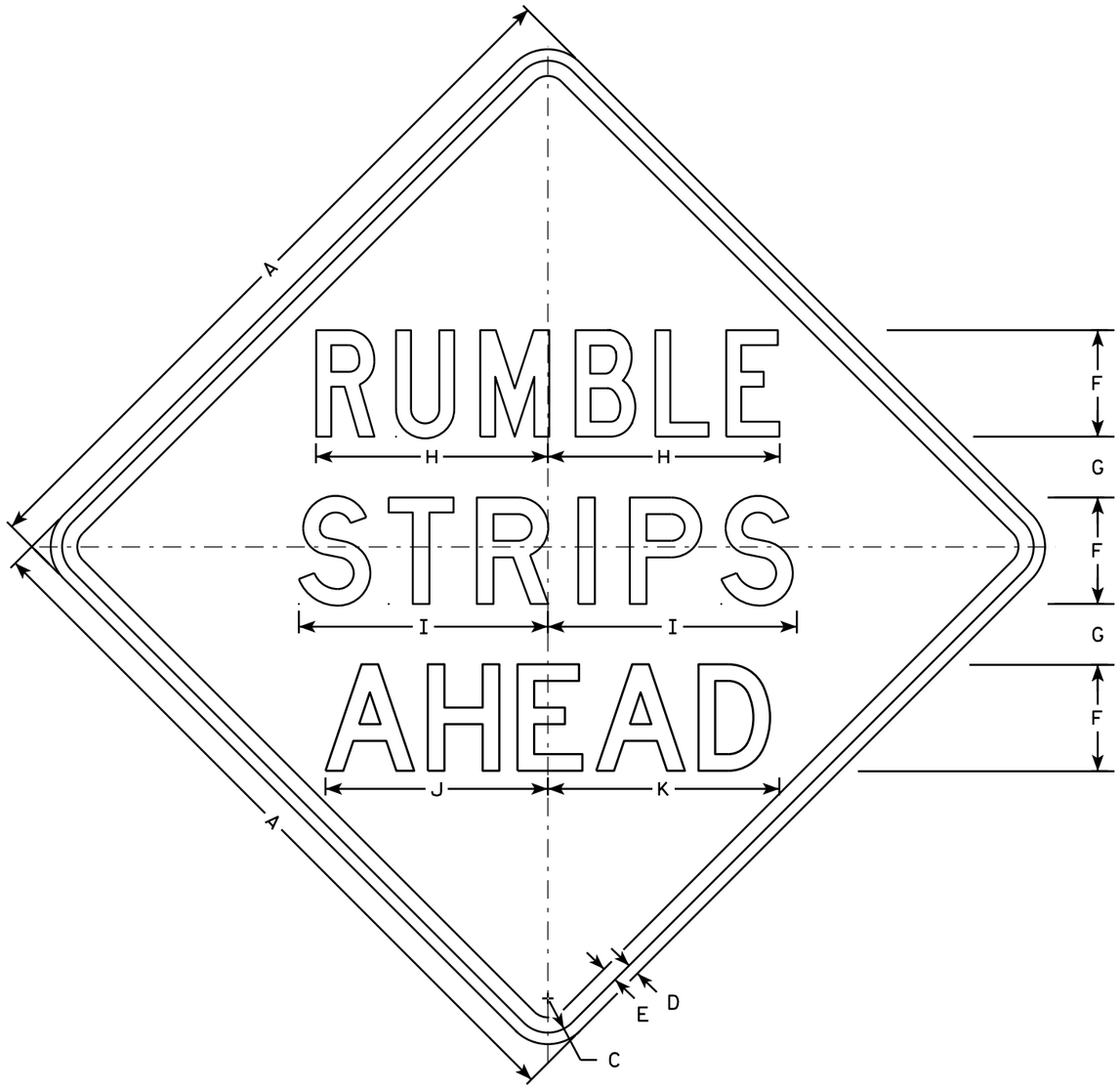
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 655	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W2162R.DGN PLOT DATE : 21-MAR-2011 10:51 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 8.108332:1.000000

WISDOT/CADDS SHEET 42

7

7



W21-65

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C
   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	36		1 5/8	5/8	3/4	5	3 1/4	10 7/8	11 5/8	11	11 5/8																9.0
2S	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
2M	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
3	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
4	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
5	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0

STANDARD SIGN

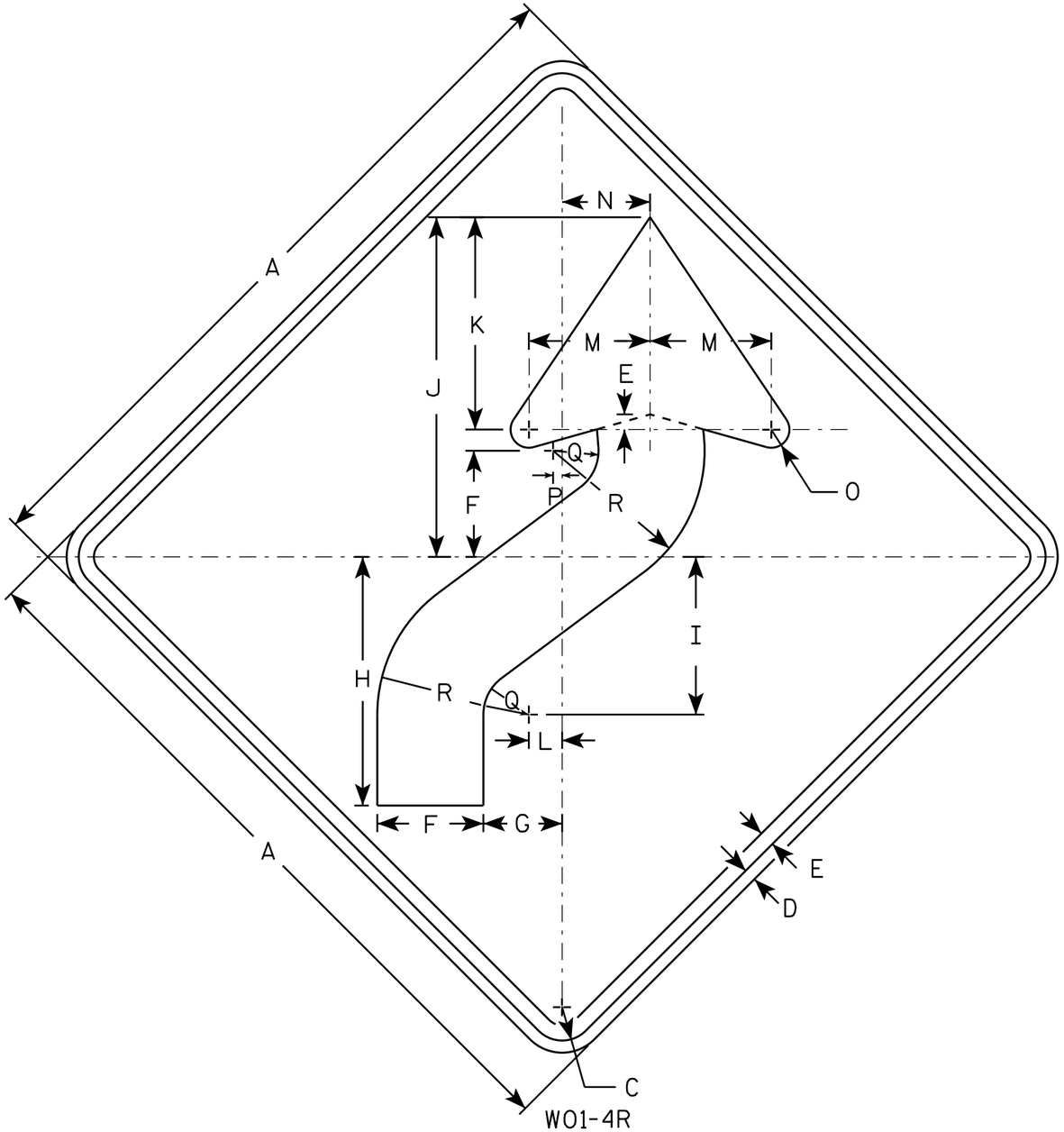
W21-65

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/28/14 PLATE W21-65.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R 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	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

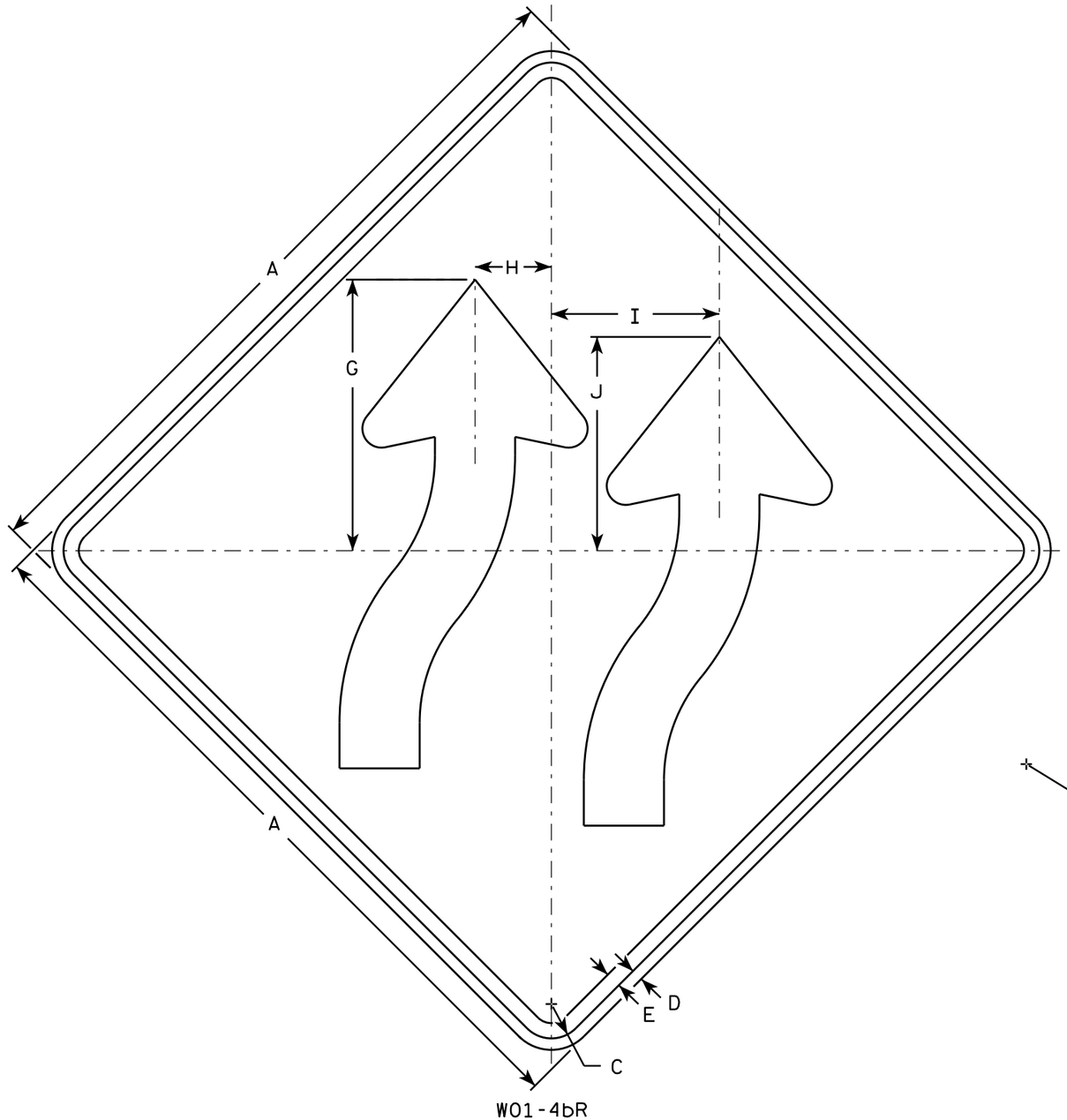
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

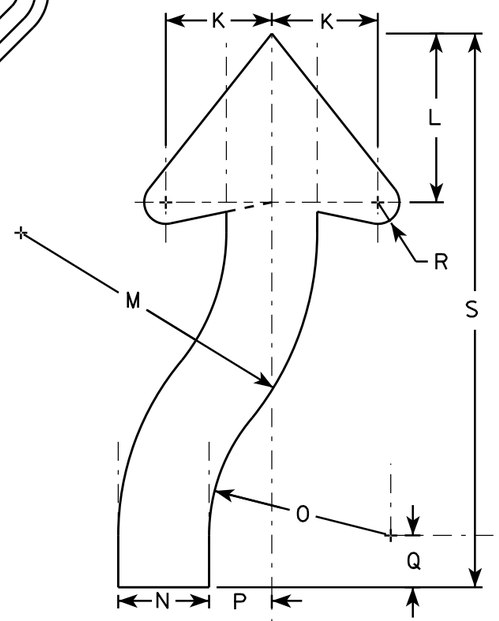
DATE 11/18/13 PLATE NO W01-4.1

657

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W01-4bR



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4bL is the same as W014-bR exept arrows are 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	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2S	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
2M	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
3	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

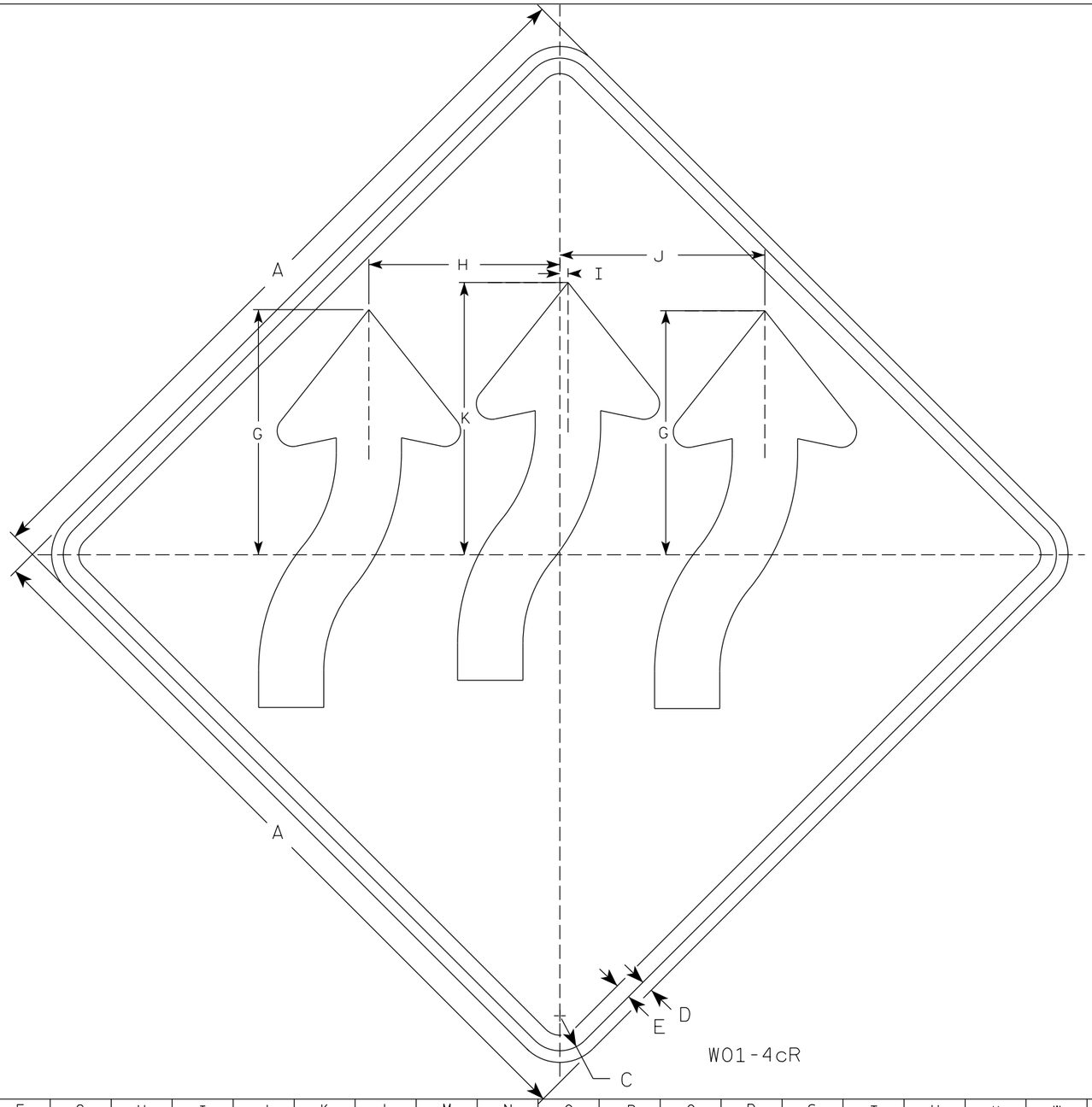
STANDARD SIGN
W01-4b

WISCONSIN DEPT OF TRANSPORTATION

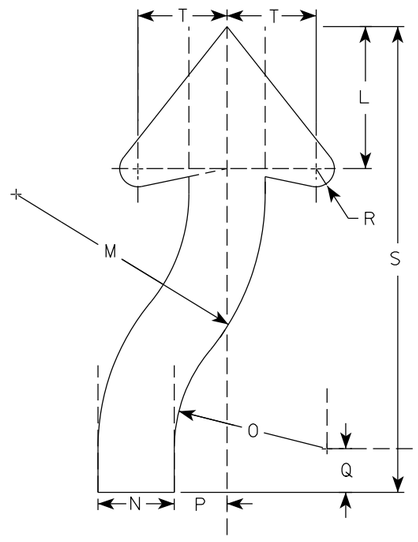
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4b.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W01-4cR



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4cL is the same as W01-4cR except arrows are 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	36		1 5/8	5/8	3/4		11 3/4	9 1/4	3/8	9 7/8	13 1/8	5 7/8	10 1/4	3 1/8	6 1/4	2 1/4	1 7/8	3/4	19 1/4	3 3/4							9.0
2S	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
2M	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
3	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
4	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
5	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0

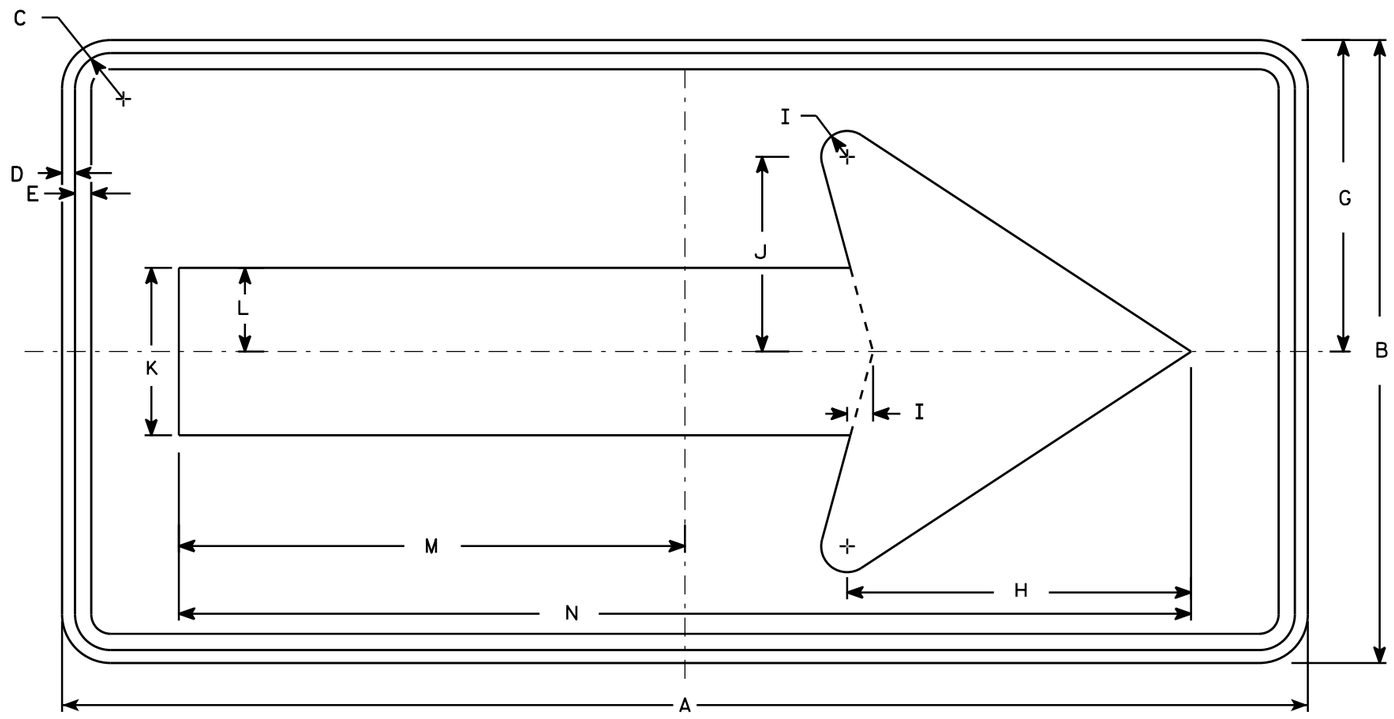
STANDARD SIGN
W01-4c

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/19 PLATE NO. W01-4c.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 659	E



W01-6

NOTES

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

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	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	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

STANDARD SIGN
W01-6

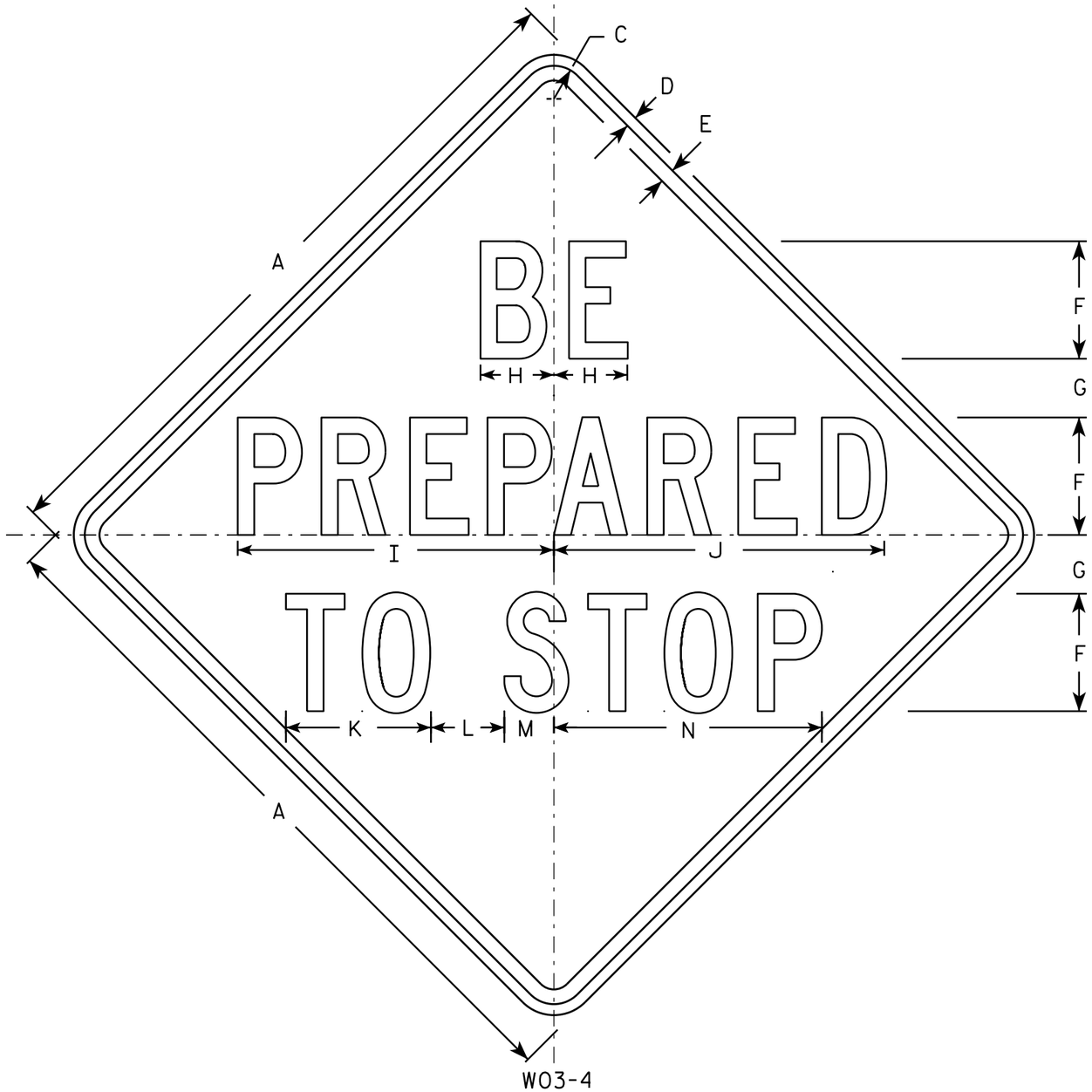
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	6	2 1/2	3 3/4	15 7/8	16 7/8	7 3/8	4	2 3/8	13 3/4													9.0
2S	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
2M	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
3	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
4	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
5	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0

STANDARD SIGN
W03-4

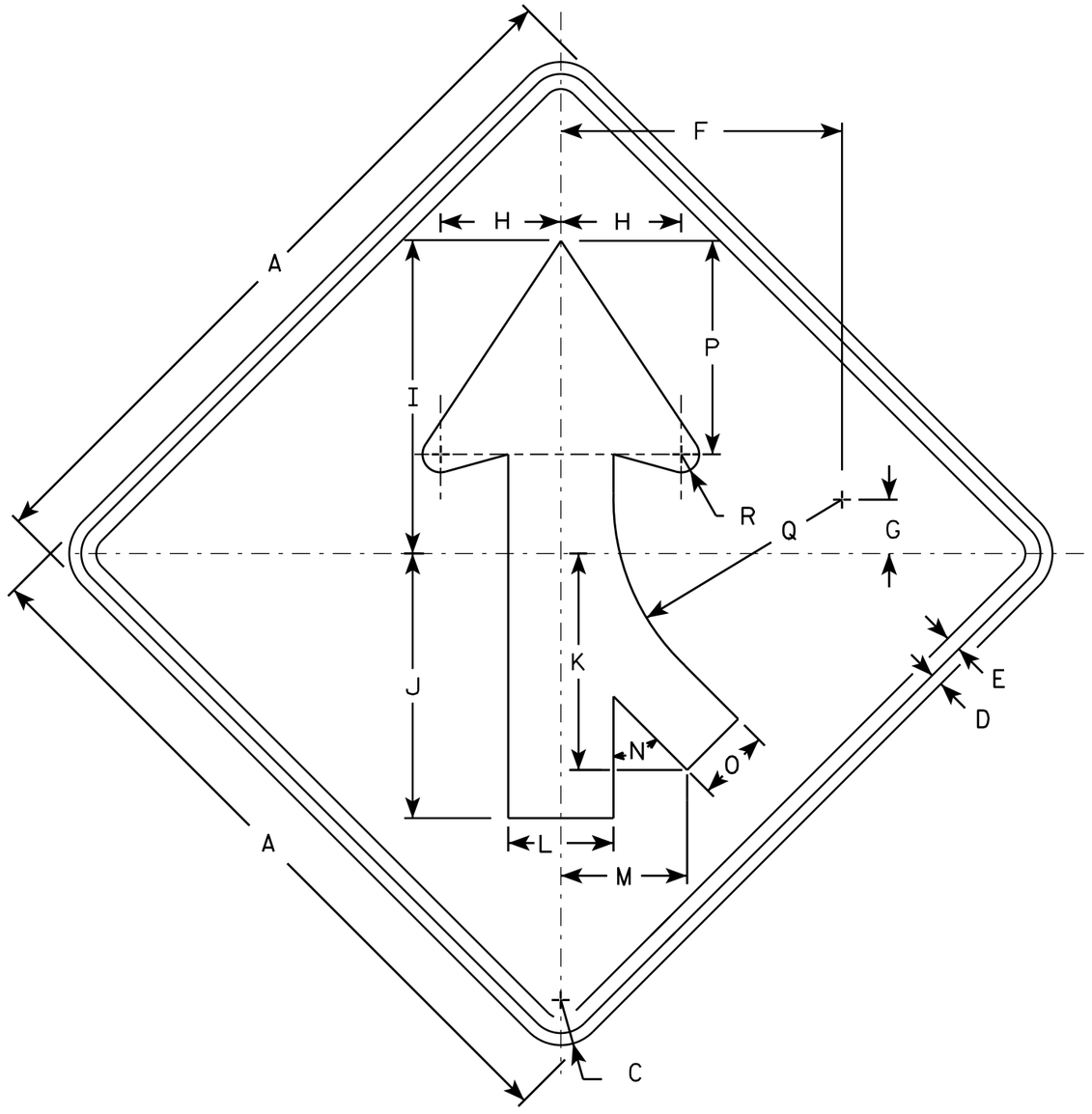
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/02/13 PLATE NO. W03-4.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W034.DGN PLOT DATE : 02-DEC-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 8.999518:1.000000
WISDOT/CADDS SHEET 42



W04-1R

NOTES

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

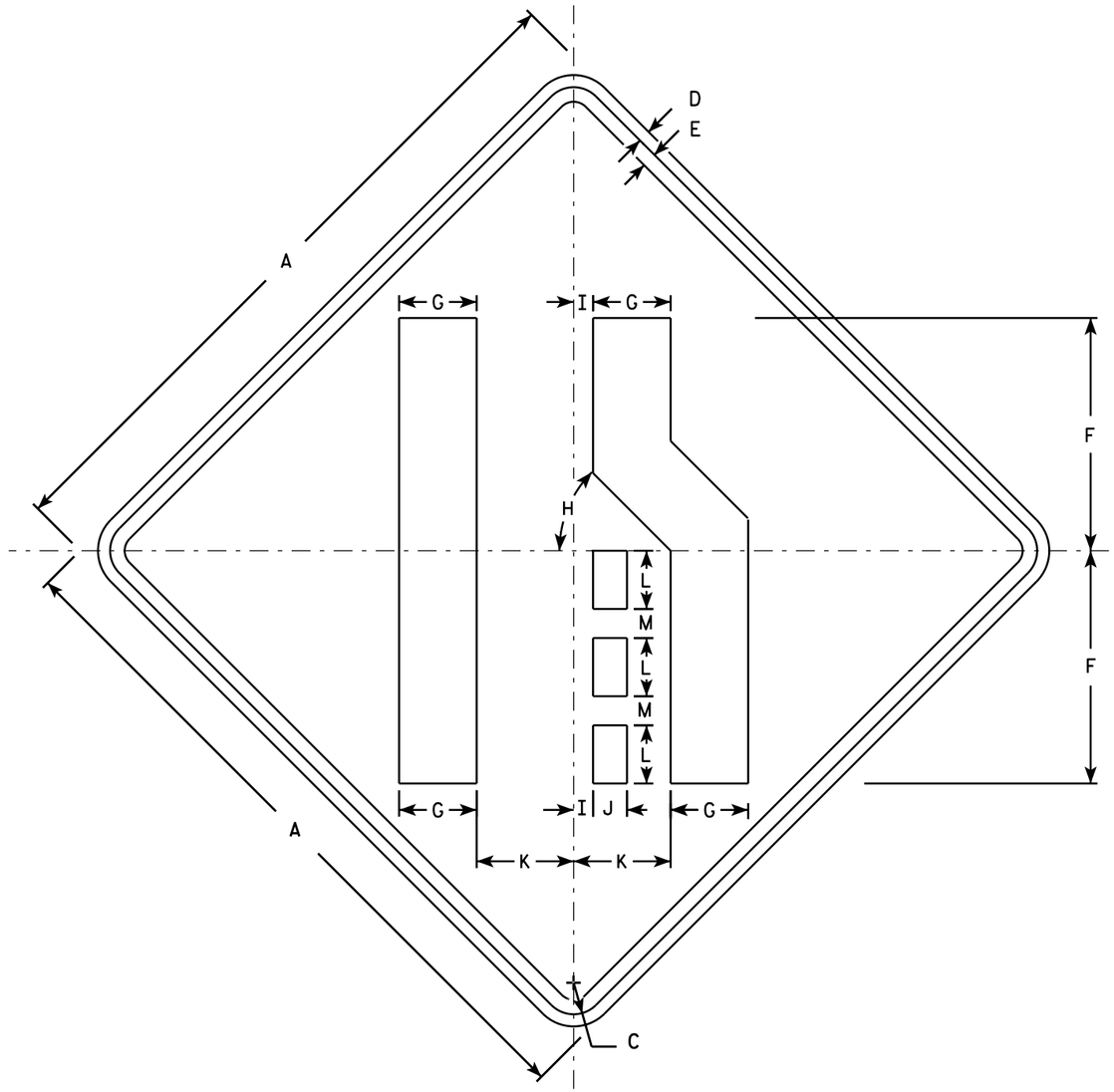
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO W04-1.1

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W041.DGN PLOT DATE : 20-NOV-2013 11:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.080757:1.000000
WISDOT/CADDS SHEET 42



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the 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	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

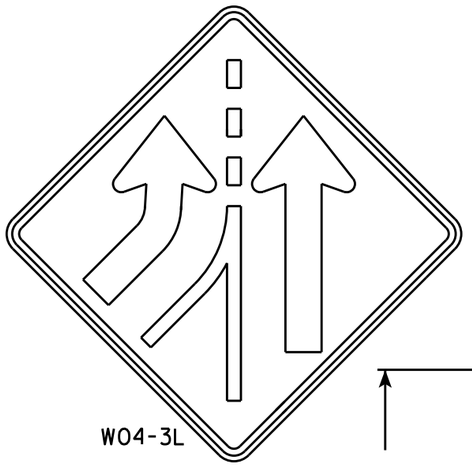
WISCONSIN DEPT OF TRANSPORTATION

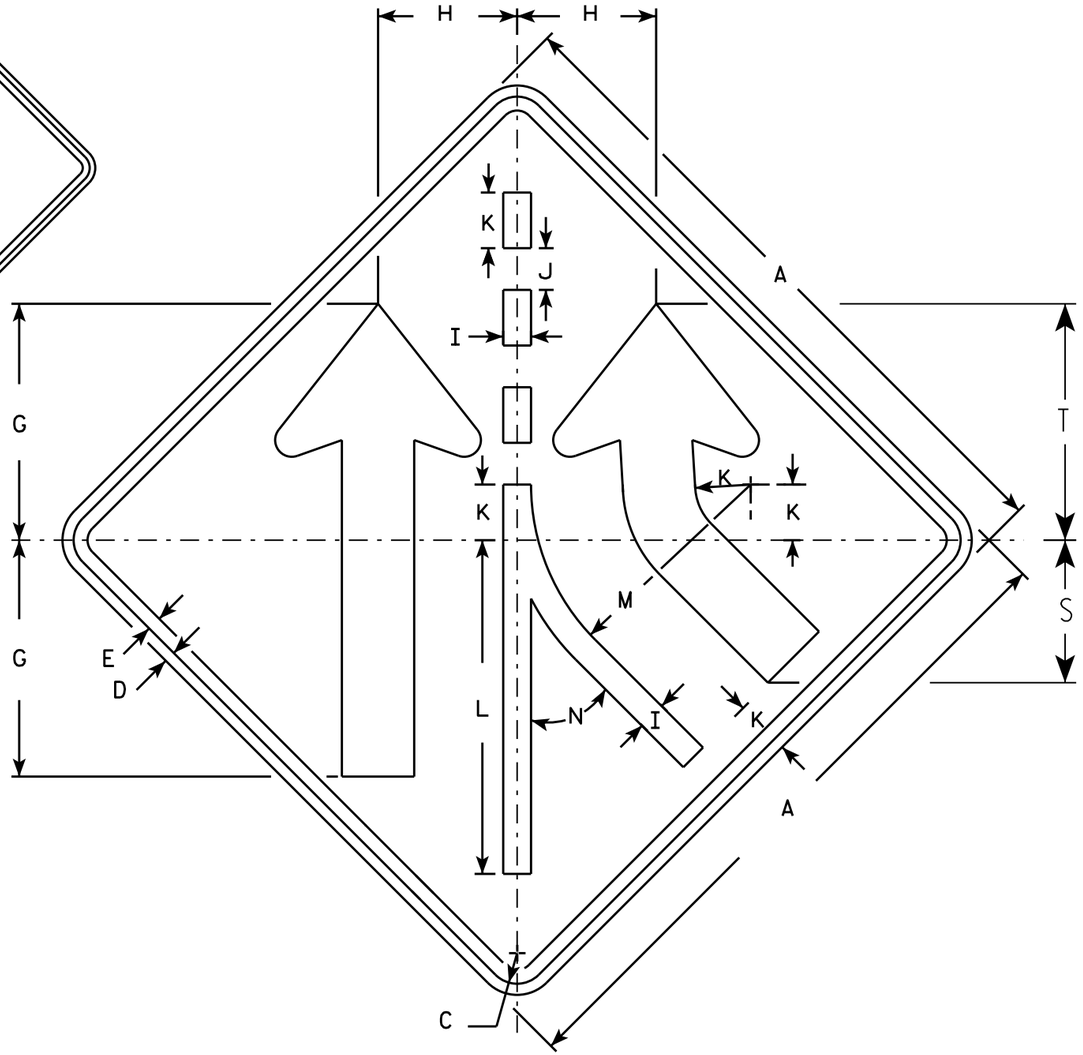
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 663 W04-2.1

PROJECT NO:

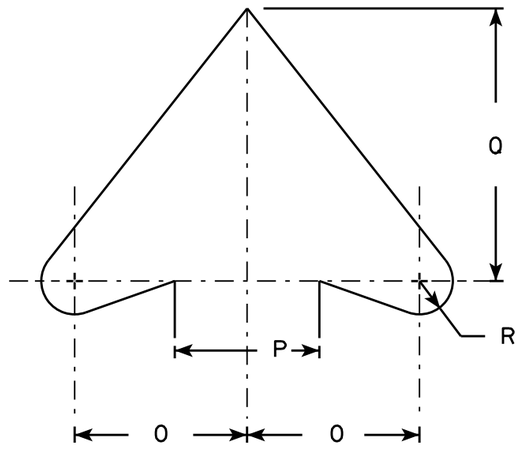
SHEET NO: E





NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-3 L is the same as W04-3 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	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	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
2S	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
2M	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
3	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
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

W0433

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

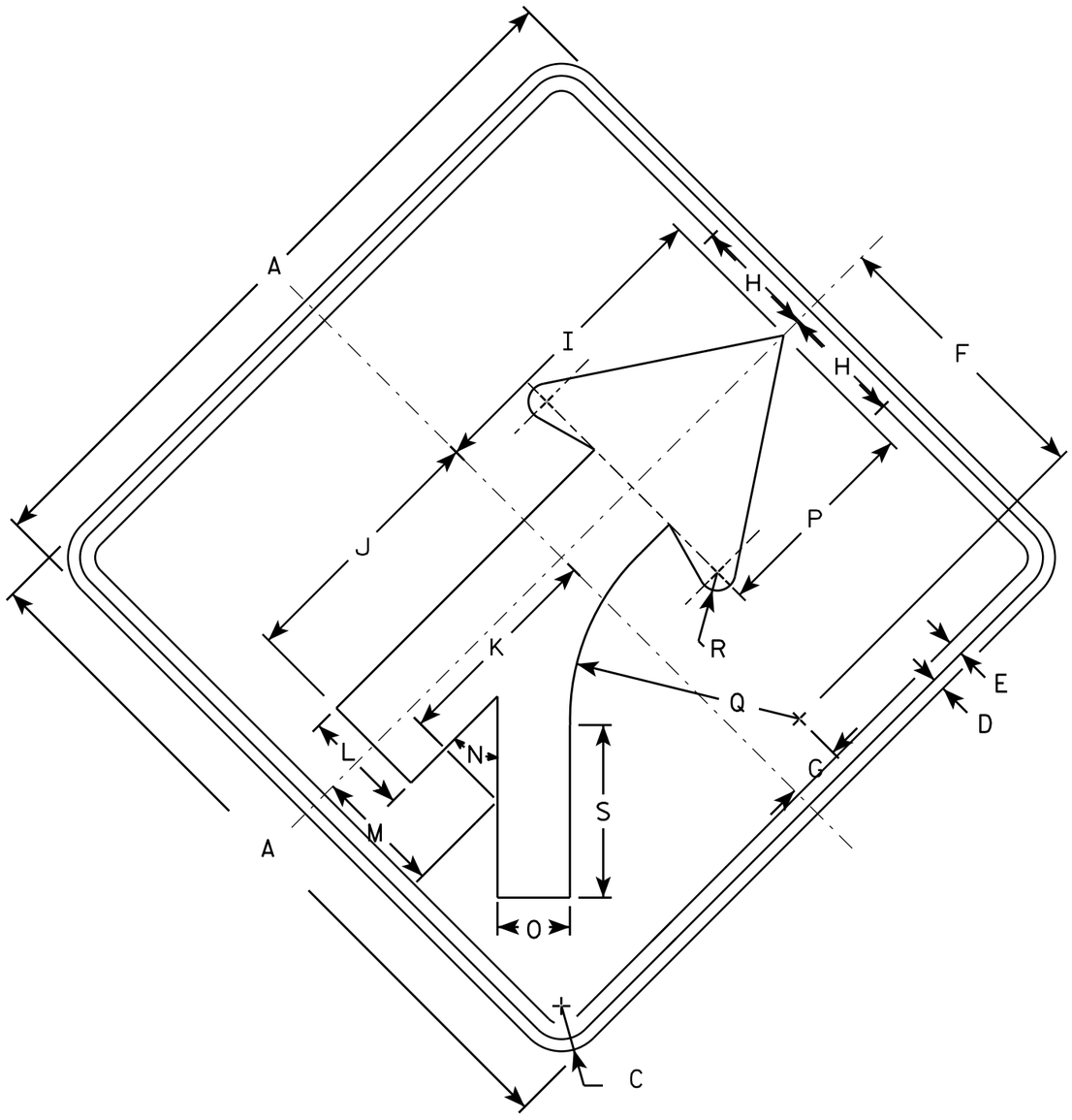
DATE 11/20/13 PLATE W04-3.1

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W043.DGN PLOT DATE : 20-NOV-2013 11:49 PLOT BY : mscsja 6.810449:1.000000

WISDOT/CADDS SHEET 42



W04-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. 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	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	8 1/2								9.0
2S	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	11 3/8								16.0
2M	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	11 3/8								16.0
3	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	11 3/8								16.0
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	11 3/8								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	11 3/8								16.0

STANDARD SIGN
W04-5

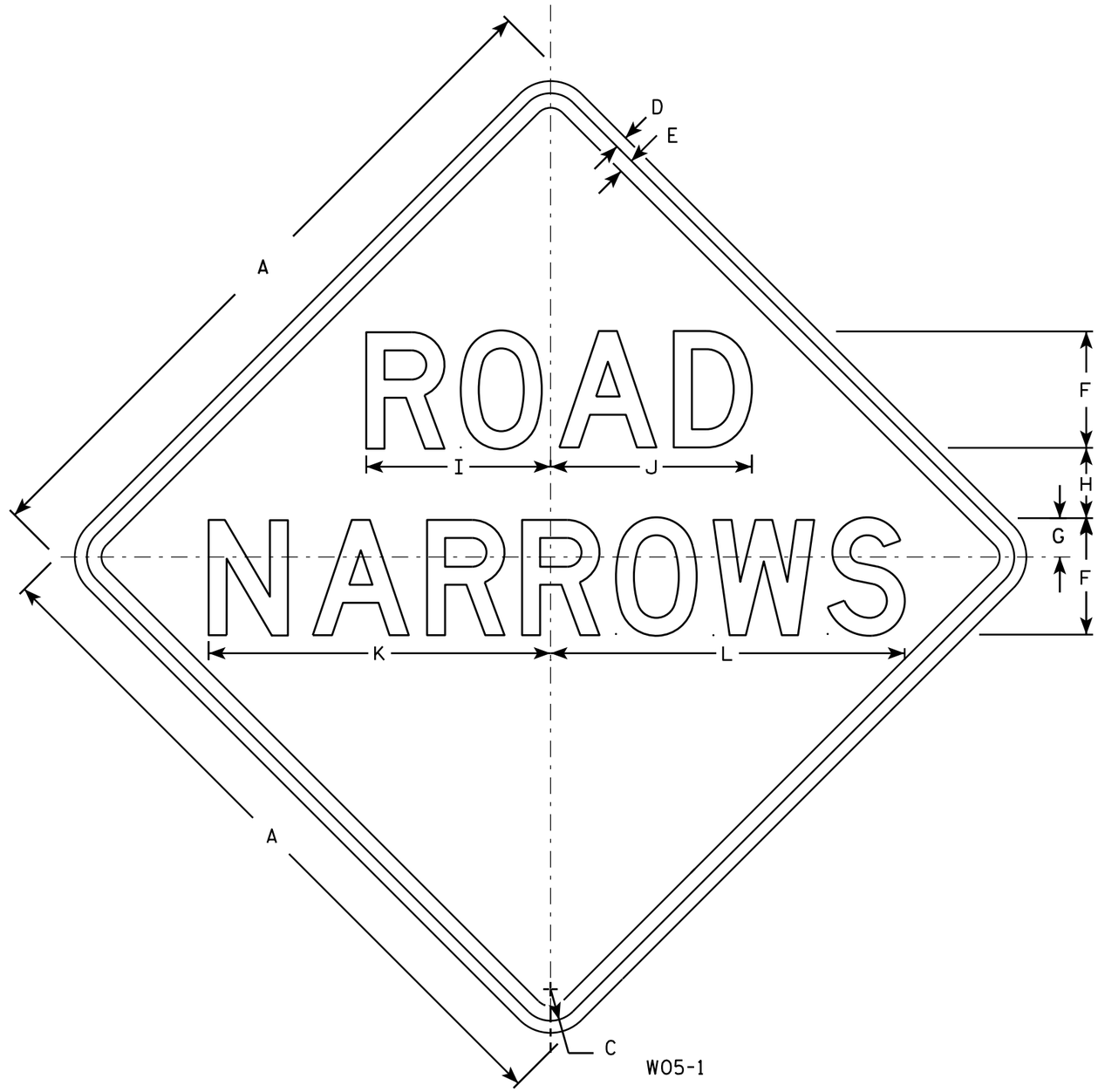
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/28/16 PLATE NO W04-5.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W045.DGN PLOT DATE : 28-APR-2016 13:30 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.080757:1.000000
WISDOT/CADDS SHEET 42



W05-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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	36		1 5/8	5/8	3/4	6	2	3 1/2	9 1/2	10 3/8	17 5/8	18 1/4															9.0
2S	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
2M	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
3	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
4	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
5	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0

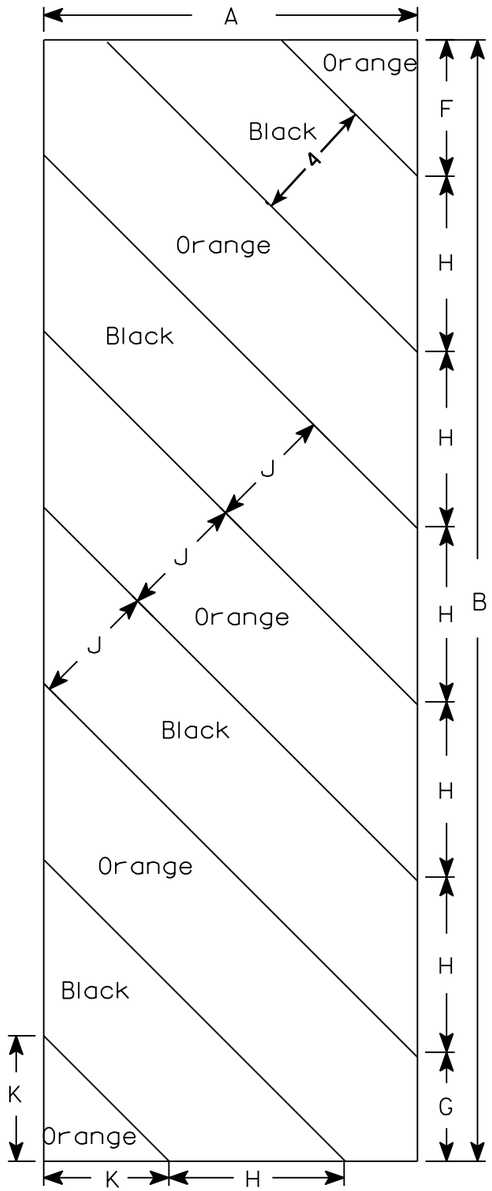
STANDARD SIGN
W05-1

WISCONSIN DEPT OF TRANSPORTATION

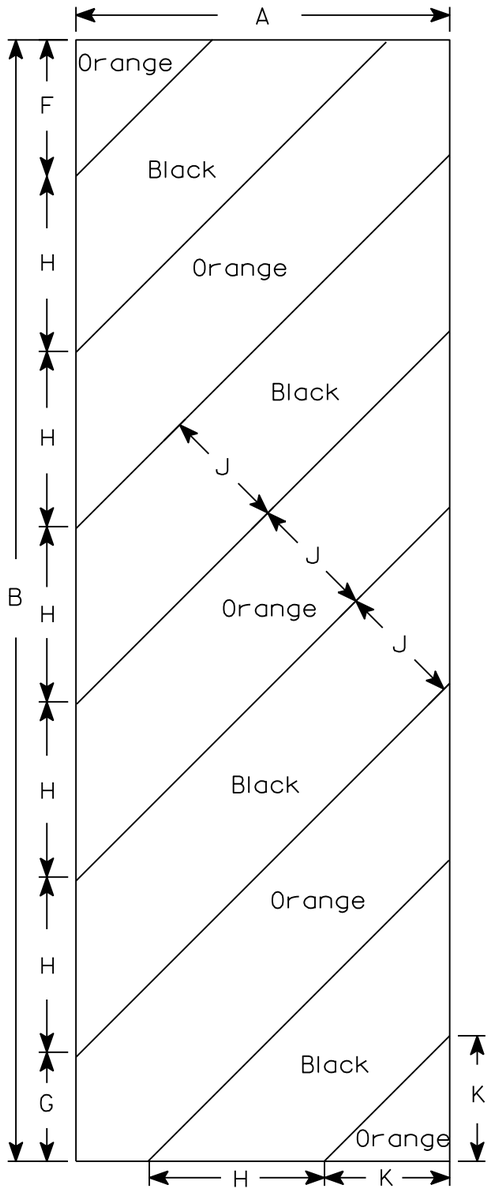
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W05-1.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W05-52L



W05-52R

NOTES

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

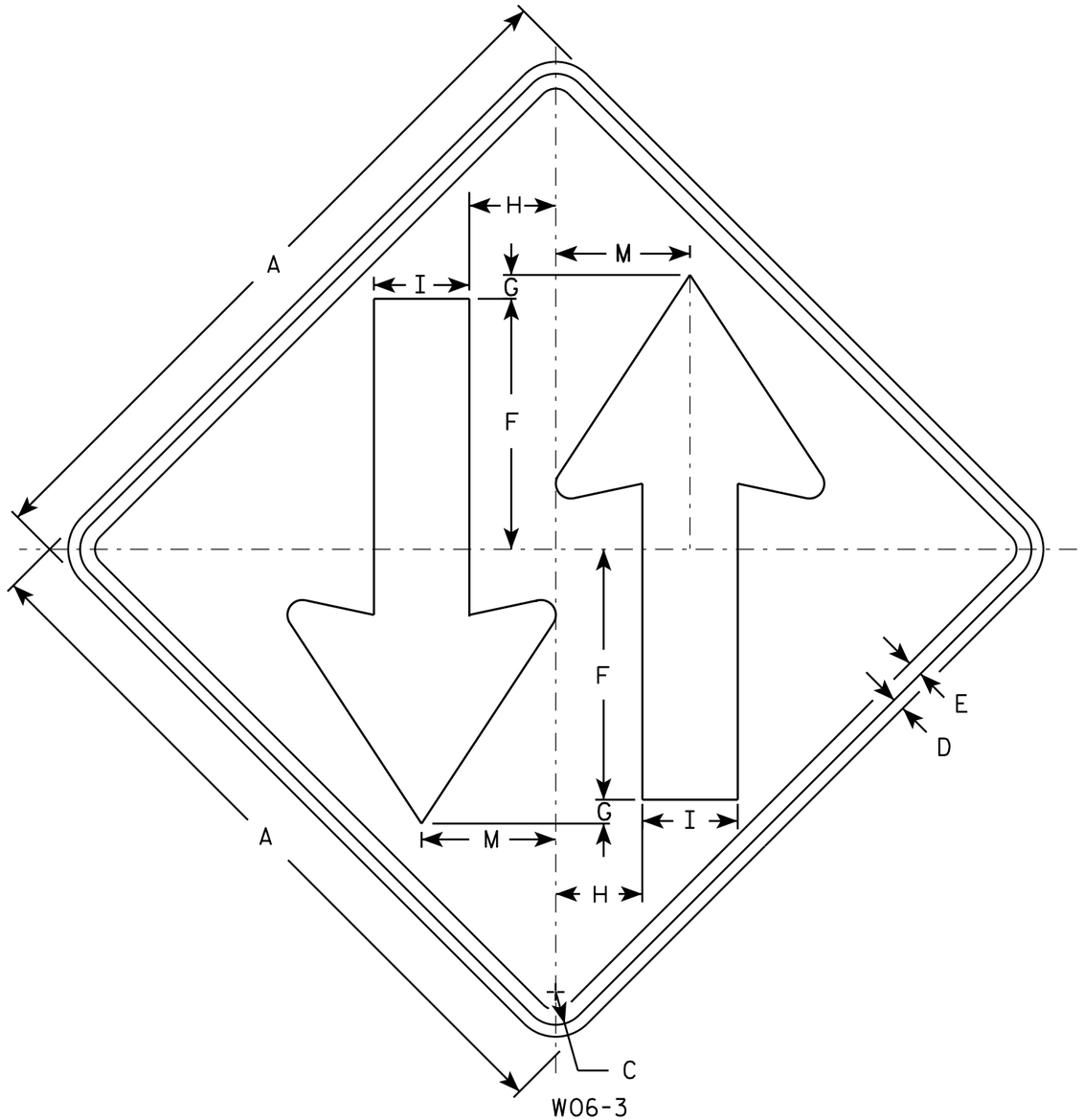
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

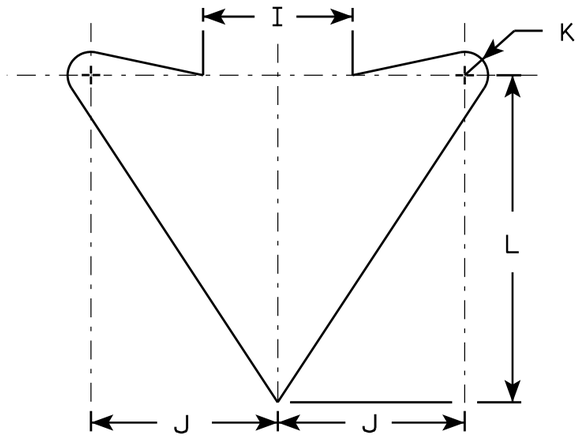
DATE 11/20/13 PLATE W05-52.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. 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	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
2S	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
2M	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
3	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
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

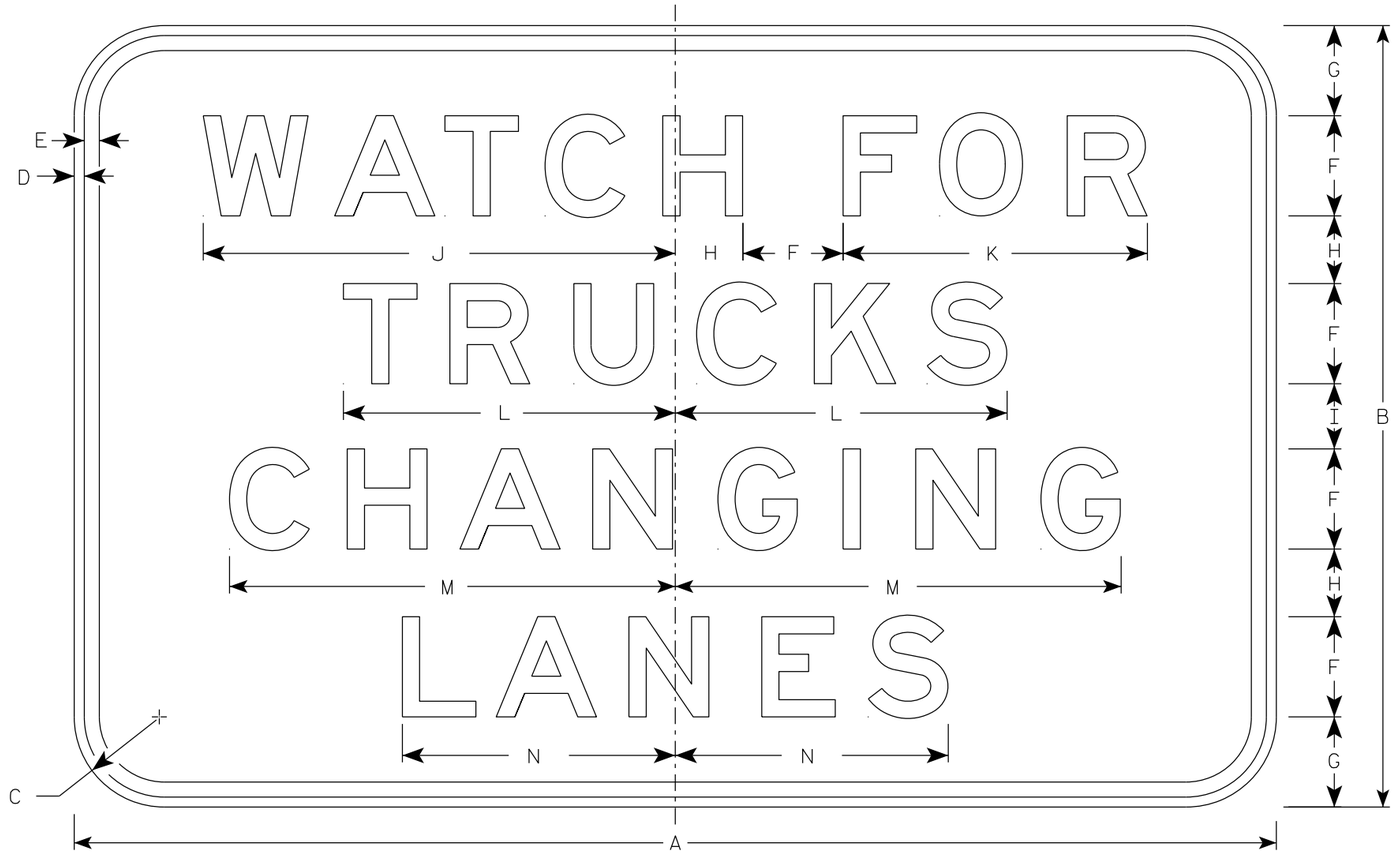
STANDARD SIGN
W06-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 668 W06-3.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



WO7-61

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but border 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																											
5	120	78	9	1	1 1/2	10	9	6 3/4	6 1/2	47 1/8	30 3/8	33 1/8	44 1/2	27 1/4													65.0

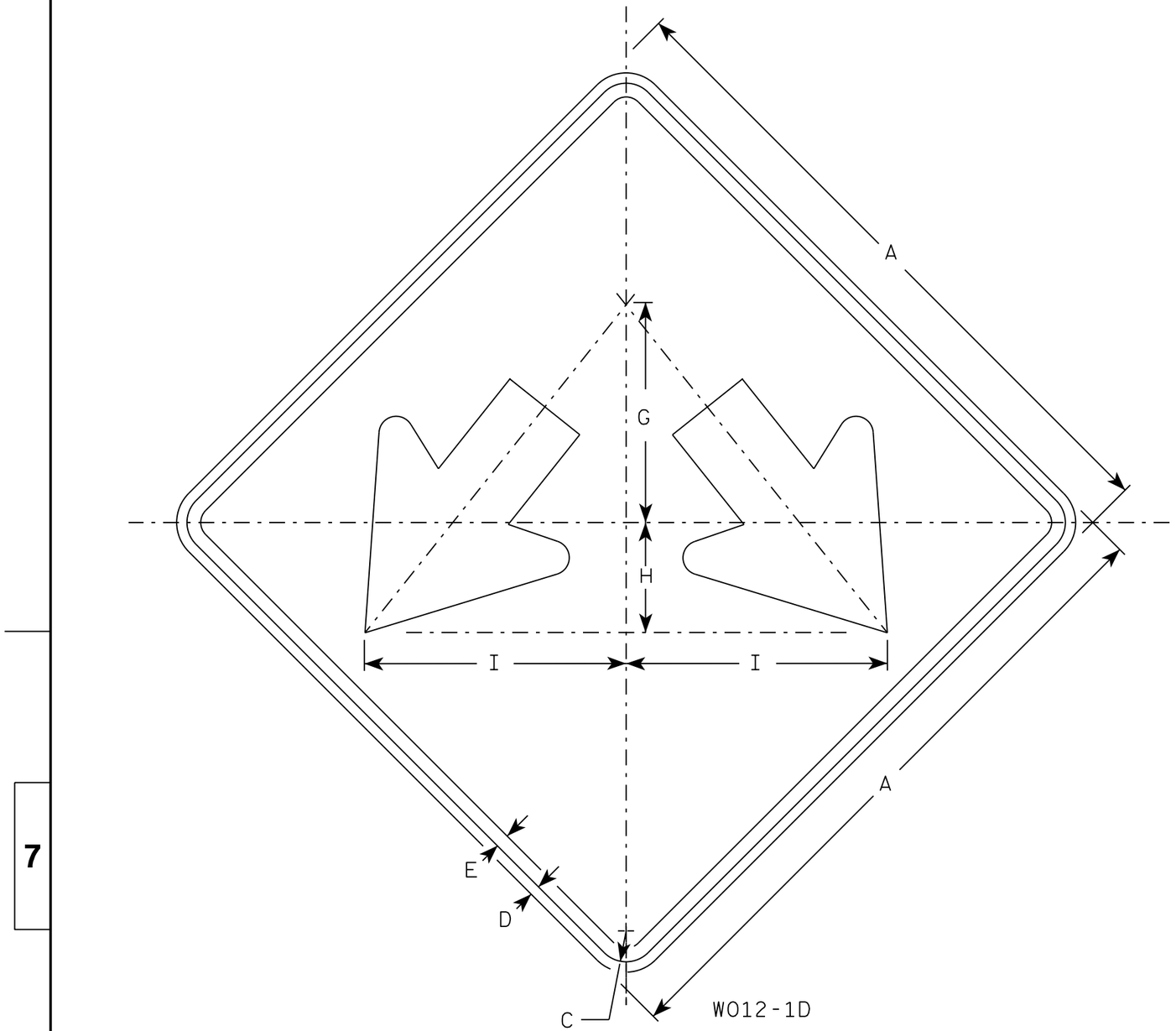
STANDARD SIGN
WO7-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/22/19 PLATE NO. WO7-61.1

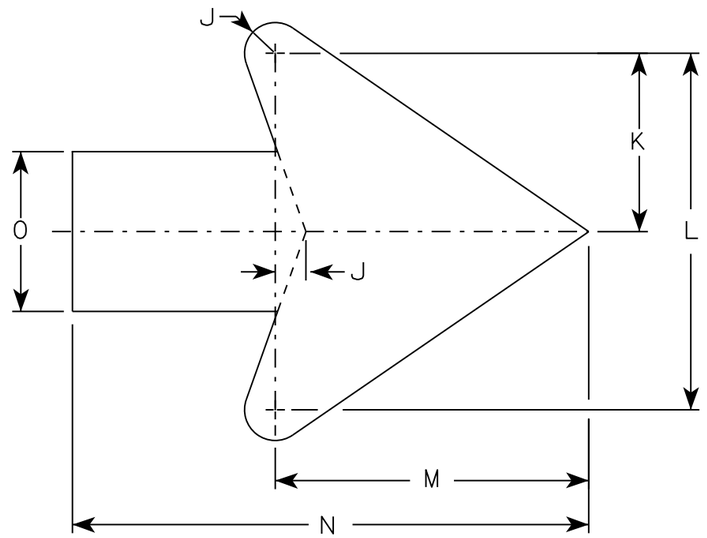
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 669	E



W012-1D

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



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	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
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	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

STANDARD SIGN
W012-1D

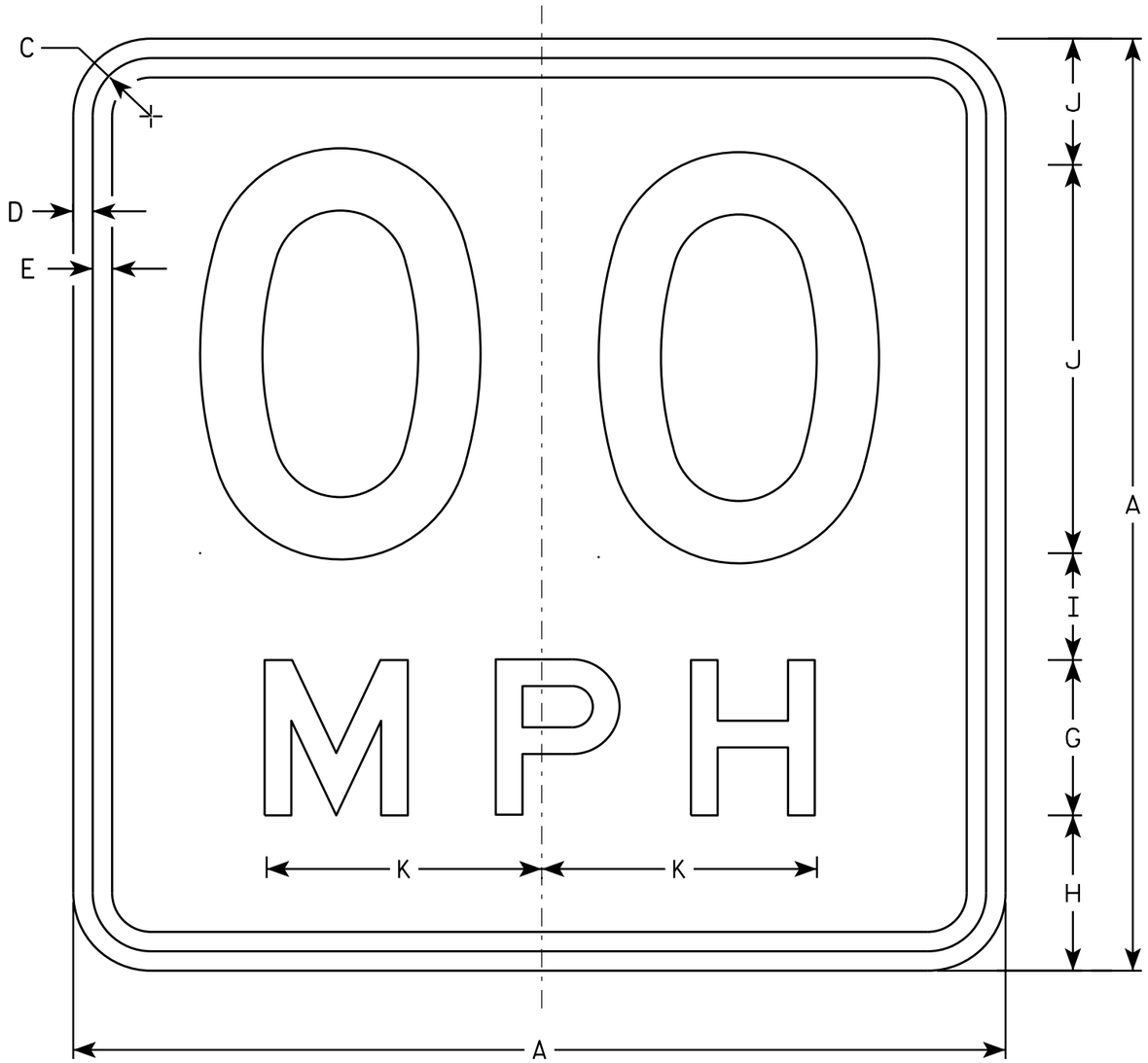
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/28/16 PLATE NO W012-1D.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W0121D.DGN PLOT DATE : 11-AUG-2016 11:28 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.621375:1.000000



W013-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 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	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
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

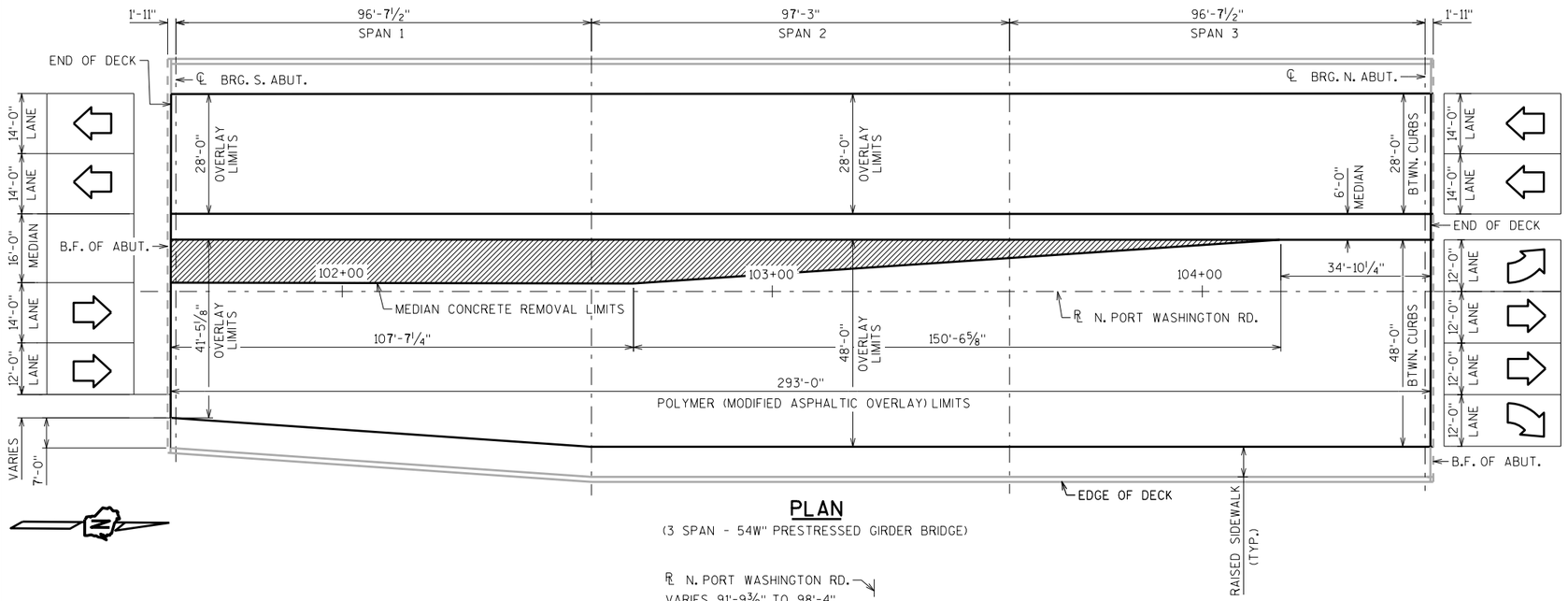
STANDARD SIGN
W013-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

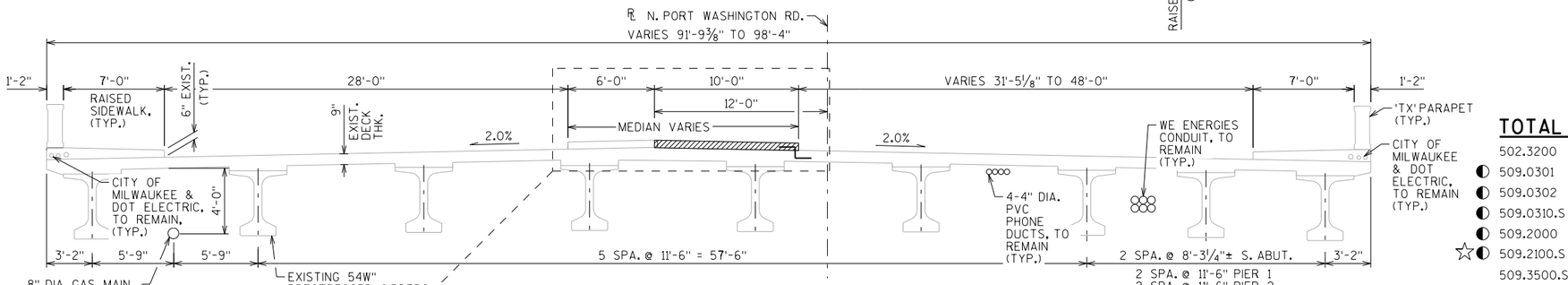
DATE 11/21/13 PLATE 671 W013-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



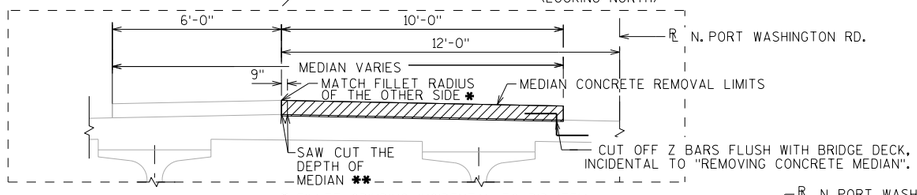
PLAN

(3 SPAN - 54W" PRESTRESSED GIRDER BRIDGE)



CROSS SECTION THRU BRIDGE SHOWING REMOVAL

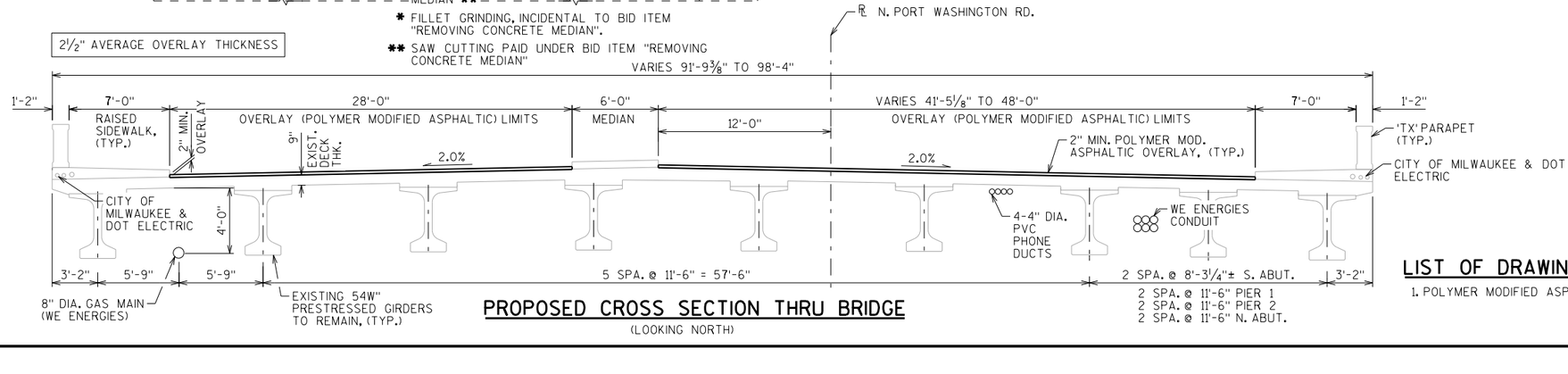
(LOOKING NORTH)



* FILLET GRINDING, INCIDENTAL TO BID ITEM "REMOVING CONCRETE MEDIAN".

** SAW CUTTING PAID UNDER BID ITEM "REMOVING CONCRETE MEDIAN"

2½" AVERAGE OVERLAY THICKNESS



PROPOSED CROSS SECTION THRU BRIDGE

(LOOKING NORTH)

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS-20
INVENTORY RATING: HS-20
OPERATING RATING: HS-40
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 KIPS.

MATERIAL PROPERTIES:
CONCRETE MASONRY ——— f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 ——— fy = 60,000 P.S.I.

TRAFFIC VOLUME

N. PORT WASHINGTON RD.
ADT = 22,900 (2038)
R.D.S. = 40 M.P.H.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED VERTICAL FACE OF THE SAWN CUT FACE OF THE MEDIAN.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ANY EXCAVATION NECESSARY TO COMPLETE THE OVERLAY IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "HMA OVERLAY POLYMER MODIFIED".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON MINIMUM OVERLAY THICKNESS OF 2" PLACED ABOVE THE DECK SURFACE. EXPECTED AVERAGE OVERLAY THICKNESS IS 2½". IF EXPECTED OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK REPAIR".

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

TOTAL ESTIMATED QUANTITIES (ALL ITEMS ARE CATEGORY 2000)

	502.3200	PROTECTIVE SURFACE TREATMENT	14	SY
◐	509.0301	PREPARATION DECKS TYPE 1	1	SY
◐	509.0302	PREPARATION DECKS TYPE 2	1	SY
◐	509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	10	LF
◐	509.2000	FULL-DEPTH DECK REPAIR	1	SY
☆◐	509.2100.S	CONCRETE MASONRY DECK REPAIR	1	CY
	509.3500.S	HMA OVERLAY POLYMER-MODIFIED	336	TON
	SPV.0180	REMOVING CONCRETE MEDIAN	204	SY

◐ BID ITEM IS FOR INFORMATIONAL PURPOSES ONLY. ACTUAL QUANTITY MAY VARY AND IS TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

☆ BID ITEM INCLUDES CONCRETE FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL DEPTH DECK REPAIR.

LIST OF DRAWINGS

1. POLYMER MODIFIED ASPHALTIC OVERLAY

STRUCTURE DESIGN CONTACTS:
JOHN SENDOR (608) 266-5163
AARON BONK (608) 261-0261

STATE PROJECT NUMBER
1228-22-72

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher 7/31/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-40-10

N. PORT WASHINGTON RD. OVER THE MILWAUKEE RIVER

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D. RATINGS	DRAWN BY	PLANS CK'D.
JJS		JJS	MJK

POLYMER MODIFIED ASPHALTIC OVERLAY

SHEET 1 OF 1
672

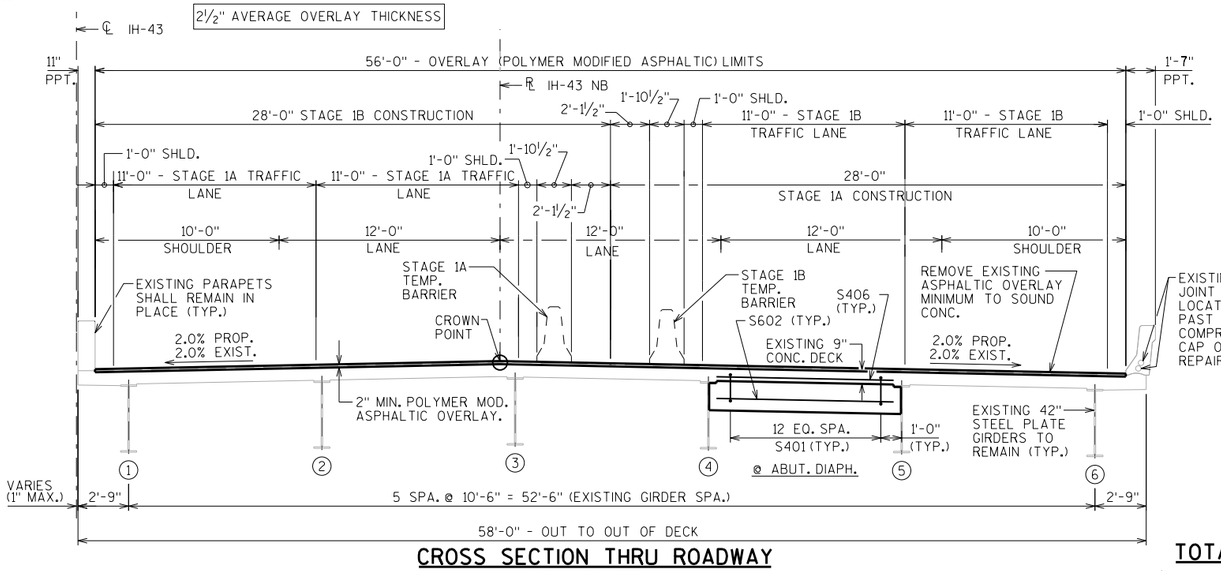
I.D. 1228-22-02A DATE: OCT. 2017

SCALE = 16.00

STATE PROJECT NUMBER

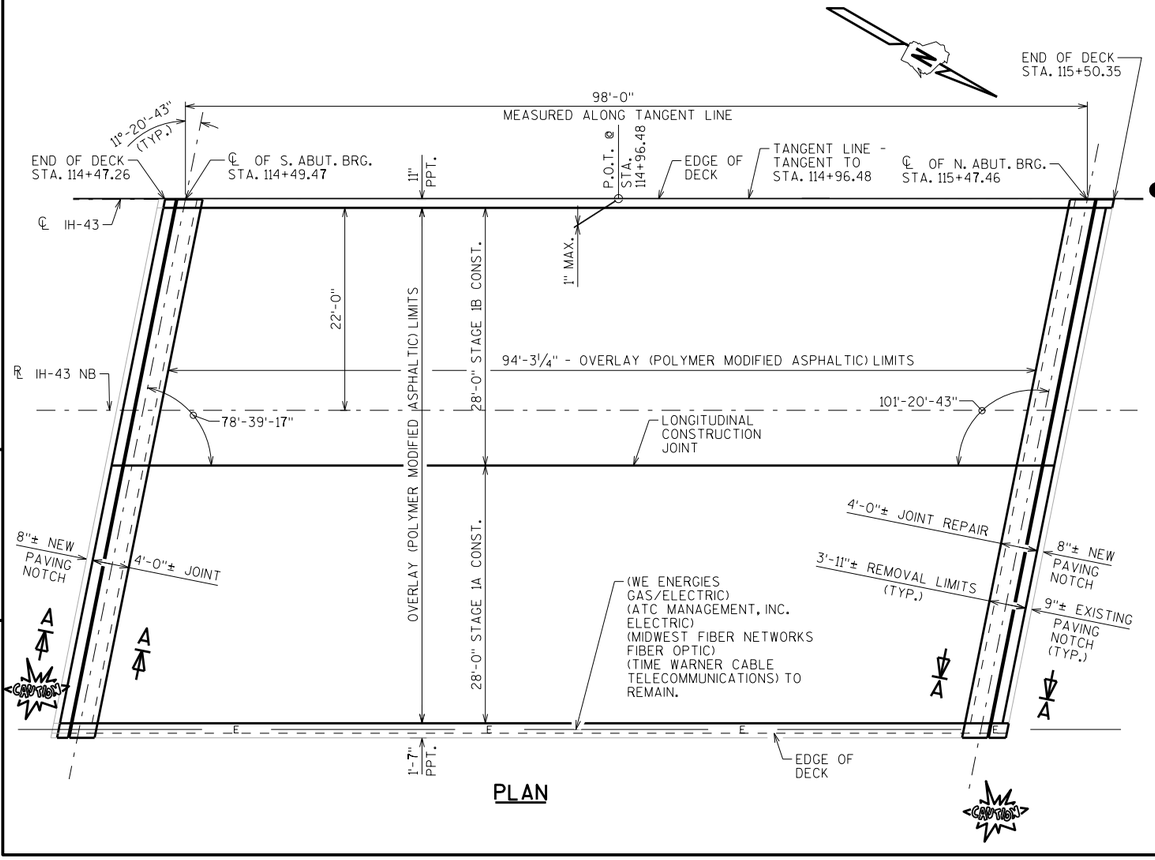
1228-22-72

INDICATES GIRDER NUMBER



CROSS SECTION THRU ROADWAY

(LOOKING NORTH)



PLAN

LIST OF DRAWINGS

1. POLYMER MODIFIED ASPHALTIC OVERLAY
2. ABUTMENT DETAILS
3. PARAPET DETAILS
4. EXPANSION DEVICE
5. COVER PLATE DETAILS

☆ BID ITEM INCLUDES CONCRETE FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL DEPTH DECK REPAIR

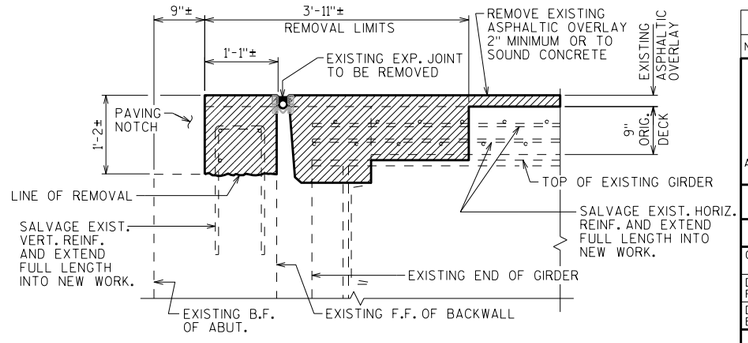
◐ BID ITEM IS FOR INFORMATIONAL PURPOSES ONLY. ACTUAL QUANTITY MAY VARY AND IS TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

◭ BID ITEM INCLUDES CONCRETE FOR JOINT REPAIR

TOTAL ESTIMATED QUANTITIES

(ALL ITEMS ARE CATEGORY 2030)

◭ 502.0100	CONCRETE MASONRY BRIDGES	23	CY
502.3101	EXPANSION DEVICE B-40-581	114	LF
502.3200	PROTECTIVE SURFACE TREATMENT	54	SY
502.3210	PIGMENTED SURFACE SEALER	8	SY
502.4205	ADHESIVE ANCHORS NO. 5 BAR	132	EACH
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	4020	LB
505.0905	BAR COUPLERS NO. 5	24	EACH
◐ 509.0301	PREPARATION DECKS TYPE 1	10	SY
◐ 509.0302	PREPARATION DECKS TYPE 2	2	SY
◐ 509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	10	LF
509.1000	JOINT REPAIR	54	SY
◐ 509.1500	CONCRETE SURFACE REPAIR	15	SF
◐ 509.2000	FULL-DEPTH DECK REPAIR	1	SY
◐ ☆ 509.2100.S	CONCRETE MASONRY DECK REPAIR	1	CY
509.3500.S	HMA OVERLAY POLYMER MODIFIED	81	TON
509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-40-581	587	SY
517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-40-581	1	LS
517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-581	1	LS
517.6001.S	PORTABLE DECONTAMINATION FACILITY	1	EACH
652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	18	LF
	NON BID ITEM BRIDGE SEAT PROTECTION		



EXISTING SECTION A-A

SHOWING REMOVAL TYP. (BOTH ABUTMENTS) NORMAL TO ℄ OF ABUTMENT

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-17
OPERATING RATING: HS-29
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 200 KIPS.

MATERIAL PROPERTIES:

CONCRETE MASONRY DECK REPAIR —— f'c = 4,000 P.S.I.
CONCRETE MASONRY OTHER —— f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT, GRADE 60 —— fy = 60,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE JOINT REPAIR SURFACE.

PIGMENTED SURFACE SEALER SHALL BE APPILED TO THE FRONT FACE AND TOP OF THE NEW PARAPETS AT JOINT REPAIR LOCATIONS. COLOR TO BE APPROVED BY ENGINEER.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF ALL ABUTMENTS AND BELOW EXPANSION DEVICES.

REPAINT ALL EXISTING EXPOSED SUPERSTRUCTURE STEEL - INCLUDING GIRDERS, DIAPHRAGMS AND HARDWARE. THE FINISH EPOXY TOP COAT SHALL BE BROWN (FEDERAL STANDARD COLOR NO. 20059) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ANY EXCAVATION NECESSARY TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "HMA OVERLAY POLYMER-MODIFIED"

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2" PLACED ABOVE THE DECK SURFACE. EXPECTED AVERAGE OVERLAY THICKNESS IS 2½". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

REMOVE ANY/ALL LOOSE CONCRETE AT ABUTMENTS AND PARAPETS UNDER THE BID ITEM "CONCRETE SURFACE REPAIR". SURFACES SHALL BE BLAST CLEANED AND ANY EXPOSED STEEL REINFORCEMENT SHALL BE BRUSHED CLEAN PRIOR TO THE CONCRETE SURFACE REPAIRS BEING COMPLETED. REPAIR AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK REPAIR".

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

EXISTING ASPHALTIC OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK- 2" MINIMUM OR TO SOUND CONCRETE, WHICHEVER IS GREATER. COVERED UNDER ITEM 509.9010.S.

STRUCTURE DESIGN CONTACTS:

JOHN SENDOR (608) 266-5163
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher 7/31/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-581

IH-43 NB OVER LEXINGTON BLVD.

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D. RATINGS	DRAWN BY	PLANS CK'D.
JJS		JJS	MJK

POLYMER MODIFIED ASPHALTIC OVERLAY

SHEET 1 OF 5

673

I.D. 1228-22-02D DATE: OCT. 2017

SCALE = 8.00

8

8

STATE PROJECT NUMBER

1228-22-72

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	130	4'-7"	X		ABUT. DIAPH. - VERT
S602	X	50	9'-8"			ABUT. DIAPH. - HORIZ.
(S01) S503	X	18	29'-5"			JOINT REPAIR - HORIZ. - STAGE 1A
(S01) S504	X	18	29'-3"			JOINT REPAIR - HORIZ. - STAGE 1B
(A23) S505	X	116	3'-3"	X		BACKWALL/PAV. BLOCK - CONC. ADHESIVE ANCHORS - VERT.
S406	X	20	9'-8"			EXPANSION DEVICE - HORIZ. - BETWEEN GIRDERS
(A23) S507	X	4	3'-6"	X		EAST PARAPET - CONC. ADHESIVE ANCHORS - VERT.
(A23) S508	X	4	3'-6"			EAST PARAPET - CONC. ADHESIVE ANCHORS - VERT.
(A23) S509	X	8	4'-2"			WEST PARAPET - CONC. ADHESIVE ANCHORS - VERT.
S510	X	2	5'-0"	X		WEST PARAPET - VERT.

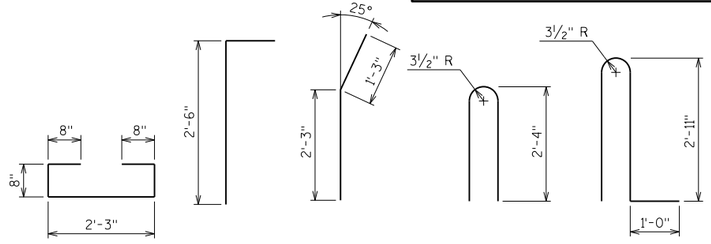
(A23) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" INTO EXIST. CONCRETE.

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT AND SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS RECOMMENDATIONS.

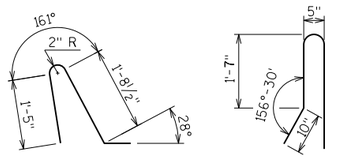
BILL OF BARS

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

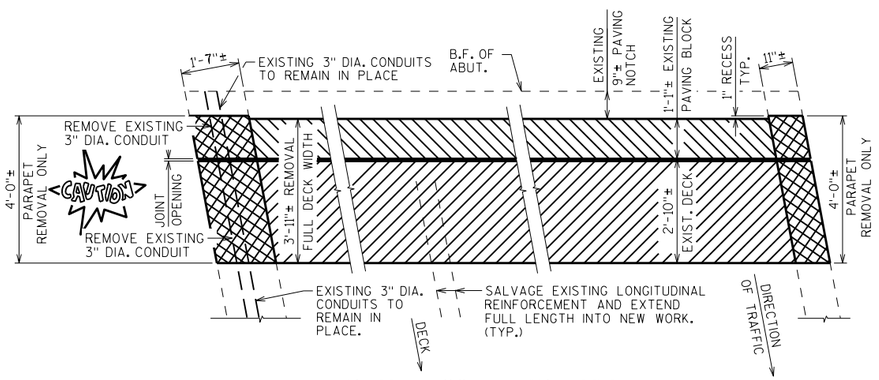
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S511	X	16	7'-1"	X		WEST PARAPET - VERT.
S512	X	12	2'-4"			WEST PARAPET - HORIZ.
S513	X	6	0'-10"			WEST PARAPET - HORIZ.
S514	X	6	1'-6"			WEST PARAPET - HORIZ.
S515	X	16	4'-3"	X		EAST PARAPET - VERT.
S516	X	18	4'-4"	X		EAST PARAPET - VERT.
S517	X	10	2'-4"			EAST PARAPET - HORIZ.
S518	X	5	0'-10"			EAST PARAPET - HORIZ.
S519	X	5	1'-6"			EAST PARAPET - HORIZ.
S420	X	20	9'-8"			EXPANSION DEVICE - HORIZ. - BETWEEN GIRDERS



S401 S505 S507 S510 S511

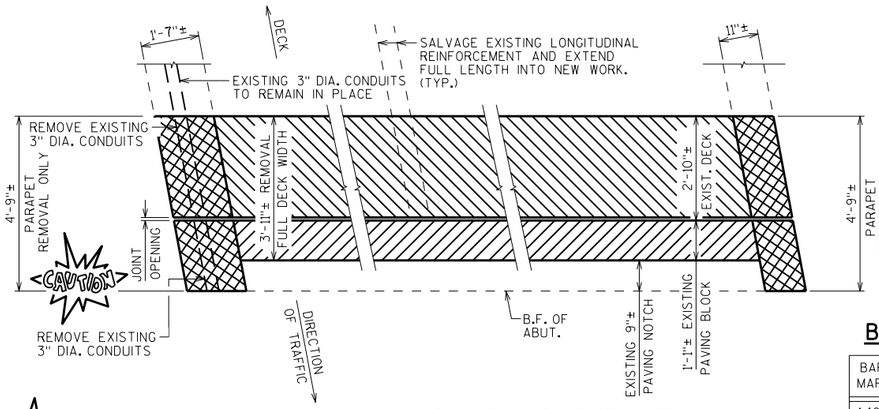


S515 S516



PLAN - SOUTH ABUTMENT

SHOWING REMOVAL



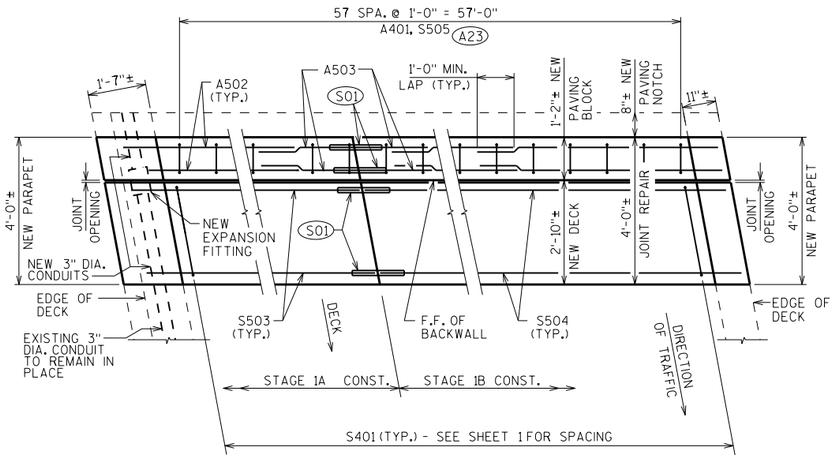
PLAN - NORTH ABUTMENT

SHOWING REMOVAL

BILL OF BARS

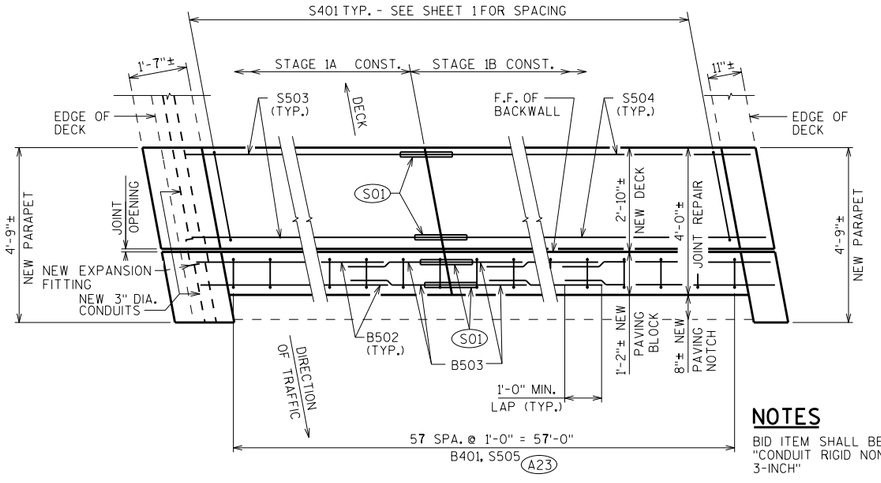
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A401	X	58	3'-10"	X		PAVING BLOCK - VERT. - S. ABUT.
A502	X	24	7'-4"			PAVING BLOCK - HORIZ. - S. ABUT.
(S01) A503	X	6	4'-2"			PAVING BLOCK - HORIZ. - S. ABUT.
B401	X	58	3'-10"	X		PAVING BLOCK - VERT. - N. ABUT.
B502	X	24	7'-4"			PAVING BLOCK - HORIZ. - N. ABUT.
(S01) B503	X	6	4'-2"			PAVING BLOCK - HORIZ. - N. ABUT.



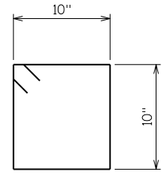
PLAN - SOUTH ABUTMENT

PARAPET BARS NOT SHOWN



PLAN - NORTH ABUTMENT

PARAPET BARS NOT SHOWN



A401, B401

NOTE:
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

NOTES

BID ITEM SHALL BE:
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH"

APPROVED MANUFACTURER OR EQUIVALENT EXPANSION FITTING: O-Z/GENDER TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-581

DRAWN BY JJS | PLANS CK'D. MJK

ABUTMENT DETAILS

SHEET 2

674

SCALE = 4.00

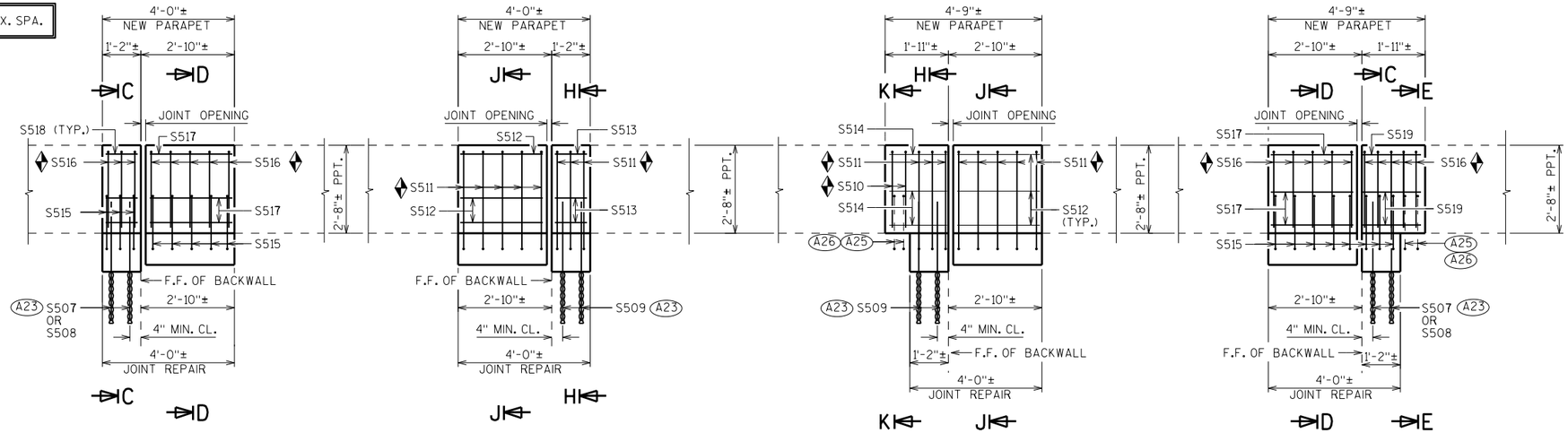
8

8

STATE PROJECT NUMBER

1228-22-72

8" MAX. SPA.

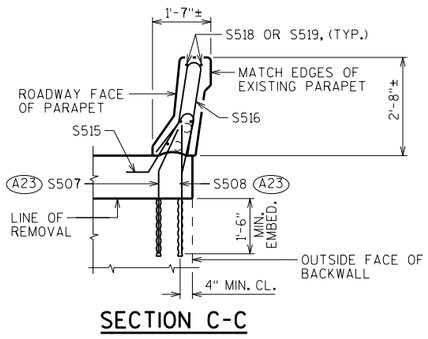


SECTION B-B
SOUTHEAST CORNER

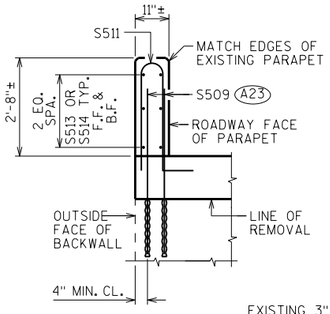
SECTION G-G
SOUTHWEST CORNER

SECTION L-L
NORTHWEST CORNER

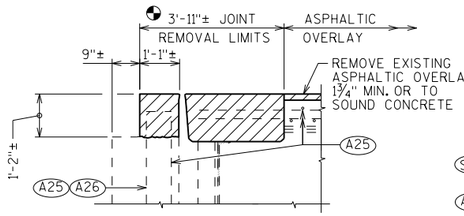
SECTION M-M
NORTHEAST CORNER



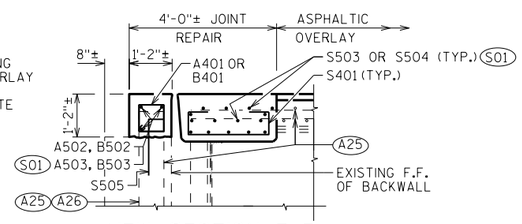
SECTION C-C



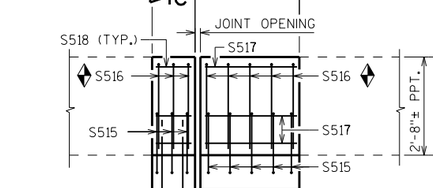
SECTION H-H



EXISTING SECTION F-F
SHOWING REMOVAL

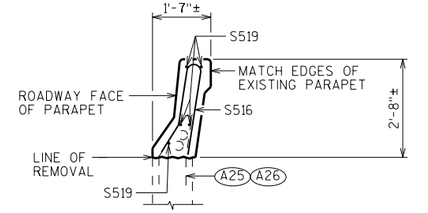


NEW SECTION F-F

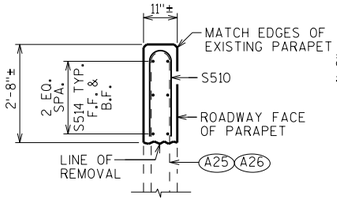


SECTION D-D

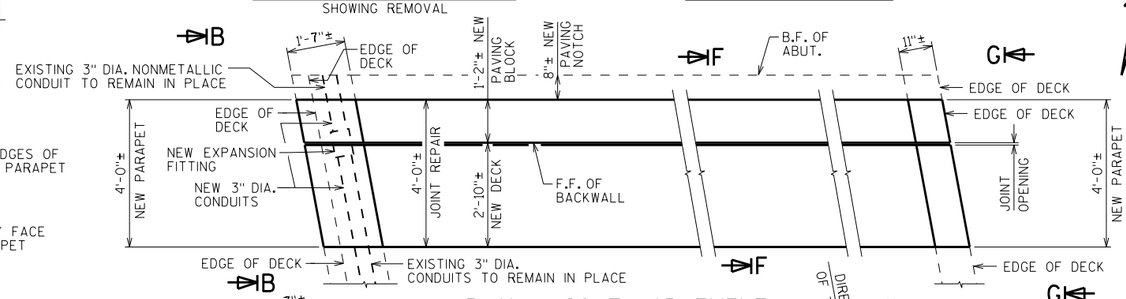
SECTION J-J



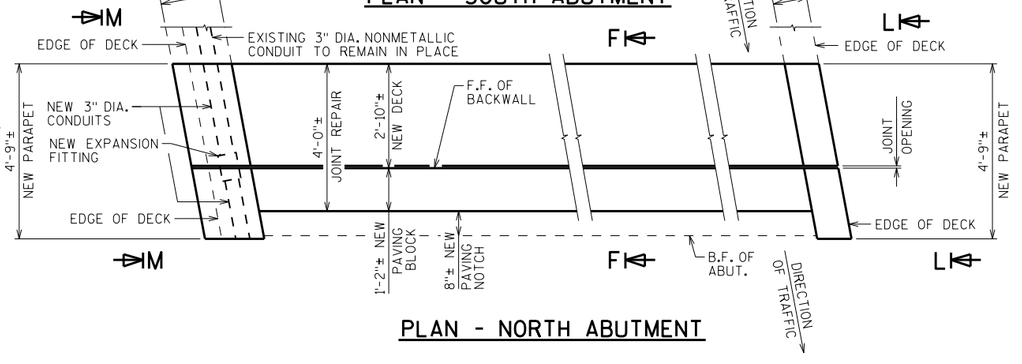
SECTION E-E



SECTION K-K



PLAN - SOUTH ABUTMENT



PLAN - NORTH ABUTMENT

NOTE:
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

SEE SHEET 2 FOR CORRESPONDING PARAPET REMOVAL LIMITS.

(A23) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" INTO EXIST. CONCRETE.

(A25) SALVAGE ANY EXIST. VERTICAL REINF. IF PRESENT & EXTEND FULL LENGTH INTO NEW WORK.

(A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH ADHESIVE ANCHORED NO. 5 L-SHAPED BARS WITH A 10" HORIZ. LEG. EMBED 1'-6". WORK TO BE PAID UNDER ITEM "JOINT REPAIR".

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS RECOMMENDATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-581

DRAWN BY JJS | PLANS CK'D. MJK

PARAPET DETAILS

SHEET 3

675

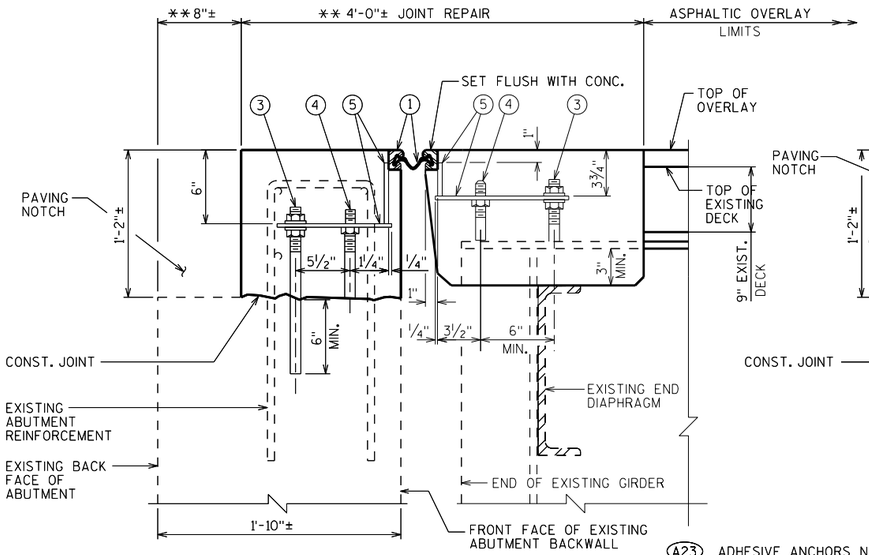
SCALE = 4.00

8

8

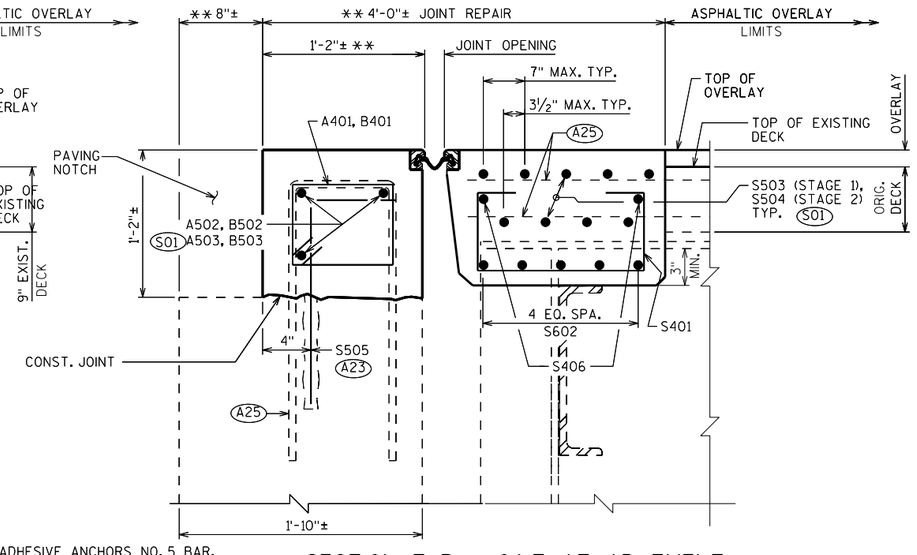
STATE PROJECT NUMBER

1228-22-72



SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)



SECTION THRU JOINT AT ABUTMENT

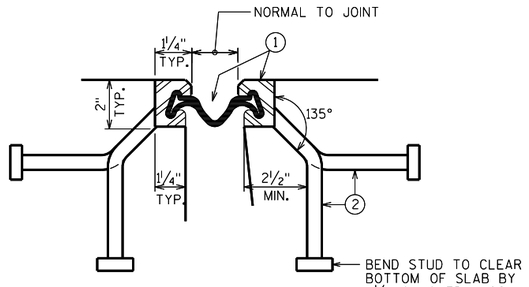
NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)

** DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE

(A23) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" INTO EXIST. CONCRETE.

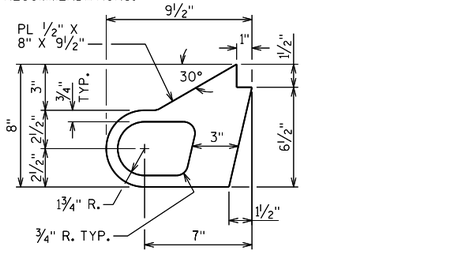
(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS RECOMMENDATIONS.

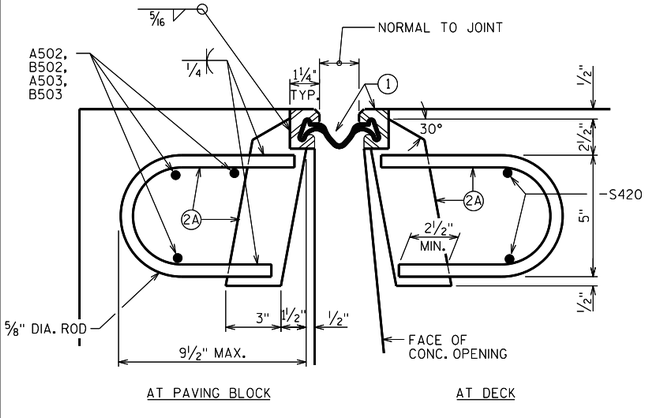


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AT PARAPETS

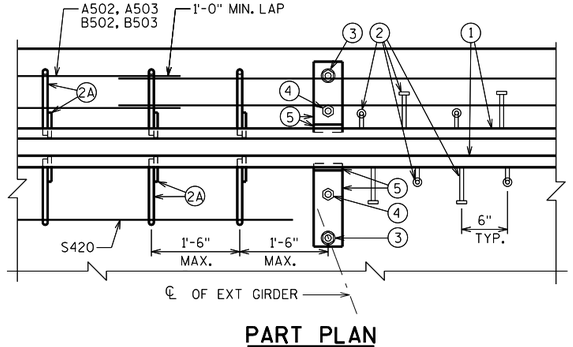


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.

(2) STUDS ⅝" DIA. X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 & 1" DIA. HOLE FOR NO. 4.

(6) GALVANIZED PLATE ⅜" X 1'-0" X 2'-2" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. RECESS 1/16" BELOW PLATE SURFACE.

(8) ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED CSK. HOLE FOR NO. 7. SLOT PARALLEL TO DIRECTION OF MOVEMENT.

(11) GALVANIZED PLATE ⅜" X 10½" X 2'-2" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-40-581".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-581

DRAWN BY JJS | PLANS CK'D. MJK

EXPANSION DEVICE

SHEET 4

676

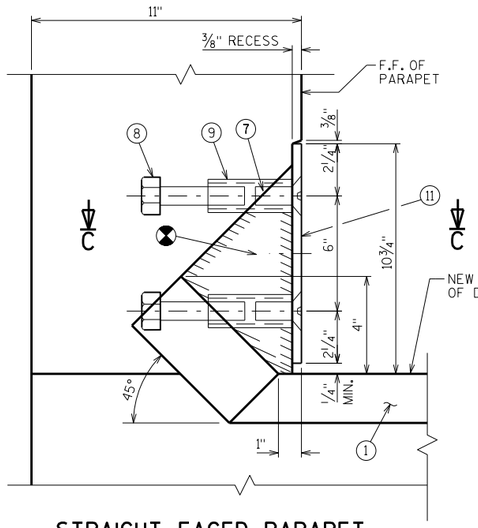
8

8

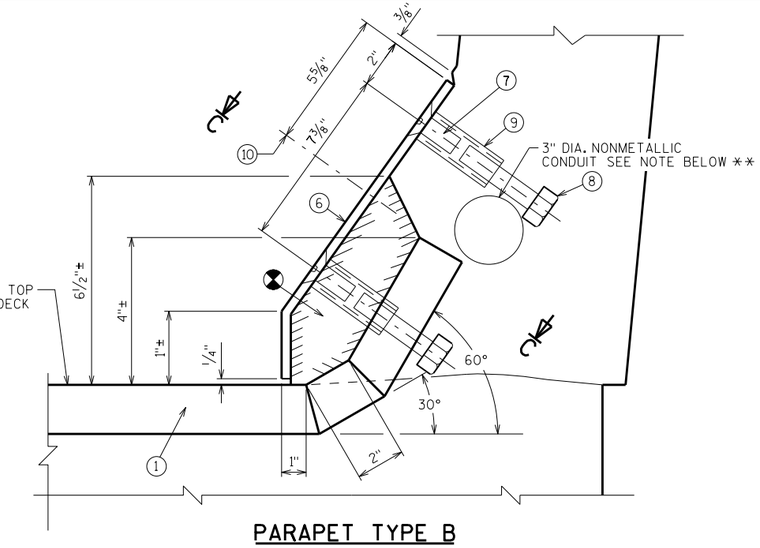
SCALE = 1.00

STATE PROJECT NUMBER

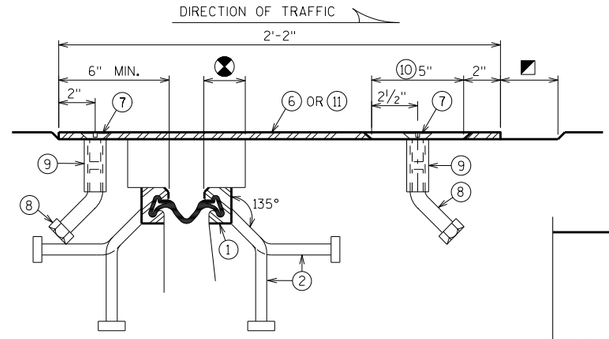
1228-22-72



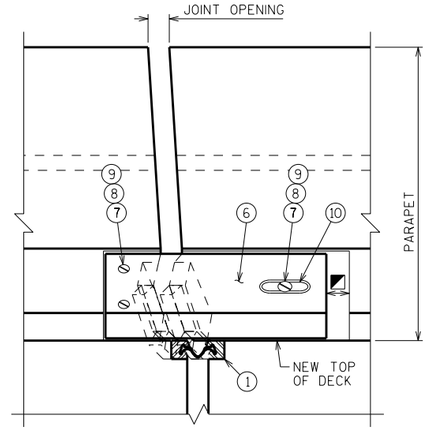
STRAIGHT FACED PARAPET
SECTION A-A



PARAPET TYPE B
SECTION B-B



SECTION C-C



VIEW OF PARAPET PLATE FROM ROADWAY

SLOPED FACED PARAPET SHOWN
STRAIGHT FACED PARAPET SIMILAR.

⊠ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIM. ALONG SKEW PLUS 1/2".

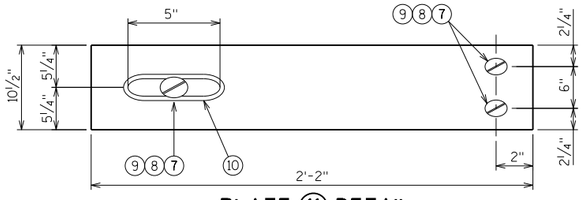
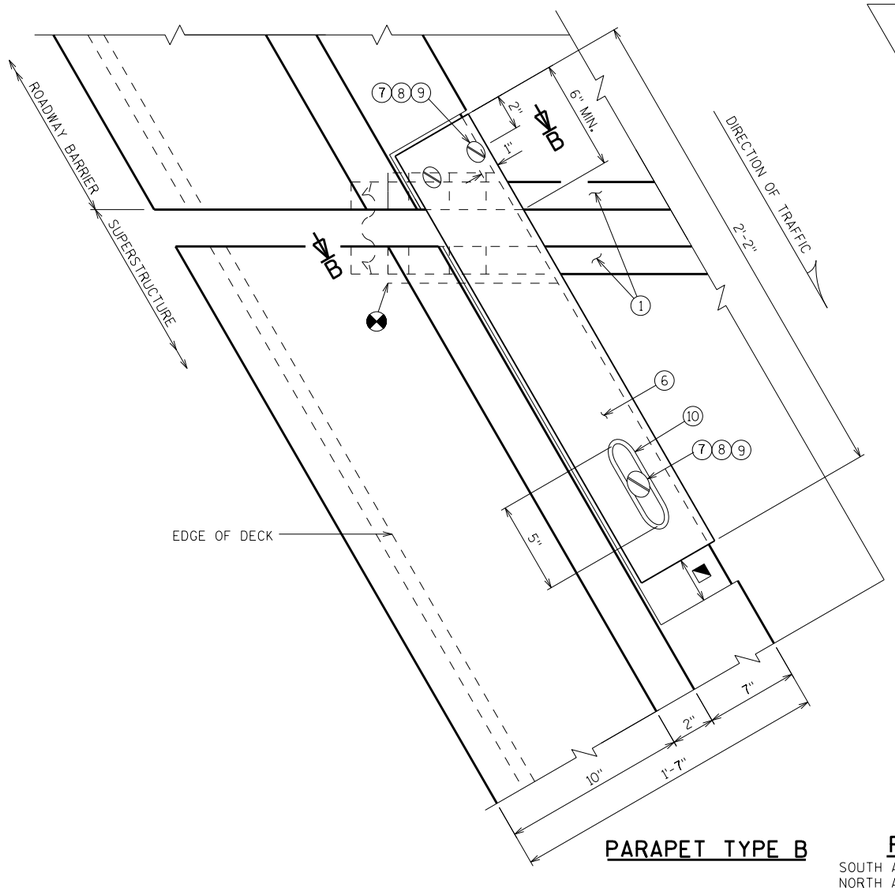
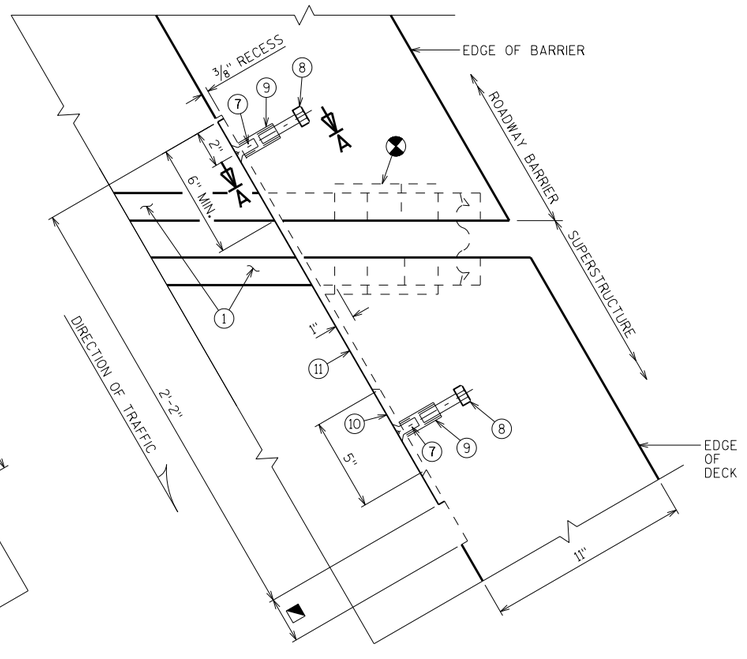


PLATE (11) DETAIL



PARAPET TYPE B

PLAN
SOUTH ABUTMENT SHOWN
NORTH ABUTMENT SIMILAR



STRAIGHT FACED PARAPET

** DEPENDENT ON THE LOCATION ON THE 3" CONDUIT, FIELD WORKERS MIGHT NEED TO ROTATE OR BEND THE 45° BENT BOLT TO MAKE AN OPEN PATH FOR CONDUIT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-581

DRAWN BY JJS | PLANS CK'D. MJK

COVER PLATE DETAILS

SHEET 5

677

SCALE = 1.00

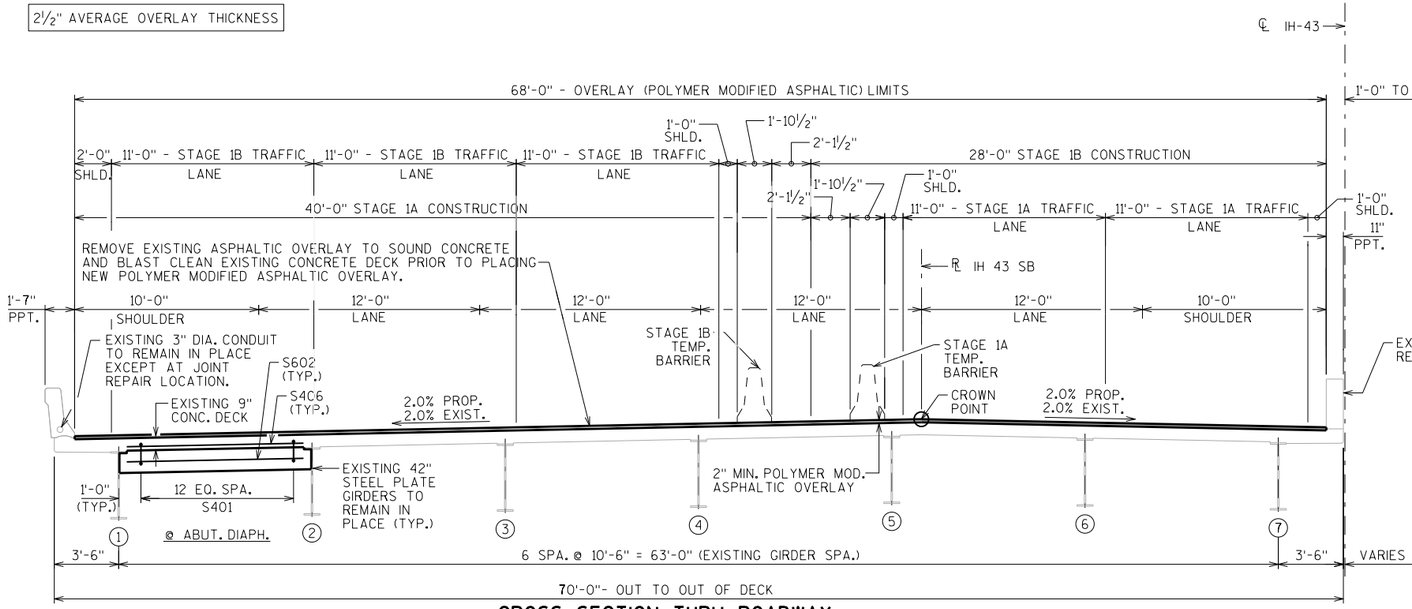
8

8

STATE PROJECT NUMBER

1228-22-72

2½" AVERAGE OVERLAY THICKNESS

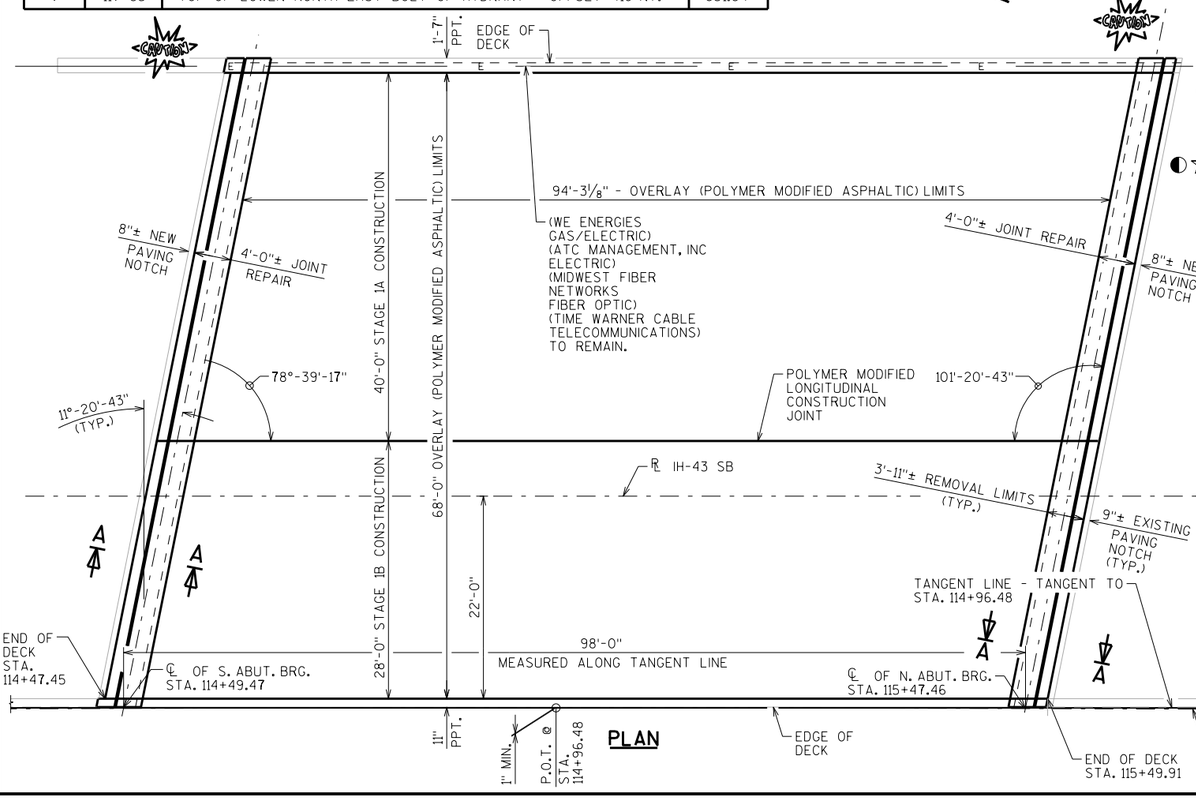


CROSS SECTION THRU ROADWAY

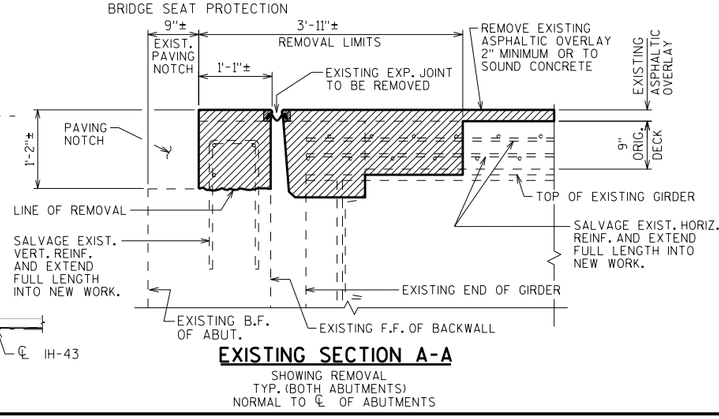
(LOOKING NORTH)

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
55	115+50	TOP OF 1" X 24" IRON PIPE - OFFSET 98'LT.	628.51
7	117+85	TOP OF LOWER NORTH EAST BOLT OF HYDRANT - OFFSET 410'RT.	631.84



PLAN



EXISTING SECTION A-A

SHOWING REMOVAL
TYP. (BOTH ABUTMENTS)
NORMAL TO ℄ OF ABUTMENTS

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-18
OPERATING RATING: HS-30
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 210 KIPS.

MATERIAL PROPERTIES:

CONCRETE MASONRY DECK REPAIR ——— f'c = 4,000 P.S.I.
CONCRETE MASONRY OTHER ——— f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 ——— fy = 60,000 P.S.I.

LIST OF DRAWINGS

1. POLYMER MODIFIED ASPHALTIC OVERLAY
2. ABUTMENT DETAILS
3. PARAPET DETAILS
4. EXPANSION DEVICE
5. COVER PLATE DETAILS

TOTAL ESTIMATED QUANTITIES

⚠	502.0100	CONCRETE MASONRY BRIDGES	27	CY
	502.3101	EXPANSION DEVICE B-40-582	129	LF
	502.3200	PROTECTIVE SURFACE TREATMENT	62	SY
	502.3210	PIGMENTED SURFACE SEALER	8	SY
	502.4205	ADHESIVE ANCHORS NO. 5 BAR	156	EACH
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	4760	LB
	505.0905	BAR COUPLERS NO. 5	24	EACH
◐	509.0301	PREPARATION DECKS TYPE 1	8	SY
◐	509.0302	PREPARATION DECKS TYPE 2	2	SY
◐	509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	10	LF
	509.1000	JOINT REPAIR	64	SY
◐	509.1500	CONCRETE SURFACE REPAIR	33	SF
◐	509.2000	FULL-DEPTH DECK REPAIR	2	SY
◐ ☆	509.2100.S	CONCRETE MASONRY DECK REPAIR	1	CY
	509.3500.S	HMA OVERLAY POLYMER-MODIFIED	98	TONS
	509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-40-582	713	SY
	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-40-582	1	LS
	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-582	1	LS
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	1	EACH
	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	9	LF
		NON BID ITEM BRIDGE SEAT PROTECTION		

☆ BID ITEM INCLUDES CONCRETE FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL DEPTH DECK REPAIR.

◐ BID ITEM IS FOR INFORMATIONAL PURPOSES ONLY. ACTUAL QUANTITY MAY VARY AND IS TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

⚠ BID ITEM INCLUDES CONCRETE FOR JOINT REPAIR.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE JOINT REPAIR SURFACE.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE FRONT FACE AND TOP OF THE NEW PARAPETS AT JOINT REPAIR LOCATIONS. COLOR TO BE APPROVED BY ENGINEER

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF ALL ABUTMENTS AND BELOW EXPANSION DEVICES.

RE-PAINT ALL EXISTING EXPOSED SUPERSTRUCTURE STEEL - INCLUDING GIRDERS, DIAPHRAGMS AND HARDWARE. THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BROWN (FEDERAL STANDARD COLOR NO. 20059) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ANY EXCAVATION NECESSARY TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "HMA OVERLAY POLYMER-MODIFIED"

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2" PLACED ABOVE THE DECK SURFACE. EXPECTED AVERAGE OVERLAY THICKNESS IS 2½". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

REMOVE ANY/ALL LOOSE CONCRETE AT ABUTMENTS AND PARAPETS UNDER THE BID ITEM "CONCRETE SURFACE REPAIR". SURFACES SHALL BE BLAST CLEANED AND ANY EXPOSED STEEL REINFORCEMENT SHALL BE BRUSHED CLEAN PRIOR TO THE CONCRETE SURFACE REPAIRS BEING COMPLETED. REPAIR AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK REPAIR".

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

EXISTING ASPHALTIC OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK-2"MINIMUM OR TO SOUND CONCRETE, WHICHEVER IS GREATER. COVERED UNDER ITEM 509.9010.S.

STRUCTURE DESIGN CONTACTS:

JOHN SENDOR (608) 266-5163
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher 7/31/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-40-582

IH-43 SB OVER LEXINGTON BLVD.

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D. RATINGS	DRAWN BY	PLANS CK'D.
JJS		JJS	MJK

POLYMER MODIFIED ASPHALTIC OVERLAY

SHEET 1 OF 5

678

I.D. 1228-22-02E

DATE: OCT. 2017

SCALE = 8.00

8

8

STATE PROJECT NUMBER

1228-22-72

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	156	4'-7"	X		ABUT. DIAPH. - VERT.
S602	X	60	9'-8"			ABUT. DIAPH. - HORIZ.
(S01) S503	X	18	41'-8"			JOINT REPAIR - HORIZ. - STAGE 1A
(S01) S504	X	18	29'-3"			JOINT REPAIR - HORIZ. - STAGE 1B
(A23) S505	X	140	3'-3"	X		BACKWALL/PAV. BLOCK - CONC. ADHESIVE ANCHORS - VERT.
S406	X	24	9'-8"			EXPANSION DEVICE - HORIZ. - BETWEEN GIRDERS
(A23) S507	X	4	3'-6"	X		WEST PARAPET - CONC. ADHESIVE ANCHORS - VERT.
(A23) S508	X	4	3'-6"			WEST PARAPET - CONC. ADHESIVE ANCHORS - VERT.
(A23) S509	X	8	4'-2"			EAST PARAPET - CONC. ADHESIVE ANCHORS - VERT.
S510	X	2	5'-0"	X		EAST PARAPET - VERT.

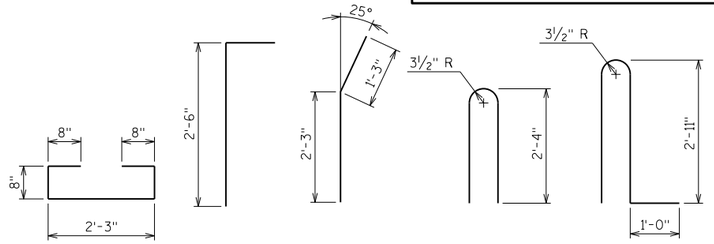
(A23) ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" INTO EXISTING CONCRETE.

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT AND SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS RECOMMENDATIONS.

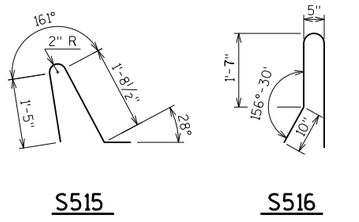
BILL OF BARS

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

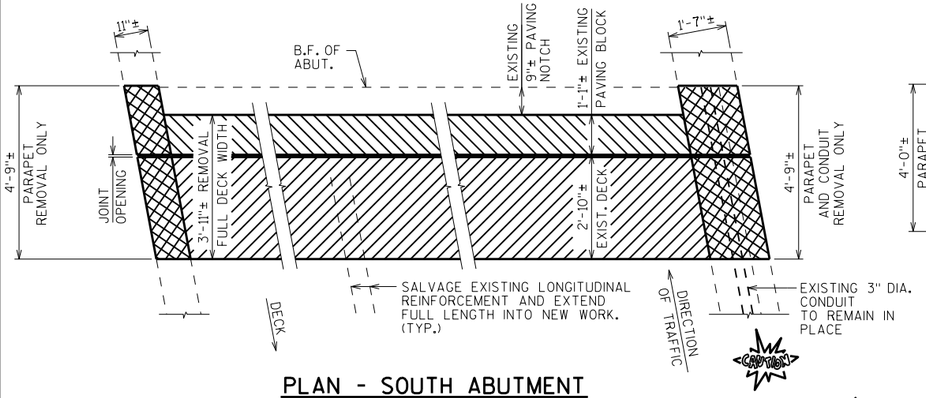
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S511	X	16	7'-1"	X		EAST PARAPET - VERT.
S512	X	12	2'-4"			EAST PARAPET - HORIZ.
S513	X	6	0'-10"			EAST PARAPET - HORIZ.
S514	X	6	1'-6"			EAST PARAPET - HORIZ.
S515	X	16	4'-3"	X		WEST PARAPET - VERT.
S516	X	18	4'-4"	X		WEST PARAPET - VERT.
S517	X	10	2'-4"			WEST PARAPET - HORIZ.
S518	X	5	0'-10"			WEST PARAPET - HORIZ.
S519	X	5	1'-6"			WEST PARAPET - HORIZ.
S420	X	24	9'-8"			EXPANSION DEVICE - HORIZ. - BETWEEN GIRDERS



S401 S505 S507 S510 S511

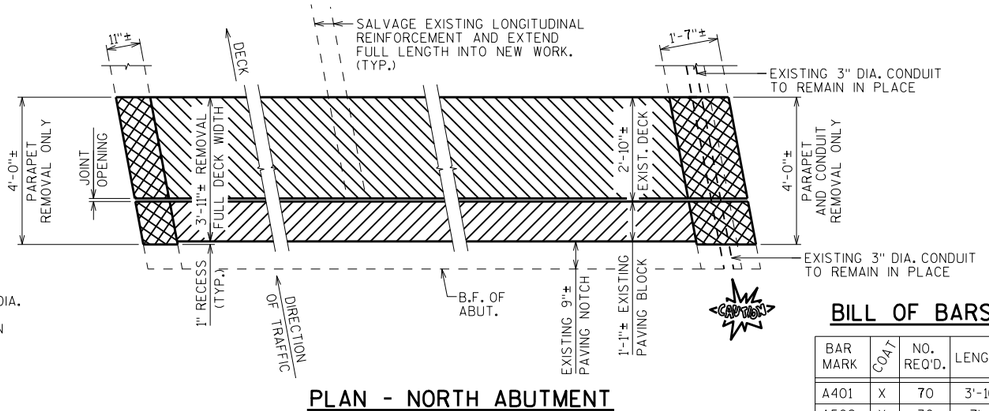


S515 S516



PLAN - SOUTH ABUTMENT

SHOWING REMOVAL



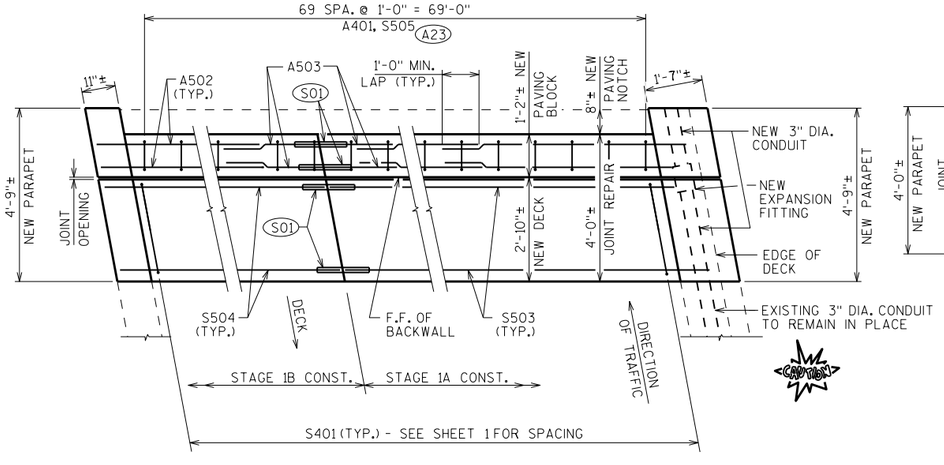
PLAN - NORTH ABUTMENT

SHOWING REMOVAL

BILL OF BARS

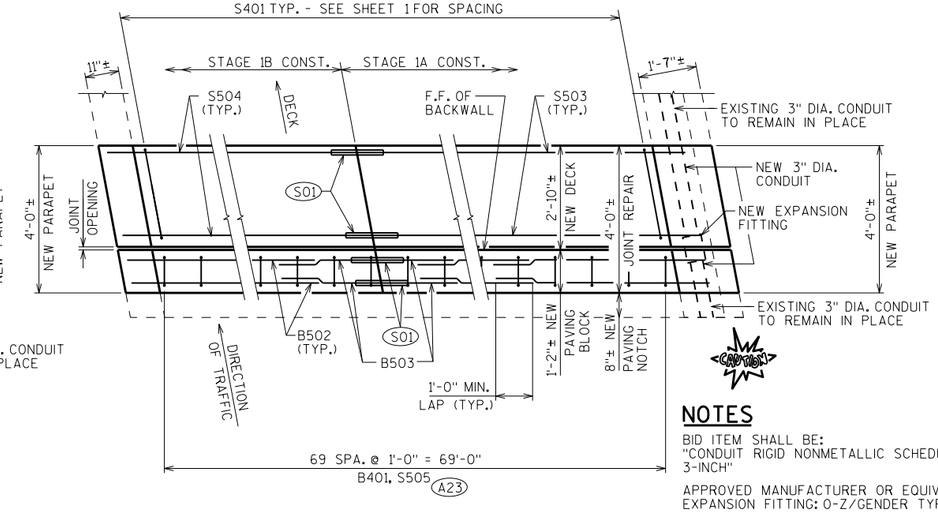
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A401	X	70	3'-10"	X		PAVING BLOCK - VERT. - S. ABUT.
A502	X	30	7'-4"			PAVING BLOCK - HORIZ. - S. ABUT.
(S01) A503	X	6	4'-2"			PAVING BLOCK - HORIZ. - S. ABUT.
B401	X	70	3'-10"	X		PAVING BLOCK - VERT. - N. ABUT.
B502	X	30	7'-4"			PAVING BLOCK - HORIZ. - N. ABUT.
(S01) B503	X	6	4'-2"			PAVING BLOCK - HORIZ. - N. ABUT.



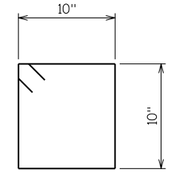
PLAN - SOUTH ABUTMENT

PARAPET BARS NOT SHOWN



PLAN - NORTH ABUTMENT

PARAPET BARS NOT SHOWN



A401, B401

NOTE:
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

NOTES

BID ITEM SHALL BE:
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH"

APPROVED MANUFACTURER OR EQUIVALENT EXPANSION FITTING: O-Z/GENDER TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-582

DRAWN BY JJS | PLANS CK'D. MJK

ABUTMENT DETAILS

SHEET 2

679

SCALE = 4.00

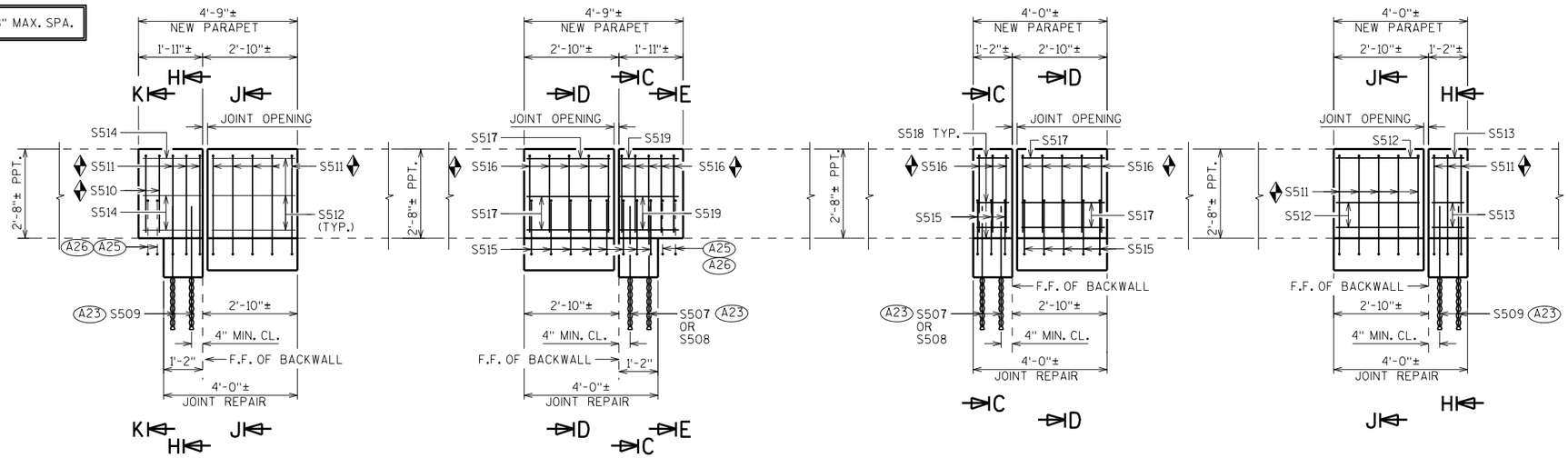
8

8

STATE PROJECT NUMBER

1228-22-72

8" MAX. SPA.

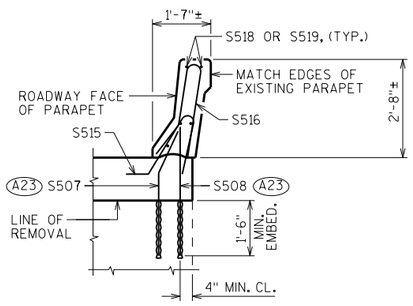


SECTION B-B
SOUTHEAST CORNER

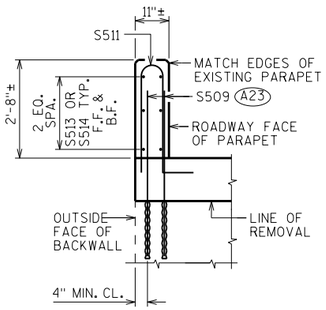
SECTION G-G
SOUTHWEST CORNER

SECTION L-L
NORTHWEST CORNER

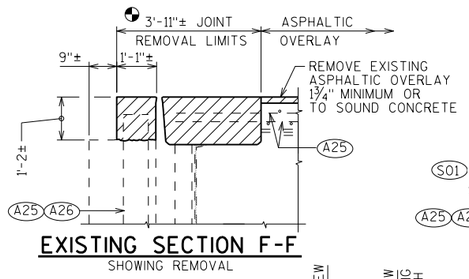
SECTION M-M
NORTHEAST CORNER



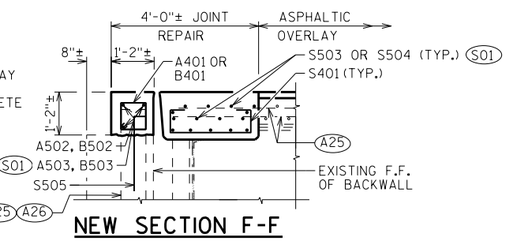
SECTION C-C



SECTION H-H



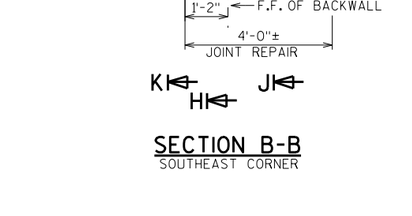
EXISTING SECTION F-F
SHOWING REMOVAL



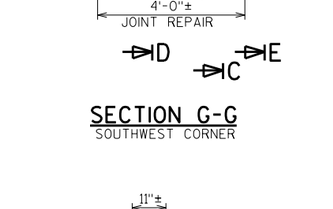
NEW SECTION F-F

SECTION D-D

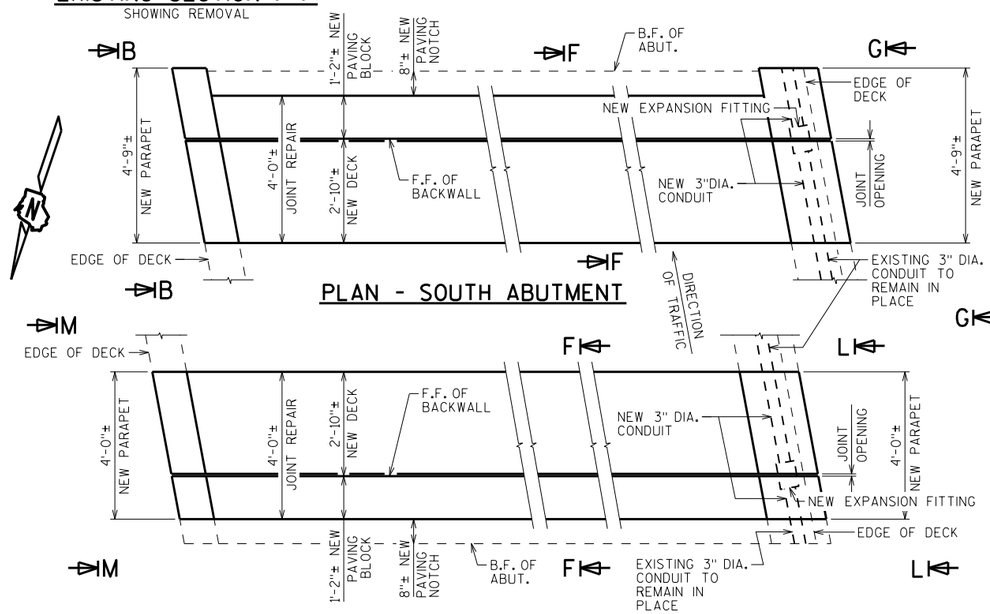
SECTION J-J



SECTION E-E



SECTION K-K



PLAN - SOUTH ABUTMENT

PLAN - NORTH ABUTMENT

NOTE:
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

SEE SHEET 2 FOR CORRESPONDING PARAPET REMOVAL LIMITS.

(A23) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" INTO EXIST. CONCRETE.

(A25) SALVAGE ANY VERTICAL EXIST. REINF. IF PRESENT & EXTEND FULL LENGTH INTO NEW WORK.

(A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH ADHESIVE ANCHORED NO. 5 L-SHAPED BARS WITH A 10" HORIZ. LEG. EMBED 1'-6". WORK TO BE PAID UNDER ITEM "JOINT REPAIR".

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS RECOMMENDATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-582

DRAWN BY JJS | PLANS CK'D. MJK

PARAPET DETAILS

SHEET 3

680

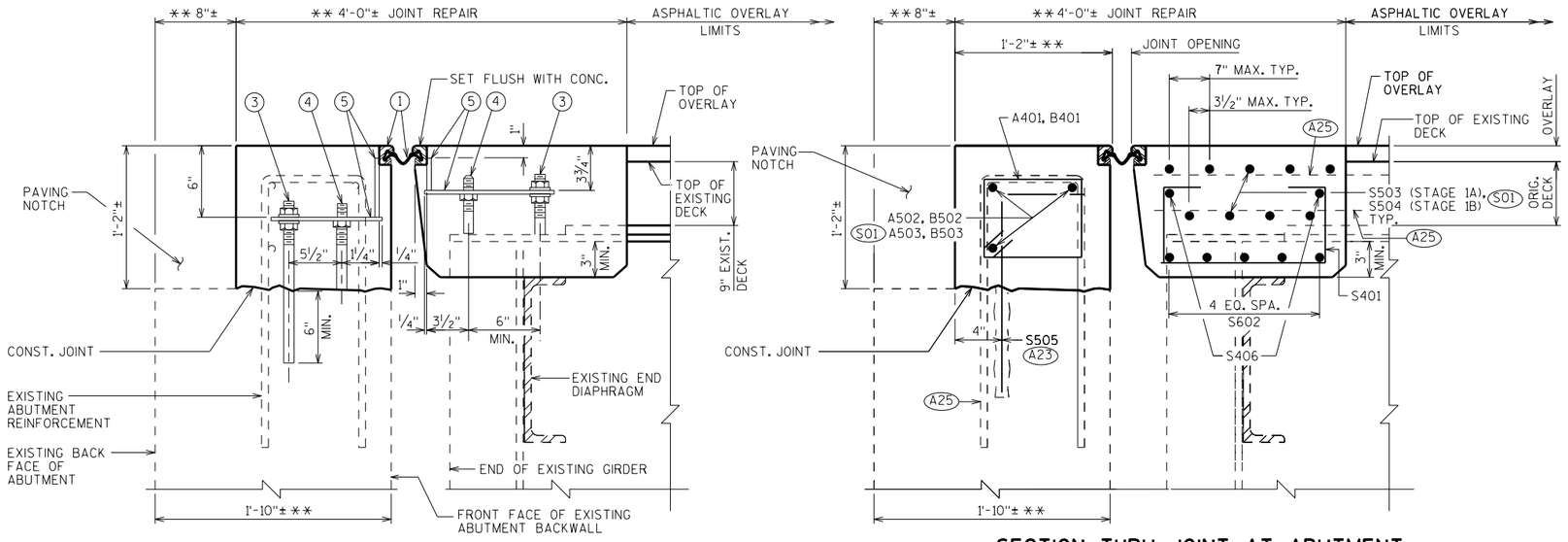
SCALE = 4.00

8

8

STATE PROJECT NUMBER

1228-22-72



SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)

SECTION THRU JOINT AT ABUTMENT

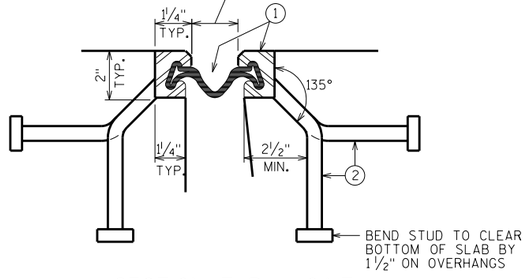
NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)

** DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE

(A23) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" INTO EXIST. CONCRETE.

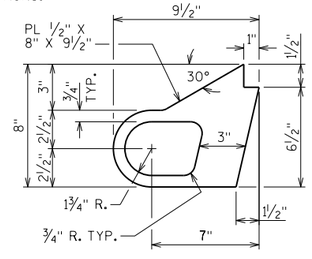
(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS RECOMMENDATIONS.

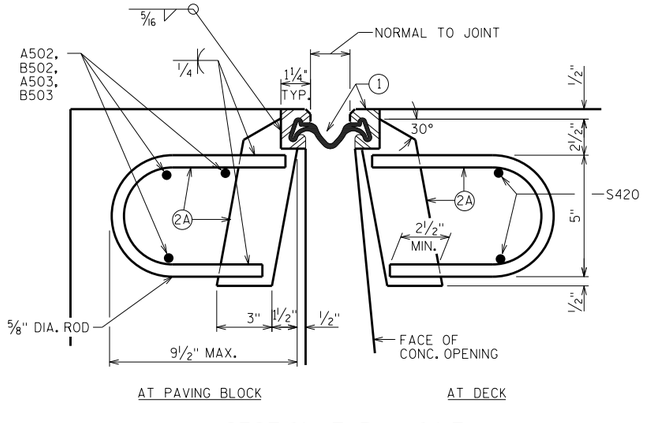


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF SLAB AT PARAPETS

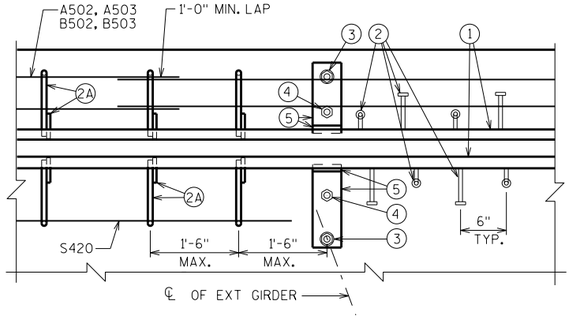


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.

(2) STUDS ⅝" DIA. X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 & 1" DIA. HOLE FOR NO. 4.

(6) GALVANIZED PLATE ⅜" X 1'-0" X 2'-2" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. RECESS 1/16" BELOW PLATE SURFACE.

(8) ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED CSK. HOLE FOR NO. 7. SLOT PARALLEL TO DIRECTION OF MOVEMENT.

(11) GALVANIZED PLATE ⅜" X 10½" X 2'-2" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-40-582".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-582

DRAWN BY JJS | PLANS CK'D. MJK

EXPANSION DEVICE

SHEET 4

681

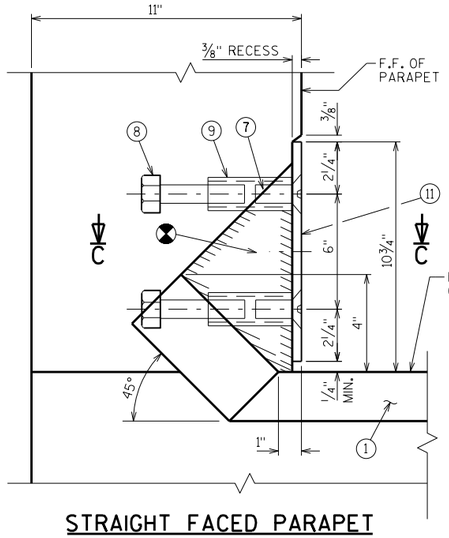
8

8

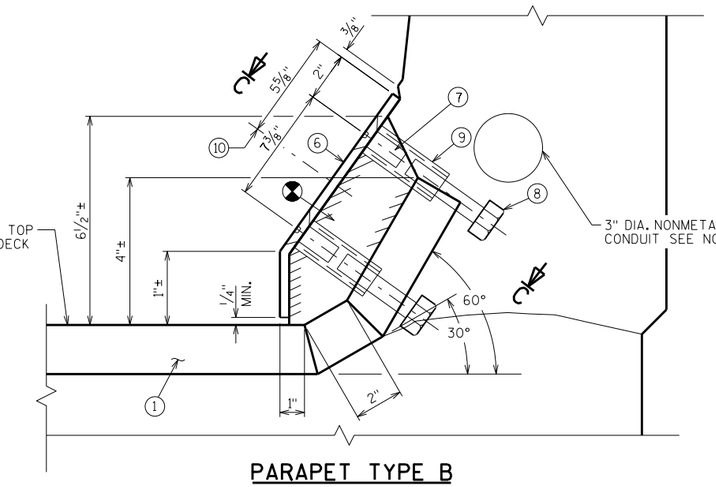
SCALE = 1.00

STATE PROJECT NUMBER

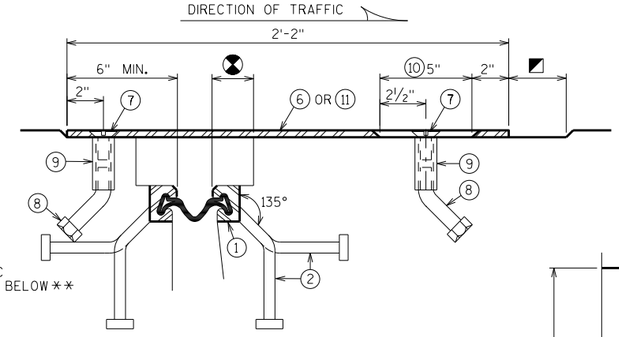
1228-22-72



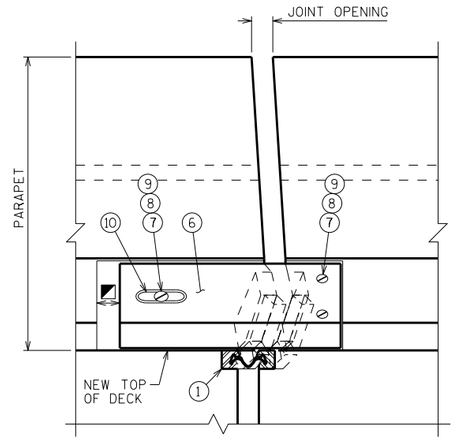
STRAIGHT FACED PARAPET
SECTION A-A



PARAPET TYPE B
SECTION B-B



SECTION C-C



VIEW OF PARAPET PLATE FROM ROADWAY

SLOPED FACED PARAPET SHOWN
STRAIGHT FACED PARAPET SIMILAR

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIM. ALONG SKEW PLUS 1/2".

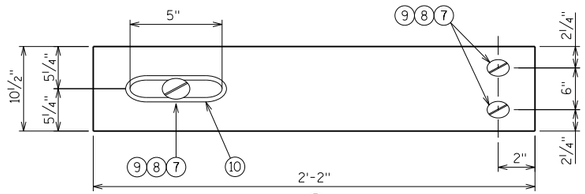
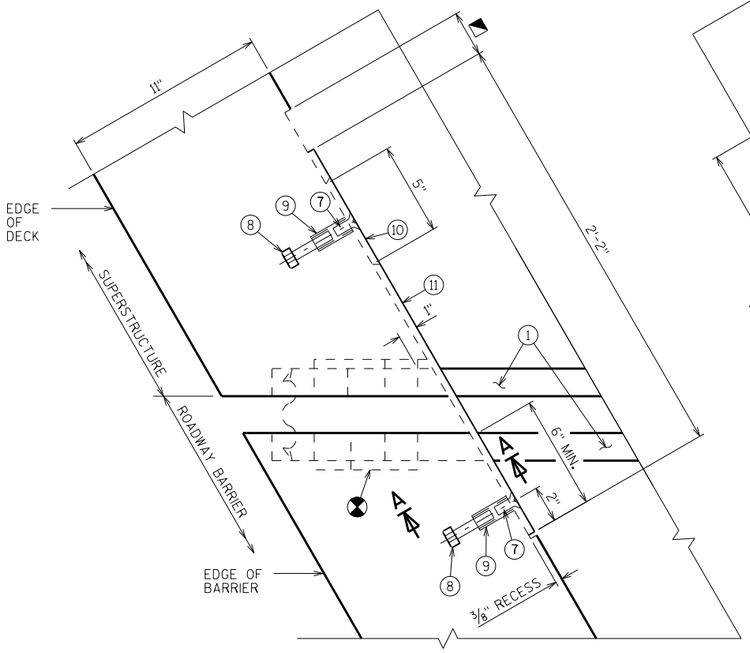
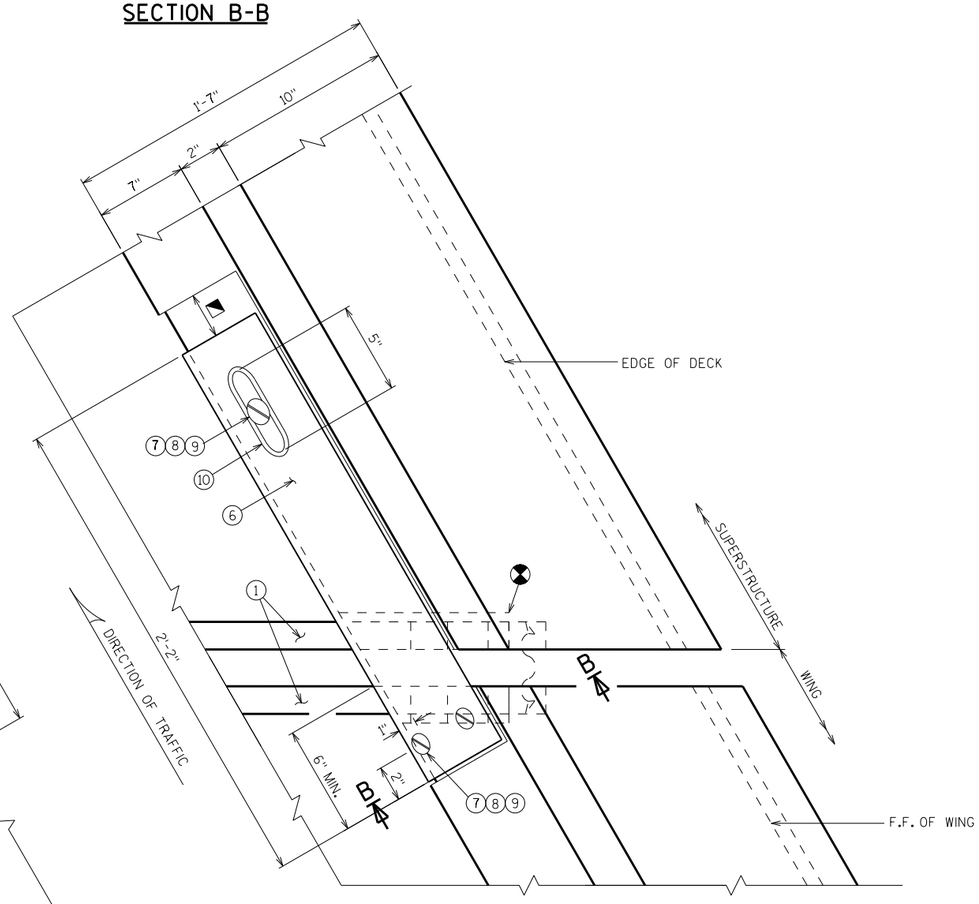


PLATE (11) DETAIL



STRAIGHT FACED PARAPET



PARAPET TYPE B

PLAN

NORTH ABUTMENT SHOWN
SOUTH ABUTMENT SIMILIAR

** DEPENDENT ON THE LOCATION ON THE 3" CONDUIT, FIELD WORKERS MIGHT NEED TO ROTATE OR BEND THE 45° BENT BOLT TO MAKE AN OPEN PATH FOR CONDUIT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-582

DRAWN BY JJS | PLANS CK'D. MJK

COVER PLATE DETAILS

SHEET 5

682

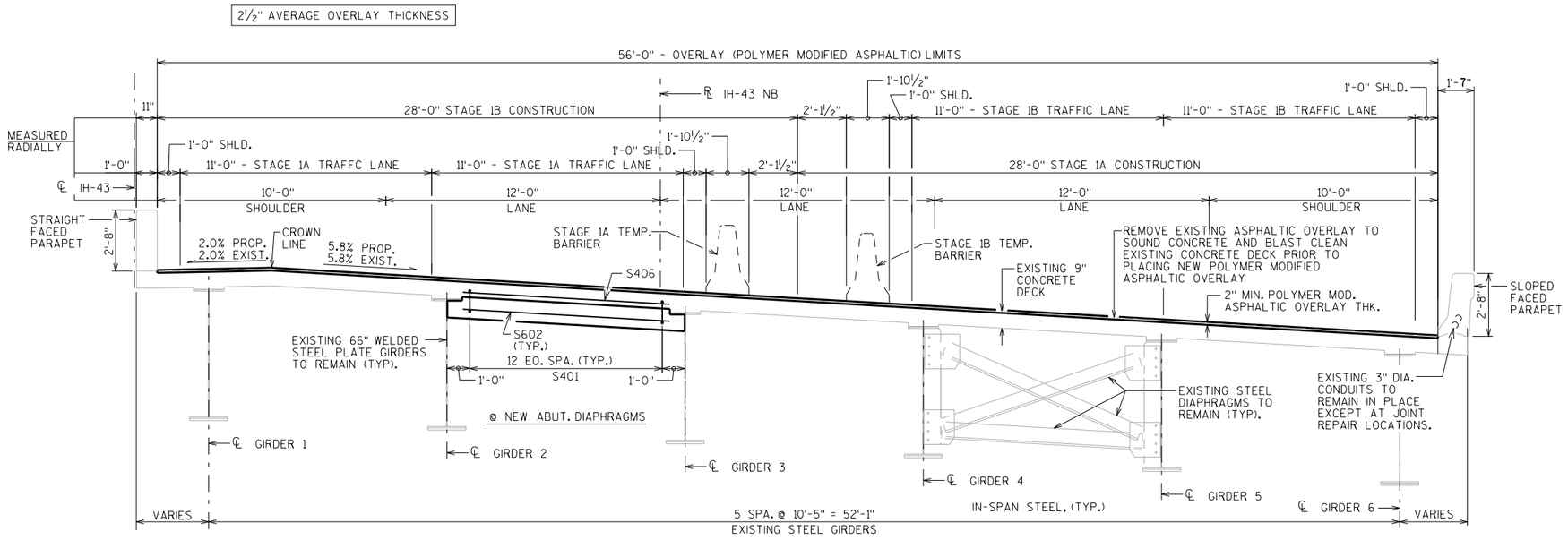
SCALE = 1.00

8

8

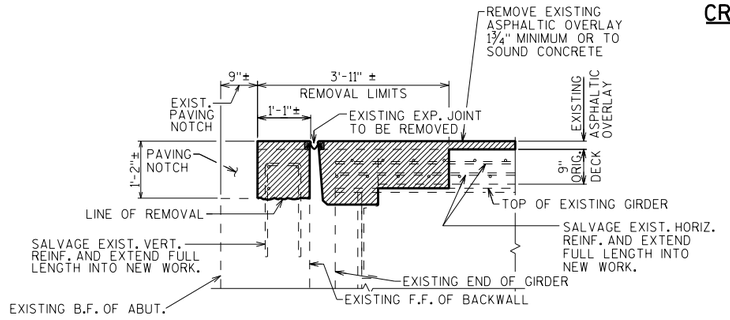
STATE PROJECT NUMBER

1228-22-72



CROSS SECTION THRU ROADWAY

LOOKING NORTH



EXISTING SECTION A-A

SHOWING REMOVAL
TYP. (BOTH ABUTMENTS)
NORMAL TO ℄ OF ABUTMENTS

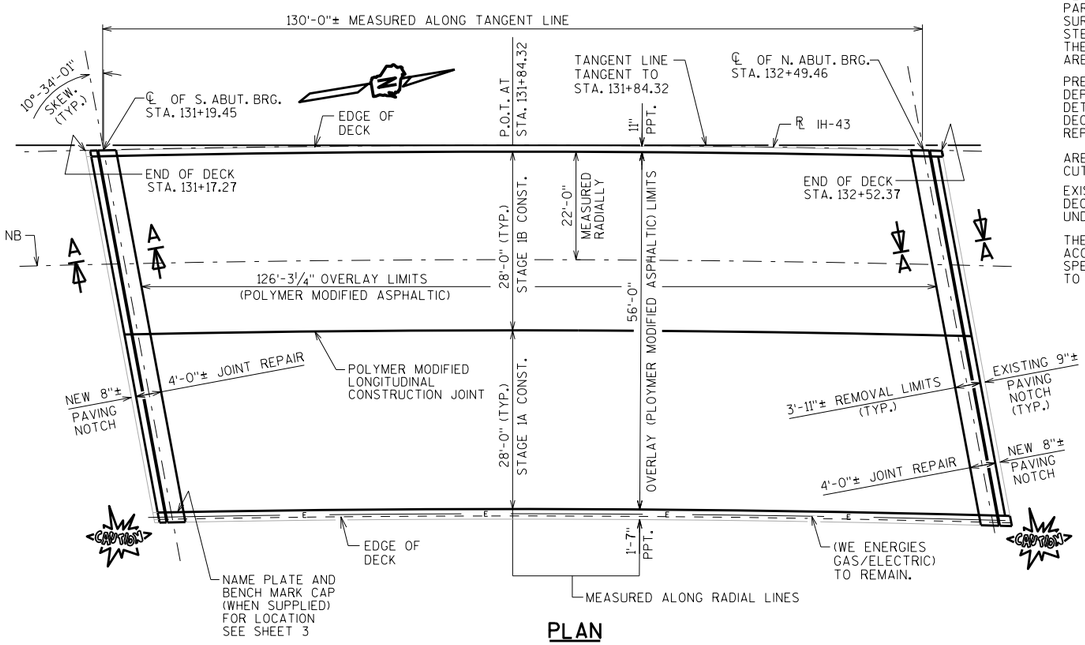
TOTAL ESTIMATED QUANTITIES (ALL ITEMS ARE CATEGORY 2050)

◭	502.0100	CONCRETE MASONRY BRIDGES	23	CY
	502.3101	EXPANSION DEVICE B-40-583	148	LF
	502.3200	PROTECTIVE SURFACE TREATMENT	51	SY
	502.3210	PIGMENTED SURFACE SEALER	7	SY
	502.4205	ADHESIVE ANCHORS NO. 5 BAR	130	EACH
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	4010	LB
	505.0905	BAR COUPLERS NO. 5	24	EACH
◐	509.0301	PREPARATION DECKS TYPE 1	9	SY
◐	509.0302	PREPARATION DECKS TYPE 2	2	SY
◐	509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	10	LF
	509.1000	JOINT REPAIR	54	SY
◐	509.1500	CONCRETE SURFACE REPAIR	17	SF
◐	509.2000	FULL-DEPTH DECK REPAIR	1	SY
◐☆	509.2100.S	CONCRETE MASONRY DECK REPAIR	1	CY
	509.3500.S	HMA OVERLAY POLYMER MODIFIED	109	TONS
	509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-40-583	786	SY
	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-40-583	1	LS
	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-583	1	LS
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	1	EACH
	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	18	LF
		NON BID ITEM BRIDGE SEAT PROTECTION		

☆ BID ITEM INCLUDES CONCRETE FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL DEPTH DECK REPAIR

◐ BID ITEM IS FOR INFORMATIONAL PURPOSES ONLY. ACTUAL QUANTITY MAY VARY AND IS TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

◭ BID ITEM INCLUDES CONCRETE FOR JOINT REPAIR



PLAN

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
12	131+81	TOP OF NORTH EAST FLANGE BOLT OF HYDRANT - OFFSET 480'RT.	639.96

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-21
OPERATING RATING: HS-42
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 200 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY DECK REPAIR —— f'c = 4,000 P.S.I.
CONCRETE MASONRY OTHER —— f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 —— fy = 60,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE JOINT REPAIR SURFACES.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE FRONT FACE AND TOP OF NEW PARAPETS AT JOINT REPAIR LOCATIONS. COLOR TO BE APPROVED BY ENGINEER.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF ALL ABUTMENTS AND BELOW EXPANSION DEVICES.

RE-PAINT ALL EXISTING EXPOSED SUPERSTRUCTURE STEEL - INCLUDING GIRDERS, DIAPHRAGMS AND HARDWARE THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BROWN (FEDERAL STANDARD COLOR NO. 20059) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ANY EXCAVATION NECESSARY TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "HMA OVERLAY POLYMER-MODIFIED".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON THE MINIMUM OVERLAY THICKNESS OF 2" PLACED ABOVE THE DECK SURFACE. EXPECTED AVERAGE OVERLAY THICKNESS IS 2½" IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

REMOVE ANY/ALL LOOSE CONCRETE AT ABUTMENTS AND PARAPETS UNDER THE BID ITEM "CONCRETE SURFACE REPAIR". SURFACES SHALL BE BLAST CLEANED AND ANY EXPOSED STEEL REINFORCEMENT SHALL BE BRUSHED CLEAN PRIOR TO THE CONCRETE SURFACE REPAIRS BEING COMPLETED. REPAIR AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL DEPTH DECK REPAIR AREAS, ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK REPAIR".

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

EXISTING ASPHALTIC OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK 1¾" OR TO SOUND CONCRETE, WHICHEVER IS GREATER. COVERED UNDER ITEM 509.9010.S.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1992.

LIST OF DRAWINGS

1. POLYMER MODIFIED ASPHALTIC OVERLAY
2. ABUTMENT DETAILS
3. PARAPET DETAILS
4. EXPANSION DEVICE
5. COVER PLATE DETAILS

STRUCTURE DESIGN CONTACTS:
JOHN SENDOR (608) 266-5163
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher, MBE — CHIEF STRUCTURES DESIGN ENGINEER — 7/31/19 DATE

STRUCTURE B-40-583

IH-43 NB OVER SILVER SPRING RD.

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	RATINGS	DRAWN BY	PLANS CK'D.
JJS			JJS	MJK

POLYMER MODIFIED ASPHALTIC OVERLAY

SHEET 1 OF 5

683

I.D. 1228-22-02F DATE: OCT. 2017

SCALE = 15.00

STATE PROJECT NUMBER

1228-22-72

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	130	4'-7"	X		ABUT. DIAPH. - VERT.
S602	X	50	9'-7"			ABUT. DIAPH. - HORIZ.
(S01) S503	X	18	29'-5"			JOINT REPAIR - HORIZ. - STAGE 1A
(S01) S504	X	18	29'-3"			JOINT REPAIR - HORIZ. - STAGE 1B
(A23) S505	X	114	3'-3"	X		BACKWALL/PAV. BLOCK - CONC. ADHESIVE ANCHORS - VERT.
S406	X	20	9'-7"			EXPANSION DEVICE - HORIZ. - BETWEEN GIRDERS
(A23) S507	X	4	3'-6"	X		EAST PARAPET - CONC. ADHESIVE ANCHORS - VERT.
(A23) S508	X	4	3'-6"			EAST PARAPET - CONC. ADHESIVE ANCHORS - VERT.
(A23) S509	X	8	4'-2"			WEST PARAPET - CONC. ADHESIVE ANCHORS - VERT.
S510	X	2	5'-0"	X		WEST PARAPET - VERT.

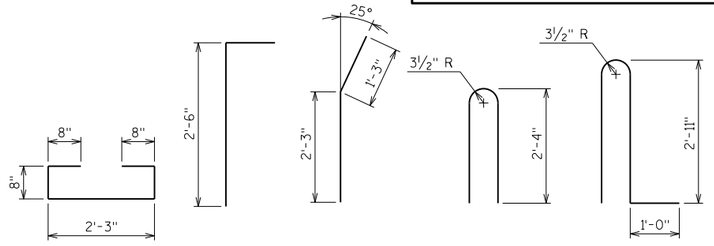
(A23) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" INTO EXISTING CONCRETE.

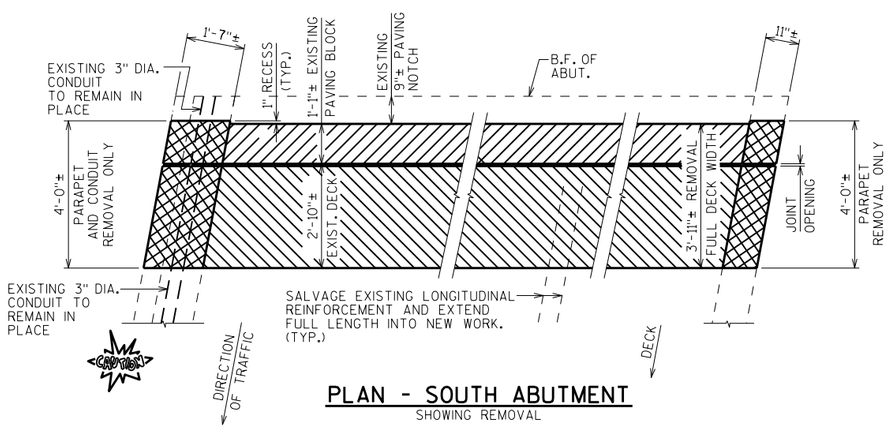
(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS RECOMMENDATIONS.

BILL OF BARS

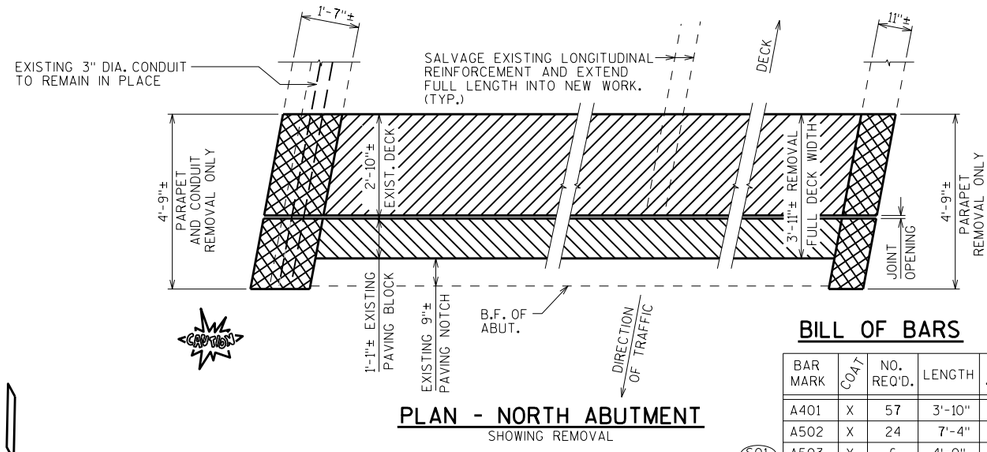
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S511	X	16	7'-1"	X		WEST PARAPET - VERT.
S512	X	12	2'-4"			WEST PARAPET - HORIZ.
S513	X	6	0'-10"			WEST PARAPET - HORIZ.
S514	X	6	1'-6"			WEST PARAPET - HORIZ.
S515	X	16	4'-3"	X		EAST PARAPET - VERT.
S516	X	18	4'-4"	X		EAST PARAPET - VERT.
S517	X	10	2'-4"			EAST PARAPET - HORIZ.
S518	X	5	0'-10"			EAST PARAPET - HORIZ.
S519	X	5	1'-6"			EAST PARAPET - HORIZ.
S420	X	20	9'-7"			EXPANSION DEVICE - HORIZ. - BETWEEN GIRDERS

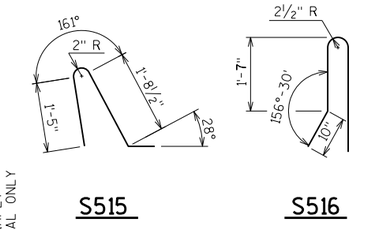




PLAN - SOUTH ABUTMENT
SHOWING REMOVAL



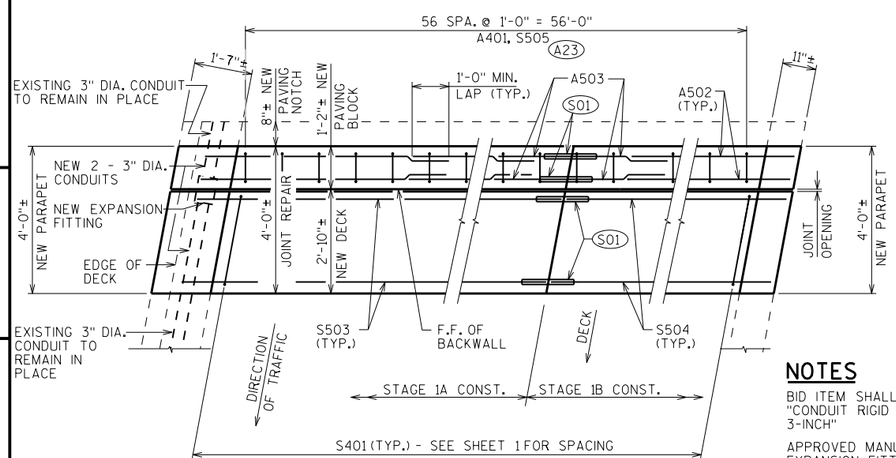
PLAN - NORTH ABUTMENT
SHOWING REMOVAL



BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A401	X	57	3'-10"	X		PAVING BLOCK - VERT. - S. ABUT.
A502	X	24	7'-4"			PAVING BLOCK - HORIZ. - S. ABUT.
(S01) A503	X	6	4'-0"			PAVING BLOCK - HORIZ. - S. ABUT.
B401	X	57	3'-10"	X		PAVING BLOCK - VERT. - N. ABUT.
B502	X	24	7'-4"			PAVING BLOCK - HORIZ. - N. ABUT.
(S01) B503	X	6	4'-0"			PAVING BLOCK - HORIZ. - N. ABUT.



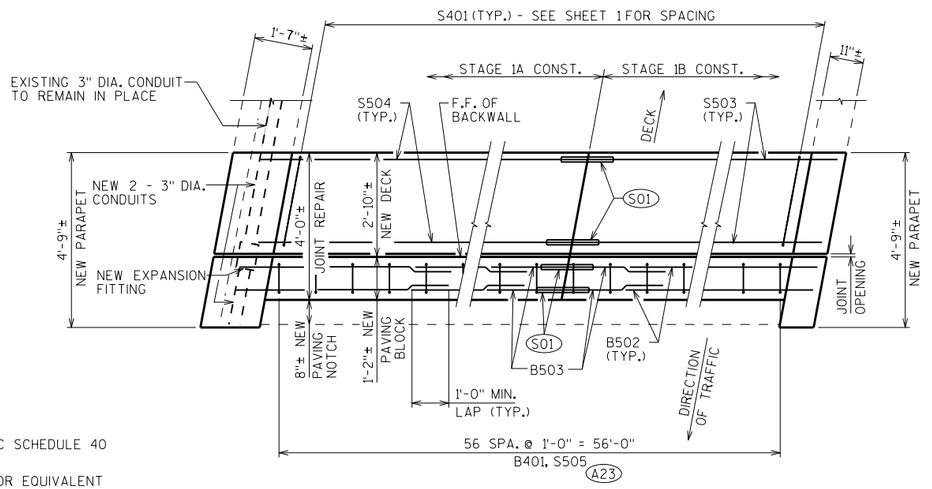
PLAN - SOUTH ABUTMENT
PARAPET BARS NOT SHOWN

NOTES

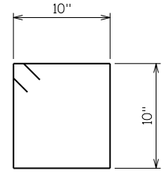
BID ITEM SHALL BE:
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH"

APPROVED MANUFACTURER OR EQUIVALENT EXPANSION FITTING: O-Z/GENDER TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH".



PLAN - NORTH ABUTMENT
PARAPET BARS NOT SHOWN



A401, B401

NOTE:
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-583

DRAWN BY JJS | PLANS CK'D. MJK

ABUTMENT DETAILS

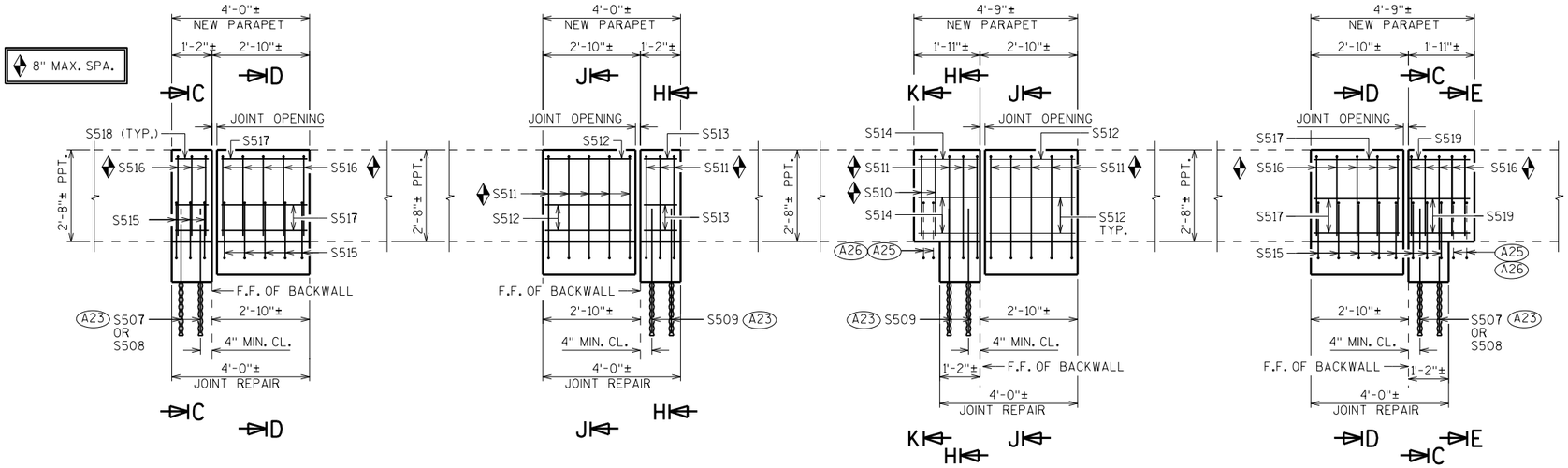
SHEET 2

684

SCALE = 4.00

STATE PROJECT NUMBER

1228-22-72



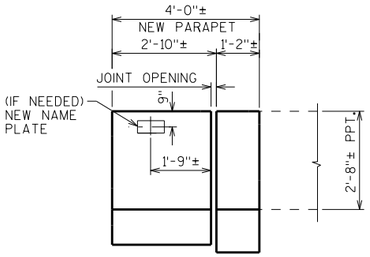
SECTION B-B
SOUTHEAST CORNER

SECTION G-G
SOUTHWEST CORNER

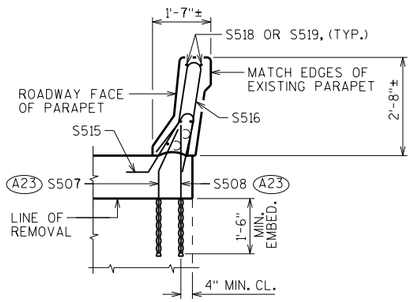
SECTION L-L
NORTHWEST CORNER

SECTION M-M
NORTHEAST CORNER

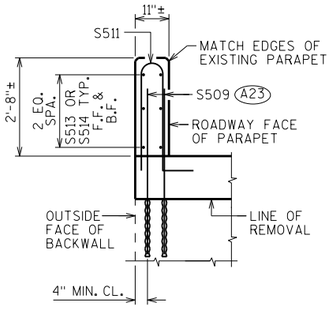
NOTE:
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.



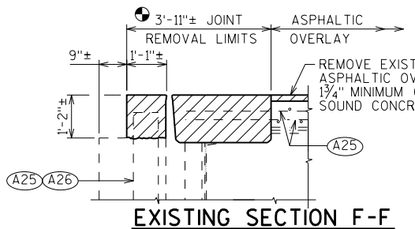
SECTION B-B
SOUTHEAST CORNER
(LOOKING AT ROADWAY FACE OF PARAPET)



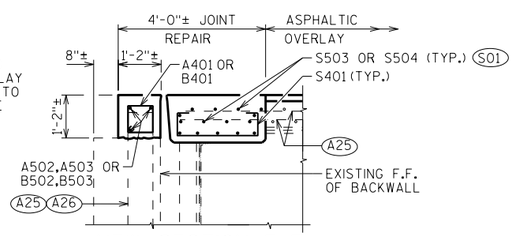
SECTION C-C



SECTION H-H



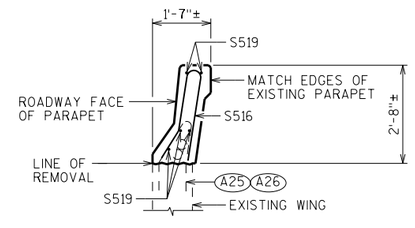
EXISTING SECTION F-F
SHOWING REMOVAL



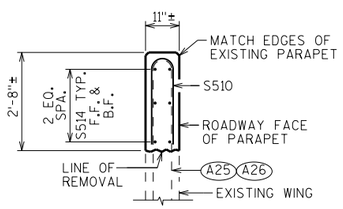
NEW SECTION F-F

SECTION D-D

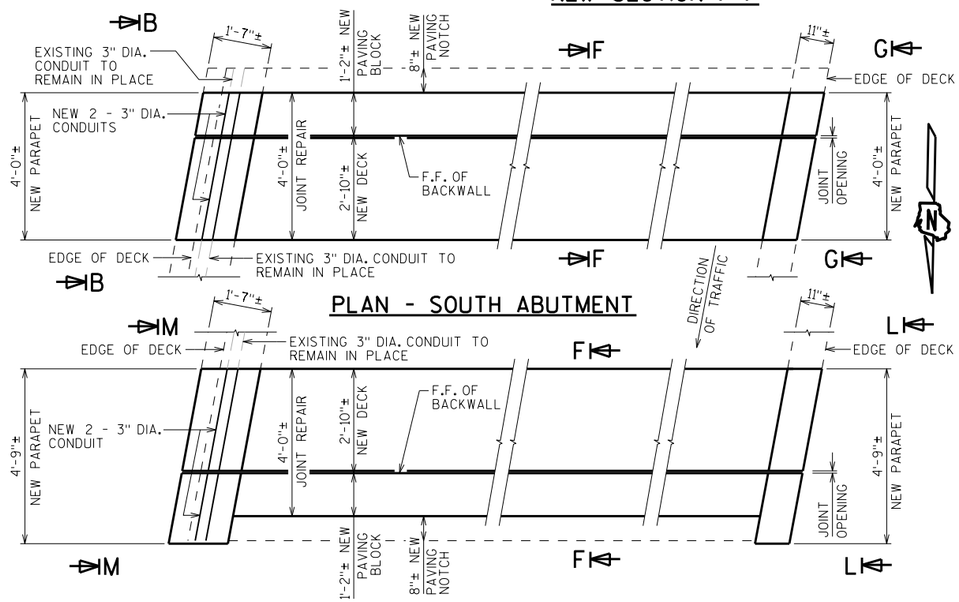
SECTION J-J



SECTION E-E



SECTION K-K



PLAN - NORTH ABUTMENT

SEE SHEET 2 FOR CORRESPONDING PARAPET REMOVAL LIMITS

(A23) ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" INTO EXIST. CONCRETE.

(A25) SALVAGE ANY EXIST. VERTICAL REINF. IF PRESENT & EXTEND FULL LENGTH INTO NEW WORK.

(A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH ADHESIVE ANCHORED NO. 5 L-SHAPED BARS WITH A 10" HORIZ. LEG. EMBED 1'-6". WORK TO BE PAID UNDER ITEM "JOINT REPAIR".

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS RECOMMENDATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-583

DRAWN BY JJS | PLANS CK'D. MJK

PARAPET DETAILS

SHEET 3

685

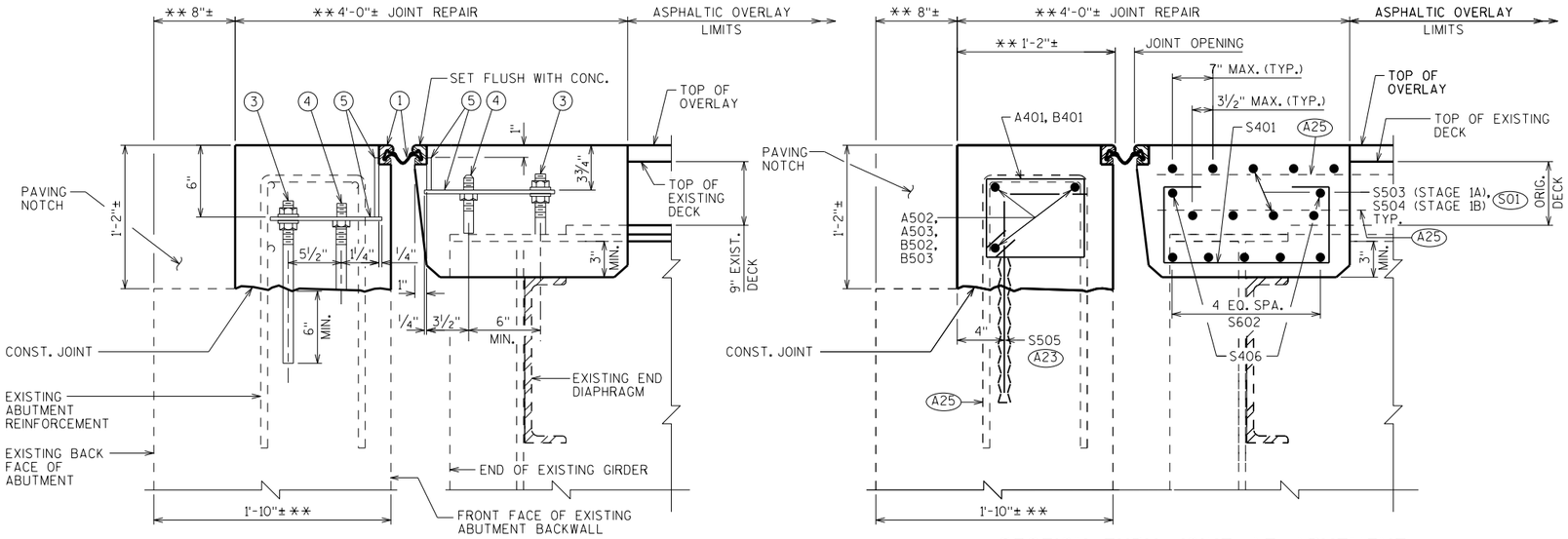
SCALE = 4.00

8

8

STATE PROJECT NUMBER

1228-22-72



SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)

SECTION THRU JOINT AT ABUTMENT

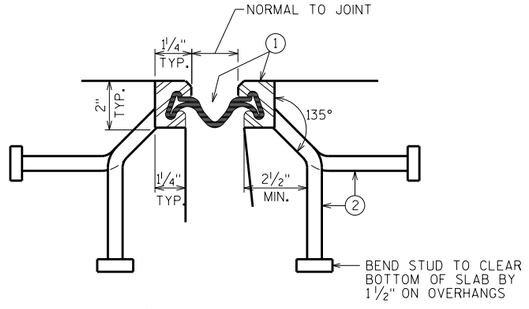
NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)

** DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE

(A23) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" INTO EXISTING CONCRETE.

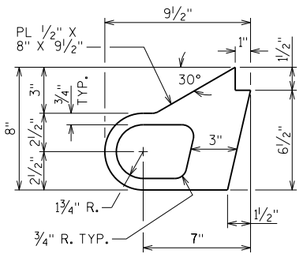
(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS RECOMMENDATIONS.

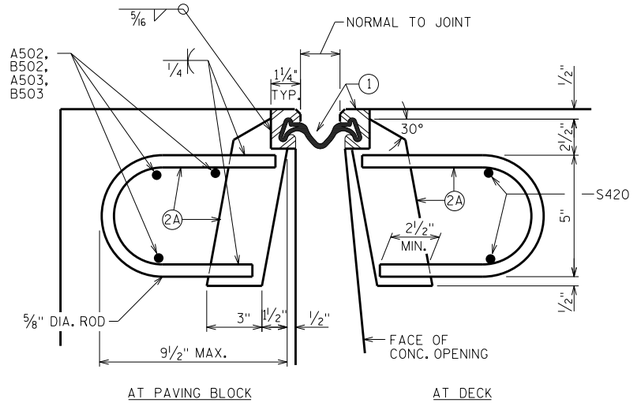


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AT PARAPETS

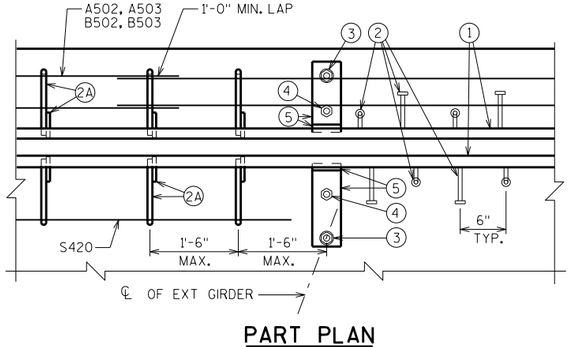


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.

(2) STUDS ⅝" DIA. X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 & 1" DIA. HOLE FOR NO. 4.

(6) GALVANIZED PLATE ⅜" X 1'-0" X 2'-2" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED CSK. HOLE FOR NO. 7. SLOT PARALLEL TO DIRECTION OF MOVEMENT.

(11) GALVANIZED PLATE ⅜" X 10½" X 2'-2" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-40-583".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-583

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EXPANSION DEVICE

SHEET 4

686

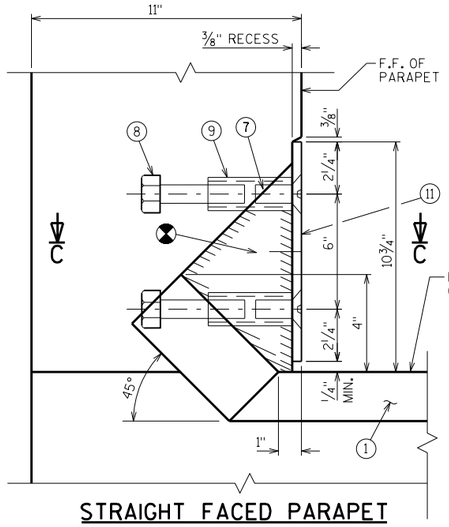
SCALE = 1.00

8

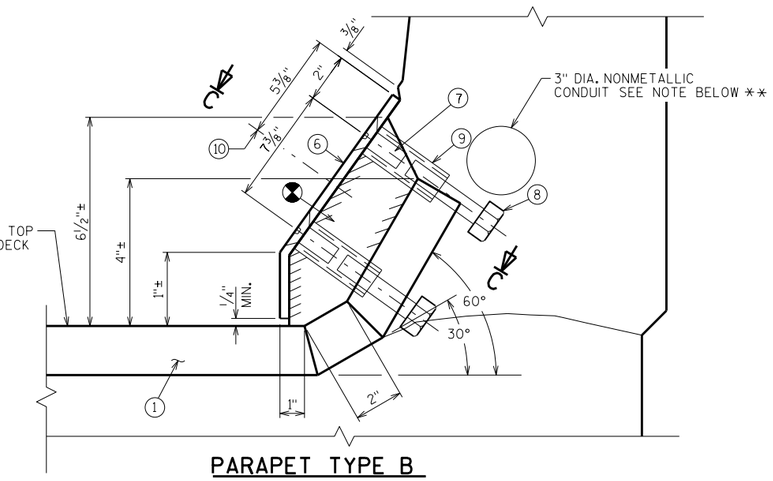
8

STATE PROJECT NUMBER

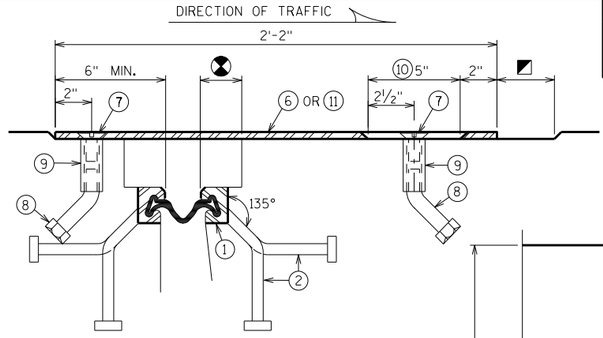
1228-22-72



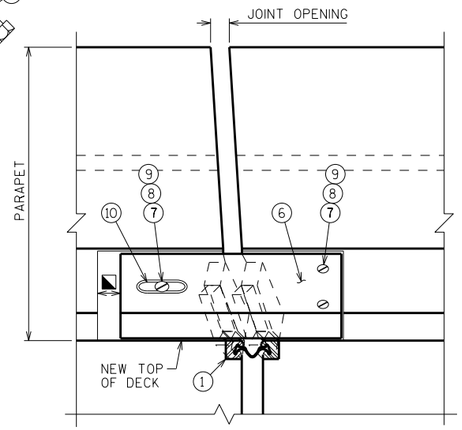
STRAIGHT FACED PARAPET
SECTION P-P



PARAPET TYPE B
SECTION R-R



SECTION C-C



VIEW OF PARAPET PLATE FROM ROADWAY
SLOPED FACED PARAPET SHOWN
STRAIGHT FACED PARAPET SIMILAR

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIM. ALONG SKEW PLUS 1/2".

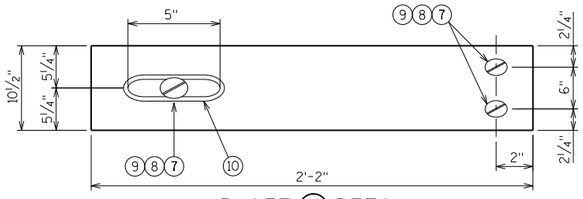
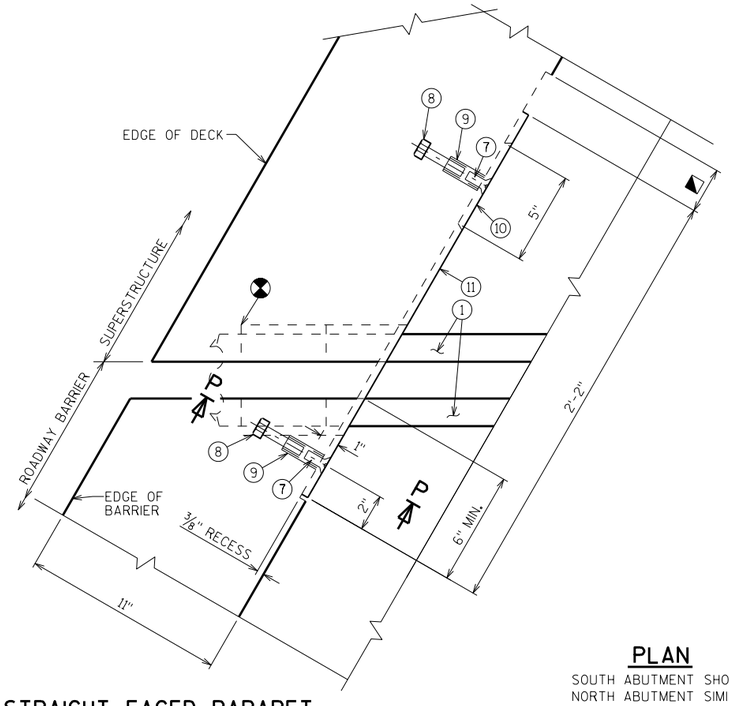
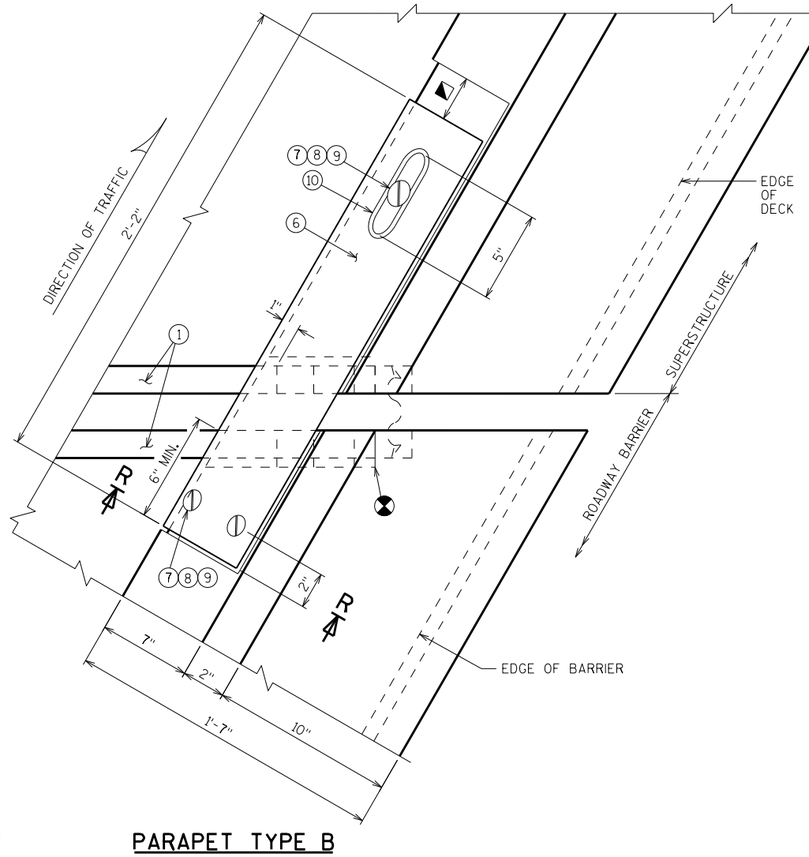


PLATE (11) DETAIL



STRAIGHT FACED PARAPET



PARAPET TYPE B

PLAN
SOUTH ABUTMENT SHOWN
NORTH ABUTMENT SIMILAR

** DEPENDENT ON THE LOCATION ON THE 3" CONDUIT, FIELD WORKERS MIGHT NEED TO ROTATE OR BEND THE 45° BENT BOLT TO MAKE AN OPEN PATH FOR CONDUIT.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-583

DRAWN BY JJS | PLANS CK'D. MJK

COVER PLATE DETAILS

SHEET 5

687

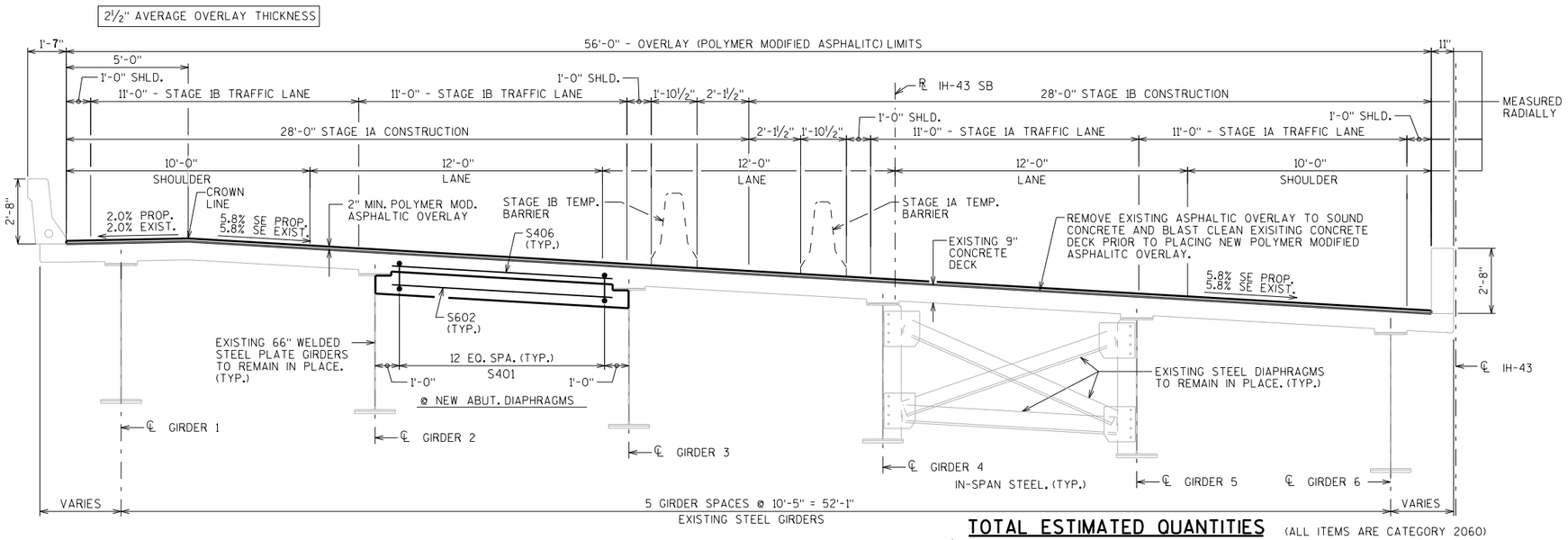
SCALE = 1.00

8

8

STATE PROJECT NUMBER

1228-22-72



CROSS SECTION THRU ROADWAY

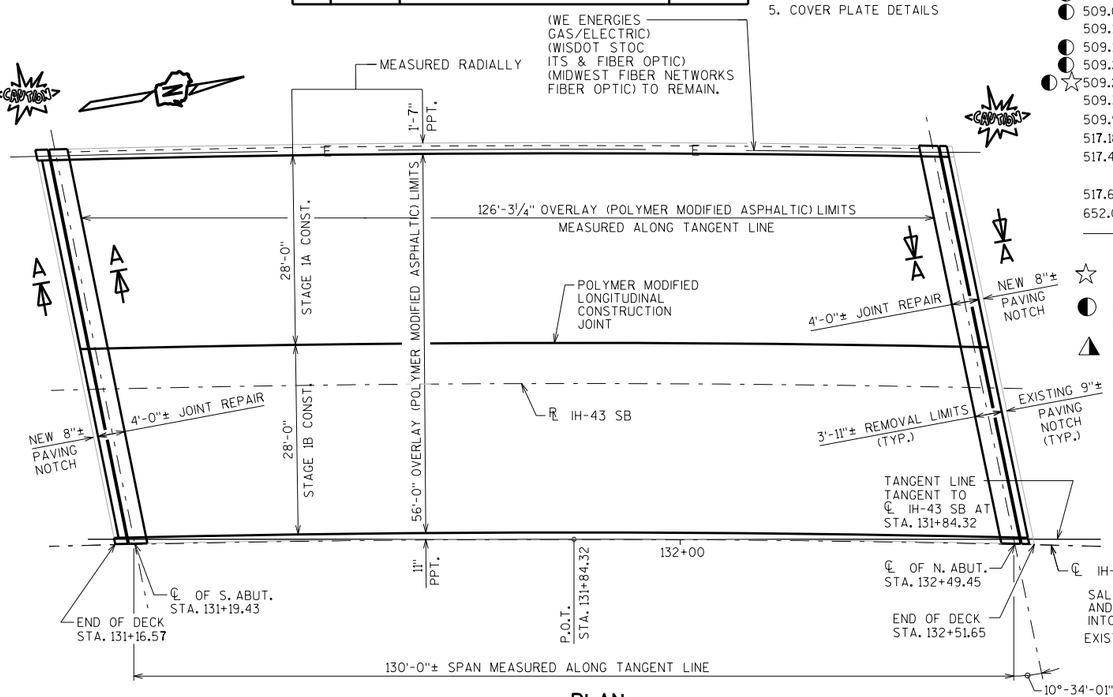
LOOKING NORTH

BENCH MARK

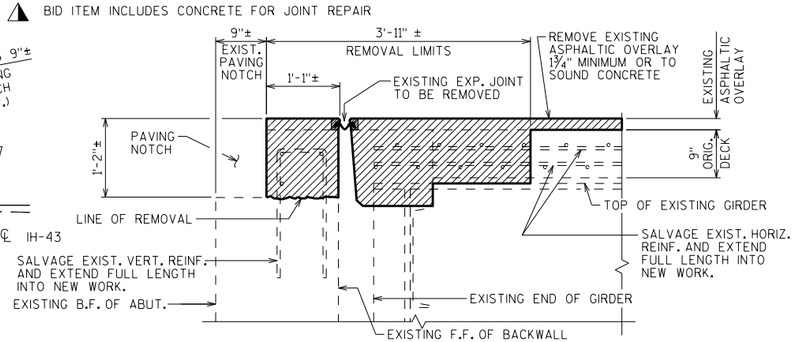
NO.	STATION	DESCRIPTION	ELEV.
12	131+81	TOP OF NORTH EAST FLANGE BOLT OF HYDRANT - OFFSET 480'RT.	639.96

LIST OF DRAWINGS

1. POLYMER MODIFIED ASPHALTIC OVERLAY
2. ABUTMENT DETAILS
3. PARAPET DETAILS
4. EXPANSION DEVICE
5. COVER PLATE DETAILS



PLAN



EXISTING SECTION A-A

SHOWING REMOVAL
TYP. (BOTH ABUTMENTS)
NORMAL TO ℄ OF ABUTMENTS

TOTAL ESTIMATED QUANTITIES

(ALL ITEMS ARE CATEGORY 2060)

◭	502.0100	CONCRETE MASONRY BRIDGES	22	CY
	502.3101	EXPANSION DEVICE B-40-584	114	LF
	502.3200	PROTECTIVE SURFACE TREATMENT	51	SY
	502.3210	PIGMENTED SURFACE SEALER	7	SY
	502.4205	ADHESIVE ANCHORS NO. 5 BAR	130	EACH
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	4010	LB
	505.0905	BAR COUPLERS NO. 5	24	EACH
◐	509.0301	PREPARATION DECKS TYPE 1	10	SY
◐	509.0302	PREPARATION DECKS TYPE 2	4	SY
◐	509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	10	LF
	509.1000	JOINT REPAIR	54	SY
◐	509.1500	CONCRETE SURFACE REPAIR	15	SF
◐	509.2000	FULL-DEPTH DECK REPAIR	1	SY
◐ ☆	509.2100.S	CONCRETE MASONRY DECK REPAIR	1	CY
	509.3500.S	HMA OVERLAY POLYMER-MODIFIED	109	TONS
	509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-40-584	785	SY
	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-40-584	1	LS
	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-584	1	LS
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	1	EACH
	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	9	LF
	———	NON BID ITEM BRIDGE SEAT PROTECTION		

☆ BID ITEM INCLUDES CONCRETE FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL DEPTH DECK REPAIR

◐ BID ITEM IS FOR INFORMATIONAL PURPOSES ONLY. ACTUAL QUANTITY MAY VARY AND IS TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

◭ BID ITEM INCLUDES CONCRETE FOR JOINT REPAIR

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-21
OPERATING RATING: HS-42
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 200 KIPS.

MATERIAL PROPERTIES:

CONCRETE MASONRY - DECK REPAIR ——— f'c = 4,000 P.S.I.
CONCRETE MASONRY - OTHER ——— f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 ——— fy = 60,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE JOINT REPAIR SURFACE.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE FRONT FACE AND TOP OF NEW PARAPETS AT JOINT REPAIR LOCATIONS. COLOR TO BE APPROVED BY ENGINEER.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF ALL ABUTMENTS AND BELOW EXPANSION DEVICES.

RE-PAINT ALL EXISTING EXPOSED SUPERSTRUCTURE STEEL - INCLUDING GIRDERS, DIAPHRAGMS AND HARDWARE THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BROWN (FEDERAL STANDARD COLOR NO. 20059) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ANY EXCAVATION NECESSARY TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "HMA OVERLAY POLYMER-MODIFIED".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2" PLACED ABOVE THE DECK SURFACE. EXPECTED AVERAGE OVERLAY THICKNESS IS 2½". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

REMOVE ANY/ALL LOOSE CONCRETE AT ABUTMENTS AND PARAPETS UNDER THE BID ITEM "CONCRETE SURFACE REPAIR". SURFACES SHALL BE BLAST CLEANED AND ANY EXPOSED STEEL REINFORCEMENT SHALL BE BRUSHED CLEAN PRIOR TO THE CONCRETE SURFACE REPAIRS BEING COMPLETED. REPAIR AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK REPAIR".

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

EXISTING ASPHALTIC OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK-1 ¾" OR TO SOUND CONCRETE, WHICHEVER IS GREATER. COVERED UNDER ITEM 509.9010.S.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE (IF DAMAGED IN REMOVAL OF PARAPET) IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1992.

STRUCTURE DESIGN CONTACTS:

JOHN SENDOR (608) 266-5163
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher 7/31/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-40-584

IH-43 SB OVER SILVER SPRING RD.

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	RATINGS	DRAWN BY	PLANS CK'D.
JJS			JJS	MJK

POLYMER MODIFIED ASPHALTIC OVERLAY

SHEET 1 OF 5

688

I.D. 1228-22-02G DATE: OCT. 2017

SCALE = 10.88

STATE PROJECT NUMBER

1228-22-72

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	130	4'-7"	X		ABUT. DIAPH. - VERT.
S602	X	50	9'-7"			ABUT. DIAPH. - HORIZ.
(S01) S503	X	18	29'-3"			JOINT REPAIR - HORIZ. - STAGE 1B
(S01) S504	X	18	29'-5"			JOINT REPAIR - HORIZ. - STAGE 1A
(A23) S505	X	114	3'-3"	X		BACKWALL/PAV. BLOCK - CONC. ADHESIVE ANCHORS - VERT.
S406	X	20	9'-7"			EXPANSION DEVICE - HORIZ. - BETWEEN GIRDERS
(A23) S507	X	4	3'-6"	X		WEST PARAPET - CONC. ADHESIVE ANCHORS - VERT.
(A23) S508	X	4	3'-6"			WEST PARAPET - CONC. ADHESIVE ANCHORS - VERT.
(A23) S509	X	8	4'-2"			EAST PARAPET - CONC. ADHESIVE ANCHORS - VERT.
S510	X	2	5'-0"	X		EAST PARAPET - VERT.

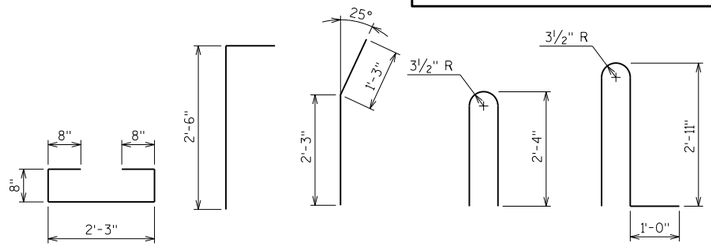
BILL OF BARS

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

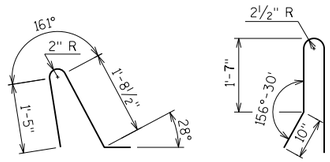
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S511	X	16	7'-1"	X		EAST PARAPET - VERT.
S512	X	12	2'-4"			EAST PARAPET - HORIZ.
S513	X	6	0'-10"			EAST PARAPET - HORIZ.
S514	X	6	1'-6"			EAST PARAPET - HORIZ.
S515	X	16	4'-3"	X		WEST PARAPET - VERT.
S516	X	18	4'-4"	X		WEST PARAPET - VERT.
S517	X	10	2'-4"			WEST PARAPET - HORIZ.
S518	X	5	0'-10"			WEST PARAPET - HORIZ.
S519	X	5	1'-6"			WEST PARAPET - HORIZ.
S420	X	20	9'-7"			EXPANSION DEVICE - HORIZ. - BETWEEN GIRDERS

(A23) ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" INTO EXISTING CONCRETE.

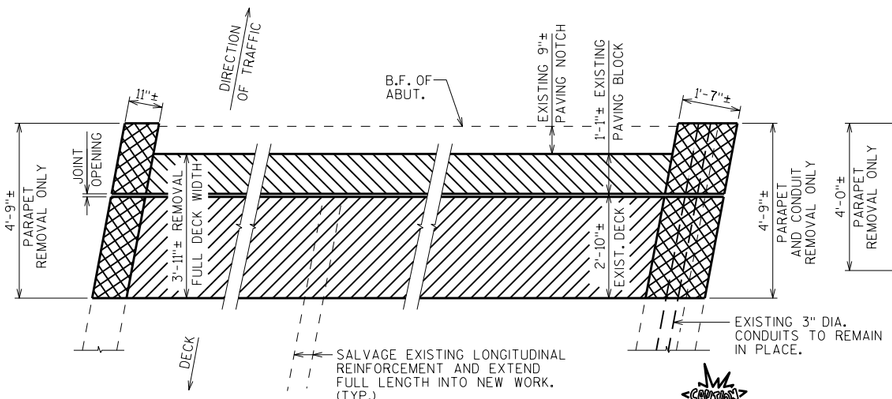
(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT AND SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS RECOMMENDATIONS.



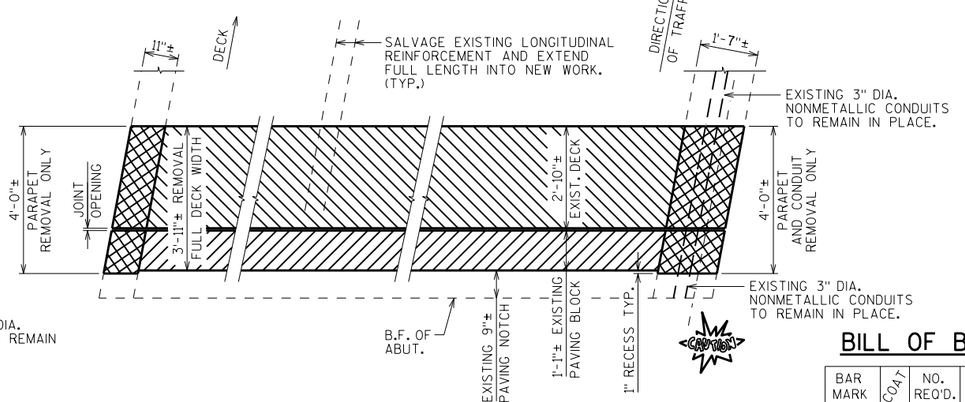
S401 S505 S507 S510 S511



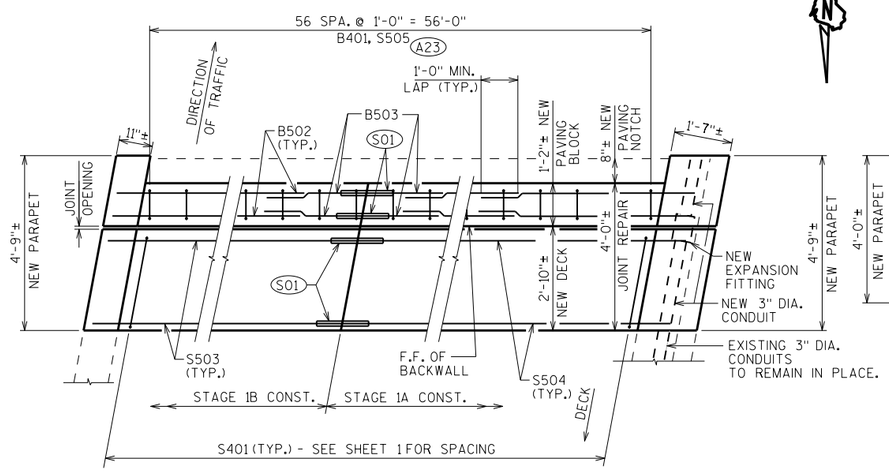
S515 S516



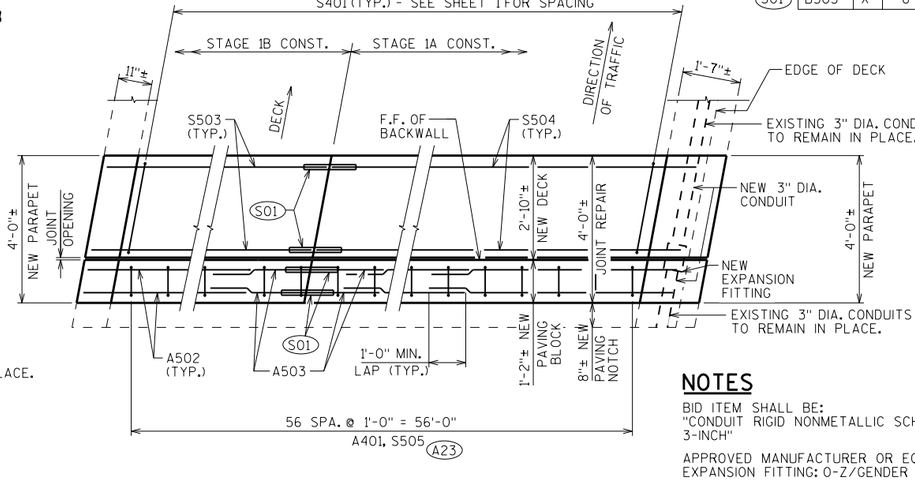
PLAN - SOUTH ABUTMENT
SHOWING REMOVAL



PLAN - NORTH ABUTMENT
SHOWING REMOVAL



PLAN - SOUTH ABUTMENT
PARAPET BARS NOT SHOWN

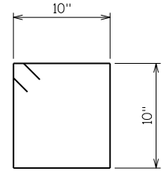


PLAN - NORTH ABUTMENT
PARAPET BARS NOT SHOWN

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A401	X	57	3'-10"	X		PAVING BLOCK - VERT. - N. ABUT.
A502	X	24	7'-5"			PAVING BLOCK - HORIZ. - N. ABUT.
(S01) A503	X	6	4'-0"			PAVING BLOCK - HORIZ. - N. ABUT.
B401	X	57	3'-10"	X		PAVING BLOCK - VERT. - S. ABUT.
B502	X	24	7'-5"			PAVING BLOCK - HORIZ. - S. ABUT.
(S01) B503	X	6	4'-0"			PAVING BLOCK - HORIZ. - S. ABUT.



A401, B401

NOTE:
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

NOTES

BID ITEM SHALL BE:
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH"

APPROVED MANUFACTURER OR EQUIVALENT EXPANSION FITTING: O-Z/GENDER TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-584

DRAWN BY JJS | PLANS CK'D. MJK

ABUTMENT DETAILS

SHEET 2

689

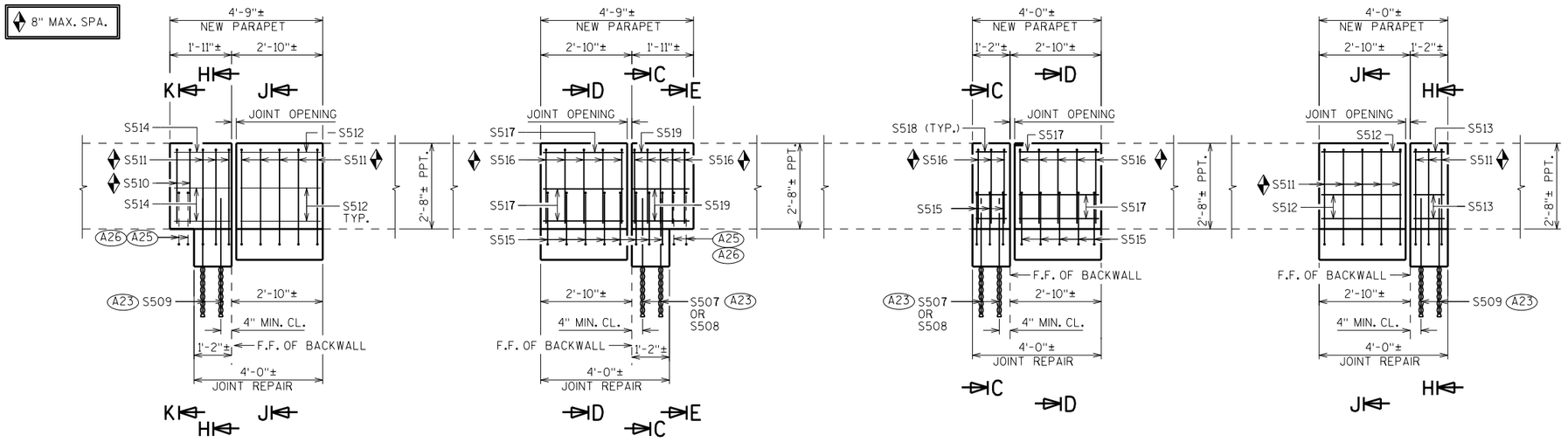
SCALE = 4.00

8

8

STATE PROJECT NUMBER

1228-22-72

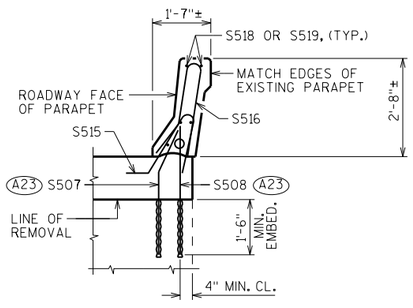


SECTION B-B
SOUTHEAST CORNER

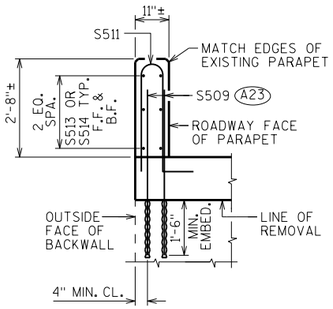
SECTION G-G
SOUTHWEST CORNER

SECTION L-L
NORTHWEST CORNER

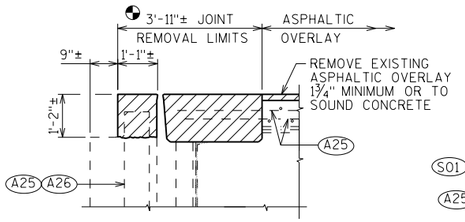
SECTION M-M
NORTHEAST CORNER



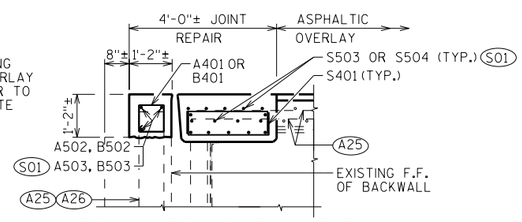
SECTION C-C



SECTION H-H



EXISTING SECTION F-F
SHOWING REMOVAL
TYP. (BOTH ABUTMENTS)

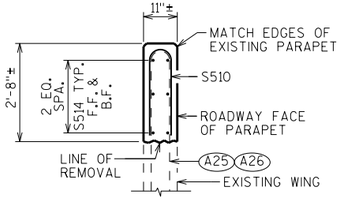


PROPOSED SECTION F-F
SHOWING PROPOSED
TYP. (BOTH ABUTMENTS)

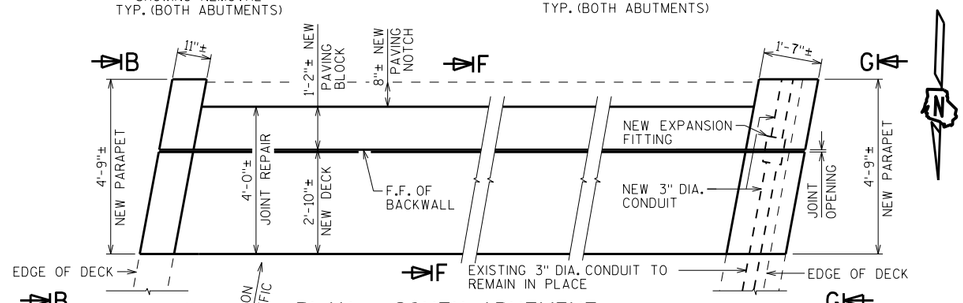
SECTION E-E

SECTION D-D

SECTION J-J



SECTION K-K



PLAN - SOUTH ABUTMENT

PLAN - NORTH ABUTMENT

NOTE:
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

SEE SHEET 2 FOR CORRESPONDING PARAPET REMOVAL LIMITS

(A23) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" INTO EXISTING CONCRETE.

(A25) SALVAGE ANY VERT. EXIST. REINF. IF PRESENT & EXTEND FULL LENGTH INTO NEW WORK.

(A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH ADHESIVE ANCHORED NO. 5 L-SHAPED BARS WITH A 10" HORIZ. LEG. EMBED 1'-6". WORK TO BE PAID UNDER ITEM "JOINT REPAIR".

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS RECOMMENDATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-584

DRAWN BY JJS | PLANS CK'D. MJK

PARAPET DETAILS

SHEET 3

690

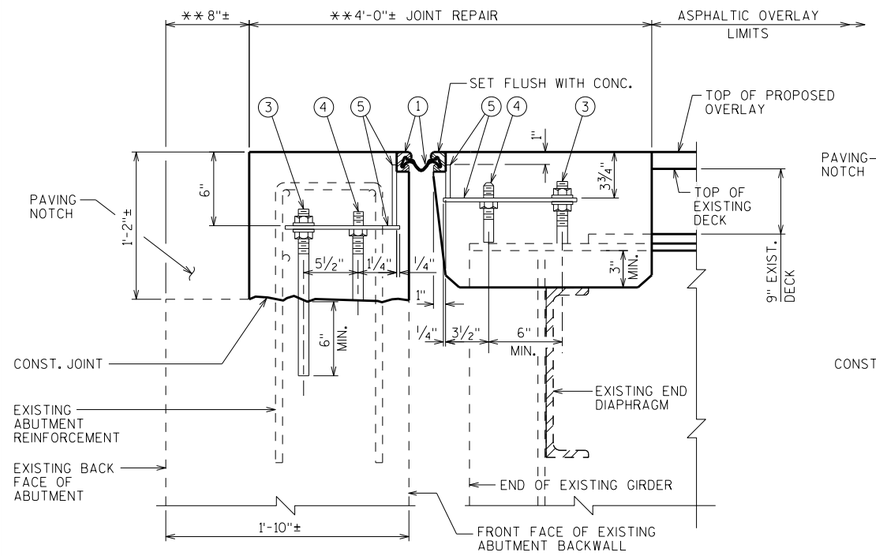
SCALE = 4.00

8

8

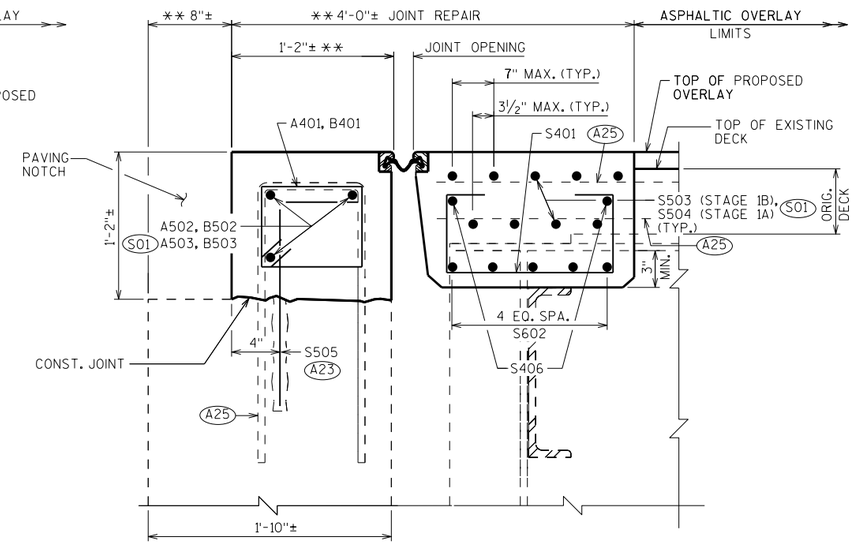
STATE PROJECT NUMBER

1228-22-72



SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)



SECTION THRU JOINT AT ABUTMENT

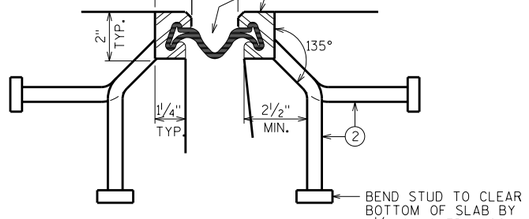
NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)

** DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE

(A23) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" INTO EXIST. CONCRETE.

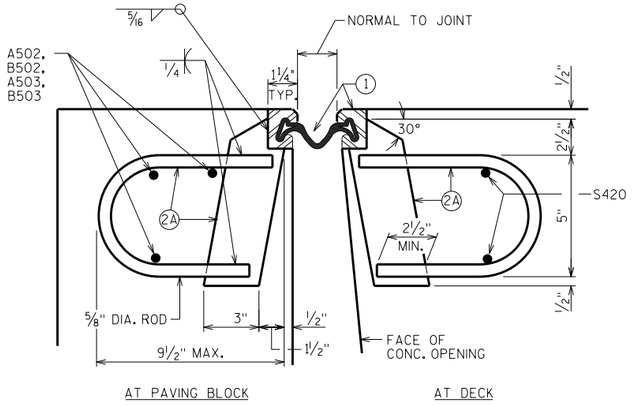
(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS RECOMMENDATIONS.



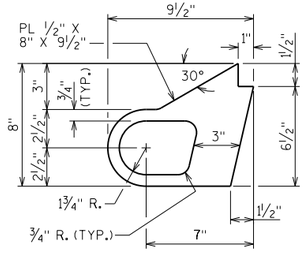
SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AT PARAPETS

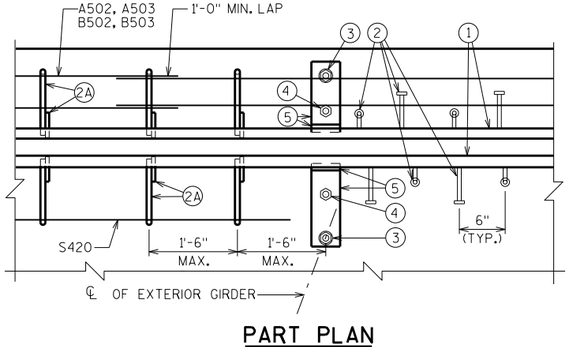


SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



ALTERNATE STRIP SEAL ANCHOR



PART PLAN

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.

(2) STUDS ⅝" DIA. X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 & 1" DIA. HOLE FOR NO. 4.

(6) GALVANIZED PLATE ⅜" X 1'-0" X 2'-2" WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

(11) GALVANIZED PLATE ⅜" X 10½" X 2'-2" WITH HOLES FOR NO. 7. BEND AS SHOWN.

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-40-584".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-584

DRAWN BY JJS | PLANS CK'D. MJK

EXPANSION DEVICE

SHEET 4

691

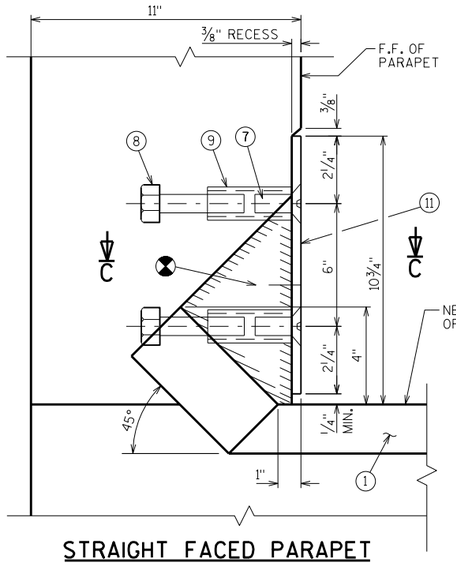
8

8

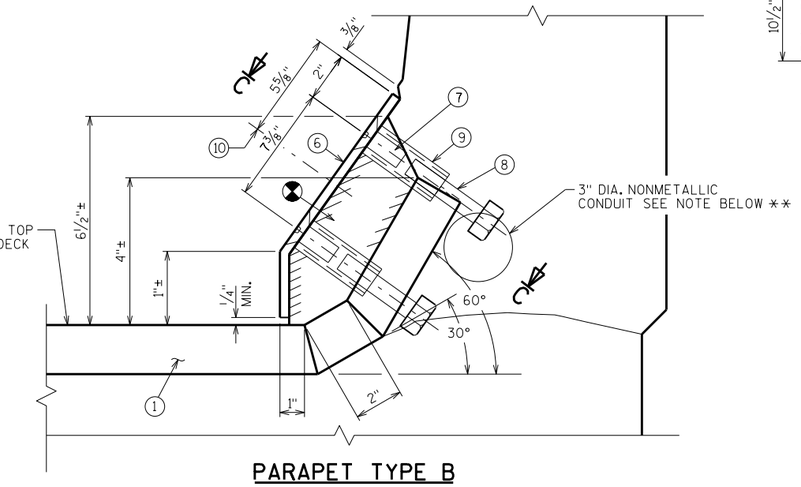
SCALE = 1.00

STATE PROJECT NUMBER

1228-22-72



STRAIGHT FACED PARAPET
SECTION A-A



PARAPET TYPE B
SECTION B-B

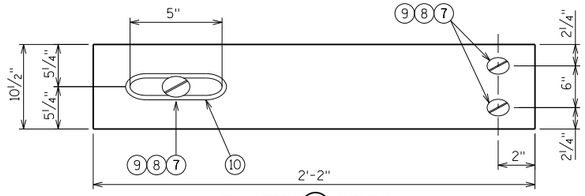
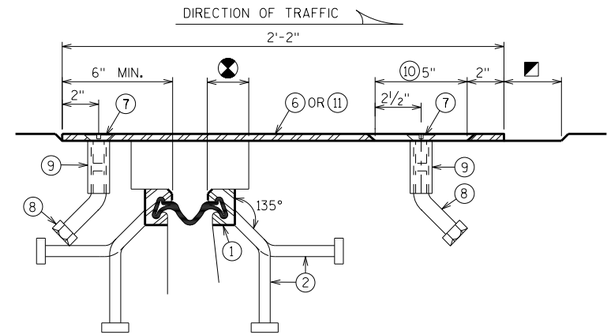
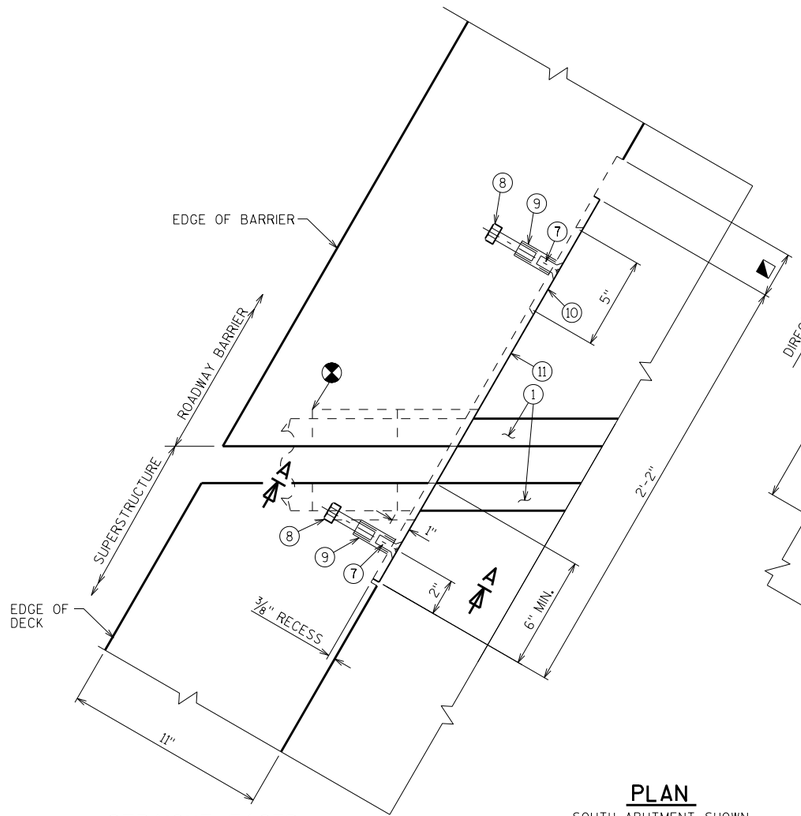


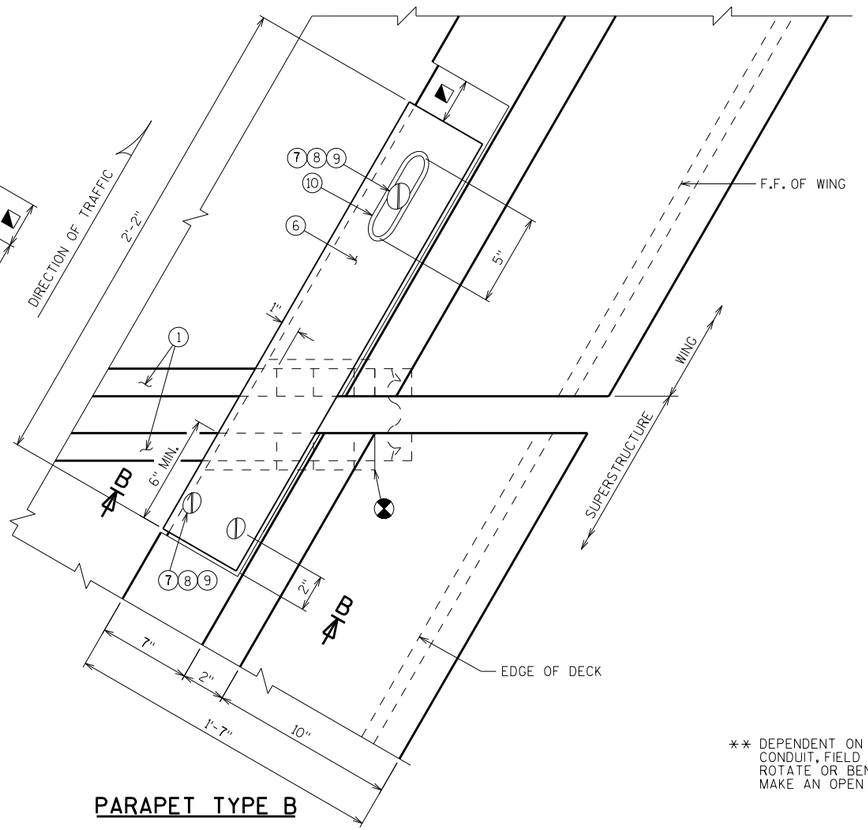
PLATE (11) DETAIL



SECTION C-C



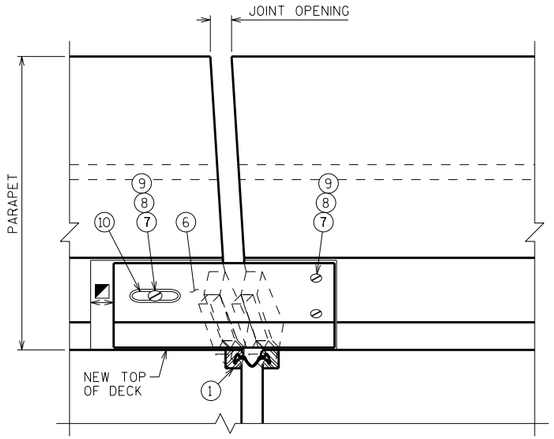
STRAIGHT FACED PARAPET



PARAPET TYPE B

PLAN
SOUTH ABUTMENT SHOWN
NORTH ABUTMENT SIMILAR

** DEPENDENT ON THE LOCATION ON THE 3" CONDUIT, FIELD WORKERS MIGHT NEED TO ROTATE OR BEND THE 45° BENT BOLT TO MAKE AN OPEN PATH FOR CONDUIT.



VIEW OF PARAPET PLATE FROM ROADWAY
SLOPED FACED PARAPET SHOWN
STRAIGHT FACED PARAPET SIMILAR

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIM. ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-584

DRAWN BY JJS | PLANS CK'D. MJK

COVER PLATE DETAILS

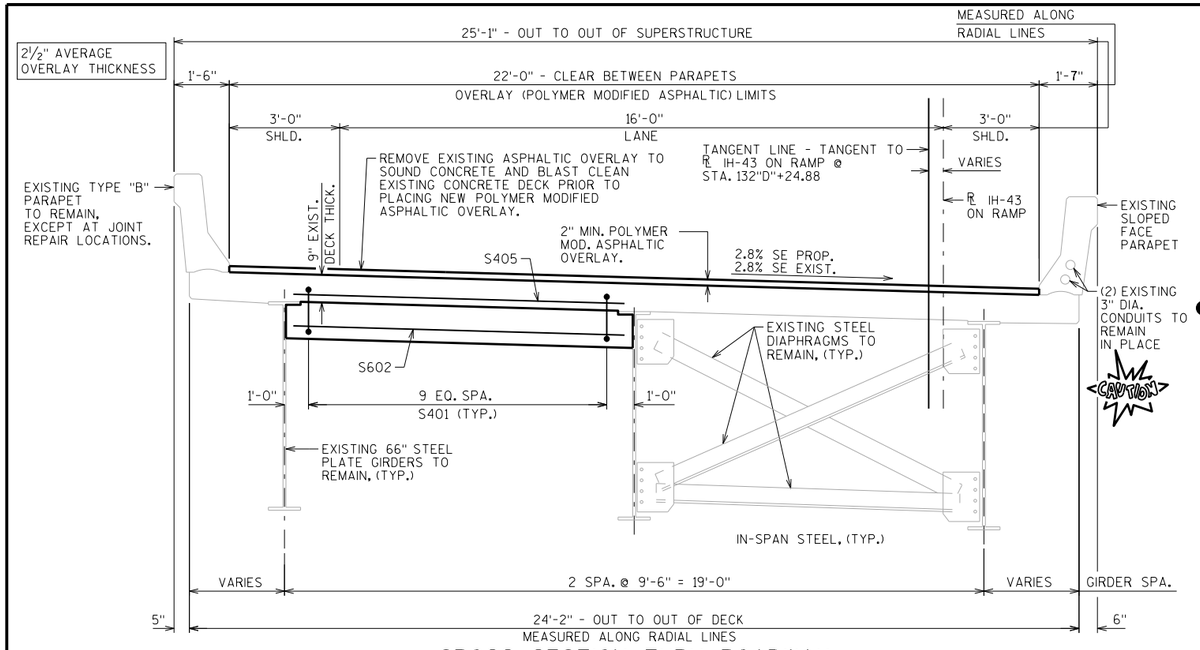
SHEET 5

692

SCALE = 1.00

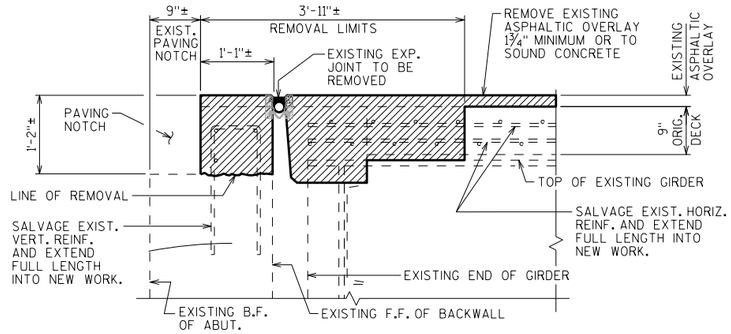
8

8



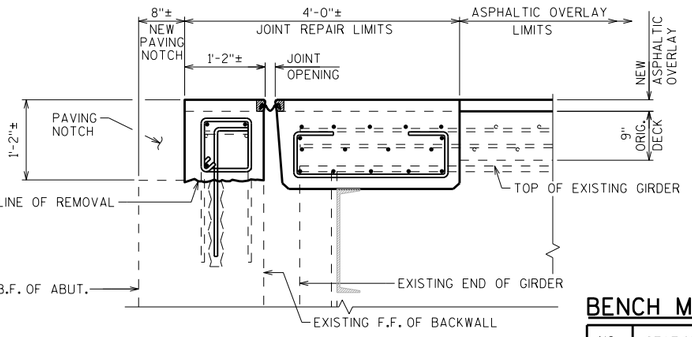
CROSS SECTION THRU ROADWAY

(LOOKING NORTH)



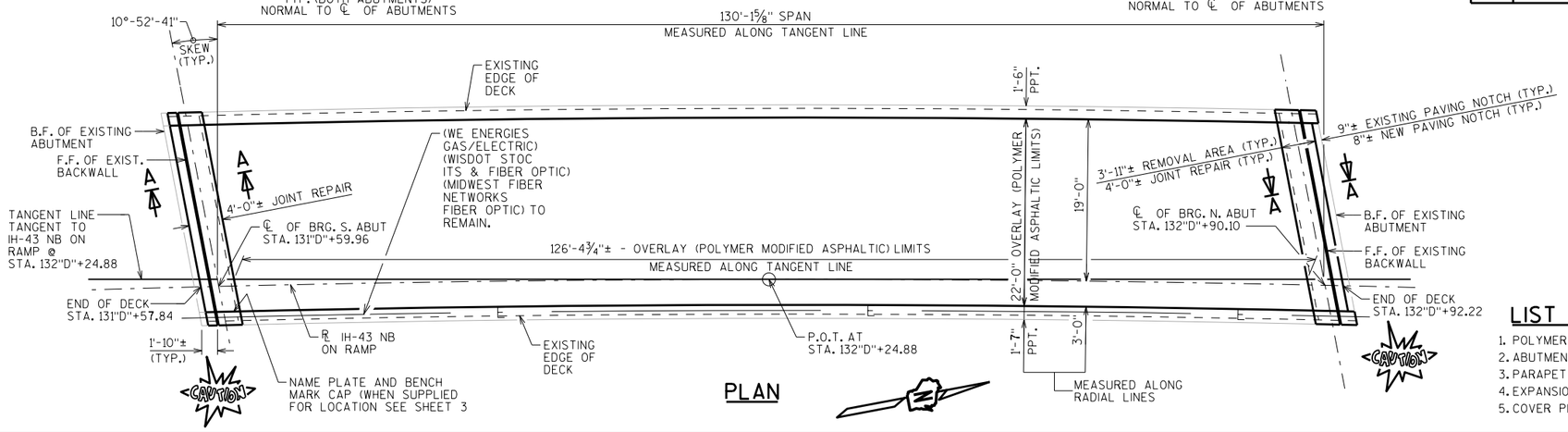
EXISTING SECTION A-A

SHOWING REMOVAL TYP. (BOTH ABUTMENTS) NORMAL TO ℄ OF ABUTMENTS



NEW SECTION A-A

TYP. (BOTH ABUTMENTS) NORMAL TO ℄ OF ABUTMENTS



PLAN

TOTAL ESTIMATED QUANTITIES

			(ALL ITEMS ARE CATEGORY 2070)	
◭	502.0100	CONCRETE MASONRY BRIDGES	11	CY
	502.3101	EXPANSION DEVICE B-40-585	45	LF
	502.3200	PROTECTIVE SURFACE TREATMENT	20	SY
	502.3210	PIGMENTED SURFACE SEALER	8	SY
	502.4205	ADHESIVE ANCHORS NO. 5 BAR	66	EACH
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	1800	LB
◐	509.0301	PREPARATION DECKS TYPE 1	10	SY
◐	509.0302	PREPARATION DECKS TYPE 2	4	SY
◐	509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	10	LF
	509.1000	JOINT REPAIR	23	SY
◐	509.1500	CONCRETE SURFACE REPAIR	12	SF
◐	509.2000	FULL-DEPTH DECK REPAIR	1	SY
◐☆	509.2100.S	CONCRETE MASONRY DECK REPAIR	1	CY
	509.3500.S	HMA OVERLAY POLYMER-MODIFIED	43	TONS
	509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-40-585	310	SY
	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-40-585	1	LS
	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-585	1	LS
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	1	EACH
	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	18	LF
	NON-BID ITEM	BRIDGE SEAT PROTECTION		

☆ BID ITEM INCLUDES: CONCRETE FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR.

◐ BID ITEM IS FOR INFORMATIONAL PURPOSES ONLY. ACTUAL QUANTITY MAY VARY AND IS TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

◭ BID ITEM INCLUDES CONCRETE FOR JOINT REPAIR

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-26
OPERATING RATING: HS-44
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 KIPS.

MATERIAL PROPERTIES:

CONCRETE MASONRY DECK REPAIR —— f'c = 4,000 P.S.I.
CONCRETE MASONRY OTHER —— f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 —— fy = 60,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE JOINT REPAIR SURFACE.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE FRONT FACE AND TOP OF NEW PARAPETS AT JOINT REPAIR LOCATIONS, COLOR TO BE APPROVED BY ENGINEER.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF ALL ABUTMENTS AND BELOW EXPANSION DEVICES.

RE-PAINT ALL EXISTING EXPOSED SUPERSTRUCTURE STEEL - INCLUDING GIRDERS, DIAPHRAGMS AND HARDWARE THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BROWN, (FEDERAL STANDARD COLOR NO. 20059) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ANY EXCAVATION NECESSARY TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "HMA OVERLAY POLYMER-MODIFIED".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2" PLACED ABOVE THE DECK SURFACE. EXPECTED AVERAGE OVERLAY THICKNESS IS 2½". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

REMOVE ANY/ALL LOOSE CONCRETE AT ABUTMENTS AND PARAPETS UNDER THE BID ITEM "CONCRETE SURFACE REPAIR". SURFACES SHALL BE BLAST CLEANED AND ANY EXPOSED STEEL REINFORCEMENT SHALL BE BRUSHED CLEAN PRIOR TO THE CONCRETE SURFACE REPAIRS BEING COMPLETED. REPAIR AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECKS REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK REPAIR".

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

EXISTING ASPHALTIC OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK - 1¾" OR TO SOUND CONCRETE, WHICHEVER IS GREATER. COVERED UNDER ITEM 509.9010.S.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1992.

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
12	131+81	TOP OF NORTHEAST FLANGE BOLT OF HYDRANT 480 FT RT.	639.96

STRUCTURE DESIGN CONTACTS:

JOHN SENDOR (608) 266-5163
AARON BONK (608) 261-0261

LIST OF DRAWINGS

1. POLYMER MODIFIED ASPHALTIC OVERLAY
2. ABUTMENT DETAILS
3. PARAPET DETAILS
4. EXPANSION DEVICE
5. COVER PLATE DETAILS

STATE PROJECT NUMBER

1228-22-72

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher 7/31/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-40-585

IH-43 NB ON RAMP OVER SILVER SPRING DR.

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.RATINGS	DRAWN BY	PLANS CK'D.
JJS		JJS	MJK

POLYMER MODIFIED ASPHALTIC OVERLAY

SHEET 1 OF 5

693

I.D. 1228-22-02H

DATE: OCT. 2017

SCALE = 8.00

STATE PROJECT NUMBER

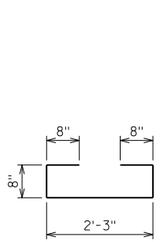
1228-22-72

BILL OF BARS

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

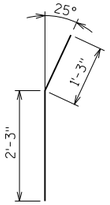
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	40	4'-7"	X		ABUT. DIAPH. - VERT
S602	X	20	8'-10"			ABUT. DIAPH. - HORIZ.
S503	X	18	24'-2"			JOINT REPAIR - HORIZ.
(A23) S504	X	50	3'-3"	X		BACKWALL/PAV. BLOCK - CONC. ADHESIVE ANCHORS - VERT.
S405	X	8	8'-10"			EXPANSION DEVICE - HORIZ. - BETWEEN GIRDERS
						NOT USED
(A23) S507	X	8	3'-6"	X		CONC. ADHESIVE ANCHORS - VERT
(A23) S508	X	8	3'-5"			CONC. ADHESIVE ANCHORS - VERT.
S509	X	32	4'-3"	X		PARAPET - VERT.
S510	X	36	4'-4"	X		PARAPET - VERT.
S511	X	10	1'-6"			PARAPET - HORIZ.
S512	X	20	2'-4"			PARAPET - HORIZ.
S513	X	10	0'-10"			PARAPET - HORIZ.

(A23) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" INTO EXISTING CONCRETE.

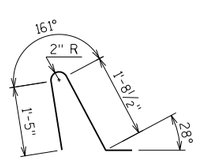


S401

S504



S507



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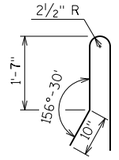

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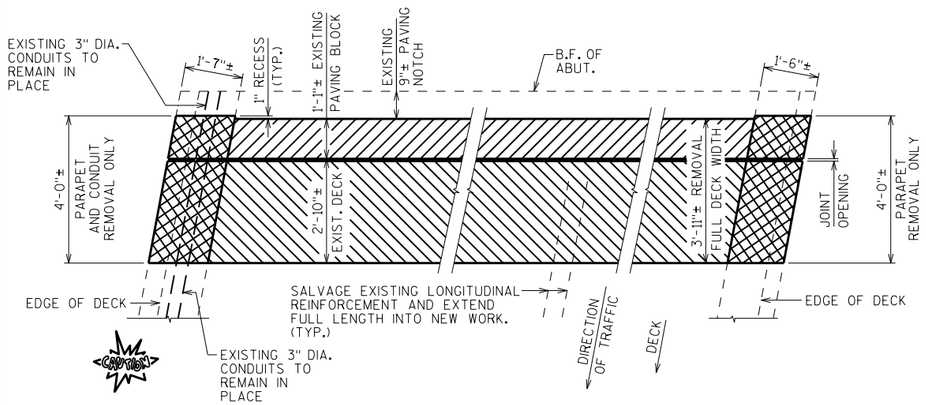
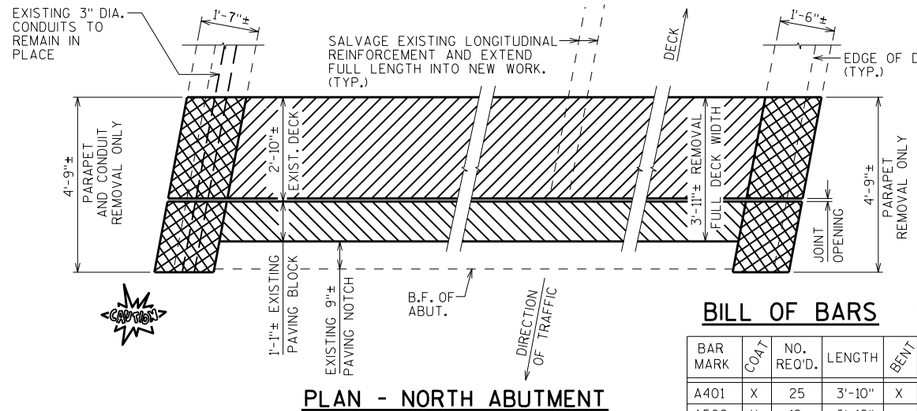


PLAN - SOUTH ABUTMENT

SHOWING REMOVAL



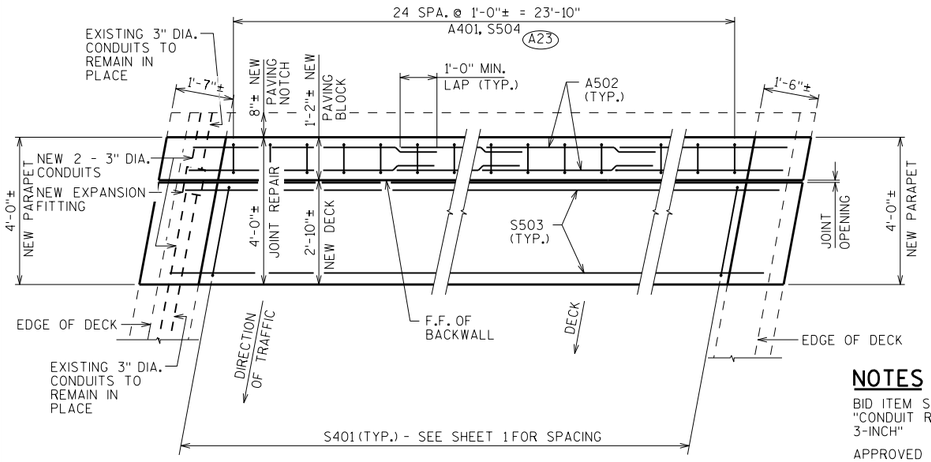
PLAN - NORTH ABUTMENT

SHOWING REMOVAL

BILL OF BARS

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

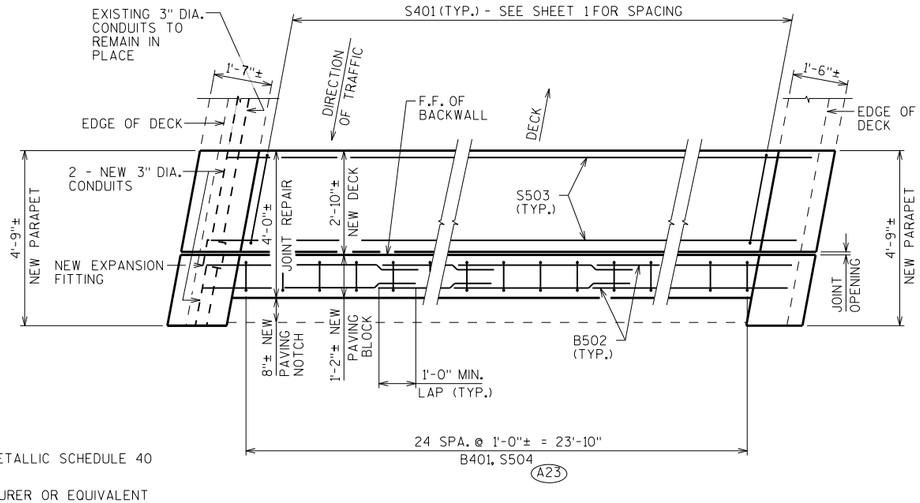
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A401	X	25	3'-10"	X		PAVING BLOCK - STIRRUP - S. ABUT.
A502	X	12	6'-10"			PAVING BLOCK - HORIZ. - S. ABUT.
B401	X	25	3'-10"	X		PAVING BLOCK - STIRRUP - N. ABUT.
B502	X	12	6'-10"			PAVING BLOCK - HORIZ. - N. ABUT.



PLAN - SOUTH ABUTMENT

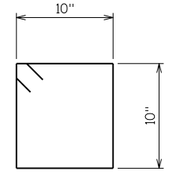
PARAPET BARS NOT SHOWN

N



PLAN - NORTH ABUTMENT

PARAPET BARS NOT SHOWN



A401, B401

NOTE:
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

NOTES

BID ITEM SHALL BE:
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH"

APPROVED MANUFACTURER OR EQUIVALENT EXPANSION FITTING: O-Z/GENDER TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-585

DRAWN BY JJS | PLANS CK'D. MJK

ABUTMENT DETAILS

SHEET 2

694

SCALE = 4.00

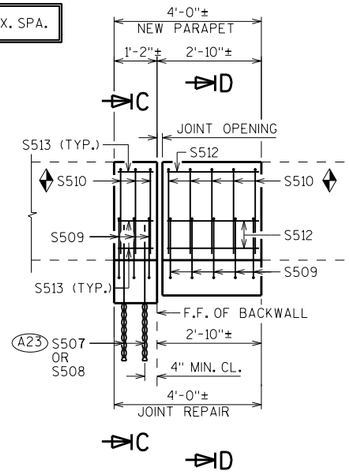
8

8

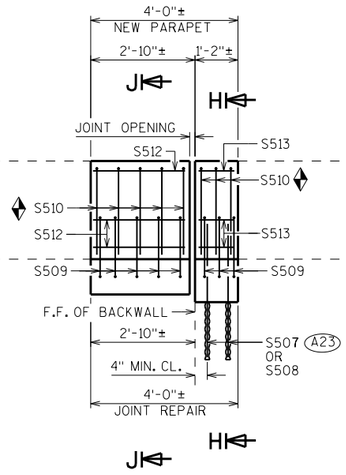
STATE PROJECT NUMBER

1228-22-72

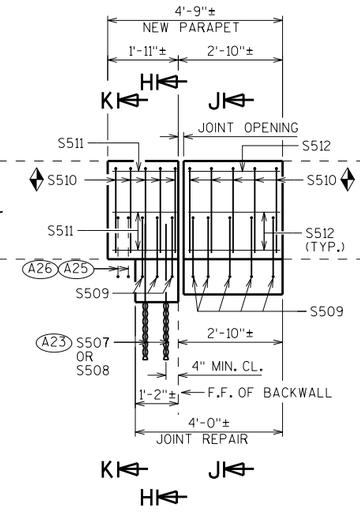
8" MAX. SPA.



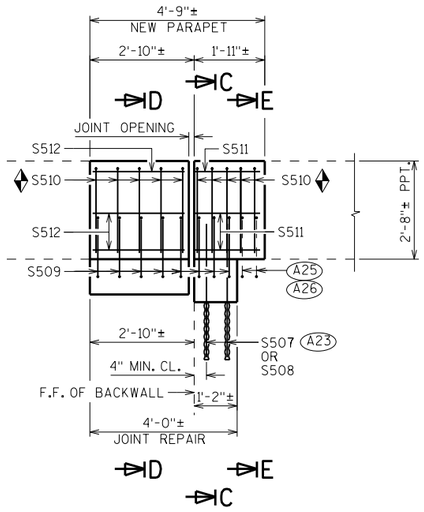
SECTION B-B
SOUTHEAST CORNER



SECTION G-G
SOUTHWEST CORNER

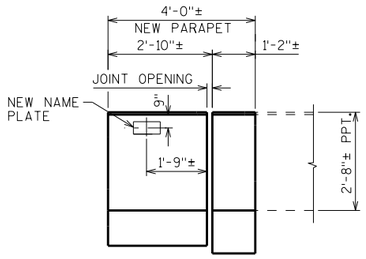


SECTION L-L
NORTHWEST CORNER

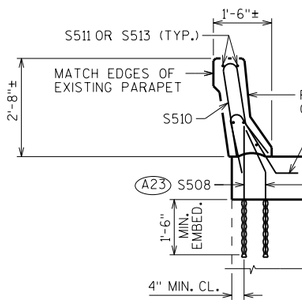


SECTION M-M
NORTHEAST CORNER

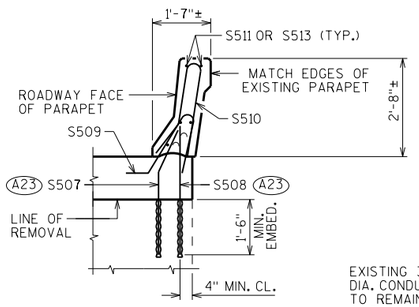
NOTE:
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.



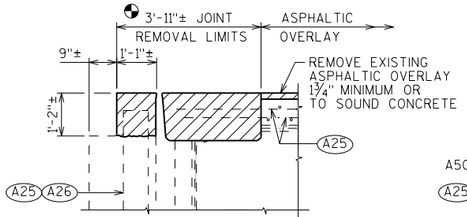
NAME PLATE DETAIL
SOUTHEAST CORNER
(LOOKING AT ROADWAY FACE OF PARAPET)



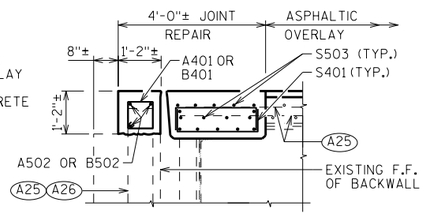
SECTION H-H



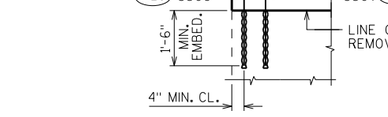
SECTION C-C



EXISTING SECTION F-F
SHOWING REMOVAL



NEW SECTION F-F

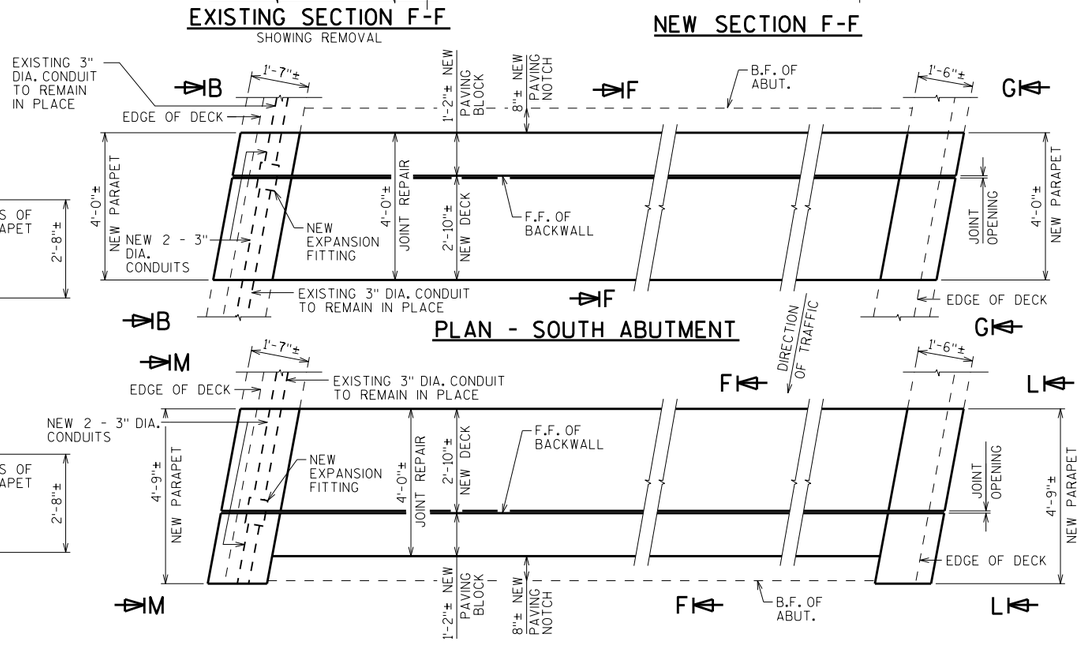


SECTION J-J

SECTION D-D

SECTION K-K

SECTION E-E



SEE SHEET 2 FOR CORRESPONDING PARAPET REMOVAL LIMITS

(A23) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" INTO EXISTING CONCRETE.

(A25) SALVAGE ANY VERT. EXIST. REINF. IF PRESENT & EXTEND FULL LENGTH INTO NEW WORK.

(A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH ADHESIVE ANCHORED NO. 5 L-SHAPED BARS WITH A 10" HORIZ. LEG. EMBED 1'-6". WORK TO BE PAID UNDER ITEM "JOINT REPAIR".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-585

DRAWN BY JJS | PLANS CK'D. MJK

PARAPET DETAILS

SHEET 3

695

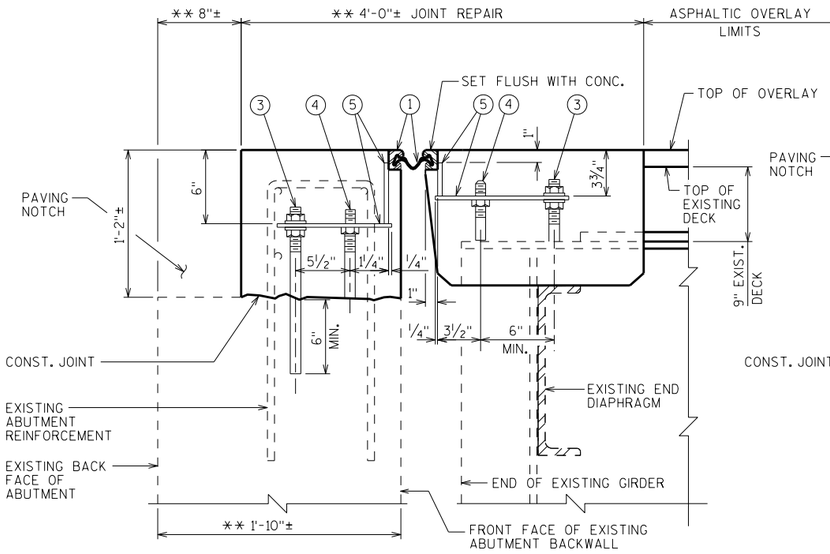
SCALE = 4.00

8

8

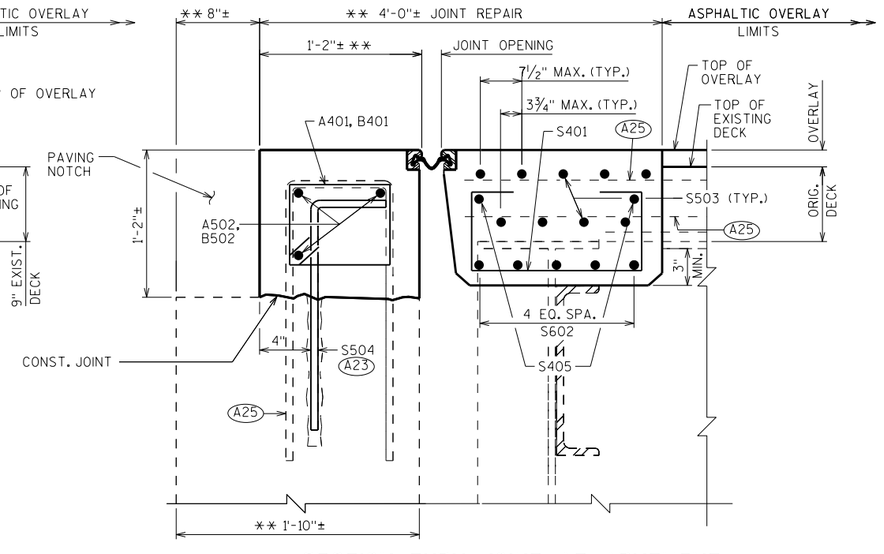
STATE PROJECT NUMBER

1228-22-72



SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)



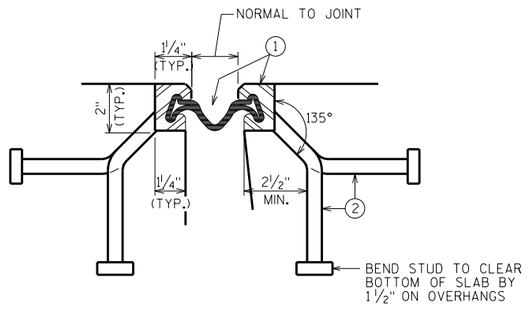
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)

** DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE

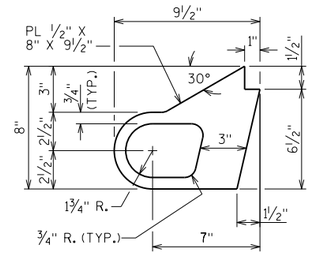
(A23) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" INTO EXISTING CONCRETE

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

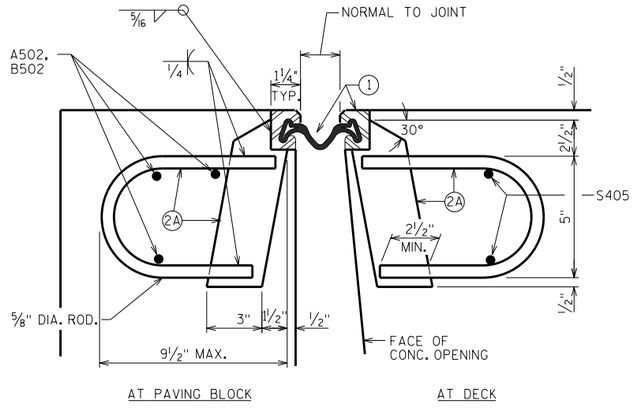


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS

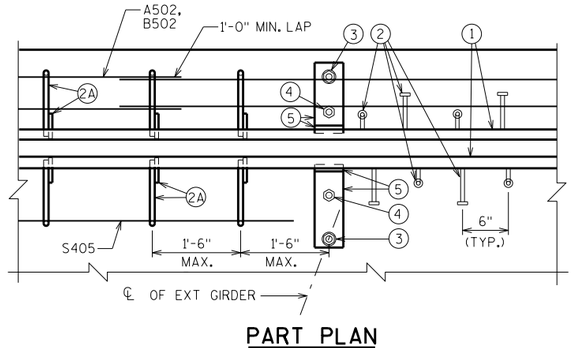


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-40-585".

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.

(2) STUDS ⅝" DIA. X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 & 1" DIA. HOLE FOR NO. 4.

(6) GALVANIZED PLATE FOR PARAPET TYPE "B" ⅜" X 1'-0" X 2'-2" LONG WITH HOLES FOR NO. 7 BEND AS SHOWN.

(7) ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE RECESS 1/16" BELOW PLATE SURFACE.

(8) ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-585

DRAWN BY JJS | PLANS CK'D. MJK

EXPANSION DEVICE

SHEET 4

696

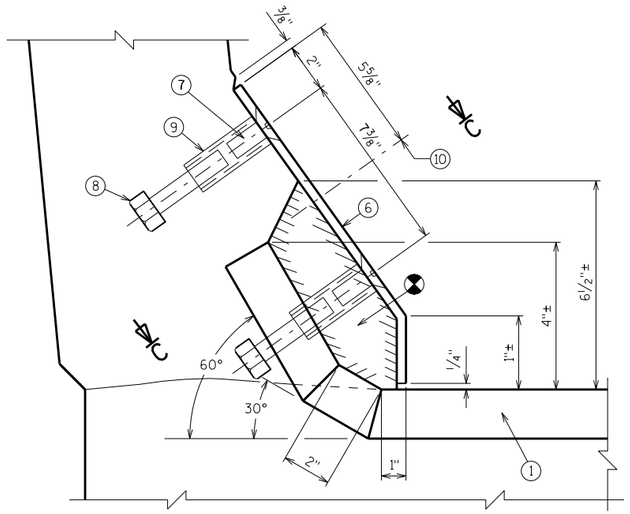
8

8

SCALE = 1.00

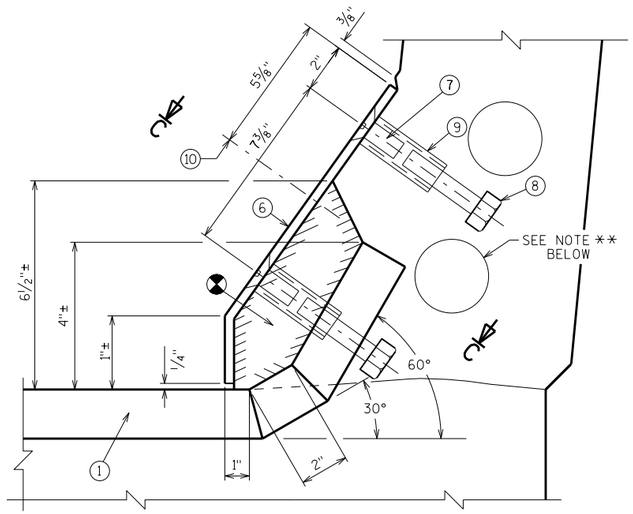
STATE PROJECT NUMBER

1228-22-72



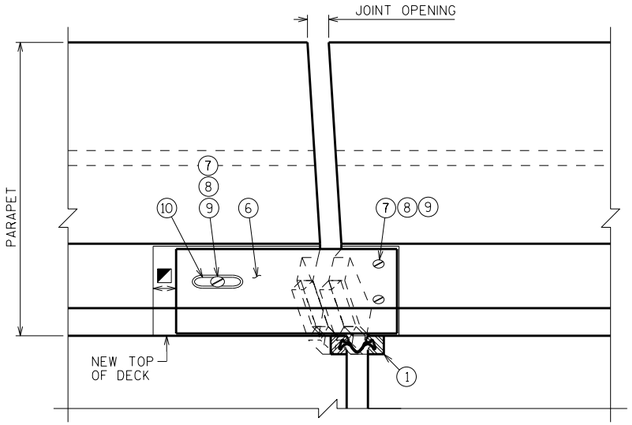
PARAPET TYPE B

SECTION B-B

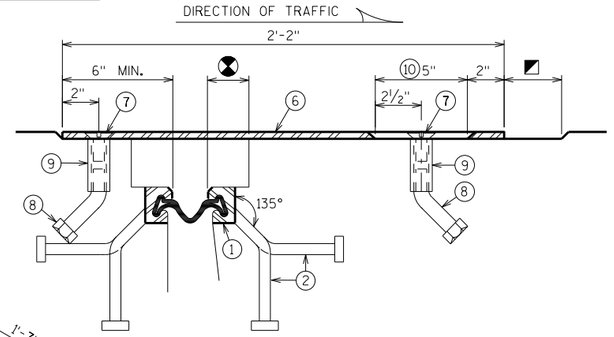


PARAPET TYPE B

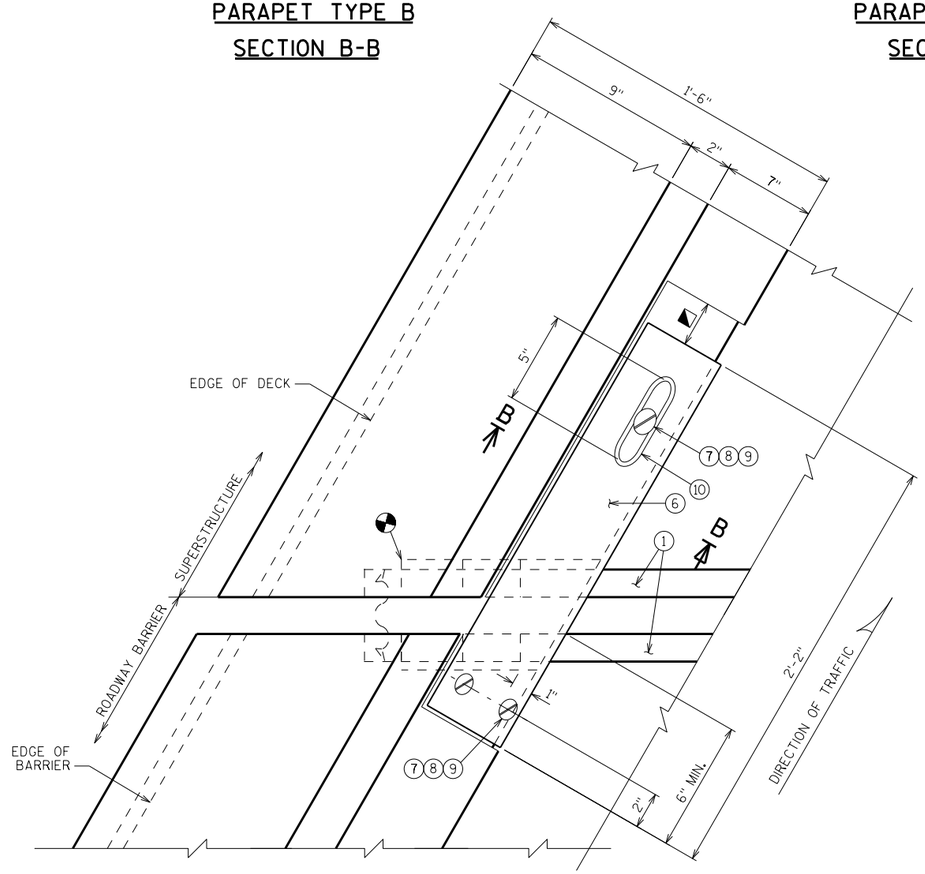
SECTION A-A



VIEW OF PARAPET PLATE FROM ROADWAY



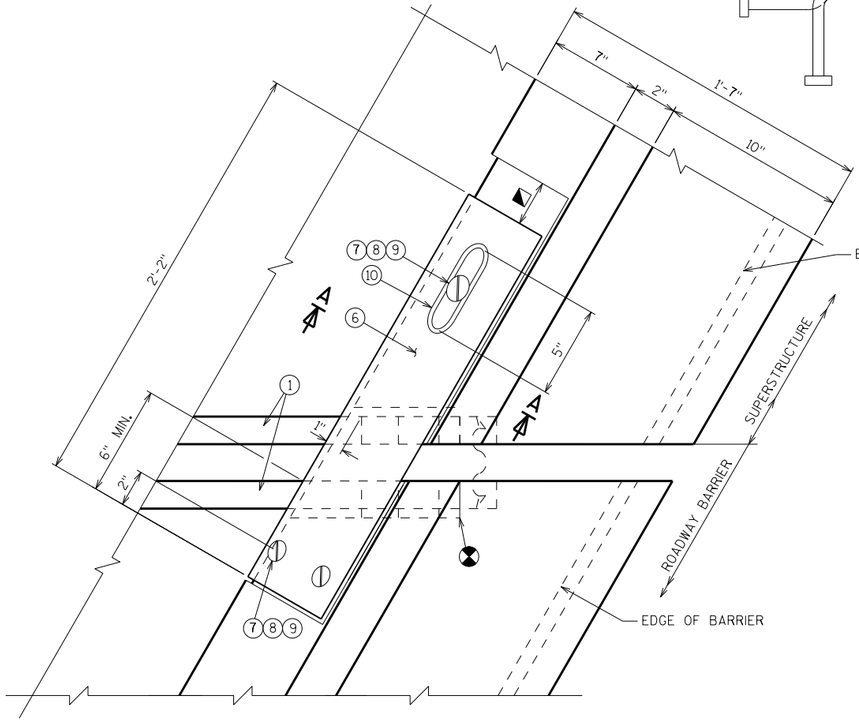
SECTION C-C



PARAPET TYPE B

PLAN

SOUTH ABUTMENT SHOWN
NORTH ABUTMENT SIMILAR



PARAPET TYPE B

** DEPENDENT ON THE LOCATION ON THE 2-3" DIA. CONDUIT. FIELD WORKERS MIGHT NEED TO ROTATE OR BEND THE 45° BENT BOLTS TO MAKE AN OPEN PATH FOR CONDUIT.

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIM. ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-585

DRAWN BY JJS | PLANS CK'D. MJK

COVER PLATE DETAILS

SHEET 5

697

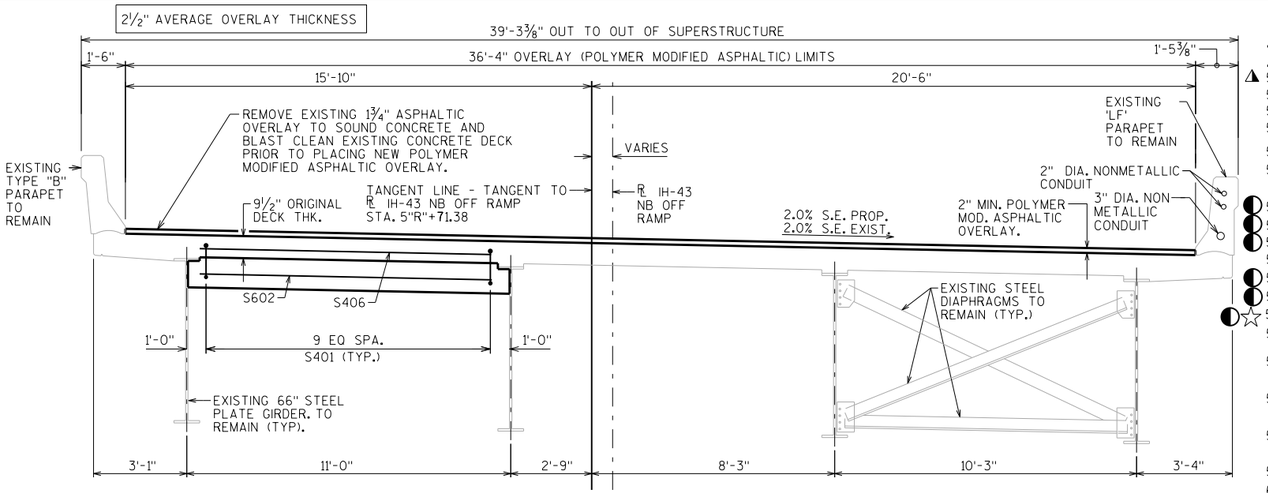
SCALE = 1.00

8

8

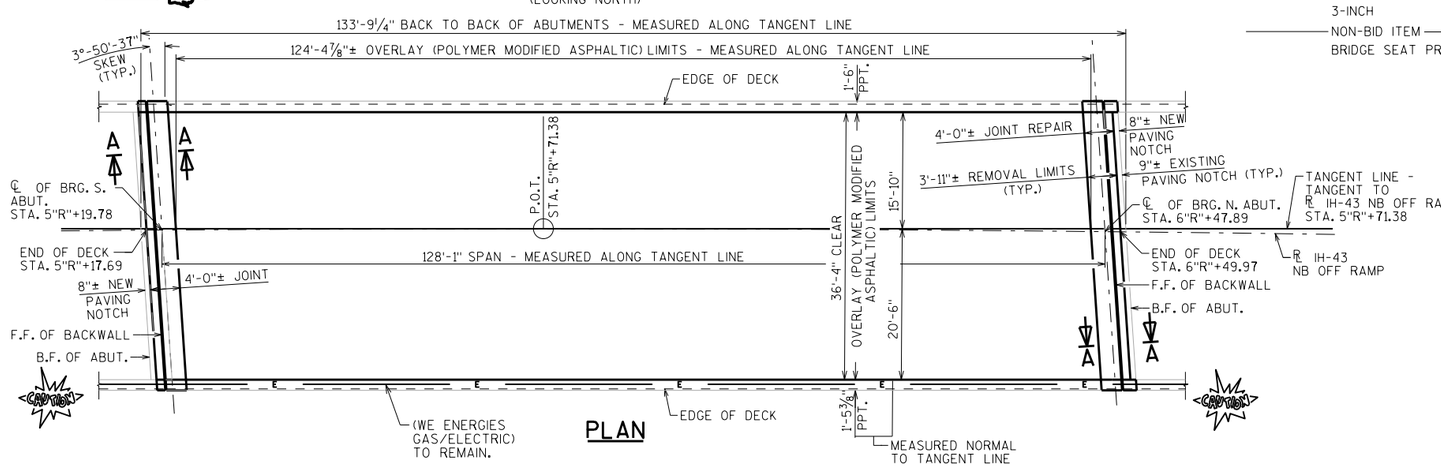
STATE PROJECT NUMBER

1228-22-72



CROSS SECTION THRU ROADWAY

(LOOKING NORTH)



PLAN

TOTAL ESTIMATED QUANTITIES

(ALL ITEMS ARE CATEGORY 2080)

▲	502.0100	CONCRETE MASONRY BRIDGES	16	CY
	502.3101	EXPANSION DEVICE B-40-586	73	LF
	502.3200	PROTECTIVE SURFACE TREATMENT	33	SY
	502.3210	PIGMENTED SURFACE SEALER	8	SY
	502.4205	ADHESIVE ANCHORS NO. 5 BAR	88	EACH
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	2550	LB
◐	509.0301	PREPARATION DECKS TYPE 1	10	SY
◐	509.0302	PREPARATION DECKS TYPE 2	4	SY
◐	509.0310.S	SAWING PAVEMENT DECK PREPARTATION AREAS	10	LF
	509.1000	JOINT REPAIR	36	SY
◐	509.1500	CONCRETE SURFACE REPAIR	12	SF
◐	509.2000	FULL-DEPTH DECK REPAIR	1	SY
◐☆	509.2100.S	CONCRETE MASONRY DECK REPAIR	1	CY
	509.3500.S	HMA OVERLAY POLYMER-MODIFIED	70	TONS
	509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-40-586	503	SY
	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-40-586	1	LS
	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-586	1	LS
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	1	EACH
	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	18	LF
	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	9	LF
		NON-BID ITEM		
		BRIDGE SEAT PROTECTION		

☆ BID ITEM INCLUDES: CONCRETE FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR.

◐ BID ITEM IS FOR INFORMATIONAL PURPOSES ONLY. ACTUAL QUANTITY MAY VARY AND IS TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

▲ BID ITEM INCLUDES CONCRETE FOR JOINT REPAIR

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-25
OPERATING RATING: HS-41
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 220 KIPS.

MATERIAL PROPERTIES:

CONCRETE MASONRY DECK REPAIR ——— f'c = 4,000 P.S.I.
CONCRETE MASONRY OTHER ——— f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 ——— fy = 60,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE JOINT REPAIR SURFACE.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE FRONT FACE AND TOP OF NEW PARAPETS AT JOINT REPAIR LOCATIONS, COLOR TO BE APPROVED BY ENGINEER.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF ALL ABUTMENTS AND BELOW EXPANSION DEVICES.

RE-PAINT ALL EXISTING EXPOSED SUPERSTRUCTURE STEEL - INCLUDING GIRDERS, DIAPHRAGMS AND HARDWARE THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BROWN, (FEDERAL STANDARD COLOR NO. 20059) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ANY EXCAVATION NECESSARY TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "HMA OVERLAY POLYMER-MODIFIED".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2" PLACED ABOVE THE DECK SURFACE. EXPECTED AVERAGE OVERLAY THICKNESS IS 2½". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

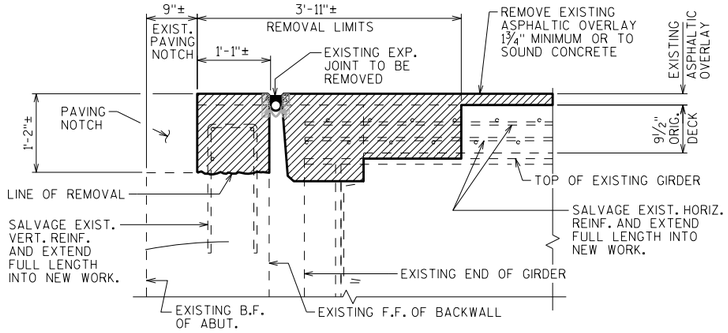
REMOVE ANY/ALL LOOSE CONCRETE AT ABUTMENTS AND PARAPETS UNDER THE BID ITEM "CONCRETE SURFACE REPAIR". SURFACES SHALL BE BLAST CLEANED AND ANY EXPOSED STEEL REINFORCEMENT SHALL BE BRUSHED CLEAN PRIOR TO THE CONCRETE SURFACE REPAIRS BEING COMPLETED. REPAIR AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECKS REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK REPAIR".

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

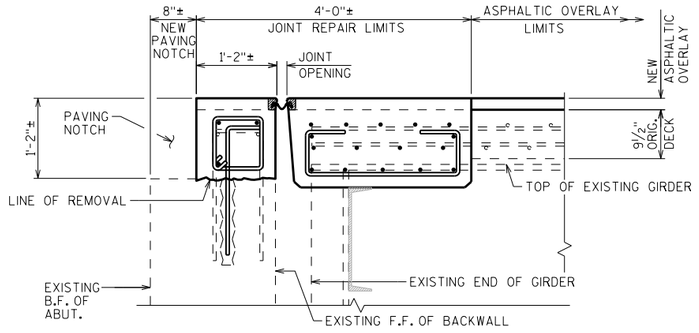
EXISTING ASPHALTIC OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK - 1¾" OR TO SOUND CONCRETE, WHICHEVER IS GREATER. COVERED UNDER ITEM 509.9010.S.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1992.



EXISTING SECTION A-A

SHOWING REMOVAL
TYP. (BOTH ABUTMENTS)
NORMAL TO ℄ OF ABUTMENTS



PROPOSED SECTION A-A

TYP. (BOTH ABUTMENTS)
NORMAL TO ℄ OF ABUTMENTS

LIST OF DRAWINGS

1. POLYMER MODIFIED ASPHALTIC OVERLAY
2. ABUTMENT DETAILS
3. PARAPET DETAILS
4. EXPANSION DEVICE
5. COVER PLATE DETAILS

STRUCTURE DESIGN CONTACTS:
JOHN SENDOR (608) 266-5163
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION — BUREAU OF STRUCTURES

ACCEPTED William C. Dreher — CHIEF STRUCTURES DESIGN ENGINEER — 7/31/19 DATE

STRUCTURE B-40-586

IH-43 NB OVER W. SILVER SPRINGS DRIVE

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.RATINGS	DRAWN BY	PLANS CK'D.
JJS		JJS	MJK

POLYMER MODIFIED ASPHALTIC OVERLAY

SHEET 1 OF 5

698

I.D. 1228-22-021 DATE: OCT. 2017

SCALE = 10.00

STATE PROJECT NUMBER

1228-22-72

BILL OF BARS

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

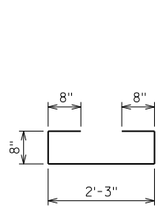
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	60	4'-7"	X		ABUT. DIAPH. - VERT.
S602	X	30	9'-8"			ABUT. DIAPH. - HORIZ.
S503	X	16	38'-3"			JOINT REPAIR - HORIZ.
						NOT USED
(A23) S505	X	72	3'-3"	X		BACKWALL/PAV. BLOCK - CONC. ADHESIVE ANCHORS - VERT.
S406	X	12	9'-8"			EXPANSION DEVICE - HORIZ. - BETWEEN GIRDERS
(A23) S507	X	4	3'-6"	X		WEST PARAPET - CONC. ADHESIVE ANCHORS - VERT.
(A23) S508	X	4	3'-6"			WEST PARAPET - CONC. ADHESIVE ANCHORS - VERT.
S509	X	16	4'-3"			WEST PARAPET - VERT.
						NOT USED

(A23) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" INTO EXISTING CONCRETE.

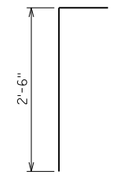
BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S511	X	18	4'-4"	X		WEST PARAPET - VERT.
S512	X	10	2'-6"			WEST PARAPET - HORIZ.
S513	X	5	0'-10"			WEST PARAPET - HORIZ.
S514	X	5	1'-6"			WEST PARAPET - HORIZ.
S515	X	16	4'-2"	X		EAST PARAPET - VERT.
S516	X	18	4'-10"	X		EAST PARAPET - VERT.
S517	X	10	2'-6"			EAST PARAPET - HORIZ.
S518	X	5	0'-10"			EAST PARAPET - HORIZ.
S519	X	5	1'-6"			EAST PARAPET - HORIZ.
S420	X	12	9'-8"			EXPANSION DEVICE - HORIZ. - BETWEEN GIRDERS
(A23) S521	X	4	3'-6"	X		EAST PARAPET - CONC ADHESIVE ANCHORS - VERT.
(A23) S522	X	4	3'-0"			EAST PARAPET - CONC ADHESIVE ANCHORS - VERT.



S401



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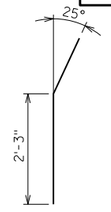
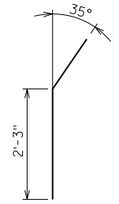


S507



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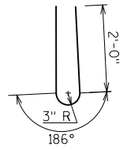

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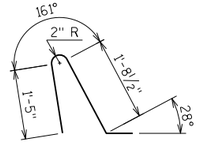

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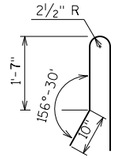
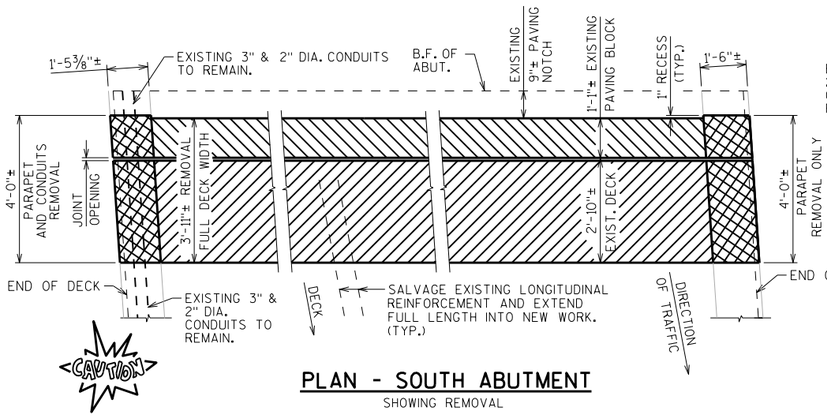
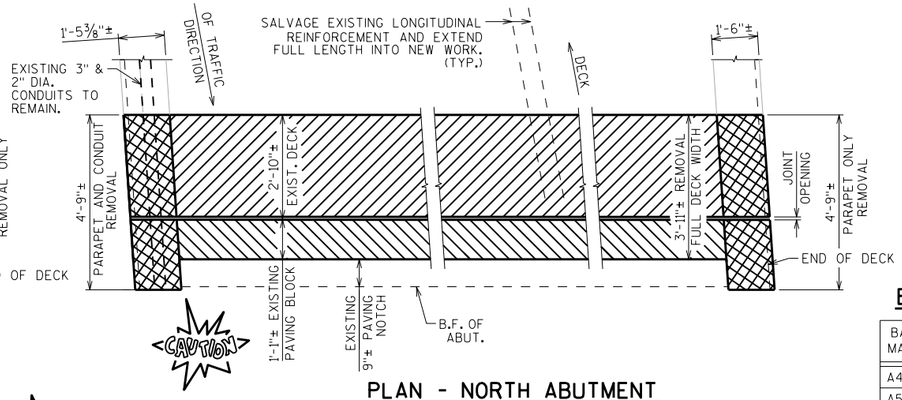


S511



PLAN - SOUTH ABUTMENT

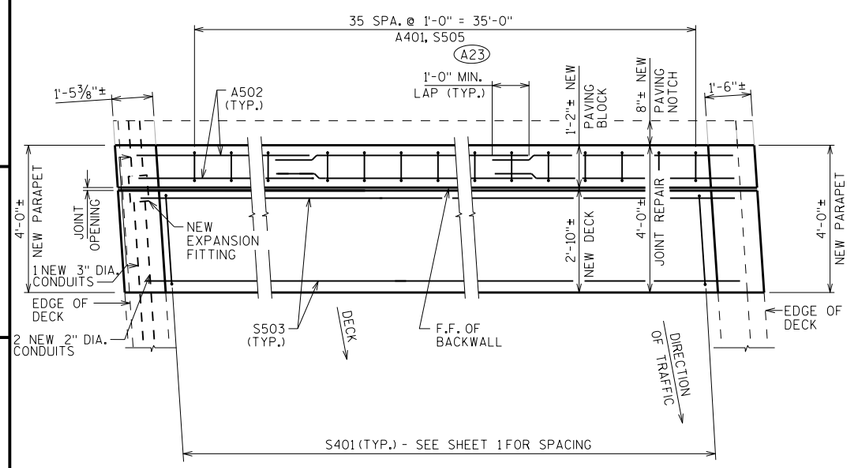
SHOWING REMOVAL



PLAN - NORTH ABUTMENT

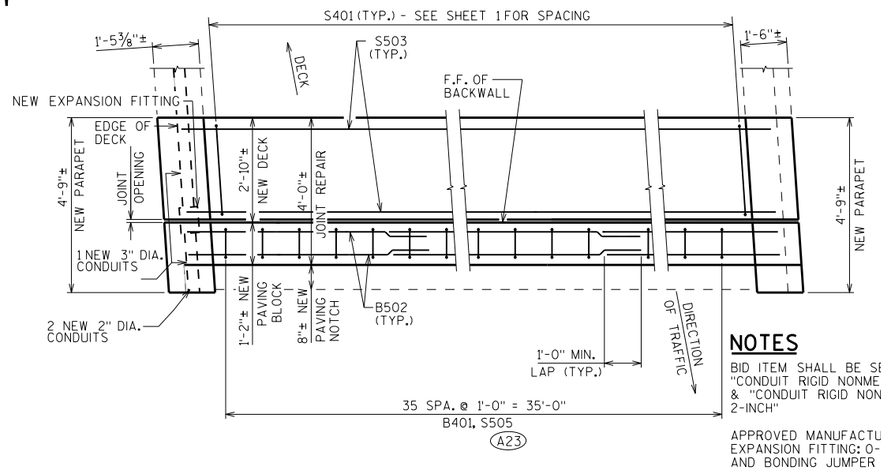
SHOWING REMOVAL

N



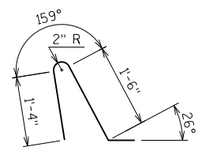
PLAN - SOUTH ABUTMENT

PARAPET BARS NOT SHOWN

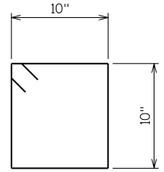


PLAN - NORTH ABUTMENT

PARAPET BARS NOT SHOWN



S515



A401, B401

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A401	X	36	3'-10"	X		PAVING BLOCK - VERT. - S. ABUT.
A502	X	15	8'-6"			PAVING BLOCK - HORIZ. - S. ABUT.
B401	X	36	3'-10"	X		PAVING BLOCK - VERT. - N. ABUT.
B502	X	15	8'-6"			PAVING BLOCK - HORIZ. - N. ABUT.

NOTE:
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

NOTES

BID ITEM SHALL BE SEPARATELY FOR: "CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH" & "CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"

APPROVED MANUFACTURER OR EQUIVALENT EXPANSION FITTING: O-Z/GENDER TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL RESPECTIVELY TO "CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH", AND "CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-586

DRAWN BY JJS | PLANS CK'D. MJK

ABUTMENT DETAILS

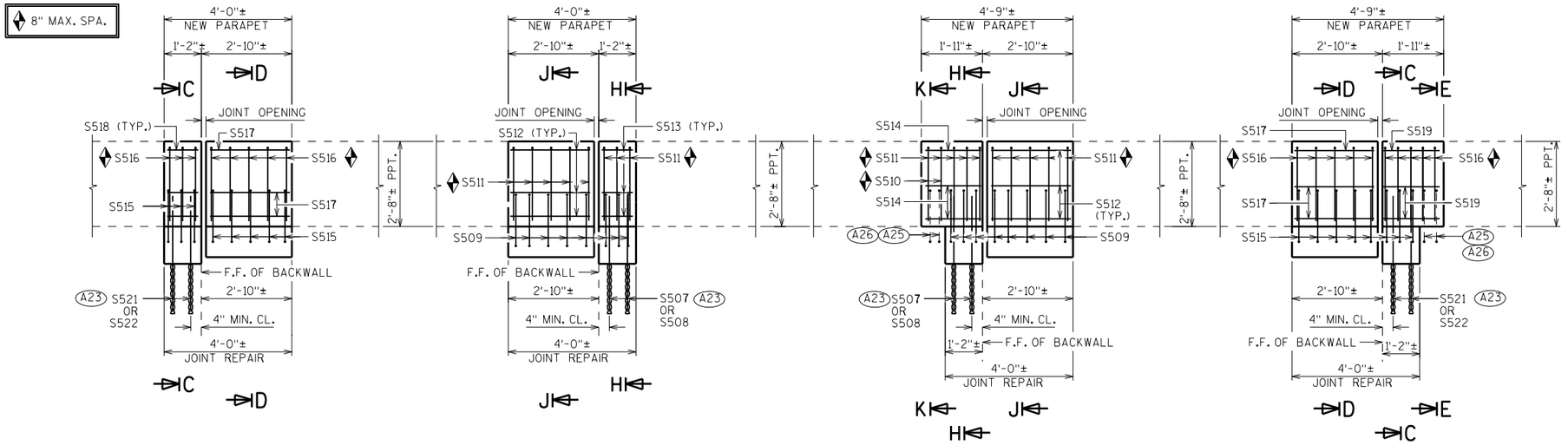
SHEET 2

699

SCALE = 4.00

8

8

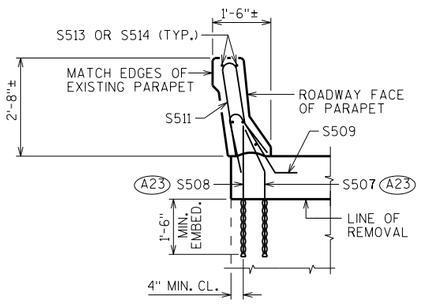


SECTION B-B
SOUTHEAST CORNER

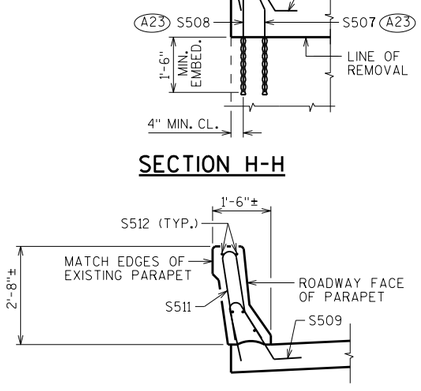
SECTION G-G
SOUTHWEST CORNER

SECTION L-L
NORTHWEST CORNER

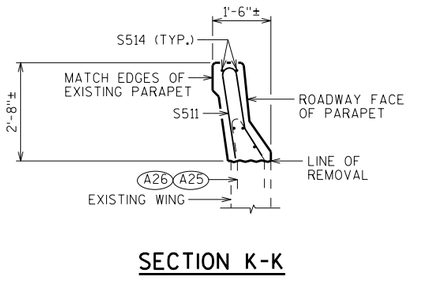
SECTION M-M
NORTHEAST CORNER



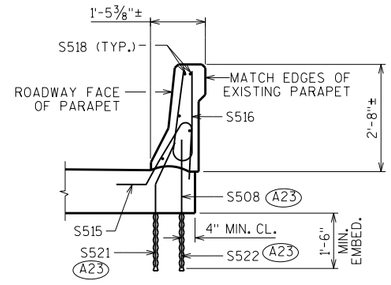
SECTION H-H



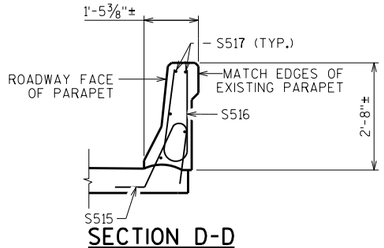
SECTION J-J



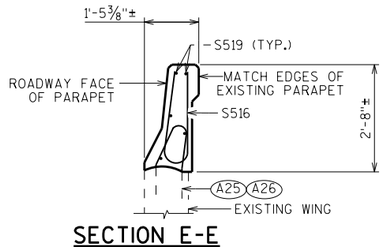
SECTION K-K



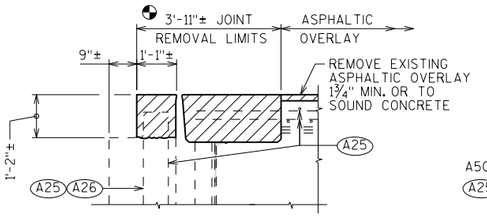
SECTION C-C



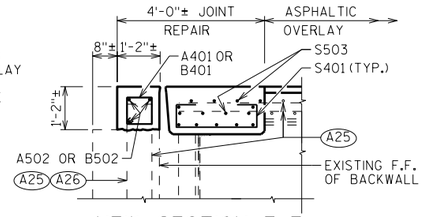
SECTION D-D



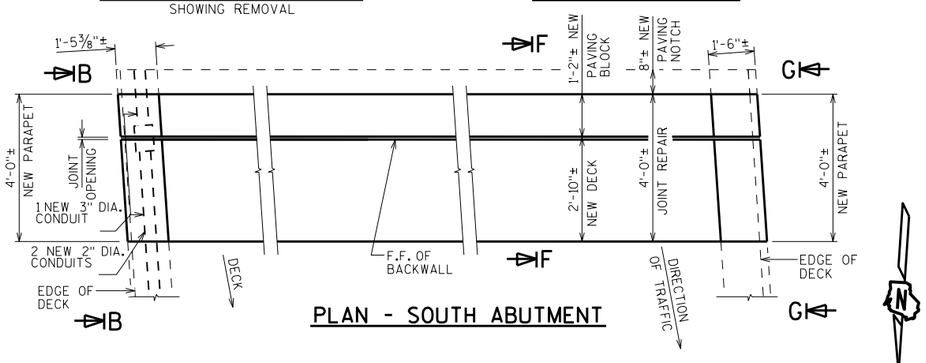
SECTION E-E



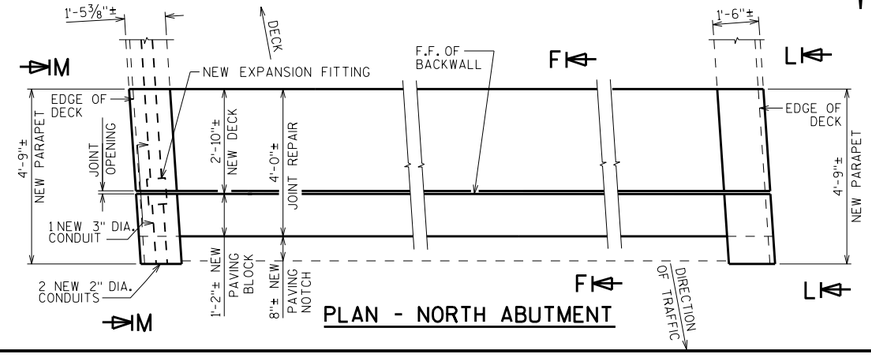
EXISTING SECTION F-F
SHOWING REMOVAL



NEW SECTION F-F



PLAN - SOUTH ABUTMENT



PLAN - NORTH ABUTMENT

NOTE:
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

SEE SHEET 2 FOR CORRESPONDING REMOVAL OF PARAPET LIMITS

(A23) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" INTO EXIST. CONCRETE.

(A25) SALVAGE ANY VERT. EXIST. REINF. IF PRESENT & EXTEND FULL LENGTH INTO NEW WORK.

(A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH ADHESIVE ANCHORED NO. 5 L-SHAPED BARS WITH A 10" HORIZ. LEG. EMBED 1'-6". WORK TO BE PAID UNDER ITEM "JOINT REPAIR".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-586

DRAWN BY JJS | PLANS CK'D. MJK

PARAPET DETAILS

SHEET 3

700

STATE PROJECT NUMBER
1228-22-72

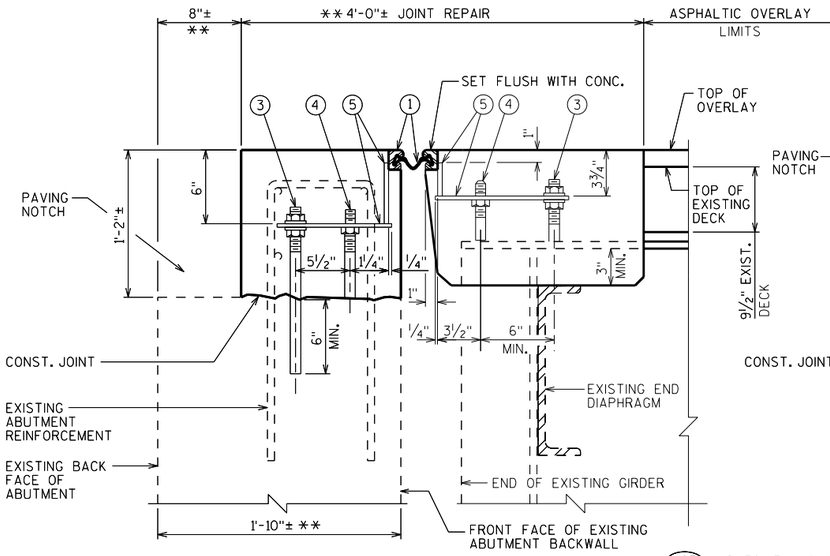
SCALE = 4.00

8

8

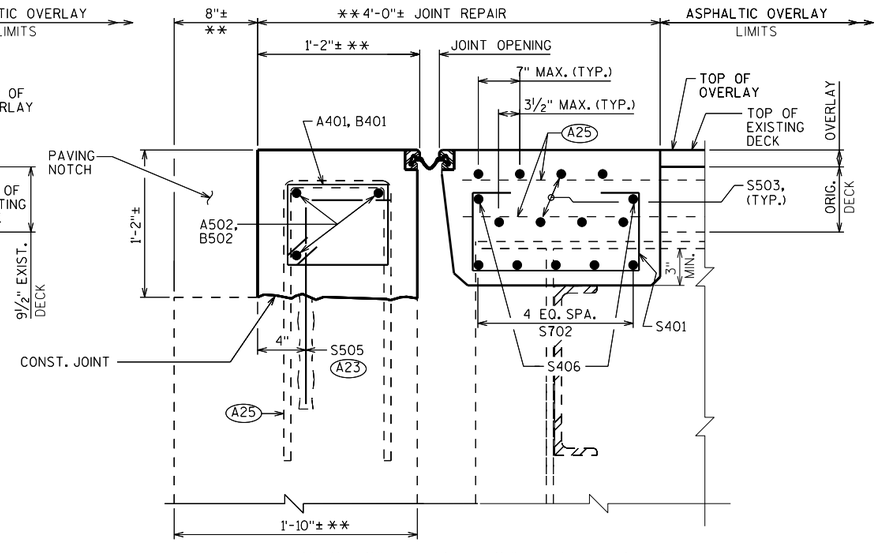
STATE PROJECT NUMBER

1228-22-72



SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)



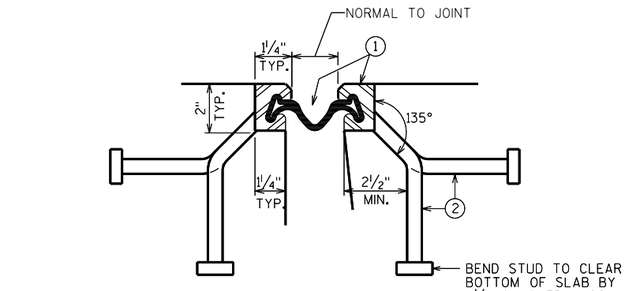
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)

** DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE

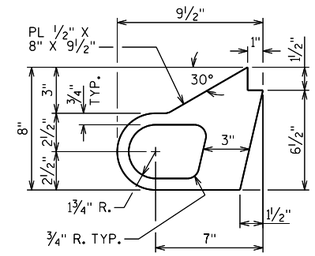
(A23) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" INTO EXIST. CONCRETE.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

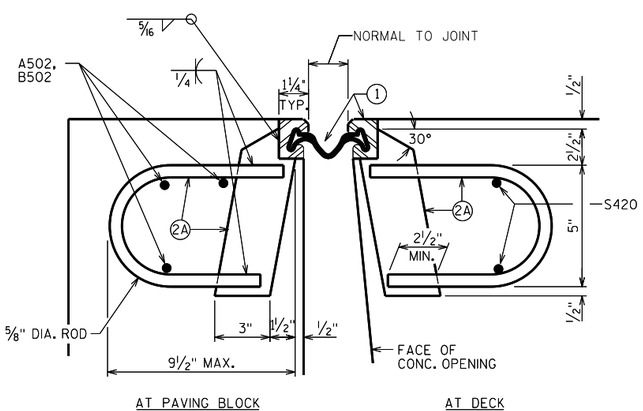


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AT PARAPETS

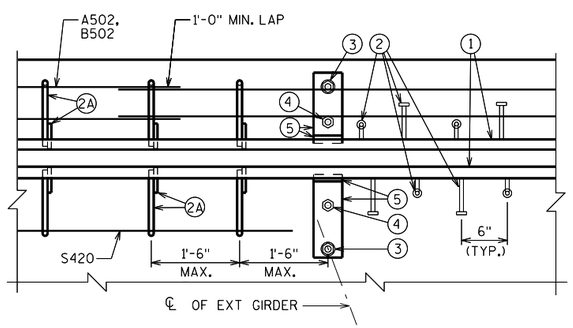


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-40-586".

LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.
2. STUDS ⅝" DIA. X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 & 1" DIA. HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" X 9" X 2'-2" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED CSK. HOLE FOR NO. 7. SLOT PARALLEL TO DIRECTION OF MOVEMENT.
11. GALVANIZED PLATE ⅜" X 1'-0" X 2'-2" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-586

DRAWN BY JJS | PLANS CK'D. MJK

EXPANSION DEVICE

SHEET 4

701

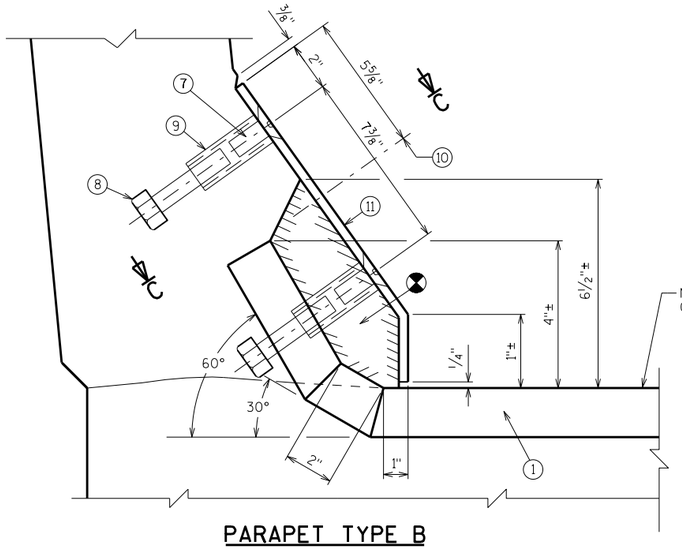
SCALE = 1.00

8

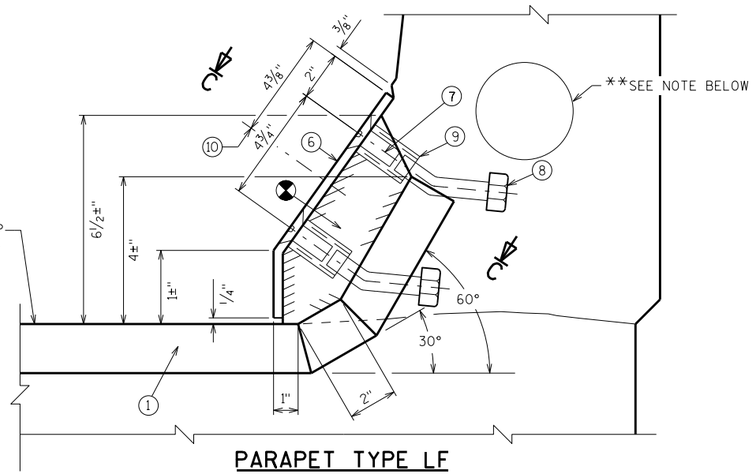
8

STATE PROJECT NUMBER

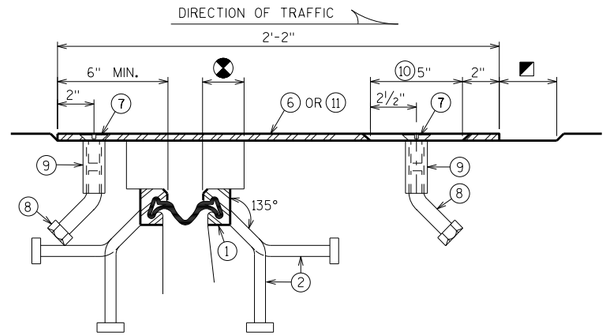
1228-22-72



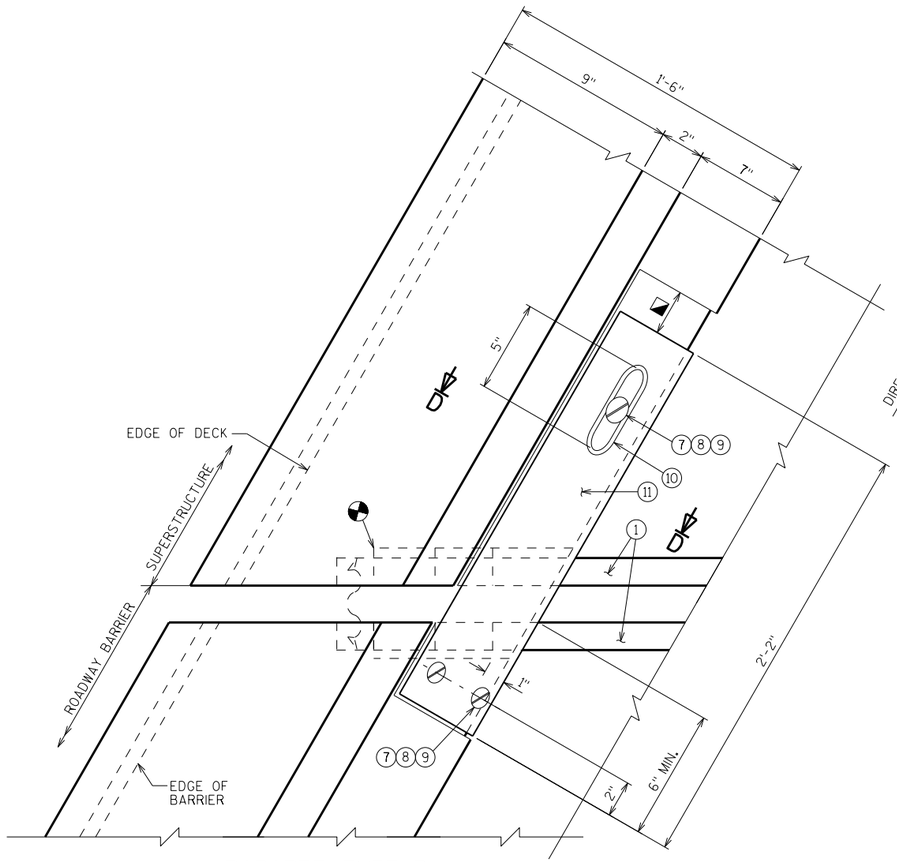
PARAPET TYPE B
SECTION D-D



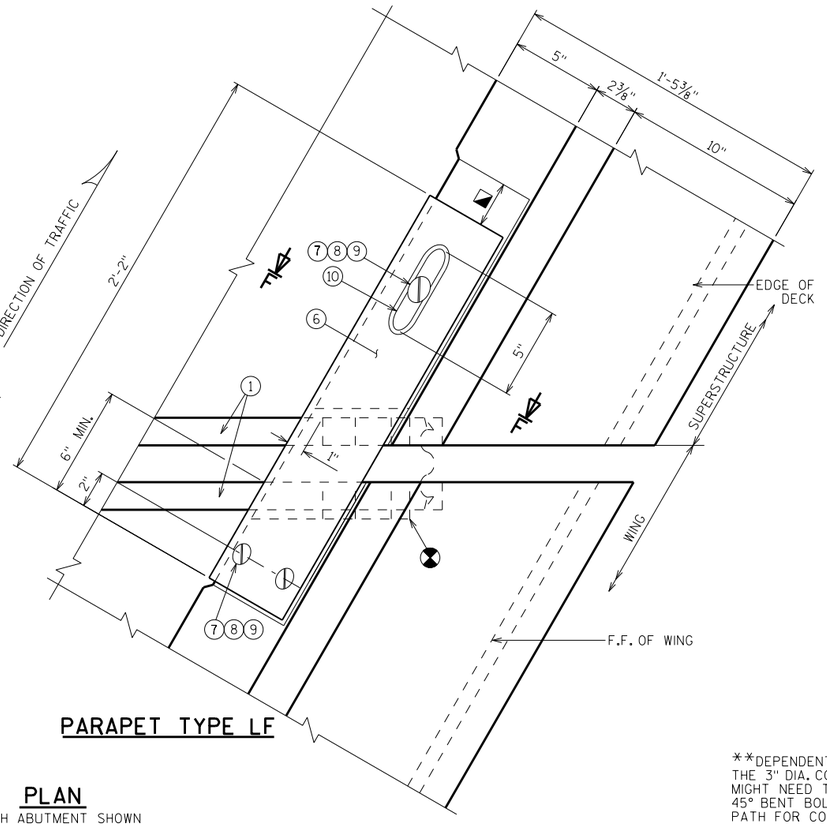
PARAPET TYPE LF
SECTION F-F



SECTION C-C

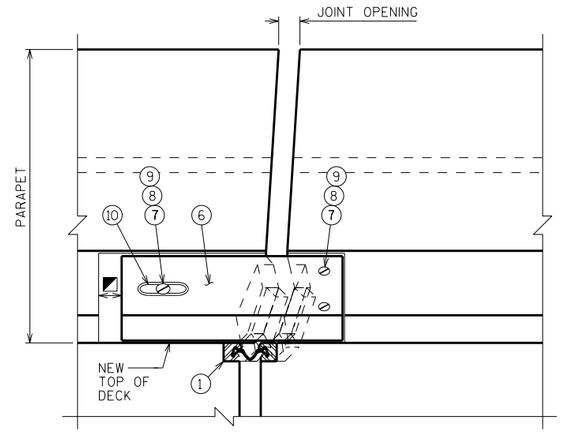


PARAPET TYPE B



PARAPET TYPE LF

PLAN
SOUTH ABUTMENT SHOWN
NORTH ABUTMENT SIMILAR



VIEW OF PARAPET PLATE FROM ROADWAY
PARAPET TYPE LF SHOWN
PARAPET TYPE B SIMILAR

**DEPENDENT ON THE LOCATION OF THE 3" DIA. CONDUIT, FIELD WORKERS MIGHT NEED TO ROTATE OR BEND THE 45° BENT BOLTS TO MAKE AN OPEN PATH FOR CONDUIT.

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIM. ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-586

DRAWN BY JJS | PLANS CK'D. MJK

COVER PLATE DETAILS

SHEET 5

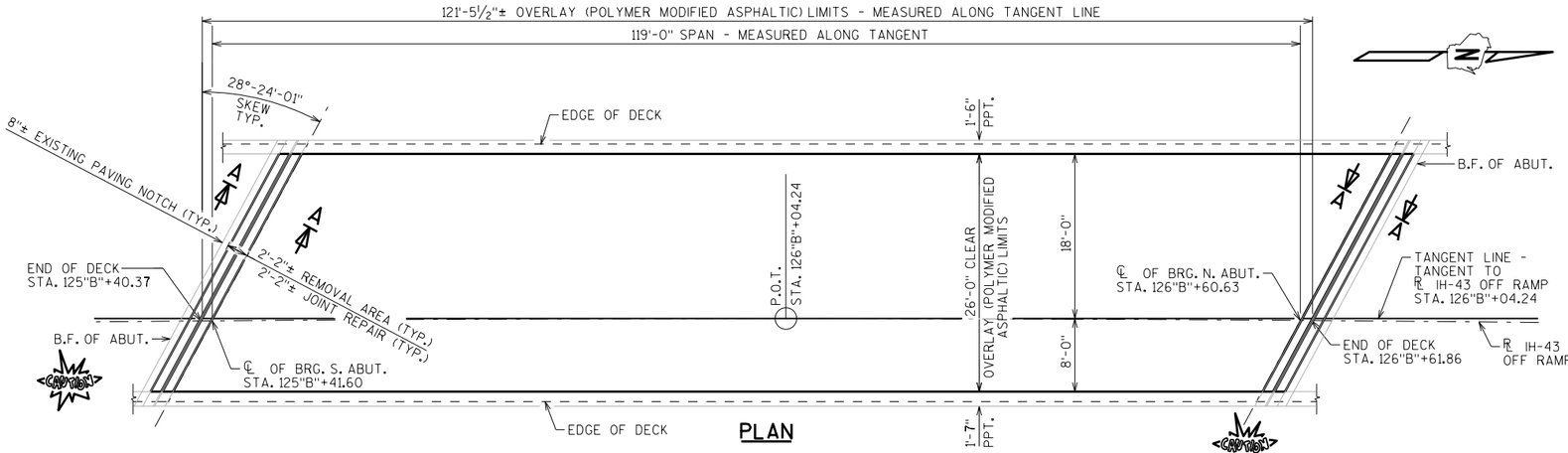
702

SCALE = 1.00

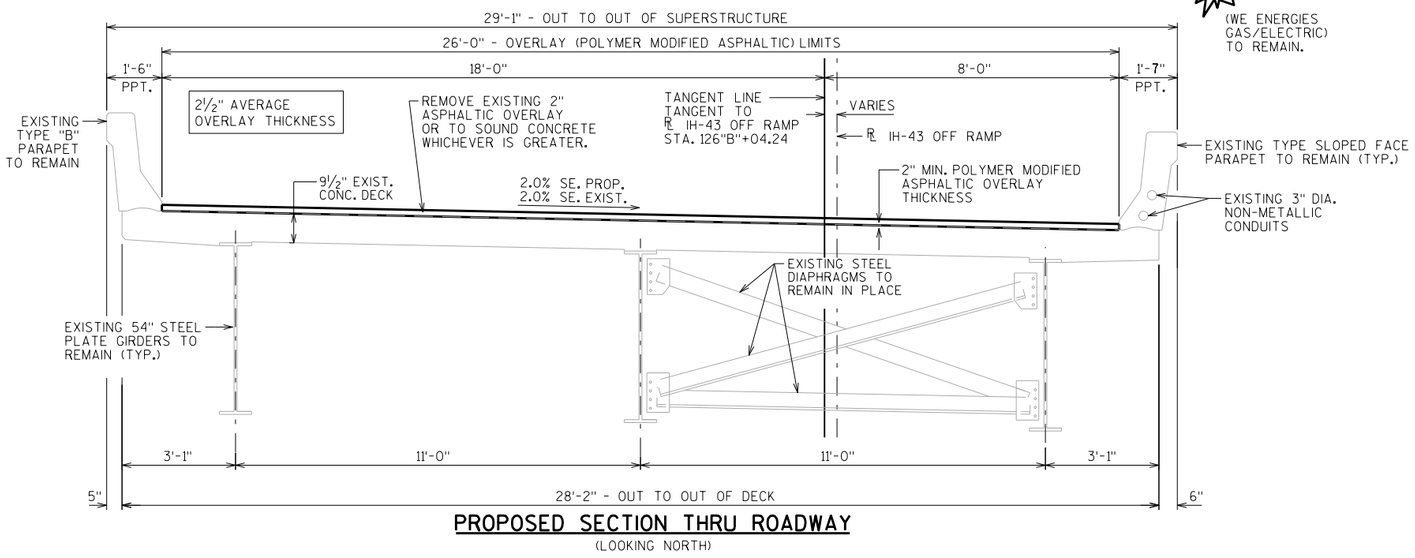
8

8

STATE PROJECT NUMBER
1228-22-72

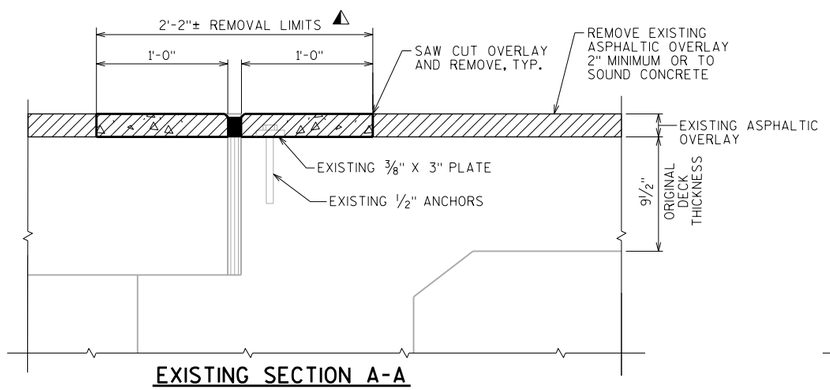


PLAN



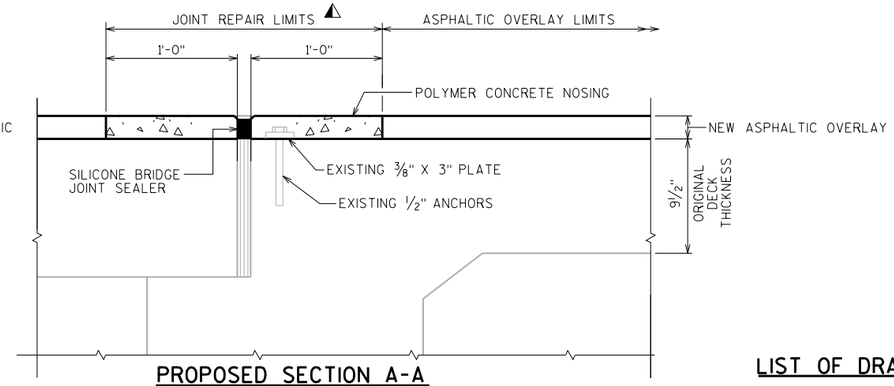
PROPOSED SECTION THRU ROADWAY

(LOOKING NORTH)



EXISTING SECTION A-A

THRU SEMI-EXPANSION JOINT TYP. AT (BOTH ABUTMENTS) NORMAL TO ℄ ABUTMENTS



PROPOSED SECTION A-A

THRU SEMI-EXPANSION JOINT TYP. AT (BOTH ABUTMENTS) NORMAL TO ℄ ABUTMENTS

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

REPAINT ALL EXISTING EXPOSED SUPERSTRUCTURE STEEL - INCLUDING GIRDERS, DIAPHRAGMS, AND HARDWARE. THE FINISH EPOXY TOP COAT SHALL BE BROWN, (FEDERAL STANDARD COLOR NO. 20059) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2" PLACED ABOVE THE DECK SURFACE. EXPECTED AVERAGE OVERLAY THICKNESS IS 2½". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

REMOVE ANY/ALL LOOSE CONCRETE AT ABUTMENTS AND PARAPETS UNDER THE BID ITEM "CONCRETE SURFACE REPAIR". SURFACES SHALL BE BLAST CLEANED AND ANY EXPOSED STEEL REINFORCEMENT SHALL BE BRUSHED CLEAN PRIOR TO THE CONCRETE SURFACE REPAIRS BEING COMPLETED. REPAIR AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECKS REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK REPAIR".

EXISTING ASPHALTIC OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK - 1¾" MINIMUM OR TO SOUND CONCRETE, WHICHEVER IS GREATER. COVERED UNDER ITEM 509.9010.S.

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-26
OPERATING RATING: HS-44
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY-DECK REPAIR	f'c = 4,000 P.S.I.
CONCRETE MASONRY-OTHER	f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 P.S.I.

TOTAL ESTIMATED QUANTITIES (ALL ITEMS ARE CATEGORY 2090)

◐	509.0301	PREPARATION DECKS TYPE 1	1	SY
◐	509.0302	PREPARATION DECKS TYPE 2	1	SY
◐	509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	1	LF
◐	509.1500	CONCRETE SURFACE REPAIR	18	SF
◐	509.2000	FULL-DEPTH DECK REPAIR	1	SY
☆ ◐	509.2100.S	CONCRETE MASONRY DECK REPAIR	1	CY
	509.3500.S	HMA OVERLAY POLYMER-MODIFIED	48	TON
	509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-40-587	350	SY
	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-40-587	1	LS
	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-587	1	LS
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	1	EACH
◭	SPV.0090	BRIDGE JOINT REPAIR	60	LF

☆ BID ITEM INCLUDES CONCRETE FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL DEPTH DECK REPAIR

◐ BID ITEM IS FOR INFORMATIONAL PURPOSES ONLY. ACTUAL QUANTITY MAY VARY AND IS TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

◭ REMOVAL AND REPLACEMENT OF MATERIAL AT JOINT PAID FOR UNDER ITEM "BRIDGE JOINT REPAIR".

LIST OF DRAWINGS

1. POLYMER MODIFIED ASPHALTIC OVERLAY

STRUCTURE DESIGN CONTACTS:

JOHN SENDOR (608) 266-5163
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher 7/31/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-587

IH-43 NB OFF RAMP OVER IH-43 NB ON RAMP

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D. RATINGS	DRAWN BY	PLANS CK'D.
JJS		JJS	MJK

POLYMER MODIFIED ASPHALTIC OVERLAY

SHEET 1 OF 1

703

I.D. 1228-22-02J DATE: OCT. 2017

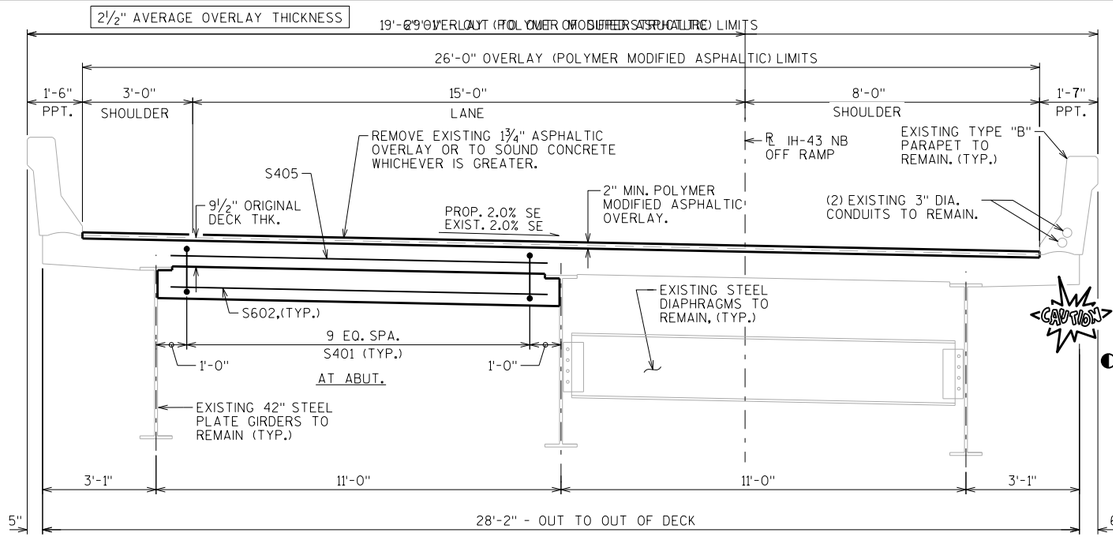
SCALE = 8.00

8

8

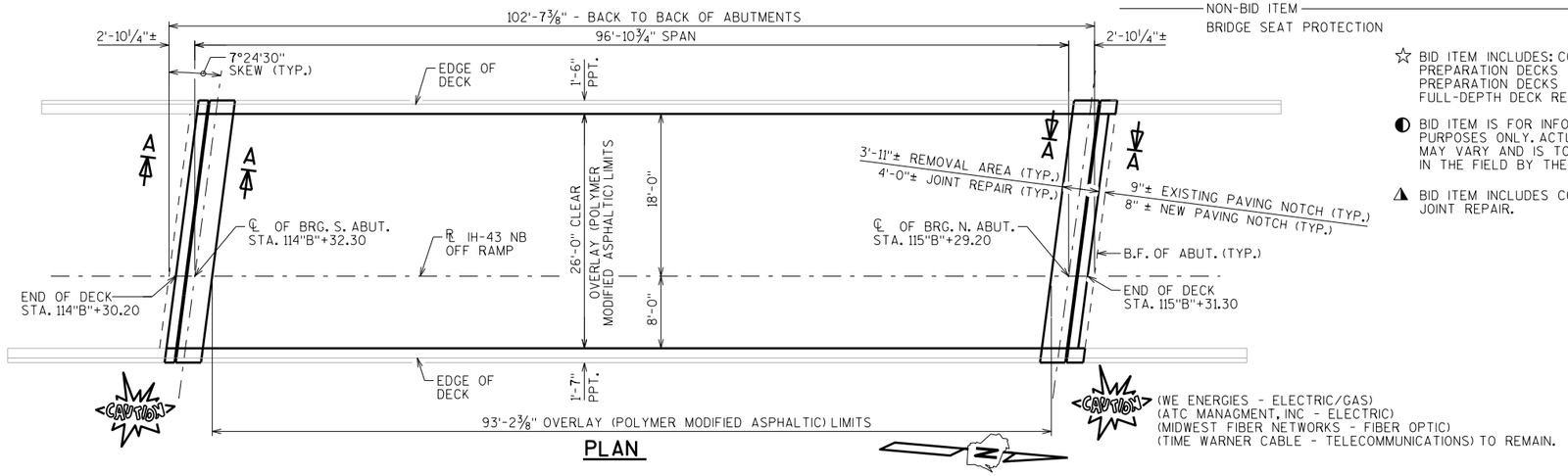
STATE PROJECT NUMBER

1228-22-72



CROSS SECTION THRU ROADWAY

(LOOKING NORTH)



PLAN

(WE ENERGIES - ELECTRIC/GAS)
(ATC MANAGMENT, INC - ELECTRIC)
(MIDWEST FIBER NETWORKS - FIBER OPTIC)
(TIME WARNER CABLE - TELECOMMUNICATIONS) TO REMAIN.

TOTAL ESTIMATED QUANTITIES (ALL ITEMS ARE CATEGORY 2100)

⚠	502.0100	CONCRETE MASONRY BRIDGES	12	CY
	502.3101	EXPANSION DEVICE B-40-602	53	LF
	502.3200	PROTECTIVE SURFACE TREATMENT	24	SY
	502.3210	PIGMENTED SURFACE SEALER	7	SY
	502.4205	ADHESIVE ANCHORS NO. 5 BAR	68	EACH
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	1970	LB
◐	509.0301	PREPARATION DECKS TYPE 1	1	SY
◐	509.0302	PREPARATION DECKS TYPE 2	1	SY
◐	509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	10	LF
	509.1000	JOINT REPAIR	26	SY
◐	509.1500	CONCRETE SURFACE REPAIR	1	SF
◐☆	509.2100.S	CONCRETE MASONRY DECK REPAIR	1	CY
◐	509.2000	FULL-DEPTH DECK REPAIR	1	SY
	509.3500.S	HMA OVERLAY POLYMER-MODIFIED	38	TON
	509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-40-602	269	SY
	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-40-602	1	LS
	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-602	1	LS
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	1	EACH
	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	18	LF
		NON-BID ITEM		
		BRIDGE SEAT PROTECTION		

☆ BID ITEM INCLUDES: CONCRETE FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR.

◐ BID ITEM IS FOR INFORMATIONAL PURPOSES ONLY. ACTUAL QUANTITY MAY VARY AND IS TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

⚠ BID ITEM INCLUDES CONCRETE FOR JOINT REPAIR.

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-24
OPERATING RATING: HS-41
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 KIPS.

MATERIAL PROPERTIES:

CONCRETE MASONRY DECK REPAIR ——— f'c = 4,000 P.S.I.
CONCRETE MASONRY OTHER ——— f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, ——— fy = 60,000 P.S.I. GRADE 60

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE JOINT REPAIR SURFACE.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE FRONT FACE AND TOP OF NEW PARAPETS AT JOINT REPAIR LOCATIONS, COLOR TO BE APPROVED BY ENGINEER.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF ALL ABUTMENTS AND BELOW EXPANSION DEVICES.

RE-PAINT ALL EXISTING EXPOSED SUPERSTRUCTURE STEEL - INCLUDING GIRDERS, DIAPHRAGMS AND HARDWARE. THE FINISH EPOXY TOP COAT SHALL BE BROWN, (FEDERAL STANDARD COLOR NO. 20059) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ANY EXCAVATION NECESSARY TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "HMA OVERLAY POLYMER-MODIFIED".

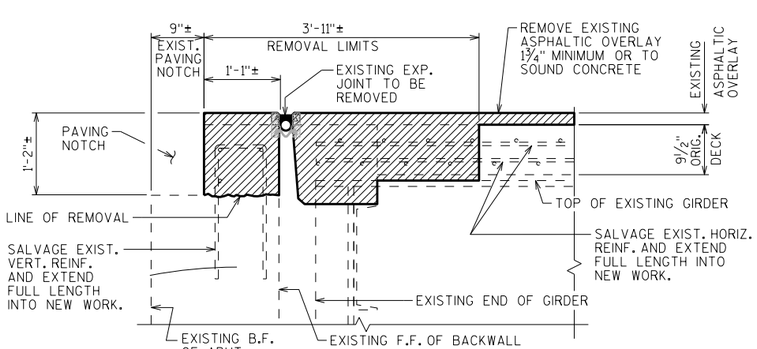
PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2" PLACED ABOVE THE DECK SURFACE. EXPECTED AVERAGE OVERLAY THICKNESS IS 2½". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

REMOVE ANY/ALL LOOSE CONCRETE AT ABUTMENTS AND PARAPETS UNDER THE BID ITEM "CONCRETE SURFACE REPAIR". SURFACES SHALL BE BLAST CLEANED AND ANY EXPOSED STEEL REINFORCEMENT SHALL BE BRUSHED CLEAN PRIOR TO THE CONCRETE SURFACE REPAIRS BEING COMPLETED. REPAIR AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECKS REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK REPAIR".

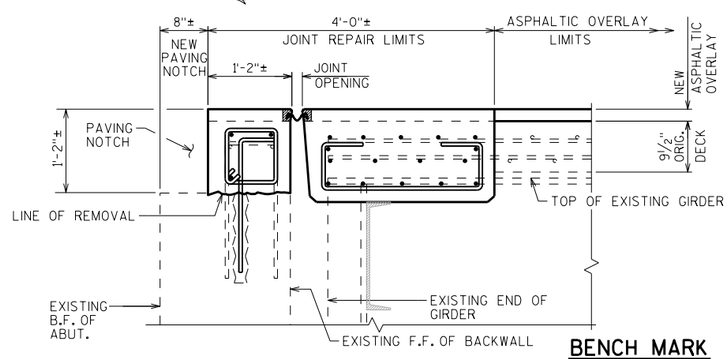
AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

EXISTING ASPHALTIC OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK - 1¾" MINIMUM OR TO SOUND CONCRETE, WHICHEVER IS GREATER. COVERED UNDER ITEM 509.9010.S.



EXISTING SECTION A-A

SHOWING REMOVAL
TYP. (BOTH ABUTMENTS)
NORMAL TO ℄ OF ABUTMENTS



PROPOSED SECTION A-A

TYP. (BOTH ABUTMENTS)
NORMAL TO ℄ OF ABUTMENTS

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
55	115+50	TOP OF 1"X24" IRON PIPE - 98'LT.	628.51
7	117+85	TOP OF LOWER NE BOLT OF HYDRANT - 410'RT.	631.84

LIST OF DRAWINGS

1. POLYMER MODIFIED ASPHALTIC OVERLAY
2. ABUTMENT DETAILS
3. PARAPET DETAILS
4. EXPANSION DEVICE
5. COVER PLATE DETAILS

STRUCTURE DESIGN CONTACTS:
JOHN SENDOR (608) 266-5163
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher 7/31/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-40-602

IH-43 NB OFF RAMP OVER LEXINGTON BLVD.

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
JJS	VT	JJS	MJK

POLYMER MODIFIED ASPHALTIC OVERLAY

SHEET 1 OF 5

704

I.D. 1228-22-02K DATE: OCT. 2017

SCALE = 8.00

STATE PROJECT NUMBER

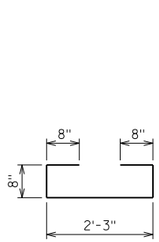
1228-22-72

BILL OF BARS

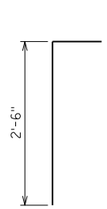
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	40	4'-7"	X		ABUT. DIAPH. - VERT.
S602	X	20	10'-7"			ABUT. DIAPH. - HORIZ.
S503	X	18	27'-10"			JOINT REPAIR - HORIZ.
(A23) S504	X	52	3'-3"	X		BACKWALL/PAV. BLOCK - CONC. ADHESIVE ANCHORS - VERT.
S405	X	8	10'-7"			EXPANSION DEVICE - HORIZ. - BETWEEN GIRDERS
S506	X	16	4'-4"	X		EAST PARAPET - VERT.
(A23) S507	X	8	3'-6"	X		CONC. ADHESIVE ANCHORS - VERT.
(A23) S508	X	8	3'-5"			CONC. ADHESIVE ANCHORS - VERT.
S509	X	16	4'-3"	X		WEST PARAPET - VERT.
S510	X	36	4'-4"	X		EAST/WEST PARAPET - VERT.
S511	X	10	1'-6"			EAST/WEST PARAPET - HORIZ.
S512	X	20	2'-6"			EAST/WEST PARAPET - HORIZ.
S513	X	10	0'-10"			EAST/WEST PARAPET - HORIZ.

(A23) ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" INTO EXISTING CONCRETE.



S401



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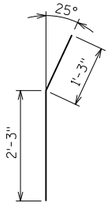
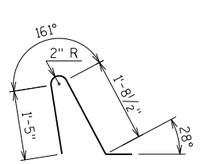


S507



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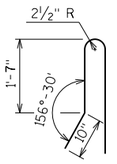
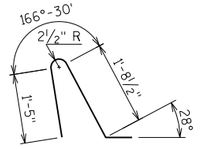


S510



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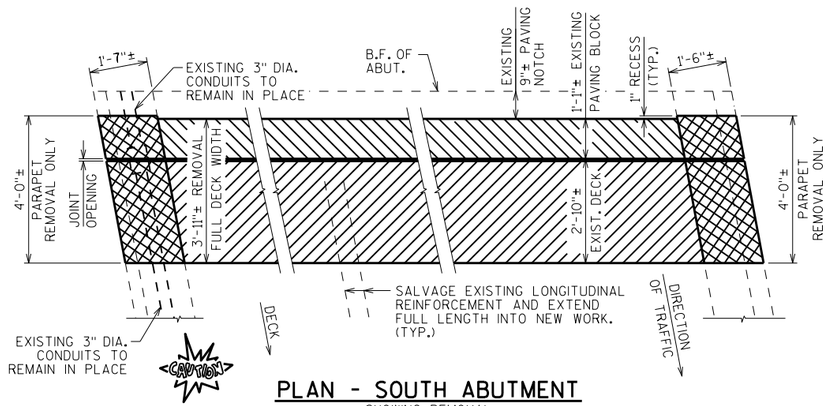
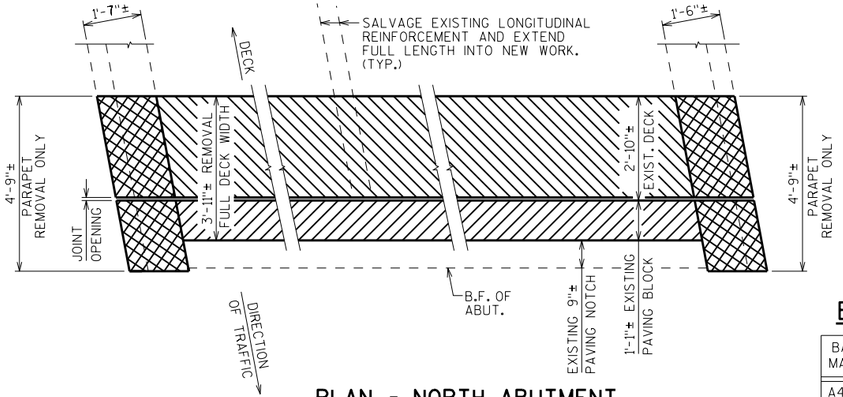


PLAN - SOUTH ABUTMENT

SHOWING REMOVAL



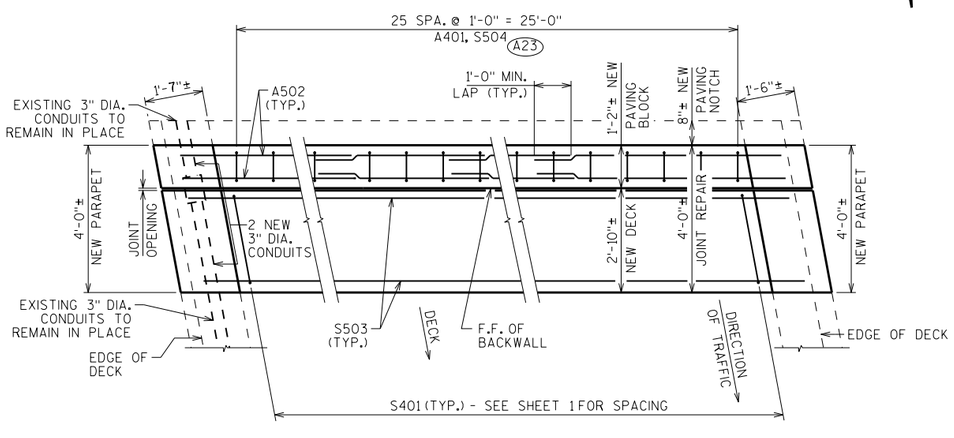
PLAN - NORTH ABUTMENT

SHOWING REMOVAL

BILL OF BARS

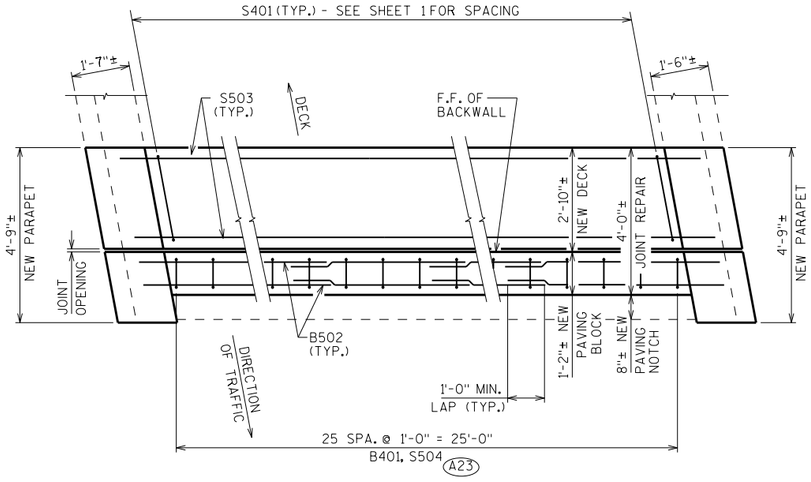
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A401	X	26	3'-10"	X		PAVING BLOCK - VERT. - S. ABUT.
A502	X	12	7'-9"			PAVING BLOCK - HORIZ. - S. ABUT.
B401	X	26	3'-10"	X		PAVING BLOCK - VERT. - N. ABUT.
B502	X	12	7'-9"			PAVING BLOCK - HORIZ. - N. ABUT.



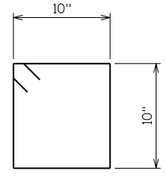
PLAN - SOUTH ABUTMENT

PARAPET BARS NOT SHOWN



PLAN - NORTH ABUTMENT

PARAPET BARS NOT SHOWN



A401, B401

NOTE:
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-602

DRAWN BY JJS | PLANS CK'D. MJK

ABUTMENT DETAILS

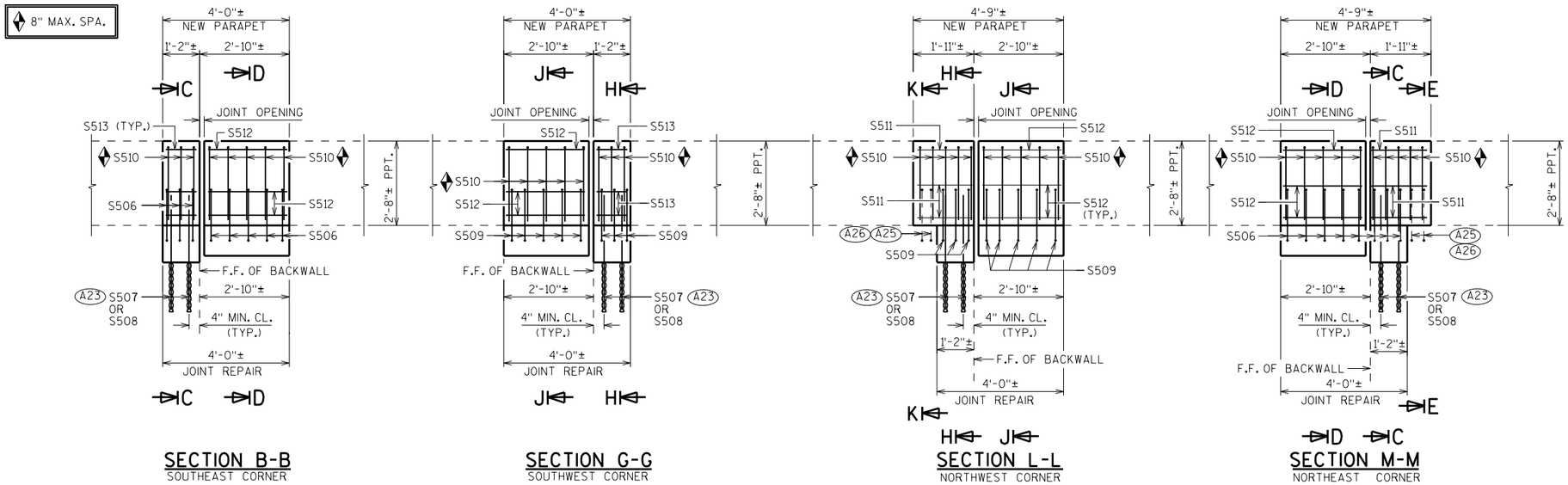
SHEET 2

705

SCALE = 4.00

8

8

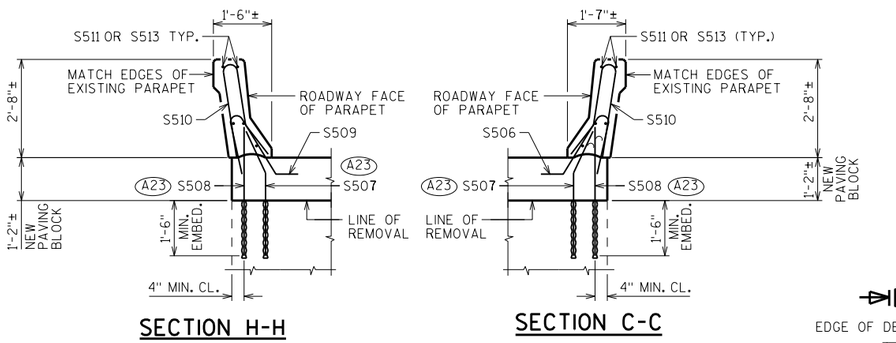


SECTION B-B
SOUTHEAST CORNER

SECTION G-G
SOUTHWEST CORNER

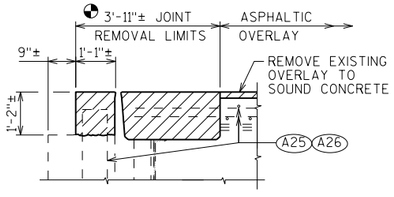
SECTION L-L
NORTHWEST CORNER

SECTION M-M
NORTHEAST CORNER

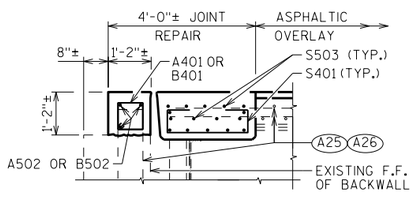


SECTION H-H

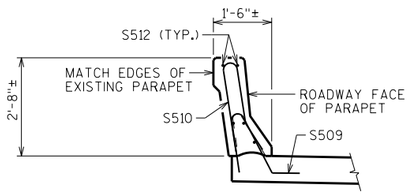
SECTION C-C



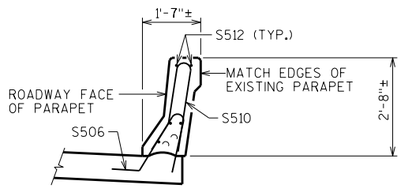
EXISTING SECTION F-F
SHOWING REMOVAL



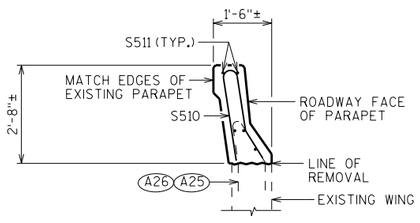
NEW SECTION F-F



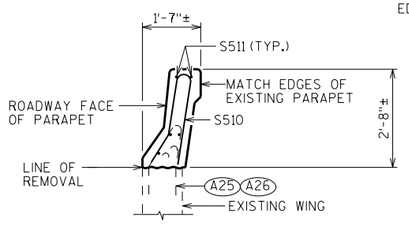
SECTION J-J



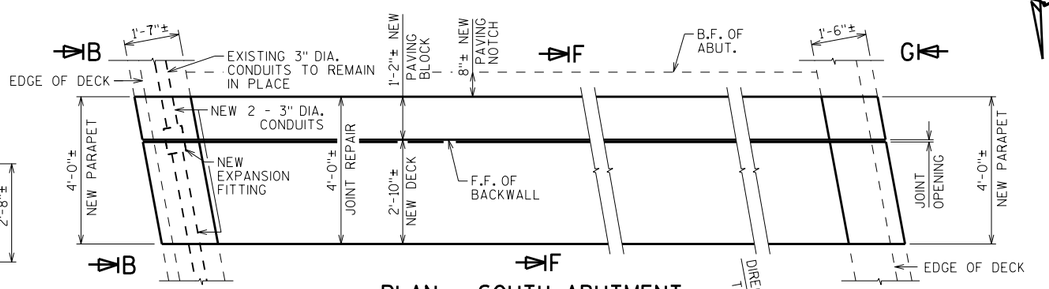
SECTION D-D



SECTION K-K



SECTION E-E



PLAN - SOUTH ABUTMENT

PLAN - NORTH ABUTMENT

STATE PROJECT NUMBER
1228-22-72

NOTE:
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

SEE SHEET 2 FOR CORRESPONDING PARAPET REMOVAL LIMITS.

(A23) ADHESIVE ANCHORS NO. 5 BARS. EMBED 1'-6" INTO EXIST. CONCRETE.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

(A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH ADHESIVE ANCHORED NO. 5 L-SHAPED BARS WITH A 10" HORIZ. LEG. EMBED 1'-6". WORK TO BE PAID UNDER ITEM "JOINT REPAIR".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-602

DRAWN BY JJS | PLANS CK'D. MJK

PARAPET DETAILS

SHEET 3

706

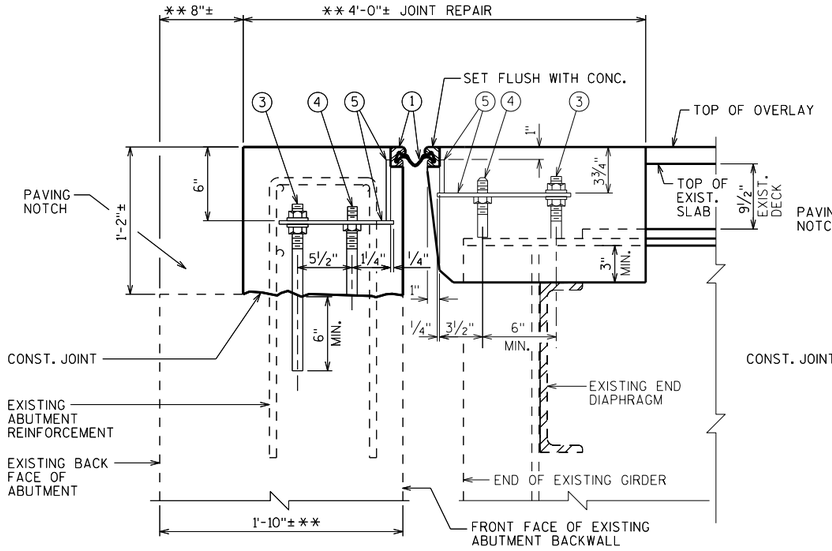
SCALE = 4.00

8

8

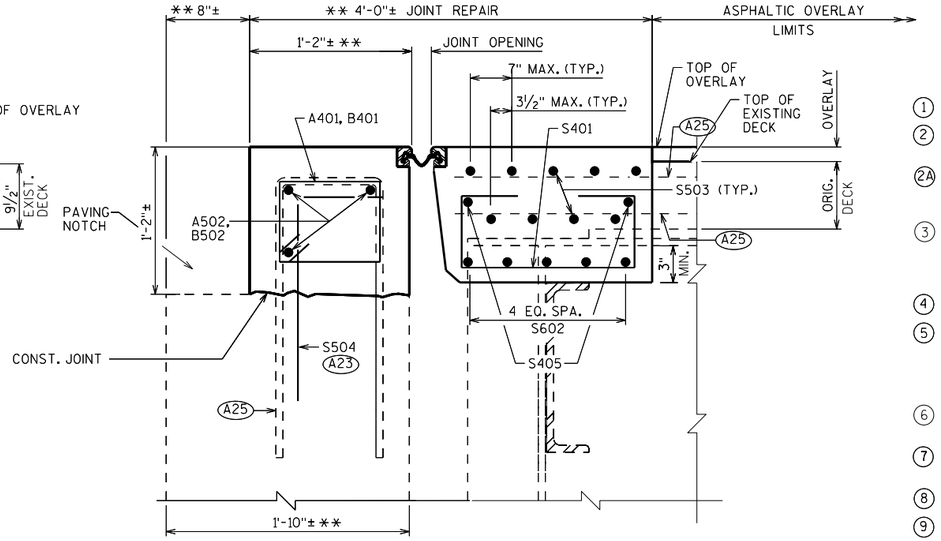
STATE PROJECT NUMBER

1228-22-72



SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)



SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)

** DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE

(A23) ADHESIVE ANCHORS NO. 5 BARS. EMBED 1'-6" INTO EXIST. CONCRETE.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.

(2) STUDS ⅝" DIA.X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 & 1" DIA. HOLE FOR NO. 4.

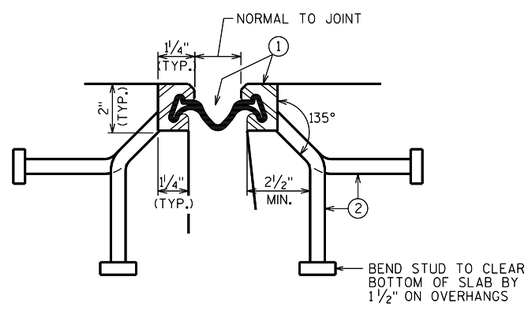
(6) GALVANIZED PLATE ⅜" X 1'-0" X 2'-2" LIMITS SHOWN WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. RECESS 1/16" BELOW PLATE SURFACE.

(8) ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

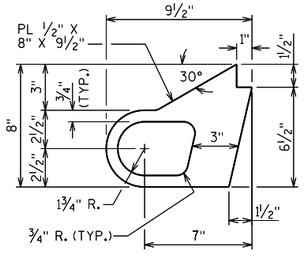
(9) ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED CSK. HOLE FOR NO. 7. SLOT PARALLEL TO DIRECTION OF MOVEMENT.

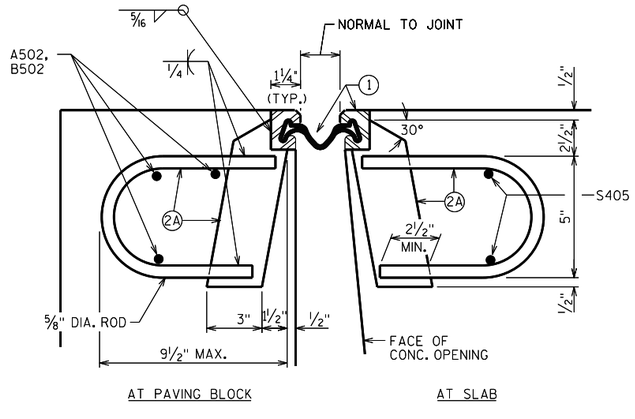


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF SLAB AT PARAPETS

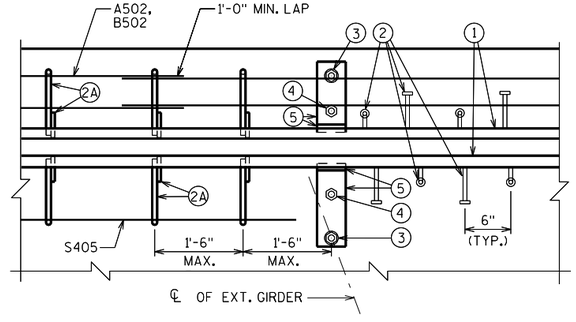


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-40-602".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-602

DRAWN BY JJS | PLANS CK'D. MJK

EXPANSION DEVICE

SHEET 4

707

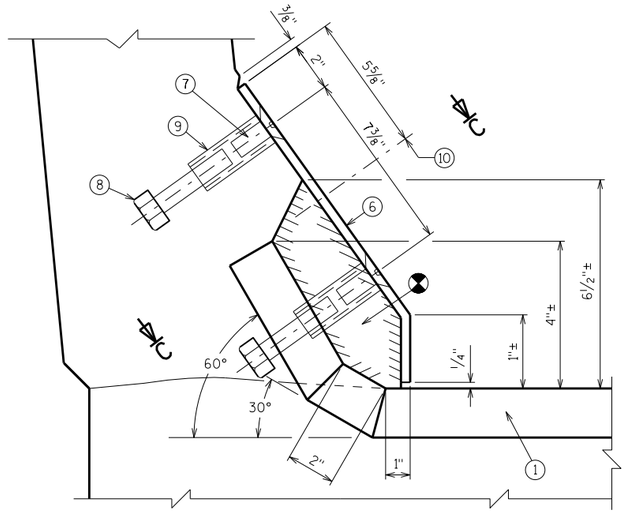
8

8

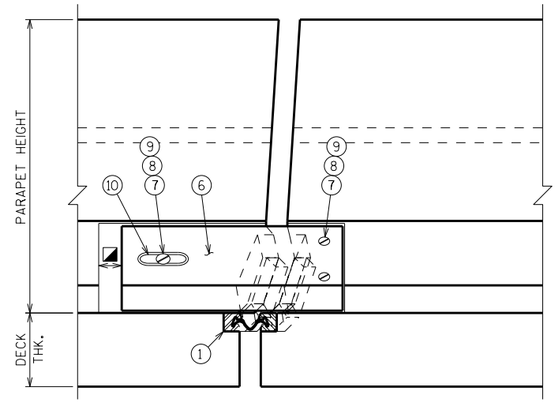
SCALE = 1.00

STATE PROJECT NUMBER

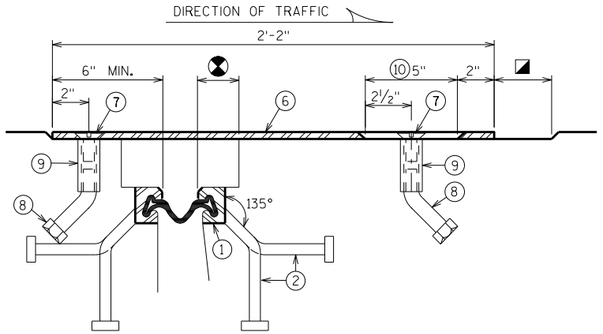
1228-22-72



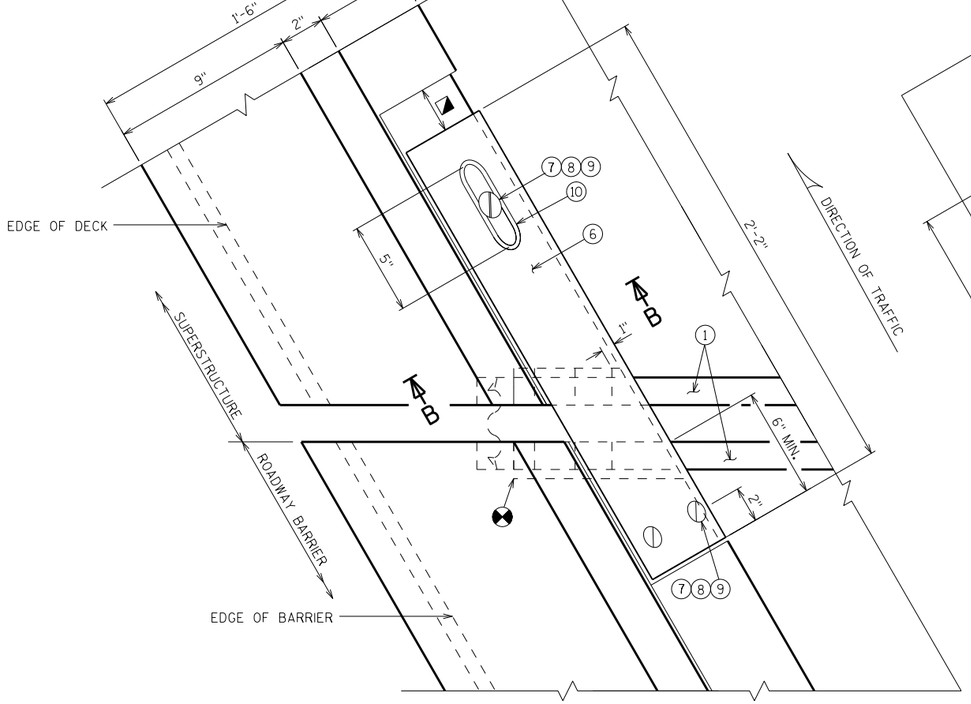
PARAPET TYPE B
SECTION B-B

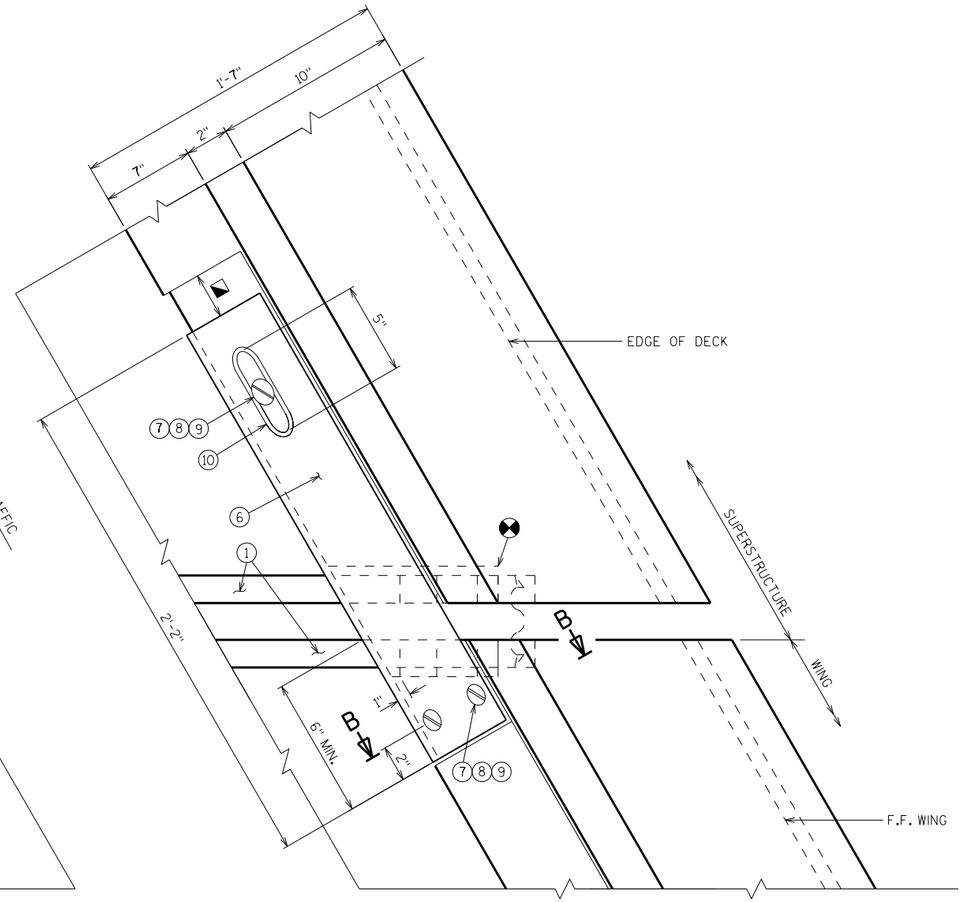


VIEW OF PARAPET PLATE FROM ROADWAY
SOUTH ABUTMENT SHOWN
NORTH ABUTMENT SIMILAR



SECTION C-C





PLAN
SOUTH ABUTMENT SHOWN
NORTH ABUTMENT SIMILAR

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIM. ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-602

DRAWN BY JJS | PLANS CK'D. MJK

COVER PLATE DETAILS

SHEET 5

708

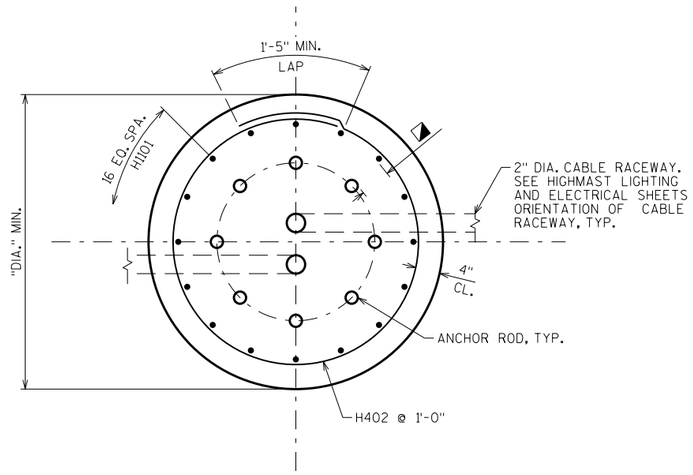
SCALE = 1.00

8

8

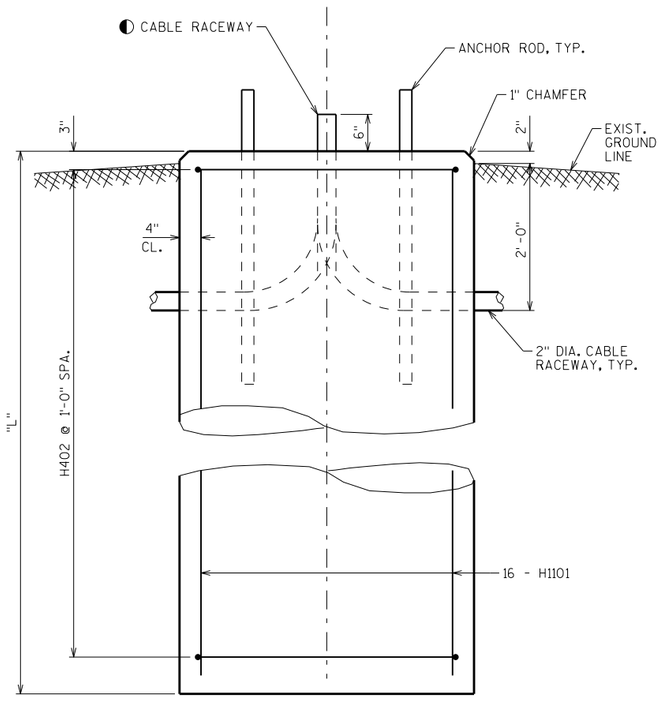
STATE PROJECT NUMBER

1228-22-72



DRILLED SHAFT PLAN

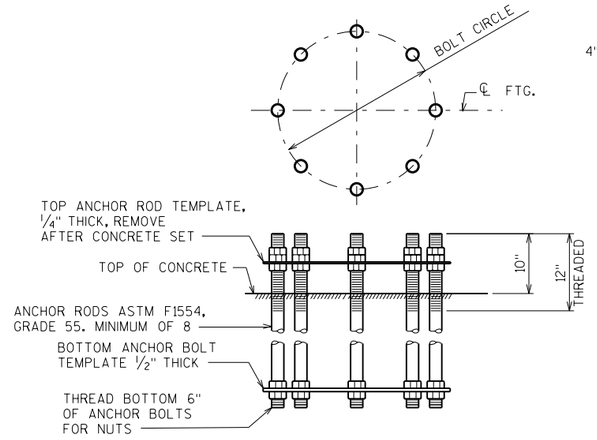
◪ REINFORCEMENT TO CLEAR ANCHOR BOLTS BY ½" MIN.



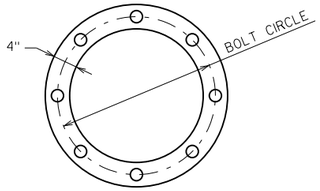
DRILLED SHAFT ELEVATION

SHAFT CASINGS, IF USED, SHALL BE REMOVED CONCURRENTLY WITH PLACING OF CONCRETE.

◐ SEE HIGHMAST LIGHTING AND ELECTRICAL SHEETS FOR ORIENTATION OF CABLE RACEWAY.



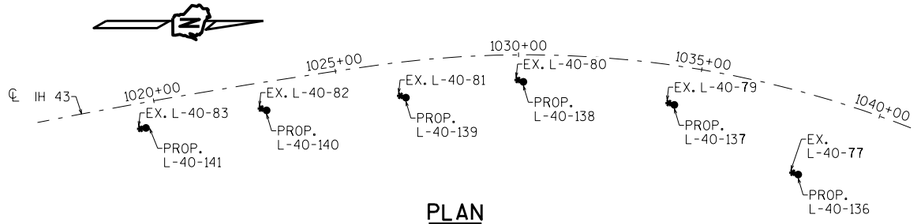
ANCHOR ROD DETAILS



TOP VIEW OF TOP & BOTTOM TEMPLATES

FOUNDATION QUANTITIES

TOWER NUMBER	POLE HEIGHT (FT)	"L" FEET	"DIA." FEET	H1101	H402	CONCRETE MASONRY C.Y.	HIGH STRENGTH BAR STEEL REINFORCEMENT LB.
L-40-136	150	18'-0"	4'-6"	17'-6"	13'-5"	11	1655
L-40-137	100	18'-0"	4'-6"	17'-6"	13'-5"	11	1655
L-40-138	100	18'-0"	4'-6"	17'-6"	13'-5"	11	1655
L-40-139	100	18'-0"	4'-6"	17'-6"	13'-5"	11	1655
L-40-140	120	18'-0"	4'-6"	17'-6"	13'-5"	11	1655
L-40-141	120	18'-0"	4'-6"	17'-6"	13'-5"	11	1655
					TOTAL	66	9930



PLAN

NEW FOUNDATIONS ARE TO BE APPROXIMATELY 15 FEET TO THE NORTH, MAINTAINING THE SAME LATERAL OFFSET FROM ℄ AS THE EXISTING FOUNDATIONS. ACTUAL LOCATIONS TO BE DETERMINED BY ENGINEER.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	CATEGORY 9000	9001	9002	9003	9004	9005	TOTAL QTY
204.9060.S	REMOVE HIGH MAST LIGHTING TOWER	EA	1	1	1	1	1	1	6
660.0100	HIGH MAST LIGHT FOUNDATION - L-40-136	LS	1						1
660.0100	HIGH MAST LIGHT FOUNDATION - L-40-137	LS		1					1
660.0100	HIGH MAST LIGHT FOUNDATION - L-40-138	LS			1				1
660.0100	HIGH MAST LIGHT FOUNDATION - L-40-139	LS				1			1
660.0100	HIGH MAST LIGHT FOUNDATION - L-40-140	LS					1		1
660.0100	HIGH MAST LIGHT FOUNDATION - L-40-141	LS						1	1
660.0200	HIGH MAST LIGHT TOWER - L-40-136	LS	1						1
660.0200	HIGH MAST LIGHT TOWER - L-40-137	LS		1					1
660.0200	HIGH MAST LIGHT TOWER - L-40-138	LS			1				1
660.0200	HIGH MAST LIGHT TOWER - L-40-139	LS				1			1
660.0200	HIGH MAST LIGHT TOWER - L-40-140	LS					1		1
660.0200	HIGH MAST LIGHT TOWER - L-40-141	LS						1	1
SPV.0060	ABANDON HIGH MAST FOUNDATION	EA	1	1	1	1	1	1	6

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE FOUNDATION DESIGNS ARE NOT ALLOWED.

ALL STRUCTURAL STEEL MEMBERS, PLATES, ANCHOR RODS, H.S. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED PER SECTION 660 OF THE WISDOT STANDARD SPECIFICATIONS.

CONTRACTOR SHALL VERIFY DIMENSIONS PRIOR TO FABRICATION OF STRUCTURE.

WELD TEST AS PER AWS D1.1.

EXACT LOCATION OF HIGH MAST LIGHT BASE SHALL BE DETERMINED BY THE REGION LIGHTING ENGINEER.

CONTRACTOR SHALL VERIFY UTILITY CONFLICTS PRIOR TO CONSTRUCTION OF FOOTINGS.

POLE AND ANCHOR RODS TO BE DESIGNED TO AASHTO STANDARD SPECS. FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 6TH ED WITH 2015 INTERIMS.

POLE FABRICATOR TO DESIGN AND SUPPLY POLE, ANCHOR RODS AND TEMPLATES IN ACCORDANCE WITH THE PLANS AND STANDARD SPECIFICATIONS.

OUTSIDE DIA. OF DRILLED SHAFT AT TOP IS DEPENDENT ON ANCHOR BOLT CIRCLE REQUIRED FOR POLE. MAINTAIN 4" MIN. COVER OF REINFORCEMENT.

INSTALL STRUCTURE ID PLAQUE PER S.D.D. 10 A 4-3

SEE HIGH MAST LIGHT ELECTRICAL SHEETS FOR LUMINAIRE AND HARDWARE INFORMATION.

EXISTING FOUNDATIONS TO BE ABANDONDED. SEE SPECIAL PROVISIONS FOR DETAILS.

REMOVAL OF EXISTING HIGH MAST LIGHT TOWERS SHALL START AS SOON AS THE TEMPORARY LIGHTING OR PERMANENT LIGHTING, AS APPLICABLE, IS PLACED IN APPROVED OPERATION. STRUCTURAL AND ELECTRICAL INSPECTIONS WILL TAKE PLACE BEFORE ANY PROPOSED PERMANENT OR TEMPORARY LIGHTING IS APPROVED FOR OPERATION.

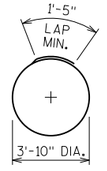
MATERIAL PROPERTIES:

CONCRETE MASONRY ——— f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 ——— fy = 60,000 P.S.I.

STRUCTURAL CARBON STEEL:
ASTM A709, GRADE 50 ——— fy = 36,000 P.S.I.

ANCHOR RODS, ASTM F1554, GRADE 55 - ——— fy = 55,000 P.S.I.
ASTM A563A HEAVY HEX NUTS, AND ASTM F436 WASHERS.



H402

STRUCTURE DESIGN CONTACTS:

STEVEN DOOCY (608) 261-6063
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher 11/21/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE L-40-136 TO 141

HML REPLACEMENT SILVER SPRING INTERCHANGE

COUNTY MILWAUKEE | CITY GLENDALE

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
SAD	MJK	SAD	MJK

HML FOUNDATIONS

SHEET 1 OF 2

709

I.D. 1228-22-02 DATE: NOV 2019

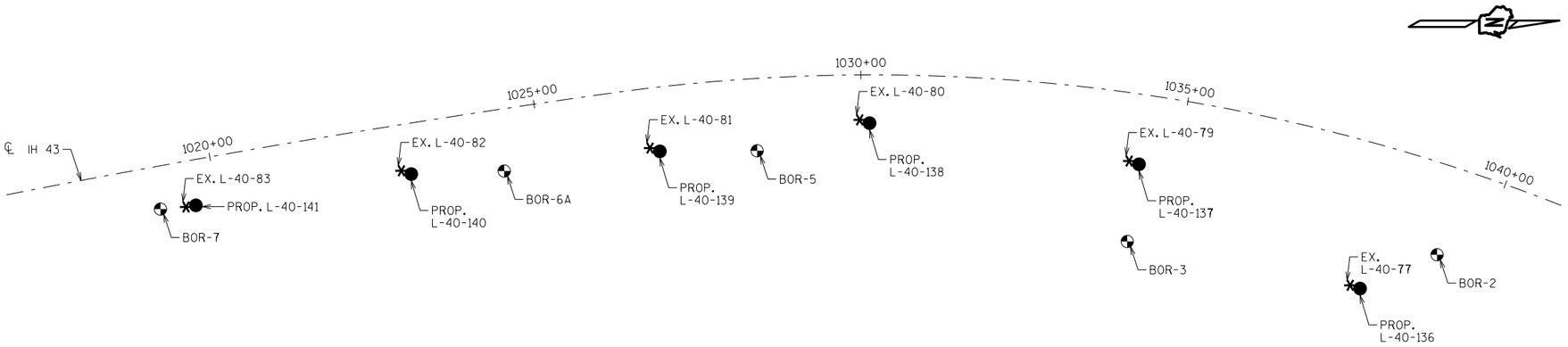
SCALE = 1.00

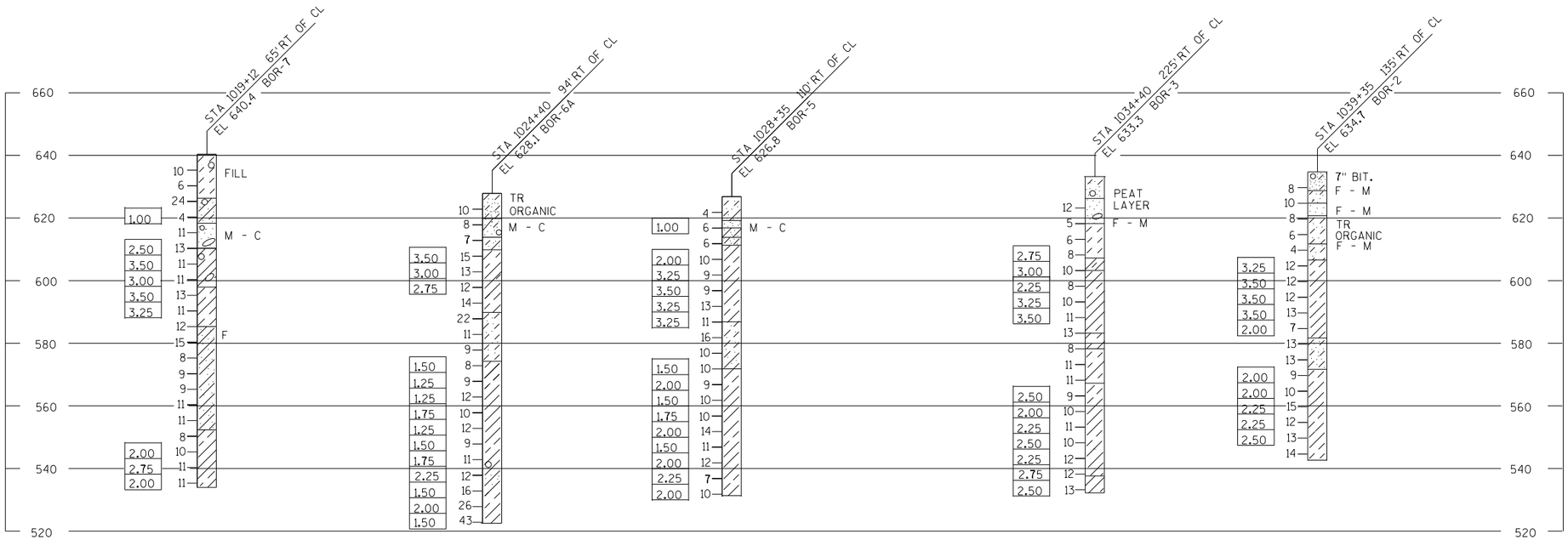
8

8

HIGHMAST LIGHTING, I43 & SILVER SPRING INTERCHANGE, MILWAUKEE CO.

NOTE: BORING LOCATIONS ARE APPROXIMATE. ACTUAL BORING DATA FROM 1986 REPORTED WITH PROJECT ID 1228-01-94. VALUES OBTAINED FROM ORIGINAL BORINGS WERE USED TO DESIGN THE NEW FOUNDATIONS.





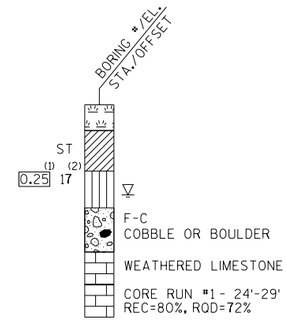
STATE PROJECT NUMBER

1228-22-72

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE L-40-136-141

DRAWN BY SAD | PLANS CK'D. MJK

SUBSURFACE EXPLORATION

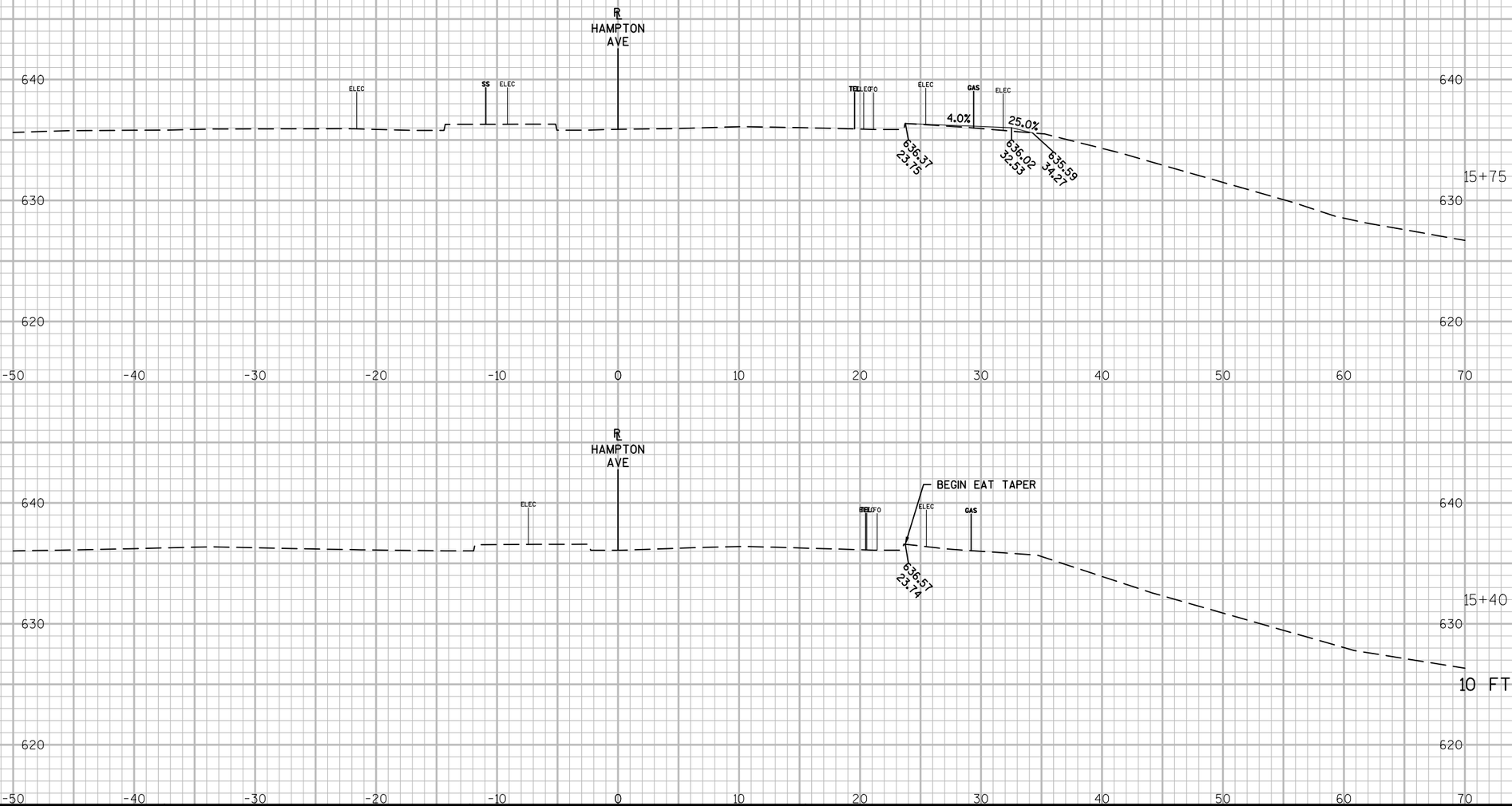
SHEET 2

710

8

8

SCALE = 100.00



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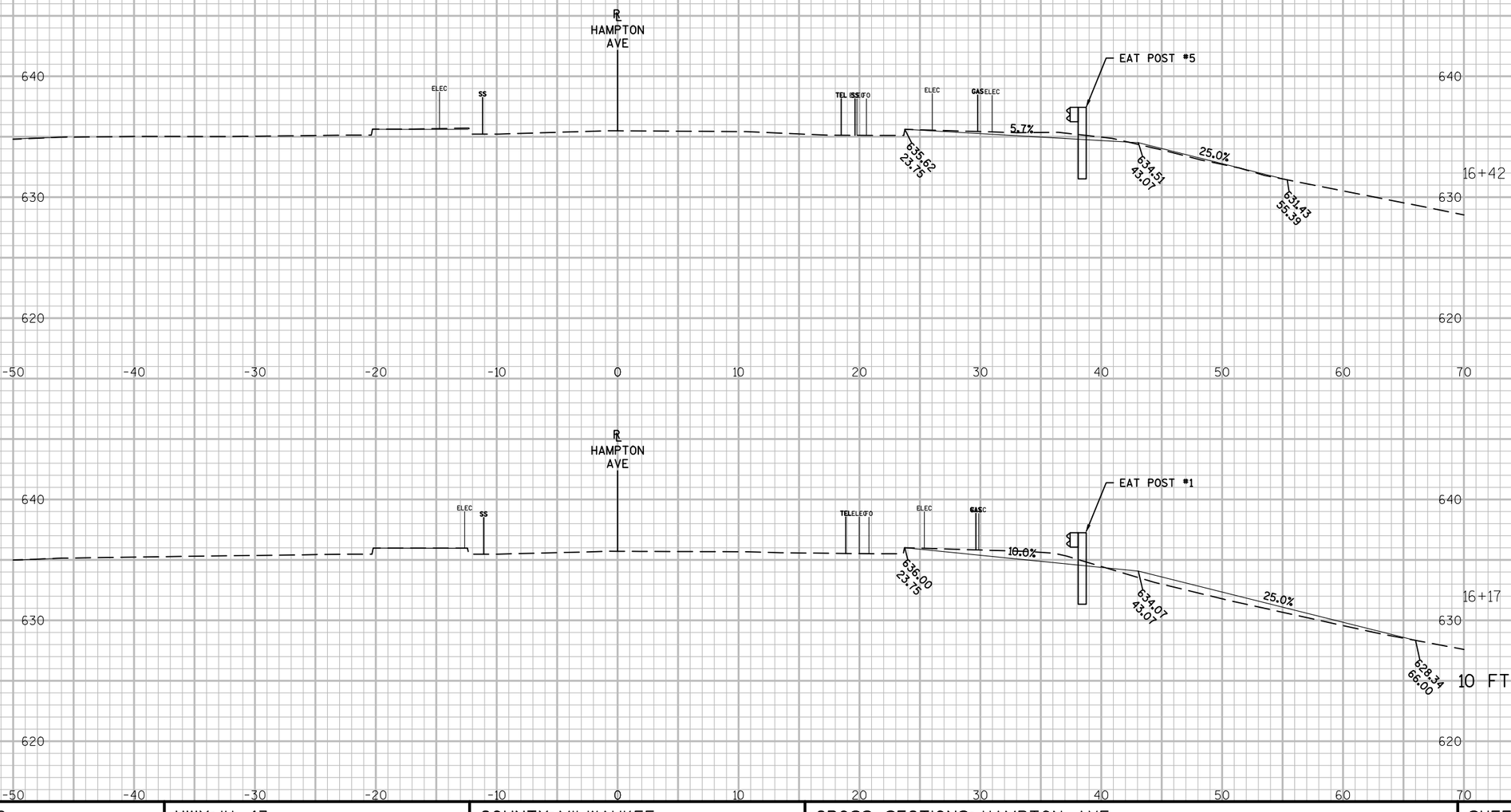
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: HAMPTON AVE	SHEET 711	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\CROSS SECTIONS\12282272_CS_HAMPTON AVE.DWG
LAYOUT NAME - 090201-XS

PLOT DATE : 4/24/2018 7:56 AM PLOT BY : LIMBERATOS, EVAN P PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: HAMPTON AVE	SHEET 712	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\CROSS SECTIONS\12282272_CS_HAMPTON AVE.DWG
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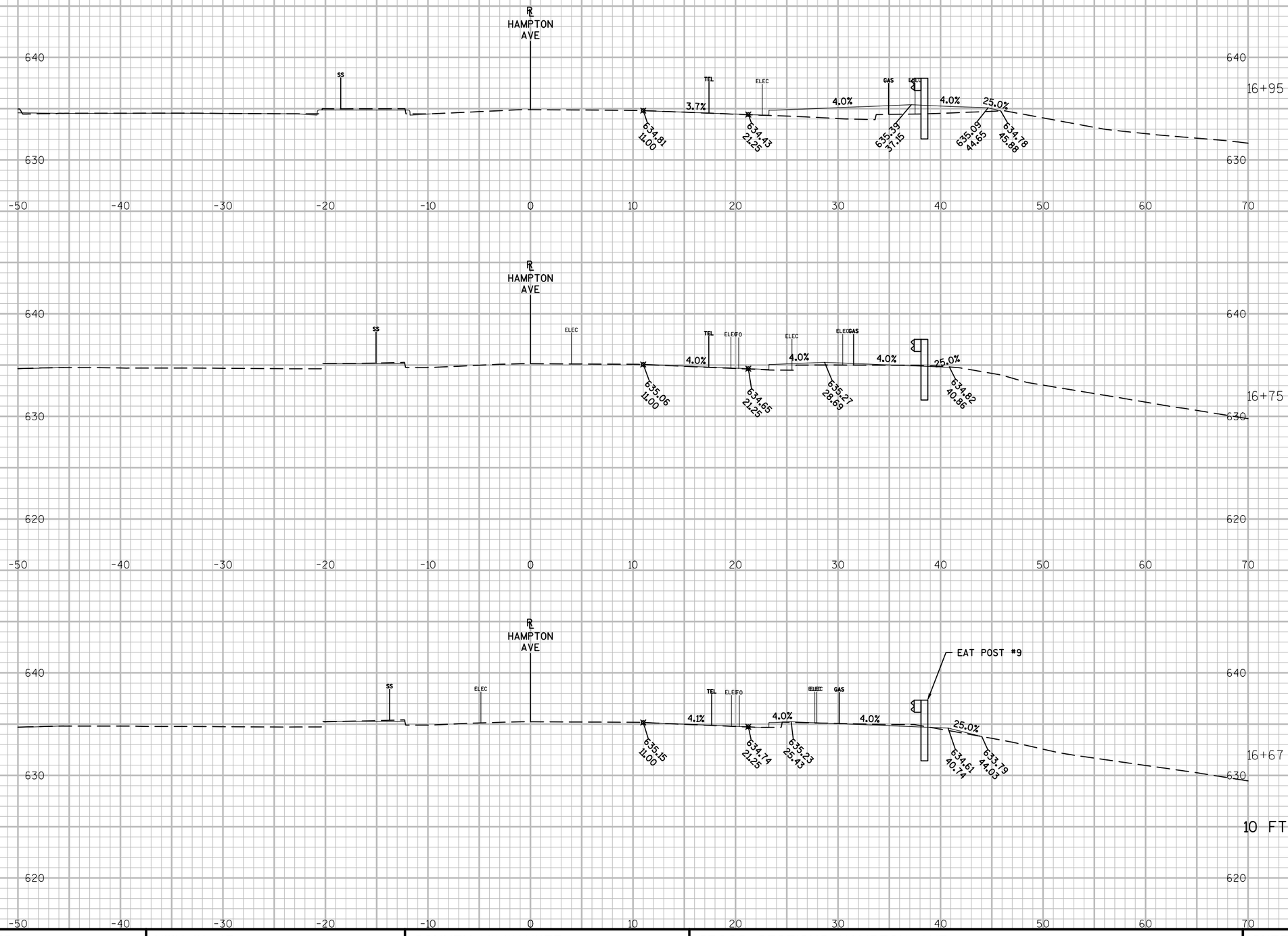

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PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: HAMPTON AVE	SHEET 713	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\CROSS SECTIONS\12282272_CS_HAMPTON AVE.DWG
LAYOUT NAME - 090203-XS
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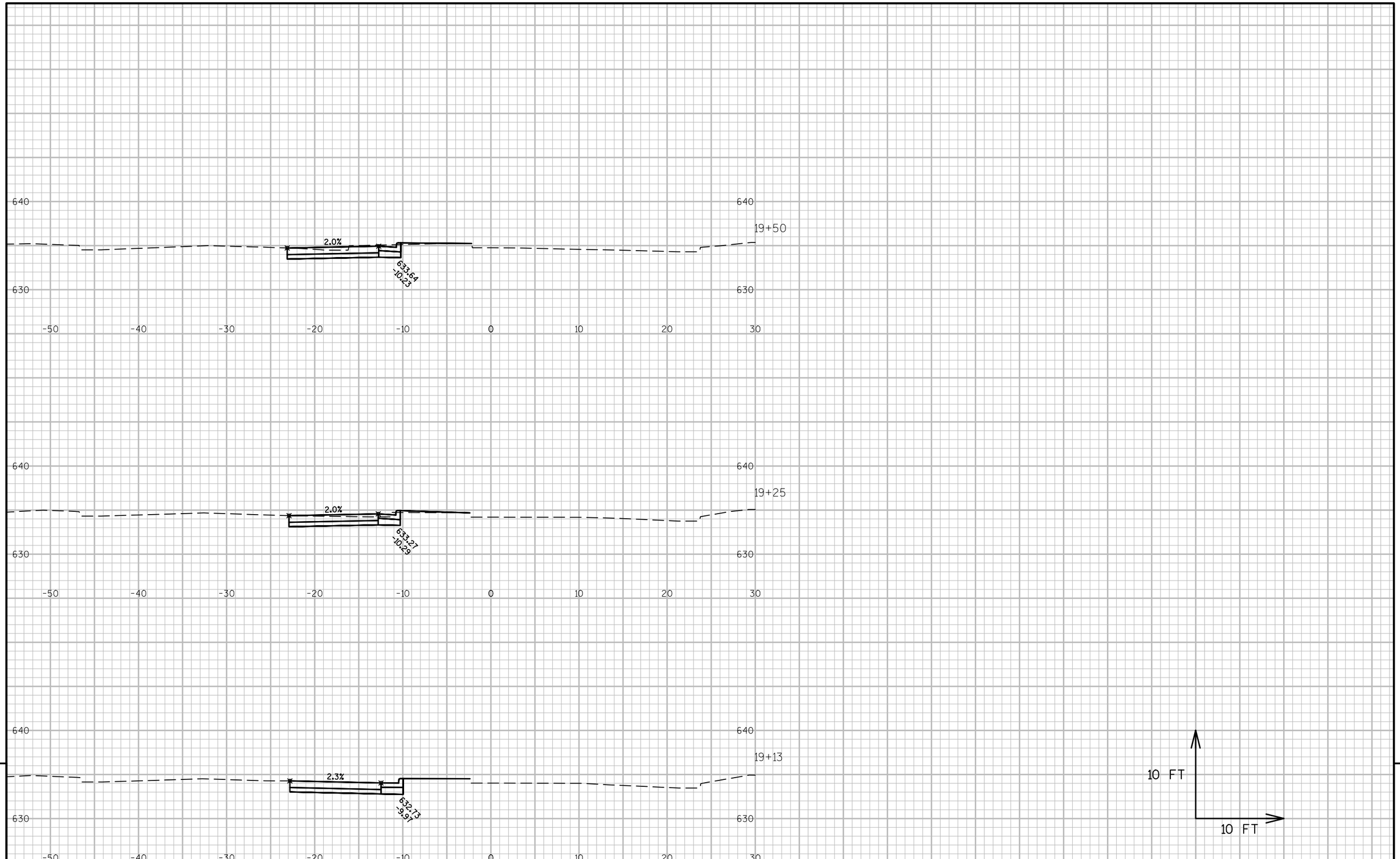

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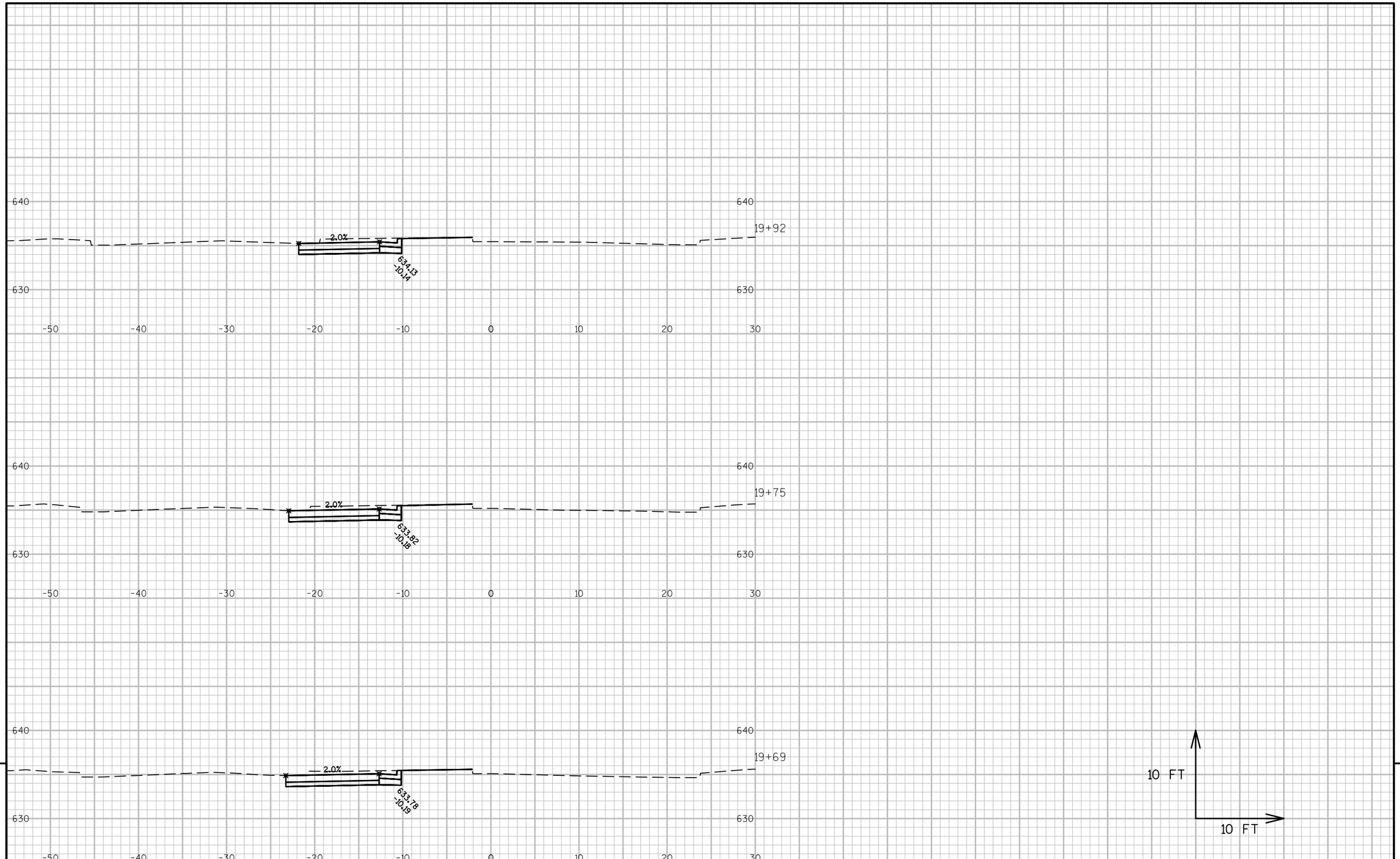
9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: WB HAMPTON AVE EXTENDED LEFT TURN LANE	SHEET 714	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\CROSS SECTIONS\12282272_CS_EXTENDED LEFT TURN LANES.DWG
LAYOUT NAME - 090204-XS
PLOT DATE : 6/19/2019 4:07 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:10 FT



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PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: WB HAMPTON AVE EXTENDED LEFT TURN LANE	SHEET 715 E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\CROSS SECTIONS\12282272_CS_EXTENDED LEFT TURN LANES.DWG
LAYOUT NAME - 090205-XS
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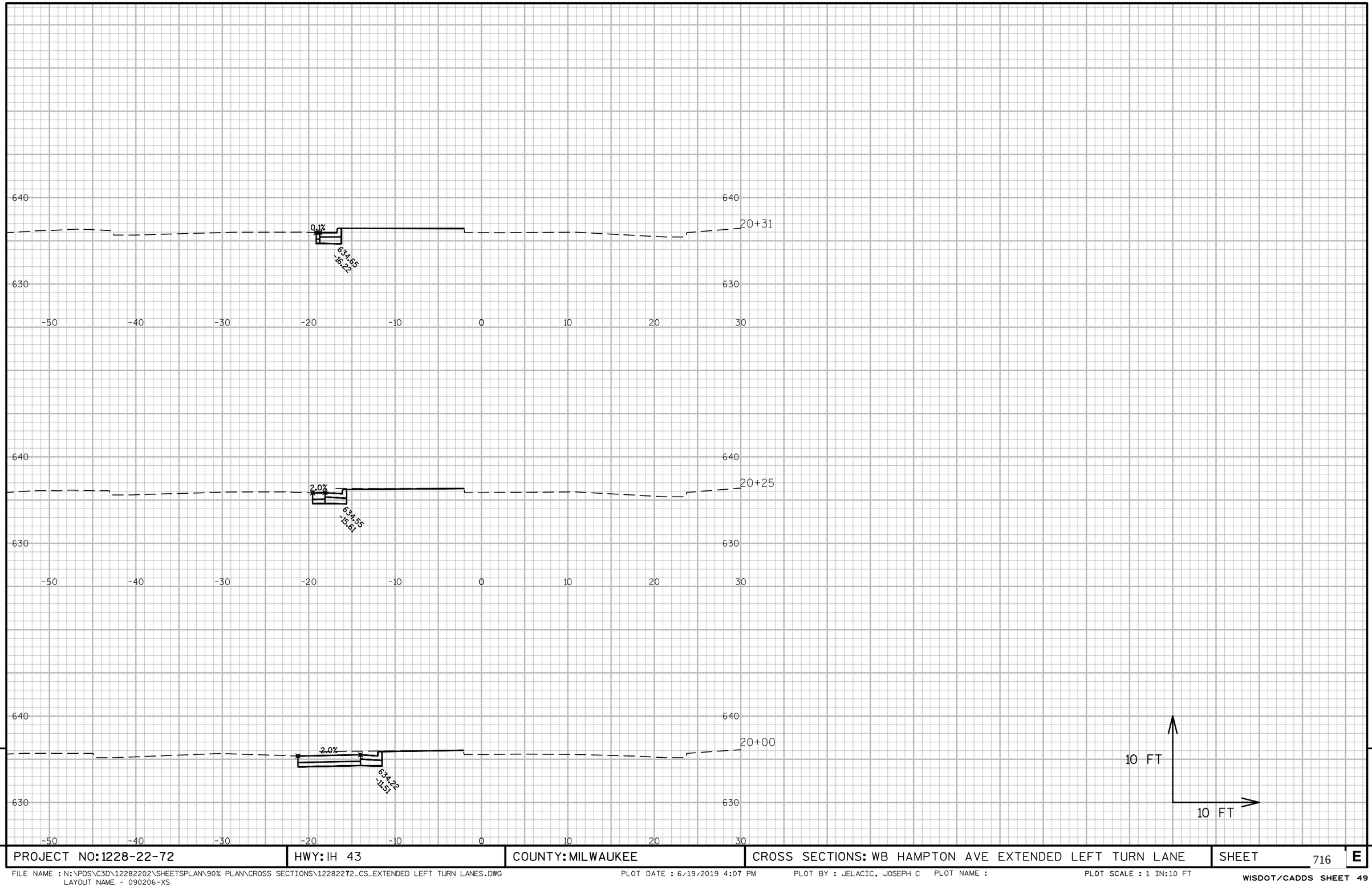

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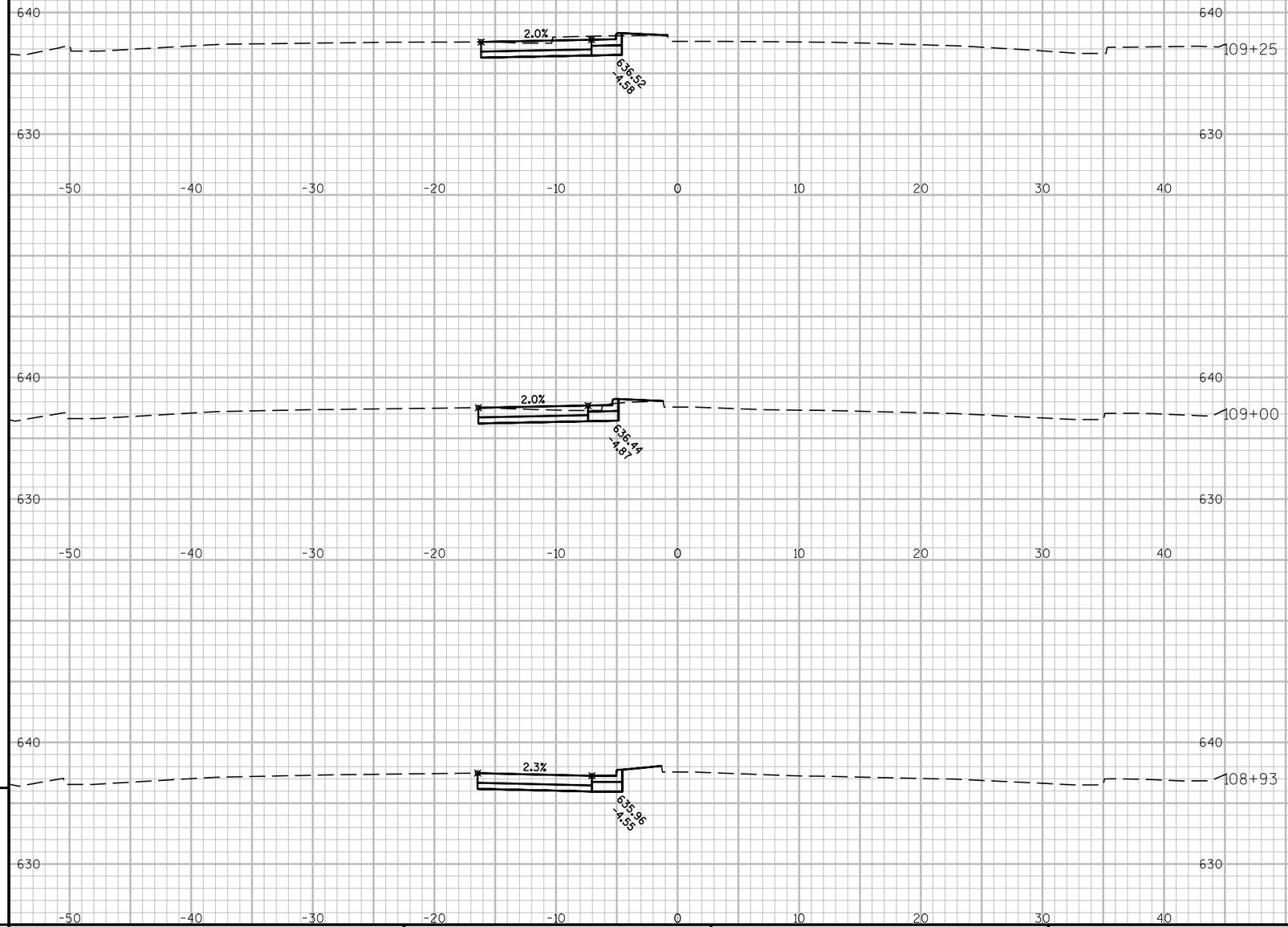
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: WB HAMPTON AVE EXTENDED LEFT TURN LANE	SHEET 716 E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\CROSS SECTIONS\12282272_CS_EXTENDED LEFT TURN LANES.DWG
LAYOUT NAME - 090206-XS
PLOT DATE : 6/19/2019 4:07 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:10 FT



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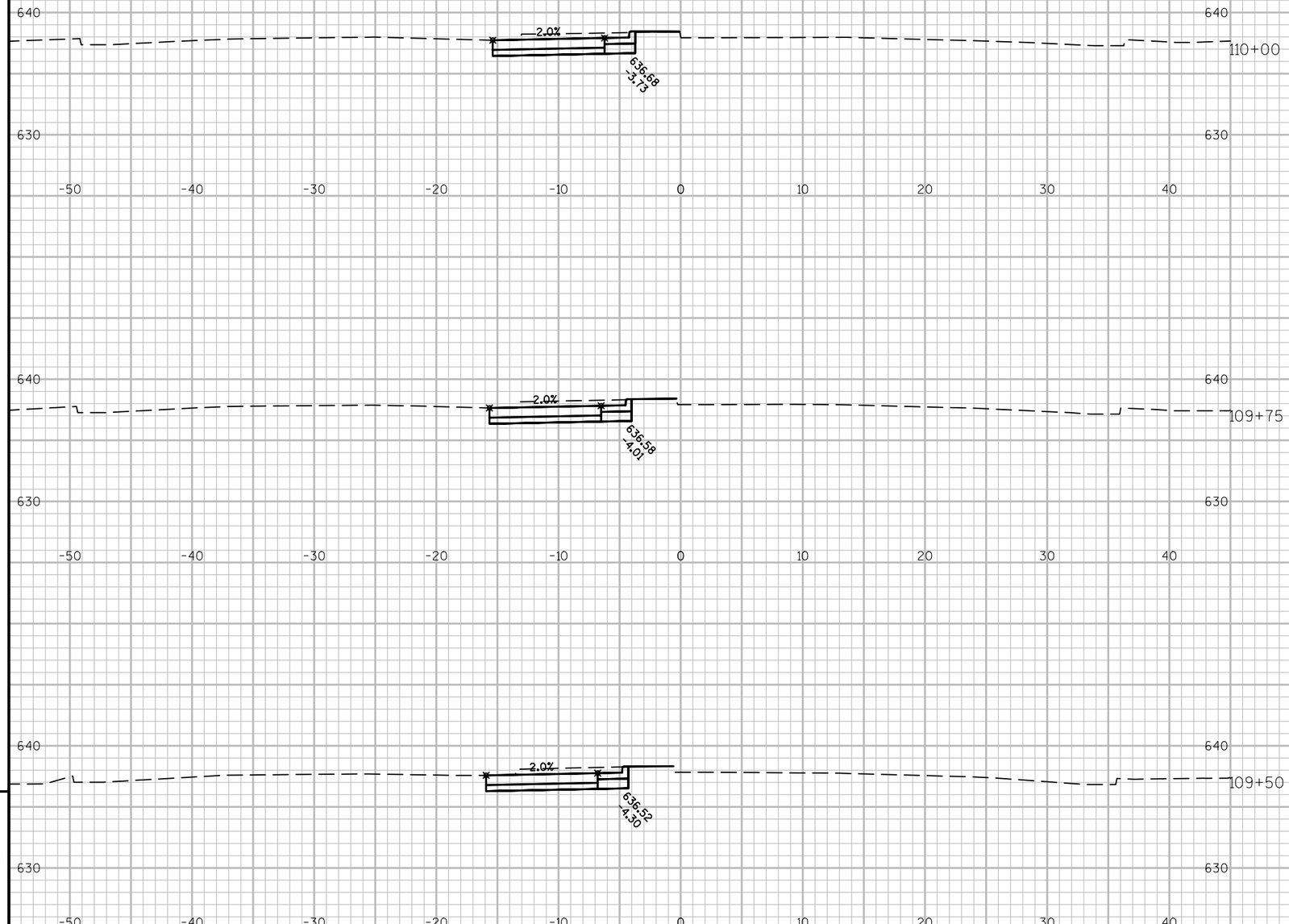
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: SB PORT WASHINGTON AVE EXTENDED TURN LANE	SHEET 717	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\CROSS SECTIONS\12282272_CS_EXTENDED LEFT TURN LANES.DWG
LAYOUT NAME - 090207-XS
PLOT DATE : 6/19/2019 4:07 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



10 FT

10 FT

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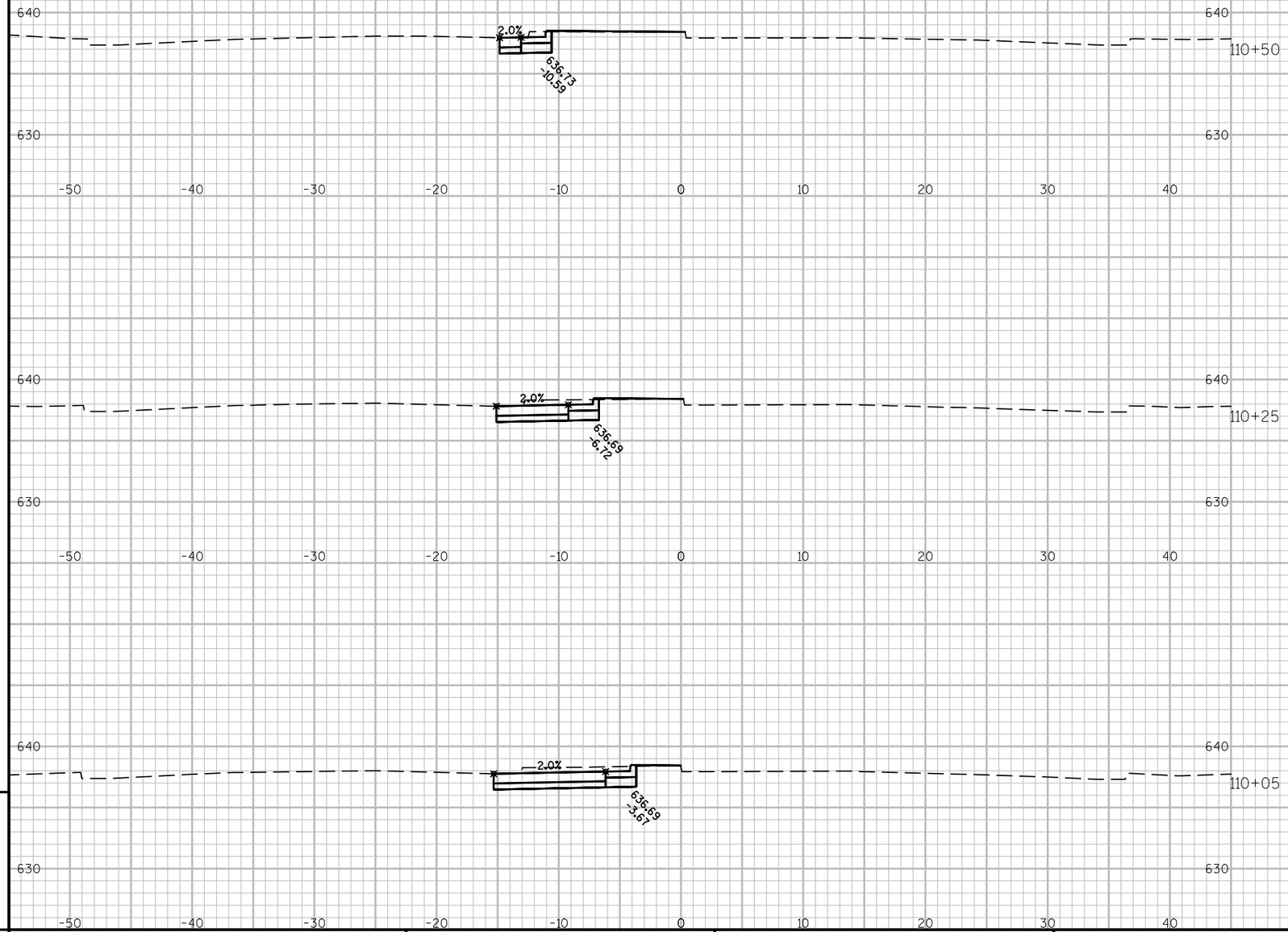
PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: SB PORT WASHINGTON AVE EXTENDED TURN LANE	SHEET 718	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\CROSS SECTIONS\12282272_CS_EXTENDED LEFT TURN LANES.DWG
LAYOUT NAME - 090208-XS

PLOT DATE : 6/19/2019 4:07 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:10 FT



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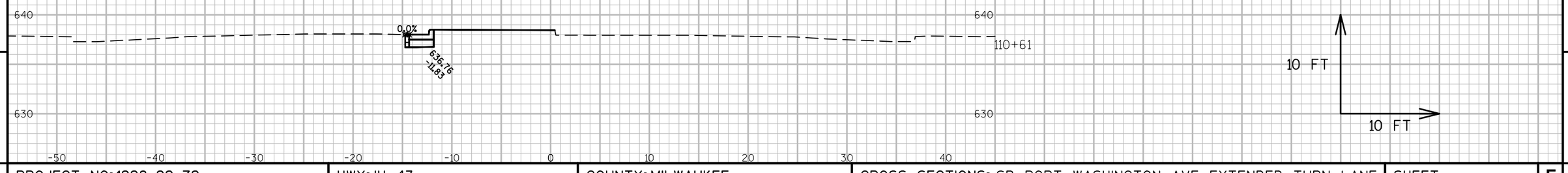
9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: SB PORT WASHINGTON AVE EXTENDED TURN LANE	SHEET 719	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\CROSS SECTIONS\12282272_CS_EXTENDED LEFT TURN LANES.DWG
LAYOUT NAME - 090209-XS
PLOT DATE : 6/19/2019 4:07 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:10 FT



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9

PROJECT NO: 1228-22-72	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: SB PORT WASHINGTON AVE EXTENDED TURN LANE	SHEET 720	E

FILE NAME : N:\PDS\C3D\12282202\SHEETSPLAN\90% PLAN\CROSS SECTIONS\12282272_CS_EXTENDED LEFT TURN LANES.DWG
LAYOUT NAME - 090210-XS

PLOT DATE : 6/19/2019 4:07 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:10 FT

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov