WKE

FEBRUARY 2026

PROJECT ID: 1228-09-77

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 = 608



DESIGN DESIGNATION

			BECHER ST	IH 43 RAMPS
A.A.D.T.	2025	=	11,100	8,800
A.A.D.T.	2045	=	11,300	8,800
D.H.V.		=	747	779
D.D.		=	0.50	1.0
T.		=	6.7%	4.3%
DESIGN SPEED		=	35 MPH	35 MPH
ESALS		=	1,700,000	1,500,000

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'EB')
- 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)
- 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

IH 43 NORTH SOUTH FREEWAY

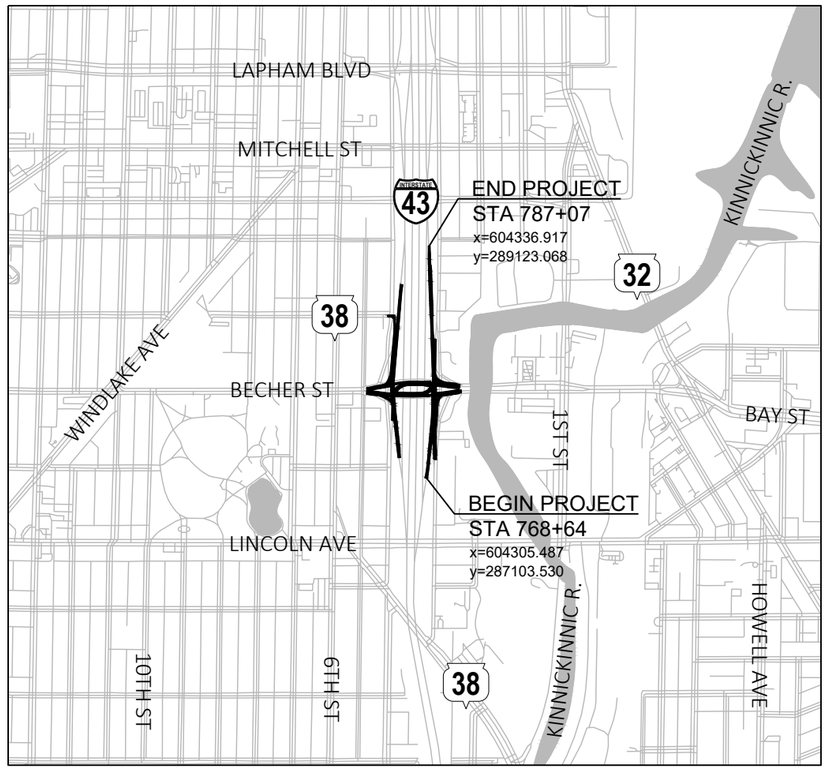
BECHER STREET INTERCHANGE

OFF SYS
MILWAUKEE

STATE PROJECT NUMBER
1228-09-77

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1228-09-77	WISC2026176	1

R-22-E



T-06-N

LAYOUT

SCALE 0 0.25 MI

TOTAL NET LENGTH OF CENTERLINE = 0.307 MI

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

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	DAAR ENGINEERING INC.
Designer	DANIELLE DEL CONTE
Project Manager	JAMES SCHUMACHER, P.E.
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	WAFA ELQAQ, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 11/1/2025 James Schumacher (Signature)

E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\010101-TI.DWG PLOT DATE : 12/19/2025 10:44 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

UTILITIES CONTACTS

AT&T WISCONSIN
COMMUNICATION LINE
JAY WALDEN / DUSTIN GREUEL
435 S 95TH ST
MILWAUKEE, WI 53214
PHONE: 262-875-2161
EMAIL: jw2975@att.com / dg4473@att.com

CITY OF MILWAUKEE
COMMUNICATION LINE
TREMEL REMBERT
1440 W CANAL ST
MILWAUKEE, WI 53233
PHONE: 414-286-3686
EMAIL: tembe@milwaukee.gov

CITY OF MILWAUKEE
CUC
KAREN ROGNEY
841 N BROADWAY
MILWAUKEE, WI 53202
PHONE: 414-286-3243
EMAIL: karen.rogney@milwaukee.gov

CITY OF MILWAUKEE
SEWERS
ZAFAR YOUSUF
841 N BROADWAY, RM 821
MILWAUKEE, WI 53202
PHONE: 414-286-2467
EMAIL: zyousu@milwaukee.gov

CITY OF MILWAUKEE
WATER WORKS
MWW CONTROL CENTER
841 N BROADWAY, RM 409
MILWAUKEE, WI 53202
PHONE: 414-286-3710
EMAIL: -

EVERSTREAM
COMMUNICATION LINE
ABBY STEIN
325 E WISCONSIN AVE, SUITE 730
MILWAUKEE, WI 53202
PHONE: 262-442-9427
EMAIL: astein@everstream.net

LEVEL 3 COMMUNICATIONS
COMMUNICATION LINE
BRAHIM GADDOUR
3235 INTERTECH DR, SUITE 600
BROOKFIELD, WI 53045
PHONE: 414-908-1027
EMAIL: brahim.gaddour@lumen.com

MIDWEST FIBER NETWORKS LLC
COMMUNICATION LINE
CORY SCHMUKI
6070 N FLINT RD
GLENDALE, WI 53209
PHONE: 414-459-3561
EMAIL: cschmuki@midwestfibernetworks.com

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
SEWER
MICHAEL LEE
260 W SEEBOTH ST
MILWAUKEE, WI 53204
PHONE: 414-225-2241
EMAIL: mlee@mmsd.com

SPECTRUM
COMMUNICATION LINE
BRYAN JANKOWSKI
-
-
PHONE: 414-239-5880
EMAIL: bryan.jankowski@chart.com

TDS METROCOM LLC
COMMUNICATION LINE
KALLIE RAMSDELL
825 JUNCTION RD
MADISON, WI 53717
PHONE: 414-416-4802
EMAIL: kallie.ramsdell@tdstelecom.com

VERIZON BUSINESS
COMMUNICATION LINE
RJ CICATELLO JR.
15725 W RYERSON RD
NEW BERLIN, WI 53151
PHONE: 262-782-9836
EMAIL: randy.cicatello@verizon.com

WE ENERGIES
ELECTRIC
ERIC KICKHAVER
500 S 116TH ST
WEST ALLIS, WI 53214
PHONE: 262-806-9197
EMAIL: eric.kickhaver1@We-Energies.com
DISPATCH: 800-661-4797

WE ENERGIES
GAS
JEANNETTE SCHULTZ
500 S 116TH ST
WEST ALLIS, WI 53214
PHONE: 262-365-6421
EMAIL: jeannette.schultz@We-Engergies.com
DISPATCH: 800-261-5325

OTHER CONTACTS

CITY OF MILWAUKEE
FORESTRY, IRRIGATION
JAMES KRINGER
841 N BROADWAY
MILWAUKEE, WI 53202
PHONE: 414-708-2428
EMAIL: james.kringer@milwaukee.gov

CITY OF MILWAUKEE
SIGNALS
RUDY GUTIERREZ
1540 W CANAL ST
MILWAUKEE, WI 53233
PHONE: 414-286-5941
EMAIL: rgutie@milwaukee.gov

CITY OF MILWAUKEE
STREET LIGHTING
NEAL KARWEIK
1540 W CANAL ST
MILWAUKEE, WI 53233
PHONE: 414-286-5943
EMAIL: nkarwe@milwaukee.gov

MILWAUKEE COUNTY TRANSIT SYSTEM
DETOUR COORDINATOR
ARMOND SENSABAUGH
1942 N 17TH ST
MILWAUKEE, WI 53205
PHONE: 414-343-1728
EMAIL: asensabaugh@mcts.org

MILWAUKEE COUNTY TRANSIT SYSTEM
ENHANCED TRANSIT (BUS STOPS)
DAVID LOCHER
1942 N 17TH ST
MILWAUKEE, WI 53205
PHONE: 414-343-1727
EMAIL: dlocher@mcts.org

MILWAUKEE COUNTY TRANSIT SYSTEM
TRANSIT SPECIALIST
DAN ADAMS
1942 N 17TH ST
MILWAUKEE, WI 53205
PHONE: 414-937-3273
EMAIL: dadams@mcts.org

WISCONSIN DEPARTMENT OF TRANSPORTATION
COMMUNICATION LINE
MICHAEL CABAN
433 W ST PAUL AVE SUITE 300
MILWAUKEE, WI 53203
PHONE: 715-712-8078
EMAIL: michael.caban@dot.wi.gov

WISCONSIN DEPARTMENT OF TRANSPORTATION
SIGNALS
JOYCE MURPHY
141 NW BARSTOW ST
WAUKESHA, WI 53188
PHONE: 262-548-5933
EMAIL: joyce.murphy@dot.wi.gov

WISCONSIN DEPARTMENT OF TRANSPORTATION
STREET LIGHTING
ERIC PEREA
141 NW BARSTOW ST
WAUKESHA, WI 53188
PHONE: 262-574-5422
EMAIL: eric.perea@dot.wi.gov

DESIGN PROJECT MANAGER

JAMES SCHUMACHER, P.E.
WISCONSIN DEPARTMENT OF TRANSPORTATION
141 NW BARSTOW ST
WAUKESHA, WI 53188
PHONE: 262-521-4428
EMAIL: jamesd.schumacher@dot.wi.gov

DESIGN PROJECT LEADER

DANIELLE DEL CONTE
WISCONSIN DEPARTMENT OF TRANSPORTATION
141 NW BARSTOW ST
WAUKESHA, WI 53188
PHONE: 262-548-8671
EMAIL: danielle.delconte@dot.wi.gov

WISCONSIN DNR LIAISON

RYAN PAPPAS
WISCONSIN DEPT. OF NATURAL RESOURCES
1027 W ST PAUL AVE
MILWAUKEE, WI 53233
PHONE: 920-893-8529
EMAIL: ryan.pappas@wisconsin.gov

REGION SURVEY COORDINATOR

WALTER ZENDEK, P.L.S.
SE REGION
141 NW BARSTOW ST
WAUKESHA, WI 53188
PHONE: 262-521-5397
EMAIL: walter.zendek@dot.wi.gov

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS:	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIPTURF:	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPETURF:			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT:	.70 - .95											
CONCRETE:	.80 - .95											
BRICK:	.70 - .80											
DRIVES, WALKS:	.75 - .85											
ROOFS:	.75 - .95											
GRAVEL ROADS, SHOULDERS:	.40 - .60											

TOTAL PROJECT AREA = 6.37 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 5.68 ACRES

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

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLAN
PLAN DETAILS
CURB RAMP DETAILS
PAVEMENT GRADES
UTILITY DETAILS
EROSION CONTROL PLAN
STORM SEWER DETAILS
PERMANENT SIGNING
LIGHTING PLAN
TRAFFIC SIGNAL PLAN
FTMS PLAN
PAVEMENT MARKINGS
TRAFFIC CONTROL
DETOUR
ALIGNMENT DETAILS

2

STANDARD ABBREVIATIONS

ABUT	ABUTMENT
AC	ACRE
AGG	AGGREGATE
AH	AHEAD
∠	ANGLE
AADT	ANNUAL AVERAGE DAILY TRAFFIC
AEW	APRON ENDWALL
ASPH	ASPHALTIC
BK	BACK
BC	BACK OF CURB
BAD	BASE AGGREGATE DENSE
BL OR B/L	BASE LINE
BM	BENCH MARK
CB	CATCH BASIN
CL OR C/L	CENTER LINE
Δ	CENTRAL ANGLE OR DELTA
CE	COMMERCIAL ENTRANCE
CONC	CONCRETE
CSW	CONCRETE SIDEWALK
CONST	CONSTRUCTION
CP	CONTROL POINT
CO	COUNTY
CTH	COUNTY TRUCK HIGHWAY
CY	CUBIC YARD
CP	CULVERT PIPE
CPCA	CULVERT PIPE CORRUGATED ALUMINUM
CPCPE	CULVERT PIPE CORRUGATED POLYETHYLENE
CPCPP	CULVERT PIPE CORRUGATED POLYPROPYLENE
CPCS	CULVERT PIPE CORRUGATED STEEL
CPCSAC	CULVERT PIPE CORRUGATED STEEL ALUMINUM COATED
CPCSPC	CULVERT PIPE CORRUGATED STEEL POLYMER COATED
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CPS	CULVERT PIPE SALVAGED
CPT	CULVERT PIPE TEMPORARY
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DD	DIRECTIONAL DISTRIBUTION
DE	DRAINAGE EASEMENT
DWY	DRIVEWAY
EA	EACH
EB	EASTBOUND
EL OR ELEV	ELEVATION
EMB	EMBANKMENT
EW	ENDWALL
EAT	ENERGY ABSORBING TERMINAL
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FERT	FERTILIZER
FE	FIELD ENTRANCE
FL OR F/L	FLOW LINE
FT	FOOT
FTMS	FREE TRAFFIC MANAGEMENT SYSTEM
HES	HIGH EARLY STRENGTH
HE	HIGHWAY EASEMENT
CWT	HUNDRED WEIGHT
IN DIA	INCH DIAMETER
INL	INLET
ID	INSIDE DIAMETER
INTERS	INTERSECTION
IH	INTERSTATE HIGHWAY
INV	INVERT
JT	JOINT
LT	LEFT
LHF	LEFT HAND FORWARD
L	LENGTH OF CURVE
LF	LINEAR FOOT
LC	LONG CHORD OF CURVE
LS	LUMP SUM
MGAL	ONE THOUSAND GALLONS
MH	MANHOLE
ML OR M/L	MATCH LINE
NOM	NOMINAL
NC	NORMAL CROWN
NB	NORTHBOUND
NO	NUMBER
OD	OUTSIDE DIAMETER
PAVT	PAVEMENT
PLE	PERMANENT LIMITED EASEMENT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PCC	PORTLAND CEMENT CONCRETE
LB	POUND
PSI	POUNDS PER SQUARE INCH
PE	PRIVATE ENTRANCE
PROJ	PROJECT
PL	PROPERTY LINE
PRW	PROPOSED RIGHT OF WAY
R	RADIUS
RL OR R/L	REFERENCE LINE
REQD	REQUIRED
RT	RIGHT
RHF	RIGHT HAND FORWARD
R/W	RIGHT OF WAY
RD	ROAD
RDWY	ROADWAY
SHLDR	SHOULDER
SW	SIDEWALK
SB	SOUTHBOUND
SPECS	SPECIFICATIONS
SF	SQUARE FEET
SY	SQUARE YARD
SDD	STANDARD DETAIL DRAWINGS
STH	STATE TRUNK HIGHWAY
STA	STATION
SSPC	STORM SEWER PIPE COMPOSITE
SSCPE	STORM SEWER PIPE CORRUGATED POLYETHYLENE
SSCPP	STORM SEWER PIPE CORRUGATED POLYPROPYLENE
SSPNRC	STORM SEWER PIPE NON-REINFORCED CONCRETE
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SSPRCHE	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
SE	SUPERELEVATION
SL OR S/L	SURVEY LINE
TEMP	TEMPORARY
TI	TEMPORARY INTEREST
TLE	TEMPORARY LIMITED EASEMENT
TC	TOP OF CURB
TL OR T/L	TRANSIT LINE
T	TRUCKS (PERCENT OF)
TYP	TYPICAL
USH	UNITED STATES HIGHWAY
VAR	VARIABLE
VC	VERTICAL CURVE
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
W	WEST
WB	WESTBOUND

GENERAL NOTES

THE LOCATIONS 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.

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

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 118 LBS/SY/IN.

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

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.

TOPSOIL SHALL BE PLACED 1-INCH BELOW THE TOP OF ADJACENT CONCRETE CURBS OR SIDEWALKS.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

RADIUS DIMENSIONS FOR THE CURB AND GUTTER ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.

CURVE DATA IS BASED ON THE RADIUS DEFINITION.

PAVEMENT REMOVAL WILL BE TO THE NEAREST JOINT OR A SAWED EDGE WILL BE REQUIRED AS DIRECTED BY THE ENGINEER.

CURB AND GUTTER PLAN GRADES ARE AT THE FLANGE LINE UNLESS OTHERWISE NOTED.

SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES EXCEPT WHEN PAVING OR PIPE LAYING OPERATIONS REQUIRE THE DRIVEWAY TO BE CLOSED. ACCESS TO DRIVEWAYS SHALL BE RE-ESTABLISHED IMMEDIATELY AFTER OPERATIONS ARE COMPLETED. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.

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

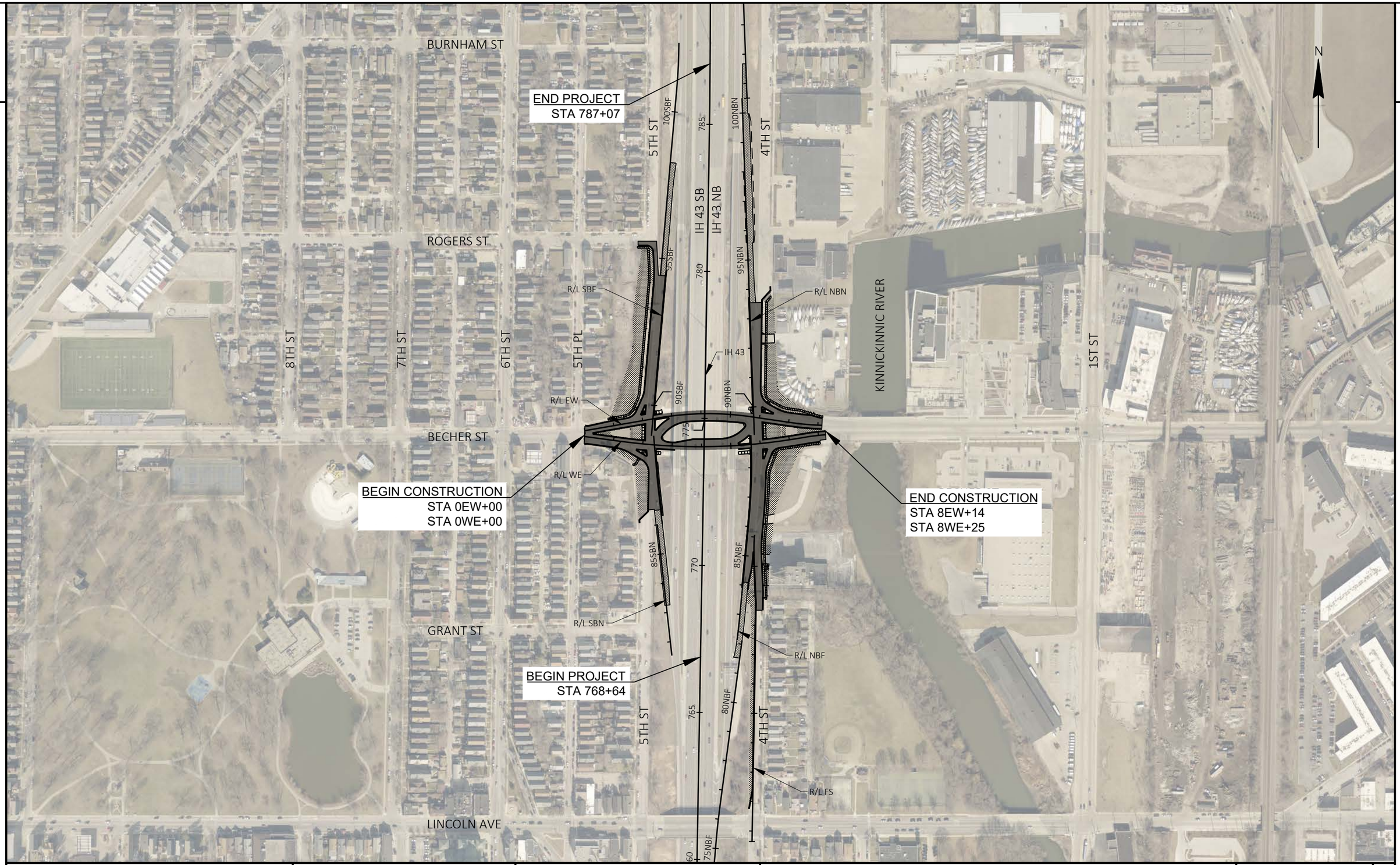
PRIOR TO ORDERING DRAINAGE PIPES, THE CONTRACTOR SHALL FIELD VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.

DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.

ANY EXCAVATION AND GRADING PERFORMED DURING THE CONSTRUCTION OF CURB RAMPS IS INCIDENTAL.

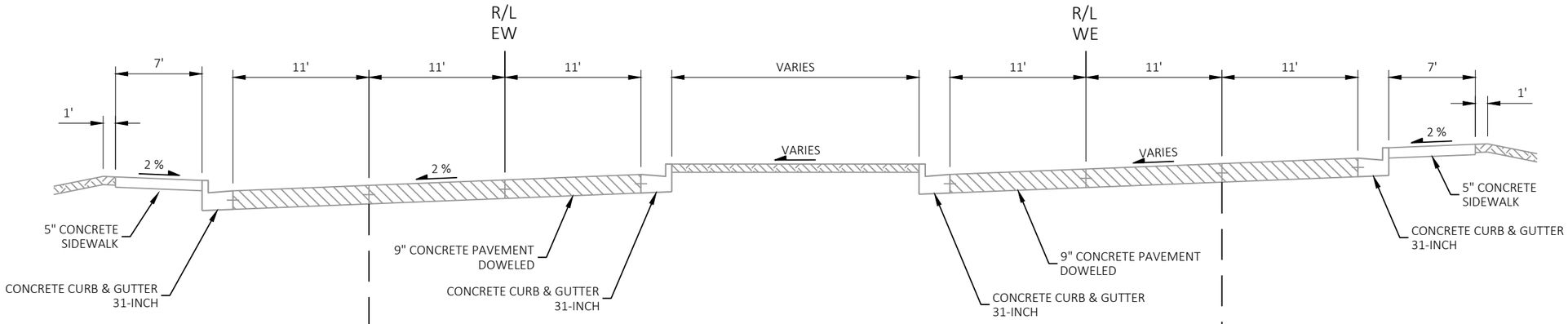
2

2

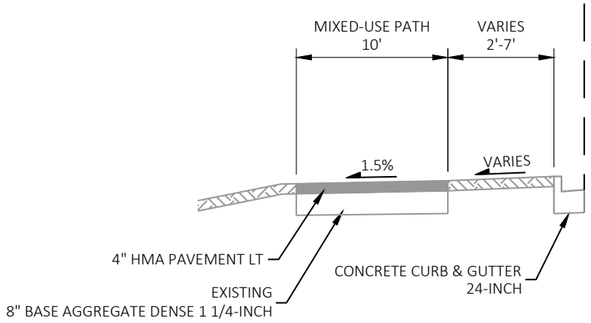


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 4	E

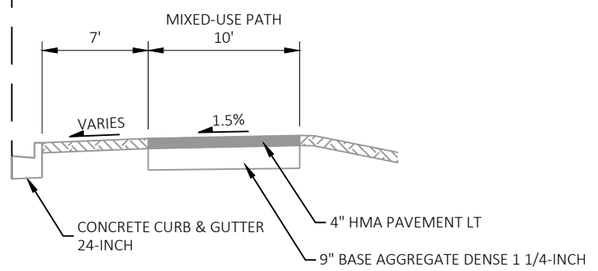
2



EXISTING TYPICAL SECTION
BECHER ST



STA. 2EW+40 TO STA. 5EW+78

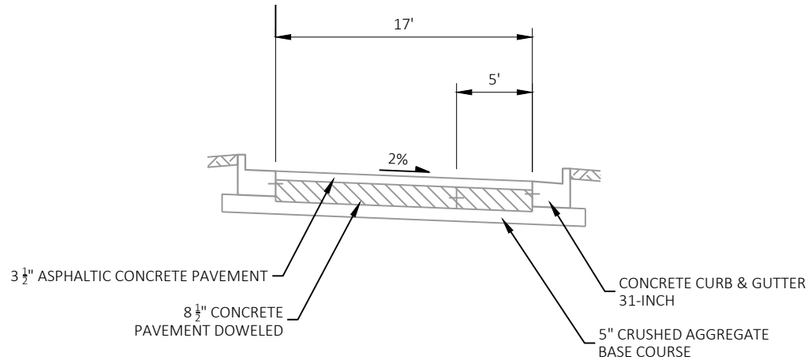


STA. 2WE+42 TO STA. 5WE+69

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EXISTING TYPICAL SECTIONS	SHEET 5	E

2

R/L
NBF/NBN/SBF



EXISTING TYPICAL SECTION
RAMPS NBF, NBN, SBF

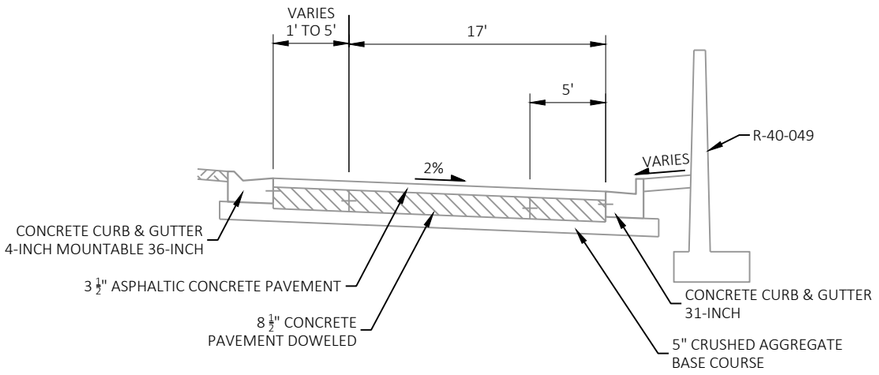
STA. 81NBF+52 TO STA. 84NBF+10

STA. 93NBN+54 TO STA. 95NBN+70

STA. 98NBN+81 TO STA. 99NBN+47

STA. 94SBF+42 TO STA. 98SBF+27

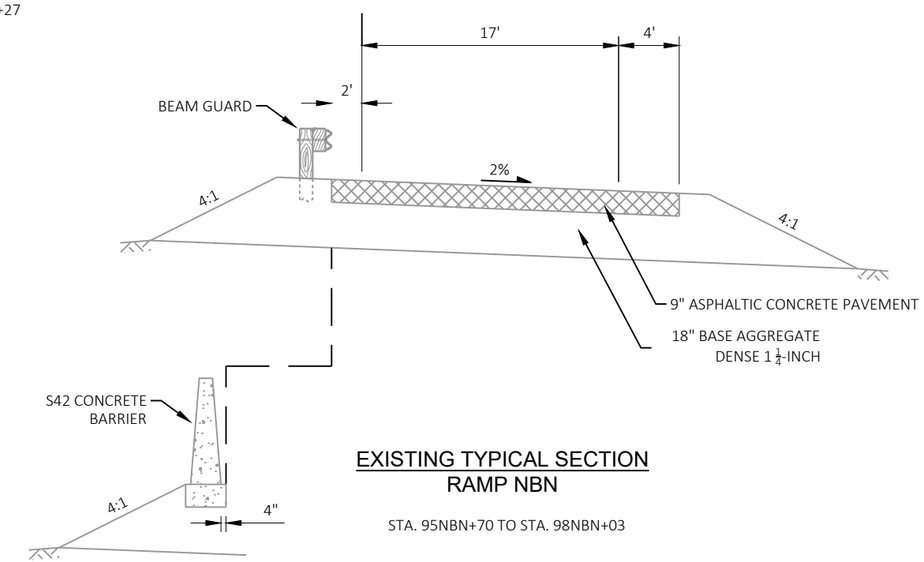
R/L
SBN



EXISTING TYPICAL SECTION
RAMP SBN

STA. 83SBN+25 TO STA. 86SBN+50

R/L
NBN



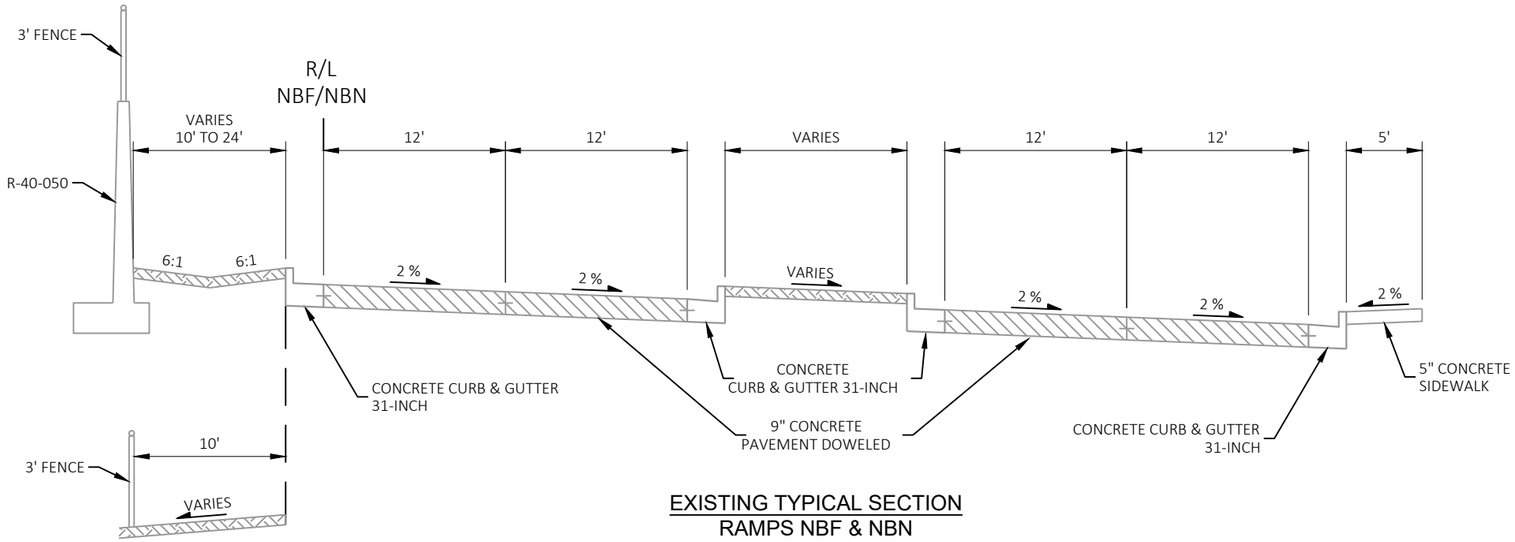
EXISTING TYPICAL SECTION
RAMP NBN

STA. 95NBN+70 TO STA. 98NBN+03

STA. 98NBN+03 TO STA. 98NBN+81

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EXISTING TYPICAL SECTIONS	SHEET 6	E

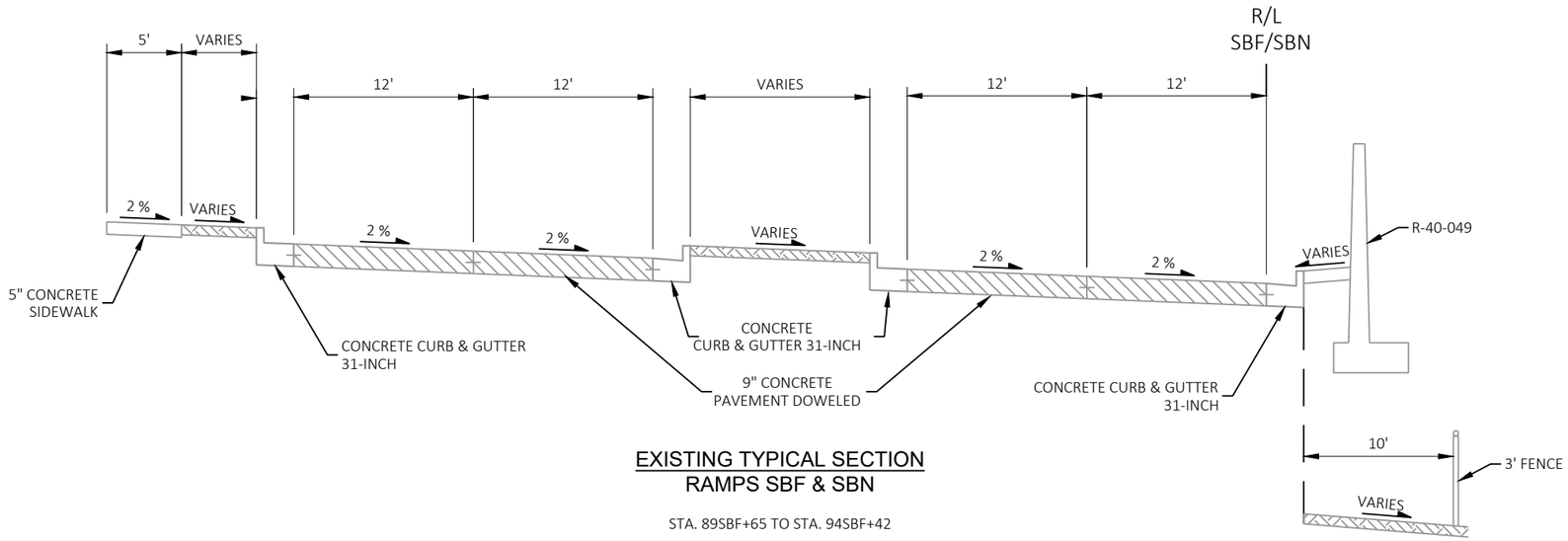
2



EXISTING TYPICAL SECTION
RAMPS NBF & NBN

STA. 84NBF+10 TO STA. 88NBF+68

STA. 89NBN+76 TO STA. 93NBN+54



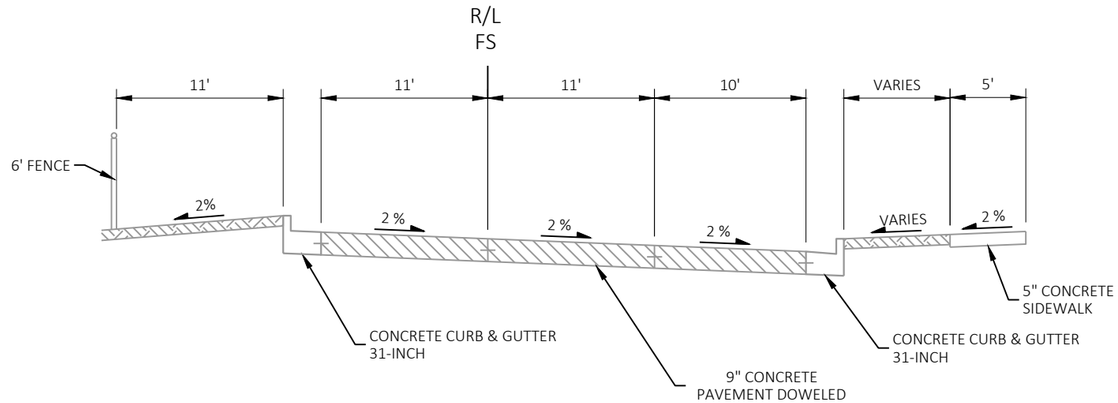
EXISTING TYPICAL SECTION
RAMPS SBF & SBN

STA. 89SBF+65 TO STA. 94SBF+42

STA. 86SBN+50 TO STA. 88SBN+60

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EXISTING TYPICAL SECTIONS	SHEET 7	E

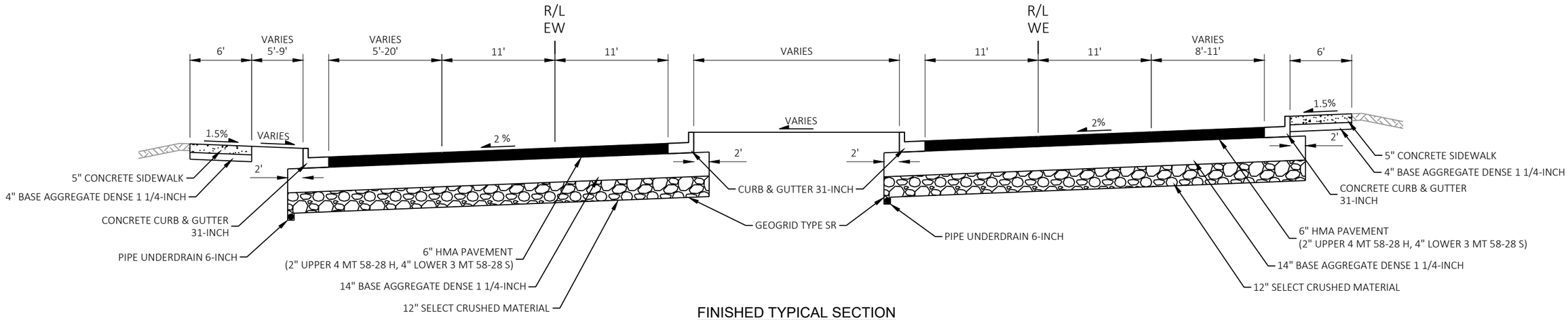
2



EXISTING TYPICAL SECTION
4TH ST

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EXISTING TYPICAL SECTIONS	SHEET 8	E

2



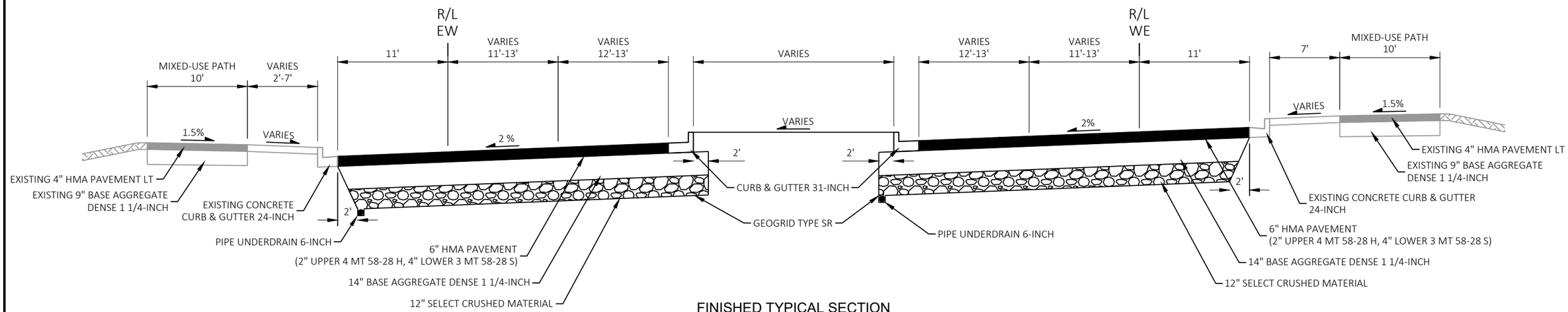
FINISHED TYPICAL SECTION
BECHER ST

STA. 0EW+00 TO STA. 2EW+40

STA. 0WE+00 TO STA. 2WE+42

STA. 2EW+40 TO STA. 8EW+14

STA. 2WE+42 TO STA. 8WE+25



FINISHED TYPICAL SECTION
BECHER ST

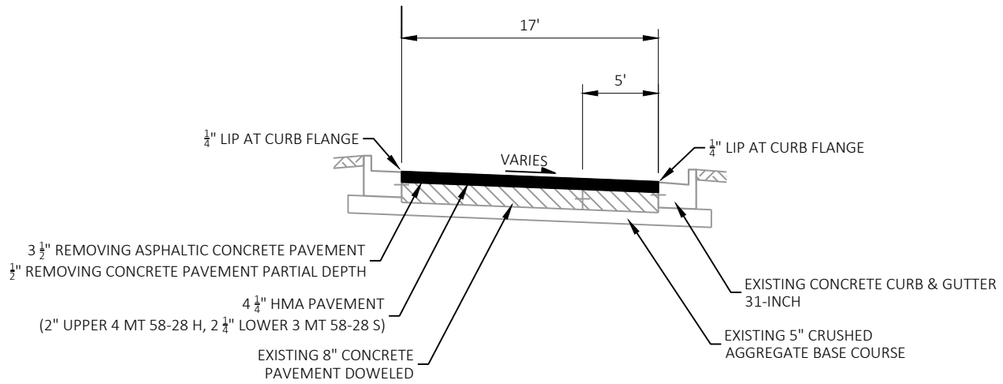
STA. 2EW+40 TO STA. 5EW+78

STA. 2WE+42 TO STA. 5WE+69

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	FINISHED TYPICAL SECTIONS	SHEET 9	E

2

R/L
NBF/NBN/SBF



FINISHED TYPICAL SECTION
RAMPS NBF, NBN, SBF

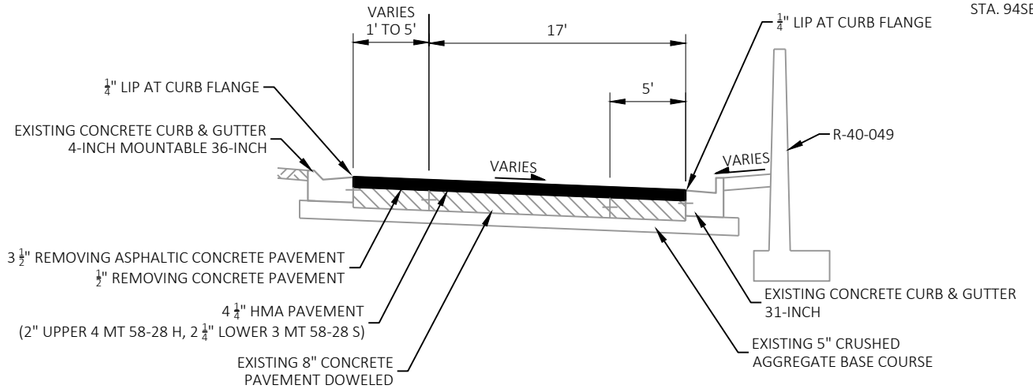
STA. 81NBF+52 TO STA. 84NBF+10

STA. 93NBN+54 TO STA. 95NBN+70

STA. 98NBN+81 TO STA. 99NBN+47

STA. 94SBF+42 TO STA. 98SBF+27

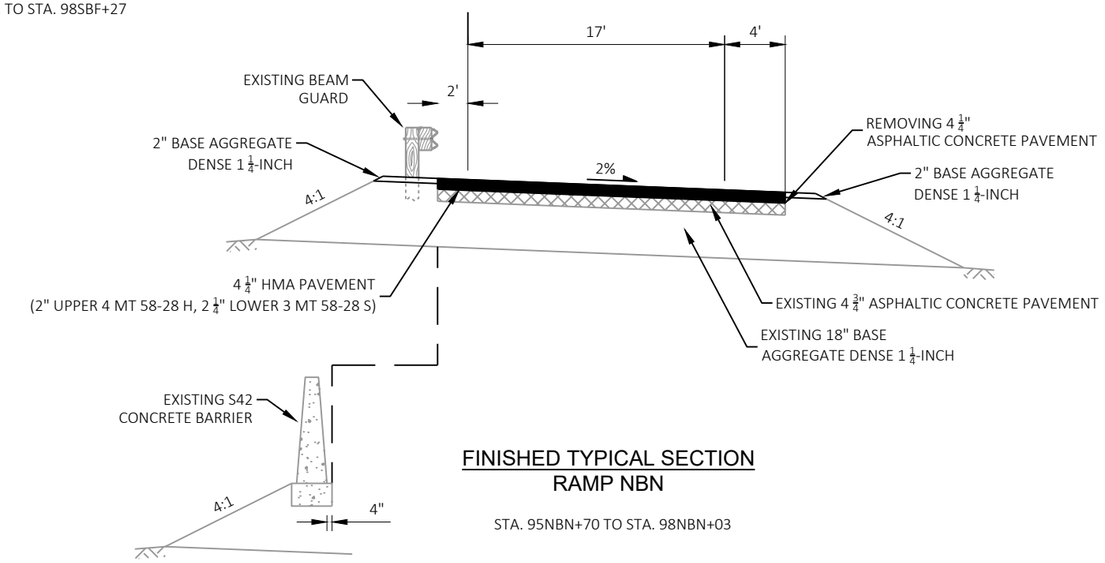
R/L
SBN



FINISHED TYPICAL SECTION
RAMP SBN

STA. 83SBN+25 TO STA. 86SBN+50

R/L
NBN

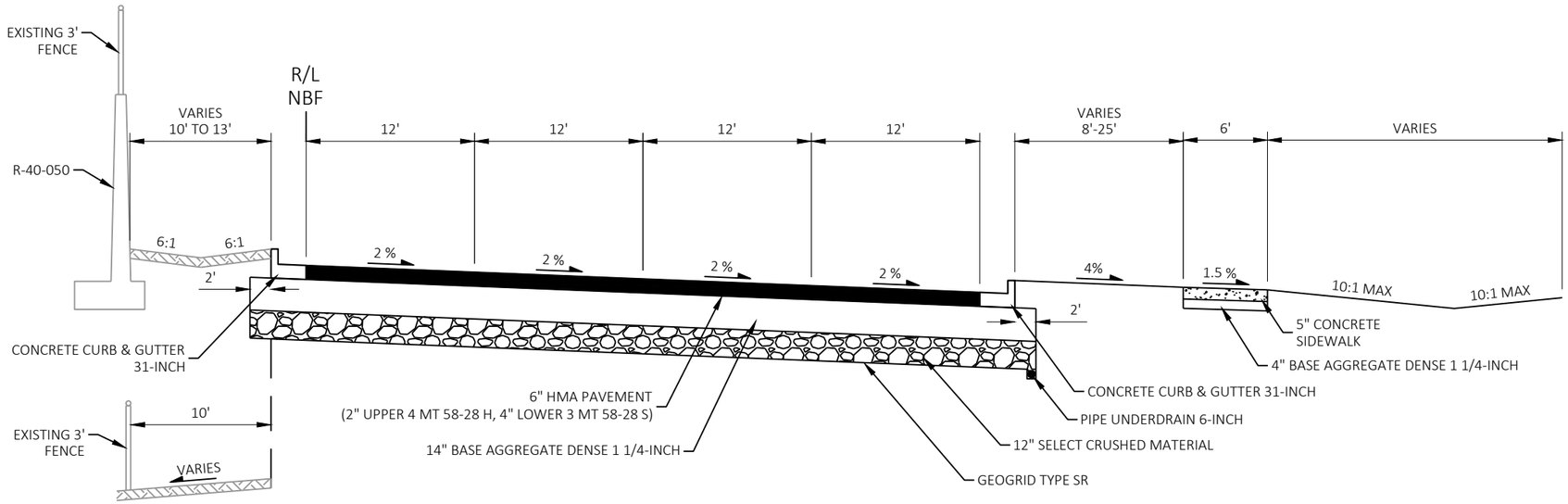


FINISHED TYPICAL SECTION
RAMP NBN

STA. 95NBN+70 TO STA. 98NBN+03

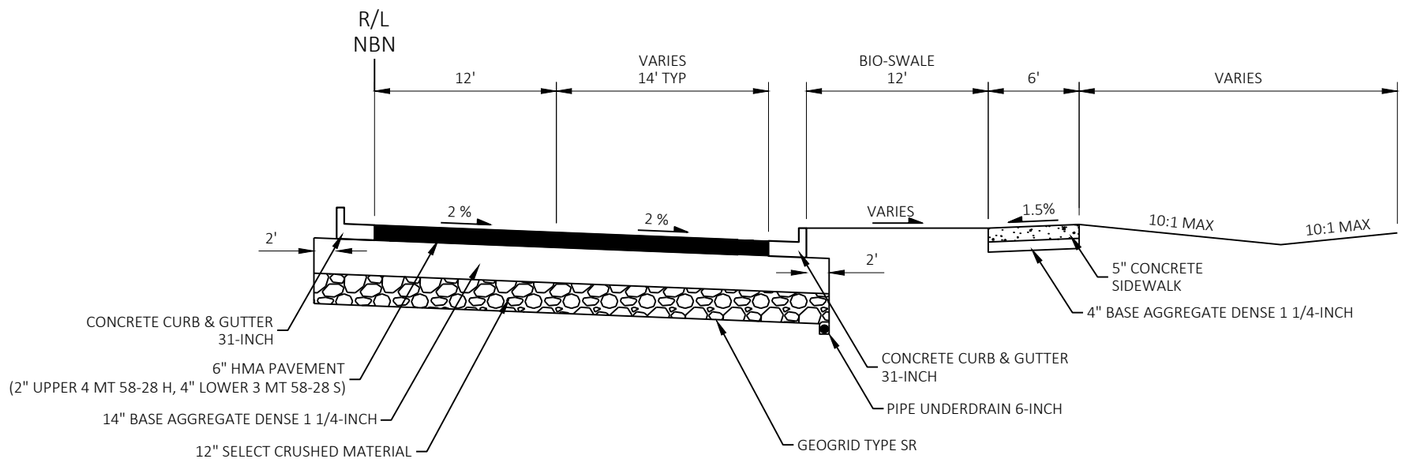
STA. 98NBN+03 TO STA. 98NBN+81

2



FINISHED TYPICAL SECTION
RAMP NBF

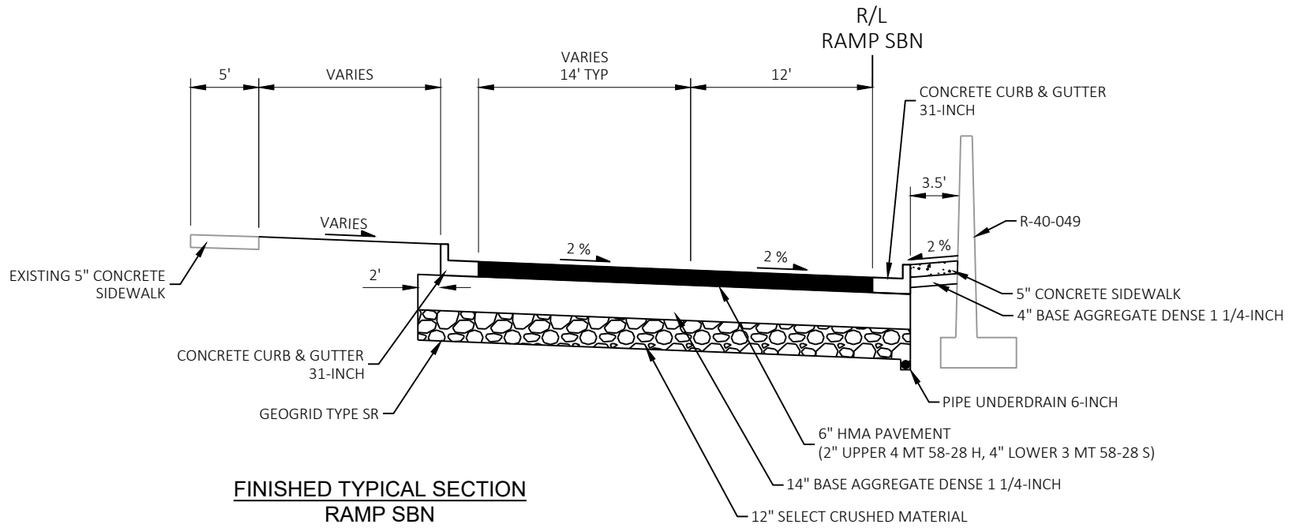
STA. 84NBF+10 TO STA. 88NBF+68



FINISHED TYPICAL SECTION
RAMP NBN

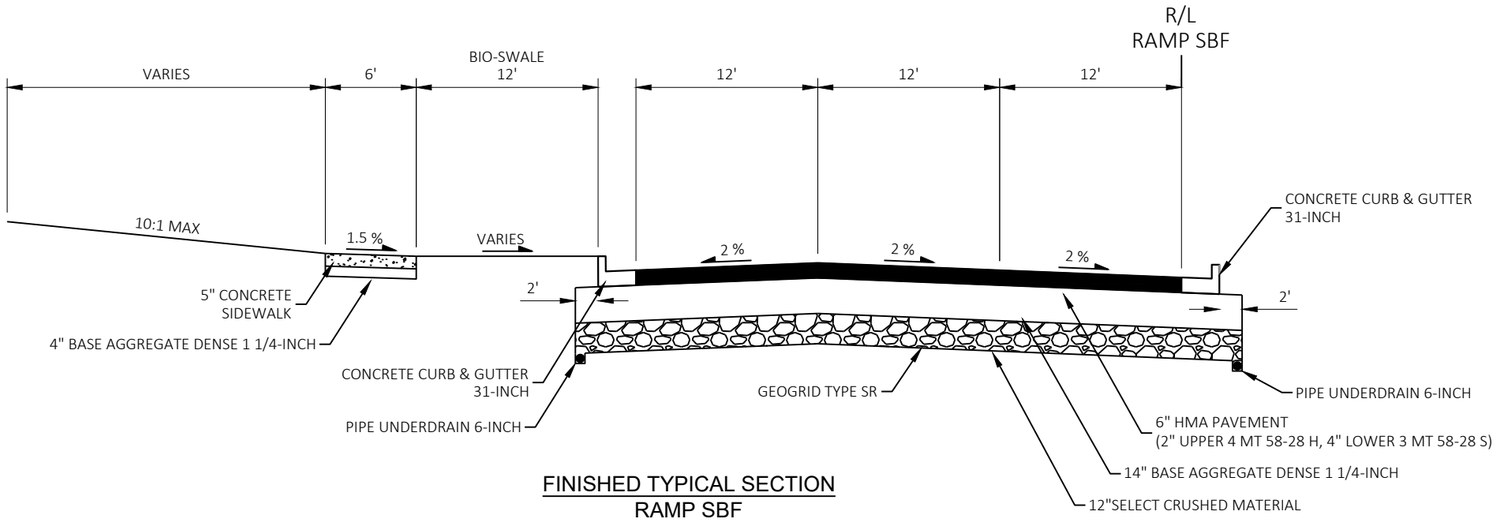
STA. 89NBN+76 TO STA. 93NBN+54

2



FINISHED TYPICAL SECTION
RAMP SBN

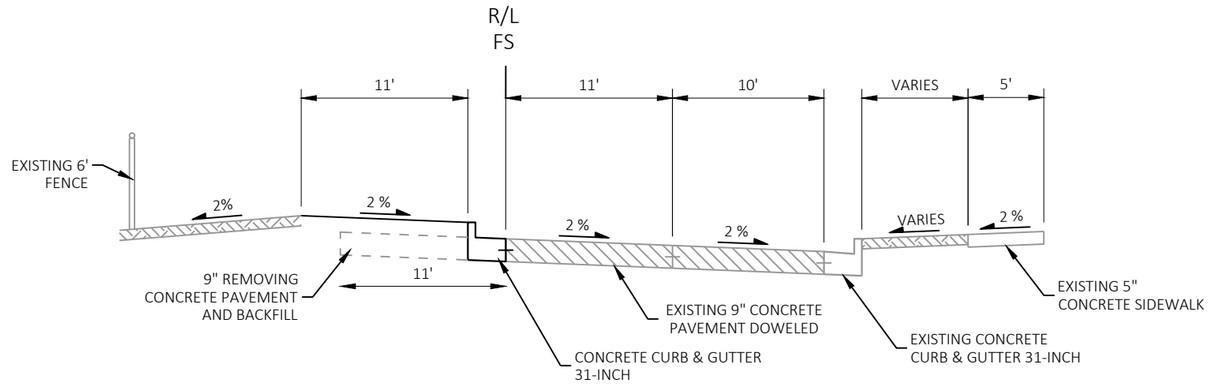
STA. 86SBN+50 TO STA. 88SBN+60



FINISHED TYPICAL SECTION
RAMP SBF

STA. 89SBF+65 TO STA. 94SBF+42

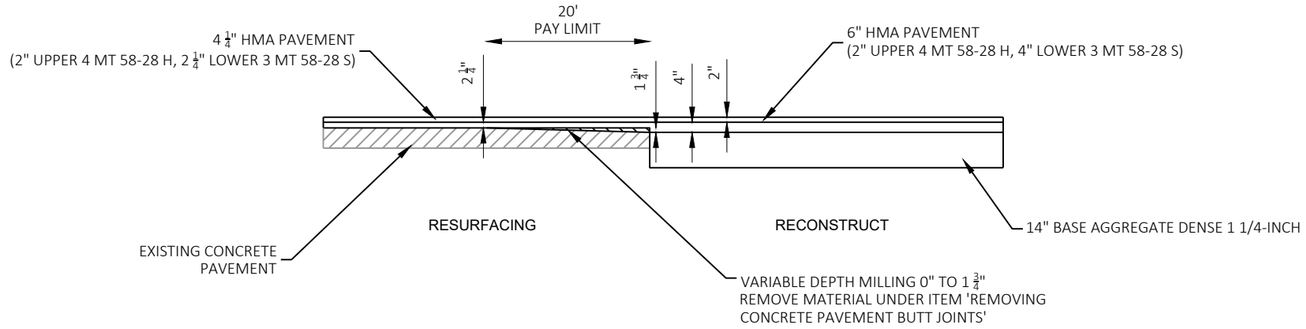
2



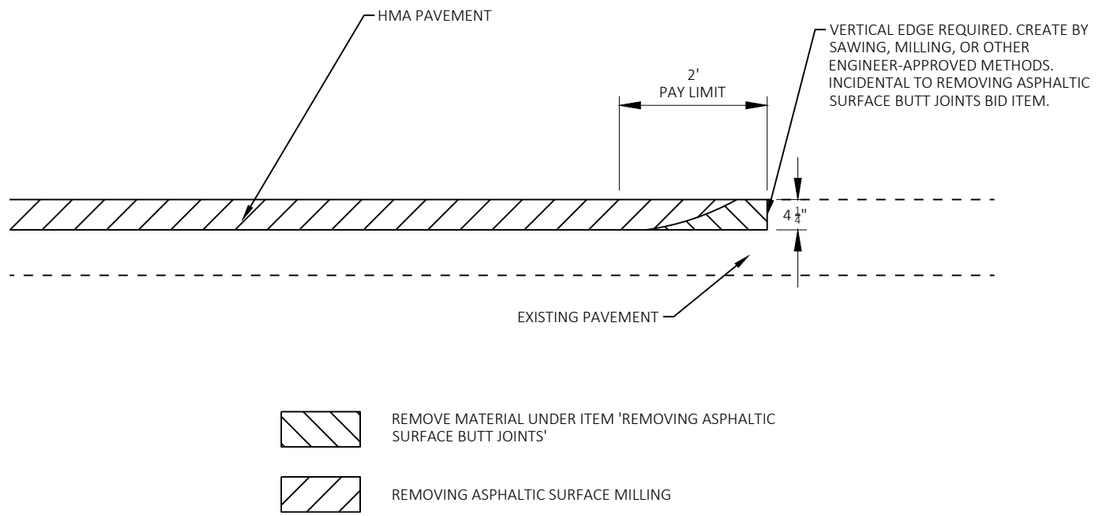
FINISHED TYPICAL SECTION
4TH ST

STA. 761FS+75 TO STA. 770FS+50

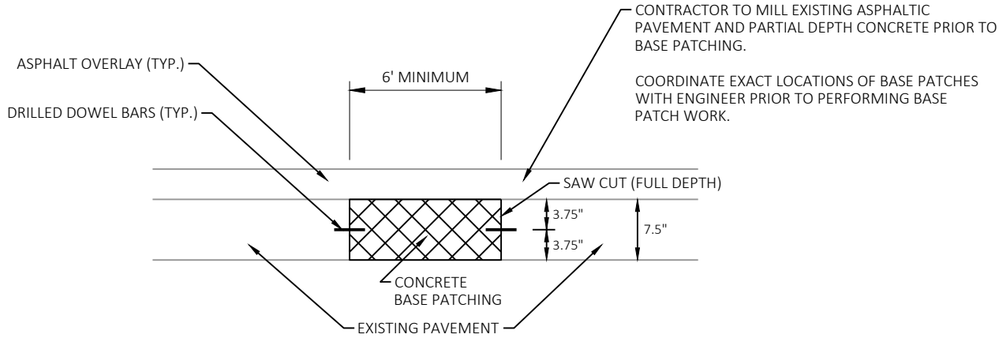
2



REMOVING CONCRETE PAVEMENT BUTT JOINTS



REMOVING ASPHALTIC SURFACE BUTT JOINTS



BASE PATCH CONCRETE

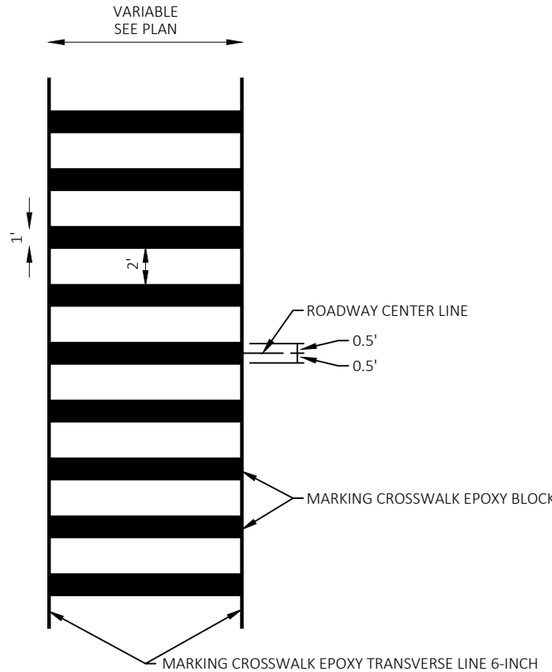
NOTES:

DETAIL TO BE USED IN LOCATIONS WHERE THE ROADWAY IS FULLY CLOSED (DAY AND NIGHT WORK).

SEE SDD "BASE PATCHING CONCRETE" FOR ADDITIONAL DETAILS.

CONTRACTOR SHALL REMOVE ALL UNSUITABLE MATERIAL BELOW BASE PATCH AND REPLACE WITH BASE AGGREGATE DENSE 1-1/4".

LOCATION AND AREA OF BASE PATCHING SHALL BE PLACED AS DIRECTED BY THE ENGINEER.



CONTINENTAL CROSSWALK

NOTES:

PAVEMENT MARKINGS SHOULD BE PARALLEL TO DIRECTION OF VEHICLE TRAVEL EVEN WHEN CROSSWALK IS SKEWED.

2

LEGEND

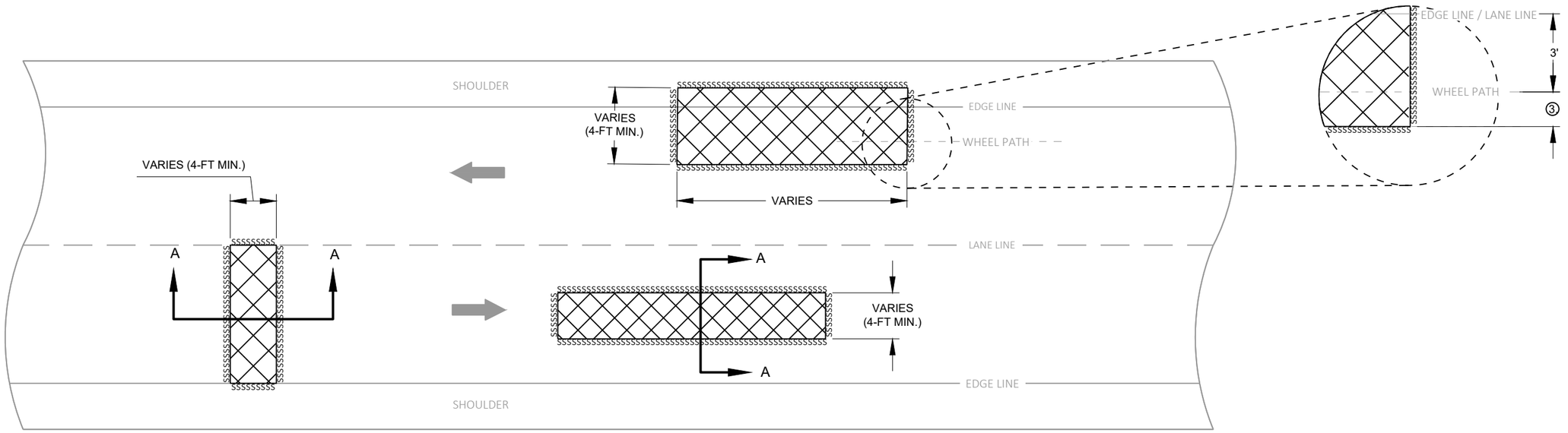
ASPHALTIC REPAIR

SSSSSS VERTICAL MILLED EDGE
SAW CUTTING AT THE CONTRACTORS DISCRETION

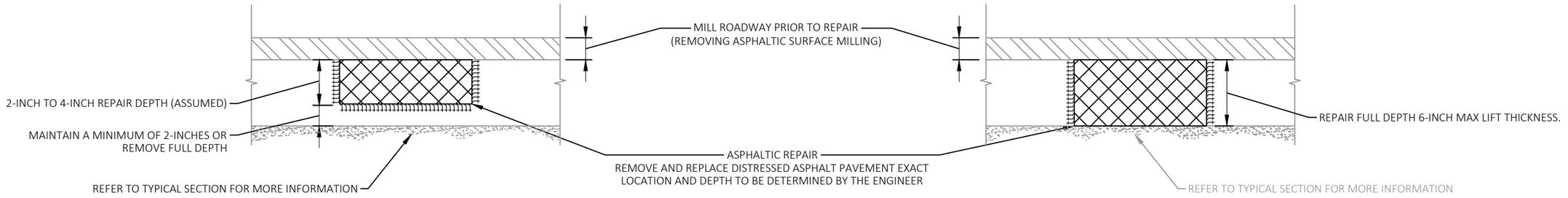
TTTTTTT TACK COAT

GENERAL NOTES

1. EXACT LOCATION, DEPTH AND SIZE OF REPAIR TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. MILL PAVEMENT PER PLAN PRIOR TO MAKING ASPHALTIC REPAIR.
3. LOCATE LONGITUDINAL REPAIR JOINTS OUTSIDE OF WHEEL PATH. 12-INCH MINIMUM (24-INCH RECOMMENDED) FROM THE CENTER OF THE WHEEL PATH.
4. ASPHALTIC REPAIR PAVING TO BE DONE ON THE SAME DAY AS REMOVAL.



PLAN VIEW



PARTIAL DEPTH

SECTION A-A

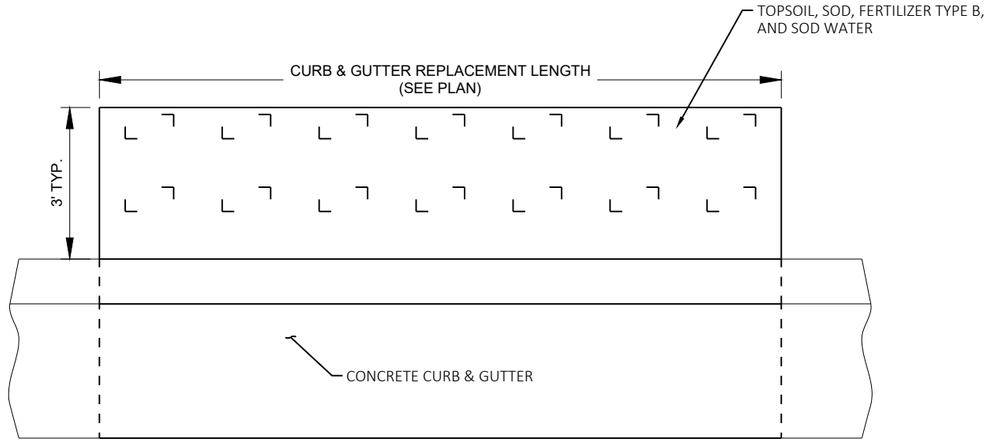
FULL DEPTH

ASPHALTIC REPAIR

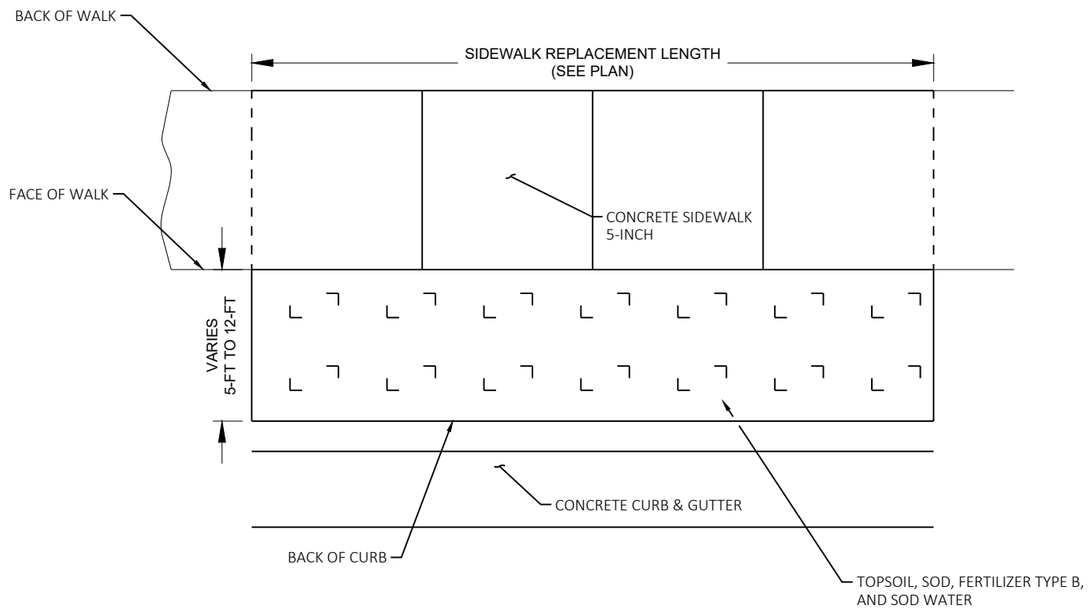
SER (20180101)

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 16	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021001-CD.DWG
LAYOUT NAME - 03
PLOT DATE : 12/19/2025 11:43 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

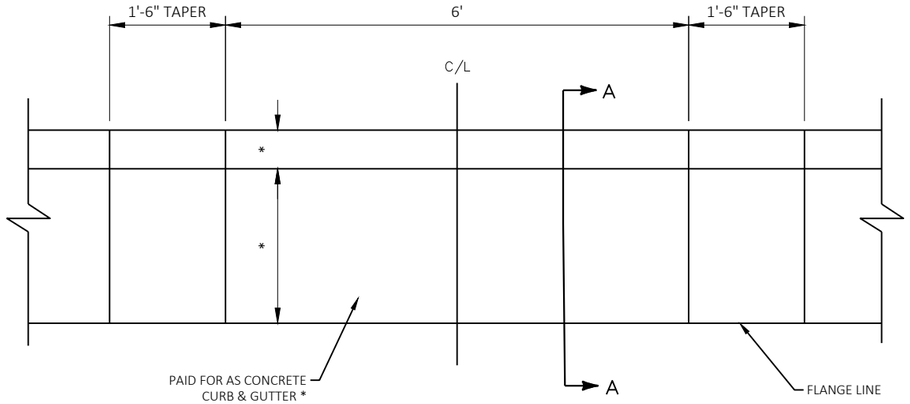


PERMANENT EROSION CONTROL AT CURB & GUTTER REPLACEMENT

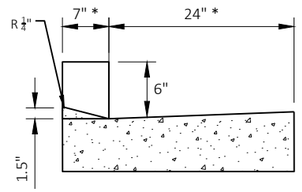


PERMANENT EROSION CONTROL AT SIDEWALK REPLACEMENT

2

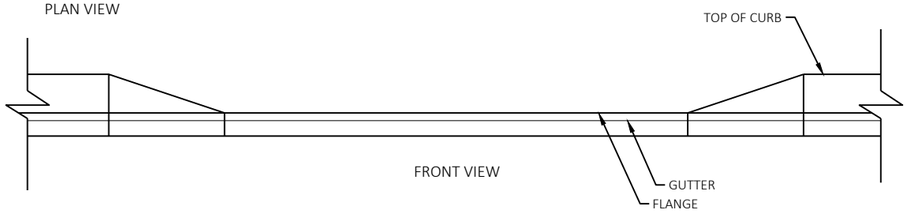


PLAN VIEW

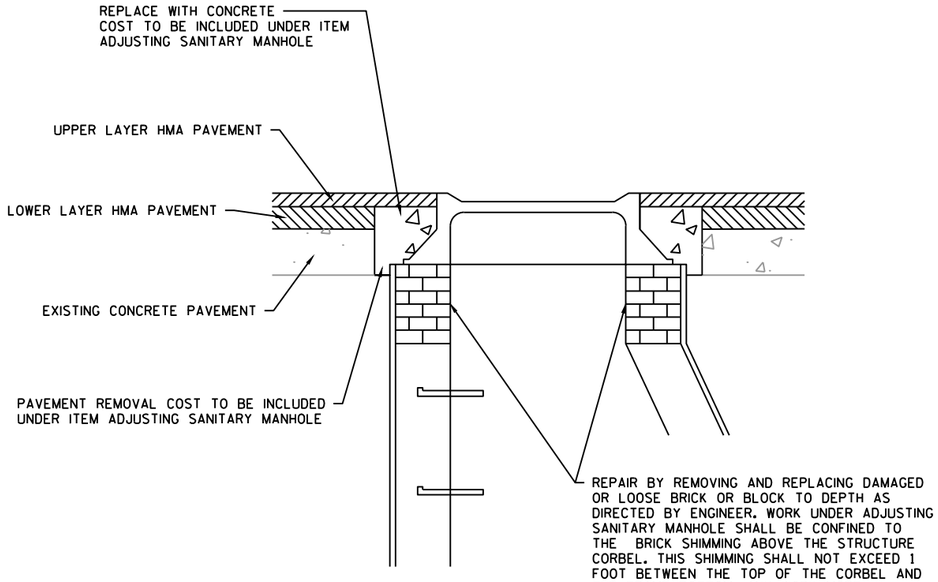


END VIEW
SECTION A-A

* TYPE AND DIMENSIONS TO MATCH ADJACENT CURB AND GUTTER.



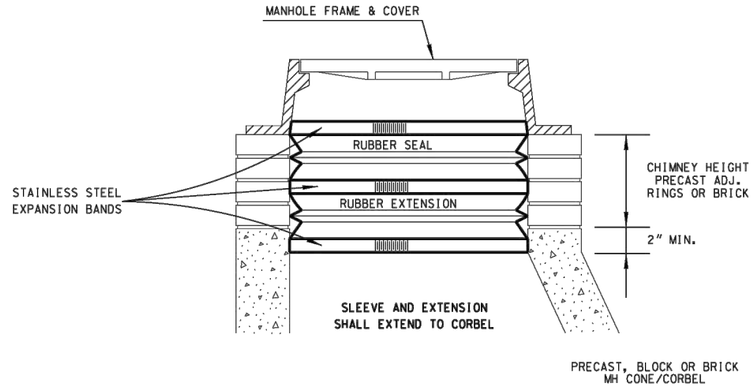
MAINTENANCE OPENING



ADJUSTING SANITARY MANHOLE

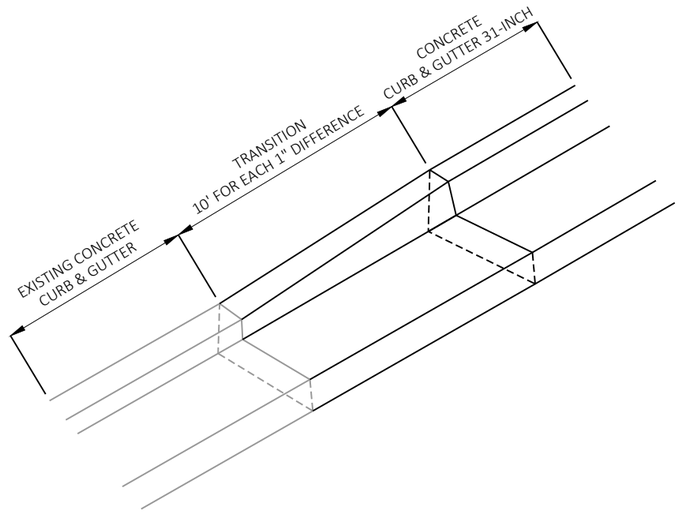
NOTES:

1. LOCATIONS OF STRUCTURES IN CURB & GUTTER SECTIONS REFER TO FACE OF CURB.
2. LOCATIONS OF STRUCTURES NOT IN CURB & GUTTER SECTIONS REFER TO CENTERLINE OF STRUCTURE
3. PIPE LENGTHS GIVEN ARE OUT OF STRUCTURE
4. GRATE AND RIM ELEVATIONS ARE GIVEN AT FLOW LINE OF INLET COVER OR AT CENTERLINE OF MANHOLE COVER
5. MANHOLE ADJUSTMENTS IN ASPHALTIC PAVEMENT WILL BE MADE AFTER THE LOWER LAYER IS PLACED
6. WHEN CONSTRUCTING CONCRETE CURB ADJACENT TO INLET COVER TYPE 57, TWO (2) DEFORMED TIE BARS SHALL BE PLACED LONGITUDINALLY THROUGH THE CURB SECTION AND EXTEND ONE (1) FOOT BEYOND EACH SIDE OF THE FRAME. A DUMMY JOINT SHALL BE CUT IN THE CURB AT EACH SIDE OF THE FRAME.



INTERNAL SANITARY MANHOLE SEALS

2



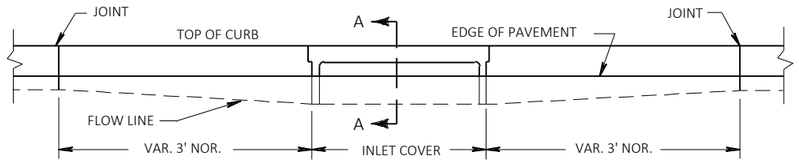
CONCRETE CURB & GUTTER TRANSITION

NOTEs:

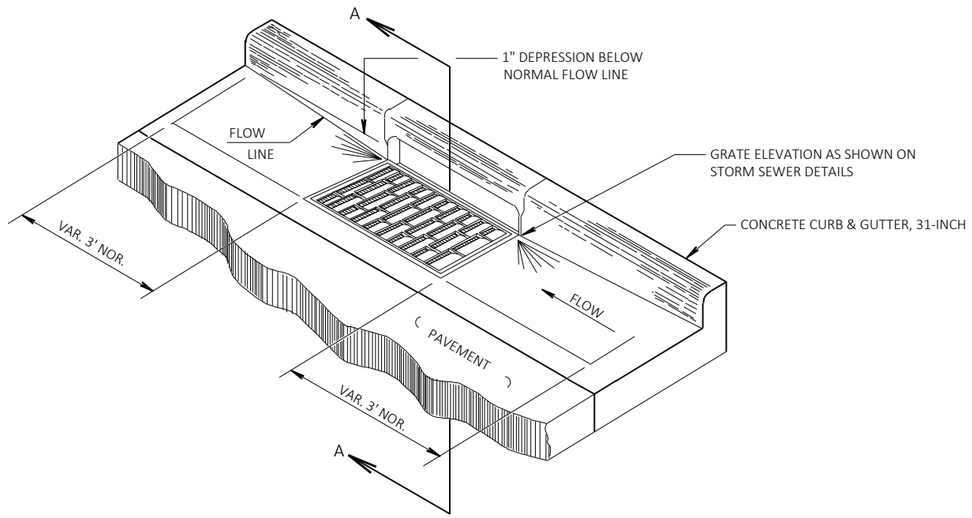
TRANSITION SHALL BE USED TO CONNECT CURBS OF DIFFERENT HEIGHTS.

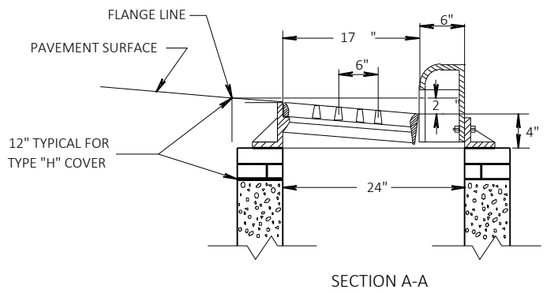
THE DESIRABLE TRANSITION LENGTH SHALL BE 10 FEET FOR 1 INCH OF DIFFERENCE IN CURB HEIGHT. A MINIMUM TRANSITION LENGTH OF 5 FEET FOR 1 INCH OF DIFFERENCE IN CURB HEIGHT MAY BE USED WHEN DISTANCE IS CONSTRAINED.

LOCATION OF TRANSITIONS ARE NOTED ON PLAN DETAILS.



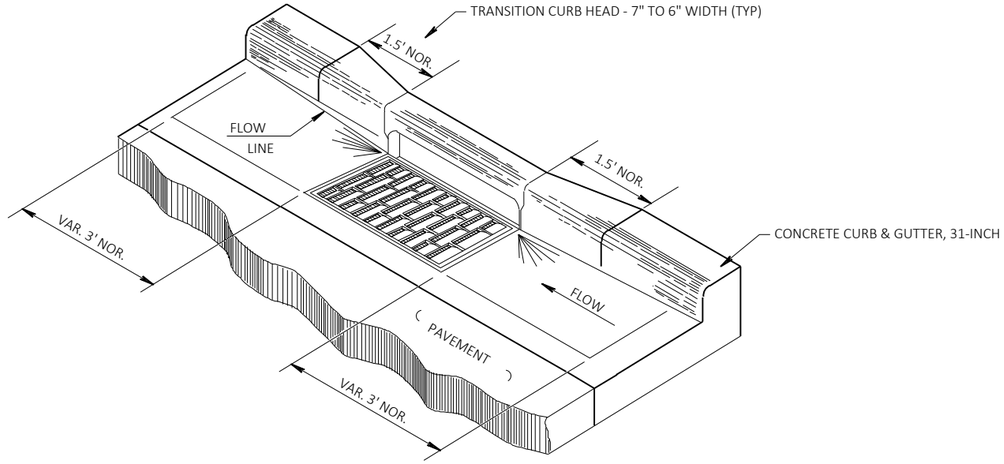
ELEVATION



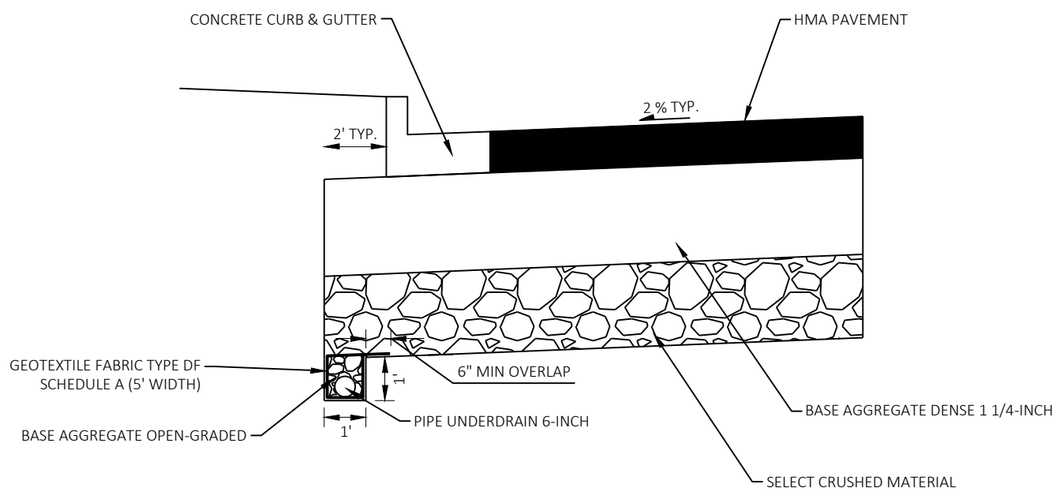


SECTION A-A

CURB AND GUTTER AT INLETS

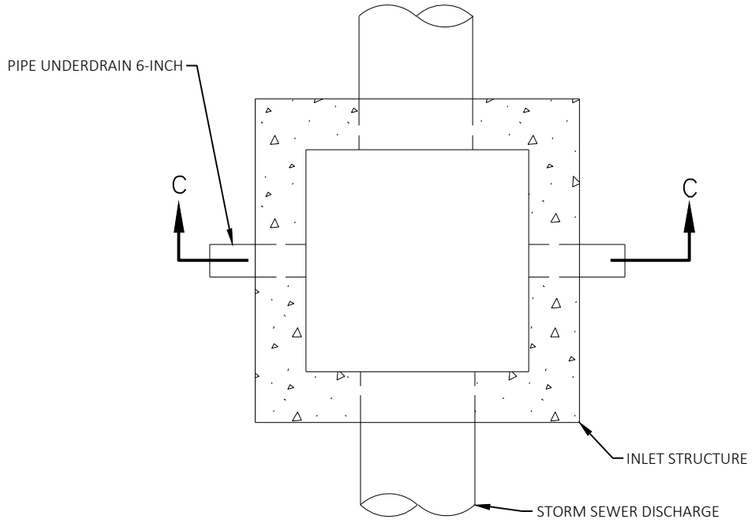


CURB HEAD TRANSITION FOR TYPE H COVERS

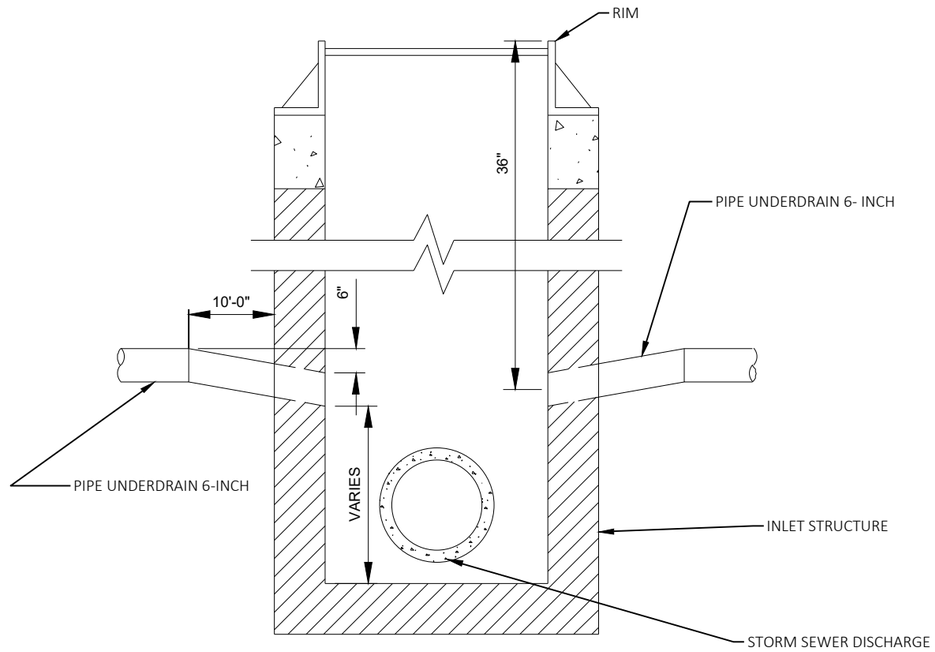


UNDERDRAIN TRENCH DETAIL

2



PLAN VIEW



SECTION C-C

UNDERDRAIN OUTFALL AT DRAINAGE STRUCTURE

NOTES:

1) SEE TYPICAL SECTIONS AND STORM SEWER PLANS FOR PIPE UNDERDRAIN LOCATIONS.
2) CONNECTING UNDERDRAINS TO NEW OR EXISTING STRUCTURES IS INCIDENTAL TO THE UNDERDRAIN PAY ITEM.

2

NOTES:

EXCAVATING, PREPARING THE FOUNDATION AND SHIMMING ARE INCIDENTAL TO THE MANHOLE BID ITEMS.

THE MONOLITHIC SHIM CONCRETE WILL UTILIZE SAME MATERIALS AS BASE PATCHING CONCRETE SHES.

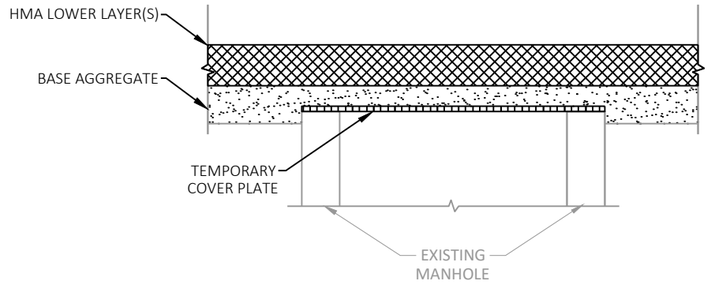
MONOLITHIC SHIM CONCRETE, CONCRETE PLACEMENT AND FINISHING IS INCIDENTAL TO THE ADJUSTING MANHOLE COVERS BID ITEMS.

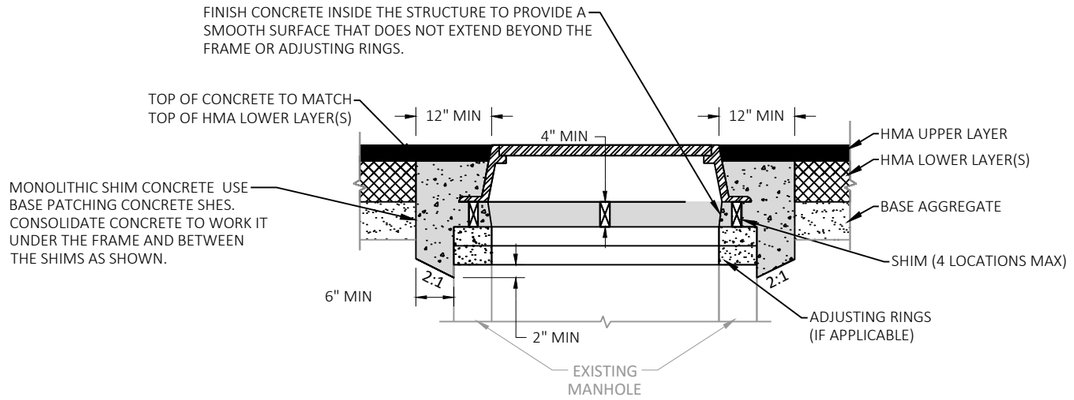
PREVENT CONCRETE AND OTHER DEBRIS FROM FALLING INTO STRUCTURE.

REFER TO PLAN DETAILS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL INFORMATION.



MONOLITHIC CONCRETE





MANHOLE - MONOLITHIC SHIM

2

NOTES:

EXCAVATING, PREPARING THE FOUNDATION AND SHIMMING ARE INCIDENTAL TO THE ADJUSTING OR RECONSTRUCTING BID ITEMS.

THE DEPARTMENT WILL PAY SEPARATELY FOR CONCRETE CURB & GUTTER.

PAVEMENT REMOVAL FOR THE MONOLITHIC SHIM IS INCIDENTAL TO THE REMOVING CURB & GUTTER BID ITEM.

MONOLITHIC SHIM CONCRETE, CONCRETE PLACEMENT AND FINISHING IS INCIDENTAL TO THE CONCRETE CURB & GUTTER BID ITEM.

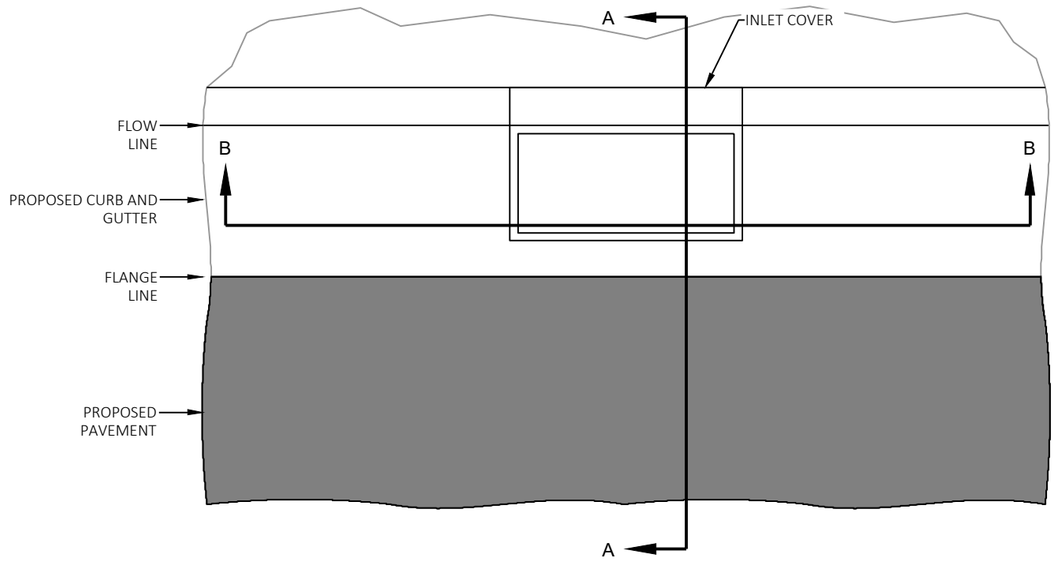
PREVENT CONCRETE AND OTHER DEBRIS FROM FALLING INTO STRUCTURE.

PLACE CONCRETE AS SHOWN OR AS OTHERWISE DIRECTED TO FIT FIELD CONDITIONS.

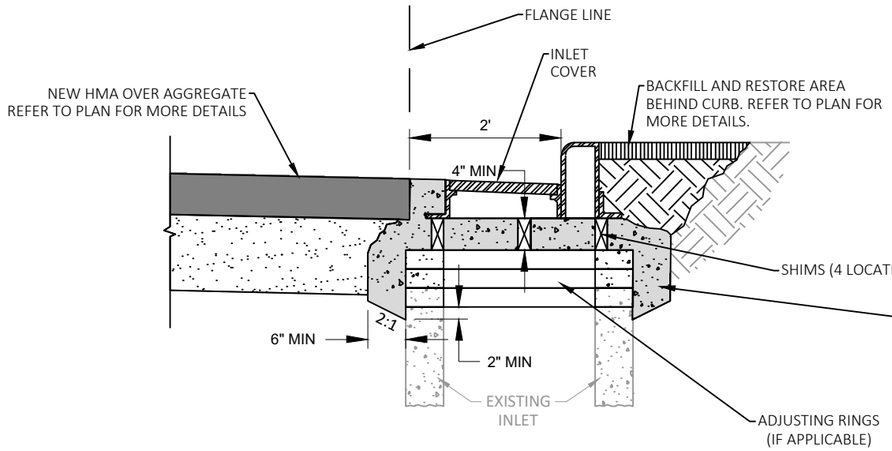
REFER TO PLAN DETAILS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL INFORMATION.



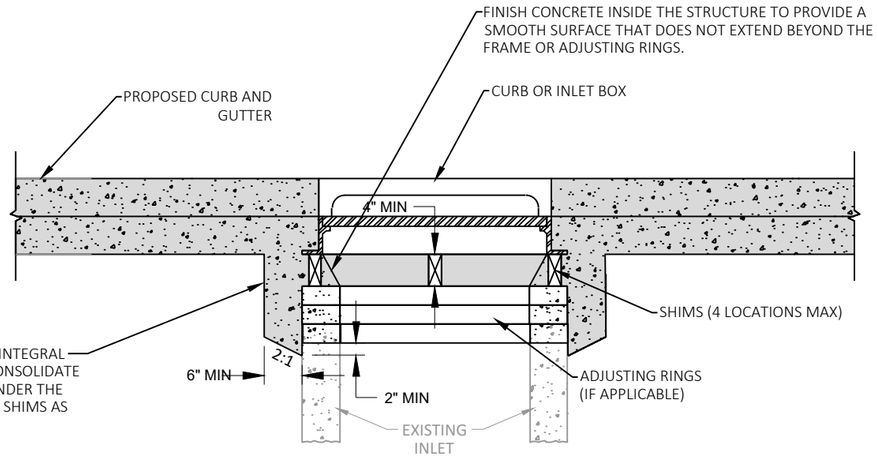
CONCRETE CURB AND GUTTER WITH MONOLITHIC SHIM



PLAN VIEW



SECTION A-A

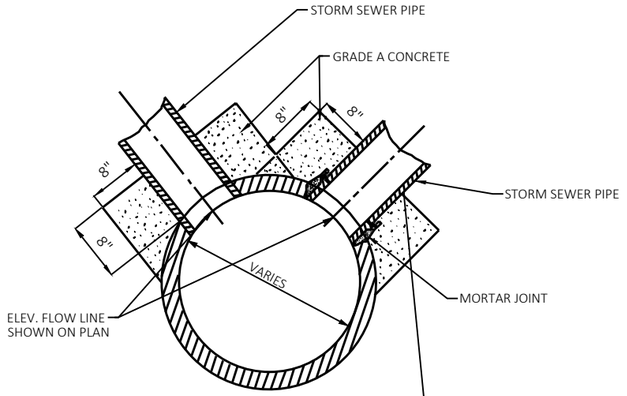


SECTION B-B

CATCH BASINS & INLETS - MONOLITHIC SHIM

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - DRAINAGE	SHEET 24	E

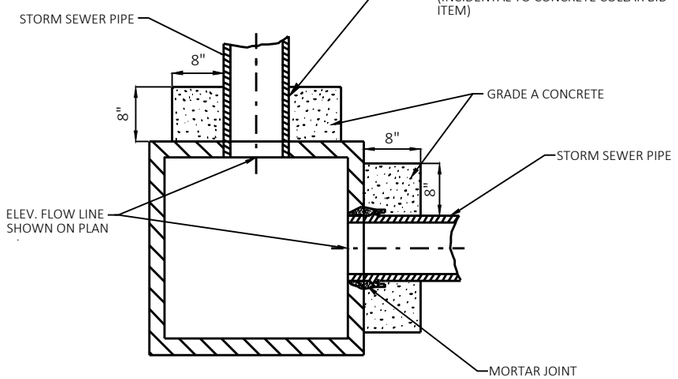
FILE NAME : C:\USERS\TONYBACIAK\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-SE-DESIGN\1228-09-07_IH_43_DRAINAGE\C3D\12280907\SHEETSPLAN\022501-SS-CD.DWG
LAYOUT NAME - 04
PLOT DATE : 10/27/2025 2:53 PM PLOT BY : TONY BACIAK PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



AT MANHOLE

INCIDENTAL TO NEW STRUCTURE AND NEW PIPE ITEMS

CLEAN PIPE AND STRUCTURE SURFACES AND APPLY BONDING AGENT PRIOR TO INSTALLING CONCRETE COLLAR (INCIDENTAL TO CONCRETE COLLAR BID ITEM)



AT STORM SEWER INLET

INCIDENTAL TO NEW STRUCTURE AND NEW PIPE ITEMS

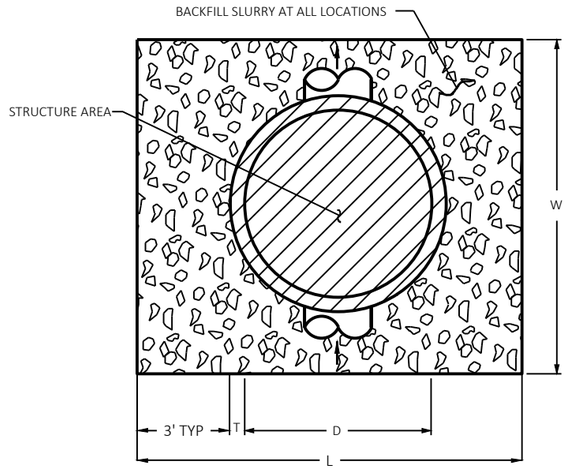
NOTE

CONCRETE COLLAR INCIDENTAL TO THE SPECIAL PROVISION "PIPE CONNECTION TO EXISTING STRUCTURE" WHEN CONNECTING AN EXISTING PIPE TO A NEW STRUCTURE.

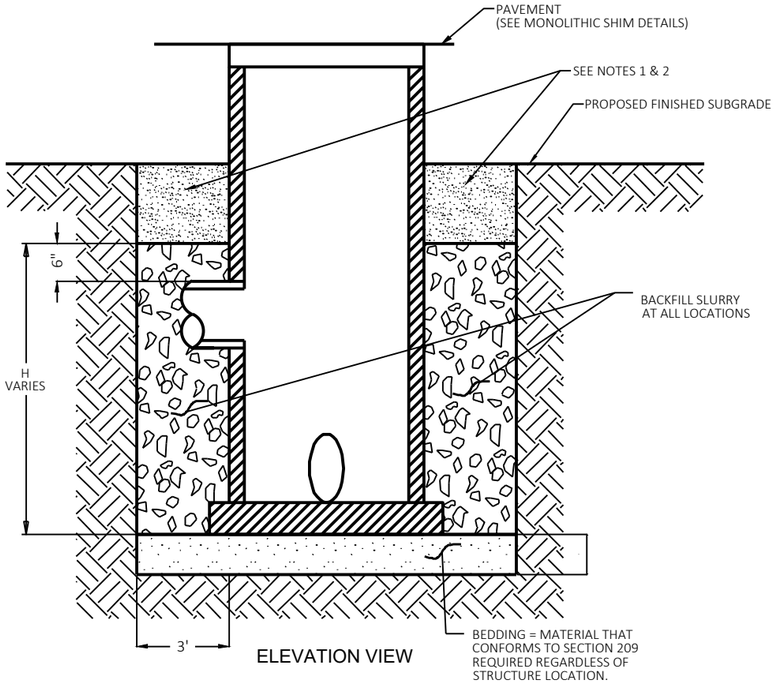
CONCRETE COLLAR DETAIL

FOR LOCATIONS SEE MISCELLANEOUS QUANTITIES SHEETS

H = UP TO 6" ABOVE THE TOP OF THE HIGHEST PIPE IN THE STRUCTURE



PLAN VIEW



ELEVATION VIEW

NOTES

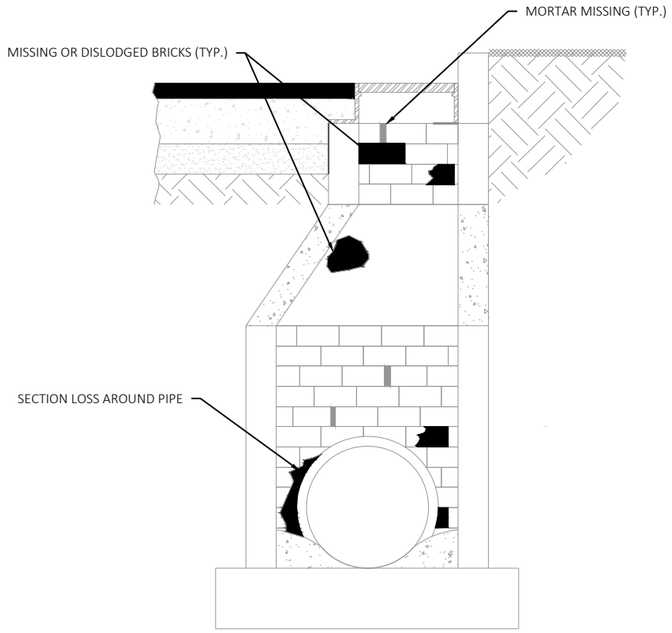
(1) IF THE STRUCTURE IS OUTSIDE THE TRAVELED WAY INCLUSIVE OF SHOULDERS AND AUXILIARY LANES, NATIVE BACKFILL MAY BE USED ABOVE BACKFILL SLURRY AND SHALL CONFORM TO SECTION 209, GRADE 1.

(2) IF THE STRUCTURE IS WITHIN THE TRAVELED WAY INCLUSIVE OF SHOULDERS AND AUXILIARY LANES, BACKFILL ABOVE BACKFILL SLURRY SHALL CONFORM TO SECTION 209, GRADE 1.

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

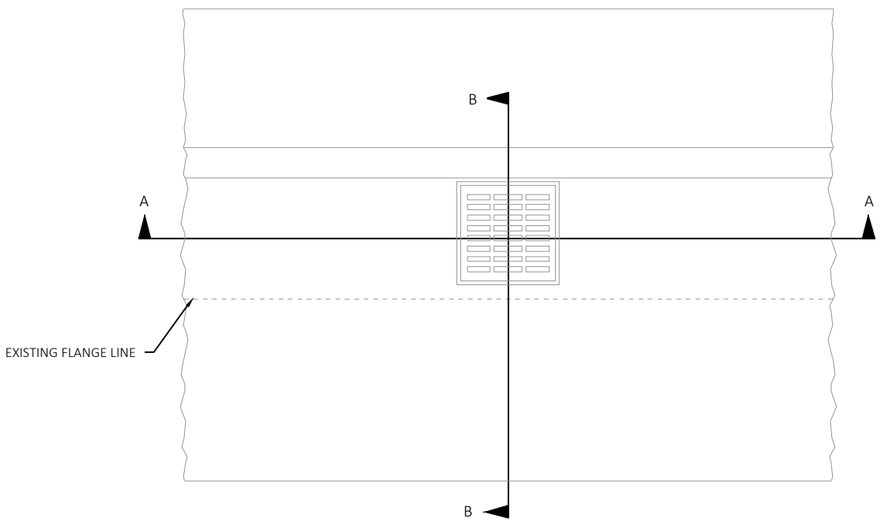
(4) BACKFILL SLURRY IS CONSIDERED INCIDENTAL TO DRAINAGE STRUCTURES. NO SEPARATE PAYMENTS WILL BE MADE.

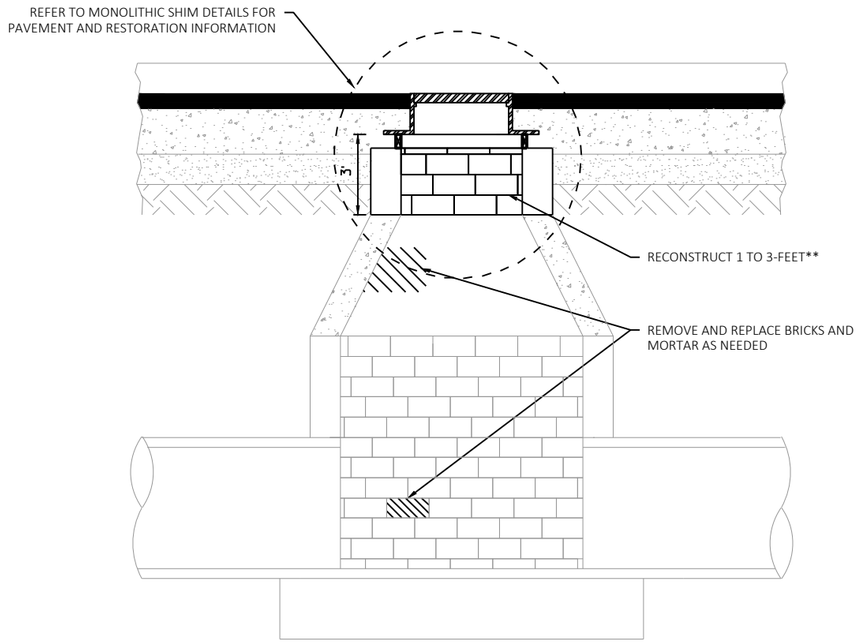
BACKFILL SLURRY DETAIL - STORM SEWER STRUCTURES



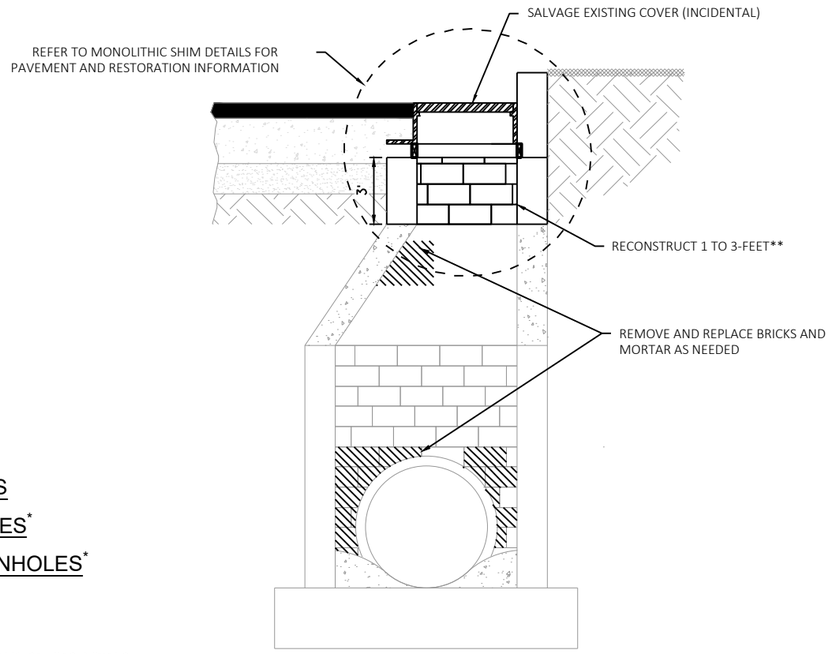
EXISTING DRAINAGE STRUCTURE
SECTION B-B

STRUCTURE DETAILS ARE INTENDED TO SHOW GENERAL CONDITION AND IS NOT AN EXACT REPRESENTATION OF EVERY STRUCTURE.





PROPOSED DRAINAGE STRUCTURE
SECTION A-A



PROPOSED DRAINAGE STRUCTURE
SECTION B-B

RECONSTRUCTING INLETS

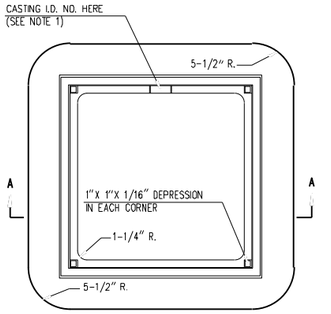
RECONSTRUCTING MANHOLES*

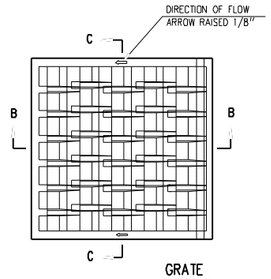
RECONSTRUCTING SANITARY MANHOLES*

NOT TO SCALE

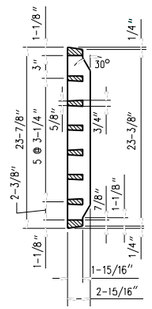
*INLET SHOWN, MANHOLE SIMILAR

**IF THE STRUCTURE IS PRECAST, A RISER SECTION MAY BE USED INSTEAD.

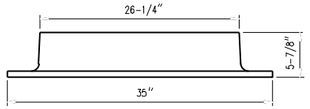




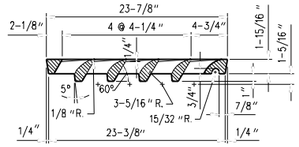
GRATE



SECTION C-C



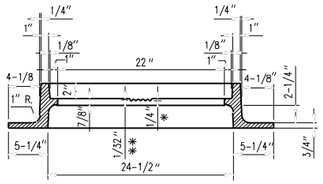
FRAME



SECTION B-B

INLET COVER - TYPE 55

LID-180 LBS., FRAME-315 LBS.



✱ DEPRESSION FOR LETTERS

✱ ✱ CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT

SECTION A-A

GENERAL NOTES

ALL EDGES ARE TO BE GROUND.

ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8 INCH

ON THE FRAME

1. ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

2. ON THE SEAT OF THE FRAME IN 3/4 INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (8).

ON THE GRATE

1. ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (55) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

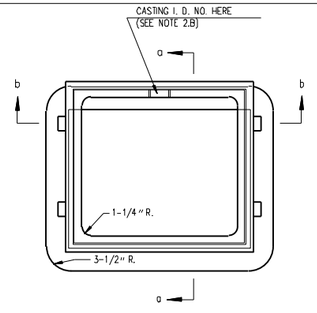
ENVIRONMENTAL ENGINEERING SECTION
INFRASTRUCTURE SERVICES DIVISION
DEPARTMENT OF PUBLIC WORKS
MILWAUKEE, WISCONSIN

SEWER DETAIL DRAWING

ALLEY FRAME & INLET GRATE

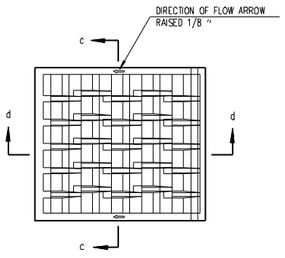
$FILE$

INLET COVER TYPE MS 55



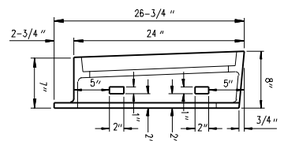
inlet frame - ms 51

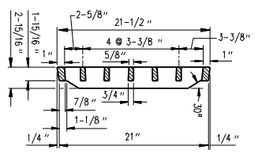
WEIGHT 204 LBS.



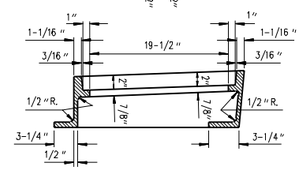
inlet COVER - ms 57

WEIGHT 145 LBS

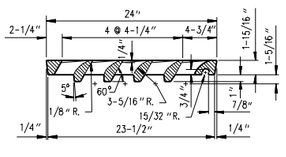




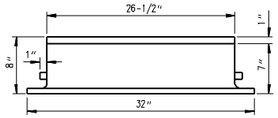
SECTION c-c



SECTION a-a



SECTION d-d



GENERAL NOTES

1. ALL EDGES ARE TO BE GROUND
2. ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8"

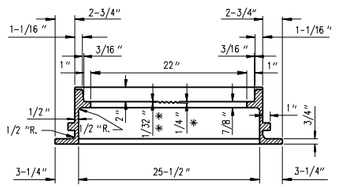
ON THE FRAME

a) ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

b) ON THE SEAT OF THE FRAME IN 1 INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (51).

ON THE GRATE

c) ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (57) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.



SECTION b-b

✱ DEPRESSION FOR LETTERS

✱ ✱ CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT

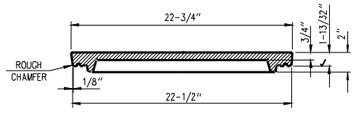
ENVIRONMENTAL ENGINEERING SECTION
INFRASTRUCTURE SERVICES DIVISION
DEPARTMENT OF PUBLIC WORKS
MILWAUKEE, WISCONSIN

SEWER DETAIL DRAWING

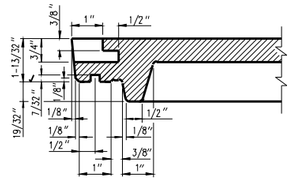
CATCH BASIN / INLET GRATE

$FILE$

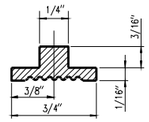
INLET COVER TYPE MS 57

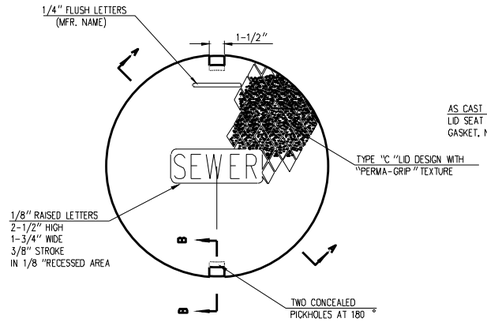


SECTION A-A

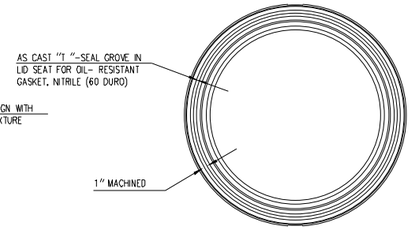


SECTION B-B





TOP VIEW



BOTTOM VIEW

MANHOLE COVER - TYPE ms 58-A

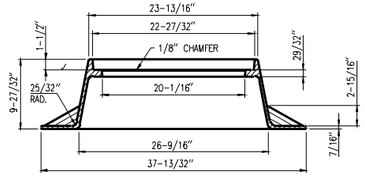
LID - 107 LBS.

NOTE:

ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8 HAVING A DIGIT OR LETTER HEIGHT OF ONE INCH ON LOWER FACE OF LID:

1. THE INITIALS OR MONOGRAM OF THE FOUNDRY.
2. THE CONTRACT NUMBER AND YEAR MADE.
3. THE CASTING IDENTIFICATION NUMBER.
4. THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

NOTE: ALL EXTERIOR EDGES SHALL BE GROUND.



MANHOLE FRAME - TYPE MS 21

FRAME - 182 LBS.

ENVIRONMENTAL ENGINEERING SECTION
INFRASTRUCTURE SERVICES DIVISION
DEPARTMENT OF PUBLIC WORKS
MILWAUKEE, WISCONSIN

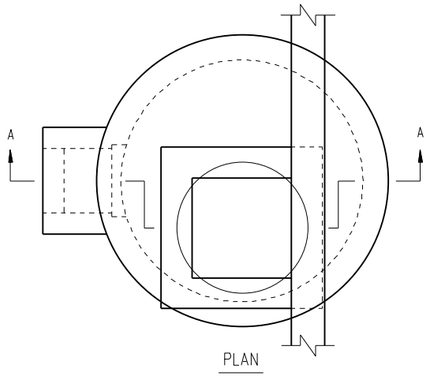
___SEWER_DETAIL_DRAWING___

MANHOLE FRAME & COVER

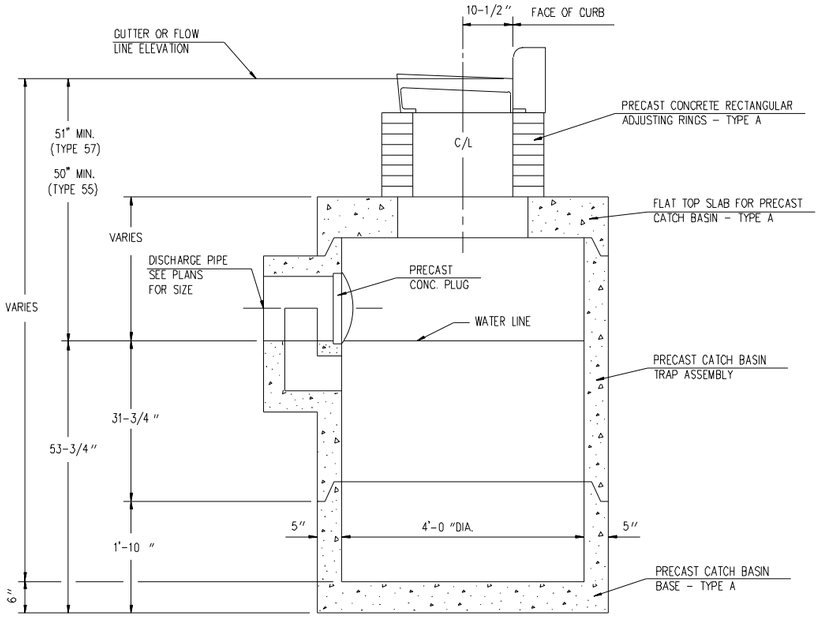
$FILE$

MANHOLE COVER TYPE MS 58A

2



PLAN

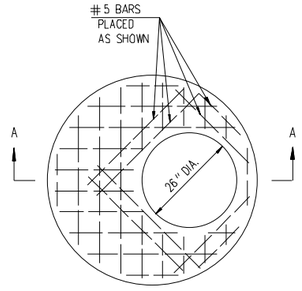


SECTION A-A

CATCH BASIN - TYPE 44A

GENERAL NOTES

1. REINFORCEMENT FOR 5' PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16"X W16 WELDED STEEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.
2. PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.
3. PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 4" IN DEPTH WHICH MEETS REQUIREMENTS FOR GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.
4. SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON PLAN.
5. A PRECAST CONCRETE PLUG SHALL BE CEMENTED INTO THE OPENING AT THE INNER FACE OF THE CATCH BASIN TRAP ASSEMBLY.

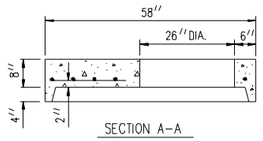


PLAN

FLAT TOP SLAB SHALL BE 8" THICK REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

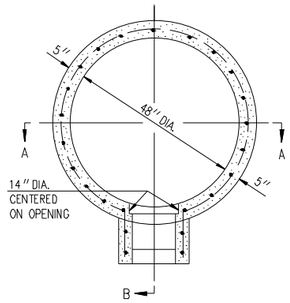
REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.



SECTION A-A

TOP SLAB - TYPE A



PLAN

CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

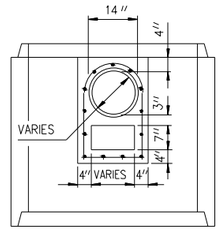
TRAP ASSEMBLY SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS,PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

CIRCUMFERENTIAL AND TRAP ASSEMBLY REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

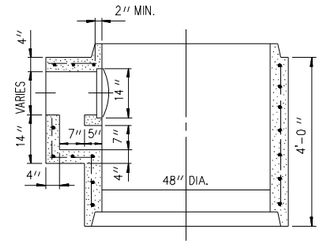
THE TRAP ASSEMBLY REINFORCED CONCRETE SHALL BE INTERGRAL WITH THE CIRCUMFERENTIAL REINFORCED CONCRETE WALL.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.

TWO HANDLING HOLES 2 1/4 INCHES IN DIAMETER SHALL BE CAST OR DRILLED IN THE WALL.

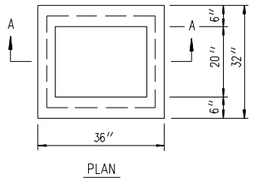


SECTION A-A



SECTION B-B

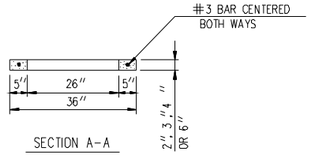
TRAP ASSEMBLY



PLAN

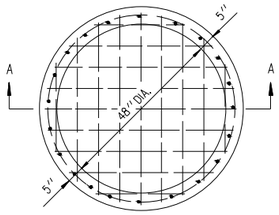
THE ADJUSTING RINGS SHALL BE 2", 3 1/4" OR 6" IN HEIGHT.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.



SECTION A-A

RECTANGULAR ADJUSTING RING - TYPE A



PLAN

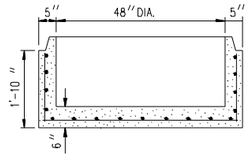
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

BOTTOM SLAB SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SLAB.

CIRCUMFERENTIAL AND BOTTOM SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.

TWO HANDLING HOLES 2 1/4 INCHES IN DIAMETER SHALL BE CAST OR DRILLED IN THE WALL.

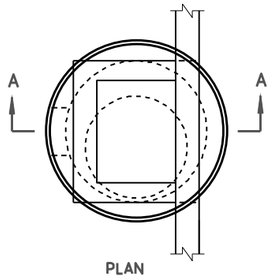


SECTION A-A

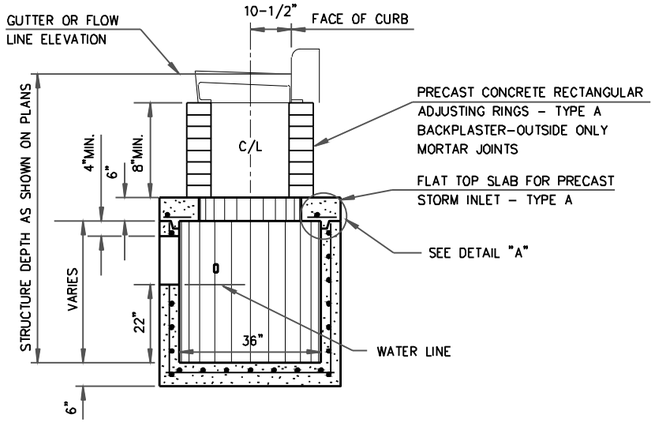
BASE ASSEMBLY

CATCH BASIN TYPE 44A

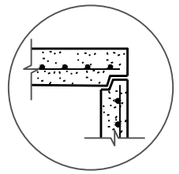
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - DRAINAGE	SHEET 29	E



PLAN



SECTION A-A



detail "a"
lap with tongue and groove joint

STORM INLET - TYPE 45A

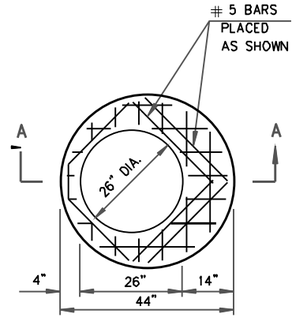
GENERAL NOTES

1. PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199 AND ASTM DESIGNATION C-478 AND THESE DETAILED REQUIREMENTS WHICH SHALL GOVERN WHERE THEY ALTER THE AASHTO AND ASTM STANDARDS.

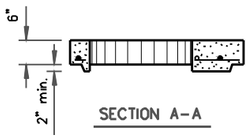
2. ALL REINFORCEMENT STEEL SHALL BE GRADE 60 OR GREATER AND EMBEDDED AT LEAST 1" CLEAR.

3. PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 4 IN DEPTH WHICH MEETS REQUIREMENTS FOR GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

4. SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON PLAN.



PLAN



SECTION A-A

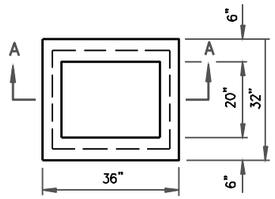
TOP SLAB - TYPE A

FLAT TOP SLAB SHALL BE 6" THICK REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.32 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED NEAR THE BOTTOM OF THE SLAB WITH 1" CLEAR COVER.

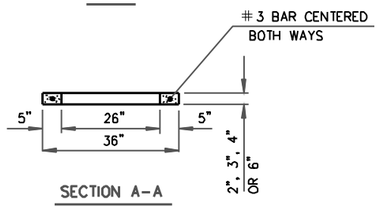
ADDITIONALLY, NO. 5 BARS SHALL BE PLACED AROUND TOP SLAB OPENING AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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



PLAN

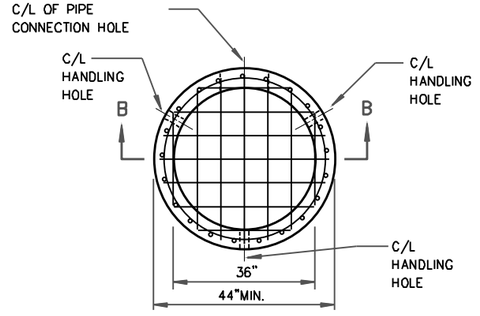


SECTION A-A

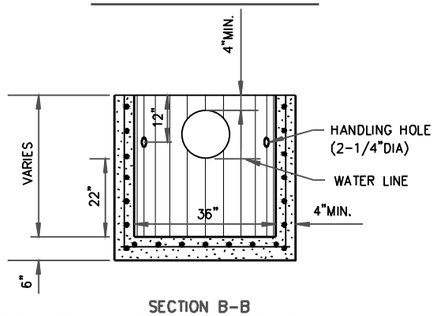
RECTANGULAR ADJUSTING RING - TYPE A

THE ADJUSTING RINGS SHALL BE 2", 3", 4" OR 6" IN HEIGHT.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.



RISER SECTION WITH INTEGRAL BASE PLAN



SECTION B-B

CATCH BASIN TYPE 45A

CIRCUMFERENTIAL AND LONGITUDINAL REINFORCEMENT IN THE RISER SECTON SHALL EACH CONSIST OF ONE LAYER OF STEEL NOT LESS THAN 0.12 SQ. IN. PER FOOT AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

THE BASE SLAB SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.32 SQ. IN. PER FOOT IN BOTH DIRECTIONS, PLACED ABOVE THE MIDPOINT OF THE SLAB.

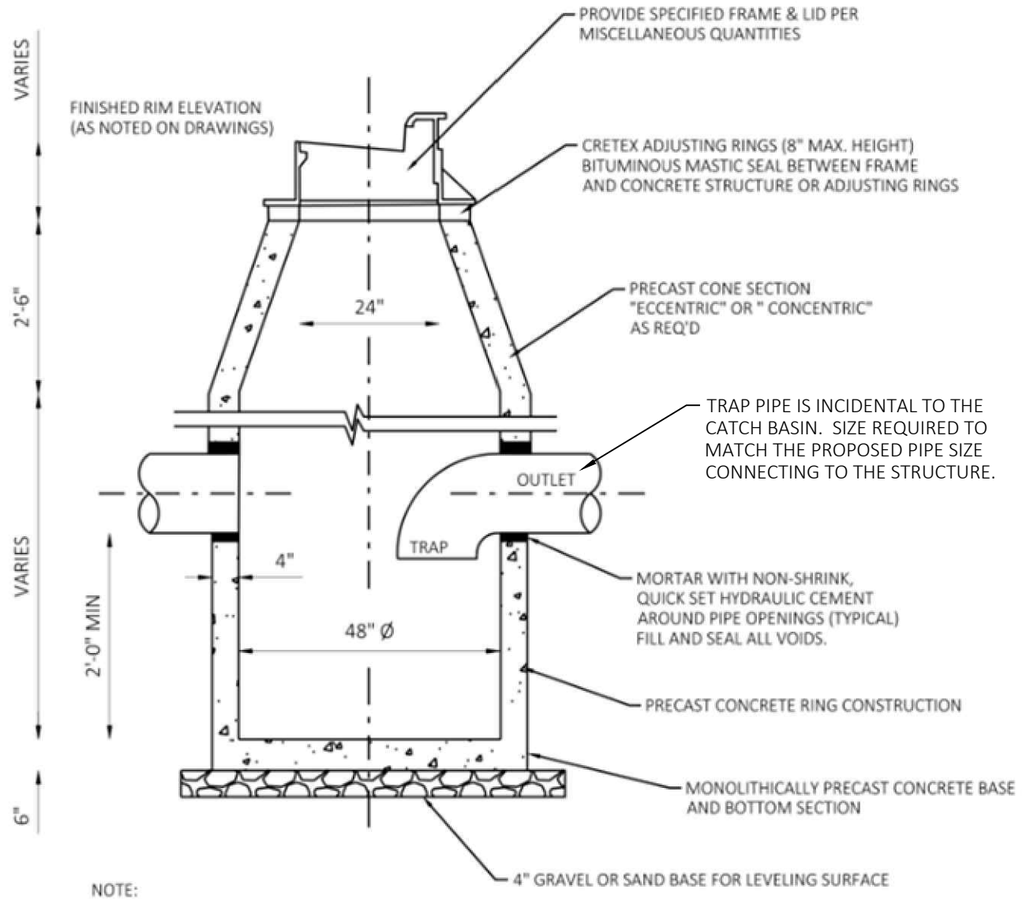
RISER SECTION AND BASE SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

TWO TO THREE HANDLING HOLES 2-1/4" IN DIAMETER AND A PIPE CONNECTION HOLE SHALL BE CAST OR CORED IN THE RISER SECTION AT THE LOCATIONS SHOWN. LIFTING DEVICES MAY BE SUBSTITUTED FOR HANDLING HOLES.

NO JOINTS OR HOLES SHALL BE BELOW THE WATERLINE.

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

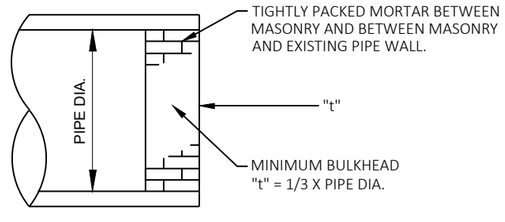
RISER SECTION MAY TAPER TO A 33" INTERNAL DIAMETER AT IT'S BOTTOM PROVIDED A 44" MINIMUM OUTSIDE DIAMETER IS MAINTAINED.



NOTE:

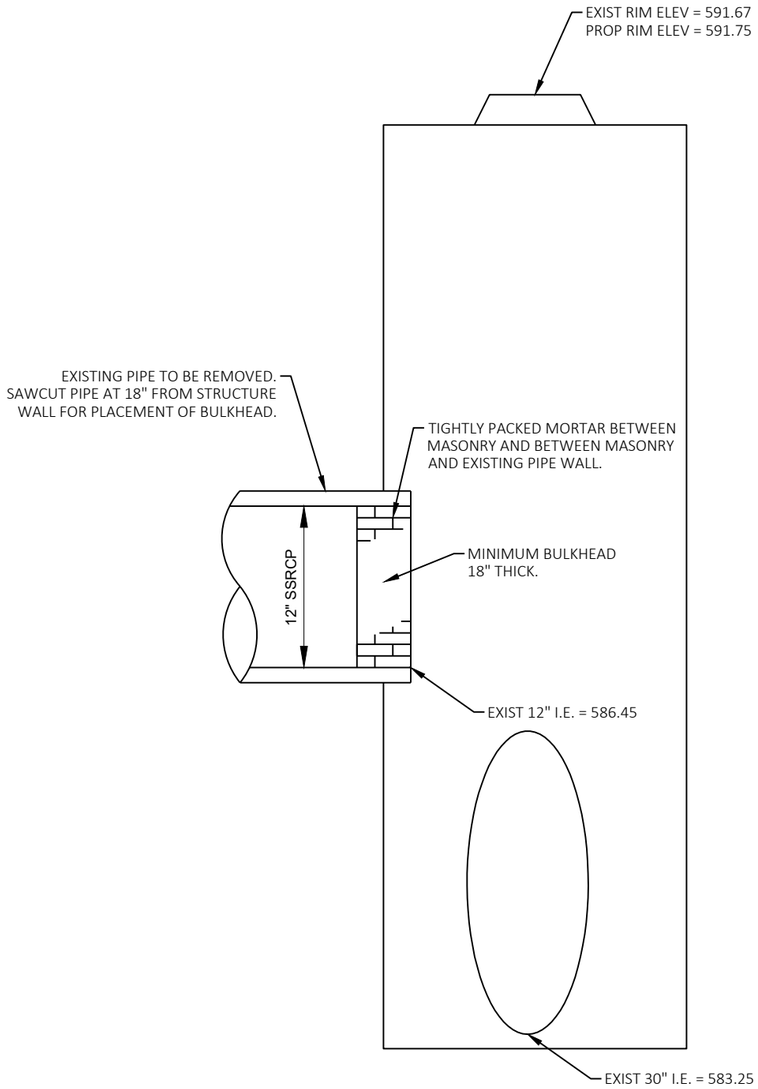
1) SHALLOW DEPTHS MAY REQUIRE THE USE OF "FLAT SLAB TOP" IN LIEU OF CONE SECTION.

COMBINED SEWER CATCH BASINS DETAIL



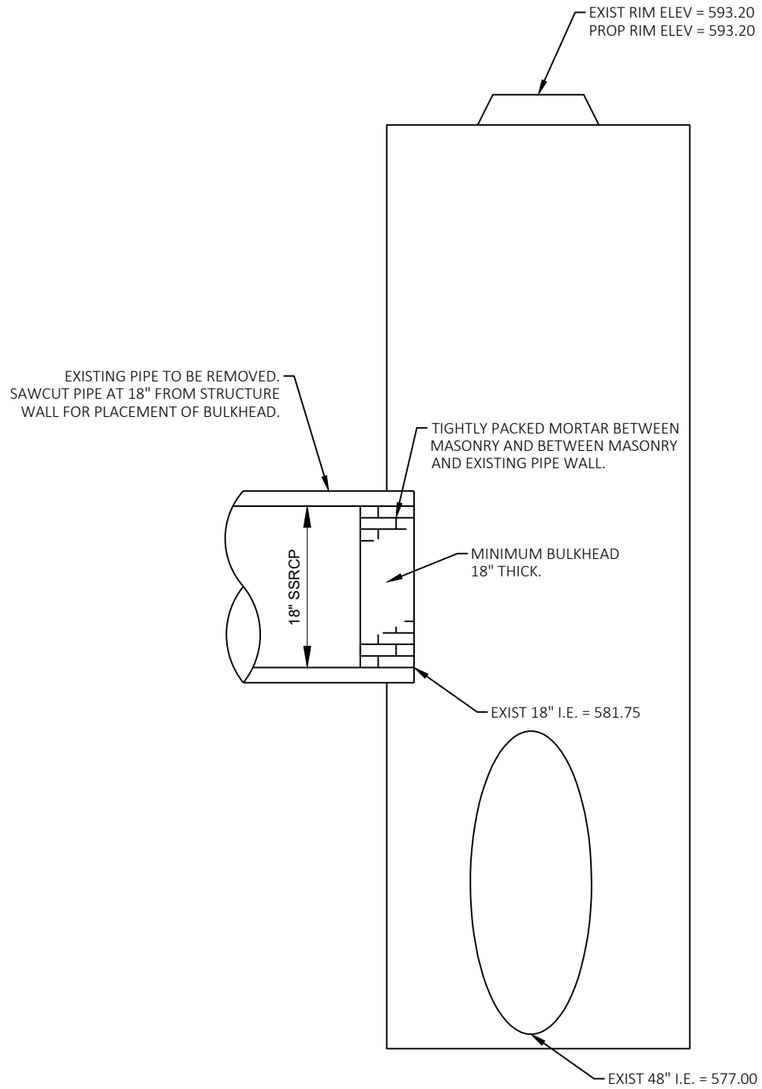
BULKHEAD PIPE MASONRY

ITEM TO BE PAID FOR UNDER ITEM "SEALING PIPES"
FOR LOCATIONS SEE MISCELLANEOUS QUANTITIES SHEETS



BULKHEAD PIPE MASONRY - STRUCTURE 400 (MMSD)

ITEM TO BE PAID FOR UNDER ITEM "SEALING PIPES"
FOR LOCATIONS SEE MISCELLANEOUS QUANTITIES SHEETS



BULKHEAD PIPE MASONRY - STRUCTURE 415 (MMSD)

ITEM TO BE PAID FOR UNDER ITEM "SEALING PIPES"
FOR LOCATIONS SEE MISCELLANEOUS QUANTITIES SHEETS

2

2

EXISTING R/W

MATCH BACK OF EXISTING SIDEWALK

606

604

602

600

598

596

594

2EW

BIOSWALE
(SEE CONSTRUCTION DETAILS)

IH 43 SB OFF RAMP

R/L EW

R/L SBF

90SBF

92SBF

94SBF

608

EXISTING R/W

MATCH FRONT OF EXISTING SIDEWALK

606

610

608

606

2WE

2EW

84SBN

86SBN

IH 43 SB ON RAMP

R/L SBN

R/L WE

R/L SBF

R/L EW

88SBN

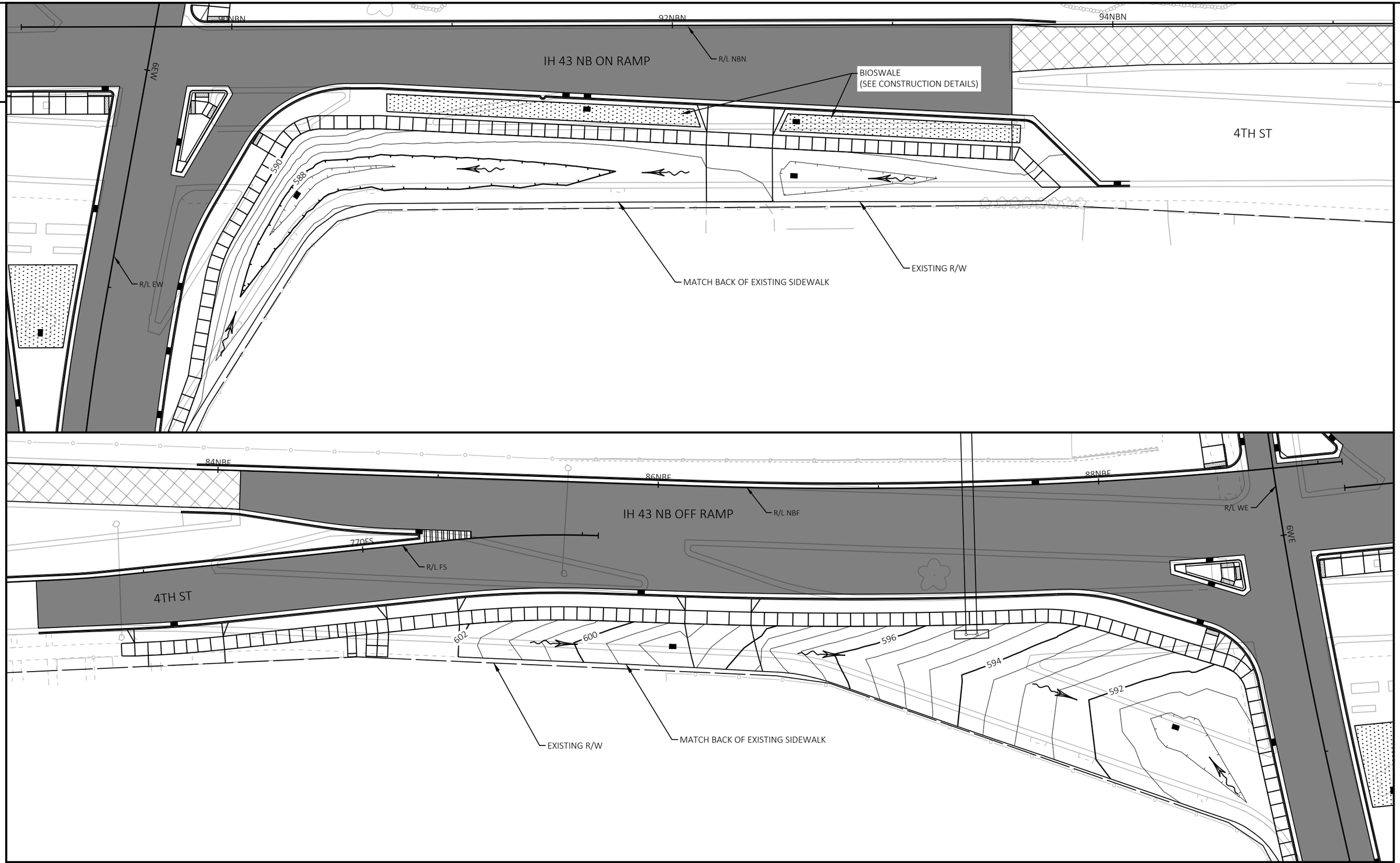
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - TERRACE GRADING	SHEET 33	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021002-CD.DWG
LAYOUT NAME - 02

PLOT DATE : 10/29/2025 9:31 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

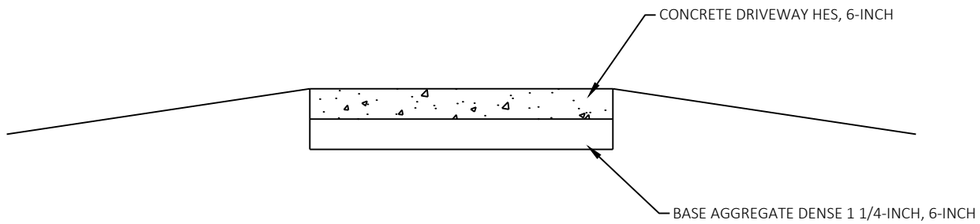
WISDOT/CADDS SHEET 44

2

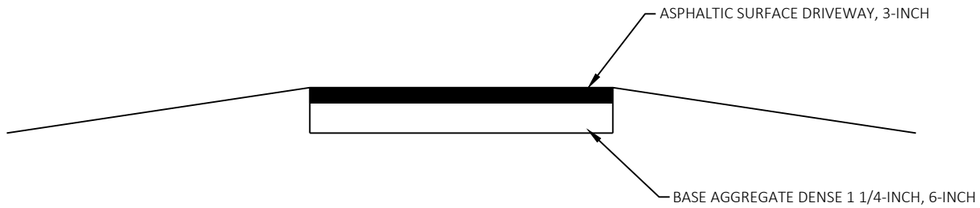


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - TERRACE GRADING	SHEET 34	E

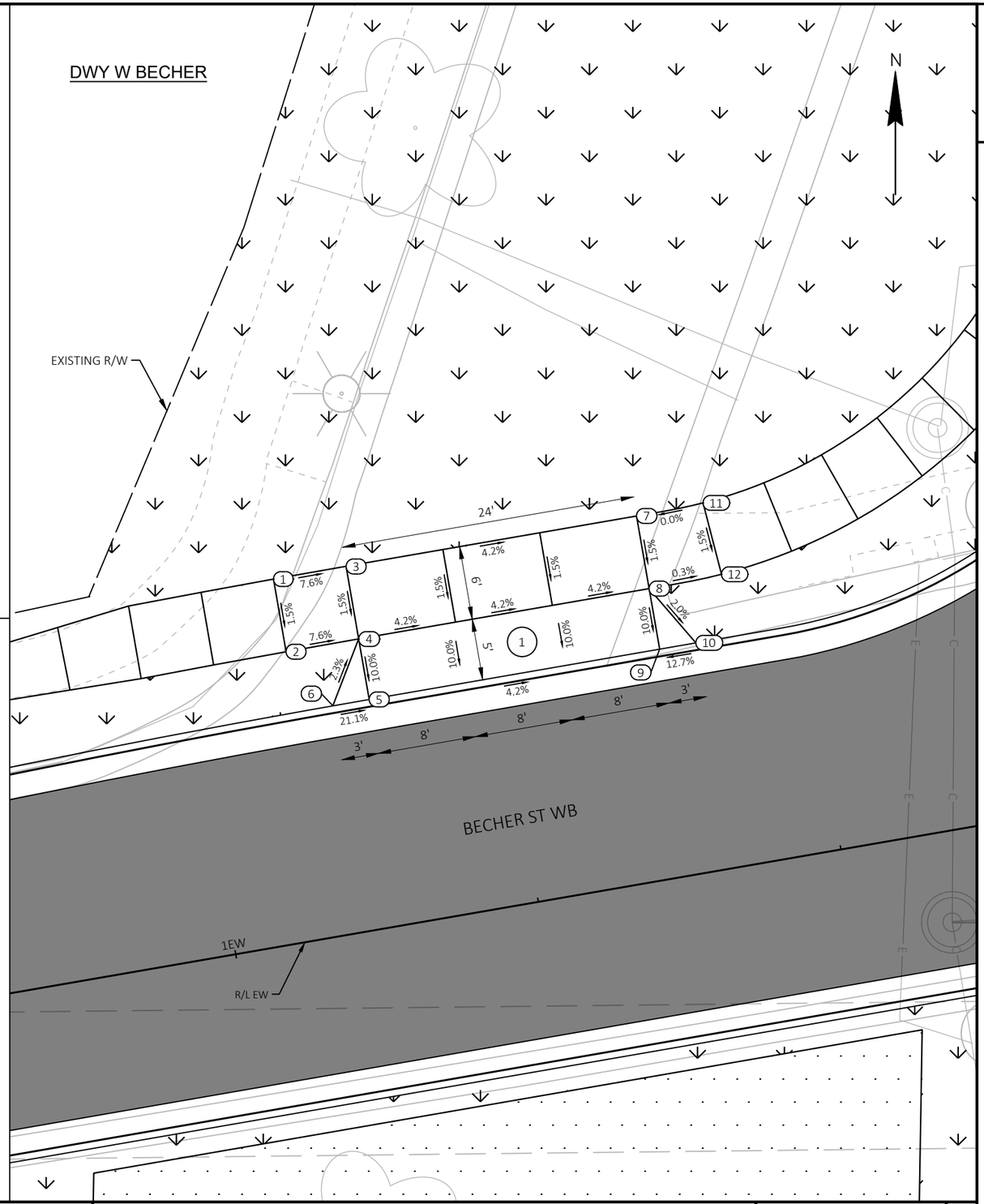
FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021002-CD.DWG
LAYOUT NAME - 03
PLOT DATE : 10/29/2025 9:31 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



1 TYPICAL SECTION
CONCRETE DRIVEWAY



2 TYPICAL SECTION
ASPHALTIC DRIVEWAY



2

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 35	E

DWY FS 1

DWY FS 2

4TH ST

769FS

770FS

R/L FS

EXISTING R/W

MATCH ELEVATIONS AT BACK OF EXISTING SIDEWALK

SAWCUT SIDEWALK IN LINE WITH BUILDING FACE

REPLACE EXISTING STAIR IN-KIND, 9-INCH MIN. TREAD HEIGHT

N

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 36	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021003-CD.DWG
LAYOUT NAME - 05
PLOT DATE : 10/29/2025 9:33 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

DWY NBF

IH 43 NB OFF RAMP

22'

20'

105°34'58"

76°06"

MATCH ELEVATIONS AT BACK OF EXISTING SIDEWALK

EXISTING R/W

DWY NBN

IH 43 NB ON RAMP

BIOSWALE

24'

26'

93°60"

86°54"

MATCH ELEVATIONS AT BACK OF EXISTING SIDEWALK

EXISTING R/W

BIOSWALE

N

2

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 37	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021003-CD.DWG
LAYOUT NAME - 06

PLOT DATE : 10/29/2025 9:34 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

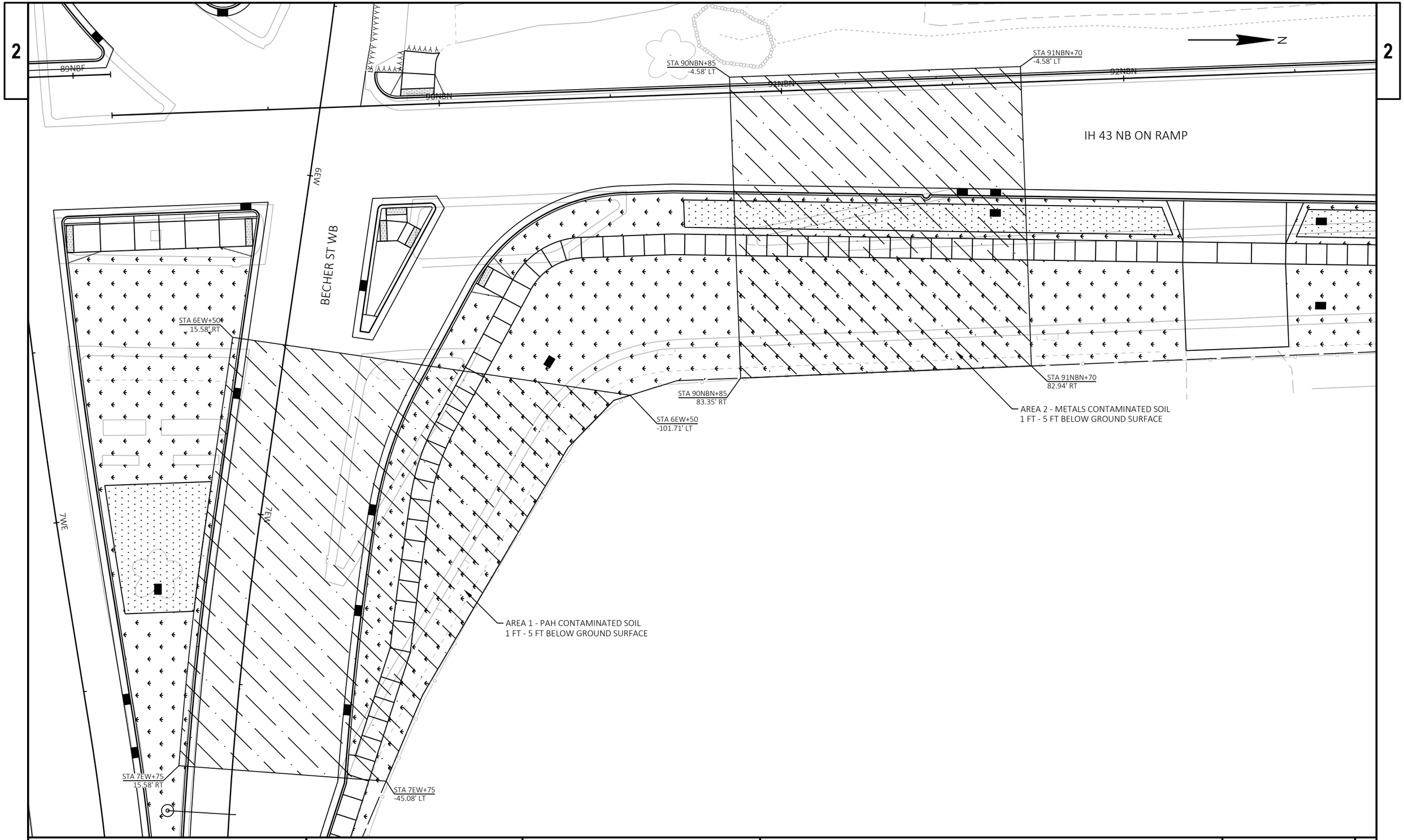
DWY W BECHER					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1	0+92.64	80.26' LT	606.54	287922.74	603890.31
2	0+94.44	74.54' LT	606.45	287916.83	603891.33
3	0+98.36	82.07' LT	606.08	287923.77	603896.22
4	1+00.16	76.35' LT	605.99	287917.86	603897.25
5	1+01.66	71.59' LT	605.50	287912.95	603898.10
6	0+98.80	70.69' LT	606.13	287912.43	603895.14
7	1+21.25	89.29' LT	605.09	287927.88	603919.87
8	1+23.05	83.57' LT	605.00	287921.97	603920.89
9	1+24.55	78.80' LT	604.50	287917.04	603921.74
10	1+27.46	79.70' LT	604.88	287917.55	603924.70
11	1+26.48	91.07' LT	605.09	287928.94	603925.28
12	1+28.84	85.51' LT	605.00	287923.13	603926.78

DWY FS 1					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1	769+38.83	32.58' RT	604.56	287354.09	604401.46
2	769+38.83	38.58' RT	604.62	287354.35	604407.45
3	769+32.83	26.58' RT	604.16	287347.84	604395.73
4	769+32.83	32.58' RT	604.40	287348.10	604401.72
5	769+32.83	38.58' RT	604.46	287348.36	604407.71
6	769+32.57	44.63' RT	604.81	287348.36	604413.77
7	769+35.84	26.58' RT	604.61	287350.84	604395.59
8	768+98.90	25.66' RT	604.60	287313.89	604396.28
9	768+98.55	31.64' RT	604.84	287313.80	604402.28
10	768+98.11	37.63' RT	604.90	287313.63	604408.28
11	768+97.80	42.33' RT	605.22	287313.52	604412.99
12	768+92.86	25.29' RT	604.68	287307.85	604396.18
13	768+92.51	31.29' RT	605.13	287307.76	604402.19
14	768+92.15	37.27' RT	605.22	287307.66	604408.18
15	768+89.87	25.11' RT	605.22	287304.85	604396.13
16	768+86.70	30.93' RT	605.21	287301.76	604402.09
17	768+86.42	36.61' RT	605.29	287301.67	604407.77

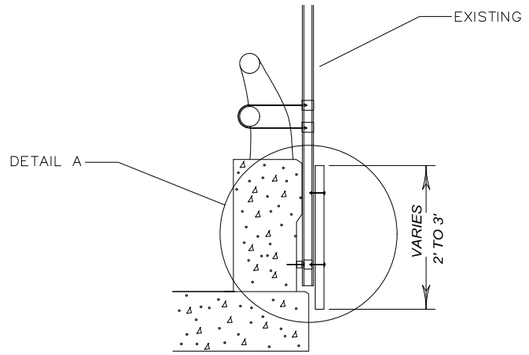
DWY FS 2					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1	770+46.91	32.58' RT	601.91	287461.32	604396.89
2	770+46.91	38.58' RT	601.97	287461.45	604402.89
3	770+40.51	26.58' RT	601.59	287455.13	604391.05
4	770+40.51	32.58' RT	601.65	287455.33	604397.05
5	770+40.51	38.58' RT	601.71	287455.52	604403.05
6	770+44.73	26.58' RT	601.97	287459.13	604390.94
7	770+07.75	26.58' RT	0.00	287422.68	604392.45
8	770+07.75	32.58' RT	602.57	287422.94	604398.44
9	770+07.75	38.58' RT	602.63	287423.20	604404.43
10	770+03.75	26.58' RT	603.16	287418.68	604392.62
11	770+02.81	32.58' RT	602.77	287418.01	604398.66
12	770+02.81	38.58' RT	602.83	287418.27	604404.65
16	769+92.81	32.58' RT	603.16	287408.01	604399.09
17	769+92.81	38.58' RT	603.22	287408.28	604405.09
18	769+84.83	32.58' RT	603.48	287400.05	604399.44
19	769+84.83	38.58' RT	603.54	287400.31	604405.44
20	769+92.28	46.61' RT	603.27	287408.10	604413.13
21	769+88.29	46.35' RT	603.26	287404.10	604413.04
22	769+74.83	32.58' RT	603.88	287390.06	604399.88
23	769+74.83	38.58' RT	603.94	287390.32	604405.88

DWY NBF					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1	86+49.24	56.58' RT	598.09	287594.05	604406.00
2	86+49.22	62.58' RT	598.18	287593.56	604411.98
3	86+43.40	50.58' RT	597.53	287588.56	604399.54
4	86+43.40	56.58' RT	598.16	287588.07	604405.52
5	86+43.40	62.58' RT	598.25	287587.58	604411.50
6	86+47.30	50.58' RT	597.91	287592.55	604399.86
7	86+14.16	50.58' RT	598.45	287558.77	604396.87
8	86+14.21	56.58' RT	599.08	287558.26	604402.85
9	86+14.16	62.58' RT	599.17	287557.63	604408.82
10	86+10.16	50.58' RT	599.07	287554.79	604396.49
11	86+07.05	56.58' RT	599.41	287551.12	604402.17
12	86+07.05	62.58' RT	599.50	287550.55	604408.14

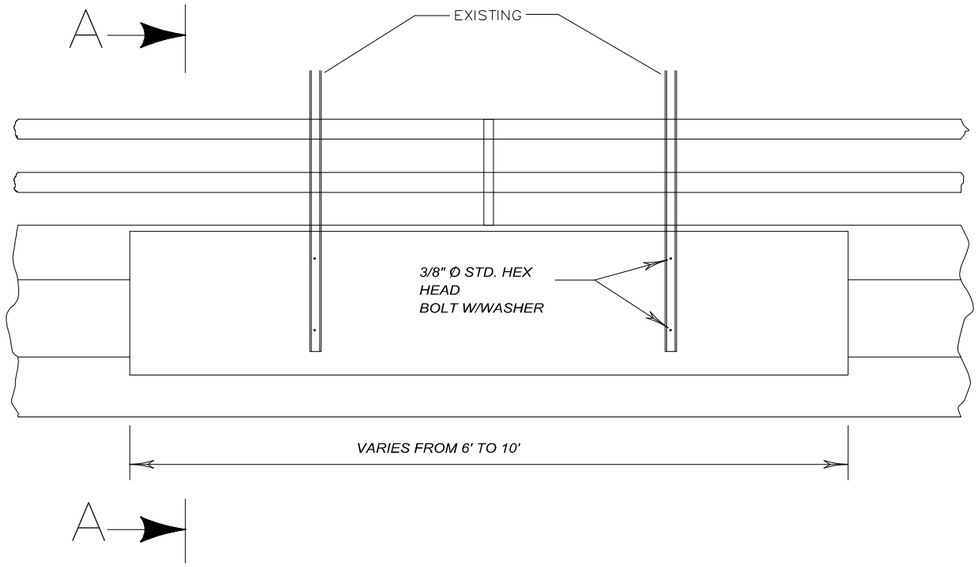
DWY NBN					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1	92+46.19	37.89' RT	588.28	288203.41	604391.13
2	92+45.56	49.87' RT	588.78	288203.23	604403.12
3	92+45.25	55.86' RT	588.87	288203.14	604409.12
4	92+49.18	38.04' RT	588.30	288206.41	604391.17
5	92+51.18	38.15' RT	588.81	288208.41	604391.20
6	92+16.18	36.33' RT	588.17	288173.37	604390.66
7	92+15.56	48.31' RT	588.66	288173.19	604402.66
8	92+15.25	54.30' RT	588.75	288173.10	604408.66
9	92+13.19	36.17' RT	588.15	288170.37	604390.62
10	92+11.19	36.07' RT	588.66	288168.37	604390.59



PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - HAZMAT	SHEET 39	E



SECTION A–A
SIDE VIEW

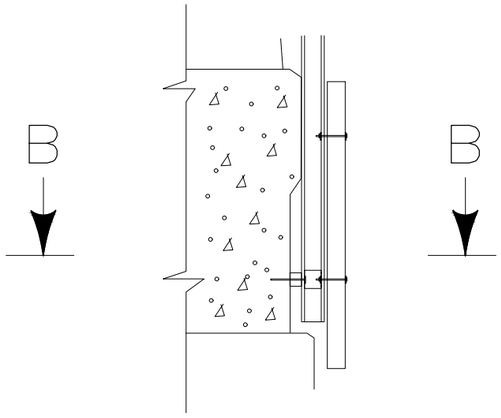


FRONT VIEW

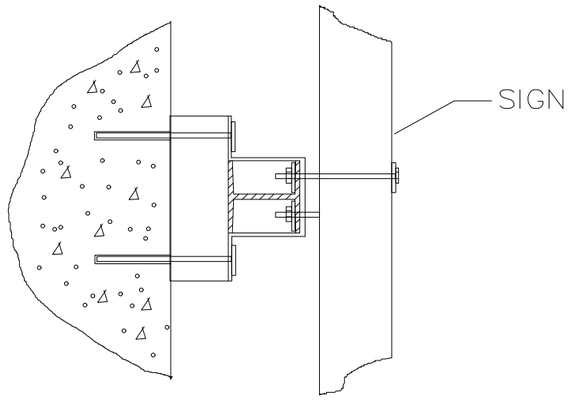
NOTES:

PROVIDE NEW BOLTS.

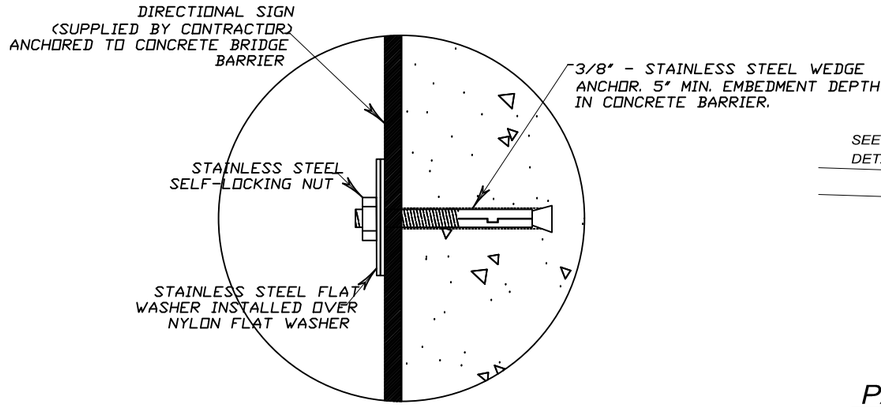
MOUNTING DETAIL COSTS ARE INCIDENTAL TO PAY ITEM "TYPE II SIGNS, REFLECTIVE".



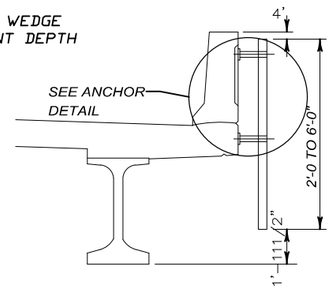
DETAIL A



SECTION B–B
TOP VIEW



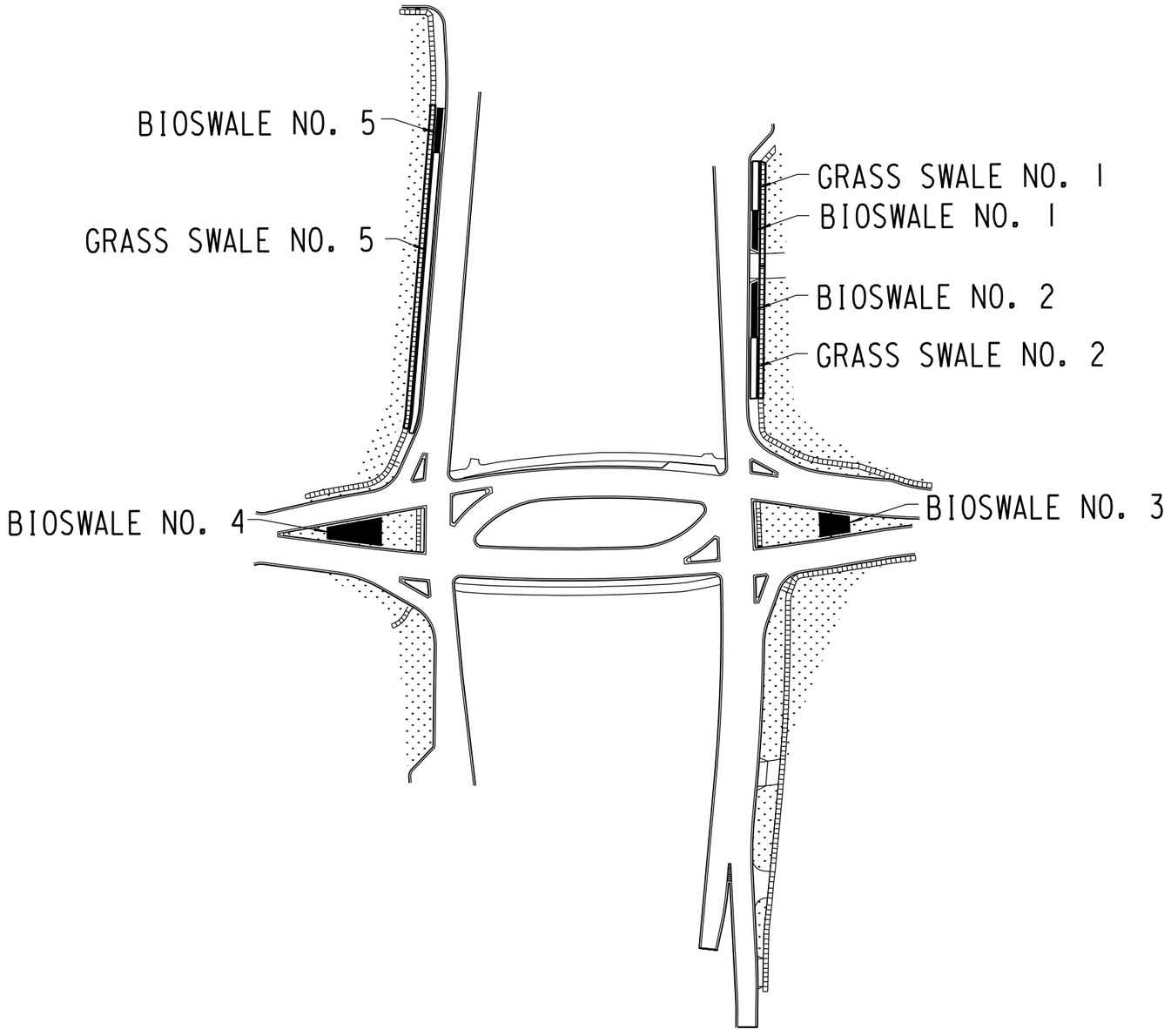
ANCHOR DETAIL
N.T.S.



PARAPET OPTION
WITHOUT RAIL

PROJECT NO:1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	SIGN MOUNTING DETAIL ON BRIDGE	SHEET 40 E

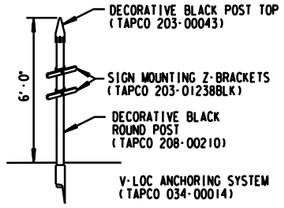
SITE PLAN



STATE PROJECT NUMBER: 1228-09-07	HWY: IH 43 & BECHER STREET INTERCHANGE	COUNTY: MILWAUKEE	BIOSWALES	NOT TO SCALE	SHEET NO: 25	E

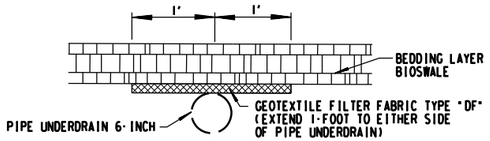
FILE NAME: W:\SEW\SMJOBS\2024\SM499\WBECHERST\BECHER BIO.SMP

BIOSWALE DETAILS



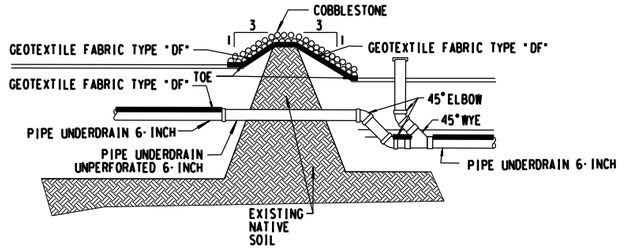
DETAIL OF INFORMATIONAL SIGN POST

SCALE - N.T.S.



DETAIL OF GEOTEXTILE FABRIC

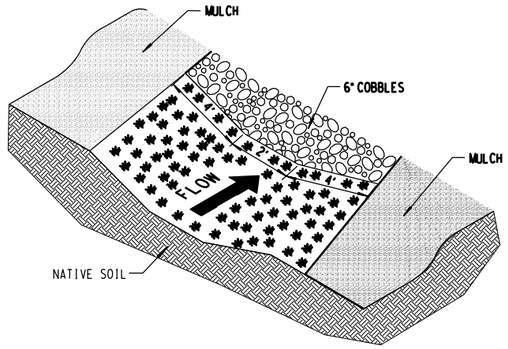
SCALE - N.T.S.



BERM, UNDERDRAIN PIPES AND CLEANOUT DETAIL

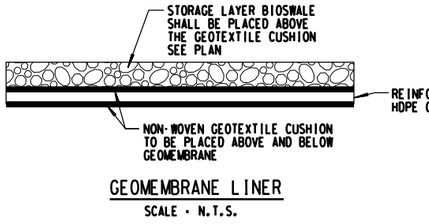
SCALE - N.T.S.

PIPE UNDERDRAIN 6-INCH



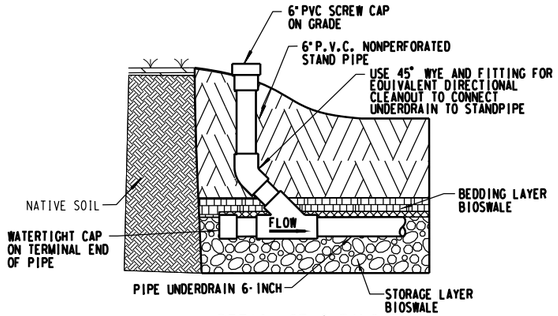
GRASS SWALE CONNECTION WITH BIOSWALE DETAIL

SCALE - N.T.S.
(ISOMETRIC VIEW)



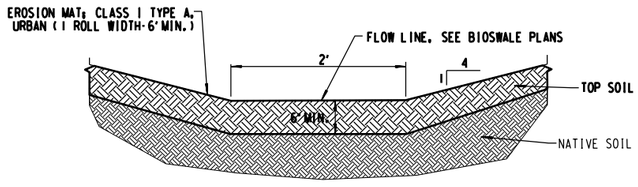
GEOMEMBRANE LINER

SCALE - N.T.S.



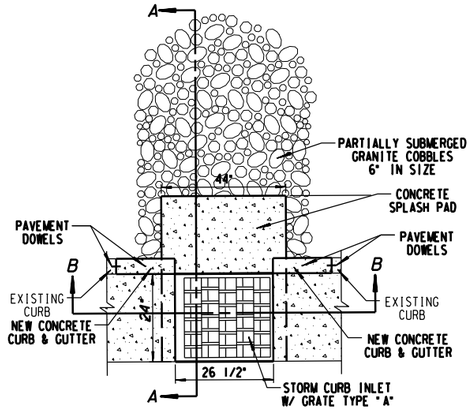
DETAIL OF CLEANOUT

SCALE - N.T.S.



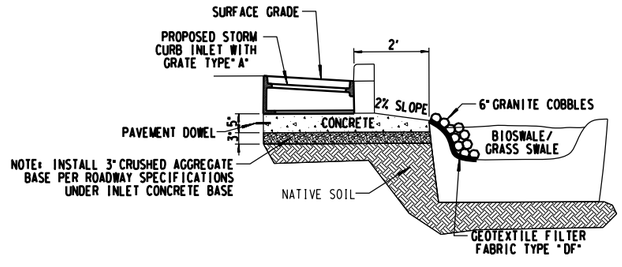
GRASS SWALE CROSS SECTION

SCALE - N.T.S.



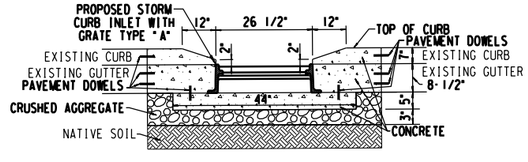
STORM CURB INLET WITH GRATE TYPE "A"

SCALE - N.T.S.



STORM CURB INLET WITH GRATE TYPE "A"
SECTION A-A

SCALE - N.T.S.



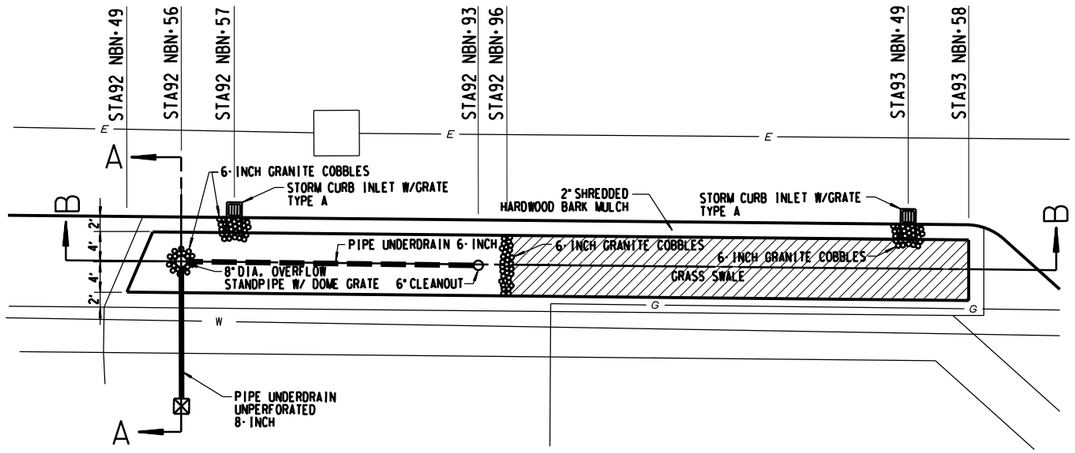
STORM CURB INLET WITH GRATE TYPE "A"
SECTION B-B

SCALE - N.T.S.

STATE PROJECT NUMBER: 1228-09-07	HWY: IH 43 & BECHER STREET INTERCHANGE	COUNTY: MILWAUKEE	BIOSWALES	NOT TO SCALE	SHEET NO: 26

E

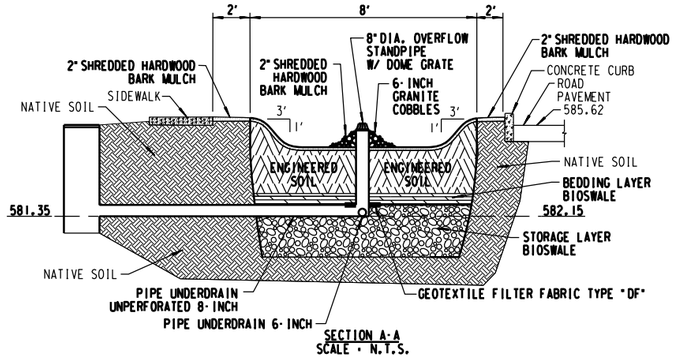
FILE NAME: W:\SEW\SMJOBS\2024\SM499\WBECHERST\BECHER BIO.SMP



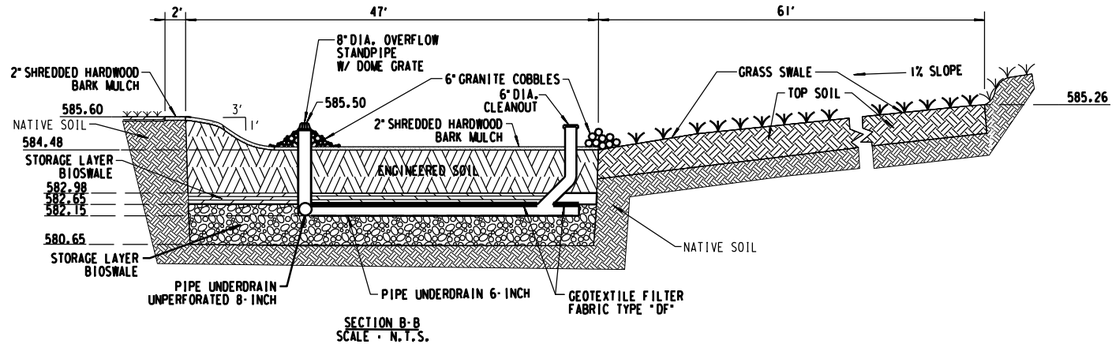
N

BIOSWALE NO. 1
GRASS SWALE NO. 1

2



SECTION A-A
SCALE - N.T.S.



SECTION B-B
SCALE - N.T.S.

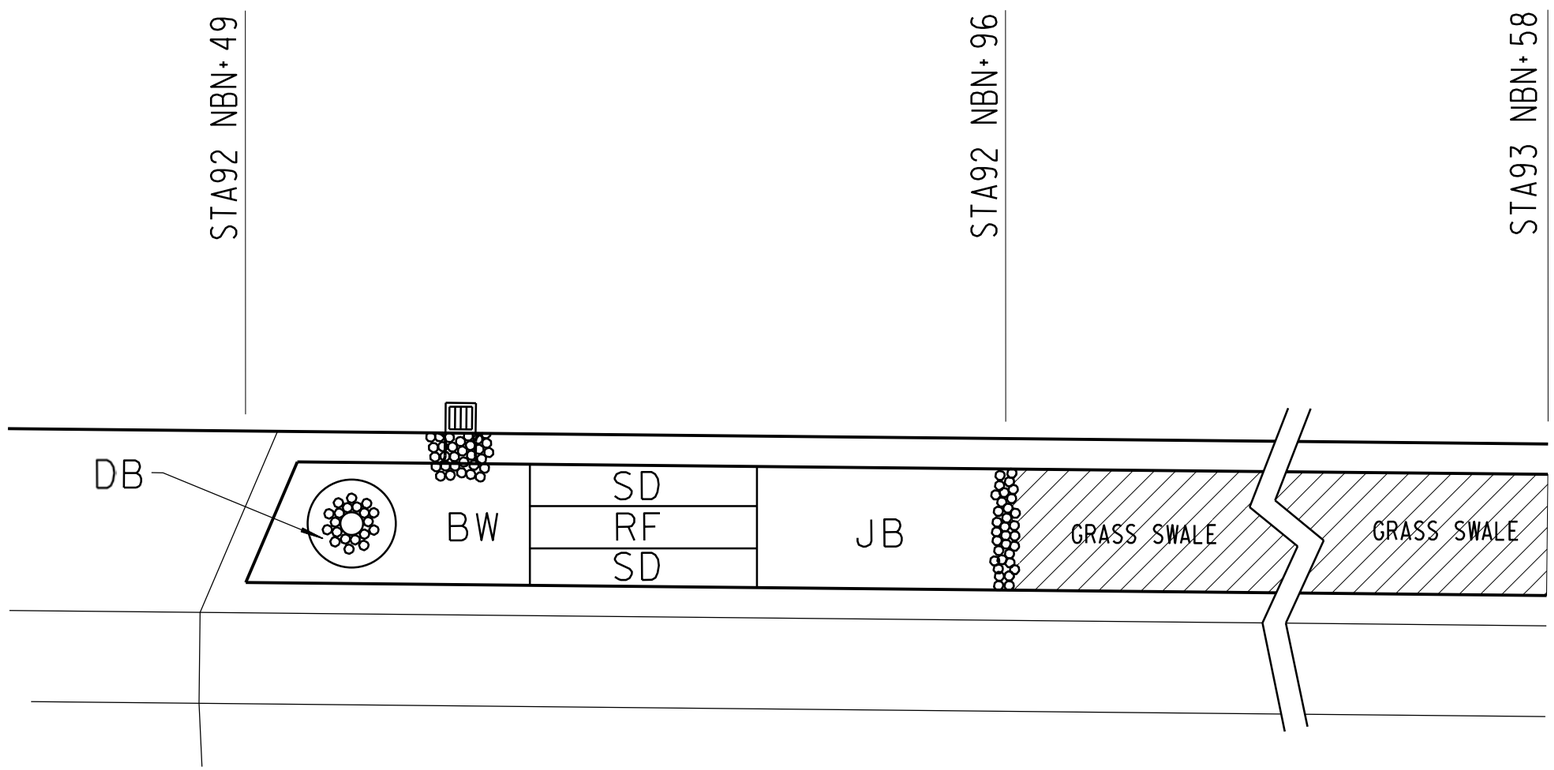
STATE PROJECT NUMBER: 1228-09-07	HWY: IH 43 & BECHER STREET INTERCHANGE	COUNTY: MILWAUKEE	BIOSWALES	SCALE FEET 0' 20'	SHEET NO: 27

E

FILE NAME: W:\SEW\SMJOBS\2024\SM499\WBECHERST\BECHER BIO.SMP

BIOSWALE NO. 1
GRASS SWALE NO. 1

N



PERENNIALS, GRASS, AND BULBS

(12)	DB	DALLAS BLUES SWITCH GRASS 1 GALLON
(36)	BW	BLUE WONDER CATMINT 1 GALLON
(30)	SD	STELLA D'ORO DAYLILLIES 1 GALLON
(5)	RF	RED FEATHER ARROWWOOD VIBURNUM 3 GALLON
(36)	JB	JOHNSON BLUE GERANIUMS 1 GALLON

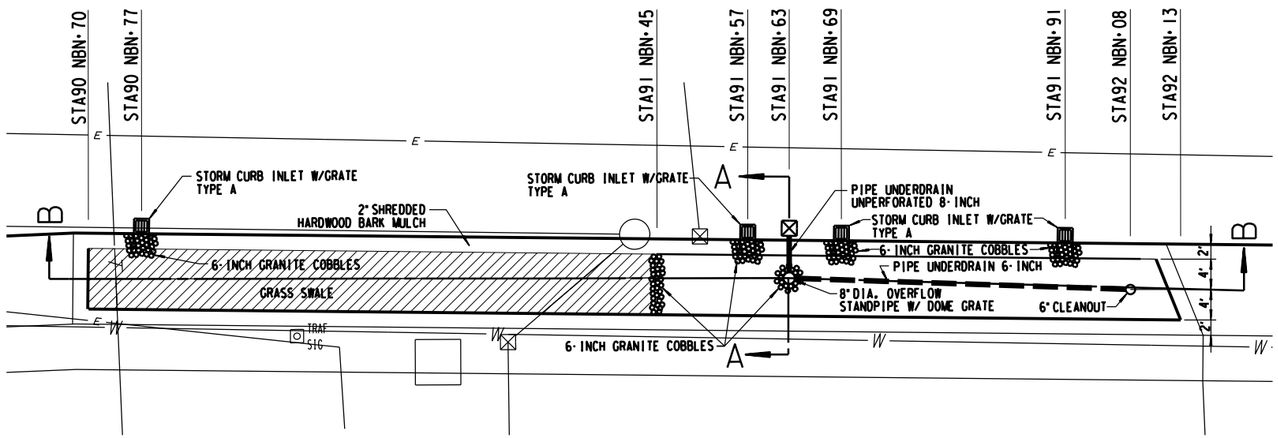
SEEDING

SEEDING (NO. 70) ; EROSION MAT URBAN CLASS 1 TYPE A

STATE PROJECT NUMBER: 1228-09-07	HWY: IH 43 & BECHER STREET INTERCHANGE	COUNTY: MILWAUKEE	BIOSWALES	SCALE FEET 0' 1'	SHEET NO: 28

E

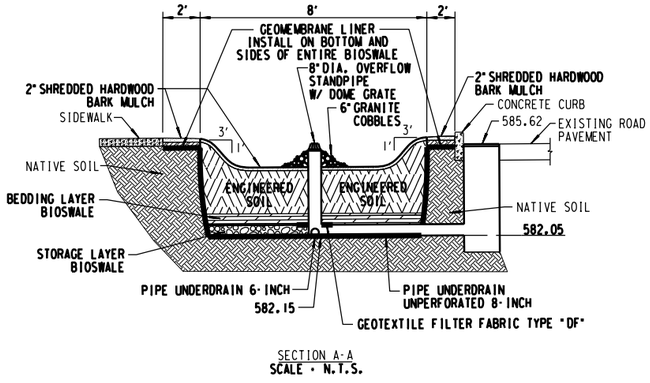
FILE NAME: W:\SEW\SMJOBS\2024\SM499\WBECHERST\BECHER BIO.SMP



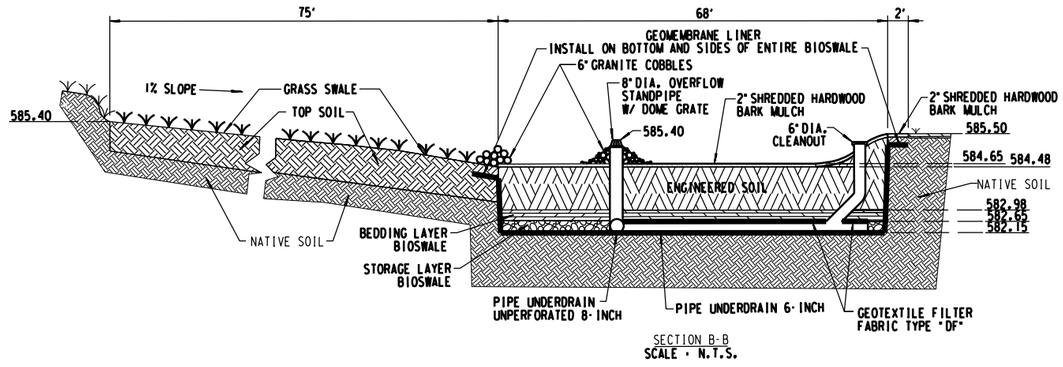
N

BIOSWALE NO. 2
GRASS SWALE NO. 2

2



SECTION A-A
SCALE · N.T.S.



SECTION B-B
SCALE · N.T.S.

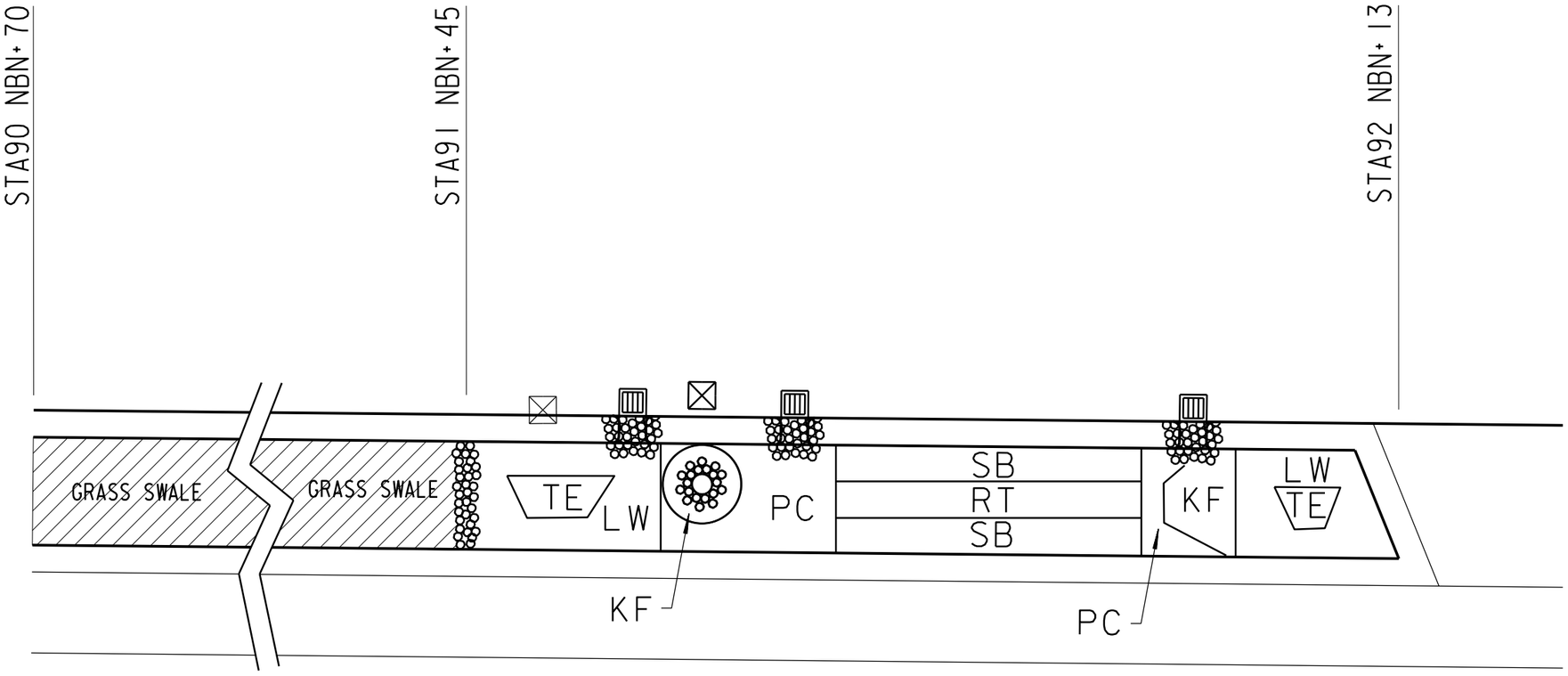
STATE PROJECT NUMBER: 1228-09-07	HWY: IH 43 & BECHER STREET INTERCHANGE	COUNTY: MILWAUKEE	BIOSWALES	SCALE FEET 0' 20'	SHEET NO: 29

E

FILE NAME: W:\SEW\SMJOBS\2024\SM499\WBECHERST\BECHER BIO.SMP

N

BIOSWALE NO. 2
GRASS SWALE NO. 2



PERENNIALS, GRASS, AND BULBS

(48)	LW	PURPLE LITTLE WINE CUP DAYLILIES 1 GALLON
(8)	TE	TIGER EYES SUMAC 3 GALLON
(18)	KF	KARL FOESTER 1 GALLON
(36)	SB	SUMMER BEAUTY ALLIUM 1 GALLON
(7)	RT	VARIGATED RED TWIG DOGWOODS 2 GALLON
(36)	PC	MAGNUS PURPLE CONEFLOWER 1 GALLON

SEEDING

SEEDING (NO. 70) ; EROSION MAT URBAN CLASS 1 TYPE A

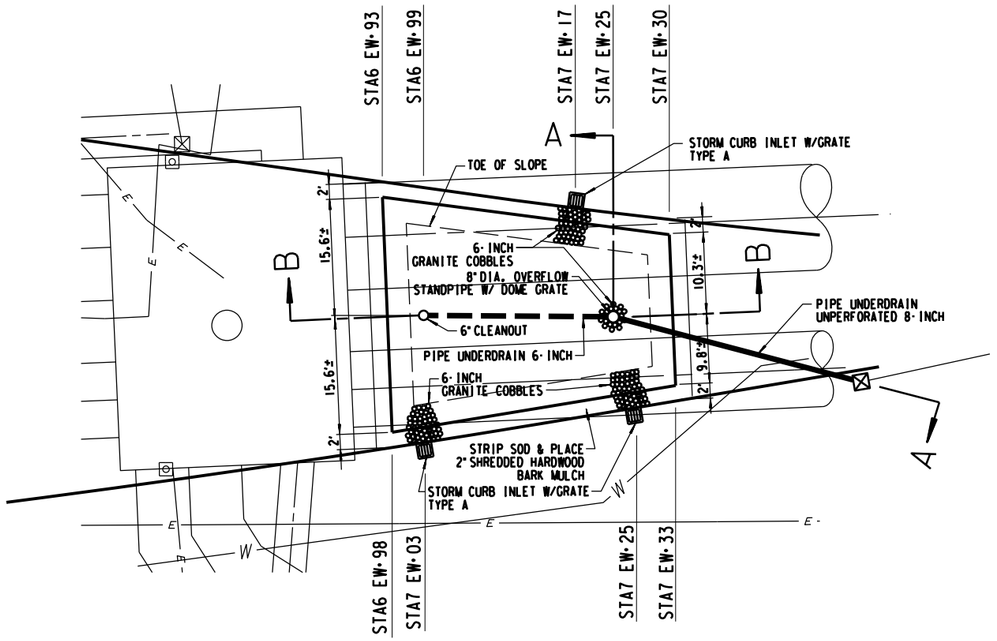
STATE PROJECT NUMBER: 1228-09-07	HWY: IH 43 & BECHER STREET INTERCHANGE	COUNTY: MILWAUKEE	BIOSWALES	SCALE FEET 0' 10'	SHEET NO: 30

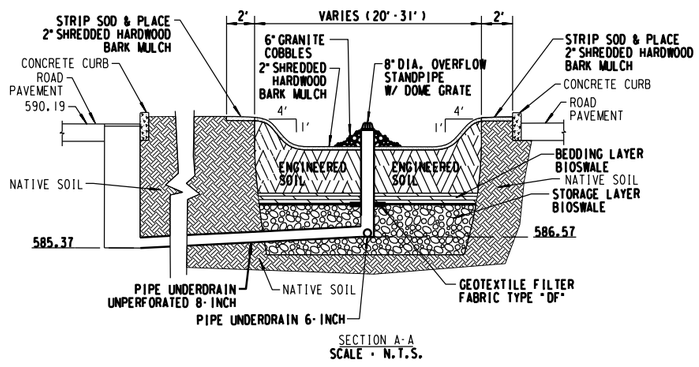
E

FILE NAME: W:\SEW\SMJOBS\2024\SM499\WBECHERST\BECHER BIO.SMP

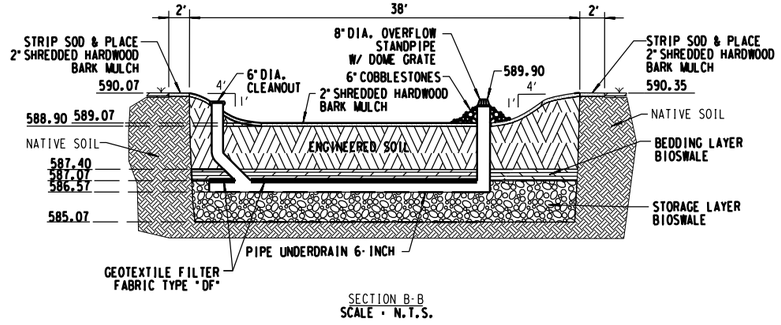
BIOSWALE NO. 3

2





SECTION A-A
SCALE - N.T.S.



SECTION B-B
SCALE - N.T.S.

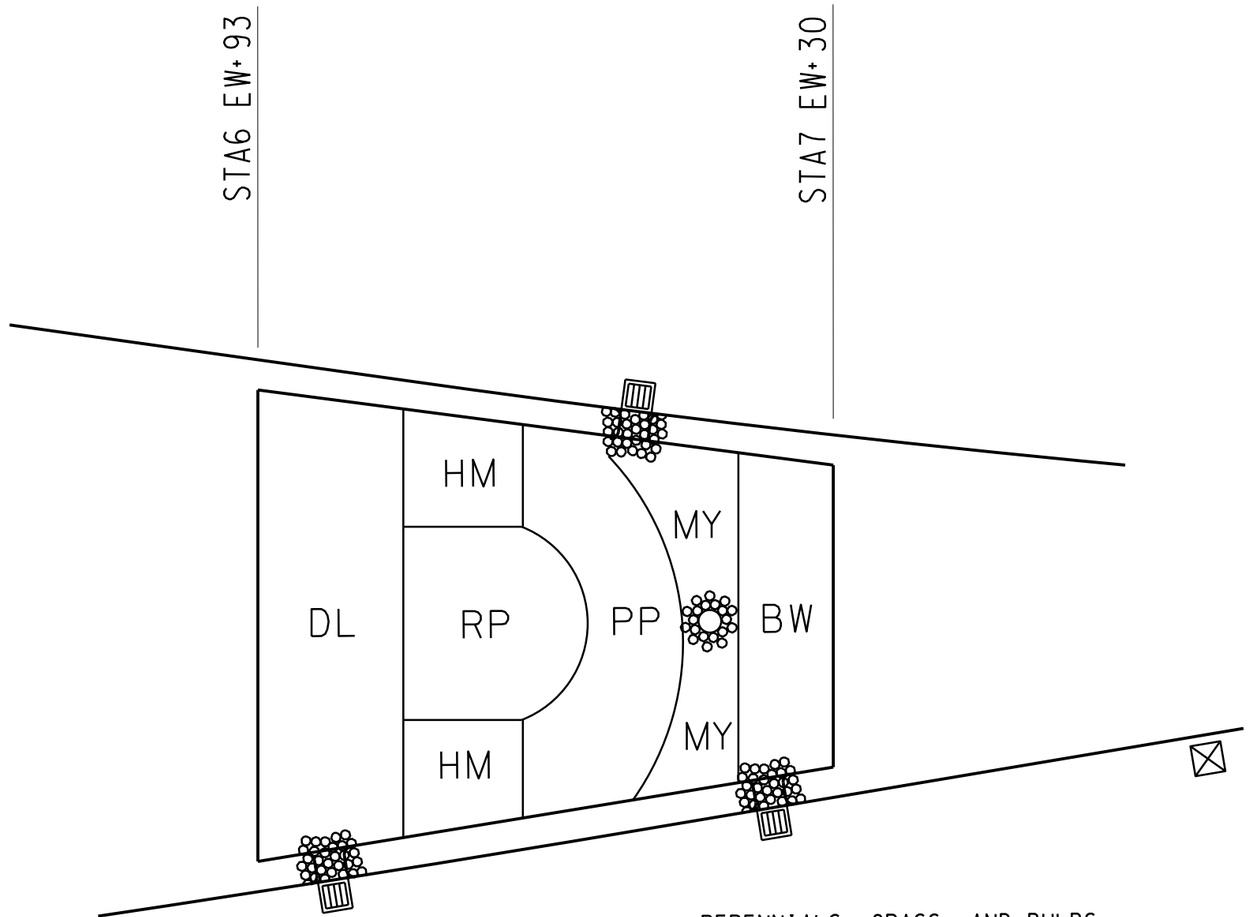
N

STATE PROJECT NUMBER: 1228-09-07	HWY: IH 43 & BECHER STREET INTERCHANGE	COUNTY: MILWAUKEE	BIOSWALES	SCALE FEET 0' 20'	SHEET NO: 31

E

FILE NAME: W:\SEW\SMJOBS\2024\SM499\WBECHERST\BECHER BIO.SMP

BIOSWALE NO. 3



PERENNIALS, GRASS, AND BULBS

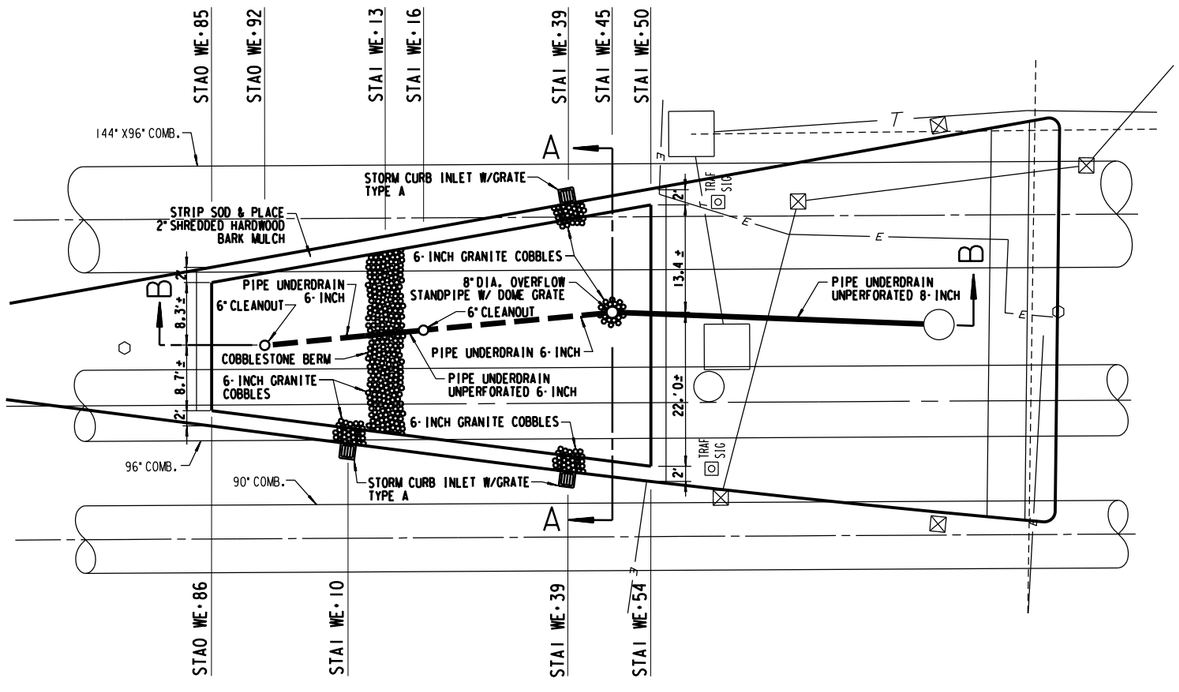
(21)	DL	DIERVILLA LONICERA 'COPPER' 2-3 GALLON
(24)	HM	HEAVY METAL SWITCHGRASS 1 GALLON
(7)	RP	ROYAL PURPLE SMOKEBUSH 3 GALLON
(15)	PP	PURPLE PAVEMENT ROSES 2 GALLON
(48)	MY	MOONSHINE YARROW 1 GALLON
(30)	BW	BLUE WONDER CATMINT 1 GALLON

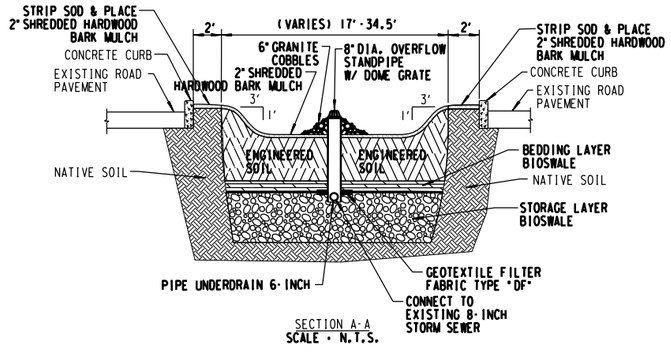
STATE PROJECT NUMBER: 1228-09-07	HWY: IH 43 & BECHER STREET INTERCHANGE	COUNTY: MILWAUKEE	BIOSWALES	SCALE FEET 0' 10'	SHEET NO: 32	E

FILE NAME: W:\SEW\SMJOBS\2024\SM499\WBECHERST\BECHER BIO.SMP

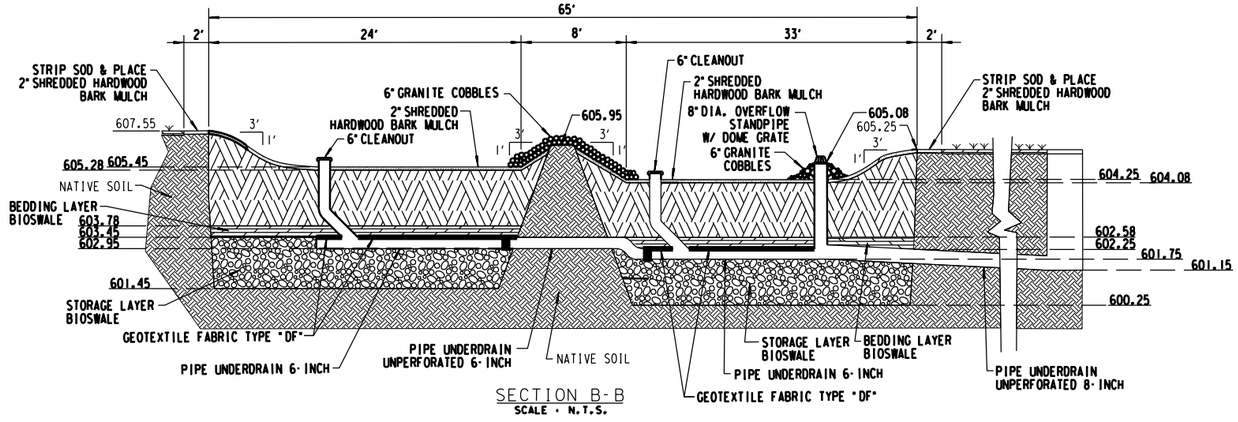
BIOSWALE NO. 4

2





SECTION A-A
SCALE - N.T.S.



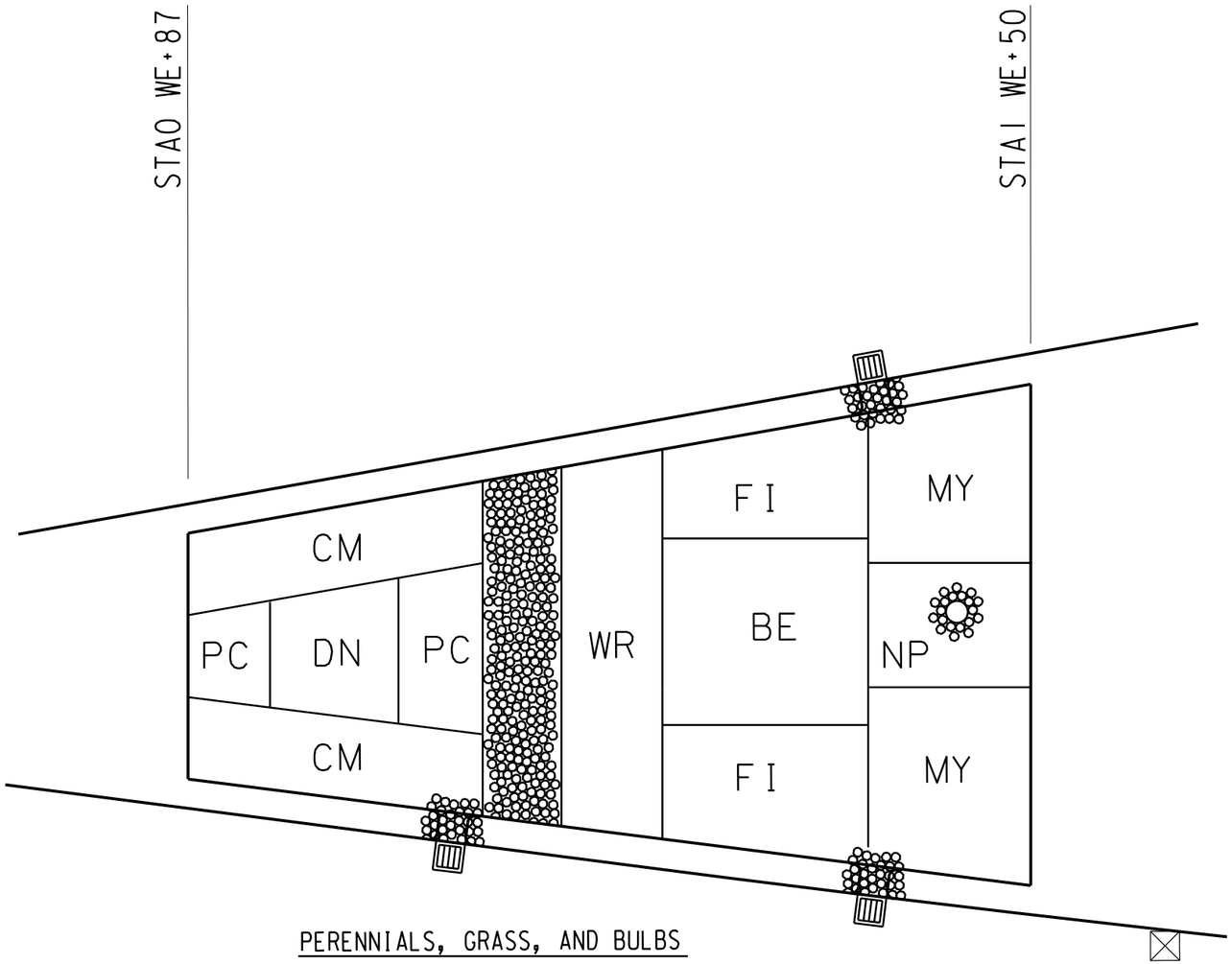
SECTION B-B
SCALE - N.T.S.

STATE PROJECT NUMBER: 1228-09-07	HWY: IH 43 & BECHER STREET INTERCHANGE	COUNTY: MILWAUKEE	BIOSWALES	SCALE FEET 0' 20'	SHEET NO: 33	E

FILE NAME: W:\SEW\SMJOBS\2024\SM499\WBECHERST\BECHER BIO.SMP

BIOSWALE NO. 4

2



PERENNIALS, GRASS, AND BULBS

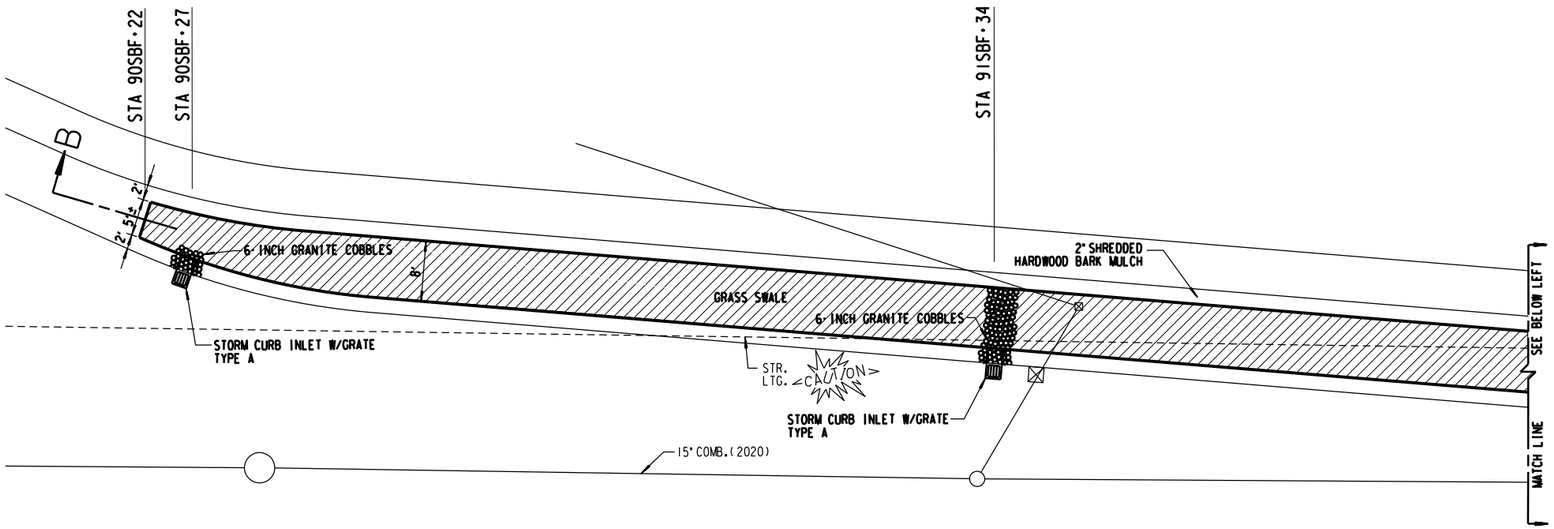
(36)	PC	MAGNUS PURPLE CONEFLOWER 1 GALLON
(60)	CM	CATMINT 1 GALLON
(7)	DN	SUMMER WINE DIABLO NINEBARK 3 GALLON
(13)	WR	WHITE PAVEMENT ROSES 2 GALLON
(24)	FI	VANILLA CREAM FALSE INDIGO 1 GALLON
(9)	BE	BLACK LACE ELDERBERRY 3 GALLON
(60)	MY	MOONSHINE YARROW 1 GALLON
(12)	NP	NORTHWIND PANICUM GRASS 1 GALLON

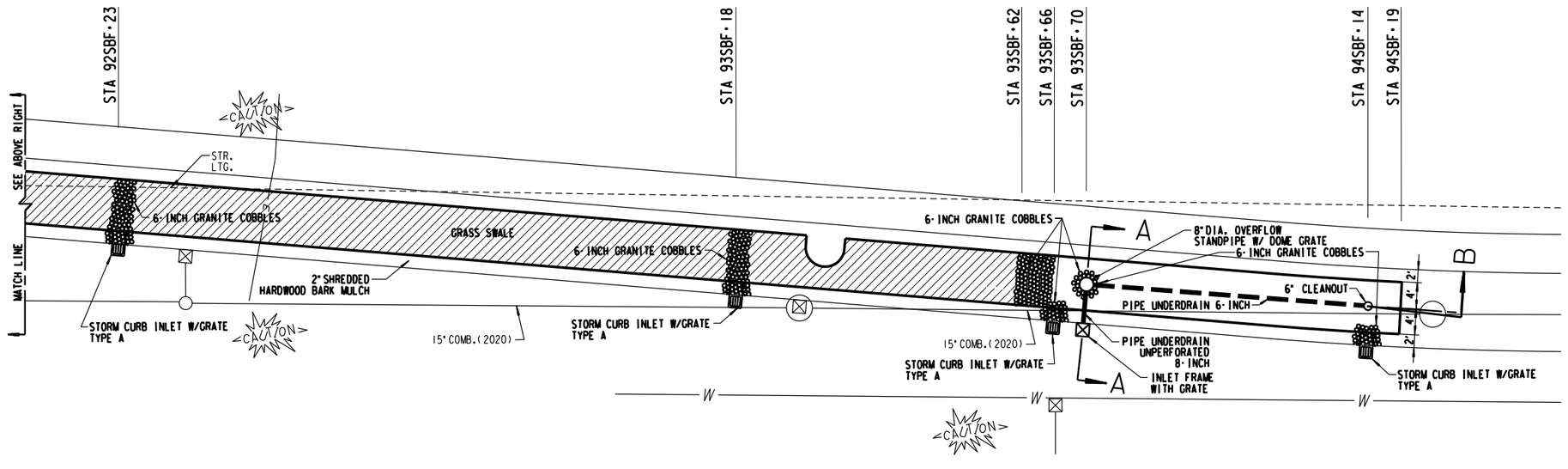
STATE PROJECT NUMBER: 1228-09-07	HWY: IH 43 & BECHER STREET INTERCHANGE	COUNTY: MILWAUKEE	BIOSWALES	SCALE FEET 0' 10'	SHEET NO: 34	E

FILE NAME: W:\SEW\SMJOBS\2024\SM499\WBECHERST\BECHER BIO.SMP

BIOSWALE NO. 5
GRASS SWALE NO. 5

N





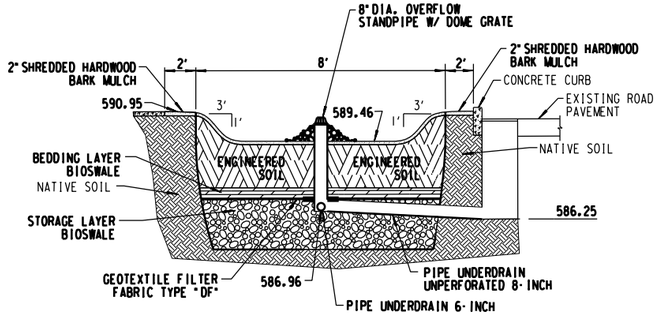
STATE PROJECT NUMBER: 1228-09-07	HWY: IH 43 & BECHER STREET INTERCHANGE	COUNTY: MILWAUKEE	BIOSWALES	SCALE FEET 0' 20'	SHEET NO: 35

E

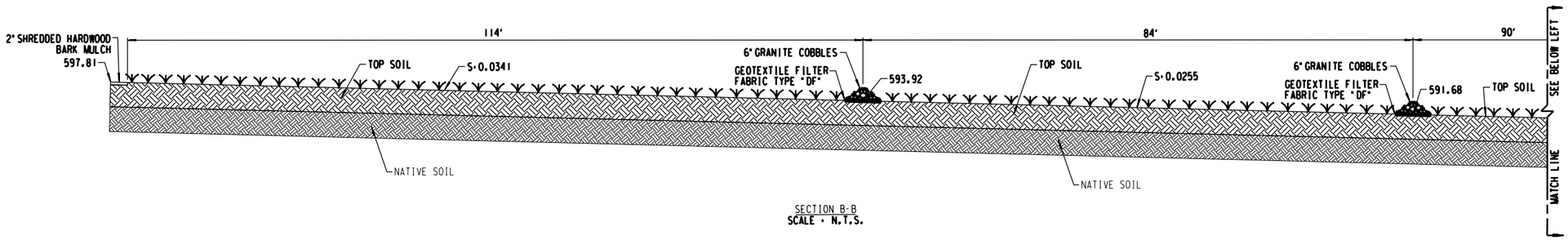
FILE NAME: W:\SEW\SMJOBS\2024\SM499\WBECHERST\BECHER BIO.SMP

BIOSWALE NO. 5
GRASS SWALE NO. 5

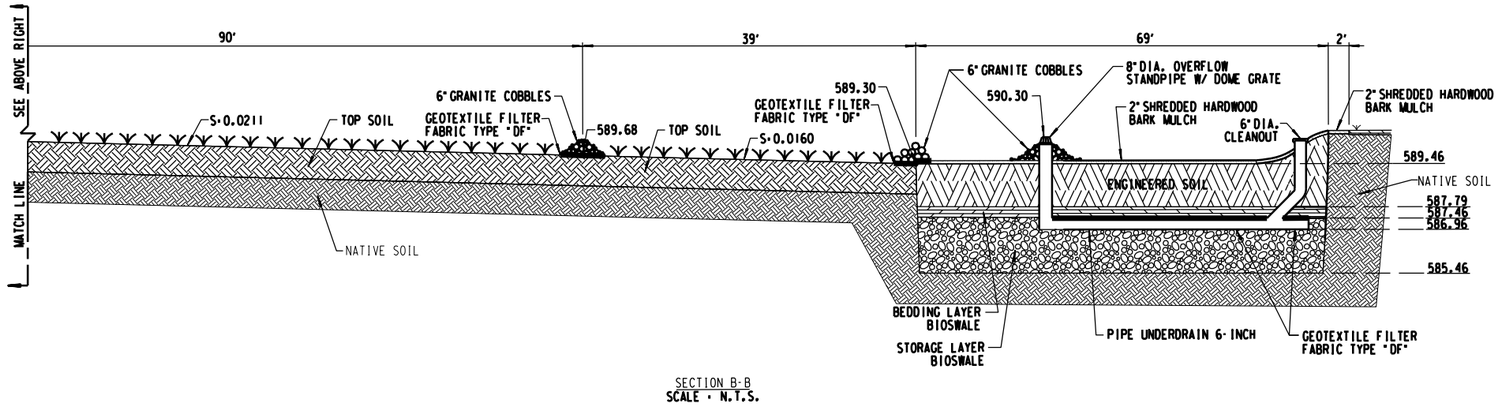
2



SECTION A-A
SCALE - N.T.S.



SECTION B-B
SCALE - N.T.S.



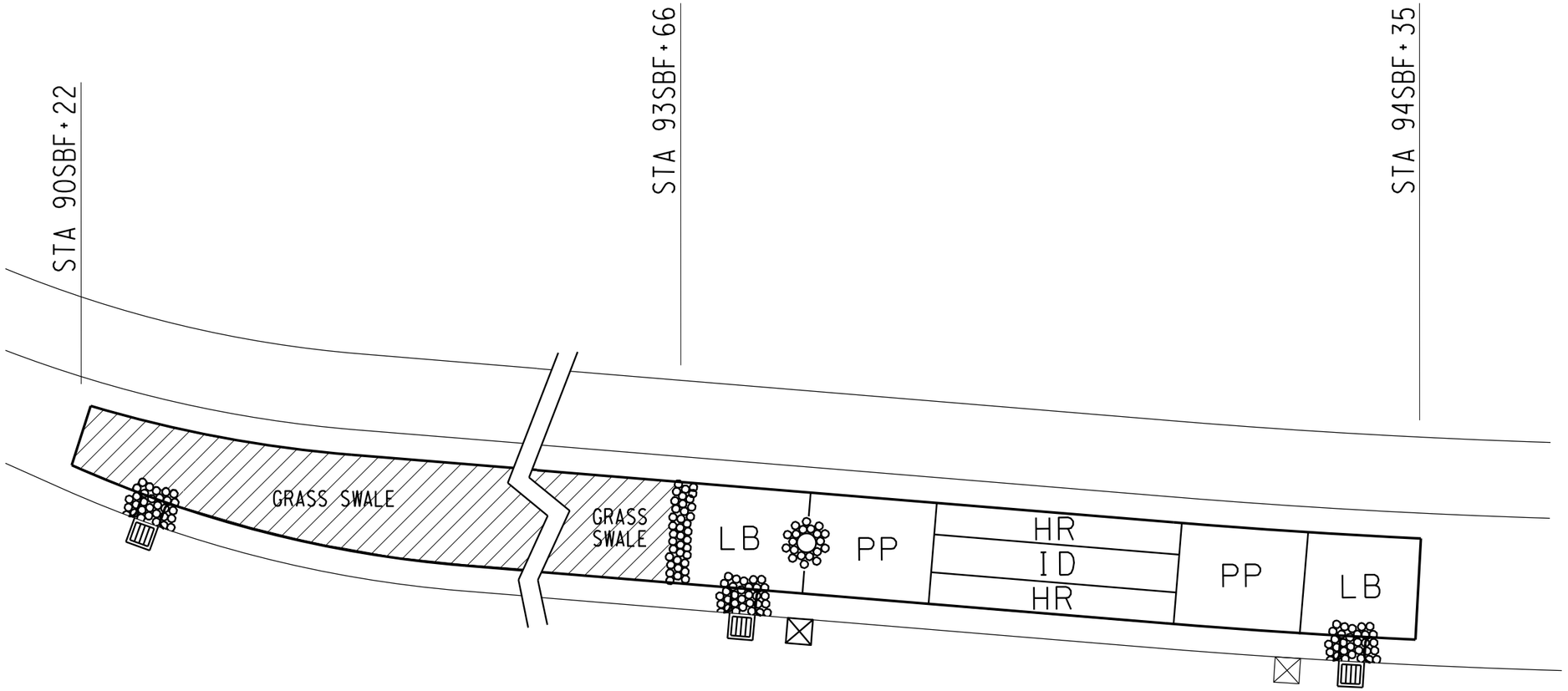
SECTION B-B
SCALE - N.T.S.

STATE PROJECT NUMBER: 1228-09-07	HWY: IH 43 & BECHER STREET INTERCHANGE	COUNTY: MILWAUKEE	BIOSWALES	NOT TO SCALE	SHEET NO: 36	E

FILE NAME: W:\SEW\SMJOBS\2024\SM499\WBECHERST\BECHER BIO.SMP

N

BIOSWALE NO. 5
GRASS SWALE NO. 5



PERENNIALS, GRASS, AND BULBS

(24)	LB	LITTLE BLUESTEM GRASS 1 GALLON
(14)	PP	PURPLE PAVEMENT ROSES 2 GALLON
(48)	HR	HAPPY RETURNS DAYLILIES 1 GALLON
(7)	ID	ISANTI DWARF RED TWIG DOGWOOD 2 GALLON

SEEDING

SEEDING (NO. 70) ; EROSION MAT URBAN CLASS I TYPE A

STATE PROJECT NUMBER: 1228-09-07	HWY: IH 43 & BECHER STREET INTERCHANGE	COUNTY: MILWAUKEE	BIOSWALES	SCALE FEET 0' 10'	SHEET NO: 37

FILE NAME: W:\SEW\SMJOBS\2024\SM499\WBECHERST\BECHER BIO.SMP

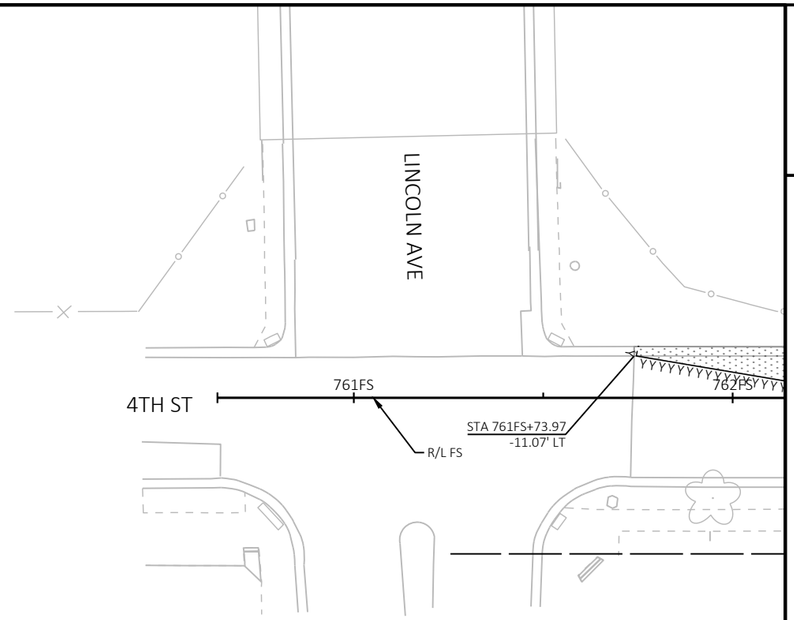
2

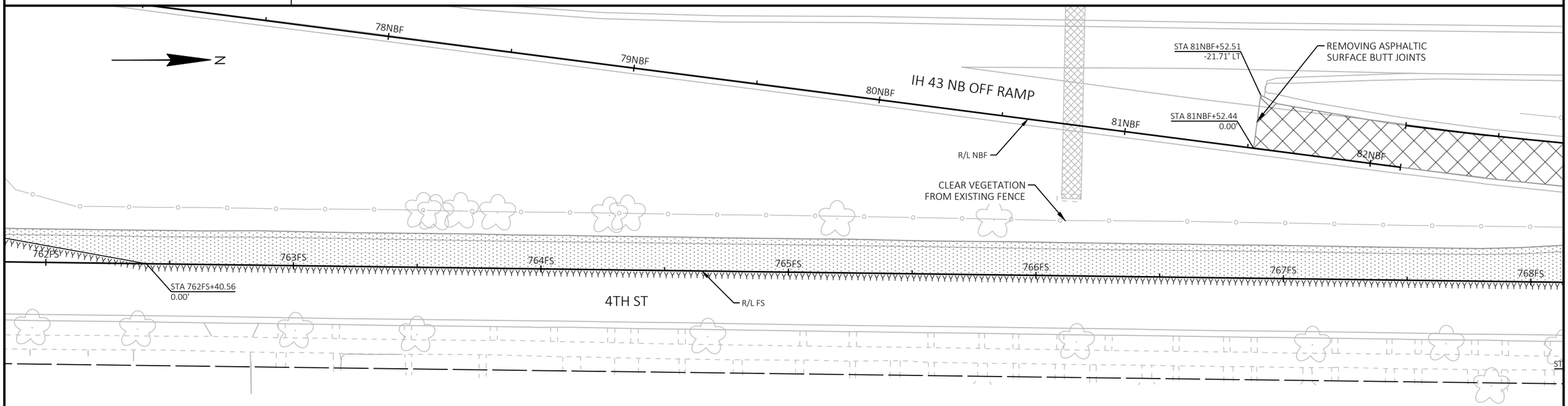
N

LEGEND

- CLEARING
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- EXISTING RIGHT-OF-WAY

NOTE: PRESERVE EXISTING TREES UNLESS OTHERWISE NOTED IN REMOVAL PLAN. SEE TRAFFIC CONTROL, DRAINAGE, SIGNING, FTMS, LIGHTING AND SIGNAL PLANS FOR OTHER REMOVALS AND STAGING.





PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - 4TH ST	SHEET 54	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021101-RM.DWG
LAYOUT NAME - 01
PLOT DATE : 12/19/2025 12:39 PM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

N

CLEAR VEGITATION
FROM EXISTING FENCE

STA 84NBF+10.35
0.00'

REMOVING CONCRETE
SURFACE BUTT JOINTS

STA 83NBF+90.35
0.00'

83NBF

84NBF

85NBF

86NBF

R/L NBF

87NBF

88NBF

STA 5WE+09.56
82.95' RT

STA 87NBF+06.57
-38.67' LT

REMOVE FENCE

STA 87NBF+06.45
-12.87' LT

STA 5WE+51.49
89.57' RT

STA 88NBF+54.31
12.08' RT

REMOVE EXISTING
SIGN STRUCTURE
S-40-0299

IH 43 NB OFF RAMP

REMOVE TREE STUMP

STA 83NBF+83.81
17.45' RT

R/L FS

771FS

770FS

STA 768FS+51.06
0.00'

769FS

768FS

REMOVE EXISTING
SIGN STRUCTURE
S40-0977

4TH ST

STA 768FS+51.06
21.50' RT

STA 768FS+86.42
36.61' RT

STA 5EW+60.16
22.02' LT

N

REMOVING CONCRETE
SURFACE BUTT JOINTS

STA 93NBN+54.12
0.00'

STA 93NBN+74.11
0.00'

PRESERVE EXISTING BEAM GUARD

STA 95NBN+58.16
-1.70' LT

R/L NBN

90NBN

91NBN

92NBN

93NBN

94NBN

95NBN

96NBN

IH 43 NB ON RAMP

STA 93NBN+54.12
40.91' RT

STA 95NBN+58.21
20.60' RT

STA 93NBN+63.78
41.41' RT

STA 94NBN+23.47
44.48' RT

STA 94NBN+27.95
48.48' RT

4TH ST

STA 94NBN+07.60
71.24' RT

STA 93NBN+99.61
71.18' RT

STA 93NBN+67.54
73.83' RT

STA 93NBN+94.33
71.21' RT

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - IH 43 RAMPS	SHEET 55	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021101-RM.DWG
LAYOUT NAME - 02

PLOT DATE : 12/19/2025 12:39 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2

2

N

REMOVE DAMAGED BEAM GUARD SEGMENT

STA 96NBN+50.60
-1.26' LT

STA 96NBN+75
-1.00' LT

PRESERVE EXISTING BEAM GUARD

96NBN

97NBN

98NBN

99NBN

R/L NBN

100NBN

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STA 101NBN+67.21
-11.38' LT

101NBN

102NBN

IH 43 NB ON RAMP

STA 99NBN+97.60
20.24' RT

STA 101NBN+67.21
0.32' RT

4TH ST

N

STA 86SBN+12.79
-74.90' LT

STA 86SBN+22.78
-74.50' LT

5TH ST

STA 86SBN+47.81
-42.03' LT

STA 86SBN+53.83
-41.26' LT

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STA 83SBN+25
-5.00' LT

R/L SBN

STA 86SBN+49.87
-21.52' LT

83SBN

84SBN

85SBN

86SBN

IH 43 SB ON RAMP

STA 86SBN+53.84
-21.52' LT

STA 88SBN+12.26
3.10' RT

87SBN

88SBN

STA 83SBN+24.77
12.59' RT

STA 86SBN+29.90
0.00'

STA 86SBN+49.87
0.00'

REMOVING CONCRETE SURFACE BUTT JOINTS

R/L SBN

STA 2WE+63.74
15.05' RT

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - IH 43 RAMPS	SHEET 56	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021101-RM.DWG
LAYOUT NAME - 03

PLOT DATE : 12/19/2025 12:39 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2

N

STA 93SBF+42.81
-96.05' LT

REMOVE DAMAGED FENCE POST

STA 95SBF+33.40
-86.62' LT

ROGERS ST

STA 95SBF+51.29
-85.84' LT

REMOVE EXISTING
SIGN STRUCTURE
S-40-0979

5TH ST

REMOVE TREE STUMP

STA 95SBF+56.88
-23.08' LT

STA 94SBF+40.87
-24.31' LT

REMOVE EXISTING
SIGN STRUCTURE
S-40-0978

IH 43 SB OFF RAMP

90SBF 91SBF 92SBF 93SBF 94SBF 95SBF 96SB

R/L SBF

STA 94SBF+62.04
17.42' RT

R/L SBF

REMOVING CONCRETE
SURFACE BUTT JOINTS

STA 94SBF+41.85
0.00'

STA 2EW+69.48
-13.28' LT

N

5TH ST

STA 98SBF+27.23
0.00'

R/L SBF

96SBF 97SBF 98SBF 99SBF 100SBF 101SBF 102SBF

IH 43 SB OFF RAMP

STA 98SBF+27.04
19.98' RT

REMOVING ASPHALTIC
SURFACE BUTT JOINTS

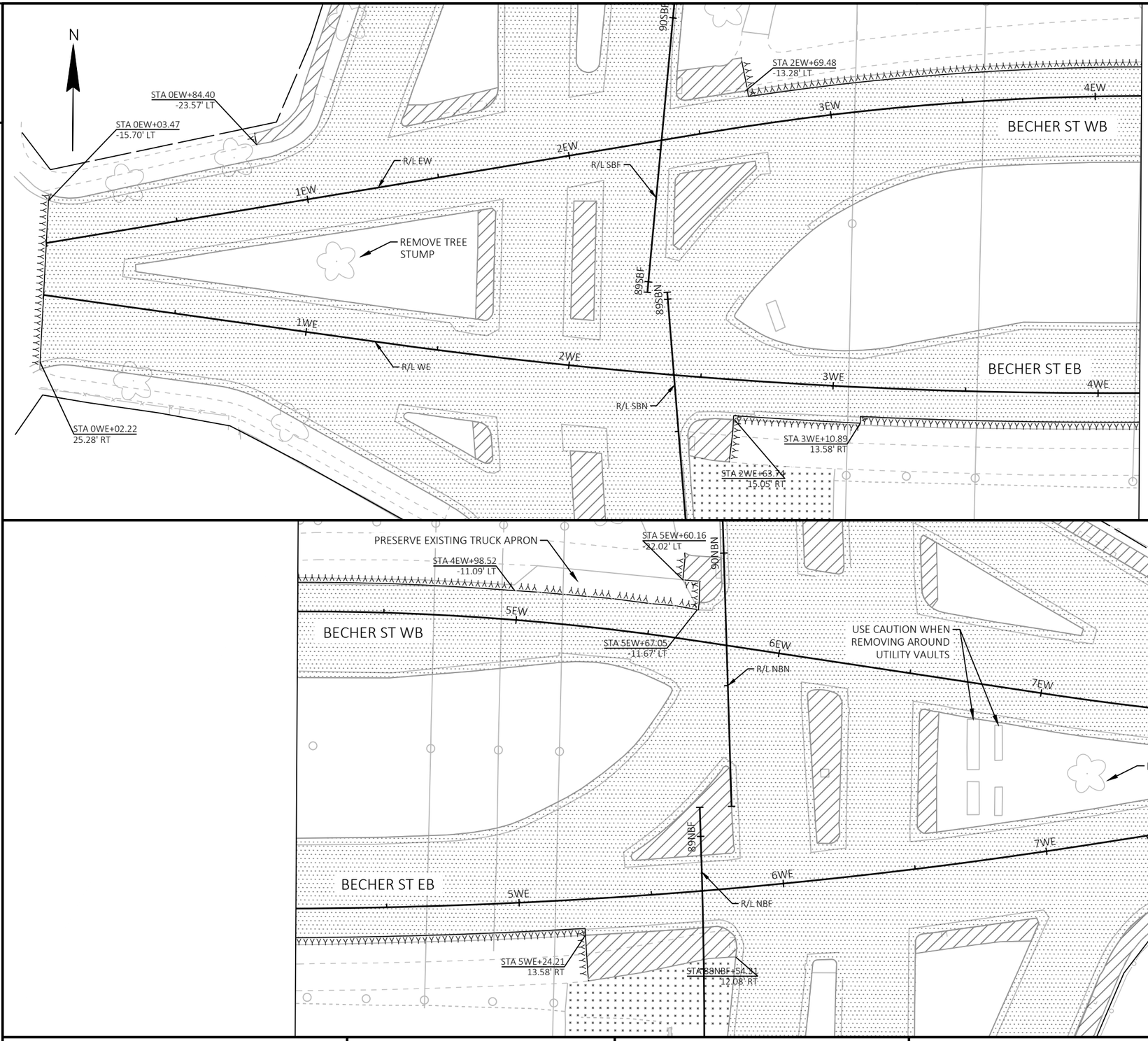
IH 43 SB

2

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - IH 43 RAMPS	SHEET 57	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021101-RM.DWG
LAYOUT NAME - 04
PLOT DATE : 12/19/2025 12:40 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2



LEGEND

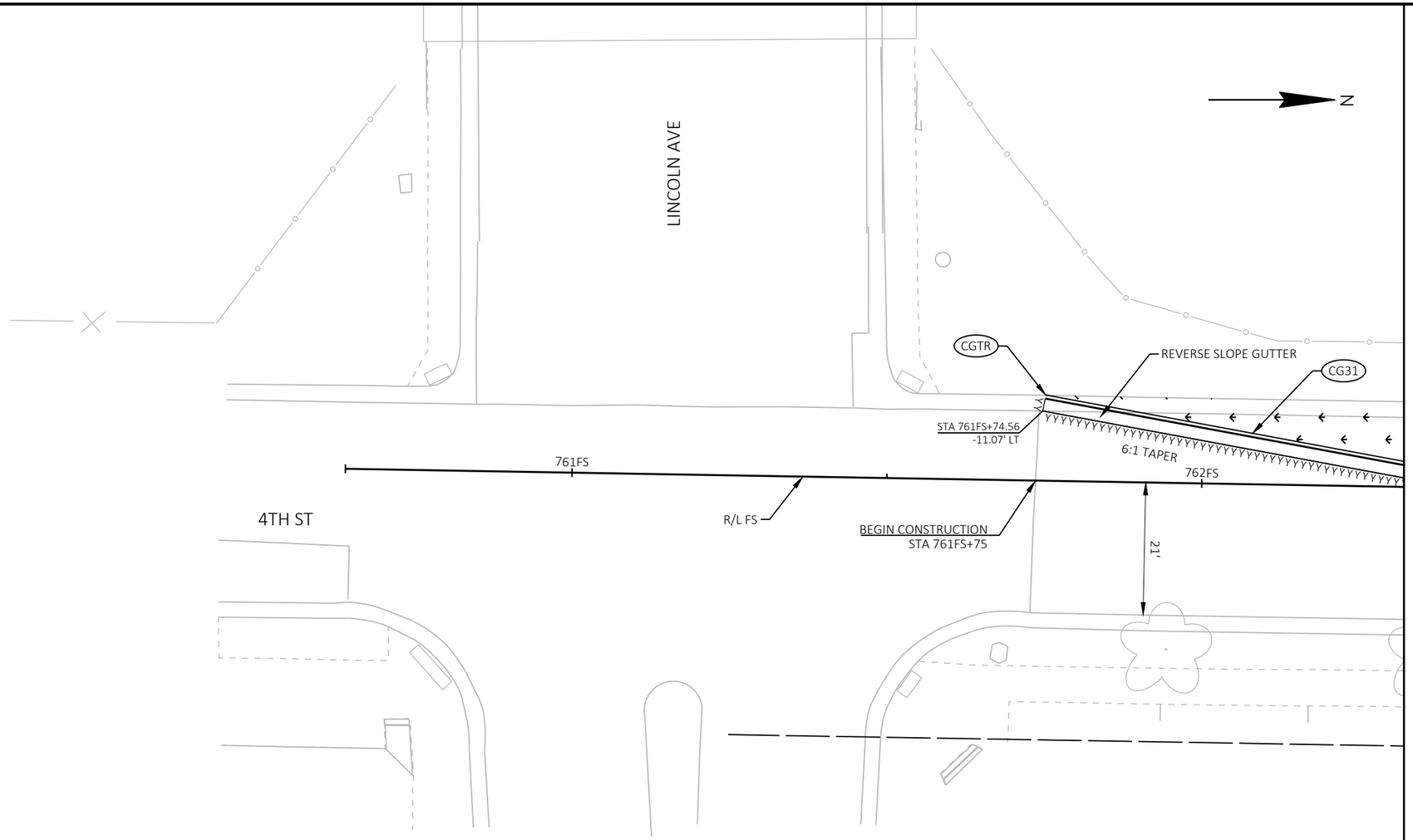
- CLEARING
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- XXXXXXX SAWING ASPHALT
- YYYYYYY SAWING CONCRETE
- EXISTING RIGHT-OF-WAY

NOTE: PRESERVE EXISTING TREES UNLESS OTHERWISE NOTED IN REMOVAL PLAN. SEE TRAFFIC CONTROL, DRAINAGE, SIGNING, FTMS, LIGHTING AND SIGNAL PLANS FOR OTHER REMOVALS AND STAGING.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN - BECHER ST	SHEET 58	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021101-RM.DWG
LAYOUT NAME - 05
PLOT DATE : 12/19/2025 12:40 PM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2



LEGEND

CG31	CONCRETE CURB & GUTTER 31-INCH
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
CGTR	CONCRETE CURB & GUTTER TRANSITION
CM01	CONCRETE MEDIAN SLOPED NOSE
CM02	CONCRETE SIDEWALK 5-INCH
CM03	CONCRETE DRIVEWAY HES 6-INCH
CRXX	CURB RAMP TYPE XX
	HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	RESTORATION (SEE EROSION CONTROL PLAN)
XXXXXXX	SAWING ASPHALT
YYYYYYY	SAWING CONCRETE
	EXISTING RIGHT-OF-WAY

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - 4TH ST	SHEET 59 E

2

2

MATCH LINE 762+32

N

CG31

763FS

764FS

765FS

STA 762FS+40.56
0.00'

REVERSE SLOPE GUTTER

21'

4TH ST

R/L FS

MATCH LINE 765+22

LEGEND

CG31	CONCRETE CURB & GUTTER 31-INCH
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
CGTR	CONCRETE CURB & GUTTER TRANSITION
CM01	CONCRETE MEDIAN SLOPED NOSE
CM02	CONCRETE SIDEWALK 5-INCH
CM03	CONCRETE DRIVEWAY HES 6-INCH
CRXX	CURB RAMP TYPE XX

	HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	RESTORATION (SEE EROSION CONTROL PLAN)
XXXXXXX	SAWING ASPHALT
YYYYYYY	SAWING CONCRETE
	EXISTING RIGHT-OF-WAY

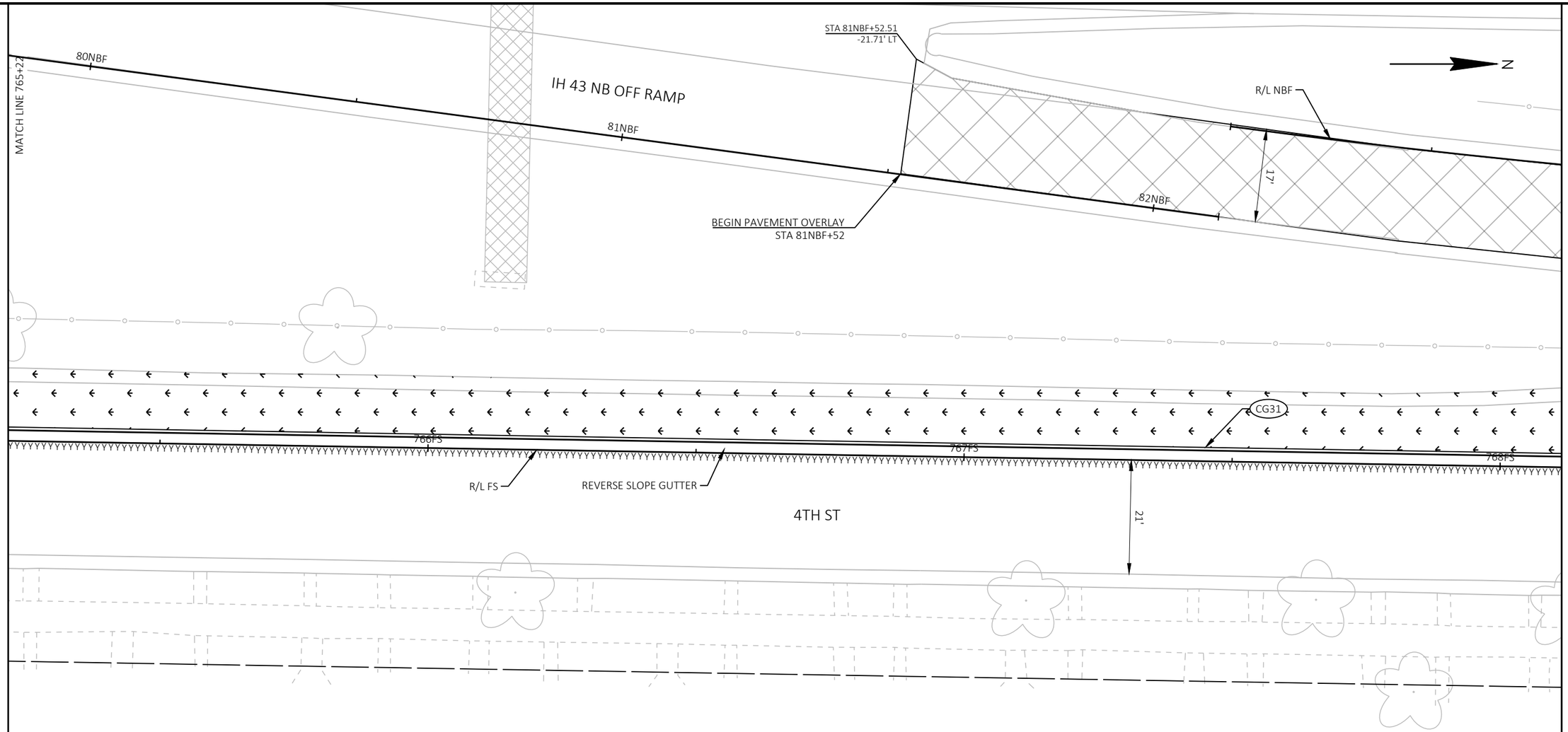
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - 4TH ST	SHEET 60	E

FILE NAME : \\WKERTOVFILPIO1\N3PUBLIC\PDS\C3D\12280907\SHEETS\021201-PD-RAMPS.DWG
LAYOUT NAME - 02

PLOT DATE : 10/29/2025 10:44 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2



LEGEND

CG31	CONCRETE CURB & GUTTER 31-INCH
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
CGTR	CONCRETE CURB & GUTTER TRANSITION
CM01	CONCRETE MEDIAN SLOPED NOSE
CM02	CONCRETE SIDEWALK 5-INCH
CM03	CONCRETE DRIVEWAY HES 6-INCH
CRXX	CURB RAMP TYPE XX
	HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	RESTORATION (SEE EROSION CONTROL PLAN)
XXXXXXX	SAWING ASPHALT
YYYYYYY	SAWING CONCRETE
	EXISTING RIGHT-OF-WAY

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - 4TH ST	SHEET 61	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021201-PD-RAMPS.DWG
LAYOUT NAME - 03
PLOT DATE : 10/29/2025 10:44 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

2

MATCH LINE 768+12

N

R/L NBF

83NBF

BEGIN PAVEMENT REPLACE
STA 84NBF+10

CGTR

84NBF

RETAINING WALL
R-40-050

CG31

85NBF

STA 83NBF+83.80
17.45' RT

CGTR

STA 84NBF+10.35
17.61' RT

IH 43 NB OFF RAMP

STA 84NBF+44.19
21.76' RT

R300'

STA 84NBF+80.76
24.00' RT

STA 84NBF+94.53
24.00' RT

24'

3'

STA 85NBF+15.75
24.00' RT

CG31

BEGIN PAVEMENT REPLACE
STA 768FS+51

769FS

770FS

771FS

STA 770FS+28.23
0.00' LT

STA 770FS+49.52
0.00'

REVERSE SLOPE GUTTER

CONCRETE
CORRUGATED MEDIAN

24'

R/L FS

21.5'

4TH ST

STA 768FS+97.69
22.99' RT

R544'

STA 769FS+30.76
24.00' RT

CG31

32'

CM03

6'

CGTR

STA 768FS+86.70
30.93' RT

CM03

6'

STA 768FS+86.42
36.61' RT

34'

CM02

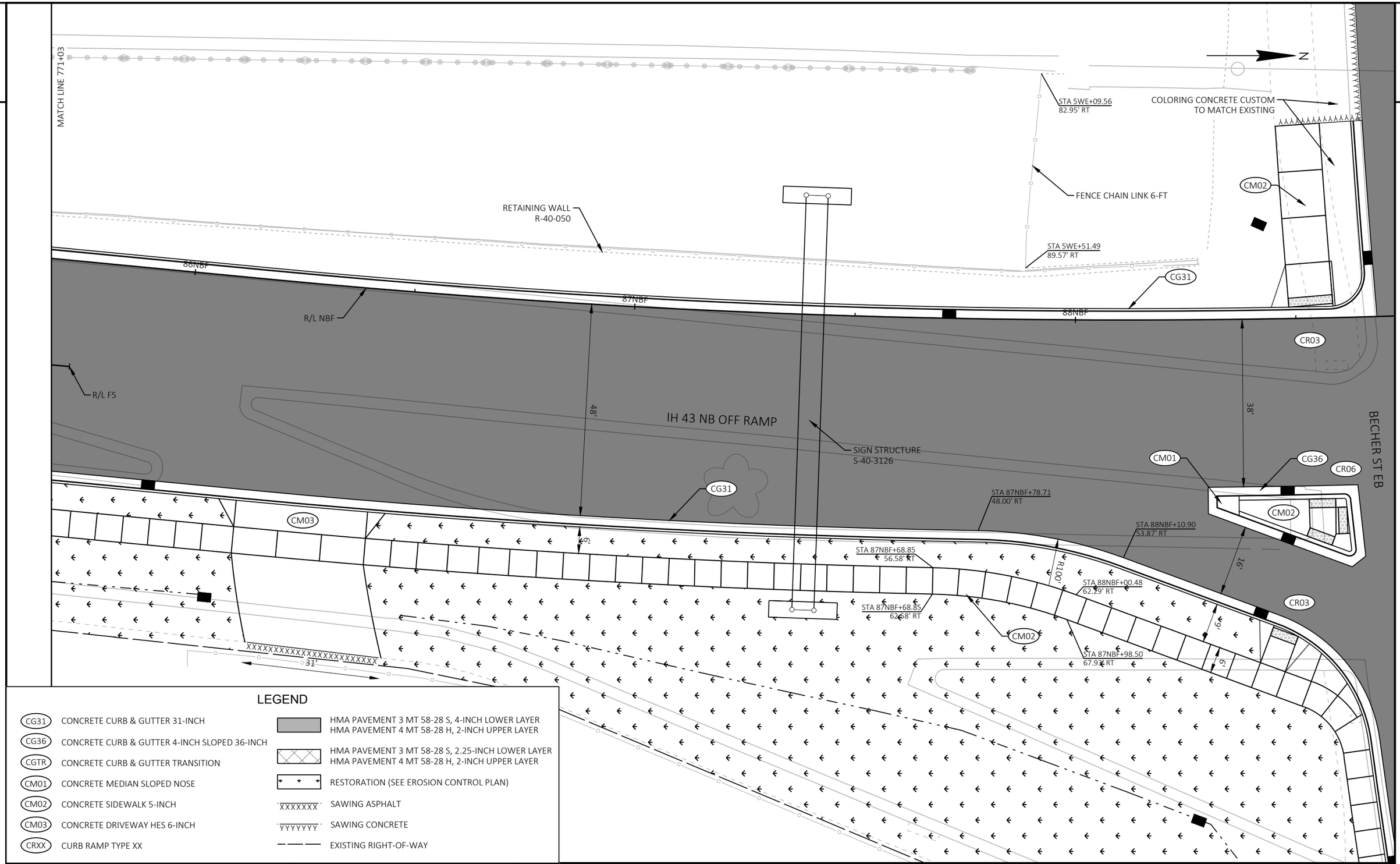
MATCH LINE 771+03

LEGEND

CG31	CONCRETE CURB & GUTTER 31-INCH
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
CGTR	CONCRETE CURB & GUTTER TRANSITION
CM01	CONCRETE MEDIAN SLOPED NOSE
CM02	CONCRETE SIDEWALK 5-INCH
CM03	CONCRETE DRIVEWAY HES 6-INCH
CRXX	CURB RAMP TYPE XX
	HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	RESTORATION (SEE EROSION CONTROL PLAN)
XXXXXXX	SAWING ASPHALT
YYYYYYY	SAWING CONCRETE
	EXISTING RIGHT-OF-WAY

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - IH 43 RAMPS	SHEET 62	E

2



LEGEND

CG31	CONCRETE CURB & GUTTER 31-INCH		HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH		HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
CGTR	CONCRETE CURB & GUTTER TRANSITION		RESTORATION (SEE EROSION CONTROL PLAN)
CM01	CONCRETE MEDIAN SLOPED NOSE	XXXXXXX	SAWING ASPHALT
CM02	CONCRETE SIDEWALK 5-INCH	YYYYYYY	SAWING CONCRETE
CM03	CONCRETE DRIVEWAY HES 6-INCH		EXISTING RIGHT-OF-WAY
CRXX	CURB RAMP TYPE XX		

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - IH 43 RAMPS	SHEET 63	E

2

2

BECHER ST WB

N

CM02

CG31

90NBN

91NBN

92NBN

REVERSE SLOPE GUTTER

R/L NBN

CR03

IH 43 NB ON RAMP

27'

26'

CG36

STA 90NBN+53.02
26.00' RT

STA 90NBN+67.18
26.00' RT

SHAPE CURB HEAD AROUND
EXISTING MANHOLE

CG31

19:1 TAPER

CR06

CM02

CR03

STA 90NBN+05.64
53.06' RT

R55'

STA 90NBN+39.94
40.58' RT

12'

8'

6'

STA 90NBN+39.94
40.58' RT

STA 90NBN+24.76
55.25' RT

STA 90NBN+19.60
72.20' RT

BIOSWALE
(SEE CONSTRUCTION DETAILS)

CM02

CM03

16'

9'

CM01

30'

MATCH LINE 92NBN+62

LEGEND

CG31	CONCRETE CURB & GUTTER 31-INCH
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
CGTR	CONCRETE CURB & GUTTER TRANSITION
CM01	CONCRETE MEDIAN SLOPED NOSE
CM02	CONCRETE SIDEWALK 5-INCH
CM03	CONCRETE DRIVEWAY HES 6-INCH
CRXX	CURB RAMP TYPE XX
	HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	RESTORATION (SEE EROSION CONTROL PLAN)
XXXXXXX	SAWING ASPHALT
YYYYYYY	SAWING CONCRETE
	EXISTING RIGHT-OF-WAY

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - IH 43 RAMPS	SHEET 64	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021201-PD-RAMPS.DWG
LAYOUT NAME - 06

PLOT DATE : 10/29/2025 10:44 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

2

MATCH LINE 92NBN+62

N

CG31

CGTR

END PAVEMENT REPLACE
STA 93NBN+54

STA 93NBN+74.11
1.11' RT

R/L NBN

95NBN

94NBN

93NBN

REVERSE SLOPE GUTTER

21.5'

IH 43 NB ON RAMP

17'

STA 93NBN+54.12
21.54' RT

STA 93NBN+54.12
28.97' RT

CG31

19:1 TAPER

12'

STA 93NBN+63.78
41.41' RT

CONCRETE PAVEMENT
REPLACEMENT SHES

STA 94NBN+23.47
44.48' RT

STA 94NBN+27.95
48.48' RT

4TH ST

1:1 TAPER

STA 93NBN+94.33
71.21' RT

9'

STA 93NBN+99.61
71.18' RT

STA 94NBN+07.60
71.24' RT

12'

12'

6'

8'

STA 93NBN+57.54
55.69' RT

STA 93NBN+54.97
61.56' RT

BIOSWALE
(SEE CONSTRUCTION DETAILS)

CM02

YYYY

CGTR

STA 93NBN+67.54
73.83' RT

STA 93NBN+76.14
73.83' RT

MATCH LINE 95NBN+46

LEGEND

CG31	CONCRETE CURB & GUTTER 31-INCH		HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH		HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
CGTR	CONCRETE CURB & GUTTER TRANSITION		RESTORATION (SEE EROSION CONTROL PLAN)
CM01	CONCRETE MEDIAN SLOPED NOSE	XXXXXXX	SAWING ASPHALT
CM02	CONCRETE SIDEWALK 5-INCH	YYYYYYY	SAWING CONCRETE
CM03	CONCRETE DRIVEWAY HES 6-INCH		EXISTING RIGHT-OF-WAY
CRXX	CURB RAMP TYPE XX		

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - IH 43 RAMPS	SHEET 65	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021201-PD-RAMPS.DWG
LAYOUT NAME - 07

PLOT DATE : 10/29/2025 10:44 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

MATCH LINE 95NBN+46

N

STA 95NBN+58.20
-3.70' LT

STA 95NBN+58.16
-1.70' LT

STA 95NBN+58.10
1.02' RT

REPLACE DAMAGED SEGMENT
STEEL PLATE BEAM GUARD CLASS A,
GUARDRAIL POSTS AND BLOCKS

STA 96NBN+50.63
-0.73' LT

STA 96NBN+74.52
-1.41' LT

R/L NBN

BASE AGGREGATE DENSE 1 ¼"

STA 98NBN+01.18
-4.29' LT

96NBN

97NBN

98NBN

3'

17'

23'

5'

IH 43 NB ON RAMP

STA 95NBN+58.28
17.74' RT

STA 95NBN+58.21
20.60' RT

9:1 TAPER

STA 95NBN+58.17
22.60' RT

STA 95NBN+85.20
26.66' RT

BASE AGGREGATE DENSE 1 ¼"

4TH ST

MATCH LINE 98NBN+31

LEGEND

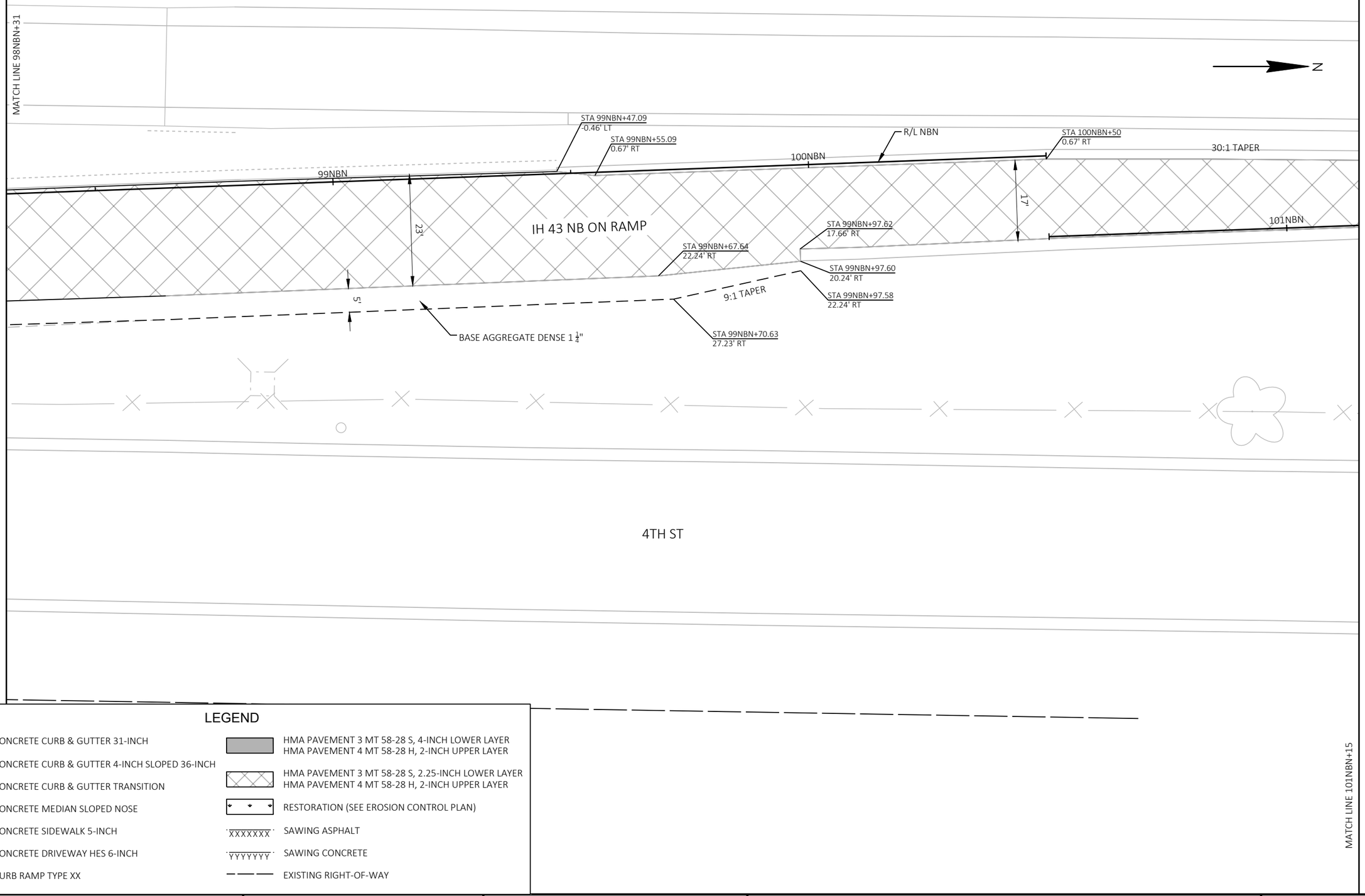
CG31	CONCRETE CURB & GUTTER 31-INCH
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
CGTR	CONCRETE CURB & GUTTER TRANSITION
CM01	CONCRETE MEDIAN SLOPED NOSE
CM02	CONCRETE SIDEWALK 5-INCH
CM03	CONCRETE DRIVEWAY HES 6-INCH
CRXX	CURB RAMP TYPE XX

	HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	RESTORATION (SEE EROSION CONTROL PLAN)
XXXXXXX	SAWING ASPHALT
YYYYYYY	SAWING CONCRETE
	EXISTING RIGHT-OF-WAY

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - IH 43 RAMPS	SHEET 66	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021201-PD-RAMPS.DWG
LAYOUT NAME - 08
PLOT DATE : 10/29/2025 10:44 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2



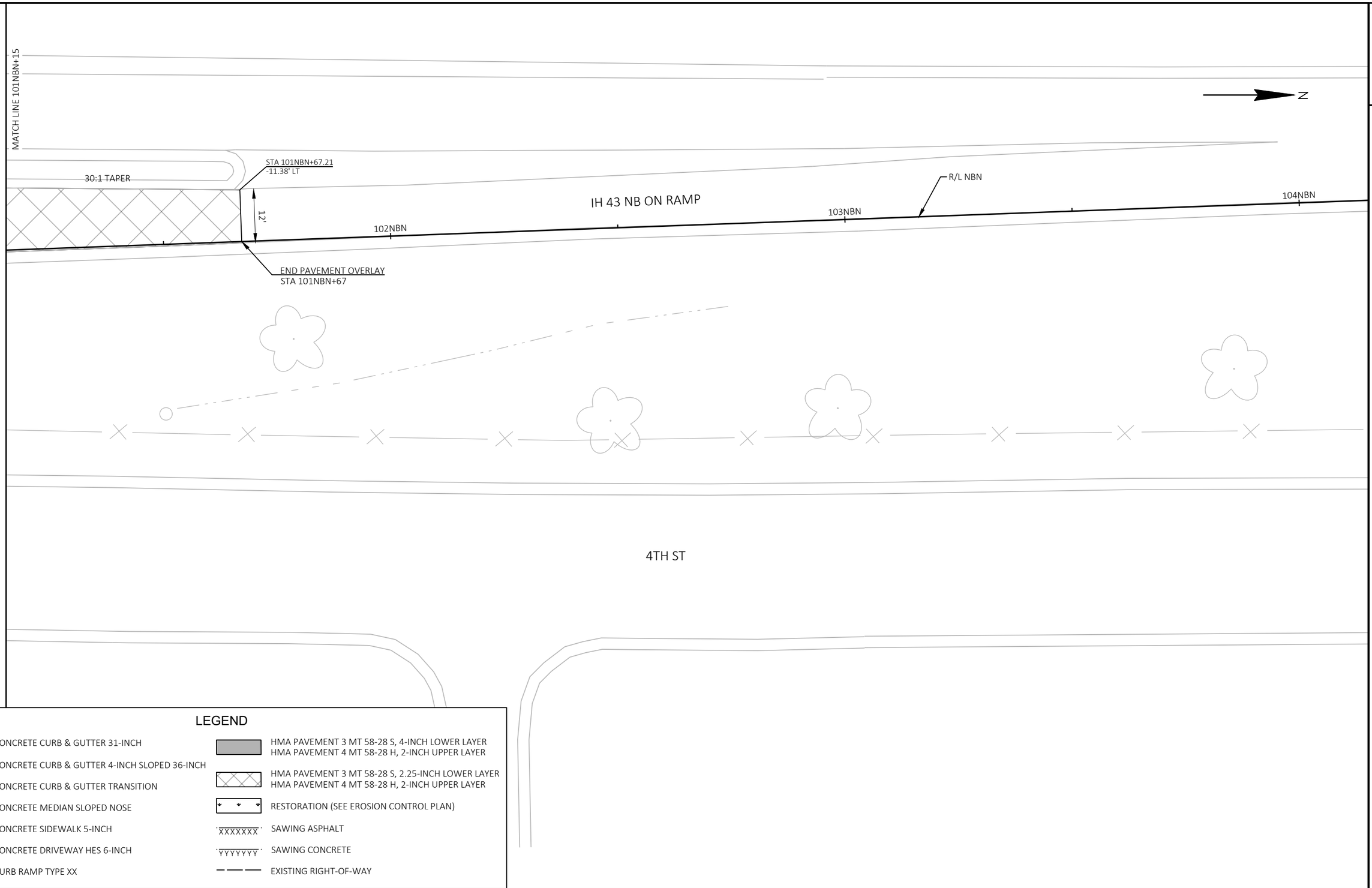
LEGEND

CG31 — CONCRETE CURB & GUTTER 31-INCH	HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
CG36 — CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH	HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
CGTR — CONCRETE CURB & GUTTER TRANSITION	RESTORATION (SEE EROSION CONTROL PLAN)
CM01 — CONCRETE MEDIAN SLOPED NOSE	XXXXXXX — SAWING ASPHALT
CM02 — CONCRETE SIDEWALK 5-INCH	YYYYYYY — SAWING CONCRETE
CM03 — CONCRETE DRIVEWAY HES 6-INCH	EXISTING RIGHT-OF-WAY
CRXX — CURB RAMP TYPE XX	

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - IH 43 RAMPS	SHEET 67	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021201-PD-RAMPS.DWG
LAYOUT NAME - 09
PLOT DATE : 10/29/2025 10:44 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2



LEGEND

CG31	CONCRETE CURB & GUTTER 31-INCH
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
CGTR	CONCRETE CURB & GUTTER TRANSITION
CM01	CONCRETE MEDIAN SLOPED NOSE
CM02	CONCRETE SIDEWALK 5-INCH
CM03	CONCRETE DRIVEWAY HES 6-INCH
CRXX	CURB RAMP TYPE XX

	HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	RESTORATION (SEE EROSION CONTROL PLAN)
XXXXXXX	SAWING ASPHALT
YYYYYYY	SAWING CONCRETE
	EXISTING RIGHT-OF-WAY

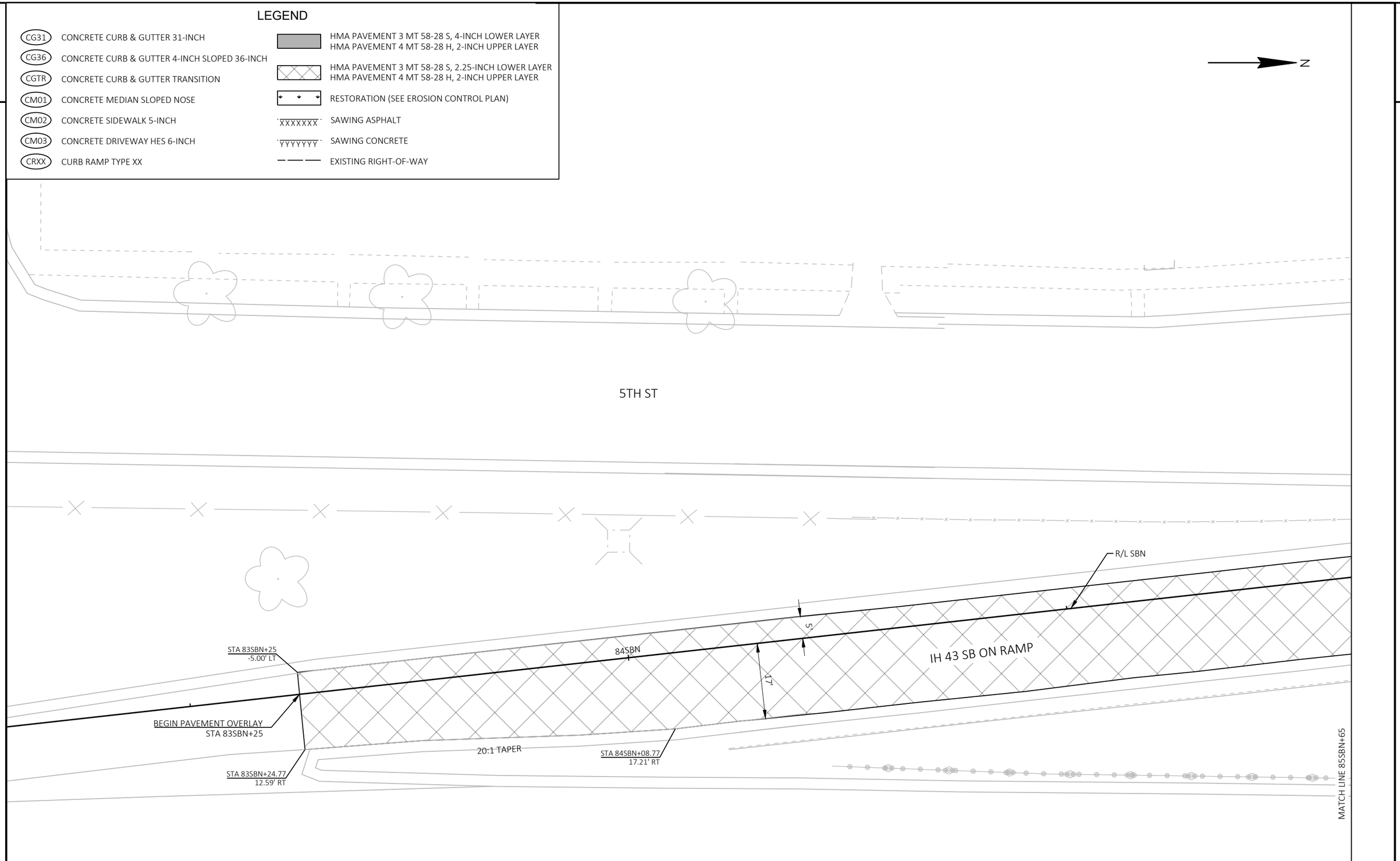
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - IH 43 RAMPS	SHEET 68	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021201-PD-RAMPS.DWG
LAYOUT NAME - 10
PLOT DATE : 10/29/2025 10:44 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

LEGEND

CG31	CONCRETE CURB & GUTTER 31-INCH
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
CGTR	CONCRETE CURB & GUTTER TRANSITION
CM01	CONCRETE MEDIAN SLOPED NOSE
CM02	CONCRETE SIDEWALK 5-INCH
CM03	CONCRETE DRIVEWAY HES 6-INCH
CRXX	CURB RAMP TYPE XX

	HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	RESTORATION (SEE EROSION CONTROL PLAN)
XXXXXXX	SAWING ASPHALT
YYYYYYY	SAWING CONCRETE
	EXISTING RIGHT-OF-WAY



2

MATCH LINE 85SBN+65

N

CM02

CM01

CM02

CR03

BECHER ST EB

CR06

CGTR

PRESERVE TREE

STA 86SBN+12.79
-74.90' LT

STA 86SBN+22.78
-74.50' LT

1:1 TAPER

PRESERVE TREE

PRESERVE TREE

CG31

STA 88SBN+26.36
-47.36' LT

R50'

5TH ST

STA 86SBN+47.81
-42.03' LT

STA 86SBN+53.84
-41.25' LT

8:1 TAPER

SHAPE CURB HEAD AROUND
EXISTING MANHOLE

20'

STA 87SBN+78.20
-26.00' LT

STA 87SBN+85.38
-26.00' LT

CG36

26'

CR03

STA 86SBN+53.84
-21.52' LT

STA 86SBN+49.87
-21.52' LT

IH 43 SB ON RAMP

CG31

88SBN

86SBN

21.5'

R/L SBN

CGTR

87SBN

CM02

CM02

RETAINING WALL
R-40-049

STA 86SBN+29.91
2.94' RT

STA 86SBN+29.97
6.31' RT

BEGIN PAVEMENT REPLACE
STA 86SBN+50

3WE

LEGEND

CG31 — CONCRETE CURB & GUTTER 31-INCH	HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
CG36 — CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH	HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
CGTR — CONCRETE CURB & GUTTER TRANSITION	RESTORATION (SEE EROSION CONTROL PLAN)
CM01 — CONCRETE MEDIAN SLOPED NOSE	SAWING ASPHALT
CM02 — CONCRETE SIDEWALK 5-INCH	SAWING CONCRETE
CM03 — CONCRETE DRIVEWAY HES 6-INCH	EXISTING RIGHT-OF-WAY
CRXX — CURB RAMP TYPE XX	

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - IH 43 RAMPS	SHEET 70	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021201-PD-RAMPS.DWG
LAYOUT NAME - 12

PLOT DATE : 10/29/2025 10:44 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

N

PRESERVE TREE

PRESERVE TREE

PRESERVE TREE

PRESERVE TREE

STA 90SBF+12.55
-61.88' LT

STA 90SBF+10.56
-56.22' LT

STA 90SBF+43.67
-56.58' LT

STA 90SBF+43.67
-50.58' LT

STA 90SBF+20.16
-41.64' LT

STA 90SBF+53.27
-36.00' LT

STA 89SBF+89.58
0.00

STA 89SBF+65.46
1.69' RT

CG36

CR03

CM02

CM02

CR06

CM01

CM02

CR03

CM02

CG31

CG31

BIOSWALE
(SEE CONSTRUCTION DETAILS)

R100'

R100'

16'

26'

36'

6'

12'

8'

8'

90SBF

91SBF

92SBF

R/L SBF

IH 43 SB OFF RAMP

BECHER ST WB

MATCH LINE 92SBF+62

LEGEND

CG31	CONCRETE CURB & GUTTER 31-INCH
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
CGTR	CONCRETE CURB & GUTTER TRANSITION
CM01	CONCRETE MEDIAN SLOPED NOSE
CM02	CONCRETE SIDEWALK 5-INCH
CM03	CONCRETE DRIVEWAY HES 6-INCH
CRXX	CURB RAMP TYPE XX

	HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	RESTORATION (SEE EROSION CONTROL PLAN)
XXXXXXX	SAWING ASPHALT
YYYYYYY	SAWING CONCRETE
	EXISTING RIGHT-OF-WAY

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - IH 43 RAMPS	SHEET 71	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021201-PD-RAMPS.DWG
LAYOUT NAME - 13

PLOT DATE : 10/29/2025 10:44 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

2

MATCH LINE 92SBF+62

N

REPLACE DAMAGED FENCE POST

STA 93SBF+42.58
-96.02' LT

PRESERVE TREE

PRESERVE TREE

PRESERVE TREE

PRESERVE TREE

PRESERVE TREE

BIOSWALE
(SEE CONSTRUCTION DETAILS)

CM02

6'

12'

8'

STA 93SBF+29.15
-47.00' LT

SHAPE CURB HEAD AROUND
EXISTING MANHOLE

CG31

REVERSE SLOPE GUTTER

ROGERS ST

STA 95SBF+51.29
-85.84' LT

STA 95SBF+38.37
-84.73' LT

STA 95SBF+33.46
-86.60' LT

STA 95SBF+27.85
-86.17' LT

CGTR

13'

CR7B

STA 95SBF+40.58
-56.84' LT

STA 95SBF+30.11
-55.05' LT

STA 95SBF+27.65
-51.83' LT

STA 95SBF+36.29
-53.13' LT

STA 95SBF+30.85
-46.42' LT

R25'

STA 95SBF+19.09
-29.97' LT

STA 95SBF+56.88
-23.08' LT

5TH ST

12'

STA 93SBF+98.47
-36.00' LT

STA 94SBF+18.78
-36.34' LT

R600'

STA 94SBF+39.71
-37.42' LT

STA 94SBF+80.78
-24.66' LT

36'

SIGN STRUCTURE
S-40-3125

CG31

93SBF

R/L SBF

94SBF

STA 93SBF+29.26
11.00' RT

STA 94SBF+41.85
-24.17' LT

STA 94SBF+41.85
-16.95' LT

17'

IH 43 SB OFF RAMP

END PAVEMENT REPLACE
STA 94SBF+42

CGTR

MATCH LINE 95SBF+61

LEGEND

CG31	CONCRETE CURB & GUTTER 31-INCH
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
CGTR	CONCRETE CURB & GUTTER TRANSITION
CM01	CONCRETE MEDIAN SLOPED NOSE
CM02	CONCRETE SIDEWALK 5-INCH
CM03	CONCRETE DRIVEWAY HES 6-INCH
CRXX	CURB RAMP TYPE XX

	HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
	RESTORATION (SEE EROSION CONTROL PLAN)
XXXXXXX	SAWING ASPHALT
YYYYYYY	SAWING CONCRETE
	EXISTING RIGHT-OF-WAY

NOTES:

GUTTER SLOPE TRANSITIONS FROM -2% AT STA 95SBF+40.58 TO +2% AT STA 95SBF+19.09

GUTTER SLOPE TRANSITIONS FROM +2% AT STA 94SBF+39.71 TO -2% AT STA 94SBF+18.78

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - IH 43 RAMPS	SHEET 72 E

2

2

MATCH LINE 95SBF+61

ROGERS ST

LEGEND

CG31	CONCRETE CURB & GUTTER 31-INCH
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
CGTR	CONCRETE CURB & GUTTER TRANSITION
CM01	CONCRETE MEDIAN SLOPED NOSE
CM02	CONCRETE SIDEWALK 5-INCH
CM03	CONCRETE DRIVEWAY HES 6-INCH
CRXX	CURB RAMP TYPE XX

HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER
HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER

HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER
HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER

RESTORATION (SEE EROSION CONTROL PLAN)

XXXXXXX SAWING ASPHALT

YYYYYYY SAWING CONCRETE

EXISTING RIGHT-OF-WAY

N

5TH ST

R/L SBF

96SBF

IH 43 SB OFF RAMP

17'

98SBF

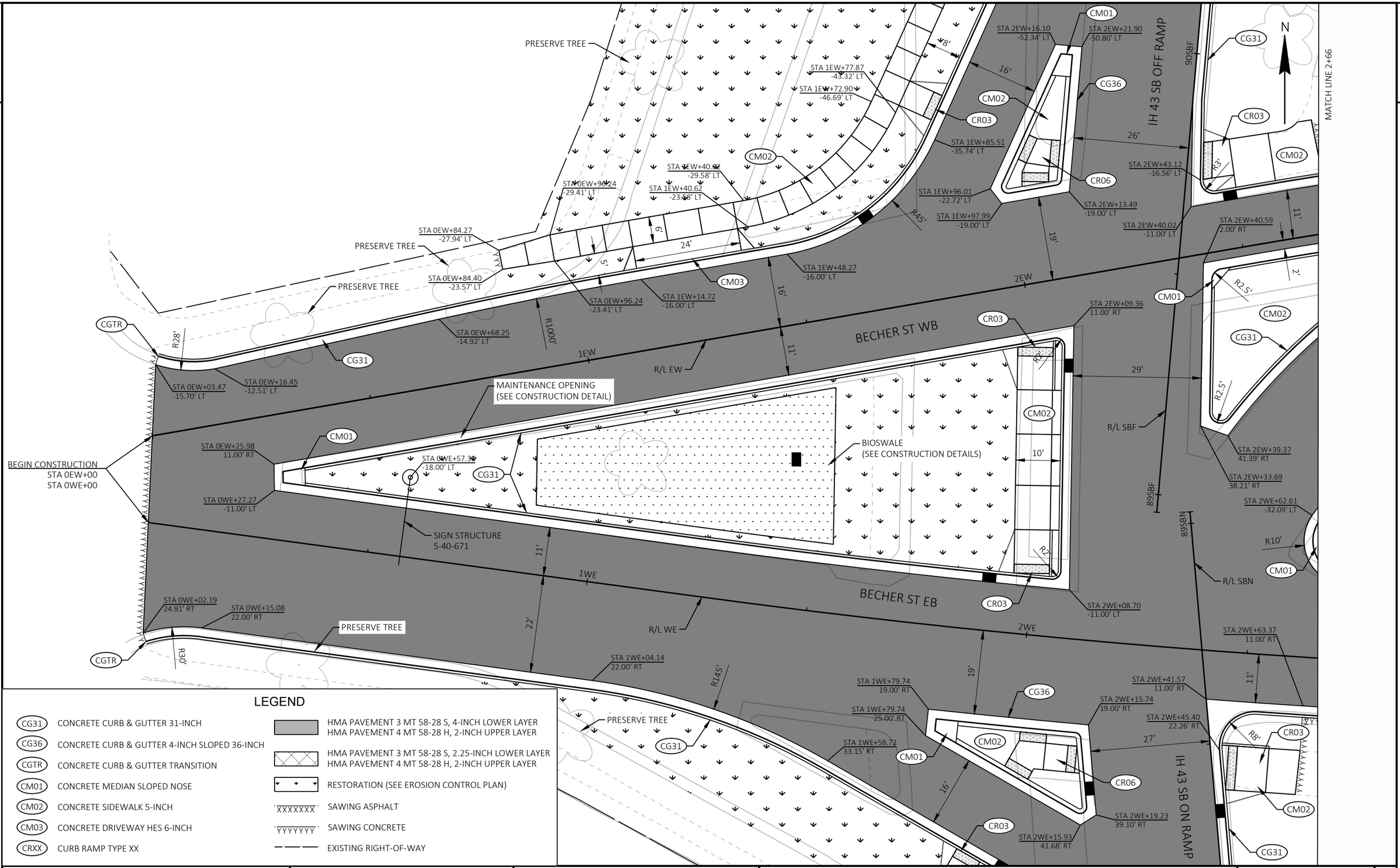
END PAVEMENT OVERLAY
STA 94SBF+42

STA 98SBF+27.04
19.98' RT

STA 97SBF+65.75
16.91' RT

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - IH 43 RAMPS	SHEET 73	E

2



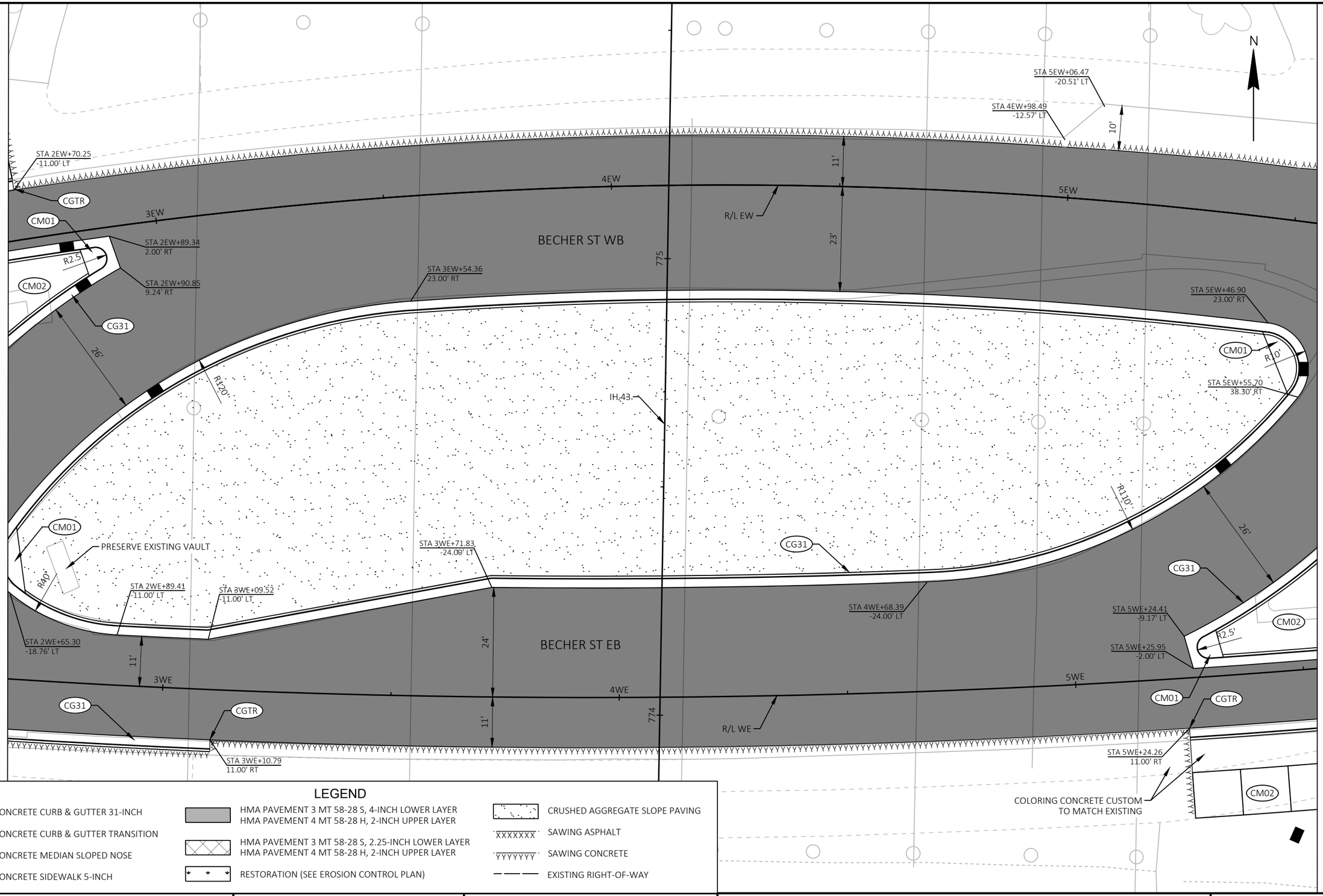
LEGEND

CG31	CONCRETE CURB & GUTTER 31-INCH		HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH		HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
CGTR	CONCRETE CURB & GUTTER TRANSITION		RESTORATION (SEE EROSION CONTROL PLAN)
CM01	CONCRETE MEDIAN SLOPED NOSE	XXXXXXX	SAWING ASPHALT
CM02	CONCRETE SIDEWALK 5-INCH	YYYYYYY	SAWING CONCRETE
CM03	CONCRETE DRIVEWAY HES 6-INCH		EXISTING RIGHT-OF-WAY
CRXX	CURB RAMP TYPE XX		

PROJECT NO:	HWY:	COUNTY:	PLAN DETAILS - BECHER ST	SHEET	
1228-09-77	IH 43	MILWAUKEE		74	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021202-PD-BECHER.DWG
LAYOUT NAME - 01
PLOT DATE : 10/29/2025 10:46 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2



LEGEND

CG31	CONCRETE CURB & GUTTER 31-INCH	HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER	CRUSHED AGGREGATE SLOPE PAVING
CGTR	CONCRETE CURB & GUTTER TRANSITION		SAWING ASPHALT
CM01	CONCRETE MEDIAN SLOPED NOSE	HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER	SAWING CONCRETE
CM02	CONCRETE SIDEWALK 5-INCH	RESTORATION (SEE EROSION CONTROL PLAN)	EXISTING RIGHT-OF-WAY

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - BECHER ST	SHEET 75	E

2

N

IH 43 NB ON RAMP

IH 43 NB OFF RAMP

BECHER ST WB

BECHER ST EB

MATCH LINE 5+53

CG31 CONCRETE CURB & GUTTER 31-INCH
CG36 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
CGTR CONCRETE CURB & GUTTER TRANSITION
CM01 CONCRETE MEDIAN SLOPED NOSE
CM02 CONCRETE SIDEWALK 5-INCH
CM03 CONCRETE DRIVEWAY HES 6-INCH
CRXX CURB RAMP TYPE XX

HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER
HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER

HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER
HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER

RESTORATION (SEE EROSION CONTROL PLAN)

SAWING ASPHALT

SAWING CONCRETE

EXISTING RIGHT-OF-WAY

DISCONTINUE SUBGRADE IMPROVEMENT BEHIND CURB NEAR EXISTING VAULTS

BIOSWALE (SEE CONSTRUCTION DETAILS)

PRESERVE EXISTING VAULTS

SIGN STRUCTURE S-40-670

MAINTENANCE OPENING (SEE CONSTRUCTION DETAIL)

END CONSTRUCTION STA 8EW+14

END CONSTRUCTION STA 8WE+25

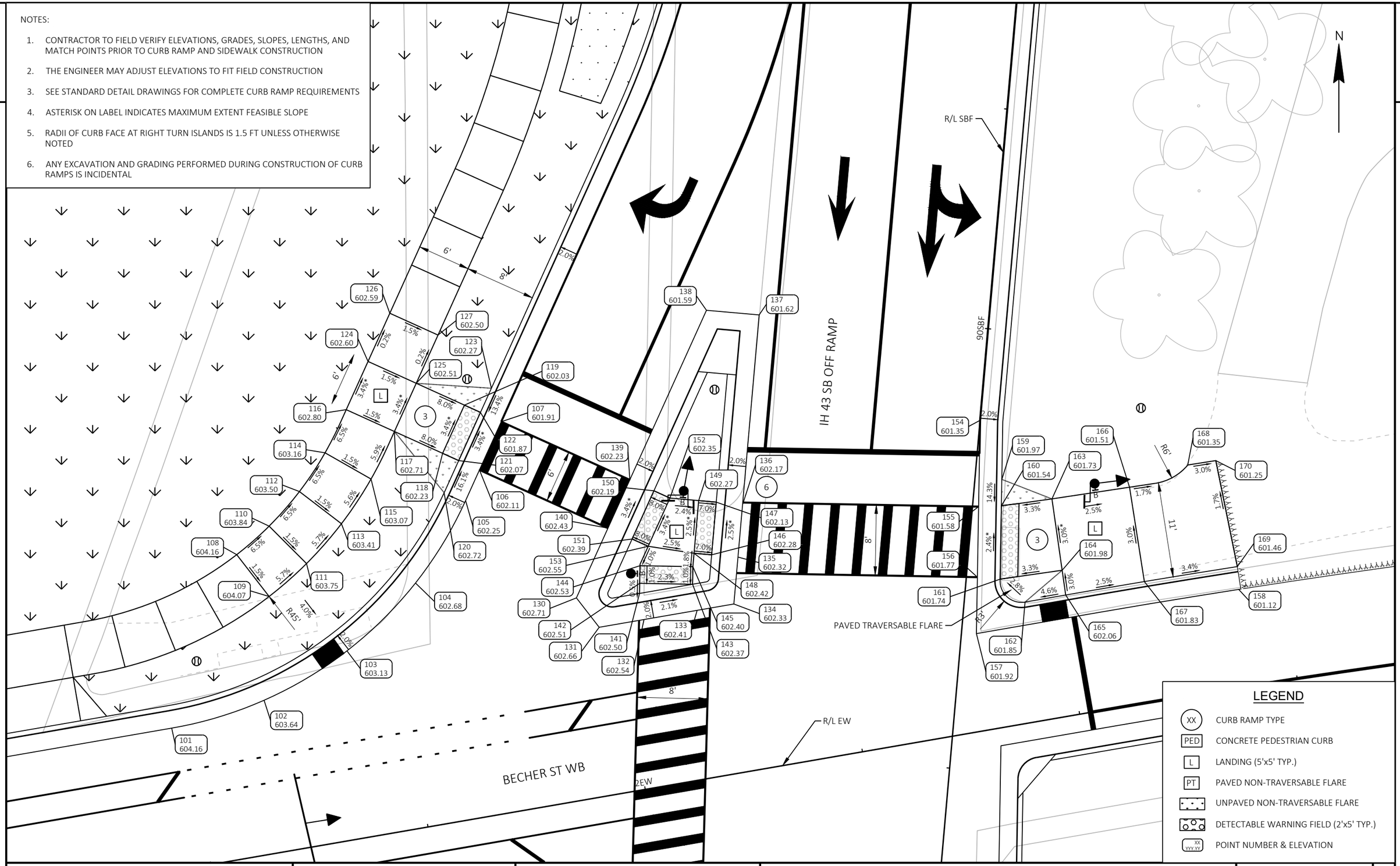
LEGEND

CG31	CONCRETE CURB & GUTTER 31-INCH		HMA PAVEMENT 3 MT 58-28 S, 4-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH		HMA PAVEMENT 3 MT 58-28 S, 2.25-INCH LOWER LAYER HMA PAVEMENT 4 MT 58-28 H, 2-INCH UPPER LAYER
CGTR	CONCRETE CURB & GUTTER TRANSITION		RESTORATION (SEE EROSION CONTROL PLAN)
CM01	CONCRETE MEDIAN SLOPED NOSE	XXXXXXX	SAWING ASPHALT
CM02	CONCRETE SIDEWALK 5-INCH	YYYYYYY	SAWING CONCRETE
CM03	CONCRETE DRIVEWAY HES 6-INCH		EXISTING RIGHT-OF-WAY
CRXX	CURB RAMP TYPE XX		

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS - BECHER ST	SHEET 76	E

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. SEE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS
4. ASTERISK ON LABEL INDICATES MAXIMUM EXTENT FEASIBLE SLOPE
5. RADII OF CURB FACE AT RIGHT TURN ISLANDS IS 1.5 FT UNLESS OTHERWISE NOTED
6. ANY EXCAVATION AND GRADING PERFORMED DURING CONSTRUCTION OF CURB RAMPS IS INCIDENTAL



PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 77	E

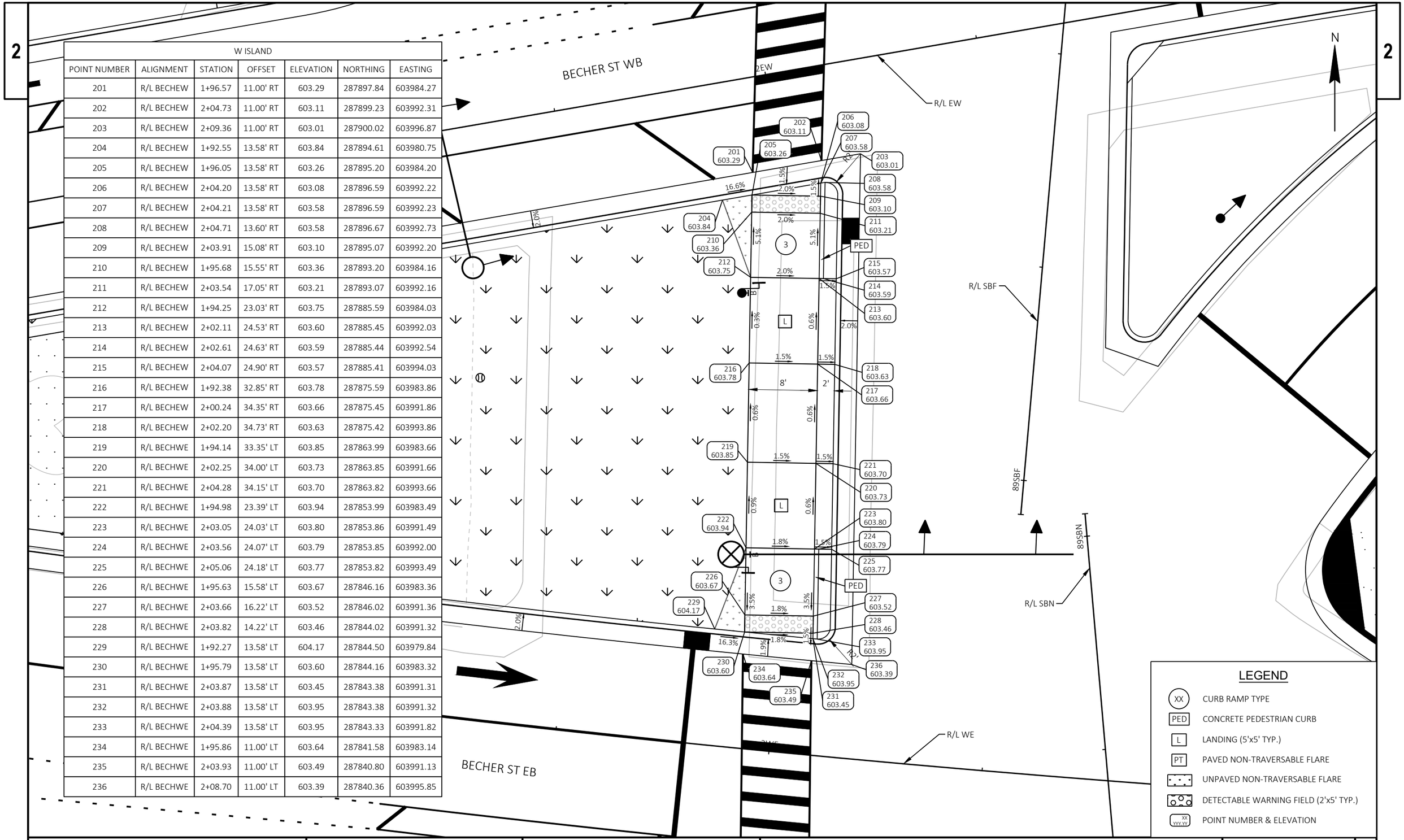
NW OUTSIDE						
POINT NUMBER	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
101	R/L SBF	89+46.83	88.29' LT	604.16	287916.20	603932.07
102	R/L SBF	89+50.89	78.13' LT	603.64	287919.37	603942.54
103	R/L SBF	89+57.28	69.25' LT	603.13	287924.96	603951.94
104	R/L SBF	89+65.63	62.18' LT	602.68	287932.66	603959.71
105	R/L SBF	89+75.43	57.33' LT	602.25	287942.01	603965.40
106	R/L SBF	89+79.03	56.07' LT	602.11	287945.48	603966.97
107	R/L SBF	89+84.69	54.08' LT	601.91	287950.94	603969.44
108	R/L SBF	89+67.07	82.65' LT	604.16	287935.88	603939.44
109	R/L SBF	89+62.66	78.58' LT	604.07	287931.13	603943.12
110	R/L SBF	89+70.61	79.27' LT	603.84	287939.11	603943.12
111	R/L SBF	89+66.74	74.68' LT	603.75	287934.86	603947.36
112	R/L SBF	89+74.81	76.19' LT	603.50	287943.03	603946.55
113	R/L SBF	89+71.59	71.13' LT	603.41	287939.38	603951.32
114	R/L SBF	89+79.44	73.68' LT	603.16	287947.42	603949.46
115	R/L SBF	89+76.93	68.22' LT	603.07	287944.45	603954.68
116	R/L SBF	89+84.52	71.72' LT	602.80	287952.31	603951.86
117	R/L SBF	89+82.53	66.06' LT	602.71	287949.84	603957.33
118	R/L SBF	89+80.55	60.39' LT	602.23	287947.36	603962.79
119	R/L SBF	89+86.21	58.41' LT	602.03	287952.83	603965.26
120	R/L SBF	89+76.11	59.83' LT	602.72	287942.90	603962.97
121	R/L SBF	89+79.88	58.51' LT	602.07	287946.54	603964.62
122	R/L SBF	89+85.55	56.52' LT	601.87	287952.01	603967.09
123	R/L SBF	89+88.38	55.53' LT	602.27	287954.74	603968.32
124	R/L SBF	89+90.18	69.73' LT	602.60	287957.78	603954.33
125	R/L SBF	89+88.19	64.07' LT	602.51	287955.30	603959.80
126	R/L SBF	89+95.84	67.74' LT	602.59	287963.24	603956.80
127	R/L SBF	89+93.86	62.08' LT	602.50	287960.77	603962.27

NW ISLAND						
POINT NUMBER	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
130	R/L SBF	89+65.53	43.85' LT	602.71	287930.97	603977.97
131	R/L SBF	89+62.44	40.99' LT	602.66	287927.64	603980.55
132	R/L SBF	89+63.76	36.00' LT	602.54	287928.52	603985.64
133	R/L SBF	89+65.32	30.09' LT	602.41	287929.56	603991.65
134	R/L SBF	89+66.41	26.00' LT	602.33	287930.28	603995.82
135	R/L SBF	89+71.74	26.00' LT	602.32	287935.59	603996.29
136	R/L SBF	89+77.74	26.00' LT	602.17	287941.57	603996.81
137	R/L SBF	89+99.30	26.00' LT	601.62	287963.05	603998.69
138	R/L SBF	89+99.30	32.00' LT	601.59	287963.58	603992.71
139	R/L SBF	89+79.39	38.98' LT	602.23	287944.35	603984.02
140	R/L SBF	89+73.73	40.97' LT	602.43	287938.88	603981.55
141	R/L SBF	89+66.66	36.76' LT	602.50	287931.47	603985.12
142	R/L SBF	89+67.80	36.84' LT	602.51	287932.62	603985.14
143	R/L SBF	89+68.22	30.86' LT	602.37	287932.52	603991.14
144	R/L SBF	89+69.80	36.98' LT	602.53	287934.62	603985.18
145	R/L SBF	89+70.22	31.00' LT	602.40	287934.52	603991.17
146	R/L SBF	89+71.74	29.00' LT	602.28	287935.86	603993.30
147	R/L SBF	89+77.74	29.00' LT	602.13	287941.83	603993.82
148	R/L SBF	89+71.74	31.00' LT	602.42	287936.03	603991.31
149	R/L SBF	89+77.74	31.00' LT	602.27	287942.01	603991.83
150	R/L SBF	89+78.40	36.15' LT	602.19	287943.12	603986.75
151	R/L SBF	89+72.74	38.14' LT	602.39	287937.65	603984.28
152	R/L SBF	89+77.74	34.27' LT	602.35	287942.29	603988.58
153	R/L SBF	89+72.08	36.25' LT	602.55	287936.82	603986.10

NW INSIDE						
POINT NUMBER	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
154	R/L SBF	89+89.58	0.00'	601.35	287951.10	604023.74
155	R/L SBF	89+79.82	0.69' RT	601.58	287941.32	604023.58
156	R/L SBF	89+71.84	1.25' RT	601.77	287933.33	604023.44
157	R/L SBF	89+65.46	1.69' RT	601.92	287926.92	604023.33
158	R/L SBF	89+73.04	30.88' RT	601.12	287931.94	604053.07
159	R/L SBF	89+83.13	3.04' RT	601.97	287944.41	604026.21
160	R/L SBF	89+80.14	3.25' RT	601.54	287941.42	604026.16
161	R/L SBF	89+71.84	3.84' RT	601.74	287933.10	604026.02
162	R/L SBF	89+69.50	6.88' RT	601.85	287930.50	604028.84
163	R/L SBF	89+81.41	8.90' RT	601.73	287942.19	604031.90
164	R/L SBF	89+73.46	10.75' RT	601.98	287934.10	604033.05
165	R/L SBF	89+70.69	11.40' RT	602.06	287931.30	604033.45
166	R/L SBF	89+83.50	17.55' RT	601.51	287943.52	604040.69
167	R/L SBF	89+72.99	20.15' RT	601.83	287932.82	604042.38
168	R/L SBF	89+86.59	23.91' RT	601.35	287946.04	604047.30
169	R/L SBF	89+75.61	30.51' RT	601.46	287934.53	604052.92
170	R/L SBF	89+87.36	27.03' RT	601.25	287946.54	604050.48

2

W ISLAND						
POINT NUMBER	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
201	R/L BECHEW	1+96.57	11.00' RT	603.29	287897.84	603984.27
202	R/L BECHEW	2+04.73	11.00' RT	603.11	287899.23	603992.31
203	R/L BECHEW	2+09.36	11.00' RT	603.01	287900.02	603996.87
204	R/L BECHEW	1+92.55	13.58' RT	603.84	287894.61	603980.75
205	R/L BECHEW	1+96.05	13.58' RT	603.26	287895.20	603984.20
206	R/L BECHEW	2+04.20	13.58' RT	603.08	287896.59	603992.22
207	R/L BECHEW	2+04.21	13.58' RT	603.58	287896.59	603992.23
208	R/L BECHEW	2+04.71	13.60' RT	603.58	287896.67	603992.73
209	R/L BECHEW	2+03.91	15.08' RT	603.10	287895.07	603992.20
210	R/L BECHEW	1+95.68	15.55' RT	603.36	287893.20	603984.16
211	R/L BECHEW	2+03.54	17.05' RT	603.21	287893.07	603992.16
212	R/L BECHEW	1+94.25	23.03' RT	603.75	287885.59	603984.03
213	R/L BECHEW	2+02.11	24.53' RT	603.60	287885.45	603992.03
214	R/L BECHEW	2+02.61	24.63' RT	603.59	287885.44	603992.54
215	R/L BECHEW	2+04.07	24.90' RT	603.57	287885.41	603994.03
216	R/L BECHEW	1+92.38	32.85' RT	603.78	287875.59	603983.86
217	R/L BECHEW	2+00.24	34.35' RT	603.66	287875.45	603991.86
218	R/L BECHEW	2+02.20	34.73' RT	603.63	287875.42	603993.86
219	R/L BECHWE	1+94.14	33.35' LT	603.85	287863.99	603983.66
220	R/L BECHWE	2+02.25	34.00' LT	603.73	287863.85	603991.66
221	R/L BECHWE	2+04.28	34.15' LT	603.70	287863.82	603993.66
222	R/L BECHWE	1+94.98	23.39' LT	603.94	287853.99	603983.49
223	R/L BECHWE	2+03.05	24.03' LT	603.80	287853.86	603991.49
224	R/L BECHWE	2+03.56	24.07' LT	603.79	287853.85	603992.00
225	R/L BECHWE	2+05.06	24.18' LT	603.77	287853.82	603993.49
226	R/L BECHWE	1+95.63	15.58' LT	603.67	287846.16	603983.36
227	R/L BECHWE	2+03.66	16.22' LT	603.52	287846.02	603991.36
228	R/L BECHWE	2+03.82	14.22' LT	603.46	287844.02	603991.32
229	R/L BECHWE	1+92.27	13.58' LT	604.17	287844.50	603979.84
230	R/L BECHWE	1+95.79	13.58' LT	603.60	287844.16	603983.32
231	R/L BECHWE	2+03.87	13.58' LT	603.45	287843.38	603991.31
232	R/L BECHWE	2+03.88	13.58' LT	603.95	287843.38	603991.32
233	R/L BECHWE	2+04.39	13.58' LT	603.95	287843.33	603991.82
234	R/L BECHWE	1+95.86	11.00' LT	603.64	287841.58	603983.14
235	R/L BECHWE	2+03.93	11.00' LT	603.49	287840.80	603991.13
236	R/L BECHWE	2+08.70	11.00' LT	603.39	287840.36	603995.85



PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 79	E

2

BECHER ST EB

R/L WE

IH 43 SB ON RAMP

R/L SBN

N

301 604.62	302 604.40	303 604.25	304 604.18	305 604.17
306 604.19	307 604.66	308 604.15	309 604.13	310 604.63
311 604.81	312 604.80	313 604.90	314 604.89	315 605.31
316 605.28	317 605.60	318 605.63	319 605.97	320 606.00
321 603.98	322 604.03	323 604.32	324 604.58	325 604.15
326 604.00	327 603.65	328 603.66	329 603.70	330 603.83
331 603.92	332 603.98	333 604.03	334 604.02	335 604.07
336 604.03	337 604.11	338 603.96	339 604.14	340 603.99
341 603.62	342 603.66	343 603.67	344 603.65	345 603.70
346 604.00	347 603.24	348 603.12	349 603.10	350 603.75
351 603.21	352 603.08	353 603.58	354 603.58	355 603.25
356 603.14	357 603.14	358 603.05	359 602.95	360 602.45

LEGEND

- XX — CURB RAMP TYPE
- PED — CONCRETE PEDESTRIAN CURB
- L — LANDING (5'x5' TYP.)
- PT — PAVED NON-TRAVERSABLE FLARE
- UNPAVED NON-TRAVERSABLE FLARE
- DETECTABLE WARNING FIELD (2'x5' TYP.)
- XX YYY.YY — POINT NUMBER & ELEVATION

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 80	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021301-CR.DWG
LAYOUT NAME - 03
PLOT DATE : 10/29/2025 11:03 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

SW OUTSIDE						
POINT NUMBER	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
301	R/L SBN	87+97.27	27.44' LT	604.62	287750.65	604004.83
302	R/L SBN	88+08.49	31.66' LT	604.40	287761.45	603999.66
303	R/L SBN	88+18.37	38.43' LT	604.25	287770.72	603992.06
304	R/L SBN	88+26.36	47.36' LT	604.18	287777.91	603982.48
305	R/L SBN	88+30.04	52.61' LT	604.17	287781.11	603976.93
306	R/L SBN	88+33.47	57.53' LT	604.19	287784.12	603971.73
307	R/L SBN	88+33.36	61.88' LT	604.66	287783.63	603967.41
308	R/L SBN	88+31.35	59.01' LT	604.15	287781.88	603970.44
309	R/L SBN	88+27.92	54.09' LT	604.13	287778.88	603975.64
310	R/L SBN	88+26.20	51.63' LT	604.63	287777.38	603978.23
311	R/L SBN	88+24.80	63.59' LT	604.81	287774.95	603966.44
312	R/L SBN	88+21.36	58.68' LT	604.80	287771.95	603971.63
313	R/L SBN	88+19.88	67.03' LT	604.90	287769.75	603963.44
314	R/L SBN	88+16.44	62.11' LT	604.89	287766.75	603968.63
315	R/L SBN	88+15.77	71.12' LT	605.31	287765.31	603959.72
316	R/L SBN	88+10.87	67.67' LT	605.28	287760.72	603963.58
317	R/L SBN	88+13.77	74.91' LT	605.60	287762.99	603956.11
318	R/L SBN	88+08.15	72.81' LT	605.63	287757.57	603958.69
319	R/L SBN	88+12.32	79.97' LT	605.97	287761.11	603951.20
320	R/L SBN	88+06.75	77.58' LT	606.00	287755.77	603954.06

SW ISLAND						
POINT NUMBER	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
321	R/L SBN	88+43.15	43.45' LT	603.98	287794.97	603984.93
322	R/L SBN	88+46.59	48.37' LT	604.03	287797.97	603979.73
323	R/L SBN	88+57.43	63.88' LT	604.32	287807.43	603963.35
324	R/L SBN	88+63.31	62.72' LT	604.58	287813.40	603963.99
325	R/L SBN	88+59.36	41.96' LT	604.15	287811.25	603985.02
326	R/L SBN	88+58.32	36.28' LT	604.00	287810.70	603990.76
327	R/L SBN	88+56.66	27.00' LT	603.65	287809.84	604000.15
328	R/L SBN	88+52.06	27.00' LT	603.66	287805.27	604000.55
329	R/L SBN	88+45.96	27.00' LT	603.70	287799.19	604001.07
330	R/L SBN	88+36.25	27.00' LT	603.83	287789.51	604001.91
331	R/L SBN	88+34.29	30.76' LT	603.92	287787.23	603998.33
332	R/L SBN	88+45.61	41.73' LT	603.98	287797.57	603986.43
333	R/L SBN	88+49.05	46.65' LT	604.03	287800.57	603981.23
334	R/L SBN	88+47.25	40.58' LT	604.02	287799.30	603987.43
335	R/L SBN	88+50.69	45.50' LT	604.07	287802.30	603982.23
336	R/L SBN	88+47.85	40.16' LT	604.03	287799.93	603987.79
337	R/L SBN	88+56.43	42.50' LT	604.11	287808.28	603984.73
338	R/L SBN	88+55.33	36.60' LT	603.96	287807.70	603990.70
339	R/L SBN	88+54.46	42.86' LT	604.14	287806.29	603984.54
340	R/L SBN	88+53.37	36.96' LT	603.99	287805.71	603990.51
341	R/L SBN	88+52.06	30.00' LT	603.62	287805.01	603997.56
342	R/L SBN	88+45.96	30.00' LT	603.66	287798.93	603998.08
343	R/L SBN	88+46.16	31.10' LT	603.67	287799.04	603996.97
344	R/L SBN	88+52.43	31.97' LT	603.65	287805.21	603995.57
345	R/L SBN	88+46.53	33.06' LT	603.70	287799.23	603994.98
346	R/L SBN	88+47.46	38.06' LT	604.00	287799.73	603989.92

SW INSIDE						
POINT NUMBER	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
347	R/L SBN	88+39.66	0.00'	603.24	287795.24	604028.51
348	R/L SBN	88+49.73	0.00'	603.12	287805.27	604027.65
349	R/L SBN	88+60.17	0.00'	603.10	287815.67	604026.75
350	R/L SBN	88+36.25	2.58' RT	603.75	287792.06	604031.38
351	R/L SBN	88+39.40	2.58' RT	603.21	287795.20	604031.11
352	R/L SBN	88+49.53	2.58' RT	603.08	287805.29	604030.24
353	R/L SBN	88+49.54	2.58' RT	603.58	287805.30	604030.24
354	R/L SBN	88+50.01	2.75' RT	603.58	287805.79	604030.37
355	R/L SBN	88+37.99	11.52' RT	603.25	287794.56	604040.14
356	R/L SBN	88+47.85	13.17' RT	603.14	287804.53	604040.93
357	R/L SBN	88+48.34	13.25' RT	603.14	287805.03	604040.97
358	R/L SBN	88+36.96	18.17' RT	603.05	287794.11	604046.85
359	R/L SBN	88+46.78	20.13' RT	602.95	287804.06	604047.96
360	R/L SBN	88+54.19	21.26' RT	602.45	287811.54	604048.45

2

IH 43 NB ON RAMP

R/L NBN

REVERSE SLOPE GUTTER

PAVED TRAVERSABLE FLARE

TRANSITION GUTTER
SLOPE AROUND CURVE

R/L EW

BECHER ST EB

N

438 588.98
439 589.08
440 589.13
441 589.14
442 589.13
443 589.13
444 589.61
445 589.08
446 589.10
447 589.11
448 589.65
449 589.89
450 589.76
451 589.78
452 589.94
453 589.98
454 589.85
455 589.87
456 590.03
401 590.56
402 590.27
403 590.14
404 590.59
405 590.32
406 590.18
407 590.64
408 590.73
409 590.54
410 591.10
411 590.98
412 589.90
413 589.84
414 589.78
415 589.45
416 589.31
417 589.45
418 589.47
419 589.50
420 589.59
421 589.72
422 589.81
423 589.80
424 589.74
425 589.75
426 589.82
427 589.76
428 589.41
429 589.43
430 589.55
431 589.57
432 589.73
433 589.75
434 589.68
435 589.77
436 589.71
437 589.80

R24'
R6.5'
6'
8'
9'
9.5'
6EW

LEGEND

- XX — CURB RAMP TYPE
- PED — CONCRETE PEDESTRIAN CURB
- L — LANDING (5'x5' TYP.)
- PT — PAVED NON-TRAVERSABLE FLARE
- UNPAVED NON-TRAVERSABLE FLARE
- DETECTABLE WARNING FIELD (2'x5' TYP.)
- XX YYYY — POINT NUMBER & ELEVATION

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 82	E

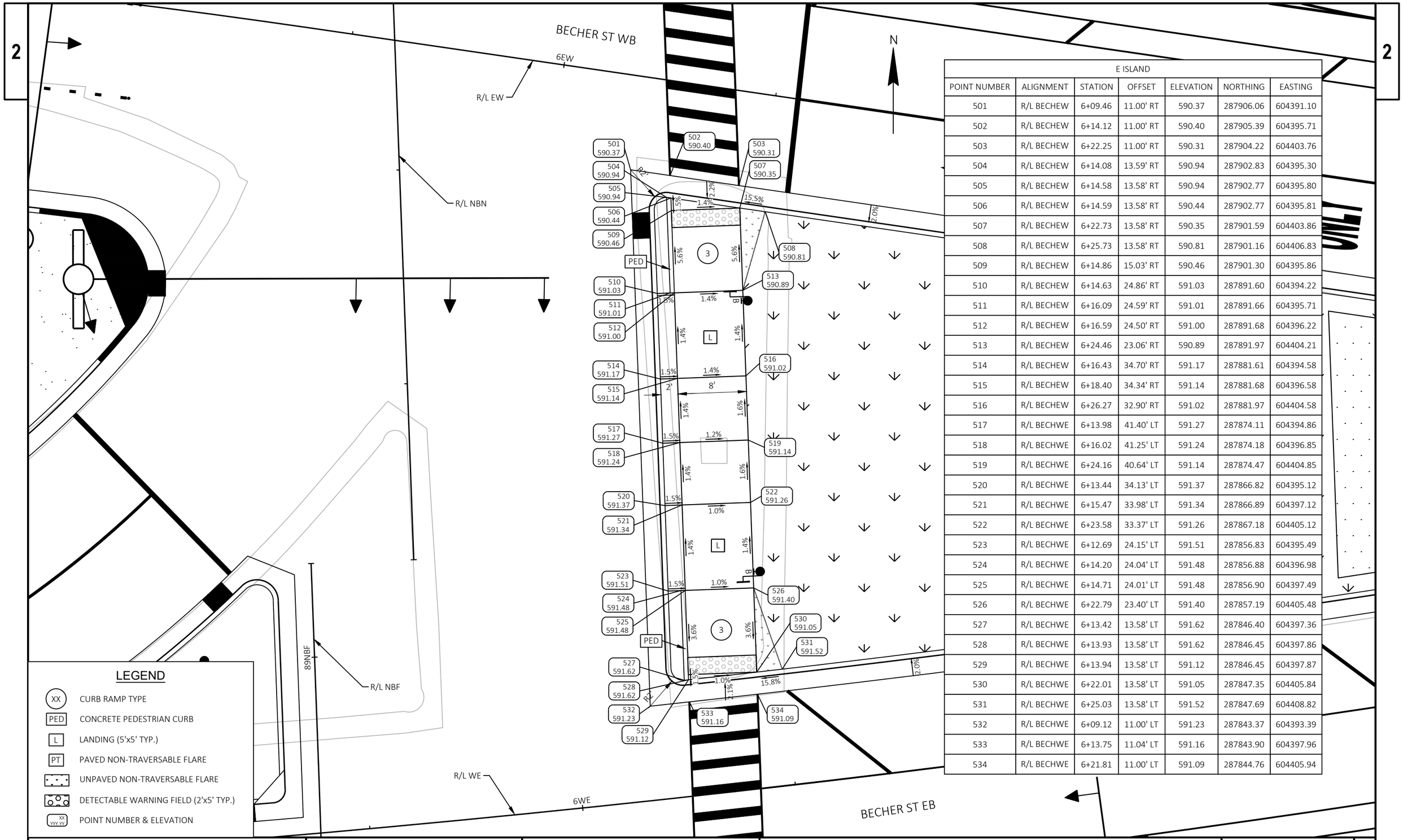
FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021301-CR.DWG
LAYOUT NAME - 04

PLOT DATE : 10/29/2025 11:03 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT

NE INSIDE						
POINT NUMBER	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
401	R/L NBN	89+78.89	10.23' LT	590.56	287934.54	604352.80
402	R/L NBN	89+88.84	0.00'	590.27	287944.86	604362.67
403	R/L NBN	89+98.05	0.00'	590.14	287954.06	604362.33
404	R/L NBN	89+85.80	3.00' LT	590.59	287941.71	604359.78
405	R/L NBN	89+88.77	2.58' LT	590.32	287944.70	604360.09
406	R/L NBN	89+98.52	2.58' LT	590.18	287954.43	604359.73
407	R/L NBN	90+01.52	2.58' LT	590.64	287957.43	604359.62
408	R/L NBN	89+89.60	9.34' LT	590.73	287945.28	604353.30
409	R/L NBN	89+99.07	8.45' LT	590.54	287954.77	604353.85
410	R/L NBN	89+90.39	15.76' LT	591.10	287945.83	604346.86
411	R/L NBN	90+00.37	14.43' LT	590.98	287955.85	604347.82

NE ISLAND						
POINT NUMBER	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
412	R/L NBN	89+79.53	27.00' RT	589.90	287936.54	604389.99
413	R/L NBN	89+78.43	33.04' RT	589.84	287935.66	604396.07
414	R/L NBN	89+77.33	39.04' RT	589.78	287934.78	604402.10
415	R/L NBN	89+72.16	67.24' RT	589.45	287930.65	604430.47
416	R/L NBN	89+78.06	68.32' RT	589.31	287936.58	604431.33
417	R/L NBN	89+92.77	43.38' RT	589.45	287950.37	604405.88
418	R/L NBN	89+95.84	38.18' RT	589.47	287953.25	604400.57
419	R/L NBN	90+00.36	30.53' RT	589.50	287957.48	604392.75
420	R/L NBN	89+98.34	27.00' RT	589.59	287955.34	604389.30
421	R/L NBN	89+89.38	27.00' RT	589.72	287946.38	604389.63
422	R/L NBN	89+83.38	27.00' RT	589.81	287940.38	604389.85
423	R/L NBN	89+81.38	33.58' RT	589.80	287938.63	604396.50
424	R/L NBN	89+80.28	39.58' RT	589.74	287937.75	604402.54
425	R/L NBN	89+81.38	39.58' RT	589.75	287938.85	604402.50
426	R/L NBN	89+83.38	33.58' RT	589.82	287940.62	604396.43
427	R/L NBN	89+83.38	39.58' RT	589.76	287940.84	604402.42
428	R/L NBN	89+90.18	41.87' RT	589.41	287947.73	604404.46
429	R/L NBN	89+93.25	36.66' RT	589.43	287950.61	604399.14
430	R/L NBN	89+88.46	40.85' RT	589.55	287945.97	604403.51
431	R/L NBN	89+91.53	35.65' RT	589.57	287948.85	604398.19
432	R/L NBN	89+86.31	39.58' RT	589.73	287943.77	604402.32
433	R/L NBN	89+89.38	34.38' RT	589.75	287946.65	604397.00
434	R/L NBN	89+89.38	30.00' RT	589.68	287946.49	604392.63
435	R/L NBN	89+83.38	30.00' RT	589.77	287940.49	604392.85
436	R/L NBN	89+89.38	32.00' RT	589.71	287946.56	604394.63
437	R/L NBN	89+83.38	32.00' RT	589.80	287940.57	604394.84

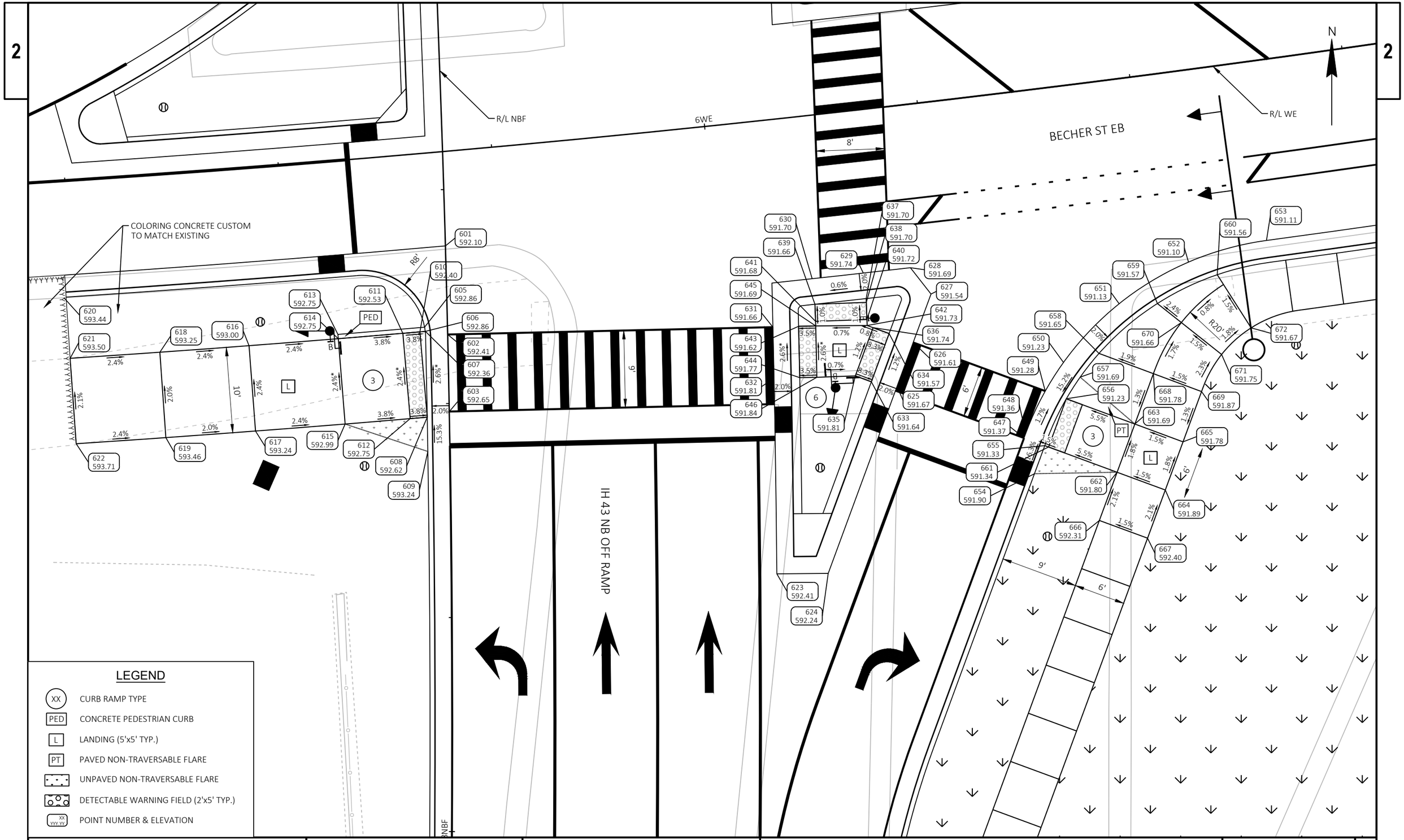
NE OUTSIDE						
POINT NUMBER	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
438	R/L NBN	90+38.90	27.84' RT	588.98	287995.90	604388.66
439	R/L NBN	90+25.74	33.24' RT	589.08	287982.94	604394.54
440	R/L NBN	90+14.40	41.84' RT	589.13	287971.93	604403.54
441	R/L NBN	90+10.10	46.60' RT	589.14	287967.81	604408.45
442	R/L NBN	90+06.60	51.50' RT	589.13	287964.48	604413.48
443	R/L NBN	90+05.64	53.06' RT	589.13	287963.59	604415.07
444	R/L NBN	90+14.32	45.64' RT	589.61	287971.99	604407.35
445	R/L NBN	90+12.35	47.93' RT	589.08	287970.10	604409.70
446	R/L NBN	90+08.82	52.81' RT	589.10	287966.75	604414.71
447	R/L NBN	90+09.30	53.09' RT	589.11	287967.24	604414.98
448	R/L NBN	90+07.31	55.31' RT	589.65	287965.34	604417.26
449	R/L NBN	90+23.31	47.43' RT	589.89	287981.04	604408.80
450	R/L NBN	90+19.60	52.20' RT	589.76	287977.50	604413.71
451	R/L NBN	90+16.55	57.37' RT	589.78	287974.64	604418.98
452	R/L NBN	90+13.50	62.54' RT	589.94	287971.78	604424.26
453	R/L NBN	90+27.54	51.69' RT	589.98	287985.41	604412.91
454	R/L NBN	90+24.76	55.25' RT	589.85	287982.77	604416.57
455	R/L NBN	90+21.72	60.42' RT	589.87	287979.92	604421.84
456	R/L NBN	90+18.67	65.59' RT	590.03	287977.06	604427.12



E ISLAND						
POINT NUMBER	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
501	R/L BECHEW	6+09.46	11.00' RT	590.37	287906.06	604391.10
502	R/L BECHEW	6+14.12	11.00' RT	590.40	287905.39	604395.71
503	R/L BECHEW	6+22.25	11.00' RT	590.31	287904.22	604403.76
504	R/L BECHEW	6+14.08	13.59' RT	590.94	287902.83	604395.30
505	R/L BECHEW	6+14.58	13.58' RT	590.94	287902.77	604395.80
506	R/L BECHEW	6+14.59	13.58' RT	590.44	287902.77	604395.81
507	R/L BECHEW	6+22.73	13.58' RT	590.35	287901.59	604403.86
508	R/L BECHEW	6+25.73	13.58' RT	590.81	287901.16	604406.83
509	R/L BECHEW	6+14.86	15.03' RT	590.46	287901.30	604395.86
510	R/L BECHEW	6+14.63	24.86' RT	591.03	287891.60	604394.22
511	R/L BECHEW	6+16.09	24.59' RT	591.01	287891.66	604395.71
512	R/L BECHEW	6+16.59	24.50' RT	591.00	287891.68	604396.22
513	R/L BECHEW	6+24.46	23.06' RT	590.89	287891.97	604404.21
514	R/L BECHEW	6+16.43	34.70' RT	591.17	287881.61	604394.58
515	R/L BECHEW	6+18.40	34.34' RT	591.14	287881.68	604396.58
516	R/L BECHEW	6+26.27	32.90' RT	591.02	287881.97	604404.58
517	R/L BECHWE	6+13.98	41.40' LT	591.27	287874.11	604394.86
518	R/L BECHWE	6+16.02	41.25' LT	591.24	287874.18	604396.85
519	R/L BECHWE	6+24.16	40.64' LT	591.14	287874.47	604404.85
520	R/L BECHWE	6+13.44	34.13' LT	591.37	287866.82	604395.12
521	R/L BECHWE	6+15.47	33.98' LT	591.34	287866.89	604397.12
522	R/L BECHWE	6+23.58	33.37' LT	591.26	287867.18	604405.12
523	R/L BECHWE	6+12.69	24.15' LT	591.51	287856.83	604395.49
524	R/L BECHWE	6+14.20	24.04' LT	591.48	287856.88	604396.98
525	R/L BECHWE	6+14.71	24.01' LT	591.48	287856.90	604397.49
526	R/L BECHWE	6+22.79	23.40' LT	591.40	287857.19	604405.48
527	R/L BECHWE	6+13.42	13.58' LT	591.62	287846.40	604397.36
528	R/L BECHWE	6+13.93	13.58' LT	591.62	287846.45	604397.86
529	R/L BECHWE	6+13.94	13.58' LT	591.12	287846.45	604397.87
530	R/L BECHWE	6+22.01	13.58' LT	591.05	287847.35	604405.84
531	R/L BECHWE	6+25.03	13.58' LT	591.52	287847.69	604408.82
532	R/L BECHWE	6+09.12	11.00' LT	591.23	287843.37	604393.39
533	R/L BECHWE	6+13.75	11.04' LT	591.16	287843.90	604397.96
534	R/L BECHWE	6+21.81	11.00' LT	591.09	287844.76	604405.94

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 84	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021301-CR.DWG
LAYOUT NAME - 05
PLOT DATE : 10/29/2025 11:03 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 85	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021301-CR.DWG
LAYOUT NAME - 06

PLOT DATE : 10/29/2025 11:03 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT

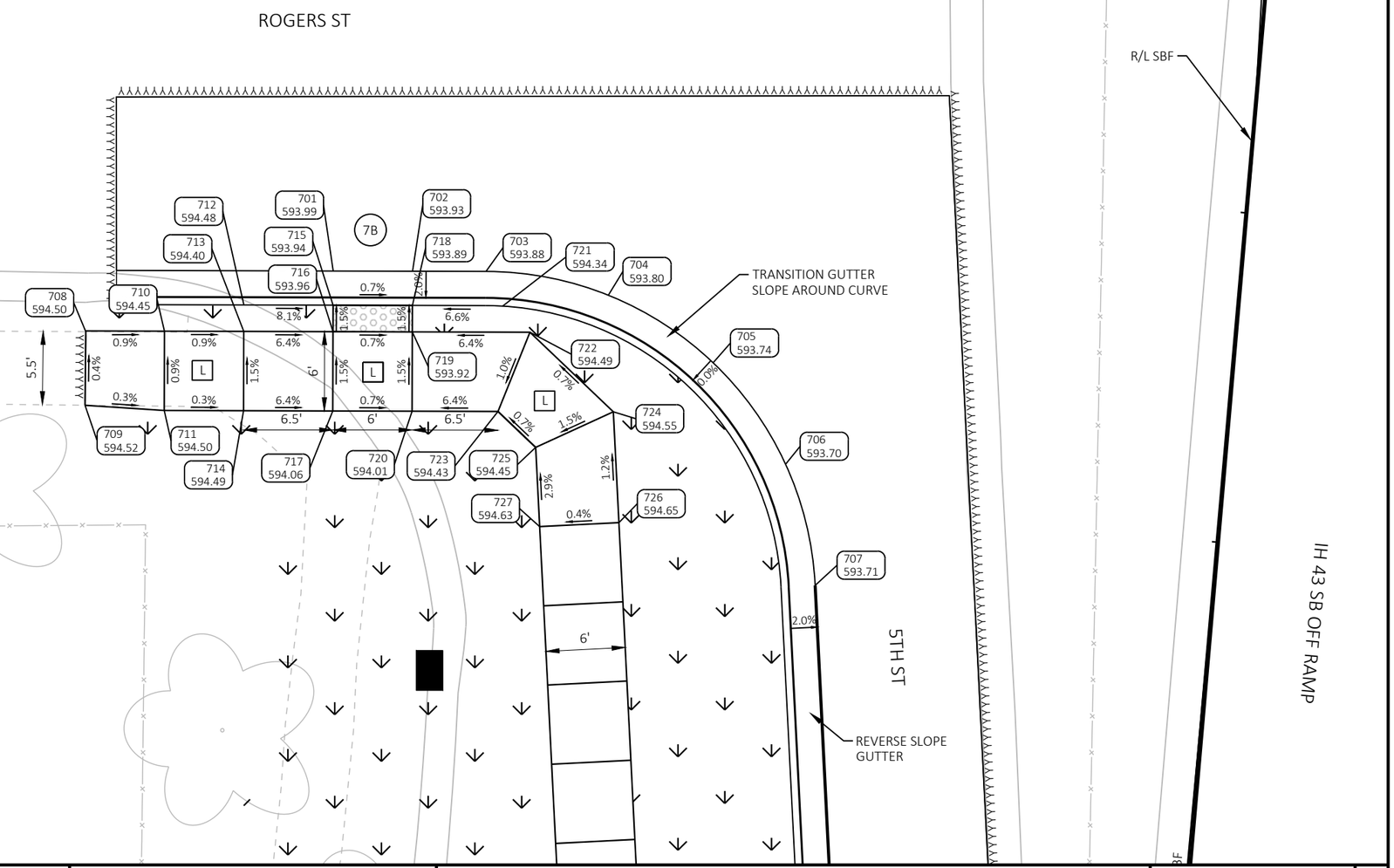
WISDOT/CADDS SHEET 42

SE INSIDE						
POINT NUMBER	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
601	R/L NBF	88+68.42	0.00'	592.10	287817.53	604355.23
602	R/L NBF	88+58.07	0.00'	592.41	287807.18	604355.49
603	R/L NBF	88+49.07	0.01' RT	592.65	287798.19	604355.69
605	R/L NBF	88+58.98	2.68' LT	592.86	287808.03	604352.79
606	R/L NBF	88+58.50	2.58' LT	592.86	287807.55	604352.90
607	R/L NBF	88+58.49	2.58' LT	592.36	287807.54	604352.90
608	R/L NBF	88+48.45	2.58' LT	592.62	287797.52	604353.11
609	R/L NBF	88+44.44	2.58' LT	593.24	287793.52	604353.17
610	R/L NBF	88+58.44	3.23' LT	592.40	287807.48	604352.25
611	R/L NBF	88+58.32	5.23' LT	592.53	287807.31	604350.26
612	R/L NBF	88+48.32	4.58' LT	592.75	287797.36	604351.11
613	R/L NBF	88+58.37	12.82' LT	592.75	287807.19	604342.68
614	R/L NBF	88+57.87	12.79' LT	592.75	287806.69	604342.72
615	R/L NBF	88+47.82	12.19' LT	592.99	287796.72	604343.52
616	R/L NBF	88+57.28	23.22' LT	593.00	287805.87	604332.29
617	R/L NBF	88+47.18	22.67' LT	593.24	287795.90	604333.05
618	R/L NBF	88+56.74	33.66' LT	593.25	287805.11	604321.87
619	R/L NBF	88+46.58	33.15' LT	593.46	287795.14	604322.58
620	R/L NBF	88+63.48	44.70' LT	593.44	287811.46	604310.68
621	R/L NBF	88+56.25	44.15' LT	593.50	287804.40	604311.39
622	R/L NBF	88+46.04	43.64' LT	593.71	287794.42	604312.10

SE ISLAND						
POINT NUMBER	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
623	R/L NBF	88+29.77	38.00' RT	592.41	287779.22	604393.94
624	R/L NBF	88+29.77	44.00' RT	592.24	287779.28	604399.94
625	R/L NBF	88+50.98	52.34' RT	591.67	287801.10	604407.97
626	R/L NBF	88+55.96	54.34' RT	591.61	287806.25	604409.87
627	R/L NBF	88+61.42	56.55' RT	591.54	287811.90	604411.95
628	R/L NBF	88+64.47	54.21' RT	591.69	287814.98	604409.53
629	R/L NBF	88+64.00	48.70' RT	591.74	287814.36	604404.04
630	R/L NBF	88+63.50	42.72' RT	591.70	287813.70	604398.07
631	R/L NBF	88+58.07	38.00' RT	591.66	287808.04	604393.48
632	R/L NBF	88+52.21	38.00' RT	591.81	287802.08	604393.61
633	R/L NBF	88+51.58	49.36' RT	591.64	287801.66	604404.98
634	R/L NBF	88+57.03	51.55' RT	591.57	287807.29	604407.05
635	R/L NBF	88+52.29	47.50' RT	591.81	287802.35	604403.10
636	R/L NBF	88+57.75	49.69' RT	591.74	287807.98	604405.18
637	R/L NBF	88+61.08	48.96' RT	591.70	287811.37	604404.37
638	R/L NBF	88+60.65	48.97' RT	591.70	287810.93	604404.39
639	R/L NBF	88+60.57	42.97' RT	591.66	287810.71	604398.39
640	R/L NBF	88+58.70	48.99' RT	591.72	287808.94	604404.46
641	R/L NBF	88+58.62	42.99' RT	591.68	287808.72	604398.46
642	R/L NBF	88+58.01	49.00' RT	591.73	287808.24	604404.48
643	R/L NBF	88+58.10	41.00' RT	591.62	287808.14	604396.48
644	R/L NBF	88+52.21	41.00' RT	591.77	287802.14	604396.61
645	R/L NBF	88+58.10	43.00' RT	591.69	287808.19	604398.48
646	R/L NBF	88+52.22	43.00' RT	591.84	287802.19	604398.61

SE OUTSIDE						
POINT NUMBER	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
647	R/L NBF	88+44.89	67.07' RT	591.37	287795.10	604422.81
648	R/L NBF	88+45.35	67.25' RT	591.36	287795.57	604422.99
649	R/L NBF	88+50.15	69.64' RT	591.28	287800.58	604425.29
650	R/L NBF	88+53.34	71.84' RT	591.23	287803.92	604427.42
651	R/L NBF	88+59.82	78.49' RT	591.13	287810.78	604433.92
652	R/L NBF	88+64.30	86.71' RT	591.10	287815.64	604442.02
653	R/L NBF	88+66.49	95.88' RT	591.11	287818.17	604451.13
654	R/L NBF	88+40.83	68.22' RT	591.90	287790.92	604424.03
655	R/L NBF	88+43.99	69.48' RT	591.33	287794.20	604425.24
656	R/L NBF	88+49.23	72.08' RT	591.23	287799.67	604427.75
657	R/L NBF	88+51.64	73.75' RT	591.69	287802.20	604429.37
658	R/L NBF	88+54.27	76.00' RT	591.65	287804.97	604431.56
659	R/L NBF	88+59.74	82.95' RT	591.57	287810.80	604438.38
660	R/L NBF	88+62.81	90.03' RT	591.56	287814.17	604445.38
661	R/L NBF	88+43.83	69.92' RT	591.34	287794.04	604425.68
662	R/L NBF	88+40.87	77.88' RT	591.80	287791.09	604433.68
663	R/L NBF	88+46.26	80.04' RT	591.69	287796.72	604435.75
664	R/L NBF	88+38.80	83.48' RT	591.89	287789.02	604439.31
665	R/L NBF	88+44.16	85.63' RT	591.78	287794.64	604441.38
666	R/L NBF	88+35.46	75.73' RT	592.31	287785.46	604431.61
667	R/L NBF	88+33.41	81.34' RT	592.40	287783.39	604437.24
668	R/L NBF	88+51.88	82.31' RT	591.78	287802.61	604437.92
669	R/L NBF	88+49.77	87.89' RT	591.87	287800.52	604443.54
670	R/L NBF	88+57.55	85.70' RT	591.66	287808.58	604441.18
671	R/L NBF	88+53.87	90.32' RT	591.75	287804.85	604445.89
672	R/L NBF	88+56.78	93.83' RT	591.67	287807.96	604449.33

5TH ST						
POINT NUMBER	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
701	R/L SBF	95+39.60	68.35' LT	593.99	288506.44	603986.63
702	R/L SBF	95+40.11	62.38' LT	593.93	288506.42	603992.63
703	R/L SBF	95+40.58	56.84' LT	593.88	288506.40	603998.18
704	R/L SBF	95+39.59	47.46' LT	593.80	288504.60	604007.44
705	R/L SBF	95+35.19	39.12' LT	593.74	288499.50	604015.37
706	R/L SBF	95+28.02	33.00' LT	593.70	288491.82	604020.84
707	R/L SBF	95+19.09	29.97' LT	593.71	288482.66	604023.08
708	R/L SBF	95+33.41	86.60' LT	594.50	288501.85	603967.91
709	R/L SBF	95+27.85	86.17' LT	594.52	288496.29	603967.85
710	R/L SBF	95+33.96	80.67' LT	594.45	288501.89	603973.86
711	R/L SBF	95+27.98	80.17' LT	594.50	288495.89	603973.85
712	R/L SBF	95+36.46	74.86' LT	594.48	288503.87	603979.87
713	R/L SBF	95+34.47	74.69' LT	594.40	288501.87	603979.86
714	R/L SBF	95+28.49	74.19' LT	594.49	288495.87	603979.85
715	R/L SBF	95+37.03	68.14' LT	593.94	288503.85	603986.62
716	R/L SBF	95+35.04	67.97' LT	593.96	288501.85	603986.61
717	R/L SBF	95+29.06	67.46' LT	594.06	288495.85	603986.60
718	R/L SBF	95+37.53	62.16' LT	593.89	288503.84	603992.62
719	R/L SBF	95+35.54	61.99' LT	593.92	288501.84	603992.61
720	R/L SBF	95+29.56	61.48' LT	594.01	288495.84	603992.60
721	R/L SBF	95+38.07	55.36' LT	594.34	288503.78	603999.44
722	R/L SBF	95+36.29	53.13' LT	594.49	288501.81	604001.51
723	R/L SBF	95+30.11	55.01' LT	594.43	288495.82	603999.10
724	R/L SBF	95+30.85	46.32' LT	594.55	288495.79	604007.82
725	R/L SBF	95+27.65	51.93' LT	594.45	288493.10	604001.95
726	R/L SBF	95+22.53	45.17' LT	594.65	288487.41	604008.24
727	R/L SBF	95+21.71	51.11' LT	594.63	288487.11	604002.25



LEGEND

- XX — CURB RAMP TYPE
- PED — CONCRETE PEDESTRIAN CURB
- L — LANDING (5'x5' TYP.)
- PT — PAVED NON-TRAVERSABLE FLARE
- UNPAVED NON-TRAVERSABLE FLARE
- DETECTABLE WARNING FIELD (2'x5' TYP.)
- XX YYY.YY — POINT NUMBER & ELEVATION

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 87	E

2

N

R/L NBF

83NBF

IH 43 NB OFF RAMP

84NBF

605.83

604.59

603.02
85NBF

601.46

17'

605.47

605.30

604.35

12'

602.78

601.22

604.14

12'

602.54

602.05

600.98

R/L FS

601.96

3'

68FS

605.76

605.20
769FS

604.51

603.40
770FS

600.49
771FS

12'

4TH ST

605.52

604.90

12'

604.21

603.10

601.66

600.24

9'

605.28

604.63

12'

603.91

602.80

601.36

599.99

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT GRADES	SHEET 88	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021401-PG-RAMPS.DWG
LAYOUT NAME - 01

PLOT DATE : 10/27/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

2

N

BECHER ST EB

R/L NBF

599.89
86NBF

598.33

596.78
87NBF

595.33

593.97
88NBF

592.63

592.10

599.65

598.09

596.54

595.09

593.73

592.39

600.49
771FS

R/L FS

599.41

597.85

596.30

594.85

593.49

592.15

IH 43 NB OFF RAMP

12'

12'

12'

12'

600.24

599.17

597.61

596.06

594.61

593.25

2'

591.91

592.41

591.59

6'

592.24

599.99

598.93

597.37

595.82

594.37

593.58

592.41

16'

591.69

591.54

4'

591.36

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT GRADES	SHEET 89	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021401-PG-RAMPS.DWG
LAYOUT NAME - 02

PLOT DATE : 10/27/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

2

N

BECHER ST WB

R/L NBN

590.41
590.11
90NBN
589.40
588.86
91NBN
588.66
588.80
92NBN
589.05

12'

589.87
589.16
588.62
588.42
588.56
588.81

IH 43 NB ON RAMP

12'

3'
589.63
589.59
4'
589.50
589.90
2'
588.92
588.83
588.65
588.38
588.30
588.18
588.05
588.32
588.14
588.57
588.34

16'
589.13
589.45
6'
589.31
588.26

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT GRADES	SHEET 90	E

2

2

N

R/L NBN

95NBN

94NBN

589.52

589.53

589.30
93NBN

589.05

12'

589.29

589.28

589.06

588.81

12'

589.10

589.05

2.5'

589.04

588.82

588.57

IH 43 NB ON RAMP

4TH ST

17'

588.34

588.54

588.92

588.88

588.05

587.99

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT GRADES	SHEET 91	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021401-PG-RAMPS.DWG
LAYOUT NAME - 04

PLOT DATE : 10/27/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

N

BECHER ST EB

610.78
610.61
609.60
609.40
607.59
606.00
605.13
604.92
604.49
604.65
604.18
6'
604.32
604.58
16'
603.92
4'
603.83
603.65
603.59
3'

5TH ST
17'
2.5'
608.81
608.75
608.63
607.36
605.90
2'
12'
603.35
604.25
605.66
607.11
12'
603.12
603.10
88SBN
604.01
605.42
608.56
87SBN
606.87
608.32
86SBN
IH 43 SB ON RAMP
R/L SBN

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT GRADES	SHEET 92	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021401-PG-RAMPS.DWG
LAYOUT NAME - 05
PLOT DATE : 10/27/2025 11:25 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

2

N

602.25

16'

602.71

4'

602.69

601.59

6'

602.33

601.62

601.57

2'

600.85

599.98

598.79

597.52

596.26

594.99

12'

600.30

599.03

597.76

596.50

595.23

12'

601.33

600.06

598.79

597.52

596.26

594.99

12'

2'

601.35

90SBF

601.09

601.92

599.82

91SBF

598.55

597.28

92SBF

596.02

594.75

R/L SBF

IH 43 SB OFF RAMP

BECHER ST WB

3EW

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT GRADES	SHEET 93	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021401-PG-RAMPS.DWG
LAYOUT NAME - 06

PLOT DATE : 10/27/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

N

ROGERS ST

594.14

594.53

13'

593.88

594.21

593.74

5TH ST

12'

593.71

593.40

593.39

593.93

593.79

593.26

593.20

593.80

594.99

12'

594.04

593.44

593.51

95.23

593.80

593.20

593.27

12'

93SBF

593.56

592.96

94SBF

593.03

R/L SBF

593.89

593.84

593.78

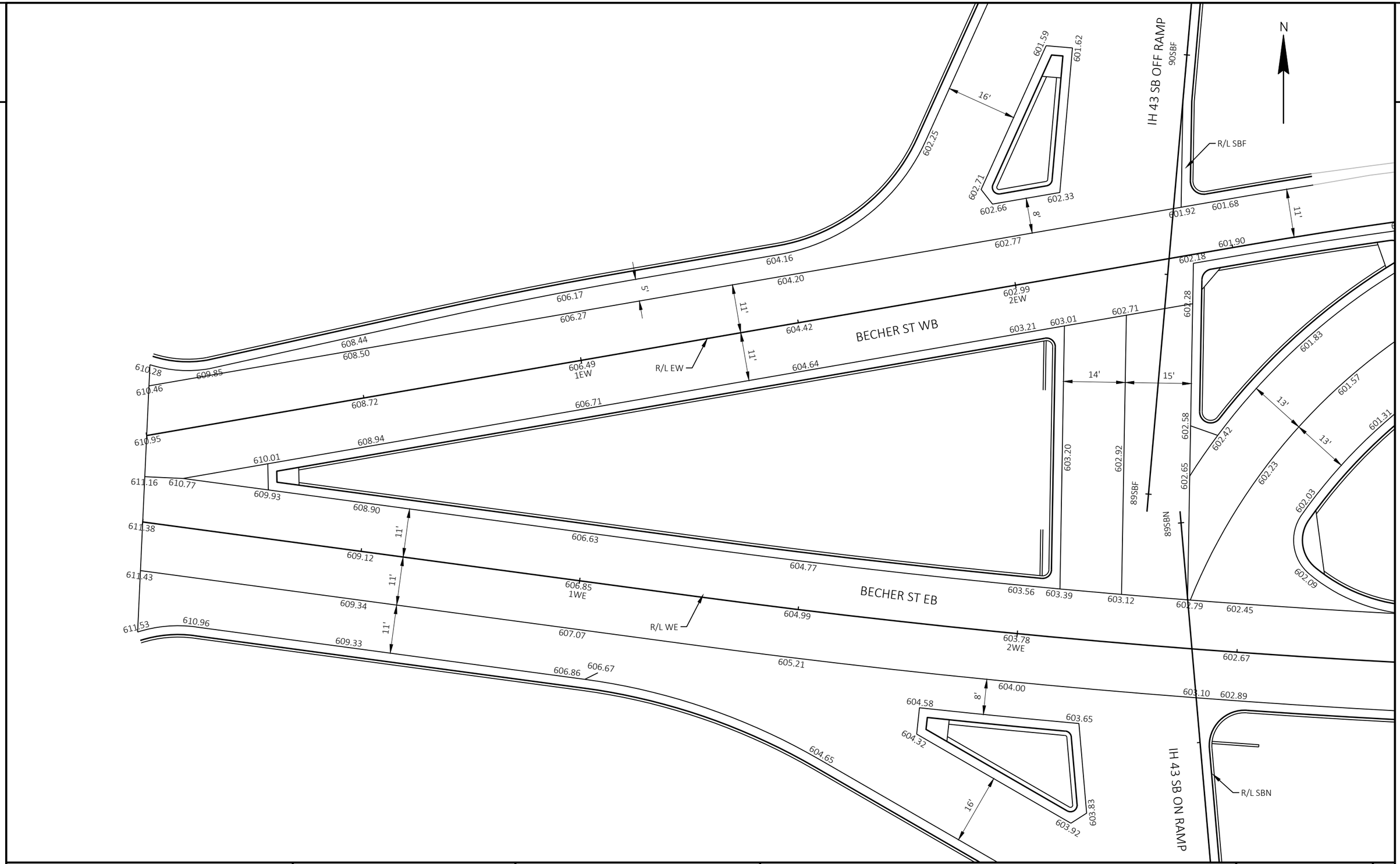
593.61

7'

17'

IH 43 SB OFF RAMP

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT GRADES	SHEET 94	E



PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT GRADES	SHEET 95	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021402-PG-BECHER.DWG
LAYOUT NAME - 08

PLOT DATE : 10/27/2025 11:27 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

N

BECHER ST WB

BECHER ST EB

IH 43

R/L EW

R/L WE

775

774

600.11 598.18 596.25 594.32 592.42 590.96

600.33 599.46 598.40 596.47 4EW 594.54 592.64 5EW 591.18

600.75 3EW

600.78 599.59 598.62 596.69 594.76 592.86 591.40

600.71 599.70 598.87 596.93 595.00 593.10 591.72

601.83 600.63

601.57 601.31

602.23 602.03 602.09

601.28 600.92 600.59 598.92 598.56 597.02 595.20 593.66 592.73

599.07 597.18 595.29 593.72 592.79

601.14 3WE 599.25 597.31 4WE 595.36 593.74 593.48 5WE 592.68 592.86 592.17

601.36 599.47 597.53 595.58 593.70 592.39

591.29 591.45 591.51 591.58

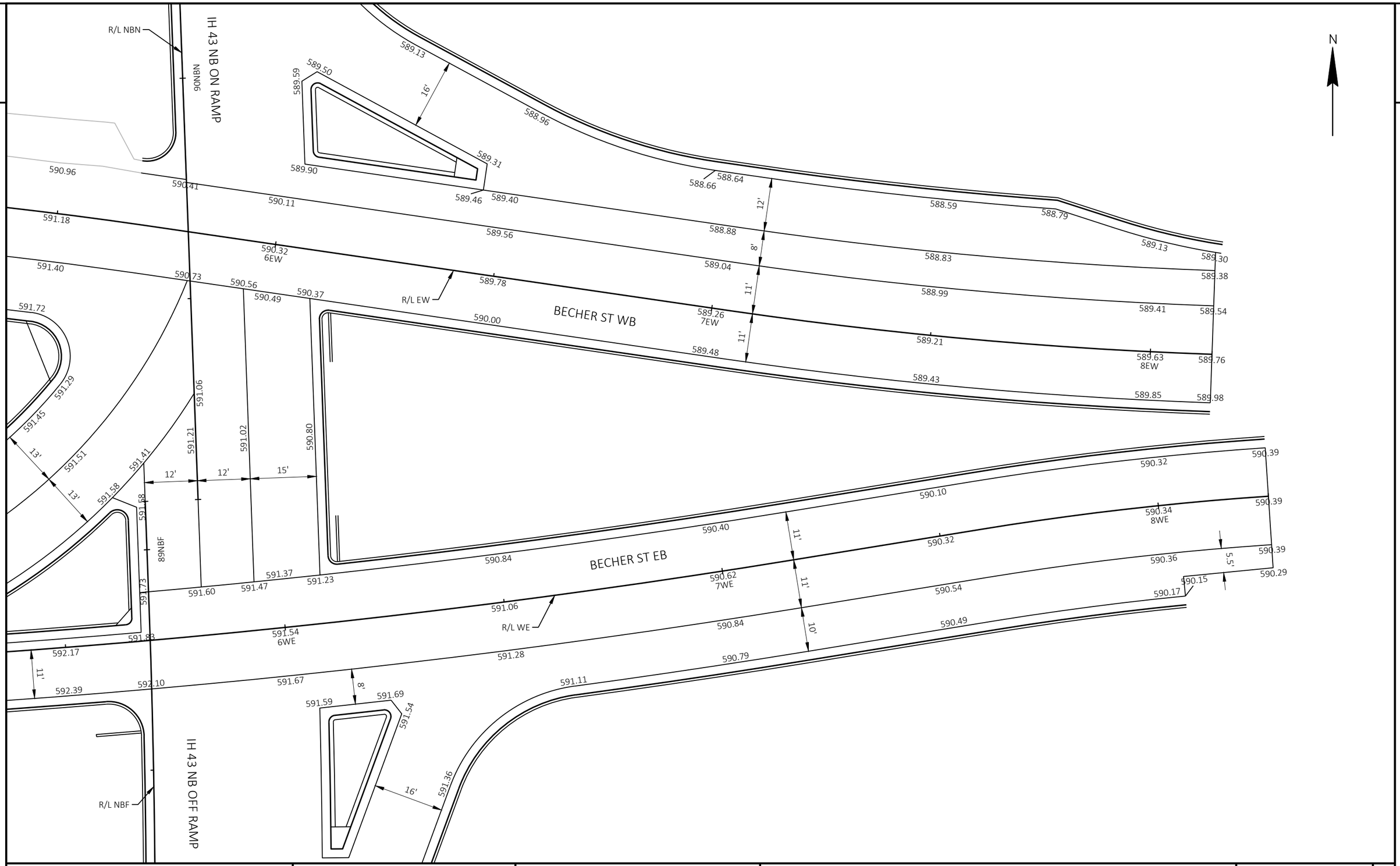
11' 11' 11' 12' 13' 11' 11' 11'

13' 13' 13' 13'

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT GRADES	SHEET 96	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021402-PG-BECHER.DWG
LAYOUT NAME - 09

PLOT DATE : 10/27/2025 11:27 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT GRADES	SHEET 97	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021402-PG-BECHER.DWG
LAYOUT NAME - 10

PLOT DATE : 10/27/2025 11:28 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

LEGEND

1. LEVEL 3
2. CITY OF MILWAUKEE
3. MIDWEST FIBER
4. MMSD
5. WE ENERGIES
6. WISDOT
7. VERIZON
8. TDS
9. AT&T

XX ADJUSTING CUC MANHOLE COVER

XX ABANDONING CUC MANHOLE

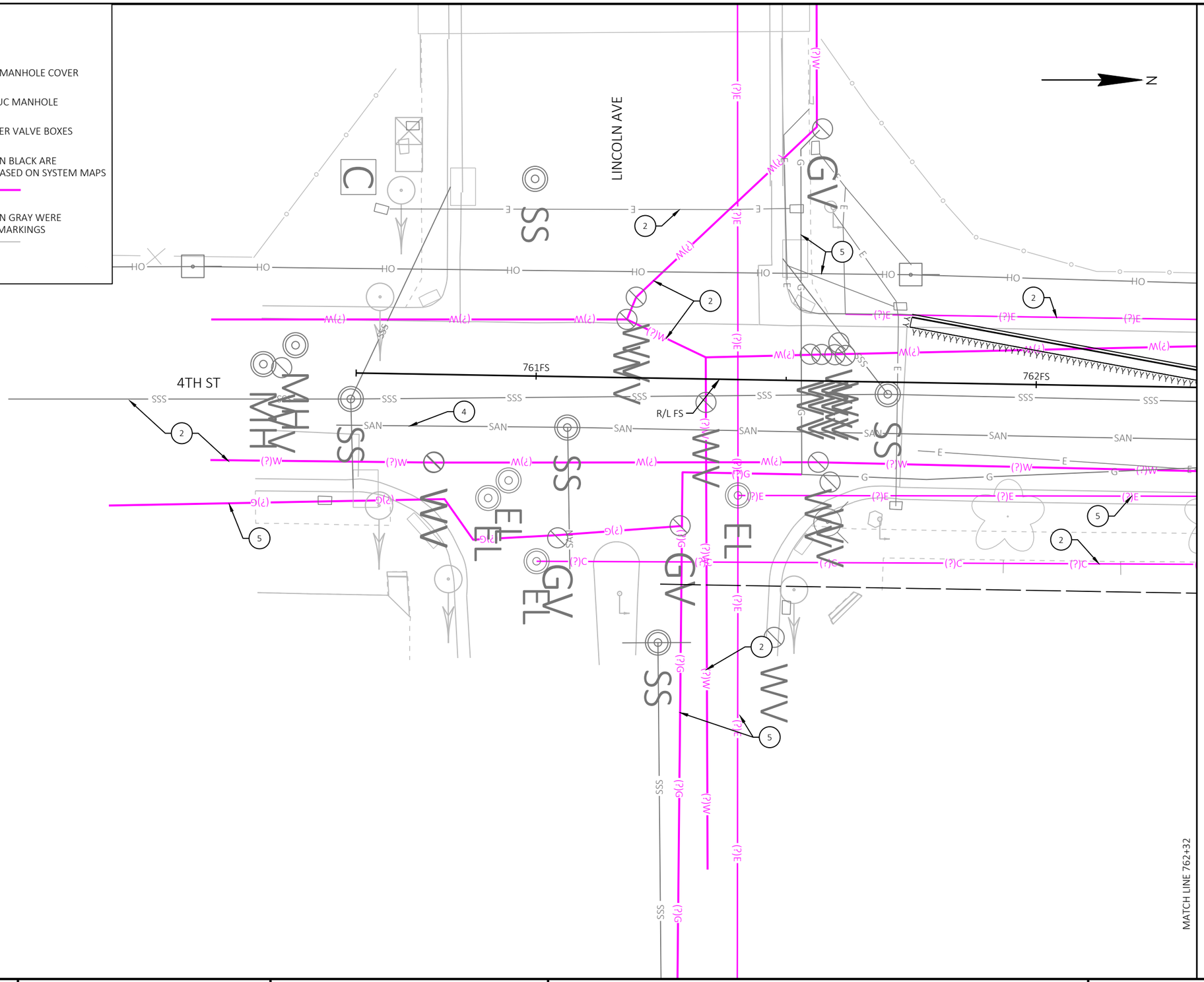
XX ADJUSTING WATER VALVE BOXES

EXISTING UTILITIES SHOWN IN BLACK ARE APPROXIMATE LOCATIONS BASED ON SYSTEM MAPS

(?)SAN

EXISTING UTILITIES SHOWN IN GRAY WERE SURVEYED BASED ON FIELD MARKINGS

SAN



2

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	UTILITY DETAILS - 4TH ST	SHEET 98	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021501-UT-RAMPS.DWG
LAYOUT NAME - 01

PLOT DATE : 10/29/2025 10:36 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

MATCH LINE 762+32

N

763FS

764FS

765FS

4TH ST

R/L FS

MATCH LINE 765+22

2

LEGEND

1. LEVEL 3
2. CITY OF MILWAUKEE
3. MIDWEST FIBER
4. MMSD
5. WE ENERGIES
6. WISDOT
7. VERIZON
8. TDS
9. AT&T

XX ADJUSTING CUC MANHOLE COVER

XX ABANDONING CUC MANHOLE

XX ADJUSTING WATER VALVE BOXES

EXISTING UTILITIES SHOWN IN BLACK ARE APPROXIMATE LOCATIONS BASED ON SYSTEM MAPS

(?)SAN

EXISTING UTILITIES SHOWN IN GRAY WERE SURVEYED BASED ON FIELD MARKINGS

SAN

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	UTILITY DETAILS - 4TH ST	SHEET 99	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021501-UT-RAMPS.DWG
LAYOUT NAME - 02

PLOT DATE : 10/29/2025 10:36 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

2

MATCH LINE 765+22

80NBF

81NBF

82NBF

IH 43 NB OFF RAMP

R/L NBF

N

FO

(?)E

(?)W

(?)G

(?)C

SSS

SAN

768FS

767FS

R/L FS

4TH ST

SS

EL

WLV

2

4

5

6

9

MATCH LINE 768+12

LEGEND

1. CENTURYLINK
2. CITY OF MILWAUKEE
3. MIDWEST FIBER
4. MMSD
5. WE ENERGIES
6. WISDOT
7. VERIZON
8. TDS
9. AT&T

XX ADJUSTING CUC MANHOLE COVER

XX ABANDONING CUC MANHOLE

XX ADJUSTING WATER VALVE BOXES

EXISTING UTILITIES SHOWN IN MAGENTA ARE APPROXIMATE LOCATIONS BASED ON SYSTEM MAPS

(?)SAN

EXISTING UTILITIES SHOWN IN GRAY WERE SURVEYED BASED ON FIELD MARKINGS

SAN

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	UTILITY DETAILS - 4TH ST	SHEET 100	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021501-UT-RAMPS.DWG
LAYOUT NAME - 03

PLOT DATE : 10/29/2025 10:36 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

2

MATCH LINE 768+12

83NBF

84NBF

85NBF

IH 43 NB OFF RAMP

R/L NBF

R/L FS

4TH ST

769FS

770FS

771FS

STA 84NBF+32.37
61.70' RT

STA 84NBF+58.89
70.52' RT

STA 84NBF+35.46
78.07' RT

STA 84NBF+64.77
77.20' RT

MATCH LINE 771+03

N

LEGEND

1. CENTURYLINK
2. CITY OF MILWAUKEE
3. MIDWEST FIBER
4. MMSD
5. WE ENERGIES
6. WISDOT
7. VERIZON
8. TDS
9. AT&T

XX ADJUSTING CUC MANHOLE COVER

XX ABANDONING CUC MANHOLE

XX ADJUSTING WATER VALVE BOXES

EXISTING UTILITIES SHOWN IN BLACK ARE APPROXIMATE LOCATIONS BASED ON SYSTEM MAPS

(?)SAN

EXISTING UTILITIES SHOWN IN GRAY WERE SURVEYED BASED ON FIELD MARKINGS

SAN

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	UTILITY DETAILS - IH 43 RAMPS	SHEET 101	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021501-UT-RAMPS.DWG
LAYOUT NAME - 04

PLOT DATE : 10/29/2025 10:36 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

LEGEND

1. CENTURYLINK
2. CITY OF MILWAUKEE
3. MIDWEST FIBER
4. MMSD
5. WE ENERGIES
6. WISDOT
7. VERIZON
8. TDS
9. AT&T

XX ADJUSTING CUC MANHOLE COVER

XX ABANDONING CUC MANHOLE

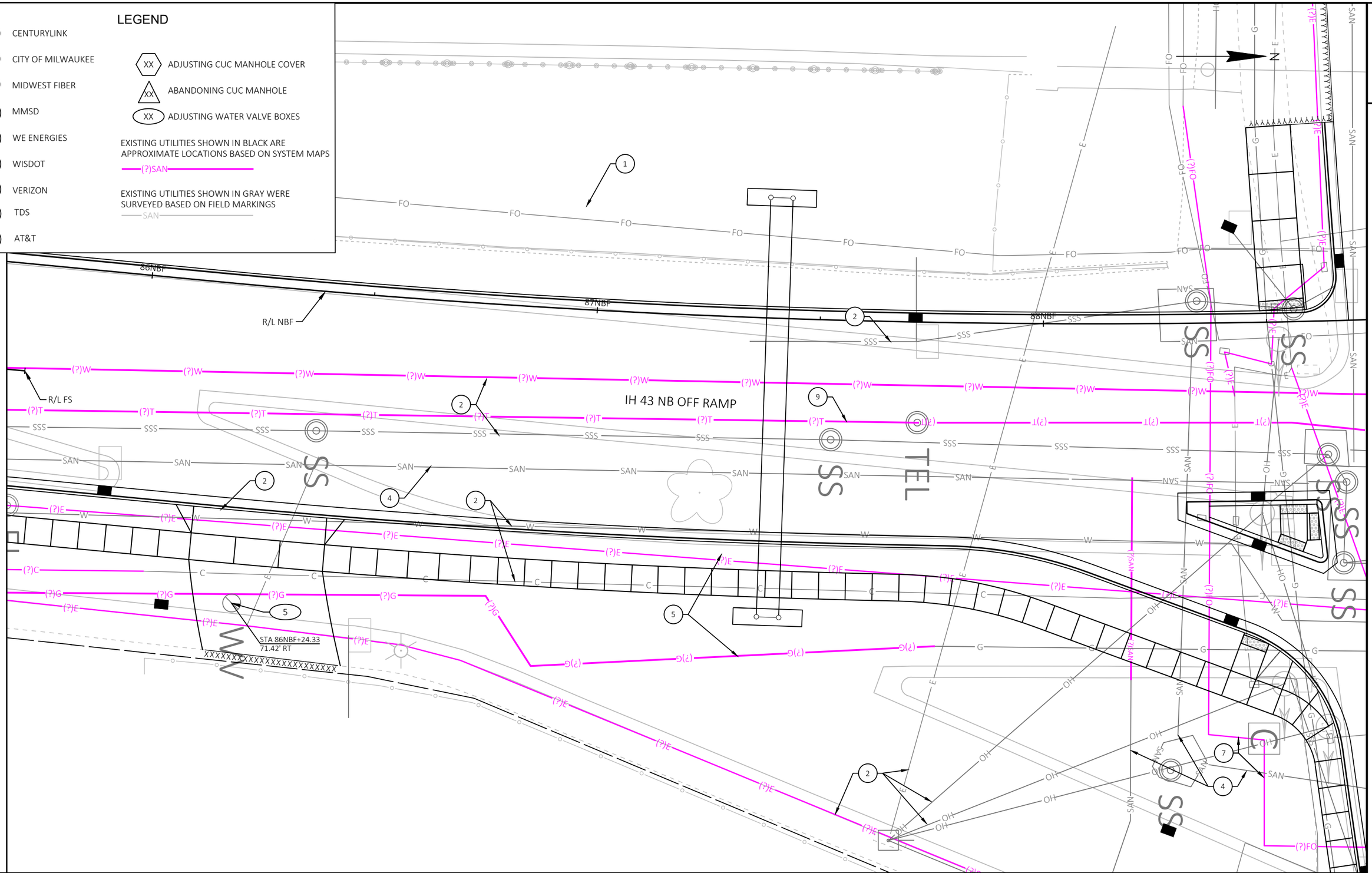
XX ADJUSTING WATER VALVE BOXES

EXISTING UTILITIES SHOWN IN BLACK ARE APPROXIMATE LOCATIONS BASED ON SYSTEM MAPS

(?)SAN

EXISTING UTILITIES SHOWN IN GRAY WERE SURVEYED BASED ON FIELD MARKINGS

SAN



PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	UTILITY DETAILS - IH 43 RAMPS	SHEET 102	E

FILE NAME : \\WKERTOVFILPIO1\N3PUBLIC\PDS\C3D\12280907\SHEETS\021501-UT-RAMPS.DWG
LAYOUT NAME - 05

PLOT DATE : 10/29/2025 10:36 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

LEGEND

1. CENTURYLINK
2. CITY OF MILWAUKEE
3. MIDWEST FIBER
4. MMSD
5. WE ENERGIES
6. WISDOT
7. VERIZON
8. TDS
9. AT&T

XX ADJUSTING CUC MANHOLE COVER

XX ABANDONING CUC MANHOLE

XX ADJUSTING WATER VALVE BOXES

EXISTING UTILITIES SHOWN IN BLACK ARE APPROXIMATE LOCATIONS BASED ON SYSTEM MAPS

(?)SAN

EXISTING UTILITIES SHOWN IN GRAY WERE SURVEYED BASED ON FIELD MARKINGS

SAN

N

IH 43 NB ON RAMP

R/L NBN

90NBN

91NBN

92NBN

BECHER ST WB

WATER MAIN PROTECTION

FIRE HYDRANT RELOCATION BY OTHERS

MATCH LINE 92NBN+62

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	UTILITY DETAILS - IH 43 RAMPS	SHEET 103	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021501-UT-RAMPS.DWG
LAYOUT NAME - 06

PLOT DATE : 10/29/2025 10:36 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

LEGEND

1. CENTURYLINK
2. CITY OF MILWAUKEE
3. MIDWEST FIBER
4. MMSD
5. WE ENERGIES
6. WISDOT
7. VERIZON
8. TDS
9. AT&T

XX ADJUSTING CUC MANHOLE COVER

XX ABANDONING CUC MANHOLE

XX ADJUSTING WATER VALVE BOXES

EXISTING UTILITIES SHOWN IN BLACK ARE APPROXIMATE LOCATIONS BASED ON SYSTEM MAPS

(?)SAN

EXISTING UTILITIES SHOWN IN GRAY WERE SURVEYED BASED ON FIELD MARKINGS

SAN

N

93NBN

94NBN

95NBN

R/L NBN

IH 43 NB ON RAMP

4TH ST

MATCH LINE 95NBN+46

2

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	UTILITY DETAILS - IH 43 RAMPS	SHEET 104	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021501-UT-RAMPS.DWG
LAYOUT NAME - 07

PLOT DATE : 10/29/2025 10:36 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

LEGEND

1. CENTURYLINK
2. CITY OF MILWAUKEE
3. MIDWEST FIBER
4. MMSD
5. WE ENERGIES
6. WISDOT
7. VERIZON
8. TDS
9. AT&T

XX ADJUSTING CUC MANHOLE COVER

XX ABANDONING CUC MANHOLE

XX ADJUSTING WATER VALVE BOXES

EXISTING UTILITIES SHOWN IN BLACK ARE APPROXIMATE LOCATIONS BASED ON SYSTEM MAPS

(?)SAN

EXISTING UTILITIES SHOWN IN GRAY WERE SURVEYED BASED ON FIELD MARKINGS

SAN

5TH ST

BECHER ST EB

IH 43 SB ON RAMP

RAMP EL

86SBN

87SBN

88SBN

R/L SBN

STA 88SBN+17.45
-8.76' LT

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	UTILITY DETAILS - IH 43 RAMPS	SHEET 105	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021501-UT-RAMPS.DWG
LAYOUT NAME - 08

PLOT DATE : 10/29/2025 10:36 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

LEGEND

1. CENTURYLINK
2. CITY OF MILWAUKEE
3. MIDWEST FIBER
4. MMSD
5. WE ENERGIES
6. WISDOT
7. VERIZON
8. TDS
9. AT&T

XX ADJUSTING CUC MANHOLE COVER

XX ABANDONING CUC MANHOLE

XX ADJUSTING WATER VALVE BOXES

EXISTING UTILITIES SHOWN IN BLACK ARE APPROXIMATE LOCATIONS BASED ON SYSTEM MAPS

(?)SAN

EXISTING UTILITIES SHOWN IN GRAY WERE SURVEYED BASED ON FIELD MARKINGS

SAN

2

N

IH 43 SB OFF RAMP

90SBF

91SBF

92SBF

R/L SBF

R/L EW

BECHER ST WB

3EW

MATCH LINE 92SBF+62

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	UTILITY DETAILS - IH 43 RAMPS	SHEET 106	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021S01-UT-RAMPS.DWG
LAYOUT NAME - 09
PLOT DATE : 10/29/2025 10:37 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

LEGEND

1. CENTURYLINK
2. CITY OF MILWAUKEE
3. MIDWEST FIBER
4. MMSD
5. WE ENERGIES
6. WISDOT
7. VERIZON
8. TDS
9. AT&T

XX ADJUSTING CUC MANHOLE COVER

XX ABANDONING CUC MANHOLE

XX ADJUSTING WATER VALVE BOXES

EXISTING UTILITIES SHOWN IN BLACK ARE APPROXIMATE LOCATIONS BASED ON SYSTEM MAPS

(?)SAN

EXISTING UTILITIES SHOWN IN GRAY WERE SURVEYED BASED ON FIELD MARKINGS

SAN

N

ROGERS ST

5TH ST

ADJUSTING SANITARY MANHOLE

STA 95SBF+4.11 -60.55' LT

STA 95SBF+36.29 -26.71' LT

STA 95SBF+30.76 -21.83' LT

93SBF

R/L SBF

94SBF

IH 43 SB OFF RAMP

MATCH LINE 95SBF+61

2

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	UTILITY DETAILS - IH 43 RAMPS	SHEET 107	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021501-UT-RAMPS.DWG
LAYOUT NAME - 10

PLOT DATE : 10/29/2025 10:37 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

LEGEND

1. CENTURYLINK
2. CITY OF MILWAUKEE
3. MIDWEST FIBER
4. MMSD
5. WE ENERGIES
6. WISDOT
7. VERIZON
8. TDS
9. AT&T

XX ADJUSTING CUC MANHOLE COVER

XX ABANDONING CUC MANHOLE

XX ADJUSTING WATER VALVE BOXES

EXISTING UTILITIES SHOWN IN BLACK ARE APPROXIMATE LOCATIONS BASED ON SYSTEM MAPS

(?)SAN

EXISTING UTILITIES SHOWN IN GRAY WERE SURVEYED BASED ON FIELD MARKINGS

SAN

BECHER ST WB

BECHER ST EB

IH 43 SB OFF RAMP

IH 43 SB ON RAMP

1EW

2EW

R/L EW

1WE

2WE

R/L WE

R/L SBF

R/L SBN

MATCH LINE 2+66

N

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	UTILITY DETAILS - BECHER ST	SHEET 108	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021S02-UT-BECHER.DWG
LAYOUT NAME - 01

PLOT DATE : 10/29/2025 10:38 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

LEGEND

1. CENTURYLINK
2. CITY OF MILWAUKEE
3. MIDWEST FIBER
4. MMSD
5. WE ENERGIES
6. WISDOT
7. VERIZON
8. TDS
9. AT&T

XX ADJUSTING CUC MANHOLE COVER

XX ABANDONING CUC MANHOLE

XX ADJUSTING WATER VALVE BOXES

EXISTING UTILITIES SHOWN IN BLACK ARE APPROXIMATE LOCATIONS BASED ON SYSTEM MAPS

(?)SAN

EXISTING UTILITIES SHOWN IN GRAY WERE SURVEYED BASED ON FIELD MARKINGS

SAN

2

2

N

MATCH LINE 5+53

S54 STORM SE

4EW

5EW

R/L EW

BECHER ST WB

775

IH 43

(?)E

(?)C

(?)FO

SAN

SS

FO

E

G

OH

BECHER ST EB

3WE

4WE

5WE

R/L WE

774

MATCH LINE 2+66

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	UTILITY DETAILS - BECHER ST	SHEET 109	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021502-UT-BECHER.DWG
LAYOUT NAME - 02

PLOT DATE : 10/29/2025 10:38 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

LEGEND

1 CENTURYLINK
2 CITY OF MILWAUKEE
3 MIDWEST FIBER
4 MMSD
5 WE ENERGIES
6 WISDOT
7 VERIZON
8 TDS
9 AT&T

XX ADJUSTING CUC MANHOLE COVER
XX ABANDONING CUC MANHOLE
XX ADJUSTING WATER VALVE BOXES

EXISTING UTILITIES SHOWN IN BLACK ARE APPROXIMATE LOCATIONS BASED ON SYSTEM MAPS
(?)SAN

EXISTING UTILITIES SHOWN IN GRAY WERE SURVEYED BASED ON FIELD MARKINGS
SAN

IH 43 NB ON RAMP
BECHER ST WB
BECHER ST EB
IH 43 NB OFF RAMP
MATCH LINE 5+53
FIRE HYDRANT RELOCATION BY OTHERS
STA 89NBN+99.86 39.54' RT
STA 89NBN+88.54 39.24' RT
STA 89NBF+03.20 29.43' RT
STA 88NBF+99.22 42.26' RT
STA 88NBF+88.75 88.10' RT
STA 88NBF+82.59 68.27' RT
STA 88NBF+88.65 85.64' RT
STA 8WE+22.20 0.95' LT
STA 8WE+18.54 2.45' RT
ADJUST WATER MANHOLE
R/L NBN
R/L NBF
R/L EW
R/L WE
6EW
7EW
8EW
6WE
8WE
89NBF
N

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	UTILITY DETAILS - BECHER ST	SHEET 110	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\021S02-UT-BECHER.DWG
LAYOUT NAME - 03
PLOT DATE : 10/29/2025 10:38 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:20 FT

2

2

N

IH 43 NB

75NBF

76NBF

77NBF

78NBF

79NBF

80NBF

81NBF

LINCOLN AVE

761FS

762FS

763FS

764FS

765FS

766FS

4TH ST

C

C

LEGEND

WORK ZONE

EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B

BIOSWALE (SEE CONSTRUCTION DETAIL)

SOD, FERTILIZER TYPE B

SILT FENCE

X INLET PROTECTION & TYPE

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - EXISTING	SHEET 111	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\022001-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 10/29/2025 10:48 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

IH 43 NB

81NBF

82NBF

IH 43 NB OFF RAMP

83NBF

84NBF

85NBF

86NBF

766FS

767FS

768FS

769FS

770FS

771FS

4TH ST

B

B

B

B

C

LEGEND

WORK ZONE

EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B

BIOSWALE (SEE CONSTRUCTION DETAIL)

SOD, FERTILIZER TYPE B

SILT FENCE

X INLET PROTECTION & TYPE

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - EXISTING	SHEET 112	E

2

N

IH 43 NB

4WE

4EW

5WE

5EW

86NBF

87NBF

88NBF

89NBF

771FS

IH 43 NB OFF RAMP

C

B

4TH ST

BECHER ST

6WE

6EW

7WE

7EW

90NBN

91NBN

IH 43 NB ON RAMP

4TH ST

B

D

LEGEND

- WORK ZONE
- EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B
- BIOSWALE (SEE CONSTRUCTION DETAIL)
- SOD, FERTILIZER TYPE B
- SILT FENCE
- X — INLET PROTECTION & TYPE

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - EXISTING	SHEET 113	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\022001-EC.DWG
LAYOUT NAME - 03

PLOT DATE : 10/29/2025 10:48 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

IH 43 SB

N

IH 43 NB

91NBN

92NBN

93NBN

94NBN

95NBN

96NBN

IH 43 NB ON RAMP

C

4TH ST

LEGEND

- WORK ZONE
- EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B
- BIOSWALE (SEE CONSTRUCTION DETAIL)
- SOD, FERTILIZER TYPE B
- SILT FENCE
- X — INLET PROTECTION & TYPE

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - EXISTING	SHEET 114	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\022001-EC.DWG
LAYOUT NAME - 04

PLOT DATE : 10/29/2025 10:48 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

5TH ST

82SBN

83SBN

84SBN

85SBN

86SBN

87SBN

IH 43 SB ON RAMP

IH 43 SB

IH 43 NB

B

LEGEND

- WORK ZONE
- EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B
- BIOSWALE (SEE CONSTRUCTION DETAIL)
- SOD, FERTILIZER TYPE B
- SILT FENCE
- X — INLET PROTECTION & TYPE

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - EXISTING	SHEET 115	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\022001-EC.DWG
LAYOUT NAME - 05

PLOT DATE : 10/29/2025 10:48 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- WORK ZONE
- EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B
- BIOSWALE (SEE CONSTRUCTION DETAIL)
- SOD, FERTILIZER TYPE B
- SILT FENCE
- X — INLET PROTECTION & TYPE

N

1WE
1EW
2WE
2EW
3WE
3EW
4WE
4EW
5TH ST
5TH ST
IH 43 SB ON RAMP
IH 43 SB OFF RAMP
IH 43 SB
BECHER ST
87SBN
88SBN
89SBN
89SBF
90SBF
91SBF
92SBF
93SB
B
B
B
C

2

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - EXISTING	SHEET 116	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\022001-EC.DWG
LAYOUT NAME - 06

PLOT DATE : 10/29/2025 10:48 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- WORK ZONE
- EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B
- BIOSWALE (SEE CONSTRUCTION DETAIL)
- SOD, FERTILIZER TYPE B
- SILT FENCE
- X — INLET PROTECTION & TYPE

N

ROGERS ST

5TH ST

IH 43 SB OFF RAMP

IH 43 SB

IH 43 NB

93SBF

94SBF

95SBF

96SBF

97SBF

98SBF

B

C

D

2

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - EXISTING	SHEET 117	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\022001-EC.DWG
LAYOUT NAME - 07

PLOT DATE : 10/29/2025 10:48 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

5TH ST

IH 43 SB OFF RAMP

BECHER ST

IH 43 SB ON RAMP

5TH ST

IH 43 SB

IH 43 NB

1EW 2EW 3EW 4EW 5EW

1WE 2WE 3WE 4WE 5WE

B C

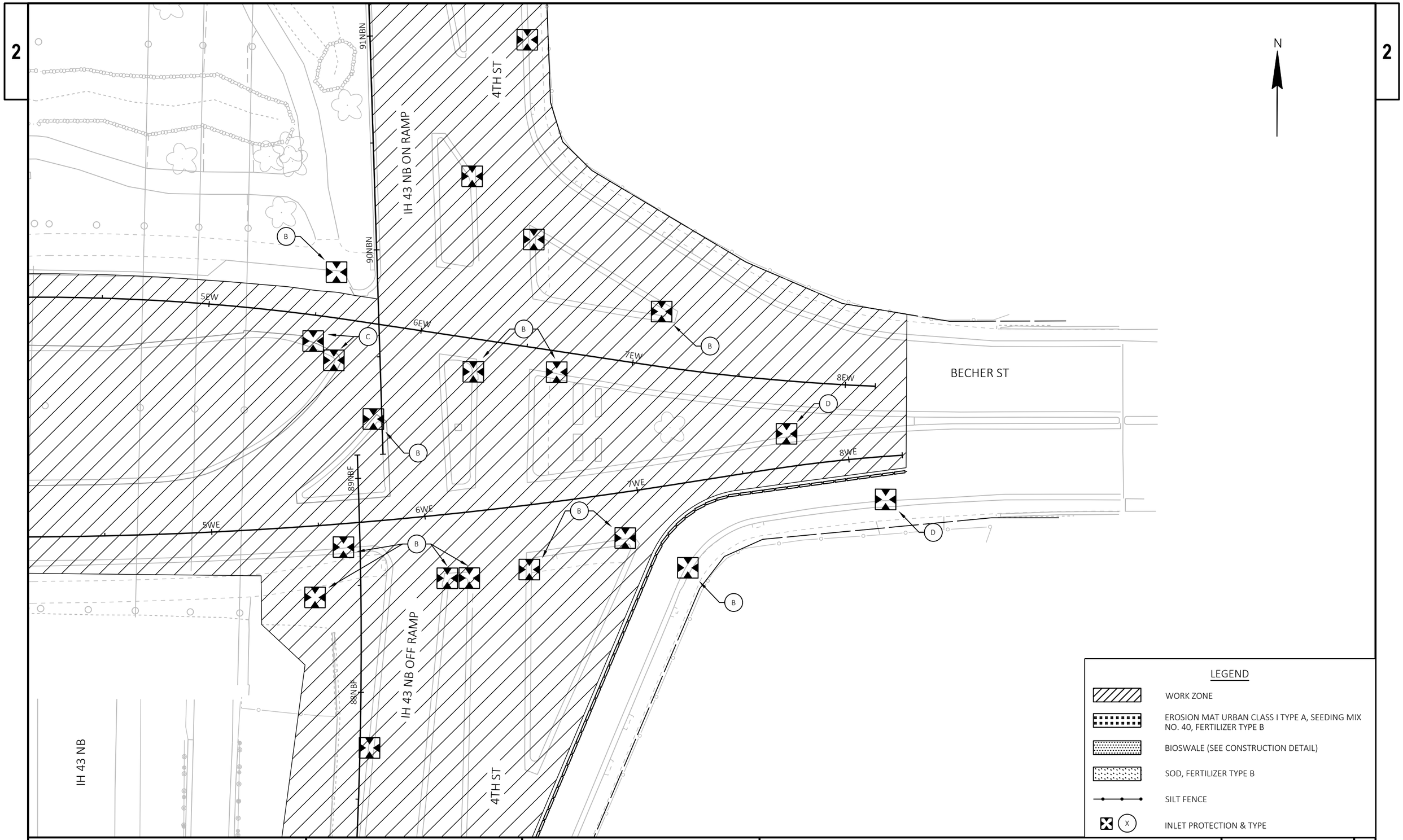
LEGEND

- WORK ZONE
- EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B
- BIOSWALE (SEE CONSTRUCTION DETAIL)
- SOD, FERTILIZER TYPE B
- SILT FENCE
- X INLET PROTECTION & TYPE

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - EXISTING	SHEET 118	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\022001-EC.DWG
LAYOUT NAME - 08

PLOT DATE : 10/29/2025 10:48 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT



PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - EXISTING	SHEET 119	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\022001-EC.DWG
LAYOUT NAME - 09

PLOT DATE : 10/29/2025 10:48 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

IH 43 NB

LINCOLN AVE

75NBF

76NBF

77NBF

78NBF

79NBF

80NBF

81NBF

SLOPE INTERCEPT

761FS

762FS

763FS

764FS

766FS

4TH ST

INSTALLED STAGE 1A

INSTALLED STAGE 1A

LEGEND

EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B

BIOSWALE (SEE CONSTRUCTION DETAIL)

SOD, FERTILIZER TYPE B

SILT FENCE

X INLET PROTECTION & TYPE

R ROCK BAGS WITH TYPE C INLET PROTECTION

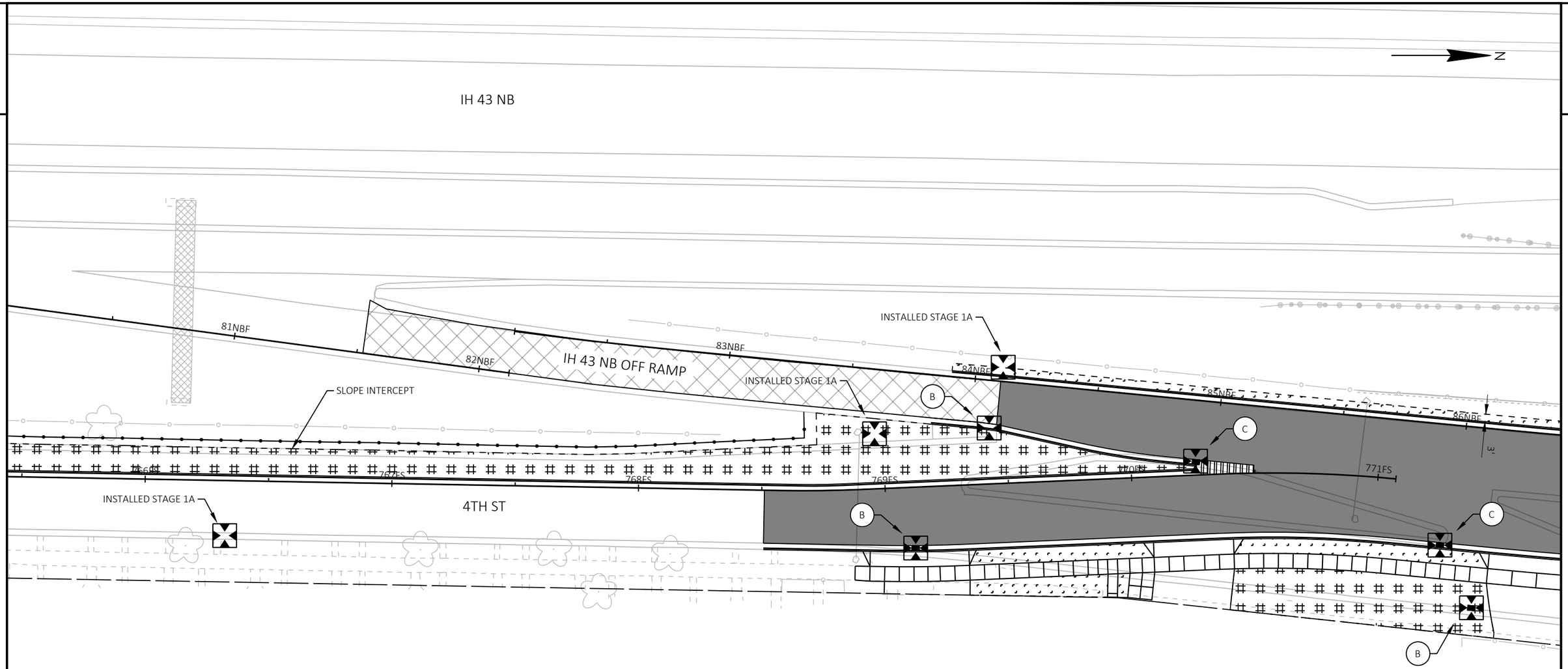
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - PAVING	SHEET 120	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\022002-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 10/31/2025 10:52 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



LEGEND

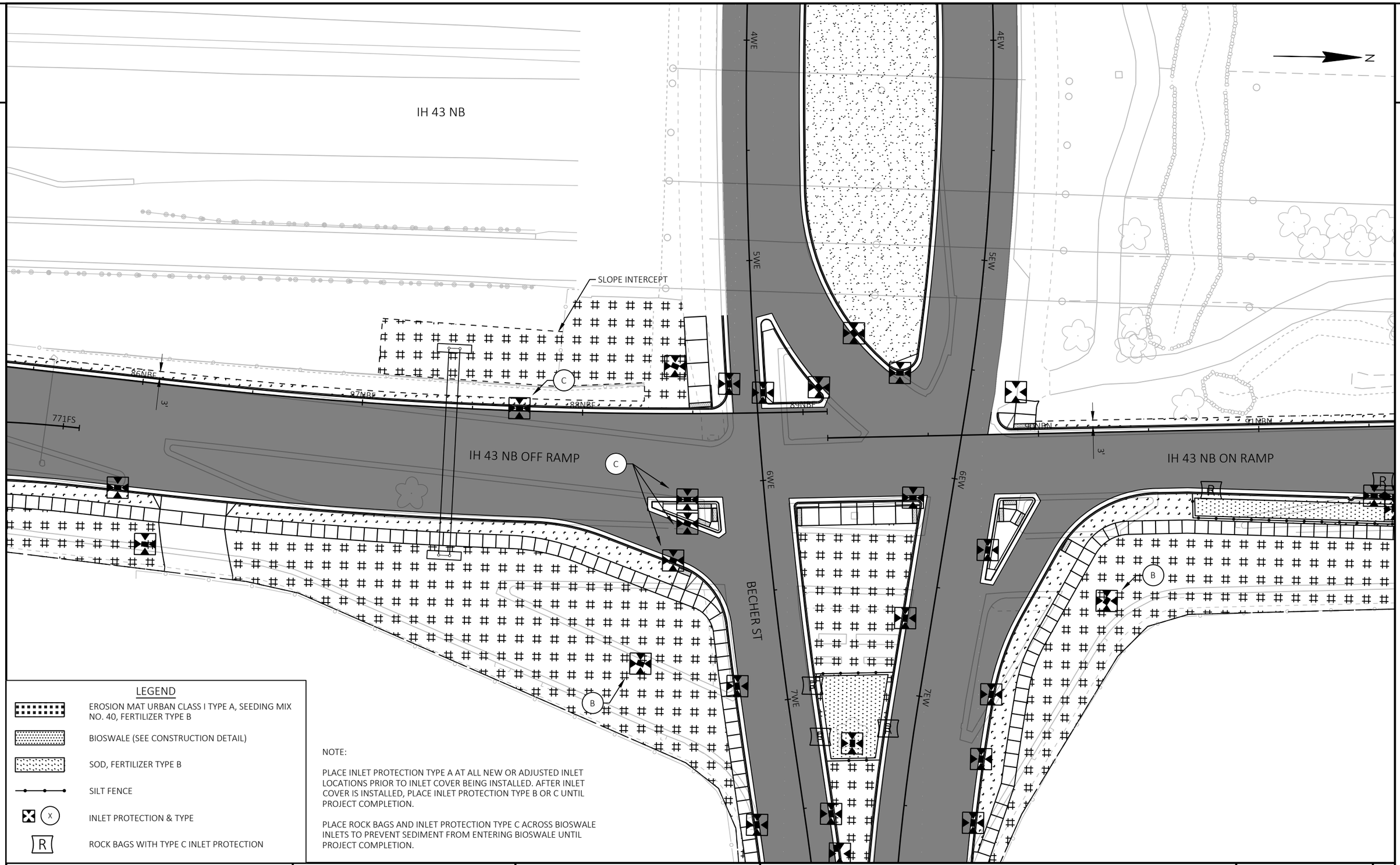
- EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B
- BIOSWALE (SEE CONSTRUCTION DETAIL)
- SOD, FERTILIZER TYPE B
- SILT FENCE
- (X) INLET PROTECTION & TYPE
- [R] ROCK BAGS WITH TYPE C INLET PROTECTION

NOTE:

PLACE INLET PROTECTION TYPE A AT ALL NEW OR ADJUSTED INLET LOCATIONS PRIOR TO INLET COVER BEING INSTALLED. AFTER INLET COVER IS INSTALLED, PLACE INLET PROTECTION TYPE B OR C UNTIL PROJECT COMPLETION.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - PAVING	SHEET 121	E

2



2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B
- BIOSWALE (SEE CONSTRUCTION DETAIL)
- SOD, FERTILIZER TYPE B
- SILT FENCE
- (X) INLET PROTECTION & TYPE
- R ROCK BAGS WITH TYPE C INLET PROTECTION

NOTE:

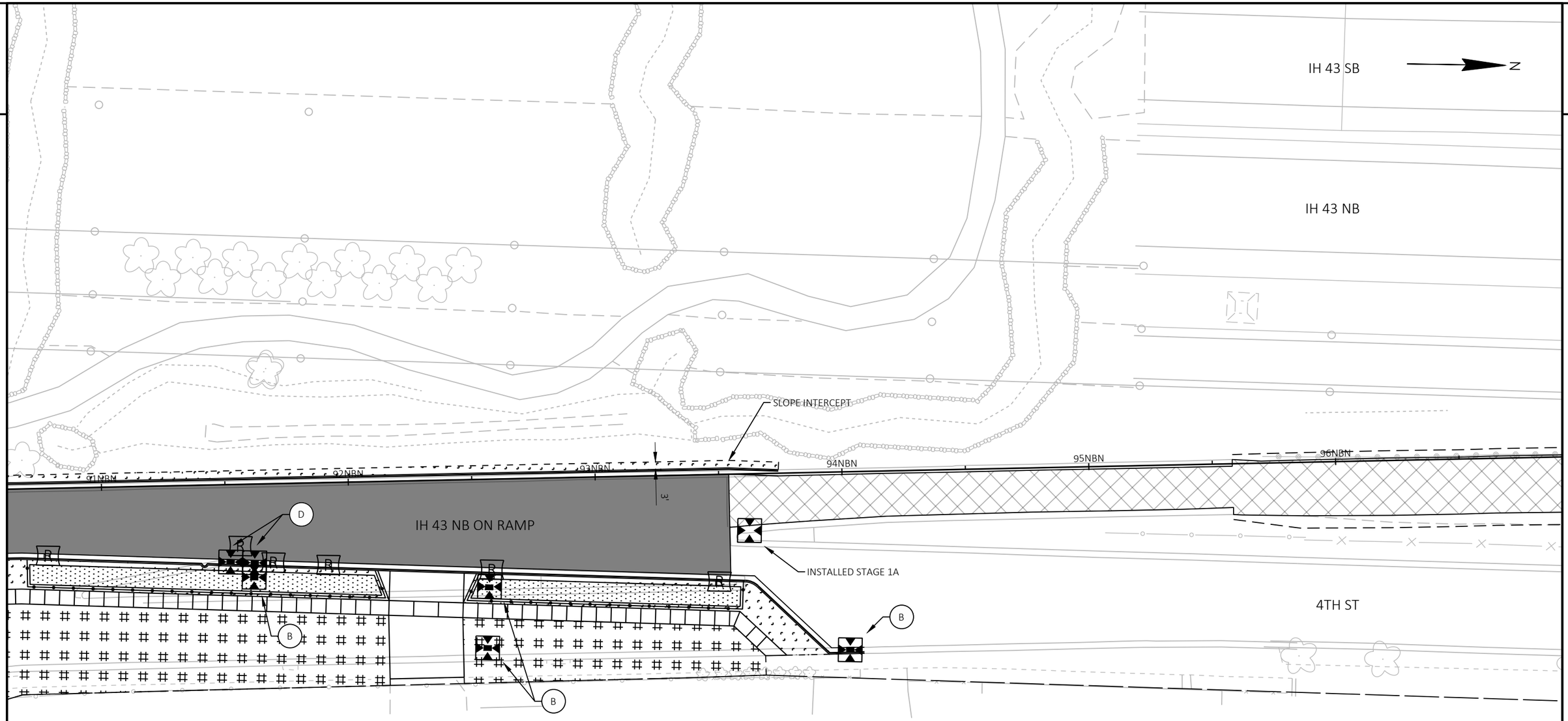
PLACE INLET PROTECTION TYPE A AT ALL NEW OR ADJUSTED INLET LOCATIONS PRIOR TO INLET COVER BEING INSTALLED. AFTER INLET COVER IS INSTALLED, PLACE INLET PROTECTION TYPE B OR C UNTIL PROJECT COMPLETION.

PLACE ROCK BAGS AND INLET PROTECTION TYPE C ACROSS BIOSWALE INLETS TO PREVENT SEDIMENT FROM ENTERING BIOSWALE UNTIL PROJECT COMPLETION.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - PAVING	SHEET 122	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\022002-EC.DWG
LAYOUT NAME - 03
PLOT DATE : 10/31/2025 10:52 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



LEGEND

- EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B
- BIOSWALE (SEE CONSTRUCTION DETAIL)
- SOD, FERTILIZER TYPE B
- SILT FENCE
- X — INLET PROTECTION & TYPE
- R — ROCK BAGS WITH TYPE C INLET PROTECTION

NOTE:

PLACE INLET PROTECTION TYPE A AT ALL NEW OR ADJUSTED INLET LOCATIONS PRIOR TO INLET COVER BEING INSTALLED. AFTER INLET COVER IS INSTALLED, PLACE INLET PROTECTION TYPE B OR C UNTIL PROJECT COMPLETION.

PLACE ROCK BAGS AND INLET PROTECTION TYPE C ACROSS BIOSWALE INLETS TO PREVENT SEDIMENT FROM ENTERING BIOSWALE UNTIL PROJECT COMPLETION.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - PAVING	SHEET 123	E

2

N

SLOPE INTERCEPT

B

5TH ST

INSTALLED STAGE 1A

82SBN

83SBN

84SBN

85SBN

86SBN

IH 43 SB ON RAMP

87SBN

C

IH 43 SB

IH 43 NB

LEGEND

- EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B
- BIOSWALE (SEE CONSTRUCTION DETAIL)
- SOD, FERTILIZER TYPE B
- SILT FENCE
- (X) INLET PROTECTION & TYPE
- R ROCK BAGS WITH TYPE C INLET PROTECTION

NOTE:

PLACE INLET PROTECTION TYPE A AT ALL NEW OR ADJUSTED INLET LOCATIONS PRIOR TO INLET COVER BEING INSTALLED. AFTER INLET COVER IS INSTALLED, PLACE INLET PROTECTION TYPE B OR C UNTIL PROJECT COMPLETION.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - PAVING	SHEET 124	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\022002-EC.DWG
LAYOUT NAME - 05

PLOT DATE : 10/31/2025 10:53 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B
- BIOSWALE (SEE CONSTRUCTION DETAIL)
- SOD, FERTILIZER TYPE B
- SILT FENCE
- (X) INLET PROTECTION & TYPE
- R ROCK BAGS WITH TYPE C INLET PROTECTION

NOTE:

PLACE INLET PROTECTION TYPE A AT ALL NEW OR ADJUSTED INLET LOCATIONS PRIOR TO INLET COVER BEING INSTALLED. AFTER INLET COVER IS INSTALLED, PLACE INLET PROTECTION TYPE B OR C UNTIL PROJECT COMPLETION.

PLACE ROCK BAGS AND INLET PROTECTION TYPE C ACROSS BIOSWALE INLETS TO PREVENT SEDIMENT FROM ENTERING BIOSWALE UNTIL PROJECT COMPLETION.

N

SLOPE INTERCEPT

IH 43 SB ON RAMP

IH 43 SB OFF RAMP

IH 43 SB

BECHER ST

1WE 1EW 2WE 2EW 3WE 3EW 4WE 4EW

87SBN 88SBN 89SBN 89SBF 90SBF 91SBF 92SBF 93SB

B C R

2

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - PAVING	SHEET 125	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\022002-EC.DWG
LAYOUT NAME - 06
PLOT DATE : 10/31/2025 10:53 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

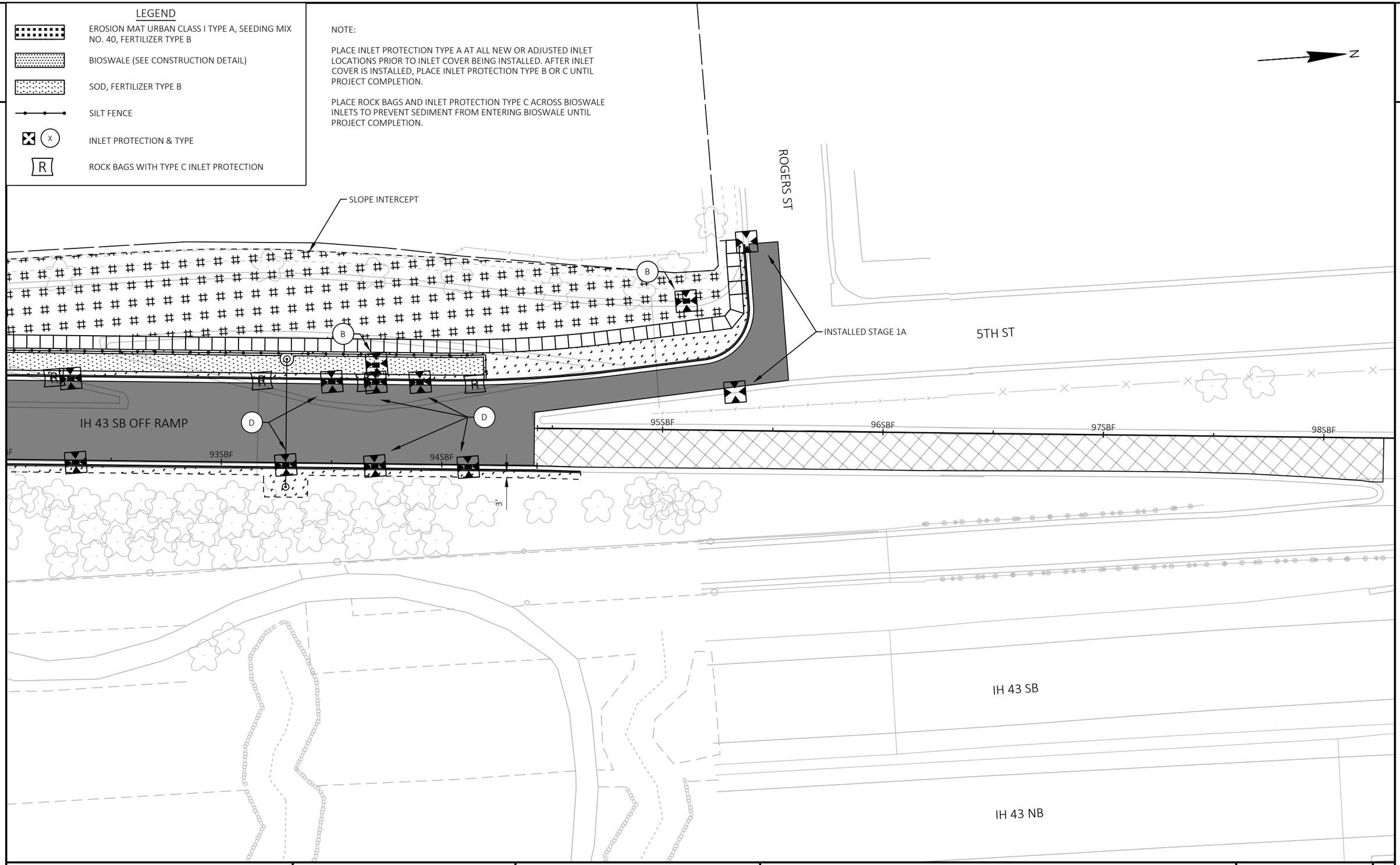
LEGEND

- EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B
- BIOSWALE (SEE CONSTRUCTION DETAIL)
- SOD, FERTILIZER TYPE B
- SILT FENCE
- (X) INLET PROTECTION & TYPE
- R ROCK BAGS WITH TYPE C INLET PROTECTION

NOTE:

PLACE INLET PROTECTION TYPE A AT ALL NEW OR ADJUSTED INLET LOCATIONS PRIOR TO INLET COVER BEING INSTALLED. AFTER INLET COVER IS INSTALLED, PLACE INLET PROTECTION TYPE B OR C UNTIL PROJECT COMPLETION.

PLACE ROCK BAGS AND INLET PROTECTION TYPE C ACROSS BIOSWALE INLETS TO PREVENT SEDIMENT FROM ENTERING BIOSWALE UNTIL PROJECT COMPLETION.



PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - PAVING	SHEET 126	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\022002-EC.DWG
LAYOUT NAME - 07

PLOT DATE : 10/31/2025 10:53 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

IH 43 SB OFF RAMP

91SBF

90SBF

89SBF

89SBN

88SBN

1EW

2EW

3EW

4EW

5EW

1WE

2WE

3WE

4WE

5WE

BECHER ST

IH 43 SB ON RAMP

IH 43 SB

IH 43 NB

B

SLOPE INTERCEPT

INSTALLED STAGE 1A

LEGEND

EROSION MAT URBAN CLASS I TYPE A, SEEDING MIX NO. 40, FERTILIZER TYPE B

BIOSWALE (SEE CONSTRUCTION DETAIL)

SOD, FERTILIZER TYPE B

SILT FENCE

X INLET PROTECTION & TYPE

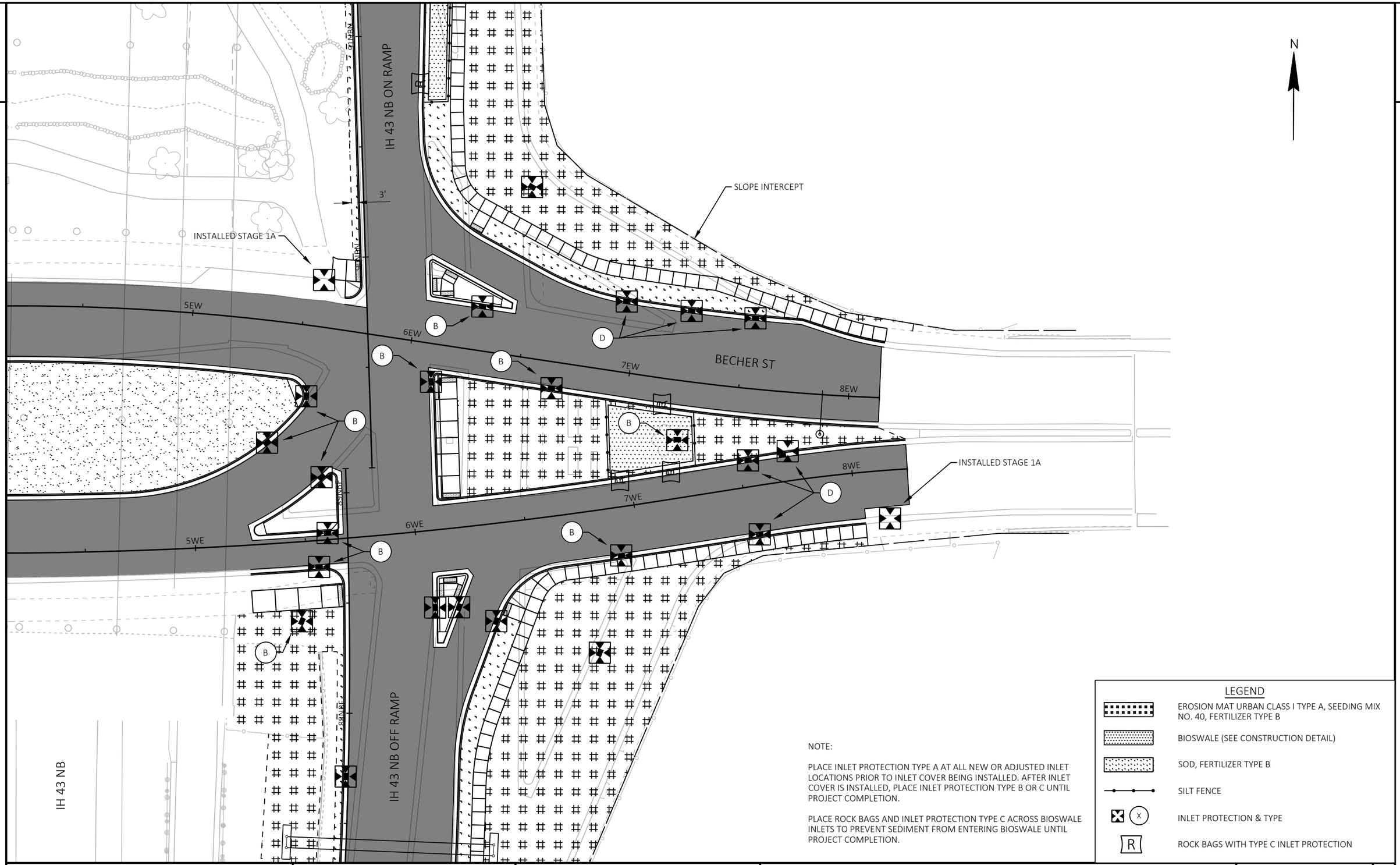
R ROCK BAGS WITH TYPE C INLET PROTECTION

NOTE:

PLACE INLET PROTECTION TYPE A AT ALL NEW OR ADJUSTED INLET LOCATIONS PRIOR TO INLET COVER BEING INSTALLED. AFTER INLET COVER IS INSTALLED, PLACE INLET PROTECTION TYPE B OR C UNTIL PROJECT COMPLETION.

PLACE ROCK BAGS AND INLET PROTECTION TYPE C ACROSS BIOSWALE INLETS TO PREVENT SEDIMENT FROM ENTERING BIOSWALE UNTIL PROJECT COMPLETION.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - PAVING	SHEET 127	E



NOTE:

PLACE INLET PROTECTION TYPE A AT ALL NEW OR ADJUSTED INLET LOCATIONS PRIOR TO INLET COVER BEING INSTALLED. AFTER INLET COVER IS INSTALLED, PLACE INLET PROTECTION TYPE B OR C UNTIL PROJECT COMPLETION.

PLACE ROCK BAGS AND INLET PROTECTION TYPE C ACROSS BIOSWALE INLETS TO PREVENT SEDIMENT FROM ENTERING BIOSWALE UNTIL PROJECT COMPLETION.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - PAVING	SHEET 128	E

2

N

STA 90SBF+56.06
-103.45' LT

REMOVE STORM SEWER (12")

STA 88SBN+97.98
-74.63' LT

R/L WE

R/L EW

REMOVE STORM SEWER (12")

STA 90SBF+47.66
-70.20' LT

STA 91SBF+46.07
-47.01' LT

REMOVE STORM SEWER (12")

STA 89SBF+19.42
-59.10' LT

STA 92SBF+31.78
-30.38' LT

EXISTING MH 104
(SEE NOTE 1)

STA 91SBF+34.55
-23.23' LT

REMOVE STORM SEWER (8")

STA 89SBF+27.29
-21.63' LT

EXISTING MH 105
(SEE NOTE 1)

STA 92SBF+50.53
-25.58' LT

89SBF

90SBF

91SBF

92SBF

93SBF

94SBF

95SBF

89SBN

88SBN

R/L SBF

STA 89SBF+42.82
-9.59' LT

EXISTING MH 107
(SEE NOTE 1)

STA 91SBF+36.23
-5.37' LT

REMOVE STORM SEWER (12")

EXISTING CATCH BASIN 100A
(SEE NOTE 2)

REMOVE STORM SEWER (12")

STA 94SBF+62.14
-29.47' LT

STA 95SBF+09.83
-58.07' LT

EXISTING MH 101
(SEE NOTE 4)

STA 94SBF+23.18
-44.37' LT

REMOVE STORM SEWER (12")

STA 93SBF+66.45
-25.93' LT

EXISTING CATCH BASIN 125
(SEE NOTE 6)

EXISTING CATCH BASIN 123
(SEE NOTE 6)

EXISTING CATCH BASIN 121
(SEE NOTE 6)

STA 93SBF+28.41
2.35' RT

STA 93SBF+68.75
2.30' RT

STA 94SBF+08.80
2.30' RT

1WE

2WE

3WE

4WE

1EW

2EW

3EW

4EW

STA 94+27.6 LT
ABANDONED MH
(MMSD)

NOTE:

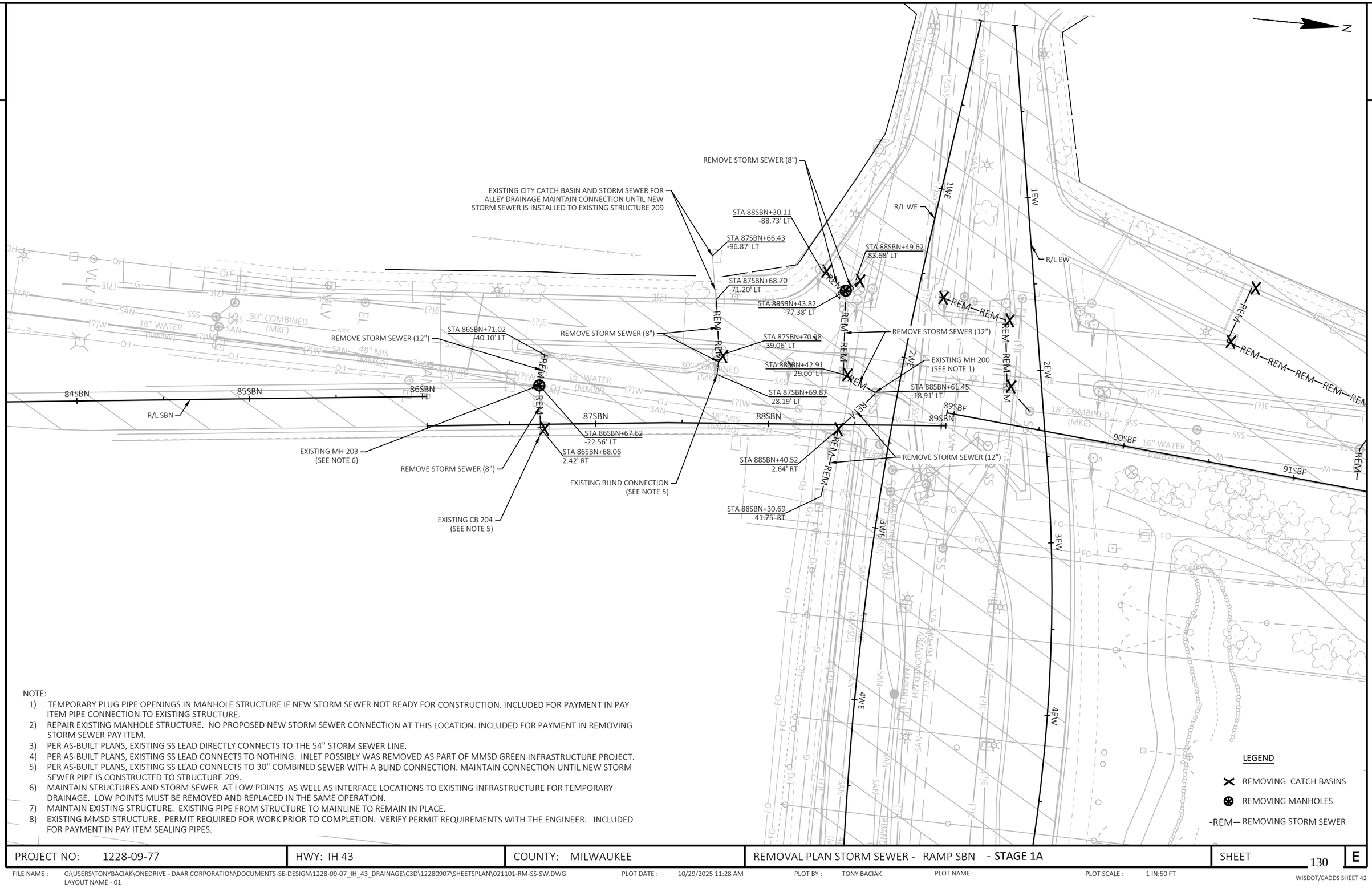
1) TEMPORARY PLUG PIPE OPENINGS IN MANHOLE STRUCTURE IF NEW STORM SEWER NOT READY FOR CONSTRUCTION. INCLUDED FOR PAYMENT IN PAY ITEM PIPE CONNECTION TO EXISTING STRUCTURE.
2) REPAIR EXISTING MANHOLE STRUCTURE. NO PROPOSED NEW STORM SEWER CONNECTION AT THIS LOCATION. INCLUDED FOR PAYMENT IN REMOVING STORM SEWER PAY ITEM.
3) PER AS-BUILT PLANS, EXISTING SS LEAD DIRECTLY CONNECTS TO THE 54" STORM SEWER LINE.
4) PER AS-BUILT PLANS, EXISTING SS LEAD CONNECTS TO NOTHING. INLET POSSIBLY WAS REMOVED AS PART OF MMSD GREEN INFRASTRUCTURE PROJECT.
5) PER AS-BUILT PLANS, EXISTING SS LEAD CONNECTS TO 30" COMBINED SEWER WITH A BLIND CONNECTION. MAINTAIN CONNECTION UNTIL NEW STORM SEWER PIPE IS CONSTRUCTED TO STRUCTURE 209.
6) MAINTAIN STRUCTURES AND STORM SEWER AT LOW POINTS AS WELL AS INTERFACE LOCATIONS TO EXISTING INFRASTRUCTURE FOR TEMPORARY DRAINAGE. LOW POINTS MUST BE REMOVED AND REPLACED IN THE SAME OPERATION.
7) MAINTAIN EXISTING STRUCTURE. EXISTING PIPE FROM STRUCTURE TO MAINLINE TO REMAIN IN PLACE.
8) EXISTING MMSD STRUCTURE. PERMIT REQUIRED FOR WORK PRIOR TO COMPLETION. VERIFY PERMIT REQUIREMENTS WITH THE ENGINEER.

LEGEND

- REMOVING CATCH BASINS
- REMOVING MANHOLES
- -REM- REMOVING STORM SEWER

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN STORM SEWER - RAMP SBF - STAGE 1A	SHEET 129	E

FILE NAME : C:\USERS\TONYBACIAK\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-SE-DESIGN\1228-09-07_IH_43_DRAINAGE\C3D\12280907\SHEETSPLAN\021101-RM-SS-NW.DWG
LAYOUT NAME - 01
PLOT DATE : 10/29/2025 10:41 AM
PLOT BY : TONY BACIAK
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42



NOTE:

1) TEMPORARY PLUG PIPE OPENINGS IN MANHOLE STRUCTURE IF NEW STORM SEWER NOT READY FOR CONSTRUCTION. INCLUDED FOR PAYMENT IN PAY ITEM PIPE CONNECTION TO EXISTING STRUCTURE.
2) REPAIR EXISTING MANHOLE STRUCTURE. NO PROPOSED NEW STORM SEWER CONNECTION AT THIS LOCATION. INCLUDED FOR PAYMENT IN REMOVING STORM SEWER PAY ITEM.
3) PER AS-BUILT PLANS, EXISTING SS LEAD DIRECTLY CONNECTS TO THE 54" STORM SEWER LINE.
4) PER AS-BUILT PLANS, EXISTING SS LEAD CONNECTS TO NOTHING. INLET POSSIBLY WAS REMOVED AS PART OF MMSD GREEN INFRASTRUCTURE PROJECT.
5) PER AS-BUILT PLANS, EXISTING SS LEAD CONNECTS TO 30" COMBINED SEWER WITH A BLIND CONNECTION. MAINTAIN CONNECTION UNTIL NEW STORM SEWER PIPE IS CONSTRUCTED TO STRUCTURE 209.
6) MAINTAIN STRUCTURES AND STORM SEWER AT LOW POINTS AS WELL AS INTERFACE LOCATIONS TO EXISTING INFRASTRUCTURE FOR TEMPORARY DRAINAGE. LOW POINTS MUST BE REMOVED AND REPLACED IN THE SAME OPERATION.
7) MAINTAIN EXISTING STRUCTURE. EXISTING PIPE FROM STRUCTURE TO MAINLINE TO REMAIN IN PLACE.
8) EXISTING MMSD STRUCTURE. PERMIT REQUIRED FOR WORK PRIOR TO COMPLETION. VERIFY PERMIT REQUIREMENTS WITH THE ENGINEER. INCLUDED FOR PAYMENT IN PAY ITEM SEALING PIPES.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN STORM SEWER - RAMP SBN - STAGE 1A	SHEET 130 E

2

N

4WE

4EW

R/L WE

5WE

R/L EW

5EW

REMOVE STORM SEWER (8")

STA 89NBN+55.76
-31.03' LT

EXISTING BLIND CONNECTION
(SEE NOTE 3)

EXISTING MH 302
(SEE NOTE 2)

STA 91NBN+46.44
-20.90' LT

89NBF

EXISTING MH 303
(SEE NOTE 1)

REMOVE STORM SEWER (8")

90NBN

91NBN

92NBN

93NBN

94NBN

95NBN

96NBN

STA 89NBN+18.09
-4.26' LT

STA 89NBN+52.38
-13.54' LT

STA 91NBN+41.08
31.84' RT

R/L NBN

6WE

6EW

STA 89NBN+46.47
-21.74' LT

STA 90NBN+45.65
26.61' RT

STA 91NBN+23.80
45.37' RT

STA 91NBN+49.71
32.28' RT

REMOVE STORM SEWER (12")

STA 90NBN+30.49
45.53' RT

REMOVE STORM SEWER (12")

REMOVE STORM SEWER (12")

STA 90NBN+00.04
73.62' RT

REMOVE STORM SEWER (8")

REMOVE STORM SEWER (8")

STA 90NBN+93.34
73.44' RT

STA 91NBN+22.98
73.27' RT

STA 91NBN+48.65
73.18' RT

7WE

7EW

STA 90NBN+27.31
96.95' RT

REMOVE STORM SEWER (8")

STA 89NBN+64.38
132.13' RT

8WE

8EW

NOTE:

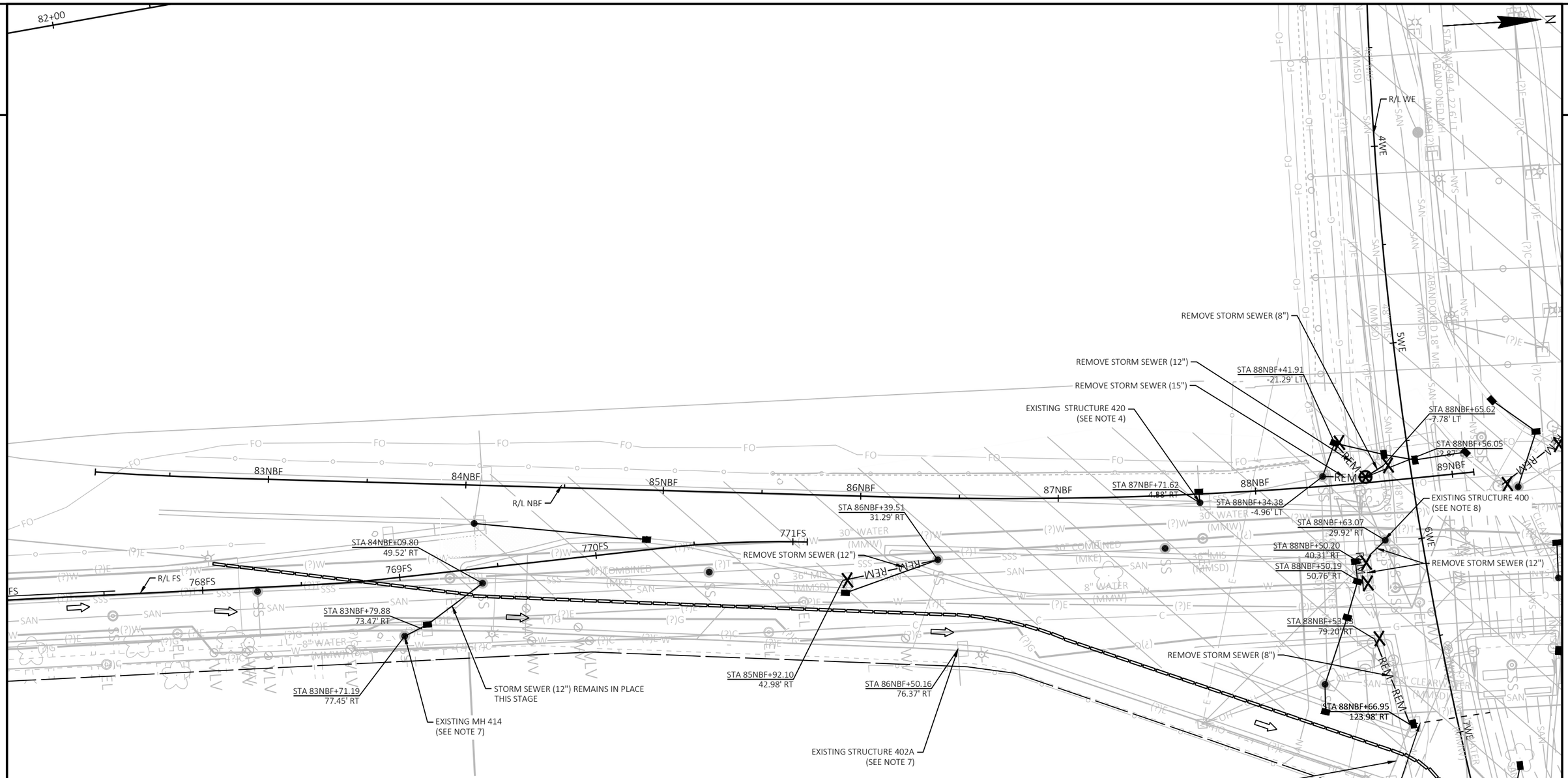
1) TEMPORARY PLUG PIPE OPENINGS IN MANHOLE STRUCTURE IF NEW STORM SEWER NOT READY FOR CONSTRUCTION. INCLUDED FOR PAYMENT IN PAY ITEM PIPE CONNECTION TO EXISTING STRUCTURE.
2) REPAIR EXISTING MANHOLE STRUCTURE. NO PROPOSED NEW STORM SEWER CONNECTION AT THIS LOCATION. INCLUDED FOR PAYMENT IN REMOVING STORM SEWER PAY ITEM.
3) PER AS-BUILT PLANS, EXISTING SS LEAD DIRECTLY CONNECTS TO THE 54" STORM SEWER LINE.
4) PER AS-BUILT PLANS, EXISTING SS LEAD CONNECTS TO NOTHING. INLET POSSIBLY WAS REMOVED AS PART OF MMSD GREEN INFRASTRUCTURE PROJECT.
5) PER AS-BUILT PLANS, EXISTING SS LEAD CONNECTS TO 30" COMBINED SEWER WITH A BLIND CONNECTION. MAINTAIN CONNECTION UNTIL NEW STORM SEWER PIPE IS CONSTRUCTED TO STRUCTURE 209.
6) MAINTAIN STRUCTURES AND STORM SEWER AT LOW POINTS AS WELL AS INTERFACE LOCATIONS TO EXISTING INFRASTRUCTURE FOR TEMPORARY DRAINAGE. LOW POINTS MUST BE REMOVED AND REPLACED IN THE SAME OPERATION.
7) MAINTAIN EXISTING STRUCTURE. EXISTING PIPE FROM STRUCTURE TO MAINLINE TO REMAIN IN PLACE.
8) EXISTING MMSD STRUCTURE. PERMIT REQUIRED FOR WORK PRIOR TO COMPLETION. VERIFY PERMIT REQUIREMENTS WITH THE ENGINEER.

LEGEND

- REMOVING CATCH BASINS
- REMOVING MANHOLES
- -REM- REMOVING STORM SEWER

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN STORM SEWER - RAMP NBN - **STAGE 1A**	SHEET 131	E

FILE NAME : C:\USERS\TONYBACIAK\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-SE-DESIGN\1228-09-07_IH_43_DRAINAGE\C3D\12280907\SHEETSPLAN\021101-RM-SS-NE.DWG
LAYOUT NAME - 01
PLOT DATE : 10/29/2025 10:41 AM
PLOT BY : TONY BACIAK
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42



NOTE:

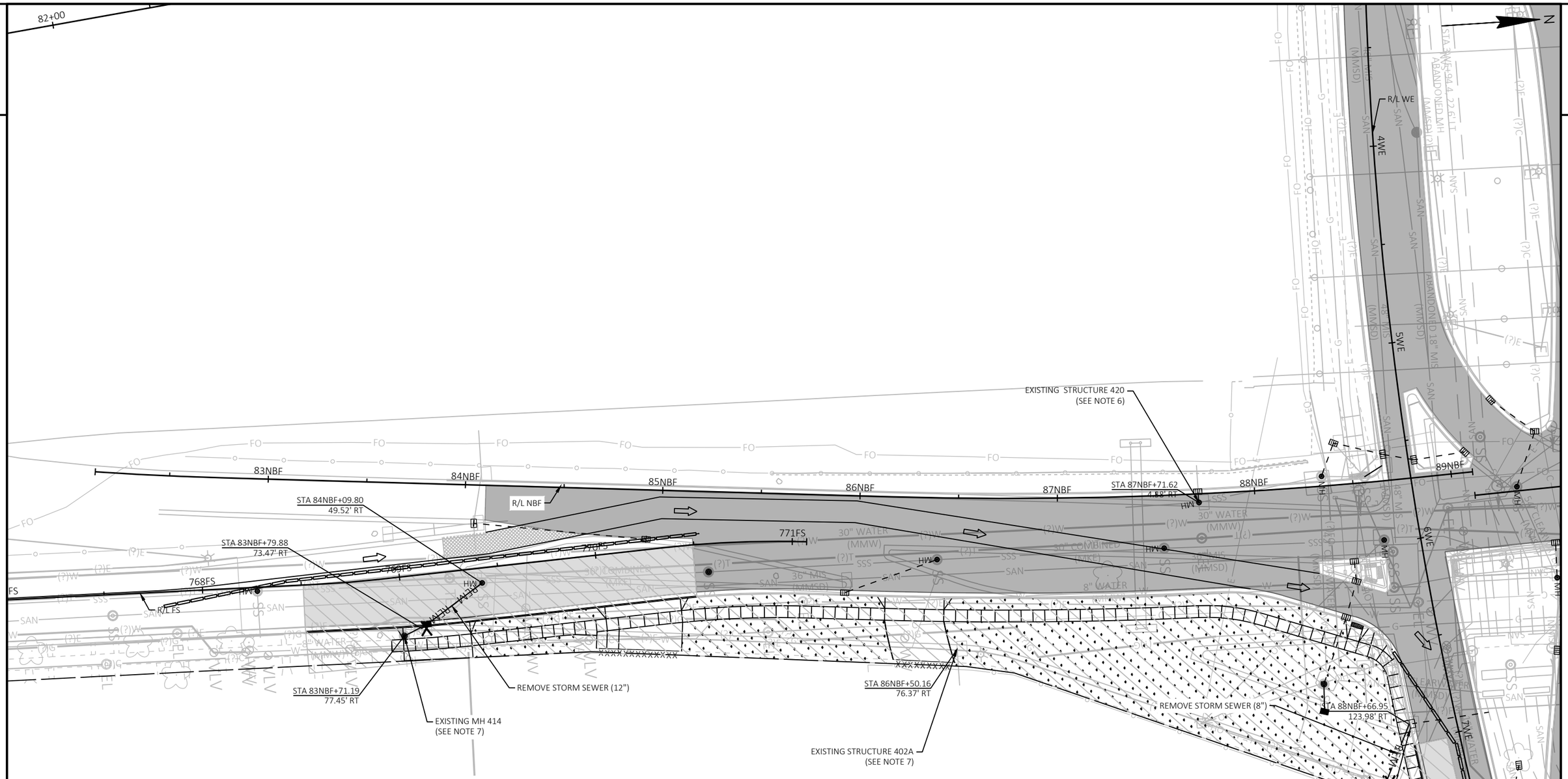
1) TEMPORARY PLUG PIPE OPENINGS IN MANHOLE STRUCTURE IF NEW STORM SEWER NOT READY FOR CONSTRUCTION. INCLUDED FOR PAYMENT IN PAY ITEM PIPE CONNECTION TO EXISTING STRUCTURE.
2) REPAIR EXISTING MANHOLE STRUCTURE. NO PROPOSED NEW STORM SEWER CONNECTION AT THIS LOCATION. INCLUDED FOR PAYMENT IN REMOVING STORM SEWER PAY ITEM.
3) PER AS-BUILT PLANS, EXISTING SS LEAD DIRECTLY CONNECTS TO THE 54" STORM SEWER LINE.
4) PER AS-BUILT PLANS, EXISTING SS LEAD CONNECTS TO NOTHING. INLET POSSIBLY WAS REMOVED AS PART OF MMSD GREEN INFRASTRUCTURE PROJECT.
5) PER AS-BUILT PLANS, EXISTING SS LEAD CONNECTS TO 30" COMBINED SEWER WITH A BLIND CONNECTION. MAINTAIN CONNECTION UNTIL NEW STORM SEWER PIPE IS CONSTRUCTED TO STRUCTURE 209.
6) MAINTAIN STRUCTURES AND STORM SEWER AT LOW POINTS AS WELL AS INTERFACE LOCATIONS TO EXISTING INFRASTRUCTURE FOR TEMPORARY DRAINAGE. LOW POINTS MUST BE REMOVED AND REPLACED IN THE SAME OPERATION.
7) MAINTAIN EXISTING STRUCTURE. EXISTING PIPE FROM STRUCTURE TO MAINLINE TO REMAIN IN PLACE.
8) EXISTING MMSD STRUCTURE. PERMIT REQUIRED FOR WORK PRIOR TO COMPLETION. VERIFY PERMIT REQUIREMENTS WITH THE ENGINEER. INCLUDED FOR PAYMENT IN PAY ITEM SEALING PIPES.

LEGEND

- ✕ REMOVING CATCH BASINS
- ⊛ REMOVING MANHOLES
- -REM- REMOVING STORM SEWER

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN STORM SEWER - RAMP NBF - STAGE 1A	SHEET 132	E

FILE NAME : C:\USERS\TONYBACIAK\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-SE-DESIGN\1228-09-07_IH_43_DRAINAGE\C3D\12280907\SHEETSPLAN\021101-RM-SS-SE-1A.DWG
LAYOUT NAME - 01
PLOT DATE : 10/29/2025 11:02 AM PLOT BY : TONY BACIAK PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42



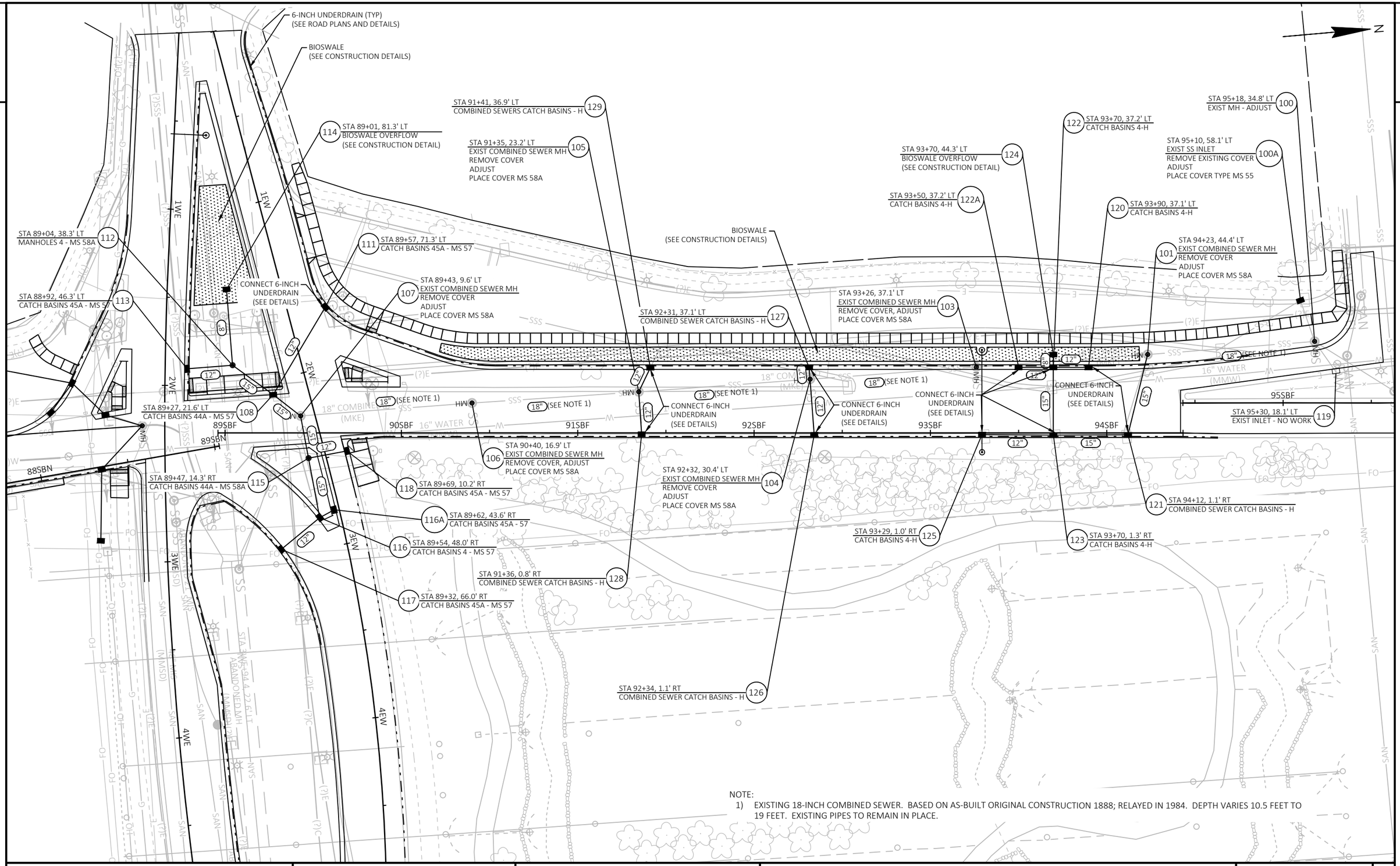
LEGEND

- REMOVING CATCH BASINS
- REMOVING MANHOLES
- -REM- REMOVING STORM SEWER

NOTE:

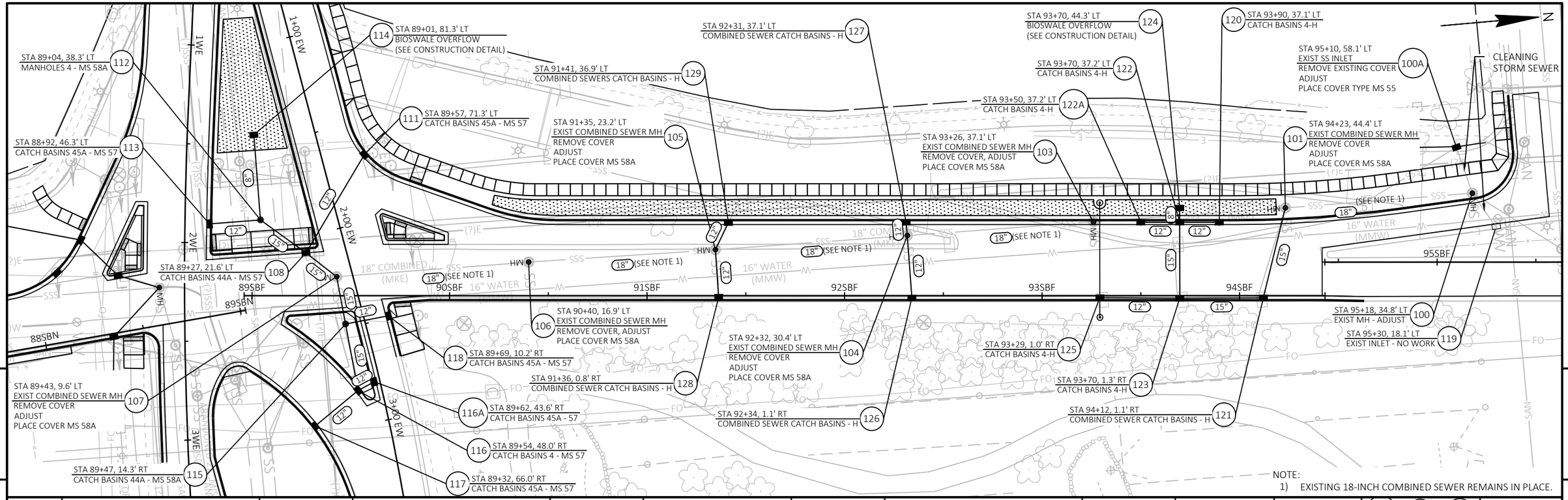
1) TEMPORARY PLUG PIPE OPENINGS IN MANHOLE STRUCTURE IF NEW STORM SEWER NOT READY FOR CONSTRUCTION. INCLUDED FOR PAYMENT IN PAY ITEM PIPE CONNECTION TO EXISTING STRUCTURE.
2) REPAIR EXISTING MANHOLE STRUCTURE. NO PROPOSED NEW STORM SEWER CONNECTION AT THIS LOCATION. INCLUDED FOR PAYMENT IN REMOVING STORM SEWER PAY ITEM.
3) PER AS-BUILT PLANS, EXISTING SS LEAD DIRECTLY CONNECTS TO THE 54" STORM SEWER LINE.
4) PER AS-BUILT PLANS, EXISTING SS LEAD CONNECTS TO NOTHING. INLET POSSIBLY WAS REMOVED AS PART OF MMSD GREEN INFRASTRUCTURE PROJECT.
5) PER AS-BUILT PLANS, EXISTING SS LEAD CONNECTS TO 30" COMBINED SEWER WITH A BLIND CONNECTION. MAINTAIN CONNECTION UNTIL NEW STORM SEWER PIPE IS CONSTRUCTED TO STRUCTURE 209.
6) MAINTAIN STRUCTURES AND STORM SEWER AT LOW POINTS AS WELL AS INTERFACE LOCATIONS TO EXISTING INFRASTRUCTURE FOR TEMPORARY DRAINAGE. LOW POINTS MUST BE REMOVED AND REPLACED IN THE SAME OPERATION.
7) MAINTAIN EXISTING STRUCTURE. EXISTING PIPE FROM STRUCTURE TO MAINLINE TO REMAIN IN PLACE.
8) EXISTING MMSD STRUCTURE. PERMIT REQUIRED FOR WORK PRIOR TO COMPLETION. VERIFY PERMIT REQUIREMENTS WITH THE ENGINEER. INCLUDED FOR PAYMENT IN PAY ITEM SEALING PIPES.

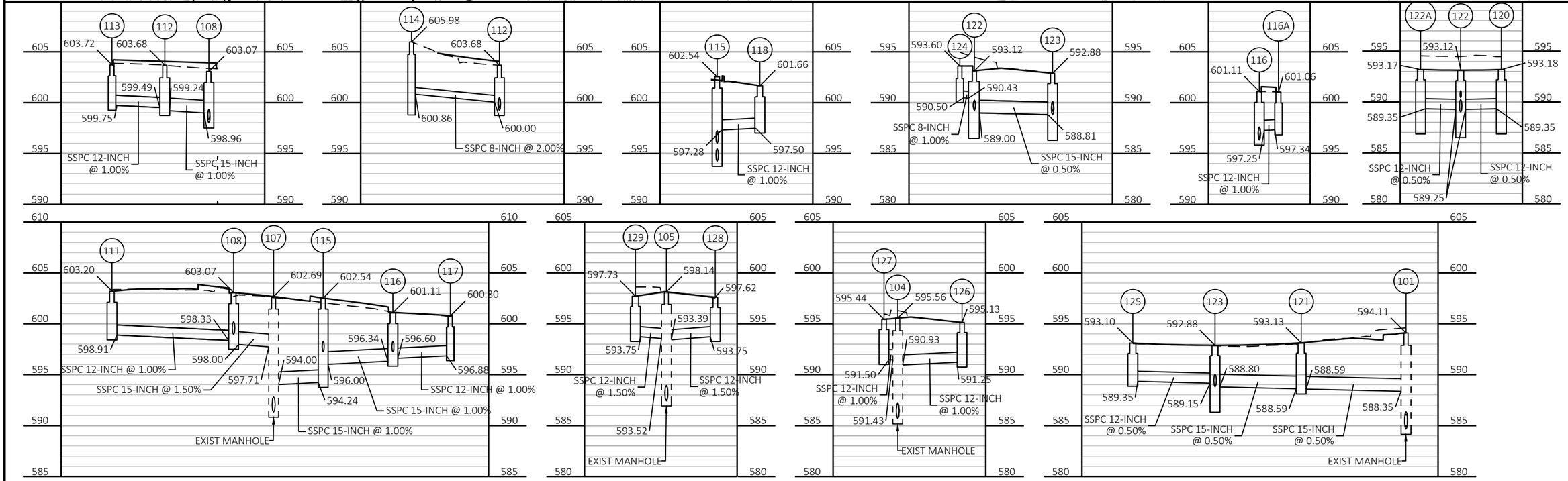
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN STORM SEWER - RAMP NBF - STAGE 1B	SHEET 133	E



PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER DETAILS - RAMP SBF	SHEET 134	E

FILE NAME : C:\USERS\TONYBACIAK\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-SE-DESIGN\1228-09-07_IH_43_DRAINAGE\C3D\12280907\SHEETSPLAN\022501-SS-NW.DWG
LAYOUT NAME - 01
PLOT DATE : 10/29/2025 3:13 PM PLOT BY : TONY BACIAK PLOT NAME : PLOT SCALE : 1 IN:50 FT





PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE: RAMP SBF	SHEET 135	E

FILE NAME : C:\USERS\TONYBACIAK\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-SE-DESIGN\1228-09-07_IH_43_DRAINAGE\C3D\12280907\SHEETSPLAN\022501-SS-NW-1PP.DWG
LAYOUT NAME - 01PP
PLOT DATE : 10/29/2025 3:14 PM
PLOT BY : TONY BACIAK
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

2

N

6-INCH UNDERDRAIN (TYP)
(SEE ROAD PLANS AND DETAILS)

BIOSWALE
(SEE CONSTRUCTION DETAILS)

STA 86+71, 40.1' LT
EXIST COMBINED SEWER MH
REMOVE COVER
ADJUST
PLACE COVER MS 58A
202

STA 87+69, 71.2' LT
EXIST SS STRUCTURE TO REMAIN
REMOVE EXISTING COVER
CONNECT NEW 12" SS PIPE
RECONSTRUCT
PLACE COVER TYPE MS 58A
209

STA 88+42, 28.5' LT
COMBINED SEWER CATCH BASINS - H
207

STA 88+27, 49.5' LT
CATCH BASINS 4 - MS 57
208

STA 86+17, 75.9' LT
CATCH BASINS 45A - MS 57
211

STA 88+12, 35.2' LT
CATCH BASINS 45A - MS 57
208A

CLEANING STORM SEWER

CONNECT 6-INCH
UNDERDRAIN
(SEE DETAILS)

STA 86+65, 22.6' LT
CONNECT EXIST 12-INCH SSPRC
I.E. = 604.67
203A

STA 86+68, 22.4' LT
COMBINED SEWER CATCH BASINS - J-S
203

CONNECT 6-INCH
UNDERDRAIN
(SEE DETAILS)

STA 88+35, 1.6' RT
COMBINED SEWER CATCH BASINS - H
205

STA 86+68, 2.0' RT
CATCH BASINS 4-H
204

STA 88+27, 41.3' RT
EXIST INLET
CONNECT
CLEANING STORM SEWER
206

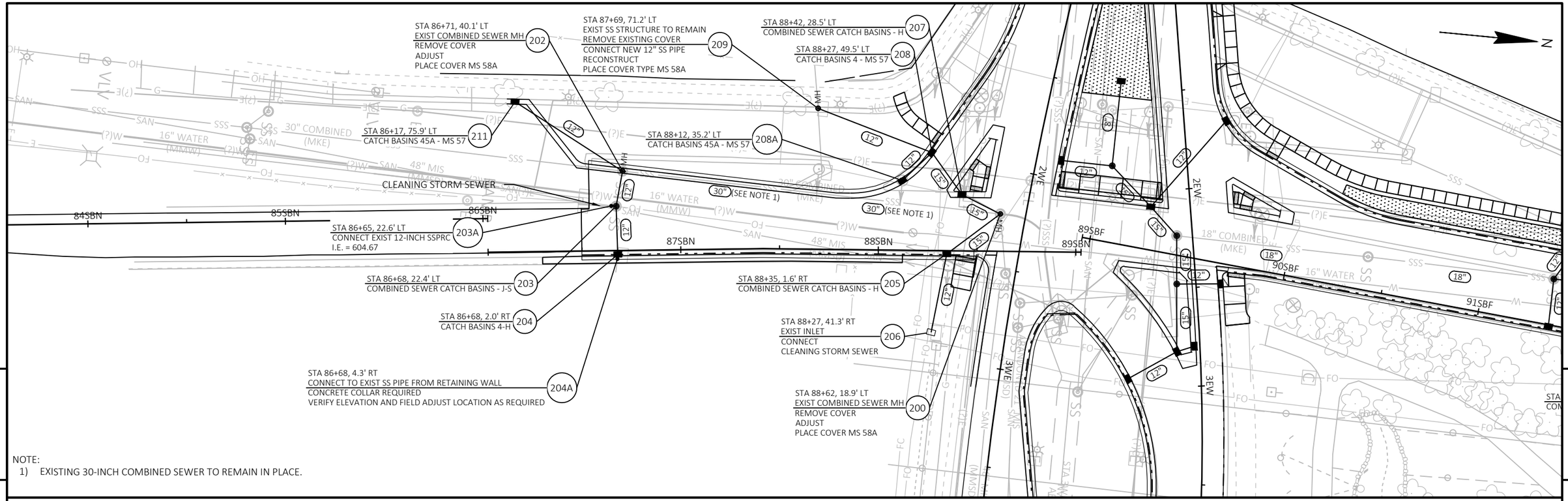
STA 86+68, 4.3' RT
CONNECT TO EXIST SS PIPE FROM RETAINING WALL
CONCRETE COLLAR REQUIRED
VERIFY ELEVATION AND FIELD ADJUST LOCATION AS REQUIRED
204A

STA 88+62, 18.9' LT
EXIST COMBINED SEWER MH
REMOVE COVER
ADJUST
PLACE COVER MS 58A
200

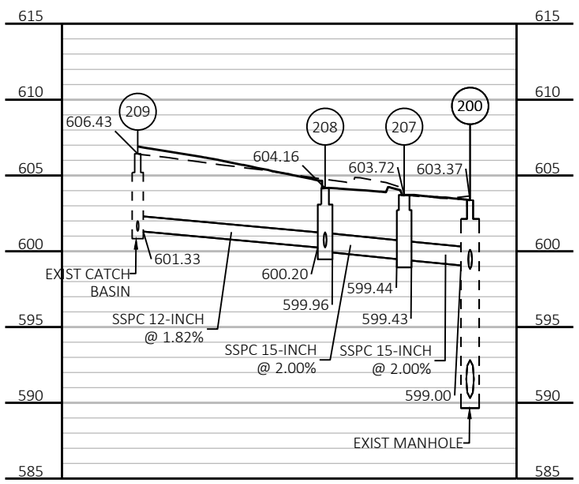
NOTE:
1) 30-INCH COMBINED SEWER BASED ON AS-BUILT CONSTRUCTED 1892 (BRICK); LINED 2013/2014. DEPTH VARIES 11 FEET TO 13.5 FEET. EXISTING PIPES TO REMAIN IN PLACE.

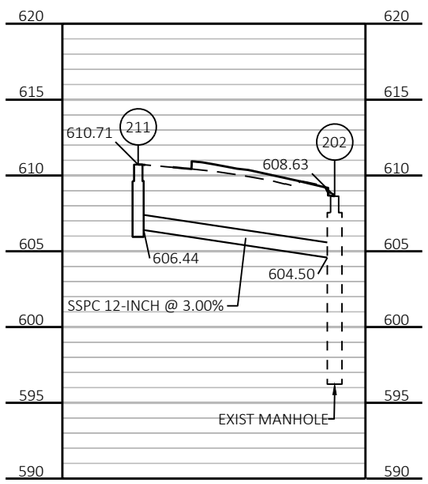
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER DETAILS - RAMP SBN	SHEET 136	E

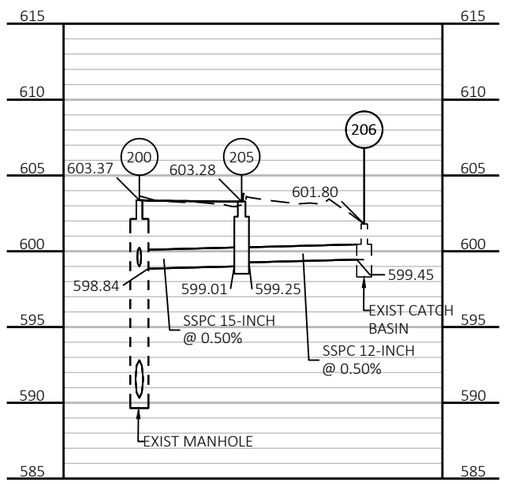
FILE NAME : C:\USERS\TONYBACIAK\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-SE-DESIGN\1228-09-07_IH_43_DRAINAGE\C3D\12280907\SHEETSPLAN\022501-SS-SW.DWG
LAYOUT NAME - 02
PLOT DATE : 10/29/2025 3:19 PM
PLOT BY : TONY BACIAK
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

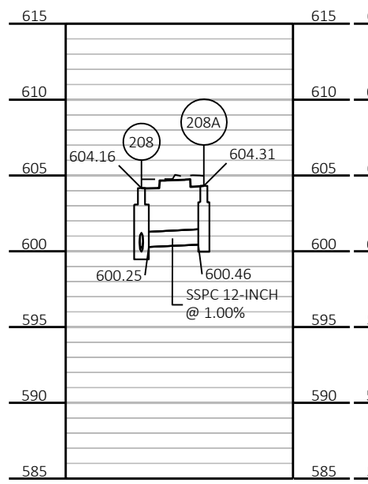


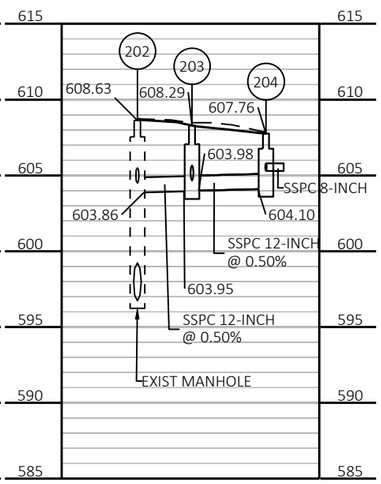
NOTE:
1) EXISTING 30-INCH COMBINED SEWER TO REMAIN IN PLACE.











PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE - RAMP SBN	SHEET 137	E

FILE NAME : C:\USERS\TONYBACIAK\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-SE-DESIGN\1228-09-07_IH_43_DRAINAGE\C3D\12280907\SHEETSPLAN\022501-SS-SW.DWG
LAYOUT NAME - 02PP
PLOT DATE : 10/29/2025 3:20 PM PLOT BY : TONY BACIAK PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

N

324 STA 5+41, 55.3' RT
CATCH BASINS 45A - MS 57

323 STA 5+56, 32.1' RT
CATCH BASINS 45A - MS 57

321 STA 5+85, 39.0' RT
EXIST MH
ADJUST COVER BY OTHERS

STA 91+41, 31.8' RT
EXIST MH - COMBINED SEWER
ADJUST

302

CONNECT 6-INCH
UNDERDRAIN
(SEE DETAILS)

313 STA 89+90, 19.0' LT
EXIST INLET - TO REMAIN
ADJUST

316 STA 91+46, 20.9' LT
EXIST MH - ADJUST

317 STA 91+52, 31.6' RT
COMBINED SEWER CATCH BASINS - H

6-INCH UNDERDRAIN (TYP)
(SEE ROAD PLANS AND DETAILS)

89NBN 90NBN 91NBN 92NBN 93NBN 94NBN 95NBN 96NBN

322 STA 6+12, 17.2' RT
CATCH BASINS 45A - MS 57

CONNECT 6-INCH
UNDERDRAIN
(SEE DETAILS)

303 STA 90+46, 26.6' RT
EXIST COMBINED SEWER MH
REMOVE COVER, ADJUST
PLACE COVER MS 58A

(SEE NOTE 2)

(SEE NOTE 1)

318 STA 91+62, 32.1' RT
CATCH BASINS 4-H

300 STA 94+25, 46.9' RT
EXIST COMBINED SEWER MH
CONNECT 12-INCH SS

322A STA 6+29, 15.1' RT
EXIST INLET
REMOVE EXIST COVER
INSTALL COVER MS 58A

STA 90NBN+27.3, 64.4' RT
FIRE HYDRANT RELOCATION
BY OTHERS

(SEE NOTE 1)

CONNECT 6-INCH UNDERDRAIN
(SEE DETAILS)

312 STA 89+76, 51.8' RT
CATCH BASINS 45A - MS 57

314 STA 89+38, 82.3' RT
EXIST INLET
REMOVE COVER, ADJUST
PLACE COVER MS 57

318A STA 91+61, 38.5' RT
BIOSWALE OVERFLOW
(SEE CONSTRUCTION DETAIL)

309 STA 92+56, 44.3' RT
BIOSWALE OVERFLOW
(SEE CONSTRUCTION DETAIL)

308 STA 94+01, 72.2' RT
CATCH BASINS 44A - MS 57

311 STA 90+30, 76.5' RT
CATCH BASINS 45A - MS 55

STA 92+55, 67.0' RT
CATCH BASINS 45A - MS 55

309A

304 STA 90+00, 73.6' RT
CATCH BASINS 44A - MS 58A

BIOSWALE
(SEE CONSTRUCTION DETAIL)

BIOSWALE
(SEE CONSTRUCTION DETAIL)

305 STA 89+76, 117.7' RT
CATCH BASINS 45A - MS 57

CONNECT 6-INCH
UNDERDRAIN
(SEE DETAILS)

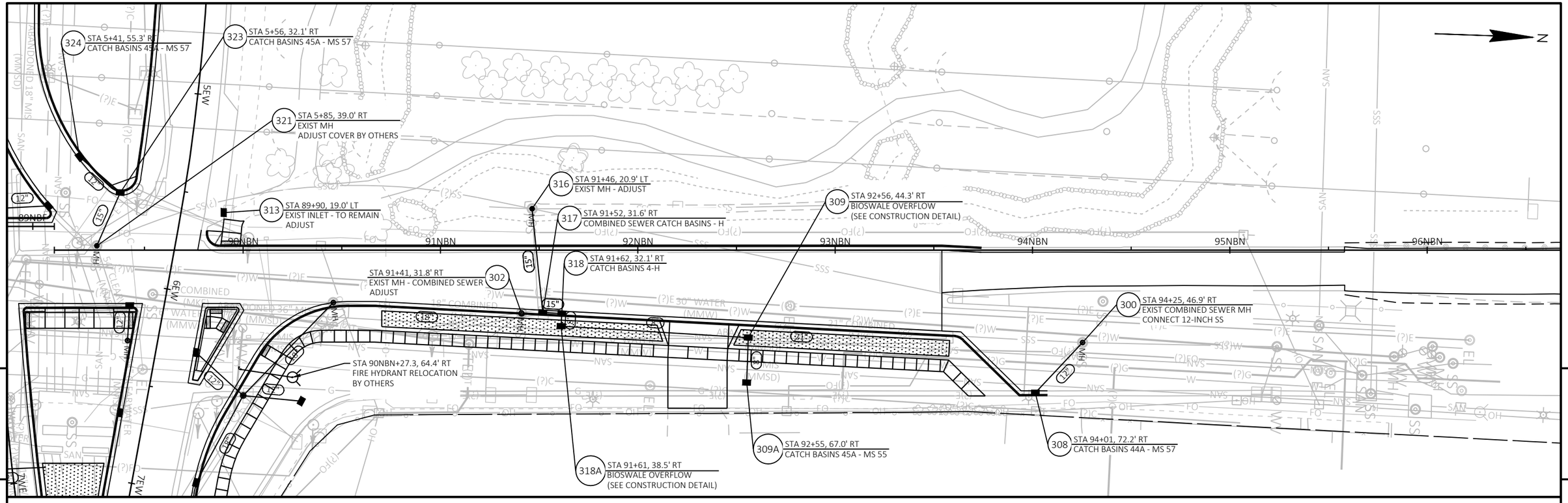
306 STA 89+71, 147.4' RT
CATCH BASINS 45A - MS 57

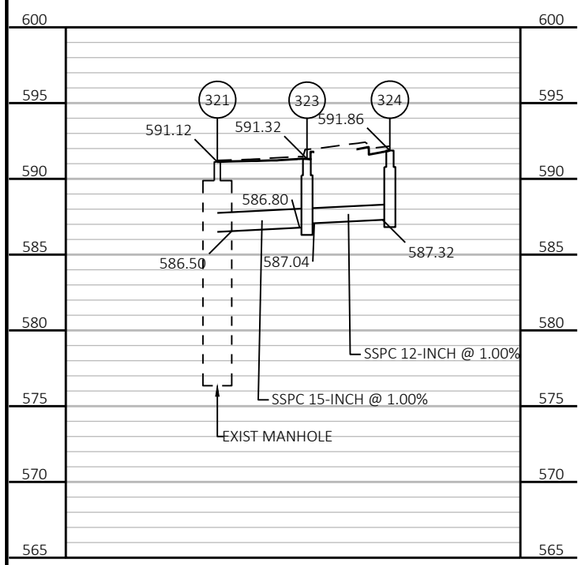
307 STA 89+67, 176.1' RT
CATCH BASINS 45A - MS 57

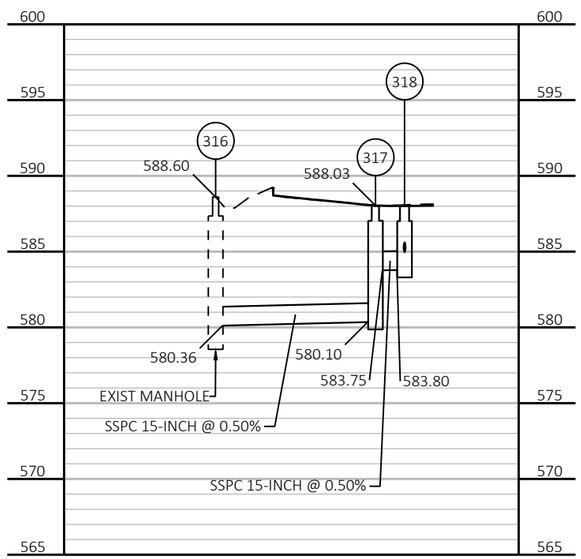
NOTE:
1) 21-INCH & 18-INCH COMBINED SEWER BASED ON AS-BUILT ORIGINAL CONSTRUCTION 1907; RELAYED IN 1967. DEPTH VARIES 9 FEET TO 12 FEET. EXISTING PIPES TO REMAIN IN PLACE.
2) 12-INCH COMBINED SEWER BASED ON AS-BUILT CONSTRUCTED 1907; NO RECORD THAT IS WAS REPLACED. DEPTH 9 FEET. EXISTING PIPES TO REMAIN IN PLACE.

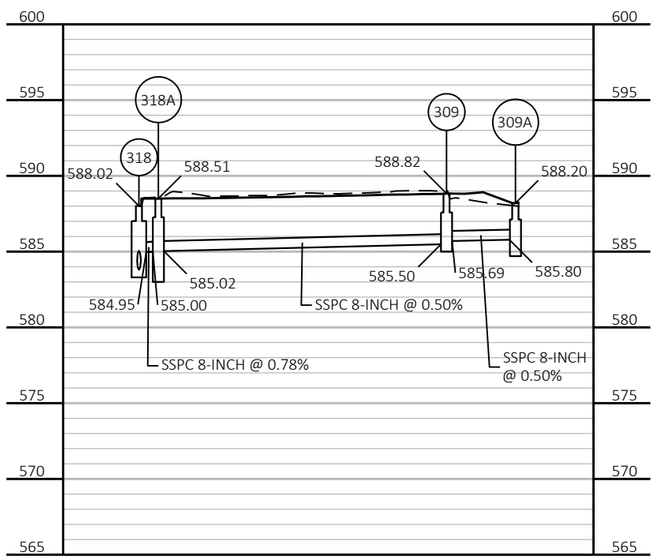
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER DETAILS - RAMP NBN	SHEET 138	E

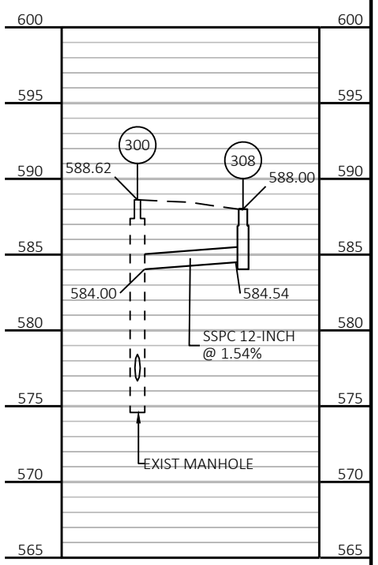
FILE NAME : C:\USERS\TONYBACIAK\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-SE-DESIGN\1228-09-07_IH_43_DRAINAGE\C3D\12280907\SHEETSPLAN\022501-SS-NE.DWG
LAYOUT NAME - 03
PLOT DATE : 10/29/2025 2:53 PM
PLOT BY : TONY BACIAK
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42





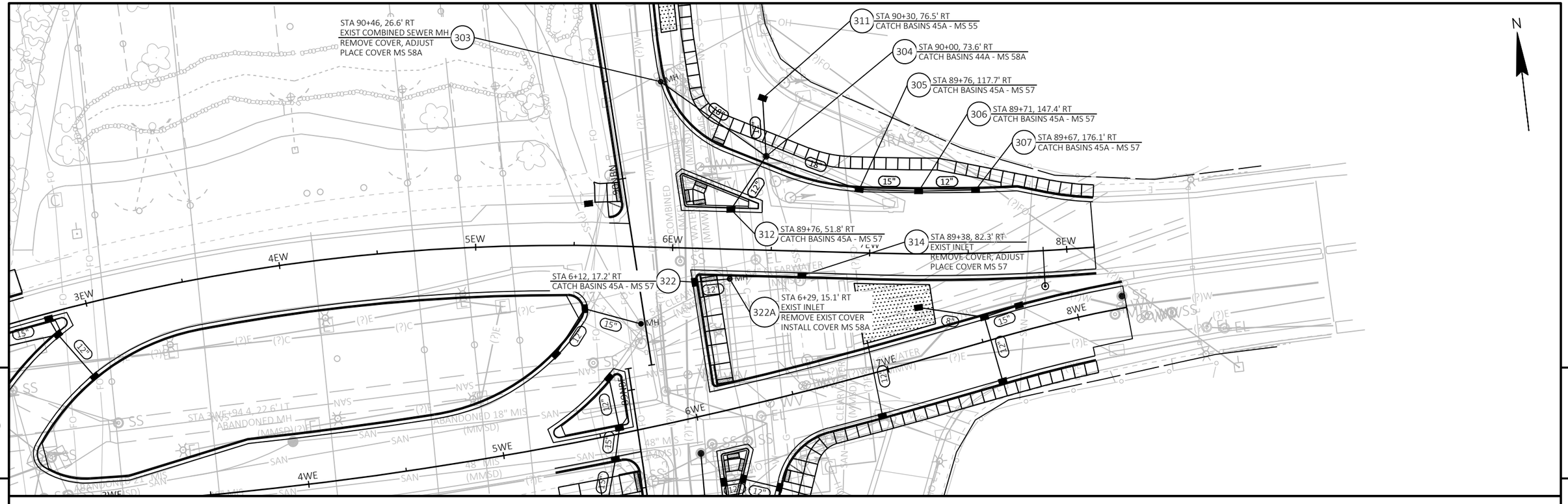


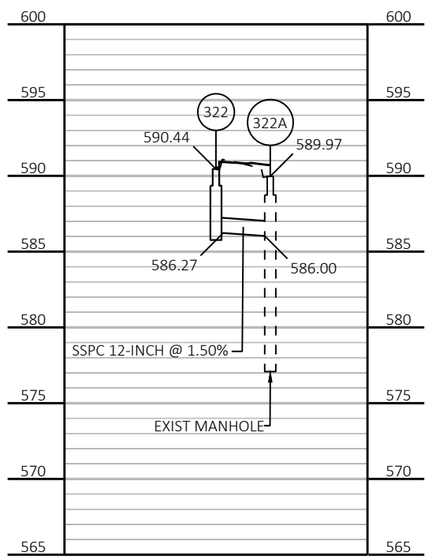


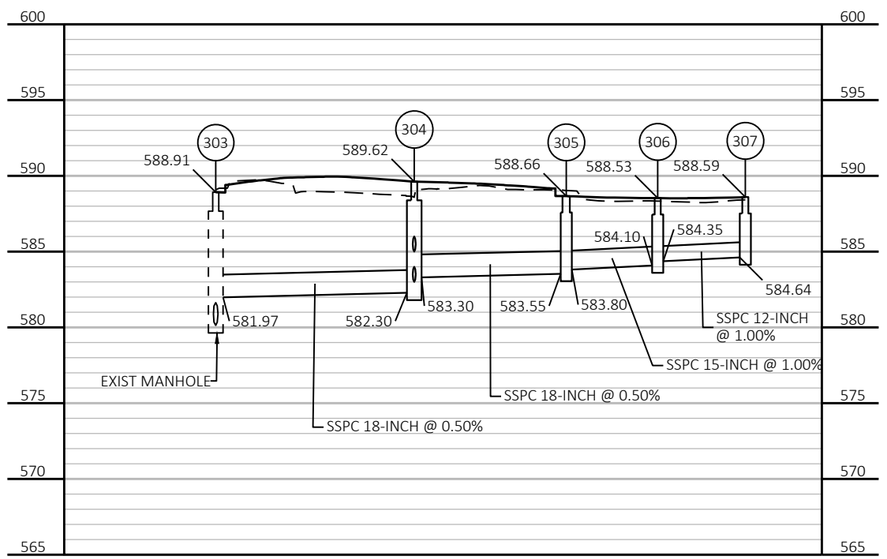


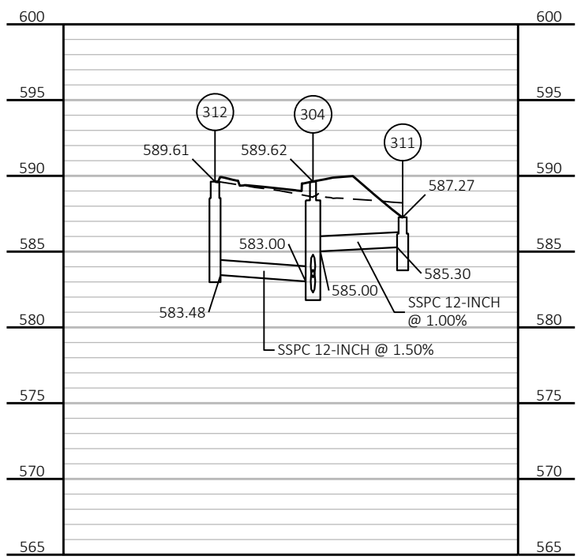
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE: RAMP NBN	SHEET 139	E

FILE NAME : C:\USERS\TONYBACIAK\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-SE-DESIGN\1228-09-07_IH_43_DRAINAGE\C3D\12280907\SHEETSPLAN\022501-SS-NE-1PP.DWG
LAYOUT NAME - 03PP-1
PLOT DATE : 10/29/2025 2:49 PM PLOT BY : TONY BACIAK PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44





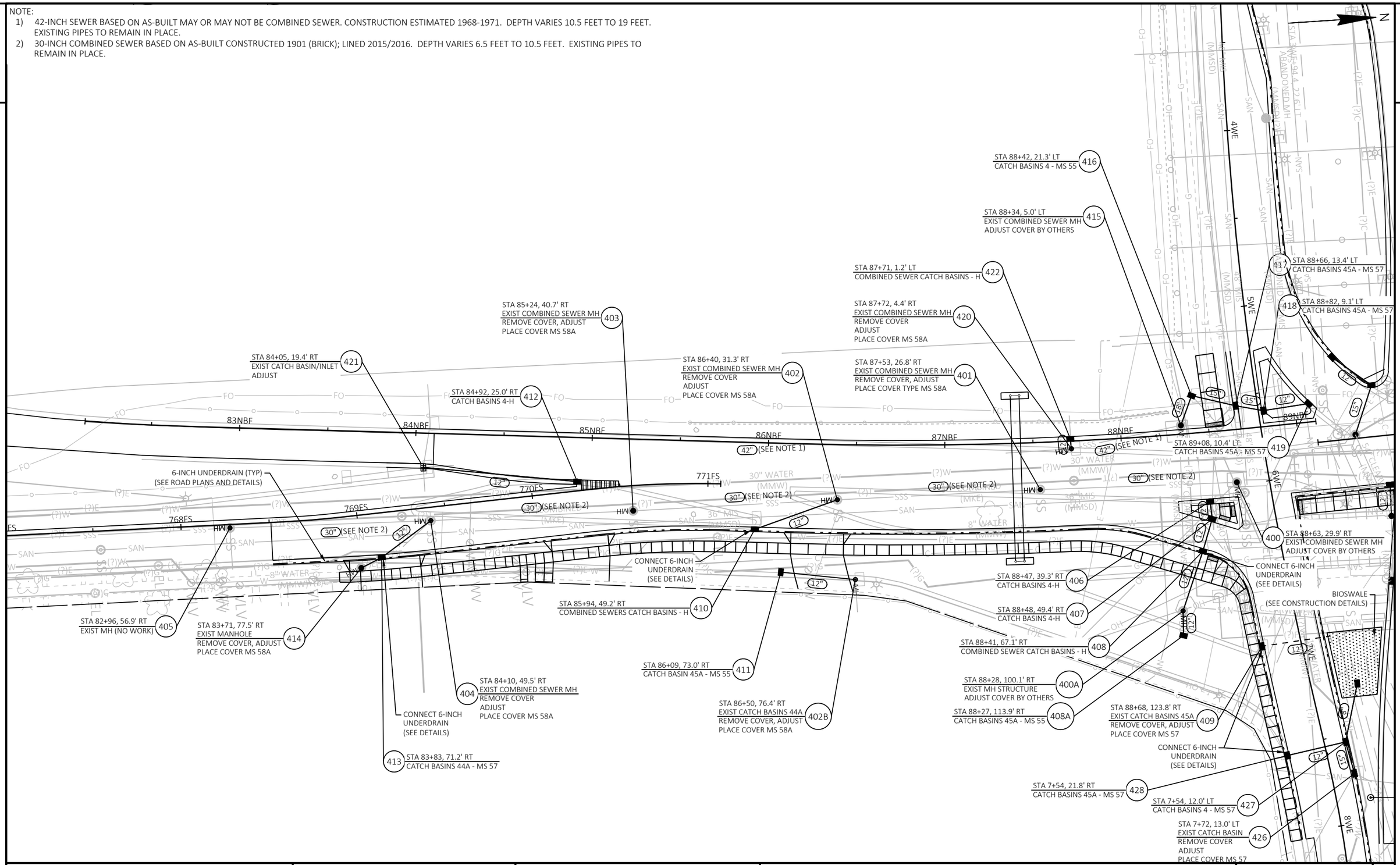




PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE: RAMP NBN	SHEET 140	E

FILE NAME : C:\USERS\TONYBACIAK\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-SE-DESIGN\1228-09-07_IH_43_DRAINAGE\C3D\12280907\SHEETSPLAN\022501-SS-NE-2PP.DWG
LAYOUT NAME - 03PP-2
PLOT DATE : 10/29/2025 3:01 PM
PLOT BY : TONY BACIAK
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

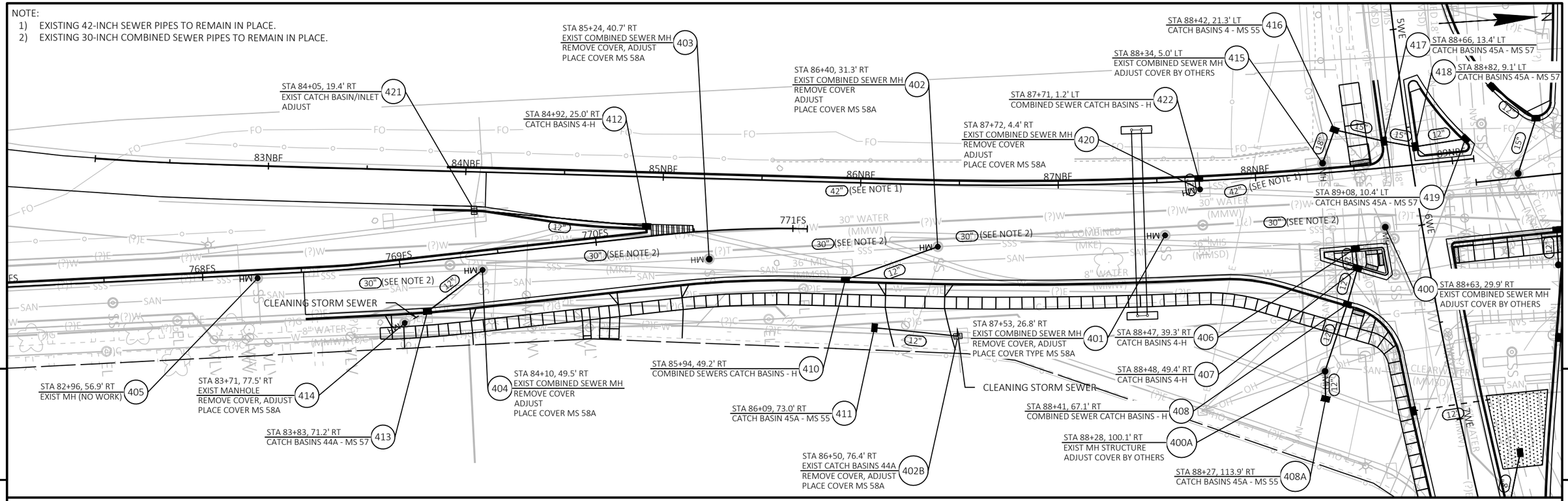
NOTE:
1) 42-INCH SEWER BASED ON AS-BUILT MAY OR MAY NOT BE COMBINED SEWER. CONSTRUCTION ESTIMATED 1968-1971. DEPTH VARIES 10.5 FEET TO 19 FEET. EXISTING PIPES TO REMAIN IN PLACE.
2) 30-INCH COMBINED SEWER BASED ON AS-BUILT CONSTRUCTED 1901 (BRICK); LINED 2015/2016. DEPTH VARIES 6.5 FEET TO 10.5 FEET. EXISTING PIPES TO REMAIN IN PLACE.

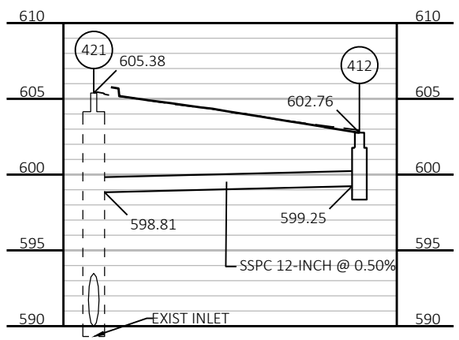


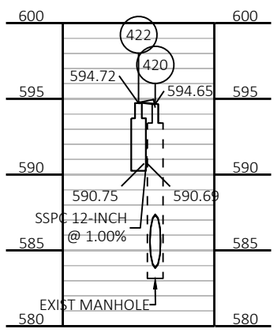
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER DETAILS - RAMP NBF	SHEET 141	E

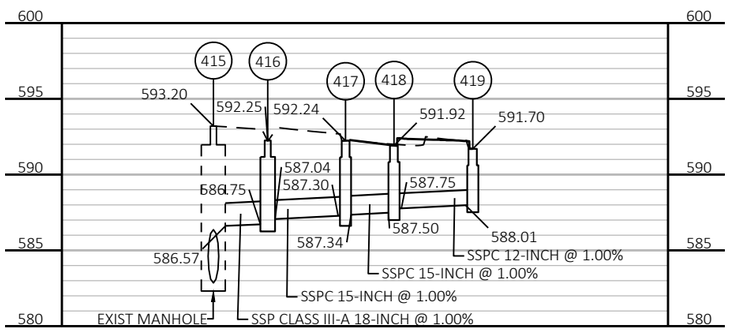
FILE NAME : C:\USERS\TONYBACIAK\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-SE-DESIGN\1228-09-07_IH_43_DRAINAGE\C3D\12280907\SHEETSPLAN\022501-SS-SE.DWG
LAYOUT NAME - 04
PLOT DATE : 10/29/2025 3:38 PM PLOT BY : TONY BACIAK PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

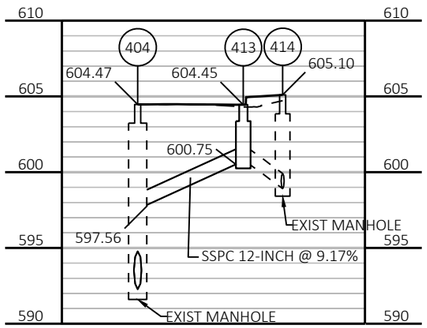
NOTE:
1) EXISTING 42-INCH SEWER PIPES TO REMAIN IN PLACE.
2) EXISTING 30-INCH COMBINED SEWER PIPES TO REMAIN IN PLACE.

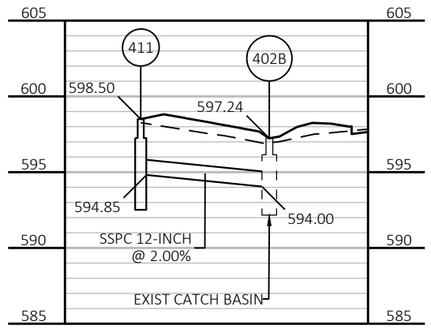


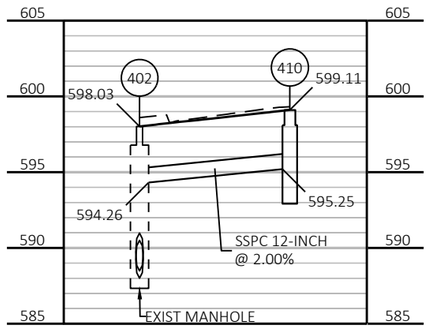


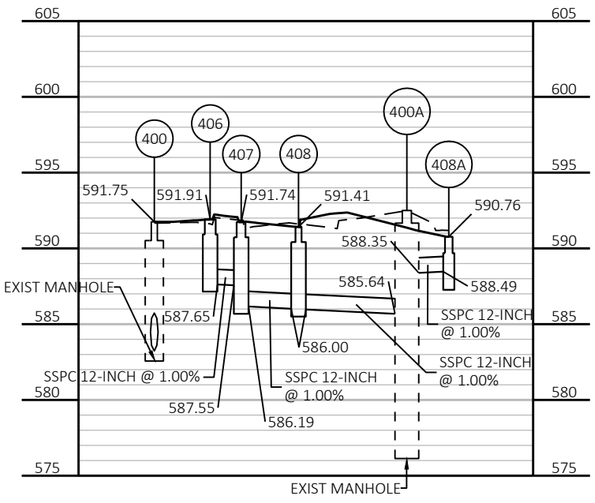




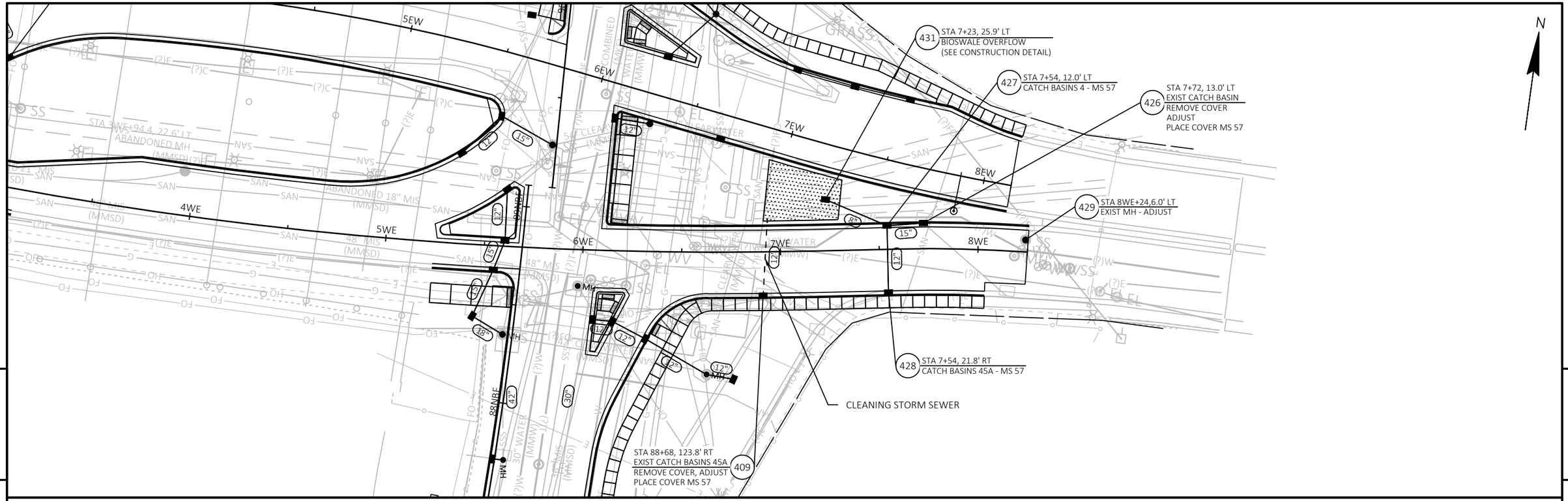


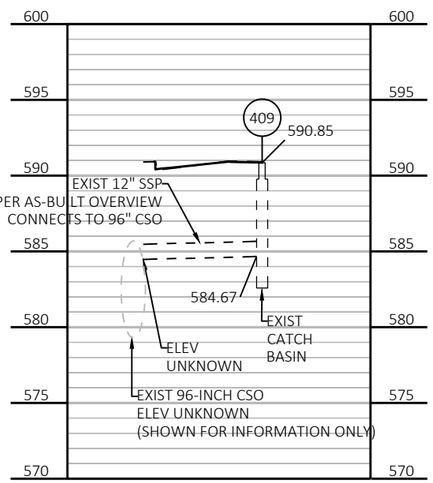


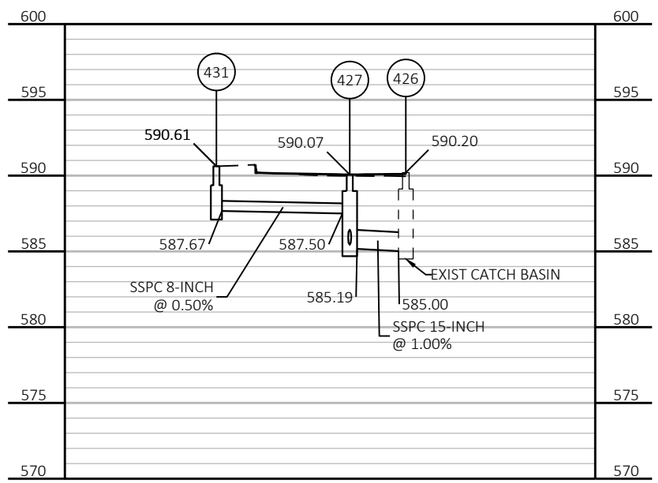


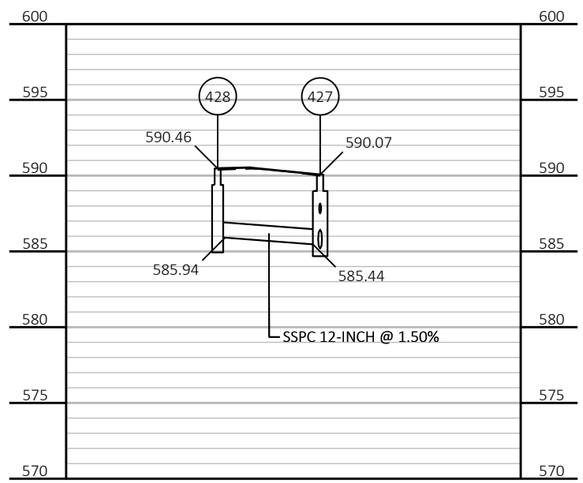


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE - RAMP NBF	SHEET 142	E









PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE - RAMP NBF	SHEET 143	E

FILE NAME : C:\USERS\TONYBACIAK\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-SE-DESIGN\1228-09-07_IH_43_DRAINAGE\C3D\12280907\SHEETSPLAN\022501-SS-SE-2.DWG
LAYOUT NAME - 02PP
PLOT DATE : 10/29/2025 3:51 PM
PLOT BY : TONY BACIAK
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

2

NOTES:

TYPE II ALUMINUM SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED IN ACCORDANCE WITH 638.3.4(2) OF THE STANDARD SPECIFICATIONS.
CONTACT THE FOLLOWING INDIVIDUAL AT THE SIGN SHOP FOR DISTRIBUTION COUNTY LOCATION.

SIGNING COORDINATOR	COUNTY(S)	PHONE #
• BREE JOHNS-KONKEL	MILWAUKEE, RACINE, OZAUKEE, WASHINGTON	414-750-2814
• CHUCK SALDIVAR	KENOSHA, WALWORTH, WAUKESHA	414-750-1682

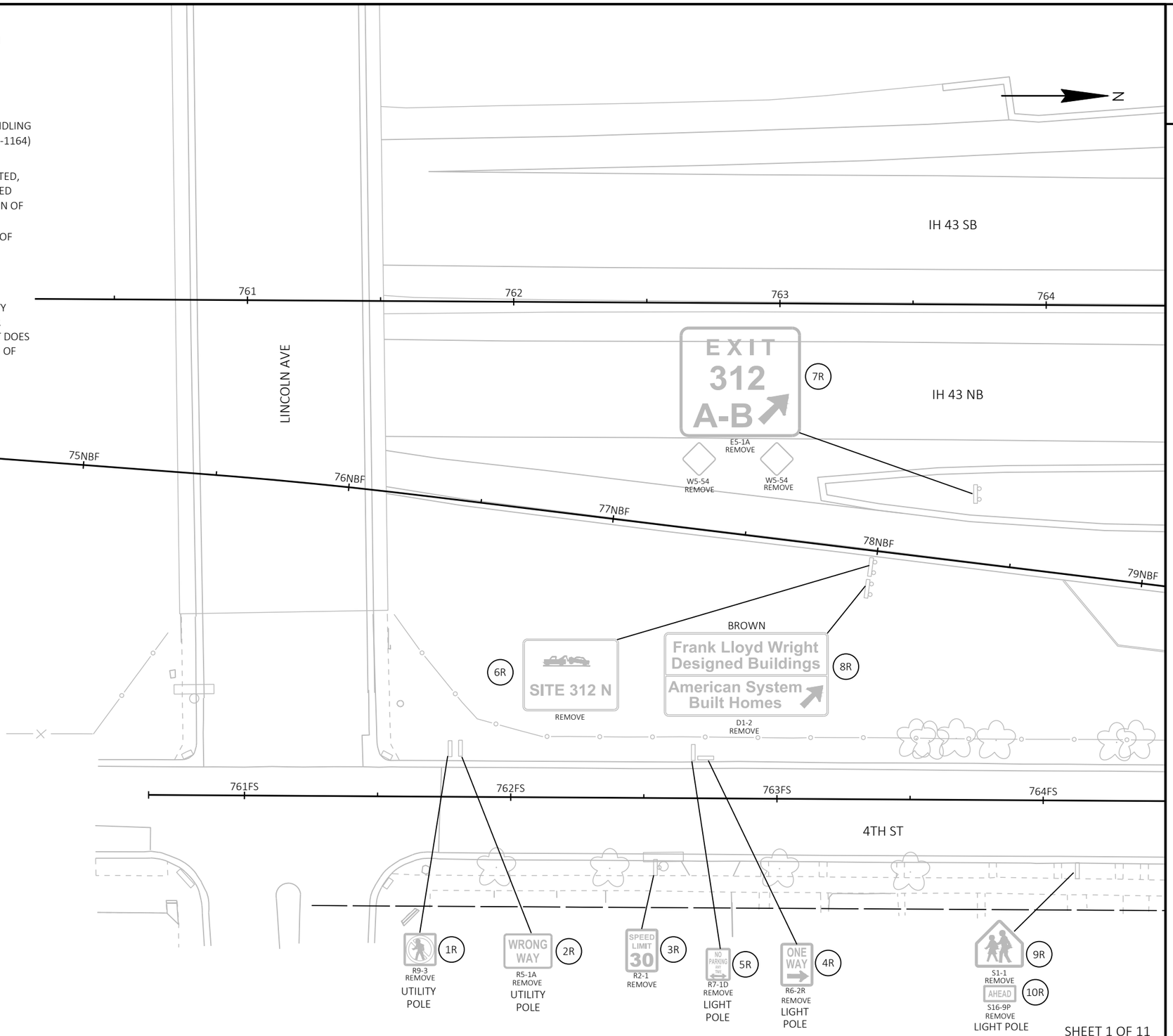
SIGNS SHALL BE CAREFULLY REMOVED FROM SIGN SUPPORTS. THE SIGNS SHALL BE PALLETIZED FOR HANDLING WITH A FORKLIFT (SEE STANDARD SPEC 638.3.4). THE REGIONAL SIGN SHOP (GENERAL PHONE # 414-266-1164) SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF THE SIGNS.

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.

BOX OUT OR CORING OF CONCRETE FOR SIGN POSTS IS INCIDENTAL TO THE POST.



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
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 1 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 144 E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\CAD\12280907\SIGN\023101_PS.DWG
LAYOUT NAME - 01
PLOT DATE : 12/19/2025 4:58 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

764 765 766 767 768 769 770

764FS 765FS 766FS 767FS 768FS 769FS 770FS

79NBF 80NBF 81NBF 82NBF 83NBF 84NBF

4TH ST

IH 43 NB

IH 43 NB OFF RAMP

BROWN

32R Basillica of St Josaphat Historic Site — REMOVE

31R Becher St / Mitchell St — REMOVE TYPE I

30R Lapham Blvd / Greenfield Ave — REMOVE TYPE I

28R Lapham Blvd / Becher St — D1-2 REMOVE

SIGN STRUCTURE TO REMAIN S-40-814

26R W3-3 REMOVE

25R R1-2 REMOVE ON S-40-977

24R WRONG WAY R5-1A REMOVE

19R WRONG WAY R5-1A REMOVE ON S-40-977

21R R1-2 REMOVE PART OF 21R; W12-1D REMOVE

WRONG WAY R5-1A REMOVE PART OF 21R

13R NO PARKING EXCEPT CRASH INVESTIGATION VEHICLES — R8-55 REMOVE; 2 HOUR LIMIT — R8-56 REMOVE

12R D4-56R REMOVE

11R NO PARKING EXCEPT CRASH INVESTIGATION VEHICLES — R8-55 REMOVE; 2 HOUR LIMIT — R8-56 REMOVE

27R NO PARKING ANY TIME — R7-1D REMOVE

REMOVE. SEE STRUCTURE PLANS FOR QUANTITIES S-40-977

18R Frank Lloyd Wright Designed Buildings / American System Built Homes — D1-2 REMOVE

17R SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT — S4-51 REMOVE; FINES HIGHER — R2-6P REMOVE

14R AUSTRAVA 43 AUSTRAVA 94 Downtown Becher St - WEST — REMOVE TYPE I ON S-40-977

15R 4th St — REMOVE TYPE I ON S-40-977

16R Becher St EAST — REMOVE TYPE I ON S-40-977

MOVE SEE PERMANENT SIGN PLAN CITY SIGN

MOVE SEE PERMANENT SIGN PLAN CITY SIGN ON S-40-977

NO PARKING ORDINANCE — MOVE SEE PERMANENT SIGN PLAN CITY SIGN

NO PARKING TIME OF DAY — MOVE SEE PERMANENT SIGN PLAN CITY SIGN

20R W3-2 REMOVE

LEGEND

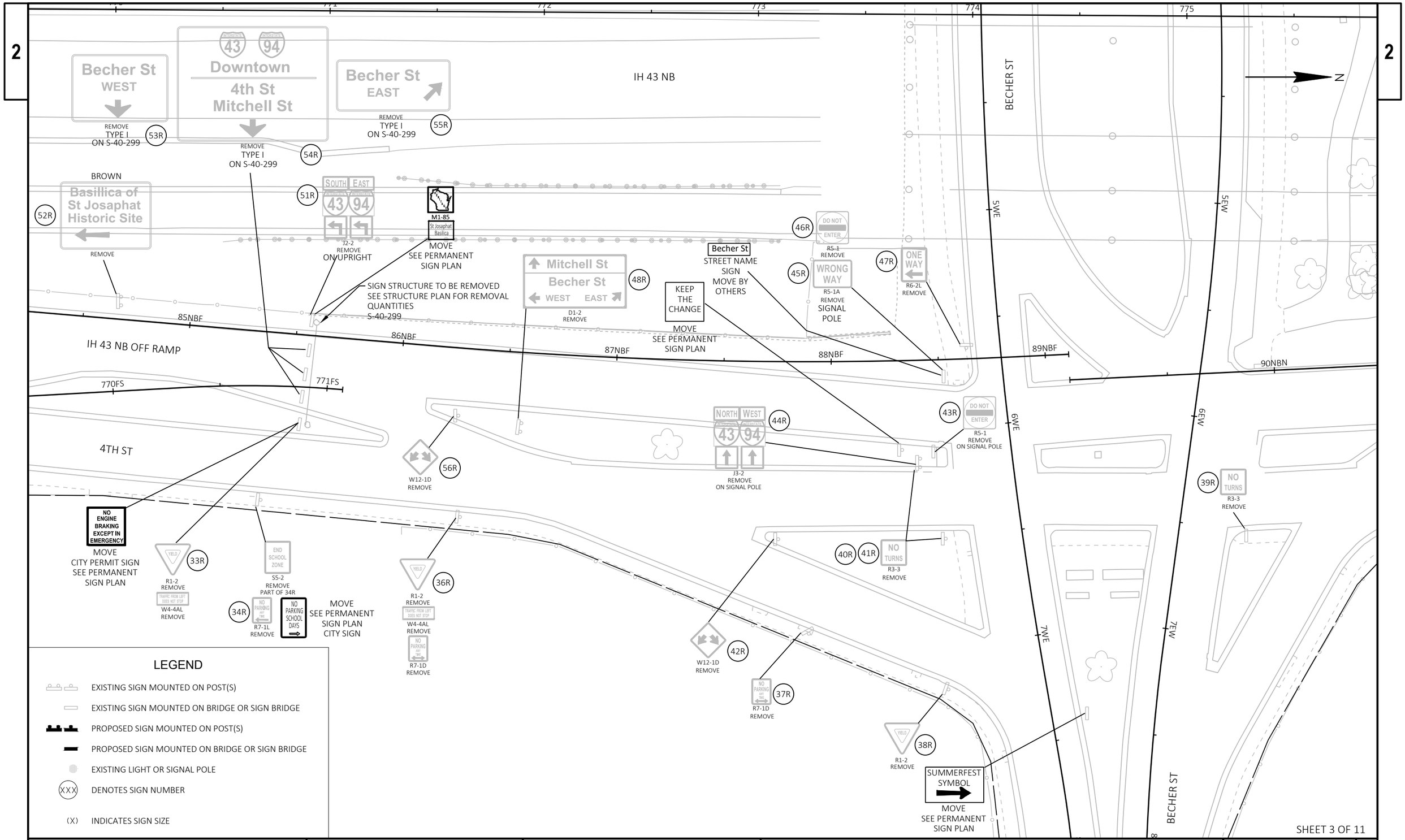
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 2 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 145	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\CAD\12280907\SIGN\023101_PS.DWG
LAYOUT NAME - 02

PLOT DATE : 12/19/2025 4:58 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT



PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 146 E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\CAD\12280907\SIGN\023101_PS.DWG
LAYOUT NAME - 03

PLOT DATE : 12/19/2025 4:58 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

776 777 778 779 780 781

N

SEW

IH 43 NB

63R
NORTH WEST
INTERSTATE INTERSTATE
43 94
J3-2
REMOVE

64R
RAMP CLOSED
USE
ALT ROUTE
R11-54F
REMOVE

65R
NORTH WEST
INTERSTATE INTERSTATE
43 94
J3-2
REMOVE

90NBN 91NBN 92NBN 93NBN 94NBN 95NBN 96NBN

IH 43 NB ON RAMP

4TH ST

57R
R3-2
REMOVE

58R
NO
TURN
ON RED
R10-11B
REMOVE

4 th Street
PART OF 60R

SPEED
LIMIT
30
R2-1
REMOVE

59R 60R

NORTH
INTERSTATE
43
WEST
INTERSTATE
94
62R
JV3-1
REMOVE

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
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 4 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 147 E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\CAD\12280907\SIGN\023101_PS.DWG
LAYOUT NAME - 04

PLOT DATE : 12/19/2025 4:58 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

IH 43

781 782 783 784 785 786 787

N

IH 43 NB

96NBN 97NBN 98NBN 99NBN 100NBN 101NBN

IH 43 NB ON RAMP

4TH ST

NO SIGNS IMPACTED
THIS SHEET

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
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 148	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\CAD\12280907\SIGN\023101_PS.DWG
LAYOUT NAME - 05
PLOT DATE : 12/19/2025 4:58 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

IH 43 SB

787 788 789 790 791 792

IH 43 NB

102NBN 103NBN 104NBN 105NBN 106NBN

NO SIGNS IMPACTED
THIS SHEET

4TH ST

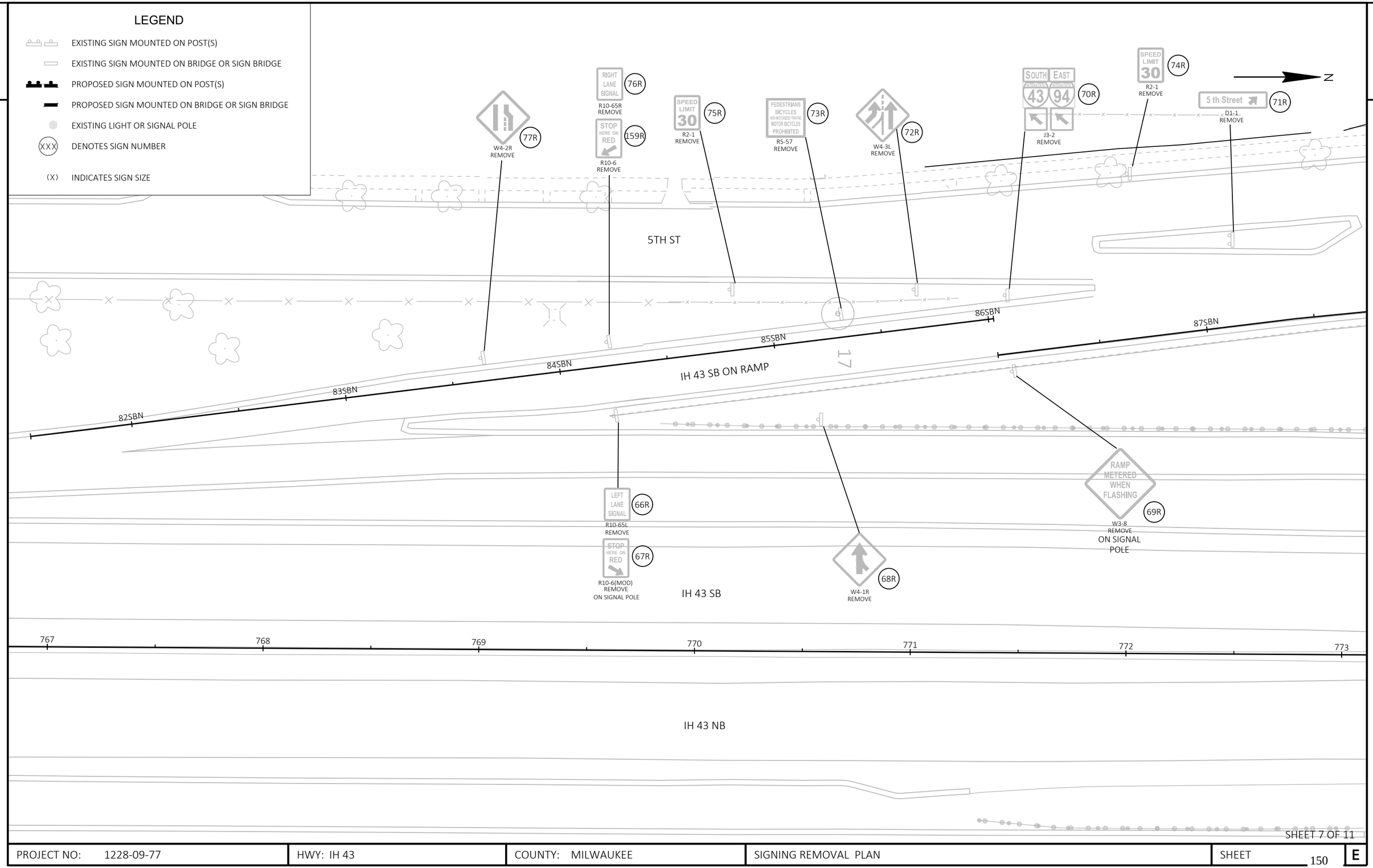
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

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
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE



SHEET 7 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 150	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\CAD\12280907\SIGN\023101_PS.DWG
LAYOUT NAME - 07

PLOT DATE : 12/19/2025 4:58 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

BECHER ST

1WE

1EW

2WE

2EW

3WE

3EW

4WE

4EW

5TH ST

IH 43 SB ON RAMP

IH 43 SB

IH 43 SB OFF RAMP

BECHER ST

88SBN

89SBN

89SBF

90SBF

91SBF

92SBF

93SBF

774

775

776

777

778

83R
W4-2R
REMOVE
ON LIGHT POLE

82R
160R
SOUTH EAST
CHICAGO 43 CHICAGO 94
J2-2
REMOVE

78R
RAMP CLOSED
USE
ALT ROUTE
R11-54F
REMOVE

80R
NO TURNS
R3-3
REMOVE

81R
R3-2
REMOVE

102R
YIELD
R1-2
REMOVE
ON LIGHT POLE

101R
NO PARKING ANY TIME
R7-1D
REMOVE

99R
W12-1D
REMOVE

103R
NO TURNS
R3-3
REMOVE
ON SIGNAL POLE

79R
Ferry
REMOVE
ON LIGHT POLE

100R
R3-1
REMOVE

86R
87R
NO PARKING ANY TIME
R7-1D
REMOVE

BROWN
Basillica of St Josaphat Historic Site
98R
REMOVE

96R
97R
YIELD
R1-2
REMOVE

95R
ONLY ONLY
R3-8
REMOVE

CITY OF MILWAUKEE
NO PARKING
2AM TO 6AM

NO ENGINE BRAKING EXCEPT IN EMERGENCY

MOVE CITY PERMIT SIGN SEE PERMANENT SIGN PLAN

ONLY ONLY
R3-8
REMOVE
PART OF 93R

104R
DO NOT ENTER
R5-1
REMOVE

105R
WRONG WAY
R5-1A
REMOVE
ON SIGNAL POLE

Becher St
STREET NAME SIGN
MOVE BY OTHERS

84R
DO NOT ENTER
R5-1
REMOVE

85R
WRONG WAY
R5-1A
REMOVE
ON SIGNAL POLE

92R
93R
WRONG WAY
R5-1A
REMOVE

88R
ONLY
R3-8
REMOVE

SIGN STRUCTURE TO BE REMOVED
SEE STRUCTURE PLAN FOR REMOVAL QUANTITIES
S-40-978

Becher St
EAST
89R
REMOVE
TYPE I
ON S-40-978

CHICAGO 43 CHICAGO 94
Downtown
5th St
Lincoln Ave
REMOVE
TYPE I
ON S-40-978
90R

Becher St
WEST
REMOVE
TYPE I
ON S-40-978
91R

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
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 8 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 151	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\CAD\12280907\SIGN\023101_PS.DWG
LAYOUT NAME - 08

PLOT DATE : 12/19/2025 4:58 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

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
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N

123R Beloit / Chicago / Becher St - EAST — REMOVE TYPE I ON S-40-979

124R 5th St — REMOVE TYPE I ON S-40-979

125R Becher St WEST — REMOVE TYPE I ON S-40-979

SIGN STRUCTURE TO BE REMOVED
SEE STRUCTURE PLAN FOR REMOVAL QUANTITIES
S-40-979

122R STOP — R1-1 REMOVE

126R W3-2 REMOVE

120R 121R R1-2 REMOVE

ROGERS ST

108R ONE WAY — R6-2R REMOVE

119R I55-56 REMOVE

STREET NAME SIGN BY OTHERS - CITY

118R R7-1D REMOVE

5TH ST

117R Lincoln Ave / Becher St / EAST WEST — D1-2 REMOVE

116R W3-2 REMOVE ON LIGHT POLE

115R EXIT — REMOVE

W5-54 REMOVE

W5-54 REMOVE

95SBF 96SBF 97SBF 98SBF 99SBF

SIGN STRUCTURE TO REMAIN
S-40-836

IH 43 SB OFF RAMP

94SBF

107R R7-1D REMOVE

109R WRONG WAY — R5-1A REMOVE PART OF 112R

112R W3-3 REMOVE

111R RAMP METERED WHEN FLASHING — W3-8 REMOVE ON SIGNAL POLE

BROWN
Basillica of St Josaphat Historic Site
106R — REMOVE

IH 43 SB

113R 43 / 94 — REMOVE TYPE I ON S-40-836

114R Becher St / Lincoln Ave — REMOVE TYPE I ON S-40-836

779 780 781 782 783 784

SHEET 9 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 152	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\CAD\12280907\SIGN\023101_PS.DWG
LAYOUT NAME - 09

PLOT DATE : 12/19/2025 4:59 PM PLOT BY : DEL CONTE, DANIELLE 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
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

2

2

N

BECHER ST

5TH ST

IH 43 SB OFF RAMP

IH 43 SB ON RAMP

IH 43 SB

IH 43 NB

1WE

2WE

3WE

4WE

1EW

2EW

3EW

4EW

776

775

774

773

895BF

895BN

885BN

143R DO NOT ENTER — R5-1 REMOVE — ON LIGHT POLE

142R ONE WAY — R6-2R REMOVE — ON LIGHT POLE

139R NO TURNS — R3-3 REMOVE — ON SIGNAL POLE

138R ONE WAY — R6-2L REMOVE — ON LIGHT POLE

134R R3-1 REMOVE

135R W12-1D REMOVE

133R SOUTH EAST 43 94 — J2-2 REMOVE

132R RAMP CLOSED USE ALT ROUTE — R11-54F REMOVE

131R Downtown — D1-1 REMOVE

130R NORTH WEST 43 94 — J2-2 REMOVE

R4-7 REMOVE

ONE WAY — R6-2R ESTR

141R R3-2 REMOVE — W5-52L REMOVE

127R NO PARKING ANY TIME — R7-1D REMOVE

140R R3-2 REMOVE — ON SIGNAL POLE

137R ONE WAY — R6-2R REMOVE — ON LIGHT POLE

136R DO NOT ENTER — R5-1 REMOVE

128R ONE WAY — R6-2R REMOVE

129R NO TURN ON RED — R10-11B REMOVE

5th St — STREET NAME SIGN MOVE BY OTHERS

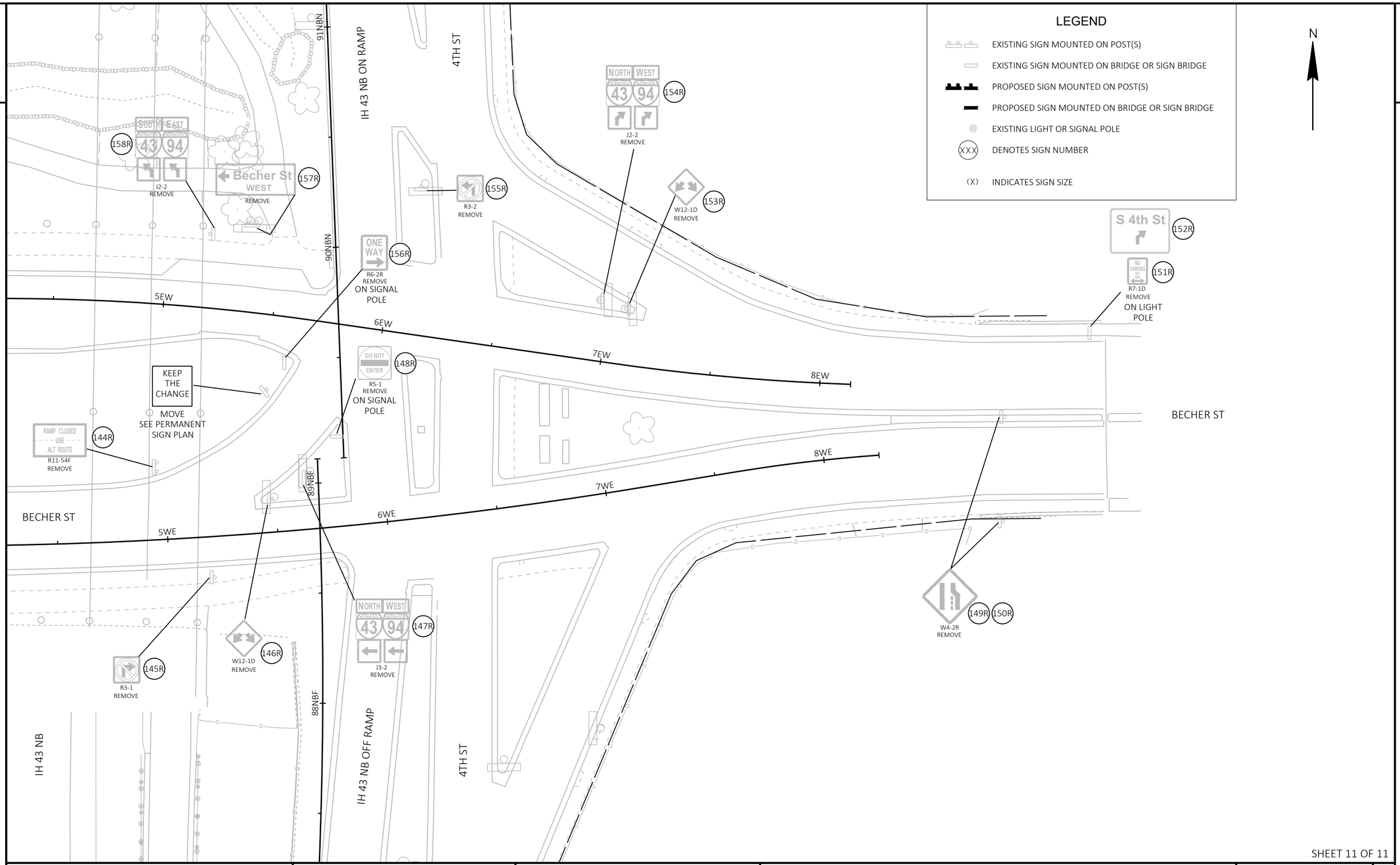
SHEET 10 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 153	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\CAD\12280907\SIGN\023101_PS.DWG
LAYOUT NAME - 10

PLOT DATE : 12/19/2025 4:59 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



SHEET 11 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 154	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\CAD\12280907\SIGN\023101_PS.DWG
LAYOUT NAME - 11

PLOT DATE : 12/19/2025 4:59 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

NOTES:
TYPE II ALUMINUM SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED IN ACCORDANCE WITH 638.3.4(2) OF THE STANDARD SPECIFICATIONS.
CONTACT THE FOLLOWING INDIVIDUAL AT THE SIGN SHOP FOR DISTRIBUTION COUNTY LOCATION.

SIGNING COORDINATOR	COUNTY(S)	PHONE #
• BREE JOHNS-KONKEL	MILWAUKEE, RACINE, OZAUKEE, WASHINGTON	414-750-2814
• CHUCK SALDIVAR	KENOSHA, WALWORTH, WAUKESHA	414-750-1682

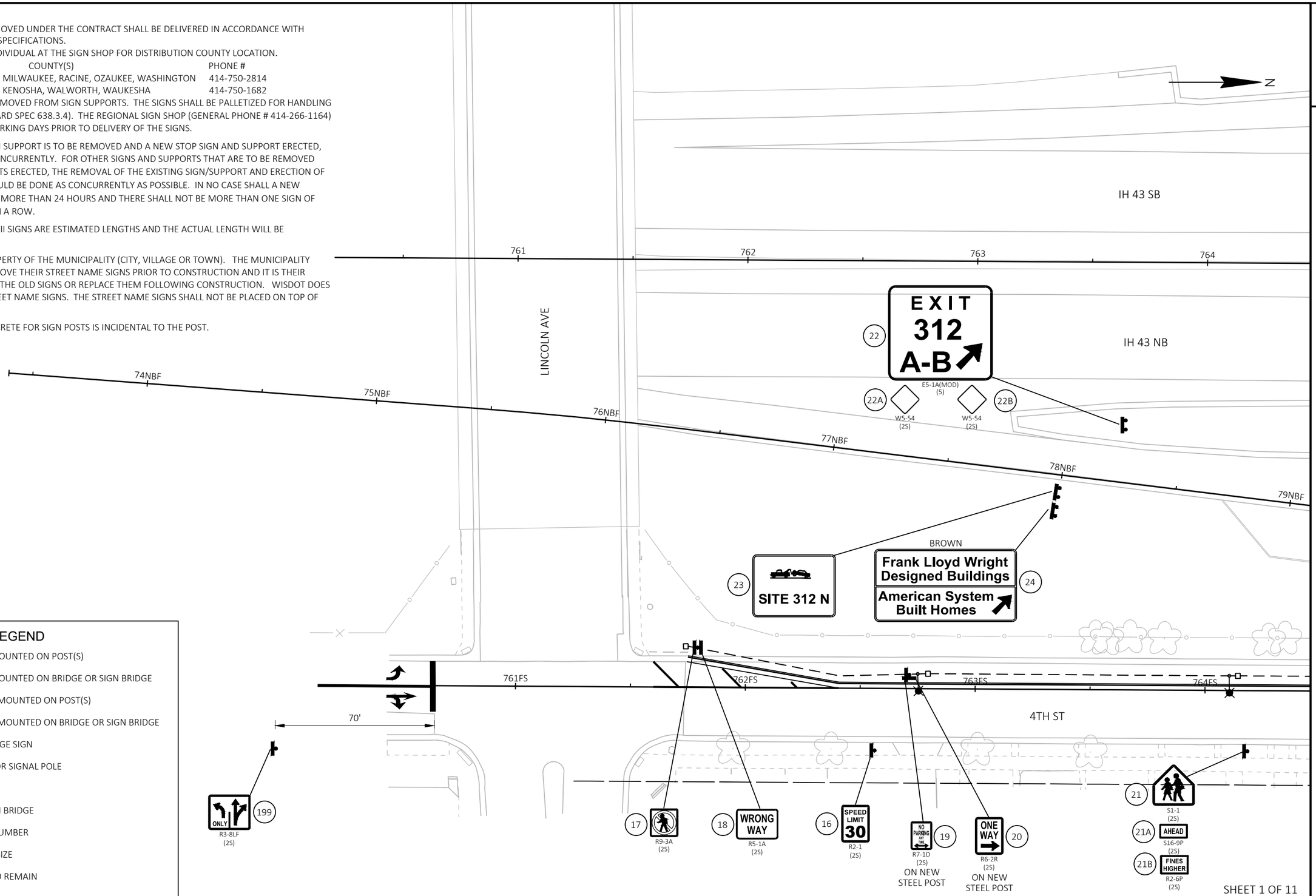
SIGNS SHALL BE CAREFULLY REMOVED FROM SIGN SUPPORTS. THE SIGNS SHALL BE PALLETIZED FOR HANDLING WITH A FORKLIFT (SEE STANDARD SPEC 638.3.4). THE REGIONAL SIGN SHOP (GENERAL PHONE # 414-266-1164) SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF THE SIGNS.

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.

BOX OUT OR CORING OF CONCRETE FOR SIGN POSTS IS INCIDENTAL TO THE POST.



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 1 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 155	E

FILE NAME : N:\PDS\C3D\CAD\12280907\SIGN\023201_PS.DWG
LAYOUT NAME - 01
PLOT DATE : 12/19/2025 12:53 PM
PLOT BY : MARTENS, KAREN L
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

N

764 765 766 767 768 769 770

BROWN
39 Basillica of St Josaphat Historic Site

Becher St Mitchell St 25
TYPE I

Lapham Blvd Greenfield Ave 26
TYPE I

SIGN STRUCTURE TO REMAIN
S-40-814

Lapham Blvd
Becher St 38
D1-2

IH 43 NB

40 W3-3 (2S)

BROWN
36 Frank Lloyd Wright Designed Buildings
American System Built Homes
D1-2

37 WRONG WAY R5-1A (3)

35 WRONG WAY R5-1A (3)

79NBF 80NBF 81NBF 82NBF 83NBF 84NBF

IH 43 NB OFF RAMP

192 NO PARKING EXCEPT CRASH INVESTIGATION VEHICLES R8-55 (2S)
192A 2 HOUR LIMIT R8-56 (2S)

193 D4-56R (2S)

194 NO PARKING EXCEPT CRASH INVESTIGATION VEHICLES R8-55 (2S)
194A 2 HOUR LIMIT R8-56 (2S)

764ES 765ES 766ES 767ES 768ES 769ES 770ES

4TH ST

27 SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT S4-51 (2S)

41 W4-3R (3)
41A TRAFFIC FROM RIGHT DOES NOT STOP W4-4AR (3)

28 W3-3 (2S)

29 NO PARKING ANY TIME R7-1D (2S) ON NEW STEEL POST

30 MOVE CITY SIGN

32 NO PARKING ORDINANCE MOVE CITY SIGN ON NEW STEEL POST 31

33 W4-3R (3)
33A TRAFFIC FROM LEFT DOES NOT STOP W4-4AL (2S)

34 NO PARKING TIME OF DAY MOVE CITY SIGN ON LIGHT POLE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 2 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 156 E

FILE NAME : N:\PDS\C3D\CAD\12280907\SIGN\023201_PS.DWG
LAYOUT NAME - 02

PLOT DATE : 10/24/2025 9:09 AM PLOT BY : MARTENS, KAREN L 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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

IH 43 NB

IH 43 NB OFF RAMP

4TH ST

BECHER ST

BROWN
Basillica of St Josaphat Historic Site
67

M1-85
St Josaphat Basilica
MOVE
62

63 WRONG WAY R5-1A (3)
64

66 ONLY ONLY ONLY ONLY R3-8LAAR (2S)

61 SOUTH EAST 43 94 J2-2 (2S)

Becher St
STREET NAME SIGN
MOVE BY OTHERS

ON SIGNAL POLE

54 DO NOT ENTER R5-1 (5)

55 WRONG WAY R5-1A (2M)

58 STOP R1-1F (3)
3' MOUNT HEIGHT

56 DO NOT ENTER R5-1 (3)

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

49 NORTH WEST 43 94 J3-2 (2S)

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

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

188 STOP R1-1 (3)

60 NO PARKING ANY R7-1D (2S)

44 END SCHOOL ZONE S5-2 (2S)

43 NO PARKING ANY R7-1L (2S)

42 NO PARKING SCHOOL DAYS
MOVE CITY SIGN

68 DO NOT CROSS OVER TO LEFT TURN LANE

45 NO ENGINE BRAKING EXCEPT IN EMERGENCY
MOVE CITY PERMIT SIGN

46 ONLY ONLY ONLY ONLY R3-8LAAR (2S)

S-40-3126
OVERHEAD SIGN STRUCTURE

INSTALL TYPE I SIGNS ON S-40-3126

53 KEEP THE CHANGE
MOVE CITY SIGN

51 W11-2 (2S)
51A W16-7L (2S)

47 ONE WAY R6-2R (2S)

48 SUMMERFEST SYMBOL
MOVE
SEE PERMANENT SIGN PLAN

5 Becher St WEST ONLY

6 INTERSTATE 43 94 Downtown ONLY

7 INTERSTATE 43 94 Downtown 4th St Mitchell St

8 Becher St EAST ONLY

85NBE 86NBE 87NBE 88NBE 82NBE

770FS 771FS

XING XING ONLY ONLY

5WE 5EW 7WE 7EW 6WE 6EW 9WE

35' 55' 30' 60'

N

SHEET 3 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 157 E

FILE NAME : N:\PDS\C3D\CAD\12280907\SIGN\023201_PS.DWG
LAYOUT NAME - 03

PLOT DATE : 10/24/2025 9:09 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

776 777 778 779 780 781

W BECHER ST

SEW

IH 43 NB

IH 43 NB ON RAMP

4TH ST

N

91NBN

92NBN

93NBN

94NBN

95NBN

96NBN

78 NORTH WEST INTERSTATE 43 INTERSTATE 94 J3-2 (2S)

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

186 FREEWAY ENTRANCE D13-3 (2S)

76 NORTH WEST INTERSTATE 43 INTERSTATE 94 J3-2 (2S)

75 PEDESTRIANS BICYCLES NON MOTORIZED TRAFFIC MOTOR BICYCLES PROHIBITED R5-57 (5)

72 4 th Street D1-1

70 SPEED LIMIT 30 R2-1 (2S)

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

74 NORTH INTERSTATE 43 WEST INTERSTATE 94 JV3-1(2S)

69 W11-2 (2S)

69A W16-7L (2S)

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 4 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 158	E

FILE NAME : N:\PDS\C3D\CAD\12280907\SIGN\023201_PS.DWG
LAYOUT NAME - 04

PLOT DATE : 10/24/2025 9:09 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

IH 43

781 782 783 784 785 786 787

N

IH 43 NB

96NBN 97NBN 98NBN 99NBN 100NBN 101NBN

IH 43 NB ON RAMP

4TH ST

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

NO SIGNS THIS SHEET

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 159	E

FILE NAME : N:\PDS\C3D\CAD\12280907\SIGN\023201_PS.DWG
LAYOUT NAME - 05
PLOT DATE : 10/24/2025 9:09 AM
PLOT BY : MARTENS, KAREN L
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

IH 43 SB

787 788 789 790 791 792

IH 43 NB

102NBN 103NBN 104NBN 105NBN 106NBN

NO SIGNS
THIS SHEET

4TH ST

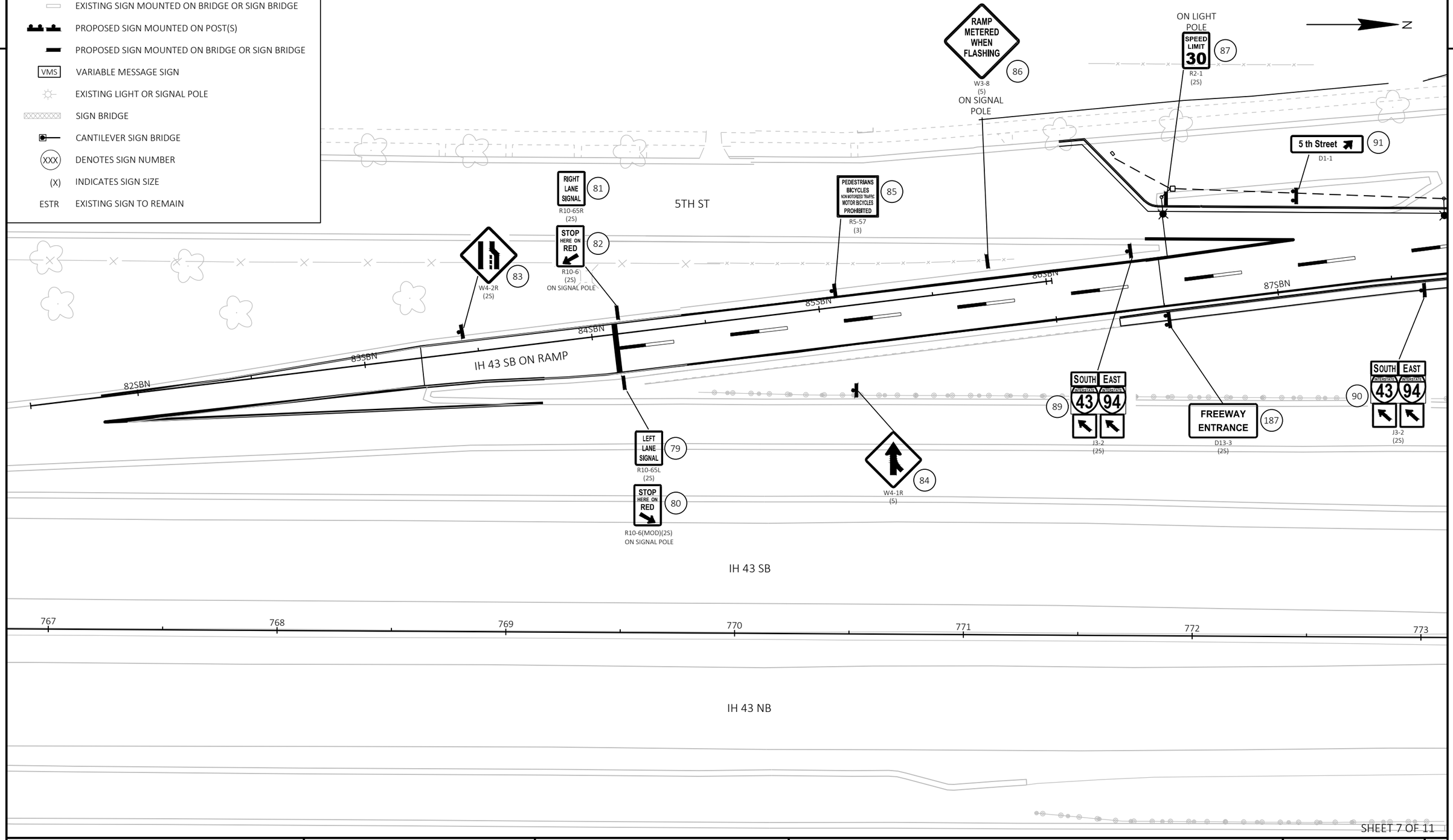
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 7 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 161 E

FILE NAME : N:\PDS\C3D\CAD\12280907\SIGN\023201_PS.DWG
LAYOUT NAME - 07

PLOT DATE : 10/24/2025 9:09 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N

ON SIGNAL POLE
111 DO NOT ENTER R5-1 (3)
112 WRONG WAY R5-1A (2S) 3' MOUNT HEIGHT
113 Ferry ON SIGNAL POLE
92 SOUTH EAST INTERSTATE 43 INTERSTATE 94 J2-2 (2S)
110 W11-2 (2S)
110A W16-7L (2S)
189 STOP R1-1 (3)
99 STOP R1-1F (3) ON SIGNAL POLE
108 W12-1D (2S) 2' MOUNT HEIGHT
195 109 NO PARKING ANY TIME R7-1D (2S)
CITY OF MILWAUKEE NO PARKING 2AM TO 6AM 100
NO ENGINE BRAKING EXCEPT IN EMERGENCY 101
MOVE CITY PERMIT SIGN
OVERHEAD SIGN STRUCTURE S-40-3125
1WE
1EW BECHER ST
2EW
ONLY
25'
40'
89SBF
89SBN
90SBF
91SBF
92SBF
93SBF
88SBN
IH 43 SB ON RAMP
IH 43 SB OFF RAMP
IH 43 SB
BECHER ST
30'
3WE
4WE
4EW
95 SOUTH EAST INTERSTATE 43 INTERSTATE 94 J3-2 (2S)
96 STOP R1-1F (3) ON SIGNAL POLE
Becher St STREET NAME SIGN MOVE BY OTHERS (CITY OF MILW)
98 DO NOT ENTER R5-1 (5)
97 WRONG WAY R5-1A (2M) 3' MOUNT HEIGHT
104 107 WRONG WAY R5-1A (3)
102 103 ONLY ONLY R3-8EAR (2S)
105 106 W3-3 (2S)
1 INTERSTATE 43 INTERSTATE 94 Becher St EAST
2 INTERSTATE 43 INTERSTATE 94 5th St Lincoln Ave
3 Becher St WEST ONLY
INSTALL TYPE I SIGNS ON S-40-3125
773 774 776 777 778

SHEET 8 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 162 E

FILE NAME : N:\PDS\C3D\CAD\12280907\SIGN\023201_PS.DWG
LAYOUT NAME - 08
PLOT DATE : 10/24/2025 9:09 AM
PLOT BY : MARTENS, KAREN L
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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N

S-40-3125
SEE SHEET 8

127 M1-85 TO Basilica MOVE

BROWN
Basillica of St Josaphat Historic Site
124

126 W4-3L (3)

125 I55-56 30"X18"

123 STOP R1-1 (2S)

ROGERS ST

122 ONE WAY R6-2R (2S)

STREET NAME SIGN BY OTHERS - CITY

121 W4-3R (3)

120 Lincoln Ave / Becher St EAST WEST D1-2

119 EXIT E5-1 (5)

119A W5-54 (2S)

119B W5-54 (2S)

SIGN STRUCTURE TO REMAIN S-40-836

5TH ST

94SBF 95SBF 96SBF 97SBF 98SBF 99SBF

IH 43 SB OFF RAMP

114 NO PARKING ANY TIME R7-1D (2S)

115 WRONG WAY R5-1A (3)

116

117 W3-3 (2S)

118 RAMP METERED WHEN FLASHING W3-8 48"X48" ON SIGNAL POLE

IH 43 SB

14 INTERSTATE 43 INTERSTATE 94

INSTALL NEW TYPE I ON EXISTING S-40-836

15 Becher St Lincoln Ave

INSTALL NEW TYPE I ON EXISTING S-40-836

IH 43

779 780 781 782 783 784

SHEET 9 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 163	E

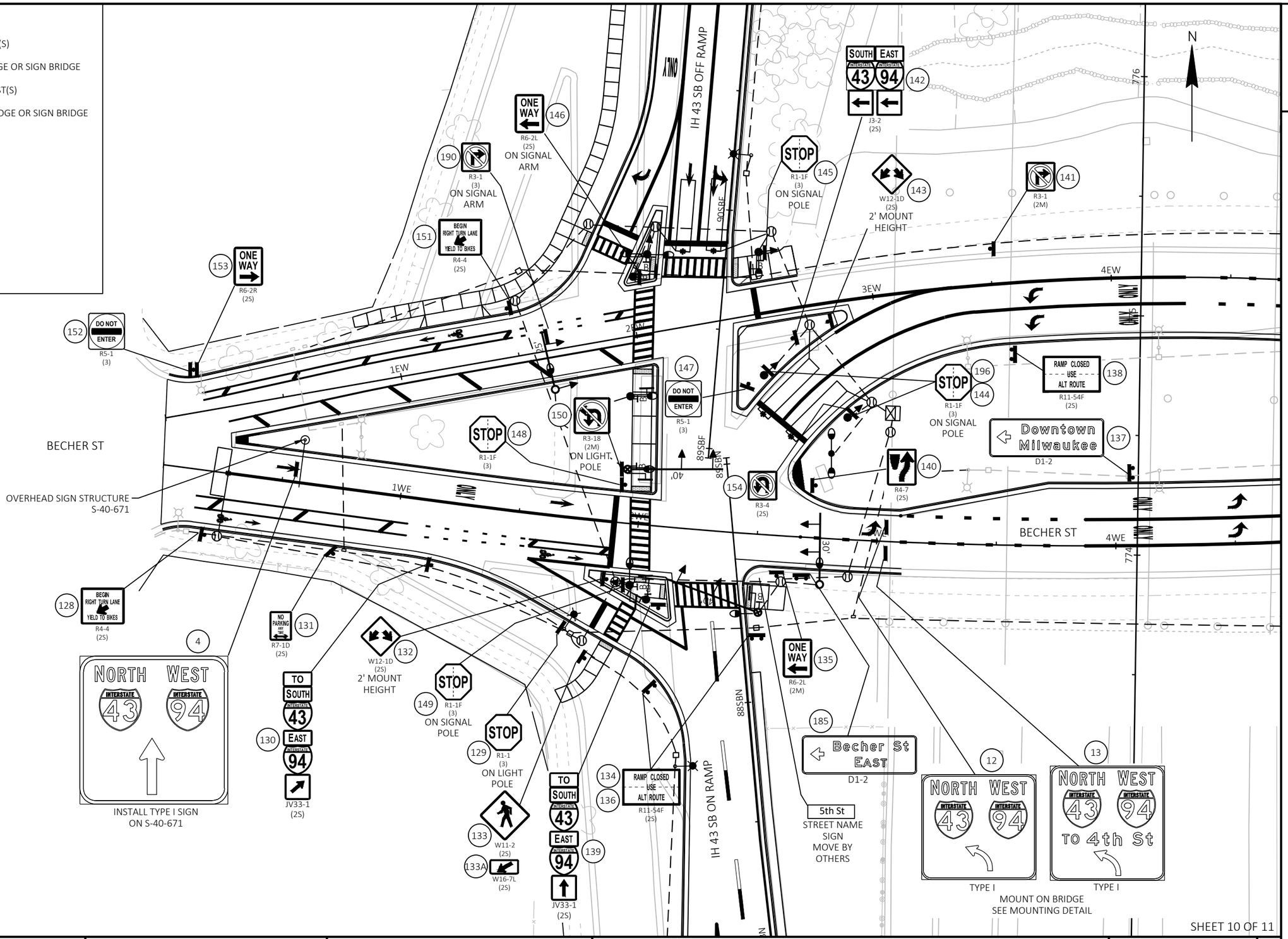
FILE NAME : N:\PDS\C3D\CAD\12280907\SIGN\023201_PS.DWG
LAYOUT NAME - 09

PLOT DATE : 10/24/2025 9:09 AM PLOT BY : MARTENS, KAREN L 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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



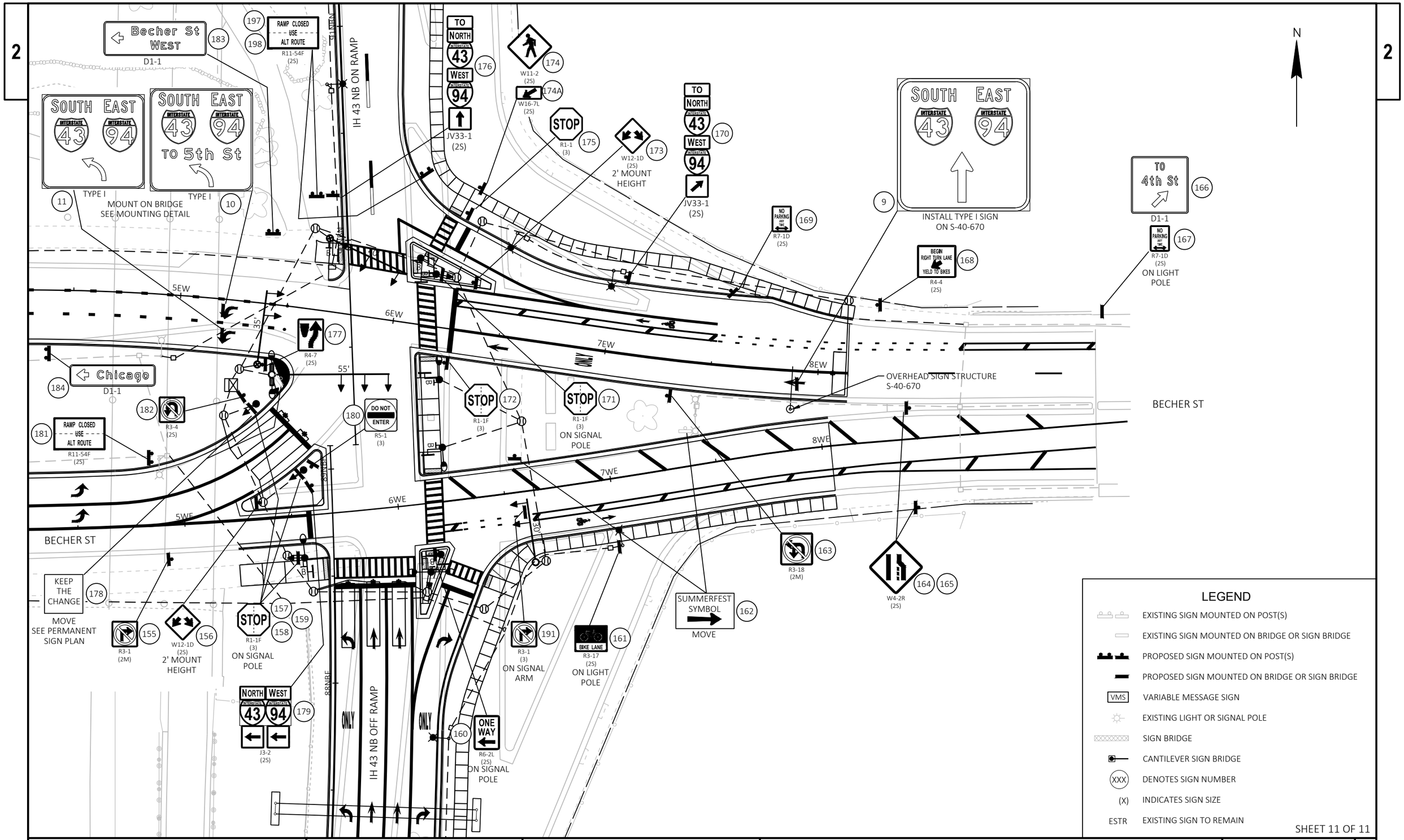
SHEET 10 OF 11

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 164 E

FILE NAME : N:\PDS\C3D\CAD\12280907\SIGN\023201_PS.DWG
LAYOUT NAME - 10

PLOT DATE : 10/24/2025 9:09 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 165	E

FILE NAME : N:\PDS\C3D\CAD\12280907\SIGN\023201_PS.DWG
LAYOUT NAME - 11

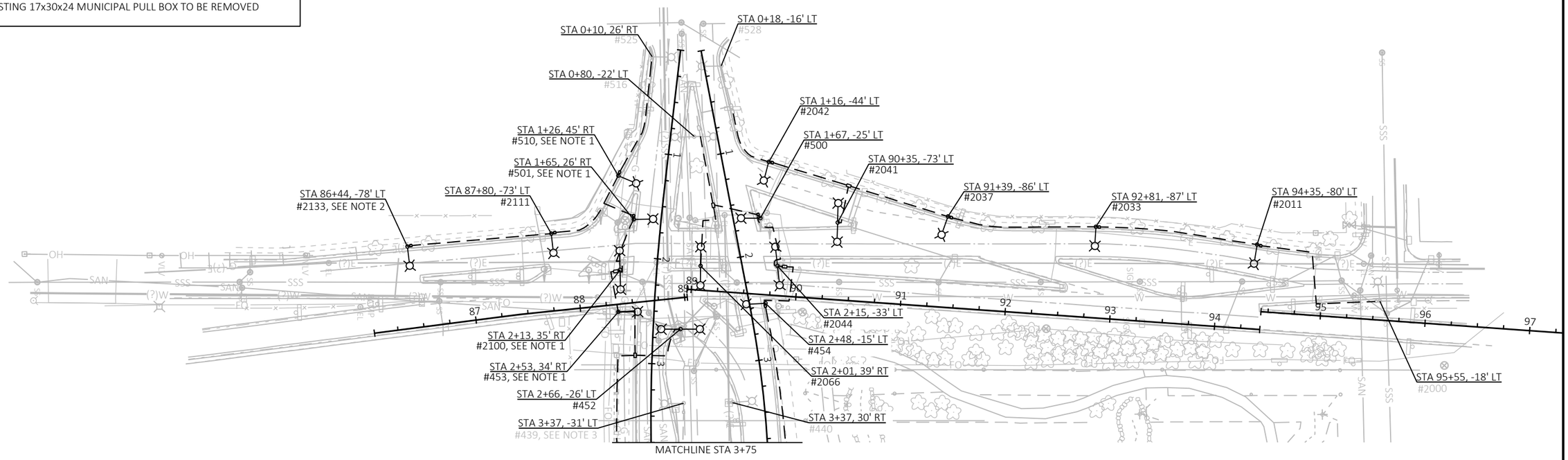
PLOT DATE : 10/24/2025 9:09 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING MUNICIPAL SINGLE ARM LUMINAIRE TO REMAIN
- EXISTING MUNICIPAL TWIN ARM LUMINAIRE TO REMAIN
- EXISTING MUNICIPAL SINGLE ARM LUMINAIRE TO BE REMOVED
- EXISTING MUNICIPAL TWIN ARM LUMINAIRE TO BE REMOVED
- EXISTING CONDUIT TO REMAIN
- EXISTING CONDUIT TO BE REMOVED
- EXISTING 13x24x24 MUNICIPAL PULL BOX TO REMAIN
- EXISTING 13x24x24 MUNICIPAL PULL BOX TO BE REMOVED
- EXISTING 17x30x24 MUNICIPAL PULL BOX TO REMAIN
- EXISTING 17x30x24 MUNICIPAL PULL BOX TO BE REMOVED



NOTE

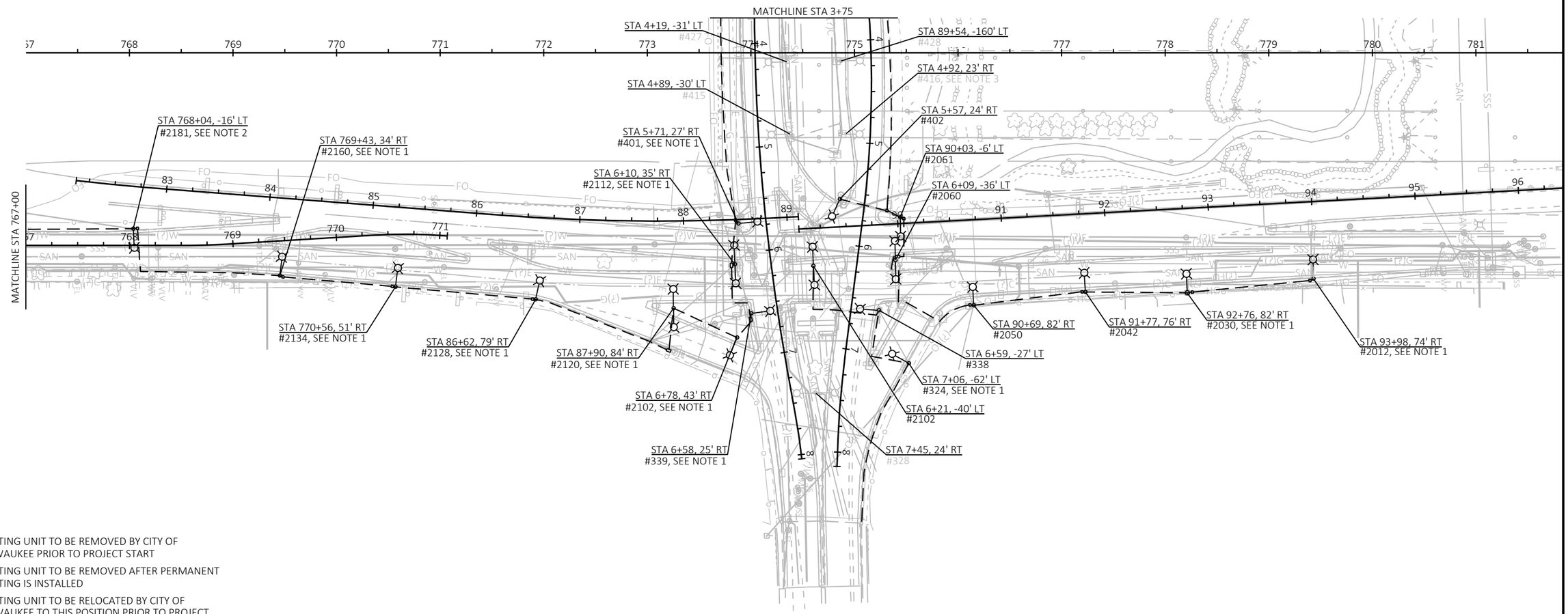
1. LIGHTING UNIT TO BE REMOVED BY CITY OF MILWAUKEE PRIOR TO PROJECT START
2. LIGHTING UNIT TO BE REMOVED BY CITY OF MILWAUKEE AFTER PERMANENT LIGHTING IS INSTALLED
3. LIGHTING UNIT TO BE RELOCATED BY CITY OF MILWAUKEE TO THIS POSITION PRIOR TO PROJECT START

PROJECT NO: 1228-09-07	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING REMOVAL	SHEET 166	E

2

LEGEND

- EXISTING MUNICIPAL SINGLE ARM LUMINAIRE TO REMAIN
- EXISTING MUNICIPAL TWIN ARM LUMINAIRE TO REMAIN
- EXISTING MUNICIPAL SINGLE ARM LUMINAIRE TO BE REMOVED
- EXISTING MUNICIPAL TWIN ARM LUMINAIRE TO BE REMOVED
- EXISTING CONDUIT TO REMAIN
- EXISTING CONDUIT TO BE REMOVED
- EXISTING 13x24x24 MUNICIPAL PULL BOX TO REMAIN
- EXISTING 13x24x24 MUNICIPAL PULL BOX TO BE REMOVED
- EXISTING 17x30x24 MUNICIPAL PULL BOX TO REMAIN
- EXISTING 17x30x24 MUNICIPAL PULL BOX TO BE REMOVED



NOTE

1. LIGHTING UNIT TO BE REMOVED BY CITY OF MILWAUKEE PRIOR TO PROJECT START
2. LIGHTING UNIT TO BE REMOVED AFTER PERMANENT LIGHTING IS INSTALLED
3. LIGHTING UNIT TO BE RELOCATED BY CITY OF MILWAUKEE TO THIS POSITION PRIOR TO PROJECT START

PROJECT NO: 1228-09-07	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING REMOVAL	SHEET 167	E

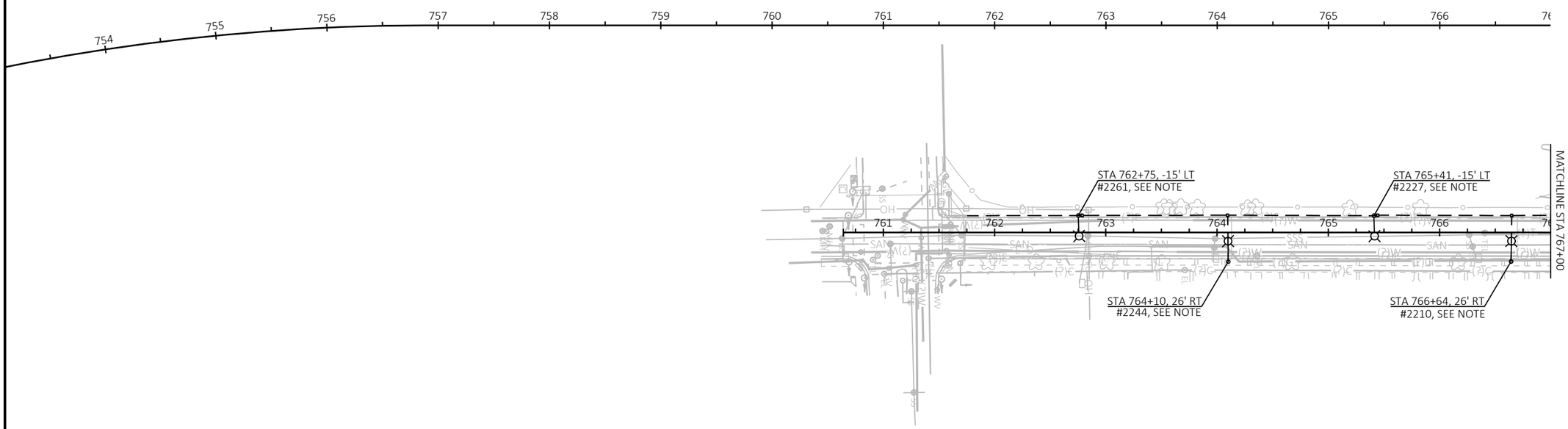
FILE NAME : C:\USERS\AUNDERWOOD\DC\ACCDOCS\SINGH\WISDOT - ONSITE ELECTRICAL OPERATION\PROJECT FILES\WISDOT PROJECT\1228-09-07\04_CADD\CADD_SHEETS\023401_LR.DWG
LAYOUT NAME - 02
PLOT DATE : 10/21/2025 2:44 PM
PLOT BY : ALEXANDER UNDERWOOD
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

LEGEND

- EXISTING MUNICIPAL SINGLE ARM LUMINAIRE TO REMAIN
- EXISTING MUNICIPAL TWIN ARM LUMINAIRE TO REMAIN
- EXISTING MUNICIPAL SINGLE ARM LUMINAIRE TO BE REMOVED
- EXISTING MUNICIPAL TWIN ARM LUMINAIRE TO BE REMOVED
- EXISTING CONDUIT TO REMAIN
- EXISTING CONDUIT TO BE REMOVED
- EXISTING 13x24x24 MUNICIPAL PULL BOX TO REMAIN
- EXISTING 13x24x24 MUNICIPAL PULL BOX TO BE REMOVED
- EXISTING 17x30x24 MUNICIPAL PULL BOX TO REMAIN
- EXISTING 17x30x24 MUNICIPAL PULL BOX TO BE REMOVED

N



NOTE

LIGHTING UNIT TO BE REMOVED AFTER PERMANENT LIGHTING IS INSTALLED

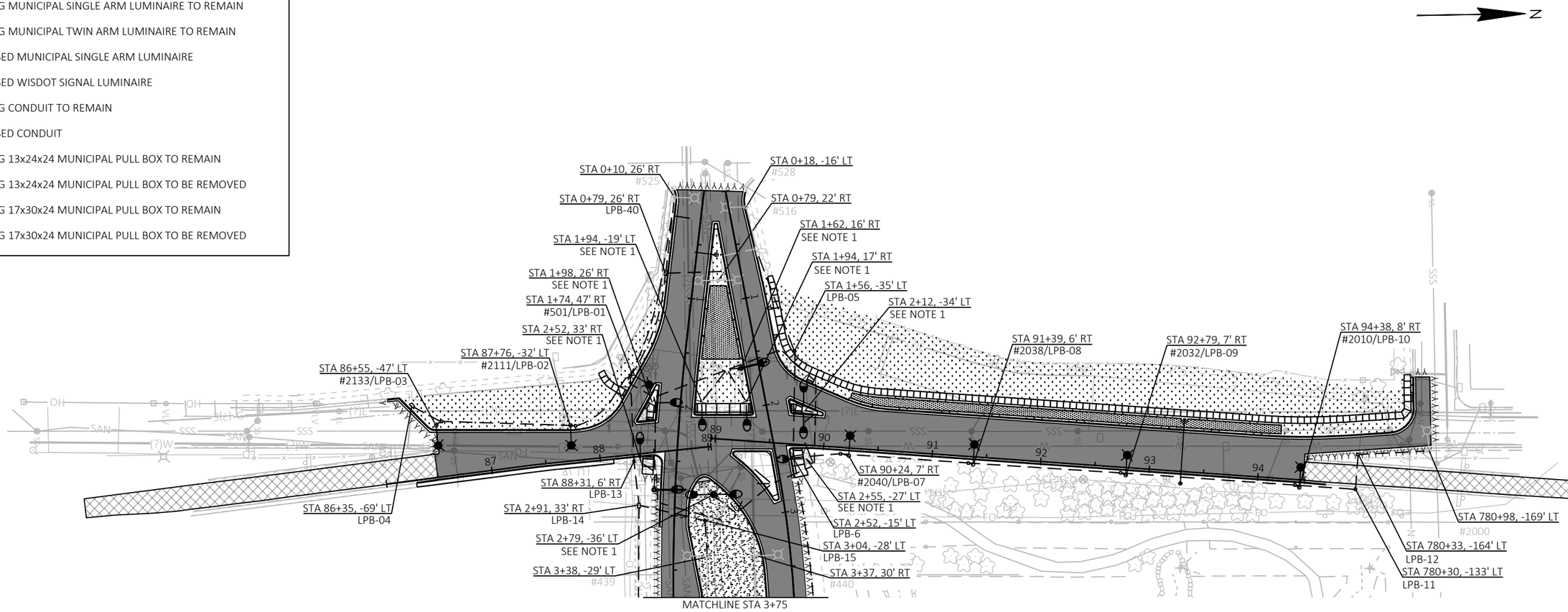
PROJECT NO: 1228-09-07	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING REMOVAL	SHEET 168	E

FILE NAME : C:\USERS\AUNDERWOOD\DC\ACCDOCS\SINGH\WISDOT - ONSITE ELECTRICAL OPERATION\PROJECT FILES\WISDOT PROJECT\1228-09-07\04_CADD\CADD_SHEETS\023401_LR.DWG PLOT DATE : 10/21/2025 2:44 PM PLOT BY : ALEXANDER UNDERWOOD PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 03

2

LEGEND

- EXISTING MUNICIPAL SINGLE ARM LUMINAIRE TO REMAIN
- EXISTING MUNICIPAL TWIN ARM LUMINAIRE TO REMAIN
- PROPOSED MUNICIPAL SINGLE ARM LUMINAIRE
- PROPOSED WISDOT SIGNAL LUMINAIRE
- EXISTING CONDUIT TO REMAIN
- PROPOSED CONDUIT
- EXISTING 13x24x24 MUNICIPAL PULL BOX TO REMAIN
- EXISTING 13x24x24 MUNICIPAL PULL BOX TO BE REMOVED
- EXISTING 17x30x24 MUNICIPAL PULL BOX TO REMAIN
- EXISTING 17x30x24 MUNICIPAL PULL BOX TO BE REMOVED



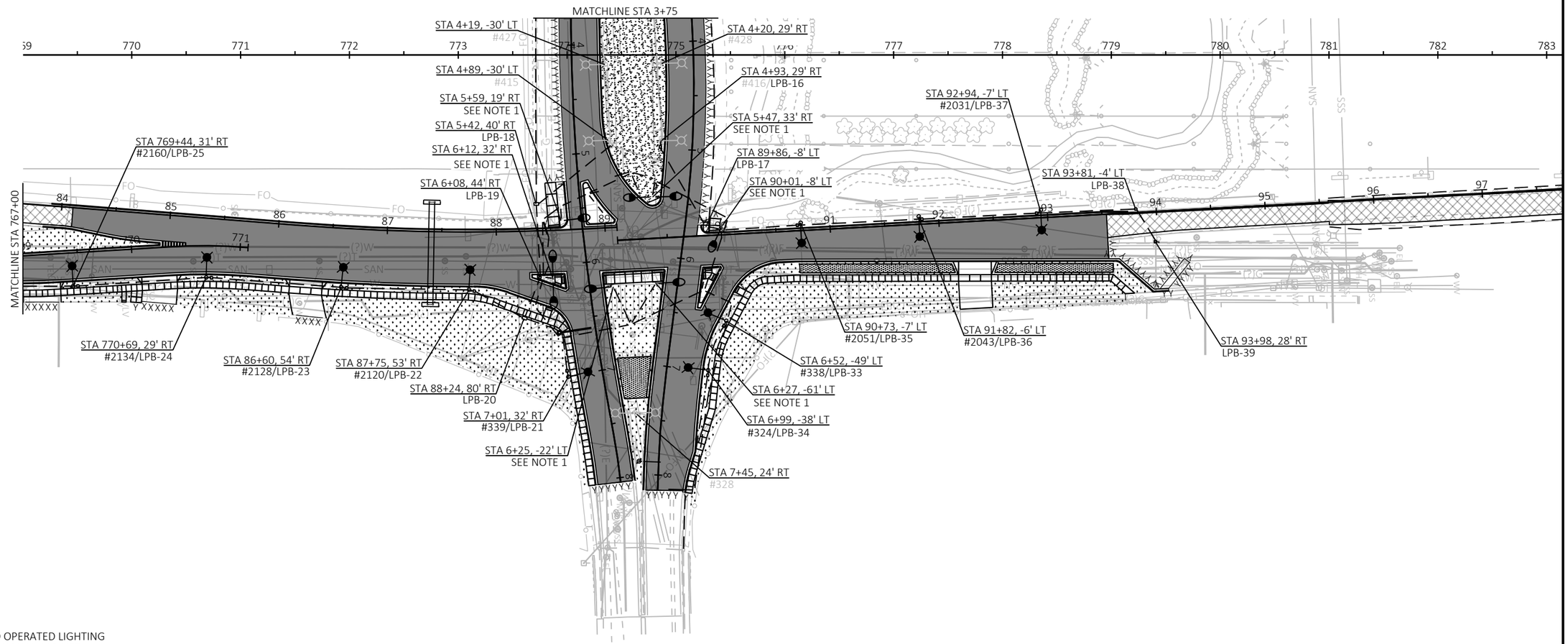
NOTES:

1. WISDOT OWNED AND OPERATED LIGHTING UNIT CONNECTED TO SIGNAL CABINET.

PROJECT NO: 1228-09-07	HWY: IH 43	COUNTY: MILWAUKEE	PROPOSED LIGHTING	SHEET 169	E

LEGEND

- EXISTING MUNICIPAL SINGLE ARM LUMINAIRE TO REMAIN
- EXISTING MUNICIPAL TWIN ARM LUMINAIRE TO REMAIN
- PROPOSED MUNICIPAL SINGLE ARM LUMINAIRE
- PROPOSED WISDOT SIGNAL LUMINAIRE
- EXISTING CONDUIT TO REMAIN
- PROPOSED CONDUIT
- EXISTING 13x24x24 MUNICIPAL PULL BOX TO REMAIN
- EXISTING 13x24x24 MUNICIPAL PULL BOX TO BE REMOVED
- EXISTING 17x30x24 MUNICIPAL PULL BOX TO REMAIN
- EXISTING 17x30x24 MUNICIPAL PULL BOX TO BE REMOVED



NOTES:

1. WISDOT OWNED AND OPERATED LIGHTING UNIT CONNECTED TO SIGNAL CABINET.

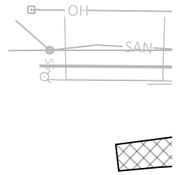
PROJECT NO: 1228-09-07	HWY: IH 43	COUNTY: MILWAUKEE	PROPOSED LIGHTING	SHEET 170	E

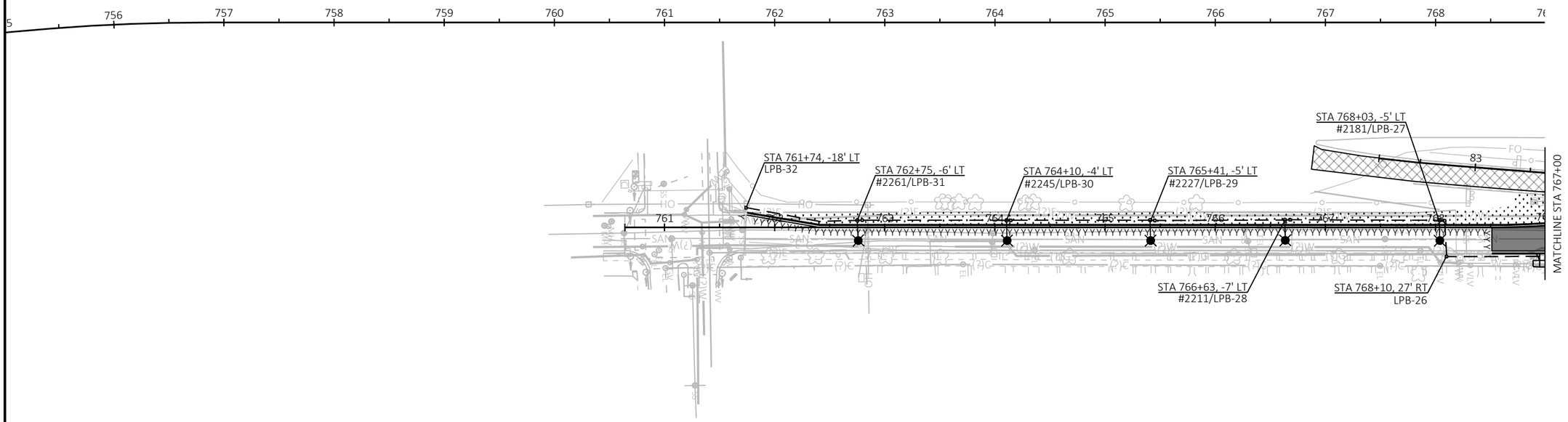
2

LEGEND

- EXISTING MUNICIPAL SINGLE ARM LUMINAIRE TO REMAIN
- EXISTING MUNICIPAL TWIN ARM LUMINAIRE TO REMAIN
- PROPOSED MUNICIPAL SINGLE ARM LUMINAIRE
- PROPOSED WISDOT SIGNAL LUMINAIRE
- EXISTING CONDUIT TO REMAIN
- PROPOSED CONDUIT
- EXISTING 13x24x24 MUNICIPAL PULL BOX TO REMAIN
- EXISTING 13x24x24 MUNICIPAL PULL BOX TO BE REMOVED
- EXISTING 17x30x24 MUNICIPAL PULL BOX TO REMAIN
- EXISTING 17x30x24 MUNICIPAL PULL BOX TO BE REMOVED

N



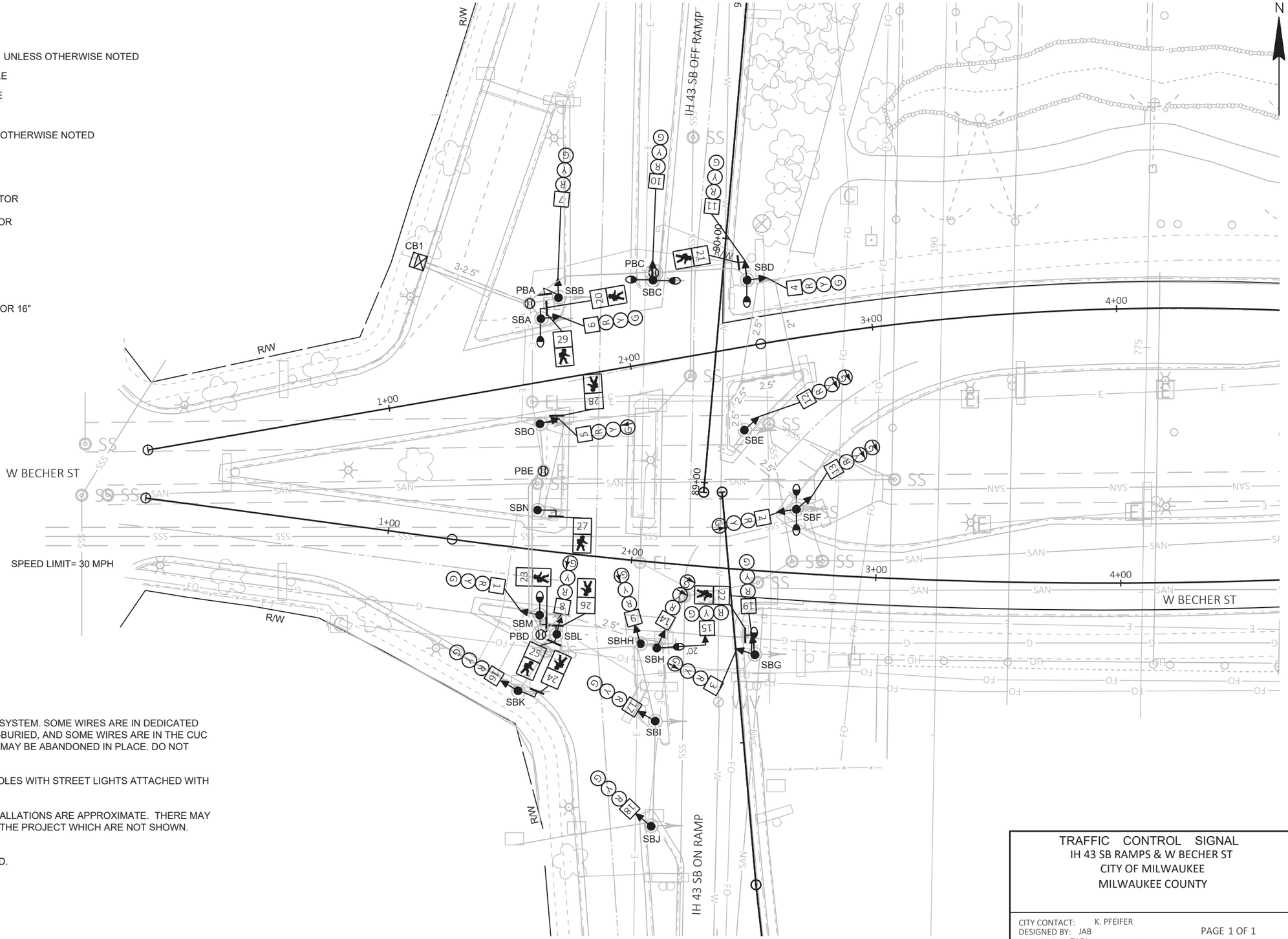


PROJECT NO: 1228-09-07	HWY: IH 43	COUNTY: MILWAUKEE	PROPOSED LIGHTING	SHEET 171	E

FILE NAME : C:\USERS\AUNDERWOOD\DC\ACCDOCS\SINGH\WISDOT - ONSITE ELECTRICAL OPERATION\PROJECT FILES\WISDOT PROJECT\1228-09-07\04_CADD\CADD_SHEETS\023601_LP.DWG PLOT DATE : 10/21/2025 2:48 PM PLOT BY : ALEXANDER UNDERWOOD PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 03

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- DIRECT-BURY SIGNAL CABLE
- SIGNAL HEAD, SIGNAL POLE
- PEDESTRIAN HEAD
- LUMINAIRE, LED C UNLESS OTHERWISE NOTED
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R ARROW RED ARROW
- Y ARROW YELLOW ARROW
- G ARROW GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)



CONSTRUCTION NOTES:

1. REMOVE ALL TRAFFIC SIGNAL WIRE FROM SYSTEM. SOME WIRES ARE IN DEDICATED CONDUIT RUNS, SOME WIRES ARE DIRECT-BURIED, AND SOME WIRES ARE IN THE CUC CONDUIT SYSTEM. DEDICATED CONDUITS MAY BE ABANDONED IN PLACE. DO NOT DISTURB OR DAMAGE THE CUC SYSTEM.
2. COORDINATE REMOVALS OF CONCRETE POLES WITH STREET LIGHTS ATTACHED WITH THE LIGHTING REMOVAL PLAN..
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. GRAYSHADE REPRESENTS EXISTING.
   BOLD REPRESENTS ITEMS TO BE REMOVED.

TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & W BECHER ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

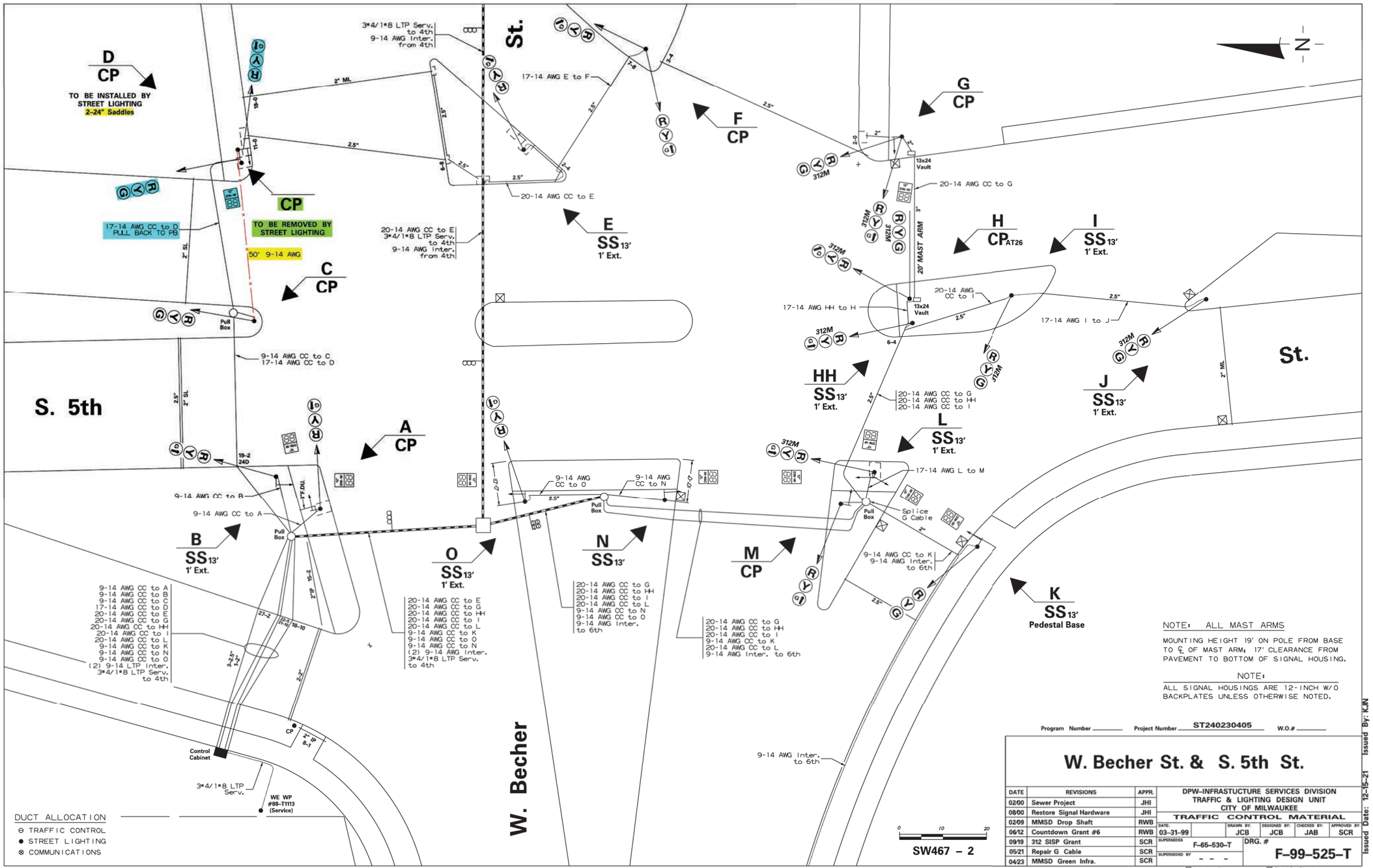
CITY CONTACT: K. PFEIFER
DESIGNED BY: JAB
REVISED BY: TADI

PAGE 1 OF 1

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 172	E

FILE NAME : Z:\SHARED\WI\3109-3 I43 BECHER INTERCHANGE\CAD\I43 AT BECHER INTERCHANGE SIGNAL REMOVALS.DWG
LAYOUT NAME - SB RAMPS_PG1
PLOT DATE : 10/27/2025 12:14 PM PLOT BY : JEFF FAIT PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

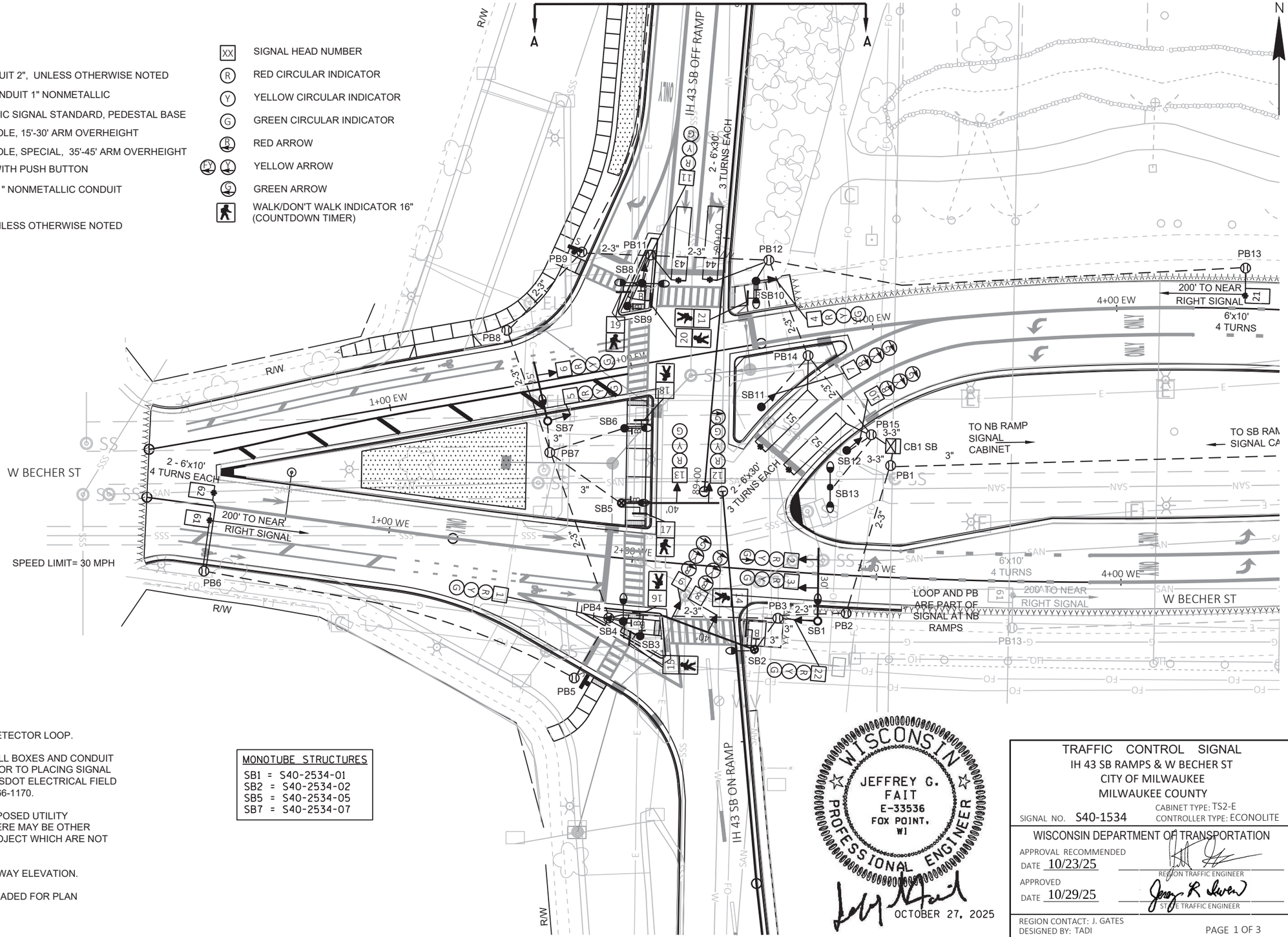


EXISTING TRAFFIC SIGNAL PLAN FOR INFORMATION ONLY - NOT TO SCALE

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EXISTING TRAFFIC SIGNAL PLAN	SHEET 173	E

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM OVERHEIGHT
- (XX) MONOTUBE BASE, POLE, SPECIAL, 35'-45' ARM OVERHEIGHT
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- LUMINAIRE, LED C UNLESS OTHERWISE NOTED
- S STOP SIGN
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- G GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)



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. PAVEMENT MARKINGS SHOWN GRAY SHADED FOR PLAN CLARITY.

MONOTUBE STRUCTURES
SB1 = S40-2534-01
SB2 = S40-2534-02
SB5 = S40-2534-05
SB7 = S40-2534-07

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER
OCTOBER 27, 2025

TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & W BECHER ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL NO. S40-1534
CABINET TYPE: TS2-E
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVAL RECOMMENDED
DATE 10/23/25 REGION TRAFFIC ENGINEER
APPROVED
DATE 10/29/25 STATE TRAFFIC ENGINEER

REGION CONTACT: J. GATES
DESIGNED BY: TADI
REVISED BY:

PAGE 1 OF 3

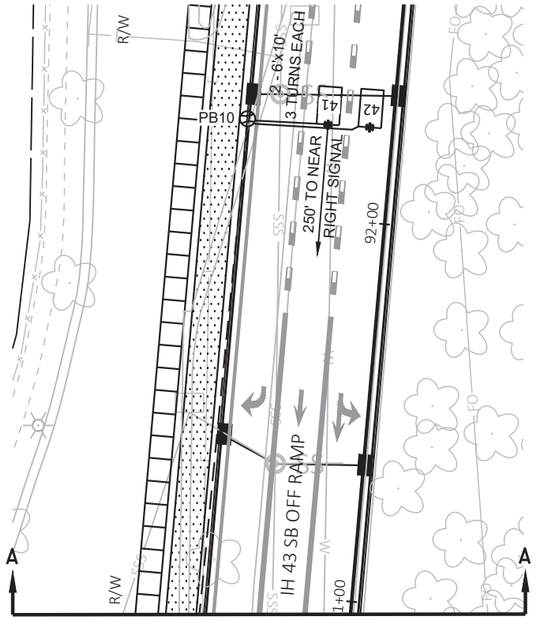
10/23/25 Jack Martins

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 174	E

FILE NAME : Z:\SHARED\WI\3109-3 I43 BECHER INTERCHANGE\CAD\S40-1534 I43 SB AT BECHER.DWG
LAYOUT NAME - SB RAMPS_PG1
PLOT DATE : 10/27/2025 9:58 AM PLOT BY : JEFF FAIT PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N



TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & W BECHER ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

REGION CONTACT: J. GATES
DESIGNED BY: TADI
REVISED BY:

PAGE 2 OF 3

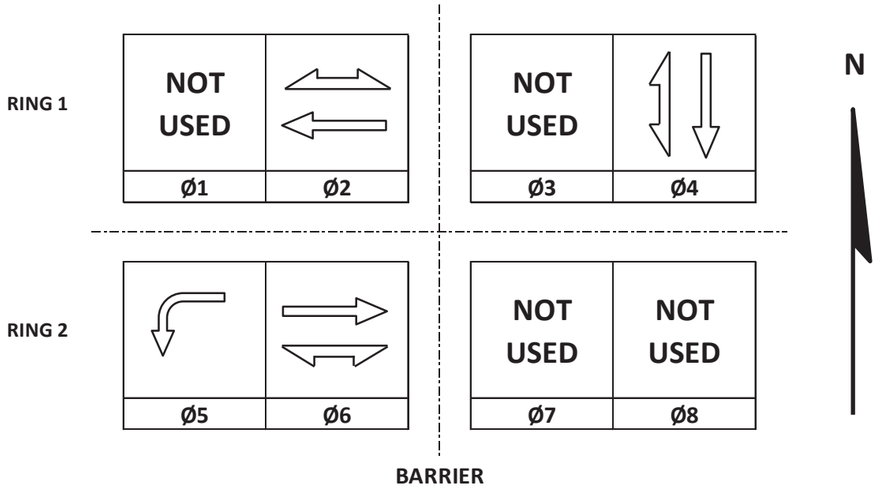
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 175	E

FILE NAME : Z:\SHARED\WI\3109-3 I43 BECHER INTERCHANGE\CAD\S40-1534 I43 SB AT BECHER.DWG
LAYOUT NAME - SB RAMPS_PG2

PLOT DATE : 10/27/2025 9:58 AM PLOT BY : JEFF FAIT PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1		
Ø2	4,5,6	R
Ø3		
Ø4	11,12,13	R
Ø5	7,8,9,10	R ←
Ø6	1,2,3,22	R
Ø7		
Ø8		
Ø2P	20,21	
Ø4P	16,17,18,19	
Ø6P	14,15	
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				

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	X

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	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	21	42	44	52	62			
CALLED PHASE	2	4	4	5	6			
CALL OPTION	X		X	X	X			
DELAY TIME								
EXTENTION OPTION	X	X	X	X	X			
EXTEND TIME		X						
USE ADDED INITIAL	X			X	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)	41	43	51	61				
CALLED PHASE	4	4	5	6				
CALL OPTION		X	X	X				
DELAY TIME								
EXTENTION OPTION	X	X	X	X				
EXTEND TIME	X							
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

IH 43 SB RAMPS & W BECHER ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO:	S40-1534	CABINET TYPE:	TS2-E
		CONTROLLER TYPE:	ECONOLITE
DATE:	10/25	PAGE NUMBER:	3 OF 3

PROJECT ID:	1228-09-77
INTERSECTION:	IH 43 SB RAMPS & W BECHER ST

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

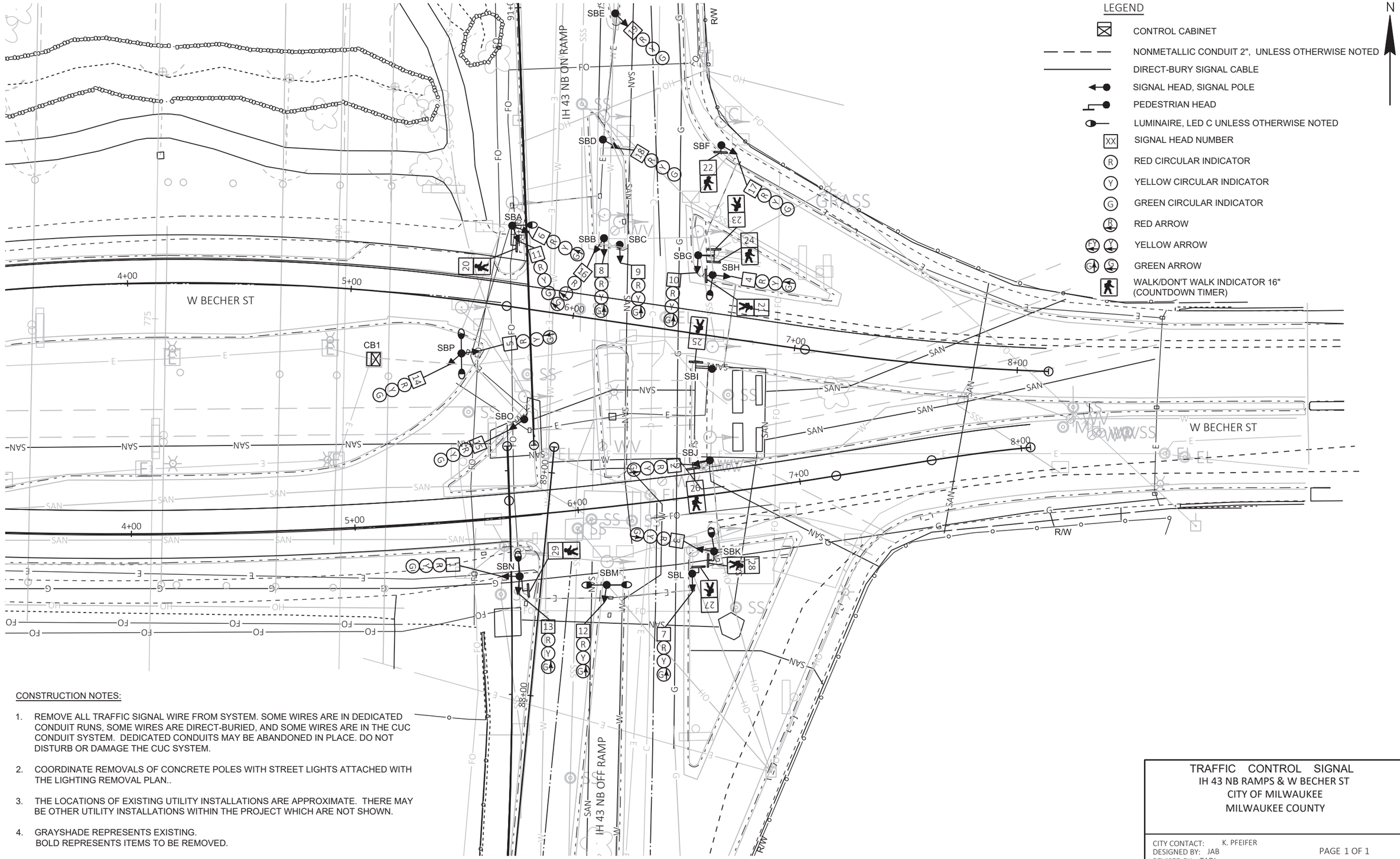
CB1 TO	JUMPER	# OF COND. AWG 14	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	PED BUTTON 2
				RED	YELLOW	GREEN	<RED>	<YELLOW>	<FL YELLOW>	<GREEN>	D/WALK	WALK		
SB1		12	2	RED	ORG	GRN								
			3	RED	ORG	GRN								
			22	RED	ORG	GRN								
SB2		12	8				RED	ORG		GRN				
			9				RED	ORG		GRN				
			14								BLK	BLU		
			B										WHT/BLK	
SB3		7	B										WHT/BLK	
SB4		12	1	RED	ORG	GRN								
			15								BLK	BLU		
			16								RED/BLK	GRN/BLK		
			B										WHT/BLK	
SB5		12	12	RED	ORG	GRN				GRN/BLK				
			13	RED	ORG	GRN								
			17								BLK	BLU		
			B										WHT/BLK	
SB6		7	18								BLK	BLU		
			B										WHT/BLK	
SB7		12	5	RED	ORG	GRN								
			6	RED	ORG	GRN								
SB8		12	11	RED	ORG	GRN								
			19								RED/BLK	GRN/BLK		
			20								BLK	BLU		
			B										WHT/BLK	
SB9		7	B										WHT/BLK	
SB10		12	4	RED	ORG	GRN								
			21								BLK	BLU		
			B										WHT/BLK	
SB11		7	7				RED	ORG		GRN				
SB12		7	10				RED	ORG		GRN				

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
CB1	PB1
SB1	PB2
SB1	PB3
SB4	PB4
SB7	PB7
SB7	PB8
SB8	PB9
SB8	PB11
SB10	PB12
SB11	PB14
CB1	PB15

LIGHTING UF 12 AWG W/GROUND	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB4
SB4	SB5
SB5	SB6
CB1	SB13
SB13	SB10
SB10	SB8

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.



CONSTRUCTION NOTES:

1. REMOVE ALL TRAFFIC SIGNAL WIRE FROM SYSTEM. SOME WIRES ARE IN DEDICATED CONDUIT RUNS, SOME WIRES ARE DIRECT-BURIED, AND SOME WIRES ARE IN THE CUC CONDUIT SYSTEM. DEDICATED CONDUITS MAY BE ABANDONED IN PLACE. DO NOT DISTURB OR DAMAGE THE CUC SYSTEM.
2. COORDINATE REMOVALS OF CONCRETE POLES WITH STREET LIGHTS ATTACHED WITH THE LIGHTING REMOVAL PLAN..
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. GRAYSHADE REPRESENTS EXISTING.
   BOLD REPRESENTS ITEMS TO BE REMOVED.

TRAFFIC CONTROL SIGNAL
IH 43 NB RAMPS & W BECHER ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

CITY CONTACT: K. PFEIFER
DESIGNED BY: JAB
REVISED BY: TADI

PAGE 1 OF 1

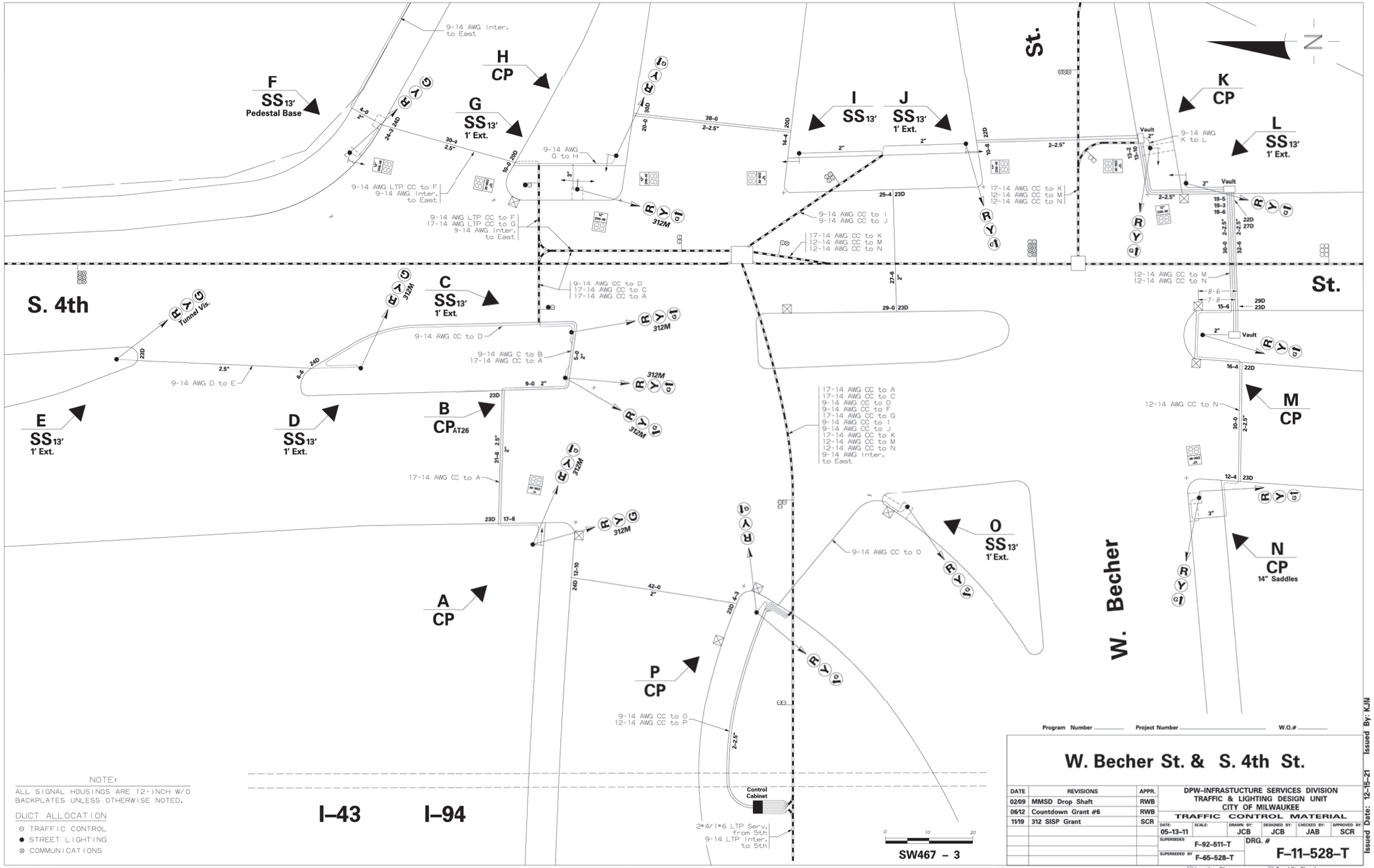
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 178	E

FILE NAME : Z:\SHARED\WI\3109-3 I43 BECHER INTERCHANGE\CAD\I43 AT BECHER INTERCHANGE SIGNAL REMOVALS.DWG
LAYOUT NAME - NB RAMPS_PG1

PLOT DATE : 10/27/2025 12:14 PM PLOT BY : JEFF FAIT PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



NOTE:
ALL SIGNAL HOUSINGS ARE 12-INCH W/O BACKPLATES UNLESS OTHERWISE NOTED.

DUCT ALLOCATION
- ⊖ TRAFFIC CONTROL
- ● STREET LIGHTING
- ⊗ COMMUNICATIONS

Program Number _____ Project Number _____ W.O.# _____

W. Becher St. & S. 4th St.

DATE	REVISIONS	APPR.
02/09	MMSD Drop Shaft	RWB
06/12	Countdown Grant #6	RWB
11/19	312 SISP Grant	SCR

DPW–INFRASTUCTURE SERVICES DIVISION
TRAFFIC & LIGHTING DESIGN UNIT
CITY OF MILWAUKEE

TRAFFIC CONTROL MATERIAL

DATE:	SCALE:	DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
05–13–11		JCB	JCB	JAB	SCR

SUPERSEDES F–92–511–T
SUPERSEDED BY F–65–528–T
DRG. # F–11–528–T

Issued By: KJN
Issued Date: 12–15–21

☐ Location File ☐ Signal Shop File ☐ Canal St.–Control Cabinet
☐ Canal St.–Signals ☐ Canal St.–CablePipe ☐ Canal St.–Mast Arm

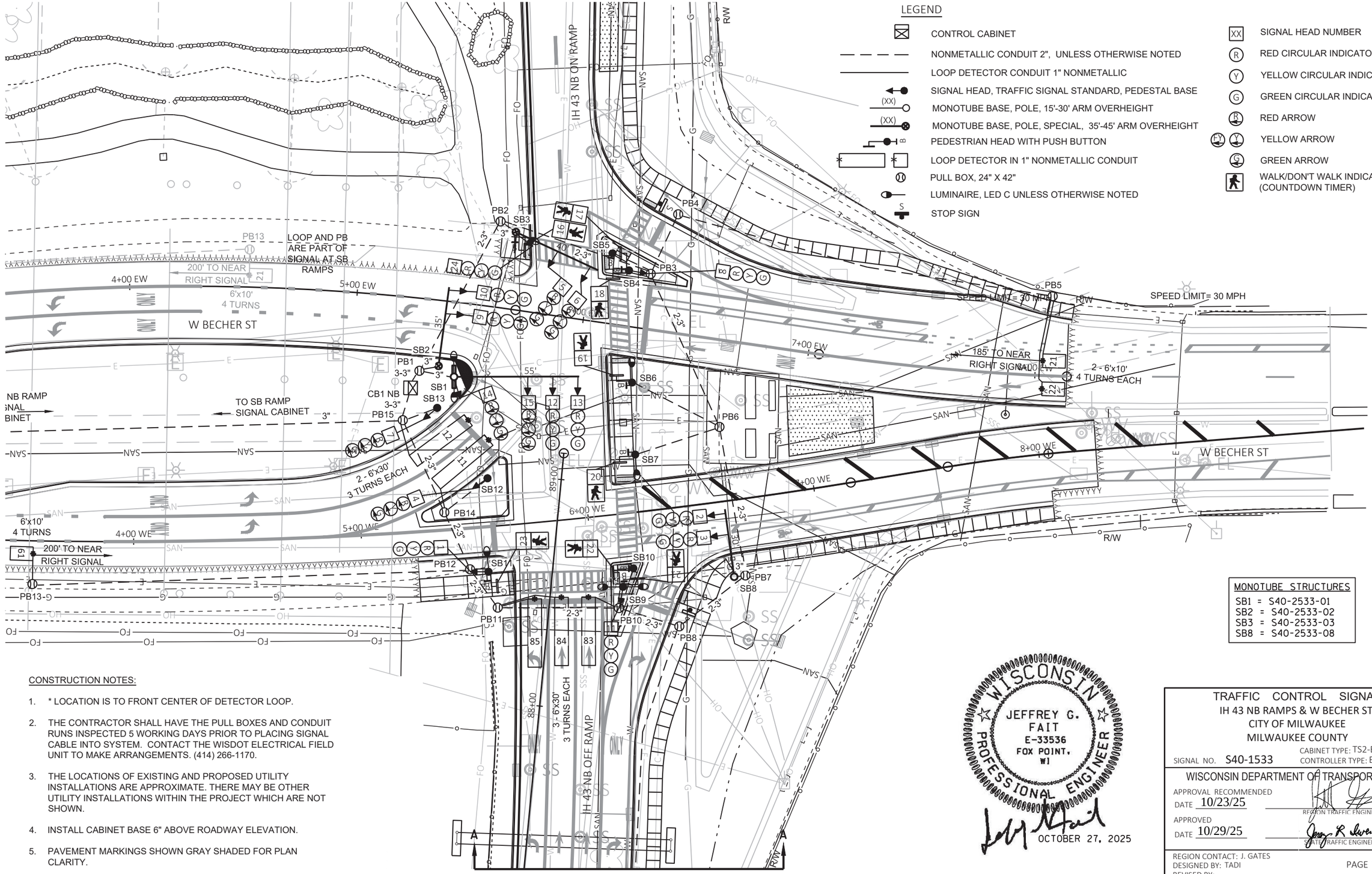
FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

EXISTING TRAFFIC SIGNAL PLAN FOR INFORMATION ONLY - NOT TO SCALE

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EXISTING TRAFFIC SIGNAL PLAN	SHEET 179	E

FILE NAME : Z:\SHARED\WI\3109-3 I43 BECHER INTERCHANGE\CAD\I43 AT BECHER INTERCHANGE SIGNAL REMOVALS.DWG
LAYOUT NAME - NB RAMPS_PG2
PLOT DATE : 10/23/2025 1:40 PM PLOT BY : JEFF FAIT PLOT NAME : PLOT SCALE : ##########

2



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. PAVEMENT MARKINGS SHOWN GRAY SHADED FOR PLAN CLARITY.

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER
OCTOBER 27, 2025

TRAFFIC CONTROL SIGNAL
IH 43 NB RAMPS & W BECHER ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S40-1533
CABINET TYPE: TS2-E
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 10/23/25
REGION TRAFFIC ENGINFFR

APPROVED
DATE 10/29/25
STATE TRAFFIC ENGINEER

REGION CONTACT: J. GATES
DESIGNED BY: TADI
REVISED BY:

PAGE 1 OF 3

10/23/25 Jack Mastino

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 180	E

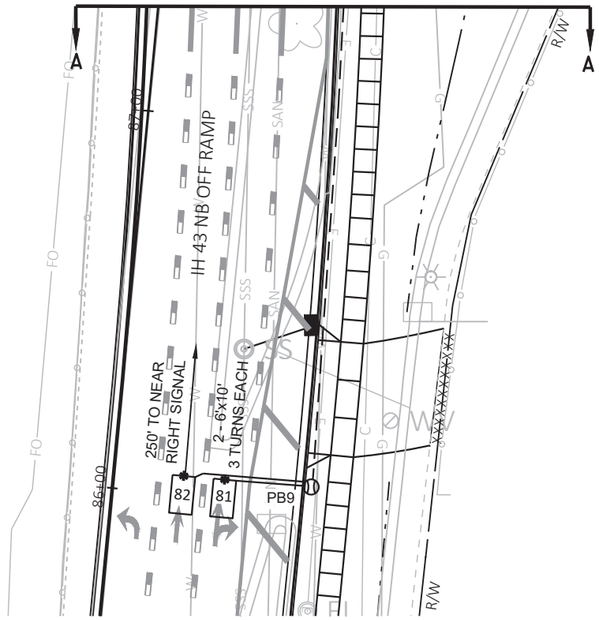
FILE NAME : Z:\SHARED\WI\3109-3 I43 BECHER INTERCHANGE\CAD\S40-1533 I43 NB AT BECHER.DWG
LAYOUT NAME - NB RAMPS_PG1

PLOT DATE : 10/27/2025 9:53 AM PLOT BY : JEFF FAIT PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N



TRAFFIC CONTROL SIGNAL
IH 43 NB RAMPS & W BECHER ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

REGION CONTACT: J. GATES
DESIGNED BY: TADI
REVISED BY:

PAGE 2 OF 3

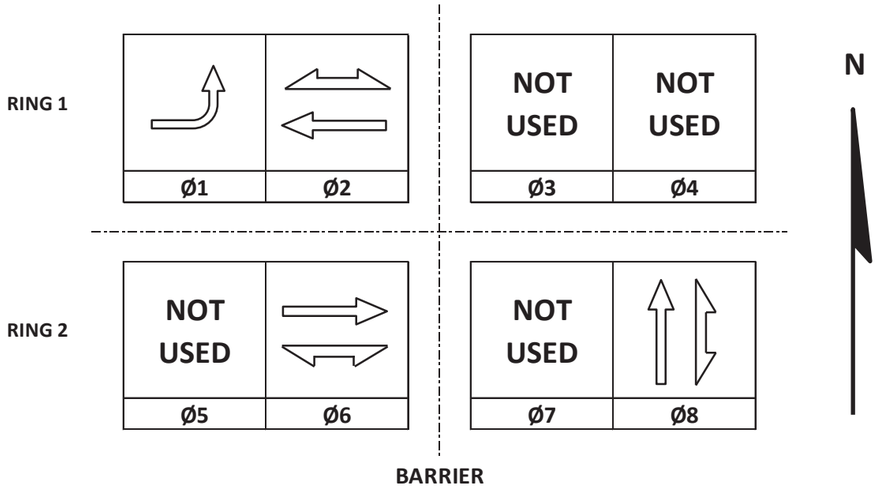
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 181	E

FILE NAME : Z:\SHARED\WI\3109-3 I43 BECHER INTERCHANGE\CAD\S40-1533 I43 NB AT BECHER.DWG
LAYOUT NAME - NB RAMPS_PG2

PLOT DATE : 10/27/2025 9:53 AM PLOT BY : JEFF FAIT PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	4,5,6,7	R ←
Ø2	8,9,10,24	R
Ø3		
Ø4		
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8	11,12,13,14,15	R, R ←
Ø2P	16,17	
Ø4P		
Ø6P	22,23	
Ø8P	18,19,20,21	
OLE		
OLF		
OLG		
OLH		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4				
5				
6	X	2	MIN	X
7				
8				X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	X

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	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	11	21	61	81	83			
CALLED PHASE	1	2	6	8	8			
CALL OPTION	X	X	X		X			
DELAY TIME								
EXTENTION OPTION	X	X	X	X	X			
EXTEND TIME				X				
USE ADDED INITIAL		X	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)	12	22	~~81~~82	~~82~~85	84			
CALLED PHASE	1	2	8	8	8			
CALL OPTION	X	X		X	X			
DELAY TIME								
EXTENTION OPTION	X	X	X	X	X			
EXTEND TIME			X					
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

IH 43 NB RAMPS & W BECHER ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO:	S40-1533	CABINET TYPE:	TS2-E
		CONTROLLER TYPE:	ECONOLITE
DATE:	10/25	PAGE NUMBER:	3 OF 3

2

PROJECT ID:	1228-09-77
INTERSECTION:	IH 43 NB RAMPS & W BECHER ST

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	JUMPER	# OF COND. AWG 14	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	PED BUTTON 2
				RED	YELLOW	GREEN	<RED>	<YELLOW>	<FL YELLOW>	<GREEN>	D/WALK	WALK		
SB1		12	12	RED	ORG	GRN								
			13	RED	ORG	GRN								
			14				RED	ORG		GRN				
			15				RED	ORG		GRN				
SB2		12	9	RED	ORG	GRN								
			10	RED	ORG	GRN								
SB3		12	5				RED	ORG		GRN				
			6				RED	ORG		GRN				
			24	RED/BLK	ORG/BLK	GRN/BLK								
			16								BLK	BLU		
			B										WHT/BLK	
SB4		12	8	RED	ORG	GRN								
			17								BLK	BLU		
			18								RED/BLK	GRN/BLK		
			B										WHT/BLK	
SB5		7	B										WHT/BLK	
SB6		7	19								BLK	BLU		
			B										WHT/BLK	
SB7		12	20								BLK	BLU		
			B										WHT/BLK	
SB8		12	2	RED	ORG	GRN								
			3	RED	ORG	GRN								
SB9		12	11	RED	ORG	GRN								
			21								RED/BLK	GRN/BLK		
			22								BLK	BLU		
			B										WHT/BLK	
SB10		7	B										WHT/BLK	
SB11		12	1	RED	ORG	GRN								
			23								BLK	BLU		
			B										WHT/BLK	
SB12		7	4				RED	ORG		GRN				
SB13		7	7				RED	ORG		GRN				

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
CB1	PB1
SB3	PB2
SB4	PB3
SB6	PB6
SB8	PB7
SB8	PB8
SB9	PB10
SB11	PB11
SB11	PB12
SB12	PB14
CB1	PB15

LIGHTING UF 12 AWG W/GROUND	
FROM	TO
CB1	SB1
SB1	SB3
SB3	SB6
SB6	SB7
CB1	SB11
SB11	SB9

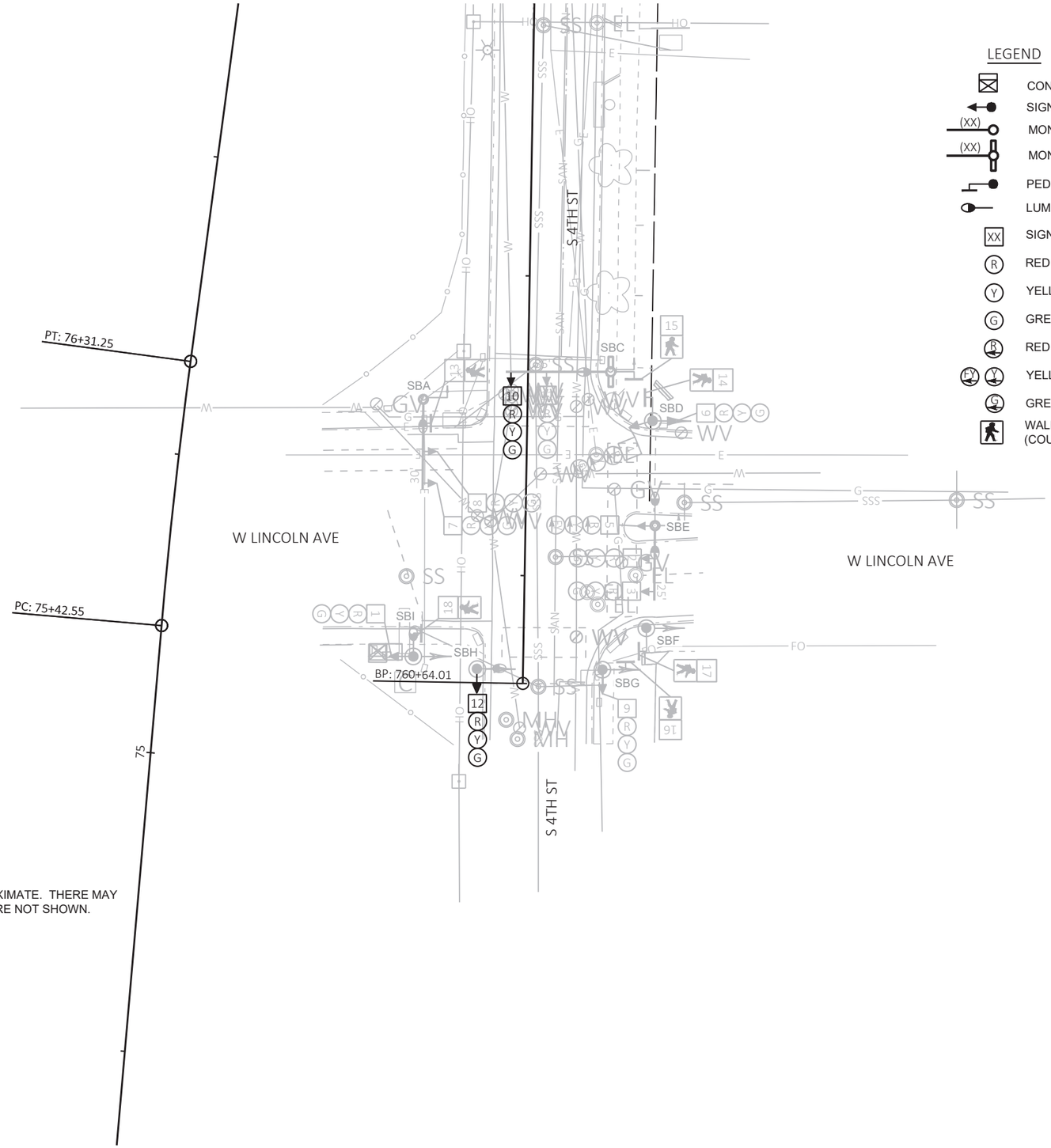
NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.

2

N

LEGEND

- CONTROL CABINET
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN SIGNAL HEAD
- LUMINAIRE, LED C UNLESS OTHERWISE NOTED
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- G GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)



CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. ALL LUMINAIRES ARE LED C UNLESS OTHERWISE NOTED.
3. GRAYSHADE REPRESENTS EXISTING.
   BOLD REPRESENTS ITEMS TO BE REMOVED.

TRAFFIC CONTROL SIGNAL
W LINCOLN AVE & S 4TH ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

CITY CONTACT: K. PFEIFER
DESIGNED BY: JAB
REVISED BY: TADI

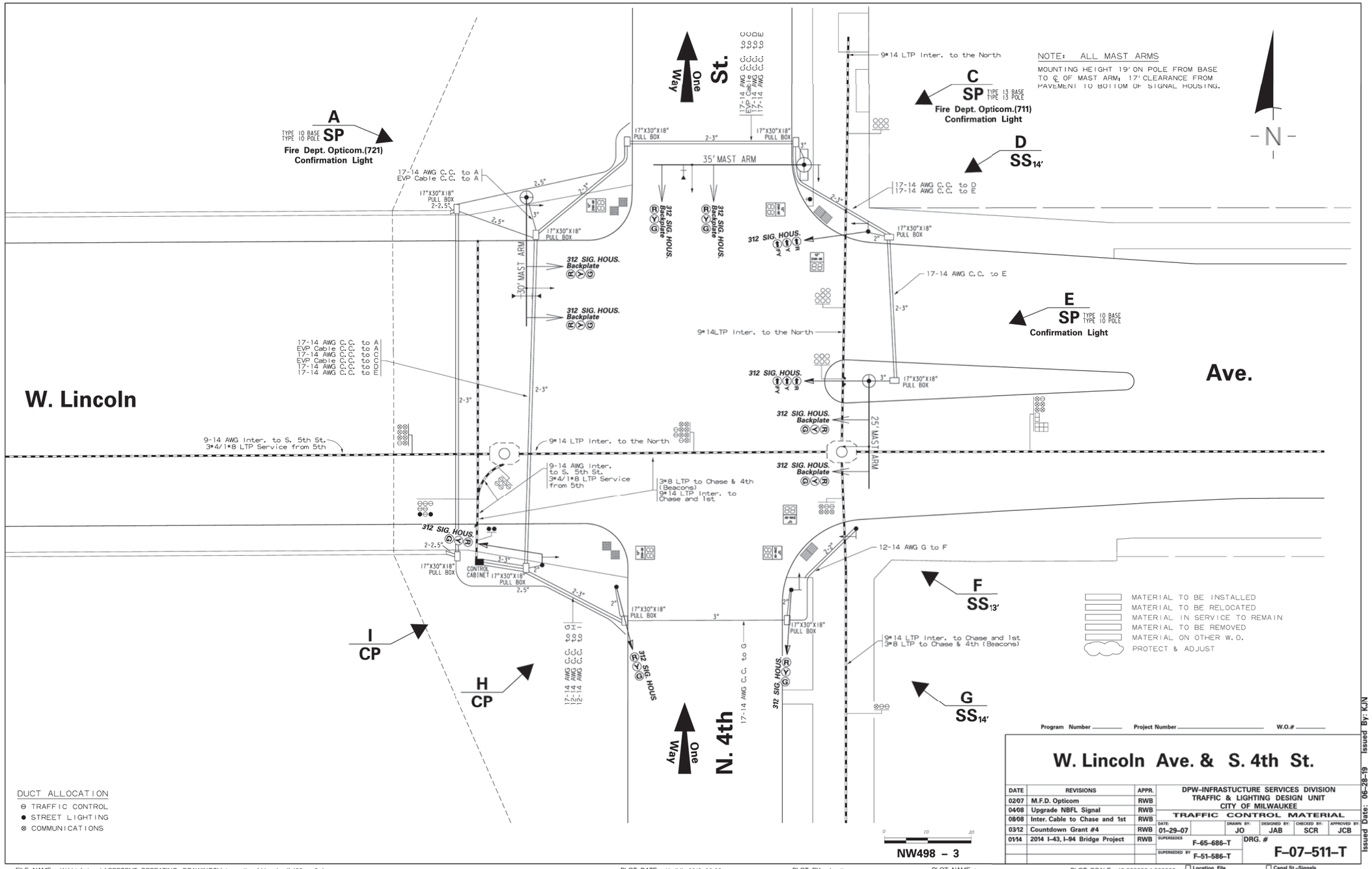
PAGE 1 OF 1

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 184	E

FILE NAME : Z:\SHARED\WI\3109-3 I43 BECHER INTERCHANGE\CAD\I43 AT BECHER INTERCHANGE SIGNAL REMOVALS.DWG
LAYOUT NAME - 4TH & LINCOLN_PG1

PLOT DATE : 10/27/2025 12:14 PM PLOT BY : JEFF FAIT PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



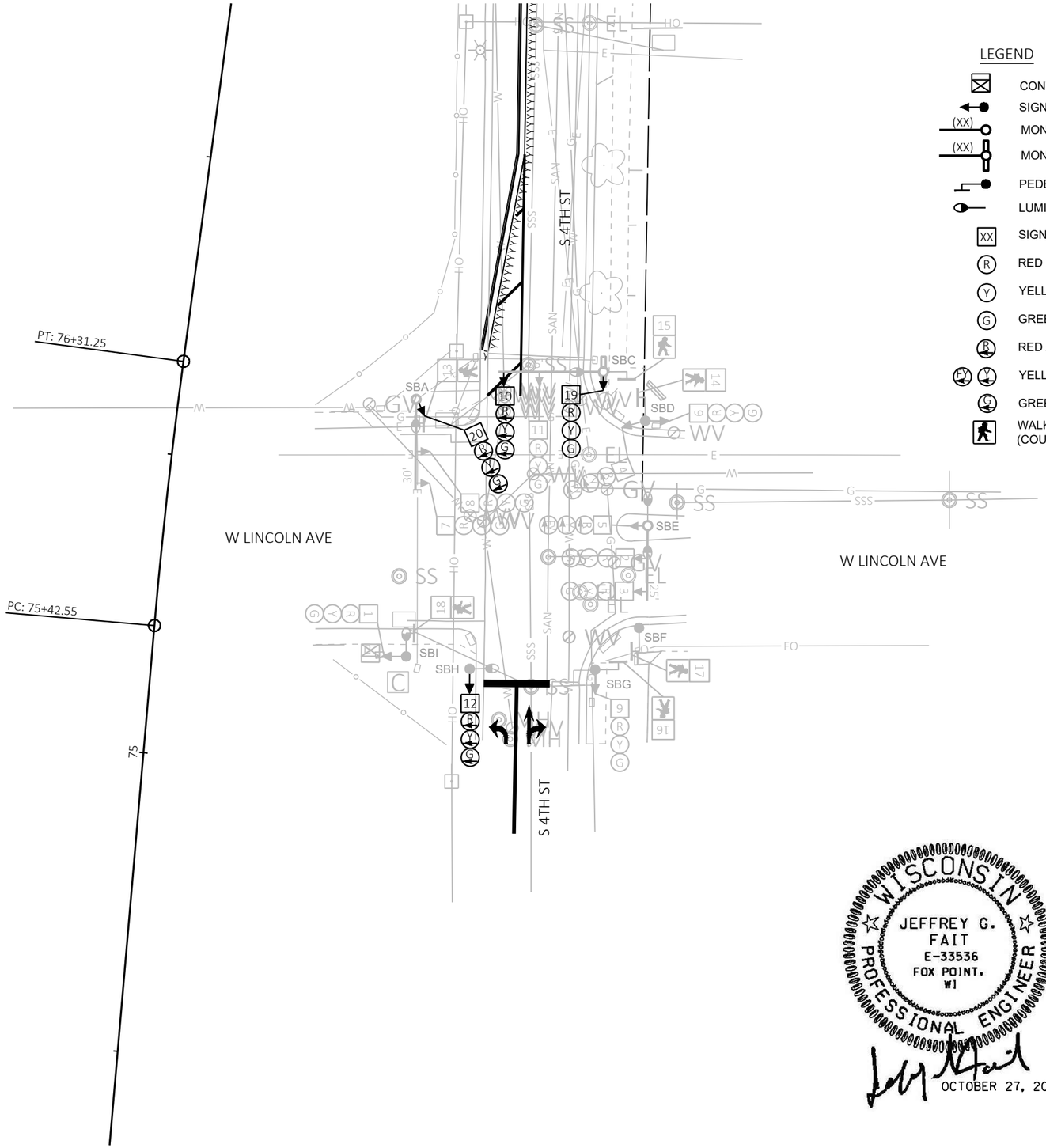
DATE	REVISIONS	APPR.
0207	M.F.D. Opticom	RWB
0408	Upgrade NBFL Signal	RWB
0808	Inter. Cable to Chase and 1st	RWB
0312	Countdown Grant #4	RWB
0114	2014 I-43, I-94 Bridge Project	RWB

FILE NAME : W:\bte\signals\PRESENT OPERATING DRAWINGS\Intersections\Lincoln_4\498nw-3.dgn PLOT DATE : 11-JUL-2019 08:33 PLOT BY : knutte PLOT NAME : PLOT SCALE : 10.000000:1.000000

EXISTING TRAFFIC SIGNAL PLAN FOR INFORMATION ONLY - NOT TO SCALE

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	EXISTING TRAFFIC SIGNAL PLAN	SHEET 185	E

FILE NAME : Z:\SHARED\WI\3109-3 I43 BECHER INTERCHANGE\CAD\I43 AT BECHER INTERCHANGE SIGNAL REMOVALS.DWG
LAYOUT NAME - 4TH & LINCOLN_PG2
PLOT DATE : 10/23/2025 1:40 PM PLOT BY : JEFF FAIT PLOT NAME : PLOT SCALE : ##########



LEGEND

- CONTROL CABINET
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN SIGNAL HEAD
- LUMINAIRE, LED C UNLESS OTHERWISE NOTED
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- G GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)

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. INSTALL SIGNAL HEADS 10, 12, 19, & 20 USING EXISTING CONDUCTORS.
3. MODIFY SIGNAL CABINET CONTENTS AND WIRING AS NECESSARY TO ACCOMMODATE NEW SIGNAL PHASING.

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER
OCTOBER 27, 2025

TRAFFIC CONTROL SIGNAL
W LINCOLN AVE & S 4TH ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

CITY CONTACT: K. PFEIFER
DESIGNED BY: JAB
REVISED BY: TADI

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 186	E

FILE NAME : Z:\SHARED\WI\3109-3 I43 BECHER INTERCHANGE\CAD\4TH AT LINCOLN SIGNAL MODIFICATIONS.DWG
LAYOUT NAME - 4TH & LINCOLN
PLOT DATE : 10/27/2025 9:59 AM PLOT BY : JEFF FAIT PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

	PROPOSED	EXISTING
FTMS CONVENTIONAL SYMBOLS		
POLE MOUNTED CABINET		
METER BREAKER PEDESTAL		
CSCP PULL BOX		
FTMS (ITS) CONDUIT		
BREAKER DISCONNECT BOX		
COMMUNICATIONS VAULT, TYPE 1		
CONCRETE BASE, POLE, AND MICROWAVE DETECTOR		
CCTV BASE, POLE, AND CAMERA		
ITS FIELD CABINET AND CONCRETE BASE		
WIRELESS TRAFFIC SENSOR		
UTILITY LINE OPENING		
WIRELESS TRAFFIC SENSOR ACCESS POINT		

FTMS STANDARD ABBREVIATIONS

CB	CONTROLLER CABINET
PB	PULL BOX
EX	EXISTING
RM	RAMP METER

1. THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.

2. BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

3. BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUITS, PULLBOXES, POLES, CABINET FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED. THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.

4. NO TREES (AND/OR SHRUBS) SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

5. AREAS WITHIN THE RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR FTMS CONSTRUCTION SHALL BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER, SEED, AND EROSION MAT, AND SHALL BE INCLUDED IN THE COST OF INSTALLING FTMS ITEMS. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS BUT ALSO CONTAINING FTMS CONSTRUCTION SHALL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS.

6. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

7. DUE TO RAMP, LANE, SHOULDER CLOSURE RESTRICTIONS, AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.

8. THE CONTRACTOR IS FULLY RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.

9. THE CONTRACTOR SHALL CONTACT THE WISDOT STATEWIDE TRAFFIC OPERATIONS CENTER AT (414)227-2166 FIVE (5) WORKING DAYS PRIOR TO ENTERING ANY EXISTING WISDOT FTMS OR ITS CABINET.

10. ALL LOOP DETECTORS ARE STATIONED TO CENTER OF LEADING EDGE AS APPROACHED BY NORMAL VEHICLE PATH.

11. HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.

12. VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.

2

N

STEP 1: REMOVE EXISTING CABLES
(REMOVE ONLY EXFYBEC196 5/C CABLE
AND EXPBBEC196 LDLIC)
STEP 2: INSTALL IN EXISTING CONDUIT
(1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
(1) LDLIC, AND (1) NO. 10 AWG TRAFFIC
SIGNAL WIRE

EXCBRM400029

STEP 1: REMOVE EXISTING CABLES
(REMOVE ONLY EXFYBEC196 5/C CABLE
AND EXPBBEC196 LDLIC)
STEP 2: INSTALL IN EXISTING CONDUIT
(1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
(1) LDLIC, AND (1) NO. 10 AWG TRAFFIC
SIGNAL WIRE

STEP 1: REMOVE EXISTING CABLES
(REMOVE ONLY EXFYBEC196 5/C CABLE
AND EXPBBEC196 LDLIC)
STEP 2: INSTALL IN EXISTING CONDUIT
(1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
(1) LDLIC, AND (1) NO. 10 AWG TRAFFIC
SIGNAL WIRE

EXPBBEC182

IH 43 SB ON RAMP

SB C-D ROAD

185

INSTALL (6) WIRELESS TRAFFIC SENSORS
IN STOP BAR ARRAY
(INTEGRATE SENSORS WITH ACCESS
POINT ON EXCBRM400029)

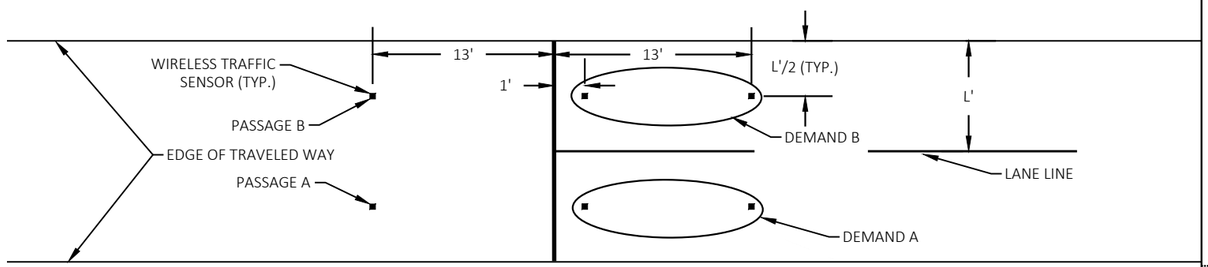
IH 43 SB

MATCH LINE 186+00

IH 43 NB

185

NB C-D ROAD



WIRELESS TRAFFIC SENSOR RAMP
METER STOP BAR LAYOUT

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	FTMS DESIGN SHEETS	SHEET 188	E

FILE NAME : I:\77532\BASE\MILWAUKEE\12280977_43_BECHER\12280977_43_BECHER_FTMS.DWG
LAYOUT NAME - 01
PLOT DATE : 10/28/2025 2:48 PM PLOT BY : PAUL KUTZ PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

EXPBBEC188

STEP 1: REMOVE EXISTING CABLES
STEP 2: INSTALL IN EXISTING CONDUIT
(1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
(1) LDLIC, AND (1) NO. 10 AWG TRAFFIC
SIGNAL WIRE

EXPBBEC189
(1) INSTALL PROPOSED CONDUIT
INTO EXISTING PULL BOX

STEP 1: REMOVE EXISTING CABLES AND
ABANDON CONDUIT

STEP 1: REMOVE EXISTING CABLES
STEP 2: INSTALL IN EXISTING CONDUIT
(1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
(1) LDLIC, AND (1) NO. 10 AWG TRAFFIC
SIGNAL WIRE

EXPBBEC184

STEP 1: REMOVE EXISTING CABLES
(REMOVE ONLY EXFYBEC196 5/C CABLE
AND EXPBBEC196 LDLIC)
STEP 2: INSTALL IN EXISTING CONDUIT
(1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
(1) LDLIC, AND (1) NO. 10 AWG TRAFFIC
SIGNAL WIRE

EXPBBEC185

ULOBEC188
(1) UTILITY LINE OPENING

STEP 2: (1) 2-INCH NONMETALLIC CONDUIT WITH
(1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE AND
(1) LDLIC

MATCH LINE 186+00

EXPBBEC186

EXSBBEC186

EXPBBEC187

SB C-D ROAD

190

ULOBEC189
(1) UTILITY LINE OPENING

EXPBBEC190
(1) INSTALL PROPOSED CONDUIT
INTO EXISTING PULL BOX

MATCH LINE 191+25

IH 43 SB

STEP 1: REMOVE EXISTING CABLES
(REMOVE ONLY EXFYBEC196 5/C CABLE
AND EXPBBEC196 LDLIC)
STEP 2: INSTALL IN EXISTING CONDUIT
(1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
(1) LDLIC, AND (1) NO. 10 AWG TRAFFIC
SIGNAL WIRE

ADJUST EXISTING CONDUIT TO AVOID
CONFLICT WITH PAVEMENT REMOVAL,
GRADING, AND PAVEMENT RECONSTRUCTION

STEP 2: (1) 2-INCH NONMETALLIC CONDUIT WITH
(1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE AND
(1) LDLIC

BECHER ST EB

IH 43 NB

BECHER ST WB

NB C-D ROAD

STAGING NOTES:

A MINIMUM OF 2-WEEKS PRIOR TO BEGINNING ANY PAVEMENT REMOVAL WORK ON W. BECHER ST., EXPOSE THE EXISTING WISDOT CONDUITS UNDER W. BECHER ST. AT ULOBEC188 ABD ULOBEC189.

USE THE DEPTHS OF THE EXISTING CONDUITS DISCOVERED THROUGH ULOBEC188 AND ULOBEC189 TO DETERMINE IF THE CONDUITS WILL BE IN CONFLICT WITH THE PAVEMENT WORK ON W. BECHER ST.

IF A CONFLICT IS DETERMINED ADJUST THE EXISTING CONDUIT TO RESOLVE THE CONFLICT AND ALLOW FOR THE PAVEMENT CONSTRUCTION WITHOUT INTERRUPTING THE EXISTING CONDUIT AND THE CABLES WITHIN THEM.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	FTMS DESIGN SHEETS	SHEET 189	E

FILE NAME : I:\77532\BASE\MILWAUKEE\12280977_43_BECHER\12280977_43_BECHER_FTMS.DWG
LAYOUT NAME - 02
PLOT DATE : 10/28/2025 2:57 PM PLOT BY : PAUL KUTZ PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

STEP 1: REMOVE EXISTING CABLES
STEP 2: INSTALL IN EXISTING CONDUIT
(1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
(1) LDLIC, AND (1) NO. 10 AWG TRAFFIC
SIGNAL WIRE

EXFYBEC196
CONNECT NEW 5/C TRAFFIC SIGNAL
CABLE TO EXISTING ADVANCE FLASHER
ASSEMBLY

STEP 1: REMOVE EXISTING CABLES
STEP 2: INSTALL IN EXISTING CONDUIT
(1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
(1) LDLIC, AND (1) NO. 10 AWG TRAFFIC
SIGNAL WIRE

N

SB OFF-RAMP

95

MATCH LINE 191+25

EXPBBEC192

EXPBBEC194

SB C-D ROAD

EXPBBEC196
SPLICE EXISTING LOOP DETECTOR
TO NEW LDLIC

195

STEP 1: REMOVE EXISTIING CABLES
STEP 2: INSTALL IN EXISTING CONDUIT
(1) LDLIC, AND (1) NO. 10 AWG TRAFFIC
SIGNAL WIRE

IH 43 SB

IH 43 NB

195

NB C-D ROAD

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	FTMS DESIGN SHEETS	SHEET 190	E

FILE NAME : I:\77532\BASE\MILWAUKEE\12280977_43_BECHER\12280977_43_BECHER_FTMS.DWG
LAYOUT NAME - 03

PLOT DATE : 10/28/2025 3:09 PM PLOT BY : PAUL KUTZ PLOT NAME : PLOT SCALE : 1 IN:40 FT

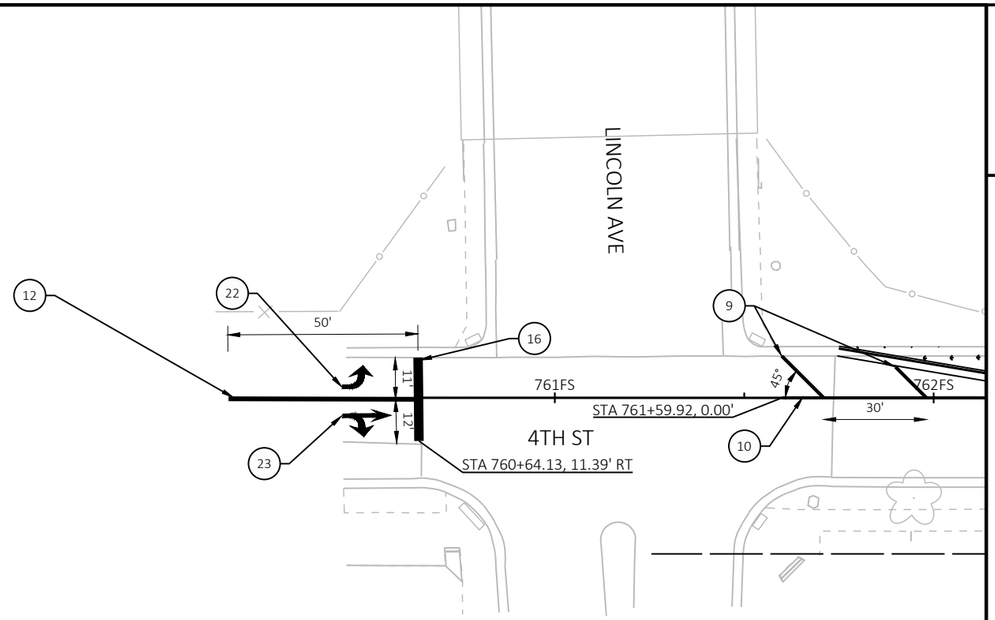
WISDOT/CADDS SHEET 42

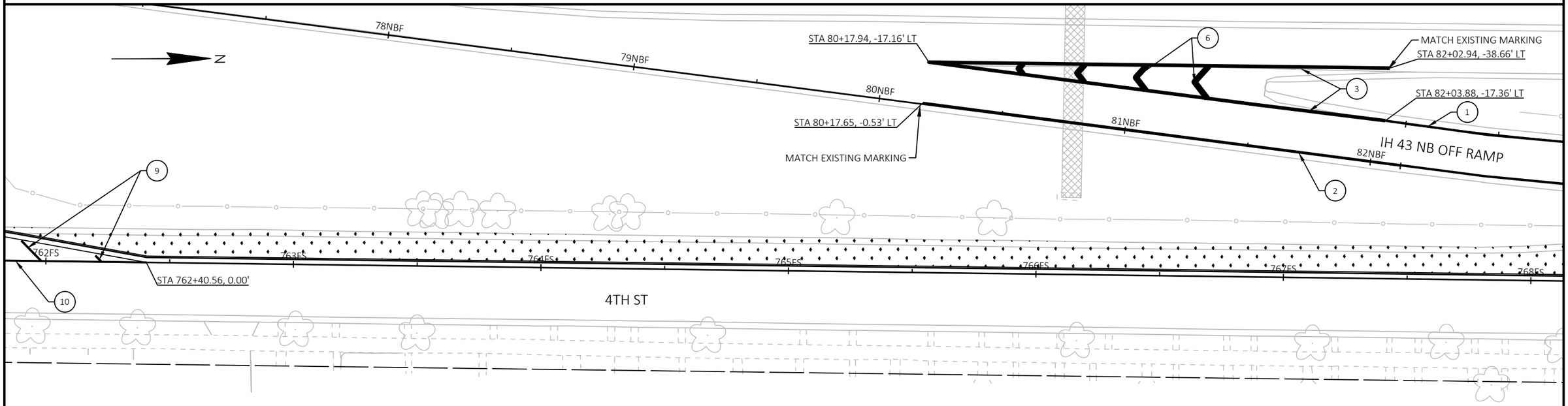
2

LEGEND

1	MARKING LINE GROOVED WET REF EPOXY 6-INCH, YELLOW
2	MARKING LINE GROOVED WET REF EPOXY 6-INCH, WHITE
3	MARKING LINE GROOVED WET REF EPOXY 10-INCH, WHITE
6	MARKING CHEVRON EPOXY 24-INCH, WHITE
9	MARKING DIAGONAL EPOXY 6-INCH, YELLOW
10	MARKING LINE EPOXY 4-INCH, YELLOW
12	MARKING LINE EPOXY 8-INCH, WHITE
16	MARKING STOP LINE EPOXY 18-INCH, WHITE
22	MARKING ARROW EPOXY, WHITE TYPE 2
23	MARKING ARROW EPOXY, WHITE TYPE 3

N



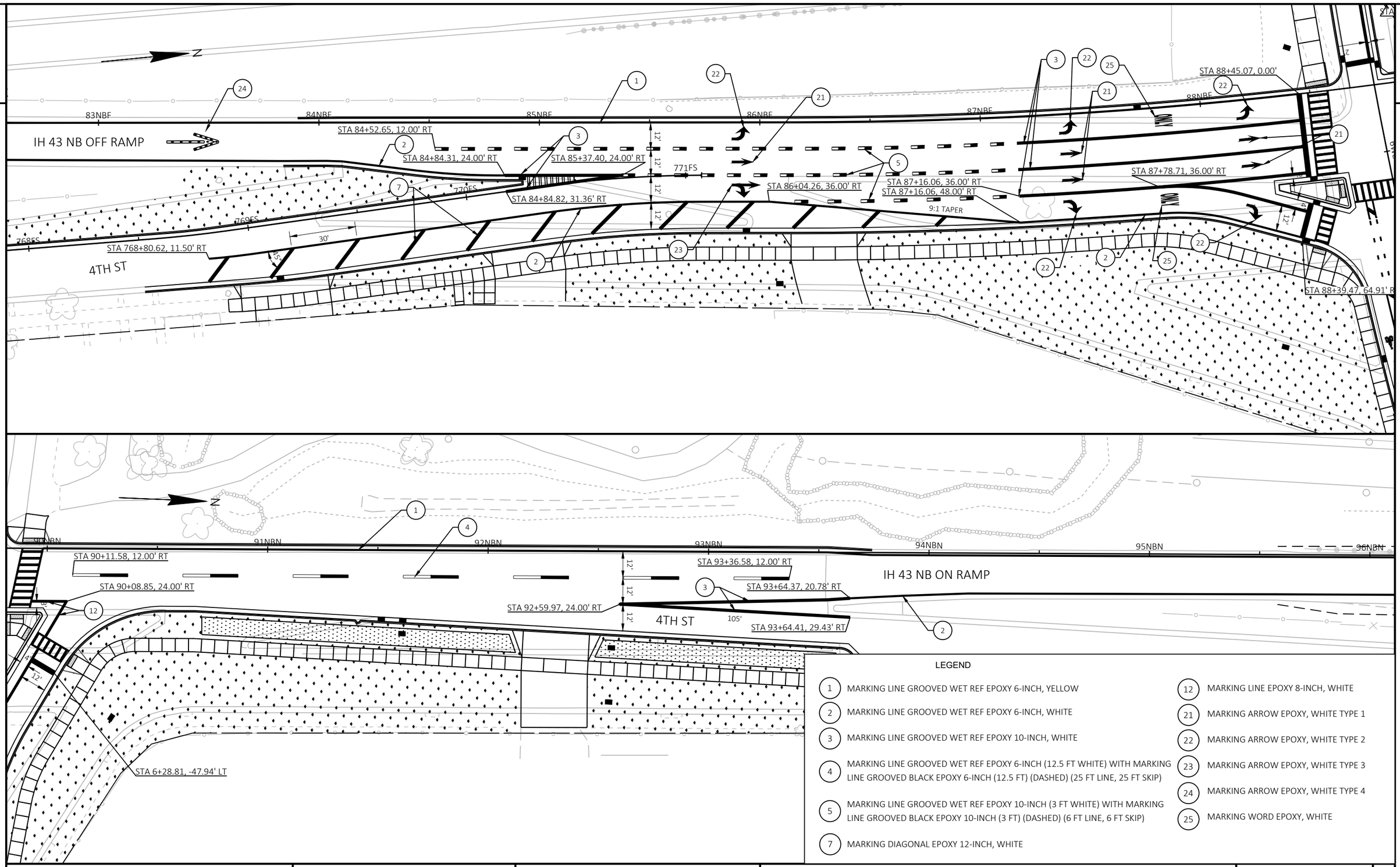


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKINGS - 4TH ST	SHEET 191	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\024501-PM.DWG
LAYOUT NAME - 01

PLOT DATE : 10/29/2025 11:06 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



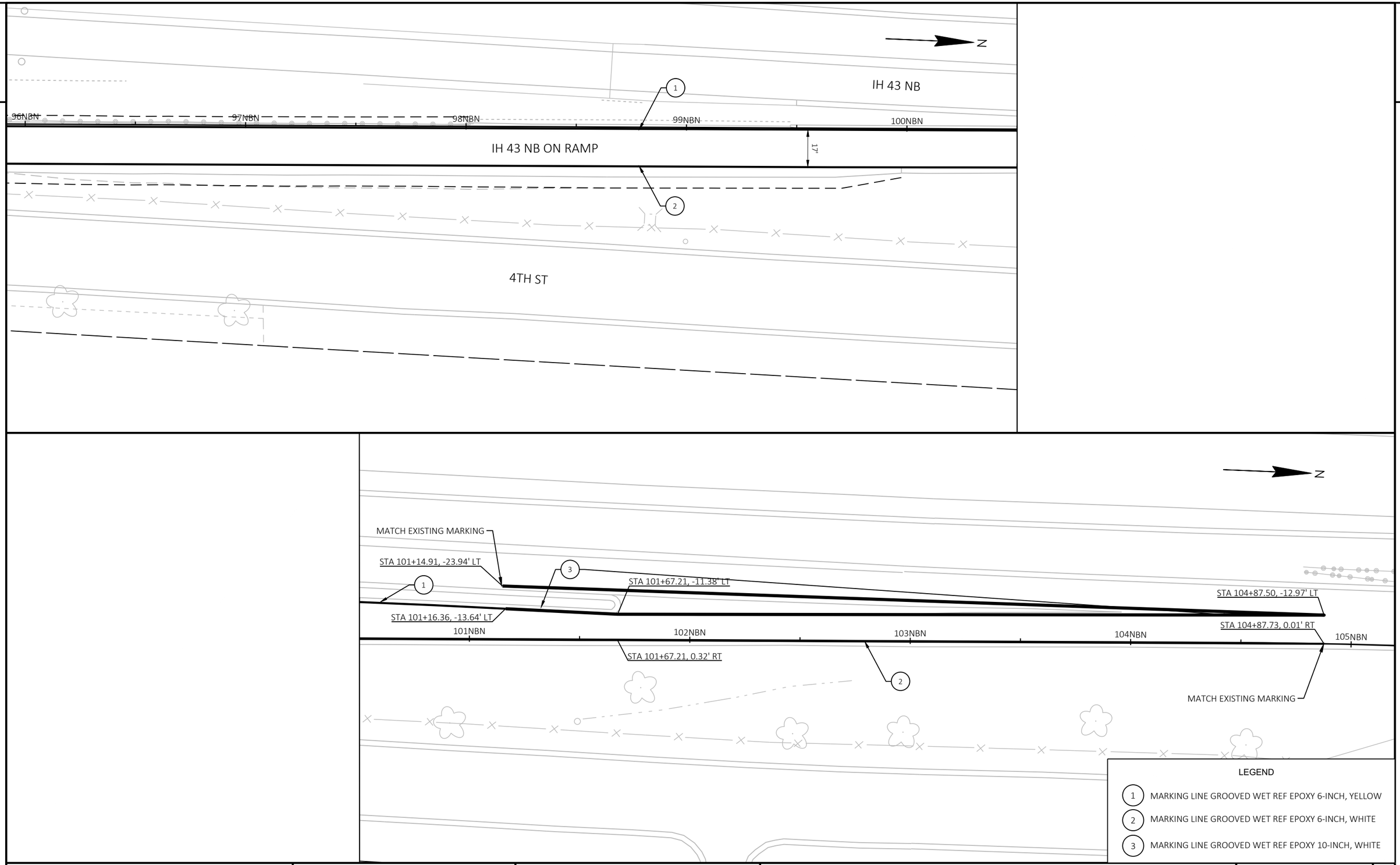
LEGEND

1	MARKING LINE GROOVED WET REF EPOXY 6-INCH, YELLOW
2	MARKING LINE GROOVED WET REF EPOXY 6-INCH, WHITE
3	MARKING LINE GROOVED WET REF EPOXY 10-INCH, WHITE
4	MARKING LINE GROOVED WET REF EPOXY 6-INCH (12.5 FT WHITE) WITH MARKING LINE GROOVED BLACK EPOXY 6-INCH (12.5 FT) (DASHED) (25 FT LINE, 25 FT SKIP)
5	MARKING LINE GROOVED WET REF EPOXY 10-INCH (3 FT WHITE) WITH MARKING LINE GROOVED BLACK EPOXY 10-INCH (3 FT) (DASHED) (6 FT LINE, 6 FT SKIP)
7	MARKING DIAGONAL EPOXY 12-INCH, WHITE
12	MARKING LINE EPOXY 8-INCH, WHITE
21	MARKING ARROW EPOXY, WHITE TYPE 1
22	MARKING ARROW EPOXY, WHITE TYPE 2
23	MARKING ARROW EPOXY, WHITE TYPE 3
24	MARKING ARROW EPOXY, WHITE TYPE 4
25	MARKING WORD EPOXY, WHITE

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKINGS - IH 43 RAMPS	SHEET 192	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\024501-PM.DWG
LAYOUT NAME - 02
PLOT DATE : 10/29/2025 11:06 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : ##'=##'
WISDOT/CADDS SHEET 44

2



PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKINGS - IH 43 RAMPS	SHEET 193	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\024501-PM.DWG
LAYOUT NAME - 03
PLOT DATE : 10/29/2025 11:06 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

LEGEND

1 MARKING LINE GROOVED WET REF EPOXY 6-INCH, YELLOW

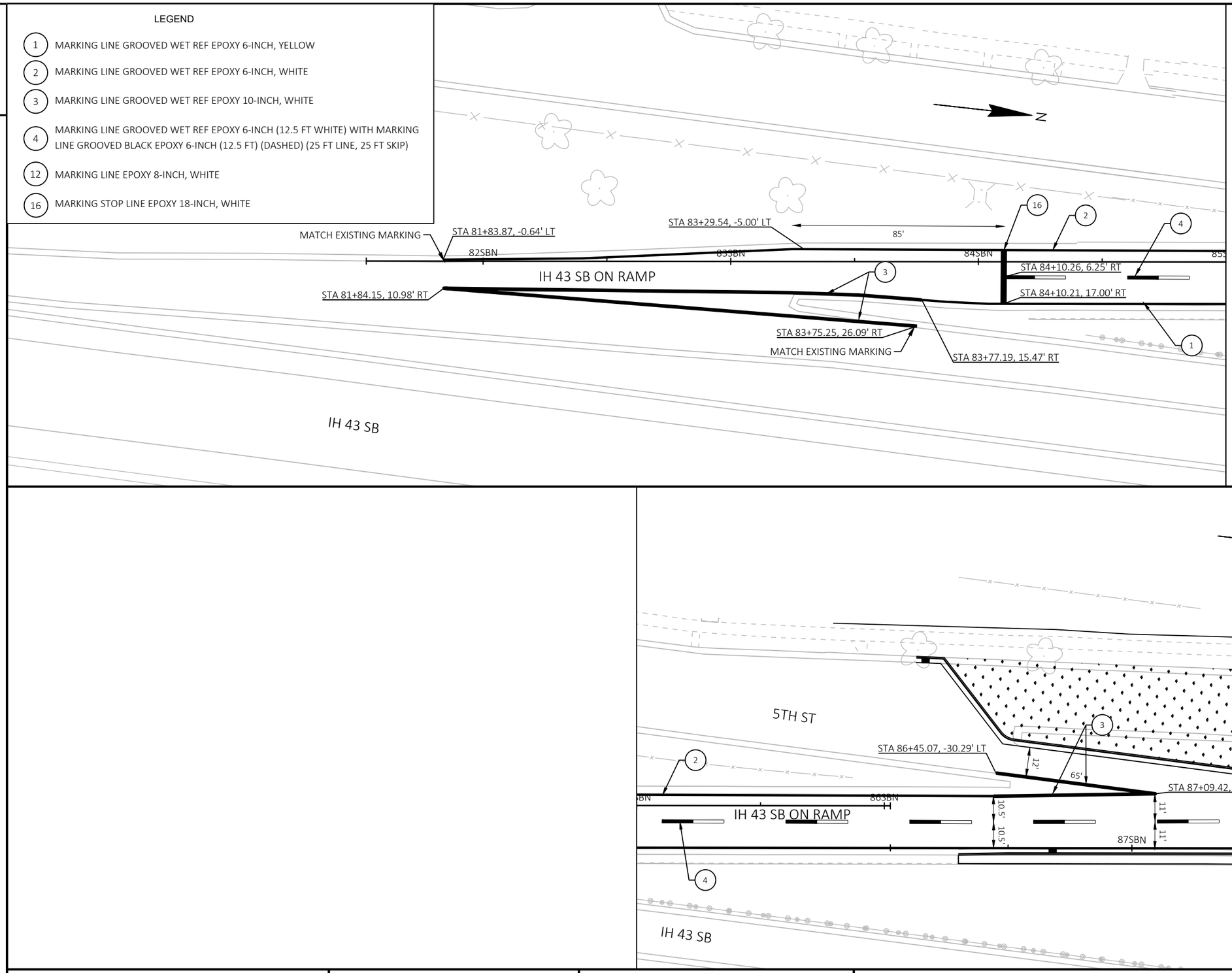
2 MARKING LINE GROOVED WET REF EPOXY 6-INCH, WHITE

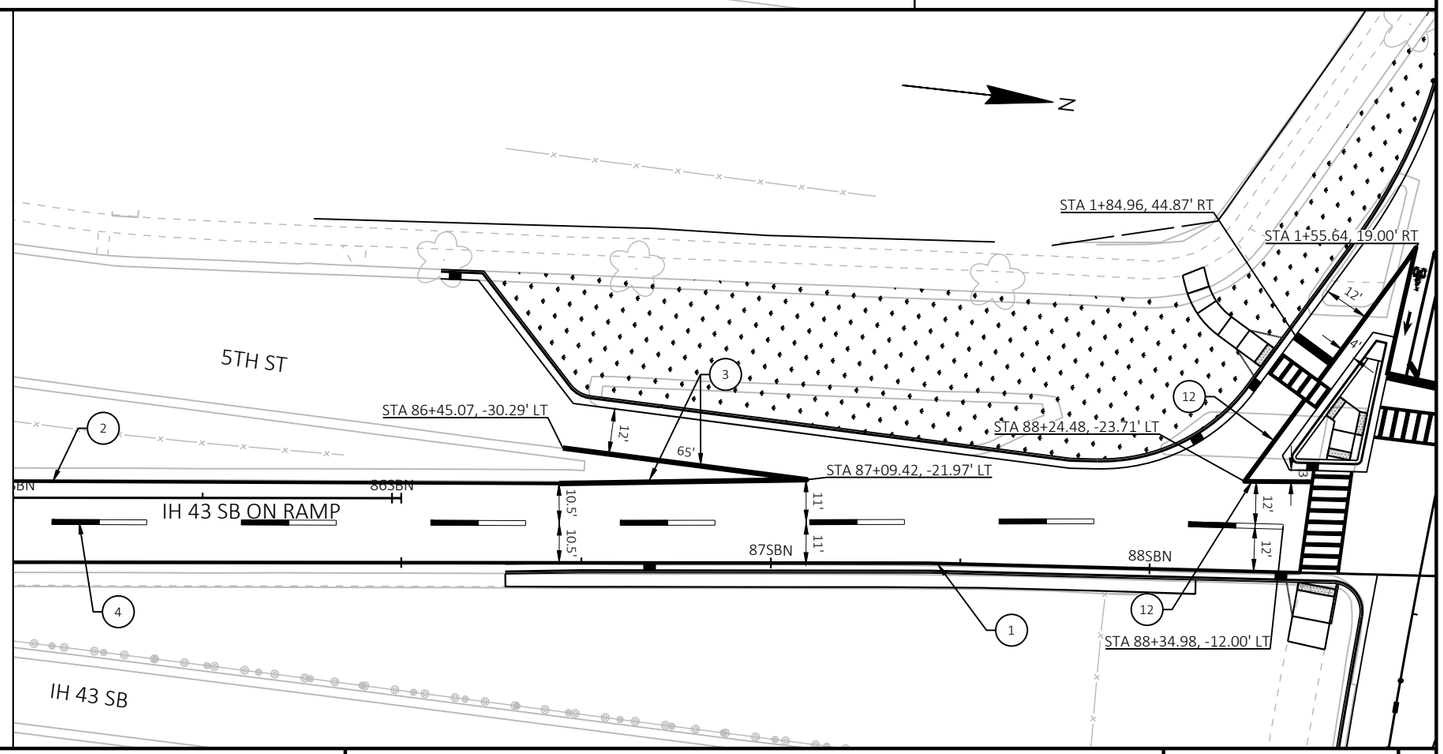
3 MARKING LINE GROOVED WET REF EPOXY 10-INCH, WHITE

4 MARKING LINE GROOVED WET REF EPOXY 6-INCH (12.5 FT WHITE) WITH MARKING LINE GROOVED BLACK EPOXY 6-INCH (12.5 FT) (DASHED) (25 FT LINE, 25 FT SKIP)

12 MARKING LINE EPOXY 8-INCH, WHITE

16 MARKING STOP LINE EPOXY 18-INCH, WHITE



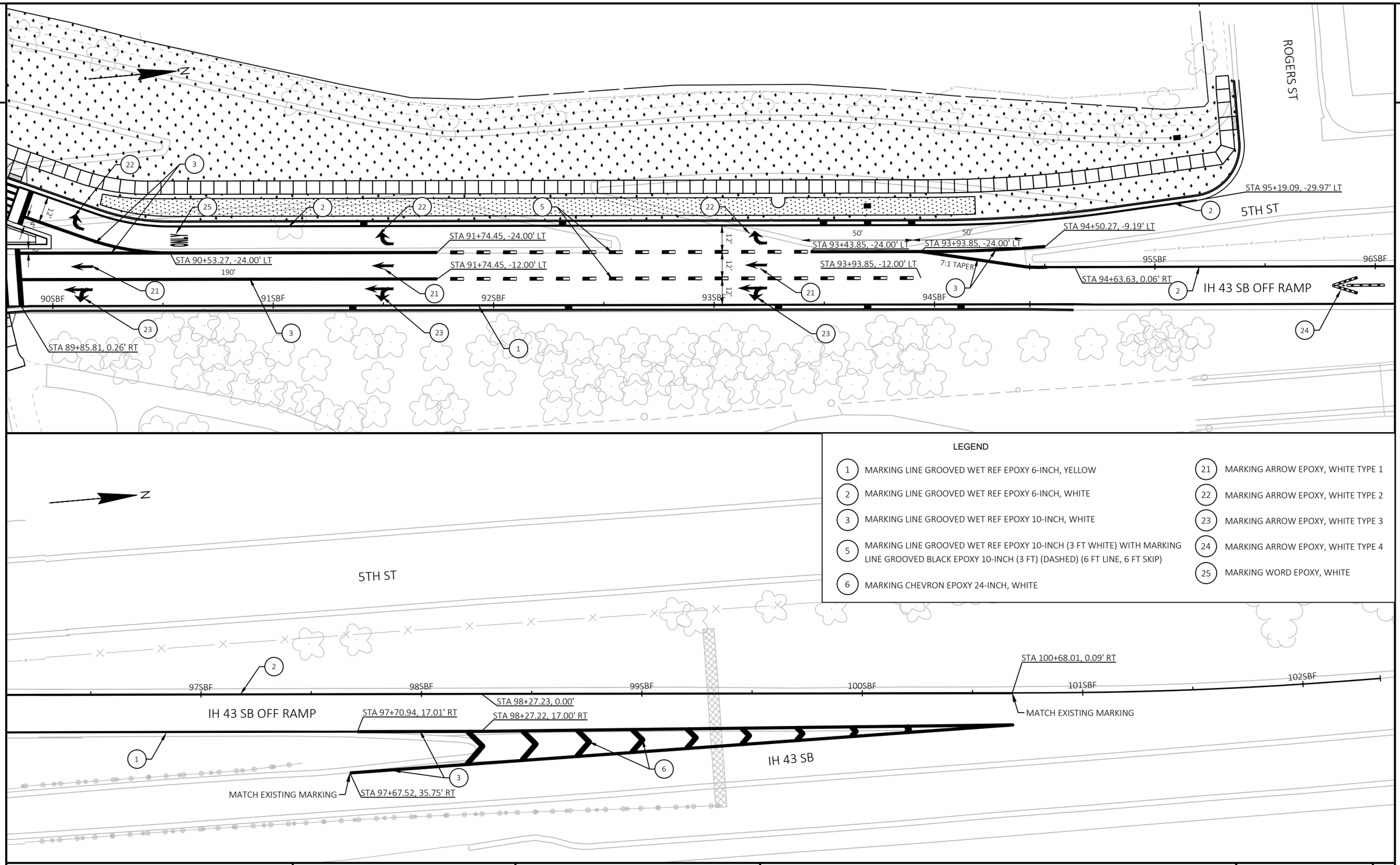


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKINGS - IH 43 RAMPS	SHEET 194	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\024501-PM.DWG
LAYOUT NAME - 04

PLOT DATE : 10/29/2025 11:06 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

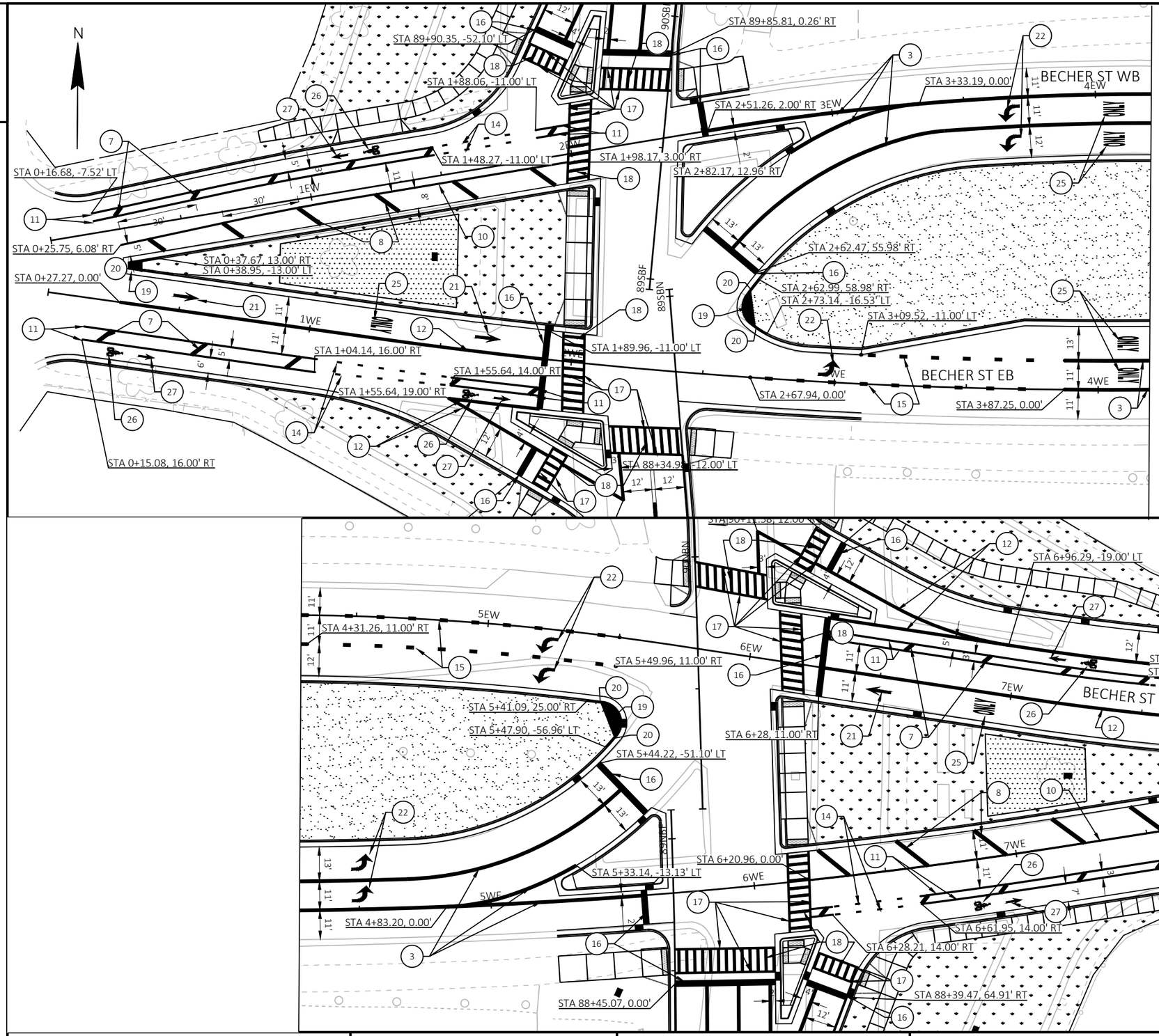


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKINGS	SHEET 195	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\024501-PM.DWG
LAYOUT NAME - 05

PLOT DATE : 10/29/2025 11:06 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



LEGEND

- (3) MARKING LINE GROOVED WET REF EPOXY 10-INCH, WHITE
- (7) MARKING DIAGONAL EPOXY 12-INCH, WHITE
- (8) MARKING DIAGONAL EPOXY 12-INCH, YELLOW
- (10) MARKING LINE EPOXY 4-INCH, YELLOW
- (11) MARKING LINE EPOXY 4-INCH, WHITE
- (12) MARKING LINE EPOXY 8-INCH, WHITE
- (13) MARKING LINE EPOXY 4-INCH, WHITE, 12.5' LINE, 37.5' SKIP
- (14) MARKING LINE EPOXY 4-INCH, WHITE, 3' LINE, 9' SKIP
- (15) MARKING LINE GROOVED WET REF EPOXY 10-INCH, WHITE, 3' LINE, 9' SKIP
- (16) MARKING STOP LINE EPOXY 18-INCH, WHITE
- (17) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH, WHITE
- (18) MARKING CROSSWALK EPOXY 12-INCH,WHITE (BLOCK STYLE)
- (19) MARKING ISLAND NOSE EPOXY, YELLOW
- (20) MARKING CURB EPOXY, YELLOW
- (21) MARKING ARROW EPOXY, WHITE TYPE 1
- (22) MARKING ARROW EPOXY, WHITE TYPE 2
- (25) MARKING WORD EPOXY, WHITE
- (26) MARKING SYMBOL EPOXY, WHITE
- (27) MARKING ARROW EPOXY, WHITE BIKE LANE

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PAVEMENT MARKINGS - BECHER ST	SHEET 196	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\024501-PM.DWG
LAYOUT NAME - 06
PLOT DATE : 10/29/2025 11:06 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2



PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 OVERVIEW	SHEET 197	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\026001-S1.DWG
LAYOUT NAME - Overview

PLOT DATE : 10/29/2025 11:12 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN: 250 FT

GENERAL NOTES:
REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND SDD "BARRICADES AND SIGNS FOR SIDE ROAD CLOSURES".

FOR ADDITIONAL SIGNING, SEE "DETOUR PLAN -BECHER ST" AND "DETOUR PLAN - IH 43 RAMPS".

STAGE 1:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
CLOSE WB BECHER STREET FROM IH 43 & BECHER STREET INTERCHANGE TO 1ST STREET.

BECHER ST

1ST ST

N

ROAD CLOSED AHEAD W20-3A
NORTH M3-1 24"X12"
4TH ST SEE FMS DETAIL
WEST M3-4 24"X12"
BECHER ST SEE FMS DETAIL

ROAD CLOSED 500 FT W20-3D
NORTH M3-1 24"X12"
4TH ST SEE FMS DETAIL
WEST M3-4 24"X12"
BECHER ST SEE FMS DETAIL

1100'
500'

ROAD CLOSED R11-2 48"X30"

DETOUR M4-9R 30"X24"

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30"

CANADIAN PACIFIC RR CROSSING ~330 FT TO THE EAST. DO NOT PLACE ANY ITEMS WITHIN 50 FEET OF RAILROAD RIGHT-OF-WAY.

LEGEND
- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- WORK AREA

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - BECHER ST	SHEET 198	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\026001-S1.DWG
LAYOUT NAME - 01
PLOT DATE : 10/29/2025 11:12 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

2

ROAD CLOSED AHEAD W20-3A
EAST M3-2 24"X12"
BECHER ST
SEE FMS DETAIL
1100'
500'
ROAD CLOSED 500 FT W20-3D
EAST M3-2 24"X12"
BECHER ST
SEE FMS DETAIL
ROAD CLOSED AHEAD W20-3A
EAST M3-2 24"X12"
BECHER ST
SEE FMS DETAIL
1100'
ROAD CLOSED AHEAD W20-3A
SOUTH M3-3 24"X12"
5TH ST
EAST M3-2 24"X12"
BECHER ST
SEE FMS DETAIL
ROAD CLOSED AHEAD W20-3A
SOUTH M3-3 24"X12"
5TH ST
EAST M3-2 24"X12"
BECHER ST
SEE FMS DETAIL
SEE FMS DETAIL
Basilica of St Josaphat
ROAD CLOSED AHEAD W20-3A
EAST M3-2 24"X12"
BECHER ST
SEE FMS DETAIL
N
6TH ST
DETOUR M4-9L 30"X24"
ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30"
BECHER ST
ROGERS ST
BURNHAM ST
END ROAD WORK G20-2A 48"X24"
CONNECTED WORK ZONE END LOCATION MARKER
5TH PL
ROAD CLOSED R11-2 48"X30"
LANE CLOSED R11-2L 48"X30"
ONE WAY R6-2R 24"X30"
ONE WAY R6-2L 24"X30"
ROAD CLOSED R11-2 48"X30"
LANE CLOSED R11-2L 48"X30"
25'
16'
9'
12'
25'
25'
2
180' TAPER LENGTH
90SBF
95SBF
100SBF
785
IH 43 SB
IH 43 NB
W04-2L
LEFT LANE CLOSED AHEAD W20-5SA
ROAD WORK AHEAD W20-1A
200'
200'
CONNECTED WORK ZONE START LOCATION MARKER
1100'
ROAD CLOSED 500 FT W20-3D
SOUTH M3-3 24"X12"
5TH ST
BECHER ST
ROAD CLOSED AHEAD W20-3A
SOUTH M3-3 24"X12"
5TH ST
BECHER ST
SEE FMS DETAIL

LEGEND

- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- (2) TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)

GENERAL NOTES:
REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", SDD "BARRICADES AND SIGNS FOR SIDE ROAD CLOSURES", SDD "TRAFFIC CONTROL, ONE-WAY SIGNING", AND SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY".

FOR ADDITIONAL SIGNING, SEE "DETOUR PLAN -BECHER ST" AND "DETOUR PLAN - IH 43 RAMPS".

STAGE 1:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
-CLOSE INSIDE LANE OF 5TH STREET FROM ROGERS STREET TO BURNHAM STREET
-CONVERT ROGERS STREET TO A ONE LANE ROADWAY FROM 5TH STREET TO 5TH PLACE
-CLOSE 5TH STREET FROM IH 43 & BECHER STREET INTERCHANGE TO ROGERS STREET.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - BECHER ST	SHEET 199	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\026001-S1.DWG
LAYOUT NAME - 02
PLOT DATE : 10/29/2025 11:12 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

GENERAL NOTES:
REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", SDD "BARRICADES AND SIGNS FOR SIDE ROAD CLOSURES", AND SDD "TRAFFIC CONTROL TWO WAY TWO LANE OPERATION".

FOR ADDITIONAL SIGNING, SEE "DETOUR PLAN -BECHER ST" AND "DETOUR PLAN - IH 43 RAMPS".

STAGE 1:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
IN THIS STAGE, CONVERT 5TH STREET TO A TWO WAY TWO LANE ROADWAY FROM IH 43 & BECHER STREET INTERCHANGE TO GRANT STREET.

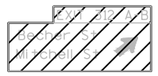


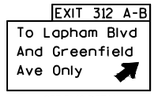
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - BECHER ST	SHEET 200	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\026001-S1.DWG
LAYOUT NAME - 03
PLOT DATE : 10/29/2025 11:12 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:100 FT

COVER EXISTING SIGNS SOUTH OF PROJECT LIMITS

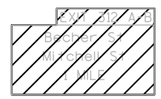


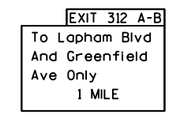




SEE FMS DETAIL

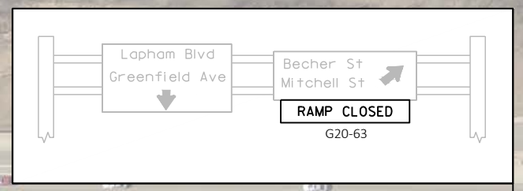
ADD FMS NEAR EXISTING EXIT 312 A-B SIGNS





SEE FMS DETAIL

5TH ST



END ROAD WORK
G20-2A
48"X24"

85SBN

IH 43 SB

770

IH 43 NB

SITE 312 N

765

Lapham Blvd

75NBF

16'

25'

80NBF

1500'

1500'

1000'

5

MB

85NBF

770FS

765FS

4TH ST

ROAD WORK AHEAD
W20-1A

RAMP CLOSED AHEAD
W20-5A

RAMP CLOSED 1000 FT
W20-5S

RAMP CLOSED
R11-2R
48"X30"

LINCOLN AVE

FRAME 1
RAMP TO CLOSE

FRAME 2
XXX DAY
XX XX XX



SEE FMS DETAIL



SEE FMS DETAIL

LEGEND

- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- WORK AREA
- COVER EXISTING SIGN
- 5 — TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)

GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL, EXIT RAMP CLOSURE".

FOR ADDITIONAL SIGNING, SEE "DETOUR PLAN -BECHER ST" AND "DETOUR PLAN - IH 43 RAMPS".

STAGE 1:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
IN THIS STAGE, CLOSE IH 43 NB EXIT RAMP TO BECHER STREET.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - IH 43 RAMPS	SHEET 201	E

2

2

N

FRAME 1
RAMP TO CLOSE

FRAME 2
XXX DAY
XX XX XX

EXIT

RAMP CLOSED
R11-2R
48"X30"

SITE 312.8

5TH ST

LANE CLOSED
R11-2L
48"X30"

Becher St
Lincoln Ave
RAMP CLOSED
G20-63

MB

100SBF

25'

12'

STA 790+47.12, -95.20' LT

25'

11'

STA 793+34.84, -111.53' LT

5

IH 43 SB

785

790

795

MAPLE ST

MITCHELL ST

Becher St
Lincoln Ave
RAMP CLOSED
G20-63

IH 43 NB

100NBN

105NBN

END
ROAD WORK
G20-2A
48"X24"

4TH ST

Frank Lloyd Wright
Designed Buildings
American System
Built Homes

Basilica of
St Josaphat
Historic Site

LEGEND

- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- WORK AREA
- COVER EXISTING SIGN
- 5 TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)

GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL, EXIT RAMP CLOSURE".

FOR ADDITIONAL SIGNING, SEE "DETOUR PLAN -BECHER ST" AND "DETOUR PLAN - IH 43 RAMPS".

STAGE 1:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
IN THIS STAGE, CLOSE IH 43 SB EXIT RAMP TO BECHER STREET.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - IH 43 RAMPS	SHEET 202	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\026002-S1-RAMPS.DWG
LAYOUT NAME - 02
PLOT DATE : 10/29/2025 11:15 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

Basilica of St Josaphat
SEE FMS DETAIL

N

SIGN ~ 1500 FEET NORTH OF PROJECT LIMITS
EXIT 312 B
Becher St
Lincoln Ave
¼ MILE
RAMP CLOSED
G20-63
EXIT 312 A
Lapham Blvd
Mitchell St
EXIT ONLY

EXIT 312 B
Becher St
Lincoln Ave
RAMP CLOSED
G20-64

Basilica of St Josaphat Historic Site
SEE FMS DETAIL

FRAME 1
RAMP TO CLOSE

FRAME 2
XXX DAY
XX XX XX

ROAD WORK AHEAD
W20-1A

EXIT 312 B

RAMP CLOSED
R11-2R
48"X30"

MB

25'

STA 801+14.88, -49.31' LT

STA 802+78.17, -47.95' LT

5TH ST

1000'

RAMP CLOSED 1000 FT
W20-53C

1500'

RAMP CLOSED AHEAD
W20-53A

1500'

ROAD WORK AHEAD
W20-1A

Basilica of St Josaphat Historic Site
TRAFFIC INTERSECTION SIGN
EXIT 312 B

PLACE FMS 750 FEET NORTH OF LAPHAM BLVD EXIT
Basilica of St Josaphat Historic Site
EXIT 312 A
SEE FMS DETAIL

IH 43 SB

IH 43 NB

MITCHELL ST

LAPHAM BLVD

800

805

810

5

END ROAD WORK
G20-2A
48"X24"

PLACE FMS NORTH OF LAPHAM BLVD EXIT
Basilica of St Josaphat Historic Site
SEE FMS DETAIL

4TH ST

Frank Lloyd Wright Designed Buildings
American System Built Homes
SEE FMS DETAIL

Basilica of St Josaphat Historic Site
SEE FMS DETAIL

LEGEND

- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- WORK AREA
- COVER EXISTING SIGN
- (5) TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)

GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL, EXIT RAMP CLOSURE".

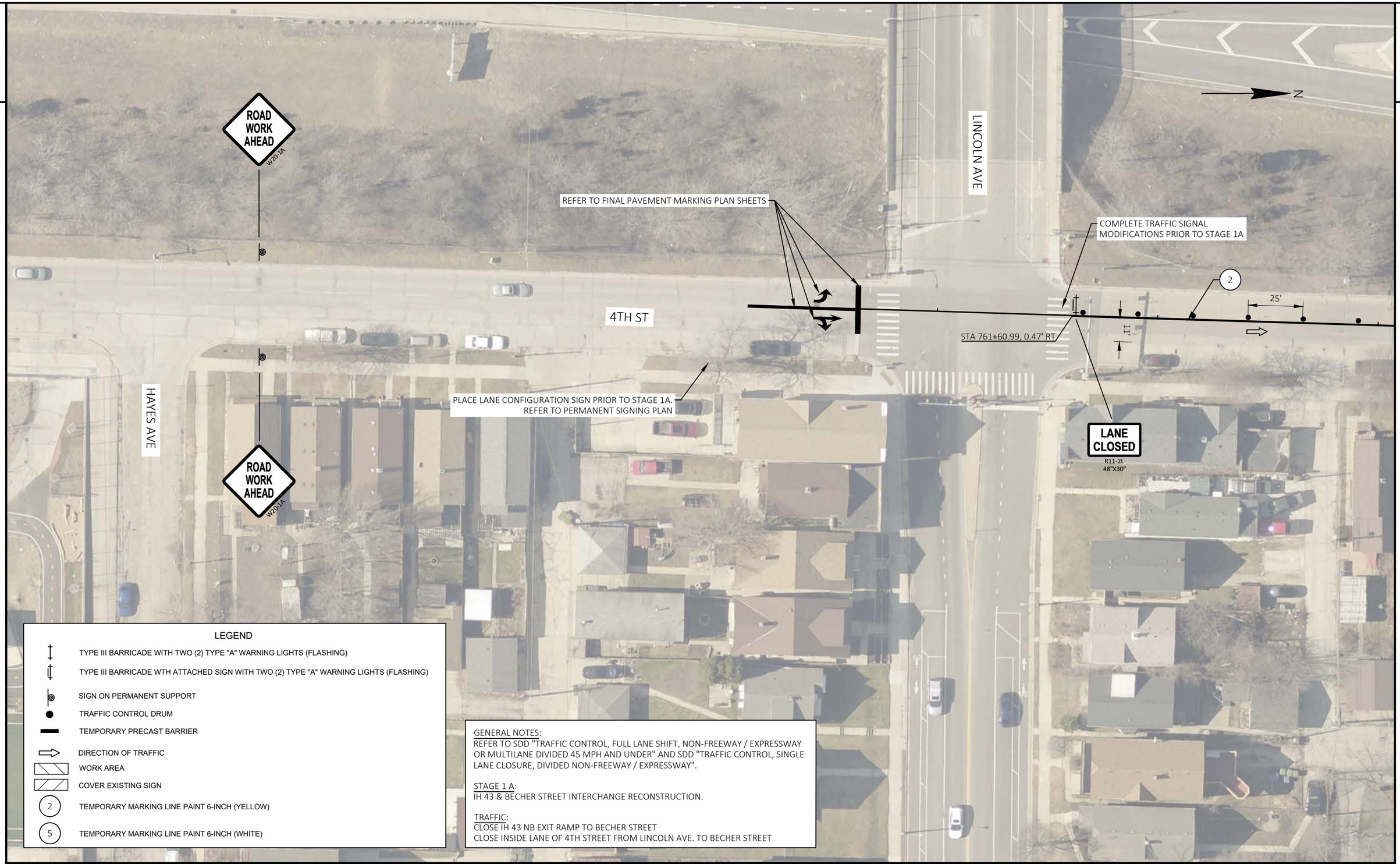
FOR ADDITIONAL SIGNING, SEE "DETOUR PLAN -BECHER ST" AND "DETOUR PLAN - IH 43 RAMPS".

STAGE 1:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
IN THIS STAGE, CLOSE IH 43 SB EXIT RAMP TO BECHER STREET.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - IH 43 RAMPS	SHEET 203	E

2



LEGEND

- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TEMPORARY PRECAST BARRIER
- DIRECTION OF TRAFFIC
- WORK AREA
- COVER EXISTING SIGN
- (2) TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)
- (5) TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)

GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY / EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER" AND SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY / EXPRESSWAY".

STAGE 1 A:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
CLOSE IH 43 NB EXIT RAMP TO BECHER STREET
CLOSE INSIDE LANE OF 4TH STREET FROM LINCOLN AVE. TO BECHER STREET

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 204	E

2

2

N

IH 43 NB OFF RAMP

WO1-4R

LANE CLOSED
R11-2L
48"X30"

2

765FS

11'

25'

4TH ST

STA 767+55.76, 0.09' RT

95' TAPER LENGTH

STA 768+03.26, -13.65' LT

25'

11'

STA 767+54.58, 11.03' RT

STA 768+50.17, 10.32' RT

STA 768+48.98, 21.26' RT

2

5

LANE CLOSED
R11-2L
48"X30"

WO1-6
48"X24"

LEGEND

- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TEMPORARY PRECAST BARRIER
- DIRECTION OF TRAFFIC
- WORK AREA
- COVER EXISTING SIGN
- (2) TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)
- (5) TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)

GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY / EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER" AND SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY / EXPRESSWAY".

STAGE 1 A:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

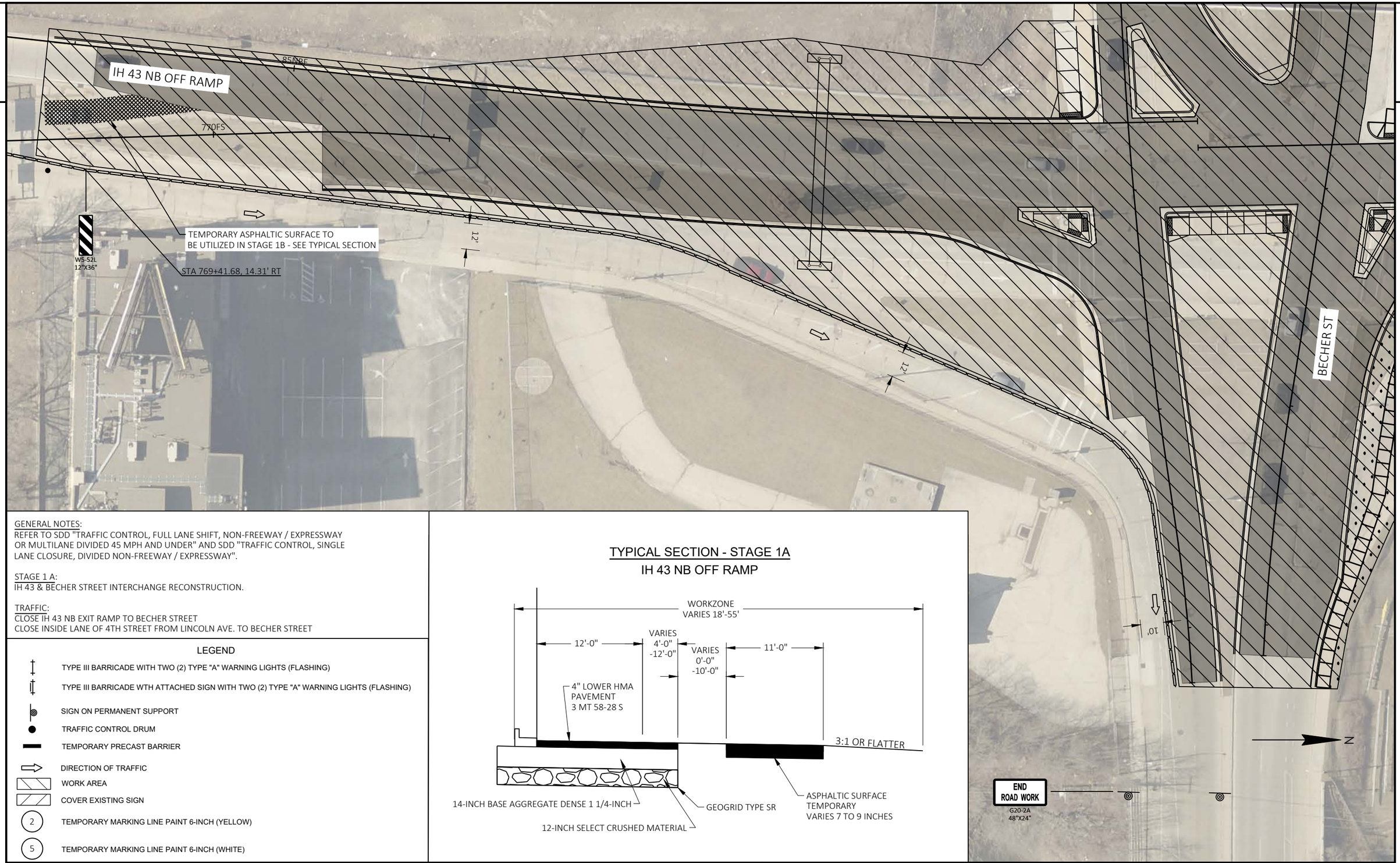
TRAFFIC:
CLOSE IH 43 NB EXIT RAMP TO BECHER STREET
CLOSE INSIDE LANE OF 4TH STREET FROM LINCOLN AVE. TO BECHER STREET

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 205	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\026003-4TH STREET_1A.DWG
LAYOUT NAME - 02

PLOT DATE : 10/27/2025 1:06 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY / EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER" AND SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY / EXPRESSWAY".

STAGE 1 A:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
CLOSE IH 43 NB EXIT RAMP TO BECHER STREET
CLOSE INSIDE LANE OF 4TH STREET FROM LINCOLN AVE. TO BECHER STREET

LEGEND

- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TEMPORARY PRECAST BARRIER
- DIRECTION OF TRAFFIC
- WORK AREA
- COVER EXISTING SIGN
- (2) TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)
- (5) TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)

TYPICAL SECTION - STAGE 1A
IH 43 NB OFF RAMP

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFI CONTROL - STAGE 1A	SHEET 206	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\026003-4TH STREET_1A.DWG
LAYOUT NAME - 03
PLOT DATE : 10/27/2025 1:06 PM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL TWO WAY TWO LANE OPERATION".

STAGE 1A:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
IN THIS STAGE, CONVERT 4TH STREET TO A TWO WAY TWO LANE ROADWAY FROM IH 43 & BECHER STREET INTERCHANGE TO MAPLE STREET.

5TH ST

IH 43 SB

IH 43 NB

ROAD CLOSED 500 FT
W20-3D

ROAD CLOSED AHEAD
W20-3A

100NBN

95NBN

90NBN

STA 94+67.86, 35.20' RT

4TH ST

50'

11'

STA 92+50.88, 64.86' RT

STA 92+15.32, 52.84' RT

ROAD CLOSED
R11-2
48"X30"

1

W06-3

BURNHAM ST

BECHER ST

3RD ST

LEGEND

- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- FLEXIBLE TUBULAR MARKER POST
- DIRECTION OF TRAFFIC
- WORK AREA
- 1 TEMPORARY MARKING LINE PAINT 6-INCH (DOUBLE YELLOW)

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 207	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\026003-4TH STREET_1A.DWG
LAYOUT NAME - 04

PLOT DATE : 10/27/2025 1:06 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL TWO WAY TWO LANE OPERATION".

STAGE 1A:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
IN THIS STAGE, CONVERT 4TH STREET TO A TWO WAY TWO LANE ROADWAY FROM IH 43 & BECHER STREET INTERCHANGE TO MAPLE STREET.

5TH ST

N

MAPLE ST

IH 43 SB

IH 43 NB

MITCHELL ST

4TH ST

BURNHAM ST

ONE WAY
STOP
R1-1
30"X30"

105NBN

W06-3

50'

STA 105+22.61, 76.81' RT

11'

11'

1

ACCESS TO 4TH ST BUSINESSES

SEE FMS DETAIL

ACCESS TO 4TH ST BUSINESSES

SEE FMS DETAIL

ONE WAY
STOP
R1-1
30"X30"

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- FLEXIBLE TUBULAR MARKER POST
- DIRECTION OF TRAFFIC
- WORK AREA
- 1 TEMPORARY MARKING LINE PAINT 6-INCH (DOUBLE YELLOW)

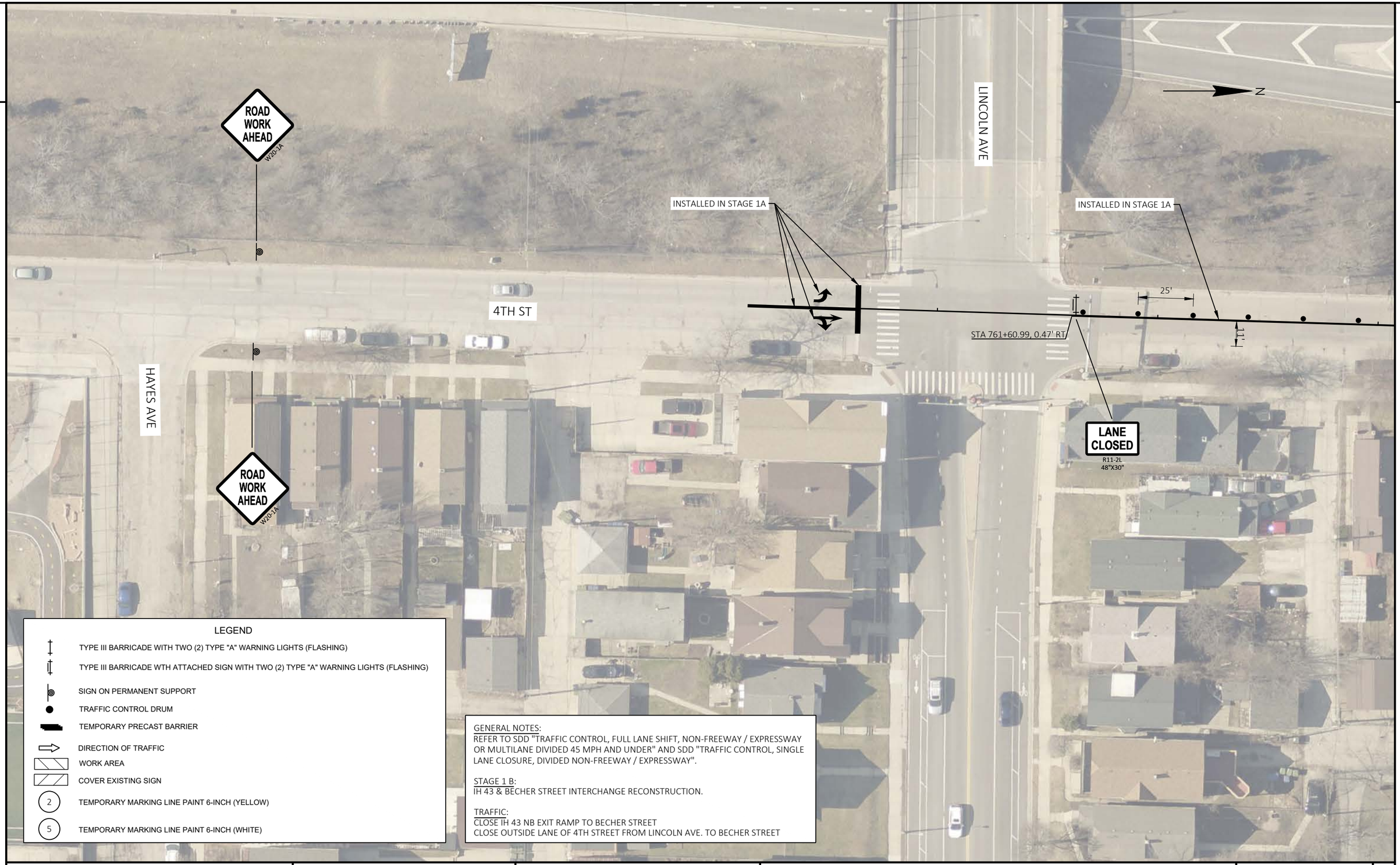
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 208	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\026003-4TH STREET_1A.DWG
LAYOUT NAME - 05

PLOT DATE : 10/27/2025 1:06 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



LEGEND

- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TEMPORARY PRECAST BARRIER
- DIRECTION OF TRAFFIC
- WORK AREA
- COVER EXISTING SIGN
- (2) TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)
- (5) TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)

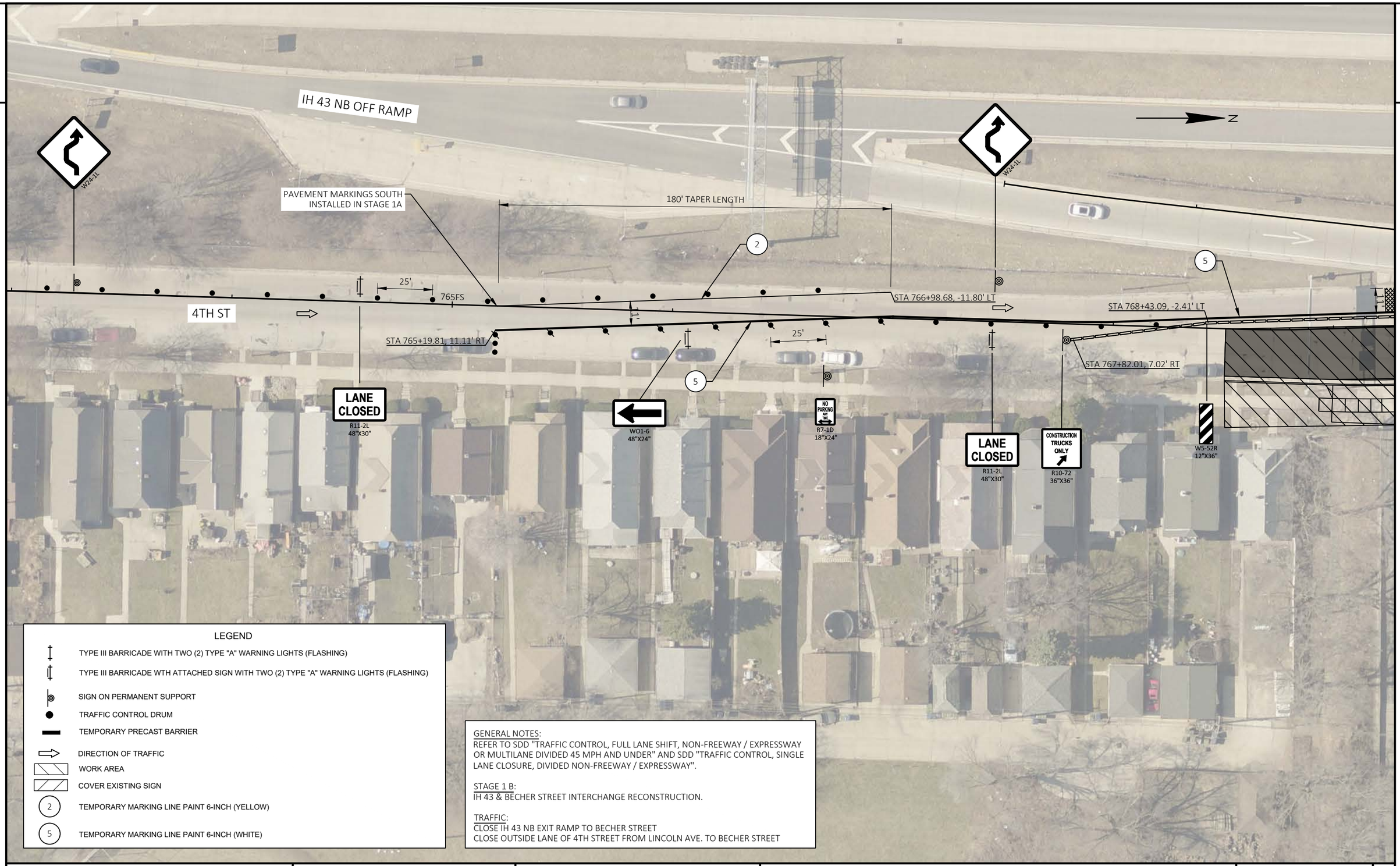
GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY / EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER" AND SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY / EXPRESSWAY".

STAGE 1 B:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
CLOSE IH 43 NB EXIT RAMP TO BECHER STREET
CLOSE OUTSIDE LANE OF 4TH STREET FROM LINCOLN AVE. TO BECHER STREET

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 209	E

2



LEGEND

- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TEMPORARY PRECAST BARRIER
- DIRECTION OF TRAFFIC
- WORK AREA
- COVER EXISTING SIGN
- (2) TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)
- (5) TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)

GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY / EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER" AND SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY / EXPRESSWAY".

STAGE 1 B:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
CLOSE IH 43 NB EXIT RAMP TO BECHER STREET
CLOSE OUTSIDE LANE OF 4TH STREET FROM LINCOLN AVE. TO BECHER STREET

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 210	E

IH 43 NB OFF RAMP

90' TAPER LENGTH

2

25'

85NBF

STA 769+45.93, -17.72' LT

770FS

STA 770+31.77, -13.02' LT

5

25'

WO1-6
48"X24"

ROAD CLOSED
R11-2
48"X30"

N

STA 88+29.77, 44.00' RT

STA 87+95.07, 49.48' RT

TEMPORARY ASPHALTIC SURFACE - SEE TYPICAL SECTION

WO1-6
48"X24"

REMOVE EXISTING DRIVEWAY AFTER NEW DRIVEWAY IS CONSTRUCTED IN STAGE 1B

STA 6+52.43, 24.59' RT

BECHER ST

W5-52R
12"X36"

STA 7+07.18, 2.45' RT

11'

STA 8+25.06, 3.50' RT

END ROAD WORK
G20-2A
48"X24"

GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY / EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER" AND SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY / EXPRESSWAY".

STAGE 1 B:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
CLOSE IH 43 NB EXIT RAMP TO BECHER STREET
CLOSE OUTSIDE LANE OF 4TH STREET FROM LINCOLN AVE. TO BECHER STREET

LEGEND

- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TEMPORARY PRECAST BARRIER
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY ASPHALTIC SURFACE
- 2 TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)
- 5 TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 211	E

2

2

GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL TWO WAY TWO LANE OPERATION".

STAGE 1B:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
IN THIS STAGE, CONVERT 4TH STREET TO A TWO WAY TWO LANE ROADWAY FROM IH 43 & BECHER STREET INTERCHANGE TO MAPLE STREET.

5TH ST

IH 43 SB

IH 43 NB

ROAD CLOSED
R11-2
48"X30"

RAMP CLOSED
R11-2R
48"X30"

ROAD CLOSED 500 FT
W20-3D

ROAD CLOSED AHEAD
W20-3A

95NBN

90NBN

100NBN

10'

10'

10'

10'

50'

50'

STA 94+26.98, 52.43' RT

STA 96+52.43, 24.59' RT

STA 7+07.18, 2.45' RT

STA 8+25.06, 3.50' RT

4TH ST

W06-3

BURNHAM ST

BECHER ST

3RD ST

LEGEND

- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- FLEXIBLE TUBULAR MARKER POST
- DIRECTION OF TRAFFIC
- WORK AREA
- (1) TEMPORARY MARKING LINE PAINT 6-INCH (DOUBLE YELLOW)

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 212	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\026004-4TH STREET_1B.DWG
LAYOUT NAME - 04

PLOT DATE : 10/24/2025 12:13 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL TWO WAY TWO LANE OPERATION".

STAGE 1B:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
IN THIS STAGE, CONVERT 4TH STREET TO A TWO WAY TWO LANE ROADWAY FROM IH 43 & BECHER STREET INTERCHANGE TO MAPLE STREET.

5TH ST

MAPLE ST

IH 43 SB

IH 43 NB

MITCHELL ST

4TH ST

BURNHAM ST

N

ONE WAY
STOP
R1-1
30"X30"

105NBN

ACCESS TO 4TH ST BUSINESSES
SEE FMS DETAIL

W06-3

10'

10'

50'

STA 105+22.61, 76.81' RT

1

ACCESS TO 4TH ST BUSINESSES
SEE FMS DETAIL

ONE WAY
STOP
R1-1
30"X30"

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- FLEXIBLE TUBULAR MARKER POST
- DIRECTION OF TRAFFIC
- WORK AREA
- 1 TEMPORARY MARKING LINE PAINT 6-INCH (DOUBLE YELLOW)

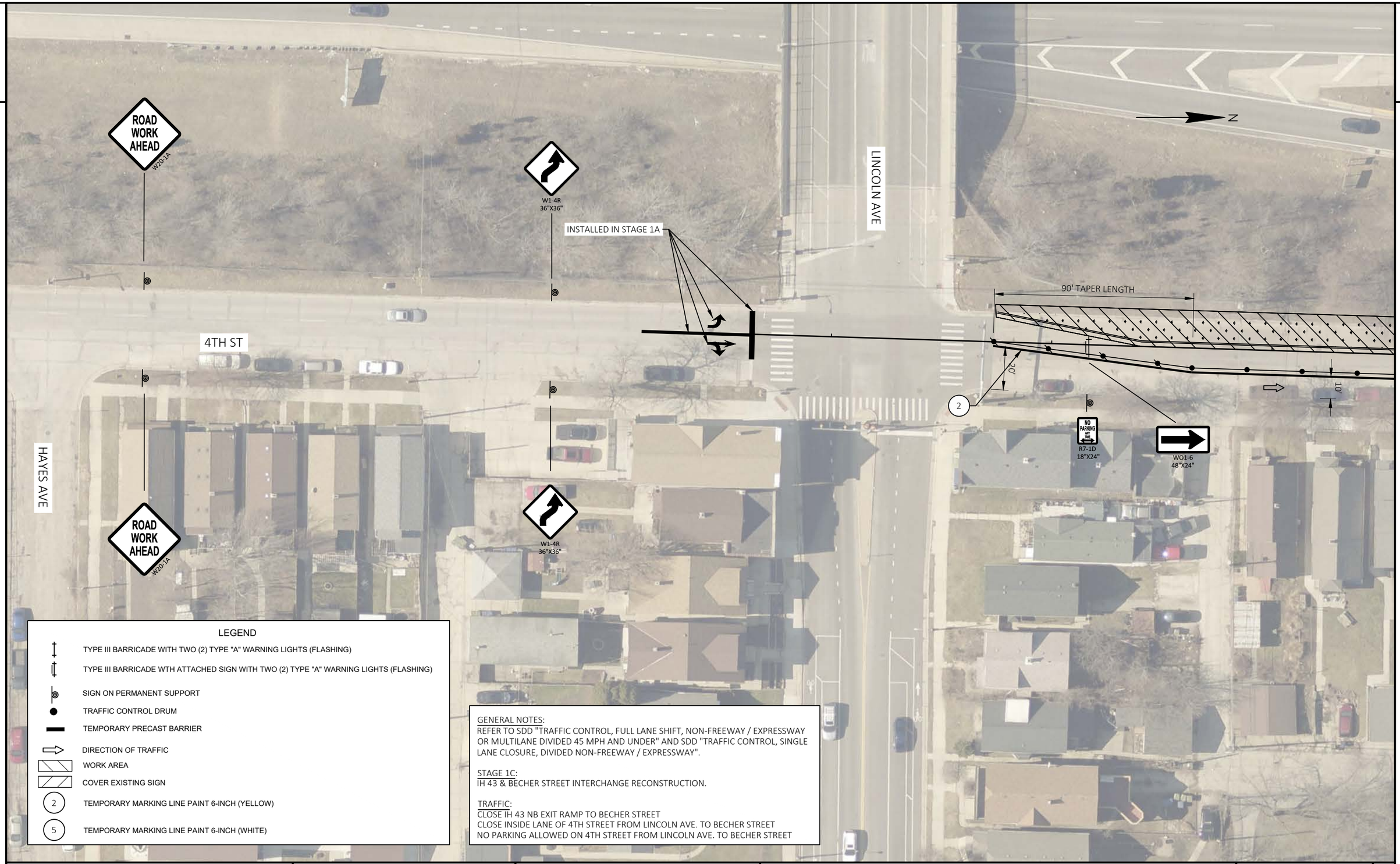
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 213	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\026004-4TH STREET_1B.DWG
LAYOUT NAME - 05

PLOT DATE : 10/24/2025 12:13 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



LEGEND

- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TEMPORARY PRECAST BARRIER
- DIRECTION OF TRAFFIC
- WORK AREA
- COVER EXISTING SIGN
- (2) TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)
- (5) TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)

GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY / EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER" AND SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY / EXPRESSWAY".

STAGE 1C:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

TRAFFIC:
CLOSE IH 43 NB EXIT RAMP TO BECHER STREET
CLOSE INSIDE LANE OF 4TH STREET FROM LINCOLN AVE. TO BECHER STREET
NO PARKING ALLOWED ON 4TH STREET FROM LINCOLN AVE. TO BECHER STREET

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1C	SHEET 214	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\026005-4TH STREET_1C.DWG
LAYOUT NAME - 01
PLOT DATE : 10/24/2025 12:27 PM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

IH 43 NB OFF RAMP

N

765'

10'

4TH ST

2

NO PARKING ANY TIME
R7-1D
18"X24"

NO PARKING ANY TIME
R7-1D
18"X24"

NO PARKING ANY TIME
R7-1D
18"X24"

10'

LANE CLOSED
R11-2L
48"X30"

LEGEND

- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TEMPORARY PRECAST BARRIER
- DIRECTION OF TRAFFIC
- WORK AREA
- COVER EXISTING SIGN
- (2) TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)
- (5) TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)

GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY / EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER" AND SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY / EXPRESSWAY".

STAGE 1C:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

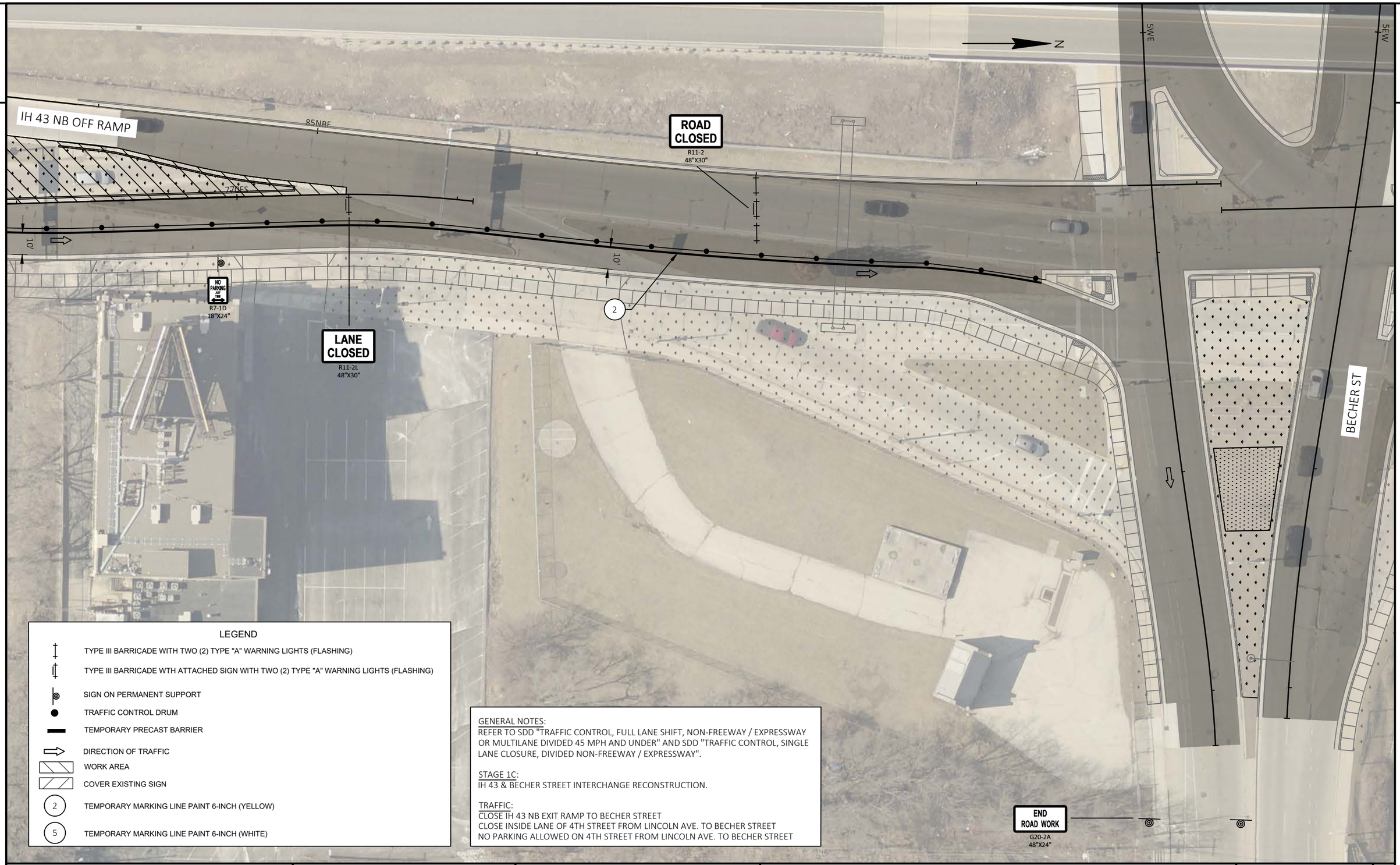
TRAFFIC:
CLOSE IH 43 NB EXIT RAMP TO BECHER STREET
CLOSE INSIDE LANE OF 4TH STREET FROM LINCOLN AVE. TO BECHER STREET
NO PARKING ALLOWED ON 4TH STREET FROM LINCOLN AVE. TO BECHER STREET

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1C	SHEET 215	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\026005-4TH STREET_1C.DWG
LAYOUT NAME - 02

PLOT DATE : 10/24/2025 12:27 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



LEGEND

- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WTH ATTACHED SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TEMPORARY PRECAST BARRIER
- DIRECTION OF TRAFFIC
- WORK AREA
- COVER EXISTING SIGN
- (2) TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)
- (5) TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)

GENERAL NOTES:
REFER TO SDD "TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY / EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER" AND SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY / EXPRESSWAY".

STAGE 1C:
IH 43 & BECHER STREET INTERCHANGE RECONSTRUCTION.

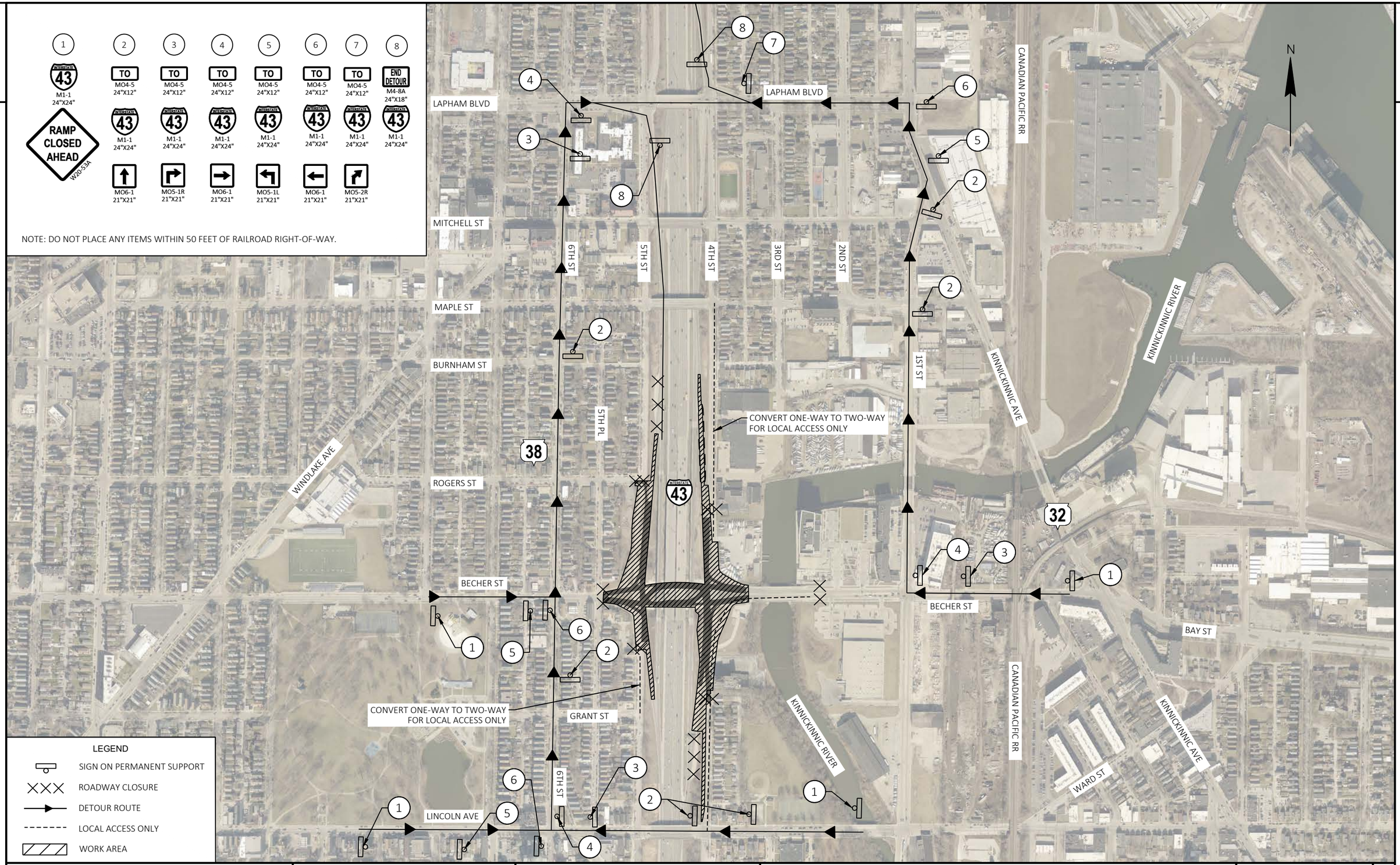
TRAFFIC:
CLOSE IH 43 NB EXIT RAMP TO BECHER STREET
CLOSE INSIDE LANE OF 4TH STREET FROM LINCOLN AVE. TO BECHER STREET
NO PARKING ALLOWED ON 4TH STREET FROM LINCOLN AVE. TO BECHER STREET

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1C	SHEET 216	E

2

1	2	3	4	5	6	7	8
M1-1 24"X24"	MO4-5 24"X12"	MO4-5 24"X12"	MO4-5 24"X12"	MO4-5 24"X12"	MO4-5 24"X12"	MO4-5 24"X12"	M4-8A 24"X18"
RAMP CLOSED AHEAD W20-53A	M1-1 24"X24"	M1-1 24"X24"	M1-1 24"X24"	M1-1 24"X24"	M1-1 24"X24"	M1-1 24"X24"	M1-1 24"X24"
	MO6-1 21"X21"	MO5-1R 21"X21"	MO6-1 21"X21"	MO5-1L 21"X21"	MO6-1 21"X21"	MO5-2R 21"X21"	

NOTE: DO NOT PLACE ANY ITEMS WITHIN 50 FEET OF RAILROAD RIGHT-OF-WAY.



LEGEND

- SIGN ON PERMANENT SUPPORT
- ROADWAY CLOSURE
- DETOUR ROUTE
- LOCAL ACCESS ONLY
- WORK AREA

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - IH 43 RAMPS	SHEET 217	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\027001-DT.DWG
LAYOUT NAME - 01

PLOT DATE : 10/29/2025 11:17 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:500 FT

WISDOT/CADDS SHEET 42

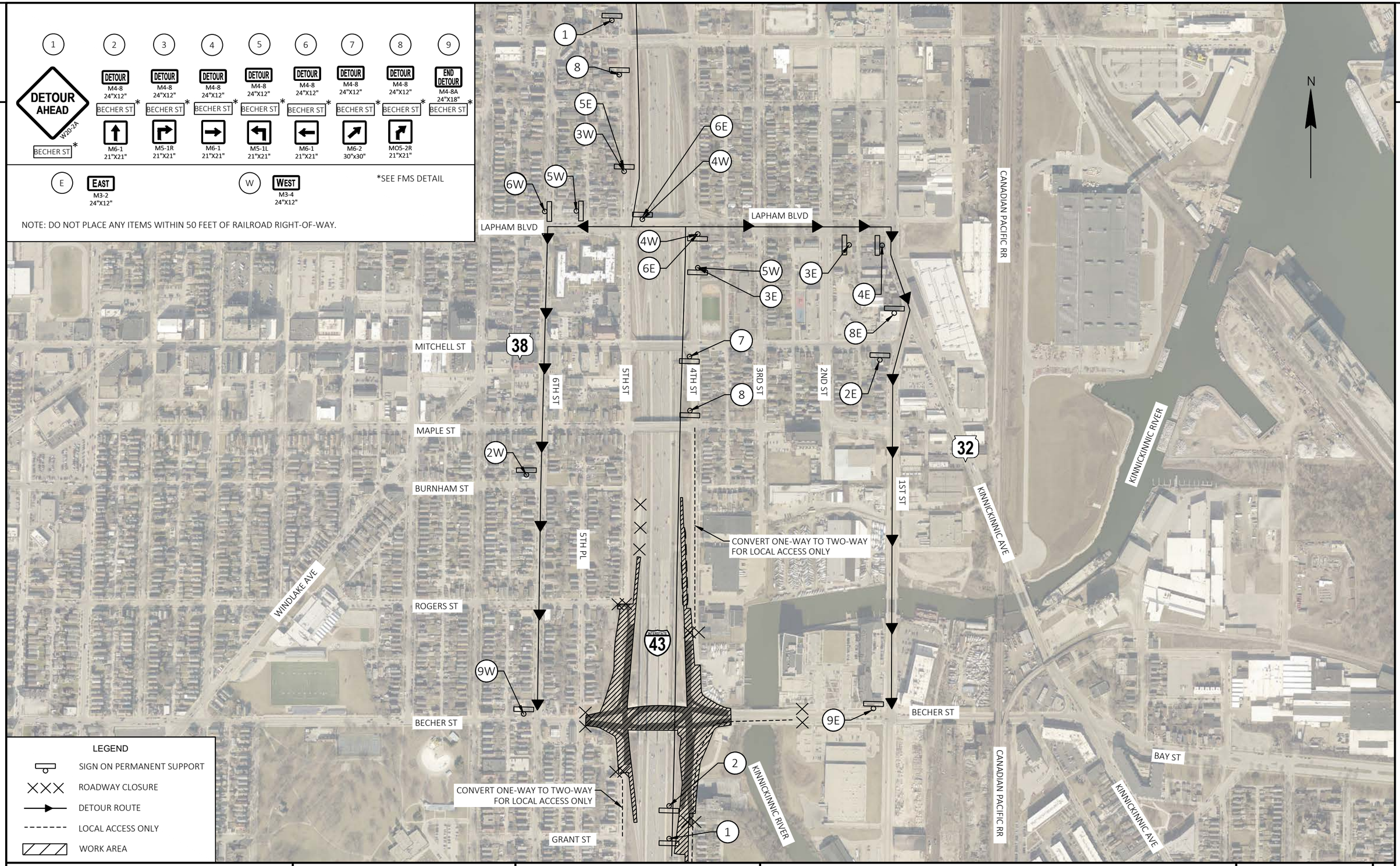
1	2	3	4	5	6	7	8	9
DETOUR AHEAD W20-2A BECHER ST *	DETOUR M4-8 24"X12" BECHER ST * M6-1 21"X21"	DETOUR M4-8 24"X12" BECHER ST * M5-1R 21"X21"	DETOUR M4-8 24"X12" BECHER ST * M6-1 21"X21"	DETOUR M4-8 24"X12" BECHER ST * M5-1L 21"X21"	DETOUR M4-8 24"X12" BECHER ST * M6-1 21"X21"	DETOUR M4-8 24"X12" BECHER ST * M6-2 30"x30"	DETOUR M4-8 24"X12" BECHER ST * MO5-2R 21"X21"	END DETOUR M4-8A 24"X18" BECHER ST *

E EAST M3-2 24"X12"

W WEST M3-4 24"X12"

*SEE FMS DETAIL

NOTE: DO NOT PLACE ANY ITEMS WITHIN 50 FEET OF RAILROAD RIGHT-OF-WAY.



LEGEND

- SIGN ON PERMANENT SUPPORT
- ROADWAY CLOSURE
- DETOUR ROUTE
- LOCAL ACCESS ONLY
- WORK AREA

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - BECHER ST	SHEET 218 E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\027001-DT.DWG
LAYOUT NAME - 02

PLOT DATE : 10/29/2025 11:17 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:500 FT

WISDOT/CADDS SHEET 42

2

2

MAPLE ST

BURNHAM ST

ROGERS ST

BECHER ST

GRANT ST

LINCOLN AVE

WINDLAKE AVE

KINNICKINNIC AVE

5TH PL

5TH ST

4TH ST

1ST ST

38

INTERSTATE 43

N

R9-9A 30"X18" SIDEWALK CLOSED AHEAD

M4-9BL 30"X24" DETOUR

M4-9BR 30"X24" DETOUR

R9-9 24"X12" SIDEWALK CLOSED

M4-60D 30"X24" DETOUR

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13.

TEMPORARY PEDESTRIAN CROSSING

LEGEND

- TEMPORARY PEDESTRIAN BARRICADE WITH SIGN
- SIGN ON PERMANENT SUPPORT
- TEMPORARY AUDIBLE MESSAGE DEVICE
- 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 TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS.
3. ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED AND UNCOVERED DURING EACH CLOSURE AS NEEDED AND APPROVED BY THE ENGINEER.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - PEDESTRIAN STAGE 1A	SHEET 219	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\027002-DT-PED_1A.DWG
LAYOUT NAME - 01

PLOT DATE : 9/29/2025 2:18 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1IN:200FT

WISDOT/CADDS SHEET 42

2

TEMPORARY PEDESTRIAN BARRICADE

W11-2
30"X30"

W16-7L
24"X12"

N

10'

16'

9'

5'

5'

TEMPORARY PEDESTRIAN CURB RAMP

TEMPORARY PEDESTRIAN
DETECTABLE
WARNING FIELD

TEMPORARY MARKING LINE PAINT
6-INCH (WHITE)

BECHER ST WB

TEMPORARY PEDESTRIAN CURB RAMP

TEMPORARY PEDESTRIAN SURFACE MATTING
(LEVEL LANDING)

TEMPORARY PEDESTRIAN CURB RAMP

TEMPORARY PEDESTRIAN
DETECTABLE
WARNING FIELD

TEMPORARY MARKING LINE PAINT
6-INCH (WHITE)

BECHER ST EB

TEMPORARY PEDESTRIAN CURB RAMP

W11-2
30"X30"

W16-7L
24"X12"

W11-2
30"X30"

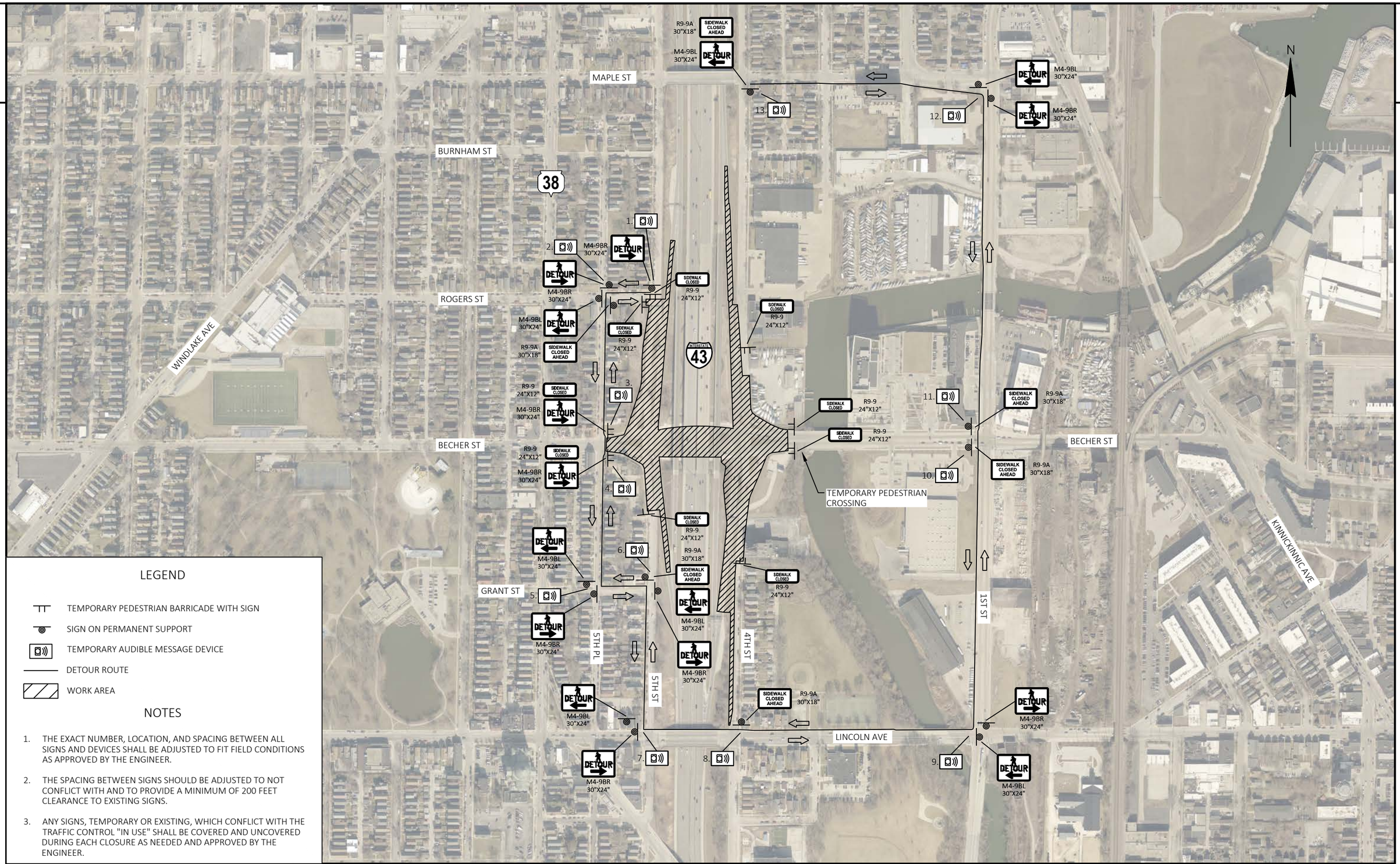
W16-7R
24"X12"

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - TEMPORARY PEDESTRIAN CROSSING	SHEET 220	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\027002-DT-PED_1A.DWG
LAYOUT NAME - 02

PLOT DATE : 9/29/2025 2:19 PM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1IN:15FT

WISDOT/CADDS SHEET 42



LEGEND

- TEMPORARY PEDESTRIAN BARRICADE WITH SIGN
- SIGN ON PERMANENT SUPPORT
- TEMPORARY AUDIBLE MESSAGE DEVICE
- 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 TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS.
3. ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED AND UNCOVERED DURING EACH CLOSURE AS NEEDED AND APPROVED BY THE ENGINEER.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - PEDESTRIAN STAGE 1B/1C	SHEET 221 E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\027003-DT-PED_1BC.DWG
LAYOUT NAME - 03
PLOT DATE : 9/29/2025 2:13 PM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1IN:200FT
WISDOT/CADDS SHEET 42

2

TEMPORARY AUDIBLE MESSAGE DEVICES - SEE PEDESTRIAN DETOUR SHEET FOR LOCATIONS

1. ATTENTION SOUTHBOUND 5TH STREET PEDESTRIANS: 5TH STREET CLOSED AHEAD FOR 1/4 MILE UNTIL GRANT STREET. FOLLOW DETOUR BY TURNING RIGHT TO GO WEST ON ROGERS STREET. ATTENTION EASTBOUND ROGERS STREET PEDESTRIANS: FOLLOW DETOUR BY TURNING LEFT TO GO NORTH ON 5TH STREET.

2. ATTENTION WESTBOUND ROGERS STREET PEDESTRIANS: FOLLOW DETOUR BY TURNING LEFT TO GO SOUTH ON 5TH PLACE. ATTENTION NORTHBOUND 5TH PLACE PEDESTRIANS: FOLLOW DETOUR BY TURNING RIGHT TO GO EAST ON ROGERS STREET.

3. ATTENTION EASTBOUND BECHER STREET PEDESTRIANS: BECHER STREET CLOSED AHEAD AT I-43 INTERCHANGE FOR 1/3 MILE UNTIL 1ST ST. FOLLOW DETOUR BY TURNING RIGHT TO GO SOUTH ON 5TH PLACE.

4. ATTENTION EASTBOUND BECHER STREET PEDESTRIANS: BECHER STREET CLOSED AHEAD AT I-43 INTERCHANGE FOR 1/3 MILE UNTIL 1ST ST. FOLLOW DETOUR BY TURNING RIGHT TO GO SOUTH ON 5TH PLACE.

5. ATTENTION SOUTHBOUND 5TH PLACE PEDESTRIANS: FOLLOW DETOUR BY TURNING LEFT TO GO EAST ON GRANT STREET. ATTENTION WESTBOUND GRANT STREET PEDESTRIANS: FOLLOW DETOUR BY TURNING RIGHT TO GO NORTH ON 5TH PLACE.

6. ATTENTION EASTBOUND GRANT STREET PEDESTRIANS: FOLLOW DETOUR BY TURNING RIGHT TO GO SOUTH ON 5TH STREET. ATTENTION NORTHBOUND 5TH STREET PEDESTRIANS: SIDEWALK CLOSED AHEAD AT BECHER STREET FOR 1/4 MILE UNTIL ROGERS ST. FOLLOW DETOUR BY TURNING LEFT TO GO WEST ON GRANT STREET.

7. ATTENTION SOUTHBOUND 5TH STREET PEDESTRIANS: FOLLOW DETOUR BY TURNING LEFT TO GO EAST ON LINCOLN AVENUE. ATTENTION WESTBOUND LINCOLN AVENUE PEDESTRIANS: FOLLOW DETOUR BY TURNING RIGHT TO GO NORTH ON 5TH STREET.

8. STAGE 1A: ATTENTION EASTBOUND LINCOLN AVENUE PEDESTRIANS: FOLLOW DETOUR BY TURNING LEFT TO GO NORTH ON 4TH STREET. ATTENTION SOUTHBOUND 4TH STREET PEDESTRIANS: TURN RIGHT TO GO WEST ON LINCOLN AVENUE.

   STAGE 1B: ATTENTION NORTHBOUND 4TH STREET PEDESTRIANS: SIDEWALK CLOSED AHEAD IN 1/4 MILE AT BECHER STREET. FOLLOW DETOUR BY TURNING RIGHT TO GO EAST ON LINCOLN STREET.

9. STAGE 1A: ATTENTION NORTHBOUND 4TH STREET PEDESTRIANS: FOLLOW DETOUR BY TURNING LEFT TO CROSS BECHER STREET USING A TEMPORARY RAMP. ATTENTION WESTBOUND BECHER STREET PEDESTRIANS: SIDEWALK CLOSED AHEAD AT BECHER ST FOR 1/4 MILE UNTIL 5TH STREET. FOLLOW DETOUR BY TURNING RIGHT TO GO SOUTH ON 4TH STREET.

   STAGE 1B: ATTENTION EASTBOUND LINCOLN STREET PEDESTRIANS: FOLLOW DETOUR BY TURNING LEFT TO GO NORTH ON 1ST STREET. ATTENTION SOUTHBOUND 1ST STREET PEDESTRIANS: FOLLOW DETOUR BY TURNING RIGHT TO GO WEST ON LINCOLN STREET.

10. STAGE 1A: ATTENTION NORTHBOUND 4TH STREET PEDESTRIANS: FOLLOW DETOUR BY TURNING RIGHT TO GO EAST ON BECHER STREET. ATTENTION WESTBOUND BECHER STREET PEDESTRIANS: BECHER STREET CLOSED AHEAD AT I-43 INTERCHANGE FOR 1/4 MILE. FOLLOW DETOUR BY TURNING LEFT TO CROSS THE STREET USING A TEMPORARY RAMP THEN TURN RIGHT TO GO SOUTH ON 4TH STREET.

    STAGE 1B: ATTENTION WESTBOUND BECHER STREET PEDESTRIANS: SIDEWALK CLOSED AHEAD AT I-43 INTERCHANGE FOR 1/3 MILE UNTIL 5TH PLACE. FOLLOW DETOUR BY TURNING LEFT TO GO SOUTH ON 1ST STREET.

11. STAGE 1A: ATTENTION SOUTHBOUND 1ST STREET PEDESTRIANS: FOLLOW DETOUR BY TURNING RIGHT TO GO WEST ON BECHER STREET. ATTENTION EASTBOUND BECHER STREET PEDESTRIANS: FOLLOW DETOUR BY TURNING LEFT TO GO NORTH ON 1ST STREET.

    STAGE 1B: ATTENTION WESTBOUND BECHER STREET PEDESTRIANS: SIDEWALK CLOSED AHEAD AT I-43 INTERCHANGE FOR 1/3 MILE UNTIL 5TH PLACE. FOLLOW DETOUR BY TURNING LEFT TO GO SOUTH ON 1ST STREET.

12. ATTENTION EASTBOUND MAPLE STREET PEDESTRIANS: FOLLOW DETOUR BY TURNING RIGHT TO GO SOUTH ON 1ST STREET. ATTENTION NORTHBOUND 1ST STREET PEDESTRIANS: FOLLOW DETOUR BY TURNING LEFT TO GO WEST ON MAPLE STREET.

13. ATTENTION SOUTHBOUND 4TH STREET PEDESTRIANS: SIDEWALK CLOSED AHEAD IN 1/4 MILE AT BECHER STREET . FOLLOW DETOUR BY TURNING LEFT TO GO EAST ON MAPLE STREET. ATTENTION WESTBOUND MAPLE STREET PEDESTRIANS: FOLLOW DETOUR BY TURNING RIGHT TO GO NORTH ON 4TH STREET.

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	DETOUR - PEDESTRIAN TEMPORARY AUDIBLE MESSAGE DEVICES	SHEET 222	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\027003-DT-PED_1BC.DWG
LAYOUT NAME - 04
PLOT DATE : 9/29/2025 2:13 PM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1IN:200FT
WISDOT/CADDS SHEET 42

2

CURVE 1

PI STA = 75+86.91
Y = 286541.508
X = 604241.268
DELTA = 2°39'40" RT
D = 3°00'00"
T = 44.36'
L = 88.70'
R = 1909.86'
PC STA = 75+42.55
Y = 286497.312
X = 604237.452
PT STA = 76+31.25
Y = 286585.478
X = 604247.132
DB = N04°56'05"E
DA = N07°35'45"E

CURVE 2

PI STA = 82+45.17
Y = 287196.258
X = 604311.430
DELTA = 2°08'20" LT
D = 3°15'00"
T = 32.91'
L = 65.81'
R = 1762.90'
PC STA = 82+12.26
Y = 287163.638
X = 604307.080
PT STA = 82+78.07
Y = 287229.018
X = 604314.560
DB = N07°35'45"E
DA = N05°27'25"E

CURVE 3

PI STA = 87+51.64
Y = 287700.443
X = 604359.594
DELTA = 7°33'03" LT
D = 2°47'42"
T = 135.28'
L = 270.16'
R = 2050.00'
PC STA = 86+16.37
Y = 287565.781
X = 604346.730
PT STA = 88+86.53
Y = 287835.628
X = 604354.652
DB = N05°27'25"E
DA = N02°05'38"W

CURVE 4

PI STA = 768+73.83
Y = 287287.710
X = 604371.750
DELTA = 3°29'07" LT
D = 11°01'06"
T = 15.82'
L = 31.63'
R = 520.00'
PC STA = 768+58.00
Y = 287271.891
X = 604371.481
PT STA = 768+89.64
Y = 287303.516
X = 604371.058
DB = N00°58'36"E
DA = N02°30'31"W

CURVE 5

PI STA = 770+71.18
Y = 287484.888
X = 604363.112
DELTA = 7°57'56" RT
D = 11°01'06"
T = 36.20'
L = 72.29'
R = 520.00'
PC STA = 770+34.98
Y = 287448.719
X = 604364.696
PT STA = 771+07.27
Y = 287520.928
X = 604366.555
DB = N02°30'31"W
DA = N05°27'25"E

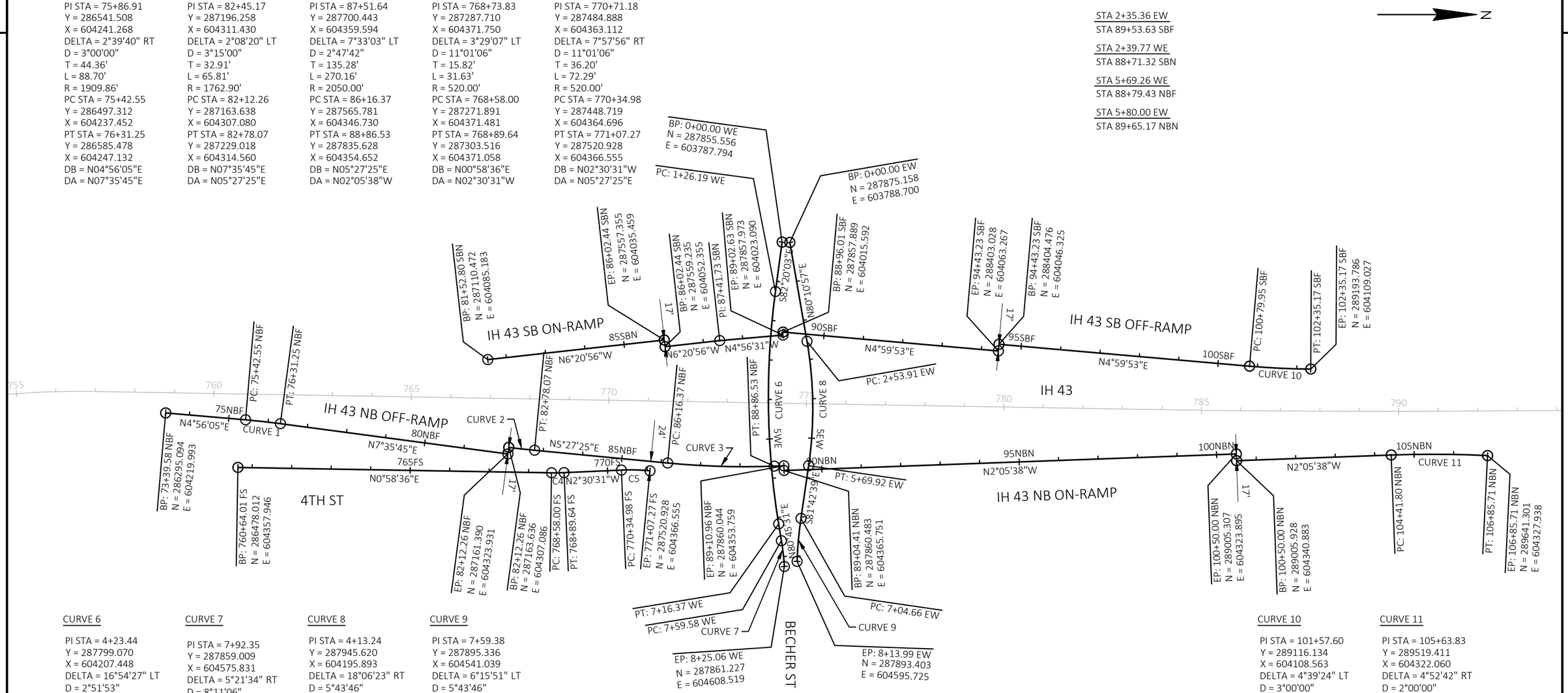
ALIGNMENT INTERSECTIONS

STA 2+35.36 EW
STA 89+53.63 SBF

STA 2+39.77 WE
STA 88+71.32 SBN

STA 5+69.26 WE
STA 88+79.43 NBF

STA 5+80.00 EW
STA 89+65.17 NBN



CURVE 6

PI STA = 4+23.44
Y = 287799.070
X = 604207.448
DELTA = 16°54'27" LT
D = 2°51'53"
T = 297.25'
L = 590.18'
R = 2000.00'
PC STA = 1+26.19
Y = 287838.723
X = 603912.854
PT STA = 7+16.37
Y = 287846.808
X = 604500.841
DB = S82°20'03"E
DA = N80°45'31"E

CURVE 7

PI STA = 7+92.35
Y = 287859.009
X = 604575.831
DELTA = 5°21'34" RT
D = 8°11'06"
T = 32.76'
L = 65.48'
R = 700.00'
PC STA = 7+59.58
Y = 287853.748
X = 604543.493
PT STA = 8+25.06
Y = 287861.227
X = 604608.519
DB = N80°45'31"E
DA = N86°07'05"E

CURVE 8

PI STA = 4+13.24
Y = 287945.620
X = 604195.893
DELTA = 18°06'23" RT
D = 5°43'46"
T = 159.34'
L = 316.02'
R = 1000.00'
PC STA = 2+53.91
Y = 287918.452
X = 604038.890
PT STA = 5+69.92
Y = 287922.649
X = 604353.565
DB = N80°10'57"E
DA = S81°42'39"E

CURVE 9

PI STA = 7+59.38
Y = 287895.336
X = 604541.039
DELTA = 6°15'51" LT
D = 5°43'46"
T = 54.72'
L = 109.33'
R = 1000.00'
PC STA = 7+04.66
Y = 287903.225
X = 604486.889
PT STA = 8+13.99
Y = 287893.403
X = 604595.725
DB = S81°42'39"E
DA = S87°58'31"E

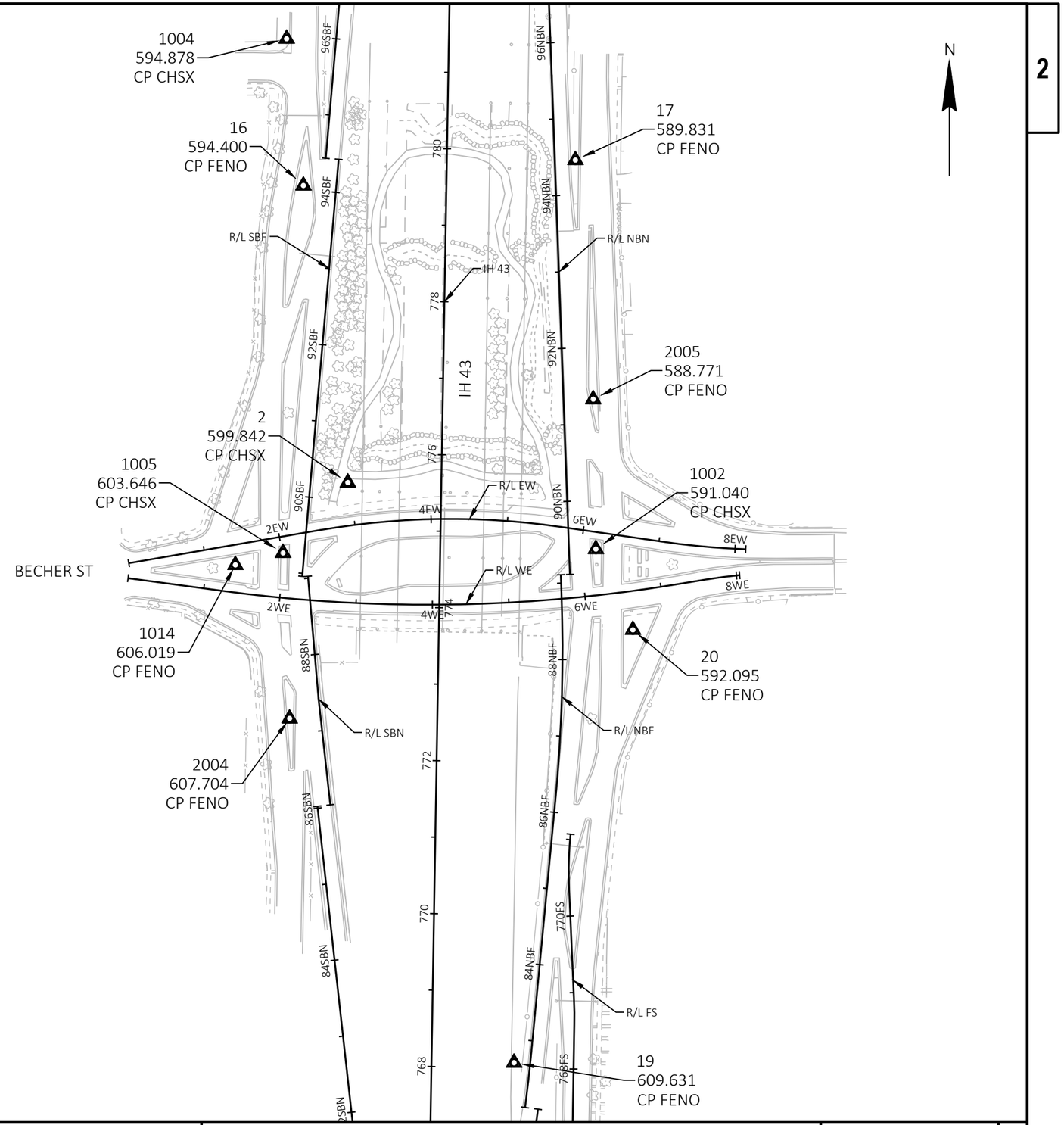
CURVE 10

PI STA = 101+57.60
Y = 289116.134
X = 604108.563
DELTA = 4°39'24" LT
D = 3°00'00"
T = 77.65'
L = 155.22'
R = 1909.86'
PC STA = 100+79.95
Y = 289038.776
X = 604101.797
PT STA = 102+35.17
Y = 289193.785
X = 604109.027
DB = N04°59'56"E
DA = N00°20'32"E

CURVE 11

PI STA = 105+63.83
Y = 289519.411
X = 604322.060
DELTA = 4°52'42" RT
D = 2°00'00"
T = 122.03'
L = 243.92'
R = 2864.78'
PC STA = 104+41.80
Y = 289397.462
X = 604326.569
PT STA = 106+85.71
Y = 289641.301
X = 604327.938
DB = N02°07'02"W
DA = N02°45'40"E

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT DETAILS	SHEET 223	E



CONTROL POINTS

NUMBER	TYPE	STATION OFFSET (1)	STATION OFFSET (2)	N	E	ELEVATION
2	CP CHSX	2EW+97.79, 55.958' LT	90SBF+23.33, 48.663' RT	287980.486	604075.162	599.842
16	CP FENO	94SBF+05.10, 43.064' LT	-	288368.794	604017.045	594.400
17	CP FENO	94NBN+45.44, 26.871' RT	-	288402.136	604372.836	589.831
19	CP FENO	82NBF+68.94, 21.179' LT	768FS+06.83, 78.025' LT	287222.054	604292.595	609.631
20	CP FENO	6WE+56.33, 50.543' RT	88NBF+37.66, 92.211' RT	287787.948	604448.059	592.095
1002	CP CHSX	6EW+19.68, 22.202' RT	6WE+21.04, 60.148' LT	287893.506	604399.599	591.040
1004	CP CHSX	95SBF+94.45, 64.610' LT	-	288560.754	603995.136	594.878
1005	CP CHSX	2EW+01.03, 21.208' RT	1WE+98.53, 58.445'LT	287888.538	603990.401	603.646
1014	CP FENO	1EW+36.95, 26.060' RT	1WE+36.93, 35.807' LT	287872.831	603928.086	606.019
2004	CP FENO	87SBN+20.54, 40.622' LT	-	287672.116	603998.922	607.704
2005	CP FENO	91NBN+31.29, 37.638' RT	-	288089.450	604396.114	588.771

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT DETAILS - SURVEY CONTROL	SHEET 224	E

Estimate Of Quantities

1228-09-77

Line	Item	Item Description	Unit	Total	Qty
0002	201.0220	Grubbing	ID	60.000	60.000
0004	202.0105	Roadside Clearing	STA	6.000	6.000
0006	204.0105	Removing Concrete Pavement Butt Joints	SY	161.000	161.000
0008	204.0109.S	Removing Concrete Surface Partial Depth	SF	2,695.000	2,695.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	16.000	16.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	3,883.000	3,883.000
0014	204.0126.S	Removing Asphaltic Longitudinal Notched Wedge Joint Milling	LF	1,382.000	1,382.000
0016	204.0150	Removing Curb & Gutter	LF	106.000	106.000
0018	204.0155	Removing Concrete Sidewalk	SY	1,924.000	1,924.000
0020	204.0165	Removing Guardrail	LF	25.000	25.000
0022	204.0170	Removing Fence	LF	51.000	51.000
0024	204.0195	Removing Concrete Bases	EACH	36.000	36.000
0026	204.0210	Removing Manholes	EACH	4.000	4.000
0028	204.0215	Removing Catch Basins	EACH	37.000	37.000
0030	204.0245	Removing Storm Sewer (size) 001. 8-Inch	LF	557.000	557.000
0032	204.0245	Removing Storm Sewer (size) 002. 12-Inch	LF	825.000	825.000
0034	204.0245	Removing Storm Sewer (size) 003. 15-Inch	LF	21.000	21.000
0036	204.0246	Removing Ancillary Structure (structure) 400. S-40-299	EACH	1.000	1.000
0038	204.0246	Removing Ancillary Structure (structure) 401. S-40-977	EACH	1.000	1.000
0040	204.0246	Removing Ancillary Structure (structure) 402. S-40-978	EACH	1.000	1.000
0042	204.0246	Removing Ancillary Structure (structure) 403. S-40-979	EACH	1.000	1.000
0044	204.0250	Abandoning Manholes	EACH	2.000	2.000
0046	204.0280	Sealing Pipes	EACH	1.000	1.000
0048	204.9060.S	Removing (item description) 001. Traffic Signals IH 43 SB Ramps at Becher	EACH	1.000	1.000
0050	204.9060.S	Removing (item description) 002. Traffic Signals IH 43 NB Ramps at Becher	EACH	1.000	1.000
0052	204.9060.S	Removing (item description) 101. Lighting Units	EACH	27.000	27.000
0054	205.0100	Excavation Common	CY	13,674.000	13,674.000
0056	209.1500	Backfill Granular Grade 1	TON	10.000	10.000
0058	213.0100	Finishing Roadway (project) 001. 1228-09-77	EACH	1.000	1.000
0060	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	14,103.000	14,103.000
0062	310.0110	Base Aggregate Open-Graded	TON	225.000	225.000
0064	312.0110	Select Crushed Material	TON	11,525.000	11,525.000
0066	390.0100	Removing Pavement for Base Patching	CY	140.000	140.000
0068	390.0305	Base Patching Concrete HES	CY	140.000	140.000
0070	405.0200	Coloring Concrete Custom	CY	4.000	4.000
0072	416.0610	Drilled Tie Bars	EACH	562.000	562.000
0074	416.0620	Drilled Dowel Bars	EACH	742.000	742.000
0076	416.1725	Concrete Pavement Replacement SHES	SY	22.000	22.000
0078	455.0605	Tack Coat	GAL	2,498.000	2,498.000
0080	460.2000	Incentive Density HMA Pavement	DOL	3,790.000	3,790.000
0082	460.6223	HMA Pavement 3 MT 58-28 S	TON	3,810.000	3,810.000
0084	460.6424	HMA Pavement 4 MT 58-28 H	TON	2,101.000	2,101.000
0086	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	35.000	35.000
0088	465.0125	Asphaltic Surface Temporary	TON	32.000	32.000
0090	495.1000.S	Cold Patch	TON	10.000	10.000
0092	531.2036	Drilling Shaft 36-Inch	LF	76.000	76.000
0094	531.2042	Drilling Shaft 42-Inch	LF	92.000	92.000
0096	531.5310	Foundation Single-Shaft Type TC-I (structure) 400. S-40-670	EACH	1.000	1.000
0098	531.5310	Foundation Single-Shaft Type TC-I (structure) 401. S-40-671	EACH	1.000	1.000

1228-09-77

Line	Item	Item Description	Unit	Total	Qty
0100	531.5420	Foundation Single-Shaft Type TF-II (structure) 400. S-40-3125	EACH	2.000	2.000
0102	531.6130	Foundation Two-Shaft Type FF-III (structure) 400. S-40-3126	EACH	2.000	2.000
0104	532.5310	Truss Cantilever 2-Chord Type I (structure) 400. S-40-670	EACH	1.000	1.000
0106	532.5310	Truss Cantilever 2-Chord Type I (structure) 401. S-40-671	EACH	1.000	1.000
0108	532.5420	Truss Full Span 2-Chord Type II (structure) 400. S-40-3125	EACH	1.000	1.000
0110	532.6130	Truss Full Span 4-Chord Type III (structure) 400. S-40-3126	EACH	1.000	1.000
0112	601.0331	Concrete Curb & Gutter 31-Inch	LF	7,160.000	7,160.000
0114	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	410.000	410.000
0116	601.0600	Concrete Curb Pedestrian	LF	64.000	64.000
0118	602.0410	Concrete Sidewalk 5-Inch	SF	16,340.000	16,340.000
0120	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	344.000	344.000
0122	602.0860	Concrete Driveway HES 6-Inch	SY	273.000	273.000
0124	602.1500	Concrete Steps	SF	6.000	6.000
0126	603.8000	Concrete Barrier Temporary Precast Delivered	LF	1,050.000	1,050.000
0128	603.8125	Concrete Barrier Temporary Precast Installed	LF	450.000	450.000
0130	604.0500	Slope Paving Crushed Aggregate	SY	1,589.000	1,589.000
0132	608.3018	Storm Sewer Pipe Class III-A 18-Inch	LF	133.000	133.000
0134	608.6008	Storm Sewer Pipe Composite 8-Inch	LF	55.000	55.000
0136	608.6012	Storm Sewer Pipe Composite 12-Inch	LF	1,065.000	1,065.000
0138	608.6015	Storm Sewer Pipe Composite 15-Inch	LF	499.000	499.000
0140	611.0410	Reconstructing Catch Basins	EACH	2.000	2.000
0142	611.0535	Manhole Covers Type J-Special	EACH	1.000	1.000
0144	611.0624	Inlet Covers Type H	EACH	21.000	21.000
0146	611.1004	Catch Basins 4-FT Diameter	EACH	14.000	14.000
0148	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0150	611.8105	Adjusting Catch Basin Covers	EACH	6.000	6.000
0152	611.8110	Adjusting Manhole Covers	EACH	22.000	22.000
0154	611.8120.S	Cover Plates Temporary	EACH	90.000	90.000
0156	612.0106	Pipe Underdrain 6-Inch	LF	3,970.000	3,970.000
0158	612.0208	Pipe Underdrain Unperforated 8-Inch	LF	100.000	100.000
0160	614.0950	Replacing Guardrail Posts and Blocks	EACH	5.000	5.000
0162	614.0951	Replacing Guardrail Rail and Hardware	LF	25.000	25.000
0164	616.0206	Fence Chain Link 6-FT	LF	60.000	60.000
0166	618.0100	Maintenance and Repair of Haul Roads (project) 001. 1228-09-77	EACH	1.000	1.000
0168	619.1000	Mobilization	EACH	1.000	1.000
0170	620.0100	Concrete Corrugated Median	SF	111.000	111.000
0172	620.0300	Concrete Median Sloped Nose	SF	520.000	520.000
0174	623.0200	Dust Control Surface Treatment	SY	17,287.000	17,287.000
0176	624.0100	Water	MGAL	257.000	257.000
0178	625.0100	Topsoil	SY	11,470.000	11,470.000
0180	625.0105	Topsoil	CY	180.000	180.000
0182	627.0200	Mulching	SY	13,418.000	13,418.000
0184	628.1504	Silt Fence	LF	1,938.000	1,938.000
0186	628.1520	Silt Fence Maintenance	LF	1,938.000	1,938.000
0188	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0190	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0192	628.2006	Erosion Mat Urban Class I Type A	SY	13,848.000	13,848.000
0194	628.7005	Inlet Protection Type A	EACH	75.000	75.000
0196	628.7010	Inlet Protection Type B	EACH	70.000	70.000

1228-09-77

Line	Item	Item Description	Unit	Total	Qty
0198	628.7015	Inlet Protection Type C	EACH	39.000	39.000
0200	628.7020	Inlet Protection Type D	EACH	25.000	25.000
0202	628.7560	Tracking Pads	EACH	4.000	4.000
0204	628.7570	Rock Bags	EACH	68.000	68.000
0206	629.0210	Fertilizer Type B	CWT	15.000	15.000
0208	630.0140	Seeding Mixture No. 40	LB	516.000	516.000
0210	630.0170	Seeding Mixture No. 70	LB	2.000	2.000
0212	630.0200	Seeding Temporary	LB	362.000	362.000
0214	630.0400	Seeding Nurse Crop	LB	4.000	4.000
0216	630.0500	Seed Water	MGAL	578.000	578.000
0218	631.0300	Sod Water	MGAL	44.000	44.000
0220	631.1000	Sod Lawn	SY	1,948.000	1,948.000
0222	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	105.000	105.000
0224	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	7.000	7.000
0226	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	42.000	42.000
0228	637.1220	Signs Type I Reflective SH	SF	863.000	863.000
0230	637.2210	Signs Type II Reflective H	SF	1,164.060	1,164.060
0232	637.2215	Signs Type II Reflective H Folding	SF	164.440	164.440
0234	637.2220	Signs Type II Reflective SH	SF	138.000	138.000
0236	637.2230	Signs Type II Reflective F	SF	248.125	248.125
0238	638.2101	Moving Signs Type I	EACH	2.000	2.000
0240	638.2102	Moving Signs Type II	EACH	15.000	15.000
0242	638.2601	Removing Signs Type I	EACH	17.000	17.000
0244	638.2602	Removing Signs Type II	EACH	138.000	138.000
0246	638.3000	Removing Small Sign Supports	EACH	117.000	117.000
0248	643.0300	Traffic Control Drums	DAY	52,173.000	52,173.000
0250	643.0420	Traffic Control Barricades Type III	DAY	11,321.000	11,321.000
0252	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	38.000	38.000
0254	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	38.000	38.000
0256	643.0705	Traffic Control Warning Lights Type A	DAY	22,641.000	22,641.000
0258	643.0715	Traffic Control Warning Lights Type C	DAY	9,844.000	9,844.000
0260	643.0810	Traffic Control Connected Arrow Boards	DAY	246.000	246.000
0262	643.0900	Traffic Control Signs	DAY	64,061.000	64,061.000
0264	643.0910	Traffic Control Covering Signs Type I	EACH	8.000	8.000
0266	643.0920	Traffic Control Covering Signs Type II	EACH	7.000	7.000
0268	643.1000	Traffic Control Signs Fixed Message	SF	532.000	532.000
0270	643.1050	Traffic Control Signs PCMS	DAY	16.000	16.000
0272	643.1220	Traffic Control Connected Work Zone Start and End Location Markers	DAY	246.000	246.000
0274	643.3165	Temporary Marking Line Paint 6-Inch	LF	8,756.000	8,756.000
0276	643.3805	Temporary Marking Stop Line Paint 18-Inch	LF	14.000	14.000
0278	643.3905	Temporary Marking Diagonal Paint 12-Inch	LF	39.000	39.000
0280	643.4100	Traffic Control Interim Lane Closure	EACH	14.000	14.000
0282	643.5000	Traffic Control	EACH	1.000	1.000
0284	644.1440	Temporary Pedestrian Surface Matting	SF	36.000	36.000
0286	644.1601	Temporary Pedestrian Curb Ramp	DAY	856.000	856.000
0288	644.1605	Temporary Pedestrian Detectable Warning Field	SF	48.000	48.000
0290	644.1810	Temporary Pedestrian Barricade	LF	186.000	186.000
0292	644.1900.S	Temporary Audible Message Devices	DAY	3,199.000	3,199.000
0294	645.0111	Geotextile Type DF Schedule A	SY	2,206.000	2,206.000

1228-09-77

Line	Item	Item Description	Unit	Total	Qty
0296	645.0112	Geotextile Type DF Schedule B	SY	157.000	157.000
0298	645.0220	Geogrid Type SR	SY	17,287.000	17,287.000
0300	646.1020	Marking Line Epoxy 4-Inch	LF	2,177.000	2,177.000
0302	646.2025	Marking Line Grooved Black Epoxy 6-Inch	LF	201.000	201.000
0304	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	6,895.000	6,895.000
0306	646.3020	Marking Line Epoxy 8-Inch	LF	763.000	763.000
0308	646.4025	Marking Line Grooved Black Epoxy 10-Inch	LF	228.000	228.000
0310	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	5,039.000	5,039.000
0312	646.5020	Marking Arrow Epoxy	EACH	40.000	40.000
0314	646.5120	Marking Word Epoxy	EACH	9.000	9.000
0316	646.5220	Marking Symbol Epoxy	EACH	5.000	5.000
0318	646.6120	Marking Stop Line Epoxy 18-Inch	LF	303.000	303.000
0320	646.7020	Marking Diagonal Epoxy 6-Inch	LF	31.000	31.000
0322	646.7120	Marking Diagonal Epoxy 12-Inch	LF	539.000	539.000
0324	646.7220	Marking Chevron Epoxy 24-Inch	LF	157.000	157.000
0326	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	612.000	612.000
0328	646.8120	Marking Curb Epoxy	LF	31.000	31.000
0330	646.8220	Marking Island Nose Epoxy	EACH	3.000	3.000
0332	646.9012	Marking Removal Line Water Blasting 6-Inch	LF	8,155.000	8,155.000
0334	646.9210	Marking Removal Line Water Blasting Wide	LF	53.000	53.000
0336	650.4000	Construction Staking Storm Sewer	EACH	83.000	83.000
0338	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	520.000	520.000
0340	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	3,295.000	3,295.000
0342	652.0605	Conduit Special 2-Inch	LF	1,200.000	1,200.000
0344	652.0615	Conduit Special 3-Inch	LF	2,800.000	2,800.000
0346	652.0700.S	Install Conduit into Existing Item	EACH	1.000	1.000
0348	652.0800	Conduit Loop Detector	LF	1,658.000	1,658.000
0350	653.0140	Pull Boxes Steel 24x42-Inch	EACH	30.000	30.000
0352	653.0905	Removing Pull Boxes	EACH	40.000	40.000
0354	654.0101	Concrete Bases Type 1	EACH	9.000	9.000
0356	654.0102	Concrete Bases Type 2	EACH	9.000	9.000
0358	654.0105	Concrete Bases Type 5	EACH	15.000	15.000
0360	654.0107	Concrete Bases Type 7	EACH	7.000	7.000
0362	654.0110	Concrete Bases Type 10	EACH	3.000	3.000
0364	654.0113	Concrete Bases Type 13	EACH	1.000	1.000
0366	654.0120	Concrete Bases Type 10-Special	EACH	4.000	4.000
0368	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	2.000	2.000
0370	655.0230	Cable Traffic Signal 5-14 AWG	LF	2,850.000	2,850.000
0372	655.0240	Cable Traffic Signal 7-14 AWG	LF	2,155.000	2,155.000
0374	655.0260	Cable Traffic Signal 12-14 AWG	LF	3,270.000	3,270.000
0376	655.0305	Cable Type UF 2-12 AWG Grounded	LF	1,925.000	1,925.000
0378	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	5,375.000	5,375.000
0380	655.0610	Electrical Wire Lighting 12 AWG	LF	5,218.000	5,218.000
0382	655.0700	Loop Detector Lead In Cable	LF	5,880.000	5,880.000
0384	655.0800	Loop Detector Wire	LF	5,660.000	5,660.000
0386	656.0201	Electrical Service Meter Breaker Pedestal (location) 001. IH 43 SB Ramps at Becher	EACH	1.000	1.000
0388	656.0201	Electrical Service Meter Breaker Pedestal (location) 002. IH 43 NB Ramps at Becher	EACH	1.000	1.000
0390	657.0100	Pedestal Bases	EACH	9.000	9.000
0392	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	9.000	9.000

1228-09-77

Line	Item	Item Description	Unit	Total	Qty
0394	657.0310	Poles Type 3	EACH	9.000	9.000
0396	657.0322	Poles Type 5-Aluminum	EACH	15.000	15.000
0398	657.0337	Poles Type 17-Aluminum	EACH	7.000	7.000
0400	657.0405	Traffic Signal Standards Aluminum 3.5-FT	EACH	4.000	4.000
0402	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	5.000	5.000
0404	657.0609	Luminaire Arms Single Member 4-Inch Clamp 6-FT	EACH	12.000	12.000
0406	657.0610	Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	EACH	15.000	15.000
0408	657.0640	Luminaire Arms Single Member 6-Inch Clamp 15-FT	EACH	7.000	7.000
0410	658.0173	Traffic Signal Face 3S 12-Inch	EACH	33.000	33.000
0412	658.0174	Traffic Signal Face 4S 12-Inch	EACH	1.000	1.000
0414	658.0416	Pedestrian Signal Face 16-Inch	EACH	16.000	16.000
0416	658.0500	Pedestrian Push Buttons	EACH	16.000	16.000
0418	658.5070	Signal Mounting Hardware (location) 001. IH 43 SB Ramps at Becher	EACH	1.000	1.000
0420	658.5070	Signal Mounting Hardware (location) 002. IH 43 NB Ramps at Becher	EACH	1.000	1.000
0422	658.5070	Signal Mounting Hardware (location) 003. 4th At Lincoln	EACH	1.000	1.000
0424	659.1125	Luminaires Utility LED C	EACH	41.000	41.000
0426	659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH	89.000	89.000
0428	670.0101	Field System Integrator	EACH	1.000	1.000
0430	670.0201	ITS Documentation	EACH	1.000	1.000
0432	674.0300	Remove Cable	LF	125.000	125.000
0434	690.0150	Sawing Asphalt	LF	98.000	98.000
0436	690.0250	Sawing Concrete	LF	2,093.000	2,093.000
0438	740.0440	Incentive IRI Ride	DOL	1,235.000	1,235.000
0440	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	3,500.000	3,500.000
0442	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	6,300.000	6,300.000
0444	SPV.0035	Special 001. Backfill Slurry	CY	50.000	50.000
0446	SPV.0035	Special 002. Removing Concrete Pavement Modified	CY	5,713.000	5,713.000
0448	SPV.0035	Special 700. Shredded Hardwood Bark Mulch	CY	111.000	111.000
0450	SPV.0035	Special 701. Engineered Soil	CY	290.000	290.000
0452	SPV.0035	Special 702. Bedding Layer	CY	48.000	48.000
0454	SPV.0035	Special 703. Storage Layer	CY	290.000	290.000
0456	SPV.0035	Special 704. 6-Inch Granite Cobblestones	CY	42.000	42.000
0458	SPV.0060	Special 001. Traffic Control Close-Open Freeway Entrance Ramp	EACH	6.000	6.000
0460	SPV.0060	Special 002. Traffic Control Local Road Lane Closures	EACH	17.000	17.000
0462	SPV.0060	Special 003. Emergency Response to Traffic Involving Concrete Barrier Temporary	EACH	1.000	1.000
0464	SPV.0060	Special 004. Survey Project 1228-09-77	EACH	1.000	1.000
0466	SPV.0060	Special 101. Fiberglass Polymer Concrete Pull Boxes 13-Inch x 24-Inch x 24-Inch	EACH	34.000	34.000
0468	SPV.0060	Special 102. Fiberglass Polymer Concrete Pull Boxes 17-Inch x 30-Inch x 24-Inch	EACH	6.000	6.000
0470	SPV.0060	Special 200. Utility Line Opening (ULO)	EACH	15.000	15.000
0472	SPV.0060	Special 201. Install Wireless Traffic Sensor	EACH	8.000	8.000
0474	SPV.0060	Special 300. Intall Type 9 Over Height Pole	EACH	1.000	1.000
0476	SPV.0060	Special 301. Install Type 9 Special Over Height Pole	EACH	1.000	1.000
0478	SPV.0060	Special 302. Install Type 10 Over Height Pole	EACH	2.000	2.000
0480	SPV.0060	Special 303. Install Type 10 Special Over Height Pole	EACH	3.000	3.000
0482	SPV.0060	Special 304. Install Type 13 Over Height Pole	EACH	1.000	1.000
0484	SPV.0060	Special 305. Install Monotube Arms 25-FT	EACH	1.000	1.000
0486	SPV.0060	Special 306. Install Monotube Arms 30-FT	EACH	2.000	2.000
0488	SPV.0060	Special 307. Install Monotube Arms 55-FT	EACH	1.000	1.000
0490	SPV.0060	Special 308. Install Monotube Arms 35-FT Special	EACH	1.000	1.000

1228-09-77

Line	Item	Item Description	Unit	Total	Qty
0492	SPV.0060	Special 309. Install Monotube Arms 40-FT Special	EACH	3.000	3.000
0494	SPV.0060	Special 310. Install Luminaire Arms Steel 15-FT	EACH	7.000	7.000
0496	SPV.0060	Special 311. Transport and Install State Furnished Traffic Signal Cabinet IH 43 SB Ramps	EACH	1.000	1.000
0498	SPV.0060	Special 312. Transport and Install State Furnished Traffic Signal Cabinet IH 43 NB Ramps	EACH	1.000	1.000
0500	SPV.0060	Special 313. Transport Traffic Signal and Lighting Materials IH 43 SB Ramps	EACH	1.000	1.000
0502	SPV.0060	Special 314. Transport Traffic Signal and Lighting Materials IH 43 NB Ramps	EACH	1.000	1.000
0504	SPV.0060	Special 315. Modify Traffic Signal Lincoln Ave & 4th St	EACH	1.000	1.000
0506	SPV.0060	Special 500. Adjusting Sanitary Manhole	EACH	2.000	2.000
0508	SPV.0060	Special 501. Internal Sanitary Manhole Seals	EACH	2.000	2.000
0510	SPV.0060	Special 502. Adjusting Water Valve Boxes	EACH	15.000	15.000
0512	SPV.0060	Special 503. Adjusting Water Manholes	EACH	1.000	1.000
0514	SPV.0060	Special 504. Water Main Protection	EACH	1.000	1.000
0516	SPV.0060	Special 505. Adjusting CUC Manhole Cover	EACH	3.000	3.000
0518	SPV.0060	Special 600. Reflective Strips on Posts	EACH	8.000	8.000
0520	SPV.0060	Special 700. 6-Inch Cleanout	EACH	6.000	6.000
0522	SPV.0060	Special 701. 8-Inch Dia Overflow Standpipe with Dome Grate	EACH	5.000	5.000
0524	SPV.0060	Special 702. Storm Curb Inlet with Grate Type A	EACH	18.000	18.000
0526	SPV.0060	Special 703. Informational Sign	EACH	5.000	5.000
0528	SPV.0060	Special 704. Dallas Blues Switchgrass 1 Gallon	EACH	12.000	12.000
0530	SPV.0060	Special 705. Blue Wonder Catmint 1 Gallon	EACH	66.000	66.000
0532	SPV.0060	Special 706. Stella D'oro Daylilies 1 Gallon	EACH	30.000	30.000
0534	SPV.0060	Special 707. Red Feather Arrowood Viburnum 3 Gallon	EACH	5.000	5.000
0536	SPV.0060	Special 708. Johnson Blue Geranium 1 Gallon	EACH	36.000	36.000
0538	SPV.0060	Special 709. Purple Little Wine Cup Daylilies 1 Gallon	EACH	48.000	48.000
0540	SPV.0060	Special 710. Tiger Eyes Sumac 3 Gallon	EACH	8.000	8.000
0542	SPV.0060	Special 712. Variegated Red Twig Dogwood 2 Gallon	EACH	7.000	7.000
0544	SPV.0060	Special 713. Summer Beauty Allium 1 Gallon	EACH	36.000	36.000
0546	SPV.0060	Special 714. Karl Forester Grass 1 Gallon	EACH	18.000	18.000
0548	SPV.0060	Special 715. Moonshine Yarrow 1 Gallon	EACH	108.000	108.000
0550	SPV.0060	Special 716. Royal Purple Smokebush 3 Gallon	EACH	7.000	7.000
0552	SPV.0060	Special 717. Diervilla Lonicera 'Copper' 2 Gallon	EACH	21.000	21.000
0554	SPV.0060	Special 718. Purple Pavement Roses 2 Gallon	EACH	29.000	29.000
0556	SPV.0060	Special 719. Heavy Metal Switchgrass 1 Gallon	EACH	24.000	24.000
0558	SPV.0060	Special 720. Magnus Purple Coneflower 1 Gallon	EACH	72.000	72.000
0560	SPV.0060	Special 721. Catmint 1 Gallon	EACH	60.000	60.000
0562	SPV.0060	Special 722. Summer Wine Diablo Ninebark 3 Gallon	EACH	7.000	7.000
0564	SPV.0060	Special 723. White Pavement Roses 2 Gallon	EACH	13.000	13.000
0566	SPV.0060	Special 724. Black Lace Elderberry 3 Gallon	EACH	9.000	9.000
0568	SPV.0060	Special 725. Vanilla Cream False Indigo 1 Gallon	EACH	24.000	24.000
0570	SPV.0060	Special 726. Northwind Panicum Grass 1 Gallon	EACH	12.000	12.000
0572	SPV.0060	Special 727. Little Bluestem Grasses 1 Gallon	EACH	24.000	24.000
0574	SPV.0060	Special 728. Happy Return Daylilies 1 Gallon	EACH	48.000	48.000
0576	SPV.0060	Special 729. Isanti Dward Red Twig Dogwood 2 Gallon	EACH	7.000	7.000
0578	SPV.0060	Special 800. Inlet Cover Type MS 55	EACH	3.000	3.000
0580	SPV.0060	Special 801. Inlet Cover Type MS 57	EACH	30.000	30.000
0582	SPV.0060	Special 802. Manhole Cover Type MS 58A	EACH	24.000	24.000
0584	SPV.0060	Special 803. Catch Basin Type 45A	EACH	23.000	23.000

1228-09-77

Line	Item	Item Description	Unit	Total	Qty
0586	SPV.0060	Special 804. Catch Basin Type 44A	EACH	5.000	5.000
0588	SPV.0060	Special 805. Combined Sewer Catch Basin	EACH	13.000	13.000
0590	SPV.0060	Special 806. Pipe Connection to Existing Structure	EACH	24.000	24.000
0592	SPV.0060	Special 807. Cleaning Storm Sewer	EACH	9.000	9.000
0594	SPV.0075	Special 001. Pavement Cleanup Project 1228-09-77	HRS	100.000	100.000
0596	SPV.0090	Special 001. Marking Crosswalk Epoxy Block Style 12-Inch	LF	826.000	826.000
0598	SPV.0090	Special 101. Electrical Cable Type 3#6/1#8 LTP	LF	3,845.000	3,845.000
0600	SPV.0090	Special 102. Liquidtight Flexible Non-Metallic Conduit 1 1/2-Inch	LF	220.000	220.000
0602	SPV.0090	Special 202. Multicell Conduit and Cable Adjustment	LF	35.000	35.000
0604	SPV.0090	Special 700. Pipe Underdrain 6-Inch Bioswale	LF	194.000	194.000
0606	SPV.0135	Special 001. Field Office Special	MON	10.000	10.000
0608	SPV.0180	Special 700. Geomembrane Liner	SY	150.000	150.000
0610	SPV.0195	Special 001. Asphaltic Repair	TON	42.000	42.000
0612	SPV.0195	Special 002. Excavation, Hauling, and Disposal of PAH Contaminated Soil	TON	816.000	816.000
0614	SPV.0195	Special 003. Excavation, Hauling, and Disposal of Metals Contaminated Soil	TON	643.000	643.000

3

ROADSIDE CLEARING

202.0105
ROADSIDE CLEARING

CATEGORY	STATION	TO	STATION	LOCATION	STA	REMARKS
1000	2+00	-	3+00	BECHER ST	1	W STRUCTURE EMBANKMENT
	87+00	-	89+00	IH 43 NB OFF RAMP	2	SIGN STRUCTURE ACCESS
	80+00	-	83+00	IH 43 NB OFF RAMP	3	ROW FENCE TO SIGN STRUCTURE
				TOTAL	6	

GRUBBING

201.0220
GRUBBING

CATEGORY	STATION	OFFSET	LOCATION	ID	REMARKS
1000	87+25	40' RT	IH 43 NB OFF RAMP	19	
	1+07	25' RT	BECHER STREET	9	TREES PREVIOUSLY REMOVED
	7+21	28' RT	BECHER STREET	8	UNDER SEPARATE CONTRACT
	91+08	37' RT	IH 43 SB OFF RAMP	24	
			TOTAL	60	

REMOVING FENCE

204.0170
REMOVING FENCE

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
1000	93+38	-	93+48	IH 43 SB OFF RAMP	10	REMOVE DAMAGED POST ONLY
	5+10	-	5+51	BECHER ST	41	ACCESS FOR SIGN STRUCTURE INSTALLATION
				TOTAL	51	

REMOVING GUARDRAIL

204.0165
REMOVING GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	LF
1000	96+50	-	96+75	IH 43 NB ON RAMP	25
				TOTAL	25

REMOVING CURB AND GUTTER

204.0150
REMOVING CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
1000	83+83	-	84+10	IH 43 NB OFF RAMP	46	ONLY LOCATIONS NOT ADJACENT TO CONCRETE PAVEMENT REMOVAL
	93+54	-	93+74	IH 43 NB ON RAMP	20	
	86+30	-	86+50	IH 43 SB OFF RAMP	20	
	94+42	-	94+62	IH 43 SB ON RAMP	20	
				TOTAL	106	

REMOVING CONCRETE SIDEWALK

204.0155
REMOVING CONCRETE SIDEWALK

CATEGORY	STATION	TO	STATION	LOCATION	SY
1000	769+46	-	781+00	BECHER ST INTERCHANGE	1,924
				TOTAL	1,924

3

PAVEMENT REMOVAL ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	204.0109.S REMOVING CONCRETE SURFACE PARTIAL DEPTH SY	204.0105 REMOVING CONCRETE PAVEMENT BUTT JOINTS SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	REMARKS
1000	81+52	-	84+10	IH 43 NB OFF RAMP	502	38	4	502	
	93+54	-	101+67	IH 43 NB ON RAMP	685	38	4	1,805	FULL DEPTH ASPHALT SECTION EXCLUDED
	94+42	-	98+27	IH 43 SB OFF RAMP	733	38	4	733	
	83+25	-	86+50	IH 43 SB ON RAMP	775	48	5	775	
	769+24	-	769+96	4TH ST	--	--	--	68	REMOVING STAGE 1B CROSSOVER
				TOTAL	2,695	161	16	3,883	

BASE AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	305.0120 BASE AGGREGATE DENSE 11/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	623.0200 DUST CONTROLL SURFACE TREATMENT SY	624.0100 WATER MGAL	645.0220 GEOGRID TYPE SR SY	REMARKS
1000	769+46	-	781+00	PAVEMENT	13445	11525	17287	250	17287	2' BEHIND BACK OF CURB
	769+46	-	781+00	SIDEWALK	430	--	--	4	--	
	769+46	-	781+00	DRIVEWAYS	118	--	--	1	--	
	95+58	-	99+98	IH 43 NB ON RAMP	35	--	--	1	--	AGGREGATE SHOULDERS
	761+74	-	781+00	TRAFFIC CONTROL	75	--	--	1	--	WORK ZONE AND DRIVEWAY ACCESS
				TOTAL	14,103	11,525	17,287	257	17,287	

3

	CAT 1000	CAT 8010			
	205.0100 EXCAVATION COMMON	SPV.0035.002 REMOVING CONCRETE PAVEMENT MODIFIED			
DIVISION	CUT (1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL (2)	MASS ORDINATE +/- (3)	WASTE (4)
BECHER EW	3,010	1,138	212	2,798	2,798
BECHER WE	2,718	1,100	130	2,588	2,588
RAMP NBF	1,780	710	408	1,372	1,372
RAMP NBN	1,320	729	478	842	842
RAMP SBF	2,227	1,054	499	1,728	1,728
RAMP SBN	761	433	233	528	528
4TH ST	761	549	555	206	206
GRAND TOTAL	12,577	5,713	2,515	10,062	10,062

NOTES:

(1) QUANTITY FOR BIOSWALE EXCAVATION SHOWN ELSEWHERE

(2) FILL FACTOR OF 1.00

(3) PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

(4) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

3

BASE PATCHING, CONCRETE REPAIR, AND ASPHALTIC REPAIR

CATEGORY	STATION	TO	STATION	LOCATION	390.0100 REMOVING PAVEMENT FOR BASE PATCHING CY	390.0305 BASE PATCHING CONCRETE HES CY	416.1725 CONCRETE PAVEMENT REPLACEMENT SHES SY	SPV.0195.001 ASPHALTIC REPAIR TON	**455.0605 TACK COAT GAL	REMARKS
1000	81+52	-	84+10	IH 43 NB OFF RAMP	26	26	--	--	--	
	93+54	-	101+67	IH 43 NB ON RAMP	36	36	--	42	1	
	94+00	-	94+28	IH 43 NB ON RAMP	--	--	22	--	--	STORM SEWER TRENCH
	94+42	-	98+27	IH 43 SB OFF RAMP	38	38	--	--	--	
	83+25	-	86+50	IH 43 SB ON RAMP	40	40	--	--	--	
				TOTAL	140	140	22	42	1	

**QUANTITIES SHOWN ELSEWHERE

DRILLED TIE BARS & DOWEL BARS

CATEGORY	STATION	TO	STATION	LOCATION	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	REMARKS
1000	81+52	-	84+10	IH 43 NB OFF RAMP	53	129	BASE PATCHING
	93+54	-	101+67	IH 43 NB ON RAMP	72	176	BASE PATCHING
	94+00	-	94+28	IH 43 NB ON RAMP	4	48	STORM SEWER TRENCH
	94+42	-	98+27	IH 43 SB OFF RAMP	78	189	BASE PATCHING
	83+25	-	86+50	IH 43 SB ON RAMP	82	199	BASE PATCHING
8000	761+74	-	768+51	4TH ST	272	--	NEW CURB TO EXISTING PAVT
				TOTAL 1000	290	742	
				TOTAL 8000	272	--	

3

ASPHALTIC ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	204.0126.S REMOVING ASPHALTIC LONGITUDINAL NOTCHED WEDGE JOINT MILLING LF	**455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6424 HMA PAVEMENT 4 MT 58-28 H TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	495.1000.S COLD PATCH TON	REMARKS
1000	769+46	-	781+00	PAVEMENT REPLACEMENT	1,382	1,940	3,302	1,651	--	--	10	
	769+46	-	781+00	DRIVEWAYS	--	14	--	--	35	--	--	
	769+24	-	769+96	4TH ST	--	10	--	--	--	32	--	STAGE 1B CROSSOVER
	81+52	-	84+10	IH 43 NB OFF RAMP	--	70	67	59	--	--	--	
	93+54	-	101+67	IH 43 NB ON RAMP	--	253	240	213	--	--	--	
	94+42	-	98+27	IH 43 SB OFF RAMP	--	103	98	87	--	--	--	
	83+25	-	86+50	IH 43 SB ON RAMP	--	108	103	91	--	--	--	
				TOTAL	1,382	2,497	3,810	2,101	35	32	10	

**QUANTITIES SHOWN ELSEWHERE

CONCRETE CURB AND GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	601.0600 CONCRETE CURB PEDESTRIAN LF	REMARKS
1000	769+46	-	781+00	PAVEMENT REPLACEMENT	--	410	64	SLOPED CURB FOR R-TURN ISLANDS
8010	769+46	-	781+00	PAVEMENT REPLACEMENT	7,160	--	--	
		-						
				TOTAL 1000	--	410	64	
				TOTAL 8010	7,160	--	--	

3

CONCRETE SIDEWALK

CATEGORY	STATION	TO	STATION	LOCATION	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	602.0860 CONCRETE DRIVEWAY HES 6-INCH SY	602.150 CONCRETE STEPS SF	405.0200 COLORING CONCRETE CUSTOM CY
1000	761+74	-	781+00	PAVEMENT REPLACEMENT	16,340	344	273	6	4
				TOTAL	16,340	344	273	6	4

TEMPORARY CONCRETE BARRIER

CATEGORY	STAGE	LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF
1000	1A	4TH ST	1,050	--
	1B	4TH ST	--	450
		TOTAL	1,050	450

SLOPE PAVING

CATEGORY	STATION	TO	STATION	LOCATION	604.0500 SLOPE PAVING CRUSHED AGGREGATE SY
1000	2+60	-	5+57	BECHER ST MEDIAN	1,589
				TOTAL	1,589

COVER PLATES TEMPORARY

LOCATION	CAT 1000 **611.8120.S COVER PLATES TEMPORARY EACH	REMARKS
PAVEMENT REPLACEMENT	7	FOR SANITARY, CUC, AND WATER MANHOLES
TOTAL	7	

**QUANTITIES SHOWN ELSEWHERE

SANITARY MANHOLE ITEMS

LOCATION	STATION	OFFSET	CAT 8030 SPV.0060.500 ADJUSTING SANITARY MANHOLE EACH	CAT 8030 SPV.0060.501 INTERNAL SANITARY MANHOLE SEALS EACH	CAT 8030 **SPV.0060.802 MANHOLE COVER TYPE MS 58A EACH
5TH ST	95+36	26.7' LT	1	1	1
	95+44	60.6' LT	1	1	1
		TOTAL	2	2	2

**QUANTITIES SHOWN ELSEWHERE

ADJUSTING WATER VALVE BOXES

LOCATION	STATION	OFFSET	CAT 8040 SPV.0060.502 ADJUSTING WATER VALVE BOXES EACH
IH 43 NB OFF RAMP	84NBF+32	61.7' RT	1
	84NBF+35	78.0' RT	1
	84NBF+59	70.5' RT	1
	84NBF+65	77.2' RT	1
	86NBF+24	71.4' RT	1
	88NBF+89	85.9' RT	1
	88NBF+89	88.1' RT	1
	88NBF+83	68.3' RT	1
	88NBF+99	42.3' RT	1
	89NBF+03	29.4' RT	1
IH 43 NB ON RAMP	89NBN+89	39.2' RT	1
	90NBN+00	39.5' RT	1
IH 43 SB ON RAMP	88SBN+17	8.8' LT	1
IH 43 SB OFF RAMP	95SBF+31	21.8' LT	1
BECHER STREET EB	8WE+22	1.0' LT	1
		TOTAL	15

WATER ITEMS

LOCATION	STATION	OFFSET	CAT 8040 SPV.0060.503 ADJUSTING WATER MANHOLES EACH	CAT 8040 SPV.0060.504 WATER MAIN PROTECTION EACH
IH 43 NB ON RAMP	90NBN+39	41' RT	--	1
BECHER STREET EB	8WE+19	2.5' RT	1	--
		TOTAL	1	1

CUC MANHOLE ITEMS

LOCATION	STATION	OFFSET	CAT 8050 SPV.0060.505 ADJUSTING CUC MANHOLE COVER EACH	CAT 8050 204.0250 ABANDONING MANHOLES EACH
BECHER STREET WB	1EW+58	7.3' RT	--	1
	6EW+42	5.1' RT	--	1
BECHER STREET EB	6WE+42	5.2' RT	1	--
4TH STREET	770FS+87	87.3' RT	1	--
	92NBN+06	68.7' RT	1	--
		TOTAL	3	2

3

PIPE UNDERDRAIN

CATEGORY	STATION	TO	STATION	LOCATION	310.0110 BASE AGGREGATE OPEN-GRADED TON	612.0106 PIPE UNDERDRAIN 6-INCH LF	645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY	REMARKS
1000	83+21	-	88+45	IH 43 NB OFF RAMP RT	30	534	297	
	88+93	-	89+49	IH 43 NB OFF/ON RAMP RT	3	61	34	BECHER CENTER MEDIAN EDGE
	90+06	-	93+54	IH 43 NB ON RAMP RT	20	356	198	
	89+65	-	94+63	IH 43 SB OFF RAMP RT	28	497	276	
	89+75	-	94+81	IH 43 SB OFF RAMP LT	29	508	282	
	86+50	-	88+60	IH 43 SB ON RAMP RT	12	210	117	
	0+27	-	2+09	BECHER WE LT	10	181	101	
	1+04	-	2+01	BECHER WE RT	6	102	57	
	2+63	-	5+56	BECHER WE LT	18	311	173	
	6+09	-	8+25	BECHER WE LT	12	214	119	
	6+33	-	8+04	BECHER WE RT	10	176	98	
	0+03	-	1+86	BECHER EW LT	11	186	103	
	2+40	-	5+78	BECHER EW LT	19	339	188	
	2+55	-	3+54	BECHER EW RT	6	106	59	BECHER CENTER MEDIAN L TURN
	6+25	-	8+14	BECHER EW	11	189	105	
				TOTAL	225	3,970	2,206	

CONCRETE MEDIAN

CATEGORY	STATION	TO	STATION	LOCATION	620.0100 CONCRETE CORRUGATED MEDIAN SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF
1000	84+92	-	85+16	IH 43 NB OFF RAMP	111	--
	88+30	-	88+37	IH 43 NB OFF RAMP	--	51
	89+92	-	89+99	IH 43 SB OFF RAMP	--	51
	2+39	-	2+47	BECHER ST EW	--	30
	2+82	-	2+91	BECHER ST EW	--	26
	5+45	-	5+57	BECHER ST EW	--	88
	6+38	-	6+45	BECHER ST EW	--	51
	1+80	-	1+87	BECHER ST WE	--	53
	2+61	-	2+69	BECHER ST WE	--	82
	5+24	-	5+33	BECHER ST WE	--	62
	5+62	-	5+67	BECHER ST WE	--	26
				TOTAL	111	520

FENCING

CATEGORY	STATION	TO	STATION	LOCATION	616.0206 FENCE CHAIN LINK 6-FT LF	REMARKS
1000	93+38	-	93+48	IH 43 SB OFF RAMP	10	REPLACE DAMAGED POST ONLY
	5+25	-	5+75	BECHER ST WE	50	ACCESS FOR SIGN STRUCTURE INSTALLATION
				TOTAL	60	

GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	614.0950 REPLACING GUARDRAIL POSTS AND BLOCKS EACH	614.0951 REPLACING GUARDRAIL RAIL AND HARDWARE LF
1000	96+50	-	96+75	IH 43 NB ON RAMP	5	25
				TOTAL	5	25

EROSION CONTROL

CATEGORY	LOCATION	627.0200 MULCHING SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	**628.2006 EROSION MAT URBAN CLASS I TYPE A SY	628.7560 TRACKING PADS EACH	628.7570 ROCK BAGS EACH	**629.0210 FERTILIZER TYPE B CWT	630.0200 SEEDING TEMPORARY LB	**630.0500 SEED WATER MGAL
1000	IH 43 NB OFF RAMP	2515	--	--	2515	--	--	1.6	68	56
	IH 43 NB ON RAMP	1820	303	303	1820	--	18	1.1	49	41
	IH 43 SB OFF RAMP	3297	416	416	3297	--	18	2.1	89	74
	IH 43 SB ON RAMP	1221	--	--	1221	--	--	0.8	33	27
	BECHER W MEDIAN	296	58	58	296	--	9	--	8	7
	BECHER E MEDIAN	482	59	59	482	--	9	--	13	11
	4TH ST	1103	714	714	1103	--	--	0.7	30	25
	UNDISTRIBUTED	2684	388	388	2684	4	14	1.6	72	60
	TOTAL	13,418	1,938	1,938	13,418	4	68	7.8	362	301

**QUANTITY SHOWN ELSEWHERE

RESTORATION ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	**625.0100 TOPSOIL SY	**629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	**630.0500 SEED WATER MGAL	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
1000	84+10	-	88+69	IH 43 NB OFF RAMP	2,048	1.3	92	46	10	467
	89+67	-	94+02	IH 43 NB ON RAMP	1,338	0.8	60	30	11	483
	89+33	-	95+41	IH 43 SB OFF RAMP	2,688	1.7	121	60	14	608
	86+15	-	88+76	IH 43 SB ON RAMP	1,221	0.8	55	27	--	--
	0+26	-	2+09	BECHER W MEDIAN	296	0.2	13	7	--	--
	6+09	-	8+14	BECHER E MEDIAN	482	0.3	22	11	--	--
8000	761+75	-	770+50	4TH ST	1,103	0.7	50	25	--	--
1000				UNDISTRIBUTED	2,294	1.4	103	52	9	390
				TOTAL 1000	10,367	6.5	467	233	44	1,948
				TOTAL 8000	1,103	0.7	50	25	--	--

**QUANTITY SHOWN ELSEWHERE

INLET PROTECTION

CATEGORY	STAGE	LOCATION	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
1000	EXISTING	IH 43 NB OFF RAMP	--	6	1	--
		IH 43 NB ON RAMP	--	2	1	5
		IH 43 SB OFF RAMP	--	5	3	4
		IH 43 SB ON RAMP	--	5	--	--
		BECHER W MEDIAN	--	7	1	--
		BECHER E MEDIAN	--	12	2	2
		4TH ST	--	--	3	--
	PAVING	IH 43 NB OFF RAMP	10	4	6	--
		IH 43 NB ON RAMP	10	5	3	2
		IH 43 SB OFF RAMP	18	2	10	6
		IH 43 SB ON RAMP	6	3	3	--
		BECHER W MEDIAN	11	8	3	--
		BECHER E MEDIAN	20	11	3	6
		TOTAL	75	70	39	25

TRAFFIC CONTROL

CATEGORY	STAGE	LOCATION	STAGE DURATION	643.0300 TRAFFIC CONTROL DRUMS		643.0420 TRAFFIC CONTROL BARRICADE TYPE III		643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C		643.0810 TRAFFIC CONTROL CONNECTED ARROW BOARD		**643.0900 TRAFFIC CONTROL SIGNS		643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II	643.1050 TRAFFIC CONTROL SIGNS PCMS		643.1220 TRAFFIC CONTROL WORK ZONE START AND END LOCATION MARKERS
			DAYS	EACH	DAYS	EACH	DAYS	EACH	EACH	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	EACH	EACH	DAYS	EACH
1000	1	IH 43 NB/IH 43 SB/BECHER STREET/LOCAL ROADS	214	128	27,392	31	6,634	--	--	62	13,268	20	4,280	1	214	83	17,762	7	6	2	14	214
	1A/B/C	4TH STREET	214	84	17,976	15	3,210	33	33	30	6,420	20	4,280	--	--	29	6,206	--	--	--	--	--
	STAGE 1 TOTAL			212	45,368	46	9,844	33	33	92	19,688	40	8,560	1	214	112	23,968	7	6	2	14	214
	UNDISTRIBUTED			32	6,805	7	1,477	5	5	14	2,953	6	1,284	--	32	17	3,595	1	1	--	2	32
	TOTAL			244	52,173	53	11,321	38	38	106	22,641	46	9,844	1	246	129	27,563	8	7	2	16	246

**QUANTITIES SHOWN ELSEWHERE

TRAFFIC CONTROL PEDESTRIANS

CATEGORY	STAGE	LOCATION	STAGE DURATION	**643.0900 TRAFFIC CONTROL SIGNS		644.1440 TEMPORARY PEDESTRIAN SURFACE MATTING	644.1601 TEMPORARY PEDESTRIAN CURB RAMP		644.1605 TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD	644.1810 TEMPORARY PEDESTRIAN BARRICADE	644.1900.S TEMPORARY AUDIBLE MESSAGES DEVICES	
			DAYS	EACH	DAYS	SF	EACH	DAYS	SF	LF	EACH	DAY
1000	1A/B/C	IH 43 NB/IH 43 SB/BECHER STREET/LOCAL ROADS	214	37	7,918	36	4	856	48	162	13	2782
	UNDISTRIBUTED			6	1,188	--	--	--	--	24	2	417
	TOTAL			43	9,106	36	4	856	48	186	15	3,199

**QUANTITIES SHOWN ELSEWHERE

TRAFFIC CONTROL DETOUR

CATEGORY	STAGE	LOCATION	STAGE DURATION DAYS	TRAFFIC CONTROL SIGNS **643.0900 EACH	TRAFFIC CONTROL SIGNS **643.0900 DAY
1000	1	IH 43 RAMPS	214	69	14766
		BECHER ST	214	59	12626
		TOTAL		128	27392

**QUANTITIES SHOWN ELSEWHERE

TEMPORARY PAVEMENT MARKING ITEMS

CATEGORY	STAGE	LOCATION	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH YELLOW LF	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH WHITE LF	643.3805 TEMPORARY MARKING STOP LINE PAINT 18-INCH LF	643.3905 TEMPORARY MARKING DIAGONAL PAINT 12-INCH LF
1000	1	IH 43 NB	--	160	--	--
	1	IH 43 SB	--	441	--	--
	1	5TH STREET	808	--	12	34
	1	E BECHER ST	--	50	--	--
	1A	4TH STREET	2880	95	--	--
	1B	4TH STREET	1171	817	--	--
	1C	4TH STREET	1192	--	--	--
SUBTOTAL			6,051	1,563	12	34
UNDISTRIBUTED			908	234	2	5
TOTAL			8,756		14	39

TRAFFIC CONTROL SIGNS

CATEGORY	LOCATION	STAGE	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF
1000	VARIOUS	1	532
TOTAL			532

TRAFFIC CONTROL CLOSURES

CATEGORY	STAGE	LOCATION	643.4100 TRAFFIC CONTROL INTERIM LANE CLOSURE EACH	SPV.0060.001 TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP EACH	SPV.0060.002 TRAFFIC CONTROL LOCAL ROAD LANE CLOSURES EACH	SPV.0060.003 EMERGENCY RESPONSE TO TRAFFIC INCIDENT INVOLVING CONCRETE BARRIER TEMPORARY EACH	REMARKS
1000	1	IH 43 NB	--	2	--	--	
	1	IH 43 SB	--	2	--	--	
	1	BECHER STREET	--	--	2	--	WEST OF 5TH PL, EAST OF KK RIVER
	1	ROGERS STREET	--	--	1	--	
	1	GRANT STREET	--	--	1	--	
	1	5TH STREET	1	--	1	--	
	1A	4TH STREET	1	--	1	--	
	1B	4TH STREET	1	--	1	--	
	1C	4TH STREET	1	--	--	--	
		UNDISTRIBUTED	10	2	10	1	
		TOTAL	14	6	17	1	

3

PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH 3 FT LINE 9 FT SKIP WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH 12.5 FT LINE 37.5 FT SKIP WHITE LF	646.2025 MARKING LINE GROOVED BLACK EPOXY 6-INCH 12.5 FT LINE 37.5 FT SKIP BLACK LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH YELLOW LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH 12.5 FT LINE 37.5 FT SKIP WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH WHITE LF	646.4025 MARKING LINE GROOVED BLACK EPOXY 10-INCH 3 FT LINE 9 FT SKIP BLACK LF	646.4040 MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE LF	646.4040 MARKING LINE GROOVED WET REF EPOXY 10-INCH 3 FT LINE 9 FT SKIP WHITE LF	646.5020 MARKING ARROW EPOXY TYPE 1 EACH	646.5020 MARKING ARROW EPOXY TYPE 2 EACH	646.5020 MARKING ARROW EPOXY TYPE 3 EACH	646.5020 MARKING ARROW EPOXY TYPE 4 EACH	646.5020 MARKING ARROW EPOXY BIKE LANE EACH
1000	0+16	-	8+14	BECHER ST EB	323	793	43	--	--	--	--	--	287	--	395	197	2	3	--	--	3
	0+15	-	8+25	BECHER ST WB	173	661	78	25	--	--	--	--	425	--	417	237	2	4	--	--	2
	81+52	-	88+45	IH 43 NB OFF RAMP	--	--	--	--	--	642	974	--	--	132	940	132	5	5	1	1	--
	89+95	-	101+67	IH 43 NB ON RAMP	--	--	--	--	88	1,119	1,124	88	--	--	954	--	--	--	--	--	--
	83+25	-	88+41	IH 43 SB ON RAMP	--	--	--	--	113	463	431	113	--	--	515	--	--	--	--	--	--
	89+85	-	98+27	IH 43 SB OFF RAMP	--	--	--	--	--	786	1,155	--	--	96	1,156	96	3	3	3	1	--
8000	760+64	-	762+40	4TH ST	81	--	--	--	--	--	--	--	51	--	--	--	--	1	1	--	--
				SUBTOTAL	577	1454	121	25	201	3010	3684	201	763	228	4377	662	12	16	5	2	5
				TOTAL 1000			2096		201		6895		712	228		5039			38		
				TOTAL 8000			81		--		--		51	--		--			2		

PAVEMENT MARKING CONT.

CATEGORY	STATION	TO	STATION	LOCATION	646.5120 MARKING WORD EPOXY WHITE EACH	646.5220 MARKING SYMBOL EPOXY WHITE EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH WHITE LF	646.7020 MARKING DIAGONAL EPOXY 6-INCH YELLOW LF	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	646.8120 MARKING CURB EPOXY YELLOW LF	646.8220 MARKING ISLAND NOSE EPOXY YELLOW EACH	646.7420 MARKING CROSSWALK EPOXY TRANSV. LINE 6-INCH WHITE LF	SPV.0090.001 MARKING CROSSWALK EPOXY BLOCK STYLE 12-INCH WHITE LF
1000	0+16	-	8+14	BECHER ST EB	3	3	135	--	63	85	--	10	1	--	--
	0+15	-	8+25	BECHER ST WB	3	2	124	--	148	59	--	21	2	--	--
	81+52	-	88+45	IH 43 NB OFF RAMP	2	--	--	--	--	184	47	--	--	--	--
	89+95	-	101+67	IH 43 NB ON RAMP	--	--	--	--	--	--	--	--	--	--	--
	83+25	-	88+41	IH 43 SB ON RAMP	--	--	22	--	--	--	--	--	--	--	--
	89+85	-	98+27	IH 43 SB OFF RAMP	1	--	--	--	--	--	110	--	--	--	--
8000	760+64	-	762+40	4TH ST	--	--	22	31	--	--	--	--	--	--	--
8020	1+87	-	6+35	BECHER ST	--	--	--	--	--	--	--	--	--	612	826
				SUBTOTAL	9	5	303	31	211	328	157	31	3	612	826
				TOTAL 1000	9	5	281	--	539		157	31	3	--	--
				TOTAL 8000	--	--	22	31	--		--	--	--	--	--
				TOTAL 8020	--	--	--	--	--		--	--	--	612	826

REMOVING PAVEMENT MARKINGS

CATEGORY	LOCATION	646.9012 MARKING REMOVAL LINE WATER BLASTING 6-INCH LF	646.9210 MARKING REMOVAL LINE WATER BLASTING WIDE LF	REMARKS
1000	IH 43 NB	160	--	INSTALLED STAGE 1
	IH 43 SB	441	--	INSTALLED STAGE 1
	5TH STREET	808	46	INSTALLED STAGE 1
	E BECHER ST	50	--	INSTALLED STAGE 1
	4TH STREET	2,975	--	INSTALLED STAGE 1A
	4TH STREET	1,988	--	INSTALLED STAGE 1B
	4TH STREET	1,192	--	INSTALLED STAGE 1C
	UNDISTRIBUTED	1,142	7	
	TOTAL	8,155	53	

SAWING

STATION	TO	STATION	LOCATION	CAT 1000 690.0150 SAWING ASPHALT LF	CAT 8010 690.0250 SAWING CONCRETE LF	REMARKS
0+02	-	0+03	W BECHER ST LIMITS	--	70	INLCUDES SIDEWALK
8+13	-	8+13	E BECHER ST N LIMITS	--	47	INLCUDES SIDEWALK
8+25	-	8+25	E BECHER ST S LIMITS	--	63	INLCUDES SIDEWALK
2+69	-	5+67	BECHER ST N CURB	--	343	INLCUDES SIDEWALK
2+64	-	5+24	BECHER ST S CURB	--	302	INCLUDES SIDEWALK
768+51	-	768+51	NB OFF RAMP/4TH ST	--	30	INCLUDES SIDEWALK
84+10	-	84+10	NB OFF RAMP	--	23	INCLUDES CURB TRANSITIONS
93+54	-	94+02	NB ON RAMP/4TH ST	--	110	INCLUDES CURB TRANSITION AND SIDEWALK
94+00	-	94+28	NB ON RAMP/4TH ST	--	80	TRENCH FOR STORM SEWER
94+41	-	95+57	SB OFF RAMP/5TH ST	--	227	INCLUDES CURB TRANSITION AND SIDEWALK
86+15	-	86+50	SB ON RAMP/5TH ST	--	107	INCLUDES CURB TRANSITION
769+97	-	770+08	SIDEWALK	--	11	
-	-	-	DRIVEWAYS	98	--	
761+74	-	768+51	4TH ST	--	680	
			TOTAL	98	2,093	

CONTAMINATED SOILS

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0195.002 EXCAVATION, HAULING, AND DISPOSAL OF PAH CONTAMINATED SOIL TON	SPV.0195.003 EXCAVATION, HAULING, AND DISPOSAL OF METALS CONTAMINATED SOIL TON	REMARKS
1000	6+50	-	7+75	BECHER ST EW	816	--	EXCAVATION FOR ROADWAY, LIGHTING, SIGNALS, AND STORM SEWER
	90+85	-	91+70	IH 43 NB ON RAMP	--	472	EXCAVATION FOR ROADWAY, LIGHTING, SIGNALS, AND STORM SEWER
8000	90+85	-	91+70	IH 43 NB ON RAMP	--	171	EXCAVATION FOR BIOSWALE
				TOTAL 1000	816	472	
				TOTAL 8000		171	

3

PAVEMENT CLEANUP PROJECT

CATEGORY	LOCATION	SPV.0075.001 PAVEMENT CLEANUP PROJECT 1228-09-77 HRS
1000	UNALLOCATED	100
	TOTAL	100

SURVEY PROJECT

CATEGORY	LOCATION	SPV.0060.004 SURVEY PROJECT 1228-09-77 EACH
1000	UNALLOCATED	1
	TOTAL	1

UTILITY LINE OPENING (ULO)

CATEGORY	LOCATION	**SPV.0060.200 UTILITY LINE OPENING (ULO) EACH
1000	UNALLOCATED	13
	TOTAL	13

**QUANTITIES SHOWN ELSEWHERE

FIELD FACILITIES OFFICE

CATEGORY	LOCATION	SPV.0135.001 FIELD OFFICE SPECIAL MON
1000	UNALLOCATED	10
	TOTAL	10

BACKFILL

CATEGORY	LOCATION	209.1500 BACKFILL GRANULAR GRADE 1 TON	SPV.0035.001 BACKFILL SLURRY CY	REMARKS
1000	IH 43	10	50	UNDISTRIBUTED
	TOTAL	10	50	

INCENTIVE IRI RIDE

CATEGORY	LOCATION	740.0440 INCENTIVE IRI RIDE DOL
1000	NB ON/OFF RAMP THROUGH LANE AND SB ON/OFF RAMP LEFT/THROUGH LANE	1,235
	TOTAL	1,235

3

BIOSWALES

CATEGORY	STATION	TO	STATION	LOCATION	**205.0100 EXCAVATION COMMON CY	612.0208 PIPE UNDERDRAIN UNPERFORATED 8-INCH LF	625.0105 TOPSOIL CY	**628.2006 EROSION MAT URBAN CLASS I TYPE A SY	630.0170 SEEDING MIXTURE NO. 70 LB	630.0400 SEEDING NURSE CROP LB	**630.0500 SEED WATER MGAL	645.0112 GEOTEXTILE TYPE DF SCHEDULE B SY	REMARKS
8000	92+58	-	92+96	IH 43 NB ON RAMP	79	25	-	-	-	-	-	20	BIOSWALE 1
	92+96	-	93+49		41	-	23	55	0.244	0.488	2.5	--	GRASSED SWALE 1
	90+70	-	91+45		51	-	28	67	0.300	0.600	3	--	GRASSED SWALE 2
	91+45	-	92+13		107	8	-	--	--	-	-	75	BIOSWALE 2
	6+93	-	7+30	E BECHER ST	196	36	-	--	--	-	-	15	BIOSWALE 3
	0+85	-	1+50	W BECHER ST	269	23	-	--	--	-	-	20	BIOSWALE 4
	90+22	-	93+66	IH 43 SB OFF RAMP	234	-	128	308	1.368	2.736	13.5	--	GRASSED SWALE 3
	93+66	-	94+19		120	8	-	--	--	-	-	27	BIOSWALE 5
				TOTAL	1097	100	180	430	2	4	19	157	

**QUANTITY SHOWN ELSEWHERE

BIOSWALES CONT.

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0035.700 SHREDDED HARDWOOD BARK MULCH CY	SPV.0035.701 ENGINEERED SOIL CY	SPV.0035.702 BEDDING LAYER CY	SPV.0035.703 STORAGE LAYER CY	SPV.0035.704 6" GRANITE COBBLESTONES CY	SPV.0060.700 6-INCH CLEANOUT EACH	SPV.0060.701 8-INCH DIA. OVERFLOW STANDPIPE WITH DOME GRATE EACH	SPV.0060.702 STORM CURB INLET WITH GRATE TYPE A EACH	SPV.0060.703 INFORMATIONAL SIGN EACH	SPV.0090.700 PIPE UNDERDRAIN 6-INCH BIOSWALE LF	SPV.0180.700 GEOMEMBRANE LINER SY	REMARKS
8000	92+58	-	92+96	IH 43 NB ON RAMP	4	37	5	29	2	1	1	1	1	38	--	BIOSWALE 1
	92+96	-	93+49		10	-	-	-	3	-	-	1	-	-	--	GRASSED SWALE 1
	90+70	-	91+45		12	-	-	-	3	-	-	1	-	-	--	GRASSED SWALE 2
	91+45	-	92+13		5	44	7	40	4	1	1	3	1	47	150	BIOSWALE 2
	6+93	-	7+30	E BECHER ST	9	64	12	72	4	1	1	3	1	25	--	BIOSWALE 3
	0+85	-	1+50	W BECHER ST	13	107	18	111	14	2	1	3	1	40	--	BIOSWALE 4
	90+22	-	93+66	IH 43 SB OFF RAMP	52	-	-	-	9	-	-	4	-	-	--	GRASSED SWALE 3
	93+66	-	94+19		6	38	6	38	3	1	1	2	1	44	--	BIOSWALE 5
				TOTAL	111	290	48	290	42	6	5	18	5	194	150	

**QUANTITY SHOWN ELSEWHERE

BIOSWALE PLANTS

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0060.704 DALLAS BLUES SWITCHGRASS 1 GALLON EACH	SPV.0060.705 BLUE WONDER CATMINT 1 GALLON EACH	SPV.0060.706 STELLA D'ORO DAYLILY 1 GALLON EACH	SPV.0060.707 RED FEATHER ARROWOOD VIBURNUM 3 GALLON EACH	SPV.0060.708 JOHNSON BLUE GERANIUM 1 GALLON EACH	SPV.0060.709 PURPLE LITTLE WIN CUP DAYLILY 1 GALLON EACH	SPV.0060.710 TIGER EYES SUMAC 3 GALLON EACH	SPV.0060.712 VARIEGATED RED TWIG DOGWOOD 2 GALLON EACH	SPV.0060.713 SUMMER BEAUTY ALLIUM 1 GALLON EACH	SPV.0060.7014 KARL FOERSTER GRASS 1 GALLON EACH	SPV.0060.715 MOONSHINE YARROW 1 GALLON EACH	SPV.0060.716 ROYAL PURPLE SMOKEBUSH 3 GALLON EACH	REMARKS
8000	92+58	-	92+96	IH 43 NB ON RAMP	12	36	30	5	36	-	-	-	-	-	-	-	BIOSWALE 1
	92+96	-	93+49		-	-	-	-	-	-	-	-	-	-	-	-	GRASSED SWALE 1
	90+70	-	91+45		-	-	-	-	-	-	-	-	-	-	-	-	GRASSED SWALE 2
	91+45	-	92+13		-	-	-	-	-	48	8	7	36	18	-	-	BIOSWALE 2
	6+93	-	7+30	E BECHER ST	-	30	-	-	-	-	-	-	-	-	48	7	BIOSWALE 3
	0+85	-	1+50	W BECHER ST	-	-	-	-	-	-	-	-	-	-	60	-	BIOSWALE 4
	90+22	-	93+66	IH 43 SB OFF RAMP	-	-	-	-	-	-	-	-	-	-	-	-	GRASSED SWALE 3
	93+66	-	94+19		-	-	-	-	-	-	-	-	-	-	-	-	BIOSWALE 5
				TOTAL	12	66	30	5	36	48	8	7	36	18	108	7	

BIOSWALE PLANTS CONT.

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0060.717 DIERVILLA LONICERA COPPER 2-3 GALLON EACH	SPV.0060.718 PURPLE PAVEMENT ROSES 2 GALLON EACH	SPV.0060.719 HEAVY METAL SWITCHGRASS 1 GALLON EACH	SPV.0060.720 MAGNUS PURPLE CONEFLOWER 1 GALLON EACH	SPV.0060.721 CATMINT 1 GALLON EACH	SPV.0060.722 SUMMER WINE DIABLO NINEBARK 3 GALLON EACH	SPV.0060.723 WHITE PAVEMENT ROSES 2 GALLON EACH	SPV.0060.724 BLACK LACE ELDERBERRY 3 GALLON EACH	SPV.0060.725 VANILLA CREAM FALSE INDIGO 1 GALLON EACH	SPV.0060.726 NORTHWIND PANICUM GRASS 1 GALLON EACH	SPV.0060.727 LITTLE BLUESTEM GRASSES 1 GALLON EACH	SPV.0060.728 HAPPY RETURN DAYLILY 1 GALLON EACH	SPV.0060.729 ISANTI DWARF RED TWIG DOGWOOD 2 GALLON EACH	REMARKS
8000	92+58	-	92+96	IH 43 NB ON RAMP	-	-	-	-	-	-	-	-	-	-	-	-	BIOSWALE 1
	92+96	-	93+49		-	-	-	-	-	-	-	-	-	-	-	-	GRASSED SWALE 1
	90+70	-	91+45		-	-	-	-	-	-	-	-	-	-	-	-	GRASSED SWALE 2
	91+45	-	92+13		-	-	-	36	-	-	-	-	-	-	-	-	BIOSWALE 2
	6+93	-	7+30	E BECHER ST	21	15	24	-	-	-	-	-	-	-	-	-	BIOSWALE 3
	0+85	-	1+50	W BECHER ST	-	-	-	36	60	7	13	9	24	12	-	-	BIOSWALE 4
	90+22	-	93+66	IH 43 SB OFF RAMP	-	-	-	-	-	-	-	-	-	-	-	-	GRASSED SWALE 3
	93+66	-	94+19		-	14	-	-	-	-	-	-	-	-	24	48	7	BIOSWALE 5
				TOTAL	21	29	24	72	60	7	13	9	24	12	24	48	7	

STORM SEWER REMOVAL ITEMS

CATEGORY	STATION	-	STATION	LF/RT	LOCATION	204.0210 REMOVING MANHOLES EACH	204.0215 REMOVING CATH BASINS EACH	204.0280 SEALING PIPES EACH	204.0245.001 REMOVING STORM SEWER (SIZE) 8-INCH LF	204.0245.002 REMOVING STORM SEWER (SIZE) 12-INCH LF	204.0245.003 REMOVING STORM SEWER (SIZE) 15-INCH LF	COMMENTS
1000	88+97.98	-	89+19.42	LT	ALI SBF	--	1	--	--	41	--	
	89+19.42	-	89+27.29	LT	ALI SBF	--	1	--	--	39	--	
	89+27.29	-	89+42.82	LT	ALI SBF	--	1	--	--	20	--	
	90+47.66	-	90+56.06	LT	ALI SBF	--	1	--	--	35	--	
	90+47.66	-	91+46.07	LT	ALI SBF	--	1	--	--	101	--	
	91+34.55	-	91+46.07	LT	ALI SBF	--	1	--	--	26	--	
	91+34.55	-	91+36.23	LT	ALI SBF	--	--	--	--	18	--	
	92+31.78	-	92+50.53	LT	ALI SBF	--	1	--	--	19	--	
	93+28.41	-	93+68.75	RT	ALI SBF	--	1	--	40	--	--	
	93+66.45	-	93+68.75	LT/RT	ALI SBF	--	1	--	28	--	--	
	93+68.75	-	94+08.80	RT	ALI SBF	--	1	--	--	40	--	
	94+08.80	-	94+23.18	LT/RT	ALI SBF	--	1	--	--	48	--	
	94+62.14	-	95+09.83	LT	ALI SBF	--	1	--	--	56	--	
	86+67.62	-	86+68.06	LT/RT	ALI SBN	--	1	--	25	--	--	
	86+67.62	-	86+71.02	LT	ALI SBN	1	--	--	--	18	--	
	87+68.70	-	87+70.98	LT	ALI SBN	--	1	--	32	--	--	
	87+69.87	-	87+70.98	LT	ALI SBN	--	--	--	11	--	--	
	88+30.11	-	88+43.82	LT	ALI SBN	--	1	--	18	--	--	
	88+42.91	-	88+43.82	LT	ALI SBN	1	--	--	--	48	--	
	88+42.91	-	88+61.45	LT	ALI SBN	--	1	--	--	21	--	
	88+40.52	-	88+61.45	RT/LT	ALI SBN	--	1	--	--	30	--	
	88+30.69	-	88+40.52	RT	ALI SBN	--	--	--	--	41	--	
	88+43.82	-	88+43.82	LT	ALI SBN	1	--	--	10	--	--	
	89+18.09	-	89+46.47	LT	ALI NBN	--	1	--	33	--	--	
	89+46.47	-	89+55.76	LT	ALI NBN	--	1	--	14	--	--	
	89+46.47	-	89+52.38	LT	ALI NBN	--	1	--	--	9	--	
	89+64.38	-	90+00.04	RT	ALI NBN	--	1	--	69	--	--	
	90+00.04	-	90+27.31	RT	ALI NBN	--	1	--	36	--	--	
	90+00.04	-	90+30.49	RT	ALI NBN	--	1	--	42	--	--	
	90+30.49	-	90+45.65	RT	ALI NBN	--	1	--	--	23	--	
	90+93.34	-	91+22.98	RT	ALI NBN	--	1	--	30	--	--	
	91+22.98	-	91+48.65	RT	ALI NBN	--	1	--	26	--	--	
	91+22.98	-	91+23.80	RT	ALI NBN	--	1	--	--	30	--	
	91+23.80	-	91+41.08	RT	ALI NBN	--	1	--	--	21	--	
	91+46.44	-	91+49.71	LT/RT	ALI NBN	--	1	--	53	--	--	
	83+79.88	-	84+09.80	RT	ALI NBF	--	1	--	--	38	--	
	85+92.10	-	86+39.51	RT	ALI NBF	--	1	--	--	49	--	
	88+34.38	-	88+56.05	LT	ALI NBF	1	--	--	--	--	21	
	88+41.91	-	88+56.05	LT	ALI NBF	--	1	--	--	23	--	
	88+56.05	-	88+65.62	LT	ALI NBF	--	1	--	11	--	--	
	88+50.19	-	88+50.20	RT	ALI NBF	--	1	--	--	14	--	
	88+50.20	-	88+63.07	RT	ALI NBF	--	1	1	--	17	--	SEAL PIPE MMSD STRUCTURE 400
	88+53.53	-	88+66.95	RT	ALI NBF	--	1	--	47	--	--	
	88+52.95	-	88+66.95	RT	ALI NBF	--	1	--	32	--	--	
	CATEGORY 1000				TOTAL	4	37	1	557	825	21	

STORM SEWER PIPES

CATEGORY	FROM	-	TO	LOCATION	608.3018 STORM SEWER PIPE CLASS III-A 18-INCH LF	608.6008 STORM SEWER PIPE COMPOSITE 8-INCH LF	608.6012 STORM SEWER PIPE COMPOSITE 12-INCH LF	608.6015 STORM SEWER PIPE COMPOSITE 15-INCH LF	SPV.0060.806 PIPE CONNECTION TO EXISTING EACH	SPV.0060.807 CLEANING STORM SEWER EACH	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT	COMMENTS
1000	107	-	108	ALI SBF	--	--	--	20	1	--	598.00	597.71	0.0150	107 EXISTING
	108	-	111	ALI SBF	--	--	58	--	--	--	598.91	598.33	0.0100	
	108	-	112	ALI SBF	--	--	--	28	--	--	599.24	598.96	0.0100	
	112	-	113	ALI SBF	--	--	26	--	--	--	599.75	599.49	0.0100	
	107	-	115	ALI SBF	--	--	--	24	1	--	594.24	594.00	0.0100	107 EXISTING
	115	-	116	ALI SBF	--	--	--	34	--	--	596.34	596.00	0.0100	
	116A	-	116	ALI SBF	--	--	9	--	--	--	597.34	597.25	0.0100	
	116	-	117	ALI SBF	--	--	28	--	--	--	596.88	596.60	0.0100	
	115	-	118	ALI SBF	--	--	22	--	--	--	597.50	597.28	0.0100	
	101	-	121	ALI SBF	--	--	--	47	1	--	588.59	588.35	0.0050	101 EXISTING
	120	-	122	ALI SBF	--	--	20	--	--	--	589.35	589.25	0.0050	
	123	-	122	ALI SBF	--	--	--	38	--	--	589.00	588.81	0.0050	
	122A	-	122	ALI SBF	--	--	20	--	--	--	589.35	589.25	0.0050	
	121	-	123	ALI SBF	--	--	--	42	--	--	588.80	588.59	0.0050	
	123	-	125	ALI SBF	--	--	40	--	--	--	589.35	589.15	0.0050	
	104	-	126	ALI SBF	--	--	32	--	1	--	591.25	590.93	0.0100	104 EXISTING
	104	-	127	ALI SBF	--	--	7	--	1	--	591.50	591.43	0.0100	104 EXISTING
	105	-	128	ALI SBF	--	--	24	--	1	--	593.75	593.39	0.0150	105 EXISTING
	105	-	129	ALI SBF	--	--	15	--	1	--	593.75	593.52	0.0150	105 EXISTING
	202	-	203	ALI SBN	--	--	18	--	1	--	603.95	603.86	0.0050	202 EXISTING
	203	-	203A	ALI SBN	--	--	3	--	--	1	604.69	604.67	0.0100	CONNECT PIPE EXIST INLET/CB; CLEAN PIPE SOUTH
	203	-	204	ALI SBN	--	--	24	--	--	--	604.10	603.98	0.0050	
	204	-	204A	ALI SBN	--	2	--	--	--	--	605.31	605.29	0.0100	CONNECT PIPE FROM RETAINING WALL
	200	-	205	ALI SBN	--	--	--	34	1	--	599.01	598.84	0.0050	200 EXISTING
	205	-	206	ALI SBN	--	--	40	--	--	1	599.45	599.25	0.0050	CLEAN STRUCTURE 206
	200	-	207	ALI SBN	--	--	--	22	1	--	599.43	599.00	0.0200	200 EXISTING
	207	-	208	ALI SBN	--	--	--	26	--	--	599.96	599.44	0.0200	
	208	-	208A	ALI SBN	--	--	21	--	--	--	600.46	600.25	0.0100	
	208	-	209	ALI SBN	--	--	62	--	1	1	601.33	600.20	0.0182	CLEAN 209 EXISTING
	202	-	211	ALI SBN	--	--	65	--	--	--	606.44	604.50	0.0300	202 EXISTING
	303	-	304	ALI NBN	66	--	--	--	1	--	583.30	582.97	0.0050	303 EXISTING
	304	-	305	ALI NBN	49	--	--	--	--	--	583.55	583.30	0.0050	
	305	-	306	ALI NBN	--	--	--	30	--	--	584.10	583.80	0.0100	
	306	-	307	ALI NBN	--	--	29	--	--	--	584.64	584.35	0.0100	
	300	-	308	ALI NBN	--	--	35	--	1	--	584.54	584.00	0.0154	300 EXISTING
	309	-	309A	ALI NBN	--	23	--	--	--	--	585.80	585.69	0.0050	CONNECT TO BIOSWALE PIPE
	304	-	311	ALI NBN	--	--	30	--	--	--	585.30	585.00	0.0100	
	304	-	312	ALI NBN	--	--	32	--	--	--	584.98	584.50	0.0150	
	317	-	316	ALI NBN	--	--	--	53	1	--	580.36	580.10	0.0050	316 EXISTING
	317	-	318	ALI NBN	--	--	--	10	--	--	583.80	583.75	0.0050	
	322A	-	322	ALI EW	--	--	18	--	1	--	586.27	586.00	0.0150	322A EXISTING
	321	-	323	ALI EW	--	--	--	30	1	--	586.80	586.50	0.0100	321 EXISTING
	323	-	324	ALI EW	--	--	27	--	--	--	587.32	587.04	0.0100	
	407	-	406	ALI NBF	--	--	10	--	--	--	587.65	587.55	0.0100	
	408	-	407	ALI NBF	--	--	19	--	--	--	586.19	586.00	0.0100	
	400A	-	408	ALI NBF	--	--	36	--	1	--	586.00	585.64	0.0100	400A EXISTING
	400A	-	408A	ALI NBF	--	--	14	--	1	--	588.49	588.35	0.0100	400A EXISTING
	Exist CSO	-	409	ALI NBF	--	--	--	--	--	1	--	--	--	CONNECT TO 96" CSO
	402	-	410	ALI NBF	--	--	50	--	1	--	595.25	594.26	0.0200	402 EXISTING
	402B	-	411	ALI NBF	--	--	42	--	1	1	594.85	594.00	0.0200	CLEAN 402B TO 402
	421	-	412	ALI NBF	--	--	88	--	1	--	599.25	598.81	0.0050	421 Existing Stucture
	404	-	413	ALI NBF	--	--	35	--	1	1	600.75	597.55	0.0917	CLEAN 413 TO 414
	415	-	416	ALI NBF	18	--	--	--	1	--	586.75	586.57	0.0100	415 EXISTING
	416	-	417	ALI NBF	--	--	--	26	--	--	587.30	587.04	0.0100	
	417	-	418	ALI NBF	--	--	--	16	--	--	587.50	587.34	0.0100	
	418	-	419	ALI NBF	--	--	26	--	--	--	588.01	587.75	0.0100	
	420	-	422	ALI NBF	--	--	6	--	1	--	590.75	590.69	0.0100	420 EXISTING
	426	-	427	ALI WE	--	--	--	19	--	1	585.19	585.00	0.0100	CLEAN 426 TO 96" CSO
	427	-	428	ALI WE	--	--	34	--	--	--	585.94	585.44	0.0150	
	427	-	431	ALI WE	--	30	--	--	--	--	587.67	587.50	0.0050	
	100		100A	ALI SBF	--	--	--	--	--	1	--	--	--	CLEAN 100 TO 100A
	100		119	ALI SBF	--	--	--	--	--	1	--	--	--	CLEAN 100 TO 119
	CATEGORY 1000			TOTALS	133	55	1065	499	24	9				

STORM SEWER STRUCTURES

CATEGORY	STRUCTURE	STATION	OFFSET*	LOCATION	(1) 611.0410 RECONSTRUCTING CATCH BASINS EACH	(1) 611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	(1) 611.0624 INLET COVERS TYPE H EACH	(1) SPV.0060.800 INLET COVER TYPE MS 55 EACH	(1) SPV.0060.801 INLET COVER TYPE MS 57 EACH	(1)(2) SPV.0060.802 MANHOLE COVER TYPE MS 58A EACH	(1) SPV.0060.803 CATCH BASIN TYPE 45A EACH	(1) SPV.0060.804 CATCH BASIN TYPE 44A EACH	(1) SPV.0060.805 COMBINED SEWER CATCH BASINS EACH	(1) 611.1004 CATCH BASINS 4-FT DIAMETER EACH	(1) 611.2004 MANHOLES 4-FT DIAMETER EACH	(1) 611.8105 ADJUSTING CATCH BASIN COVERS EACH	(1) 611.8110 ADJUSTING MANHOLE COVERS EACH	(1) 650.4000 CONSTRUCTION STAKING STORM SEWER EACH	(1)(2) 611.8120.S COVER PLATES TEMPORARY EACH	RIM** ELEVATION	INVERT*** ELEVATION	DEPTH**** FT	COMMENTS
8030	100	95+18	34.8' LT	5TH STREET	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	594.34	--	--	CITY STORM SEWER MH
1000	100A	95+10	58.1' LT	5TH STREET	1	--	--	1	--	--	--	--	--	--	--	--	--	1	1	594.16	--	--	CITY STORM SEWER INLET
8030	101	94+23.18	44.37' LT	ALI SBF	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	594.11	--	--	CITY STORM SEWER MH
8030	103	93+25.98	37.14' LT	ALI SBF	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	593.38	--	--	CITY STORM SEWER MH
8030	104	92+31.78	30.38' LT	ALI SBF	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	595.56	--	--	CITY STORM SEWER MH
8030	105	91+34.55	23.23' LT	ALI SBF	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	598.14	--	--	CITY STORM SEWER MH
8030	106	90+39.98	16.94' LT	ALI SBF	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	600.41	--	--	CITY STORM SEWER MH
8030	107	89+42.82	9.59' LT	ALI SBF	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	602.69	--	--	CITY STORM SEWER MH
1000	108	89+27.29	21.63' LT	ALI SBF	--	--	--	--	1	--	--	1	--	--	--	--	--	1	1	603.07	598.00	3.99	
1000	111	89+56.79	71.25' LT	ALI SBF	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	603.20	598.91	3.21	
1000	112	89+04.27	38.33' LT	ALI SBF	--	--	--	--	--	1	--	--			1			1	1	603.68	599.24	3.20	
1000	113	88+92.00	46.30' LT	ALI SBN	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	603.72	599.75	2.89	
1000	115	89+47.33	14.34' RT	ALI SBF	--	--	--	--	--	1	--	1	--	--	--	--	--	1	1	602.54	594.24	7.21	
1000	116	89+53.67	48.04' RT	ALI SBF	--	--	--	--	1	--	--	--	1	1	--	--	--	1	1	601.11	596.34	3.69	
1000	116A	89+61.94	43.57' RT	ALI SBF	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	601.06	597.34	2.63	
1000	117	89+31.91	65.97' RT	ALI SBF	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	600.80	596.88	2.83	
1000	118	89+69.10	10.23' RT	ALI SBF	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	601.66	597.50	3.08	
1000	120	93+90.00	37.07' LT	ALI SBF	--	--	1	--	--	--	--	--	--	1	--	--	--	1	1	593.18	587.35	5.33	
1000	121	94+12.03	1.10' RT	ALI SBF	--	--	1	--	--	--	--	--	1		--	--	--	1	1	593.13	588.59	3.54	
1000	122	93+69.70	37.15' LT	ALI SBF	--	--	1	--	--	--	--	--	--	1	--	--	--	1	1	593.12	587.00	3.12	
1000	122A	93+50.00	37.15' LT	ALI SBF	--	--	1	--	--	--	--	--	--	1	--	--	--	1	1	593.17	587.35	2.83	
1000	123	93+69.70	1.28' RT	ALI SBF	--	--	1	--	--	--	--	--	--	1	--	--	--	1	1	592.88	588.80	3.08	
1000	125	93+29.24	1.00' RT	ALI SBF	--	--	1	--	--	--	--	--	--	1	--	--	--	1	1	593.10	589.35	2.76	
1000	126	92+34.10	1.09' RT	ALI SBF	--	--	1	--	--	--	--	--	1	--	--	--	--	1	1	595.13	591.25	2.88	
1000	127	92+31.20	37.08' LT	ALI SBF	--	--	1	--	--	--	--	--	1	--	--	--	--	1	1	595.44	591.50	2.95	
1000	128	91+36.24	0.76' RT	ALI SBF	--	--	1	--	--	--	--	--	1	--	--	--	--	1	1	597.62	593.75	2.87	
1000	129	91+41.19	36.93' LT	ALI SBF	--	--	1	--	--	--	--	--	1	--	--	--	--	1	1	597.73	593.75	2.98	
8030	200	88+61.54	18.86' LT	ALI SBN	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	603.37	--	--	CITY COMBINED SEWER MH
8030	202	86+71.02	40.10' LT	ALI SBN	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	608.63	--	--	CITY COMBINED SEWER MH
8030	203	86+67.55	22.43' LT	ALI SBN	--	1	--	--	--	--	--	--	1	--	--	--	--	1	1	608.29	603.95	3.11	
1000	204	86+68.07	2.00' RT	ALI SBN	--	--	1	--	--	--	--	--	--	1	--	--	--	1	1	607.76	604.10	2.66	
1000	205	88+34.66	1.61' RT	ALI SBN	--	--	1	--	--	--	--	--	1	--	--	--	--	1	1	603.28	599.01	3.28	
1000	206	88+27.19	41.33' RT	ALI SBN	--	--	--	--	--	--	--	--	--	--	--	1	--	1	1	601.80	--	--	EXSITING INLET
1000	207	88+42.03	28.46' LT	ALI SBN	--	--	1	--	--	--	--	--	1	--	--	--	--	1	1	603.72	599.43	3.29	
1000	208	88+26.58	49.50' LT	ALI SBN	--	--	--	--	1	--	--	--	--	1	--	--	--	1	1	604.16	599.96	3.12	
1000	208A	88+11.77	35.20' LT	ALI SBN	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	604.31	600.46	2.77	
1000	209	87+68.70	71.20' LT	ALI SBN	1	--	--	--	--	1	--	--	--	--	--	--	--	1	1	606.43	601.33	3.87	
1000	211	86+17.06	75.91' LT	ALI SBN	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	610.71	606.44	3.19	
1000	300	94+25.38	46.85' RT	ALI NBN	--	--	--	--	--	--	--	--	--	--	--	--	1	1	1	588.62	--	--	CITY COMBINED SEWER MH
8030	302	91+41.06	31.83' RT	ALI NBN	--	--	--	--	--	--	--	--	--	--	--	--	1	1	1	588.03	--	--	CITY COMBINED SEWER MH
8030	303	90+45.67	26.61' RT	ALI NBN	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	588.91	--	--	CITY COMBINED SEWER MH
1000	304	90+00.03	73.62' RT	ALI NBN	--	--	--	--	--	1	--	1	--	--	--	--	--	1	1	589.62	583.30	5.29	
1000	305	89+76.18	117.74' RT	ALI NBN	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	588.66	583.55	4.24	
1000	306	89+70.68	147.43' RT	ALI NBN	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	588.53	584.10	3.35	
1000	307	89+66.92	176.06' RT	ALI NBN	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	588.59	584.64	2.88	
1000	308	94+01.45	72.19' RT	ALI NBN	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	587.98	584.54	2.37	
1000	309A	92+55.20	66.99' RT	ALI NBN	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	588.20	585.20	1.92	
1000	311	90+29.50	76.49' RT	ALI NBN	--	--	--	1	--	--	1	--	--	--	--	--	--	1	1	587.27	584.27	1.92	
1000	312	89+76.15	51.84' RT	ALI NBN	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	589.61	584.98	3.55	
1000	313	89+90.21	19.03' LT	ALI NBN	--	--	--	--	--	--	--	--	--	--	--	1	--	1	1	--	--	--	EXISTING INLET
CATEGORY 1000				SUBTOTALS	2	0	13	2	16	4	14	3	9	8	1	2	1	38	38				
CATEGORY 8030				SUBTOTALS	0	1	0	0	0	10	0	0	0	0	0	0	11	12	12				

REMARKS:

*STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

**RIM ELEV IS AT THE INLET COVER FLANGE LOCATION

***FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE

****DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

(1) - ADDITIONAL QUANTITIES CONTINUED NEXT SHEET

STORM SEWER STRUCTURES (CONTINUED)

CATEGORY	STRUCTURE	STATION	OFFSET*	LOCATION	(1) 611.0410 RECONSTRUCTING CATCH BASINS EACH	(1) 611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	(1) 611.0624 INLET COVERS TYPE H EACH	(1) SPV.0060.800 INLET COVER TYPE MS 55 EACH	(1) SPV.0060.801 INLET COVER TYPE MS 57 EACH	(1)(2) SPV.0060.802 MANHOLE COVER TYPE MS 58A EACH	(1) SPV.0060.803 CATCH BASIN TYPE 45A EACH	(1) SPV.0060.804 CATCH BASIN TYPE 44A EACH	(1) SPV.0060.805 COMBINED SEWER CATCH BASINS EACH	(1) 611.1004 CATCH BASINS 4-FT DIAMETER EACH	(1) 611.2004 MANHOLES 4-FT DIAMETER EACH	(1) 611.8105 ADJUSTING CATCH BASIN COVERS EACH	(1) 611.8110 ADJUSTING MANHOLE COVERS EACH	(1) 650.4000 CONSTRUCTION STAKING STORM SEWER EACH	(1)(2) 611.8120.S COVER PLATES TEMPORARY EACH	RIM** ELEVATION	INVERT*** ELEVATION	DEPTH**** FT	COMMENTS
1000	314	89+37.56	82.30' RT	ALI NBN	--	--	--	--	1	--	--	--	--	--	--	1	--	1	1	589.84	--	--	
8030	316	91+46.44	20.90' LT	ALI NBN	--	--	--	--	--	--	--	--	--	--	--	--	1	1	1	588.60	--	--	CITY STORM SEWER MH
1000	317	91+51.91	31.58' RT	ALI NBN	--	--	1	--	--	--	--	--	1	--	--	--	--	1	1	588.03	580.10	6.93	
1000	318	91+61.53	32.08' RT	ALI NBN	--	--	1	--	--	--	--	--	--	1	--	--	--	1	1	588.02	583.80	3.23	
1000	322	6+11.55	17.22' RT	ALI EW	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	590.44	586.27	3.09	
1000	322A	6+29.33	15.08' RT	ALI EW	--	--	--	--	--	1		--	--	--	--	--	1	1	1	589.97	--	--	MMSD MH
1000	323	5+55.81	32.06' RT	ALI EW	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	591.32	586.80	3.44	
1000	324	5+40.62	55.30' RT	ALI EW	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	591.86	587.32	3.46	
8030	401	87+53.08	26.82' RT	ALI NBF	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	594.71	--	--	CITY COMBINED SEWER MH
8030	402	86+39.52	31.33' RT	ALI NBF	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	598.03	--	--	CITY COMBINED SEWER MH
1000	402B	86+50.16	76.37' RT	ALI NBF	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	597.24	--	--	
8030	403	85+24.39	40.72' RT	ALI NBF	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	601.41	--	--	CITY COMBINED SEWER MH
8030	404	84+09.80	49.52' RT	ALI NBF	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	604.47	--	--	CITY COMBINED SEWER MH
1000	406	88+47.40	39.27' RT	ALI NBF	--	--	1	--	--	--	--	--	--	1	--	--	--	1	1	591.91	587.65	3.27	
1000	407	88+47.62	49.45' RT	ALI NBF	--	--	1	--	--	--	--	--	--	1	--	--	--	1	1	591.74	587.55	3.19	
1000	408	88+41.10	67.15' RT	ALI NBF	--	--	1	--	--	--	--	--	1	--	--	--	--	1	1	591.41	587.11	3.31	
1000	408A	88+27.06	113.92' RT	ALI NBF	--	--	--	--	1	--	--	1	--	--	--	--	--	1	1	590.76	587.76	1.92	
1000	409	88+68.47	123.81' RT	ALI NBF	--	--	--	--	1	--	--	--	--	--	--	1	--	1	1	590.85	--	--	
1000	410	85+93.64	49.20' RT	ALI NBF	--	--	1	--	--	--	--	--	1	--	--	--	--	1	1	599.11	593.42	4.69	
1000	411	86+09.07	73.05' RT	ALI NBF	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	598.50	593.02	4.24	
1000	412	84+92.23	25.04' RT	ALI NBF	--	--	1	--	--	--	--	--	--	1	--	--	--	1	1	602.76	598.85	2.91	
1000	413	83+82.57	71.25' RT	ALI NBF	--	--	--	--	1	--	--	1	--	--	--	--	--	1	1	604.41	600.75	2.68	
8030	414	83+71.00	71.50' RT	ALI NBF	--	--	--	--	--	1	--	--	--	--	--	--	1	1	1	605.05	--	--	CITY COMBINED SEWER MH
1000	416	88+41.83	21.31' LT	ALI NBF	--	--	--	1	--	--	--	--	--	1	--	--	--	1	1	592.25	586.75	4.62	
1000	417	88+66.47	13.42' LT	ALI NBF	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	592.24	587.11	4.04	
1000	418	88+81.89	9.10' LT	ALI NBF	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	591.92	587.50	3.34	
1000	419	89+07.89	10.44' LT	ALI NBF	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	591.70	588.01	2.61	
8030	420	87+71.62	4.38' RT	ALI NBF	--	--	--	--	--	1		--	--	--	--	--	1	1	1	594.65	--	--	CITY COMBINED SEWER MH
1000	421	84+04.73	19.41' RT	ALI NBF	--	--	--	--	--	--	--	--	--	--	--	1	--	1	1	605.38	--	--	CITY COMBINED SEWER MH
1000	422	87+71.28	1.15' LT	ALI NBF	--	--	1	--	--	--	--	--	1	--	--	--	--	1	1	594.72	590.75	2.97	
1000	426	7+72.45	12.99' LT	ALI WE	--	--	--	--	1	--	1	--	--	--	--	1	--	1	1	590.20	585.00	4.12	
1000	427	7+54.19	11.96' LT	ALI WE	--	--	--	--	1	--	--	--	--	1	--	--	--	1	1	590.07	585.19	3.80	
1000	428	7+54.20	21.82' RT	ALI WE	--	--	--	--	1	--	1	--	--	--	--	--	--	1	1	590.46	585.44	3.94	
1000	429	8+24.00	6.00' LT	ALI WE	--	--	--	--	--	--	--	--	--	--	--	--	1	1	1	590.39	--	--	EXIST SS MH
	CATEGORY 1000		SUBTOTALS		0	0	8	1	14	2	9	2	4	6	0	4	3	26	26				
	CATEGORY 1000		**TOTALS**		**2**	**0**	**21**	**3**	**30**	**6**	**23**	**5**	**13**	**14**	**1**	**6**	**4**	**64**	**64**				
	CATEGORY 8030		SUBTOTALS		0	0	0	0	0	6	0	0	0	0	0	0	7	7	7				
	CATEGORY 8030		**TOTALS**		**0**	**1**	**0**	**0**	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**18**	**19**	**19**				

REMARKS:

*STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

**RIM ELEV IS AT THE INLET COVER FLANGE LOCATION

***FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE

****DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

(1) - ADDITIONAL QUANTITIES CONTINUED FROM PREVIOUS SHEET

(2) - QUANTITIES SHOWN ELSWHERE

TYPE I & II PERMANENT SIGNING REMOVALS **1228-09-77** **Category Code 1000**

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	REMARKS / NEW SIGN LOCATION	638.2601 REM SIGNS TYPE I [EA]
1R	R9-3		1		UTILITY POLE	
2R	R5-1A		1		UTILITY POLE	
3R	R2-1		1	1		
4R	R6-2R		1		LIGHT POLE	
5R	R7-1D		1		LIGHT POLE	
6R	NONE	SITE 312N	1	2		
7R	E5-1A	EXIT 312 A - B	1	2	INCLUDES REMOVAL OF W5-54'S	
8R	D1-2	FRANK LLOYD WRIGHT DESIGNED BUILDINGS AMERICAN SYSTEM BUILT HOM TILT ARROW RIGHT	1	2		
9R	S1-1		1		LIGHT POLE	
10R	S16-9P		1		LIGHT POLE	
11R	R8-55	NO PARKING EXCEPT CRASH INVESTIGATION VEHICLES	1	1	INCLUDES REMOVAL OF R8-56	
12R	D4-56	CIS SITE WITH TILT ARROW RIG	1	1		
13R	R8-55	NO PARKING EXCEPT CRASH INVESTIGATION VEHICLES	1		INCLUDES REMOVAL OF R8-56	
14R	E6-1	43 94 DOWNTOWN BECHER ST WEST			MOUNTED ON EXISTING S-40-977	1
15R	E6-51	4TH STREET DOWN ARROW			MOUNTED ON EXISTING S-40-977	1
16R	E6-51	BECHER ST EAST DOWN ARROW			MOUNTED ON EXISTING S-40-977	1
17R	S4-51		1	1	INCLUDES REMOVAL OF R2-6P	
18R	D1-2	FRANK LLOYD WRIGHT DESIGNED BUILDINGS AMERICAN SYSTEM BUILT HOMES ARROW LEFT	1	2		
19R	R5-1A		1	1		
20R	W3-2		1	1		
21R	W12-1D		1	1	INCLUDES REMOVAL OF R1-2 AND R5-1A	
22R	NOT USED					
23R	NOT USED					
24R	R5-1A		1	1		
25R	R1-2		1		MOUNTED ON S-40-977 POLE	
26R	W3-3		1		MOUNTED ON S-40-977 POLE	
27R	R7-1D		1	1		
28R	D1-2	LAPHAM BLVD (ARROW UP) BECHER ST (TILT ARROW RIGHT)	1	2		
29R	D1-2	FRANK LLOYD WRIGHT DESIGNED BLDGS AMERICAN SYSTEM BUILT HOMES (ARROW LEFT)	1	2		
30R	E6-51	LAPHAM BLVD (ARROW DOWN) GREENFIELD AVE			ON S-40-814	1

SHEET: 1 OF 5

TYPE I & II PERMANENT SIGNING REMOVALS **1228-09-77** **Category Code 1000**

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	REMARKS / NEW SIGN LOCATION	638.2601 REM SIGNS TYPE I [EA]
31R	E6-1	BECHER ST (TILT ARROW RIGHT)			ON S-40-814	1
32R	D1-1	MITCHELL ST BASILLICA OF ST JOSAPHAT	1	2		
		HISTORIC SITE (TILT ARROW RIGHT)				
33R	R1-2		1	1	INCLUDES REMOVAL OF W4-4 SIGN	
34R	R7-1L		1	1	INCLUDES REMOVAL OF S5-2	
35R	NOT USED					
36R	R1-2		1	1		
37R	R7-1D		1	1		
38R	R1-2		1	1		
39R	R3-3		1	1		
40R	R3-3		1		SIGNAL POLE	
41R	R3-3		1	1		
42R	W12-1D		1	1		
43R	R5-1		1		SIGNAL POLE	
44R	J3-2		1		SIGNAL POLE	
45R	R5-1A		1		SIGNAL POLE	
46R	R5-1		1		SIGNAL POLE	
47R	R6-2R		1	1		
48R	D1-2	MITCHELL ST (ARROW UP) BECHER ST WEST EAST WITH ARROWS	1	2		
49R	NOT USED					
50R	NOT USED					
51R	J2-2		1		ON UPRIGHT OF S-40-299	
52R	D1-1	BASILLICA OF ST JOSHAPHAT HISTORIC SITE	1		ON UPRIGHT OF S-40-299	
53R	E6-51	ARROW LEFT BECHER ST WEST (DOWN ARROW)			ON S-40-299	1
54R	E6-51	43 94 DOWNTOWN 4TH STREET MITCHELL ST			ON S-40-299	1
55R	E6-1	DOWN ARROW BECHER ST EAST (TILT ARROW RIGHT			ON S-40-299	1
56R	W12-1D		1	1		
57R	R3-2		1	1		
58R	R10-11B	NO TURN ON RED	1	1		
59R	R2-1		1	1		
60R	R2-1		1	2	INCLUDES REMOVAL OF 4TH STREET SIGN	

TYPE I & II PERMANENT SIGNING REMOVALS **1228-09-77** **Category Code 1000**

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	REMARKS / NEW SIGN LOCATION	638.2601 REM SIGNS TYPE I [EA]
61R	NOT USED					
62R	JV3-1		1	1		
63R	J3-2		1	1		
64R	R11-54F		1	2		
65R	J3-2		1	1		
66R	R10-10L		1		ON SIGNAL POLE	
67R	R10-6 MOD		1		ON SIGNAL POLE	
68R	W4-1		1	1		
69R	W3-8		1		ON SIGNAL POLE	
70R	J3-2		1	1		
71R	D1-1	5TH ST (TILT ARROW RIGHT)	1	2		
72R	W4-3L		1	1		
73R	R5-57		1	1		
74R	R2-1		1	1		
75R	R2-1		1	1		
76R	R10-10R		1		SIGNAL POLE	
77R	W4-2R		1	1		
78R	R11-54F		1	2		
79R	NONE	FERRY ARROW LEFT	1		LIGHT POLE	
80R	R3-3		1	1		
81R	R3-2		1	1		
82R	J2-2		1	1		
83R	W4-2R		1	1		
84R	R5-1		1		SIGNAL POLE	
85R	R5-1A		1		SIGNAL POLE	
86R	R7-1D		1	1		
87R	R7-1D		1	1		
88R	R3-8		1	1		
89R	E6-51	BECHER ST EAST (DOWN ARROW)			ON S-40-978	1
90R	E6-51	43 94 5TH ST LINCOLN AVE			ON S-40-978	1

SHEET: 3 OF 5

TYPE I & II PERMANENT SIGNING REMOVALS **1228-09-77** **Category Code 1000**

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	REMARKS / NEW SIGN LOCATION	638.2601 REM SIGNS TYPE I [EA]
91R	E6-1	DOWN ARROW BECHER ST WEST TILT ARROW RIGHT			ON S-40-978	1
92R	R5-1A		1	1		
93R	R5-1A		1	1	INCLUDES R3-8 REMOVAL	
94R	NOT USED					
95R	R3-8		1	2		
96R	R1-2		1	1		
97R	R1-2		1	1		
98R	D1-1	BASILLICA OF ST JOSAPHAT HISTORIC SITE (TILT ARROW RIGHT)	1	2		
99R	W12-1D		1	1		
100R	R3-1		1		SIGNAL POLE	
101R	R7-1D		1	1		
102R	R1-2		1		LIGHT POLE	
103R	R3-3		1		SIGNAL POLE	
104R	R5-1		1		SIGNAL POLE	
105R	R5-1A		1		SIGNAL POLE	
106R	D1-1	BASILLICA OF ST JOSAPHAT HISTORIC SITE TILT ARROW RIGHT	1	2		
107R	R7-1D		1	1		
108R	R6-2R		1	1		
109R	R5-1A		1	1		
110R	NOT USED					
111R	W3-8		1		SIGNAL POLE	
112R	W3-3		1	1	INCLUDES REMOVAL OF R5-1A	
113R	E6-51	43 94			ON EXISTING S-40-83	1
114R	E6-1	DOWN ARROW BECHER ST LINCOLN AVE TILT ARROW RIGHT			ON EXISTING S-40-83	1
115R	E5-1		1	2	INCLUDES REMOVAL OF W5-54'S	
116R	W3-2		1		LIGHT POLE	
117R	D1-2 MOD	LINCOLN AVE (UP ARROW) EAST WEST (ARROWS	1	2		
118R	R7-1D		1	1		
119R	I55-56		1	1		
120R	R1-2		1	1		

SHEET: 4 OF 5

TYPE I & II PERMANENT SIGNING REMOVALS **1228-09-77** **Category Code 1000**

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	REMARKS / NEW SIGN LOCATION	638.2601 REM SIGNS TYPE I [EA]
121R	R1-2		1	1		
122R	R1-1		1	1		
123R	E6-1	43 BELOIT 94 CHICAGO BECHER ST EAST TILT ARROW LEFT			ON S-40-979	1
124R	E6-51	5TH ST (DOWN ARROW)			ON S-40-979	1
125R	E6-51	BECHER ST WEST (DOWN ARROW)			ON S-40-979	1
126R	W3-2		1	1		
127R	R7-1D		1	1		
128R	R6-2R		1	1		
129R	R10-11B		1	1		
130R	J2-2		1	1		
131R	D1-1	DOWNTOWN (ARROW LEFT)	1	2		
132R	R11-54F		1	2		
133R	J2-2		1	1		
134R	R3-1		1	1		
135R	W12-1D		1	1		
136R	R5-1		1		SIGNAL POLE	
137R	R6-2R		1		LIGHT POLE	
138R	R6-2L		1		LIGHT POLE	
139R	R3-3		1		SIGNAL POLE	
140R	R3-2		1		PED POLE	
141R	R3-2		1	1	INCLUDES REMOVAL OF W5-52L AND R4-7	
142R	R6-2R		1		LIGHT POLE	
143R	R5-1		1		LIGHT POLE	
144R	R11-54F		1	2		
145R	R3-1		1	1		
146R	W12-1D		1	1		
147R	J3-2		1	1		
148R	R5-1		1		SIGNAL POLE	
149R	W4-2R		1	1		
150R	W4-2R		1	1		
151R	R7-1D		1		LIGHT POLE	
152R	NONE	TO 4TH STREET ARROW RIGH	1		LIGHT POLE	
153R	W12-1D		1	1		
154R	J2-2		1	1		
155R	R3-2		1	1		
156R	R6-2R		1		SIGNAL POLE	
157R	D1-1	BECHER ST, WEST ARROW LEFT	1	2		
158R	J2-2		1	1		
159R	R10-6		1		SIGNAL POLE SHEET 7	
160R	J3-2		1	1	SHEET 8	
UNDISTRIBUTED			2	2		1
TOTALS			138	117	--	17

SHEET: 5 OF 5

TYPE I & II PERMANENT SIGNING 1228-09-77 Category 1000

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	637.2220 SIGNS TYPE II REFLECTIVE SH SF	638.2102 MOVING SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 POSTS WOOD 4" X 6" X 18' [EA]	634.0622 POSTS WOOD 4" X 6" X 22' [EA]	634.0814 POSTS TUBULAR STEEL 2 X 2 INCH X 14 FT (EA)	SPV.0060.600 REFLECTIVE STRIPS ON POSTS (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 REFLECTIVE SH [SF]	638.2101 MOVING SIGNS TYPE I [EA]
1	E6-52	43 94 BECHER ST EAST COMBINATION ARROW													INSTALL ON S-40-3125, I BEAMS INCIDENTAL SHEET 8	9 X 9.5	85.50	
2	E6-54A	43 94 5TH ST LINCOLN AVE ARROW UP													INSTALL ON S-40-3125 , I BEAMS INCIDENTAL SHEET 8	10 X 9	90.00	
3	E6-54R	BECHER ST WEST ONLY ARROW RIGHT													INSTALL ON S-40-3125 , I BEAMS INCIDENTAL SHEET 8	9 X 7.5	67.50	
4	E6-54A	NORTH 43 WEST 94													INSTALL ON S-40-671, I BEAMS INCIDENTAL SHEET 10	7 X 7	49.00	
5	E6-54L	ARROW UP BECHER ST WEST ONLY ARROW LEFT													INSTALL ON S-40-3126, I BEAMS INCIDENTAL SHEET 3	9 X 7.5	67.50	
6	E6-54A	43 94													INSTALL ON S-40-3126, I BEAMS INCIDENTAL	9 X 9	81.00	
		DOWNTOWN ONLY ARROW UP													SHEET 3			
7	E6-54A	43 94 DOWNTOWN 4TH ST MITCHELL ST													INSTALL ON S-40-3126, I BEAMS INCIDENTAL SHEET 3	9 X 11	99.00	
8	E6-54R	ARROW UP BECHER ST EAST ONLY ARROW RIGHT													INSTALL ON S-40-3126, I BEAMS INCIDENTAL SHEET 3	9 X 7.5	67.50	
9	E6-54A	SOUTH 43 EAST 94 UP ARROW													INSTALL ON S-40-670, I BEAMS INCIDENTAL SHEET 11	7 X 7	49.00	
10	D16-1	SOUTH 43 EAST 94 TO 5TH ST	72 X 72				36.000								INSTALL ON BRIDGE, MOUNTING BRACKETS INCIDENTAL TO SIGN. SEE DETAIL			
11	D16-1	ARROW LEFT SOUTH 43 EAST 94 ARROW LEFT	72 X 66				33.000								INSTALL ON BRIDGE, MOUNTING HARDWARE INCIDENTAL TO SIGN. SEE DETAIL			
12	D16-1	NORTH 43	72 X 66				33.000								INSTALL ON BRIDGE, MOUNTING HARDWARE INCIDENTAL TO SIGN. SEE DETAIL			
13	D16-1	WEST 94 ARROW LEFT NORTH 43 WEST 94 TO 4TH ST ARROW LEFT	72 X 72				36.000								SHEET 10 INSTALL ON BRIDGE, MOUNTING HARDWARE INCIDENTAL TO SIGN. SEE DETAIL SHEET 10			
14	E6-54 MOD	43 94 ARROW DOWN													MOUNT ON S-40-836 EXISTING SIGN STRUCTURE, I BEAMS INCIDENTAL SHEET 9	7 X 5	35.00	
15	E6-54 MOD	BECHER ST, LINCOLN AVE ARROW RIGHT													MOUNT ON S-40-836 EXISTING SIGN STRUCTURE , I BEAMS INCIDENTAL SHEET 9	13 X 4	52.00	
16	R2-1(2S)	SPEED LIMIT 30	24 X 30	5.00								1						
17	R9-3(2S)		12 X 18	1.500								1						
18	R5-1A(2S)		36 X 24	6.000										17				
19	R7-1D(2S)		18 X 24	3.000								1						
20	R6-2R(2S)		24 X 30	5.000										19				

3

SHEET: 1 OF 10

TYPE I & II PERMANENT SIGNING 1228-09-77 Category 1000

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	637.2220 SIGNS TYPE II REFLECTIVE SH SF	638.2102 MOVING SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 POSTS WOOD 4" X 6" X 18' [EA]	634.0622 POSTS WOOD 4" X 6" X 22' [EA]	634.0814 POSTS TUBULAR STEEL 2 X 2 INCH X 14 FT (EA)	SPV.0060.600 REFLECTIVE STRIPS ON POSTS (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 REFLECTIVE SH [SF]	638.2101 MOVING SIGNS TYPE I [EA]
21	S1-1(2S)		36	X	36			6.750						1								
21A	S16-9P(2S)		30	X	18			3.750								21						
21B	R2-6P(2S)		24	X	18	3.000										21						
22	E5-1A (5)	EXIT 312 A-B	96	X	84	56.000							2									
22A	W5-54(2S)		18	X	18			2.250								22						
22B	W5-54(2S)		18	X	18			2.250								22						
23	NONE	SITE 312N	42	X	30	8.750						2										
24	D1-2	FRANK LLOYD WRIGHT DESIGNED BUILDINGS AMERICAN SYSTEM BUILT HOMES	96	X	48	32.000						2										
25	E6-1	TILT ARROW RIGHT BECHER ST, MITCHELL ST															MOUNT ON S-40-814, I BEAMS INCIDENTAL	12	x	4	48.00	
26	E6-51	TILT ARROW RIGHT LAPHAM BLVD, GREENFIELD AVE ARROW DOWN															MOUNT ON S-40-814 , I BEAMS INCIDENTAL	12	x	6	72.00	
27	S4-51(2S)	SPEED LIMIT 20	24	X	48	8.000								1								
28	W3-3(2S)		36	X	36			9.000						1								
29	R7-1D(2S)		24	X	30	5.000								1								
30	R7-1 MODIFIED	NO PARKING TIME OF DAY CITY SIGN								1	1			1								
31	R7-1 MODIFIED	NO PARKING TIME OF DAY CITY SIGN								1				1								
32	NONE	NO PARKING ORDINANCE CITY SIGN								1						31						
33	W4-3L(3)		36	X	36			9.000						1								
33A	W4-4AL(2S)		30	X	12			2.500								33						
34	R7-1 MODIFIED	NO PARKING TIME OF DAY CITY SIGN								1	1						LIGHT POLE					
35	R5-1A(3)		42	X	30	8.750						1			1							
36	D1-2	FRANK LLOYD WRIGHT DESIGNED BUILDINGS AMERICAN SYSTEM BUILT HOMES	96	X	48	32.000						2										
37	R5-1A(3)	ARROW LEFT	42	X	30	8.750						1			1							
38	D1-2	LAPHAM BLVD (UP ARROW) BECHER ST (TILT ARROW RIGHT)	84	X	30	17.500						2										
39	NONE	BASILLICA OF	60	X	48	20.000						2										
40	W3-3(2S)	ST JOSAPHAT HISTORIC SITE TILT ARROW RIGHT	36	X	36			9.000				1										

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	637.2220 SIGNS TYPE II REFLECTIVE SH SF	638.2102 MOVING SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 POSTS WOOD 4" X 6" X 18' [EA]	634.0622 POSTS WOOD 4" X 6" X 22' [EA]	634.0814 POSTS TUBULAR STEEL 2 X 2 INCH X 14 FT (EA)	SPV.0060.600 REFLECTIVE STRIPS ON POSTS (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 REFLECTIVE SH [SF]	638.2101 MOVING SIGNS TYPE I [EA]
41	W4-3R(3)		36	X	36			9.000				1										
41A	W4-4AR(3)		42	X	15			4.375								41						
42	R7-1 MOD	NO PARKING SCHOOL DAYS								1				1								
43	R7-1L(2S)		18	X	24	3.000										42						
44	S5-2(2S)		24	X	30	5.000								1								
45	NONE	NO ENGINE BRAKING CITY SIGN								1				1								
46	R3-8LAAR		72	X	30	15.000						2										
47	R6-2R(2S)		24	X	30	5.000								1								
48	NONE	SUMMERFEST (ARROW LEFT)								1				1								
49	J3-2(2S)		48	X	57	19.000						1										
	MB3-1		24	X	12																	
	M1-1	IH 43	24	X	24																	
	MB6-1		21	X	21																	
	MB3-4		24	X	12																	
	M1-1	IH 94	24	X	24																	
	MB6-1		21	X	21																	
50	NOT USED																					
51	W11-2(2S)		30	X	30			6.250				1										
51A	W16-7L(2S)		24	X	12			2.000								51						
52	W12-1D(2S)		24	X	24			4.000				1					2 FOOT MOUNTING HEIGHT					
53	NONE	KEEP THE CHANGE CITY SIGN								1							SIGNAL POLE					
54	R5-1(5)		48	X	48	16.000						2										
55	R5-1A(5)		42	X	30	8.750										54						
56	R5-1(3)		36	X	36	9.000											SIGNAL POLE					
57	R5-1A(2S)		36	X	24	6.000										56	SIGNAL POLE					
58	R1-1F(3)		36	X	36		7.460										SIGNAL POLE					
59	R1-1F(3)		36	X	36		7.460										SIGNAL POLE					
60	R7-1D(2S)		18	X	24	3.000								1								

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	637.2220 SIGNS TYPE II REFLECTIVE SH SF	638.2102 MOVING SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 POSTS WOOD 4" X 6" X 18' [EA]	634.0622 POSTS WOOD 4" X 6" X 22' [EA]	634.0814 POSTS TUBULAR STEEL 2 X 2 INCH X 14 FT (EA)	SPV.0060.600 REFLECTIVE STRIPS ON POSTS (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 REFLECTIVE SH [SF]	638.2101 MOVING SIGNS TYPE I [EA]
61	J2-3(2)		24	X	57	9.500											MOUNT ON UPRIGHT OF S-40-3126 SIGN STRUCTURE					
	MB3-3		24	X	12																	
	M1-1	IH 43	24	X	24																	
	MB5-1L		21	X	21																	
	MB3-2		24	X	12																	
	M1-1	IH 94	24	X	24																	
	MB5-1L		21	X	21																	
62	NONE	ST JOSAPHAT BASILLICA ARROW LEFT								1							SIGNAL POLE PERMIT SIGN					
		WISC MAP																				
63	R5-1A(3)		42	X	30	8.750									1	66						
64	R5-1A(3)		42	X	30	8.750									1	46						
65	NONE	BECHER ST CITY STREET NAME SIGN								1							SIGNAL POLE					
66	R3-8LAAR		72	X	30	15.000						2										
67	NONE	BASILLICA OF ST JOSAPHAT HISTORIC SITE ARROW LEFT	60	X	48	20.000						2										
68	NONE	DO NOT CROSS OVER TO LEFT TURN LANE	30	X	36	7.500								1								
69	W11-2(2S)		30	X	30			6.750				1										
69A	W16-7L(2S)		24	X	12			2.000								69						
70	R2-1(2S)	SPEED LIMIT 30	24	X	30	5.000								1								
71	NOT USED																					
72	D1-1	4TH ST (TILT ARROW RIGHT)	54	X	15	5.625						2										
73	W12-1D(2S)		24	X	24			4.000				1					2 FOOT MOUNTING HEIGHT					
74	JV3-1		24	X	93	15.500						1										
	MB3-1		24	X	12																	
	M1-1	IH 43	24	X	24																	
	MB3-4		24	X	12																	
	M1-1	IH 94	24	X	24																	
	MB6-2		21	X	21																	
75	R5-57(5)		36	X	36							1										
76	J3-2(2S)		48	X	57	19.000						1										
	MB3-1		24	X	12																	
	M1-1	IH 43	24	X	24																	
	MB6-1		21	X	21																	
	MB3-4		24	X	12																	
	M1-1	IH 94	24	X	24																	
	MB6-1		21	X	21																	
77	R11-54F(2S)		48	X	30	10.000						1										
78	J3-2(2S)		48	X	57	19.000						1										
	MB3-1		24	X	12																	
	M1-1	IH 43	24	X	24																	
	MB6-2		21	X	21																	
	MB3-4		24	X	12																	
	M1-1	IH 94	24	X	24																	
	MB6-2		21	X	21																	
79	R10-65L(2S)		24	X	30	5.000											MOUNT ON SIGNAL POLE					
80	R10-6 MOD		24	X	36	6.000											MOUNT ON SIGNAL POLE					

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	637.2220 SIGNS TYPE II REFLECTIVE SH SF	638.2102 MOVING SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 POSTS WOOD 4" X 6" X 18' [EA]	634.0622 POSTS WOOD 4" X 6" X 22' [EA]	634.0814 POSTS TUBULAR STEEL 2 X 2 INCH X 14 FT (EA)	SPV.0060.600 REFLECTIVE STRIPS ON POSTS (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 REFLECTIVE SH [SF]	638.2101 MOVING SIGNS TYPE I [EA]
81	R10-65R(2S)		24	X	30	5.000											MOUNT ON SIGNAL POLE					
82	R10-6(2S)		24	X	36	6.000											MOUNT ON SIGNAL POLE					
83	W4-2R(2S)		36	X	36			9.000				1										
84	W4-1(5)		48	X	48			16.000				2										
85	R5-57(5)		36	X	36	9.000						1										
86	W3-8(5)		48	X	48			16.000									MOUNT ON SIGNAL POLE					
87	R2-1(2S)	SPEED LIMIT 30	24	X	30	5.000											LIGHT POLE					
88	NOT USED																					
88	NOT USED																					
89	J3-2(2S)		48	X	57	19.000						1										
	MB3-3		24	X	12																	
	M1-1	IH 43	24	X	24																	
	MB6-2		21	X	21																	
	MB3-2		24	X	12																	
	M1-1	IH 94	24	X	24																	
	MB6-2		21	X	21																	
90	J3-2(2S)		48	X	57	19.000						1										
	MB3-3		24	X	12																	
	M1-1	IH 43	24	X	24																	
	MB6-2		21	X	21																	
	MB3-2		24	X	12																	
	M1-1	IH 94	24	X	24																	
	MB6-2		21	X	21																	
91	D1-1	5TH ST (TILT ARROW RIGHT)	54	X	15	5.625						2										
92	J2-2(2S)		48	X	57	19.000						1										
	MB3-3		24	X	12																	
	M1-1	IH 43	24	X	24																	
	MB5-2L		21	X	21																	
	MB3-2		24	X	12																	
	M1-1	IH 94	24	X	24																	
	MB5-2L		21	X	21																	
93	NOT USED																					
94	NOT USED																					
95	J2-2(2S)		48	X	57	19.000						1										
	MB3-3		24	X	12																	
	M1-1	IH 43	24	X	24																	
	MB6-1		21	X	21																	
	MB3-2		24	X	12																	
	M1-1	IH 94	24	X	24																	
	MB6-1		21	X	21																	
96	R1-1F(3)		36	X	36		7.460										SIGNAL POLE					
97	R5-1A(2M)		42	X	30	8.750						2										
98	R5-1(5)		48	X	48	16.000										97	MOUNT ABOVE R5-1A					
99	R1-1F(3)		36	X	36		7.460										SIGNAL POLE					
100	NONE	CITY OF MILWAUKEE								1				1								

SHEET: 5 of 10

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	637.2220 SIGNS TYPE II REFLECTIVE SH SF	638.2102 MOVING SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 POSTS WOOD 4" X 6" X 18' [EA]	634.0622 POSTS WOOD 4" X 6" X 22' [EA]	634.0814 POSTS TUBULAR STEEL 2 X 2 INCH X 14 FT (EA)	SPV.0060.600 REFLECTIVE STRIPS ON POSTS (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 REFLECTIVE SH [SF]	638.2101 MOVING SIGNS TYPE I [EA]
		PARKING REGULATIONS CITY SIGN																
101	NONE	NO ENGINE BRAKING CITY SIGN						1						100				
102	R3-8EAR		54 X 30	11.250						2								
103	R3-8EAR		54 X 30	11.250						2								
104	R5-1A(3)		42 X 30	8.750									1	102				
105	W3-3(2S)		36 X 36			9.000				1								
106	W3-3(2S)		36 X 36			9.000				1								
107	R5-1A(3)		42 X 30	8.750									1	103				
108	W12-1D(2S)		24 X 24			4.000				1					2 FOOT MOUNTING HEIGHT			
109	R7-1D(2S)		18 X 24	3.000								1						
110	W11-2(2S)		30 X 30			6.250				1								
110A	W16-7L(2S)		24 X 12			2.000								110				
111	R5-1(3)		36 X 36	9.000											SIGNAL POLE			
112	R5-1A(2S)		36 X 24	6.000										111	3 FOOT MOUNTING HEIGHT			
113	NONE	FERRY (ARROWLEFT)	48 X 15	5.000						1								
114	R7-1D(2S)		18 X 24	3.000								1						
115	R5-1A(3)		42 X 30	8.750						1			1					
116	R5-1A(3)		42 X 30	8.750						1			1					
117	W3-3(2S)		36 X 36			9.000								116				
118	W3-8(5)		48 X 48			16.000									SIGNAL POLE			
119	E5-1(5)		72 X 60	30.000							2							
119A	W5-54(2S)		18 X 18			2.250								119				
119B	W5-54(2S)		18 X 18			2.250								119				
120	D1-2	LINCOLN AVE (UP ARROW)	84 X 36	21.000						2								
		BECHER ST EAST WEST (ARROWS)																

SHEET: 6 of 10

TYPE I & II PERMANENT SIGNING 1228-09-77 Category 1000

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	637.2220 SIGNS TYPE II REFLECTIVE SH SF	638.2102 MOVING SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 POSTS WOOD 4" X 6" X 18' [EA]	634.0622 POSTS WOOD 4" X 6" X 22' [EA]	634.0814 POSTS TUBULAR STEEL 2 X 2 INCH X 14 FT (EA)	SPV.0060.600 REFLECTIVE STRIPS ON POSTS (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 REFLECTIVE SH [SF]	638.2101 MOVING SIGNS TYPE I [EA]
121	W4-3R(3)		36 X 36			9.000				1								
122	R6-2R(2S)		24 X 30	5.000								1						
123	R1-1(2S)		30 X 30	5.180								1						
124	NONE	BASILLICA OF ST JOSAPHAT HISTORIC SITE	60 X 48	20.000						2								
		TILT ARROW RIGHT																
125	I55-56		30 X 18	3.750								1						
126	W4-3L(3)		36 X 36			9.000						1						
127	NONE	TO BASILLICA (ARROW RIGHT) MAP OF WISC						1							MOUNT ON S-40-3125 UPRIGHT			
128	R4-4(2S)		36 X 30	7.500						1								
129	R1-1(3)		36 X 36	7.460											LIGHT POLE			
130	JV33-1(2S)		24 X 105	17.500							1							
	MB4-5		24 X 12															
	MB3-3		24 X 12															
	M1-1	IH 43	24 X 24															
	MB3-2		24 X 12															
	M1-1	IH 94	24 X 24															
	MB6-2		21 X 21															
131	R7-1D(2S)		18 X 24	3.000								1						
132	W12-1D(2S)		24 X 24			4.000				1					2 FOOT MOUNTING HEIGHT			
133	W11-2(2S)		30 X 30			6.250				1								
133A	W16-7L(2S)		24 X 12			2.000								133				
134	R11-54F(2S)		48 X 30		10.000					1								
135	R6-2L(2M)		30 X 36	7.500						1								
136	R11-54F(2S)		48 X 30		10.000					1								
137	D1-2	DOWNTOWN MILWAUKEE ARROW LEFT	72 X 24	12.000						2								
138	R11-54F(2S)		48 X 30		10.000					1								
139	JV33-1(2S)		24 X 105	17.500						1								
	MB4-5		24 X 12															
	MB3-3		24 X 12															
	M1-1	IH 43	24 X 24															
	MB3-2		24 X 12															
	M1-1	IH 94	24 X 24															
	MB6-1		21 X 21															
140	R4-7(2S)		24 X 30	5.000						1								

SHEET: 7 of 10

TYPE I & II PERMANENT SIGNING 1228-09-77 Category 1000

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	637.2220 SIGNS TYPE II REFLECTIVE SH SF	638.2102 MOVING SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 POSTS WOOD 4" X 6" X 18' [EA]	634.0622 POSTS WOOD 4" X 6" X 22' [EA]	634.0814 POSTS TUBULAR STEEL 2 X 2 INCH X 14 FT (EA)	SPV.0060.600 REFLECTIVE STRIPS ON POSTS (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 REFLECTIVE SH [SF]	638.2101 MOVING SIGNS TYPE I [EA]
141	R3-1(2M)		36 X 36	9.000						1								
142	J3-2(2S)		48 X 57	19.000						1								
	MB3-3		24 X 12															
	M1-1	IH 43	24 X 24															
	MB6-1		21 X 21															
	MB3-2		24 X 12															
	M1-1	IH 94	24 X 24															
	MB6-1		21 X 21															
143	W12-1D(2S)		24 X 24			4.000				1					2 FOOT MOUNTING HEIGHT			
144	R1-1F(3)		36 X 36		7.460										SIGNAL POLE			
145	R1-1F(3)		36 X 36		7.460										SIGNAL POLE			
146	R6-2L(2S)		24 X 30	5.000											SIGNAL POLE			
147	R5-1(3)		36 X 36	9.000						1								
148	R1-1F(3)		36 X 36		7.460										SIGNAL POLE			
149	R1-1F(3)		36 X 36		7.460										SIGNAL POLE			
150	R3-18(2M)		36 X 36	9.000						1								
151	R4-4(2S)		36 X 30	7.500								1						
152	R5-1(2S)		30 X 30	6.250								2						
153	R6-2R(2S)		24 X 30	5.000										152				
154	R3-4(2S)		24 X 24	4.000											SIGNAL POLE			
155	R3-1(2M)		36 X 36	9.000						1								
156	W12-1D(2S)		24 X 24	4.000						1					2 FOOT MOUNTING HEIGHT			
157	R1-1F(3)		36 X 36		7.460										SIGNAL POLE			
158	R1-1F(3)		36 X 36		7.460										SIGNAL POLE			
159	R1-1F(3)		36 X 36		7.460										SIGNAL POLE			
160	R6-2L(2S)		24 X 30	5.000											SIGNAL POLE			

3

SHEET: 8 of 10

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	637.2220 SIGNS TYPE II REFLECTIVE SH SF	638.2102 MOVING SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 POSTS WOOD 4" X 6" X 18' [EA]	634.0622 POSTS WOOD 4" X 6" X 22' [EA]	634.0814 POSTS TUBULAR STEEL 2 X 2 INCH X 14 FT (EA)	SPV.0060.600 REFLECTIVE STRIPS ON POSTS (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 REFLECTIVE SH [SF]	638.2101 MOVING SIGNS TYPE I [EA]
161	R3-17(2S)		30	X	24	5.000											LIGHT POLE			
162	NONE	SUMMERFEST (ARROW AHEAD)								1	1			1						
163	R3-18(2M)		36	X	36	9.000								1						
164	W4-2R(2S)		36	X	36			9.000						1						
165	W4-2R(2S)		36	X	36			9.000						1						
166	D1-1	TO 4TH ST	30	X	30	6.250											MOUNT ON LIGHT POLE			
		TILT ARROW RIGHT																		
167	R7-1D(2S)		18	X	24	3.000											MOUNT ON LIGHT POLE			
168	R4-4(2S)		36	X	30	7.500								1						
169	R7-1D(2S)		18	X	24	3.000								1						
170	JV33-1(2S)		24	X	105	17.500							1							
	MB4-5		24	X	12															
	MB3-1		24	X	12															
	M1-1	IH 43	24	X	24															
	MB3-4		24	X	12															
	M1-1	IH 94	24	X	24															
	MB6-2		21	X	21															
171	R1-1F(3)		36	X	36		7.460										SIGNAL POLE			
172	R1-1F(3)		36	X	36		7.460										SIGNAL POLE			
173	W12-1D(2S)		24	X	24			4.000				1					2 FOOT MOUNTING HEIGHT			
174	W11-2(2S)		30	X	30			6.250				1								
174A	W16-7L(2S)		24	X	12			2.000								174				
175	R1-1(3)		36	X	36	7.460						1								
176	JV33-1(2S)		24	X	105	17.500							1							
	MB4-5		24	X	12															
	MB3-1		24	X	12															
	M1-1	IH 43	24	X	24															
	MB3-4		24	X	12															
	M1-1	IH 94	24	X	24															
	MB6-1		21	X	21															
177	R4-7(2S)		24	X	30	5.000						1								
178	NONE	KEEP THE CHANGE								1							SIGNAL POLE . CITY SIGN			
179	J3-2(2S)		48	X	57	19.000						1								
	MB3-1		24	X	12															
	M1-1	IH 43	24	X	24															
	MB6-1		21	X	21															
	MB3-4		24	X	12															
	M1-1	IH 94	24	X	24															
	MB6-1		21	X	21															
180	R5-1(3)		36	X	36	9.000						1								

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	637.2220 SIGNS TYPE II REFLECTIVE SH SF	638.2102 MOVING SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 POSTS WOOD 4" X 6" X 18' [EA]	634.0622 POSTS WOOD 4" X 6" X 22' [EA]	634.0814 POSTS TUBULAR STEEL 2 X 2 INCH X 14 FT (EA)	SPV.0060.600 REFLECTIVE STRIPS ON POSTS (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 REFLECTIVE SH [SF]	638.2101 MOVING SIGNS TYPE I [EA]
181	R11-54F(2S)		48 X 30		10.000					1								
182	R3-4(2S)		24 X 24	4.000						1								
183	D1-1	BECHER ST	72 X 24	12.000						2								
		WEST (ARROW LEFT)																
184	D1-1	CHICAGO (ARROW LEFT)	60 X 15	6.250						2								
185	D1-1	BECHER ST	72 X 24	12.000						2								
		EAST (ARROW LEFT)																
186	D13-3(2S)		60 X 30	12.500						2								
187	D13-3(2S)		60 X 30	12.500						2								
189	R1-1(3)		36 X 36	7.460						1					SHEET 8			
190	R3-1(3)		36 X 36	9.000											SIGNAL ARM. SHEET 10			
192	R8-55(2S)		42 X 36	10.500						1					SHEET 2			
192A	R8-56(2S)		24 X 18	2.500										192	SHEET 2			
193	D4-56R(2S)		36 X 36	9.000						1					SHEET 2			
194	R8-55(2S)		42 X 36	10.500						1					SHEET 2			
194A	R8-56(2S)		24 X 18	2.500										194	SHEET 2			
195	R7-1D(2S)		18 X 24	3.000								1			SHEET 8			
196	R1-1F(3)		36 X 36		7.460					1					SHEET 10			
197	R11-54F(2S)		48 X 30		10.000					1								
198	R11-54F(2S)		48 X 30		10.000					1								
199	R3-8LF(2S)		30 X 36	7.500								1						
UNDISTRIBUTED												5						2
TOTALS				1164.06	164.44	248.13	138.00	15	3	105	7	42	8	--	--		863.00	2

SHEET: 10 of 10

3

LIGHTING REMOVAL

SYSTEM	DESCRIPTION	STATION	OFFSET	204.0195 REMOVING CONCRETE BASES EACH	204.9060.S.101 REMOVING LIGHTING UNITS EACH	653.0905 REMOVING PULL BOXES EACH	659.5000.S* LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
CITY OF MILWAUKEE	#2111	87+80	73' LT	--	1	--	1
	#2042	1+16	44' LT	--	1	--	1
	#500	1+67	25' LT	--	1	--	1
	#2041	90+35	73' LT	--	1	--	1
	#2037	91+39	86' LT	--	1	--	1
	#2033	92+81	87' LT	--	1	--	1
	#2011	94+35	80' LT	--	1	--	1
	#2037	91+39	86' LT	--	1	--	1
	#2033	92+81	87' LT	--	1	--	1
	#2011	94+35	80' LT	--	1	--	1
	#2044	2+15	33' LT	--	1	--	2
	#454	2+48	15' LT	1	1	--	1
	#452	2+66	26' LT	--	1	--	2
	#2066	2+01	39' RT	--	1	--	2
	#439	3+38	23' LT	--	--	--	--
	#416	4+92	23' RT	--	--	--	--
	#402	5+57	24' RT	--	1	--	1
	#2061	90+03	6' LT	--	1	--	1
	#2060	6+09	36' LT	--	1	--	2
	#338	6+59	27' LT	--	1	--	1
	#338	6+59	27' LT	--	1	--	1
	#2050	90+69	82'RT	--	1	--	1
	#2042	91+77	76' RT	1	1	--	1
	#2102	7+12	52' RT	--	1	--	1
	#2181	768+04	16' LT	--	1	--	1
	#2210	766+64	26' RT	--	1	--	1
	#2227	765+41	15' LT	--	1	--	1
	#2244	764+10	26' RT	--	1	--	1
	#2261	762+75	15' LT	--	1	--	1
UNDISTRIBUTED	PROJECT EXTENTS			--	--	35	--
			TOTAL	2	27	35	31

*QUANTITY SHOWN ELSEWHERE ON PLAN

ALL ITEMS CATEGORY 1100

LIGHTING CONDUIT AND WIRE

SYSTEM	CIRCUIT	FROM	TO	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF	SPV.0090.101 ELECTRICAL CABLE TYPE 3#6/1#8 LTP LF
CITY OF MILWAUKEE		#525	LPB-39	65	--	65
		LPB-40	EX LPB	--	50	50
		LPB-40	LPB-01	100	--	100
		LPB-01	#501	5	--	5
		LPB-01	LPB-02	70	--	70
		LPB-02	#2111	5	--	5
		LPB-02	LPB-03	120	--	120
		LPB-03	#2133	5	--	5
		LPB-03	LPB-04	30	--	30
		LPB-01	LPB-13	--	80	80
		LPB-13	LPB-14	--	40	40
		LPB-14	LPB-15	--	60	60
		LPB-15	#439	35	--	35
		LPB-14	LPB-18	--	265	265
		LPB-18	EX LPB	--	95	95
		LPB-18	LPB-19	--	55	55
		LPB-19	LPB-20	--	40	40
		LPB-20	LPB-21	70	--	70
		LPB-21	#339	5	--	5
		LPB-20	LPB-22	50	--	50
		LPB-22	#2120	5	--	5
		#2120	LPB-23	115	--	115
		LPB-23	#2128	5	--	5
		#2128	LPB-24	120	--	120
		LPB-24	#2134	5	--	5
		#2134	LPB-25	120	--	120
		LPB-25	#2160	5	--	5
		#2160	LPB-26	135	--	135
		LPB-26	LPB-27	--	30	30
		LPB-27	#2181	5	--	5
		#2181	LPB-28	140	--	140
		LPB-28	#2211	5	--	5
		#2211	LPB-29	120	--	120
		LPB-29	#2227	5	--	5
		#2227	LPB-30	130	--	130
			SUBTOTAL	1,475	715	2,190

LIGHTING CONDUIT AND WIRE

SYSTEM	CIRCUIT	FROM	TO	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF	SPV.0090.101 ELECTRICAL CABLE TYPE 3#6/1#8 LTP LF
CITY OF MILWAUKEE		LPB-30	#2245	5	--	5
		#2245	LPB-31	130	--	130
		LPB-31	#2261	5	--	5
		#2261	LPB-32	105	--	105
		EX LPB	LPB-05	95	--	95
		LPB-05	LPB-06	--	100	100
		LPB-06	LPB-07	45	--	45
		LPB-07	#2040	5	--	5
		LPB-07	LPB-08	120	--	120
		LPB-08	#2038	5	--	5
		LPB-08	LPB-09	140	--	140
		LPB-09	#2032	5	--	5
		LPB-09	LPB-10	160	--	160
		LPB-10	#2010	5	--	5
		LPB-10	LPB-11	55	--	55
		LPB-11	LPB-12	--	30	30
		LPB-12	#2000	60	--	60
		LPB-06	LPB-17	--	320	320
		LPB-17	LPB-16	--	80	80
		LPB-16	#416	5	--	5
		LPB-17	LPB-35	80	--	80
		LPB-35	#2051	--	--	0
		LPB-35	LPB-36	115	--	115
		LPB-36	#2043	5	--	5
		LPB-36	LPB-37	105	--	105
		LPB-37	#2031	5	--	5
		LPB-37	LPB-38	90	--	90
		LPB-38	LPB-39	--	35	35
		LPB-39	TIE IN	5	--	5
		#338	LPB-34	5	--	5
		LPB-34	#324	60	--	60
		#324	LPB-35	5	--	5
		LPB-35	EX LPB	160	--	160
			SUBTOTAL	1,190	465	1,655
			TOTAL	2,665	1,180	3,845

3

ALL ITEMS CATEGORY 1100

LIGHTING PULL BOXES

SYSTEM	DESCRIPTION	STATION	OFFSET	SPV.0060.101 FIBERGLASS/ POLYMER CONCRETE PULL BOXES 13-INCH X 24-INCH X 24-INCH EACH	SPV.0060.102 FIBERGLASS/ POLYMER CONCRETE PULL BOXES 17-INCH X 30-INCH X 24-INCH EACH
CITY OF MILWAUKEE	LPB-01	1+74	47' RT	1	--
	LPB-02	87+76	32' LT	1	--
	LPB-03	86+55	47' LT	1	--
	LPB-04	1+62	24' LT	--	1
	LPB-05	1+56	35' LT	1	--
	LPB-06	2+52	15' LT	1	--
	LPB-07	90+24	7' RT	1	--
	LPB-08	91+39	6' RT	1	--
	LPB-09	92+79	7' RT	1	--
	LPB-10	94+38	8' RT	1	--
	LPB-11	780+30	133' LT	1	--
	LPB-12	780+33	164' LT	1	--
	LPB-13	88+31	6' RT	1	--
	LPB-14	2+91	33' RT	1	--
	LPB-15	3+04	28' LT	--	1
	LPB-16	4+93	29' RT	1	--
	LPB-17	89+86	8' LT	--	1
	LPB-18	5+52	40' RT	--	1
	LPB-19	6+08	44' RT	1	--
	LPB-20	88+24	80' RT	--	1
	LPB-21	6+25	22' LT	1	--
	LPB-22	87+75	55' RT	1	--
			SUBTOTAL	17	5

3

LIGHTING PULL BOXES

SYSTEM	DESCRIPTION	STATION	OFFSET	SPV.0060.101 FIBERGLASS/ POLYMER CONCRETE PULL BOXES 13-INCH X 24-INCH X 24-INCH EACH	SPV.0060.102 FIBERGLASS/ POLYMER CONCRETE PULL BOXES 17-INCH X 30-INCH X 24-INCH EACH
CITY OF MILWAUKEE	LPB-23	86+60	54' RT	1	--
	LPB-24	770+69	31' RT	1	--
	LPB-25	769+44	31' RT	1	--
	LPB-26	768+10	27' RT	1	--
	LPB-27	768+03	5' LT	1	--
	LPB-28	766+63	7' LT	1	--
	LPB-29	765+41	5' LT	1	--
	LPB-30	764+10	4' LT	1	--
	LPB-31	762+75	6' LT	1	--
	LPB-32	761+74	18' LT	1	--
	LPB-33	6+38	49' LT	1	--
	LPB-34	6+99	38' LT	1	--
	LPB-35	90+73	7' LT	1	--
	LPB-36	91+82	6' LT	1	--
	LPB-37	92+94	7' LT	1	--
	LPB-38	93+81	4' LT	1	--
	LPB-39	93+98	28' RT	1	--
	LPB-40	0+79	26' RT	--	1
			SUBTOTAL	17	1
			TOTAL	34	6

ALL ITEMS CATEGORY 1100

3

LIGHTING LUMINAIRES

SYSTEM	DESCRIPTION	STATION	OFFSET	654.0105 CONCRETE BASES TYPE 5 EACH	654.0107 CONCRETE BASES TYPE 7 EACH	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	657.0322 POLES TYPE 5 ALUMINUM EACH	657.0337 POLES TYPE 17 ALUMINUM EACH	657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT EACH	657.0640 LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 15-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH	SPV.0090.102 LIQUIDTIGHT FLEXBILE NON-METALLIC CONDUIT 1 1/2-INCH LF	NOTES
CITY OF MILWAUKEE	#501	1+74	47' RT	1	--	117	1	--	1	--	1	10	--
	#2111	87+76	32' LT	1	--	117	1	--	1	--	1	10	--
	#2133	86+55	47' LT	1	--	117	1	--	1	--	1	10	--
	#2040	90+24	7' RT	--	1	144	--	1	--	1	1	10	--
	#2038	91+39	6' RT	--	1	144	--	1	--	1	1	10	--
	#2032	92+79	7' RT	--	1	144	--	1	--	1	1	10	--
	#2010	94+38	8' RT	--	1	144	--	1	--	1	1	10	--
	#339	7+01	32' RT	1	--	117	1	--	1	--	1	10	--
	#2120	87+75	55' RT	1	--	117	1	--	1	--	1	10	--
	#2128	86+61	54' RT	1	--	117	1	--	1	--	1	10	--
	#2134	770+69	31' RT	1	--	117	1	--	1	--	1	10	--
	#2160	769+44	31' RT	1	--	117	1	--	1	--	1	10	--
	#2181	768+03	5' LT	1	--	117	1	--	1	--	1	10	CITY OF MILWAUKEE RESPONSIBILITY
	#2211	766+63	7' LT	1	--	117	1	--	1	--	1	10	CITY OF MILWAUKEE RESPONSIBILITY
	#2227	765+41	5' LT	1	--	117	1	--	1	--	1	10	CITY OF MILWAUKEE RESPONSIBILITY
	#2245	764+10	4' LT	1	--	117	1	--	1	--	1	10	CITY OF MILWAUKEE RESPONSIBILITY
	#2261	762+75	6' LT	1	--	117	1	--	1	--	1	10	CITY OF MILWAUKEE RESPONSIBILITY
	#324	6+99	38' LT	1	--	117	1	--	1	--	1	10	--
	#338	6+38	49' LT	1	--	117	1	--	1	--	1	10	--
	#2051	90+73	7' LT	--	1	144	--	1	--	1	1	10	--
	#2043	91+82	6' LT	--	1	144	--	1	--	1	1	10	--
	#2031	92+94	7' LT	--	1	144	--	1	--	1	1	10	--
			TOTAL	15	7	2763	15	7	15	7	22	220	

ALL ITEMS CATEGORY 1100

3

STATE FURNISHED MATERIALS SUMMARY - FOR INFORMATION ONLY

EACH	DESCRIPTION
1	TRAFFIC SIGNAL CONTROLLER AND CABINET
2	OVER HEIGHT TYPE 10 POLE
2	OVER HEIGHT TYPE 10 SPECIAL POLE
1	MONOTUBE ARMS 25-FT
1	MONOTUBE ARMS 30-FT
2	MONOTUBE ARMS 40-FT SPECIAL
4	LUMINAIRE ARMS STEEL 15-FT
8	AUDIBLE PEDESTRIAN SIGNAL BUTTONS
1	CELL MODEM

REMOVING TRAFFIC SIGNALS

LOCATION	204.9060.S.01 REMOVING TRAFFIC SIGNALS EACH
IH 43 SB RAMPS AT BECHER	1
TOTAL	1

LAMP, BALLAST, LED, SWITCH DISPOSAL

FIXTURE TYPE	659.5000.S* LAMP, BALLAST, SWITCH DISPOSAL BY CONTRACTOR EACH
TRAFFIC SIGNAL, THREE SECTION	19
TRAFFIC SIGNAL, PEDESTRIAN	10
TOTAL	29

* QUANTITY SHOWN ELSEWHERE ON PLAN

LAMP, BALLAST, LED, SWITCH DISPOSAL (FOR INFORMATION ONLY)

LOCATION	TRAFFIC SIGNAL THREE SECTION EACH	TRAFFIC SIGNAL PEDESTRIAN EACH
CB1	--	--
SBA	1	1
SBB	1	1
SBC	1	--
SBD	2	1
SBE	1	--
SBF	2	--
SBG	2	1
SBH	2	--
SBHH	1	--
SBI	1	--
SBJ	1	--
SBK	1	1
SBL	1	2
SBM	1	1
SBN	--	1
SBO	1	1
	19	10

REMOVING CONCRETE BASES

SIGNAL BASE NO.	204.0195* REMOVING CONCRETE BASES EACH
CB1	1
SBA	1
SBB	1
SBC	1
SBD	1
SBE	1
SBF	1
SBG	1
SBH	1
SBHH	1
SBI	1
SBJ	1
SBK	1
SBL	1
SBM	1
SBN	1
SBO	1
TOTAL	17

* QUANTITY SHOWN ELSEWHERE ON PLAN

REMOVE PULL BOXES

PULL BOX NO.	653.0905 REMOVING PULL BOXES EACH
PBA	1
PBB	1
PBC	1
PBD	1
PBE	1
TOTAL	5

* QUANTITY SHOWN ELSEWHERE ON PLAN

3

		CONDUIT			
		652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	652.0605* CONDUIT SPECIAL 2-INCH	652.0615* CONDUIT SPECIAL 3-INCH
FROM	TO	L.F.	L.F.	L.F.	L.F.
CB1 SB	PB1	--	15	--	--
PB1	PB2	--	--	--	120
PB2	PB3	--	50	--	--
PB3	SB1	--	10	--	--
PB3	SB2	--	10	--	--
PB3	PB4	--	--	--	130
PB4	SB3	15	--	--	--
PB4	SB4	5	--	--	--
PB4	PB5	--	--	25	--
PB5	PB6	--	--	160	--
PB4	PB7	--	--	--	140
PB7	SB5	--	35	--	--
PB7	SB6	40	--	--	--
PB7	SB7	--	10	--	--
PB7	PB8	--	--	--	100
PB8	PB9	--	90	--	--
PB9	PB10	--	--	230	--
PB9	PB11	--	--	--	50
PB11	SB8	10	--	--	--
PB11	SB9	20	--	--	--
PB11	PB12	--	--	--	90
PB12	PB13	--	--	190	--
PB12	PB14	--	--	--	80
PB14	SB11	30	--	--	--
PB14	PB15	--	--	--	80
PB15	SB12	10	--	--	--
PB15	SB13	25	--	--	--
PB15	CB1 SB	--	15	--	--
PB1 SB	PB15 NB	--	210	--	--
	TOTAL	155	445	605	790

* QUANTITY SHOWN ELSEWHERE ON PLAN

			CONCRETE BASES				
			654.0101* CONCRETE BASES TYPE 1	654.0102* CONCRETE BASES TYPE 2	654.0110* CONCRETE BASES TYPE 10	654.0120* CONCRETE BASES TYPE 10 SPECIAL	654.0217* CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL
SIGNAL BASE NO.	LOCATION STA	OFFSET	EACH	EACH	EACH	EACH	EACH
CB1 SB	3+00.5 EW	49.3 RT	--	--	--	--	1
SB1	2+77.1 WE	19.3 RT	--	--	1	--	--
SB2	2+52.4 WE	32.6 RT	--	--	--	1	--
SB3	2+06.1 WE	30.9 RT	1	--	--	--	--
SB4	1+98.8 WE	25.6 RT	--	1	--	--	--
SB5	1+93.3 WE	22.5 LT	--	--	--	1	--
SB6	1+92.9 EW	24.7 RT	--	1	--	--	--
SB7	1+62.5 EW	16.4 RT	--	--	1	--	--
SB8	2+10.1 EW	32.6 LT	--	1	--	--	--
SB9	2+02.6 EW	24.4 LT	1	--	--	--	--
SB10	2+56.1 EW	25.5 LT	--	1	--	--	--
SB11	2+49.5 EW	25.6 RT	1	--	--	--	--
SB12	2+82.2 EW	48.7 RT	1	--	--	--	--
SB13	2+79.2 WE	35.6 LT	--	1	--	--	--
TOTAL		TOTAL	4	5	2	2	1

* QUANTITY SHOWN ELSEWHERE ON PLAN

3

PULL BOXES

PULL BOX NO.	LOCATION STA	OFFSET	653.0140* PULL BOXES STEEL 24x42-INCH EACH
PB1	3+03.8 WE	45.7 LT	1
PB2	2+88.5 WE	15.5 RT	1
PB3	2+61.0 WE	19.2 RT	1
PB4	1+92.9 WE	24.8 RT	1
PB5	1+81.5 WE	50.7 RT	1
PB6	0+27.1 WE	26.8 RT	1
PB7	1+61.1 EW	29.3 RT	1
PB8	1+52.3 EW	23.0 LT	1
PB9	1+88.0 EW	49.1 LT	1
PB10	92+24.6	38.5 LT	1
PB11	2+15.5 EW	43.3 LT	1
PB12	2+62.5 EW	33.1 LT	1
PB13	2+52.2 EW	16.5 LT	1
PB14	2+72.0 EW	8.0 RT	1
PB15	2+93.6 EW	43.7 RT	1
TOTAL		TOTAL	15

* QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION** STA	OFFSET	SIZE (FT) X (FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800* CONDUIT LOOP DETECTOR L.F.	655.0700* LOOP DETECTOR LEAD IN CABLE L.F.	655.0800* LOOP DETECTOR WIRE L.F.
21	PB13	4+52.4 EW	5.2 LT	6 X 10	4	ASPHALT	9F15-4B OPTION 2	46	300	193
41	PB10	92+25.0	17.2 LT	6 X 10	3	ASPHALT	9F15-4B OPTION 2	72	410	227
42	PB10	92+25.0	6.2 LT	8 X 10	3	ASPHALT	9F15-4B OPTION 2	90	410	284
43	PB11	89+81.1	18.0 LT	6 X 30	3	ASPHALT	9F15-4B OPTION 2	106	150	334
44	PB12	89+82.5	5.3 LT	6 X 30	3	ASPHALT	9F15-4B OPTION 2	112	110	353
51	PB14	2+46.3 EW	41.5 RT	6 X 30	3	ASPHALT	9F15-4B OPTION 2	106	70	334
52	PB15	2+56.3 EW	52.8 RT	6 X 30	3	ASPHALT	9F15-4B OPTION 2	92	30	290
61	PB6	0+27.4 WE	5.9 RT	6 X 10	4	ASPHALT	9F15-4B OPTION 2	62	365	260
62	PB6	0+27.4 WE	5.3 LT	6 X 10	4	ASPHALT	9F15-4B OPTION 2	86	365	361
							TOTAL	772	2210	2636

** LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
* QUANTITY SHOWN ELSEWHERE ON PLAN

3

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0240* CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260* CABLE TRAFFIC SIGNAL 12-14 AWG L.F.
CB1 SB	SB1	--	175
CB1	SB2	--	175
CB1	SB3	260	--
CB1	SB4	--	250
CB1	SB5	--	365
CB1	SB6	370	--
CB1	SB7	--	340
CB1	SB8	--	215
CB1	SB9	225	--
CB1	SB10	--	170
CB1	SB11	135	--
CB1	SB12	60	--
	TOTAL	1050	1690

* QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0305* CABLE TYPE UF 2-12 AWG GROUNDED L.F.	655.0610* ELECTRICAL WIRE LIGHTING 12 AWG L.F.
CB1 SB	SB1	175	--
SB1	LUMINAIRE 1	--	145
SB1	SB2	65	--
SB2	LUMINAIRE 1	--	145
SB2	SB4	115	--
SB4	LUMINAIRE 1	--	120
SB4	SB5	155	--
SB5	LUMINAIRE 1	--	145
SB5	SB6	120	--
SB6	LUMINAIRE 1	--	120
CB1 SB	SB13	75	--
SB13	LUMINAIRE 1	--	120
SB13	LUMINAIRE 2	--	120
SB13	SB10	190	--
SB10	LUMINAIRE 1	--	120
SB10	SB8	125	--
SB8	LUMINAIRE 1	--	120
SB8	LUMINAIRE 2	--	120
	TOTAL	1020	1275

* QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0515* ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.
CB1	SB1	150
SB1	SB2	70
SB2	SB3	130
SB3	SB4	70
SB4	SB5	160
SB5	SB6	125
SB6	SB7	100
SB7	SB8	190
SB8	SB9	80
SB9	SB10	125
SB10	SB11	130
SB11	SB12	130
SB12	CB1 SB	65
CB1 SB	PB1	30
SB1	PB2	60
SB1	PB3	35
SB4	PB4	30
SB7	PB7	35
SB7	PB8	85
SB8	PB9	60
SB9	PB11	45
SB10	PB12	35
SB11	PB14	55
CB1 SB	PB15	35
	TOTAL	2030

* QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO SIGNAL HEAD NUMBER	655.0230* CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240* CABLE TRAFFIC SIGNAL 7-14 AWG L.F.
SB1	2	55	--
SB1	3	45	--
SB1	22	20	--
SB2	8	55	--
SB2	9	65	--
SB2	14	20	--
SB4	1	20	--
SB4	15	20	--
SB4	16	20	--
SB5	12	--	65
SB5	13	55	--
SB5	17	20	--
SB6	18	20	--
SB7	5	35	--
SB7	6	45	--
SB8	11	20	--
SB8	19	20	--
SB8	20	20	--
SB10	4	20	--
SB10	21	20	--
SB11	7	20	--
SB12	10	20	--
	TOTAL	635	65

* QUANTITY SHOWN ELSEWHERE ON PLAN

3

3

							POLES							
	657.0100*	657.0255*+	657.0310*	657.0405*	657.0420	657.0609*	SPV.0060.302	SPV.0060.303*	SPV.0060.305	SPV.0060.306*	SPV.0060.309*	SPV.0060.310*	658.0500*	659.1125*
		TRANSFORMER BASES BREAKAWAY		TRAFFIC SIGNAL STANDARDS ALUMINUM	TRAFFIC SIGNAL STANDARDS ALUMINUM		INSTALL TYPE 10	INSTALL TYPE 10 SPECIAL						
	PEDESTAL	11 1/2-INCH	POLES	3.5-FT	13-FT	LUMINAIRE ARMS SINGLE MEMBER	OVER HEIGHT	OVER HEIGHT	INSTALL MONOTUBE ARMS	INSTALL MONOTUBE ARMS	INSTALL MONOTUBE ARMS	INSTALL LUMINAIRE ARMS	PEDESTRIAN PUSH	LUMINAIRES UTILITY
SIGNAL	BASES	BOLT CIRCLE	TYPE 3			4-INCH CLAMP 6-FT	POLE	POLE	25-FT	30-FT	40-FT SPECIAL	STEEL 15-FT	BUTTONS	LED C
BASE NO.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
SB1	--	--	--	--	--	--	1	--	--	1	--	1	--	1
SB2	--	--	--	--	--	--	--	1	--	--	1	1	1	1
SB3	1	--	--	1	--	--	--	--	--	--	--	--	1	--
SB4	--	1	1	--	--	1	--	--	--	--	--	--	1	1
SB5	--	--	--	--	--	--	--	1	--	--	1	1	1	1
SB6	--	1	1	--	--	1	--	--	--	--	--	--	1	1
SB7	--	--	--	--	--	--	1	--	1	--	--	1	--	1
SB8	--	1	1	--	--	2	--	--	--	--	--	--	1	2
SB9	1	--	--	1	--	--	--	--	--	--	--	--	1	--
SB10	--	1	1	--	--	1	--	--	--	--	--	--	1	1
SB11	1	--	--	--	1	--	--	--	--	--	--	--	--	--
SB12	1	--	--	--	1	--	--	--	--	--	--	--	--	--
SB13	--	1	1	--	--	2	--	--	--	--	--	--	--	2
TOTAL	4	5	5	2	2	7	2	2	1	1	2	4	8	11

* QUANTITY SHOWN ELSEWHERE ON PLAN

3

FACES

SIGNAL BASE NO.	SIGNAL HEAD NO.	658.0173* TRAFFIC SIGNAL FACE 3S-12 INCH EACH	658.0174 TRAFFIC SIGNAL FACE 4S-12 INCH EACH	658.0416* PEDESTRIAN SIGNAL FACE 16-INCH EACH
SB1	2	1	--	--
SB1	3	1	--	--
SB1	22	1	--	--
SB2	8	1	--	--
SB2	9	1	--	--
SB2	14	--	--	1
SB4	1	1	--	--
SB4	15	--	--	1
SB4	16	--	--	1
SB5	12	--	1	--
SB5	13	1	--	--
SB5	17	--	--	1
SB6	18	--	--	1
SB7	5	1	--	--
SB7	6	1	--	--
SB8	11	1	--	--
SB8	19	--	--	1
SB8	20	--	--	1
SB10	4	1	--	--
SB10	21	--	--	1
SB11	7	1	--	--
SB12	10	1	--	--
	TOTAL	13	1	8

* QUANTITY SHOWN ELSEWHERE ON PLAN

ELECTRICAL SERVICE METER BREAKER PEDESTAL

LOCATION	656.0201.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL EACH
IH 43 SB RAMPS AT BECHER	1
TOTAL	1

TRAFFIC SIGNAL MOUNTING HARDWARE

LOCATION	658.5070.01 SIGNAL MOUNTING HARDWARE EACH
IH 43 SB RAMPS AT BECHER	1
TOTAL	1

TRAFFIC SIGNAL CABINET

LOCATION	SPV.0060.311 TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET EACH
IH 43 SB RAMPS AT BECHER	1
TOTAL	1

TRANPORTING MATERIALS

LOCATION	SPV.0060.313 TRANSPORT TRAFFIC SIGNAL AND LIGHTING MATERIALS EACH
IH 43 SB RAMPS AT BECHER	1
TOTAL	1

3

STATE FURNISHED MATERIALS SUMMARY - FOR INFORMATION ONLY

EACH	DESCRIPTION
1	TRAFFIC SIGNAL CONTROLLER AND CABINET
1	OVER HEIGHT TYPE 9 POLE
1	OVER HEIGHT TYPE 9 SPECIAL POLE
1	OVER HEIGHT TYPE 10 SPECIAL POLE
1	OVER HEIGHT TYPE 13 POLE
1	MONOTUBE ARMS 30-FT
1	MONOTUBE ARMS 35-FT SPECIAL
1	MONOTUBE ARMS 40-FT SPECIAL
1	MONOTUBE ARMS 55-FT
4	LUMINAIRE ARMS STEEL 15-FT
8	AUDIBLE PEDESTRIAN SIGNAL BUTTONS
1	CELL MODEM

REMOVING TRAFFIC SIGNALS

LOCATION	204.9060.S.02 REMOVING TRAFFIC SIGNALS EACH
IH 43 NB RAMPS AT BECHER	1
TOTAL	1

LAMP, BALLAST, LED, SWITCH DISPOSAL

FIXTURE TYPE	659.5000.S* LAMP, BALLAST, SWITCH DISPOSAL BY CONTRACTOR EACH
TRAFFIC SIGNAL, THREE SECTION	19
TRAFFIC SIGNAL, PEDESTRIAN	10
TOTAL	29

* QUANTITY SHOWN ELSEWHERE ON PLAN

LAMP, BALLAST, LED, SWITCH DISPOSAL (FOR INFORMATION ONLY)

LOCATION	TRAFFIC SIGNAL THREE SECTION EACH	TRAFFIC SIGNAL PEDESTRIAN EACH
CB1	--	--
SBA	2	1
SBB	2	--
SBC	1	--
SBD	1	--
SBE	1	--
SBF	1	1
SBG	1	2
SBH	1	1
SBI	--	1
SBJ	1	1
SBK	1	1
SBL	1	1
SBM	1	--
SBN	2	1
SBO	1	--
SBP	2	--
	19	10

REMOVING CONCRETE BASES

SIGNAL BASE NO.	204.0195* REMOVING CONCRETE BASES EACH
CB1 NB	1
SBA	1
SBB	1
SBC	1
SBD	1
SBE	1
SBF	1
SBG	1
SBH	1
SBI	1
SBJ	1
SBK	1
SBL	1
SBM	1
SBN	1
SBO	1
SBP	1
TOTAL	17

* QUANTITY SHOWN ELSEWHERE ON PLAN

3

3

		CONDUIT			
		652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	652.0605* CONDUIT SPECIAL 2-INCH	652.0615* CONDUIT SPECIAL 3-INCH
FROM	TO	L.F.	L.F.	L.F.	L.F.
CB1 NB	PB1	--	15	--	--
PB1	SB1	--	15	--	--
PB1	SB2	--	5	--	--
PB1	PB2	--	--	--	140
PB2	SB3	--	5	--	--
PB2	PB3	--	--	--	130
PB3	SB4	10	--	--	--
PB3	SB5	20	--	--	--
PB3	PB4	--	--	25	--
PB4	PB5	--	--	160	--
PB3	PB6	--	--	--	140
PB6	SB6	40	--	--	--
PB6	SB7	35	--	--	--
PB6	PB7	--	--	--	130
PB7	SB8	--	5	--	--
PB7	PB8	--	70	--	--
PB8	PB9	--	--	225	--
PB8	PB10	--	--	--	50
PB10	SB9	10	--	--	--
PB10	SB10	20	--	--	--
PB10	PB11	--	--	--	100
PB11	PB12	--	40	--	--
PB12	SB11	5	--	--	--
PB12	PB13	--	--	185	--
PB12	PB14	--	--	--	50
PB14	SB12	20	--	--	--
PB14	PB15	--	--	--	90
PB15	SB13	15	--	--	--
PB15	CB1 SB	--	30	--	--
	TOTAL	175	185	595	830

* QUANTITY SHOWN ELSEWHERE ON PLAN

			CONCRETE BASES					
			654.0101* CONCRETE BASES TYPE 1	654.0102* CONCRETE BASES TYPE 2	654.0110* CONCRETE BASES TYPE 10	654.0113 CONCRETE BASES TYPE 13	654.0120* CONCRETE BASES TYPE 10 SPECIAL	654.0217* CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL
SIGNAL BASE NO.	LOCATION STA	OFFSET	EACH	EACH	EACH	EACH	EACH	EACH
CB1 NB	5+28.6 EW	39.6 RT	--	--	--	--	--	1
SB1	5+46.7 EW	32.8 RT	--	--	--	1	--	--
SB2	5+39.1 EW	28.8 RT	--	--	--	--	1	--
SB3	5+65.3 EW	33.9 LT	--	--	--	--	1	--
SB4	6+16.8 EW	24.4 LT	1	--	--	--	--	--
SB5	6+08.5 EW	30.8 LT	1	--	--	--	--	--
SB6	6+25.3 EW	24.2 RT	--	1	--	--	--	--
SB7	6+23.7 WE	25.2 LT	--	1	--	--	--	--
SB8	6+60.1 WE	33.5 RT	--	--	1	--	--	--
SB9	6+11.9 WE	32.0 RT	--	1	--	--	--	--
SB10	6+17.3 WE	24.4 RT	1	--	--	--	--	--
SB11	5+54.4 WE	19.8 RT	--	1	--	--	--	--
SB12	5+57.4 WE	21.2 LT	1	--	--	--	--	--
SB13	5+37.3 WE	53.8 LT	1	--	--	--	--	--
TOTAL		TOTAL	5	4	1	1	2	1

* QUANTITY SHOWN ELSEWHERE ON PLAN

3

3

PULL BOXES

PULL BOX NO.	LOCATION STA	LOCATION OFFSET	653.0140* PULL BOXES STEEL 24x42-INCH EACH
PB1	5+30.8 EW	31.8 RT	1
PB2	5+58.3 EW	37.6 LT	1
PB3	6+26.4 EW	24.3 LT	1
PB4	6+34.6 EW	51.9 LT	1
PB5	8+06.3 EW	35.0 LT	1
PB6	6+62.5 WE	32.7 LT	1
PB7	6+65.0 WE	33.5 RT	1
PB8	6+34.0 WE	52.0 RT	1
PB9	86+05.3	52.2 RT	1
PB10	6+09.1 WE	41.1 RT	1
PB11	5+57.2 WE	35.8 RT	1
PB12	5+46.5 WE	18.1 RT	1
PB13	3+55.9 WE	19.0 RT	1
PB14	5+37.1 WE	7.8 LT	1
PB15	5+21.4 WE	49.4 LT	1
TOTAL		TOTAL	15

* QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION** STA	LOCATION** OFFSET	SIZE (FT) X (FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800* CONDUIT LOOP DETECTOR L.F.	655.0700* LOOP DETECTOR LEAD IN CABLE L.F.	655.0800* LOOP DETECTOR WIRE L.F.
11	PB15	5+59.2 WE	37.9 LT	6 X 30	3	ASPHALT	9F15-4B OPTION 2	90	35	284
12	PB14	5+50.8 WE	47.3 LT	6 X 30	3	ASPHALT	9F15-4B OPTION 2	102	80	321
21	PB5	8+03.2 EW	6.6 LT	6 X 10	4	ASPHALT	9F15-4B OPTION 2	82	350	344
22	PB5	8+03.2 EW	5.8 RT	6 X 10	4	ASPHALT	9F15-4B OPTION 2	94	350	395
61	PB13	3+55.9 WE	5.7 RT	6 X 10	4	ASPHALT	9F15-4B OPTION 2	46	290	193
81	PB9	86+05.1	29.5 RT	6 X 10	3	ASPHALT	9F15-4B OPTION 2	76	425	239
82	PB9	86+05.1	18.2 RT	6 X 10	3	ASPHALT	9F15-4B OPTION 2	92	425	290
83	PB10	5+96.6 WE	34.9 RT	6 X 30	3	ASPHALT	9F15-4B OPTION 2	92	175	290
84	PB11	5+85.0 WE	33.8 RT	6 X 30	3	ASPHALT	9F15-4B OPTION 2	118	125	372
85	PB11	5+73.4 WE	33.4 RT	6 X 30	3	ASPHALT	9F15-4B OPTION 2	94	125	296
							TOTAL	886	2380	3024

** LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

* QUANTITY SHOWN ELSEWHERE ON PLAN

3

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0240* CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260* CABLE TRAFFIC SIGNAL 12-14 AWG L.F.
CB1	SB1	--	65
CB1	SB2	--	55
CB1	SB3	--	140
CB1	SB4	--	225
CB1	SB5	235	--
CB1	SB6	340	--
CB1	SB7	--	335
CB1	SB8	--	350
CB1	SB9	--	250
CB1	SB10	260	--
CB1	SB11	--	160
CB1	SB12	135	--
CB1	SB13	70	--
	TOTAL	1040	1580

* QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0305* CABLE TYPE UF 2-12 AWG GROUNDED L.F.	655.0610* ELECTRICAL WIRE LIGHTING 12 AWG L.F.
CB1 NB	SB1	65	--
SB1	LUMINAIRE 1	--	145
SB1	LUMINAIRE 2	--	145
SB1	SB3	150	--
SB3	LUMINAIRE 1	--	145
SB3	SB6	240	--
SB6	LUMINAIRE 1	--	120
SB6	SB7	120	145
SB7	LUMINAIRE 1	--	120
CB1 NB	SB11	160	--
SB11	LUMINAIRE 1	--	120
SB11	SB9	170	--
SB9	LUMINAIRE 1	--	120
SB9	LUMINAIRE 2	--	120
	TOTAL	905	1180

* QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0515* ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.
CB1 NB	SB1	70
SB1	SB2	70
SB2	SB3	130
SB3	SB4	130
SB4	SB5	80
SB5	SB6	180
SB6	SB7	125
SB7	SB8	155
SB8	SB9	125
SB9	SB10	80
SB10	SB11	145
SB11	SB12	100
SB12	SB13	130
SB13	CB1 NB	75
CB1 NB	PB1	30
SB3	PB2	30
SB4	PB3	35
SB6	PB6	65
SB8	PB7	30
SB8	PB8	85
SB9	PB10	35
SB11	PB11	30
SB11	PB12	30
SB12	PB14	45
CB1 NB	PB15	35
	TOTAL	2045

* QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO SIGNAL HEAD NUMBER	655.0230* CABLE TRAFFIC SIGNAL 5-14 AWG L.F.
SB1	12	65
SB1	13	75
SB1	14	20
SB1	15	55
SB2	9	45
SB2	10	55
SB3	5	45
SB3	6	65
SB3	16	20
SB3	24	20
SB4	8	20
SB4	17	20
SB4	18	20
SB6	19	20
SB7	20	20
SB8	2	50
SB8	3	40
SB9	11	20
SB9	21	20
SB9	22	20
SB11	1	20
SB11	23	20
SB12	4	20
SB13	7	20
	TOTAL	795

* QUANTITY SHOWN ELSEWHERE ON PLAN

IH 43 NB RAMPS & W BECHER ST

ALL ITEMS ARE CATEGORY 1500

3

	POLES																
SIGNAL BASE NO.	657.0100* PEDESTAL BASES EACH	657.0255*+ TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0310* POLES TYPE 3 EACH	657.0405* TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0609* LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 6-FT EACH	SPV.0060.300 INSTALL TYPE 9 OVER HEIGHT POLE EACH	SPV.0060.301 INSTALL TYPE 9 SPECIAL OVER HEIGHT POLE EACH	SPV.0060.303* INSTALL TYPE 10 SPECIAL OVER HEIGHT POLE EACH	SPV.0060.304 INSTALL TYPE 13 OVER HEIGHT POLE EACH	SPV.0060.306* INSTALL MONOTUBE ARMS 30-FT EACH	SPV.0060.308 INSTALL MONOTUBE ARMS 35-FT SPECIAL EACH	SPV.0060.309* INSTALL MONOTUBE ARMS 40-FT SPECIAL EACH	SPV.0060.307 INSTALL MONOTUBE ARMS 55-FT EACH	SPV.0060.310* INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	658.0500* PEDESTRIAN PUSH BUTTONS EACH	659.1125* LUMINAIRES UTILITY LED C EACH
SB1	--	--	--	--	--	--	--	--	--	1	--	--	--	1	2	--	2
SB2	--	--	--	--	--	--	--	1	--	--	--	1	--	--	--	--	--
SB3	--	--	--	--	--	--	--	--	1	--	--	--	1	--	1	1	1
SB4	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	--
SB5	1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--
SB6	--	1	1	--	--	1	--	--	--	--	--	--	--	--	--	1	1
SB7	--	1	1	--	--	1	--	--	--	--	--	--	--	--	--	1	1
SB8	--	--	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--
SB9	--	1	1	--	--	2	--	--	--	--	--	--	--	--	--	1	2
SB10	1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--
SB11	--	1	1	--	--	1	--	--	--	--	--	--	--	--	--	1	1
SB12	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--
SB13	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL	5	4	4	2	3	5	1	1	1	1	1	1	1	1	3	8	8

* QUANTITY SHOWN ELSEWHERE ON PLAN

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET: 281	E

PLOT DATE : 12/20/2025 3:33:21 PM PLOT BY : JGF

3

		FACES	
		658.0173*	658.0416*
SIGNAL BASE NO.	SIGNAL HEAD NO.	TRAFFIC SIGNAL FACE 3S-12 INCH EACH	PEDESTRIAN SIGNAL FACE 16-INCH EACH
SB1	12	1	--
SB1	13	1	--
SB1	14	1	--
SB1	15	1	--
SB2	9	1	--
SB2	10	1	--
SB3	5	1	--
SB3	6	1	--
SB3	16	--	1
SB3	24	1	--
SB4	8	1	--
SB4	17	--	1
SB4	18	--	1
SB6	19	--	1
SB7	20	--	1
SB8	2	1	--
SB8	3	1	--
SB9	11	1	--
SB9	21	--	1
SB9	22	--	1
SB11	1	1	--
SB11	23	--	1
SB12	4	1	--
SB13	7	1	--
	TOTAL	16	8

* QUANTITY SHOWN ELSEWHERE ON PLAN

ELECTRICAL SERVICE METER BREAKER PEDESTAL

LOCATION	656.0201.02 ELECTRICAL SERVICE METER BREAKER PEDESTAL EACH
IH 43 NB RAMPS AT BECHER	1
TOTAL	1

TRAFFIC SIGNAL MOUNTING HARDWARE

LOCATION	658.5070.02 SIGNAL MOUNTING HARDWARE EACH
IH 43 NB RAMPS AT BECHER	1
TOTAL	1

TRAFFIC SIGNAL CABINET

LOCATION	SPV.0060.312 TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET EACH
IH 43 NB RAMPS AT BECHER	1
TOTAL	1

TRANPORTING MATERIALS

LOCATION	SPV.0060.314 TRANSPORT TRAFFIC SIGNAL AND LIGHTING MATERIALS EACH
IH 43 NB RAMPS AT BECHER	1
TOTAL	1

4TH ST & LINCOLN AVE

ALL ITEMS ARE CATEGORY 8000

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO SIGNAL HEAD NUMBER	655.0230* CABLE TRAFFIC SIGNAL 5-14 AWG L.F.
SBA	20	20
SBC	19	20
SBC	10	60
SBH	12	20
	TOTAL	120

* QUANTITY SHOWN ELSEWHERE ON PLAN

FACES

SIGNAL BASE NO.	SIGNAL HEAD NO.	658.0173* TRAFFIC SIGNAL FACE 3S-12 INCH EACH
SBA	20	1
SBC	19	1
SBC	10	1
SBH	12	1
	TOTAL	4

* QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL MOUNTING HARDWARE

LOCATION	658.5070.03 SIGNAL MOUNTING HARDWARE EACH
4TH AT LINCOLN	1
TOTAL	1

MODIFY TRAFFIC SIGNALS

LOCATION	SPV.0060.315 MODIFY TRAFFIC SIGNAL L.S.
4TH AT LINCOLN	1
TOTAL	1

FTMS EACH ITEMS

CATEGORY	ROADWAY	ITEM ID.	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH	SPV.0060.200 UTILITY LINE OPENING (ULO) EACH	SPV.0060.201 INSTALL WIRELESS TRAFFIC SENSOR EACH
1300	I 41 / 43 / 94				
		EXCBRM400029	--	--	6
		EXSBBEC185	--	--	2
		ULOBEC188	--	1	--
		ULOBEC189	--	1	--
		EXPBBEC190	1	--	--
TOTALS			1	2	8

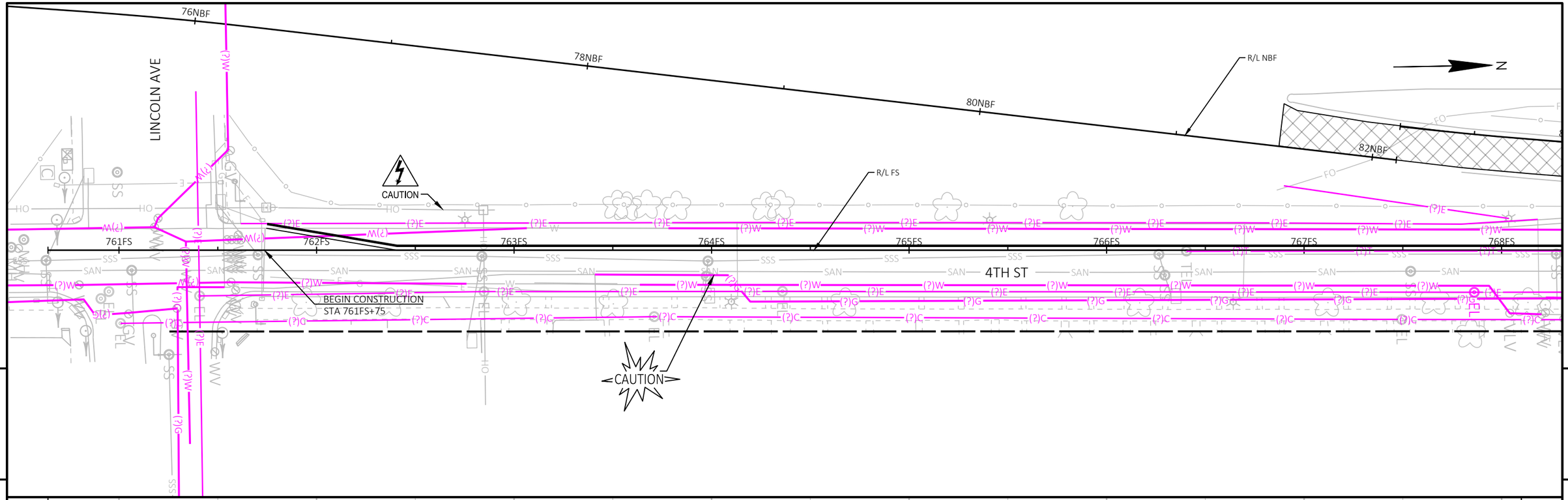
3

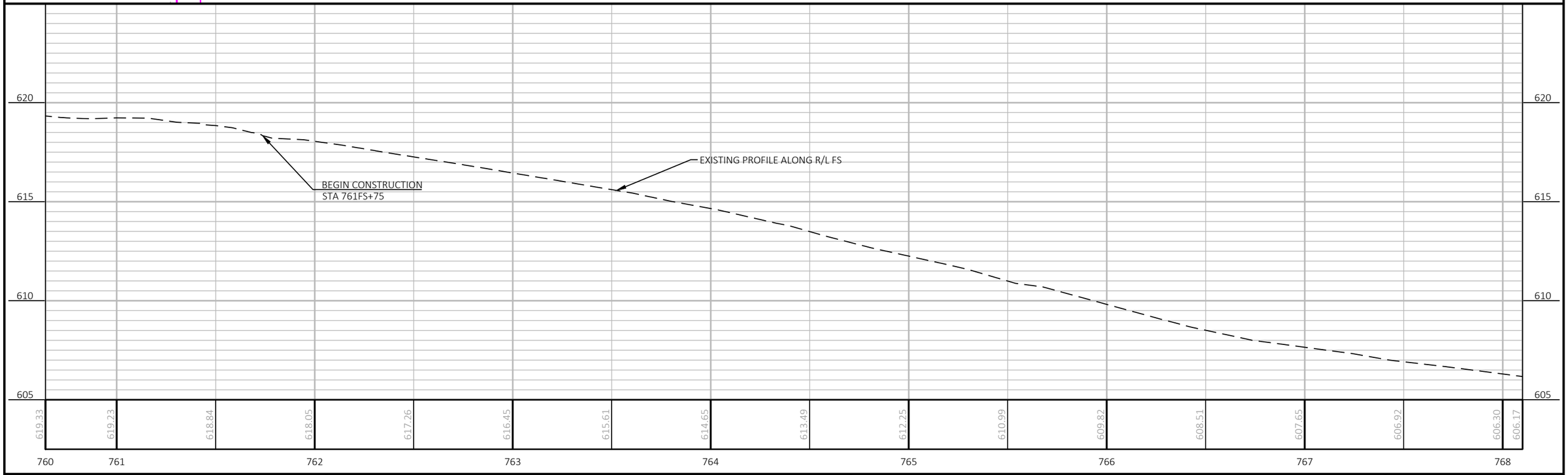
FTMS LINEAR FOOT ITEMS

CATEGORY	ROADWAY	ITEM ID	LINEAR DISTANCE	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF	655.0700 LOOP DETECTOR LEAD IN CABLE LF	674.0300 REMOVE CABLE LF	SPV.0090.202 MULTICELL CONDUIT AND CABLE ADJUSTMENT LF
1300	I 41 / 43 / 94								
		EXCBRM400029 - EXPBBEC183	5	--	5	5	5	--	--
		EXPBBEC183 - EXPBBEC182	35	--	35	35	35	--	--
		EXPBBEC182 - EXPBBEC184	235	--	235	235	235	--	--
		EXPBBEC184 - EXPBBEC185	35	--	35	35	35	--	--
		EXPBBEC185 - EXPBBEC186	90	--	90	90	90	--	--
		EXPBBEC186 - EXPBBEC187	65	--	65	65	65	--	--
		EXPBBEC187 - EXPBBEC188	30	--	30	30	30	--	--
		EXPBBEC188 - ULOBEC188	25	25	25	25	25	--	--
		ULOBEC188 - ULOBEC189	35	35	35	35	35	--	35
		ULOBEC189 - EXPBBEC190	130	130	130	130	130	--	--
		EXPBBEC189 - EXPBBEC190	125	--	--	--	--	125	--
		EXPBBEC190 - EXPBBEC192	195	--	195	195	195	--	--
		EXPBBEC192 - EXPBBEC194	195	--	195	195	195	--	--
		EXPBBEC194 - EXPBBEC196	215	--	215	215	215	--	--
		EXPBBEC196 - EXFYBEC196	10	--	10	10	--	--	--
TOTALS				190	1,300	1,300	1,290	125	35

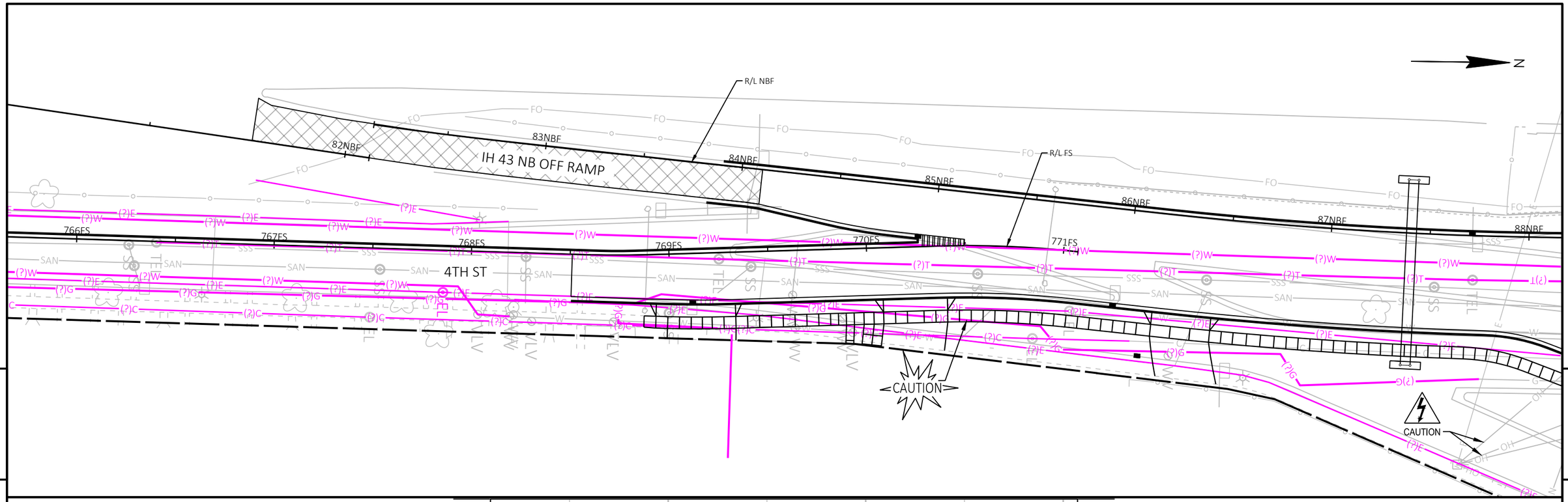
MISCELLANEOUS ITEMS

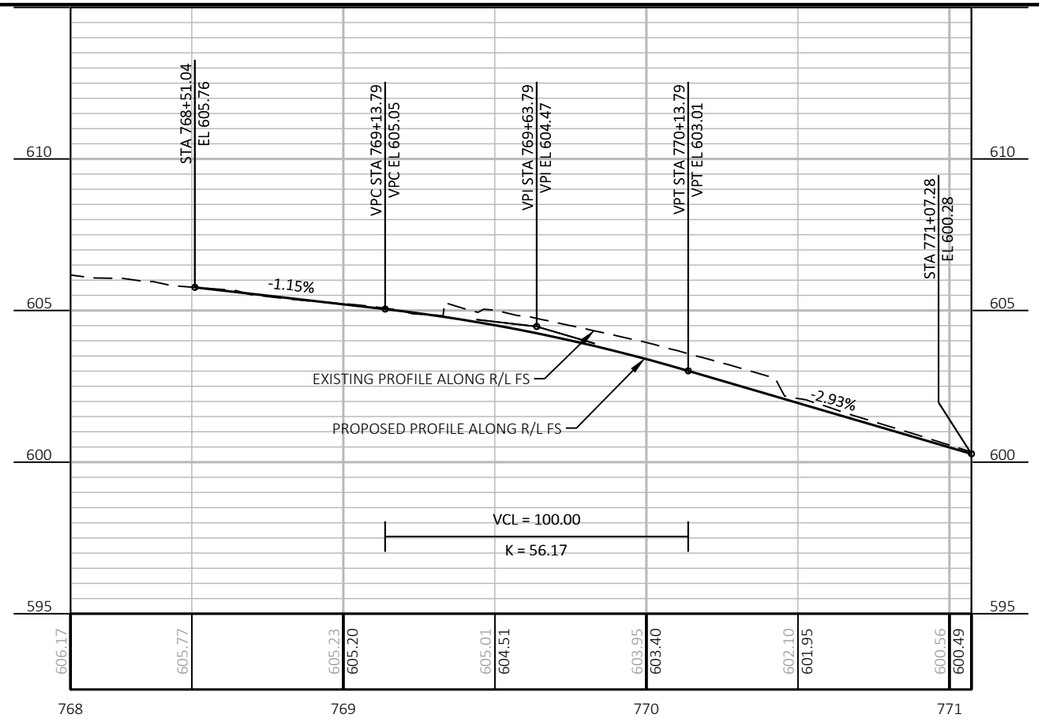
CATEGORY	ROADWAY	670.0101 FIELD SYSTEM INTEGRATOR EACH	670.0201 ITS DOCUMENTATION EACH
1300	I 41 / 43 / 94		
	PROJECT	1	1
TOTALS		1	1





PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: 4TH ST	SHEET 285	E



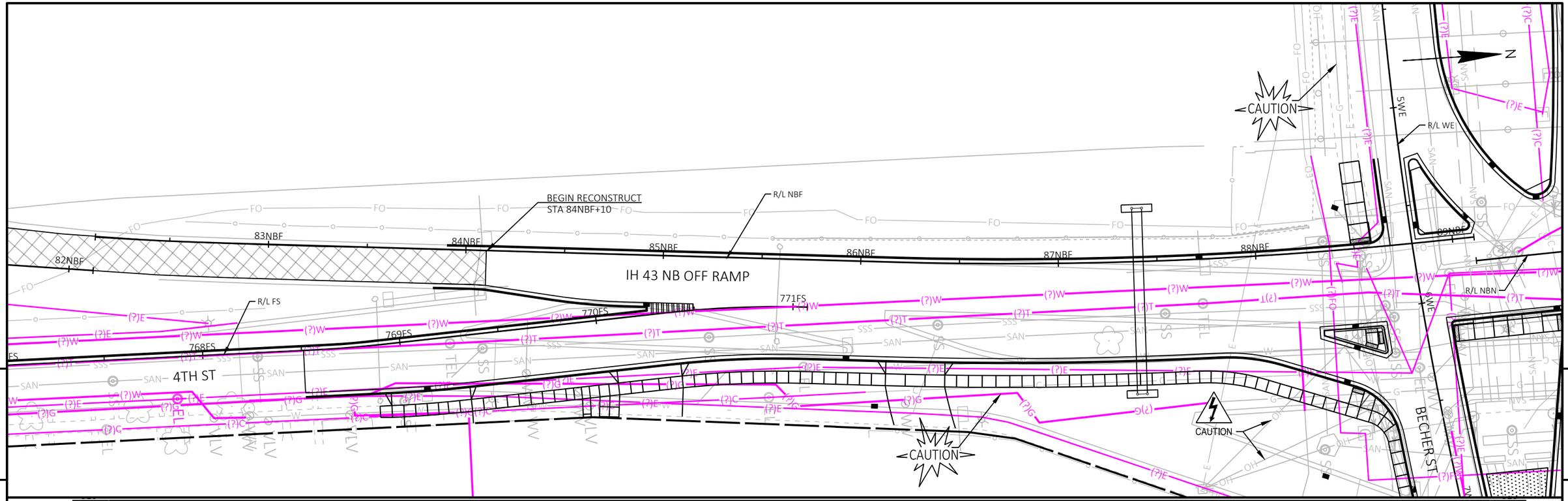


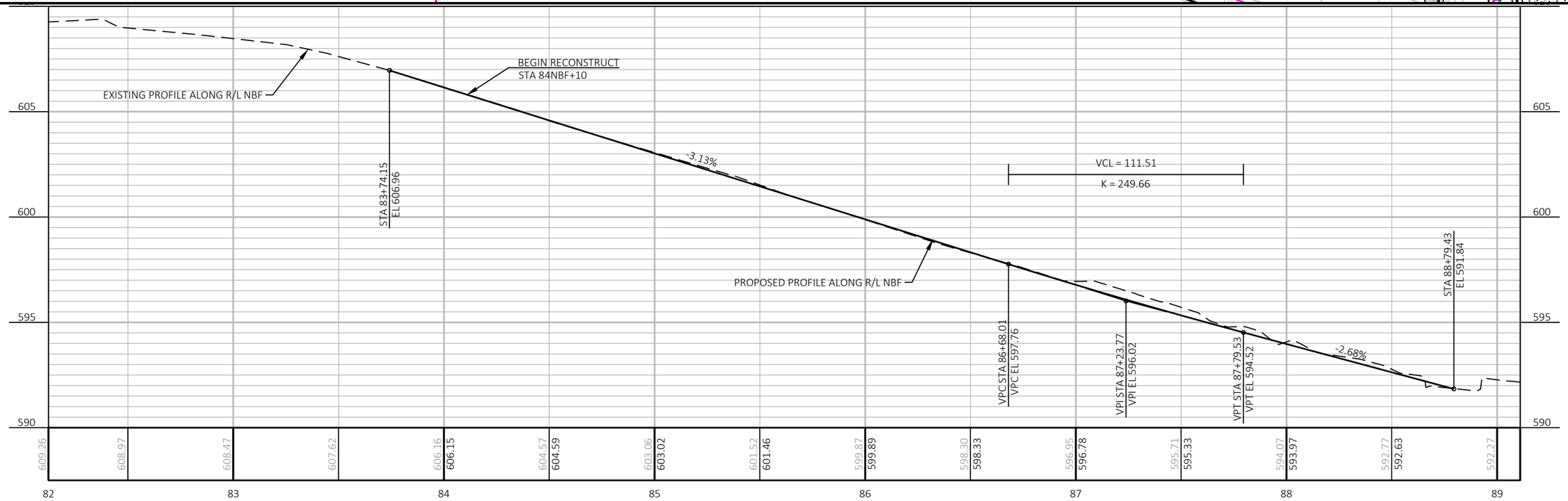
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: 4TH ST	SHEET 286	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\050101-PP.DWG
LAYOUT NAME - 02

PLOT DATE : 10/29/2025 11:19 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44



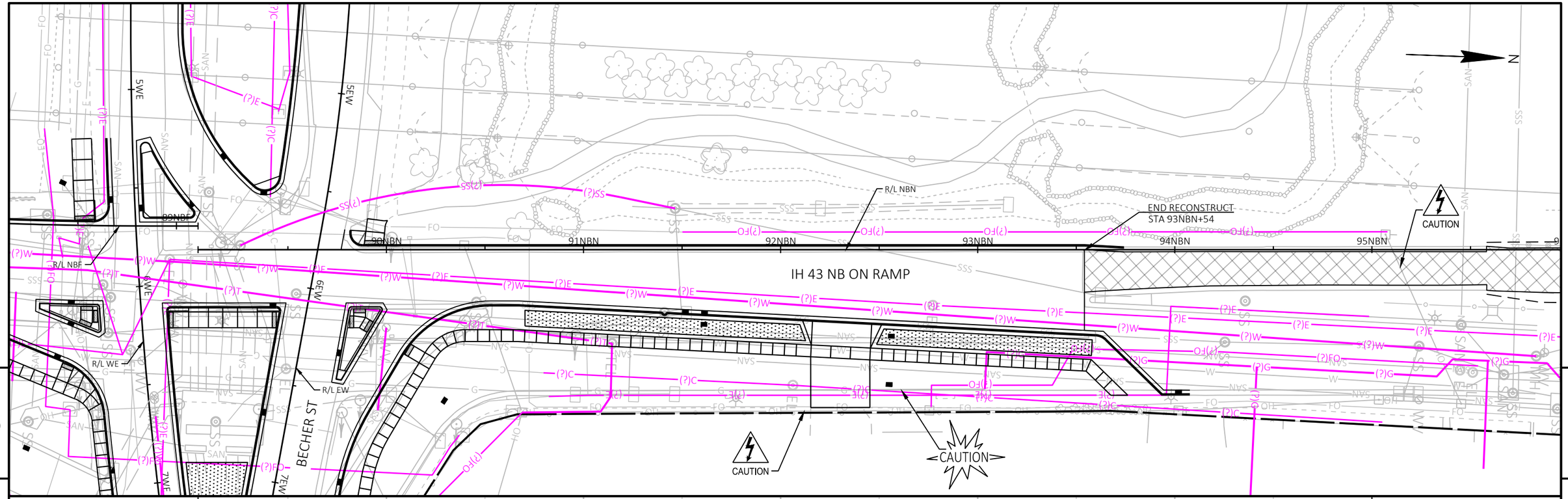


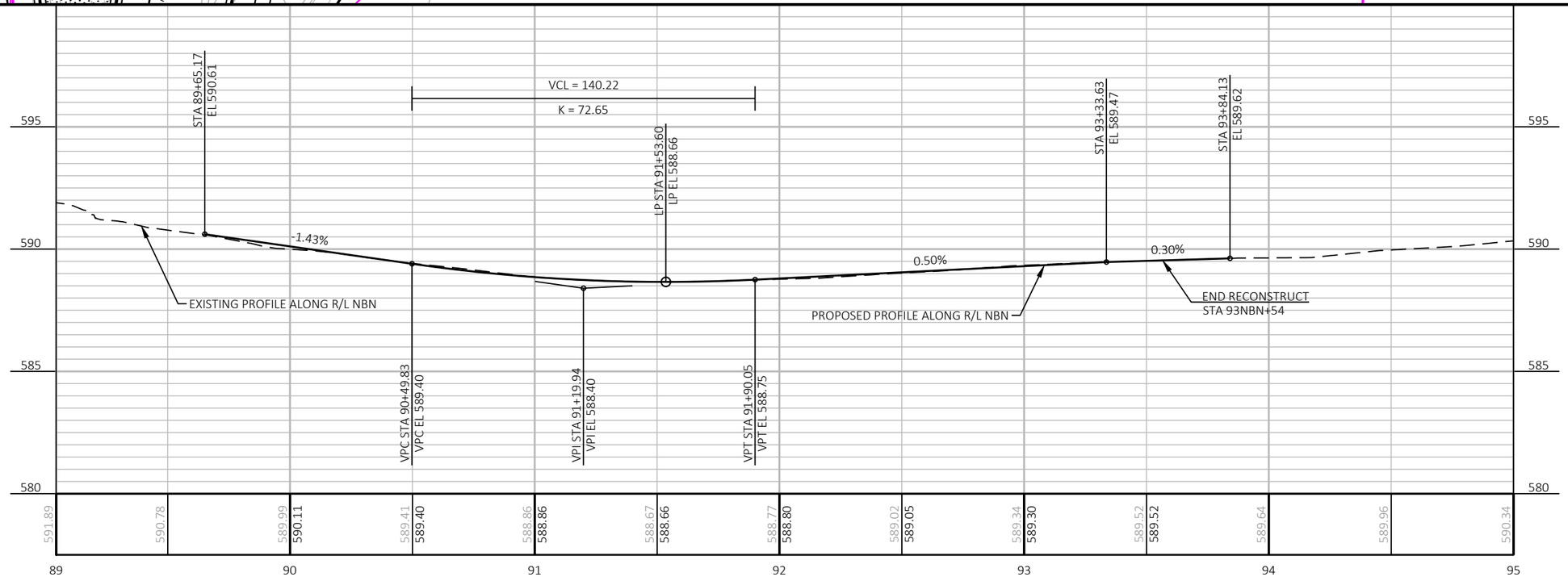
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: RAMP NBF	SHEET 287	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\050101-PP.DWG
LAYOUT NAME - 03

PLOT DATE : 10/29/2025 11:19 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:50 FT

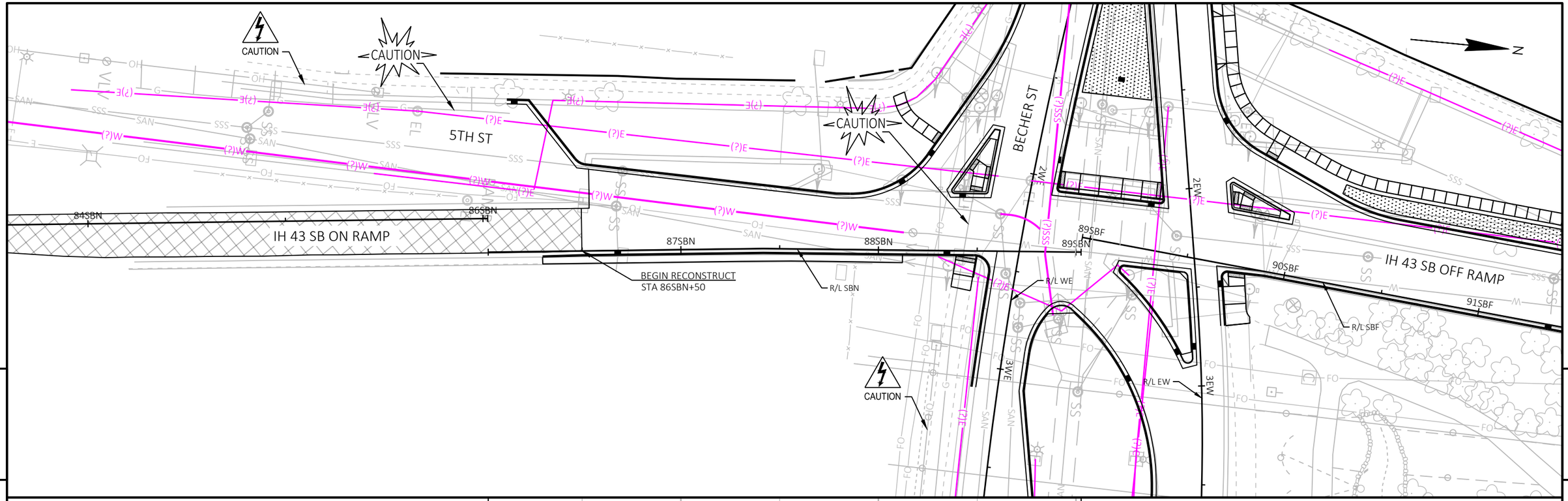
WISDOT/CADDS SHEET 44

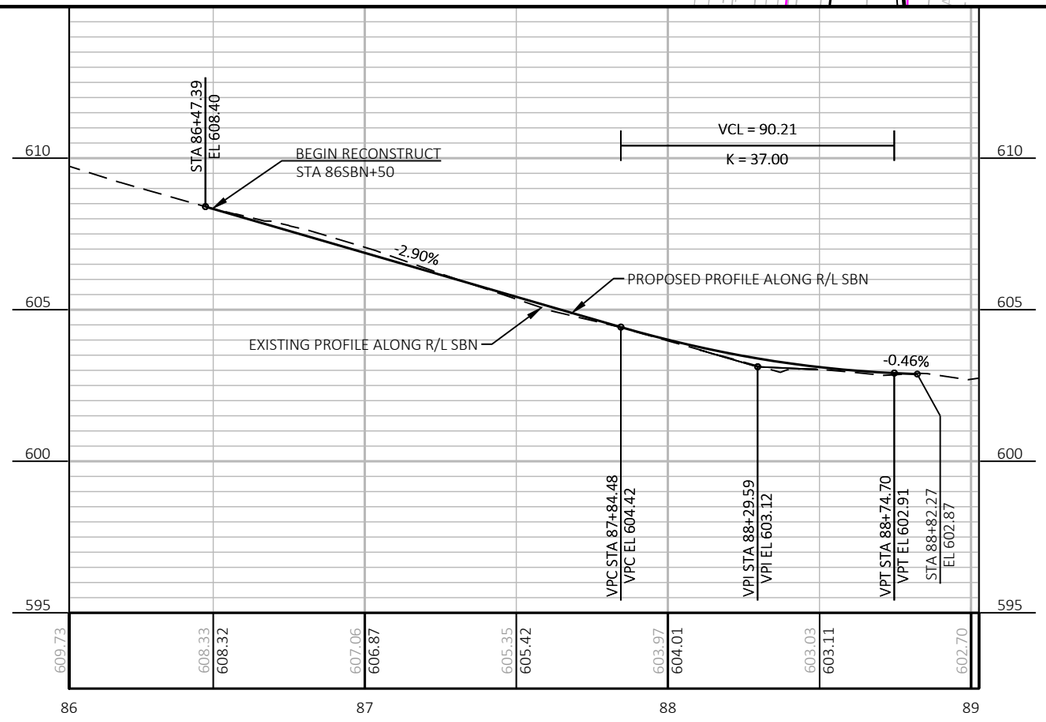




PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: RAMP NBN	SHEET 288	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\050101-PP.DWG
LAYOUT NAME - 04
PLOT DATE : 10/29/2025 11:19 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44



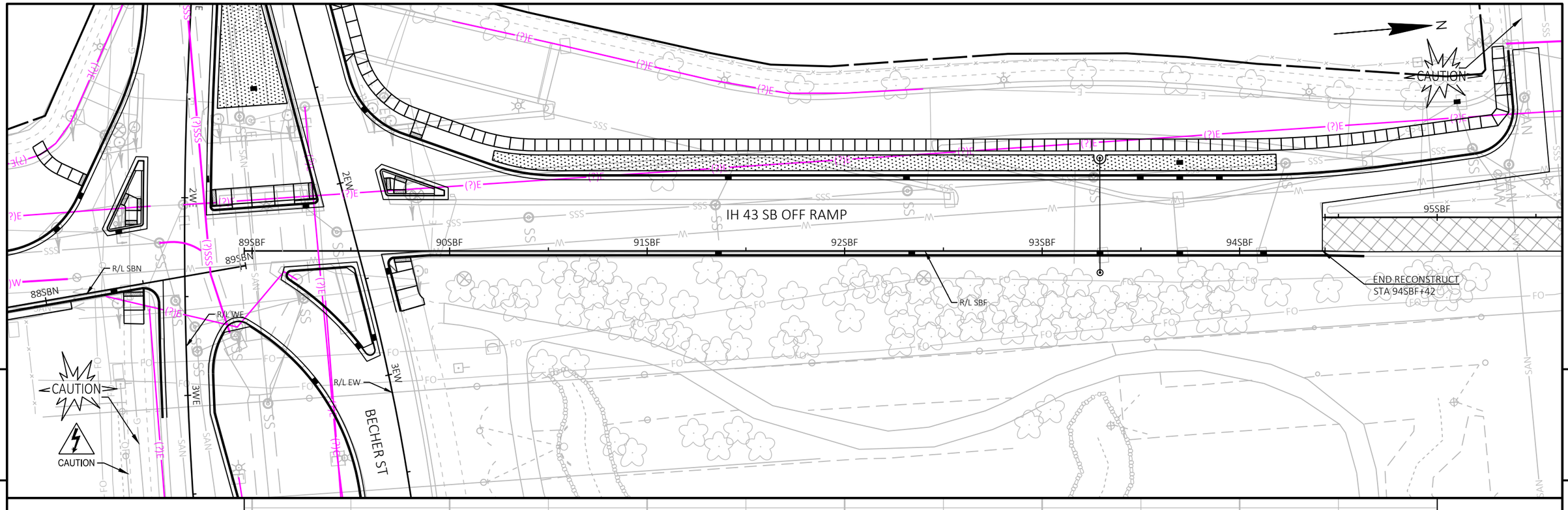


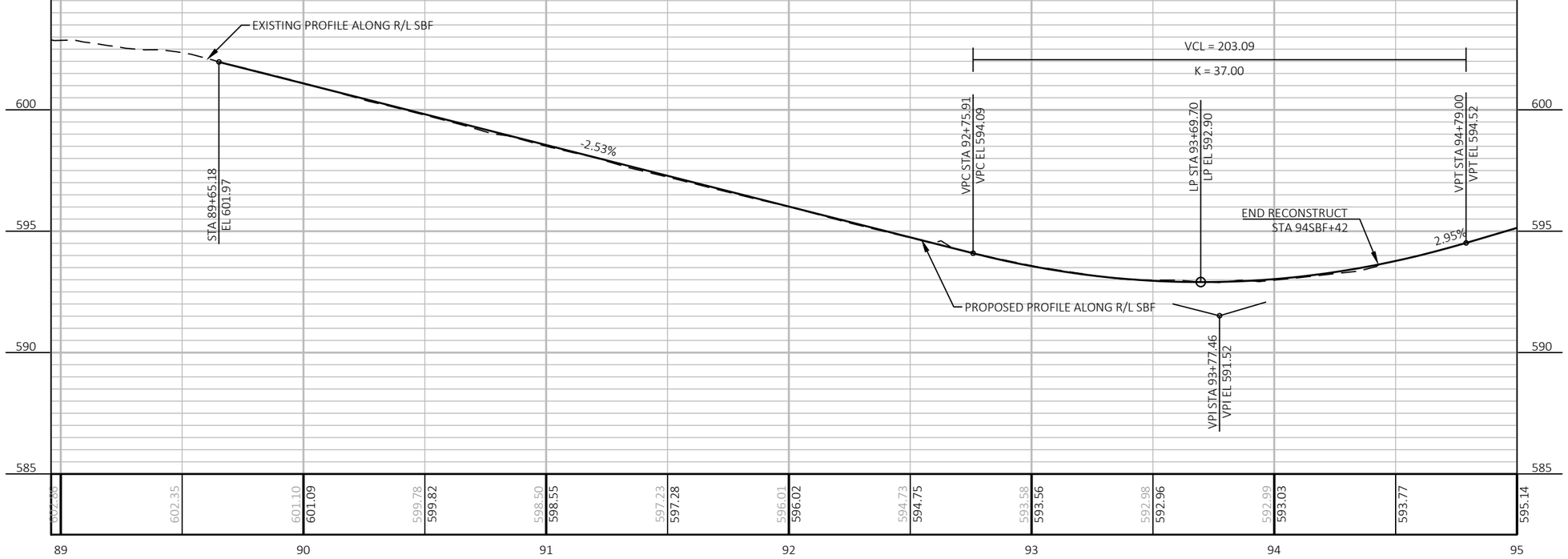
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: RAMP SBN	SHEET 289	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\050101-PP.DWG
LAYOUT NAME - 05

PLOT DATE : 10/29/2025 11:19 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:50 FT

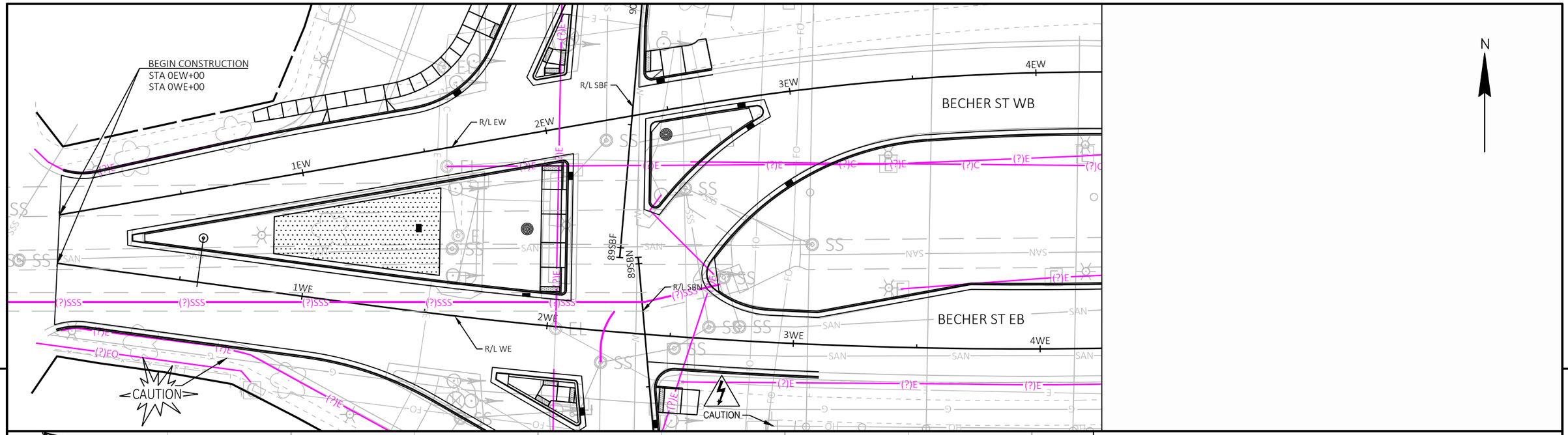
WISDOT/CADDS SHEET 44

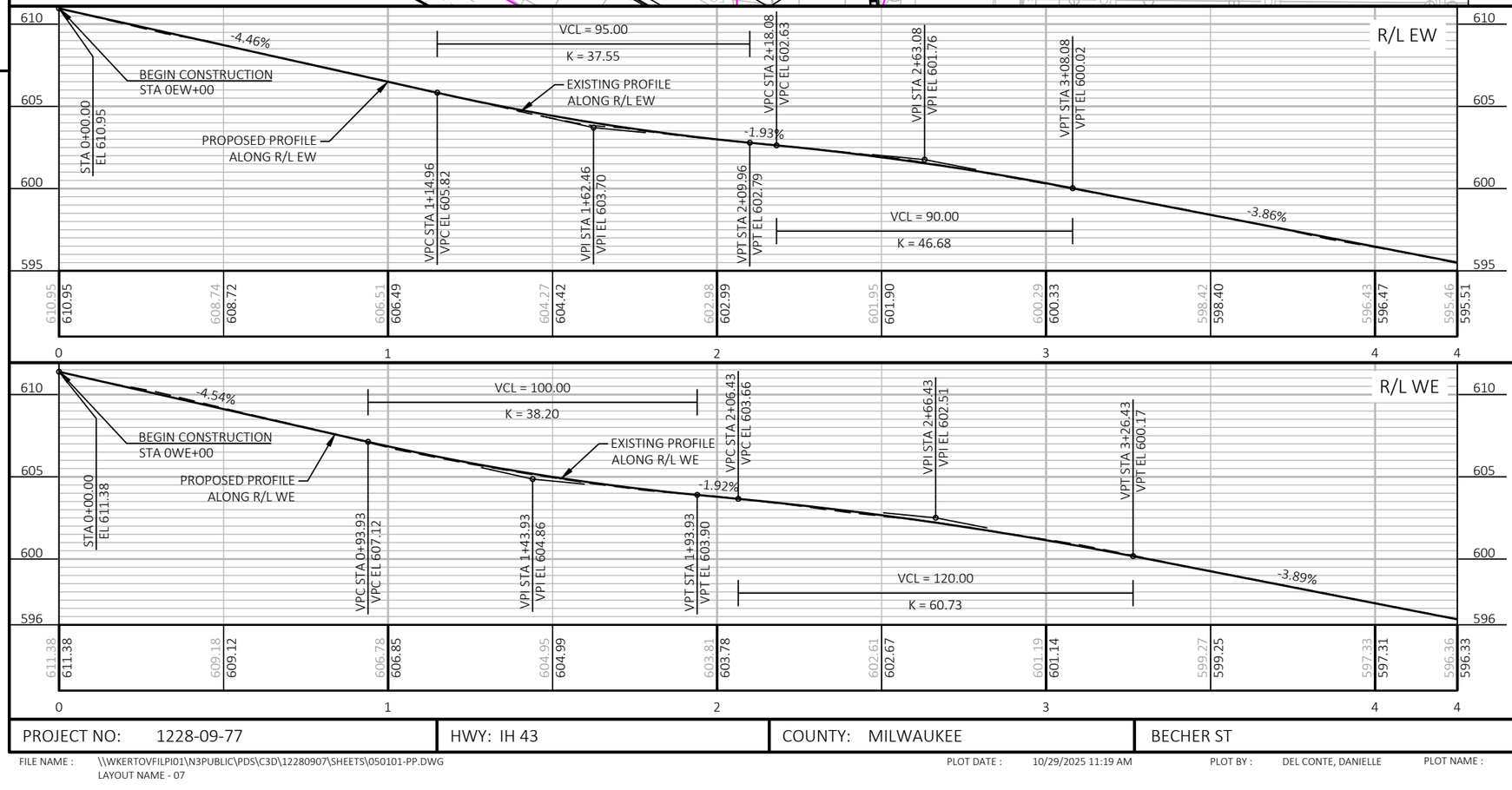




PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: RAMP SBF	SHEET 290 E

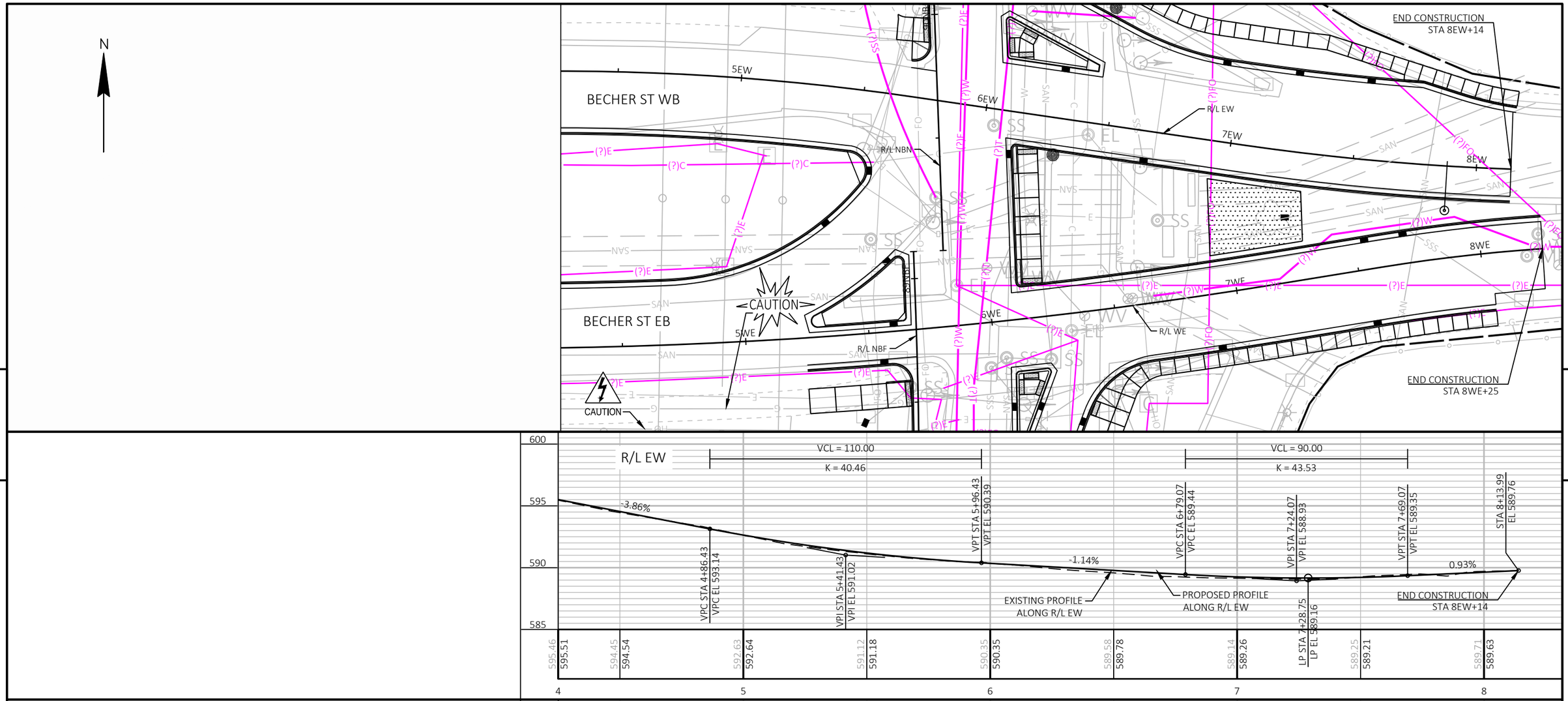
FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\050101-PP.DWG
LAYOUT NAME - 06
PLOT DATE : 10/29/2025 11:19 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

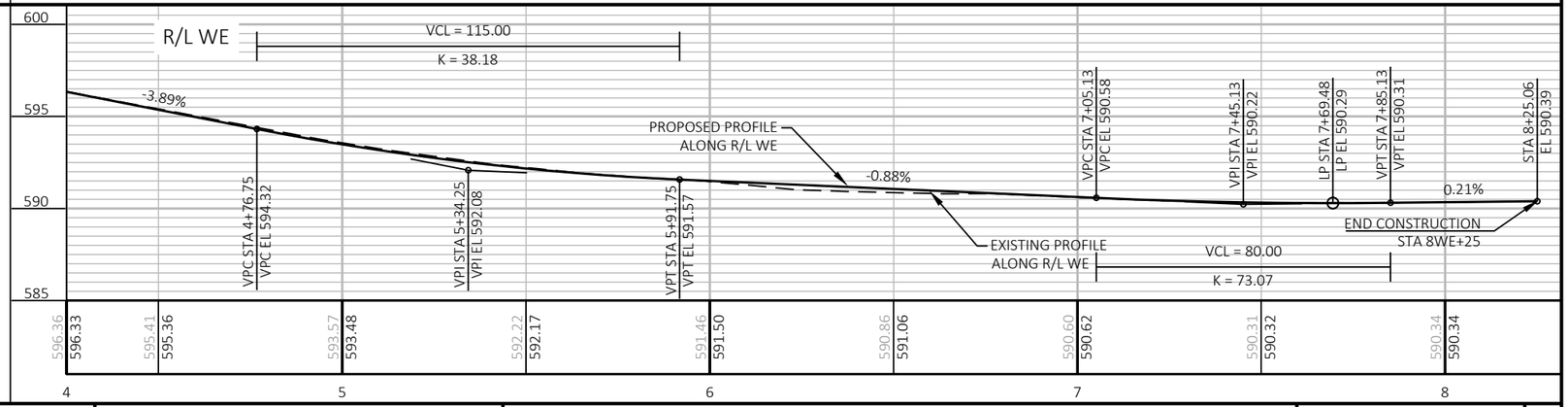




PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	BECHER ST	SHEET 291	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\050101-PP.DWG
LAYOUT NAME - 07
PLOT DATE : 10/29/2025 11:19 AM
PLOT BY : DEL CONTE, DANIELLE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44





PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	BECHER ST	SHEET 292	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\050101-PP.DWG
LAYOUT NAME - 08

PLOT DATE : 10/29/2025 11:19 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

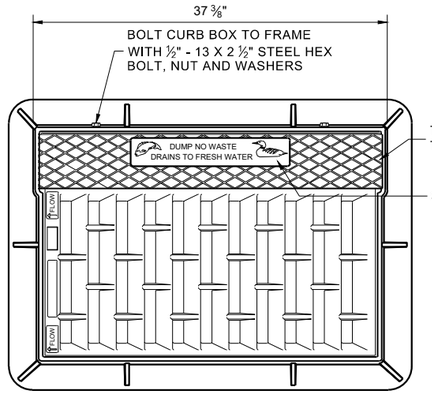
08A05-22A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A08-03	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08D01-24A	CONCRETE CURB & GUTTER
08D01-24B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-22A	CURB RAMPS TYPES 1 AND 1-A
08D05-22B	CURB RAMPS TYPES 2 AND 3
08D05-22C	CURB RAMPS TYPES 4A AND 4A1
08D05-22D	CURB RAMPS TYPES 4B AND 4B1
08D05-22E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-22F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-22G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D15-05A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08D15-05B	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D15-05C	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D16-11	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08D17-06	MANHOLES, MANHOLE & INLET COVERS
08D18-05	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D20-02	DRIVEWAYS WITH CURB & GUTTER RETURNS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B04-13	PULL BOX
09B16-03	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
09C08-06	CONCRETE BASE, TYPE 7
09C11-10	CONCRETE BASE TYPE 10
09C12-09A	CONCRETE BASE TYPE 13
09C12-09B	CONCRETE BASE TYPE 13
09C15-02	CONCRETE BASE TYPE 10 SPECIAL
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
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)
09E01-15F	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 17 (40 FEET)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E12-02A	OVER HEIGHT TYPE 9 POLE 15'-30' MONOTUBE ARM
09E12-02B	OVER HEIGHT TYPE 9 SPECIAL POLE 35' MONOTUBE ARM
09E12-02E	OVER HEIGHT TYPE 10 POLE 15'-30' MONOTUBE ARM
09E12-02G	OVER HEIGHT TYPE 10 SPECIAL POLE 40' MONOTUBE ARM
09E12-02J	OVER HEIGHT TYPE 13 POLE 35'-55' MONOTBE ARM
09E12-02K	GENERAL NOTES AND HARDWARE FOR OVER HEIGHT TYPE 9, 10, 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
10A01-04	ELECTRICAL HANDHOLE WIRING
10A02-03	IDENTIFICATION PLAQUES LIGHT POLES
10A18-05A	LUMINAIRE ARMS, SINGLE MEMBER 6-INCH CLAMP
10A18-05B	LUMINAIRE ARMS, TRUSS TYPE 6-INCH CLAMP
11B01-05	CONCRETE CORRUGATED MEDIAN
11B02-02	CONCRETE MEDIAN NOSE
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13C09-17A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-17B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-17C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C14-07A	BASE PATCHING CONCRETE
13C14-07B	BASE PATCHING CONCRETE
13C14-07C	BASE PATCHING CONCRETE
13C19-03	HMA LONGITUDINAL JOINTS
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

6

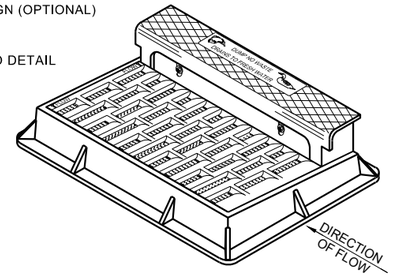
Standard Detail Drawing List

14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16J	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16K	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16L	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16N	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B29-01	SAFETY EDGE
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-09D	ON RAMP LANE CLOSURE
15C02-09E	OFF RAMP LANE CLOSURE
15C02-09G	TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-16A	PAVEMENT MARKING SYMBOLS
15C07-16B	PAVEMENT MARKING WORDS
15C07-16C	PAVEMENT MARKING ARROWS
15C07-16E	PAVEMENT MARKING FOR BIKE LANES
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-24D	PAVEMENT MARKING (TURN LANES)
15C11-10A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-09A	MEDIAN ISLAND PAVEMENT MARKINGS
15C18-09B	PAVEMENT MARKINGS, MEDIAN ISLAND NOSE
15C18-09C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C29-08A	BICYCLE LANE MARKING
15C31-08A	PAVEMENT MARKING EXIT RAMP AND PARALLEL EXIT RAMP
15C31-08C	PAVEMENT MARKING ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D16-06	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-10A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY
15D20-10B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-10C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D30-11A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D40-06C	TRAFFIC CONTROL, PARTIAL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D46-01	TRAFFIC CONTROL, ONE - WAY SIGNING

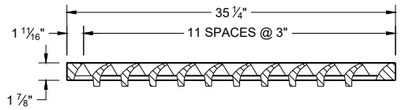
6

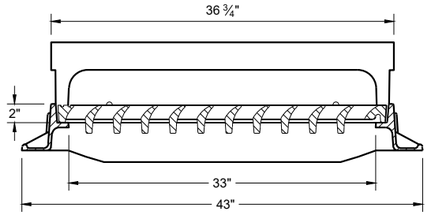


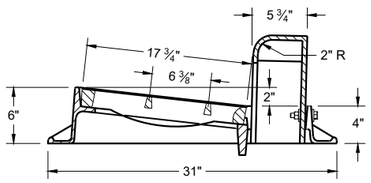
NOTE: EITHER CASTING IS ACCEPTABLE

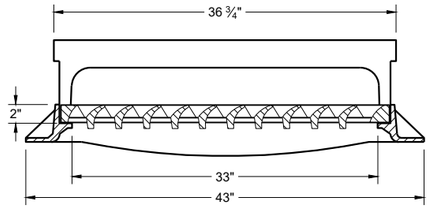


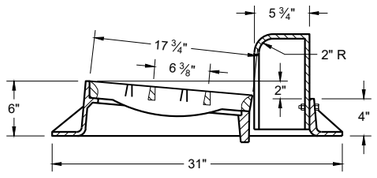
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"







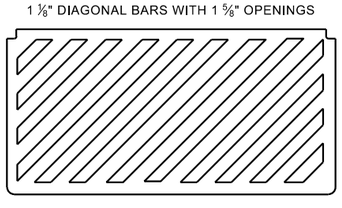




TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

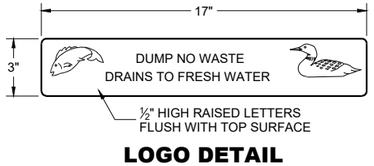
1 ⅛" DIAGONAL BARS WITH 1 ⅝" OPENINGS



SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35" X 17 ¾" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



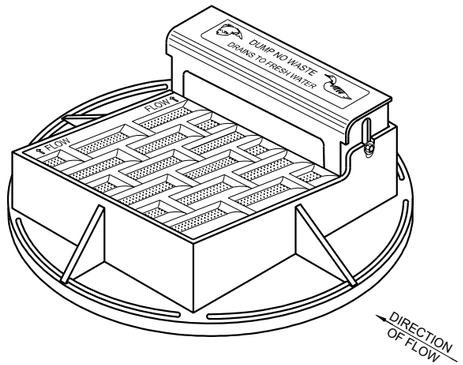
LOGO DETAIL

GENERAL NOTES

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

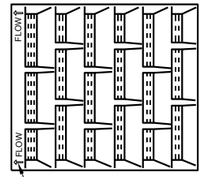
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

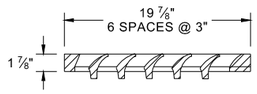
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

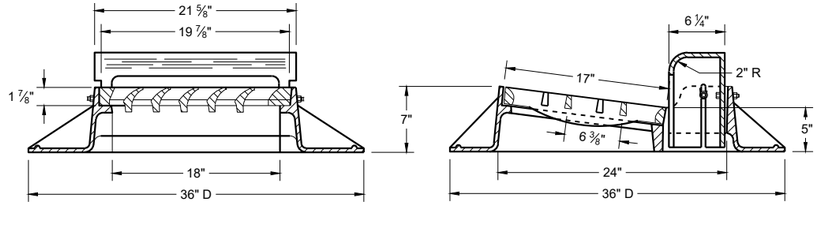


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

NOTE: EITHER CASTING IS ACCEPTABLE

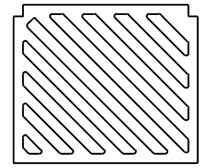






TYPE "A"

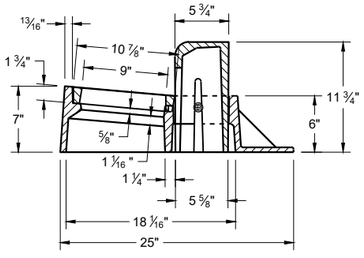
1" DIAGONAL BARS
WITH 1 ½" OPENINGS

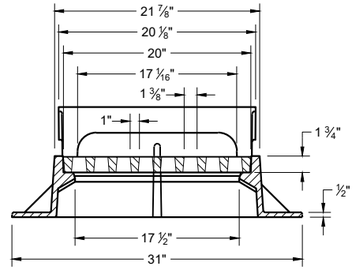


SPECIAL GRATE FOR TYPE "A" COVER

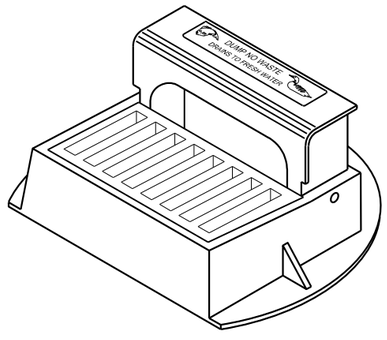
(MEASURES 19 ¾" X 17" X 1 ⅞")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"



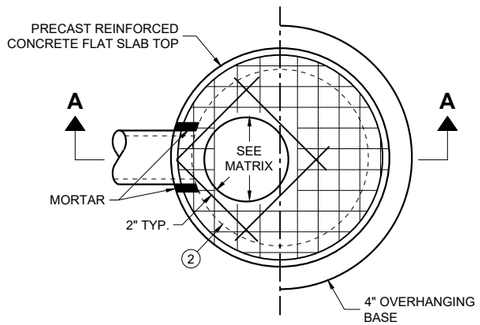
INLET COVERS
TYPES A, H, A-S, H-S AND Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

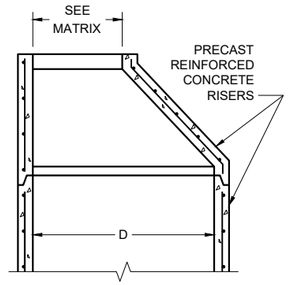
APPROVED
February 2025
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

FHWA



PLAN VIEW CIRCULAR OPENING

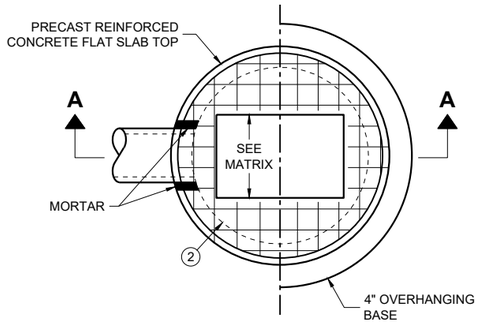


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

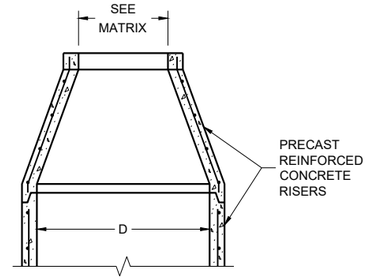
COVER MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V V-B	VV-B	WM	Z
	OPENING SIZE (FT.)												
3-FT	2 X 2	X	X					X		X			
	2 DIA.				X								X
4-FT TO 6-FT	2 X 2	X	X					X		X			
	2 X 2.5			X				X	X	X		X	
	2 DIA.				X								X
	2 X 3						X						
	2.5 X 3					X							
	2 X 3.5*										X*		

* REQUIRES 5-FT DIAMETER OR LARGER STRUCTURE



PLAN VIEW RECTANGULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS
3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USE ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

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 "D".

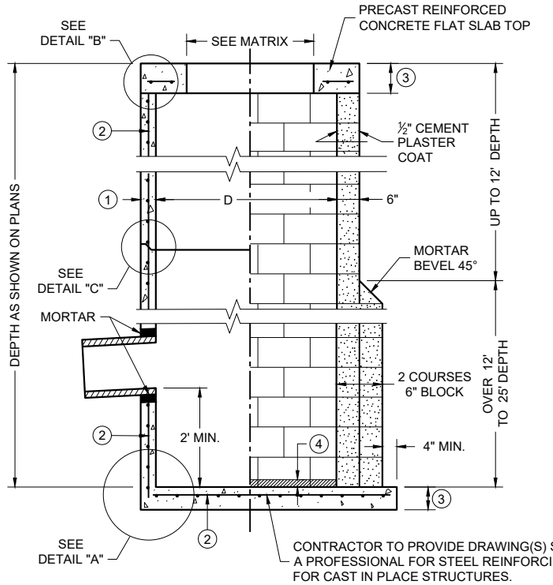
(1) MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

(2) FOR PRECAST CATCH BASINS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(3) PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

(4) 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

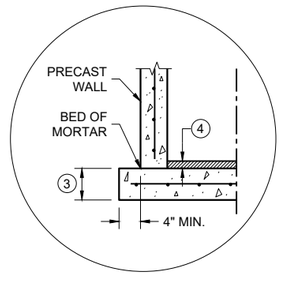
(5) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFROMING TO ASTM C443.



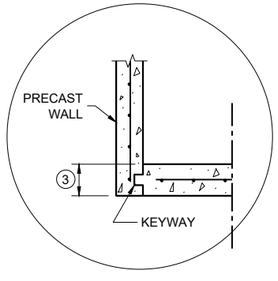
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (2)

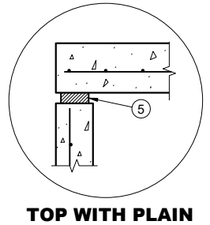


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

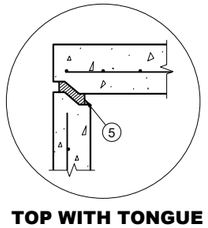


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

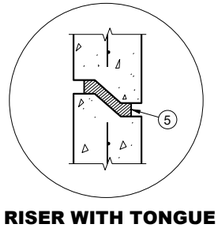
DETAIL "A"



TOP WITH PLAIN END JOINT

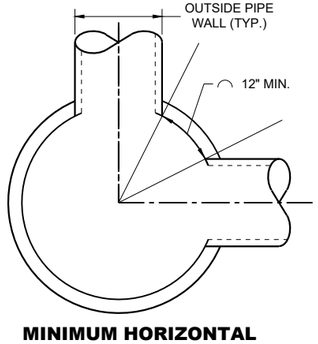


TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B" **DETAIL "C"**



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

CATCH BASINS, 3-FT. 4-FT., 5 FT., AND 6-FT. DIAMETER

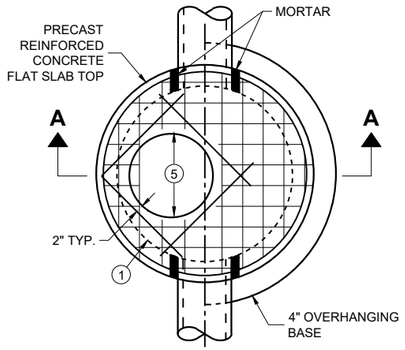
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

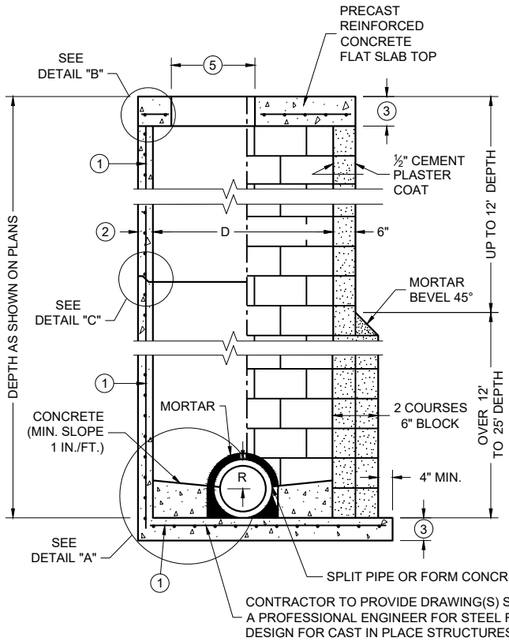
SDD 08A08-03

SDD 08A08-03



PLAN VIEW

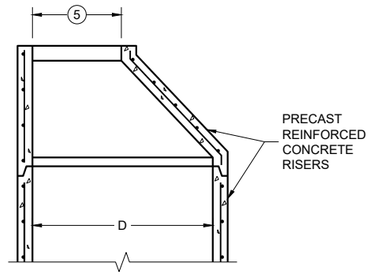
CIRCULAR OPENING



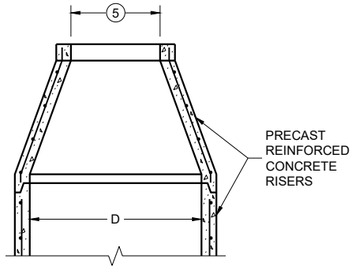
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

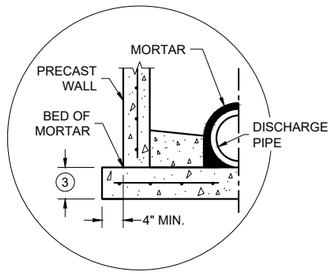
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)



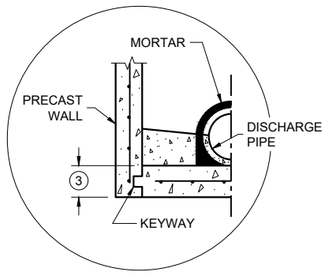
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

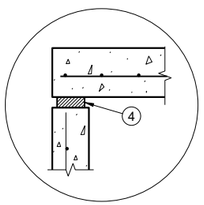


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

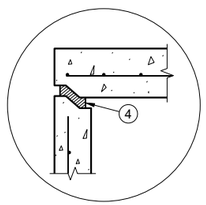


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

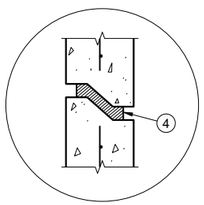
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

DETAIL "C"

MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) (5) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42 *	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION 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.

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 CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. 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 IMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

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 "D".

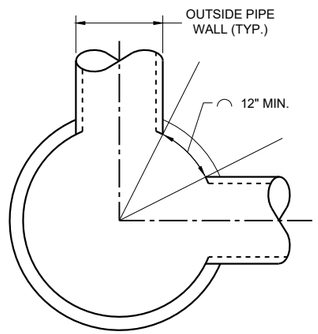
(1) FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

(4) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.

(5) SEE MANHOLE COVER OPENING MATRIX.



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

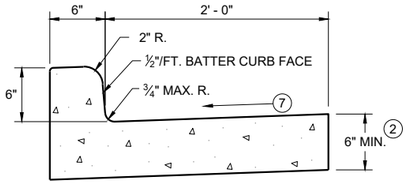
MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

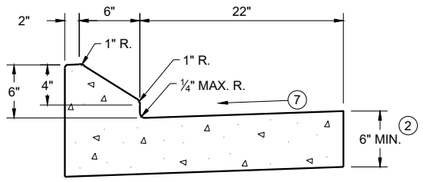
APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

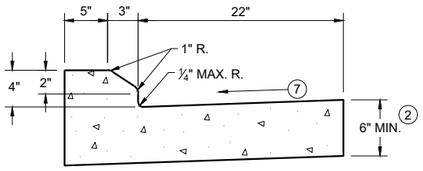
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER



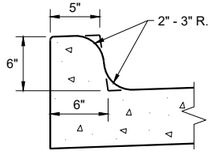
TYPES A (1) & D



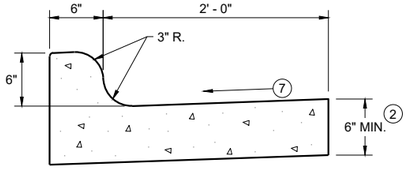
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

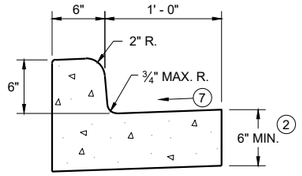


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



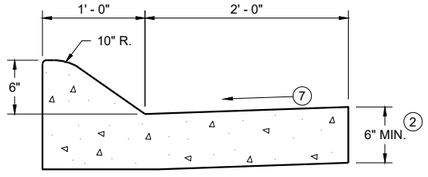
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

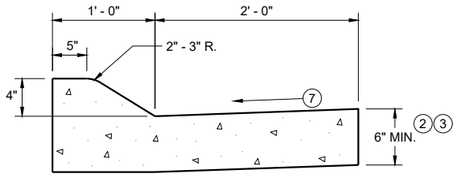


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

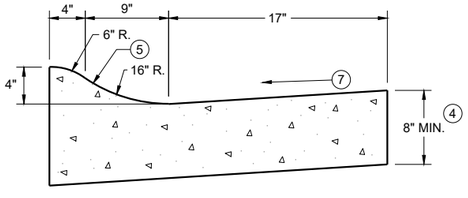


6" SLOPED CURB TYPES A (1) & D



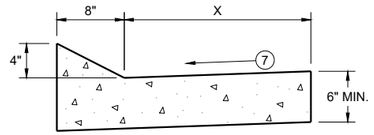
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T
CONCRETE CURB AND GUTTER 30"

TBT & TBTT	X
30"	22"
36"	28"

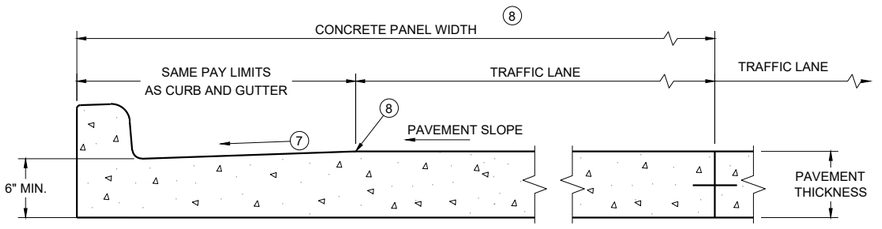


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

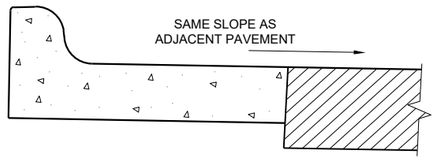
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION 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 AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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 GUTTERS 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.

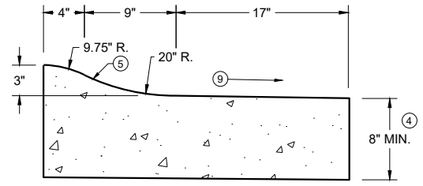
(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(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.

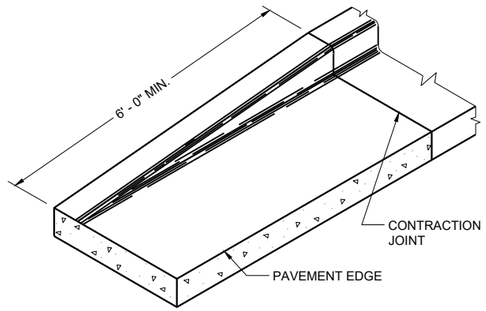
(9) SLOPE TO BE REVERSE SLOPE MATCHING THE SLOPE OF THE PAVEMENT AND THE CIRCULATORY ROADWAY



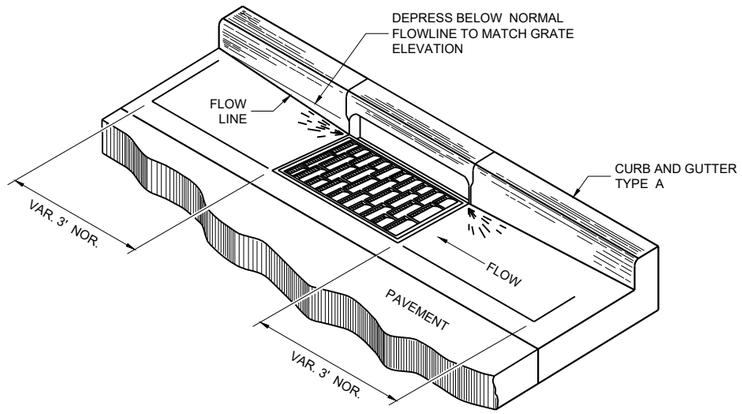
3" SLOPED CURB TYPES R (1) & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

DETAILS OF CONSTRUCTION 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.

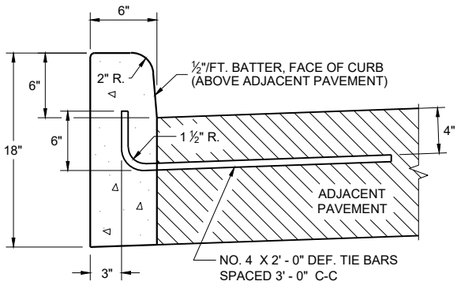
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

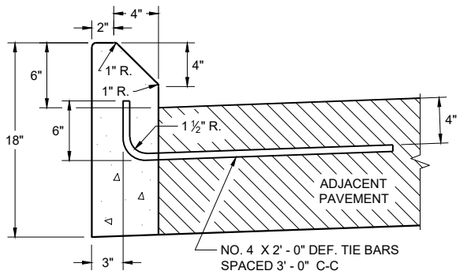
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(10) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

(11) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

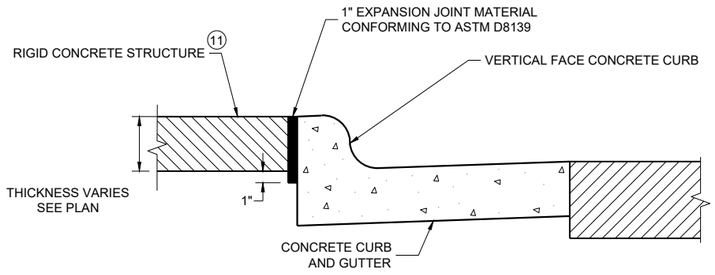


TYPES A (1) & D

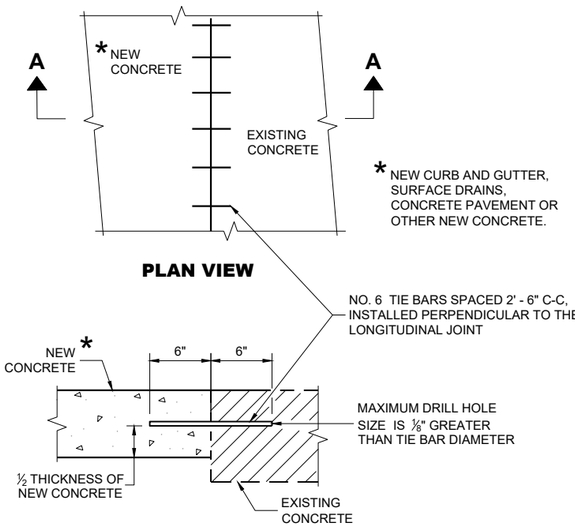


TYPES G (1) & J

CONCRETE CURB



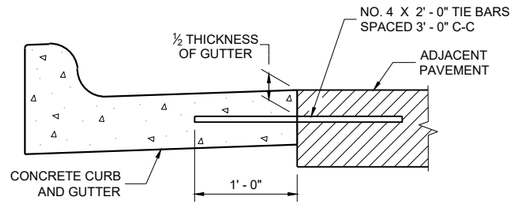
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



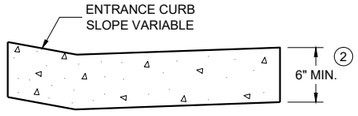
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

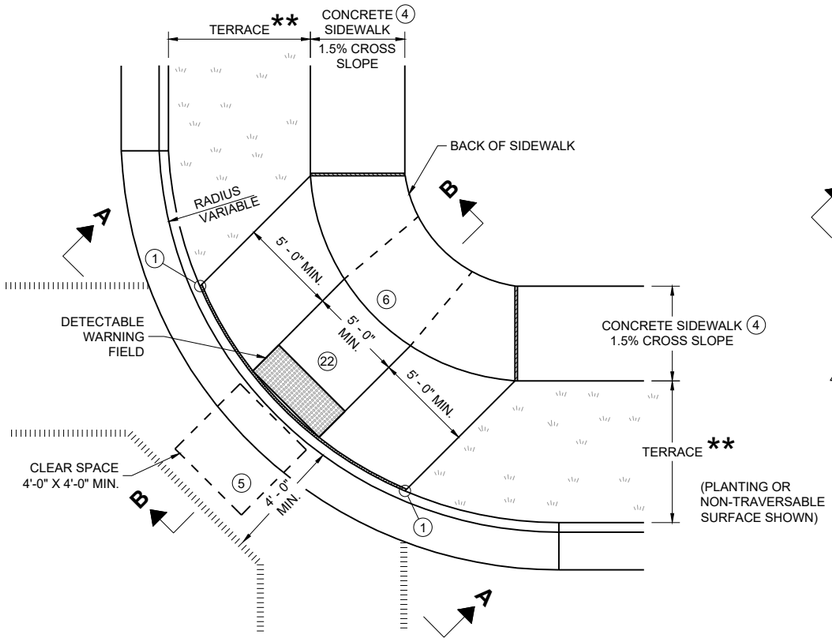
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6

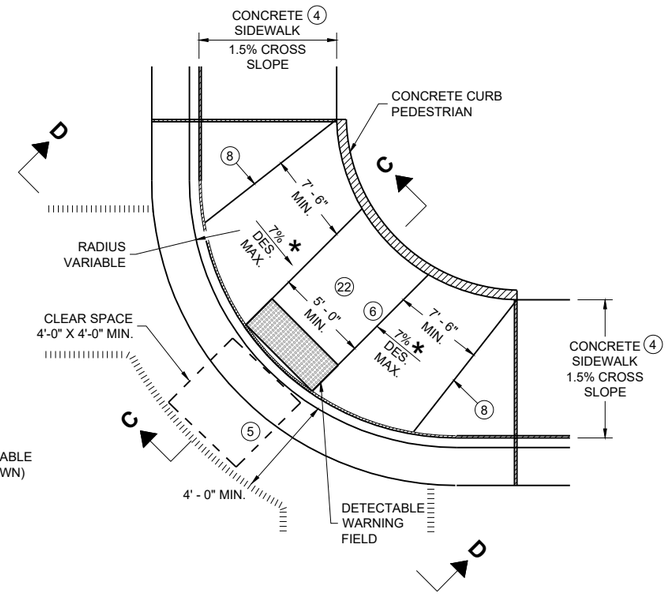
SDD 08D01-24b



PLAN VIEW

CURB RAMP TYPE 1

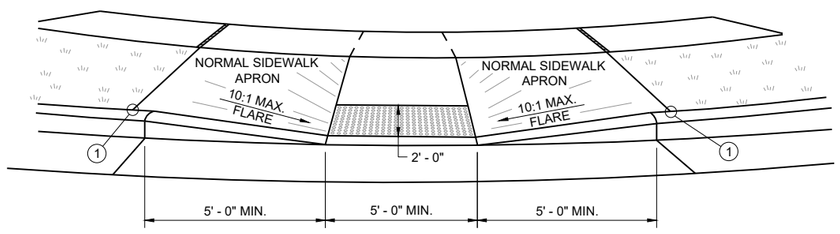
(CENTER OF CORNER RADIUS)



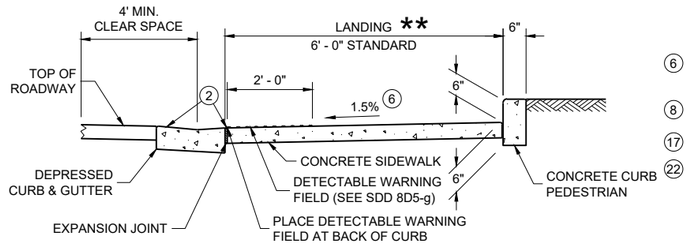
PLAN VIEW

CURB RAMP TYPE 1 - A

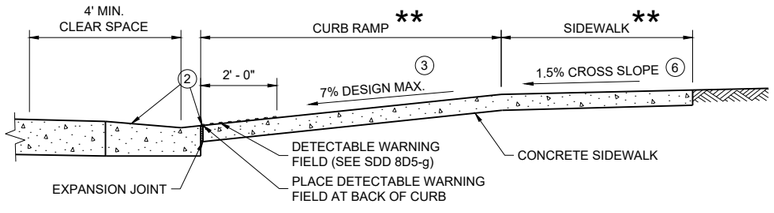
(NO TERRACE)



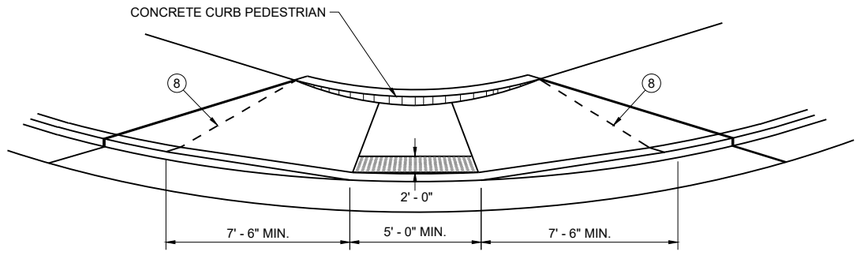
VIEW A - A FOR TYPE 1



SECTION C - C FOR TYPE 1 - A



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 CURB 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 CURB RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF CURB 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 CURB 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 COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A CLEAR SPACE IN THE STREET AND GUTTER AREA. WHEN THE GUTTER CROSS SLOPE EXCEEDS 2.1%, CONSTRUCT THE CLEAR SPACE IN THE STREET AREA AND THE 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE. FOR RECONSTRUCTION AND MODERNIZATION PROJECTS THE CLEAR SPACE SLOPE PARALLEL TO THE CURBLINE SHOULD BE 2.1% MAX FOR CROSSINGS THAT ARE STOP AND YIELD CONTROLLED, AND 5% MAX FOR THOSE THAT ARE SIGNAL CONTROLLED. FOR PERPETUATION AND REHABILITATION PROJECTS THE SLOPE OF THE CLEAR SPACE PARALLEL TO THE CURBLINE WILL MATCH THE ROADWAY LONGITUDINAL SLOPE. THE SLOPE OF THE CLEAR SPACE PERPENDICULAR TO THE CURBLINE WILL MATCH THE ROADWAY CROSS SLOPE BUT SHOULD NOT EXCEED 5% UNLESS THE ROADWAY IS SUPERELEVATED (WHEN SUPERELEVATED THE ROADWAY CROSS SLOPE SHOULD MATCH THE SUPERELEVATION).

(6) PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

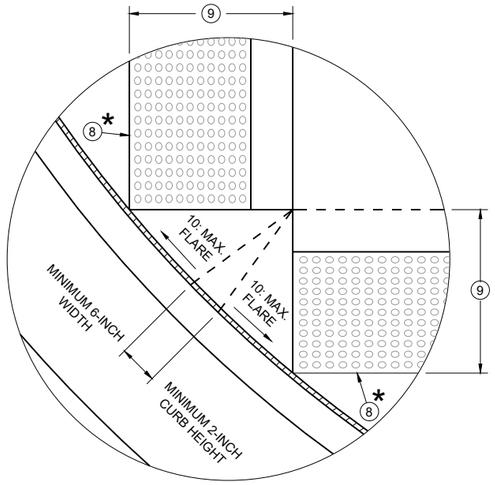
LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 8.3%
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS

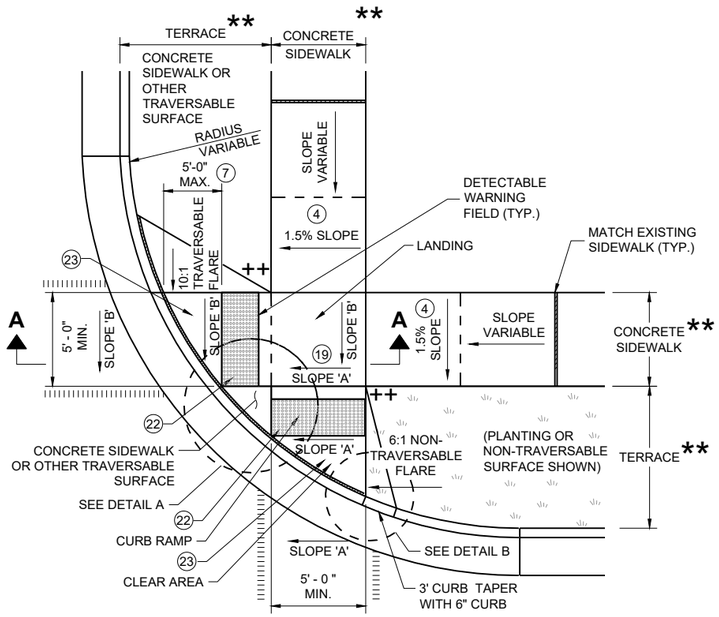
CURB RAMPS TYPE 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 08D05-22a



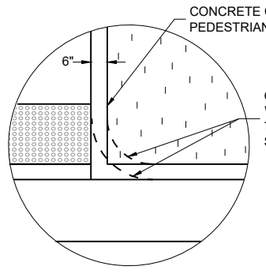
DETAIL A



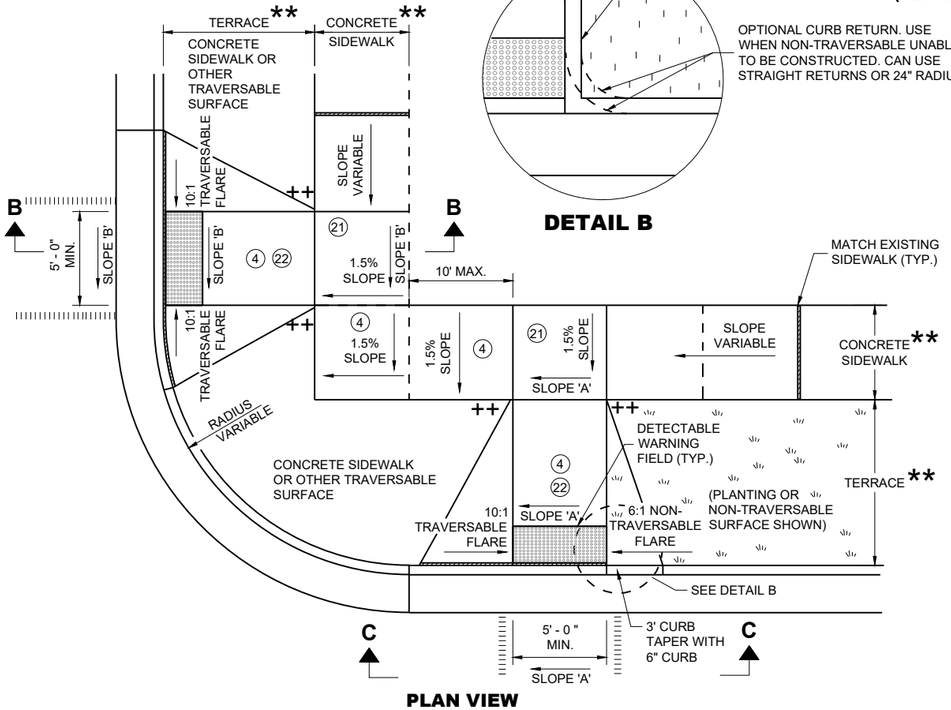
PLAN VIEW

CURB RAMP TYPE 2

(CENTER OF CORNER RADIUS)



DETAIL B



PLAN VIEW

CURB RAMP TYPE 3

(OUTSIDE OF CROSSWALK AREA)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB 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 COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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% DESIGN MAXIMUM SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% DESIGN MAXIMUM SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

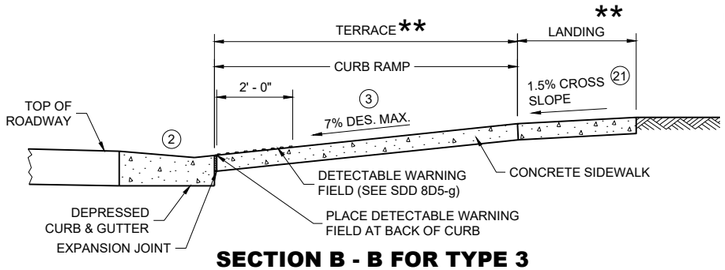
(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

(19) WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.

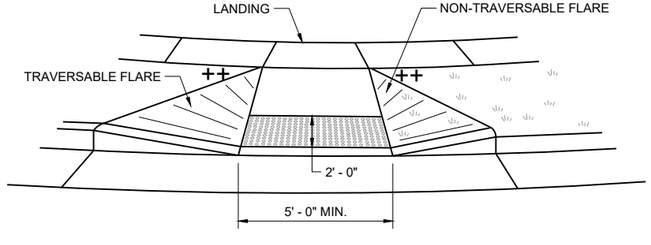
(21) PROVIDE A LANDING WITH A SLOPE PARALLEL TO ROADWAY THAT MATCHES SLOPE AT THE BOTTOM OF THE ADJACENT RAMP. SLOPE PERPENDICULAR TO ROADWAY SHALL BE 2.1% MAXIMUM. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

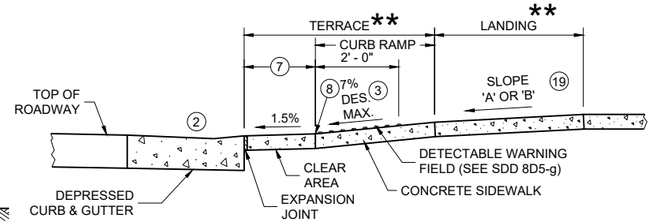
(23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3



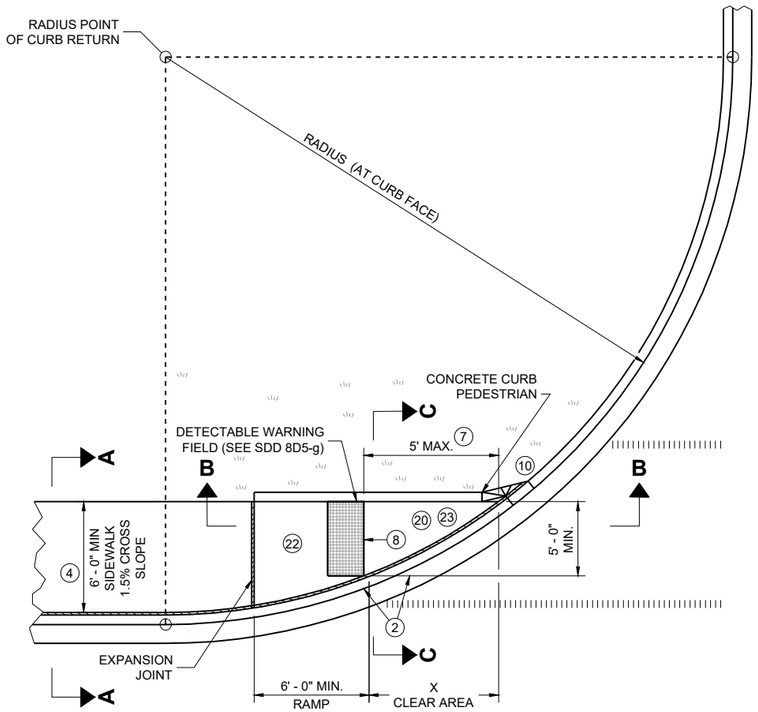
SECTION A - A FOR TYPE 2

LEGEND

▨	½" EXPANSION JOINT SIDEWALK
- - - -	CONTRACTION JOINT SIDEWALK
ıllıllıllıllı	PAVEMENT MARKING CROSSWALK (WHITE)
*	MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
**	WIDTH SHOWN ELSEWHERE IN THE PLANS
++	CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

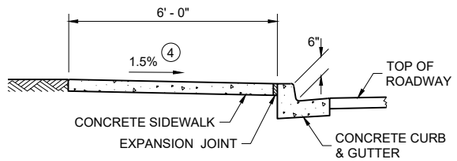
CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

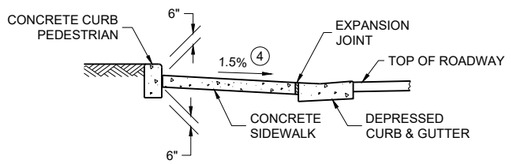


PLAN VIEW

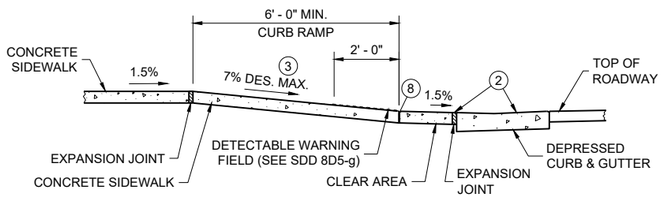
CURB RAMP TYPE 4A



SECTION A - A FOR TYPE 4A



SECTION C - C FOR TYPE 4A



SECTION B - B FOR TYPE 4A AND TYPE 4A1

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB 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 COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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.

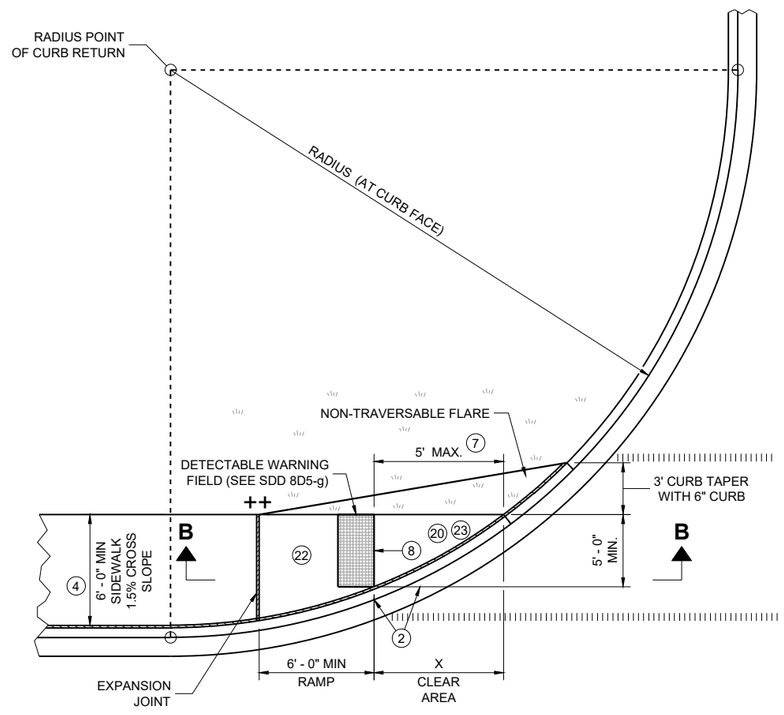
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

(20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.

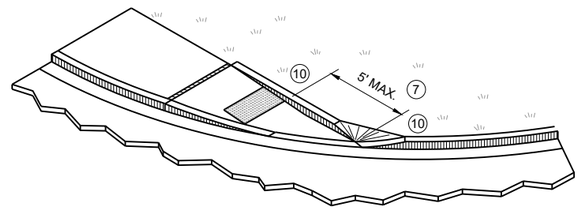
(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

(23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

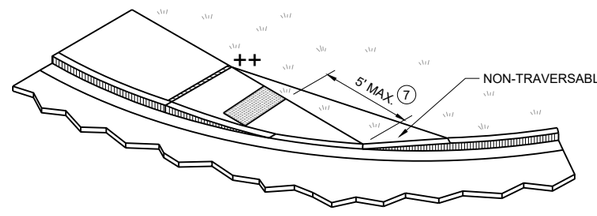


PLAN VIEW

CURB RAMP TYPE 4A1



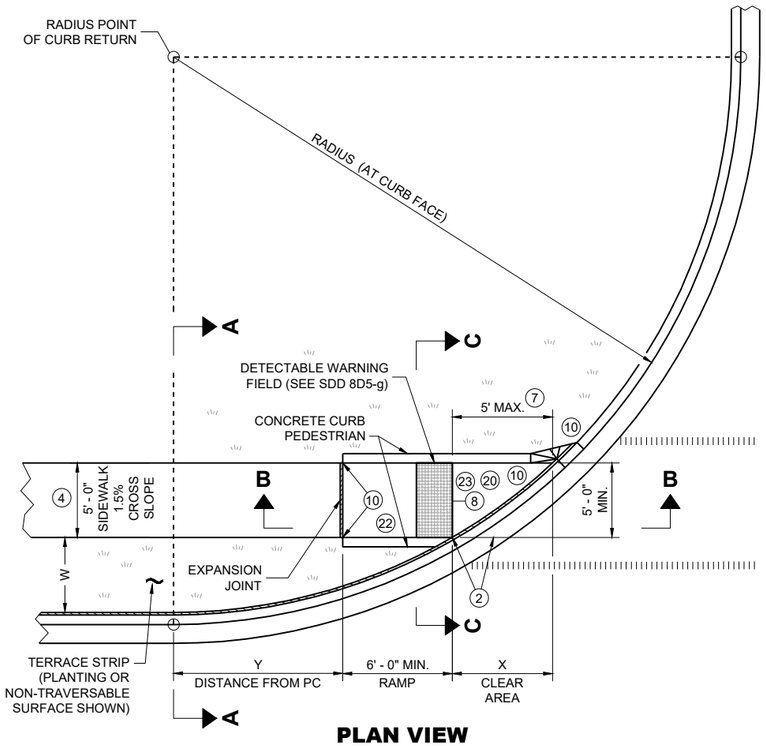
ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

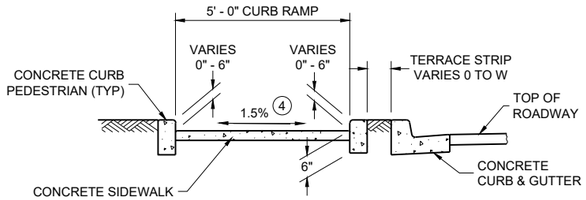
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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			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									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															4' - 10 ¾"	19' - 8 ¼"

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)
- * MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB 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 COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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.

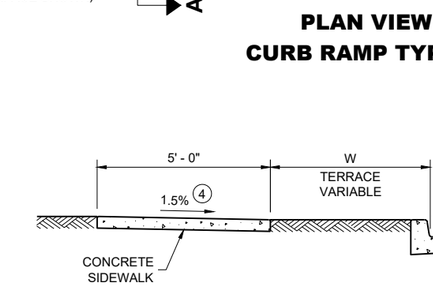
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

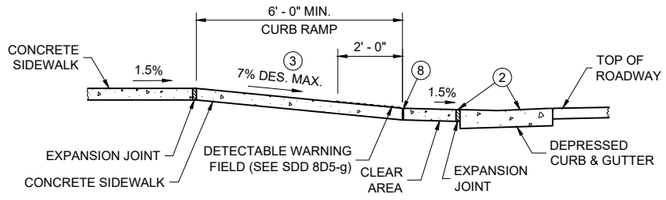
(20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.

(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

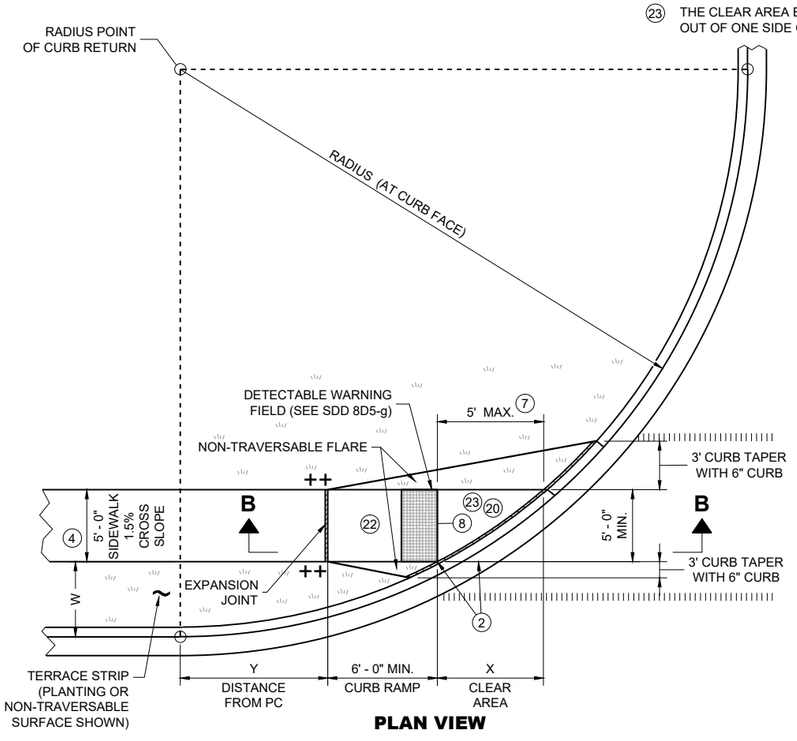
(23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



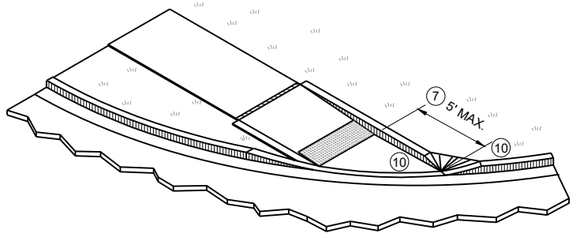
SECTION A - A FOR TYPE 4B



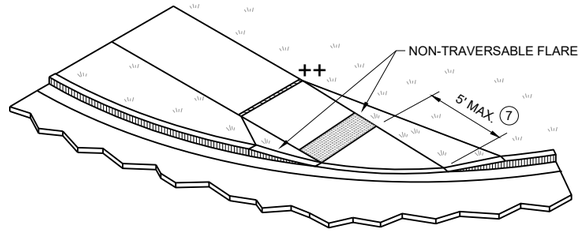
SECTION B - B FOR TYPE 4B AND TYPE 4B1



PLAN VIEW
CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



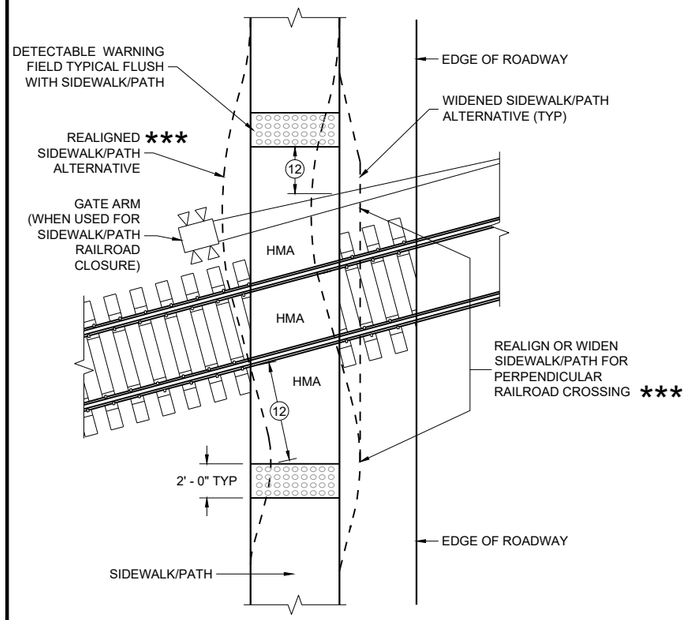
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

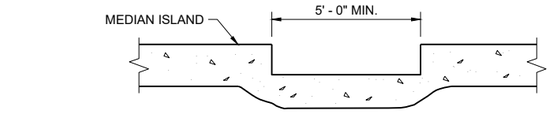
6

SDD 08D05-22d

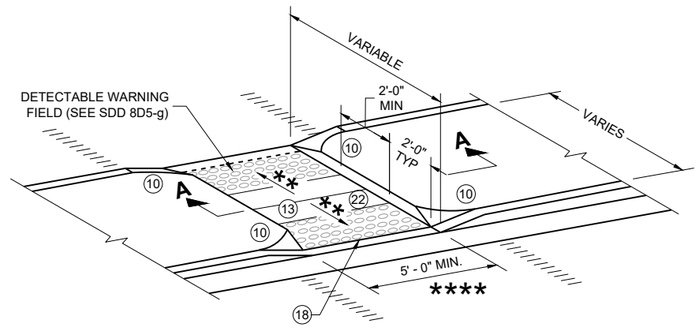


CURB RAMP TYPE 8

DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



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 CURB 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 2.1%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.

(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.

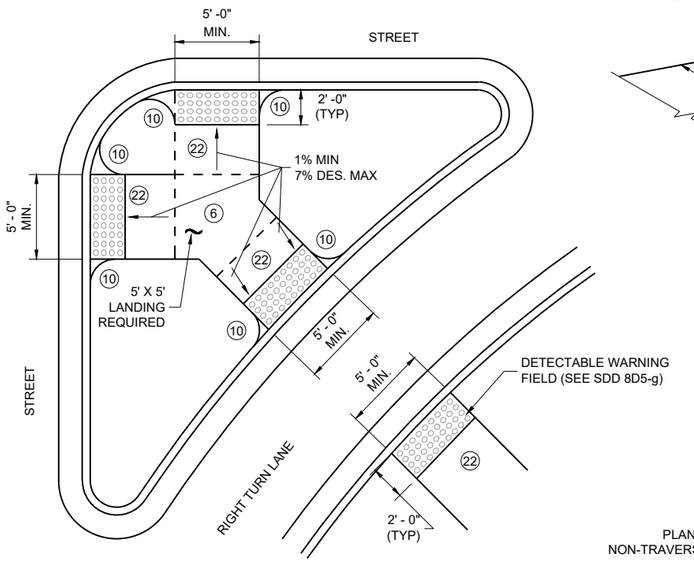
(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK/PATH, WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL 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.

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

(18) WHEN THE DISTANCE BETWEEN THE BACK OF CURBS IS LESS THAN 6 FEET BUT THE FACE OF CURB TO FACE OF CURB DISTANCE IS 6 FEET OR GREATER THEN THE DETECTABLE WARNING FIELDS MAY BE MOVED SO THAT THE EDGE OF THE WARNING FIELD IS PLACED AT THE GUTTER FLOWLINE. MAINTAIN A MINIMUM OF TWO FEET BETWEEN DETECTABLE WARNING FIELD PANELS.

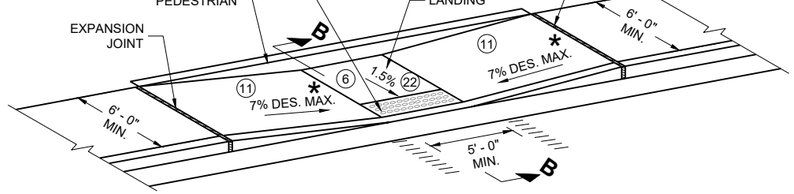
(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.



CURB RAMP TYPE 6

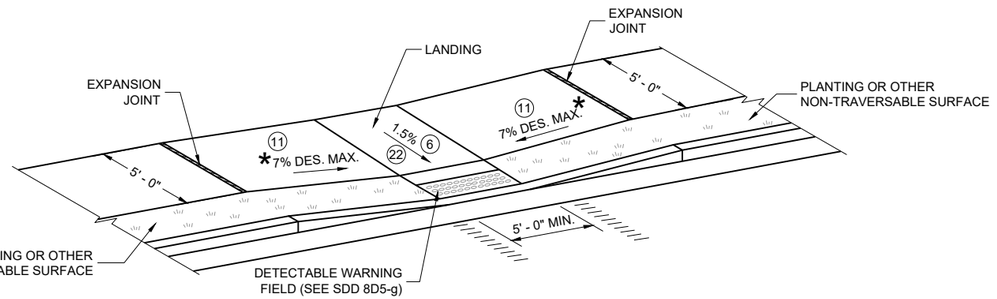
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 7A

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

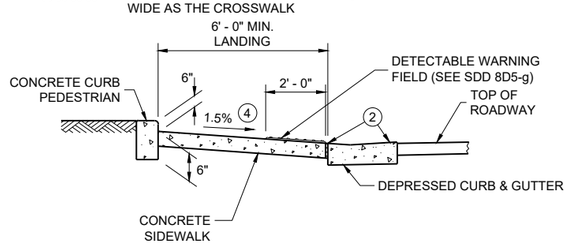


CURB RAMP TYPE 7B

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 8.3%
- ** 1% MINIMUM (PROVIDE DRAINAGE)
- *** DETAILS TO BE DETERMINED BY ENGINEER
- **** FOR SHARED USE PATHS, WIDTH MUST BE AS WIDE AS THE CROSSWALK

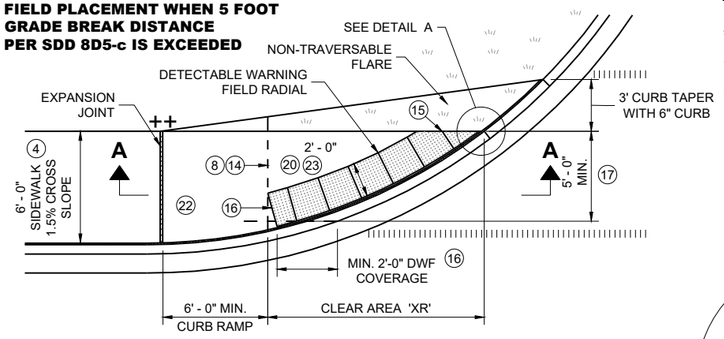


SECTION B - B FOR TYPE 7A

CURB RAMPS
TYPE 5, 6, 7A, 7B & 8

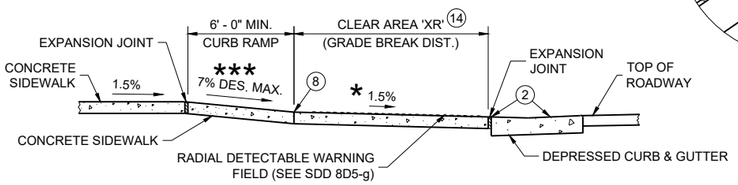
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



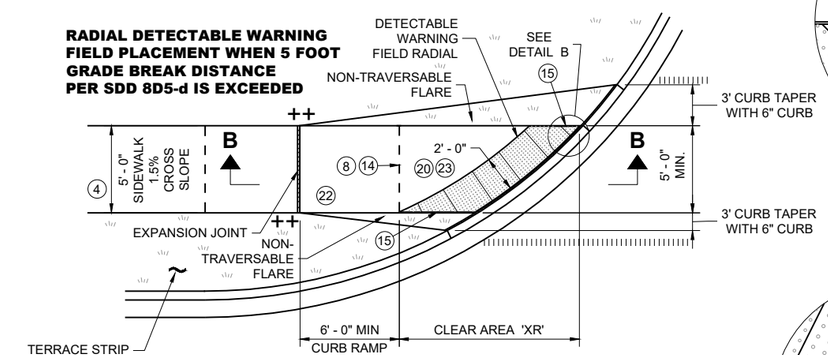
PLAN VIEW

CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



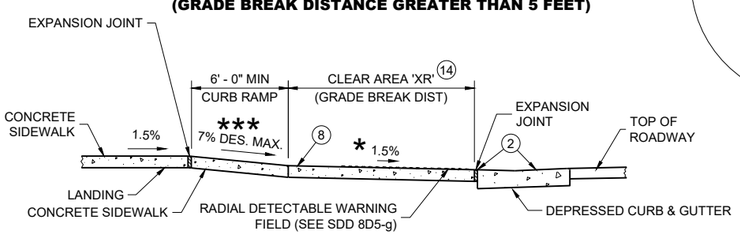
SECTION A - A FOR TYPE 4A1

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



PLAN VIEW

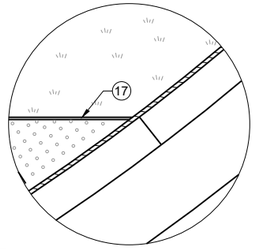
CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



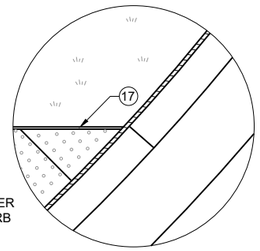
SECTION B - B FOR TYPE 4B1

LEGEND

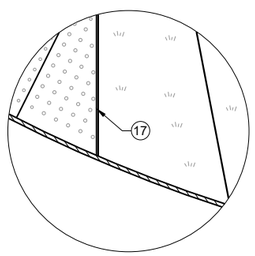
═══	½" EXPANSION JOINT SIDEWALK
– – – –	CONTRACTION JOINT SIDEWALK
ıı ıı ıı ıı	PAVEMENT MARKING CROSSWALK (WHITE)
**	WIDTH SHOWN ELSEWHERE IN THE PLANS
***	MAXIMUM 8.3%
++	CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



DETAIL A



DETAIL B



DETAIL C

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB 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 COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.

(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 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

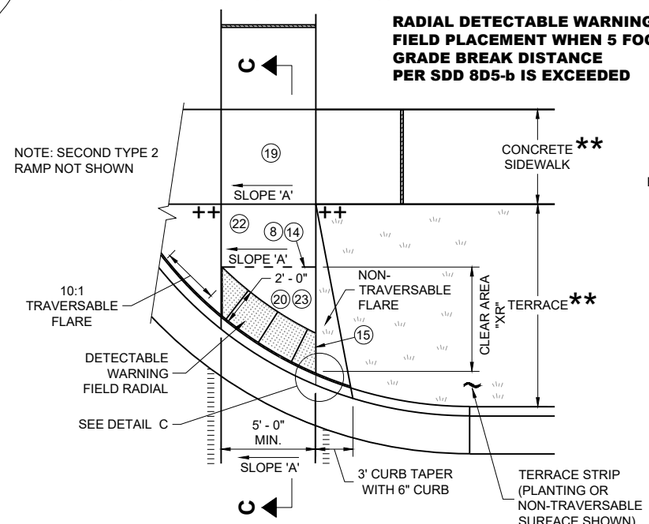
(19) WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.

(20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.

(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

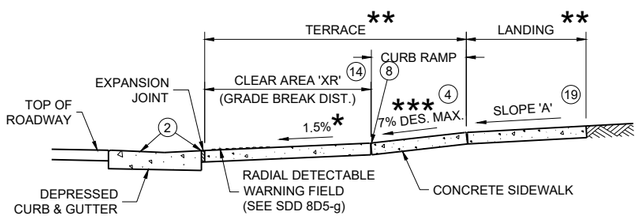
(23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

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)



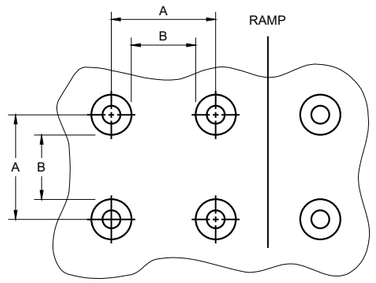
SECTION C - C FOR TYPE 2

CURB RAMPS
RADIAL DETECTABLE WARNING

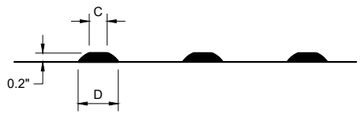
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

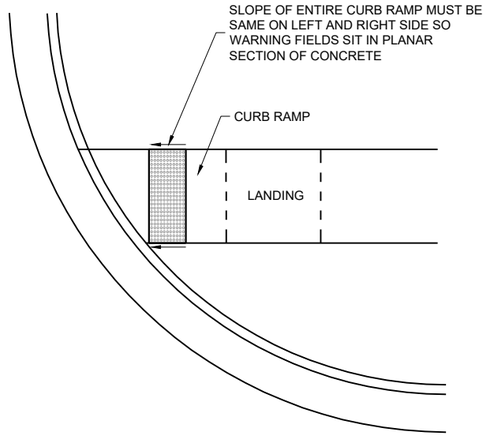
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

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.

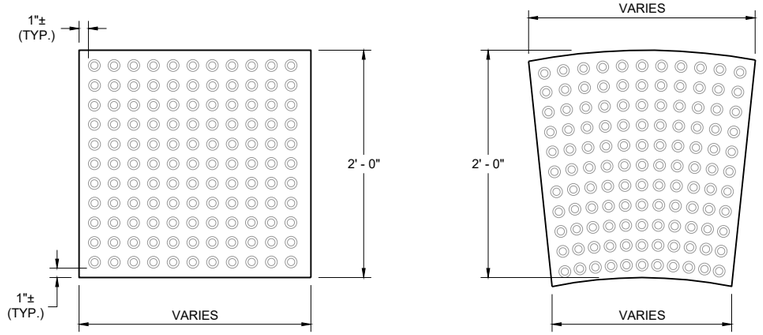
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. 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.

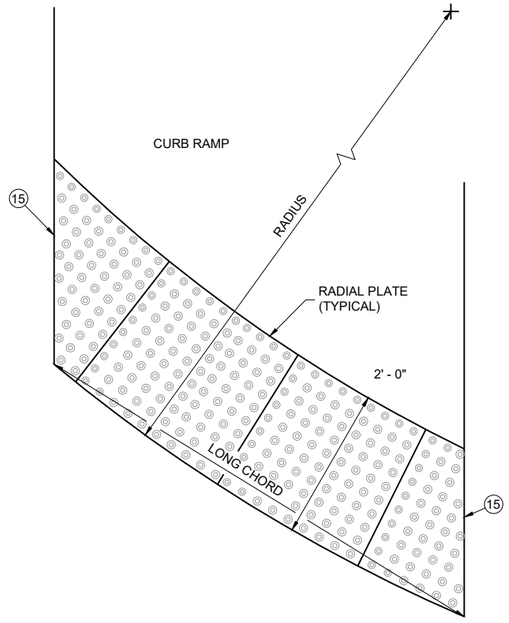
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



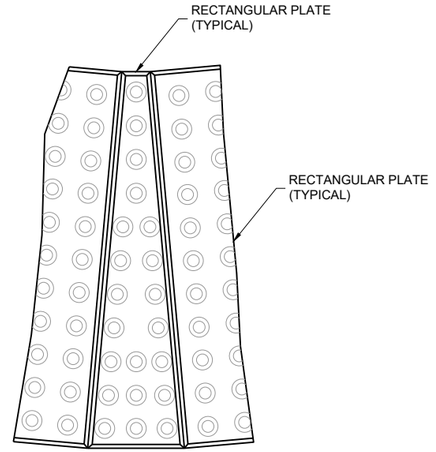
RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



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
February 2025 — DATE
/S/ Rodney Taylor — <position>

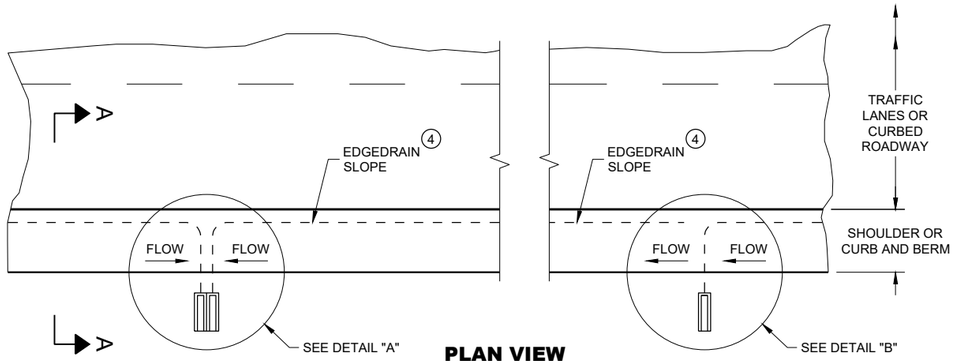
FHWA

6

SDD 08D05-22g

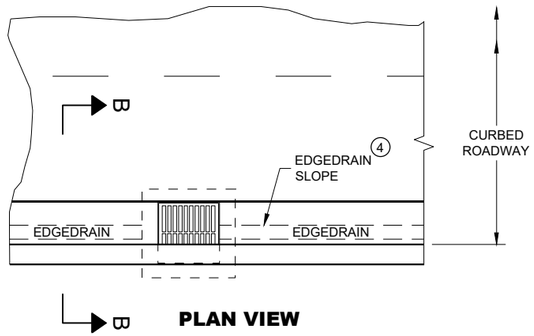
6

SDD 08D05-22g



PLAN VIEW

ROADWAY WITH SHOULDERS OR CURBS
(EDGEDRAIN CONNECTS TO ROADSIDE) (2)



PLAN VIEW

ROADWAY WITH CURBS
(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)

GENERAL NOTES

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

(1) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

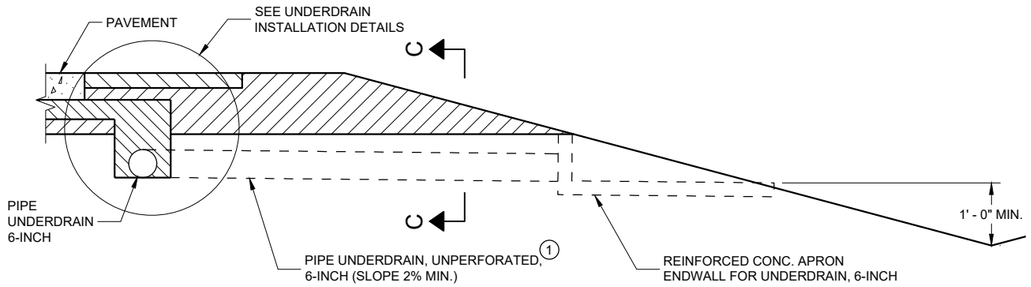
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

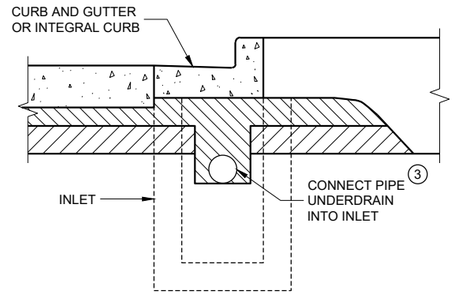
(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



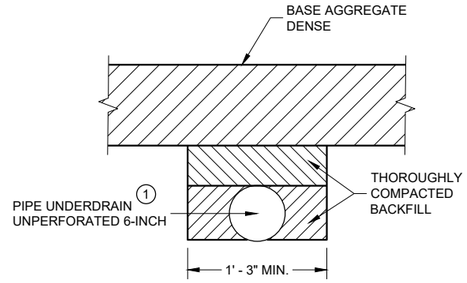
SECTION A - A

RURAL CROSS SECTION



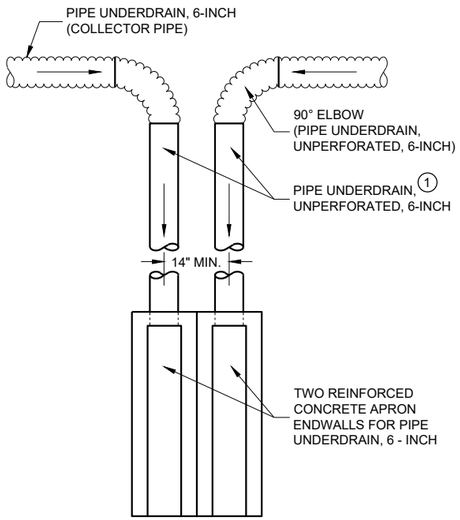
SECTION B - B

URBAN CROSS SECTION

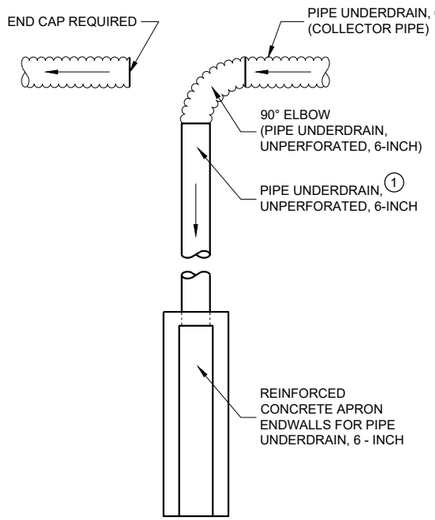


SECTION C - C

TRENCH FOR OUTFALL PIPE

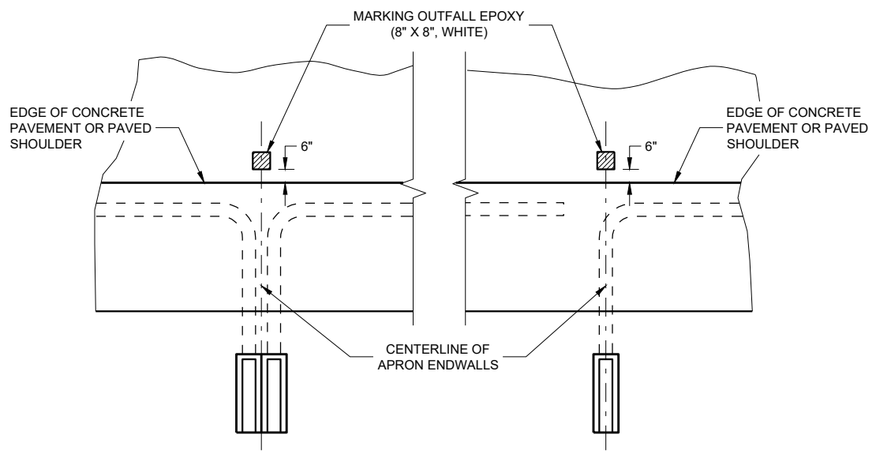


DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS



DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS



LOW POINT LOCATIONS — INTERMEDIATE LOCATIONS

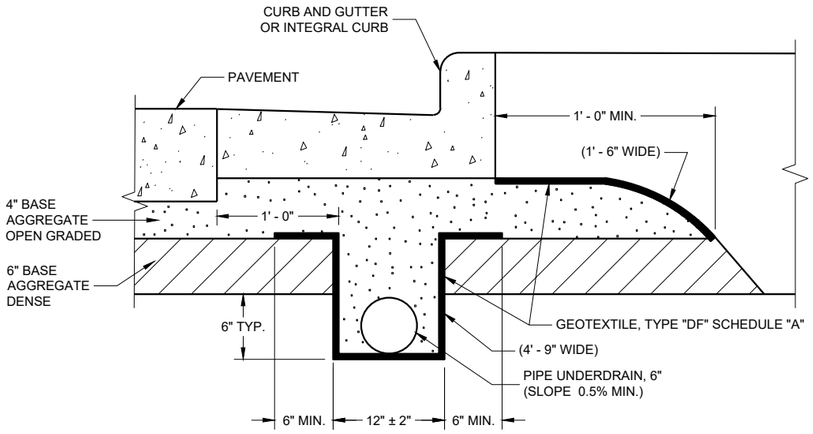
PAVEMENT MARKINGS FOR OUTFALL MARKERS

EDGEDRAIN OUTLET AND OUTFALL MARKERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD08D15 - 05a



EDGEDRAIN IN URBAN ROADWAY

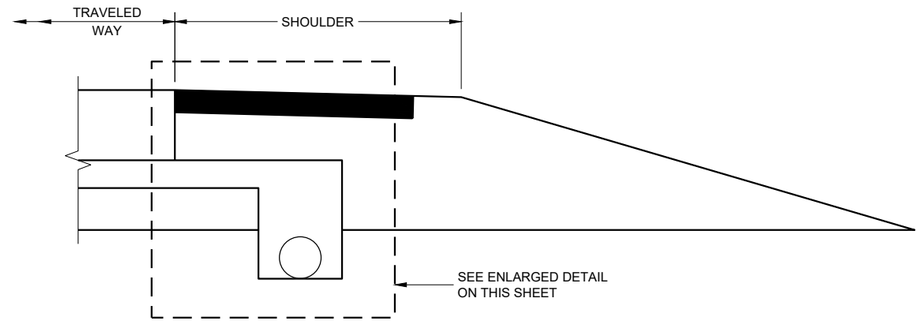
GENERAL NOTES

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

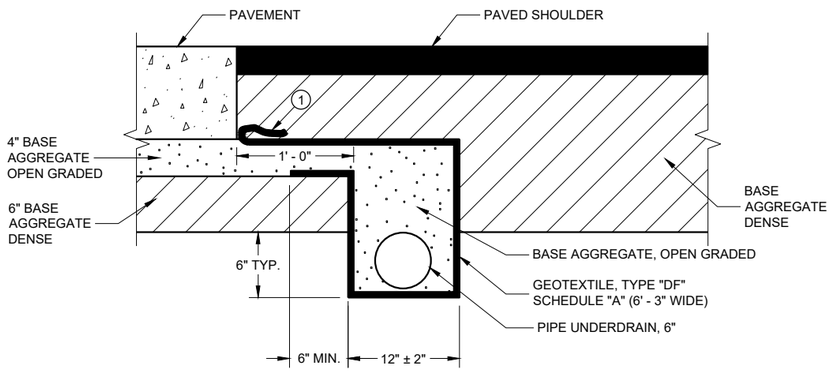
PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

(1) FOLD OVER EXCESS GEOTEXTILE AT THIS LOCATION.

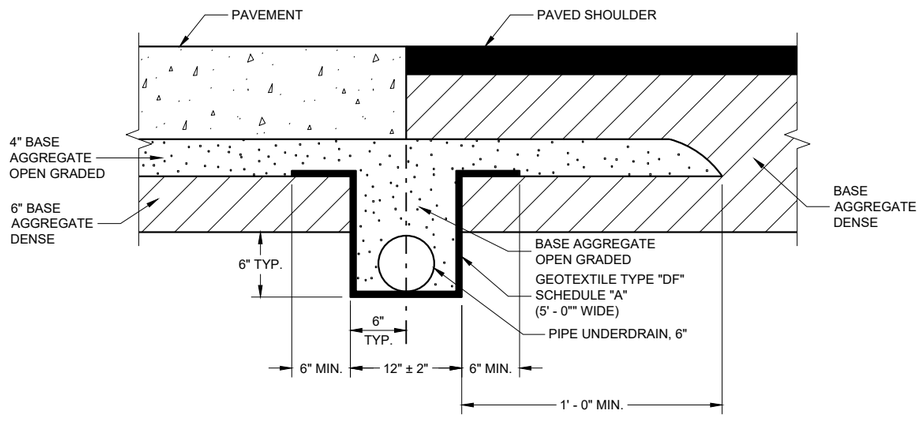
(2) TOTAL GEOTEXTILE WIDTH IS 6'-3" FOR PAYMENT.



RURAL CROSS SECTION



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

EGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

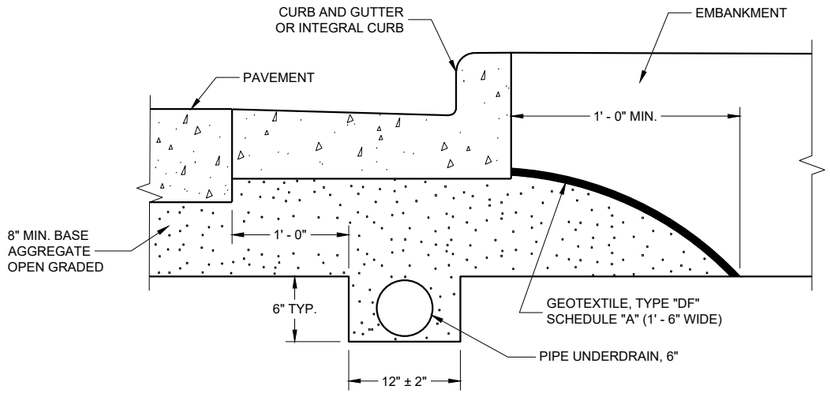
6

SDD 08D15 - 05b

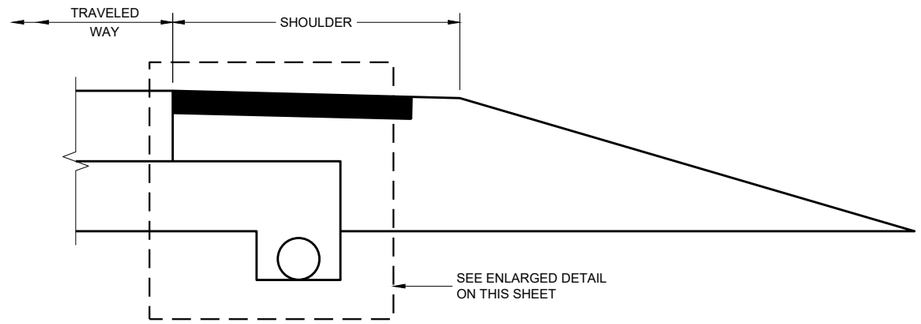
GENERAL NOTES

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

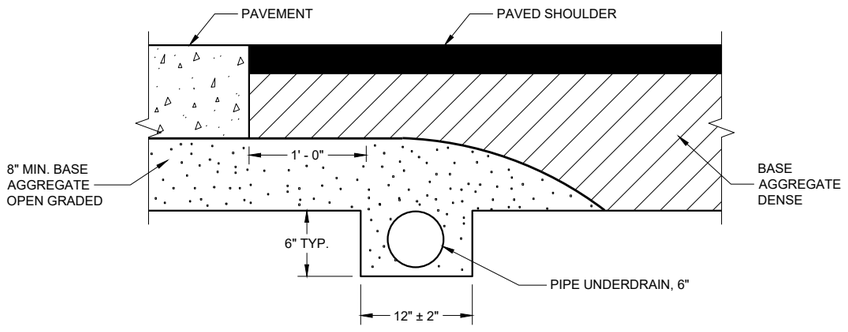
PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.



EDGEDRAIN IN URBAN ROADWAY

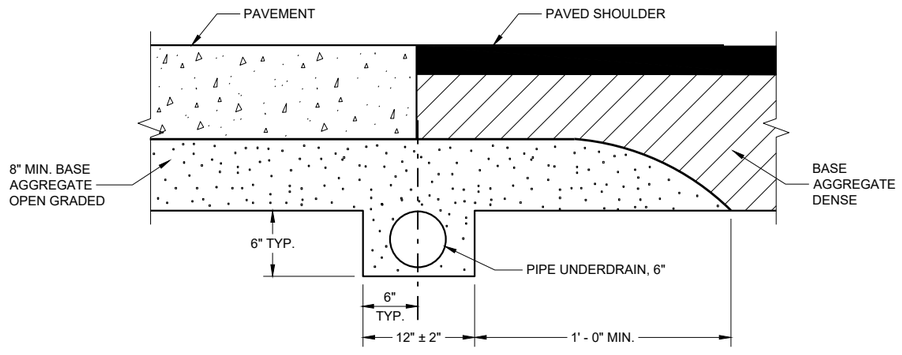


RURAL CROSS SECTION



POST PAVING INSTALLATION

(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

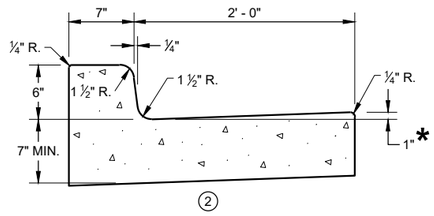
EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPERVISO
FHWA

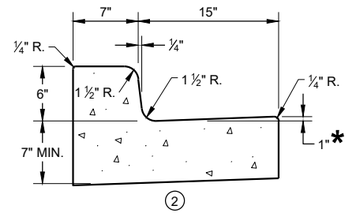
6

SDD 08D15 - 05c

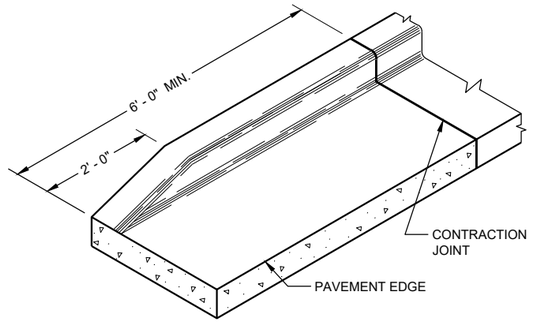


CONCRETE CURB AND GUTTER 31" ①

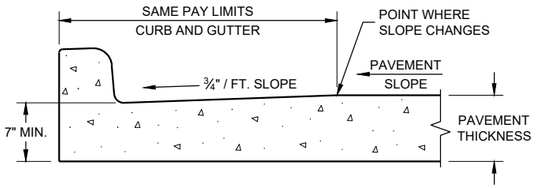
*TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



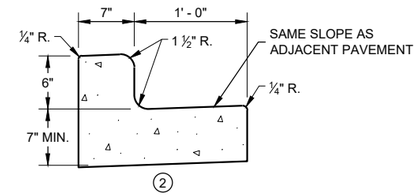
CONCRETE CURB AND GUTTER 22" ①



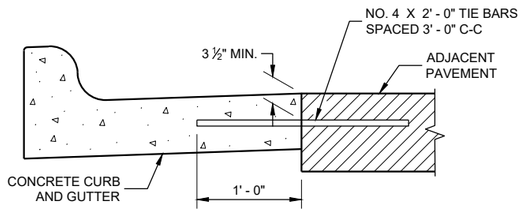
END SECTIONCURB AND GUTTER



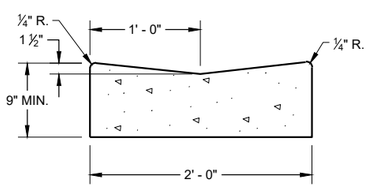
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER



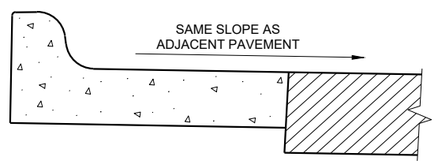
CONCRETE CURB AND GUTTER 19" ①



TYPICAL TIE BAR LOCATION ①



CONCRETE GUTTER 24" ①



HIGH SIDE SECTION ③

(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION 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.

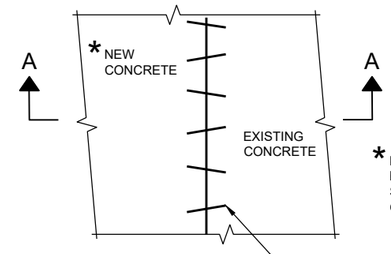
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUITED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

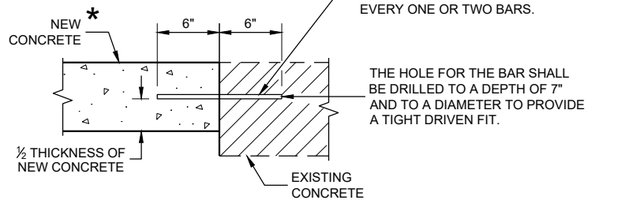
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLANS



PLAN VIEW

* EXISTING AND NEW CONCRETE MAY BE CURB AND GUTTER, SURFACE DRAINS, PAVEMENT OR OTHER CONCRETE STRUCTURE.



SECTION A - A

PAVEMENT TIES

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

(For Optional use in Milwaukee Co. Only)

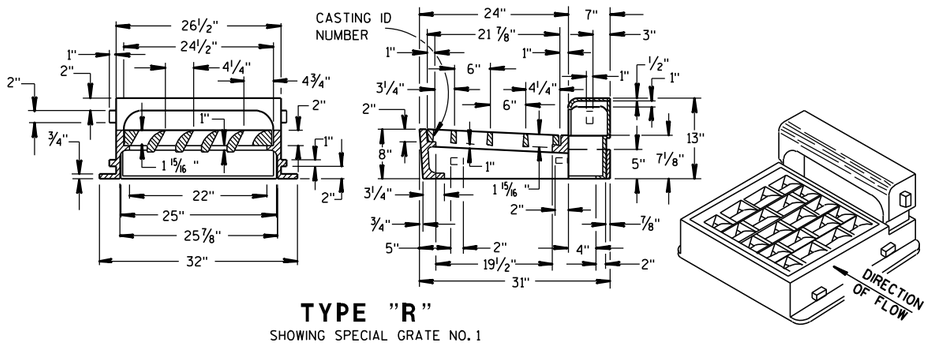
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

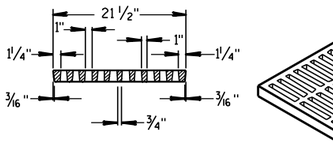
SDD 08D16 - 11
SDD 08D16 - 11

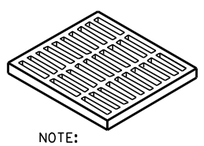
INLET COVERS



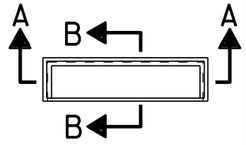
TYPE "R"

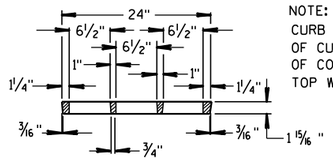
SHOWING SPECIAL GRATE NO. 1
(TO BE NOTED AS R-1 IN DRAINAGE TABLE)



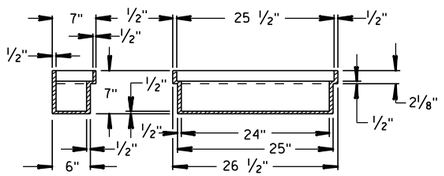


(APPROX. WEIGHT - 510 LBS.)
FRAME..... 245 LBS.
CURB..... 120 LBS.
GRATE..... 145 LBS.





NOTE:
CURB PLUG USED IN PLACE OF CURB BOX IN ABSENCE OF CONC. CURB. FILL TO TOP WITH CONCRETE.



GRATE FOR TYPE "R" INLET COVER

(GRATE..... 150 LBS.)
(TO BE USED UNLESS OTHERWISE NOTED IN DRAINAGE TABLE)

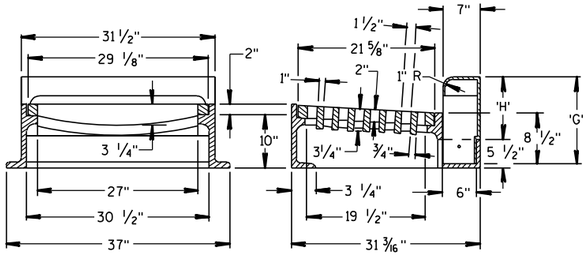
SECTION B-B SECTION A-A

SPECIAL CURB PLUG "P"

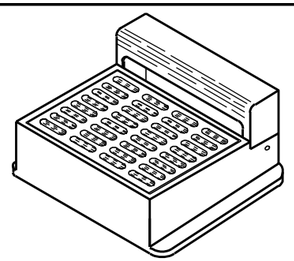
(CURB PLUG..... 85 LBS.)
(TO BE NOTED AS R-P IN DRAINAGE TABLE)

'H' = 9" FOR 6" CURB
'H' = 11" FOR 8" CURB

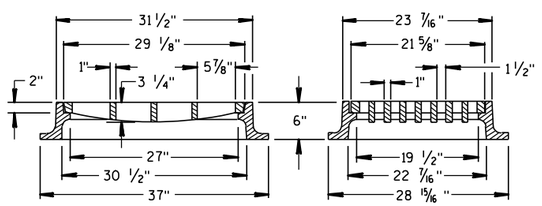
'G' = 13 3/4" FOR 6" CURB
'G' = 15 3/4" FOR 8" CURB



TYPE "W"



(APPROX. WEIGHT - 670 LBS.)
FRAME..... 350 LBS.
CURB BOX..... 135 LBS.
GRATE..... 185 LBS.

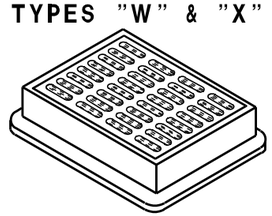


TYPE "X"

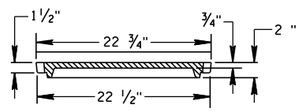
(APPROX. WEIGHT - 470 LBS.)

ALTERNATE GRATE
(FOR EXPRESSWAY RAMPS)

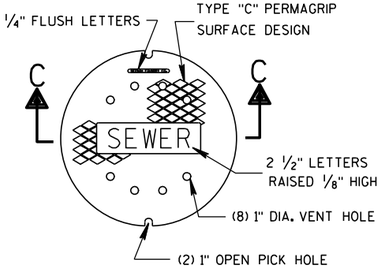
TYPES "W" & "X"

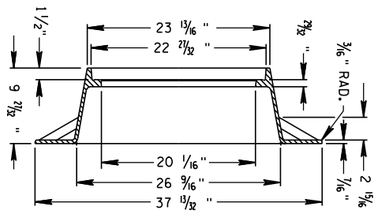


MANHOLE COVER



SECTION C-C





TYPE "Q"

(APPROX. WEIGHT - 290 LBS.)

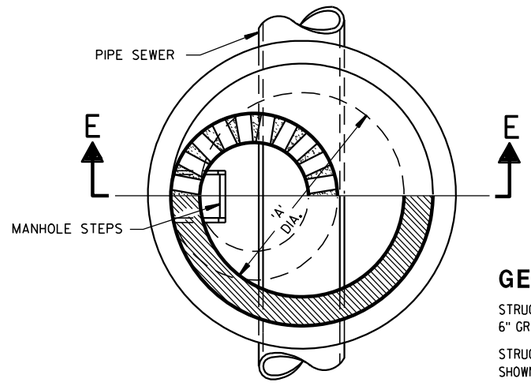
TABLE OF DIMENSIONS

TYPE	'A'	'B'	'C'
11	3'-6"	2'-8"	12" - 36"*
12	4'-0"	3'-8"	12" - 42"**
13	5'-0"	5'-8"	42" - 48"
14	6'-0"	7'-8"	54" - 60"

* 12" - 21" FOR PRECAST MANHOLES
** 12" - 24" FOR PRECAST MANHOLES

THE FIRST STEP SHALL BE PLACED 16" ABOVE THE BENCH.

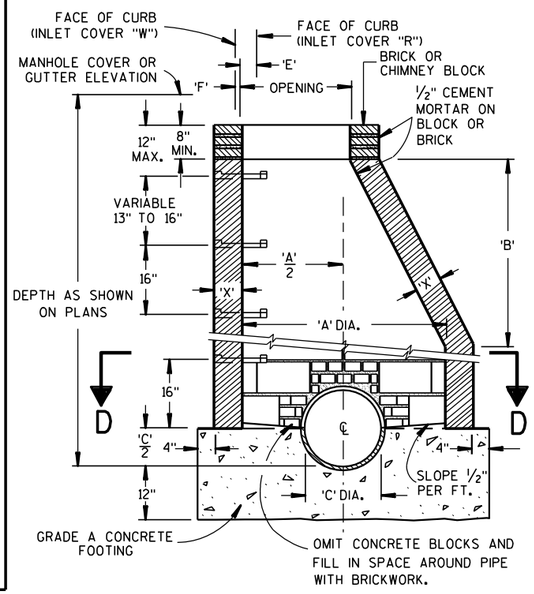
MANHOLE



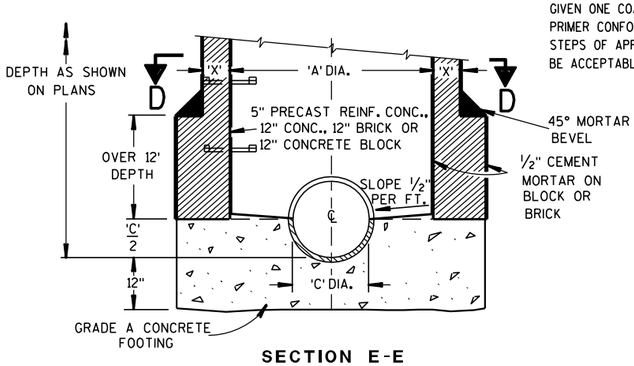
HALF SECTION D-D

TABLE OF OPENING DIMENSIONS

COVER TYPE	COVER DESCRIPTION	OPENING	'E'	'F'
"O"	ROUND	2'-2" DIA.	—	—
"W"	CURB BOX	1'-8" X 2'-6"	—	1"
"X"	INLET	1'-10" X 2'-6"	—	—
"R"	CURB BOX	2'-0" X 2'-1"	4"	—



SECTION E-E



SECTION E-E

TYPES 11, 12, 13 & 14

GENERAL NOTES

STRUCTURE WALL THICKNESS 'X' TO BE 8" BRICK, 6" CONCRETE BLOCK, 6" GRADE A CONCRETE OR 5" PRECAST REINFORCED CONCRETE.

STRUCTURE FOOTINGS ARE TO BE GRADE A CONCRETE OF THE THICKNESS SHOWN IN THE DETAIL OR 5" PRECAST REINFORCED CONCRETE.

REINFORCEMENT FOR 5" PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16 X W16 WELDED SREEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.

PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

PRECAST CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6" IN DEPTH, WHICH MEETS THE REQUIREMENTS FOR GRANULAR BACK-FILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON THE PLANS.

THE CONTRACTOR MAY FORM AND POUR MONOLITHIC CONCRETE INVERT PROVIDED THE PIPE ENDS ARE EXTENDED INTO THE M.H. AND NOT TERMINATED WITHIN THE M.H. WALLS.

MANHOLE STEPS

STEPS MEETING THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH; 16 INCH C-C MAX. SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM WALL EMBEDMENT OF 3 INCHES IN PRECAST MANHOLE AND 6 INCHES IN 8 INCH BRICK OR 6 INCH BLOCK MANHOLE; TREAD OF STEP SHALL HAVE A NON-SKID SURFACE AND BE FLANKED BY CLEATS, WITH A MINIMUM OF 10 INCHES CLEAR BETWEEN CLEATS, TO PREVENT FOOT SLIPPING OFF THE EDGE CLEATS SHALL BE A MINIMUM OF 3/4 INCH HIGH BY 3/4 INCH WIDE HAVING A MINIMUM THICKNESS OF 3/8 INCH. STEPS SHALL BE CAPABLE OF SUPPORTING A CONCENTRATED LOAD OF 300 LBS. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

SOLID ALUMINUM STEPS SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 0.75 INCH. ALUMINUM SURFACES TO BE EMBEDDED IN CONCRETE SHALL BE GIVEN ONE COAT OF SUITABLE QUALITY PAINT, SUCH AS ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-645 OR EQUIVALENT. STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCING BAR WILL BE ACCEPTABLE.

MANHOLES, MANHOLE & INLET COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

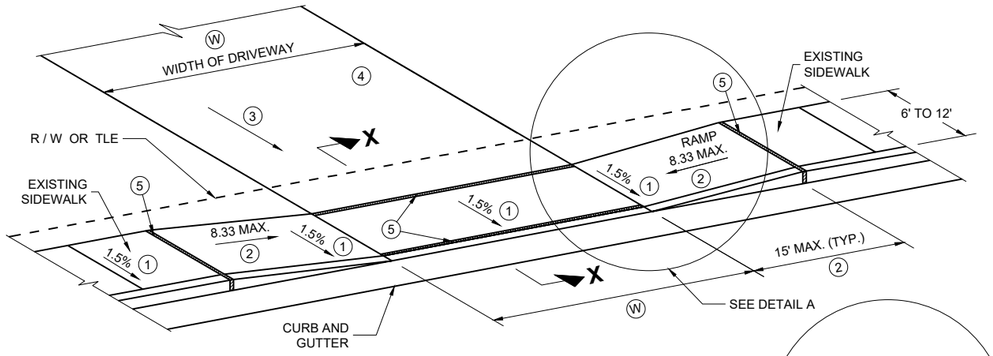
APPROVED
4/12/2011 — DATE
/S/ Jerry H. Zogg — ROADSIDE STANDARDS ENGINEER
311
FHWA

S.D.D. 8 D 17-6

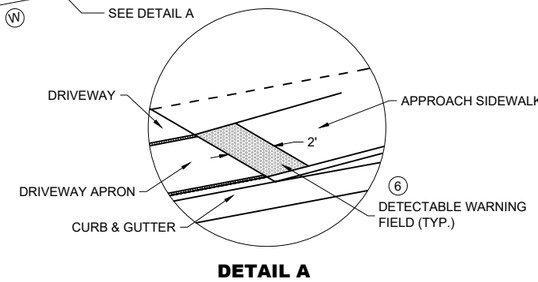
S.D.D. 8 D 17-6

6

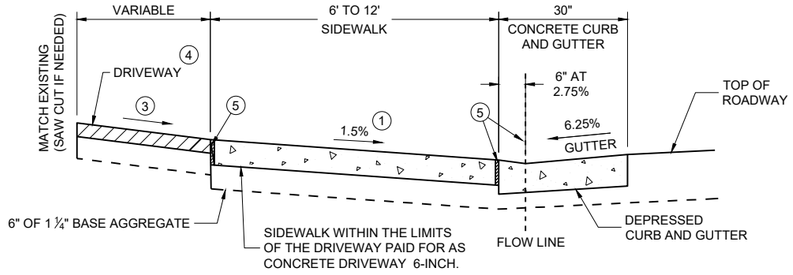
6



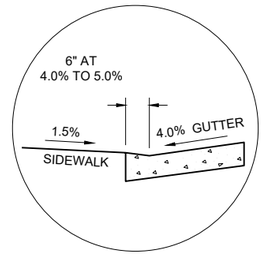
TYPE X
SIDEWALK ABUTS CURB AND GUTTER
TERRACE VARIES 0 TO 3 FEET



DETAIL A



SECTION X - X



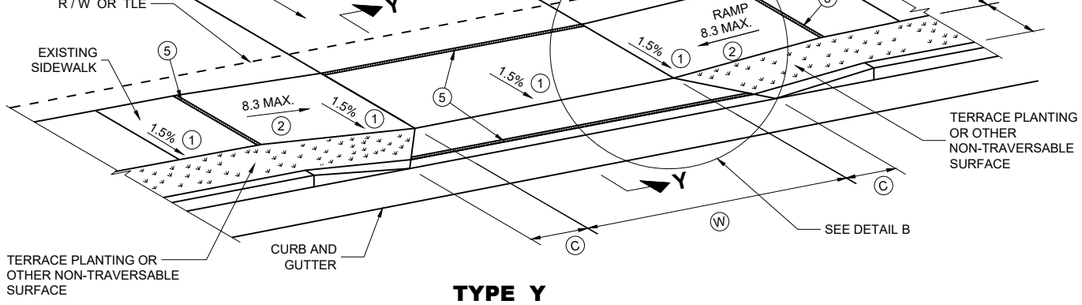
SECTION X - X
4% GUTTER SLOPE

Ⓦ: 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)

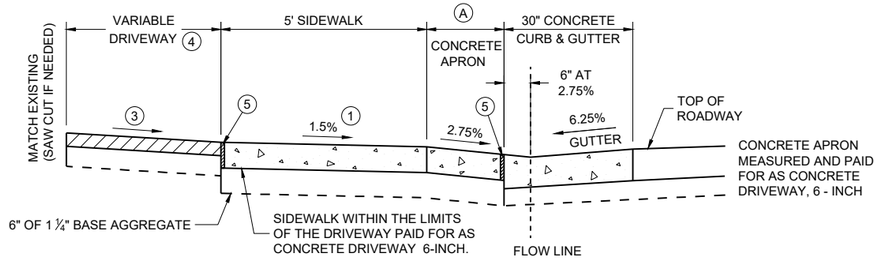
TABLE Y

Ⓐ FEET	Ⓒ FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'



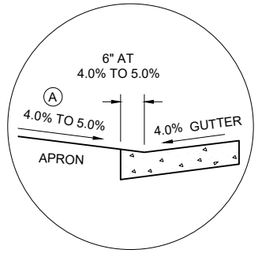
TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

Ⓐ:MEASURE FROM BACK OF CURB



NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y - Y



SECTION Y - Y
4% GUTTER SLOPE

DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER
(URBAN AND SUBURBAN)

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.

Ⓦ 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 2.1%.

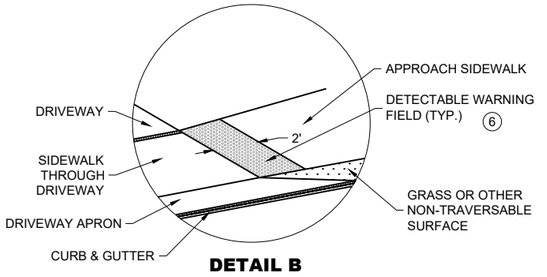
② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL 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.)

⑤ 1/2" EXPANSION JOINT FILLER

⑥ DETECABLE WARNING FIELDS ARE REQUIRED WHEN A PEDESTRIAN CIRCULATION ROUTE CROSSES A DRIVEWAY THAT IS TRAFFIC SIGNAL, STOP, OR YIELD SIGN CONTROLLED. DETECTABLE WARNING FIELDS TO BE 2 FT DEEP AND EXTEND THE WIDTH OF THE PEDESTRIAN CIRCULATION ROUTE.



DETAIL B

DRIVEWAY AND SIDEWALK RAMPS TYPES X AND Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 (DATE)
/S/ Rodney Taylor

FHWA

6

SDD 08D18-05

6

SDD 08D18-05

GENERAL NOTES

A MAXIMUM RADIUS OF 10 FEET SHALL BE USED FOR NON-COMMERCIAL PRIVATE ENTRANCES. RADII FOR COMMERCIAL DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER BASED ON TRAFFIC AND DRIVEWAY PERMIT RESTRICTIONS.

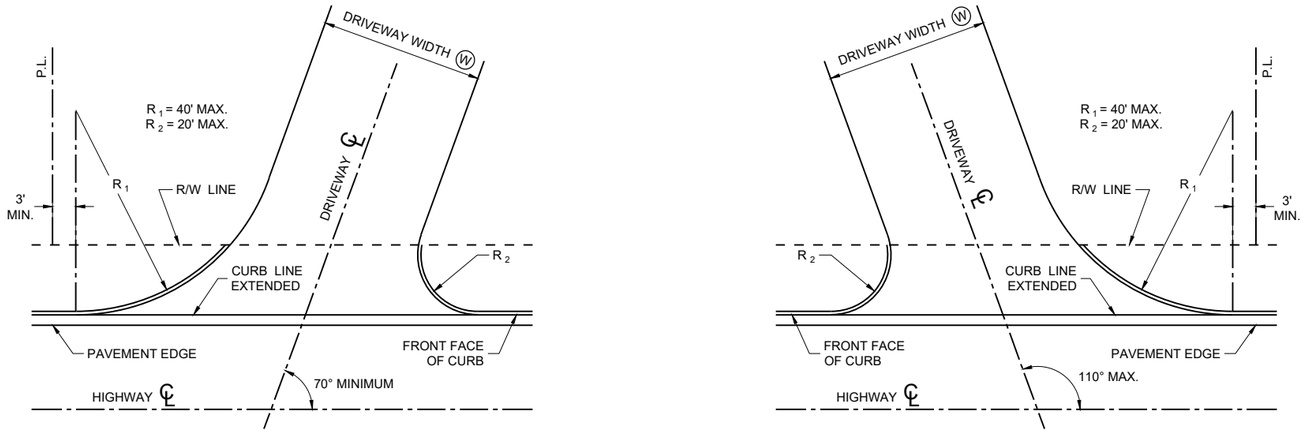
THE MINIMUM ANGLE OF INTERSECTION BETWEEN THE DRIVEWAY AND HIGHWAY CENTERLINES SHALL BE 70°.

ALL CURVILINEAR PRIVATE ENTRANCE OUTLINES SHALL BE CONTAINED WITHIN THE HIGHWAY R/W.

NO DRIVEWAY SHALL BE BUILT WITHIN 3 FEET OF THE PROPERTY LINE EXCEPT FOR EXISTING JOINT DRIVEWAY SHARED BY TWO OWNERS.

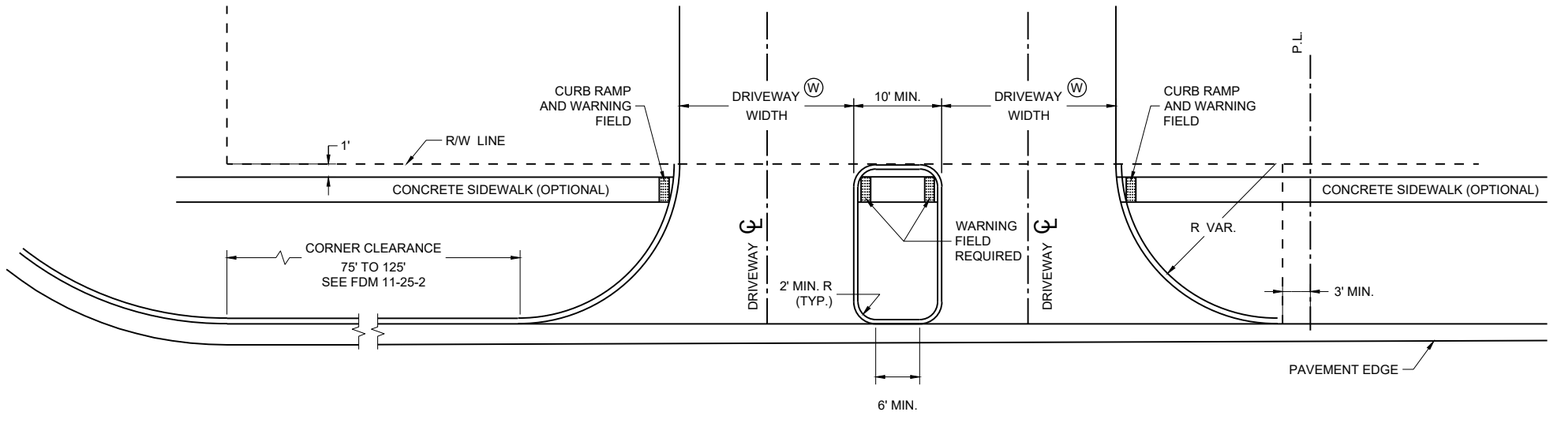
Ⓦ: 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)



SKEWED DRIVEWAY DETAILS (COMMERCIAL AND NON-COMMERCIAL)

SIDEWALK NOT SHOWN



DRIVEWAY LOCATION AND SPACING DETAILS

SIDEWALK SHOWN

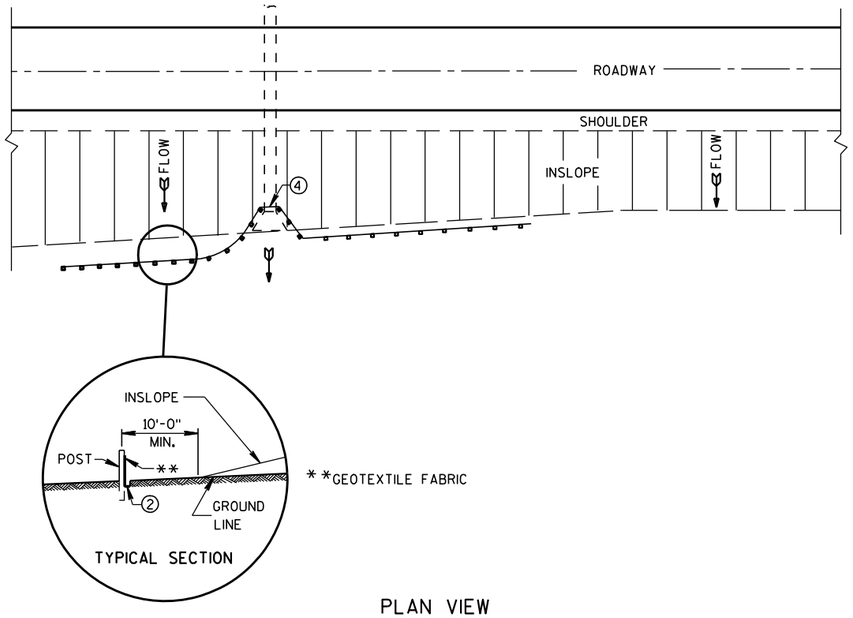
DRIVEWAYS WITH CURB AND GUTTER RETURNS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

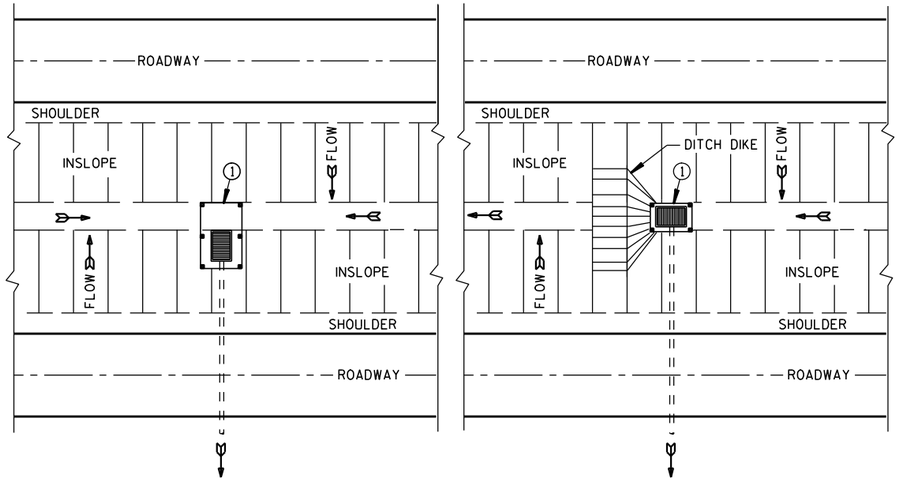
FHWA

6
SDD 08D20-02



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



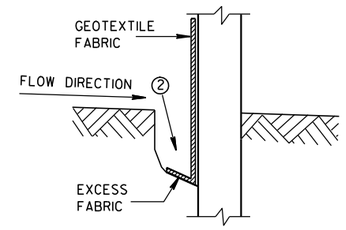
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

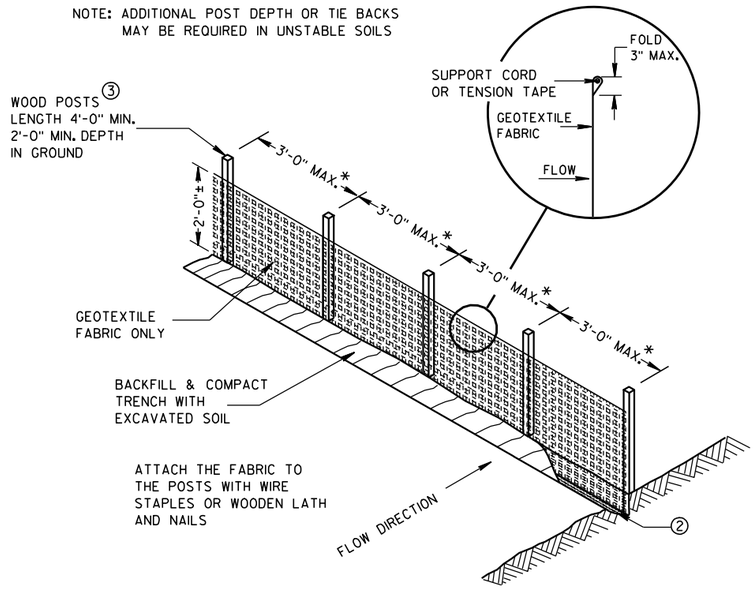
GENERAL NOTES

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.

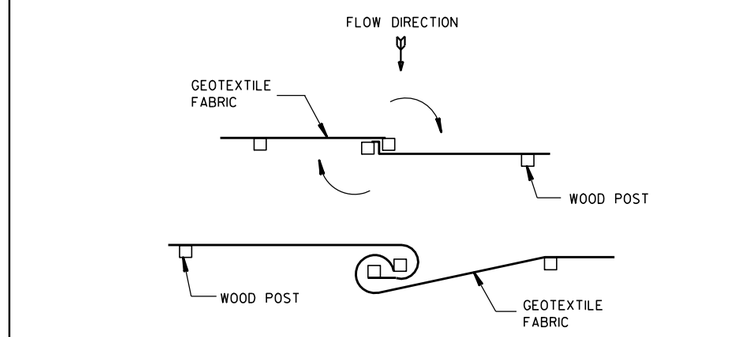


TRENCH DETAIL

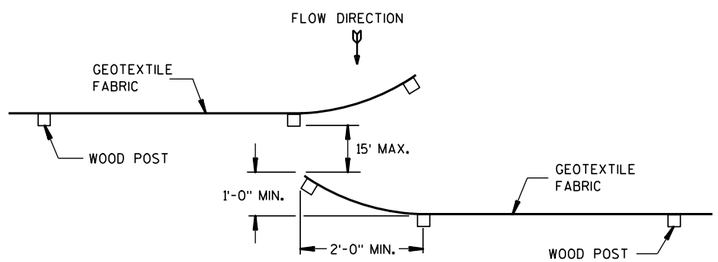


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

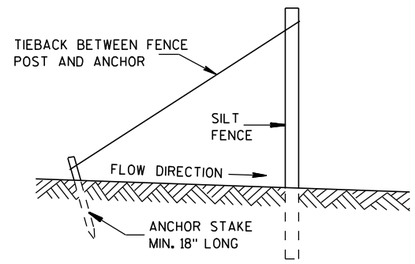


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

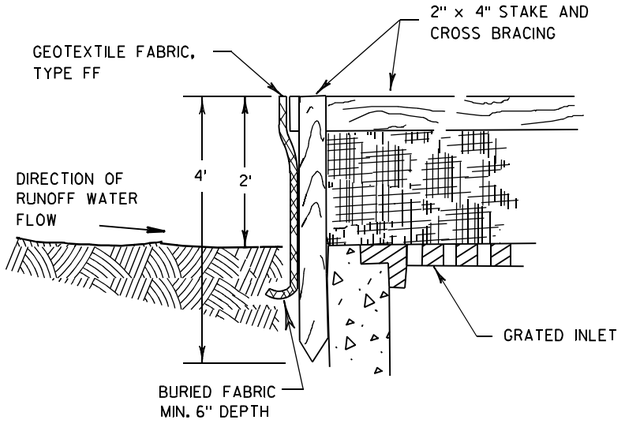
(WHEN REQUIRED BY THE ENGINEER)

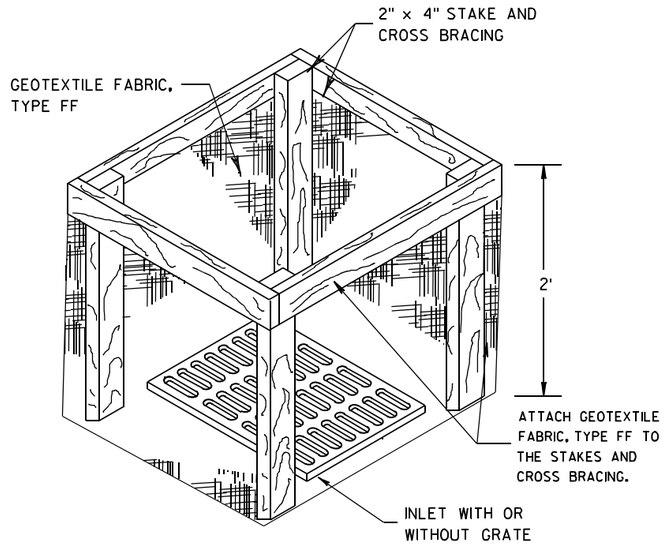
SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

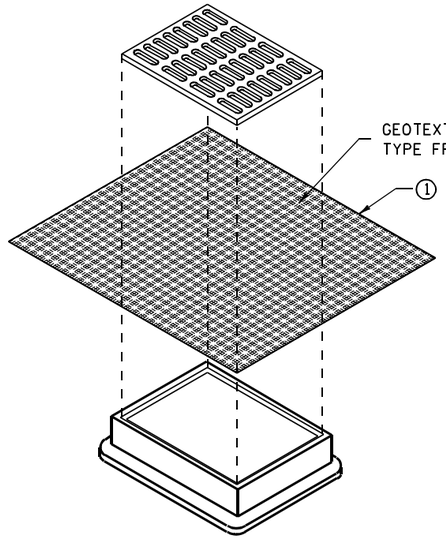
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 9-6



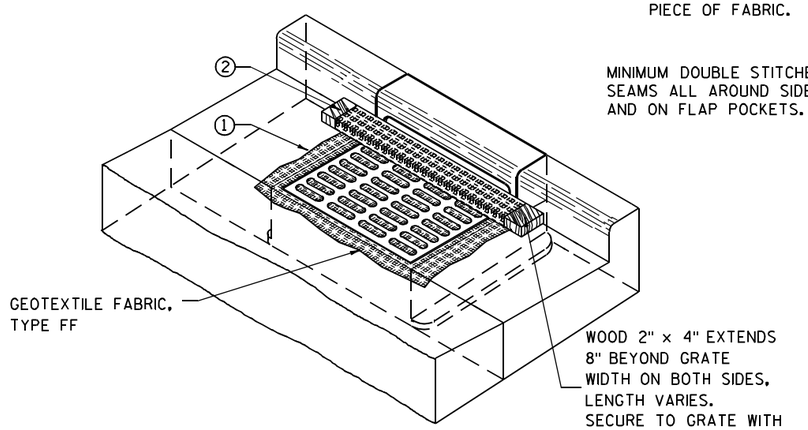


INLET PROTECTION, TYPE A

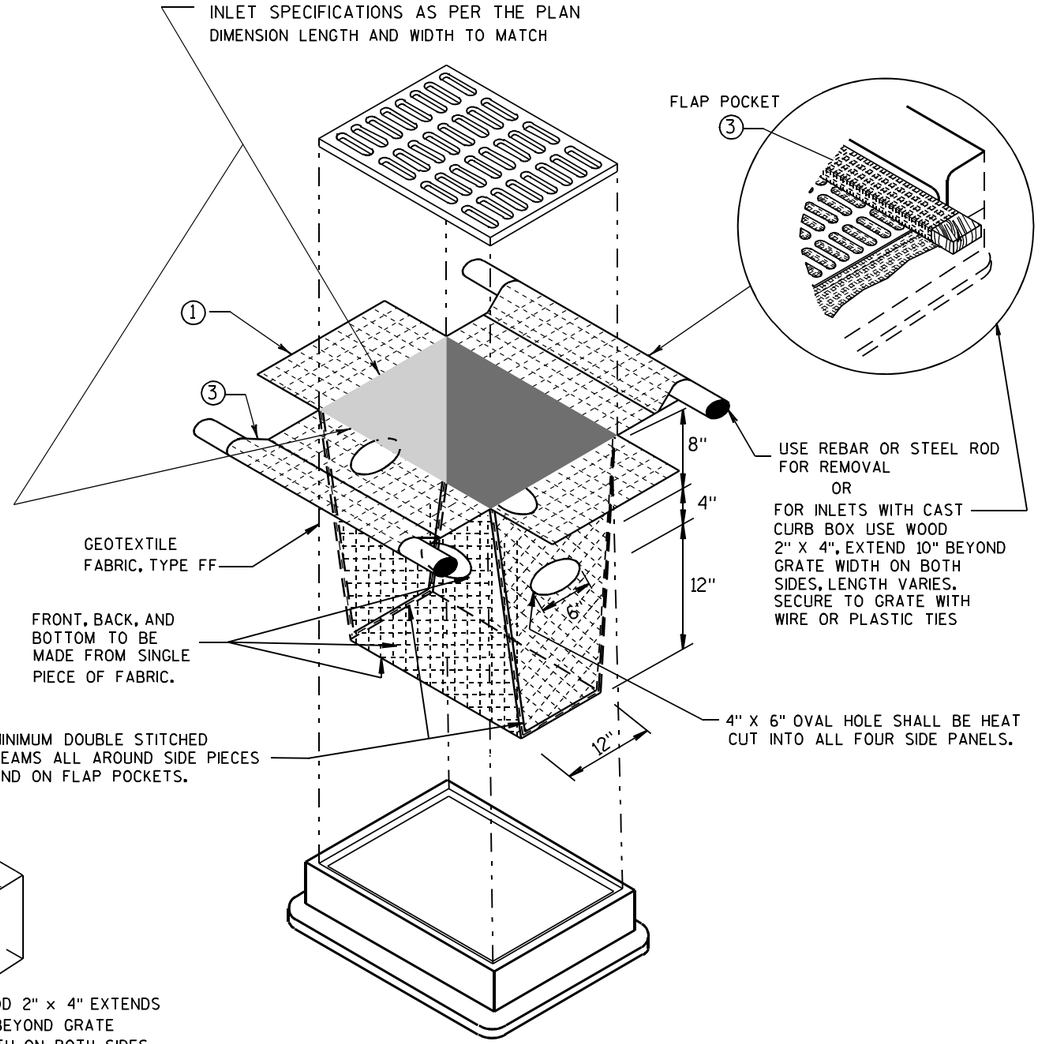


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

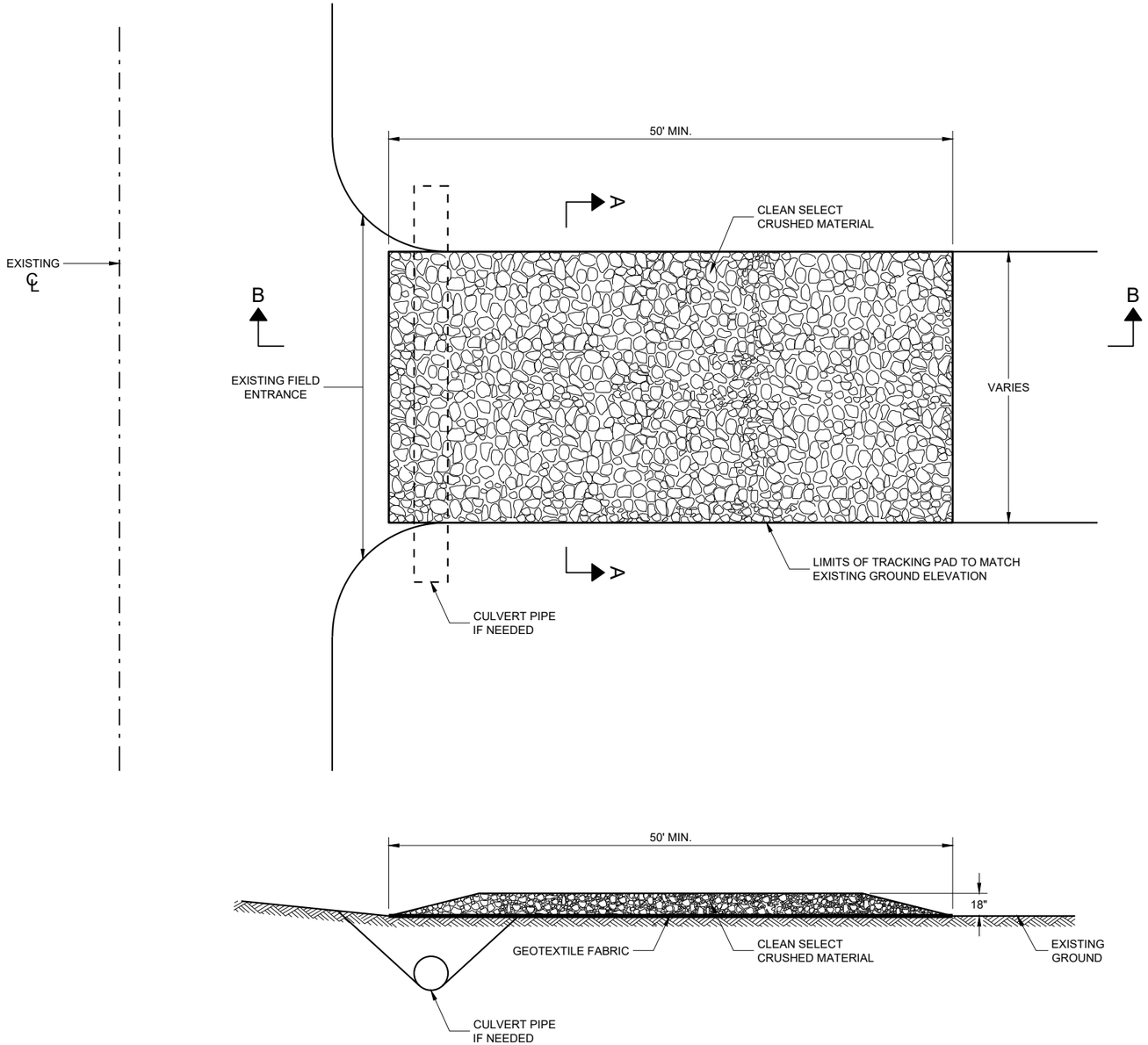
FHWA

6

S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



SECTION B - B

GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

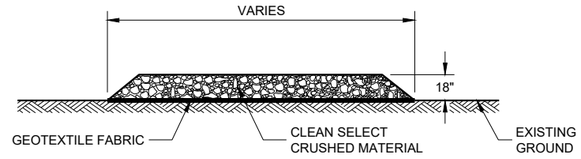
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A

6

SDD 08E14 - 01

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

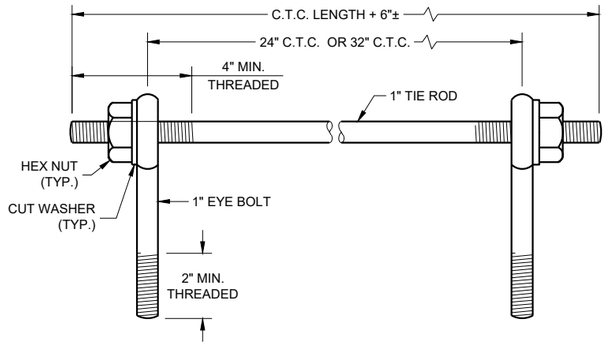
3/24/2011
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER

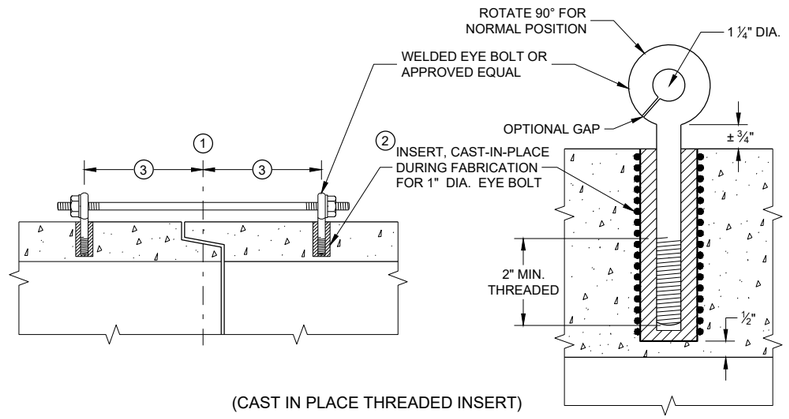
FHWA

6

SDD 08E14 - 01



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) CENTER LINE 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.

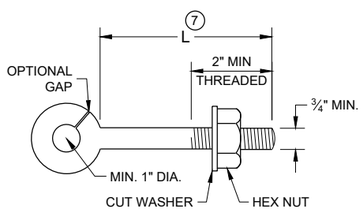
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

(4) BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

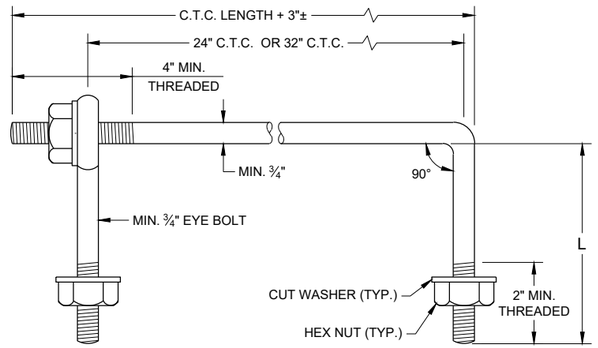
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

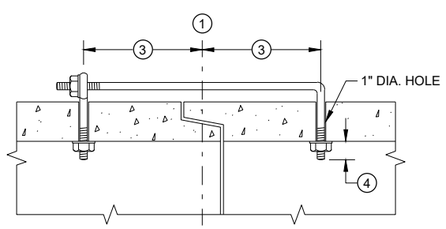


EYE BOLT (7)

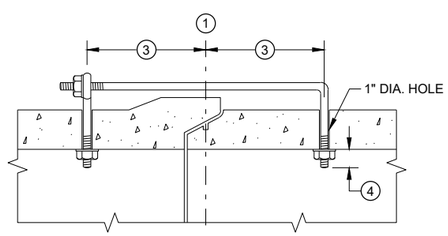
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

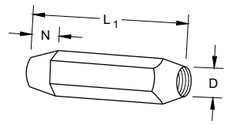
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

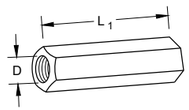
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



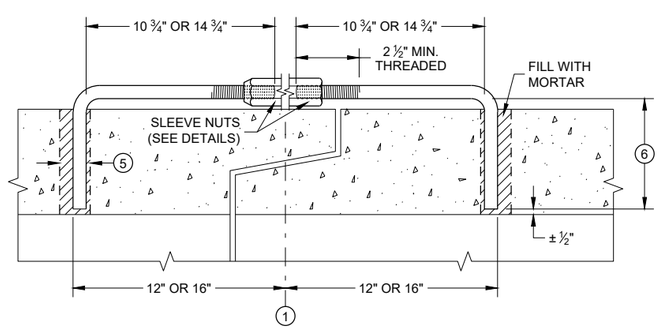
TAPERED



PLAIN

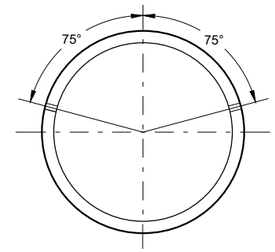
RIGHT AND LEFT THREADS

SLEEVE NUTS



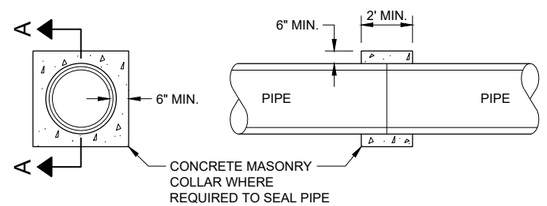
LONGITUDINAL SECTION

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

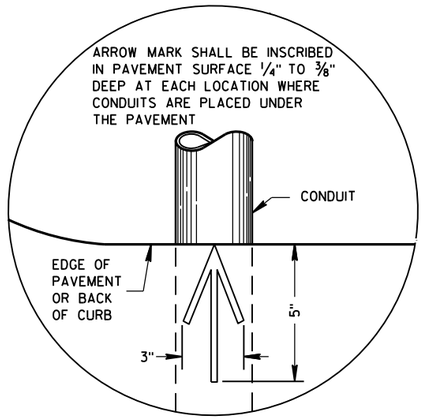
CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

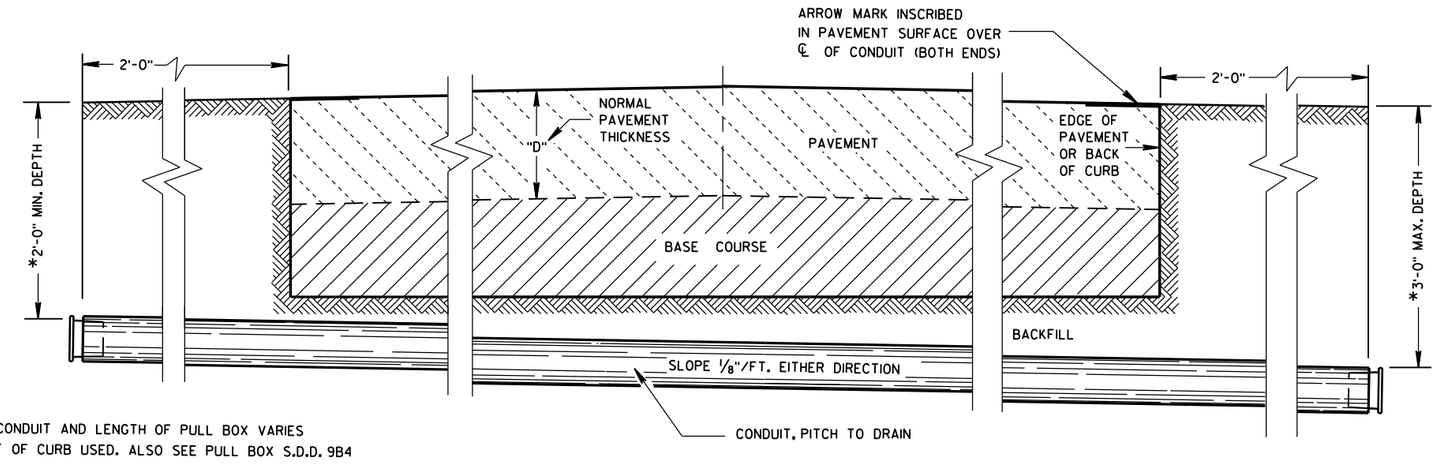
APPROVED
November 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



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.

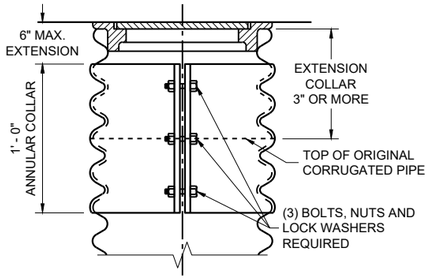
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

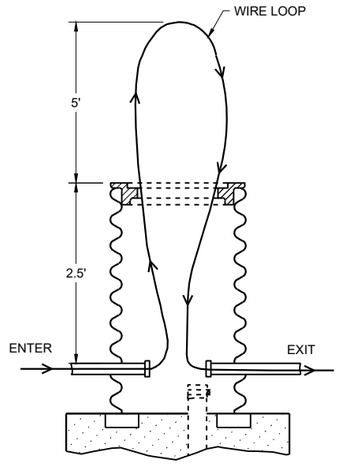
APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

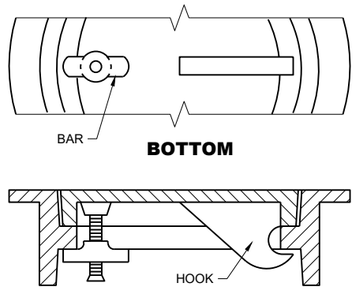
S.D.D. 9 B 2-10



CORRUGATED PIPE EXTENDER



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

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.

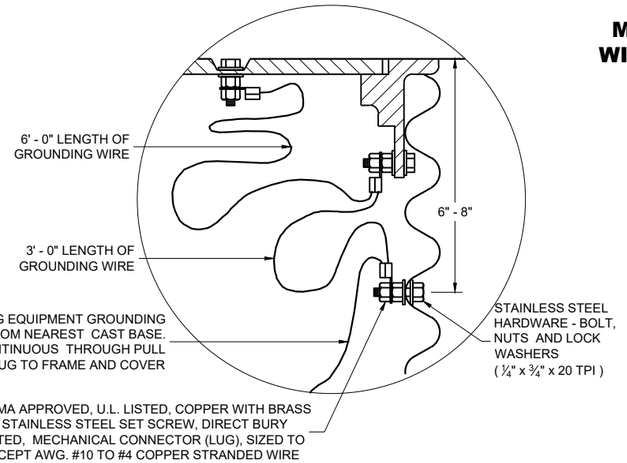
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN ¼".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

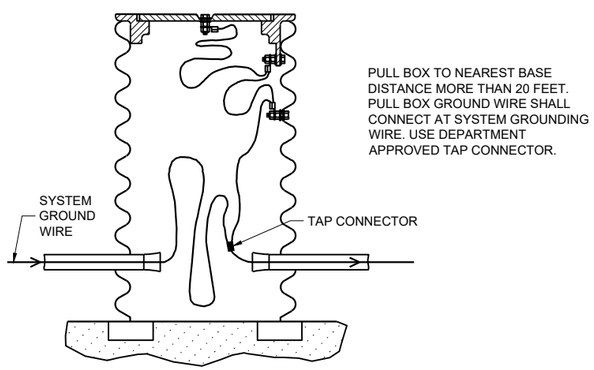
GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

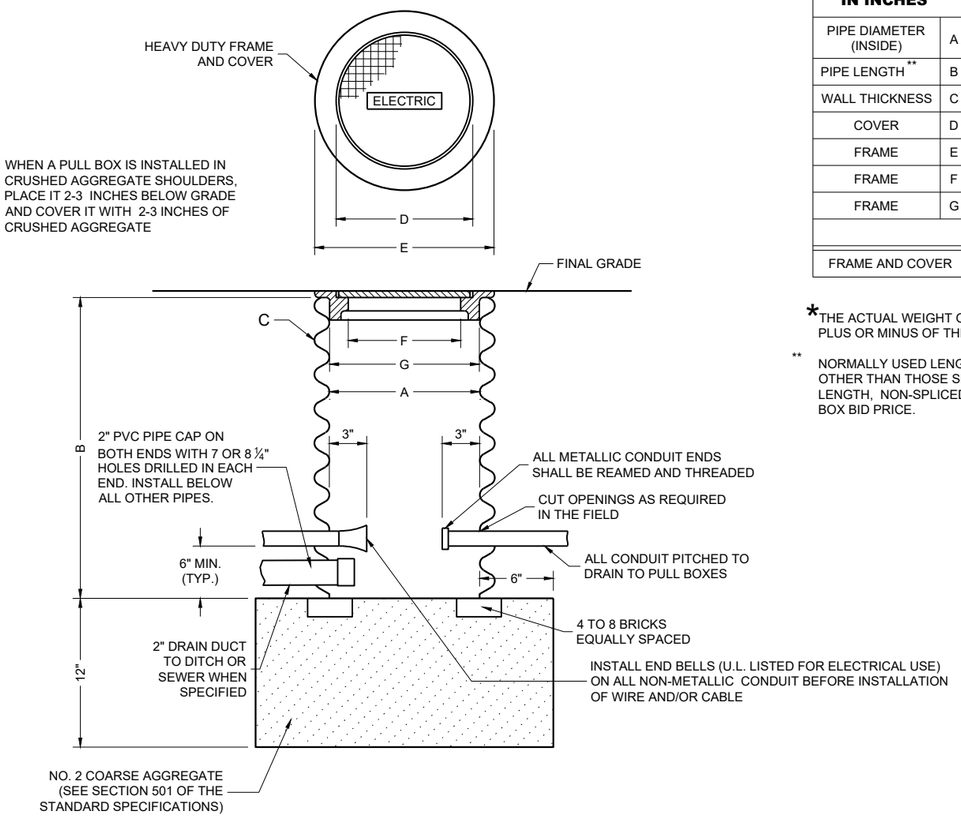
WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

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 ¼	10 ¼	10 ¼	16 ¼	16 ¼	16 ¼	22 ¼	22 ¼	22 ¼
FRAME	E	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½	26 ½	26 ½	26 ½
FRAME	F	8 ½	8 ½	8 ½	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½
FRAME	G	11 ½	11 ½	11 ½	17 ½	17 ½	17 ½	23 ½	23 ½	23 ½
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.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER

FHWA

6

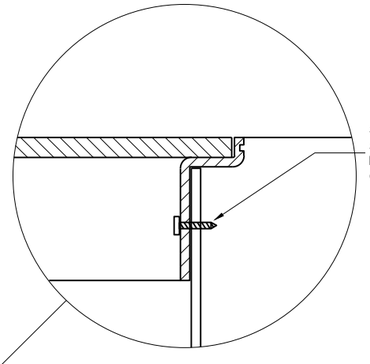
SDD 09B04-13

TABLE OF NOMINAL DIMENSIONS
AND WEIGHTS

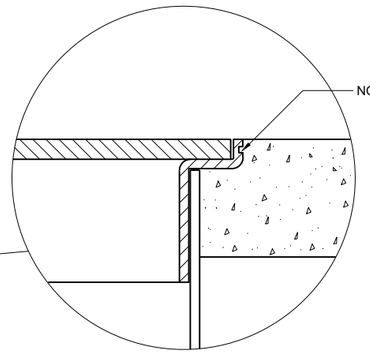
DIMENSION IN INCHES		NON- CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 ½	22 ½
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

*THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

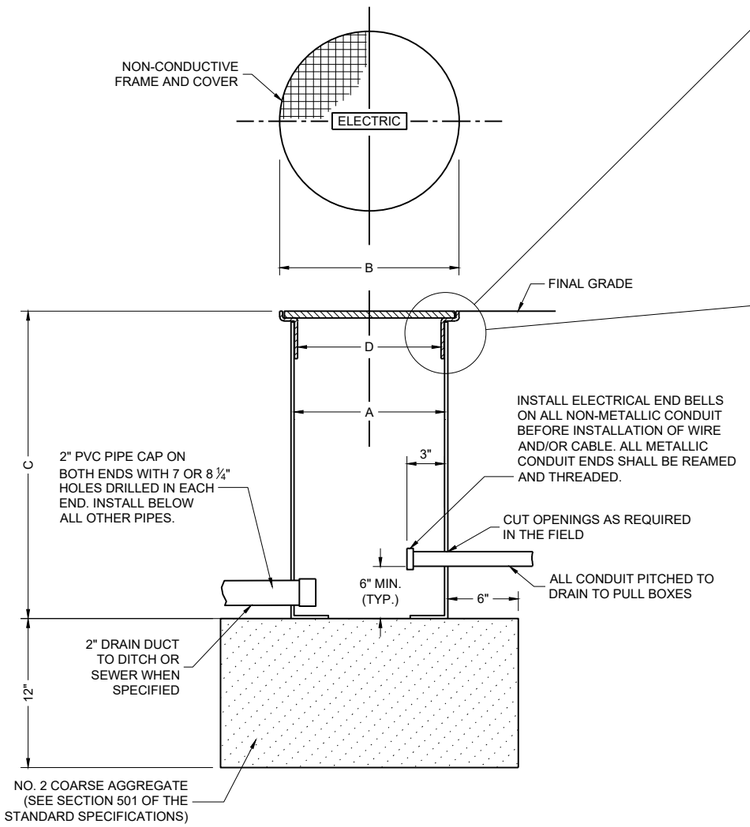
** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE.



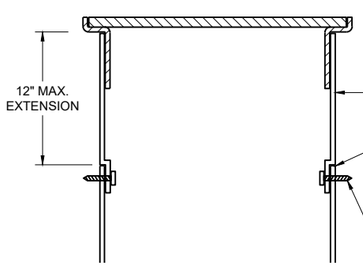
INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK



NON-CONDUCTIVE PULL BOX



BOX EXTENSION

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 ½" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DICONTINUITIES LESS THAN ¼".

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 ¼".

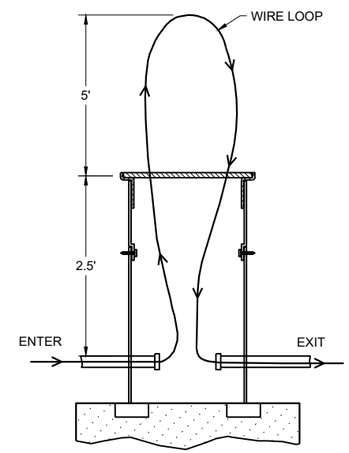
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

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.



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

PULL BOXES NON-CONDUCTIVE

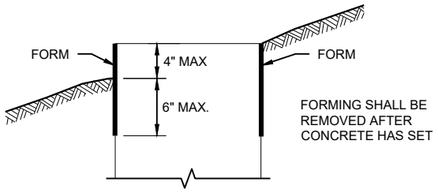
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL ENGINEER

FHWA

6
SDD 09B16-03

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 ENDS 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.

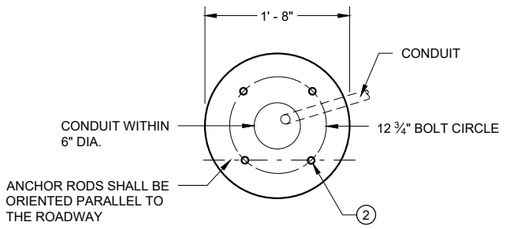
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

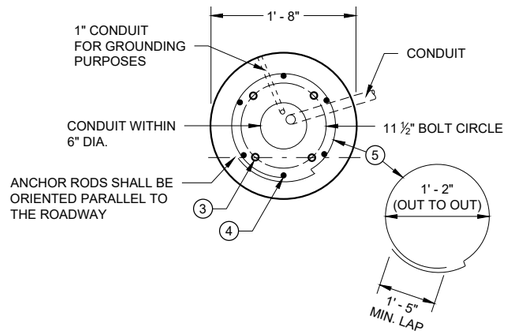
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

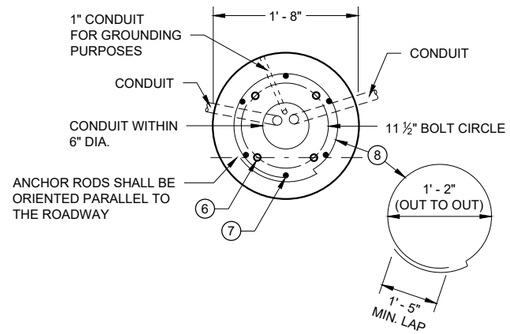
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

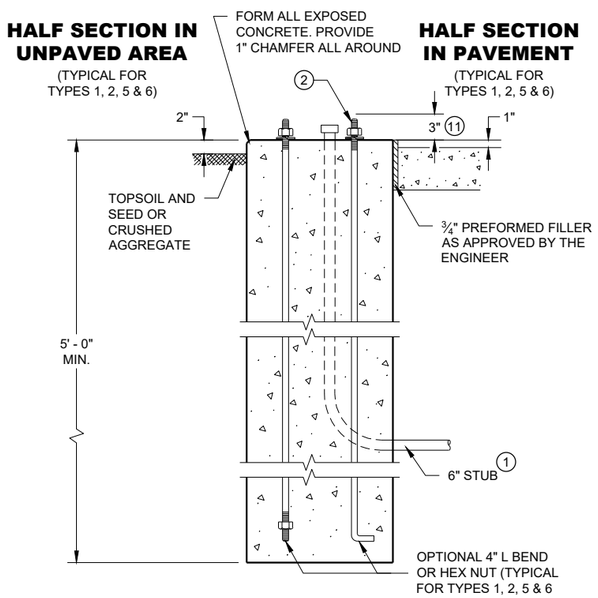
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

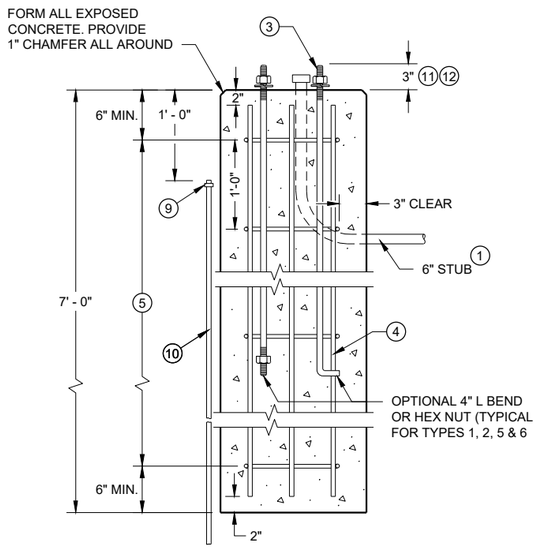




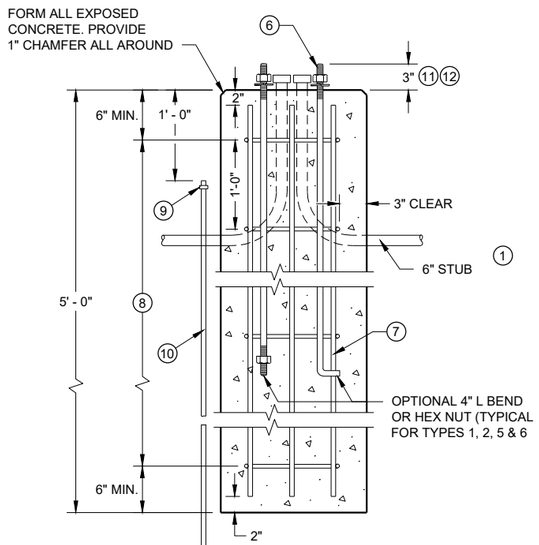




TYPE 1



TYPE 2



TYPE 5 & 6

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.

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 321
FHWA

6
SDD 09C02 - 09

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 531.2.2 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.

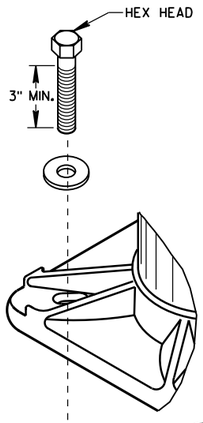
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

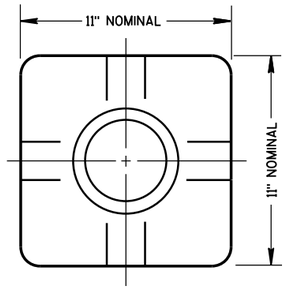
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

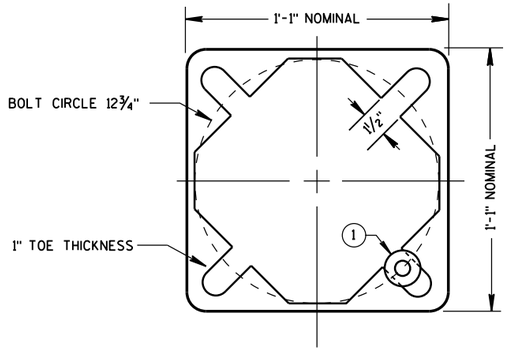
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

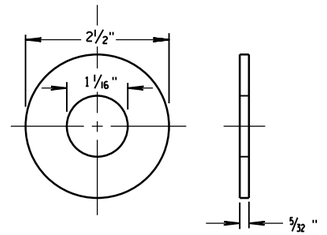




TOP VIEW
(PEDESTAL BASE)

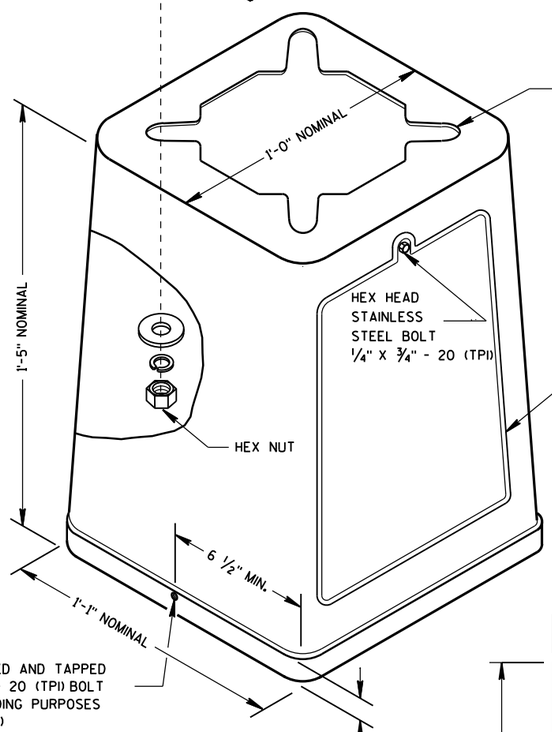


BOTTOM VIEW
(PEDESTAL BASE)

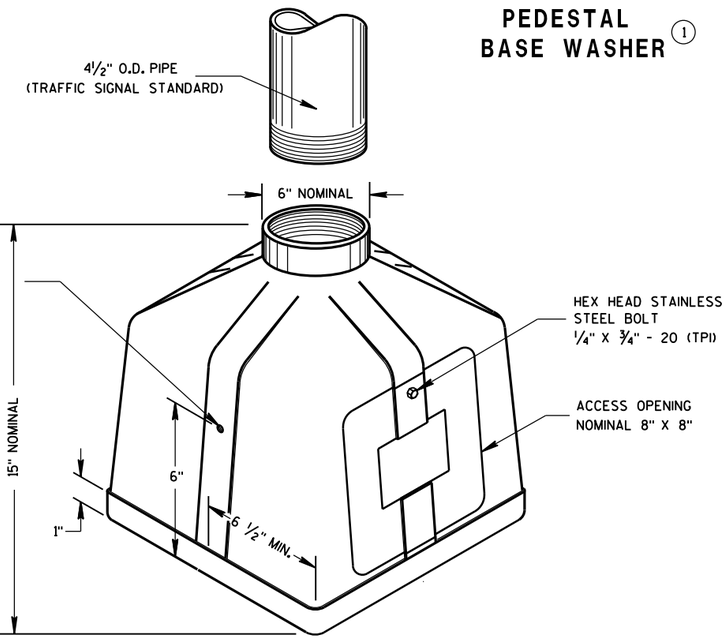


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

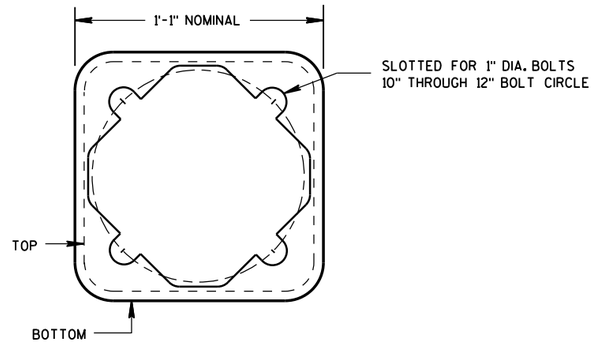
PEDESTAL BASE WASHER (1)



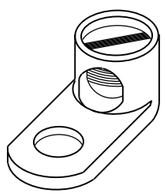
ISOMETRIC VIEW



ISOMETRIC VIEW
PEDESTAL BASE

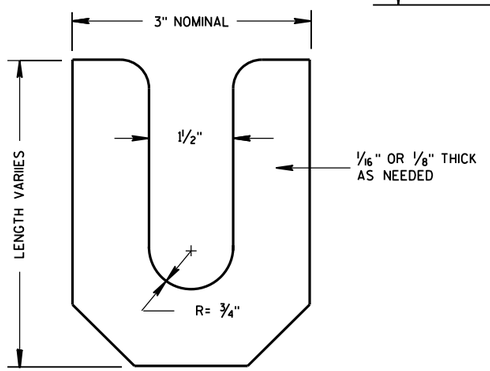


BOTTOM VIEW
(TRANSFORMER BASE)



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
322
FHWA

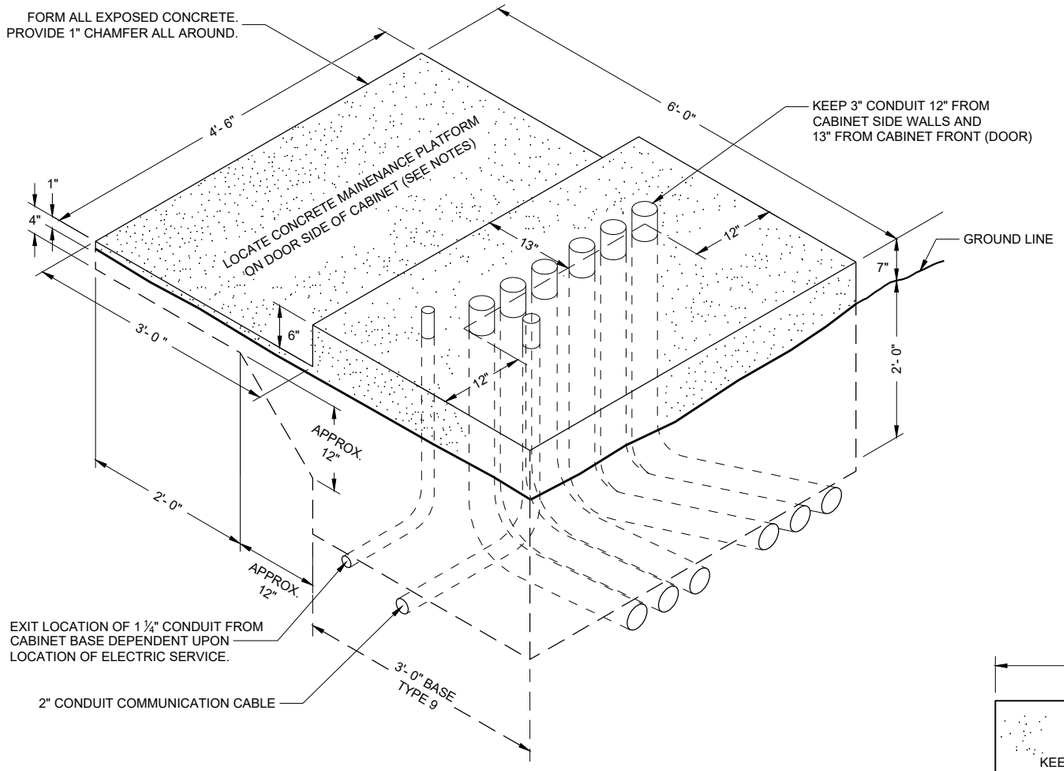
6

S.D.D. 9 C 3-4

6

S.D.D. 9 C 3-4

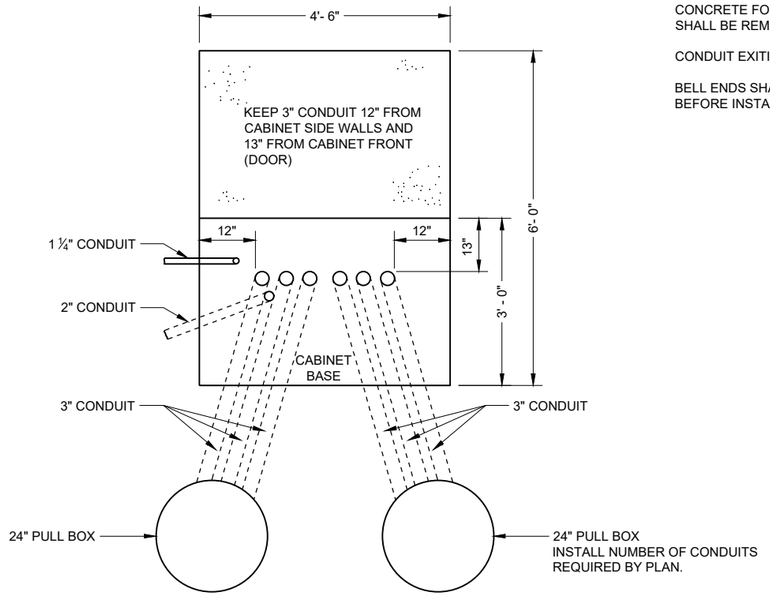
SDD 09C06 Concrete Control Cabinet Base, Type 9, Special



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 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 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.

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 (SIX 3") SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE

/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI 323

FHWA

6
SDD 09C06 - 07

GENERAL NOTES

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

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER.

IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

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).

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 OF THE STANDARD SPECIFICATIONS.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

ANCHOR RODS SHALL BE 1" X 60".

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.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 TIMES 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 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 NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. 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.

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.

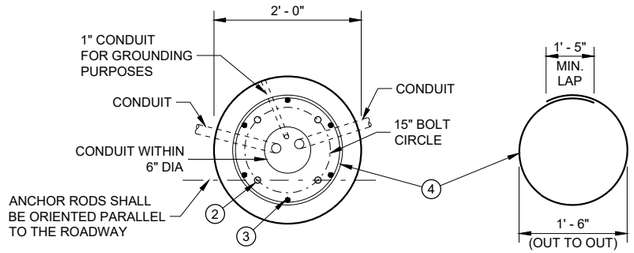
FOR USE WITH TYPE 7 AND TYPE 17 POLES.

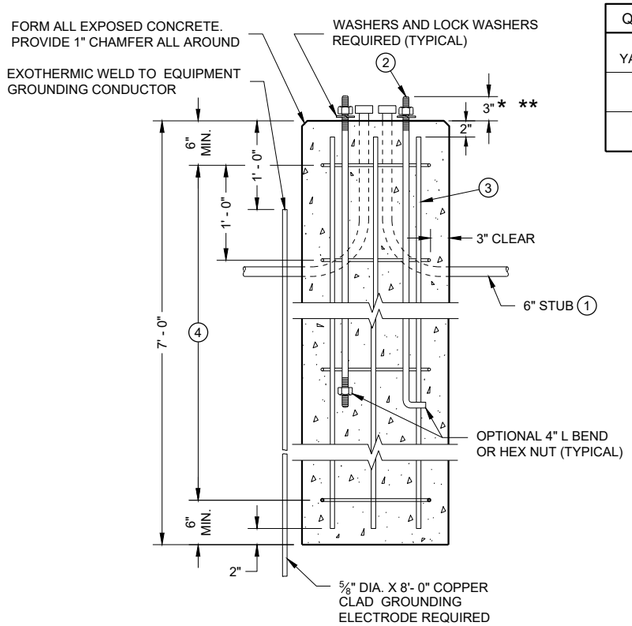
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

(2) (4) 1" DIA. X 5'-0" ANCHOR RODS.

(3) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

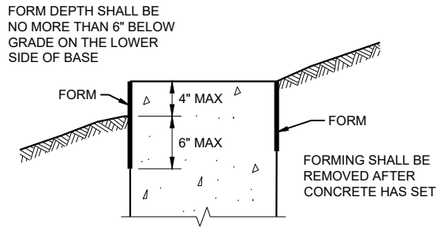
(4) (7) NO. 4 X 6'-2" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



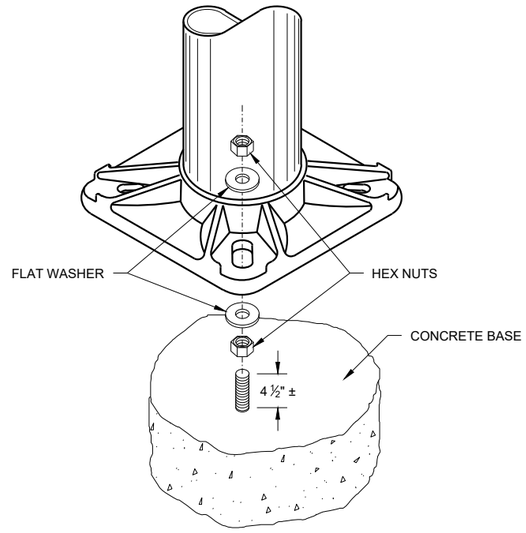


CONCRETE BASE, TYPE 7

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	0.8
LBS. OF HOOP BAR STEEL	29
LBS. OF VERTICAL BAR STEEL	60



FORMING DETAIL



NON-BREAKAWAY INSTALLATION
(LEVELING NUT)

* 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.

** FOR NON-BREAKAWAY INSTALLATIONS, 4 ½"± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASE TYPE 17

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Alex Crabtree — WIND LOADED STRUCTU PROGRAM LEADER

FHWA

6

SDD 09C08 - 05

GENERAL NOTES

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

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

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).

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 TIMES THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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 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 NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

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.

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.

(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 OF THE ENGINEER.

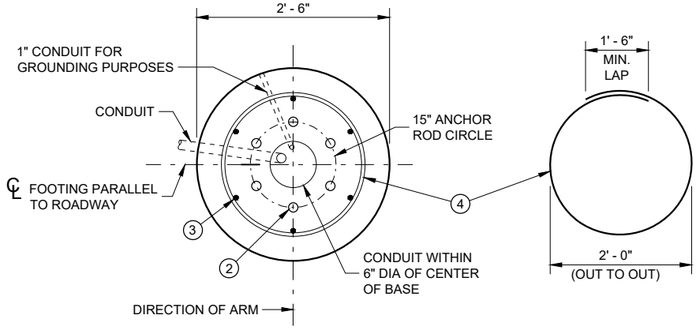
(2) (6) 1 ½ DIA. X 4' - 4" ANCHOR RODS

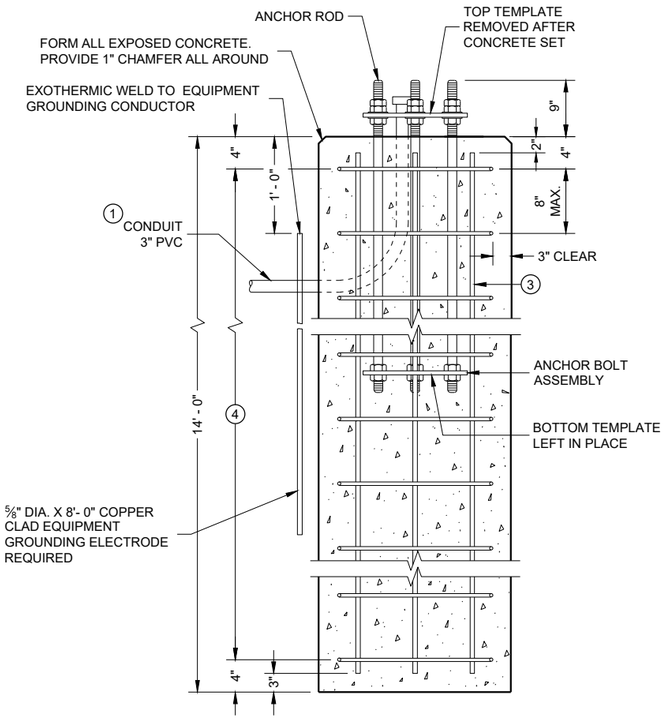
(3) (6) NO. 6 X 13' - 7" BAR STEEL REINFORCEMENT.

(4) (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 .....fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.

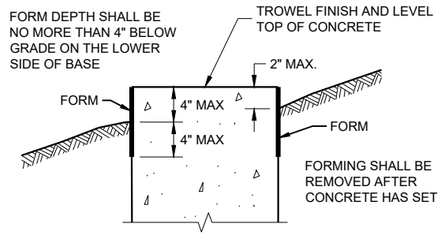
QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	172
LBS. OF VERTICAL BAR STEEL	122



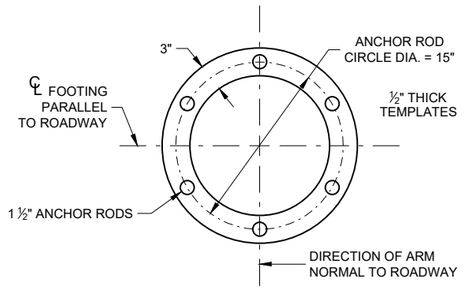


CONCRETE BASE, TYPE 10
(FOR TYPE 9, TYPE 10 AND OVER HEIGHT (OH) POLES)

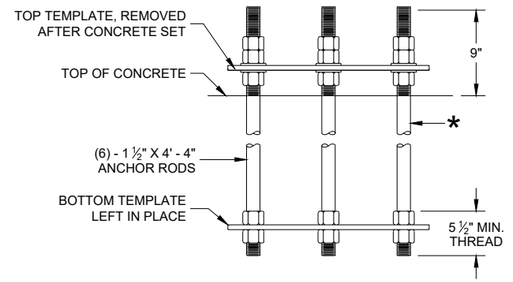
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE SDD 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (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.

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demerbilek — WIND LOADED STRUCTU PROGRAM LEADER
FHWA

6

SDD 09C11 - 10

GENERAL NOTES

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

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 AROUND 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.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

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 4 ½ 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 CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, U.L. 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.

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.

(1) 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.

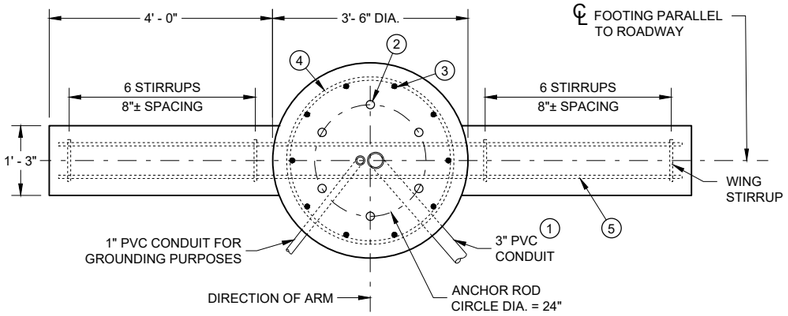
(2) (6) 1 ¾" DIA. X 7' - 2" ANCHOR RODS

(3) (10) NO. 6 X 14' - 1" BAR STEEL VERTICAL REINFORCEMENT.

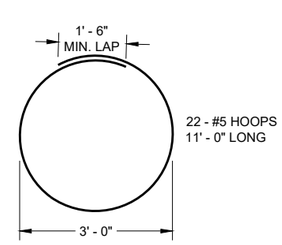
(4) (22) NO. 5 X 11'- 0" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

(5) (10) NO. 5 X 11' - 0" BAR STEEL HORIZONTAL REINFORCEMENT

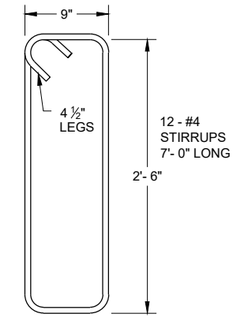
CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE .....fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.



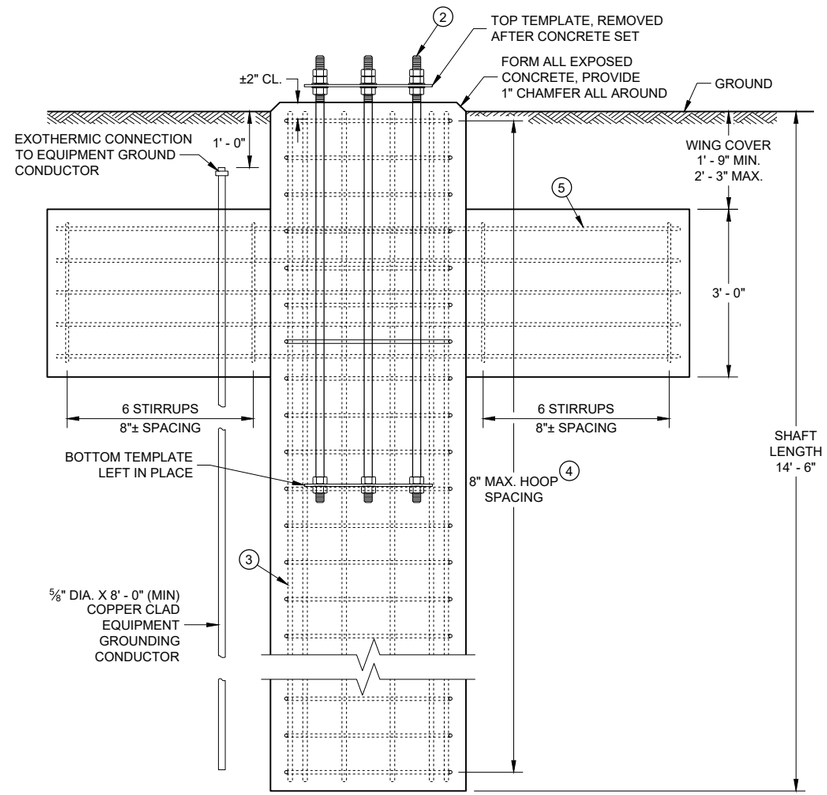
PLAN VIEW



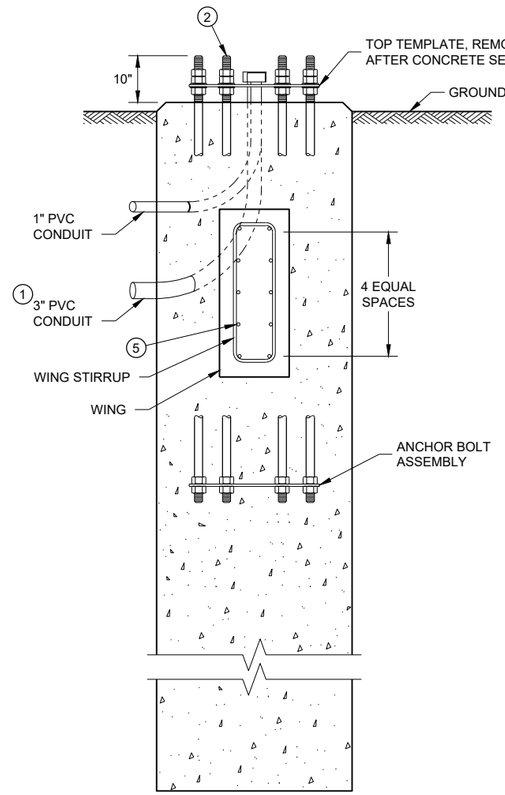
HOOP DETAIL



WING STIRRUP DETAIL



ELEVATION VIEW
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)



(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)

CONCRETE BASE, TYPE 13
(FOR TYPE 12, TYPE 13 AND OVER HEIGHT (OH) POLES)

CONCRETE = 6.3 CUBIC YARD
H.S. REINFORCEMENT = 635 LBS.

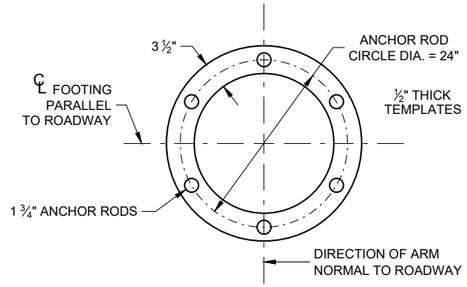
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION

CONCRETE BASE TYPE 13

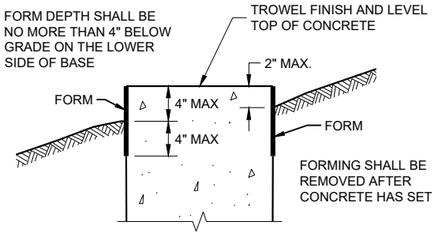
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

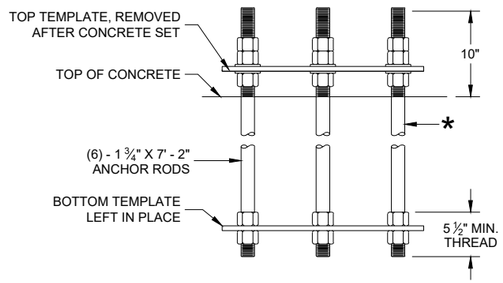
SDD 09C12 - 09a



TOP AND BOTTOM TEMPLATE



FORMING DETAIL



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 11" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (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.

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2017
DATE

/S/ Ahmet Demirbilek
WIND LOADED STRUCTU
PROGRAM LEADER

FHWA

6

SDD 09C12 - 09b

GENERAL NOTES

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

THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR RODS STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

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).

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

FORM ALL EXPOSED CONCRETE CORNERS WITH 1" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 TIMES THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 ½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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 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 NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

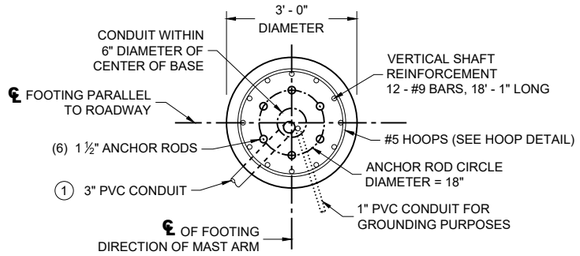
A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

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.

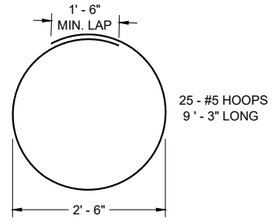
THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

(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 OF THE ENGINEER.

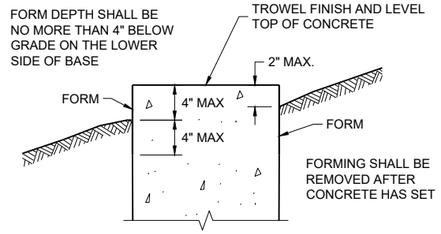
CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55.....fy = 55,000 p.s.i.
(IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.



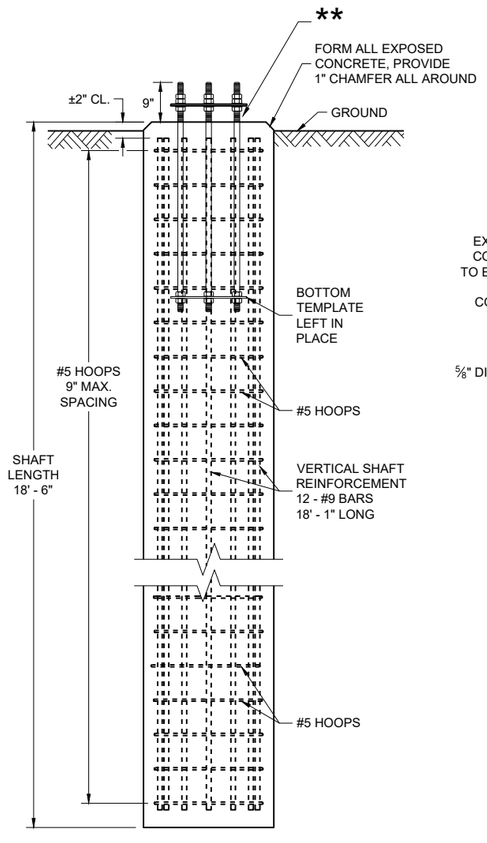
PLAN VIEW



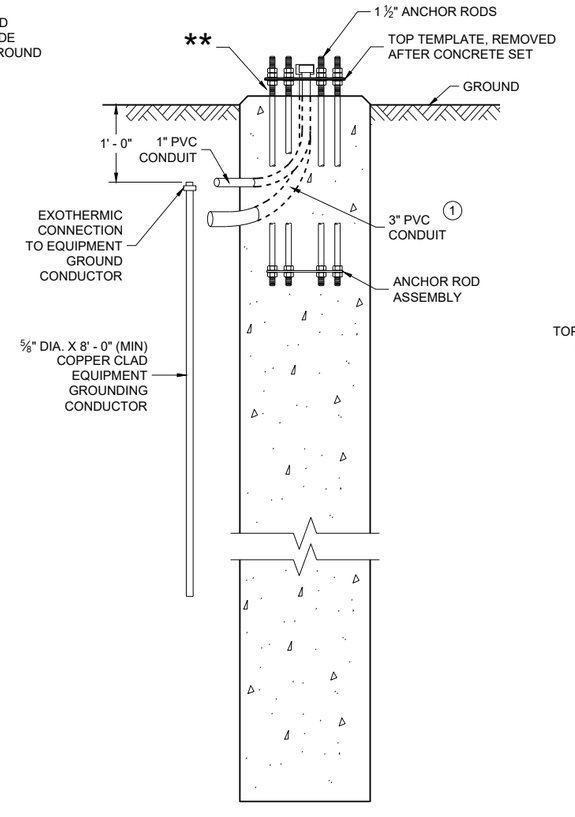
HOOP DETAIL



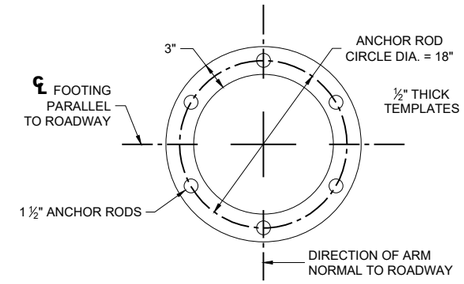
FORMING DETAIL



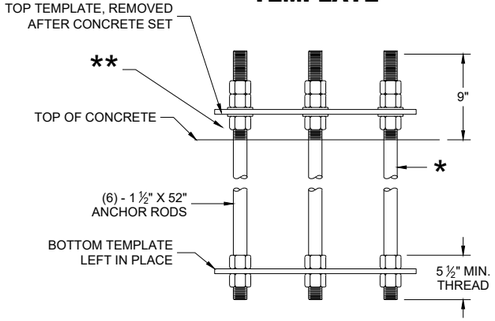
ELEVATION VIEW
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)



SIDE VIEW
(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (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.

** RODENT PROTECTION REQUIRED

CONCRETE BASE, TYPE 10 SPECIAL
(FOR TYPE 9 SPECIAL AND TYPE 10 SPECIAL POLES AND OVER HEIGHT (OH) POLES)

CONCRETE = 4.8 CUBIC YARD
H.S. REINFORCEMENT = 979 LBS.

FOR USE WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.

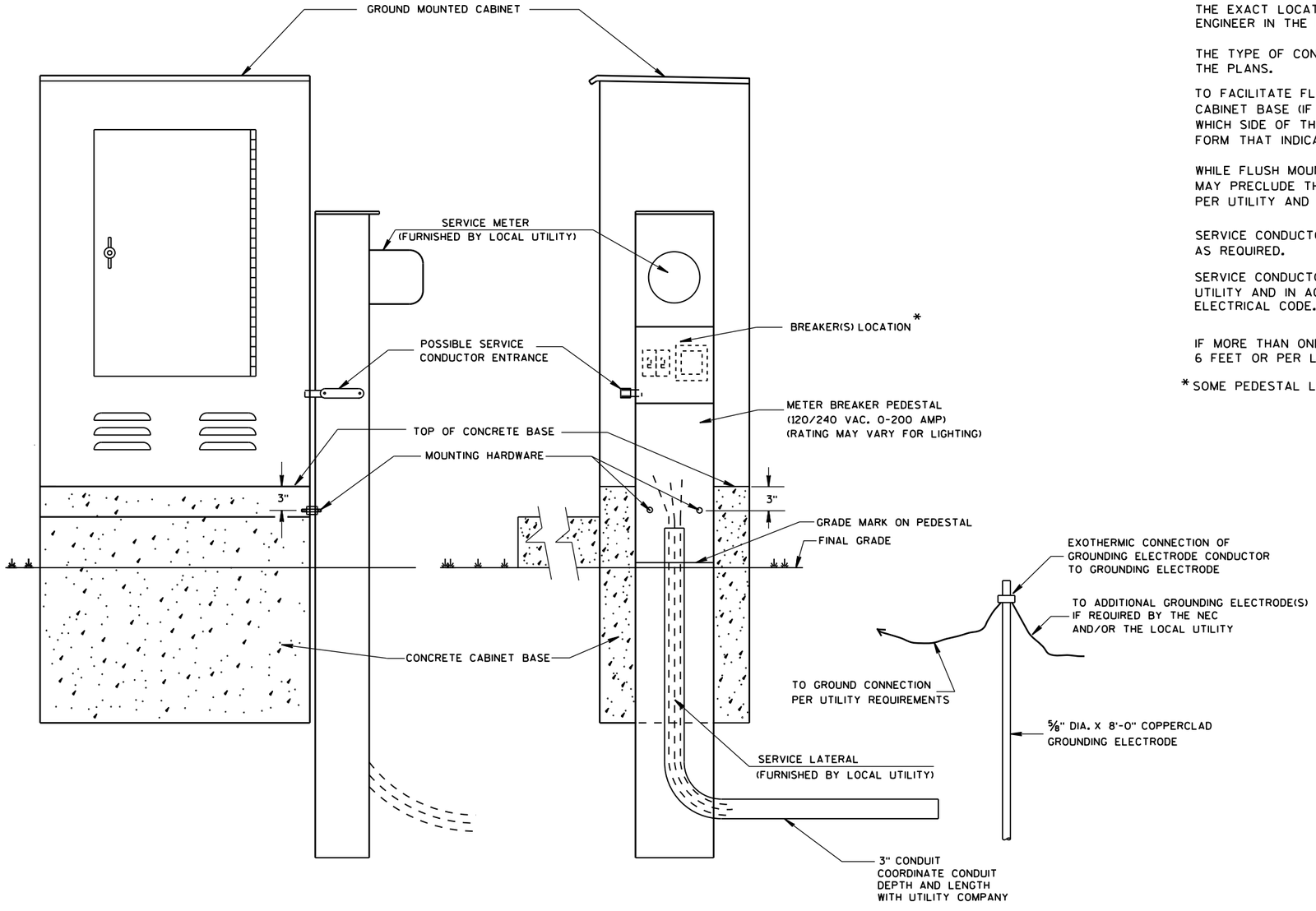
CONCRETE BASE TYPE 10 SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Alex Crabtree — WIND LOADED STRUCTURES PROGRAM LEADER

FHWA

6
SDD 09C15-03



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.

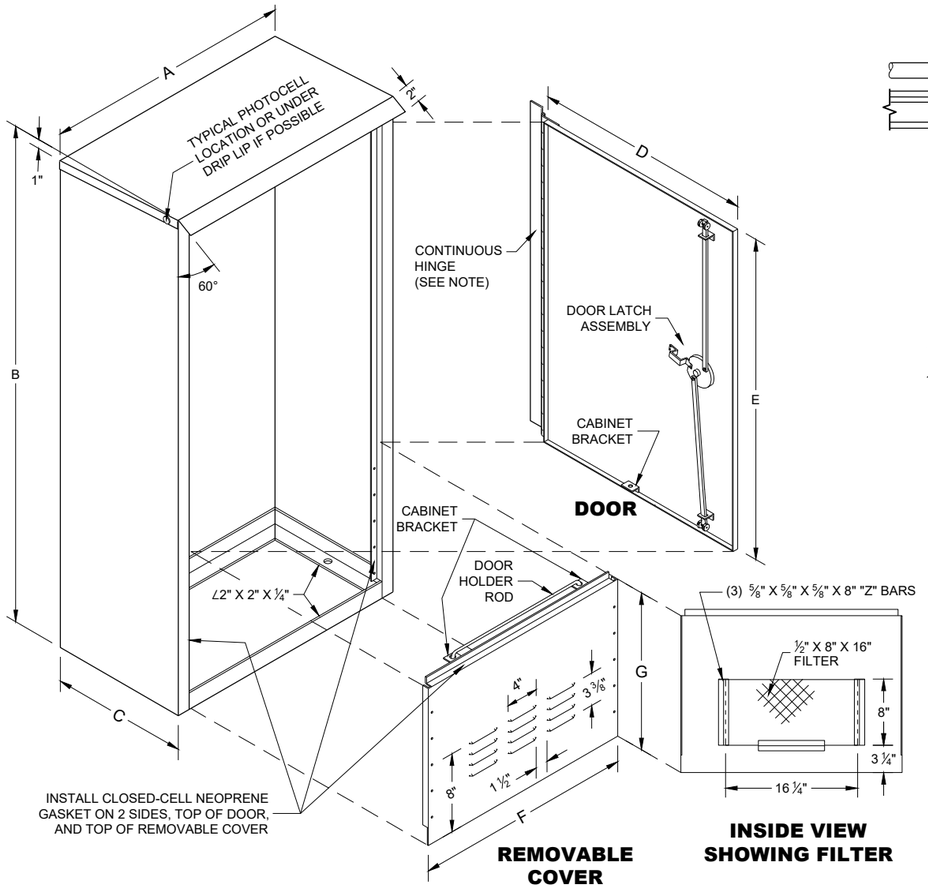
SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

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
FHWA	

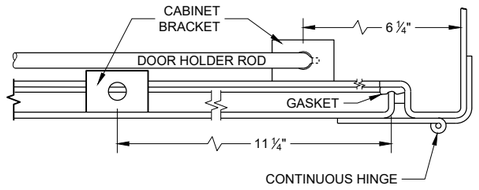
6
S.D.D. 9 D 1-5



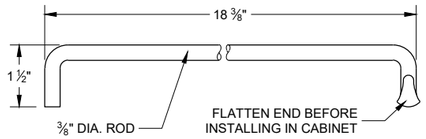
DOOR

REMOVABLE COVER

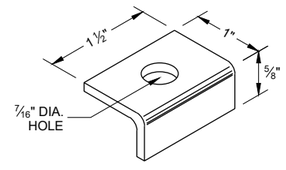
INSIDE VIEW SHOWING FILTER



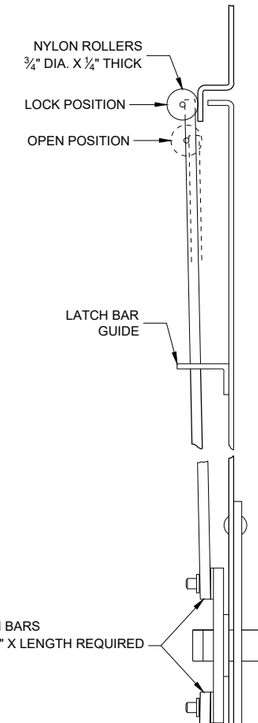
HINGE AND DOOR HOLDER



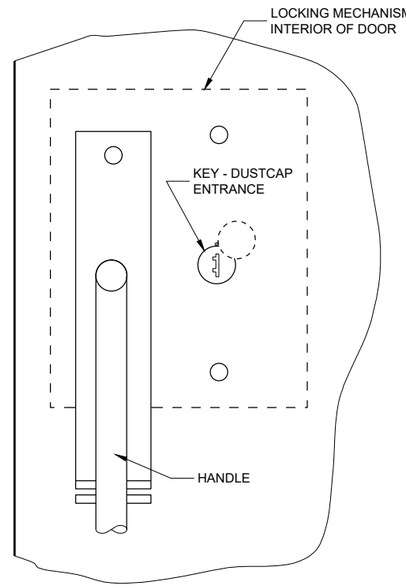
HOLDER ROD



CABINET BRACKET



SIDE VIEW



FRONT VIEW

LATCH ASSEMBLY

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.

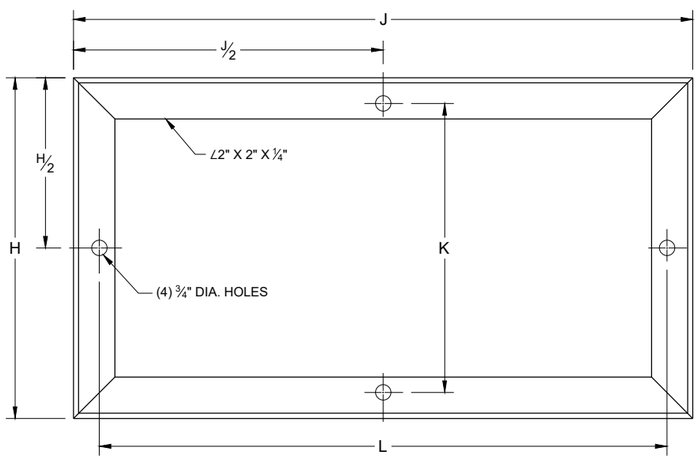
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH ¼" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH ¼" 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.

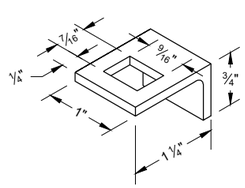
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 ½	16 ½	24
D	26 ½	34 ¾	33 ¾
E	38 ¾	38 ¾	38 ¾
F	26 ½	34 ¾	33 ¾
G	19	19	25
H	16 ½	16 ½	24
H/2	8 ¼	8 ¼	12
J	30	38	38
J/2	15	19	19
K	13 ¾	13 ¾	21 ¼
L	27 ½	35 ½	35 ½



LATCH BAR GUIDE

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

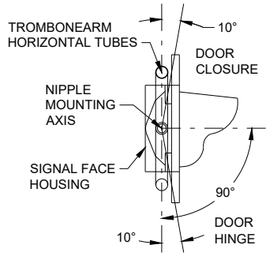
APPROVED
September 2014
DATE

/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI 330

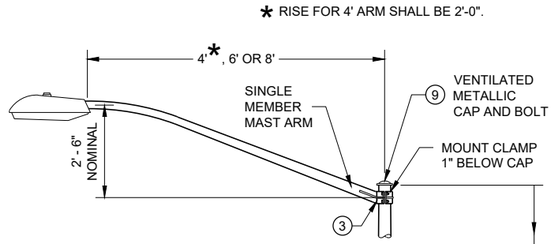
FHWA

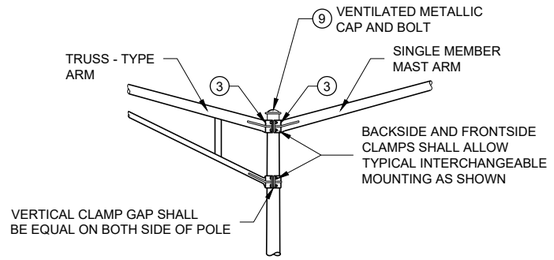
SDD 09D02 - 03

6

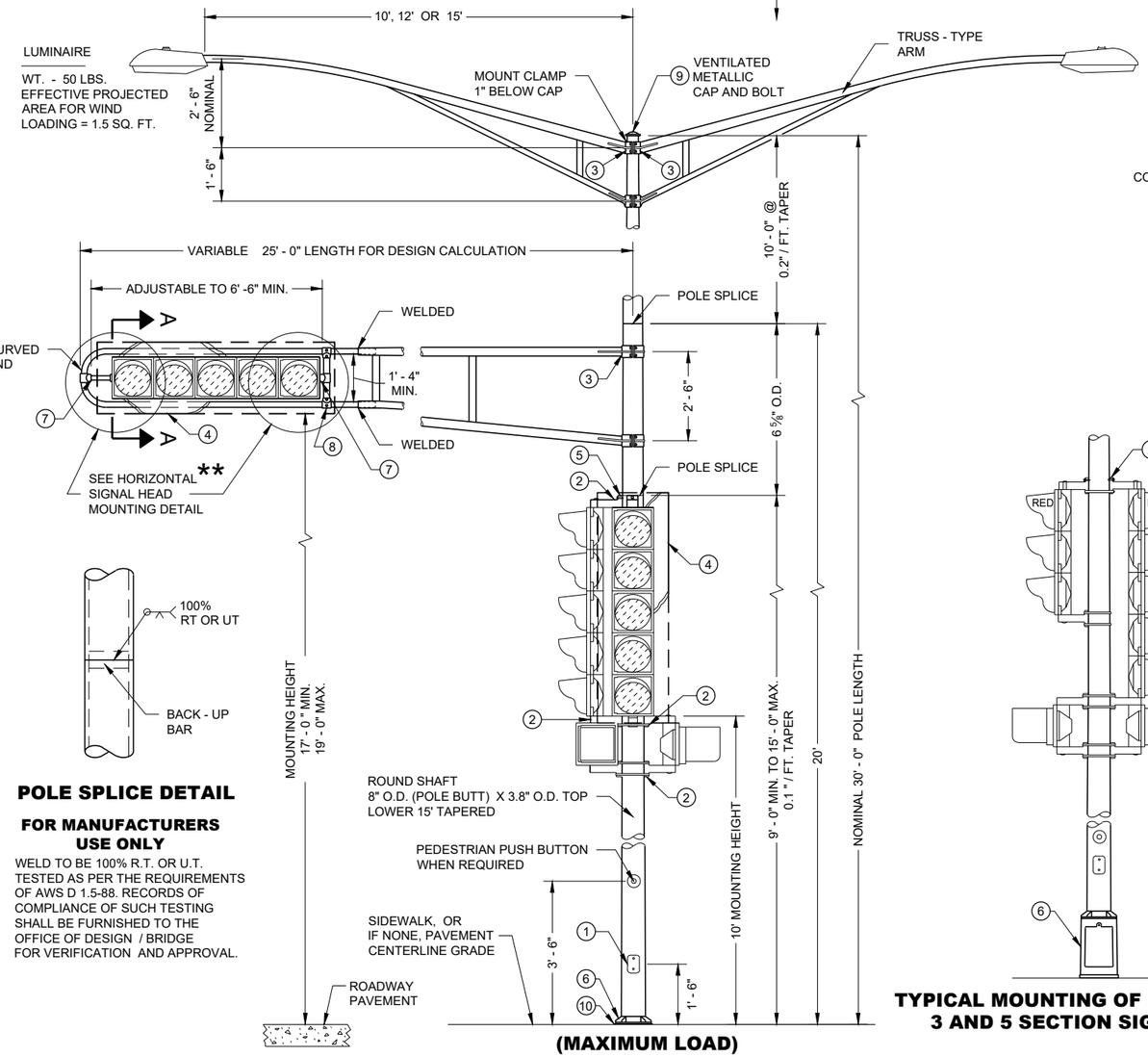


SECTION A-A

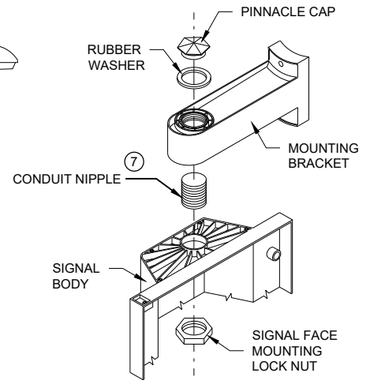




INTERCHANGEABLE MOUNTING DETAIL



(MAXIMUM LOAD)



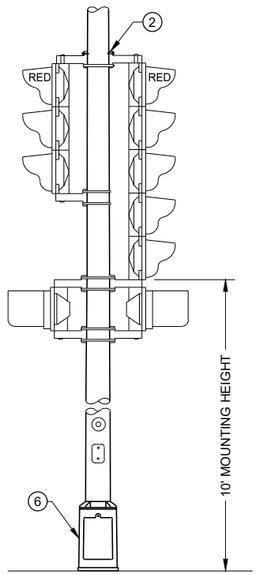
SIGNAL FACE MOUNTING DETAIL

(BANDED)

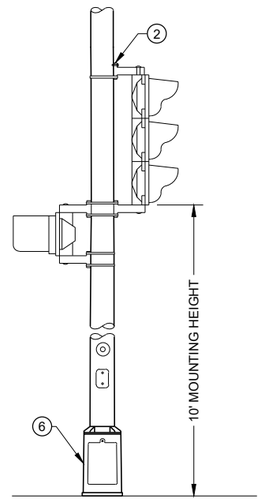
POLE SPLICE DETAIL

FOR MANUFACTURERS USE ONLY

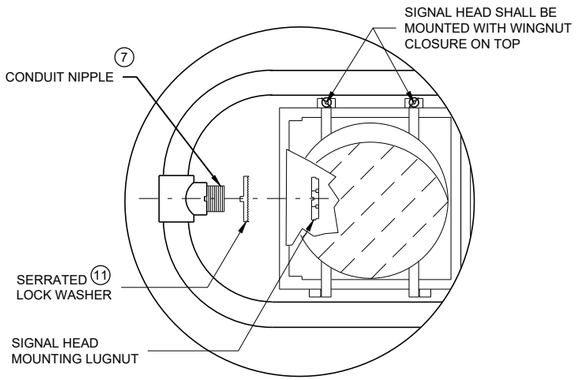
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.



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.

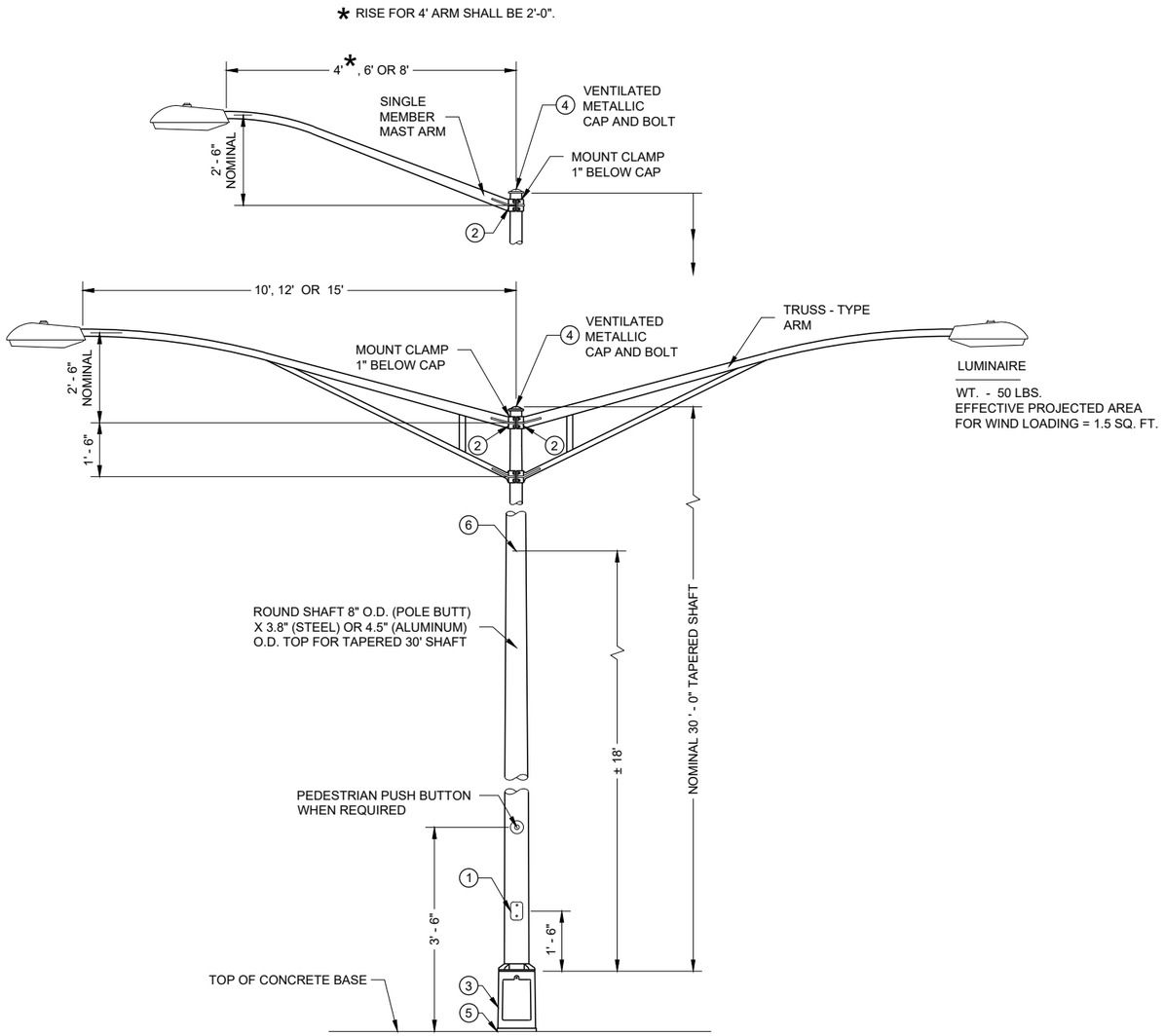
TYPE 3 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS TYPE 3 (HEAVY DUTY)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 09E01 - 15b



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.

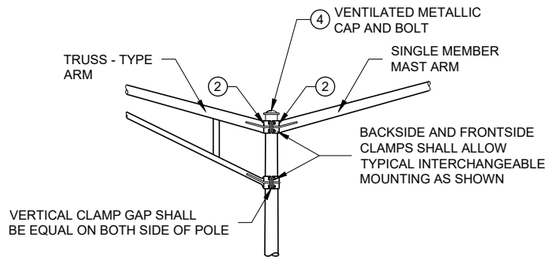
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(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.



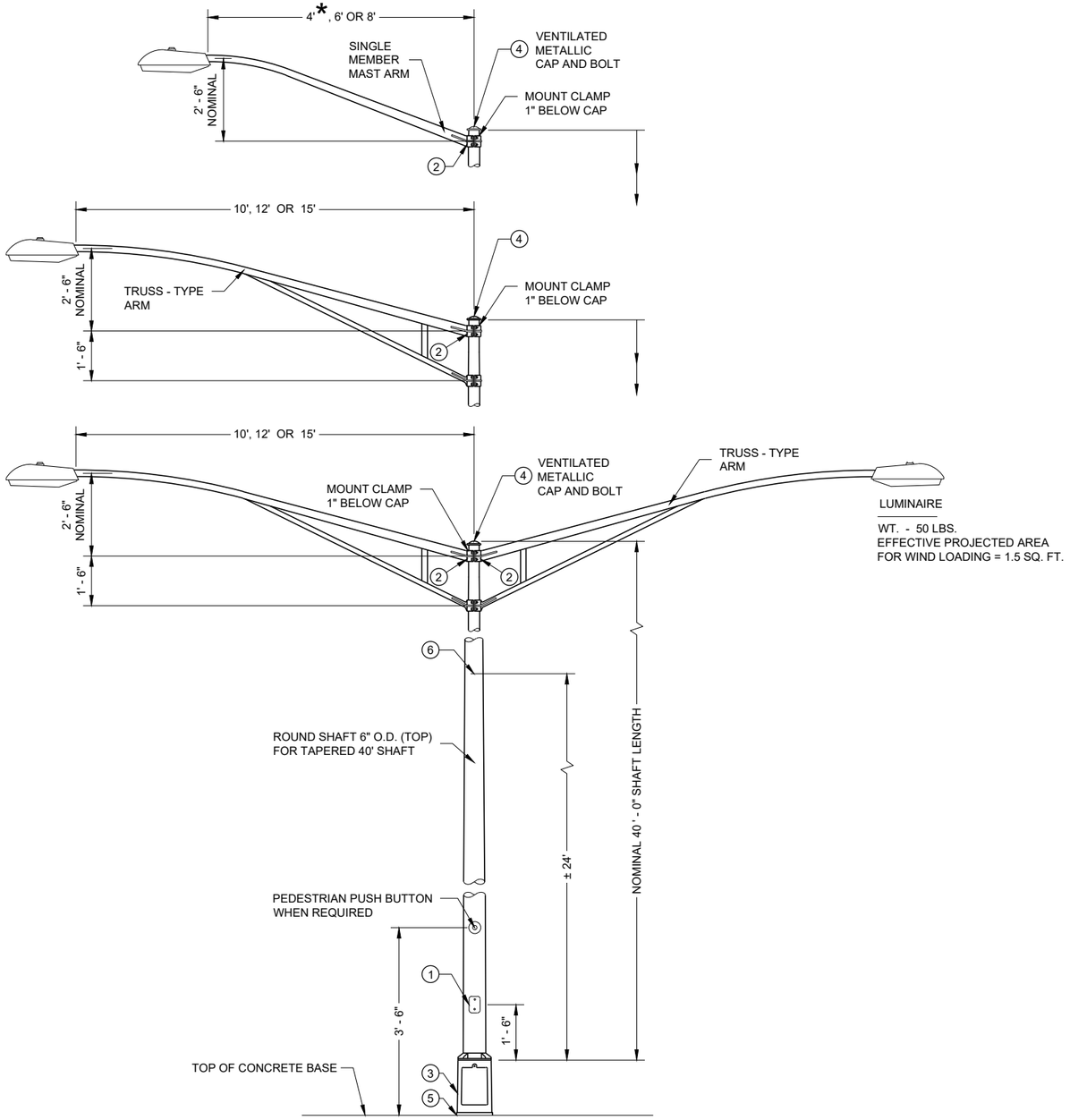
INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 09E01 - 15d

* RISE FOR 4' ARM SHALL BE 2'-0".



TYPE 17 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 LUMINAIRE 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 17 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

TYPE 17 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SHOE BASE SHALL BE SLOTTED TO ACCEPT A 15" BOLT CIRCLE (14" X 16" SLOT) USING 1" ANCHOR RODS.

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.

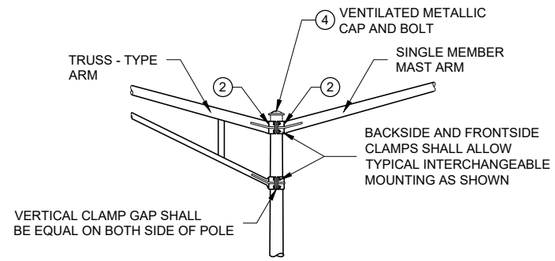
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM FHWA APPROVED TRANSFORMER BASE WHEN REQUIRED, SHALL HAVE AN ULTIMATE STATIC LOAD STRENGTH OF AT LEAST 40,000 FT. - LBS.

(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.

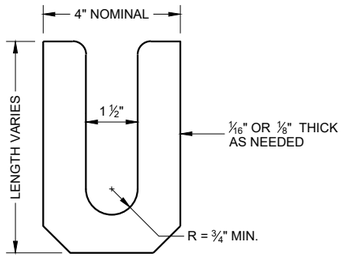
(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(6) INTERNAL DUMBELL - TYPE VIBRATION DAMPER.

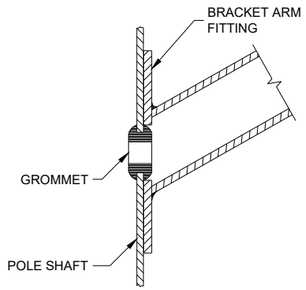


INTERCHANGEABLE MOUNTING DETAIL

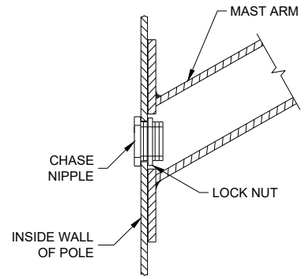
POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 17 (40 FEET)



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.

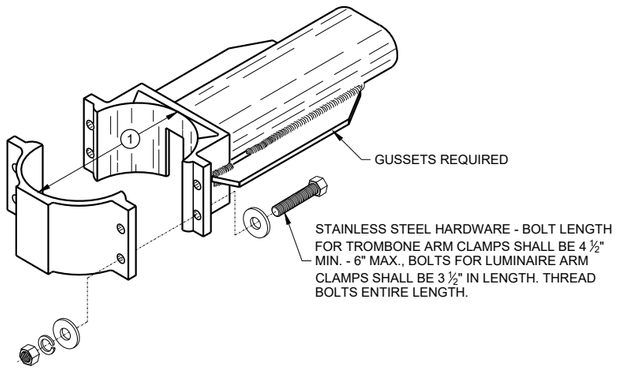
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

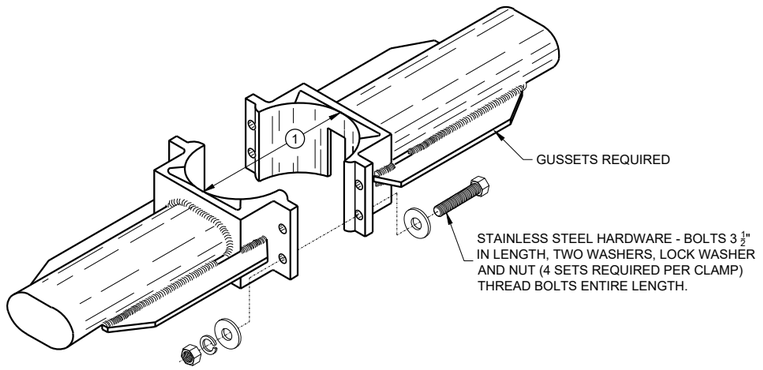
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(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.

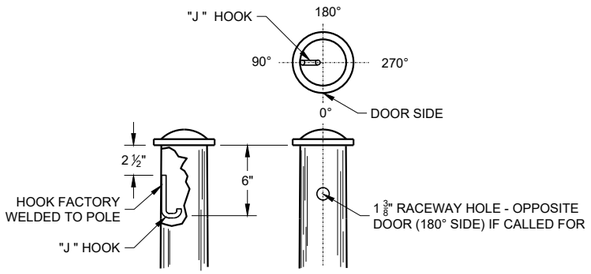
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



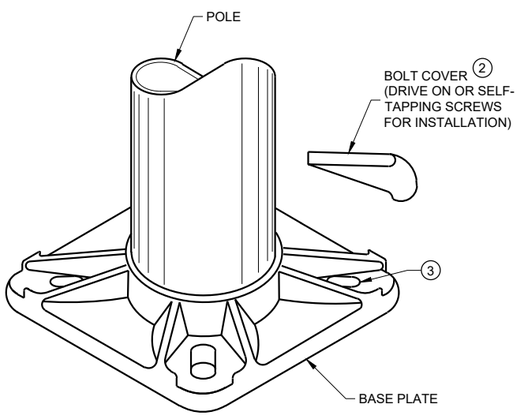
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



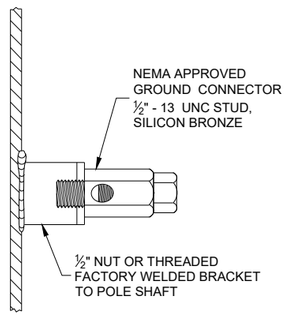
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

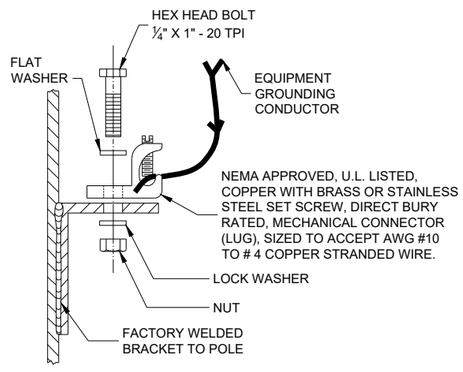


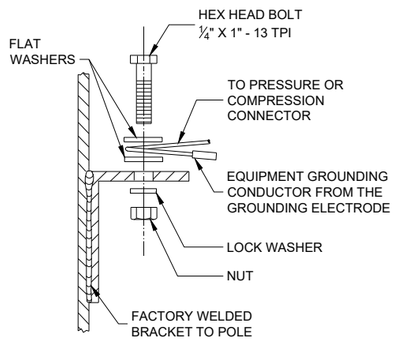
TYPICAL "J" HOOK LOCATION



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 334

FHWA

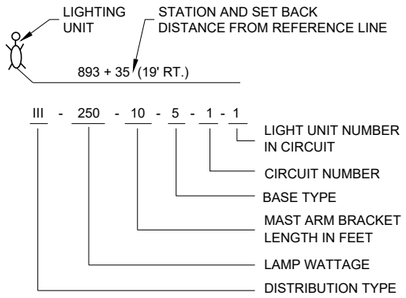
6
SDD 09E01 - 15g

GENERAL NOTES

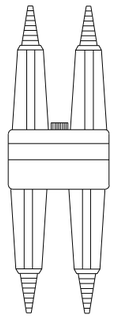
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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.

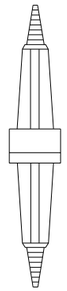
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



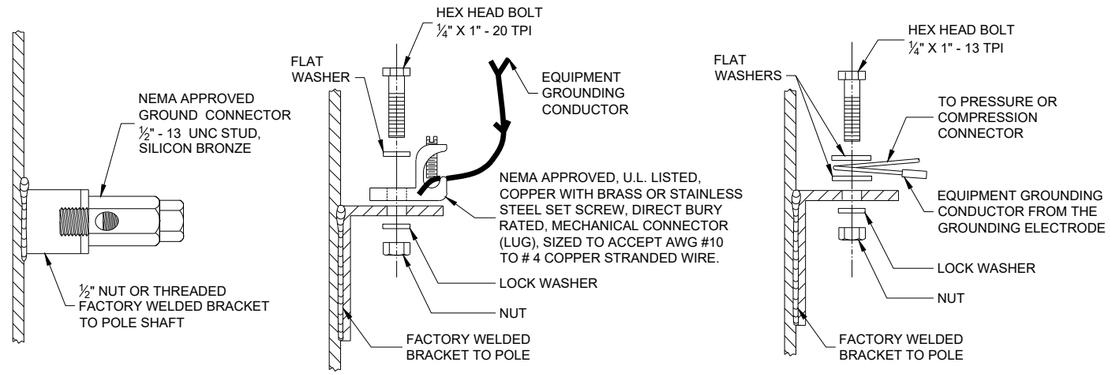
LIGHTING UNIT CODE
(TYPICAL)



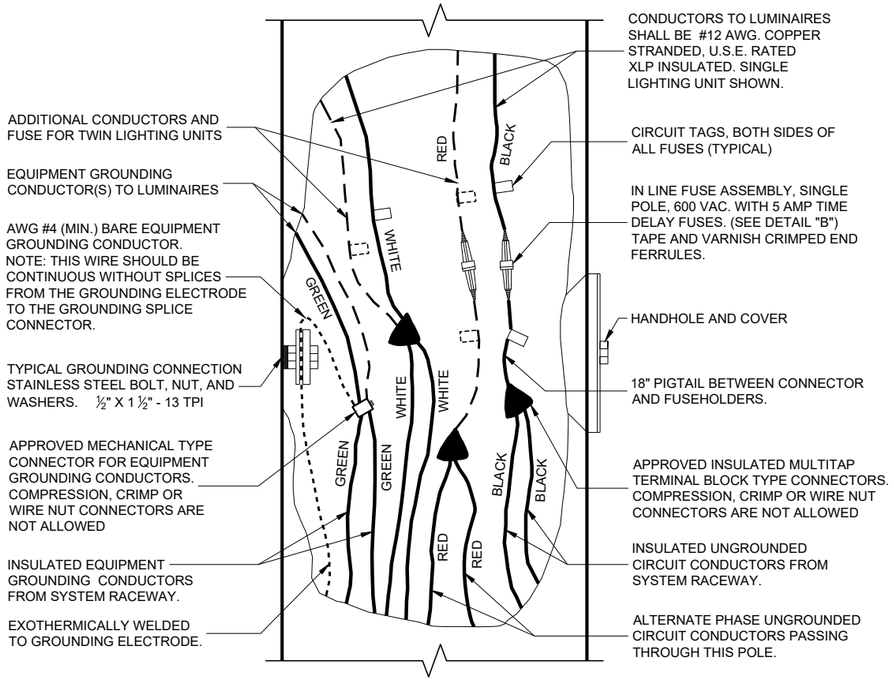
DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



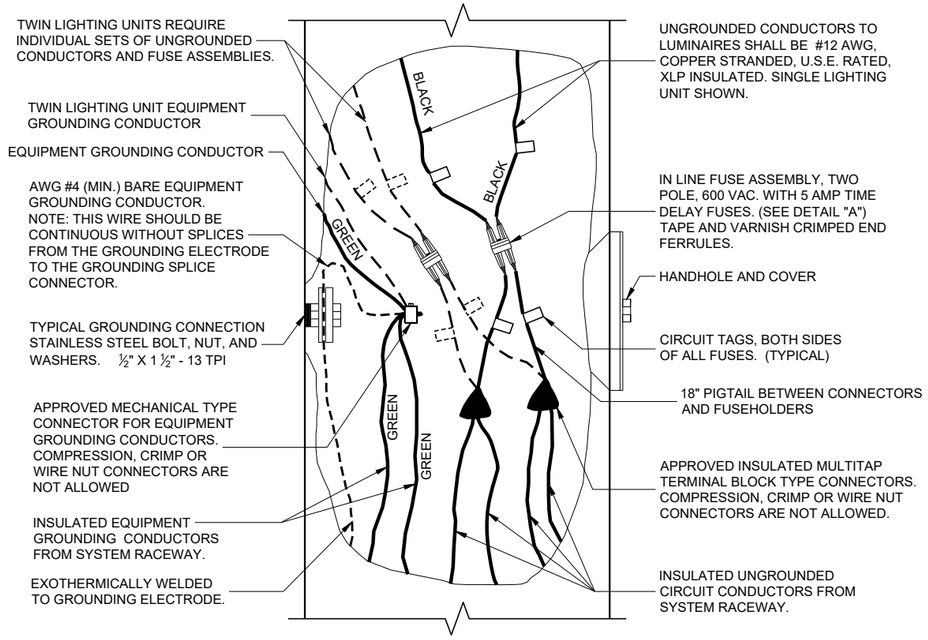
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



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



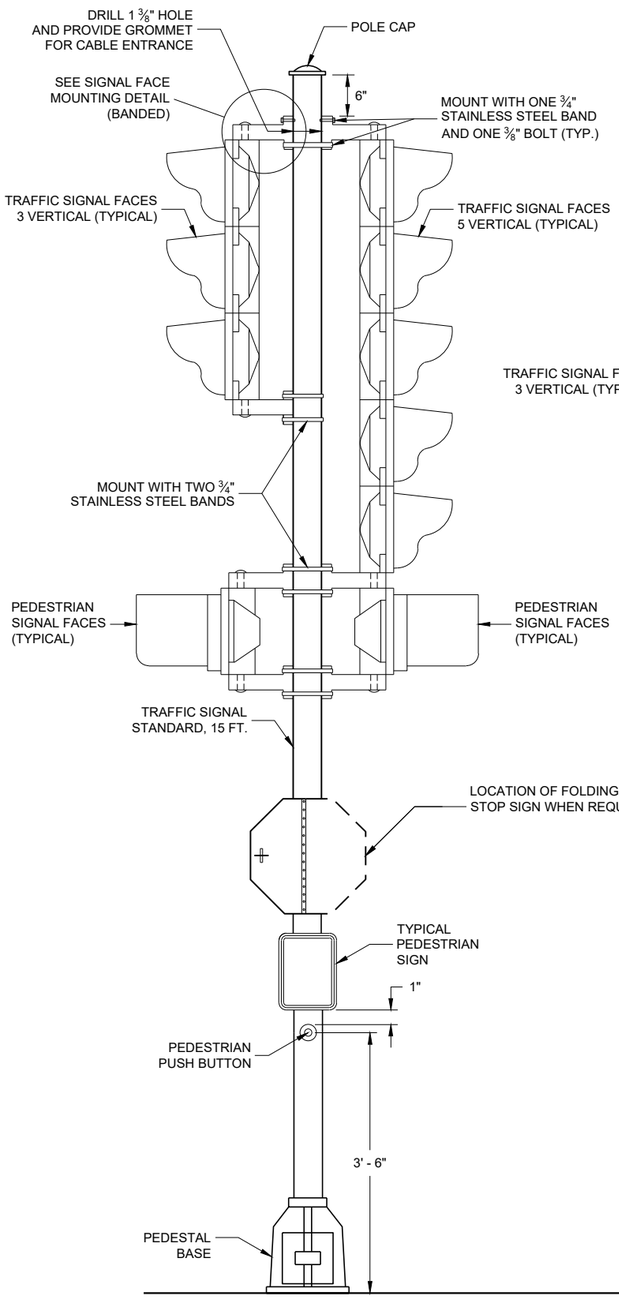
2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT POLE WIRING

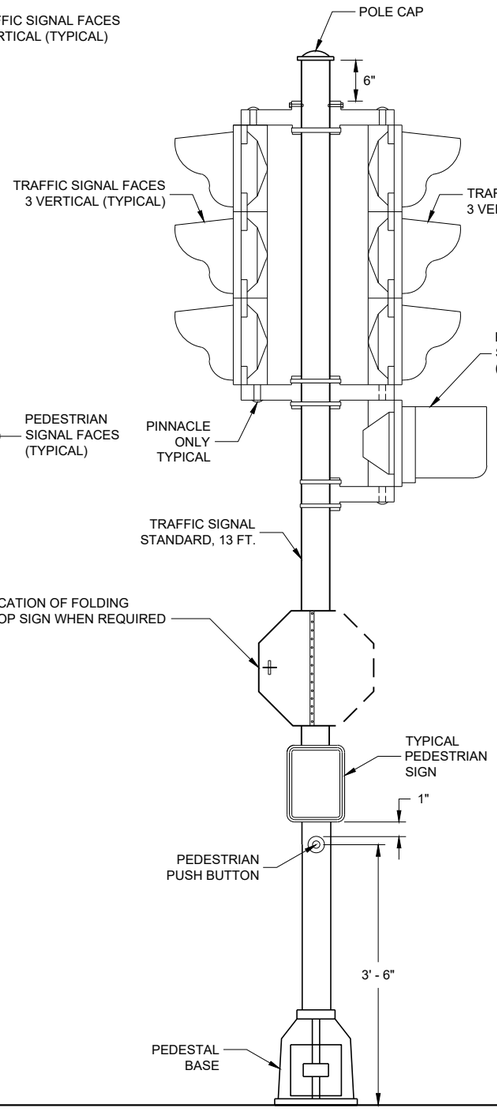
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 335

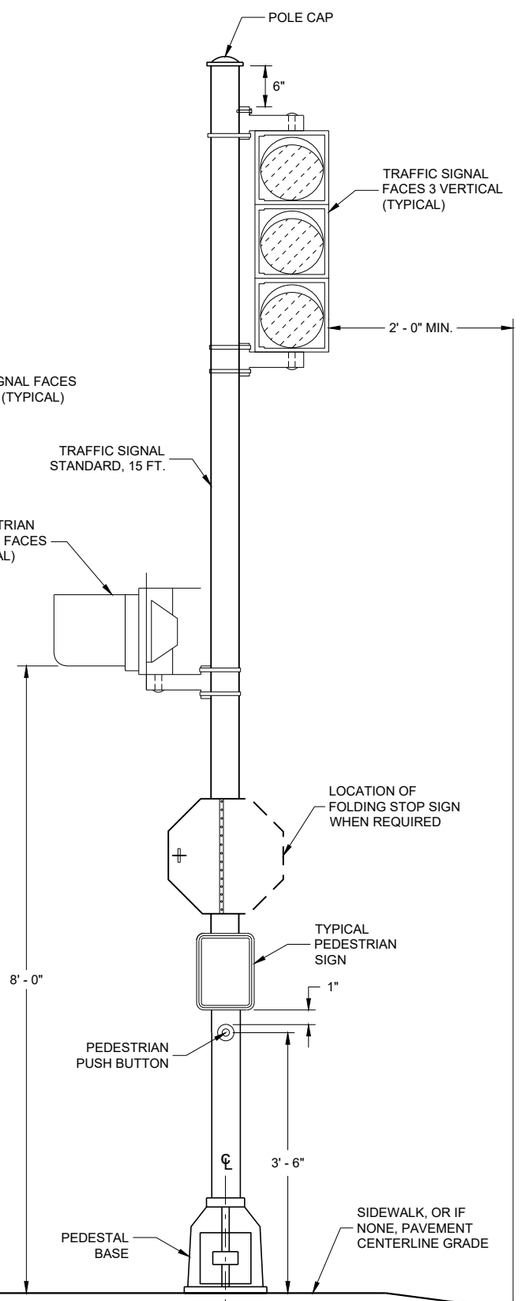
FHWA



TRAFFIC SIGNAL STANDARD - 15 FT.



TRAFFIC SIGNAL STANDARD - 13 FT.



TRAFFIC SIGNAL TANDARD - 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.

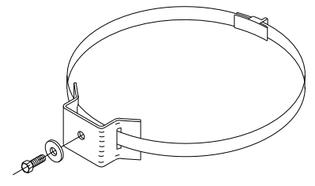
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

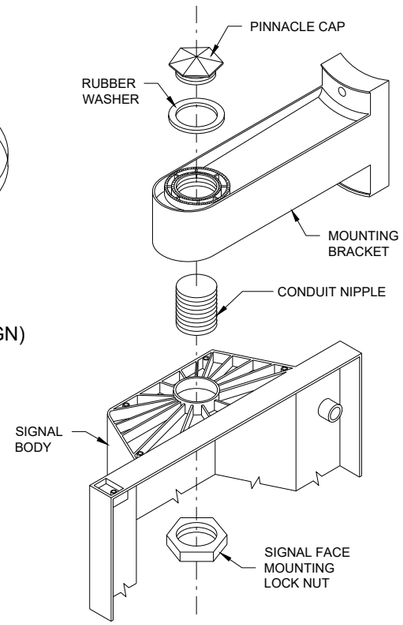
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

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.



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



SIGNAL FACE MOUNTING DETAIL (BANDED)

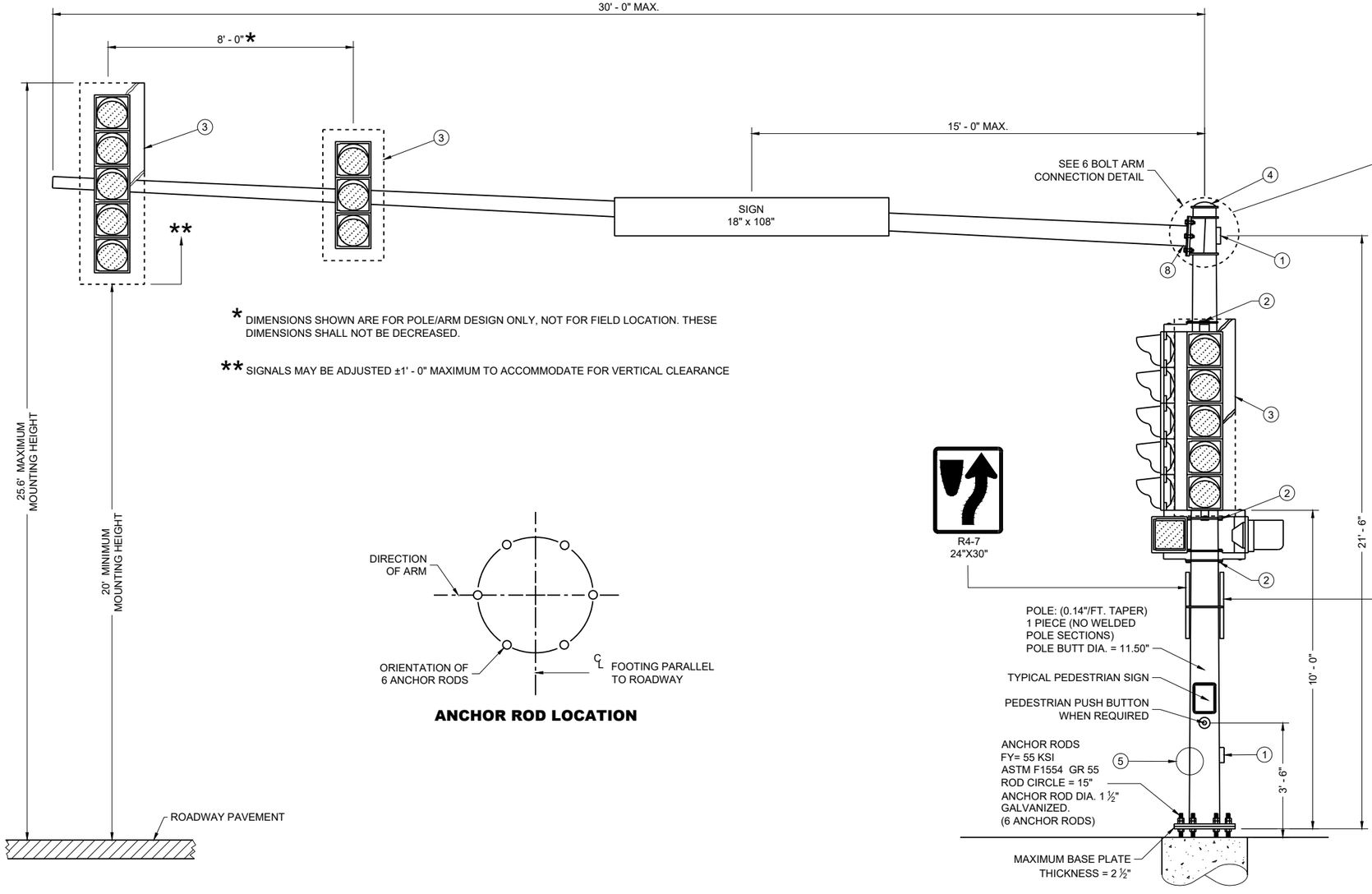
TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 336

FHWA

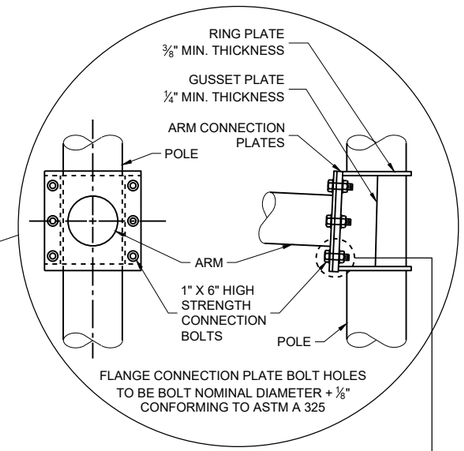
6
SDD 09E06 - 05



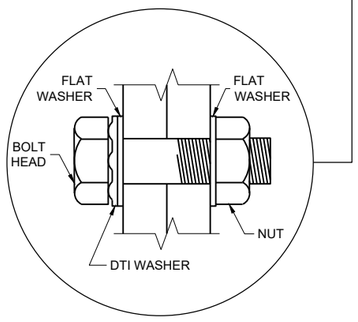
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE

ANCHOR ROD LOCATION



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

OVER HEIGHT TYPE 9 POLE
15' - 30' MONOTUBE ARM
(MAXIMUM LOAD)

OVER HEIGHT TYPE 9 POLE
15' - 30' MONOTUBE ARM

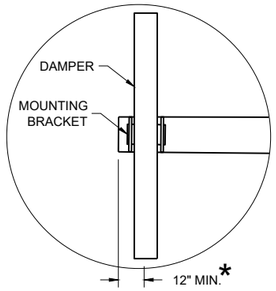
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
AUGUST 2024 — DATE
/S/ Ahmet Demerbilek — STATE ELECTRICAL ENGINEER

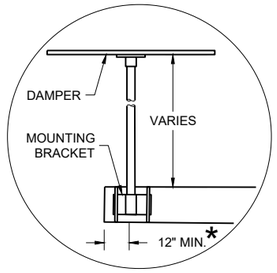
FHWA

6

SDD 09E12-02a

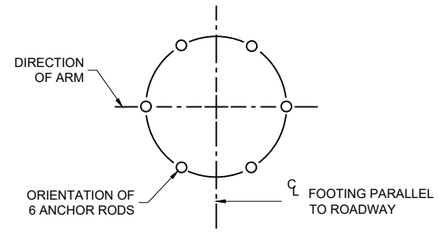


DUMBBELL VIBRATION DAMPER

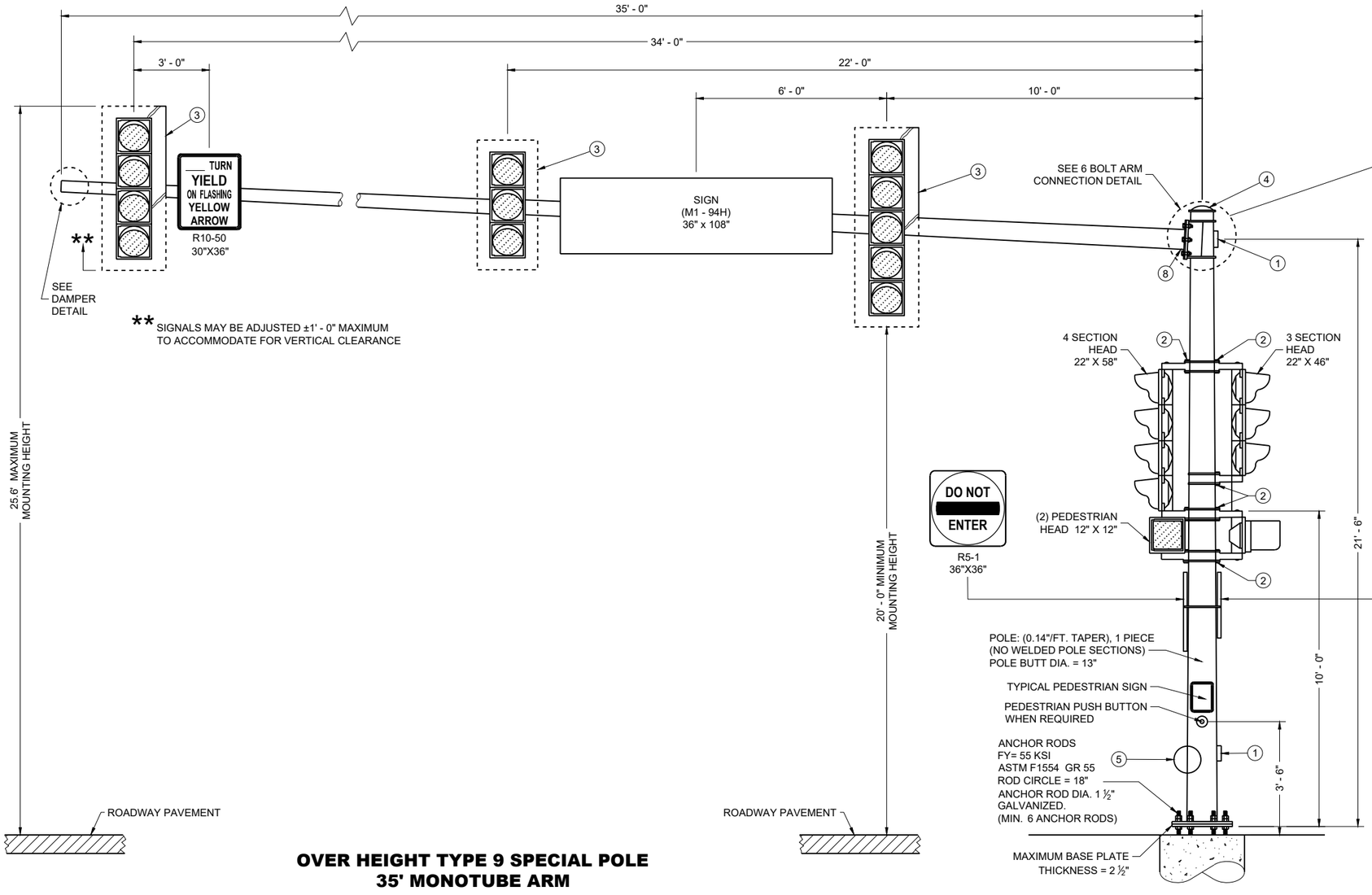


FLAT VIBRATION DAMPER

* MOUNT AS CLOSE TO END OF MAST ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.

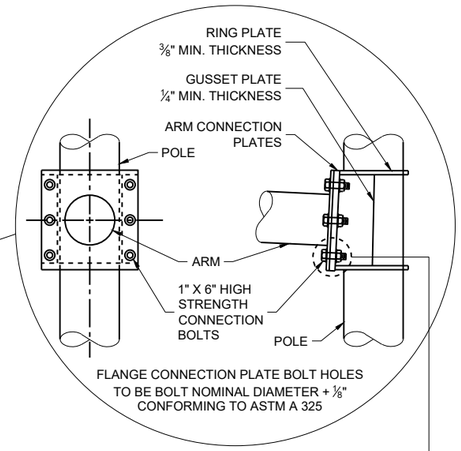


ANCHOR ROD LOCATION

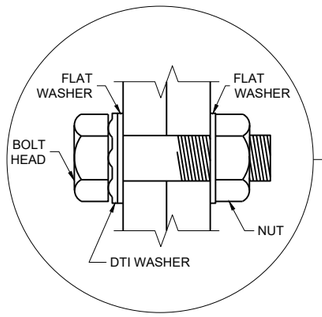


** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE

OVER HEIGHT TYPE 9 SPECIAL POLE
35' MONOTUBE ARM
(MAXIMUM LOAD)



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

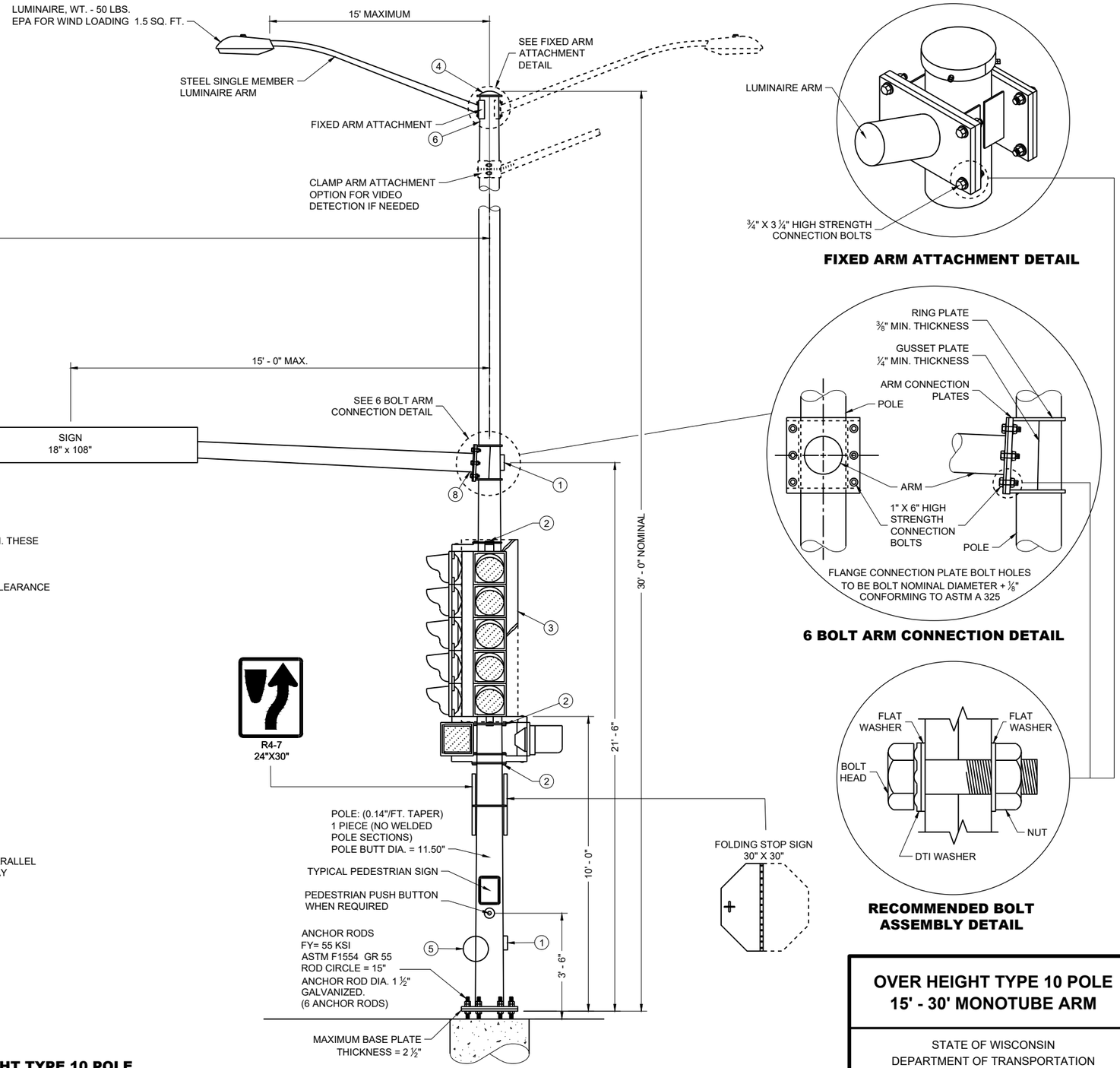
OVER HEIGHT TYPE 9 SPECIAL POLE
35' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
AUGUST 2024 — DATE
/S/ Ahmet Demerbilek — STATE ELECTRICAL ENGINEER

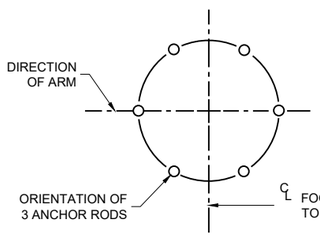
FHWA

6



* 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 ACCOMMODATE FOR VERTICAL CLEARANCE



ANCHOR ROD LOCATION

FIXED ARM ATTACHMENT DETAIL

6 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

OVER HEIGHT TYPE 10 POLE
15' - 30' MONOTUBE ARM

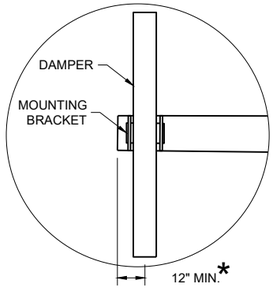
(MAXIMUM LOAD)

OVER HEIGHT TYPE 10 POLE
15' - 30' MONOTUBE ARM

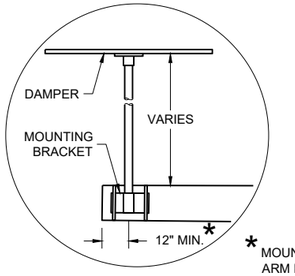
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
AUGUST 2024 — DATE
/S/ Ahmet Demerbilek — STATE ELECTRICAL ENGINEER

FHWA

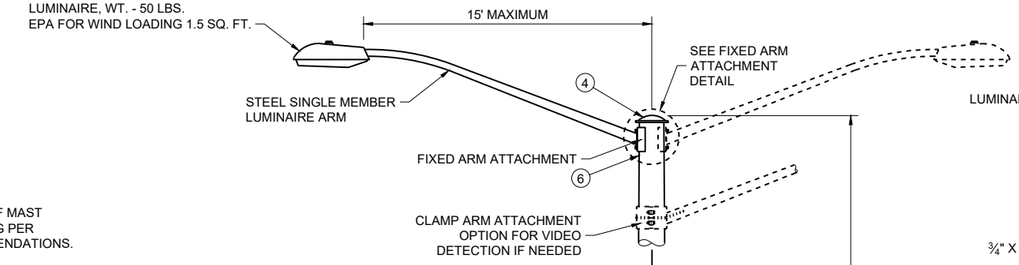


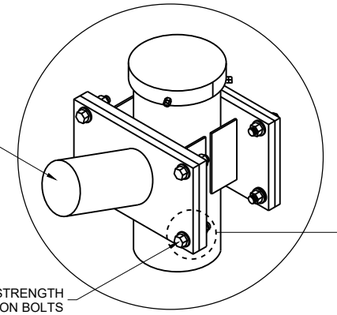
DUMBBELL VIBRATION DAMPER



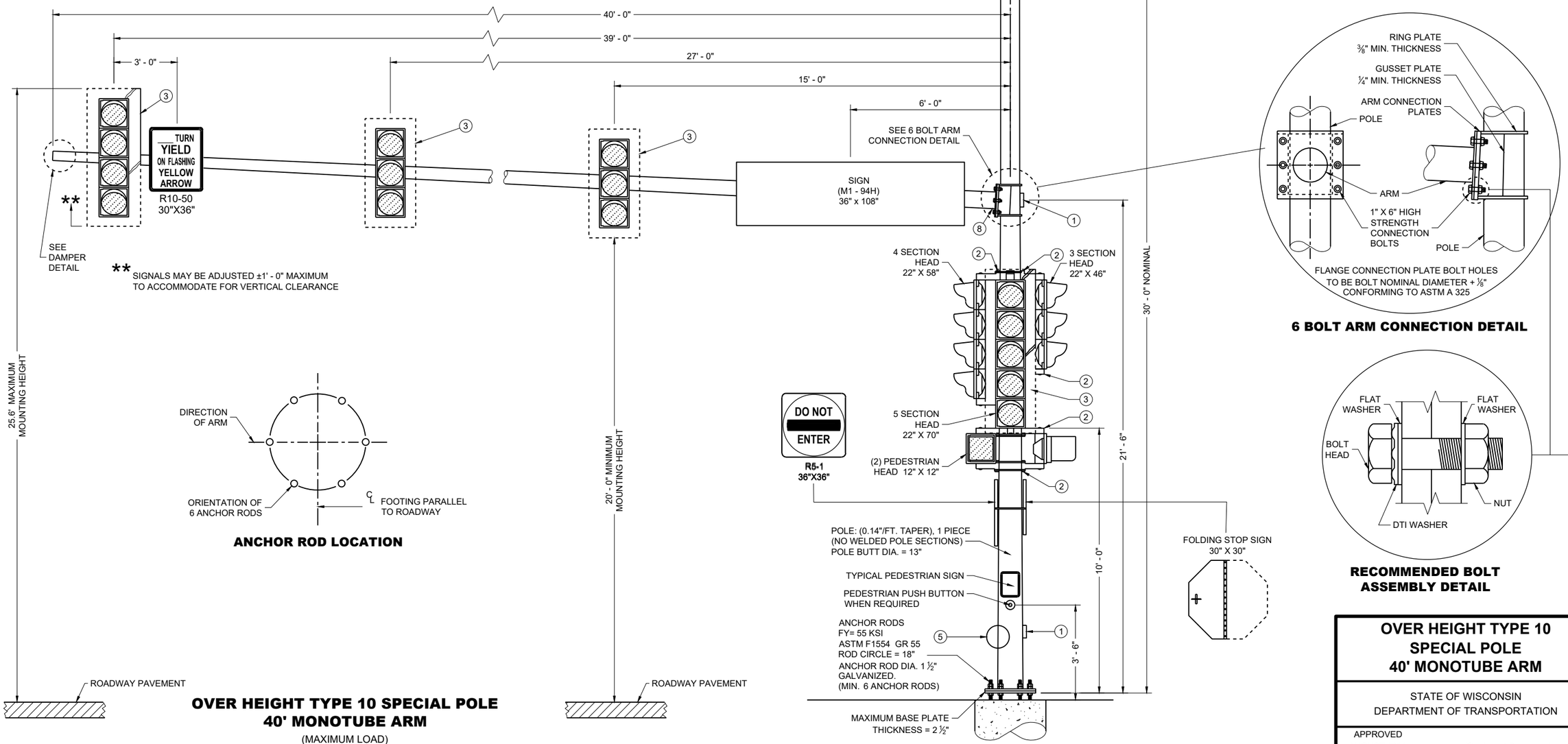
FLAT VIBRATION DAMPER

* MOUNT AS CLOSE TO END OF MAST ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.





FIXED ARM ATTACHMENT DETAIL



OVER HEIGHT TYPE 10 SPECIAL POLE 40' MONOTUBE ARM
(MAXIMUM LOAD)

ANCHOR ROD LOCATION

** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE

6 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

OVER HEIGHT TYPE 10 SPECIAL POLE 40' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
AUGUST 2024 — DATE
/S/ Ahmet Demerbilek — STATE ELECTRICAL ENGINEER

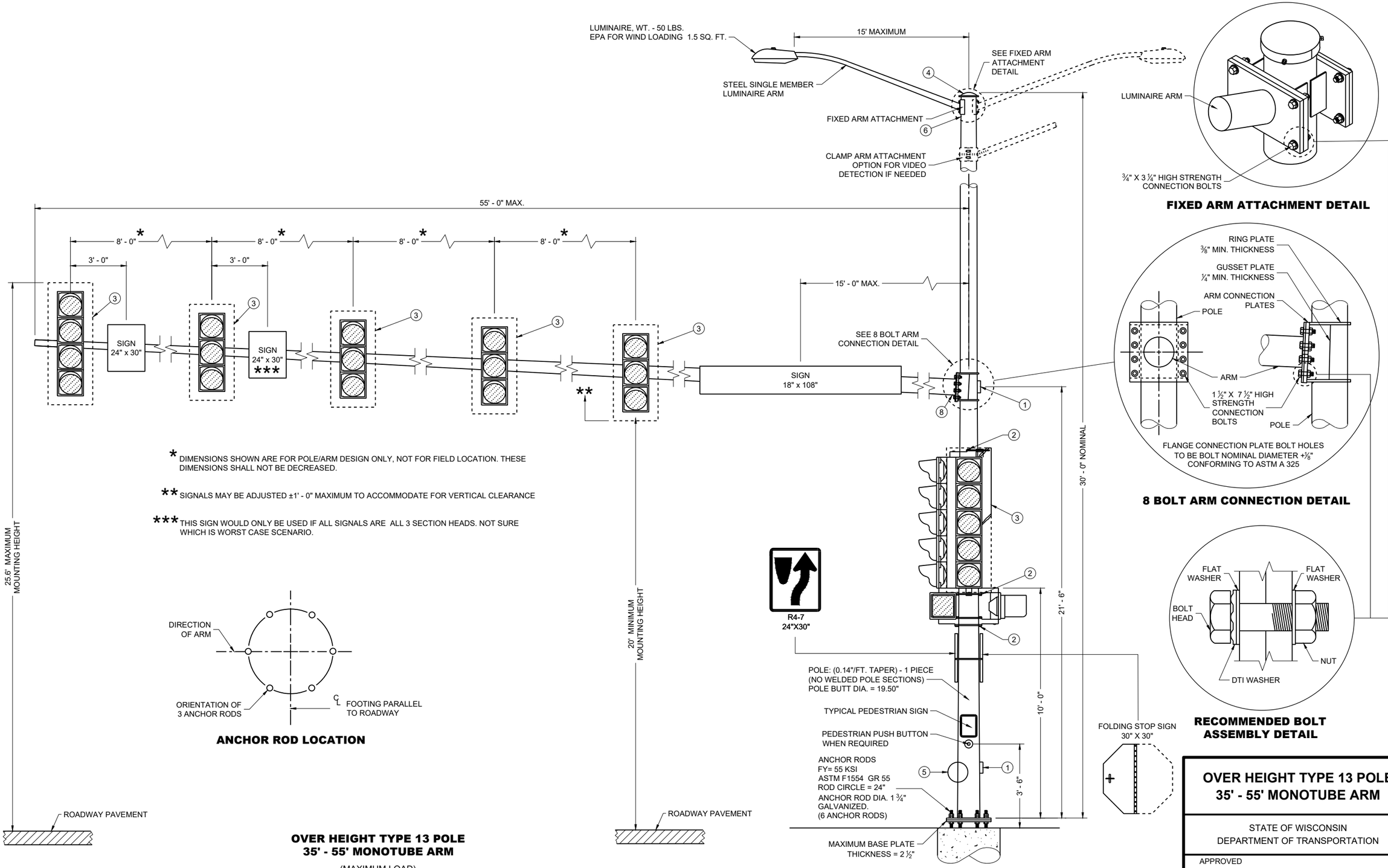
FHWA

6

SDD 09E12-02g

6

SDD 09E12-02g



* 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 ACCOMMODATE FOR VERTICAL CLEARANCE

*** THIS SIGN WOULD ONLY BE USED IF ALL SIGNALS ARE ALL 3 SECTION HEADS. NOT SURE WHICH IS WORST CASE SCENARIO.

ANCHOR ROD LOCATION

OVER HEIGHT TYPE 13 POLE
35' - 55' MONOTUBE ARM
(MAXIMUM LOAD)

FIXED ARM ATTACHMENT DETAIL

8 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

OVER HEIGHT TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
AUGUST 2024 — DATE
/S/ Ahmet Demerbilek — STATE ELECTRICAL ENGINEER

FHWA

6
SDD 09E12-02j

GENERAL NOTES

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

OVER HEIGHT POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15 FOOT TO 30 FOOT.

OVER HEIGHT POLE TYPES 9 SPECIAL AND 10 SPECIAL ARE FOR ARM LENGTHS 35 FOOT, 40 FOOT, AND 45 FOOT

OVER HEIGHT POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35 FOOT TO 55 FOOT.

MONOTUBE POLES AND ARMS 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 SPECIFICATION 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 "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING INTERIM REVISIONS)" AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR THE LIGHTING STRUCTURES AS FOLLOWS:

CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF OVER HEIGHT TYPE 9 AND TYPE 10 STRUCTURES.

CATEGORY II FATIGUE LOADS OF TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF OVER HEIGHT TYPE 9 SPECIAL AND TYPE 10 SPECIAL STRUCTURES. IN LIEU OF DESIGNING FOR GALLOPING, A VIBRATION DAMPER MITIGATION DEVICE IS REQUIRED TO BE SUPPLIED AND INSTALLED AT THE END OF THE MAST ARM.

CATEGORY II FATIGUE FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF OVER HEIGHT TYPE 12 AND TYPE 13 STRUCTURES.

115 MPH (700 YEAR MRI BASIC WIND SPEED).

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" STAINLESS STEEL 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 HAND HOLE 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 SPECIFICATION SECTION 658).

(3) SECURELY MOUNT BACK PLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND 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 HAND HOLD, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

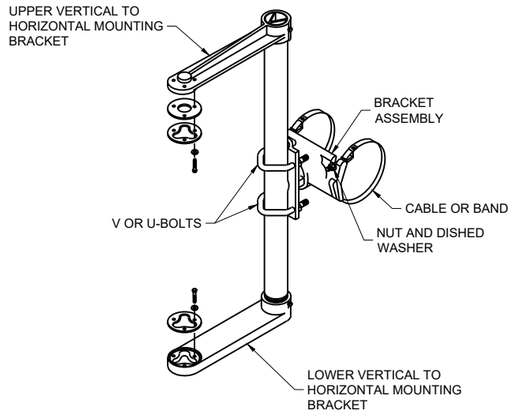
(6) FACTORY WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

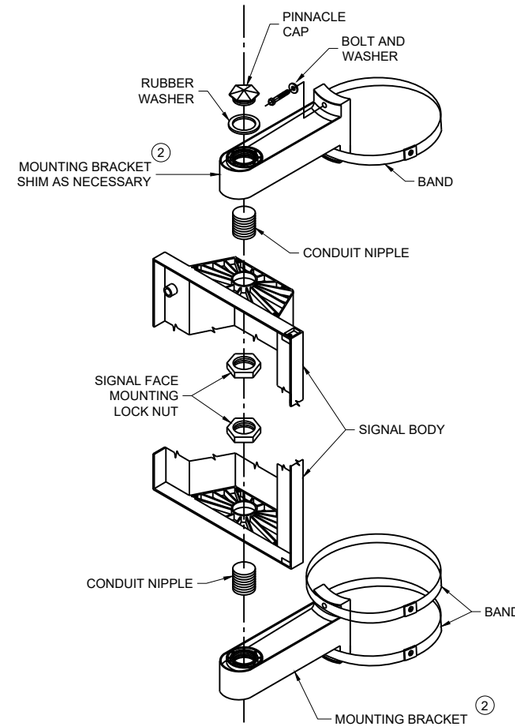
MOUNTING HEIGHT SHALL BE 6' - 0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

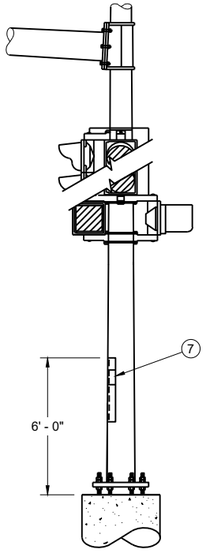


SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

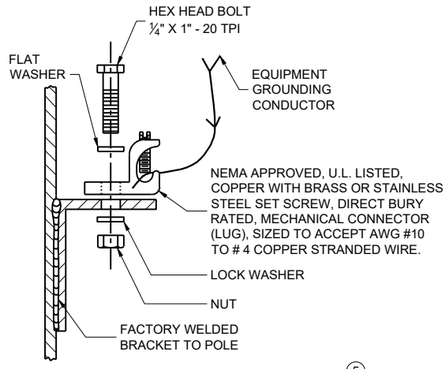
(MOUNT PER MANFACTURER'S RECOMMENDATION)



SIGNAL FACE VERTICAL MOUNTING DETAIL

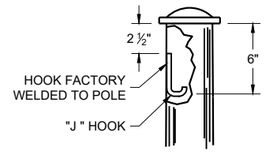


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



(6)

TYPICAL "J" HOOK WIRE SUPPORT

GENERAL NOTES AND HARDWARE FOR OVER HEIGHT TYPE 9, 10, 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

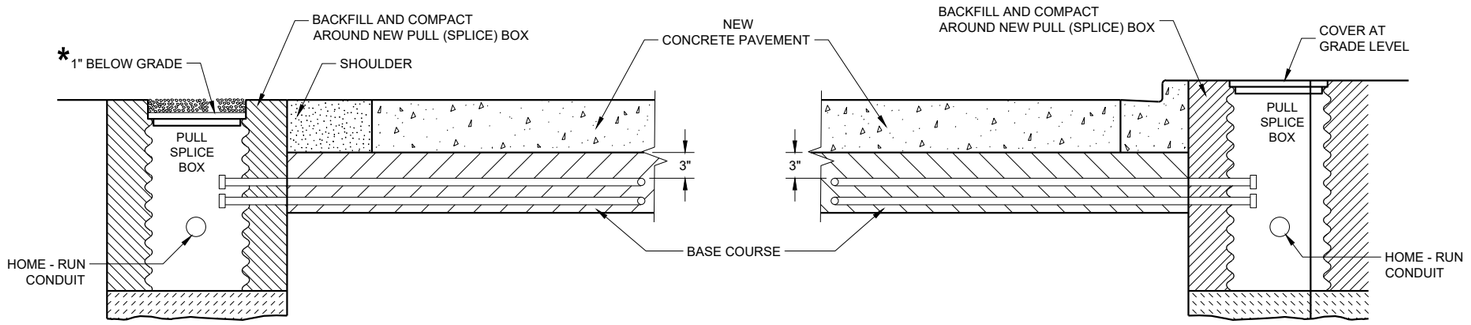
APPROVED
AUGUST 2024
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER

FHWA

6

SDD 09E12-02k



SECTION A - A
NO CURB AND GUTTER

SECTION B - B
CURB AND 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.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

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 READING 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.

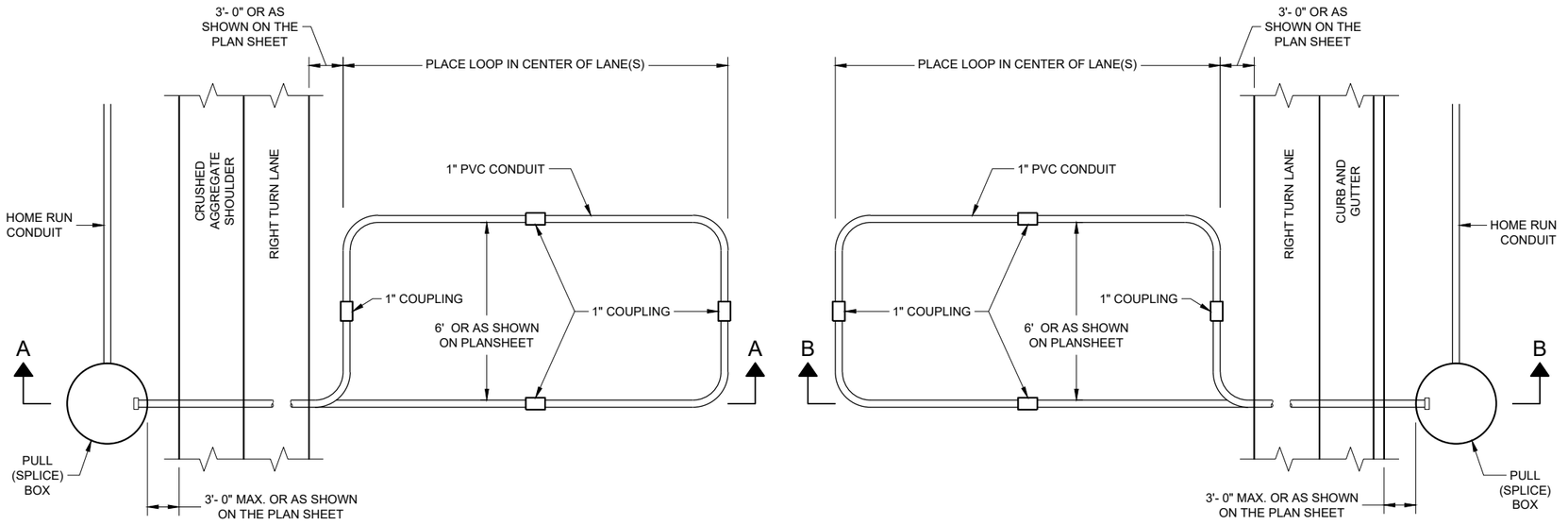
THE #12 AWG LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

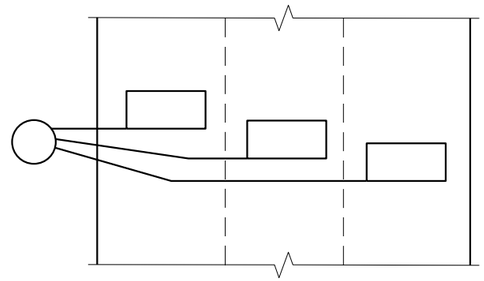
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE 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 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
September 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

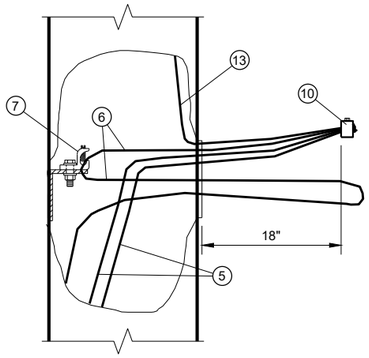
FHWA

6

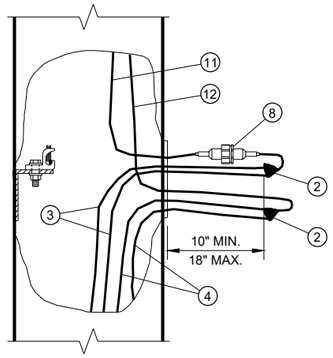
SDD 09F15 - 04b

6

SDD 09F15 - 04b

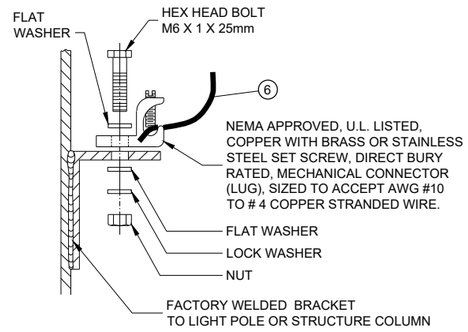


EQUIPMENT GROUNDING CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK (AND GROUNDED NEUTRAL SLACK IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



HANDHOLE GROUNDING LUG

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

GENERAL NOTES

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

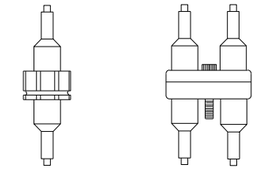
USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

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.



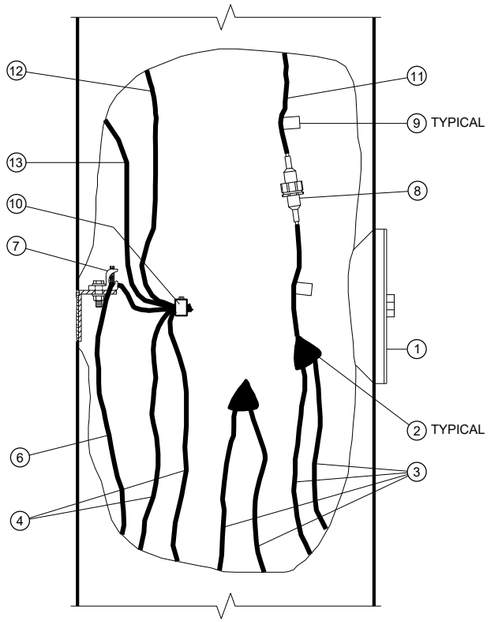
1 POLE (1P) 2 POLE (2P)

FUSE ASSEMBLIES

CONDUCTOR COLOR CODES

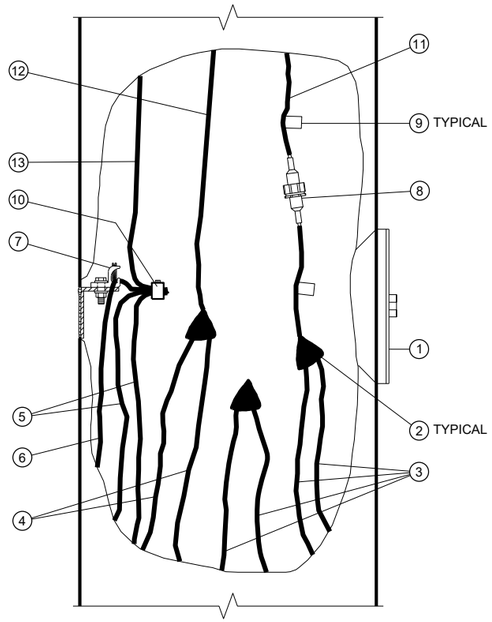
KEY	CONDUCTOR	COLOR
3	UNGROUNDED LINE WIRE	*
4	GROUNDED LINE WIRE	WHITE
5	SYSTEM GROUNDING LINE WIRE	GREEN
6	GROUNDING ELECTRODE CONDUCTOR	BARE
11	UNGROUNDED POLE WIRE	*
12	GROUNDED POLE WIRE	WHITE
13	EQUIPMENT GROUNDING POLE WIRE	GREEN

* 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.



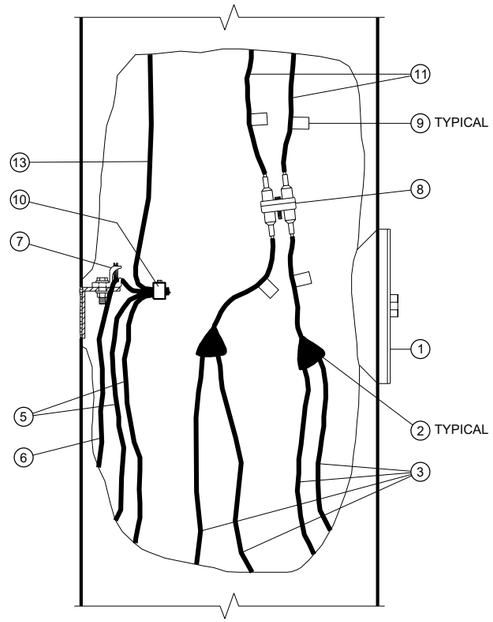
CUTAWAY HANDHOLE DETAIL

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

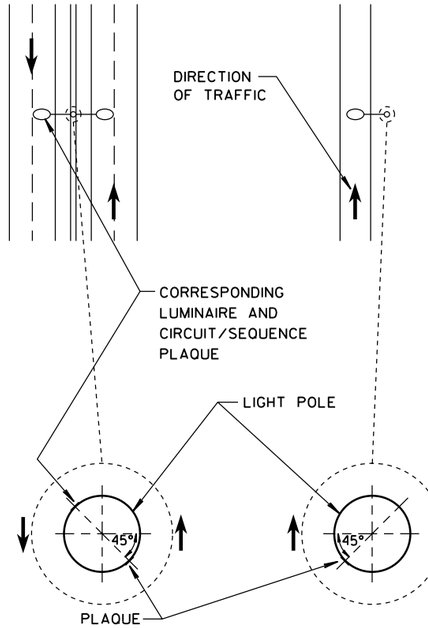
APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 344

FHWA

6

SDD 10A01 - 04



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

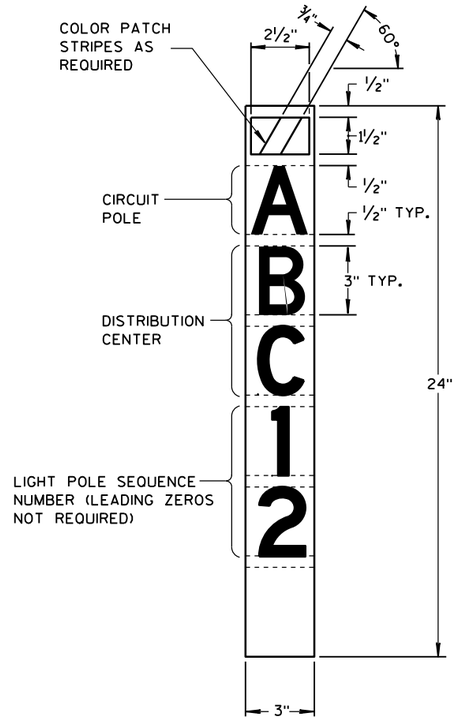
COLOR PATCHES - VARIOUS COLORS, SELF-ADHESIVE VINYL SHEETING

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

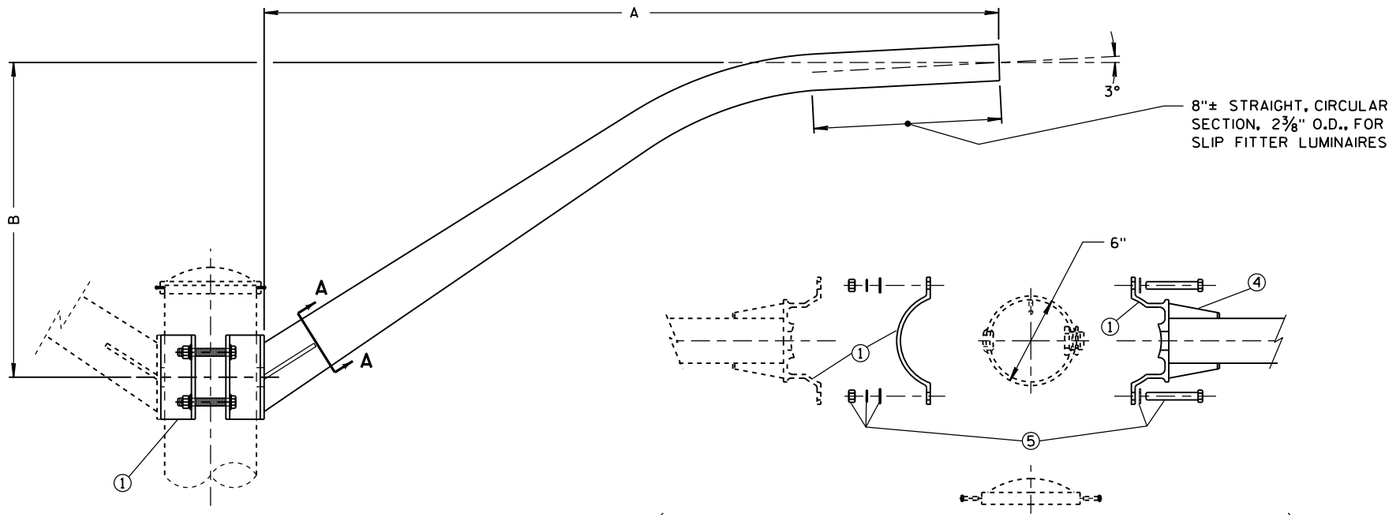
IDENTIFICATION PLAQUES LIGHT POLES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

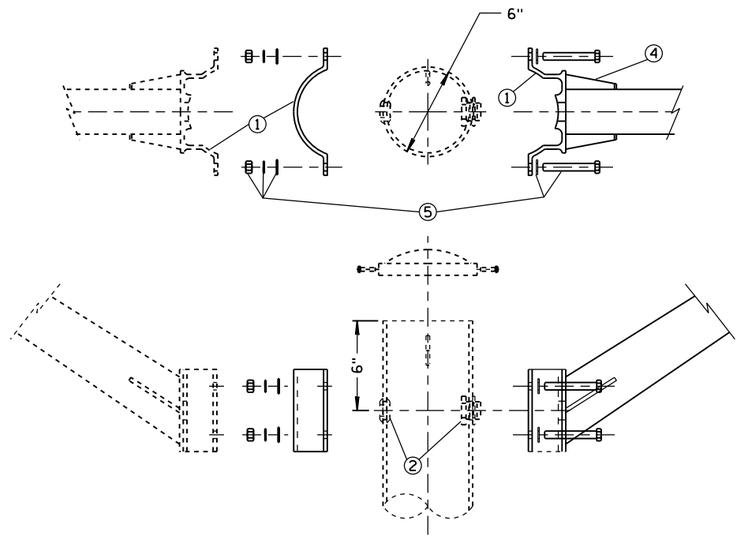
6

S.D.D. 10 A 2-3



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: 1 3/8" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET) PER EACH REQUIRED LUMINAIRE ARM. PROVIDE 1 1/2" HOLE IN CLAMP EXTRUSION TO CONTINUE RACEWAY.

③ STIFFENER

④ GUSSETS REQUIRED.

⑤ CLAMP BOLT ASSEMBLY (BOLT - 1/2"-13 UNC, 2 EACH - FLAT WASHER, LOCK WASHER, NUT) - 4 EACH PER CLAMP.

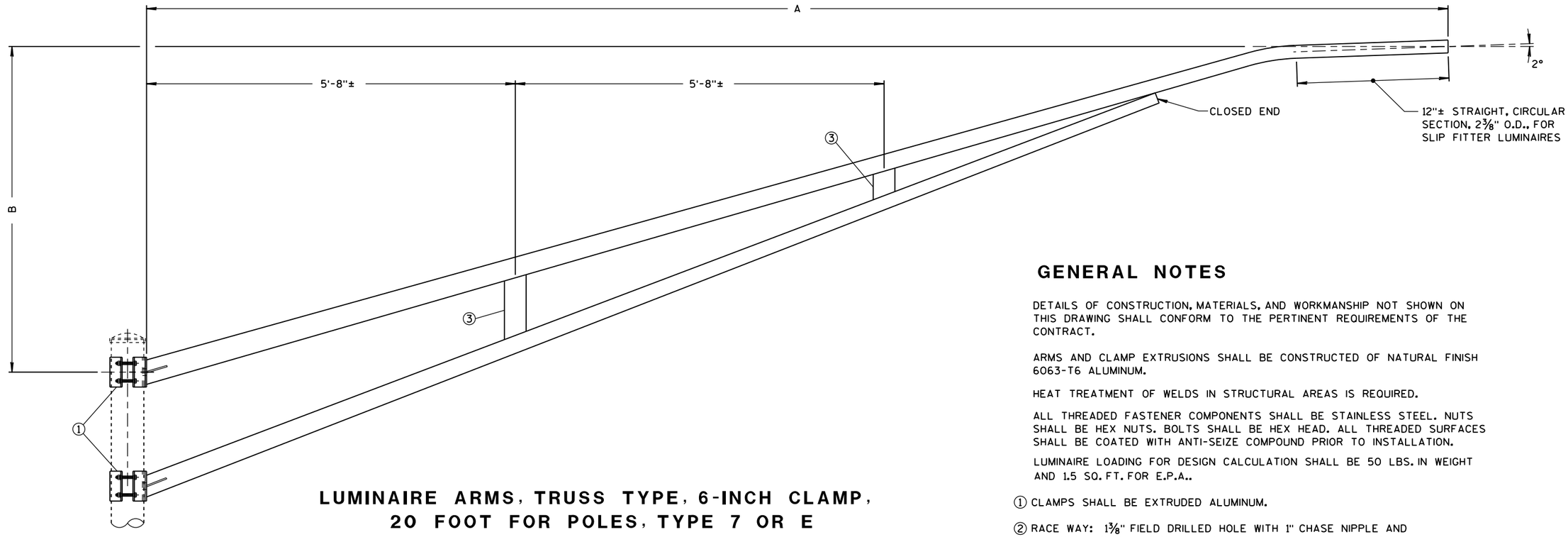
LUMINAIRE ARMS, SINGLE MEMBER 6-INCH CLAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

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.

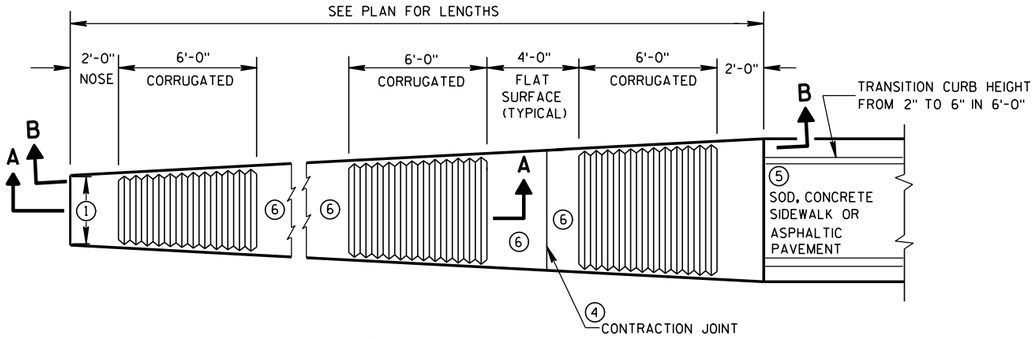
LUMINAIRE ARMS, TRUSS TYPE 6-INCH CLAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

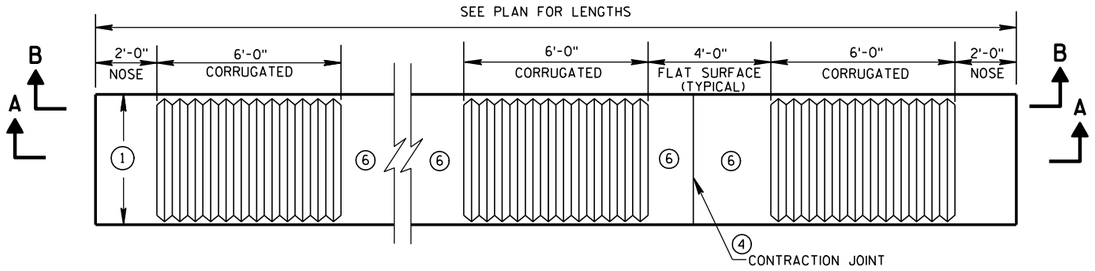
6

S.D.D. 10 A 18-5b



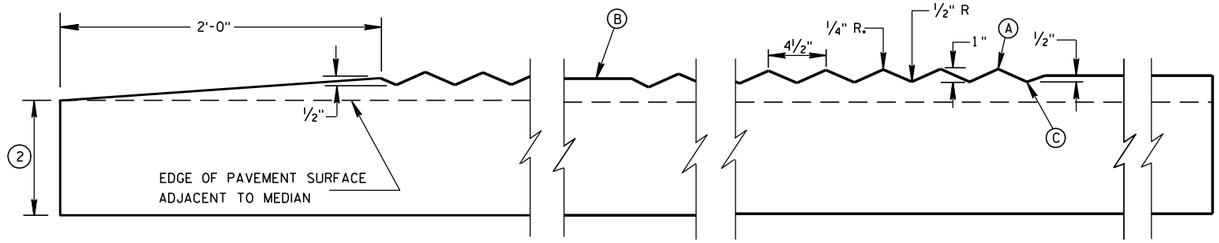
PLAN VIEW

VARIABLE WIDTH CONCRETE CORRUGATED MEDIAN



PLAN VIEW

UNIFORM WIDTH CONCRETE CORRUGATED MEDIAN



SECTION A-A

LONGITUDINAL SECTION

GENERAL NOTES

(1) SEE PLANS FOR CONSTANT OR VARIABLE WIDTH.

(2) THE DEPTH OF THE CONCRETE CORRUGATED MEDIAN SHALL BE 9-INCHES UNLESS SHOWN OTHERWISE IN THE PLAN.

ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN IN THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

(2) ASPHALTIC CONCRETE OVER NEW OR EXISTING CONCRETE BASE COURSE, OR PAVEMENT.

(3) ASPHALTIC PAVEMENT OVER BASE AGGREGATE DENSE.

(3) 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.

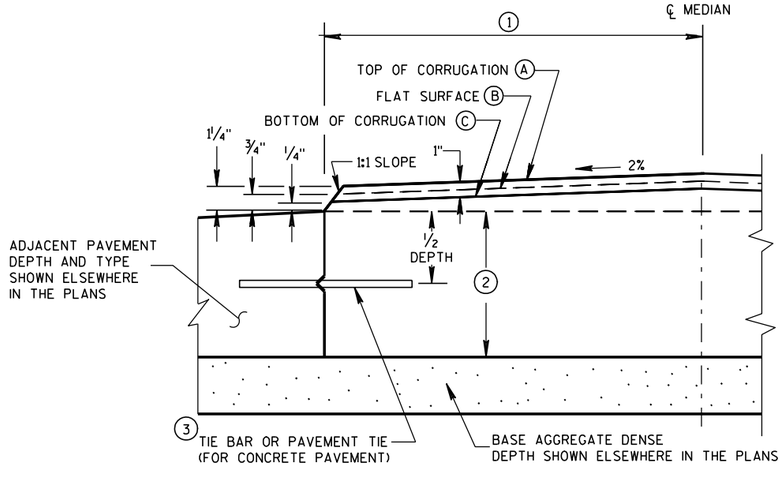
INSTALL TIE BARS TO MAINTAIN A MINIMUM OF 3-INCHES OF COVER BETWEEN THE TIE BAR AND THE CONCRETE SURFACE (BOTTOM AND TOP).

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE PAVEMENT OR 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.

(4) CONCRETE CORRUGATED MEDIAN CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH THE JOINTS IN ADJACENT CONCRETE PAVEMENT. WHERE ADJACENT PAVEMENT IS ASPHALT WITH BASE AGGREGATE DENSE. TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS.

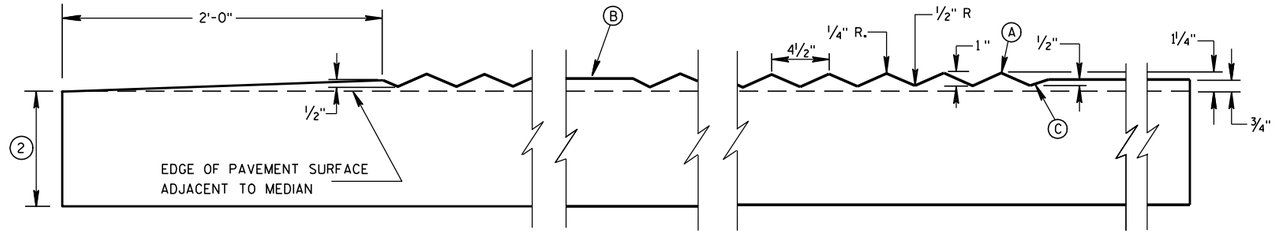
(5) SURFACE TYPE AND DETAILS ARE DEFINED ELSEWHERE IN THE PLAN.

(6) YELLOW MARKING ON FLAT SURFACE WHEN MEDIAN SEPARATES OPPOSING TRAFFIC.



HALF CROSS SECTION

(2) CONCRETE CORRUGATED MEDIAN AND ADJACENT PAVEMENT



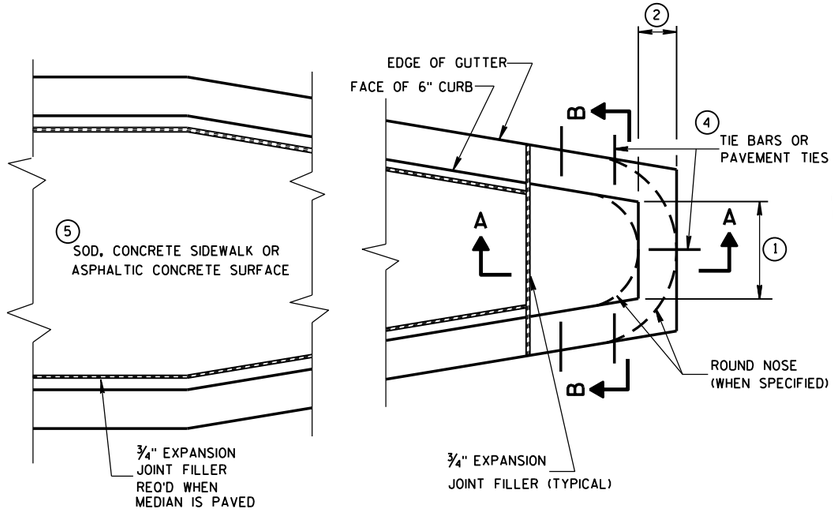
SECTION B-B

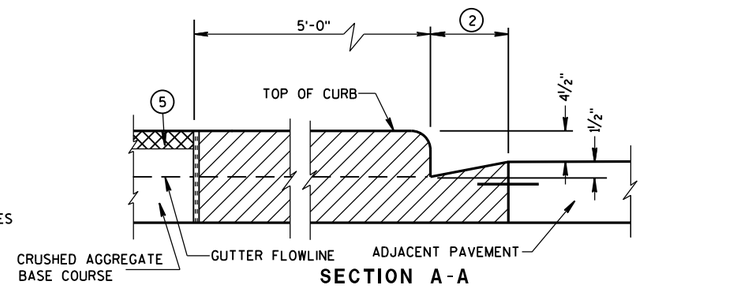
LONGITUDINAL SECTION

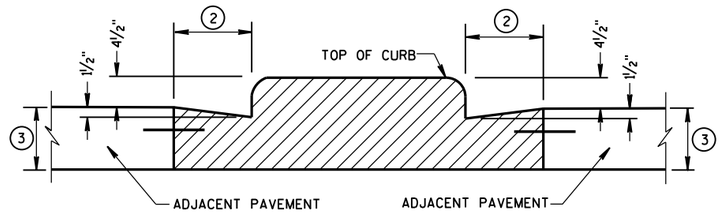
CONCRETE CORRUGATED MEDIAN	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
12/17/07 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINEER
FHWA	

6

S.D.D. 11 B 1-5







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.

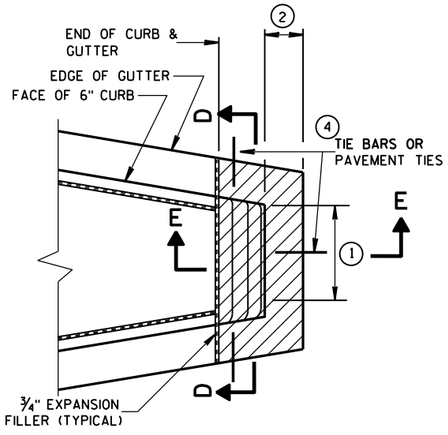
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

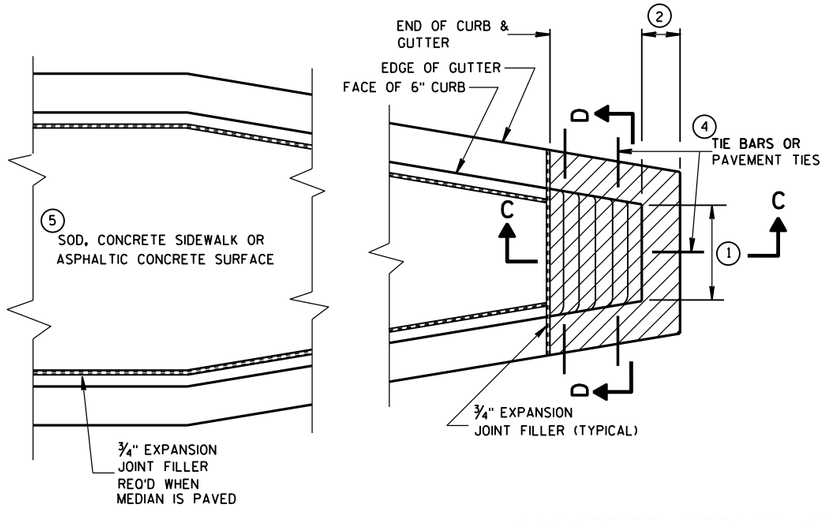
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

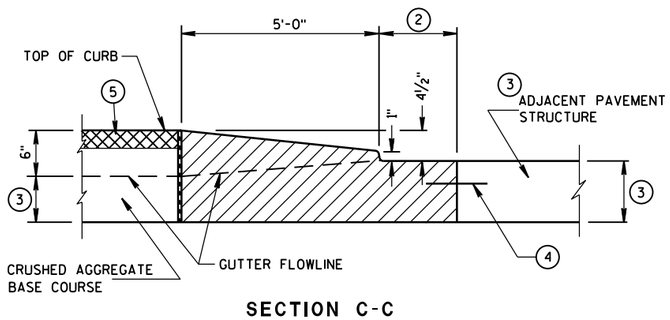
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

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.

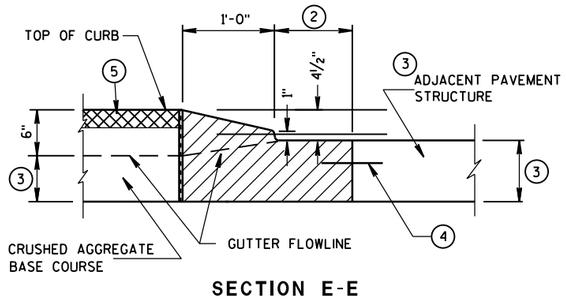
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



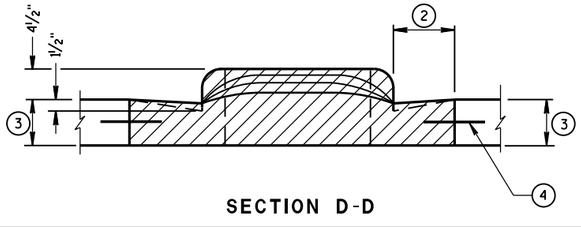




CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN SLOPED NOSE TYPE 2



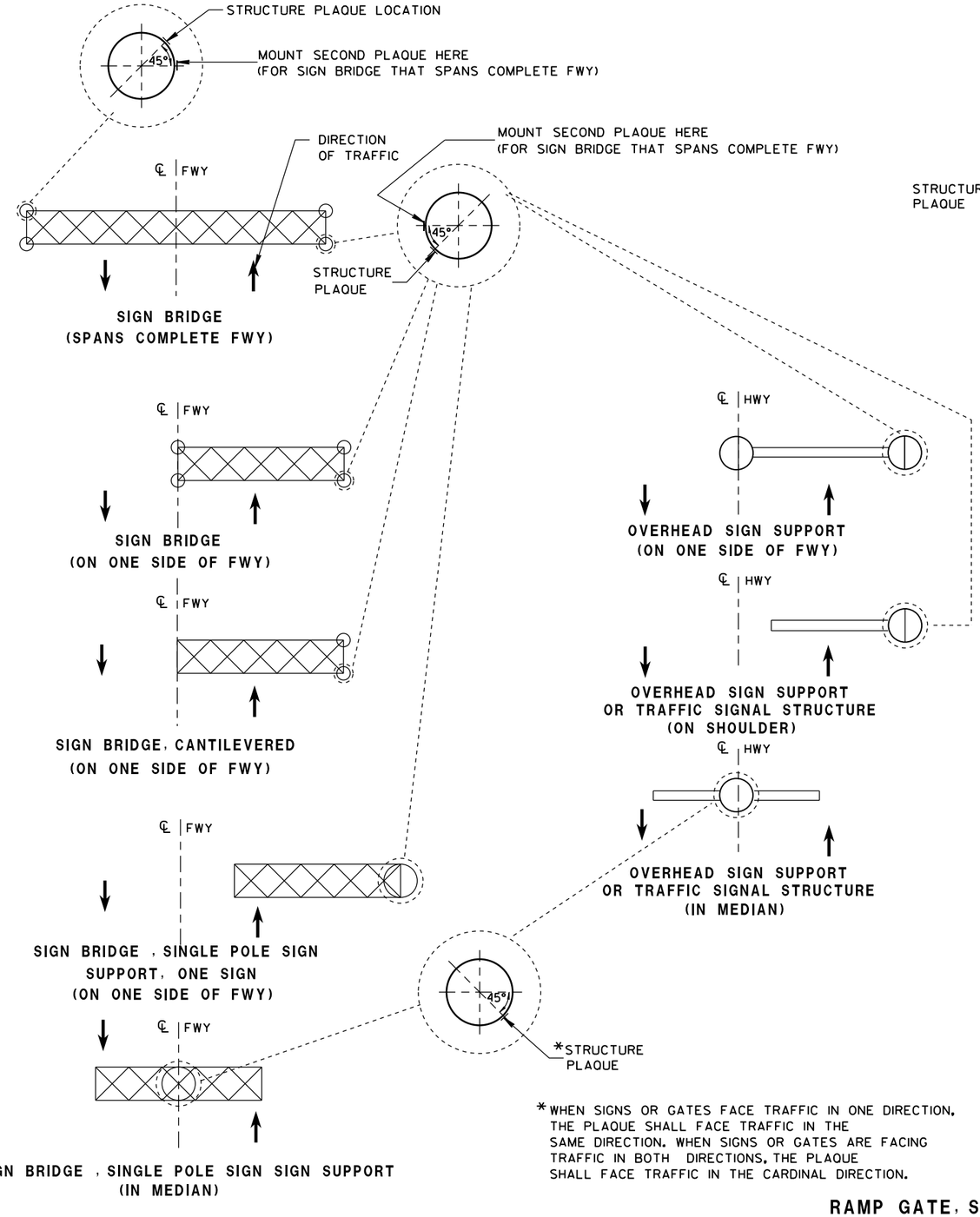
CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

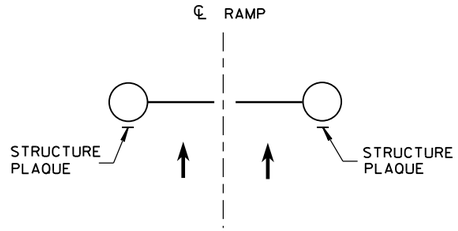
S.D.D. 11 B 2-2

S.D.D. 11 B 2-2

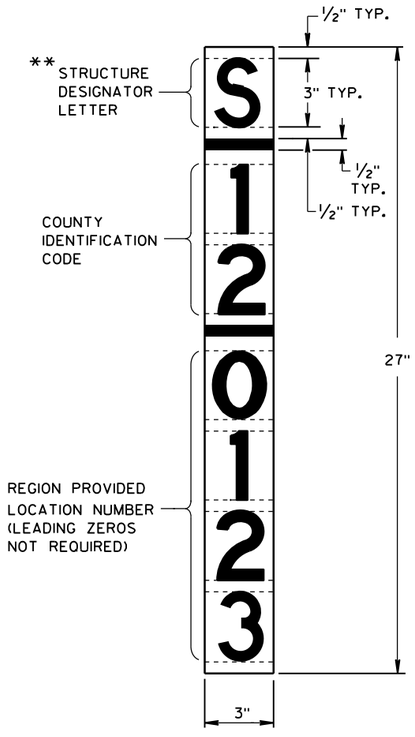


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



RAMP GATE
(ACROSS FWY ON-RAMP)



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

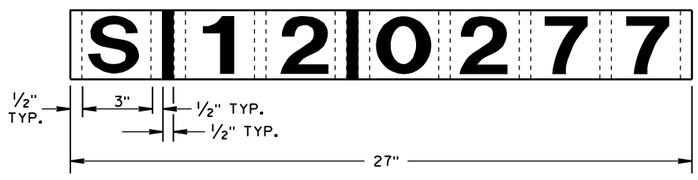
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

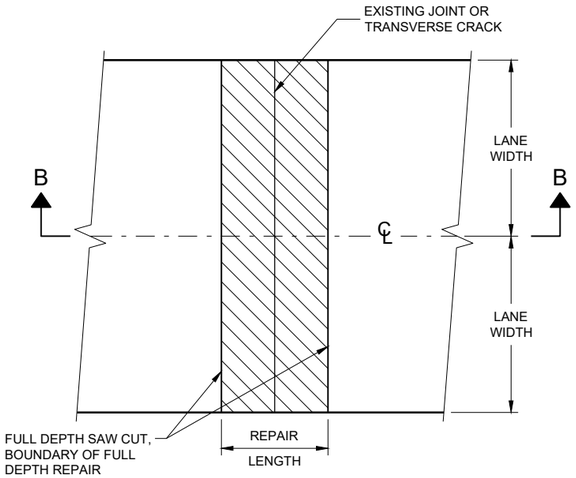
STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

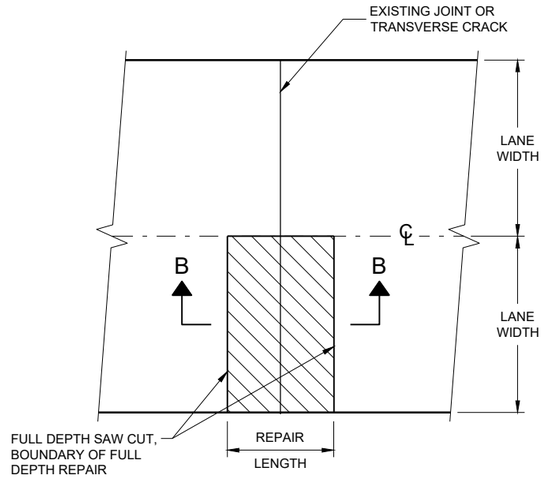
APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 12 A 4-3



PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

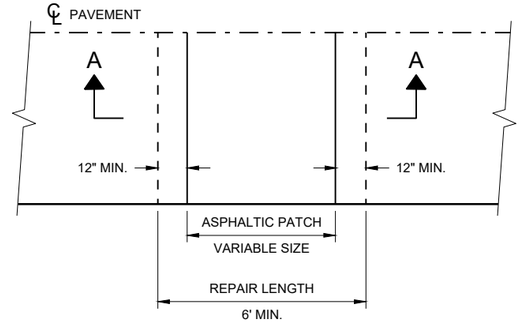
GENERAL NOTES

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 AREA TO ADJACENT TRANSVERSE JOINT OR CRACK.

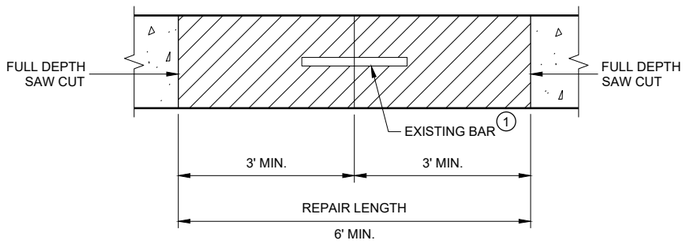
THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NON-DOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

(1) DOWEL BARS MAY NOT BE PRESENT.

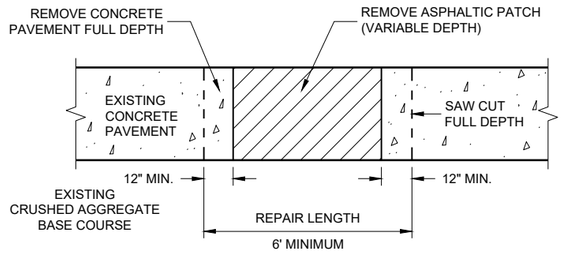


PLAN VIEW

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION B - B
CONCRETE REMOVAL



SECTION A - A

HMA PATCH REMOVAL

6

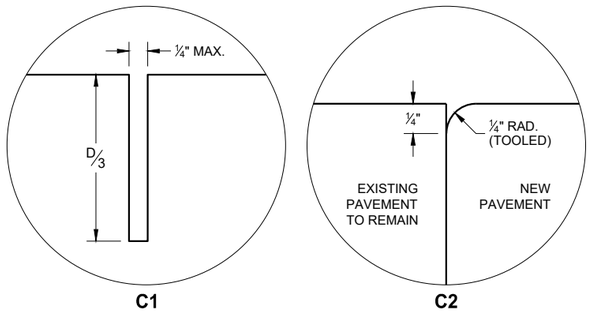
6

SDD 13C09 - 17a

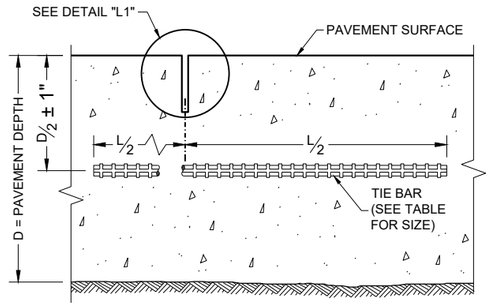
SDD13C09 - 17a

CONCRETE PAVEMENT
REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

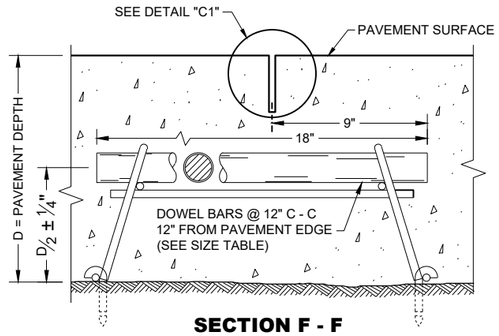


TRANSVERSE JOINTS



SECTION C - C

SAWED LONGITUDINAL JOINT



SECTION F - F

DOWELED CONTRACTION JOINT

GENERAL NOTES

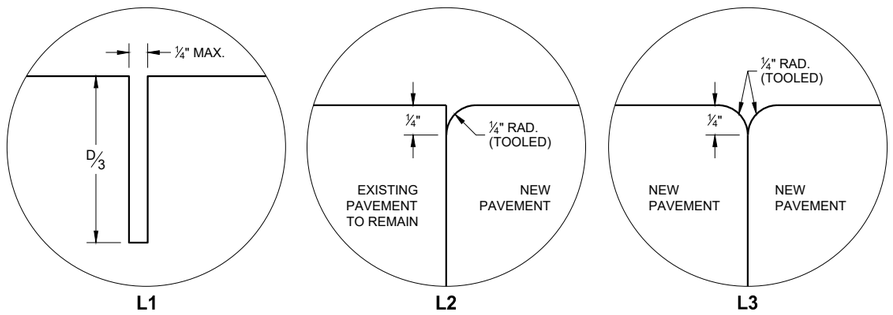
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NON-DOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

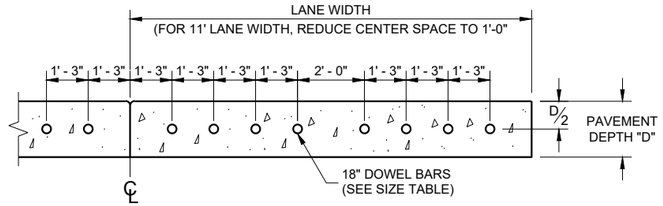
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

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.

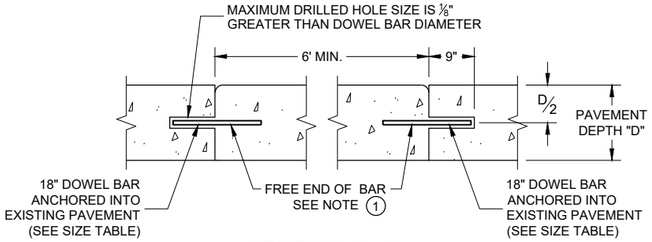


LONGITUDINAL JOINTS



SECTION E - E

DRILLED DOWEL BAR CONSTRUCTION JOINT



SECTION D - D

TIE BAR TABLE

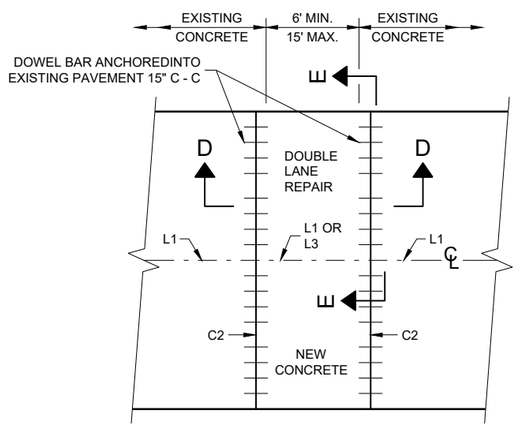
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* 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.

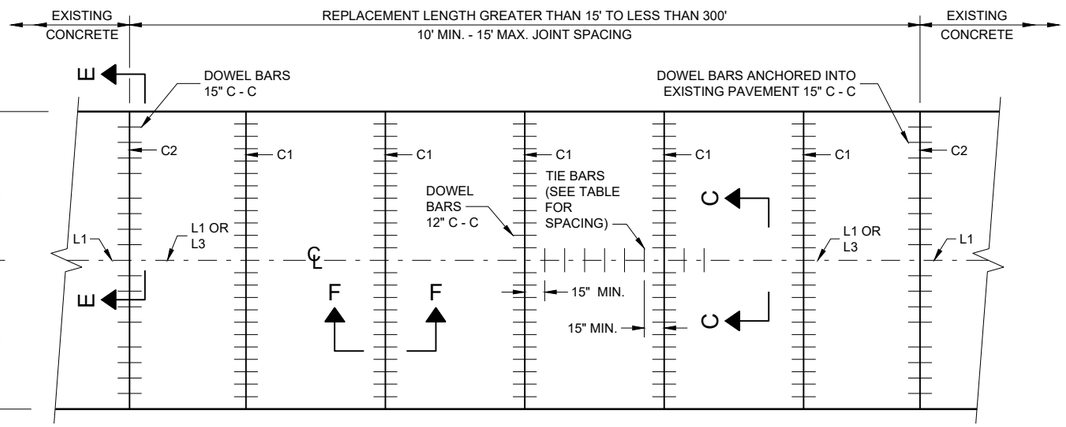
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	DRILLED DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	NONE	12'
7", 7 ½"	1"	1"	14'
8" & ABOVE	1 ¼"	1 ¼"	15'



PLAN VIEW

MULTILANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

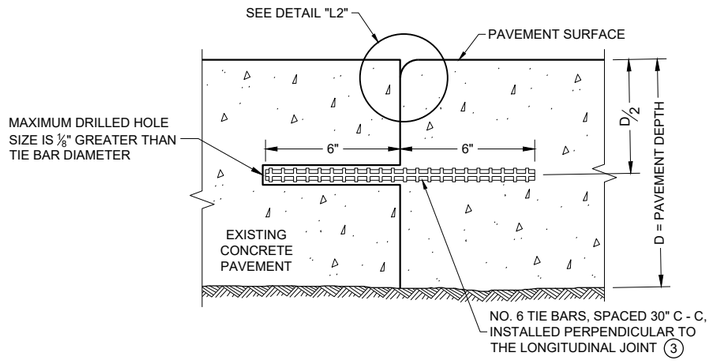
MULTILANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C09 - 17b

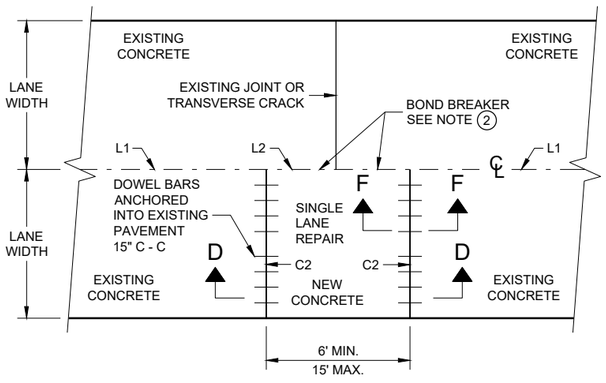


SECTION G - G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

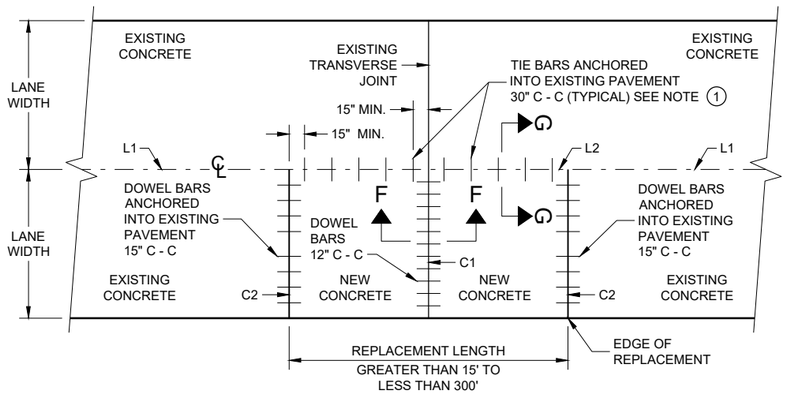
GENERAL NOTES

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 REPAIR AND REPLACEMENT

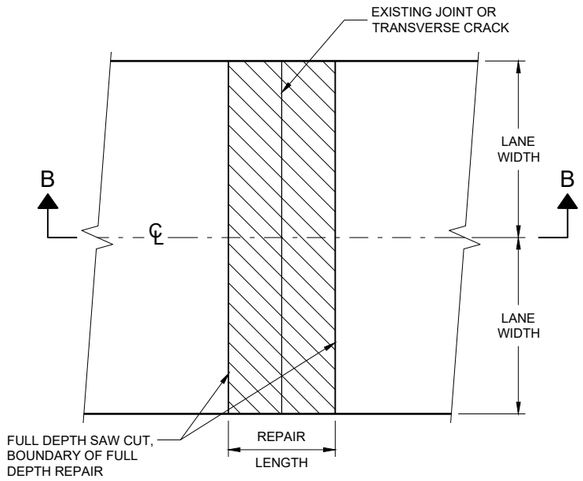
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS
FHWA

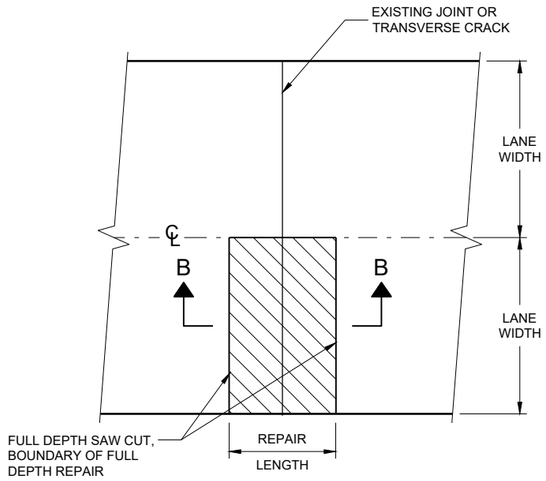
6

SDD 13C09 - 17c

SDD 13C09 - 17c



PLAN VIEW
DOUBLE LANE REPAIR



PLAN VIEW
SINGLE LANE REPAIR

GENERAL NOTES

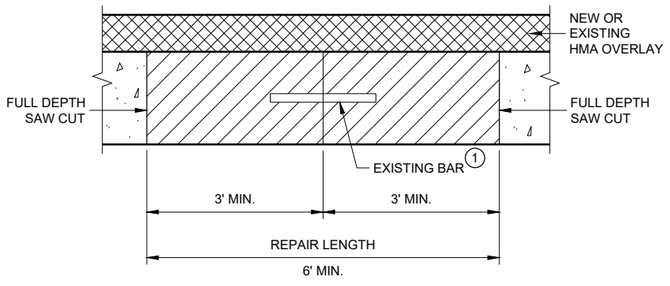
SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

PROVIDE A 6 FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREA TO ADJACENT TRANSVERSE JOINT OR CRACK.

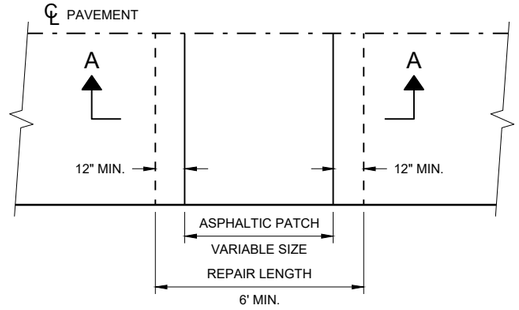
THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NON-DOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

(1) DOWEL BARS MAY NOT BE PRESENT.

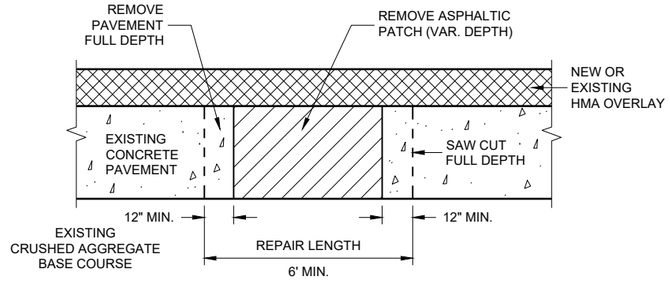
FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION B - B
CONCRETE REMOVAL



PLAN VIEW



SECTION A - A

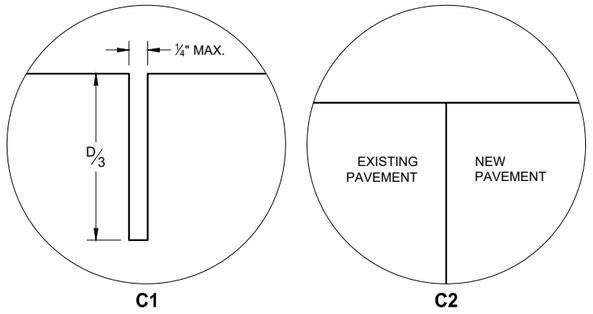
HMA PATCH REMOVAL

BASE PATCHING CONCRETE

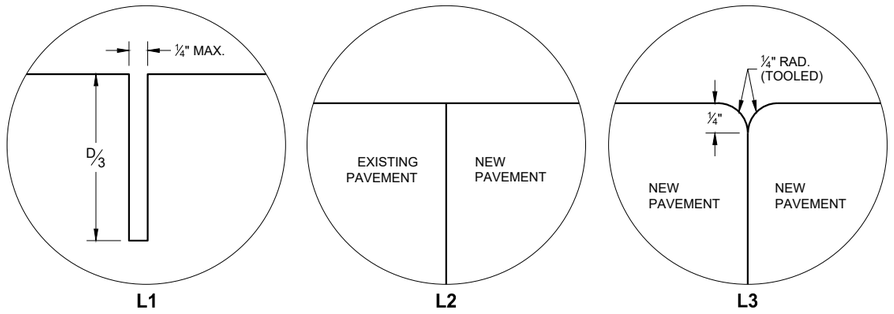
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA 354

SDD 13C14 - 07a

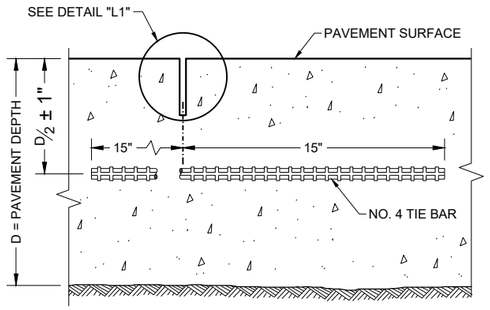
SDD 13C14 - 07a



TRANSVERSE JOINTS

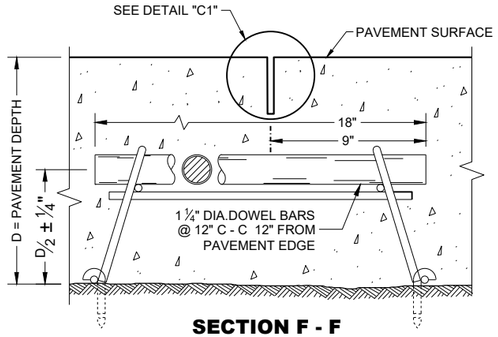


LONGITUDINAL JOINTS



SECTION C - C

SAWED LONGITUDINAL JOINT



SECTION F - F

CONTRACTION JOINT

GENERAL NOTES

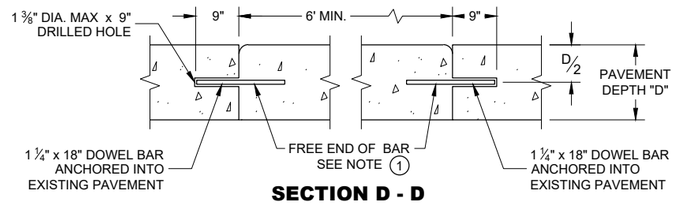
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE BASE PATCHES OF EXISTING NON-DOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

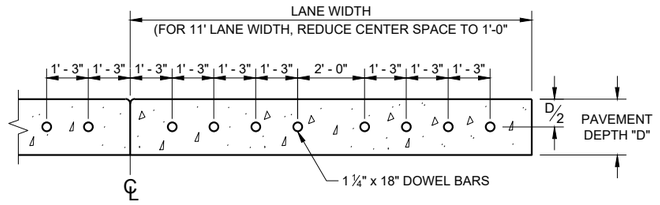
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

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 O EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

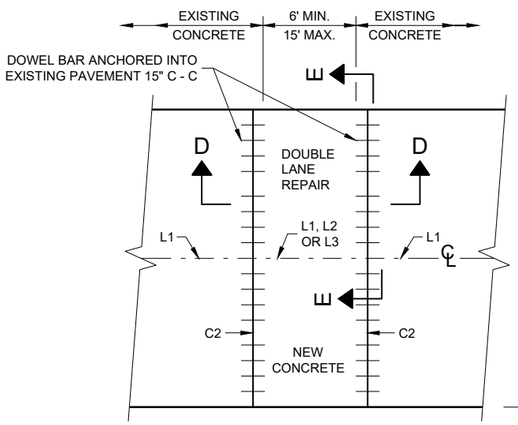


SECTION D - D



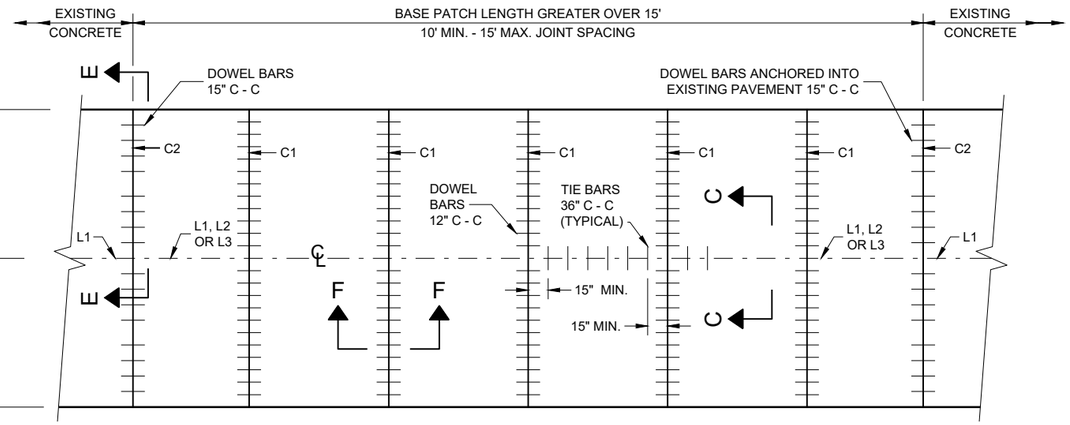
SECTION E - E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT



PLAN VIEW

MULTILANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTILANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

BASE PATCHING CONCRETE

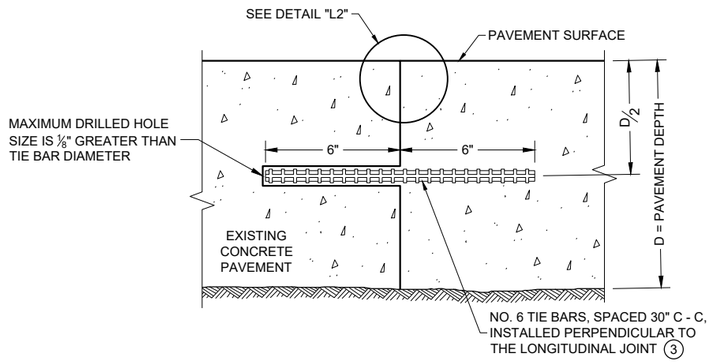
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA 355

SDD 13C14 - 07b

SDD 13C14 - 07b

6

6

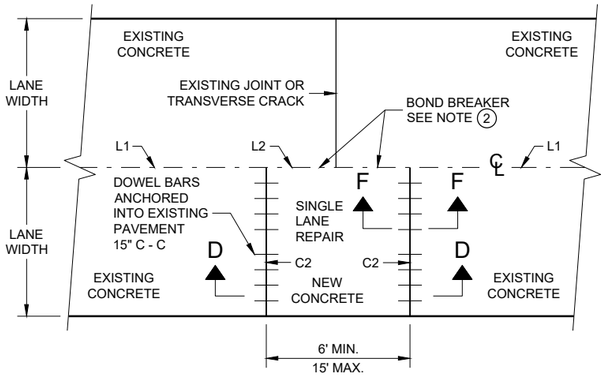


SECTION G - G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

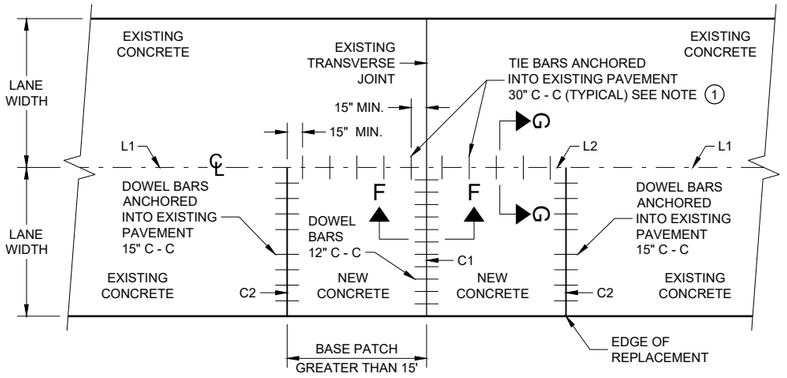
GENERAL NOTES

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 HOES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' LENGTH

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

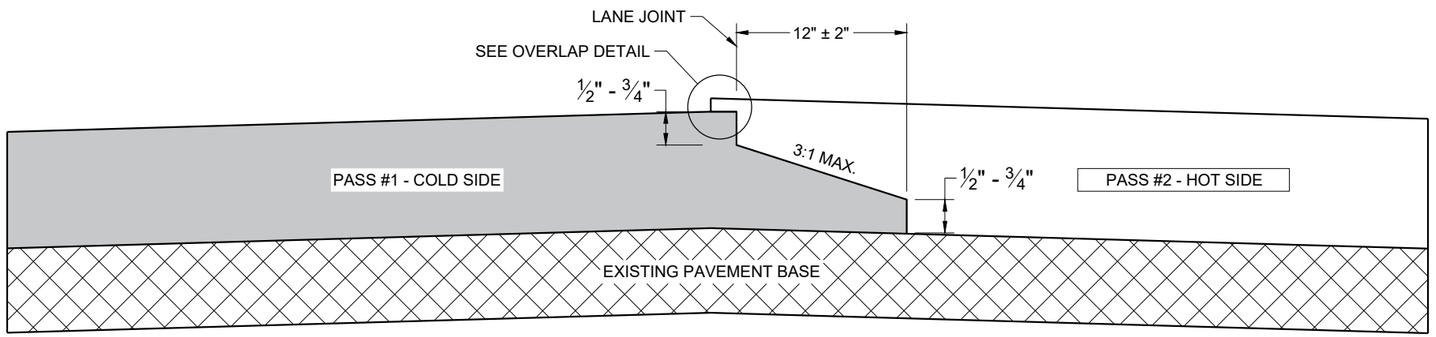
APPROVED
March 2018
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVISO

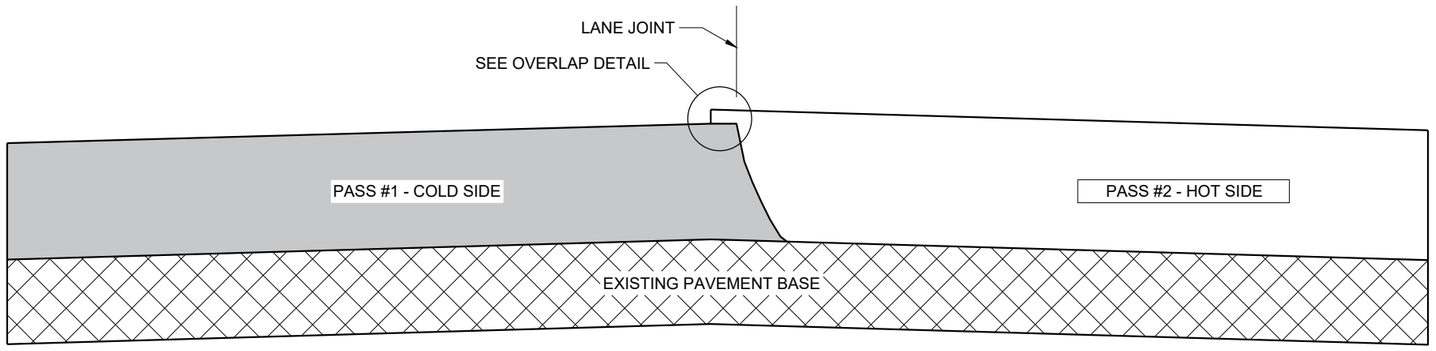
FHWA

6

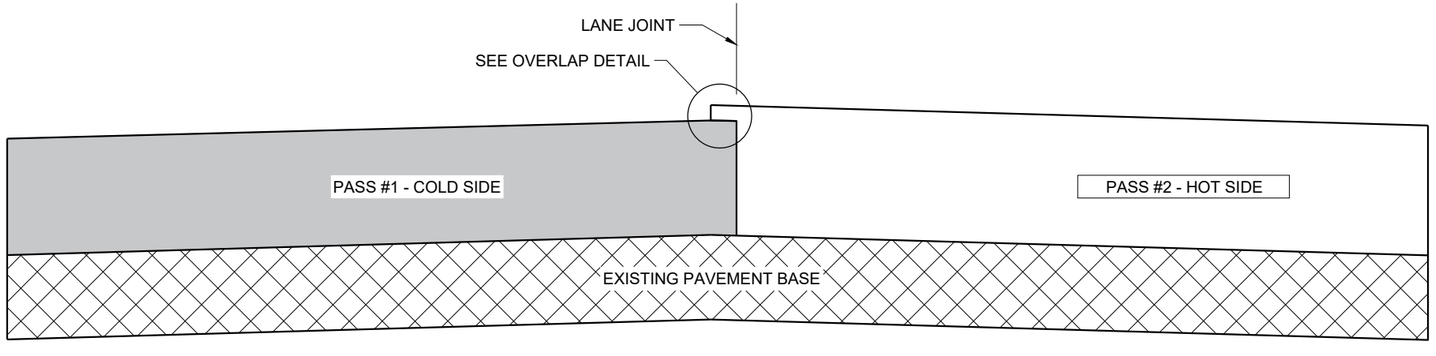
SDD 13C14 - 07c



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

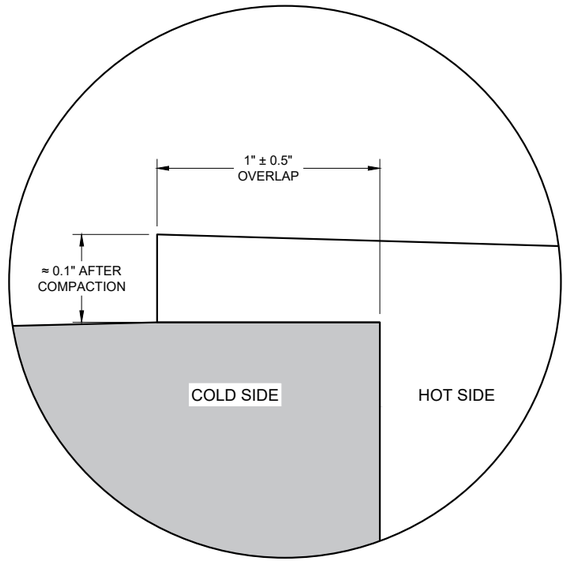
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

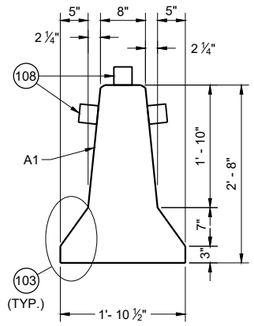
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

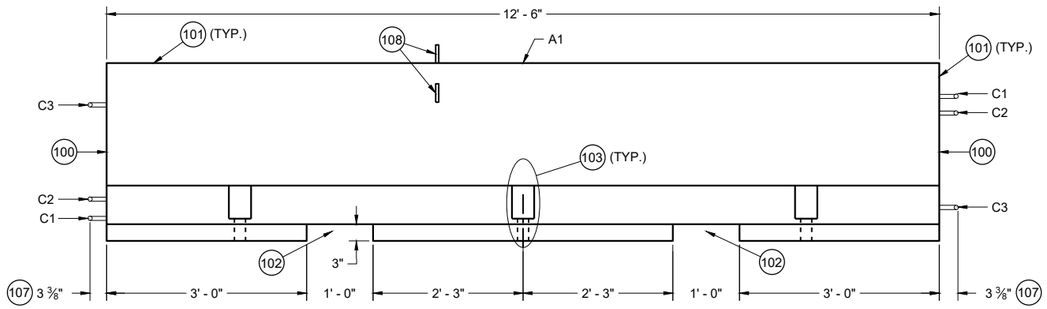
/S/ Steven Hefel
HMA PAVEMENT ENGIN

357

FHWA



CROSS SECTION



PROFILE VIEW

GENERAL NOTES

PLACE BARRIER ON PAVED SURFACE. BEFORE PLACEMENT OF TEMPORARY BARRIER, REMOVE ALL LOOSE MATERIAL FROM PAVED SURFACE.

LOOP BARS C1, C2 AND C3 ARE NOT FOR PLACEMENT OR MOVEMENT OF BARRIER.

(100) PERMANENTLY FORM INTO ONE END OF BARRIER THE FOLLOWING INFORMATION:
- A. TYPE OF BARRIER: WI-CBTP
- B. MANUFACTURER
- C. DATE OF MANUFACTURE (MONTH AND YEAR)

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

(103) SEE ANCHOR BLOCK DETAIL

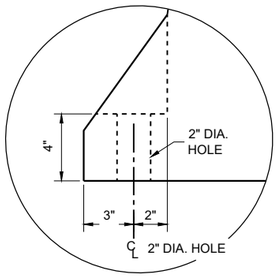
(104) 1 ¾" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

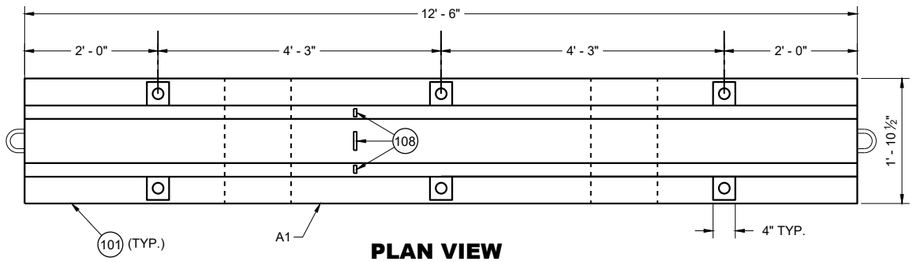
(106) 1" MIN. CLEAR COVER

(107) ± ⅛" MEASURED FROM FACE OF CONCRETE BARRIER TO OUTSIDE OF LOOP BAR (TYP.)

(108) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURERS INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED LEFT OF TRAFFIC AND WHITE WHEN BARRIER IS LOCATED RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART, PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO SIDE MOUNTED DELINEATORS ON BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAT 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

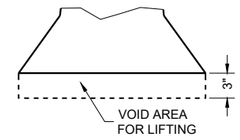


ANCHOR BLOCK DETAIL

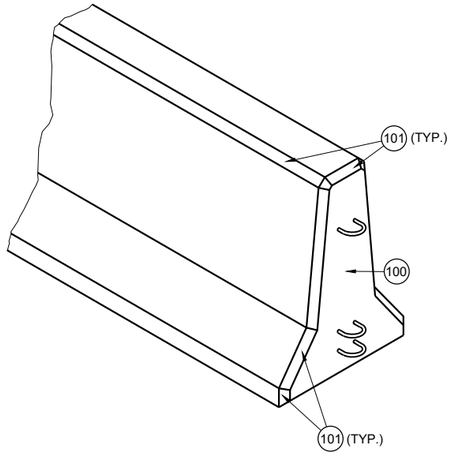


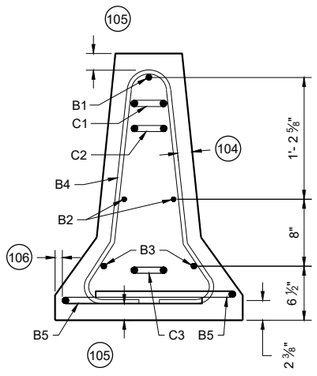
PLAN VIEW

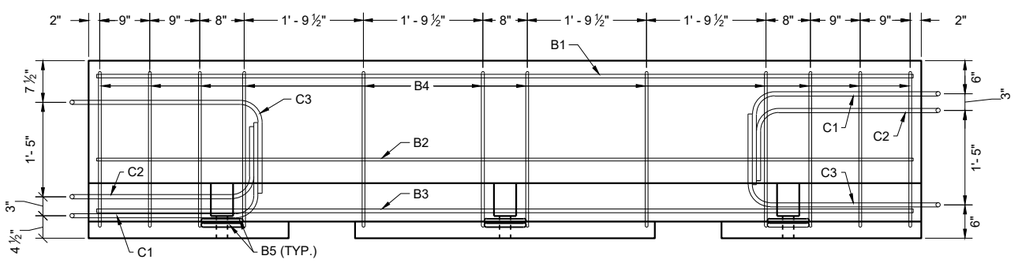
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)







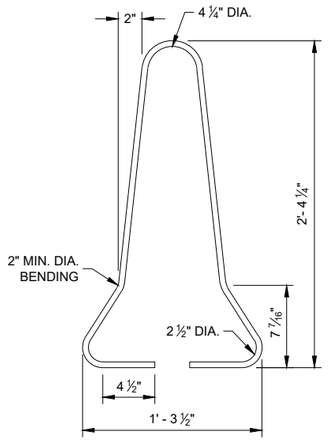
PROFILE VIEW

TEMPORARY BARRIER REINFORCEMENT

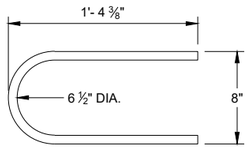
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

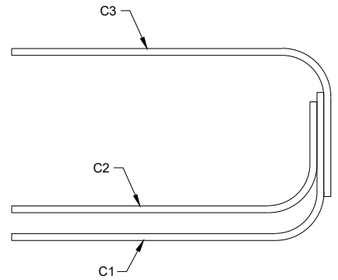
SDD 14B07-16a



B4 BAR DETAIL

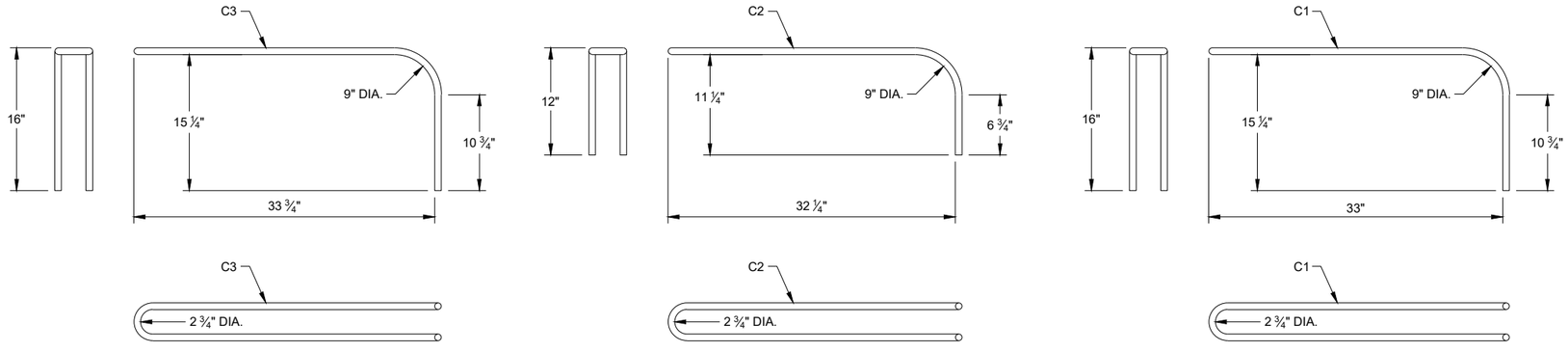


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY

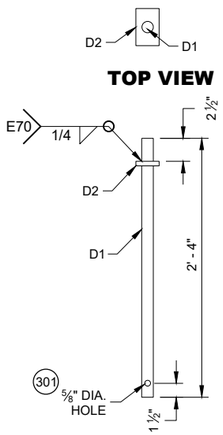


C BAR DETAILS

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

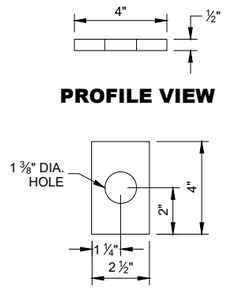
6
SDD 14B07-16b



TOP VIEW

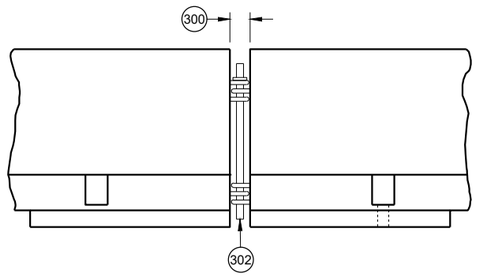
PROFILE VIEW

CONNECTOR PIN ASSEMBLY



PROFILE VIEW

TOP VIEW D2



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

300 SET WITH 3 ⅝" WOOD BLOCK.

301 HOLE IS OPTIONAL.

302 CONNECTOR PIN ASSEMBLY.

303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.

304 CONCRETE DECK.

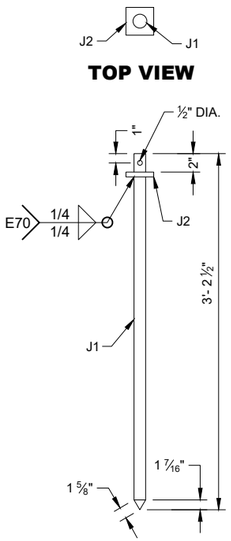
305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

306 MINIMUM OF 2" OF ASPHALT.

307 ASPHALT ANCHOR PIN ASSEMBLY

308 IF DRILLING A PILOT HOLE, THE MAX, DIA. OF THE HOLE IS 3/4"

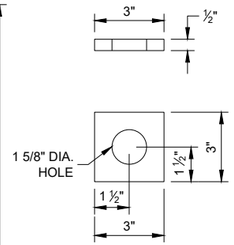
309 WHEN THERE IS ASPHALT OVERLAYING CONCRETE PAVEMENT, A 1 5/8" DIA. PILOT HOLE CAN BE DRILLED INTO THE OVERLAY AND CONCRETE. IF NEEDED DRILL A 3/4" PILOT HOLE IN BASE COURSE.



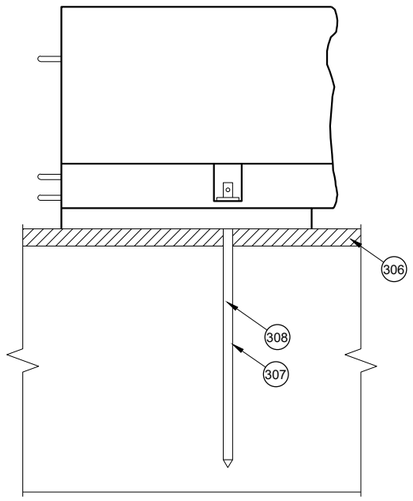
TOP VIEW

PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY

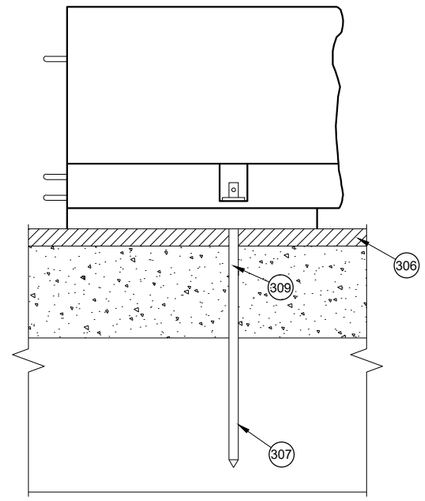


TOP VIEW J2



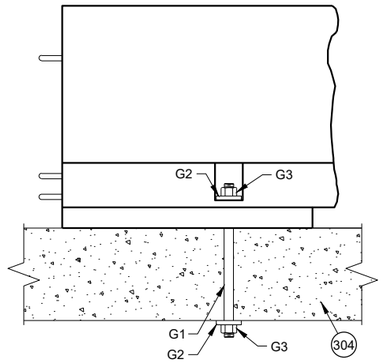
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT PAVEMENT



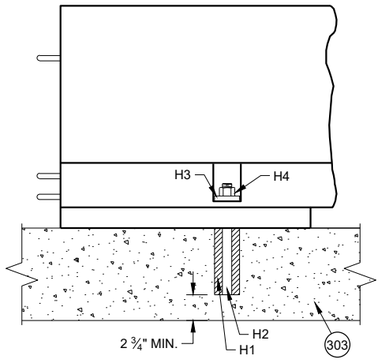
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT OVERLAY ON TOP OF CONCRETE PAVEMENT



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION (305)



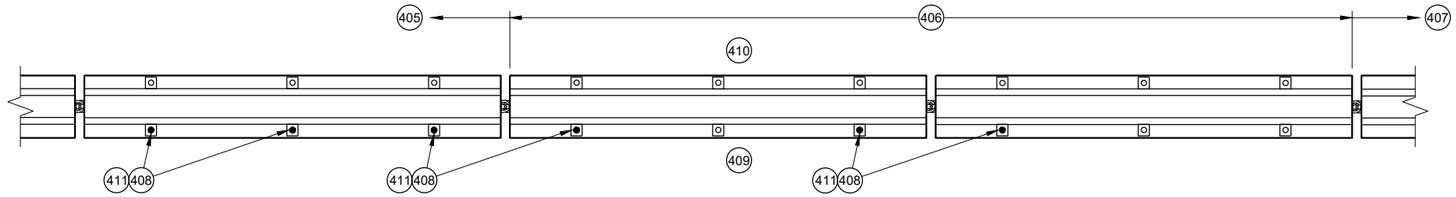
SIDE VIEW

ADHESIVE ANCHOR INSTALLATION (305)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

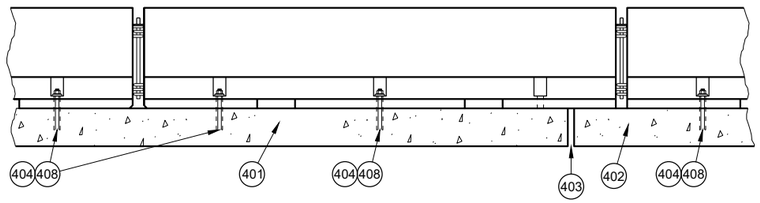
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16c



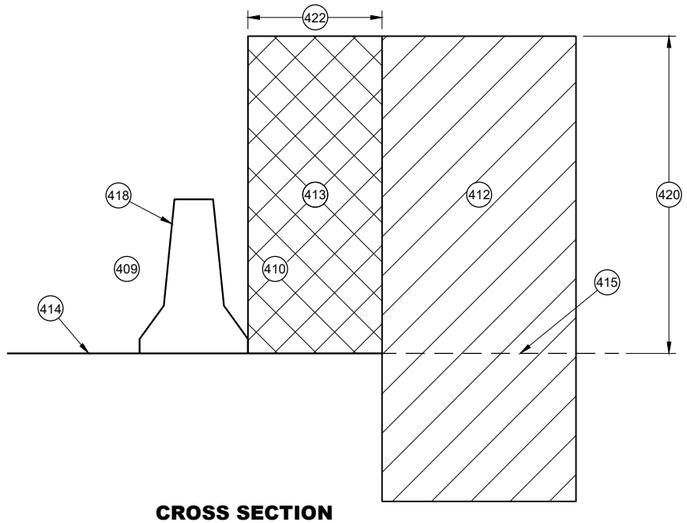
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



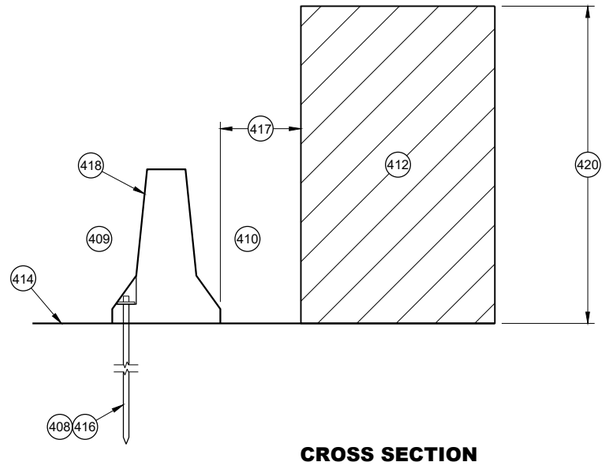
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



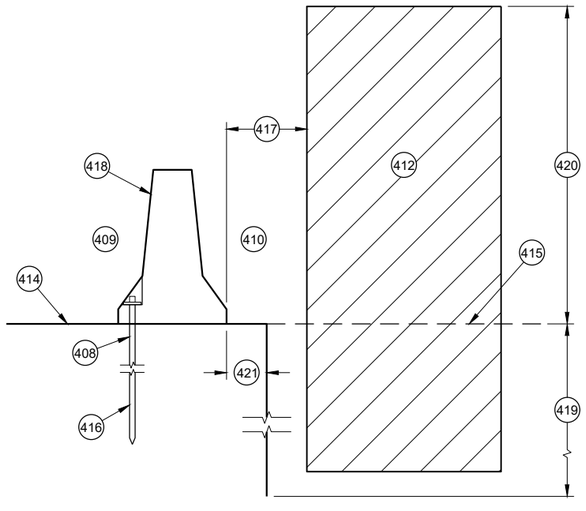
CROSS SECTION

FREE STANDING BARRIER



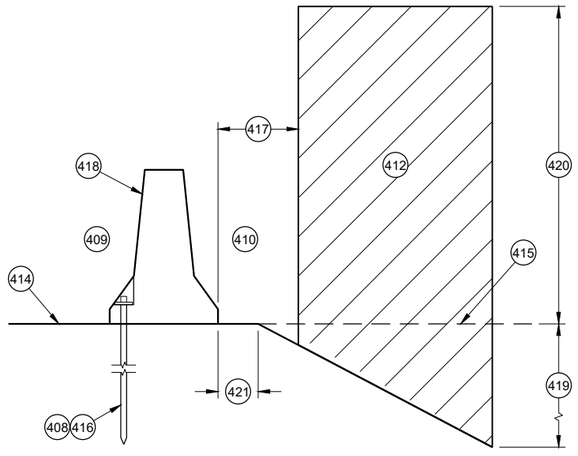
CROSS SECTION

ANCHORED BARRIER FOR OBJECTS ABOVE THE GRADE LINE AND NEAR THE BARRIER



CROSS SECTION

ANCHORED BARRIER NEAR VERTICAL DROP OFF



CROSS SECTION

ANCHORED BARRIER NEAR A SLOPE

GENERAL NOTES

(400) 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.

(401) CONCRETE DECK

(402) CONCRETE DECK OR APPROACH SLAB.

(403) EXPANSION JOINT

(404) ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.

(405) ANCHORED TEMPORARY BARRIER

(406) TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING

(407) FREE STANDING BARRIER

(408) REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(409) TRAFFIC SIDE

(410) NON-TRAFFIC SIDE

(411) ANCHOR LOCATION. SEE ANCHORING DETAILS.

(412) WORK AREA

(413) AREA FREE OF OBJECTS AND WORKERS

(414) GRADE LINE

(415) EXTENDED GRADE LINE

(416) ANCHORED TEMPORARY BARRIER. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR AN ASPHALT ANCHOR ROD DETAILS FOR MORE INFORMATION. ASPHALT ANCHOR ROD SHOWN.

(417) WHEN OBJECTS EXTEND ABOVE THE GRADE. A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT.

(418) OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR ALLOWED TO LEAN AGAINST THE BARRIER WITHOUT WRITTEN PERMISSION OF THE PROJECT ENGINEER.

(419) DEPTHS OF 3 FEET OR MORE.

(420) Y = 6.5'

(421) OFFSET FROM BACK OF BARRIER EDGE:

CONCRETE PAVEMENT	0.5'
ASPHALT	0.5'

(422) POSTED SPEED (MPH):

45 OR GREATER	4.0'
40 OR LOWER	2.0'

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16d

GENERAL NOTES

(500) EXISTING RIGID BARRIERS (VARIES)

(501) TEMPORARY BARRIER

(502) SEE OTHER DETAIL ON HOW TO ANCHOR TEMPORARY BARRIER (BARRIER ASPHALT ANCHOR SHOWN).

(503) ANCHORS ARE REQUIRED ON BOTH SIDE OF THE TEMPORARY BARRIER.

(504) NESTED RAILS ARE REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

(505) TRAFFIC TRAVELS FROM PERMANENT BARRIER TO TEMPORARY BARRIER.

(506) TRAFFIC TRAVELS FROM TEMPORARY BARRIER TO PERMANENT BARRIER.

(507) VERTICAL BARRIER

(508) SAFETY SHAPE BARRIER

(509) SINGLE SLOPE BARRIER

(510) CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF RIGID BARRIER.

(511) BENT THRIE BEAM TO FIT.

(512) THRIE BEAM PIECES ARE OFFSET 15 ¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.

(513) TWO (2) P1, P2 AND P3 ARE REQUIRED

(514) FIVE (5) N1, N2 AND N3 ARE REQUIRED

(515) TWO (2) R1, R2 AND R3 ARE REQUIRED

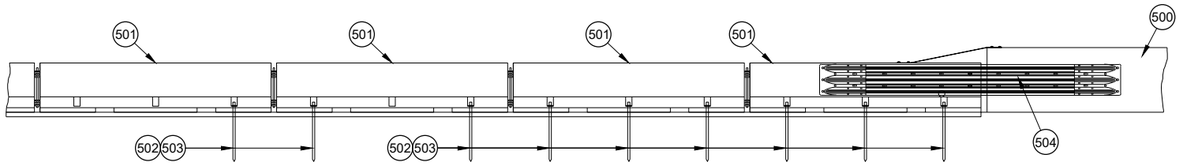
(516) CUT WOOD BLOCK TO FIT.

(517) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.

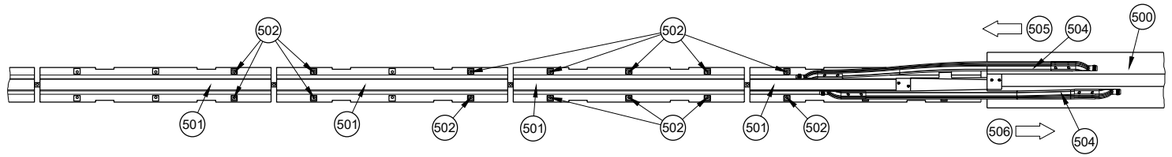
(518) CAP ASSEMBLY

(519) 4" MAX. GAP BETWEEN TEMPORARY BARRIER AND RIGID BARRIER.

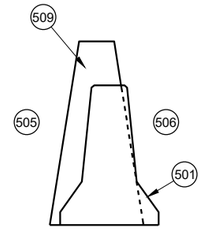
(520) ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



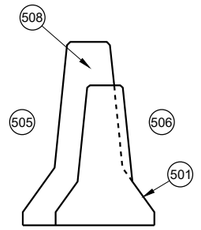
PROFILE VIEW



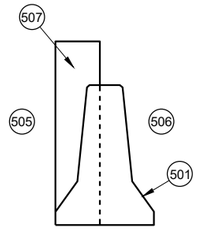
PLAN VIEW
TRANSITION TO RIGID BARRIER



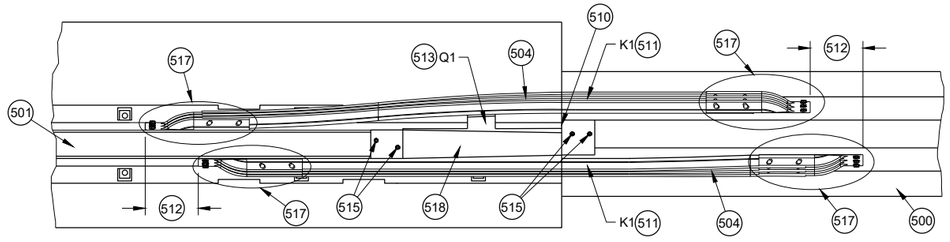
CROSS SECTION TEMPORARY BARRIER PLACEMENT SINGLE SLOPE



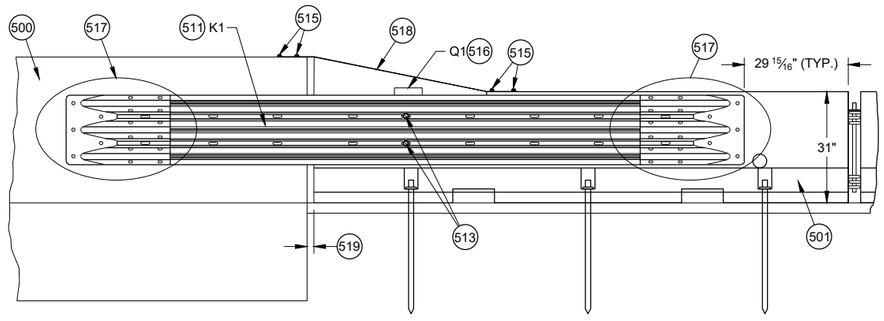
CROSS SECTION TEMPORARY BARRIER PLACEMENT SAFETY SHAPE



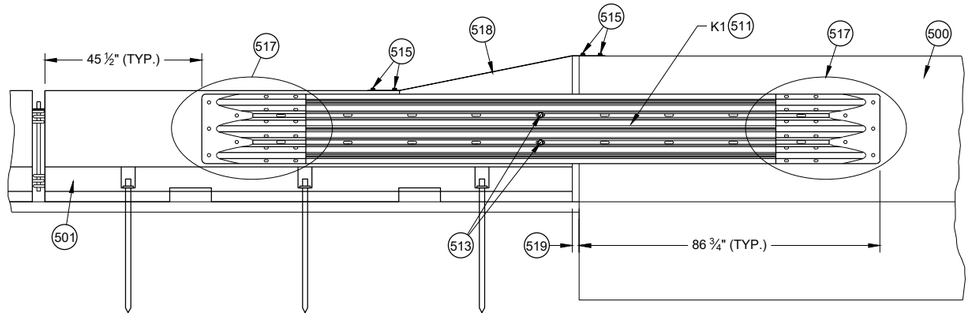
CROSS SECTION TEMPORARY BARRIER PLACEMENT VERTICAL



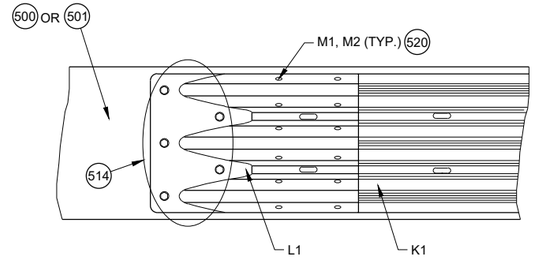
PLAN DETAIL VIEW
TRANSITION TO RIGID BARRIER



BACK DETAIL VIEW
TRANSITION TO RIGID BARRIER



FRONT DETAIL VIEW
TRANSITION TO RIGID BARRIER

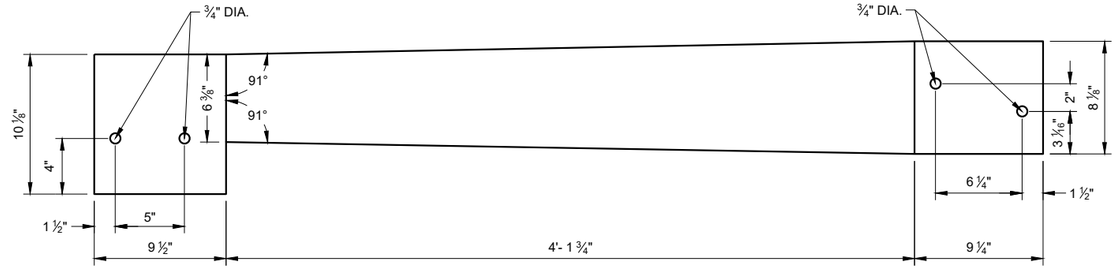


(517) **DETAIL PLAN VIEW**
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

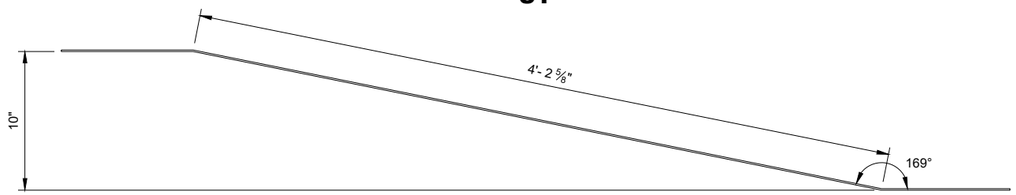
6

SDD 14B07-16e



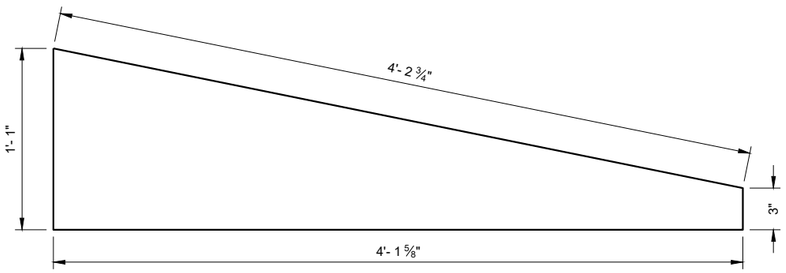
TOP VIEW

S1



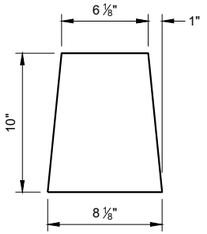
ELEVATION VIEW

S1

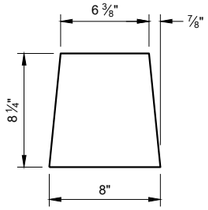


SIDE VIEW

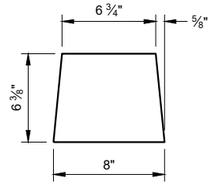
S3



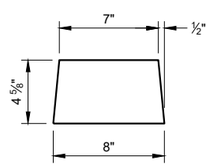
S2



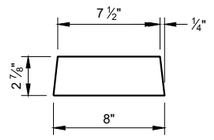
S4



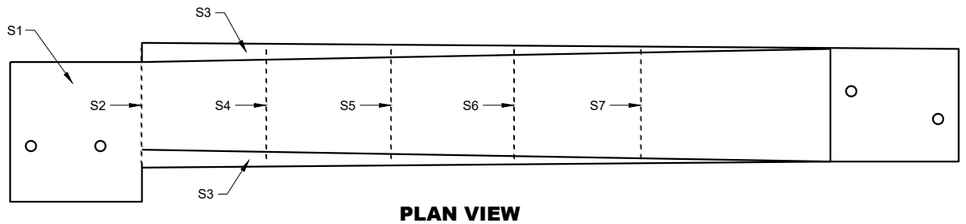
S5



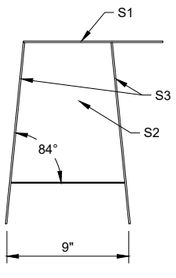
S6



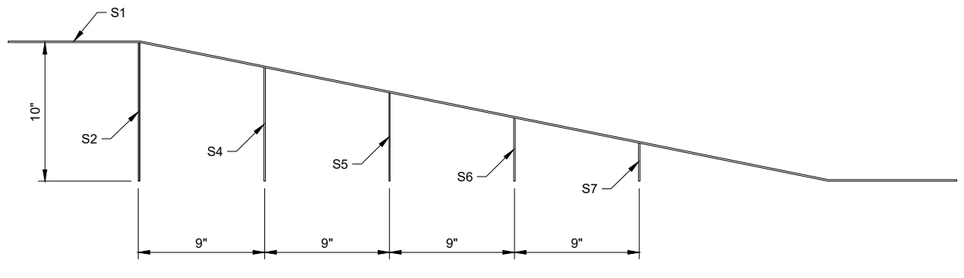
S7



PLAN VIEW



BACK VIEW



SIDE VIEW (600)

42" TOP CAP ASSEMBLY

GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES

STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

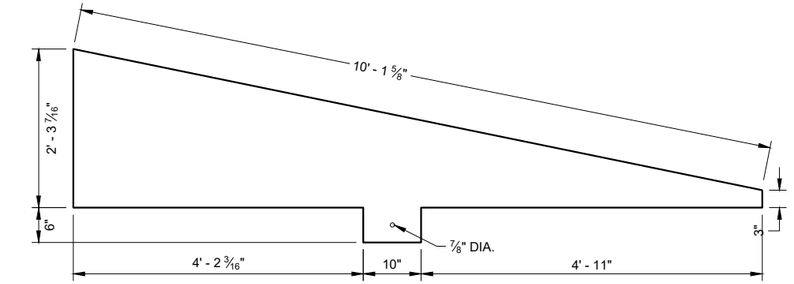
(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

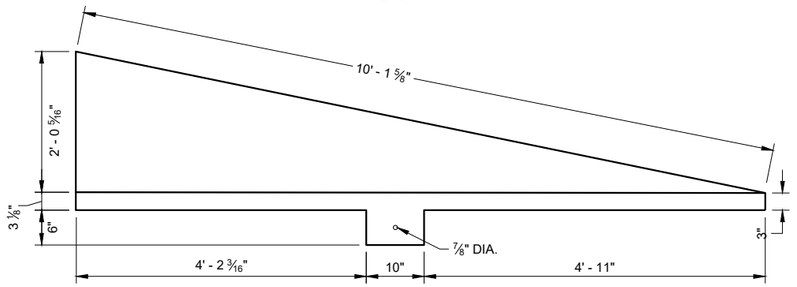
SDD 14B07-16f



SIDE VIEW
T4



END VIEW



SIDE VIEW
T3

END VIEW

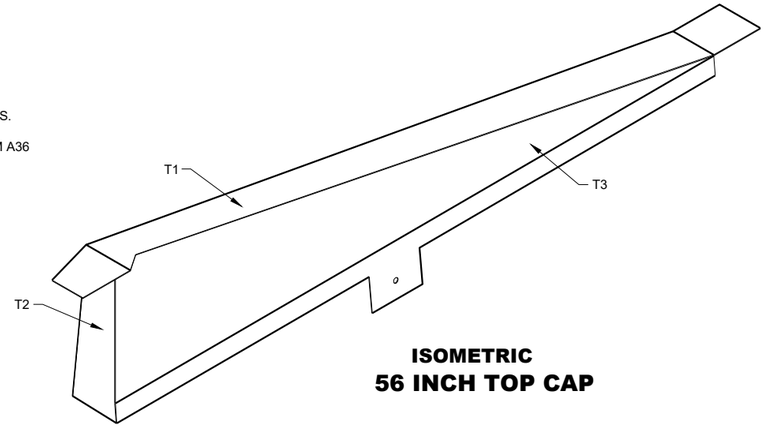
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

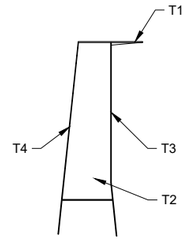
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

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

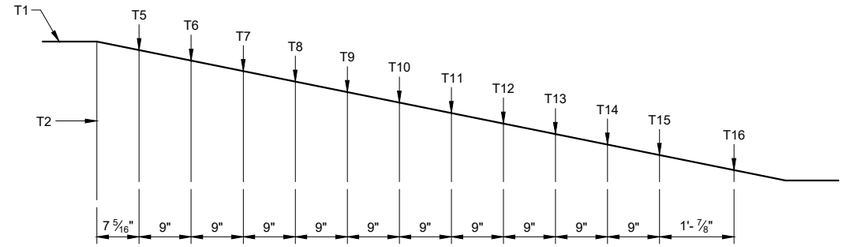
(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



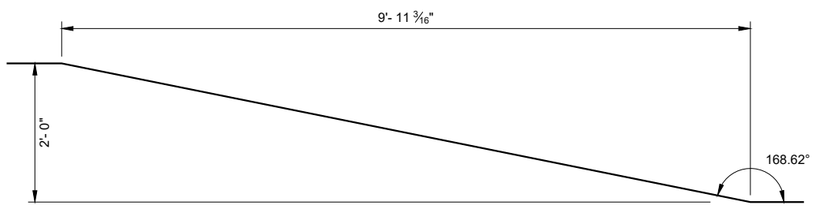
ISOMETRIC
56 INCH TOP CAP



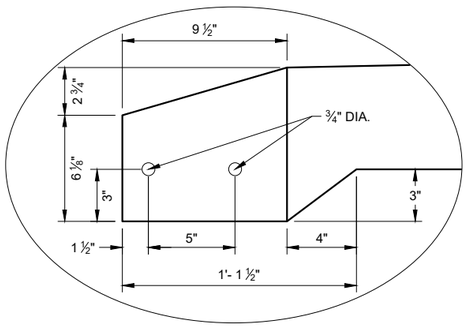
END VIEW
56 INCH TOP CAP



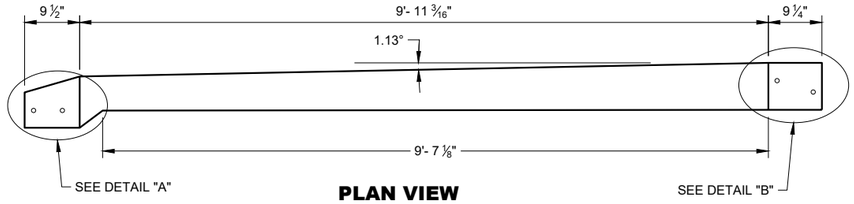
SIDE VIEW (700)
56 INCH TOP CAP



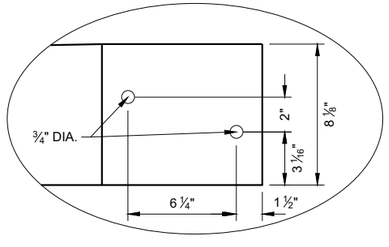
SIDE VIEW
TOP PLATE T1



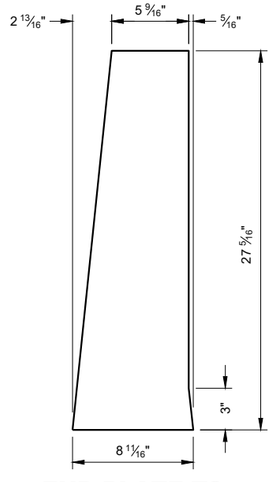
DETAIL "A"



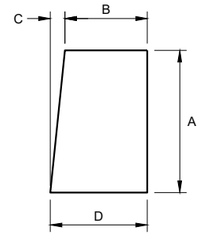
PLAN VIEW
TOP PLATE T1



DETAIL "B"



END PLATE T2



GUSSET PLATES
T5 - T16

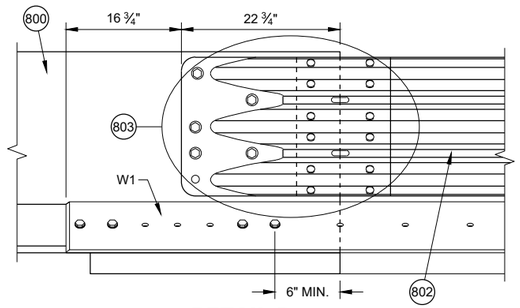
GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 5/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"	7"	1 1/16"	8 1/16"
T13	8 5/16"	7 3/16"	7/8"	8 1/16"
T14	6 1/2"	7 3/8"	1 1/16"	8 1/16"
T15	4 11/16"	7 9/16"	1/2"	8"
T16	2 7/8"	7 3/4"	1/4"	8"

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

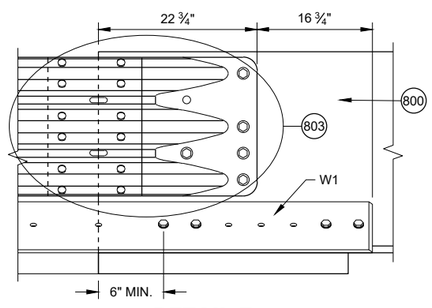
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

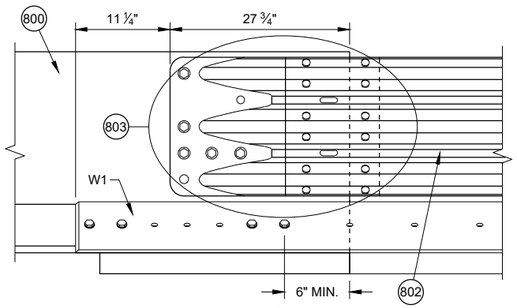
SDD 14B07-16g



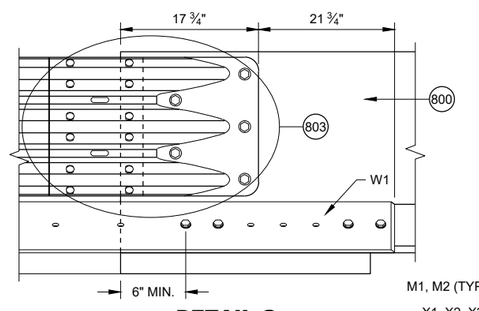
DETAIL D



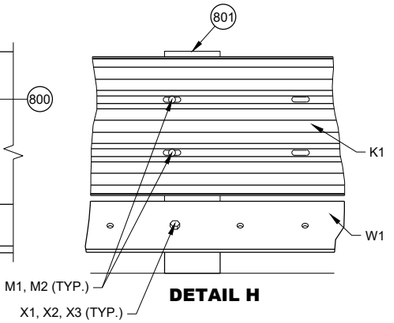
DETAIL E



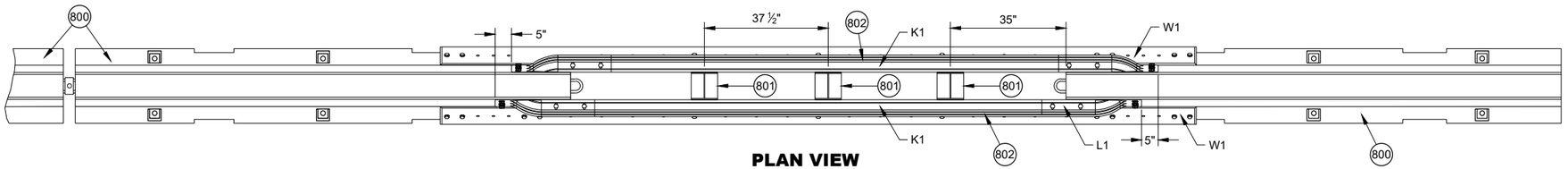
DETAIL F



DETAIL G



DETAIL H



PLAN VIEW

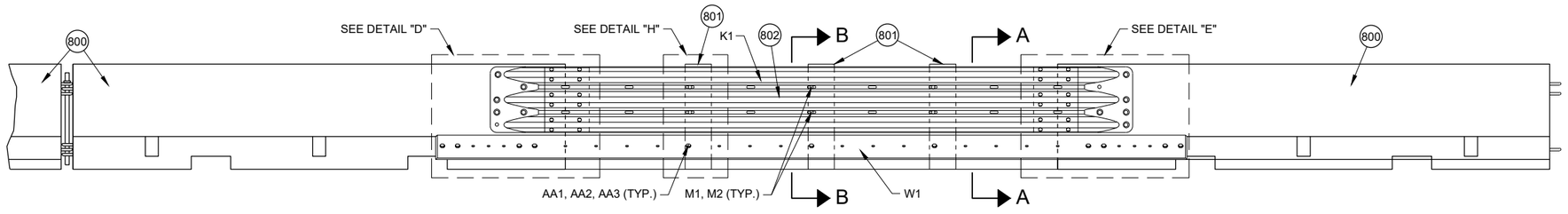
GENERAL NOTES

(800) FREE STANDING TEMPORARY BARRIER

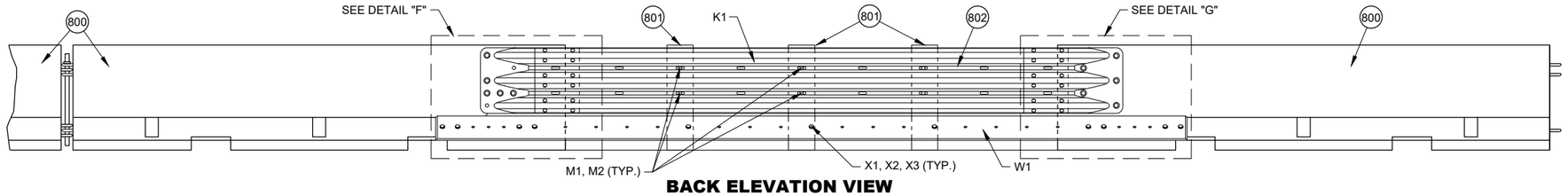
(801) GAP STIFFENER ASSEMBLY

(802) THRIE BEAMS ARE NESTED ON BOTH SIDES OF THE TEMPORARY BARRIER.

(803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



FRONT ELEVATION VIEW



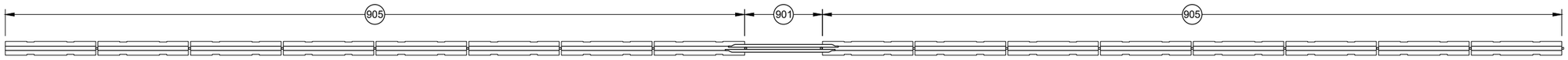
BACK ELEVATION VIEW

PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

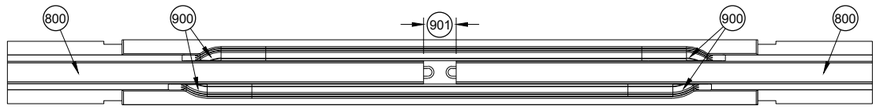
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16h



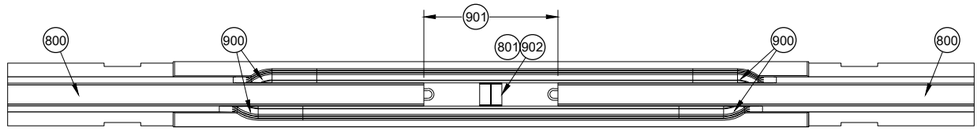
PLAN VIEW
GAP WITHIN SPACING



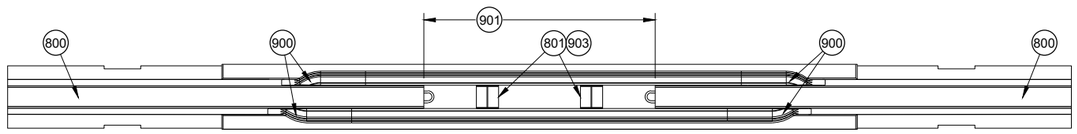
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)

GENERAL NOTES

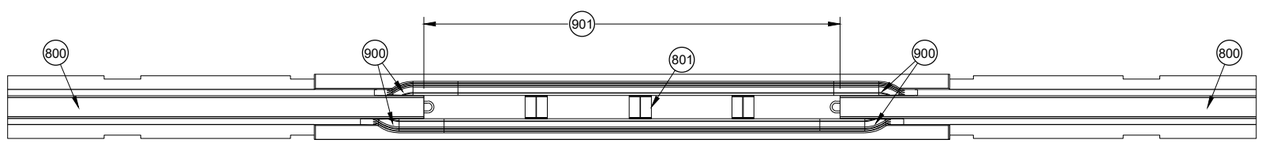
(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
(901) TEMPORARY BARRIER GAP
(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER
(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING TEMPORARY BARRIERS



PLAN VIEW
TEMPORARY BARRIER GAP OVER 1' TO 4' MAX. (904)



PLAN VIEW
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. (904)

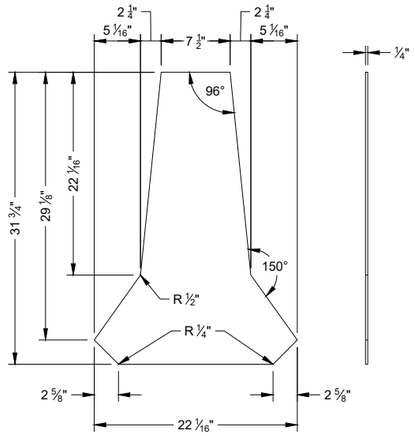


PLAN VIEW
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. (904)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

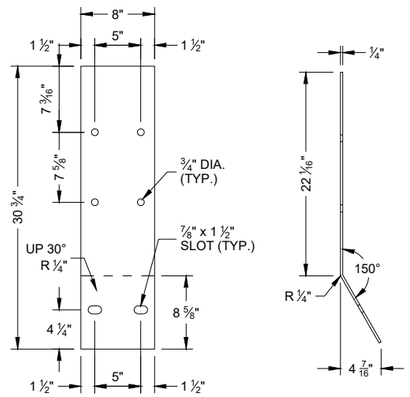
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16i



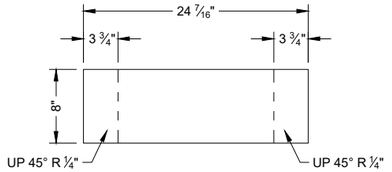
PROFILE VIEW SIDE VIEW

STIFFENER ASSEMBLY CENTER PANEL U1

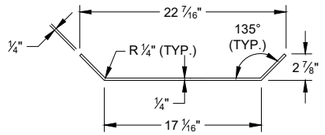


FLAT PATTERN SIDE VIEW

STIFFENER ASSEMBLY SIDE PANEL U2

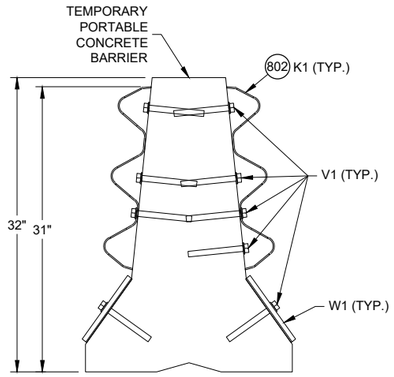


FLAT PATTERN

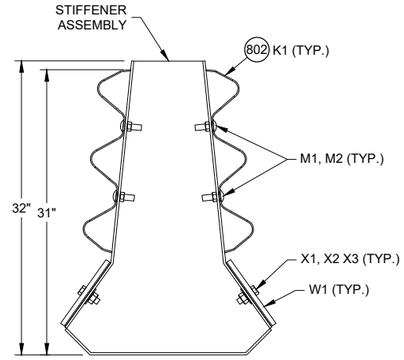


PROFILE VIEW

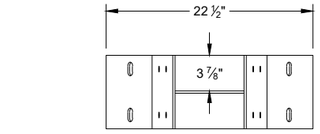
STIFFENER ASSEMBLY BOTTOM PANEL U3



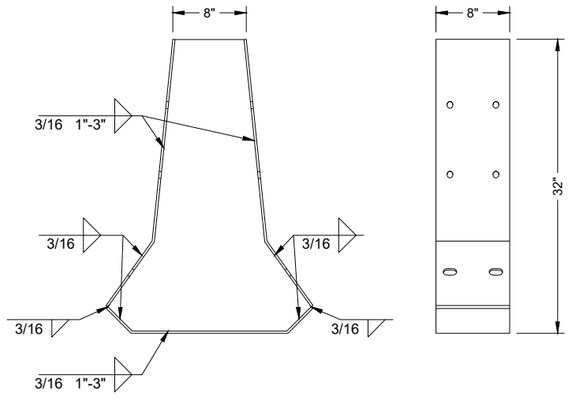
SECTION A - A



SECTION B - B

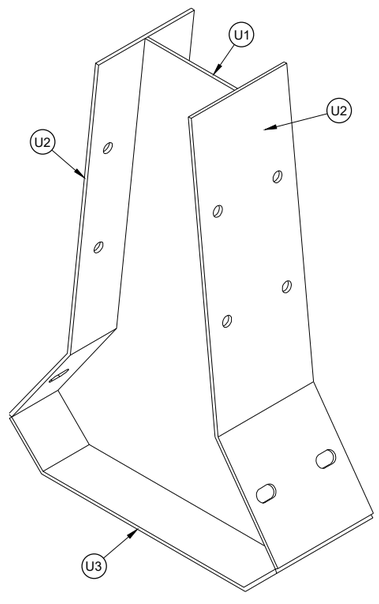


PLAN VIEW



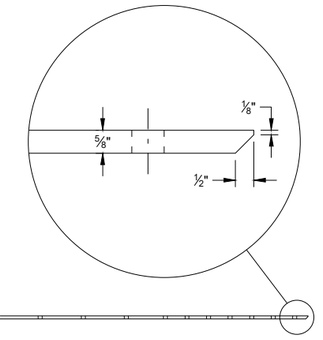
PROFILE VIEW

SIDE VIEW

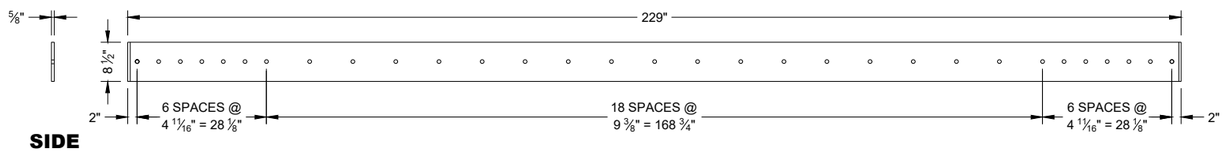


ISOMETRIC

GAP STIFFENER ASSEMBLY



PLAN VIEW



SIDE VIEW

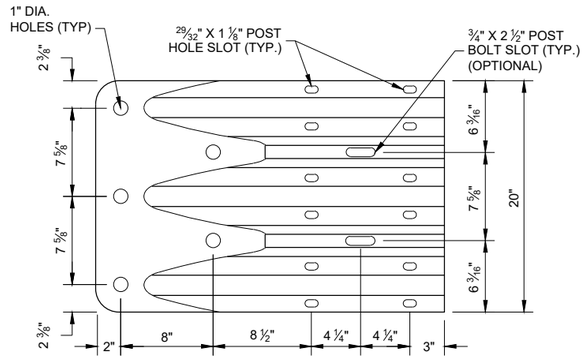
ELEVATION VIEW

W1 TOE PLATE

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

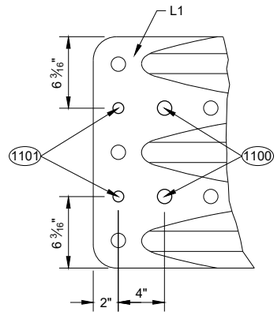
6

SDD 14B07-16j



ELEVATION VIEW

THRIE BEAM TERMINAL CONNECTOR



ELEVATION VIEW

ADDITIONAL THRIE BEAM (1102) TERMINAL CONNECTOR HOLE DETAIL

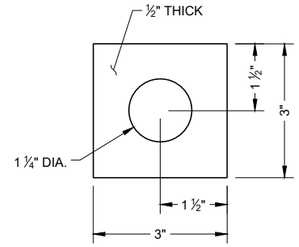


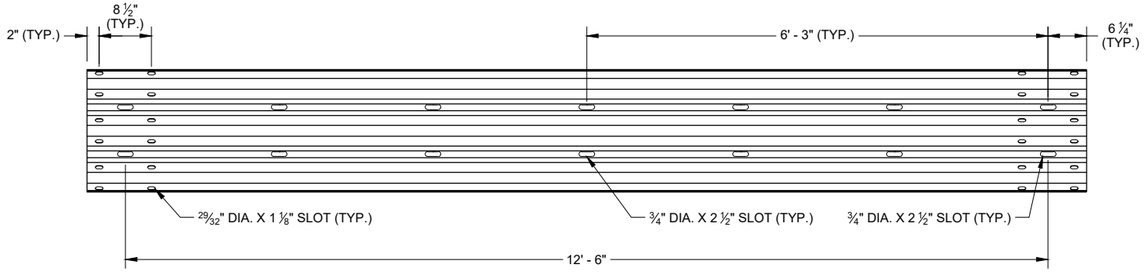
PLATE WASHER DETAIL G2, H3

GENERAL NOTES

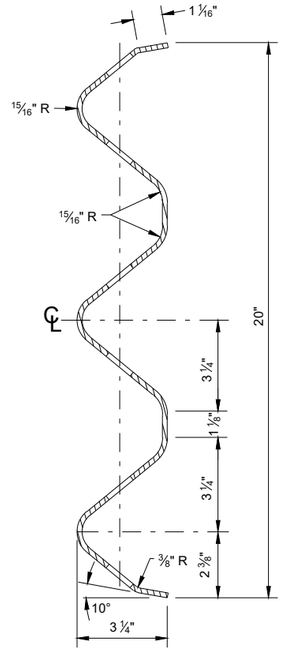
(1100) 1" DIA. HOLE

(1101) 3/4" DIA. HOLE

(1102) PROVIDE HOLES IN THRIE BEAM TERMINAL CONNECTOR TO LIMIT STEEL REINFORCEMENT OR LOOP BAR CONFLICT. CONTRACTOR MAY FIELD DRILL ADDITIONAL HOLE OR PROVIDE THRIE BEAM TERMINAL CONNECTOR WITH ADDITIONAL HOLES FROM SUPPLIER.



SLOTTED THRIE BEAM RAIL K1



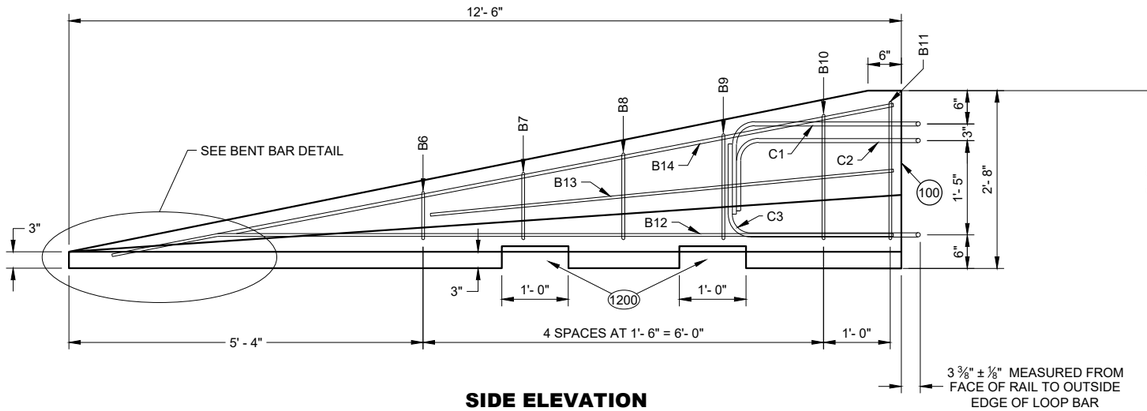
SECTION THROUGH BEAM K1

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

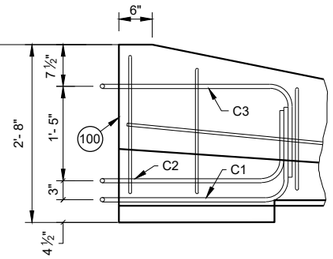
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07-16k



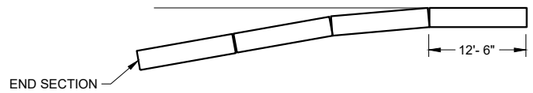
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



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

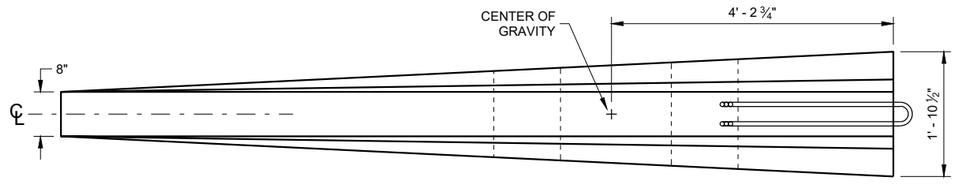
GENERAL NOTES

(1200) SEE LIFTING SLOT DETAIL. LOCATION OF LIFTING SLOTS DETERMINED BY CONTRACTOR.

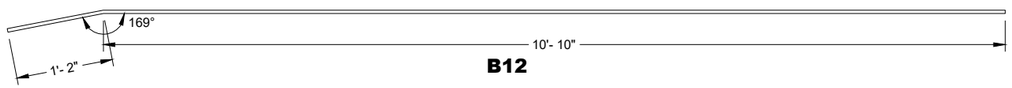


FLARE AT BARRIER END

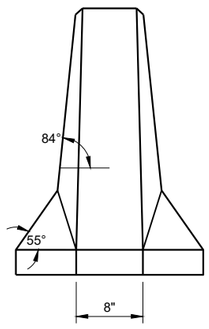
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



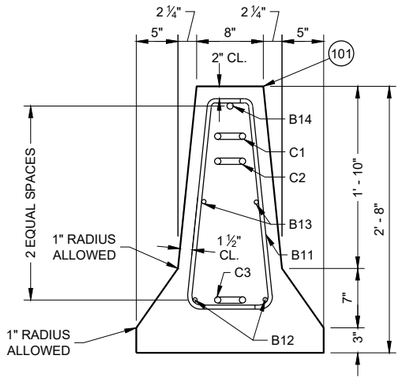
PLAN VIEW



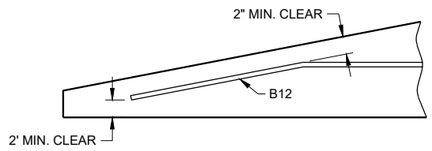
B12



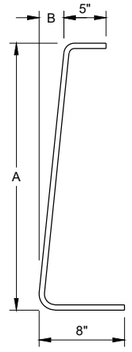
FRONT ELEVATION



END SECTION



BENT BAR DETAIL



BAR	A	B
B6	10"	1"
B7	1'- 1"	1 ¼"
B8	1'- 5"	1 ⅝"
B9	1'- 8"	1 ⅞"
B10	2'- 0 ½"	2 ⅜"
B11	2'- 3"	2 ¾"

B BARS
2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16I

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	PRECAST TEMPORARY BARRIER - CONCRETE	MIN. = f'c 5000 PSI	
B1	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B2	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B3	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B4	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 6'-0"
B5	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 2'-11"
B6	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 1'-11"
B7	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-2"
B8	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-6"
B9	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-9"
B10	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B11	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-4"
B12	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-0"
B13	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-9"
B14	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 11'-9"
C1	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C2	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C3	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
D1	CONNECTION PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ¼" DIA.
D2	CONNECTION PIN - TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G1	BOLT THROUGH ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A OR SAE J429 GRADE 2 UNC	1 ⅛" DIA.
G2	BOLT THROUGH ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G3	BOLT THROUGH ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
H1	ADHESIVE ANCHOR - ADHESIVE	ICC-ES-AC308 5 ¼" EMBEDMENT WITH A MIN. BOND STRENGTH OF 1,650 PSI. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
H2	ADHESIVE ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A / SAE J429 GRADE 2 UNC	1 ⅛" DIA.
H3	ADHESIVE ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
H4	ADHESIVE ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
J1	ASPHALT ANCHOR PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ½" DIA.
J2	ASPHALT ANCHOR PIN - STOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
K1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE
L1	THRIE BEAM RAIL - TERMINAL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
M1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	⅝" DIA.
M2	SPLICE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
N1	THRIE BEAM RAIL TERMINAL - MECHANICAL ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA. LENGTH 6"
N2	THRIE BEAM RAIL TERMINAL - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
N3	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
P1	THRIE BEAM RAIL CONNECTION 1-BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA.
P2	THRIE BEAM RAIL CONNECTION 1-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
P3	THRIE BEAM RAIL CONNETION 1- MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
Q1	BLOCK WOOD	SEE STANDARD SPEC. 614	
R1	CAP - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	⅝" DIA.
R2	CAP- BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
R3	CAP - BOLT - MECHANICAL ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	12 GAUGE
S1	CAP 42-INCH TOP PLATE	AASHTO M111 / ASTM A123 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	12 GAUGE
S2	CAP 42-INCH END PLATE	AASHTO M111 / ASTM A123 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	12 GAUGE
S3	CAP 42-INCH SIDE PLATE	AASHTO M111 / ASTM A123 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	12 GAUGE
S4	CAP 42-INCH GUSSET 1	AASHTO M111 / ASTM A123 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	12 GAUGE
S5	CAP 42-INCH GUSSET 2	AASHTO M111 / ASTM A123 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	12 GAUGE
S6	CAP 42-INCH GUSSET 3	AASHTO M111 / ASTM A123 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	12 GAUGE
S7	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 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	12 GAUGE

6

SDD 14B07-16m

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07-16m

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
T1	CAP 56-INCH TOP PLATE	AASHTO M111 / ASTM A123 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	12 GAUGE
T2	CAP 56-INCH END PLATE	AASHTO M111 / ASTM A123 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	12 GAUGE
T3	CAP 56-INCH SIDE PLATE 1	AASHTO M111 / ASTM A123 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	12 GAUGE
T4	CAP 56-INCH SIDE PLATE 2	AASHTO M111 / ASTM A123 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	12 GAUGE
T5	CAP 56-INCH GUSSET 1	AASHTO M111 / ASTM A123 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	12 GAUGE
T6	CAP 56-INCH GUSSET 2	AASHTO M111 / ASTM A123 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	12 GAUGE
T7	CAP 56-INCH GUSSET 3	AASHTO M111 / ASTM A123 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	12 GAUGE
T8	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 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	12 GAUGE
T9	CAP 42-INCH GUSSET 5	AASHTO M111 / ASTM A123 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	12 GAUGE
T10	CAP 42-INCH GUSSET 6	AASHTO M111 / ASTM A123 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	12 GAUGE
T11	CAP 42-INCH GUSSET 7	AASHTO M111 / ASTM A123 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	12 GAUGE
T12	CAP 42-INCH GUSSET 8	AASHTO M111 / ASTM A123 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	12 GAUGE
T13	CAP 42-INCH GUSSET 9	AASHTO M111 / ASTM A123 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	12 GAUGE
T14	CAP 42-INCH GUSSET 10	AASHTO M111 / ASTM A123 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	12 GAUGE
T15	CAP 42-INCH GUSSET 11	AASHTO M111 / ASTM A123 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	12 GAUGE
T16	CAP 42-INCH GUSSET 12	AASHTO M111 / ASTM A123 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	12 GAUGE
U1	GAP STIFFENER	AASHTO M111 / ASTM A123 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	
U2	GAP STIFFENER - CONNECTOR PLATE 1	AASHTO M111 / ASTM A123 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	
U3	GAP STIFFENER - CONNECTOR PLATE 2	AASHTO M111 / ASTM A123 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	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
V1	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 24.0 KIPS AND ULTIMATE SHEAR LOAD 21.5 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	¾" DIA.
V2	GAP STIFFENER - BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C O R MECHANICAL GALVANIZE TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
W1	TOE PLATE	AASHTO M111/ASTM A123 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	
X1	TOE PLATE - CONNECTION BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC HEAVY HEX HEAD OR AASTHO M180 HEAD, ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED. PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	¾" DIA.
X2	TOE PLATE - CONNECTION BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1 (HARDEN WASHER ONLY)	
X3	TOE PLATE - CONNECTION BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	

6

SDD 14B07-16n

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 14B07-16n

SDD 14B15a Steel Plate Beam Guard, Class "A", Installation and Elements

GENERAL NOTES

1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6"X8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS. DO NOT MIX STEEL AND WOOD POSTS IN A SINGLE INSTALLATION.

2. USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGE SPELTER COATING ON GALVANIZED POSTS.

3. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

4. USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

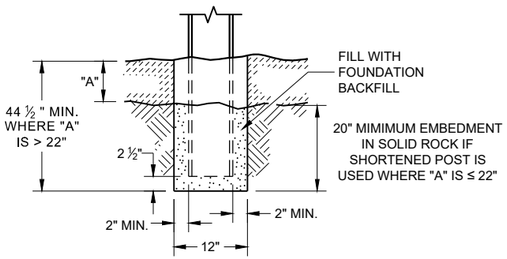
5. IF THE DISTACE FROM BACK OF POST TO SHOULDER HIGHE POINT IS LESS THAN 2 FEET, INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

6. IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCHES IN DIAMETER POST HOLE 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 ADEQUATELY.

7. WHEN USING STEEL POSTS AND WOOD BLOCKOUTS, INSTALL FOUR 16d GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

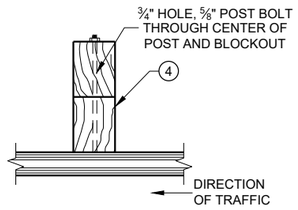
INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



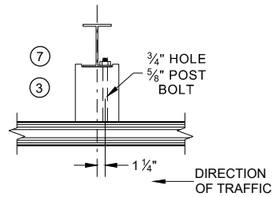
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (6)



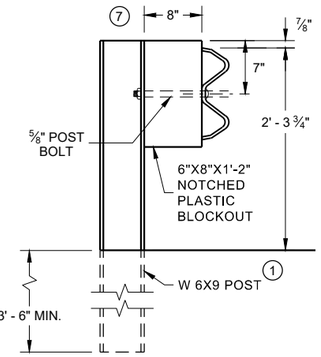
PLAN VIEW

WOOD POST, BLOCKOUT AND BEAM



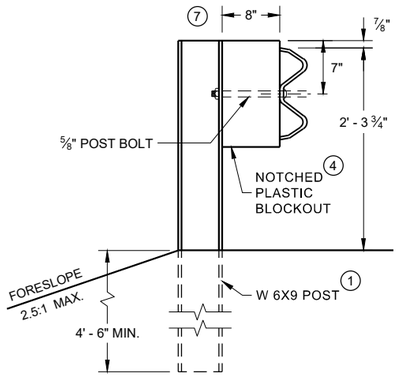
PLAN VIEW

WOOD POST, BLOCKOUT AND BEAM



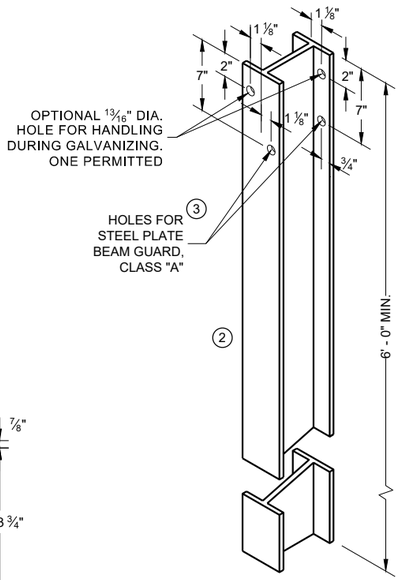
END VIEW

STEEL POST AND NOTCHED PLASTIC BLOCKOUT ALTERNATIVE STANDARD INSTALLATION



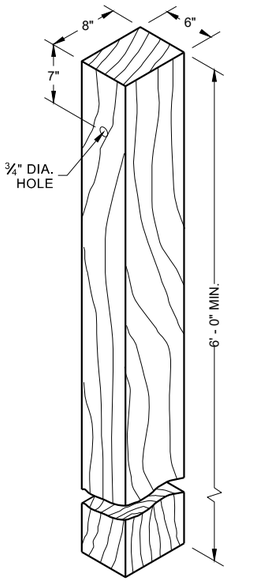
END VIEW

LONGER POST AT HALF POST SPACING W BEAM (LHW)

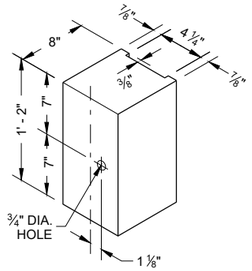


STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)

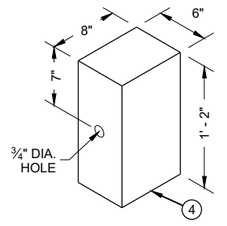
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



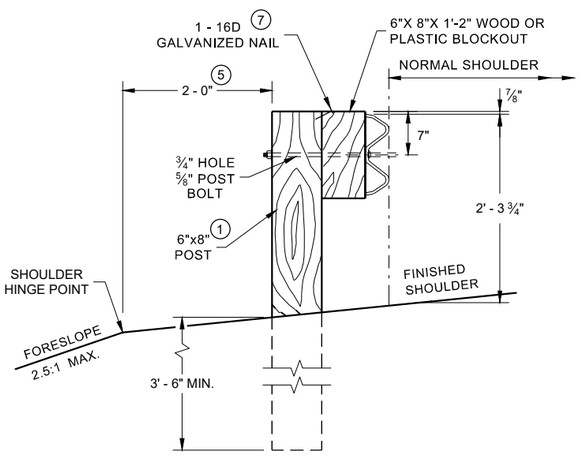
WOOD POST (6" X 8") NOMINAL (1)



TYPICAL NOTCHED PLASTIC BLOCKOUT FOR STEEL POSTS

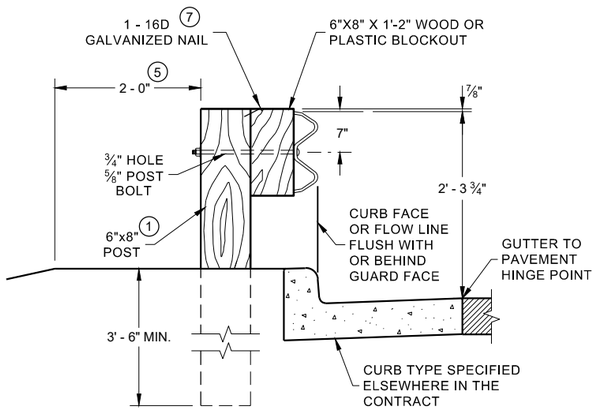


WOOD OR PLASTIC BLOCKOUT FOR WOOD POSTS



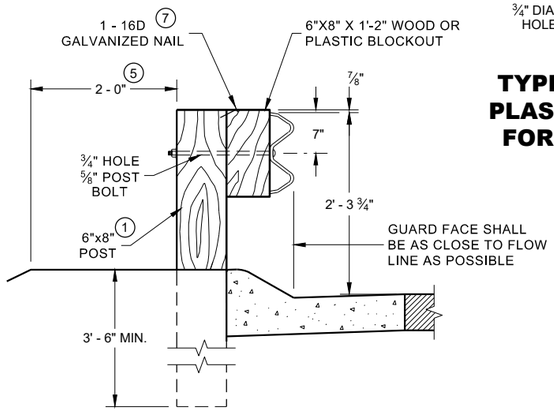
END VIEW

LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



END VIEW

LOCATED ALONG A CURBED ROADWAY



END VIEW

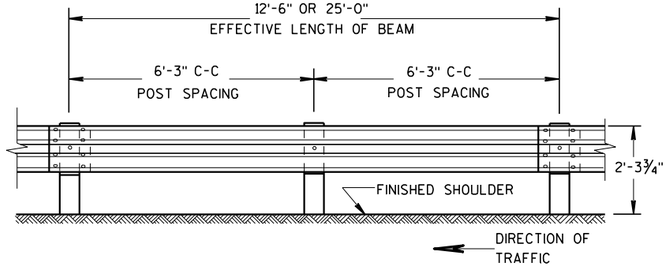
LOCATED ALONG A MOUNTABLE CURBED ROADWAY

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

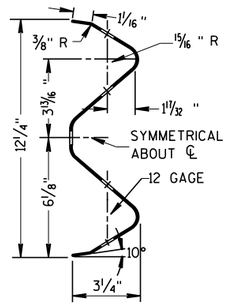
6

SDD 14B15 -11a

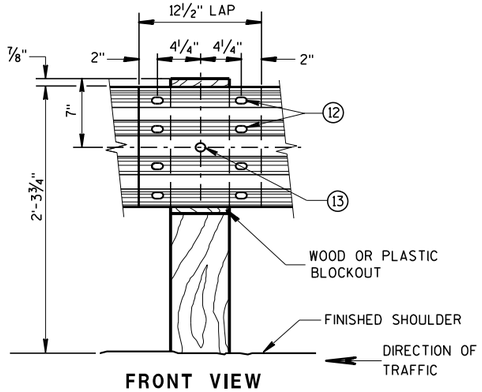


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

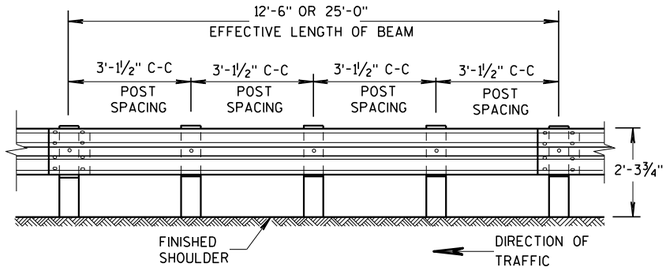
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

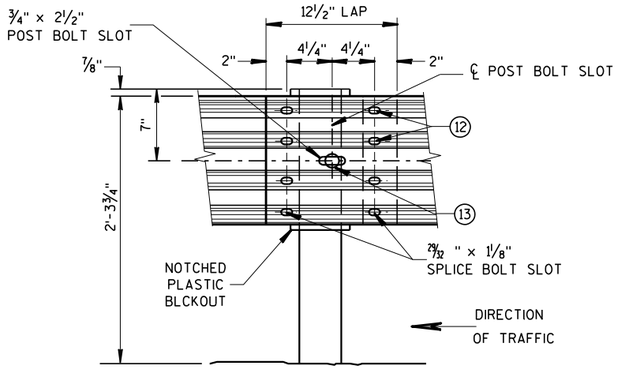
(12) 8 -5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.



FRONT VIEW

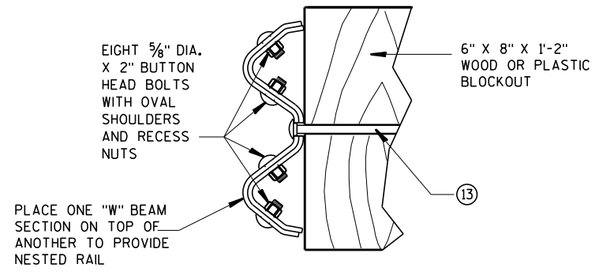
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

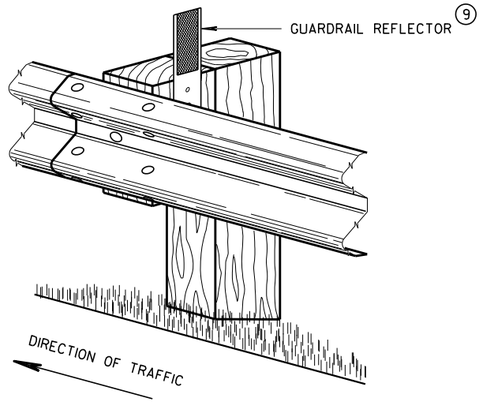
TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD



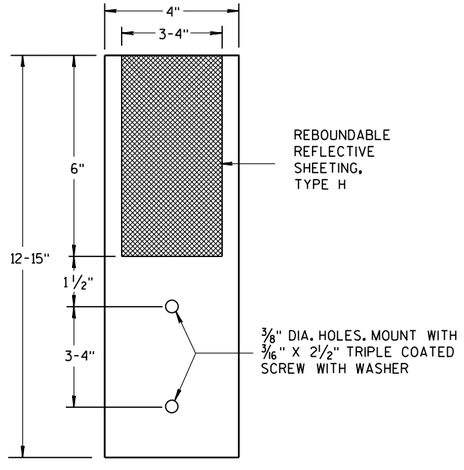
NESTED W BEAM (NW)

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

* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

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

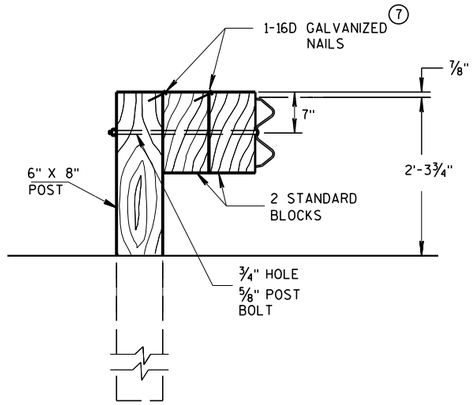
STATE OF WISCO 373
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 15-11b

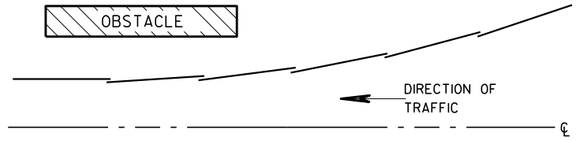
6

S.D.D. 14 B 15-11b

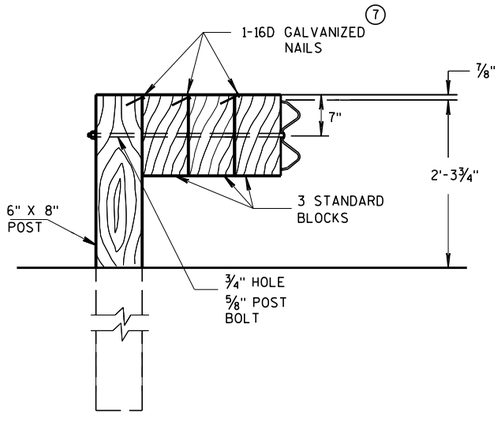


DETAIL FOR DOUBLE BLOCKS

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

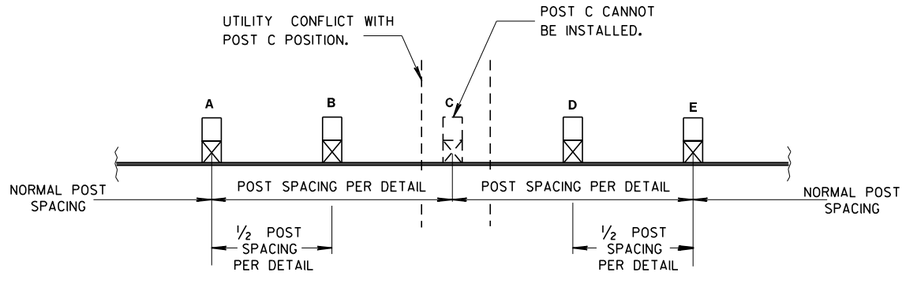


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

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



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

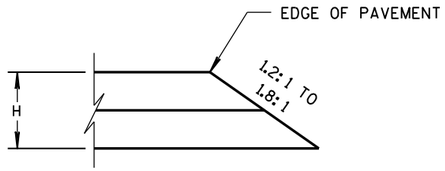
APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
374
FHWA

6

S.D.D. 14 B 15-11c

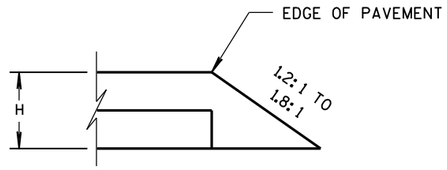
6

S.D.D. 14 B 15-11c



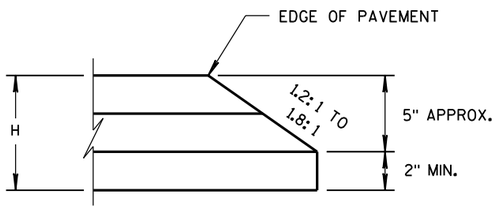
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



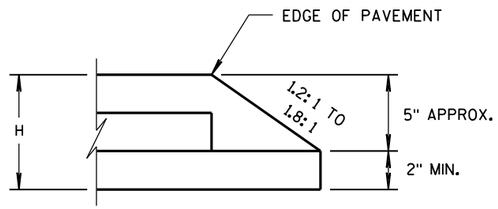
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

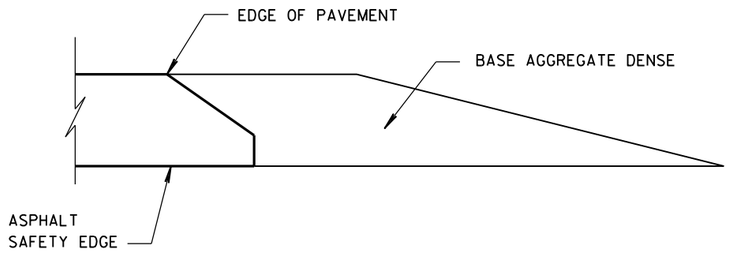
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

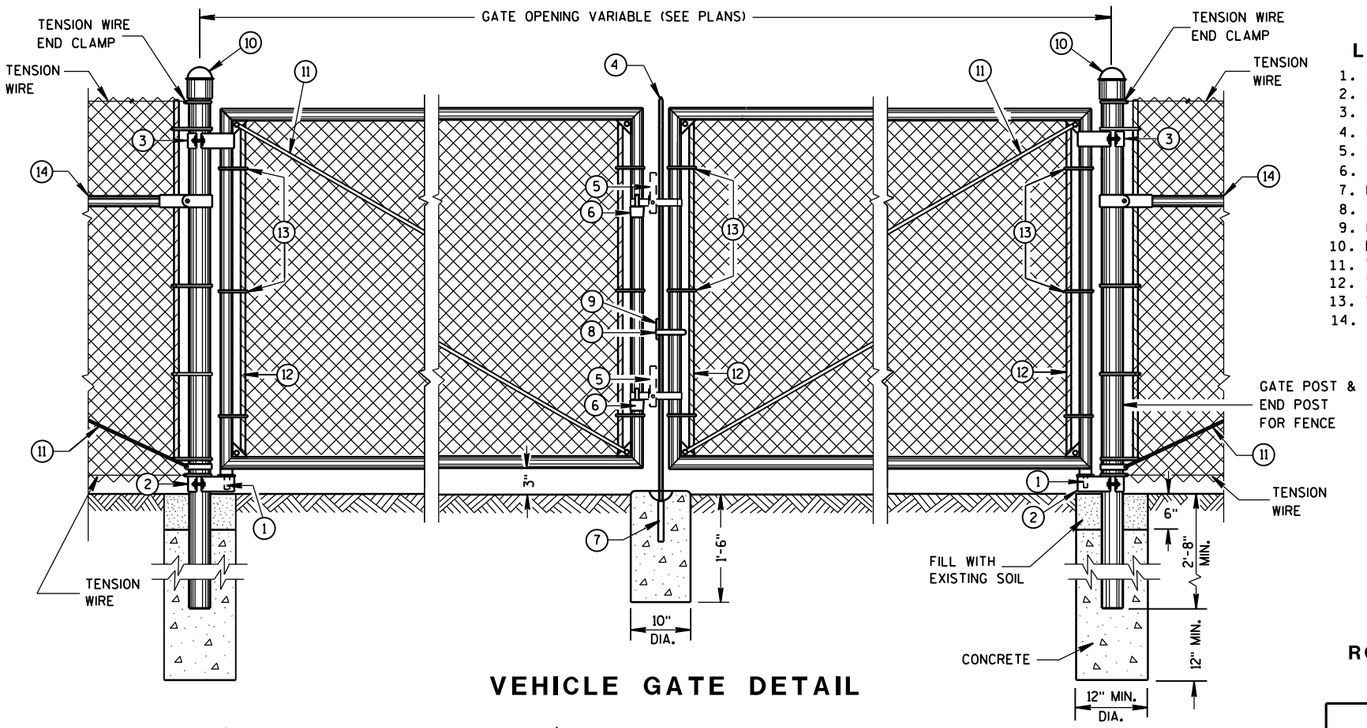
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

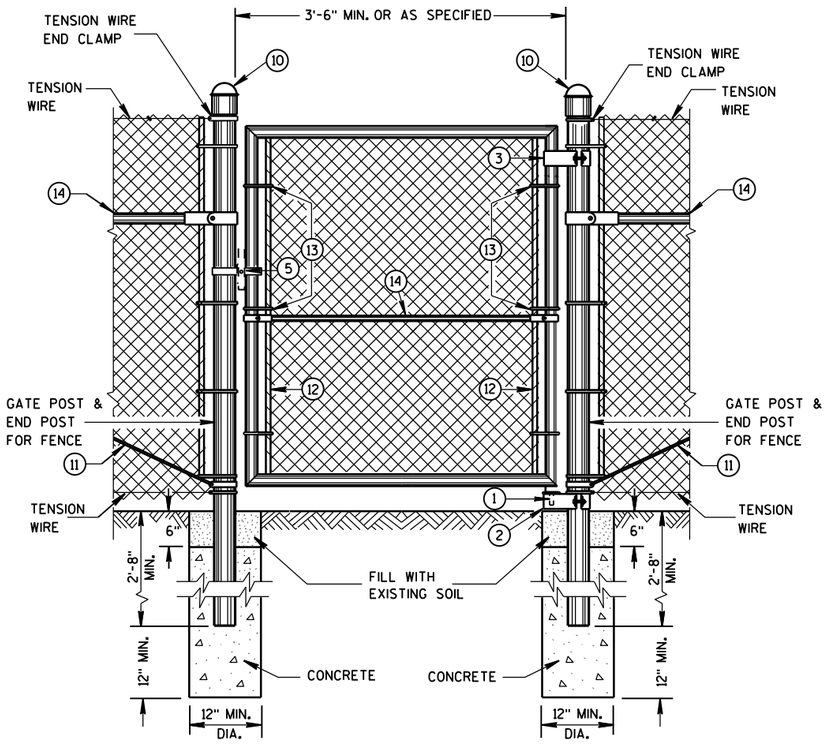
11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

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.

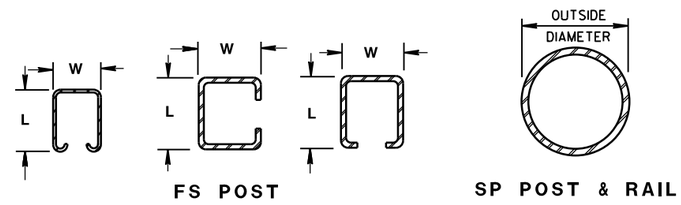
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

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

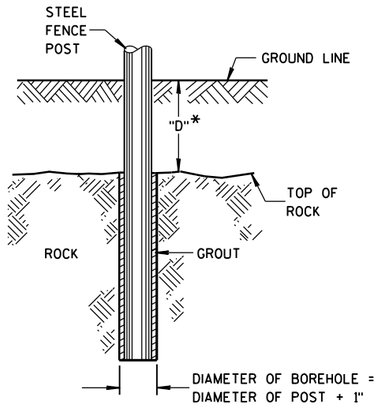
** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

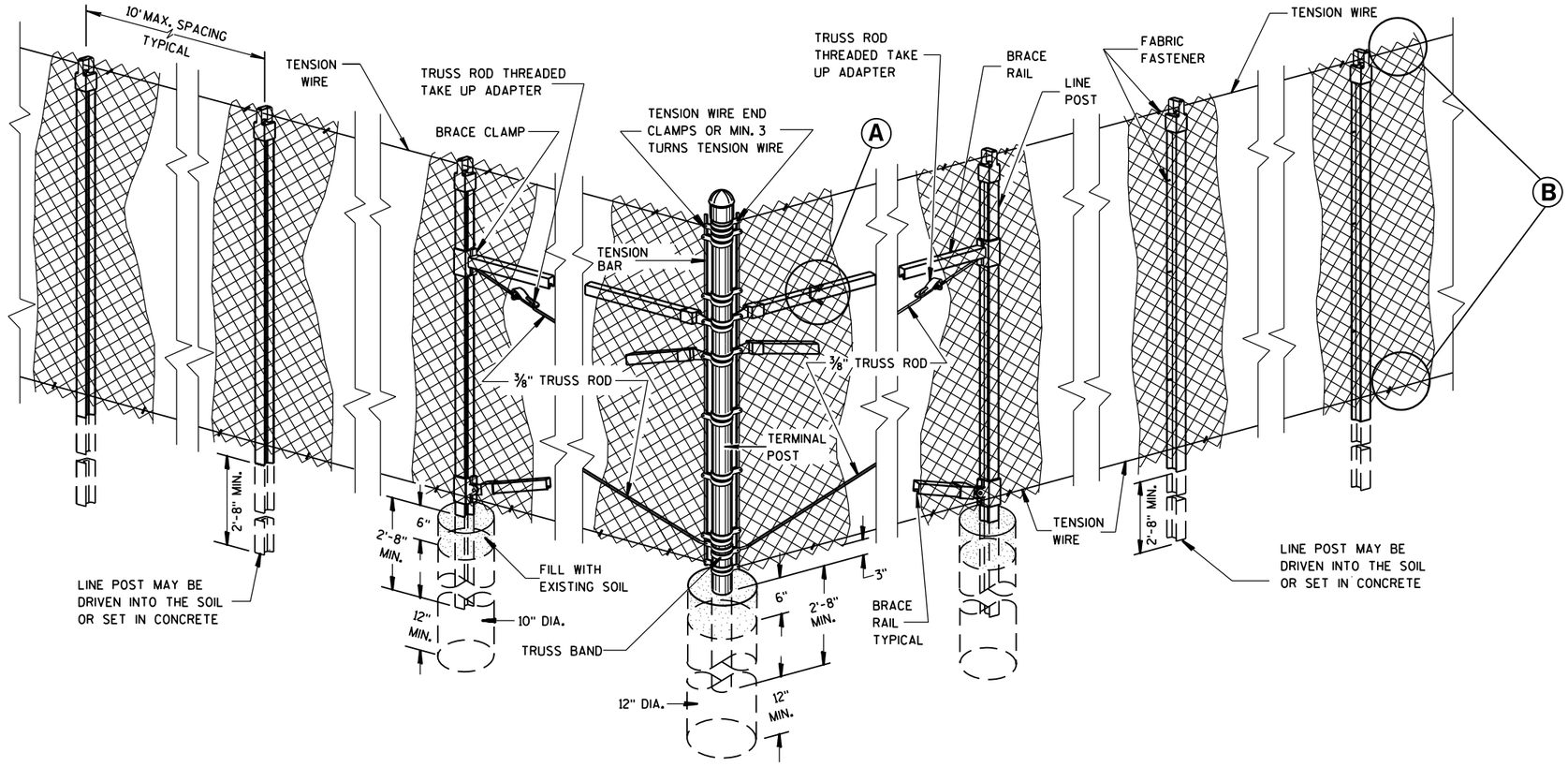
6

S.D.D. 15 B 3-15a

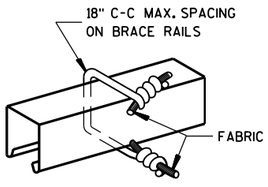


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



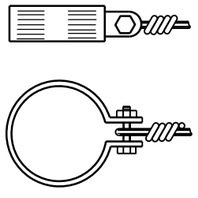
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



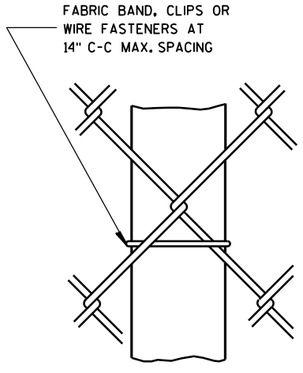
BRACE RAIL

FABRIC FASTENER

Ⓐ



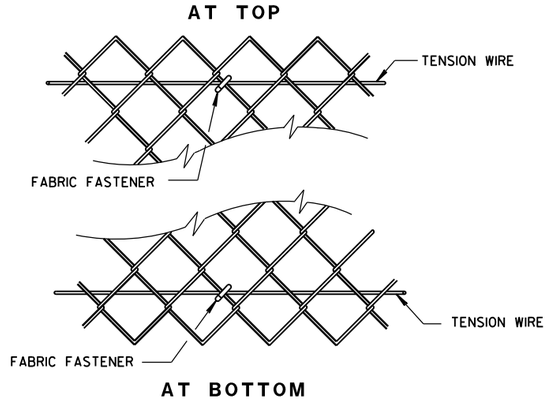
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

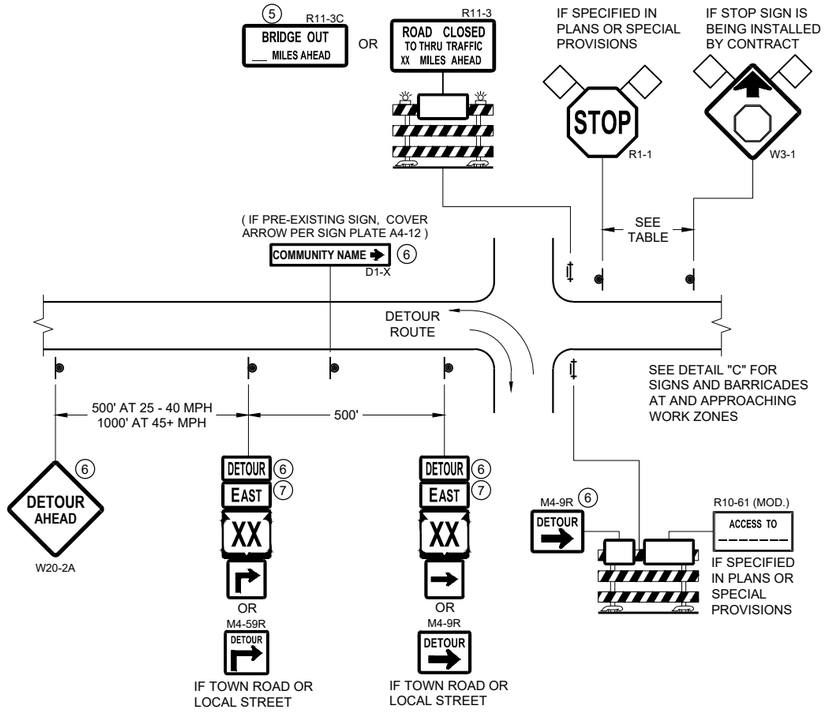
APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 15 B 3-15b

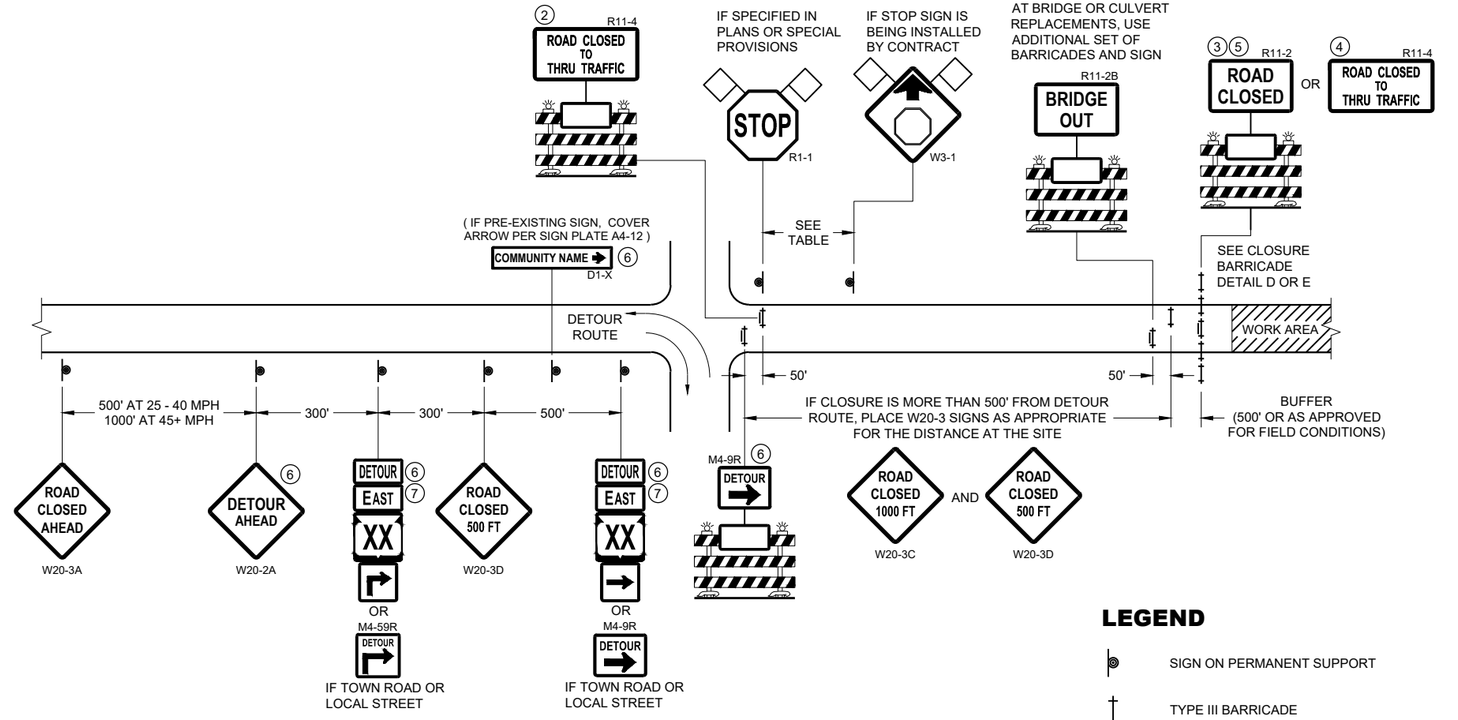
6

S.D.D. 15 B 3-15b



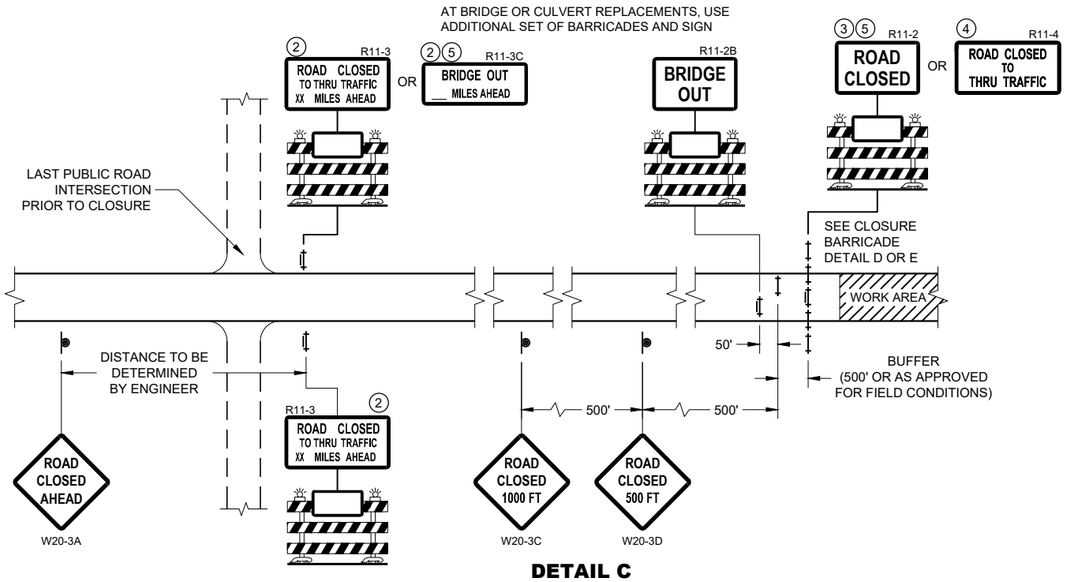
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

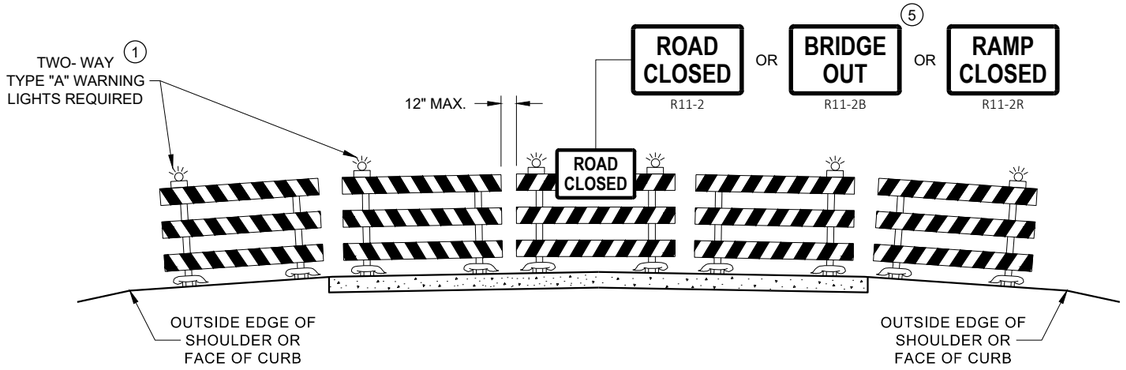
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

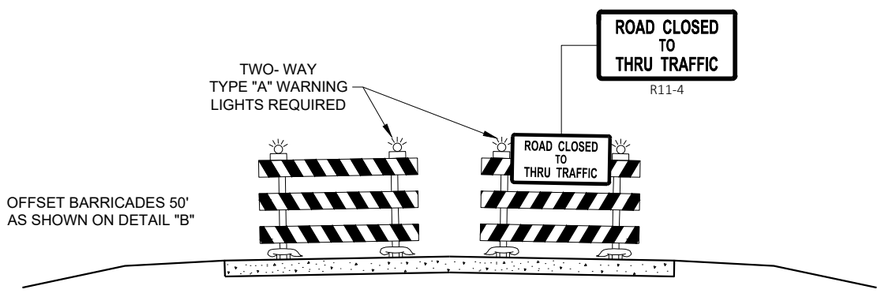
6

SDD 15C02 - 09a

SDD 15C02 - 09a



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
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 09b

6

SDD 15C02 - 09b

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.

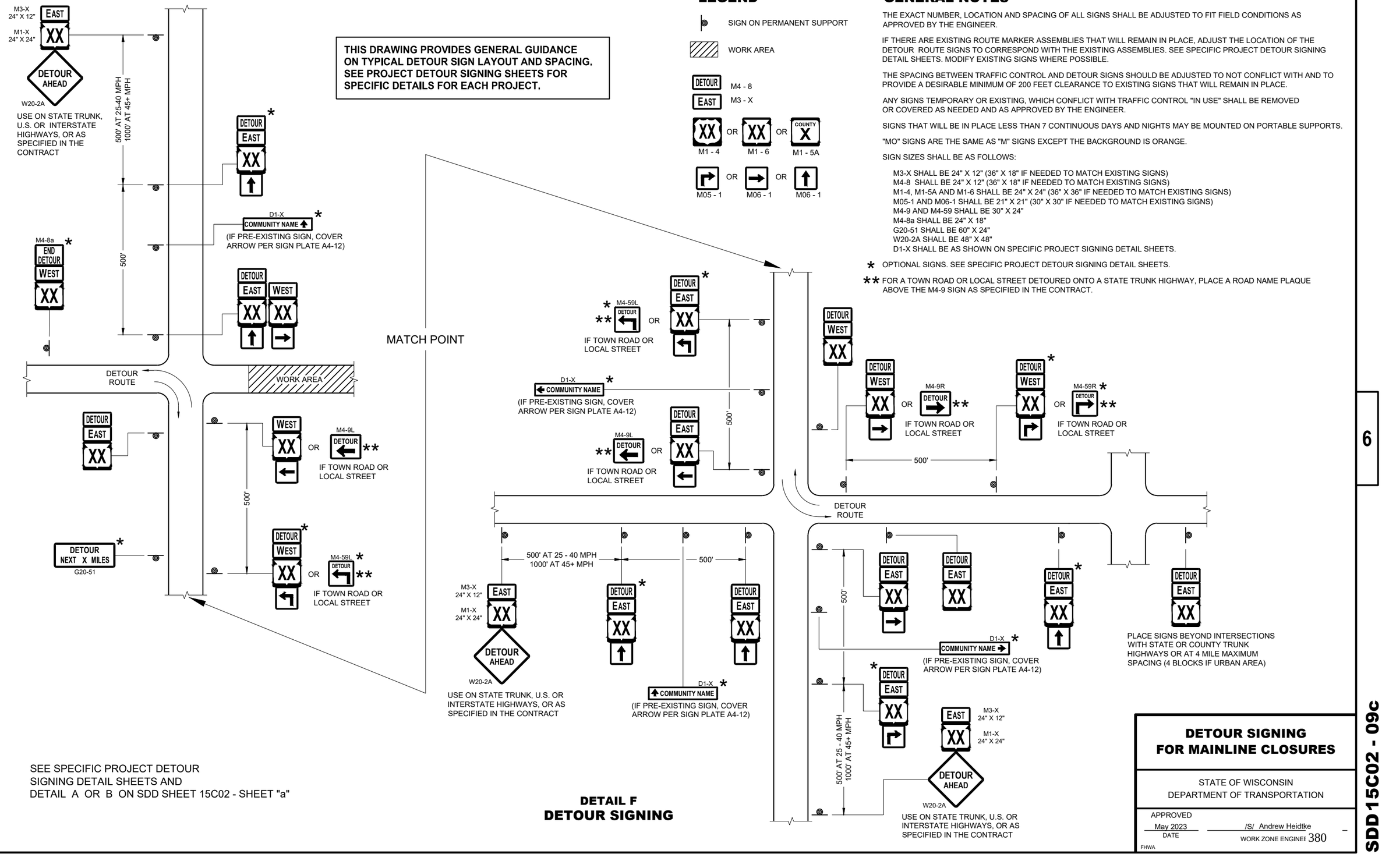
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 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
May 2023
DATE

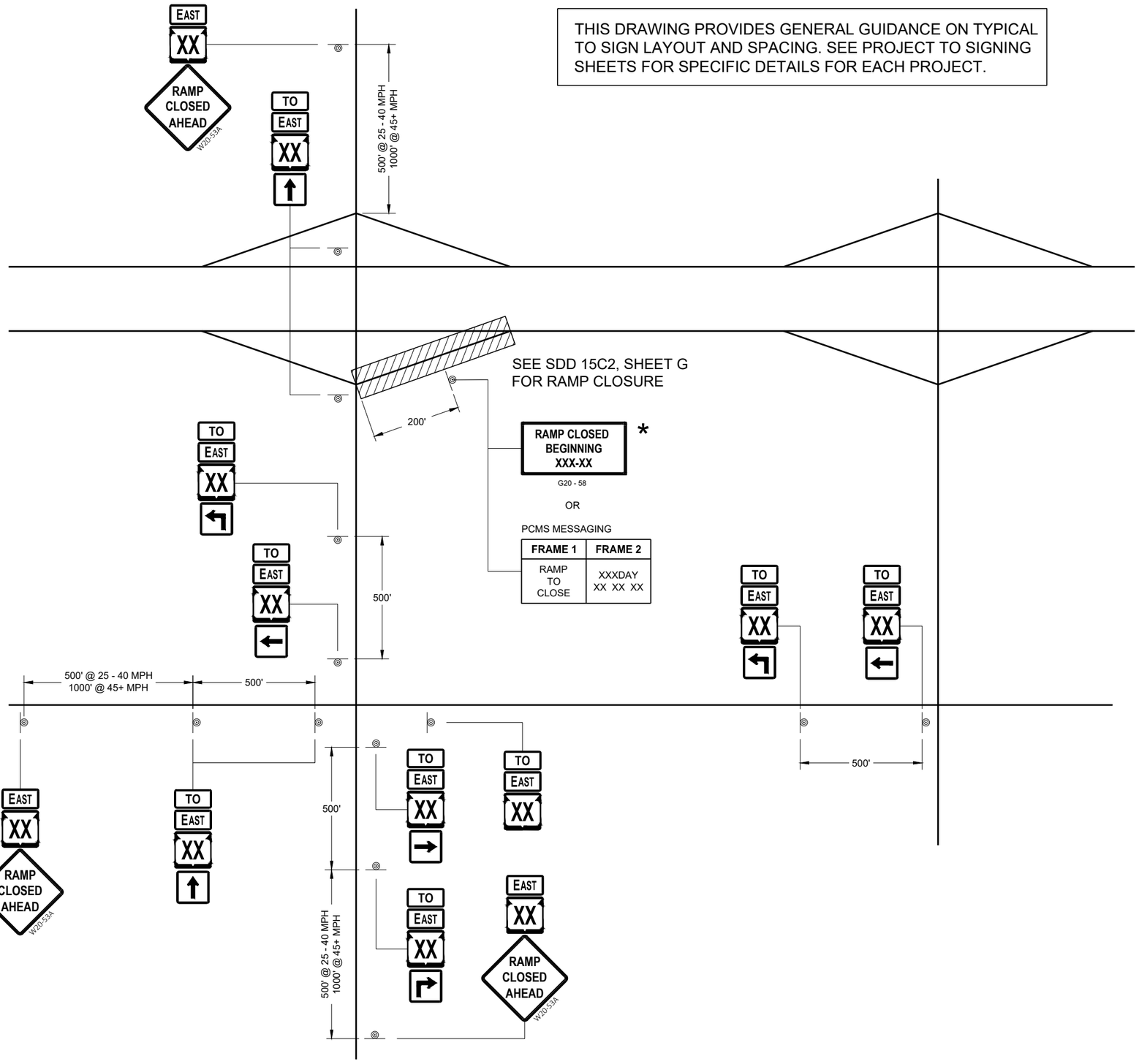
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15C02 - 09c

SDD 15C02 - 09c



THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL TO SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

SIGN ON PERMANENT SUPPORT

TO EAST — MO4 - 5, M3 - X

XX M1 - 6 OR XX M1 - 4 OR INTERSTATE XX M1 - 1

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 ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE TO ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND TO 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 SHALL 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 FOLLOW:
- M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
- W20 - 53A SHALL BE 48" X 48"

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

ON RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

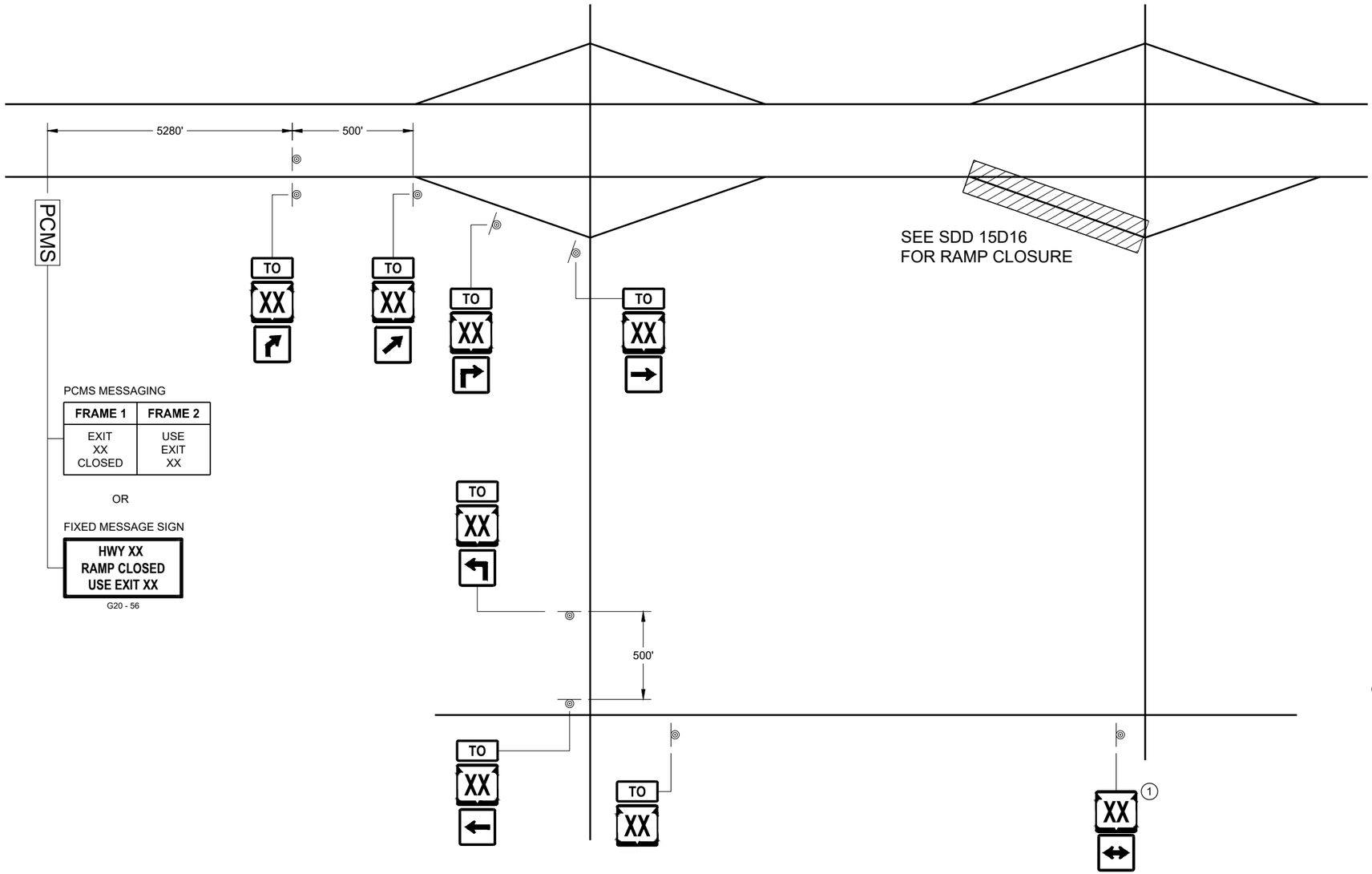
APPROVED
May 2023 DATE
/S/ Andrew Heidtke WORK ZONE ENGINEER

FHWA

6

SDD 15C02 - 09d

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL "TO" MO-4 SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



PCMS MESSAGING

FRAME 1	FRAME 2
EXIT XX CLOSED	USE EXIT XX

OR

FIXED MESSAGE SIGN

HWY XX
RAMP CLOSED
USE EXIT XX

G20 - 56

LEGEND

SIGN ON PERMANENT SUPPORT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TO MO4 - 5

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M05 - 2 OR M06 - 1 OR M06 - 2 OR M06 - 4

GENERAL NOTES

SEE SDD 15D16 "TRAFFIC CONTROL, EXIT RAMP CLOSURE" DETAIL FOR TRAFFIC CONTROL AT EXIT RAMP CLOSURE.

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

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE "TO" MO-4 ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND "TO" MO-4 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 SHALL 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 FOLLOW:
- MO4 - 5 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, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).

(1) ONLY ADD IF THERE ARE NO EXISTING ROUTE MARKERS FOR THE INTERSECTING ROADWAY.

OFF RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

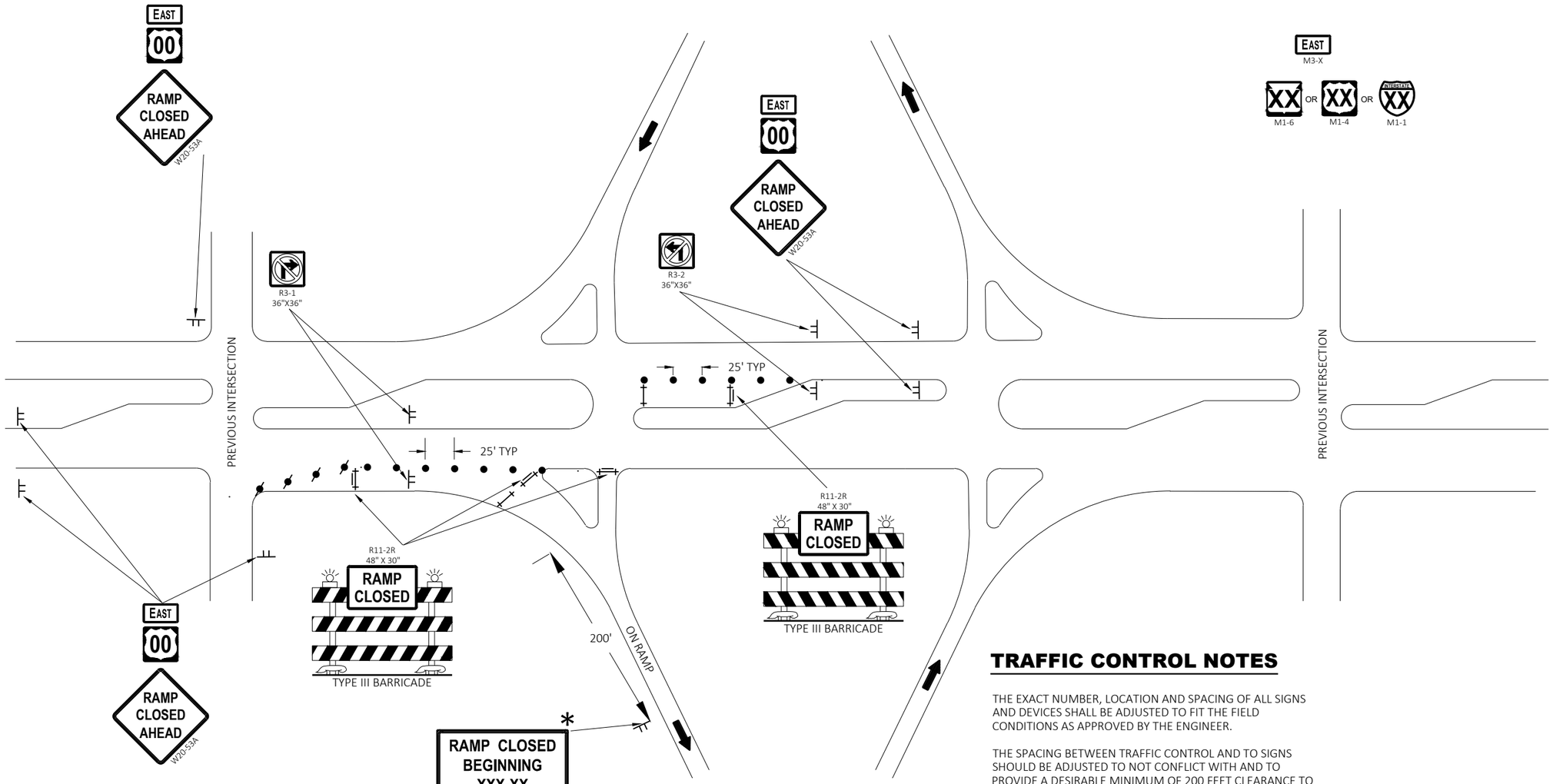
APPROVED
May 2023 DATE
/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA

6

SDD 15C02 - 09e

6

SDD 15C02 - 09e



LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL AND TO 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 THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24"x24" (36" x18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-1, M1-4, AND M1-6 SHALL BE 24"x24" (36"x36" IF NEEDED TO MATCH EXISTING SIGNS)
- W20-53A SHALL BE 48"X48"

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

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

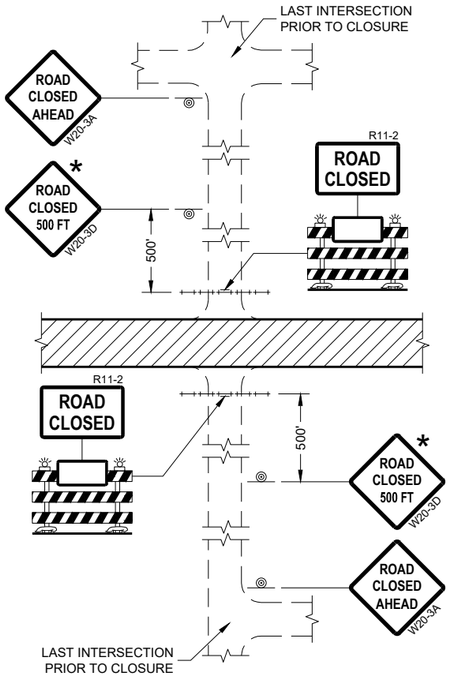
APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE
FHWA

6

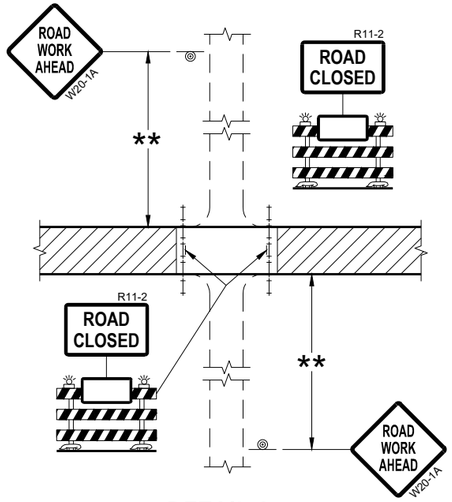
SDD 15C02-09g

6

SDD 15C02-09g



DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO 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.

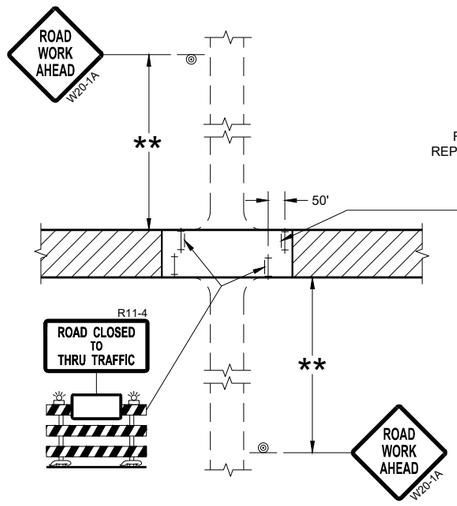
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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.



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

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

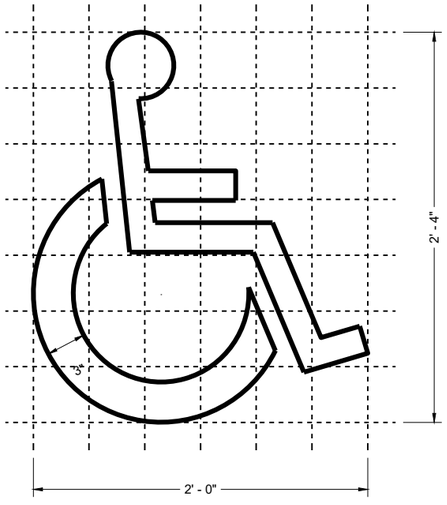
6

SDD 15C03 - 05

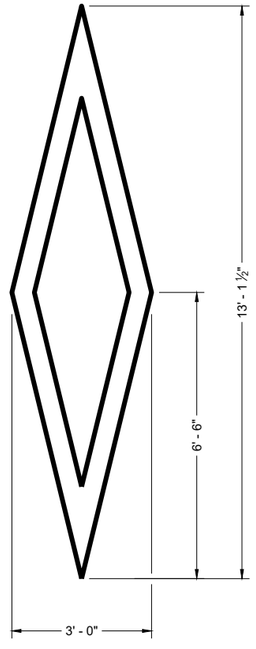
SDD 15C03 - 05

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

6

6

SDD 15C07-16a

SDD 15C07-16a

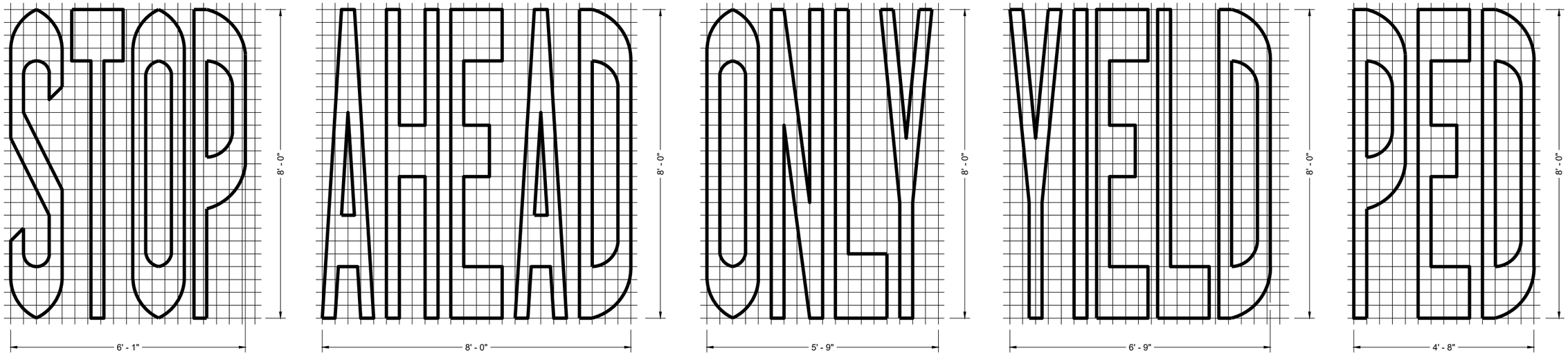
PAVEMENT MARKING SYMBOLS

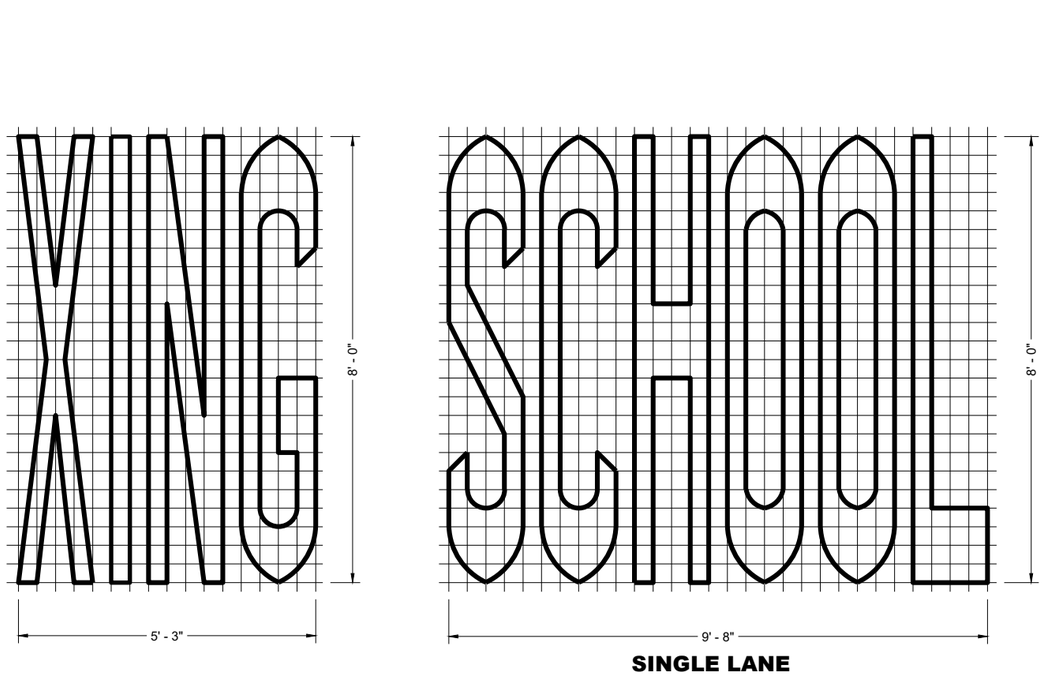
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024
DATE

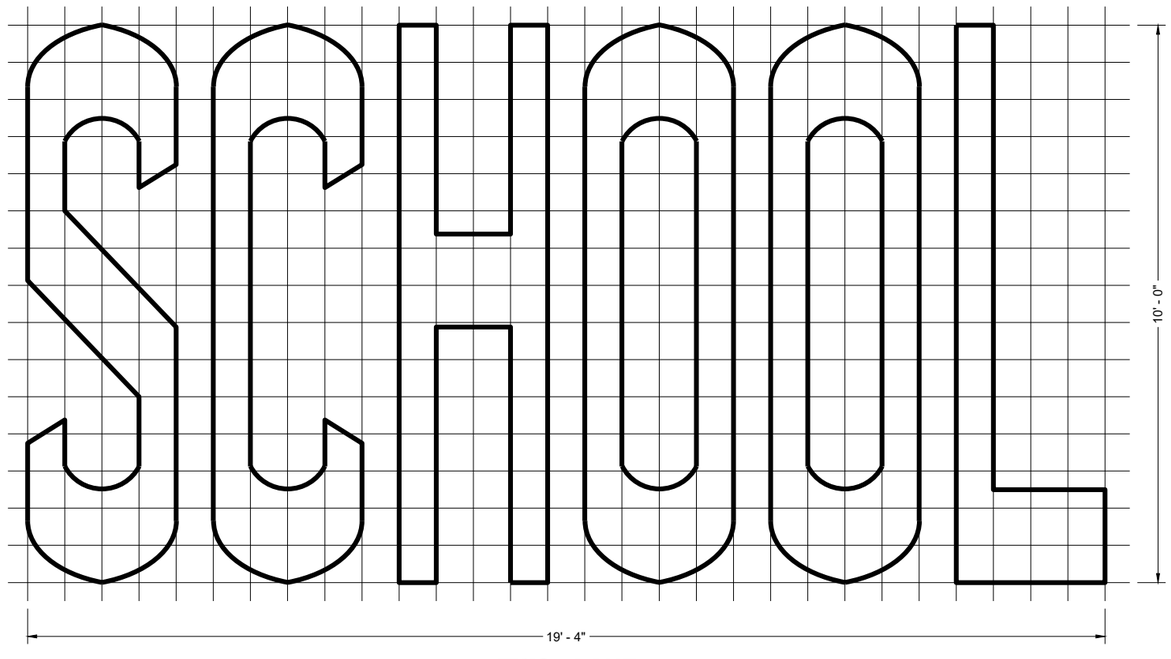
/S/ Jeannie Silver
STATE SIGNING AND MARKING ENGINEER

FHWA





SINGLE LANE



TWO - LANE

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.

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MARKING ENGINEER

FHWA

6

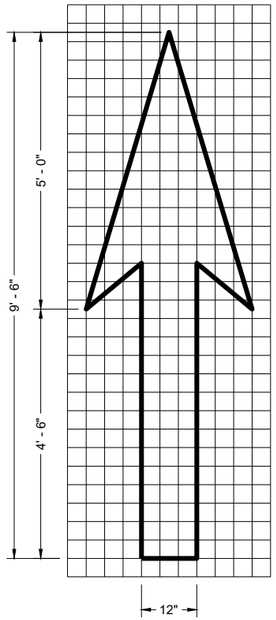
SDD 15C07-16b

6

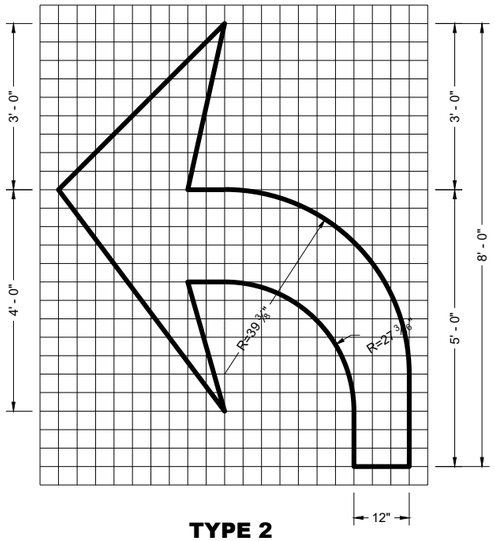
SDD 15C07-16b

GENERAL NOTES

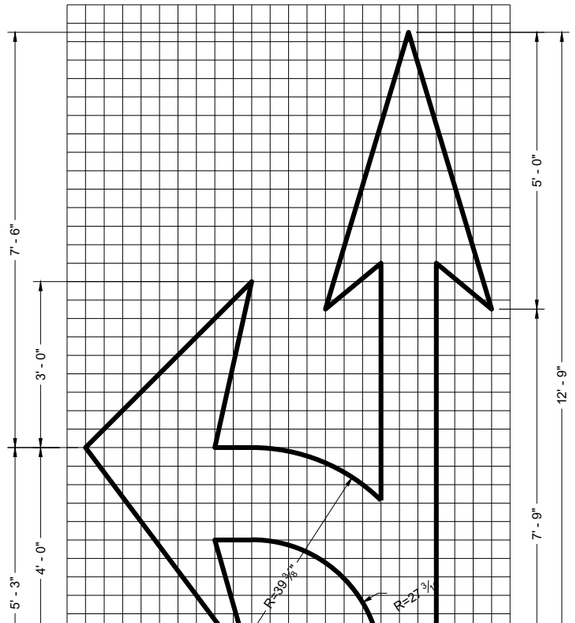
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



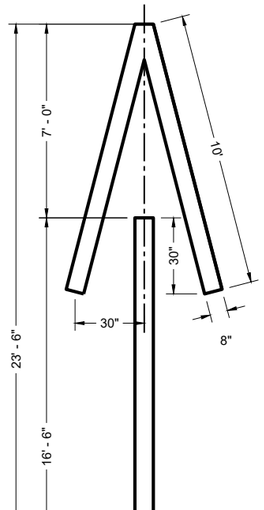
TYPE 1



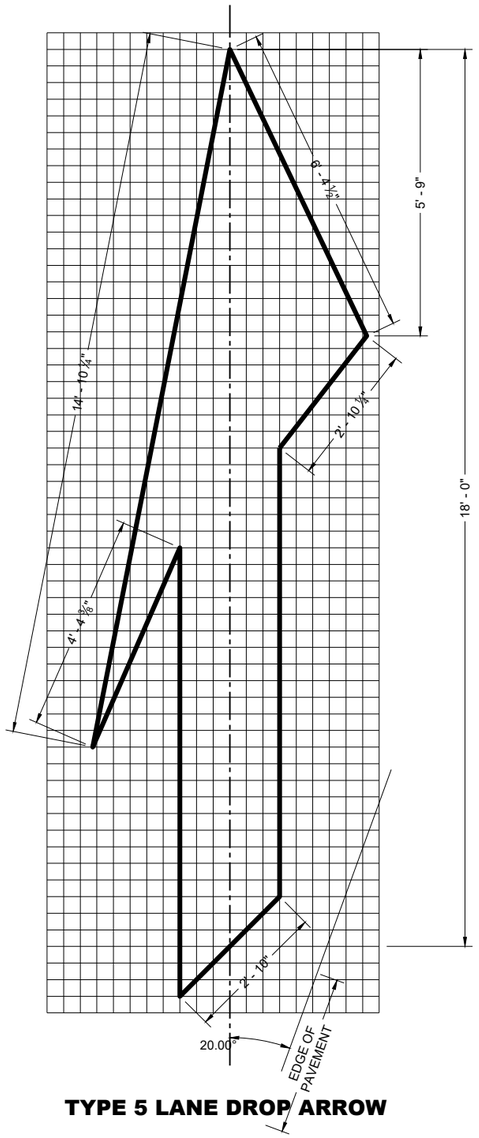
TYPE 2



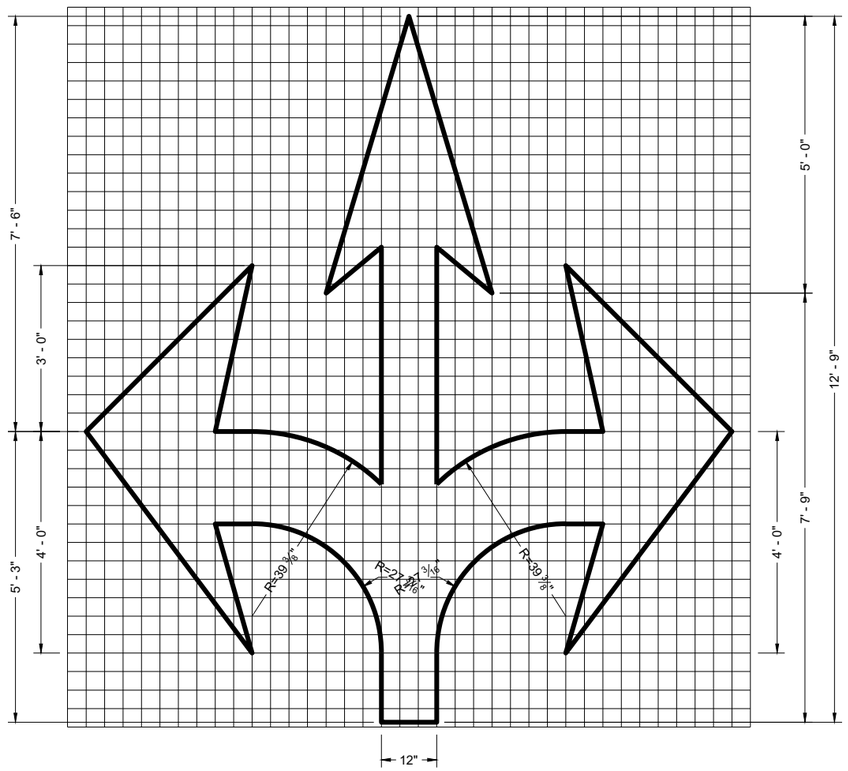
TYPE 3



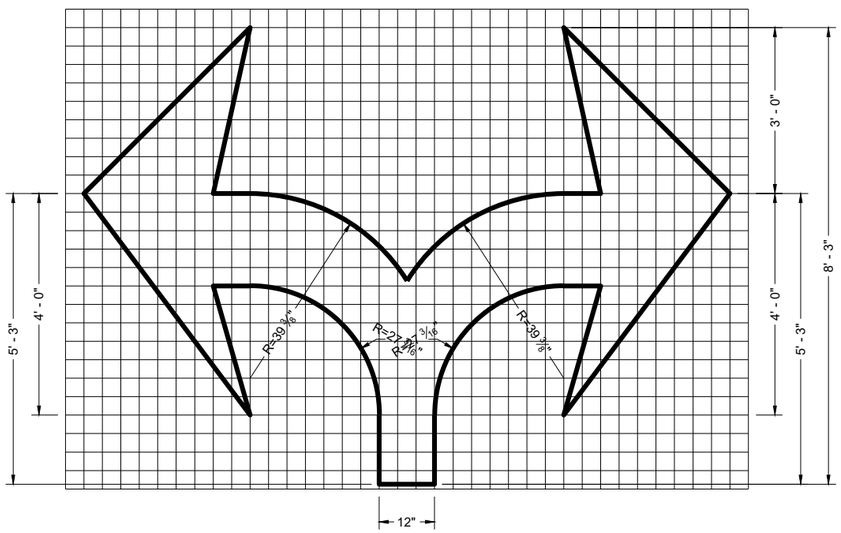
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

6

SDD 15C07-16c

PAVEMENT MARKING ARROWS

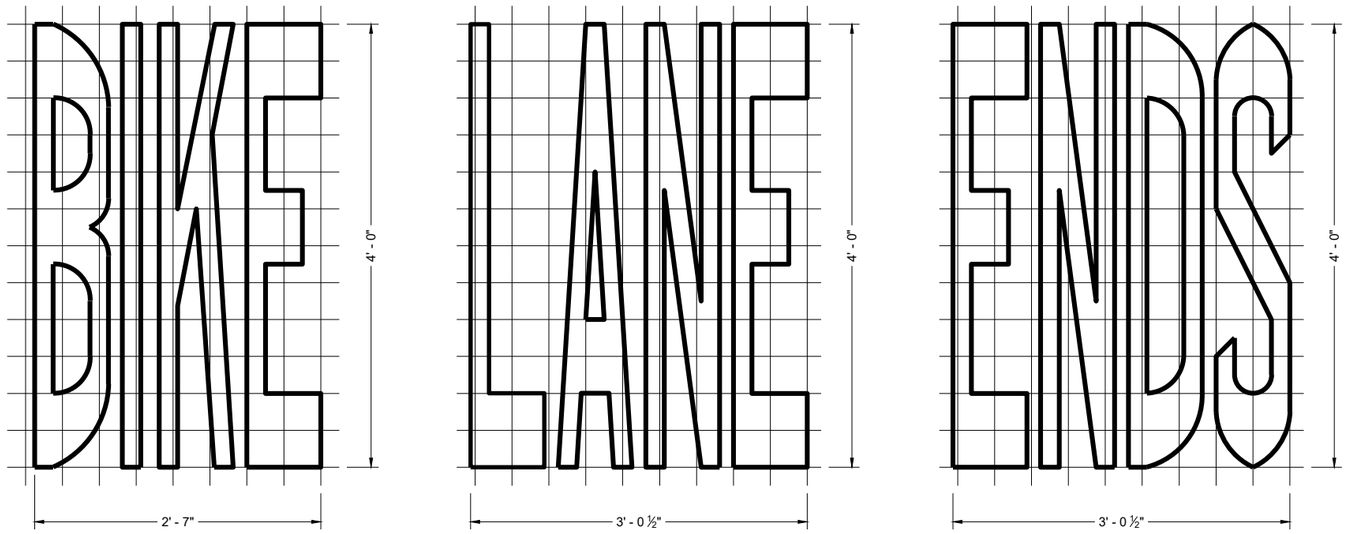
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MARKING ENGINEER

FHWA

6

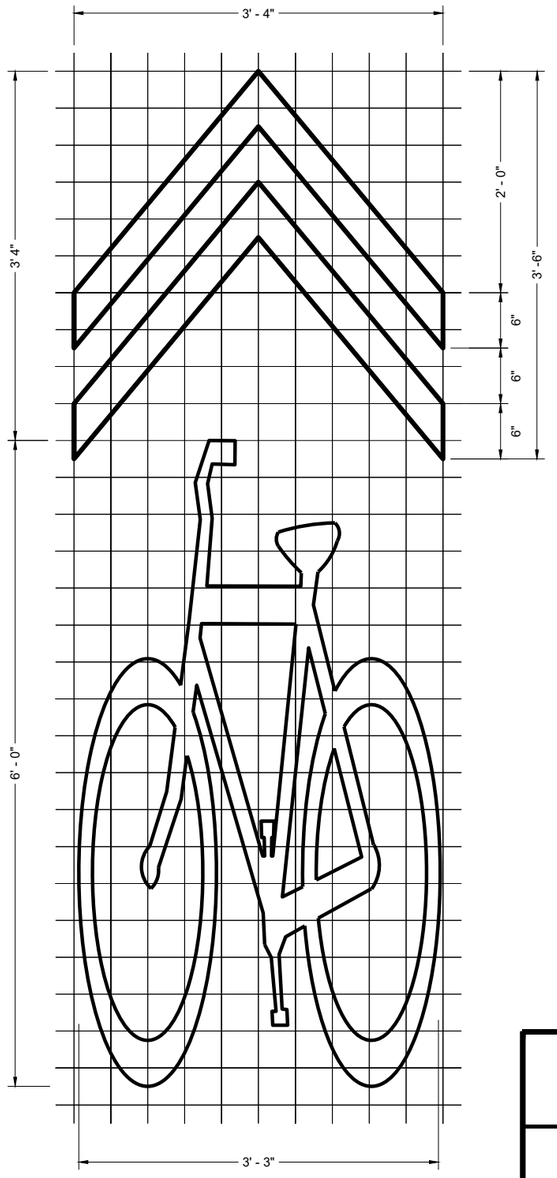
SDD 15C07-16c



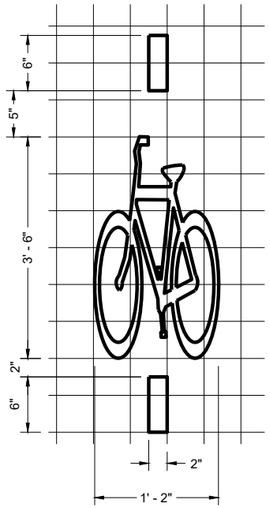
BIKE LANE WORDS

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.



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

BIKE LANE SYMBOL

BIKE LANE SYMBOL FOR SHARED LANE

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024
DATE

/S/ Jeannie Silver
STATE SIGNING AND MARKING ENGINEER

FHWA

6

SDD 15C07-16e

6

SDD 15C07-16e

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

(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

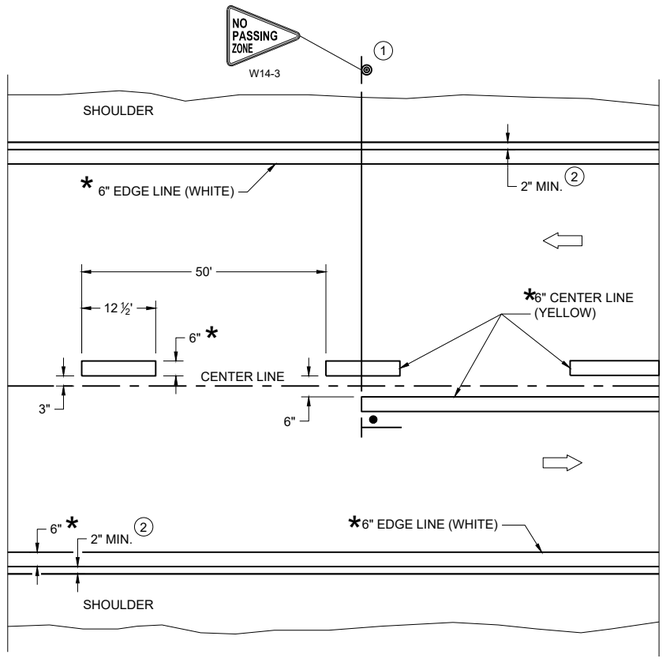
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

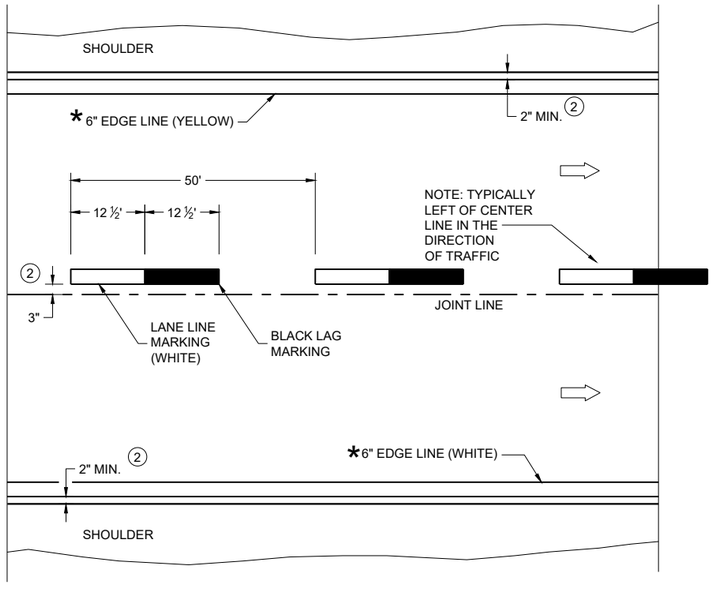
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

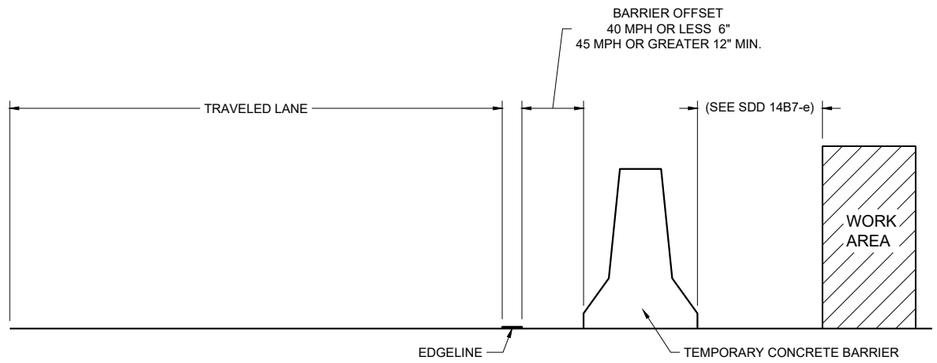
APPROVED
December 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

SDD 15C08-24a

SDD 15C08-24a



TEMPORARY BARRIER OFFSET FROM EDGELINE

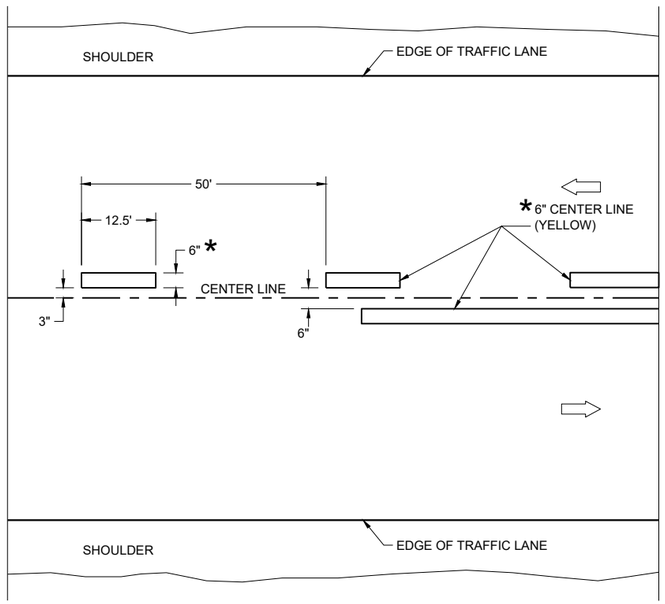
GENERAL NOTES

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

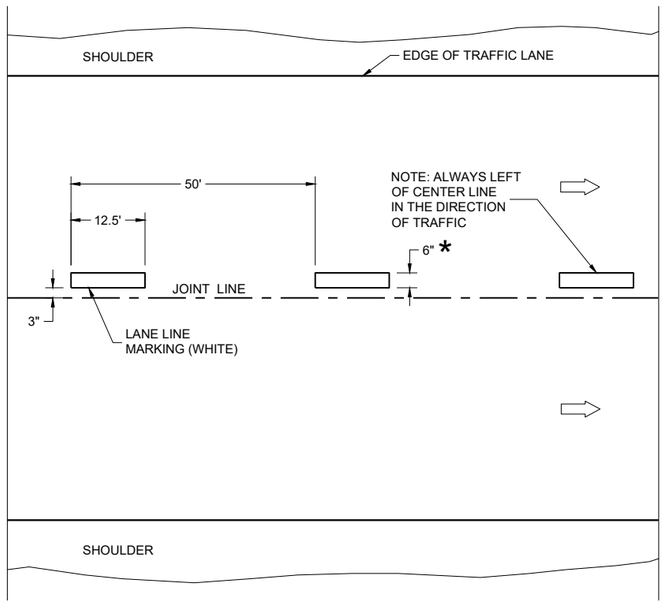
LEGEND

DIRECTION OF TRAFFIC

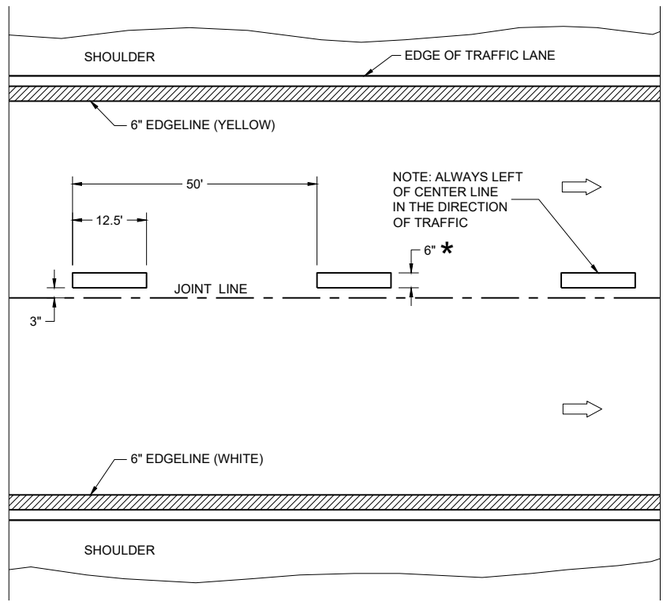
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer

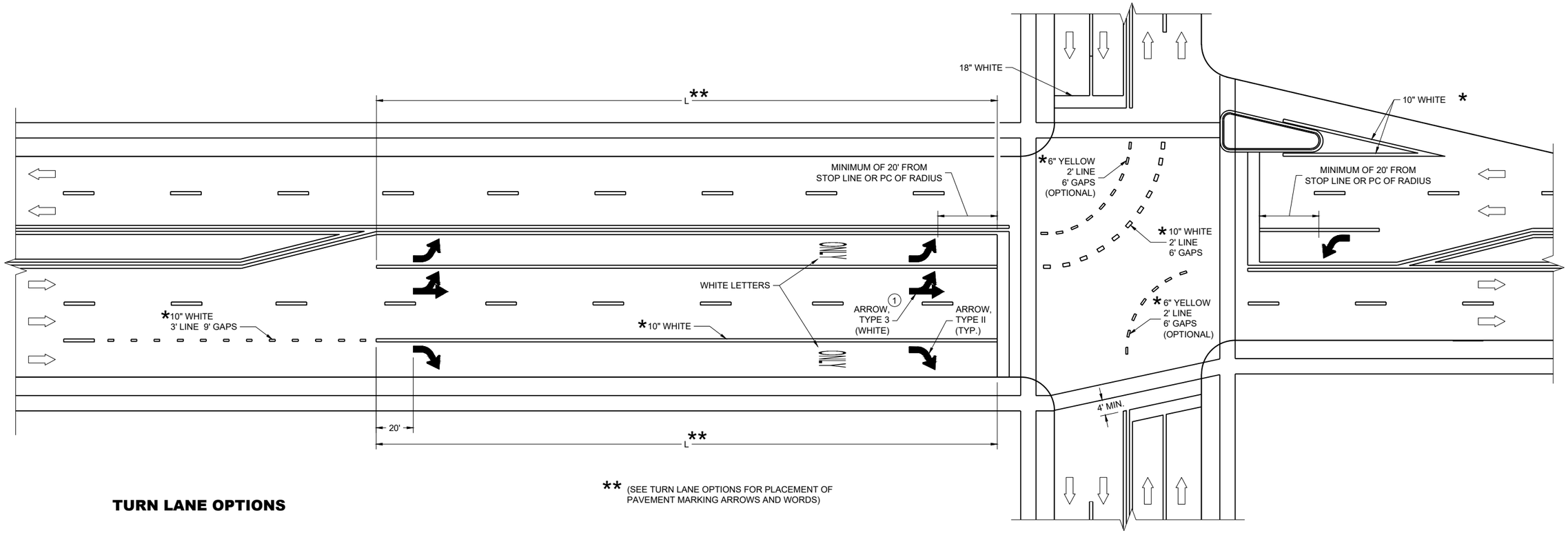
FHWA

6

SDD 15C08-24b

6

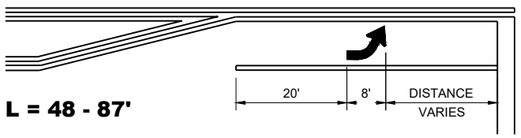
SDD 15C08-24b



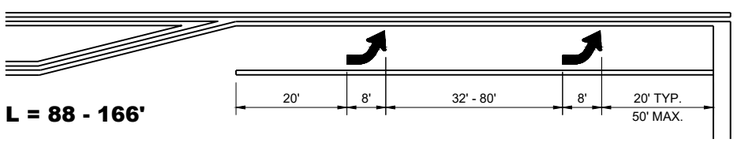
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

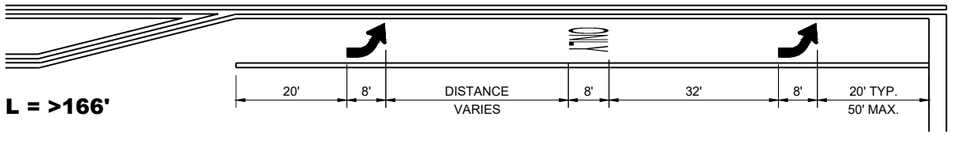
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT
REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

1. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

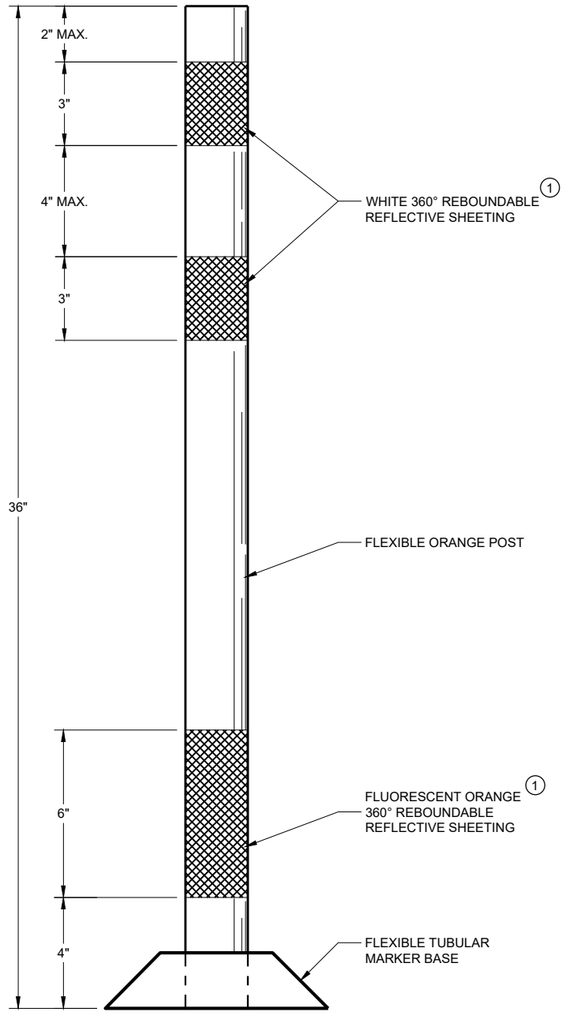
DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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.

6

SDD 15C11 - 10a

CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

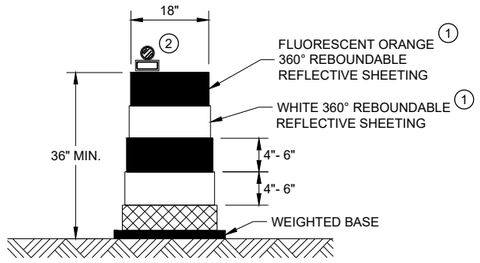
APPROVED
November 2022
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C11 - 10a

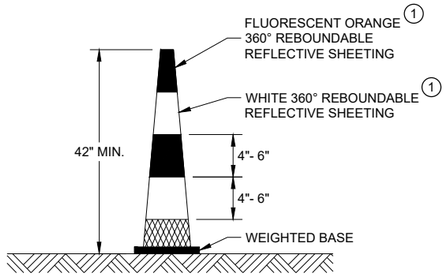
GENERAL NOTES

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

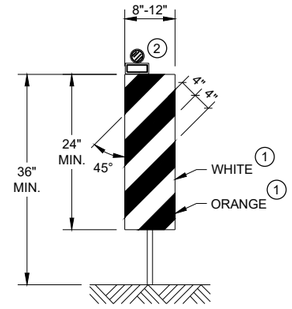
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

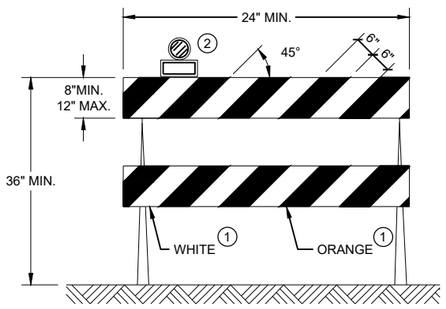
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



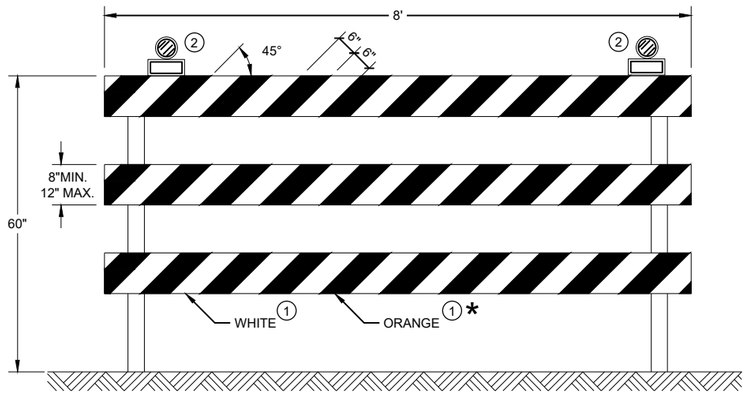
VERTICAL PANEL

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
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

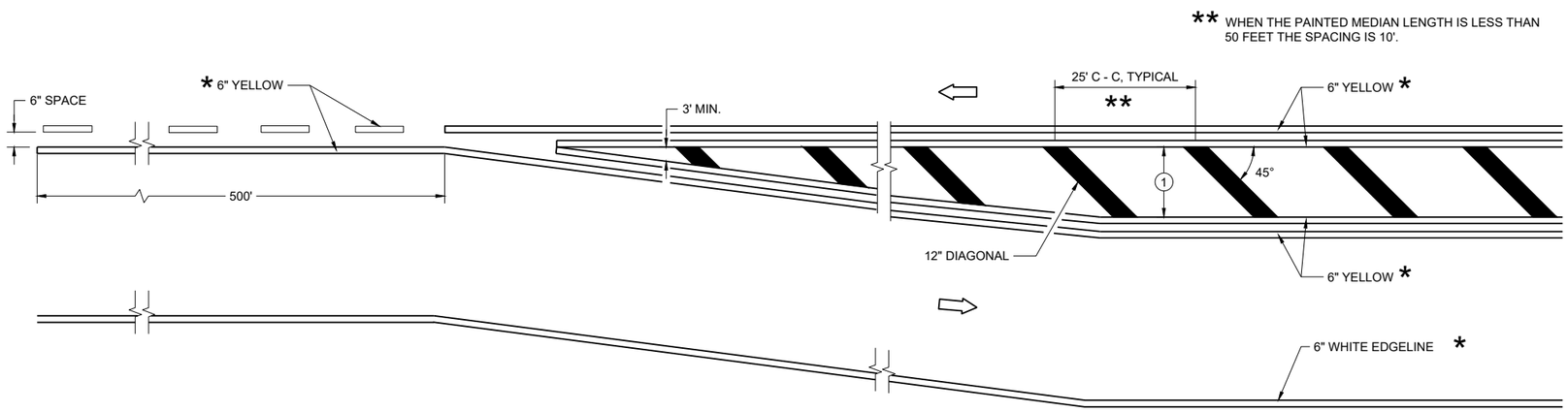
FHWA

6

SDD 15C11 - 10b

6

SDD 15C11 - 10b



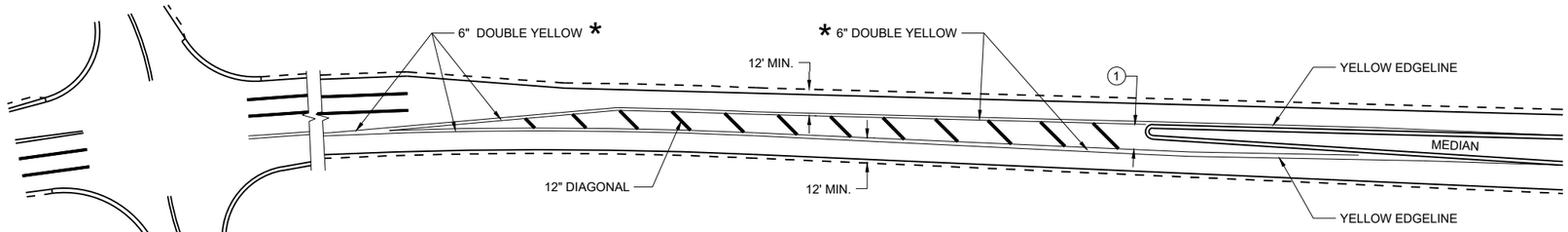
MEDIAN ISLAND DETAIL

GENERAL NOTES

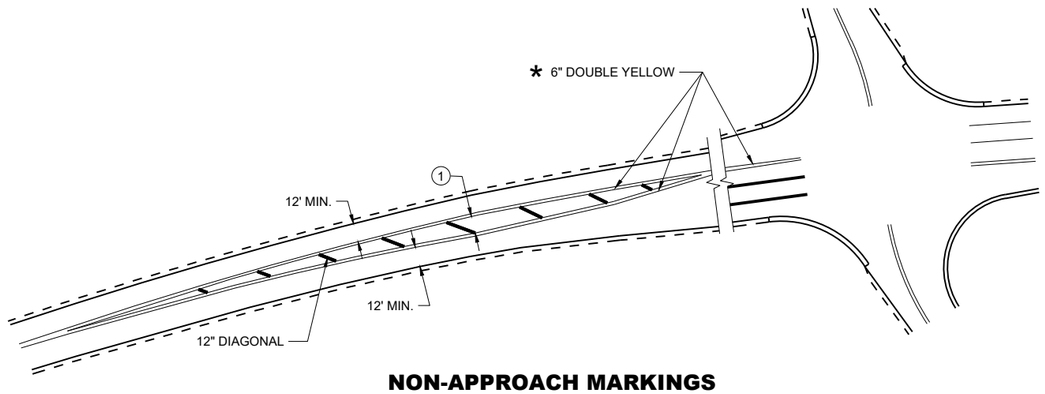
(1) DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

⇨ DIRECTION OF TRAVEL

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2024
DATE

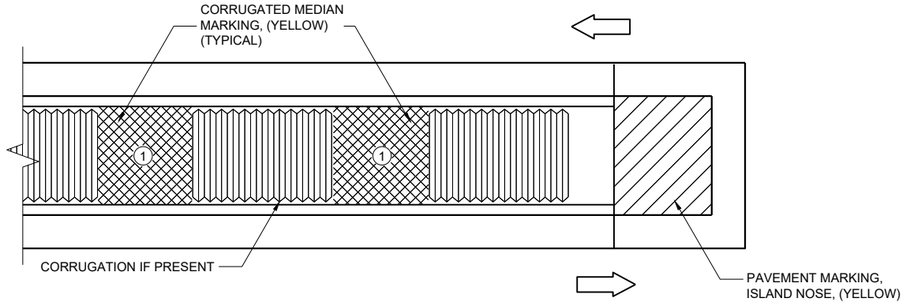
/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

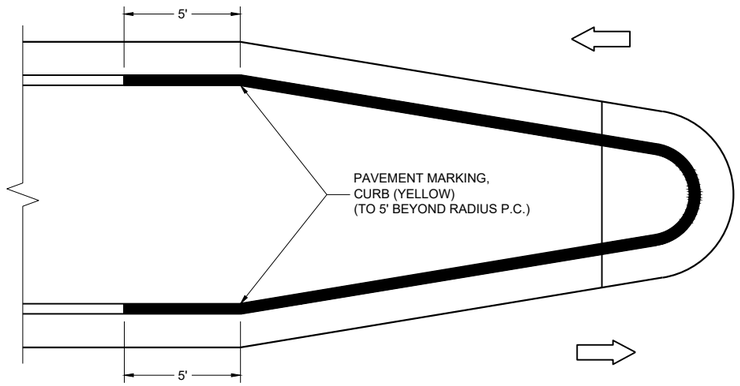
6

SDD 15C18-09a

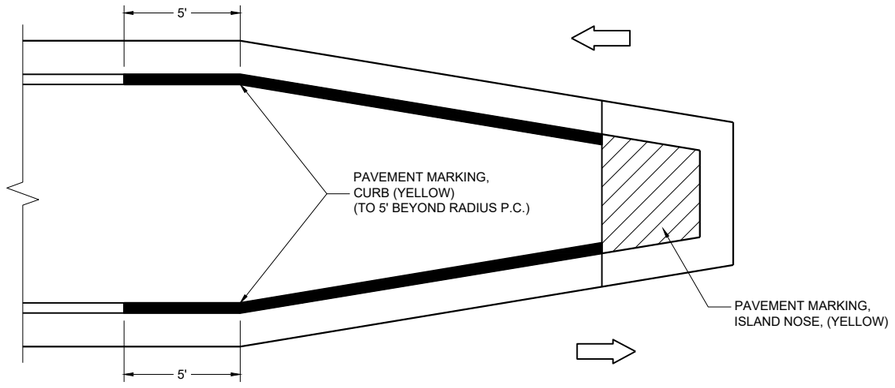
SDD 15C18-09a



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.

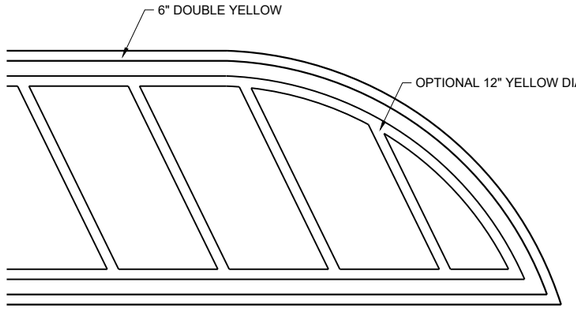
(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL



FLUSH MEDIAN ISLAND NOSE

**PAVEMENT MARKINGS,
MEDIAN ISLAND NOSE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

6

SDD 15C18-09b

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

GENERAL NOTES

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

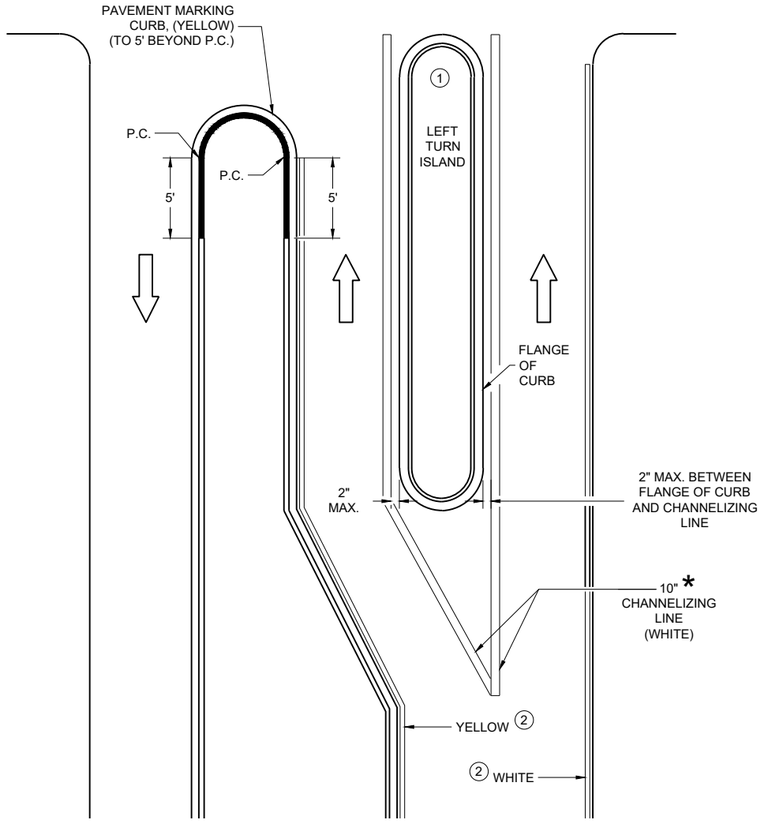
(1) MARK CURB NOSES YELLOW.

(2) MARK ACCORDING TO TABLE.

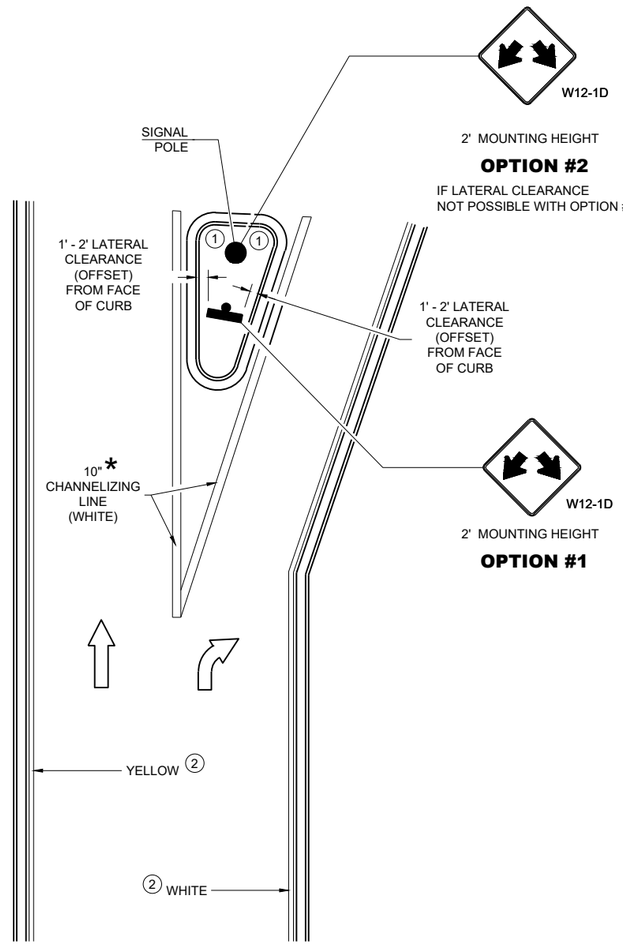
(3) CHEVRON MAY BE OMITTED IF LESS THAN 4" WIDE

DIRECTION OF TRAVEL

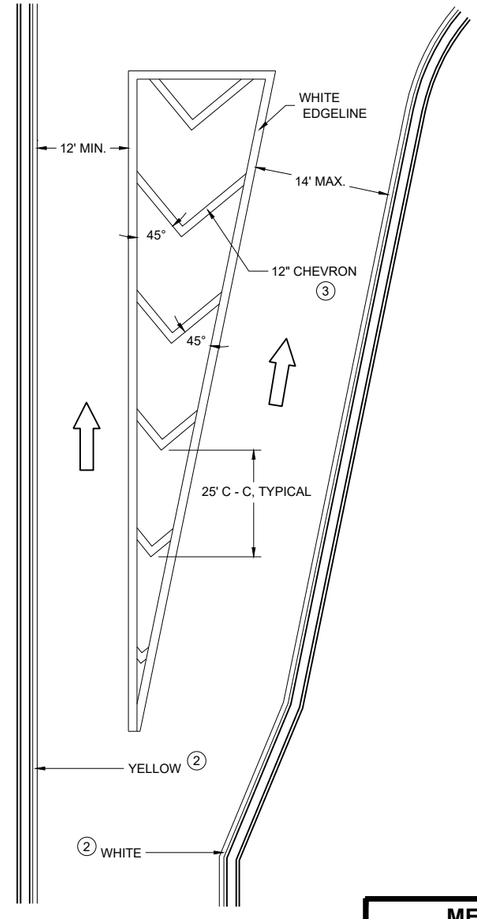
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



LEFT TURN & MEDIAN ISLAND



RIGHT TURN ISLAND



TURN LANE DETAIL

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

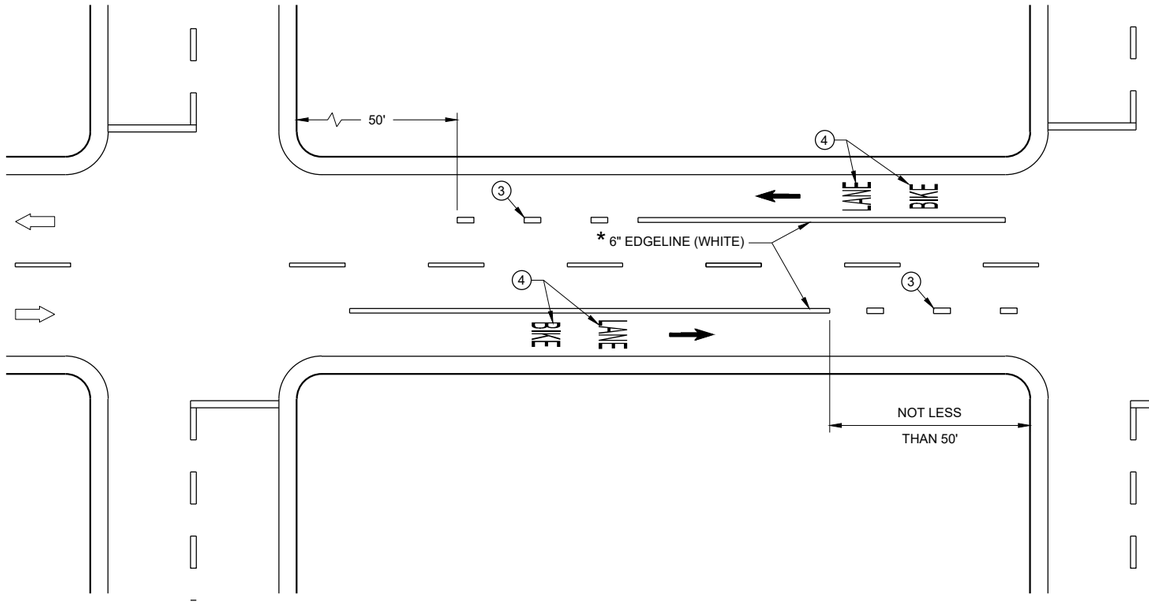
FHWA

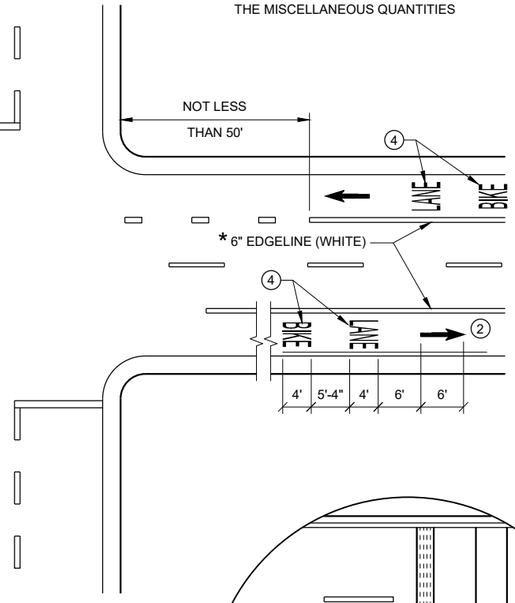
6

SDD 15C18-09c

6

SDD 15C18-09c





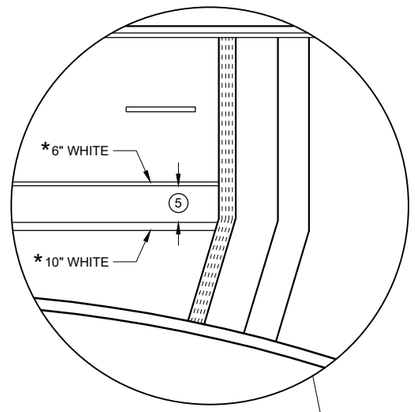
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

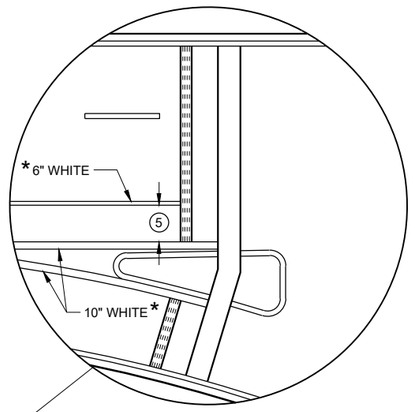
1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. BIKE SYMBOLS OR WORDS MAY BE USED.
5. BIKE ACCOMMODATION IS TYPICAL 5 FEET WIDE AND MINIMUM OF 4 FEET FROM A LONGITUDINAL JOINT. USE 5 FEET AT ≥ 45 MPH.
6. OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FOOT WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

DIRECTION OF TRAVEL

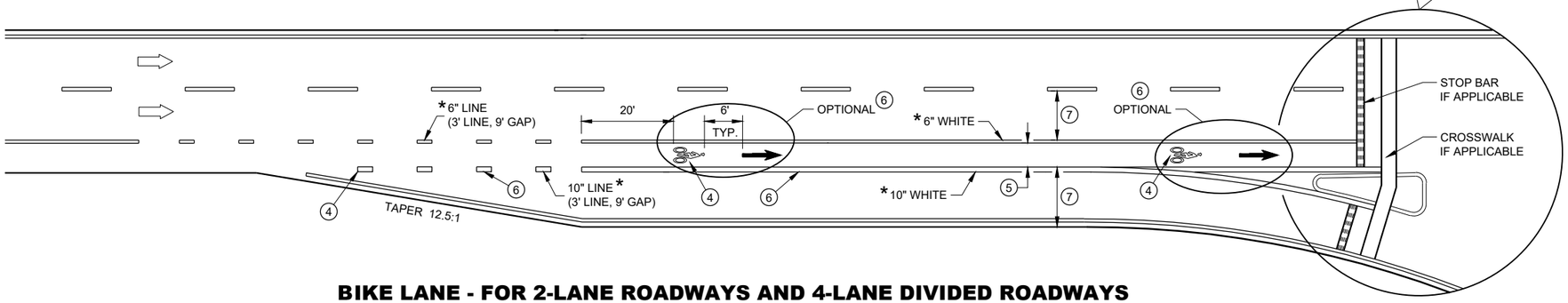
DESIGNATED BIKE LANE - NO PARKING



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS
(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

BIKE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

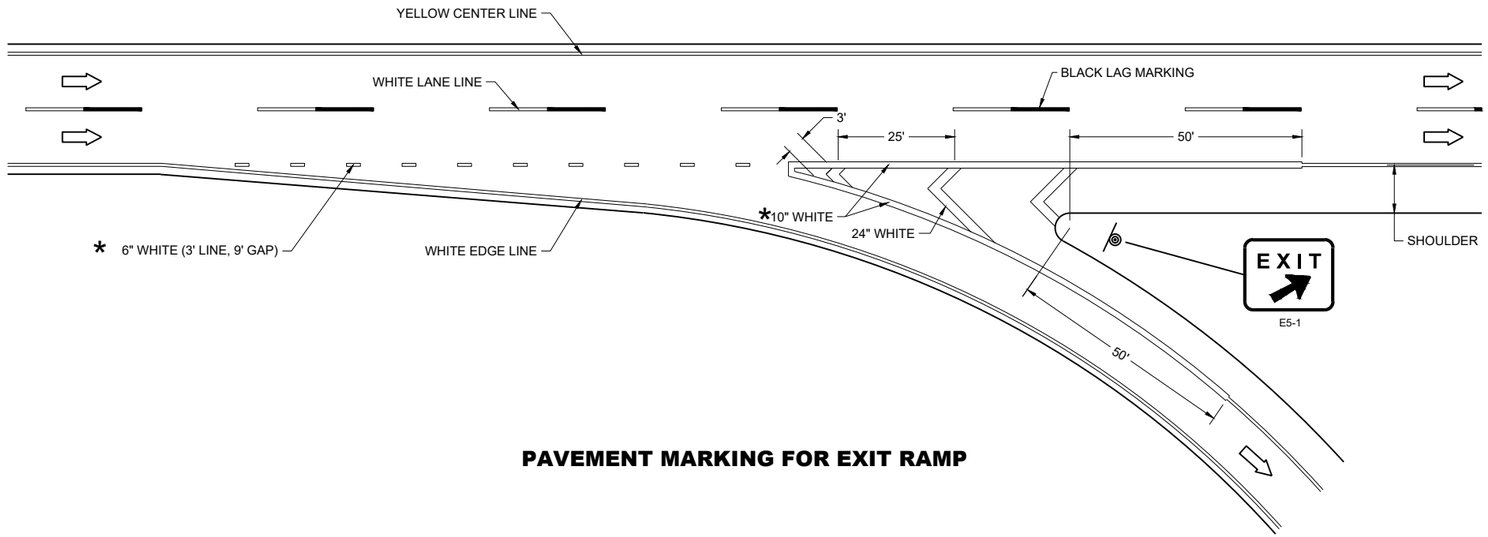
APPROVED
May 2023 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER
FHWA

6

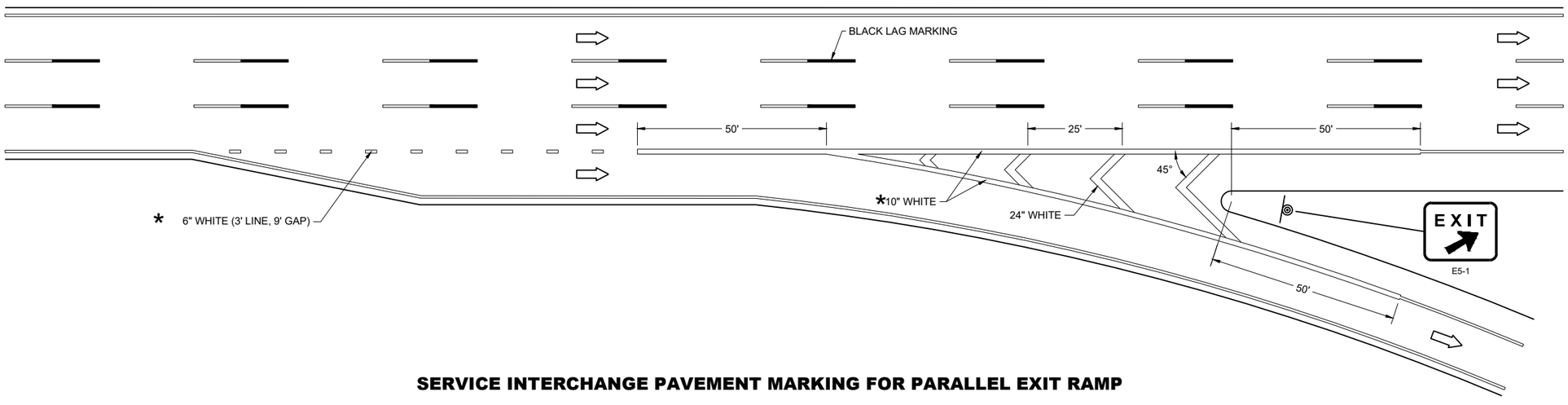
SDD 15C29-08a

6

SDD 15C29-08a



PAVEMENT MARKING FOR EXIT RAMP



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT RAMP

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAVEL

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

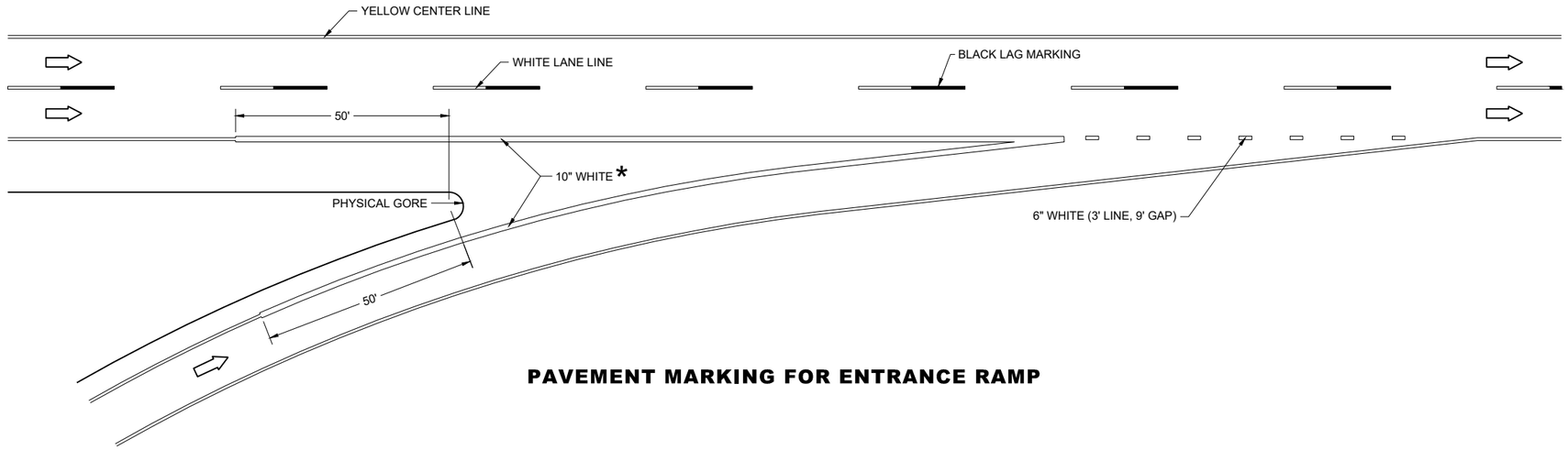
PAVEMENT MARKING, EXIT RAMP AND PARALLEL EXIT RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 15C31-08a

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

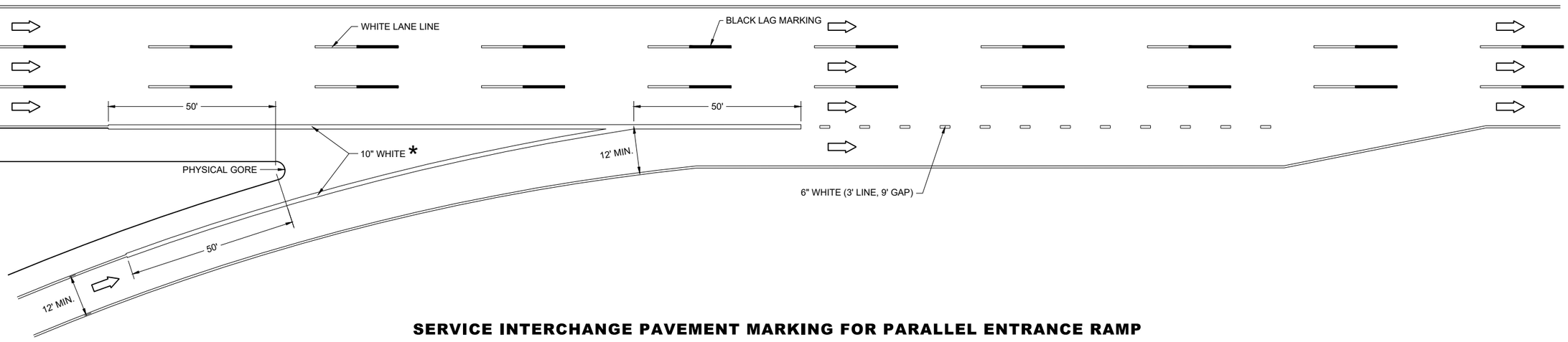


PAVEMENT MARKING FOR ENTRANCE RAMP

LEGEND

DIRECTION OF TRAVEL

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE RAMP

6

6

SDD 15C31-08c

SDD 15C31-08c

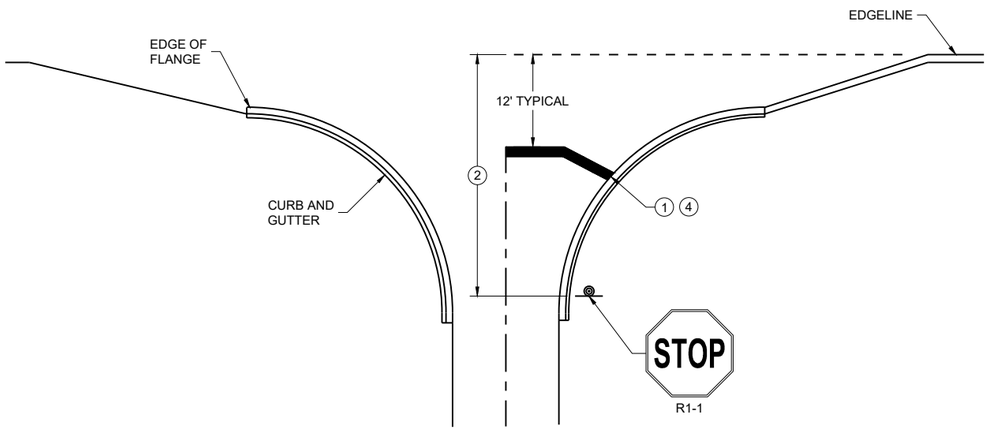
PAVEMENT MARKING, ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

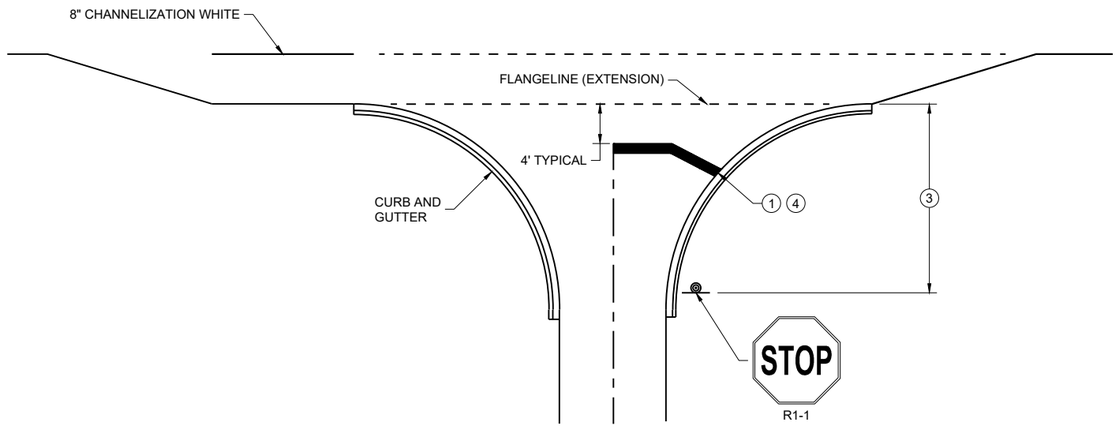
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

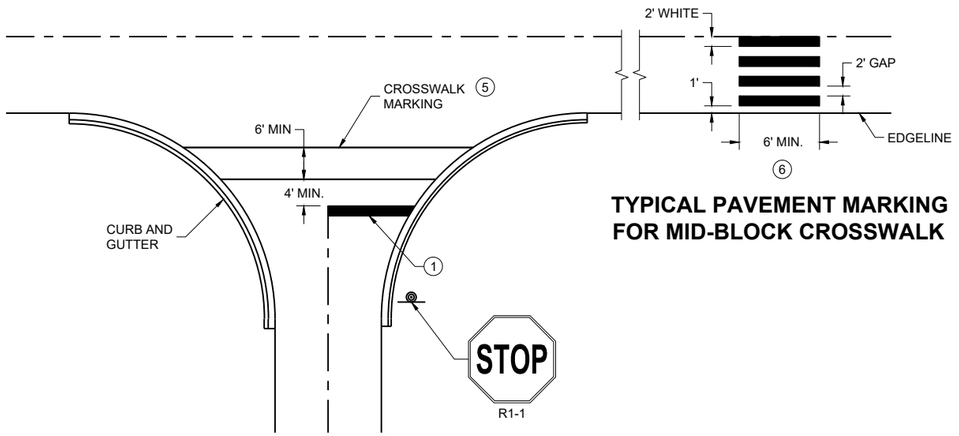
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
6. POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

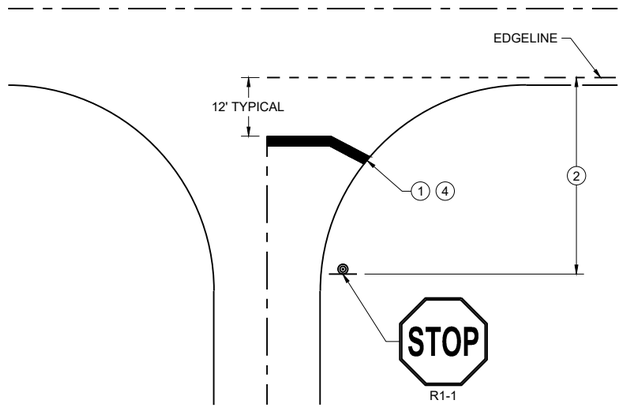


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2024 — DATE

/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

6

SDD 15C33-05

6

SDD 15C33-05

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.

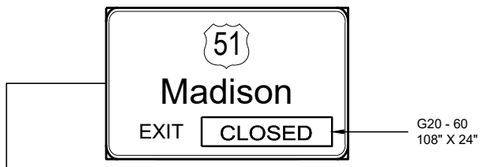
PLACE TEMPORARY PAVEMENT MARKING LINE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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.

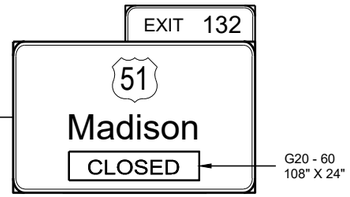
WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

(1) 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.

(2) 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.



OR

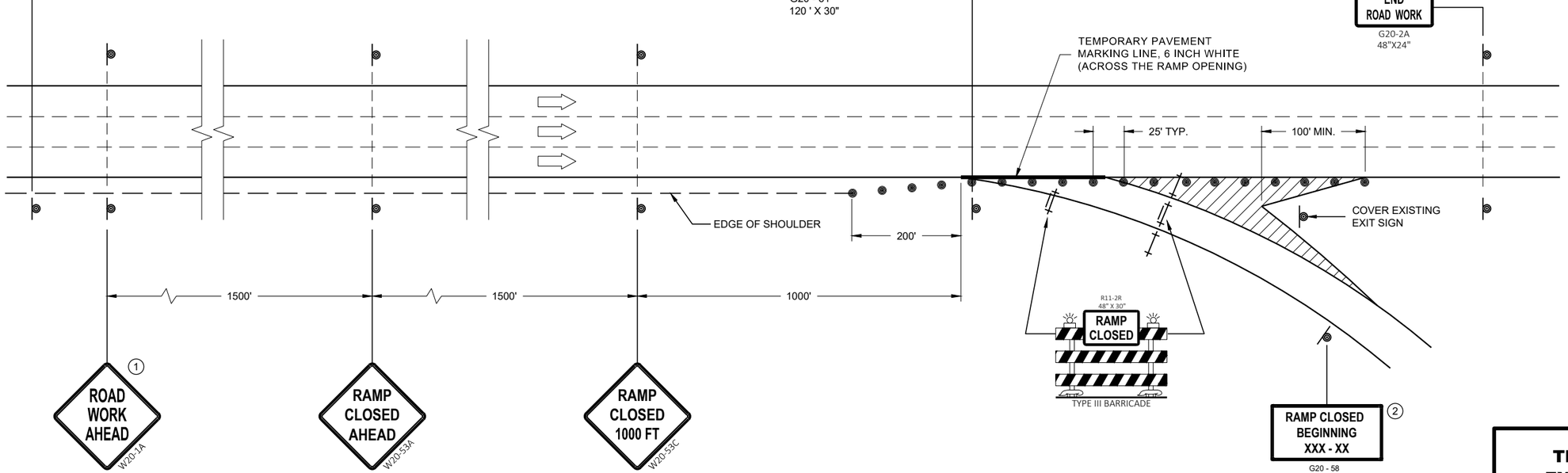


PLACE SIGN G20 - 60 OVER MILEAGE ON EXISTING E1 - 1A SIGN



G20 - 61
120 ' X 30"

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



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
May 2023
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 15D16-06

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

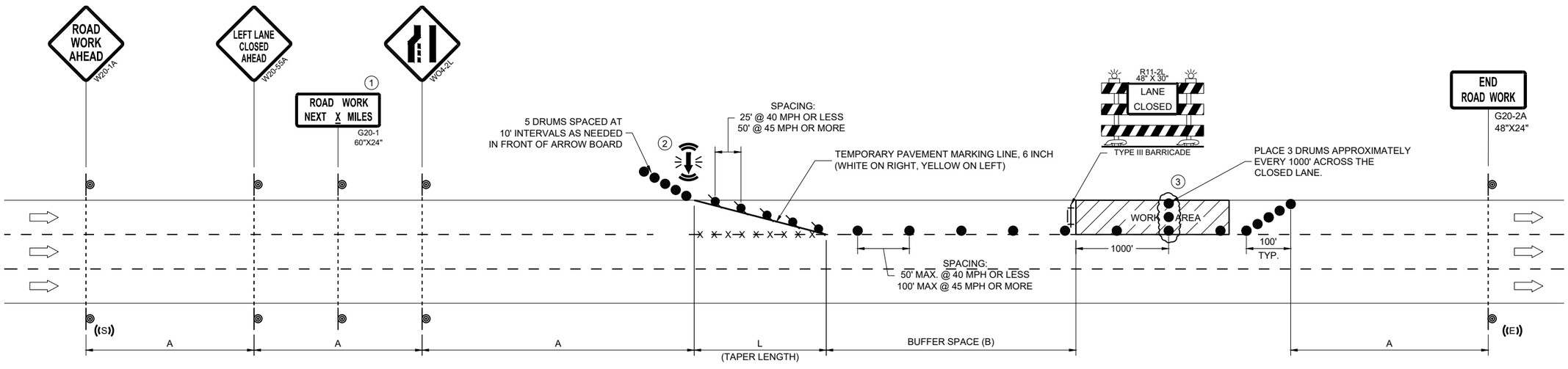
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.

(3) DRUMS 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.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	155'
30	200'	180'	200'
35	350'	245'	250'
40	350'	320'	305'
45	500'	540'	360'

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D20-11a
SDD 15D20-11a

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

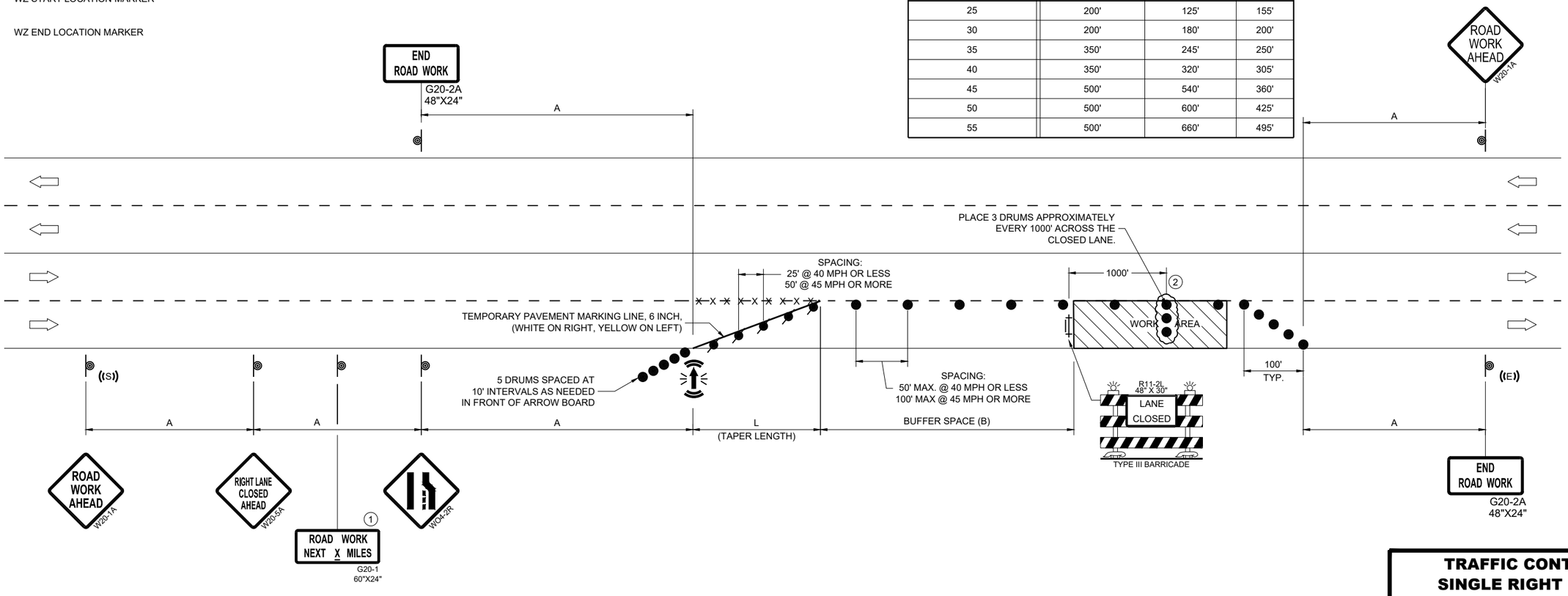
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

(2) DRUMS 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.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	155'
30	200'	180'	200'
35	350'	245'	250'
40	350'	320'	305'
45	500'	540'	360'
50	500'	600'	425'
55	500'	660'	495'



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D20-11b

6

SDD 15D20-11b

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

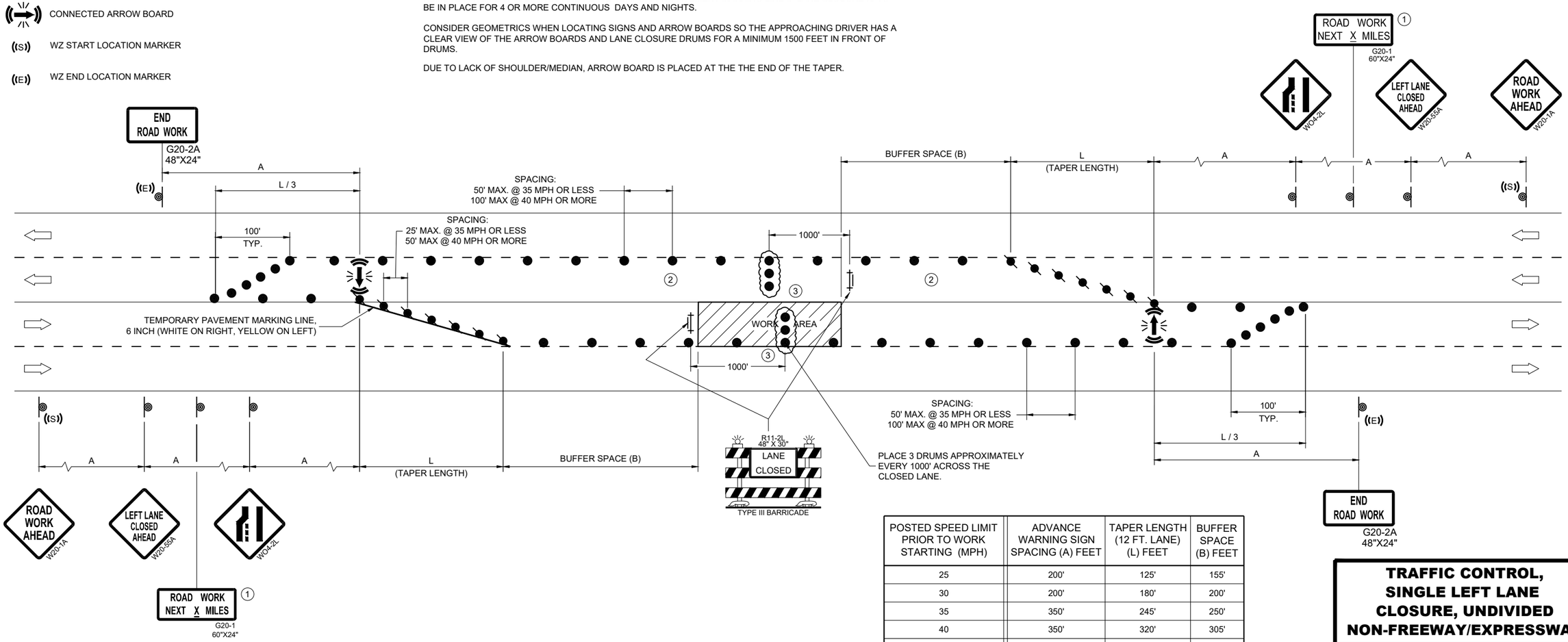
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

(2) LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.

DRUMS 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.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	155'
30	200'	180'	200'
35	350'	245'	250'
40	350'	320'	305'
45	500'	540'	360'
50	500'	600'	425'
55	500'	660'	495'

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2025
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

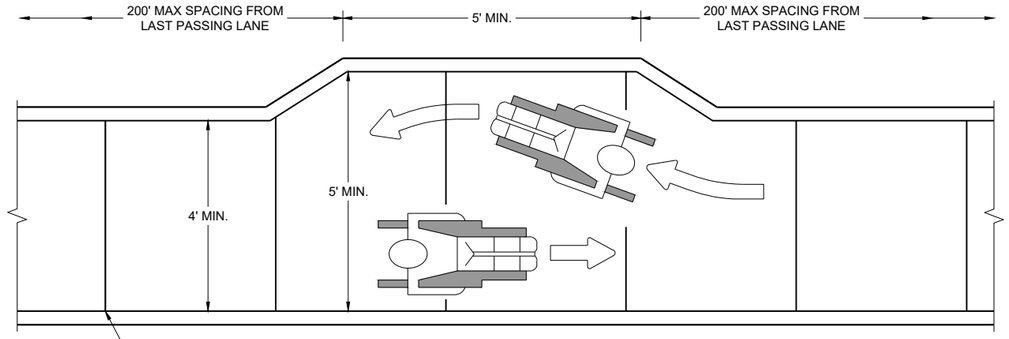
FHWA

6

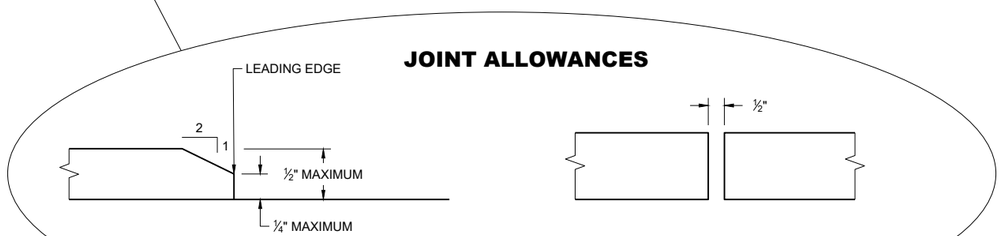
SDD 15D20-11c

6

SDD 15D20-11c



NARROW SIDEWALK PASSING DETAIL



MAXIMUM VERTICAL GAP

MAXIMUM HORIZONTAL GAP

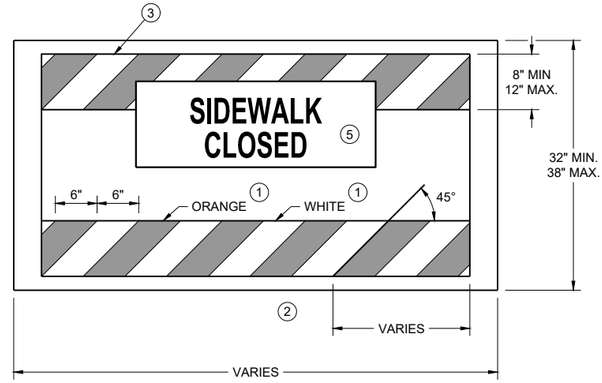
GENERAL NOTES

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

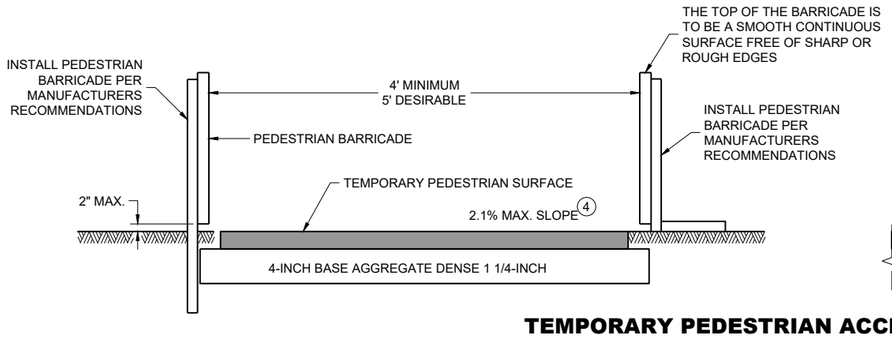
1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
3. PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

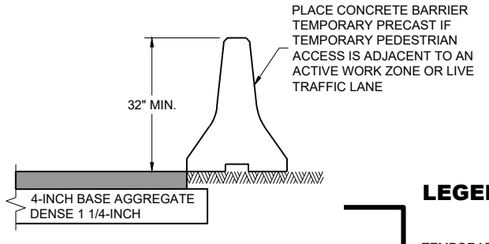
* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

4. WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.
5. WHERE SIGNS FOR TEMPORARY PEDESTRIAN ACCOMMODATIONS ARE SHOWN BEING PLACED BEHIND TEMPORARY PEDESTRIAN BARRICADE, THE SIGNS MAY BE MOUNTED ON THE TEMPORARY PEDESTRIAN BARRICADE INSTEAD. A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE SHALL BE USED IF MOUNTED ON THE BARRICADE. THE TOP OF THE SIGN SHALL BE MOUNTED BELOW THE TOP OF THE BARRICADE TO ALLOW A CONTINUOUS HAND-TRAILING EDGE.

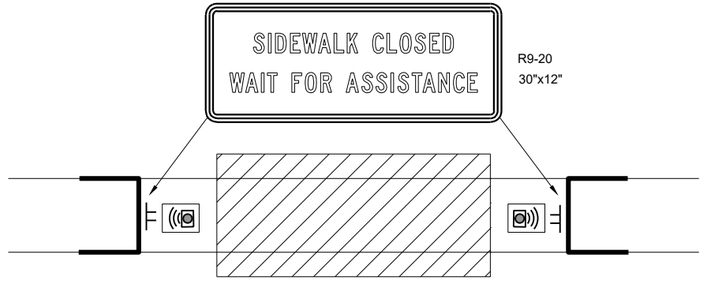


TEMPORARY PEDESTRIAN BARRICADE *





TEMPORARY PEDESTRIAN ACCESS



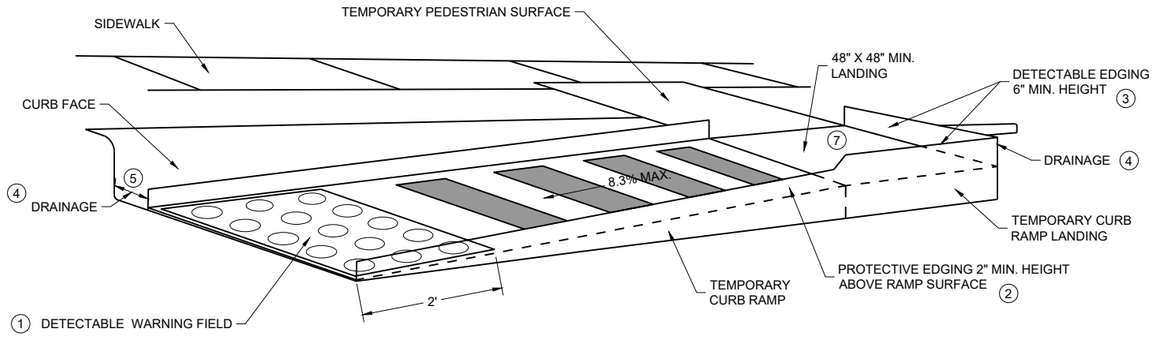
TEMPORARY PEDESTRIAN FLAGGING

LEGEND

- TEMPORARY PEDESTRIAN BARRICADE
- AUDIBLE MESSAGE DEVICE
- TEMPORARY SIGN SUPPORT
- WORK AREA

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PERSPECTIVE VIEW

GENERAL NOTES

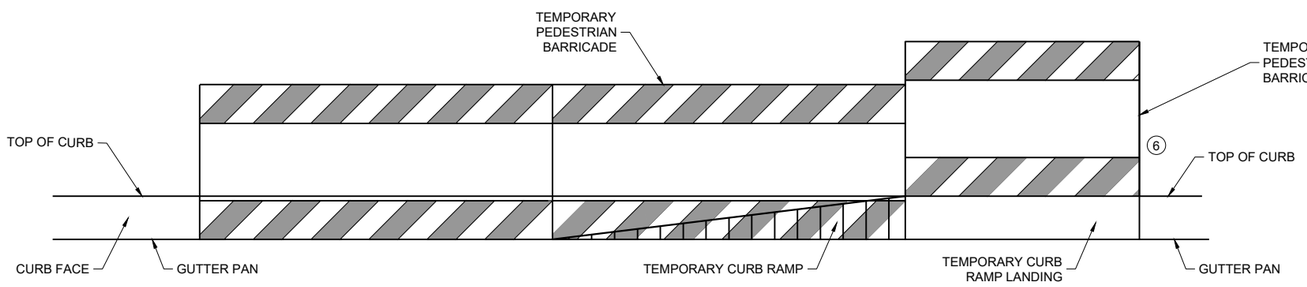
CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

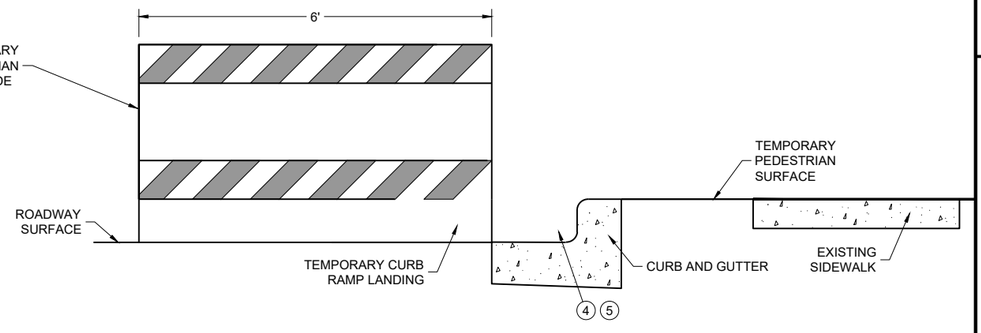
CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

1. INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
5. ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.
6. IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.
7. LANDING TO BE SLOPED A MAXIMUM OF 2.1% IN ALL DIRECTIONS OF PEDESTRIAN TRAVEL.



FRONT VIEW



SIDE VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

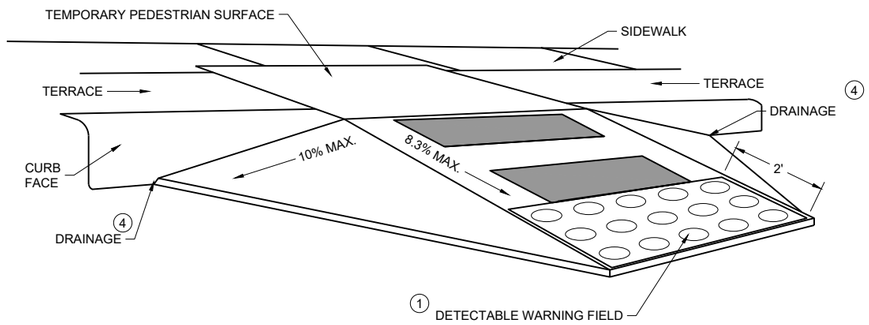
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

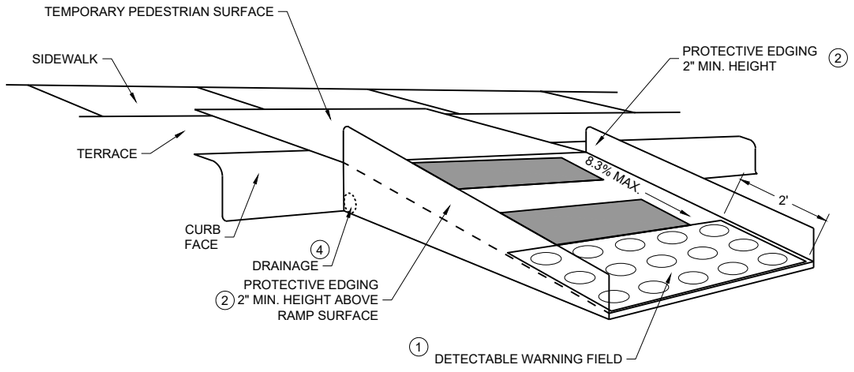
SDD 15D30-12b

6

SDD 15D30-12b



WITH SIDE APRON (5)



WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS

(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

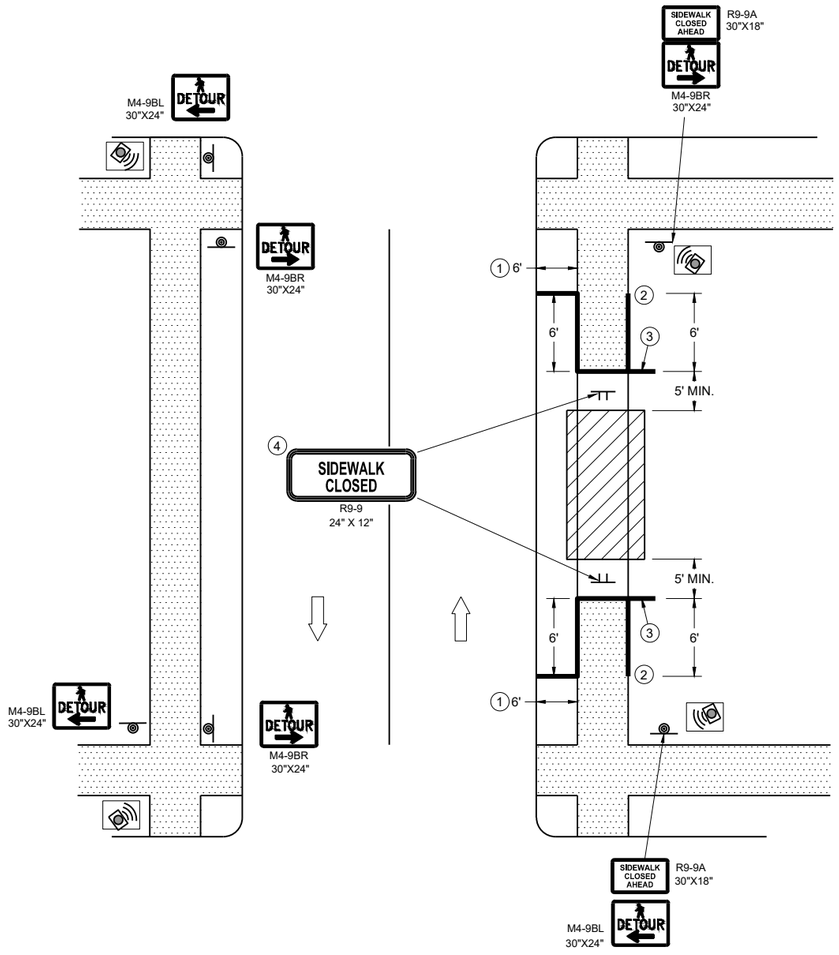
UNDER PEDESTRIAN TRAFFIC

WORK AREA

TEMPORARY PEDESTRIAN BARRICADE

DIRECTION OF TRAFFIC

TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

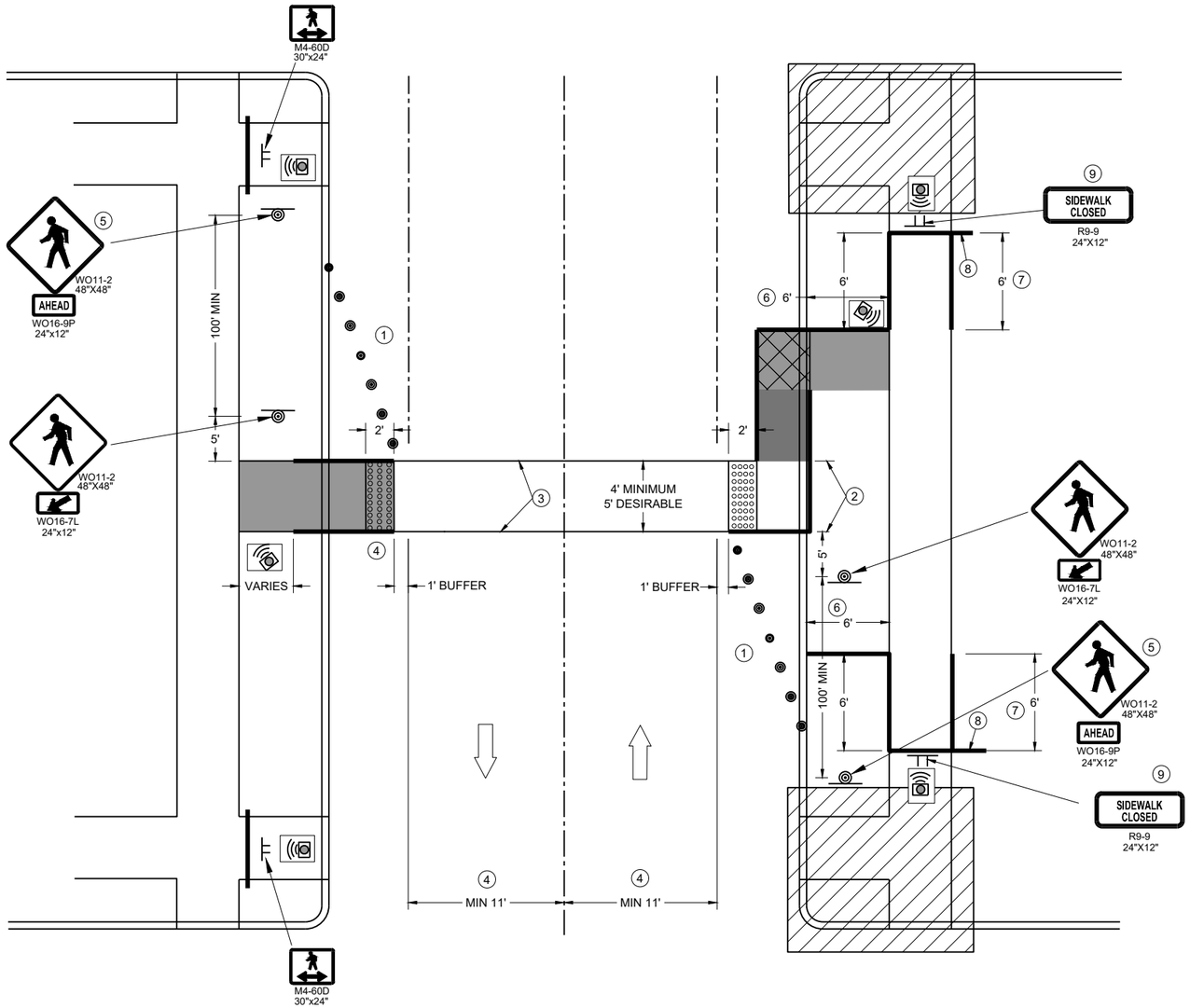
1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
4. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30-12k



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

1. SHOULDER OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED.
2. 4 FEET MINIMUM, 5 FEET DESIRABLE.
3. WHITE 6" TEMPORARY PAVEMENT MARKING.
4. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, PERPENDICULAR CURB RAMPS MAY NEED TO BE UTILIZED.
5. IF MINIMUM 100' SPACING FROM THE MID-BLOCK CROSSING CANNOT BE ATTAINED BEFORE THE INTERSECTION, REMOVE THIS SIGN ASSEMBLY.
6. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
7. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
8. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF THE EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
9. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF THE SIGN.

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

6
SDD 15D30-12I

LEGEND

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

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT LEFT - REVERSE FOR SHIFTING RIGHT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES 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.

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

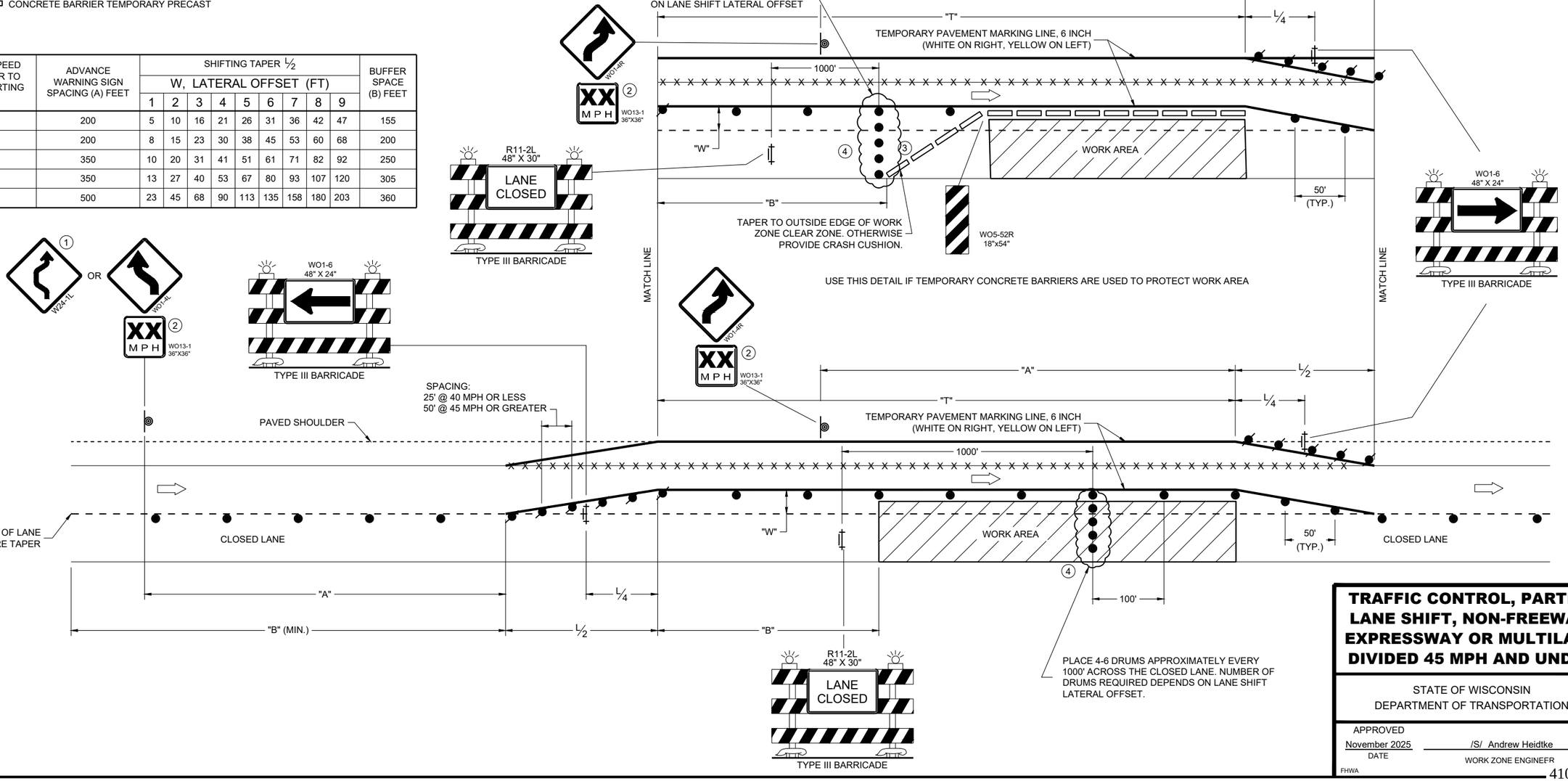
(1) USE ONLY WHEN T<600', OMIT WO1-4R.

(2) IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

(3) BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER

(4) DRUMS 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.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER 1/2 W, LATERAL OFFSET (FT)									BUFFER SPACE (B) FEET
		1	2	3	4	5	6	7	8	9	
25	200	5	10	16	21	26	31	36	42	47	155
30	200	8	15	23	30	38	45	53	60	68	200
35	350	10	20	31	41	51	61	71	82	92	250
40	350	13	27	40	53	67	80	93	107	120	305
45	500	23	45	68	90	113	135	158	180	203	360



TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEFR

FHWA

6

SDD 15D40-07c

6

SDD 15D40-07c

LEGEND

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

GENERAL NOTES

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

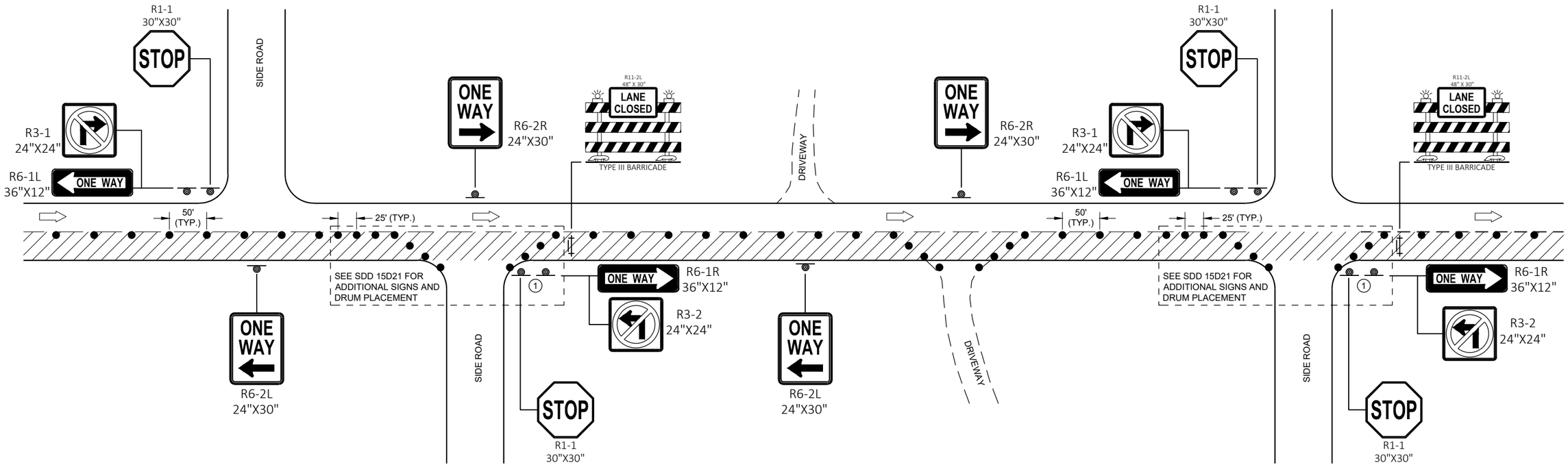
ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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.

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.

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

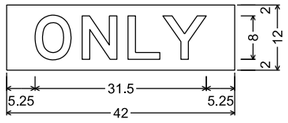
(1) IF WORK OPERATIONS ALLOWS, MOVE R1-1, R6-1R, AND R3-2 CLOSER TO INTERSECTION.



TRAFFIC CONTROL
ONE - WAY SIGNING

TRAFFIC CONTROL ONE-WAY SIGNING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEE
FHWA	411

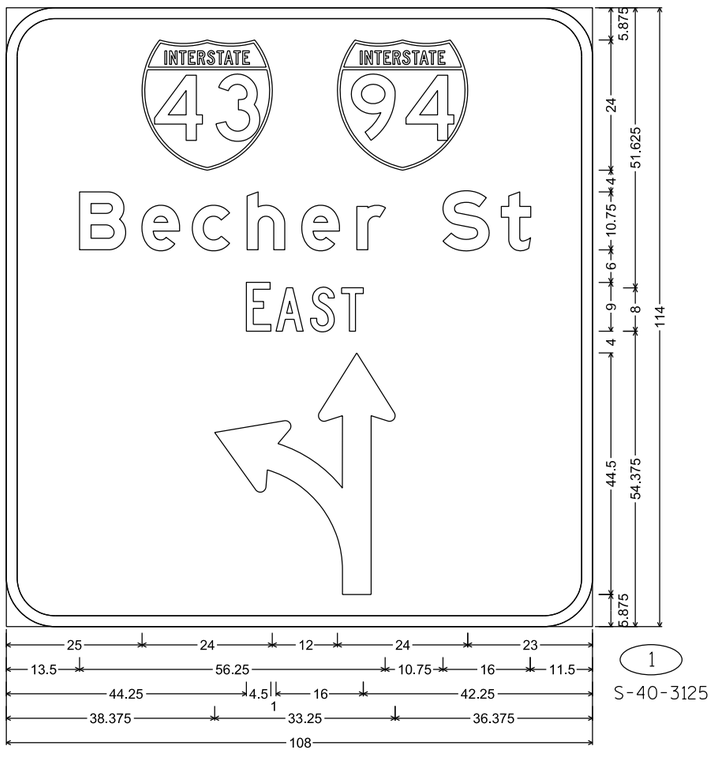
6
SDD 15D46 - 01



No border, Black on Fluorescent yellow;
"ONLY", E;

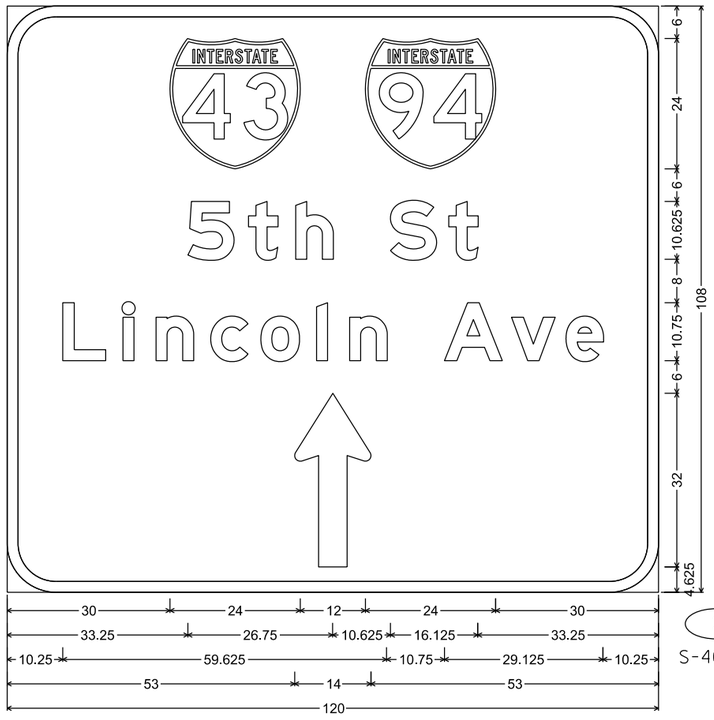
NOTES

1. Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted
4. Only Plaque background on Yellow Type F Reflective Sheeting with Black Non-Reflective Message



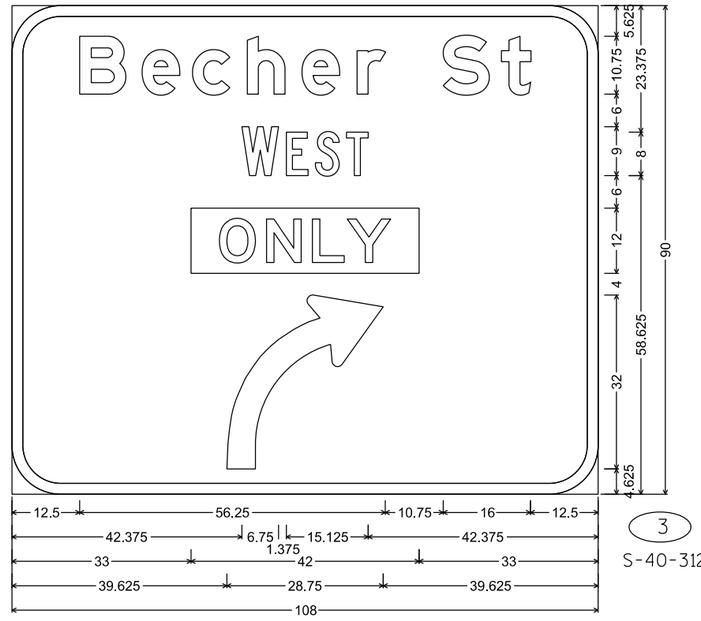
1
S-40-3125

E6-52; 9.000" Radius, 2.000" Border,
"Becher", E Mod; "St", E Mod; "EAST", C



2
S-40-3125

E6-54A; 9.000" Radius, 2.000" Border,
"5th", E Mod; "St", E Mod; "Lincoln", E Mod; "Ave", E Mod

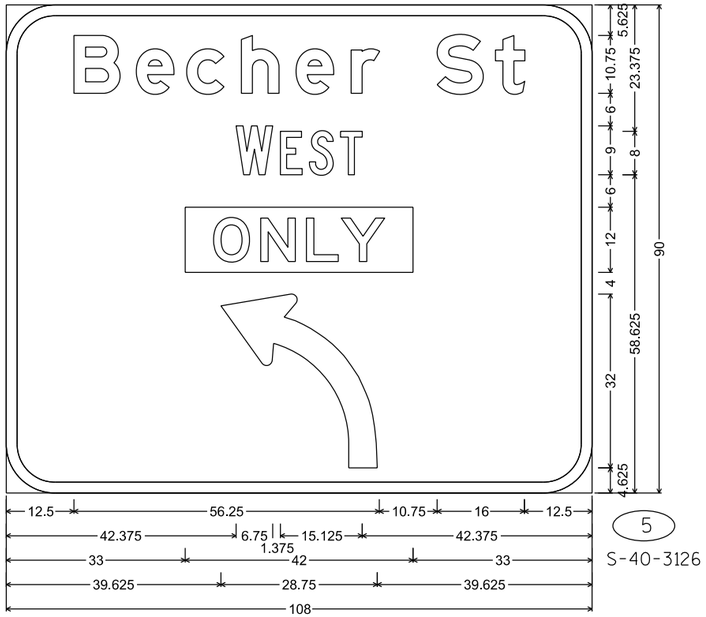


3
S-40-3125

E6-54R; 9.000" Radius, 2.000" Border,
"Becher", E Mod; "St", E Mod; "WEST", C

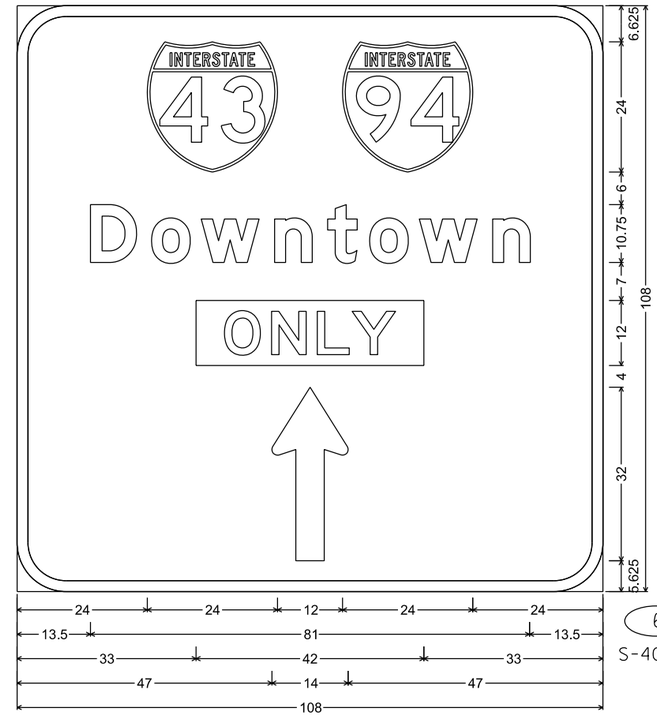
NOTES

1. Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted
4. Only Plaque background on Yellow Type F Reflective Sheeting with Black Non-Reflective Message



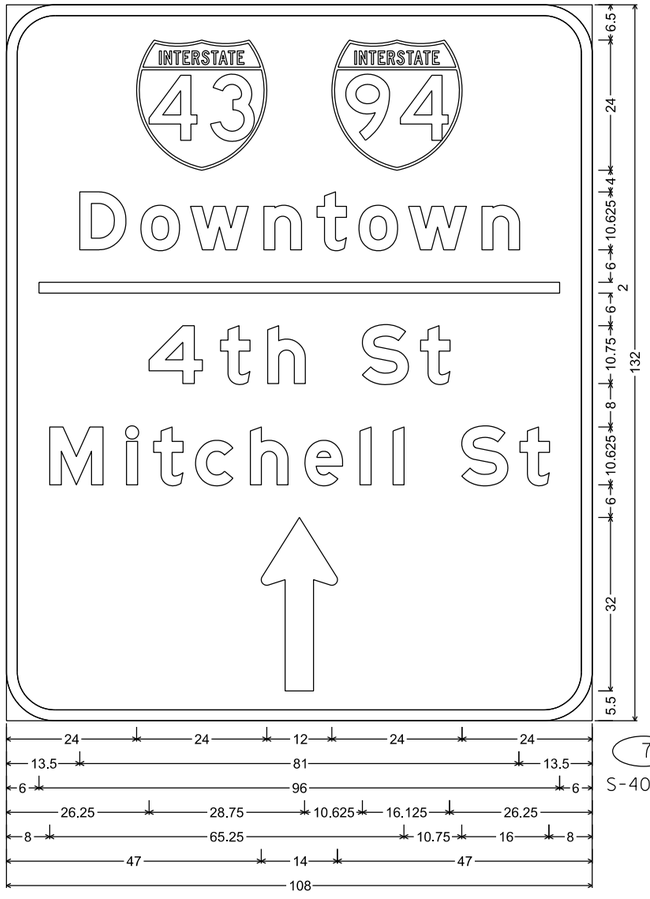
5
S-40-3126

E6-54L; 9.000" Radius, 2.000" Border,
"Becher", E Mod; "St", E Mod; "WEST", C



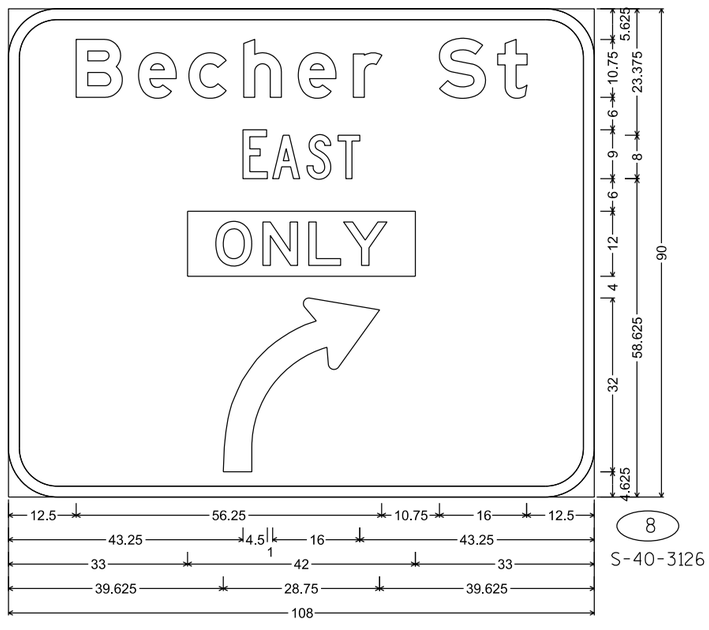
6
S-40-3126

E6-54A; 9.000" Radius, 2.000" Border,
"Downtown", E Mod



7
S-40-3126

E6-54A; 9.000" Radius, 2.000" Border,
"Downtown", E Mod; "4th", E Mod; "St", E Mod; "Mitchell", E Mod; "St", E Mod

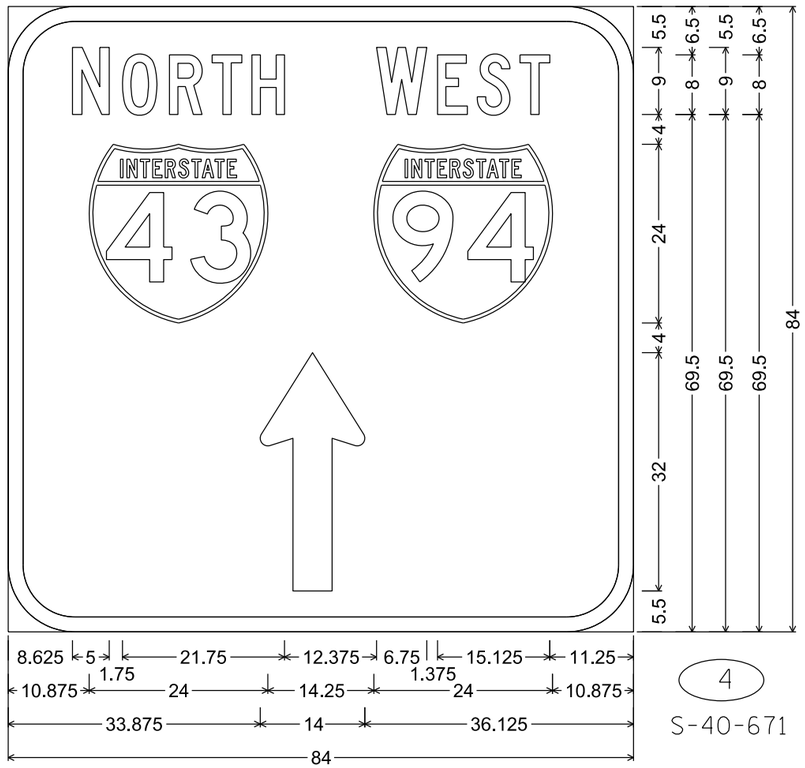


8
S-40-3126

E6-54R; 9.000" Radius, 2.000" Border,
"Becher", E Mod; "St", E Mod; "EAST", C

NOTES

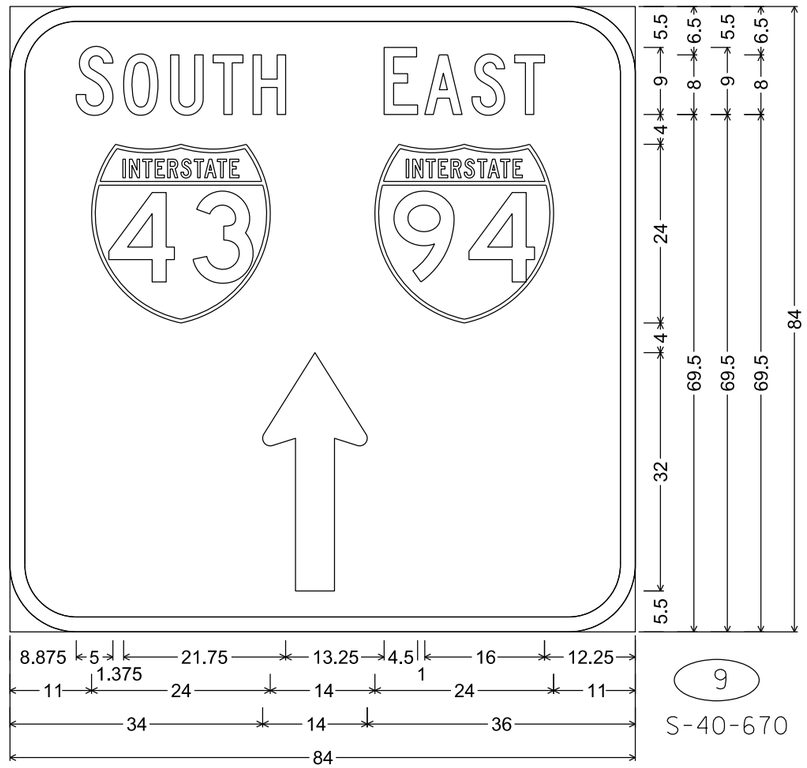
1. Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted



4

S-40-671

E6-54A; 9.000" Radius, 2.000" Border,
"NORTH", C; "WEST", C



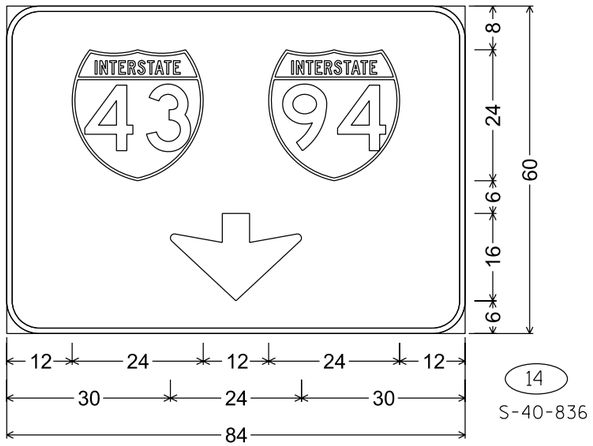
9

S-40-670

E6-54A; 9.000" Radius, 2.000" Border,
"SOUTH", C; "EAST", C

7

7



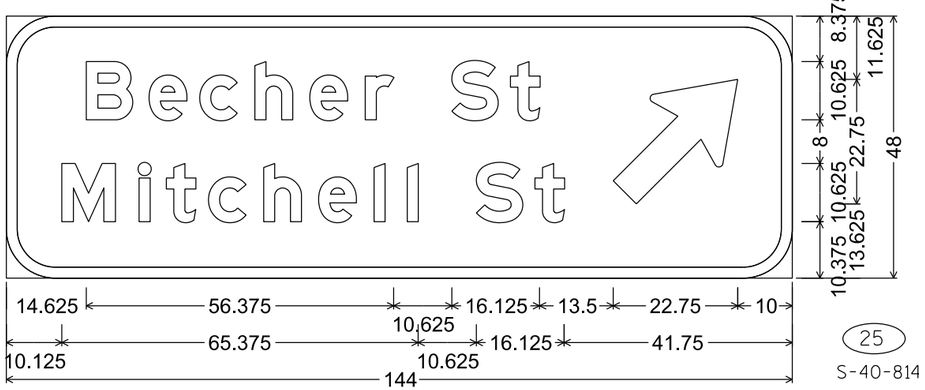
D16-1; 6.000" Radius, 1.000" Border

NOTES

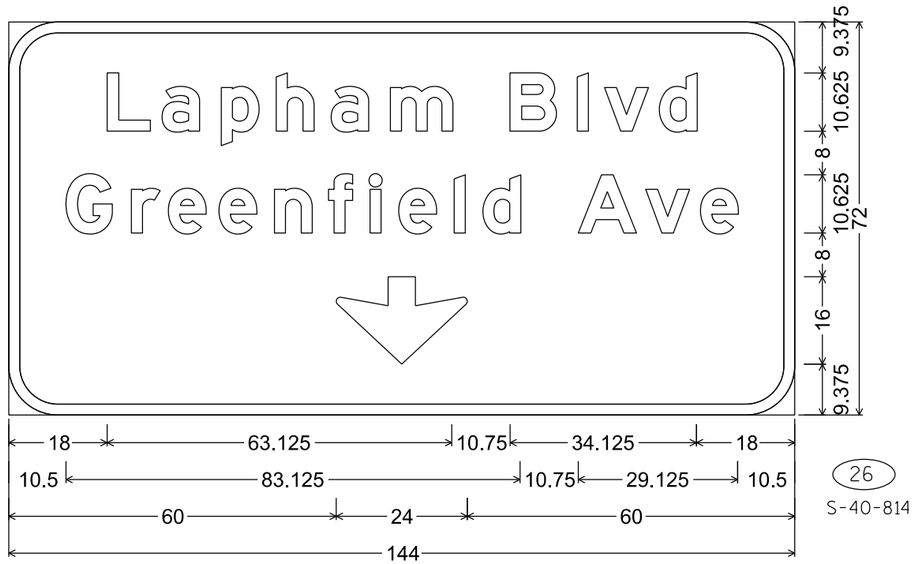
1. Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified



E6-54A; 9.000" Radius, 2.000" Border



E6-54A; 9.000" Radius, 2.000" Border



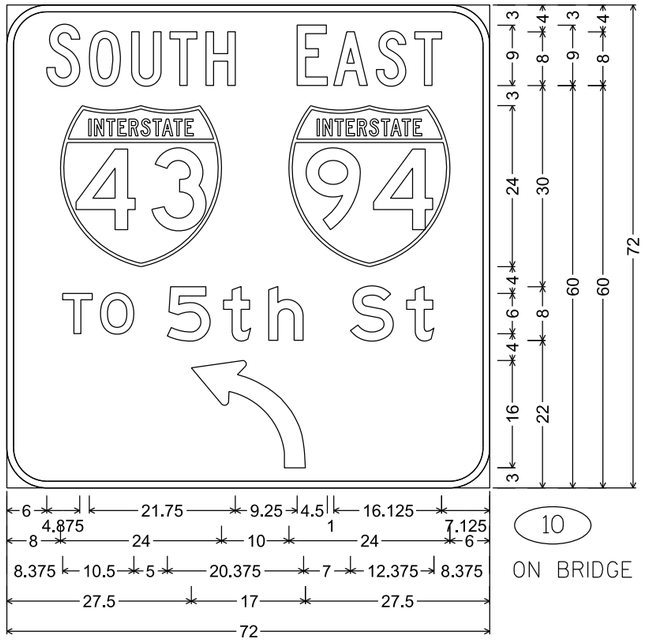
E6-54A; 9.000" Radius, 2.000" Border

7

7

NOTES

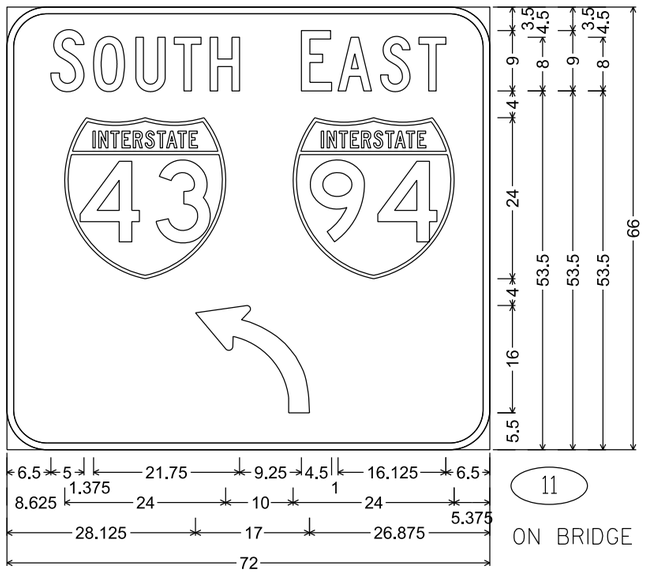
1. Signs are Type II - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted



10

ON BRIDGE

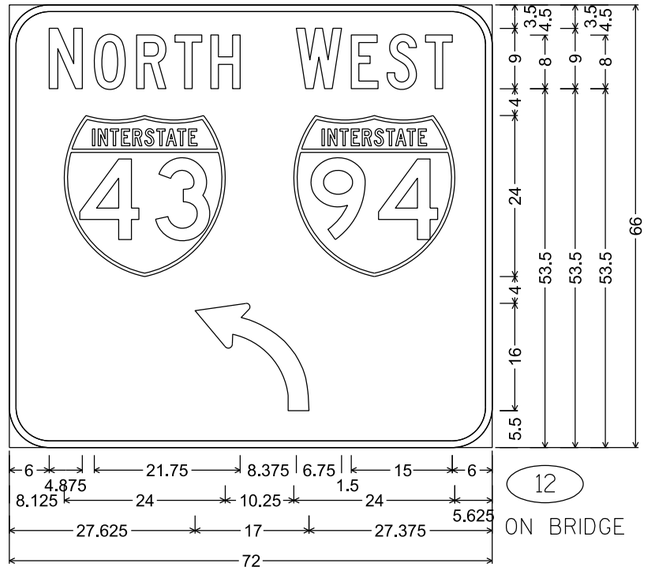
D16-1; 6.000" Radius, 1.000" Border,
"SOUTH", C; "EAST", C; "TO", E; "5th", E; "St", E



11

ON BRIDGE

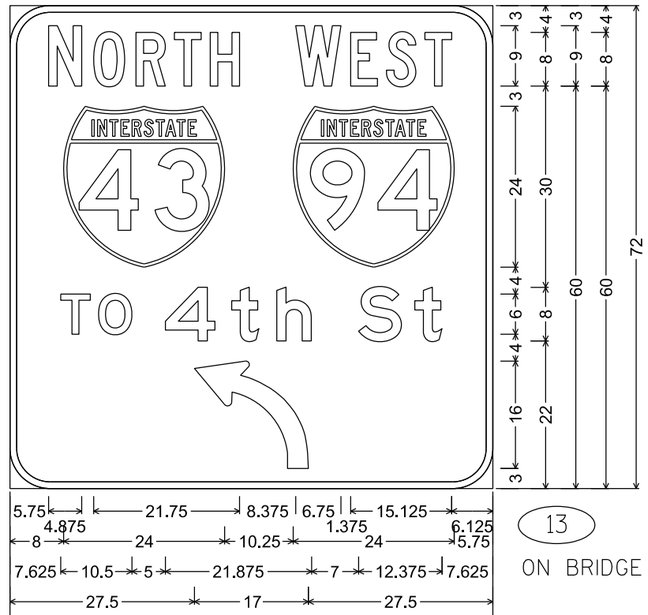
D16-1; 6.000" Radius, 1.000" Border,
"SOUTH", C; "EAST", C



12

ON BRIDGE

D16-1; 6.000" Radius, 1.000" Border,
"NORTH", C; "WEST", C



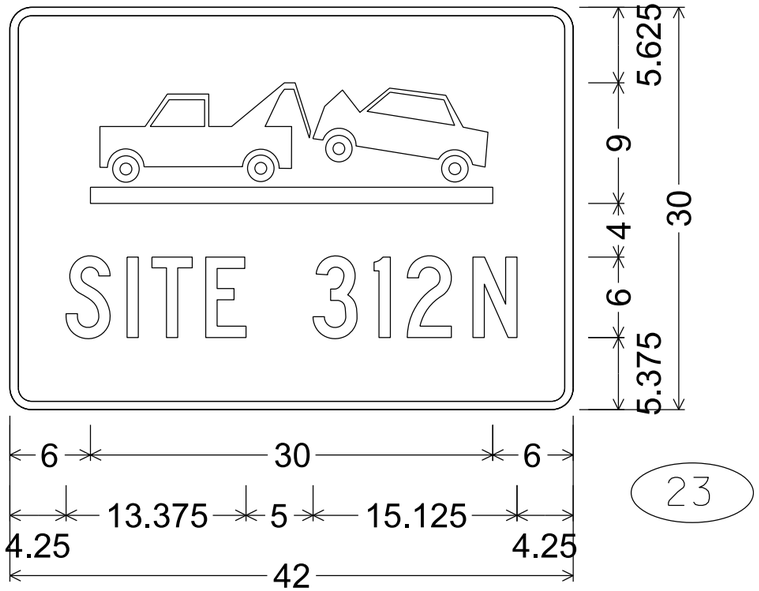
13

ON BRIDGE

D16-1; 6.000" Radius, 1.000" Border,
"NORTH", C; "WEST", C; "TO", E; "4th", E; "St", E

NOTES

1. Sign is Type II- Type H Reflective
2. Color:
   Background - Blue
   Message - White
3. Message Series - C

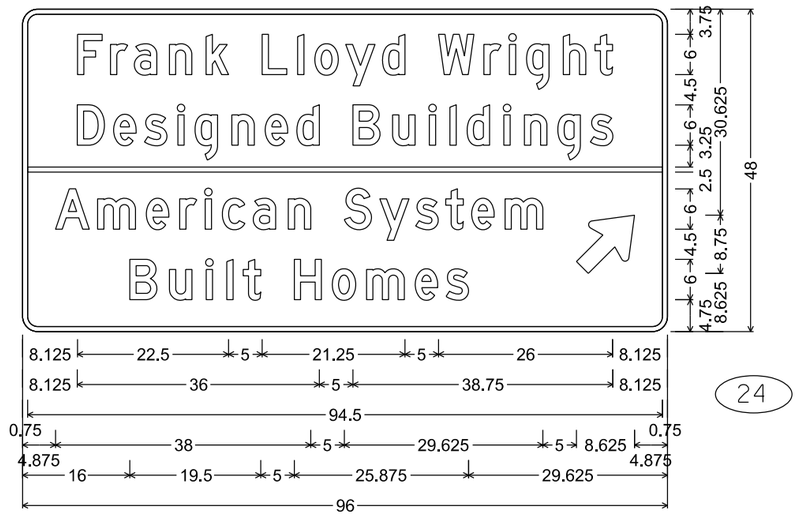


23

1.625" Radius, 0.625" Border

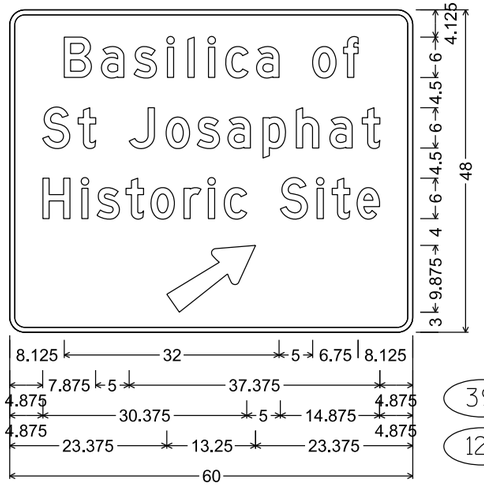
NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - Brown
   Message - White
3. Message Series - D



24

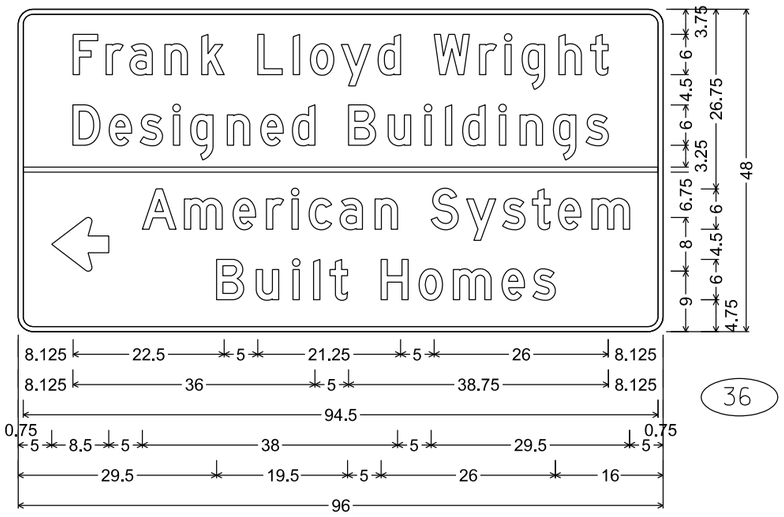
2.250" Radius, 0.750" Border



39

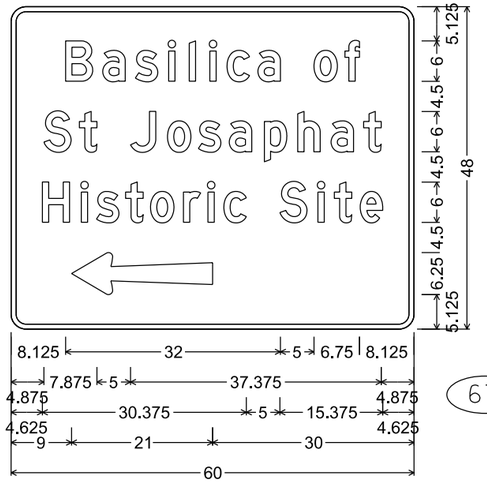
124

2.250" Radius, 0.750" Border



36

2.250" Radius, 0.750" Border



67

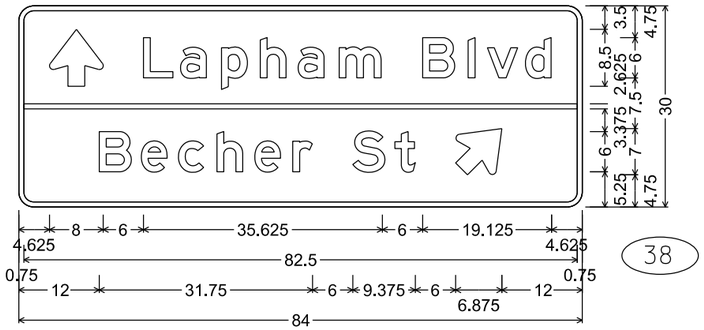
2.250" Radius, 0.750" Border

7

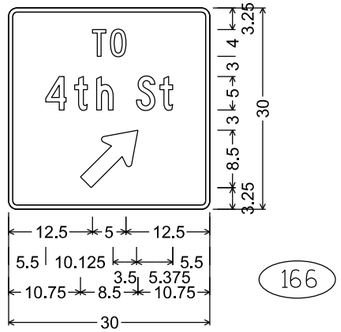
7

NOTES

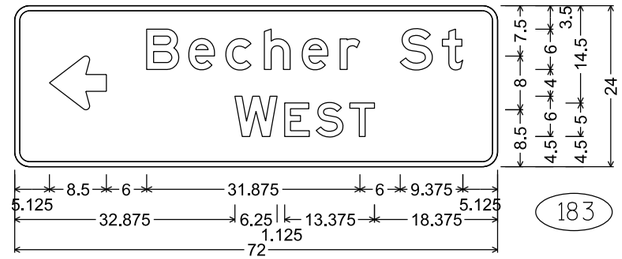
1. Signs are Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E or except as noted



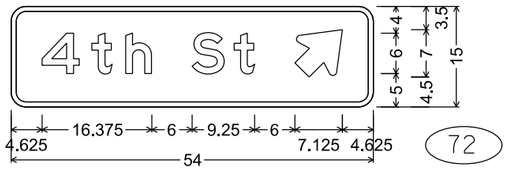
D1-2; 2.250" Radius, 0.750" Border



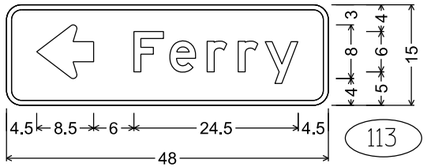
D1-1; 1.250" Radius, 0.625" Border
"TO", C; "4th", C; "St", C



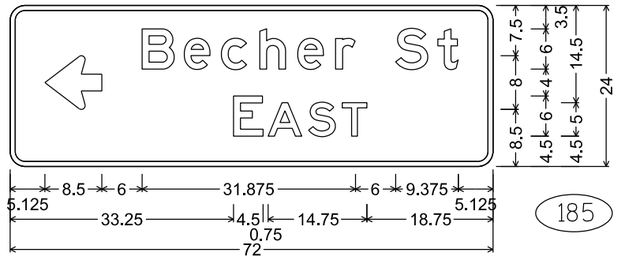
D1-2; 2.250" Radius, 0.750" Border



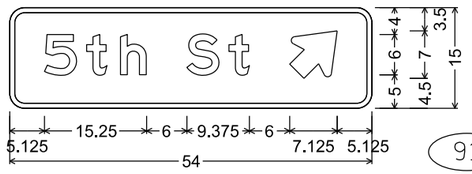
D1-1; 2.250" Radius, 0.750" Border



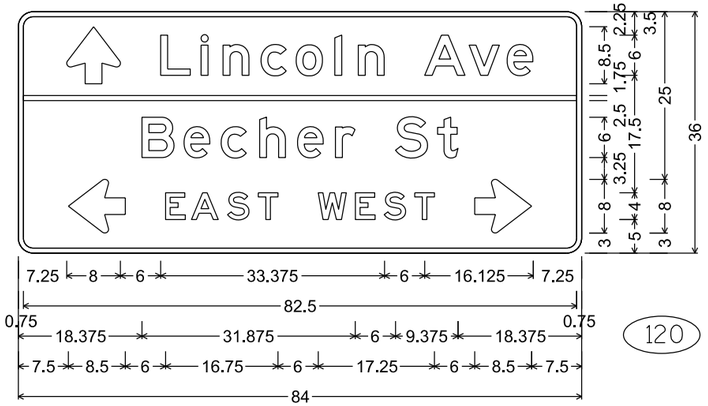
D1-1; 2.250" Radius, 0.750" Border



D1-2; 2.250" Radius, 0.750" Border



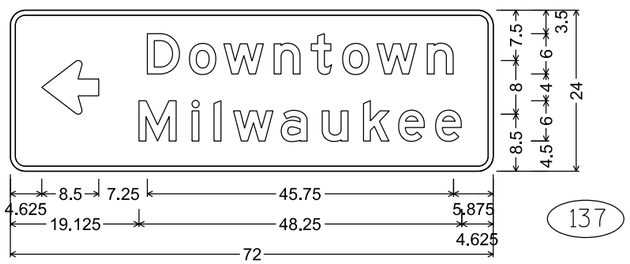
D1-1; 2.250" Radius, 0.750" Border



D1-60 (MOD); 2.250" Radius, 0.750" Border



D1-1; 2.250" Radius, 0.750" Border

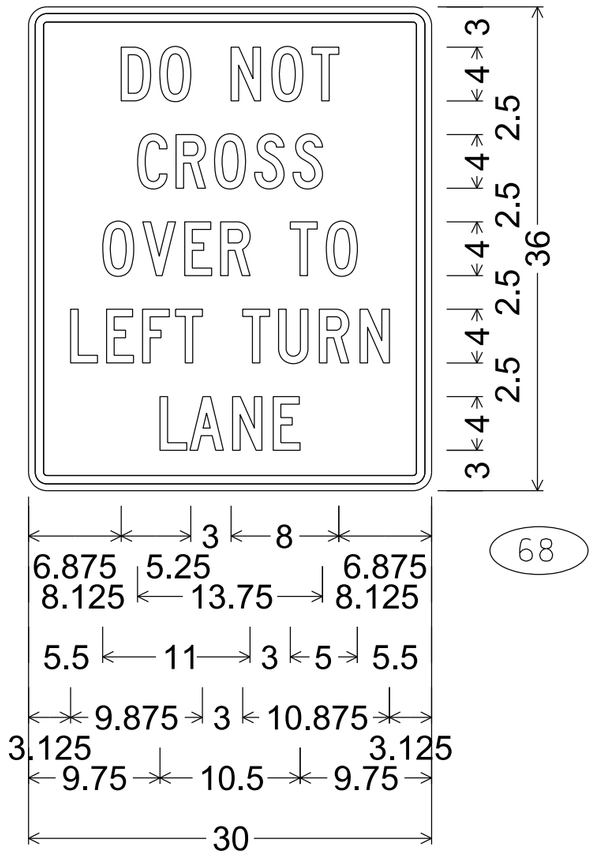


D1-2; 2.250" Radius, 0.750" Border

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET NO: 419	E

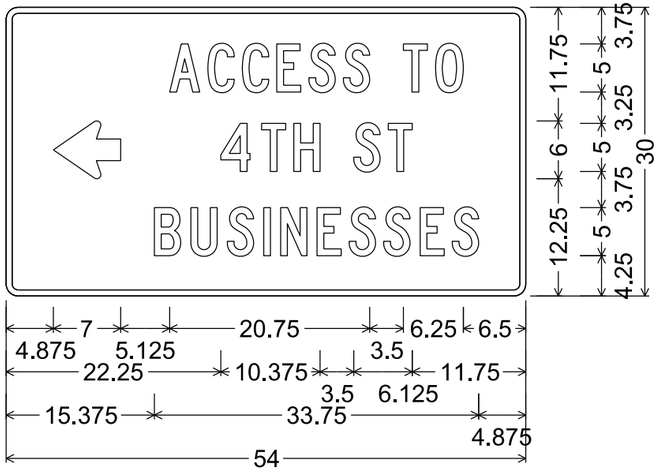
NOTES

1. Sign is Type II- Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C

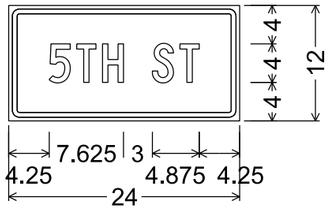


68

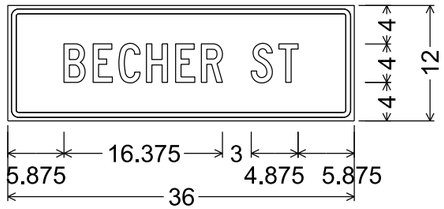
1.375" Radius, 0.625" Border, 0.500" Indent



1.250" Radius, 0.625" Border



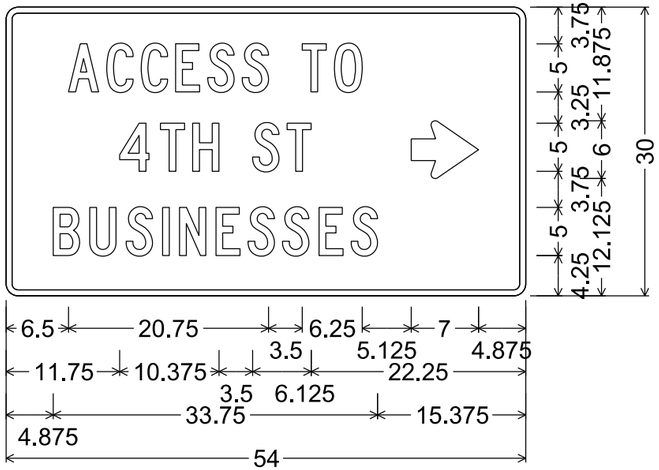
1.125" Radius, 0.500" Border, 0.375" Indent



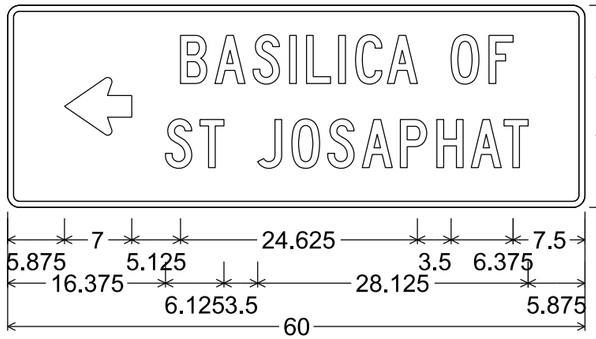
1.125" Radius, 0.500" Border, 0.375" Indent

NOTES

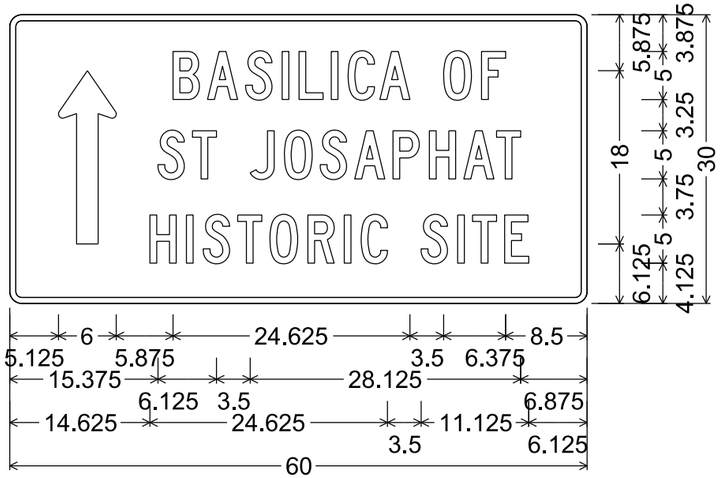
1. Fixed Message Signs Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C



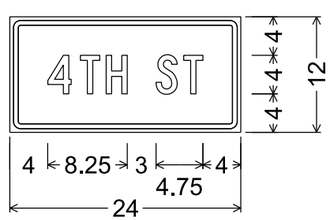
1.250" Radius, 0.625" Border



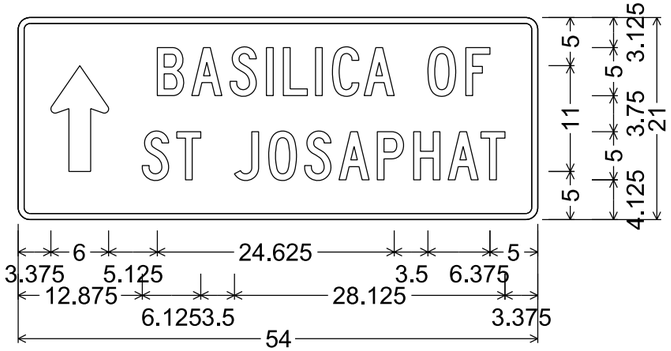
1.250" Radius, 0.625" Border



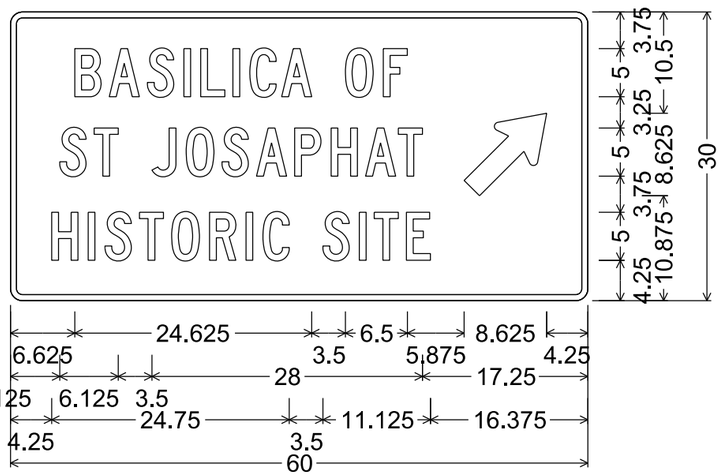
1.250" Radius, 0.625" Border



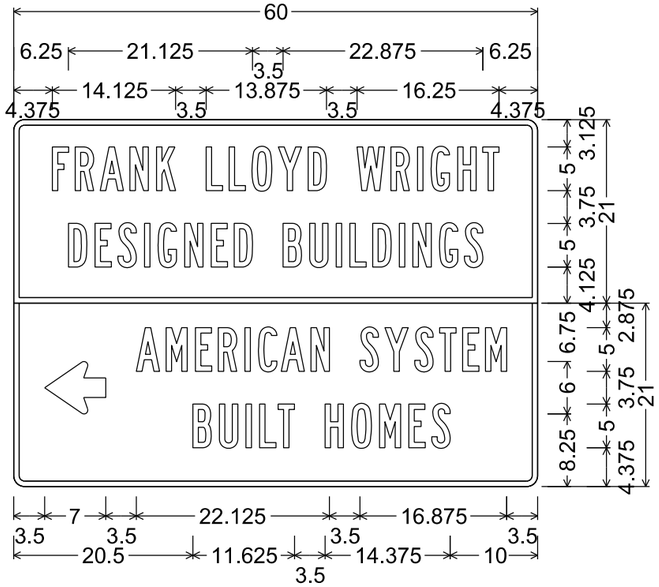
1.125" Radius, 0.500" Border, 0.375" Indent



1.250" Radius, 0.625" Border

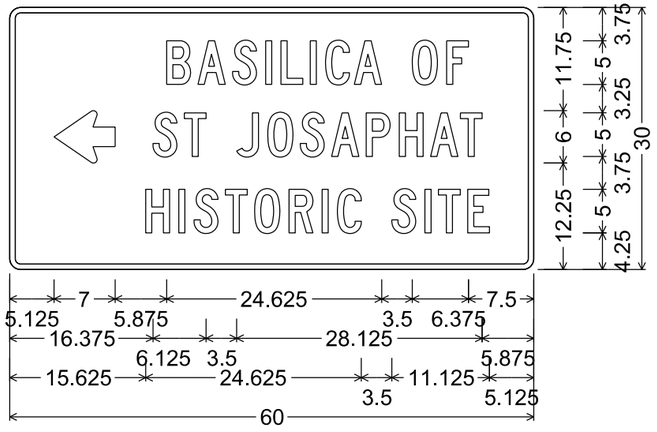


1.250" Radius, 0.625" Border

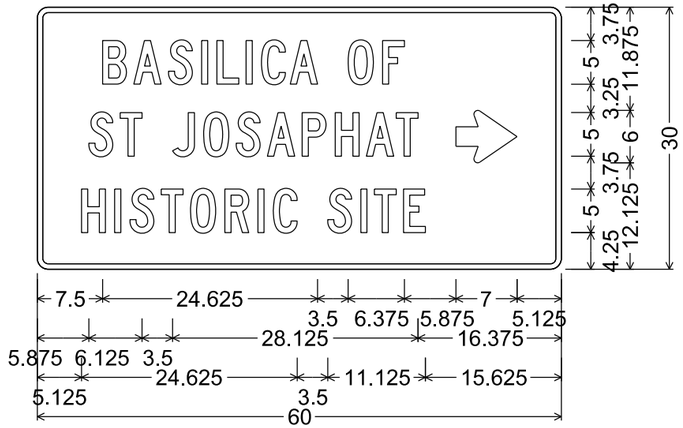


1.250" Radius, 0.625" Border
"FRANK", B; "LLOYD", B; "WRIGHT", B;
"DESIGNED", B; "BUILDINGS", B

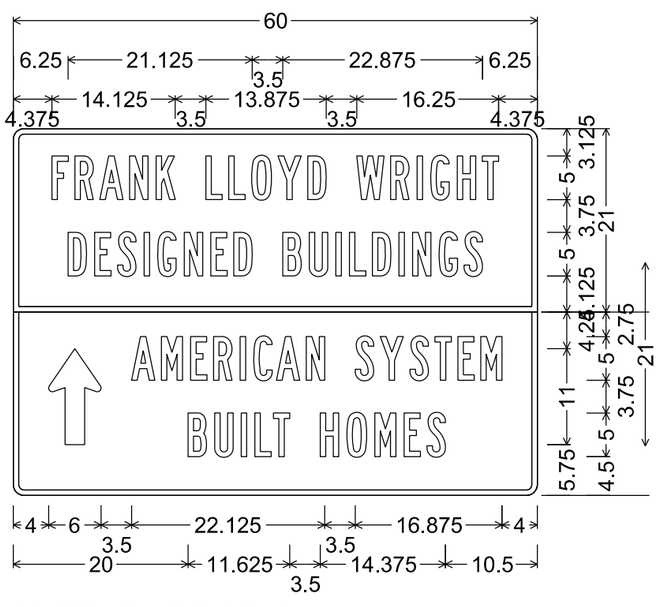
1.250" Radius, 0.625" Border
"AMERICAN", B; "SYSTEM", B; "BUILT", B;
"HOMES", B



1.250" Radius, 0.625" Border

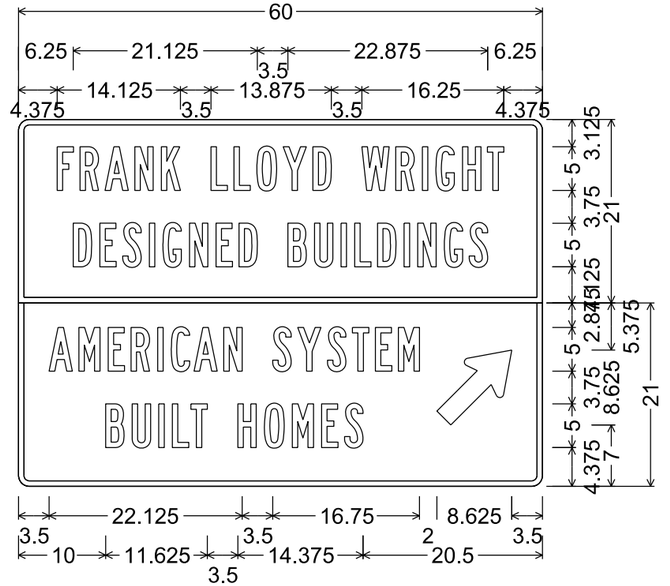


1.250" Radius, 0.625" Border



1.250" Radius, 0.625" Border
"FRANK", B; "LLOYD", B; "WRIGHT", B;
"DESIGNED", B; "BUILDINGS", B

1.250" Radius, 0.625" Border
"AMERICAN", B; "SYSTEM", B; "BUILT", B;
"HOMES", B



1.250" Radius, 0.625" Border
"FRANK", B; "LLOYD", B; "WRIGHT", B;
"DESIGNED", B; "BUILDINGS", B

1.250" Radius, 0.625" Border
"AMERICAN", B; "SYSTEM", B; "BUILT", B;
"HOMES", B

NOTES

1. Fixed Message Signs Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C or as noted

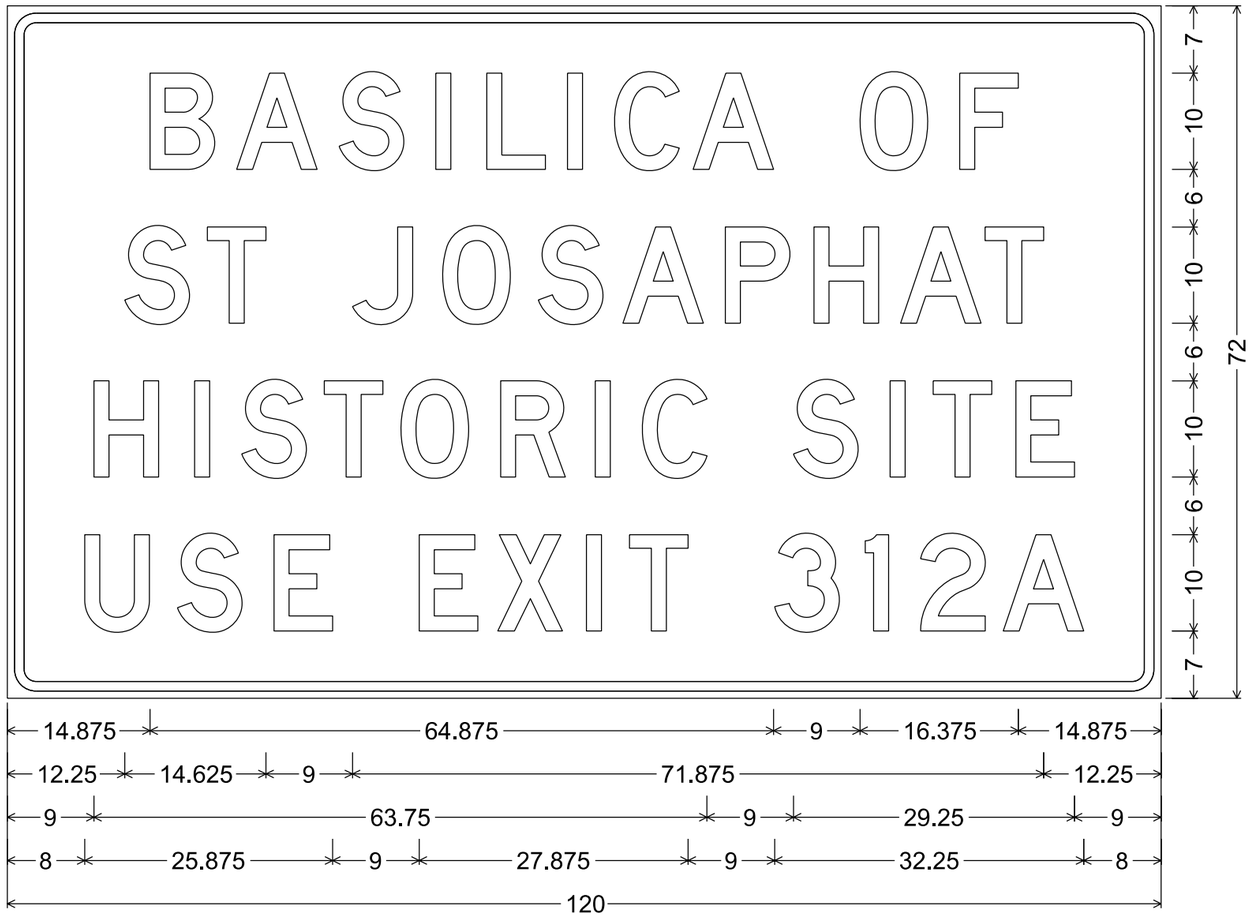
7

7

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY SIGNING	SHEET NO: 422	E

NOTES

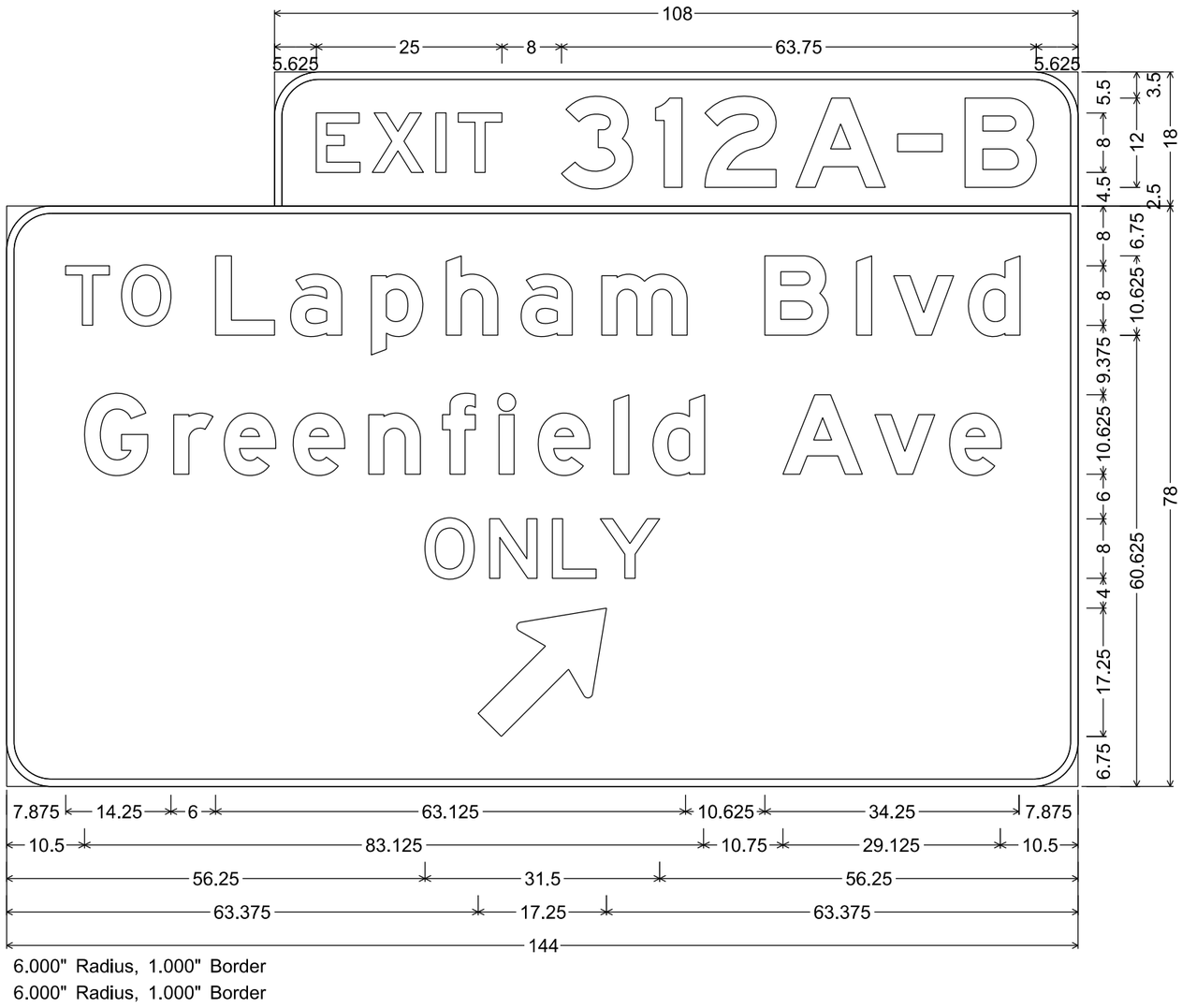
1. Fixed Message Sign Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D



3.000" Radius, 1.000" Border, 0.750" Indent

NOTES

1. Fixed Message Sign Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except all CAP words Series E



NOTES

1. Fixed Message Sign Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except all CAP words Series E



6.000" Radius, 1.000" Border

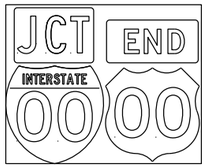
6.000" Radius, 1.000" Border

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY SIGNING	SHEET NO: 425	E

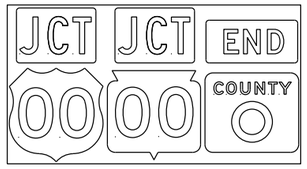
TYPICAL ASSEMBLIES



J1-1



J1-2



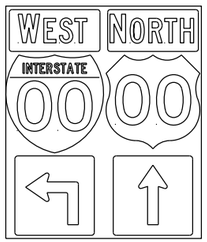
J1-3



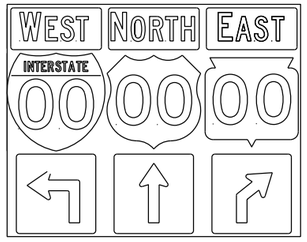
JR1-1



J2-1



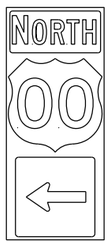
J2-2



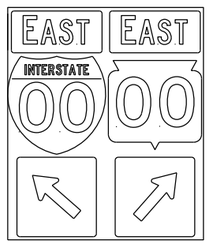
J2-3



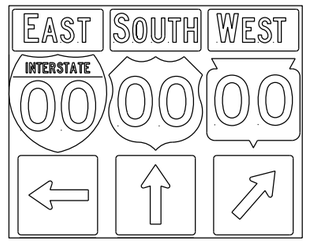
JV
(Typical Vertical J-Assembly
See Note 10 and 11)



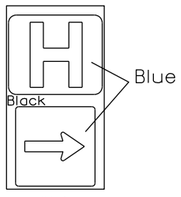
J3-1



J3-2



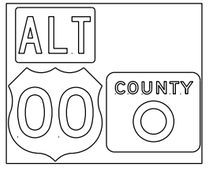
J3-3



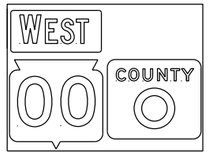
JH-1



J4-1



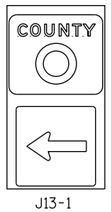
J4-2



J4-2



J12-1



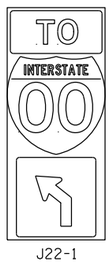
J13-1



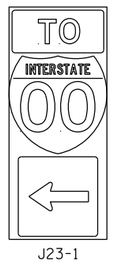
J32-1



J33-1



J22-1



J23-1



JR13-1



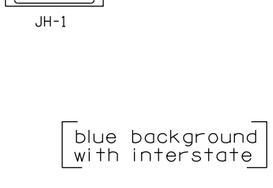
JR23-1

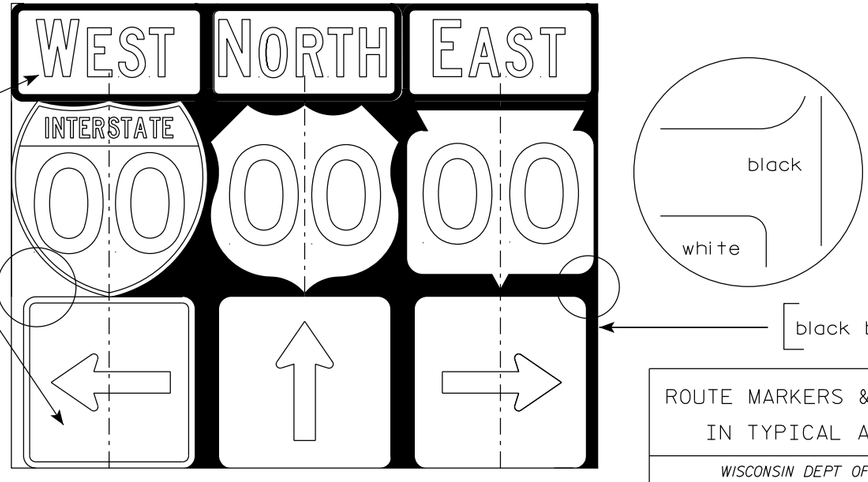


JR99-1

NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - Black Non-reflective
   Message - see Note 4
3. Message Series - See Note 4
4. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
5. 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.
6. 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.
7. 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.
8. 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.
9. All Vertical J Assemblies are given a Sign Code of JV
10. For JV Assemblies that have a mixture of Interstate and Non-Interstate shields, arrows and cardinals shall be white on blue.
11. For JV Assemblies that have a mixture of Non-Interstate and Auto-Tour shields, arrows and cardinals shall be black on white.





ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

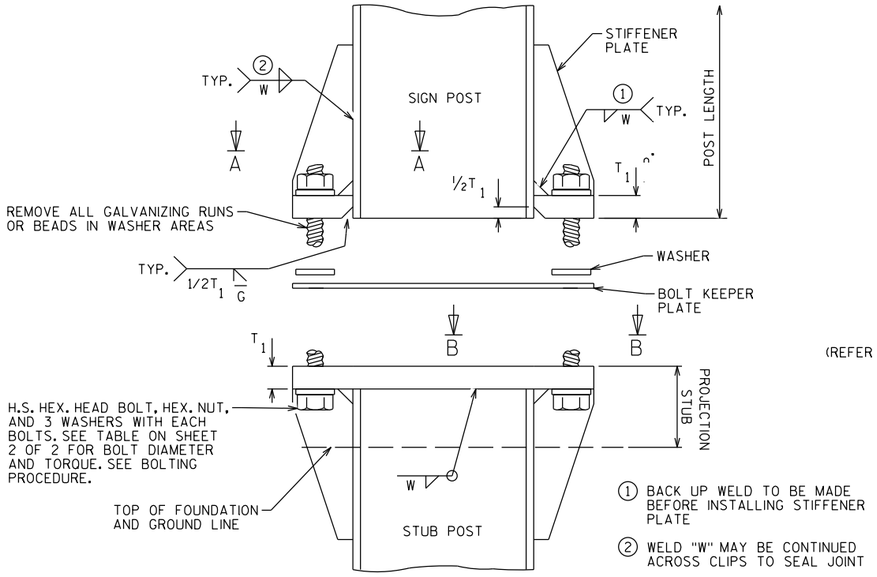
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/23 PLATE NO. A2-1S.10

PROJECT NO:

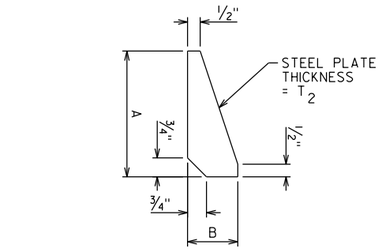
SHEET NO: 426 E



① BACK UP WELD TO BE MADE BEFORE INSTALLING STIFFENER PLATE

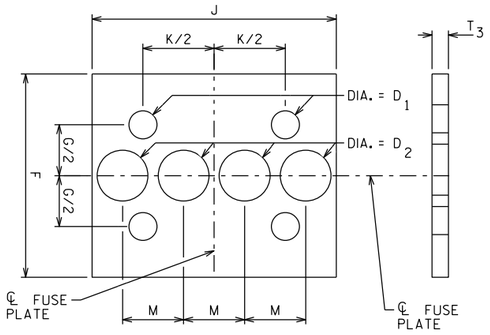
② WELD "W" MAY BE CONTINUED ACROSS CLIPS TO SEAL JOINT

SIGN POST & STUB POST ELEVATION



STIFFENER PLATE DETAIL

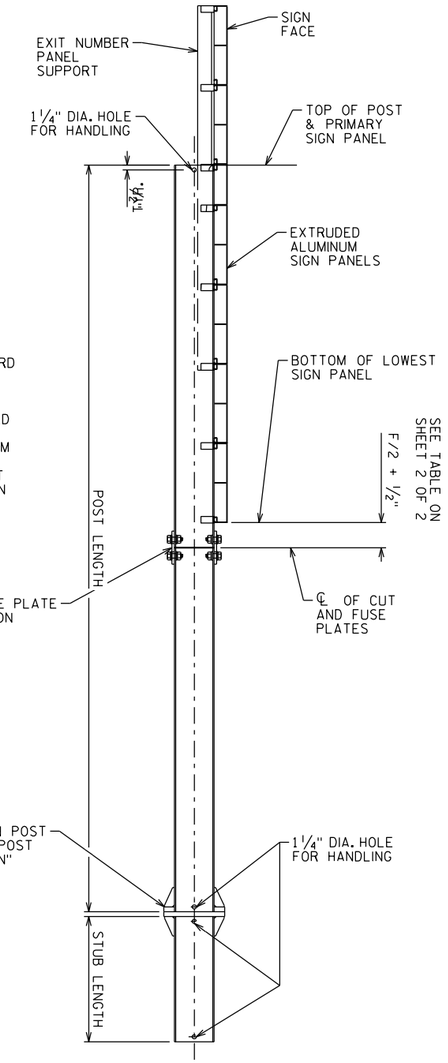
(REFER TO TABLE ON SHEET 2 OF 2 FOR DIMENSIONS)



PERFORATED FUSE PLATE DETAIL

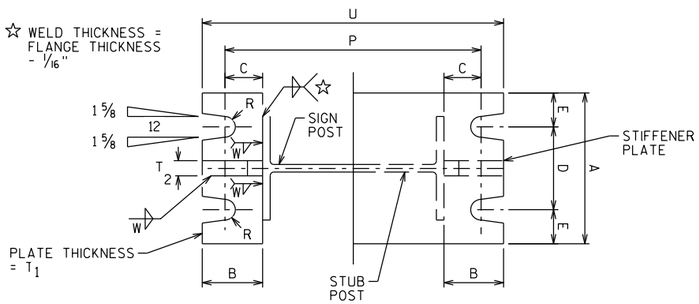
USE H.S. HEX HEAD BOLTS, HEX HEAD NUT AND FLAT WASHER UNDER NUT. INSTALL BOLTS PER THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION SECTION 506.3.12.3.

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.



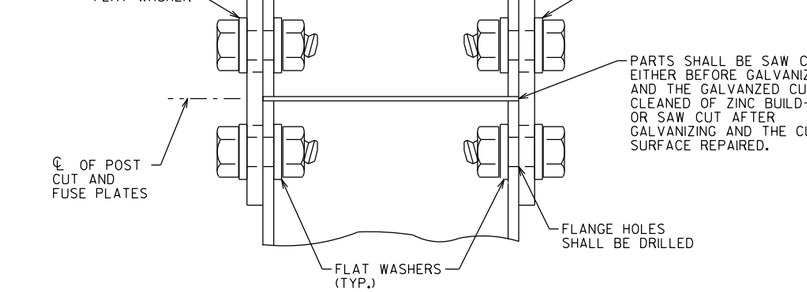
POST DETAIL

☆ WELD THICKNESS = FLANGE THICKNESS - 1/16"

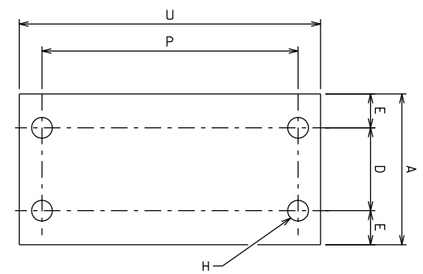


SECTION A-A

SECTION B-B



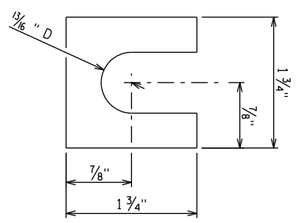
FUSE PLATE CONNECTION DETAIL



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.

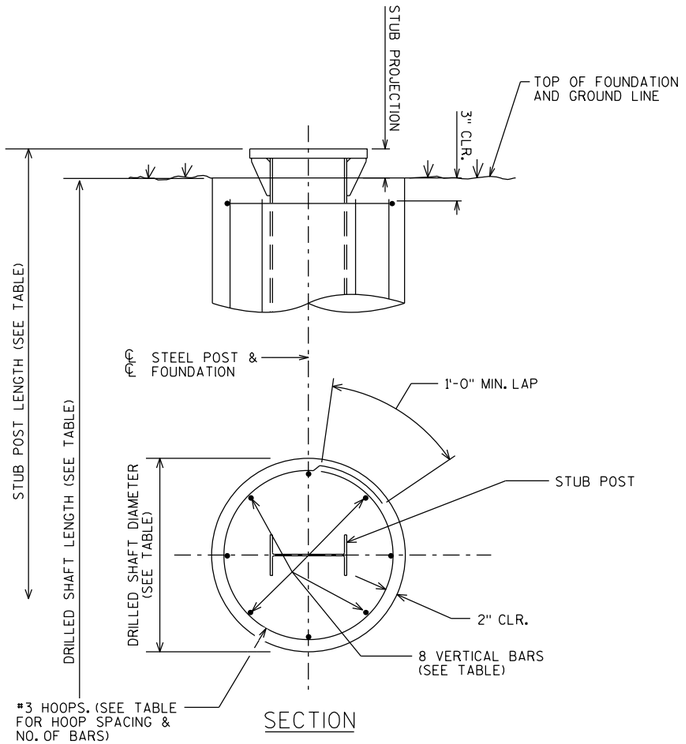
CONNECTION & FOUNDATION DETAILS 1 OF 2

SHEET A3-1.20

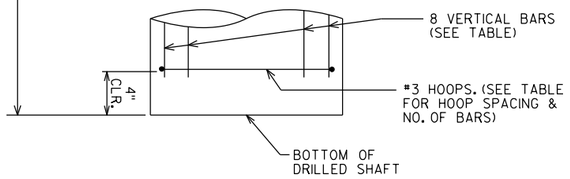
427

7

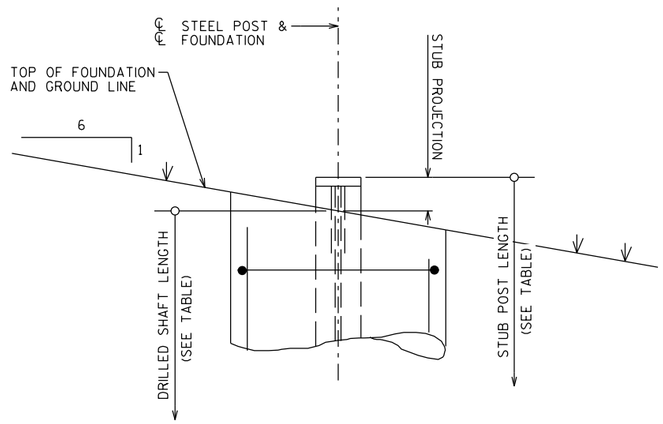
7



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'-6"	#5	5'-11"	10"	9	0.8 CY	71 LB
W8X18	2'-6"	3"	24"	7'-6"	#6	6'-11"	12"	8	0.9 CY	102 LB
W8X21	3'-0"	2½"	24"	8'-0"	#6	7'-5"	12"	9	1.0 CY	110 LB
W10X22	3'-0"	2½"	24"	8'-6"	#7	7'-11"	12"	9	1.0 CY	151 LB
W12X26	3'-0"	2½"	24"	10'-0"	#7	9'-5"	12"	11	1.2 CY	180 LB

◆ QUANTITIES SHOWN ARE FOR ONE DRILLED SHAFT

BASE CONNECTION & FUSE PLATE DATA TABLE

POST SHAPE	WEIGHT PER FOOT	BASE CONNECTION DATA: BOLT SIZE & TORQUE	A	B	C	D	E	T1	T2	W	R	BOLT KEEPER PLATE DATA: P	U	PERFORATED FUSE PLATE DATA: F	G	J	K	M	D1	D2	T3	BOLT DIA.	WGT. EA. LBS	BOLT LENGTH	V ◪
W6X15	15 LB	⅝" DIA. X 4" 36 TO 38 FT-LB	5"	2"	1¼"	2¾"	1⅛"	1¼"	½"	¼"	11/32"	8½"	10"	5"	2½"	6"	3½"	1½"	11/16"	1¼"	⅜"	⅝"	2.4	2	73.0 LB
W8X18	18 LB											10⅝"	12⅛"	5"	2½"	5¼"	2¾"	1¼"	11/16"	1 1/16"	⅜"	⅝"	2.0	2	83.0 LB
W8X21	21 LB	¾" DIA. X 4¾" 62 TO 63 FT-LB	6"	2¼"	1⅜"	3½"	1¼"	1½"	¾"	5/16"	13/32"	11"	12¾"	5½"	2½"	5¼"	2¾"	1¼"	13/16"	1"	½"	¾"	3.1	2¼"	124.0 LB
W10X22	22 LB											12⅞"	14⅝"	6"	3"	5¾"	2¾"	1⅜"	13/16"	1⅛"	½"	¾"	3.9	2¼"	134.0 LB
W12X26	26 LB											15"	16¾"	6"	3"	6½"	3½"	1⅝"	13/16"	1 5/16"	½"	¾"	4.5	2¼"	152.0 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

MATERIALS SHALL CONFORM TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 506, UNLESS NOTED OTHERWISE.

FABRICATION SHALL CONFORM TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 506.

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.

FOUNDATION 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) ABOVE THE WATER TABLE WITH THE FOLLOWING PROPERTIES:

- SOIL UNIT WEIGHT = 115 PCF
- ANGLE OF INTERNAL FRICTION = 24 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

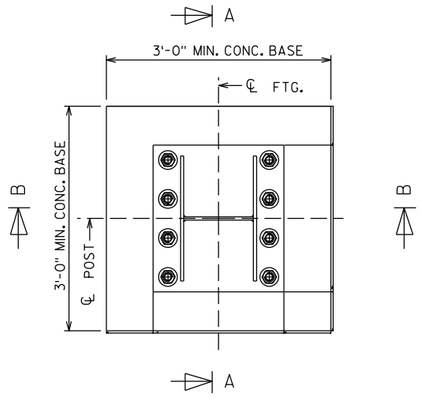
SHEET A3-1.20

428

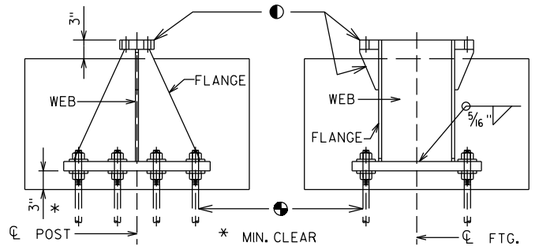
7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A31.DGN
PLOT DATE : 3-MAR-2020
PLOT BY : dotc4c

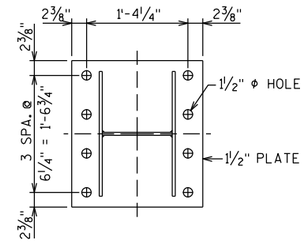
STUB AND ADHESIVE ANCHOR DETAILS



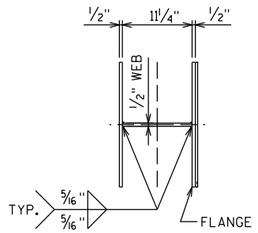
STUB SECTION



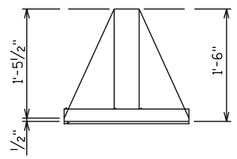
SECTION A-A SECTION B-B



BASE PLATE



STUB



FLANGE

◐ SEE BASE CONNECTION DETAILS ON "CONNECTIONS & FOUNDATION DETAILS" SHEETS.

◔ ADHESIVE ANCHORS 1¼-INCHES. ALLOWABLE PULL OUT CAPACITY = 15 KIPS. EMBED 1'-3" INTO ROCK.

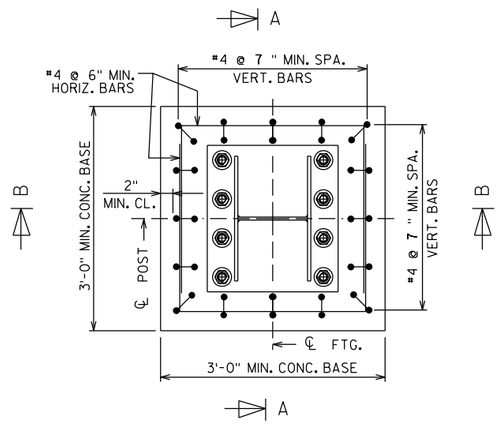
GENERAL NOTES:

QUANTITIES PER BASE:
REINFORCING STEEL = 62 LB
CONCRETE = 0.6 CY
STRUCTURAL STEEL = 335 LB

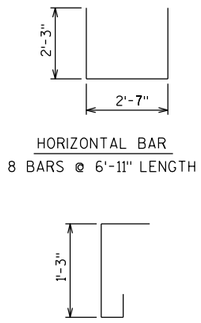
ALL MATERIALS, EXCEPT FOR ANCHOR ROD, NUTS, AND WASHERS, SHALL BE ASTM A709 GRADE 50. ALL MATERIALS TO BE GALVANIZED AFTER FABRICATION.

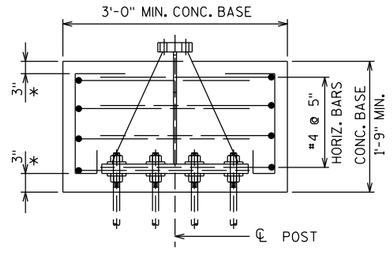
IF ROCK IS ENCOUNTERED PRIOR TO REACHING THE MINIMUM DRILLED SHAFT EMBEDMENT DEPTH DEFINED ON THE FOUNDATION DATA TABLE OF THE "CONNECTIONS & FOUNDATION DETAILS 2 OF 2" SHEET, THE CONTRACTOR SHALL INSTALL A TEST ADHESIVE ANCHOR AND DETERMINE THE PULL-OUT CAPACITY. IF THE FIELD TEST RESULTS IN A PULL-OUT CAPACITY GREATER THAN OR EQUAL TO 15 KIPS, THE CONTRACTOR MAY INSTALL THE ALTERNATE CONCRETE BASE AND BREAK-WAY STUB PER THE DETAILS ON THIS SHEET.

CONCRETE BASE DETAILS

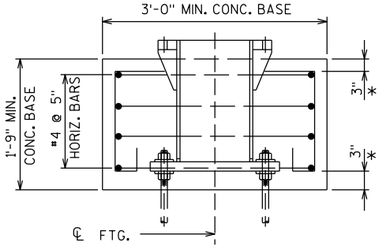


CONCRETE BASE PLAN





SECTION A-A



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

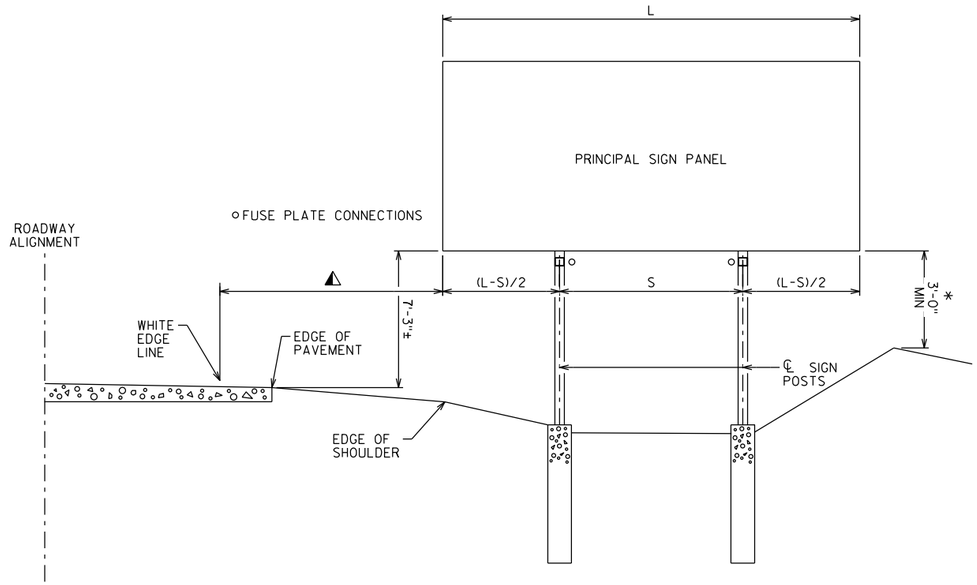
STRUCTURE BTO TYPE I SIGNS

DRAWN BY	PLANS CK'D.

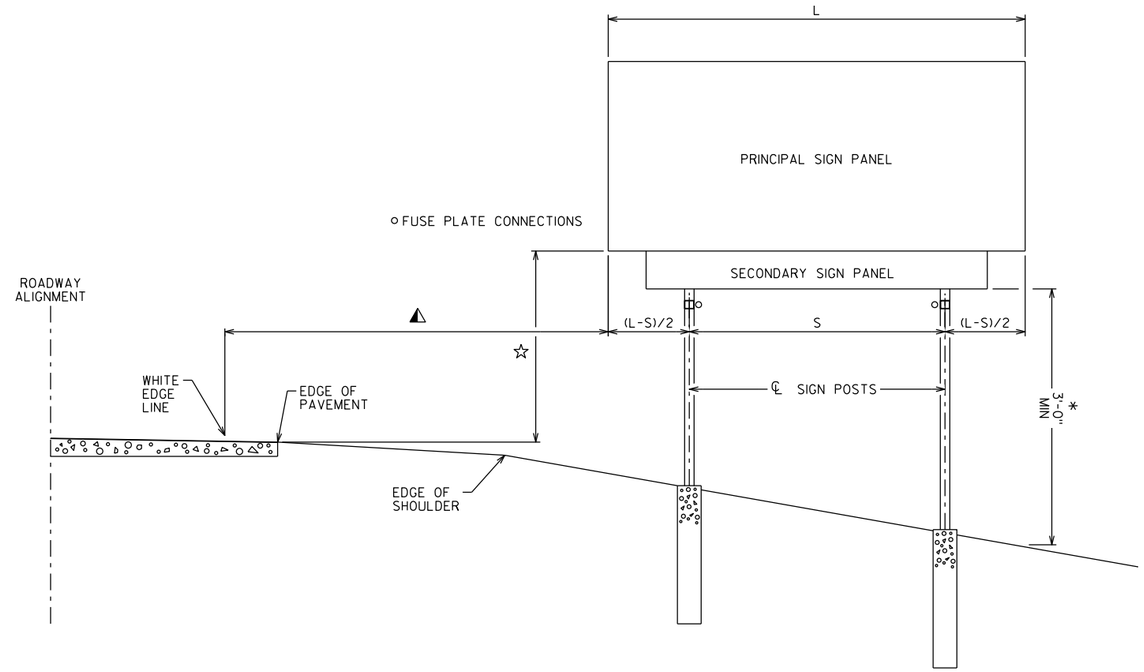
ALTERNATE BREAK-AWAY BASE ON ROCK

SHEET A3-1M.2

429



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".

WHERE SIGNS ARE MOUNTED BEHIND CRASH WORTHY PROTECTION SUCH AS GUARDRAIL OR BARRIER WALL, THE LATERAL OFFSET MAY BE 4'-6" BEHIND THE GUARDRAIL OR BARRIER WALL.

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"±.

* THE VERTICAL SIGN GROUND CLEARANCE ON RIGHT END OF SIGN SHALL BE A MINIMUM OF 3'-0"±.

○ FOR 2-POST SIGNS, IF THERE IS A SECONDARY SIGN THAT IS NOT AS WIDE AS THE POSTS, INSTALL FUSE PLATES BENEATH PRINCIPAL SIGN.

FOR SECONDARY SIGNS THAT ARE NOT AS WIDE AS THE EXTERIOR POSTS, SECURE SIGN WITH CHANNEL STEEL AS DESCRIBED IN A4-6.

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
	2/29/24		

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

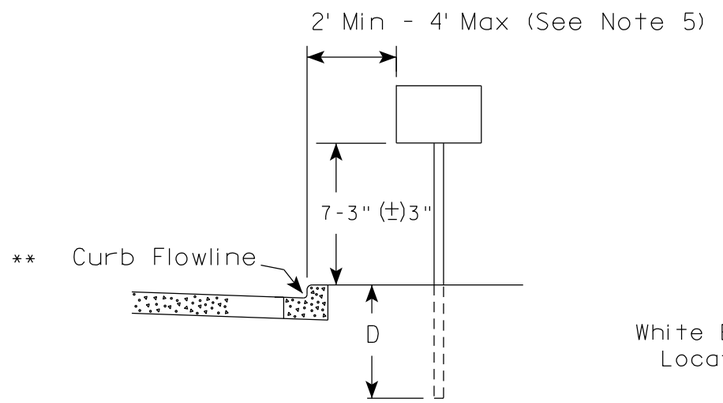
DRAWN BY	PLANS CK'D.

TYPICAL TYPE I SIGN INSTALLATION

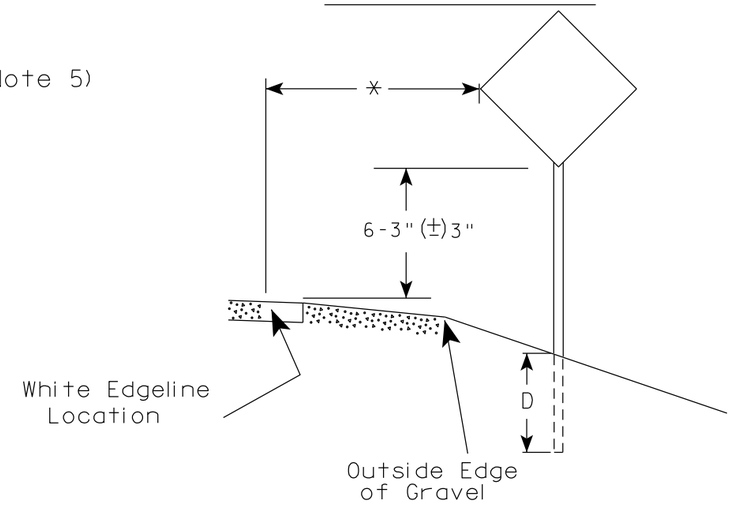
SHEET A4-1.11

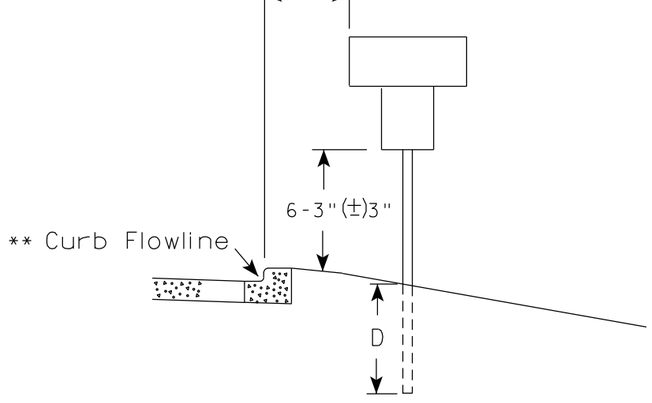
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 430	E

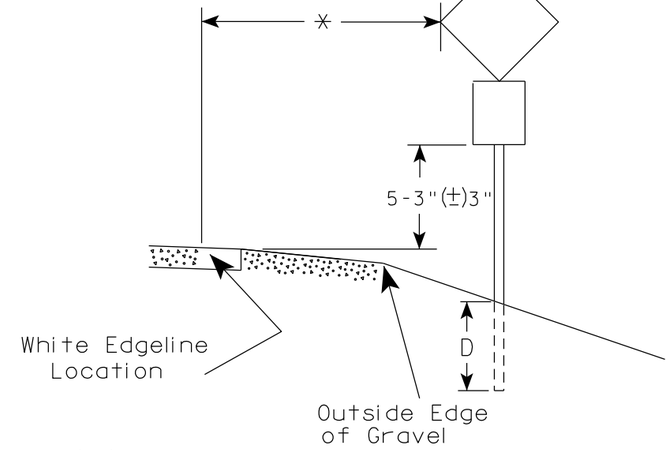
URBAN AREA



RURAL AREA (See Note 2)







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

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 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" (±) 3".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directd by the Engineer.

POST EMBEDMENT DEPTH

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

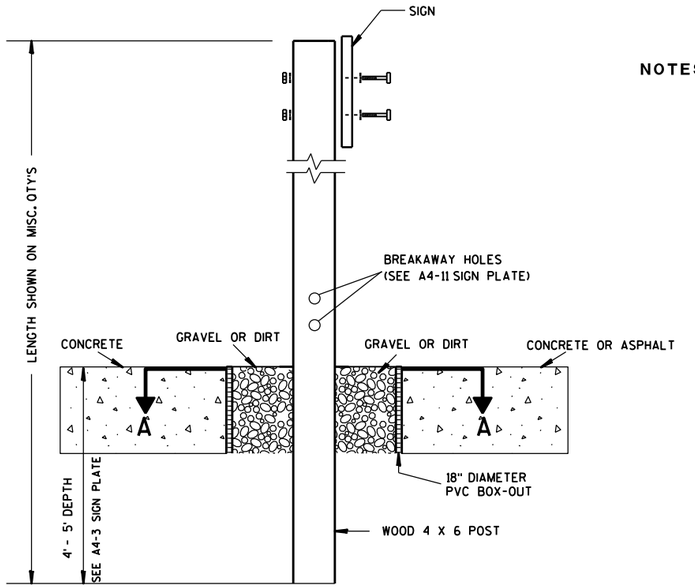
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

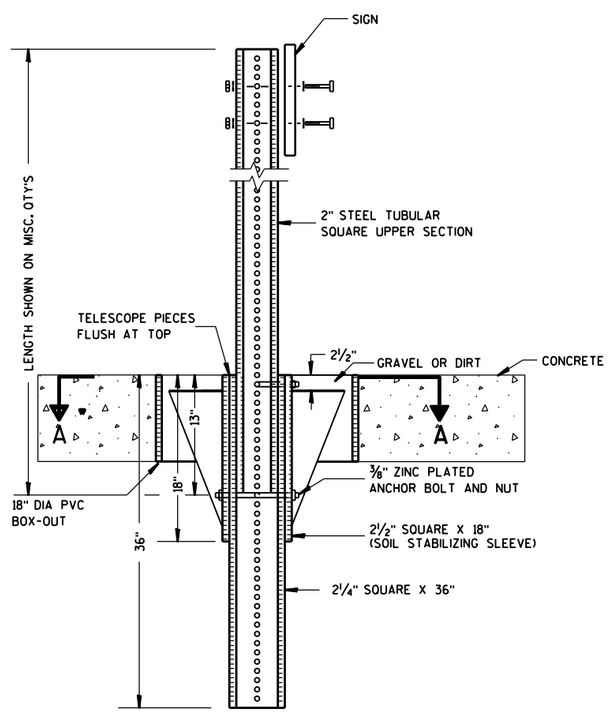
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 431	E



ELEVATION VIEW

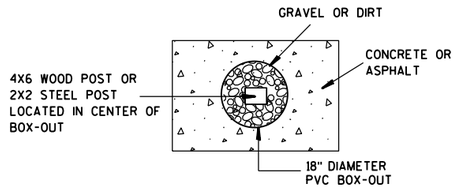
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

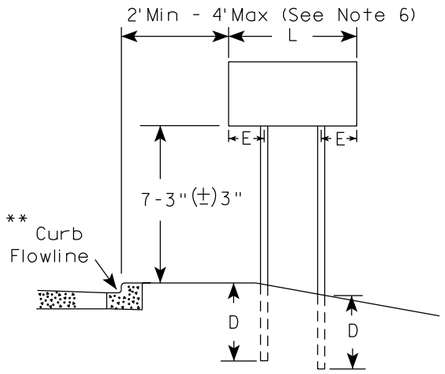
APPROVED Matthew R Rauch
for State Traffic Engineer

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

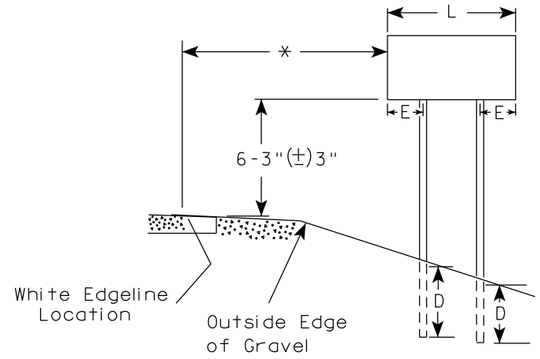
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

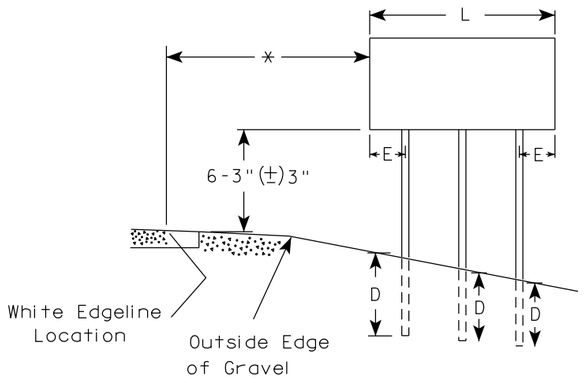
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

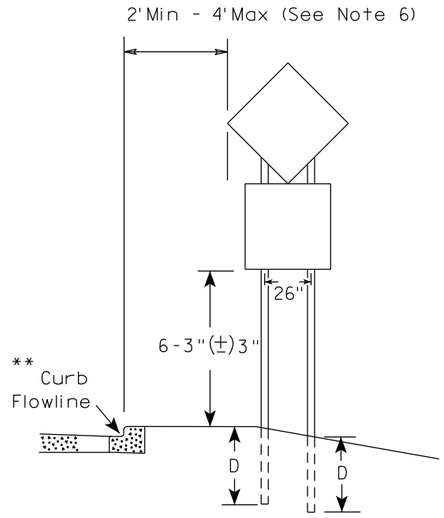
URBAN AREA



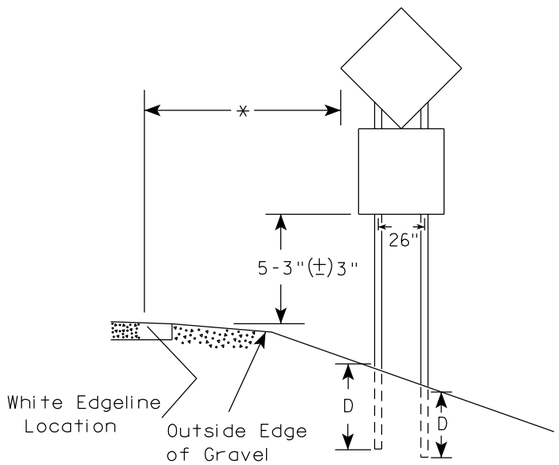
RURAL AREA (See Note 3)







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" (±) 3" or 6'-3" (±) 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" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 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" (±) 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

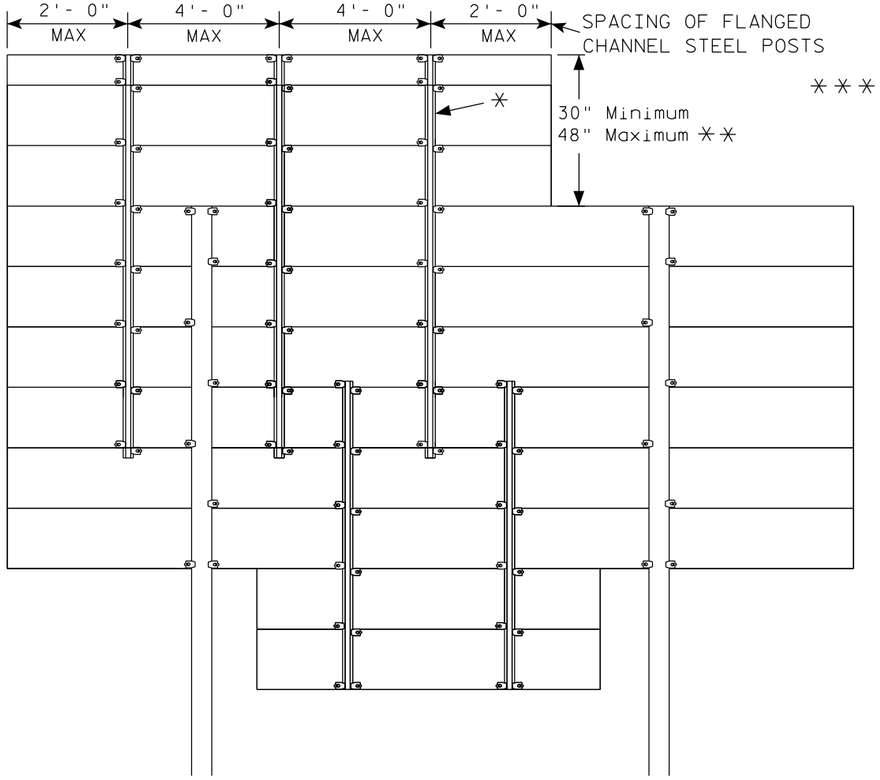
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 433	E

GROUND MOUNTED SIGN



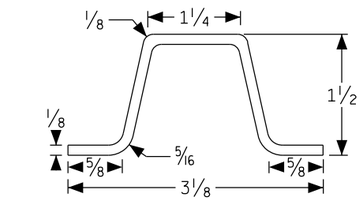
✳=2.00 lb/ft AND 4.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

✳✳=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

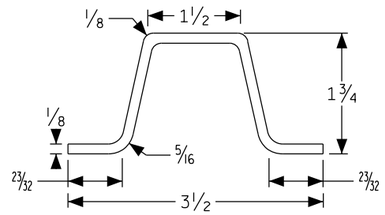
✳✳✳ THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 15 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 15 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAILS

NOT TO SCALE

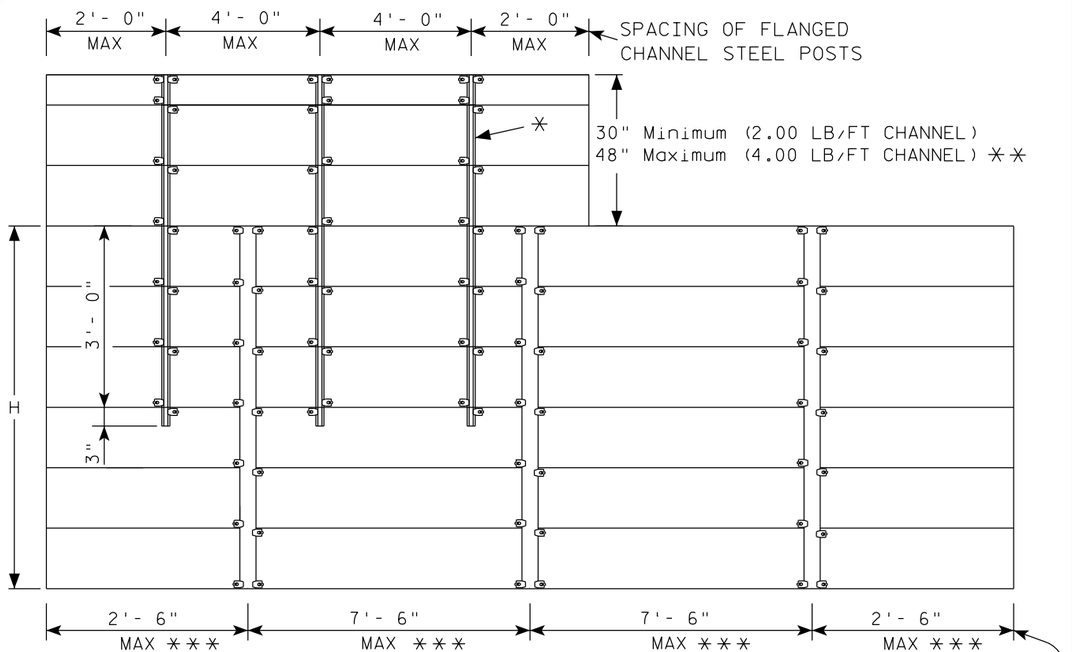


2.00 LB/FT CHANNEL



4.00 LB/FT CHANNEL

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.

2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.

3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.

4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.

5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)

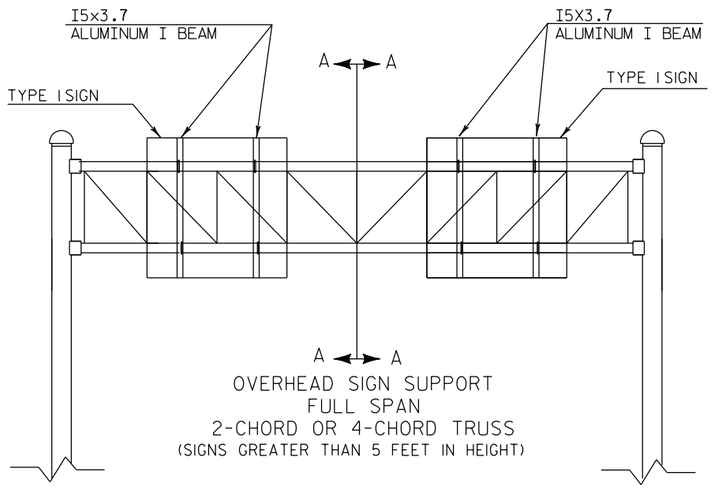
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

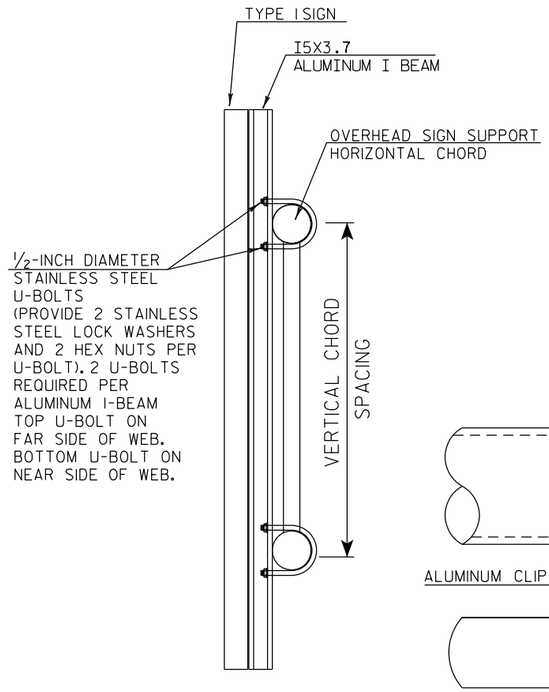
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

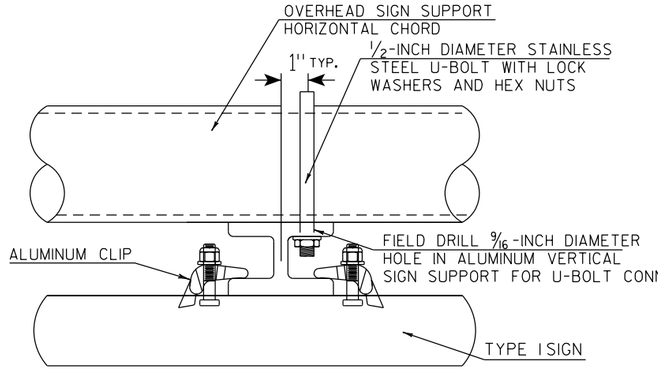
DATE 1/07/20 PLATE NO. A4-6.12



OVERHEAD SIGN SUPPORT
FULL SPAN
2-CHORD OR 4-CHORD TRUSS
(SIGNS GREATER THAN 5 FEET IN HEIGHT)



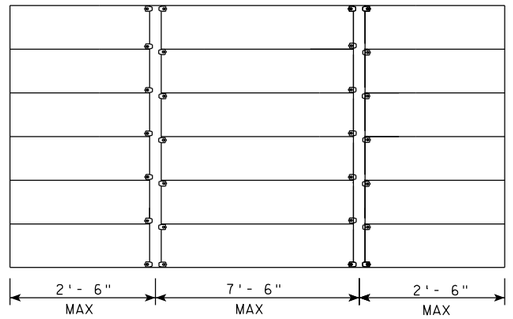
CUT SECTION A-A



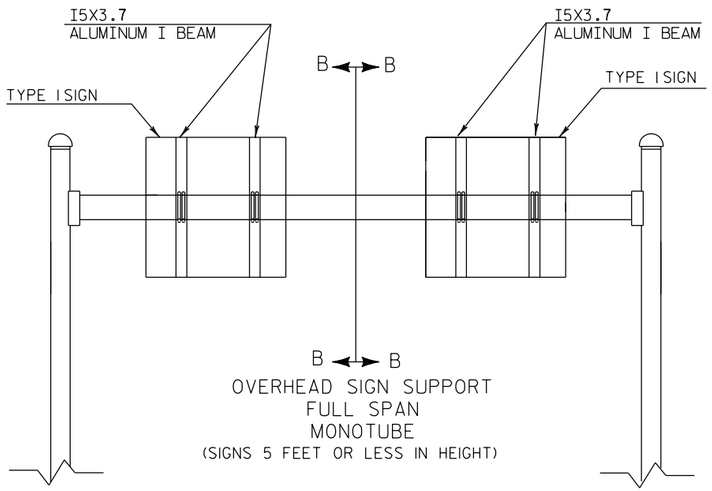
TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW

GENERAL NOTES

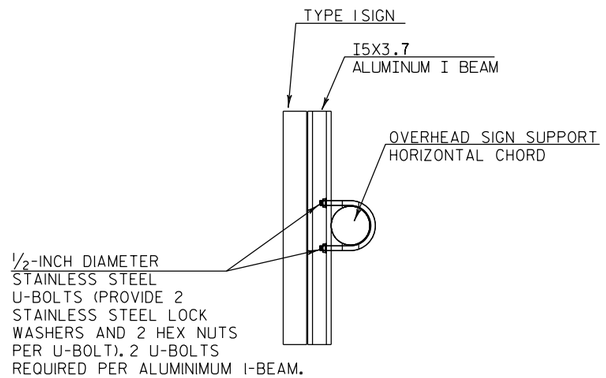
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE 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.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



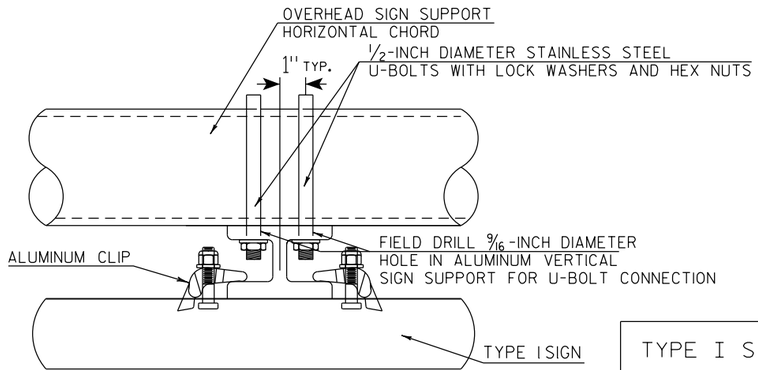
SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
MONOTUBE
(SIGNS 5 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW

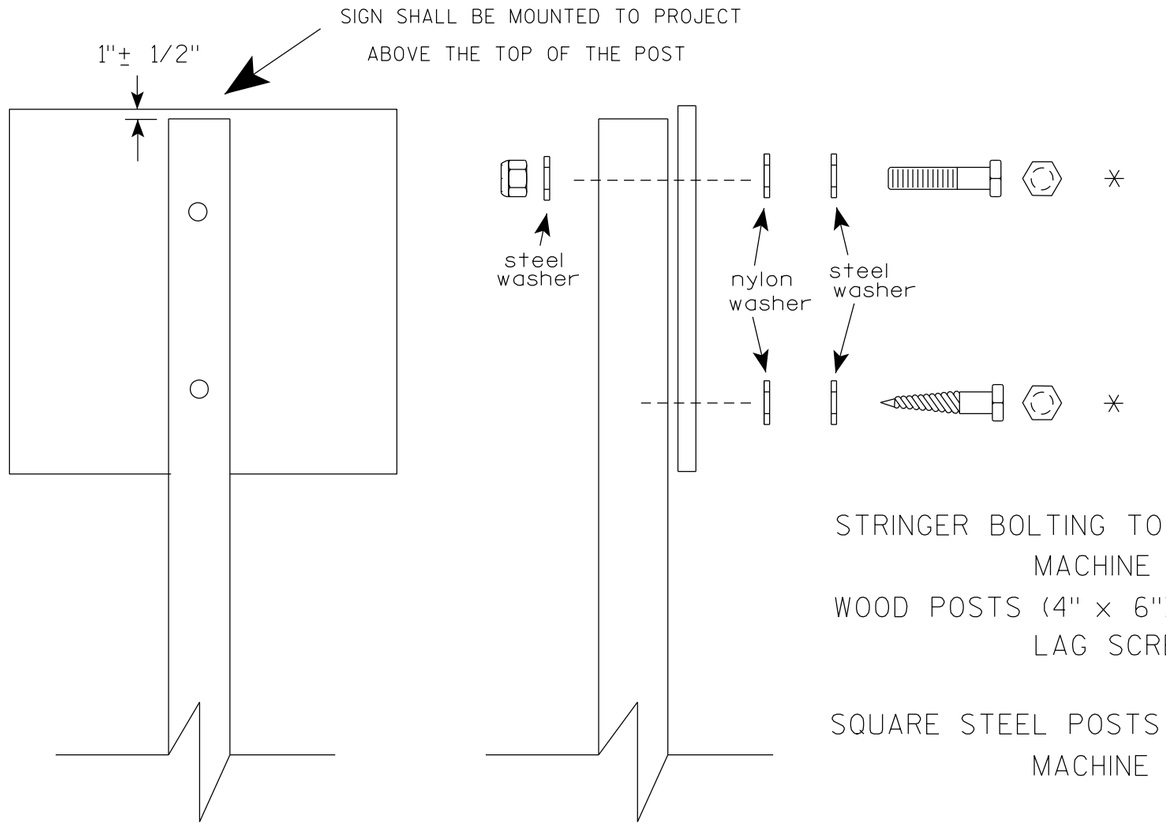
TYPE I SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7A.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 435	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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 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

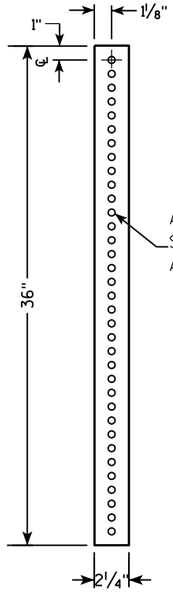
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

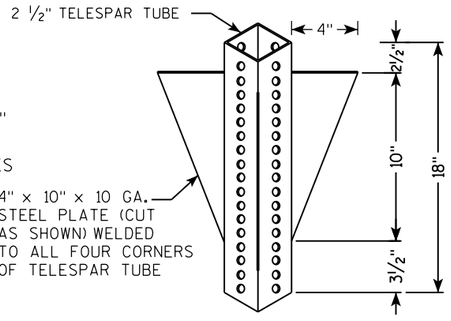
SHEET NO: 436 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

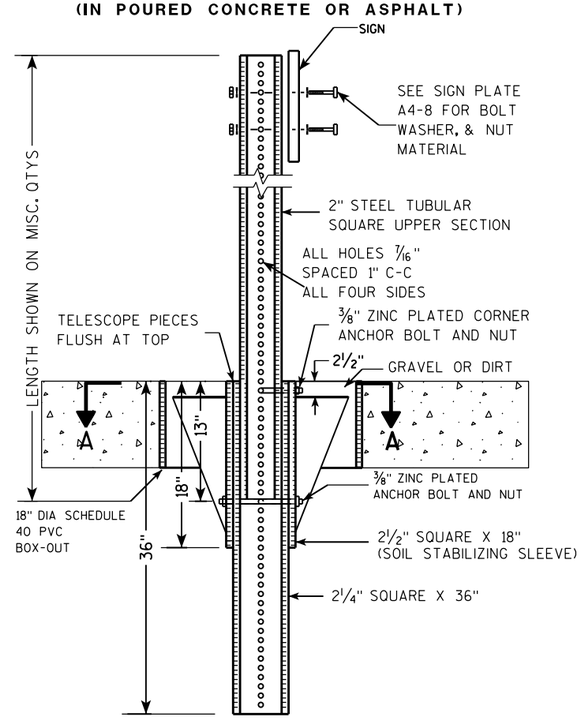
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



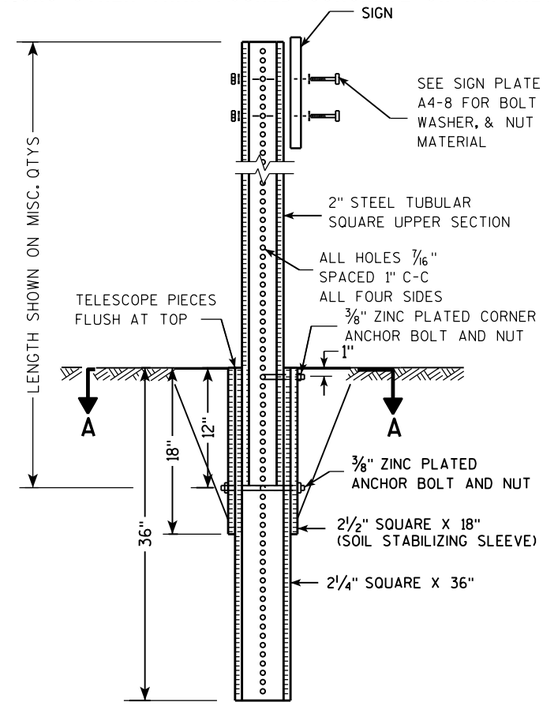
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

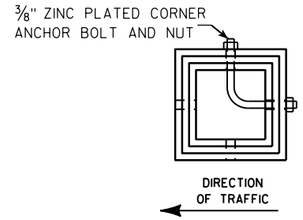


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

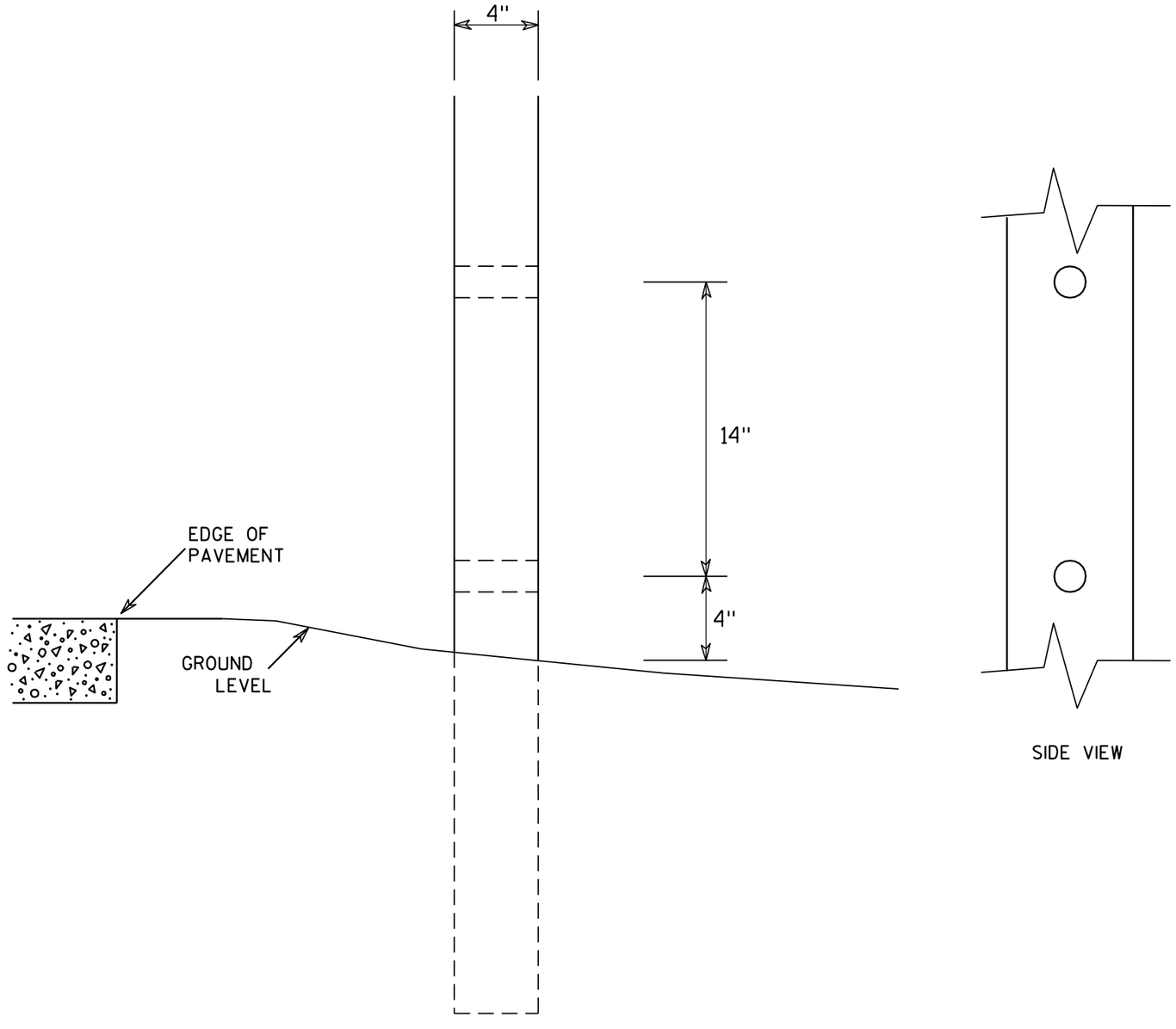
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 437 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



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.

7

7

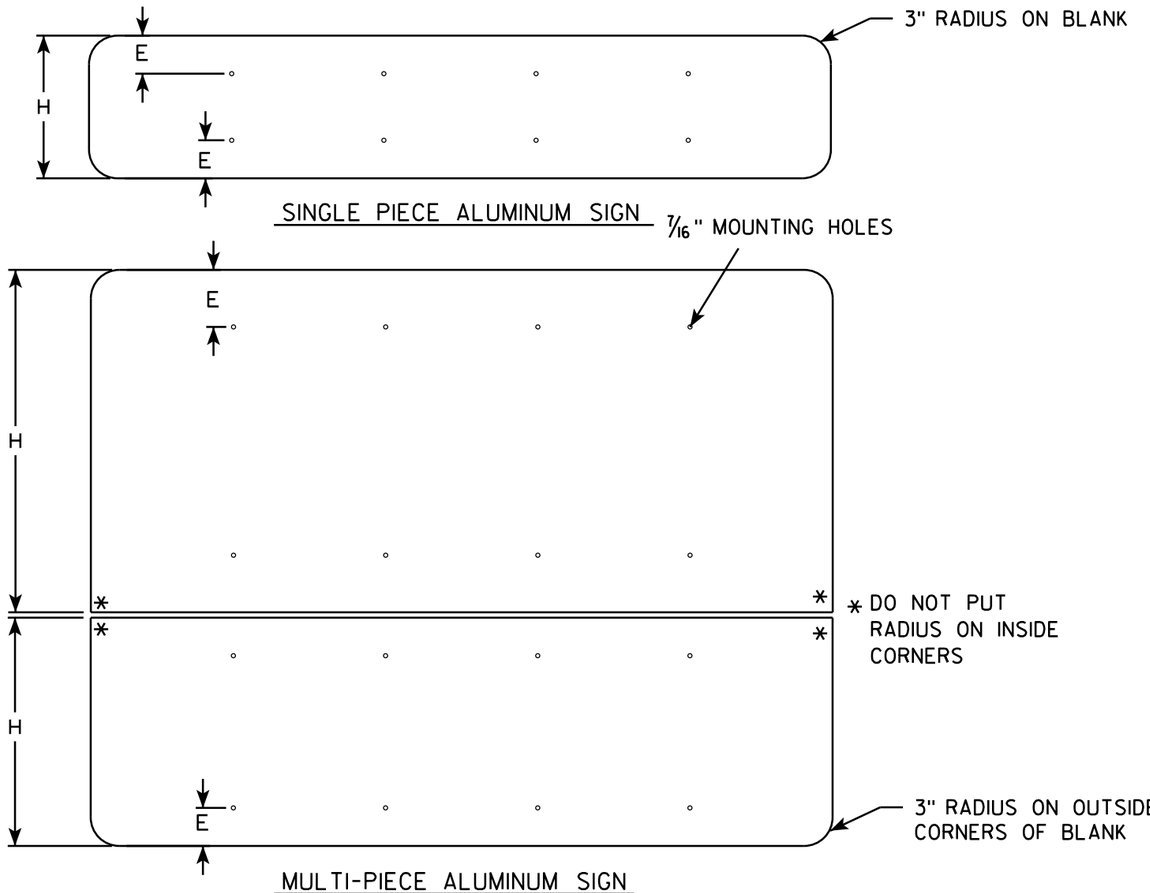
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

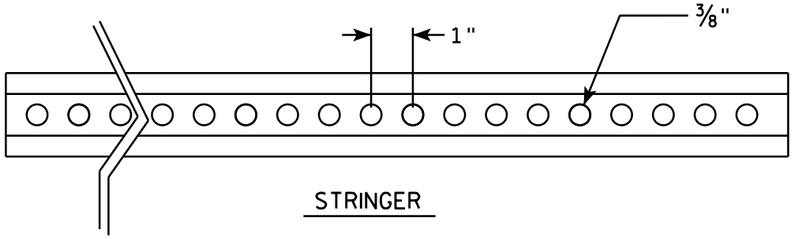
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 438	E



GENERAL NOTES

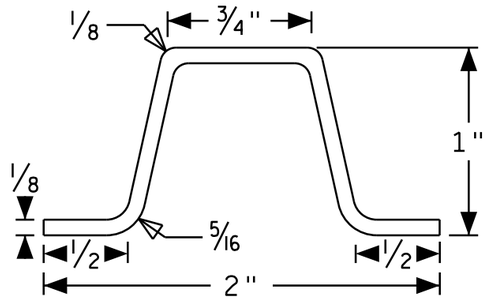
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 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"

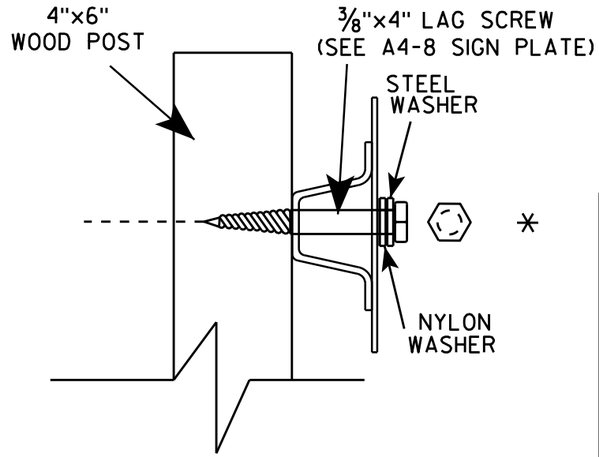


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

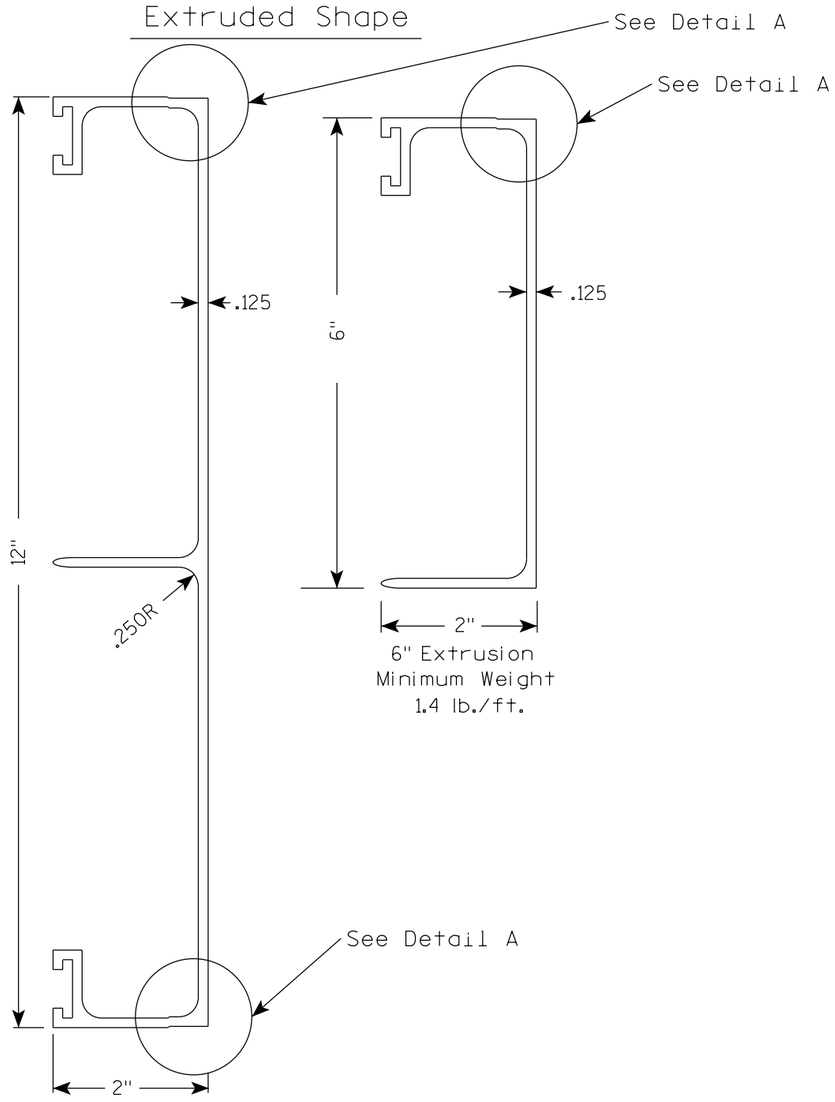
for State Traffic Engineer

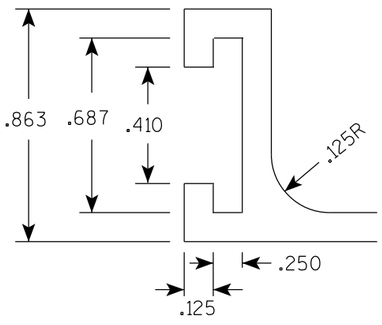
DATE 4/26/16 PLATE NO A4-18.1

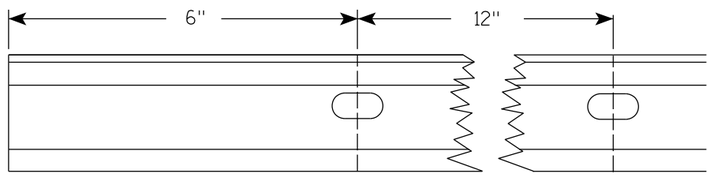
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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







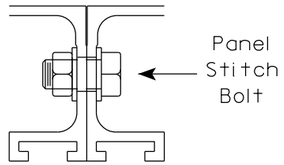
Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

Hardware

STITCH BOLT, WASHER & NUT

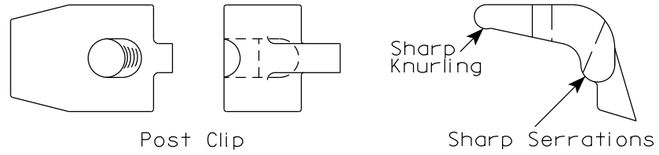
The hardware includes:

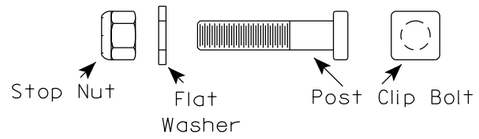
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

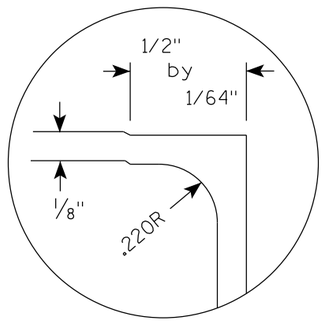
Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





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

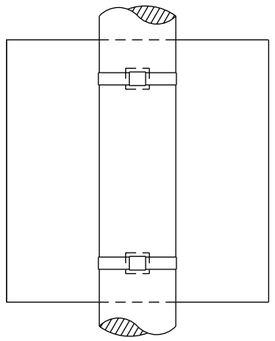
DATE 1/07/20 PLATE NO. A5-2.10

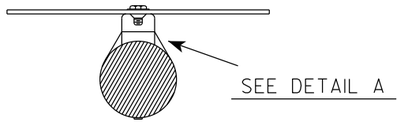
PROJECT NO:

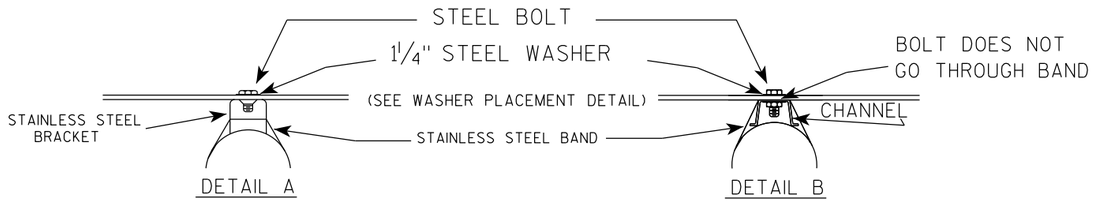
SHEET NO: 440 E

BANDING

SINGLE SIGN



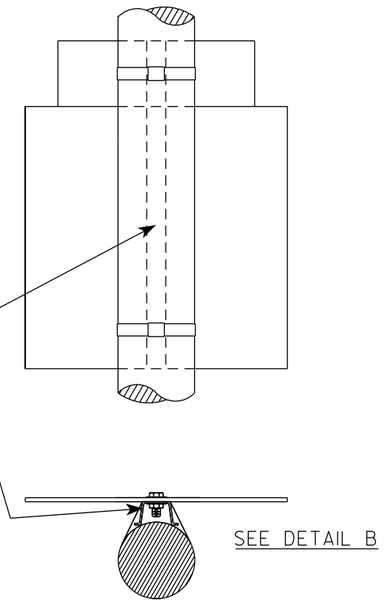




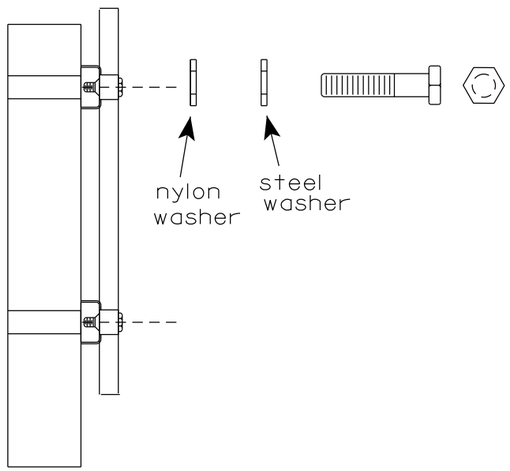
GENERAL NOTES

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



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

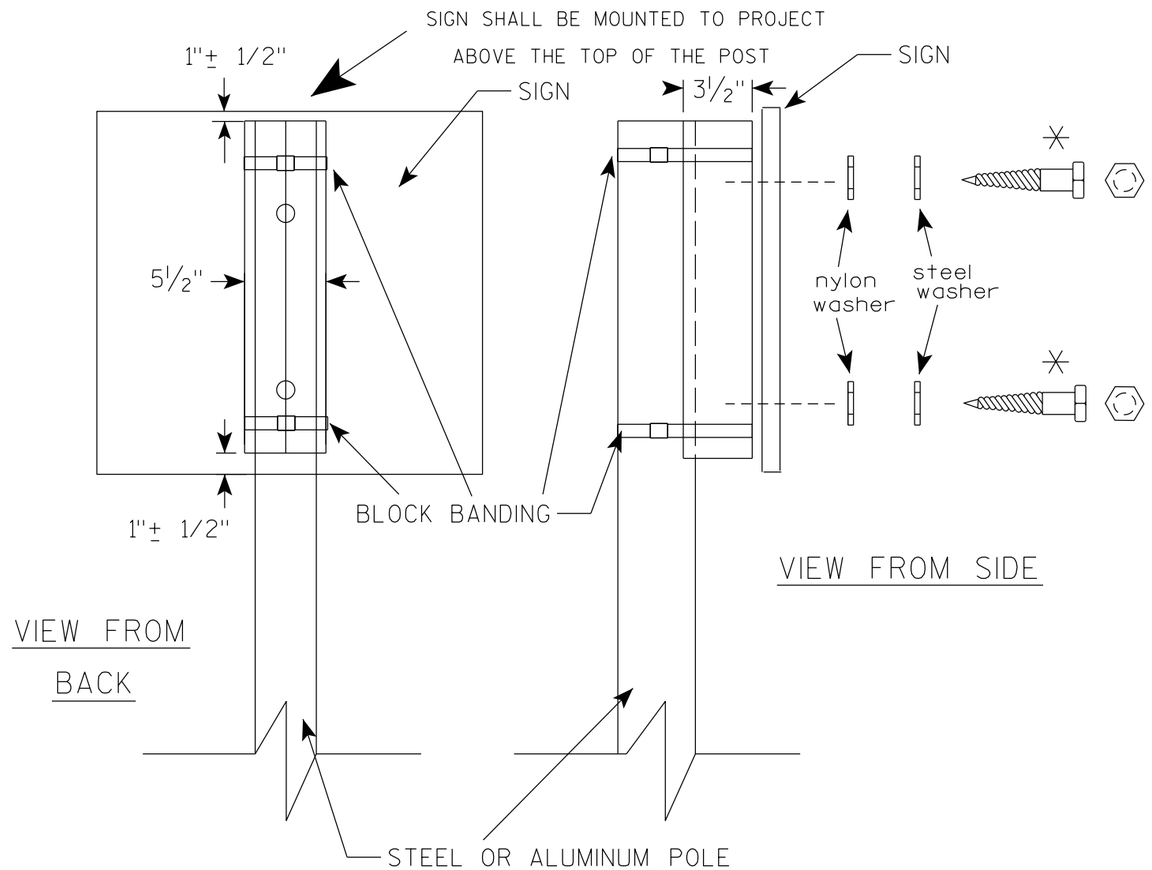
WISCONSIN DEPT OF TRANSPORTATION

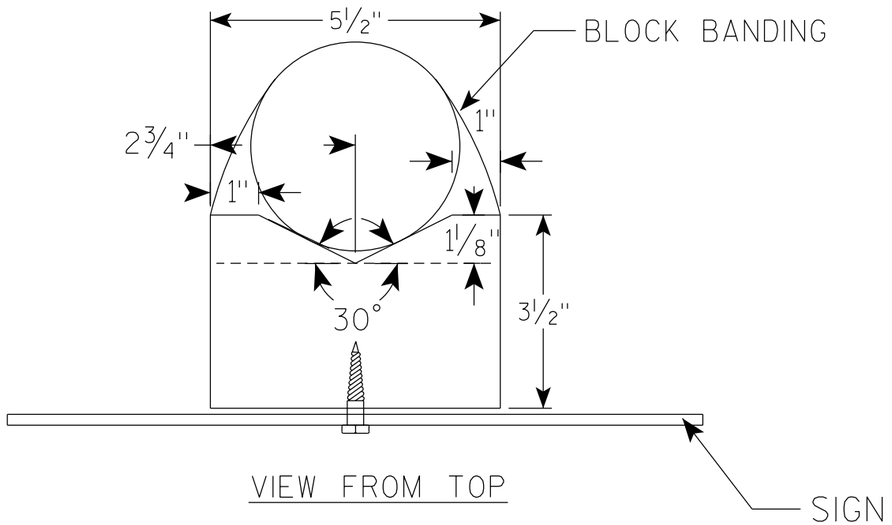
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 441	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





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)

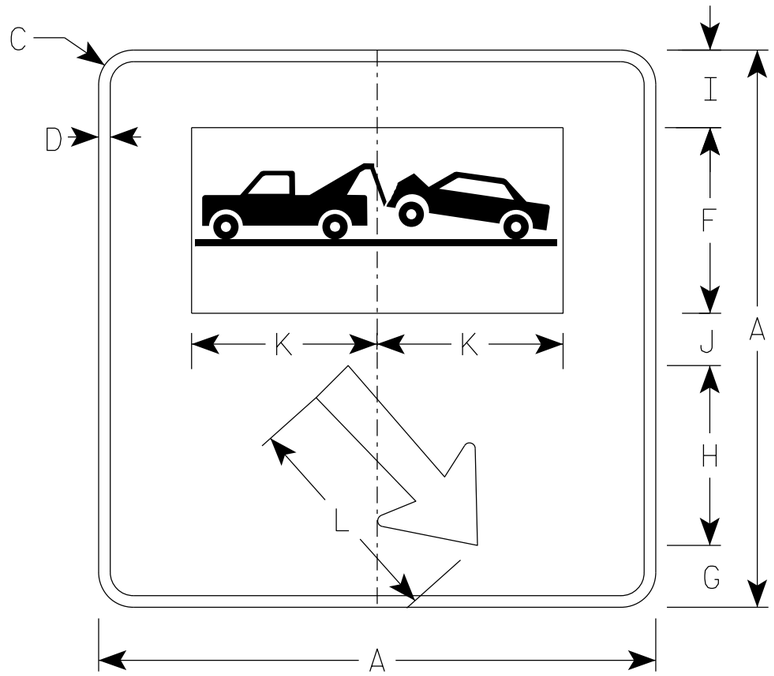
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

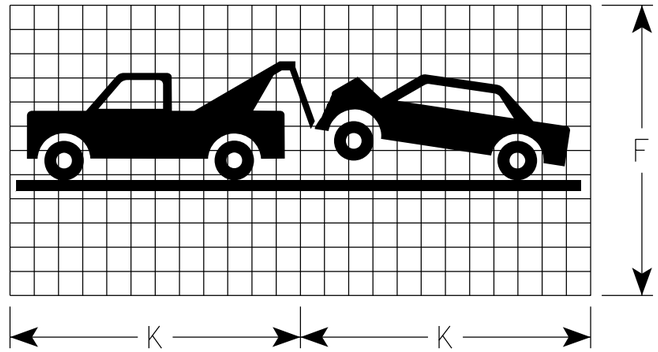
SHEET NO: 442 E



D4-56R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - BLUE
   Message - WHITE
3. Message Series - C
4. D4-56L is same as D4-56R except arrow is reversed.
5. Arrow is from A1-2 Lower Case 4½ Series D & E, with a modified length.



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		2 1/4	3/4		12	4	11 5/8	5	3 3/8	12	14															9.0
2M	36		2 1/4	3/4		12	4	11 5/8	5	3 3/8	12	14															9.0
3																											
4																											
5																											

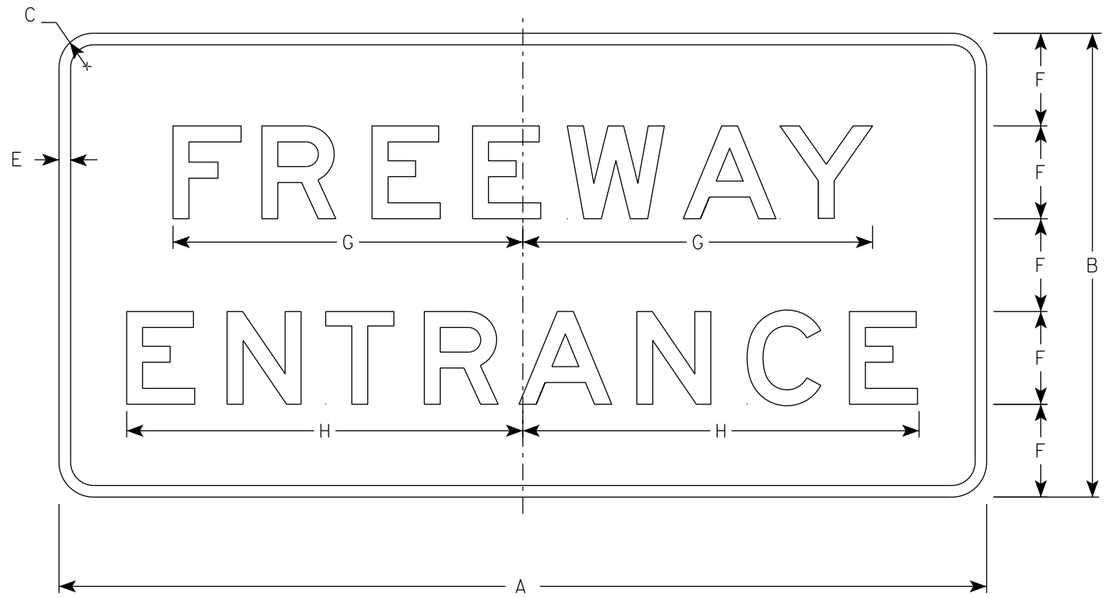
STANDARD SIGN
D4-56 L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/25/2021 PLATE NO. D4-56.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 443 E



D13-3

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message 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																											
2S	60	30	1 7/8		3/4	6	22 5/8	25 5/8																			12.5
2M	60	30	1 7/8		3/4	6	22 5/8	25 5/8																			12.5
3																											
4																											
5																											

STANDARD SIGN
D13-3

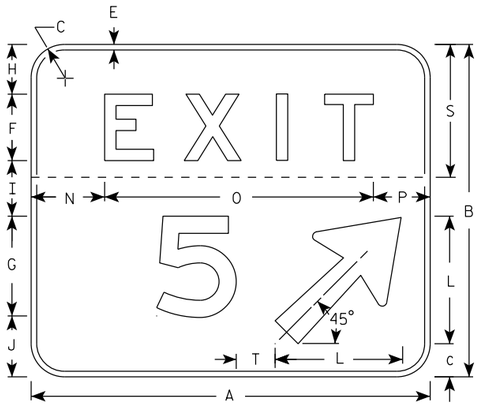
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

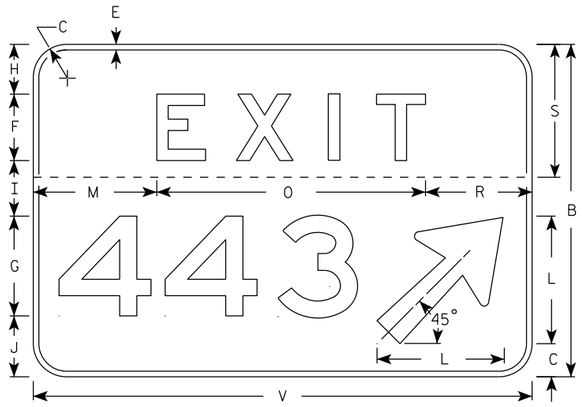
DATE 3/27/2024 PLATE NO. D13-3.3

PROJECT NO:

SHEET NO: 444 E

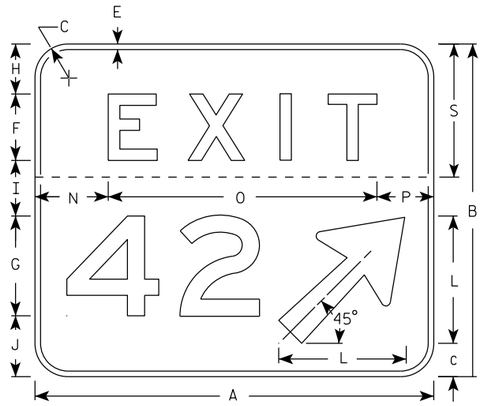


NOTE: T diminision shall be measured from the back of the number to the front of the arrow

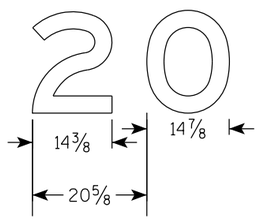


NOTES

1. Signs are Type II - Type H reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E
4. Sign shall be split into two seperate pieces as shown on each detail by the dashed line (----------).
5. Arrow is Type "A" from sign plate A1-1.
6. Substitute appropriate message, space per the table and adjust placement on sign to achieve proper balance.
7. As per the Standard Spec's, these signs shall not have a vertical joint.



EXAMPLE FOR USING SPACING CHART



SPACING CHART FOR 18" NUMERALS

NUMBERS	WIDTH	0	1	2	3	4	5	6	7	8	9	A	B	C
0	14 7/8	21 5/8	21 5/8	21 1/4	20 3/8	21 1/4	21 1/4	21 5/8	19 7/8	22 1/8	21 5/8			
1	5 7/8	14	14	14	13 1/8	12 1/8	14	14	12 1/4	14	14			
2	14 3/8	20 5/8	21 1/8	20 5/8	19 3/4	20 1/4	20 5/8	20 5/8	18 7/8	21 1/8	20 5/8			
3	14 3/8	20 3/4	21 1/8	20 3/4	20 1/4	19 3/4	20 3/4	20 3/4	19 3/8	21 1/8	20 3/4			
4	16 5/8	22 7/8	22	22 1/2	21 5/8	21 5/8	22 7/8	22 7/8	20 5/8	23 3/8	22 7/8			
5	14 1/4	20 5/8	20 5/8	20 1/8	18 3/4	18 3/4	20 5/8	20 5/8	18 3/8	20 5/8	20 5/8			
6	14 1/2	21 1/4	20 3/4	20 3/4	19 7/8	19 1/2	20 3/8	20 3/4	19	20 3/4	20 3/8			
7	14 3/8	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4			
8	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8			
9	14 1/2	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4			
A	18	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4	21 5/8	23 7/8	23
B	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8	19 1/2	22 3/8	21 1/2
C	14 1/4	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4	18 3/8	21	19 3/4

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	72	60	6		1	12	18	9	10	11	8 7/8	23	22 1/4	13 1/4	48 1/2	10 1/4		19 1/4	24	7		90		96	7 1/2	

1-2 Digit Bid Area	3 Digit Bid Area
Sq. Ft.	
30	37.5

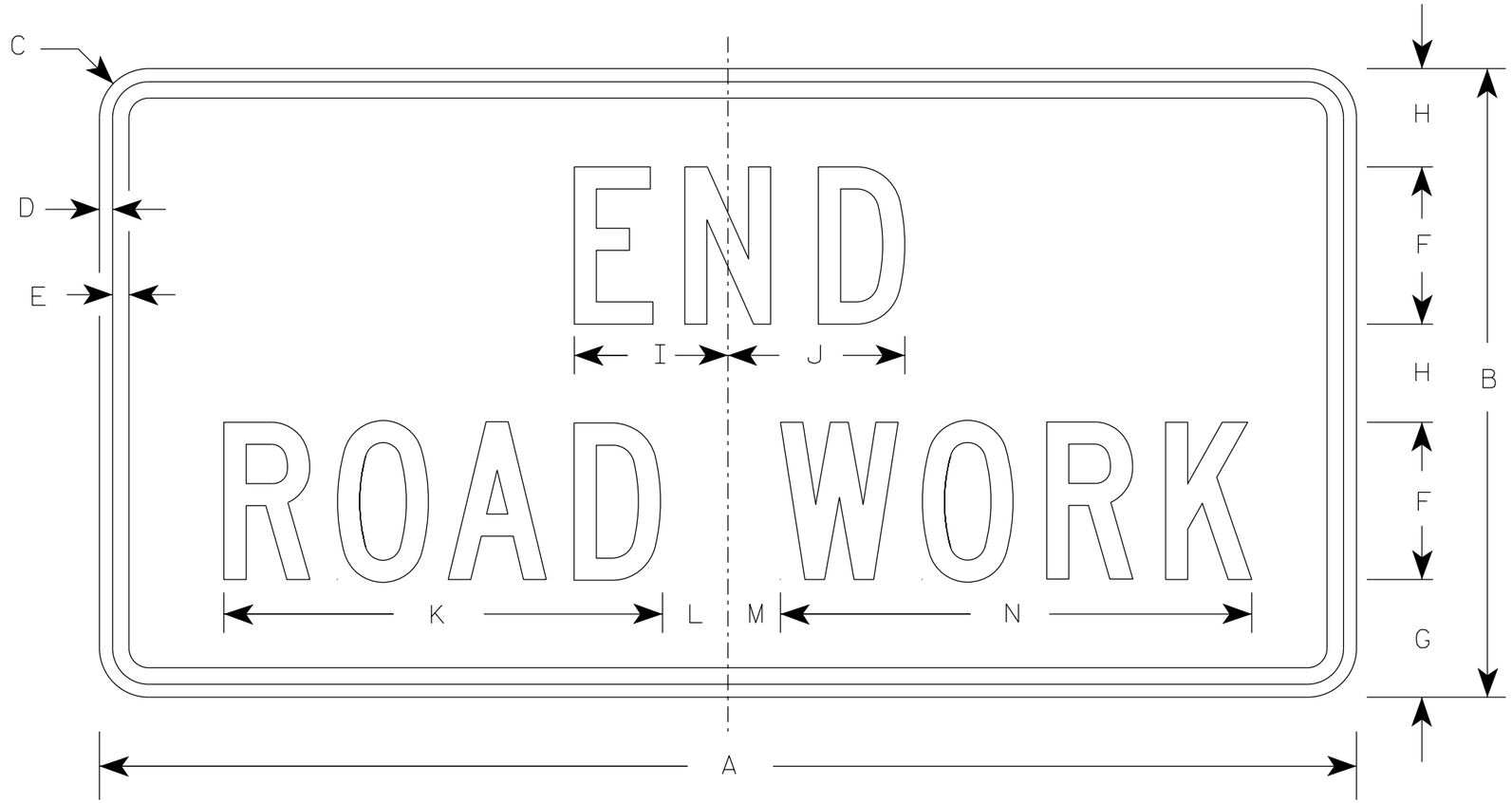
STANDARD SIGN
E5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2022 PLATE NO. E5-1A.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 445 | E



G20-2A

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	18	1 1/2	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
2	48	24	1 7/8	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
2M	48	24	1 7/8	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
3	48	24	1 7/8	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
4	48	24	1 7/8	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
5	48	24	1 7/8	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

STANDARD SIGN

G20-2A

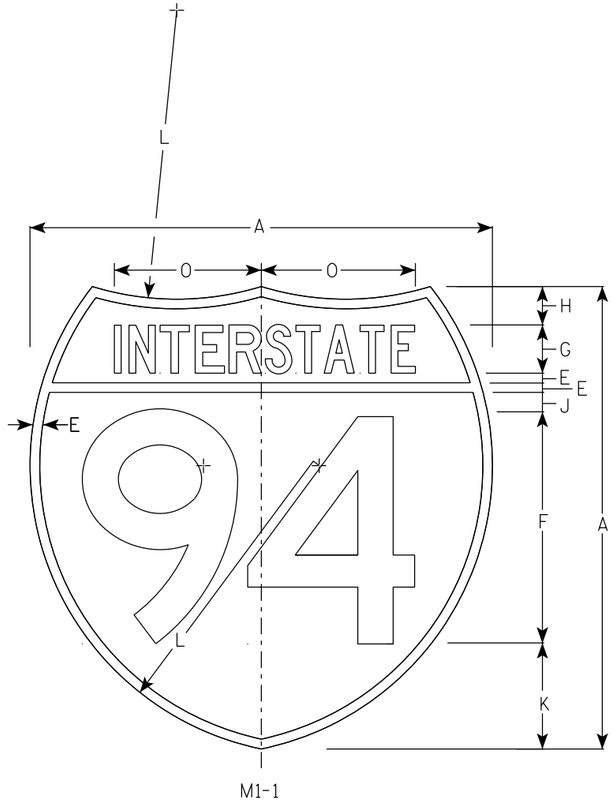
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

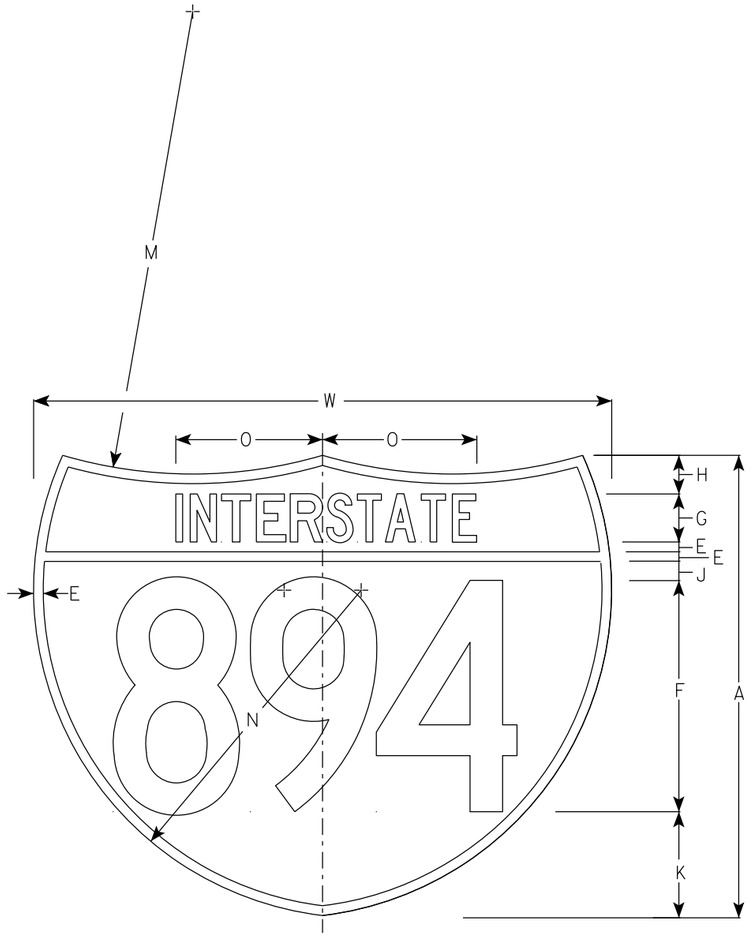
DATE 1/26/2023 PLATE NO. G20-2A.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\G202A.dgn PLOT DATE : 26-JAN 2023 8:27 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



M1-1



M1-1A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Top Red - Bottom Blue
   Message - White
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

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.
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
2M	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91
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
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
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

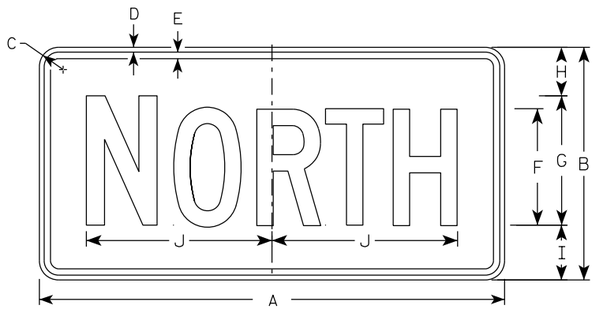
INTERSTATE ROUTE MARKER M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

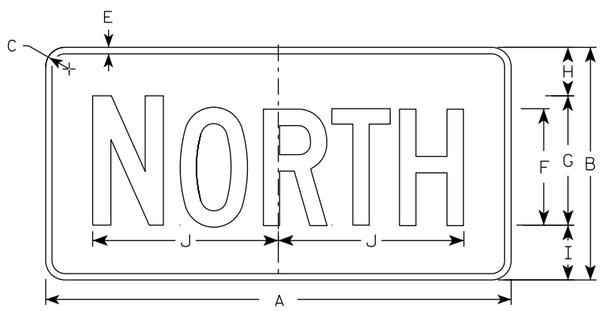
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 11/7/2022 PLATE NO. M1-1.9

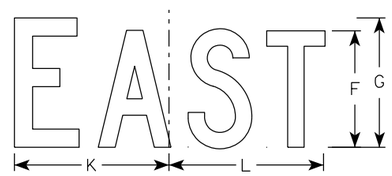
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 447 | E



M3-1
MM3-1
MP3-1



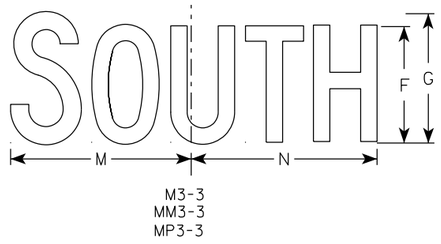
MB3-1
MK3-1
MN3-1



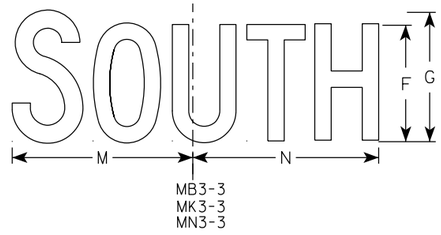
M3-2
MM3-2
MP3-2



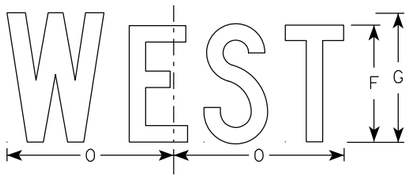
MB3-2
MK3-2
MN3-2



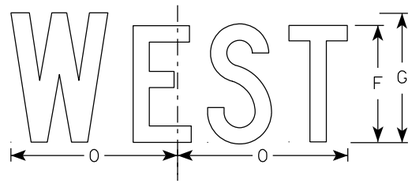
M3-3
MM3-3
MP3-3



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 Reflective
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																											
2S	24	12	1 1/2	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												2.00
2M	24	12	1 1/2	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												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

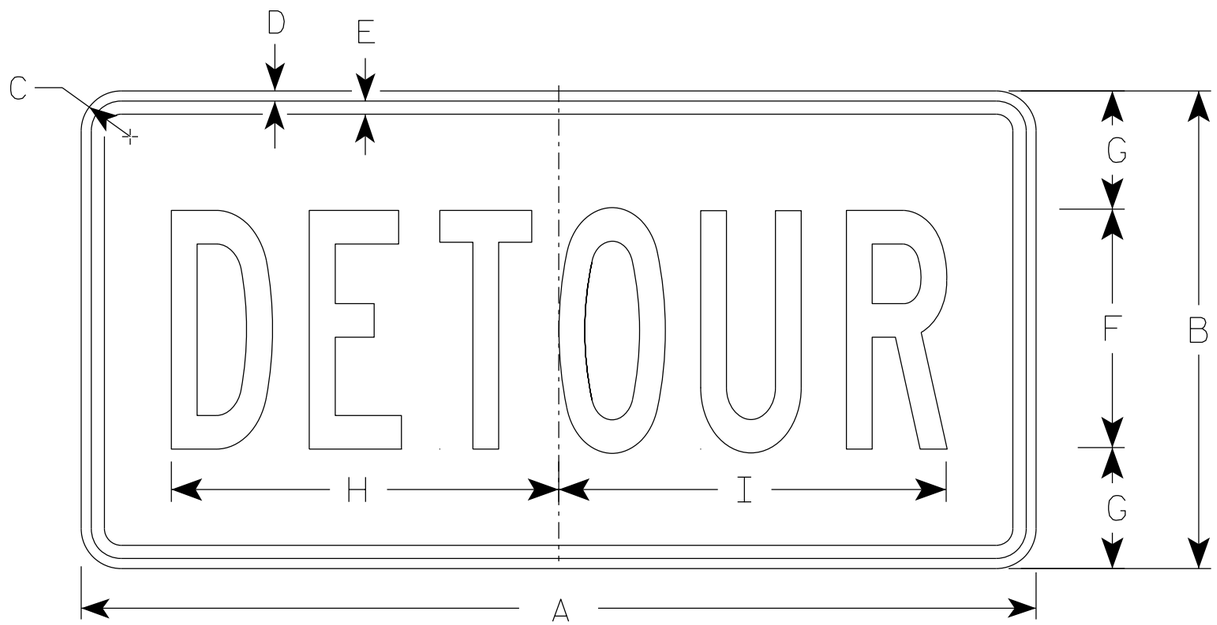
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 448 | E

NOTES

1. Sign is Type II - Type F Reflective
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.



M4-8

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																											
2	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

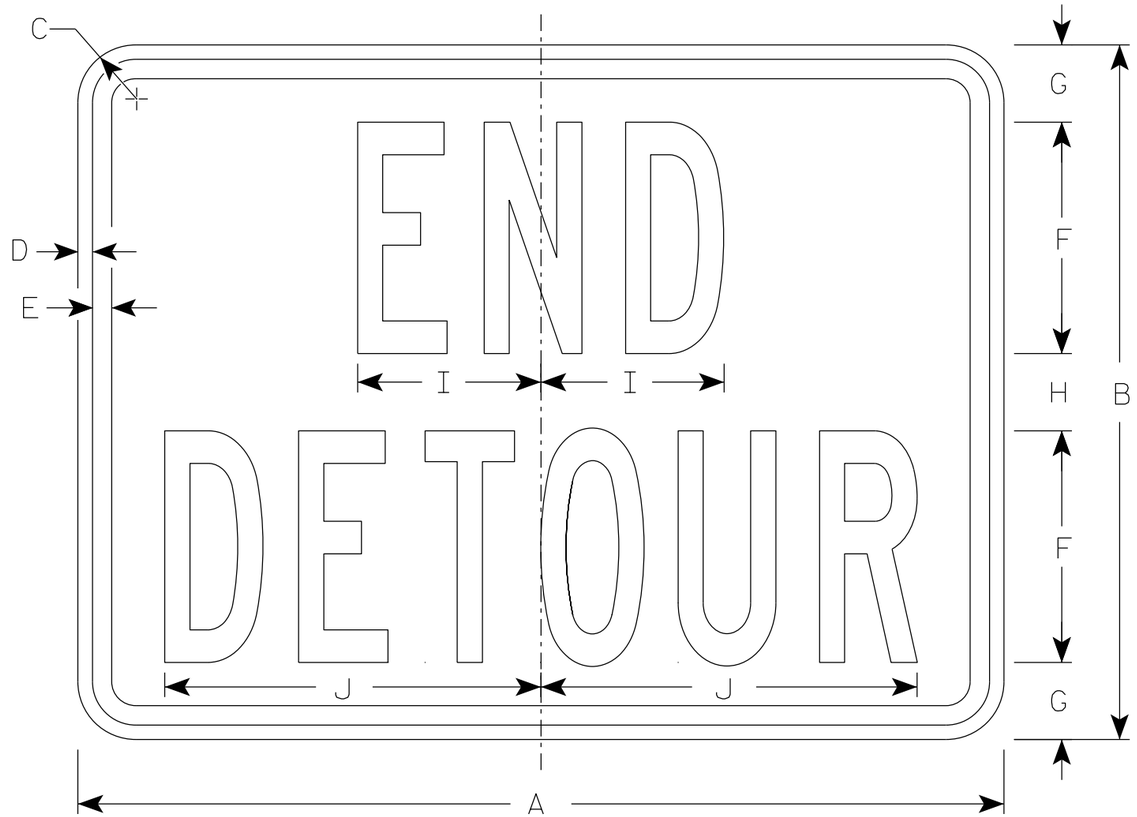
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 449	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective
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 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
2M	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
3	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
4	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
5	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0

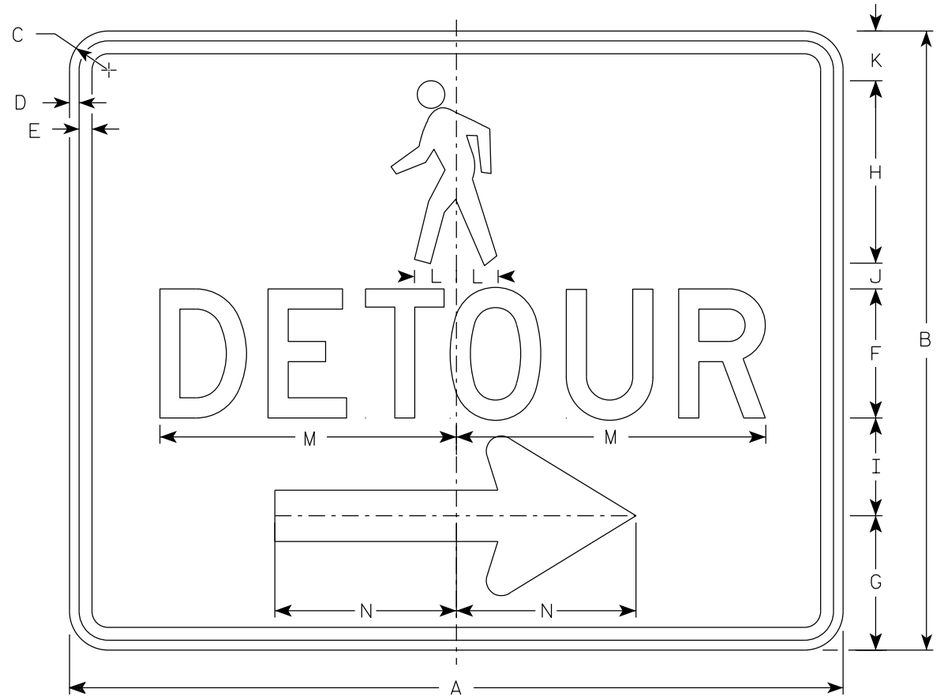
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

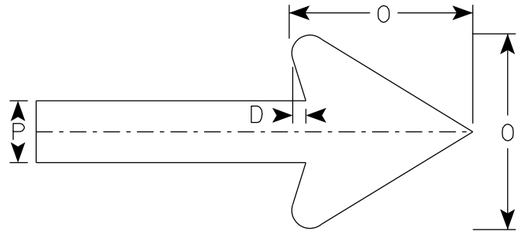
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 450 | E



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																											
2S	30	24	1 1/2	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											5.0
2M	30	24	1 1/2	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											5.0
3																											
4																											
5																											

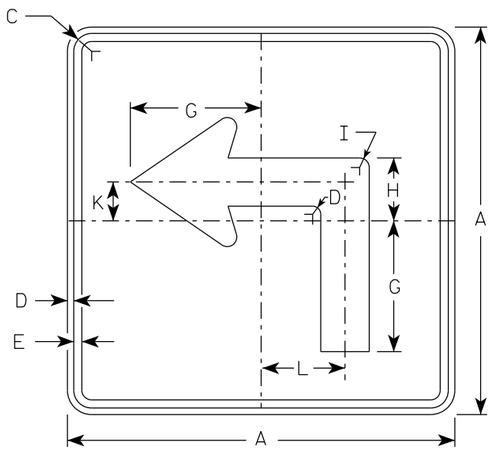
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

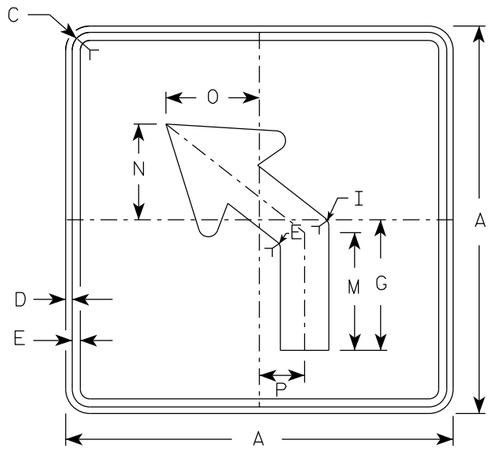
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9B.4

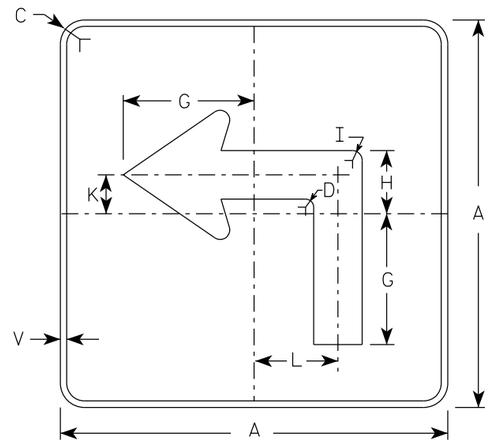
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 451 | E



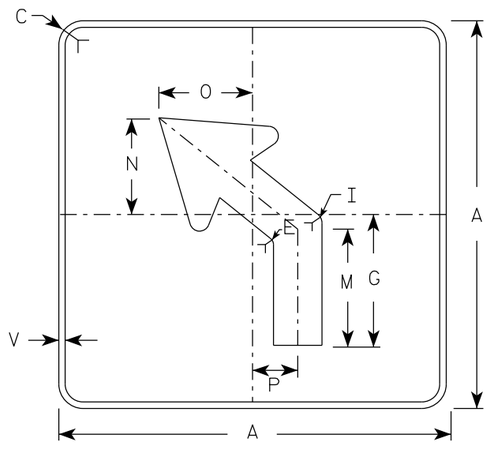
M5-1L
MM5-1L
MO5-1L
MP5-1L



M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L

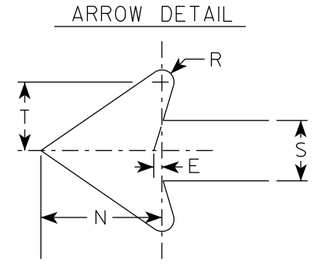


MB5-2L
MK5-2L
MN5-2L
MR5-2L

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
   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.

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	21		1 1/2	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		1/2					3.06
2M	21		1 1/2	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		1/2					3.06
3	30		1 7/8	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		1/2					6.25
4	30		1 7/8	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		1/2					6.25
5	30		1 7/8	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		1/2					6.25

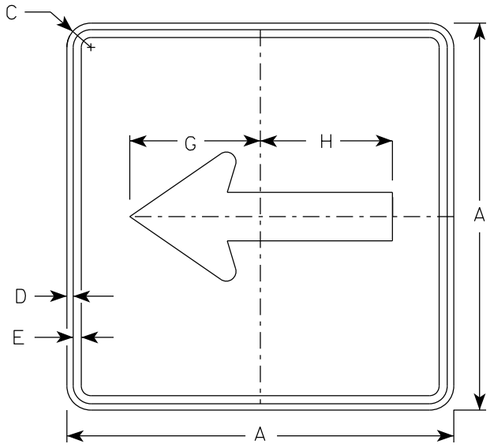
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

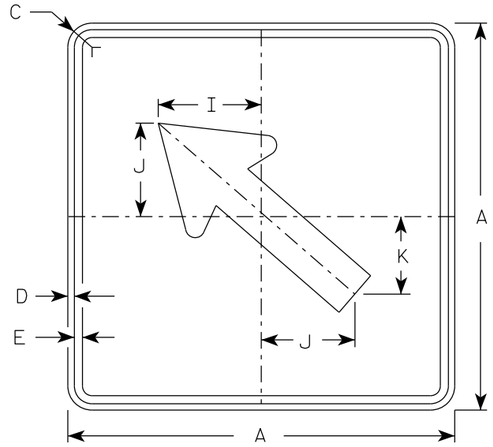
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

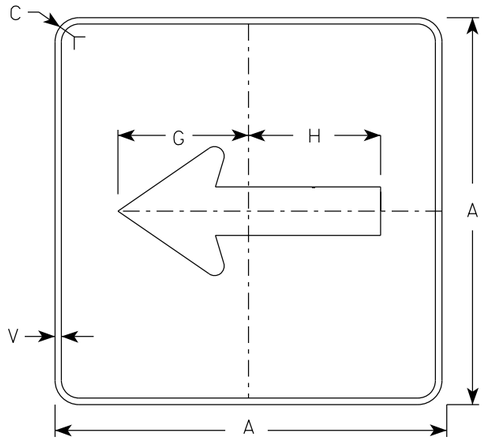
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 452 | E



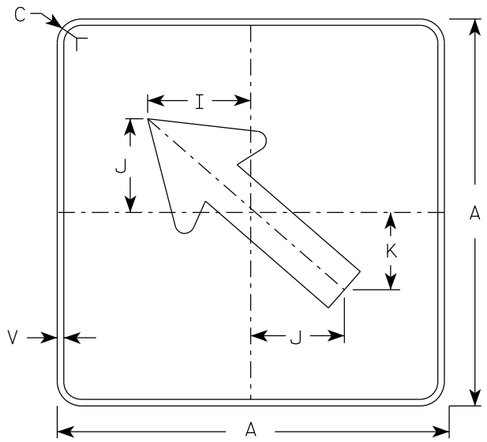
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1

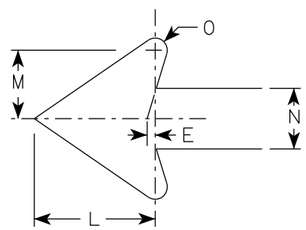


MB6-2
MK6-2
MN6-2
MR6-2

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. 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

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	21		1 1/2	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							1/2					3.06
2M	21		1 1/2	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							1/2					3.06
3	30		1 7/8	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							1/2					6.25
4	30		1 7/8	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							1/2					6.25
5	30		1 7/8	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							1/2					6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

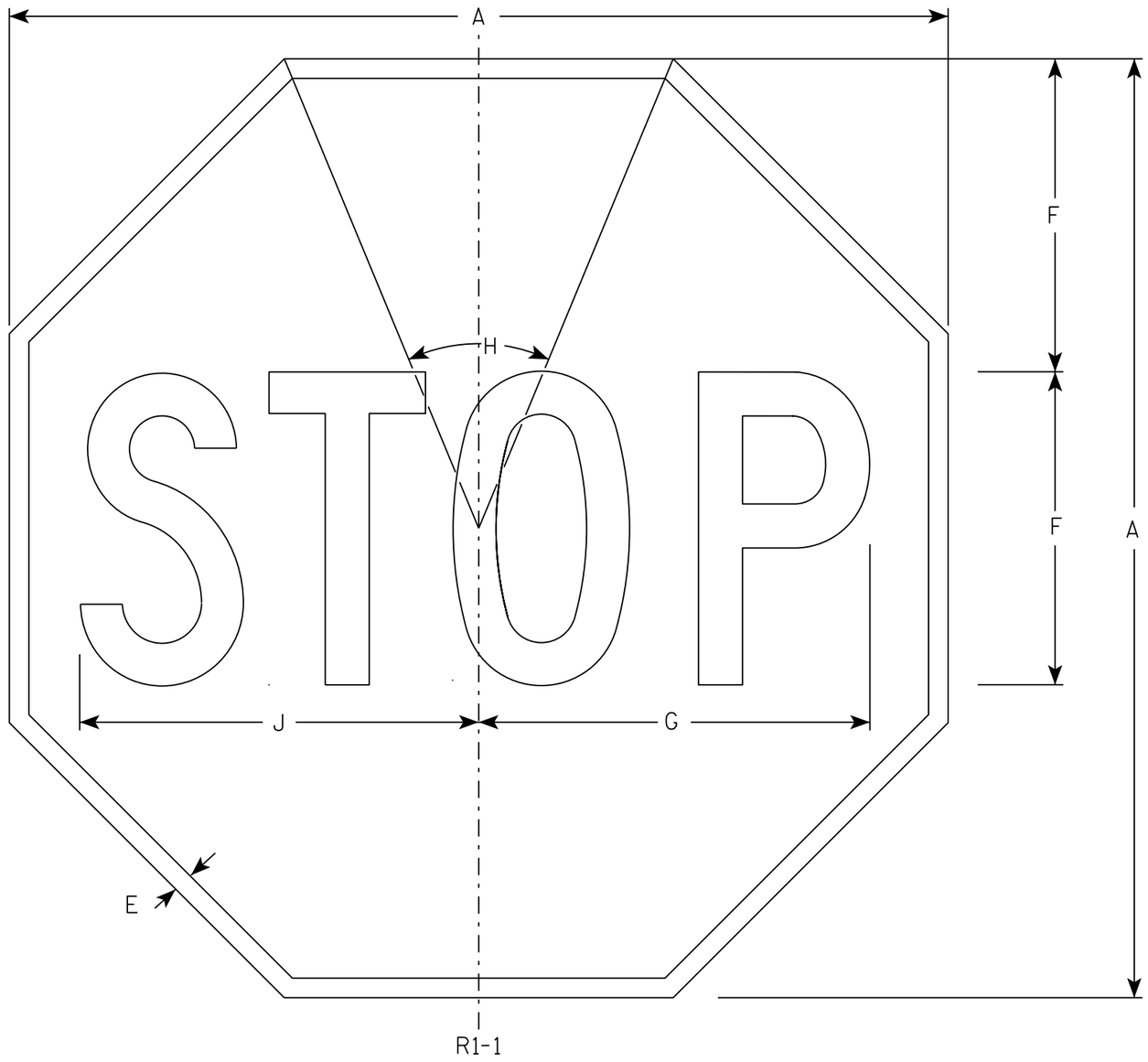
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 453 | E

7

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 - Red
   Message - White
3. Message 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	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

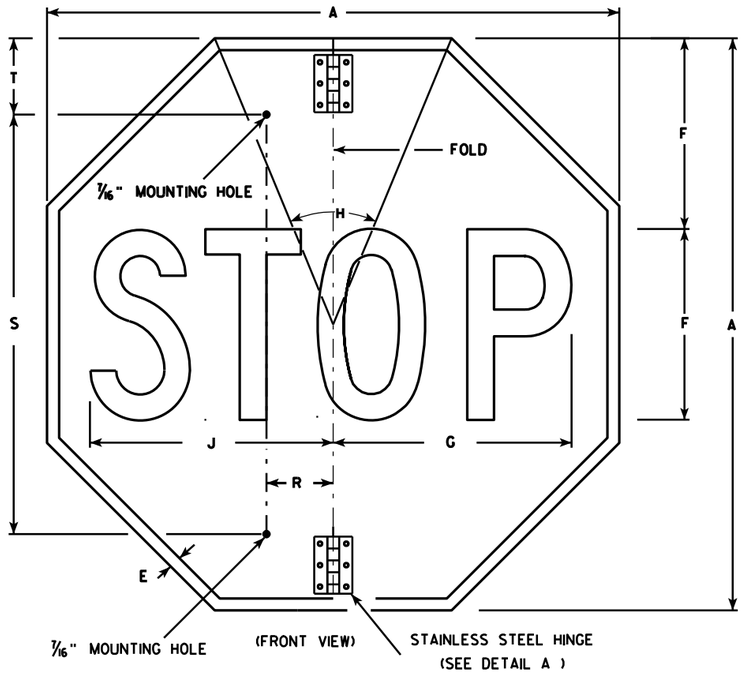
STANDARD SIGN
R1-1

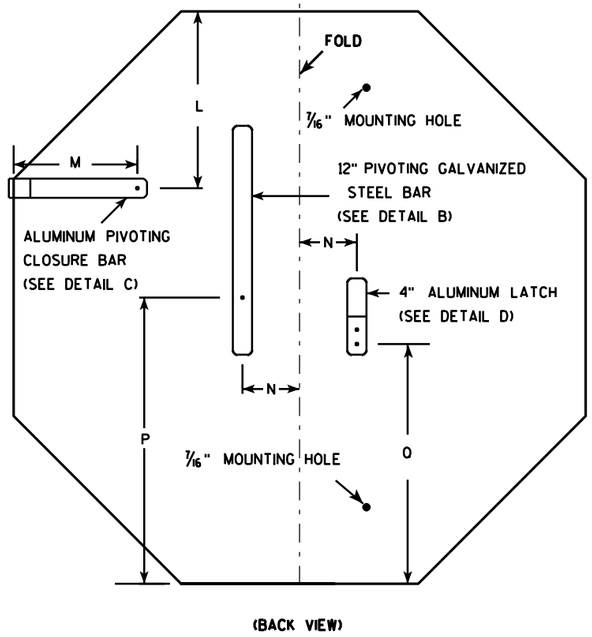
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

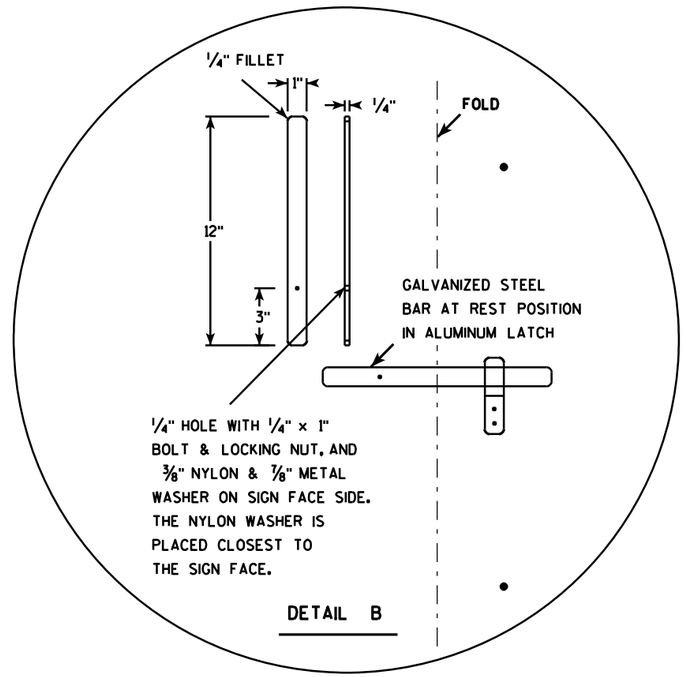
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 454	E



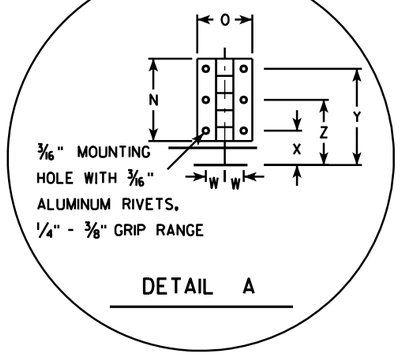


NOTES

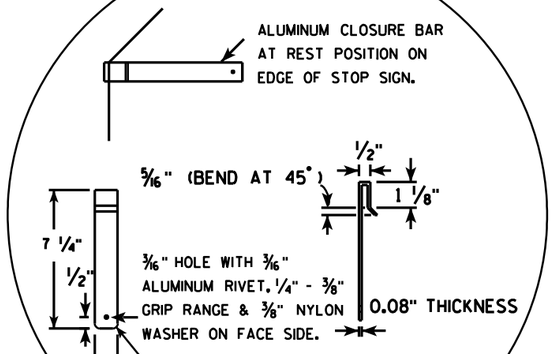
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



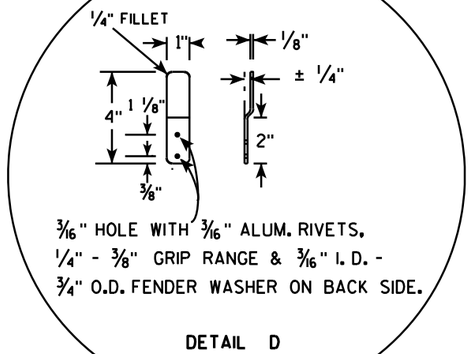
DETAIL B



DETAIL A



DETAIL C



DETAIL D

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																											

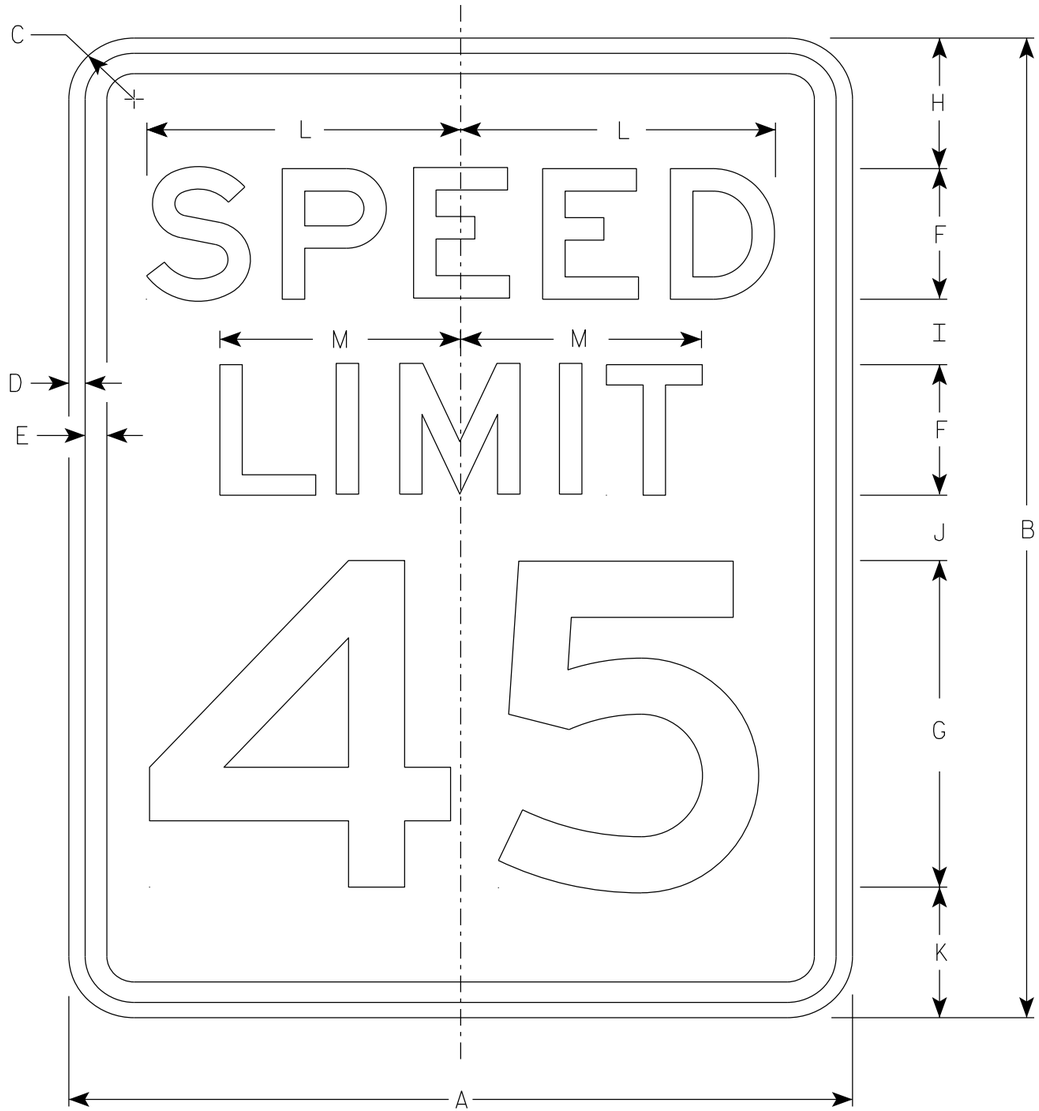
STANDARD SIGN
R1-1F

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: 455 | E



R2-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. 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 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	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 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	3	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

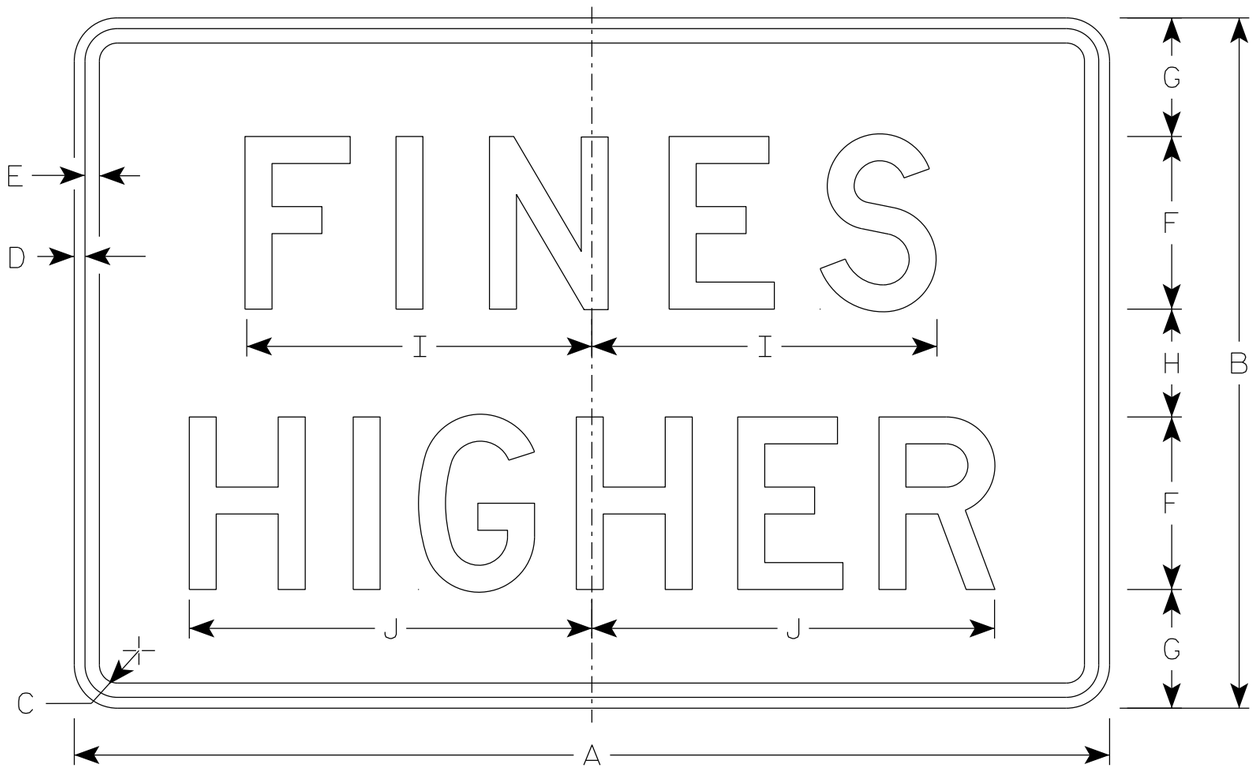
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 456 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



R2-6P

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	18	1 1/2	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/2	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/2	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/2	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 7/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

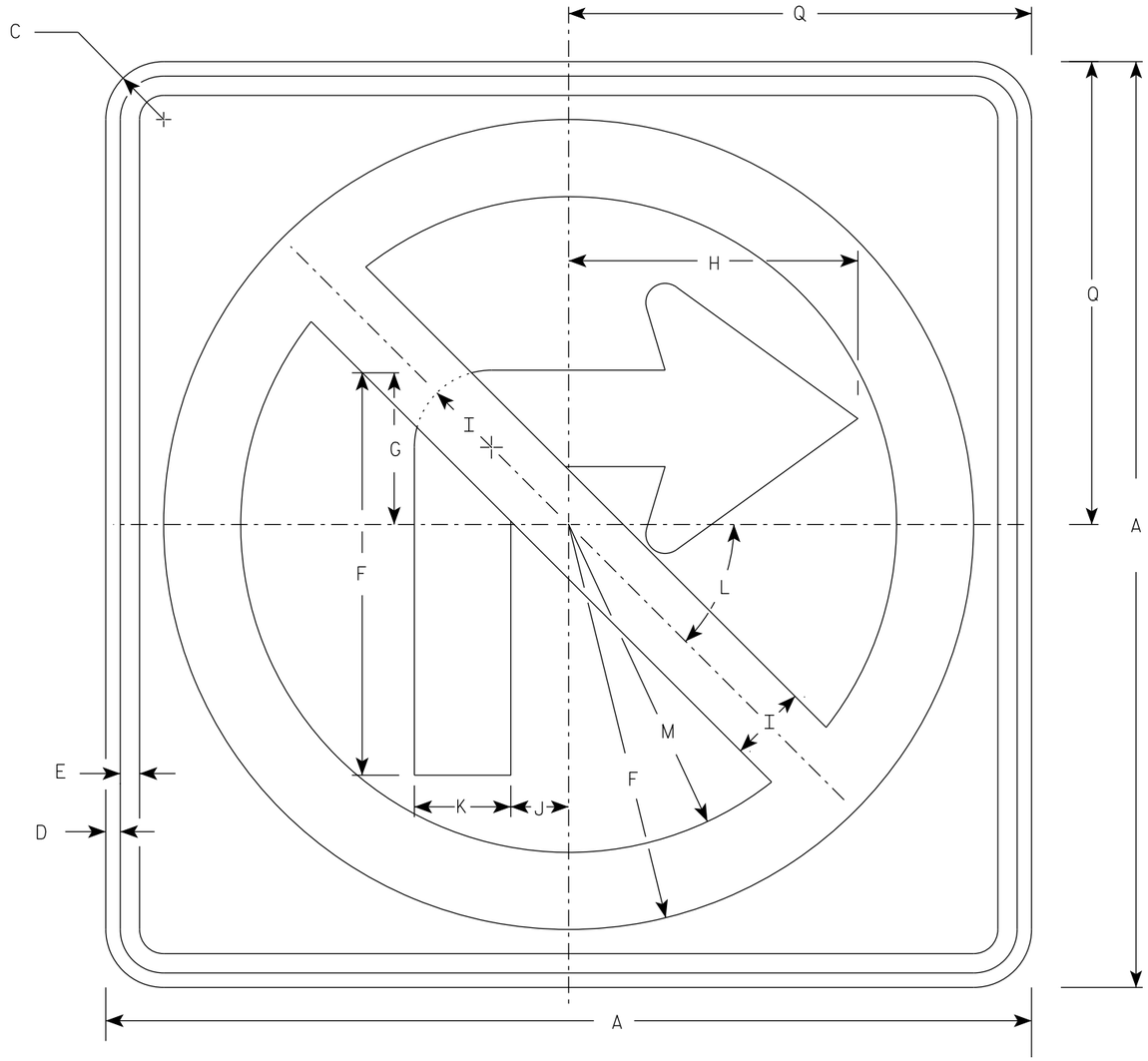
STANDARD SIGN
R2-6P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-6P.3

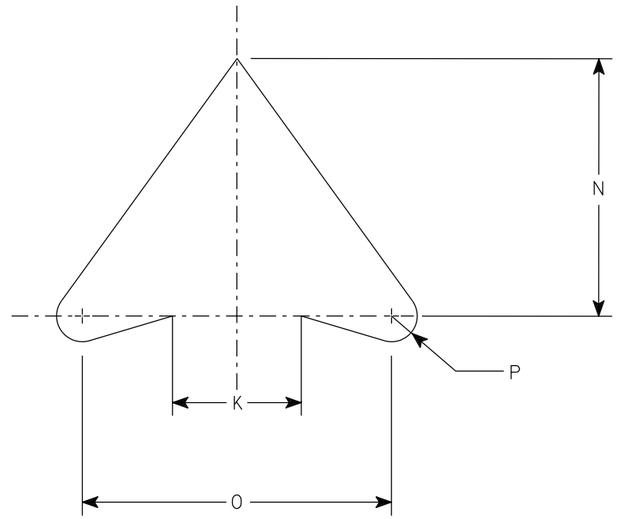
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 457	E



R3-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - See note 3
3. 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 ½	⅜	½	10 ½	4	7 ½	2	1 ½	2 ½	45	8 ½	5	6	½	12										4.0
2S	24		1 ½	⅜	½	10 ½	4	7 ½	2	1 ½	2 ½	45°	8 ½	5	6	½	12										4.0
2M	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45	12 ¾	7 ½	9	¾	18										9.0
3	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45	12 ¾	7 ½	9	¾	18										9.0
4	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45°	12 ¾	7 ½	9	¾	18										9.0
5	48		2 ¼	¾	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

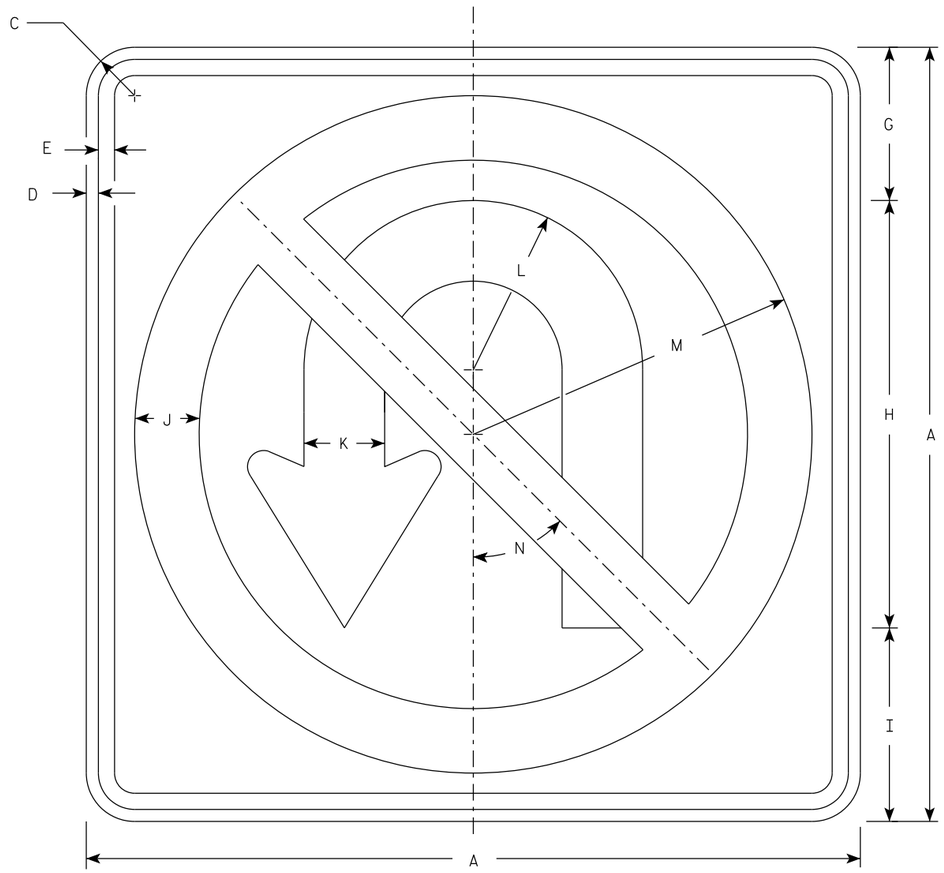
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/2/23 PLATE NO. R3-1.6

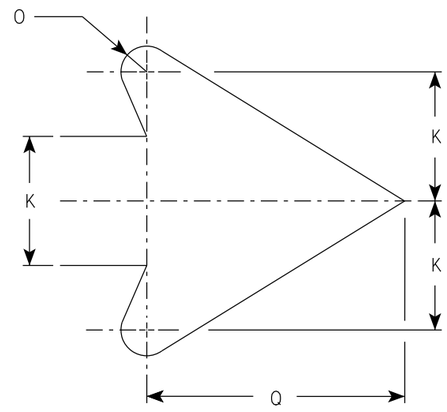
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 458 | E



R3-4

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - See note 3
3. 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 1/2	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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

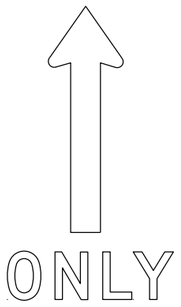
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/23 PLATE NO. R3-4.12

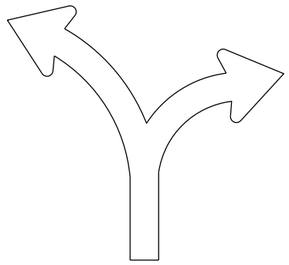
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 459 | E

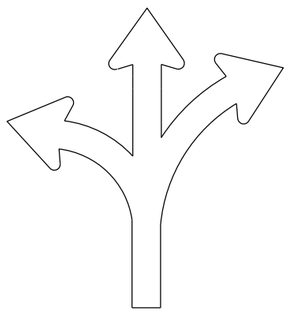


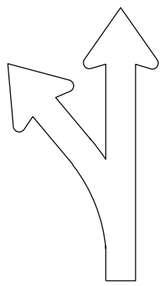
(A)

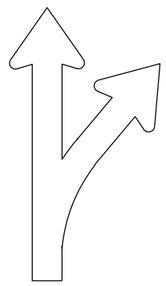


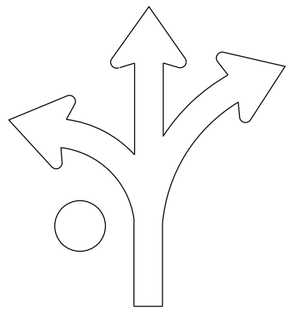
(B)

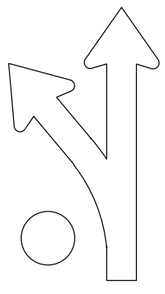

(C)

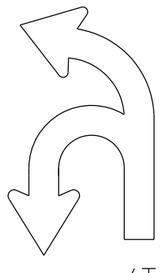

(D)

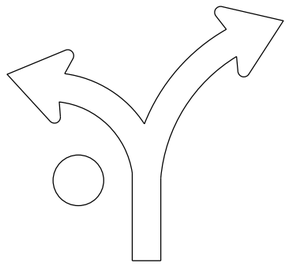

(E)

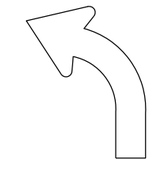

(F)


(G)

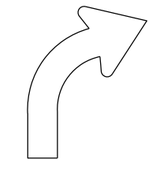

(H)


(I)


(J)



(L)



(R)

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,J 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 2/14/23 PLATE NO. R3-8.2

PROJECT NO:

SHEET NO: 460 E

FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn PLOT DATE : 14-FEB 2023 3:01 PLOT BY : mscj9h PLOT NAME :

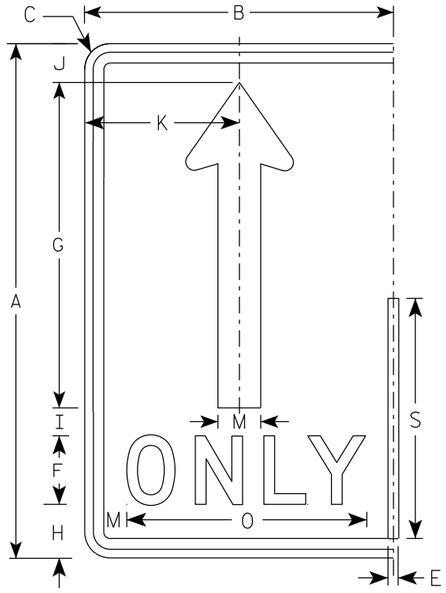
WISDOT/CADDS SHEET 42

7

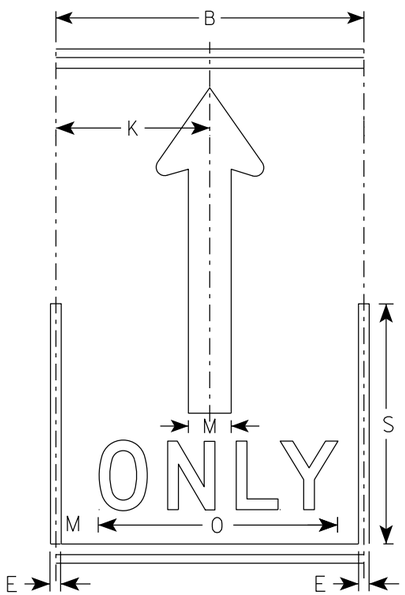
7

NOTES

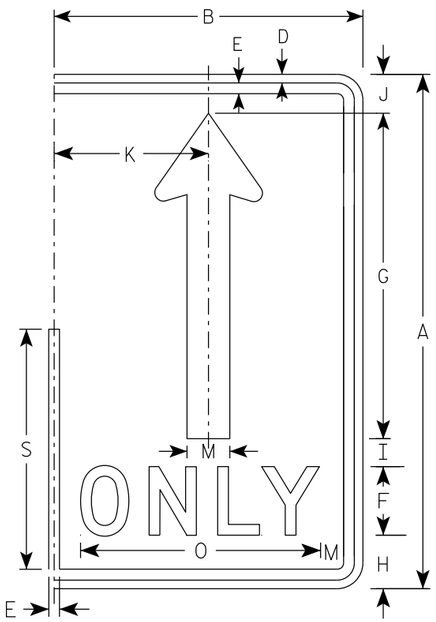
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



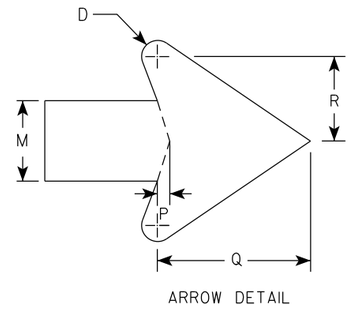
(A)



(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 1/2	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 1/2	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 1/2	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

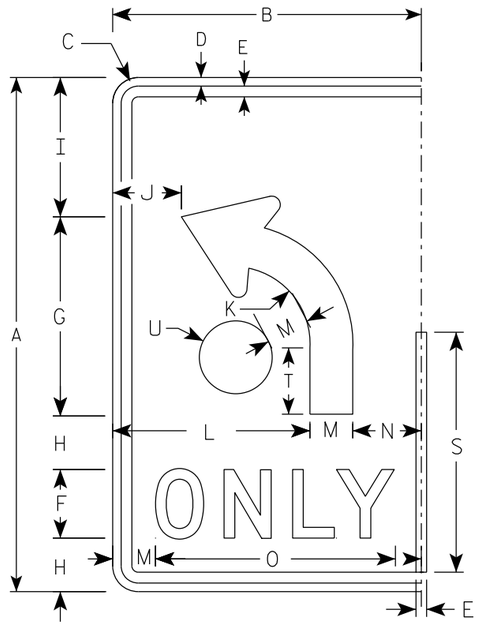
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

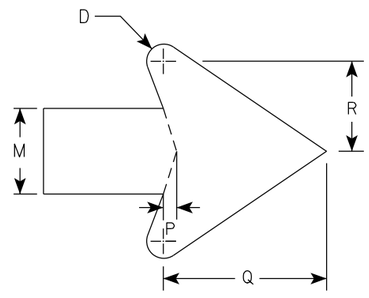
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 461 | E

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 1/2	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 1/2	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 1/2	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

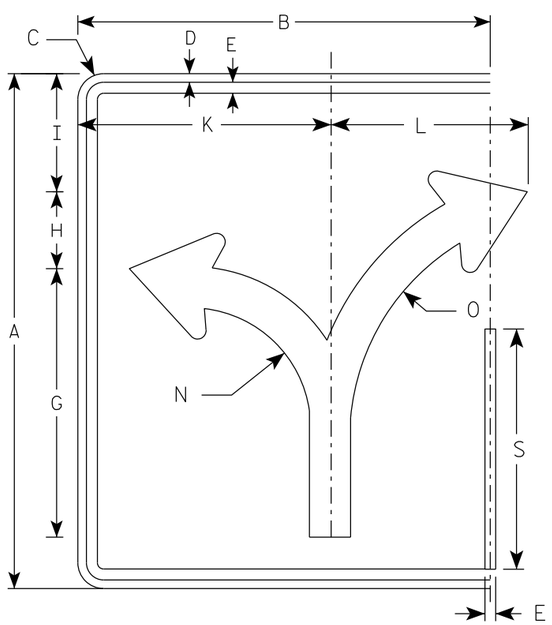
DATE 2/14/23 PLATE NO. R3-8.2

PROJECT NO:

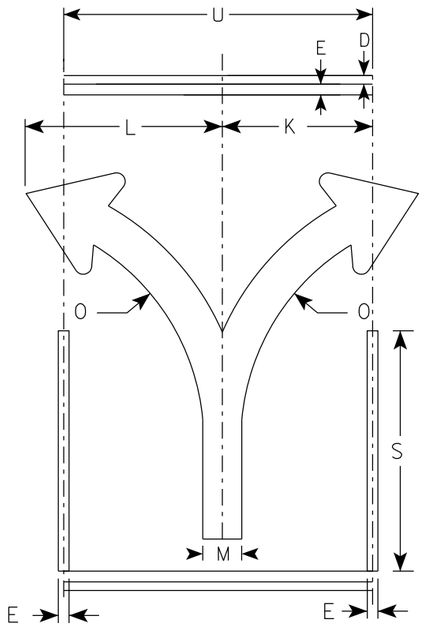
SHEET NO: 462 E

NOTES

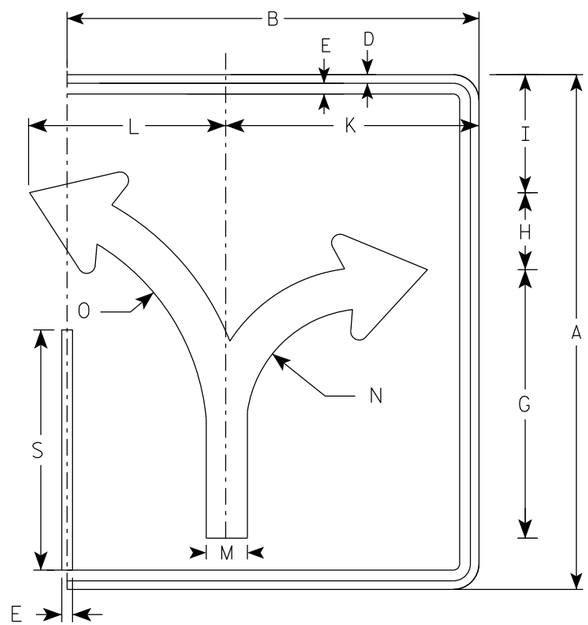
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



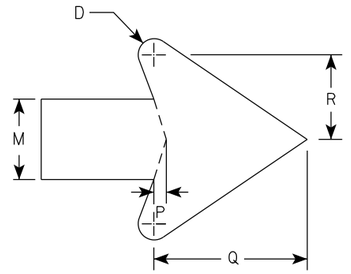
(C)



(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 1/2	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 1/2	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 1/2	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 2/14/23 PLATE NO. R3-8.2

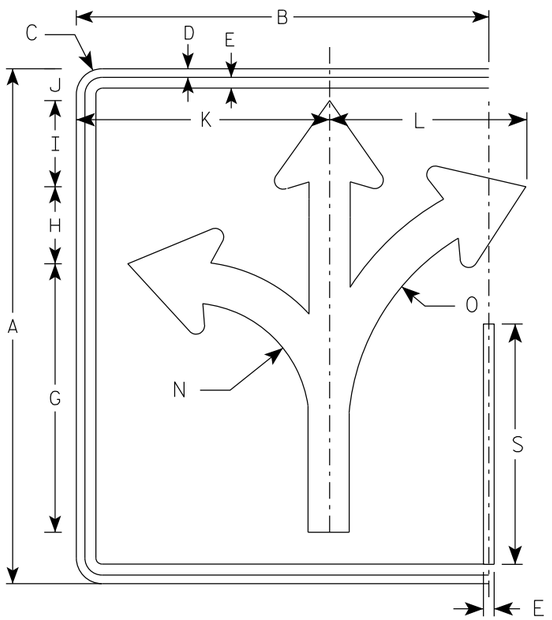
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 463 | E

7

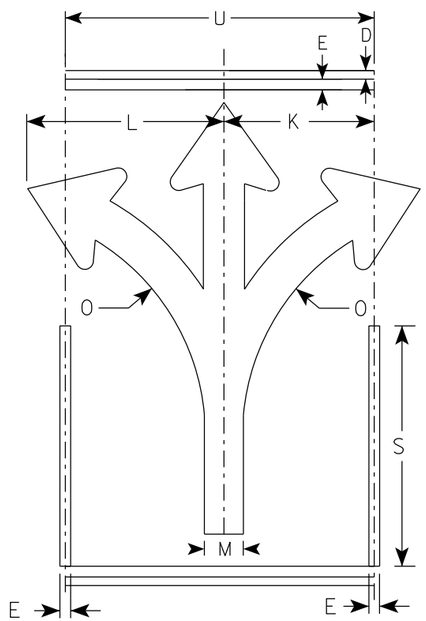
7

NOTES

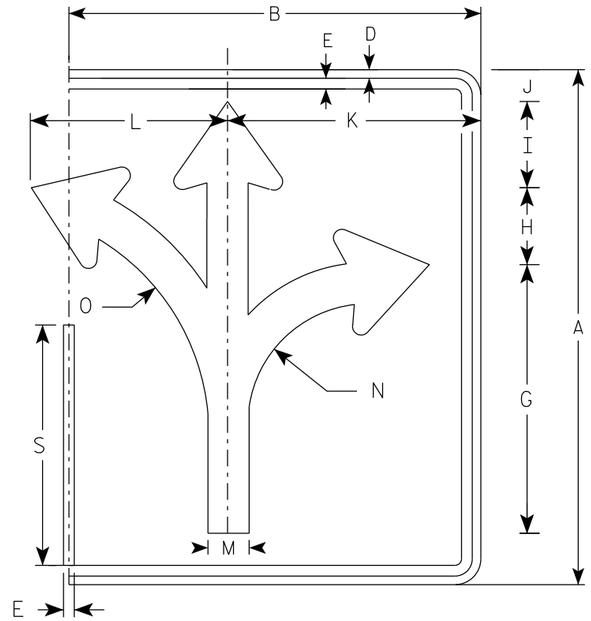
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



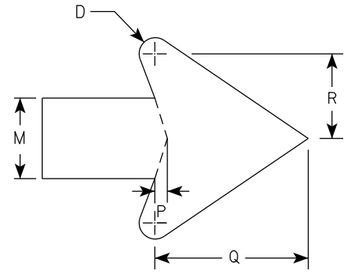
(D)



(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 1/2	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 1/2	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 1/2	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

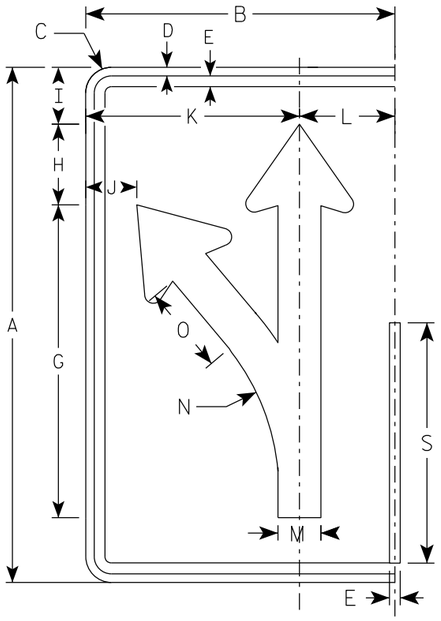
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

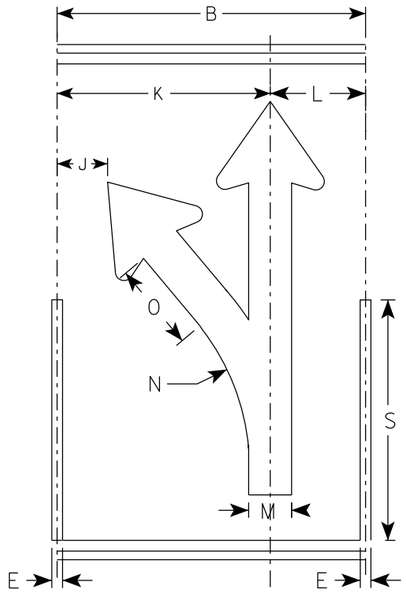
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 464 | E

NOTES

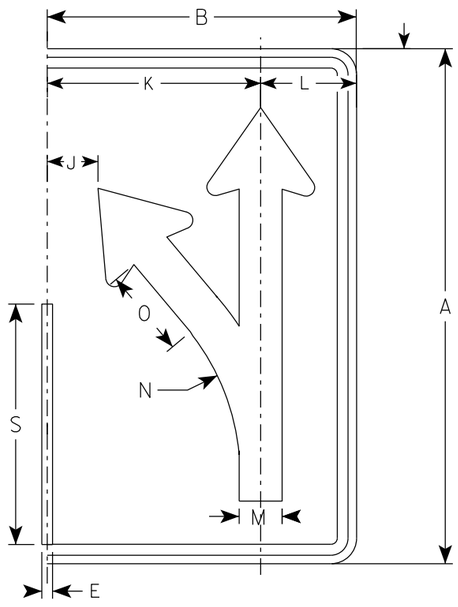
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



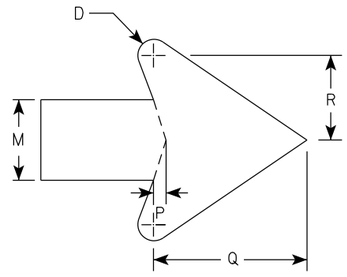
(E)



(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 1/2	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 1/2	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 1/2	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

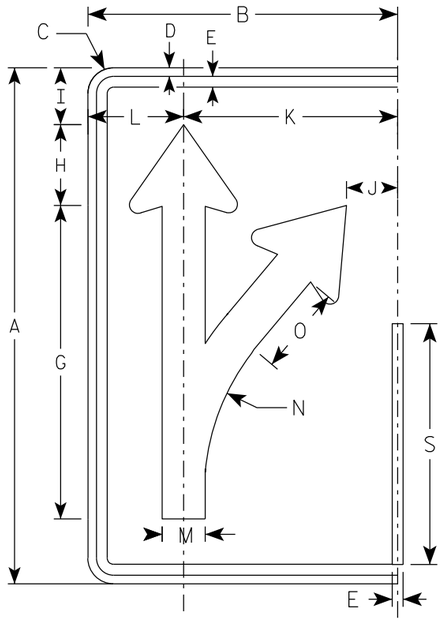
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

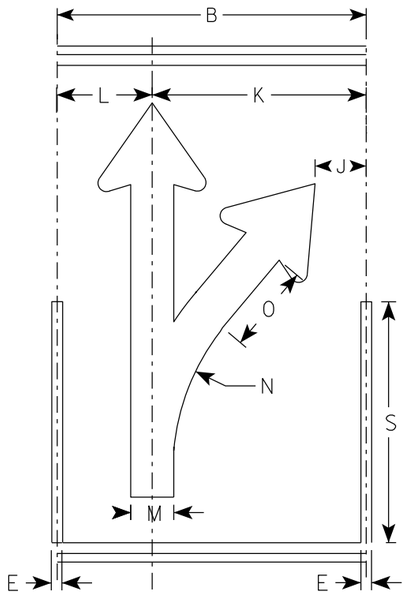
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 465 | E

NOTES

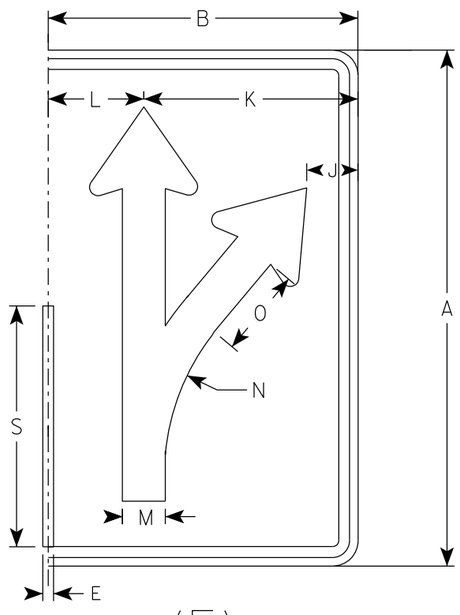
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



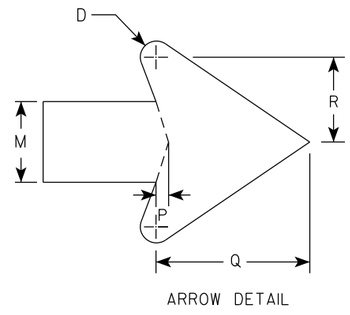
(F)



(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 1/2	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 1/2	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 1/2	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

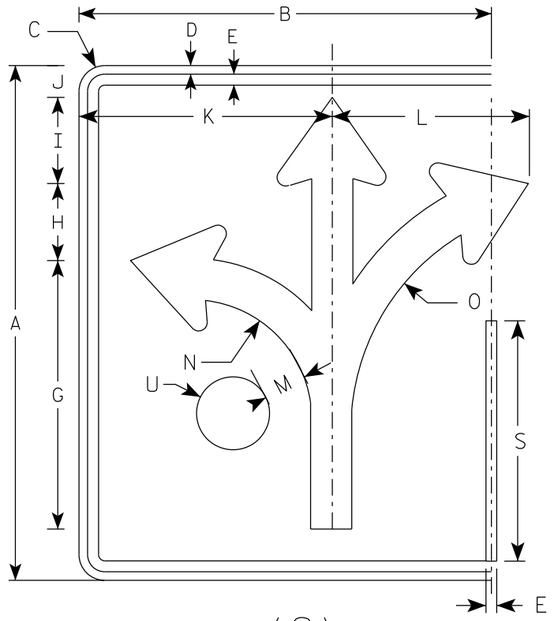
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

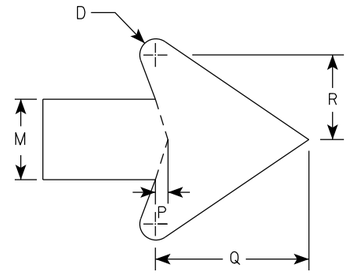
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 466 | E

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 1/2	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 1/2	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 1/2	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 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

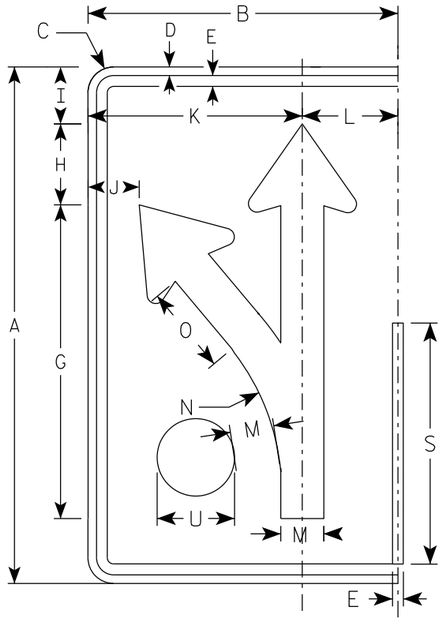
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

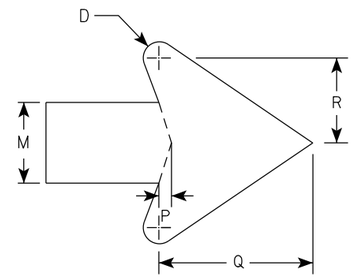
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 467	E

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	18	1 1/2	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 1/2	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 1/2	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 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

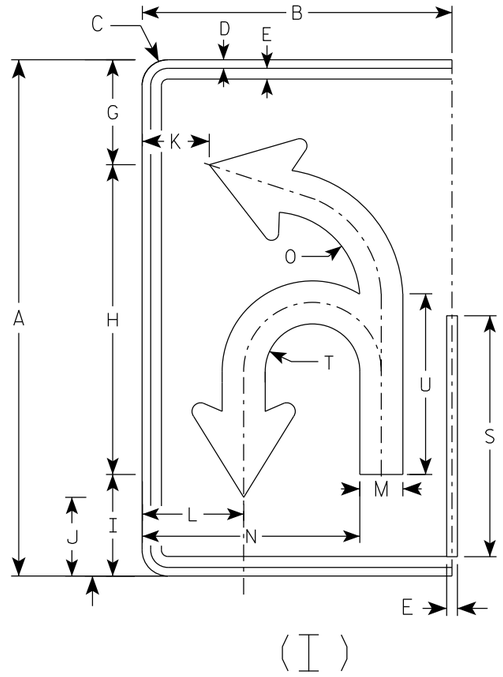
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

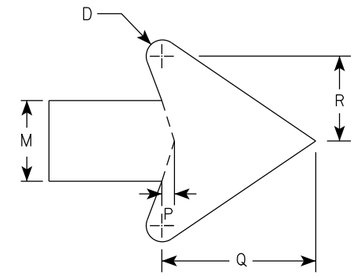
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 468 | E

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 1/2	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 1/2	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 1/2	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 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

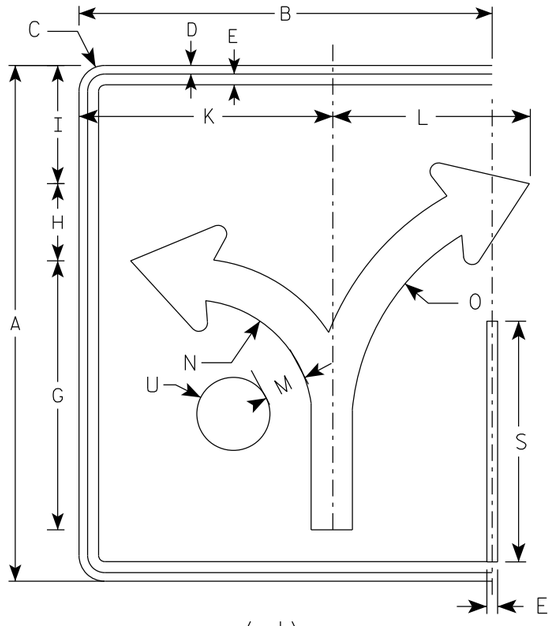
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

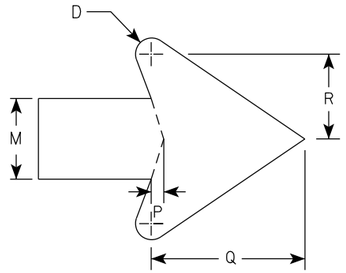
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 469 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(J)



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 1/2	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 1/2	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 1/2	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 (J) Arrow

WISCONSIN DEPT OF TRANSPORTATION

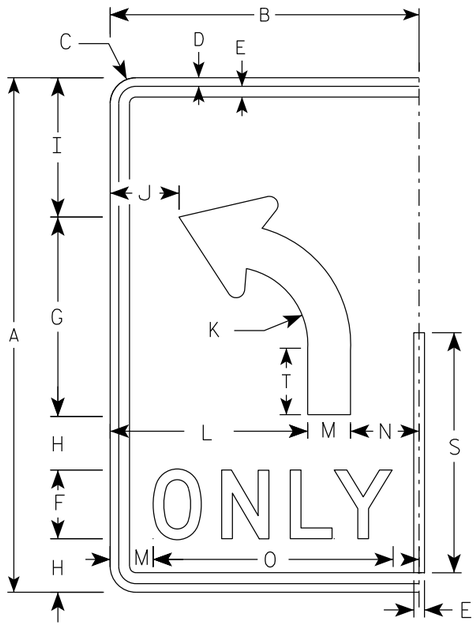
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

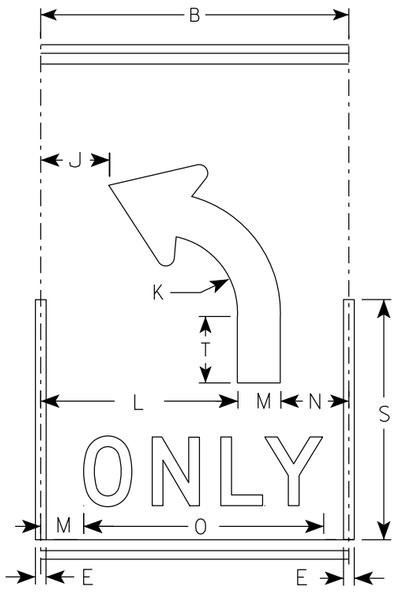
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 470 | E

NOTES

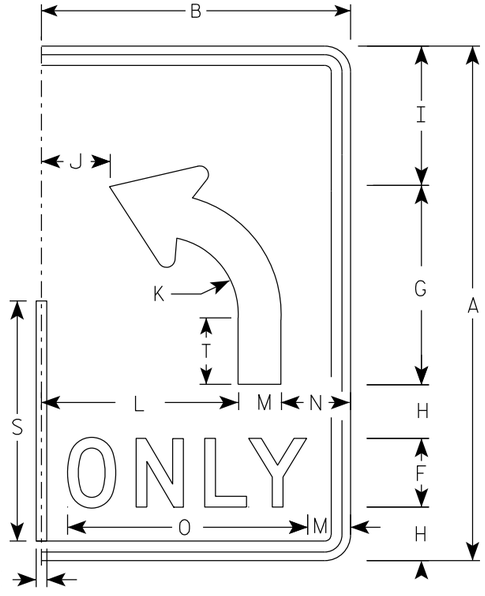
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



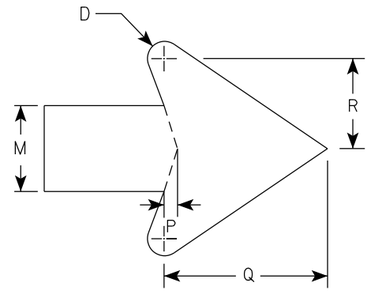
(L)



(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 ½	½	⅝	4	11 ⅝	3 ⅛	8 ⅛	4	4 ½	11 ½	2 ½	4	14	⅜	4 ¾	2 ⅝	14	3 ⅞							3.75
2M	30	18	1 ½	½	⅝	4	11 ⅝	3 ⅛	8 ⅛	4	4 ½	11 ½	2 ½	4	14	⅜	4 ¾	2 ⅝	14	3 ⅞							3.75
3	36	24	1 ½	½	⅝	5	14	3 ½	9 ¾	6	5 ⅜	15	3	6	17 ⅝	½	5 ¾	3 ⅛	16 ¾	4 ⅝							6.0
4	48	30	2 ¼	¾	1	6	18 ⅝	5 ⅛	13 ⅛	6 ⅛	7 ¼	18	4	8	21 ¾	⅝	7 ⅝	4 ¼	22 ⅜	6 ¼							10.0
5	48	30	2 ¼	¾	1	6	18 ⅝	5 ⅛	13 ⅛	6 ⅛	7 ¼	18	4	8	21 ¾	⅝	7 ⅝	4 ¼	22 ⅜	6 ¼							10.0

STANDARD SIGN

R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

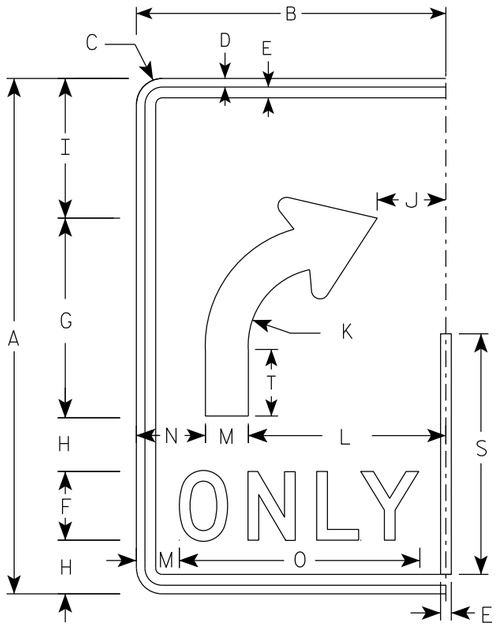
DATE 2/14/23 PLATE NO. R3-8.2

PROJECT NO:

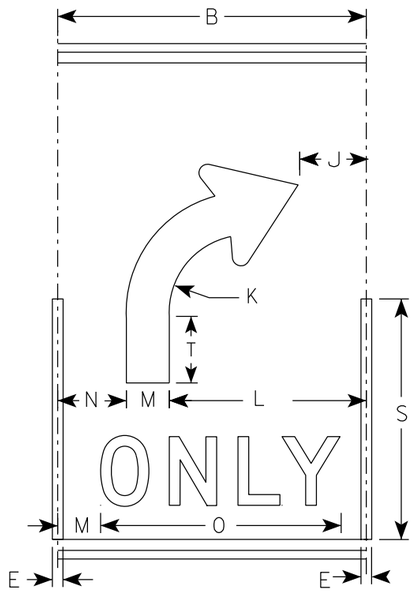
SHEET NO: 471 E

NOTES

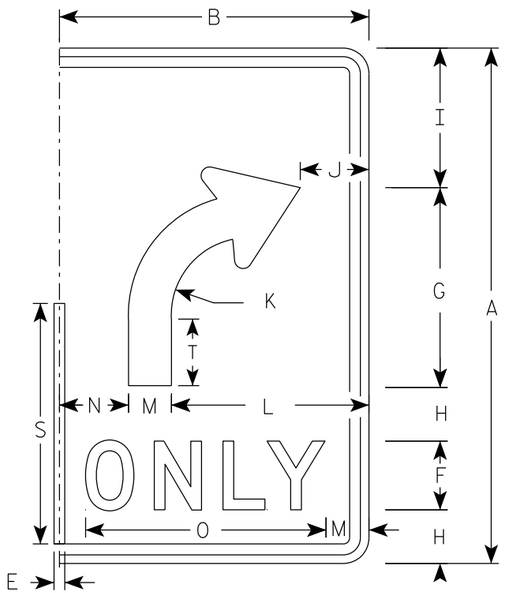
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



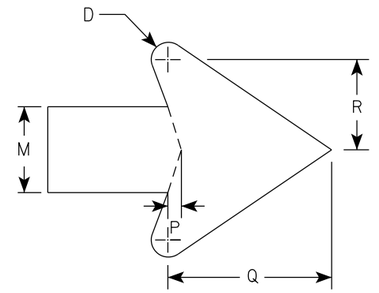
(R)



(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 1/2	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 1/2	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 1/2	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 2/14/23 PLATE NO. R3-8.2

PROJECT NO:

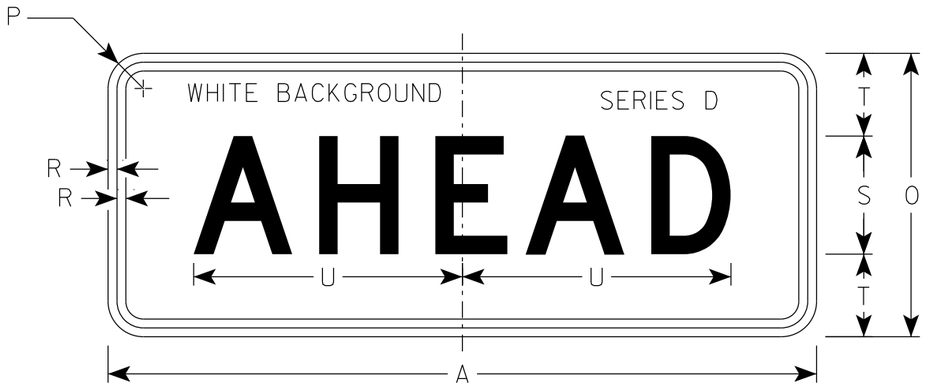
SHEET NO: 472 E



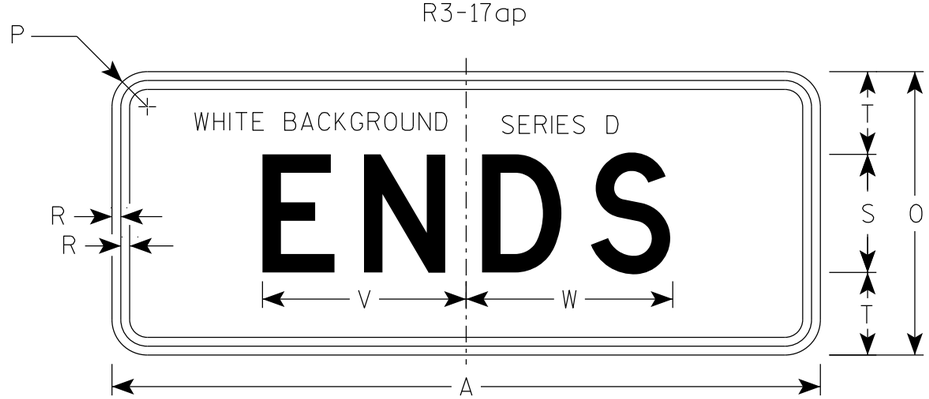
R3-17

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - AS SHOWN
   Message - BLACK
3. Message Series - C or as noted



R3-17ap



R3-17bp

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	R3-17 Area sq. ft.	R3-17ap Area sq. ft.	R3-17bp Area sq. ft.
1																													
2S	30	24	1 1/2	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/2	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
2M	30	24	1 1/2	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/2	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
3																													
4																													
5																													

STANDARD SIGN
R3-17 & R3-17a&bp

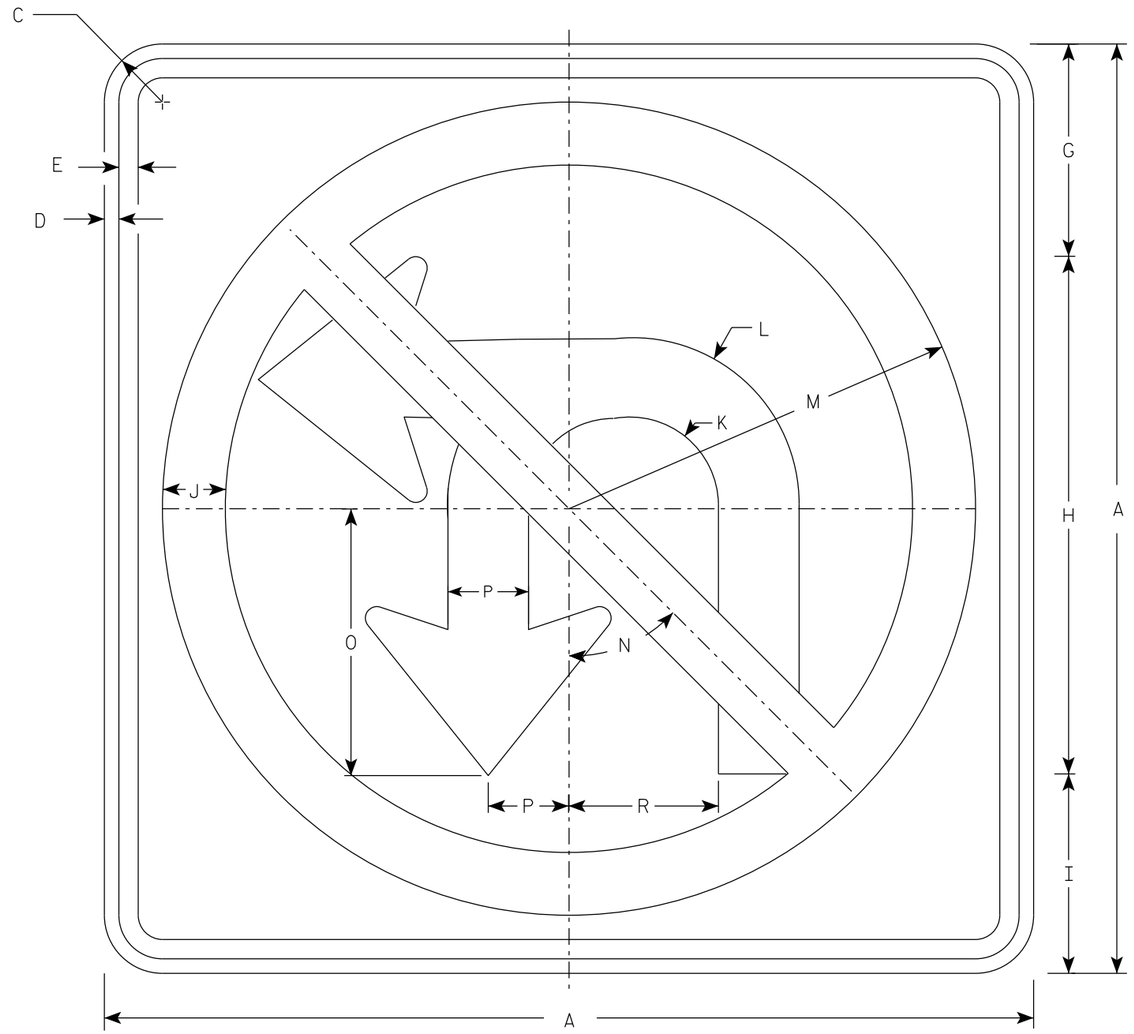
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-17.3

PROJECT NO:

SHEET NO: 473 E



R3-18

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - See note 3
3. 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 1/2	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		2 1/4	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		2 1/4	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		2 1/4	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

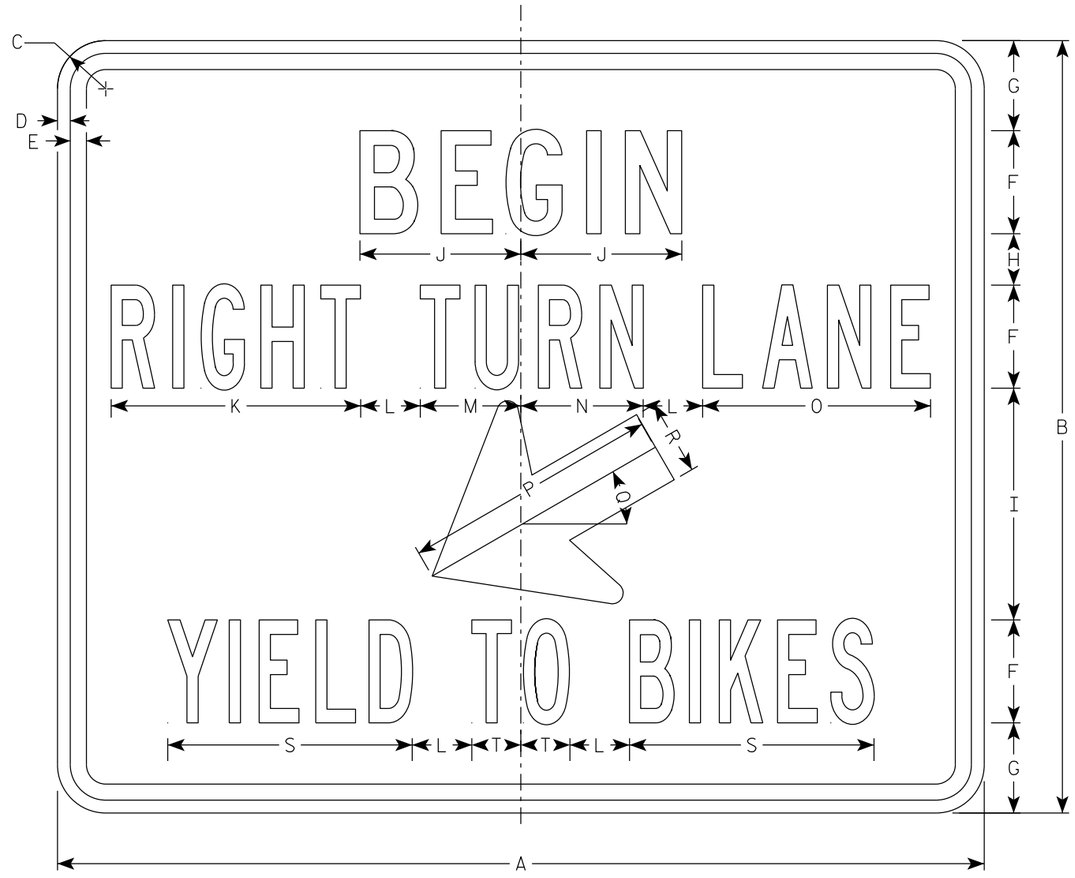
STANDARD SIGN
R3-18

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-18.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 474 | E



R4-4

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - See Note 5
4. Line 1 is Series C
   Lines 2 & 3 are Series B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	30	1 7/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
2M	36	30	1 7/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
3																											
4																											
5																											

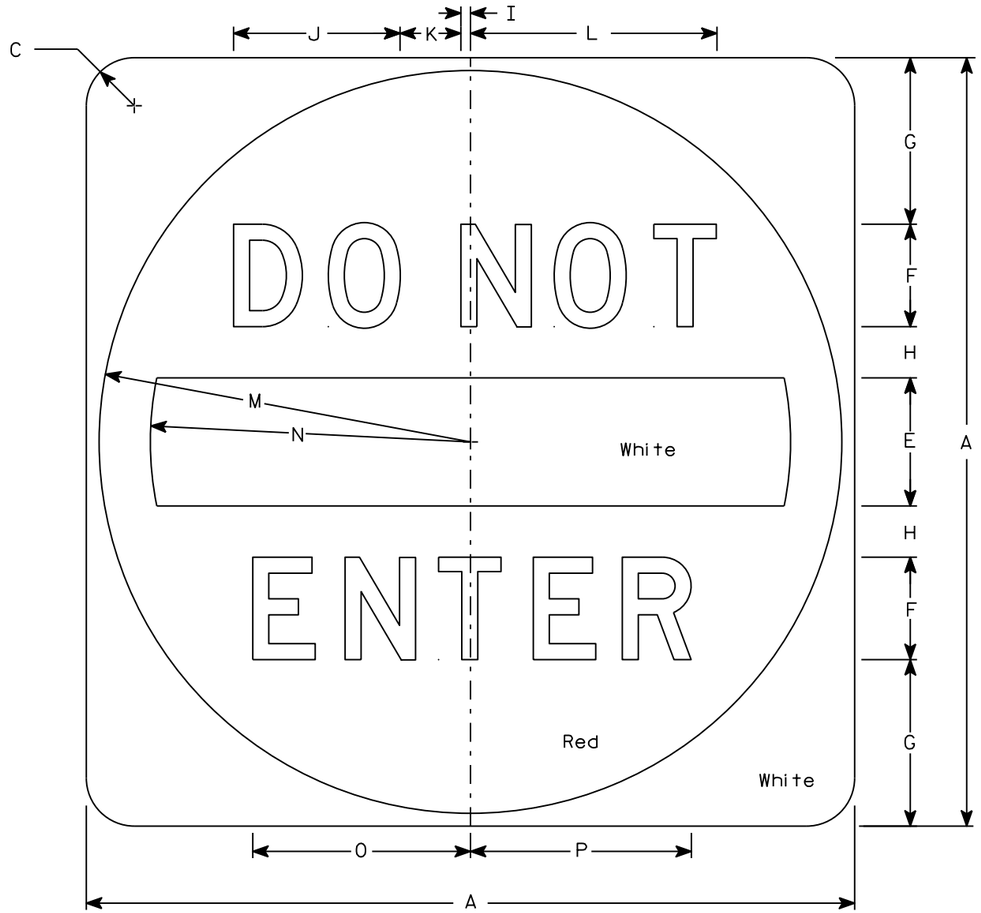
STANDARD SIGN
R4-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/31/23 PLATE NO. R4-4.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 475 | E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
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	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

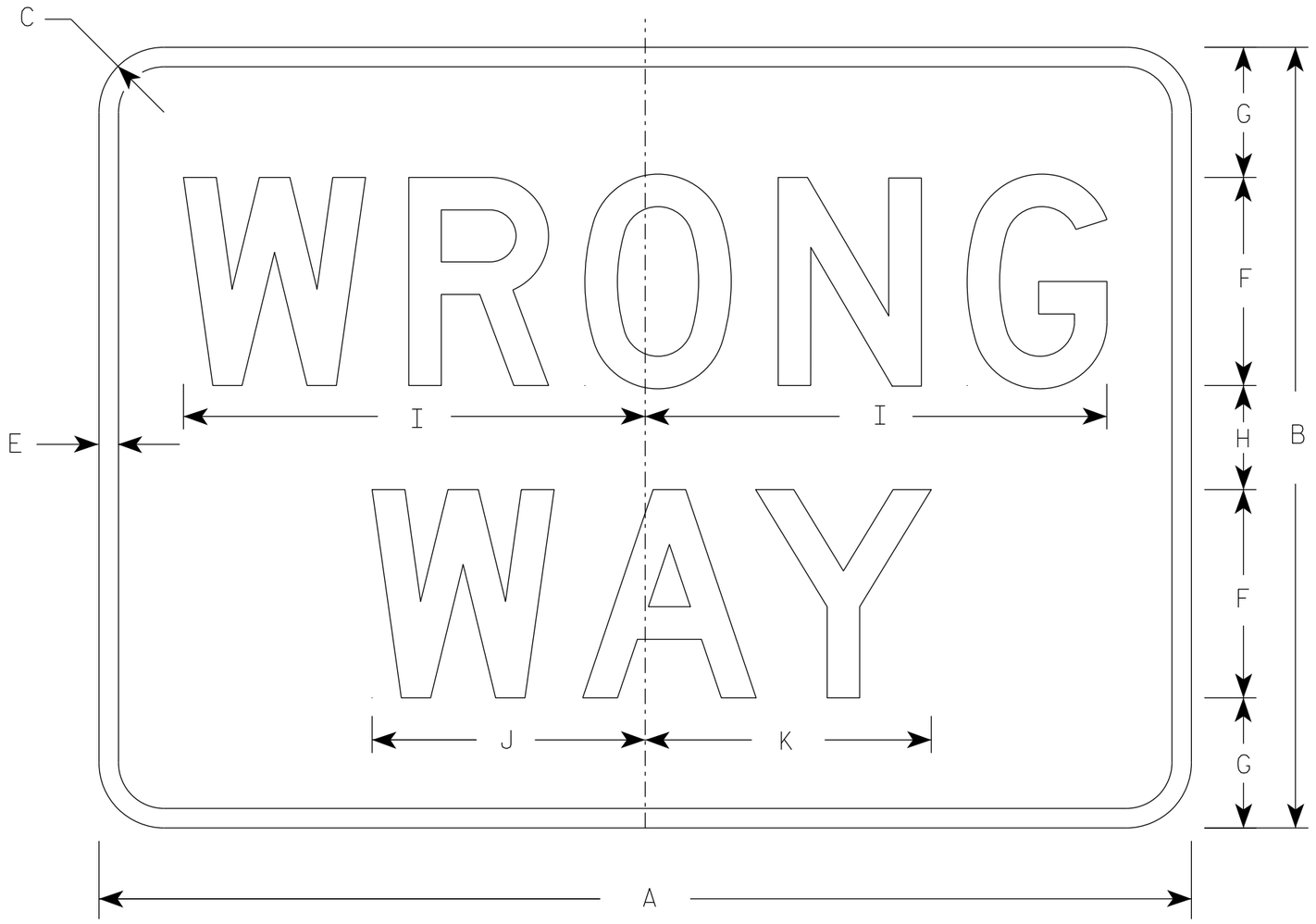
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 476 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Red
   Message - White
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	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	1 1/2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

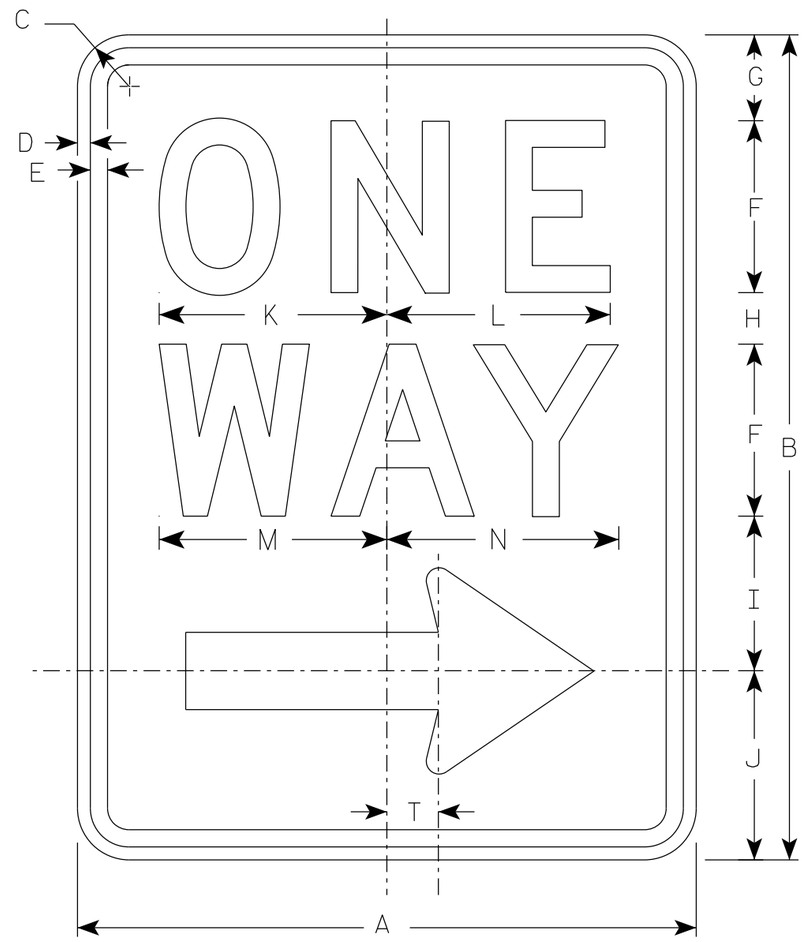
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/17/23 PLATE NO. R5-1A.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 477 | E

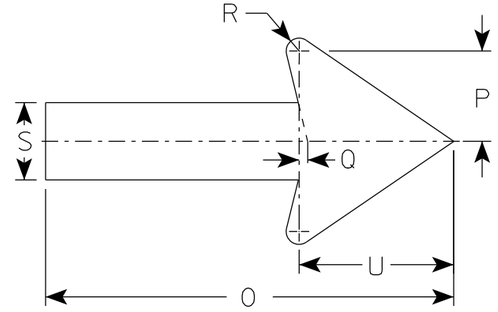
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. R6-2L same as R6-2R except arrow points to the left.



R6-2R

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
1	18	24	1 1/2	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	1 1/2	1 1/2	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 7/8	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																										

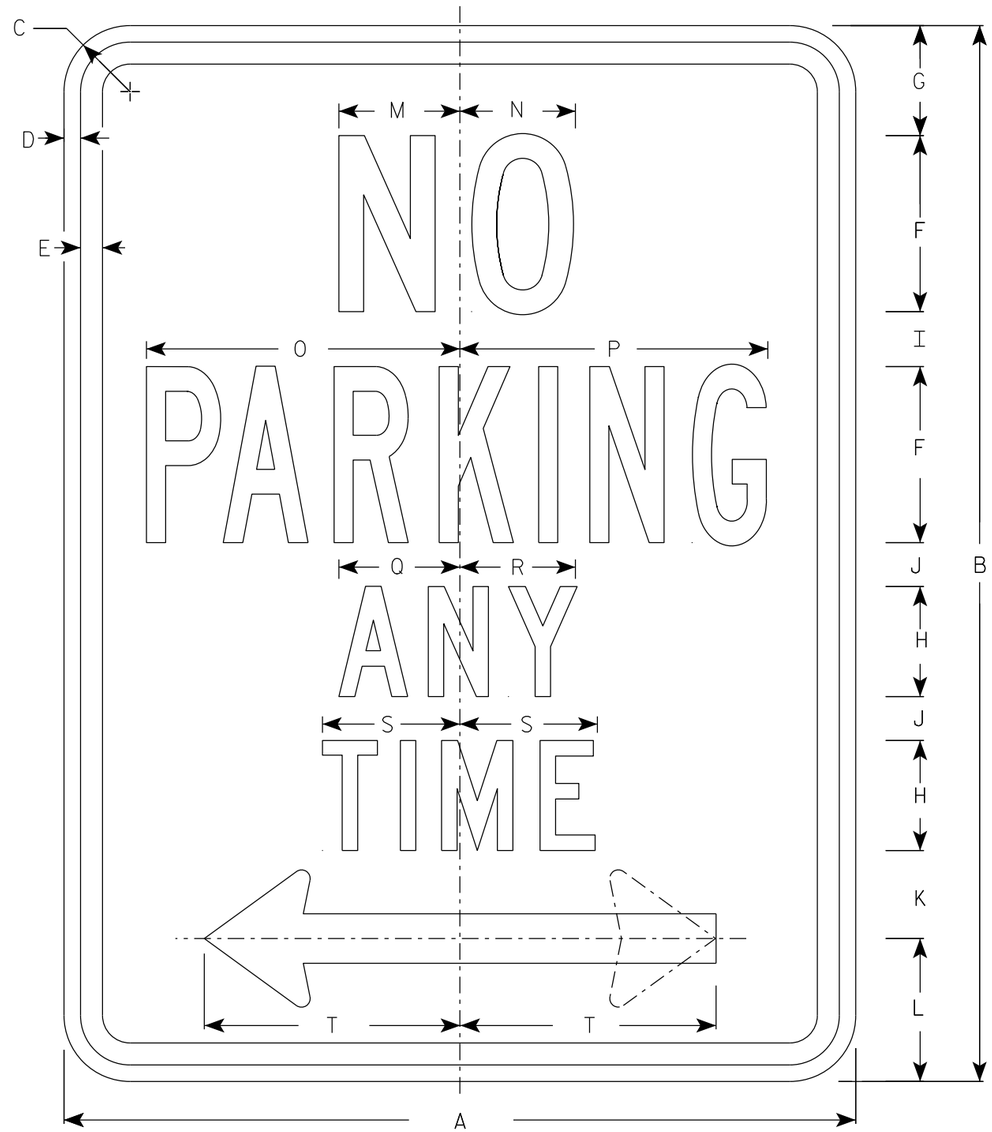
STANDARD SIGN
R6-2 R&L

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: 478	E

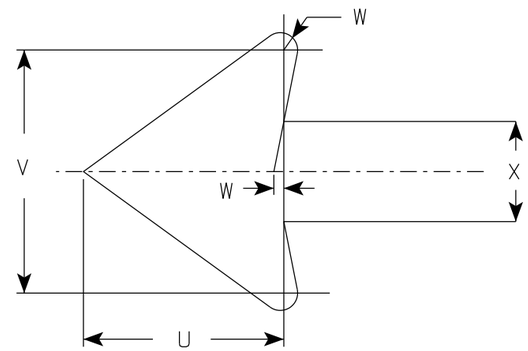


R7-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 4
4. Lines 1, 3 and 4 are series C, line 2 is series B.
5. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 ½	⅜	⅜	3	1 ⅞	2	⅞	⅝	1 ½	2 ½	2	2	4 ⅞	4 ⅞	2 ¼	2 ⅛	2 ½	3 ⅞	1 ½	1 ¾	⅛	¾			1.5
2S	18	24	1 ½	⅜	½	4	2 ½	2 ½	1 ¼	1	2	3 ¼	2 ¾	2 ⅝	7 ⅛	7	2 ¾	2 ⅝	3 ⅛	5 ⅞	2 ¼	2 ⅝	¼	1 ⅛			3.0
2M	24	30	1 ½	⅜	½	5	3	3	2	1 ¼	2 ½	4	3 ¼	3 ⅜	9 ¼	9 ¼	3 ¼	3 ¼	3 ¾	7 ¾	3	3 ½	¼	1 ½			5.0
3	24	30	1 ½	⅜	½	5	3	3	2	1 ¼	2 ½	4	3 ¼	3 ⅜	9 ¼	9 ¼	3 ¼	3 ¼	3 ¾	7 ¾	3	3 ½	¼	1 ½			5.0
4																											
5																											

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/26/23 PLATE NO. R7-1.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 479 E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C



R8-55

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	36	1 7/8	1/2	5/8	4	5 3/8	3	5	13 1/4	16 1/4	14	10 1/2														10.5
2M	42	36	1 7/8	1/2	5/8	4	5 3/8	3	5	13 1/4	16 1/4	14	10 1/2														10.5
3																											
4																											
5																											

STANDARD SIGN
R8-55

WISCONSIN DEPT OF TRANSPORTATION

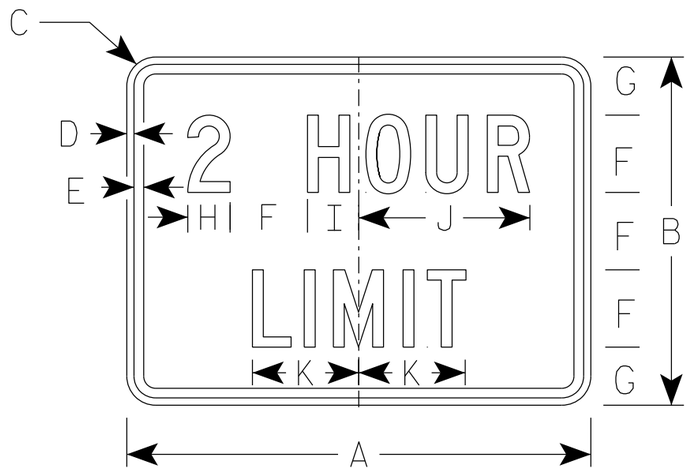
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/12/24 PLATE NO. R8-55.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 480 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C



R8-56

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	18	1 1/2	3/8	1/2	4	3	2 1/4	2 5/8	8 7/8	5 1/2																2.0
2M	24	18	1 1/2	3/8	1/2	4	3	2 1/4	2 5/8	8 7/8	5 1/2																2.0
3																											
4																											
5																											

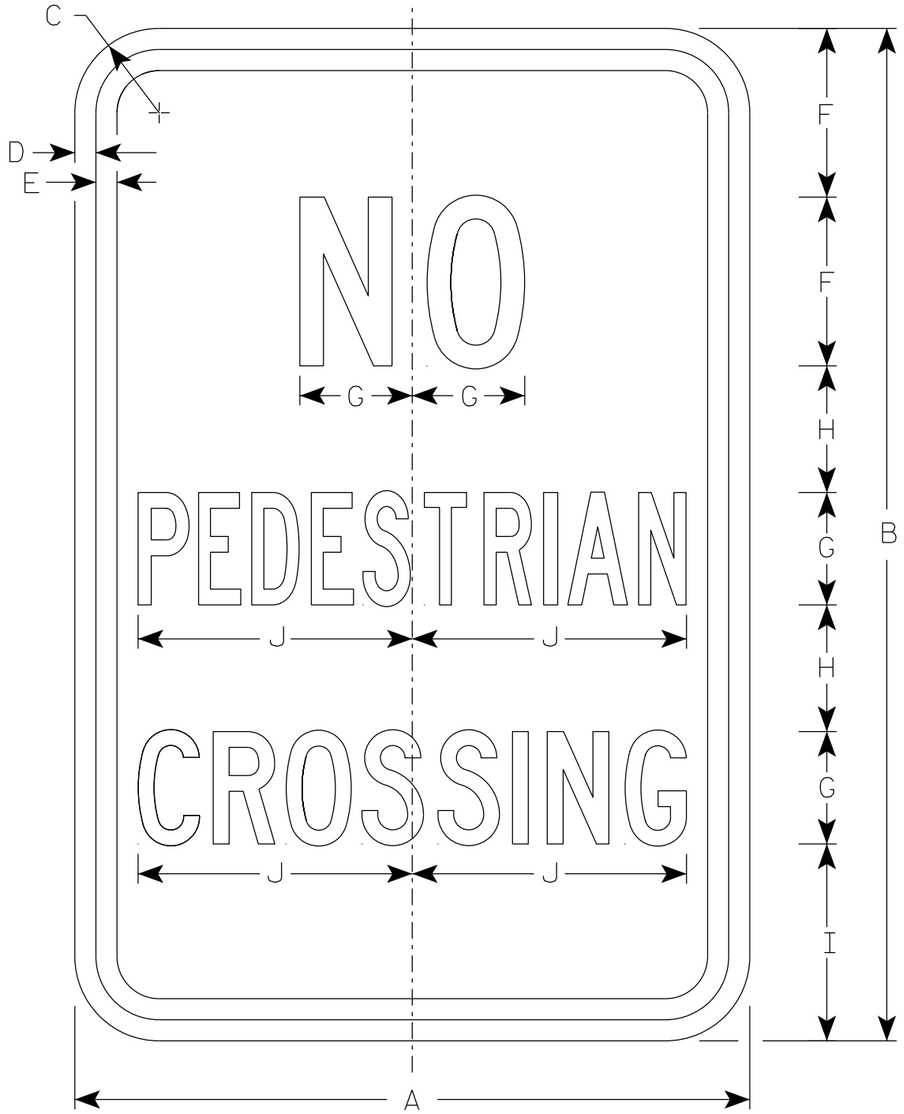
STANDARD SIGN
R8-56

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/12/24 PLATE NO. R8-56.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 481 | E



R9-3

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - Lines 1 & 3 are Series C
   Line 2 is Series B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	18	1 1/2	3/8	3/8	3	2	2 1/4	3 1/2	4 7/8																	1.5
2M	12	18	1 1/2	3/8	3/8	3	2	2 1/4	3 1/2	4 7/8																	1.5
3																											
4																											
5																											

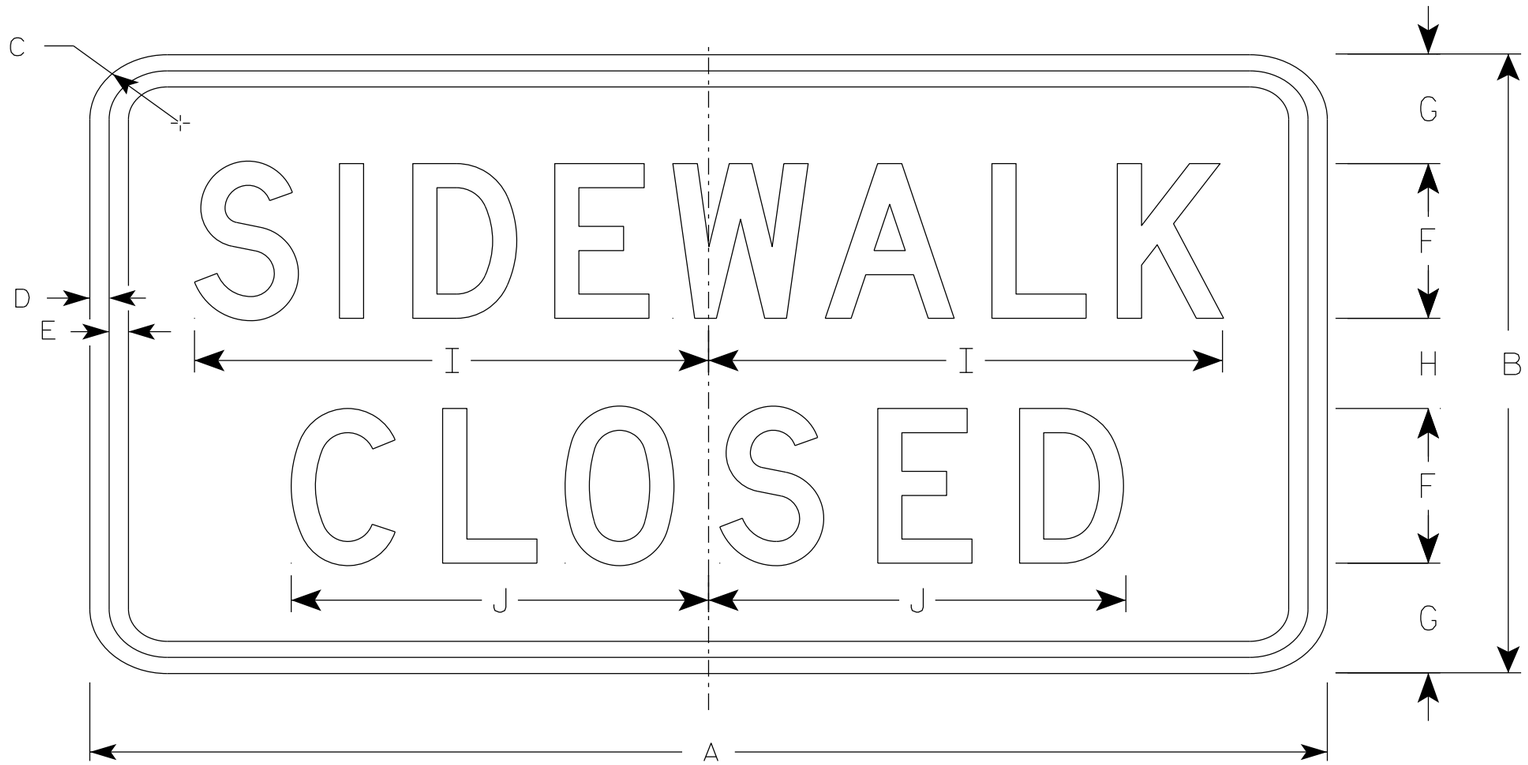
STANDARD SIGN
R9-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/23/24 PLATE NO. R9-3.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 482	E



R9-9

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. 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 ½	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
2M	24	12	1 ½	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
3	30	18	1 ½	½	½	4	3 ½	3	12 ½	10 ¼																	3.75
4																											
5																											

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

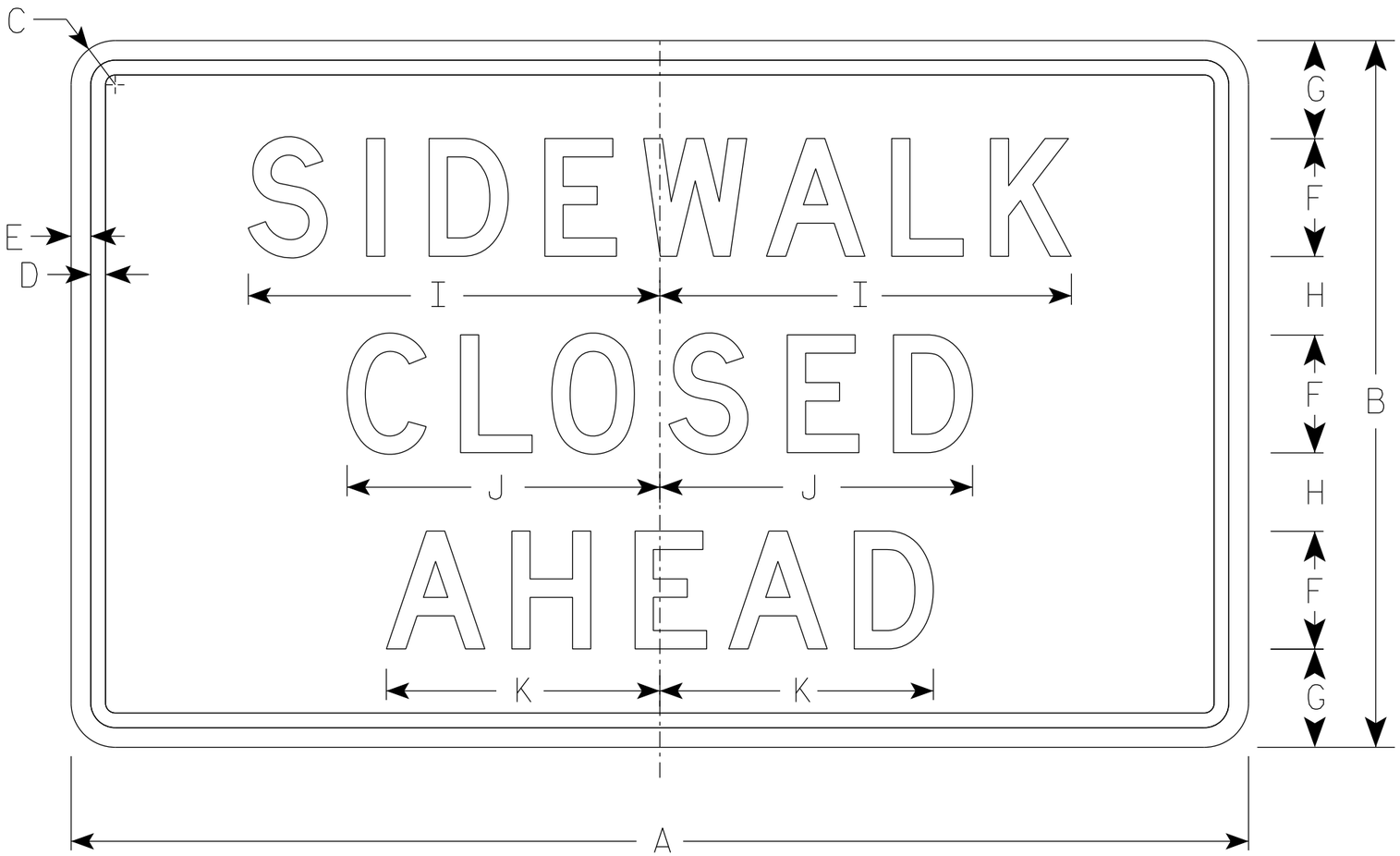
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 483 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



R9-9A

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 ½	⅜	½	3	2 ½	2	10 ½	8	7																3.75
2M	30	18	1 ½	⅜	½	3	2 ½	2	10 ½	8	7																3.75
3																											
4																											
5																											

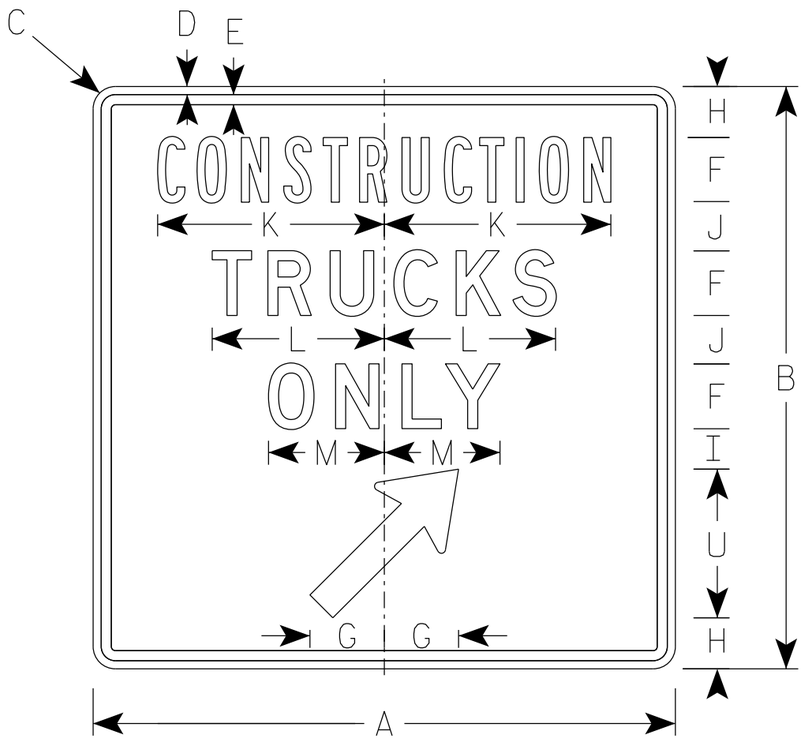
STANDARD SIGN
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9A.2

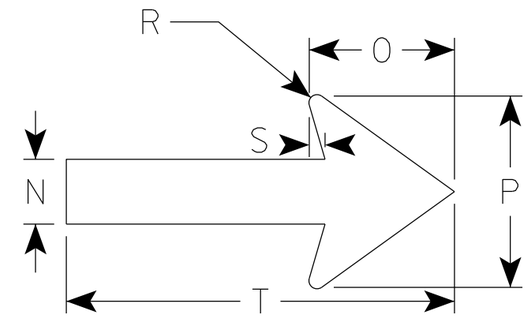
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 484 | E



R10-72R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 Series B Line 2-3 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. R10-72L is same as R10-72R except 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																											
2S	36	36	2 1/4	1/2	5/8	4	4 5/8	3 1/8	2 1/2	3	14	10 5/8	7 1/8	2	4 1/2	6		1/2	1/2	12	9 1/4						9.0
2M	36	36	2 1/4	1/2	5/8	4	4 5/8	3 1/8	2 1/2	3	14	10 5/8	7 1/8	2	4 1/2	6		1/2	1/2	12	9 1/4						9.0
3	36	36	2 1/4	1/2	5/8	4	4 5/8	3 1/8	2 1/2	3	14	10 5/8	7 1/8	2	4 1/2	6		1/2	1/2	12	9 1/4						9.0
4																											
5																											

STANDARD SIGN
R10-72

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R10-72.2

PROJECT NO:

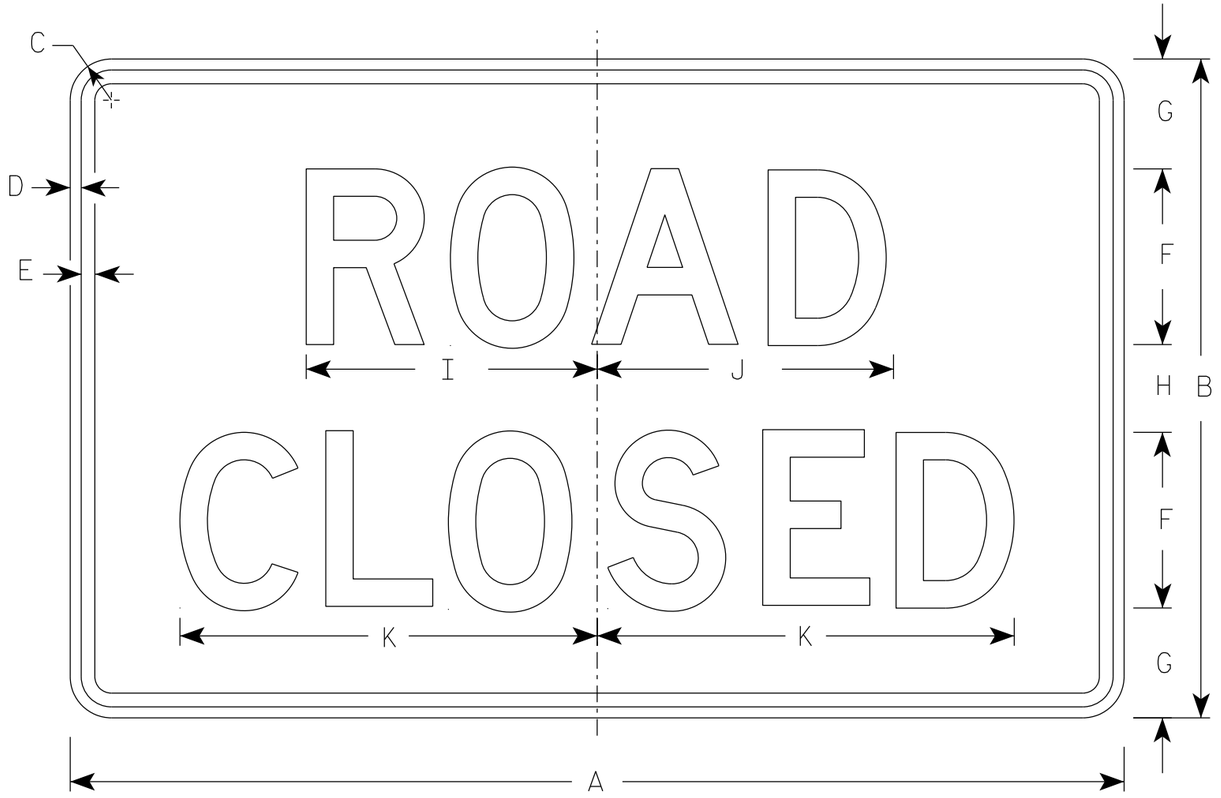
SHEET NO: 485 E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R1072.dgn PLOT DATE : 5-FEB 2024 1:45 PLOT BY : mscj9h PLOT NAME :

WISDOT/CADDS SHEET 42

7

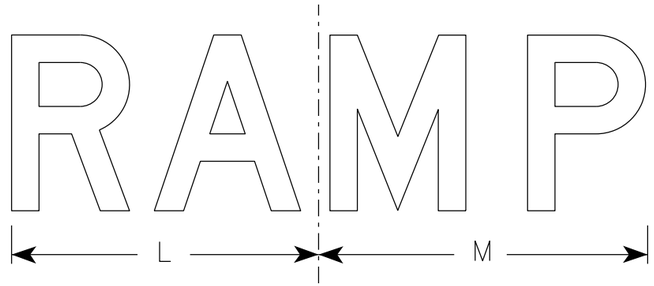
7



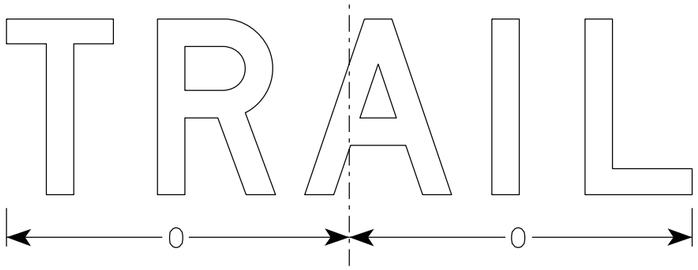
R11-2

NOTES

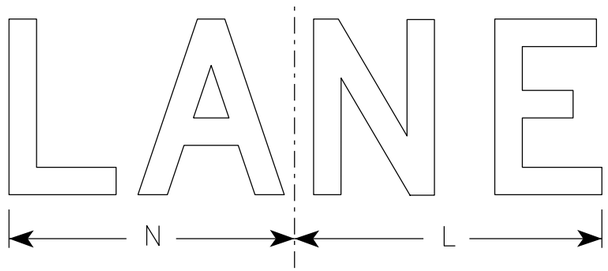
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



R11-2R



R11-2T



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 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN
R11-2

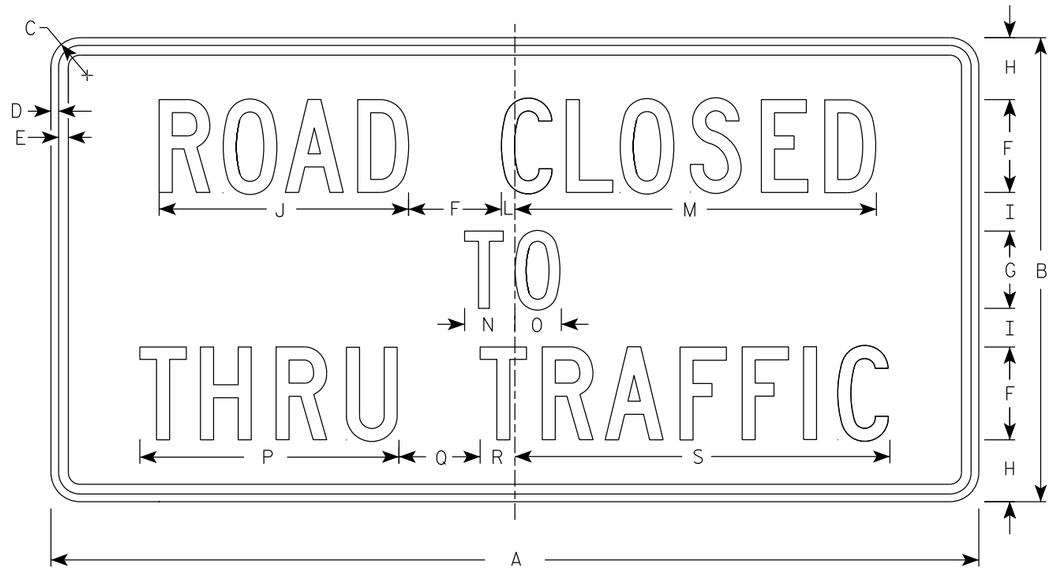
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112.dgn PLOT DATE : 5-FEB 2024 2:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



R11-4

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.

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	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

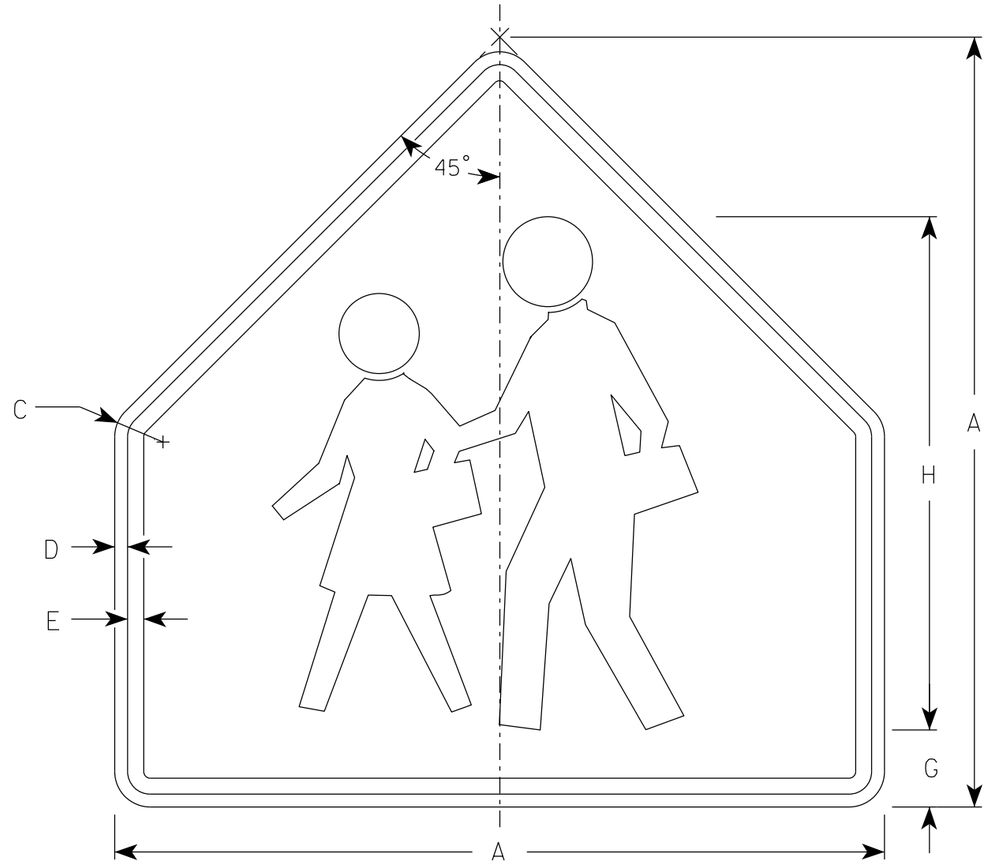
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-4.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 487 | E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow-Green
   Message - Black



S1-1

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	20																			4.69
2S	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
2M	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		1 7/8	3/4	1		4 3/4	32																			12
5																											

STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

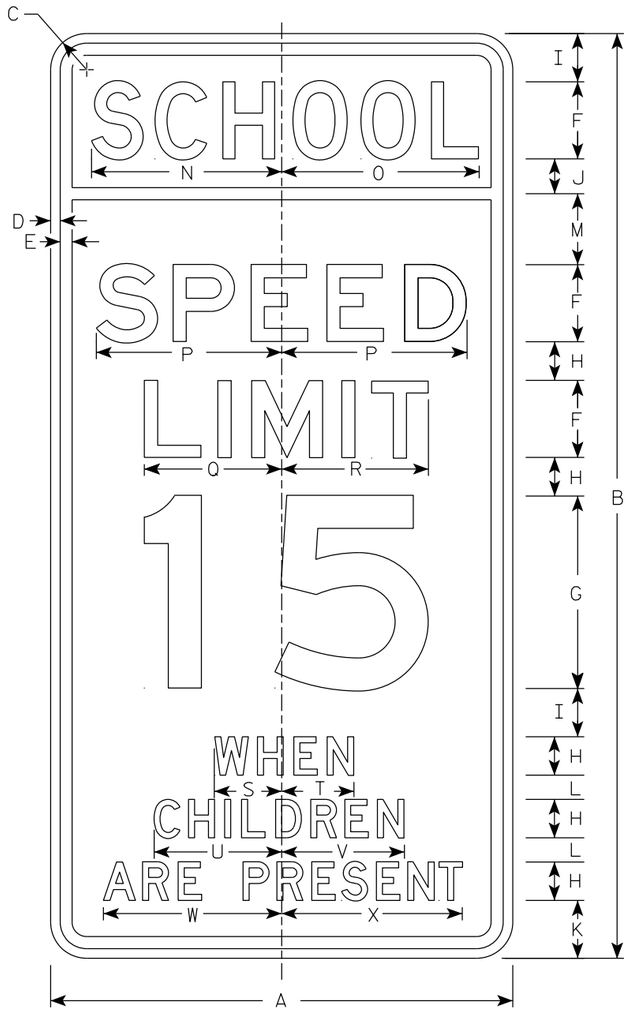
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/16/2023 PLATE NO. S1-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 488 E

7

7



S4-51

NOTES

1. Sign is Type II - See Note 2 for Sheeting Type
2. Color:
   Background - See Note 4
   Message - Black
3. Message Series - See Note 5
4. Top panel (SCHOOL) background - Yellow Green - Type F Reflective
   Lower panel background - White - Type SH Reflective
5. From top to bottom:
   Lines 1, 5, 6 & 7 are series D
   Lines 2, 3 & 4 are series E
6. Line 4 substitute appropriate numerals and 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																											
2S	24	48	1 7/8	1/2	5/8	4	10	2	2 1/2	1 3/4	3	1 1/4	3 3/4	9 7/8	10 1/4	9 5/8	7 1/8	7 5/8	3 1/2	3 3/8	6 5/8	6 3/8	9 1/4	9 3/8			8.00
2M	24	48	1 7/8	1/2	5/8	4	10	2	2 1/2	1 3/4	3	1 1/4	3 3/4	9 7/8	10 1/4	9 5/8	7 1/8	7 5/8	3 1/2	3 3/8	6 5/8	6 3/8	9 1/4	9 3/8			8.00
3	36	72	3	3/4	1	6	15	3	3 3/4	2 3/4	4 1/2	1 7/8	5 1/2	15	15 1/4	14 1/2	11 1/4	11 1/2	5 1/2	5 3/4	10	9 3/4	14	14 1/8			18.00
4																											
5																											

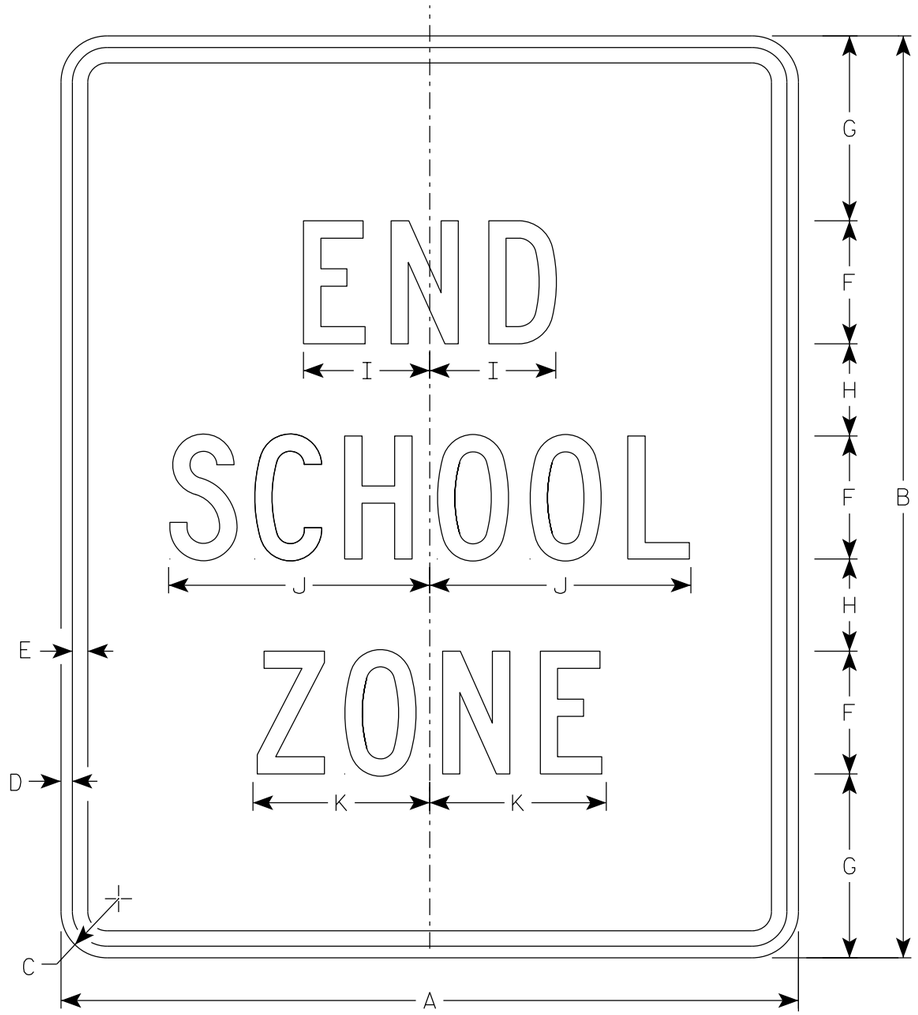
STANDARD SIGN
S4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/22/2023 PLATE NO. S4-51.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 489 E



S5-2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message 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																											
2S	24	30	1 1/2	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
2M	24	30	1 1/2	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 7/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

STANDARD SIGN
S5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

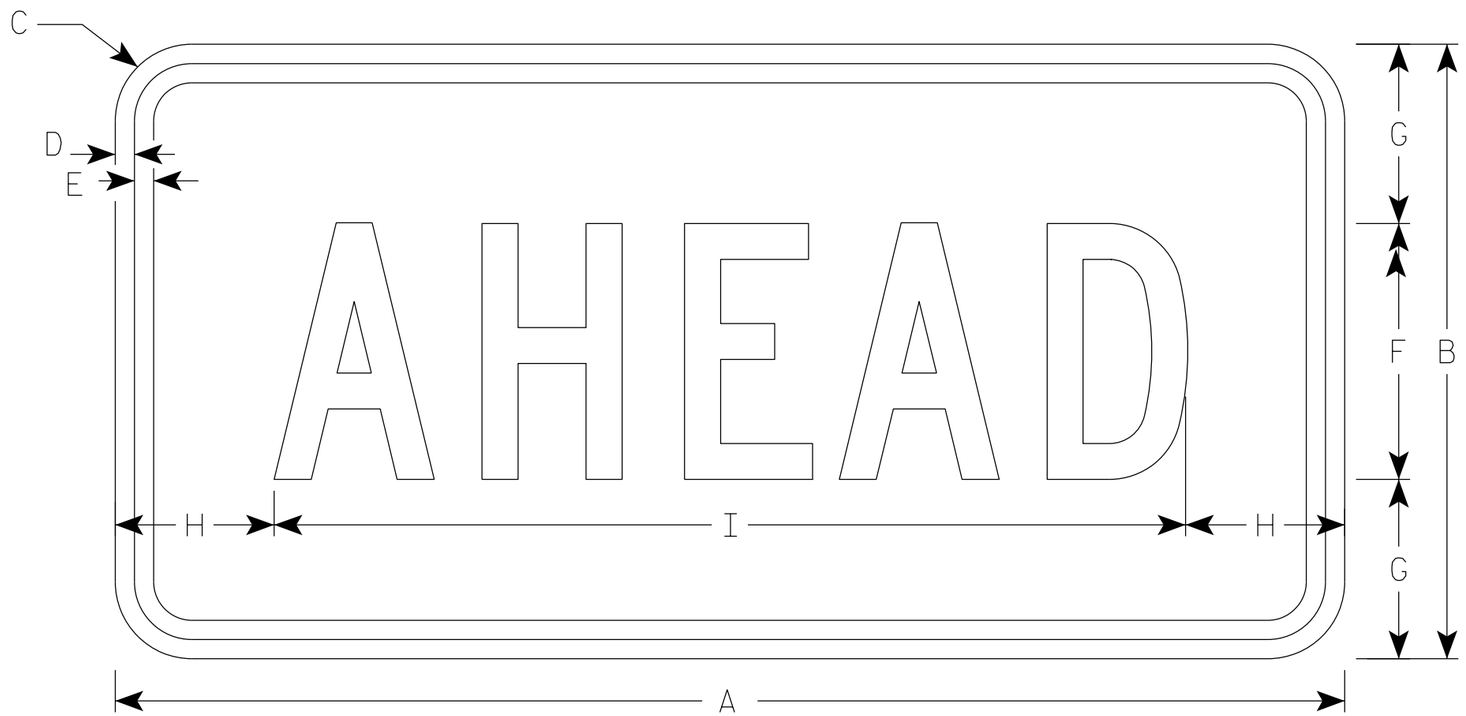
DATE 2/23/2023 PLATE NO. S5-2.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\S52.dgn PLOT DATE : 23-FEB 2023 8:10 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow-Green
   Message - Black
3. Message Series - C



S16-9P

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	12	1 1/2	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2S	30	18	1 1/2	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2M	30	18	1 1/2	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/2	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
S16-9P

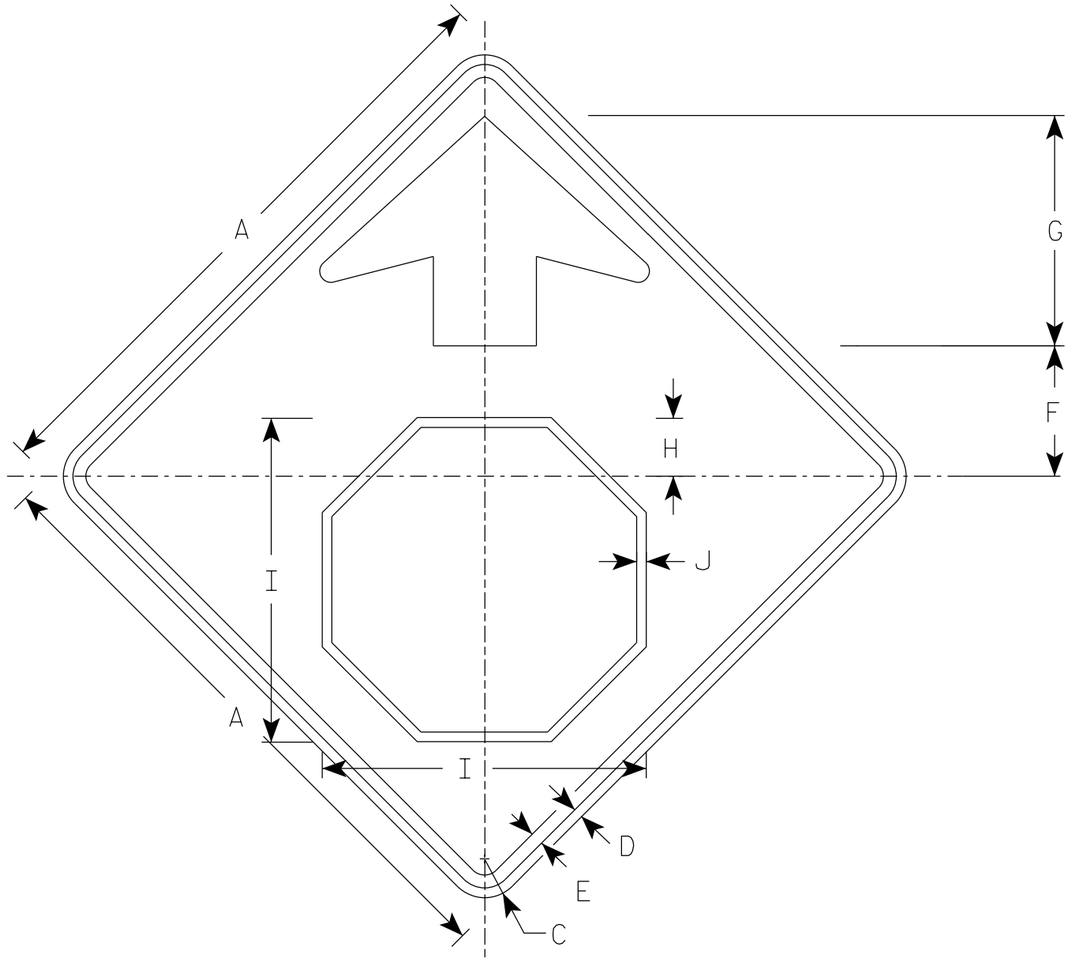
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/23/2023 PLATE NO. S16-9P.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

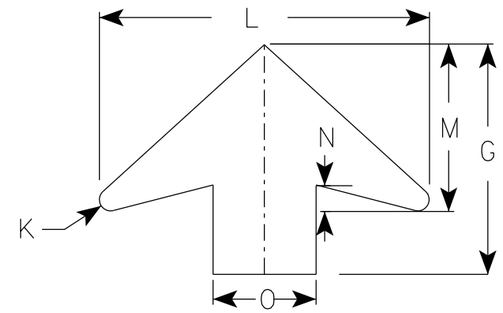
FILE NAME : C:\Users\PROJECTS\tr_stdplate\S169P.dgn PLOT DATE : 23-FEB 2023 10:32 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



W3-1

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Arrow & Border - Black
   Stop Symbol - White Border on Red Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 7/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		3	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		3	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

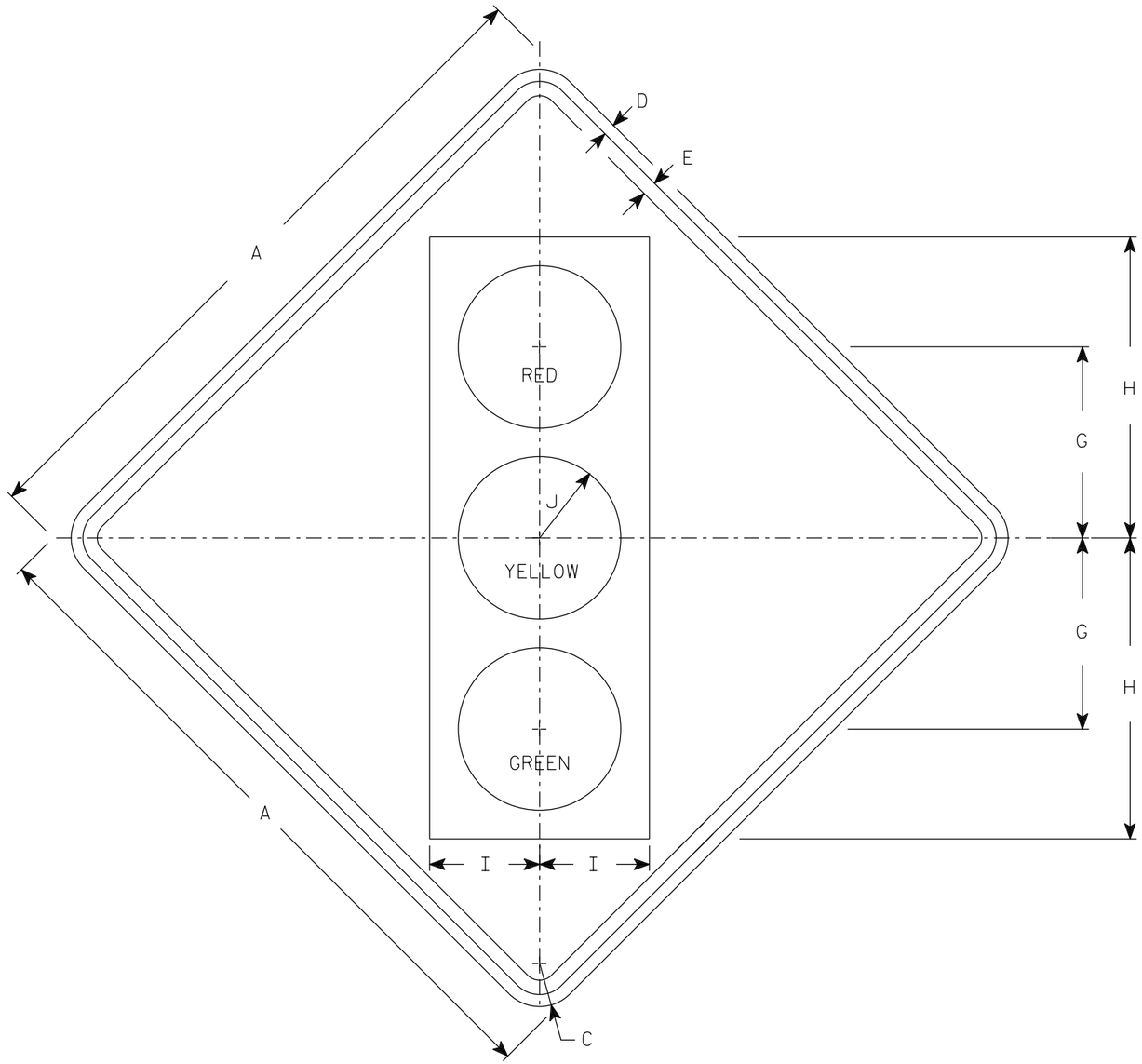
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/17/2023 PLATE NO. W3-1.13

PROJECT NO:

SHEET NO: 492 E



W3-3

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - See Note 3
3. 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 7/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		2 1/4	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		2 1/4	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		2 1/4	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		3	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		3	3/4	1		12 1/2	20	7 1/2	5																	16.0

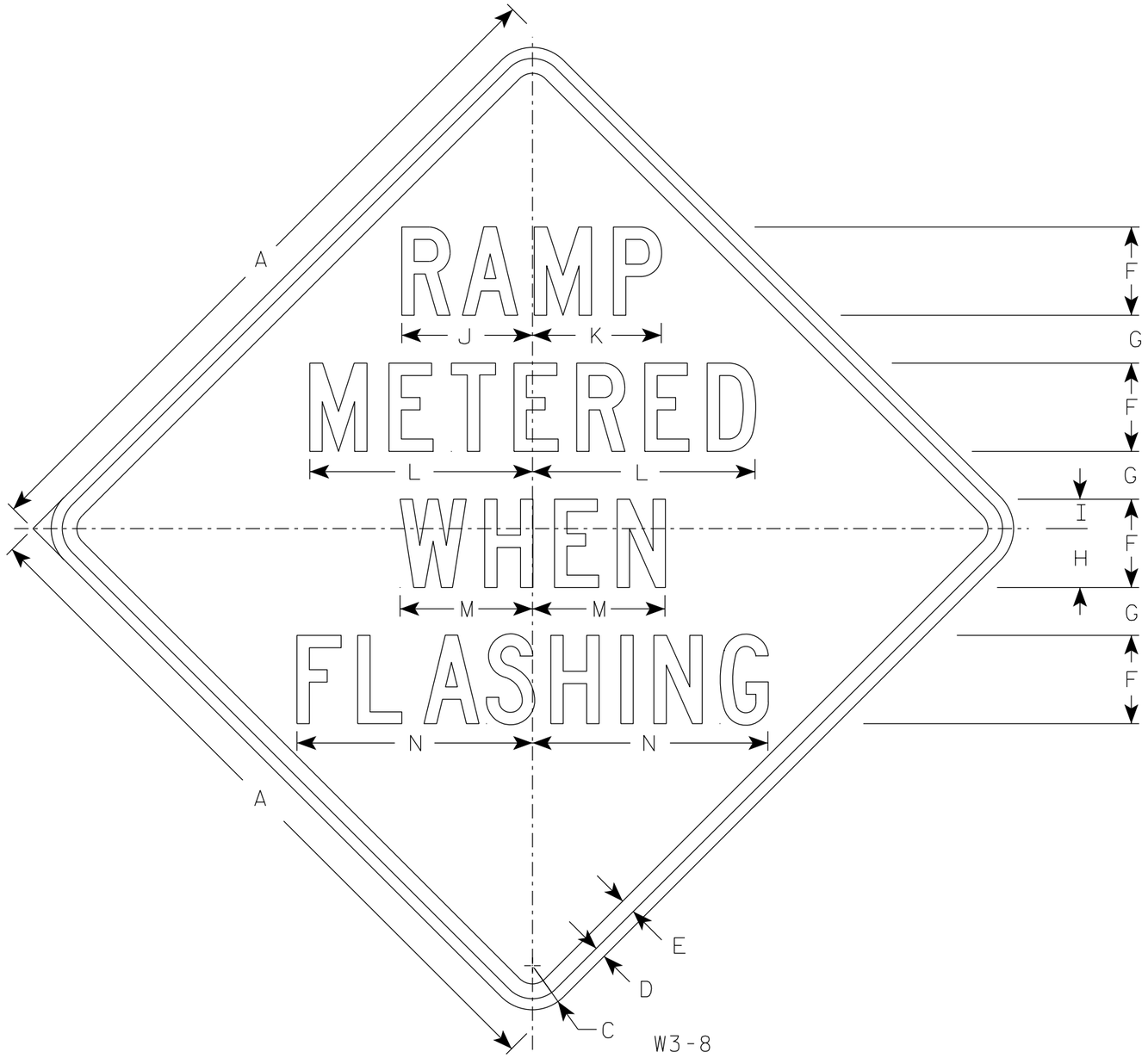
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/2023 PLATE NO. W3-3.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 493	E



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message 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																											
2S	48		3	3/4	1	6	3 3/4	4	2	8 7/8	8 3/4	15 1/8	9	16													16.0
2M	48		3	3/4	1	6	3 3/4	4	2	8 7/8	8 3/4	15 1/8	9	16													16.0
3	48		3	3/4	1	6	3 3/4	4	2	8 7/8	8 3/4	15 1/8	9	16													16.0
4	48		3	3/4	1	6	3 3/4	4	2	8 7/8	8 3/4	15 1/8	9	16													16.0
5	48		3	3/4	1	6	3 3/4	4	2	8 7/8	8 3/4	15 1/8	9	16													16.0

STANDARD SIGN
W3-8

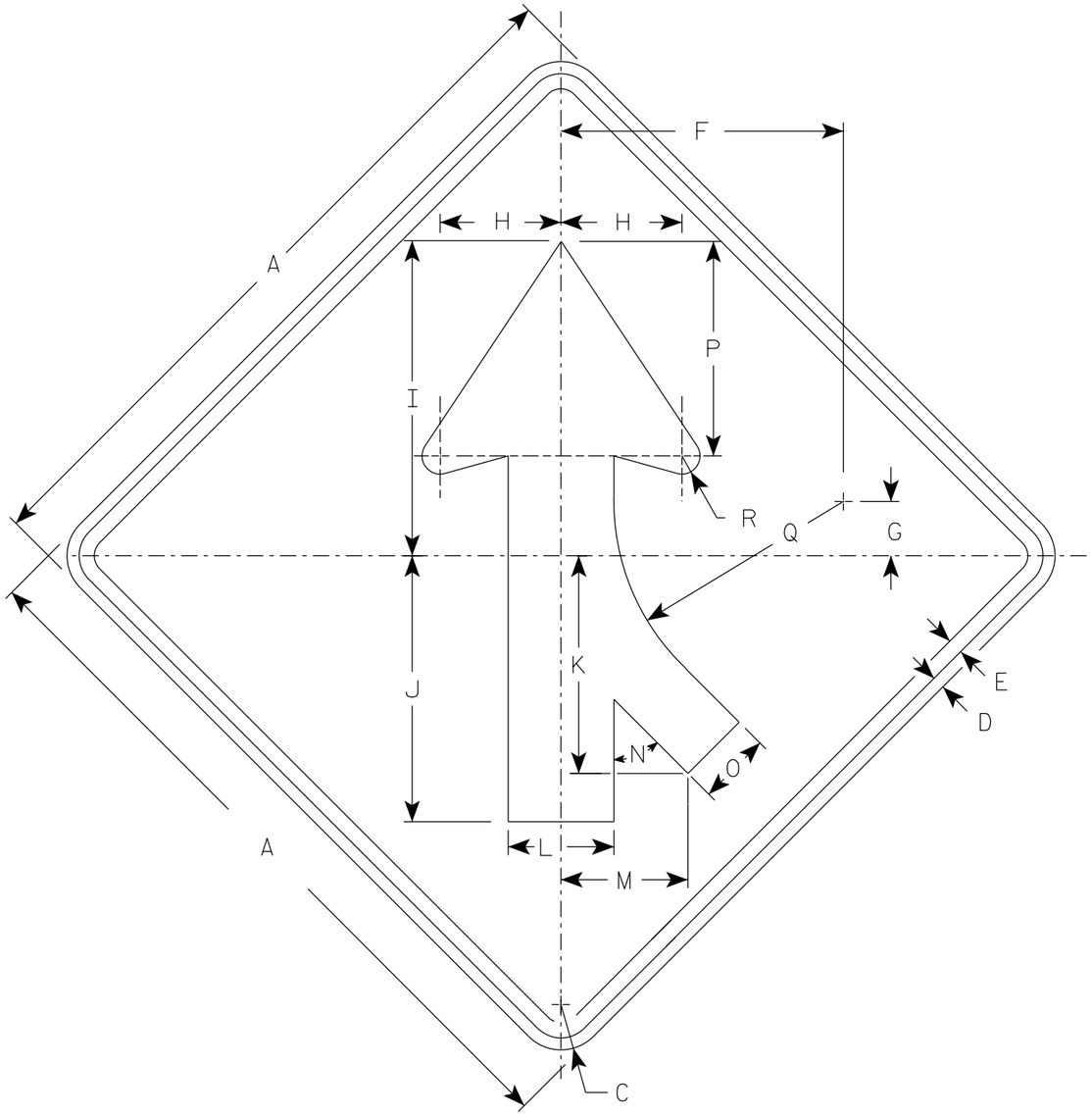
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/30/2023 PLATE NO. W3-8.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W38.DGN PLOT DATE : 30-AUG 2023 4:07 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



W4-1R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. 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 7/8	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		2 1/4	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		2 1/4	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		2 1/4	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		3	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		3	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

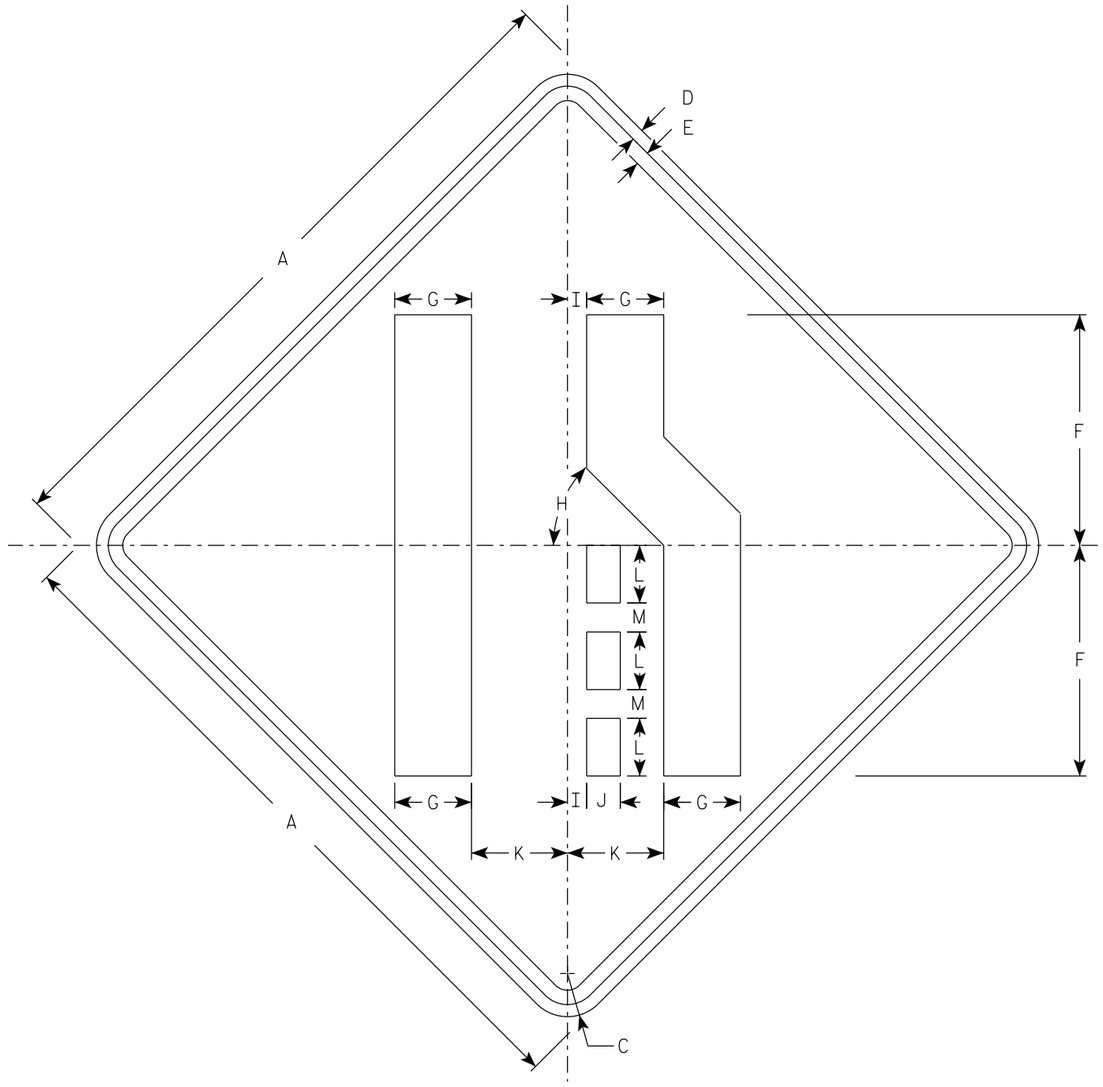
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/31/2023 PLATE NO. W4-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 495 E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. W4-2L is the same as W4-2R except the symbolis 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 7/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		2 1/4	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		2 1/4	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		2 1/4	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

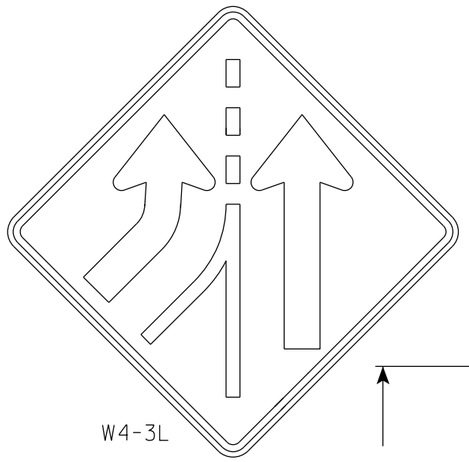
WISCONSIN DEPT OF TRANSPORTATION

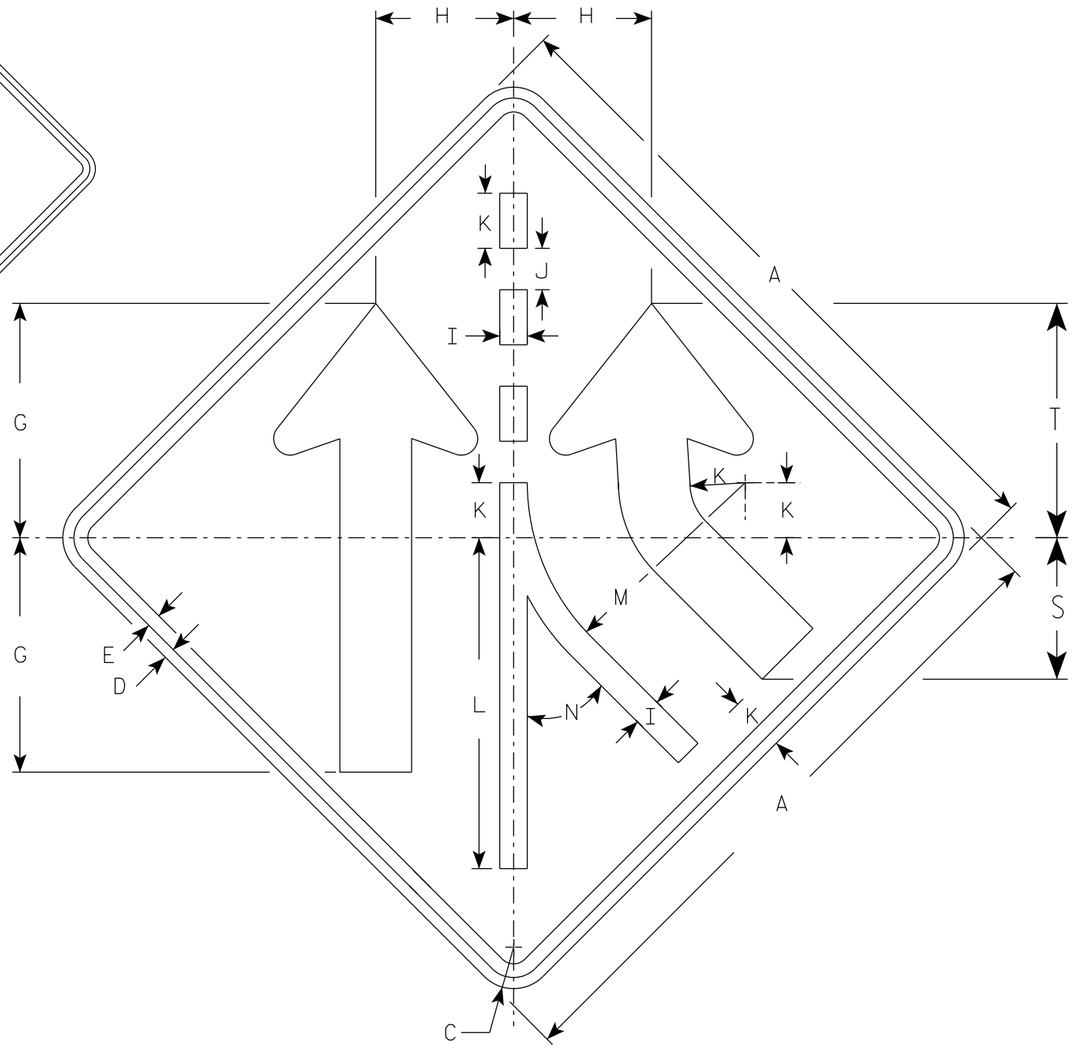
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/31/2023 PLATE NO. W4-2.15

PROJECT NO:

SHEET NO: E

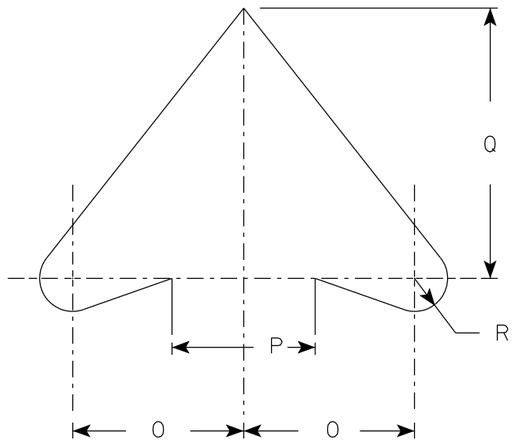




W4-3R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-3 L is the same as W4-3 R except the arrow is reversed along the vertical centerline.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 7/8	1/2	5/8		10 5/8	6 1/4	1 1/4	1 7/8	2 1/2	15	9 7/8	45°	3 7/8	3 1/4	6 1/8	3/4	6 3/8	10 5/8							6.25
2S	36		2 1/4	5/8	3/4		12 3/4	7 1/2	1 1/2	2 1/4	3	18	11 7/8	45°	4 5/8	4	7 3/8	7/8	7 3/4	12 3/4							9.0
2M	36		2 1/4	5/8	3/4		12 3/4	7 1/2	1 1/2	2 1/4	3	18	11 7/8	45°	4 5/8	4	7 3/8	7/8	7 3/4	12 3/4							9.0
3	36		2 1/4	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
4	48		3	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		3	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0

STANDARD SIGN
W4-3

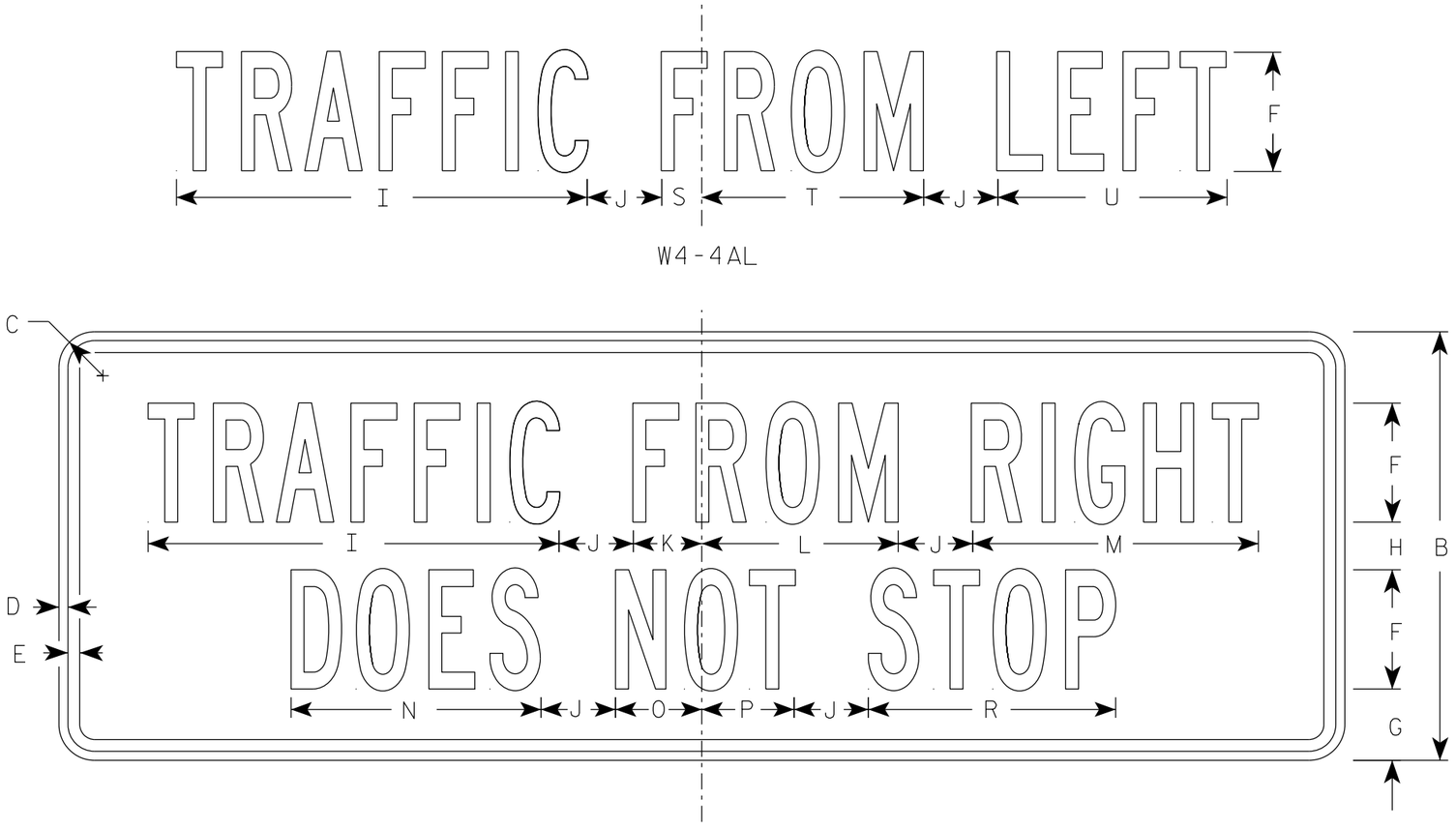
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/31/2023 PLATE NO. W4-3.10

PROJECT NO:

SHEET NO: 497 E



W4-4AL

W4-4AR

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	12	1 1/2	3/8	3/8	3	2 1/4	1 1/2	10 3/8	1 1/2	1 3/4	4 7/8	7 1/4	6 1/4	2 1/4	2 1/4		6 1/4	1	5 5/8	5 3/4						2.5
2M	30	12	1 1/2	3/8	3/8	3	2 1/4	1 1/2	10 3/8	1 1/2	1 3/4	4 7/8	7 1/4	6 1/4	2 1/4	2 1/4		6 1/4	1	5 5/8	5 3/4						2.5
3	42	15	1 1/2	3/8	1/2	4	2 5/8	1 3/4	13 7/8	2 3/8	2 1/8	6 3/4	9 3/4	8 3/8	2 3/4	3 3/8		8 3/8	1 1/8	7 3/4	7 3/4						4.38
4	54	18	1 1/2	3/8	1/2	5	3	2	17 1/4	3 1/8	2 7/8	8 1/4	12	10 1/2	3 5/8	3 7/8		10 3/8	1 3/4	9 3/8	9 5/8						6.75
5																											

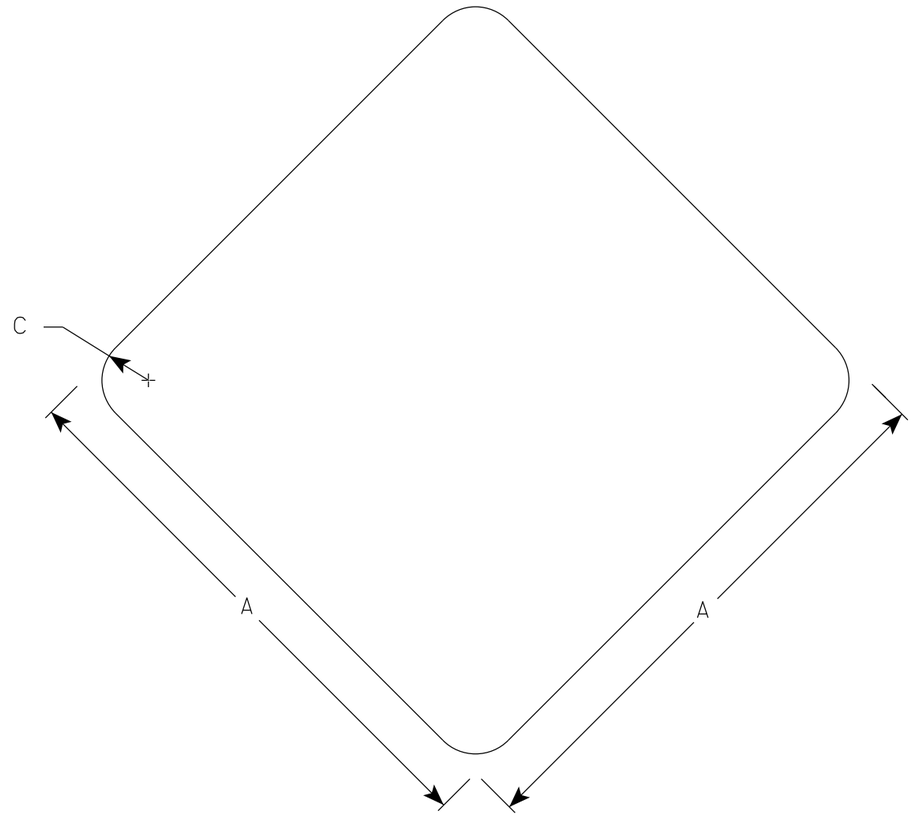
STANDARD SIGN
W4-4AL & W4-4AR

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/31/2023 PLATE NO. W4-4A.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W5-54

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow

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 ½																								1.0
2S	18		1 ½																								2.25
2M	18		1 ½																								2.25
3																											
4																											
5																											

STANDARD SIGN
W5-54

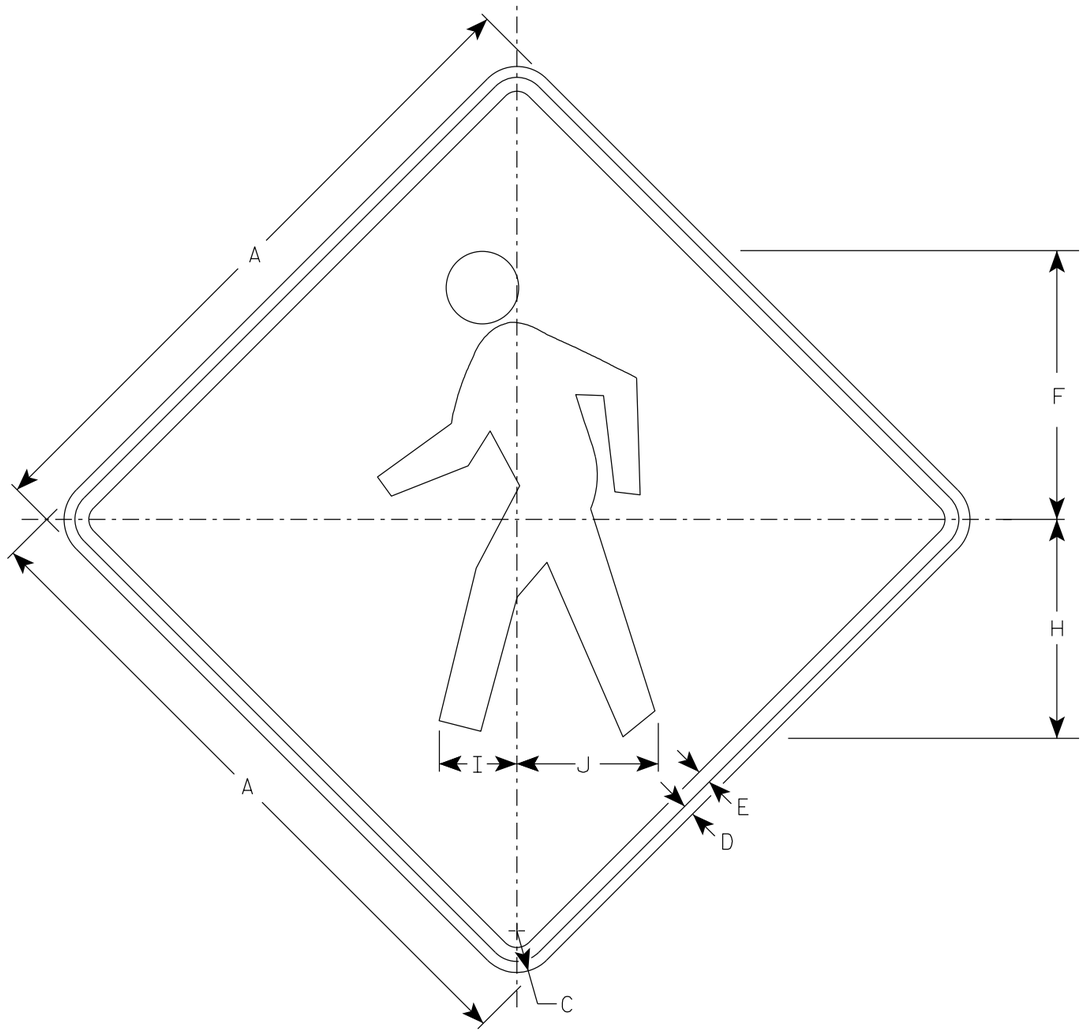
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/5/2024 PLATE NO. W5-54.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate_W554.dgn PLOT DATE : 5-MARCH 2024 11:55 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



W11-2

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   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	24		1 1/2	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 7/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

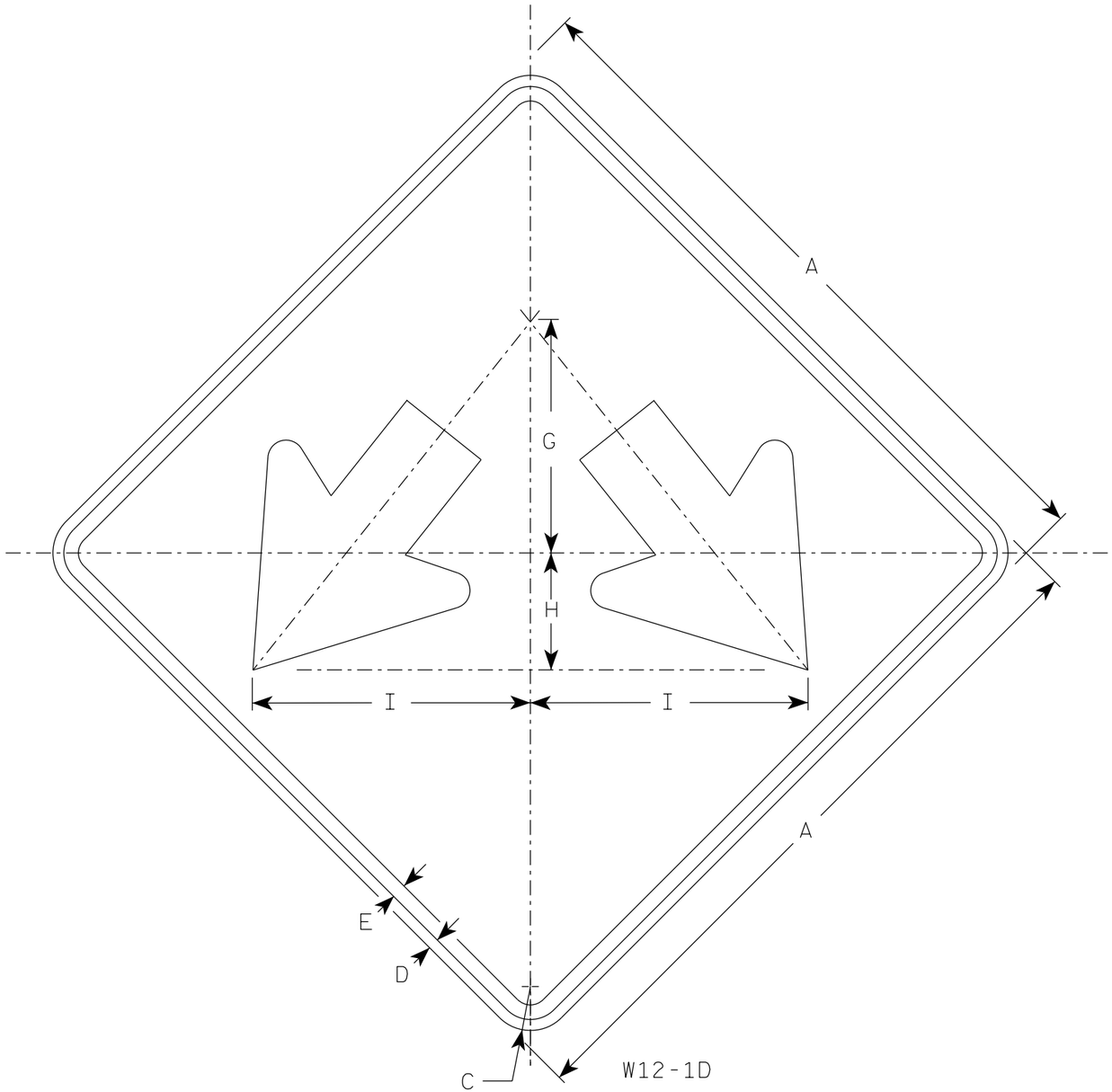
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

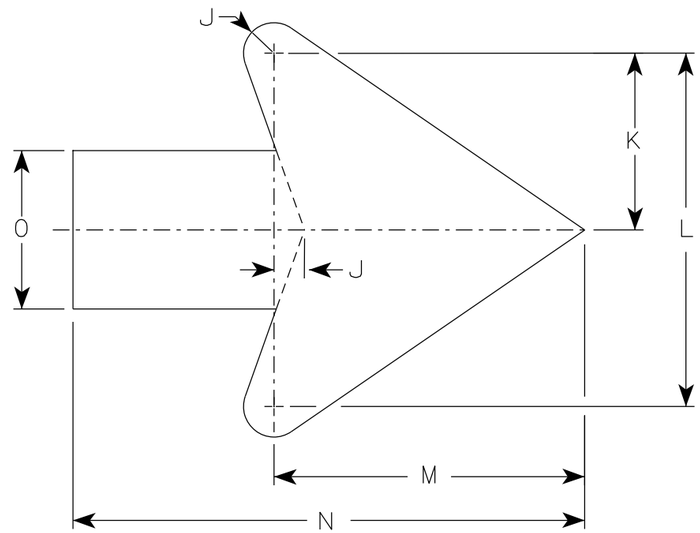
DATE 6/15/2023 PLATE NO. W11-2.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 500 E



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - 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	Areq. sq. ft.
1																											
2S	24		1 1/2	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 1/2	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 7/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		2 1/4	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		3	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

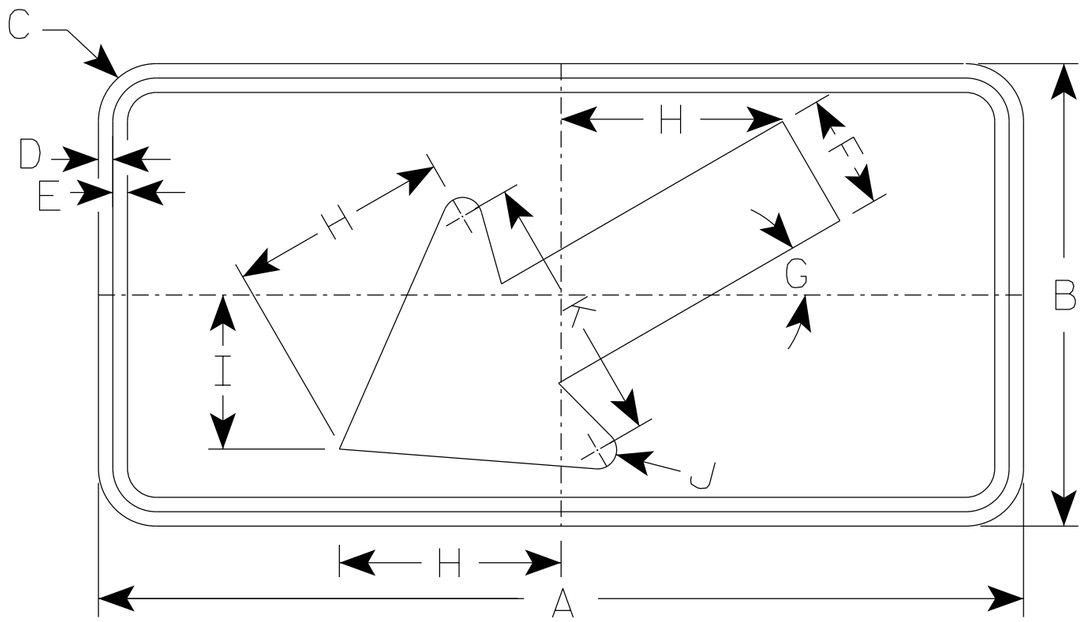
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/30/2023 PLATE NO. W12-1D.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 501	E



W16-7L

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. W16-7R is the same as W16-7L except the arrow is reversed along the vertical centerline.

* For 36" x 36" Warning Signs, use 30" x 18" W16-7L signs.
* For 48" x 48" Warning Signs, use 48" x 24" W16-7L signs.

	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 ½	⅜	⅜	3	30°	5 ¾	4	½	7																2.0
*	2M	30	18	1 ½	⅜	½	4 ½	30°	8 ½	6	⅝	10 ¼																3.75
*	3	30	18	1 ½	⅜	½	4 ½	30°	8 ½	6	⅝	10 ¼																3.75
*	4	48	24	1 ⅞	½	⅝	6	30°	11 ½	8	1	14																8.0
	5																											

STANDARD SIGN
W16-7

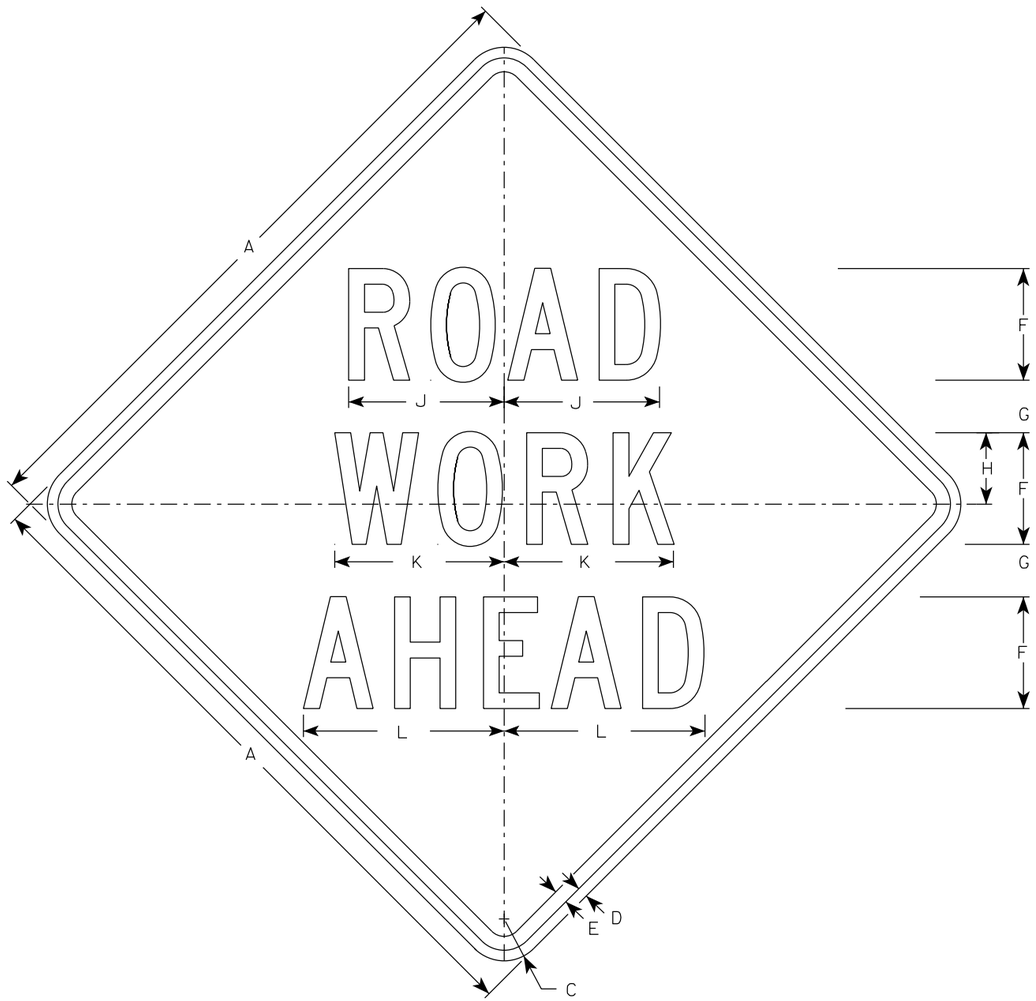
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

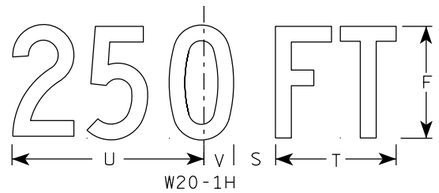
DATE 1/9/2024 PLATE NO. W16-7.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 502 E

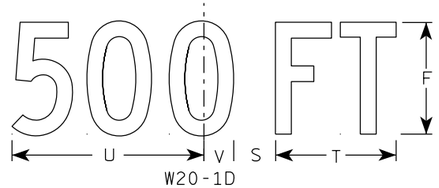
7



W20-1A



W20-1H



W20-1D



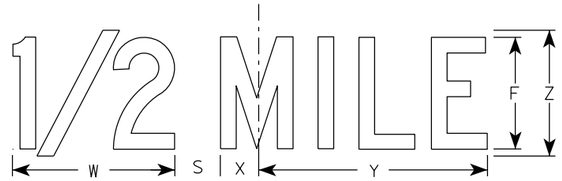
W20-1C



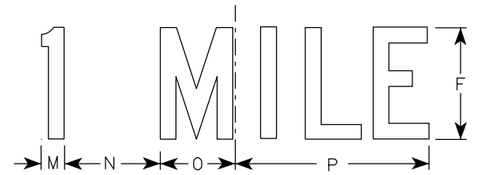
W20-1B

NOTES

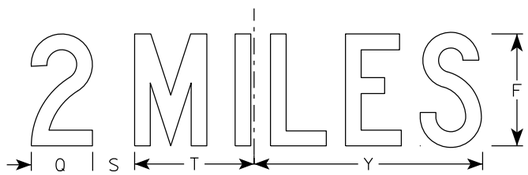
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

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		2 1/4	5/8	3/4	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	3 1/4	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		3	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		3	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		3	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		3	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		3	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, E, F, G & H

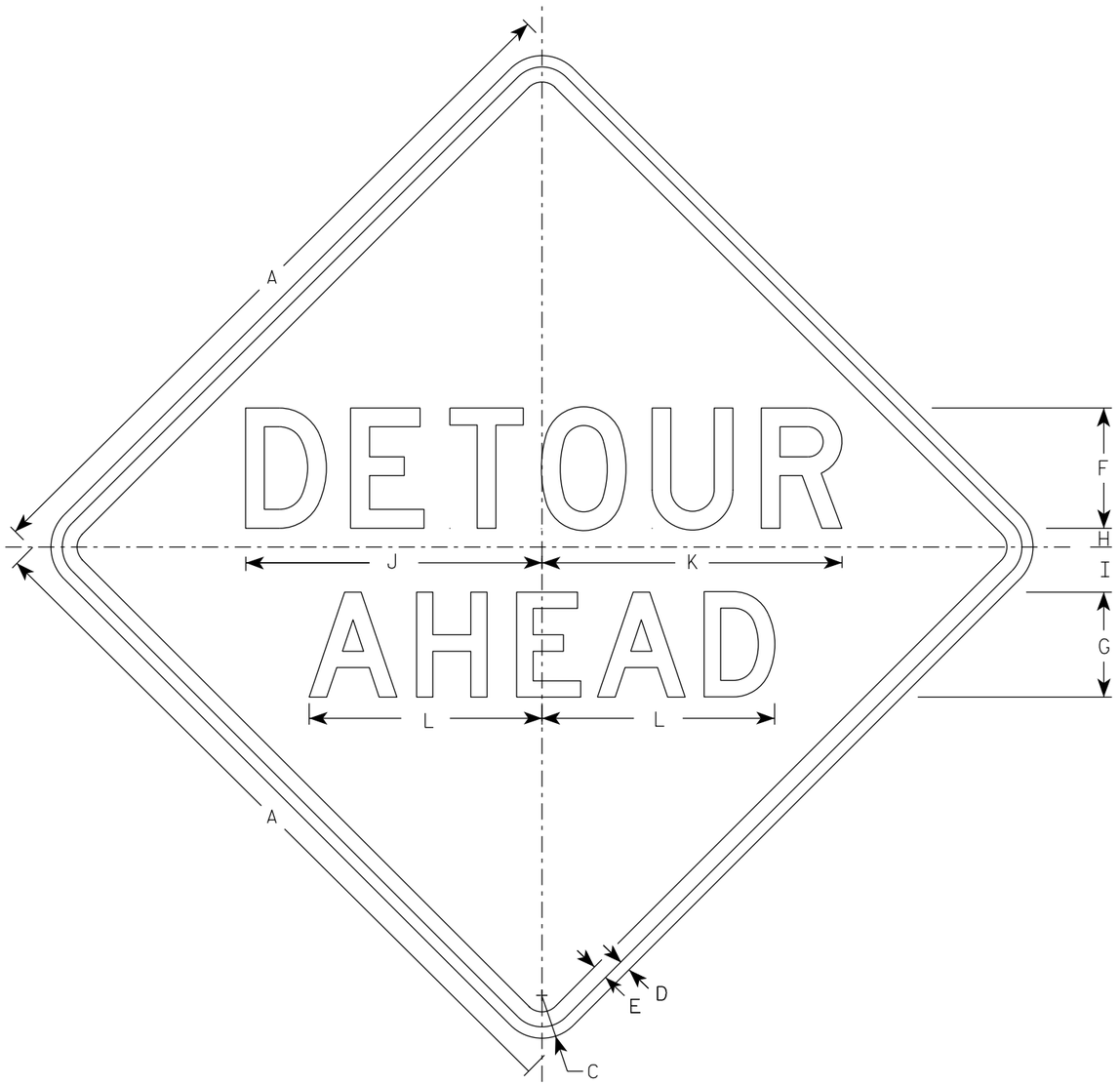
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

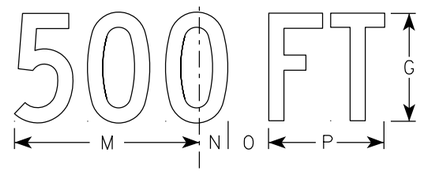
DATE 1/10/2024 PLATE NO. W20-1.12

PROJECT NO:

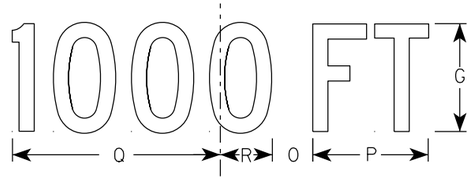
SHEET NO: 503 E



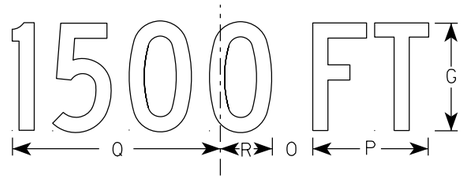
W20-2A



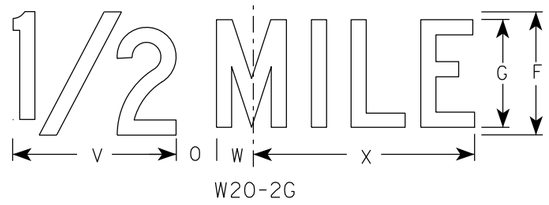
W20-2D



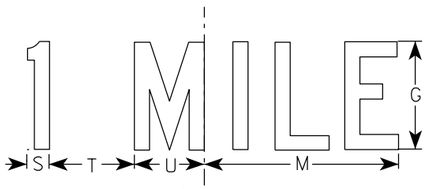
W20-2C



W20-2B



W20-2G



W20-2F

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 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	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	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		3	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		3	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		3	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		3	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		3	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

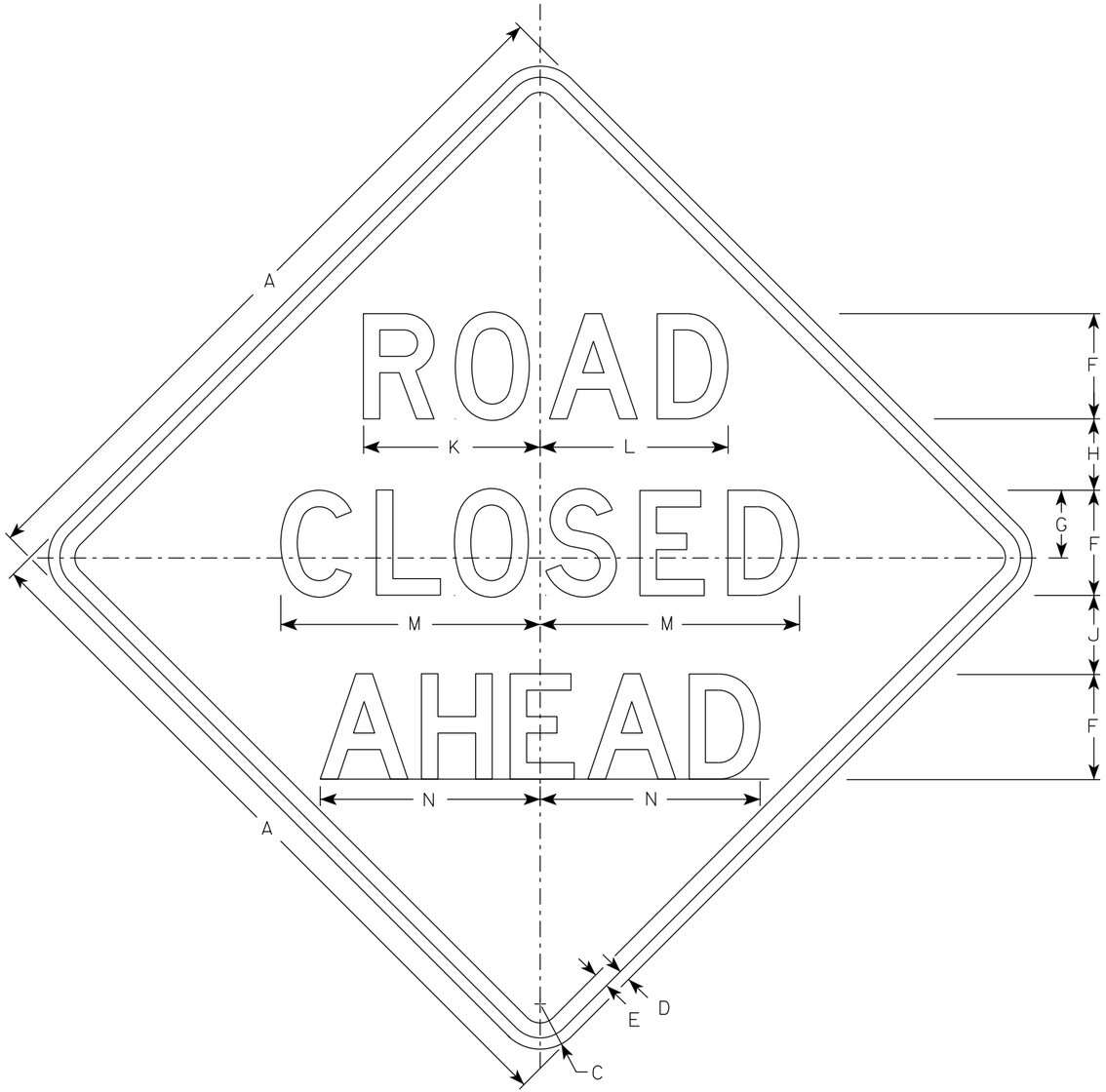
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

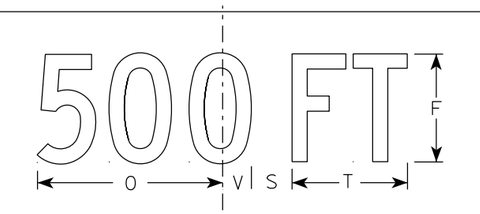
DATE 1/10/2024 PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

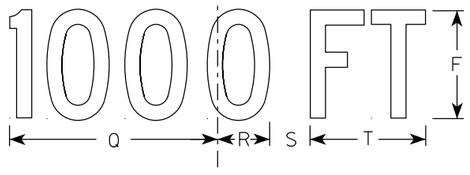
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W202.DGN PLOT DATE : 10-JAN 2024 11:36 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



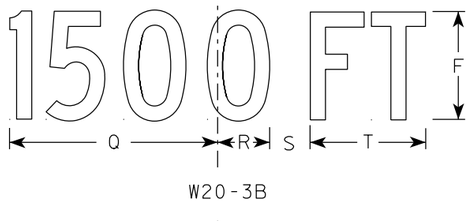
W20-3A



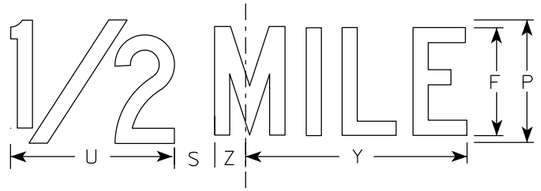
W20-3D



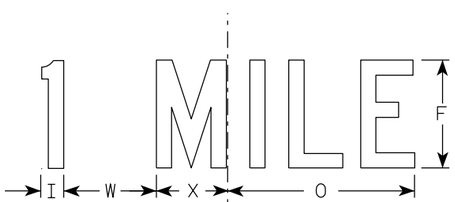
W20-3C



W20-3B



W20-3G



W20-3F

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. 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		2 1/4	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		3	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		3	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		3	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		3	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		3	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

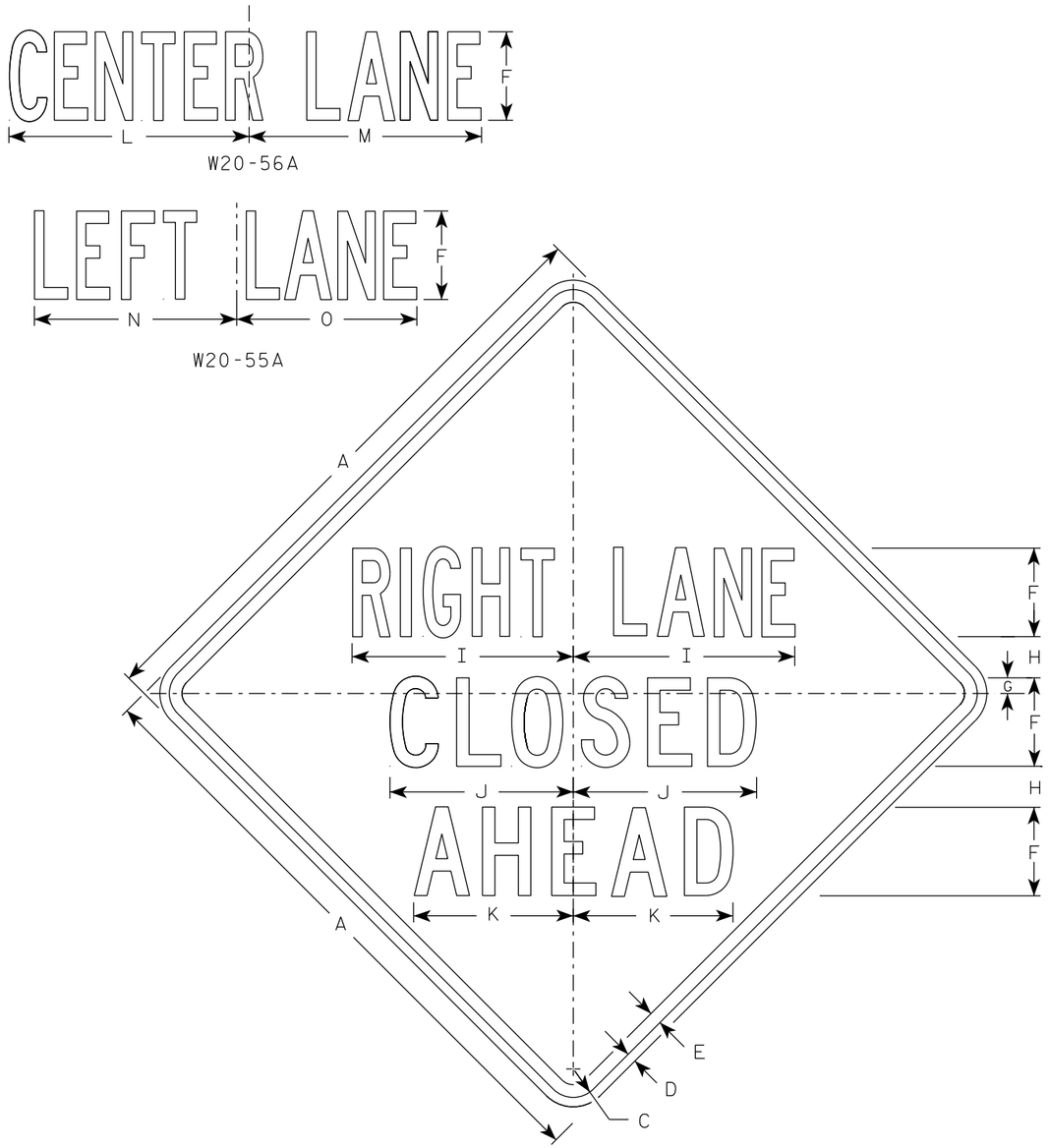
STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

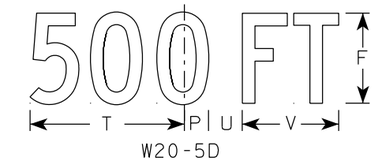
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-3.8

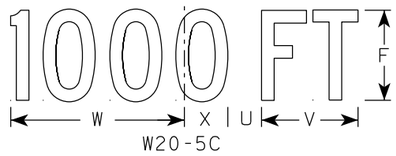
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 505 | E



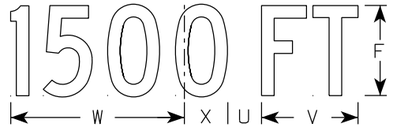
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

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. " _____ 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	2 1/4	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	3	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	3	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	3	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	3	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	3	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

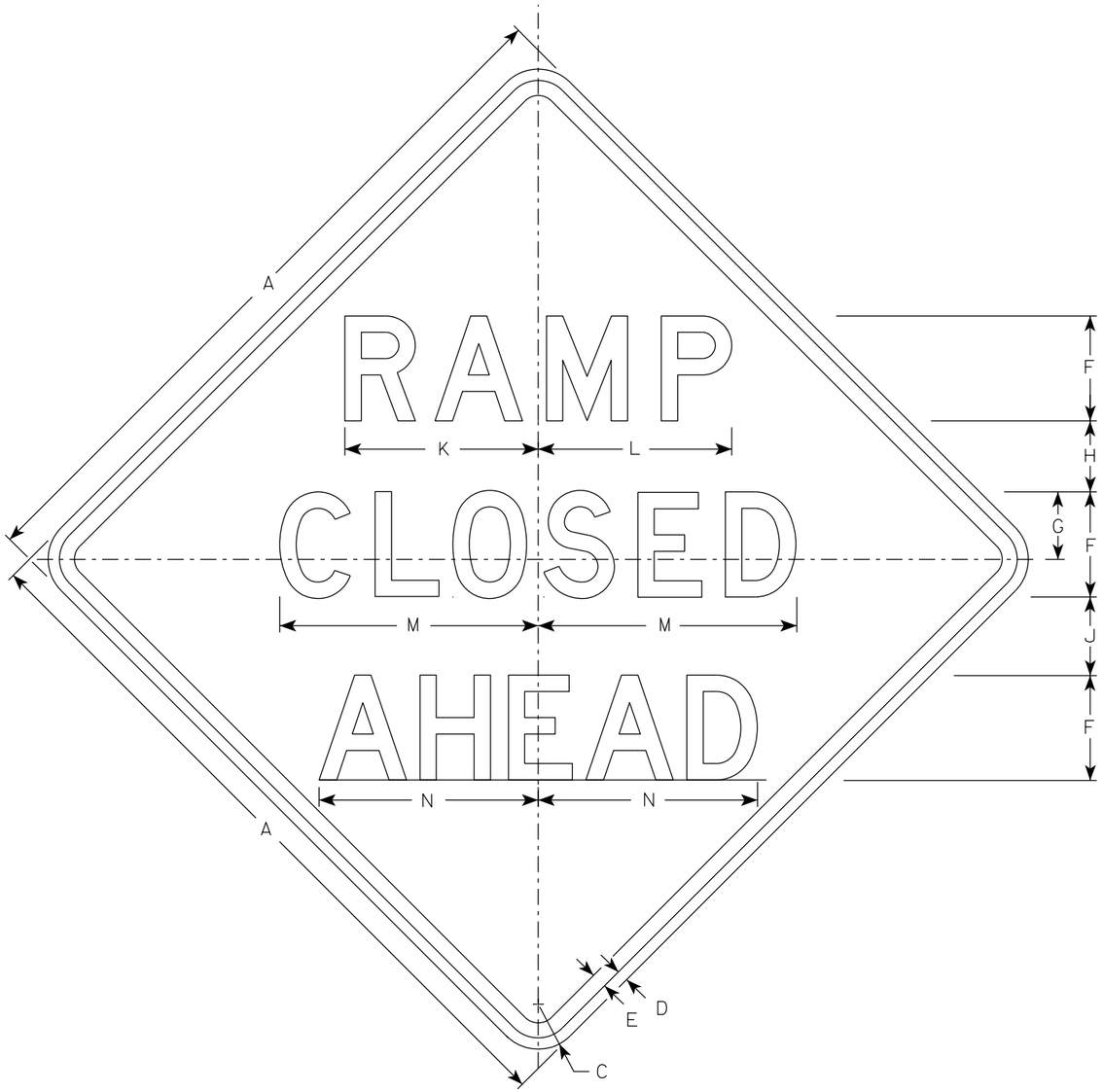
STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

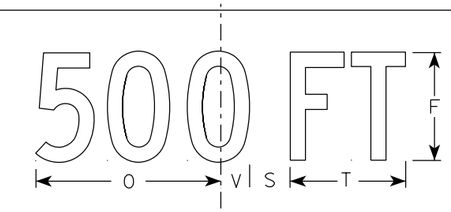
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/27/24 PLATE NO. W20-5.12

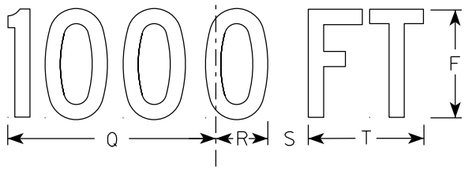
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 506 | E



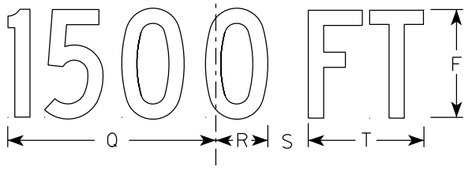
W20-53A



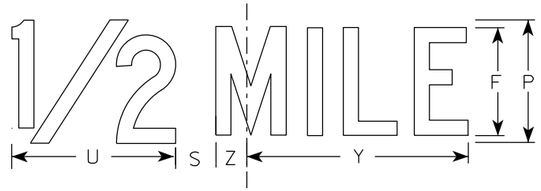
W20-53D



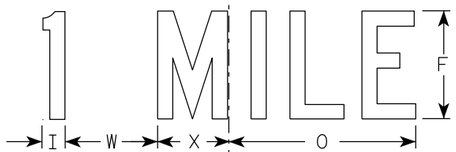
W20-53C



W20-53B



W20-53G



W20-53F

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. 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		2 1/4	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		3	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		3	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		3	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		3	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		3	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

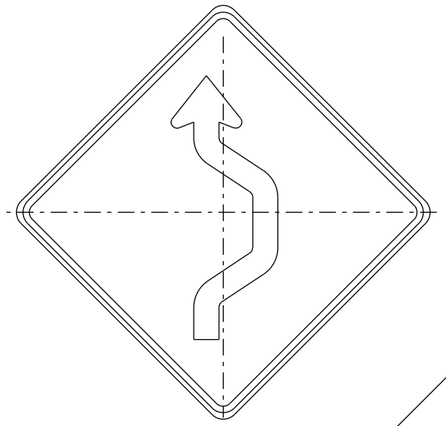
STANDARD SIGN
W20-53A,B,C,D,F,G

WISCONSIN DEPT OF TRANSPORTATION

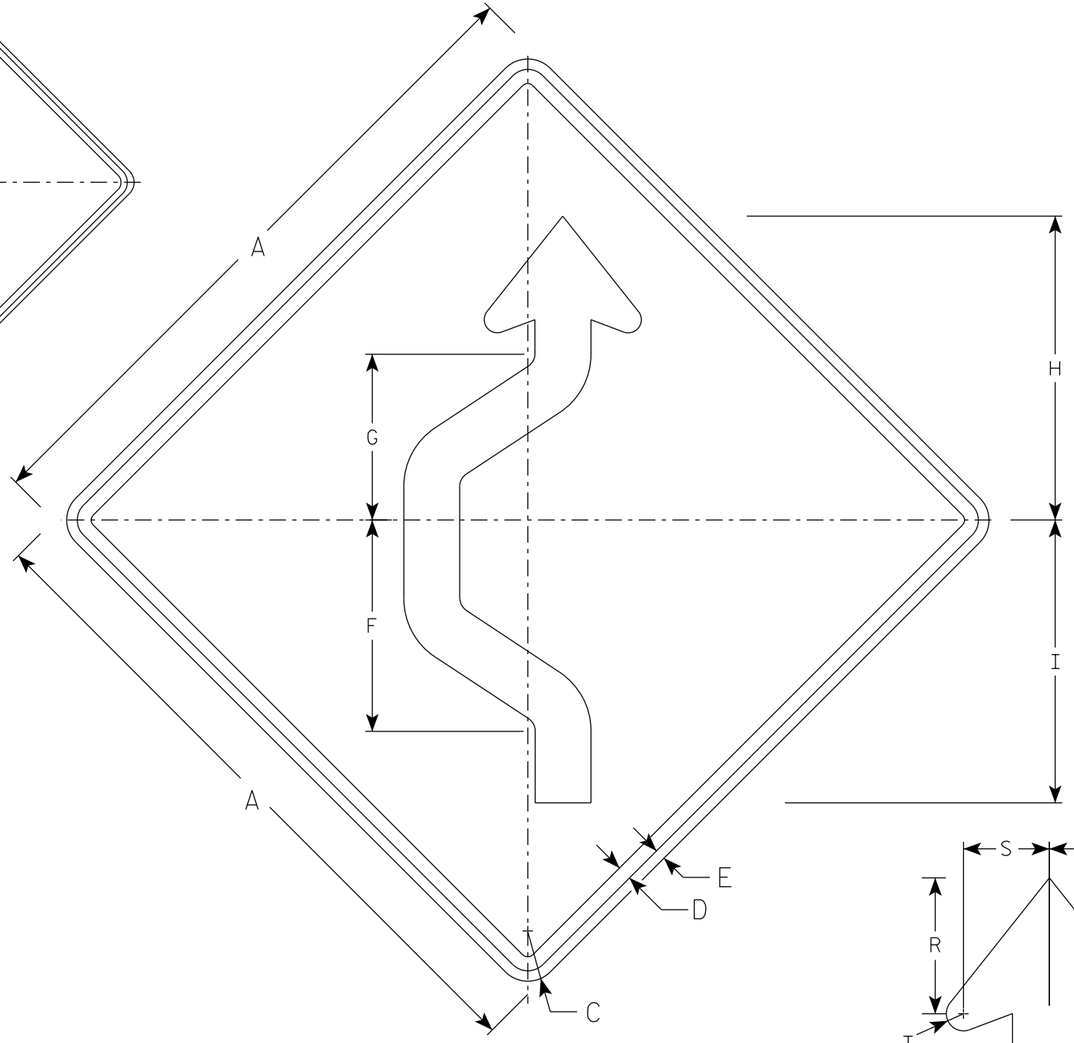
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-53.2

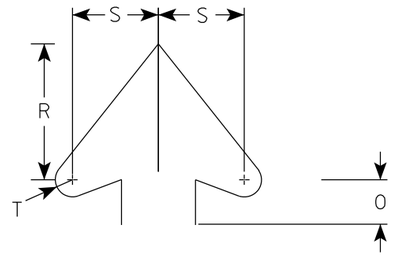
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



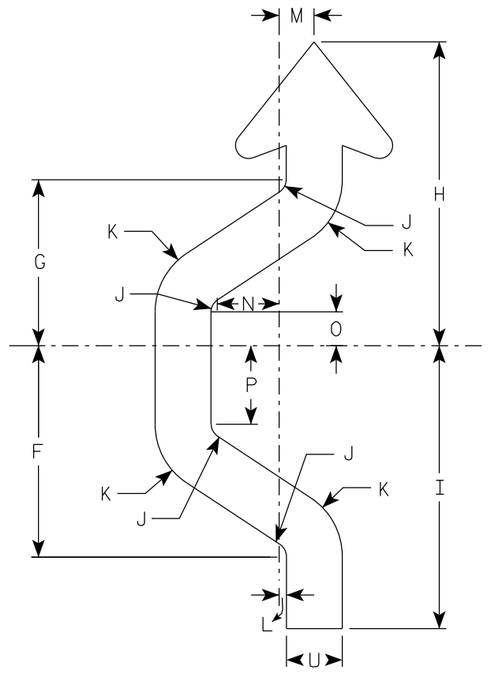
W24-1R



W24-1L



Arrowhead Detail



Arrow Detail

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. W24-1R is the same as W24-1L except 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		2 1/4	5/8	1/2	11 3/8	8 7/8	16 3/8	15 1/4	3/4	3 3/4	3/8	2	3 3/8	1 7/8	4 1/4		5 1/2	3 1/2	5/8	3						9.0
2M	36		2 1/4	5/8	1/2	11 3/8	8 7/8	16 3/8	15 1/4	3/4	3 3/4	3/8	2	3 3/8	1 7/8	4 1/4		5 1/2	3 1/2	5/8	3						9.0
3																											
4																											
5																											

STANDARD SIGN
W24-1L & R

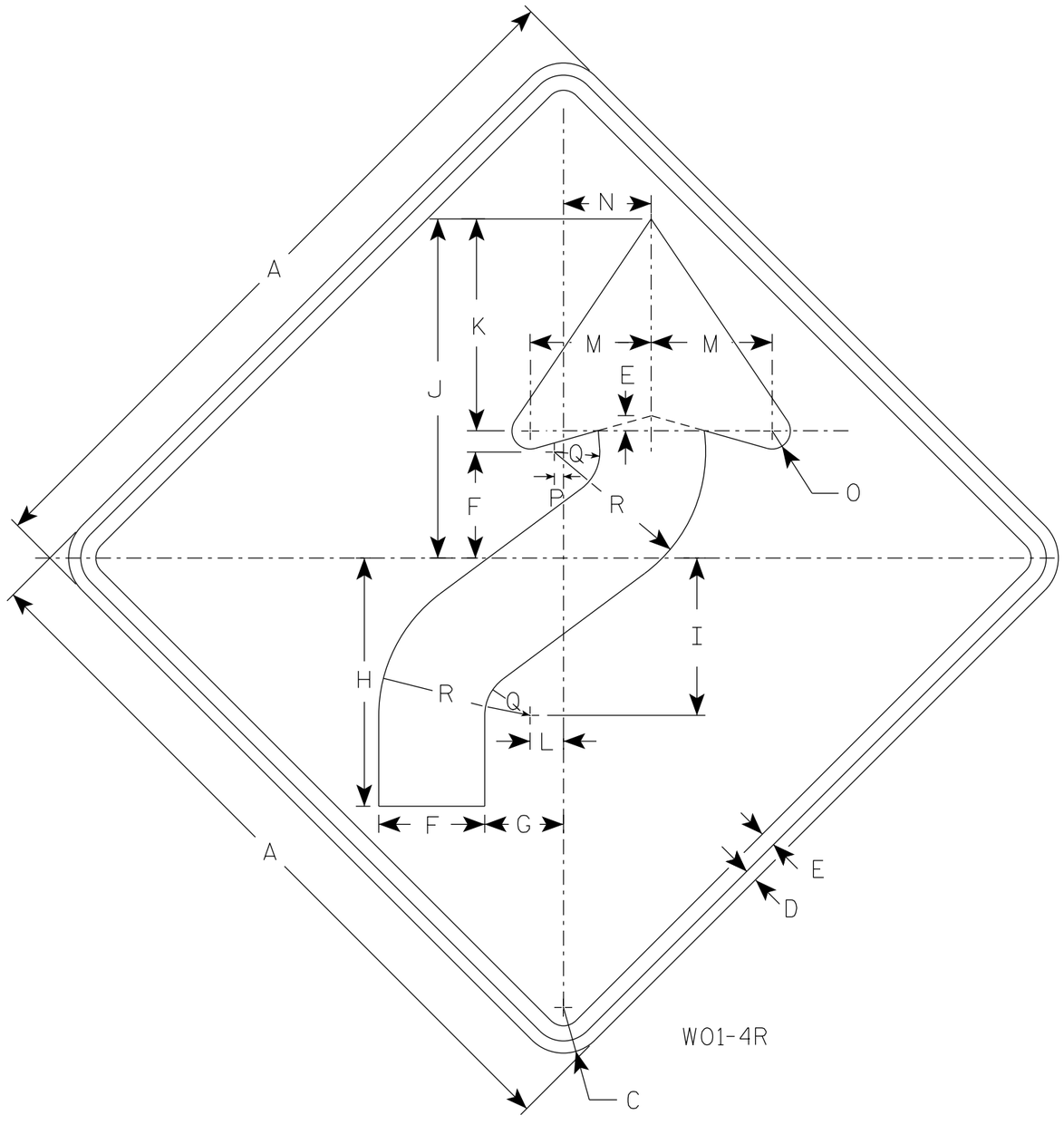
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/22/2024 PLATE NO. W24-1.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : FILE NAME :C:\CAEfiles\Projects\tr_stdplate\W241L.DGN PLOT DATE : 23-JAN 2024 7:28 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



WO1-4R

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. WO1-4L is the same as WO1-4R 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		2 1/4	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		3	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		3	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		3	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		3	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		3	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

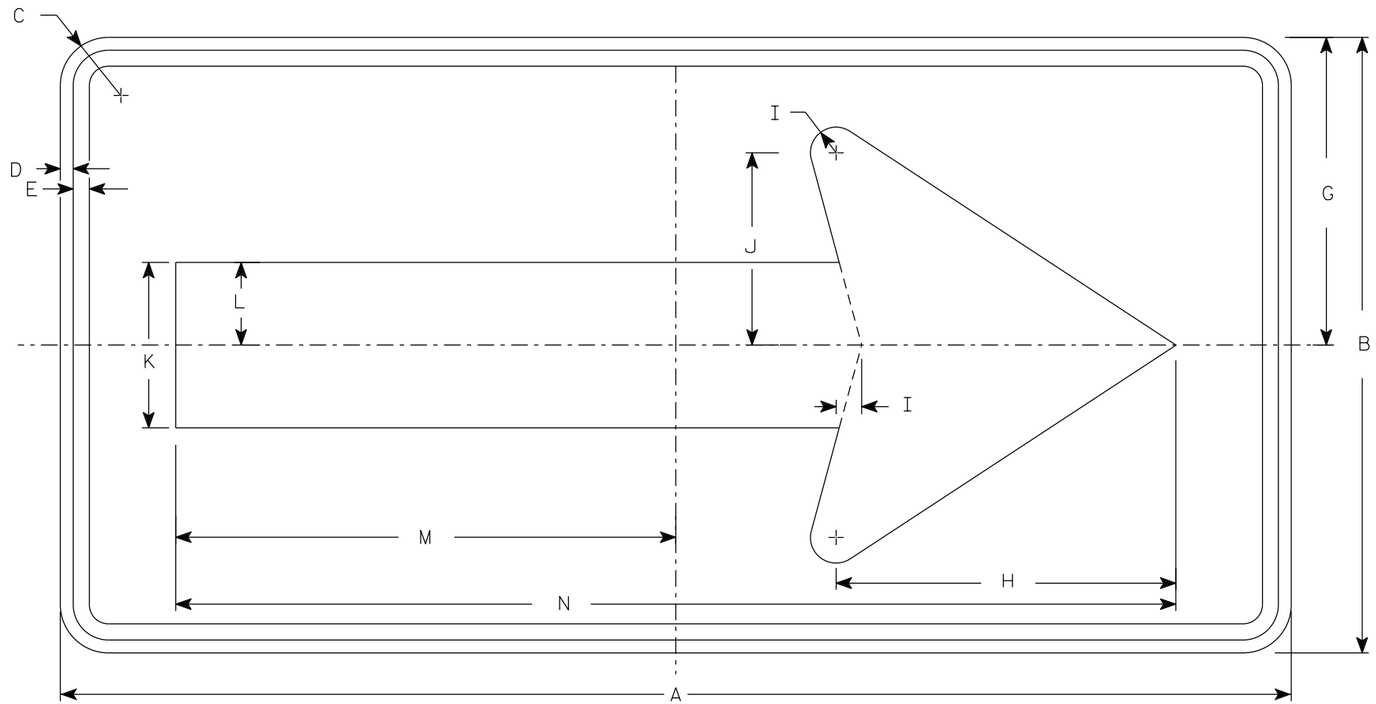
STANDARD SIGN
WO1-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/24/2024 PLATE NO. WO1-4.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 509 E



WO1-6

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.

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 7/8	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 7/8	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 7/8	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 7/8	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 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

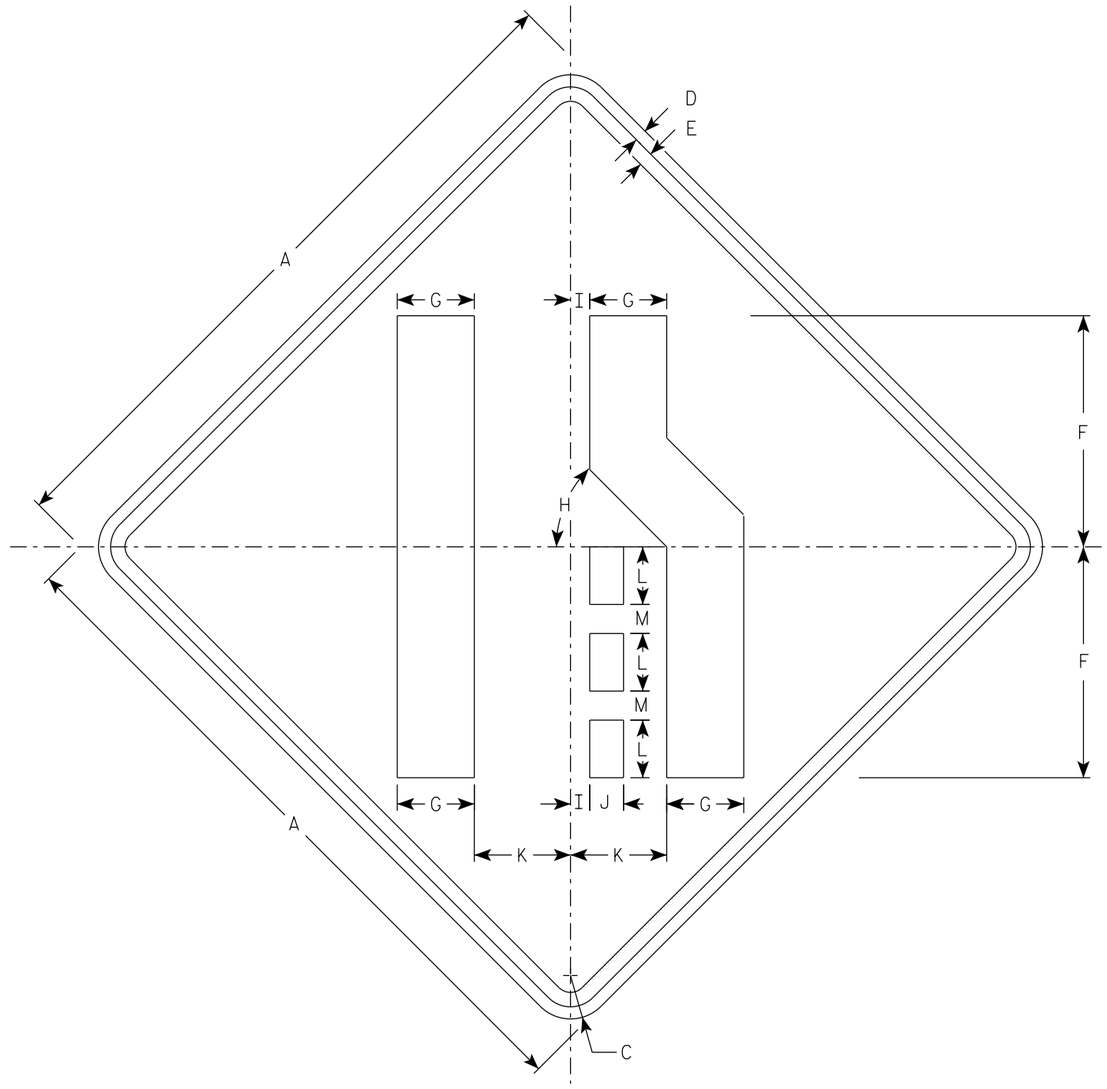
STANDARD SIGN
WO1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. WO1-6.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W04-2R

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. 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		2 1/4	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		3	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

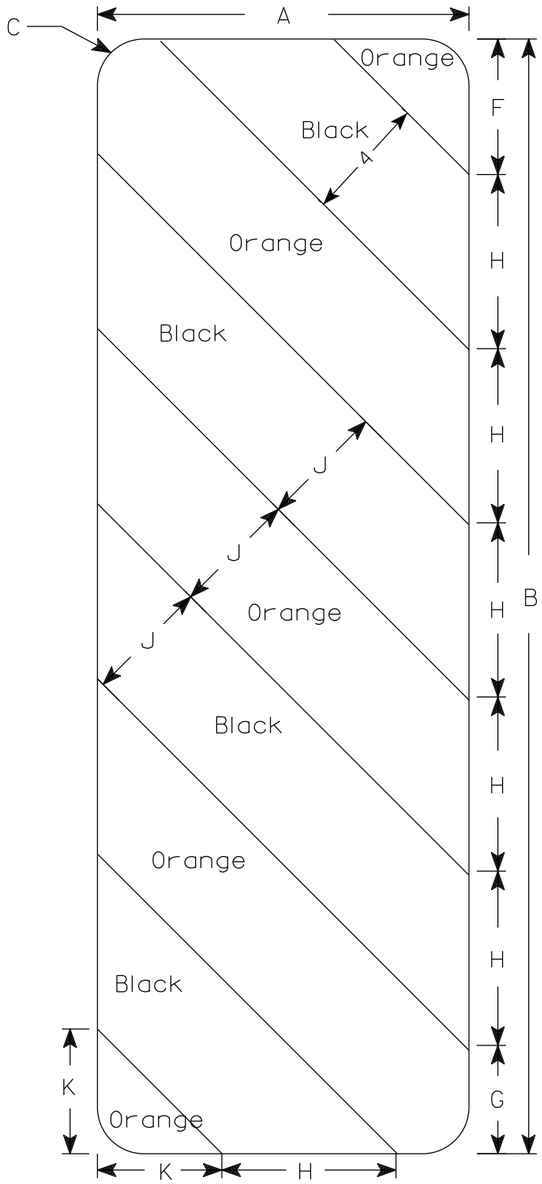
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

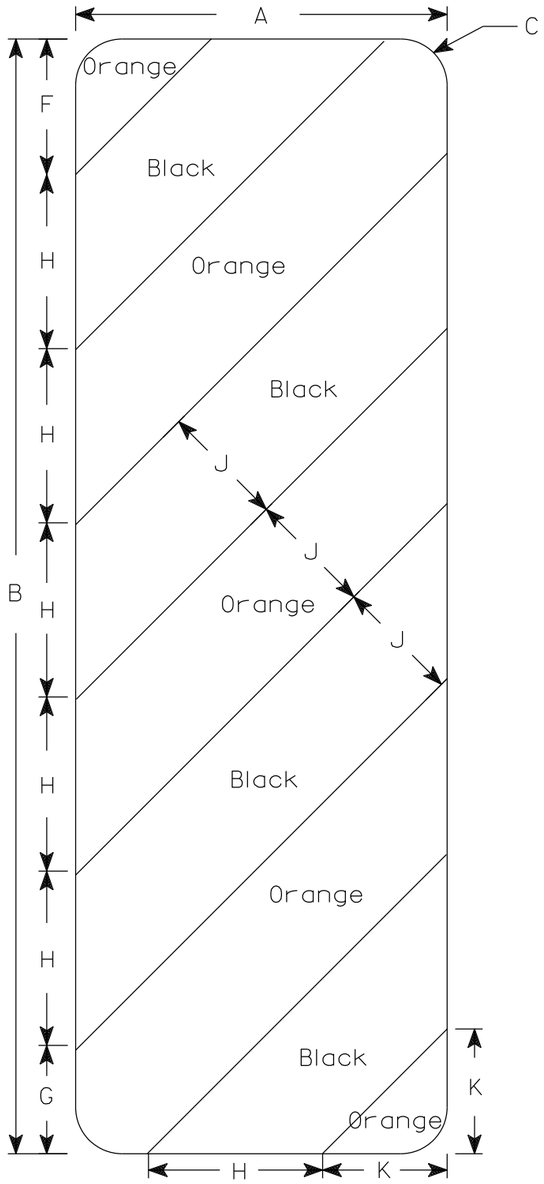
DATE 1/25/2024 PLATE NO. W04-2.2

PROJECT NO:

SHEET NO: 511 E



W05-52L



W05-52R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
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	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

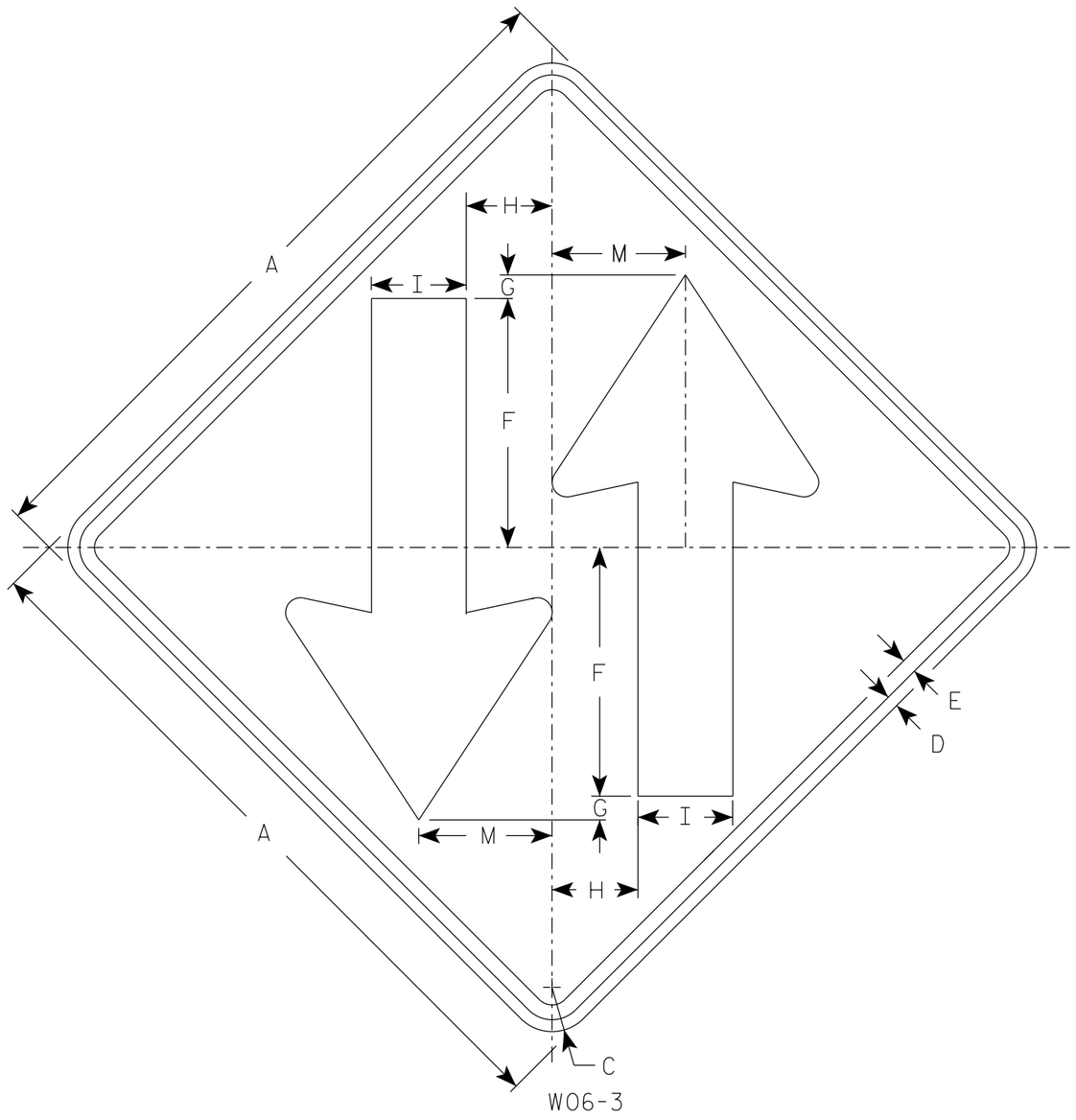
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/2024 PLATE NO. W05-52.2

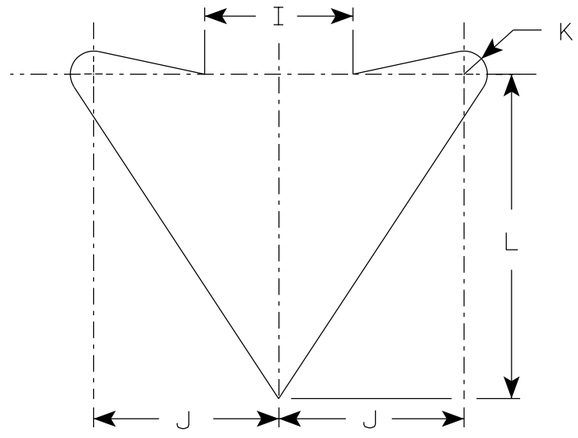
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 512 | E



W06-3

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	36		2 1/4	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2S	48		3	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
2M	48		3	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
3	48		3	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
4	48		3	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		3	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

STANDARD SIGN

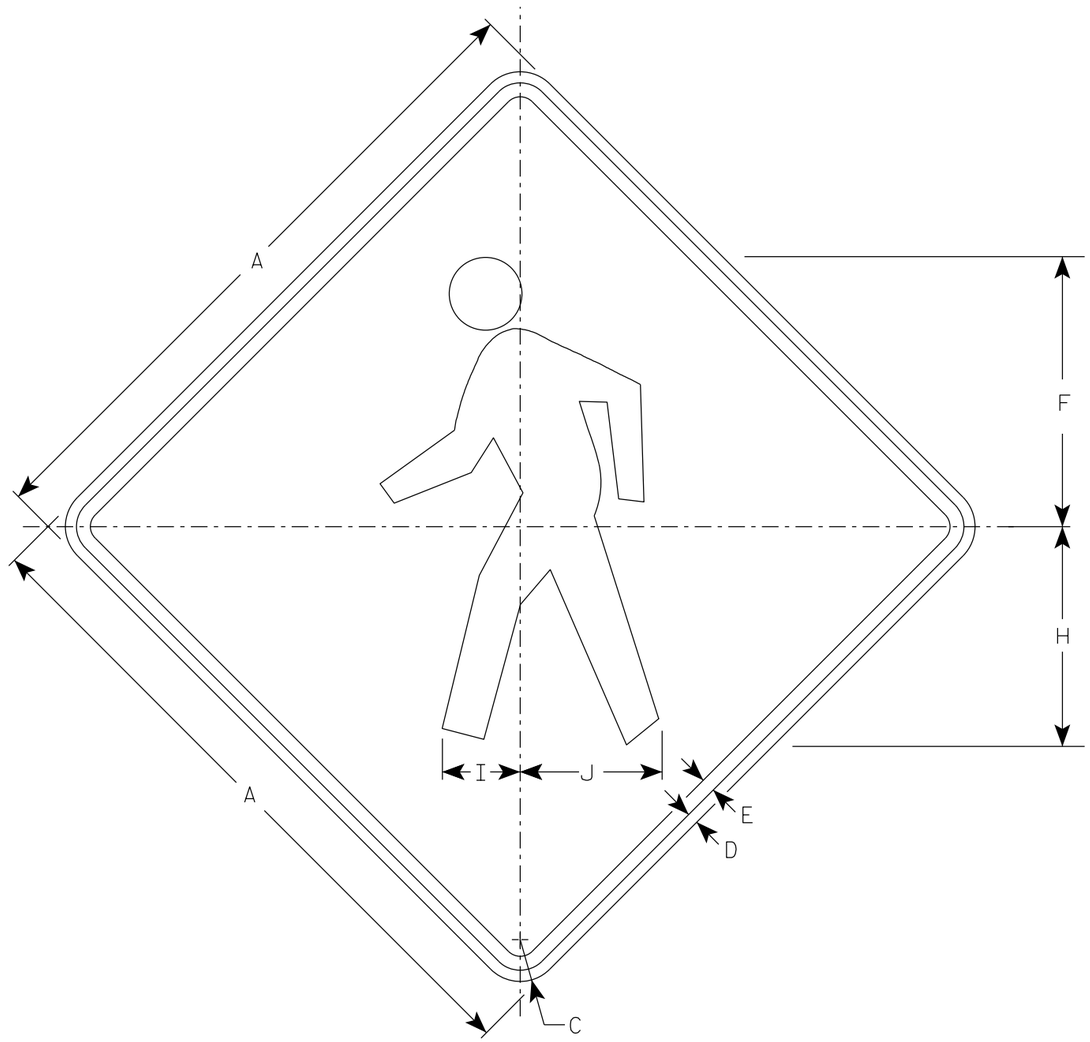
W06-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/30/2024 PLATE NO. W06-3.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 513 | E



WO11-2

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.

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		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
2S	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
2M	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
3	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
4	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

STANDARD SIGN

WO11-2

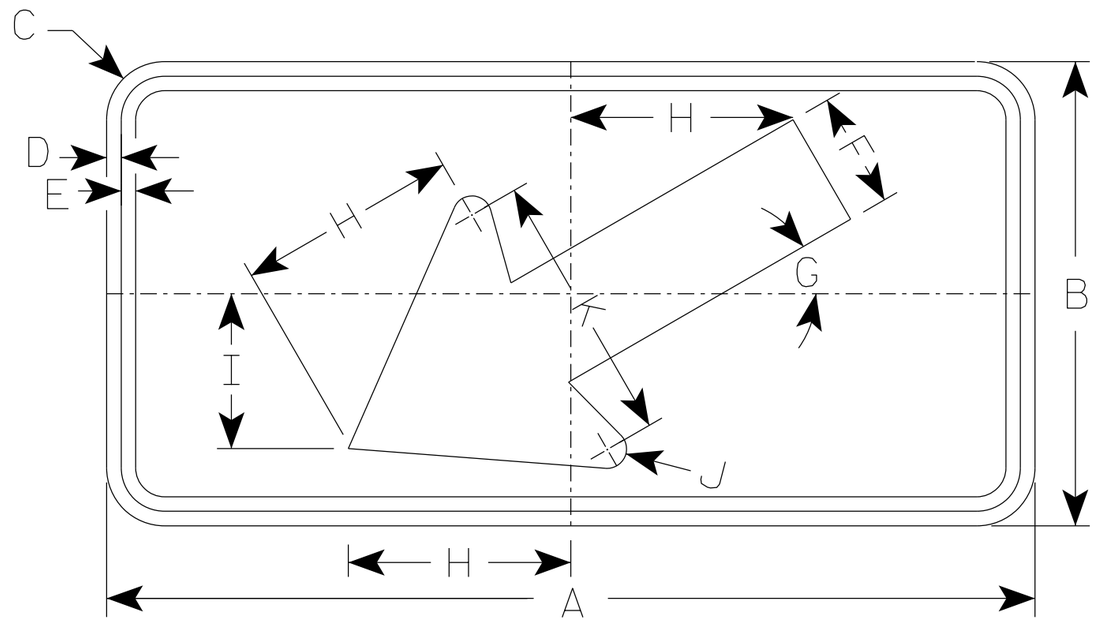
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

For State Traffic Engineer

DATE 2/1/2024 PLATE NO. WO11-2.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 514 E



W016-7L

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded but corners shall be rounded when base material is metal.
4. W016-7R is the same as W016-L 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	18	1 1/2	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
2S	48	24	1 7/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
2M	48	24	1 7/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
3	48	24	1 7/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
4	48	24	1 7/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
5	48	24	1 7/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0

STANDARD SIGN
W016-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W016-7.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 515	E

DESIGN DATA

CONTRACTOR DESIGNED OVERHEAD SIGN STRUCTURES SHALL BE DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL.

STANDARD FOUNDATIONs DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS
WIND PRESSURE: 115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS

STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTREME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE:	1.0 NW (NATURAL WIND GUST)
	1.0 TrG (TRUCK INDUCED GUST)
	1.0 GVW (GALLOPING - CANTILEVER ONLY)

MATERIAL PROPERTIES

CONCRETE MASONRY — f'_c = 3,500 PSI

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 — f_y = 60,000 PSI

STRUCTURAL ANGLES, PLATES & BARS - ASTM A709 GRADE 36 — f_y = 36,000 PSI

HIGH STRENGTH BOLTS - ASTM A3125 GRADE A325 — f_y = 92,000 PSI

ANCHOR RODS - ASTM F1554 GRADE 55 — f_y = 55,000 PSI

HEAVY HEX NUTS - ASTM A563 GRADE DH OR ASTM A194 GRADE 2H

WASHERS - ASTM F436

DTI WASHERS - ASTM F959 TYPE 325

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGN FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING THE DRILLING OF THE SHAFT HOLE TO CONFRIM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WISCRS), MILWAUKEE COUNTY ZONE, NAD 83 (1997). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2012).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE TRUSS OR MONOTUBE BID ITEMS FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA. A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE ¼ THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

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

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON THE SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT (DIA.)".

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	S-40-670	S-40-671	S-40-3125	TOTAL
204.0246.400	REMOVING ANCILLARY STRUCTURE S-40-299	EA				1
204.0246.401	REMOVING ANCILLARY STRUCTURE S-40-977	EA				1
204.0246.402	REMOVING ANCILLARY STRUCTURE S-40-978	EA				1
204.0246.403	REMOVING ANCILLARY STRUCTURE S-40-979	EA				1
531.2036	DRILLING SHAFT 36-INCH	LF	18	18	40	76
531.5310.400	FOUNDATION SINGLE-SHAFT TYPE TC-I S-40-670	EA	1			1
531.5310.401	FOUNDATION SINGLE-SHAFT TYPE TC-I S-40-671	EA		1		1
531.5420.400	FOUNDATION SINGLE-SHAFT TYPE TF-II S-40-3125	EA			2	2
532.5310.400	TRUSS CANTILEVER 2-CHORD TYPE I S-40-670	EA	1			1
532.5310.401	TRUSS CANTILEVER 2-CHORD TYPE I S-40-671	EA		1		1
532.5420.400	TRUSS FULL SPAN 2-CHORD TYPE II S-40-3125	EA			1	1

STRUCTURE DATA

STRUCTURE ID	SIGN AREA	SIGN DEPTH	FOUNDATION TYPE	TRUSS TYPE
S-40-670	53 SF	7'-6"	TYPE TC-I	2-CHORD CANTILEVER TYPE I
S-40-671	53 SF	7'-6"	TYPE TC-I	2-CHORD CANTILEVER TYPE I
S-40-3125	260 SF	10'-0"	TYPE TF-II	2-CHORD FULL SPAN TYPE II

LIST OF DRAWINGS:

1. GENERAL NOTES & DESIGN DATA
2. LAYOUT S-40-670
3. LAYOUT S-40-671
4. LAYOUT S-40-3125

LIST OF STANDARD DESIGN DRAWINGS

5. I. MONOTUBE & 2-CHORD TRUSS CONNECTIONS 1
6. II. MONOTUBE & 2-CHORD TRUSS CONNECTIONS 2
7. III. MONOTUBE & 2-CHORD TRUSS ELECTRICAL DETAILS
8. IV. MONOTUBE & 2-CHORD TRUSS FOUNDATIONS

STATE PROJECT NUMBER

1228-09-77

TRAFFIC VOLUME

W. BECHER ST
A.D.T. (2045) = 1,100
R.D.S. = 30 MPH

IH-43/94
A.D.T. (2045) = 8,800
R.D.S. = 30 MPH

THESE ARE STANDARD DESIGN PLANS DEVELOPED AND MAINTAINED BY THE WISDOT. THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISDOT BRIDGE MANUAL CHAPTER 39.

WISCONSIN
MARK J. MUTZIGER E-37119 MILWAUKEE WISCONSIN
PROFESSIONAL ENGINEER
1/24/25

STRUCTURE DESIGN CONTACTS:
AARON BONK 608-261-0261
MARK MUTZIGER 414-930-4534

NO.	DATE	REVISION	BY

COLLINS ENGINEERS INC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORATION

ACCEPTED JLR 12/19/25
CHIEF STRUCTURES DESIGN ENGINEER DATE

MONOTUBE & 2-CHORD

W. BECHER STREET UNDER IH-43/94

COUNTY	~~TOWN/CITY/VILLAGE~~
MILWAUKEE	MILWAUKEE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
JLM	MJM	MDG	MJM

GENERAL NOTES & DESIGN DATA

SHEET 1 OF 8
516

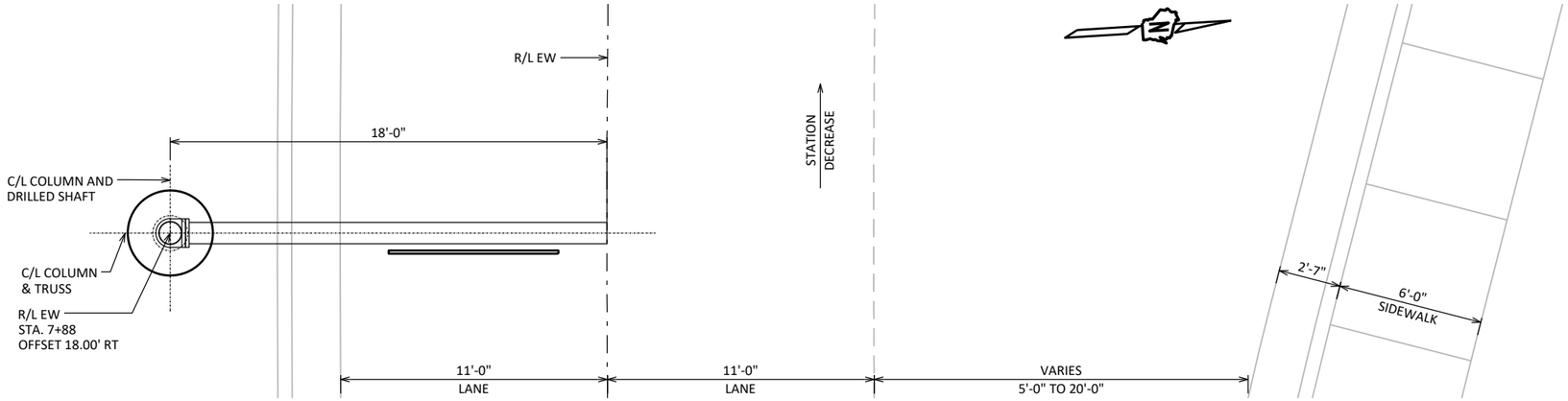
I.D.
DATE:
SCALE =

8

8

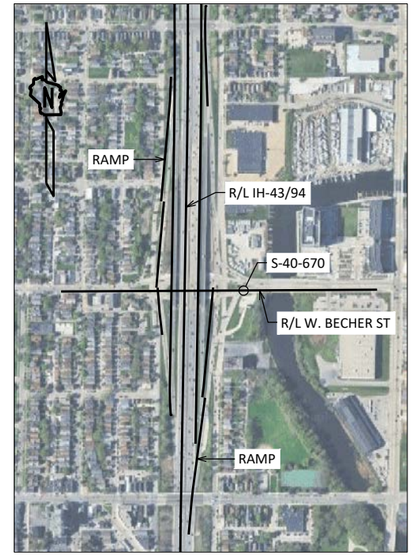
STATE PROJECT NUMBER

1228-09-77

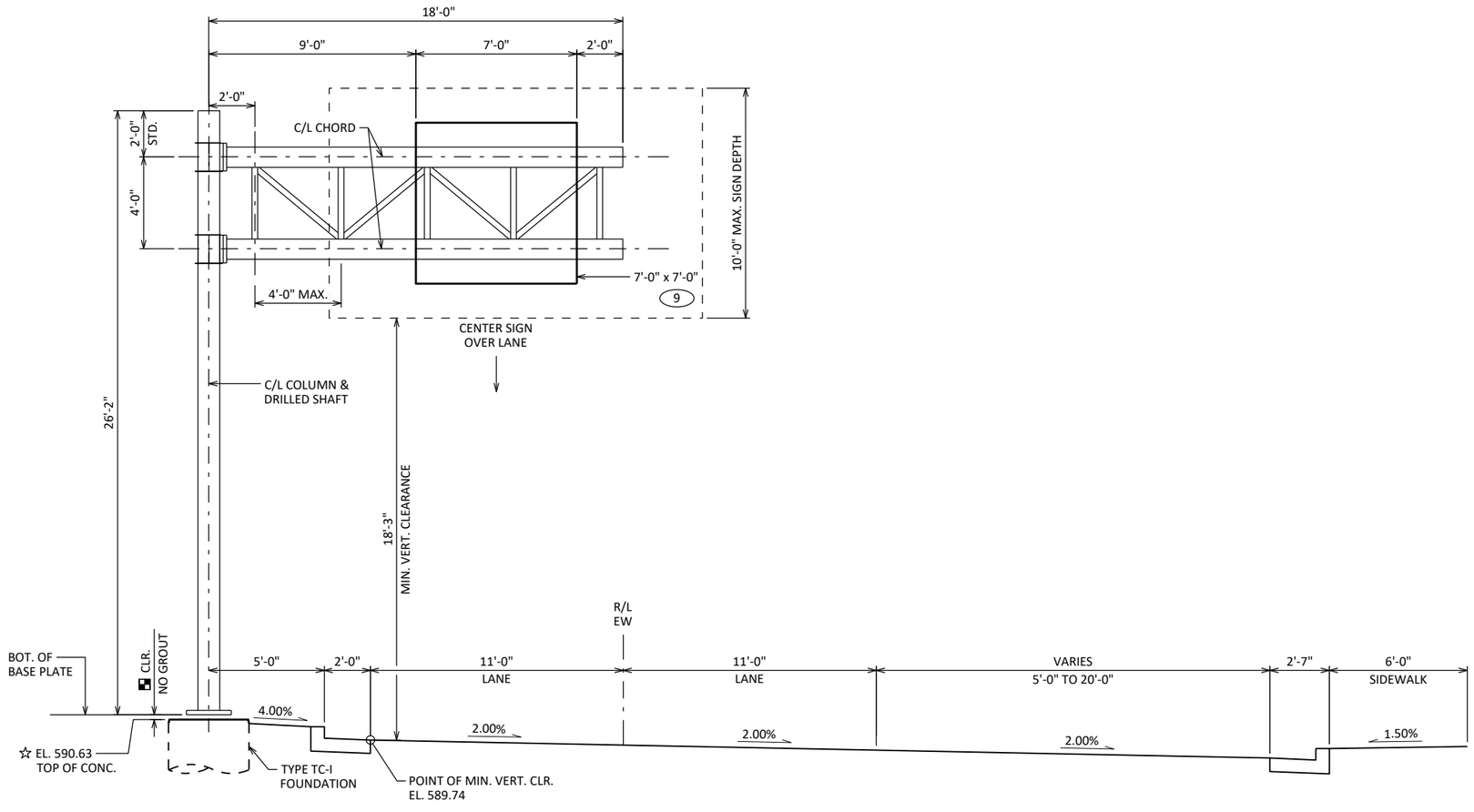


PLAN

STA. 7+88 EW (W BECHER STREET WB)



LOCATION MAP



ELEVATION

LOOKING DOWNSTATION AT F.F. OF SIGN

FOUNDATION NOTE

TREMIE CONCRETE OR ENCASED SHAFT CONSTRUCTION MAY BE NECESSARY TO PREVENT HEAVING OF ORGANIC SILT AT LOWER FOUNDATION LEVELS.

LEGEND

☆ ELEVATIONS GIVEN ALONG C/L STRUCTURE

(XXX) SIGN NUMBER, SEE PERMANENT SIGNING PLAN

▪ STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAX. OF 2 x ANCHOR ROD DIAMETER. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-670

DRAWN BY MDG | PLANS CK'D MJM

LAYOUT

SHEET 2
517

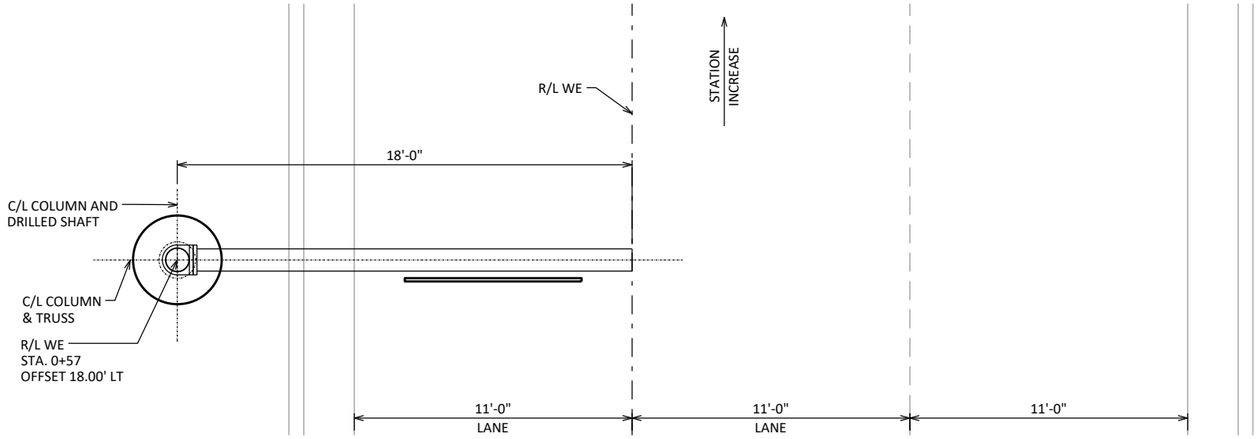
SCALE = 6.00

8

8

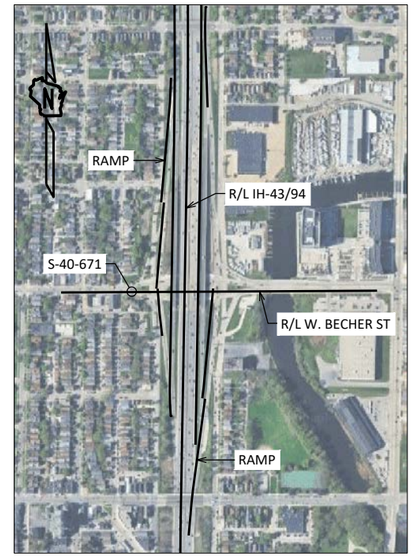
STATE PROJECT NUMBER

1228-09-77

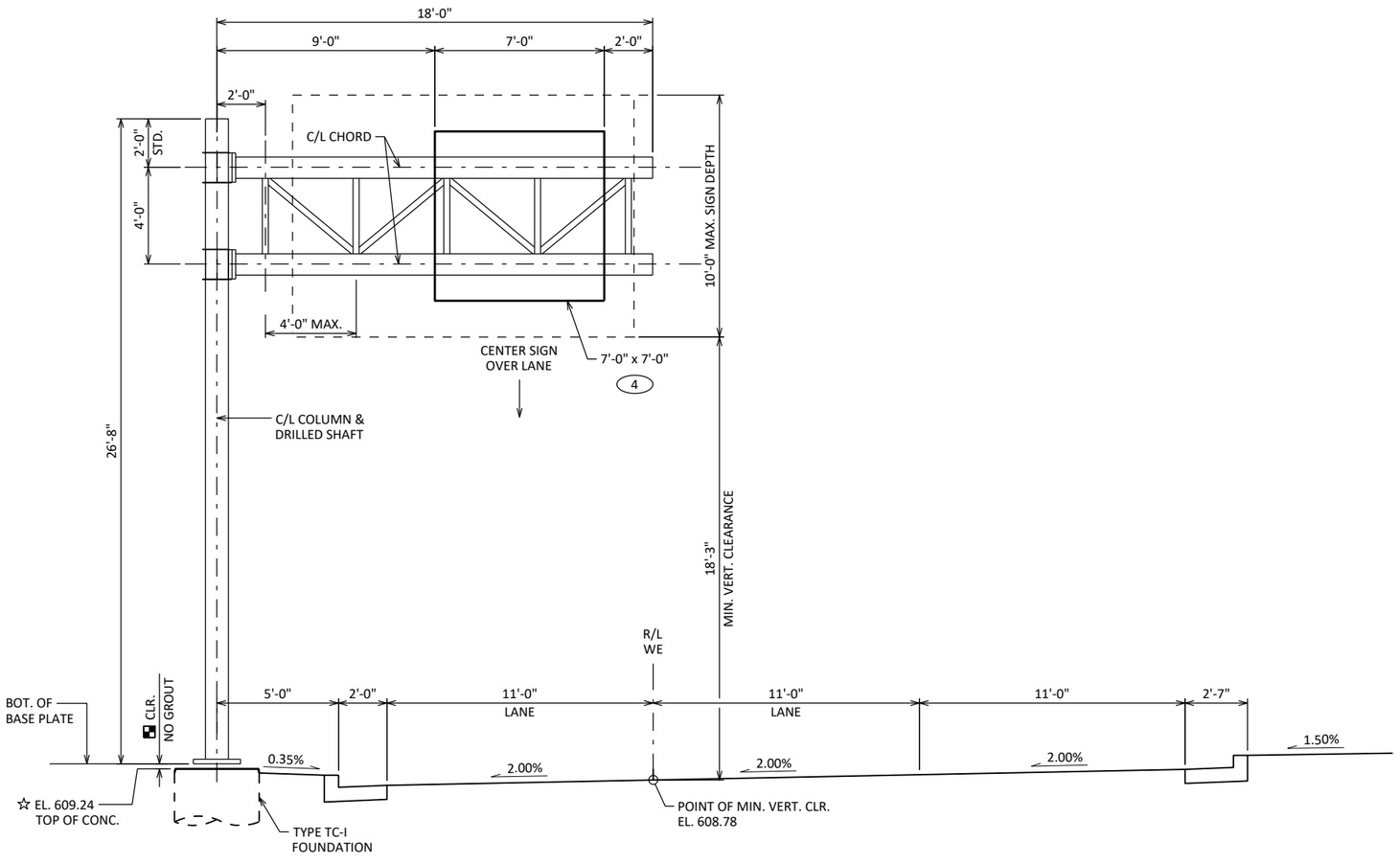


PLAN

STA. 0+57 WE (W BECHER STREET EB)



LOCATION MAP



ELEVATION

LOOKING UPSTATION AT F.F. OF SIGN

LEGEND

☆ ELEVATIONS GIVEN ALONG C/L STRUCTURE

(XXX) SIGN NUMBER, SEE PERMANENT SIGNING PLAN

■ STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAX. OF 2 x ANCHOR ROD DIAMETER. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-671

DRAWN BY MDG | PLANS CK'D MJM

LAYOUT

SHEET 3
518

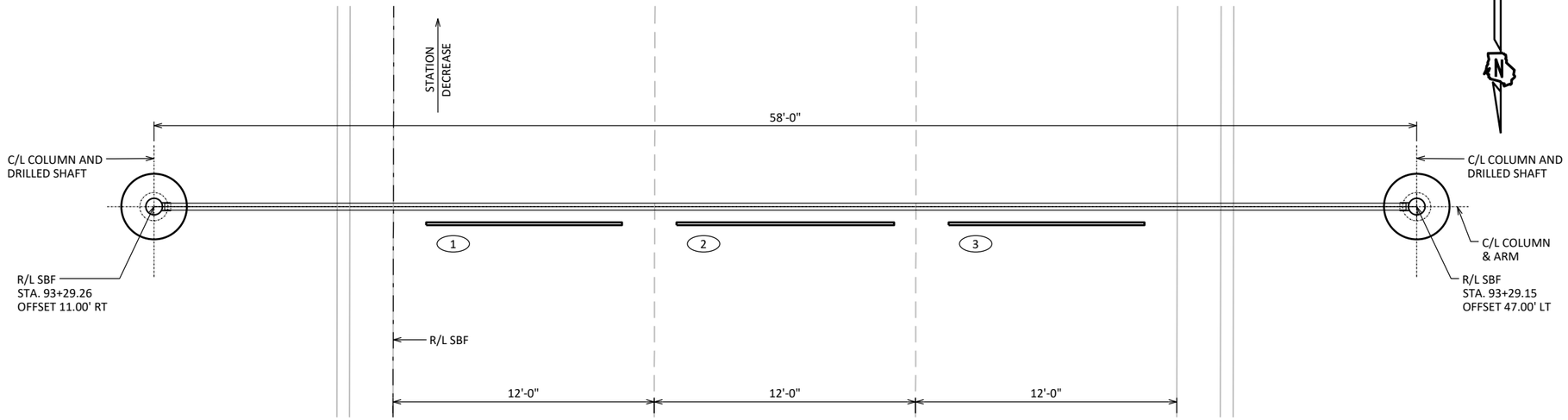
SCALE = 6.00

8

8

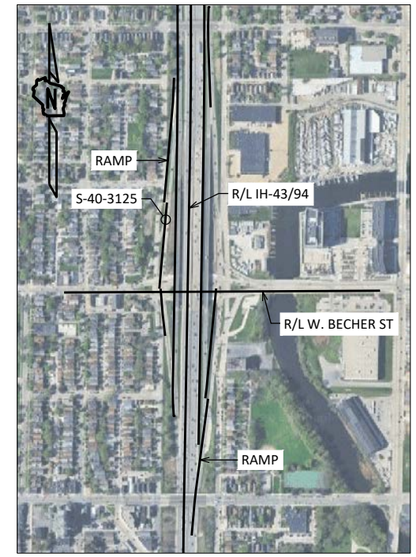
STATE PROJECT NUMBER

1228-09-77

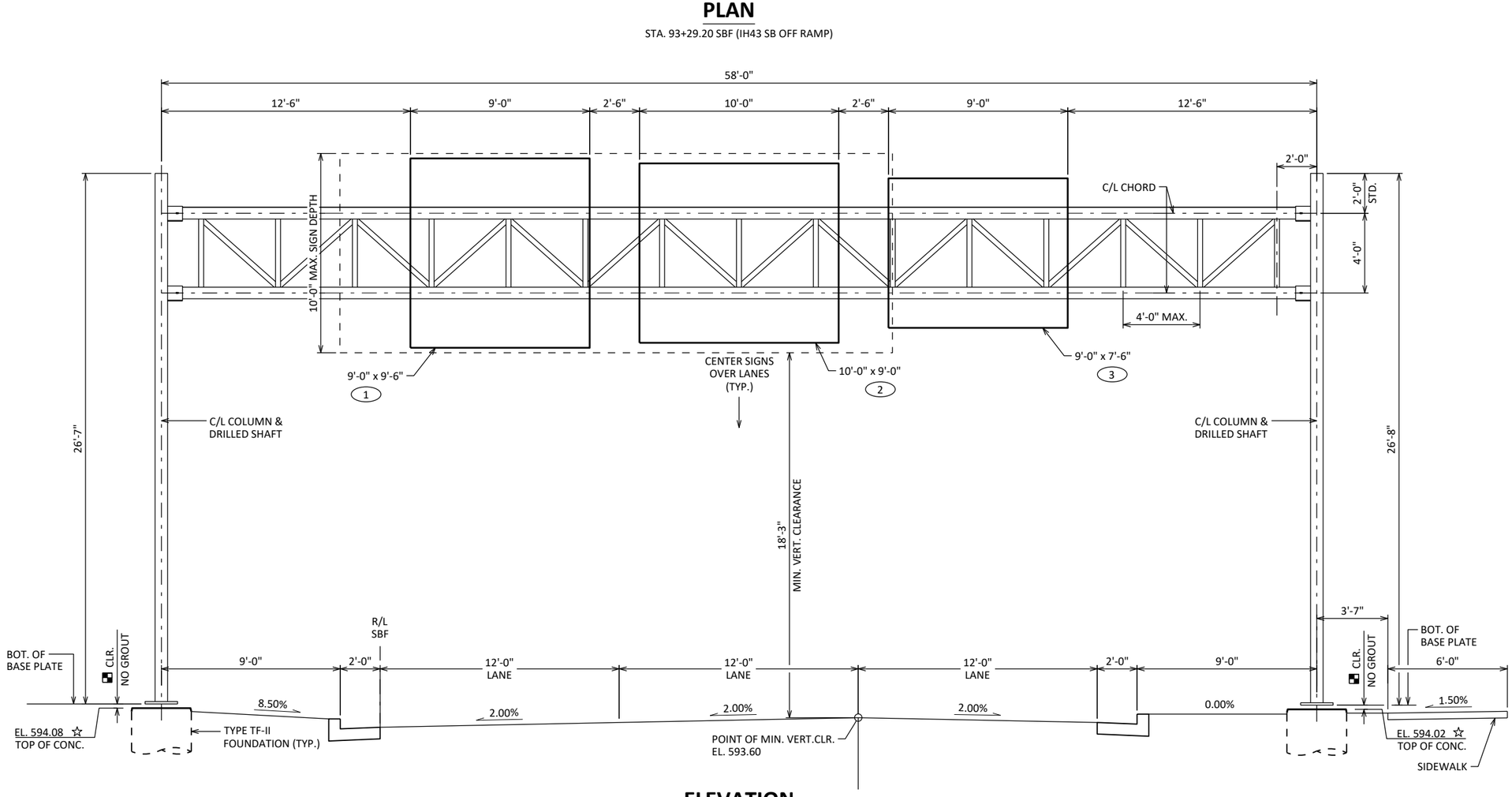


PLAN

STA. 93+29.20 SBF (IH43 SB OFF RAMP)



LOCATION MAP



ELEVATION

LOOKING DOWNSTATION AT F.F. OF SIGN

LEGEND

☆ ELEVATIONS GIVEN ALONG C/L STRUCTURE

(XXX) SIGN NUMBER, SEE PERMANENT SIGNING PLAN

■ STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAX. OF 2 x ANCHOR ROD DIAMETER. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3125

DRAWN BY	MDG	PLANS CK'D	MJM

LAYOUT

SHEET 4
519

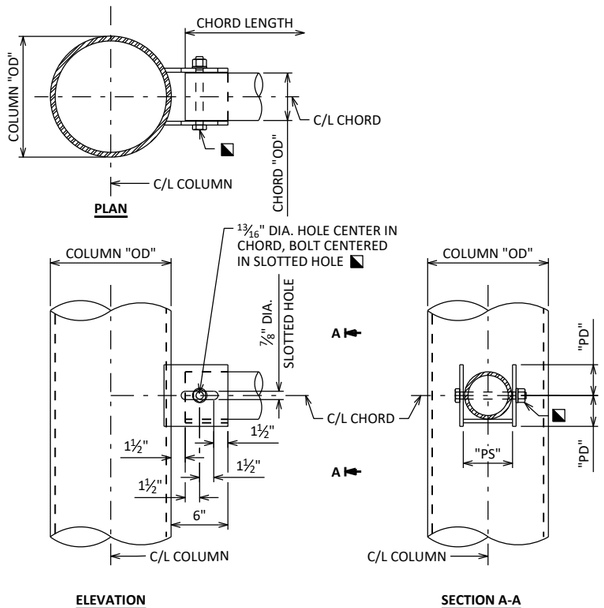
SCALE = 6.00

8

8

STATE PROJECT NUMBER

STANDARD



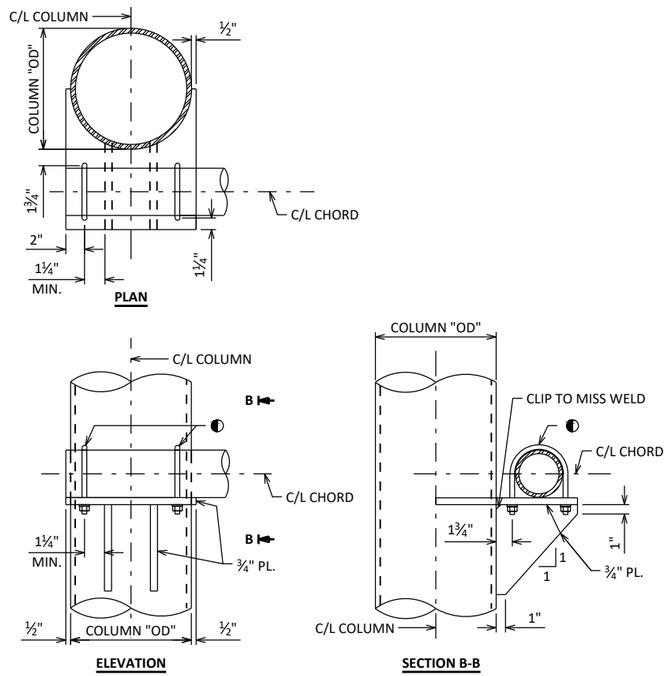
FULL SPAN SADDLE CONNECTION

PREFERRED OPTION

¾" GALVANIZED A325 OR A449 HEAVY HEX BOLT, NUT AND WASHER SNUG TIGHT ONLY, DO NOT OVER TIGHTEN

"PD" = CHORD "OD"/2 + ¾"

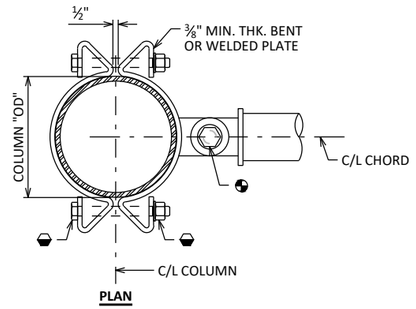
"PS" = CHORD "OD" + 1/16"

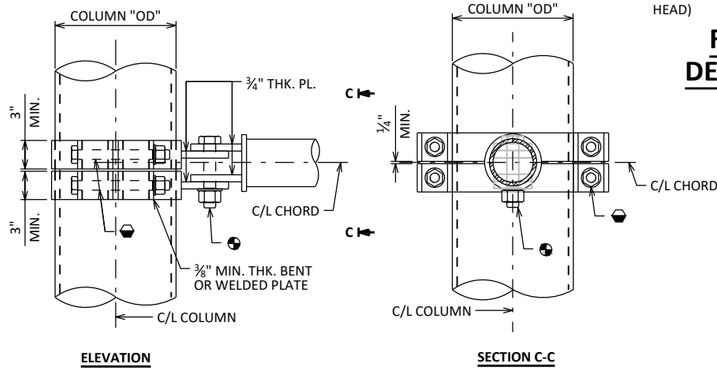


FULL SPAN STIFFENED BEARING CONNECTION

ALTERNATE 1

MIN. (2) ½" MIN. GALVANIZED OR STAINLESS U-BOLT, LOCK NUT AND WASHER



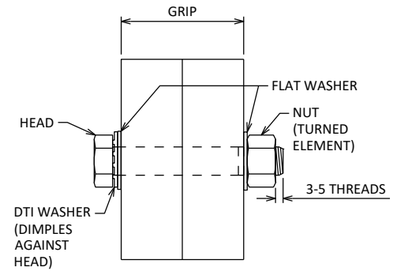


FULL SPAN CLAMP CONNECTION

ALTERNATE 2 - TAPERED COLUMNS ONLY

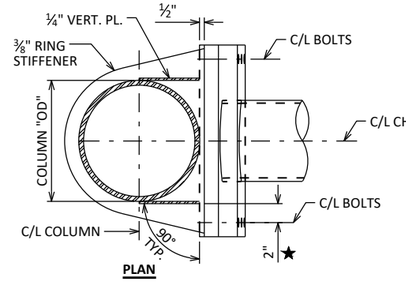
1¼" GALVANIZED A325 HEAVY HEX BOLT, NUT AND WASHER

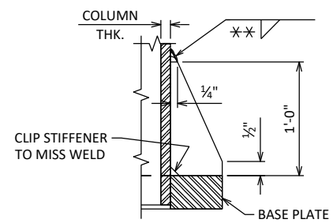
1" GALVANIZED A325 HEAVY HEX BOLT, NUT AND WASHER

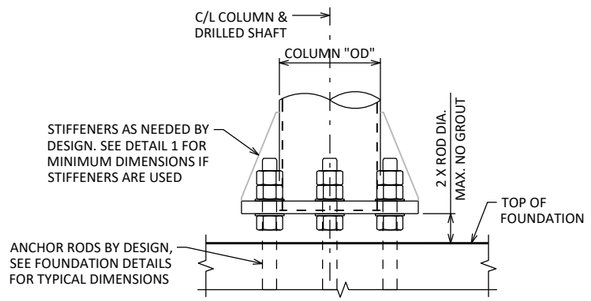


RECOMMENDED BOLT DETAIL WITH DTI WASHER

NUT IS TURNED ELEMENT



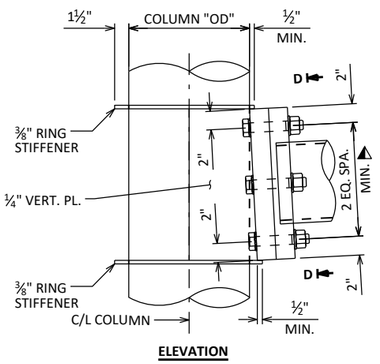


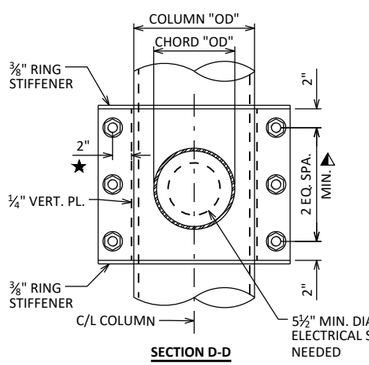


PREFERRED BASE PLATE CONNECTION

LOOKING AT F.F. OF STRUCTURE.

ALTERNATE BASE PLATE DESIGNS ALLOWED.

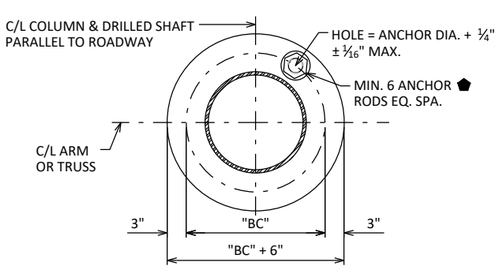




CANTILEVER POST TO CHORD CONNECTION

▲ MIN. (6) 1" GALVANIZED A325 HEAVY HEX BOLT, NUT, DTI WASHER AND WASHER

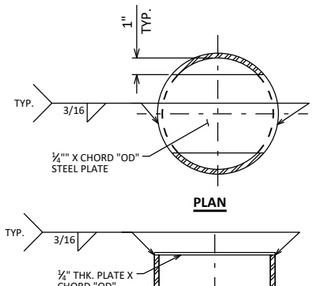
★ MIN. DIMENSIONS MEASURED FROM EXT. FACE OF VERTICAL PLATE.



BASE PLATE

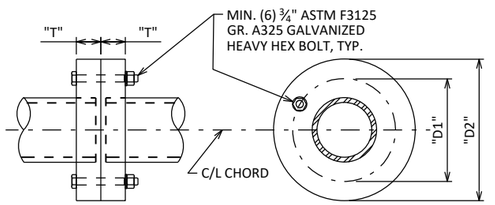
"BC" = COLUMN "OD" + 6"

⬟ ANCHOR SIZE AND ORIENTATION TO BE VERIFIED WITH SHOP DRAWINGS.



CHORD CAP DETAIL

CANTILEVERS ONLY



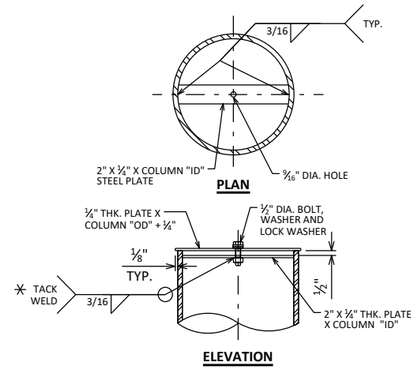
CHORD SPLICE DETAIL

"D1" = COLUMN "OD" + (1.5 x DB)

"D2" = COLUMN "OD" + (3 x DB)

"T" = (BY DESIGN)

DB = BOLT DIAMETER (BY DESIGN)



TOWER CAP DETAIL

✳ PLACE TACK WELD EVERY OTHER FLAT TO SECURE NUT. ALTERNATE: USE ½" THK. PL. AND DRILL AND TAP HOLE FOR BOLT.

NOTES:

MINIMUM VALUES SHOWN. ALL CONNECTIONS ARE TO BE DESIGNED FOR ACTUAL STRUCTURAL LOADS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: JAN. 2023

DRAWN BY: BOS | PLANS CK'D: BOS

MONOTUBE & 2-CHORD TRUSS CONNECTIONS 1

SHEET 1 — 520

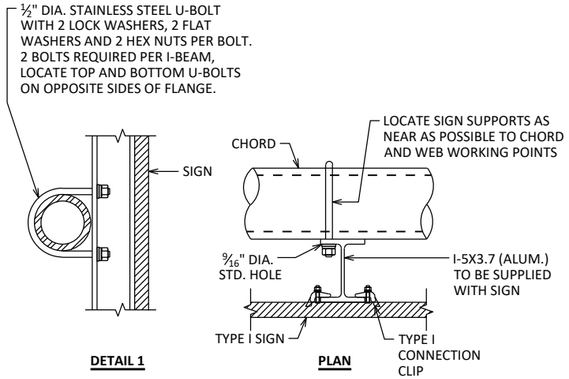
SCALE = 2.0

8

8

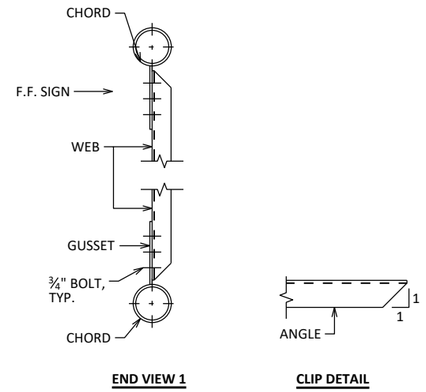
STATE PROJECT NUMBER

STANDARD



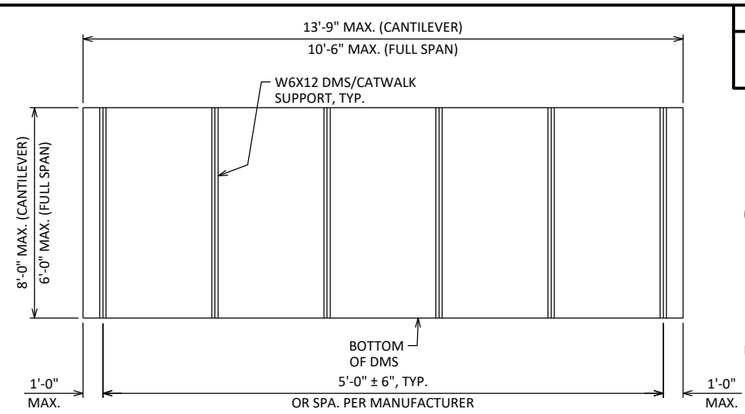
2-CHORD TRUSS SIGN CONNECTION

TYPE I SIGN PANEL SHOWN.
SEE SIGN PLATE MANUAL A4-7A AND A4-7BFOR DETAILS.
ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH SIGN PANEL, HARDWARE TO BE SUPPLIED BY THE CONTRACTOR.



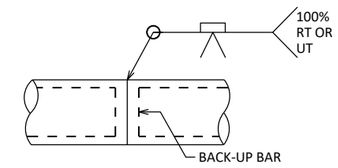
TRUSS CONNECTION DETAILS

MEMBER ORIENTATION FOR BOLTED CONNECTIONS SHOWN, WELDED CONNECTIONS SIMILAR.
ANGLES PREFERRED, OTHER WEB DESIGNS ALLOWED.



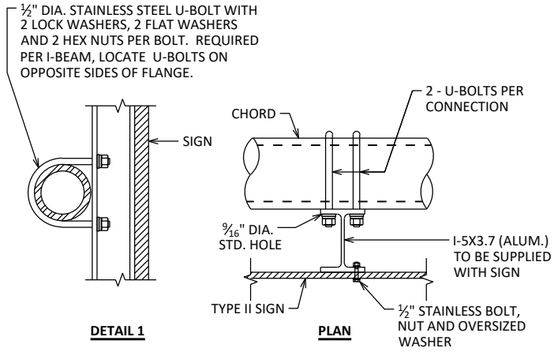
DMS MOUNTING POST DETAIL

POST SPACING MAY BE ADJUSTED AS REQUIRED IF SPACING CONFLICTS WITH GUSSET PLATES OF TRUSS WITHIN TOLERANCES NOTED.



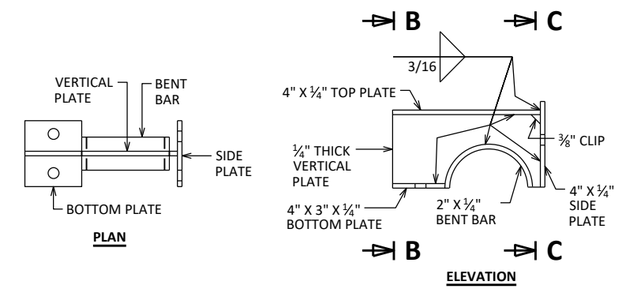
CHORD SPLICE

SEPARATE OPTIONAL SPLICE FROM GUSSET PLATES BY 6" MIN.



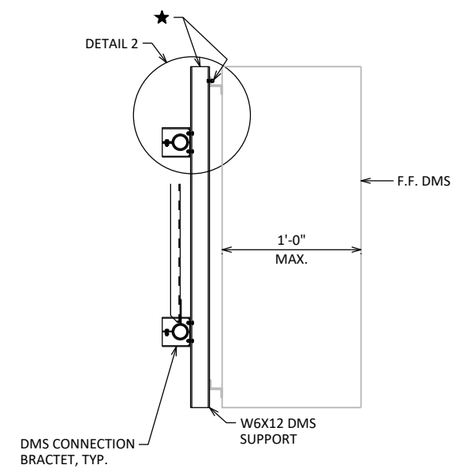
MONOTUBE SIGN CONNECTION

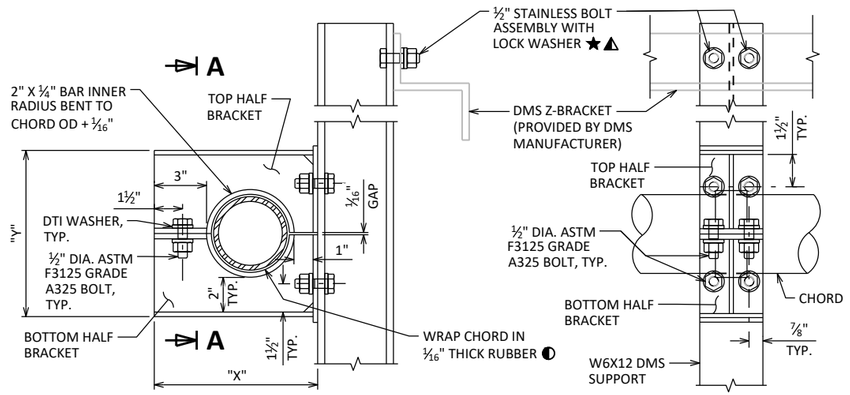
TYPE II SIGN PANEL SHOWN.
SEE SIGN PLATE MANUAL A4-7A AND A4-7B FOR DETAILS.
ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH SIGN PANEL, HARDWARE TO BE SUPPLIED BY THE CONTRACTOR.



DMS WELDED PLATE CONNECTION DETAILS

TOP HALF OF BRACKET SHOWN, BOTTOM HALF SIMILAR.





CHORD "OD"	"X"	"Y"
"OD"	"OD" + $4\frac{13}{16}$"	"OD" + $5\frac{5}{16}$"

SECTION THRU TRUSS - DMS

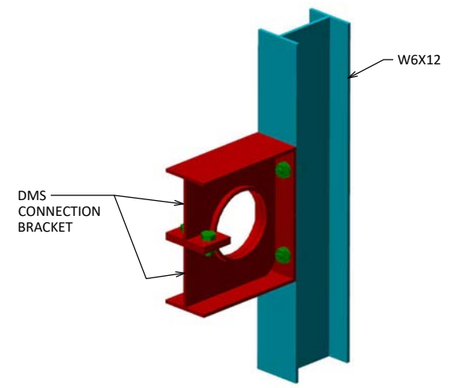
FOR DMS/CATWALK CONNECTIONS

★ W6X12 SUPPORTS AND HARDWARE ARE TO BE SUPPLIED BY THE CONTRACTOR. ½" STAINLESS BOLT, NUT, WASHER AND LOCK WASHER REQUIRED, 4 PER W6X12

TYPICAL DMS CONNECTION

◐ NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD. SPEC. 506.2.6.1

⚠ IF DMS CONNECTION BRACKET IS USED WITH A TYPE II SIGN PANEL, THE BOLT HOLE MUST BE GALVANIZED AND A STAINLESS WASHER USED BETWEEN THE I-BEAM AND SIGN PANEL.



3-D VIEW OF DMS CONNECTION

CHORD NOT SHOW FOR CLARITY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: OCT. 2023

DRAWN BY BOS | PLANS CK'D BOS

MONOTUBE & 2-CHORD TRUSS CONNECTIONS 2

SHEET II
521

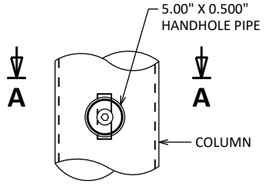
SCALE = 4.0

8

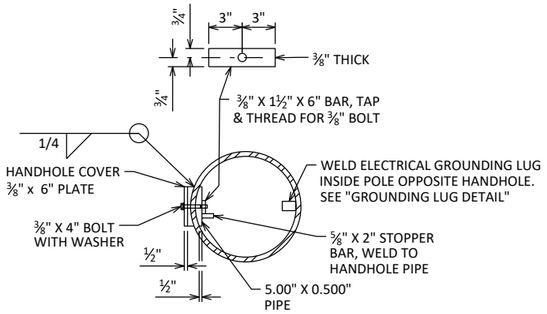
8

STATE PROJECT NUMBER

STANDARD



ELEVATION

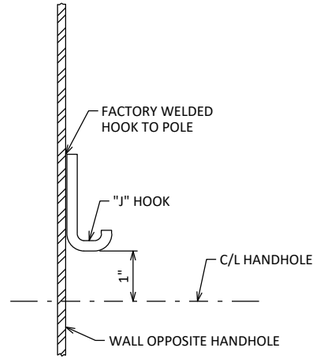


SECTION A-A

HANDHOLE DETAILS

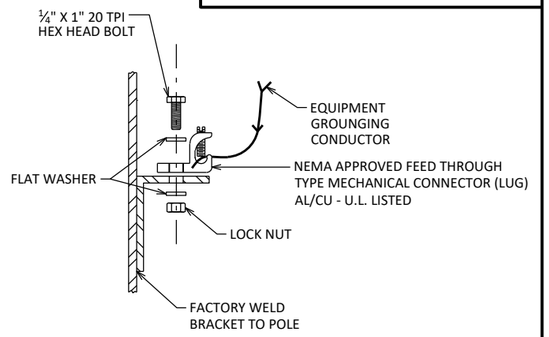
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN BRIDGE COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL PLAN DETAIL SHEETS.

UNLESS OTHERWISE NOTED, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



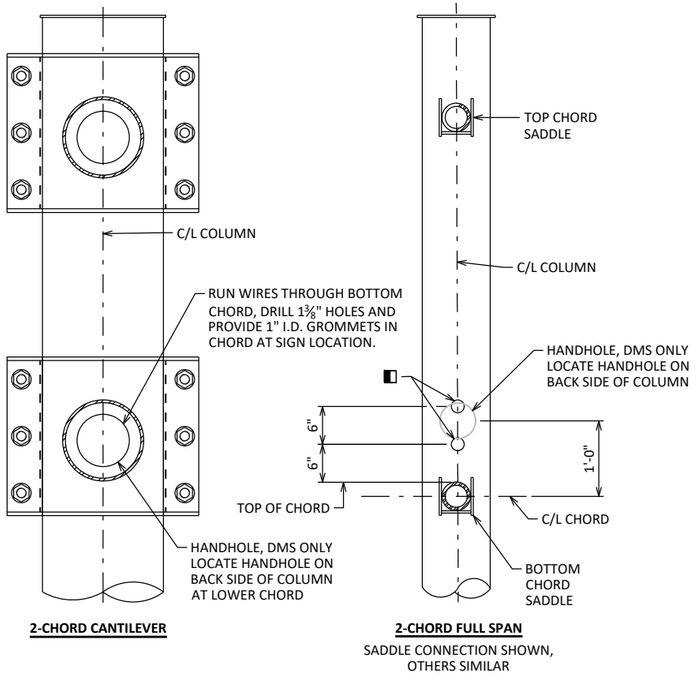
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF THE COLUMN CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.



GROUNDING LUG DETAIL

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



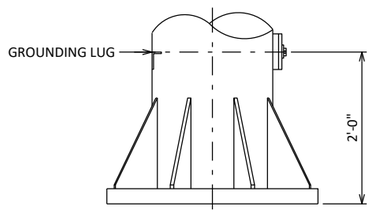
2-CHORD CANTILEVER

2-CHORD FULL SPAN

SADDLE CONNECTION SHOWN, OTHERS SIMILAR

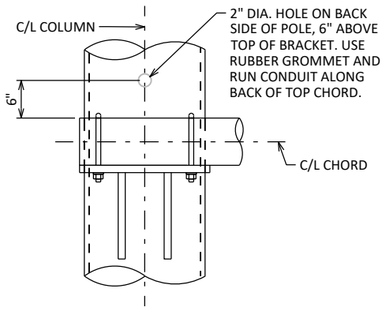
CONDUIT HOLE LOCATIONS

◧ 2" HOLE WITH STANDARD PIPE THREADS, USE THREADED CONDUIT PLUG FOR UNUSED HOLES

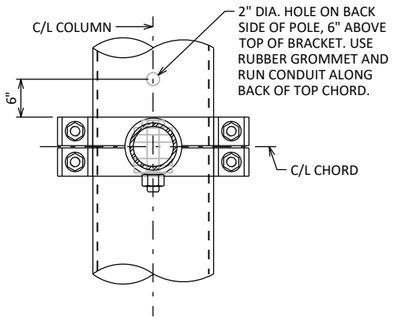


GROUNDING LUG LOCATION

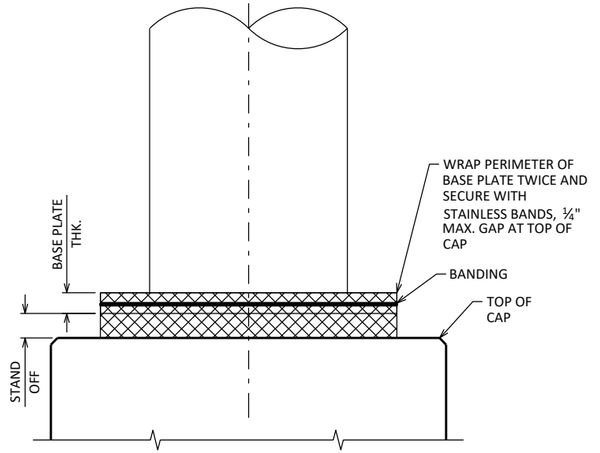
LOOKING AT THE F.F. OF STRUCTURE



FULL SPAN STIFFENED BEARING CONNECTION

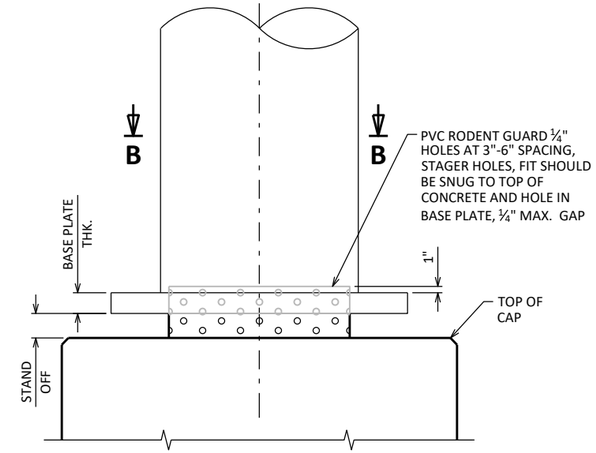


FULL SPAN CLAMP CONNECTION



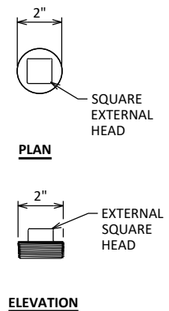
RODENT SCREEN

ONLY REQ'D WHEN ELECTRICAL DEVICES ARE PRESENT
ANCHOR RODS NOT SHOWN

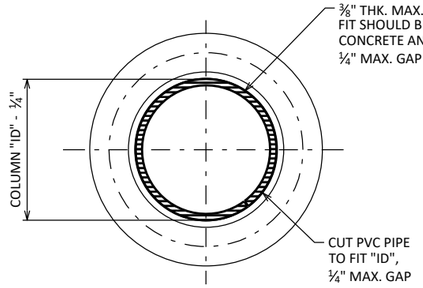


RODENT SCREEN - ALTERNATE

ONLY REQ'D WHEN ELECTRICAL DEVICES ARE PRESENT
ANCHOR RODS NOT SHOWN



CONDUIT PLUG DETAILS



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: OCT. 2024

DRAWN BY BOS | PLANS CK'D BOS

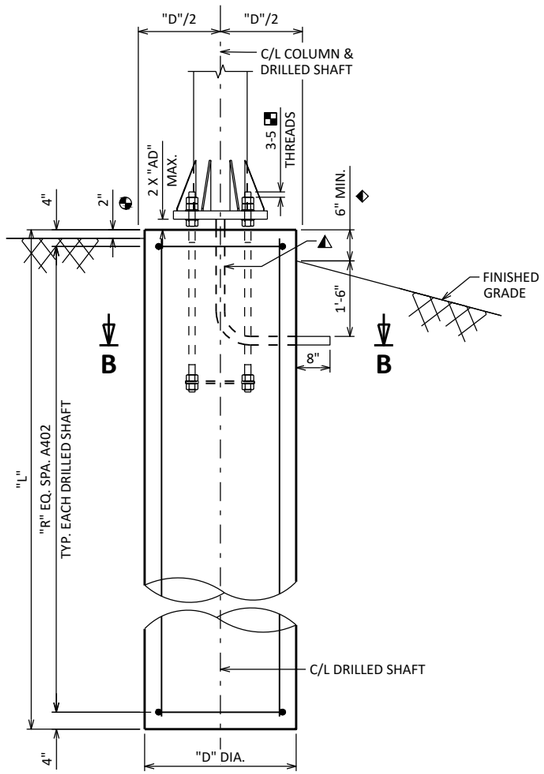
MONOTUBE & 2-CHORD TRUSS ELECTRICAL DETAILS

SHEET III
522

SCALE = 2.0

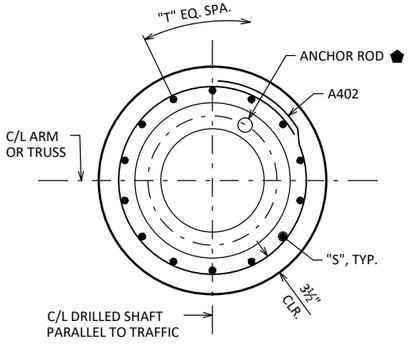
8

8



ELEVATION

- TYPICAL FOR DRILLED SHAFT FOOTINGS INSTALLED ADJACENT TO SIDEWALKS OR BEHIND CURB AND GUTTER ON LOW SPEED ROADS. TOP OF SHAFT SHALL BE FLUSH IF SURROUNDED BY CONCRETE AND 2" ABOVE FINISHED GRADE FOR ALL OTHER SURFACES.
- TYPICAL FOR EACH DRILLED SHAFT FOOTING INSTALLED ADJACENT TO ROADWAY FACILITIES OR ON SIDE SLOPES WITHIN CLEAR ZONE. BARRIER OR BEAMGUARD MAY BE REQUIRED.



SECTION B-B

TYPICAL FOR EACH DRILLED SHAFT FOOTING

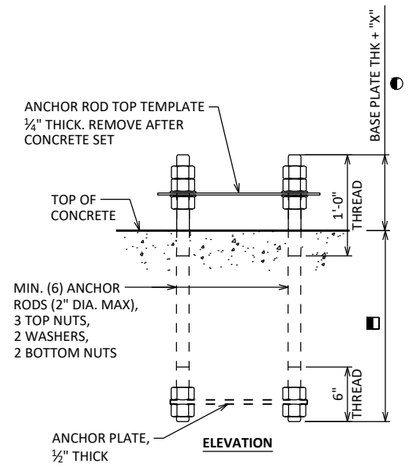
FOUNDATION DIMENSION DATA

STANDARD DESIGN TYPE	FOUNDATION DIMENSIONS						
	"A"	"D"	"L"	"R"	"S"	"T"	"BC" MAX.
~~MFI~~	~~1' 11"~~	~~2' 6"~~	~~12' 0"~~	~~12~~	~~A801~~	~~10~~	~~1' 5"~~
~~MCI/MCII/TFI~~	~~1'-11"~~	~~2'-6"~~	~~17'-0"~~	~~17~~	~~A801~~	~~10~~	~~1'-5"~~
~~MFII~~	~~2'-5"~~	~~3'-0"~~	~~13'-0"~~	~~13~~	~~A801~~	~~14~~	~~1'-10"~~
TCI	2'-5"	3'-0"	18'-0"	18	A801	14	1'-10"
TFII	2'-5"	3'-0"	20'-0"	20	A801	14	1'-10"
~~MCIII/TCII/TFIII~~	~~2'-11"~~	~~3'-6"~~	~~18'-0"~~	~~18~~	~~A901~~	~~14~~	~~2'-4"~~
~~MCIV/TFIV~~	~~2'-11"~~	~~3'-6"~~	~~23'-0"~~	~~23~~	~~A901~~	~~14~~	~~2'-4"~~
~~TCIII~~	~~3'-5"~~	~~4'-0"~~	~~23'-0"~~	~~23~~	~~A1001~~	~~14~~	~~2'-10"~~
~~TCIV~~	~~3'-5"~~	~~4'-0"~~	~~28'-0"~~	~~28~~	~~A1001~~	~~14~~	~~2'-10"~~

ESTIMATED QUANTITIES - FOUNDATION

STANDARD DESIGN TYPE	CONCRETE MASONRY	STEEL REINFORCEMENT HS	FOUNDATION DRILLING (DIA.) (LF)			
	(CY)	(LBS)	30"	36"	42"	48"
~~MFI~~	~~2.2~~	~~380~~	~~12~~	~~---~~	~~---~~	~~---~~
~~MCI/MCII/TFI~~	~~3.1~~	~~540~~	~~17~~	~~---~~	~~---~~	~~---~~
~~MFII~~	~~3.4~~	~~560~~		~~13~~		
TCI	4.7	780	---	18	---	---
TFII	5.2	870	---	20	---	---
~~MCIII/TCII/TFIII~~	~~6.4~~	~~980~~	~~---~~	~~---~~	~~18~~	~~---~~
~~MCIV/TFIV~~	~~8.2~~	~~1,250~~	~~---~~	~~---~~	~~23~~	~~---~~
~~TCIII~~	~~10.7~~	~~1,570~~	~~---~~	~~---~~	~~---~~	~~23~~
~~TCIV~~	~~13.0~~	~~1,910~~	~~---~~	~~---~~	~~---~~	~~28~~

** QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON A SINGLE DRILLED SHAFT. MULTIPLY BY 2 FOR FULL SPAN STRUCTURES.



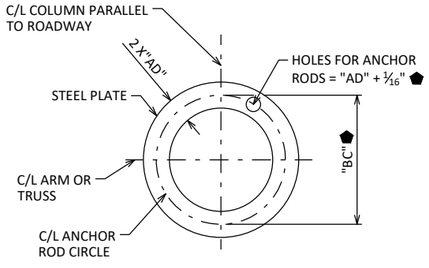
ANCHOR ROD ASSEMBLY DETAILS

◧ ANCHOR RODS PER ASSEMBLY TO BE DESIGNED BY CONTRACTOR AND SHOWN ON SHOP DRAWINGS. SHOW DIAMETER, NUMBER, ORIENTATION AND EMBEDMENT OF ANCHOR RODS.

CENTER ANCHOR ROD ASSEMBLY AND ENSURE ASSEMBLY IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE AS DETAILED. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHORS.

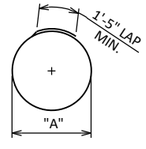
ANCHOR DIAMETER "AD"	MAX. STICK OUT ◐
	"X"
1"	5"
1¼"	6"
1½"	7"
1¾"	8"
2"	9"

◐ ADD BASE PLATE THICKNESS TO VALUE SHOWN FOR MAX. STICK OUT DIMENSION. CONTRACTOR TO COORDINATE WITH FABRICATOR FOR PROPER ANCHOR PLACEMENT.



ANCHOR PLATE & TOP TEMPLATE

⬟ ANCHOR SIZE, BOLT CIRCLE, AND POSITION TO BE VERIFIED WITH SHOP DRAWINGS.



A402

LEGEND

◪ ANCHOR ROD STICK OUT IN FINAL CONDITION. EXCESSIVE STICK OUT BEYOND DIMENSION SHOWN TO BE CUT OFF AFTER PLACING STRUCTURE. ANCHORS TO BE ULTRASONIC TESTED TO DETERMINE EMBEDDED LENGTH MEETS REQUIREMENTS PRIOR TO CUTTING. NOTE REMAINING LENGTH ON AS-BUILT.

◭ 2 - 2" DIA. NON-METALLIC CONDUITS. INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO DMS. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.

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

BILL OF BARS

STANDARD TYPE MFI

BAR MARK	COAT	NO REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		10	11'-8"			DRILLED SHAFT - VERTICAL
A402		13	7'-6"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPES MCI/MCII/TFI

BAR MARK	COAT	NO REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		10	16'-8"			DRILLED SHAFT - VERTICAL
A402		18	7'-6"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPE MFII

BAR MARK	COAT	NO REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	12'-8"			DRILLED SHAFT - VERTICAL
A402		14	9'-1"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPE TCI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	17'-8"			DRILLED SHAFT - VERTICAL
A402		19	9'-1"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPE TFII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	19'-8"			DRILLED SHAFT - VERTICAL
A402		21	9'-1"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPES MCIII/TCII/TFIII

BAR MARK	COAT	NO REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		14	17'-8"			DRILLED SHAFT - VERTICAL
A402		19	10'-7"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPES MCIV/TFIV

BAR MARK	COAT	NO REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		14	22'-8"			DRILLED SHAFT - VERTICAL
A402		24	10'-7"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPE TCIII

BAR MARK	COAT	NO REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	22'-8"			DRILLED SHAFT - VERTICAL
A402		24	12'-2"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPE TCIV

BAR MARK	COAT	NO REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	27'-8"			DRILLED SHAFT - VERTICAL
A402		29	12'-2"	X		DRILLED SHAFT - HORIZONTAL

** VALUES IN BAR TABLES ARE FOR A SINGLE FOUNDATION ONLY. MULTIPLY BY 2 FOR FULL SPAN STRUCTURES.

STATE PROJECT NUMBER

STANDARD

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: OCT. 2024

DRAWN BY BOS | PLANS CK'D BOS

MONOTUBE & 2-CHORD TRUSS FOUNDATIONS

SHEET IV
523

SCALE = 3.0

8

8

DESIGN DATA

DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL.

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS
WIND PRESSURE: 120 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBMERS (1700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS	
STRENGTH:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTREME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE:	1.0 NW (NATURAL WIND GUST)
	1.0 TrG (TRUCK INDUCED GUST)

MATERIAL PROPERTIES

CONCRETE MASONRY ——— f'_c = 3,500 PSI

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 ——— f_y = 60,000 PSI

STRUCTURAL ANGLES, PLATES & BARS - ASTM A709 GRADE 36 ——— f_y = 36,000 PSI

CHORDS & COLUMN PIPE - ASTM A500 GRADE C ——— f_y = 46,000 PSI

HIGH STRENGTH BOLTS - ASTM A3125 GRADE A325 ——— f_y = 92,000 PSI

ANCHOR RODS - ASTM F1554 GRADE 55 ——— f_y = 55,000 PSI

HEAVY HEX NUTS - ASTM A563 GRADE DH OR ASTM A194 GRADE 2H

WASHERS - ASTM F436

DTI WASHERS - ASTM F959 TYPE 325

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGN FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING THE DRILLING OF THE SHAFT HOLE TO CONFRIM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	S-40-3126
531.2042	DRILLING SHAFT 42-INCH	LF	92
531.6130	FOUNDATION TWO-SHAFT TYPE FF-III S-40-3126	EA	2
532.6130	TRUSS FULL SPAN 4-CHORD TYPE III S-40-3126	EA	1

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WISCRS), MILWUAKEE COUNTY ZONE, NAD 83 (1997). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2012).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "TRUSS FULL SPAN 4-CHORD (TYPE)" FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

CATWALKS ARE USED ON 4-CHORD STRUCTURES CARRYING DMS SIGNS. CATWALKS SHALL BE INCIDENTAL TO THE BID ITEM "TRUSS FULL SPAN 4-CHORD (TYPE)" FOR EACH DMS SIGN STRUCTURE IN THE PLAN SET.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE AS DESIGNATED IN STANDARD SPEC 532.3.7.1, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

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

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON THE SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT (DIA.)".

STRUCTURE DATA

STRUCTURE ID	SIGN AREA	SIGN DEPTH	FOUNDATION TYPE	TRUSS TYPE
S-40-3126	337 SF	12'-0"	TYPE FF-III	TYPE III

STATE PROJECT NUMBER

1228-09-77

TRAFFIC VOLUME

W. BECHER ST
A.D.T. (2045) = 1,100
R.D.S. = 30 MPH

IH-43/94
A.D.T. (2045) = 8,800
R.D.S. = 30 MPH

LIST OF DRAWINGS:

1. GENERAL NOTES & DESIGN DATA
2. LAYOUT S-40-3126

LIST OF STANDARD DESIGN DRAWINGS

3. I. 4-CHORD TRUSS FULL SPAN TRUSS DETAILS
4. II. 4-CHORD TRUSS FULL SPAN COLUMN DETAILS
5. III. 4-CHORD TRUSS FULL SPAN CONNECTIONS 1
6. IV. 4-CHORD TRUSS FULL SPAN CONNECTIONS 2
7. V. 4-CHORD TRUSS FULL SPAN CATWALK DETAILS
8. VI. 4-CHORD TRUSS FULL SPAN ELECTRICAL DETAILS
9. VII. 4-CHORD TRUSS FULL SPAN FOUNDATIONS 1
10. VIII. 4-CHORD TRUSS FULL SPAN FOUNDATIONS 2

THESE ARE STANDARD DESIGN PLANS DEVELOPED AND MAINTAINED BY THE WISDOT. THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISDOT BRIDGE MANUAL CHAPTER 39.

WISCONSIN
MARK J. MUTZIGER E-37119 MILWAUKEE WISCONSIN
PROFESSIONAL ENGINEER
7/24/25

STRUCTURE DESIGN CONTACTS:
AARON BONK 608-261-0261
MARK MUTZIGER 414-930-4534

NO.	DATE	REVISION	BY

COLLINS ENGINEERS INC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORATION

ACCEPTED JLR 11/12/25
CHIEF STRUCTURES DESIGN ENGINEER DATE

4-CHORD FULL SPAN

W. BECHER STREET UNDER IH-43/94

COUNTY	~~TOWN/CITY/VILLAGE~~
MILWAUKEE	MILWAUKEE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
JLM	MJM	MDG	MJM

GENERAL NOTES & DESIGN DATA

SHEET 1 OF 10
524

SCALE =

I.D.

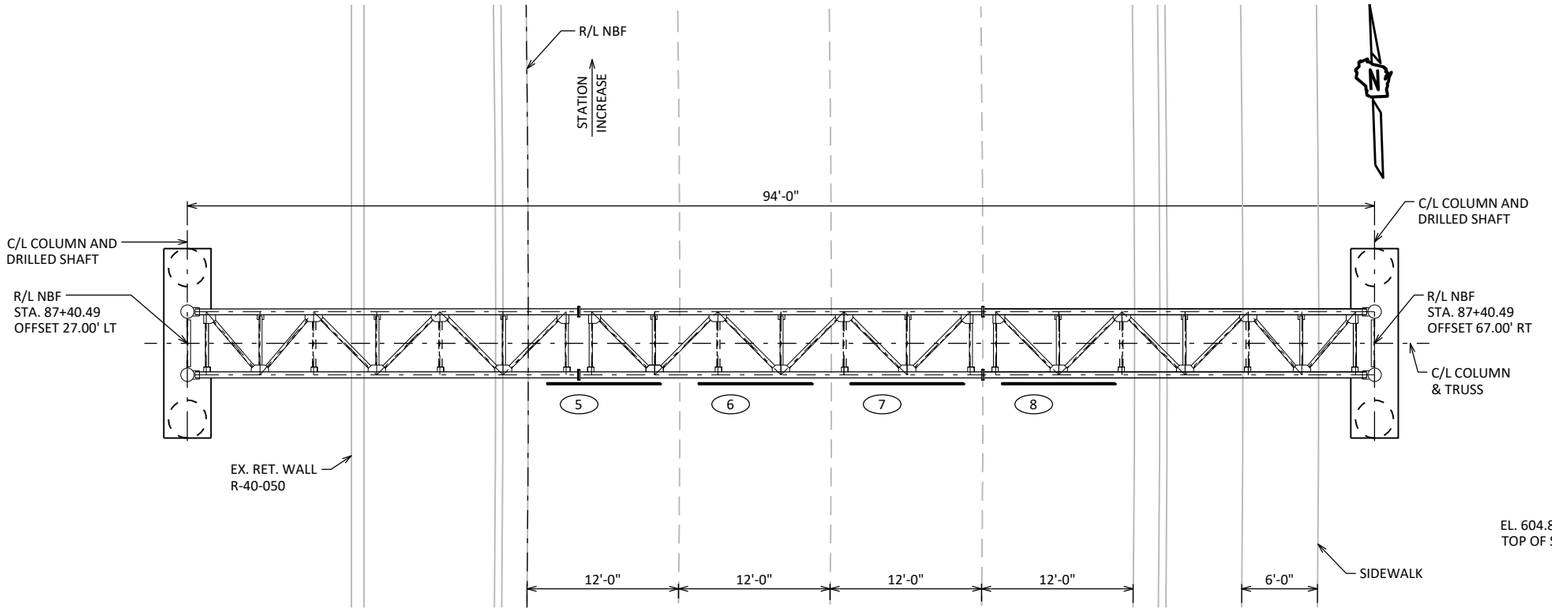
DATE:

8

8

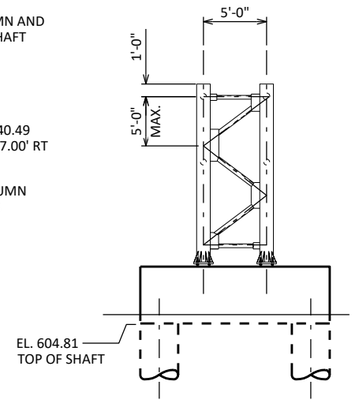
STATE PROJECT NUMBER

1228-09-77



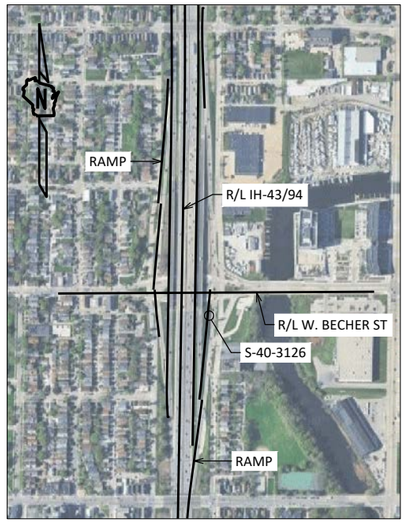
PLAN

STA. 87+40 NBF (IH-43/94 NB OFF RAMP)

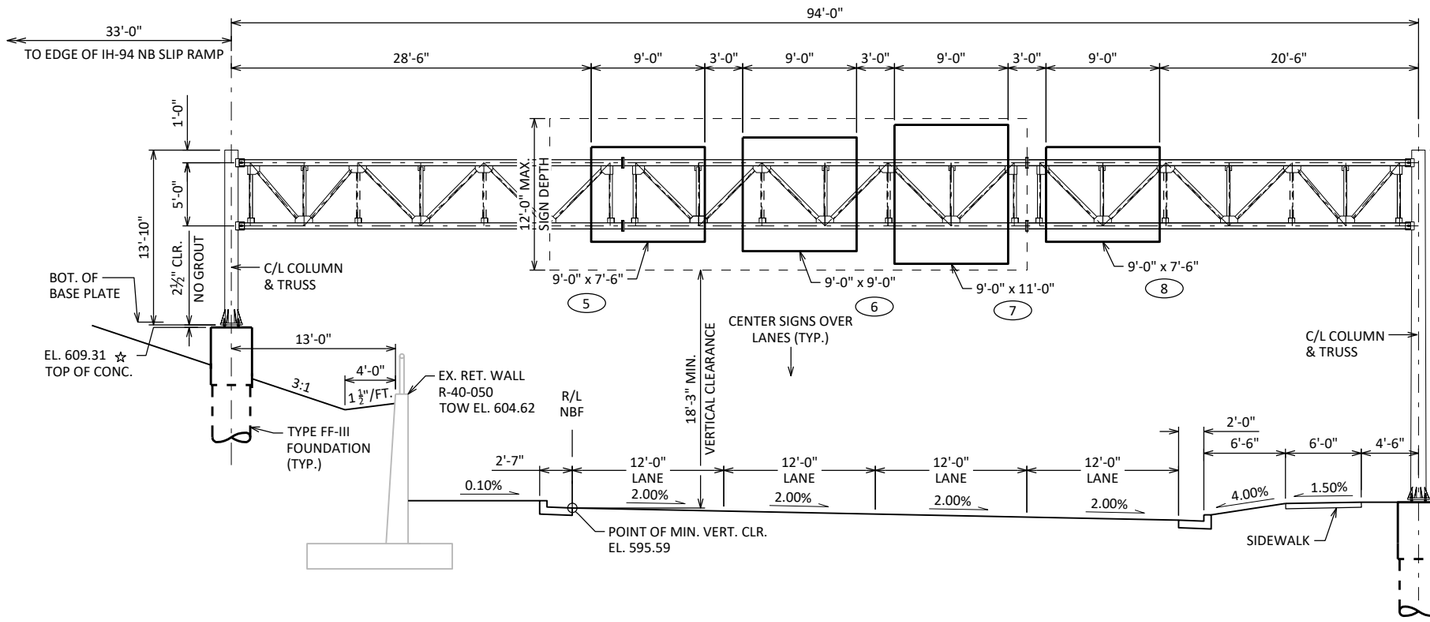


END VIEW

LOOKING EAST AT END OF SIGN

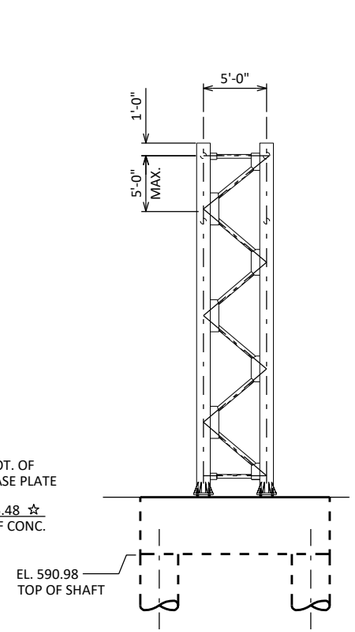


LOCATION MAP



ELEVATION

LOOKING UPSTATION AT F.F. OF SIGN



END VIEW

LOOKING WEST AT END OF SIGN

LEGEND

☆ ELEVATIONS ALONG C/L OF TRUSS.

SIGN NUMBER, SEE PERMANENT SIGNING PLAN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-40-3126

DRAWN BY MDG | PLANS CK'D MJM

LAYOUT

SHEET 2
525

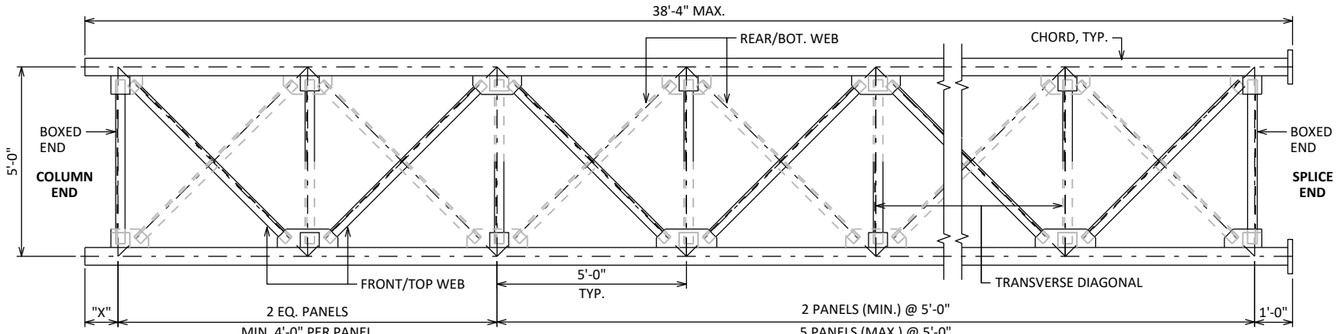
SCALE = 12.0

8

8

STATE PROJECT NUMBER

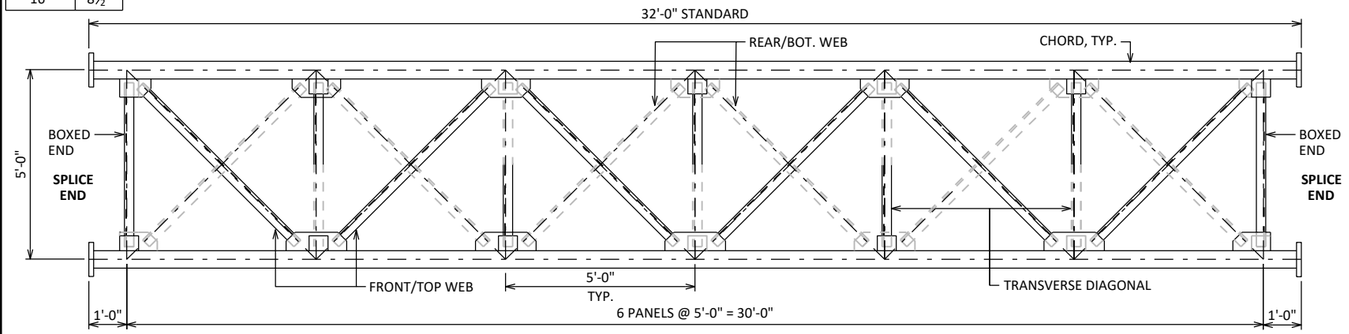
STANDARD



COLUMN "OD"	"X"
12¾"	10⅛"
14"	9½"
16"	8½"

END TRUSS SECTION

◐ LOOKING AT F.F., TOP SIMILAR



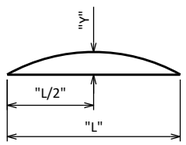
CENTER TRUSS SECTION

◐ LOOKING AT F.F., TOP SIMILAR.

CAMBER VALUES

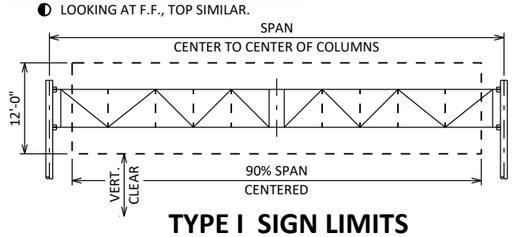
SPAN "L"	"Y"	
	TYPE I	DMS
~~60'-0"~~	~~1"~~	~~1¼"~~
82'-0"	1½"	1⅞"
102'-0"	2⅛"	2⅝"
~~114'-0"~~	~~2⅝"~~	~~3¼"~~
~~130'-0"~~	~~3¼"~~	~~4"~~

INTERPOLATE FOR VALUES NOT SHOWN.
DMS VALUES INCLUDE DL OF CATWALK.

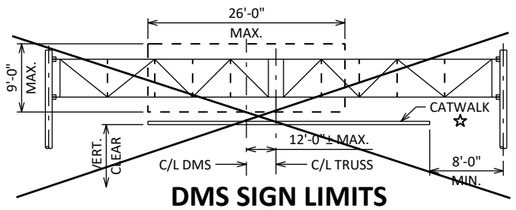


CAMBER DIAGRAM

CAMBER SHALL BE BUILT INTO THE TRUSS DURING FABRICATION. SHIM PLATES BETWEEN TRUSS SECTIONS TO CREATE CAMBER SHALL NOT BE ALLOWED.



TYPE I SIGN LIMITS

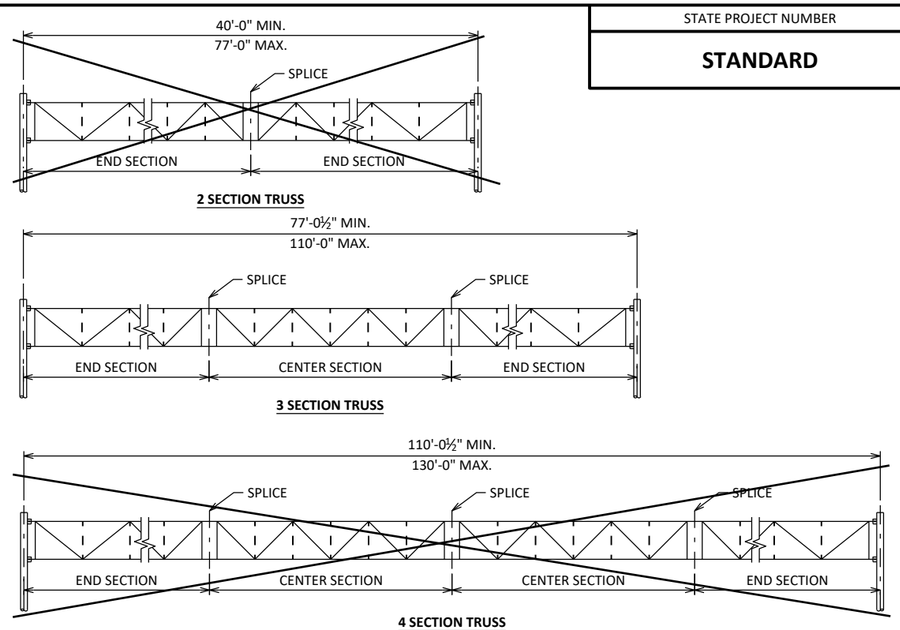


DMS SIGN LIMITS

4,500 LB MAX DMS WEIGHT, INCLUDES DMS VERTICAL SUPPORT MEMBERS

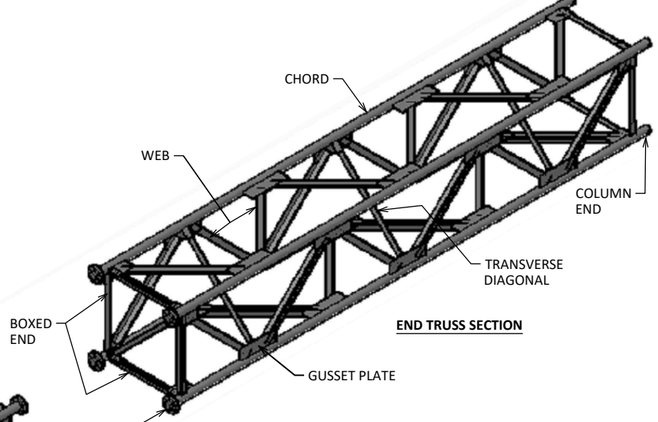
FULL SPAN 4-CHORD TRUSS MEMBER TABLE

STANDARD DESIGN TRUSS	TYPE I SIGN AREA (SQ. FT)	DMS AREA (SQ. FT.)	MAXIMUM SPAN	CHORD "OD" X THK	WEB W X D X THK	BOXED END W X D X THK	TRANSVERSE DIAGONAL W X D X THK	SPLICE PLATE "OD" X THK	CHORD SPLICE NO. ¾" BOLTS
~~I~~	~~648~~	~~234~~	~~60'-0"~~	~~5.563" X 0.258"~~	~~L3½ X 3½ X 5/16~~	~~L3 X 3 X ¼~~	~~L3 X 3 X ¼~~	~~11⅝" X 1½"~~	~~8~~
~~II~~	~~885~~	~~234~~	~~82'-0"~~	~~5.563" X 0.375"~~	~~L3½ X 3½ X ⅜~~	~~L3 X 3 X ¼~~	~~L3 X 3 X ¼~~	~~11⅝" X 1½"~~	~~8~~
III	1102	234	102'-0"	5.563" X 0.500"	L4 X 4 X ⅜	L3 X 3 X ¼	L3 X 3 X ¼	11⅝" X 1½"	8
~~IV~~	~~1232~~	~~234~~	~~114'-0"~~	~~6.625" X 0.375"~~	~~L4 X 4 X 7/16~~	~~L3 X 3 X ¼~~	~~L3 X 3 X ¼~~	~~1'-0⅝" X 1½"~~	~~8~~
~~V~~	~~1404~~	~~234~~	~~130'-0"~~	~~6.625" X 0.500"~~	~~L4 X 4 X ½~~	~~L3 X 3 X ¼~~	~~L3 X 3 X ¼~~	~~1'-0⅝" X 1½"~~	~~8~~

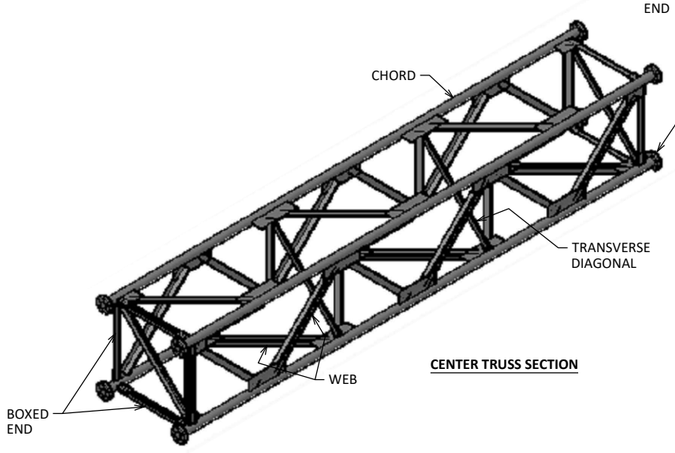


TRUSS CONFIGURATIONS

TRUSS SYMETRICAL ABOUT C/L OF SPAN



END TRUSS SECTION



CENTER TRUSS SECTION

TYPICAL TRUSS SECTION

◐ THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES. INTERIOR DIAGONALS SHOULD CONNECT TO TOP AND BOTTOM TRUSS WEB PANEL POINTS.

LEGEND

☆ FOR OSS WITH DMS ONLY, SEE "CATWALK DETAILS" SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: JAN. 2023

DRAWN BY: BOS | PLANS CK'D: BOS

4-CHORD TRUSS FULL SPAN DETAILS

SHEET 1
526

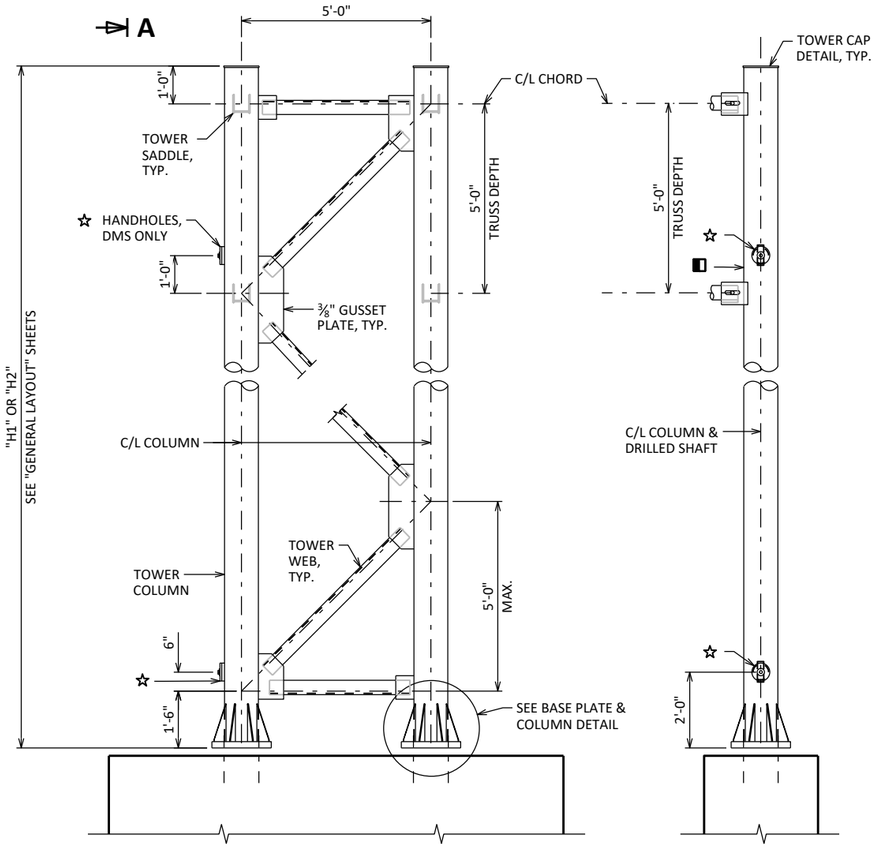
SCALE = 4.0

8

8

STATE PROJECT NUMBER

STANDARD



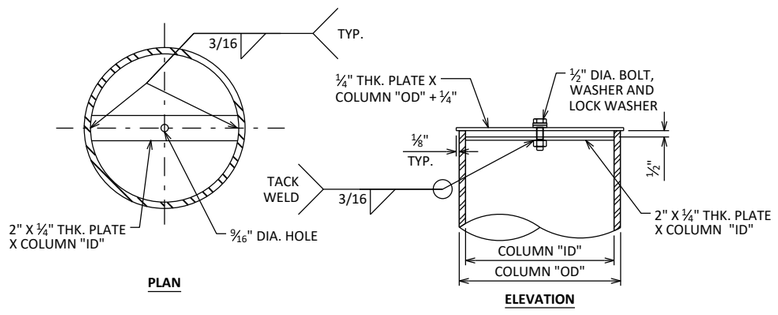
A

END VIEW COLUMN TRUSS

LOOKING AT OUTSIDE FACE OF COLUMN

SECTION A-A

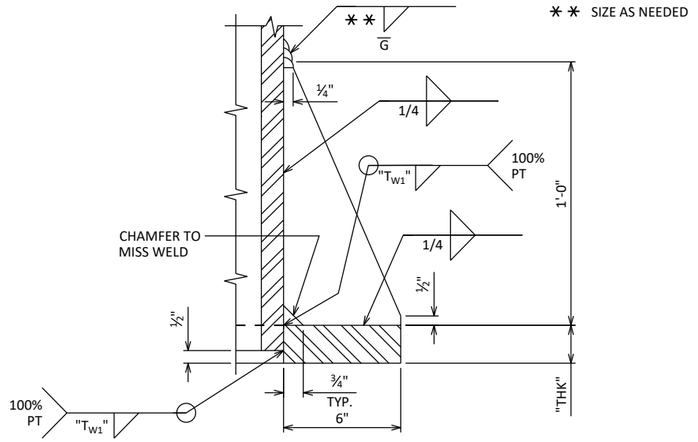
LOOKING AT F.F. OF STRUCTURE, OTHER COLUMN TRUSS SIMILAR



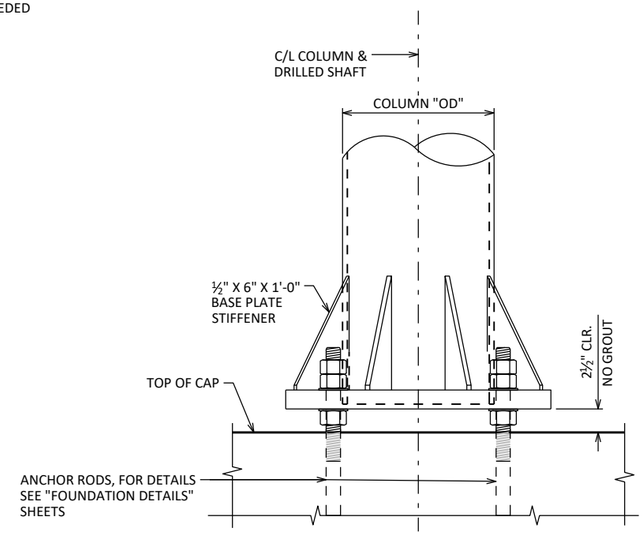
PLAN

ELEVATION

TOWER CAP DETAIL

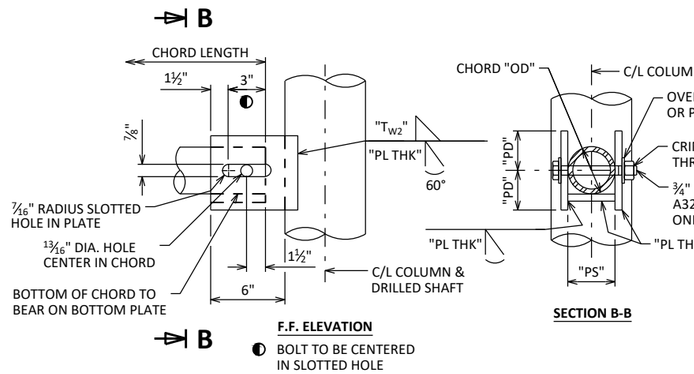


BASE PLATE STIFFENER DETAIL



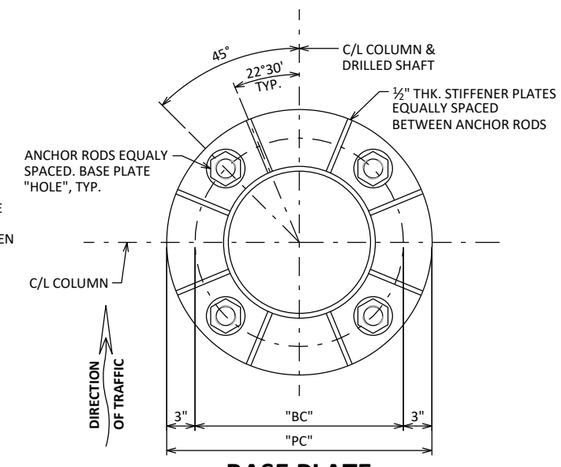
BASE PLATE & COLUMN DETAIL

LOOKING AT F.F. OF STRUCTURE



TOWER SADDLE CONNECTION DETAILS

BOLT AND HOLE DIMENSIONS SHOWN ARE MINIMUM



BASE PLATE

PLAN

FULL SPAN 4-CHORD COLUMN MEMBER TABLE

STANDARD DESIGN TYPE	MAXIMUM COLUMN HEIGHT	COLUMN "OD" X THK	WEB W X D X THK	STIFFENER THK X W X D	BASE PLATE					TOWER SADDLE CONNECTION			
					T_{W1}	"HOLE"	"THK"	"BC"	"PC"	T_{W2}	"PL THK"	"PS"	"PD"
~~I~~	~~31'-0"~~	~~12¾" X 0.250"~~	~~L3½ X 3½ X ⅜~~	~~½" X 6" X 1'-0"~~	~~5/16"~~	~~1 13/16"~~	~~2"~~	~~1'-6¾"~~	~~2'-0¾"~~	~~¼"~~	~~⅜"~~	~~5¾"~~	~~3 9/16"~~
~~II~~	~~31'-0"~~	~~12¾" X 0.375"~~	~~L4 X 4 X ⅜~~	~~½" X 6" X 1'-0"~~	~~5/16"~~	~~1 13/16"~~	~~2"~~	~~1'-6¾"~~	~~2'-0¾"~~	~~¼"~~	~~⅜"~~	~~5¾"~~	~~3 9/16"~~
III	31'-0"	12¾" X 0.500"	L4 X 4 X ½	½" X 6" X 1'-0"	5/16"	2 1/16"	2"	1'-6¾"	2'-0¾"	¼"	7/16"	5¾"	3 9/16"
~~IV~~	~~31'-0"~~	~~14" X 0.500"~~	~~L5 X 5 X 7/16~~	~~½" X 6" X 1'-0"~~	~~5/16"~~	~~2 1/16"~~	~~2"~~	~~1'-8"~~	~~2'-2"~~	~~¼"~~	~~7/16"~~	~~6 13/16"~~	~~4 1/16"~~
~~V~~	~~31'-0"~~	~~16" X 0.500"~~	~~L5 X 5 X ½~~	~~½" X 6" X 1'-0"~~	~~5/16"~~	~~2 1/16"~~	~~2"~~	~~1'-10"~~	~~2'-4"~~	~~¼"~~	~~½"~~	~~6 13/16"~~	~~4 1/16"~~

LEGEND

☆ FOR OSS WITH DMS ONLY, PROVIDE HANDHOLES AT COLUMN ADJACENT TO DMS. SEE "ELECTRICAL DETAILS" SHEET.

◧ FOR OSS WITH DMS ONLY, DRILL AND TAP FOR 2 - 2" STD. PIPE THREADS. LOCATE CENTER OF BOTTOM HOLE 6" ABOVE TOP OF BOTTOM CHORD AND SPACE VERTICALLY AT 6" C/C. PLACE CONDUIT PLUG IN HOLES THAT ARE NOT USED FOR WIRING SIGN PANELS. SEE "ELECTRICAL DETAILS" SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: OCT. 2023

DRAWN BY BOS | PLANS CK'D BOS

4-CHORD TRUSS FULL SPAN COLUMN DETAILS

SHEET II
527

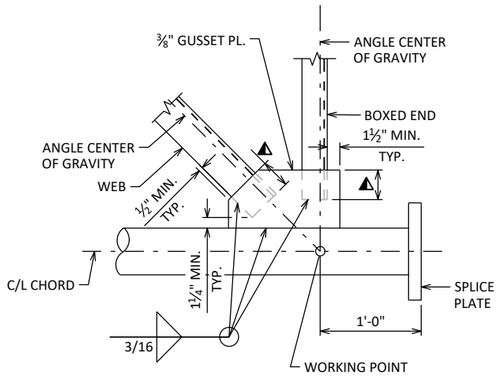
SCALE = 4.0

8

8

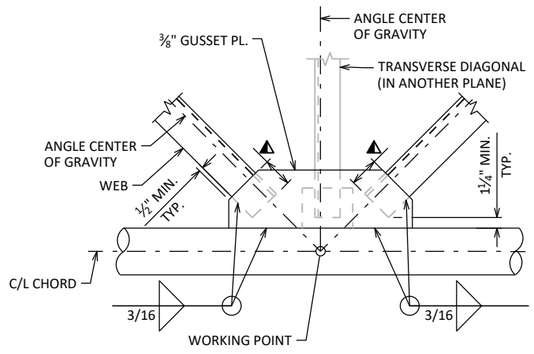
STATE PROJECT NUMBER

STANDARD

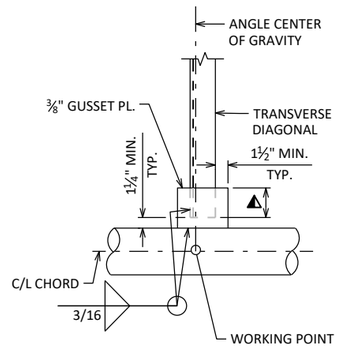


WELDED BOXED END CONNECTION

CONNECTION SHOWN AT CHORD SPLICE,
CONNECTION AT COLUMN END SIMILAR



WELDED PANEL CONNECTION



WELDED TRANSVERSE DIAGONAL CONNECTION

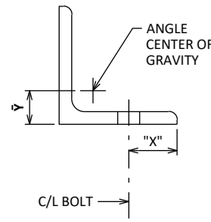
WEB MEMBERS NOT SHOWN FOR CLARITY

MEMBER CONNECTION DATA

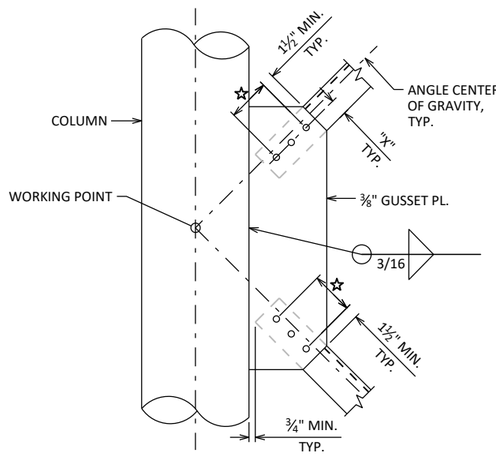
STANDARD DESIGN TYPE	WELD LEG MIN. LENGTH ◭	WELD LEG MIN. LENGTH ◐	NO. OF BOLTS ◪	NO. OF BOLTS ☆
I	3"	4"	3	3
II	3½"	6"	3	3
III	3½"	6"	5	3
IV	4"	6¼"	5	4
V	4½"	7¼"	5	4

FOR ALL ANGLE TO GUSSET CONNECTIONS,
BOLT SPACING = 2½"

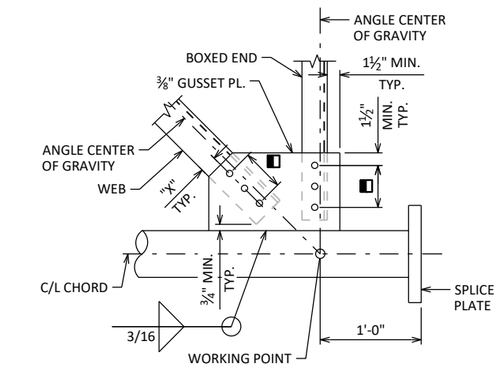
ANGLE DATA



ANGLE SIZE	Ȳ	"X"
L3 X 3 X ¼	0.84"	1¼"
L3½ X 3½ X 5⁄16	0.98"	1½"
L3½ X 3½ X ⅜	1.00"	1½"
L4 X 4 X ⅜	1.13"	1½"
L4 X 4 X 7⁄16	1.15"	1½"
L4 X 4 X ½	1.18"	1½"
L5 X 5 X 7⁄16	1.40"	2"
L5 X 5 X ½	1.42"	2"

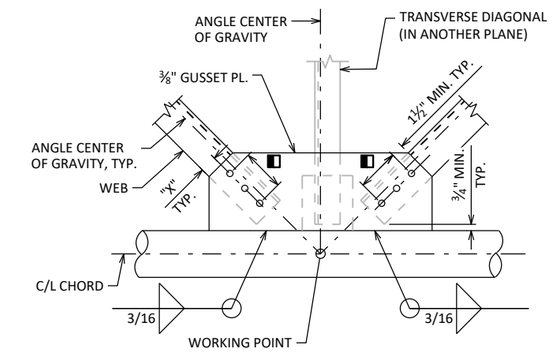


BOLTED COLUMN WEB CONNECTION

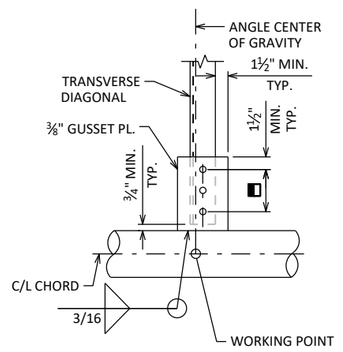


BOLTED BOXED END CONNECTION

CONNECTION SHOWN AT CHORD SPLICE,
CONNECTION AT COLUMN END SIMILAR

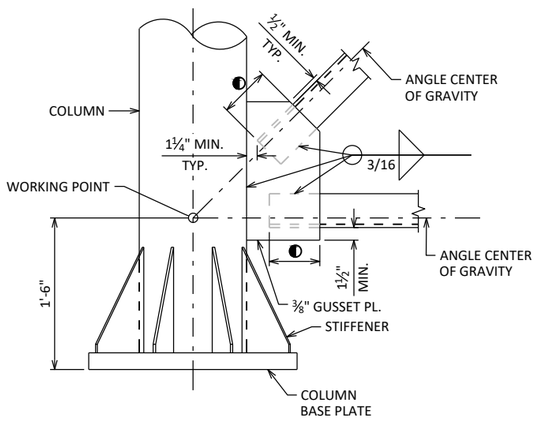


BOLTED PANEL CONNECTION



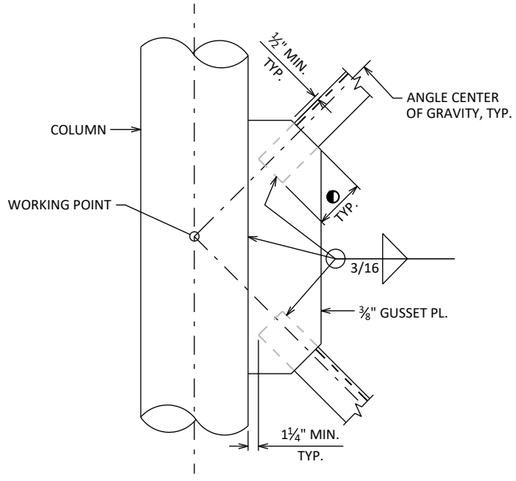
BOLTED TRANSVERSE DIAGONAL CONNECTION

WEB MEMBERS NOT SHOWN FOR CLARITY

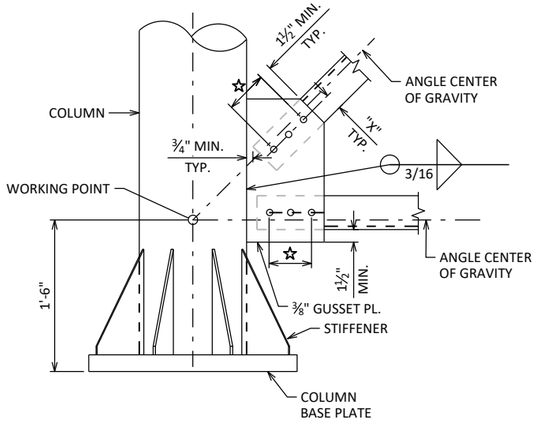


WELDED COLUMN BOTTOM CONNECTION

TOP CONNECTION SIMILAR



WELDED COLUMN WEB CONNECTION



BOLTED COLUMN BOTTOM CONNECTION

TOP CONNECTION SIMILAR

NOTE:

FABRICATOR HAS THE OPTION TO USE NON-MITERED RECTANGULAR GUSSET PLATES IN LIEU OF MITERED PLATES SHOWN IN THESE DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: JAN. 2023

DRAWN BY BOS | PLANS CK'D BOS

4-CHORD TRUSS FULL SPAN CONNECTIONS 1

SHEET III
528

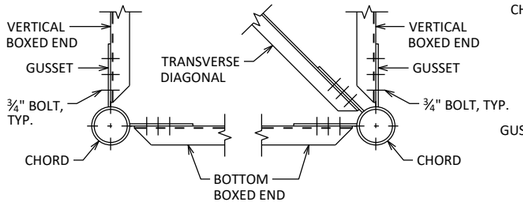
SCALE = 3.0

8

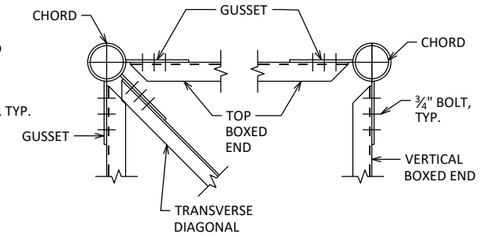
8

STATE PROJECT NUMBER

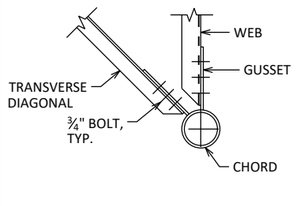
STANDARD



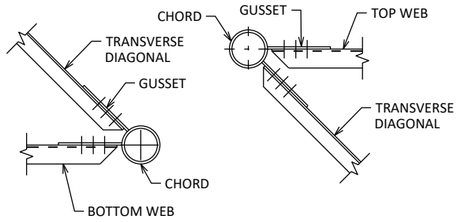
END VIEW 1 **END VIEW 2**



END VIEW 3 **END VIEW 4**

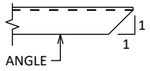


END VIEW 5

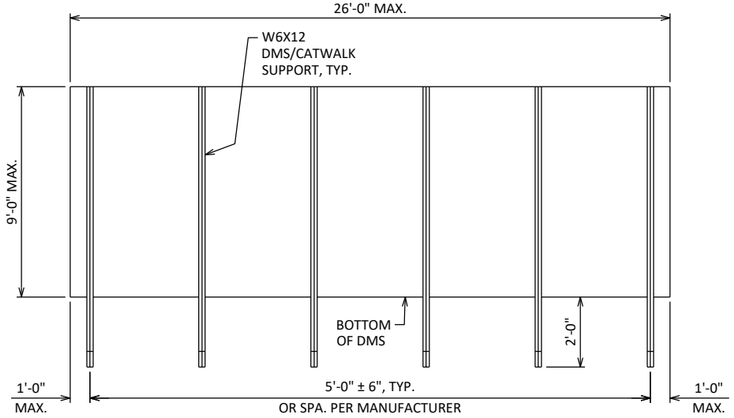


END VIEW 6

END VIEW 7

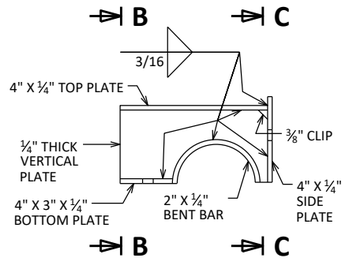


CLIP DETAIL

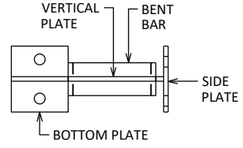


DMS MOUNTING POST SPACING DETAIL

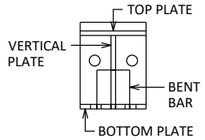
POST SPACING MAY BE ADJUSTED AS REQUIRED IF SPACING CONFLICTS WITH GUSSET PLATES OF TRUSS WITHIN TOLERANCES NOTED.



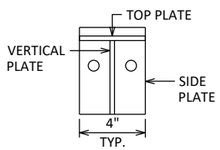
ELEVATION



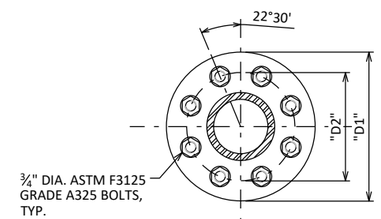
PLAN

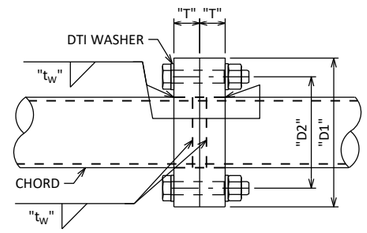


SECTION B-B



SECTION C-C





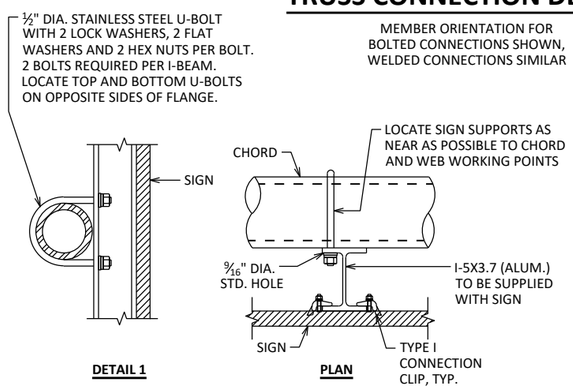
CHORD SPLICE PLATE DETAIL

CHORD SPLICE CONNECTION DATA

STANDARD DESIGN TYPE	"D1"	"D2"	"T"	"t_w"	NO. OF BOLTS
I	11⅞"	8⅝"	1½"	5/16"	8
II	11⅞"	8⅝"	1½"	5/16"	8
III	11⅞"	8⅝"	1½"	⅜"	8
IV	1' 0⅝"	9⅝"	1½"	⅜"	8
V	1' 0⅝"	9⅝"	1½"	⅜"	8

TRUSS CONNECTION DETAILS

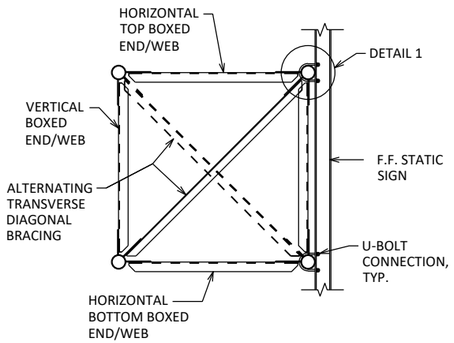
MEMBER ORIENTATION FOR BOLTED CONNECTIONS SHOWN, WELDED CONNECTIONS SIMILAR



DETAIL 1 **PLAN**

TYPICAL SIGN CONNECTION

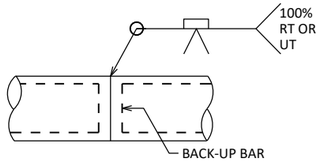
USE FOR TYPE I AND II SIGNS, TYPE I SIGN SHOWN.
SEE SIGN PLATE MANUAL A4-7A AND A4-7B FOR DETAILS.



SECTION THRU TRUSS - STATIC SIGN

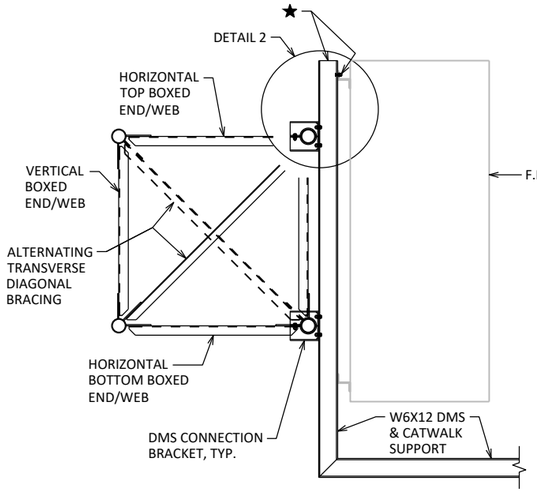
FOR SIGN CONNECTION

ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL. HARDWARE TO BE SUPPLIED BY THE CONTRACTOR.



CHORD SPLICE

NOT TO BE USED AT ENDS OF TRUSS SEGMENTS.
SEPARATE CHORD SPLICE FROM GUSSET PLATES BY 6" MIN.



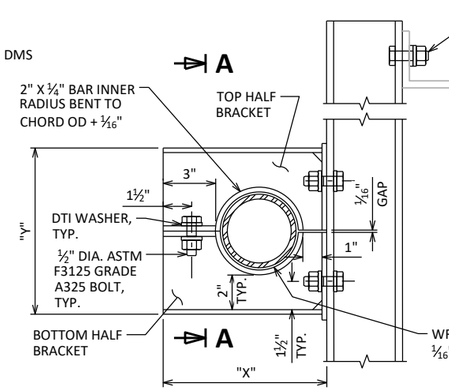
SECTION THRU TRUSS - DMS

FOR DMS/CATWALK CONNECTIONS

★ W6X12 SUPPORTS AND HARDWARE ARE TO BE SUPPLIED BY THE CONTRACTOR. ½" STAINLESS BOLT, NUT, WASHER AND LOCK WASHER REQUIRED, 4 PER W6X12. FIELD DRILLED HOLES IN STEEL SUPPORTS MUST BE COLD GALVANIZED.

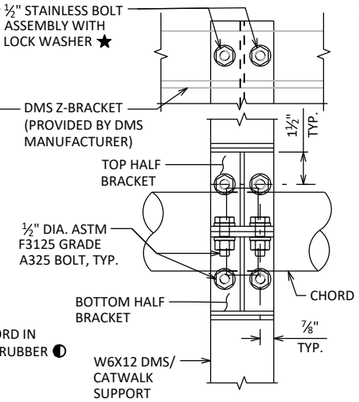
DMS WELDED PLATE CONNECTION DETAILS

TOP HALF OF BRACKET SHOWN, BOTTOM HALF SIMILAR.



DETAIL 2

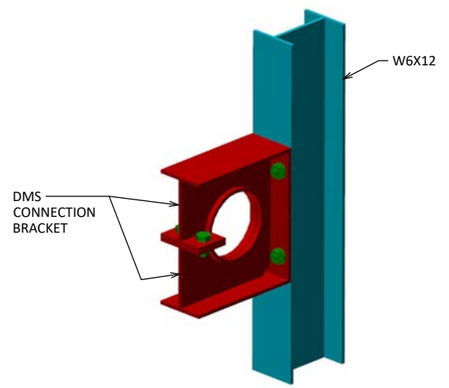
CHORD "OD"	"X"	"Y"
5.563"	10⅜"	10⅝"
6.625"	11⅞"	11¹¹⁄₁₆"



SECTION A-A

TYPICAL DMS CONNECTION

◐ NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD. SPEC. 506.2.6.1



3-D VIEW OF DMS CONNECTION

CHORD NOT SHOW FOR CLARITY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: OCT. 2023

DRAWN BY BOS | PLANS CK'D BOS

4-CHORD TRUSS FULL SPAN CONNECTIONS 2

SHEET IV
529

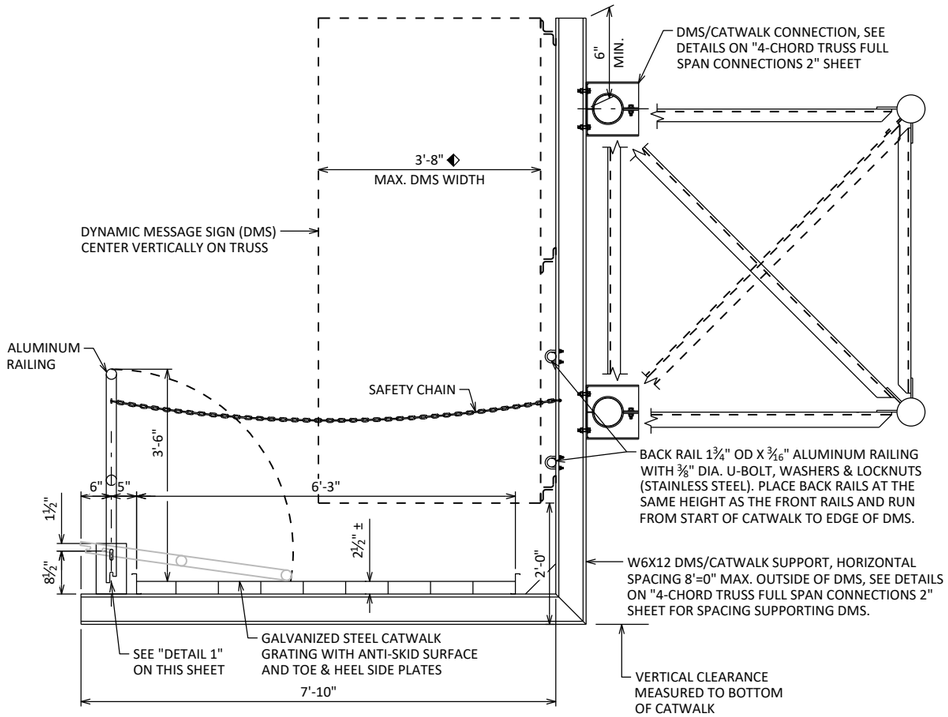
SCALE = 4.0

8

8

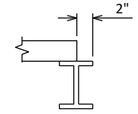
STATE PROJECT NUMBER

STANDARD

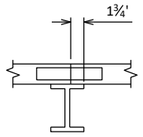


SECTION THRU WALKWAY

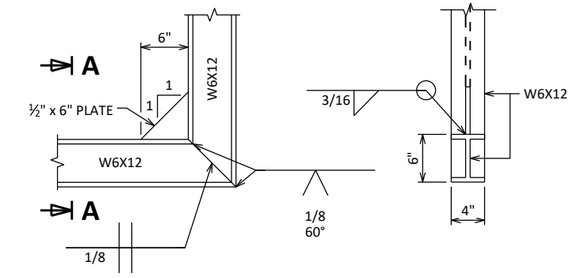
◆ DMS MAY BE RECTANGULAR OR TRAPEZOIDAL. IF DMS HAS A TRAPEZOIDAL SHAPE, THIS DIMENSION REPRESENTS THE AVERAGE WIDTH.



CATWALK TERMINATION DETAIL

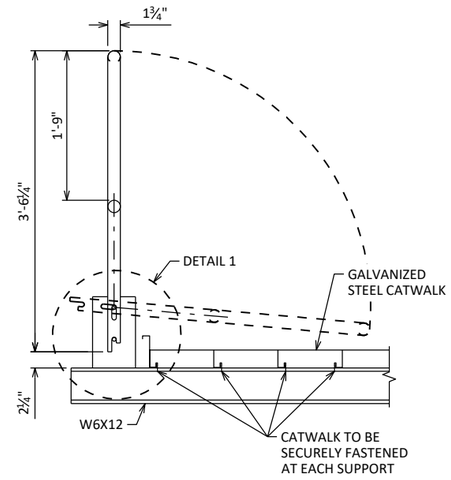


CATWALK SPLICE LOCATION DETAIL

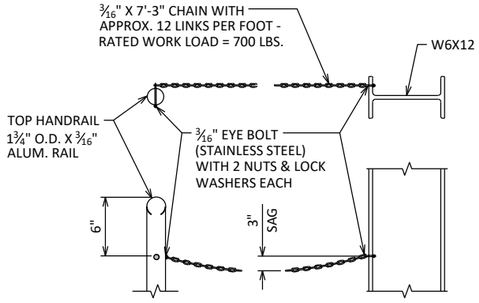


CATWALK BRACKET DETAIL

SECTION A-A

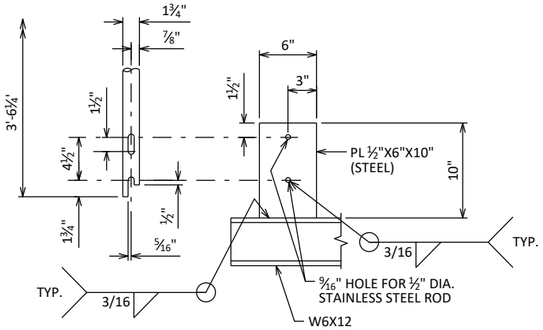


RAIL POST DETAIL

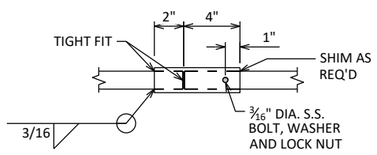


SAFETY CHAIN DETAIL

PROVIDE SAFETY CHAIN AT EACH END OF CATWALK

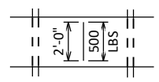


DETAIL 1



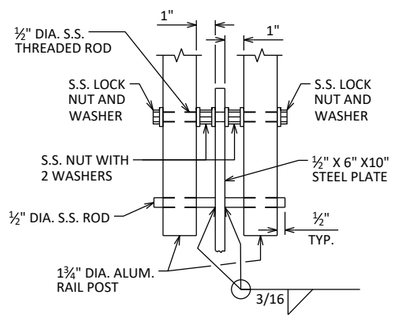
BACKRAIL SPLICE

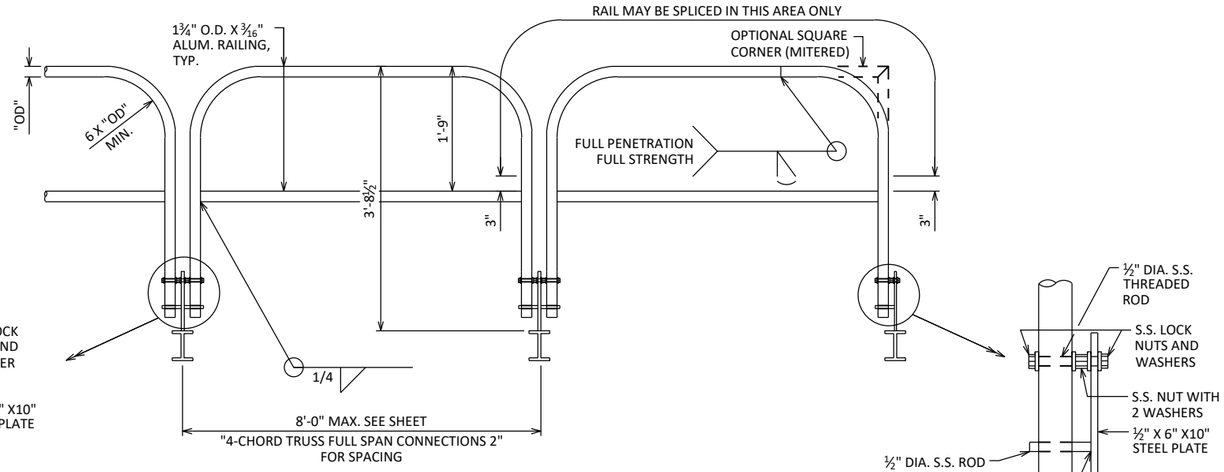
ONE SPLICE ALLOWED FOR LENGTHS OVER 30'-0"



CATWALK LOADING DIAGRAM

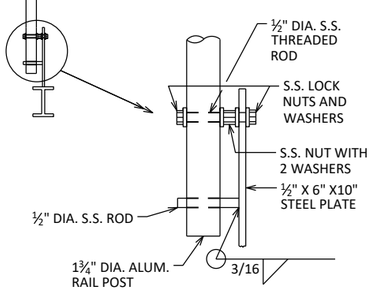
NOTE:
CATWALK GRATING SHALL MEET THE CURRENT AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" WITH 500 LB LIVE LOAD DISTRIBUTED OVER 2'-0" TRANSVERSELY - MAX. SPAN IS 8'-0". CATWALK SHALL ALSO MEET CURRENT OSHA STD'S FOR WALKING-WORKING SURFACES.





TYPICAL FRONT RAILING DETAILS

S.S. - STAINLESS STEEL



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: JAN. 2023

DRAWN BY: BOS | PLANS CK'D: BOS

4-CHORD TRUSS FULL SPAN CATWALK DETAILS

SHEET V 530

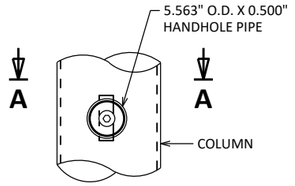
SCALE = 2.5

8

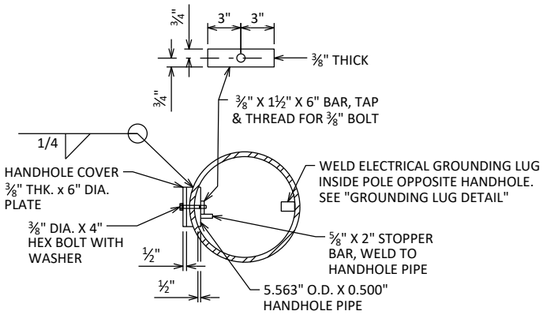
8

STATE PROJECT NUMBER

STANDARD



ELEVATION

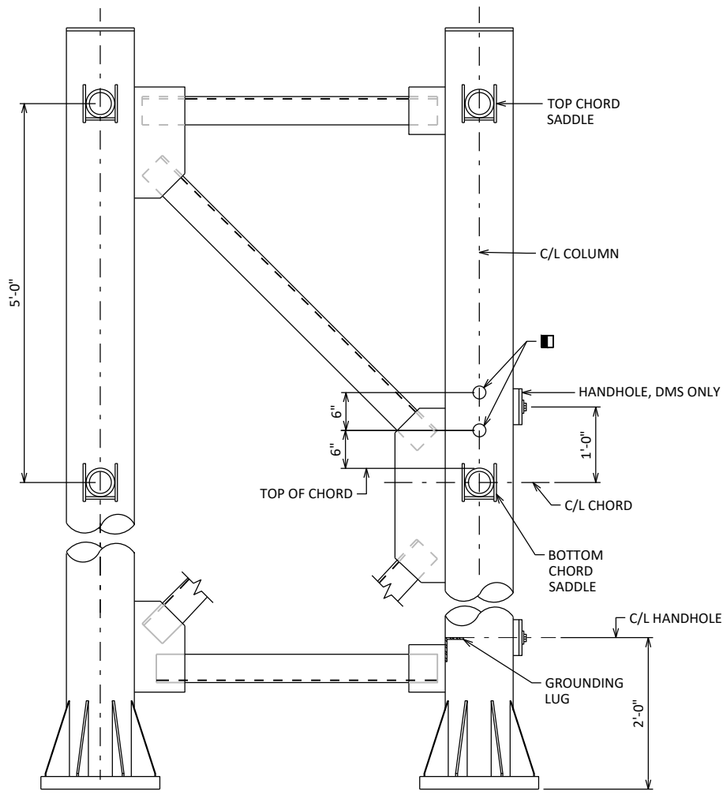


SECTION A-A

HANDHOLE DETAILS

HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN BRIDGE COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL PLAN DETAIL SHEETS.

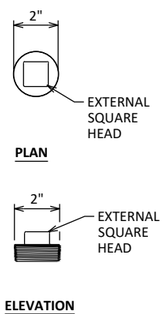
UNLESS OTHERWISE NOTED, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



CONDUIT HOLE LOCATIONS

LOOKING AT INSIDE FACE OF COLUMN

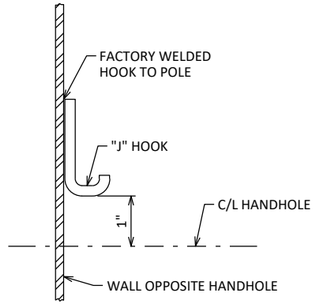
◧ 2" HOLE WITH STANDARD PIPE THREADS, USE THREADED CONDUIT PLUG FOR UNUSED HOLES



PLAN

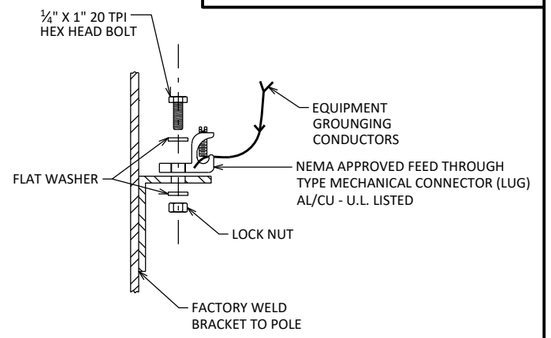
ELEVATION

CONDUIT PLUG DETAILS



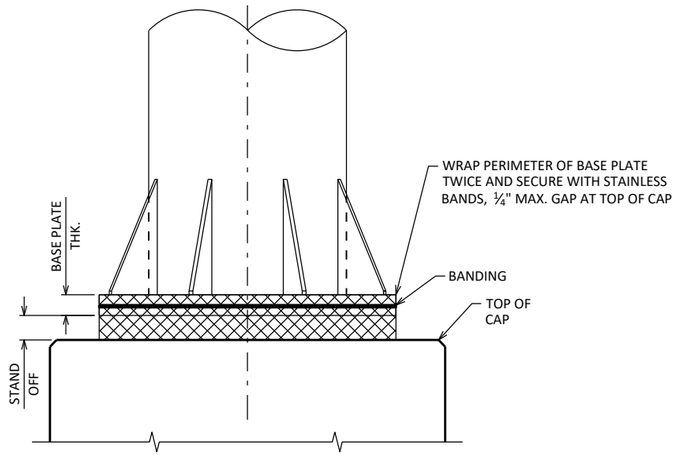
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF THE COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.



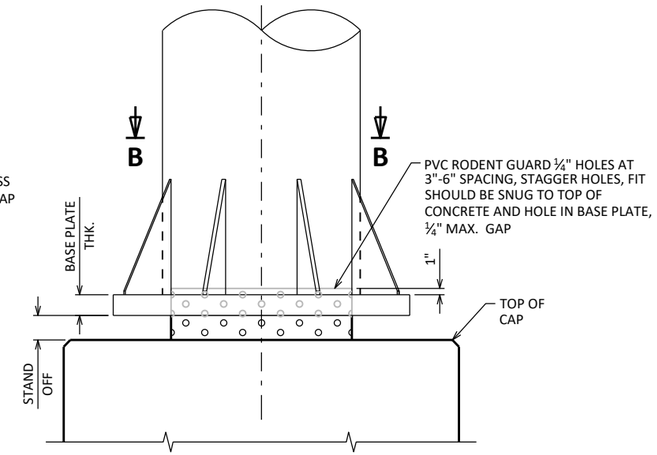
GROUNDING LUG DETAIL

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



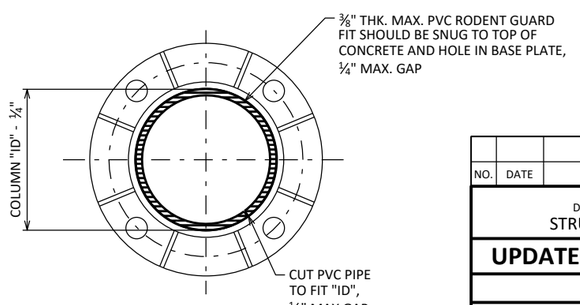
RODENT SCREEN

ONLY REQ'D WHEN ELECTRICAL DEVICES ARE PRESENT
ANCHOR RODS NOT SHOWN



RODENT SCREEN - ALTERNATE

ONLY REQ'D WHEN ELECTRICAL DEVICES ARE PRESENT
ANCHOR RODS NOT SHOWN



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: JAN. 2023

DRAWN BY: BOS | PLANS CK'D: BOS

4-CHORD TRUSS FULL SPAN ELECTRICAL DETAILS

SHEET VI
531

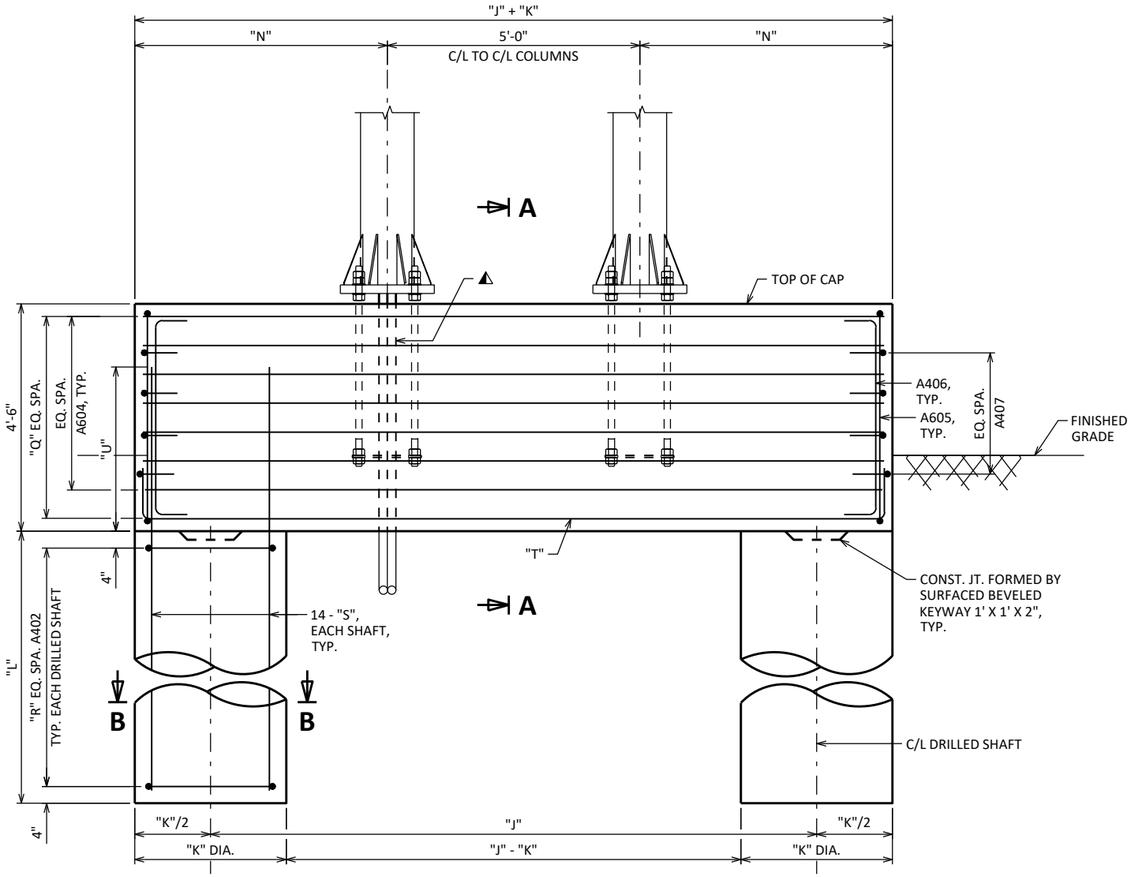
SCALE = 2.0

8

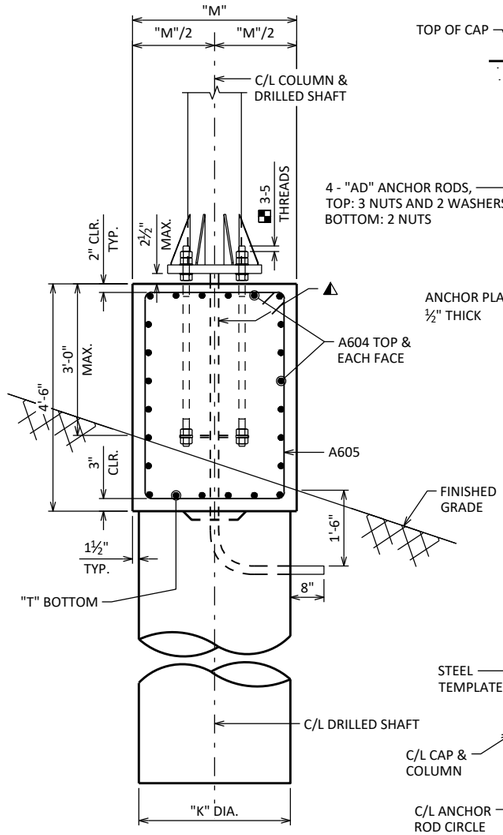
8

STATE PROJECT NUMBER

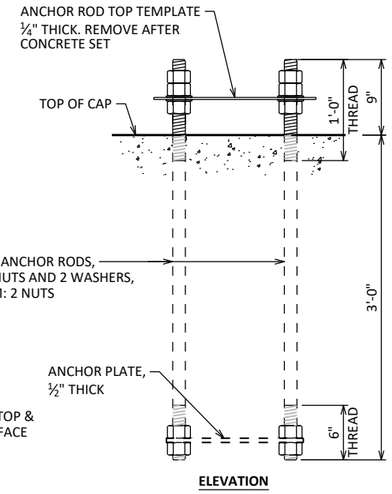
STANDARD



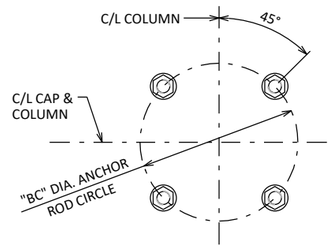
ELEVATION



SECTION A-A



ELEVATION

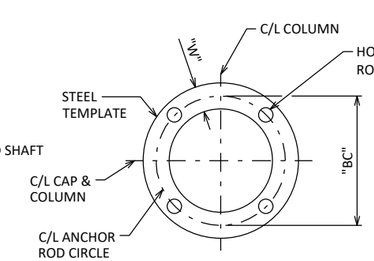


PLAN

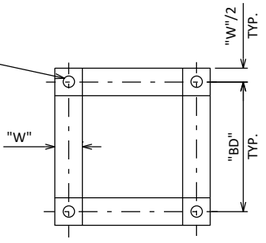
ANCHOR ROD ASSEMBLY DETAILS

SINGLE ANCHOR ASSEMBLY SHOWN, 4 ANCHOR RODS PER ASSEMBLY

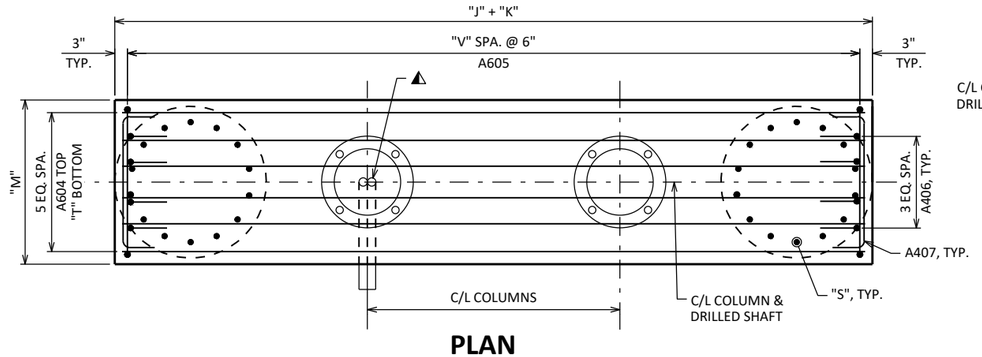
CENTER ANCHOR ROD ASSEMBLY AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE AS DETAILED. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHORS.



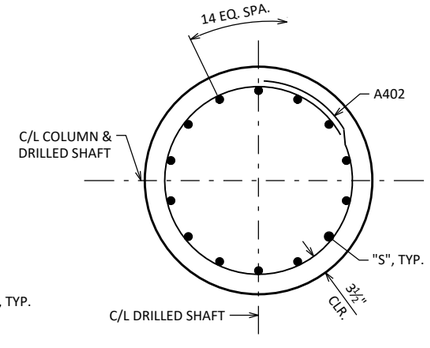
ANCHOR PLATE & TOP TEMPLATE



ALTERNATE ANCHOR PLATE & TOP TEMPLATE



PLAN



SECTION B-B

TYPICAL FOR EACH DRILLED SHAFT FOOTING

FOUNDATION, REINFORCING & ANCHOR PLATE DATA

STANDARD DESIGN TYPE	FOUNDATION DIMENSIONS											ANCHOR PLATE DIMENSIONS			
	"J"	"K"	"L"	"M"	"N"	"Q"	"R"	"S"	"T"	"U"	"V"	"AD"	"BC"	"BD"	"W"
~~I~~	~~9'-0"~~	~~3'-0"~~	~~19'-0"~~	~~3'-3"~~	~~3'-6"~~	~~7~~	~~19~~	~~A801~~	~~A603~~	~~2'-2"~~	~~23~~	~~1½"~~	~~1'-6¾"~~	~~1'-1¼"~~	~~3"~~
~~II~~	~~12'-0"~~	~~3'-0"~~	~~22'-0"~~	~~3'-3"~~	~~5'-0"~~	~~7~~	~~22~~	~~A801~~	~~A603~~	~~2'-2"~~	~~29~~	~~1½"~~	~~1'-6¾"~~	~~1'-1¼"~~	~~3"~~
III	12'-0"	3'-6"	23'-0"	3'-9"	5'-3"	7	23	A901	A703	2'-9"	30	1¾"	1'-6¾"	1'-1¼"	3½"
~~IV~~	~~15'-0"~~	~~3'-6"~~	~~23'-0"~~	~~3'-9"~~	~~6'-9"~~	~~7~~	~~23~~	~~A901~~	~~A703~~	~~2'-9"~~	~~36~~	~~1¾"~~	~~1'-8"~~	~~1'-2⅛"~~	~~3½"~~
V	15'-0"	4'-0"	23'-0"	4'-3"	7'-0"	8	23	A1001	A703	3'-5"	37	1¾"	1'-10"	1'-3⅝"	3½"

LEGEND

- ANCHOR ROD STICK OUT IN FINAL CONDITION. EXCESSIVE STICK OUT BEYOND DIMENSION SHOWN TO BE CUT OFF AFTER PLACING STRUCTURE. ANCHORS TO BE ULTRASONIC TESTED TO DETERMINE EMBEDDED LENGTH MEETS REQUIREMENTS PRIOR TO CUTTING. NOTE REMAINING LENGTH ON AS-BUILT.
- ⚠ 2 - 2" DIA. NON-METALLIC CONDUITS. INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO DMS. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: OCT. 2024

DRAWN BY BOS | PLANS CK'D BOS

4-CHORD TRUSS FULL SPAN FOUNDATIONS 1

SHEET VII
532

SCALE = 3.0

8

8

BILL OF BARS

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

STANDARD DESIGN TYPE I

BAR MARK	COAT	NO. * REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		56	21'-3"			DRILLED SHAFT - VERTICAL
A402		80	9'-1"	X		DRILLED SHAFT - HORIZONTAL
A603	X	12	13'-3"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	11'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	48	14'-10"	X		CAP - STIRRUP
A406	X	16	4'-7"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-5"	X		CAP - HORIZONTAL - EACH END

STANDARD DESIGN TYPE II

BAR MARK	COAT	NO. * REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		56	24'-3"			DRILLED SHAFT - VERTICAL
A402		92	9'-1"	X		DRILLED SHAFT - HORIZONTAL
A603	X	12	16'-3"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	14'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	60	14'-10"	X		CAP - STIRRUP
A406	X	16	4'-7"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-5"	X		CAP - HORIZONTAL - EACH END

STANDARD DESIGN TYPE III

BAR MARK	COAT	NO. * REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		56	25'-9"			DRILLED SHAFT - VERTICAL
A402		96	10'-7"	X		DRILLED SHAFT - HORIZONTAL
A703	X	12	17'-1"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	15'-2"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	62	15'-10"	X		CAP - STIRRUP
A406	X	16	4'-7"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-11"	X		CAP - HORIZONTAL - EACH END

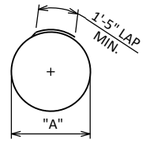
STANDARD DESIGN TYPE IV

BAR MARK	COAT	NO. * REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		56	25'-9"			DRILLED SHAFT - VERTICAL
A402		96	10'-7"	X		DRILLED SHAFT - HORIZONTAL
A703	X	12	20'-1"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	18'-2"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	74	15'-10"	X		CAP - STIRRUP
A406	X	16	4'-7"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-11"	X		CAP - HORIZONTAL - EACH END

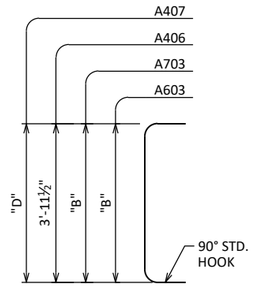
STANDARD DESIGN TYPE V

BAR MARK	COAT	NO. * REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		56	26'-6"			DRILLED SHAFT - VERTICAL
A402		96	12'-2"	X		DRILLED SHAFT - HORIZONTAL
A703	X	12	20'-7"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	18'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	76	16'-10"	X		CAP - STIRRUP
A406	X	16	4'-7"	X		CAP - VERTICAL - EACH END
A407	X	16	4'-5"	X		CAP - HORIZONTAL - EACH END

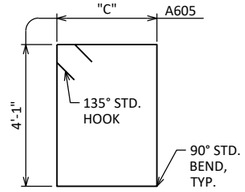
* VALUES SHOWN ARE FOR BOTH FOUNDATIONS, DIVIDE VALUES BY 2 IF A STANDARD FOUNDATION IS USED WITH A NON-STANDARD FOUNDATION.



A402



A603, A703, A406, A407



A605

STATE PROJECT NUMBER

STANDARD

STANDARD DESIGN TYPE	"A"	"B"	"C"	"D"
I	2'-5"	11'-7"	2'-11"	2'-9½"
II	2'-5"	14'-7"	2'-11"	2'-9½"
III	2'-11"	15'-1"	3'-5"	3'-3½"
IV	2'-11"	18'-1"	3'-5"	3'-3½"
V	3'-5"	18'-7"	3'-11"	3'-9½"

ESTIMATED QUANTITIES - FOUNDATION

STANDARD DESIGN TYPE	CONCRETE MASONRY	STEEL REINFORCEMENT HS	STEEL REINFORCEMENT HS COATED	ANCHOR ASSEMBLY 1.50-INCH	ANCHOR ASSEMBLY 1.75-INCH	FOUNDATION DRILLING (DIA.) (LF)		
	(CY)	(LBS)	(LBS)	(EACH)	(EACH)	36"	42"	48"
I	32.9	3,670	2,030	4	---	76	---	---
II	39.3	4,190	2,510	4	---	88	---	---
III	52.2	5,590	2,810	---	4	---	92	---
IV	55.9	5,590	3,330	---	4	---	92	---
V	69.7	7,170	3,540	---	4	---	---	92

** QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON STANDARD STRUCTURE DIMENSIONS. VALUES SHOWN ARE FOR BOTH FOUNDATIONS, DIVIDE VALUES BY 2 IF A STANDARD FOUNDATION IS USED WITH A NON-STANDARD FOUNDATION. **

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: OCT. 2024

DRAWN BY BOS | PLANS CK'D BOS

4-CHORD TRUSS FULL SPAN FOUNDATIONS 2

SHEET VIII
533

SCALE = 1.0

8

8

BECHER EW

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.00	MASS ORDINATE NOTE 4
0+00.00	0.00	0.00	61.69	21.65	0.00	0	0	0	0	0	0
0+50.00	50.00	50.00	69.85	22.73	0.02	122	41	0	122	0	122
1+00.00	100.00	50.00	73.19	26.51	1.69	132	46	2	254	2	252
1+50.00	150.00	50.00	67.22	48.97	33.65	130	70	33	384	35	349
2+00.00	200.00	50.00	155.03	55.98	1.65	206	97	33	590	68	522
2+50.00	250.00	50.00	152.25	35.40	0.00	285	85	2	875	70	805
3+00.00	300.00	50.00	94.34	37.24	0.00	228	67	0	1103	70	1033
3+50.00	350.00	50.00	73.72	28.52	0.00	156	61	0	1259	70	1189
4+00.00	400.00	50.00	73.71	28.18	0.00	137	53	0	1396	70	1326
4+50.00	450.00	50.00	73.91	27.94	0.00	137	52	0	1533	70	1463
5+00.00	500.00	50.00	84.11	24.53	0.00	146	49	0	1679	70	1609
5+50.00	550.00	50.00	115.13	34.60	0.00	184	55	0	1863	70	1793
6+00.00	600.00	50.00	166.83	62.97	0.00	261	90	0	2124	70	2054
6+50.00	650.00	50.00	121.65	50.84	27.91	267	105	26	2391	96	2295
7+00.00	700.00	50.00	103.06	51.74	37.70	208	95	61	2599	157	2442
7+50.00	750.00	50.00	96.04	42.24	10.56	184	87	45	2783	202	2581
8+00.00	800.00	50.00	97.47	31.39	0.00	179	68	10	2962	212	2750
8+13.99	813.99	13.99	87.79	33.62	0.00	48	17	0	3010	212	2798

BECHER WE

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.00	MASS ORDINATE NOTE 4
0+00.00	0.00	0.00	75.97	28.20	0.00	0	0	0	0	0	0
0+50.00	50.00	50.00	87.44	28.77	0.00	151	53	0	151	0	151
1+00.00	100.00	50.00	84.43	34.58	8.07	159	59	7	310	7	303
1+50.00	150.00	50.00	110.58	34.61	3.12	181	64	10	491	17	474
2+00.00	200.00	50.00	84.76	34.69	1.53	181	64	4	672	21	651
2+50.00	250.00	50.00	105.09	45.64	0.00	176	74	1	848	22	826
3+00.00	300.00	50.00	52.89	20.80	0.00	146	62	0	994	22	972
3+50.00	350.00	50.00	70.28	27.05	0.00	114	44	0	1108	22	1086
4+00.00	400.00	50.00	78.34	30.01	0.00	138	53	0	1246	22	1224
4+50.00	450.00	50.00	77.43	29.89	0.00	144	55	0	1390	22	1368
5+00.00	500.00	50.00	87.09	32.89	0.00	152	58	0	1542	22	1520
5+50.00	550.00	50.00	118.31	40.60	0.00	190	68	0	1732	22	1710
6+00.00	600.00	50.00	140.98	55.96	0.00	240	89	0	1972	22	1950
6+50.00	650.00	50.00	84.48	46.64	17.08	209	95	16	2181	38	2143
7+00.00	700.00	50.00	83.29	63.34	41.17	155	102	54	2336	92	2244
7+50.00	750.00	50.00	83.68	28.22	0.00	155	85	38	2491	130	2361
8+00.00	800.00	50.00	85.91	27.92	0.00	157	52	0	2648	130	2518
8+25.06	825.06	25.06	65.89	22.41	0.00	70	23	0	2718	130	2588

NOTES:	
1 - CUT	CUT EXCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL AND EXCAVATION OF BIOSWALE
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	INCLUDES UNUSABLE PAVEMENT EXC VOLUME IN TERRACED AREAS
4 - MASS ORDINATE	[CUT - FILL]

RAMP NBF

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.00	MASS ORDINATE NOTE 4
84+10.35	8410.35	0.00	53.97	16.93	0.00	0	0	0	0	0	0
84+50.00	8450.00	39.65	64.45	20.45	0.01	87	27	0	87	0	87
85+00.00	8500.00	50.00	60.66	19.64	0.00	116	37	0	203	0	203
85+50.00	8550.00	50.00	61.15	20.01	0.00	113	37	0	316	0	316
86+00.00	8600.00	50.00	118.35	58.54	26.73	166	73	25	482	25	457
86+50.00	8650.00	50.00	133.18	49.23	26.65	233	100	49	715	74	641
87+00.00	8700.00	50.00	145.62	52.35	38.08	258	94	60	973	134	839
87+50.00	8750.00	50.00	138.26	66.79	65.36	263	110	96	1236	230	1006
88+00.00	8800.00	50.00	139.06	69.76	59.88	257	126	116	1493	346	1147
88+50.00	8850.00	50.00	170.36	44.31	7.16	287	106	62	1780	408	1372

RAMP NBN

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.00	MASS ORDINATE NOTE 4
90+00.00	9000.00	0.00	170.75	45.29	10.17	0	0	0	0	0	0
90+50.00	9050.00	50.00	77.45	56.13	42.91	230	94	49	230	49	181
91+00.00	9100.00	50.00	79.33	53.66	39.02	145	102	76	375	125	250
91+50.00	9150.00	50.00	82.58	47.75	32.88	150	94	67	525	192	333
92+00.00	9200.00	50.00	90.32	49.57	33.55	160	90	62	685	254	431
92+50.00	9250.00	50.00	94.68	51.51	32.33	171	94	61	856	315	541
93+00.00	9300.00	50.00	98.75	53.69	31.23	179	97	59	1035	374	661
93+50.00	9350.00	50.00	100.65	55.41	37.67	185	101	64	1220	438	782
93+54.12	9354.12	4.12	100.07	55.62	38.63	15	8	6	1235	444	791
94+00.00	9400.00	45.88	0.00	1.94	1.94	85	49	34	1320	478	842

NOTES:	
1 - CUT	CUT EXCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL AND EXCAVATION OF BIOSWALE
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	INCLUDES UNUSABLE PAVEMENT EXC VOLUME IN TERRACED AREAS
4 - MASS ORDINATE	[CUT - FILL]

9

9

PROJECT NO: 1228-09-77 | HWY: IH 43 | COUNTY: MILWAUKEE | EARTHWORK DATA | SHEET 535 | E

RAMP SBF

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.00	MASS ORDINATE NOTE 4
90+00.00	9000.00	0.00	137.70	67.76	37.31	0	0	0	0	0	0
90+50.00	9050.00	50.00	107.68	70.64	54.68	227	128	85	227	85	142
91+00.00	9100.00	50.00	110.82	60.16	41.28	202	121	89	429	174	255
91+50.00	9150.00	50.00	112.03	49.01	30.04	206	101	66	635	240	395
92+00.00	9200.00	50.00	112.24	51.50	23.68	208	93	50	843	290	553
92+50.00	9250.00	50.00	106.19	59.42	11.94	202	103	33	1045	323	722
93+00.00	9300.00	50.00	140.08	53.38	6.30	228	104	17	1273	340	933
93+50.00	9350.00	50.00	156.40	44.97	4.87	275	91	10	1548	350	1198
94+00.00	9400.00	50.00	131.24	47.52	8.67	266	86	13	1814	363	1451
94+41.85	9441.85	41.85	98.48	53.83	30.86	178	79	31	1992	394	1598
94+50.00	9450.00	8.15	40.36	34.00	33.46	21	13	10	2013	404	1609
95+00.00	9500.00	50.00	32.88	32.35	34.19	68	61	63	2081	467	1614
95+50.00	9550.00	50.00	125.07	47.70	0.00	146	74	32	2227	499	1728

RAMP SBN

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.00	MASS ORDINATE NOTE 4
86+15.09	8615.09	0.00	0.00	1.83	1.83	0	0	0	0	0	0
86+50.00	8650.00	34.91	51.30	43.35	36.46	33	29	25	33	25	8
86+53.84	8653.84	3.84	100.48	59.05	34.75	11	7	5	44	30	14
87+00.00	8700.00	46.16	97.39	52.52	27.52	169	95	53	213	83	130
87+50.00	8750.00	50.00	77.38	47.67	28.44	162	93	52	375	135	240
88+00.00	8800.00	50.00	73.72	56.02	35.88	140	96	60	515	195	320
88+50.00	8850.00	50.00	191.46	65.82	5.19	246	113	38	761	233	528

NOTES:	
1 - CUT	CUT EXCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL AND EXCAVATION OF BIOSWALE
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	INCLUDES UNUSABLE PAVEMENT EXC VOLUME IN TERRACED AREAS
4 - MASS ORDINATE	[CUT - FILL]

9

9

4TH ST

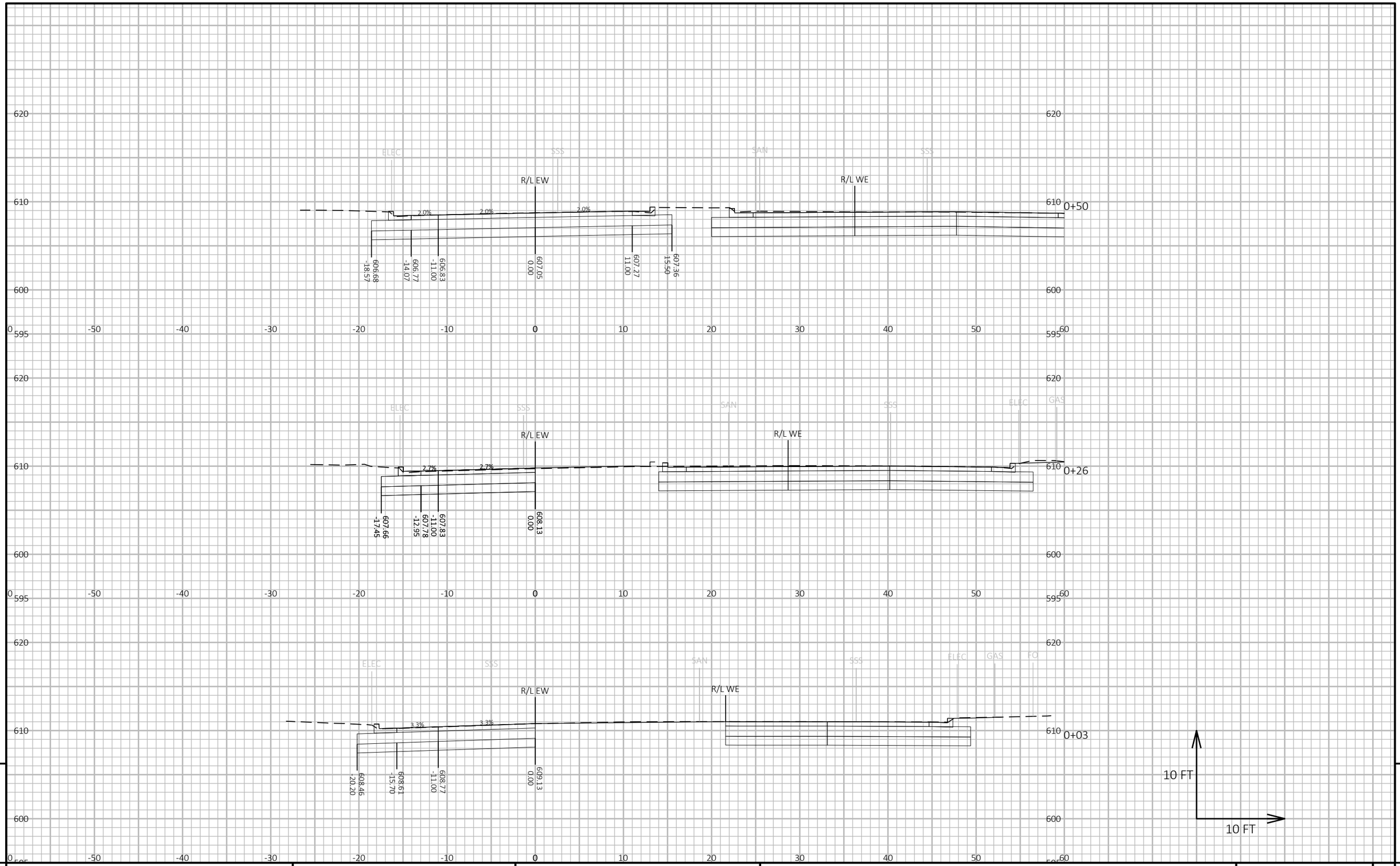
STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.00	MASS ORDINATE NOTE 4
761+75.03	76175.03	0.00	0.00	1.93	2.05	0	0	0	0	0	0
762+00.00	76200.00	24.97	0.00	5.03	7.09	0	3	4	0	4	-4
762+50.00	76250.00	50.00	0.00	10.16	15.55	0	14	21	0	25	-25
763+00.00	76300.00	50.00	0.00	10.35	15.89	0	19	29	0	54	-54
763+50.00	76350.00	50.00	0.00	10.28	15.68	0	19	29	0	83	-83
764+00.00	76400.00	50.00	0.00	10.21	15.66	0	19	29	0	112	-112
764+50.00	76450.00	50.00	0.00	10.20	15.86	0	19	29	0	141	-141
765+00.00	76500.00	50.00	0.00	10.15	15.52	0	19	29	0	170	-170
765+50.00	76550.00	50.00	0.00	10.04	15.44	0	19	29	0	199	-199
766+00.00	76600.00	50.00	0.00	10.07	15.45	0	19	29	0	228	-228
766+50.00	76650.00	50.00	0.00	10.02	15.39	0	19	29	0	257	-257
767+00.00	76700.00	50.00	0.00	10.05	15.28	0	19	28	0	285	-285
767+50.00	76750.00	50.00	0.00	9.92	15.30	0	18	28	0	313	-313
768+00.00	76800.00	50.00	0.00	10.55	15.83	0	19	29	0	342	-342
768+51.06	76851.06	51.06	61.34	31.08	15.25	58	39	29	58	371	-313
769+00.00	76900.00	48.94	65.31	34.31	18.28	115	59	30	173	401	-228
769+50.00	76950.00	50.00	71.38	35.06	24.74	127	64	40	300	441	-141
770+00.00	77000.00	50.00	84.80	22.91	10.72	145	54	33	445	474	-29
770+50.00	77050.00	50.00	84.35	25.73	19.76	157	45	28	602	502	100
771+00.00	77100.00	50.00	67.79	32.93	28.37	141	54	45	743	547	196
771+07.27	77107.27	7.27	65.93	34.02	29.80	18	9	8	761	555	206

NOTES:	
1 - CUT	CUT EXCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL AND EXCAVATION OF BIOSWALE
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	INCLUDES UNUSABLE PAVEMENT EXC VOLUME IN TERRACED AREAS
4 - MASS ORDINATE	[CUT - FILL]

9

9

PROJECT NO: 1228-09-77 | HWY: IH 43 | COUNTY: MILWAUKEE | EARTHWORK DATA | SHEET 537 | E



9

9

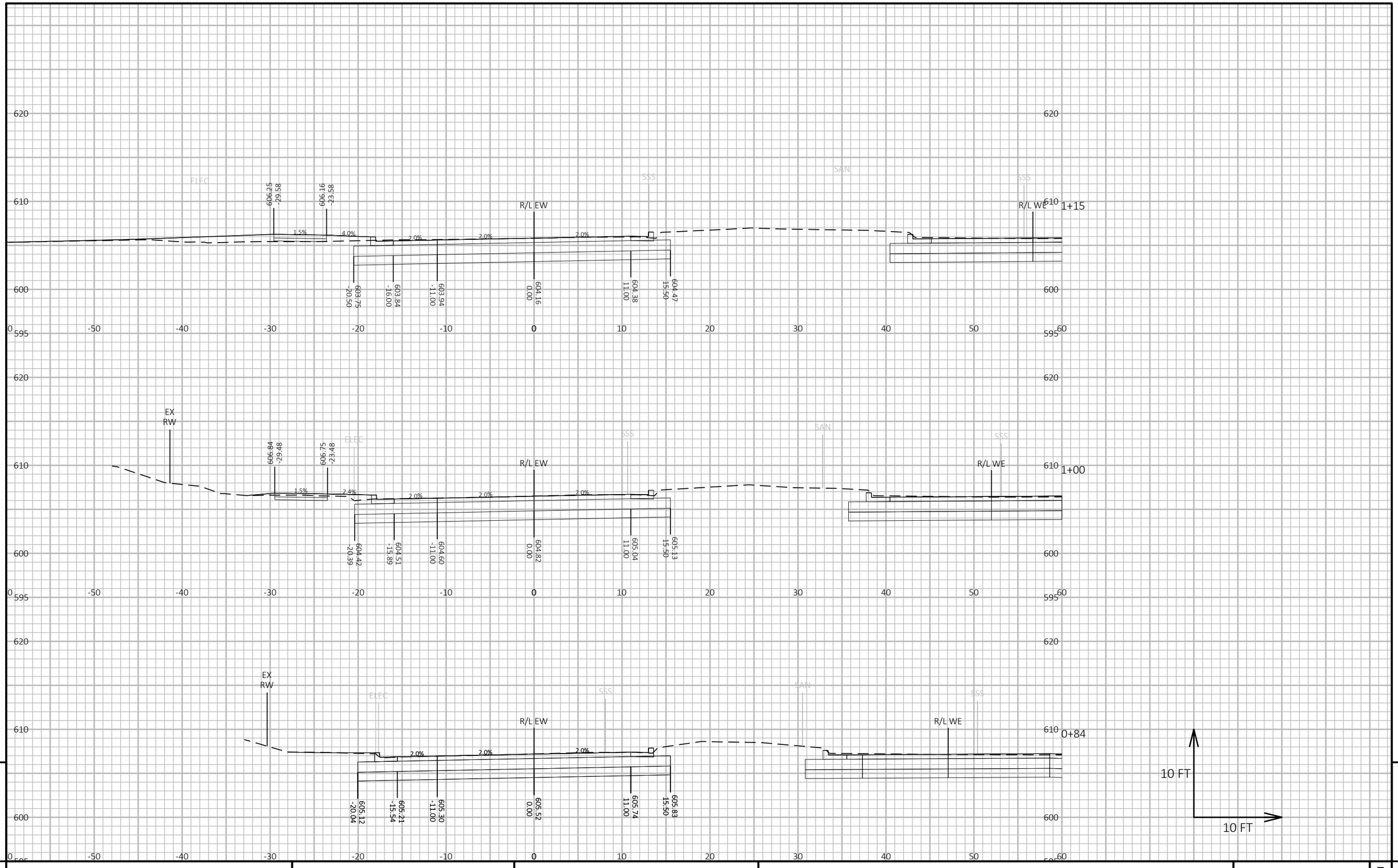
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 538	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW01

PLOT DATE : 10/29/2025 11:23 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

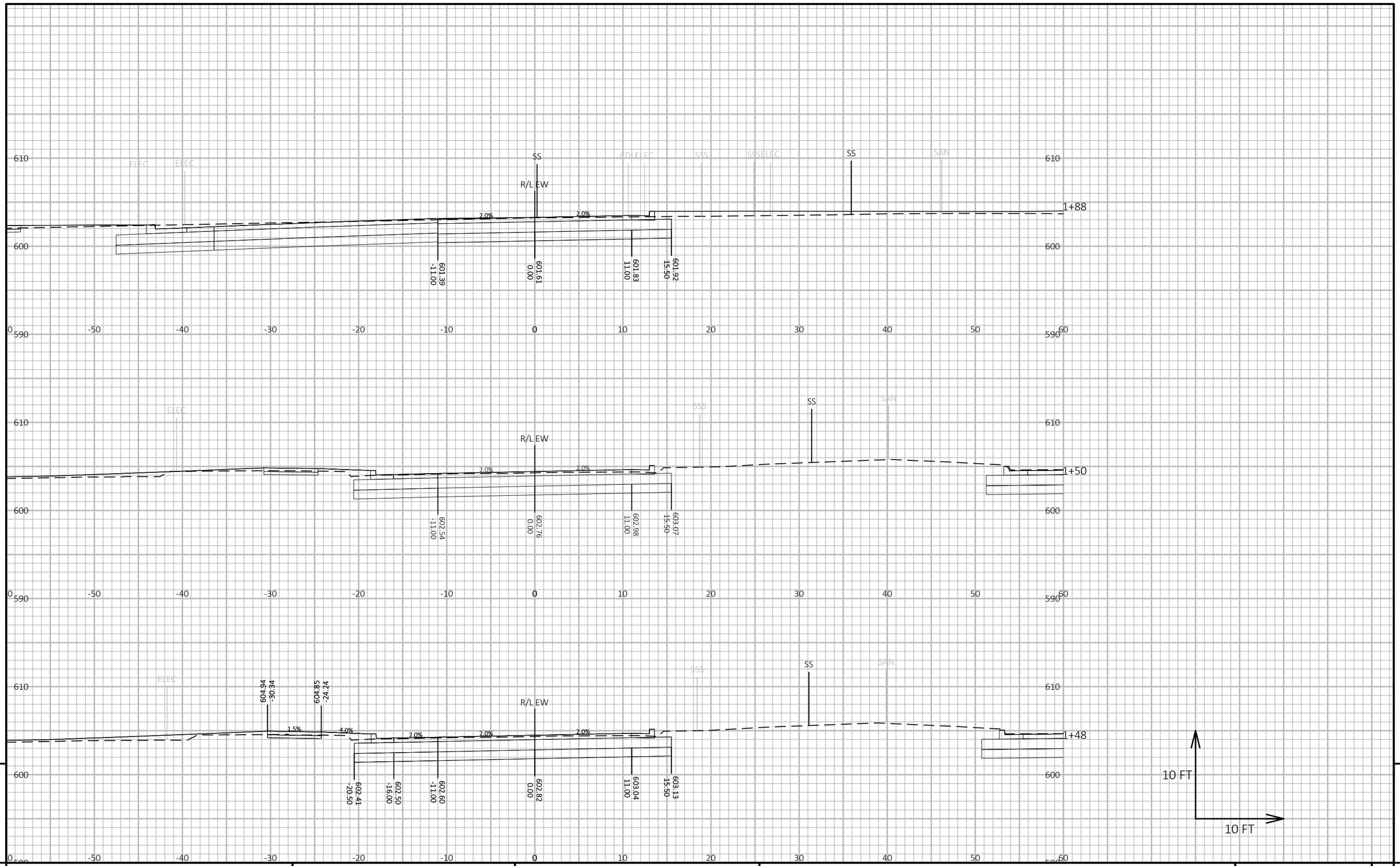
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 539	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW02

PLOT DATE : 10/29/2025 11:23 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

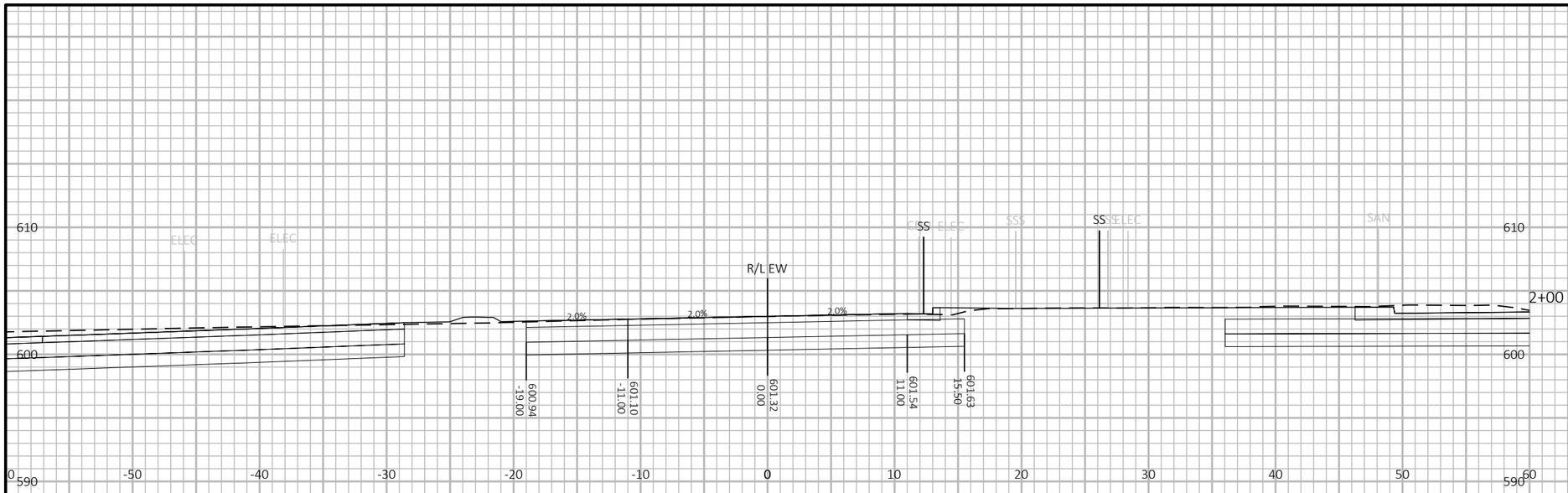
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 540	E

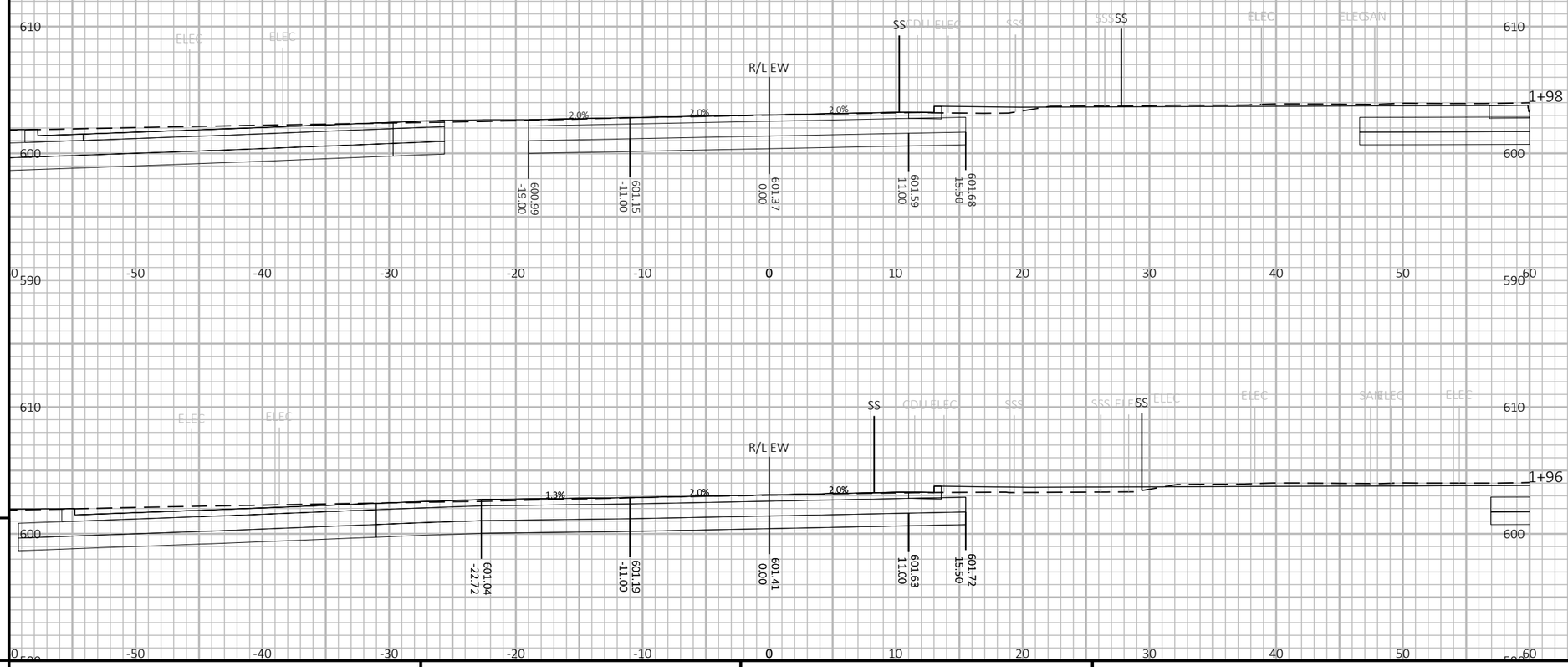
FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW03

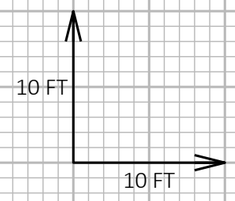
PLOT DATE : 10/29/2025 11:23 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







9

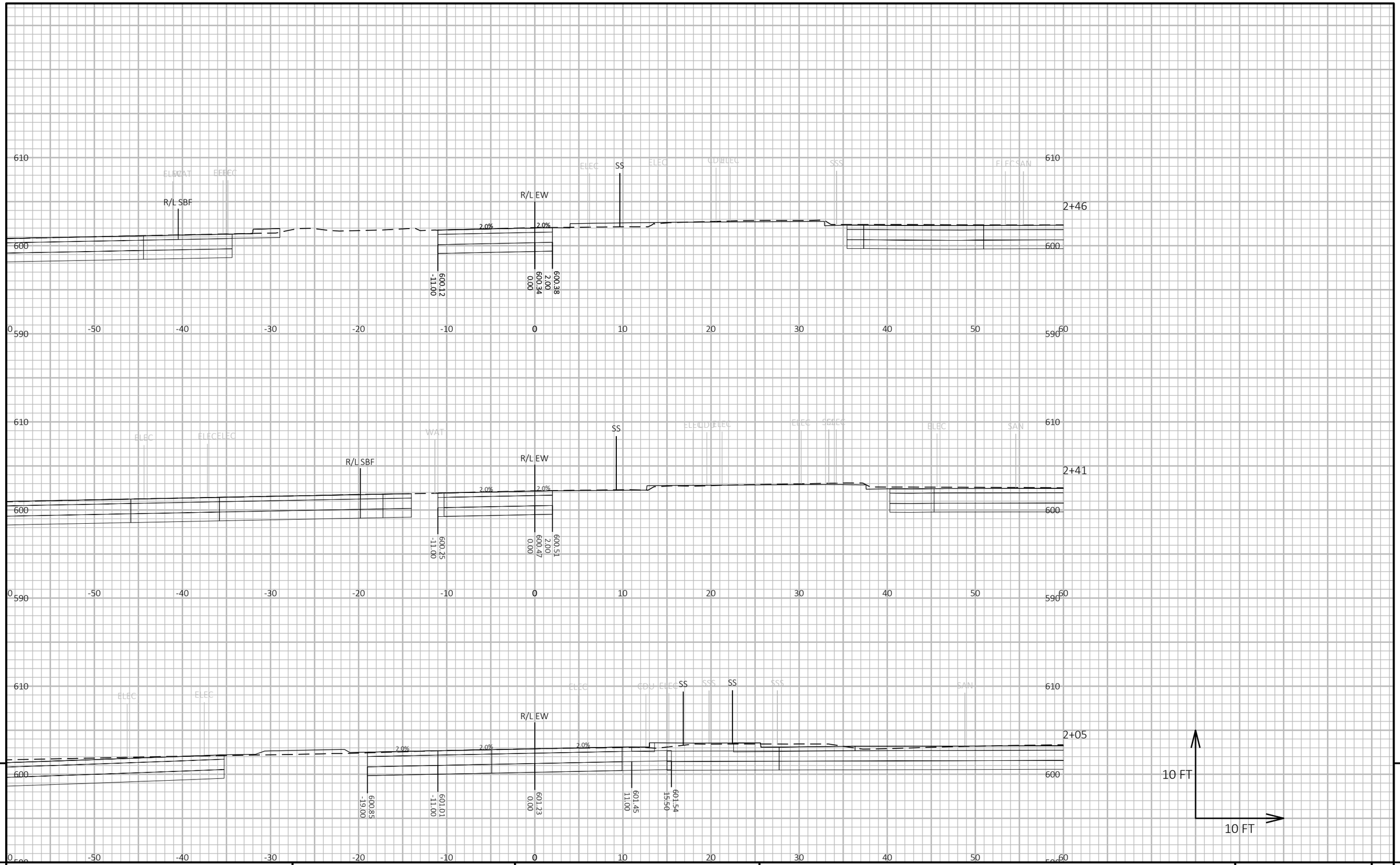
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 541	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW04

PLOT DATE : 10/29/2025 11:23 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

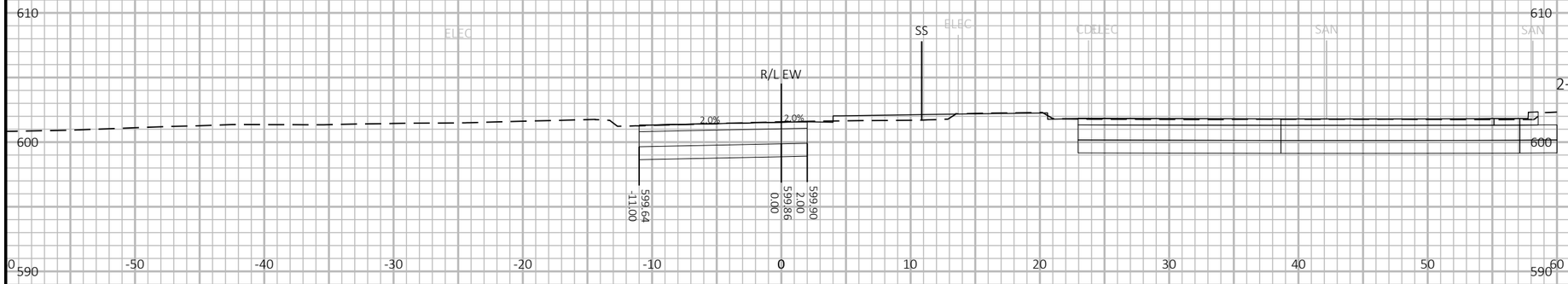
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 542	E

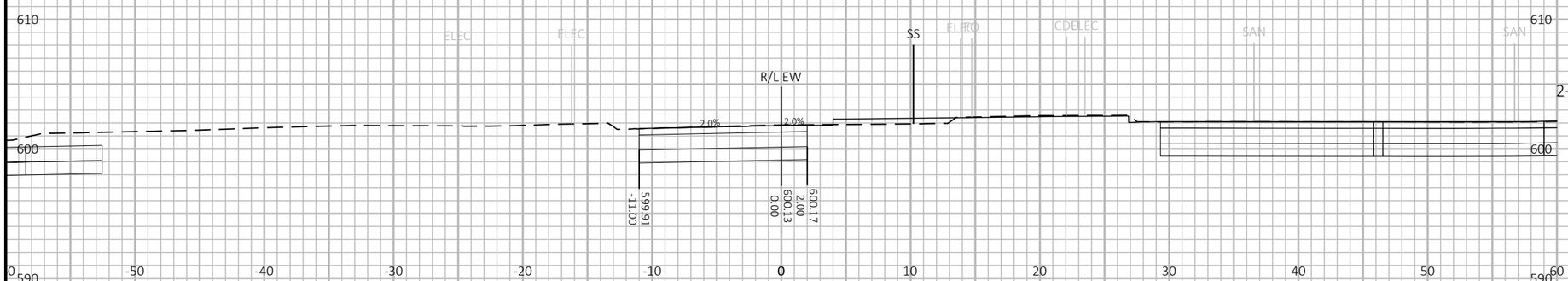
FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW05

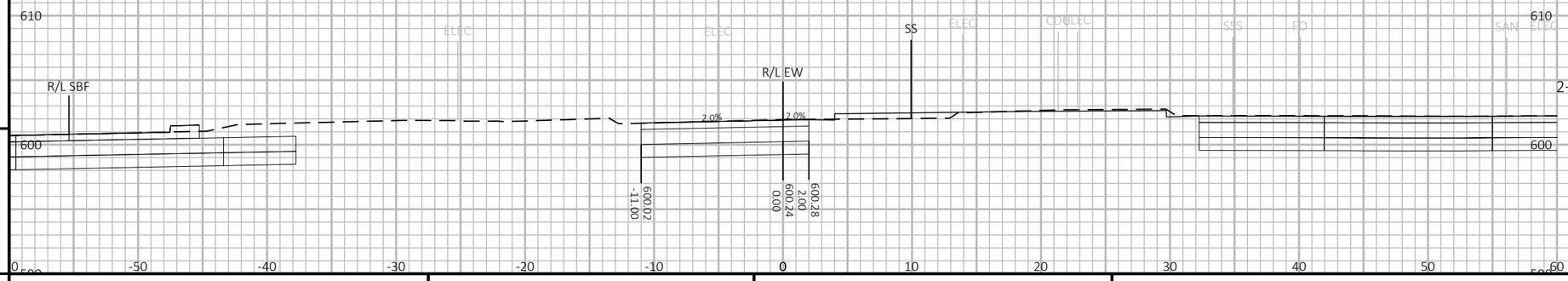
PLOT DATE : 10/29/2025 11:23 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

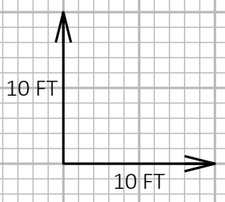
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49









9

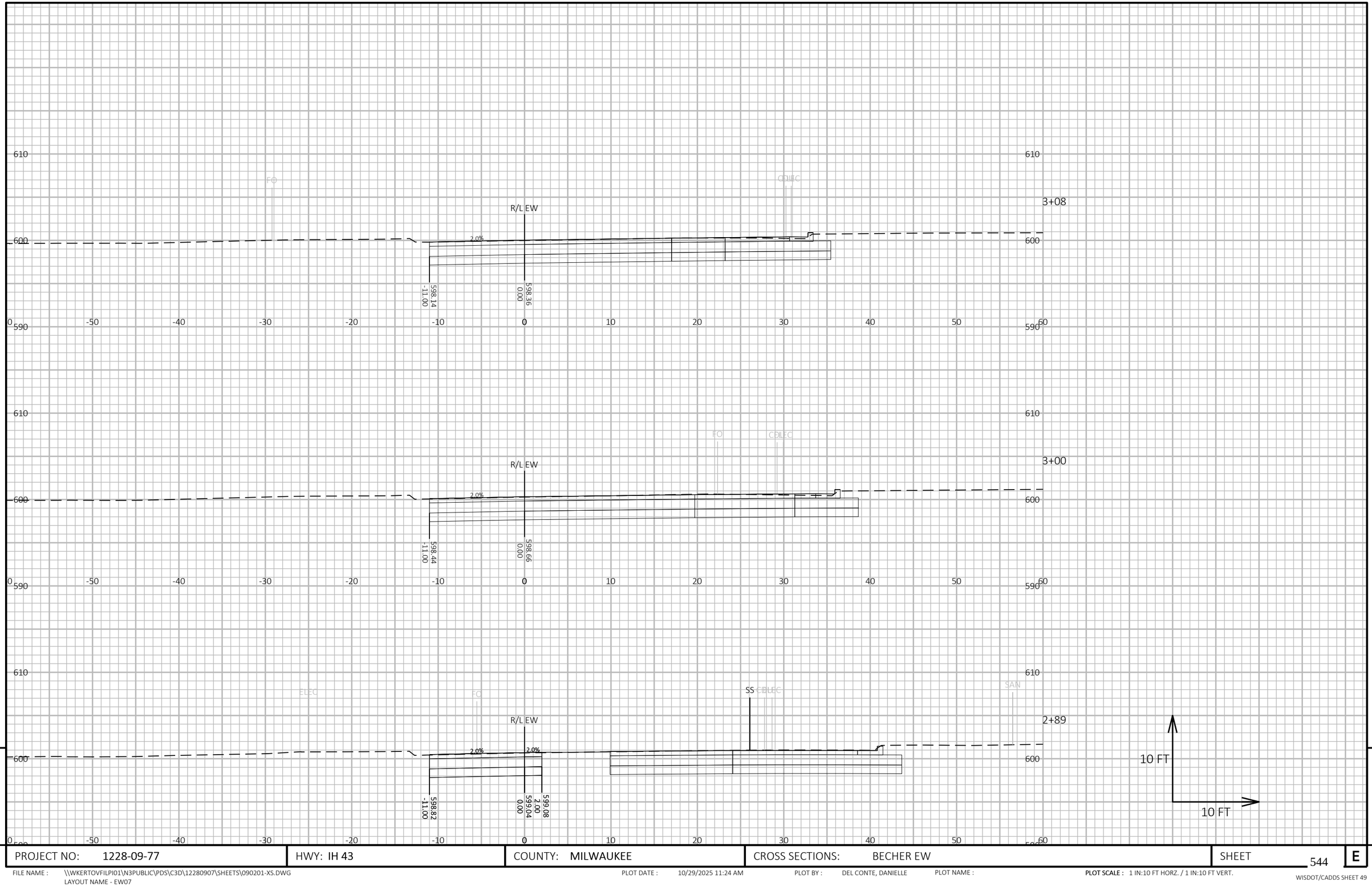
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 543	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW06

PLOT DATE : 10/29/2025 11:24 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

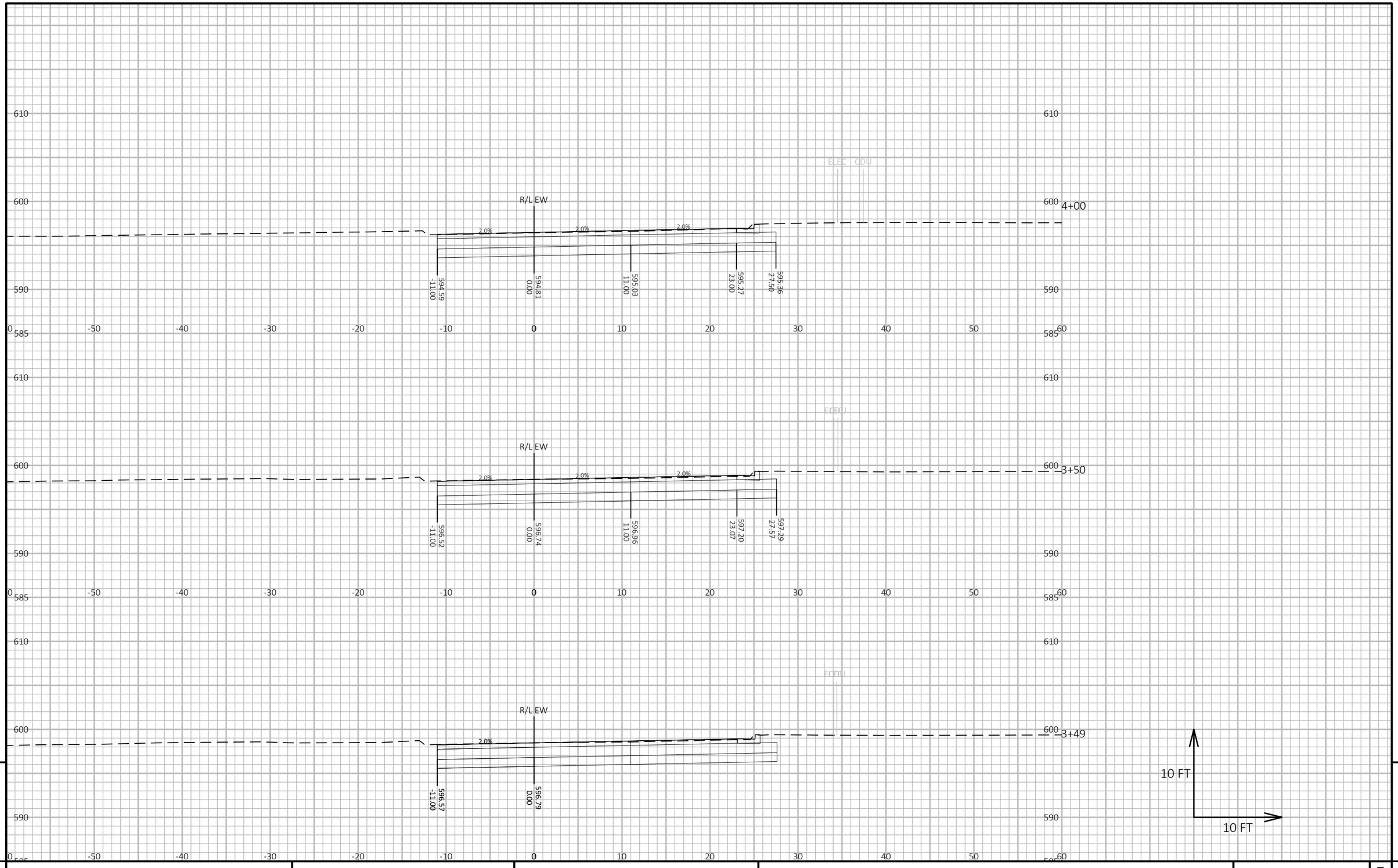
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 544	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW07

PLOT DATE : 10/29/2025 11:24 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

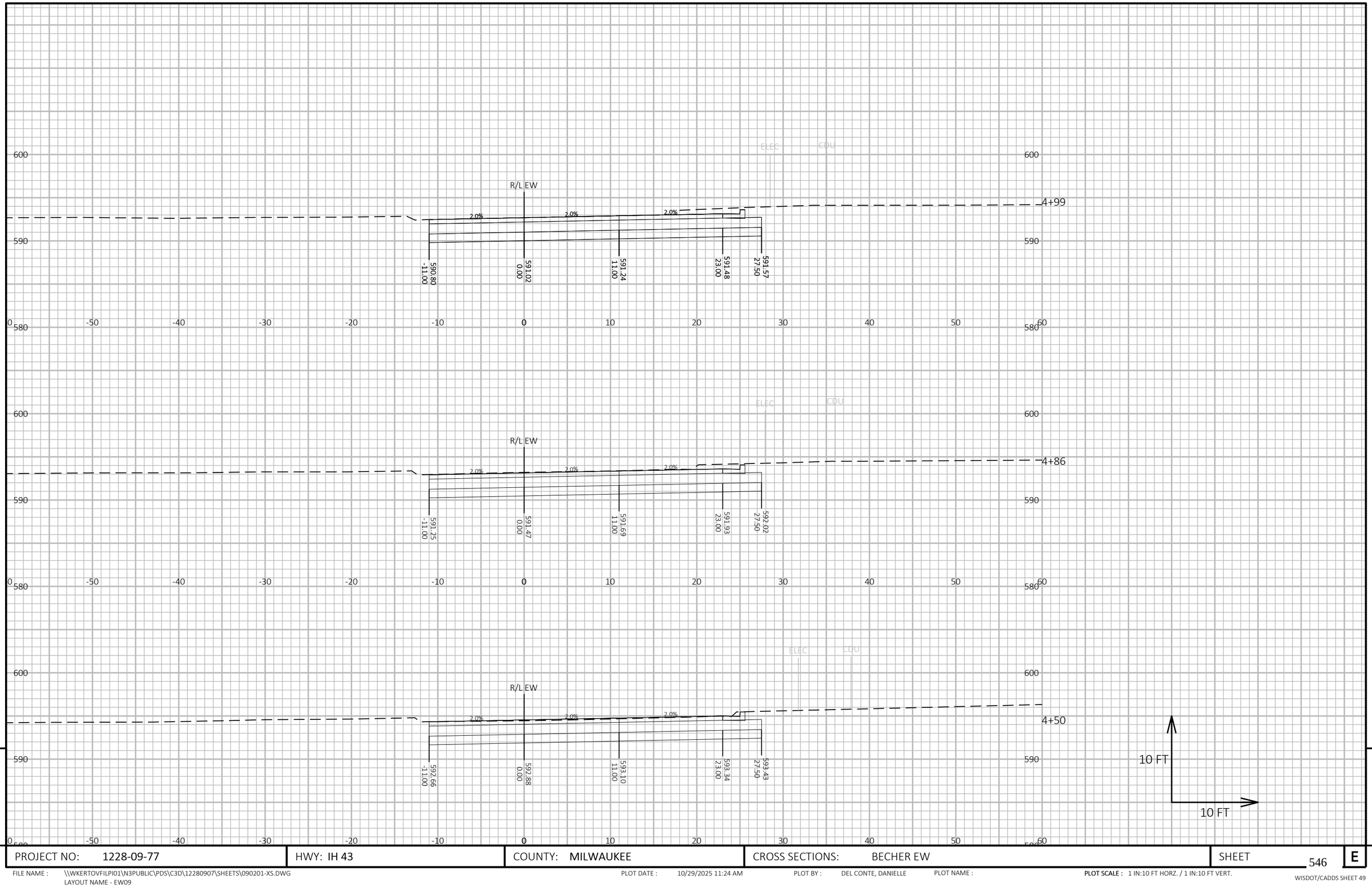
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 545	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW08

PLOT DATE : 10/29/2025 11:24 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

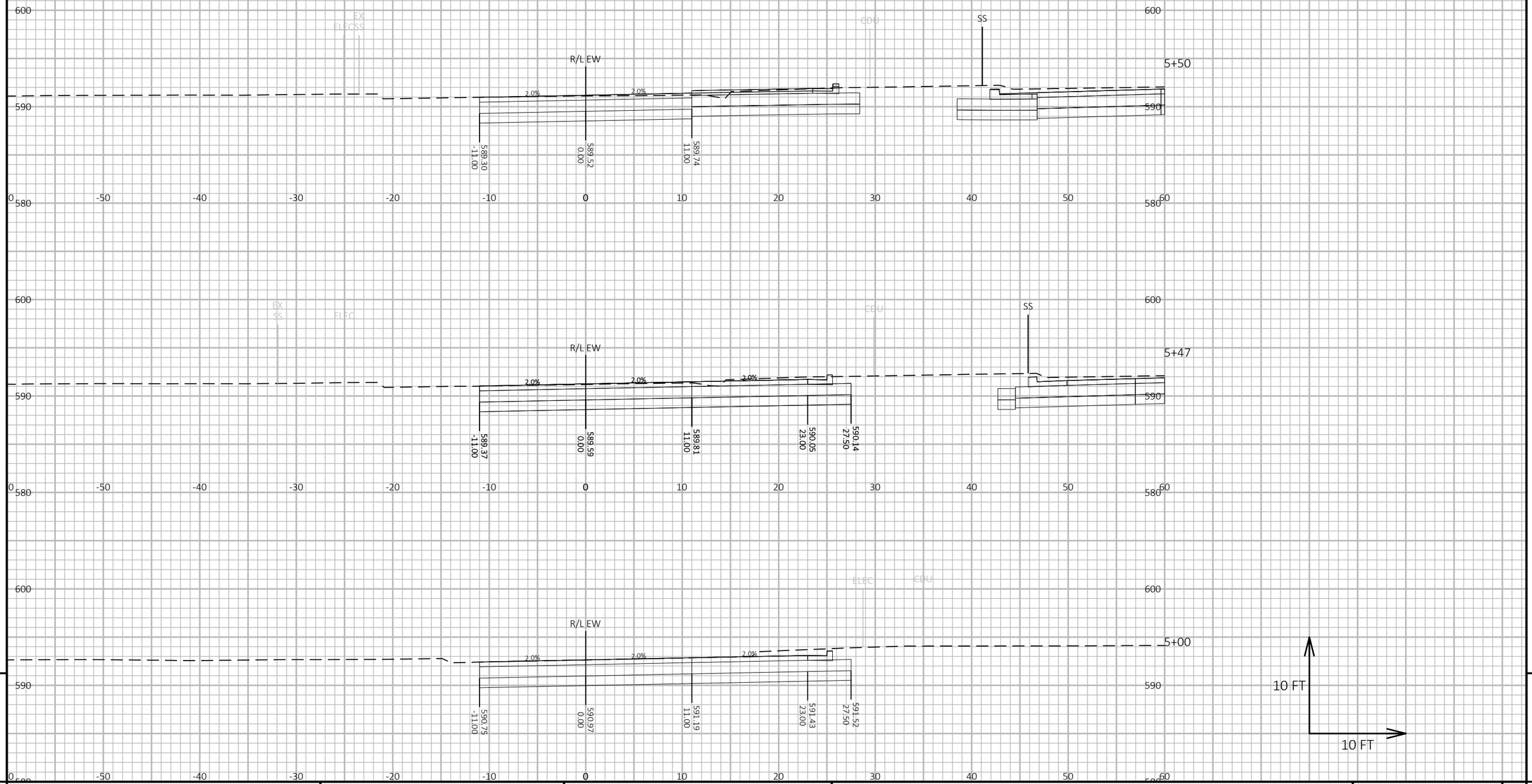
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 546	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW09

PLOT DATE : 10/29/2025 11:24 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

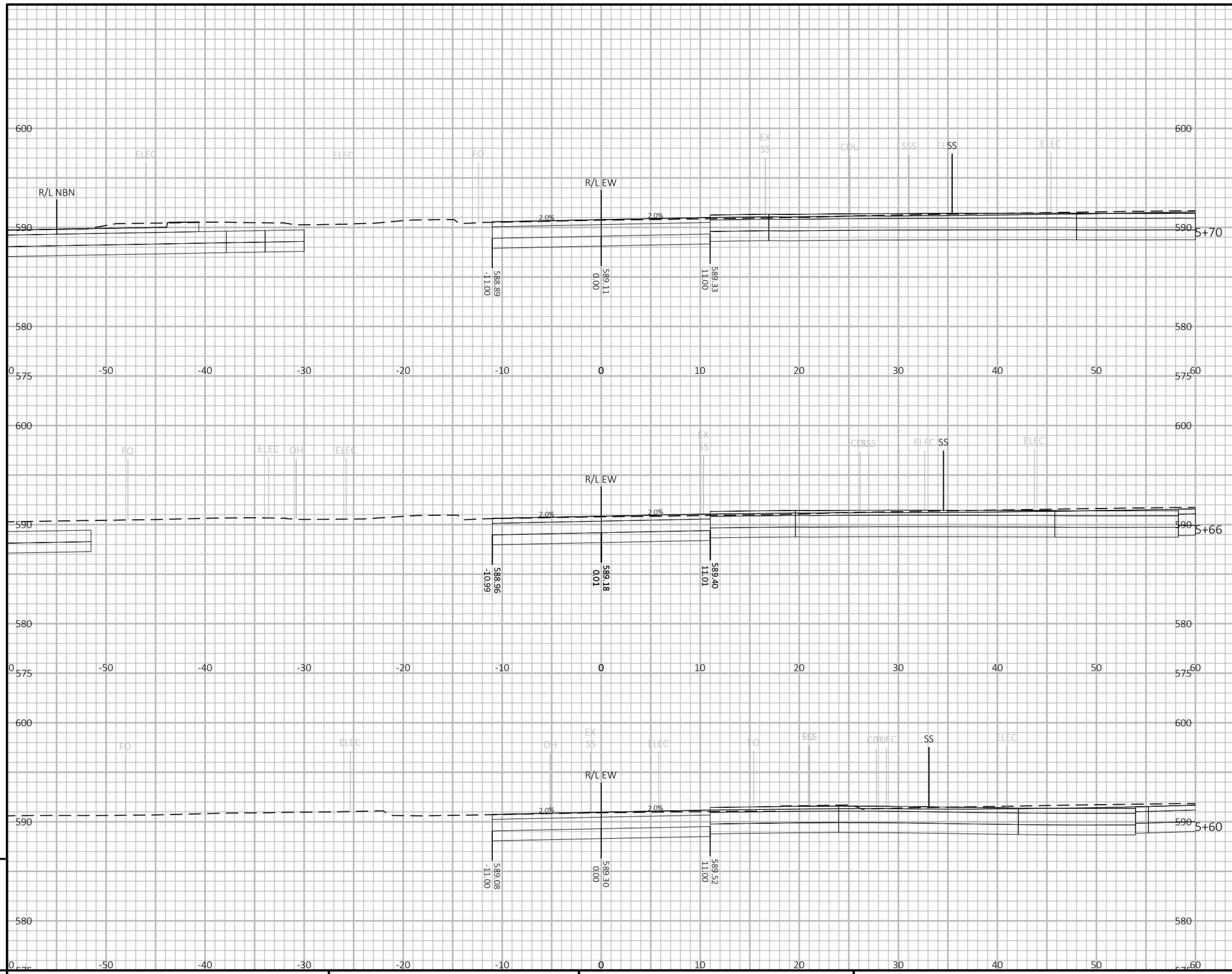


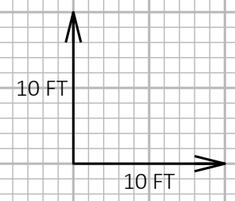
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 547	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW10

PLOT DATE : 10/29/2025 11:24 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





9

9

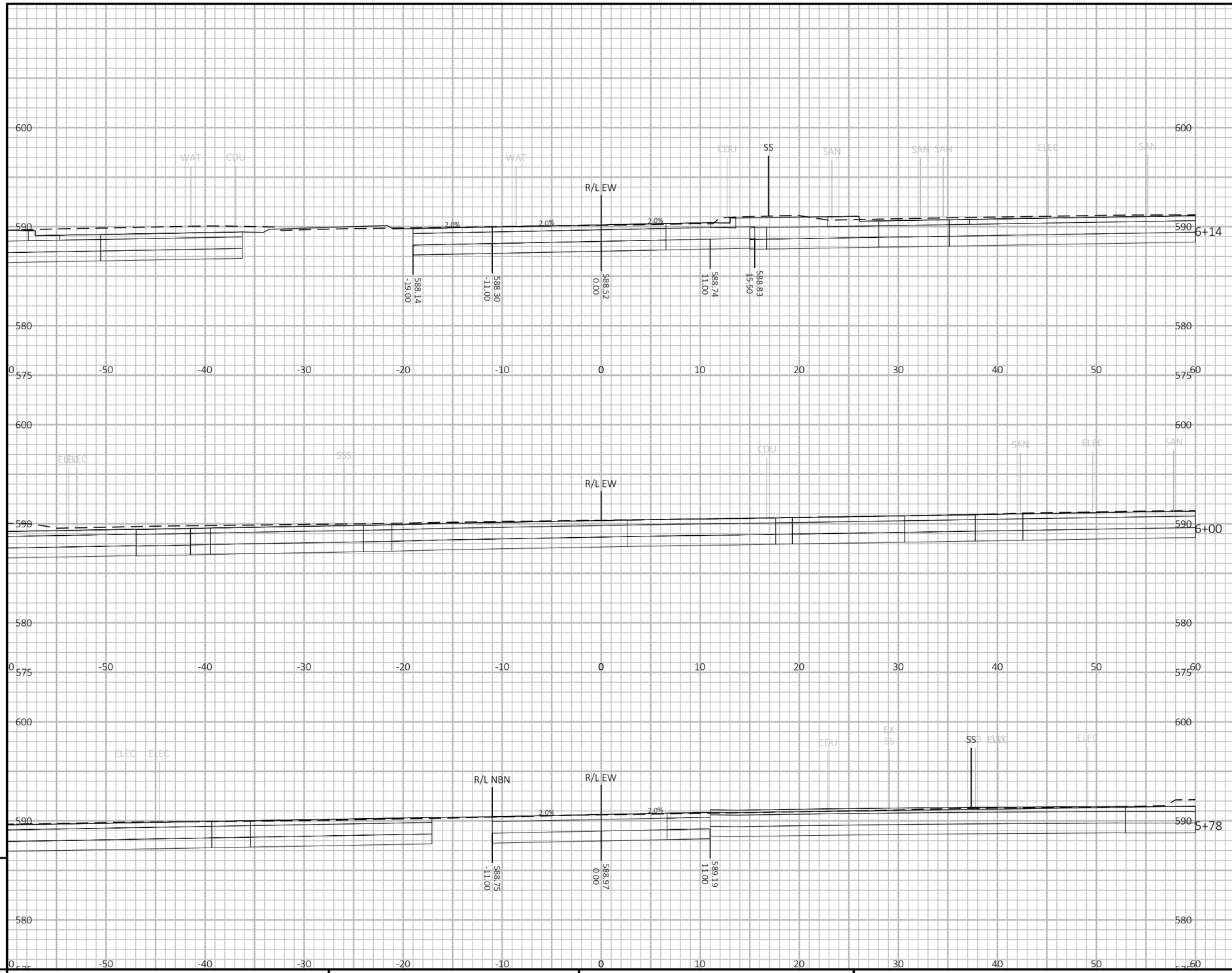
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 548	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW11

PLOT DATE : 10/29/2025 11:24 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



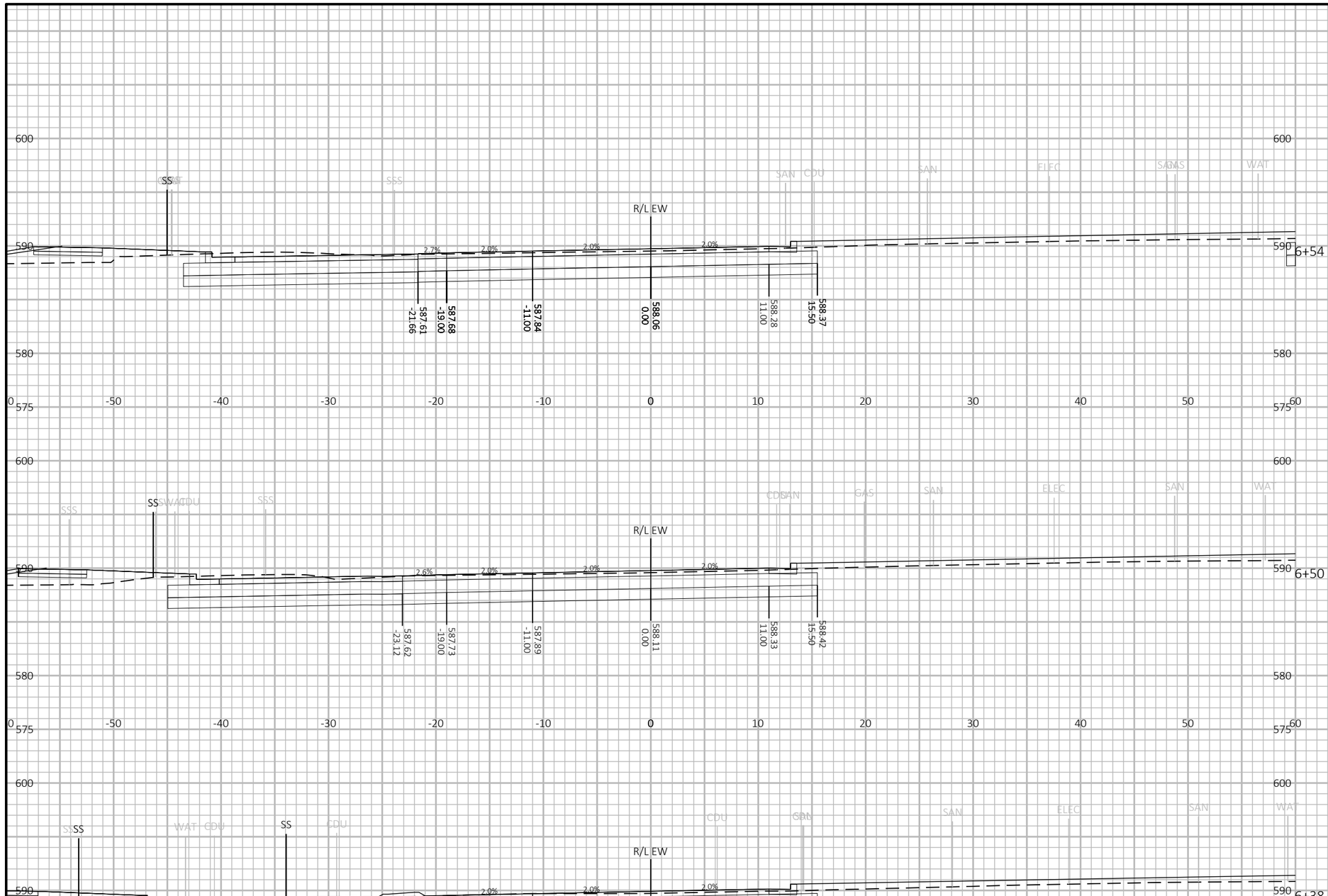
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 549	E

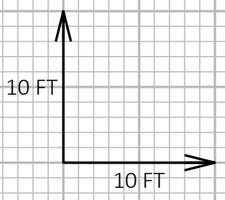
FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW12

PLOT DATE : 10/29/2025 11:24 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





9

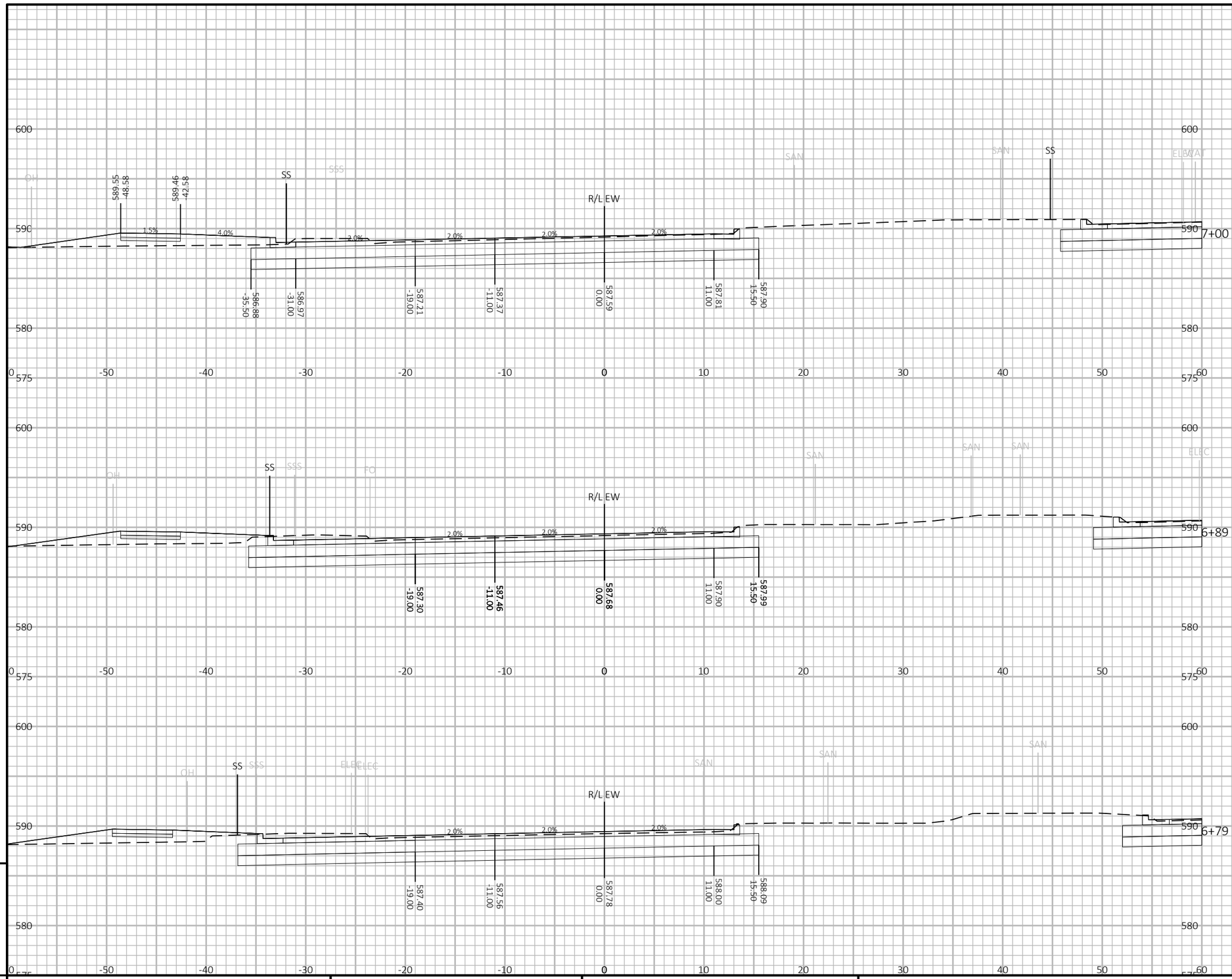
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 550	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW13

PLOT DATE : 10/29/2025 11:24 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

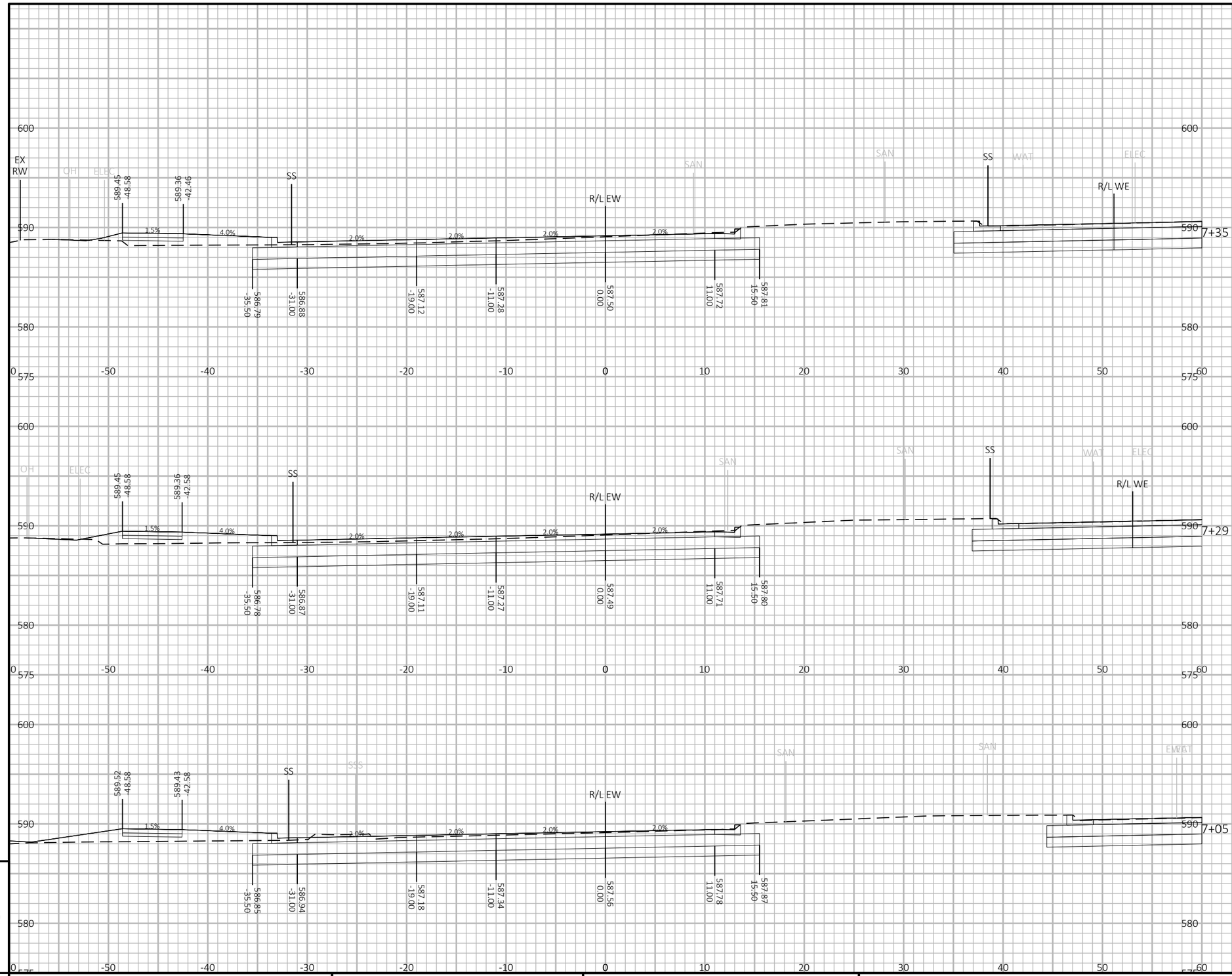
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 551	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW14

PLOT DATE : 10/29/2025 11:24 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

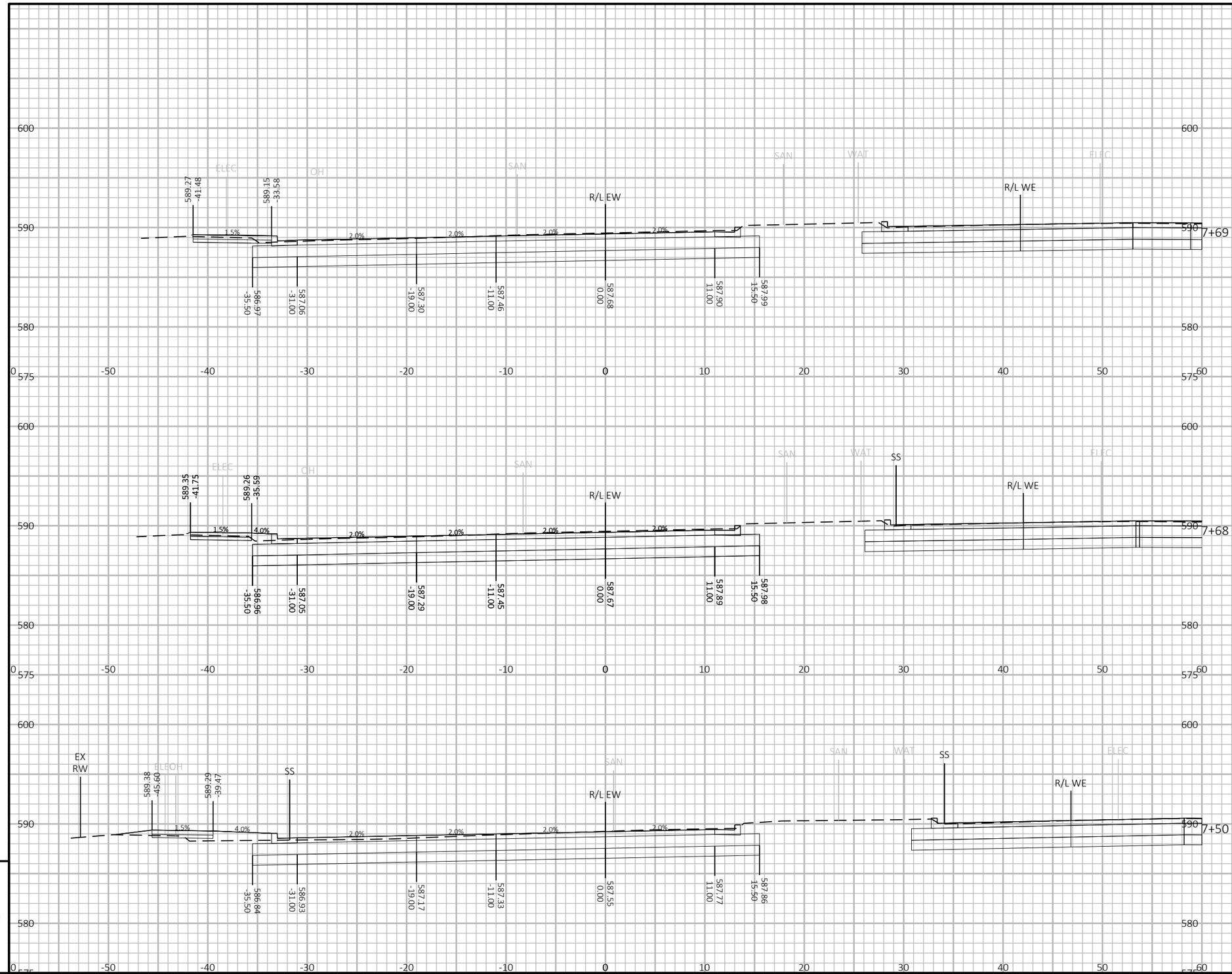
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 552	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW15

PLOT DATE : 10/29/2025 11:24 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



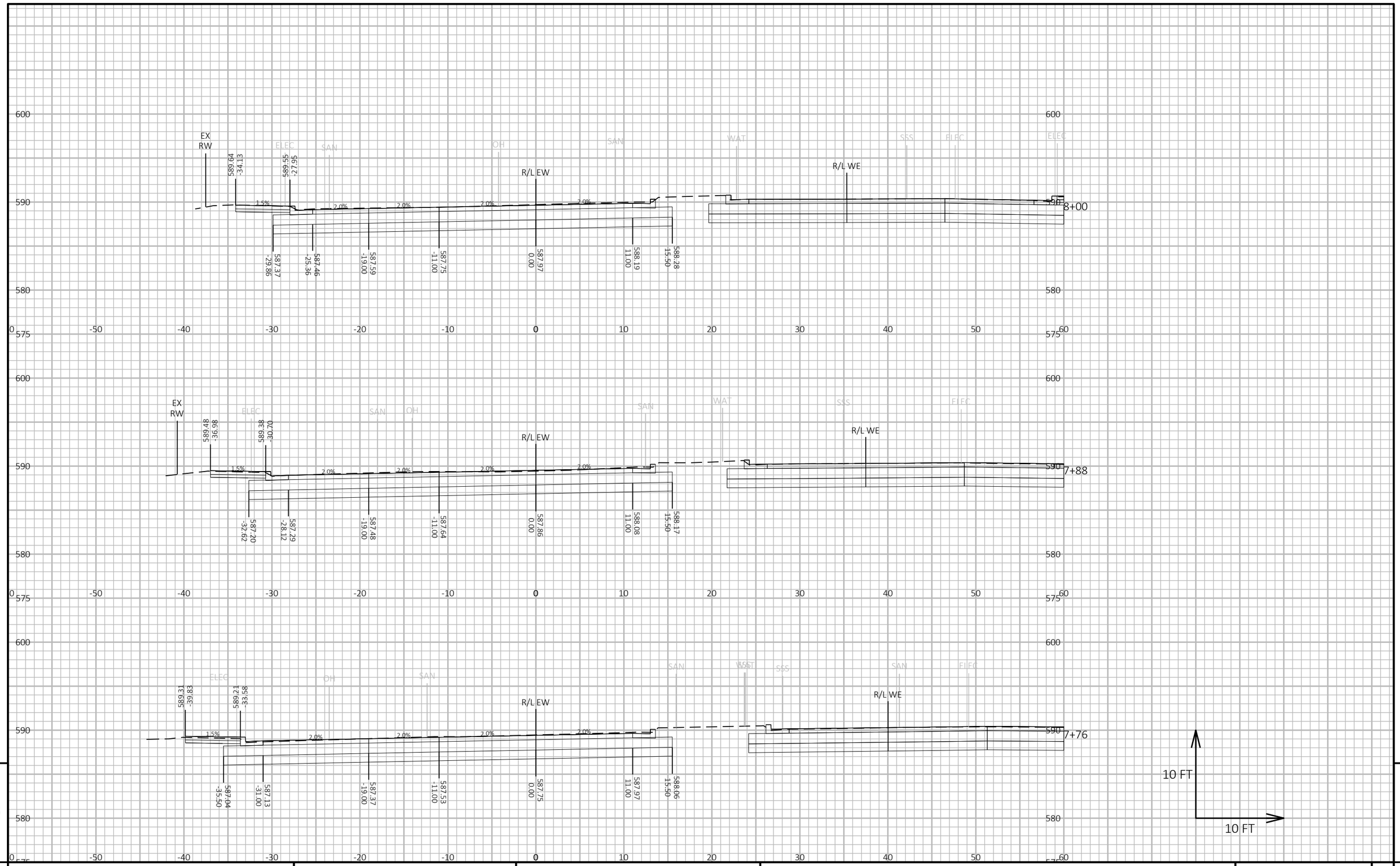
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 553	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW16

PLOT DATE : 10/29/2025 11:24 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

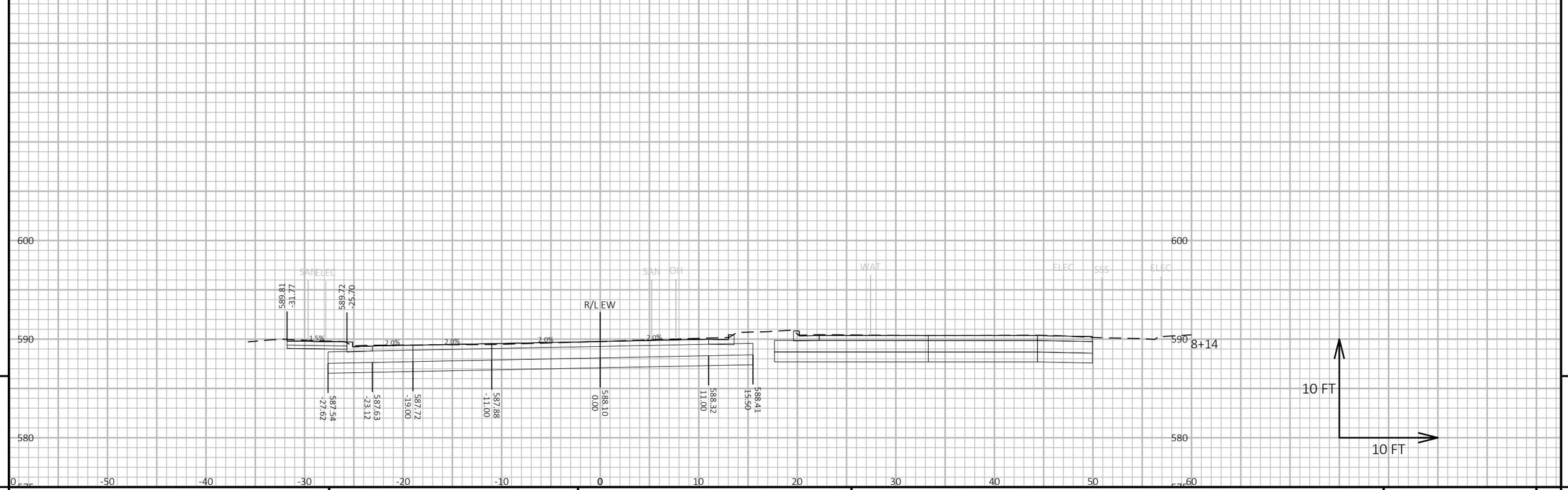
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 554	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW17

PLOT DATE : 10/29/2025 11:24 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

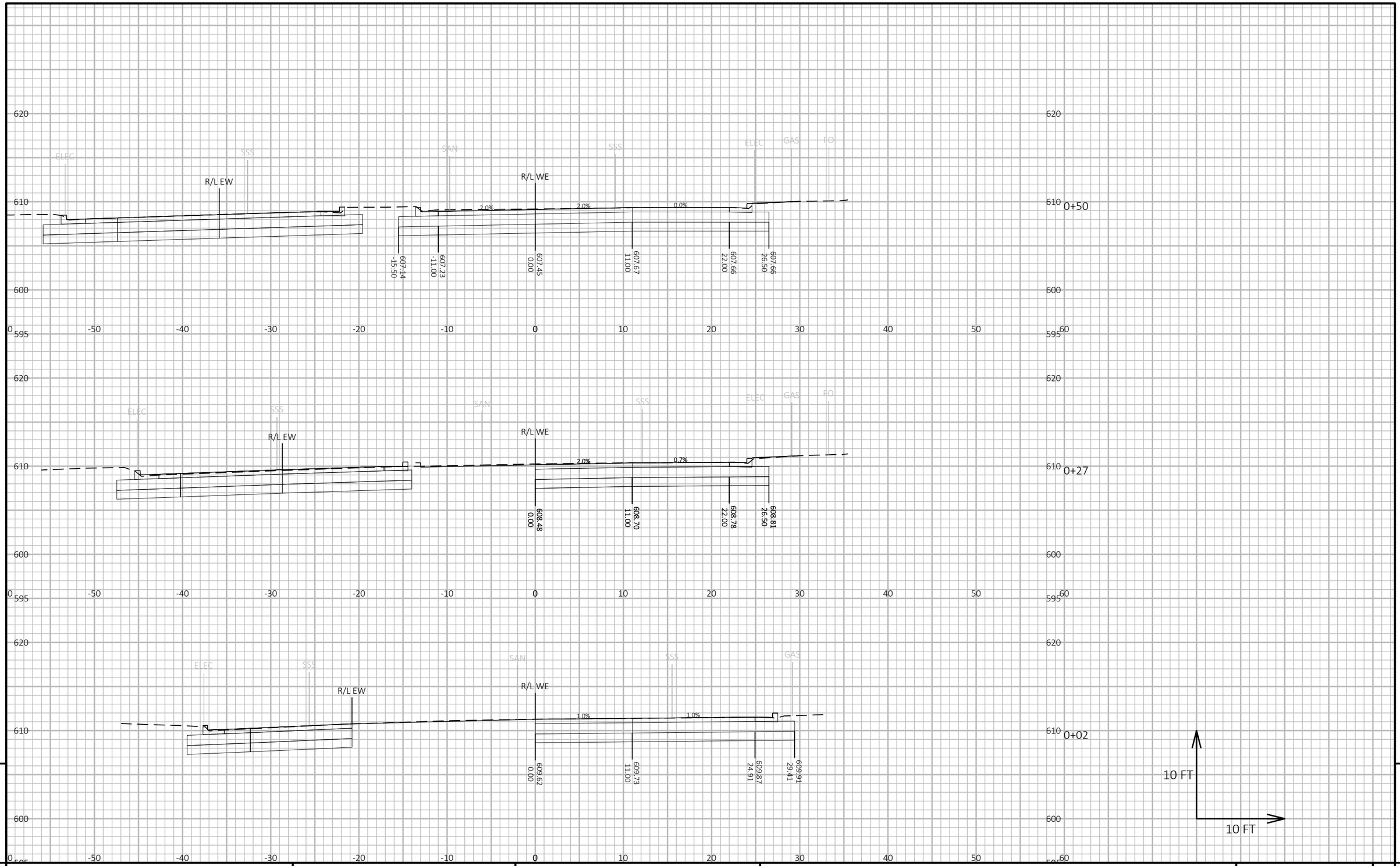
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER EW	SHEET 555	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - EW18

PLOT DATE : 10/29/2025 11:24 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

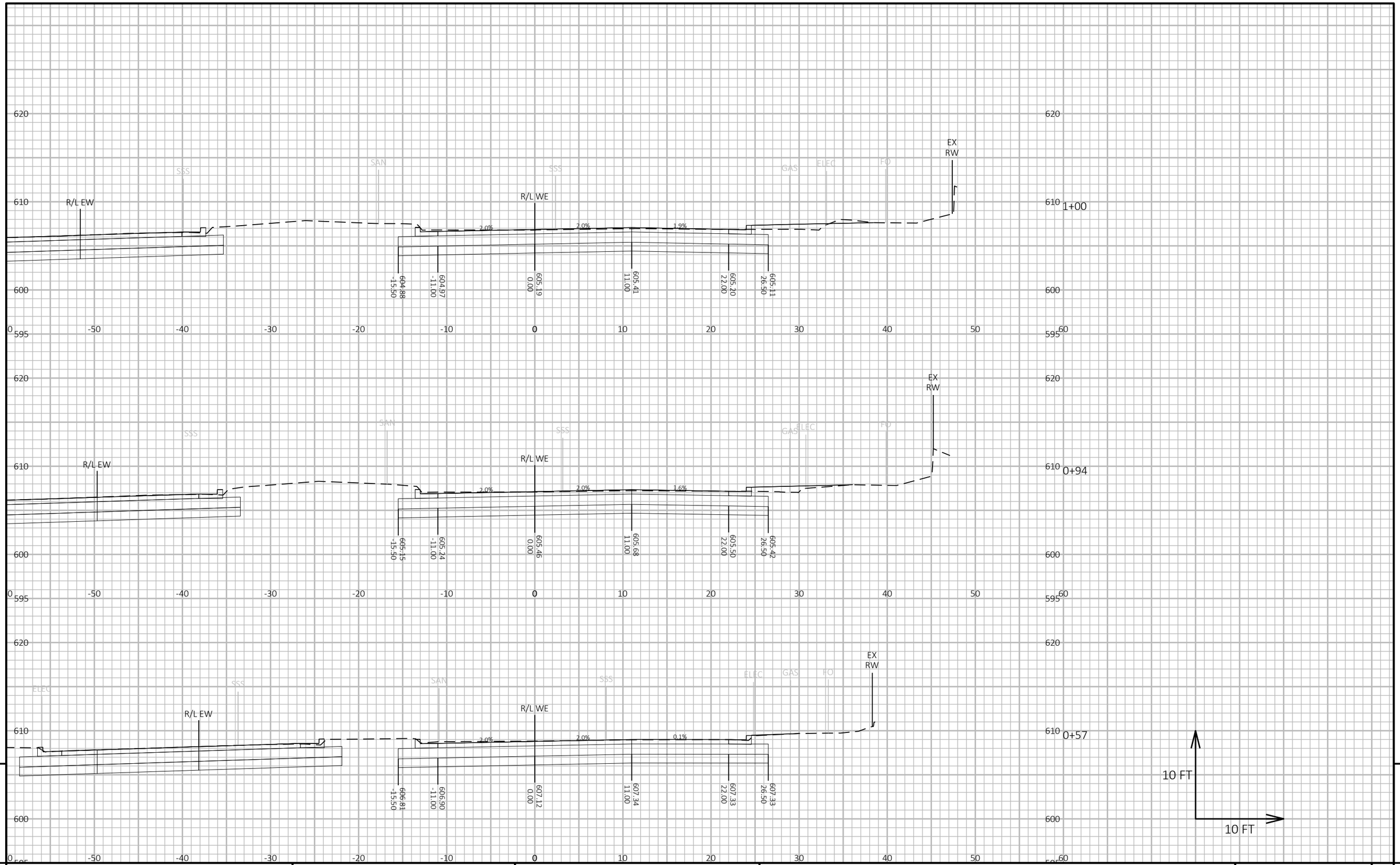
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 556	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE01

PLOT DATE : 10/29/2025 11:24 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

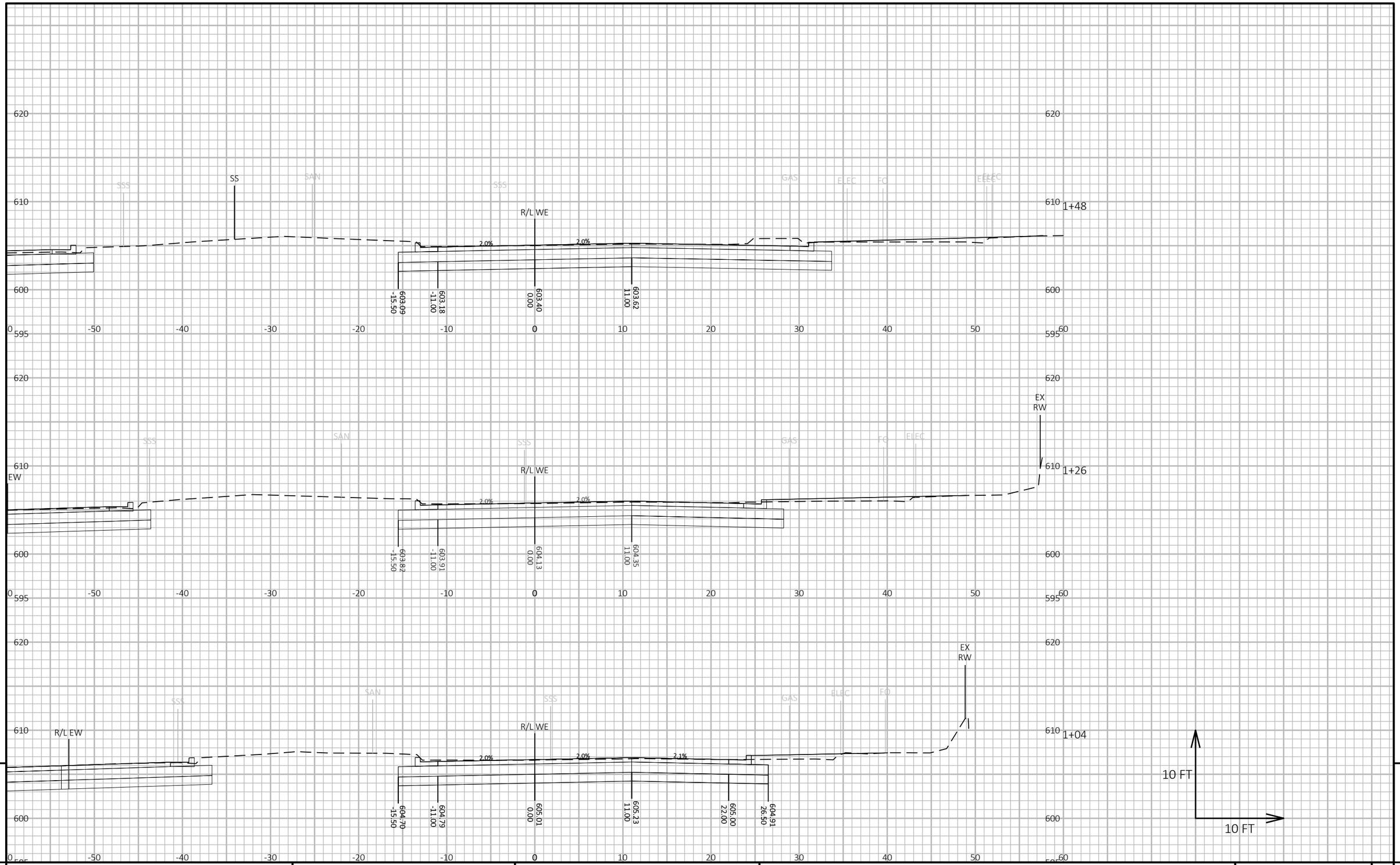
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 557	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE02

PLOT DATE : 10/29/2025 11:24 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

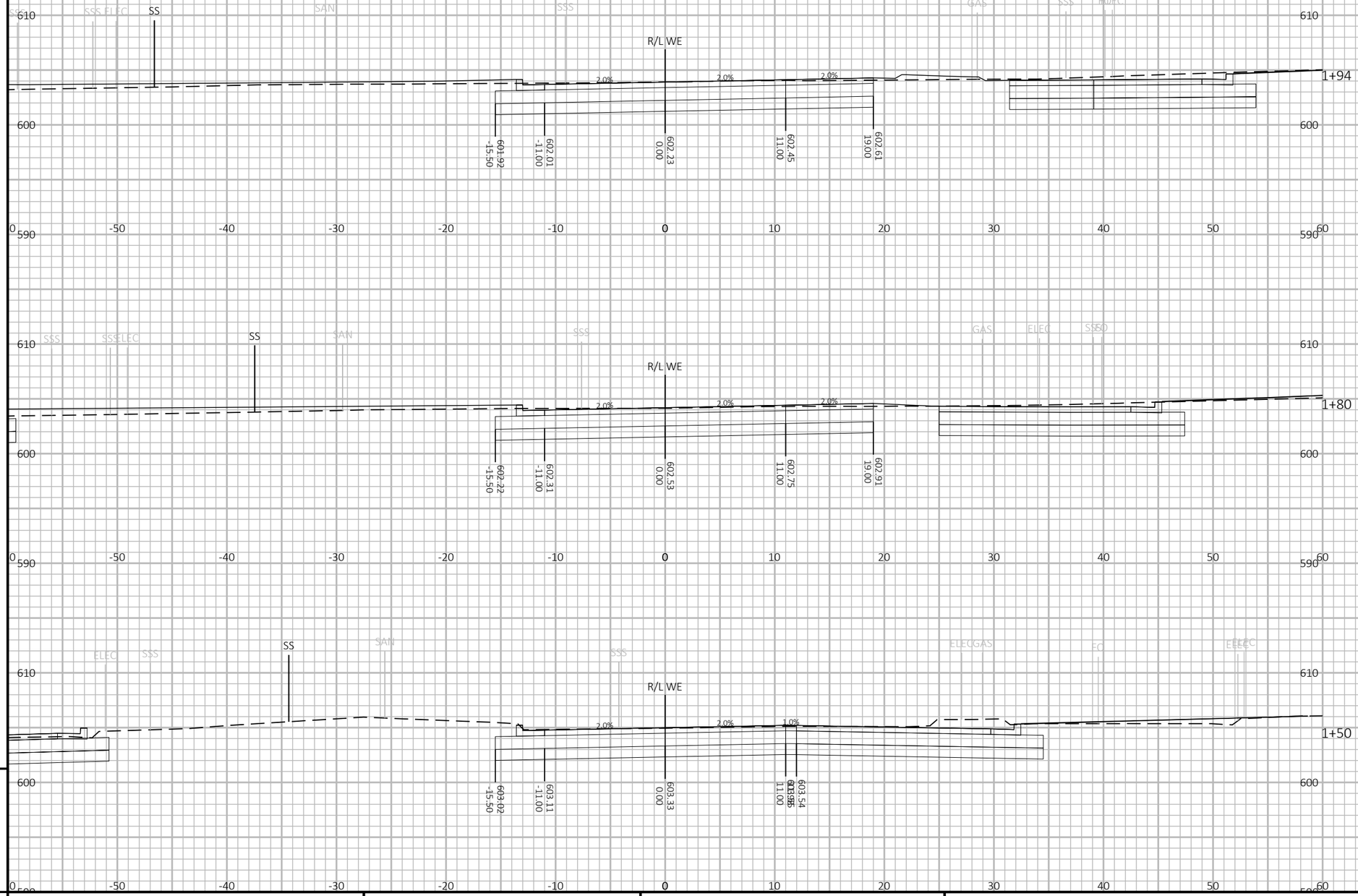
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 558	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE03

PLOT DATE : 10/29/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

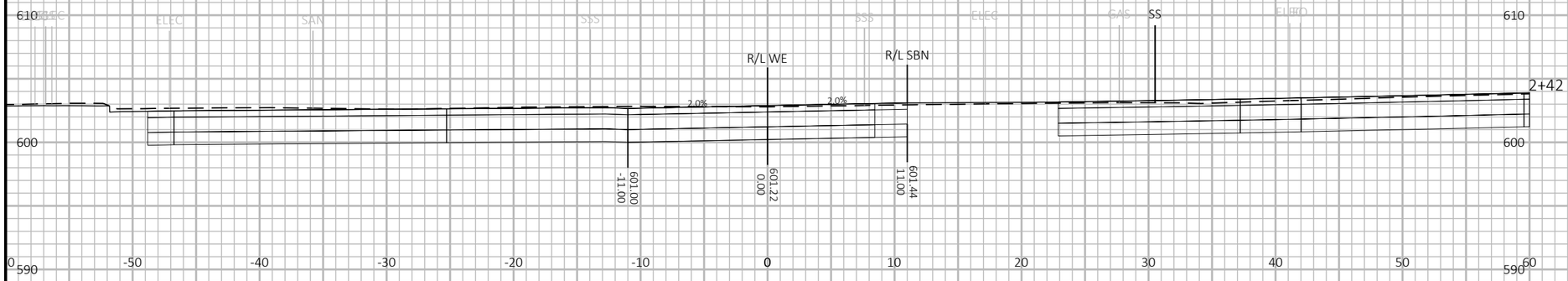
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 559	E

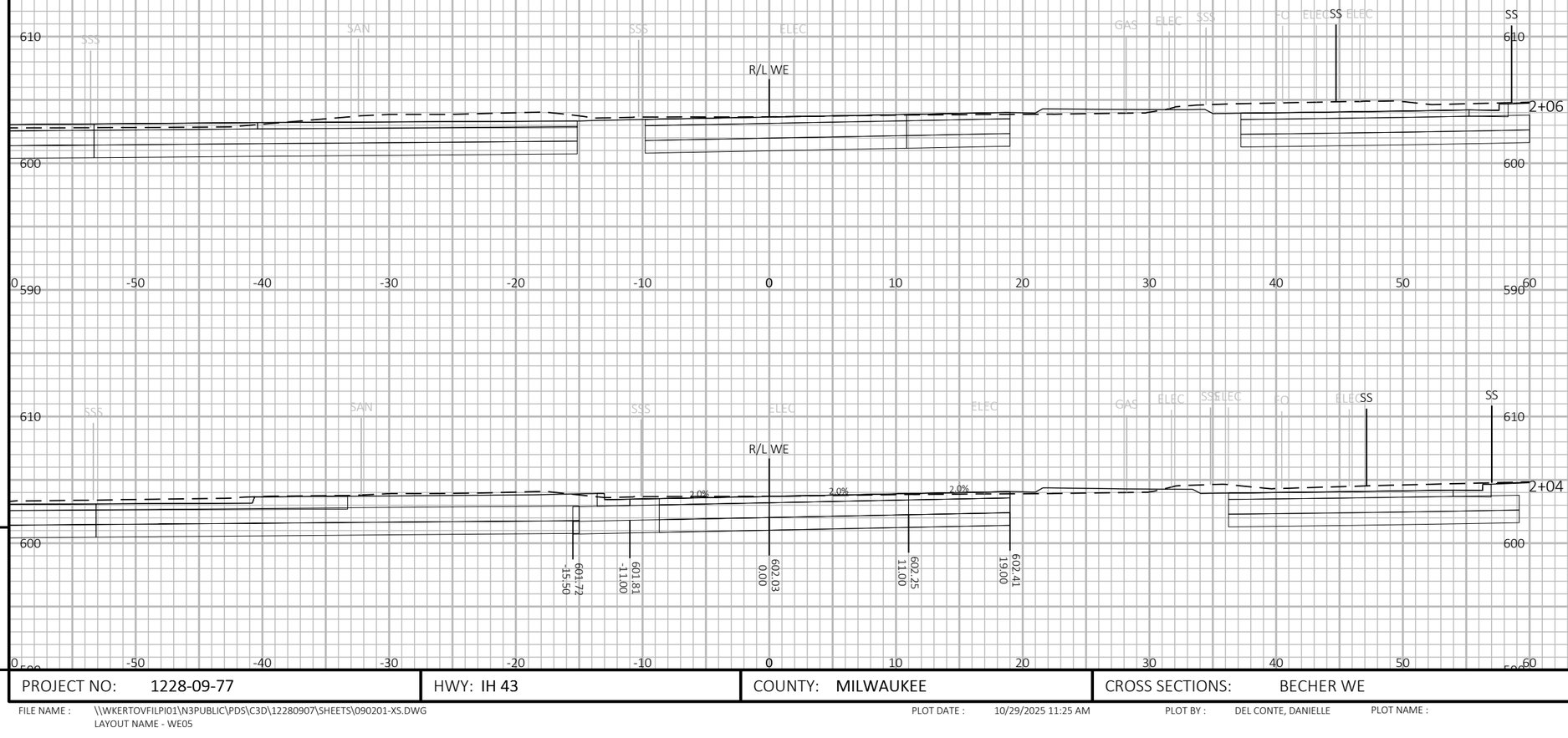
FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE04

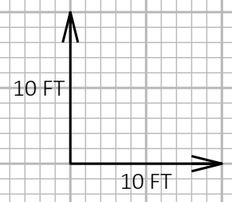
PLOT DATE : 10/29/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







9

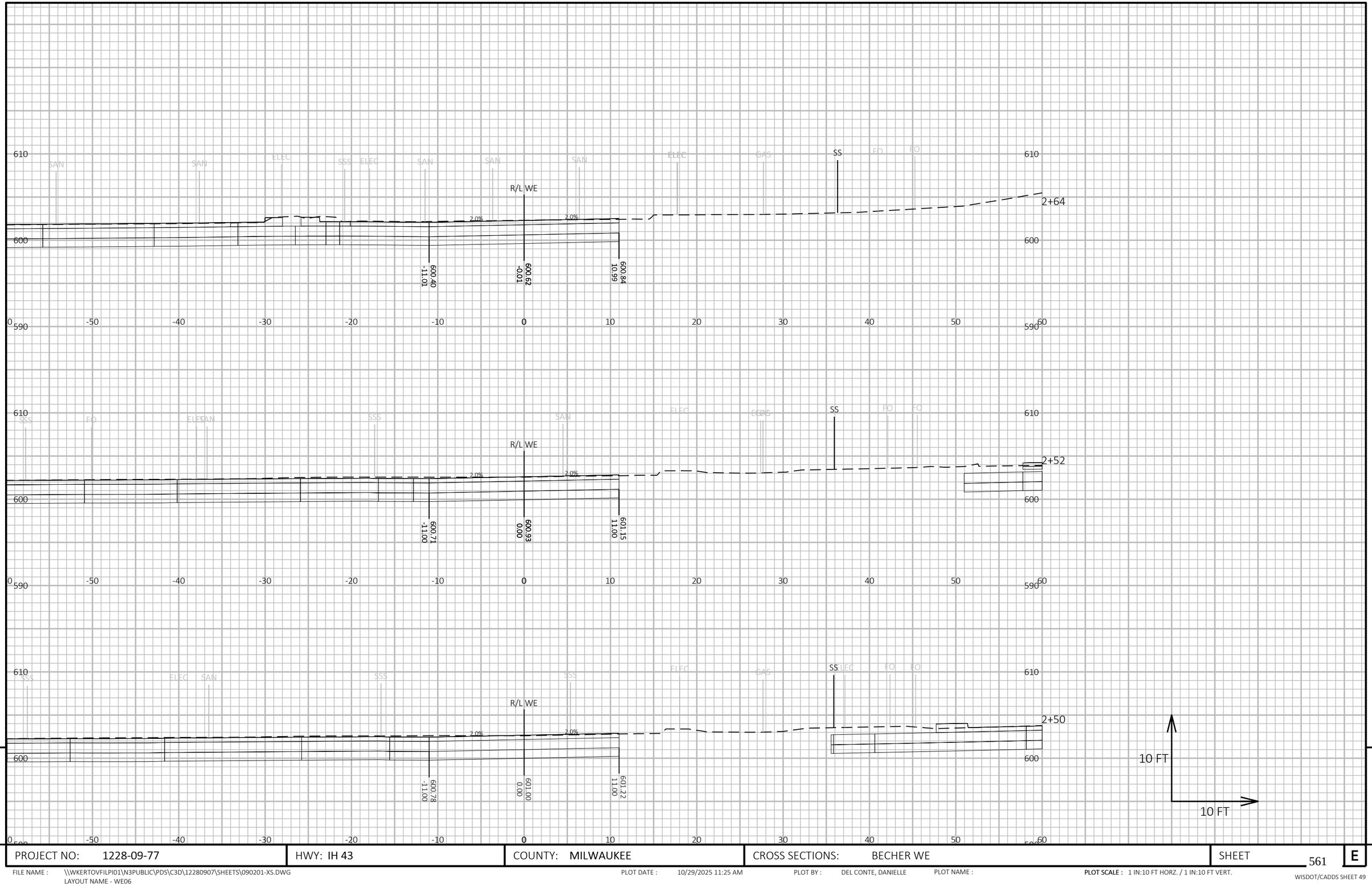
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 560	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE05

PLOT DATE : 10/29/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

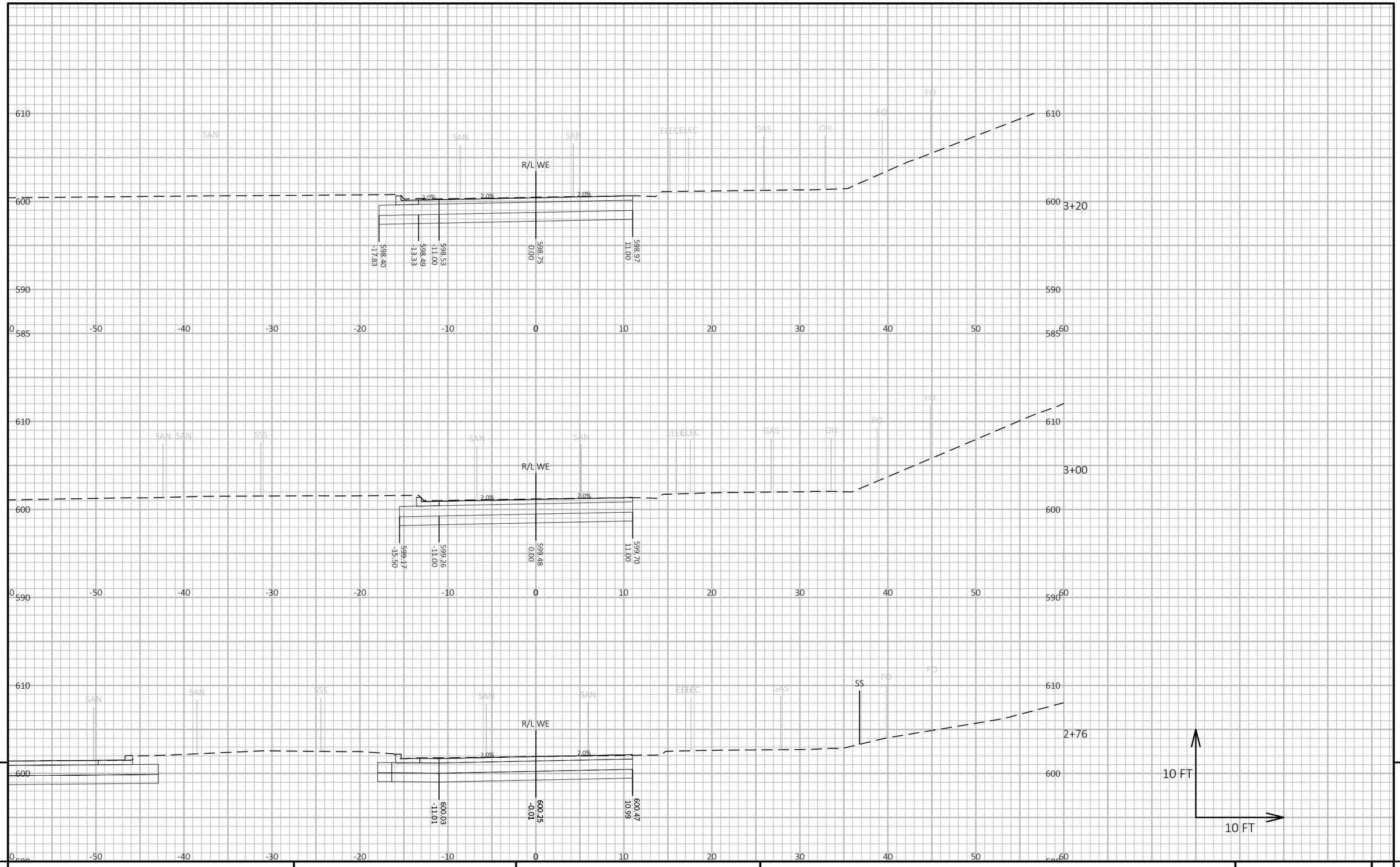
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 561	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE06

PLOT DATE : 10/29/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

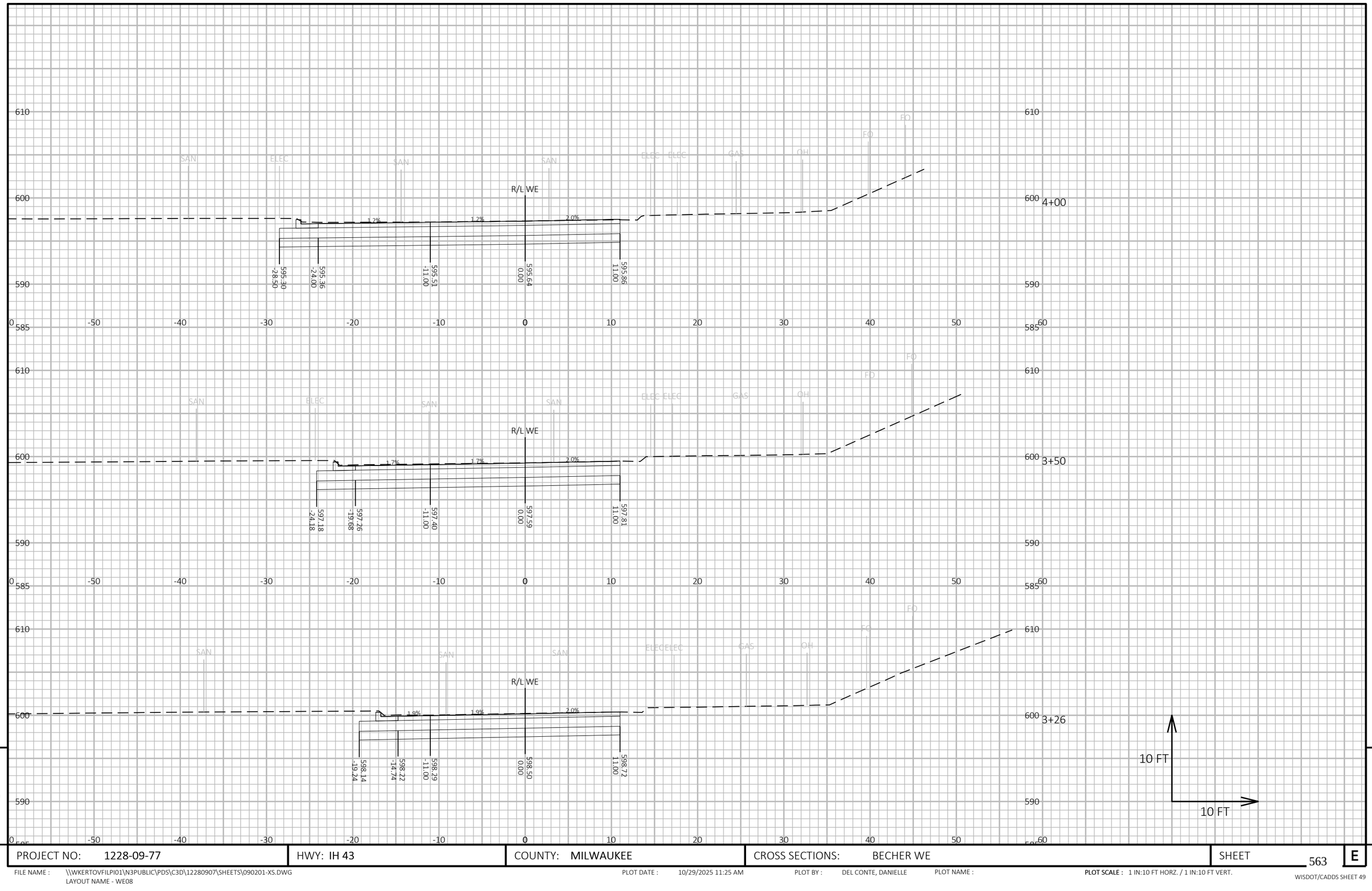


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 562 E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE07

PLOT DATE : 10/29/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

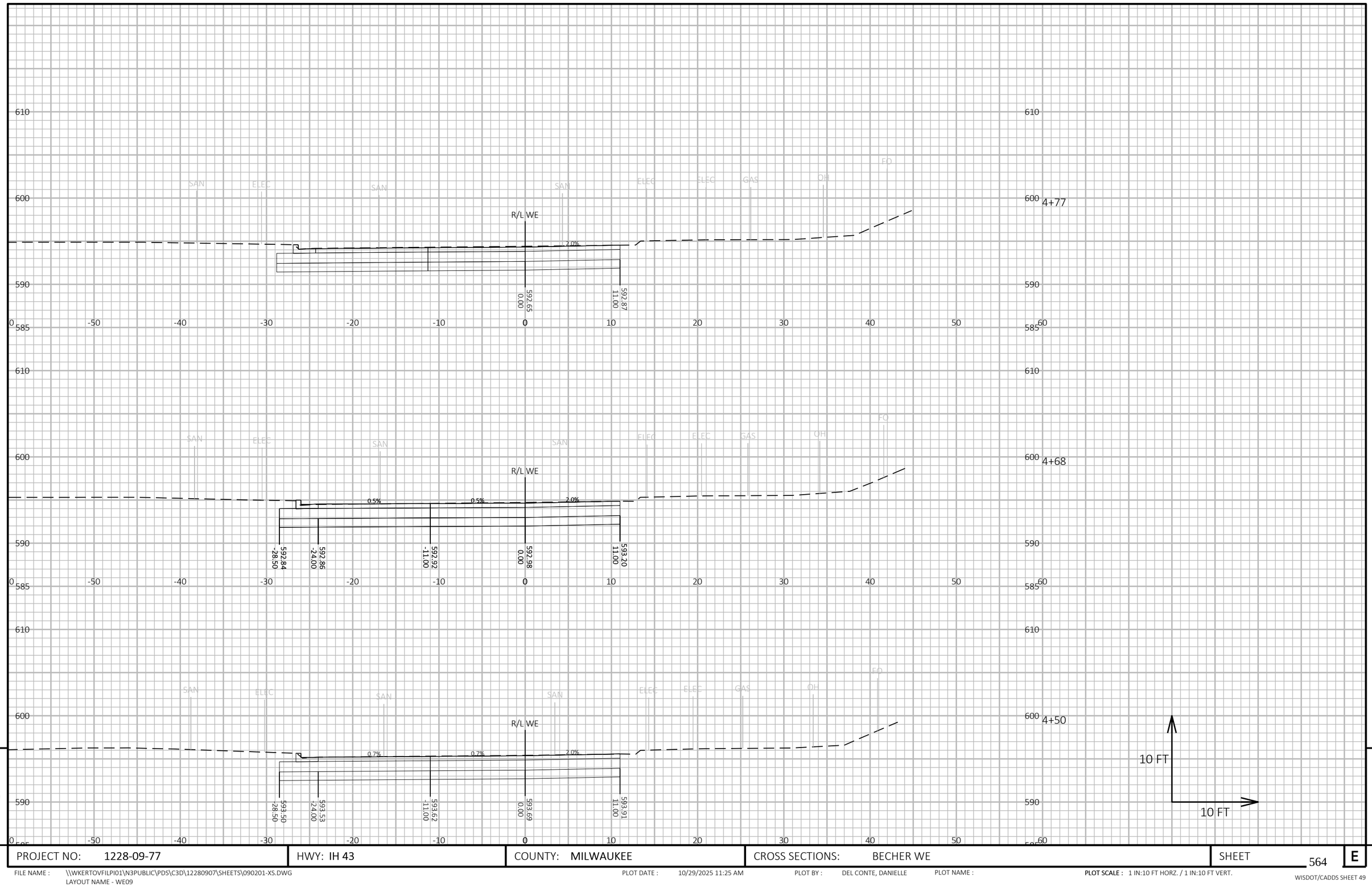


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 563	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE08

PLOT DATE : 10/29/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

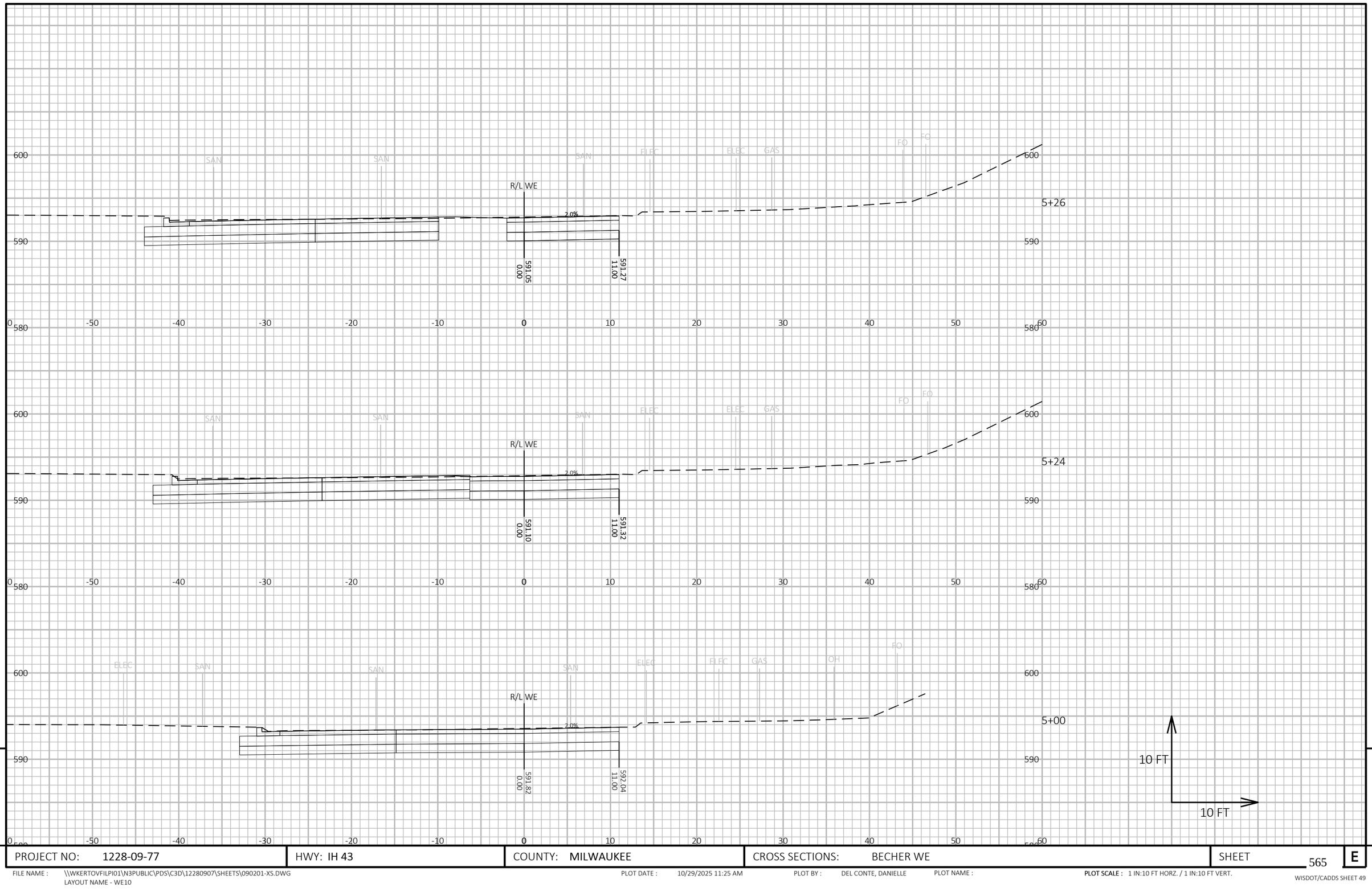
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 564	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE09

PLOT DATE : 10/29/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

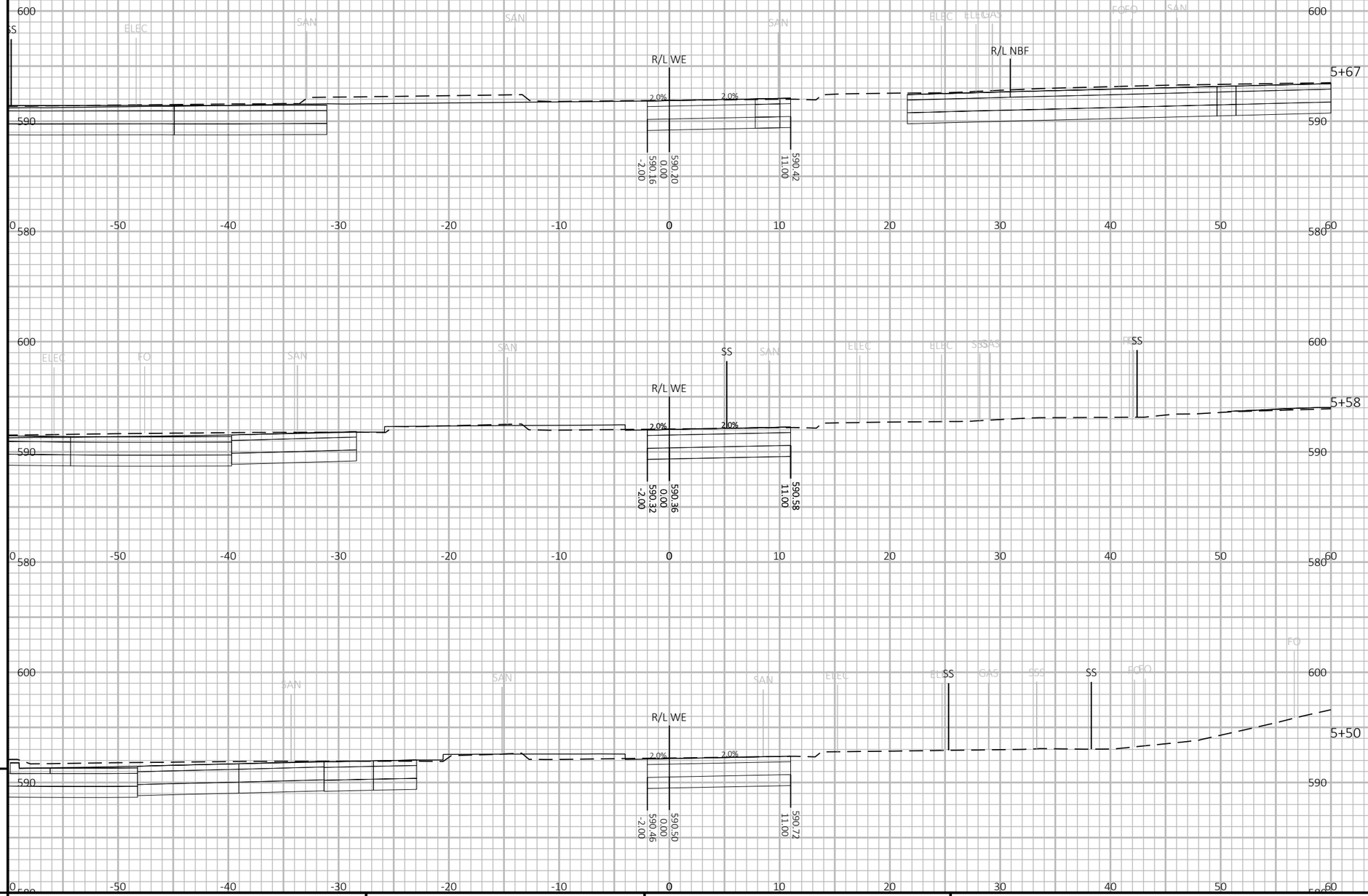
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 565	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE10

PLOT DATE : 10/29/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

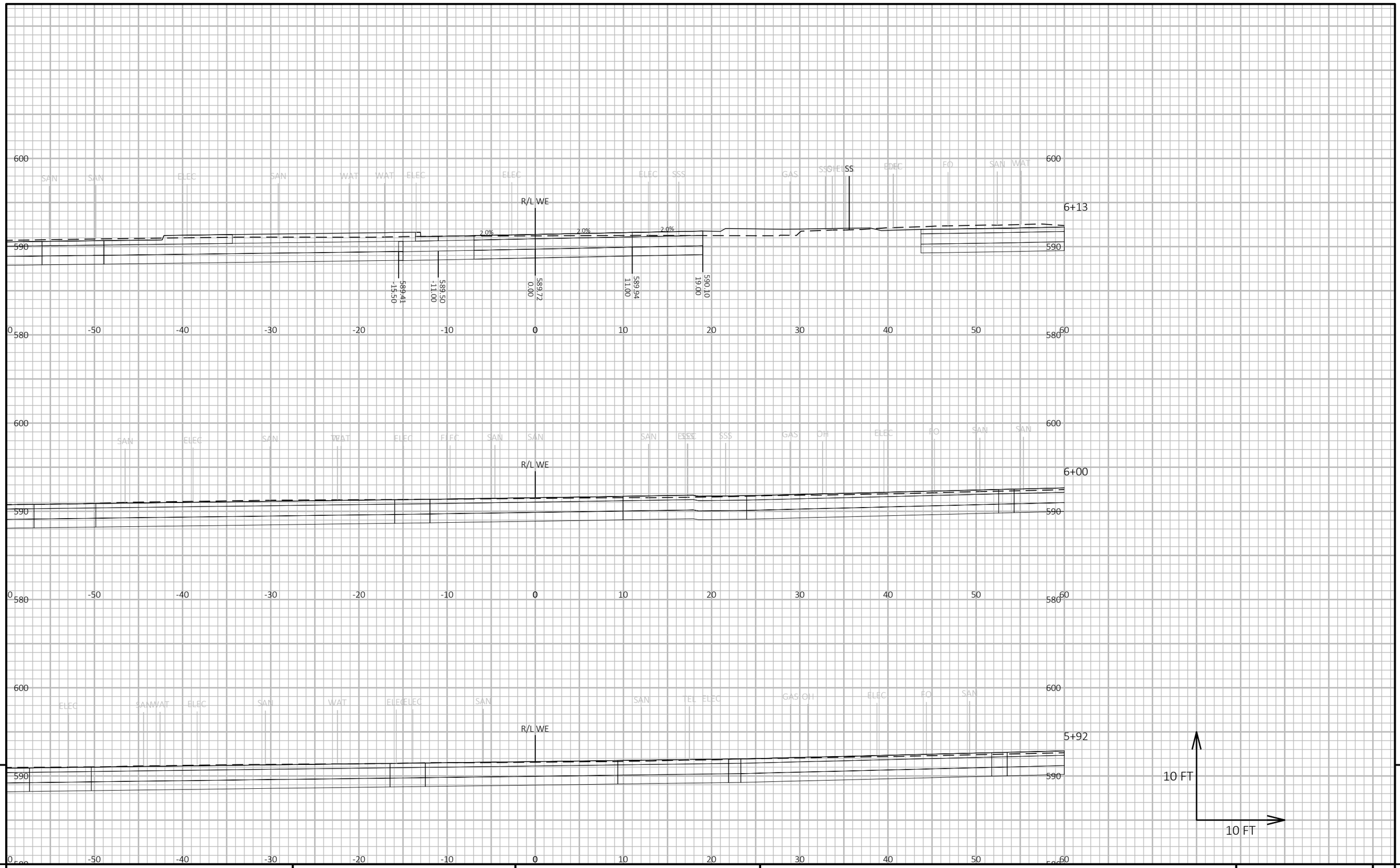
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 566	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE11

PLOT DATE : 10/29/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

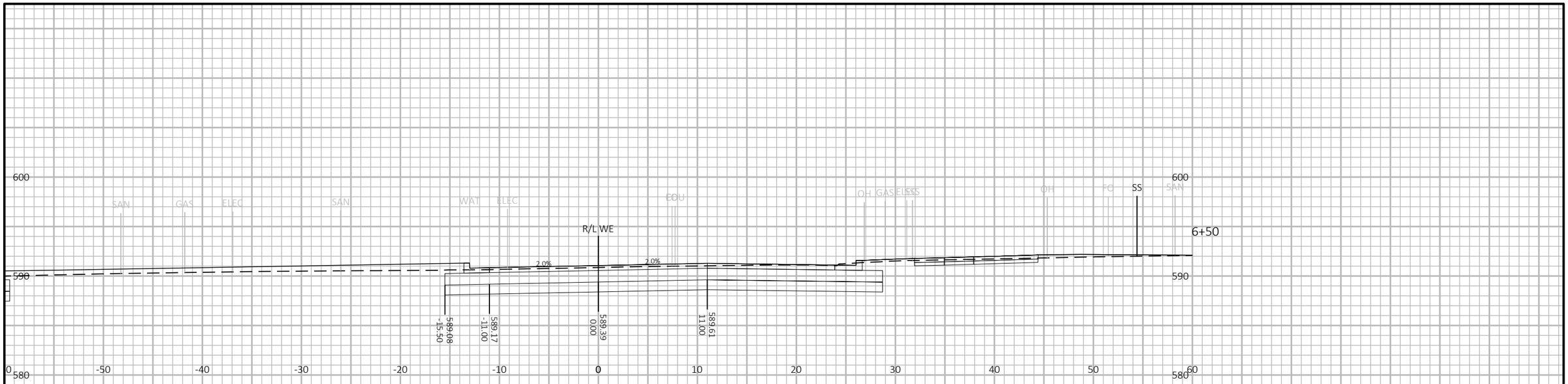
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 567	E

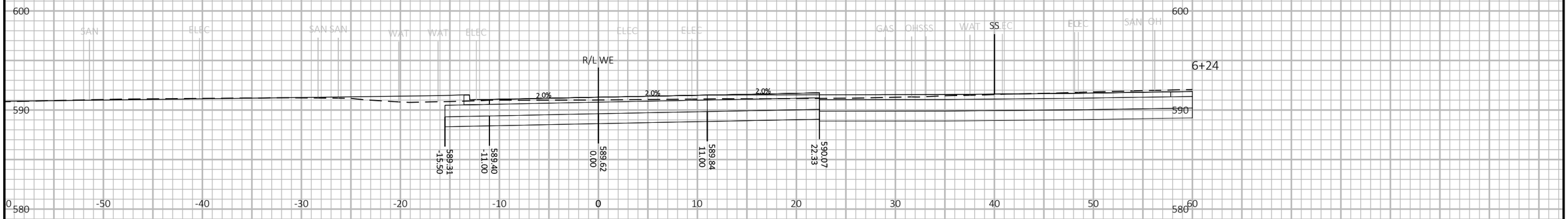
FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE12

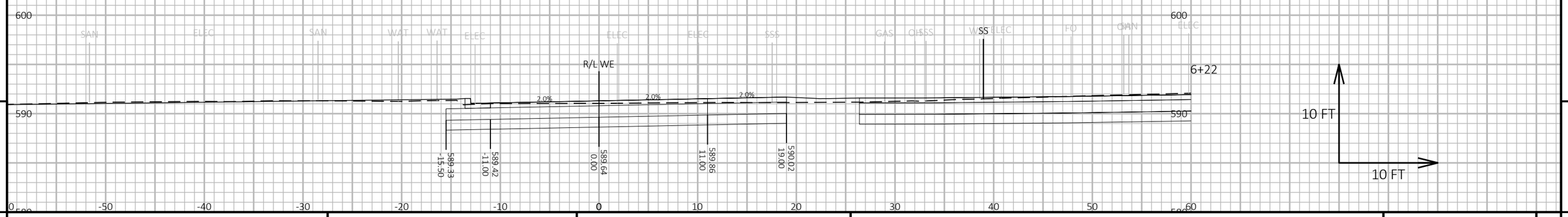
PLOT DATE : 10/29/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







9

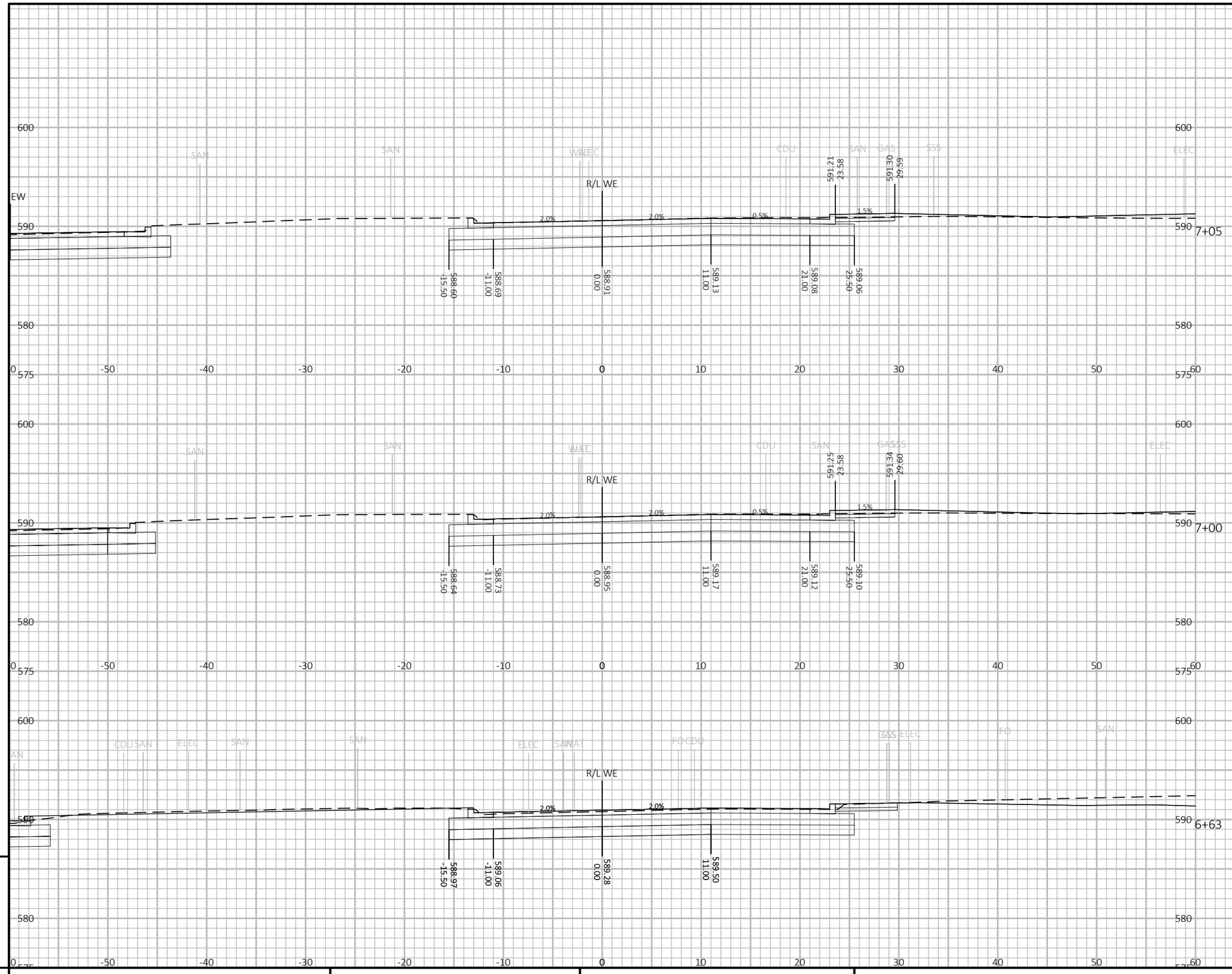
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 568	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE13

PLOT DATE : 10/29/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

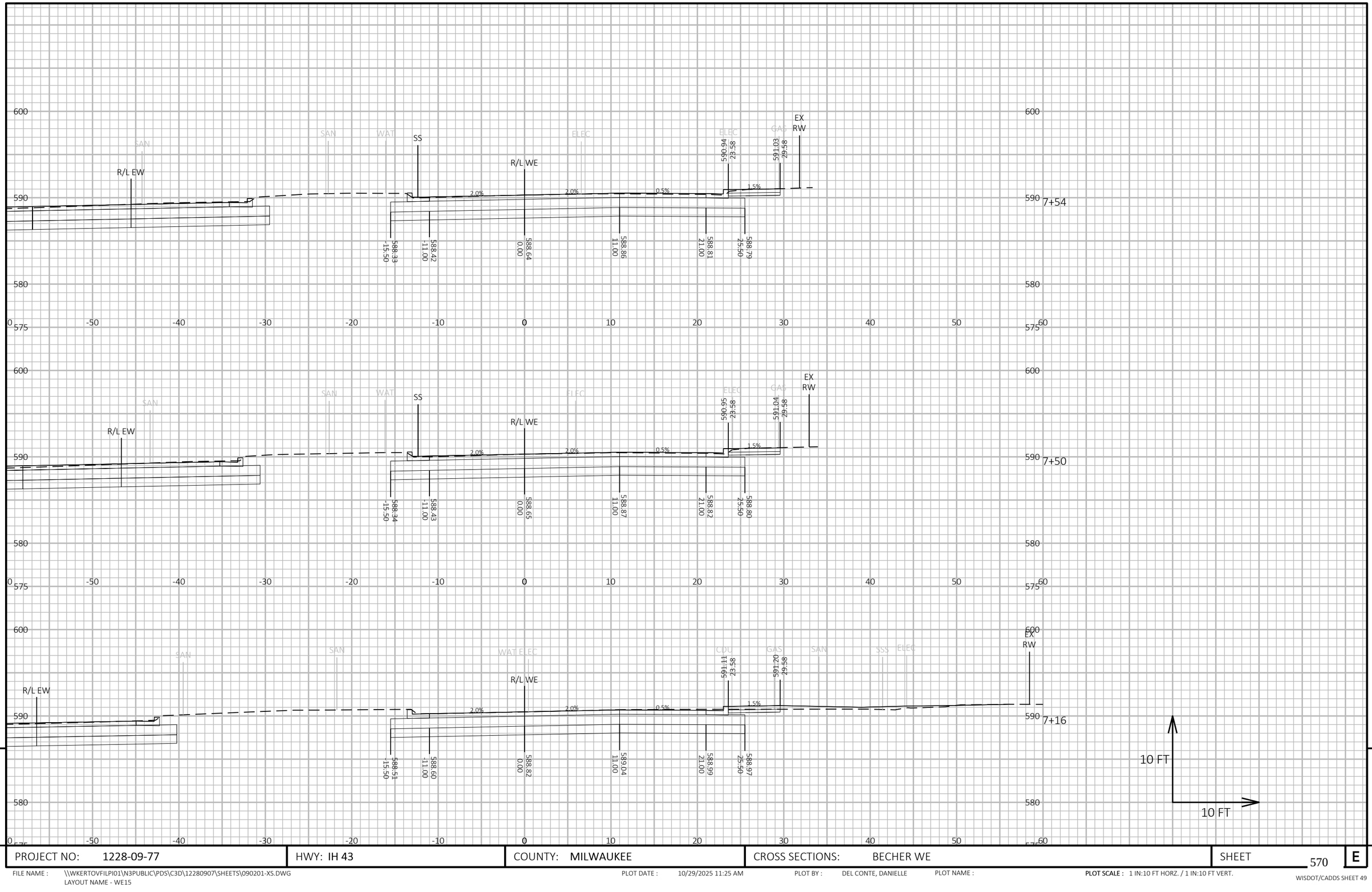
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 569	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE14

PLOT DATE : 10/29/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

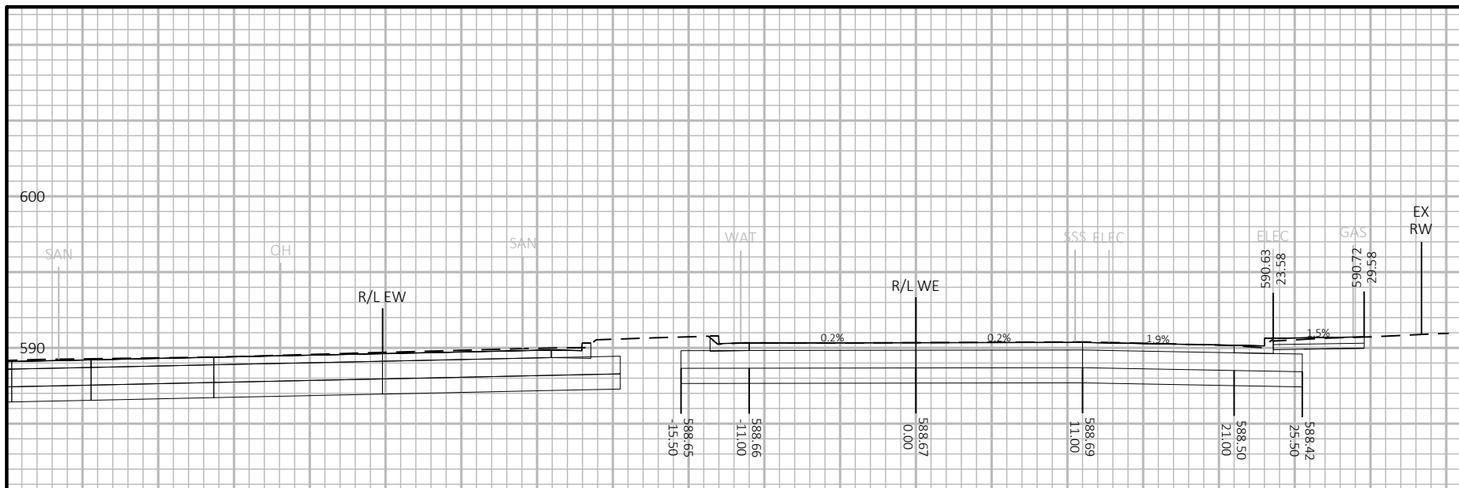
9

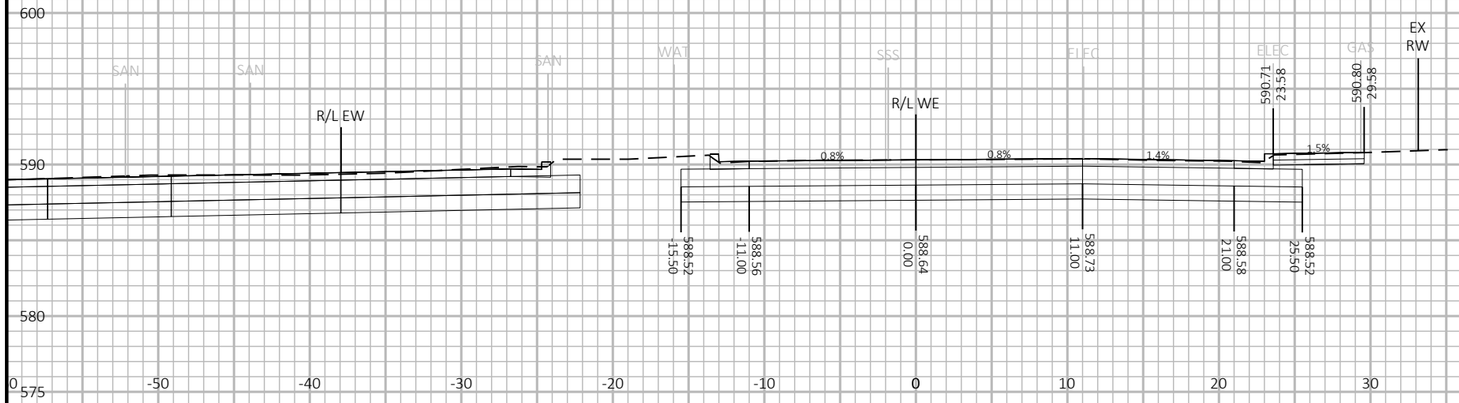
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 570	E

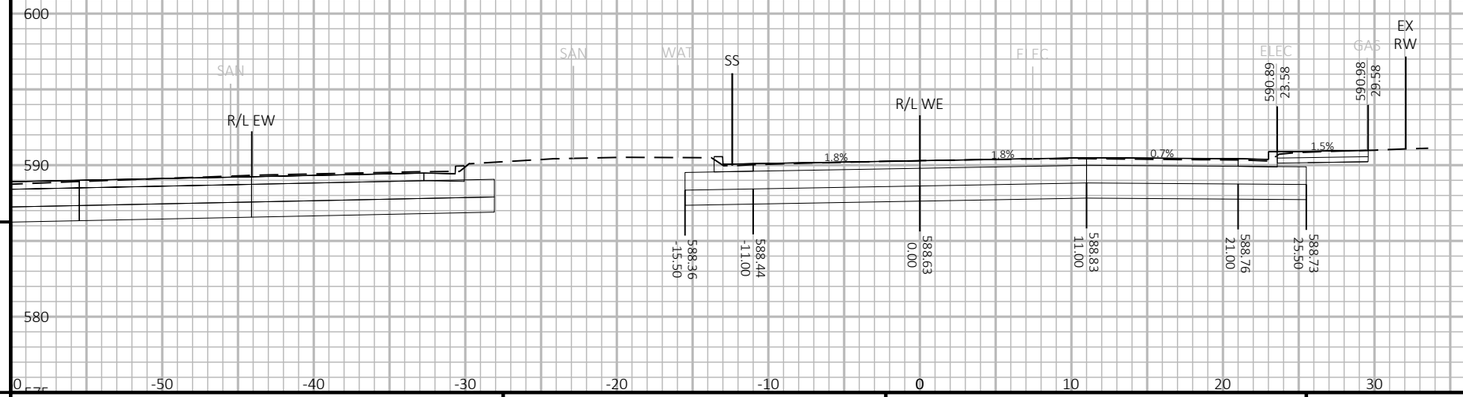
FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE15

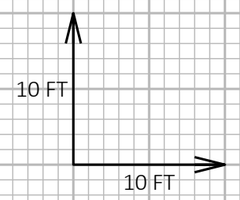
PLOT DATE : 10/29/2025 11:25 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49









9

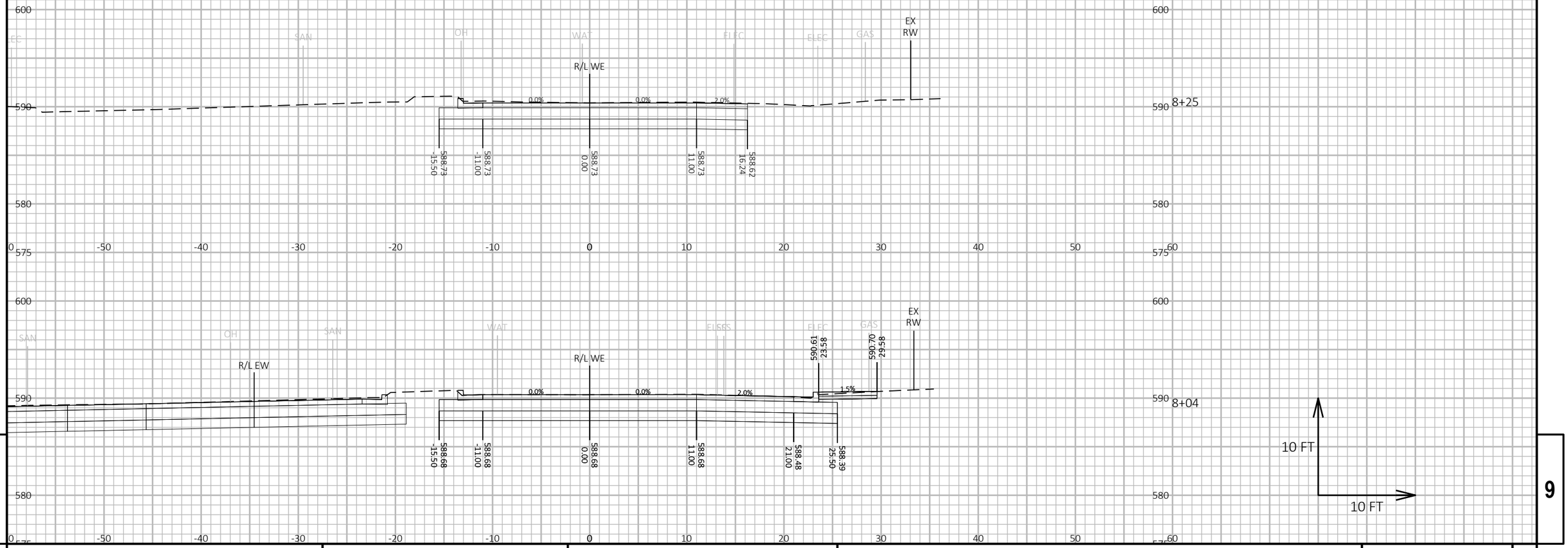
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 571	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE16

PLOT DATE : 10/29/2025 11:26 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

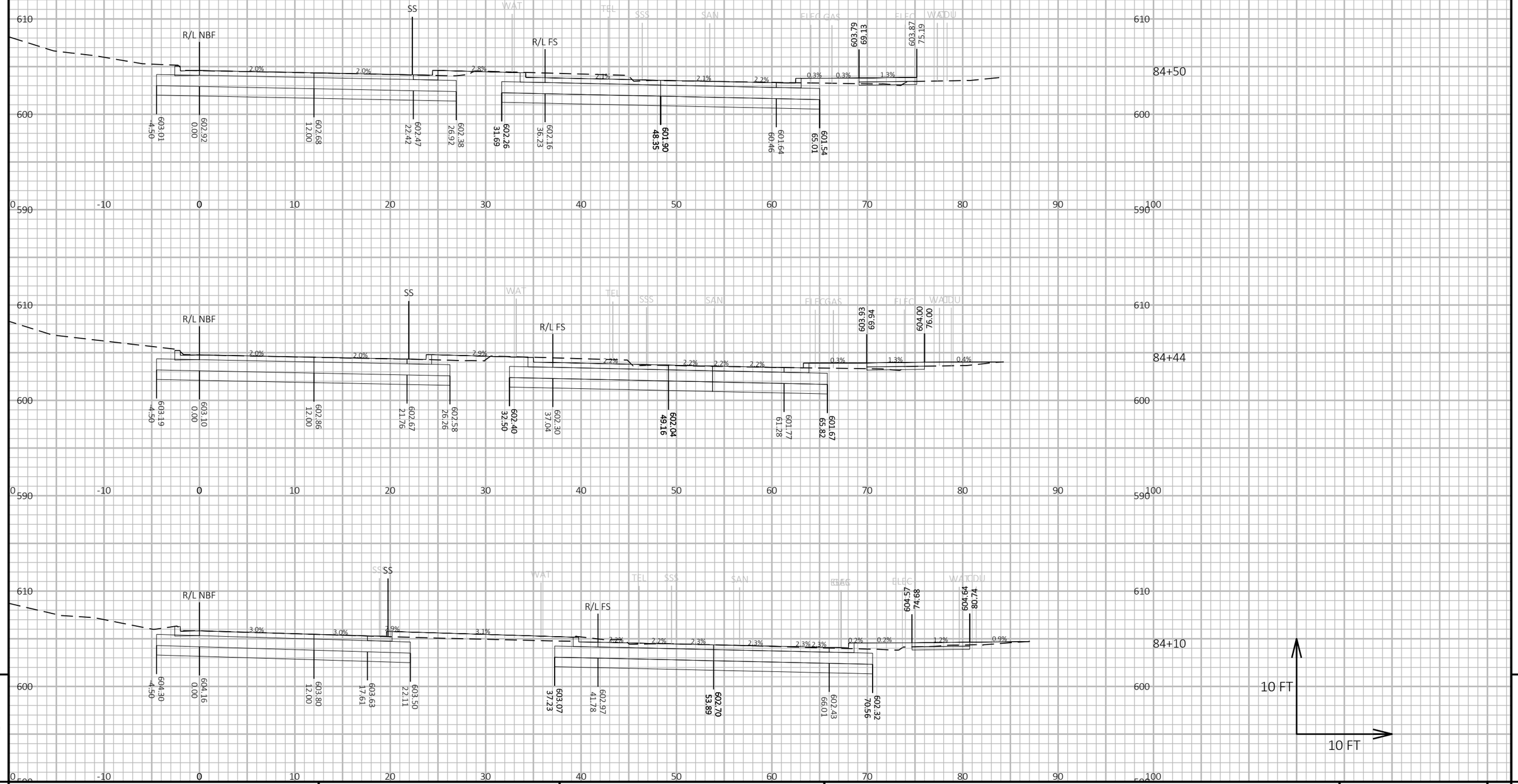
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BECHER WE	SHEET 572	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - WE17

PLOT DATE : 10/29/2025 11:26 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

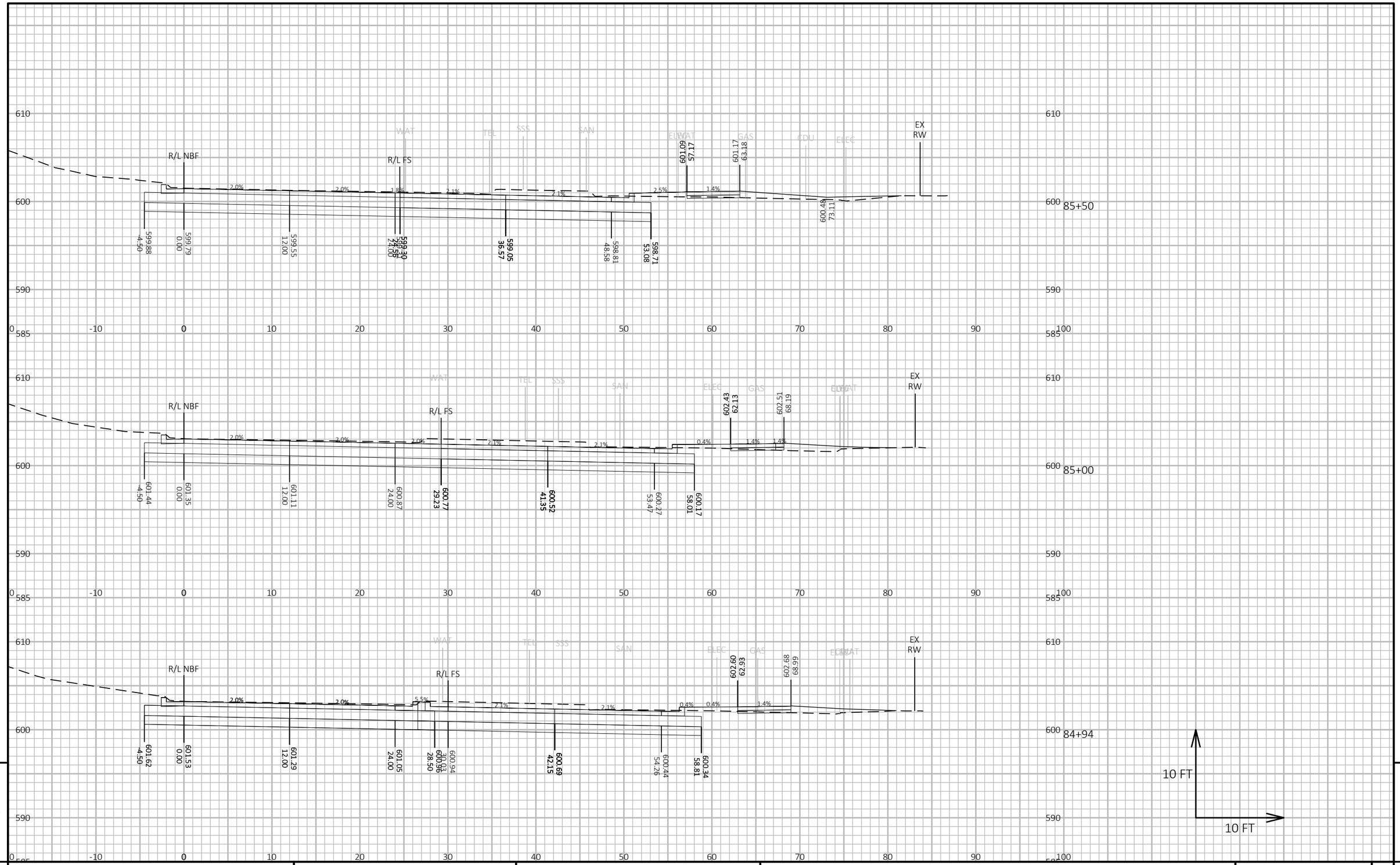
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP NBF	SHEET 573	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - NBF01

PLOT DATE : 10/29/2025 11:26 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

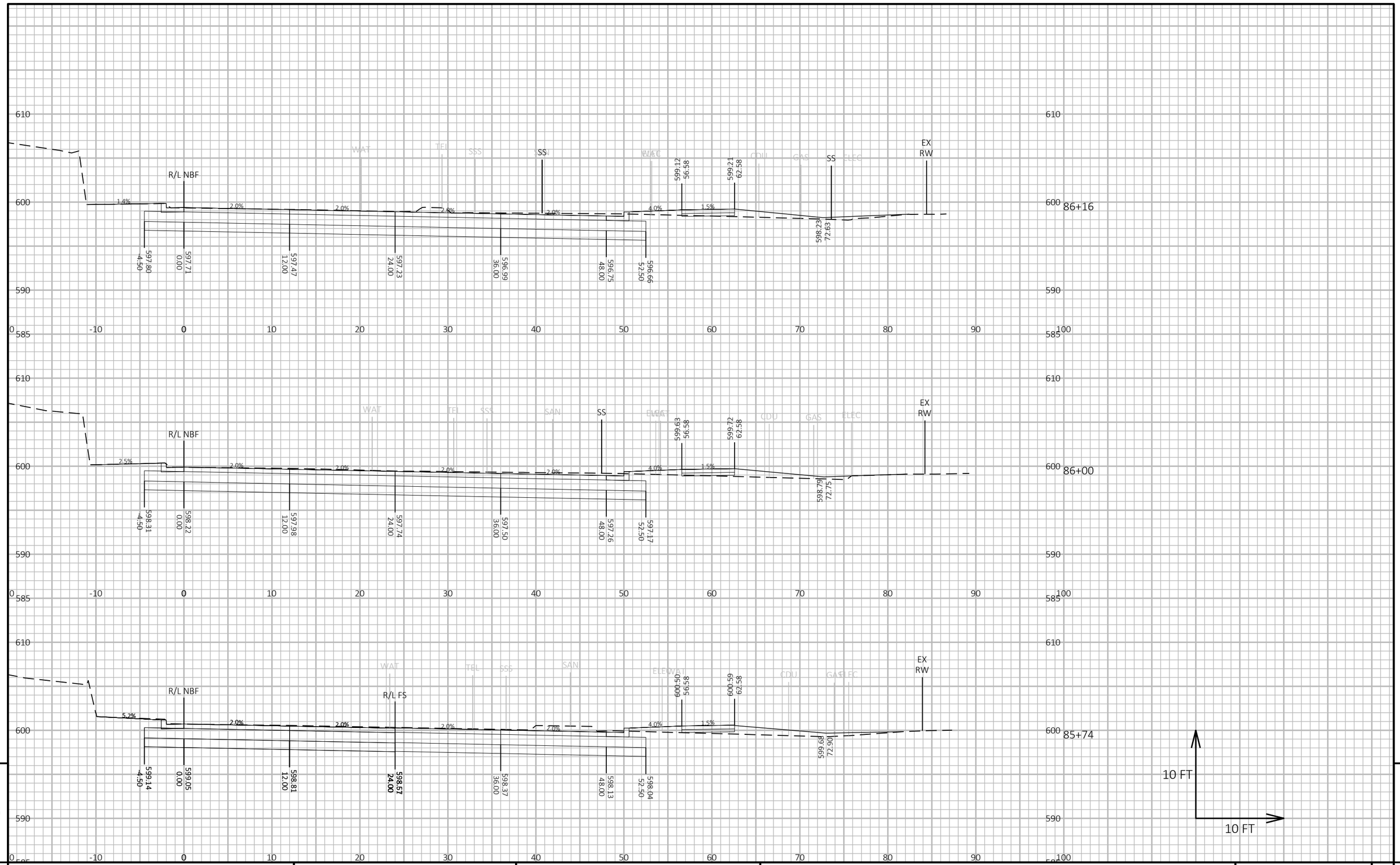
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP NBF	SHEET 574	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - NBF02

PLOT DATE : 10/29/2025 11:26 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

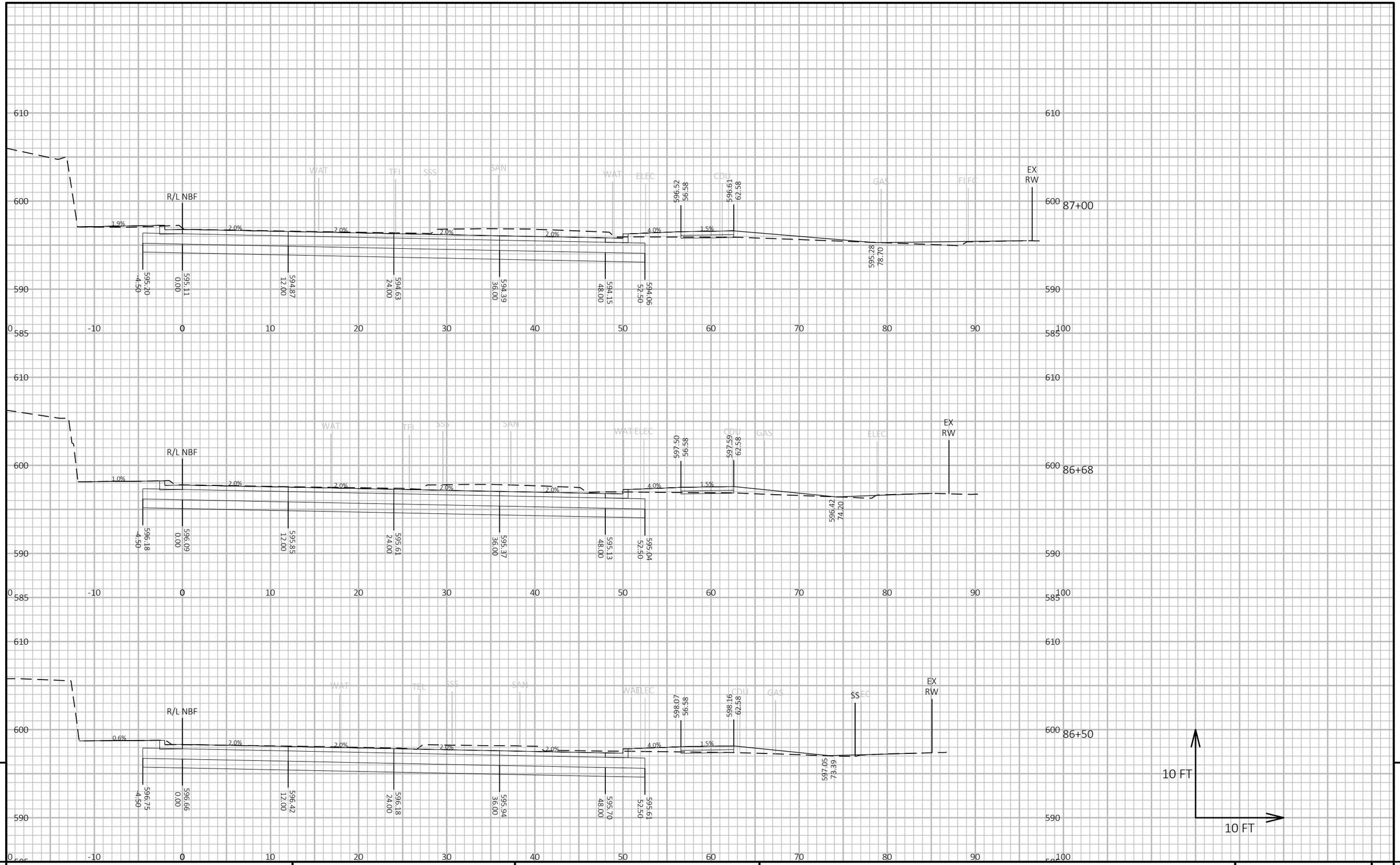


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP NBF	SHEET 575	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - NBF03

PLOT DATE : 10/29/2025 11:26 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

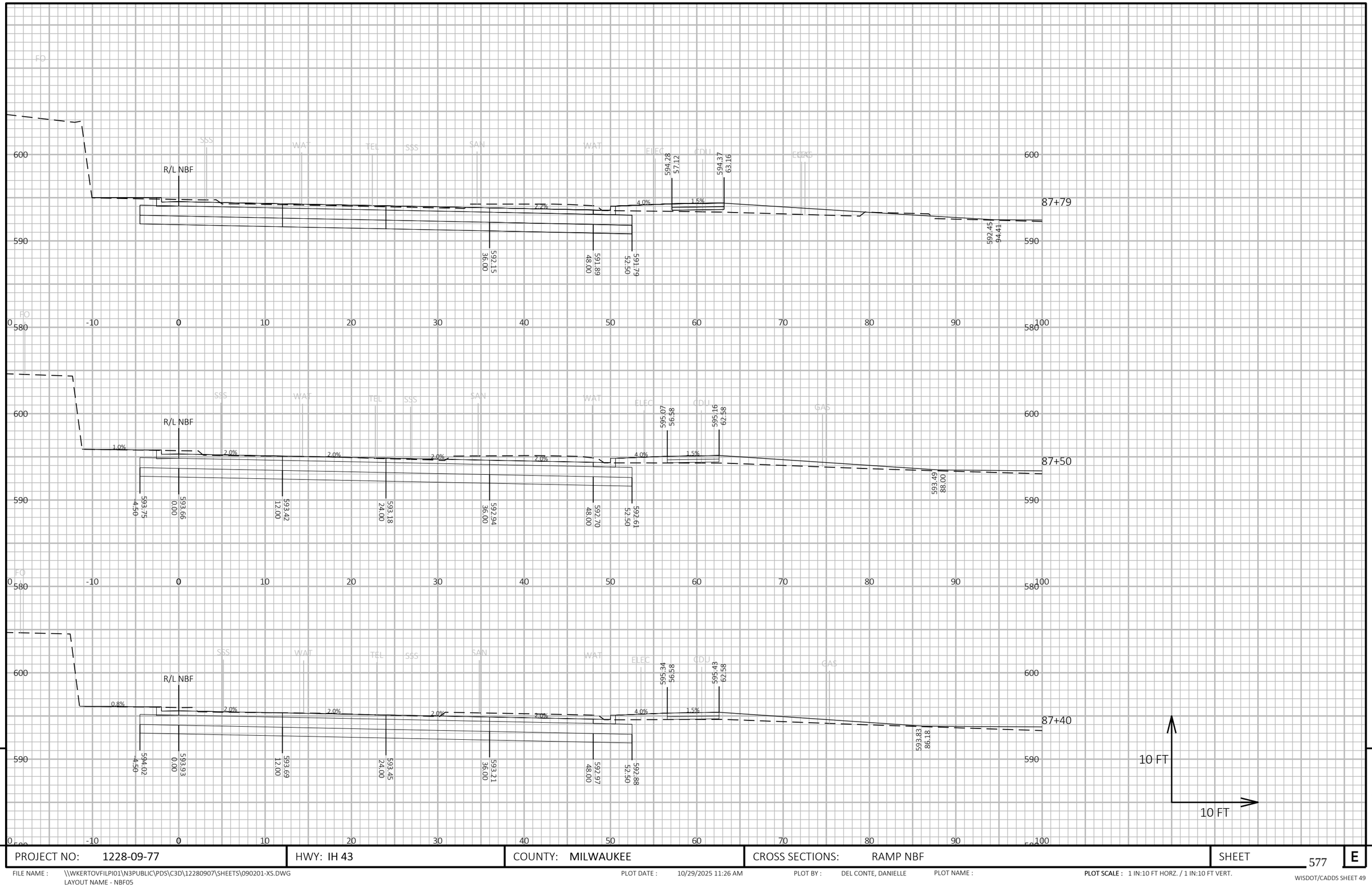
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP NBF	SHEET 576	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - NBF04

PLOT DATE : 10/29/2025 11:26 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

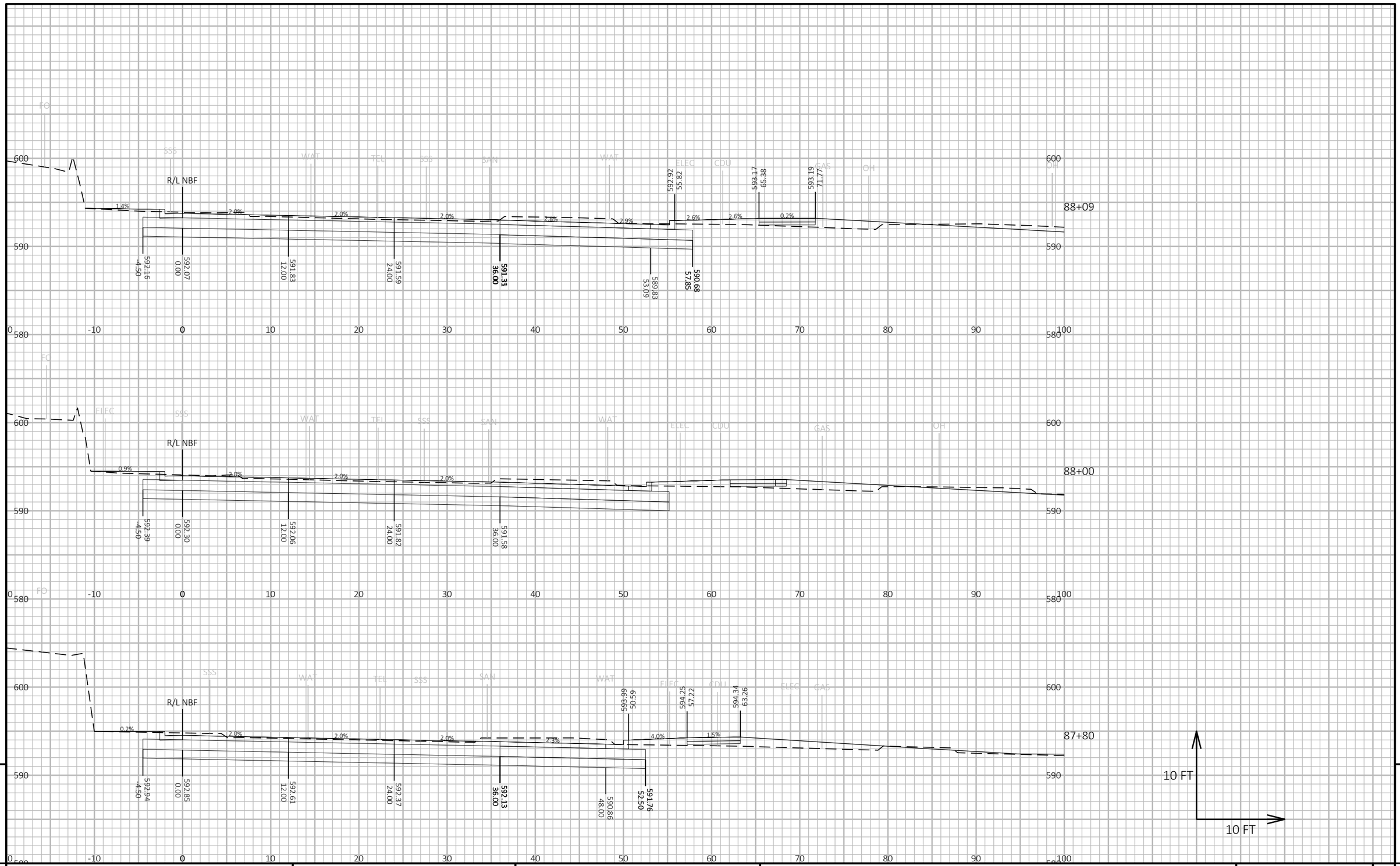


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP NBF	SHEET 577 E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - NBF05

PLOT DATE : 10/29/2025 11:26 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

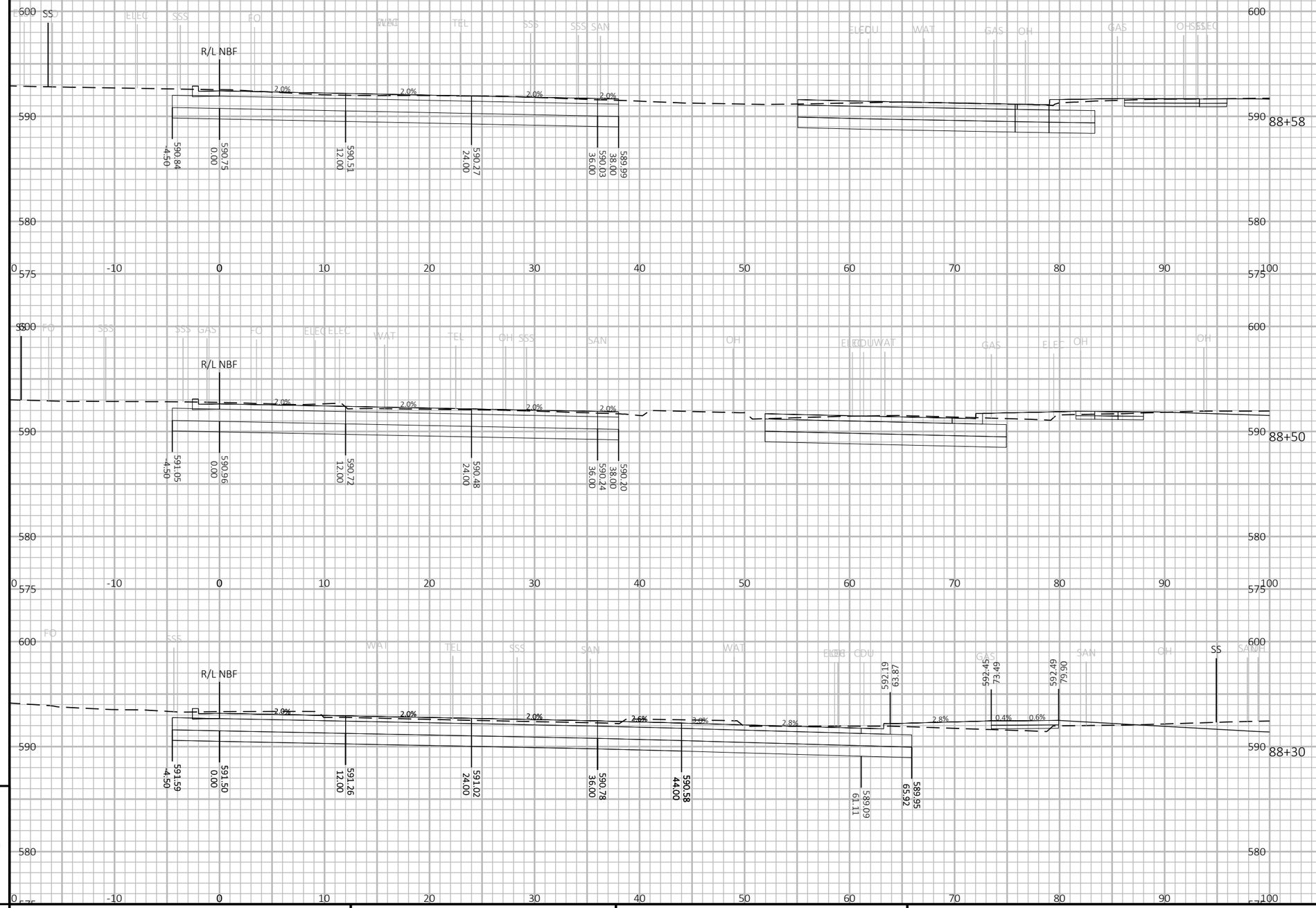
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP NBF	SHEET 578	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - NBF06

PLOT DATE : 10/29/2025 11:26 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



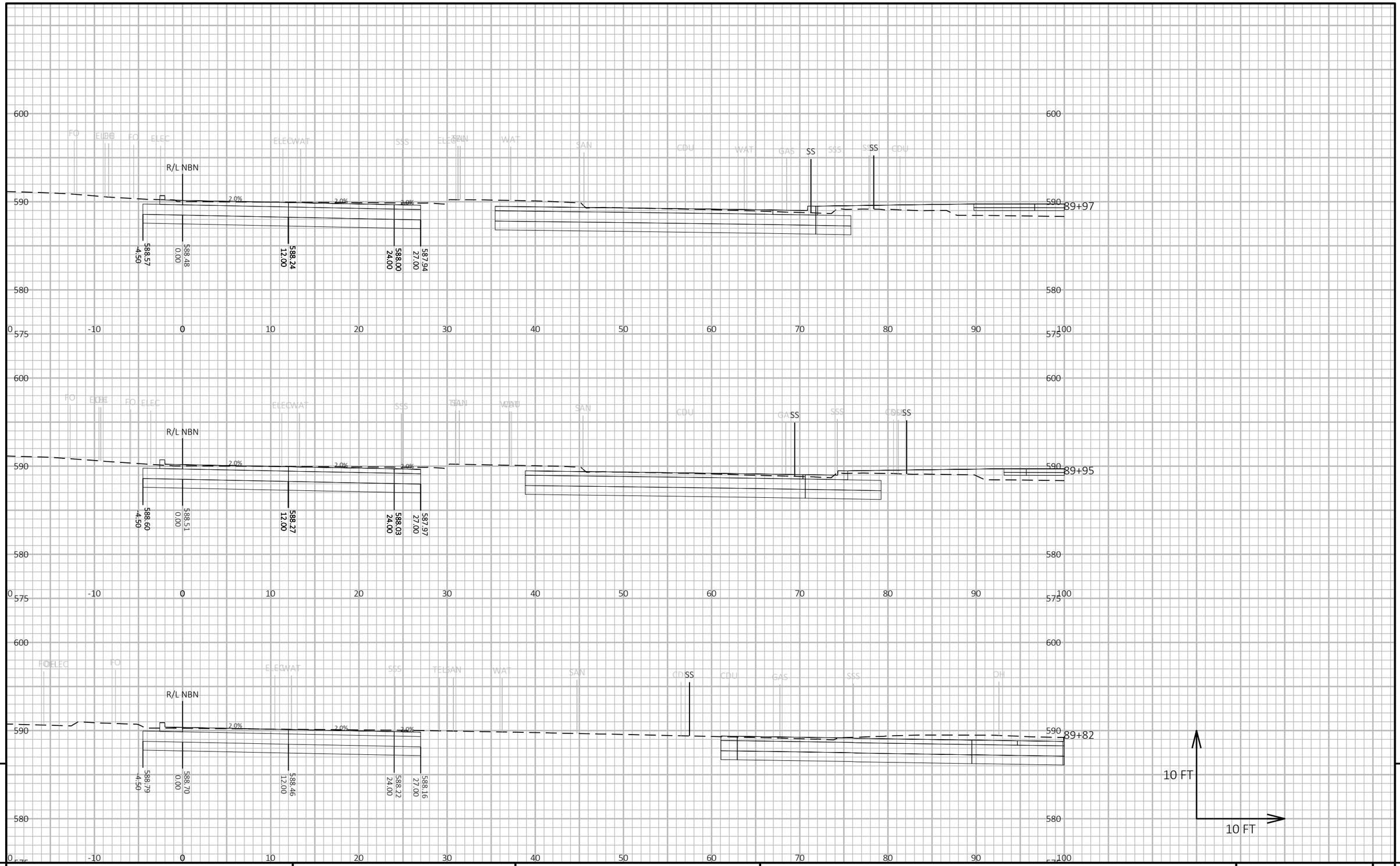
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP NBF	SHEET 579	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - NBF07

PLOT DATE : 10/29/2025 11:26 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

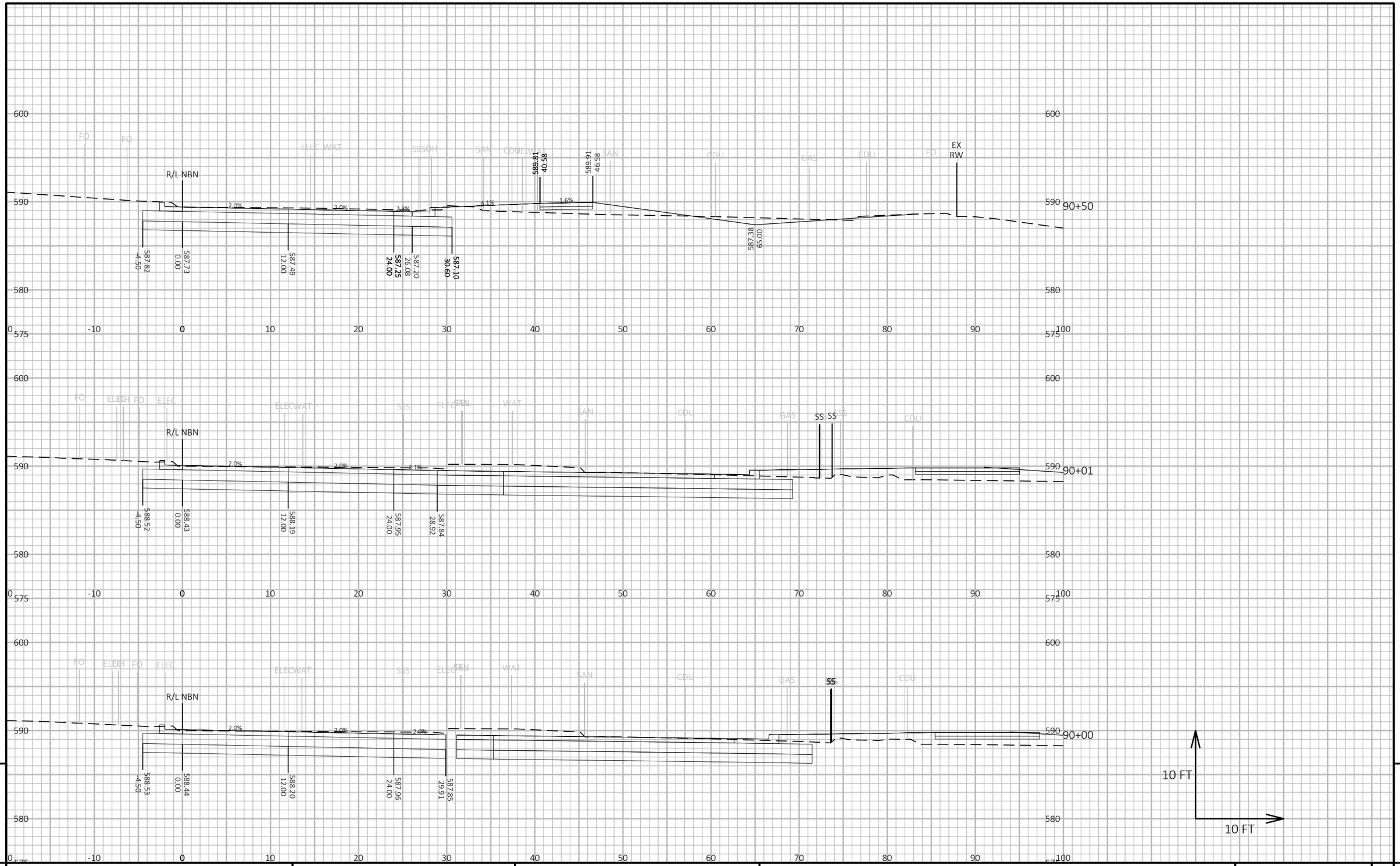
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP NBN	SHEET 580	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - NBN01

PLOT DATE : 10/29/2025 11:26 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

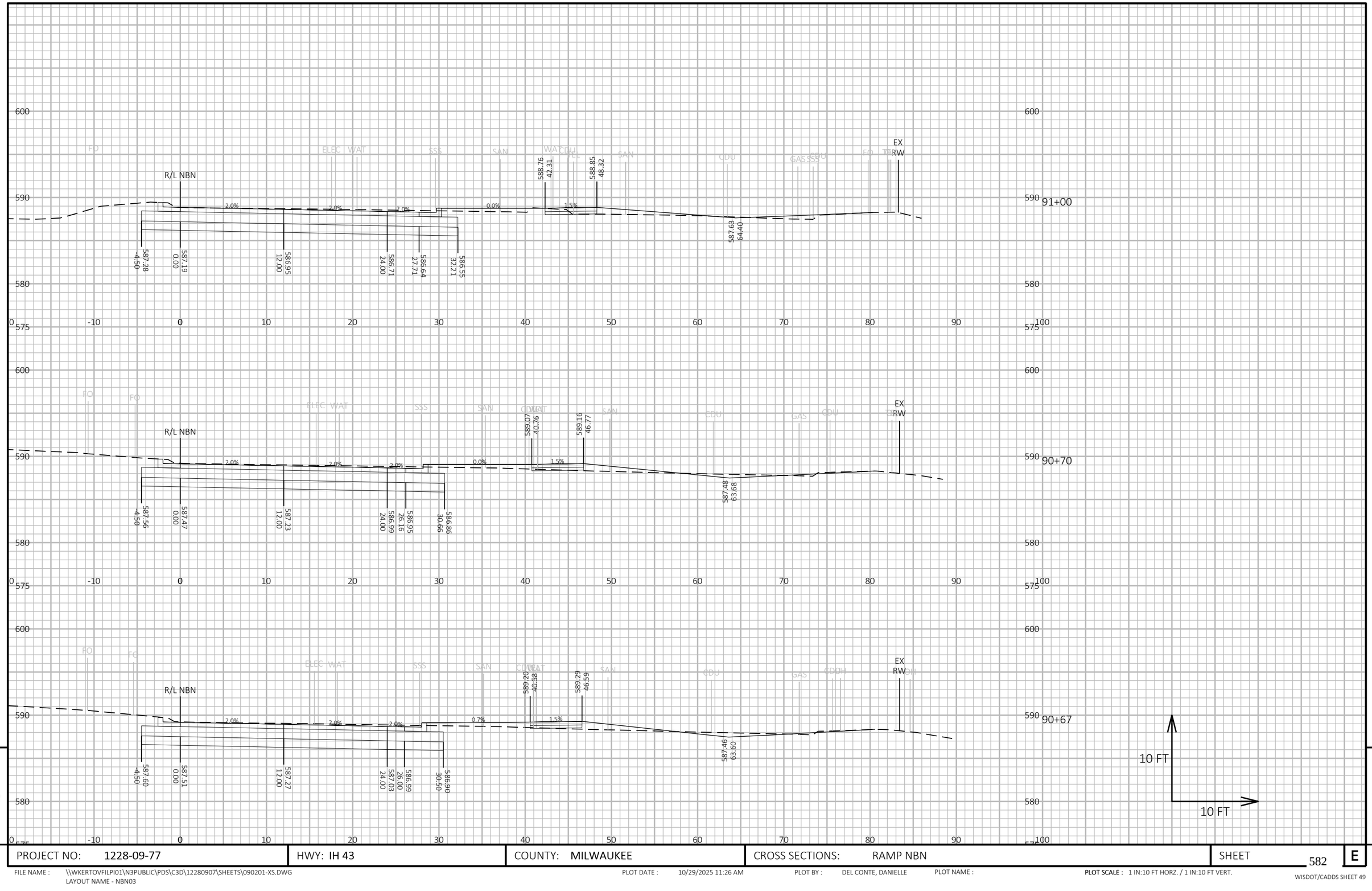


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP NBN	SHEET 581	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - NBN02

PLOT DATE : 10/29/2025 11:26 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

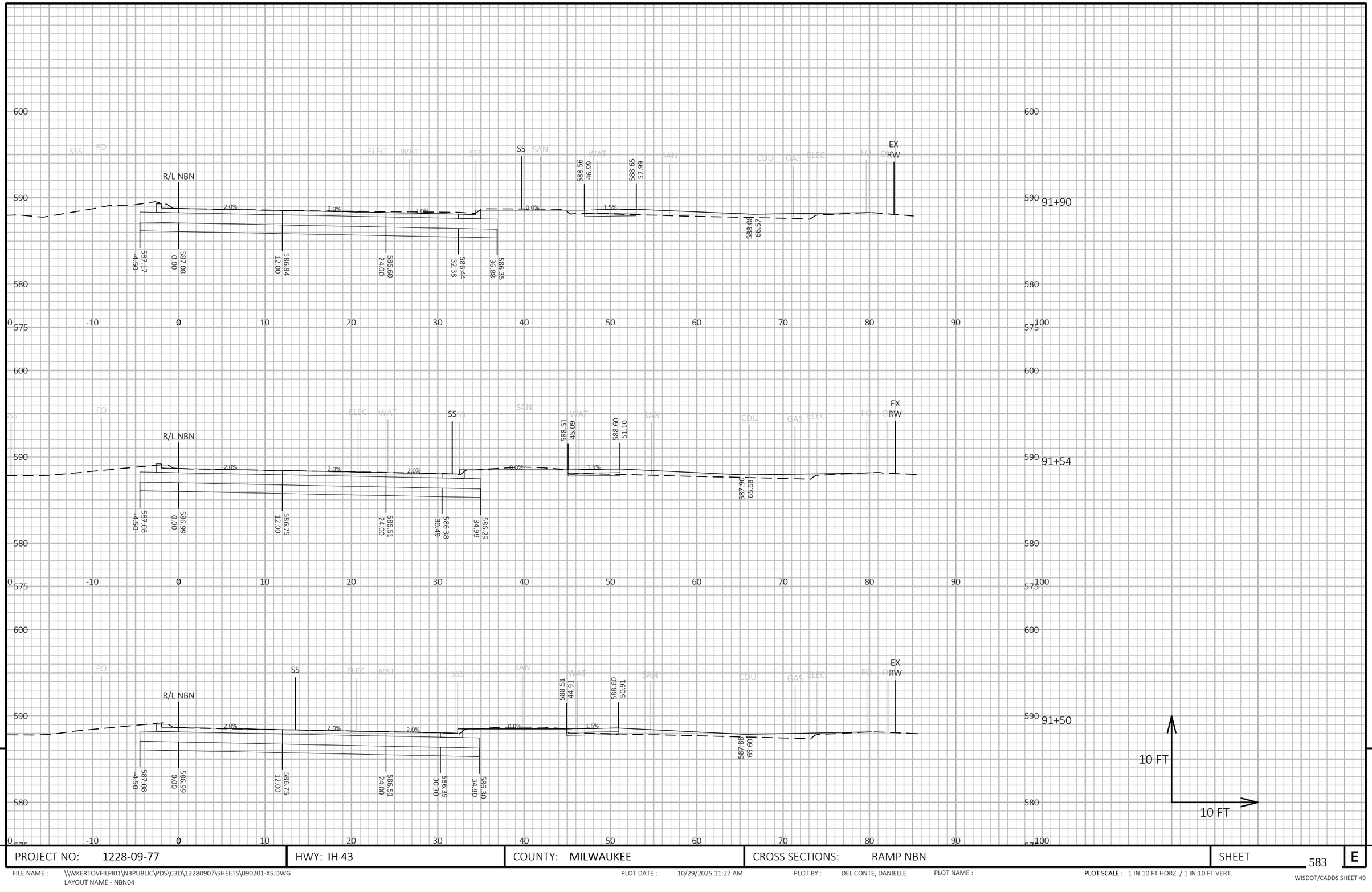


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP NBN	SHEET 582	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - NBN03

PLOT DATE : 10/29/2025 11:26 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

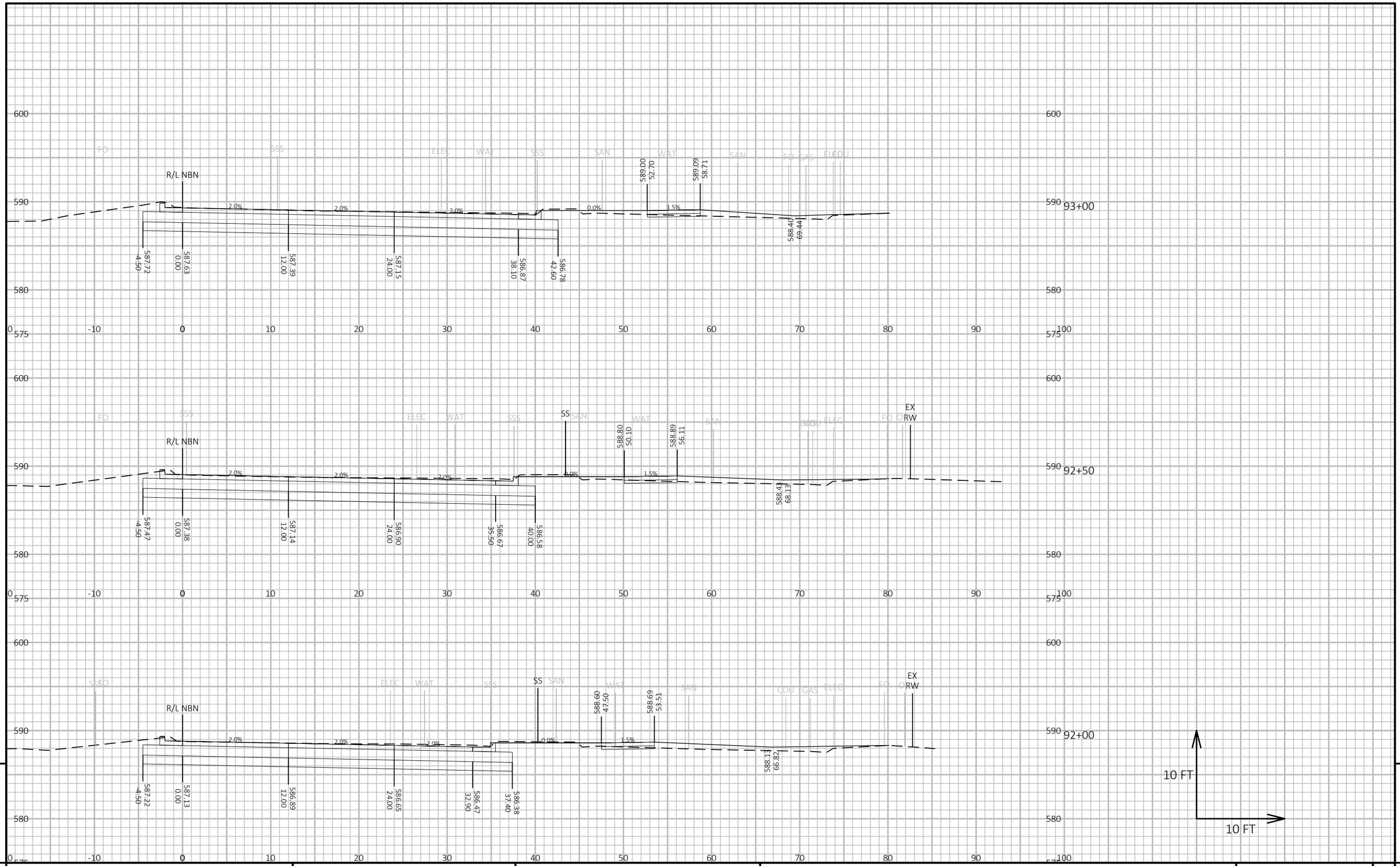


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP NBN	SHEET 583	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - NBN04

PLOT DATE : 10/29/2025 11:27 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



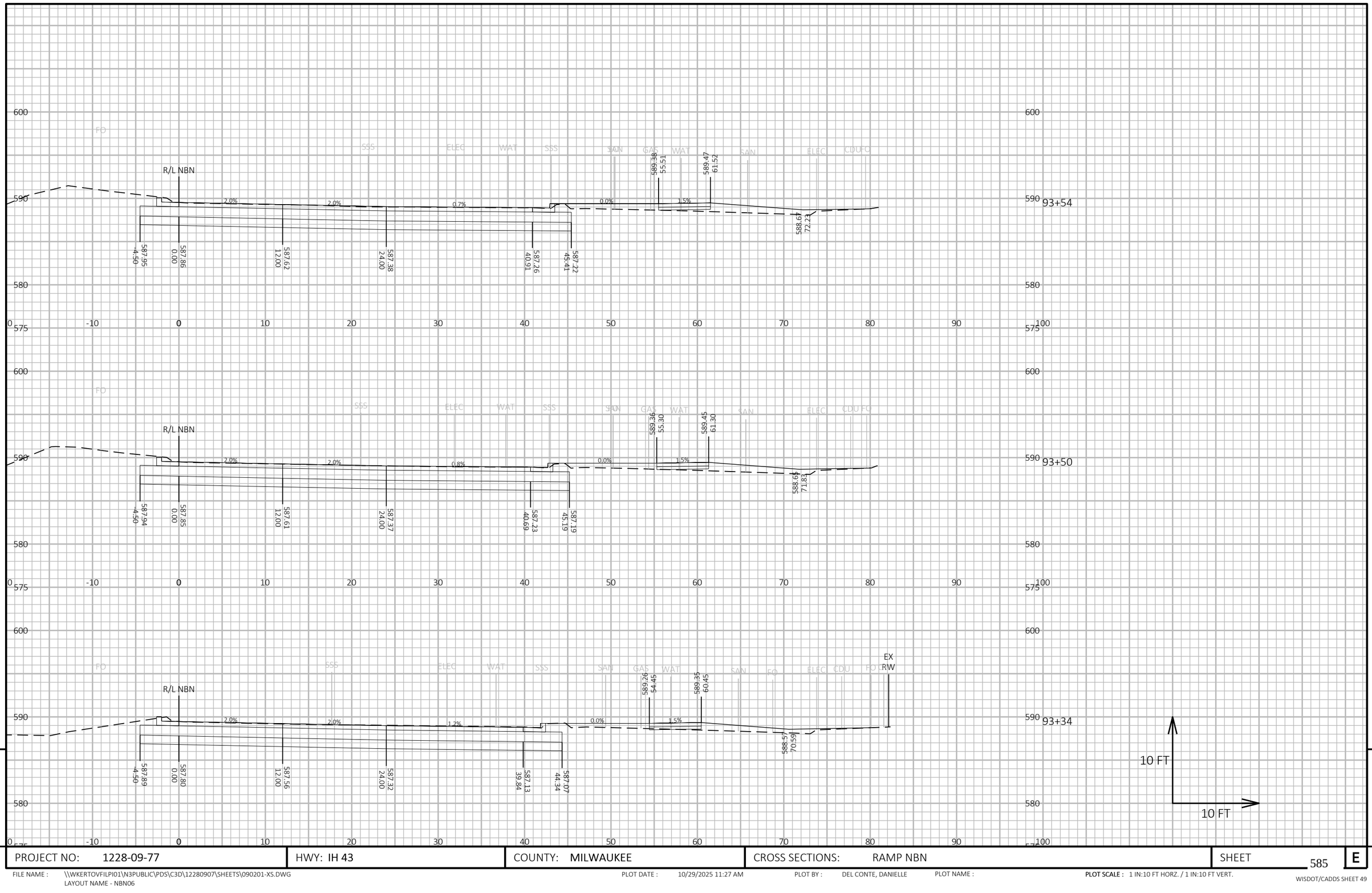
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP NBN	SHEET 584	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - NBN05

PLOT DATE : 10/29/2025 11:27 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

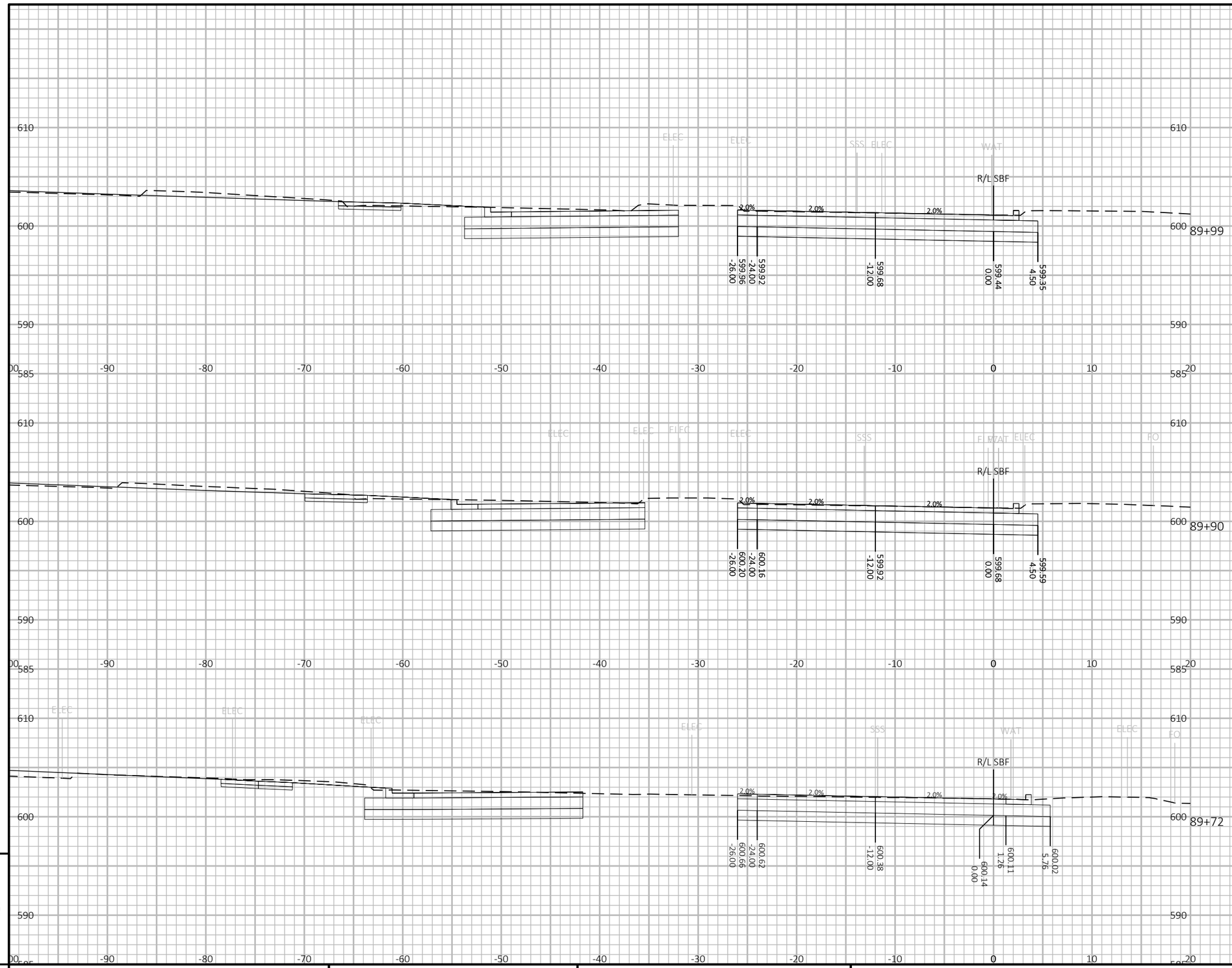


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP NBN	SHEET 585	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - NBN06

PLOT DATE : 10/29/2025 11:27 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

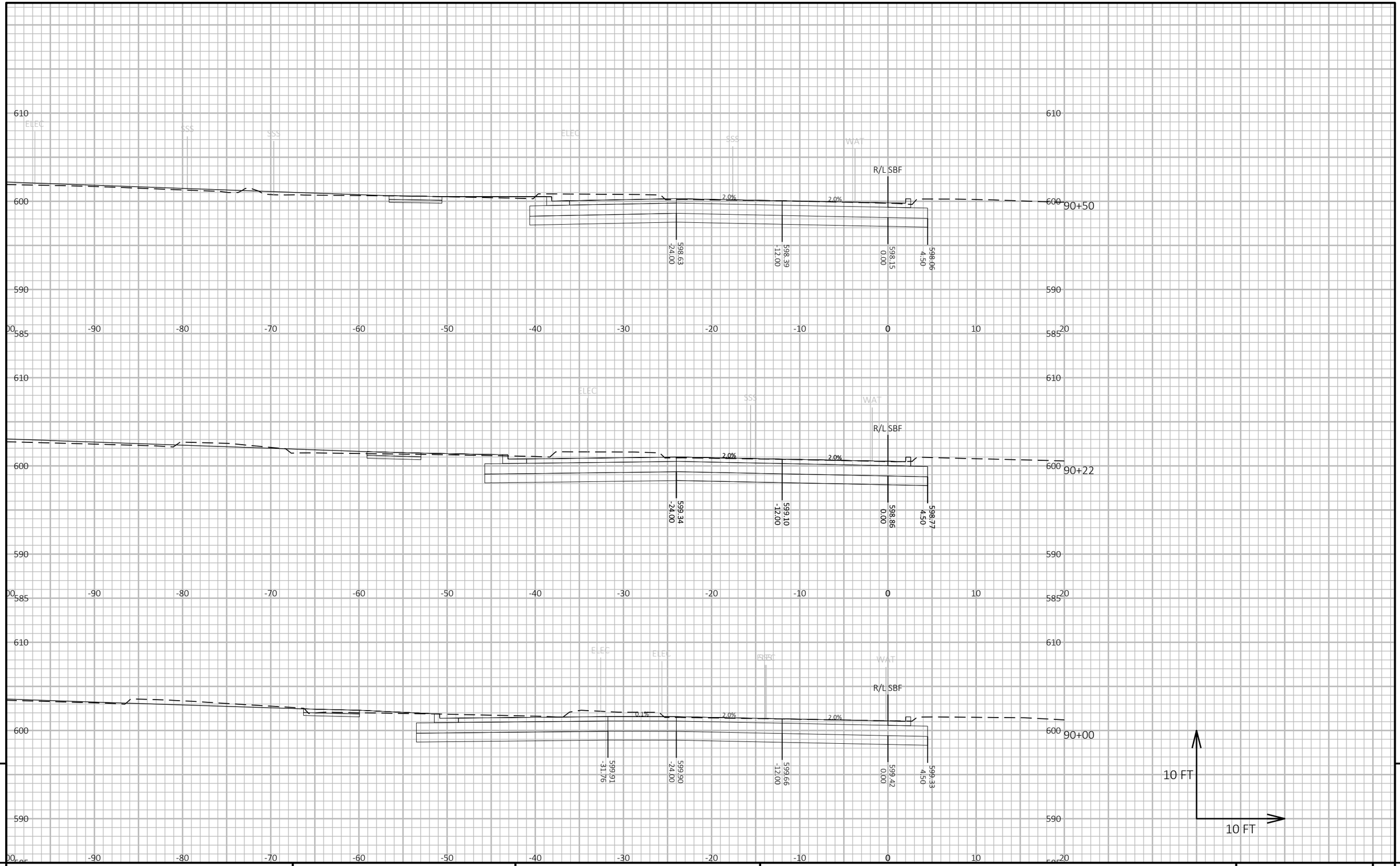
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP SBF	SHEET 586	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - SBF01

PLOT DATE : 10/29/2025 11:27 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP SBF	SHEET 587	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - SBF02

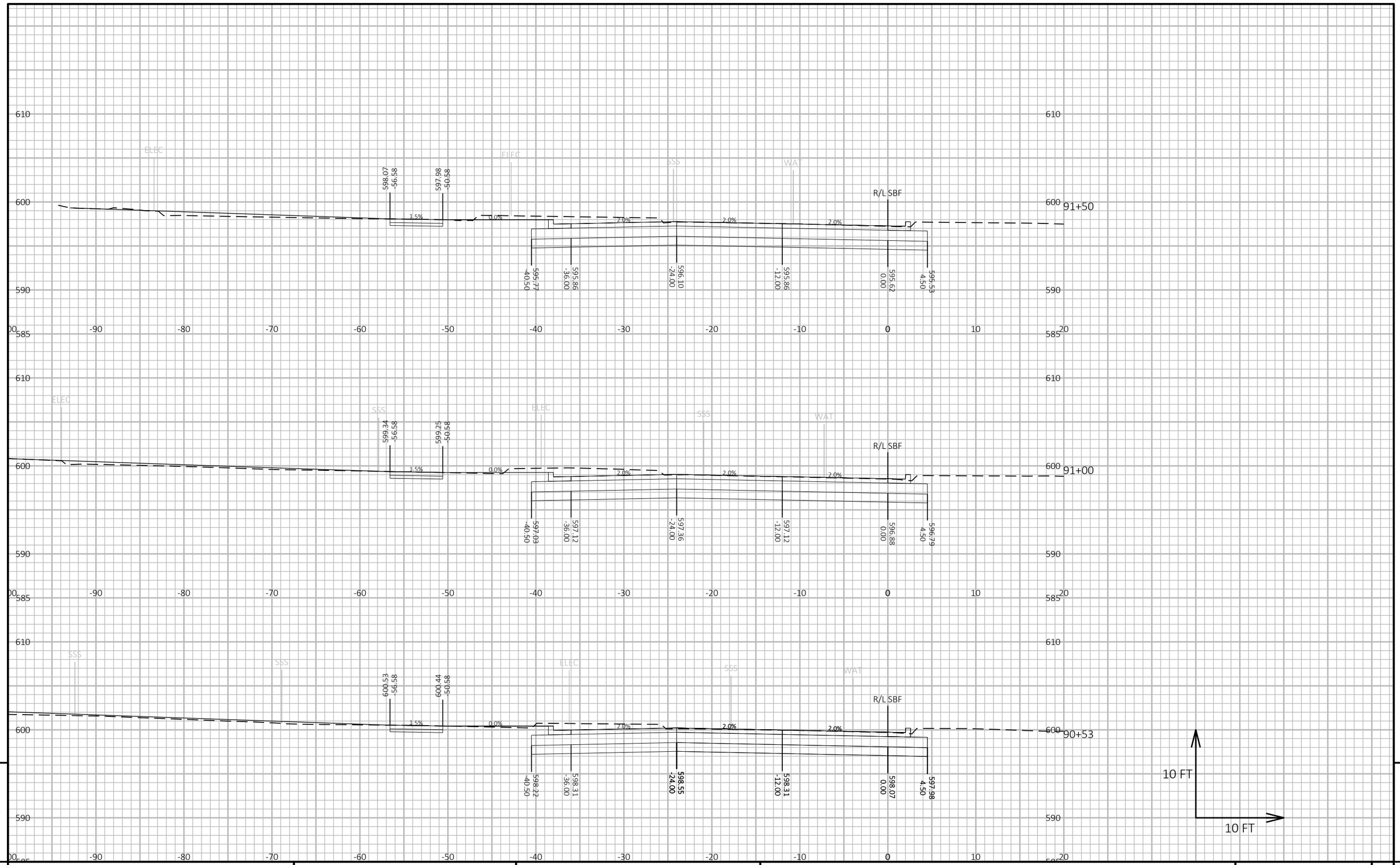
PLOT DATE : 10/29/2025 11:27 AM

PLOT BY : DEL CONTE, DANIELLE

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

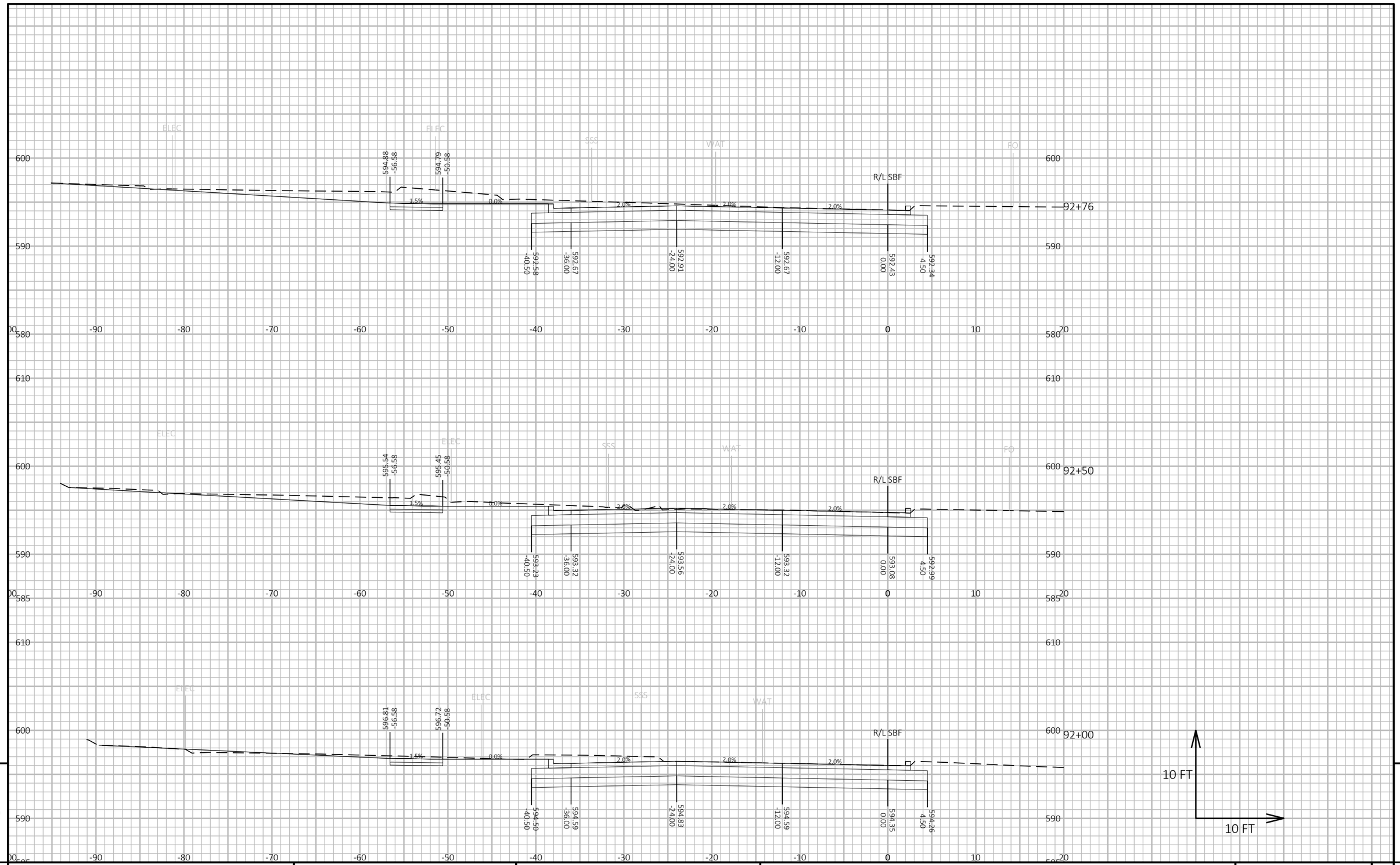
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP SBF	SHEET 588	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - SBF03

PLOT DATE : 10/29/2025 11:27 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

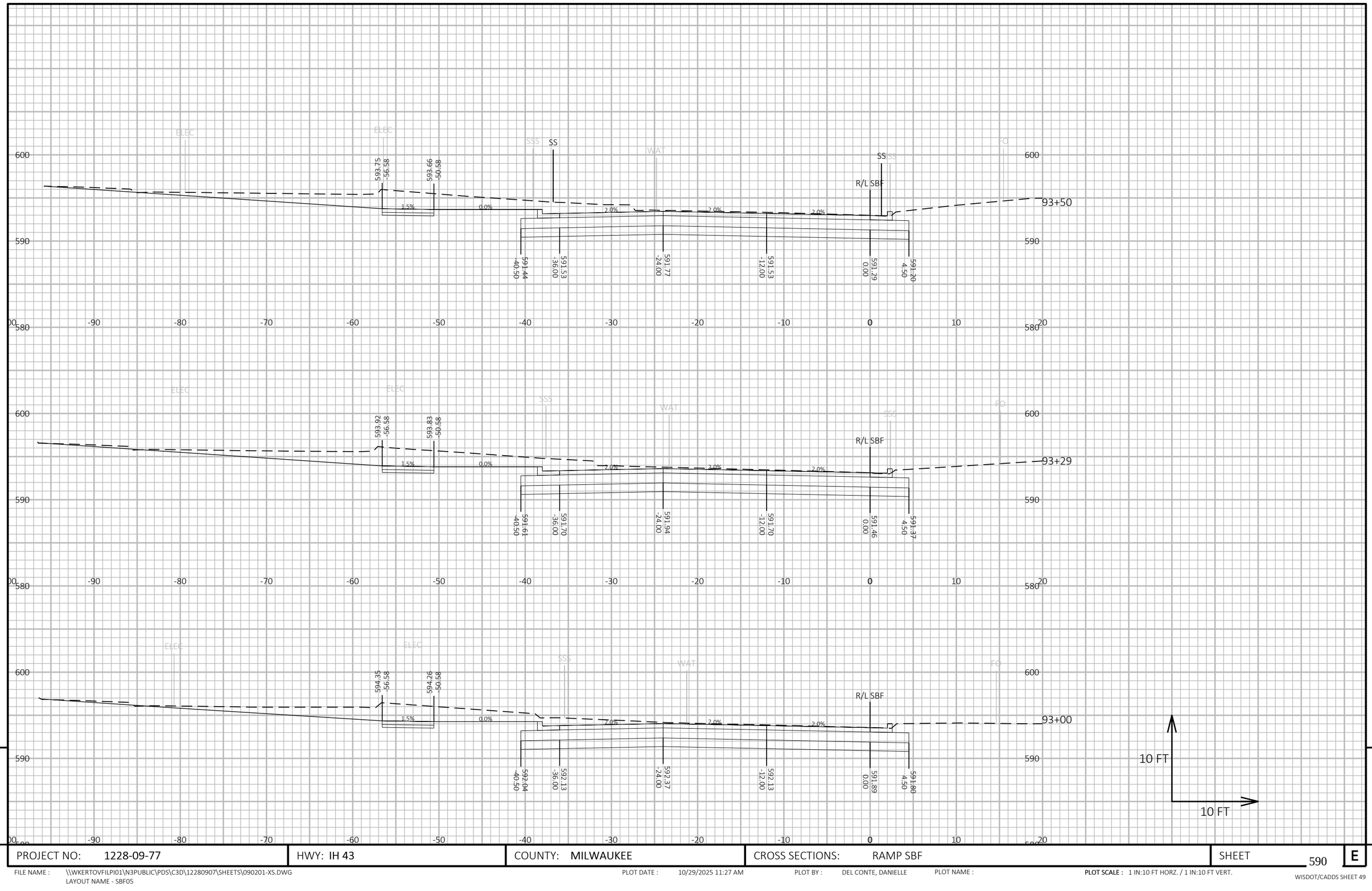
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP SBF	SHEET 589	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - SBF04

PLOT DATE : 10/29/2025 11:27 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP SBF	SHEET 590	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - SBF05

PLOT DATE : 10/29/2025 11:27 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

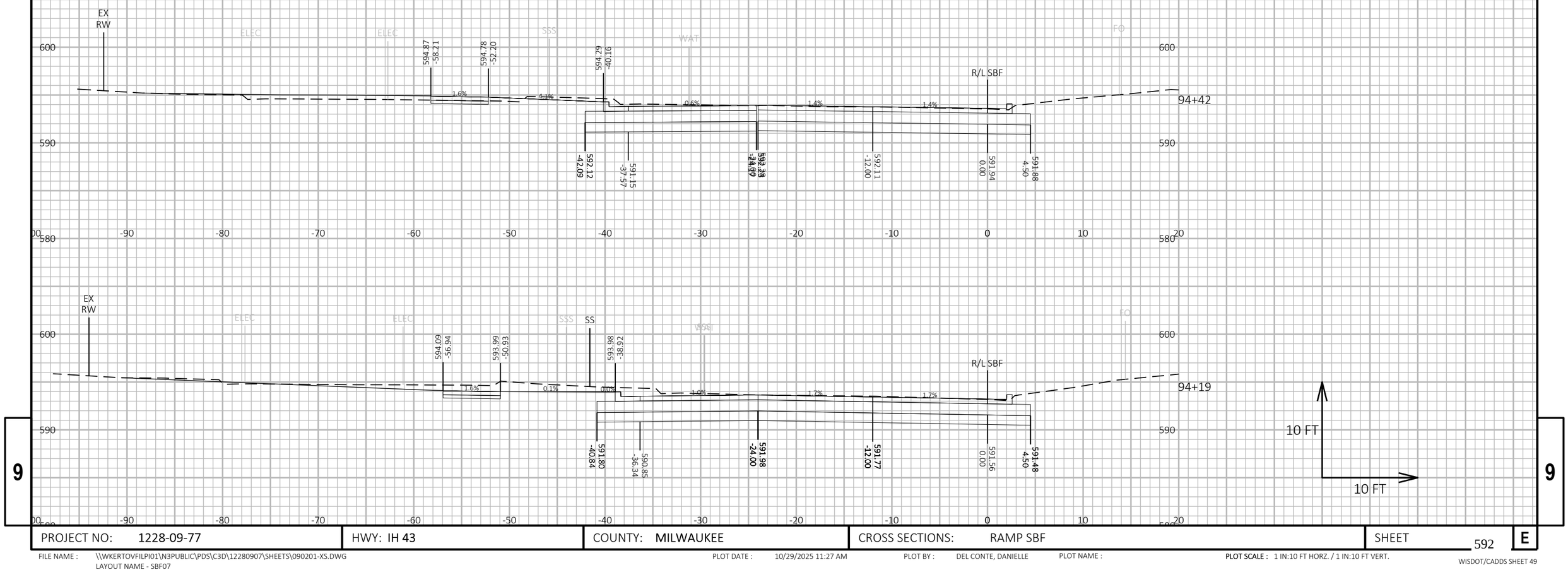
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP SBF	SHEET 591	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - SBF06

PLOT DATE : 10/29/2025 11:27 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP SBF	SHEET 592	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - SBF07

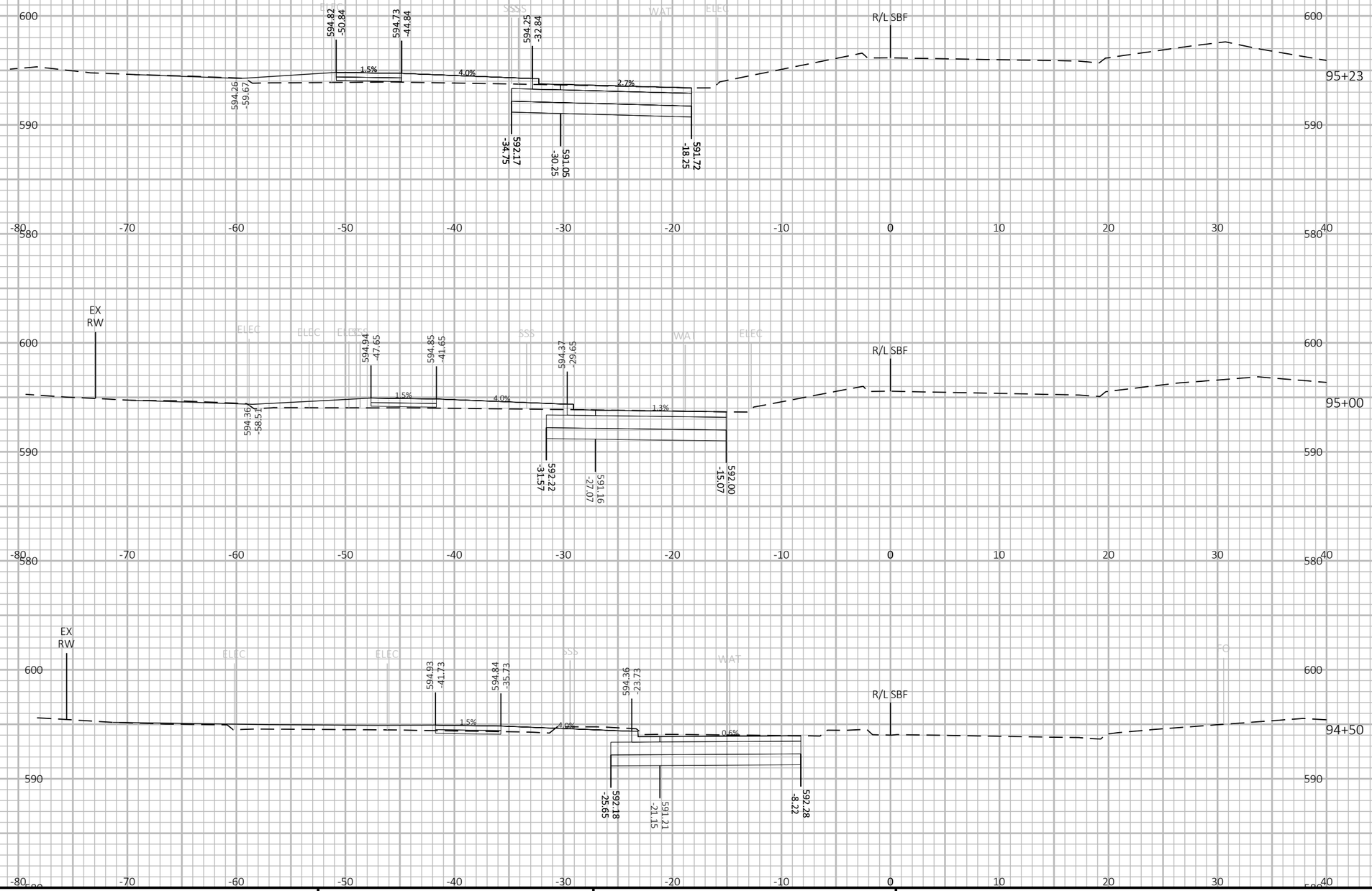
PLOT DATE : 10/29/2025 11:27 AM

PLOT BY : DEL CONTE, DANIELLE

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

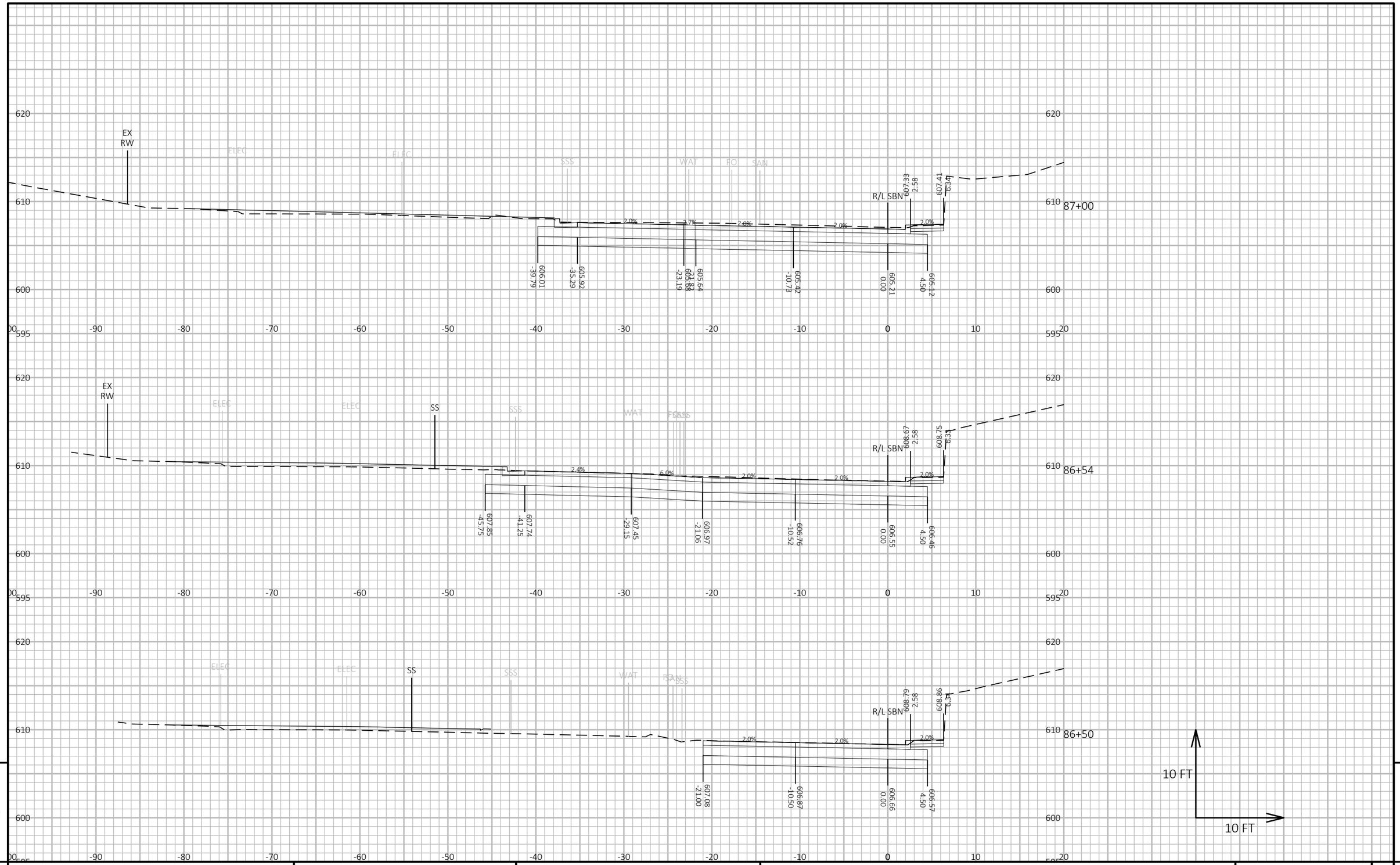


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP SBF	SHEET 593	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - SBF08

PLOT DATE : 10/29/2025 11:27 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

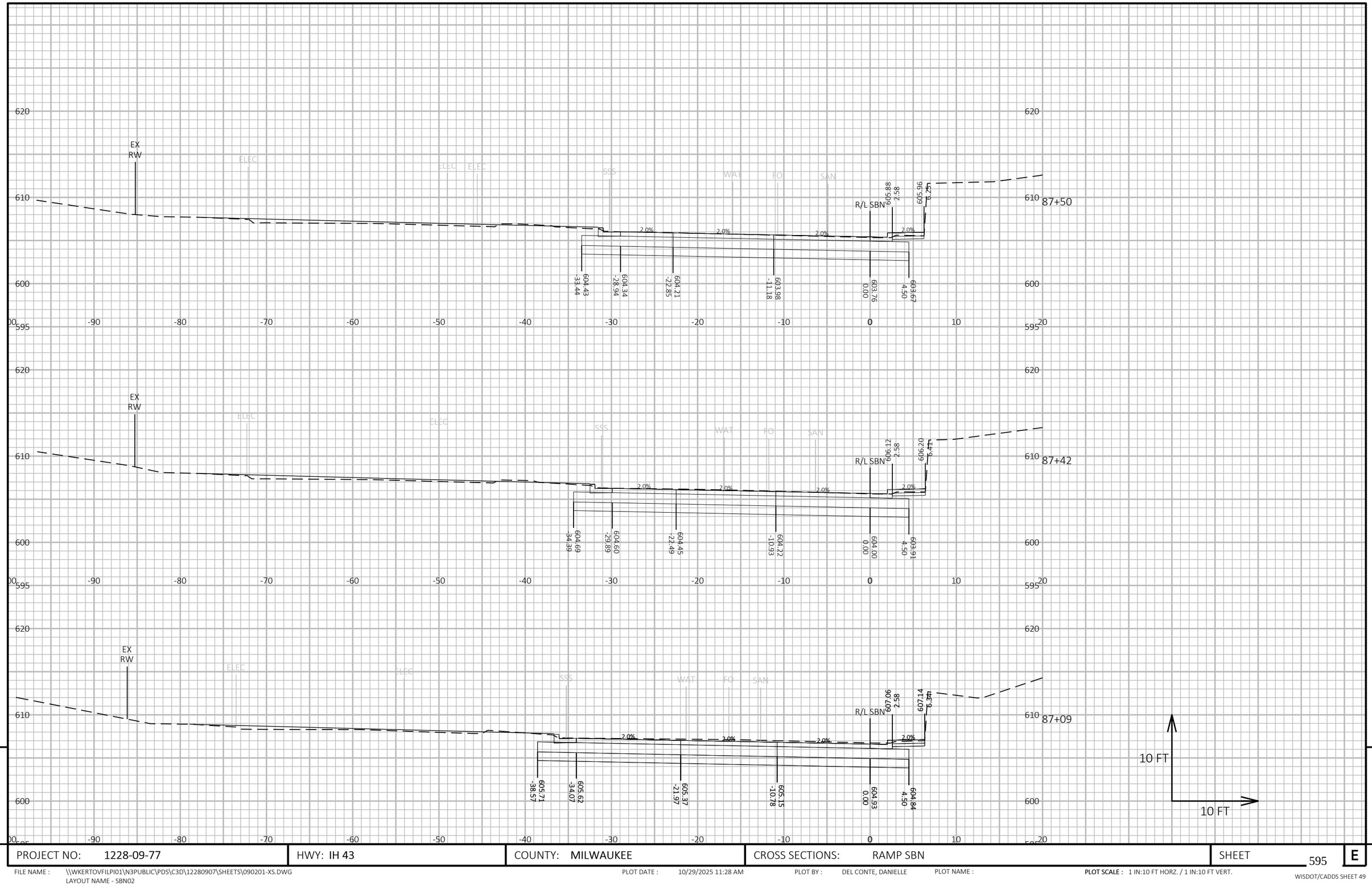
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP SBN	SHEET 594	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - SBN01

PLOT DATE : 10/29/2025 11:27 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP SBN	SHEET 595	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - SBN02

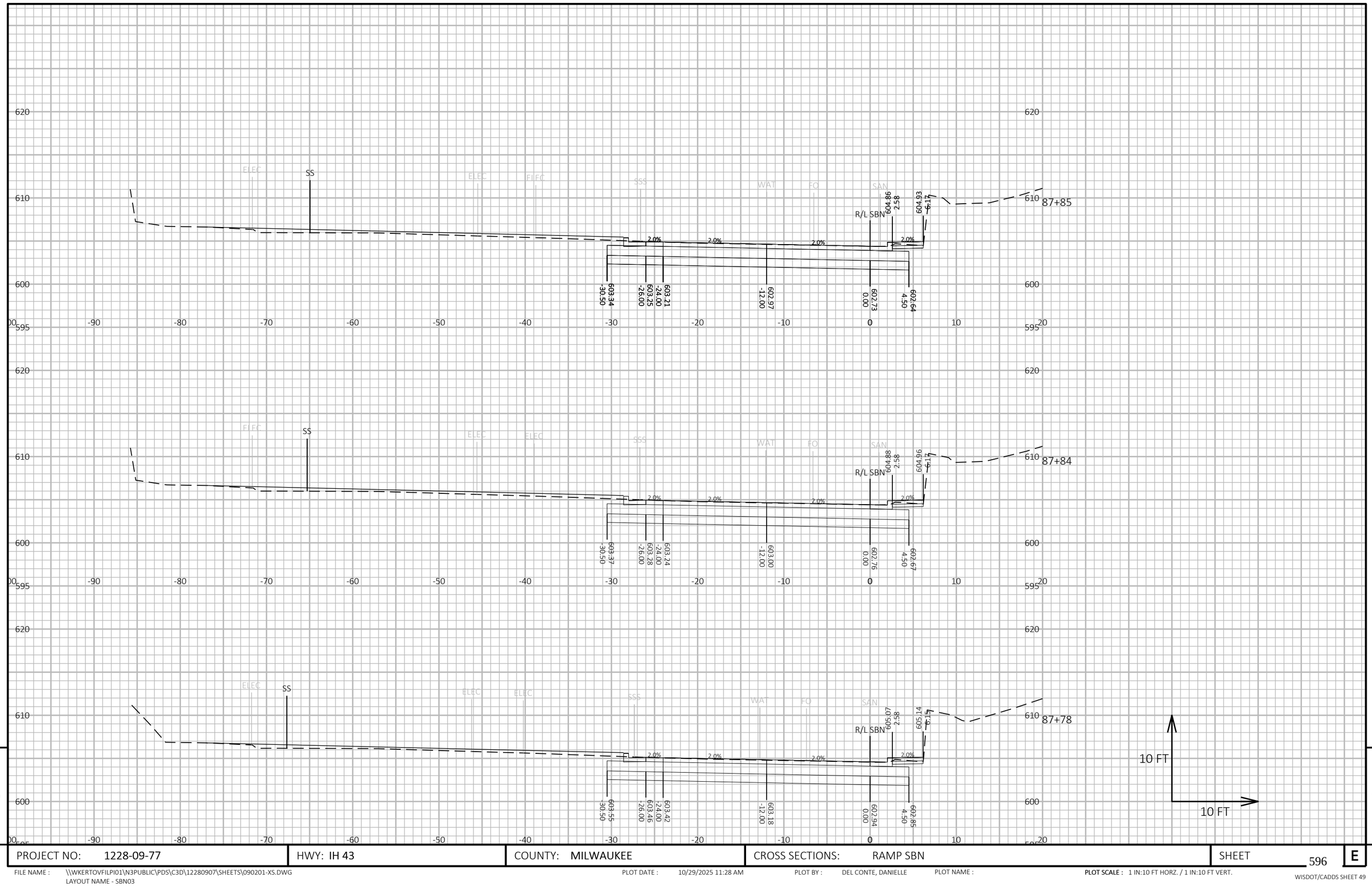
PLOT DATE : 10/29/2025 11:28 AM

PLOT BY : DEL CONTE, DANIELLE

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

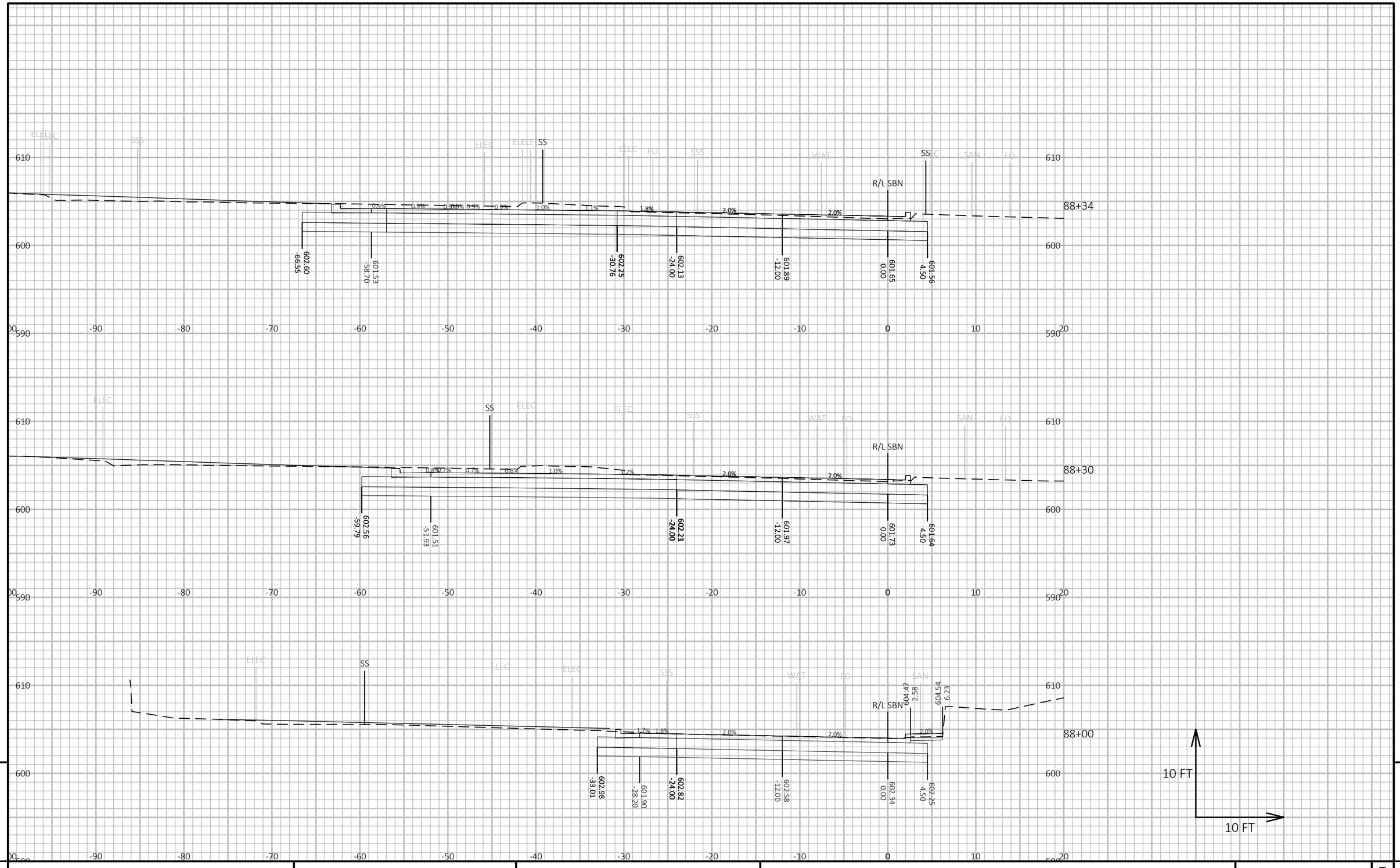
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP SBN	SHEET 596	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - SBN03

PLOT DATE : 10/29/2025 11:28 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

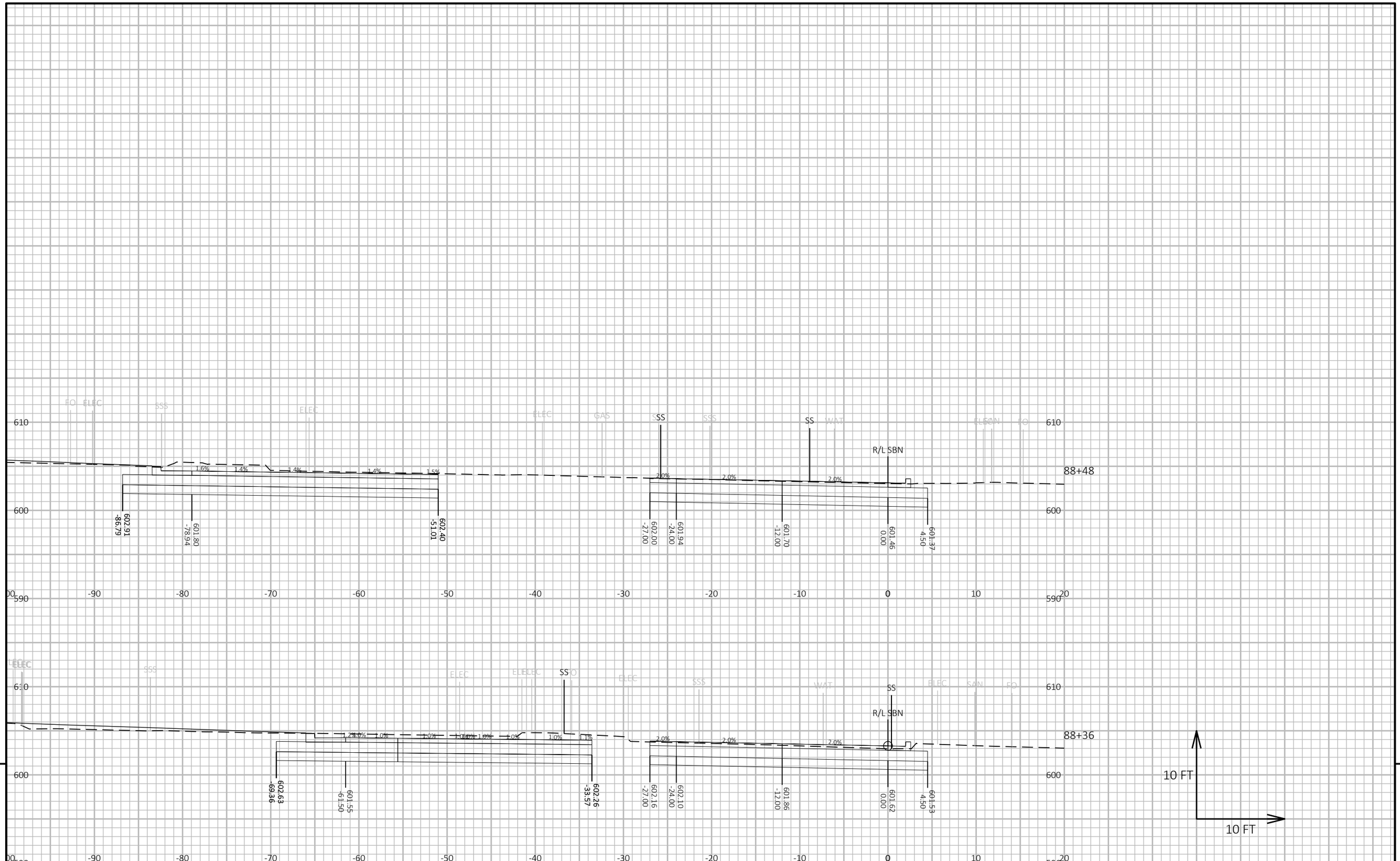
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP SBN	SHEET 597	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - SBN04

PLOT DATE : 10/29/2025 11:28 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

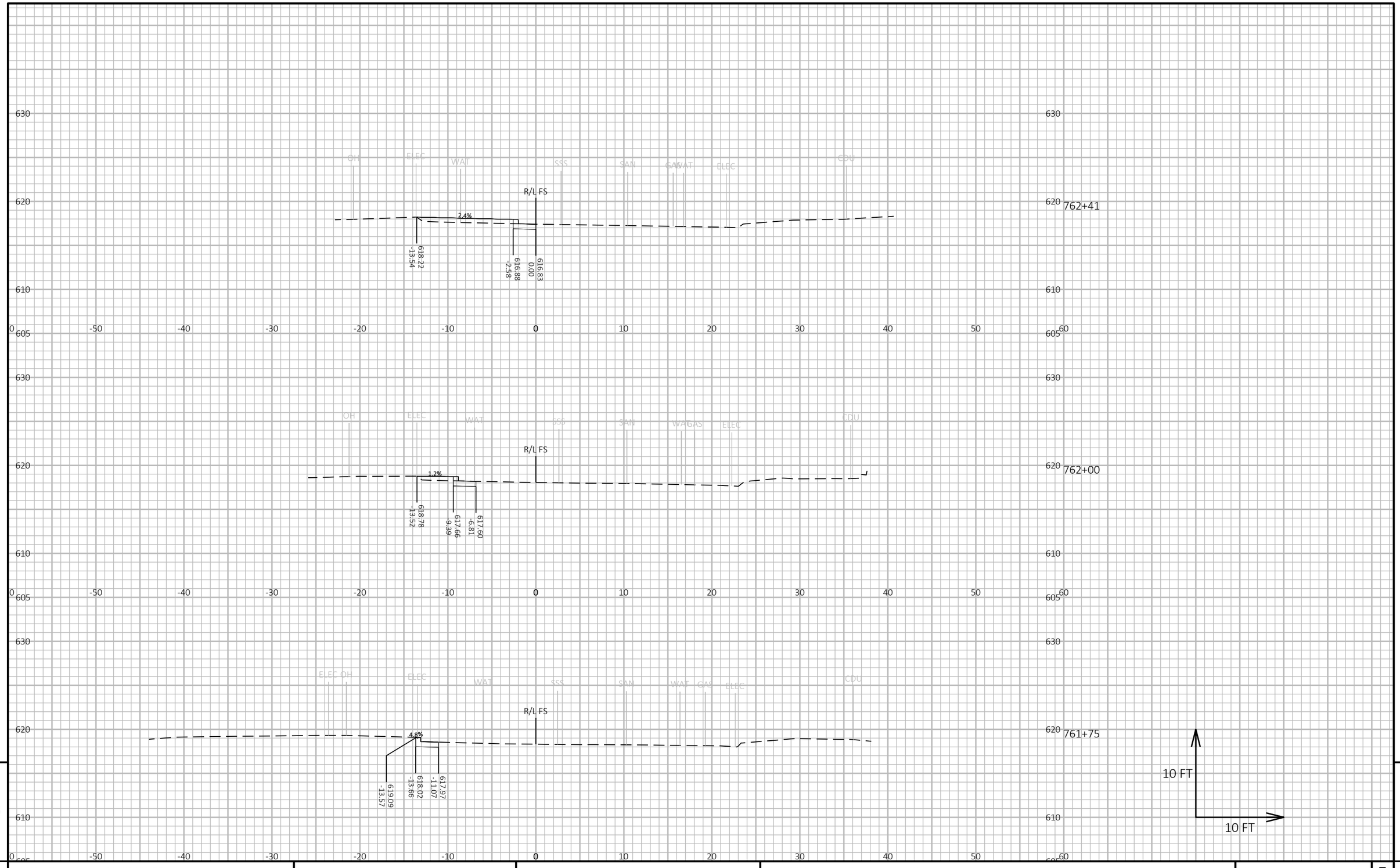
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP SBN	SHEET 598	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - SBN05

PLOT DATE : 10/29/2025 11:28 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

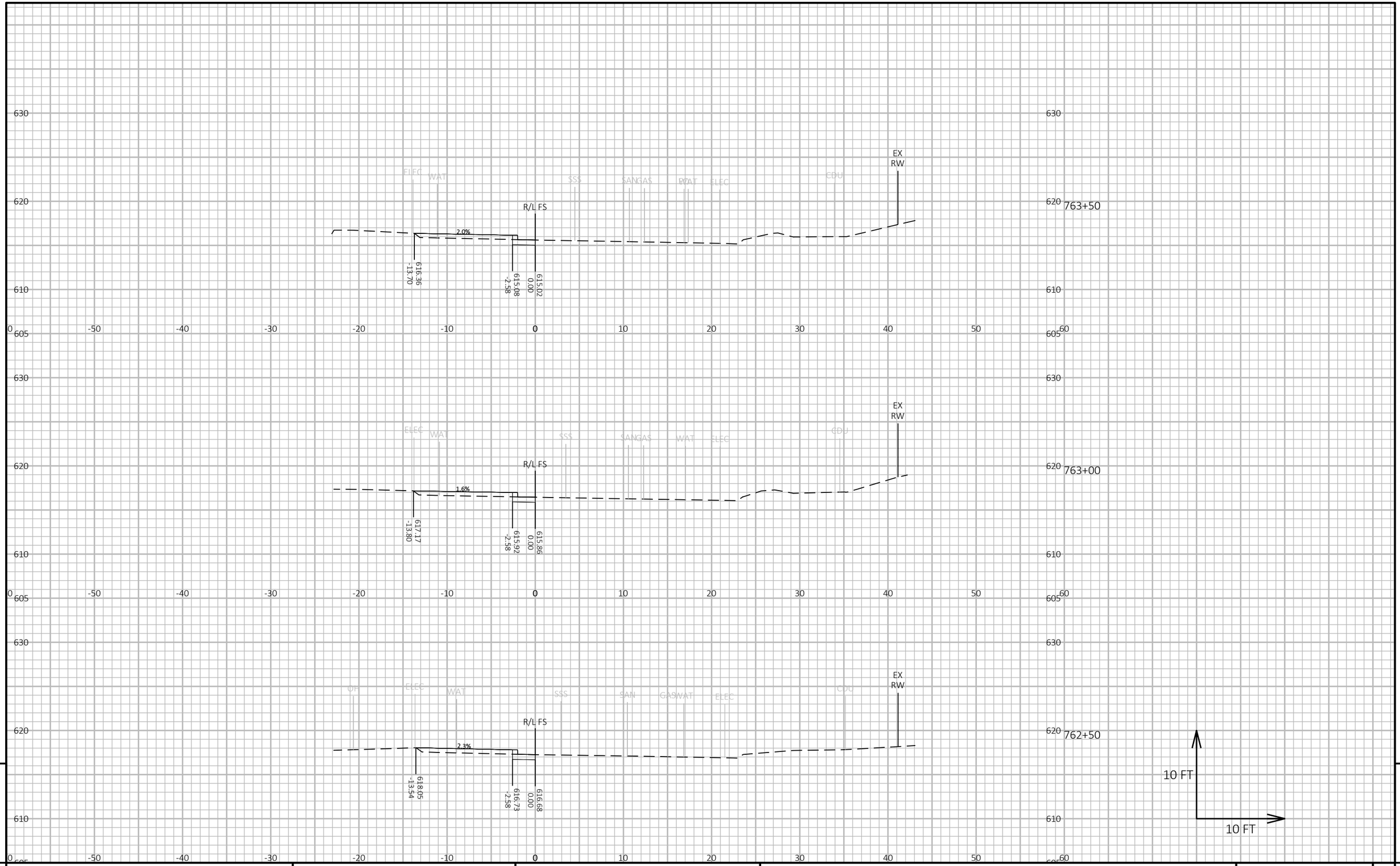


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: 4TH ST	SHEET 599	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - FS01

PLOT DATE : 10/29/2025 11:28 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



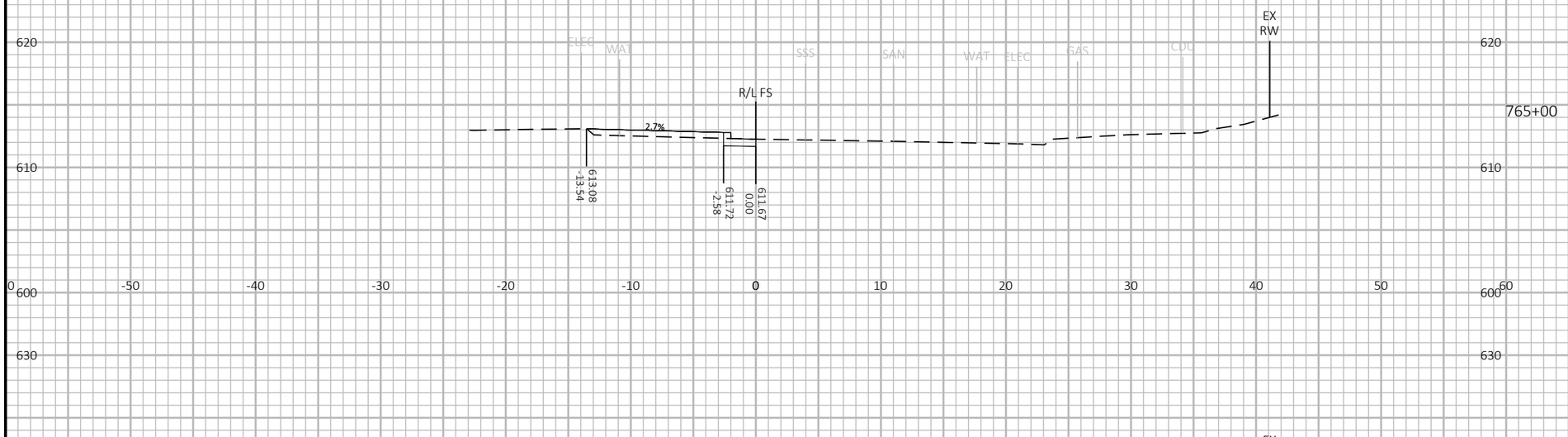
PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: 4TH ST	SHEET 600	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - FS02

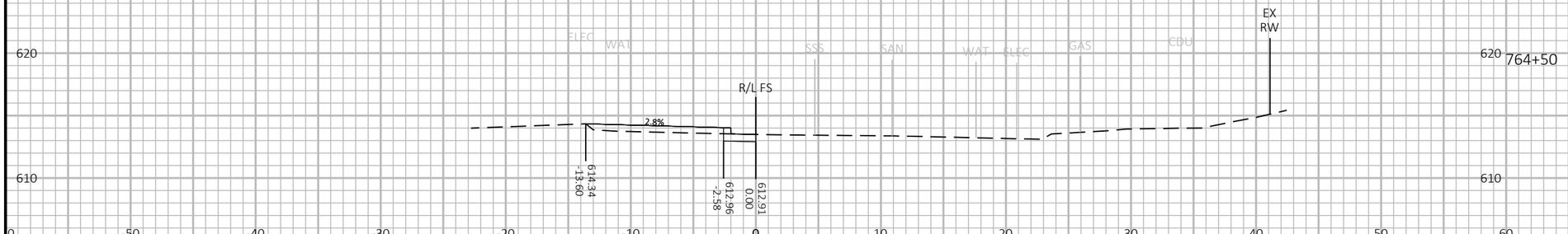
PLOT DATE : 10/29/2025 11:28 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

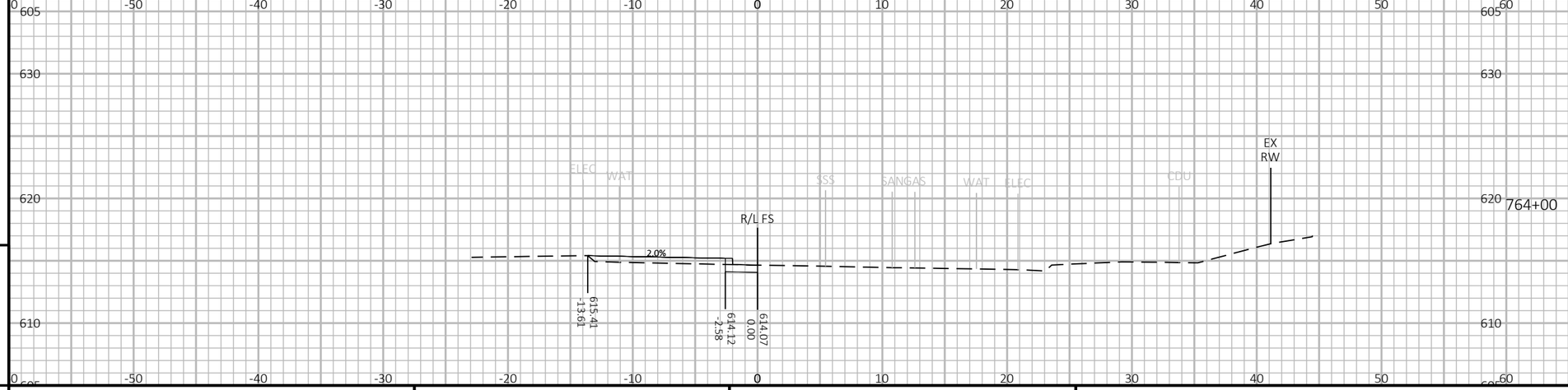
765+00

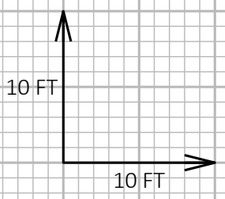


764+50



764+00





9

9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: 4TH ST	SHEET 601	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - FS03

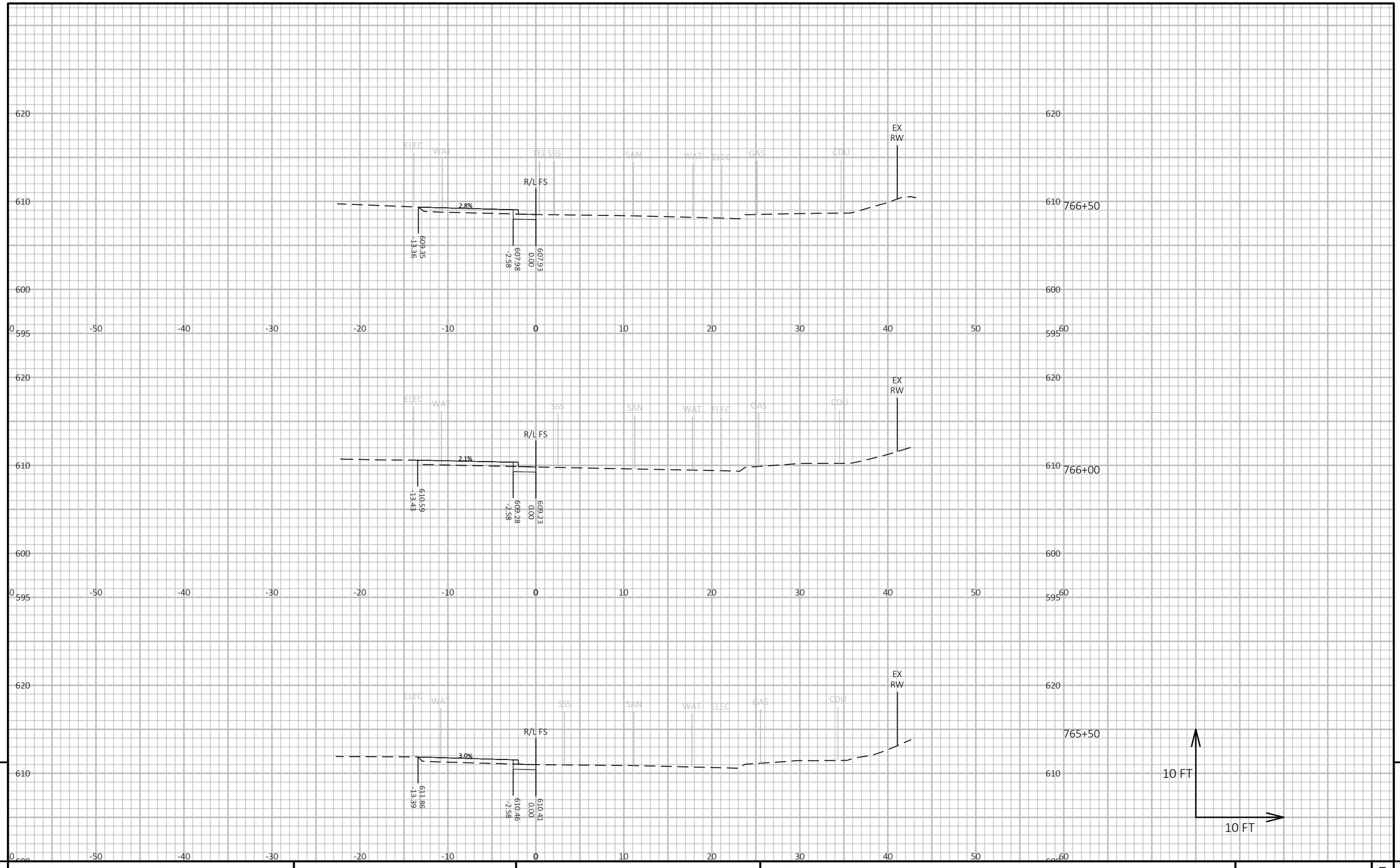
PLOT DATE : 10/29/2025 11:28 AM

PLOT BY : DEL CONTE, DANIELLE

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

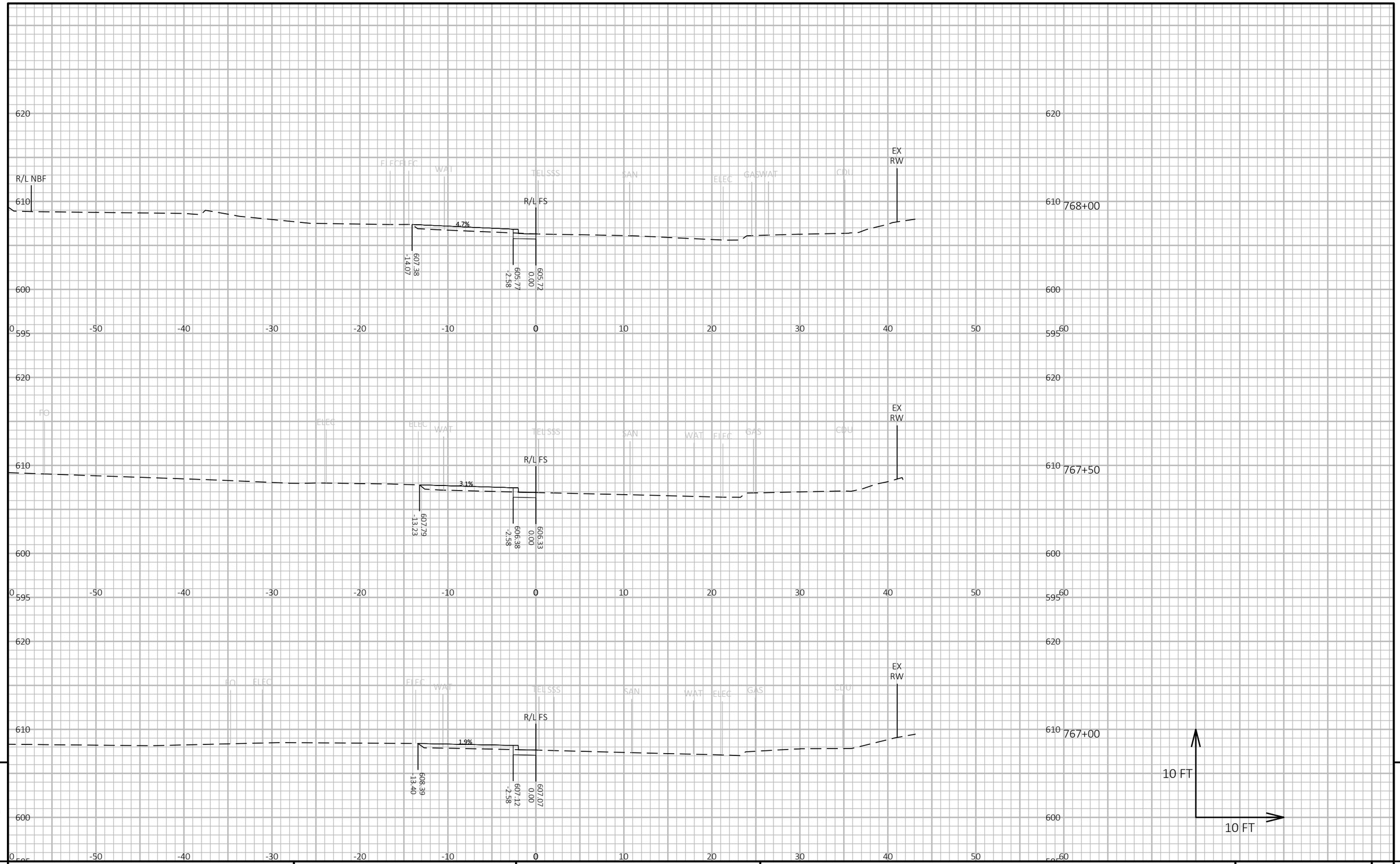
9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: 4TH ST	SHEET 602	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - FS04

PLOT DATE : 10/29/2025 11:28 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: 4TH ST	SHEET 603	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - FS05

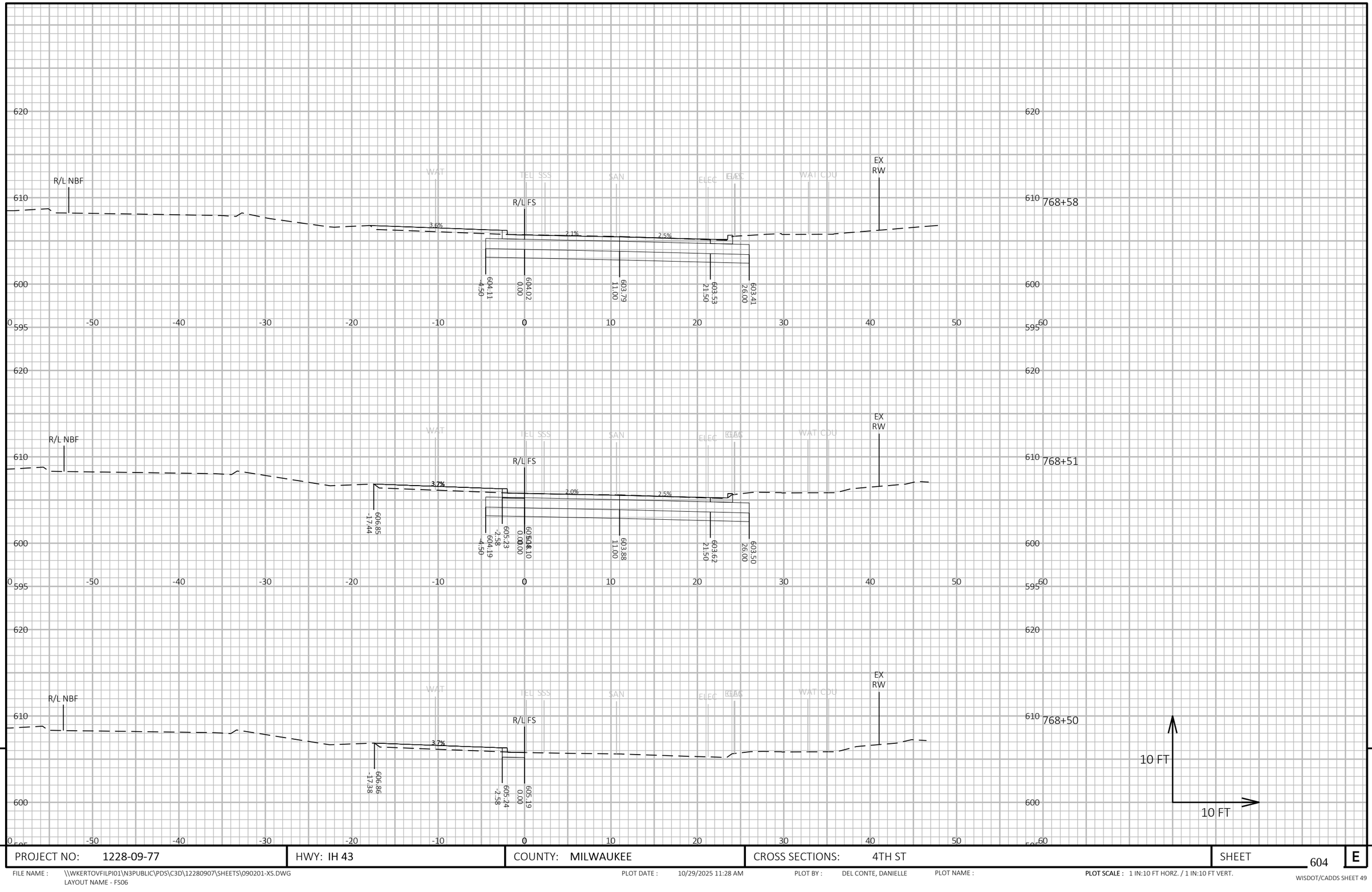
PLOT DATE : 10/29/2025 11:28 AM

PLOT BY : DEL CONTE, DANIELLE

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

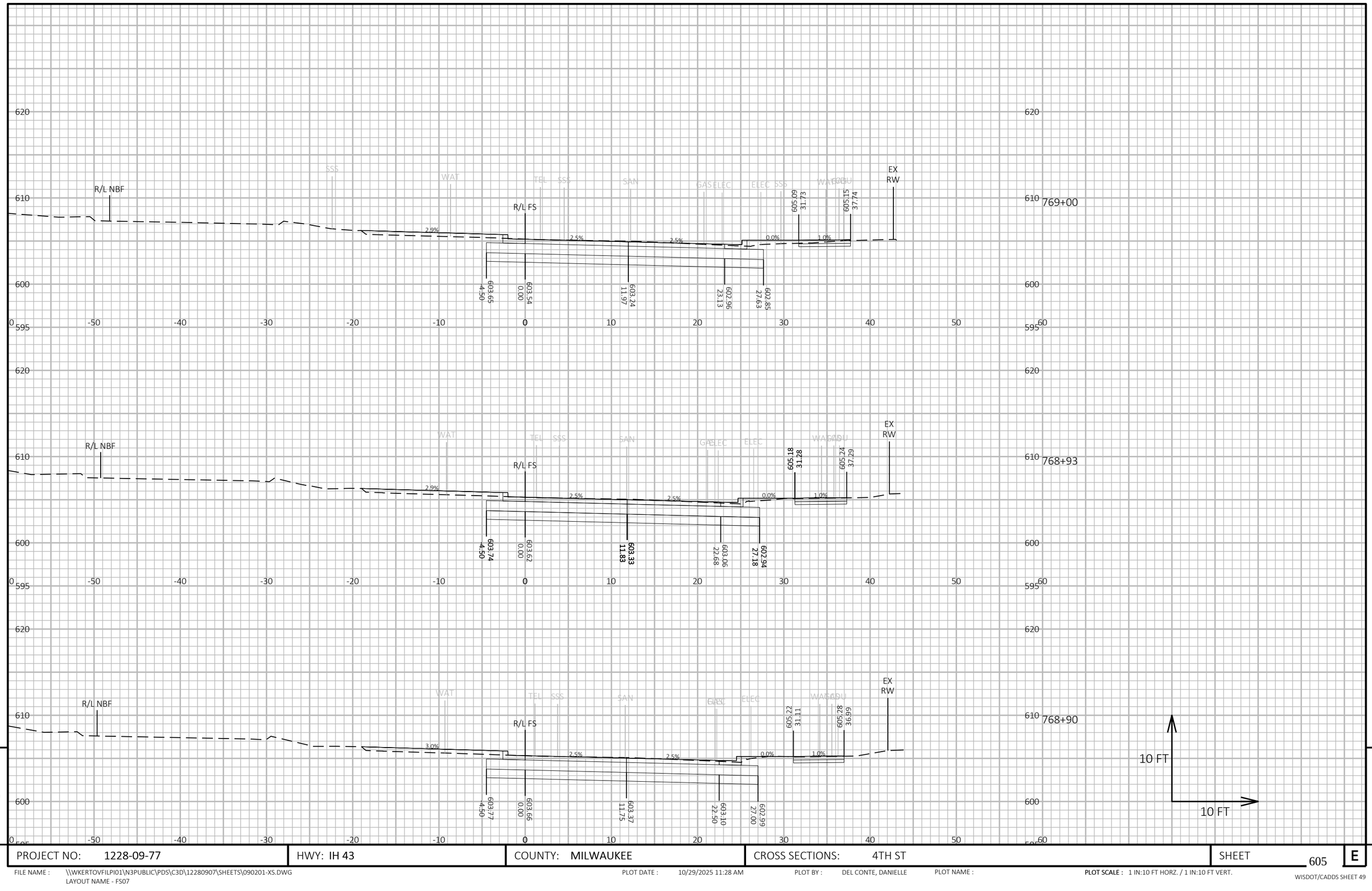


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: 4TH ST	SHEET 604 E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - FS06

PLOT DATE : 10/29/2025 11:28 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

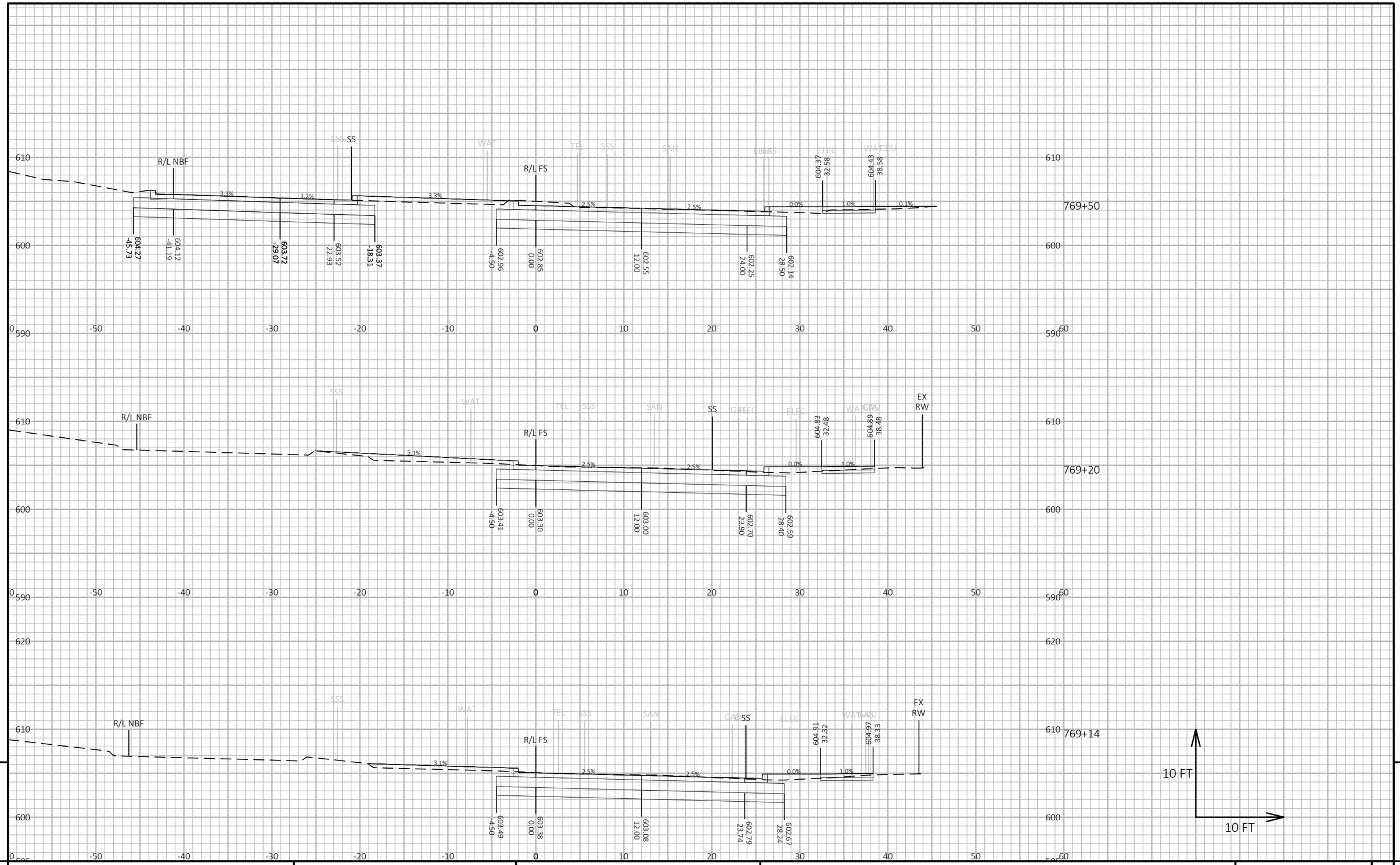


PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: 4TH ST	SHEET 605	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - FS07

PLOT DATE : 10/29/2025 11:28 AM PLOT BY : DEL CONTE, DANIELLE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1228-09-77	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: 4TH ST	SHEET 606	E

FILE NAME : \\WKERTOVFILPI01\N3PUBLIC\PDS\C3D\12280907\SHEETS\090201-XS.DWG
LAYOUT NAME - FS08

PLOT DATE : 10/29/2025 11:28 AM

PLOT BY : DEL CONTE, DANIELLE

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov