WKE

PROJECT ID: 2090-07-71

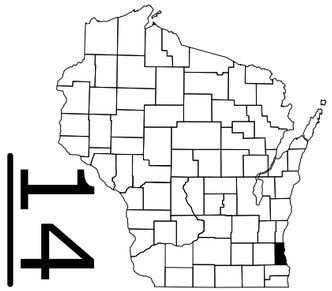
COUNTY: MILWAUKEE

MARCH 2025

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 = 510





DESIGN DESIGNATION 2090-07-01

A.A.D.T.	2024	=	27,400
A.A.D.T.	2044	=	28,800
D.H.V.		=	2,300
D.D.		=	50/50
T.		=	7.3%
DESIGN SPEED		=	35MPH
ESALS		=	

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
- 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)

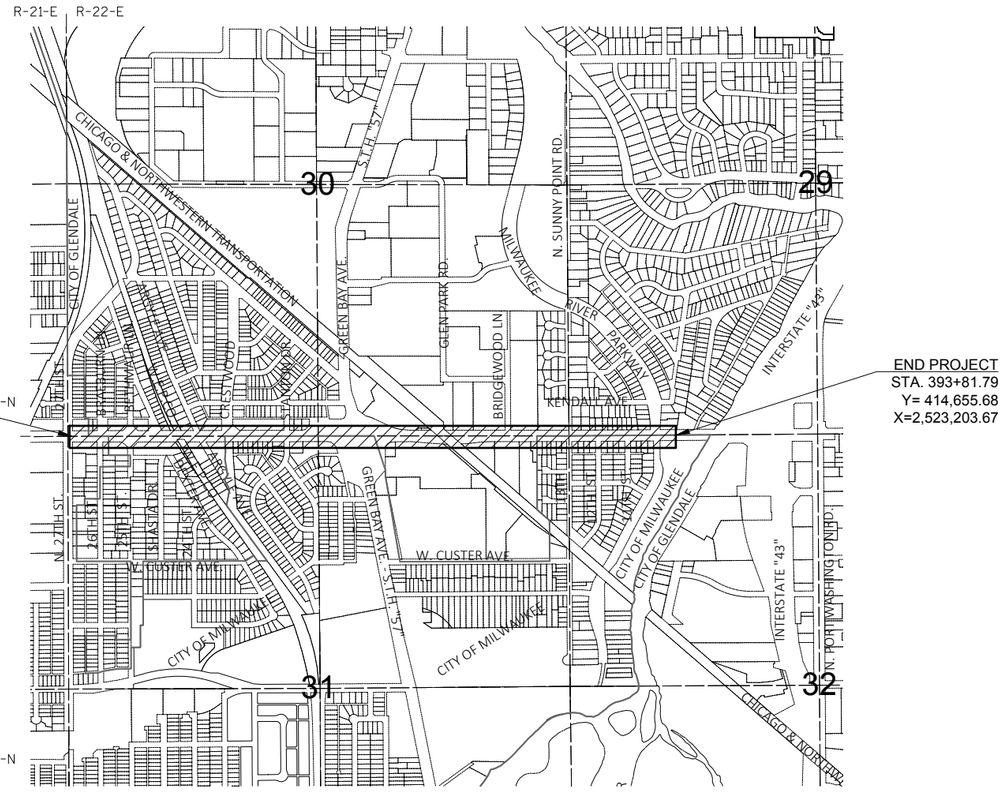
UTILITIES

- 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
C GLENDALE, SILVER SPRING DR
N. 27TH STREET TO N. MILWAUKEE RIVER PARKWAY
LOCAL STREET
MILWAUKEE COUNTY

STATE PROJECT NUMBER
2090-07-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2090-07-71	WISC 2025371	1



LAYOUT

SCALE 0 1600

SCALE: 1" = 800'

TOTAL NET LENGTH OF CENTERLINE = 1.227 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN STATE PLANE COORDINATES, NAD83 (2011) SOUTH ZONE, IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012)

Glendale Wisconsin
Rich Past • Bright Future

ACCEPTED FOR
CITY OF GLENDALE

Date 1-22-2025

(Signature and Title of Official)

ORIGINAL PLANS PREPARED BY

ClarkDietz

WISCONSIN
BENJAMIN W. METZLER
100872-6
LIBERTYVILLE, ILLINOIS
PROFESSIONAL ENGINEER

DATE: 1-22-2025

(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CLARK DIETZ, INC
Designer	CLARK DIETZ, INC
Project Manager	MICHAEL BAIRD
Regional Examiner	
Regional Supervisor	AMY TAETSCH

APPROVED FOR THE DEPARTMENT

DATE: 1-22-2025

(Signature)

E

UTILITY CONTACTS

AT&T LOCAL NETWORK
DALE DEFEVER
1000 TOWN CENTER, SUITE 150
SOUTHFIELD, MI 48075
PHONE: (586) 242-2671
DD2579@ATT.COM

AT&T WISCONSIN
JAY BULANEK
2005 PEWAUKEE ROAD
WAUKESHA, WI 53188
PHONE: (262) 896-7669
CELL: (414) 491-2855
JB5175@ATT.COM

AMERICAN TRANSMISSION COMPANY
JEFF VANDERWERFF
SR. UNDERGROUND T-LINE COORDINATOR
PHONE: (262)-206-4966
JVANDERWERFF@ATCLLC.COM

EVERSTREAM
SHAD GARCIA
324 E. WISCONSIN AVE., SUITE 730
MILWAUKEE, WI 53202
PHONE: (414) 409-1708
CELL: (414) 522-6685
SGARCIA@EVERSTREAM.NET

GLENDALE, CITY OF –LIGHTING
CHARLIE IMIG
5909 N MILWAUKEE RIVER PARKWAY
GLENDALE, WI 53209
PHONE: (414) 228-1742
C.IMIG@GLENDALE-WI.GOV

GLENDALE, CITY OF –SEWER
CHARLIE IMIG
5909 N MILWAUKEE RIVER PARKWAY
GLENDALE, WI 53209
PHONE: (414) 228-1742
C.IMIG@GLENDALE-WI.GOV

GLENDALE, CITY OF –SIGNALS
CHARLIE IMIG
5909 N MILWAUKEE RIVER PARKWAY
GLENDALE, WI 53209
PHONE: (414) 228-1742
C.IMIG@GLENDALE-WI.GOV

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

LEVEL 3 COMMUNICATIONS
BRAHIM GADDOUR
3235 INTERTECH DRIVE, SUITE 600
BROOKFIELD, WI 53045
PHONE: (414) 908-1027
CELL: (414) 704-1026
BRAHIM.GADDOUR@LUMEN.COM

MCI
NAME
DESCRIPTION-COMPANY
ADDRESS
CITY-STATE-ZIP
PHONE: PHONE-NUMBER
EMAIL: EMAIL-ADDRESS

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
TAYLOR TABBERT
260 W SEEBOTH STREET
MILWAUKEE, WI 53204
PHONE: (414) 225-2219
CELL: (414) 617-1429
TTABBERT@MMSD.COM

TIME WARNER CABLE
NAME
DESCRIPTION-COMPANY
ADDRESS
CITY-STATE-ZIP
PHONE: PHONE-NUMBER
EMAIL: EMAIL-ADDRESS

WE ENERGIES -ELECTRIC
NICHOLAS WELCH
W140 N9100 LILLY ROAD
MENOMONEE FALLS, WI 53051
PHONE: (262) 502-6882
CELL: (414) 791-0406
NICHOLAS.WELCH@WE-ENERGIES.COM
EMERGENCY DISPATCH: (800) 662-4797

WE ENERGIES -GAS
BRADLEY ENGNATH
500 S. 116TH STREET
WEST ALLIS, WI 53214
PHONE: (414) 944-5767
CELL: (414) 588-7641
BRADLEY.ENGNATH@WE-ENERGIES.COM
EMERGENCY DISPATCH: (800) 261-5325

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVALS
LAYOUT - ROADWAY
LAYOUT - MUP & SIDEWALK
GRADES - ROADWAY
INTERSECTION DETAILS
CURB RAMP DETAILS
BUS STOP DETAILS
HAZMAT PLAN
EROSION CONTROL
STORM SEWER & UTILITIES
PERMANENT SIGNING & MARKING
EXISTING LIGHTING REMOVALS
PROPOSED LIGHTING
TRAFFIC SIGNAL PLAN
TRAFFIC CONTROL
ALIGNMENTS

STATE AGENCIES

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
RYAN PAPPAS
SOUTHEASTERN REGION HEADQUARTERS
1027 W. ST. PAUL AVE.
MILWAUKEE WI 53233-2641
PHONE: (414) 750-7495
RYAN.PAPPAS@WISCONSIN.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION
MICHAEL BAIRD
PROJECT MANAGER
141 NW BARSTOW STREET
WAUKESHA, WI 53187-0798
PHONE: (262) 548-6718
MICHAEL.BAIRD@DOT.WI.GOV

OTHER AGENCIES

MILWAUKEE COUNTY –ROAD FACILITY
DANIEL MURPHY
10320 WATERTOWN PLANK RD
WAUWATOSA, WI 53226
PHONE: (414) 257-5942
DANIEL.MURPHY@MILWAUKEECOUNTYWI.GOV

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
ROB MERRY
W239 N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
PHONE: (262) 953-4289
CELL: (920) 912-1036
RMERRY@SEWRPC.ORG

MILWAUKEE COUNTY –TRANSPORTATION SERVICES
ANDREA WEDDLE-HENNING
10320 WATERTOWN PLANK RD
WAUWATOSA, WI 53226
PHONE: (414) 257-5934
ANDREA.WEDDLE-HENNING@MILWAUKEECOUNTYWI.GOV

UNION PACIFIC RAILROAD COMPANY
KYLE NODGAARD
2111 S. 67THSTREET
OMAHA, NE 68106
PHONE: (531) 710-3419
KNODGAARD@OLSSON.COM

MILWAUKEE COUNTY –HIGHWAY MAINTENANCE
EDUARDO SANTIAGO
10320 WATERTOWN PLANK RD
WAUWATOSA, WI 53226
PHONE: (414) 257-6569
EDUARDO.SANTIAGO@MILWAUKEECOUNTYWI.GOV

MILWAUKEE COUNTY TRANSIT SYSTEM (MCTS) – TRANSPORTATION COORDINATOR (DETOURS)
ARMOND SENSABAUGH
1942 N. 17THSTREET
MILWAUKEE, WI 53205
PHONE: (414) 343-1728
ASENSABAUGH@MCTS.ORG

MILWAUKEE COUNTY TRANSIT SYSTEM (MCTS) – TRANSPORTATION MANAGER (BUS STOPS)
DAVID LOCHER
1942 N. 17THSTREET
MILWAUKEE, WI 53205
PHONE: (414) 343-1727
DLOCHER@MCTS.ORG

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

DESIGN CONTACTS - CLARK DIETZ, INC.

BENJAMIN W. METZLER, PE
625 57TH STREET, 6TH FLOOR
KENOSHA, WI 53140
PHONE: (262) 842-2420
BEN.METZLER@CLARKDIETZ.COM

SYMBOL LEGEND

CABLE TV PEDESTAL	YARD LIGHT
SATELLITE DISH	SPRINKLER CONTROL BOX
TELEPHONE BOX	SPRINKLER HEAD
TELEPHONE BOOTH	GAS SERVICE BOX
TELEPHONE POLE	GAS METER
TELEPHONE MANHOLE	GAS REGULATOR
TELEPHONE PEDESTAL	GAS VALVE
	GAS VENT PIPE
FIRE HYDRANT	REFLECTIVE PAVEMENT MARKER 1 WAY
FLUSH OUT HYDRANT	REFLECTIVE PAVEMENT MARKER 2 WAY
WATER SPIGOT	RAILROAD FLASHING SIGNAL
WATER SERVICE BOX	RAILROAD CROSSING GATE
WELL	RAILROAD CROSSBUCK
WATER METER	CLEANOUT
WATER MANHOLE	LIFT STATION
WATER VALVE	SANITARY MANHOLE
ELECTRIC BOX	SEPTIC TANK
ELECTRIC METER	SEPTIC TANK VENT
ELECTRIC MANHOLE	END SECTION METAL
ELECTRIC PEDESTAL	CATCH BASIN
FLOOD LIGHT	CATCH BASIN SQUARE
HANDHOLE	DOWNSPOUT
ORNAMENTAL STREET LIGHT	END SECTION CONCRETE
PARKING LOT LIGHT DOUBLE	INLET AT CURB
PARKING LOT LIGHT SINGLE	STORM MANHOLE
POWER POLE	BENCHMARK
POWER POLE WITH LIGHT	CHISLED X
POWER POLE W/TRANSFORMER	DATA COLLECTION POINT
POWER POLE W/TRANSFORMER & LIGHT	MONUMENT
STREET LIGHT	PK NAIL
TRANSFORMER BOX	TRAVERSE POINT
ANTENNA	QUARTER CORNER
BOLLARD	RIGHT-OF-WAY MARKER
CATTLE PASS	SECTION CORNER
DELINEATOR	WITNESS CORNER
DRAINAGE MARKER	PRIVATE SIGN POST
FLAG POLE	STREET SIGN
GUY POLE	TRAFFIC SIGN
GUY WIRE	BUSH
MAILBOX	CONIFEROUS TREE
PARKING BLOCK	DECIDUOUS TREE
PILLAR	STUMP
POST OR MISC. POLE	JUNCTION BOX
GATE POST	STRAIN POLE
GAS TANK FILLER CAP	TRAFFIC SIGNAL MAST ARM
INSPECTION WELL	TRAFFIC SIGNAL CONTROLLER
METER UNKNOWN	TRAFFIC SIGNAL POST 2 WAY
MANHOLE	TRAFFIC SIGNAL POST 3 WAY
PUMP	TRAFFIC SIGNAL PED. SIGNAL HEAD
UTILITY RISER AT POLE	TRAFFIC SIGNAL PED. PUSH BUTTON
UTILITY WARNING SIGN	CORES IN PAVEMENT
VALVE UNKNOWN	SOIL BORING
VENT PIPE	AIR CONDITIONER

LINESTYLE LEGEND

EXISTING ACCESS CONTROL	
PROPOSED ACCESS CONTROL	
BREAK	
CABLE TV LINE	
CABLE TV (FIBER OPTIC) LINE	
OVERHEAD CABLE TV LINE	
COMMUNICATION LINE	
DITCH LEFT (PROFILE)	
DITCH RIGHT (PROFILE)	
ELECTRIC CONDUIT	
OVERHEAD ELECTRIC LINE	
UNDERGROUND ELECTRIC LINE	
FENCE	
FIBER OPTIC LINE	
EXISTING FLOW LINE	
GAS (SIZE)	
EXISTING GUARD RAIL	
PROPOSED GUARD RAIL	
EXISTING HAND RAIL	
PROPOSED HAND RAIL	
HEATED WATER	
HEDGE LINE	
KEYWAY	
SANITARY LATERAL	
PERMANENT EASEMENT	
PM CROSSWALK	
PROPERTY LINE	
EXISTING RIGHT-OF-WAY	
PROPOSED RIGHT-OF-WAY	
RAIL ROAD TRACKS	
RAW WATER LINE (SIZE)	
REMOVAL - 1	
REMOVAL - 2	
REVERSE SLOPE	
SANITARY PIPE	
COMBINATION SEWER PIPE	
SANITARY FORCE MAIN	
SECTION LINE	
DWG PILING	
SILT FENCE	
STAGE CONSTRUCTION JOINT	
STORM EXISTING	
STORM PROPOSED	
OVERHEAD TELEPHONE (FIBER OPTIC)	
UNDERGROUND TELEPHONE (FIBER OPTIC)	
OVERHEAD TELEPHONE	
UNDERGROUND TELEPHONE	
TEMPORARY CONSTRUCTION EASEMENT - 1	
TEMPORARY CONSTRUCTION EASEMENT - 2	
TEMPORARY TREE EASEMENT	
EXISTING TOP/BOTTOM OF SLOPE	
PROPOSED TOP/BOTTOM OF SLOPE	
TREE LINE	
UNDERDRAIN LINE	
WATER LINE (SIZE)	
WATER IRRIGATION LINE	

ABBREVIATIONS

AGG.	AGGREGATE
BC, BOC, B/C	BACK OF CURB
CL, C/L	CENTER LINE
EP, EOP, E/P	EDGE OF PAVEMENT
FL, F/L	FLOW LINE
R/L	REFERENCE LINE
RP	RADIUS POINT
RW, R/W, ROW	RIGHT-OF-WAY
NML	NORMAL
EB	EAST BOUND
WB	WEST BOUND
SPCL	SPECIAL

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 115 LBS/SY/IN.

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

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

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.

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.

PIPE ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS, MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

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.

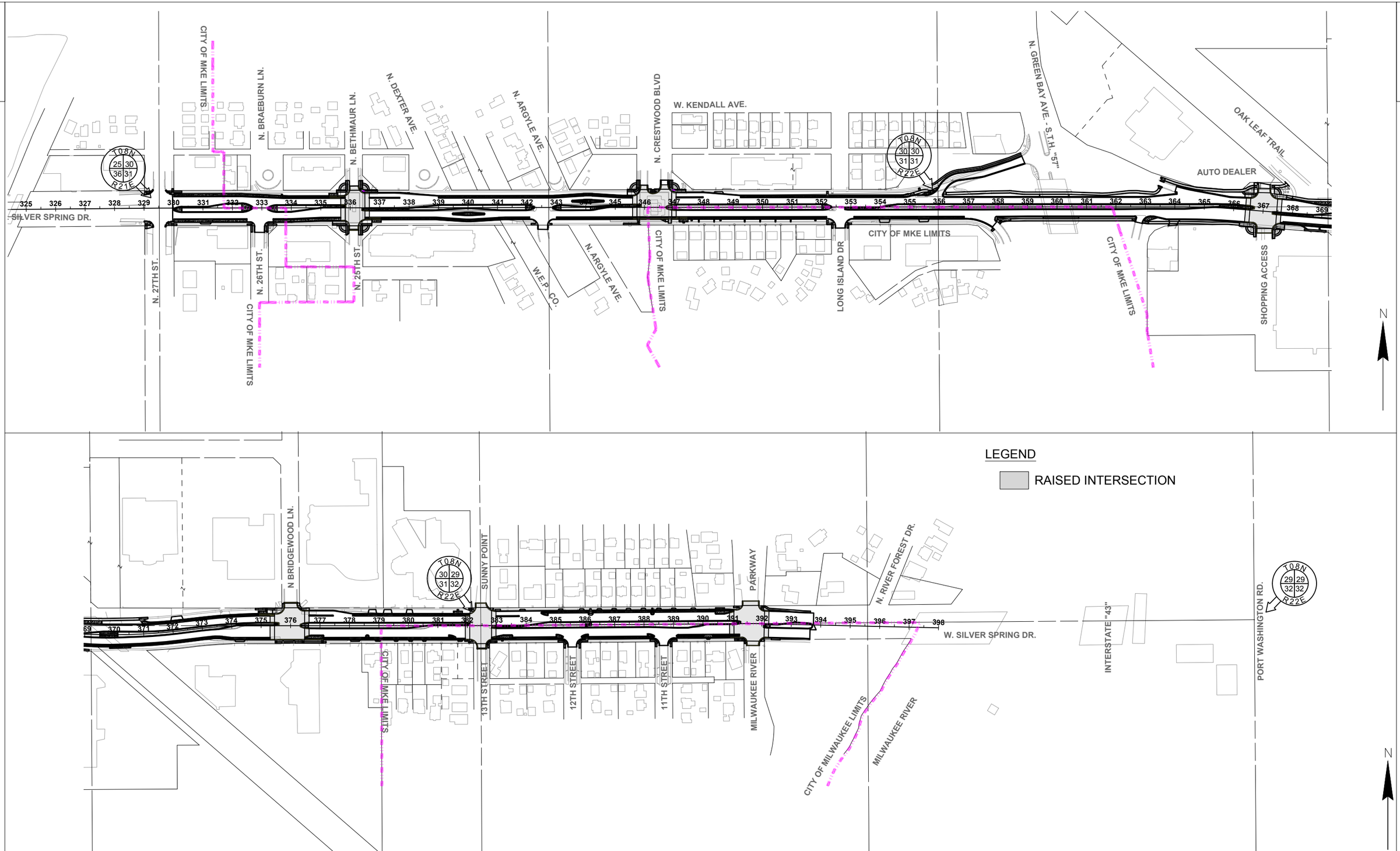
TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

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.

SOIL BORING LOG

"BORE NO."	APPROXIMATE STATION	APPROXIMATE STATION OFFSET	LATITUDE	LONGITUDE	"ASPHALT DEPTH (IN.)"	"CONCRETE PAVEMENT DEPTH (IN.)"	"BASE COURSE DEPTH (IN.)"
B - 1	336+36	2.5 RT	43.1191	-87.9437	2.0	10.0	6-8
B - 2	339+29	30 RT	43.1190	-87.9426	4.0	10.0	6-8
B - 3	343+00	20 RT	43.1190	-87.9412	5.0	10.0	6-8
B - 4	346+75	24 LT	43.1191	-87.9398	2.0	12.0	6-8
B - 5	348+65	29 LT	43.1191	-87.9391	5.0	10.0	6-8
B - 6	352+65	38 LT	43.1191	-87.9376	4.0	6.0	6-8
B - 7	357+45	13 LT	43.1190	-87.9358	4.0	10.0	6-8
B - 8	364+11	40 RT	43.1188	-87.9333	3.0	11.0	6-8
B - 9	366+53	8 LT	43.1189	-87.9324	9.0	0.0	6-8
B - 10	371+87	33 RT	43.1187	-87.9304	4.0	10.0	6-8
B - 11	376+12	18 LT	43.1189	-87.9288	12.0	0.0	6-8
B - 12	378+58	41 RT	43.1187	-87.9279	4.0	10.0	6-8
B - 13	381+77	35 LT	43.1189	-87.9267	4.0	12.0	6-8
B - 14	386+84	15 LT	43.1188	-87.9248	4.0	10.0	6-8
B - 15	391+39	17 LT	43.1188	-87.9248	4.0	10.0	6-8



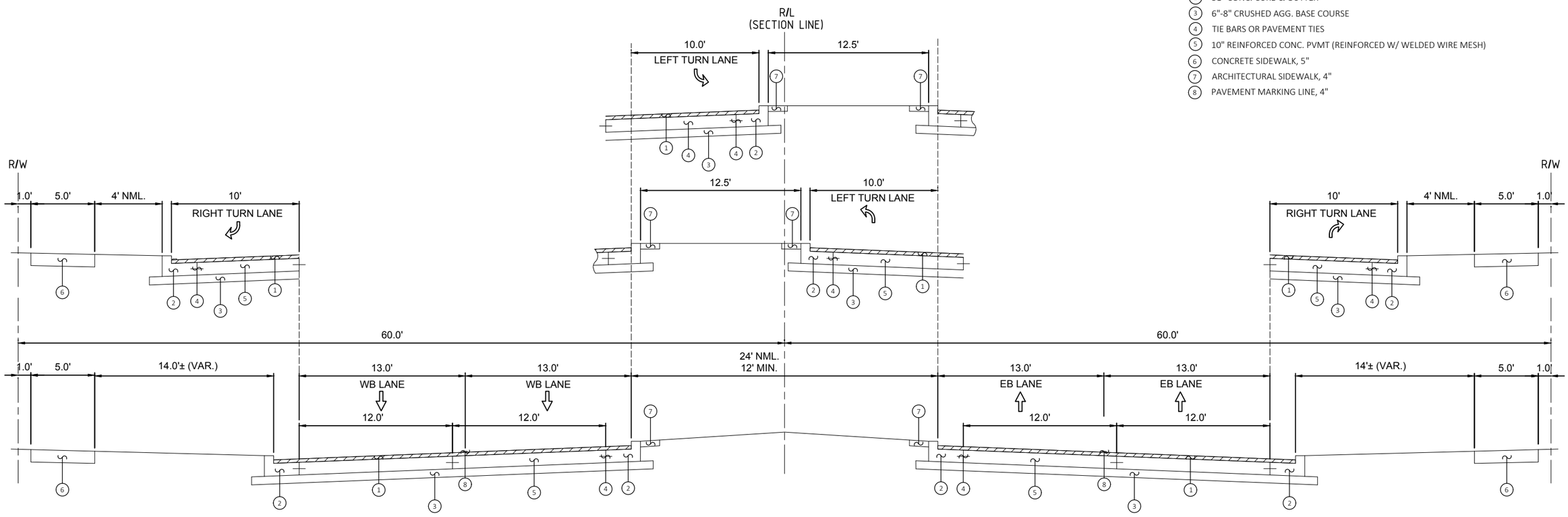
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 4	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PROJECT OVERVIEW.DWG PLOT DATE : 1/23/2025 2:06 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 300'

2

EXISTING TYPICAL SECTION KEY

1. 4"-5", ASPHALT SURFACE
2. 31" CONC. CURB & GUTTER
3. 6"-8" CRUSHED AGG. BASE COURSE
4. TIE BARS OR PAVEMENT TIES
5. 10" REINFORCED CONC. PVMT (REINFORCED W/ WELDED WIRE MESH)
6. CONCRETE SIDEWALK, 5"
7. ARCHITECTURAL SIDEWALK, 4"
8. PAVEMENT MARKING LINE, 4"

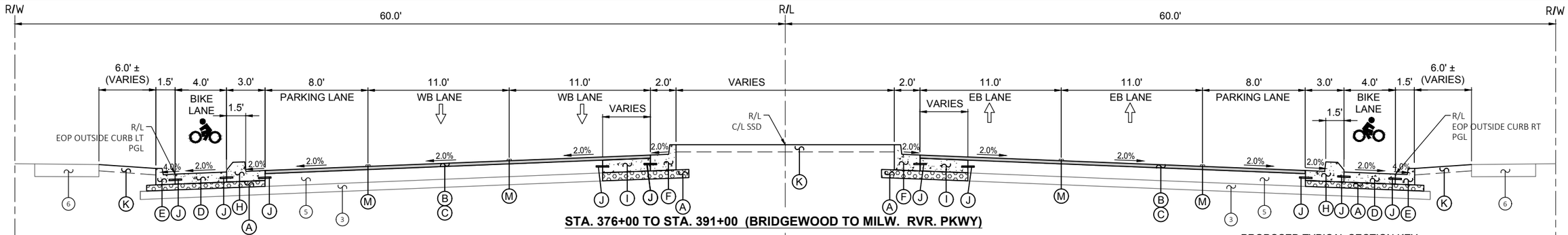


EXISTING TYPICAL SECTION

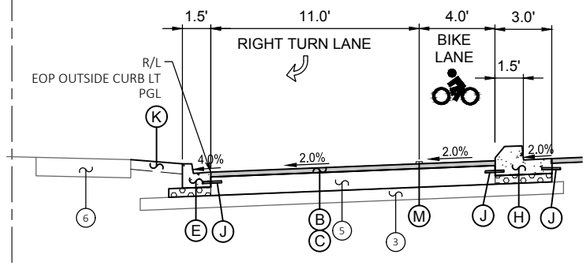
W. SILVER SPRING DRIVE
STA. 329+00 - STA. 391+00

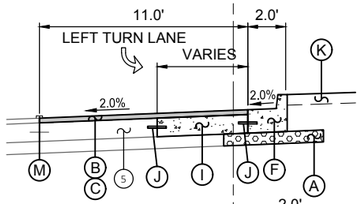
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	EXISTING TYPICAL SECTION	SHEET 5	E

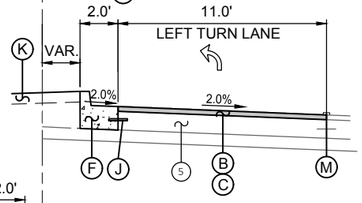
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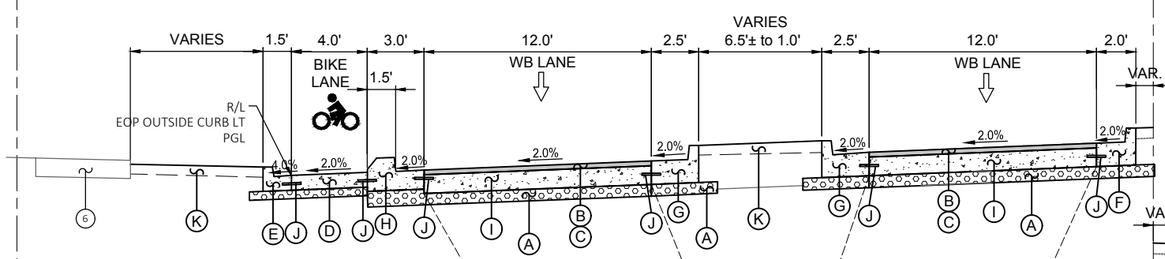


STA. 376+00 TO STA. 391+00 (BRIDGEWOOD TO MILW. RVR. PKWY)

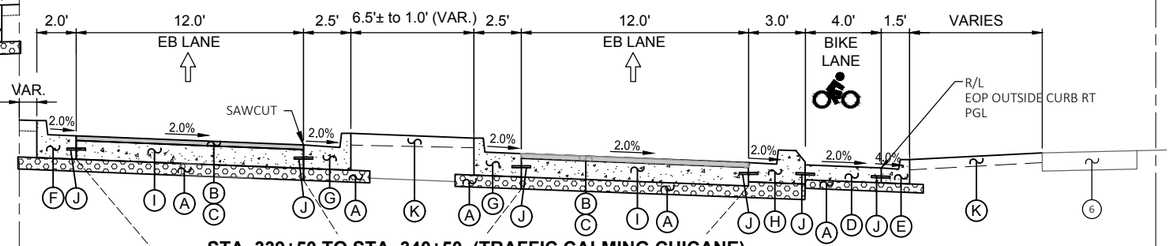




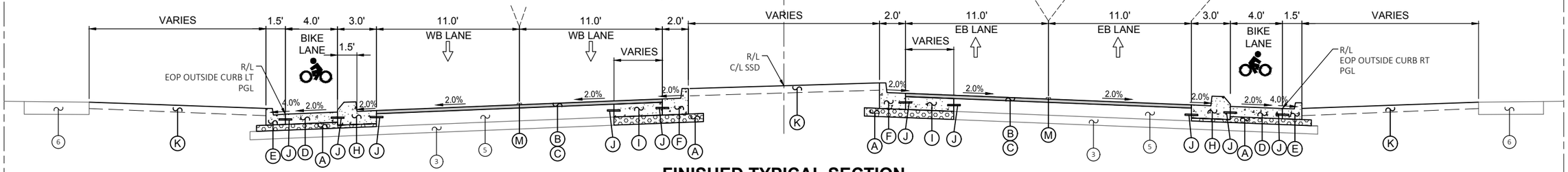




STA. 343+50 TO STA. 344+50 (TRAFFIC CALMING CHICANE)



STA. 339+50 TO STA. 340+50 (TRAFFIC CALMING CHICANE)



FINISHED TYPICAL SECTION

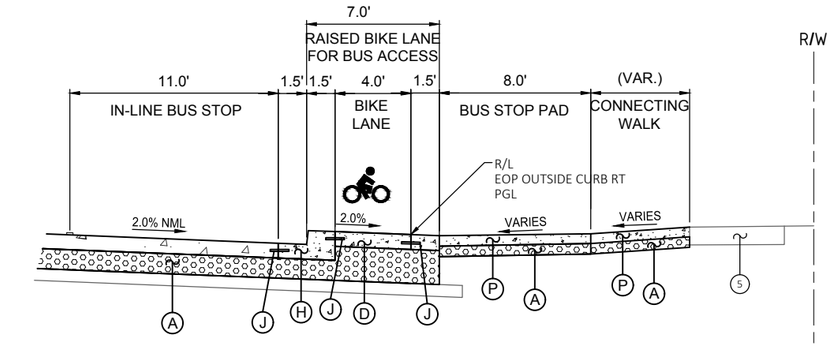
W. SILVER SPRING DRIVE
STA. 329+00 - STA. 355+00

PROPOSED TYPICAL SECTION KEY

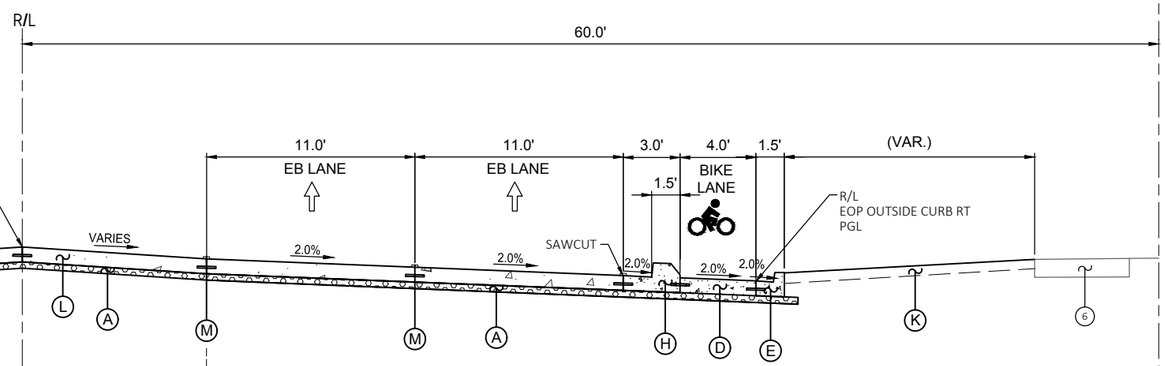
- (A) BASE AGGREGATE DENSE 1 1/4-INCH, 6"
- (B) HMA PAVEMENT 3MT 58-28 S, 1.75"
- (C) HMA PAVEMENT 4MT 58-34 S, 1.75"
- (D) CONCRETE PAVEMENT 6-INCH
- (E) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (F) CONCRETE CURB & GUTTER 24-INCH TYPE A
- (G) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (H) CONCRETE CURB & GUTTER 36-INCH TYPE A
- (I) CONCRETE BASE, 10-INCH
- (J) DRILLED TIE BARS
- (K) TOPSOIL (6"), SOD LAWN, FERTILIZER TYPE B
- (L) CONCRETE PAVEMENT 10-INCH
- (M) MARKING LINE EPOXY 4-INCH
- (3) EXISTING 6"-8" CRUSHED AGG. BASE COURSE (TO REMAIN)
- (5) EXISTING 10" REINFORCED CONC. PAVEMENT (TO REMAIN)
- (6) EXISTING CONCRETE SIDEWALK, 5" (TO REMAIN)

PROPOSED TYPICAL SECTION KEY

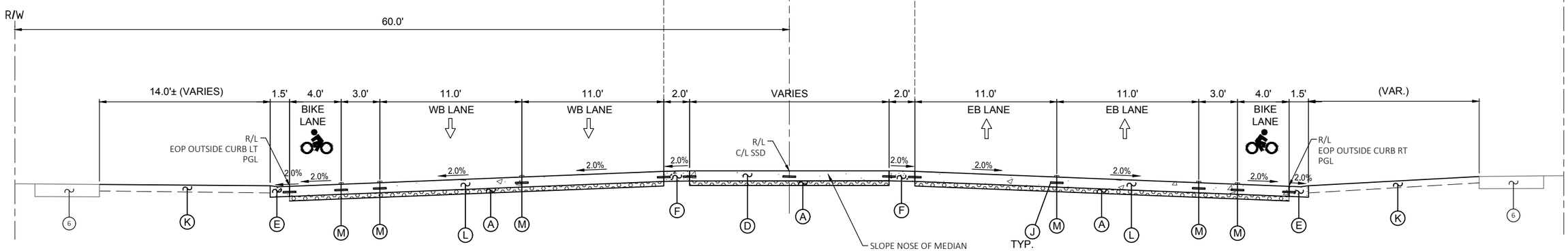
- (A) BASE AGGREGATE DENSE 1 1/4 -INCH, 6"
- (B) HMA PAVEMENT 3MT 58-28 S, 1.75"
- (C) HMA PAVEMENT 4MT 58-34 S, 1.75"
- (D) CONCRETE PAVEMENT 6-INCH
- (E) CONCRETE CURB & GUTTER, 18", TYPE A
- (F) CONCRETE CURB & GUTTER, 24", TYPE A
- (G) CONCRETE CURB & GUTTER, 30", TYPE A
- (H) CONCRETE CURB & GUTTER, 36", TYPE A
- (I) CONCRETE BASE 10-INCH
- (J) DRILLED TIE BARS
- (K) TOPSOIL (6"), SOD LAWN, FERTILIZER TYPE B
- (L) CONCRETE PAVEMENT 10-INCH
- (M) MARKING LINE EPOXY 4-INCH
- (N) BASE AGGREGATE DENSE 1 1/4 -INCH, 12"
- (O) HMA PAVEMENT 4MT 58-34 S, 3"
- (P) CONCRETE SIDEWALK 5-INCH
- (3) EXISTING 6"-8" CRUSHED AGG. BASE COURSE (TO REMAIN)
- (5) EXISTING 10" REINFORCED CONC. PAVEMENT (TO REMAIN)
- (6) EXISTING CONCRETE SIDEWALK, 5" (TO REMAIN)



TYPICAL FINISHED BUS STOP



RAISED "T" INTERSECTIONS

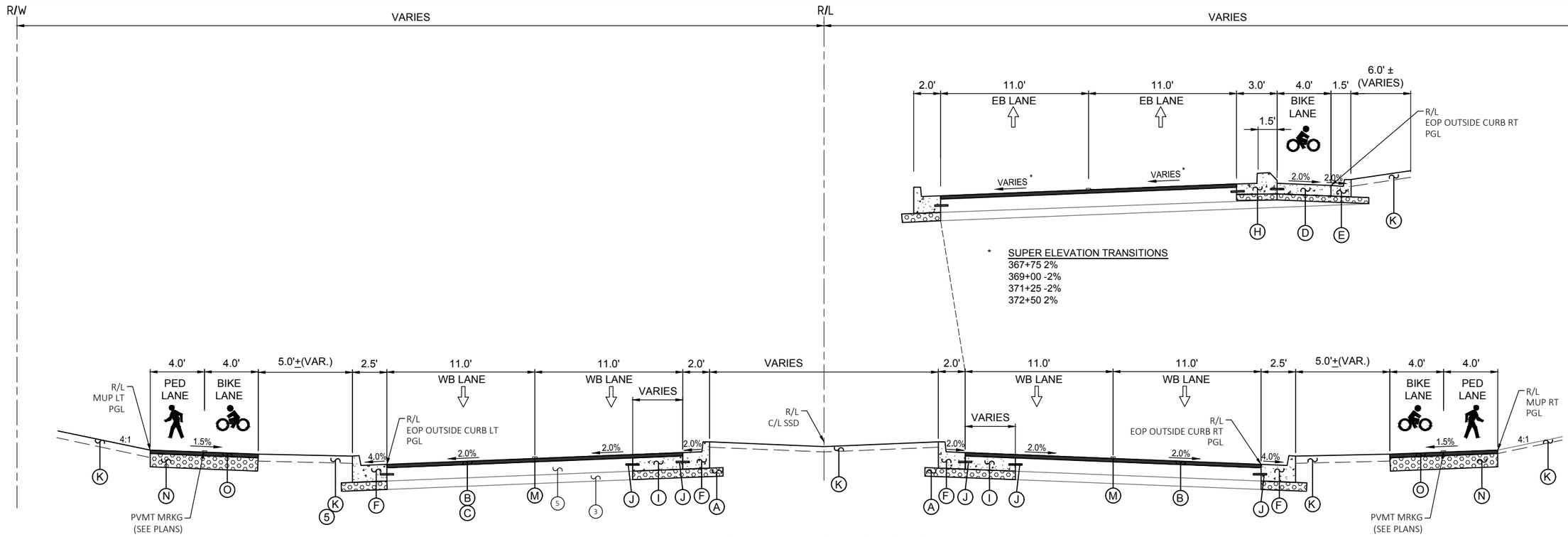


FINISHED TYPICAL SECTION

W. SILVER SPRING DRIVE
AT RAISED INTERSECTIONS

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PROPOSED TYPICAL SECTION	SHEET 7	E

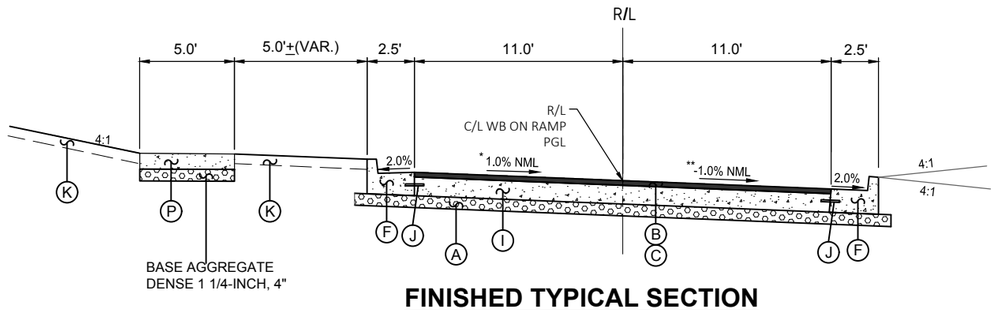
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\TYPICAL SECTIONS.DWG PLOT DATE : 1/23/2025 2:06 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE :



MUP (MULTI-USE PATH)
STA 12+34 - 56+78 (LT)

FINISHED TYPICAL SECTION
STA. 358+00 TO STA. 368+00

MUP (MULTI-USE PATH)
STA 87+65-43+21(RT)



FINISHED TYPICAL SECTION
WEST BOUND ON RAMP

* SUPER ELEVATION TRANSITIONS (LEFT)

10+70 TO 11+45	2.00%
11+45 TO 11+75	1.00%
11+75 TO 12+75	1.00%
12+75 TO 13+69 (MATCH EXIST)	-1.79%

** SUPER ELEVATION TRANSITIONS (RIGHT

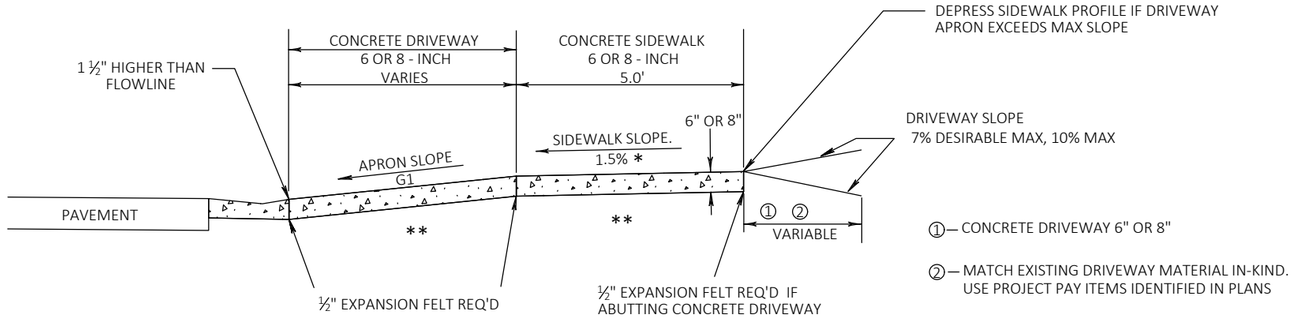
10+70 TO 11+45	-2.00%
11+45 TO 11+75	-1.00%
11+75 TO 12+75	-1.00%
12+75 TO 13+69 (MATCH EXIST)	-2.00%

PROPOSED TYPICAL SECTION KEY

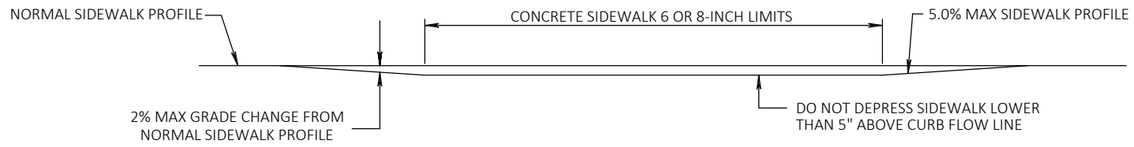
- (A) BASE AGGREGATE DENSE 1 1/4-INCH, 6"
- (B) HMA PAVEMENT 3MT 58-28 S, 1.75"
- (C) HMA PAVEMENT 4MT 58-34 S, 1.75"
- (D) CONCRETE PAVEMENT 6-INCH
- (E) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (F) CONCRETE CURB & GUTTER 24-INCH TYPE A
- (G) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (H) CONCRETE CURB & GUTTER 36-INCH TYPE A
- (I) CONCRETE BASE 10-INCH
- (J) DRILLED TIE BARS
- (K) TOPSOIL (6"), SOD LAWN, FERTILIZER TYPE B
- (L) CONCRETE PAVEMENT 10-INCH
- (M) MARKING LINE EPOXY 4-INCH
- (N) BASE AGGREGATE DENSE 1 1/4-INCH, 12"
- (O) HMA PAVEMENT 4MT 58-34 S, 3"
- (P) CONCRETE SIDEWALK 5-INCH
- (3) EXISTING 6"-8" CRUSHED AGG. BASE COURSE (TO REMAIN)
- (5) EXISTING 10" REINFORCED CONC. PAVEMENT (TO REMAIN)
- (6) EXISTING CONCRETE SIDEWALK, 5" (TO REMAIN)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PROPOSED TYPICAL SECTION	SHEET 8	E

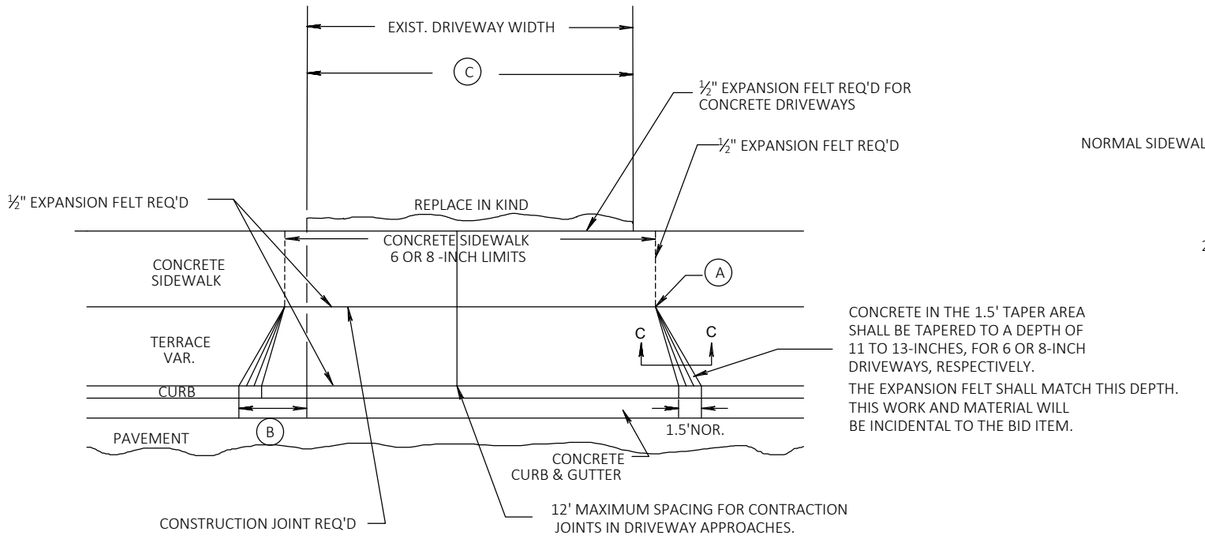
2



TYPICAL SIDEWALK SECTION



DEPRESSED SIDEWALK PROFILE DETAIL



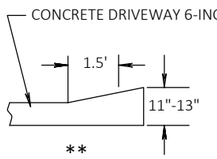
PLAN VIEW

Ⓐ ALIGN TAPER WITH BACK OF SIDEWALK @ DRIVE

Ⓑ SEE TABLE FOR APPLICABLE DIMENSIONS

DIMENSIONS		DRIVEWAY CLASS I	II	III
MAX. WIDTH (FT)	Ⓒ	20	30	40
MAX. CURB CUT (FT)	C+2B	25	40	70
MIN. WIDTH (FT)	Ⓒ	8	18	35
MIN. CURB CUT (FT)	C+2B	13	28	65
MAX. FLARE (FT)	Ⓑ	2.5	5	15

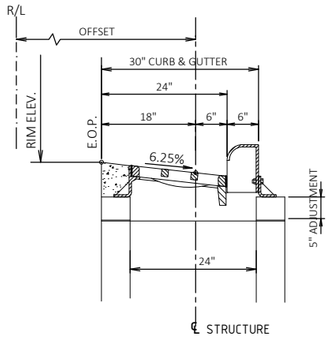
CLASS I : RESIDENTIAL
CLASS II : BUSINESS
CLASS III : BUSINESS OR MANUFACTURING WITH BUS AND SEMI-TRAILER TRUCK TRAFFIC



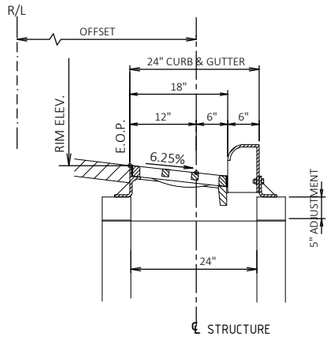
SECTION C-C

DRIVEWAY ENTRANCE DETAIL WITH TERRACE & SIDEWALK

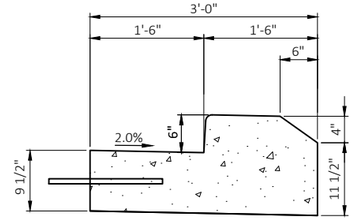
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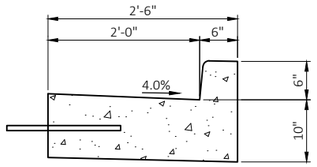
30" CURB & GUTTER DETAIL AT INLETS



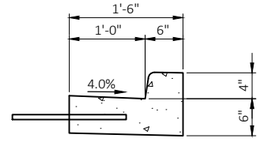
24" CURB & GUTTER DETAIL AT INLETS



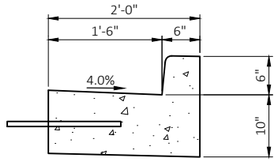
CONCRETE CURB & GUTTER 36-INCH, TYPE A



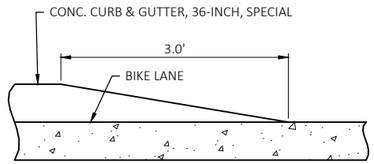
CONCRETE CURB & GUTTER 30-INCH, TYPE A



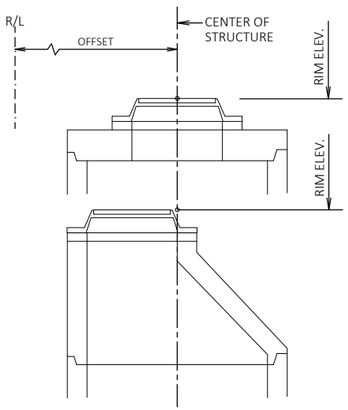
CONCRETE CURB & GUTTER 18-INCH, TYPE A



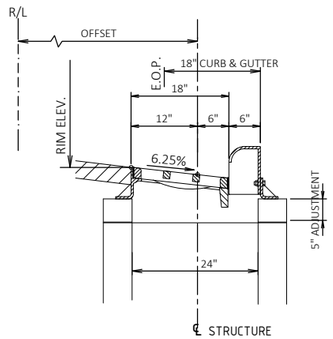
CONCRETE CURB & GUTTER 24-INCH, TYPE A



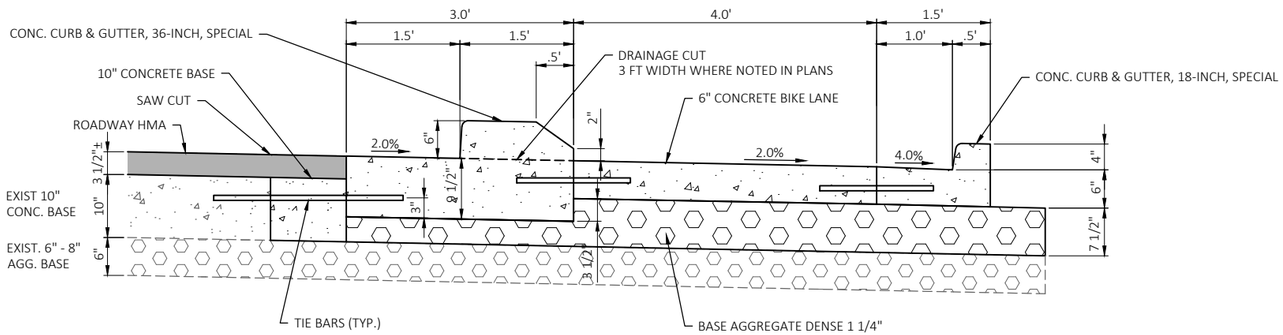
BIKE CURB - CURB CUT TAPER DETAIL



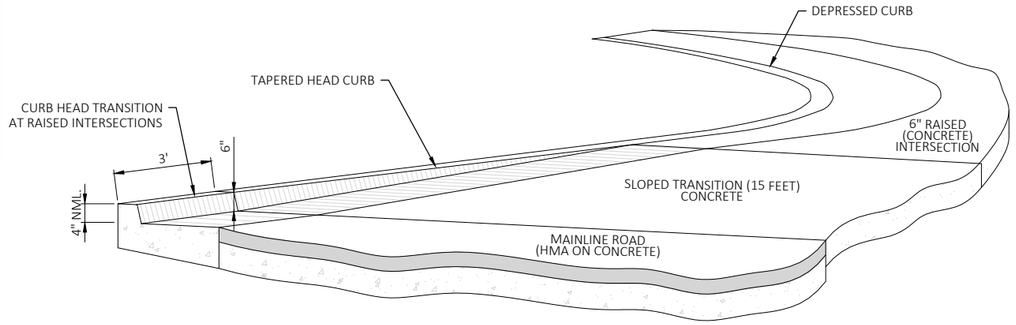
MANHOLES



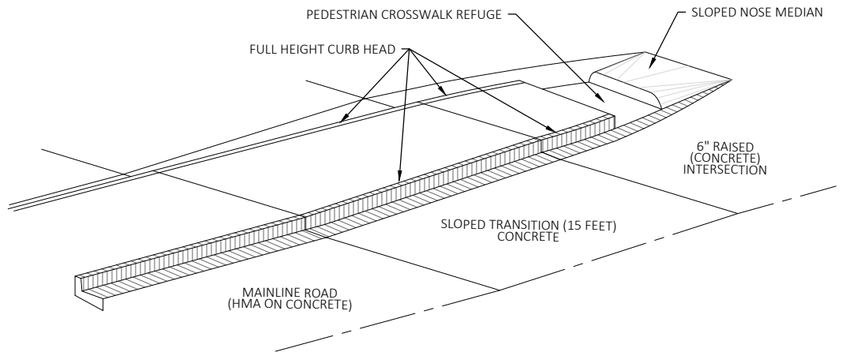
18" CURB & GUTTER DETAIL AT INLETS



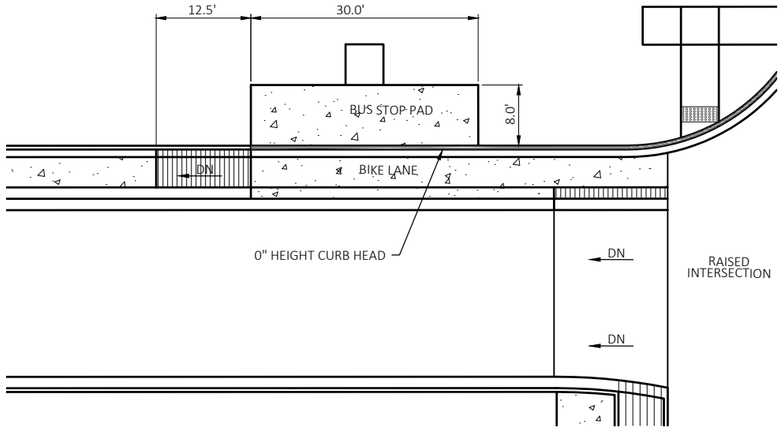
CONCRETE BIKE LANE DETAIL



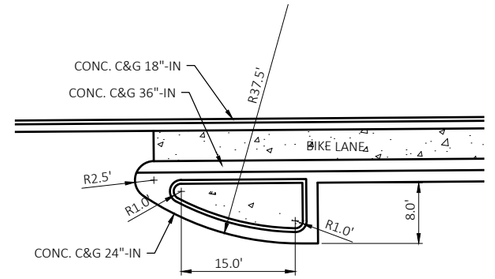
RAISED INTERSECTION DETAIL



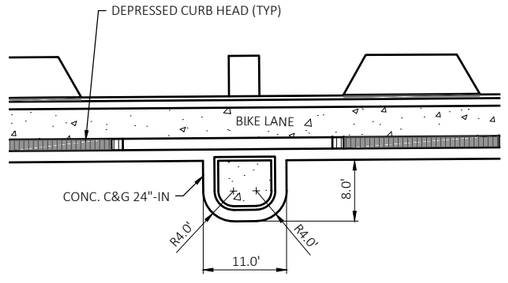
SLOPED NOSED MEDIAN @ RAISED INTERSECTION DETAIL



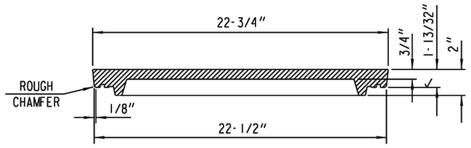
BUS STOP DETAIL



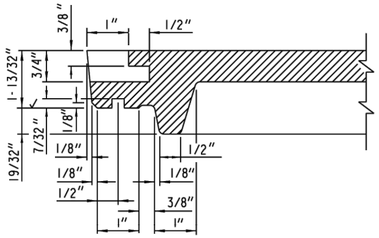
CURB ISLAND DETAILS



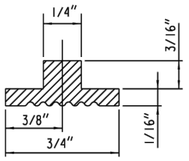
CURB ISLAND DETAILS

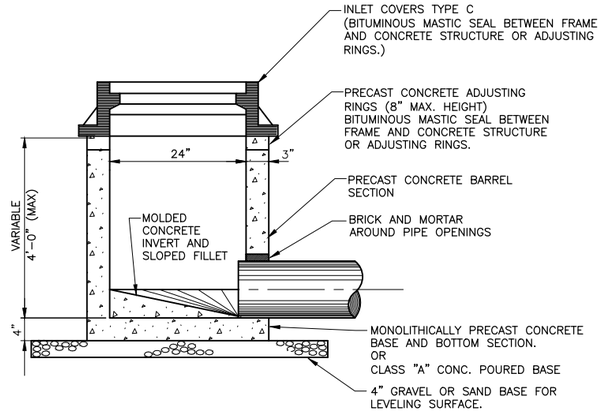


SECTION A-A

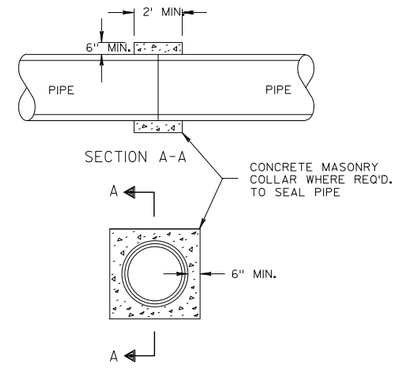


SECTION B-B

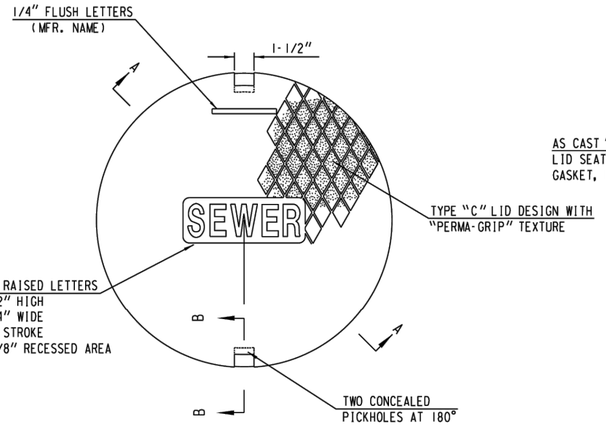




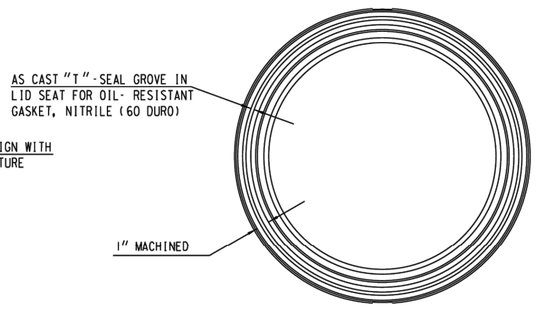
INLET 2-FT DIAMETER DETAIL



CONCRETE COLLAR DETAIL



TOP VIEW



BOTTOM VIEW

MANHOLE COVER - TYPE MS58A

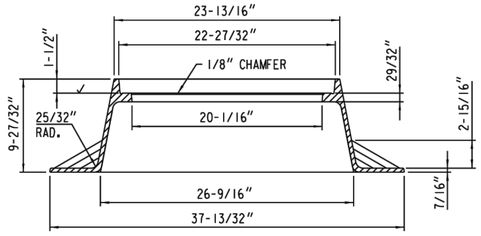
LID - 107 LBS.

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:

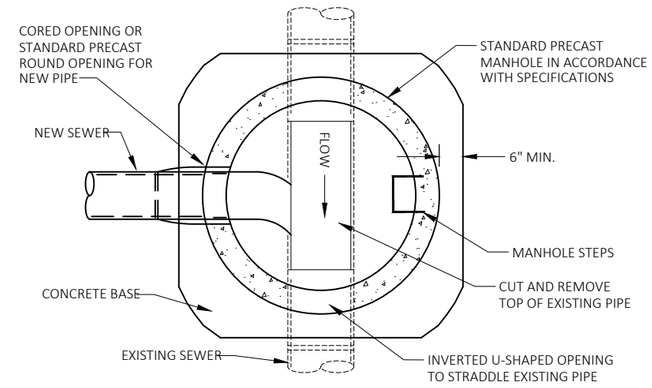
1. THE INITIALS OR MONOGRAM OF THE FOUNDRY.
2. THE CONTRACT NUMBER AND YEAR MADE.
3. THE CASTING IDENTIFICATION NUMBER.
4. THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

NOTE: ALL EXTERIOR EDGES SHALL BE GROUND.

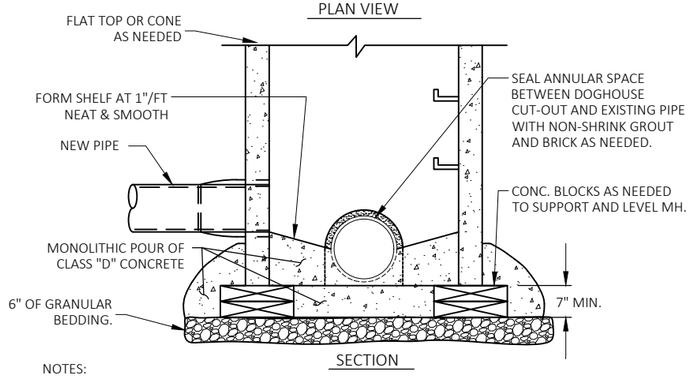


MANHOLE FRAME - TYPE MS21

FRAME - 182 LBS.



PLAN VIEW



SECTION

NOTES:
1. SEE STANDARD INLET AND MANHOLE DETAILS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORT OF EXISTING SEWER DURING CONSTRUCTION.
3. EXCAVATE TRENCH, COMPACT SUBGRADE, PLACE BEDDING, MONOLITHIC POUR OF CONCRETE.
4. AFTER CURE, SAW-CUT EXISTING PIPE TO SHELF.

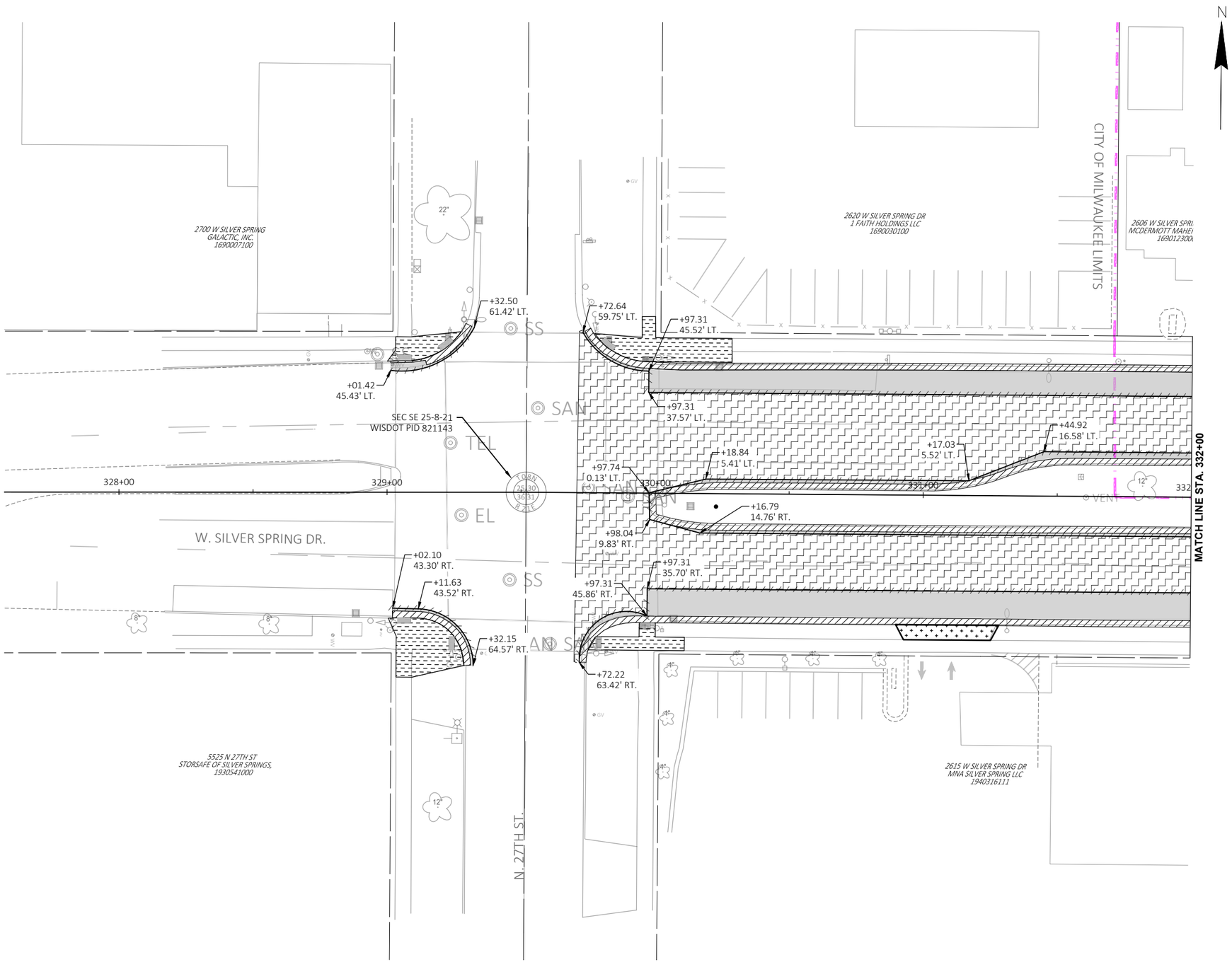
INLETS AND MANHOLES, SPECIAL DETAIL

VARIOUS SIZES

LEGEND

- SAWING ASPHALT, FULL DEPTH
- SAWING CONCRETE, FULL DEPTH
- REMOVING CURB & GUTTER*
- REMOVING CONCRETE PAVEMENT *
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE PAVEMENT, DRIVEWAY
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE

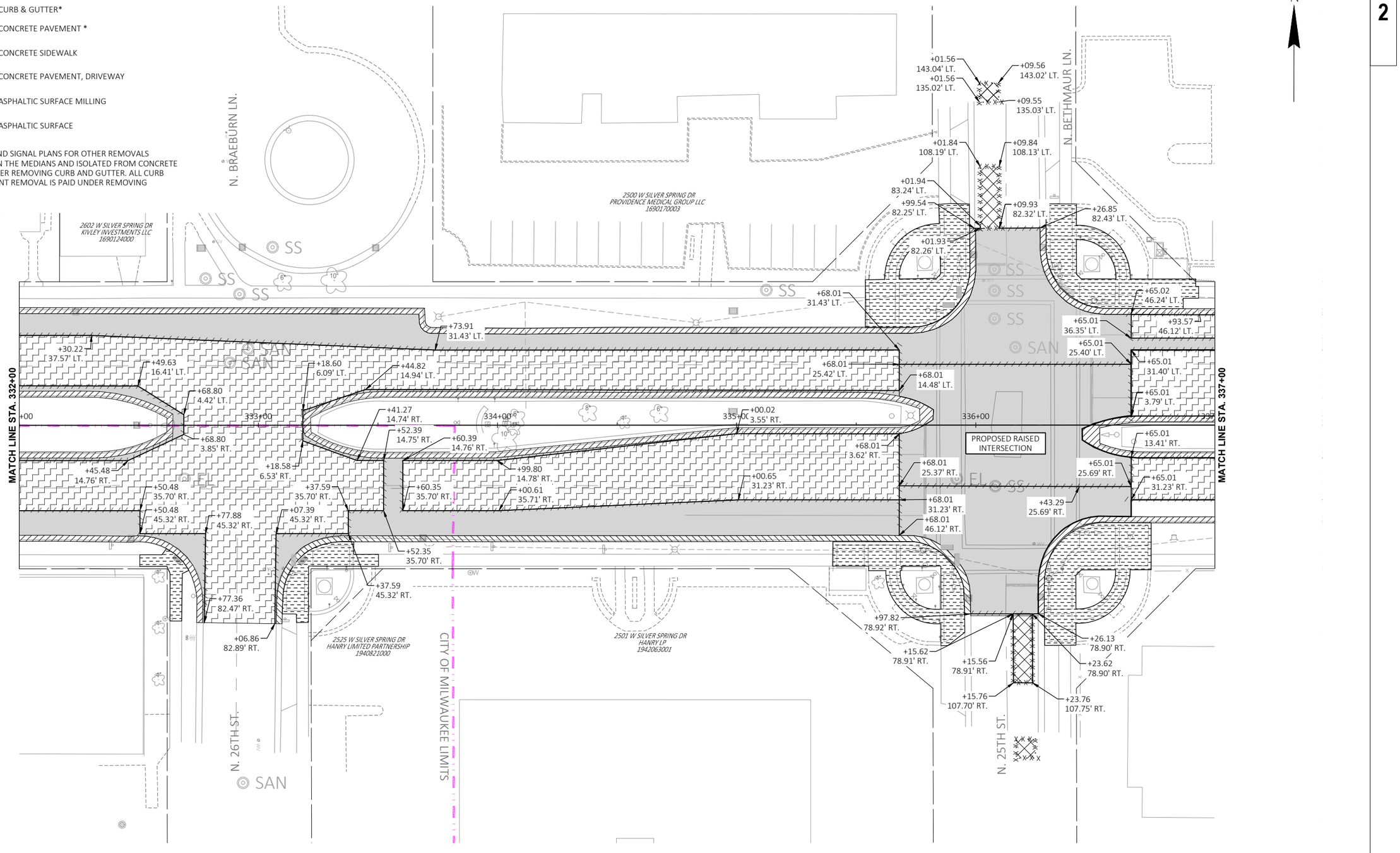
SEE DRAINAGE, SIGNING, FTMS, AND SIGNAL PLANS FOR OTHER REMOVALS
*ALL CURB AND GUTTER WITHIN IN THE MEDIANS AND ISOLATED FROM CONCRETE PAVEMENT REMOVAL IS PAID UNDER REMOVING CURB AND GUTTER. ALL CURB ADJACENT TO CONCRETE PAVEMENT REMOVAL IS PAID UNDER REMOVING CONCRETE PAVEMENT.



LEGEND

- SAWING ASPHALT, FULL DEPTH
- SAWING CONCRETE, FULL DEPTH
- REMOVING CURB & GUTTER*
- REMOVING CONCRETE PAVEMENT *
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE PAVEMENT, DRIVEWAY
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE

SEE DRAINAGE, SIGNING, FTMS, AND SIGNAL PLANS FOR OTHER REMOVALS
*ALL CURB AND GUTTER WITHIN IN THE MEDIANS AND ISOLATED FROM CONCRETE PAVEMENT REMOVAL IS PAID UNDER REMOVING CURB AND GUTTER. ALL CURB ADJACENT TO CONCRETE PAVEMENT REMOVAL IS PAID UNDER REMOVING CONCRETE PAVEMENT.



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVALS	SHEET 14	E

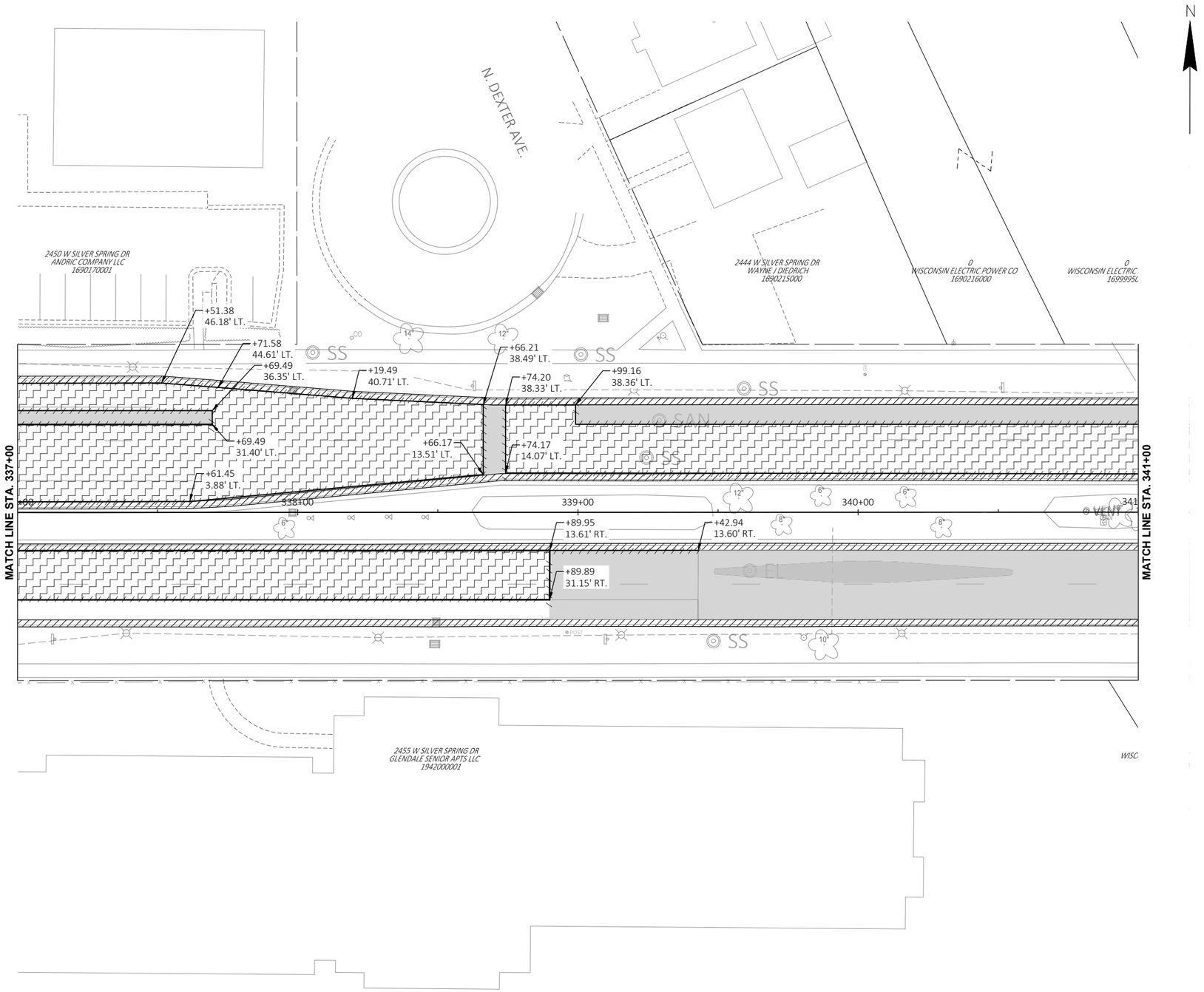
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\REMOVALS.DWG PLOT DATE : 1/23/2025 2:07 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

LEGEND

- SAWING ASPHALT, FULL DEPTH
- SAWING CONCRETE, FULL DEPTH
- REMOVING CURB & GUTTER*
- REMOVING CONCRETE PAVEMENT *
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE PAVEMENT, DRIVEWAY
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE

SEE DRAINAGE, SIGNING, FTMS, AND SIGNAL PLANS FOR OTHER REMOVALS
*ALL CURB AND GUTTER WITHIN IN THE MEDIANS AND ISOLATED FROM CONCRETE PAVEMENT REMOVAL IS PAID UNDER REMOVING CURB AND GUTTER. ALL CURB ADJACENT TO CONCRETE PAVEMENT REMOVAL IS PAID UNDER REMOVING CONCRETE PAVEMENT.



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVALS	SHEET 15	E

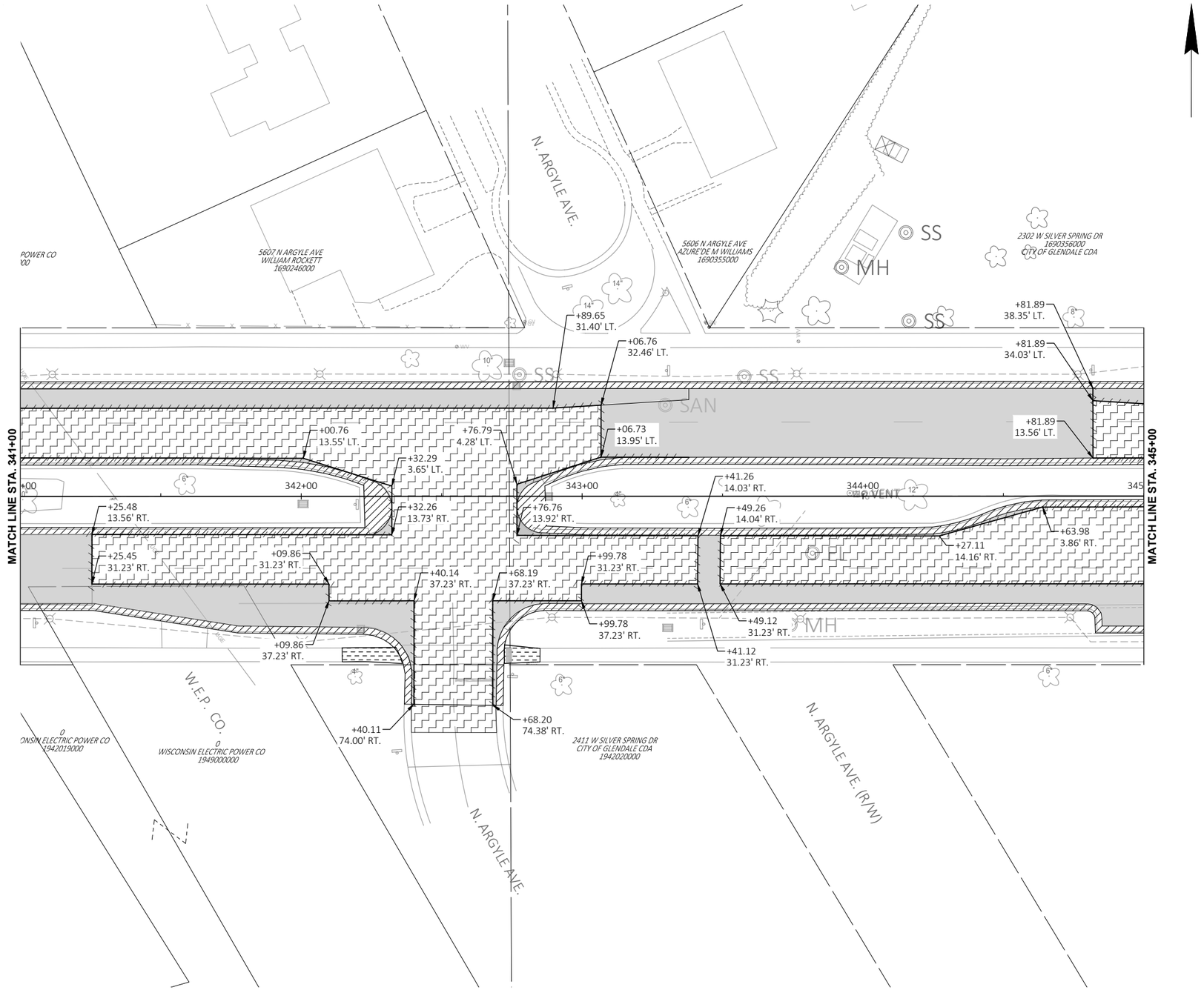
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\REMOVALS.DWG PLOT DATE : 1/23/2025 2:07 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

LEGEND

- SAWING ASPHALT, FULL DEPTH
- SAWING CONCRETE, FULL DEPTH
- REMOVING CURB & GUTTER*
- REMOVING CONCRETE PAVEMENT *
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE PAVEMENT, DRIVEWAY
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE

SEE DRAINAGE, SIGNING, FTMS, AND SIGNAL PLANS FOR OTHER REMOVALS
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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVALS	SHEET 16	E

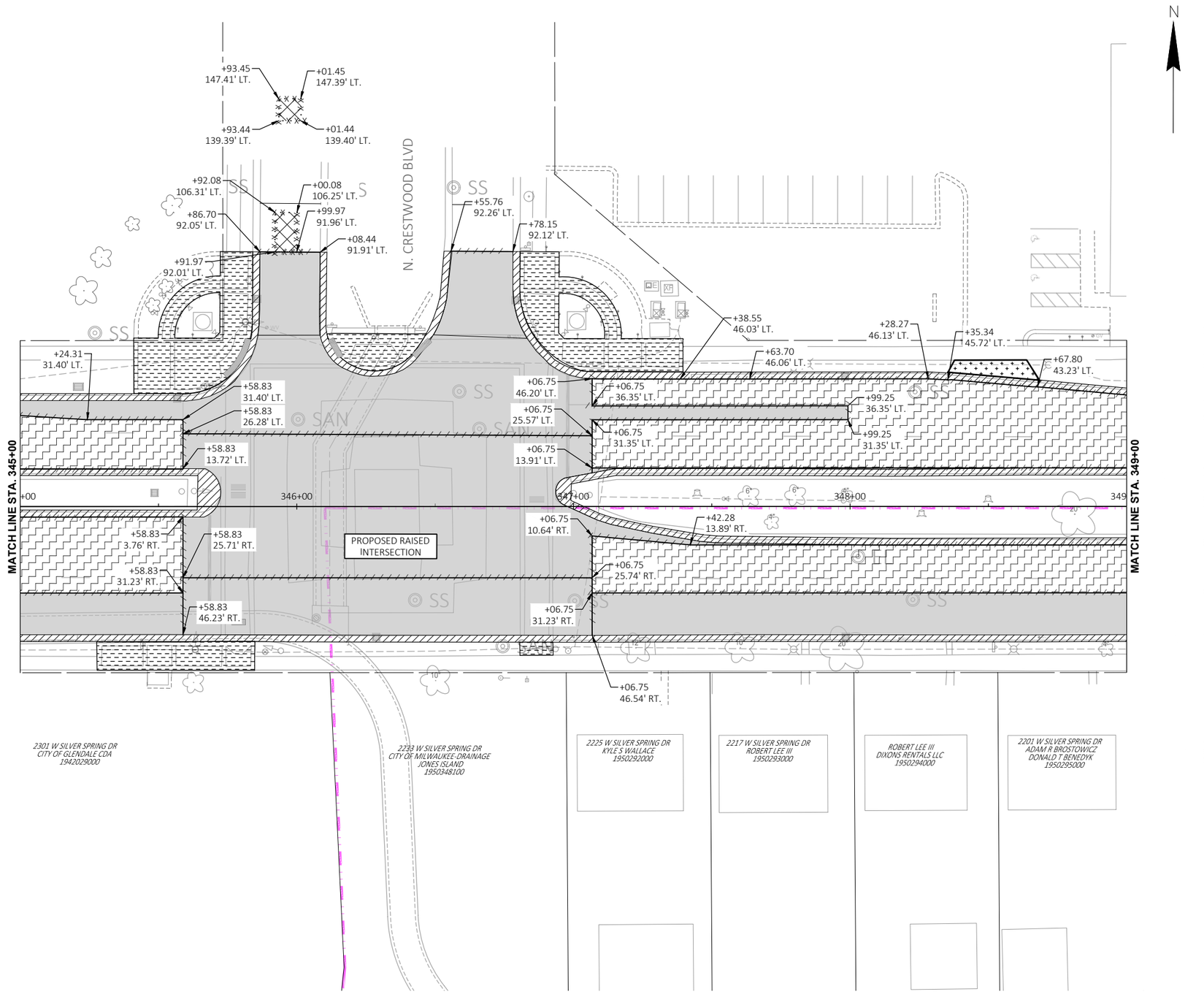
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\REMOVALS.DWG PLOT DATE : 1/23/2025 2:07 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

LEGEND

- SAWING ASPHALT, FULL DEPTH
- SAWING CONCRETE, FULL DEPTH
- REMOVING CURB & GUTTER*
- REMOVING CONCRETE PAVEMENT *
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE PAVEMENT, DRIVEWAY
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE

SEE DRAINAGE, SIGNING, FTMS, AND SIGNAL PLANS FOR OTHER REMOVALS
*ALL CURB AND GUTTER WITHIN IN THE MEDIANS AND ISOLATED FROM CONCRETE PAVEMENT REMOVAL IS PAID UNDER REMOVING CURB AND GUTTER. ALL CURB ADJACENT TO CONCRETE PAVEMENT REMOVAL IS PAID UNDER REMOVING CONCRETE PAVEMENT.



2

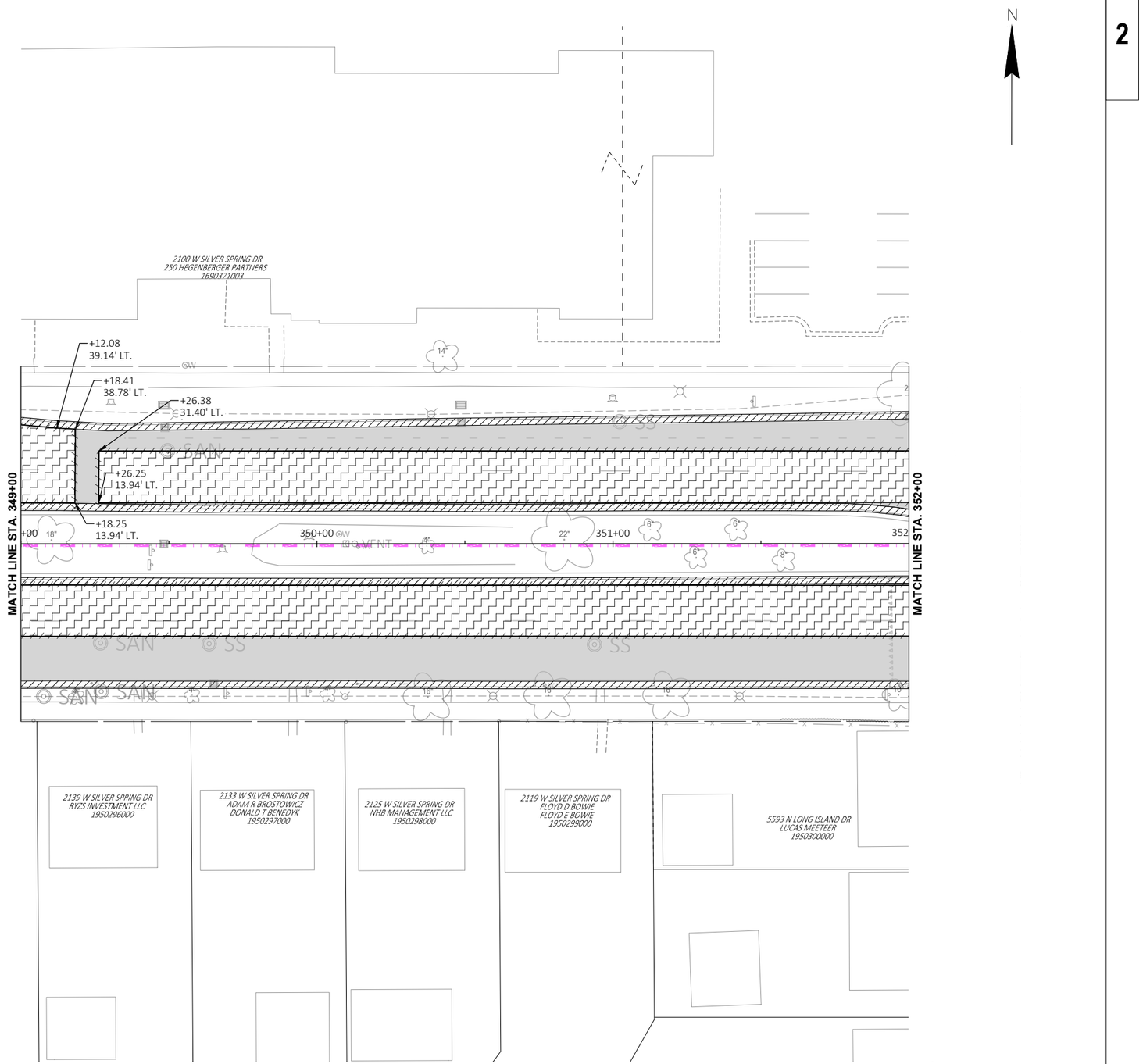
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVALS	SHEET 17	E

2

LEGEND

- SAWING ASPHALT, FULL DEPTH
- SAWING CONCRETE, FULL DEPTH
- REMOVING CURB & GUTTER*
- REMOVING CONCRETE PAVEMENT *
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE PAVEMENT, DRIVEWAY
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE

SEE DRAINAGE, SIGNING, FTMS, AND SIGNAL PLANS FOR OTHER REMOVALS
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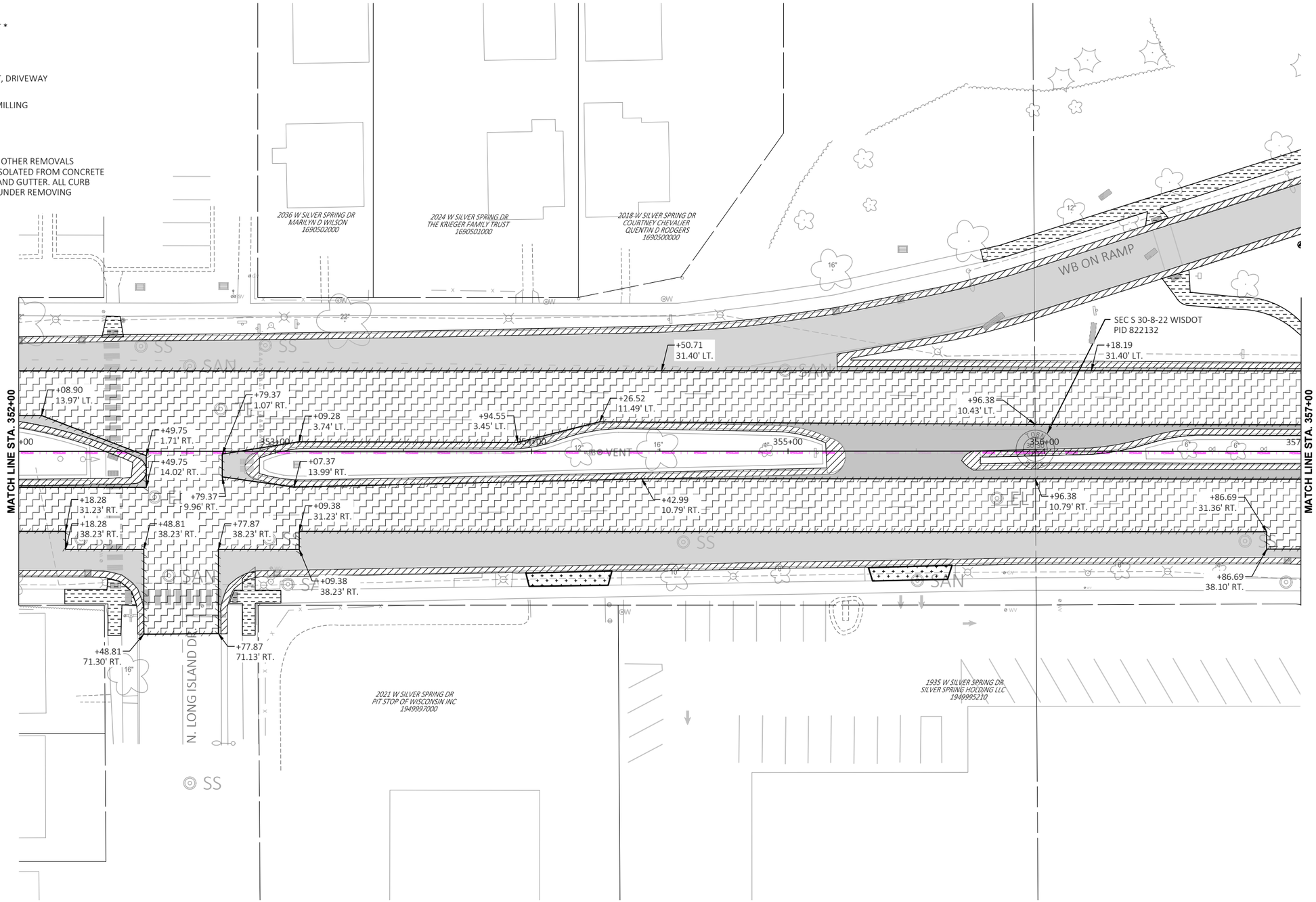
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FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\REMOVALS.DWG PLOT DATE : 1/23/2025 2:07 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

LEGEND

- SAWING ASPHALT, FULL DEPTH
- SAWING CONCRETE, FULL DEPTH
- REMOVING CURB & GUTTER*
- REMOVING CONCRETE PAVEMENT *
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE PAVEMENT, DRIVEWAY
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE

SEE DRAINAGE, SIGNING, FTMS, AND SIGNAL PLANS FOR OTHER REMOVALS
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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVALS	SHEET 19	E

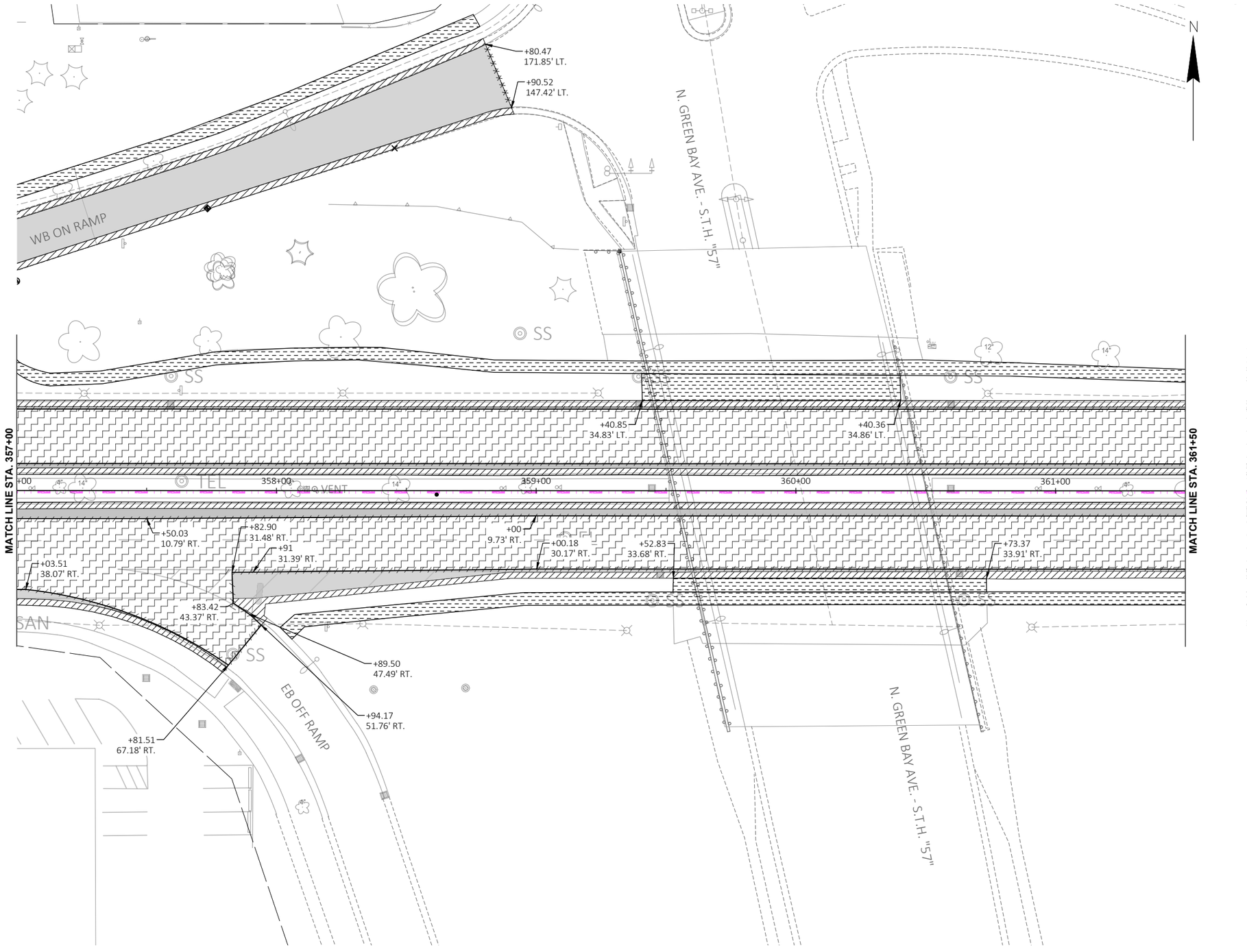
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2

LEGEND

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- SAWING CONCRETE, FULL DEPTH
- REMOVING CURB & GUTTER*
- REMOVING CONCRETE PAVEMENT *
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE PAVEMENT, DRIVEWAY
- REMOVING ASPHALTIC SURFACE MILLING
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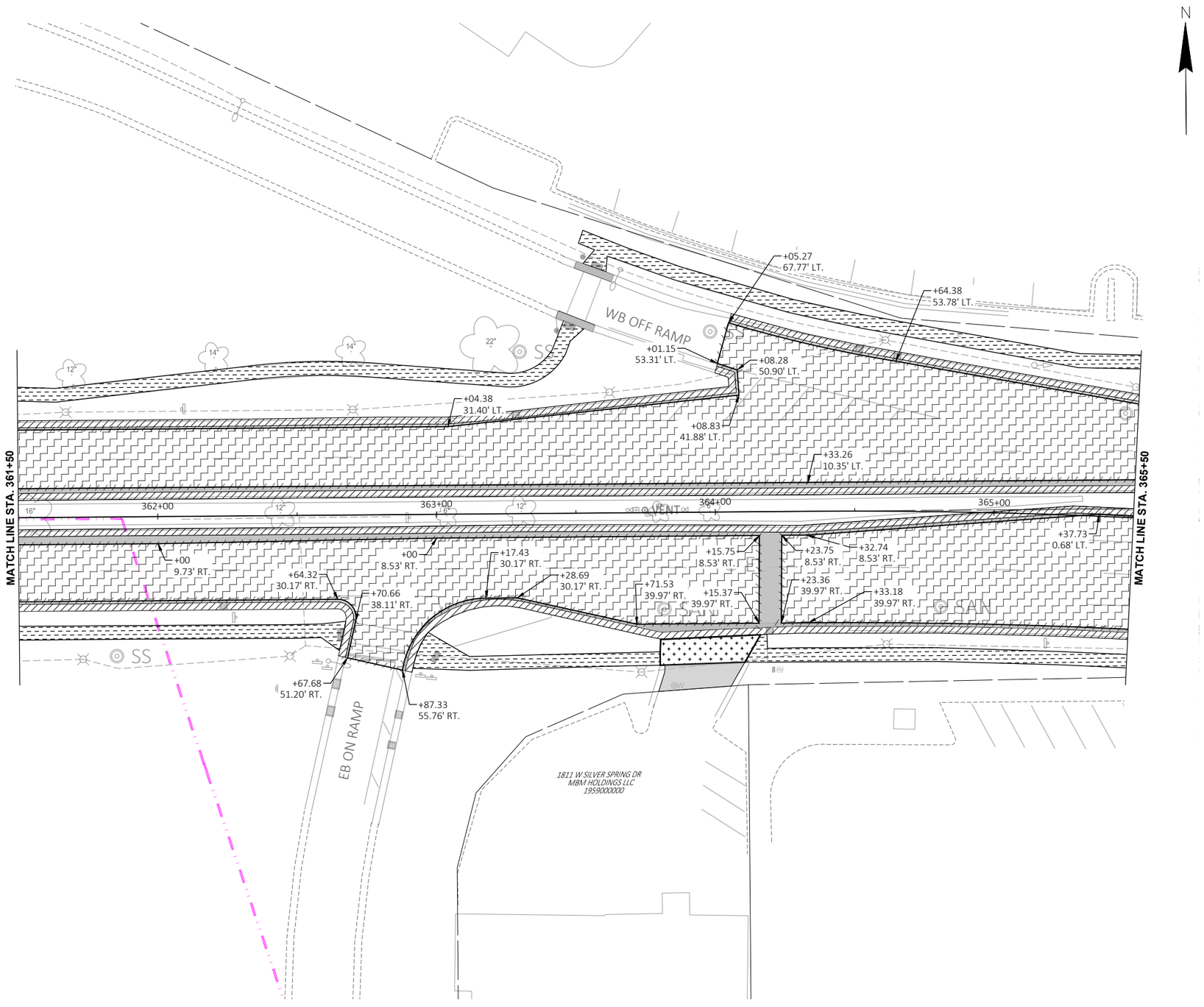
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FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\REMOVALS.DWG PLOT DATE : 1/23/2025 2:07 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

LEGEND

- SAWING ASPHALT, FULL DEPTH
- SAWING CONCRETE, FULL DEPTH
- REMOVING CURB & GUTTER*
- REMOVING CONCRETE PAVEMENT *
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE PAVEMENT, DRIVEWAY
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE

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2

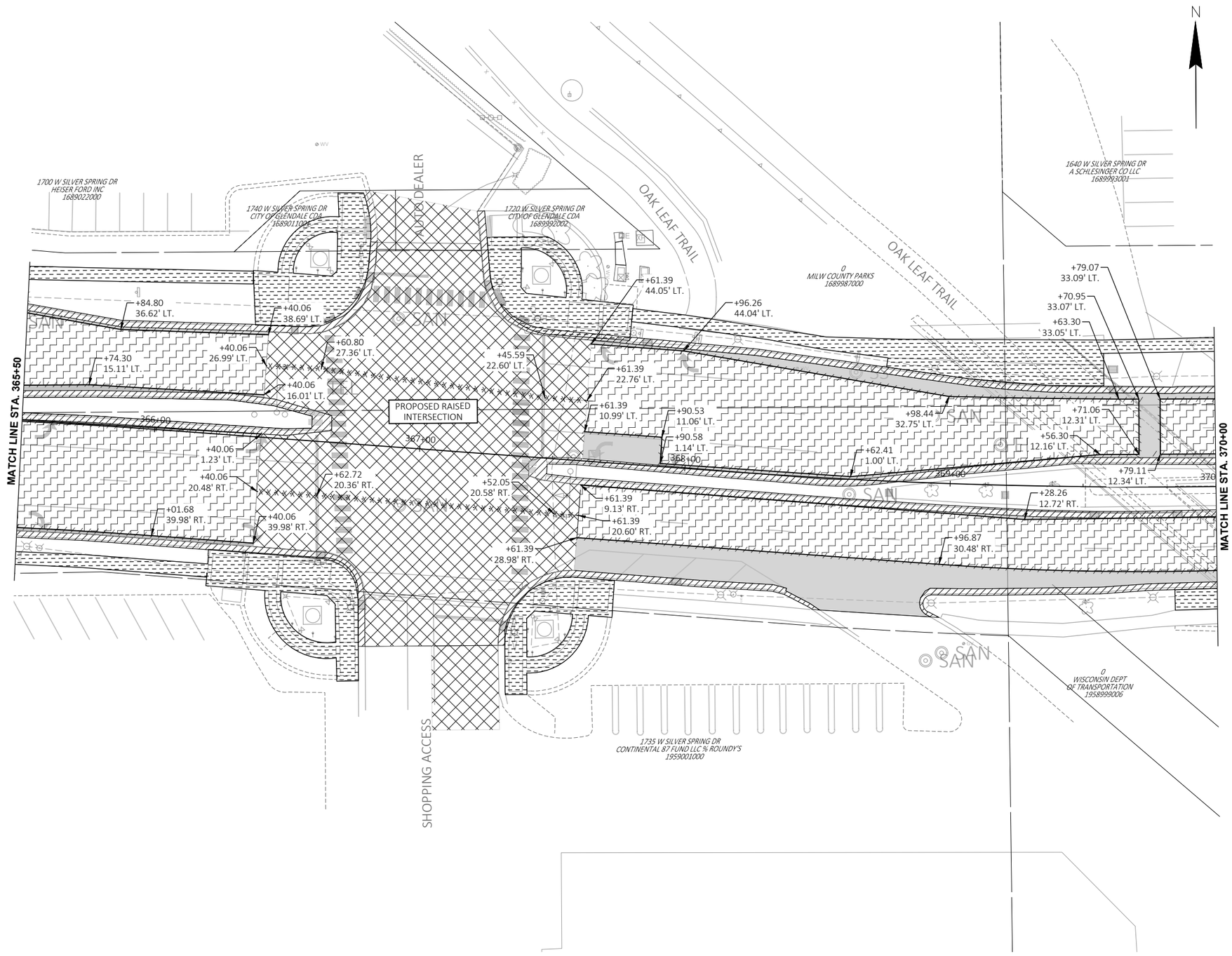
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVALS	SHEET 21	E

2

LEGEND

- SAWING ASPHALT, FULL DEPTH
- SAWING CONCRETE, FULL DEPTH
- REMOVING CURB & GUTTER*
- REMOVING CONCRETE PAVEMENT *
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE PAVEMENT, DRIVEWAY
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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVALS	SHEET 22	E

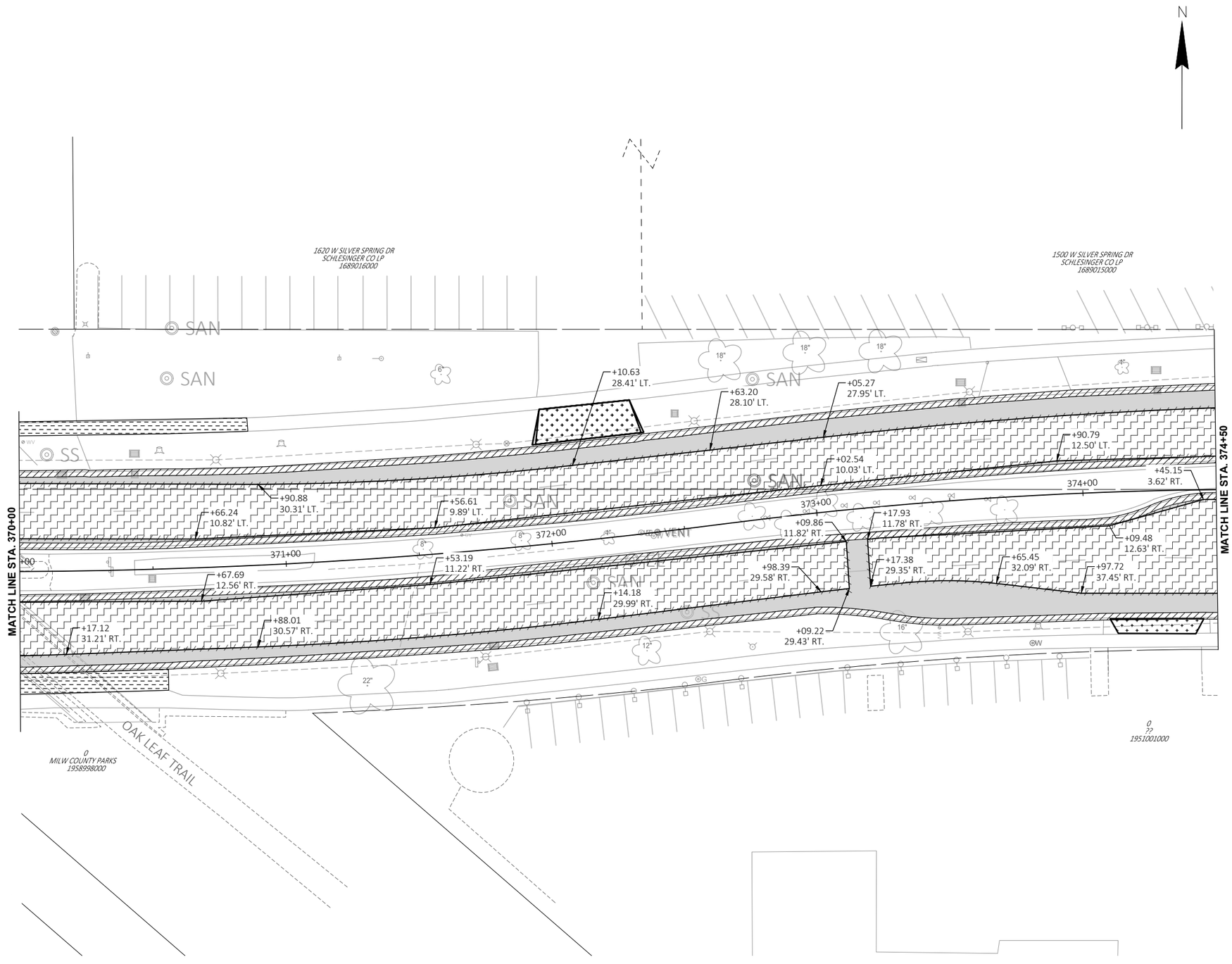
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\REMOVALS.DWG PLOT DATE : 1/23/2025 2:08 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

LEGEND

- SAWING ASPHALT, FULL DEPTH
- SAWING CONCRETE, FULL DEPTH
- REMOVING CURB & GUTTER*
- REMOVING CONCRETE PAVEMENT *
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE PAVEMENT, DRIVEWAY
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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVALS	SHEET 23	E

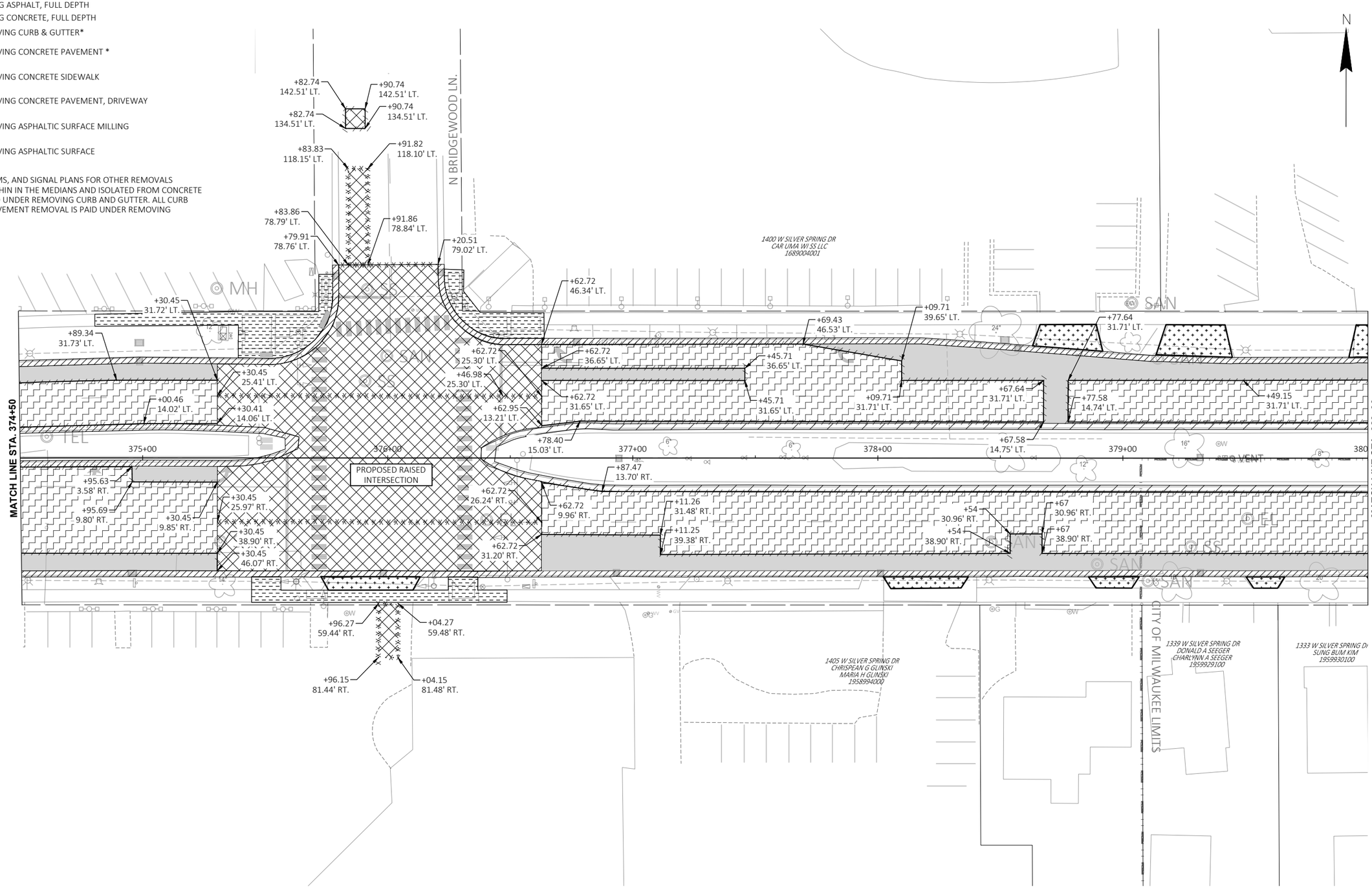
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\REMOVALS.DWG PLOT DATE : 1/23/2025 2:08 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

LEGEND

- SAWING ASPHALT, FULL DEPTH
- SAWING CONCRETE, FULL DEPTH
- REMOVING CURB & GUTTER*
- REMOVING CONCRETE PAVEMENT *
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE PAVEMENT, DRIVEWAY
- REMOVING ASPHALTIC SURFACE MILLING
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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVALS	SHEET 24	E

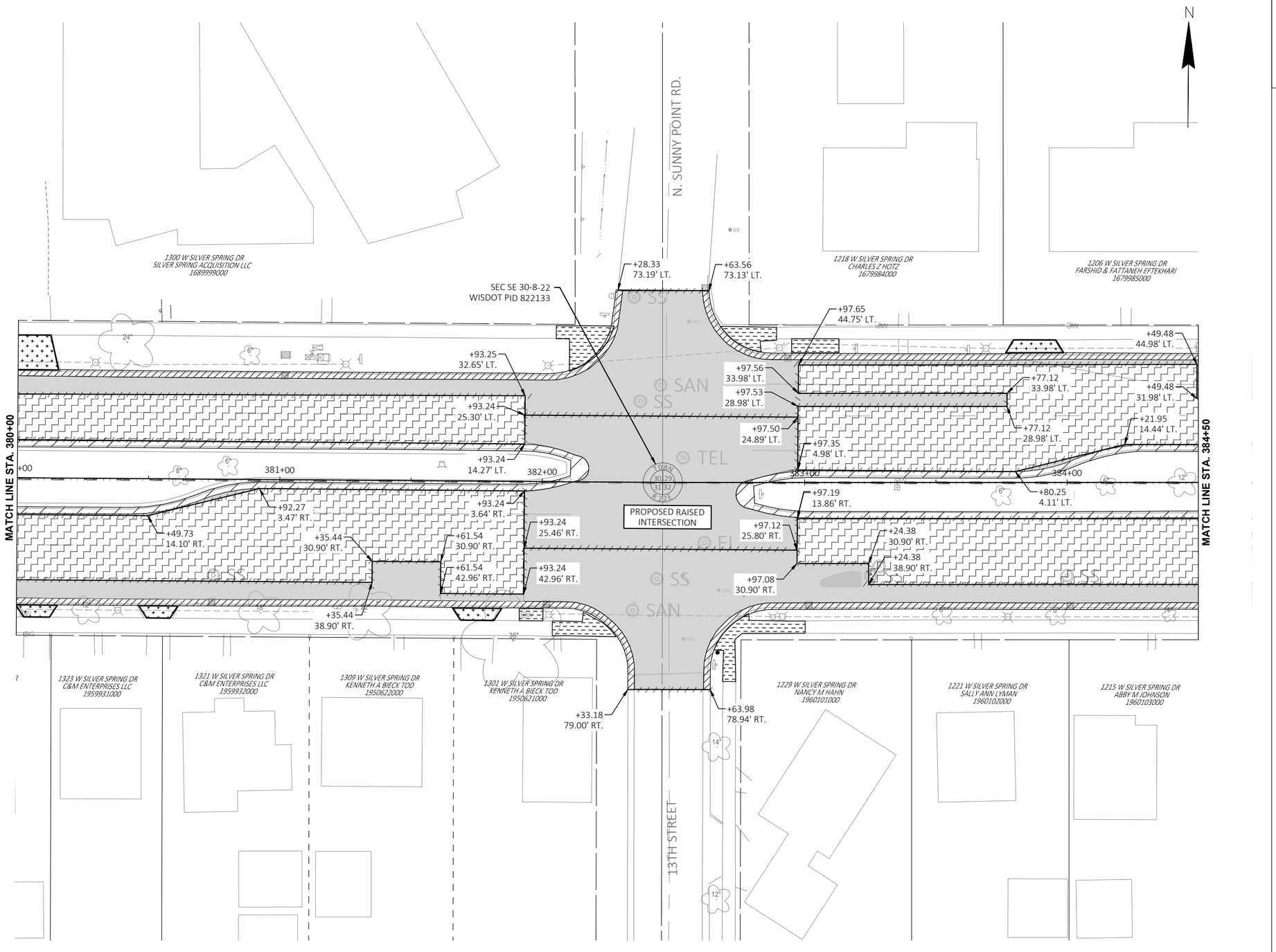
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\REMOVALS.DWG PLOT DATE : 1/23/2025 2:08 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

LEGEND

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- SAWING CONCRETE, FULL DEPTH
- REMOVING CURB & GUTTER*
- REMOVING CONCRETE PAVEMENT *
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE PAVEMENT, DRIVEWAY
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE

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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVALS	SHEET 25	E

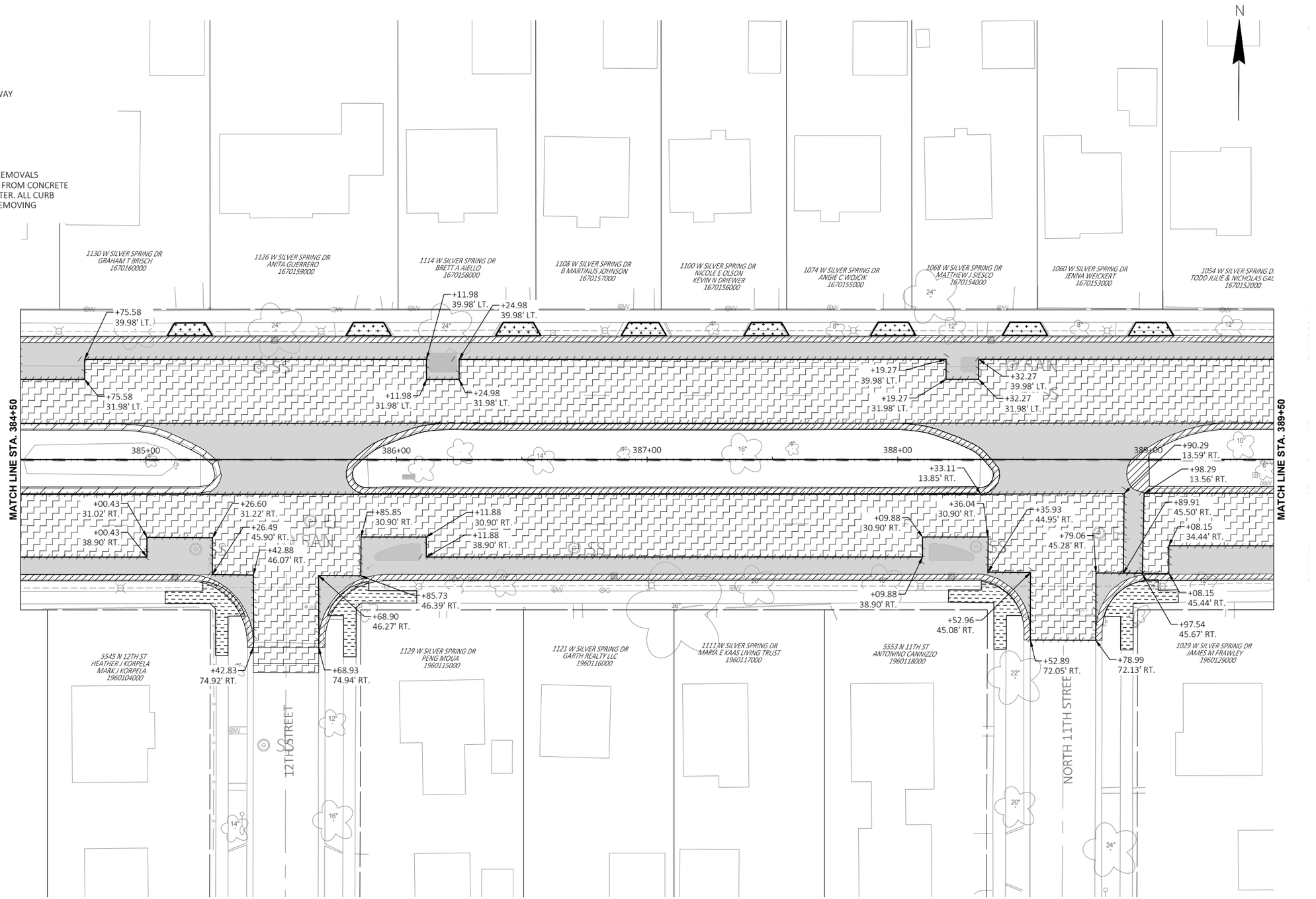
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\REMOVALS.DWG PLOT DATE : 1/23/2025 2:08 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

LEGEND

- SAWING ASPHALT, FULL DEPTH
- SAWING CONCRETE, FULL DEPTH
- REMOVING CURB & GUTTER*
- REMOVING CONCRETE PAVEMENT *
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE PAVEMENT, DRIVEWAY
- REMOVING ASPHALTIC SURFACE MILLING
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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVALS	SHEET 26	E

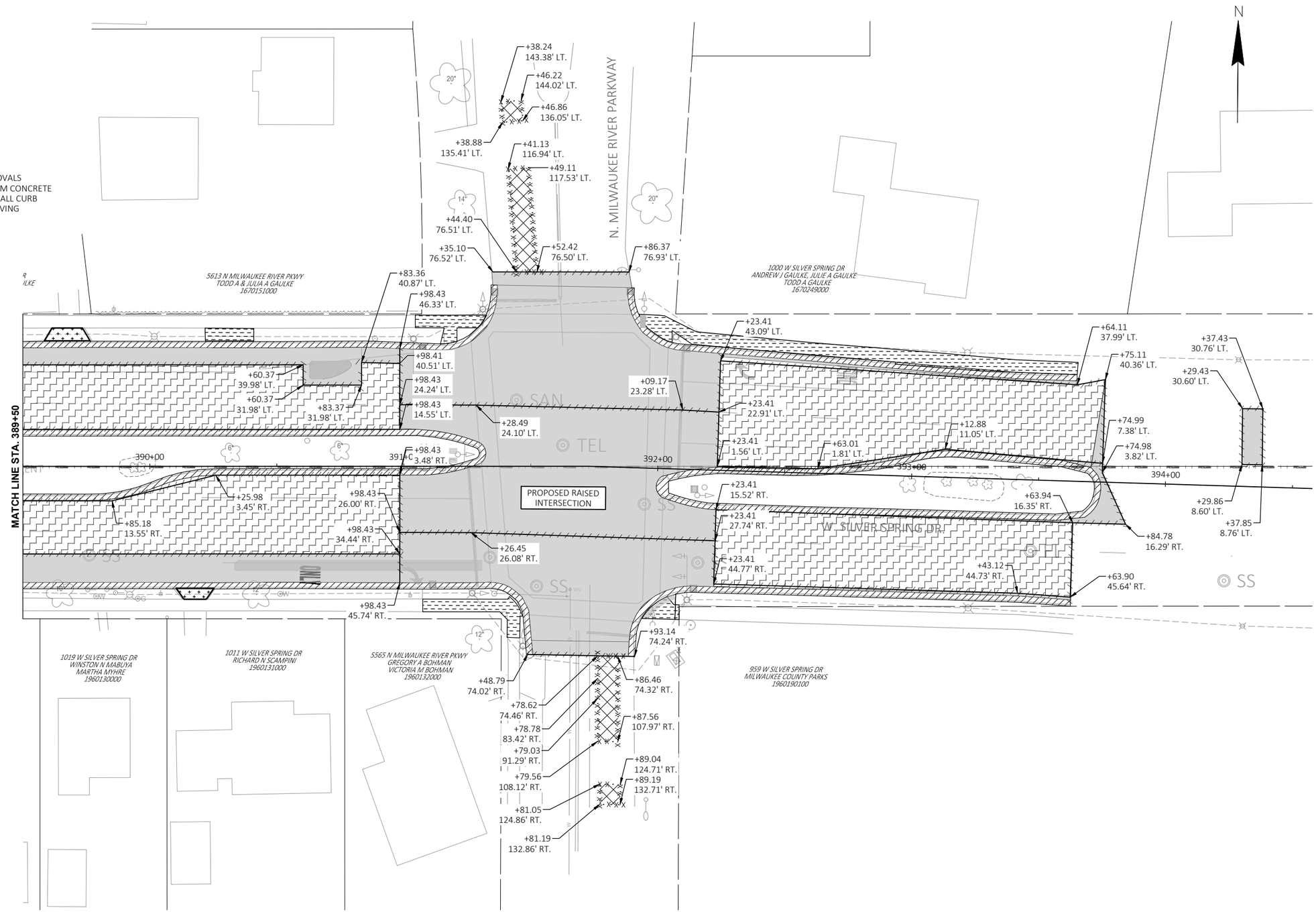
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2

LEGEND

- SAWING ASPHALT, FULL DEPTH
- SAWING CONCRETE, FULL DEPTH
- REMOVING CURB & GUTTER*
- REMOVING CONCRETE PAVEMENT *
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE PAVEMENT, DRIVEWAY
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE

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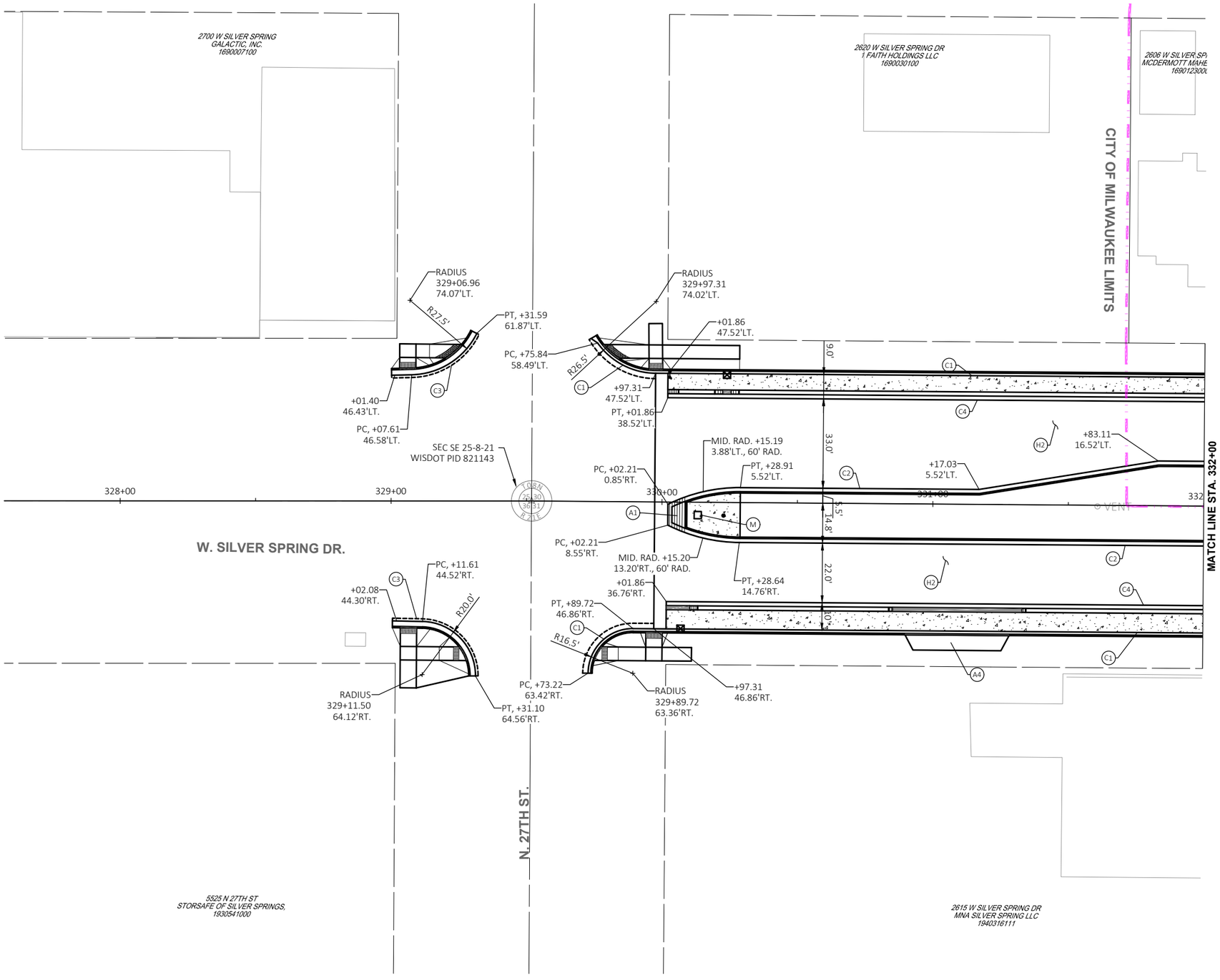
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVALS	SHEET 27	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\REMOVALS.DWG PLOT DATE : 1/23/2025 2:08 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

LEGEND

- (A1) CONCRETE MEDIAN SLOPED NOSE
- (A2) CONCRETE DRIVEWAY 6-INCH
- (A3) CONCRETE DRIVEWAY HES 6-INCH
- (A4) CONCRETE DRIVEWAY HES 8-INCH
- (A5) CONCRETE COLORING WISDOT RED
- (A6) CONCRETE SURFACE DRAIN
- (C1) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (C2) CONCRETE CURB & GUTTER 24-INCH TYPE A
- (C3) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (C4) CONCRETE CURB & GUTTER 36-INCH TYPE A
- (H1) HMA PAVEMENT 3-INCH
  3-INCH HMA PAVEMENT 4 MT 58-34 S
- (H2) HMA PAVEMENT 3.5-INCH
  1 3/4-INCH HMA PVMT 4 MT 58-34 S UPPER LAYER
  1 3/4-INCH HMA PVMT 3 MT 58-28 S LOWER LAYER
- (H3) ASPHALTIC SURFACE TEMPORARY
- ADJUSTING MANHOLE COVERS
- ADJUSTING INLET COVERS
- RECONSTRUCTING MANHOLES
- RECONSTRUCTING INLETS
- SAN. MH INTERNAL/EXTERNAL SEAL AND ADJ. WITH SALVAGED FRAME
- (M) MANHOLE COVER TYPE MS-58A
- ADJUSTING VALVE BOXES
- (W) ADJUSTING WATER BOVES
- CONCRETE PAVEMENT 10-INCH (RAISED INTERSECTION)
- CONCRETE PAVEMENT 6-INCH
- DEPRESSED CURB OR CURB DRAINAGE CUT

NOTE: SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPES OF STORM SEWER COVERS FOR ADJUSTMENTS AND RECONSTRUCTIONS.



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - ROADWAY	SHEET 28	E

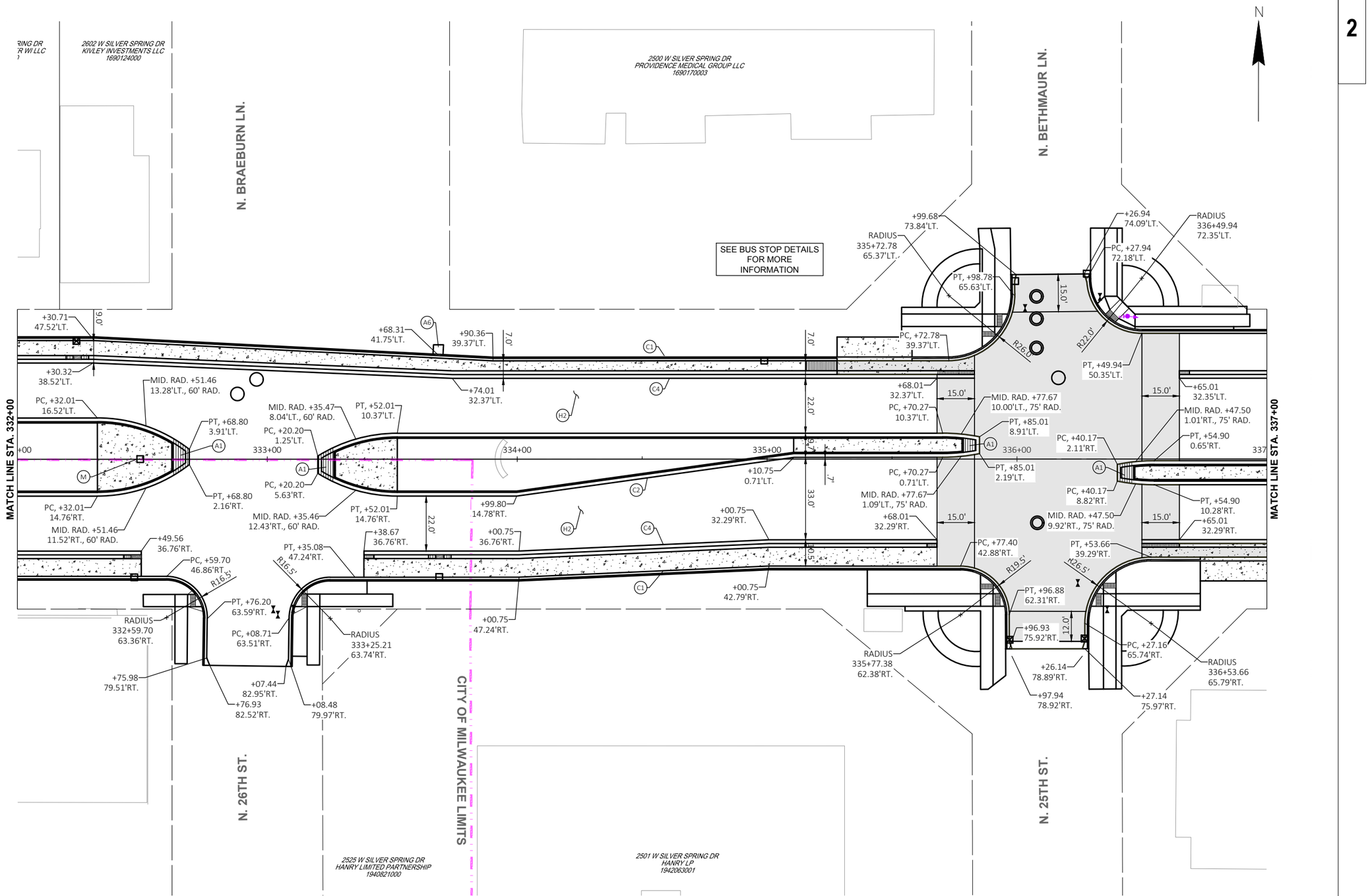
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - ROADWAY.DWG PLOT DATE : 1/23/2025 2:09 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

LEGEND

- (A1) CONCRETE MEDIAN SLOPED NOSE
- (A2) CONCRETE DRIVEWAY 6-INCH
- (A3) CONCRETE DRIVEWAY HES 6-INCH
- (A4) CONCRETE DRIVEWAY HES 8-INCH
- (A5) CONCRETE COLORING WISDOT RED
- (A6) CONCRETE SURFACE DRAIN
- (C1) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (C2) CONCRETE CURB & GUTTER 24-INCH TYPE A
- (C3) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (C4) CONCRETE CURB & GUTTER 36-INCH TYPE A
- (H1) HMA PAVEMENT 3-INCH
  3-INCH HMA PAVEMENT 4 MT 58-34 S
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- ADJUSTING MANHOLE COVERS
- ADJUSTING INLET COVERS
- RECONSTRUCTING MANHOLES
- RECONSTRUCTING INLETS
- SAN. MH INTERNAL/EXTERNAL SEAL AND ADJ. WITH SALVAGED FRAME
- (M) MANHOLE COVER TYPE MS-58A
- ADJUSTING VALVE BOXES
- (W) ADJUSTING WATER BOVES
- CONCRETE PAVEMENT 10-INCH (RAISED INTERSECTION)
- CONCRETE PAVEMENT 6-INCH
- DEPRESSED CURB OR CURB DRAINAGE CUT

NOTE: SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPES OF STORM SEWER COVERS FOR ADJUSTMENTS AND RECONSTRUCTIONS.



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - ROADWAY	SHEET 29	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - ROADWAY.DWG PLOT DATE : 1/23/2025 2:09 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

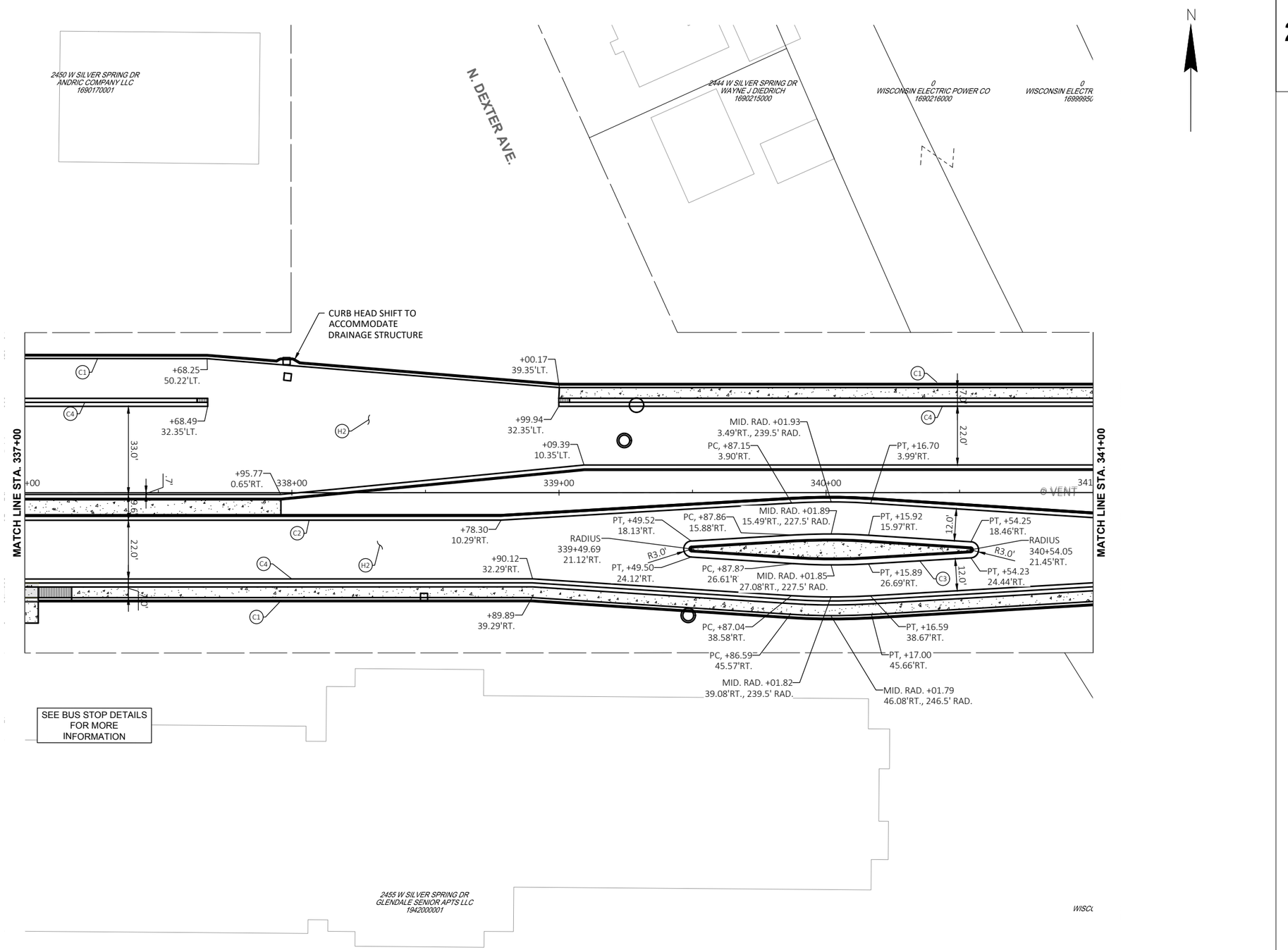
LEGEND

- (A1) CONCRETE MEDIAN SLOPED NOSE
- (A2) CONCRETE DRIVEWAY 6-INCH
- (A3) CONCRETE DRIVEWAY HES 6-INCH
- (A4) CONCRETE DRIVEWAY HES 8-INCH
- (A5) CONCRETE COLORING WISDOT RED
- (A6) CONCRETE SURFACE DRAIN
- (C1) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (C2) CONCRETE CURB & GUTTER 24-INCH TYPE A
- (C3) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (C4) CONCRETE CURB & GUTTER 36-INCH TYPE A

- (H1) HMA PAVEMENT 3-INCH
  3-INCH HMA PAVEMENT 4 MT 58-34 S
- (H2) HMA PAVEMENT 3.5-INCH
  1 3/4-INCH HMA PVMT 4 MT 58-34 S UPPER LAYER
  1 3/4-INCH HMA PVMT 3 MT 58-28 S LOWER LAYER
- (H3) ASPHALTIC SURFACE TEMPORARY

- ADJUSTING MANHOLE COVERS
- ADJUSTING INLET COVERS
- RECONSTRUCTING MANHOLES
- RECONSTRUCTING INLETS
- SAN. MH INTERNAL/EXTERNAL SEAL AND ADJ. WITH SALVAGED FRAME
- (M) MANHOLE COVER TYPE MS-58A
- ADJUSTING VALVE BOXES
- (W) ADJUSTING WATER BOVES
- CONCRETE PAVEMENT 10-INCH (RAISED INTERSECTION)
- CONCRETE PAVEMENT 6-INCH
- DEPRESSED CURB OR CURB DRAINAGE CUT

NOTE: SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPES OF STORM SEWER COVERS FOR ADJUSTMENTS AND RECONSTRUCTIONS.



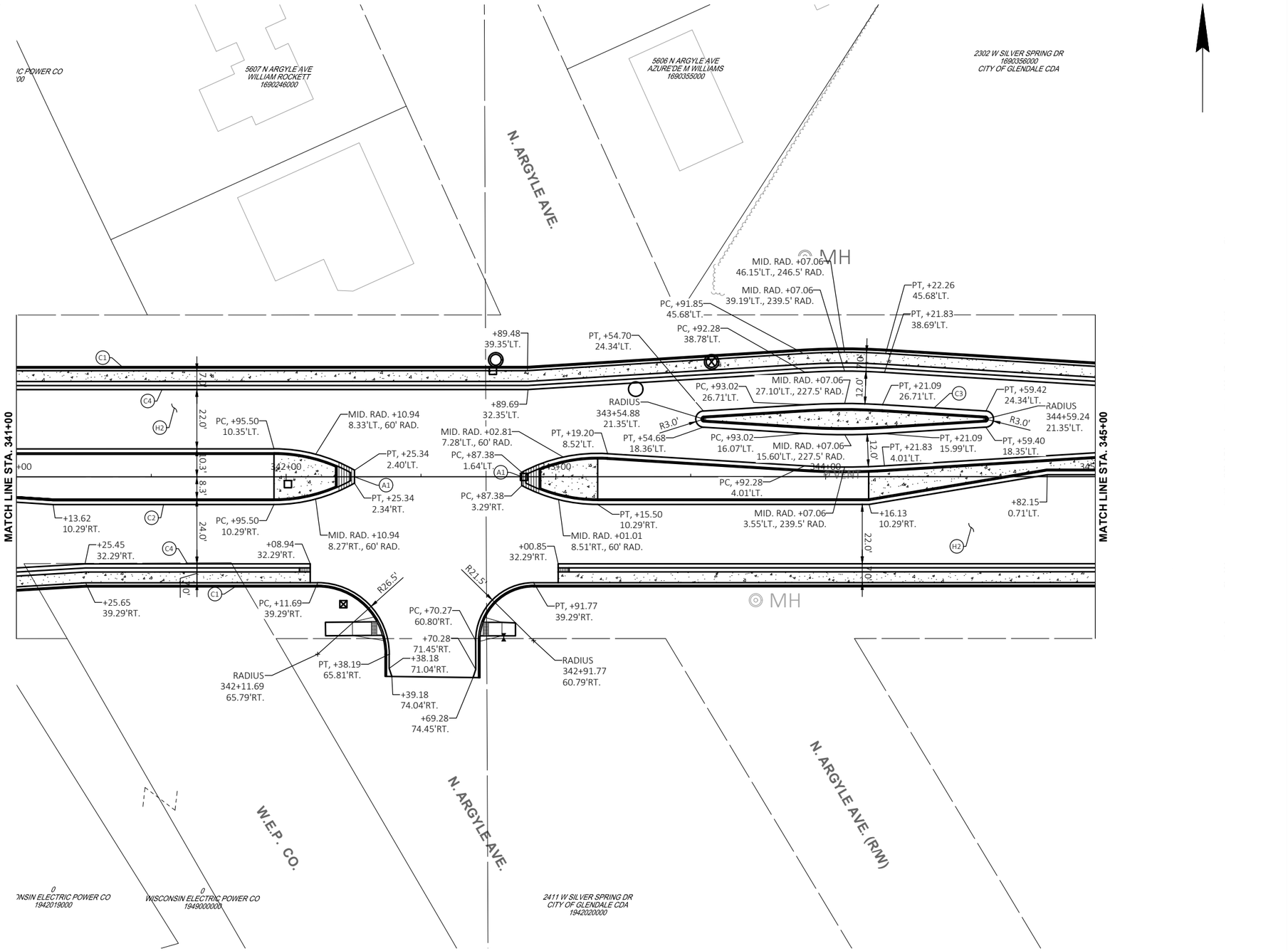
LEGEND

- (A1) CONCRETE MEDIAN SLOPED NOSE
- (A2) CONCRETE DRIVEWAY 6-INCH
- (A3) CONCRETE DRIVEWAY HES 6-INCH
- (A4) CONCRETE DRIVEWAY HES 8-INCH
- (A5) CONCRETE COLORING WISDOT RED
- (A6) CONCRETE SURFACE DRAIN
- (C1) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (C2) CONCRETE CURB & GUTTER 24-INCH TYPE A
- (C3) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (C4) CONCRETE CURB & GUTTER 36-INCH TYPE A

- (H1) HMA PAVEMENT 3-INCH
  3-INCH HMA PAVEMENT 4 MT 58-34 S
- (H2) HMA PAVEMENT 3.5-INCH
  1 3/4-INCH HMA PVMT 4 MT 58-34 S UPPER LAYER
  1 3/4-INCH HMA PVMT 3 MT 58-28 S LOWER LAYER
- (H3) ASPHALTIC SURFACE TEMPORARY

- ADJUSTING MANHOLE COVERS
- ADJUSTING INLET COVERS
- RECONSTRUCTING MANHOLES
- RECONSTRUCTING INLETS
- SAN. MH INTERNAL/EXTERNAL SEAL AND ADJ. WITH SALVAGED FRAME
- (M) MANHOLE COVER TYPE MS-58A
- ADJUSTING VALVE BOXES
- (W) ADJUSTING WATER BOVES
- CONCRETE PAVEMENT 10-INCH (RAISED INTERSECTION)
- CONCRETE PAVEMENT 6-INCH
- DEPRESSED CURB OR CURB DRAINAGE CUT

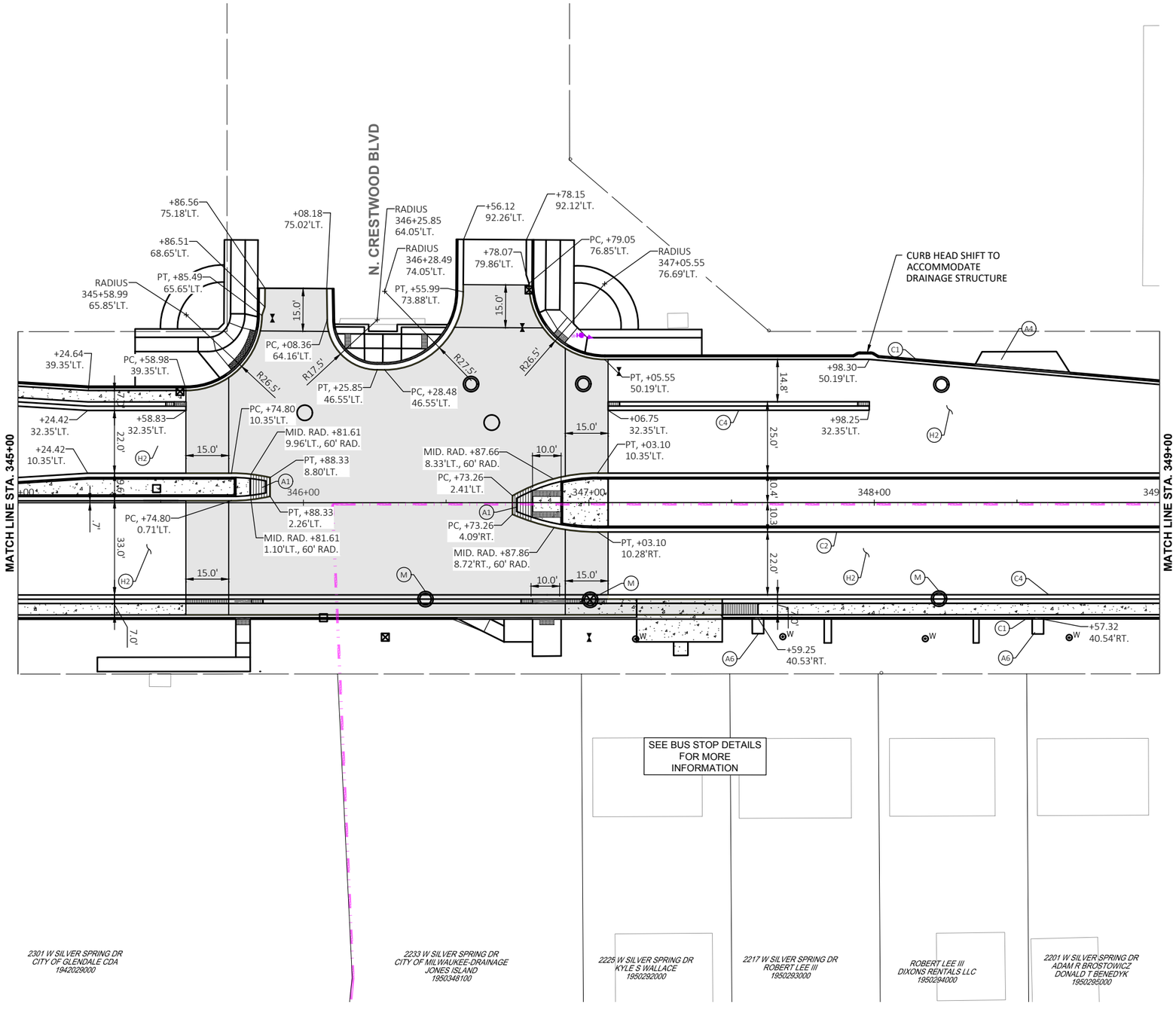
NOTE: SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPES OF STORM SEWER COVERS FOR ADJUSTMENTS AND RECONSTRUCTIONS.



LEGEND

- (A1) CONCRETE MEDIAN SLOPED NOSE
- (A2) CONCRETE DRIVEWAY 6-INCH
- (A3) CONCRETE DRIVEWAY HES 6-INCH
- (A4) CONCRETE DRIVEWAY HES 8-INCH
- (A5) CONCRETE COLORING WISDOT RED
- (A6) CONCRETE SURFACE DRAIN
- (C1) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (C2) CONCRETE CURB & GUTTER 24-INCH TYPE A
- (C3) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (C4) CONCRETE CURB & GUTTER 36-INCH TYPE A
- (H1) HMA PAVEMENT 3-INCH
  3-INCH HMA PAVEMENT 4 MT 58-34 S
- (H2) HMA PAVEMENT 3.5-INCH
  1 3/4-INCH HMA PVMT 4 MT 58-34 S UPPER LAYER
  1 1/4-INCH HMA PVMT 3 MT 58-28 S LOWER LAYER
- (H3) ASPHALTIC SURFACE TEMPORARY
- ADJUSTING MANHOLE COVERS
- ADJUSTING INLET COVERS
- RECONSTRUCTING MANHOLES
- RECONSTRUCTING INLETS
- SAN. MH INTERNAL/EXTERNAL SEAL AND ADJ. WITH SALVAGED FRAME
- (M) MANHOLE COVER TYPE MS-58A
- ADJUSTING VALVE BOXES
- (W) ADJUSTING WATER BOVES
- CONCRETE PAVEMENT 10-INCH (RAISED INTERSECTION)
- CONCRETE PAVEMENT 6-INCH
- DEPRESSED CURB OR CURB DRAINAGE CUT

NOTE: SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPES OF STORM SEWER COVERS FOR ADJUSTMENTS AND RECONSTRUCTIONS.



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - ROADWAY	SHEET 32	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - ROADWAY.DWG PLOT DATE : 1/23/2025 2:11 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

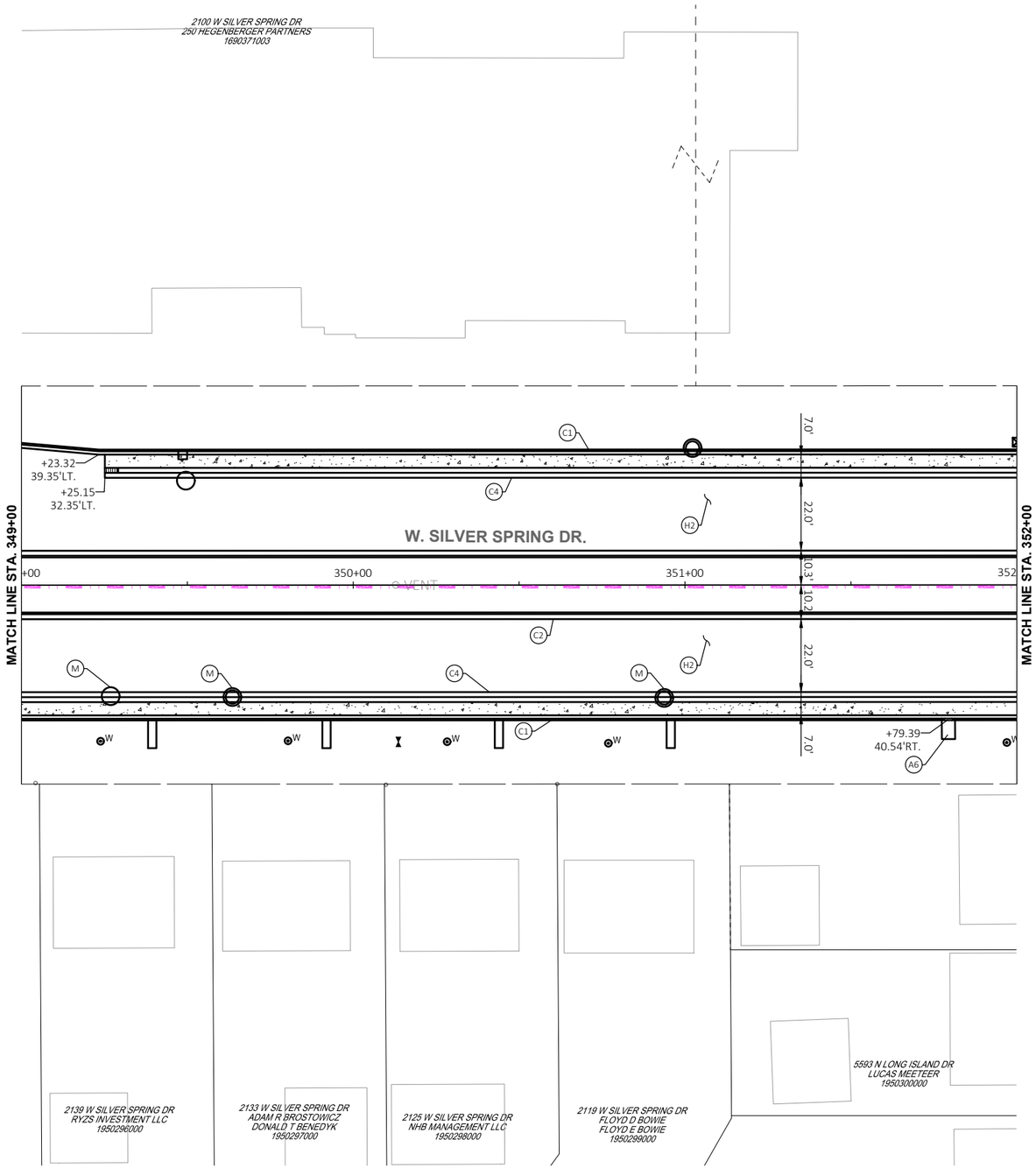
LEGEND

- (A1) CONCRETE MEDIAN SLOPED NOSE
- (A2) CONCRETE DRIVEWAY 6-INCH
- (A3) CONCRETE DRIVEWAY HES 6-INCH
- (A4) CONCRETE DRIVEWAY HES 8-INCH
- (A5) CONCRETE COLORING WISDOT RED
- (A6) CONCRETE SURFACE DRAIN
- (C1) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (C2) CONCRETE CURB & GUTTER 24-INCH TYPE A
- (C3) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (C4) CONCRETE CURB & GUTTER 36-INCH TYPE A

- (H1) HMA PAVEMENT 3-INCH
  3-INCH HMA PAVEMENT 4 MT 58-34 S
- (H2) HMA PAVEMENT 3.5-INCH
  1 3/4-INCH HMA PVMT 4 MT 58-34 S UPPER LAYER
  1 3/4-INCH HMA PVMT 3 MT 58-28 S LOWER LAYER
- (H3) ASPHALTIC SURFACE TEMPORARY

- ADJUSTING MANHOLE COVERS
- ADJUSTING INLET COVERS
- RECONSTRUCTING MANHOLES
- RECONSTRUCTING INLETS
- SAN. MH INTERNAL/EXTERNAL SEAL AND ADJ. WITH SALVAGED FRAME
- (M) MANHOLE COVER TYPE MS-58A
- ADJUSTING VALVE BOXES
- (W) ADJUSTING WATER BOVES
- CONCRETE PAVEMENT 10-INCH (RAISED INTERSECTION)
- CONCRETE PAVEMENT 6-INCH
- DEPRESSED CURB OR CURB DRAINAGE CUT

NOTE: SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPES OF STORM SEWER COVERS FOR ADJUSTMENTS AND RECONSTRUCTIONS.



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - ROADWAY	SHEET 33	E

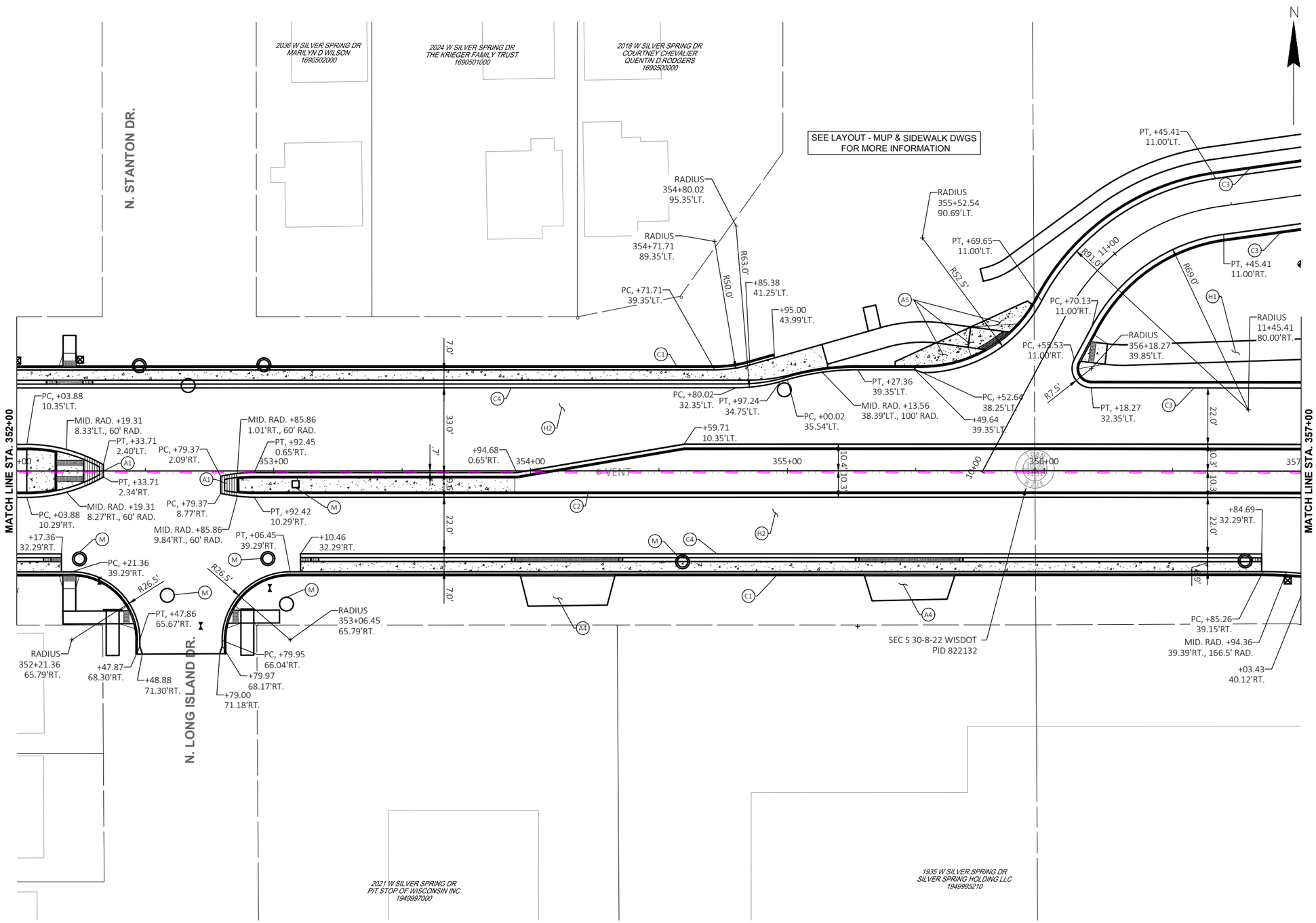
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - ROADWAY.DWG PLOT DATE : 1/23/2025 2:11 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

LEGEND

- (A1) CONCRETE MEDIAN SLOPED NOSE
- (A2) CONCRETE DRIVEWAY 6-INCH
- (A3) CONCRETE DRIVEWAY HES 6-INCH
- (A4) CONCRETE DRIVEWAY HES 8-INCH
- (A5) CONCRETE COLORING WISDOT RED
- (A6) CONCRETE SURFACE DRAIN
- (C1) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (C2) CONCRETE CURB & GUTTER 24-INCH TYPE A
- (C3) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (C4) CONCRETE CURB & GUTTER 36-INCH TYPE A
- (H1) HMA PAVEMENT 3-INCH
  3-INCH HMA PAVEMENT 4 MT 58-34 S
- (H2) HMA PAVEMENT 3.5-INCH
  1 3/4-INCH HMA PVMT 4 MT 58-34 S UPPER LAYER
  1 3/4-INCH HMA PVMT 3 MT 58-28 S LOWER LAYER
- (H3) ASPHALTIC SURFACE TEMPORARY
- ADJUSTING MANHOLE COVERS
- ADJUSTING INLET COVERS
- RECONSTRUCTING MANHOLES
- RECONSTRUCTING INLETS
- SAN. MH INTERNAL/EXTERNAL SEAL AND ADJ. WITH SALVAGED FRAME
- (M) MANHOLE COVER TYPE MS-58A
- ADJUSTING VALVE BOXES
- (W) ADJUSTING WATER BOVES
- CONCRETE PAVEMENT 10-INCH (RAISED INTERSECTION)
- CONCRETE PAVEMENT 6-INCH
- DEPRESSED CURB OR CURB DRAINAGE CUT

NOTE: SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPES OF STORM SEWER COVERS FOR ADJUSTMENTS AND RECONSTRUCTIONS.



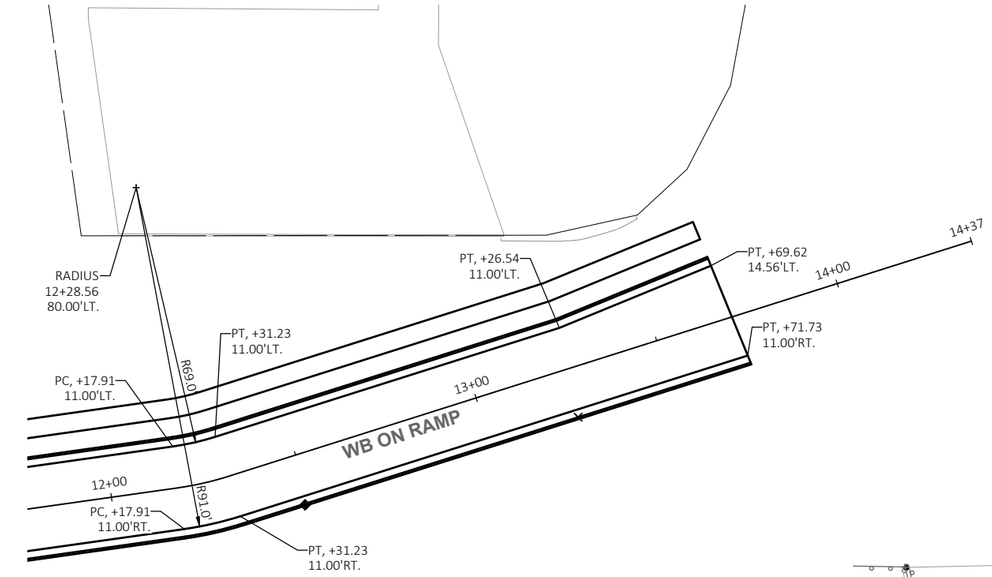
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - ROADWAY	SHEET 34	E

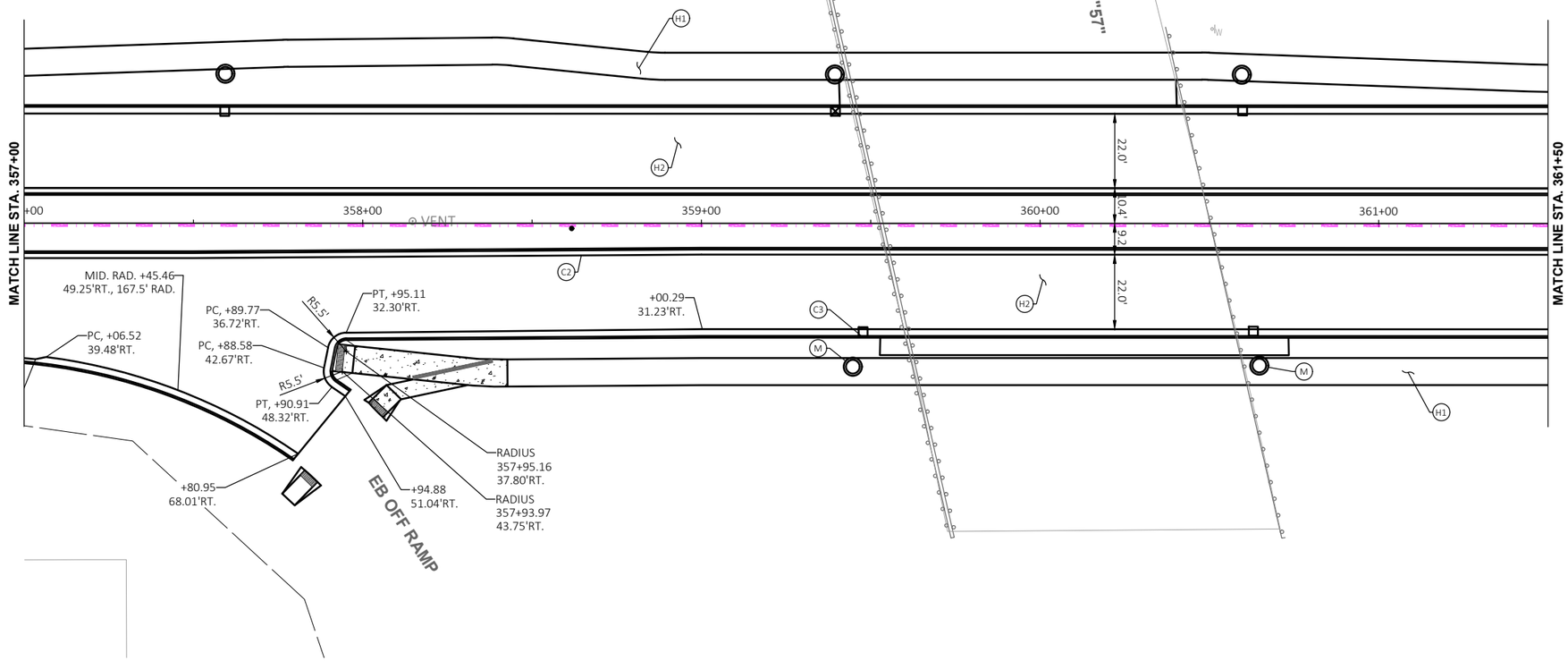
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - ROADWAY.DWG PLOT DATE : 1/23/2025 2:12 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

LEGEND

- A1 CONCRETE MEDIAN SLOPED NOSE
- A2 CONCRETE DRIVEWAY 6-INCH
- A3 CONCRETE DRIVEWAY HES 6-INCH
- A4 CONCRETE DRIVEWAY HES 8-INCH
- A5 CONCRETE COLORING WISDOT RED
- A6 CONCRETE SURFACE DRAIN
- C1 CONCRETE CURB & GUTTER 18-INCH TYPE A
- C2 CONCRETE CURB & GUTTER 24-INCH TYPE A
- C3 CONCRETE CURB & GUTTER 30-INCH TYPE A
- C4 CONCRETE CURB & GUTTER 36-INCH TYPE A
- H1 HMA PAVEMENT 3-INCH
  3-INCH HMA PAVEMENT 4 MT 58-34 S
- H2 HMA PAVEMENT 3.5-INCH
  1 3/4-INCH HMA PVMT 4 MT 58-34 S UPPER LAYEF
  1 3/4-INCH HMA PVMT 3 MT 58-28 S LOWER LAYE
- H3 ASPHALTIC SURFACE TEMPORARY
- ADJUSTING MANHOLE COVERS
- ADJUSTING INLET COVERS
- RECONSTRUCTING MANHOLES
- RECONSTRUCTING INLETS
- SAN. MH INTERNAL/EXTERNAL SEAL AND ADJ. WITH SALVAGED FRAME
- M MANHOLE COVER TYPE MS-58A
- ADJUSTING VALVE BOXES
- W ADJUSTING WATER BOVES
- CONCRETE PAVEMENT 10-INCH (RAISED INTERSECTION)
- CONCRETE PAVEMENT 6-INCH
- DEPRESSED CURB OR CURB DRAINAGE CUT

NOTE: SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPES OF STORM SEWER COVERS FOR ADJUSTMENTS AND RECONSTRUCTIONS.





PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - ROADWAY	SHEET 35	E

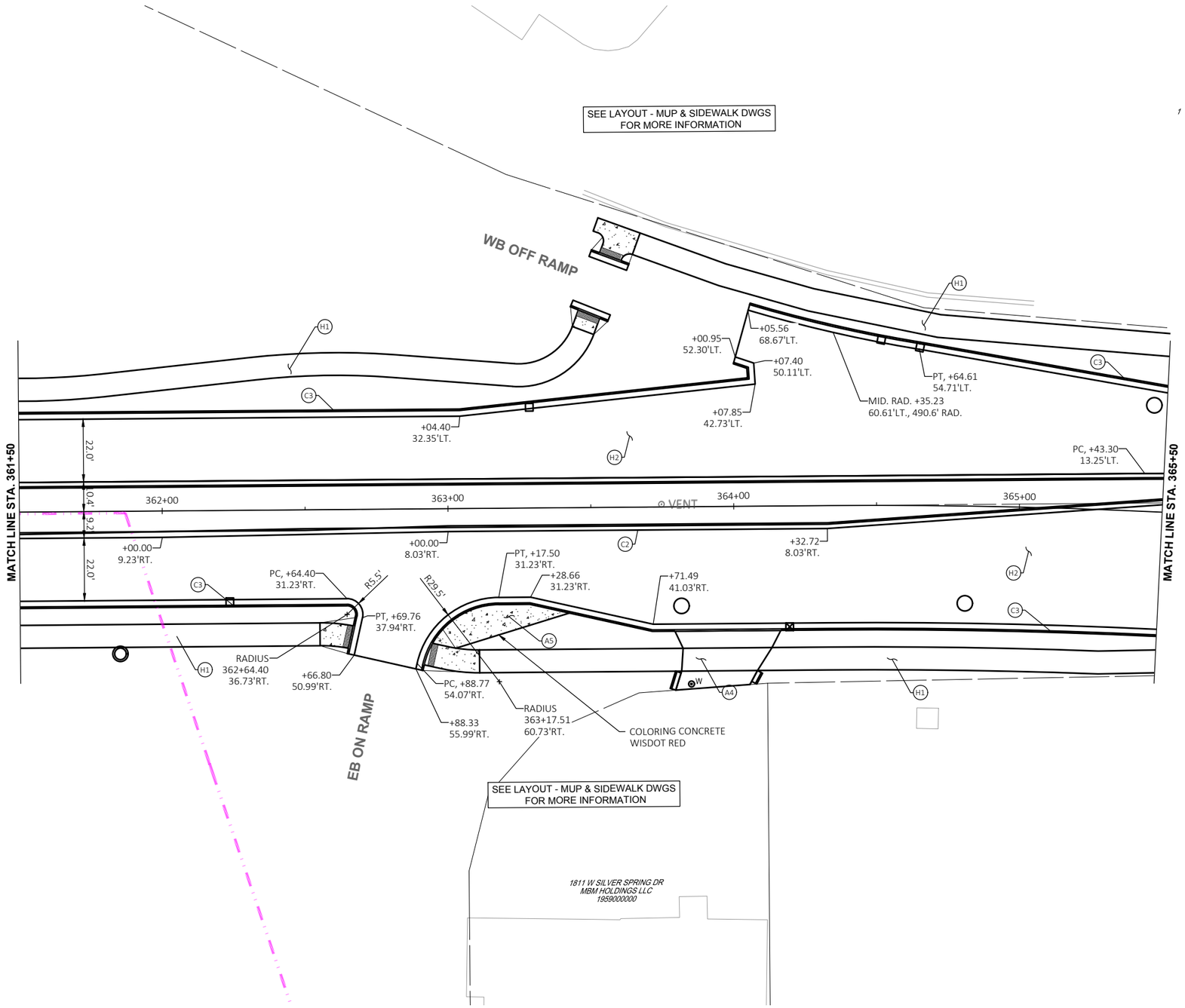
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - ROADWAY.DWG PLOT DATE : 1/23/2025 2:12 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

LEGEND

- (A1) CONCRETE MEDIAN SLOPED NOSE
- (A2) CONCRETE DRIVEWAY 6-INCH
- (A3) CONCRETE DRIVEWAY HES 6-INCH
- (A4) CONCRETE DRIVEWAY HES 8-INCH
- (A5) CONCRETE COLORING WISDOT RED
- (A6) CONCRETE SURFACE DRAIN
- (C1) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (C2) CONCRETE CURB & GUTTER 24-INCH TYPE A
- (C3) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (C4) CONCRETE CURB & GUTTER 36-INCH TYPE A
- (H1) HMA PAVEMENT 3-INCH
  3-INCH HMA PAVEMENT 4 MT 58-34 S
- (H2) HMA PAVEMENT 3.5-INCH
  1 3/4-INCH HMA PVMT 4 MT 58-34 S UPPER LAYER
  1 3/4-INCH HMA PVMT 3 MT 58-28 S LOWER LAYER
- (H3) ASPHALTIC SURFACE TEMPORARY
- ADJUSTING MANHOLE COVERS
- ADJUSTING INLET COVERS
- RECONSTRUCTING MANHOLES
- RECONSTRUCTING INLETS
- SAN. MH INTERNAL/EXTERNAL SEAL AND ADJ. WITH SALVAGED FRAME
- (M) MANHOLE COVER TYPE MS-58A
- ADJUSTING VALVE BOXES
- (W) ADJUSTING WATER BOVES
- CONCRETE PAVEMENT 10-INCH (RAISED INTERSECTION)
- CONCRETE PAVEMENT 6-INCH
- DEPRESSED CURB OR CURB DRAINAGE CUT

NOTE: SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPES OF STORM SEWER COVERS FOR ADJUSTMENTS AND RECONSTRUCTIONS.



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - ROADWAY	SHEET 36	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - ROADWAY.DWG PLOT DATE : 1/23/2025 2:13 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

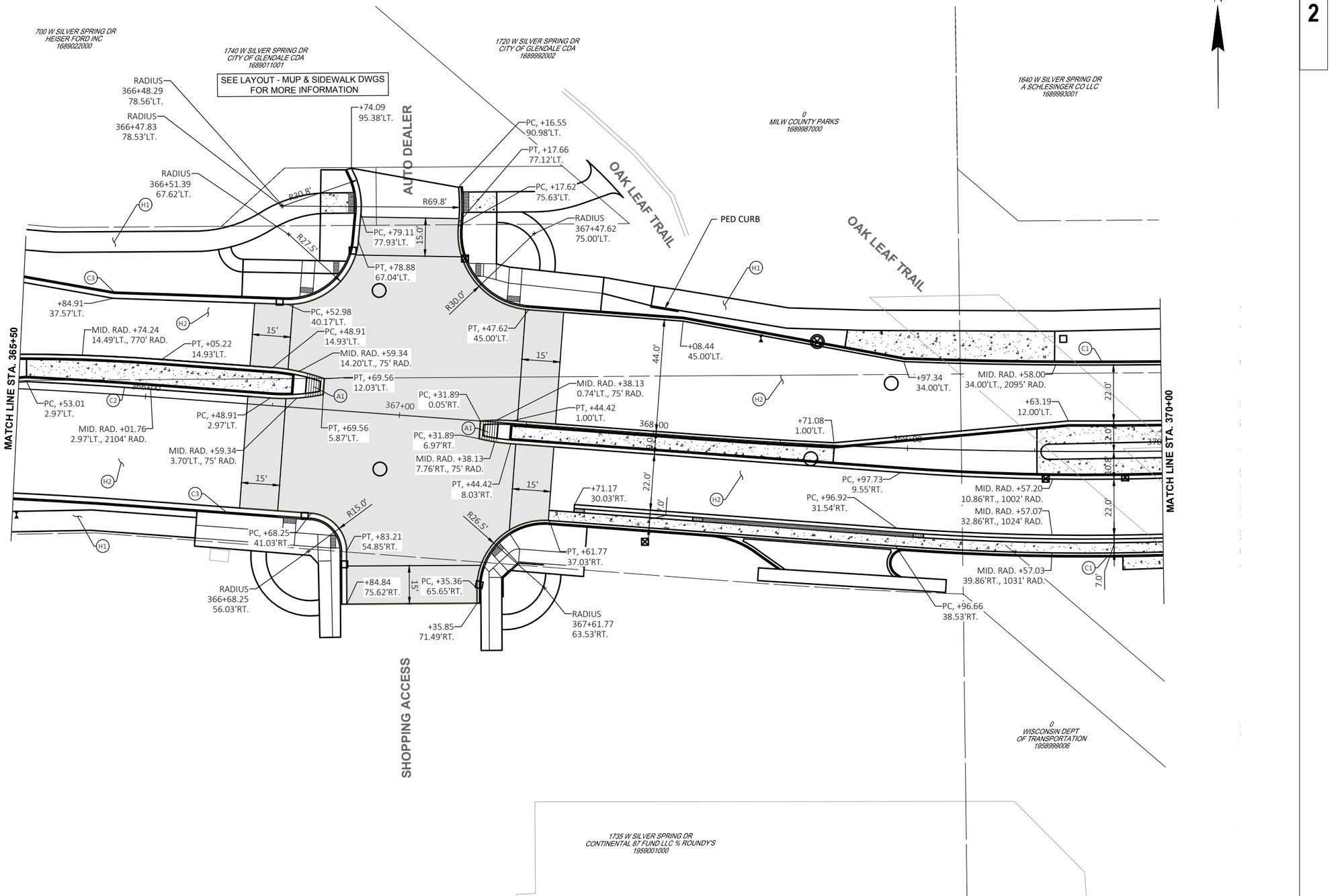
LEGEND

- (A1) CONCRETE MEDIAN SLOPED NOSE
- (A2) CONCRETE DRIVEWAY 6-INCH
- (A3) CONCRETE DRIVEWAY HES 6-INCH
- (A4) CONCRETE DRIVEWAY HES 8-INCH
- (A5) CONCRETE COLORING WISDOT RED
- (A6) CONCRETE SURFACE DRAIN
- (C1) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (C2) CONCRETE CURB & GUTTER 24-INCH TYPE A
- (C3) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (C4) CONCRETE CURB & GUTTER 36-INCH TYPE A

- (H1) HMA PAVEMENT 3-INCH
  3-INCH HMA PAVEMENT 4 MT 58-34 S
- (H2) HMA PAVEMENT 3.5-INCH
  1 3/4-INCH HMA PVMT 4 MT 58-34 S UPPER LAYER
  1 3/4-INCH HMA PVMT 3 MT 58-28 S LOWER LAYER
- (H3) ASPHALTIC SURFACE TEMPORARY

- ADJUSTING MANHOLE COVERS
- ADJUSTING INLET COVERS
- RECONSTRUCTING MANHOLES
- RECONSTRUCTING INLETS
- SAN. MH INTERNAL/EXTERNAL SEAL AND ADJ. WITH SALVAGED FRAME
- (M) MANHOLE COVER TYPE MS-58A
- ADJUSTING VALVE BOXES
- (W) ADJUSTING WATER BOVES
- CONCRETE PAVEMENT 10-INCH (RAISED INTERSECTION)
- CONCRETE PAVEMENT 6-INCH
- DEPRESSED CURB OR CURB DRAINAGE CUT

NOTE: SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPES OF STORM SEWER COVERS FOR ADJUSTMENTS AND RECONSTRUCTIONS.



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - ROADWAY	SHEET 37	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - ROADWAY.DWG PLOT DATE : 1/23/2025 2:13 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

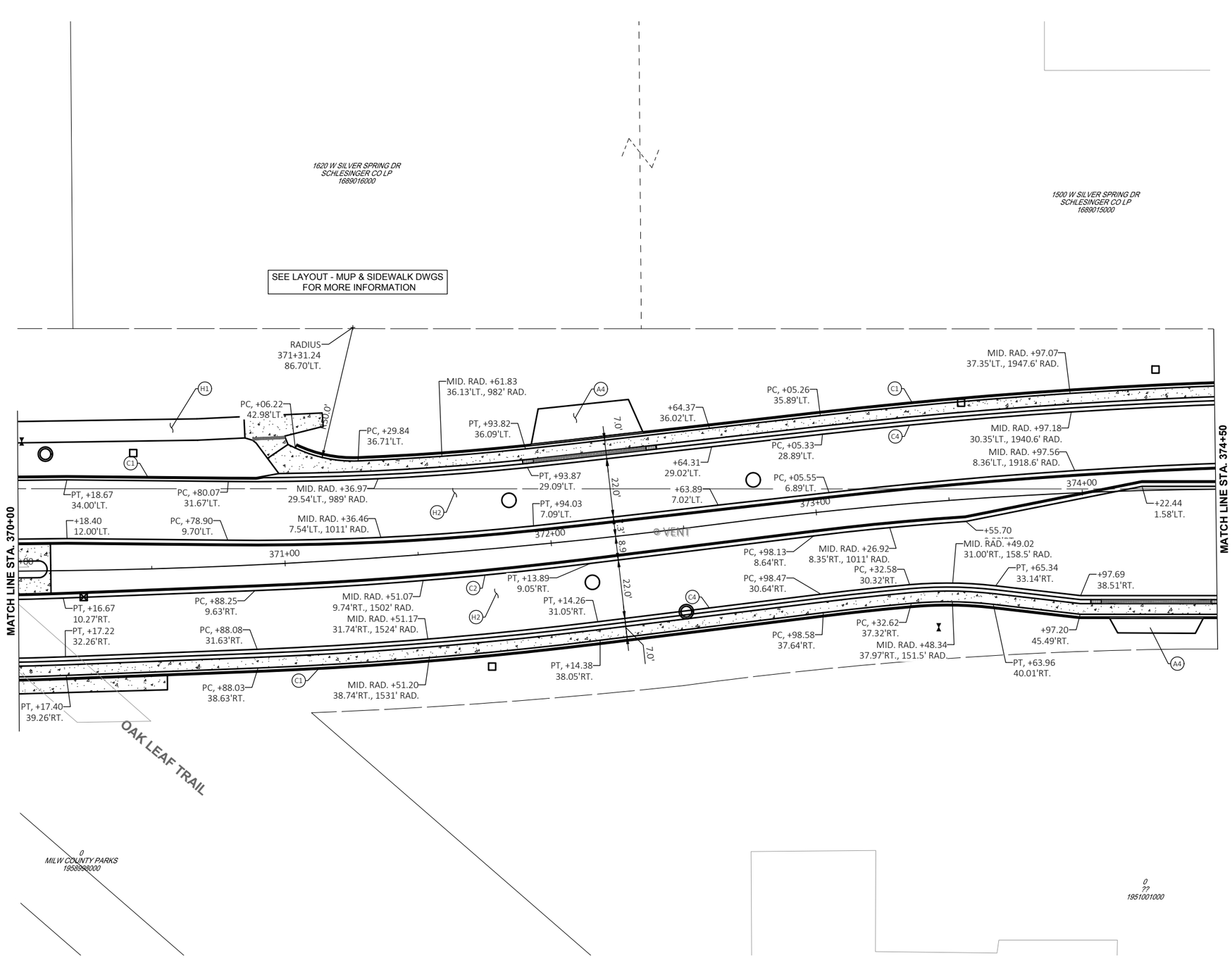
LEGEND

- (A1) CONCRETE MEDIAN SLOPED NOSE
- (A2) CONCRETE DRIVEWAY 6-INCH
- (A3) CONCRETE DRIVEWAY HES 6-INCH
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- (A5) CONCRETE COLORING WISDOT RED
- (A6) CONCRETE SURFACE DRAIN
- (C1) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (C2) CONCRETE CURB & GUTTER 24-INCH TYPE A
- (C3) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (C4) CONCRETE CURB & GUTTER 36-INCH TYPE A

- (H1) HMA PAVEMENT 3-INCH
  3-INCH HMA PAVEMENT 4 MT 58-34 S
- (H2) HMA PAVEMENT 3.5-INCH
  1 3/4-INCH HMA PVMT 4 MT 58-34 S UPPER LAYER
  1 3/4-INCH HMA PVMT 3 MT 58-28 S LOWER LAYER
- (H3) ASPHALTIC SURFACE TEMPORARY

- ADJUSTING MANHOLE COVERS
- ADJUSTING INLET COVERS
- RECONSTRUCTING MANHOLES
- RECONSTRUCTING INLETS
- SAN. MH INTERNAL/EXTERNAL SEAL AND ADJ. WITH SALVAGED FRAME
- (M) MANHOLE COVER TYPE MS-58A
- ADJUSTING VALVE BOXES
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- CONCRETE PAVEMENT 10-INCH (RAISED INTERSECTION)
- CONCRETE PAVEMENT 6-INCH
- DEPRESSED CURB OR CURB DRAINAGE CUT

NOTE: SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPES OF STORM SEWER COVERS FOR ADJUSTMENTS AND RECONSTRUCTIONS.



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - ROADWAY	SHEET 38	E

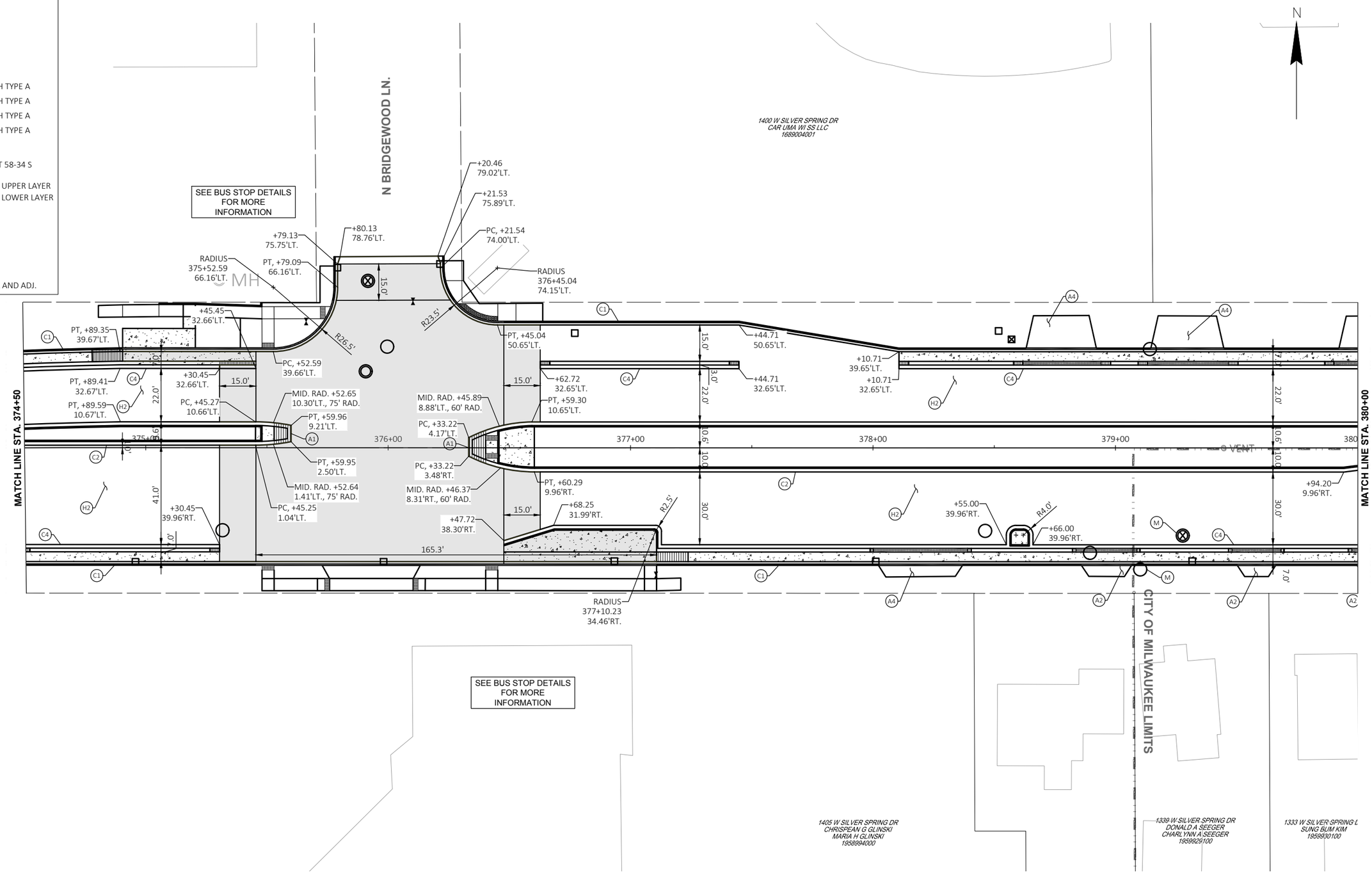
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - ROADWAY.DWG PLOT DATE : 1/23/2025 2:14 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

LEGEND

- (A1) CONCRETE MEDIAN SLOPED NOSE
- (A2) CONCRETE DRIVEWAY 6-INCH
- (A3) CONCRETE DRIVEWAY HES 6-INCH
- (A4) CONCRETE DRIVEWAY HES 8-INCH
- (A5) CONCRETE COLORING WISDOT RED
- (A6) CONCRETE SURFACE DRAIN
- (C1) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (C2) CONCRETE CURB & GUTTER 24-INCH TYPE A
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- (H1) HMA PAVEMENT 3-INCH
  3-INCH HMA PAVEMENT 4 MT 58-34 S
- (H2) HMA PAVEMENT 3.5-INCH
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  1 3/4-INCH HMA PVMT 3 MT 58-28 S LOWER LAYER
- (H3) ASPHALTIC SURFACE TEMPORARY
- ADJUSTING MANHOLE COVERS
- ADJUSTING INLET COVERS
- RECONSTRUCTING MANHOLES
- RECONSTRUCTING INLETS
- SAN. MH INTERNAL/EXTERNAL SEAL AND ADJ. WITH SALVAGED FRAME
- (M) MANHOLE COVER TYPE MS-58A
- ADJUSTING VALVE BOXES
- (W) ADJUSTING WATER BOVES
- CONCRETE PAVEMENT 10-INCH (RAISED INTERSECTION)
- CONCRETE PAVEMENT 6-INCH
- DEPRESSED CURB OR CURB DRAINAGE CUT

NOTE: SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPES OF STORM SEWER COVERS FOR ADJUSTMENTS AND RECONSTRUCTIONS.



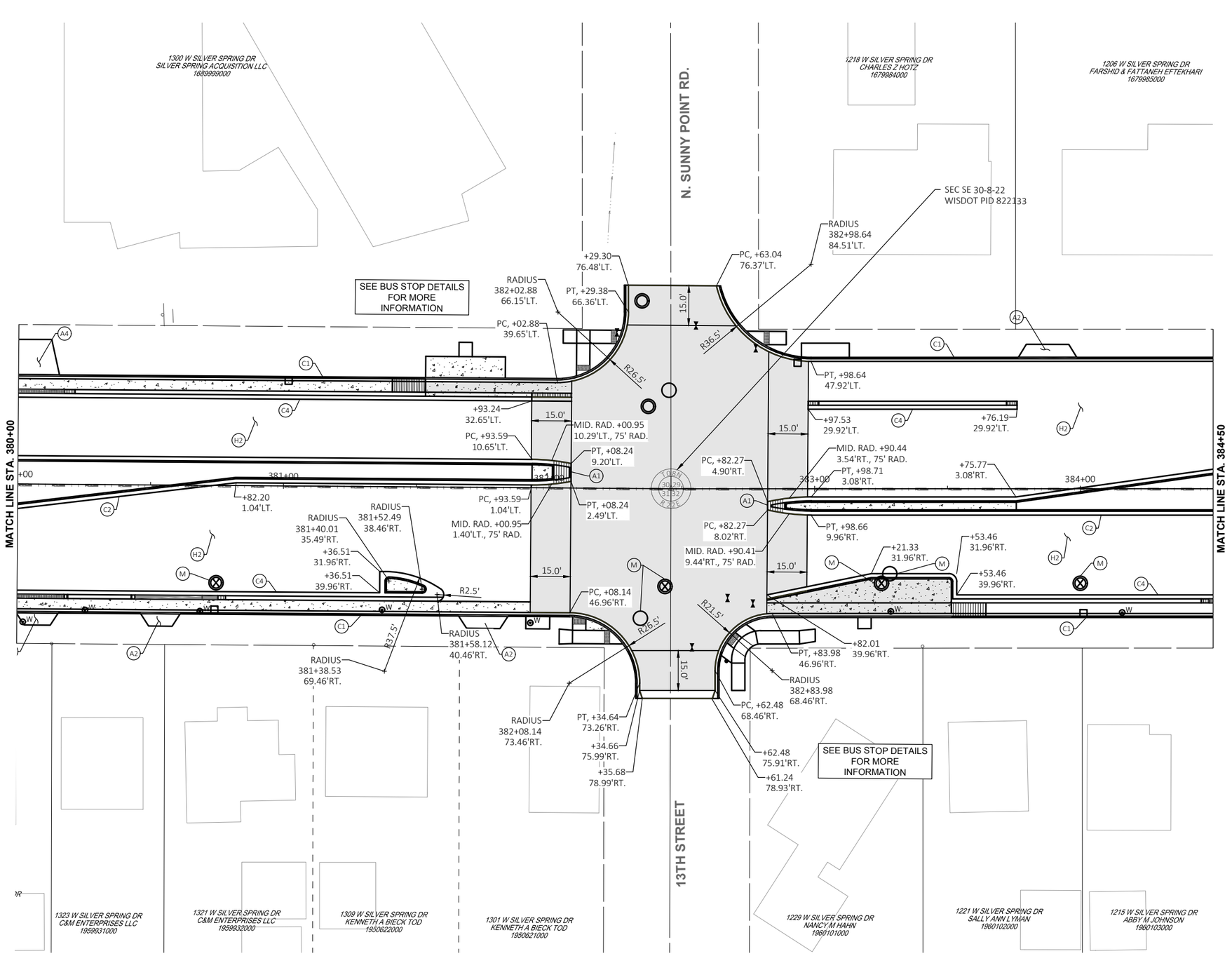
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - ROADWAY	SHEET 39	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - ROADWAY.DWG PLOT DATE : 1/23/2025 2:14 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

LEGEND

- (A1) CONCRETE MEDIAN SLOPED NOSE
- (A2) CONCRETE DRIVEWAY 6-INCH
- (A3) CONCRETE DRIVEWAY HES 6-INCH
- (A4) CONCRETE DRIVEWAY HES 8-INCH
- (A5) CONCRETE COLORING WISDOT RED
- (A6) CONCRETE SURFACE DRAIN
- (C1) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (C2) CONCRETE CURB & GUTTER 24-INCH TYPE A
- (C3) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (C4) CONCRETE CURB & GUTTER 36-INCH TYPE A
- (H1) HMA PAVEMENT 3-INCH
  3-INCH HMA PAVEMENT 4 MT 58-34 S
- (H2) HMA PAVEMENT 3.5-INCH
  1 3/4-INCH HMA PVMT 4 MT 58-34 S UPPER LAYER
  1 3/4-INCH HMA PVMT 3 MT 58-28 S LOWER LAYER
- (H3) ASPHALTIC SURFACE TEMPORARY
- ADJUSTING MANHOLE COVERS
- ADJUSTING INLET COVERS
- RECONSTRUCTING MANHOLES
- RECONSTRUCTING INLETS
- SAN. MH INTERNAL/EXTERNAL SEAL AND ADJ. WITH SALVAGED FRAME
- (M) MANHOLE COVER TYPE MS-58A
- ADJUSTING VALVE BOXES
- (W) ADJUSTING WATER BOVES
- CONCRETE PAVEMENT 10-INCH (RAISED INTERSECTION)
- CONCRETE PAVEMENT 6-INCH
- DEPRESSED CURB OR CURB DRAINAGE CUT

NOTE: SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPES OF STORM SEWER COVERS FOR ADJUSTMENTS AND RECONSTRUCTIONS.



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - ROADWAY	SHEET 40	E

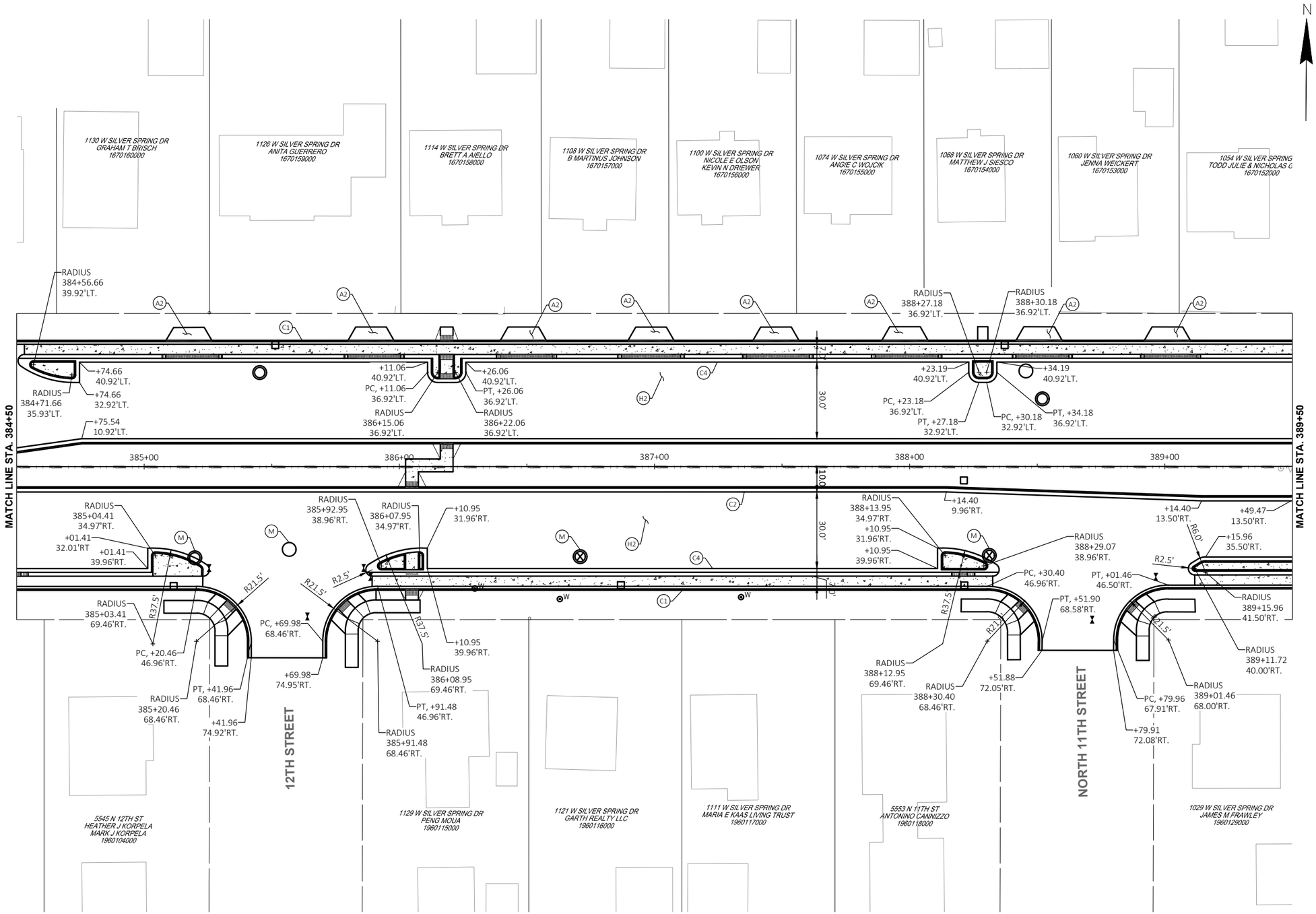
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - ROADWAY.DWG PLOT DATE : 1/23/2025 2:15 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

LEGEND

- (A1) CONCRETE MEDIAN SLOPED NOSE
- (A2) CONCRETE DRIVEWAY 6-INCH
- (A3) CONCRETE DRIVEWAY HES 6-INCH
- (A4) CONCRETE DRIVEWAY HES 8-INCH
- (A5) CONCRETE COLORING WISDOT RED
- (A6) CONCRETE SURFACE DRAIN
- (C1) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (C2) CONCRETE CURB & GUTTER 24-INCH TYPE A
- (C3) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (C4) CONCRETE CURB & GUTTER 36-INCH TYPE A
- (H1) HMA PAVEMENT 3-INCH
  3-INCH HMA PAVEMENT 4 MT 58-34 S
- (H2) HMA PAVEMENT 3.5-INCH
  1 3/4-INCH HMA PVMT 4 MT 58-34 S UPPER LAYER
  1 3/4-INCH HMA PVMT 3 MT 58-28 S LOWER LAYER
- (H3) ASPHALTIC SURFACE TEMPORARY
- ADJUSTING MANHOLE COVERS
- ADJUSTING INLET COVERS
- RECONSTRUCTING MANHOLES
- RECONSTRUCTING INLETS
- SAN. MH INTERNAL/EXTERNAL SEAL AND ADJ. WITH SALVAGED FRAME
- (M) MANHOLE COVER TYPE MS-58A
- ADJUSTING VALVE BOXES
- (W) ADJUSTING WATER BOVES
- CONCRETE PAVEMENT 10-INCH (RAISED INTERSECTION)
- CONCRETE PAVEMENT 6-INCH
- DEPRESSED CURB OR CURB DRAINAGE CUT

NOTE: SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPES OF STORM SEWER COVERS FOR ADJUSTMENTS AND RECONSTRUCTIONS.



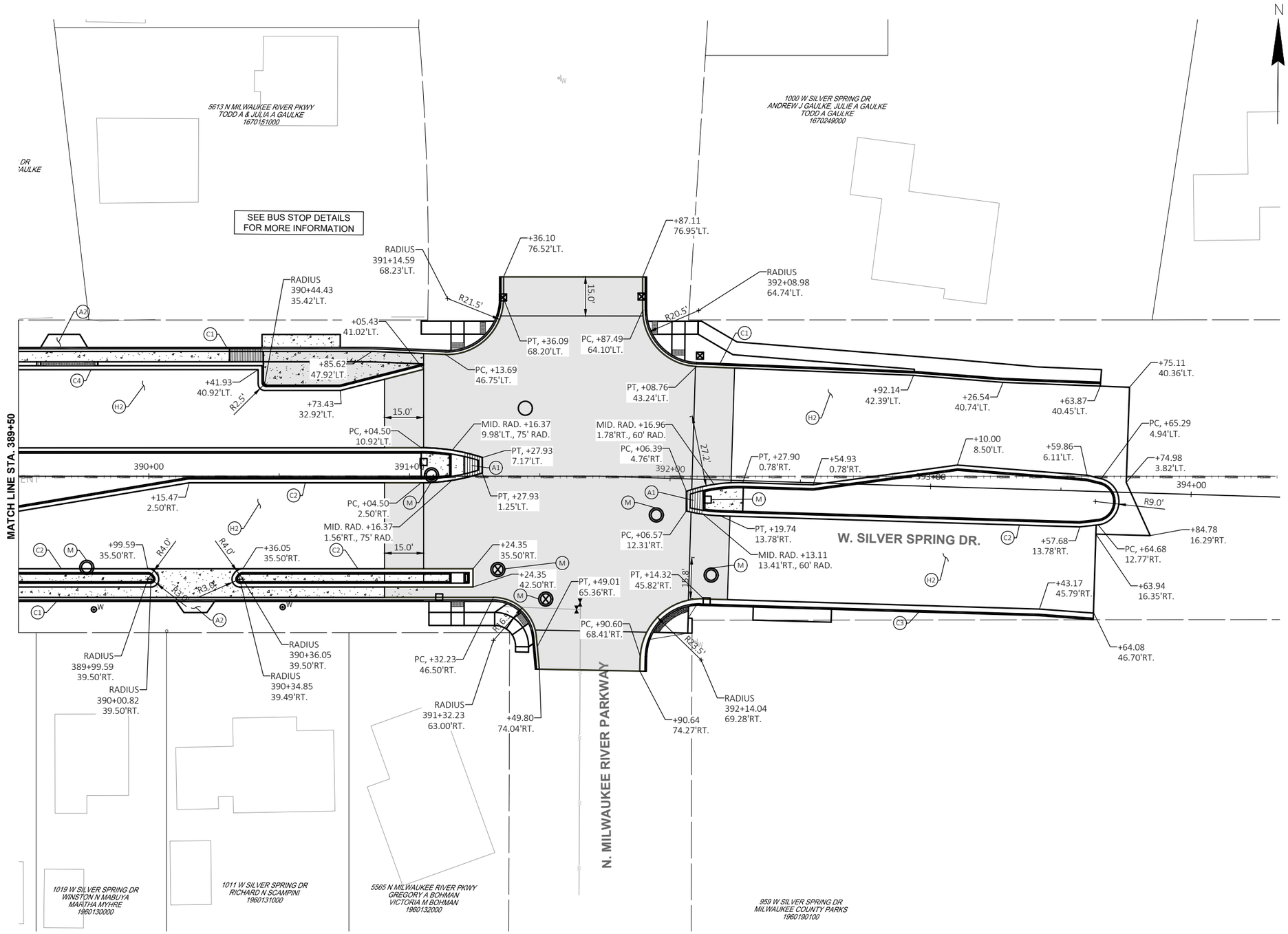
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - ROADWAY	SHEET 41	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - ROADWAY.DWG PLOT DATE : 1/23/2025 2:15 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

LEGEND

- (A1) CONCRETE MEDIAN SLOPED NOSE
- (A2) CONCRETE DRIVEWAY 6-INCH
- (A3) CONCRETE DRIVEWAY HES 6-INCH
- (A4) CONCRETE DRIVEWAY HES 8-INCH
- (A5) CONCRETE COLORING WISDOT RED
- (A6) CONCRETE SURFACE DRAIN
- (C1) CONCRETE CURB & GUTTER 18-INCH TYPE A
- (C2) CONCRETE CURB & GUTTER 24-INCH TYPE A
- (C3) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (C4) CONCRETE CURB & GUTTER 36-INCH TYPE A
- (H1) HMA PAVEMENT 3-INCH
  3-INCH HMA PAVEMENT 4 MT 58-34 S
- (H2) HMA PAVEMENT 3.5-INCH
  1 3/4-INCH HMA PVMT 4 MT 58-34 S UPPER LAYER
  1 3/4-INCH HMA PVMT 3 MT 58-28 S LOWER LAYER
- (H3) ASPHALTIC SURFACE TEMPORARY
- ADJUSTING MANHOLE COVERS
- ADJUSTING INLET COVERS
- RECONSTRUCTING MANHOLES
- RECONSTRUCTING INLETS
- SAN. MH INTERNAL/EXTERNAL SEAL AND ADJ. WITH SALVAGED FRAME
- (M) MANHOLE COVER TYPE MS-58A
- ADJUSTING VALVE BOXES
- (W) ADJUSTING WATER BOVES
- CONCRETE PAVEMENT 10-INCH (RAISED INTERSECTION)
- CONCRETE PAVEMENT 6-INCH
- DEPRESSED CURB OR CURB DRAINAGE CUT

NOTE: SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPES OF STORM SEWER COVERS FOR ADJUSTMENTS AND RECONSTRUCTIONS.

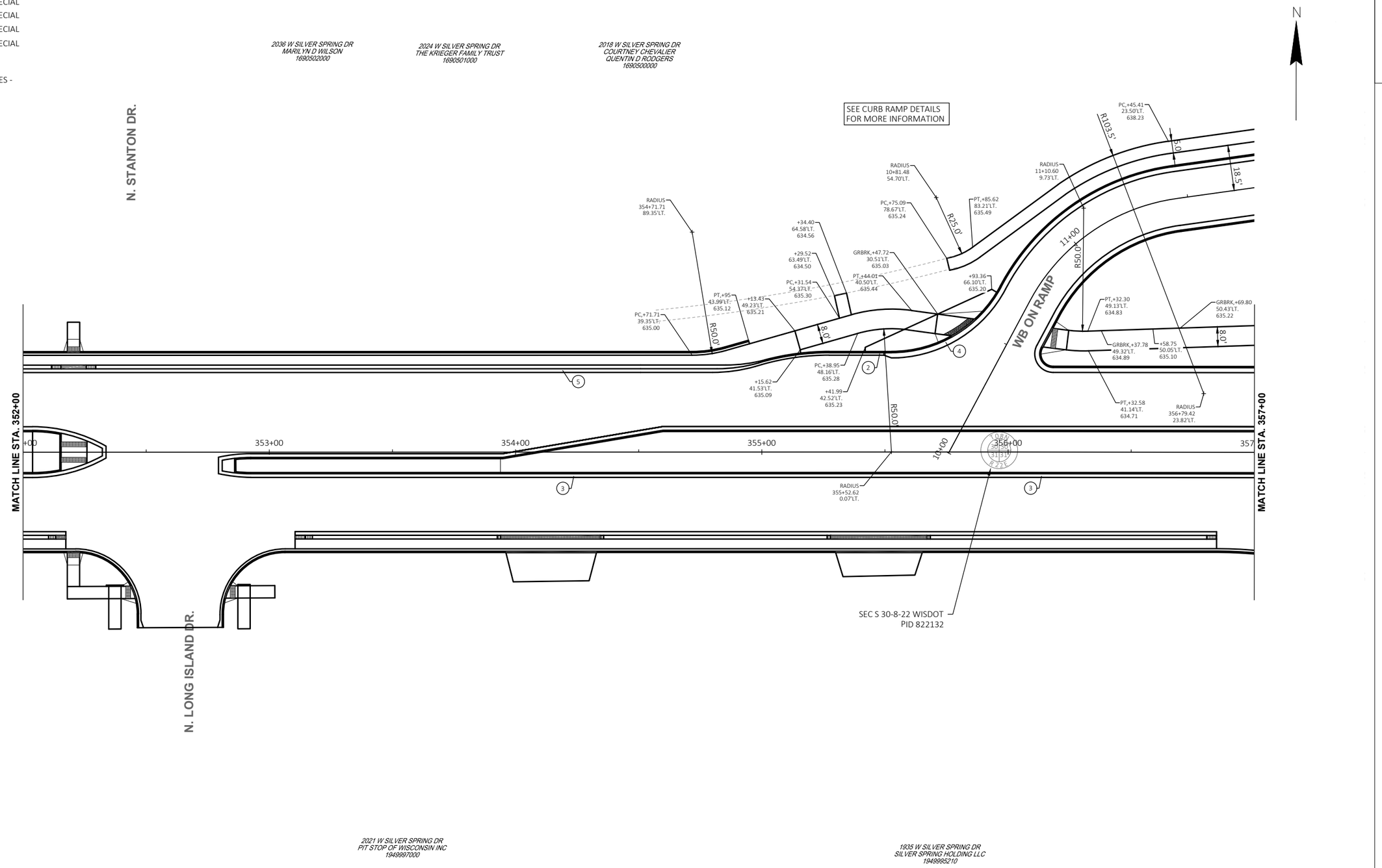


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - ROADWAY	SHEET 42	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - ROADWAY.DWG PLOT DATE : 1/23/2025 2:16 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

1. CONCRETE MEDIAN SLOPE NOSE
2. CONC. CURB AND GUTTER, 18-INCH, SPECIAL
3. CONC. CURB AND GUTTER, 24-INCH, SPECIAL
4. CONC. CURB AND GUTTER, 30-INCH, SPECIAL
5. CONC. CURB AND GUTTER, 36-INCH, SPECIAL

NOTE:
FOR MORE GRADE INFORMATION SEE GRADES - ROADWAY AND CURB RAMP DETAILS.

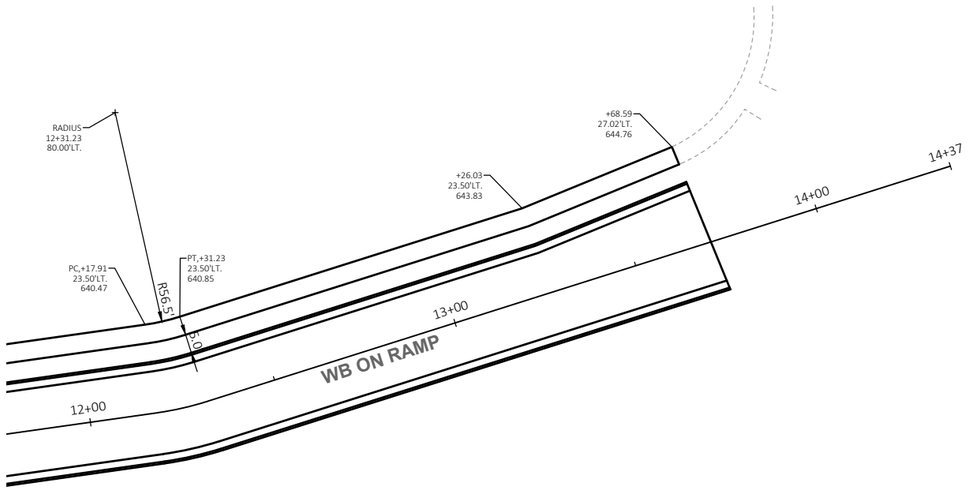


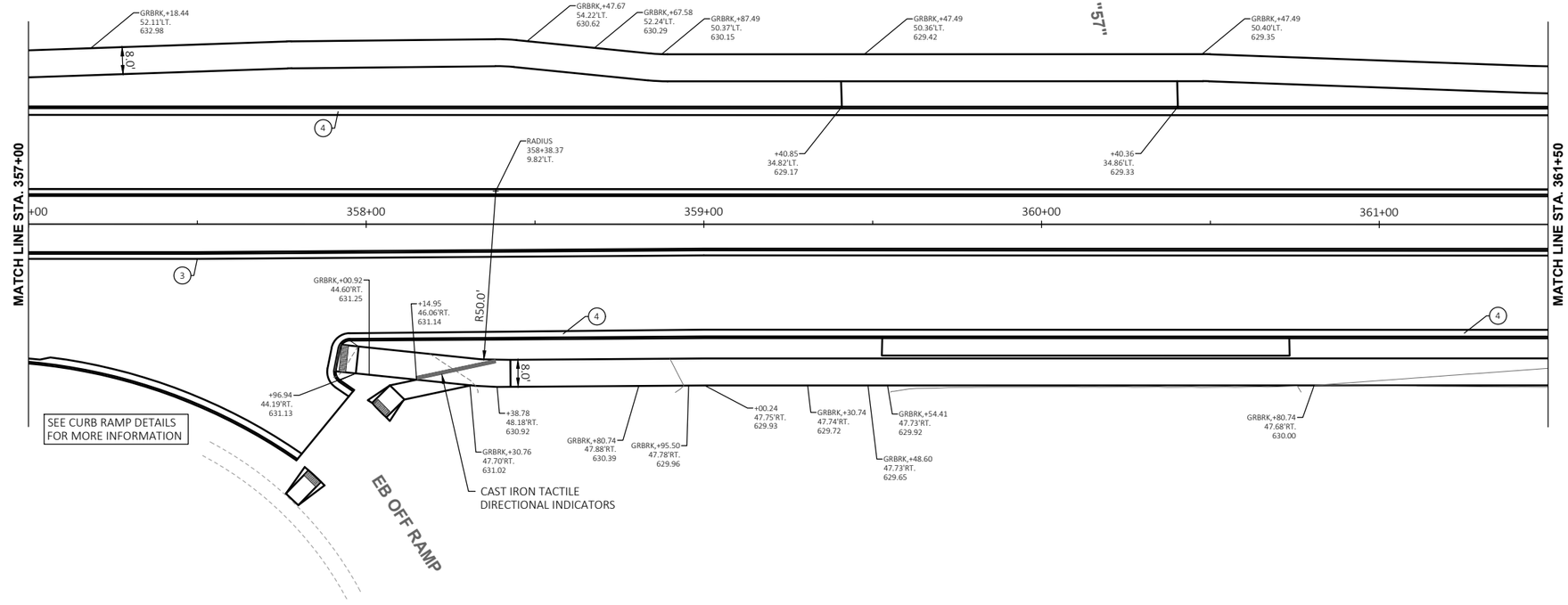
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - MUP & SIDEWALK	SHEET 43	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - SIDEWALKS & PATHS.DWG PLOT DATE : 1/23/2025 2:16 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

1. CONCRETE MEDIAN SLOPE NOSE
2. CONC. CURB AND GUTTER, 18-INCH, SPECIAL
3. CONC. CURB AND GUTTER, 24-INCH, SPECIAL
4. CONC. CURB AND GUTTER, 30-INCH, SPECIAL
5. CONC. CURB AND GUTTER, 36-INCH, SPECIAL

NOTE:
FOR MORE GRADE INFORMATION SEE GRADES - ROADWAY AND CURB RAMP DETAILS.





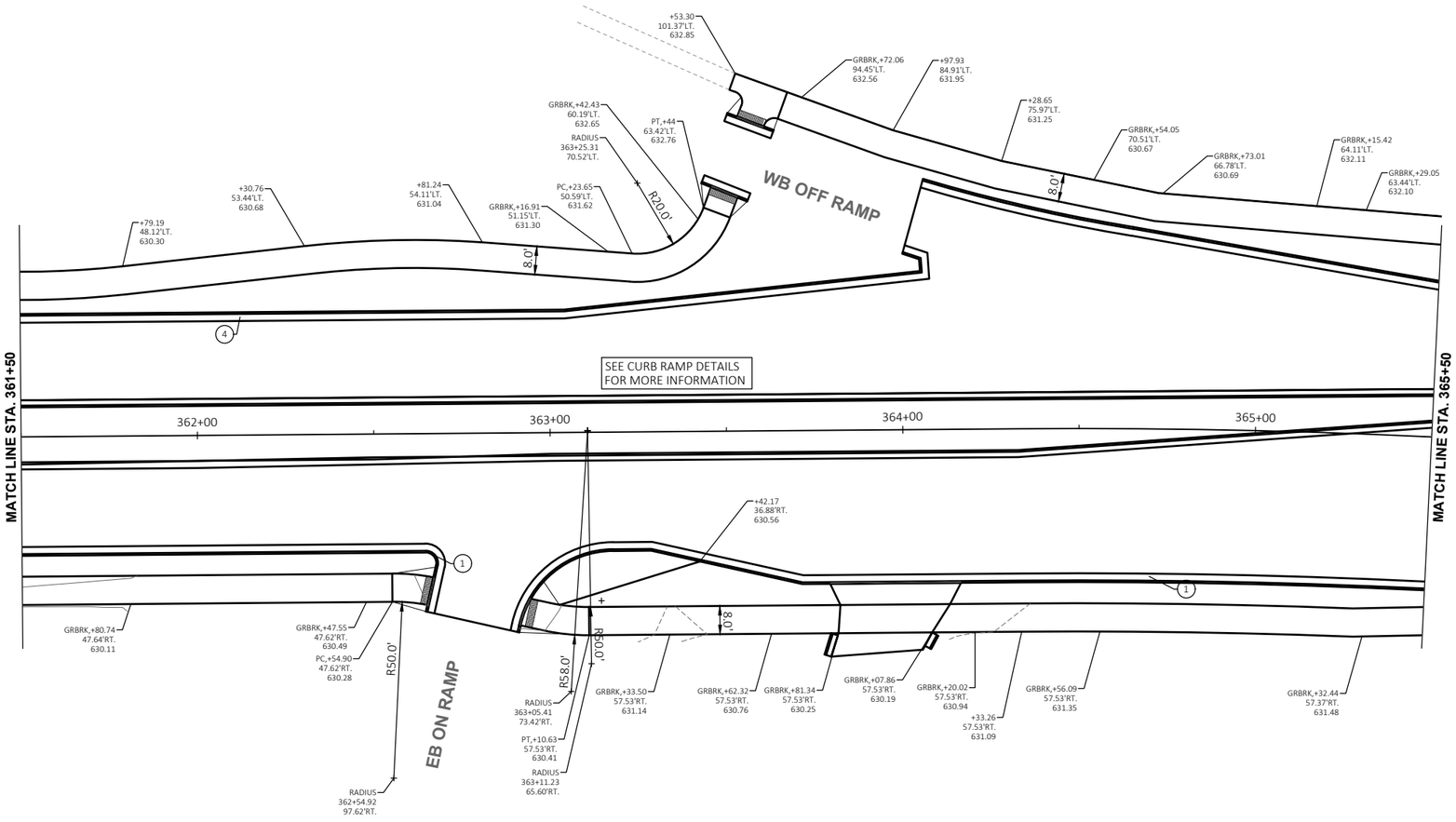
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - MUP & SIDEWALK	SHEET 44	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - SIDEWALKS & PATHS.DWG PLOT DATE : 1/23/2025 2:16 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

1. CONCRETE MEDIAN SLOPE NOSE
2. CONC. CURB AND GUTTER, 18-INCH, SPECIAL
3. CONC. CURB AND GUTTER, 24-INCH, SPECIAL
4. CONC. CURB AND GUTTER, 30-INCH, SPECIAL
5. CONC. CURB AND GUTTER, 36-INCH, SPECIAL

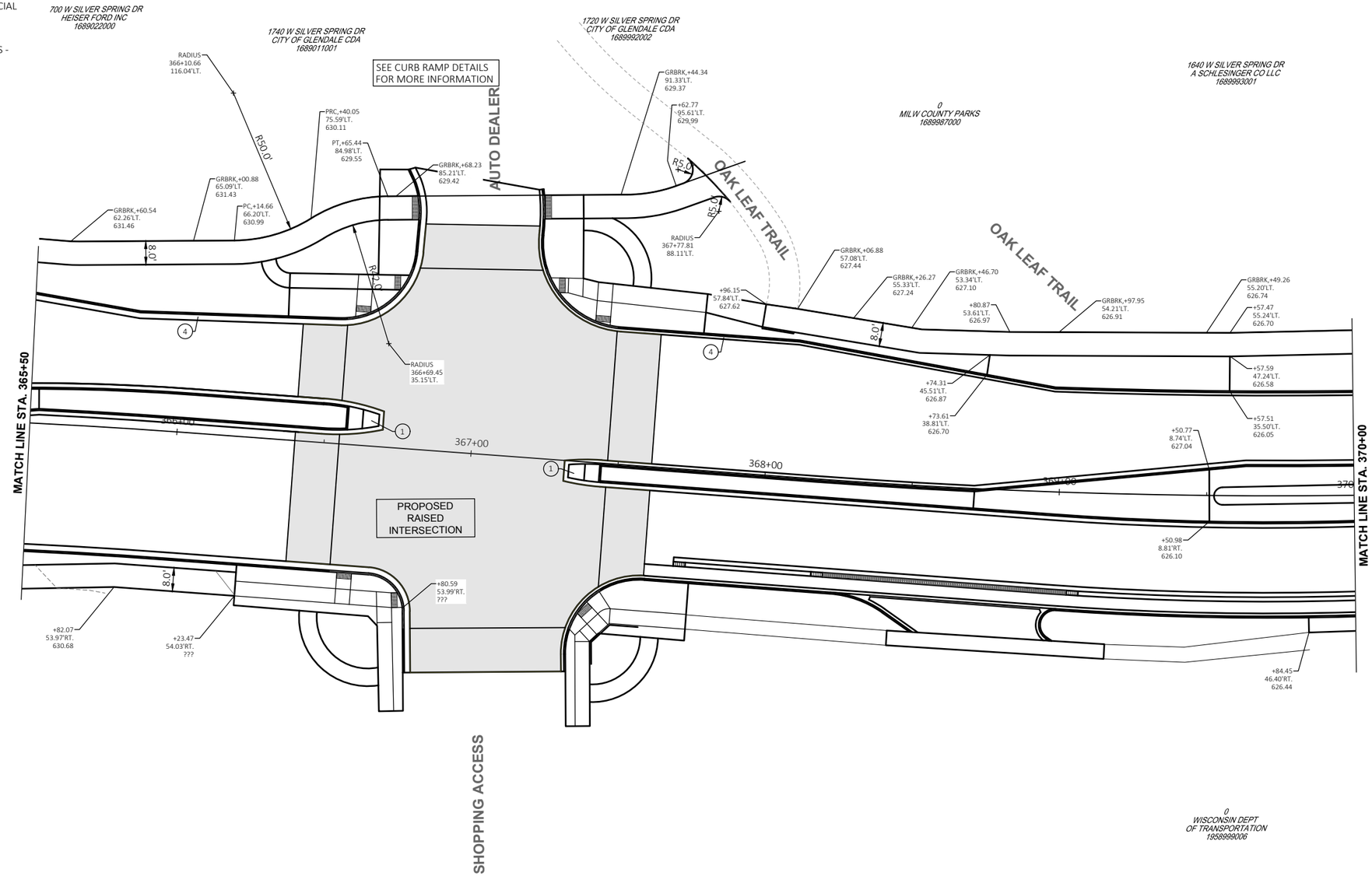
NOTE:
FOR MORE GRADE INFORMATION SEE GRADES - ROADWAY AND CURB RAMP DETAILS.

2



1. CONCRETE MEDIAN SLOPE NOSE
2. CONC. CURB AND GUTTER, 18-INCH, SPECIAL
3. CONC. CURB AND GUTTER, 24-INCH, SPECIAL
4. CONC. CURB AND GUTTER, 30-INCH, SPECIAL
5. CONC. CURB AND GUTTER, 36-INCH, SPECIAL

NOTE:
FOR MORE GRADE INFORMATION SEE GRADES - ROADWAY AND CURB RAMP DETAILS.



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - MUP & SIDEWALK	SHEET 46	E

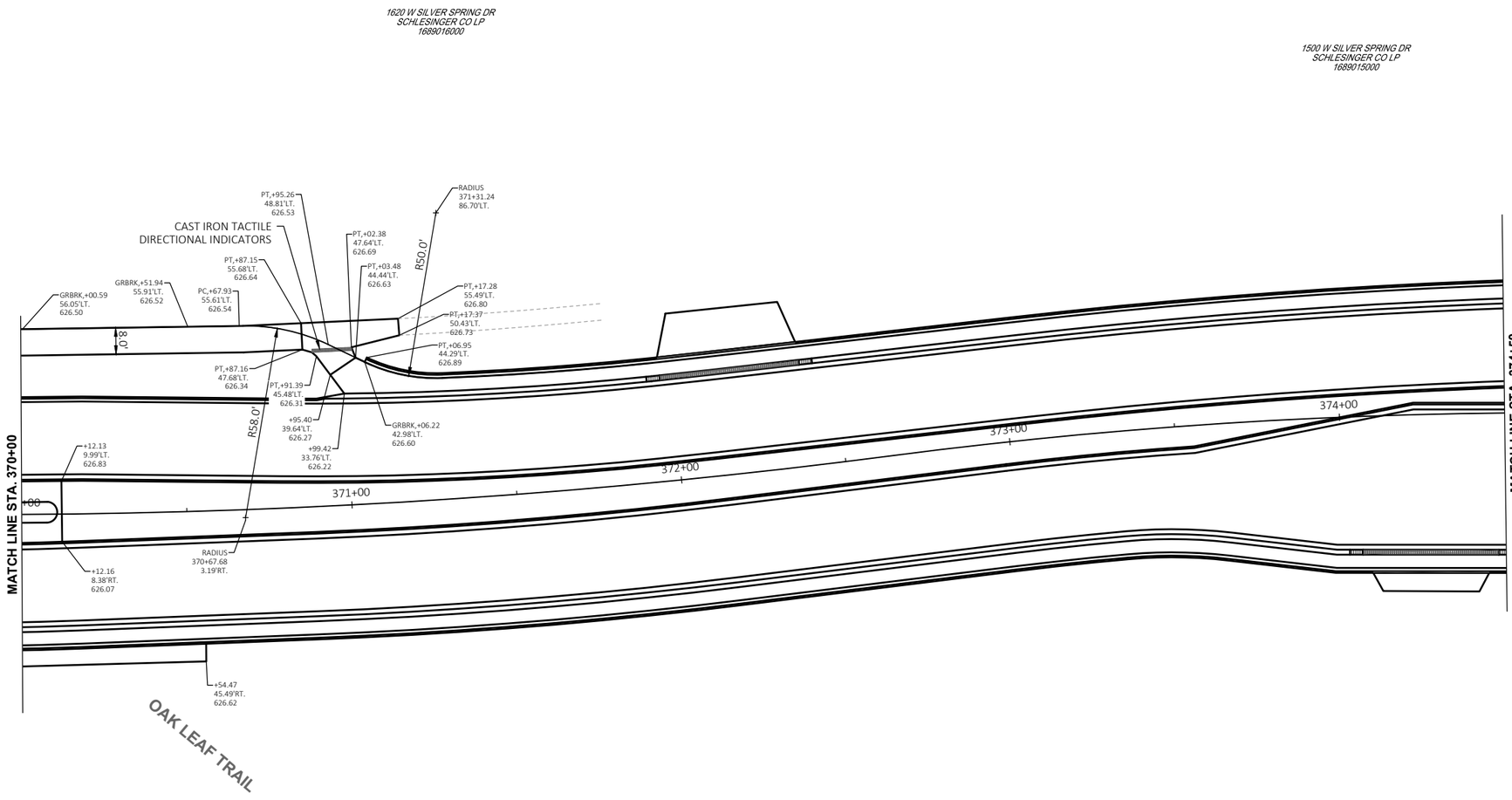
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LAYOUT - SIDEWALKS & PATHS.DWG PLOT DATE : 1/23/2025 2:16 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

1. CONCRETE MEDIAN SLOPE NOSE
2. CONC. CURB AND GUTTER, 18-INCH, SPECIAL
3. CONC. CURB AND GUTTER, 24-INCH, SPECIAL
4. CONC. CURB AND GUTTER, 30-INCH, SPECIAL
5. CONC. CURB AND GUTTER, 36-INCH, SPECIAL

NOTE:
FOR MORE GRADE INFORMATION SEE GRADES - ROADWAY AND CURB RAMP DETAILS.

2

N

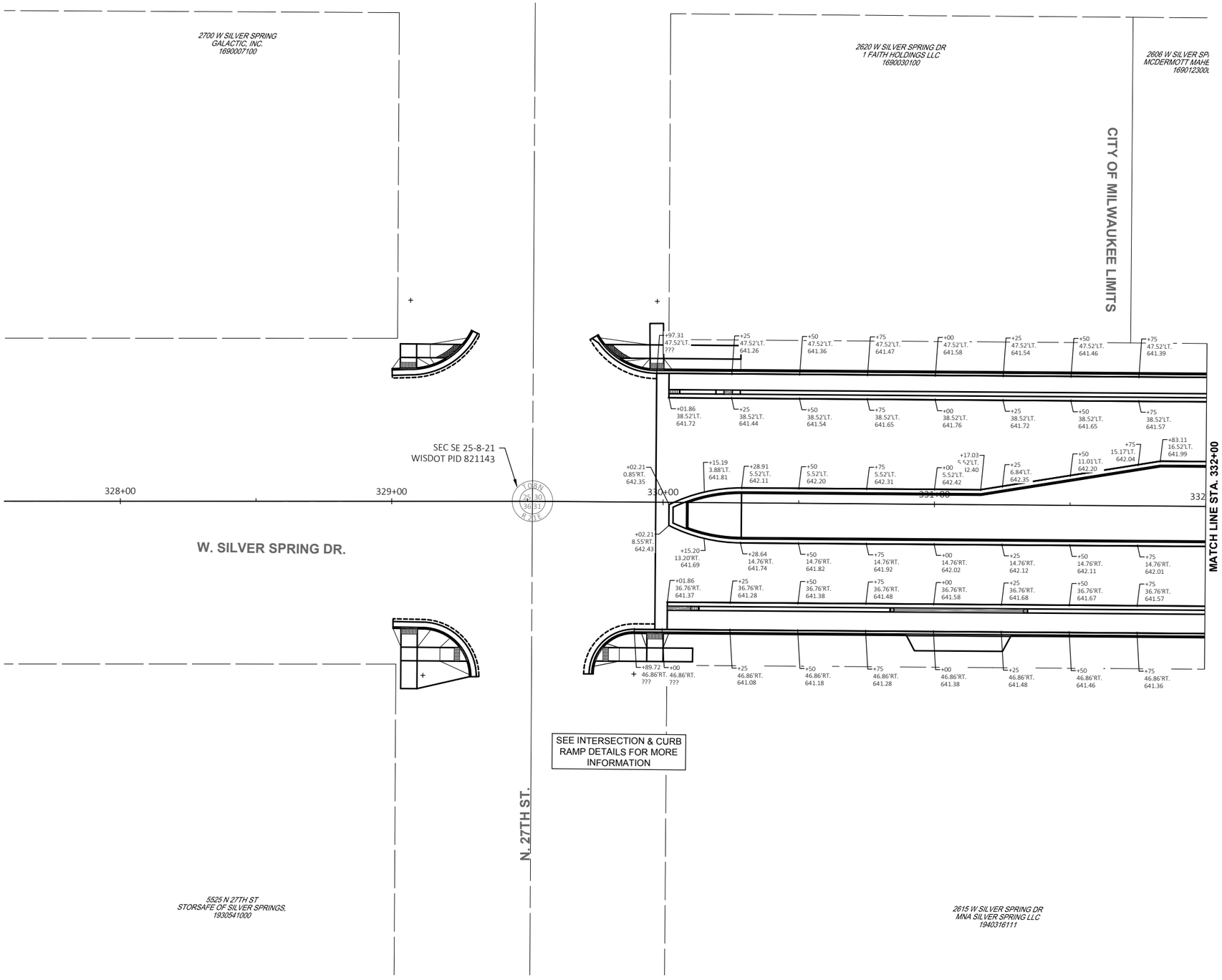


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LAYOUT - MUP & SIDEWALK	SHEET 47	E

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

— — DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	GRADES - ROADWAY	SHEET 48	E

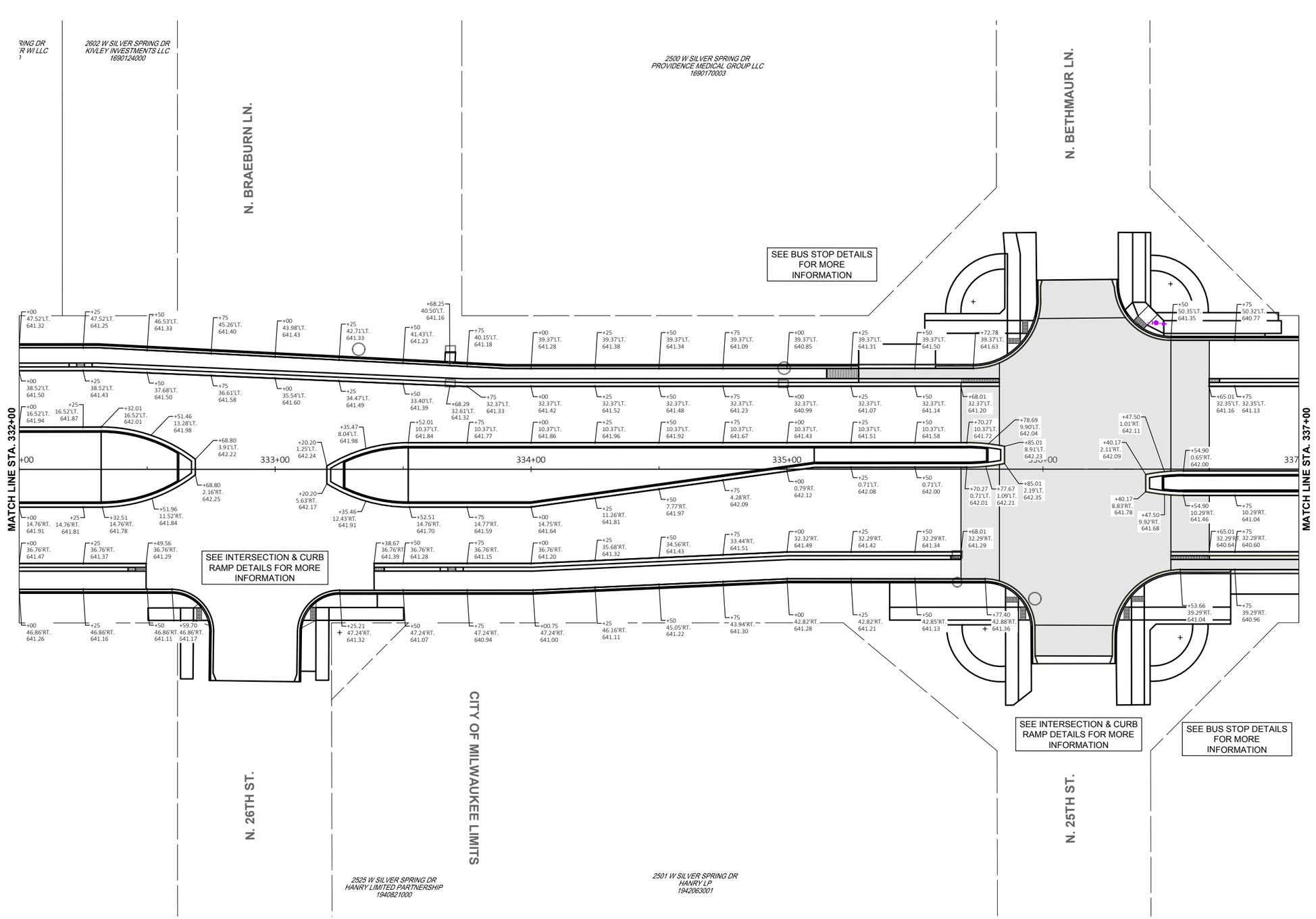
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\GRADES - ROADWAY.DWG PLOT DATE : 1/23/2025 2:16 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

— — DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



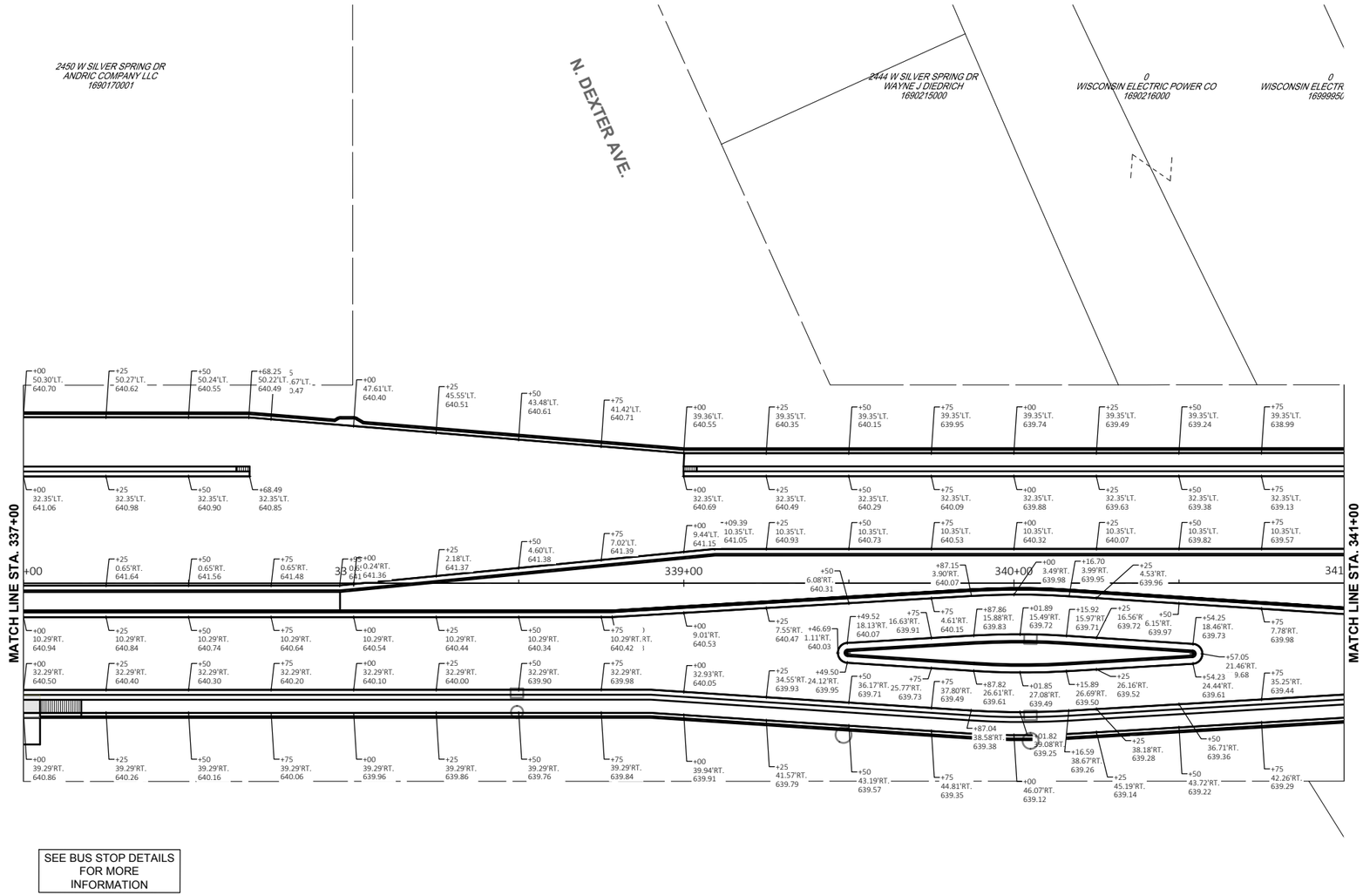
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	GRADES - ROADWAY	SHEET 49	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\GRADES - ROADWAY.DWG PLOT DATE : 1/23/2025 2:16 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

— DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



2

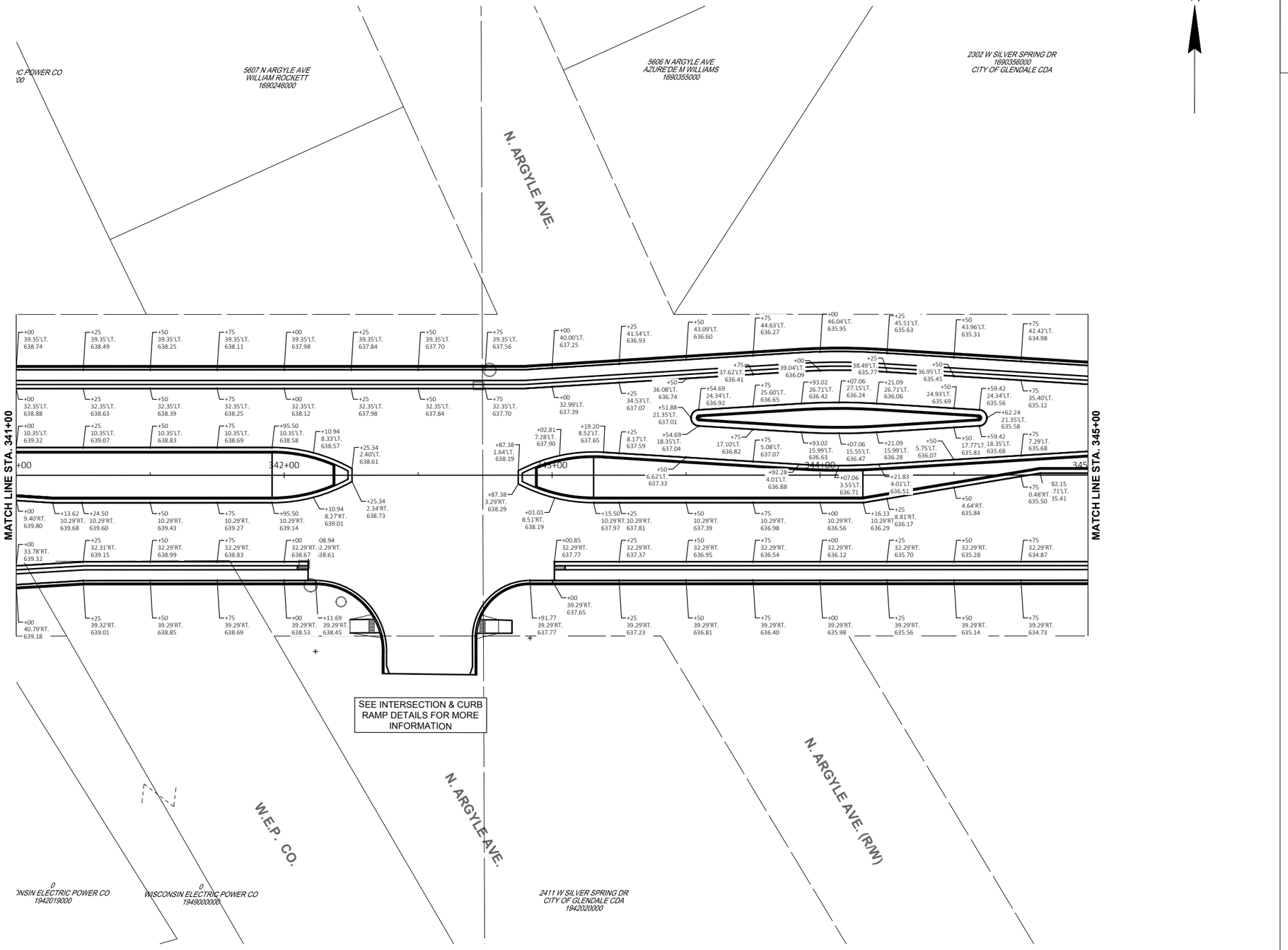
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	GRADES - ROADWAY	SHEET 50	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\GRADES - ROADWAY.DWG PLOT DATE : 1/23/2025 2:17 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

— DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



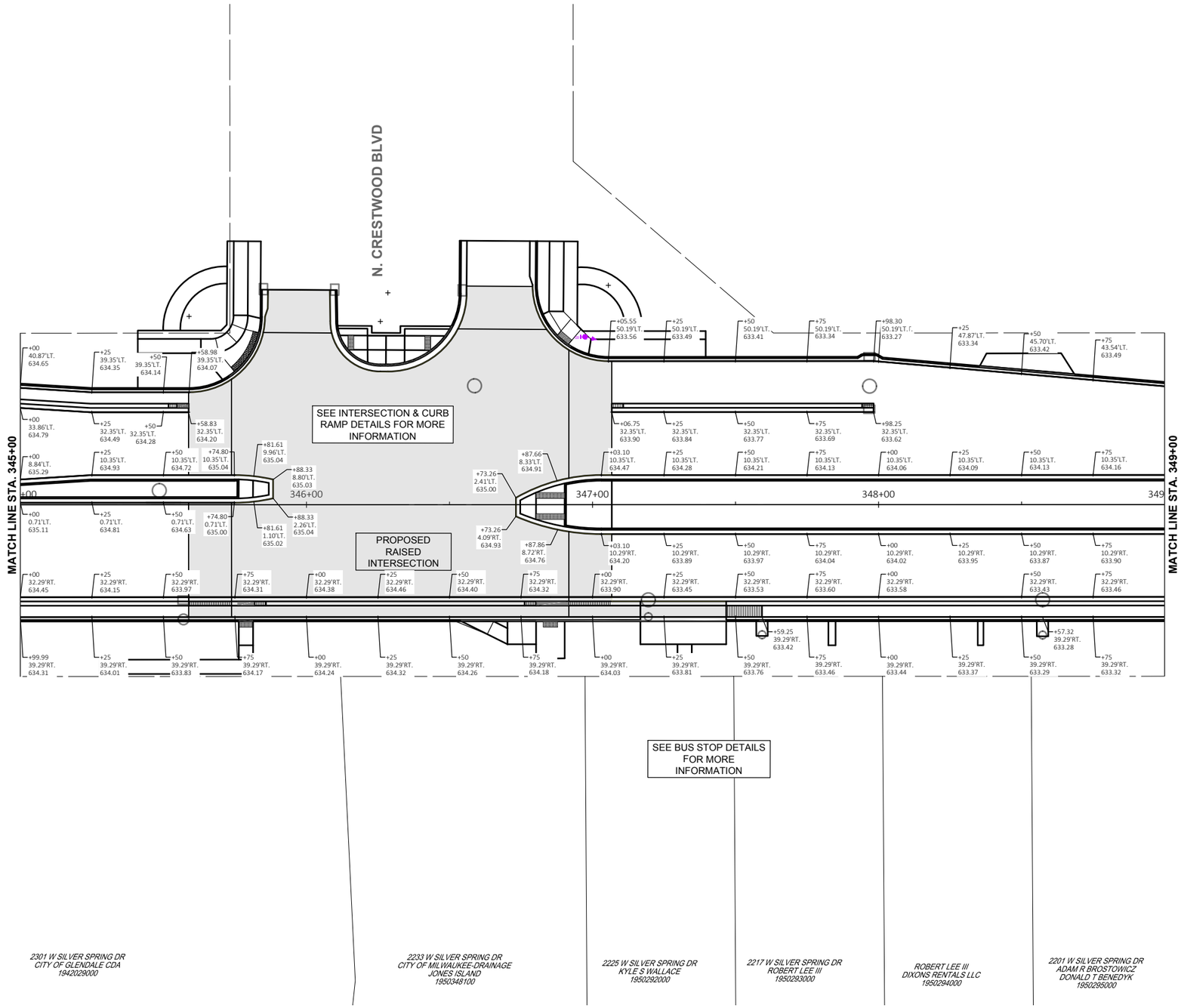
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	GRADES - ROADWAY	SHEET 51	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\GRADES - ROADWAY.DWG PLOT DATE : 1/23/2025 2:17 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

— DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



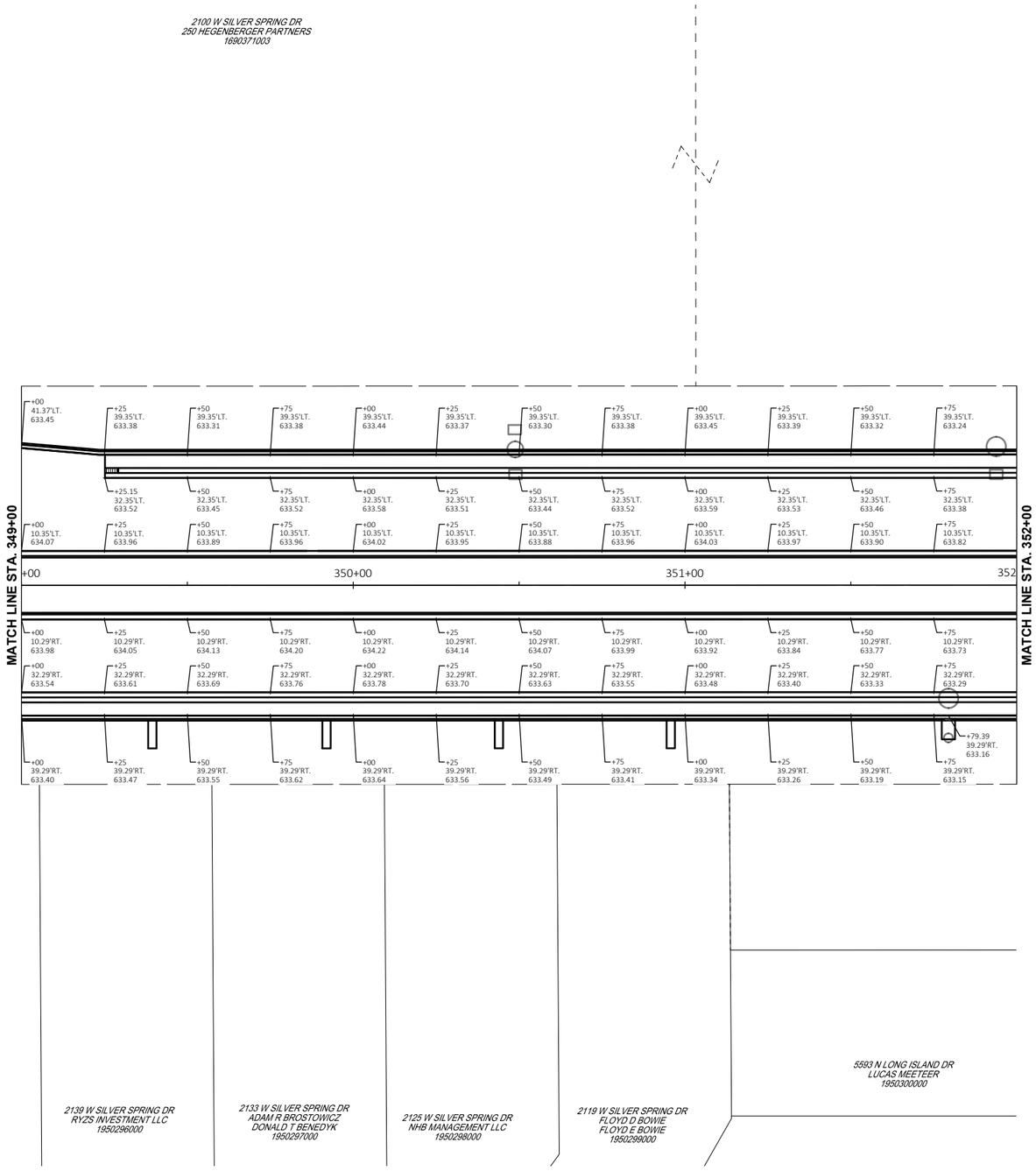
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	GRADES - ROADWAY	SHEET 52	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\GRADES - ROADWAY.DWG PLOT DATE : 1/23/2025 2:17 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

— — DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



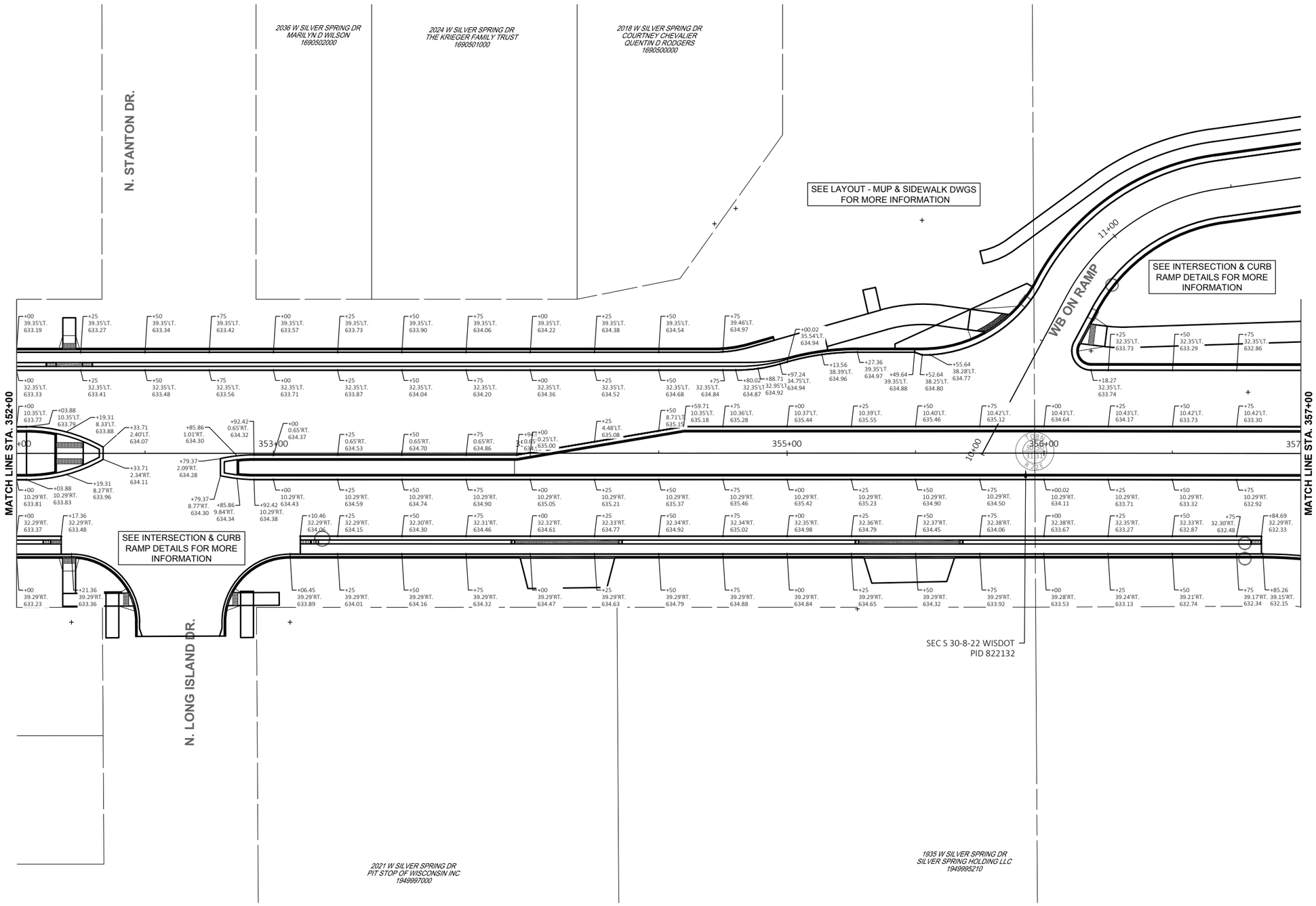
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	GRADES - ROADWAY	SHEET 53	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\GRADES - ROADWAY.DWG PLOT DATE : 1/23/2025 2:17 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

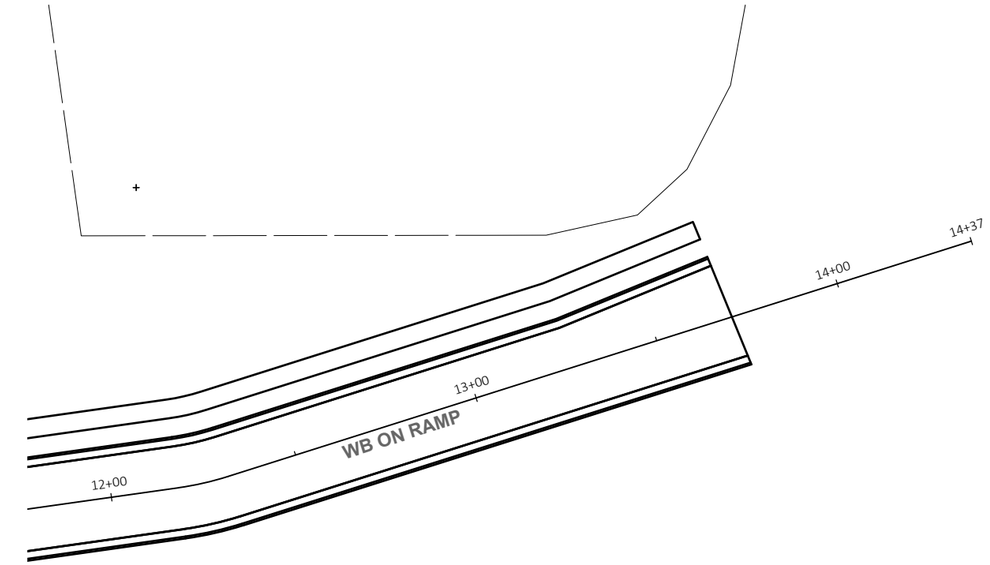
— — DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

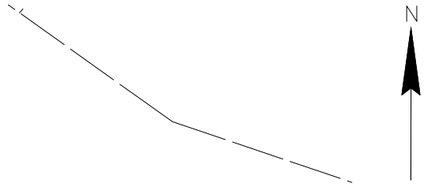


NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

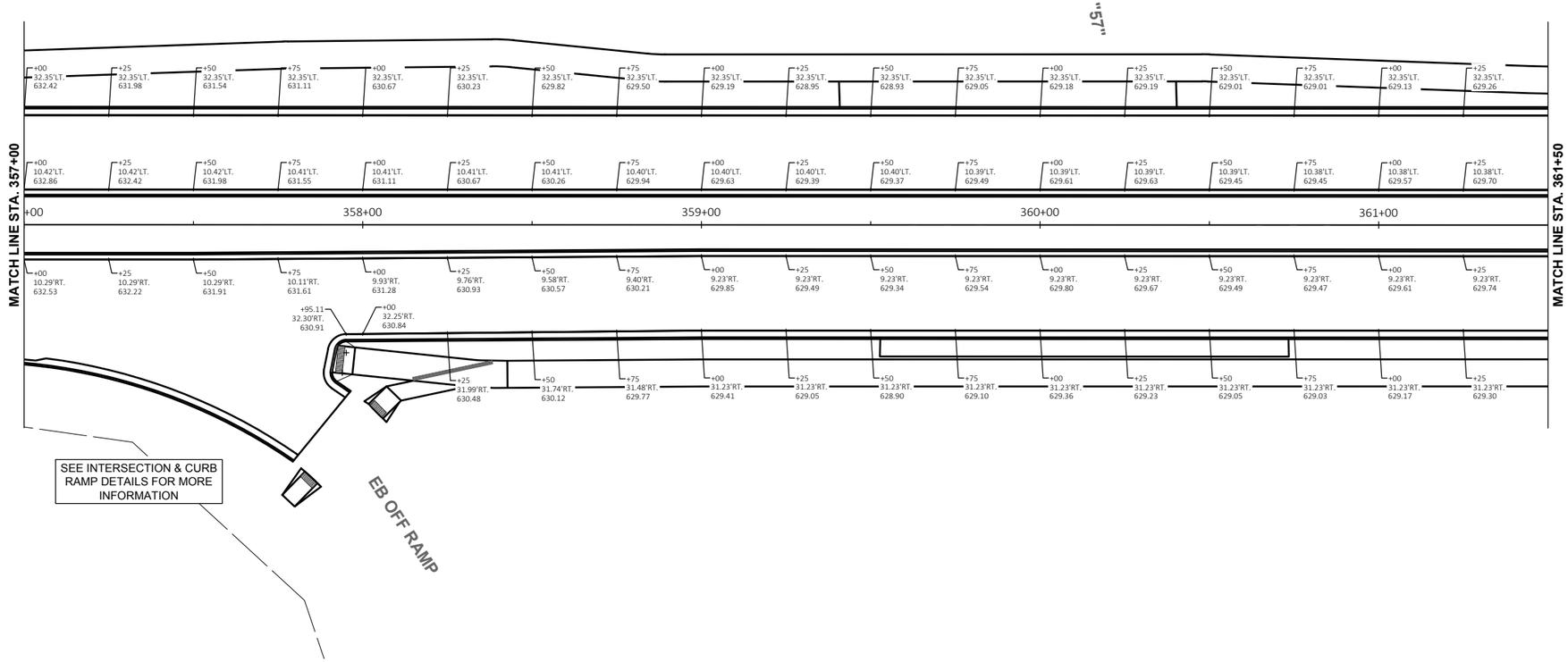
LEGEND

— DEPRESSED CURB HEAD (1.5% UNLESS NOTED)





N. GREEN BAY AVE. - S.T.H. "57"



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	GRADES - ROADWAY	SHEET 55	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\GRADES - ROADWAY.DWG PLOT DATE : 1/23/2025 2:17 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

— DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

N

SEE LAYOUT - MUP & SIDEWALK DWGS FOR MORE INFORMATION

SEE INTERSECTION & CURB RAMP DETAILS FOR MORE INFORMATION

WB OFF RAMP

+05.56 68.67'LT. ???
+25 63.17'LT. 630.69
+50 57.33'LT. 630.44
+75 52.94'LT. 630.36
+00 48.91'LT. 630.28
+25 45.19'LT. 630.20
+50 36.92'LT. 630.52
+75 39.43'LT. 630.72
+07.85 42.73'LT. 631.24
+00 41.94'LT. 631.10
+25 34.42'LT. 630.32
+50 32.35'LT. 629.38
+75 32.35'LT. 629.51
+00 32.35'LT. 629.63
+25 32.35'LT. 629.76
+50 32.35'LT. 629.88
+75 32.35'LT. 630.01
+00 32.35'LT. 630.13

MATCH LINE STA. 361+50

+50 10.38'LT. 629.82
+75 10.37'LT. 629.95
+00 10.37'LT. 630.07
+25 10.37'LT. 630.20
+50 10.37'LT. 630.32
+75 10.36'LT. 630.45
+00 10.36'LT. 630.57
+25 10.36'LT. 630.71
+50 10.36'LT. 630.87
+75 10.35'LT. 631.03
+00 10.35'LT. 631.19
+25 10.35'LT. 631.31
+50 10.42'LT. 631.30
+75 10.77'LT. 631.19
+00 11.41'LT. 631.08
+25 12.36'LT. 630.97

362+00 363+00 364+00 365+00

MATCH LINE STA. 365+50

+50 9.23'RT. 629.88
+75 9.23'RT. 630.02
+00 9.23'RT. 630.16
+25 8.93'RT. 630.30
+50 8.63'RT. 630.45
+75 8.33'RT. 630.59
+00 8.03'RT. 630.68
+25 8.03'RT. 630.75
+50 8.03'RT. 630.87
+75 8.03'RT. 630.89
+00 8.03'RT. 630.79
+25 8.03'RT. 630.79
+32.72 8.03'RT. 630.88
+50 6.88'RT. 631.10
+75 4.96'RT. 631.33
+00 2.74'RT. 631.45
+25 0.22'RT. 631.44

+64.40 31.23'RT. 630.07
+17.50 31.23'RT. 630.27
+28.66 31.23'RT. 630.30
+71.49 41.03'RT. 630.24
+50 31.23'RT. 629.44
+75 31.23'RT. 629.58
+00 31.23'RT. 629.72
+25 31.23'RT. 629.86
+50 31.23'RT. 629.99
+25 31.23'RT. 630.29
+50 36.11'RT. 630.30
+75 41.03'RT. 630.23
+00 41.03'RT. 630.13
+25 41.03'R 630.13
+33.26 41.03'RT. 630.23
+50 41.03'RT. 630.42
+75 41.03'RT. 630.61
+00 41.03'RT. 630.68
+25 41.03'RT. 630.63

EB ON RAMP

SEE INTERSECTION & CURB RAMP DETAILS FOR MORE INFORMATION

SEE LAYOUT - MUP & SIDEWALK DWGS FOR MORE INFORMATION

1811 W SILVER SPRING DR
MBM HOLDINGS LLC
1959000000

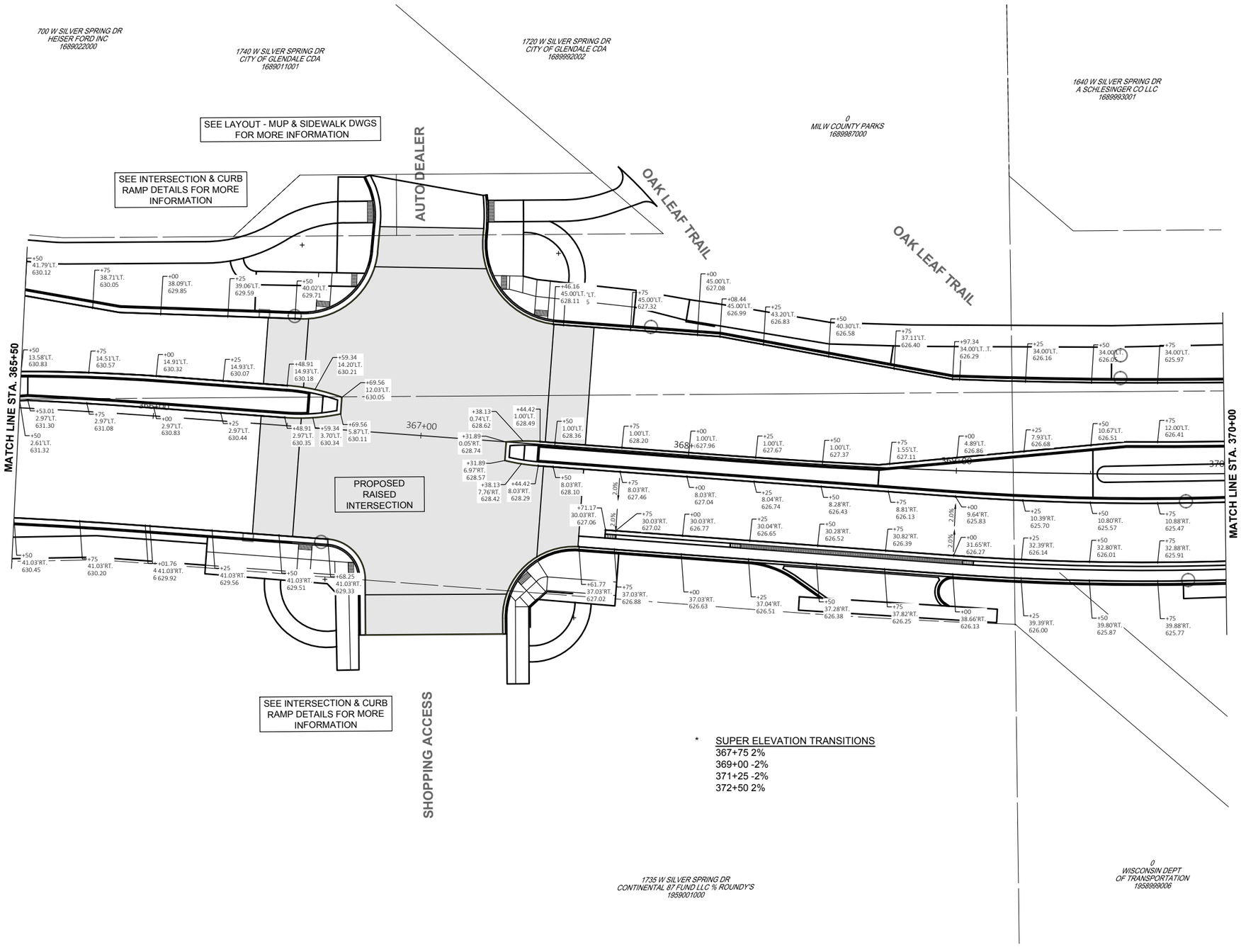
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	GRADES - ROADWAY	SHEET 56	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\GRADES - ROADWAY.DWG PLOT DATE : 1/23/2025 2:18 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

— DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



* SUPER ELEVATION TRANSITIONS
367+75 2%
369+00 -2%
371+25 -2%
372+50 2%

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	GRADES - ROADWAY	SHEET 57	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\GRADES - ROADWAY.DWG PLOT DATE : 1/23/2025 2:18 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

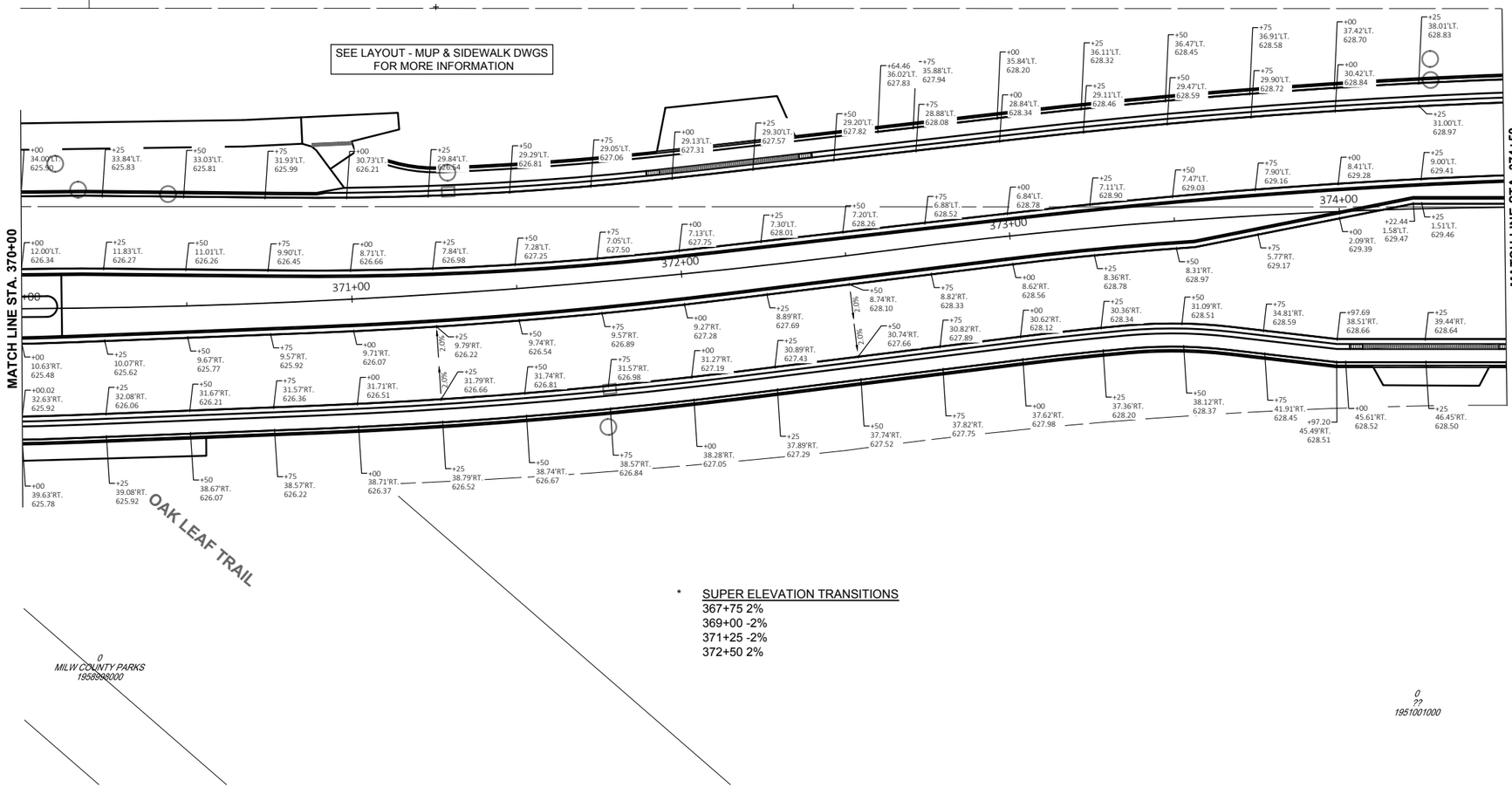
— DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

N

1620 W SILVER SPRING DR
SCHLESINGER CO LP
1689016000

1500 W SILVER SPRING DR
SCHLESINGER CO LP
1689015000

SEE LAYOUT - MUP & SIDEWALK DWGS FOR MORE INFORMATION



* SUPER ELEVATION TRANSITIONS
367+75 2%
369+00 -2%
371+25 -2%
372+50 2%

0
MILW COUNTY PARKS
1955998000

0
22
1951001000

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	GRADES - ROADWAY	SHEET 58	E

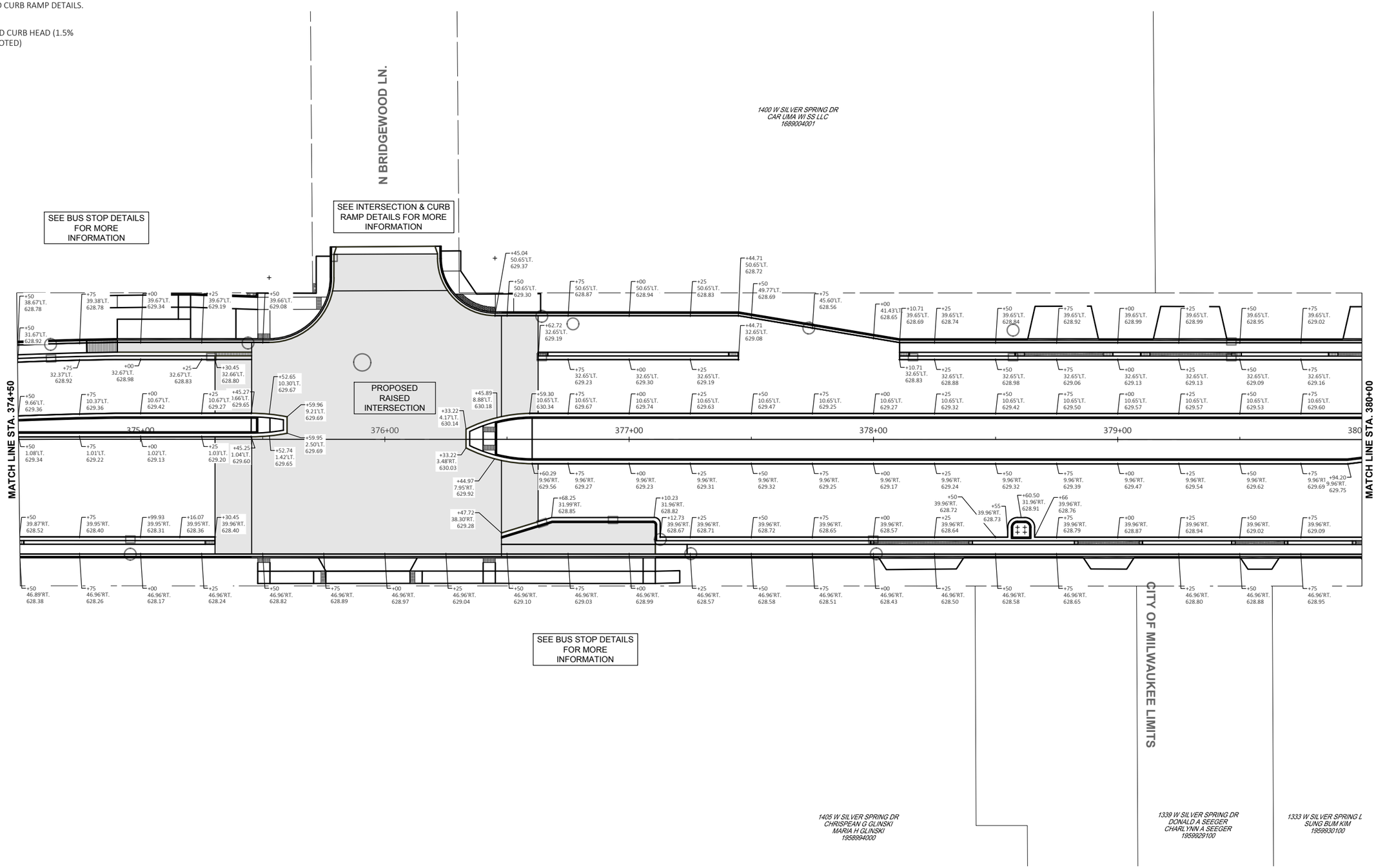
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\GRADES - ROADWAY.DWG PLOT DATE : 1/23/2025 2:18 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

— DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



2

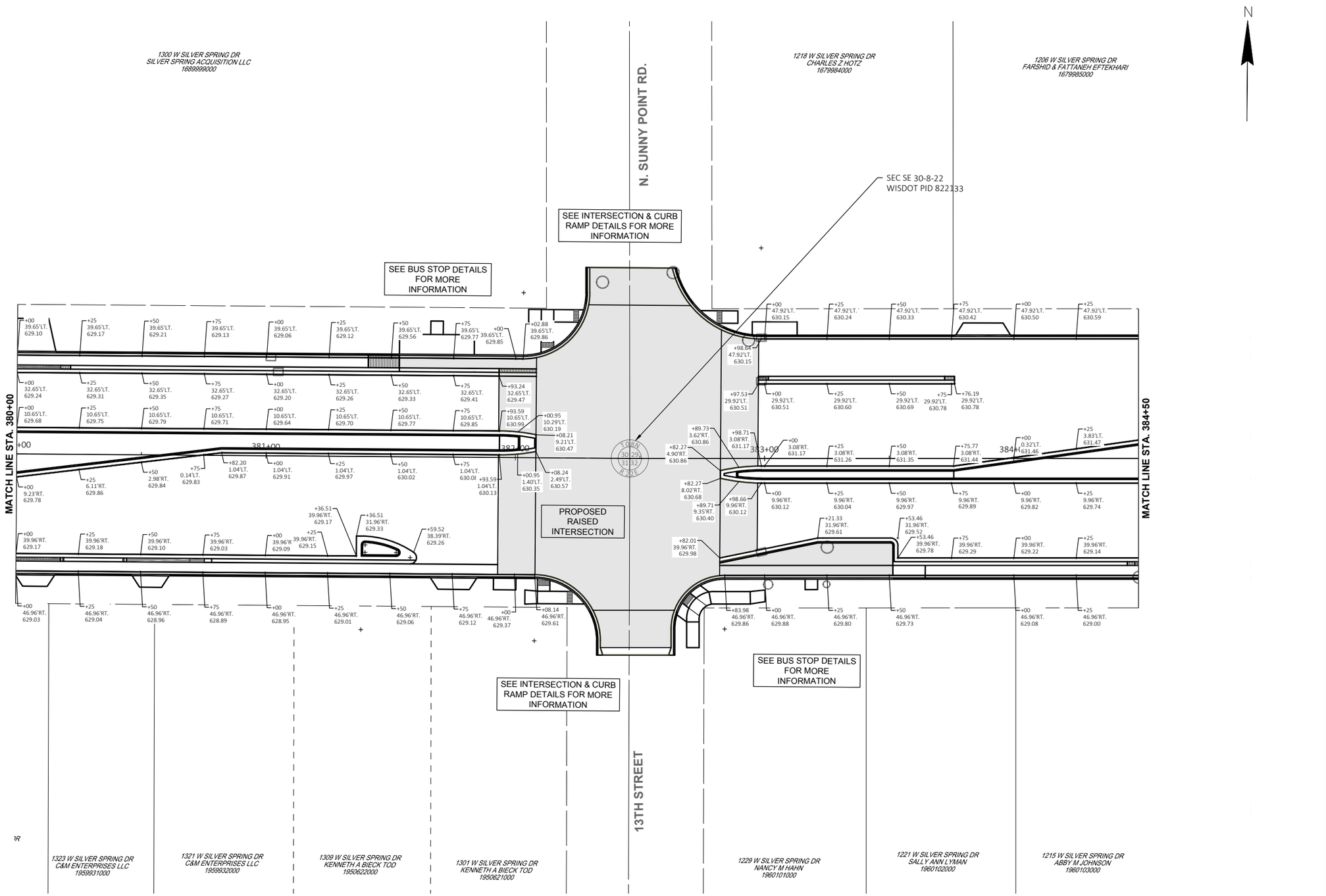
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	GRADES - ROADWAY	SHEET 59	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\GRADES - ROADWAY.DWG PLOT DATE : 1/23/2025 2:18 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

— DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	GRADES - ROADWAY	SHEET 60	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\GRADES - ROADWAY.DWG PLOT DATE : 1/23/2025 2:18 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

— DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

N

1130 W SILVER SPRING DR
GRAHAM T BRISCH
1670160000

1126 W SILVER SPRING DR
ANITA GUERRERO
1670159000

1114 W SILVER SPRING DR
BRETT A AIELLO
1670158000

1108 W SILVER SPRING DR
B MARTINUS JOHNSON
1670157000

1100 W SILVER SPRING DR
NICOLE E OLSON
KEVIN N DRIEWER
1670156000

1074 W SILVER SPRING DR
ANGIE C WOJCIK
1670155000

1068 W SILVER SPRING DR
MATTHEW J SIESCO
1670154000

1060 W SILVER SPRING DR
JENNA WEICKERT
1670153000

1054 W SILVER SPRING
TODD JULIE & NICHOLAS G
1670152000

MATCH LINE STA. 384+50

385+00 386+00 387+00 388+00 389+00

MATCH LINE STA. 389+50

SEE INTERSECTION & CURB RAMP DETAILS FOR MORE INFORMATION

SEE INTERSECTION & CURB RAMP DETAILS FOR MORE INFORMATION

12TH STREET

NORTH 11TH STREET

5545 N 12TH ST
HEATHER J KORPELA
MARK J KORPELA
1960104000

1129 W SILVER SPRING DR
PENG MOUA
1960115000

1121 W SILVER SPRING DR
GARTH REALTY LLC
1960116000

1111 W SILVER SPRING DR
MARIA E KAAS LIVING TRUST
1960117000

5553 N 11TH ST
ANTONINO CANNIZZO
1960118000

1029 W SILVER SPRING DR
JAMES M FRAWLEY
1960129000

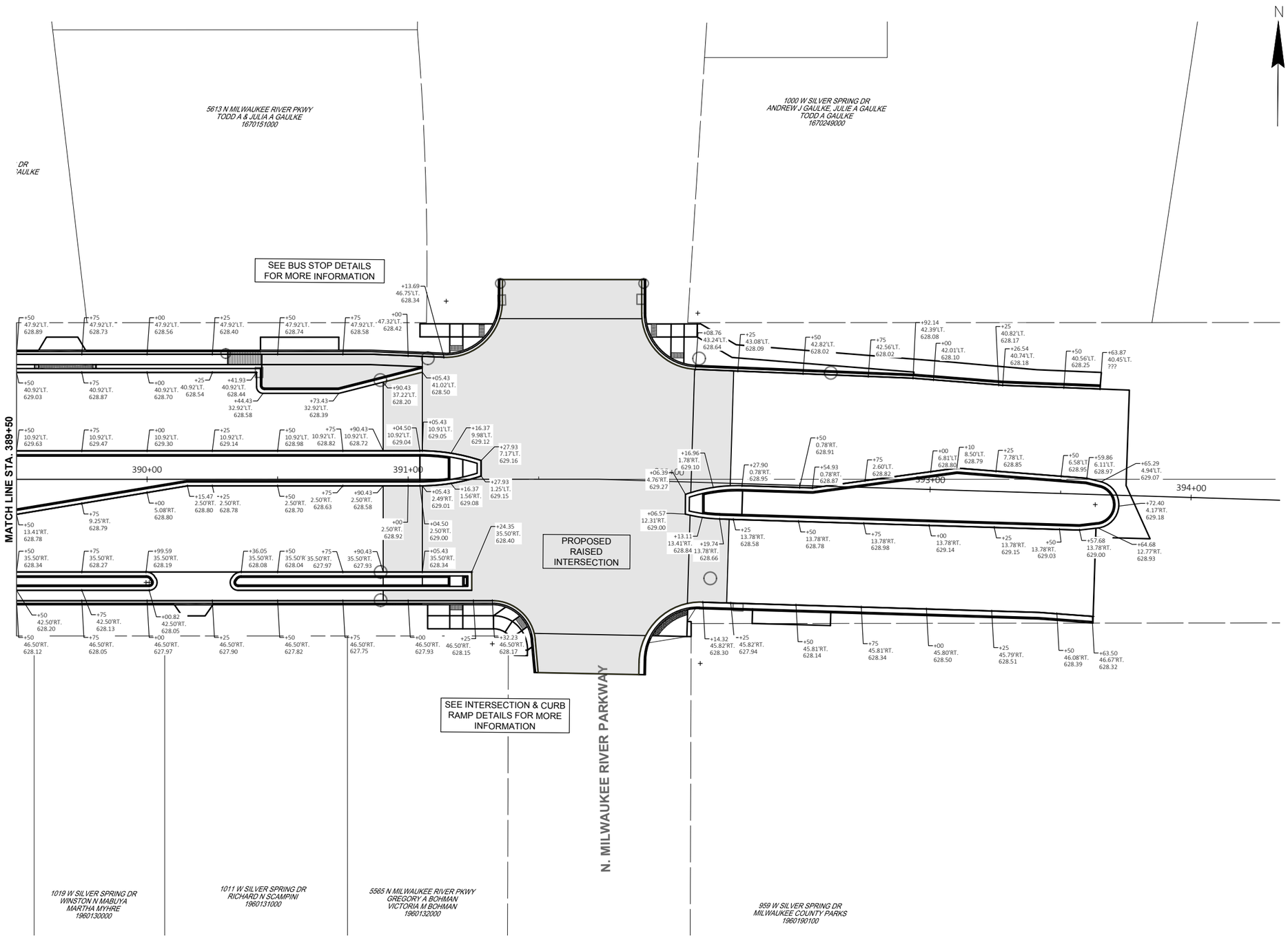
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	GRADES - ROADWAY	SHEET 61	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\GRADES - ROADWAY.DWG PLOT DATE : 1/23/2025 2:19 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

— DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

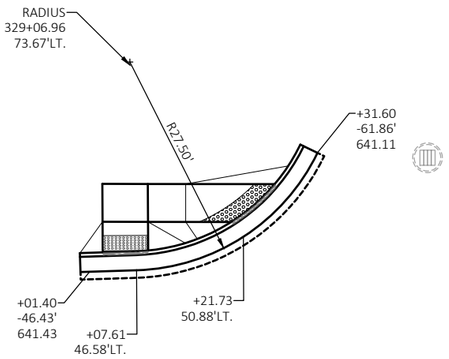


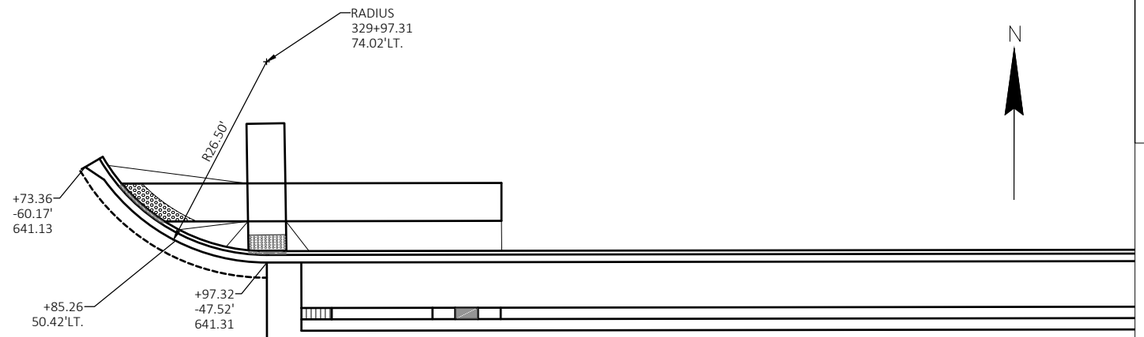
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	GRADES - ROADWAY	SHEET 62	E

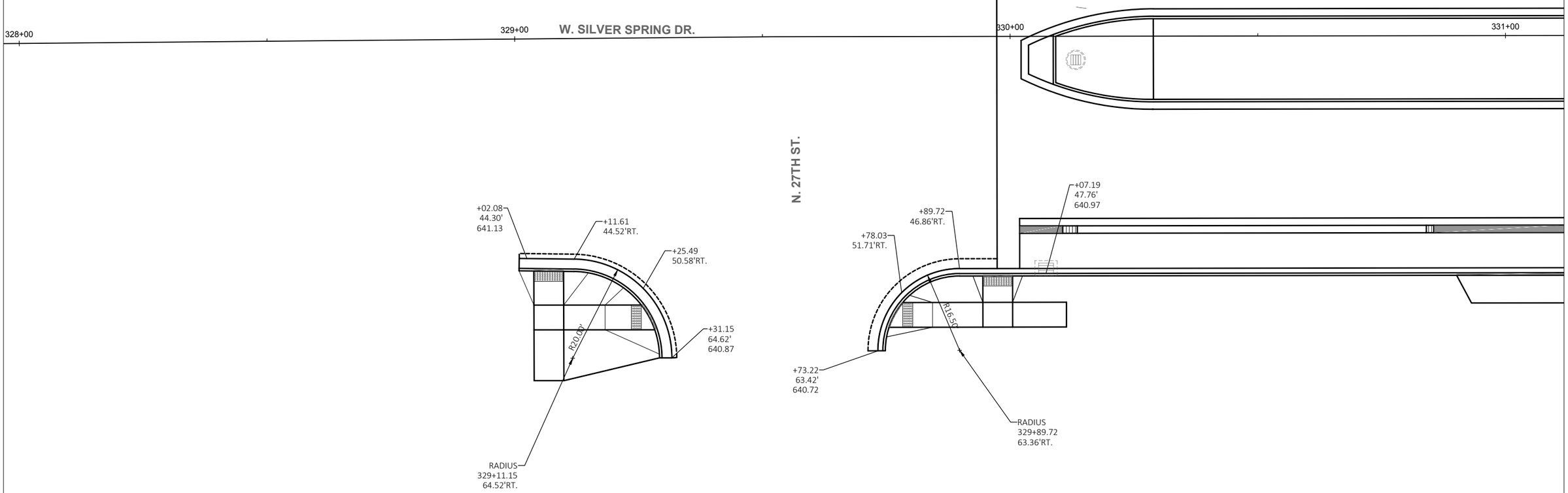
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\GRADES - ROADWAY.DWG PLOT DATE : 1/23/2025 2:19 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND
DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

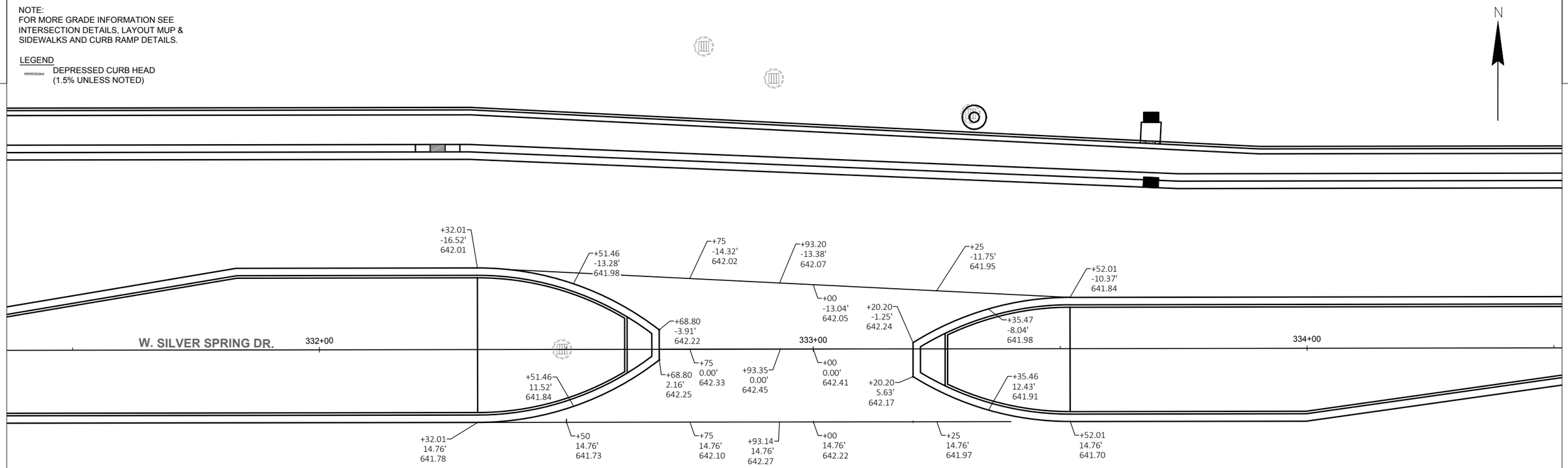


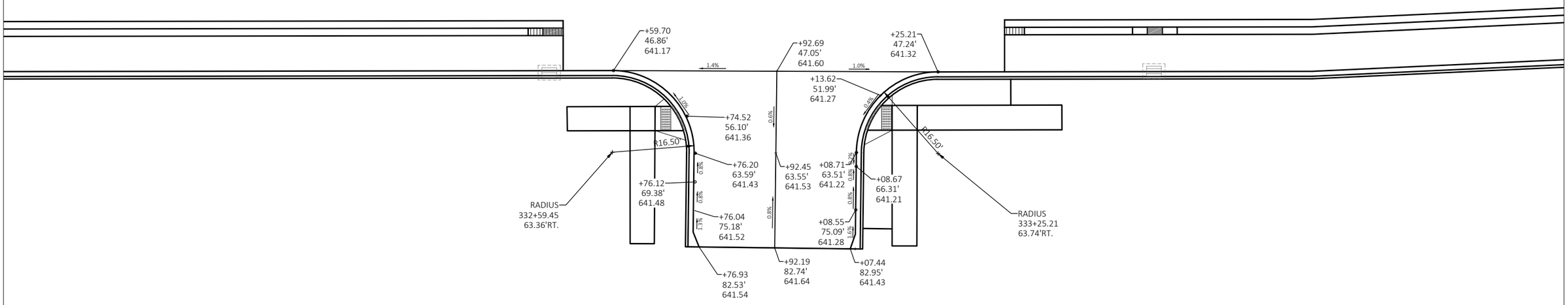




NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND
DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



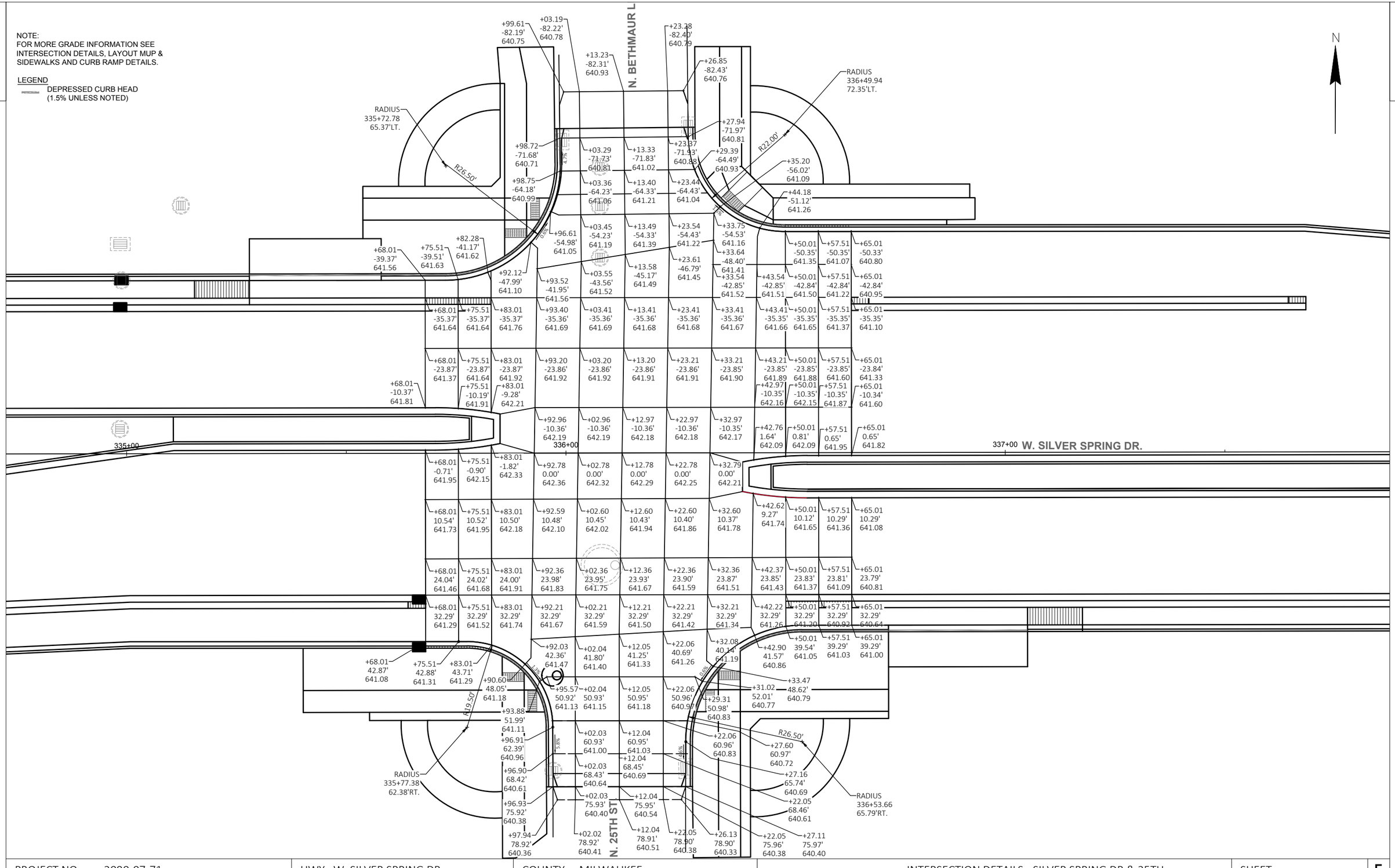


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	INTERSECTION DETAILS - SILVER SPRING DR & 26TH	SHEET 64	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\SILVER SPRING INTERSECTION 1-4.DWG PLOT DATE : 1/23/2025 2:19 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20'

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND
DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

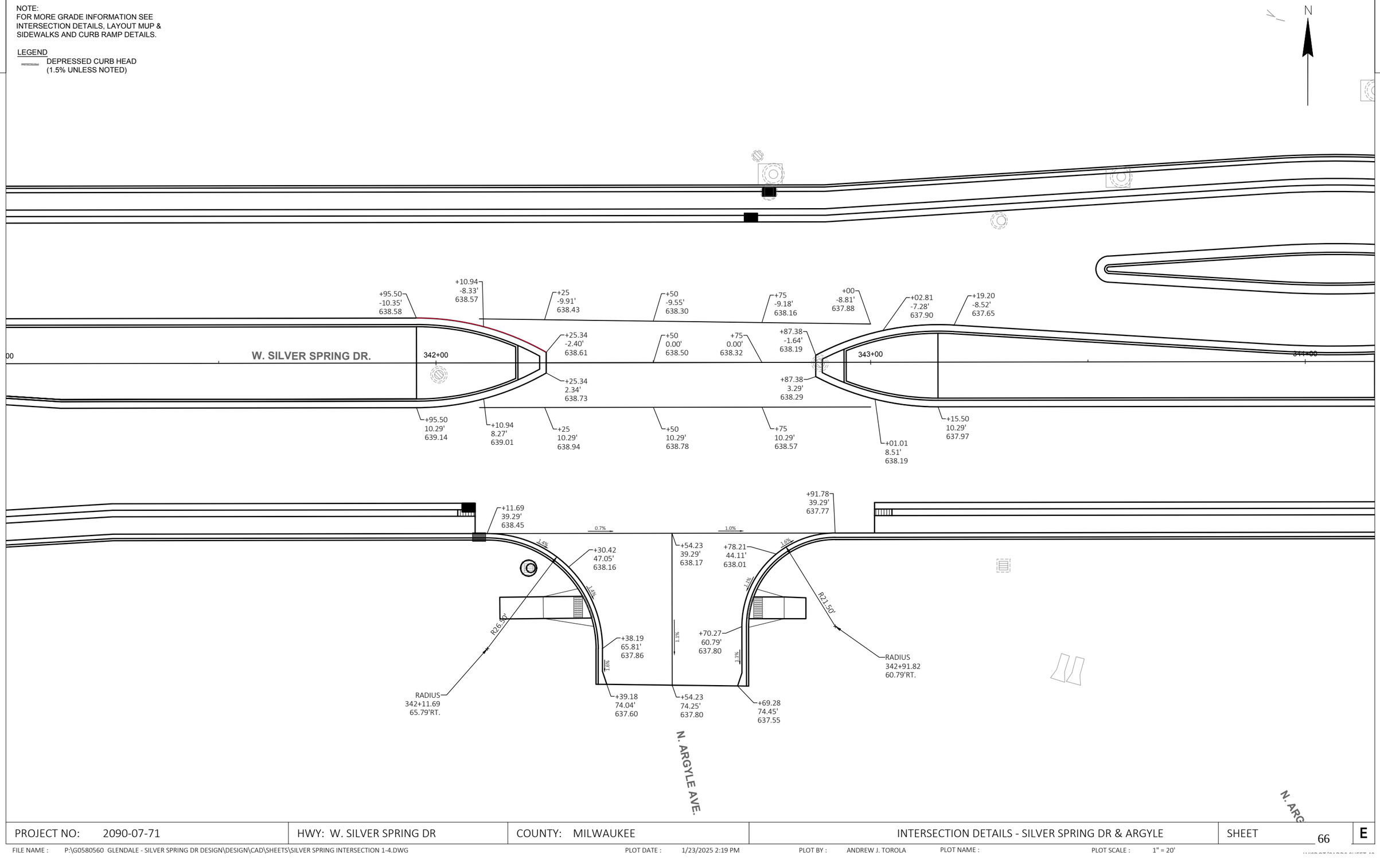


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	INTERSECTION DETAILS - SILVER SPRING DR & 25TH	SHEET 65	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\SILVER SPRING INTERSECTION 1-4.DWG PLOT DATE : 1/23/2025 2:19 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20'

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND
DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

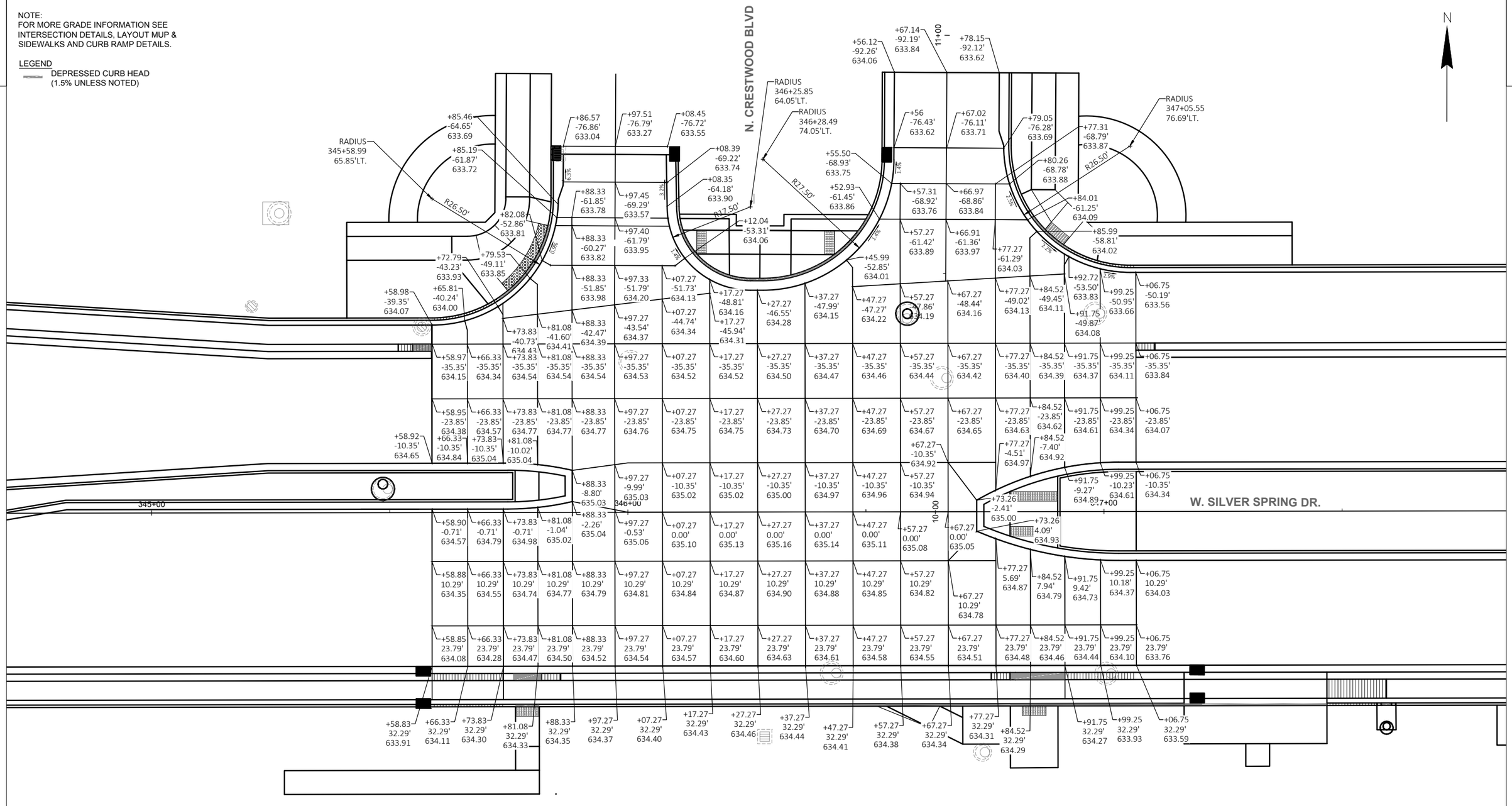


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	INTERSECTION DETAILS - SILVER SPRING DR & ARGYLE	SHEET 66	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\SILVER SPRING INTERSECTION 1-4.DWG PLOT DATE : 1/23/2025 2:19 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20'

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND
DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	INTERSECTION DETAILS - SILVER SPRING DR & CRESTWOOD	SHEET 67	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\SILVER SPRING INTERSECTION 1-4.DWG PLOT DATE : 1/23/2025 2:20 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20'

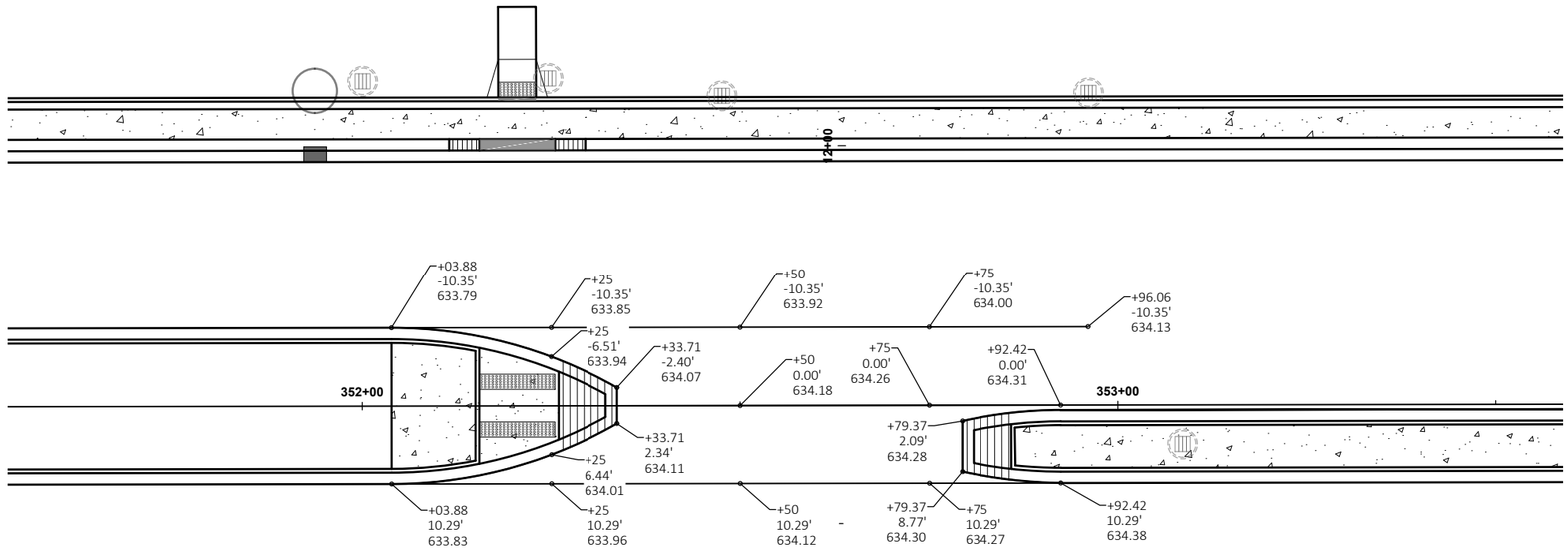
NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

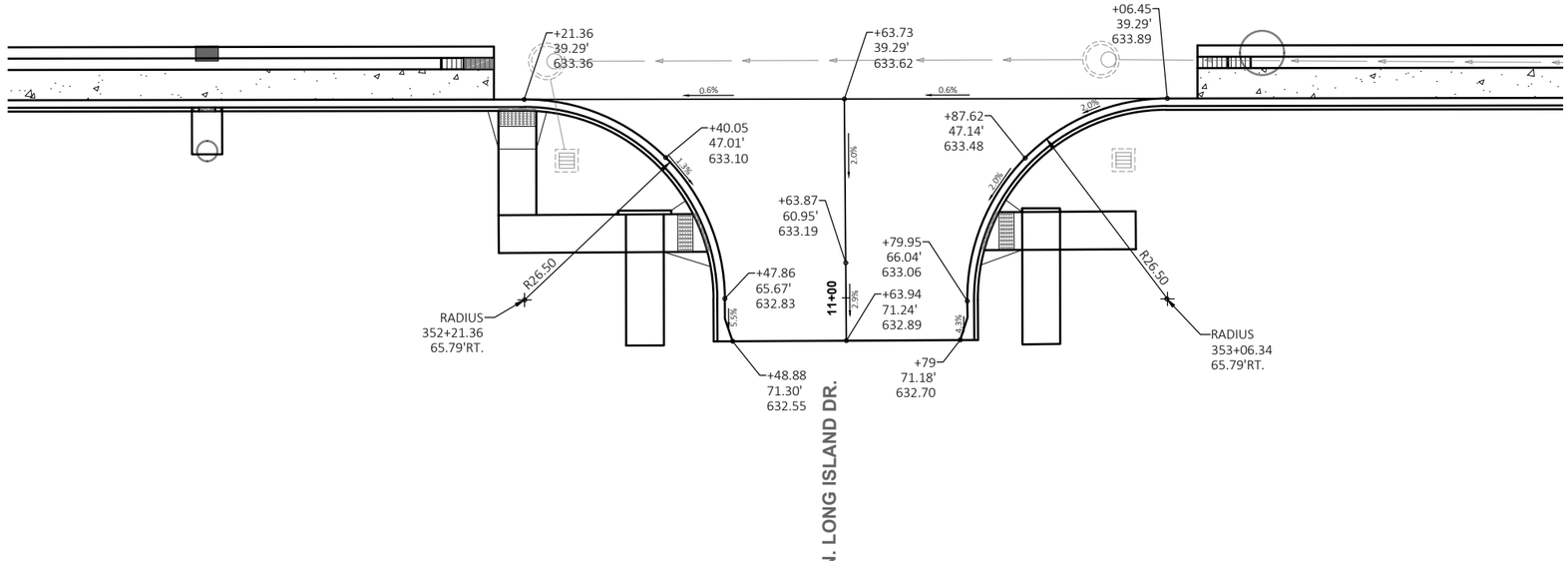
LEGEND

DEPRESSED CURB HEAD
(1.5% UNLESS NOTED)

N

2



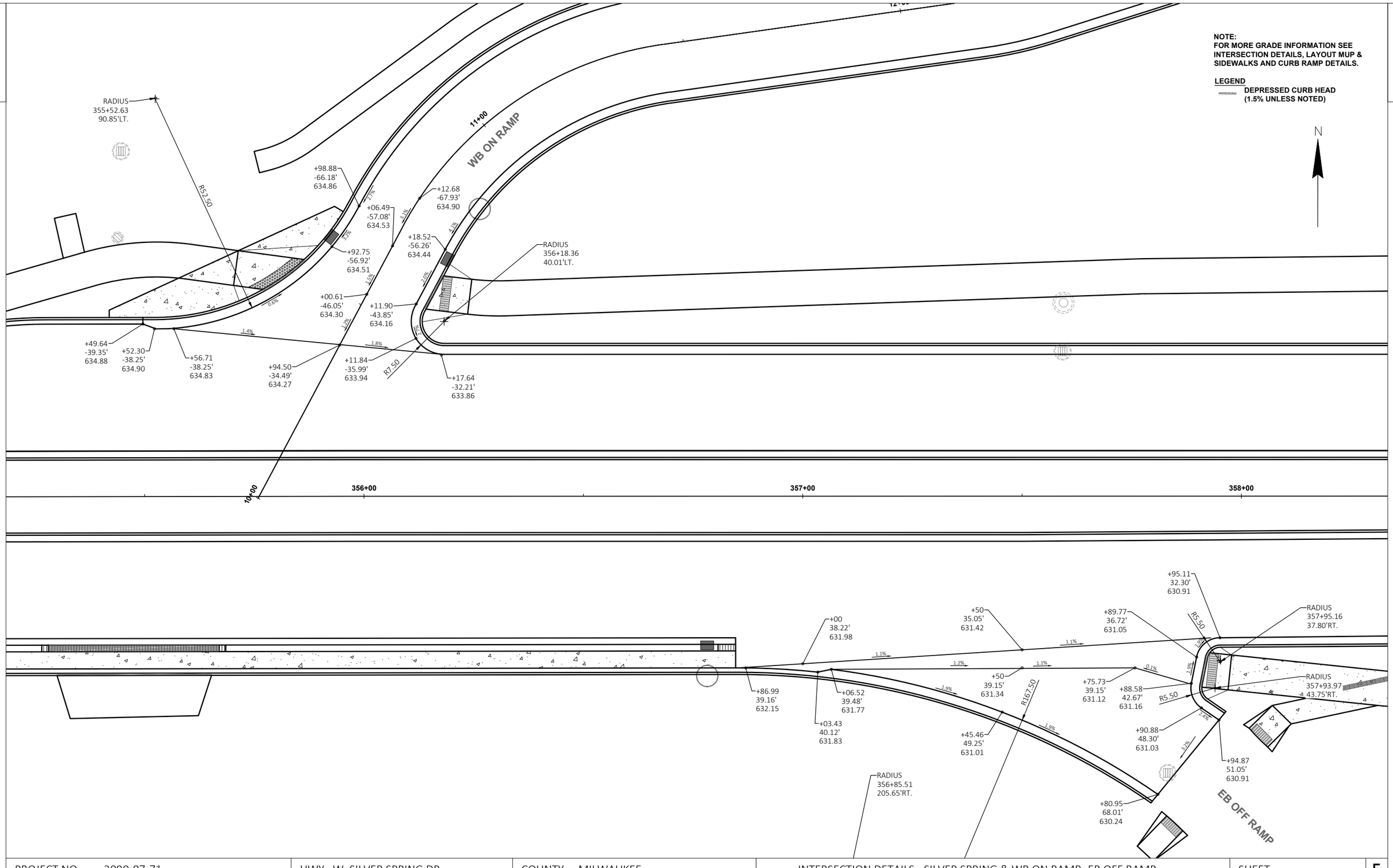


2

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND
DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

N



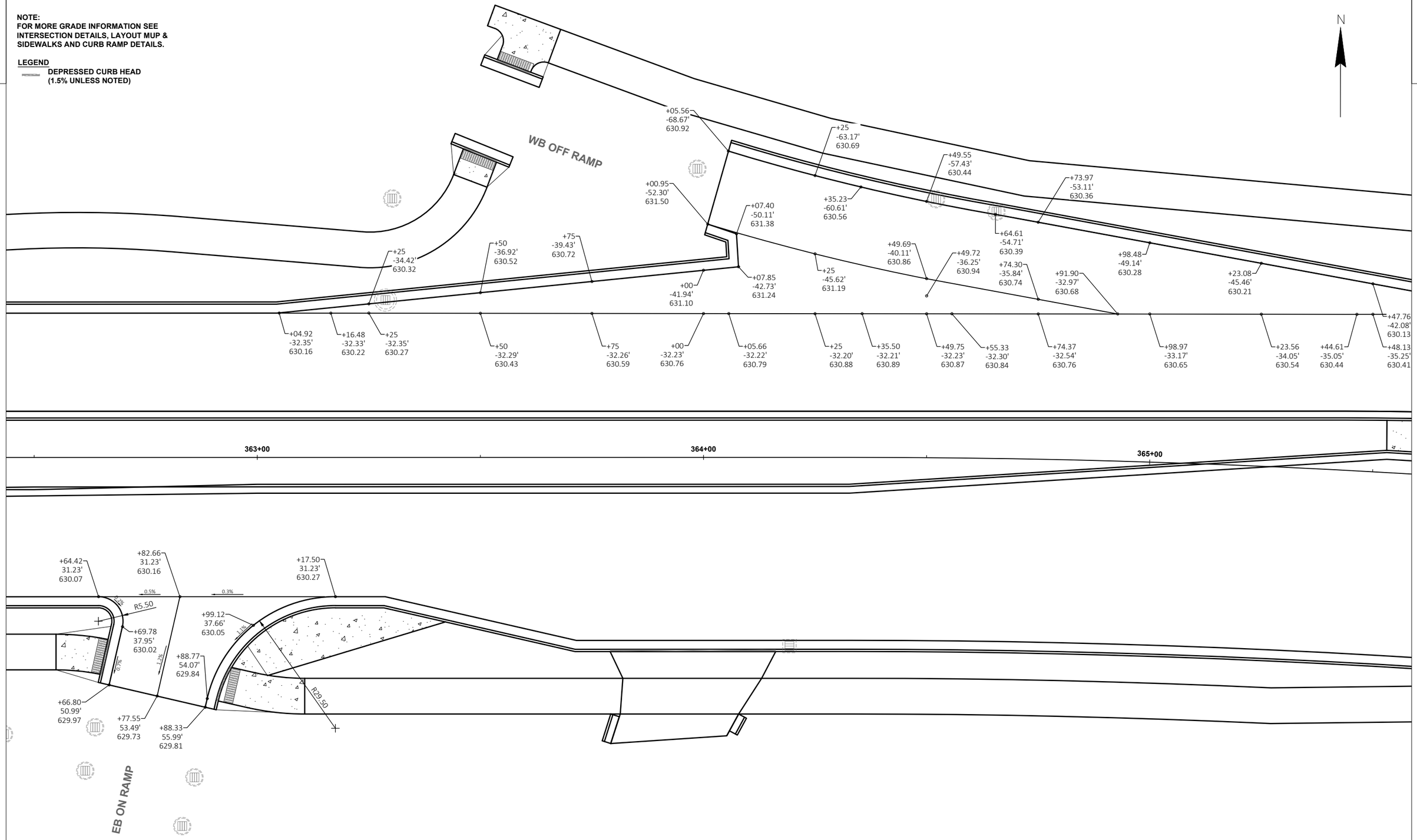
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	INTERSECTION DETAILS - SILVER SPRING & WB ON RAMP- EB OFF RAMP	SHEET 69	E

2

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

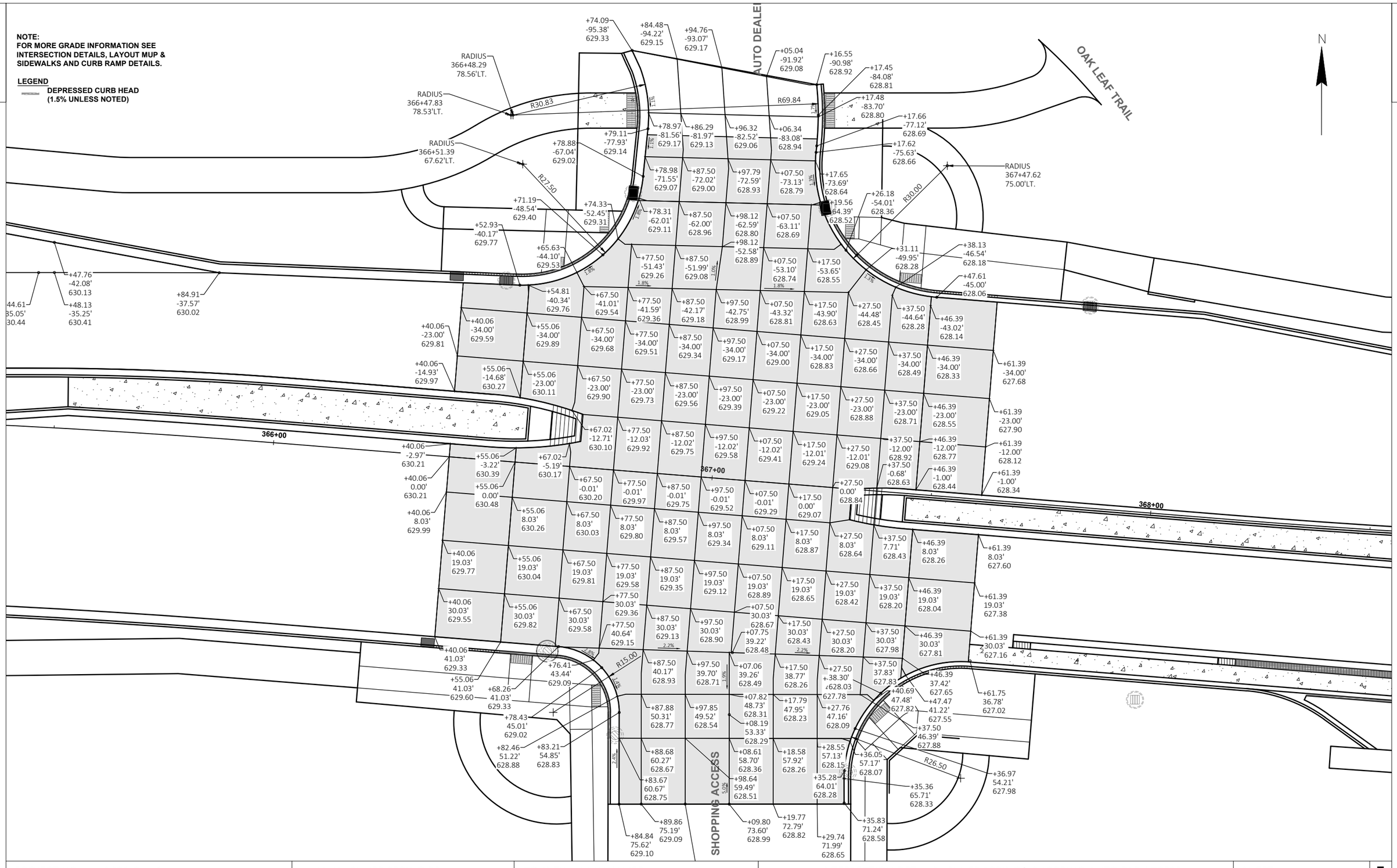


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	INTERSECTION DETAILS - SSD & EB ON RAMP-WB OFF RAMPS	SHEET 70	E

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



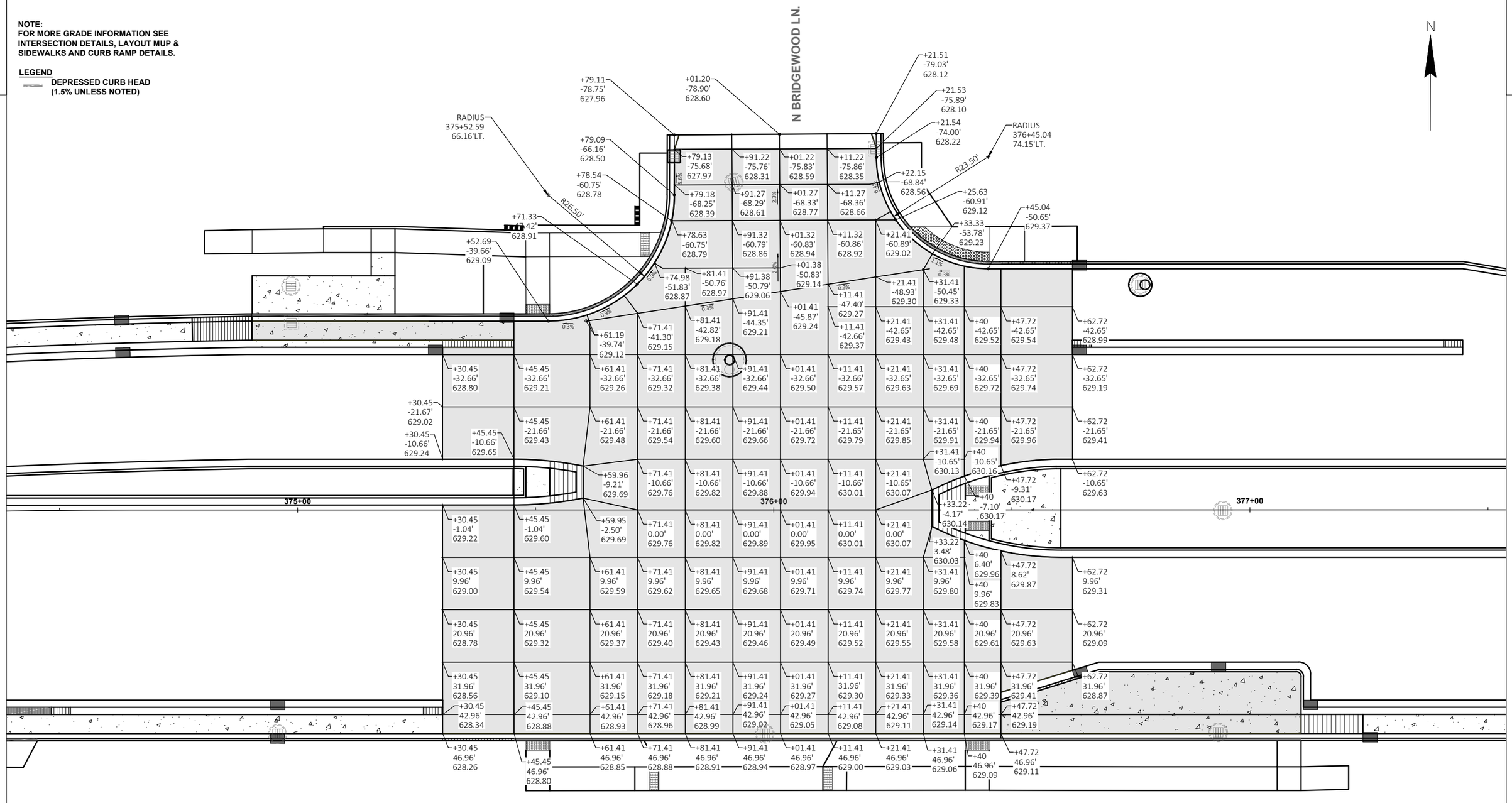
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	INTERSECTION DETAILS - SILVER SPRING& SHOPPING-AUTO DLR ACCESS	SHEET 71	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\SILVER SPRING INTERSECTION 5-8.DWG PLOT DATE : 1/23/2025 2:20 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE :

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



2

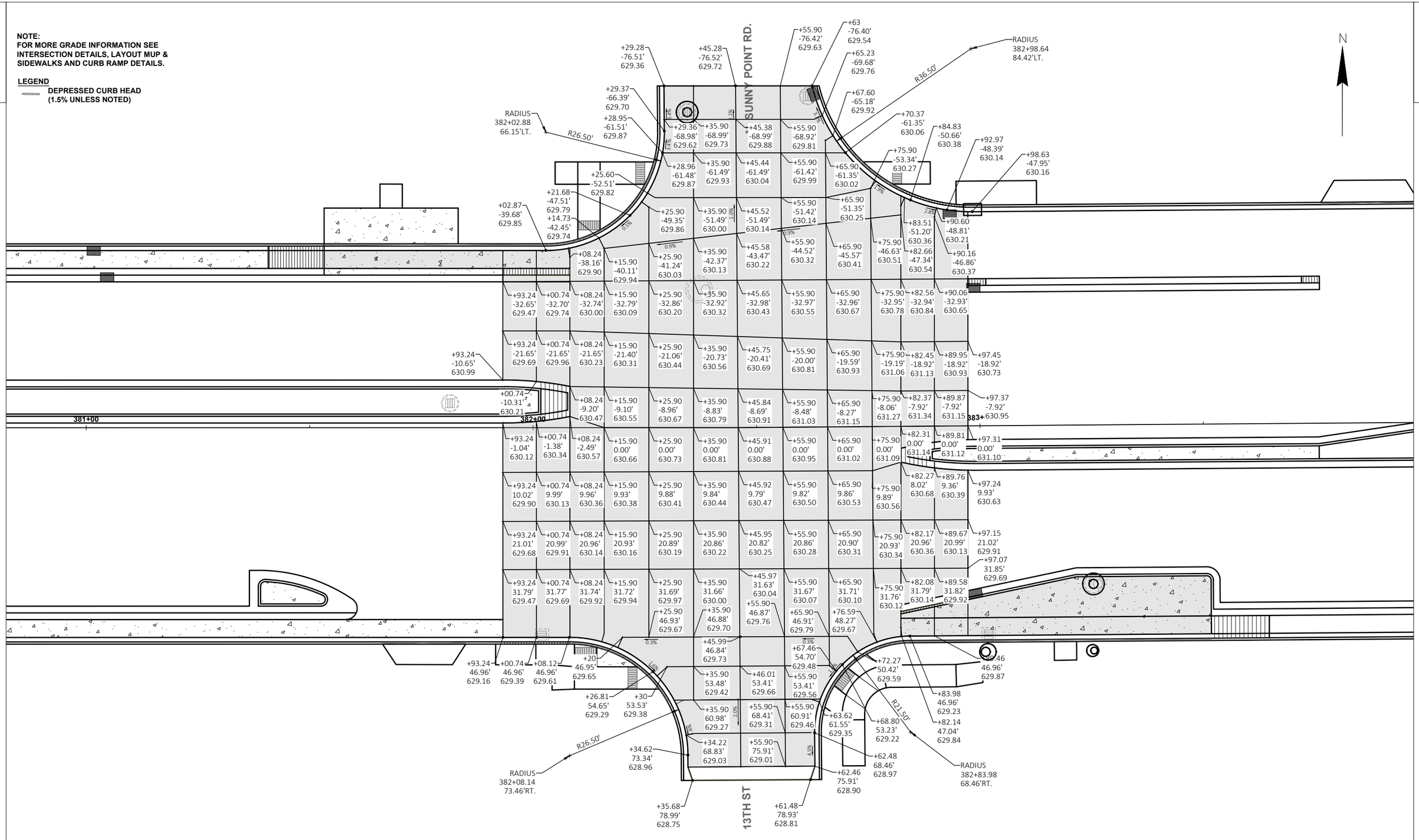
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	INTERSECTION DETAILS - SILVER SPRING & BRIDGEWOOD LN	SHEET 72	E

2

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

DEPRESSED CURB HEAD
(1.5% UNLESS NOTED)

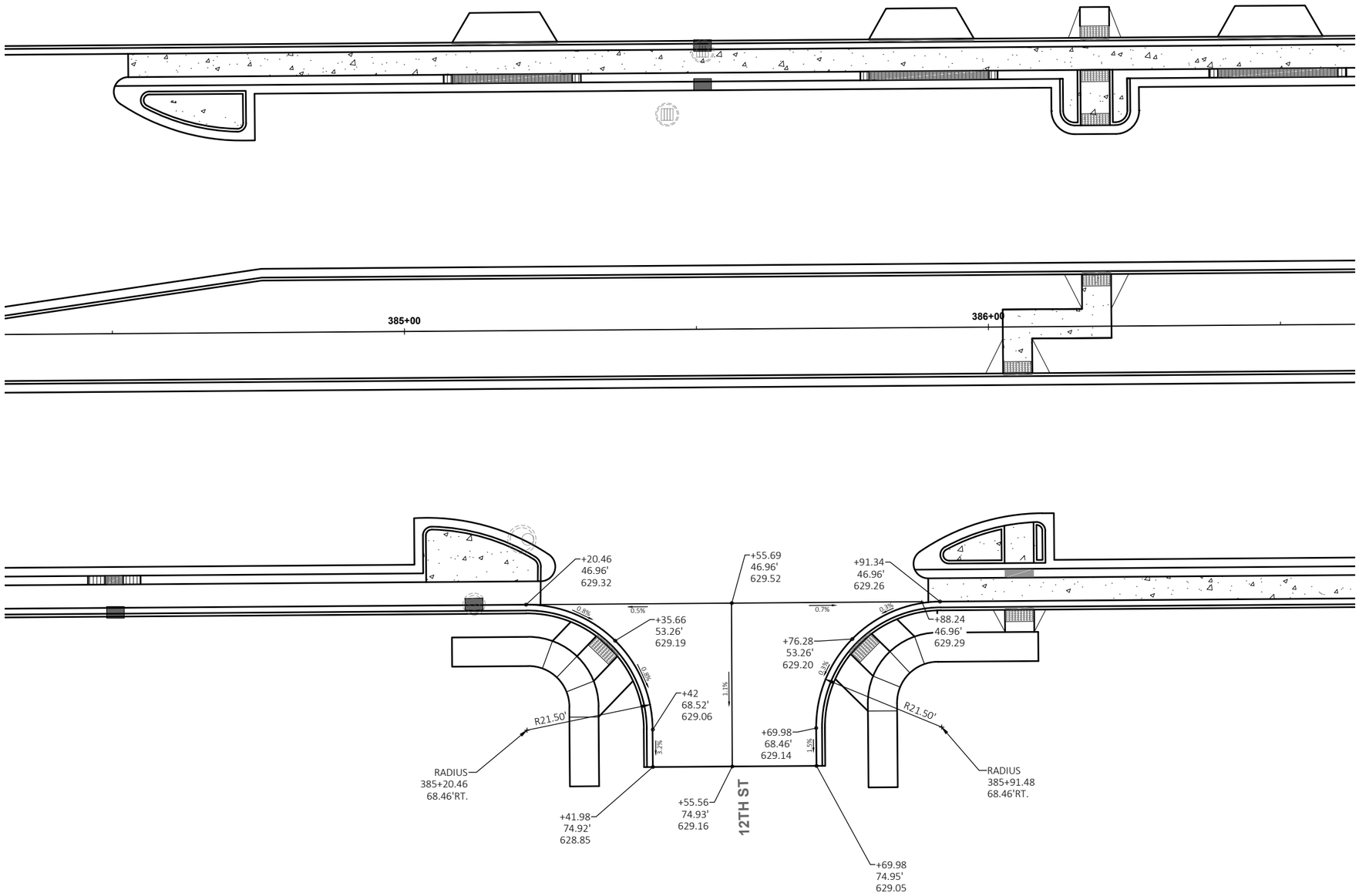


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	INTERSECTION DETAILS - SILVER SPRING & 13TH	SHEET 73	E

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND
DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

N



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	INTERSECTION DETAILS - SILVER SPRING & 12TH	SHEET 74	E

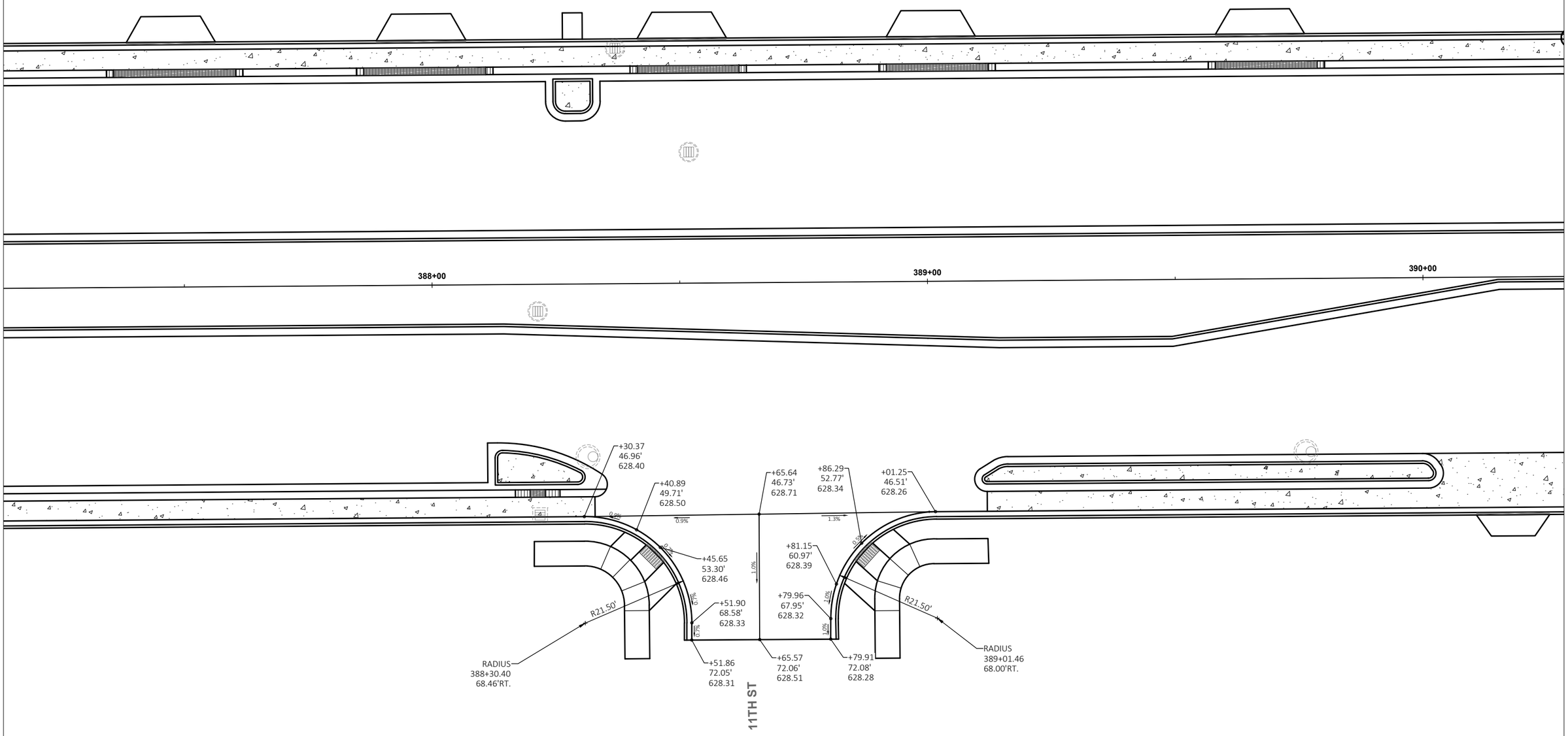
2

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

LEGEND

DEPRESSED CURB HEAD
(1.5% UNLESS NOTED)

N



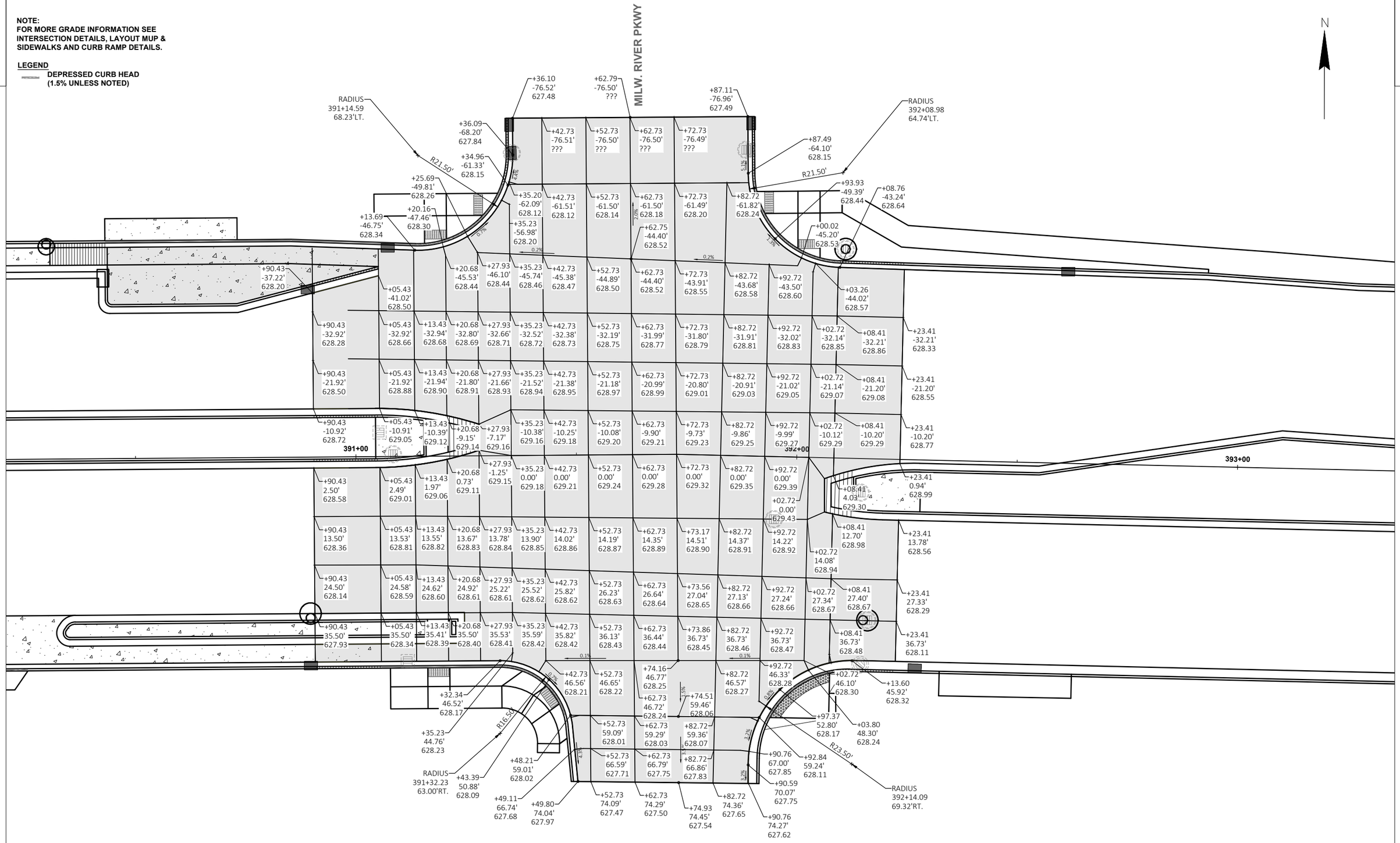
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	INTERSECTION DETAILS - SILVER SPRING & 11TH	SHEET 75	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\SILVER SPRING INTERSECTION 9-13.DWG PLOT DATE : 1/23/2025 2:21 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE :

NOTE:
FOR MORE GRADE INFORMATION SEE INTERSECTION DETAILS, LAYOUT MUP & SIDEWALKS AND CURB RAMP DETAILS.

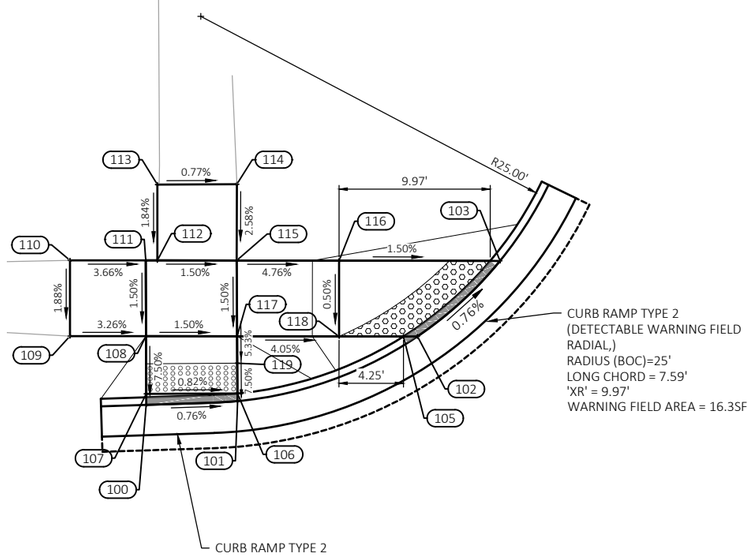
LEGEND

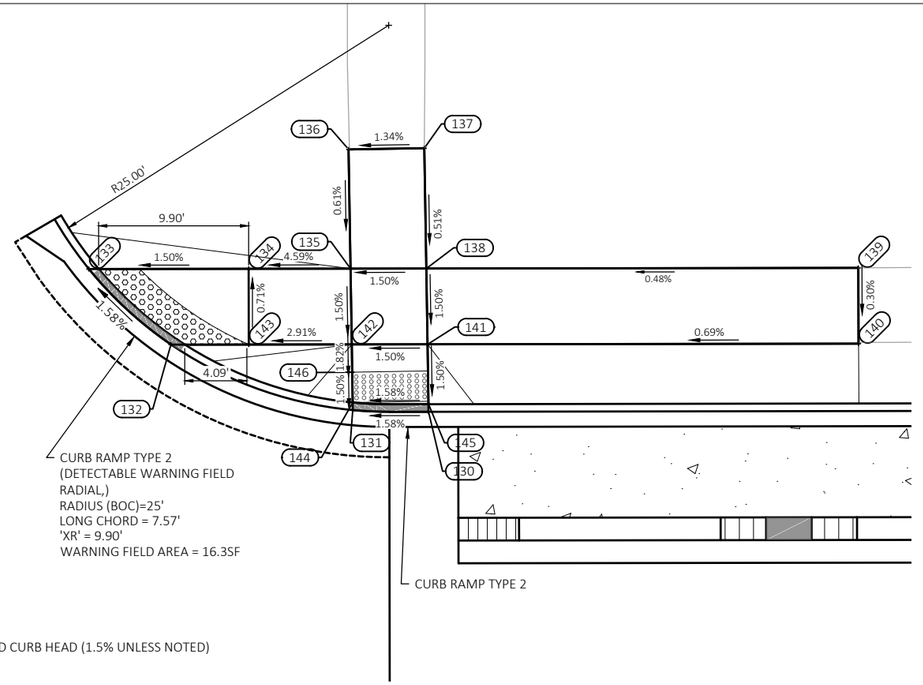
DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	INTERSECTION DETAILS - SILVER SPRING & MLW RIVER PKWY	SHEET 76	E

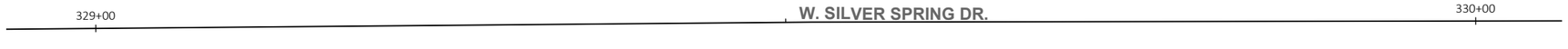
PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
100	414690.80	2516724.62	641.30	FL
101	414691.05	2516730.65	641.25	FL
102	414695.32	2516742.52	641.16	FL
103	414700.29	2516747.97	641.10	FL
105	414695.31	2516741.60	641.17	BC
106	414691.55	2516730.65	641.26	BC
107	414691.53	2516724.62	641.31	SW
108	414695.34	2516724.61	641.60	SW
109	414695.34	2516719.59	641.76	SW
110	414700.34	2516719.59	641.85	SW
111	414700.34	2516724.59	641.67	SW
112	414700.34	2516725.36	641.66	SW
113	414705.34	2516725.36	641.75	SW
114	414705.36	2516730.61	641.71	SW
115	414700.33	2516730.59	641.58	SW
116	414700.32	2516737.35	641.26	SW
117	414695.33	2516730.62	641.51	SW
118	414695.32	2516737.35	641.23	SW
119	414693.55	2516730.64	641.41	SW
130	414691.35	2516821.74	641.50	FL





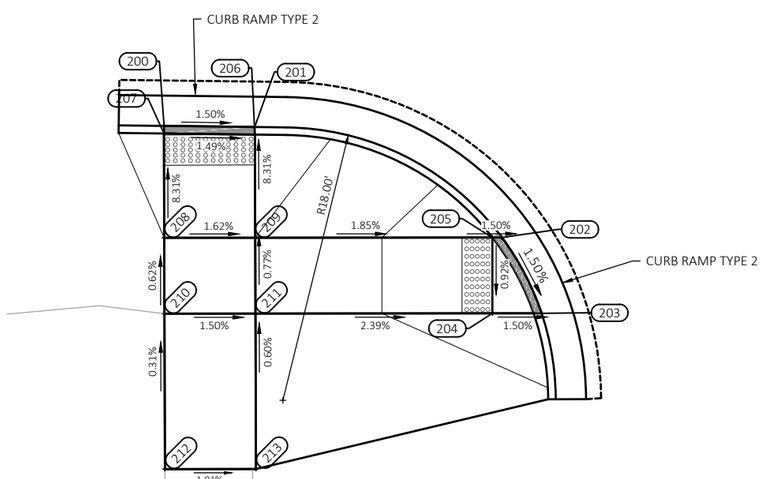
LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

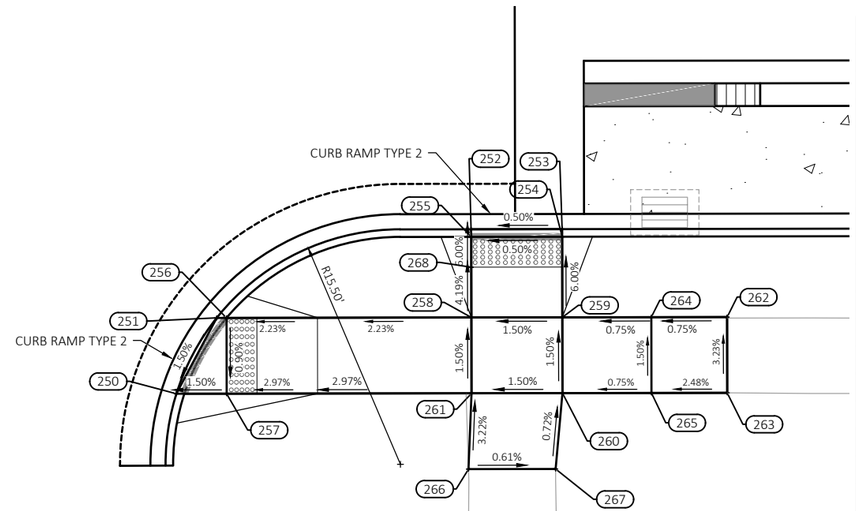


PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
130	414691.35	2516821.74	641.50	FL
131	414691.46	2516816.74	641.42	FL
132	414695.79	2516804.74	641.22	FL
133	414700.77	2516799.32	641.10	FL
134	414700.79	2516809.87	641.26	SW
135	414700.80	2516816.59	641.57	SW
136	414708.66	2516816.47	641.61	SW
137	414708.74	2516821.46	641.68	SW
138	414700.81	2516821.59	641.64	SW
139	414700.85	2516850.09	641.78	SW
140	414695.85	2516850.12	641.76	SW
141	414695.81	2516821.68	641.57	SW
142	414695.80	2516816.68	641.49	SW
143	414695.79	2516809.88	641.29	SW
144	414691.96	2516816.74	641.43	BC
145	414691.85	2516821.74	641.51	BC
146	414693.96	2516816.71	641.46	SW

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
200	414596.00	2516725.80	641.00	FL
201	414595.91	2516731.78	640.91	FL
202	414588.62	2516748.09	641.18	FL
203	414583.62	2516750.71	641.10	FL
204	414583.62	2516747.47	641.15	SW
205	414588.62	2516747.47	641.19	BC
206	414595.41	2516731.79	640.92	BC
207	414595.50	2516725.79	641.01	BC
208	414588.60	2516725.81	641.58	SW
209	414588.60	2516731.81	641.48	SW
210	414583.60	2516725.83	641.61	SW
211	414583.60	2516731.83	641.52	SW
212	414573.34	2516725.86	641.64	SW
213	414573.36	2516731.86	641.58	SW



N. 27TH ST.



PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
250	414584.12	2516796.95	640.70	FL
251	414589.12	2516799.62	640.79	FL
252	414594.97	2516816.40	640.89	FL
253	414594.98	2516822.41	640.92	FL
254	414594.48	2516822.41	640.93	BC
255	414594.47	2516816.41	640.90	BC
256	414589.12	2516800.26	640.79	BC
257	414584.12	2516800.27	640.75	SW
258	414589.15	2516816.42	641.16	SW
259	414589.16	2516822.42	641.25	SW
260	414584.16	2516822.43	641.32	SW
261	414584.15	2516816.43	641.23	SW
262	414589.18	2516833.30	641.33	SW
263	414584.18	2516833.30	641.49	SW
264	414589.17	2516828.30	641.29	SW
265	414584.17	2516828.30	641.36	SW
266	414579.15	2516816.24	641.39	SW
267	414579.16	2516821.98	641.36	SW
268	414592.47	2516816.42	641.02	SW

SILVER SPRING DR & 27TH ST

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 77	E

2

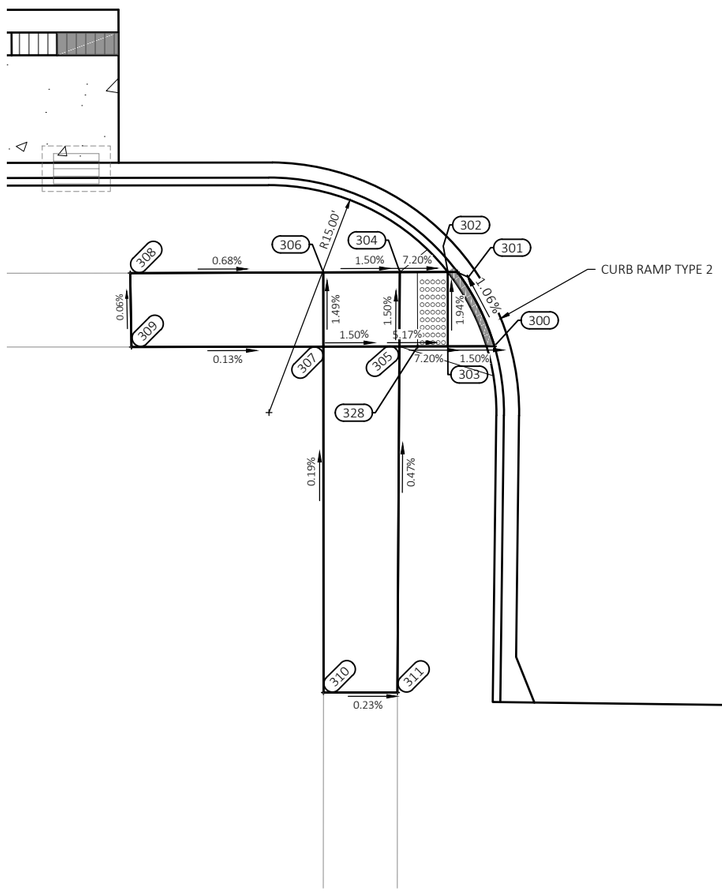
LEGEND

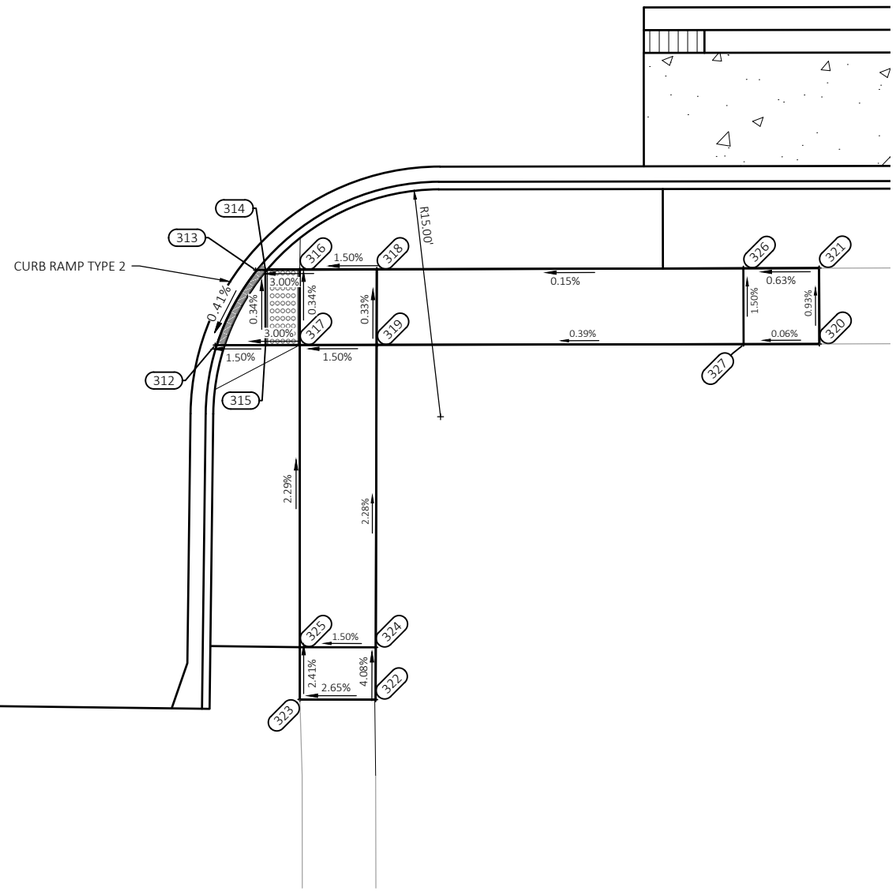
DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

N

W. SILVER SPRING DR. 333+00

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
300	414584.27	2517096.34	641.34	FL
301	414589.17	2517093.89	641.28	FL
302	414589.16	2517093.26	641.29	BC
303	414584.26	2517093.27	641.39	SW
304	414589.15	2517090.10	641.52	SW
305	414584.25	2517090.08	641.59	SW
306	414589.14	2517085.05	641.60	SW
307	414584.24	2517085.06	641.67	SW
308	414589.09	2517072.31	641.68	SW
309	414584.22	2517072.40	641.69	SW
310	414561.42	2517085.06	641.71	SW
311	414561.42	2517089.95	641.70	SW
312	414584.34	2517132.37	641.20	FL
313	414589.30	2517135.03	641.23	FL
314	414589.30	2517135.68	641.23	BC
315	414584.34	2517135.69	641.25	SW
316	414589.31	2517137.94	641.30	SW
317	414584.35	2517137.94	641.32	SW
318	414589.33	2517143.03	641.38	SW
319	414584.36	2517143.04	641.39	SW
320	414584.42	2517172.23	641.49	SW
321	414589.44	2517172.21	641.44	SW
322	414560.95	2517142.95	641.99	SW
323	414560.96	2517137.95	641.86	SW
324	414564.40	2517142.96	641.85	SW
325	414564.41	2517137.95	641.77	SW
326	414589.42	2517167.21	641.41	SW
327	414584.41	2517167.23	641.49	SW
328	414584.26	2517091.28	641.53	SW



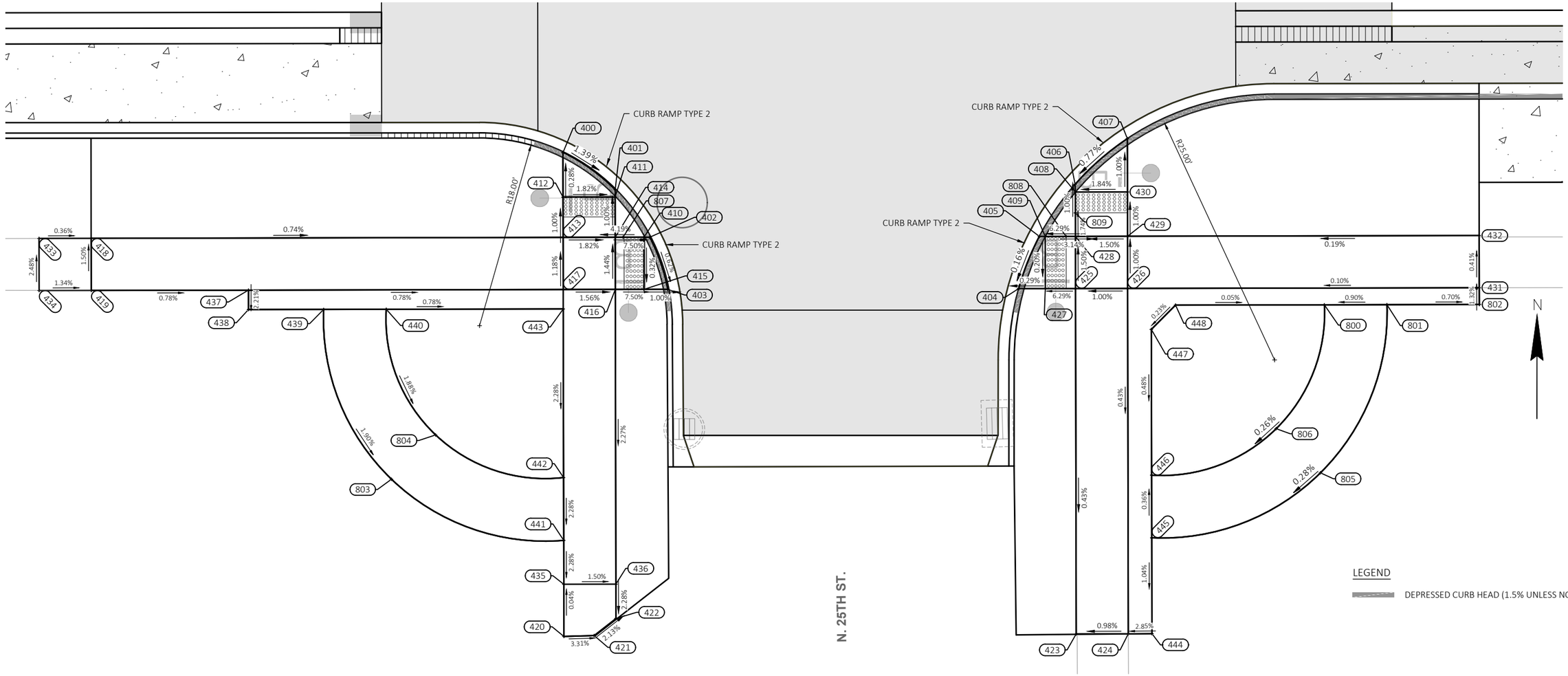


N. 26TH ST.

SILVER SPRING DR & 26TH ST

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 78	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS 27TH-ONRAMP.DWG PLOT DATE : 1/23/2025 2:23 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'



LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
400	414598.00	2517407.41	641.21	FL
401	414594.41	2517412.42	641.13	FL
402	414589.86	2517415.73	641.05	FL
403	414584.86	2517417.46	641.01	FL
404	414584.94	2517451.15	640.71	FL
405	414589.95	2517453.14	640.72	FL
406	414594.94	2517456.57	640.76	FL
407	414599.33	2517461.59	640.81	FL
408	414594.20	2517456.59	640.77	BC
409	414589.94	2517453.70	640.73	BC
410	414589.86	2517415.17	641.05	BC
411	414593.71	2517412.41	641.13	BC

412	414593.70	2517407.41	641.22	SW
413	414589.85	2517407.42	641.26	SW
414	414589.86	2517412.42	641.17	SW
415	414584.86	2517415.18	641.04	SW
416	414584.86	2517412.43	641.24	SW
417	414584.85	2517407.43	641.32	SW
418	414589.76	2517362.11	641.60	SW
419	414584.76	2517362.12	641.67	SW
420	414551.57	2517407.49	640.68	SW
421	414551.65	2517410.40	640.58	SW
422	414553.28	2517412.49	640.53	SW
423	414551.80	2517456.68	640.76	SW

424	414551.81	2517461.68	640.81	SW
425	414584.95	2517456.61	640.90	SW
426	414584.96	2517461.61	640.95	SW
427	414584.94	2517453.71	640.72	SW
428	414589.95	2517456.60	640.83	SW
429	414589.96	2517461.60	640.90	SW
430	414594.21	2517461.59	640.86	SW
431	414585.02	2517495.37	640.99	SW
432	414590.02	2517495.36	640.97	SW
433	414589.75	2517357.11	641.62	SW
434	414584.75	2517357.12	641.74	SW
435	414556.57	2517407.48	640.68	SW

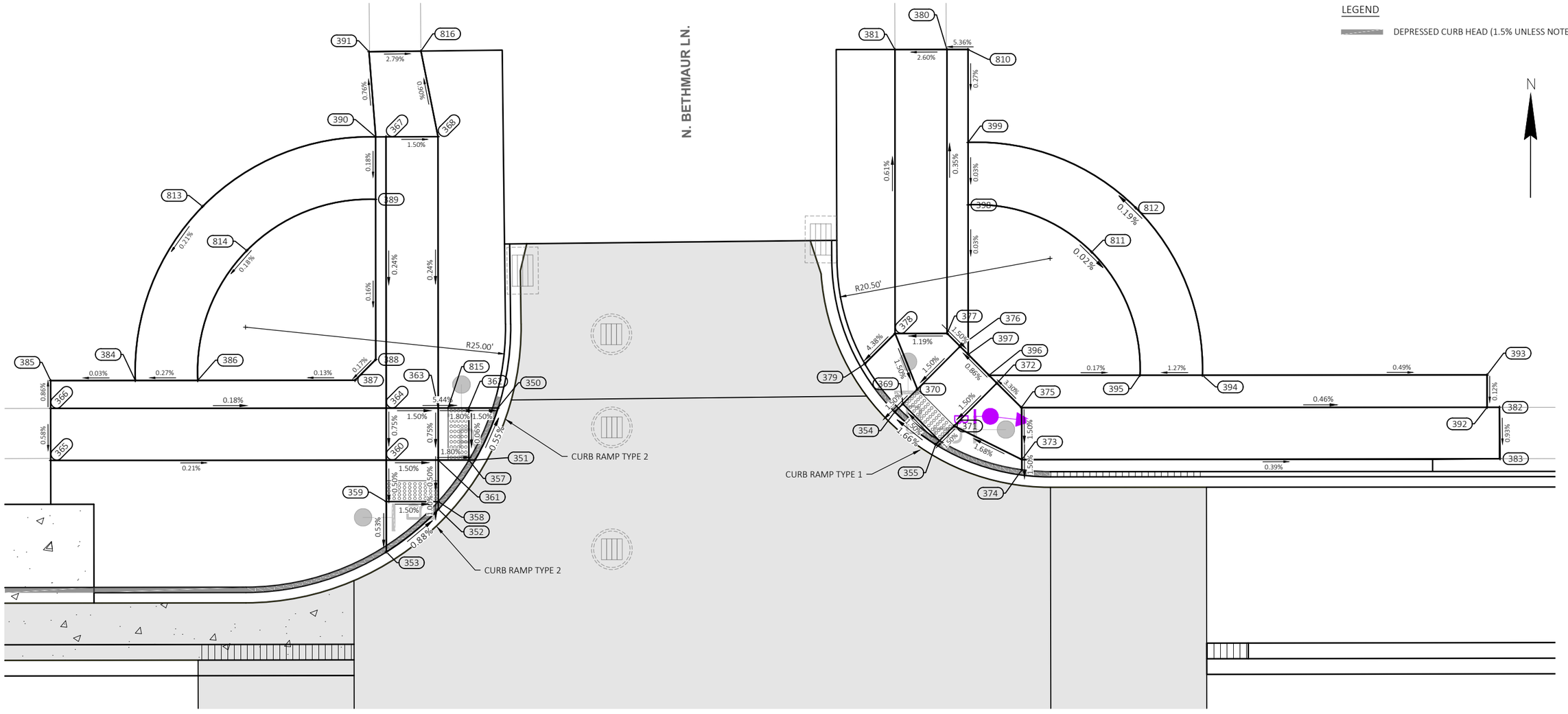
436	414556.58	2517412.48	640.60	SW
437	414584.79	2517377.21	641.56	SW
438	414582.93	2517377.22	641.52	SW
439	414582.94	2517384.43	641.46	SW
440	414582.95	2517390.44	641.41	SW
441	414560.78	2517407.48	640.77	SW
442	414566.81	2517407.46	640.91	SW
443	414582.99	2517407.43	641.28	SW
444	414551.84	2517463.95	640.88	SW
445	414561.02	2517463.93	640.97	SW
446	414567.03	2517463.92	640.95	SW
447	414581.02	2517463.89	641.02	SW

448	414583.35	2517466.21	641.02	SW
800	414583.38	2517480.50	641.02	SW
801	414583.39	2517486.50	641.07	SW
802	414583.41	2517495.37	641.01	SW
803	414566.65	2517390.94	641.12	SW
804	414570.90	2517395.18	641.16	SW
805	414567.26	2517480.12	640.97	SW
806	414571.50	2517475.87	640.98	SW
807	414589.86	2517413.17	641.20	SW
808	414589.94	2517455.70	640.86	SW
809	414592.20	2517456.60	640.79	SW

SILVER SPRING DR & 25TH ST (SOUTH)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 79	E

2



PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
350	414701.85	2517418.71	641.00	FL
351	414696.84	2517416.49	641.03	FL
352	414692.12	2517412.97	641.06	FL
353	414688.02	2517407.97	641.12	FL
354	414701.47	2517456.87	641.03	FL
355	414698.34	2517460.81	641.12	FL
357	414696.84	2517415.91	641.04	BC
358	414692.85	2517412.97	641.07	BC
359	414692.85	2517407.97	641.15	SW
360	414696.84	2517407.97	641.17	SW

361	414696.84	2517412.97	641.09	SW
362	414701.84	2517415.91	641.04	SW
363	414701.84	2517412.96	641.13	SW
364	414701.84	2517407.96	641.20	SW
365	414696.82	2517375.69	641.23	SW
366	414701.82	2517375.69	641.26	SW
367	414727.91	2517407.94	641.27	SW
368	414727.92	2517412.94	641.19	SW
369	414702.24	2517457.64	641.05	SW
370	414703.65	2517459.04	641.08	SW

371	414700.12	2517462.58	641.15	SW
372	414704.24	2517466.69	641.24	SW
373	414696.88	2517469.09	641.28	SW
374	414695.91	2517469.10	641.26	SW
375	414701.88	2517469.05	641.35	SW
376	414707.77	2517463.16	641.17	SW
377	414709.02	2517461.90	641.22	SW
378	414709.02	2517456.90	641.16	SW
379	414706.09	2517453.99	640.98	SW
380	414736.31	2517461.88	641.13	SW

381	414736.30	2517456.88	641.00	SW
382	414701.92	2517515.03	641.14	SW
383	414696.98	2517515.08	641.09	SW
384	414704.49	2517383.83	641.24	SW
385	414704.49	2517375.69	641.24	SW
386	414704.50	2517389.84	641.26	SW
387	414704.51	2517404.96	641.28	SW
388	414706.51	2517406.96	641.28	SW
389	414721.90	2517406.95	641.31	SW
390	414727.90	2517406.94	641.32	SW

391	414736.09	2517406.30	641.26	SW
392	414701.91	2517513.84	641.15	SW
393	414705.03	2517513.83	641.15	SW
394	414705.01	2517486.46	641.28	SW
395	414705.00	2517480.45	641.21	SW
396	414704.99	2517465.94	641.23	SW
397	414706.99	2517463.94	641.21	SW
398	414721.37	2517463.93	641.21	SW
399	414727.37	2517463.92	641.21	SW
810	414736.31	2517463.91	641.24	SW

811	414716.84	2517475.81	641.21	SW
812	414721.08	2517480.05	0.00	SW
813	414721.22	2517390.31	0.00	SW
814	414716.98	2517394.55	641.28	SW
815	414701.84	2517413.91	641.08	SW
816	414736.15	2517411.30	641.12	SW

SILVER SPRING DR & 25TH ST (NORTH)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 80	E

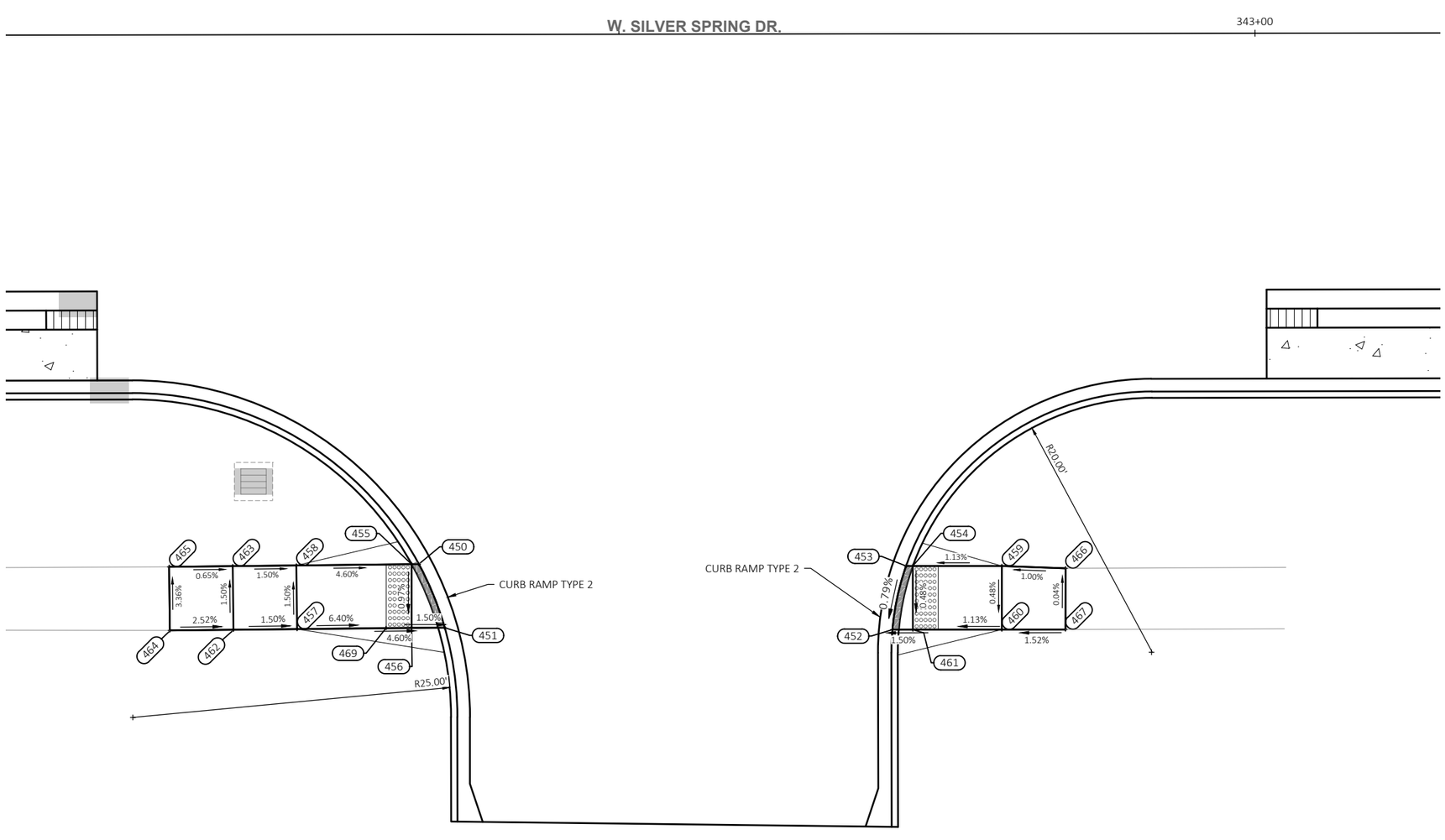
2

LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

N

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
450	414591.04	2518056.19	638.01	FL
451	414586.04	2518058.23	637.93	FL
452	414585.89	2518093.42	637.89	FL
453	414590.89	2518094.49	637.93	FL
454	414590.89	2518095.02	637.94	BC
455	414591.04	2518055.63	638.01	BC
456	414586.04	2518055.63	637.97	SW
457	414585.94	2518046.63	638.51	SW
458	414590.94	2518046.57	638.43	SW
459	414590.89	2518102.02	638.02	SW
460	414585.89	2518102.02	637.99	SW
461	414585.89	2518095.03	637.92	SW
462	414585.89	2518041.63	638.58	SW
463	414590.89	2518041.57	638.51	SW
464	414585.83	2518036.63	638.71	SW
465	414590.83	2518036.57	638.54	SW
466	414590.71	2518107.02	638.07	SW
467	414585.90	2518107.02	638.07	SW
469	414586.02	2518053.63	638.06	SW



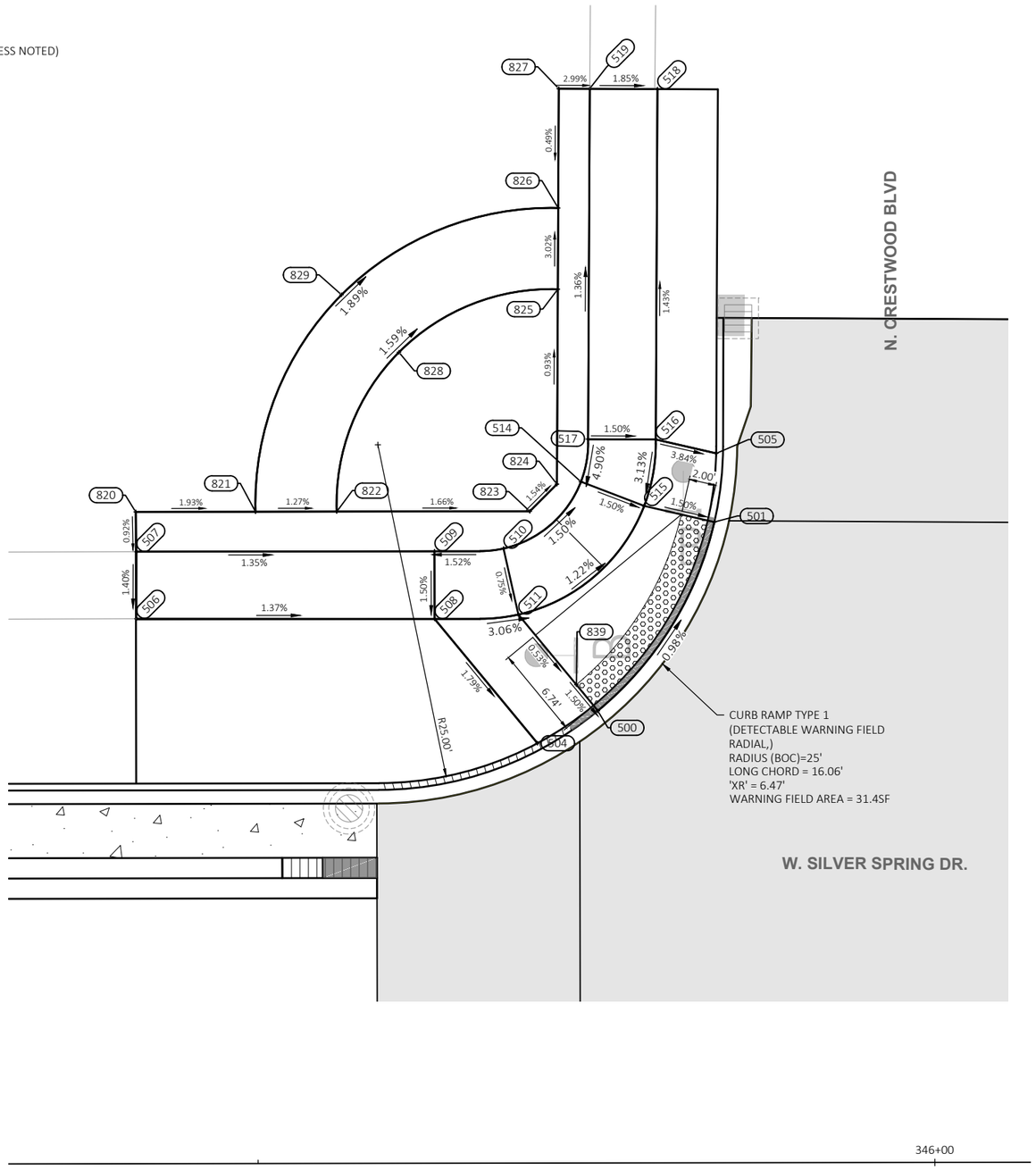
SILVER SPRING DR & ARGYLE AVE

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 81	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS 27TH-ONRAMP.DWG PLOT DATE : 1/23/2025 2:24 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
500	414691.52	2518397.01	633.86	FL
501	414705.48	2518405.62	633.69	FL
504	414689.13	2518392.55	633.91	BC
505	414710.55	2518405.76	633.76	BC
506	414698.34	2518362.93	634.42	SW
507	414703.28	2518362.93	634.49	SW
508	414698.32	2518384.95	634.12	SW
509	414703.32	2518384.94	634.20	SW
510	414703.52	2518390.05	633.97	SW
511	414698.64	2518391.14	633.93	SW
514	414708.46	2518395.76	633.85	SW
515	414706.67	2518400.43	633.77	SW
516	414711.57	2518401.29	633.93	SW
517	414711.60	2518396.29	634.01	SW
518	414737.46	2518401.41	633.56	SW
519	414737.48	2518396.41	633.65	SW
820	414706.22	2518362.87	634.52	SW
821	414706.24	2518371.72	634.35	SW
822	414706.25	2518377.72	634.27	SW
823	414706.27	2518391.98	634.04	SW
824	414708.27	2518393.99	633.99	SW
825	414722.67	2518394.06	633.86	SW
826	414728.67	2518394.09	633.68	SW
827	414737.49	2518394.13	633.72	SW
828	414718.01	2518382.32	634.07	SW
829	414722.26	2518378.08	634.09	SW
830	414605.20	2518476.24	634.20	FL
831	414605.21	2518487.42	634.17	FL
832	414604.72	2518492.24	634.16	FL
833	414602.31	2518492.25	634.20	FL
834	414596.72	2518492.26	634.17	FL
835	414600.24	2518485.19	634.25	FL
836	414604.70	2518476.24	634.21	FL
837	414596.74	2518502.26	634.02	FL
838	414596.75	2518512.26	633.98	FL
839	414693.46	2518395.43	633.89	SW

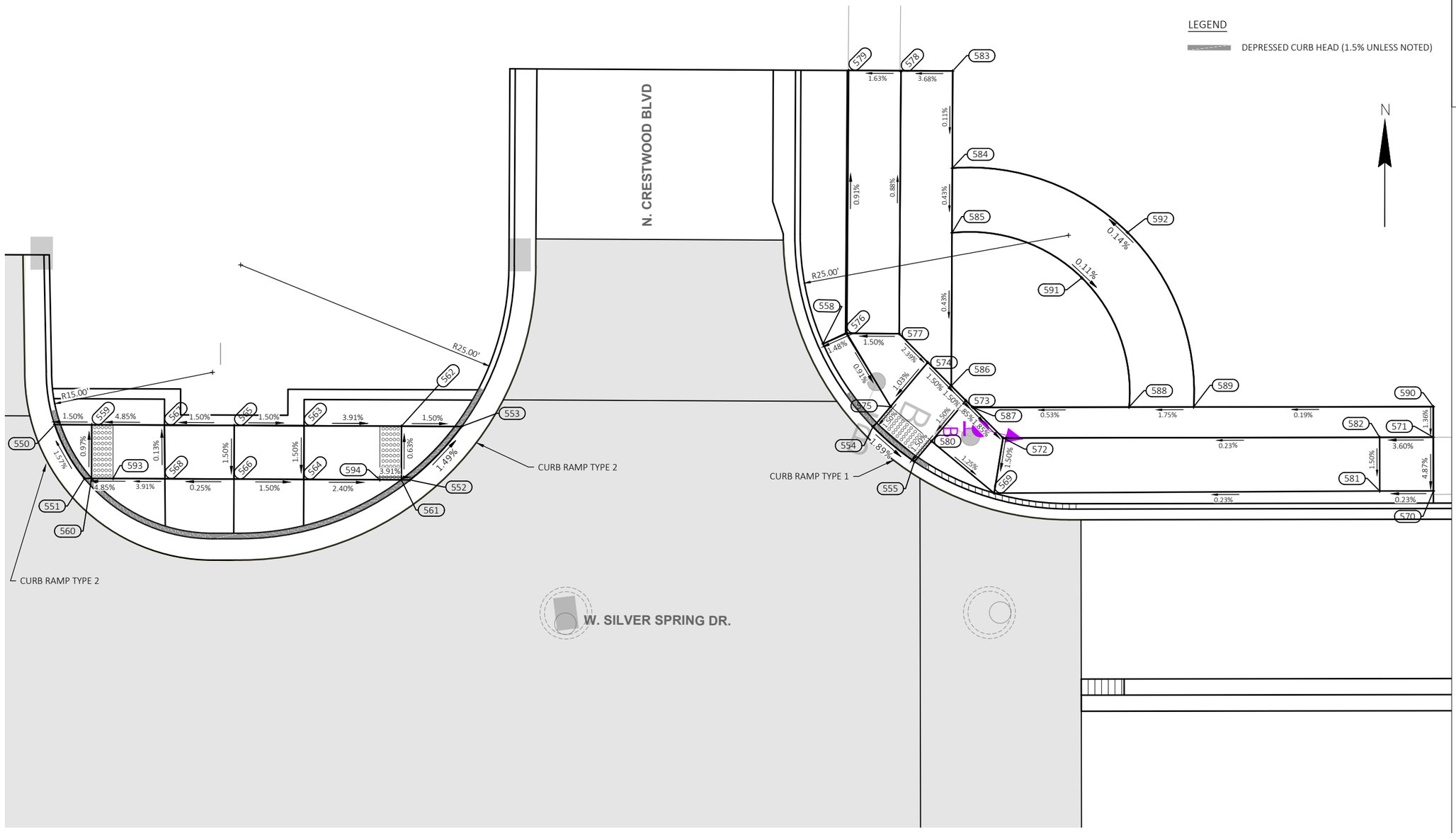
SILVER SPRING DR & CRESTWOOD BLVD (NW QUAD.)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 82	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS 27TH-ONRAMP.DWG PLOT DATE : 1/23/2025 2:24 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

2

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
550	414704.62	2518432.95	633.90	FL
551	414699.61	2518435.73	633.99	FL
552	414699.47	2518466.07	633.94	FL
553	414704.45	2518470.87	633.84	FL
554	414704.42	2518509.20	633.94	FL
555	414701.16	2518513.05	633.85	FL
558	414712.14	2518504.56	634.01	BC
559	414704.61	2518436.41	633.95	BC
560	414699.61	2518436.39	634.00	BC
561	414699.47	2518465.25	633.95	BC
562	414704.47	2518465.28	633.92	SW
563	414704.51	2518456.18	634.28	SW
564	414699.51	2518456.16	634.20	SW
565	414704.54	2518449.68	634.38	SW
566	414699.54	2518449.66	634.30	SW
567	414704.57	2518443.18	634.28	SW
568	414699.57	2518443.22	634.28	SW
569	414698.23	2518520.50	633.79	SW
570	414698.44	2518561.43	633.88	SW
571	414703.44	2518561.42	634.13	SW
572	414703.38	2518521.33	633.87	SW
573	414706.86	2518517.86	633.96	SW
574	414710.41	2518514.32	634.03	SW
575	414706.29	2518510.84	633.98	SW
576	414713.12	2518506.77	634.05	SW
577	414713.09	2518511.65	634.12	SW
578	414737.50	2518511.82	633.91	SW
579	414737.61	2518506.94	633.83	SW
580	414703.07	2518514.66	633.88	SW
581	414698.43	2518556.43	633.87	SW
582	414703.43	2518556.42	633.95	SW
583	414737.56	2518516.64	634.08	SW
584	414728.51	2518516.60	634.07	SW
585	414722.48	2518516.57	634.05	SW
586	414708.22	2518516.50	633.99	SW
587	414706.22	2518518.49	633.94	SW
588	414706.25	2518533.06	634.02	SW
589	414706.26	2518539.08	634.12	SW
590	414706.29	2518561.41	634.17	SW
591	414718.28	2518528.67	634.03	SW
592	414722.52	2518532.92	634.06	SW
593	414699.60	2518438.39	634.09	SW

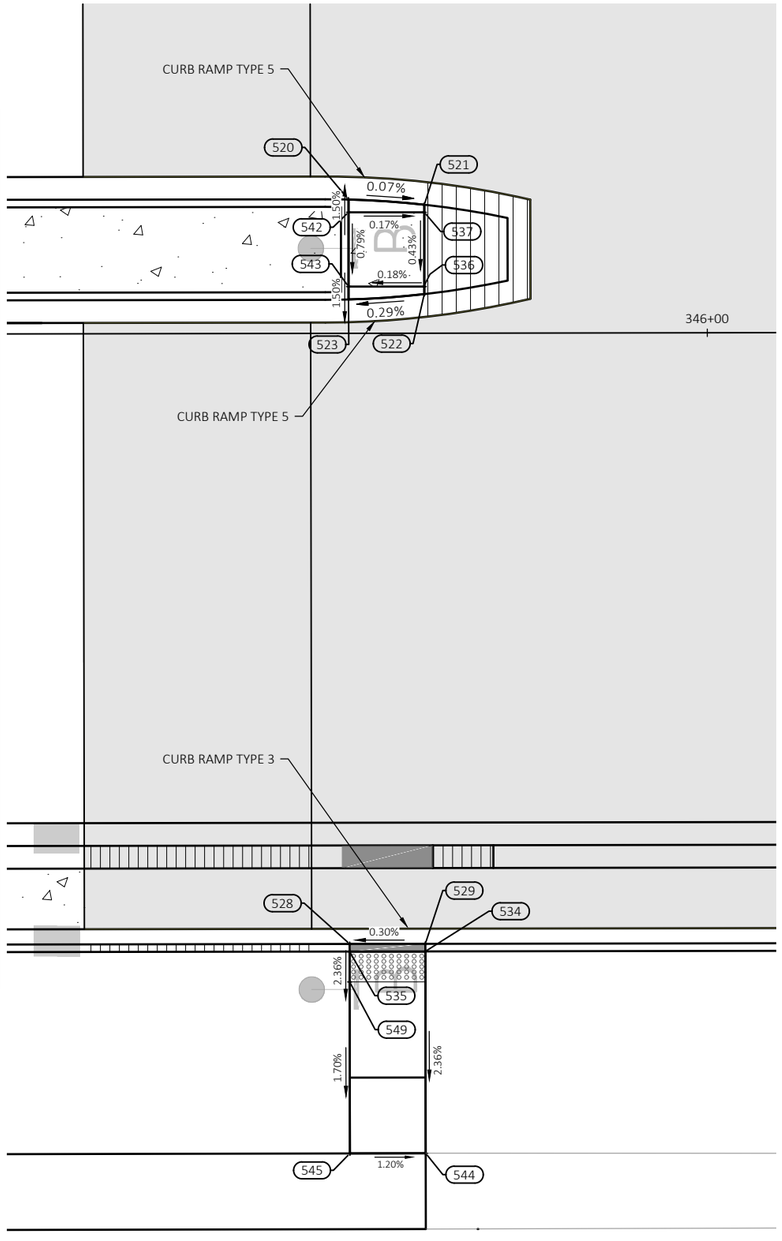


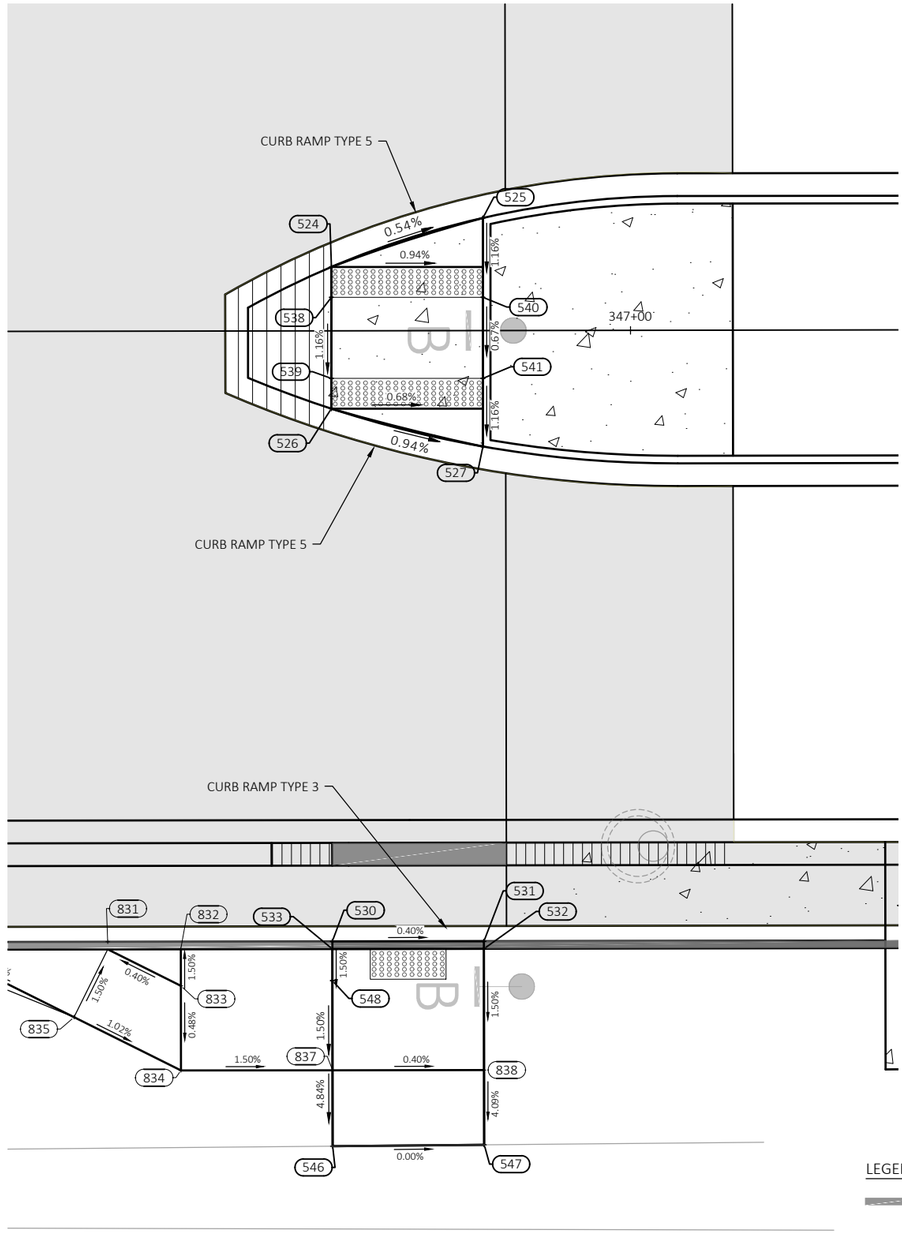
SILVER SPRING DR & CRESTWOOD BLVD (NE QUAD.)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 83	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS 27TH-ONRAMP.DWG PLOT DATE : 1/23/2025 2:24 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
520	414654.19	2518398.24	635.07	FL
521	414653.85	2518403.24	635.07	FL
522	414647.95	2518403.24	635.05	FL
523	414647.59	2518398.24	635.03	FL
524	414649.74	2518502.18	634.98	FL
525	414652.97	2518512.18	634.92	FL
526	414640.38	2518502.18	634.87	FL
527	414637.89	2518512.18	634.78	FL
528	414605.07	2518398.32	634.13	FL
529	414605.08	2518403.31	634.15	FL
530	414605.24	2518502.24	634.14	FL
531	414605.25	2518512.24	634.09	FL
532	414604.75	2518512.24	634.10	BC
533	414604.74	2518502.24	634.14	BC
534	414604.58	2518403.31	634.15	BC
535	414604.57	2518398.32	634.14	BC
536	414648.45	2518403.24	635.06	BC
537	414653.35	2518403.24	635.08	BC
538	414647.74	2518502.18	634.96	BC
539	414642.38	2518502.18	634.90	BC
540	414647.74	2518512.18	634.86	SW
541	414642.38	2518512.18	634.83	SW
542	414653.35	2518398.24	635.09	SW
543	414648.45	2518398.24	635.05	SW
544	414591.26	2518403.33	633.84	SW
545	414591.25	2518398.33	633.90	SW
546	414591.73	2518502.26	633.78	SW
547	414591.82	2518512.26	633.78	SW
548	414602.65	2518502.25	634.11	SW
549	414602.57	2518398.32	634.09	SW





N

LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

SILVER SPRING DR & CRESTWOOD BLVD (S)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 84	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS 27TH-ONRAMP.DWG PLOT DATE : 1/23/2025 2:24 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

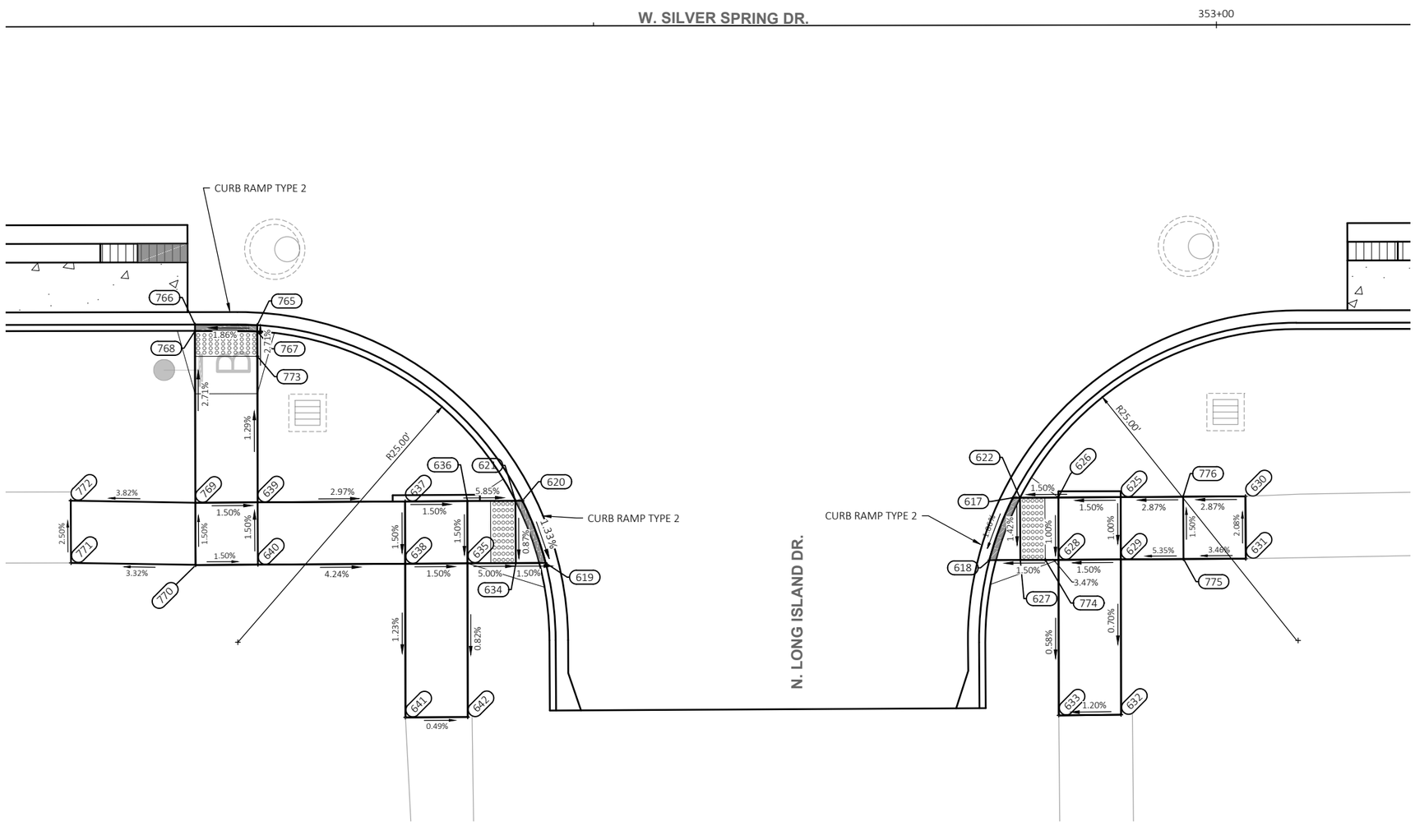
2

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
617	414592.20	2519105.59	633.27	FL
618	414587.19	2519103.69	633.17	FL
619	414586.96	2519068.07	632.87	FL
620	414591.95	2519066.21	632.94	FL
621	414591.96	2519065.65	632.95	BC
622	414592.20	2519106.15	633.28	BC
625	414592.25	2519114.24	633.40	SW
626	414592.24	2519109.24	633.64	SW
627	414587.20	2519106.18	633.21	SW
628	414587.22	2519109.25	633.27	SW
629	414587.23	2519114.25	633.35	SW
630	414592.31	2519124.24	633.68	SW
631	414587.31	2519124.27	633.79	SW
632	414574.78	2519114.27	633.26	SW
633	414574.73	2519109.27	633.20	SW
634	414586.96	2519065.68	632.91	SW
635	414586.95	2519061.81	633.10	SW
636	414591.93	2519061.80	633.18	SW
637	414591.90	2519056.80	633.25	SW
638	414586.90	2519056.83	633.18	SW
639	414591.83	2519044.96	633.61	SW
640	414586.83	2519044.99	633.68	SW
641	414574.57	2519056.83	633.03	SW
642	414574.59	2519061.83	633.00	SW
765	414606.06	2519044.93	633.39	FL
766	414606.10	2519039.93	633.30	FL
767	414605.56	2519044.93	633.40	BC
768	414605.60	2519039.94	633.31	BC
769	414591.80	2519039.96	633.68	SW
770	414586.80	2519039.99	633.76	SW
771	414586.97	2519029.99	633.42	SW
772	414591.97	2519029.96	633.30	SW
773	414603.56	2519044.94	633.45	SW
774	414587.21	2519108.18	633.24	SW
775	414587.28	2519119.27	633.62	SW
776	414592.28	2519119.24	633.54	SW

LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

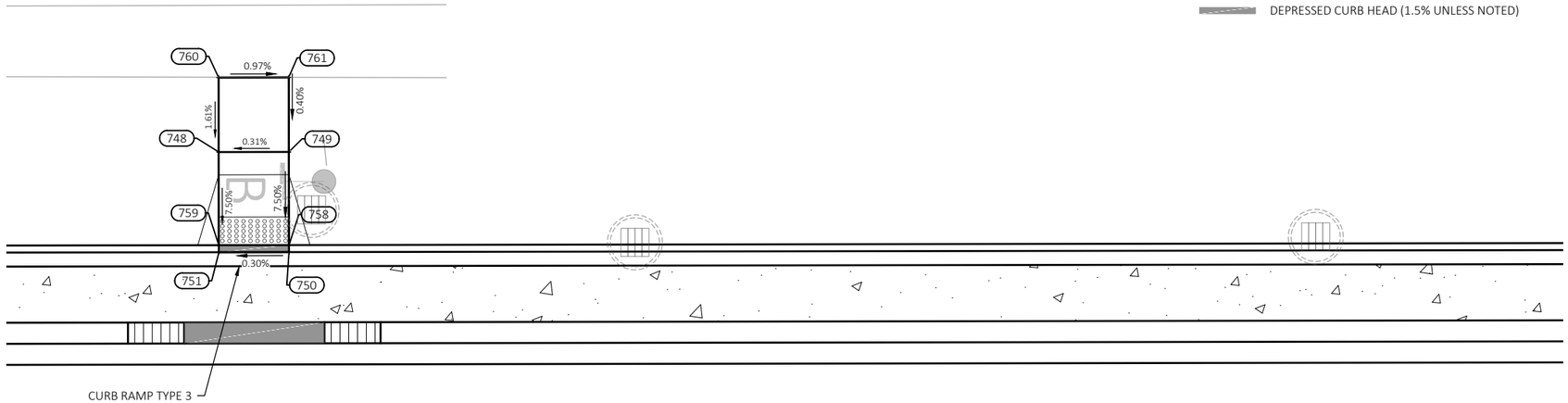
N



SILVER SPRING DR & LONG ISLAND DR (S)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 85	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS 27TH-ONRAMP.DWG PLOT DATE : 1/23/2025 2:25 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

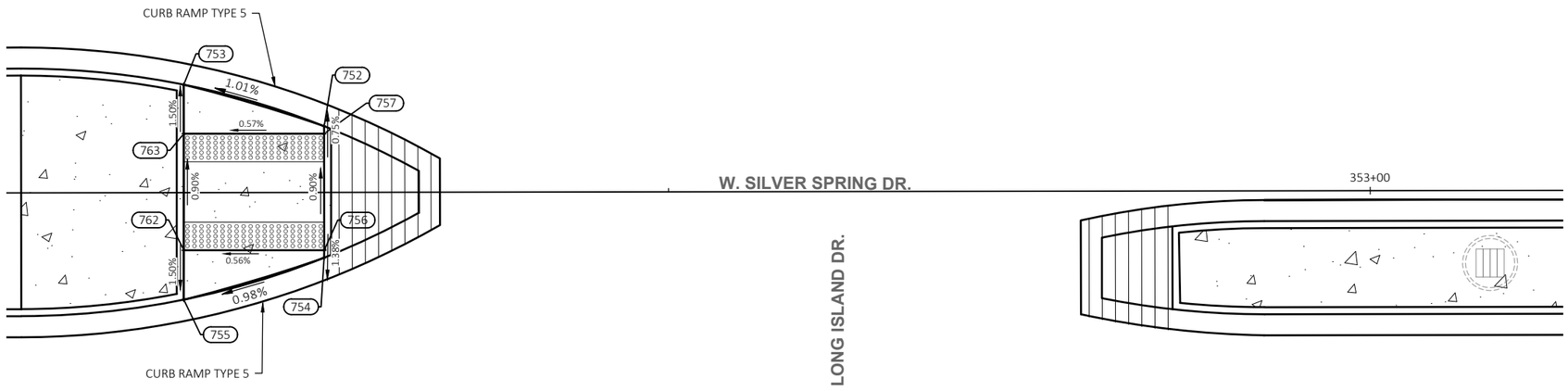


LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

N

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
748	414693.87	2519039.87	633.71	SW
749	414693.88	2519044.87	633.73	SW
750	414686.74	2519044.88	633.22	FL
751	414686.73	2519039.88	633.21	FL
752	414651.11	2519047.38	633.92	FL
753	414654.07	2519037.38	633.82	FL
754	414641.74	2519047.38	634.00	FL
755	414638.75	2519037.38	633.89	FL
756	414642.28	2519047.39	634.00	BC
757	414650.58	2519047.39	0.00	BC
758	414687.24	2519044.88	633.23	BC
759	414687.23	2519039.88	633.22	BC
760	414699.18	2519039.86	633.80	SW
761	414699.19	2519044.86	633.75	SW
762	414642.28	2519037.39	633.95	SW
763	414650.58	2519037.39	633.87	SW



SILVER SPRING DR & LONG ISLAND DR (N)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 86	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS 27TH-ONRAMP.DWG PLOT DATE : 1/23/2025 2:25 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

2

LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

N

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
650	414689.73	2519435.49	634.07	FL
651	414697.30	2519439.52	634.24	FL
659	414697.24	2519440.05	634.25	BC
660	414689.29	2519439.11	634.13	SW
661	414688.52	2519445.52	634.39	SW
662	414696.46	2519446.48	634.51	SW
680	414700.88	2519408.89	634.49	FL
681	414694.05	2519399.68	634.54	FL
682	414694.16	2519398.86	634.56	BC
683	414700.97	2519408.25	634.50	BC
684	414702.99	2519393.26	634.92	SW
685	414696.72	2519379.66	635.50	SW
686	414689.43	2519363.83	635.43	SW
687	414687.75	2519363.84	635.40	BC
688	414711.89	2519417.18	635.19	BC
689	414713.09	2519415.17	635.24	SW
691	414696.00	2519385.14	635.34	SW
692	414703.93	2519386.21	635.46	SW
693	414694.62	2519395.43	634.61	SW
694	414702.55	2519396.50	634.68	SW

11+00

WB ON RAMP

CURB RAMP TYPE 2
(DETECTABLE WARNING FIELD RADIAL,)
RADIUS (BOC)=50'
LONG CHORD = 11.60'
'XR' = 11.85'
WARNING FIELD AREA = 28.8SF

CURB RAMP TYPE 2

1.30%
7.50%
11.85'
1.50%
1.50%
0.87%
4.05%
2.96%
7.01%
1.50%
3.46'
R50.00'
0.39%
2.00%
4.05%
1.97%
1.55%
1.50%
1.50%
4.09%
R5.00'

689 688 692 694 684 680 685 683 691 693 686 681 682 687 659 651 662 650 661 660

SILVER SPRING DR & S.B. GREEN BAY AVE - OFF RAMP

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 87	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS 27TH-ONRAMP.DWG PLOT DATE : 1/23/2025 2:25 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

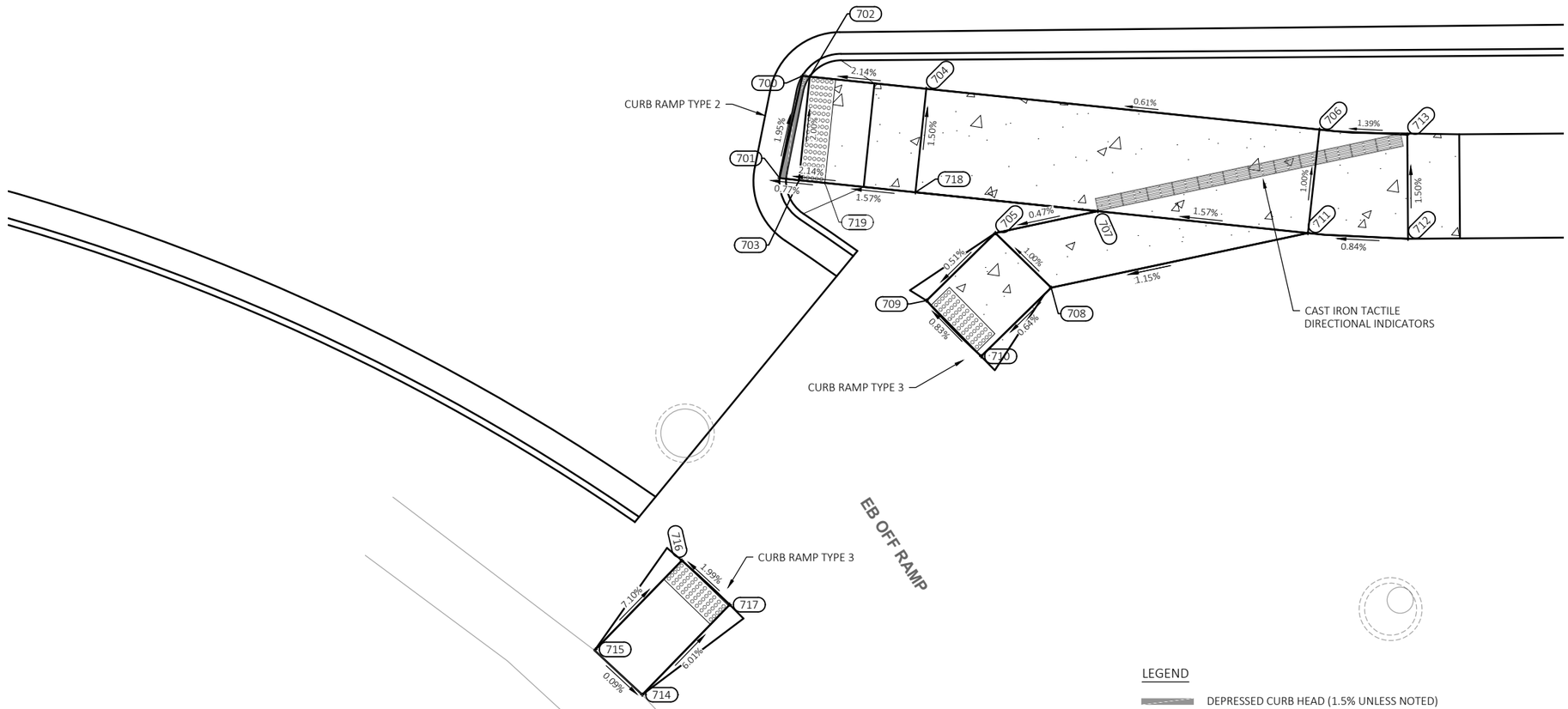
2

N

W. SILVER SPRING DR.

358+00

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
700	414611.36	2519614.16	630.93	FL
701	414603.50	2519612.40	631.09	FL
702	414611.30	2519614.72	630.94	BC
703	414603.34	2519613.89	631.10	SW
704	414610.37	2519623.67	631.13	SW
705	414599.28	2519628.99	631.10	SW
706	414607.23	2519653.89	631.32	SW
707	414600.96	2519636.87	631.14	SW
708	414595.08	2519633.27	631.16	SW
709	414594.09	2519623.69	631.06	SW
710	414589.80	2519627.90	631.11	SW
711	414599.28	2519653.01	631.40	SW
712	414598.84	2519660.70	631.52	SW
713	414606.84	2519660.64	631.40	SW
714	414563.79	2519601.85	630.85	SW
715	414567.27	2519598.26	630.84	SW
716	414574.10	2519604.89	630.17	BC
717	414570.71	2519608.57	630.27	BC
718	414602.41	2519622.85	631.25	SW GBRK
719	414603.14	2519615.88	631.14	SW
748	414693.87	2519039.87	633.71	SW
749	414693.88	2519044.87	633.73	SW



LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

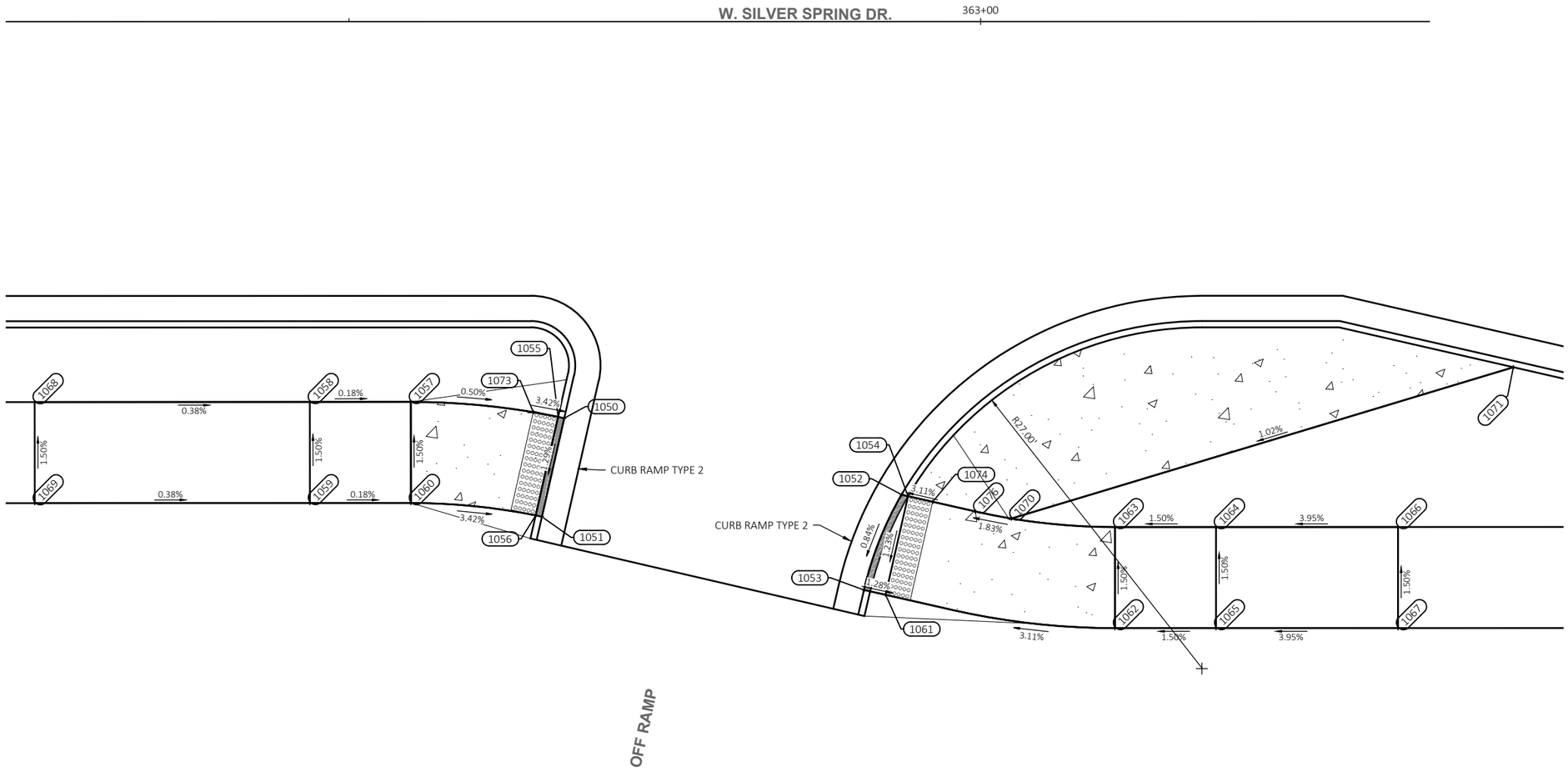
SILVER SPRING DR & S.B. GREEN BAY AVE - ON RAMP

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 88	E

2

LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1050	414606.16	2520088.96	630.02	FL
1051	414598.36	2520087.19	629.92	FL
1052	414600.11	2520115.66	629.96	FL
1053	414592.57	2520112.68	629.89	FL
1054	414599.99	2520116.17	629.96	BC
1055	414606.27	2520088.47	630.03	BC
1056	414598.47	2520086.70	629.93	BC
1057	414607.45	2520076.82	630.15	SW
1058	414607.45	2520068.82	630.16	SW
1059	414599.45	2520068.82	630.28	SW
1060	414599.45	2520076.82	630.27	SW
1061	414592.19	2520114.40	629.86	SW
1062	414589.55	2520132.55	630.44	SW
1063	414597.55	2520132.55	630.32	SW
1064	414597.55	2520140.55	630.44	SW
1065	414589.55	2520140.55	630.56	SW
1066	414597.55	2520154.96	631.01	EP
1067	414589.55	2520154.96	631.13	EP
1068	414607.43	2520047.04	630.24	EP
1069	414599.43	2520047.04	630.36	EP
1070	414598.22	2520124.35	630.14	SW
1071	414610.20	2520164.09	630.56	BC
1073	414606.64	2520086.50	630.10	SW
1074	414599.55	2520118.13	630.03	SW
1076	414598.78	2520121.48	630.09	SW

SILVER SPRING DR & N.B. GREEN BAY AVE - OFF RAMP

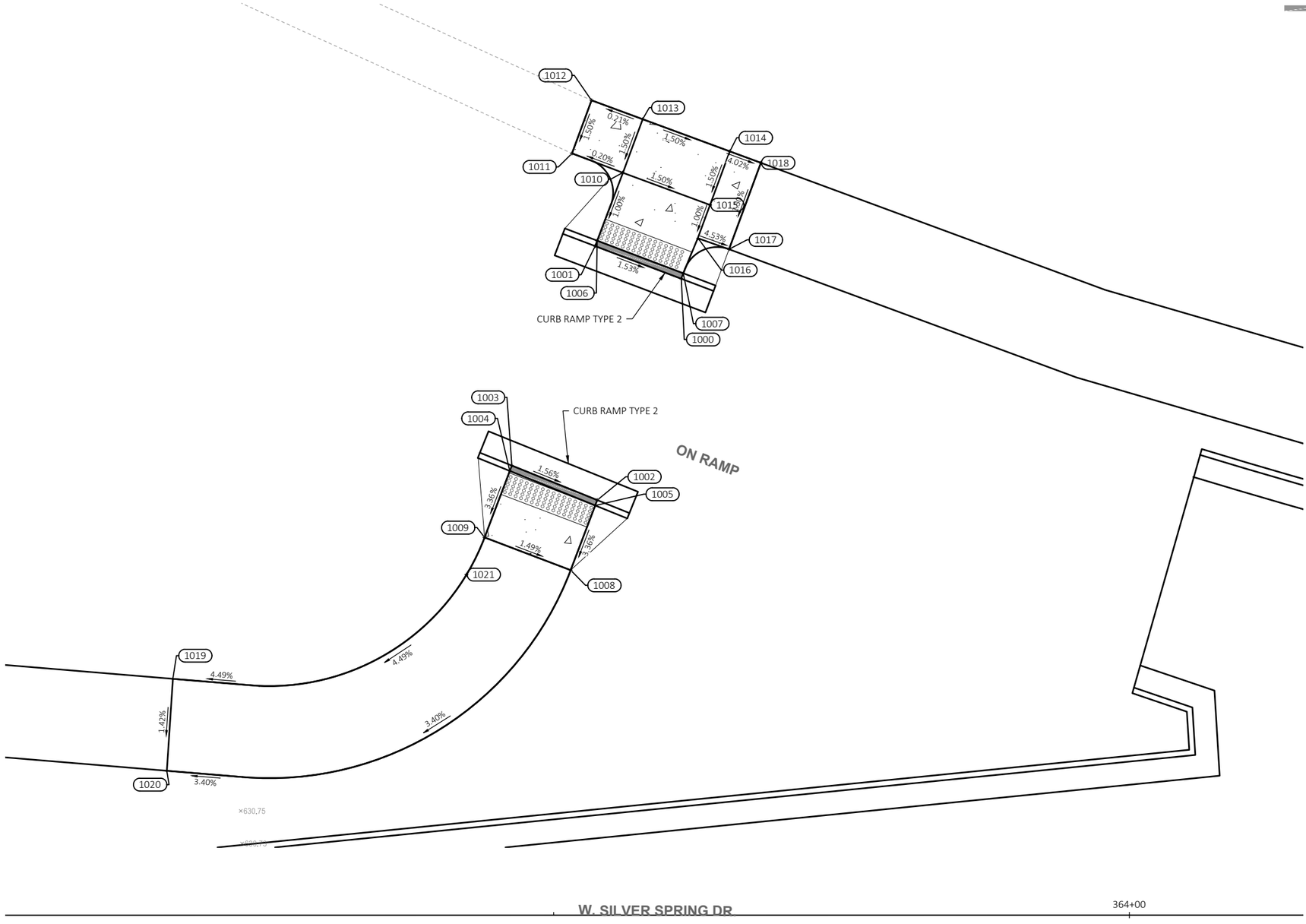
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 89	E

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1000	414732.96	2520183.00	632.59	FL
1001	414735.79	2520175.52	632.71	FL
1002	414713.74	2520175.70	632.84	FL
1003	414716.74	2520168.28	632.96	FL
1004	414716.27	2520168.10	632.97	BC
1005	414713.27	2520175.52	632.84	BC
1006	414736.26	2520175.69	632.72	BC
1007	414733.43	2520183.18	632.60	BC
1008	414707.66	2520173.39	632.64	SW
1009	414710.50	2520165.91	632.76	SW
1010	414742.17	2520177.91	632.78	SW
1011	414743.84	2520173.50	632.77	SW
1012	414748.45	2520175.20	632.85	SW
1013	414746.81	2520179.64	632.86	SW
1014	414744.02	2520187.21	632.74	SW
1015	414739.37	2520185.50	632.66	SW
1016	414736.46	2520184.47	632.63	SW
1017	414735.52	2520187.15	632.50	EP
1018	414743.02	2520189.92	632.62	EP
1019	414698.22	2520138.84	631.00	EP
1020	414690.24	2520138.31	630.89	EP
1021	414707.27	2520164.34	632.57	SW GBRK

LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

N



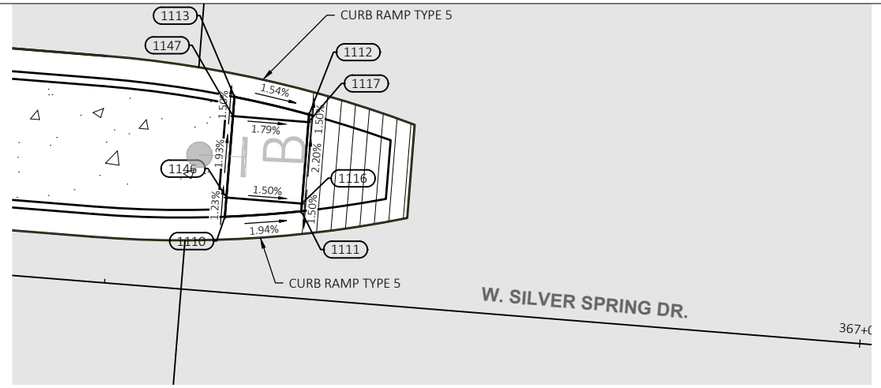
SILVER SPRING DR & N.B. GREEN BAY AVE - ON RAMP

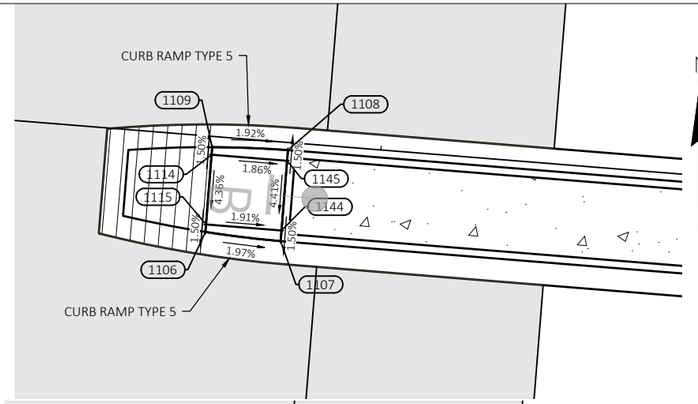
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 90	E

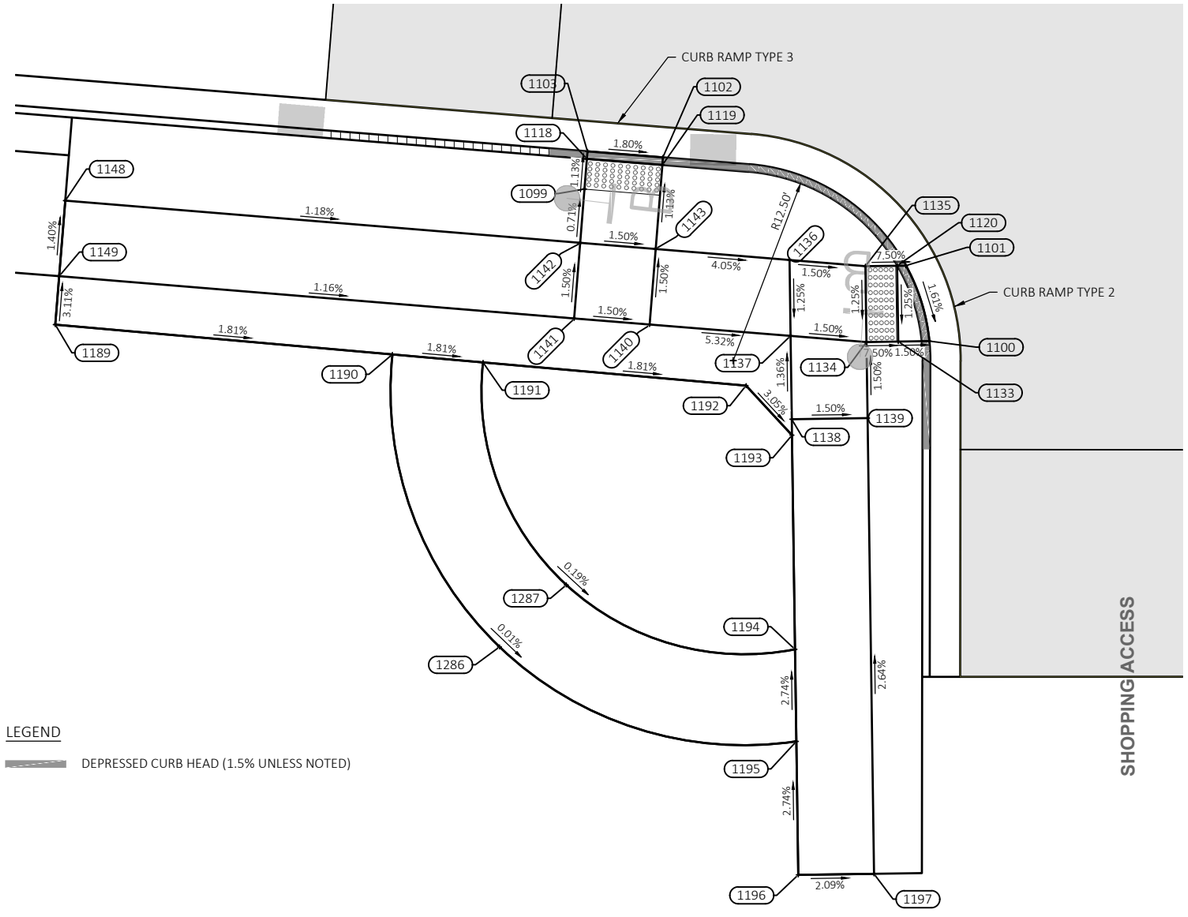
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS ONRAMP-MRP.DWG PLOT DATE : 1/23/2025 2:26 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

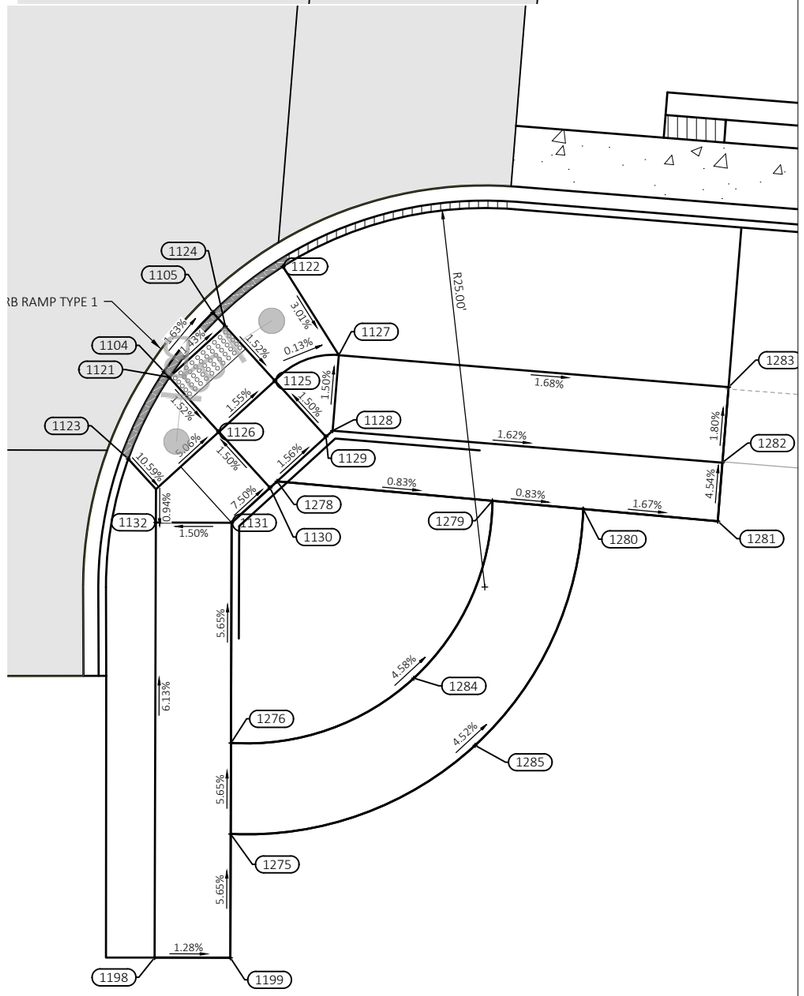
PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1099	414590.51	2520475.48	629.50	SW
1100	414580.47	2520498.23	628.77	FL
1101	414585.45	2520496.68	628.85	FL
1102	414592.60	2520480.65	629.38	FL
1103	414592.99	2520475.68	629.47	FL
1104	414578.44	2520556.75	627.84	FL
1105	414582.33	2520559.96	627.75	FL
1106	414623.08	2520559.68	628.43	FL
1107	414622.47	2520564.64	628.33	FL
1108	414628.48	2520565.13	628.54	FL
1109	414628.67	2520560.13	628.63	FL
1110	414640.85	2520479.52	630.40	FL
1111	414641.22	2520484.56	630.30	FL
1112	414647.60	2520485.08	630.19	FL
1113	414648.76	2520480.15	630.26	FL
1114	414628.17	2520560.09	628.64	BC
1115	414623.58	2520559.72	628.44	BC
1116	414641.72	2520484.60	630.31	BC
1117	414647.09	2520485.04	630.19	BC
1118	414592.50	2520475.64	629.48	BC
1119	414592.10	2520480.62	629.39	BC
1120	414585.44	2520496.11	628.86	BC
1121	414578.06	2520557.09	627.84	BC
1122	414585.37	2520564.60	627.90	BC
1123	414572.68	2520554.39	628.34	BC
1124	414581.42	2520560.79	627.77	SW
1125	414577.83	2520564.07	627.70	SW
1126	414574.46	2520560.35	627.77	SW
1127	414579.52	2520568.28	627.69	SW
1128	414574.53	2520567.87	627.77	SW
1129	414574.13	2520567.43	627.77	SW
1130	414570.77	2520563.74	627.85	SW
1131	414568.46	2520561.21	628.11	SW
1132	414568.47	2520556.21	628.03	SW
1133	414580.44	2520496.18	628.80	SW
1134	414580.41	2520494.08	628.96	SW
1135	414585.41	2520494.01	629.02	SW
1136	414585.82	2520489.01	629.10	SW
1137	414580.82	2520489.08	629.03	SW
1138	414575.32	2520489.16	629.11	SW
1139	414575.39	2520494.15	629.03	SW
1140	414581.56	2520479.77	629.53	SW
1141	414581.96	2520474.79	629.60	SW
1142	414586.96	2520475.20	629.53	SW
1143	414586.55	2520480.17	629.45	SW
1144	414623.18	2520564.70	628.34	SW
1145	414627.77	2520565.07	628.55	SW
1146	414642.12	2520479.62	630.39	SW
1147	414647.49	2520480.05	630.28	SW
1148	414589.74	2520441.22	629.93	SW

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1149	414584.76	2520440.82	630.00	SW
1275	414547.92	2520561.15	629.27	SW
1276	414553.93	2520561.16	628.93	SW
1278	414571.19	2520564.20	627.84	SW
1279	414569.91	2520578.41	627.72	SW
1280	414569.36	2520584.40	627.68	SW
1281	414568.56	2520593.29	627.53	SW
1282	414572.43	2520593.59	627.35	SW
1283	414577.41	2520594.01	627.26	SW
1284	414558.20	2520573.23	628.33	SW
1285	414553.77	2520577.27	628.47	SW
1286	414560.30	2520469.87	629.69	SW
1287	414564.39	2520474.28	629.56	SW









LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

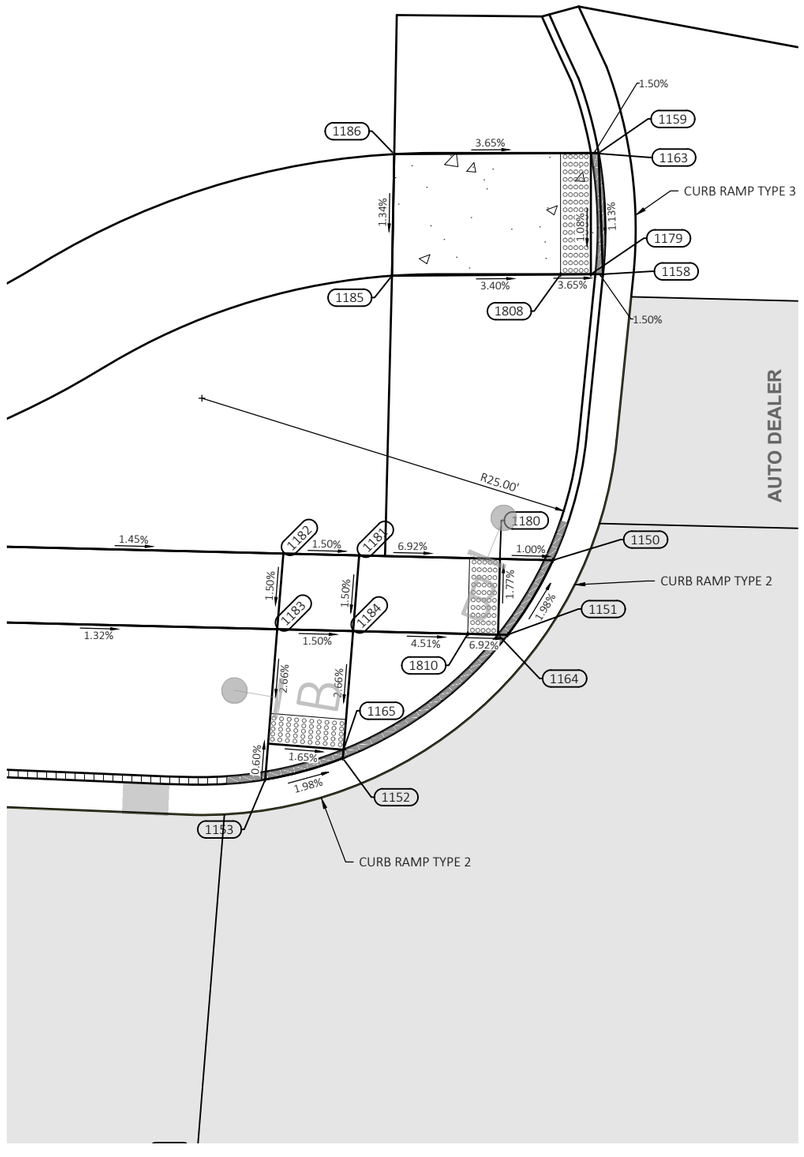
SILVER SPRING DR & N.B. GREEN BAY AVE - OFF RAMP

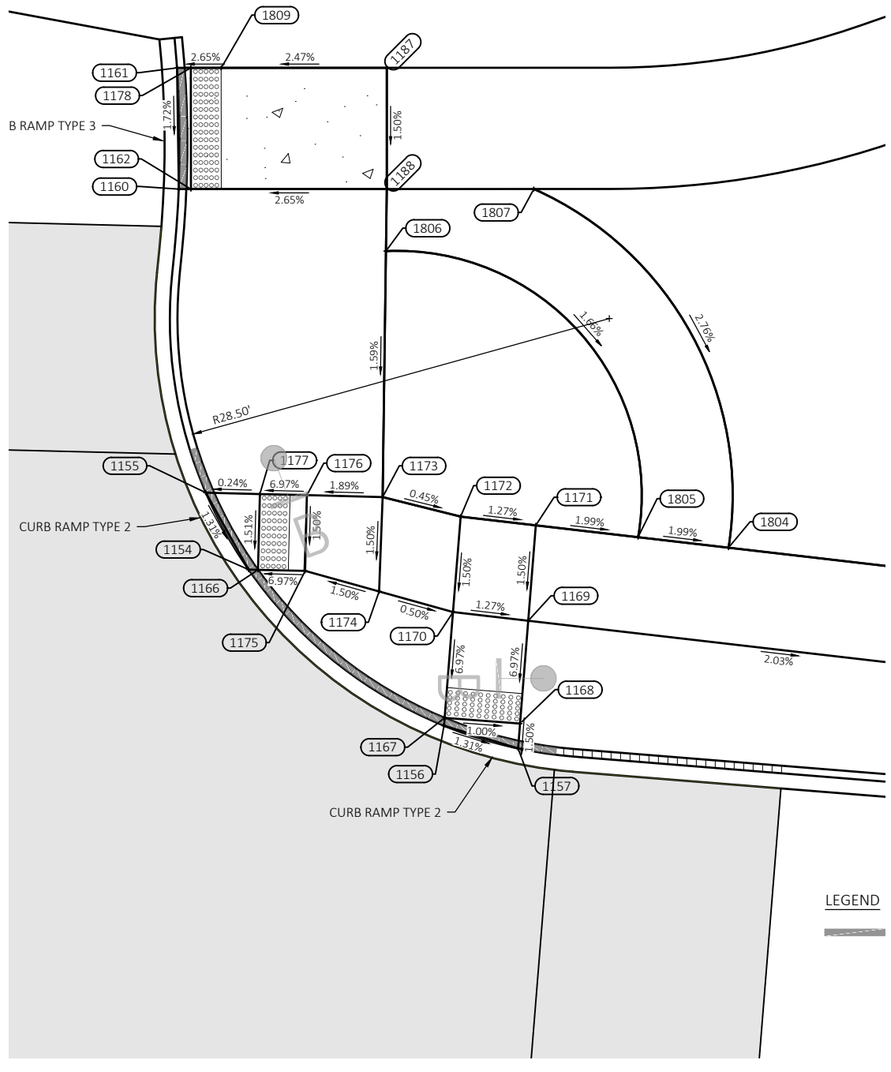
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 91	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS ONRAMP-MRP.DWG PLOT DATE : 1/23/2025 2:27 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

2

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1150	414693.10	2520501.53	629.11	FL
1151	414688.18	2520498.55	629.22	FL
1152	414680.04	2520487.67	629.49	FL
1153	414678.63	2520482.55	629.60	FL
1154	414686.87	2520551.08	628.35	FL
1155	414691.94	2520548.26	628.43	FL
1156	414676.57	2520563.98	628.13	FL
1157	414675.07	2520568.87	628.07	FL
1158	414711.97	2520504.84	629.06	FL
1159	414719.97	2520504.55	629.15	FL
1160	414711.98	2520546.48	628.72	FL
1161	414719.98	2520546.36	628.85	FL
1162	414711.98	2520547.28	628.73	BC
1163	414719.97	2520504.04	629.15	BC
1164	414688.19	2520497.92	629.23	BC
1165	414680.60	2520487.73	629.50	BC
1166	414686.86	2520551.71	628.36	BC
1167	414677.09	2520564.02	628.14	BC
1168	414676.71	2520568.99	628.09	SW
1169	414683.50	2520569.54	628.57	SW
1170	414684.07	2520564.57	628.63	SW
1171	414689.79	2520570.04	628.66	SW
1172	414690.37	2520565.08	628.72	SW
1173	414691.66	2520559.93	628.75	SW
1174	414685.43	2520559.70	628.66	SW
1175	414686.79	2520554.81	628.58	SW
1176	414691.78	2520554.94	628.65	SW
1177	414691.86	2520551.83	628.44	SW
1178	414719.98	2520547.28	628.87	SW
1179	414711.97	2520504.04	629.07	SW
1180	414693.18	2520498.04	629.14	SW
1181	414693.41	2520488.75	629.79	SW
1182	414693.54	2520483.75	629.86	SW
1183	414688.55	2520483.35	629.79	SW
1184	414688.42	2520488.35	629.71	SW
1185	414711.87	2520490.92	629.52	EP
1186	414719.89	2520491.07	629.63	EP
1187	414719.98	2520560.20	629.19	EP
1188	414711.98	2520560.20	629.07	EP
1189	414581.56	2520440.56	630.10	SW
1190	414579.59	2520462.81	629.70	SW
1191	414579.07	2520468.78	629.59	SW
1192	414577.53	2520486.14	629.27	SW
1193	414574.27	2520489.17	629.14	SW
1194	414560.14	2520489.37	629.52	SW
1195	414554.06	2520489.46	629.69	SW
1196	414545.25	2520489.58	629.93	SW
1197	414545.32	2520494.58	629.83	SW
1198	414539.77	2520556.12	629.79	SW
1199	414539.75	2520561.12	629.73	SW





PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1800	414679.80	2520601.44	627.91	SW
1801	414676.25	2520620.82	627.52	SW
1802	414682.45	2520621.89	627.62	SW
1803	414686.07	2520602.11	628.02	SW
1804	414688.32	2520582.75	628.41	SW
1805	414689.01	2520576.79	628.53	SW
1806	414707.88	2520560.15	629.01	SW
1807	414711.98	2520569.91	629.21	SW
1808	414711.95	2520502.04	629.14	SW
1809	414719.98	2520549.28	628.92	SW
1810	414688.24	2520495.92	629.37	SW

LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

SILVER SPRING DR & AUTO DEALER (N)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 92	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS ONRAMP-MRP.DWG PLOT DATE : 1/23/2025 2:27 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

2

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1200	414655.98	2521372.48	629.70	FL
1201	414656.33	2521367.48	629.69	FL
1202	414650.17	2521372.48	629.68	FL
1203	414649.81	2521367.48	629.65	FL
1204	414652.81	2521459.74	630.20	FL
1205	414654.39	2521464.74	630.21	FL
1206	414640.76	2521464.74	629.95	FL
1207	414642.34	2521459.74	629.99	FL
1208	414599.27	2521464.74	629.06	FL

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1209	414599.27	2521459.75	629.05	FL
1210	414599.26	2521375.98	628.80	FL
1211	414599.26	2521367.48	628.78	FL
1212	414598.77	2521464.74	629.07	BC
1213	414598.77	2521459.75	629.06	BC
1214	414598.76	2521375.98	628.81	BC
1215	414598.76	2521367.48	628.78	BC
1216	414642.87	2521459.74	630.00	BC
1217	414652.27	2521459.74	630.20	BC

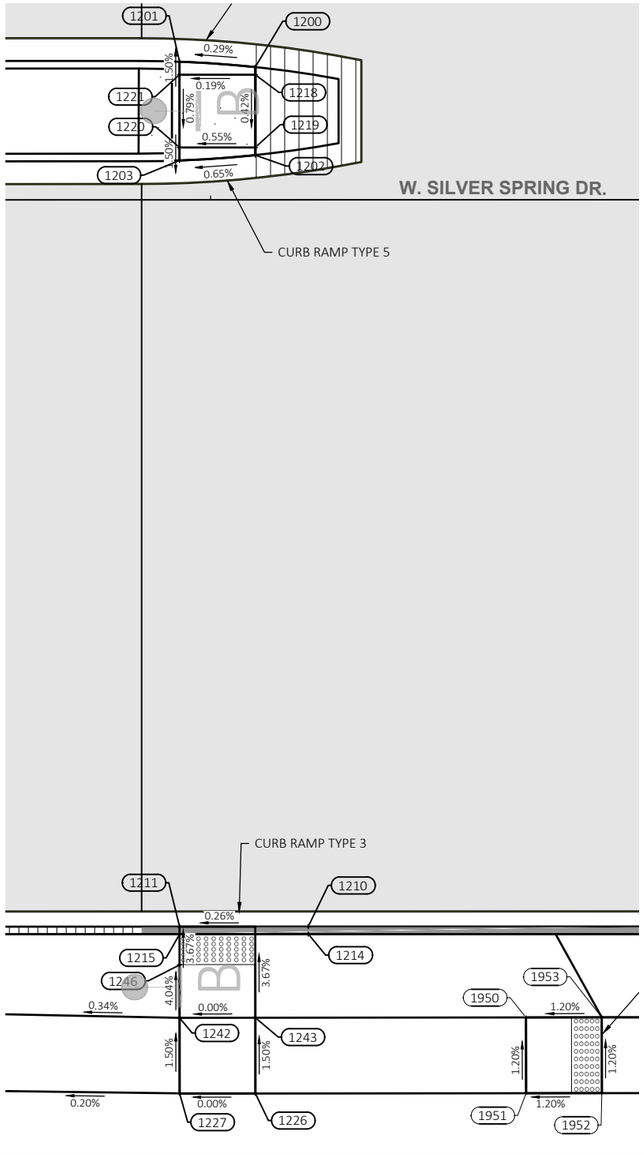
PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1218	414655.48	2521372.48	629.71	BC
1219	414650.67	2521372.48	629.69	BC
1220	414650.67	2521367.48	629.66	SW
1221	414655.48	2521367.48	629.70	SW
1222	414652.28	2521464.74	630.24	SW
1223	414642.87	2521464.74	629.98	SW
1224	414588.34	2521464.75	629.04	SW
1225	414588.33	2521459.75	629.04	SW
1226	414588.26	2521372.48	629.07	SW

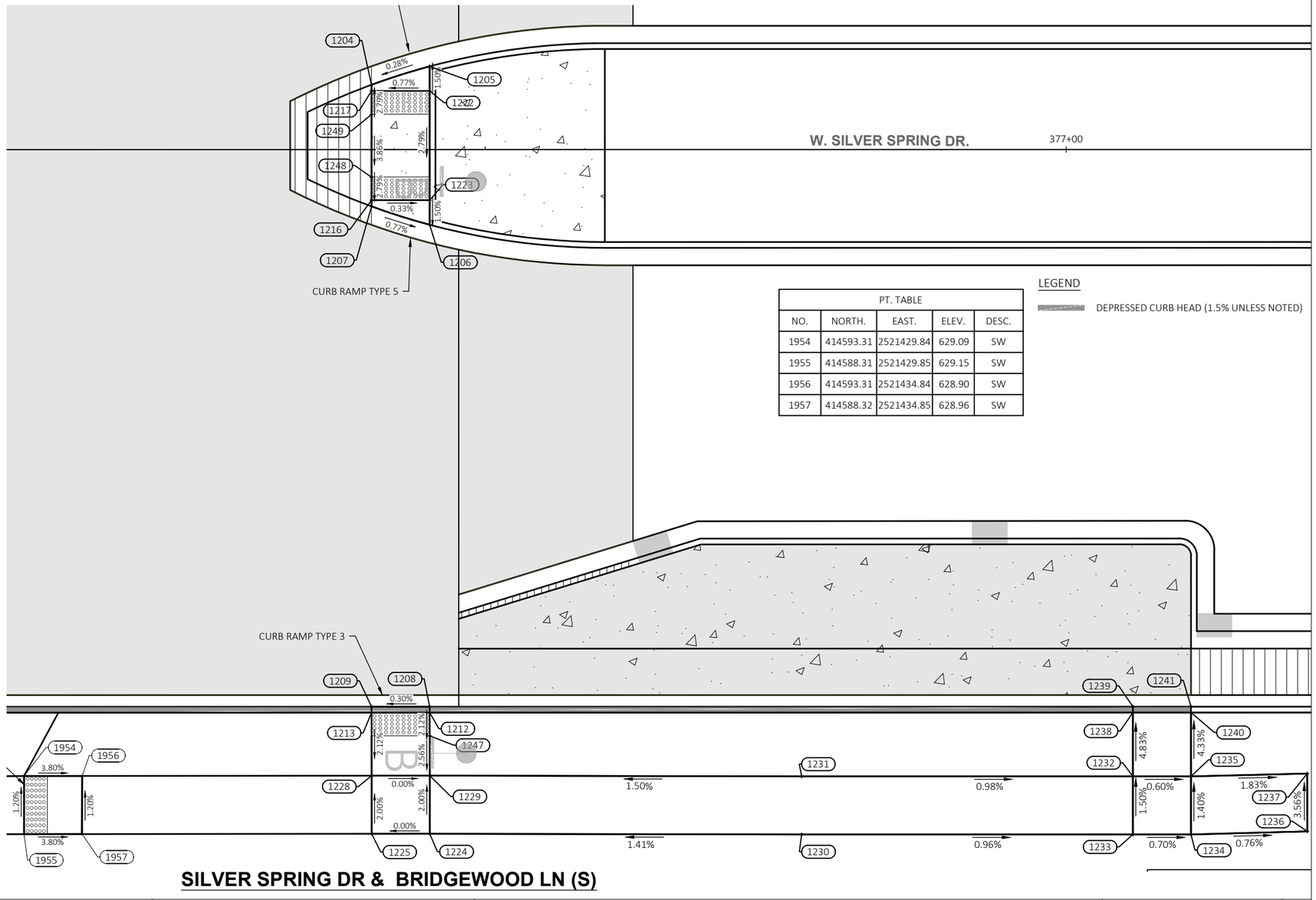
PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1227	414588.25	2521367.48	629.07	SW
1228	414593.34	2521459.75	628.94	SW
1229	414593.35	2521464.75	628.94	SW
1230	414588.27	2521496.75	629.49	SW
1231	414593.27	2521496.75	629.42	SW
1232	414593.28	2521525.25	629.14	SW
1233	414588.28	2521525.25	629.22	SW
1234	414588.28	2521530.25	629.18	SW
1235	414593.28	2521530.25	629.11	SW

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1236	414588.54	2521540.25	629.10	SW
1237	414593.52	2521540.25	628.93	SW
1238	414598.78	2521525.25	628.87	BC
1239	414599.28	2521525.25	628.87	FL
1240	414598.78	2521530.25	628.87	BC
1241	414599.28	2521530.25	628.86	FL
1242	414593.24	2521367.48	629.00	SW
1243	414593.25	2521372.48	629.00	SW
1244	414588.44	2521353.98	629.05	SW

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1245	414593.52	2521353.98	628.95	SW
1246	414596.73	2521367.48	628.86	SW
1247	414596.77	2521464.75	629.03	
1248	414644.85	2521459.74	630.05	SW
1249	414650.26	2521459.74	630.26	SW
1950	414593.27	2521390.34	628.94	SW
1951	414588.27	2521390.35	629.00	SW
1952	414588.28	2521395.35	629.06	SW
1953	414593.27	2521395.34	629.00	SW

N





LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

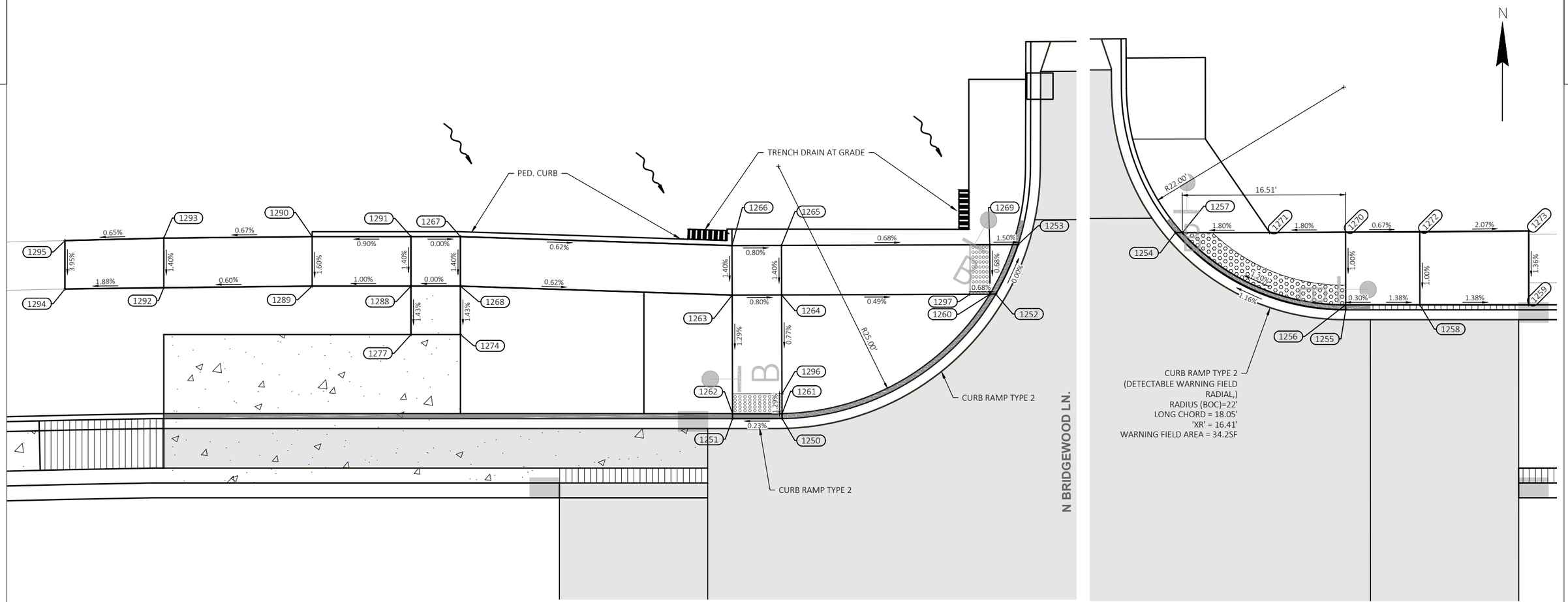
PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1954	414593.31	2521429.84	629.09	SW
1955	414588.31	2521429.85	629.15	SW
1956	414593.31	2521434.84	628.90	SW
1957	414588.32	2521434.85	628.96	SW

SILVER SPRING DR & BRIDGEWOOD LN (S)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 93	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS ONRAMP-MRP.DWG PLOT DATE : 1/23/2025 2:27 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

2



CURB RAMP TYPE 2
(DETECTABLE WARNING FIELD
RADIAL,)
RADIUS (BOC)=22'
LONG CHORD = 18.05'
'XR' = 16.41'
WARNING FIELD AREA = 34.2SF

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1250	414687.88	2521372.49	629.05	FL
1251	414687.88	2521367.48	629.04	FL
1252	414700.47	2521394.10	629.04	FL
1253	414705.47	2521396.35	629.04	FL
1254	414706.67	2521447.53	629.11	FL
1255	414698.88	2521464.74	629.33	FL
1256	414699.38	2521464.74	629.34	BC
1257	414706.67	2521448.22	629.12	BC
1258	414699.38	2521472.24	629.49	BC

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1259	414699.38	2521483.25	629.13	BC
1260	414700.46	2521393.51	629.05	BC
1261	414688.38	2521372.48	629.06	BC
1262	414688.38	2521367.48	629.05	BC
1263	414700.37	2521367.44	629.20	SW
1264	414700.38	2521372.44	629.16	SW
1265	414705.38	2521372.43	629.23	SW
1266	414705.37	2521367.43	629.27	SW
1267	414706.27	2521339.97	629.44	SW

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1268	414701.27	2521339.97	629.37	SW
1269	414705.46	2521393.49	629.09	SW
1270	414706.73	2521464.73	629.41	SW
1271	414706.68	2521457.05	629.28	SW
1272	414706.73	2521472.23	629.53	SW
1273	414706.85	2521483.25	629.10	SW
1274	414696.38	2521339.97	629.30	SW
1277	414696.38	2521334.97	629.30	SW
1288	414701.27	2521334.97	629.37	SW

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1289	414701.27	2521324.97	629.27	SW
1290	414706.27	2521324.97	629.35	SW
1291	414706.27	2521334.97	629.44	SW
1292	414701.12	2521309.97	629.18	SW
1293	414706.12	2521309.97	629.25	SW
1294	414700.98	2521299.97	628.99	SW
1295	414705.87	2521299.97	629.18	SW
1296	414690.38	2521372.48	629.08	SW
1297	414700.45	2521391.49	629.07	SW

LEGEND

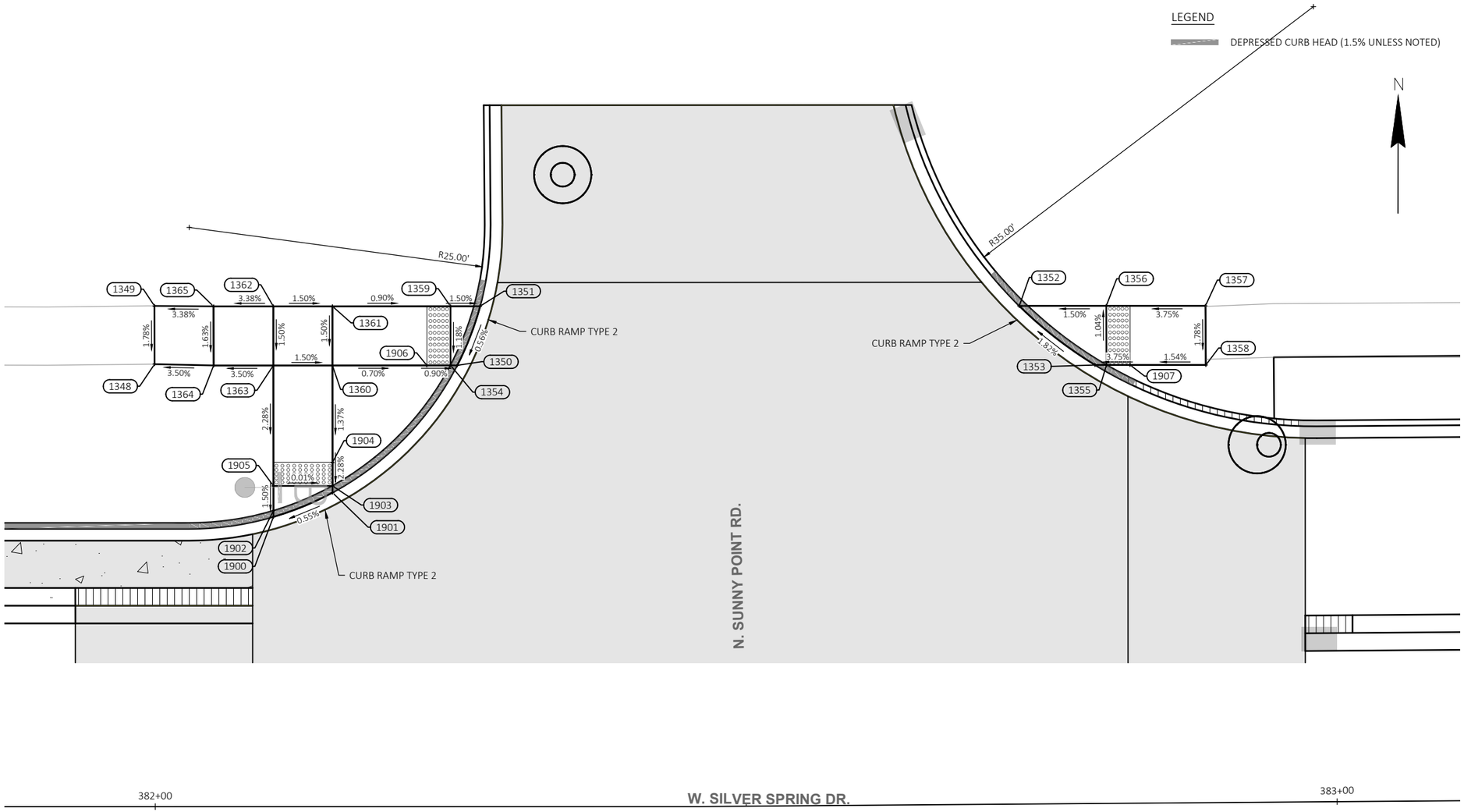
DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

SILVER SPRING DR & BRIDGEWOOD LN (N)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 94	E

2

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1348	414701.88	2522019.46	629.60	SW
1349	414706.81	2522019.46	629.68	SW
1350	414701.78	2522045.07	629.79	FL
1351	414706.78	2522047.01	629.82	FL
1352	414706.81	2522092.62	630.09	FL
1353	414701.81	2522099.03	630.24	FL
1354	414701.78	2522044.50	629.80	BC
1355	414701.81	2522100.01	630.25	BC
1356	414706.81	2522099.99	630.20	SW
1357	414706.82	2522108.38	630.51	SW
1358	414701.82	2522108.42	630.42	SW
1359	414706.78	2522044.50	629.86	SW
1360	414701.77	2522034.52	629.87	SW
1361	414706.77	2522034.51	629.95	SW
1362	414706.77	2522029.51	630.02	SW
1363	414701.77	2522029.52	629.95	SW
1364	414701.77	2522024.46	629.77	SW
1365	414706.76	2522024.47	629.85	SW
1390	414571.18	2522403.98	629.86	SW
1391	414576.18	2522403.94	629.65	SW
1392	414576.14	2522398.94	629.57	SW
1396	414576.36	2522352.81	629.56	SW
1397	414576.32	2522347.81	629.64	SW
1398	414596.86	2522332.65	629.48	SW
1399	414591.86	2522332.69	629.56	SW
1900	414688.96	2522029.52	629.68	FL
1901	414691.01	2522034.52	629.71	FL
1902	414689.48	2522029.52	629.68	BC
1903	414691.58	2522034.52	629.71	BC
1904	414693.56	2522034.52	629.76	SW
1905	414691.58	2522029.52	629.72	SW
1906	414701.78	2522042.49	629.82	SW
1907	414701.81	2522101.99	630.33	SW

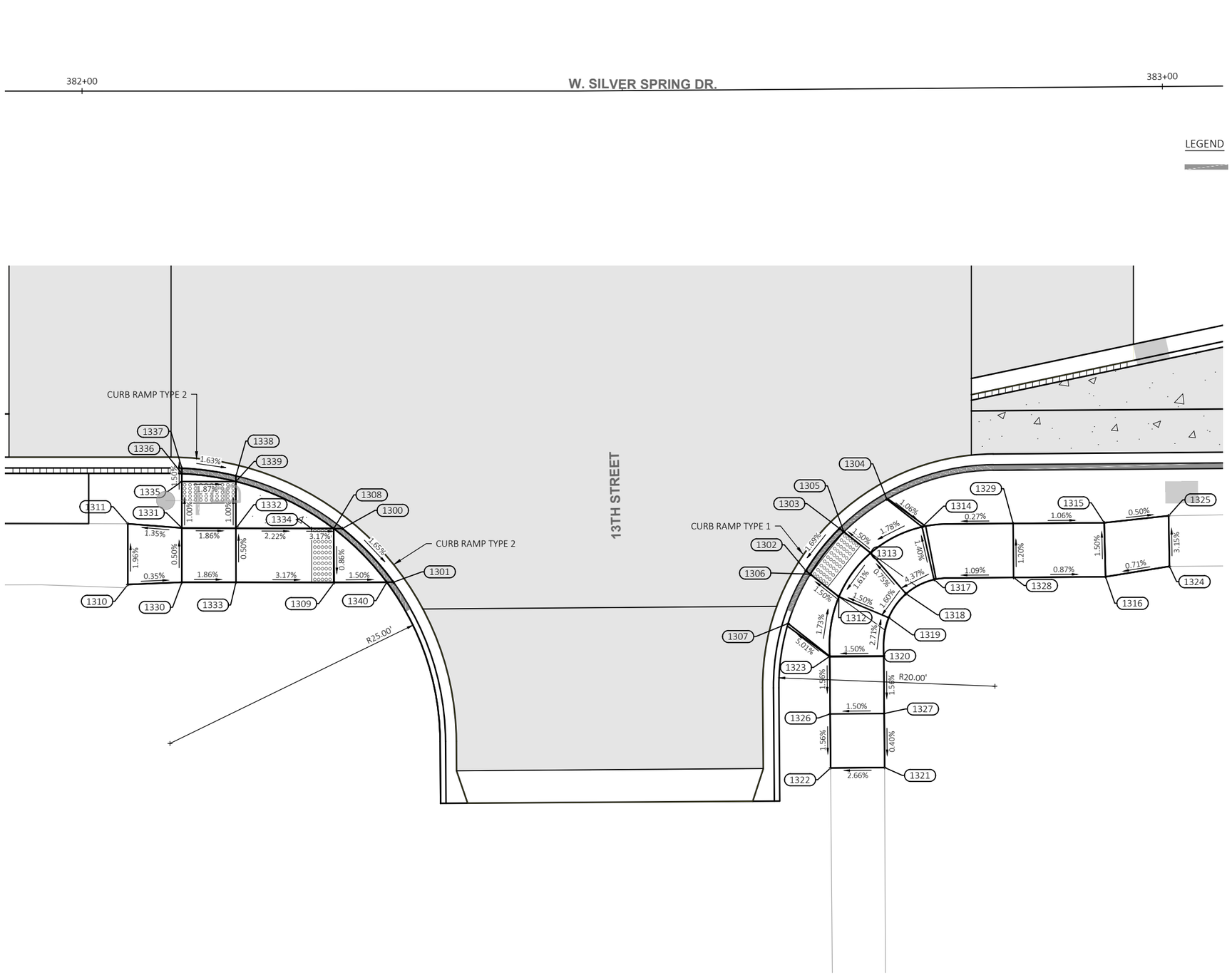


SILVER SPRING DR & SUNNYPOINT RD (N)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 95	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS ONRAMP-MRP.DWG PLOT DATE : 1/23/2025 2:28 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

2



PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1300	414593.73	2522043.63	629.29	FL
1301	414588.77	2522048.34	629.18	FL
1302	414589.82	2522086.53	629.39	FL
1303	414593.74	2522089.64	629.48	FL
1304	414596.45	2522094.02	629.67	BC
1305	414593.43	2522090.03	629.49	BC
1306	414589.50	2522086.94	629.40	BC
1307	414584.94	2522084.88	629.30	BC
1308	414593.72	2522042.83	629.30	BC
1309	414588.72	2522042.87	629.26	SW
1310	414588.55	2522023.77	629.66	SW
1311	414594.17	2522023.77	629.55	SW
1312	414587.41	2522089.58	629.45	SW
1313	414591.47	2522092.52	629.53	SW
1314	414593.88	2522097.28	629.63	SW
1315	414594.26	2522114.13	629.63	SW
1316	414589.26	2522114.26	629.71	SW
1317	414589.01	2522098.40	629.70	SW
1318	414587.69	2522095.79	629.57	SW
1319	414585.48	2522094.19	629.53	SW
1320	414581.94	2522093.73	629.62	SW
1321	414571.61	2522093.81	629.52	SW
1322	414571.57	2522088.81	629.39	SW
1323	414581.91	2522088.73	629.55	SW
1324	414590.23	2522120.18	629.75	SW
1325	414594.92	2522120.10	629.60	SW
1326	414576.57	2522088.77	629.47	SW
1327	414576.61	2522093.77	629.54	SW
1328	414589.20	2522105.74	629.78	SW
1329	414594.20	2522105.70	629.72	SW

SILVER SPRING DR & SUNNYPOINT RD/13TH ST (S)

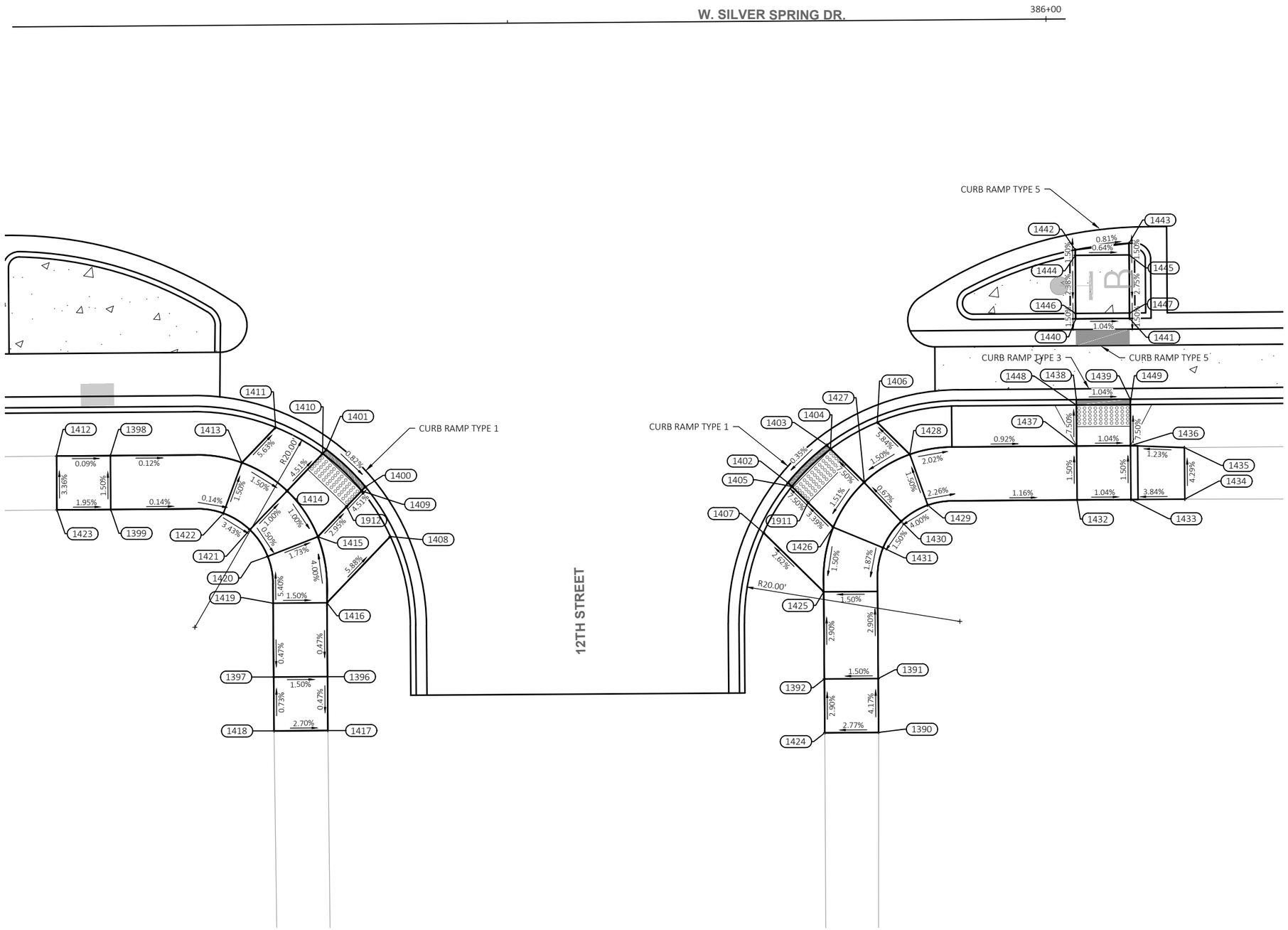
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 96	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS ONRAMP-MRP.DWG PLOT DATE : 1/23/2025 2:28 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1390	414571.18	2522403.98	629.86	SW
1391	414576.18	2522403.94	629.65	SW
1392	414576.14	2522398.94	629.57	SW
1396	414576.36	2522352.81	629.56	SW
1397	414576.32	2522347.81	629.64	SW
1398	414596.86	2522332.65	629.48	SW
1399	414591.86	2522332.69	629.56	SW
1400	414593.96	2522356.32	629.13	FL
1401	414597.41	2522352.70	629.17	FL
1402	414594.35	2522395.56	629.15	FL
1403	414597.84	2522399.16	629.17	FL
1404	414597.47	2522399.51	629.18	BC
1405	414594.00	2522395.92	629.16	BC
1406	414599.95	2522403.85	629.34	BC
1407	414589.71	2522393.29	629.14	BC
1408	414589.36	2522358.63	629.09	BC
1409	414593.59	2522355.97	629.14	BC
1410	414597.04	2522352.35	629.18	BC
1411	414599.48	2522347.98	629.21	BC
1412	414596.83	2522327.65	629.49	SW
1413	414596.20	2522344.85	629.47	SW
1414	414593.58	2522349.05	629.40	SW
1415	414589.34	2522351.90	629.34	SW
1416	414583.21	2522352.76	629.59	SW
1417	414571.36	2522352.85	629.54	SW
1418	414571.32	2522347.85	629.67	SW
1419	414583.17	2522347.76	629.67	SW
1420	414587.51	2522347.25	629.43	SW
1421	414589.98	2522345.59	629.45	SW
1422	414591.50	2522343.14	629.54	SW
1423	414591.83	2522327.69	629.66	SW
1424	414571.14	2522398.98	629.72	SW
1425	414584.23	2522398.88	629.34	SW
1426	414590.22	2522399.76	629.43	SW
1427	414594.40	2522402.64	629.51	SW
1428	414596.98	2522406.87	629.58	SW
1429	414592.27	2522408.54	629.66	SW
1430	414590.76	2522406.07	629.54	SW
1431	414588.32	2522404.39	629.50	SW
1432	414592.75	2522422.40	629.47	SW
1433	414592.79	2522427.40	629.42	SW
1434	414592.83	2522432.40	629.61	SW
1435	414597.61	2522432.36	629.41	SW
1436	414597.79	2522427.36	629.34	SW
1437	414597.75	2522422.36	629.40	SW
1438	414602.06	2522422.33	629.10	FL
1439	414602.10	2522427.33	629.05	FL
1440	414609.56	2522422.27	629.27	FL
1441	414609.60	2522427.27	629.22	FL
1442	414615.96	2522422.22	629.40	FL

LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



SILVER SPRING DR & 12TH ST (S)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 97	E

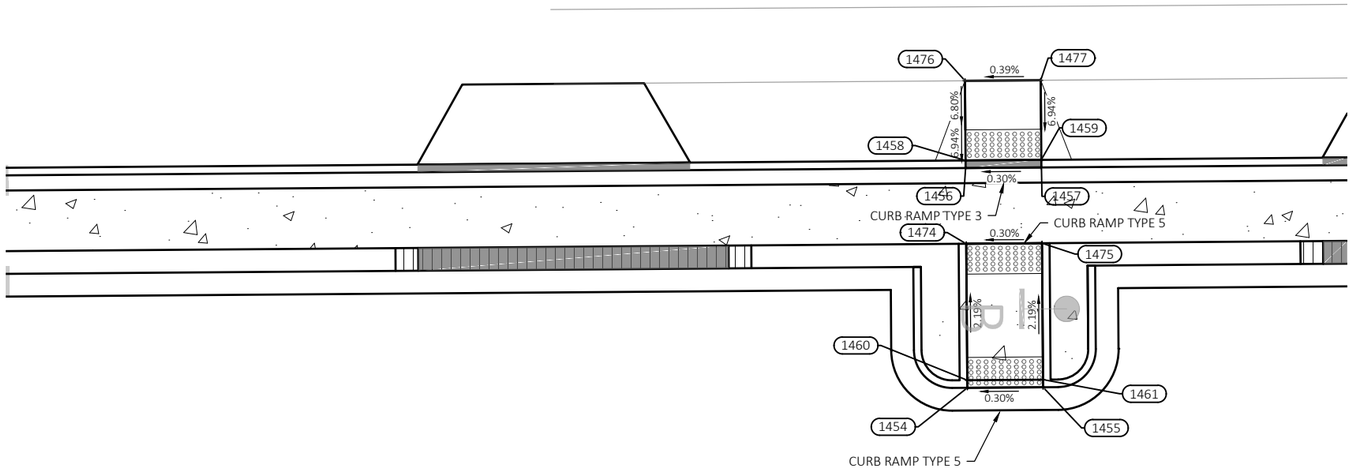
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS ONRAMP-MRP.DWG PLOT DATE : 1/23/2025 2:28 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

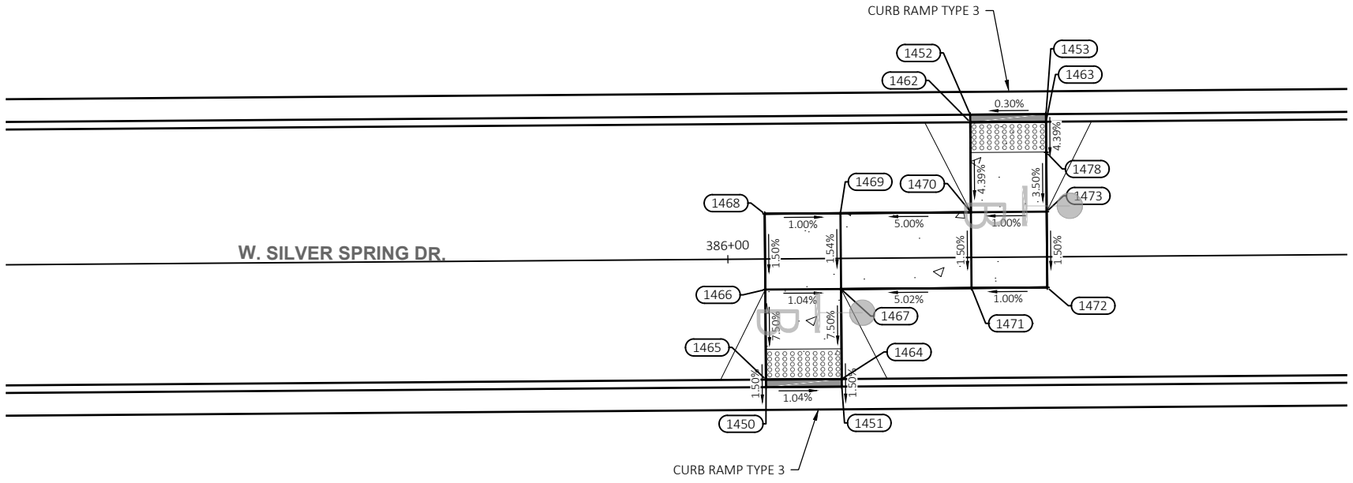
PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1450	414641.56	2522422.03	629.91	FL
1451	414641.60	2522427.03	629.86	FL
1452	414659.54	2522435.50	631.07	FL
1453	414659.58	2522440.50	631.09	FL
1454	414684.54	2522435.31	630.57	FL
1455	414684.58	2522440.31	630.59	FL
1456	414699.04	2522435.20	630.26	FL
1457	414699.08	2522440.20	630.28	FL
1458	414699.54	2522435.20	630.27	BC
1459	414699.58	2522440.20	630.29	BC
1460	414685.04	2522435.31	630.58	BC
1461	414685.08	2522440.31	630.60	BC
1462	414659.04	2522435.50	631.08	BC
1463	414659.08	2522440.50	631.10	BC
1464	414642.10	2522427.02	629.87	BC
1465	414642.06	2522422.02	629.92	BC
1466	414648.00	2522421.98	630.37	SW
1467	414648.04	2522426.98	630.31	SW
1468	414653.00	2522421.94	630.44	SW
1469	414653.04	2522426.94	630.39	SW
1470	414653.10	2522435.55	630.82	SW
1471	414648.10	2522435.59	630.75	SW
1472	414648.14	2522440.59	630.80	SW
1473	414653.14	2522440.55	630.87	SW
1474	414694.04	2522435.24	630.38	SW
1475	414694.08	2522440.24	630.40	SW
1476	414704.80	2522435.16	630.63	SW
1477	414704.83	2522440.16	630.65	SW
1478	414657.06	2522440.52	631.01	SW

LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

N





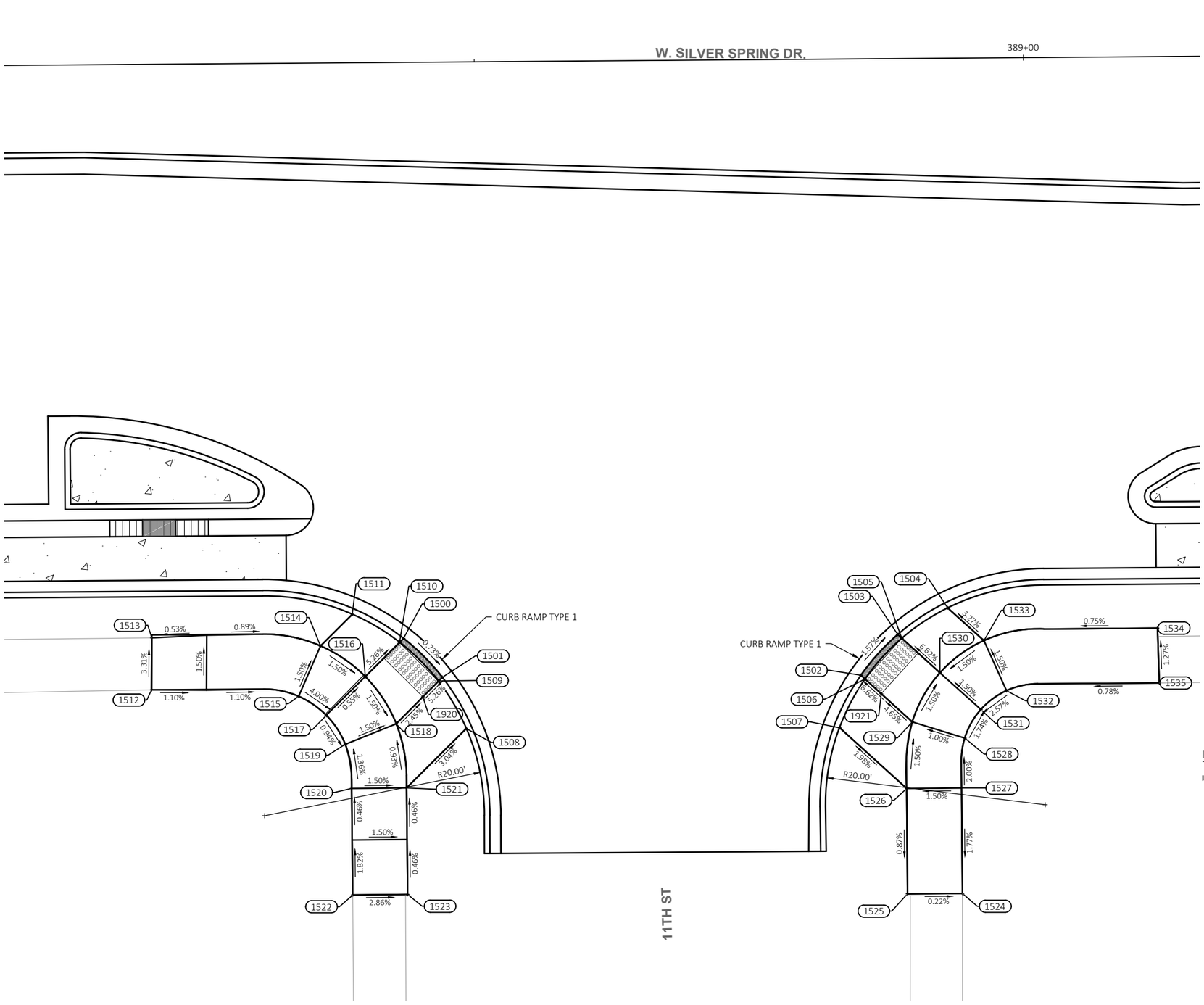
SILVER SPRING DR & 12TH ST (S)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 98	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS ONRAMP-MRP.DWG PLOT DATE : 1/23/2025 2:28 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

2

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1500	414599.44	2522663.07	628.43	FL
1501	414595.90	2522666.60	628.40	FL
1502	414596.08	2522704.71	628.42	FL
1503	414599.79	2522708.06	628.35	FL
1504	414602.22	2522712.60	628.59	BC
1505	414599.45	2522708.43	628.35	BC
1506	414595.74	2522705.08	628.43	BC
1507	414591.29	2522702.79	628.67	BC
1508	414591.23	2522668.79	628.42	BC
1509	414595.56	2522666.27	628.40	BC
1510	414599.08	2522662.71	628.44	BC
1511	414601.64	2522658.41	628.44	BC
1512	414594.75	2522640.13	628.97	SW
1513	414599.49	2522640.15	628.82	SW
1514	414598.75	2522655.51	628.75	SW
1515	414594.16	2522653.52	628.82	SW
1516	414595.96	2522659.59	628.67	SW
1517	414592.43	2522656.04	628.70	SW
1518	414591.66	2522662.40	628.60	SW
1519	414589.80	2522657.76	628.67	SW
1520	414585.78	2522658.35	628.73	SW
1521	414585.83	2522663.35	628.65	SW
1522	414576.08	2522658.45	628.84	SW
1523	414576.13	2522663.45	628.70	SW
1524	414576.23	2522713.95	628.74	SW
1525	414576.19	2522708.95	628.75	SW
1526	414585.78	2522708.88	628.83	SW
1527	414585.82	2522713.88	628.91	SW
1528	414590.36	2522714.17	628.79	SW
1529	414591.84	2522709.39	628.74	SW
1530	414596.30	2522711.91	628.66	SW
1531	414592.97	2522715.64	628.74	SW
1532	414594.68	2522717.97	628.81	SW
1533	414599.23	2522715.91	628.74	SW
1534	414600.37	2522731.71	628.71	SW
1535	414595.37	2522731.88	628.77	SW
1920	414594.11	2522664.83	628.51	SW
1921	414594.40	2522706.57	628.56	SW



SILVER SPRING DR & 11TH ST (S)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 99	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS ONRAMP-MRP.DWG PLOT DATE : 1/23/2025 2:29 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1600	414616.93	2522935.71	628.36	FL
1601	414616.97	2522940.71	628.37	FL
1602	414612.93	2522935.74	628.25	FL
1603	414612.97	2522940.74	628.34	FL
1604	414606.43	2522935.80	628.09	FL
1605	414606.47	2522940.80	628.11	FL
1606	414602.06	2522963.11	628.04	FL
1607	414598.04	2522966.04	628.01	FL
1608	414597.75	2522965.63	628.01	BC
1609	414601.79	2522962.68	628.05	BC
1610	414589.94	2522967.38	627.87	BC
1611	414605.17	2522957.28	628.09	BC
1612	414605.97	2522940.80	628.14	BC
1613	414605.93	2522935.80	628.13	BC
1614	414613.43	2522935.74	628.04	BC
1615	414613.47	2522940.74	628.07	BC
1616	414616.43	2522935.71	628.12	BC
1617	414616.47	2522940.71	628.15	BC
1618	414601.62	2522927.36	628.00	SW
1619	414601.68	2522935.82	628.17	SW
1620	414601.72	2522940.84	628.24	SW
1621	414596.72	2522940.87	628.32	SW
1622	414596.68	2522935.85	628.24	SW
1623	414596.62	2522927.39	628.06	SW
1624	414601.80	2522952.59	628.26	SW
1625	414596.80	2522952.62	628.33	SW
1626	414599.70	2522959.77	628.09	SW
1627	414595.51	2522957.04	627.93	SW
1628	414593.24	2522959.34	628.08	SW
1629	414596.15	2522963.41	628.01	SW
1630	414588.74	2522960.68	628.16	SW
1631	414588.71	2522965.68	628.08	SW
1632	414578.71	2522965.60	627.84	SW
1633	414578.74	2522961.21	628.06	SW
1634	414594.66	2523012.83	628.05	FL
1635	414605.22	2523026.95	628.21	FL
1636	414604.71	2523026.94	628.21	BC
1637	414594.65	2523013.39	628.06	BC
1638	414600.61	2522961.04	628.08	SW
1639	414599.37	2523026.82	628.24	SW
1640	414594.37	2523026.70	628.26	SW
1641	414596.53	2522963.94	627.96	SW
1642	414594.38	2523028.34	628.27	SW
1643	414599.34	2523028.31	628.13	SW
1644	414583.74	2522960.64	628.04	SW
1645	414583.71	2522965.64	627.97	SW

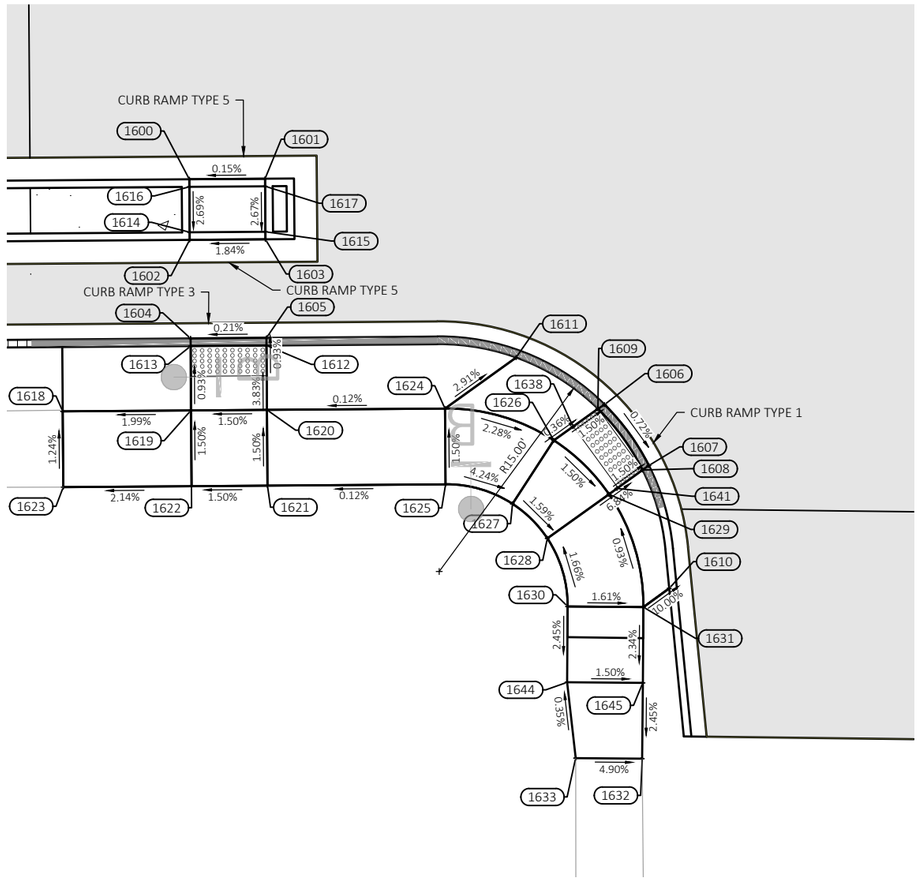
LEGEND

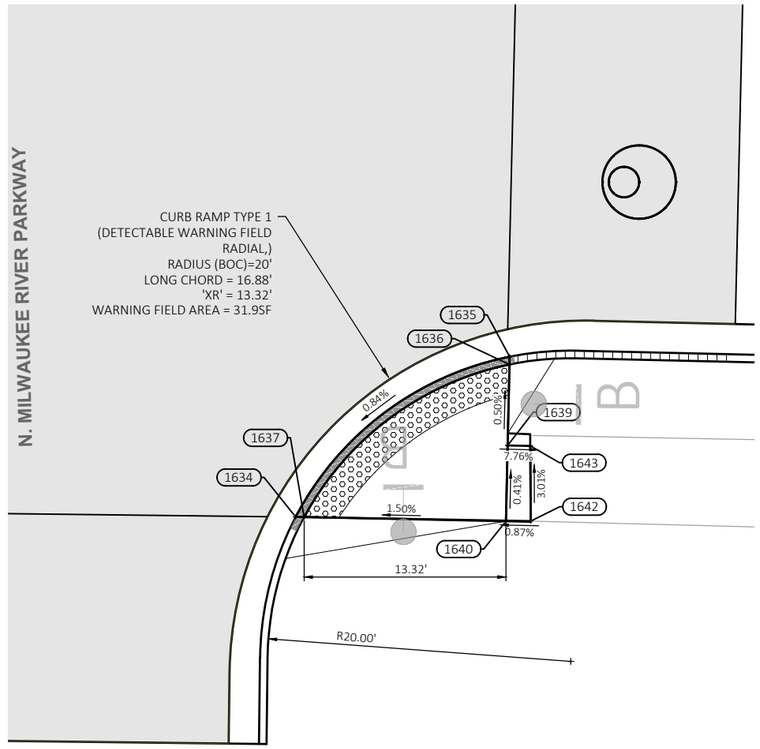
DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

N

W. SILVER SPRING DR.

392+00





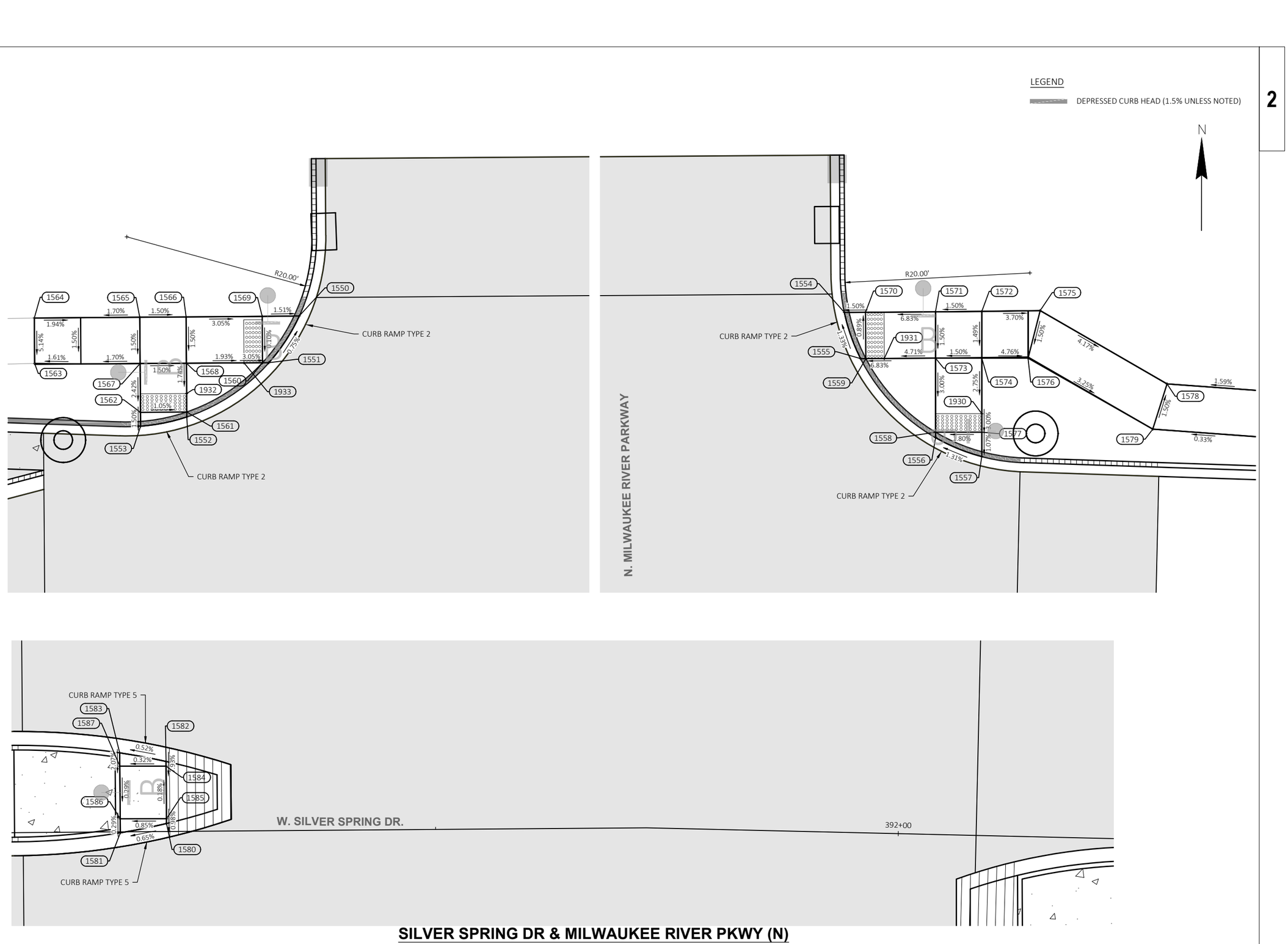
SILVER SPRING DR MILWAUKEE RIVER PKWY (S)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 100	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS ONRAMP-MRP.DWG PLOT DATE : 1/23/2025 2:29 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

2

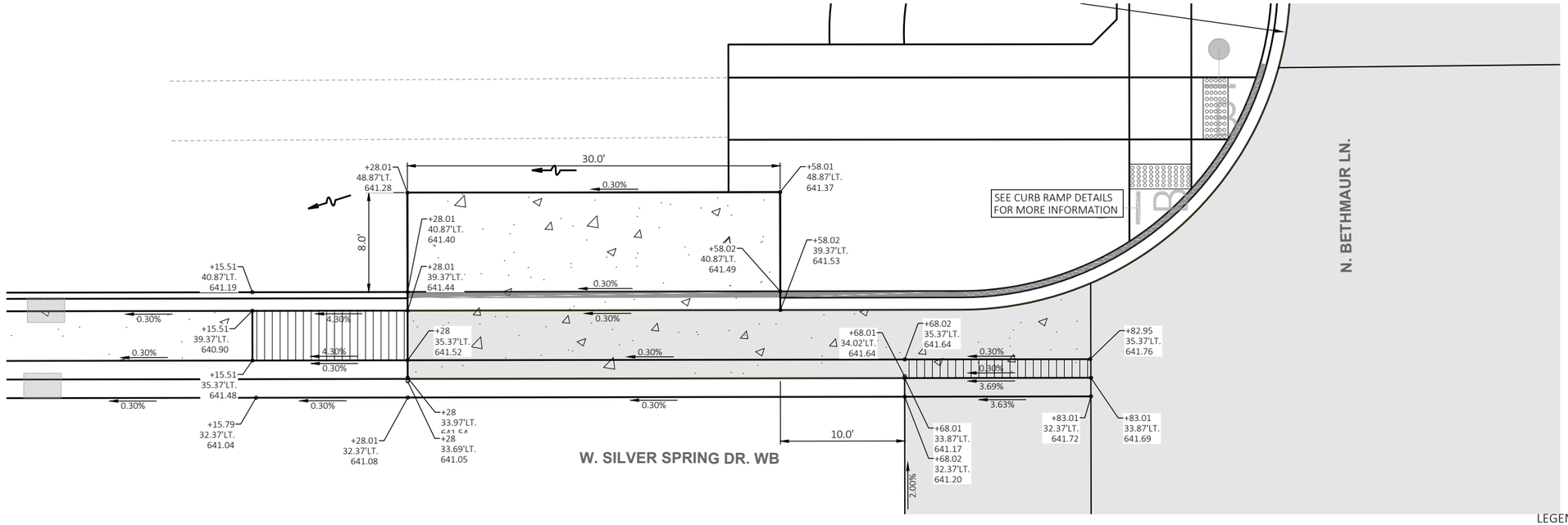
PT. TABLE				
NO.	NORTH.	EAST.	ELEV.	DESC.
1550	414713.60	2522952.21	628.13	FL
1551	414708.55	2522948.92	628.17	FL
1552	414702.70	2522940.06	628.25	FL
1553	414701.70	2522935.06	628.29	FL
1554	414713.98	2523009.92	628.24	FL
1555	414708.99	2523011.68	628.31	FL
1556	414700.46	2523019.78	628.47	FL
1557	414698.42	2523024.77	628.54	FL
1558	414701.05	2523019.77	628.48	BC
1559	414708.99	2523012.24	628.32	BC
1560	414708.55	2522948.24	628.18	BC
1561	414703.23	2522940.05	628.26	BC
1562	414703.19	2522935.05	628.31	SW
1563	414708.47	2522923.62	628.25	SW
1564	414713.38	2522923.58	628.50	SW
1565	414713.46	2522934.97	628.51	SW
1566	414713.49	2522939.98	628.44	SW
1567	414708.46	2522935.01	628.44	SW
1568	414708.49	2522940.01	628.36	SW
1569	414713.55	2522948.20	628.19	SW
1570	414713.99	2523012.21	628.28	SW
1571	414714.04	2523019.77	628.79	SW
1572	414714.08	2523024.77	628.87	SW
1573	414709.04	2523019.77	628.72	SW
1574	414709.04	2523024.77	628.79	SW
1575	414714.18	2523031.08	628.64	SW
1576	414709.04	2523029.77	628.56	SW
1577	414701.05	2523024.77	628.57	SW
1578	414706.26	2523044.79	627.98	SW
1579	414701.38	2523043.25	628.05	SW
1580	414654.83	2522940.42	629.14	FL
1581	414653.82	2522935.43	629.11	FL
1582	414661.53	2522940.37	629.18	FL
1583	414662.45	2522935.36	629.15	FL
1584	414661.01	2522940.37	629.14	BC
1585	414655.34	2522940.42	629.15	BC
1586	414655.34	2522935.42	629.10	SW
1587	414661.01	2522935.37	629.12	SW
1930	414703.03	2523024.77	628.63	SW
1931	414709.01	2523014.23	628.46	SW
1932	414705.23	2522940.04	628.31	SW

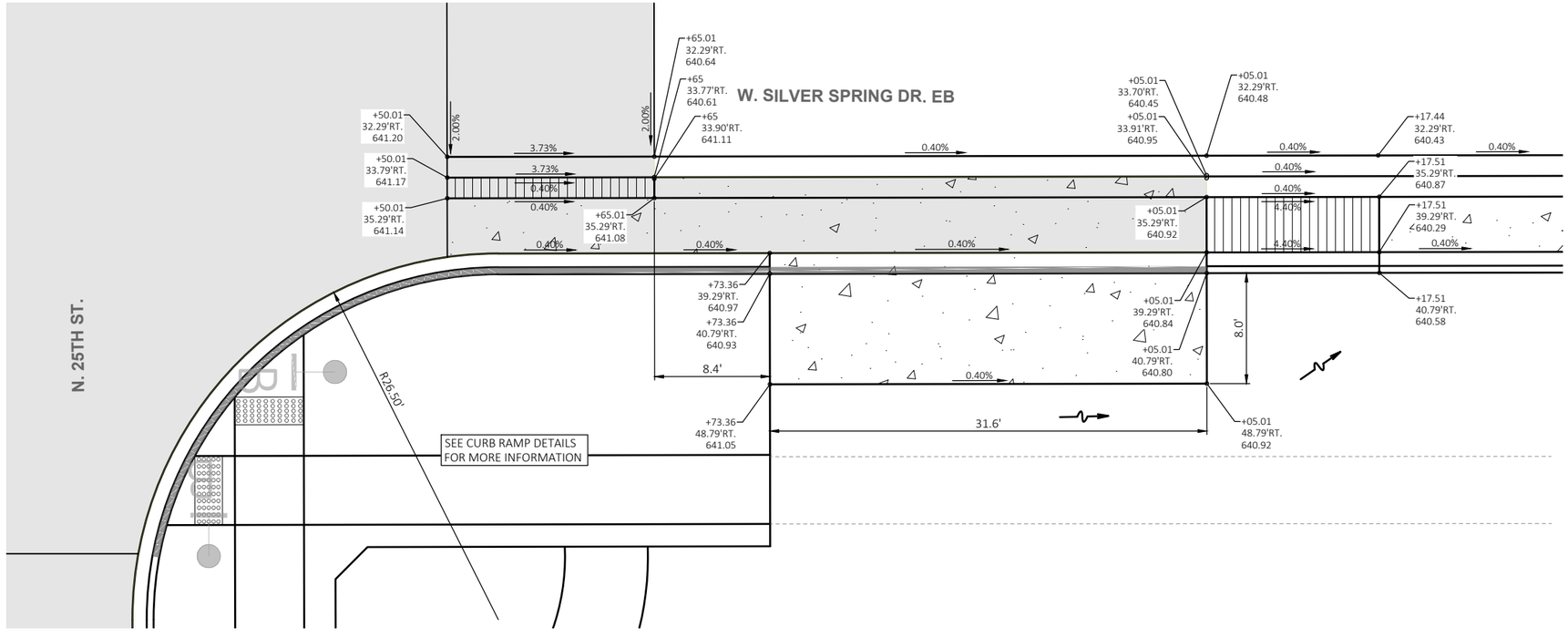


SILVER SPRING DR & MILWAUKEE RIVER PKWY (N)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 101	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CURB RAMP DETAILS ONRAMP-MRP.DWG PLOT DATE : 1/23/2025 2:29 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'





SILVER SPRING DR & 25TH ST

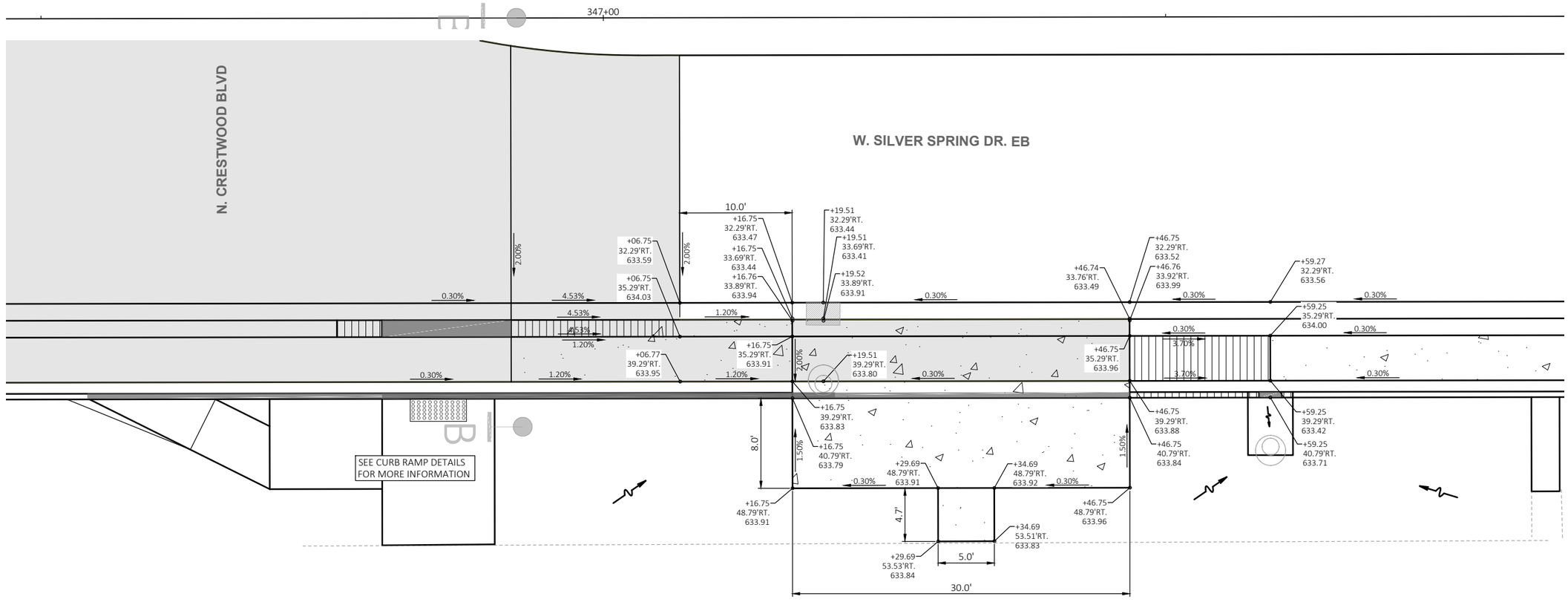
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	BUS STOP DETAILS	SHEET 102	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\BUS STOP DETAILS.DWG PLOT DATE : 1/23/2025 2:30 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

2

LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

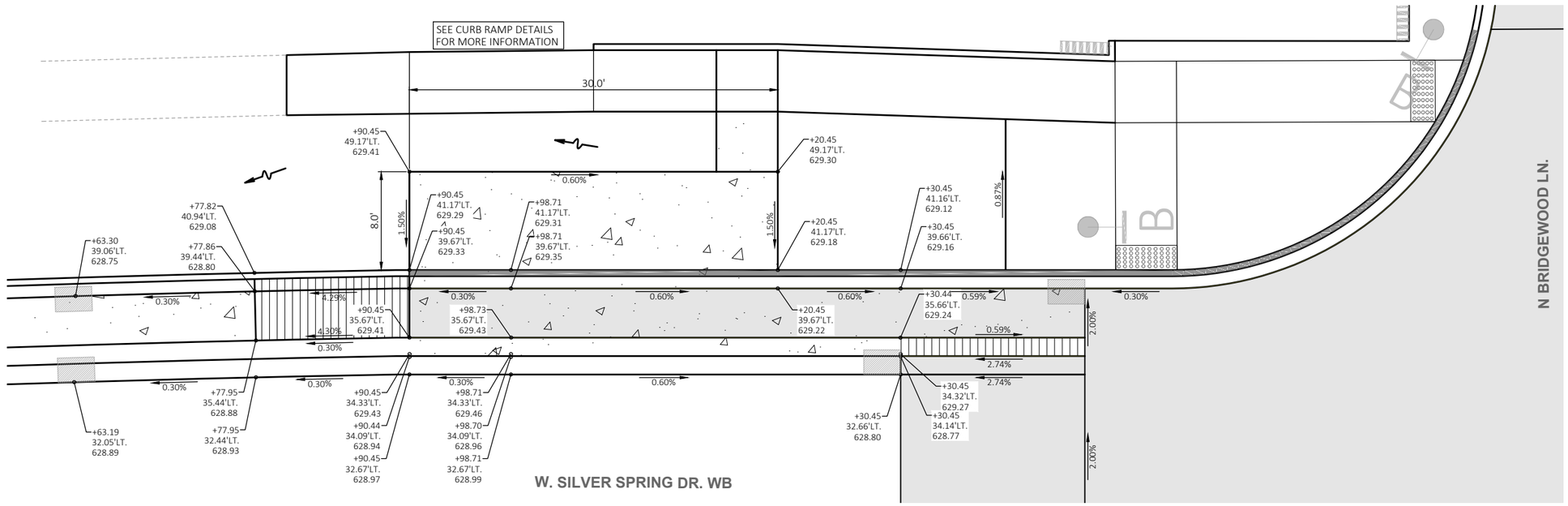


N

SILVER SPRING DR & CRESTWOOD BLVD (S)

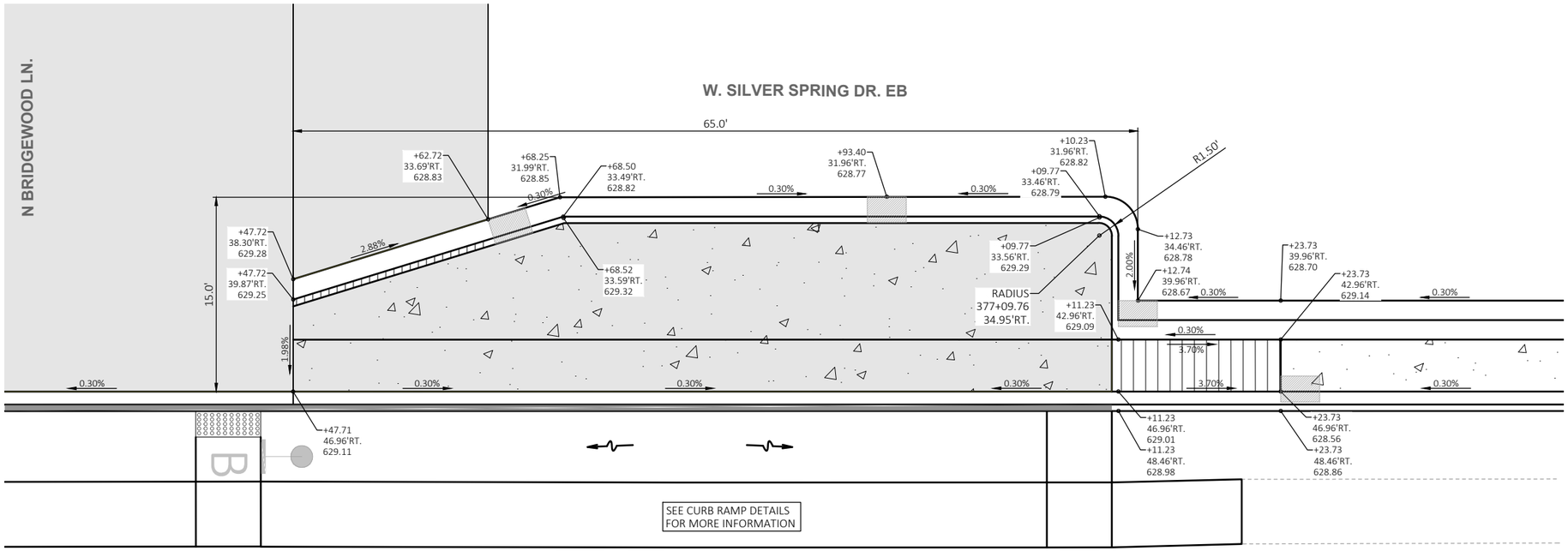
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	BUS STOP DETAILS	SHEET 103	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\BUS STOP DETAILS.DWG PLOT DATE : 1/23/2025 2:30 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'



LEGEND

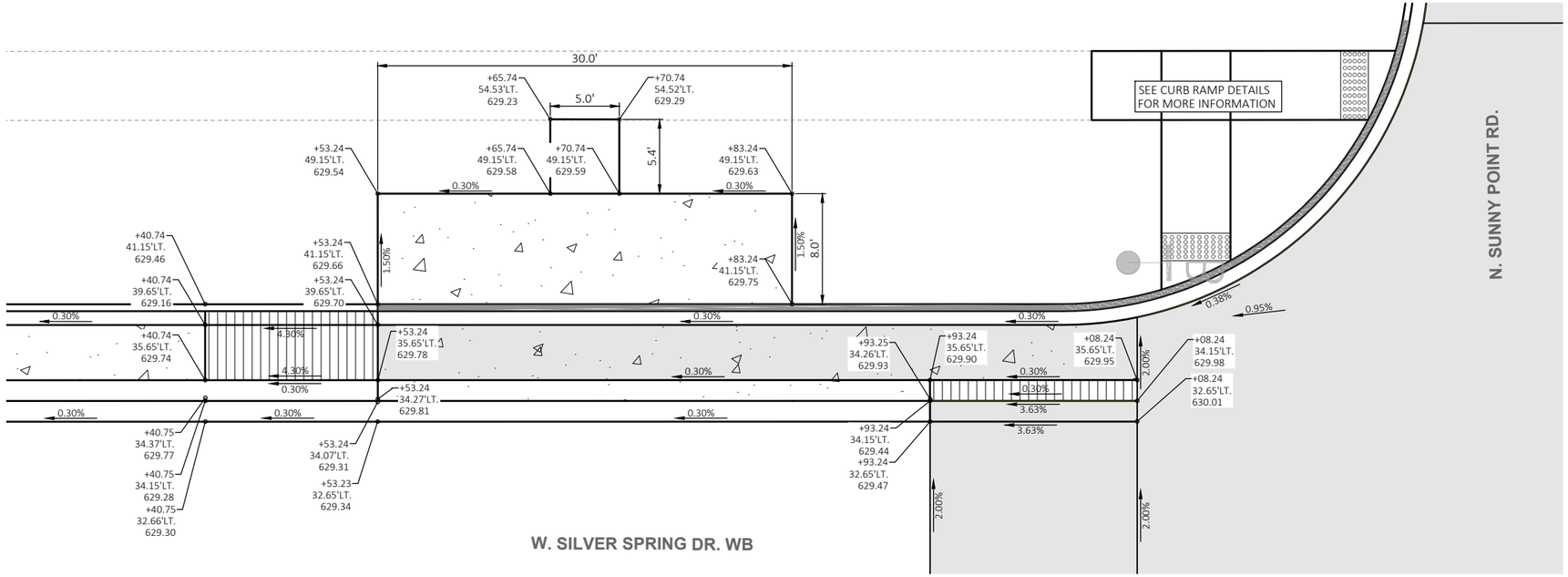
DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



SILVER SPRING DR & BRIDGEWOOD LN

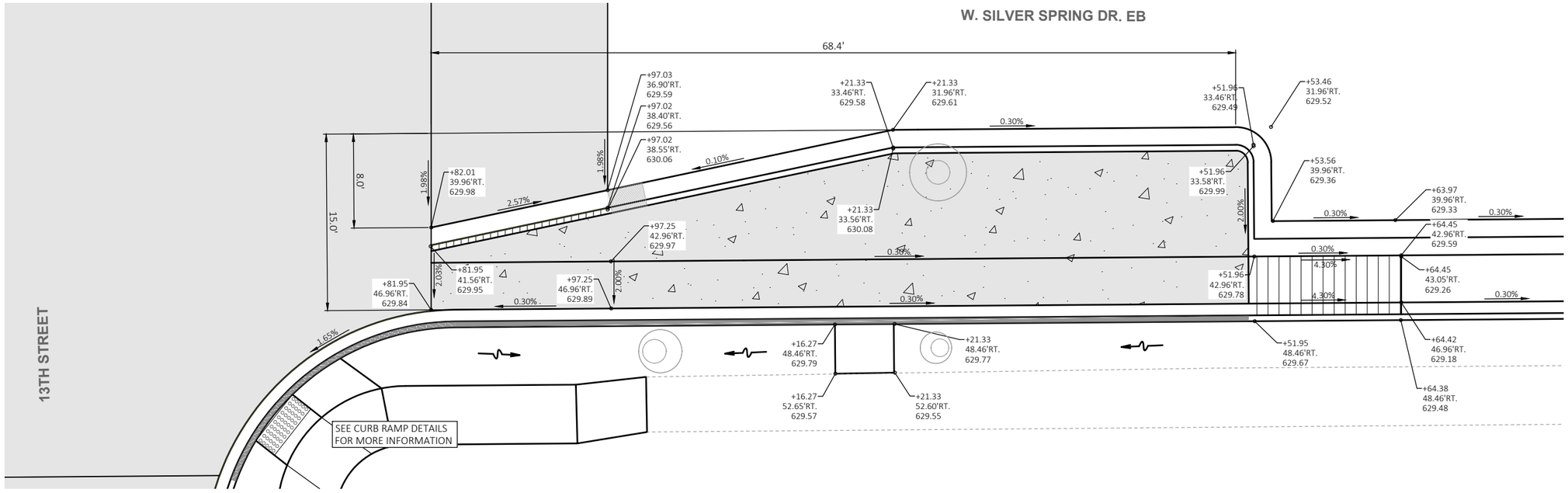
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	BUS STOP DETAILS	SHEET 104	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\BUS STOP DETAILS.DWG PLOT DATE : 1/23/2025 2:30 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'



LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)



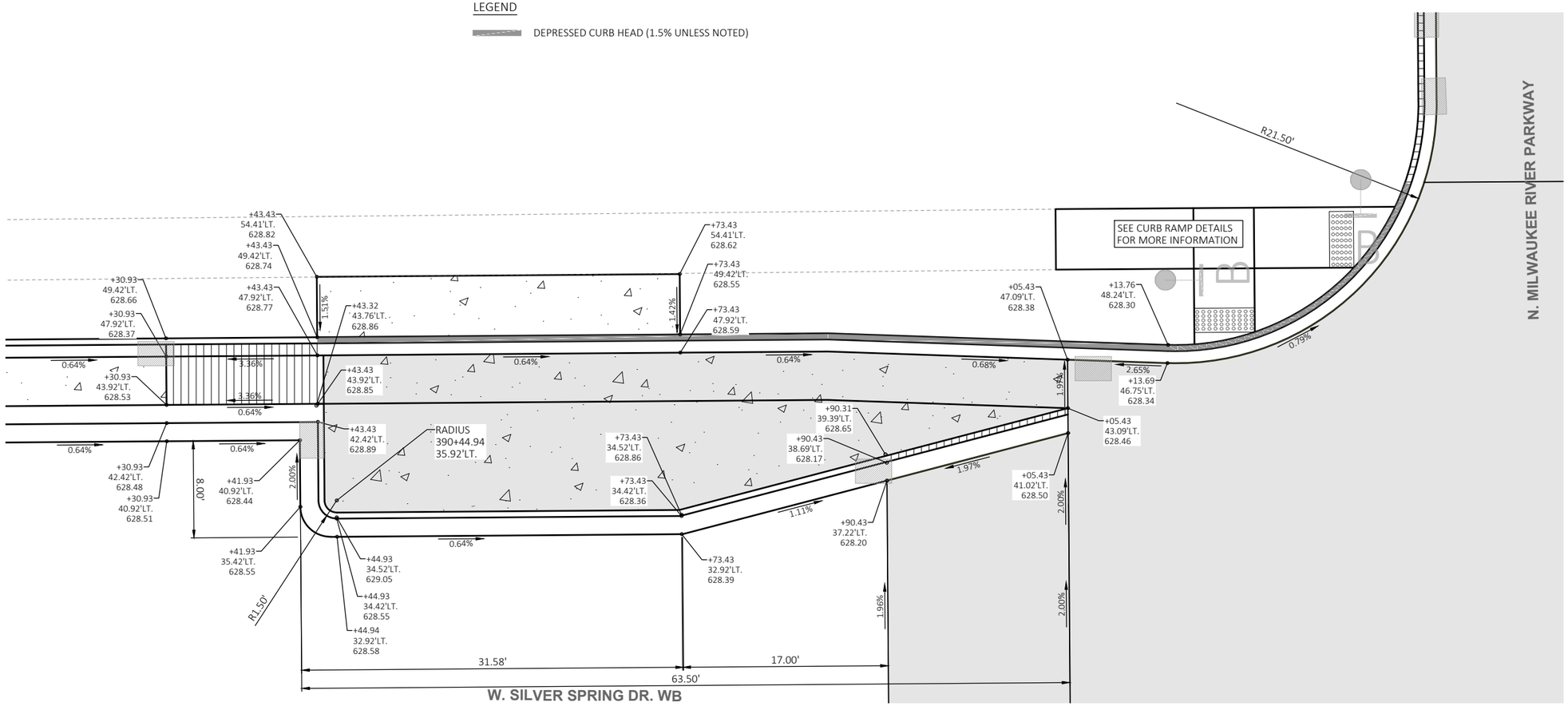
SILVER SPRING DR & SUNNYPOINT RD)

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	BUS STOP DETAILS	SHEET 105	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\BUS STOP DETAILS.DWG PLOT DATE : 1/23/2025 2:30 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'

LEGEND

DEPRESSED CURB HEAD (1.5% UNLESS NOTED)

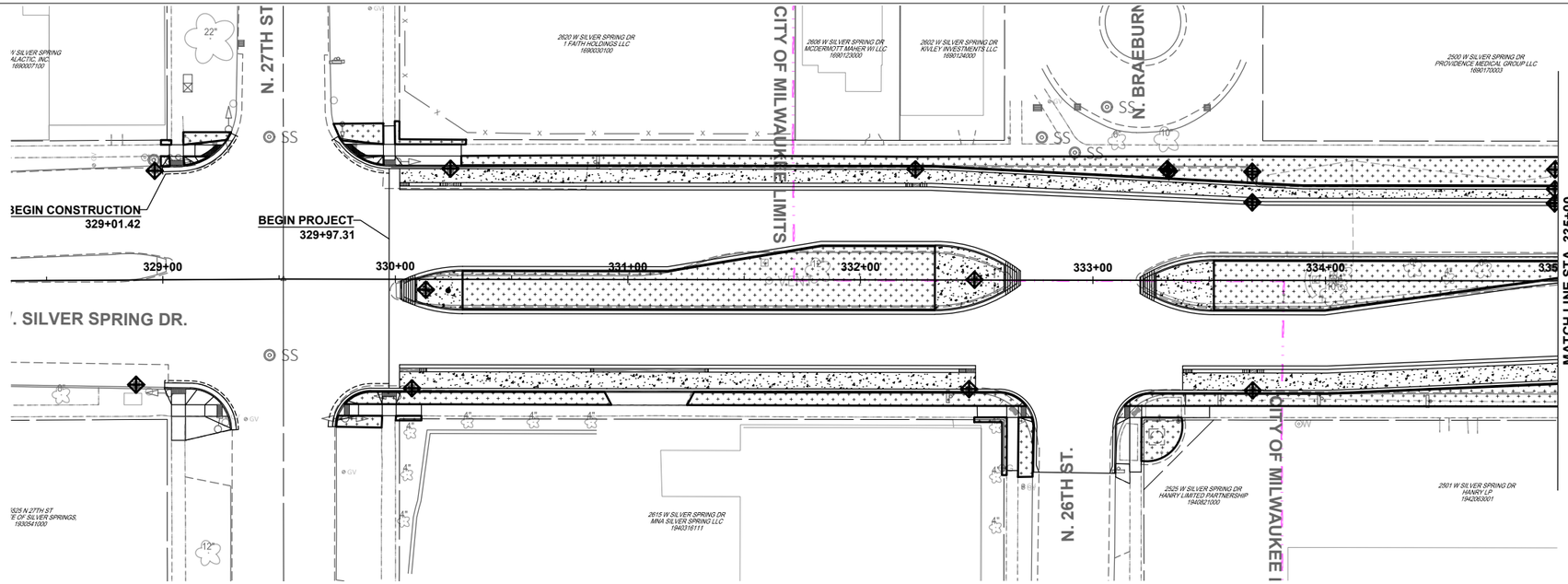


N

SILVER SPRING DR & MILWAUKEE RIVER PKWY (N)

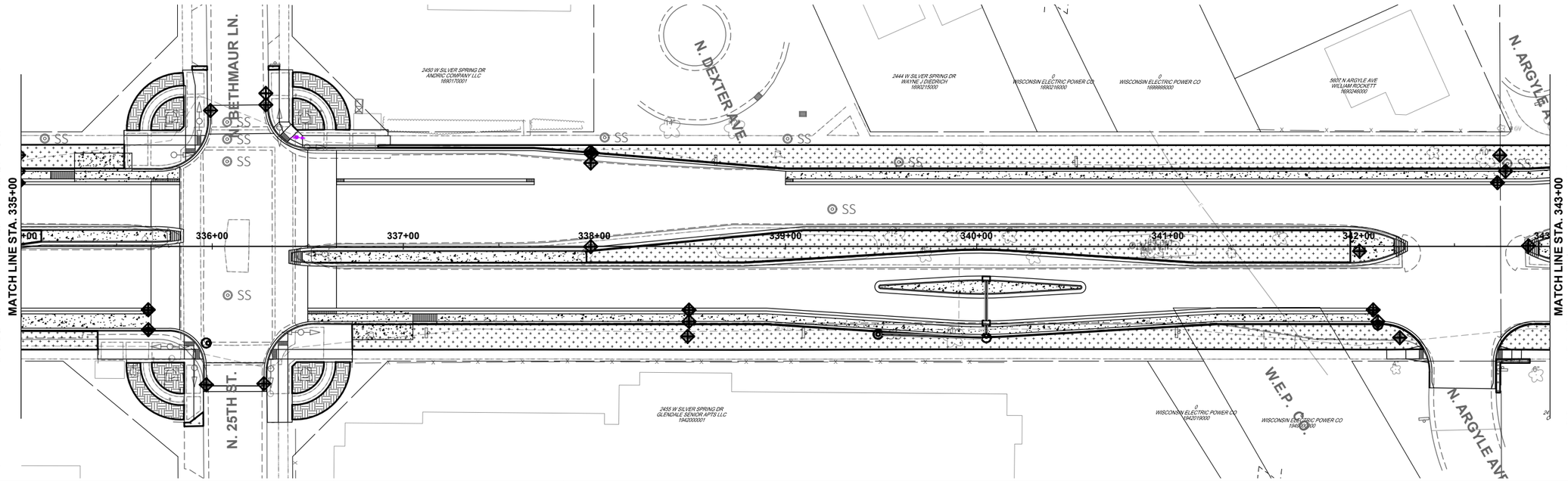
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	BUS STOP DETAILS	SHEET 106	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\BUS STOP DETAILS.DWG PLOT DATE : 1/23/2025 2:30 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 10'



LEGEND

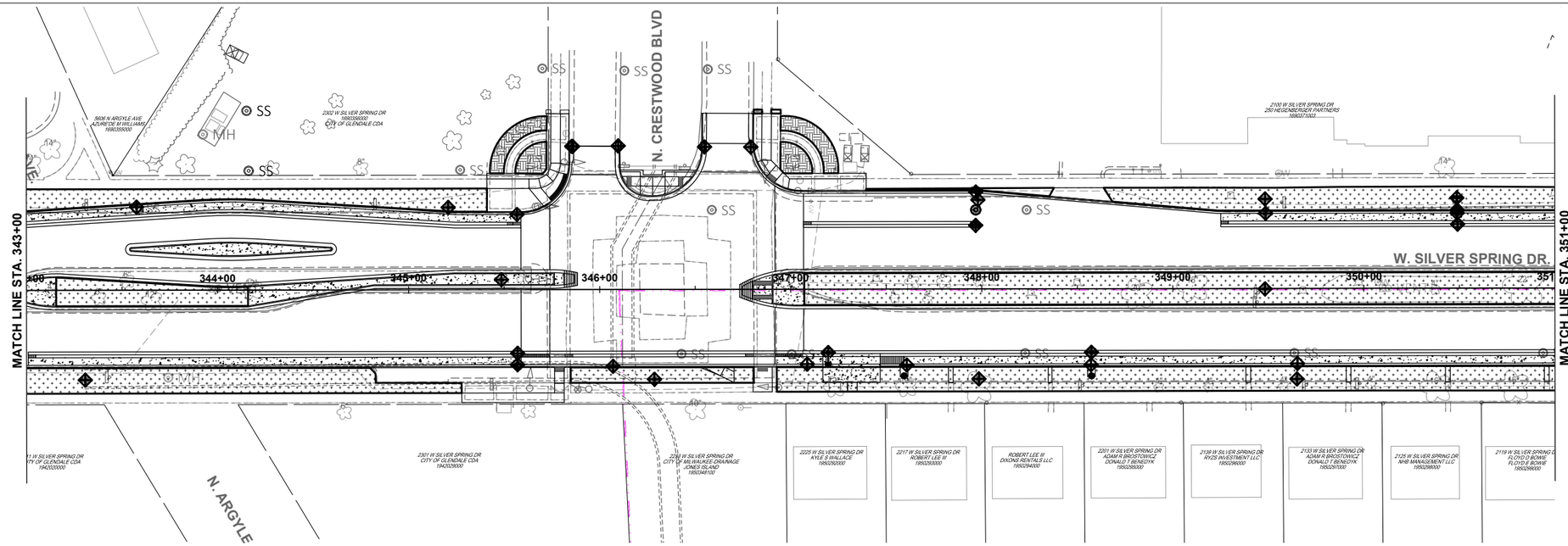
- SILT FENCE
- INLET PROTECTION TYPE B
- TOPSOIL (6"), SOD LAWN, FERTILIZER TYPE B
- 6" TOPSOIL, SEEDING MIXTURE NO.40, FERTILIZER TYPE B, EMAT CLASS 1 TYPE A
- LANDSCAPING, TBD



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 107	E

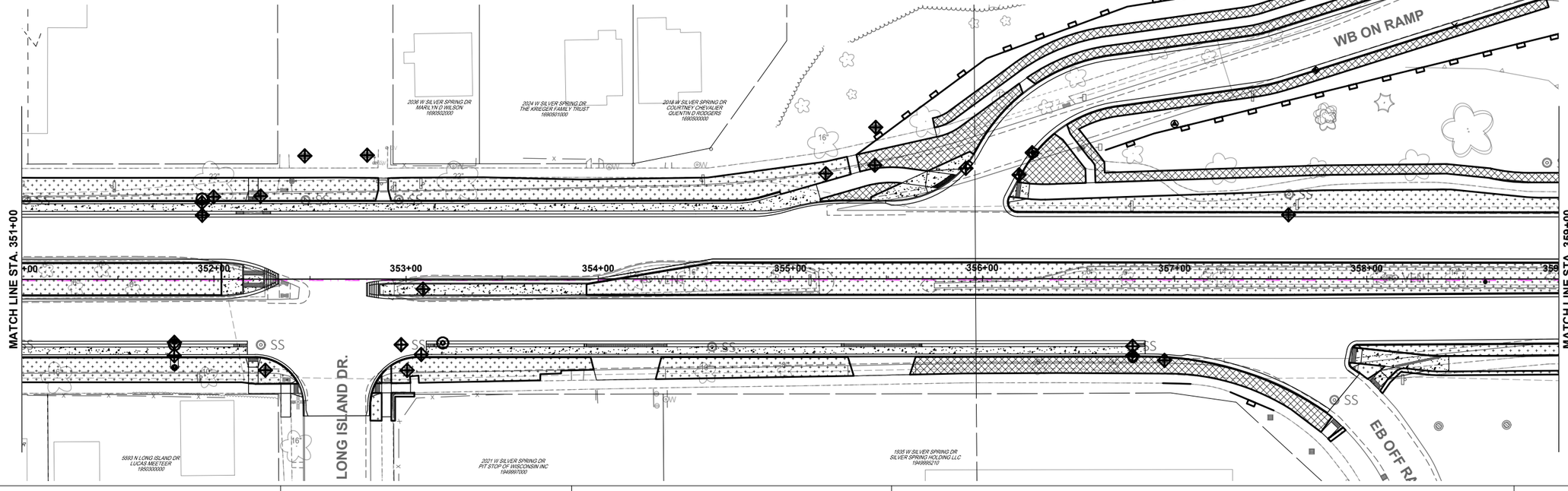
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\EROSION CONTROL.DWG PLOT DATE : 1/23/2025 2:31 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 60'

2



LEGEND

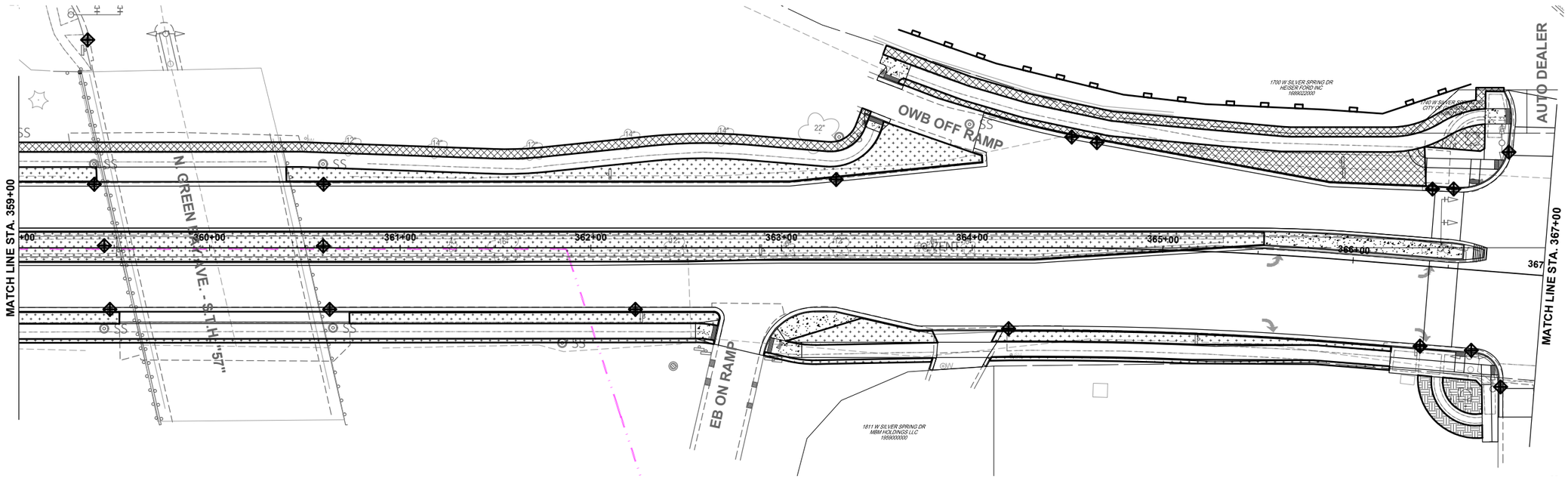
- SILT FENCE
- INLET PROTECTION TYPE B
- TOPSOIL (6"), SOD LAWN, FERTILIZER TYPE B
- 6" TOPSOIL, SEEDING MIXTURE NO.40, FERTILIZER TYPE B, EMAT CLASS 1 TYPE A
- LANDSCAPING, TBD



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 108	E

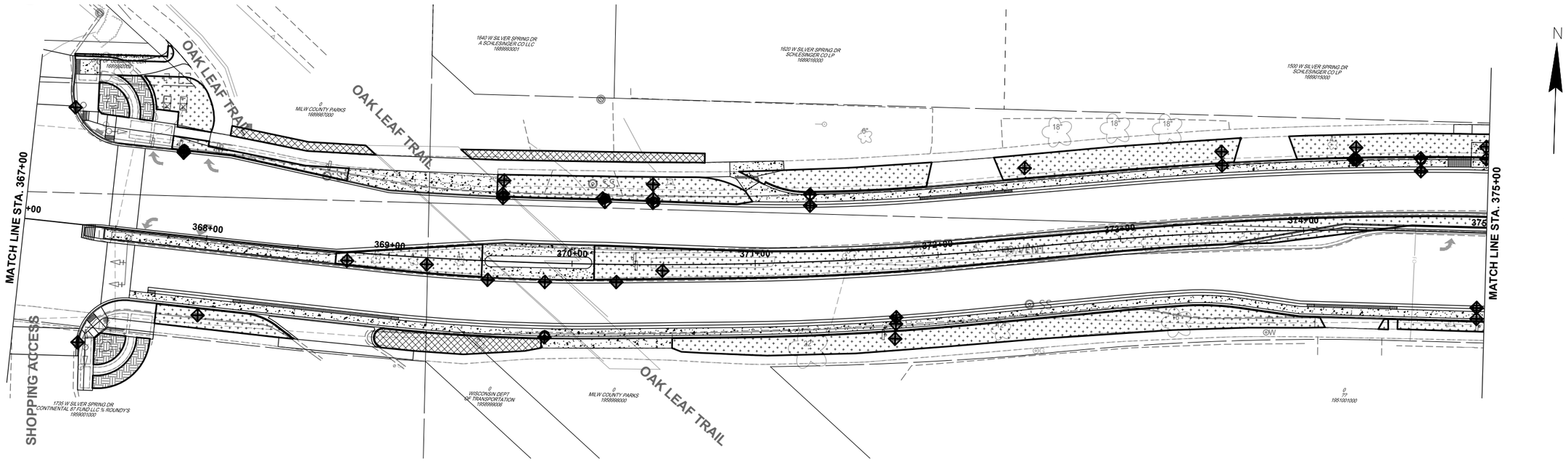
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\EROSION CONTROL.DWG PLOT DATE : 1/23/2025 2:31 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 60'

2



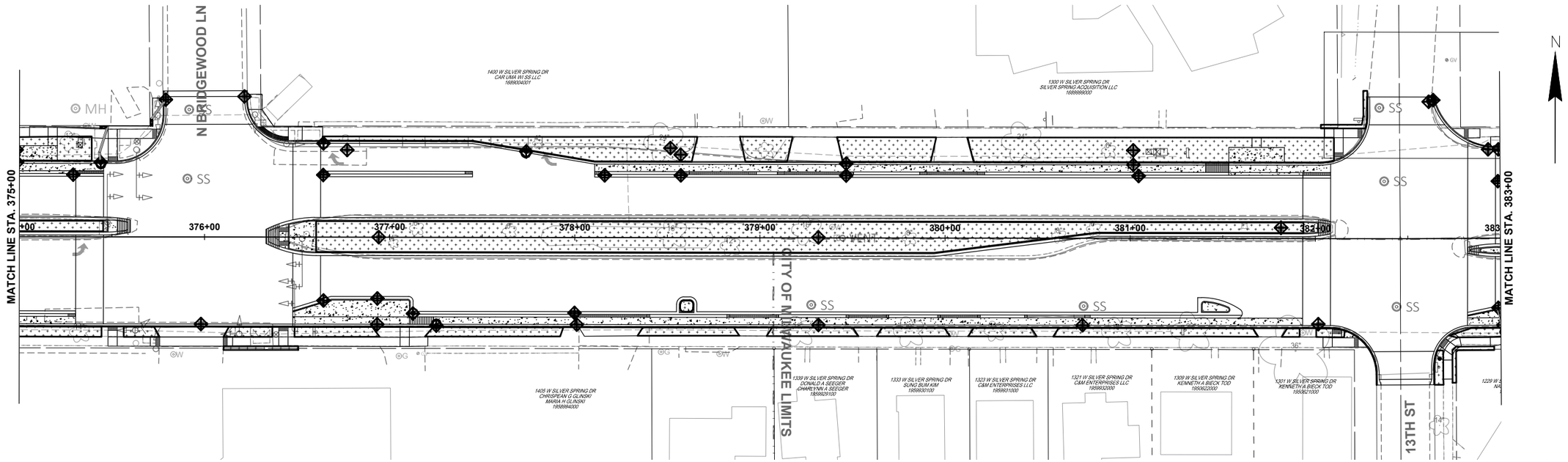
LEGEND

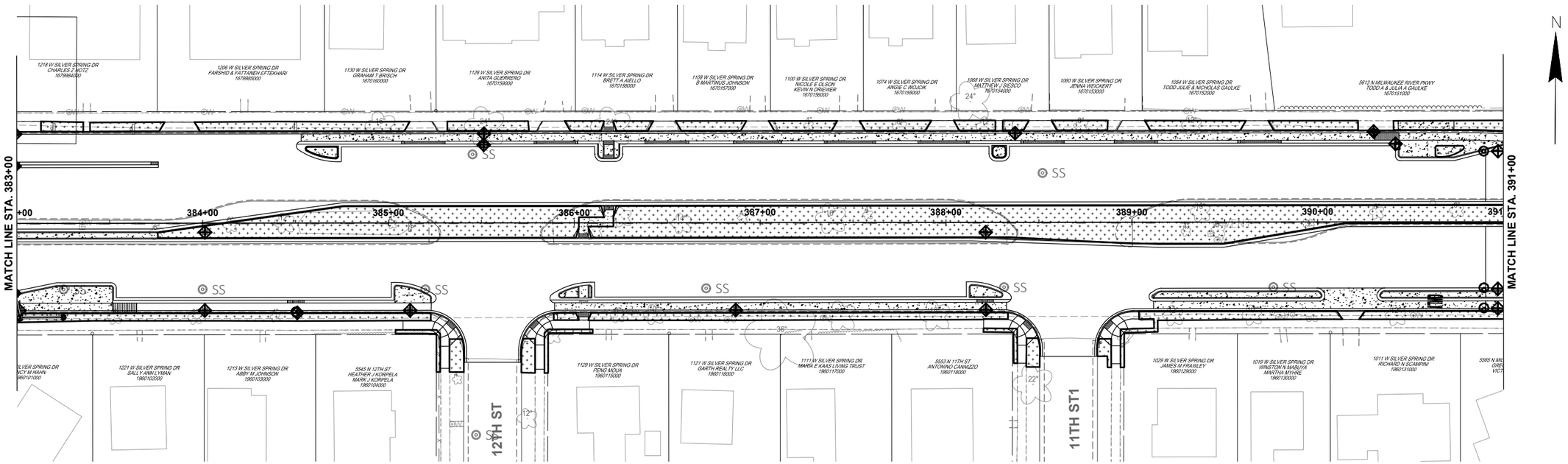
- SILT FENCE
- INLET PROTECTION TYPE B
- TOPSOIL (6"), SOD LAWN, FERTILIZER TYPE B
- 6" TOPSOIL, SEEDING MIXTURE NO.40, FERTILIZER TYPE B, EMAT CLASS 1 TYPE A
- LANDSCAPING, TBD



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 109	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\EROSION CONTROL.DWG PLOT DATE : 1/23/2025 2:31 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 60'



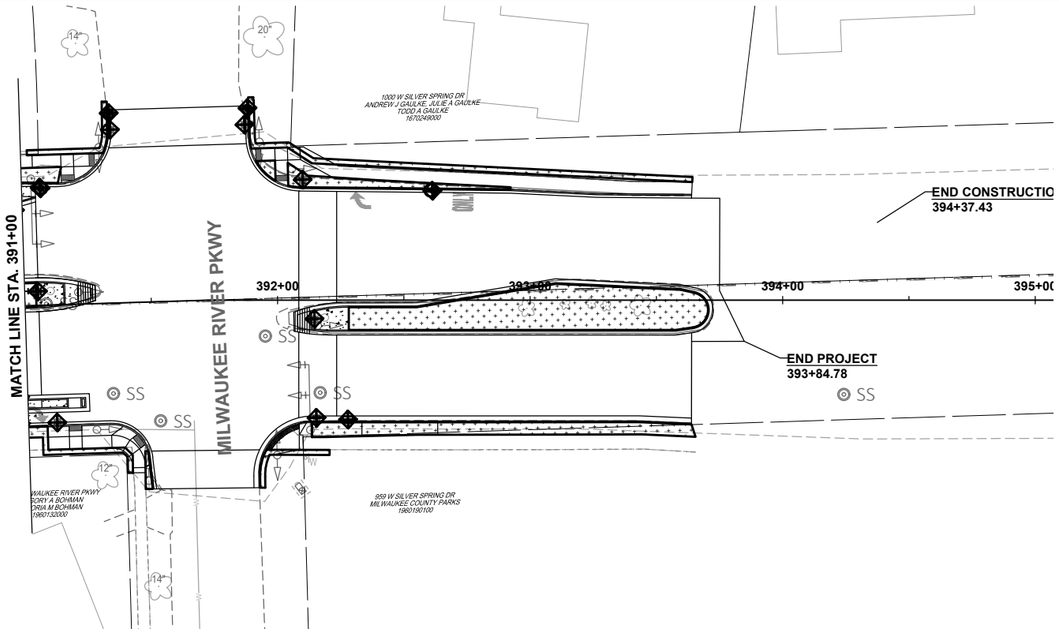


LEGEND

- SILT FENCE
- INLET PROTECTION TYPE B
- TOPSOIL (6"), SOD LAWN, FERTILIZER TYPE B
- 6" TOPSOIL, SEEDING MIXTURE NO.40, FERTILIZER TYPE B, EMAT CLASS 1 TYPE A
- LANDSCAPING, TBD

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 110	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\EROSION CONTROL.DWG PLOT DATE : 1/23/2025 2:31 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 60'



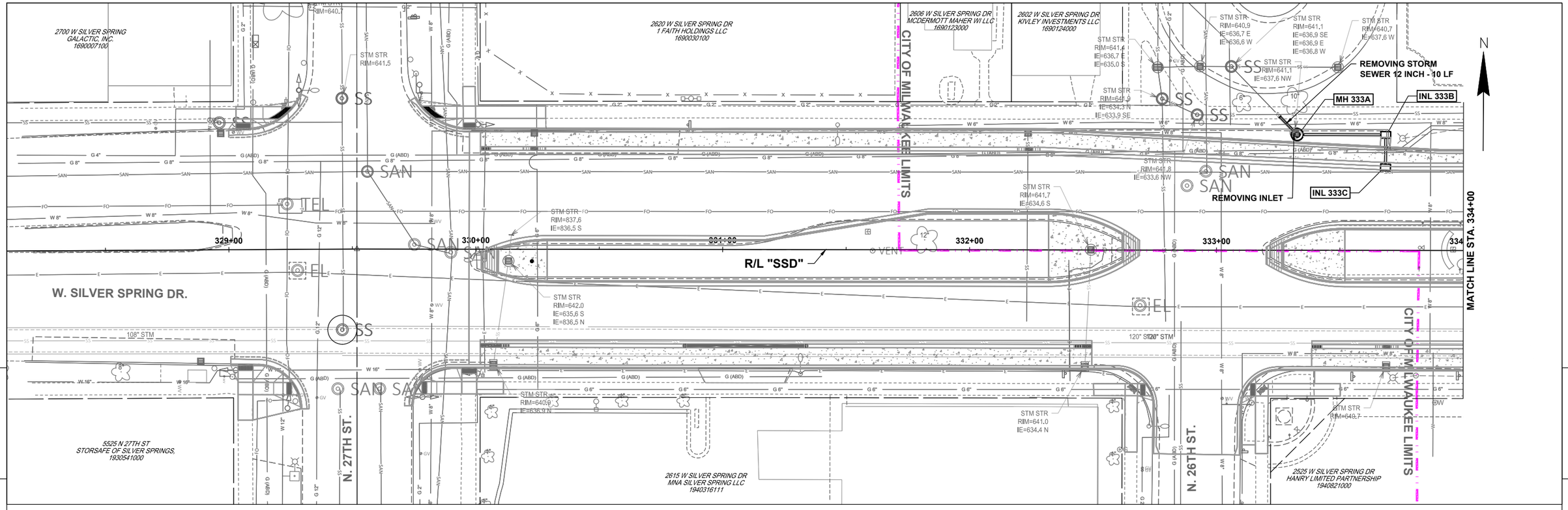
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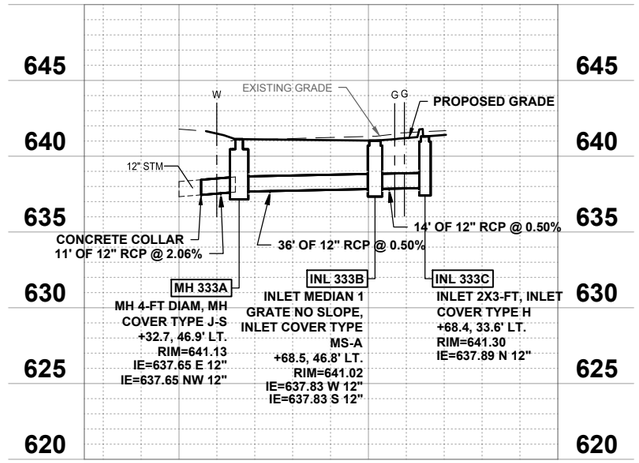
LEGEND

- SILT FENCE
- INLET PROTECTION TYPE B
- TOPSOIL (6"), SOD LAWN, FERTILIZER TYPE B
- 6" TOPSOIL, SEEDING MIXTURE NO.40, FERTILIZER TYPE B, EMAT CLASS 1 TYPE A
- LANDSCAPING, TBD

2

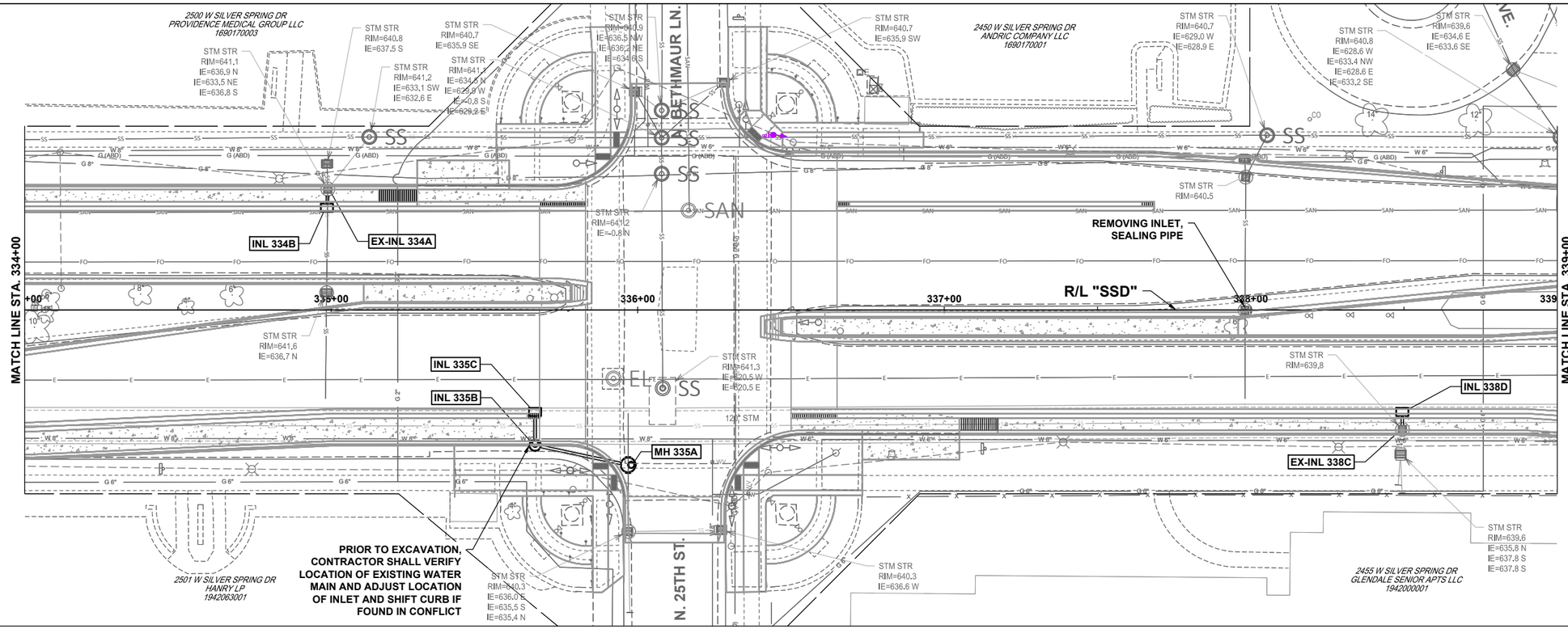
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 111	E

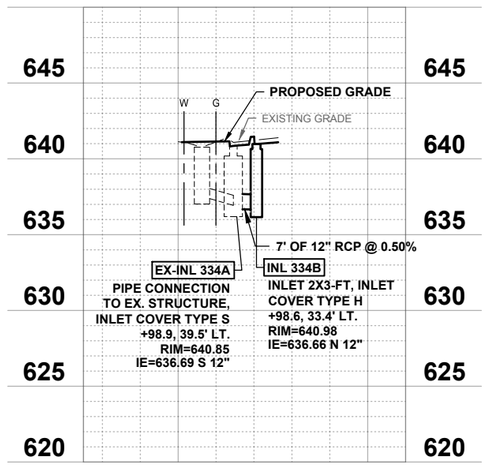


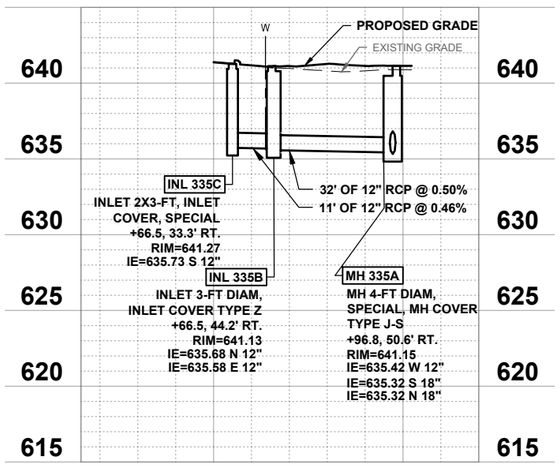


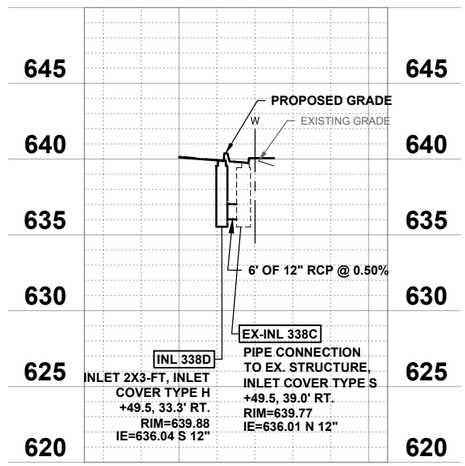
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: STORM SEWER & UTILITIES	SHEET 112	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\STORM SEWER - (1).DWG PLOT DATE : 1/23/2025 2:32 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'



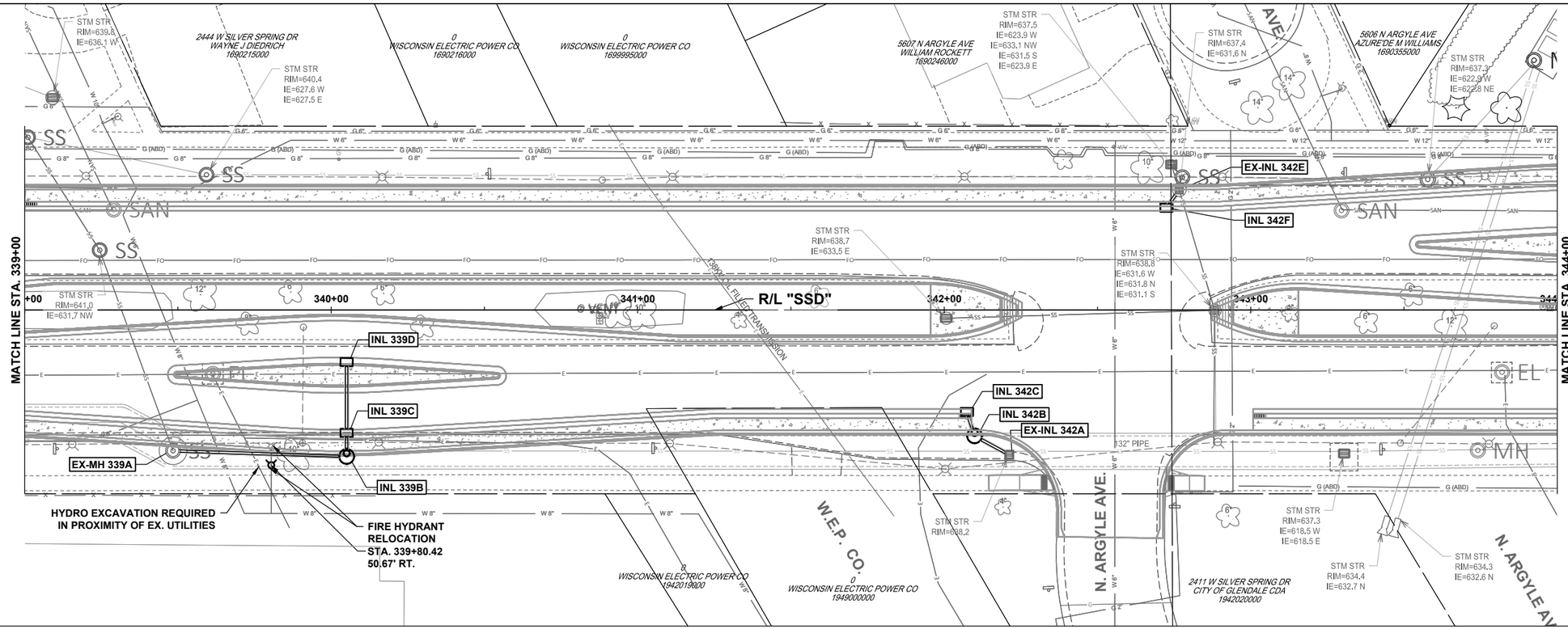


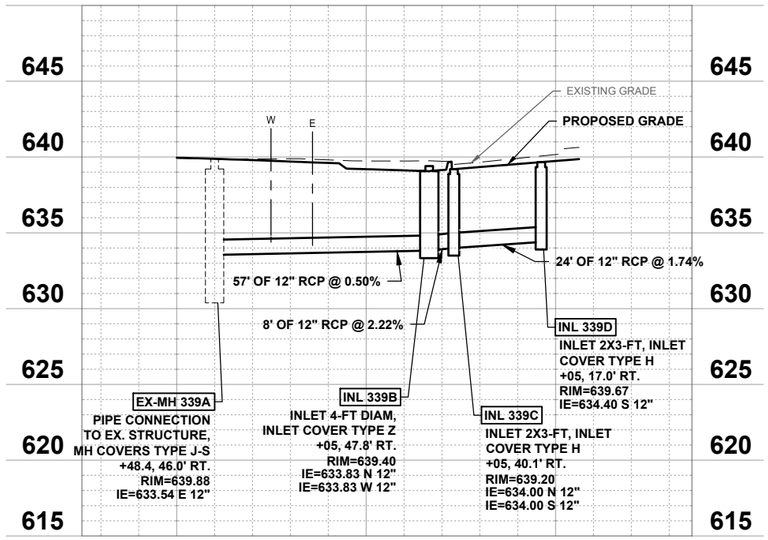


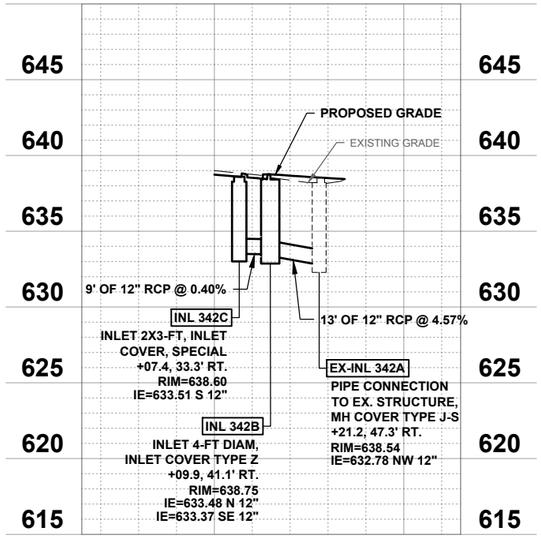


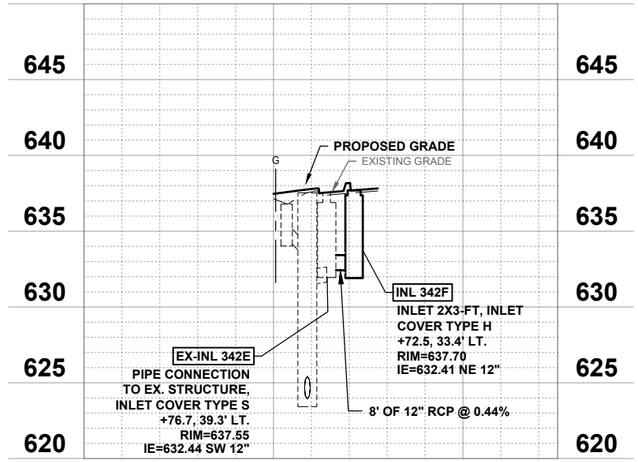
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: STORM SEWER & UTILITIES	SHEET 113	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\STORM SEWER - (1).DWG PLOT DATE : 1/23/2025 2:33 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'



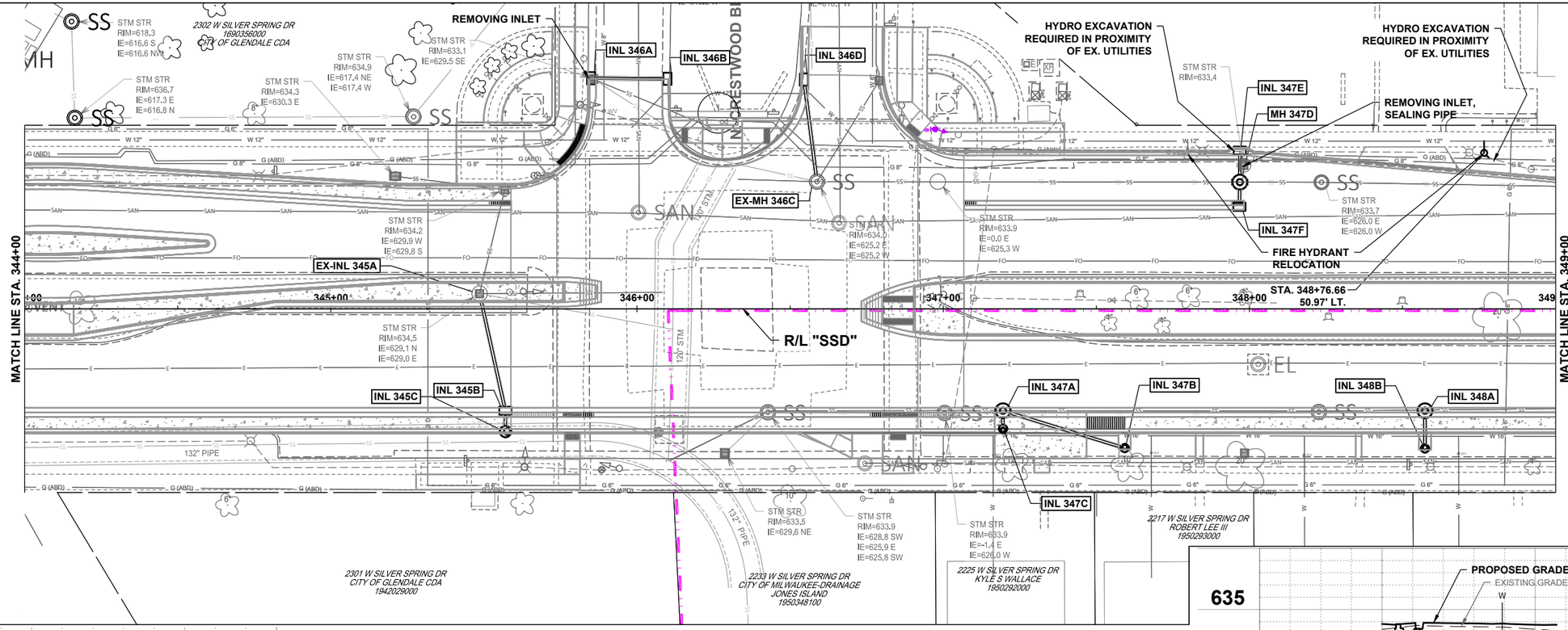


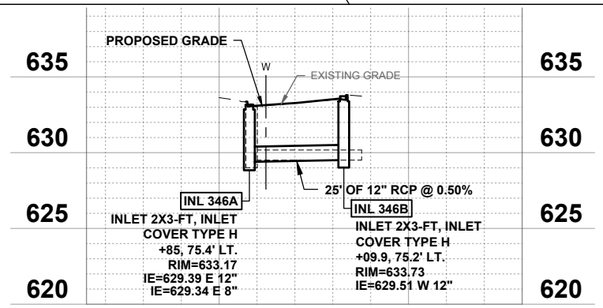


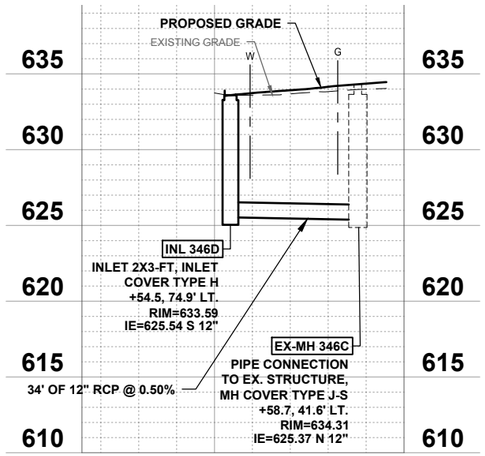


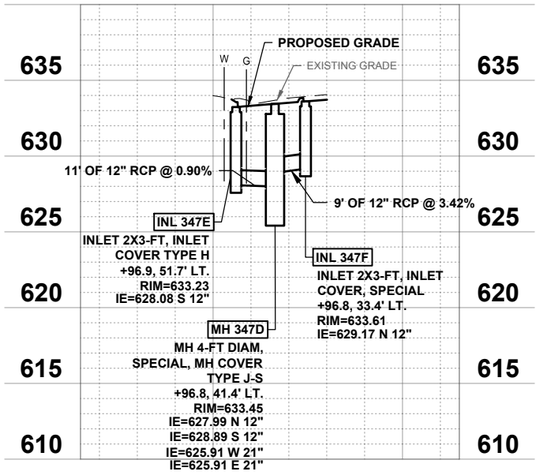
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: STORM SEWER & UTILITIES	SHEET 114	E

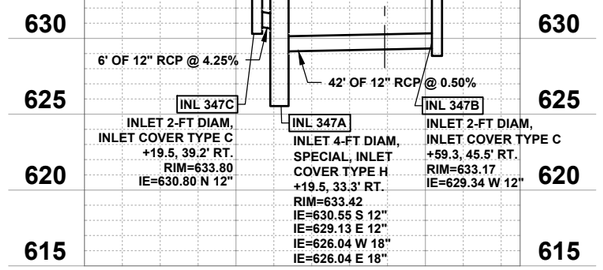
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\STORM SEWER - (1).DWG PLOT DATE : 1/23/2025 2:33 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

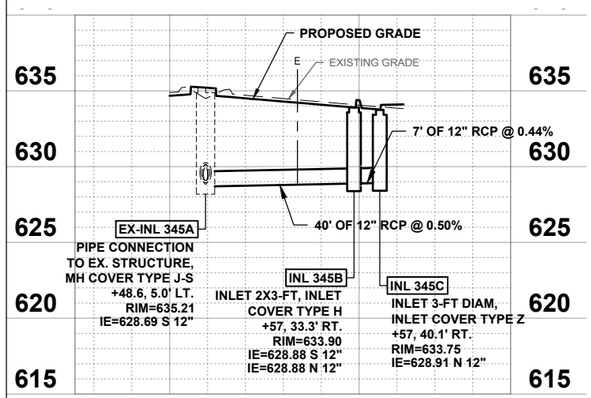


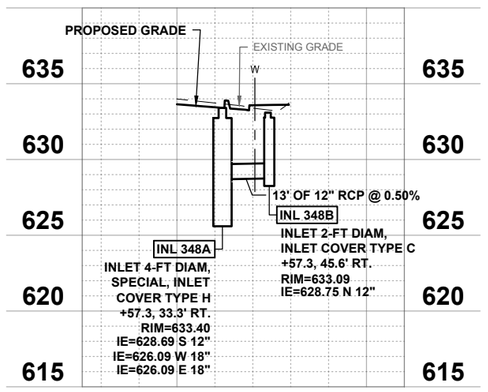






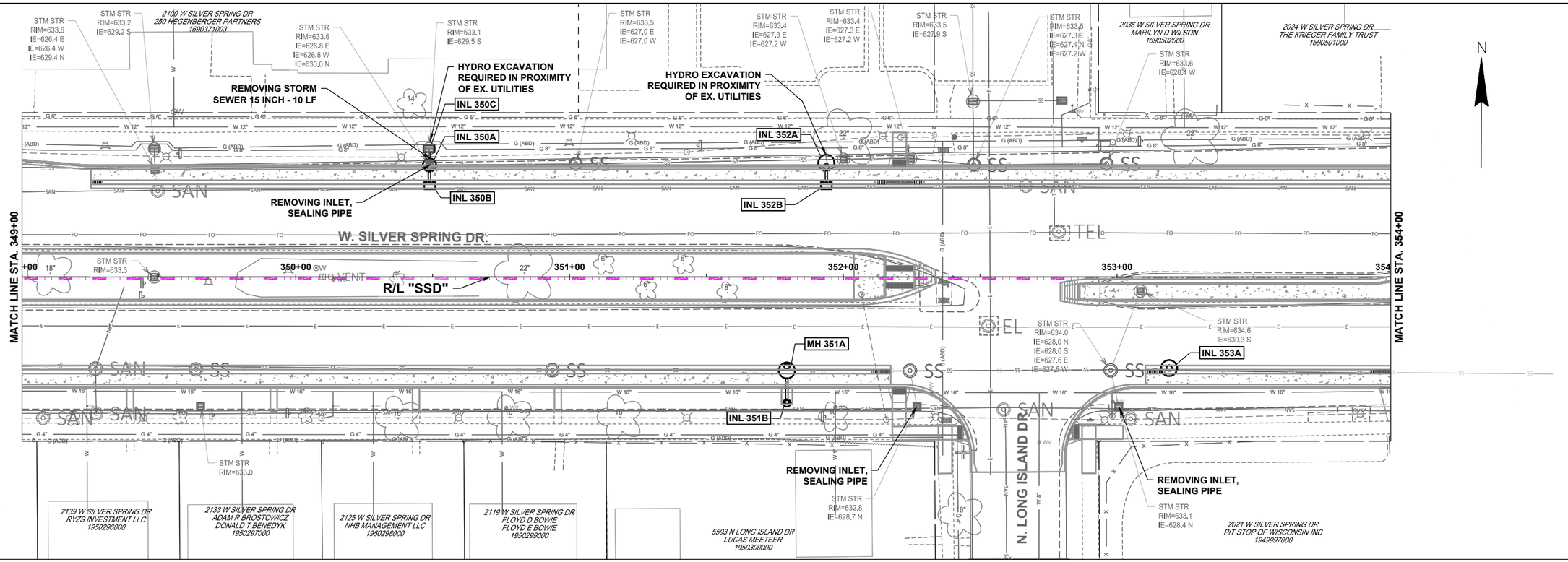


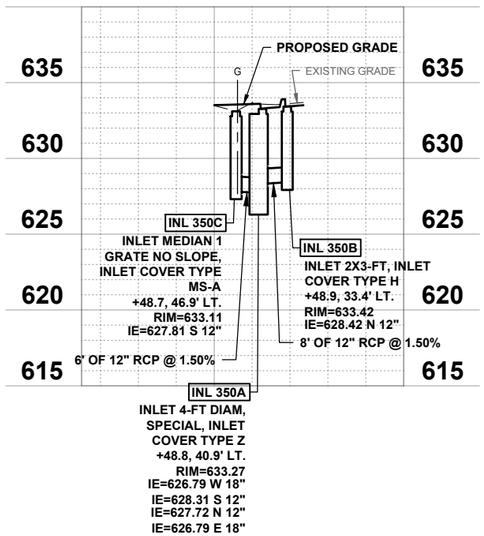


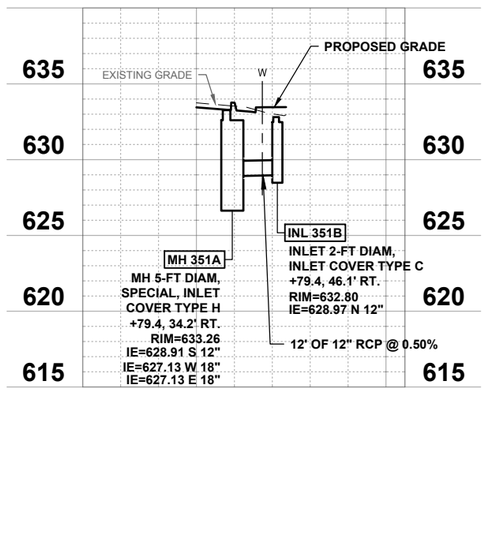


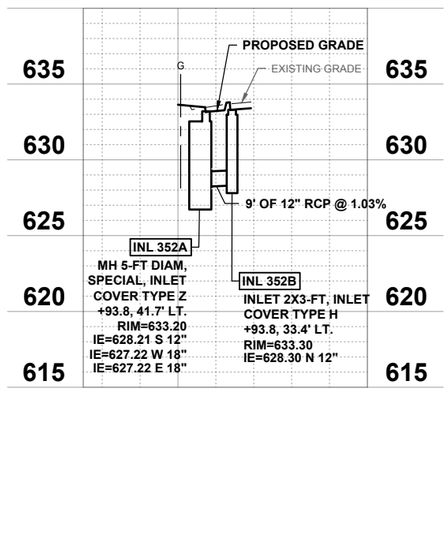
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: STORM SEWER & UTILITIES	SHEET 115	E

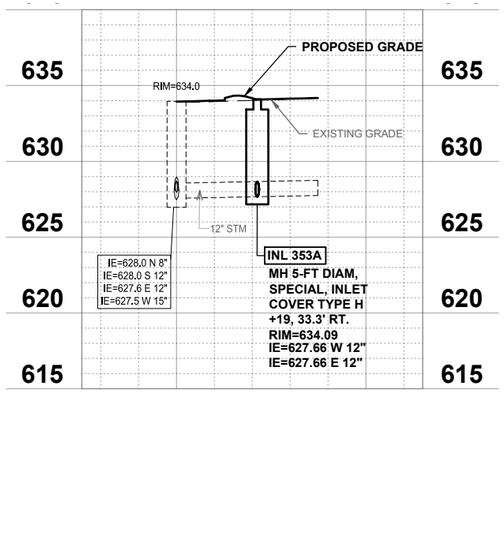
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\STORM SEWER - (1).DWG PLOT DATE : 1/23/2025 2:34 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'





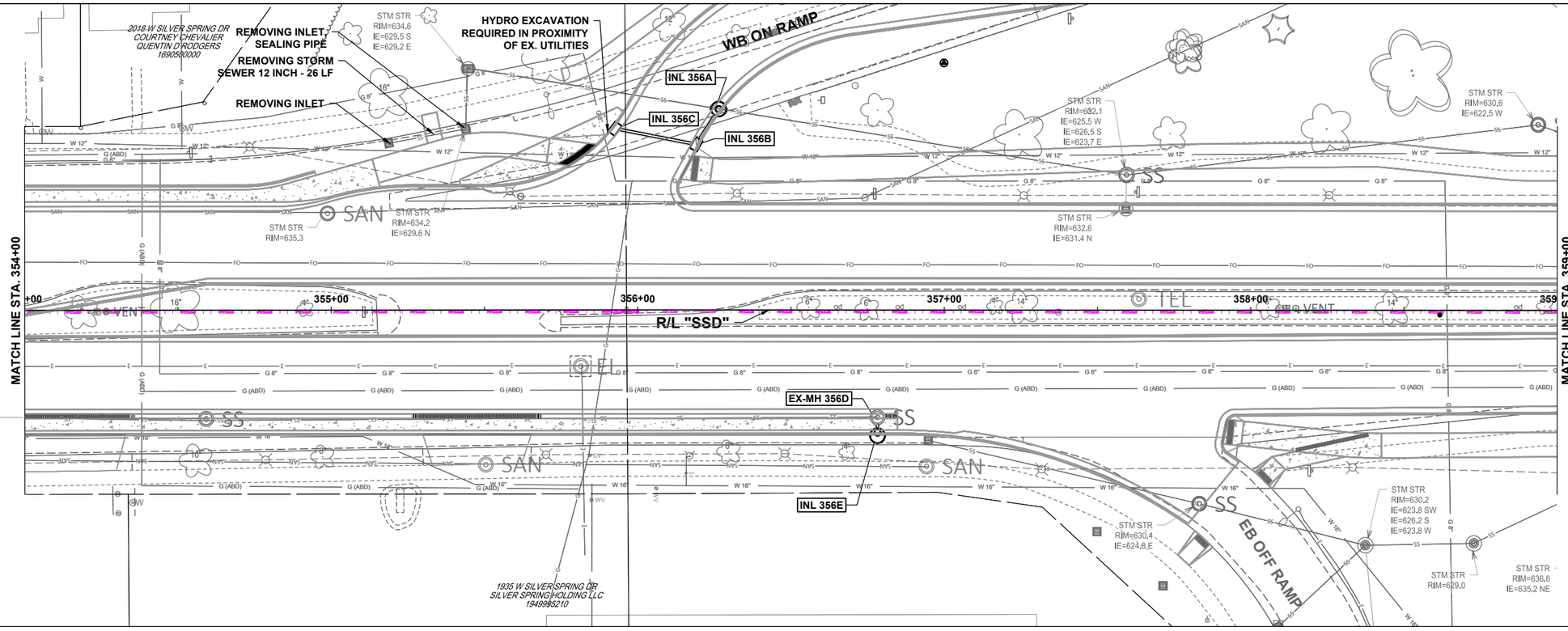


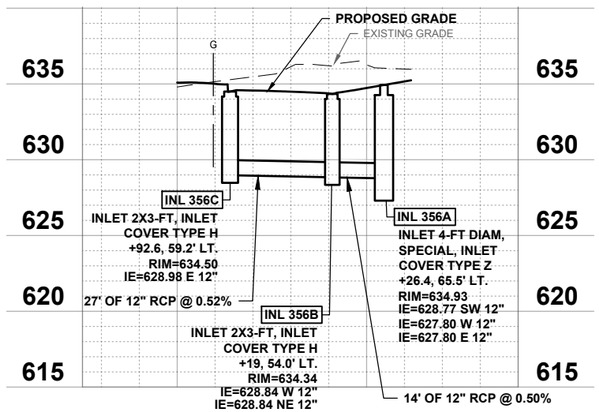


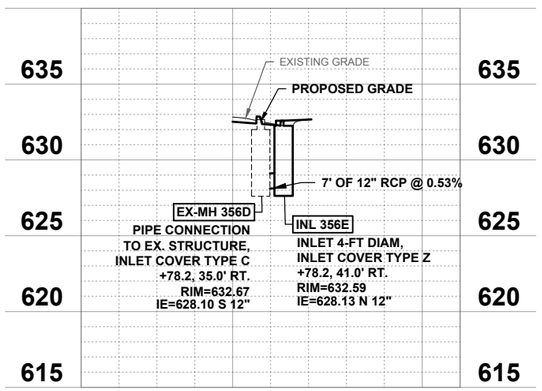


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: STORM SEWER & UTILITIES	SHEET 116	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\STORM SEWER - (1).DWG PLOT DATE : 1/23/2025 2:35 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

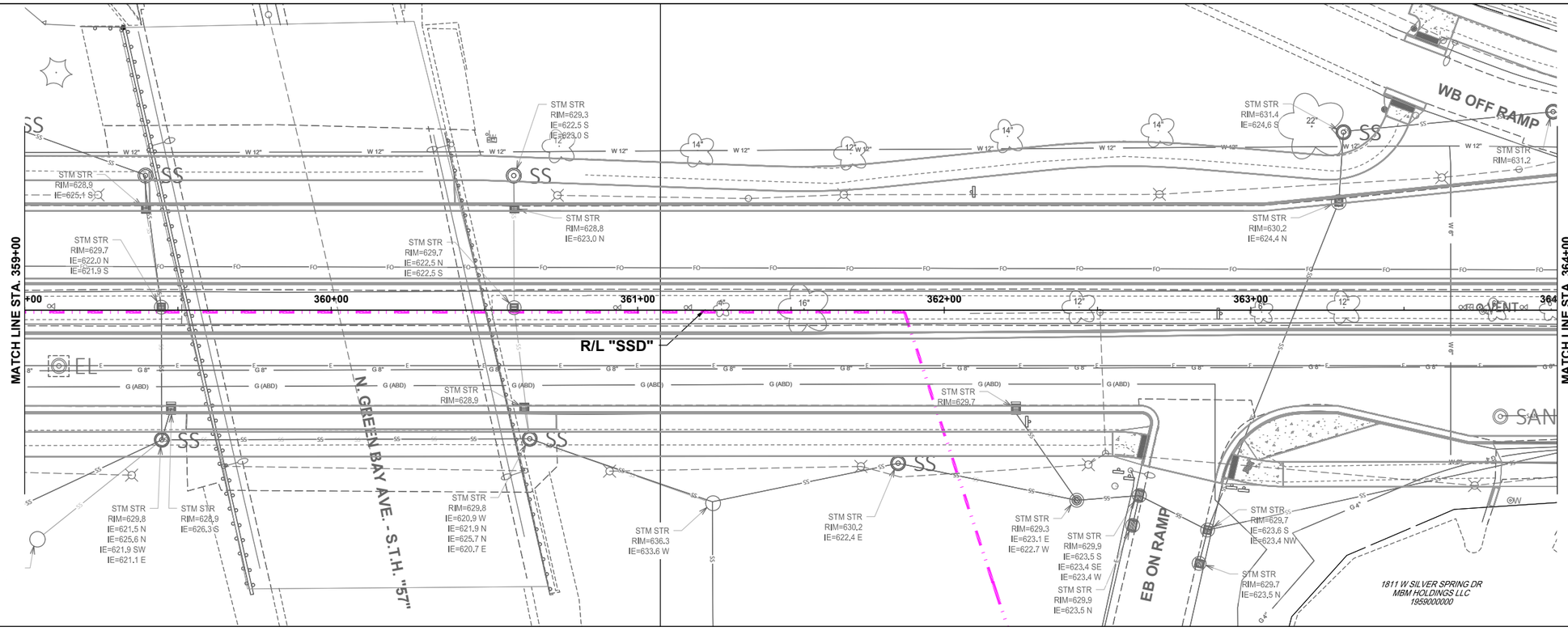






PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: STORM SEWER & UTILITIES	SHEET 117	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\STORM SEWER - (1).DWG PLOT DATE : 1/23/2025 2:36 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

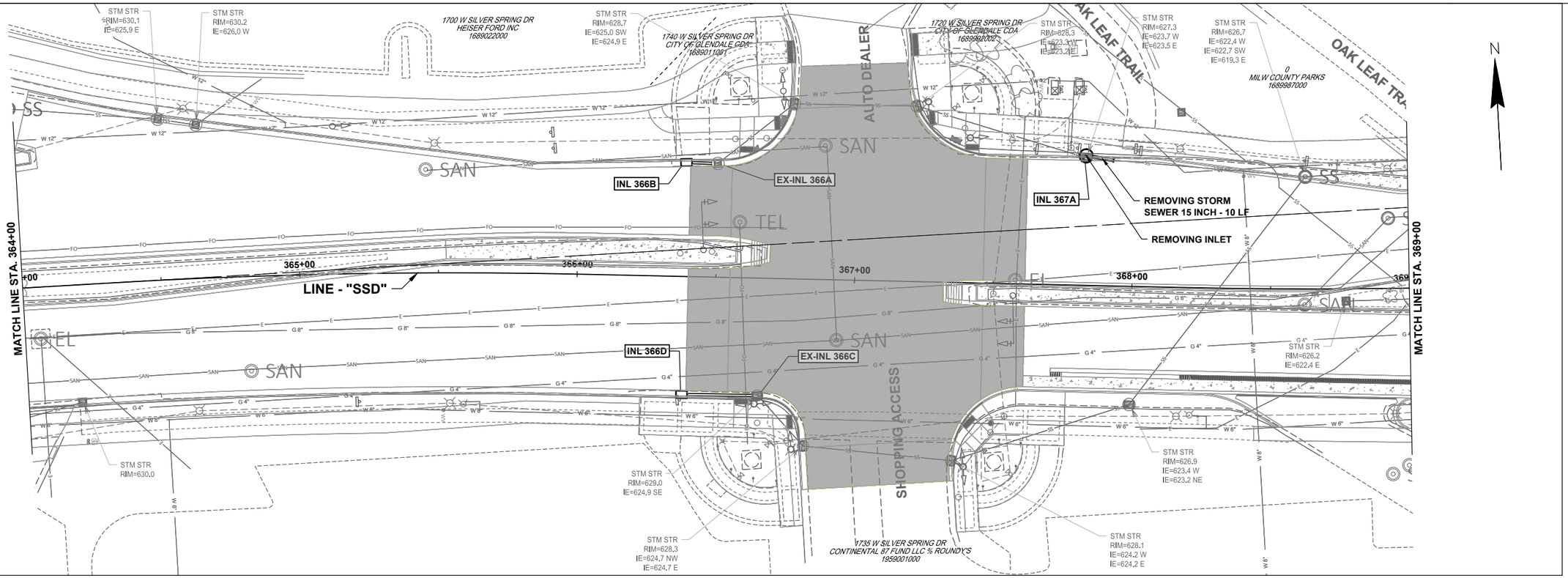


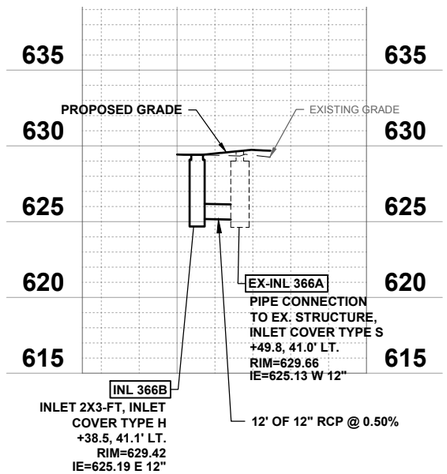
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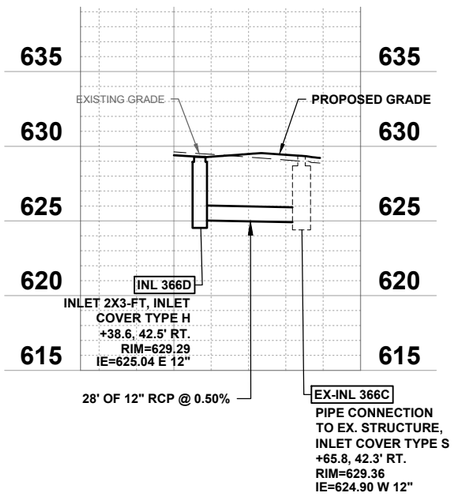
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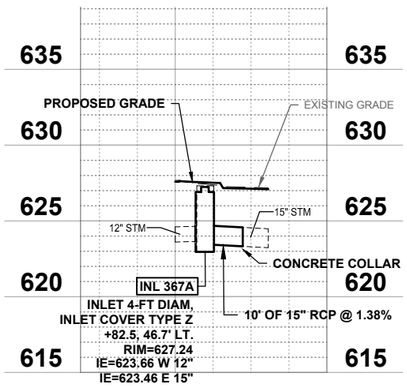
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: STORM SEWER & UTILITIES	SHEET 118	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\STORM SEWER - (1).DWG PLOT DATE : 1/23/2025 2:36 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'



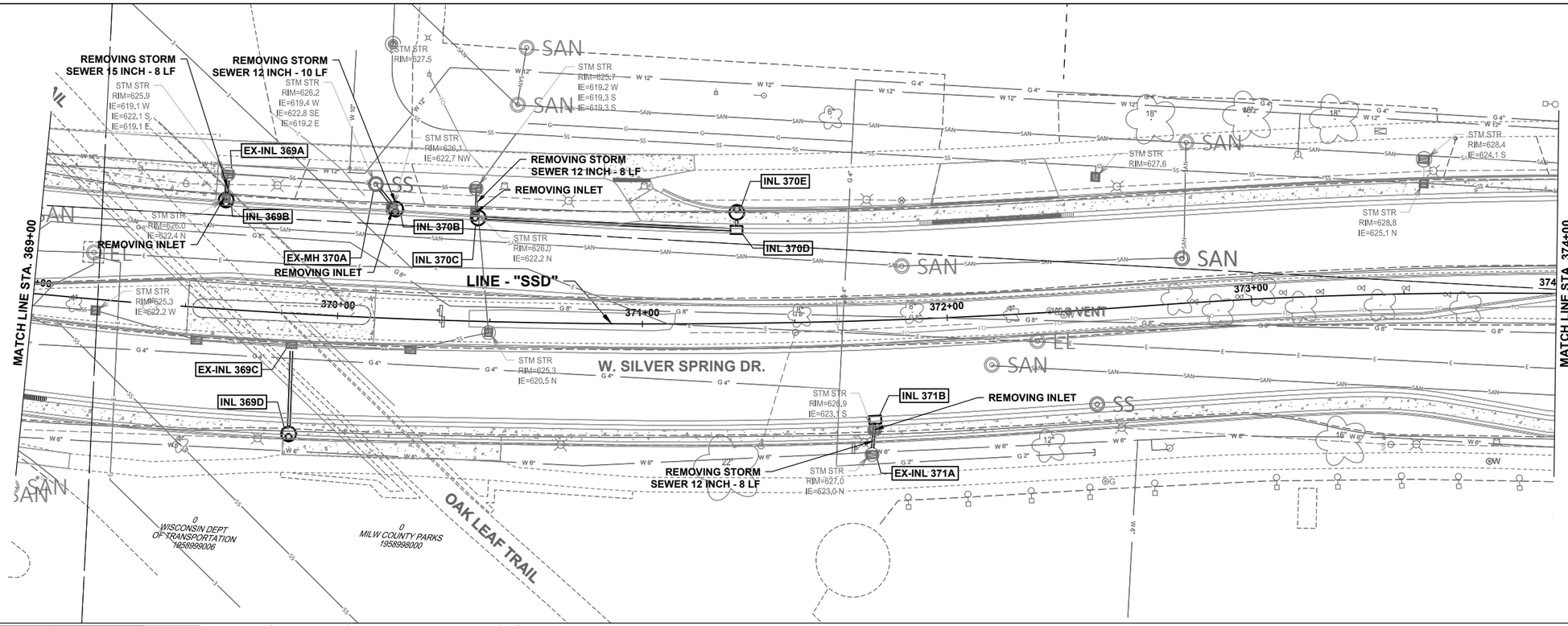


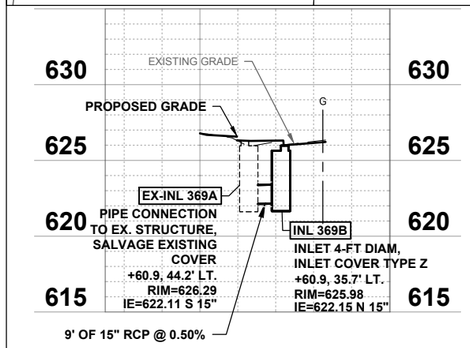


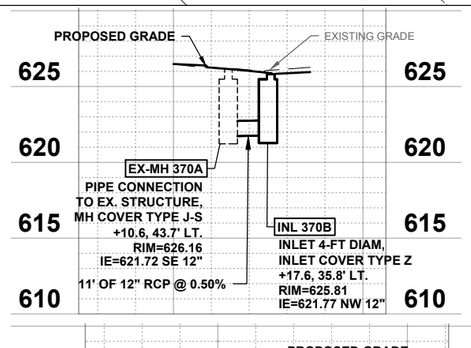


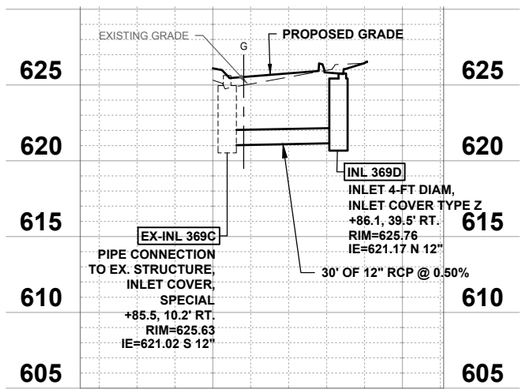
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: STORM SEWER & UTILITIES	SHEET 119	E

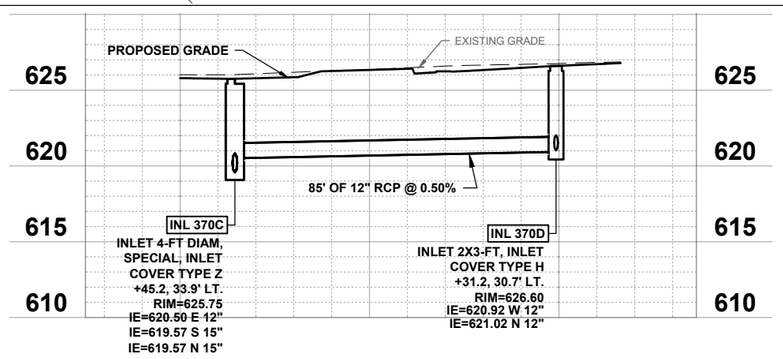
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\STORM SEWER - (2).DWG PLOT DATE : 1/23/2025 2:37 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : ##########

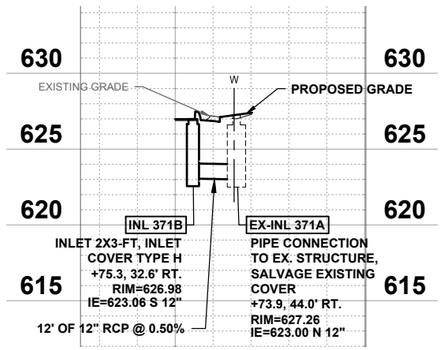

REMOVING STORM SEWER 15 INCH - 8 LF
REMOVING STORM SEWER 12 INCH - 10 LF
REMOVING STORM SEWER 12 INCH - 8 LF
REMOVING INLET
EX-INL 369A
INL 369B
INL 370B
INL 370C
EX-MH 370A
INL 370E
INL 370D
LINE - "SSD"
MATCH LINE STA. 369+00
MATCH LINE STA. 374+00
W. SILVER SPRING DR.
OAK LEAF TRAIL
EX-INL 369C
INL 369D
INL 371B
EX-INL 371A
WISCONSIN DEPT OF TRANSPORTATION 1958999006
MILW COUNTY PARKS 1958998000
N

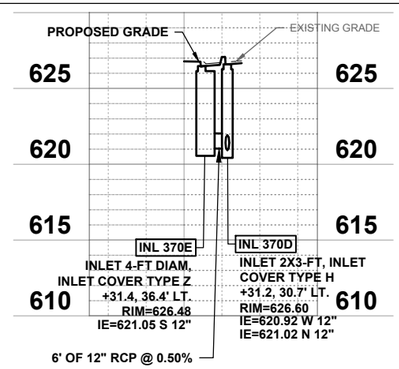

EXISTING GRADE
PROPOSED GRADE
EX-INL 369A
PIPE CONNECTION TO EX. STRUCTURE, SALVAGE EXISTING COVER
+60.9, 44.2' LT.
RIM=626.29
IE=622.11 S 15"
INL 369B
INLET 4-FT DIAM, INLET COVER TYPE Z
+60.9, 35.7' LT.
RIM=625.98
IE=622.15 N 15"
9' OF 15" RCP @ 0.50%

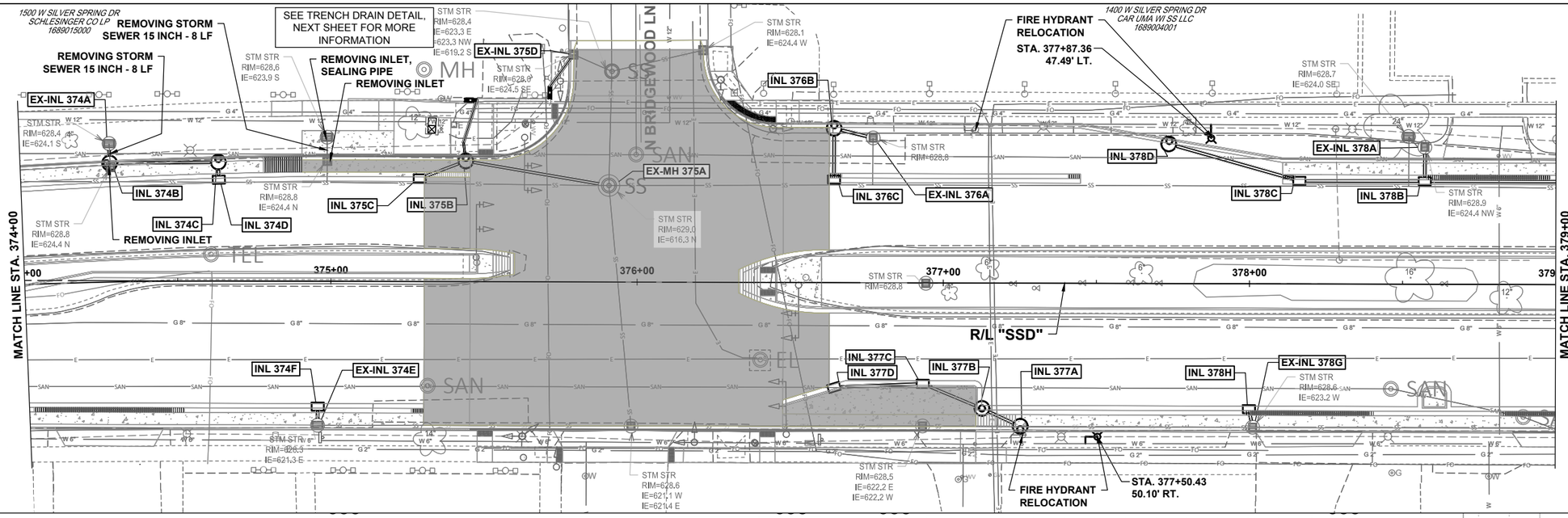

PROPOSED GRADE
EXISTING GRADE
EX-MH 370A
PIPE CONNECTION TO EX. STRUCTURE, MH COVER TYPE J-S
+10.6, 43.7' LT.
RIM=626.16
IE=621.72 SE 12"
11' OF 12" RCP @ 0.50%
INL 370B
INLET 4-FT DIAM, INLET COVER TYPE Z
+17.6, 35.8' LT.
RIM=625.81
IE=621.77 NW 12"

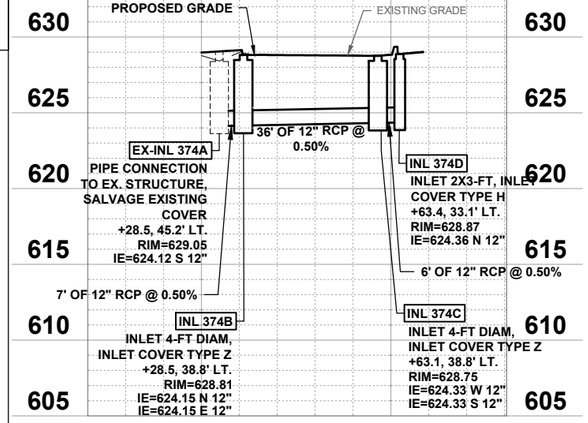

EXISTING GRADE
PROPOSED GRADE
INL 369D
INLET 4-FT DIAM, INLET COVER TYPE Z
+86.1, 39.5' RT.
RIM=625.76
IE=621.17 N 12"
30' OF 12" RCP @ 0.50%
EX-INL 369C
PIPE CONNECTION TO EX. STRUCTURE, INLET COVER, SPECIAL
+85.5, 10.2' RT.
RIM=625.63
IE=621.02 S 12"

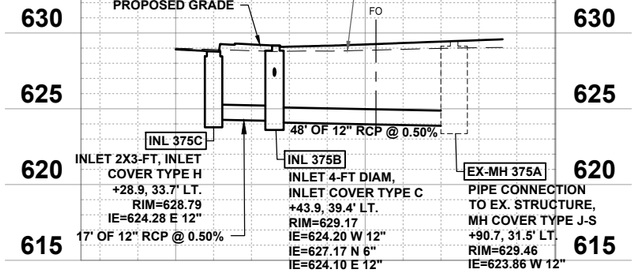

PROPOSED GRADE
EXISTING GRADE
85' OF 12" RCP @ 0.50%
INL 370C
INLET 4-FT DIAM, SPECIAL, INLET COVER TYPE Z
+45.2, 33.9' LT.
RIM=625.75
IE=620.50 E 12"
IE=619.57 S 15"
IE=619.57 N 15"
INL 370D
INLET 2X3-FT, INLET COVER TYPE H
+31.2, 30.7' LT.
RIM=626.60
IE=620.92 W 12"
IE=621.02 N 12"

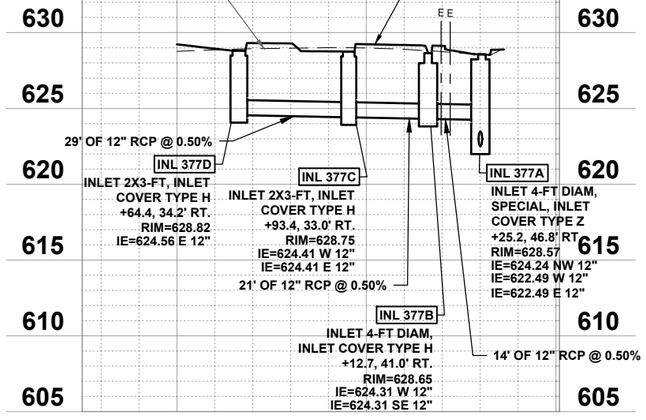

EXISTING GRADE
PROPOSED GRADE
INL 371B
INLET 2X3-FT, INLET COVER TYPE H
+75.3, 32.6' RT.
RIM=626.98
IE=623.06 S 12"
12' OF 12" RCP @ 0.50%
EX-INL 371A
PIPE CONNECTION TO EX. STRUCTURE, SALVAGE EXISTING COVER
+73.9, 44.0' RT.
RIM=627.26
IE=623.00 N 12"

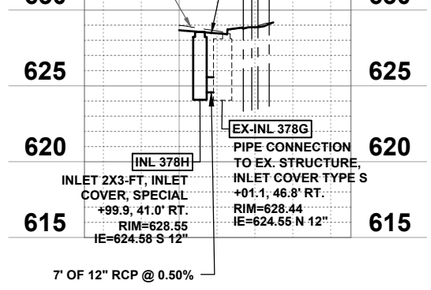

PROPOSED GRADE
EXISTING GRADE
INL 370E
INLET 4-FT DIAM, INLET COVER TYPE Z
+31.4, 36.4' LT.
RIM=626.48
IE=621.05 S 12"
INL 370D
INLET 2X3-FT, INLET COVER TYPE H
+31.2, 30.7' LT.
RIM=626.60
IE=620.92 W 12"
IE=621.02 N 12"
6' OF 12" RCP @ 0.50%

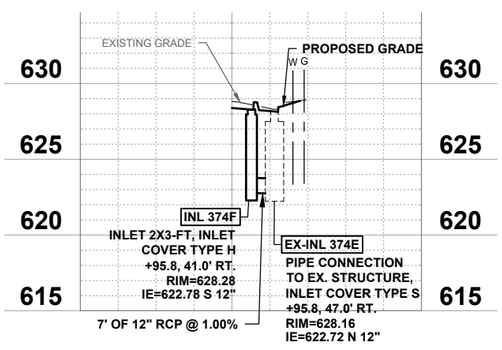


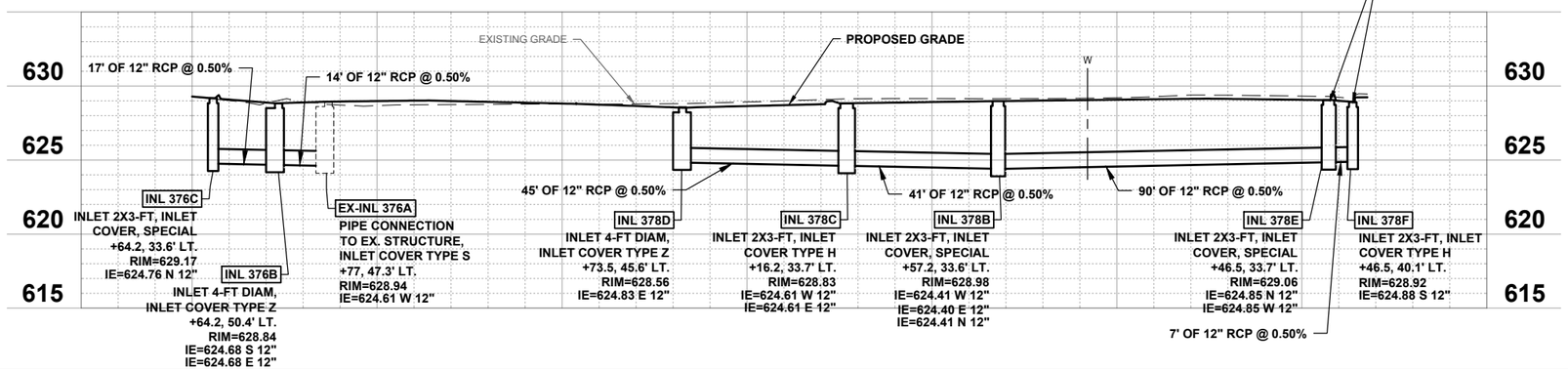




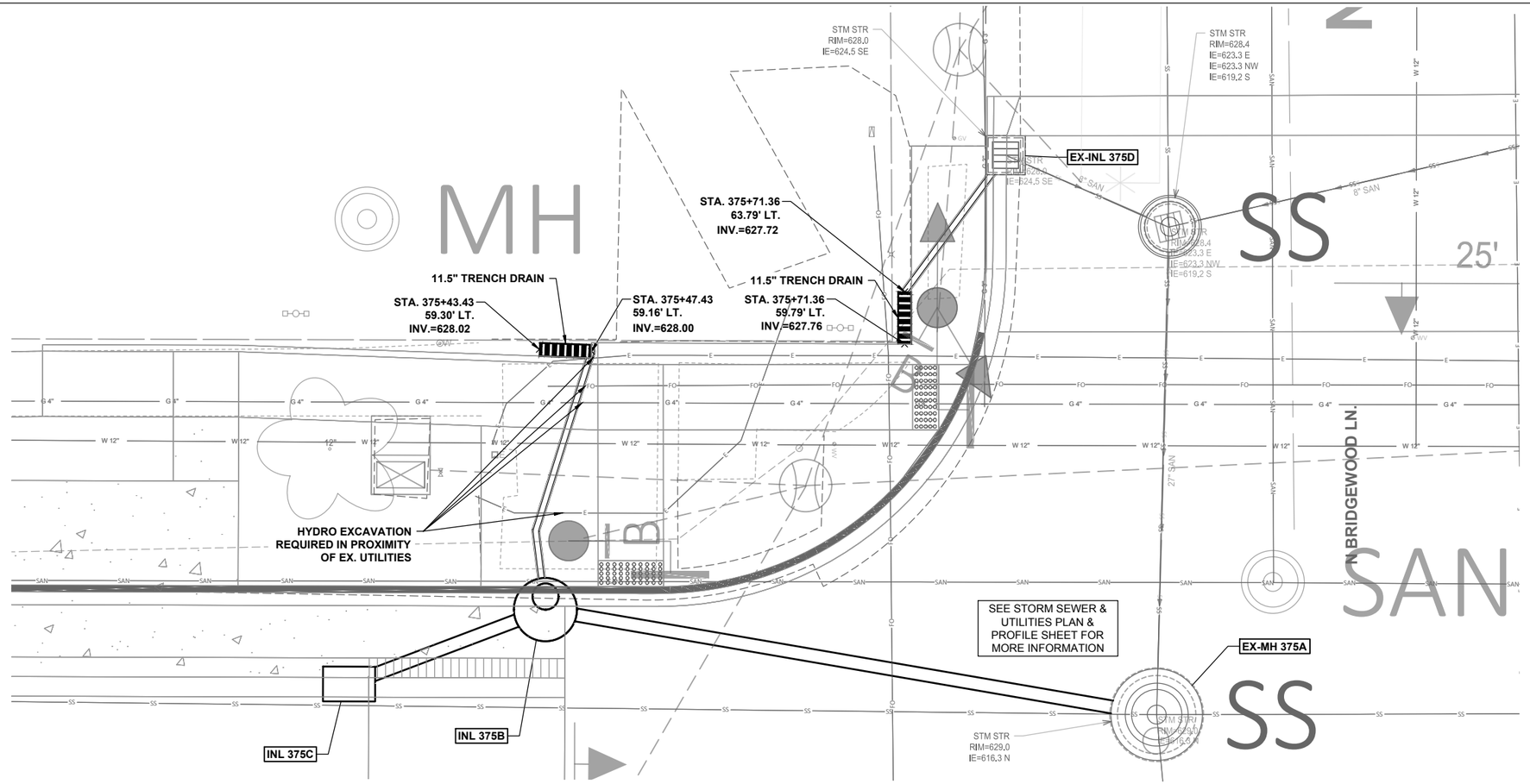


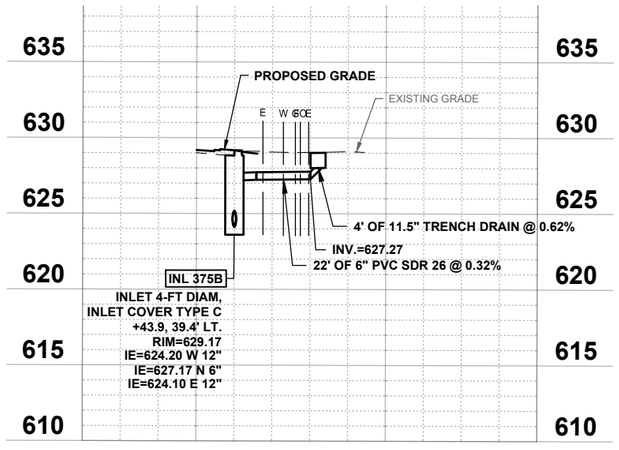


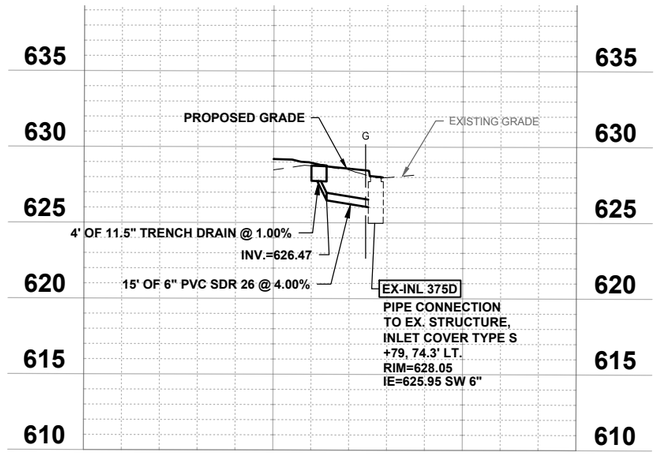




PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: STORM SEWER & UTILITIES	SHEET 121 E



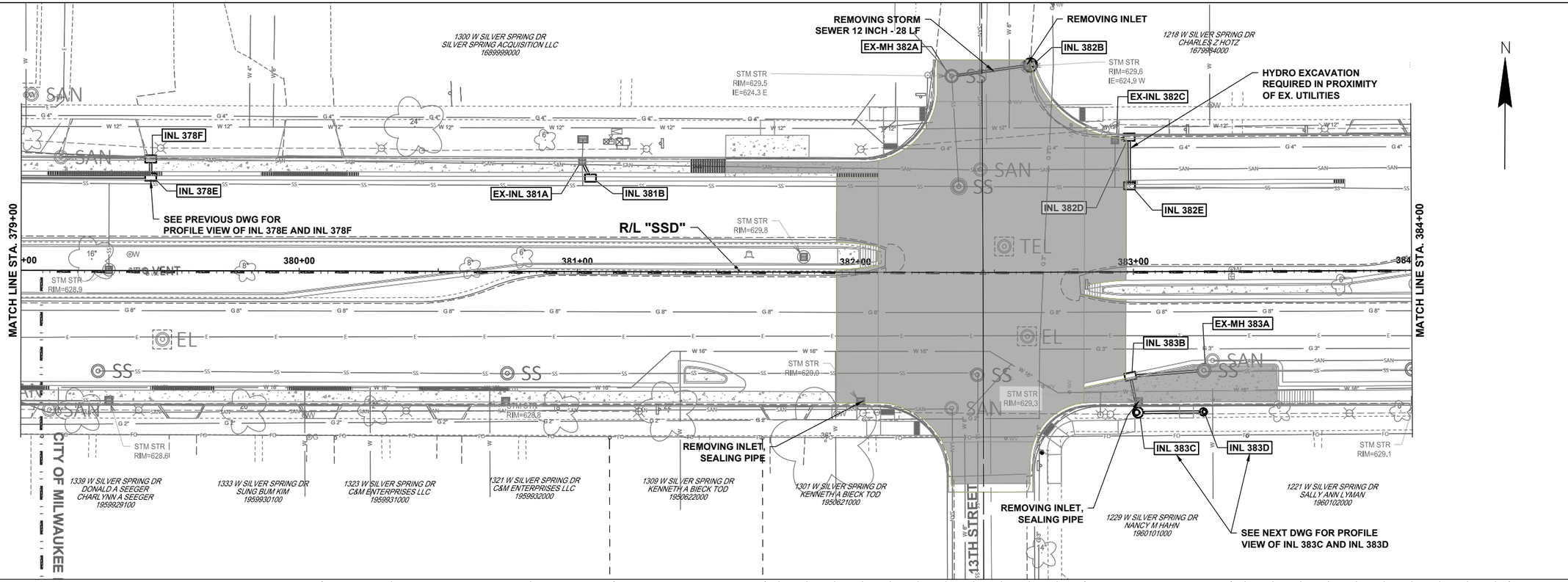


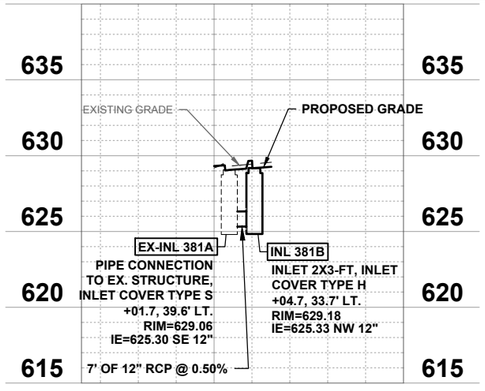


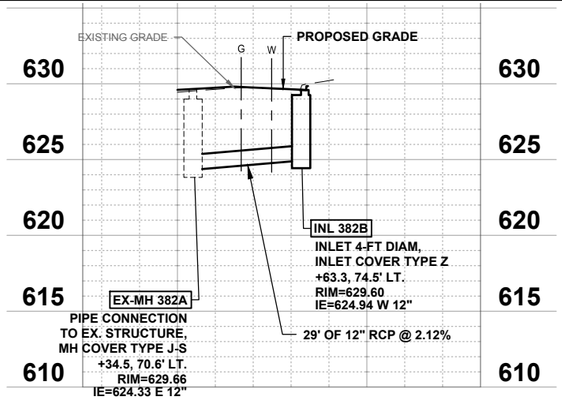
TRENCH DRAIN DETAIL
SILVER SPRING DR & BRIDGEWOOD LN

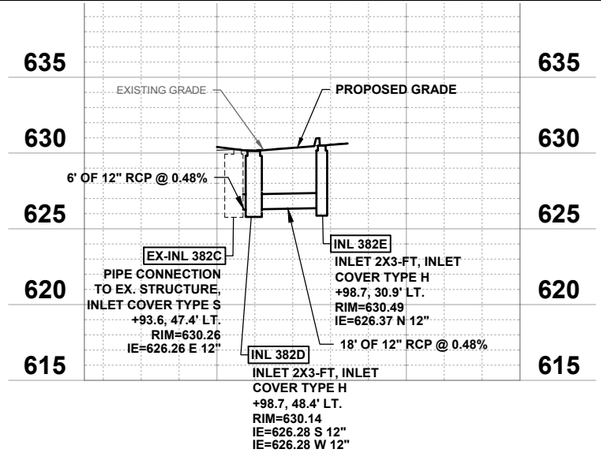
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: STORM SEWER & UTILITIES	SHEET 122	E

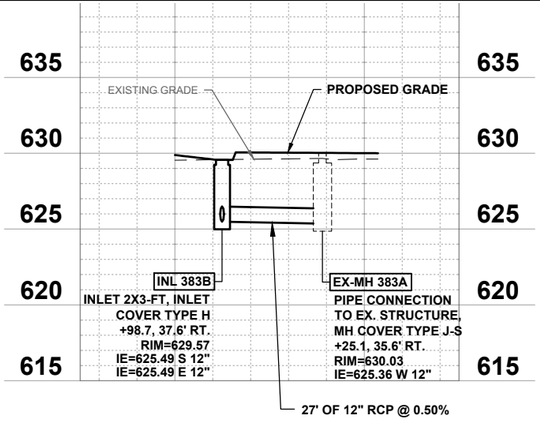
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\TRENCH DRAIN DETAIL.DWG PLOT DATE : 1/23/2025 2:41 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE :





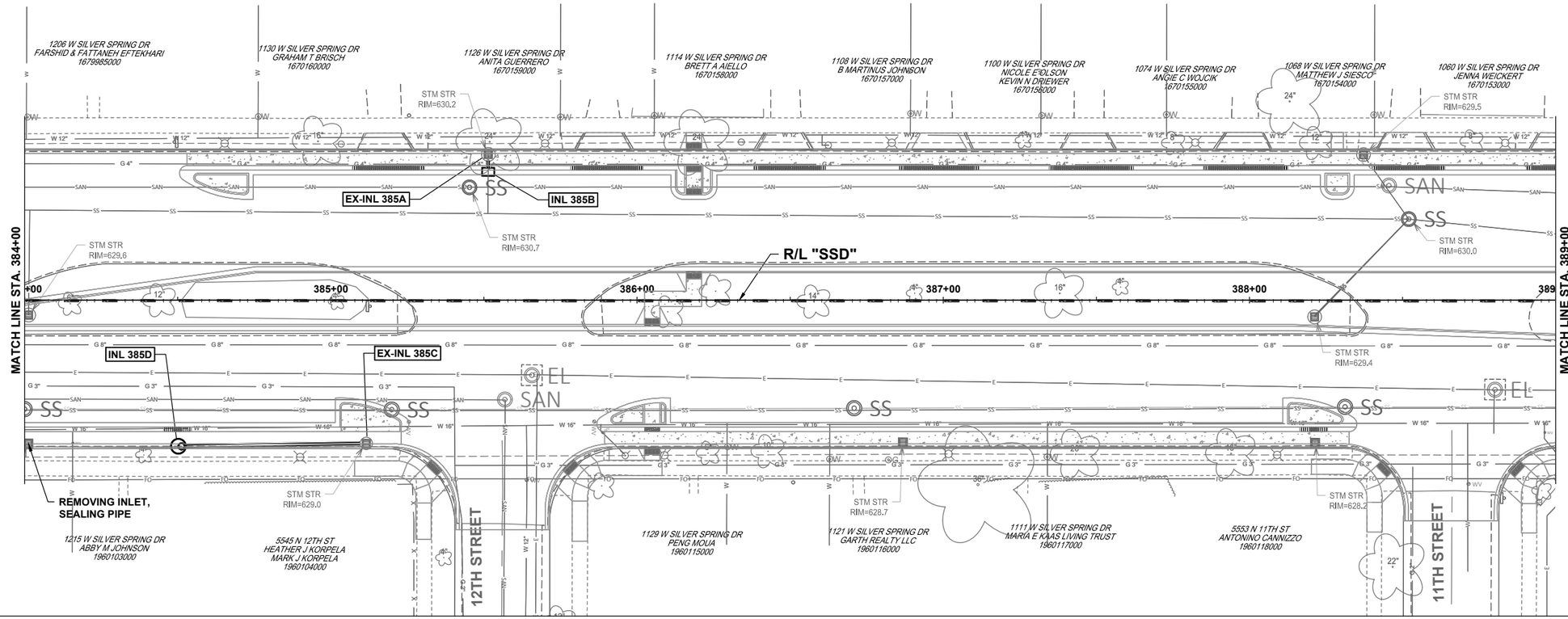


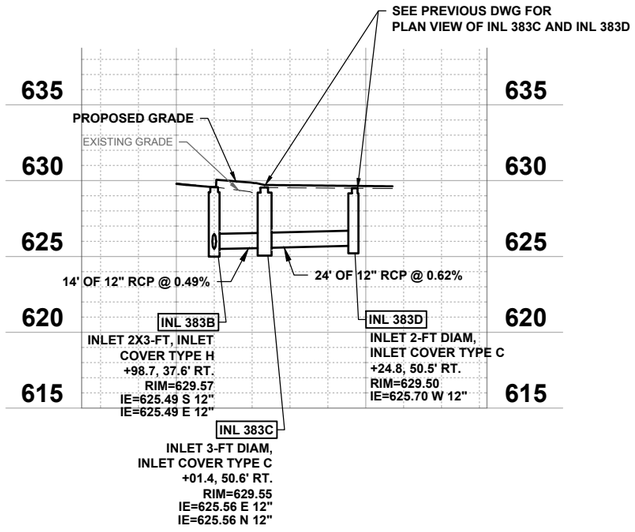


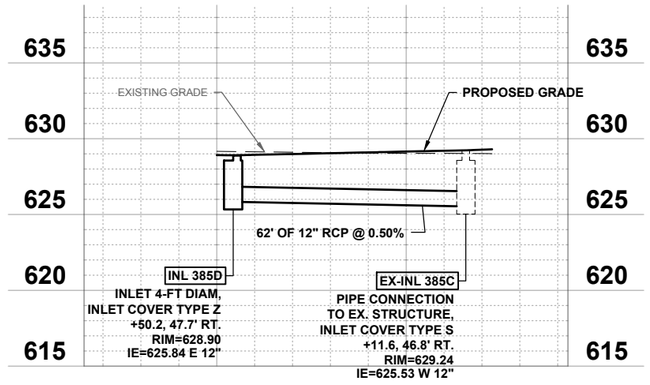


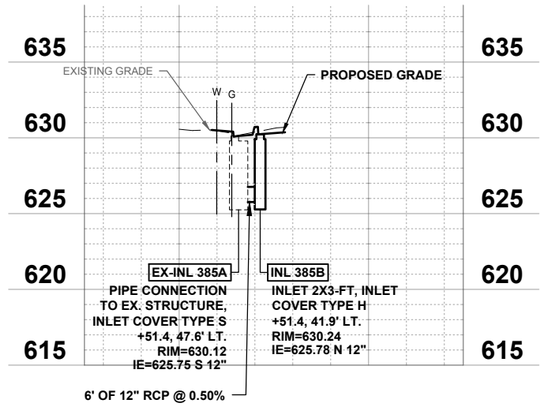
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: STORM SEWER & UTILITIES	SHEET 123	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\STORM SEWER - (2).DWG PLOT DATE : 1/23/2025 2:42 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : ##########



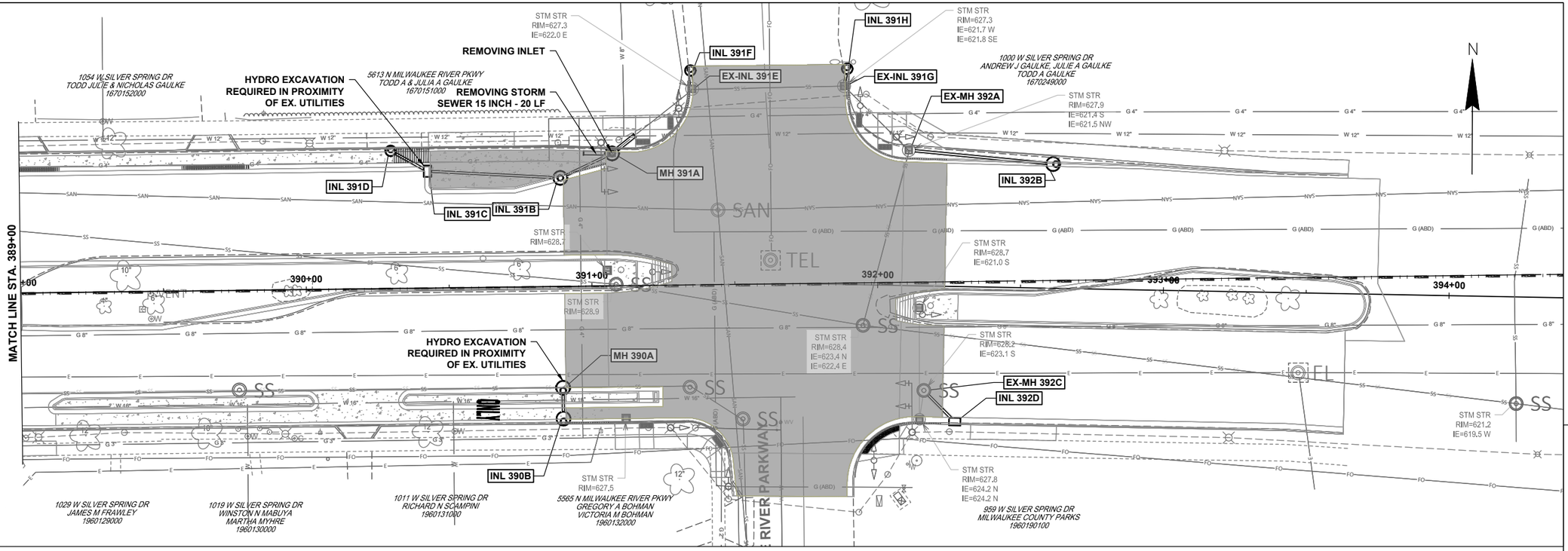


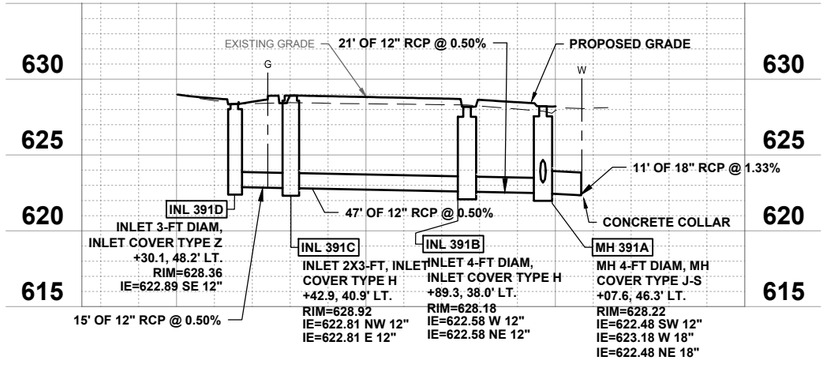


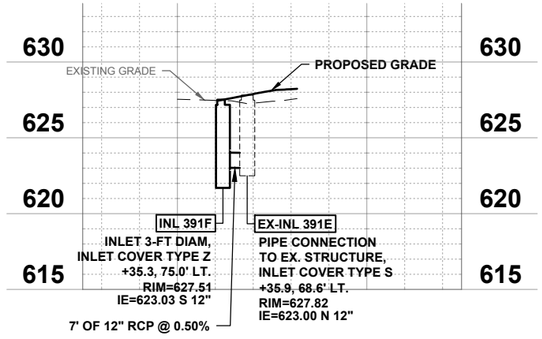


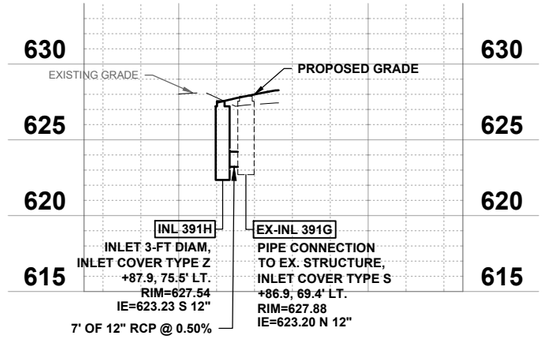
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: STORM SEWER & UTILITIES	SHEET 124	E

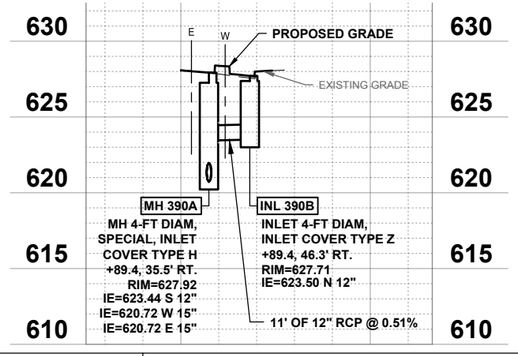
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\STORM SEWER - (2).DWG PLOT DATE : 1/23/2025 2:42 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : ##########

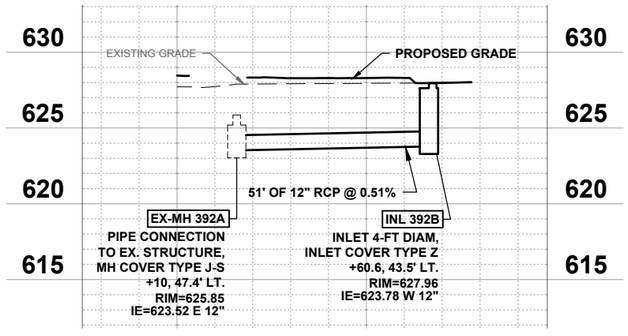


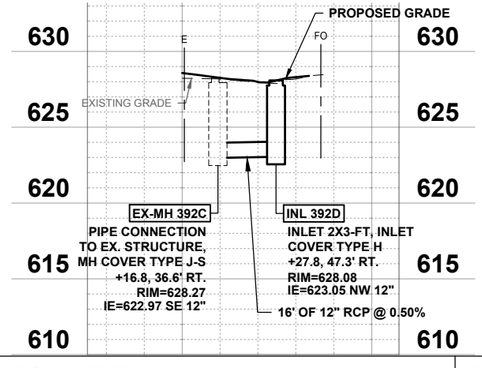












PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: STORM SEWER & UTILITIES	SHEET 125	E

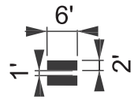
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2

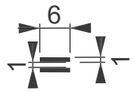
BIKE EXPOXY BLOCK
STYLE 24 INCH DETAIL



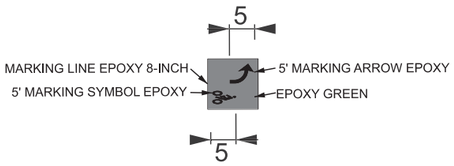
CROSSWALK EPOXY BLOCK
STYLE 24 INCH DETAIL



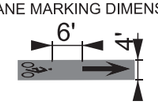
PED CROSSING DETAIL
IN BIKE LANE



BIKE BOX DETAIL



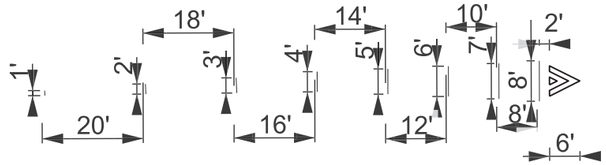
BIKE LANE MARKING DIMENSION DETAIL



PAVEMENT MARKING LEGEND:

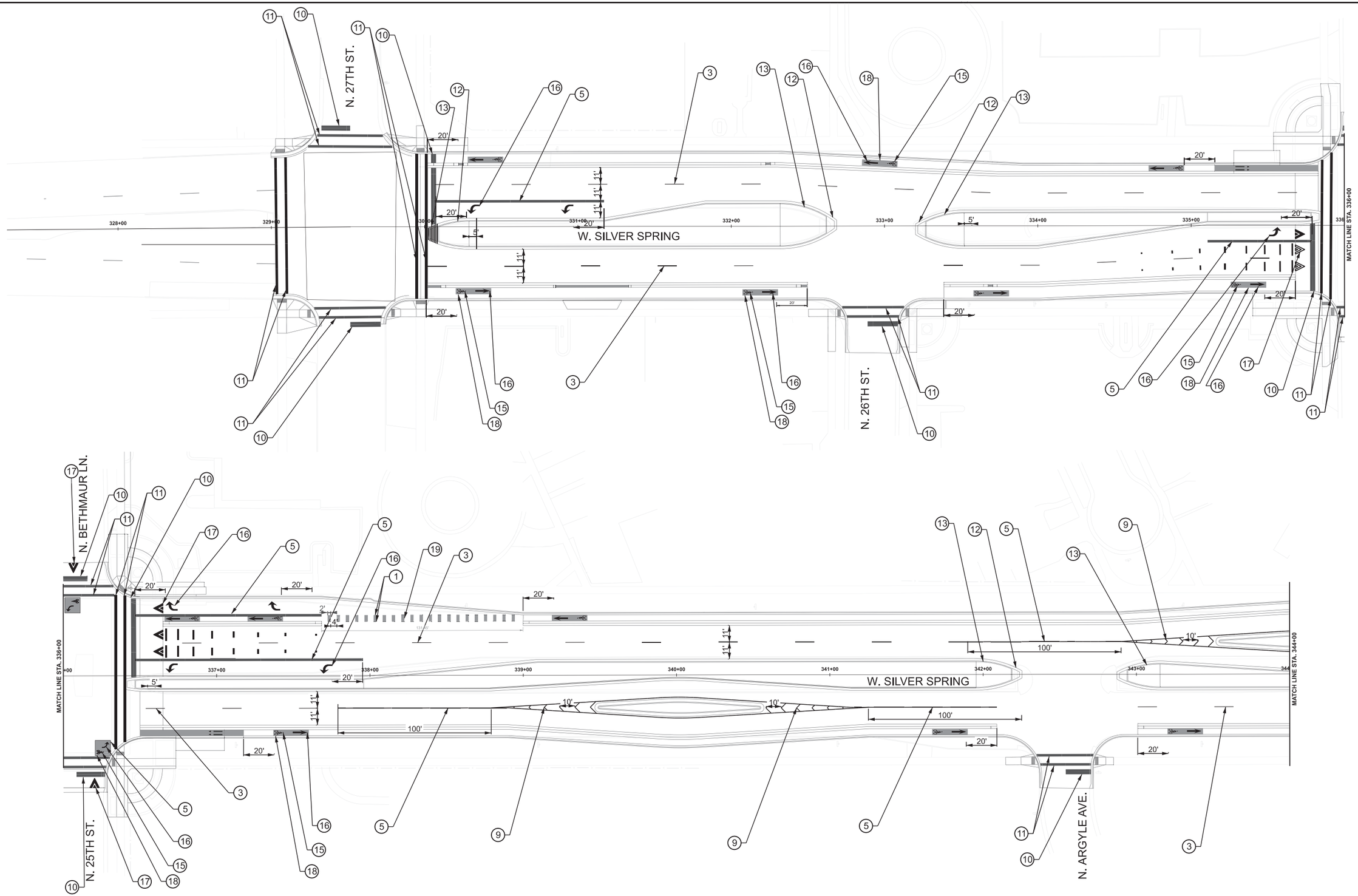
1. MARKING LINE EPOXY 4-INCH (WHITE)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
3. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE (37.5 FT (SKIP)
4. MARKING LINE EPOXY 4-INCH (DOT WHITE) (3 FT LINE 9 FT SKIP)
5. MARKING LINE EPOXY 8-INCH (WHITE)
6. MARKING LINE EPOXY 8-INCH (YELLOW)
7. MARKING DIANGONAL EPOXY 12-INCH (WHITE)
8. MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
9. MARKING CHEVRON EPOXY 12-INCH (WHITE)
10. MARKING STOP EPOXY 18-INCH (WHITE)
11. MARKING CROSSWALK EPOXY TRANSVERSE 6-INCH (WHITE)
12. MARKING ISLAND NOSE EPOXY 4-INCH (YELLOW)
13. MARKING CURB EPOXY (YELLOW)
14. MARKING WORD EPOXY (WHITE)
15. MARKING SYMBOL EPOXY (WHITE)
16. MARKING ARROW EPOXY (WHITE)
17. MARKING SPEED HUMP EPOXY 12-INCH (WHITE)
18. MARKING EPOXY (GREEN)
19. MARKING BIKE EPOXY BLOCK STYLE 24-INCH (GREEN)
20. MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH (WHITE)
21. MARKING PARKING STALL EPOXY (WHITE)
22. MARKING YIELD LINE EPOXY 18 INCH (WHITE)

MARKING SPEED HUMP DIMENSION DETAIL

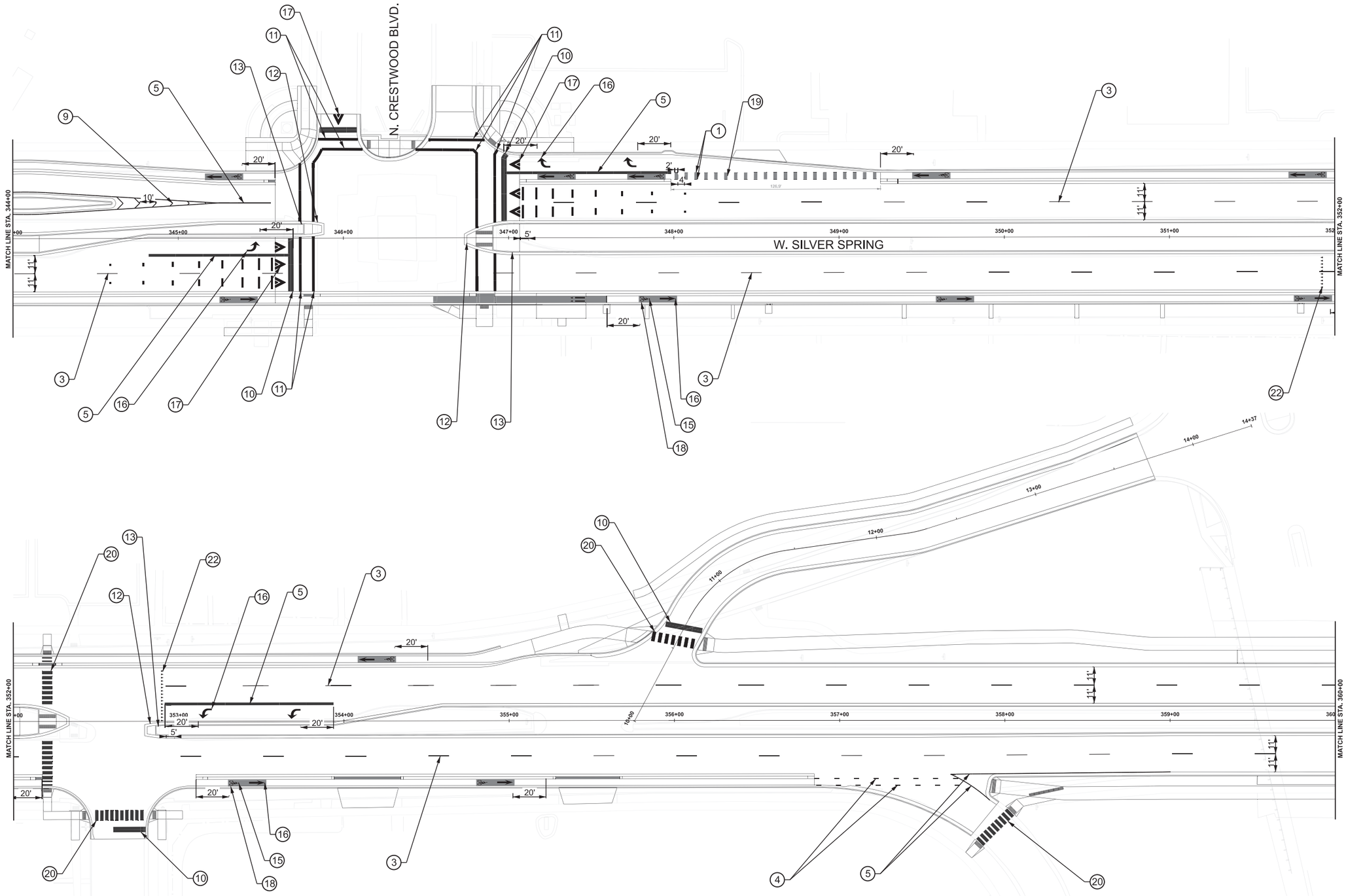


PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 126	E

2



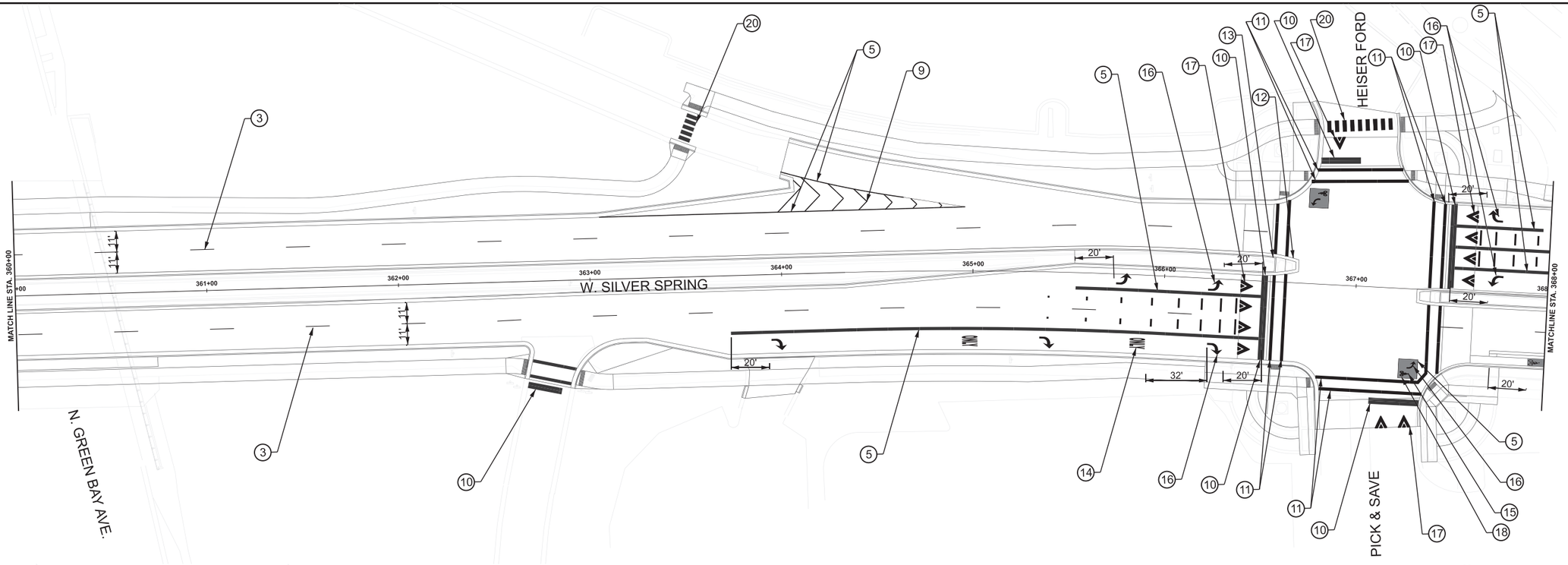
PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 127	E

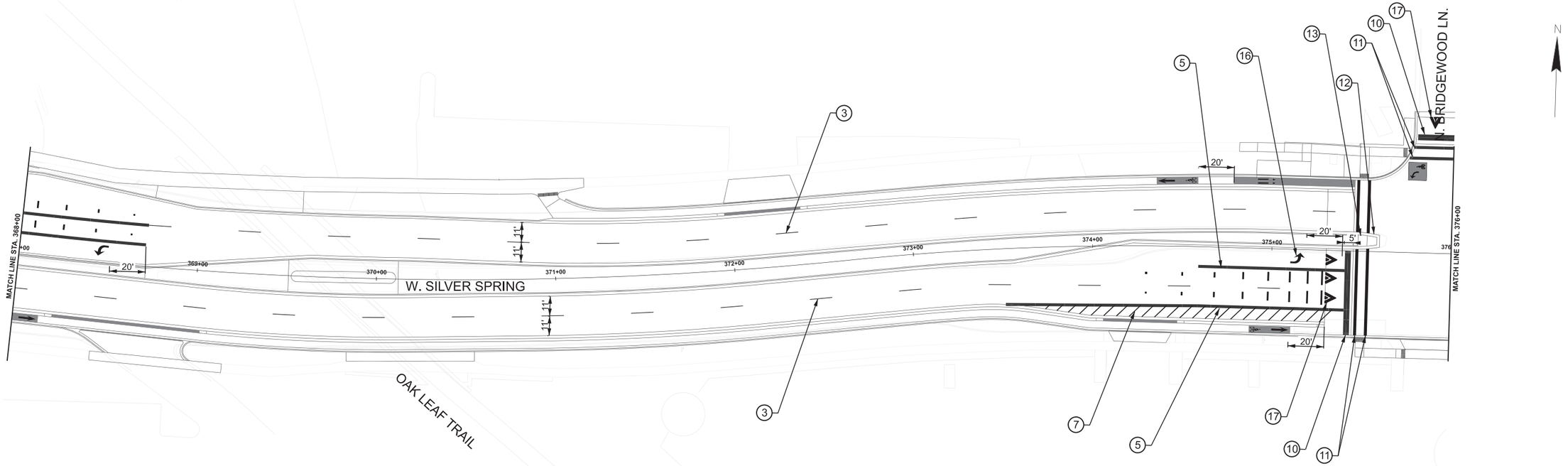


2

PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 128	E

FILE NAME : S:\AUTODESK\C3D\2024\TEMPLATES\XREFS\BORDERS\02-SS-SHT-BRDR.DWG PLOT DATE : ---- PLOT BY : OWEN L. SHARP PLOT NAME :

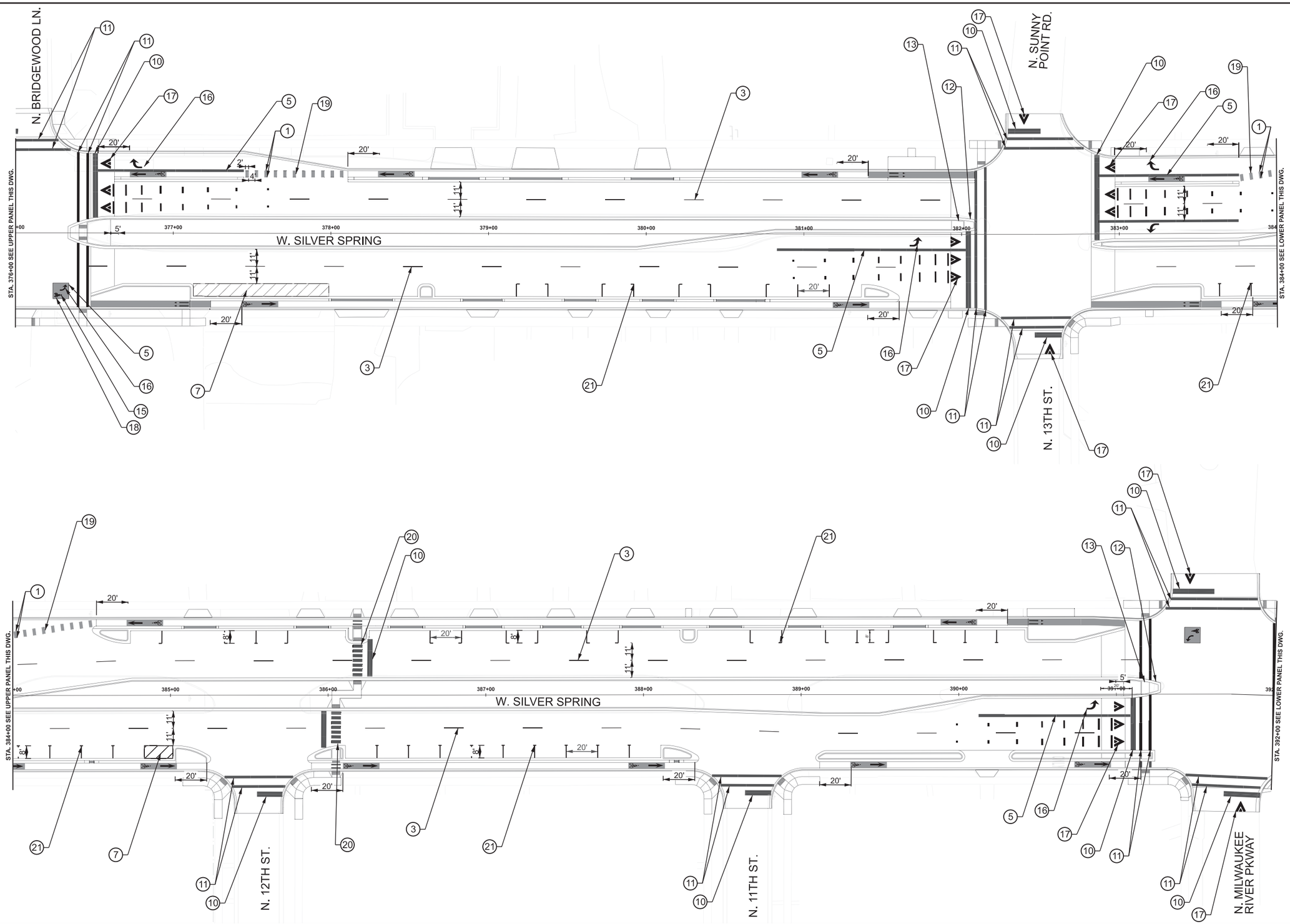




PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 129	E

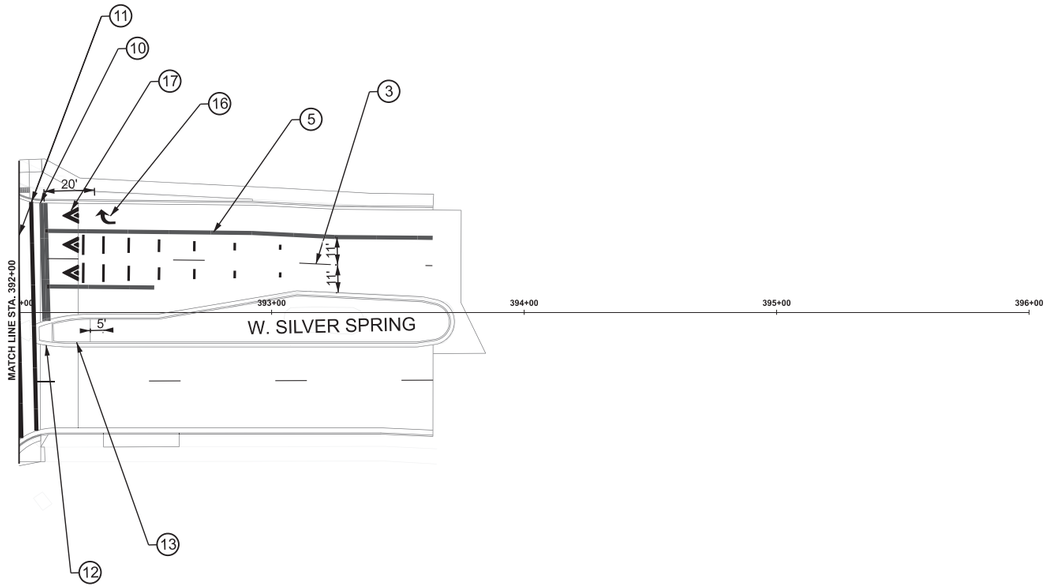
FILE NAME : S:\AUTODESK\C3D\2024\TEMPLATES\XREFS\BORDERS\02-SS-SHT-BRDR.DWG PLOT DATE : ---- PLOT BY : OWEN L. SHARP PLOT NAME :

WISDOT/CADDS SHEET 41



2

PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 130	E



N

2

PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 131	E

2

LEGEND:

- EXISTING SIGN AND SUPPORT
- EXISTING OVERHEAD MOUNTED SIGN AND SUPPORT
- PERMANENT SIGN AND SUPPORT
- PERMANENT OVERHEAD MOUNTED SIGN AND SUPPORT

N

N. 27TH ST.

REMOVE AND SALVAGE

R3-17 24" X 18"
ENDS
R3-17BP 24" X 8"

REMOVE

City of Milwaukee
NO PARKING 2AM TO 6AM ON ANY STREET WITHOUT POLICE PERMIT
REMOVE RETURN TO CITY

NO ENGINE BRAKING EXCEPT IN EMERGENCY WITHIN MILWAUKEE CITY LIMITS
REMOVE RETURN TO CITY

SPEED LIMIT 35
REMOVE

SPEED LIMIT 35
R2-1 24" X 30"

REMOVE

R4-7 24" X 30"

N Bethmaur Ln
M1-94H 108" x 18"

STOP
R1-1F 30" X 30"

STOP
REMOVE

BIKE LANE
R3-17 24" X 18"

TRANSIT 9" X 18"

328+00 329+00 330+00 331+00 332+00 333+00 334+00 335+00 336

W. SILVER SPRING

MATCH LINE STA. 336+00

BIKE LANE
R3-17 24" X 18"
AHEAD
R3-17AP 24" X 8"
NO PARKING BUS STOP
R7-7L 12" X 18"
REMOVE

REMOVE

BIKE LANE
R3-17 24" X 18"

R4-7 24" X 30"

N 26th ST M1-94
W Silver Spring DR M1-94
N 26th ST
W Silver Spring DR
REMOVE

R4-7 24" X 30"
REMOVE

REMOVE

N. 26TH ST.

BIKE LANE
R3-17 24" x 18"

SPEED LIMIT 30
REMOVE

BEGIN LEFT TURN LANE
R3-20L 24" x 36"

REMOVE

RIGHT LANE MUST TURN RIGHT
REMOVE

WELCOME GLENDALE CRIME WATCH COMMUNITY
REMOVE RETURN TO CITY

SPEED LIMIT 30
R2-1 24" X 30"

R4-7 24" X 30"
REMOVE

Glendale W SILVER SPRING DR
REMOVE

MOVING SIGN TYPE II

W Silver Spring Dr
M1-94H 96" x 18"

N. BETHMAUR LN.

W Silver Spring Dr
M1-94H 96" x 18"

MOVING SIGN TYPE II

REMOVE

BEGIN RIGHT TURN LANE YIELD TO BIKES
R4-4 36" X 30"

BEGIN LEFT TURN LANE
R3-20L 24" x 36"

REMOVE

R4-7 24" X 30"

SPEED LIMIT 30
R2-1 24" X 30"

REMOVE

MATCH LINE STA. 338+00

337+00 338+00 339+00 340+00 341+00 342+00 343+00 344

W. SILVER SPRING

MATCH LINE STA. 344+00

W Silver Spring Dr
M1-94H 96" x 18"

N. 25TH ST.

STOP
R1-1F 30" X 30"

STOP
REMOVE

BIKE LANE
R3-17 24" x 18"

N Bethmaur Ln
M1-94H 108" x 18"

R4-7 24" X 30"

Glendale N BETHMAUR LN
REMOVE

TRANSIT 9" X 18"

NO PARKING ANY TIME
REMOVE

BIRD CITY WISCONSIN
REMOVE RETURN TO CITY

TREE CITY USA arbor day foundation
REMOVE RETURN TO CITY

REMOVE

W12-1D 24" x 24"

SPEED LIMIT 30
REMOVE

SPEED LIMIT 30
R2-1 24" X 30"

R4-7 24" X 30"
REMOVE

N. ARGYLE AVE.

STOP
R1-1 30" X 30"

STOP
REMOVE

N Argyle Ave
BIKE LANE
R3-17 24" x 18"

Glendale N ARGYLE AVE
REMOVE

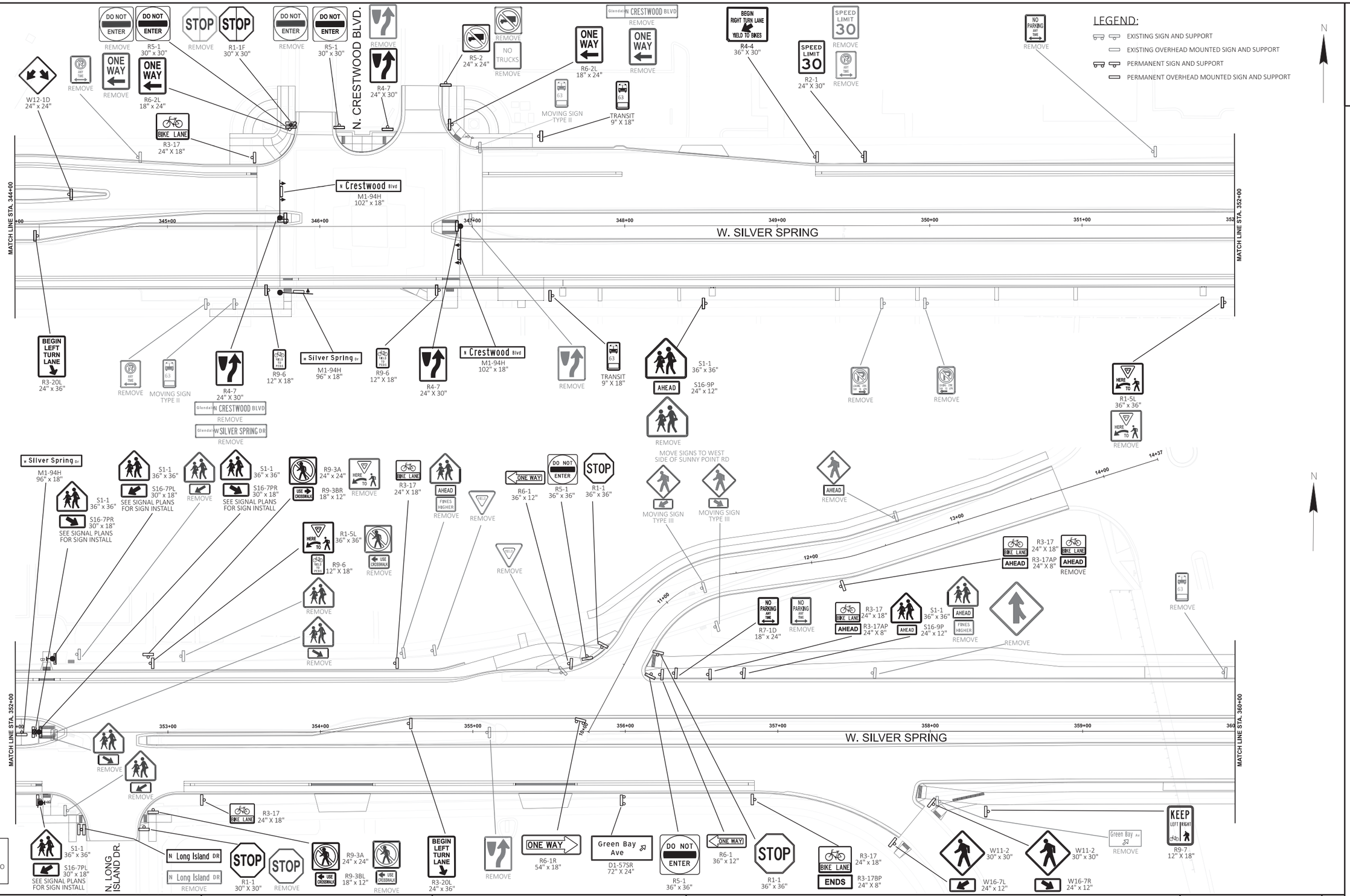
REMOVE

NOTE:
ALL EXISTING SIGNS TO BE SALVAGED AND DELIVERED TO THE CITY OF GLENDALE.

PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 132	E

FILE NAME : S:\AUTODESK\C3D\2024\TEMPLATES\XREFS\BORDERS\02-SS-SHT-BRDR.DWG PLOT DATE : ---- PLOT BY : OWEN L. SHARP PLOT NAME :

WISDOT/CADDS SHEET 41



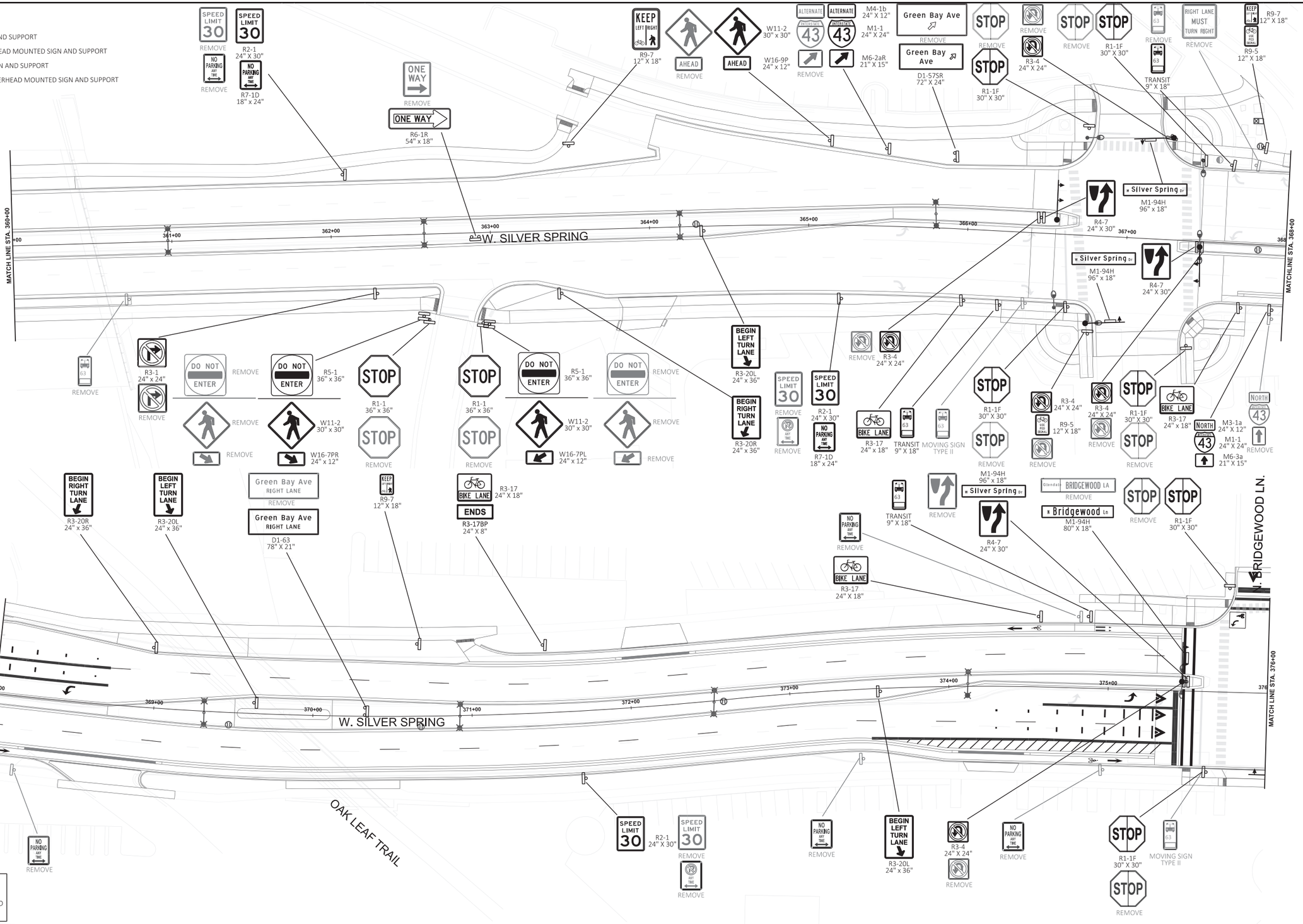
PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 133	E

FILE NAME : S:\AUTODESK\C3D\2024\TEMPLATES\XREFS\BORDERS\02-SS-SHT-BRDR.DWG PLOT DATE : ---- PLOT BY : OWEN L. SHARP PLOT NAME :

2

LEGEND:

- EXISTING SIGN AND SUPPORT
- EXISTING OVERHEAD MOUNTED SIGN AND SUPPORT
- PERMANENT SIGN AND SUPPORT
- PERMANENT OVERHEAD MOUNTED SIGN AND SUPPORT



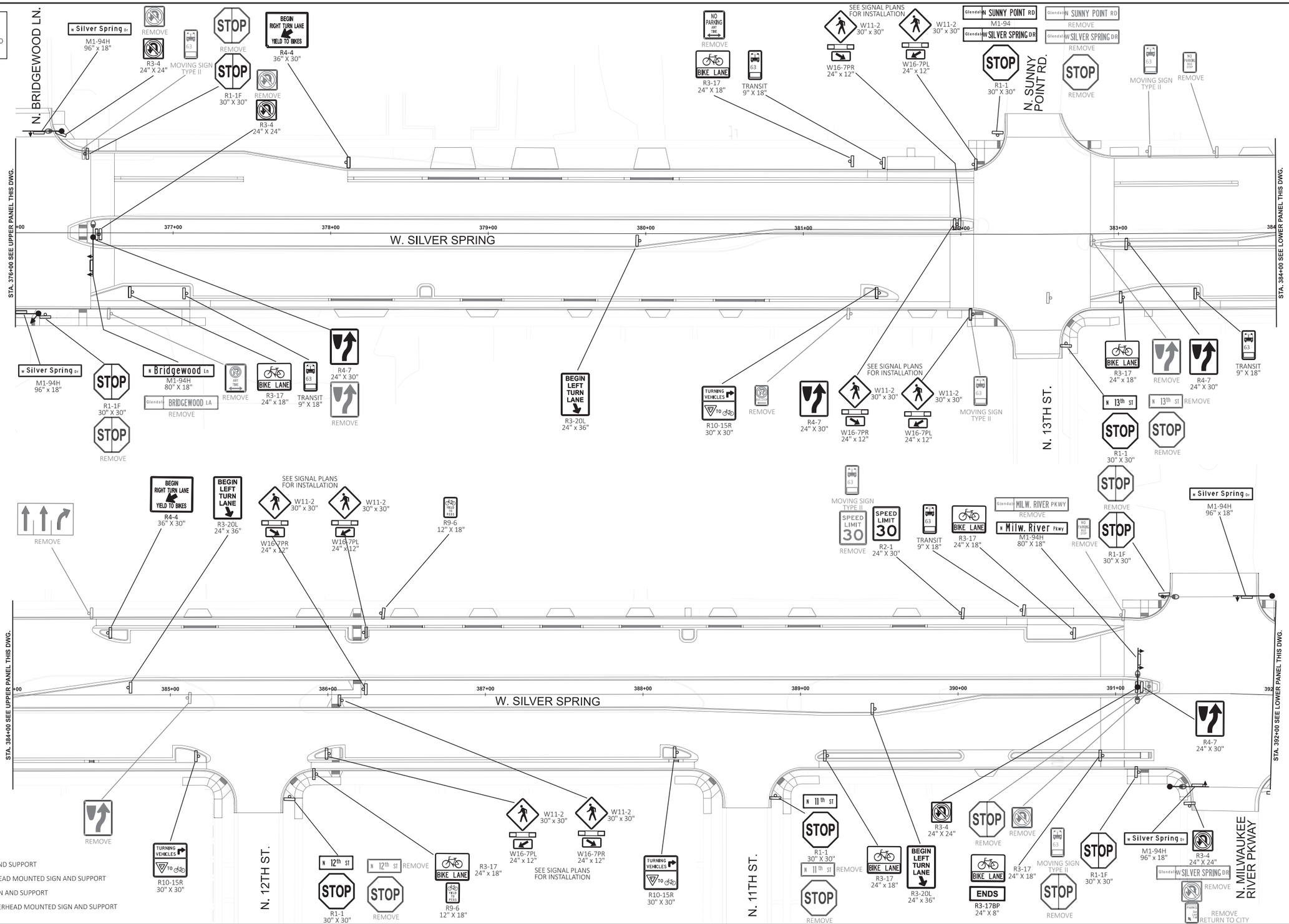
NOTE:
ALL EXISTING SIGNS TO BE SALVAGED AND DELIVERED TO THE CITY OF GLENDALE.

PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 134 E

FILE NAME : S:\AUTODESK\C3D\2024\TEMPLATES\XREFS\BORDERS\02-SS-SHT-BRDR.DWG PLOT DATE : ---- PLOT BY : OWEN L. SHARP PLOT NAME :

WISDOT/CADDS SHEET 41

NOTE:
ALL EXISTING SIGNS TO BE SALVAGED AND DELIVERED TO THE CITY OF GLENDALE.



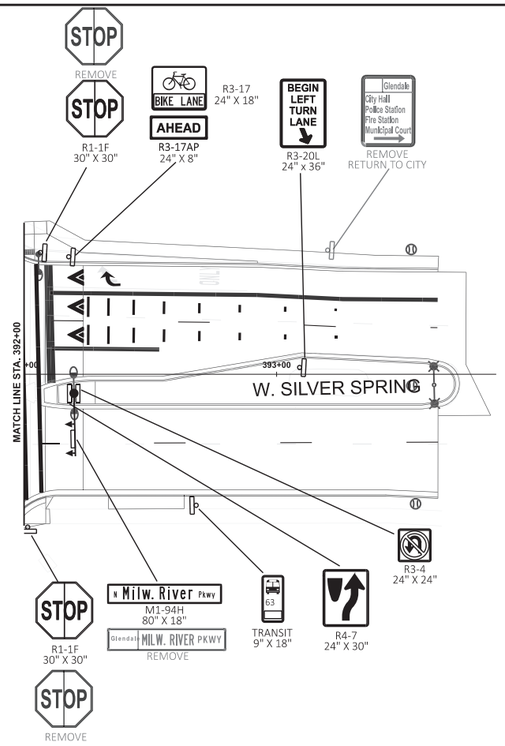
LEGEND:

- EXISTING SIGN AND SUPPORT
- EXISTING OVERHEAD MOUNTED SIGN AND SUPPORT
- PERMANENT SIGN AND SUPPORT
- PERMANENT OVERHEAD MOUNTED SIGN AND SUPPORT

PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 135	E

FILE NAME : S:\AUTODESK\C3D\2024\TEMPLATES\XREFS\BORDERS\02-SS-SHT-BRDR.DWG PLOT DATE : ---- PLOT BY : OWEN L. SHARP PLOT NAME :

WISDOT/CADDS SHEET 41



LEGEND:

- EXISTING SIGN AND SUPPORT
- EXISTING OVERHEAD MOUNTED SIGN AND SUPPORT
- PERMANENT SIGN AND SUPPORT
- PERMANENT OVERHEAD MOUNTED SIGN AND SUPPORT

N

NOTE:
ALL EXISTING SIGNS TO BE SALVAGED AND DELIVERED TO THE CITY OF GLENDALE.

2

PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 136	E

2

N

EXISTING CONDUIT

EXISTING DECORATIVE LIGHTING

EXISTING PULLBOX

TRANSFORMER

DISTRIBUTION CENTER

METER SOCKET & PEDESTAL

331+46.49, -50.59 LT.
EXIST. LT TO REMAIN

334+11.55, -51.49 LT.
EXIST. PULL BOX

334+83.04, -42.85 LT.
EX-LP#3

334+11.90, -7.04 LT.
EXIST. PULL BOX

333+75.35, -45.35 LT.
EX-LP#1

332+54.71, -0.03 LT.
EXIST. LT TO REMAIN

333+71.48, 51.61 RT.
EX-LP#2

334+74.10, 51.96 RT.
EX-LP#4

331+31.57, 50.33 RT.
EXIST. LT TO REMAIN

332+72.72, 71.38 RT.
EXIST. LT TO REMAIN

333+80.84, 50.73 RT.
EXIST. PULL BOX

329+00 330+00 331+00 332+00 333+00 334+00 335

MATCH LINE STA. 335+00

CITY OF MILWAUKEE LIMITS

N. BRAEBURN LN.

SILVER SPRING DR.

N. 27TH ST.

N. 26TH ST.

2620 W SILVER SPRING DR
1 FAITH HOLDINGS LLC
1690020100

2808 W SILVER SPRING DR
MCZIENMOTT MAHER VII LLC
1690123000

2802 W SILVER SPRING DR
KIVLEY INVESTMENTS LLC
1690124000

2500 W SILVER SPRING DR
PROVIDENCE MEDICAL GROUP LLC
1690170003

2525 N 27TH ST
CITY OF SILVER SPRINGS,
1903541000

2615 W SILVER SPRING DR
MNA SILVER SPRING LLC
1940318111

2525 W SILVER SPRING DR
HARRY LIMITED PARTNERSHIP
1940821000

2501 W SILVER SPRING DR
HANRY L.P.
1942363001

335+93.24, -79.06 LT.
EXIST. PULL BOX

335+78.57, -55.48 LT.
EXIST. PULL BOX

336+49.59, -52.04 LT.
EX-LP#7

336+50.72, -54.79 LT.
EXIST. PULL BOX

338+61.06, -43.70 LT.
EXIST. PULL BOX

340+88.41, -42.41 LT.
EXIST. PULL BOX

337+41.12, -51.90 LT.
EX-LP#9

338+32.21, -50.30 LT.
EX-LP#11

339+19.91, -43.73 LT.
EX-LP#13

340+16.62, -43.37 LT.
EX-LP#15

341+11.36, -43.43 LT.
EX-LP#17

342+06.59, -43.55 LT.
EX-LP#19

342+90.75, -43.45 LT.
EX-LP#21

337+38.79, 43.12 RT.
EX-LP#10

339+15.47, 43.82 RT.
EX-LP#14

339+90.96, 5.72 RT.
EXIST. PULL BOX

341+10.45, 43.55 RT.
EX-LP#18

342+00.27, 51.88 RT.
EX-LP#20

342+89.24, 43.09 RT.
EX-LP#22

336+42.56, 53.03 RT.
EXIST. PULL BOX

338+28.65, 44.72 RT.
EX-LP#12

339+90.64, 43.56 RT.
EXIST. PULL BOX

340+15.49, 43.23 RT.
EX-LP#16

335+78.34, 52.42 RT.
EX-LP#6

336+30.72, 64.04 RT.
EX-LP#8

336+00 337+00 338+00 339+00 340+00 341+00 342+00 343

MATCH LINE STA. 343+00

N. BETH

N. 25TH ST.

N. ARGYLE AVE

2450 W SILVER SPRING DR
ANDRIC COMPANY LLC
1690170001

2444 W SILVER SPRING DR
WAYNE J DIEDRICH
1690215000

0
WISCONSIN ELECTRIC POWER CO
1690216000

0
WISCONSIN ELECTRIC POWER CO
1690995000

5807 N ARGYLE AVE
WILLIAM ROCKETT
1690248000

2455 W SILVER SPRING DR
GLENDALE SENIOR APTS LLC
1942000001

WISCONSIN ELECTRIC POWER CO
1942019000

0
WISCONSIN ELECTRIC POWER CO
1940000000

W.E.P. CO

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN SHEET 1	SHEET 137	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LIGHTING REMOVAL PLANS.DWG PLOT DATE : 1/23/2025 3:07 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 60'

2

2

NOTE:
ALL ELECTRICAL CIRCUITS IN THE MEDIAN AND AT THE INTERSECTION QUADRANTS FOR THE GROUND LIGHTING SHALL BE DISCONNECTED PRIOR TO THE START OF THE PROJECT. THESE CIRCUITS WILL NOT BE RECONNECTED TO THE NEW LIGHTING CABINET. (REFER TO EXISTING LIGHTING CIRCUITRY DRAWING)

REMOVE EXISTING LIGHTING CABINET, BASE, AND METER SOCKET AFTER COORDINATION WITH UTILITY TO DISCONNECT POWER. NOTE: LIGHTS TO REMAIN IN SERVICE AT ALL TIMES UNTIL NEW LIGHTING IS INSTALLED AND OPERATIONAL. CONTRACTOR MAY USE THIS CABINET AS A TEMPORARY POWER SOURCE UNTIL NEW CABINET IS INSTALLED.

N

MATCH LINE STA. 343+00

MATCH LINE STA. 351+00

343+38.58, -42.59 LT.
EXIST. PULL BOX

344+76.47, -43.42 LT.
EX-LP#25

345+81.44, -66.70 LT.
EX-LP#27

347+16.53, -52.03 LT.
EXIST. PULL BOX

347+84.62, -51.53 LT.
EX-LP#30

348+71.81, -51.10 LT.
EX-LP#32

343+76.40, -43.68 LT.
EX-LP#23

343+79.45, 5.34 RT.
EX-LP#

345+70.90, -54.45 LT.
EXIST. PULL BOX

346+27.31, -52.79 LT.
EXIST. PULL BOX

347+04.93, -56.90 LT.
EXIST. PULL BOX

347+03.82, -51.38 LT.
EX-LP#29

348+91.99, -45.56 LT.
EXIST. PULL BOX

349+52.54, -44.00 LT.
EX-LP#34

350+38.56, -43.74 LT.
EX-LP#36

347+09.97, -3.37 LT.
EXIST. PULL BOX

343+79.45, 5.34 RT.
EXIST. PULL BOX

344+73.80, 43.17 RT.
EX-LP#26

345+63.23, 51.65 RT.
EX-LP#28

346+50.74, 52.37 RT.
EXIST. PULL BOX

348+59.12, 51.55 RT.
EX-LP#33

347+00.52, 50.81 RT.
EXIST. PULL BOX

343+77.69, 43.72 RT.
EX-LP#24

343+48.85, 43.54 RT.
EXIST. PULL BOX

345+88.38, 52.83 RT.
EXIST. PULL BOX

347+79.55, 51.64 RT.
EX-LP#31

349+44.27, 51.54 RT.
EX-LP#35

350+59.47, 51.41 RT.
EX-LP#37

+00 344+00 345+00 346+00 347+00 348+00 349+00 350+00 351

W. SILVER SPRING DR.

N. CRESTWOOD BLVD

N. ARGYLE AVE. (RW)

5606 N ARGYLE AVE
LAZURETE M WILLIAMS
1693355000

2302 W SILVER SPRING DR
1693356000
CITY OF GLENDALE CDA

2301 W SILVER SPRING DR
CITY OF GLENDALE CDA
1942029000

2228 W SILVER SPRING DR
KYLE S WALLACE
1950260000

2217 W SILVER SPRING DR
ROBERT LEE III
1950200000

ROBERT LEE III
DIXONS RENTALS LLC
1950294000

2201 W SILVER SPRING DR
ADAM R BROSTOWICZ
DONALD T BENEDYK
1950295000

2139 W SILVER SPRING DR
RYZS INVESTMENT LLC
1950299000

2133 W SILVER SPRING DR
ADAM R BROSTOWICZ
DONALD T BENEDYK
1950297000

2125 W SILVER SPRING DR
NHB MANAGEMENT LLC
1950298000

2119 W SILVER SPRING D
FLOYD D BOWIE
FLOYD E BOWIE
1950299000

2101 W SILVER SPRING DR
CITY OF GLENDALE CDA
1942020000

2300 W SILVER SPRING DR
MILWAUKEE-DRAINAGE
JONES ISLAND
1950348100

358+03.30, -145.97 LT.
EX-LP SALVAGE #1

PROPOSED PULL BOX

356+94.38, -108.61 LT.
EX-LP SALVAGE #2

WB ON RAMP

356+54.85, -94.47 LT.
EXIST. PULL BOX

355+70.24, -70.30 LT.
EX-LP SALVAGE #3

357+83.48, -135.77 LT.
EXIST. PULL BOX

EXPOSE CONDUIT NE OF THIS POLE WHERE NEW PULL BOX WILL BE LOCATED AND PULL WIRE SLACK IN CONDUIT FOR CONNECTION TO RELOCATED LIGHT POLE.

CUT CIRCUIT WIRES FOR THE 2 POLES SW OF THIS LOCATION.

355+61.89, -37.00 LT.
EXIST. PULL BOX

356+70.90, -73.20 LT.
EXIST. PULL BOX

352+14.39, -51.42 LT.
EX-LP#40

352+20.86, -50.86 LT.
EXIST. PULL BOX

351+42.83, -45.61 LT.
EXIST. PULL BOX

351+22.69
EX-LP#38

352+06.67, 6.38 RT.
EXIST. PULL BOX

353+03.53, -52.32 LT.
EX-LP#42

353+91.03, -51.79 LT.
EX-LP#44

354+73.47, -53.20 LT.
EX-LP#46

355+58.26, -38.73 LT.
EX-LP#48

356+32.36, -38.06 LT.
EX-LP#50

357+25.93, -37.41 LT.
EX-LP#52

358+25.57, -37.57 LT.
EX-LP#54

+00 352+00 353+00 354+00 355+00 356+00 357+00 358+00 359

MATCH LINE STA. 351+00

MATCH LINE STA. 359+00

351+42.80, 51.49 RT.
EX-LP#39

352+95.46, 52.23 RT.
EX-LP#43

352+15.74, 52.27 RT.
EXIST. PULL BOX

353+88.90, 49.99 RT.
EX-LP#45

357+37.26, 0.65 RT.
EXIST. PULL BOX

358+33.24, 51.26 RT.
EX-LP#55

352+33.72, 51.20 RT.
EX-LP#41

354+78.54, 48.81 RT.
EX-LP#47

355+70.02, 47.22 RT.
EX-LP#49

356+47.97, 46.85 RT.
EX-LP#51

357+31.81, 51.89 RT.
EX-LP#53

N. STANTON DR.

N. LONG ISLAND DR.

EB OFF RAMP

2038 W SILVER SPRING DR
MARILYN D WILSON
1695503000

2024 W SILVER SPRING DR
THE KRIEGER FAMILY TRUST
1695501000

2018 W SILVER SPRING DR
COURTNEY CHEVALIER
GLENTIN D ROGERS
1695500000

5593 N LONG ISLAND DR
LUCAS METTEER
1950300000

2021 W SILVER SPRING DR
PIT STOP OF WISCONSIN INC
1949997000

1935 W SILVER SPRING DR
SILVER SPRING HOLDING ELC
1949995010

N

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN SHEET 2	SHEET 138	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LIGHTING REMOVAL PLANS.DWG PLOT DATE : 1/23/2025 3:07 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 60'

2

N

MATCH LINE STA. 359+00

359+23.91, -37.58 LT.
EX-LP#56

360+73.80, -37.46 LT.
EX-LP#58

359+34.87, 53.83 RT.
EX-LP#57

360+79.57, 51.48 RT.
EX-LP#59

N. GREEN BAY AVE. - S.T.H. "57"

361+36.09, -36.33 LT.
EXIST. PULL BOX

361+67.21, -37.68 LT.
EX-LP#60

362+47.01, 50.39 RT.
EX-LP#63

361+72.83, 50.96 RT.
EX-LP#61

362+70.23, -37.78 LT.
EX-LP#62

362+50.86, 0.89 RT.
EXIST. PULL BOX

362+52.66, 46.84 RT.
EXIST. PULL BOX

EB ON RAMP

WB OFF RAMP

363+87.53, -45.86 LT.
EXIST. PULL BOX

363+62.32, -43.27 LT.
EX-LP#64

363+73.04, 57.19 RT.
EX-LP#65

364+60.63, -61.38 LT.
EX-LP#66

364+61.68, 47.66 RT.
EX-LP#67

365+48.67, -46.82 LT.
EX-LP#68

365+54.07, 46.93 RT.
EX-LP#69

1700 W SILVER SPRING DR
HEISER FORD INC
1686023000

1811 W SILVER SPRING DR
MBM HOLDINGS LLC
1959000000

360+00 | 361+00 | 362+00 | 363+00 | 364+00 | 365+00 | 366+00

MATCH LINE STA. 366+27

REFER TO EXISTING LIGHTING CIRCUITRY DRAWING. NEED TO INTERCEPT AND MAINTAIN CIRCUITS THAT ARE ON GREEN BAY AVE RAMPS, ROADWAY AND BRIDGE AND PLACE IN NEW CABINET

REMOVE EXISTING LIGHTING CABINET, BASE, AND METER SOCKET AFTER COORDINATION WITH UTILITY TO DISCONNECT POWER. NOTE: LIGHTS TO REMAIN IN SERVICE AT ALL TIMES UNTIL NEW LIGHTING IS INSTALLED AND OPERATIONAL. CONTRACTOR MAY USE THIS CABINET AS A TEMPORARY POWER SOURCE UNTIL NEW CABINET IS INSTALLED.

NOTE:
ALL ELECTRICAL CIRCUITS IN THE MEDIAN AND AT THE INTERSECTION QUADRANTS FOR THE GROUND LIGHTING SHALL BE DISCONNECTED PRIOR TO THE START OF THE PROJECT. THESE CIRCUITS WILL NOT BE RECONNECTED TO THE NEW LIGHTING CABINET. (REFER TO EXISTING LIGHTING CIRCUITRY DRAWING)

EXIST. PULL BOX TO REMAIN

367+25.26, -64.88 LT.
EX-LP#72

AUTO DEALER

OAK LEAF TRAIL

366+72.85, -67.50 LT.
EX-LP#70

366+55.94, -49.87 LT.
EXIST. PULL BOX

367+40.60, -52.22 LT.
EX-LP#73

368+16.25, -49.89 LT.
EX-LP#75

369+77.74, -41.64 LT.
EX-LP#79

368+92.57, -43.16 LT.
EX-LP#77

369+47.23, -40.09 LT.
EXIST. PULL BOX

370+75.20, -40.17 LT.
EX-LP#81

371+74.80, -39.67 LT.
EX-LP#83

372+58.61, -39.71 LT.
EX-LP#85

373+60.10, -40.22 LT.
EX-LP#87

374+54.23, -42.66 LT.
EX-LP#89

367+00 | 368+00 | 369+00 | 370+00 | 371+00 | 372+00 | 373+00 | 374+00

367+50.09, 3.70 RT.
EXIST. PULL BOX

366+64.77, 45.33 RT.
EX-LP#71

368+94.49, 45.17 RT.
EX-LP#78

369+76.25, 41.52 RT.
EX-LP#80

370+73.84, 39.87 RT.
EX-LP#82

371+71.54, 39.90 RT.
EX-LP#84

371+50.17, 3.35 RT.
EXIST. PULL BOX

373+44.61, 49.43 RT.
EXIST. PULL BOX

367+55.02, 47.94 RT.
EXIST. PULL BOX

367+40.57, 66.30 RT.
EX-LP#74

368+16.88, 46.45 RT.
EX-LP#76

371+38.34, 40.37 RT.
EXIST. PULL BOX

372+54.59, 39.32 RT.
EX-LP#86

373+53.24, 49.38 RT.
EX-LP#88

374+52.70, 49.93 RT.
EX-LP#90

366+76.82, 58.31 RT.
EXIST. PULL BOX

ACCESS

OAK LEAF TRAIL

1640 W SILVER SPRING DR
A SCHLESINGER CO LLC
1689983001

1620 W SILVER SPRING DR
SCHLESINGER CO LP
1689816000

1500 W SILVER SPRING DR
SCHLESINGER CO LP
1689815000

MILW COUNTY PARKS
1689987000

MILW COUNTY PARKS
1959988000

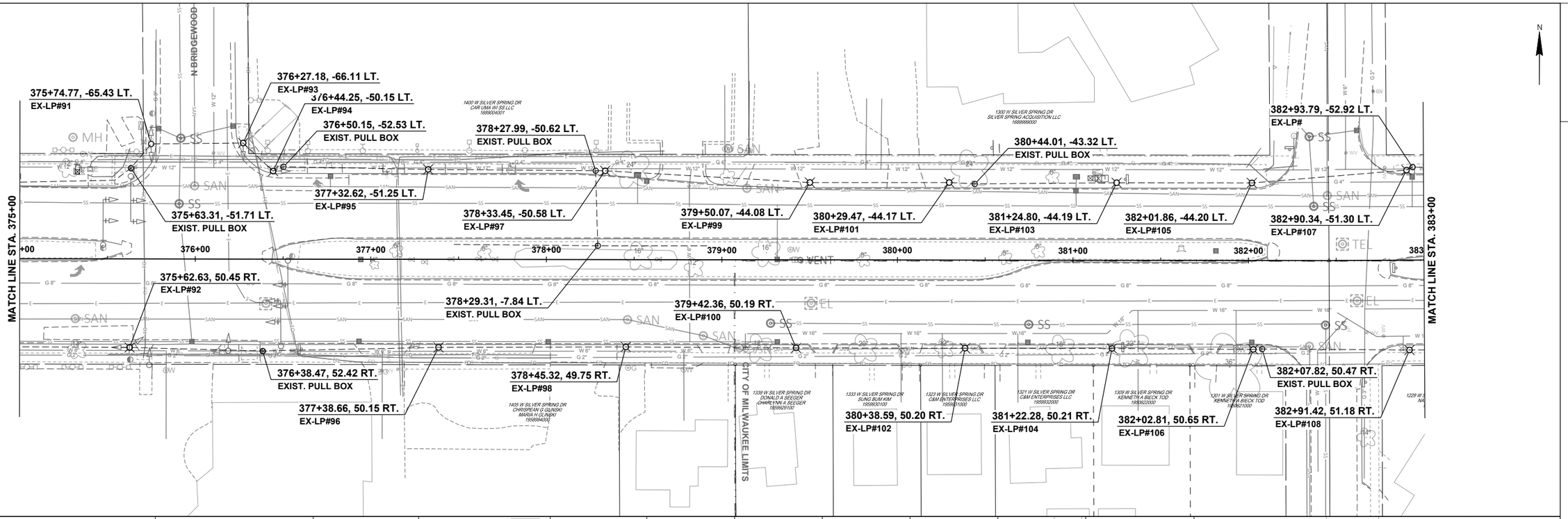
WISCONSIN DEPT OF TRANSPORTATION
1689989000

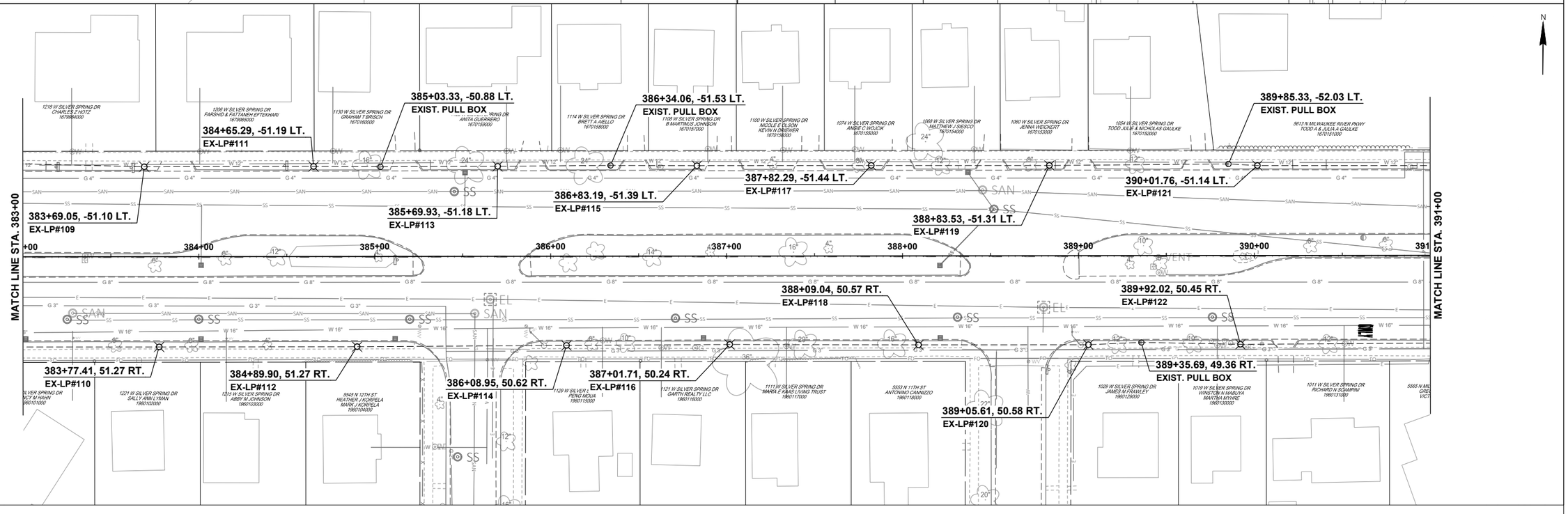
1951001000

MATCH LINE STA. 375+00

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN SHEET 3	SHEET 139	E

2





PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN SHEET 4	SHEET 140 E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LIGHTING REMOVAL PLANS.DWG PLOT DATE : 1/23/2025 3:08 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 60'

2

N

MATCH LINE STA. 391+00

391+31.09, -61.84 LT.
EX-LP#124

391+94.72, -66.64 LT.
EXIST. PULL BOX

392+05.56, -51.93 LT.
EX-LP#126

394+27.23, -49.72 LT.
EX-LP#130

395+26.87, -52.50 LT.
EX-LP#132

396+17.50, -51.62 LT.
EX-LP#134

397+17.41, -54.70 LT.
EX-LP#136

391+09.99, -50.97 LT.
EXIST. PULL BOX

392+17.48, -52.14 LT.
EXIST. PULL BOX

391+03.78, -50.18 LT.
EX-LP#123

392+00.46, -49.27 LT.
EX-LP#128

391+00

392+00

393+00

394+00

395+00

396+00

397+00

398+00

392+13.00, 51.37 RT.
EX-LP#127

391+19.14, 49.89 RT.
EXIST. PULL BOX

391+26.90, 49.90 RT.
EX-LP#125

391+46.85, 75.10 RT.
EXIST. PULL BOX

392+25.99, 50.95 RT.
EXIST. PULL BOX

396+38.31, 54.46 RT.
EX-LP#135

392+04.72, 66.31 RT.
EXIST. PULL BOX

391+46.88, 70.72 RT.
EX-LP#126

393+23.83, 51.11 RT.
EX-LP#129

394+32.01, 54.94 RT.
EX-LP#131

395+33.89, 54.58 RT.
EX-LP#133

W. SILVER SPRING DR.

W. SILVER SPRING DR.

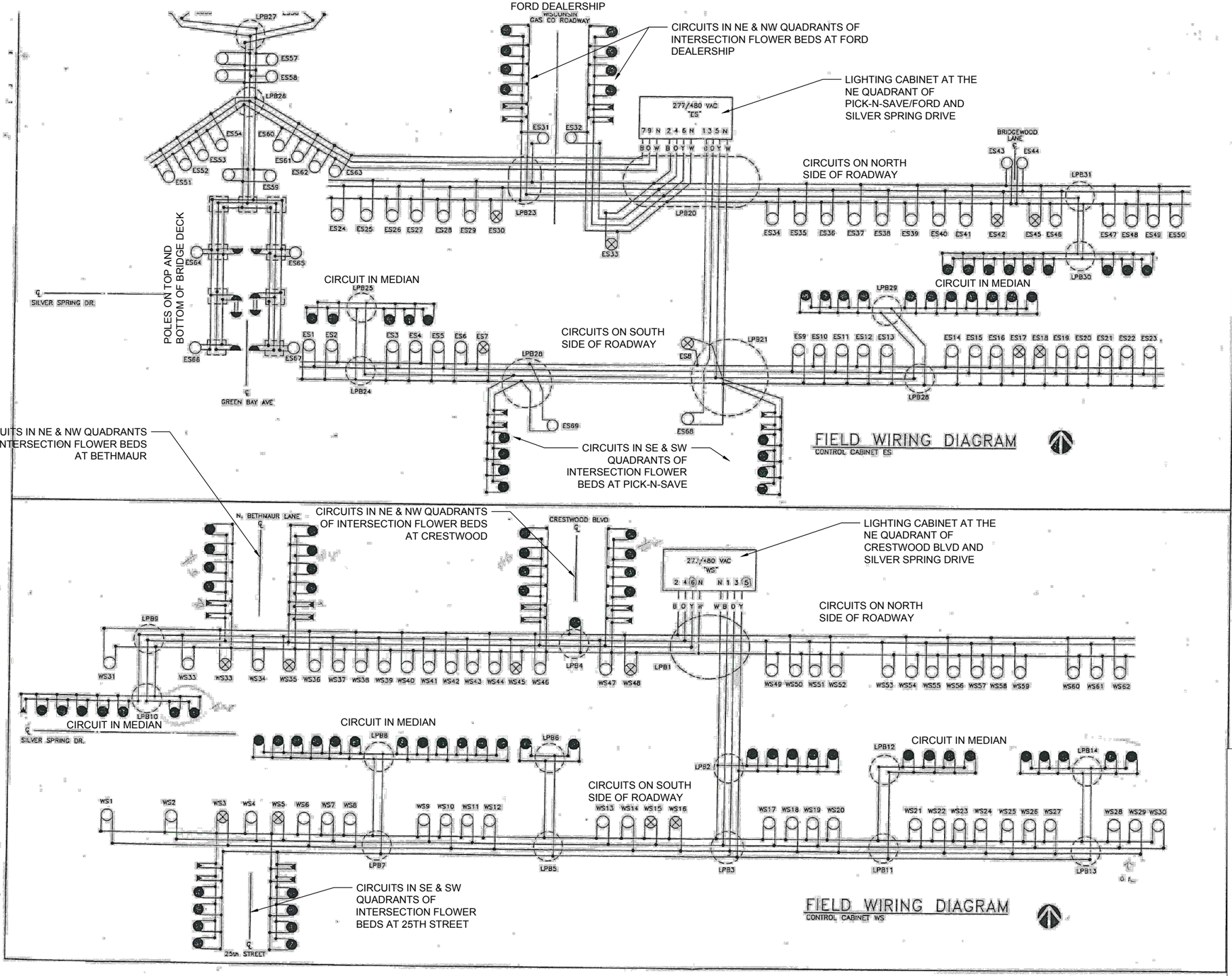
N. RIVER FOREST DR.

CITY OF MILWAUKEE LIMITS

MILWAUKEE RIVER

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN SHEET 5	SHEET 141	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\LIGHTING REMOVAL PLANS.DWG PLOT DATE : 1/23/2025 3:08 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 60'



NOTE:
GROUND WIRE REQUIRED, NOT SHOWN

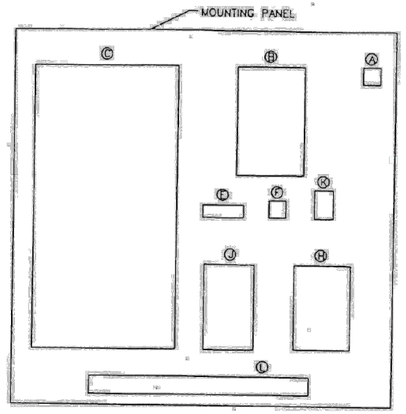
COLOR CODE:
B=BROWN
O=ORANGE
Y=YELLOW
W=WHITE

LEGEND
- 250W HPS LUMINAIRE
- 150W HPS LUMINAIRE
- 70W MH INGROUND LIGHT
- 70W MH FLOOD LIGHT
- 70W HPS UNDERDECK LUMINAIRE

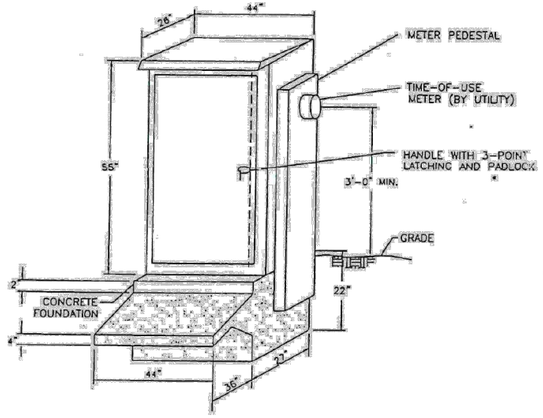
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2

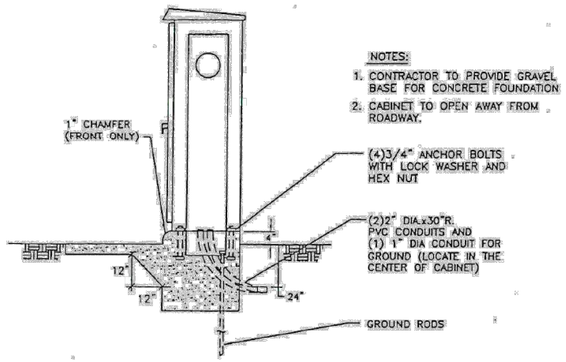
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	EXISTING LIGHTING CIRCUITRY	SHEET 142	E



EQUIPMENT LAYOUT



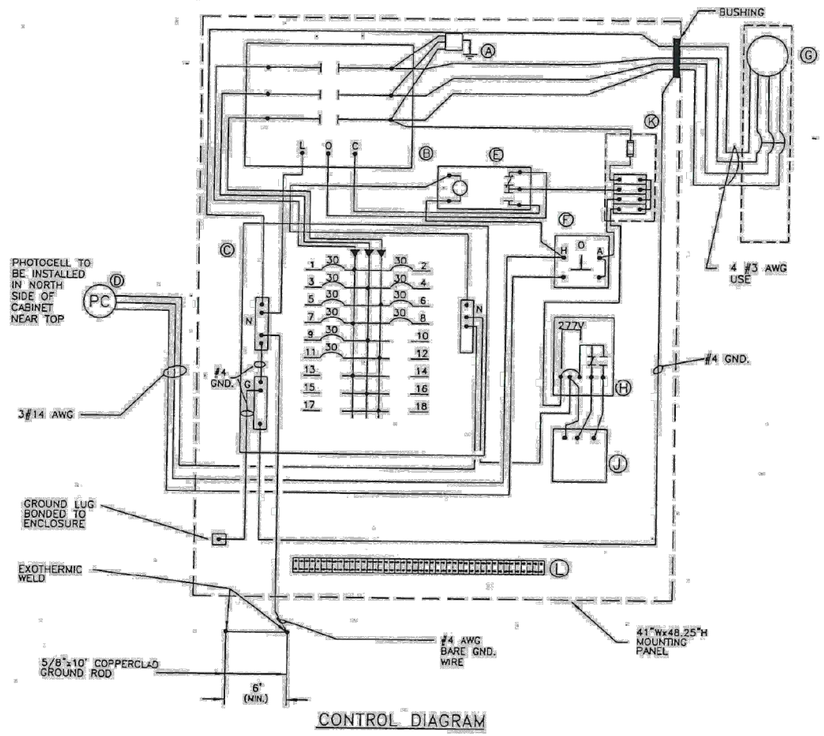
CABINET VIEW



SIDE VIEW

NOTES:

1. CONTRACTOR TO PROVIDE GRAVEL BASE FOR CONCRETE FOUNDATION
2. CABINET TO OPEN AWAY FROM ROADWAY.



CONTROL DIAGRAM

EQUIPMENT

- (A) SURGE ARRESTOR
- (B) 100 A. 3P. 600V MECHANICALLY HELD MAIN CONTACTOR. 277V CONTROL COIL
- (C) 125 A MLO. 277/480V. 3PH. 4W. 18CKT. PANELBOARD WITH BOLT-ON BRANCH BREAKERS. 14000 A RMS INTERRUPTING CAPACITY.
- (D) BUTTON TYPE PHOTOCELL. 277V
- (E) (1)NC. (1)NO AUXILIARY 2 WIRE CONTROL RELAY
- (F) HAND-OFF-AUTO SELECTOR SWITCH. SURFACE MTD. NEMA 1 ENCLOSURE
- (G) 200A. 277/480V. 3PH. 4W METER BREAKER PEDESTAL WITH 100A/3P CIRCUIT BREAKER (14K AIC).
- (H) 277V. SPDT TIME CLOCK
- (J) 4 POLE. 30A 600V MECHANICALLY HELD CONTACTOR 277V CONTROL COIL.
- (K) 10A CONTROL CIRCUIT FUSE WITH TERMINAL BLOCKS
- (L) FIELD WIRING TERMINATION STRIP

NOTES:

1. ALL CONTROL WIRING SHALL BE COLOR CODED #14 AWG, XLP UNLESS OTHERWISE NOTED.
2. ALL POWER AND CONTROL WIRING SHALL BE NEATLY ROUTED, LABELLED AND SUPPORTED.
3. THE LIGHTING CONTROL CABINET SHALL BE COMPLETELY WIRED UP TO THE FIELD WIRING TERMINATION STRIP IN THE CONTRACTORS SHOP AND TESTED PRIOR TO INSTALLATION AT THE SITE.
4. A COPY OF THIS SHEET WITH AS-BUILT (RECORD) CONDITIONS SHALL BE PUT IN A PLASTIC PROTECTOR IN THE CABINET.
5. THE CONTRACTOR SHALL COMPLY WITH WEPCO INSTALLATION REQUIREMENTS.
6. USE #10 AWG XLP CONDUCTORS FROM THE 30A CB'S TO THE FIELD WIRING TERMINATION STRIP. PROVIDE A GROUND WIRE AND NEUTRAL WIRE TO FIELD WIRING TERMINATION STRIP FROM PANEL BOARD FOR EACH UNDERGROUND CABLE RUN AS REQUIRED.
7. CIRCUITS 5 & 6 SHALL BE RUN THROUGH THE CONTACTOR
8. THE TIME CLOCK SHALL BE SET TO ALLOW CIRCUITS 5 & 6 TO TURN ON AT SUNSET BY THE PHOTOCELL AND OFF FROM 12:00 MIDNIGHT THROUGH 5 AM THE NEXT DAY.

LIGHTING CONTROL CABINET (ES & WS)
NO SCALE

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 NOT BACKFEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE.

LOCATIONS OF THE PVC CONDUITS ARE IDENTIFIED IN THE PLANS WHERE THEY ARE REQUIRED. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. FIELD MARK EACH CONDUIT LOCATION IN RED.

ALL CONDUITS SHALL BE CAPPED OR PLUGGED WITH ENGINEER APPROVED FITTINGS IMMEDIATELY AFTER INSTALLATION. THE TRENCH SHALL NOT BE BACK FILLED PRIOR TO INSPECTION OF THE CONDUIT.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR IMMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT. ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS.

PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX-TO-PULL BOX OR JUNCTION BOX OR BASE-TO-BASE, ETC.) UNLESS OTHERWISE NOTED ON PLANS.

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

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

INSTALLATION OF LATERAL UNDERGROUND CONDUIT UNDER PAVEMENT SHALL BE INSTALLED MINIMUM 30 INCHES BELOW PROPOSED GRADE AND A MINIMUM OF 3 INCHES BELOW ALL PAVEMENT BASE MATERIALS. CONDUIT LATERALS SHALL BE TRENCHED UNDER PAVEMENT BEFORE PAVEMENT CONSTRUCTION. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH ROADWAY CONSTRUCTION FOR CONDUIT LATERALS INSTALLATION.

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

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

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

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

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

IF CID CONTAINS PHASE CONDUCTOR(S) THAT WILL NOT BE USED FOR SUBSEQUENT POLES, I.E. AT THE END OF A CIRCUIT, DO NOT ENERGIZE THE RESPECTIVE CONDUCTOR(S) PAST THE LAST POLE THE PHASE WAS UTILIZED. REMOVE UNUSED CONDUCTOR(S) EXPOSED BEYOND THE CID RACEWAY IN ALL SUBSEQUENT POLES.

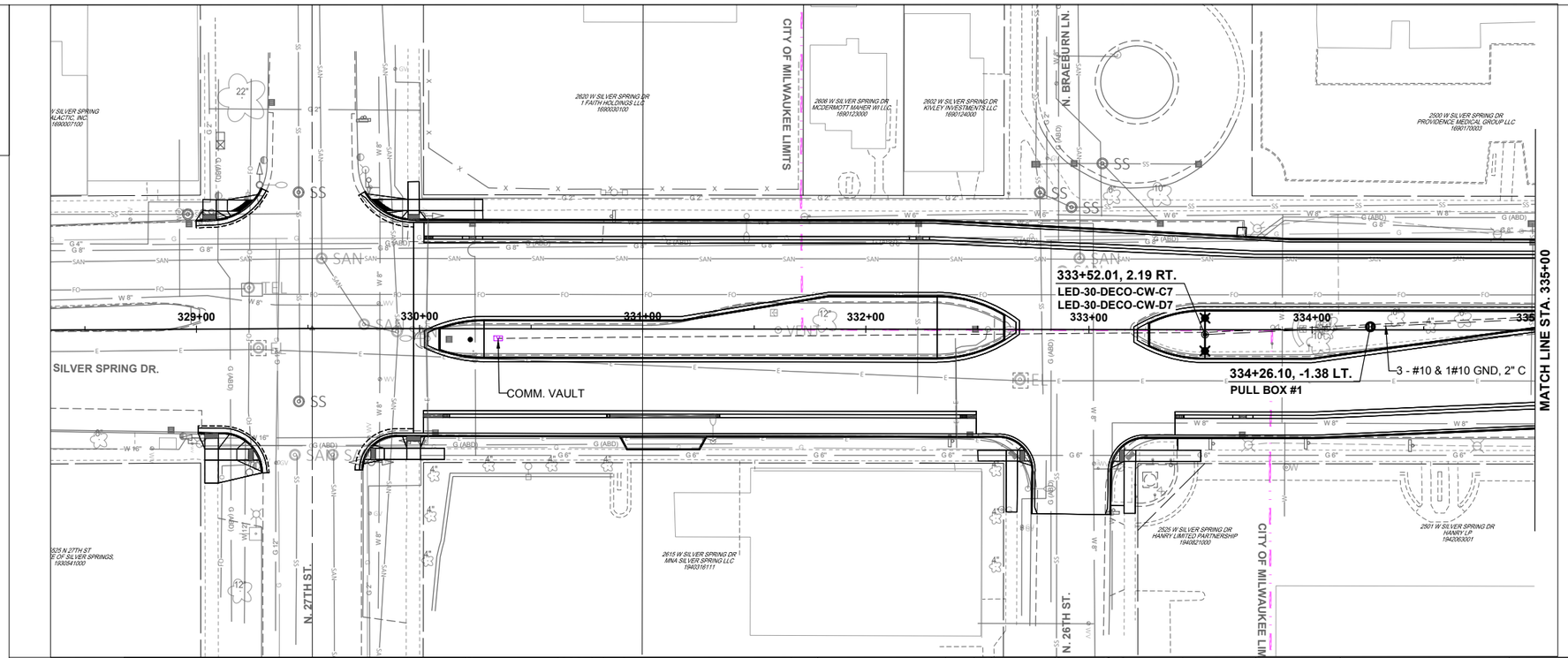
SEAL THE ENDS OF ALL CID RACEWAY WITH A UL RECOGNIZED FOAM CONDUIT SEALANT. PROVIDE A 1/2" NYLON ROPE EXTENDING BEYOND THE PLUG TO ASSIST IN REMOVING THE PLUG IN THE FUTURE.

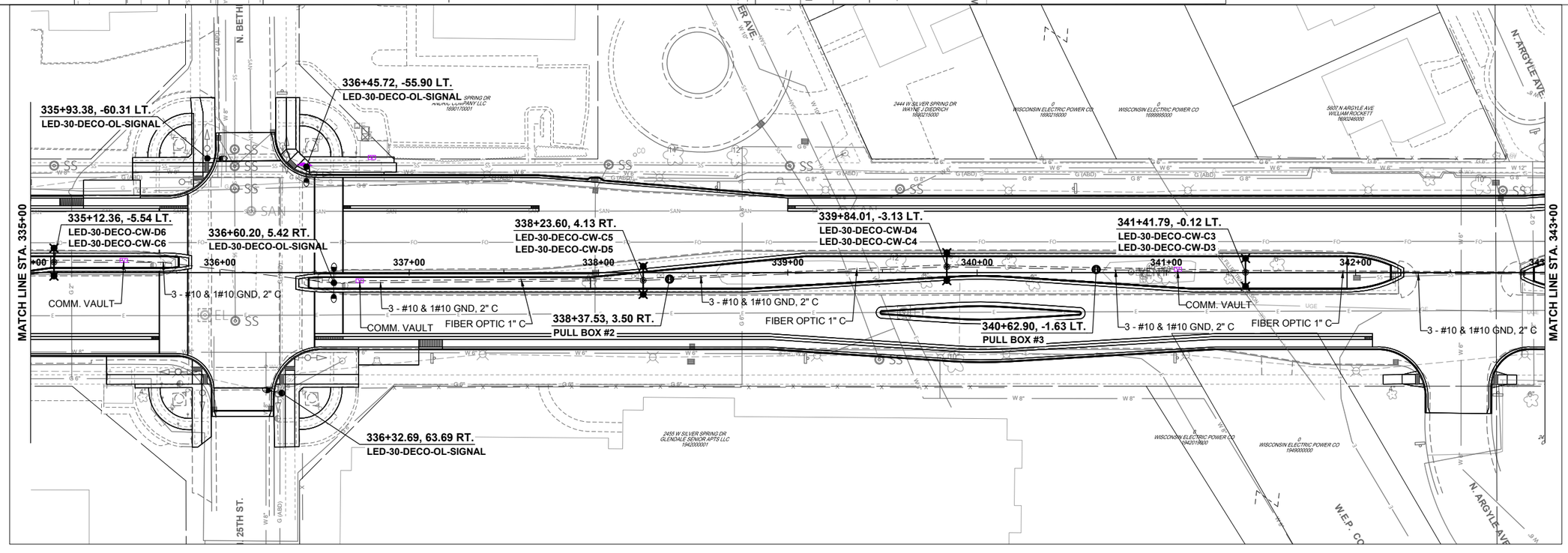
SEE DETAIL "CONDUIT DETAILS AT STRUCTURE PARAPET TO ROADWAY BARRIER INTERFACE" WHEN CONDUIT EXITS TO GRADE FROM A BRIDGE PARAPET OR RETAINING WALL. RIGID METALLIC CONDUIT IN THE CONCRETE BARRIER IS INCIDENTAL TO THE RIGID NONMETALLIC CONDUIT.

PROVIDE MINIMUM CABLE SLACK AS NOTED BELOW:

PULL BOXES:	10-FT	LIGHTING CONTROL CENTERS:	10-FT
EMBEDDED JUNCTION BOXES:	3-FT	POLES:	5-FT IN AND 5-FT OUT

WIRE AND CONDUIT IS LISTED IN THE MISCELLANEOUS QUANTITIES BASED UPON THE EARLIEST STAGE SHOWN. CONTRACTOR MAY INSTALL LATER WHEN LOAD NEEDS TO BE ENERGIZED.





N

LIGHTING CONDUIT 2-INCH

FIBER CONDUIT 1-INCH

COMMUNICATION VAULT

PULL BOX 24" BY 42"

MUNICIPAL DECORATIVE LIGHT

MUNICIPAL DECORATIVE LIGHT PART OF SIGNAL CABINET

LIGHTING CABINET, 277/480 VAC

NOTE: HDPE DIRECTIONAL BORE WILL BE REQUIRED ACROSS INTERSECTIONS OR UNDER BRIDGES AND BOTH WILL BE PAID FOR AS 2 DUCT 2-INCH.

2

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PROPOSED LIGHTING & COMMUNICATION PLAN 1	SHEET 145	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PROPOSED LIGHTING PLANS.DWG PLOT DATE : 1/23/2025 3:08 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 60'

2

2

REMOVE EXISTING LIGHTING CABINET, BASE, AND METER SOCKET AFTER COORDINATION WITH UTILITY TO DISCONNECT POWER. NOTE: EXISTING LIGHTS TO REMAIN IN SERVICE AT ALL TIMES UNTIL NEW LIGHTING IS INSTALLED AND OPERATIONAL. CONTRACTOR MAY USE THE OLD CABINET AS A TEMPORARY POWER SOURCE UNTIL NEW CABINET IS INSTALLED.

N

MATCH LINE STA. 343+00

343+04.09, 0.81 RT.
LED-30-DECO-CW-D2
LED-30-DECO-CW-C2

344+62.97, -2.05 LT.
LED-30-DECO-CW-C1
LED-30-DECO-CW-D1

344+00

3 - #10 & 1#10 GND, 2" C

344+15.97, 3.28 RT.
PULL BOX #4

3 - #10 & 1#10 GND, 2" C

FIBER OPTIC 1" C

345+00

345+81.52, -63.88 LT.
LED-30-DECO-OL-SIGNAL

345+73.83, -5.63 LT.
LED-30-DECO-OL-SIGNAL

COMM. VAULT

346+00

346+96.46, -58.00 LT.
LED-30-DECO-OL-SIGNAL

346+92.26, 0.00 LT.
LED-30-DECO-OL-SIGNAL

346+43.38, 44.29 RT.
LED-30-DECO-OL-SIGNAL

COMM. VAULT

3 - #10 & 1#10 GND, 2" C

347+00

347+37.93, -59.99 LT.
PULL BOX #6

LIGHTING CABINET C.W.

347+37.93, 0.00 LT.
PULL BOX #5

6 - #10 & 1#10 GND, 2" C

3 - #10 & 1#10 GND, 2" C

348+00

348+13.00, 0.00
PULL BOX #7

3 - #10 & 1#10 GND, 2" C

348+68.23, 0.00
EX-LP#

FIBER OPTIC 1" C

349+00

350+00

350+44.89, -0.03 LT.
LED-30-DECO-CW-B2
LED-30-DECO-CW-A2

3 - #10 & 1#10 GND, 2" C

FIBER OPTIC 1" C

MATCH LINE STA. 351+00

5606 N ARGYLE AVE
AZUREDE M WILLIAMS
1680350000

2302 W SILVER SPRING DR
1680356000
CITY OF GLENDALE CDA

2100 W SILVER SPRING DR
250 HEGENBERGER PARTNERS
1680371003

2101 W SILVER SPRING DR
CITY OF GLENDALE CDA
1942029000

2301 W SILVER SPRING DR
CITY OF GLENDALE CDA
1942029000

2229 W SILVER SPRING DR
CITY OF MILWAUKEE-DRAINAGE
JONES ISLAND
1680348100

2225 W SILVER SPRING DR
KYLE S WALLACE
1680292000

2217 W SILVER SPRING DR
ROBERT LEE III
1680293000

ROBERT LEE III
DIXONS RENTALS LLC
1680294000

2201 W SILVER SPRING DR
ADAM R BROSTOWICZ
DONALD T BENEDYK
1680295000

2139 W SILVER SPRING DR
RYZS INVESTMENT LLC
1680296000

2133 W SILVER SPRING DR
ADAM R BROSTOWICZ
DONALD T BENEDYK
1680297000

2125 W SILVER SPRING DR
NHB MANAGEMENT LLC
1680298000

2119 W SILVER SPRING D
FLOYD D BOWIE
FLOYD E BOWIE
1680299000

N

MATCH LINE STA. 351+00

3 - #10 &
1#10 GND, 2" C

351+33.47, -0.03 LT.
PULL BOX #8

352+00

352+03.88, 0.00
LED-30-DECO-CW-A3
LED-30-DECO-CW-B3

COMM. VAULT

3 - #10 & 1#10 GND, 2" C

353+44.72, 5.55 RT.
LED-30-DECO-CW-B4
LED-30-DECO-CW-A4

FIBER OPTIC 1" C

354+00

354+62.47, 2.09 RT.
PULL BOX #9

355+00

355+04.49, -0.03 LT.
LED-30-DECO-CW-A5
LED-30-DECO-CW-B5

3 - #10 & 1#10 GND, 2" C

355+83.25, -63.91 LT.
INSTALL SALVAGED POLE

356+00

356+64.78, -0.03 LT.
LED-30-DECO-CW-B7
LED-30-DECO-CW-A7

COMM. VAULT

356+94.42, -0.08 LT.
PULL BOX #10

3 - #8 & 1#8 GND, 2" C

356+80.82, -120.82 LT.
INSTALL SALVAGED POLE

3 - #8 & 1#8
GND, 2" C
TWO CIRCUITS

357+00

357+99.30, -0.21 LT.
LED-30-DECO-CW-A8
LED-30-DECO-CW-B8

3 - #10 & 1#10 GND, 2" C

FIBER OPTIC 1" C

358+00

358+34.32, -158.44 LT.
PULL BOX #11

3 - #8 & 1#8
GND, 2" C
TWO CIRCUITS

WB ON RAMP

3 - #8 & 1#8
GND, 2" C
MATCH EX CIRCUITS

358+05.24, -148.89 LT.
INSTALL SALVAGED POLE

359

MATCH LINE STA. 359+00

EB OFF RAMP

N. STANTON DR.

N. LONG ISLAND DR.

2036 W SILVER SPRING DR
MARILYN D WILSON
1680520000

2024 W SILVER SPRING DR
THE KRIEGER FAMILY TRUST
1680501000

2018 W SILVER SPRING DR
COURTNEY CHEVALIER
QUENTIN D RODGERS
1680508000

5593 N LONG ISLAND DR
LUCAS MEETEER
1950300000

2021 W SILVER SPRING DR
PIT STOP OF WISCONSIN INC
1949997000

1935 W SILVER SPRING DR
SILVER SPRING HOLDINGS LLC
1949995210

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PROPOSED LIGHTING & COMMUNICATION PLAN 2	SHEET 146	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PROPOSED LIGHTING PLANS.DWG PLOT DATE : 1/23/2025 3:08 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 60'

2

N

3 - #10 & 1#10 GND, 2" C

N. GREEN BAY AVE. - S.T.H. "57"

WB OFF RAMP

1700 W SILVER SPRING DR
HEISER FORD INC
1688823000

1740 W SILVER SPRING DR
CITY OF GLENDALE CDA
1688931000

AUTO DEALER

366+71.94, -61.27 LT.
LED-30-DECO-OL-SIGNAL

MATCH LINE STA. 359+00

359+36.84, -0.56 LT.
LED-30-DECO-CW-B9
LED-30-DECO-CW-A9

360+97.48, -0.56 LT.
LED-30-DECO-OL-F4
LED-30-DECO-OL-E4

362+58.42, -0.66 LT.
LED-30-DECO-OL-E3
LED-30-DECO-OL-F3

364+19.05, -1.16 LT.
LED-30-DECO-OL-F2
LED-30-DECO-OL-E2

365+79.61, -8.80 LT.
LED-30-DECO-OL-E1
LED-30-DECO-OL-F1

COMM. VAULT

360+00 361+00 362+00 363+00 364+00 365+00 366+00

COMM. VAULT

3 - #10 & 1#10 GND, 2" C

FIBER OPTIC 1" C

3 - #10 & 1#10 GND, 2" C

3 - #10 & 1#10 GND, 2" C

FIBER OPTIC 1" C

364+29.30, -1.48 LT.
PULL BOX #12

MATCH LINE STA. 367+00

366+56.50, 46.22 RT.
LED-30-DECO-OL-SIGNAL

366+76.63, 55.15 RT.
LED-30-DECO-OL-SIGNAL

EB ON RAMP

1811 W SILVER SPRING DR
MBM HOLDINGS LLC
1959000000

367+45.19, -50.98 LT.
LED-30-DECO-OL-SIGNAL

EX. PB TO REMAIN
FOR EXIST GB AVE SYSTEM
SEE EXIST WIRING CIRCUIT PLAN

LIGHTING CABINET O.L.

REMOVE EXISTING LIGHTING CABINET, BASE, AND METER SOCKET AFTER COORDINATION WITH UTILITY TO DISCONNECT POWER. NOTE: EXISTING LIGHTS TO REMAIN IN SERVICE AT ALL TIMES UNTIL NEW LIGHTING IS INSTALLED AND OPERATIONAL. CONTRACTOR MAY USE THE OLD CABINET AS A TEMPORARY POWER SOURCE UNTIL NEW CABINET IS INSTALLED.

1640 W SILVER SPRING DR
A SCHLESINGER CO LLC
1689880001

1620 W SILVER SPRING DR
SCHLESINGER CO LP
1689878000

1530 W SILVER SPRING DR
SCHLESINGER CO LP
1689815000

1720 W SILVER SPRING DR
CITY OF GLENDALE CDA
1689883000

OAK LEAF TRAIL

3 - #8 & 1#8 GND, 2" C
6 - #6 & 1#6 GND, 2" C
3 - #10 & 1#10 GND, 2" C

367+80.81, -61.53 LT.
PULL BOX #14

6 - #6 & 1#6 GND, 2" C
3 - #10 & 1#10 GND, 2" C

3 - #8 & 1#8 GND, 2" C PULL WIRES TO FIRST POLE

367+45.89, 3.55 RT.
LED-30-DECO-OL-SIGNAL

367+82.60, 3.44 RT.
PULL BOX #13

369+31.60, 0.91 RT.
LED-30-DECO-OL-A1
LED-30-DECO-OL-B1

370+92.38, 0.31 RT.
LED-30-DECO-OL-C2
LED-30-DECO-OL-D2

372+52.17, 0.80 RT.
LED-30-DECO-OL-A3
LED-30-DECO-OL-B3

374+11.93, -1.69 LT.
LED-30-DECO-OL-D4
LED-30-DECO-OL-C4

6 - #6 & 1#6 GND, 2" C

MATCH LINE STA. 367+00

368+00 369+00 370+00 371+00 372+00 373+00 374+00 375

FIBER OPTIC 1" C

FIBER OPTIC 1" C

COMM. VAULT

6 - #6 & 1#6 GND, 2" C

6 - #6 & 1#6 GND, 2" C

374+59.13, -5.50 LT.
PULL BOX #18

3 - #10 & 1#10 GND, 2" C

6 - #6 & ⅛ GND, 2" C

6 - #6 & ⅛ GND, 2" C

COMM. VAULT

372+58.21, 0.94 RT.
PULL BOX #17

369+49.65, 7.66 RT.
PULL BOX #15

370+67.89, 6.57 RT.
PULL BOX #16

6 - #6 & 1#6 GND, 2" C

HYDRO-EXCAVATE REQUIRED FOR UTILITIES

1735 W SILVER SPRING DR
CONTINENTAL 87 FUND LLC % ROUNDYS
1959001000

WISCONSIN DEPT OF TRANSPORTATION
1689999036

MLW COUNTY PARKS
1959999000

1810 W SILVER SPRING DR
1810011000

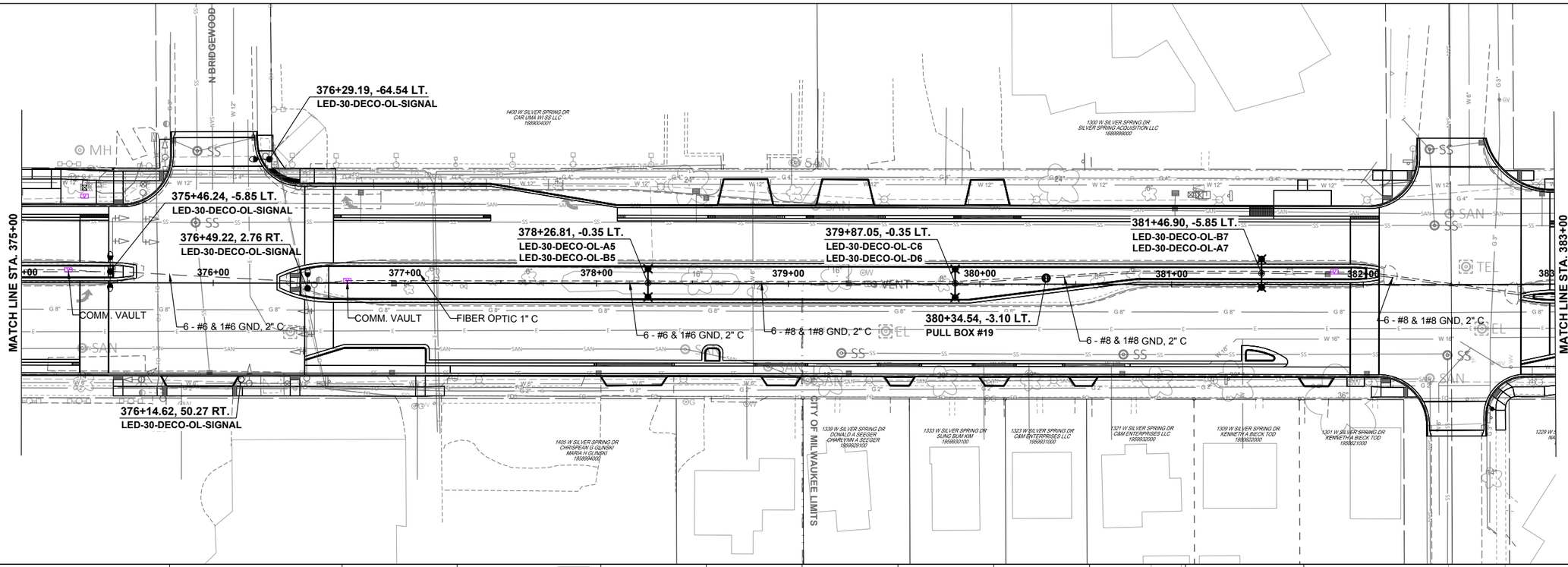
OAK LEAF TRAIL

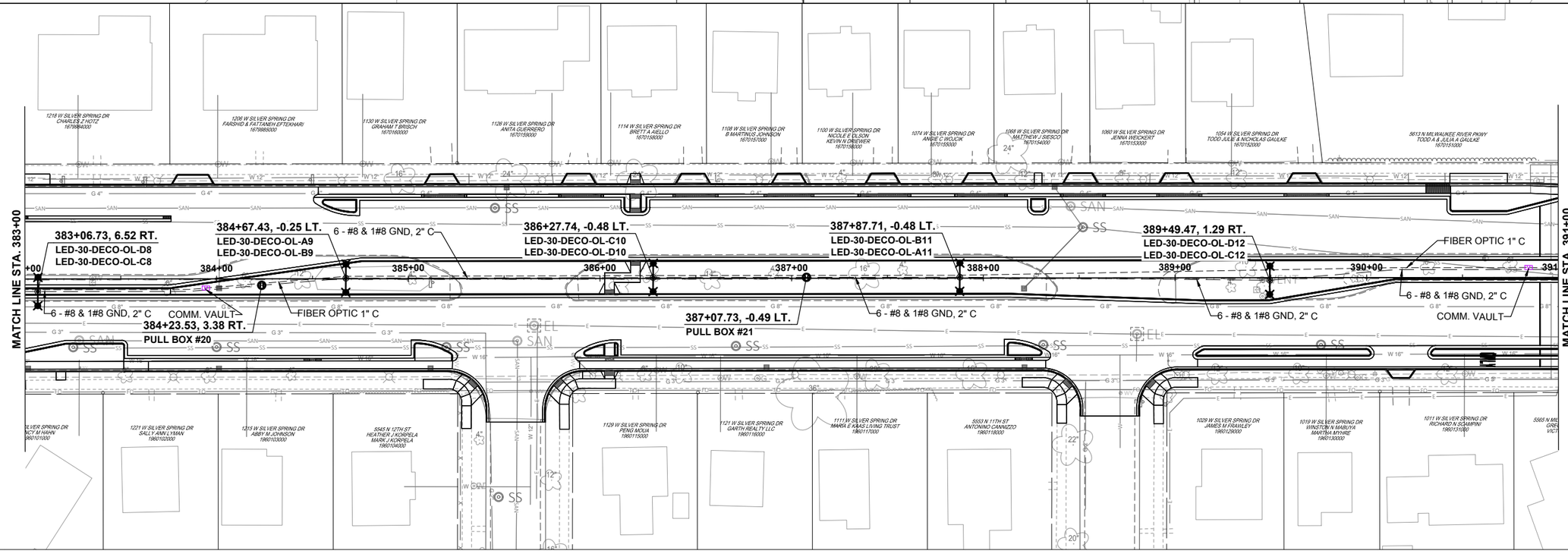
MATCH LINE STA. 375+00

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PROPOSED LIGHTING & COMMUNICATION PLAN 3	SHEET 147	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PROPOSED LIGHTING PLANS.DWG PLOT DATE : 1/23/2025 3:09 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 60'

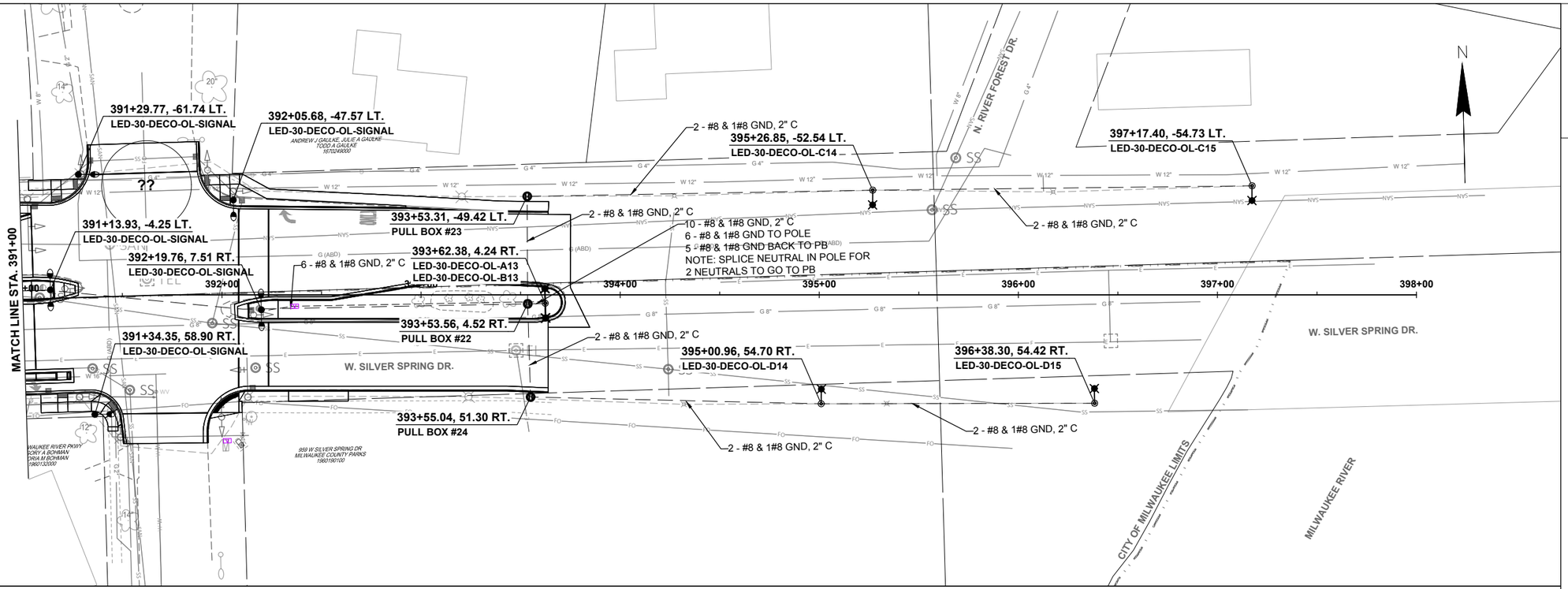
2

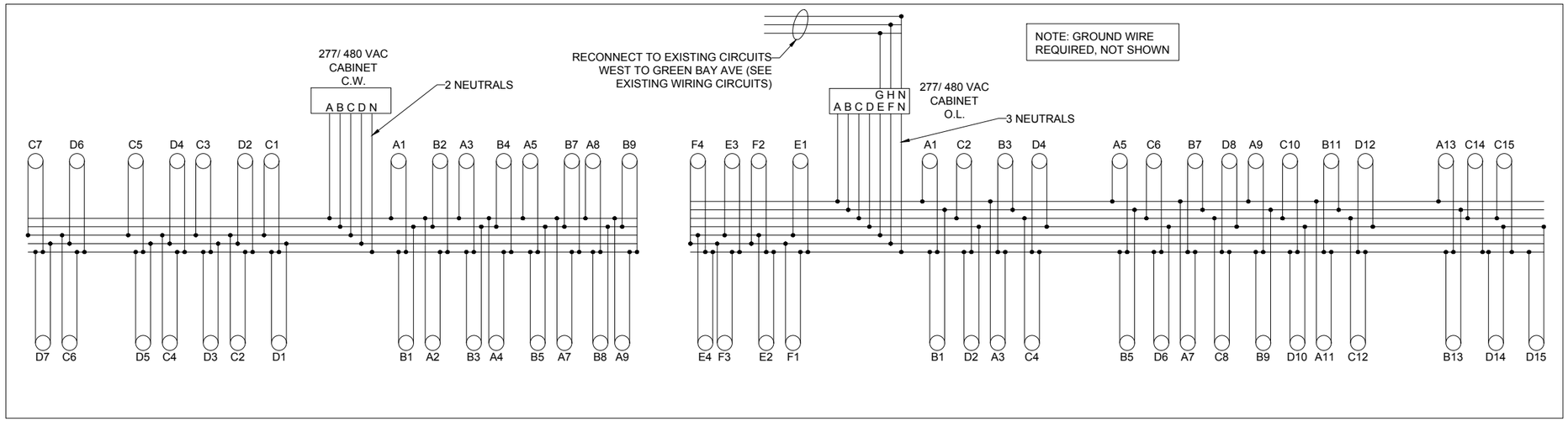




PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PROPOSED LIGHTING & COMMUNICATION PLAN 4	SHEET 148	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PROPOSED LIGHTING PLANS.DWG PLOT DATE : 1/23/2025 3:09 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 60'

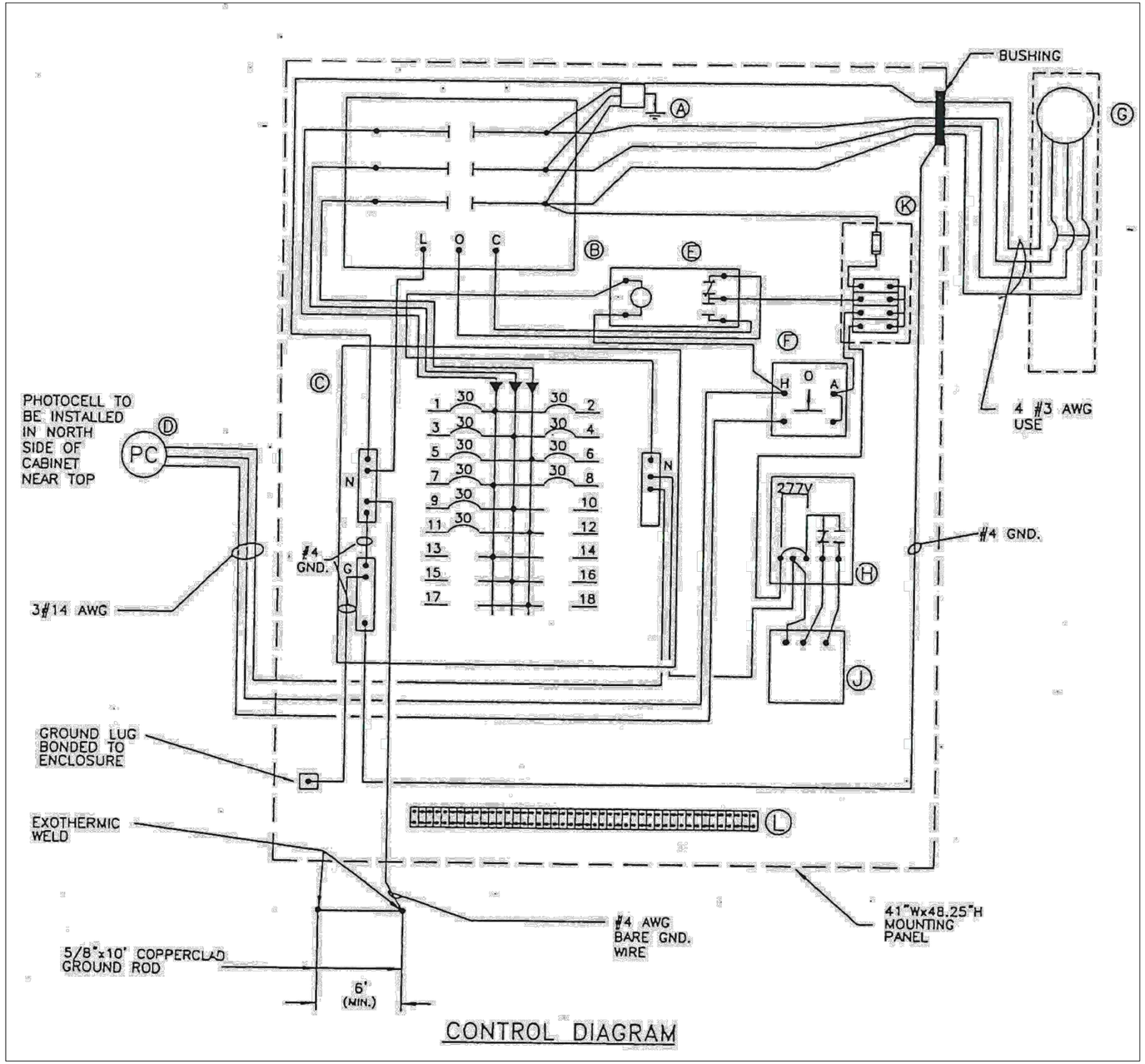




FIELD WIRING DIAGRAM

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PROPOSED LIGHTING & COMMUNICATION PLAN 5	SHEET 149	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PROPOSED LIGHTING PLANS.DWG PLOT DATE : 1/23/2025 3:09 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 60'



CONTROL DIAGRAM

EQUIPMENT

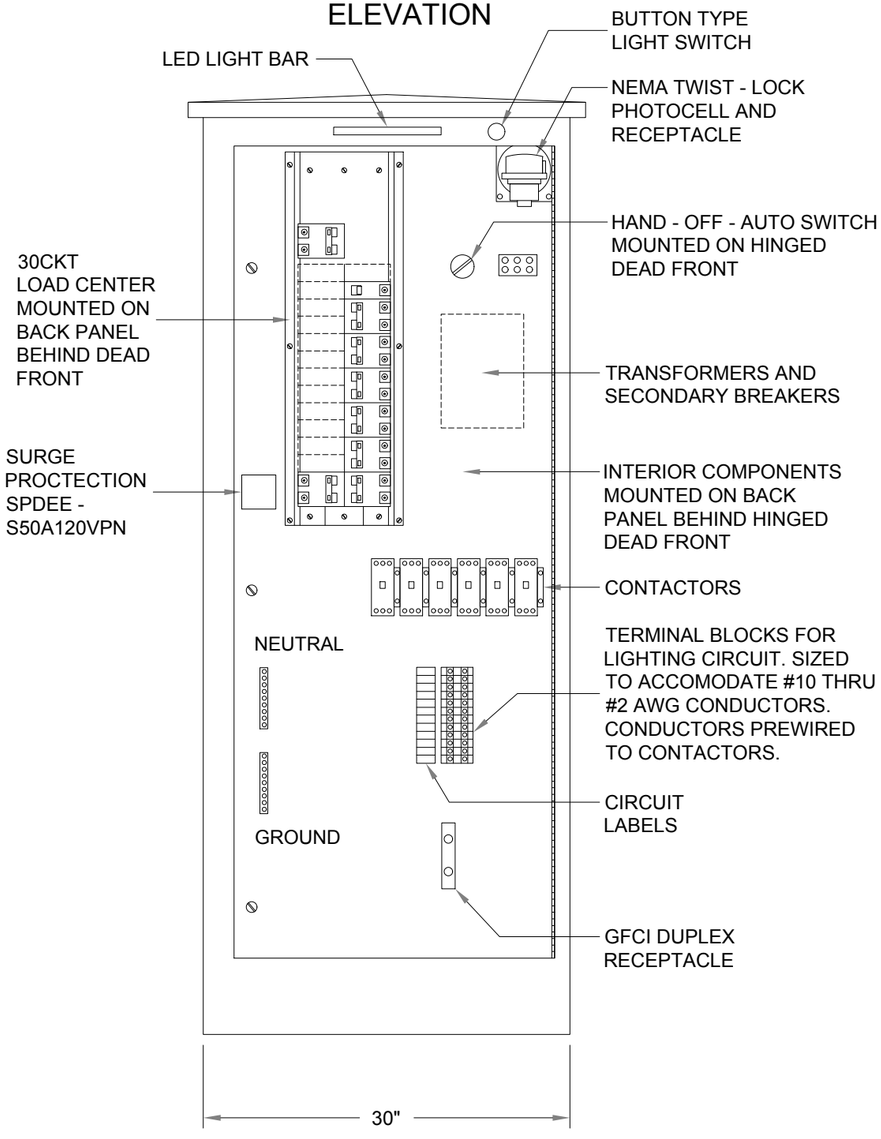
- (A) SURGE ARRESTOR
- (B) 100 A. 3P. 600V MECHANICALLY HELD MAIN CONTACTOR. 277V CONTROL COIL
- (C) 125 A MLO. 277/480V, 3PH. 4W. 18CKT. PANELBOARD WITH BOLT-ON BRANCH BREAKERS, 14000 A RMS INTERRUPTING CAPACITY.
- (D) BUTTON TYPE PHOTOCELL, 277V
- (E) (1)NC, (1)NO AUXILIARY 2 WIRE CONTROL RELAY
- (F) HAND-OFF-AUTO SELECTOR SWITCH, SURFACE MTD. NEMA 1 ENCLOSURE
- (G) 200A, 277/480V, 3PH, 4W METER BREAKER PEDESTAL WITH 100A/3P CIRCUIT BREAKER (14K AIC).
- (H) 277V, SPDT TIME CLOCK
- (J) 4 POLE, 30A 600V MECHANICALLY HELD CONTACTOR 277V CONTROL COIL
- (K) 10A CONTROL CIRCUIT FUSE WITH TERMINAL BLOCKS
- (L) FIELD WIRING TERMINATION STRIP

NOTES:

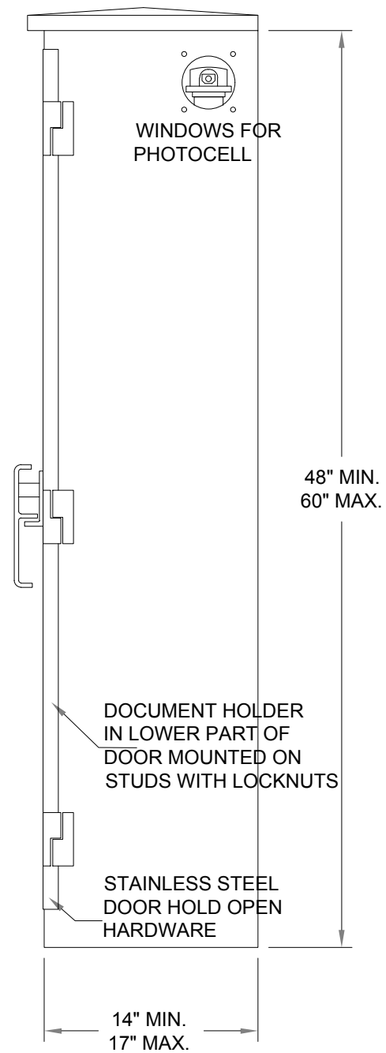
1. ALL CONTROL WIRING SHALL BE COLOR CODED #14 AWG, XLP UNLESS OTHERWISE NOTED.
2. ALL POWER AND CONTROL WIRING SHALL BE NEATLY ROUTED, LABELLED AND SUPPORTED.
3. THE LIGHTING CONTROL CABINET SHALL BE COMPLETELY WIRED UP TO THE FIELD WIRING TERMINATION STRIP IN THE CONTRACTORS SHOP AND TESTED PRIOR TO INSTALLATION AT THE SITE.
4. A COPY OF THIS SHEET WITH AS-BUILT (RECORD) CONDITIONS SHALL BE PUT IN A PLASTIC PROTECTOR IN THE CABINET.
5. THE CONTRACTOR SHALL COMPLY WITH WEPCO INSTALLATION REQUIREMENTS.
6. USE #10 AWG XLP CONDUCTORS FROM THE 30A CB'S TO THE FIELD WIRING TERMINATION STRIP. PROVIDE A GROUND WIRE AND NEUTRAL WIRE TO FIELD WIRING TERMINATION STRIP FROM PANEL BOARD FOR EACH UNDERGROUND CABLE RUN AS REQUIRED.
7. CIRCUITS 5 & 6 SHALL BE RUN THROUGH THE CONTACTOR
8. THE TIME CLOCK SHALL BE SET TO ALLOW CIRCUITS 5 & 6 TO TURN ON AT SUNSET BY THE PHOTOCELL AND OFF FROM 12:00 MIDNIGHT THROUGH 5 AM THE NEXT DAY.

THIS CONTROL DIAGRAM IS ONLY FOR PROVIDING THE DETAILS FOR THE EXISTING CIRCUITS IN THE EXISTING CABINET FOR WIRING ON GREEN BAY AVENUE

FRONT INTERIOR ELEVATION



SIDE VIEW



GENERAL NOTES

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

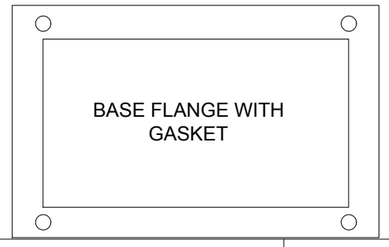
ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE - WIRED BY THE CABINENT MANUFACTURER.

ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS, UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISION.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

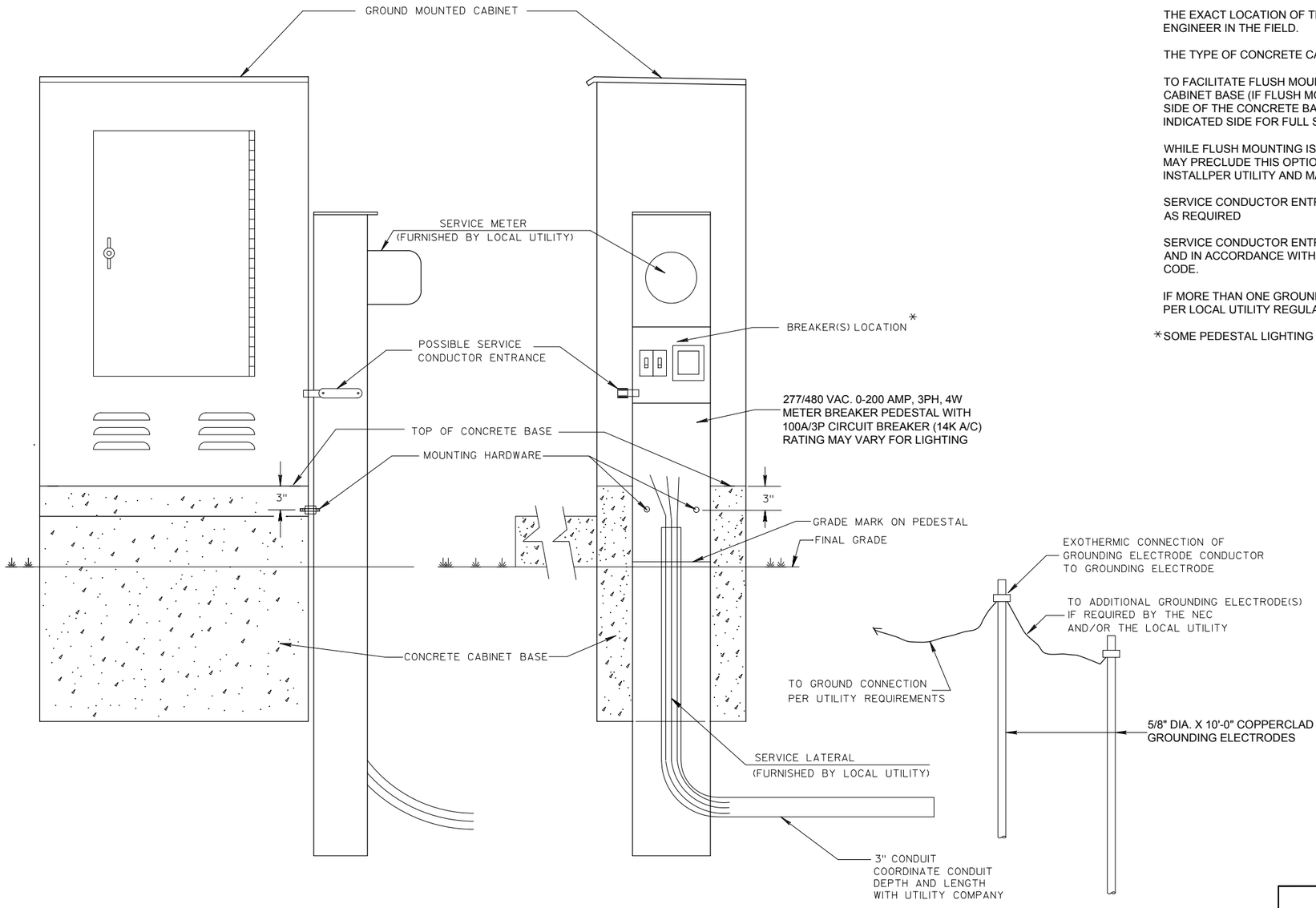
A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.



LIGHTING CONTROL CABINET

LIGHTING CONTROL CABINET
277 / 480 VOLT

2



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 INSTALLPER UTILITY AND MANUFACTURERS REQUIREMENTS

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED

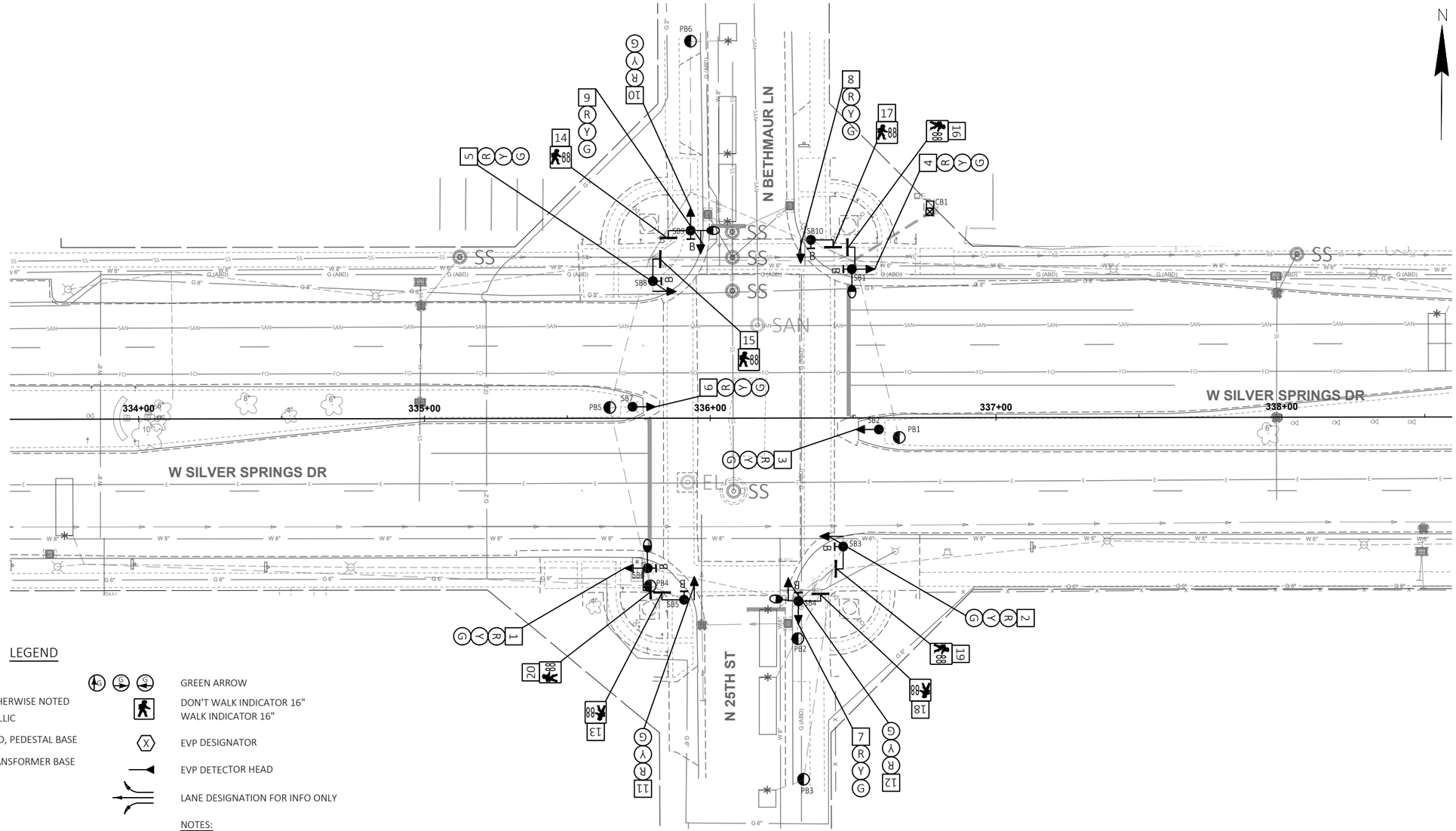
SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

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.

N

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16"
- WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. ALL PULL BOXES NOT SHOWN FOR REMOVAL ARE BEING REMOVED AS PART OF LIGHTING PLAN REMOVAL ITEMS.

TRAFFIC CONTROL SIGNAL
BETHMAUR LN/25TH ST & SILVER SPRINGS DR
CITY OF GLENDALE
MILWAUKEE COUNTY

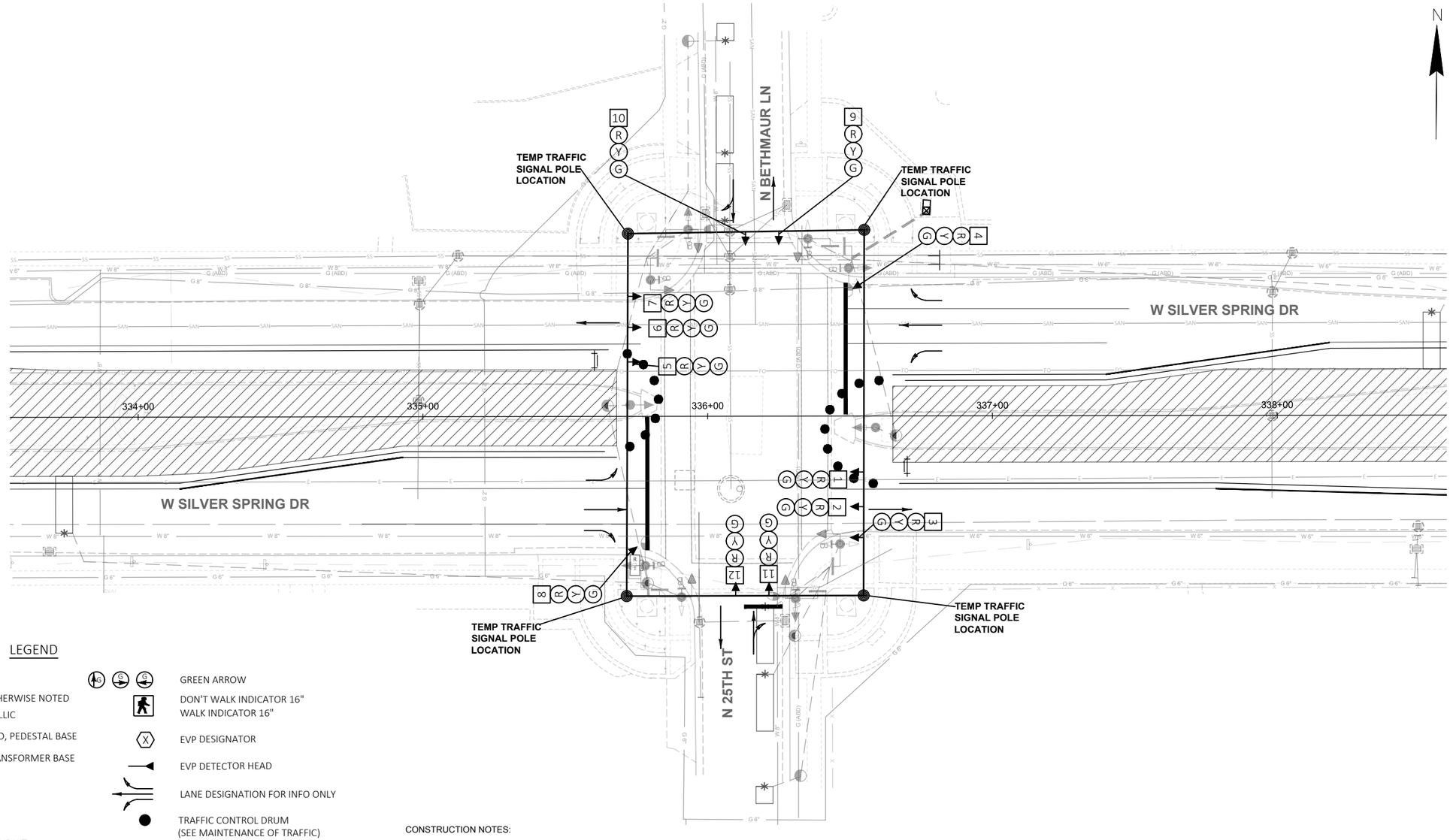
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	SIGNAL REMOVAL - BETHMAUR LN	SHEET 153	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL REM SHEETS.DWG PLOT DATE : 1/23/2025 3:09 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
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- YELLOW ARROW
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- GREEN ARROW
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC CONTROL DRUM
  (SEE MAINTENANCE OF TRAFFIC)

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MAINTAIN PROPER TEMPORARY TRAFFIC SIGNAL CLEARANCE REQUIREMENTS FOR ALL STAGES OF CONSTRUCTION.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

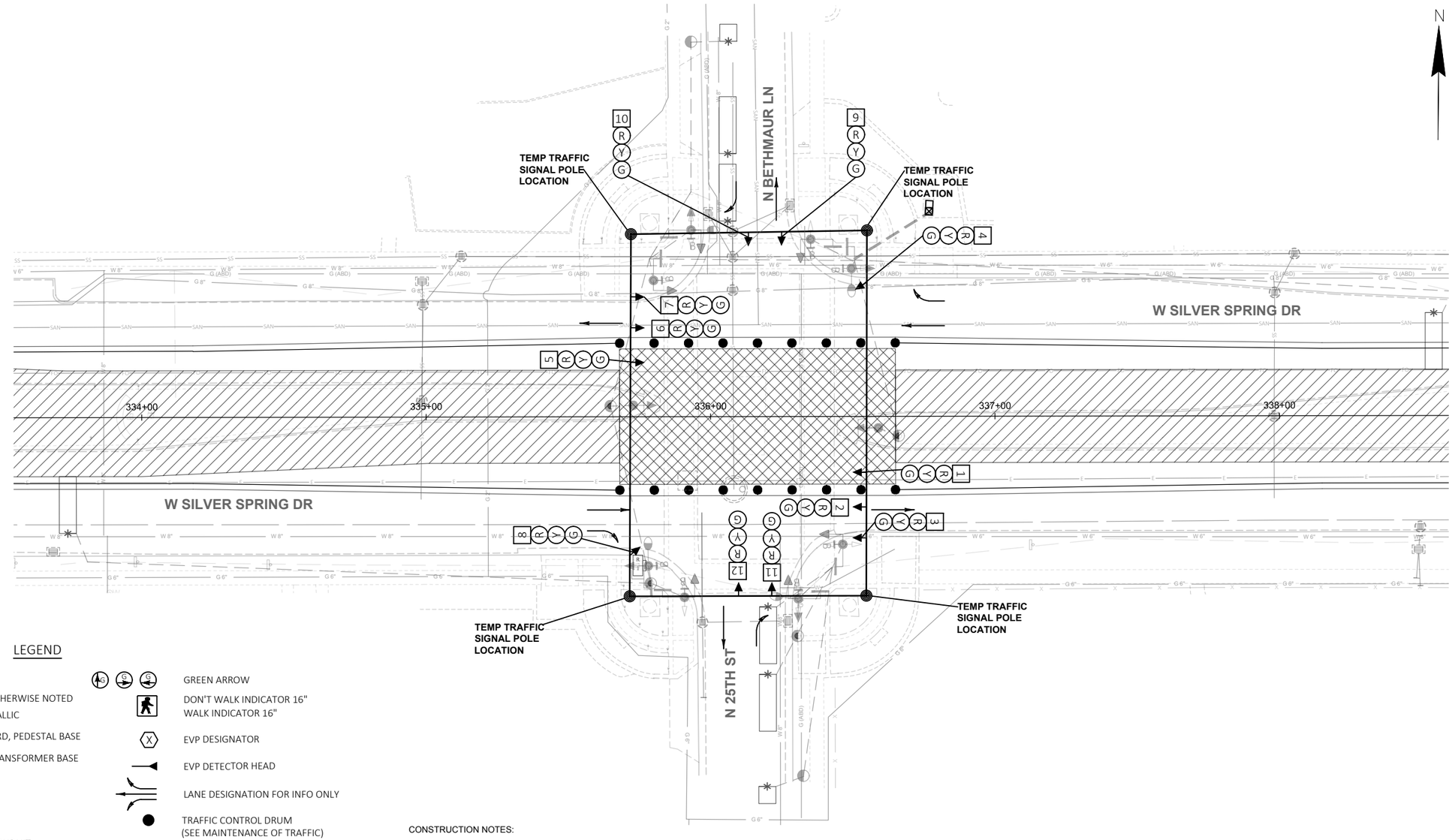
TRAFFIC CONTROL SIGNAL
BETHMAUR LN/25TH ST & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1A	SHEET 154	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE1A.DWG PLOT DATE : 1/23/2025 3:09 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" 40'



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
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- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
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- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:

- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MAINTAIN PROPER TEMPORARY TRAFFIC SIGNAL CLEARANCE REQUIREMENTS FOR ALL STAGES OF CONSTRUCTION.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
9. SIGNALS TO OPERATE IN FLASH MODE FOR CURRENT STAGE.

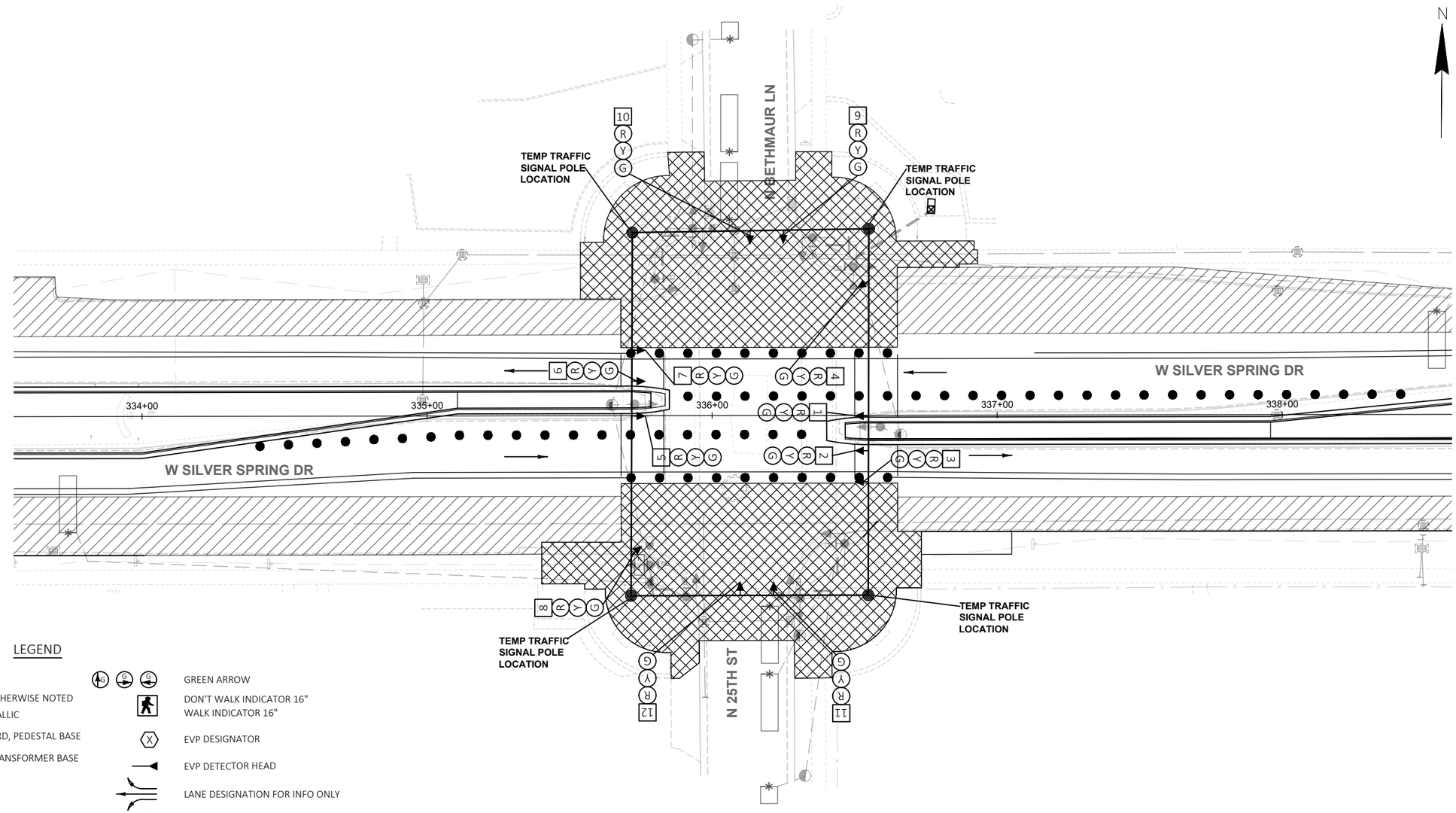
TRAFFIC CONTROL SIGNAL

BETHMAUR LN/25TH ST & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B	SHEET 155	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE1B.DWG PLOT DATE : 1/23/2025 3:10 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MAINTAIN PROPER TEMPORARY TRAFFIC SIGNAL CLEARANCE REQUIREMENTS FOR ALL STAGES OF CONSTRUCTION.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
9. SIGNALS TO OPERATE IN FLASH MODE FOR CURRENT STAGE.

TRAFFIC CONTROL SIGNAL

BETHMAUR LN/25TH ST & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

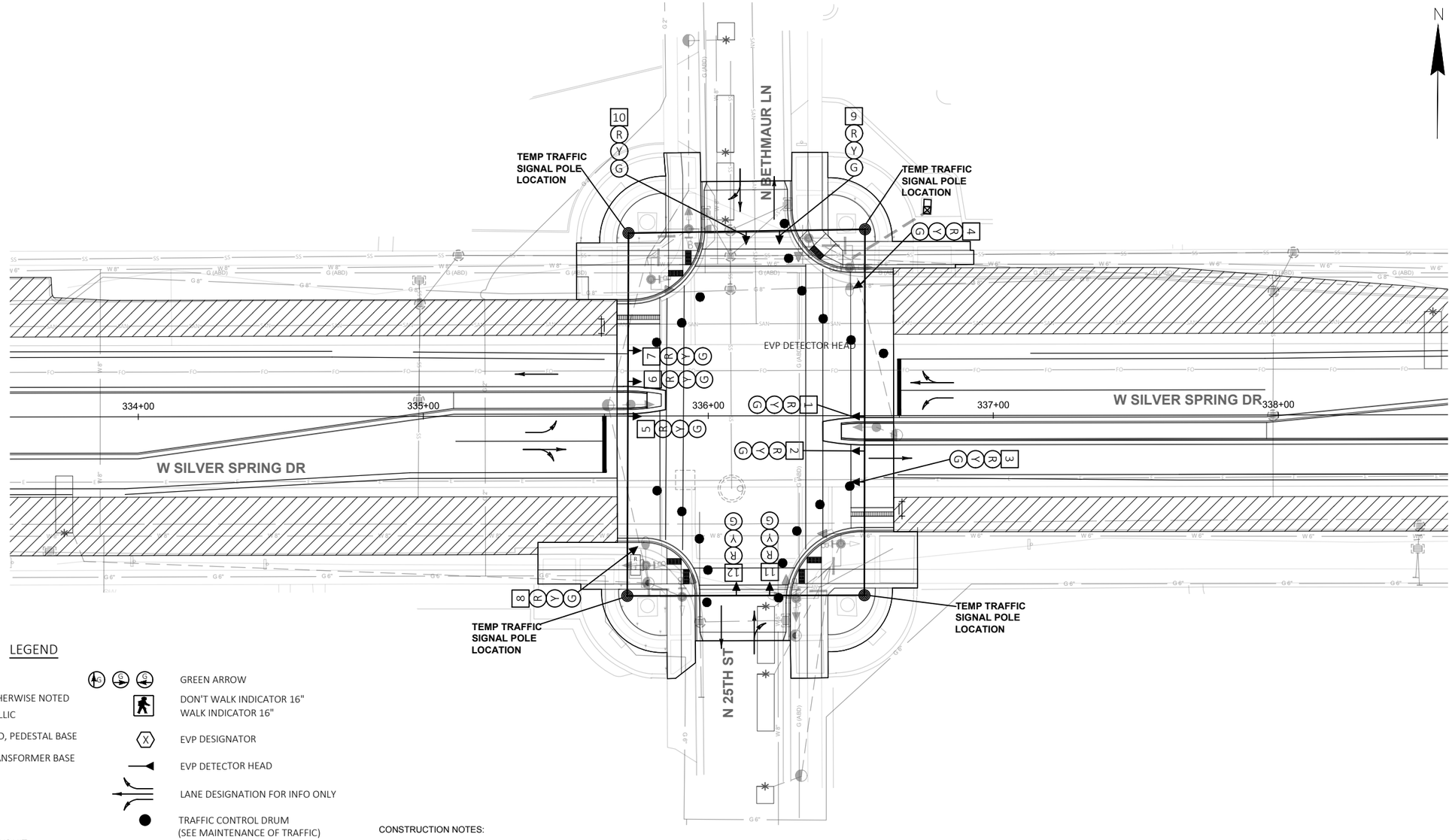
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A	SHEET 156	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE2A.DWG PLOT DATE : 1/23/2025 3:10 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:

- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MAINTAIN PROPER TEMPORARY TRAFFIC SIGNAL CLEARANCE REQUIREMENTS FOR ALL STAGES OF CONSTRUCTION.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

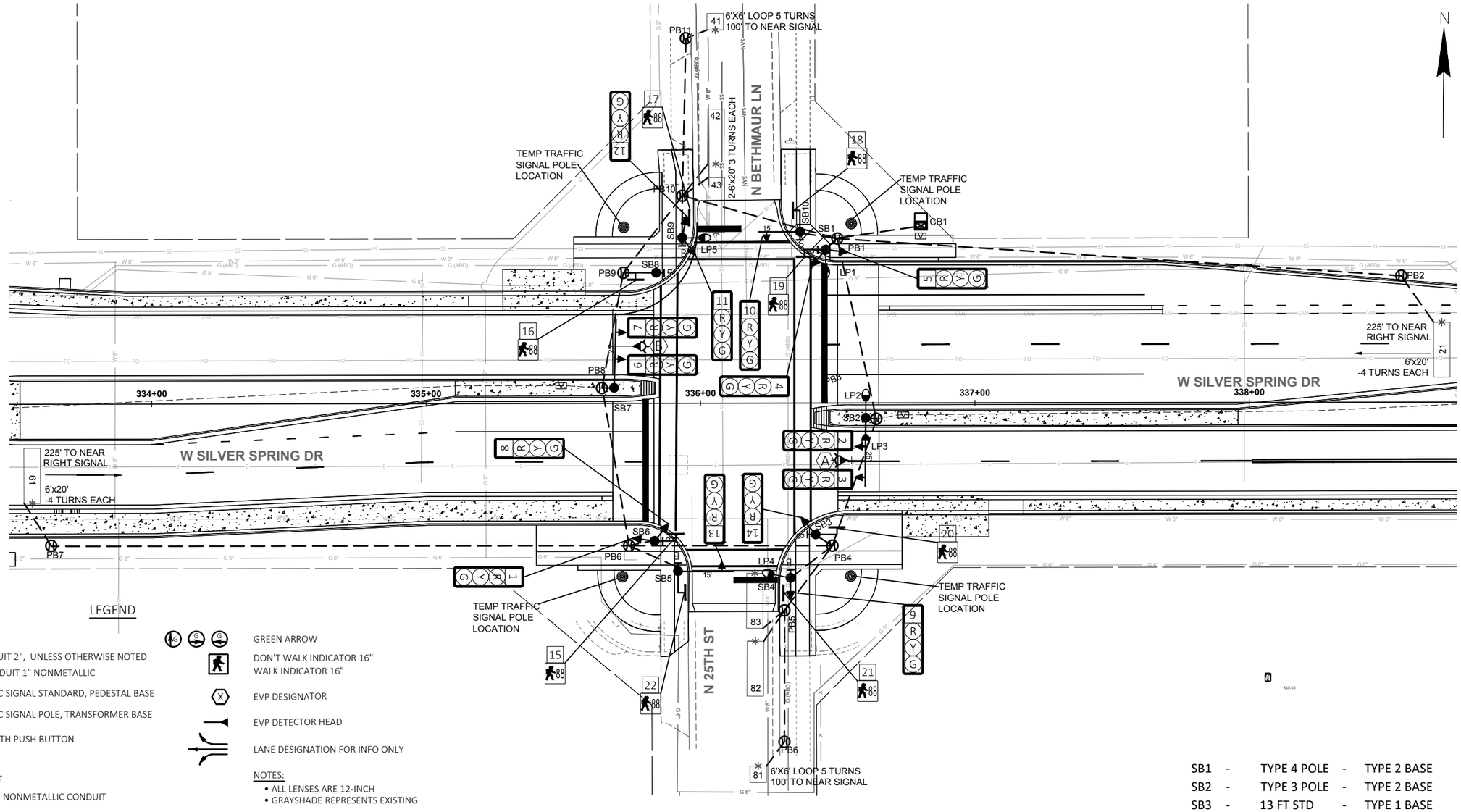
TRAFFIC CONTROL SIGNAL
BETHMAUR LN/25TH ST & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2B	SHEET 157	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE2B.DWG PLOT DATE : 1/23/2025 3:10 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R R RED ARROW
- Y Y YELLOW ARROW
- G S G GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

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 CITY OF GLENDALE TO MAKE ARRANGEMENTS. (414) 228-1710.
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 NEW TRAFFIC CABINET BASE 6" ABOVE ROADWAY ELEVATION.
5. ALL LUMINARIES ARE LED-C UNLESS OTHERWISE NOTED.
6. PROPOSED STORM SEWER, LIGHTING, FTMS, AND TRAGGIC SIGNAL INTERCONNECT PLANS SHOWN GREYSHADED FOR PLAN CLARITY.
7. ANY CASING ARE INCIDENTAL TO THE CONCRETE SIGNAL BASE ITEMS.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS
2. THE ENGINEER WILL DETERMINE THE EXACT LOCATIONS OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.

SB1	- TYPE 4 POLE	-	TYPE 2 BASE
SB2	- TYPE 3 POLE	-	TYPE 2 BASE
SB3	- 13 FT STD	-	TYPE 1 BASE
SB4	- TYPE 4 POLE	-	TYPE 2 BASE
SB5	- TYPE 2 POLE	-	TYPE 2 BASE
SB6	- 13 FT STD	-	TYPE 1 BASE
SB7	- TYPE 2 POLE	-	TYPE 2 BASE
SB8	- 10 FT STD	-	TYPE 1 BASE
SB9	- TYPE 4 POLE	-	TYPE 2 BASE
SB10	- TYPE 2 POLE	-	TYPE 2 BASE

TRAFFIC CONTROL SIGNAL
BETHMAUR LN/25TH ST & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

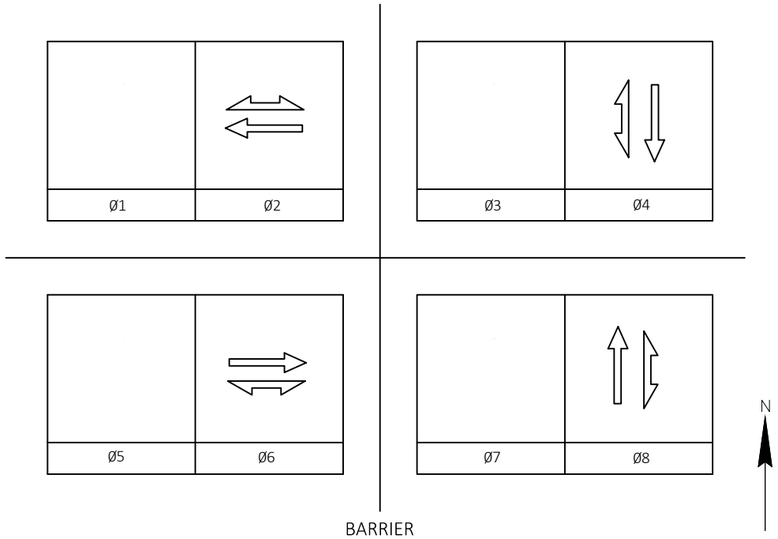
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	SIGNAL PLAN - BETHMAUR LN	SHEET 158	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL CONST SHEETS.DWG PLOT DATE : 1/23/2025 3:11 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

	HEAD NUMBERS	FLASH
Ø1		R
Ø2	5,6,7,8	R
Ø3		R
Ø4	12, 13, 14,	R
Ø5		R
Ø6	1,2,3,4	R
Ø7		R
Ø8	9,10,11	R
Ø2 PED	17,18	
Ø4 PED	15,16	
Ø6 PED	21,22	
Ø8 PED	19,20	



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W /Ø	PHASE RECALL	PHASE ACTIVE
1		5		
2		6	MAX	X
3		7		
4		8	MIN	X
5		1		
6		2	MAX	X
7		3		
8		4	MIN	X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	
TRAFFIC RESPONSIVE	X
CLOSED LOOP	
ADAPTIVE	
*LOCATION OF MASTER	
CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR #(S)	11	21	41	43	51	61	81	83
ASSIGNED PHASE	1	2	4	4	5	6	8	8
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH	2				6			
EXTEND			X				X	
DELAY				X				

19	17	23	21	27	25	31	29	DETECTOR INPUT
								PLAN LOOP DETECTOR #(S)
								ASSIGNED PHASE
								OPERATION MODE
								SWITCH
								EXTEND
								DELAY

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR #(S)	12		42		52		82	
ASSIGNED PHASE	1		4		5		8	
OPERATION MODE	VEH		VEH		VEH		VEH	
SWITCH	2				6			
EXTEND								
DELAY							X	

20	18	24	22	28	26	32	30	DETECTOR INPUT
								PLAN LOOP DETECTOR #(S)
								ASSIGNED PHASE
								OPERATION MODE
								SWITCH
								EXTEND
								DELAY

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TRAFFIC CONTROL SIGNAL
BETHMAUR LN/25TH ST & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71 | HWY: W. SILVER SPRING DR | COUNTY: MILWAUKEE | BETHMAUR LN - SEQUENCE OF OPERATIONS | SHEET 159 | E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL CONST SHEETS.DWG PLOT DATE : 1/23/2025 3:11 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE :

PROJECT ID:	2090-07-71
INTERSECTION:	SILVER SPRING DRIVE/BETHMAUR LANE

SIGNAL WIRE COLOR CODING	BLK=BLACK WHT=WHITE	RED=RED BLU=BLUE	GRN=GREEN ORG=ORANGE

CB1 TO	NO. OF CONDUCTORS	HEAD NO	SIGNAL INDICATION WIRE COLOR										
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK	PED BUTTON	OTHER
SB1	9	4	RED	ORG	GRN								
		5	RED	ORG	GRN								
		19								BLK	BLU		
		B										WHT/BLK	
SB2	7	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
SB3	7	14	RED	ORG	GRN								
		20								BLK	BLU		
		B										WHT/BLK	
SB4	7	9	RED	ORG	GRN								
		21								BLK	BLU		
		B										WHT/BLK	
SB5	7	22								BLK	BLU		
		13	RED	ORG	GRN								
		B										WHT/BLK	
SB6	9	1	RED	ORG	GRN								
		8	RED	ORG	GRN								
		15								BLK	BLU		
		B										WHT/BLK	
SB7	7	6	RED	ORG	GRN								
		7	RED	ORG	GRN								
SB8	3	16								BLK	BLU		
		B										WHT/BLK	
SB9	9	11	RED	ORG	GRN								
		12	RED	ORG	GRN								
		17								BLK	BLU		
		B										WHT/BLK	
SB10	7	10	RED	ORG	GRN								
		18								BLK	BLU		
		B										WHT/BLK	

Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the underground conductors.
At the signal bases, connect one terminal from the pedestrian push button to the color indicated in the chart. Connect the other terminal to the grounded conductor.
Reconnect the grounding conductors wherever the circuit has been interupted to ensure the grounding circuit is complete.

CONFIRMATION LIGHTS	
FROM	TO
CB1	SB2 (HEAD A)
CB1	SB7 (HEAD B)

EMERGENCY VEHICLE	
FROM	TO
CB1	SB2 (HEAD A)
CB1	SB7 (HEAD B)

LIGHTING UF 2-10 AWG GROUNDED	
FROM	TO
CB1	LP1
CB1	LP2
CB1	LP3
CB1	LP4
CB1	LP5

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GREEN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	CB1

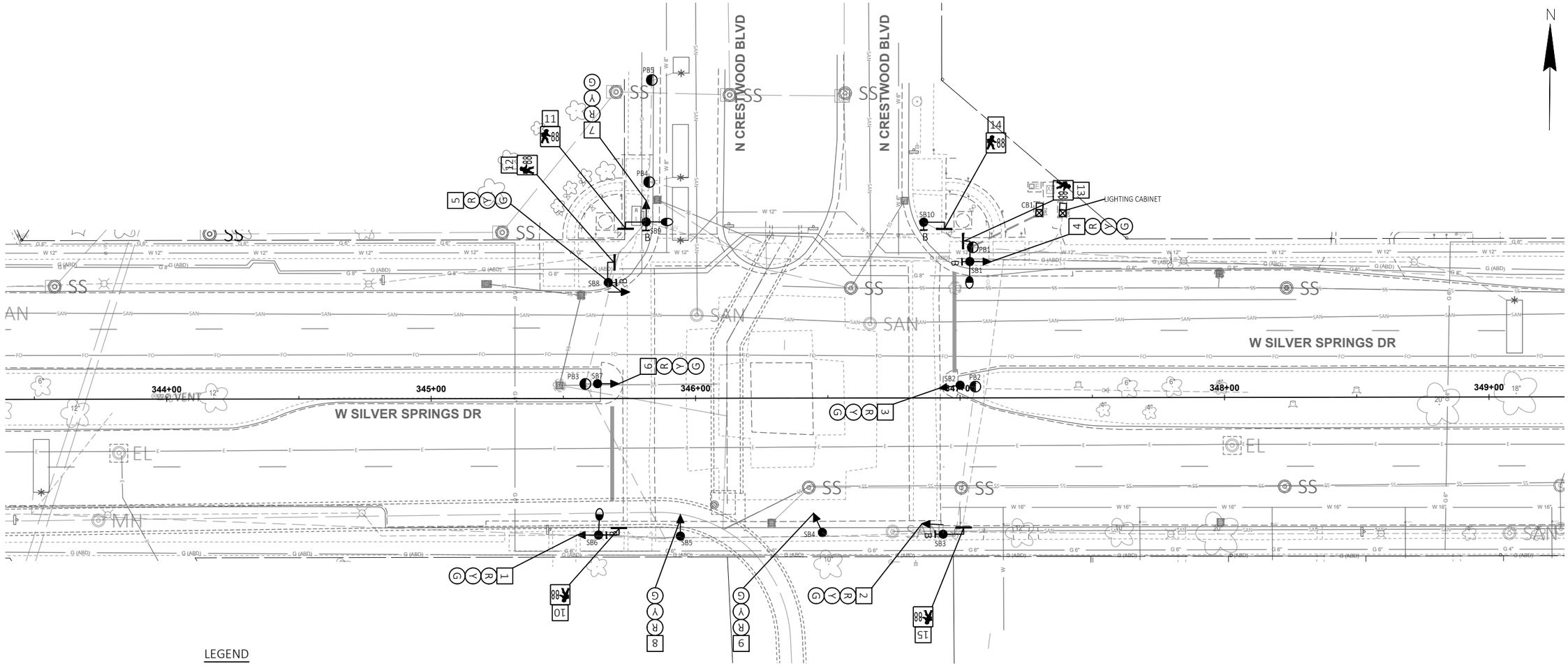
PULL BOX BONDING JUMPER 10 AWG GREEN XLP	
FROM	TO
PB1	SB1
PB1	PB10
PB1	PB2
PB1	PB11
PB3	SB3
PB3	PB4
PB4	SB3
PB4	SB4
PB4	PB5
PB4	PB6
PB6	SB5
PB6	SB6
PB6	PB7
PB6	PB8
PB8	SB7
PB8	PB9
PB9	SB8
PB9	PB10
PB10	SB9
PB10	PB11

TRAFFIC CONTROL SIGNAL
BETHMAUR LN/25TH ST & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GA GREEN ARROW
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. ALL PULL BOXES NOT SHOWN FOR REMOVAL ARE BEING REMOVED AS PART OF LIGHTING PLAN REMOVAL ITEMS.

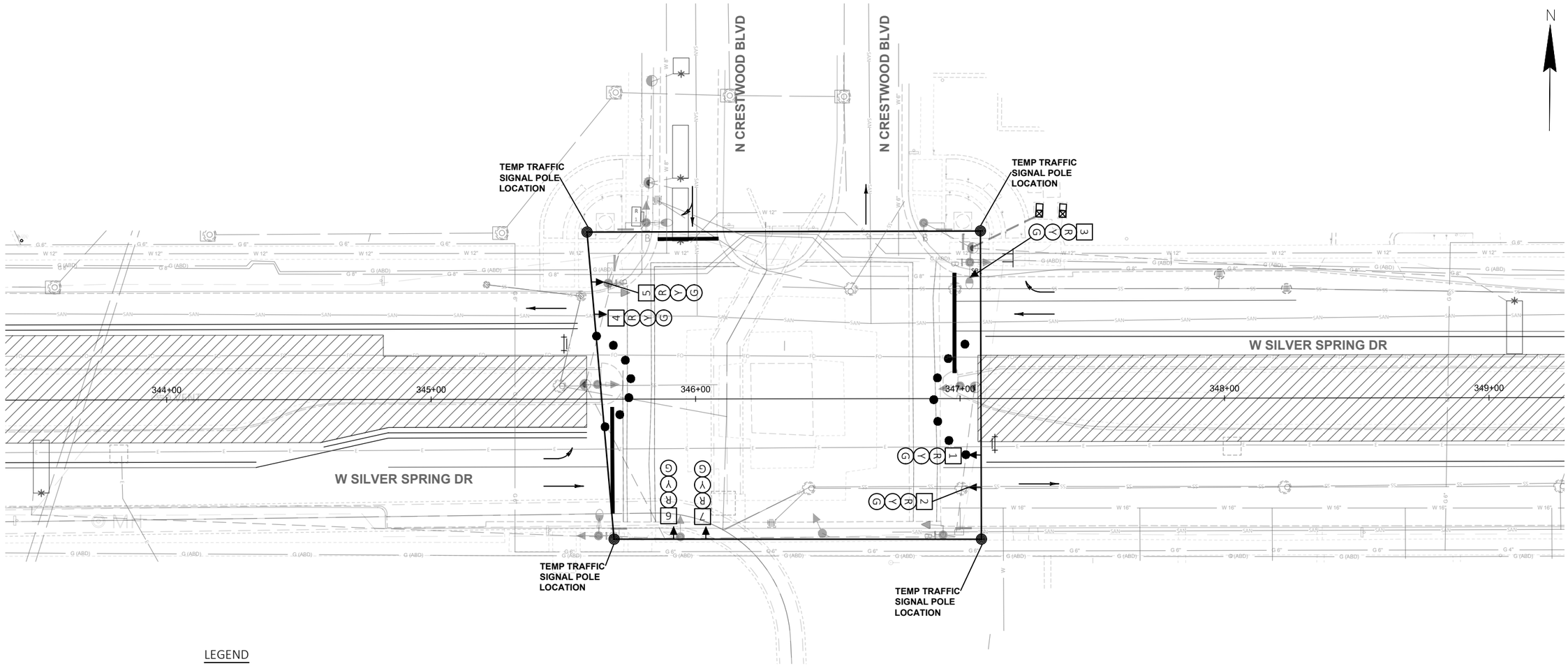
TRAFFIC CONTROL SIGNAL
CRESTWOOD BLVD & SILVER SPRINGS DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	SIGNAL REMOVAL - CRESTWOOD BLVD	SHEET 161	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL REM SHEETS.DWG
PLOT DATE : 1/23/2025 3:11 PM
PLOT BY : ANDREW J. TOROLA
PLOT NAME :
PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MAINTAIN PROPER TEMPORARY TRAFFIC SIGNAL CLEARANCE REQUIREMENTS FOR ALL STAGES OF CONSTRUCTION.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

TRAFFIC CONTROL SIGNAL
CRESTWOOD BLVD & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

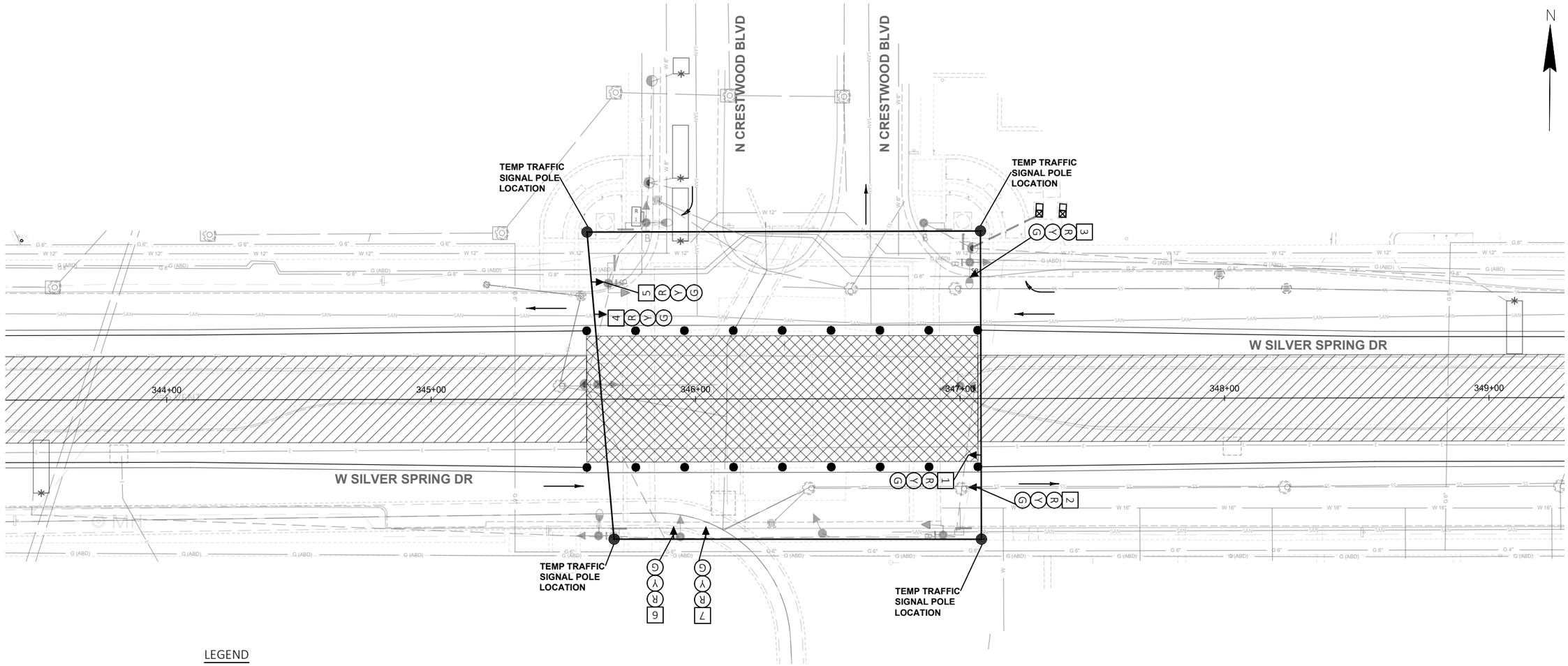
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1A	SHEET 162	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE1A.DWG PLOT DATE : 1/23/2025 3:11 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MAINTAIN PROPER TEMPORARY TRAFFIC SIGNAL CLEARANCE REQUIREMENTS FOR ALL STAGES OF CONSTRUCTION.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
9. SIGNALS TO OPERATE IN FLASH MODE FOR CURRENT STAGE.

TRAFFIC CONTROL SIGNAL
CRESTWOOD BLVD & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

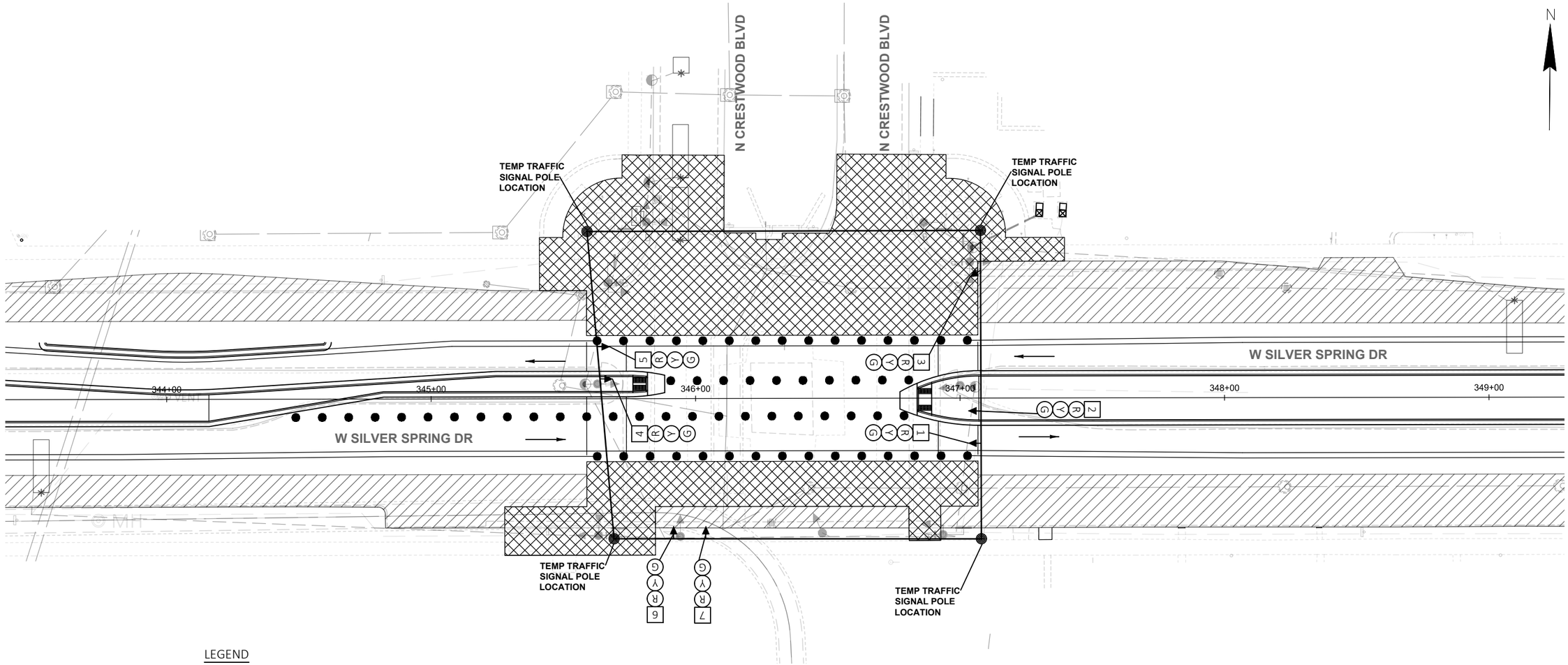
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B	SHEET 163	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE1B.DWG PLOT DATE : 1/23/2025 3:11 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16" WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MAINTAIN PROPER TEMPORARY TRAFFIC SIGNAL CLEARANCE REQUIREMENTS FOR ALL STAGES OF CONSTRUCTION.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
9. SIGNALS TO OPERATE IN FLASH MODE FOR CURRENT STAGE.

TRAFFIC CONTROL SIGNAL
CRESTWOOD BLVD & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

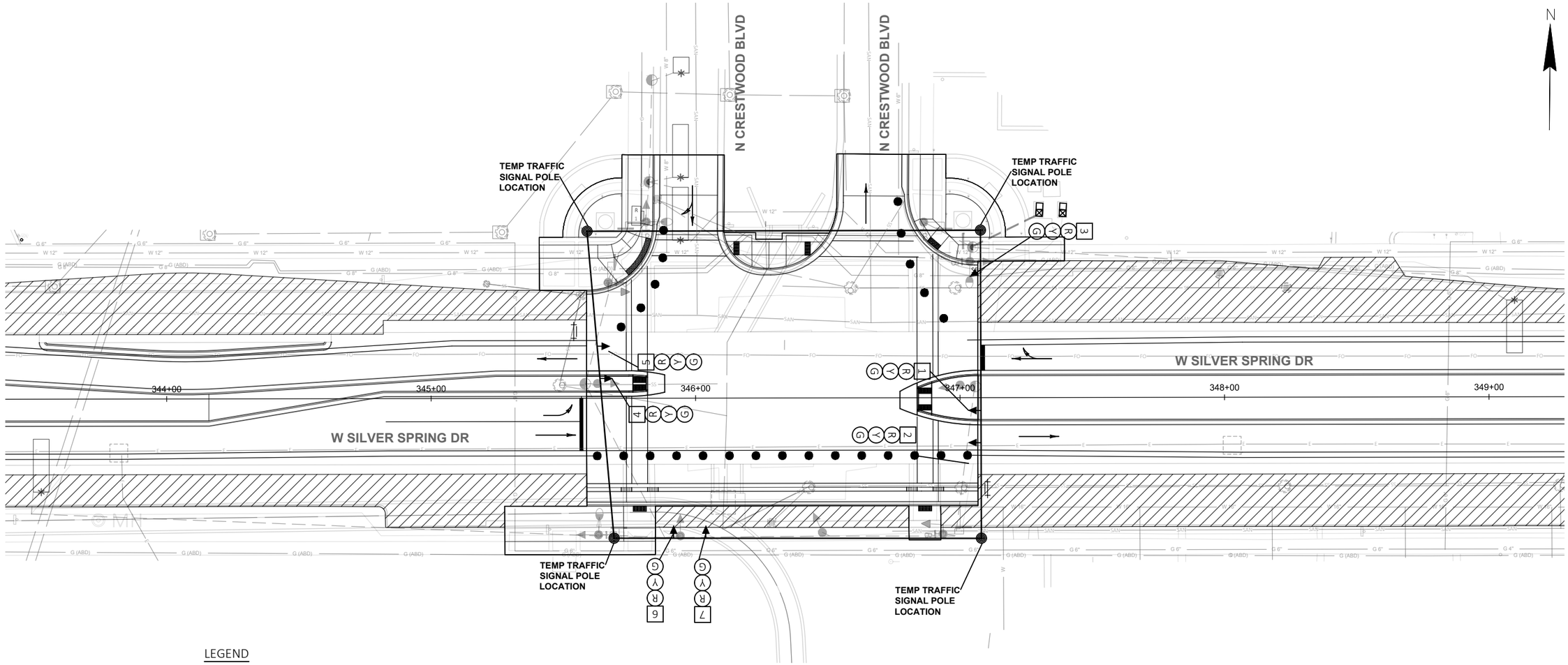
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A	SHEET 164	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE2A.DWG PLOT DATE : 1/23/2025 3:12 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PB PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R R RED ARROW
- FY Y Y YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- AG S S GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MAINTAIN PROPER TEMPORARY TRAFFIC SIGNAL CLEARANCE REQUIREMENTS FOR ALL STAGES OF CONSTRUCTION.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

TRAFFIC CONTROL SIGNAL
CRESTWOOD BLVD & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

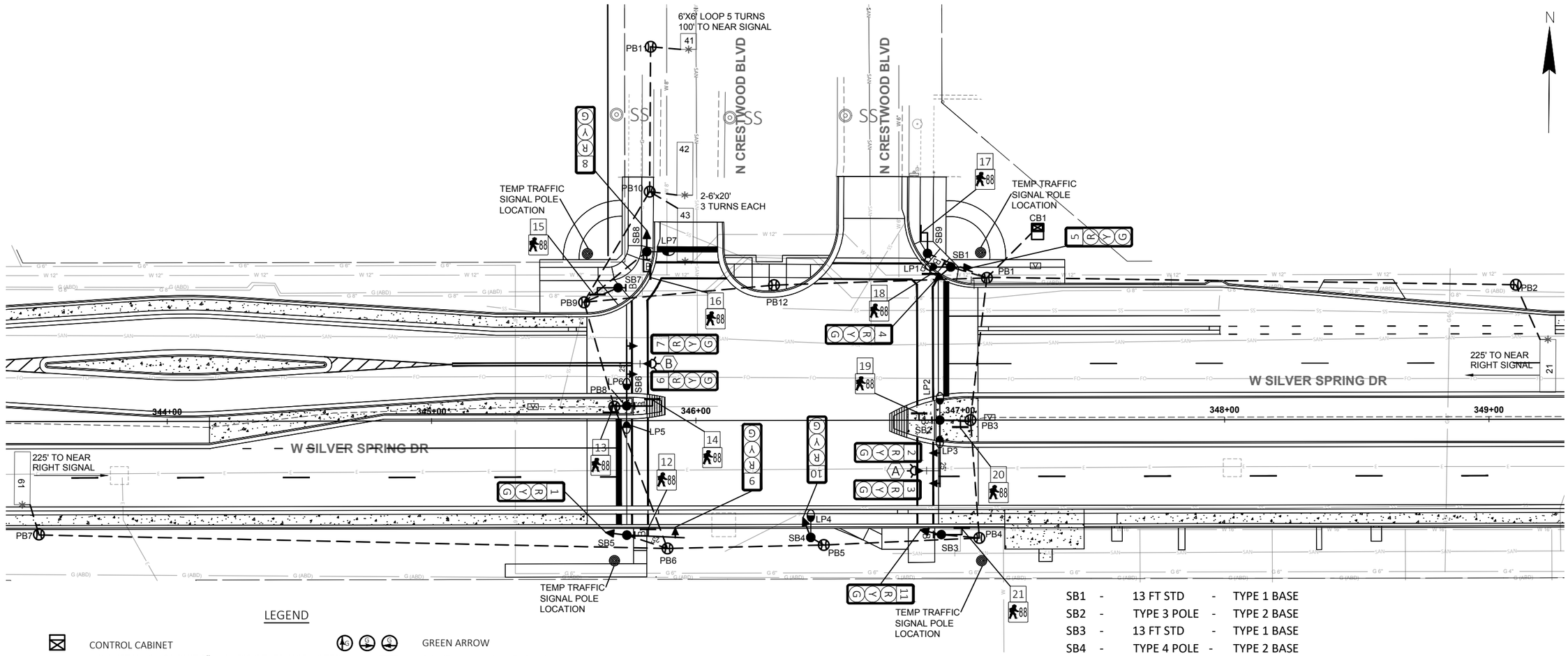
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2B	SHEET 165	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE2B.DWG PLOT DATE : 1/23/2025 3:12 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) (R) RED ARROW
- (Y) (Y) YELLOW ARROW
- (G) (S) (S) GREEN ARROW
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

SB1	-	13 FT STD	- TYPE 1 BASE
SB2	-	TYPE 3 POLE	- TYPE 2 BASE
SB3	-	13 FT STD	- TYPE 1 BASE
SB4	-	TYPE 4 POLE	- TYPE 2 BASE
SB5	-	13 FT STD	- TYPE 1 BASE
SB6	-	TYPE 3 POLE	- TYPE 2 BASE
SB7	-	10 FT STD	- TYPE 1 BASE
SB8	-	TYPE 4 POLE	- TYPE 2 BASE
SB9	-	TYPE 4 POLE	- TYPE 2 BASE

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 CITY OF GLENDALE TO MAKE ARRANGEMENTS. (414) 228-1710.
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 NEW TRAFFIC CABINET BASE 6" ABOVE ROADWAY ELEVATION.
5. ALL LUMINARIES ARE LED-C UNLESS OTHERWISE NOTED.
6. PROPOSED STORM SEWER, LIGHTING, FTMS, AND TRAGGIC SIGNAL INTERCONNECT PLANS SHOWN GREYSHADED FOR PLAN CLARITY.
7. ANY CASING ARE INCIDENTAL TO THE CONCRETE SIGNAL BASE ITEMS.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS
2. THE ENGINEER WILL DETERMINE THE EXACT LOCATIONS OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.

TRAFFIC CONTROL SIGNAL
CRESTWOOD BLVD & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

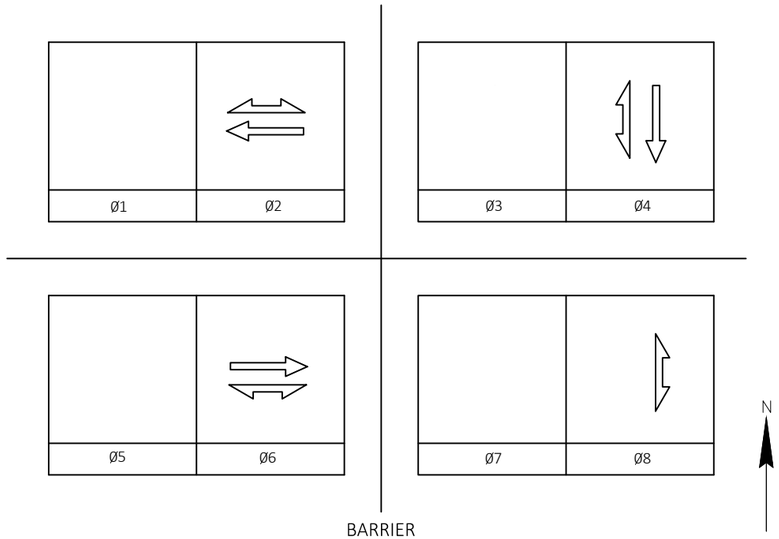
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	SIGNAL PLAN - CRESTWOOD BLVD	SHEET 166	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL CONST SHEETS.DWG PLOT DATE : 1/23/2025 3:12 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

	HEAD NUMBERS	FLASH
Ø1		R
Ø2	5,6,7	R
Ø3		R
Ø4	8,9,10,11	R
Ø5		R
Ø6	1,2,3,4	R
Ø7		R
Ø8		R
Ø2 PED	16,17	
Ø4 PED	12,13,14,15	
Ø6 PED		
Ø8 PED	18,19,20,21	





CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W /Ø	PHASE RECALL	PHASE ACTIVE
1		5		
2		6	MAX	X
3		7		
4		8	MIN	X
5		1		
6		2	MAX	X
7		3		
8		4		

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	
TRAFFIC RESPONSIVE	X
CLOSED LOOP	
ADAPTIVE	
*LOCATION OF MASTER	
CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR #(S)	11	21	41	43		61		
ASSIGNED PHASE		2	4	4		6		
OPERATION MODE		VEH	VEH	VEH		VEH		
SWITCH								
EXTEND			X					
DELAY				X				

19	17	23	21	27	25	31	29	DETECTOR INPUT
								PLAN LOOP DETECTOR #(S)
								ASSIGNED PHASE
								OPERATION MODE
								SWITCH
								EXTEND
								DELAY

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR #(S)			42					
ASSIGNED PHASE			4					
OPERATION MODE			VEH					
SWITCH								
EXTEND								
DELAY								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								PLAN LOOP DETECTOR #(S)
								ASSIGNED PHASE
								OPERATION MODE
								SWITCH
								EXTEND
								DELAY

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TRAFFIC CONTROL SIGNAL
CRESTWOOD BLVD & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71 | HWY: W. SILVER SPRING DR | COUNTY: MILWAUKEE | CRESTWOOD BLVD - SEQUENCE OF OPERATIONS | SHEET 167 | E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL CONST SHEETS.DWG PLOT DATE : 1/23/2025 3:12 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE :

PROJECT ID:	2090-07-71
INTERSECTION:	SILVER SPRING DRIVE/CRESTWOOD BLVD

SIGNAL WIRE COLOR CODING	BLK=BLACK WHT=WHITE	RED=RED BLU=BLUE	GRN=GREEN ORG=ORANGE

CB1 TO	NO. OF CONDUCTORS	HEAD NO	SIGNAL INDICATION WIRE COLOR										
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK	PED BUTTON	OTHER
SB1	9	4	RED	ORG	GRN								
		5	RED	ORG	GRN								
		18								BLK	BLU		
		B										WHT/BLK	
SB2	7	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		19								BLK	BLU		
		20								BLK	BLU		
		B										WHT/BLK	
SB3	7	11	RED	ORG	GRN								
		21								BLK	BLU		
		B										WHT/BLK	
SB4	3	10	RED	ORG	GRN								
SB5	7	1	RED	ORG	GRN								
		12								BLK	BLU		
		B										WHT/BLK	
SB6	9	6	RED	ORG	GRN								
		7	RED	ORG	GRN								
		14								BLK	BLU		
		13								BLK	BLU		
		B										WHT/BLK	
SB7	3	15								BLK	BLU		
		B										WHT/BLK	
SB8	7	8	RED	ORG	GRN								
		16								BLK	BLU		
		B										WHT/BLK	
SB9	3	17								BLK	BLU		
		B										WHT/BLK	

Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the underground conductors.
At the signal bases, connect one terminal from the pedestrian push button to the color indicated in the chart. Connect the other terminal to the grounded conductor.
Reconnect the grounding conductors wherever the circuit has been interupted to ensure the grounding circuit is complete.

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GREEN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	CB1

PULL BOX BONDING JUMPER 10 AWG GREEN XLP	
FROM	TO
PB1	SB1
PB1	PB9
PB1	PB12
PB1	PB3
PB3	SB2
PB3	PB4
PB4	SB3
PB4	PB5
PB5	SB4
PB5	PB6
PB6	SB5
PB6	PB7
PB6	PB8
PB8	SB6
PB8	PB9
PB9	SB7
PB9	SB8
PB9	PB10
PB10	PB11
PB9	PB12

CONFIRMATION LIGHTS	
FROM	TO
CB1	SB2 (HEAD A)
CB1	SB6 (HEAD B)

EMERGENCY VEHICLE	
FROM	TO
CB1	SB2 (HEAD A)
CB1	SB6 (HEAD B)

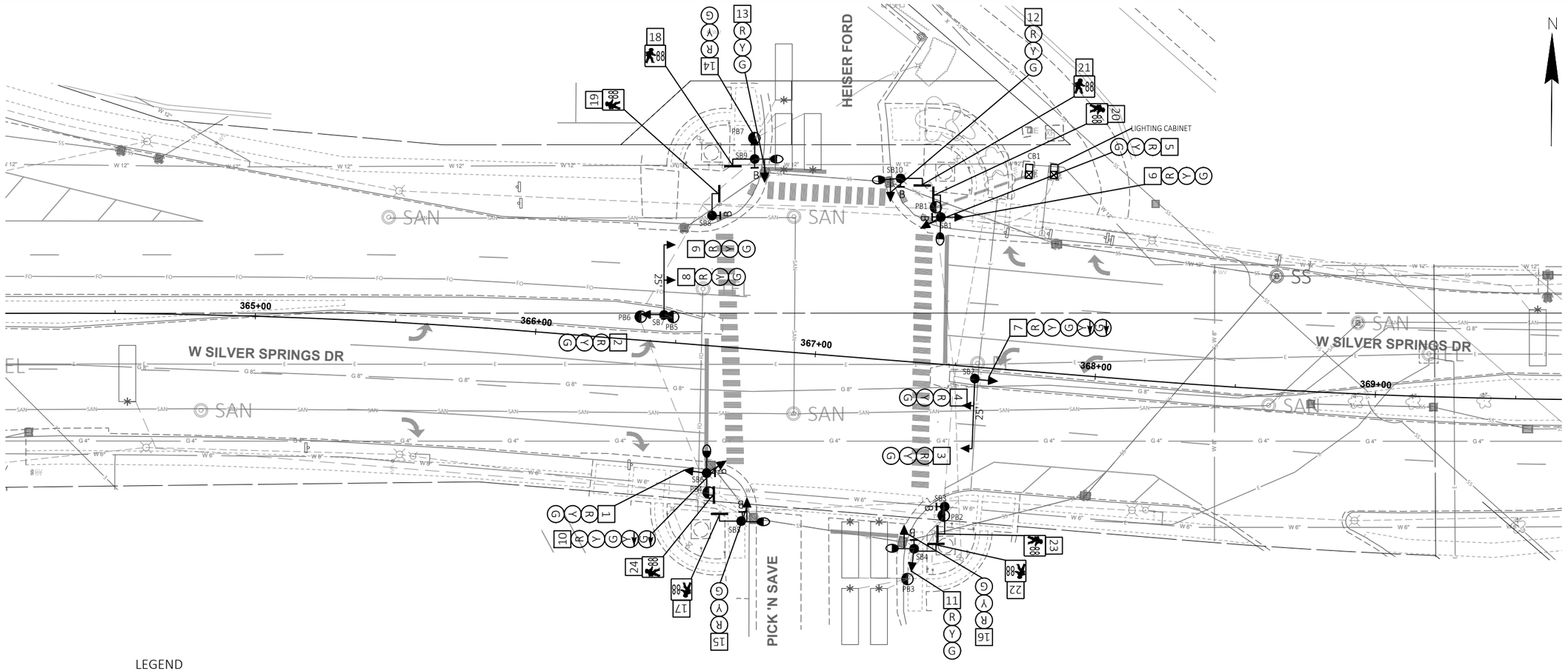
LIGHTING UF 2-10 AWG GROUNDED	
FROM	TO
CB1	LP1
CB1	LP2
CB1	LP3
CB1	LP4
CB1	LP5
CB1	LP6
CB1	LP7

TRAFFIC CONTROL SIGNAL
CRESTWOOD BLVD & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CRESTWOOD BLVD - CABLE ROUTING	SHEET 168	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL CONST SHEETS.DWG PLOT DATE : 1/23/2025 3:12 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE :



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R R RED ARROW
- FY Y Y YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. ALL PULL BOXES NOT SHOWN FOR REMOVAL ARE BEING REMOVED AS PART OF LIGHTING PLAN REMOVAL ITEMS.

TRAFFIC CONTROL SIGNAL
HEISER FORD/PICK N' SAVE & SILVER SPRINGS DR
CITY OF GLENDALE
MILWAUKEE COUNTY

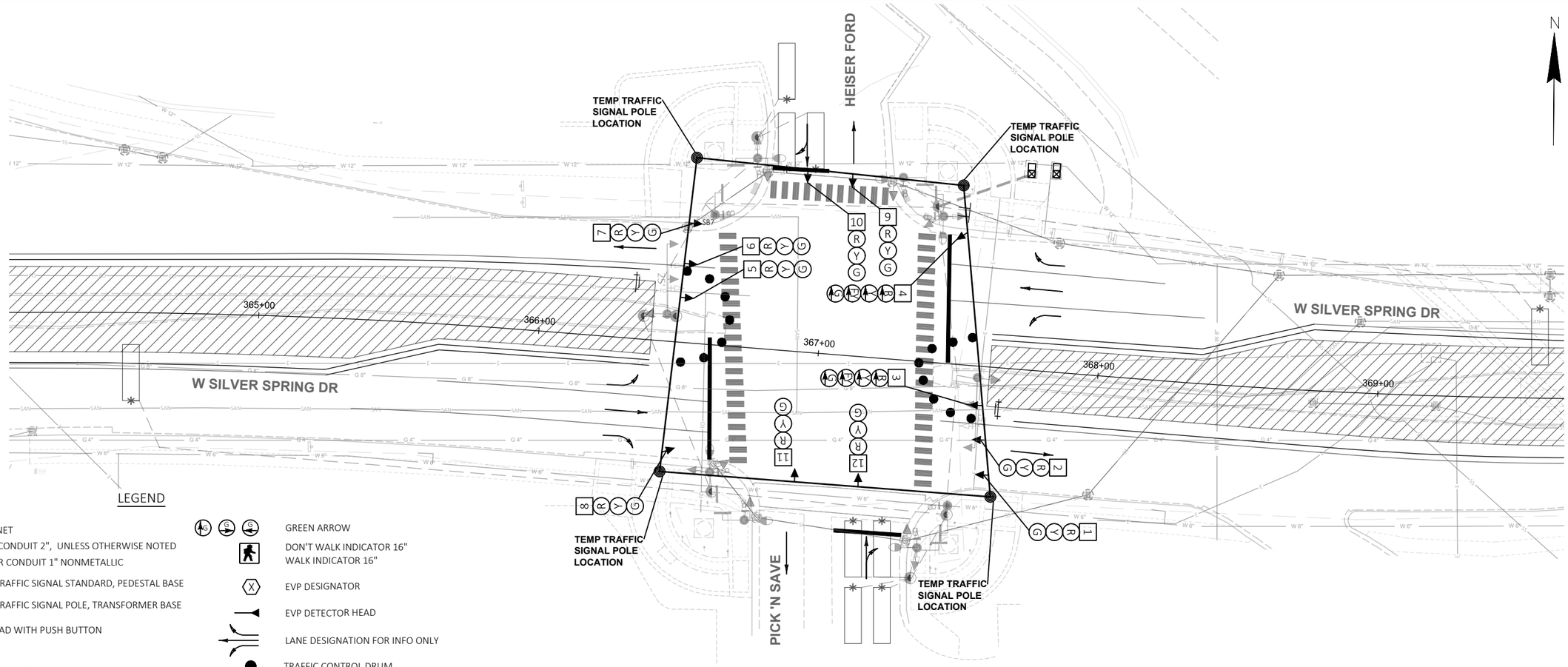
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	SIGNAL REMOVAL - PICK N SAVE	SHEET 169	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL REM SHEETS.DWG PLOT DATE : 1/23/2025 3:13 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GA GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:

- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MAINTAIN PROPER TEMPORARY TRAFFIC SIGNAL CLEARANCE REQUIREMENTS FOR ALL STAGES OF CONSTRUCTION.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

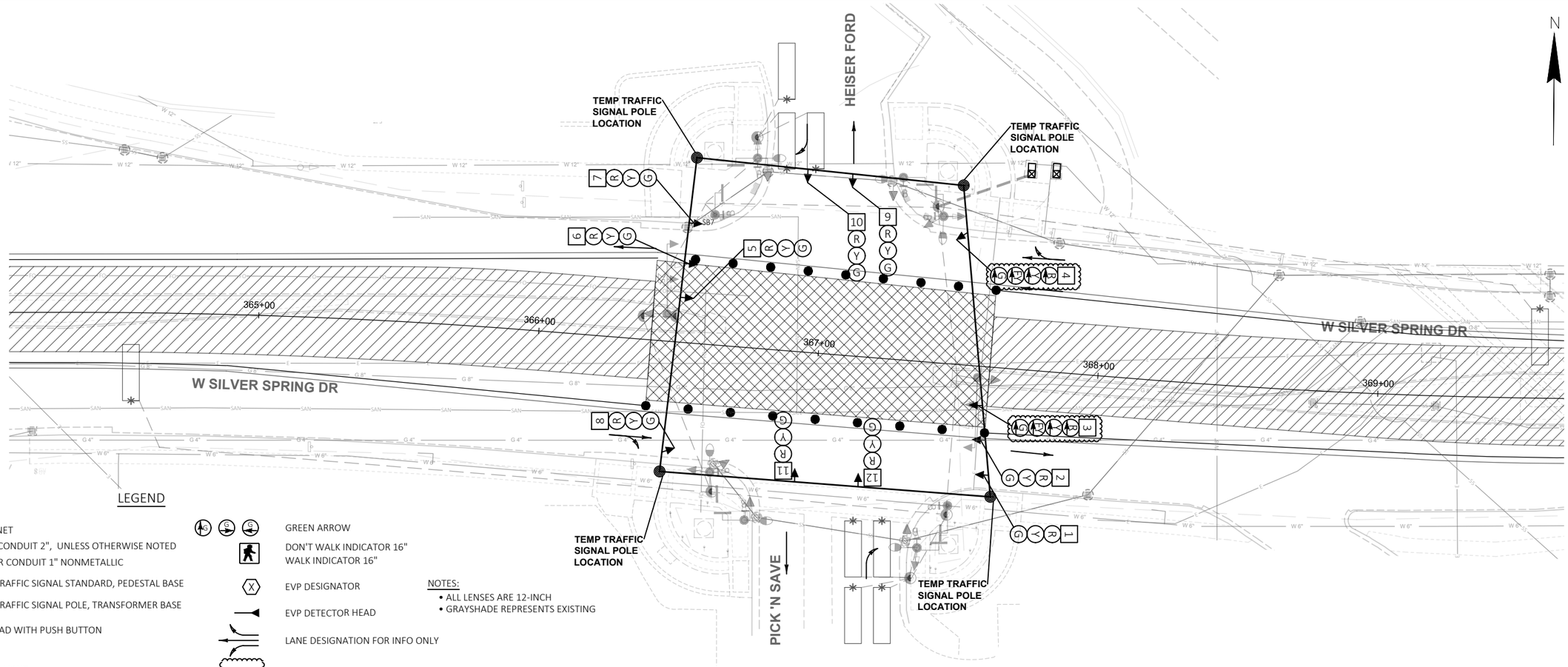
TRAFFIC CONTROL SIGNAL
HEISER FORD/PICK N' SAVE & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1A	SHEET 170	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE1A.DWG PLOT DATE : 1/23/2025 3:13 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC SIGNAL HEAD TO BE COVERED AND DE-ENERGIZED
- TRAFFIC CONTROL DRUM
  (SEE MAINTENANCE OF TRAFFIC)

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

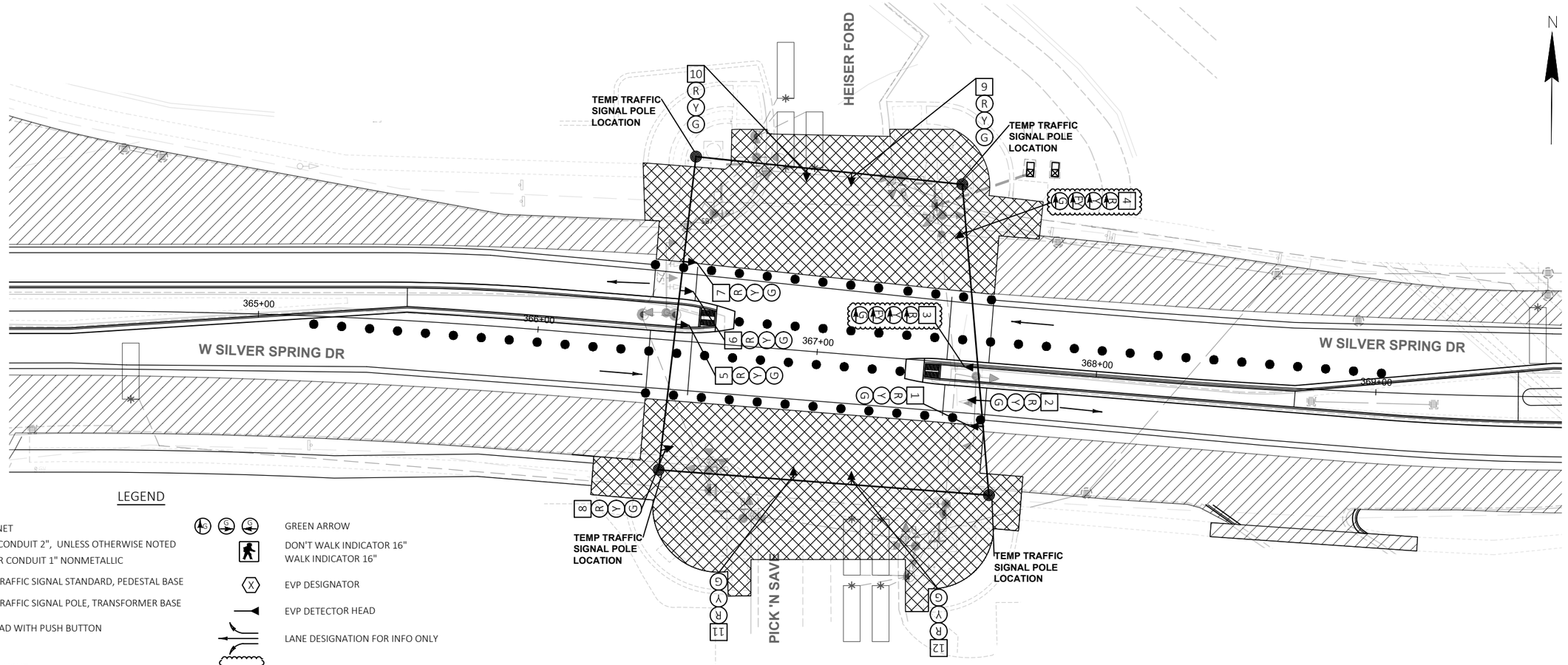
1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MAINTAIN PROPER TEMPORARY TRAFFIC SIGNAL CLEARANCE REQUIREMENTS FOR ALL STAGES OF CONSTRUCTION.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
9. SIGNALS TO OPERATE IN FLASH MODE FOR CURRENT STAGE.

TRAFFIC CONTROL SIGNAL
HEISER FORD/PICK N' SAVE & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B	SHEET 171	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE1B.DWG PLOT DATE : 1/23/2025 3:13 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16"
- WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC SIGNAL HEAD TO BE COVERED AND DE-ENERGIZED
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:

- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MAINTAIN PROPER TEMPORARY TRAFFIC SIGNAL CLEARANCE REQUIREMENTS FOR ALL STAGES OF CONSTRUCTION.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
9. SIGNALS TO OPERATE IN FLASH MODE FOR CURRENT STAGE.

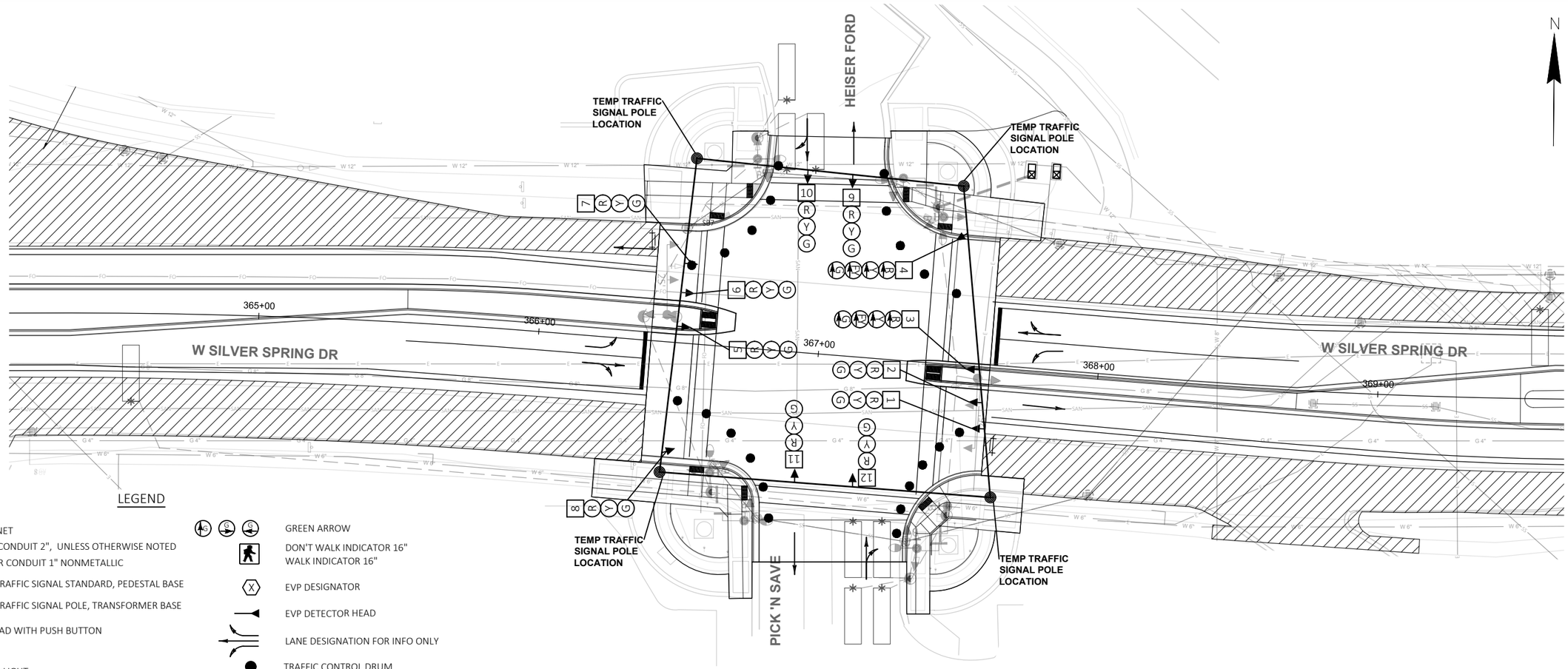
TRAFFIC CONTROL SIGNAL
HEISER FORD/PICK N' SAVE & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A	SHEET 172	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE2A.DWG PLOT DATE : 1/23/2025 3:13 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:

- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

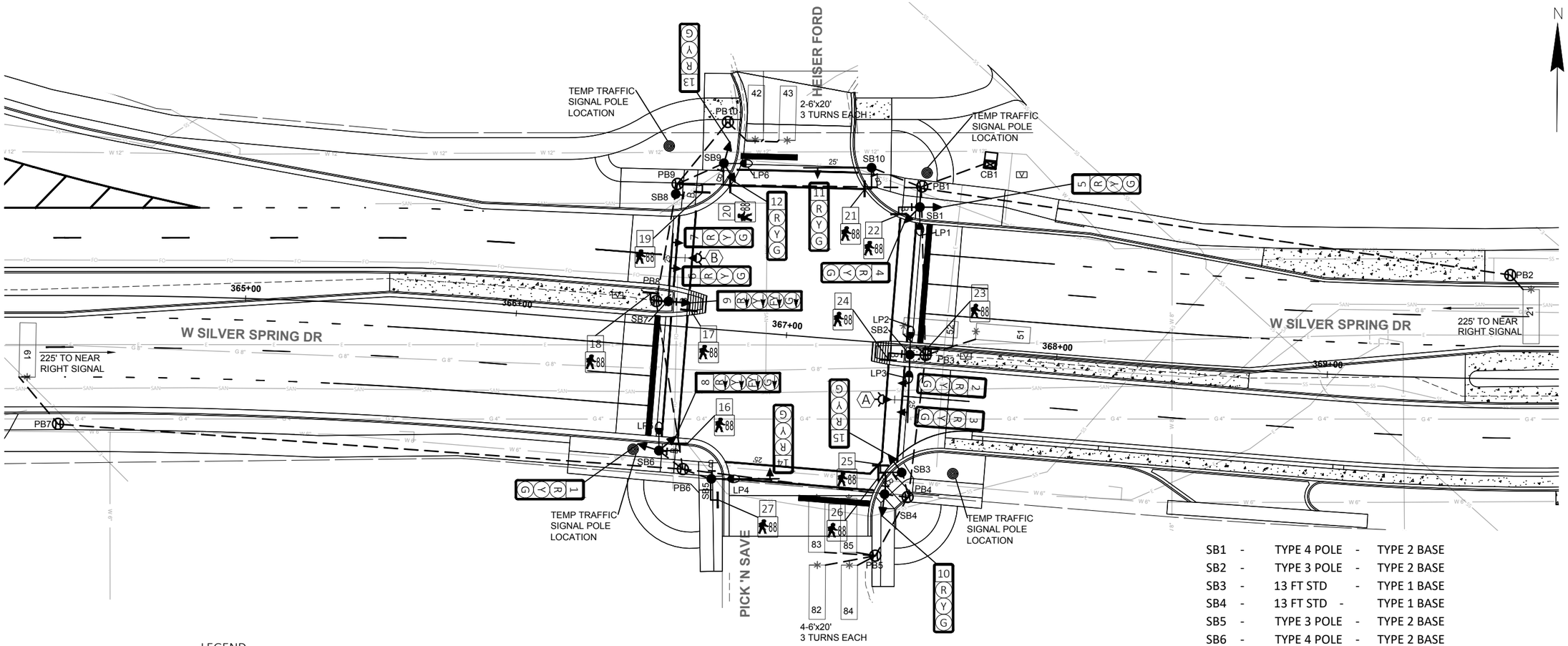
1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MAINTAIN PROPER TEMPORARY TRAFFIC SIGNAL CLEARANCE REQUIREMENTS FOR ALL STAGES OF CONSTRUCTION.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

TRAFFIC CONTROL SIGNAL
HEISER FORD/PICK N' SAVE & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2B	SHEET 173	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE2B.DWG PLOT DATE : 1/23/2025 3:14 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'



SB1	- TYPE 4 POLE	-	TYPE 2 BASE
SB2	- TYPE 3 POLE	-	TYPE 2 BASE
SB3	- 13 FT STD	-	TYPE 1 BASE
SB4	- 13 FT STD	-	TYPE 1 BASE
SB5	- TYPE 3 POLE	-	TYPE 2 BASE
SB6	- TYPE 4 POLE	-	TYPE 2 BASE
SB7	- TYPE 2 POLE	-	TYPE 2 BASE
SB8	- 10 FT STD	-	TYPE 1 BASE
SB9	- TYPE 4 POLE	-	TYPE 2 BASE
SB10	- TYPE 2 POLE	-	TYPE 2 BASE

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

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 CITY OF GLENDALE TO MAKE ARRANGEMENTS. (414) 228-1710.
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 NEW TRAFFIC CABINET BASE 6" ABOVE ROADWAY ELEVATION.
5. ALL LUMINARIES ARE LED-C UNLESS OTHERWISE NOTED.
6. PROPOSED STORM SEWER, LIGHTING, FTMS, AND TRAGGIC SIGNAL INTERCONNECT PLANS SHOWN GREYSHADED FOR PLAN CLARITY.
7. ANY CASING ARE INCIDENTAL TO THE CONCRETE SIGNAL BASE ITEMS.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS
2. THE ENGINEER WILL DETERMINE THE EXACT LOCATIONS OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.

TRAFFIC CONTROL SIGNAL

HEISER FORD/PICK N' SAVE & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

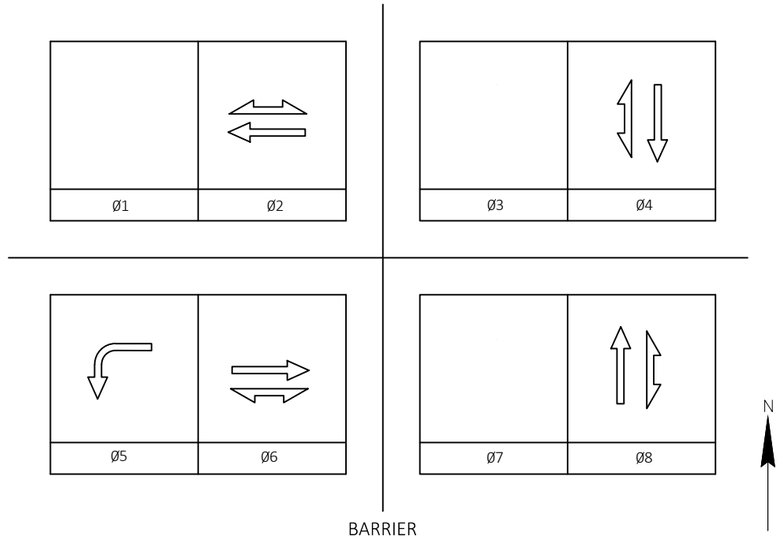
PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	SIGNAL PLAN - PICK N SAVE	SHEET 174	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL CONST SHEETS.DWG PLOT DATE : 1/23/2025 3:14 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

	HEAD NUMBERS	FLASH
Ø1		R
Ø2	5,6,7,8	R
Ø3		R
Ø4	13,14,15	R
Ø5	8,9	R
Ø6	1,2,3,4	R
Ø7		R
Ø8	10,11,12	R
Ø2 PED	20,21	
Ø4 PED	16,17,18,19	
Ø6 PED	26,27	
Ø8 PED	22,23,24,25	





2

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W /Ø	PHASE RECALL	PHASE ACTIVE
1		5		
2		6	MAX	X
3		7		
4		8	MIN	X
5		1	MIN	X
6		2	MAX	X
7		3		
8		4	MIN	X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	
TRAFFIC RESPONSIVE	X
CLOSED LOOP	
ADAPTIVE	
*LOCATION OF MASTER	
CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29	DETECTOR INPUT
PLAN LOOP DETECTOR #(S)		21		43	51	61	83	85									PLAN LOOP DETECTOR #(S)
ASSIGNED PHASE		2		4	5	6	8	8									ASSIGNED PHASE
OPERATION MODE		VEH		VEH	VEH	VEH	VEH	VEH									OPERATION MODE
SWITCH					6												SWITCH
EXTEND				X	X		X										EXTEND
DELAY								X									DELAY

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30	DETECTOR INPUT
PLAN LOOP DETECTOR #(S)			42		52		82	84									PLAN LOOP DETECTOR #(S)
ASSIGNED PHASE			4		5		8	8									ASSIGNED PHASE
OPERATION MODE			VEH		VEH		VEH	VEH									OPERATION MODE
SWITCH					6												SWITCH
EXTEND			X				X										EXTEND
DELAY					X			X									DELAY

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TRAFFIC CONTROL SIGNAL
HEISER FORD/PICK N' SAVE & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71 | HWY: W. SILVER SPRING DR | COUNTY: MILWAUKEE | PICK N SAVE - SEQUENCE OF OPERATIONS | SHEET 175 | E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL CONST SHEETS.DWG PLOT DATE : 1/23/2025 3:14 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE :

PROJECT ID:	2090-07-71
INTERSECTION:	SILVER SPRING DRIVE/ PICK N SAVE

SIGNAL WIRE COLOR CODING	BLK=BLACK WHT=WHITE	RED=RED BLU=BLUE	GRN=GREEN ORG=ORANGE

CB1 TO	NO. OF CONDUCTORS	HEAD NO	SIGNAL INDICATION WIRE COLOR										
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK	PED BUTTON	OTHER
SB1	9	4	RED	ORG	GRN								
		5	RED	ORG	GRN								
		22								BLK	BLU		
		B										WHT/BLK	
SB2	7	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		23								BLK	BLU		
		24								BLK	BLU		
		B										WHT/BLK	
SB3	7	15	RED	ORG	GRN								
		25								BLK	BLU		
		B										WHT/BLK	
SB4	7	10	RED	ORG	GRN								
		26								BLK	BLU		
		B										WHT/BLK	
SB5	7	14	RED	ORG	GRN								
		27								BLK	BLU		
		B										WHT/BLK	
SB6	9	1	RED	ORG	GRN								
		8	RED	ORG	GRN								
		16								BLK	BLU		
		B										WHT/BLK	
SB7	15	6	RED	ORG	GRN								
		7	RED	ORG	GRN								
		9				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
		17								BLK	BLU		
		18								BLK	BLU		
		B										WHT/BLK	
SB8	3	19								BLK	BLU		
		B										WHT/BLK	
SB9	9	12	RED	ORG	GRN								
		13	RED	ORG	GRN								
		20								BLK	BLU		
		B										WHT/BLK	
SB10	7	11	RED	ORG	GRN								
		21								BLK	BLU		
		B										WHT/BLK	

Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the underground conductors.
At the signal bases, connect one terminal from the pedestrian push button to the color indicated in the chart. Connect the other terminal to the grounded conductor.
Reconnect the grounding conductors wherever the circuit has been interupted to ensure the grounding circuit is complete.

CONFIRMATION LIGHTS	
FROM	TO
CB1	SB2 (HEAD A)
CB1	SB7 (HEAD B)

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB2 (HEAD A)
CB1	SB7 (HEAD B)

LIGHTING UF 2-10 AWG GROUNDED	
FROM	TO
CB1	LP1
CB1	LP2
CB1	LP3
CB1	LP4
CB1	LP5
CB1	LP6

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GREEN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	CB1

PULL BOX BONDING JUMPER 10 AWG GREEN XLP	
FROM	TO
PB1	SB1
PB1	SB10
PB1	PB9
PB1	PB2
PB1	PB3
PB3	SB2
PB3	PB4
PB4	SB3
PB4	SB4
PB4	PB5
PB4	PB6
PB6	SB5
PB6	SB6
PB6	PB7
PB6	PB8
PB8	SB7
PB8	PB9
PB9	SB8
PB9	SB9
PB9	PB10

TRAFFIC CONTROL SIGNAL
HEISER FORD/PICK N' SAVE & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

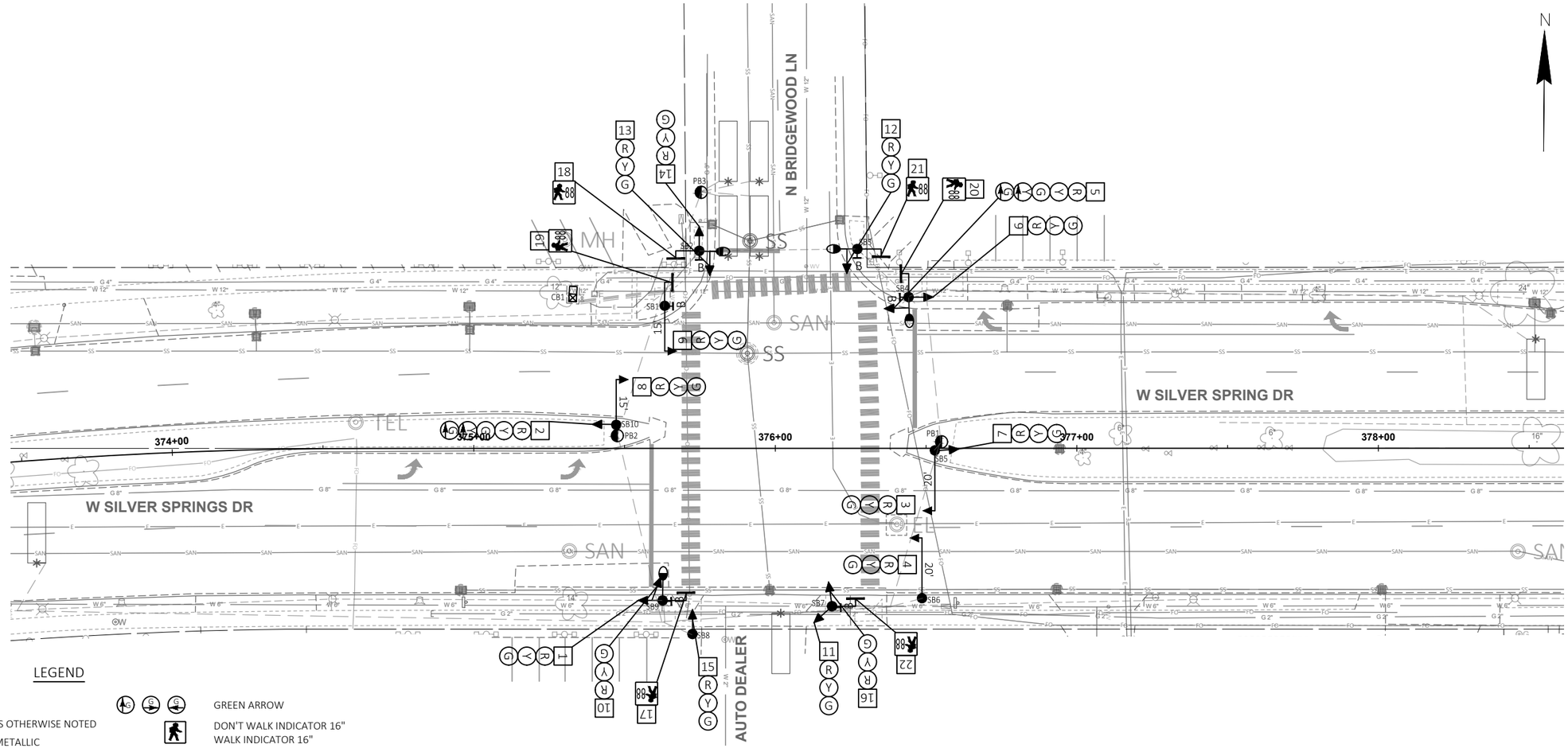
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PICK N SAVE - CABLE ROUTING	SHEET 176	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL CONST SHEETS.DWG PLOT DATE : 1/23/2025 3:14 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE :

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. ALL PULL BOXES NOT SHOWN FOR REMOVAL ARE BEING REMOVED AS PART OF LIGHTING PLAN REMOVAL ITEMS.

TRAFFIC CONTROL SIGNAL
BRIDGEWOOD LN & SILVER SPRINGS DR
CITY OF GLENDALE
MILWAUKEE COUNTY

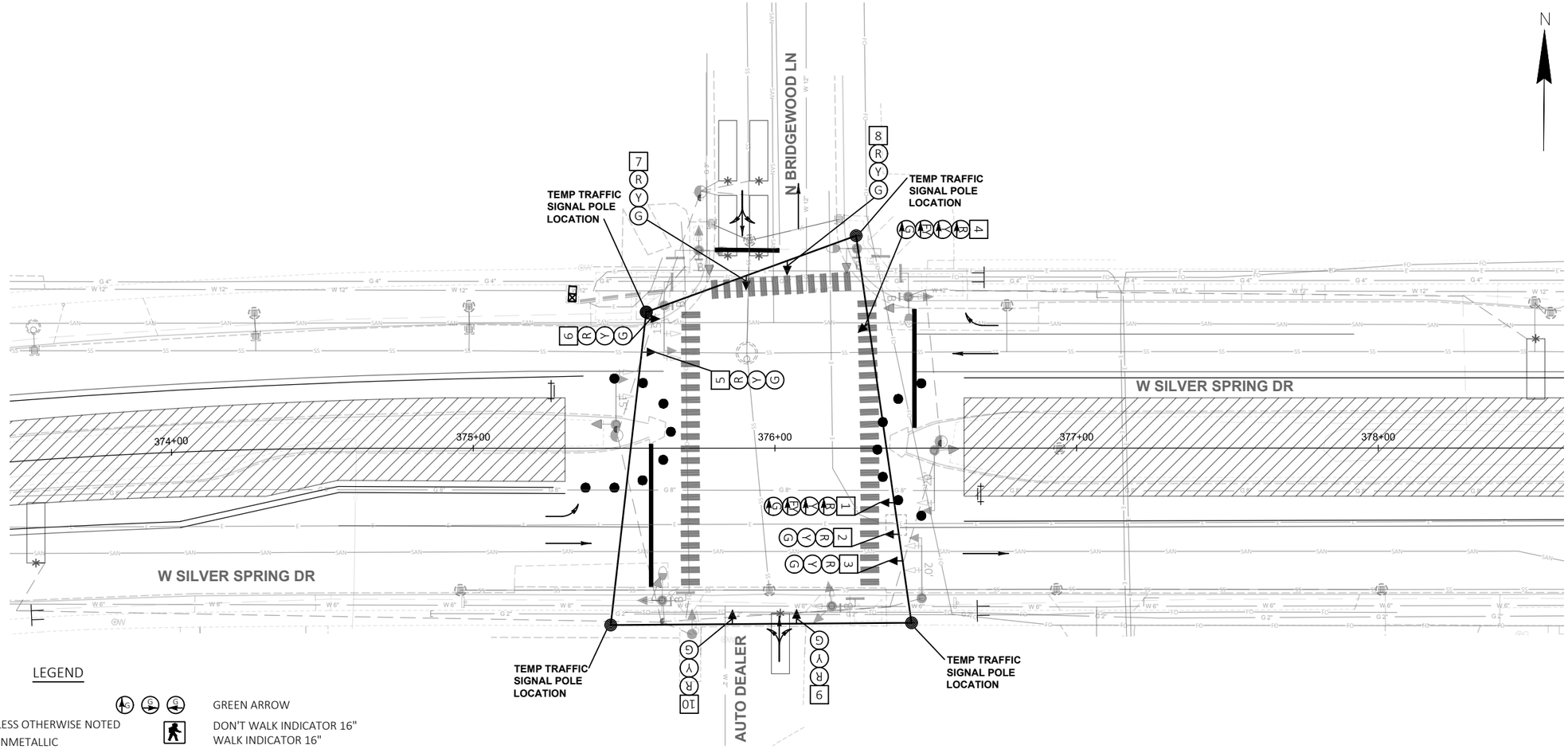
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	SIGNAL REMOVAL - BRIDGEWOOD LN	SHEET 177	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL REM SHEETS.DWG PLOT DATE : 1/23/2025 3:14 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
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- PUSH BUTTON
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- Y YELLOW CIRCULAR INDICATOR
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- GREEN ARROW
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- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:

- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
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7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

TRAFFIC CONTROL SIGNAL
BRIDGEWOOD LN & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

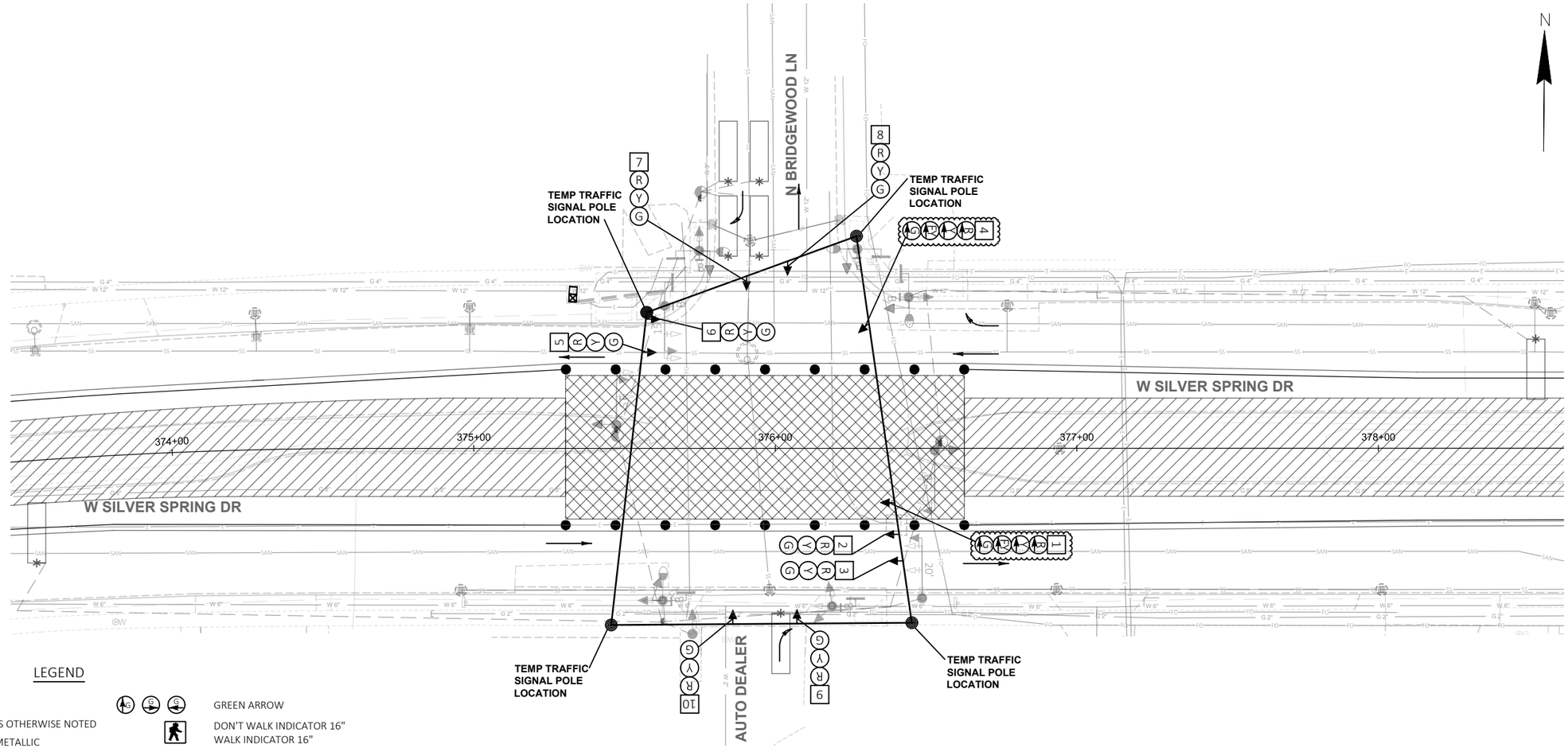
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1A	SHEET 178	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE1A.DWG PLOT DATE : 1/23/2025 3:15 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
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- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC SIGNAL HEAD TO BE COVERED AND DE-ENERGIZED
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:
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- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

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7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
9. SIGNALS TO OPERATE IN FLASH MODE FOR CURRENT STAGE.

TRAFFIC CONTROL SIGNAL

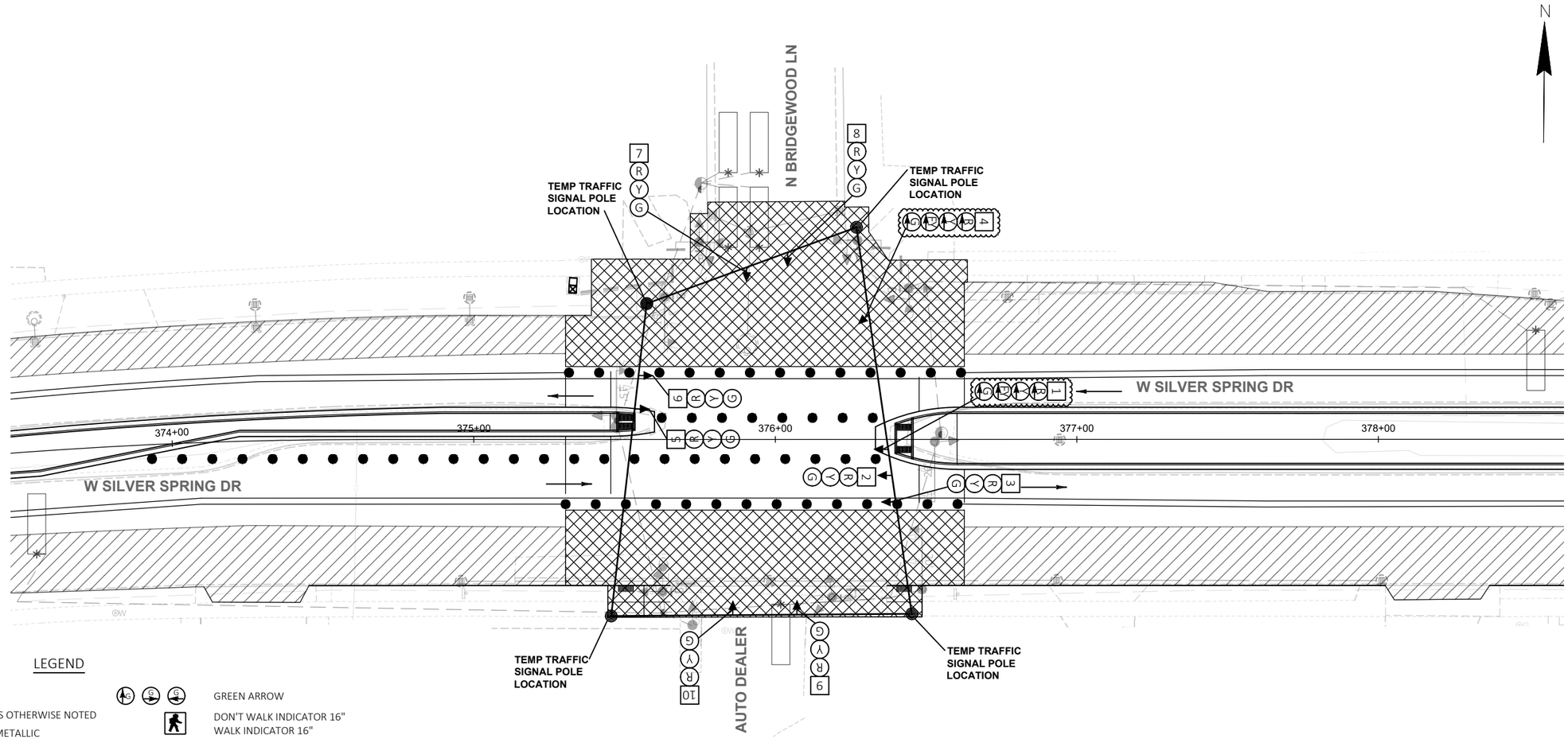
BRIDGEWOOD LN & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B	SHEET 179	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE1B.DWG PLOT DATE : 1/23/2025 3:15 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
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- GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC SIGNAL HEAD TO BE COVERED AND DE-ENERGIZED
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

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6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
9. SIGNALS TO OPERATE IN FLASH MODE FOR CURRENT STAGE.

TRAFFIC CONTROL SIGNAL

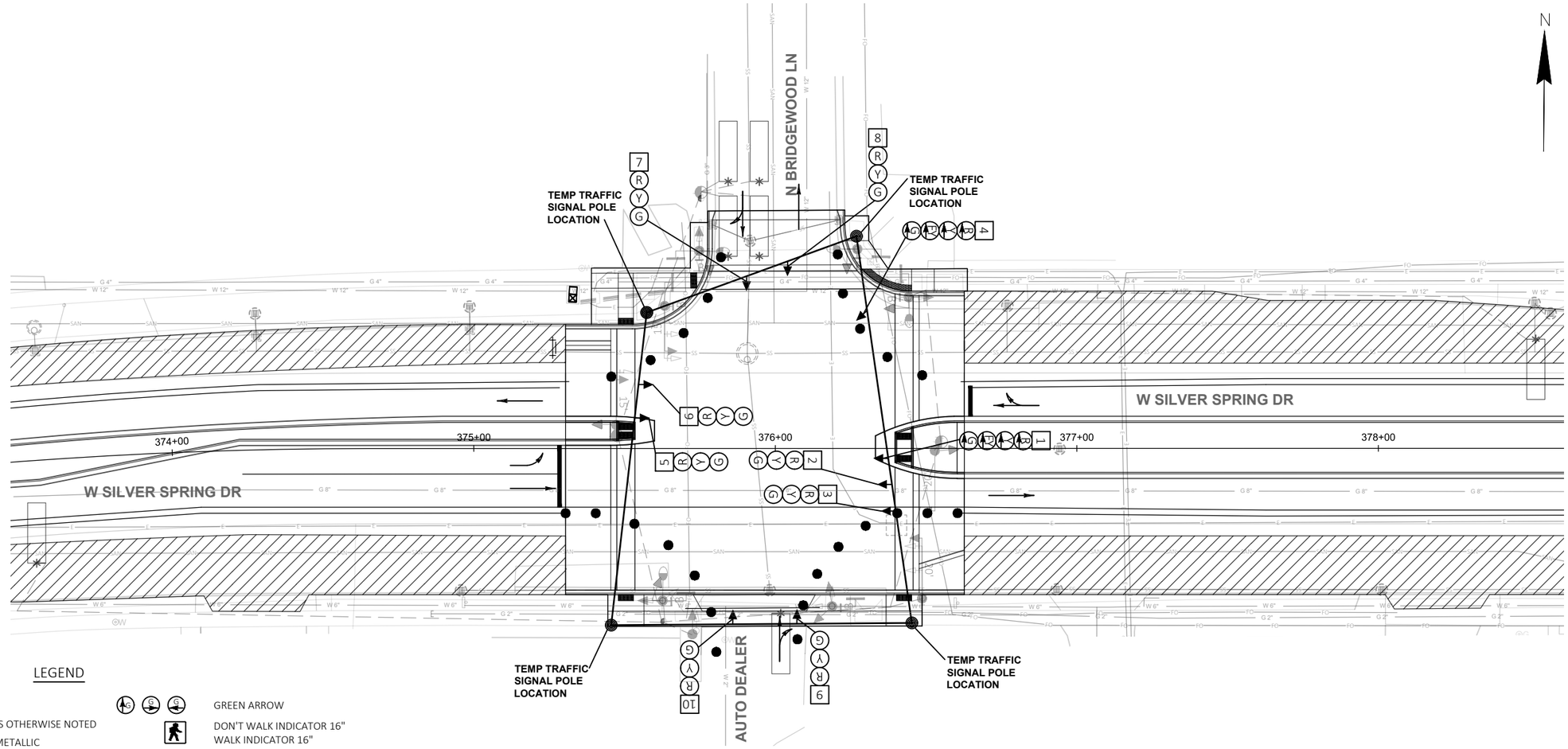
BRIDGEWOOD LN & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A	SHEET 180	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE2A.DWG PLOT DATE : 1/23/2025 3:15 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16" WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:

- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MAINTAIN PROPER TEMPORARY TRAFFIC SIGNAL CLEARANCE REQUIREMENTS FOR ALL STAGES OF CONSTRUCTION.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

TRAFFIC CONTROL SIGNAL

BRIDGEWOOD LN & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

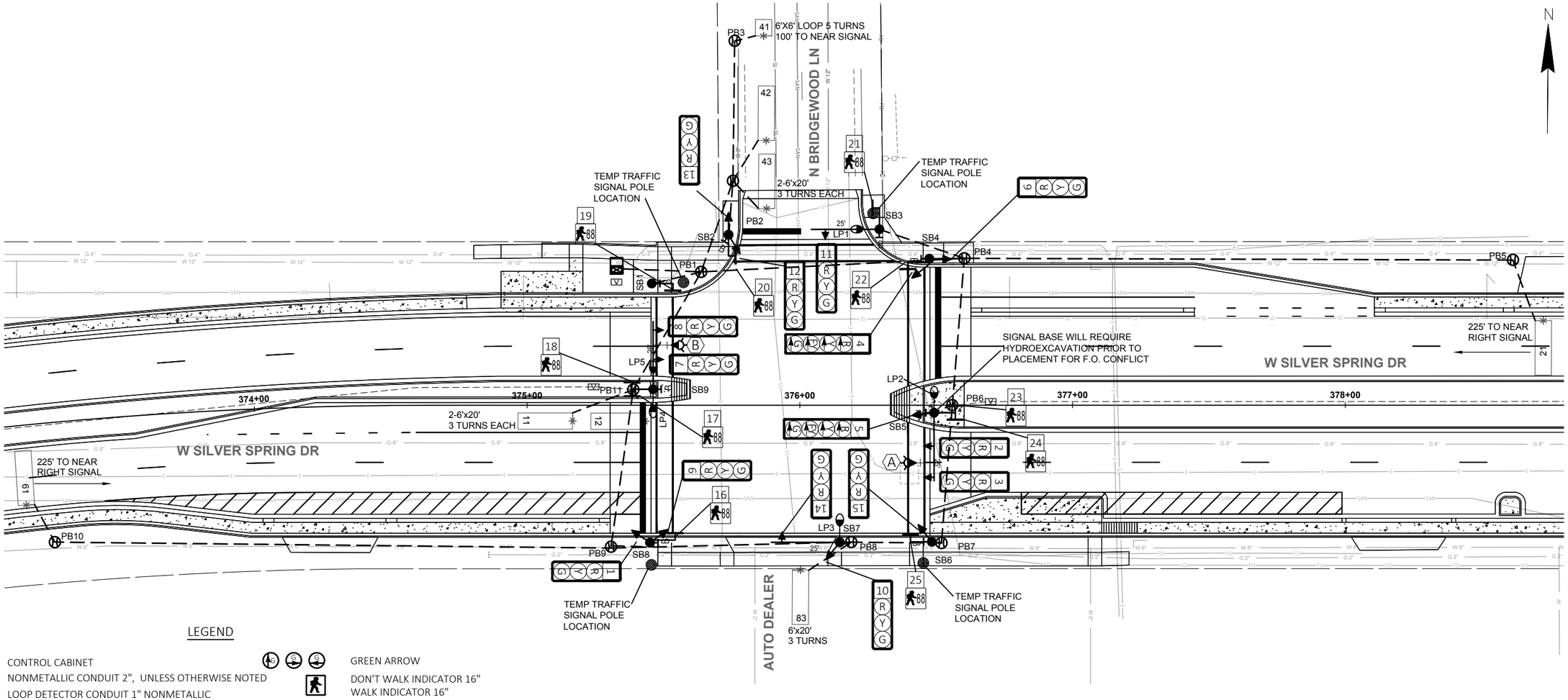
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2B	SHEET 181	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE2B.DWG PLOT DATE : 1/23/2025 3:15 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- GA GREEN ARROW
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

SB1	-	10 FT STD	- TYPE 1 BASE
SB2	-	13 FT STD	- TYPE 1 BASE
SB3	-	TYPE 3 POLE	- TYPE 2 BASE
SB4	-	15 FT STD	- TYPE 1 BASE
SB5	-	TYPE 3 POLE	- TYPE 2 BASE
SB6	-	13 FT STD	- TYPE 1 BASE
SB7	-	TYPE 3 POLE	- TYPE 2 BASE
SB8	-	13 FT STD	- TYPE 1 BASE
SB9	-	TYPE 3 POLE	- TYPE 2 BASE

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 CITY OF GLENDALE TO MAKE ARRANGEMENTS. (414) 228-1710.
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 NEW TRAFFIC CABINET BASE 6" ABOVE ROADWAY ELEVATION.
5. ALL LUMINARIES ARE LED-C UNLESS OTHERWISE NOTED.
6. PROPOSED STORM SEWER, LIGHTING, FTMS, AND TRAGGIC SIGNAL INTERCONNECT PLANS SHOWN GREYSHADED FOR PLAN CLARITY.
7. ANY CASING ARE INCIDENTAL TO THE CONCRETE SIGNAL BASE ITEMS.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS
2. THE ENGINEER WILL DETERMINE THE EXACT LOCATIONS OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.

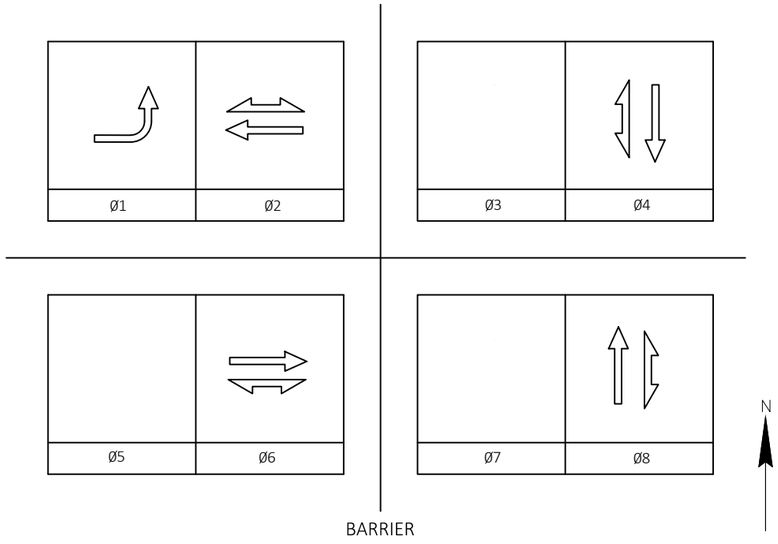
TRAFFIC CONTROL SIGNAL
BRIDGEWOOD LN & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	SIGNAL PLAN - BRIDGEWOOD LN	SHEET 182	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL CONST SHEETS.DWG PLOT DATE : 1/23/2025 3:16 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

	HEAD NUMBERS	FLASH
Ø1	4,5	R
Ø2	6,7,8,9	R
Ø3		R
Ø4	13,14,15	R
Ø5		R
Ø6	1,2,3	R
Ø7		R
Ø8	10,11,12	R
Ø2 PED	20,21	
Ø4 PED	16,17,18,19	
Ø6 PED		
Ø8 PED	22,23,24,25	





2

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY w /Ø	PHASE RECALL	PHASE ACTIVE
1		5	MIN	X
2		6	MAX	X
3		7		
4		8	MIN	X
5		1		
6		2	MAX	X
7		3		
8		4	MIN	X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	
TRAFFIC RESPONSIVE	X
CLOSED LOOP	
ADAPTIVE	
*LOCATION OF MASTER	
CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR #(S)	11	21	41	43		61		83
ASSIGNED PHASE	1	2	4	4		6		8
OPERATION MODE	VEH	VEH	VEH	VEH		VEH		VEH
SWITCH	2							
EXTEND	X		X					
DELAY				X				X

19	17	23	21	27	25	31	29	DETECTOR INPUT
								PLAN LOOP DETECTOR #(S)
								ASSIGNED PHASE
								OPERATION MODE
								SWITCH
								EXTEND
								DELAY

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR #(S)	12		42					
ASSIGNED PHASE	1		4					
OPERATION MODE	VEH		VEH					
SWITCH	2							
EXTEND								
DELAY	X							

20	18	24	22	28	26	32	30	DETECTOR INPUT
								PLAN LOOP DETECTOR #(S)
								ASSIGNED PHASE
								OPERATION MODE
								SWITCH
								EXTEND
								DELAY

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TRAFFIC CONTROL SIGNAL
BRIDGEWOOD LN & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	BRIDGEWOOD LN - SEQUENCE OF OPERATIONS	SHEET 183	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL CONST SHEETS.DWG PLOT DATE : 1/23/2025 3:16 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE :

PROJECT ID:	2090-07-71
INTERSECTION:	SILVER SPRING DRIVE/BBRIDGEWOOD LANE

SIGNAL WIRE COLOR CODING	BLK=BLACK WHT=WHITE	RED=RED BLU=BLUE	GRN=GREEN ORG=ORANGE

CB1 TO	NO. OF CONDUCTORS	HEAD NO	SIGNAL INDICATION WIRE COLOR										
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK	PED BUTTON	OTHER
SB1	3	19								BLK	BLU		
		B										WHT/BLK	
SB2	9	12	RED	ORG	GRN								
		13	RED	ORG	GRN								
		20								BLK	BLU		
		B										WHT/BLK	
SB3	3	21								BLK	BLU		
		B										WHT/BLK	
SB4	12	4				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
		6	RED	ORG	GRN								
		22								BLK	BLU		
		B										WHT/BLK	
SB5	15	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		5				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
		23								BLK	BLU		
		24								BLK	BLU		
		B										WHT/BLK	
SB6	7	15	RED	ORG	GRN								
		25								BLK	BLU		
		B										WHT/BLK	
SB7	7	14	RED	ORG	GRN								
		10	RED	ORG	GRN								
SB8	9	1	RED	ORG	GRN								
		9	RED	ORG	GRN								
		16								BLK	BLU		
		B										WHT/BLK	
SB9	12	7	RED	ORG	GRN								
		8	RED	ORG	GRN								
		17								BLK	BLU		
		18								BLK	BLU		
		B										WHT/BLK	

Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the underground conductors.
At the signal bases, connect one terminal from the pedestrian push button to the color indicated in the chart. Connect the other terminal to the grounded conductor.
Reconnect the grounding conductors wherever the circuit has been interupted to ensure the grounding circuit is complete.

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GREEN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	CB1

PULL BOX BONDING JUMPER 10 AWG GREEN XLP	
FROM	TO
PB1	SB1
PB1	PB2
PB1	PB4
PB2	SB2
PB2	PB3
PB4	SB3
PB4	SB4
PB4	PB5
PB4	PB6
PB6	SB5
PB6	PB7
PB7	SB6
PB7	PB8
PB8	SB7
PB8	PB9
PB9	SB8
PB9	PB10
PB9	PB11
PB11	SB9
PB11	PB1

CONFIRMATION LIGHTS	
FROM	TO
CB1	SB5 (HEAD A)
CB1	SB9 (HEAD B)

EMERGENCY VEHICLE	
FROM	TO
CB1	SB5 (HEAD A)
CB1	SB9 (HEAD B)

LIGHTING UF 2-10 AWG GROUNDED	
FROM	TO
CB1	LP1
CB1	LP2
CB1	LP3
CB1	LP4
CB1	LP5

TRAFFIC CONTROL SIGNAL
BRIDGEWOOD LN & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	BRIDGEWOOD LN - CABLE ROUTING	SHEET 184	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL CONST SHEETS.DWG PLOT DATE : 1/23/2025 3:16 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE :

2

N

N MILWAUKEE RIVER PKWY

W SILVER SPRINGS DR

389+00 390+00 391+00 392+00 393+00 394+00

SAN TEL SS FL

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
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- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. ALL PULL BOXES NOT SHOWN FOR REMOVAL ARE BEING REMOVED AS PART OF LIGHTING PLAN REMOVAL ITEMS.

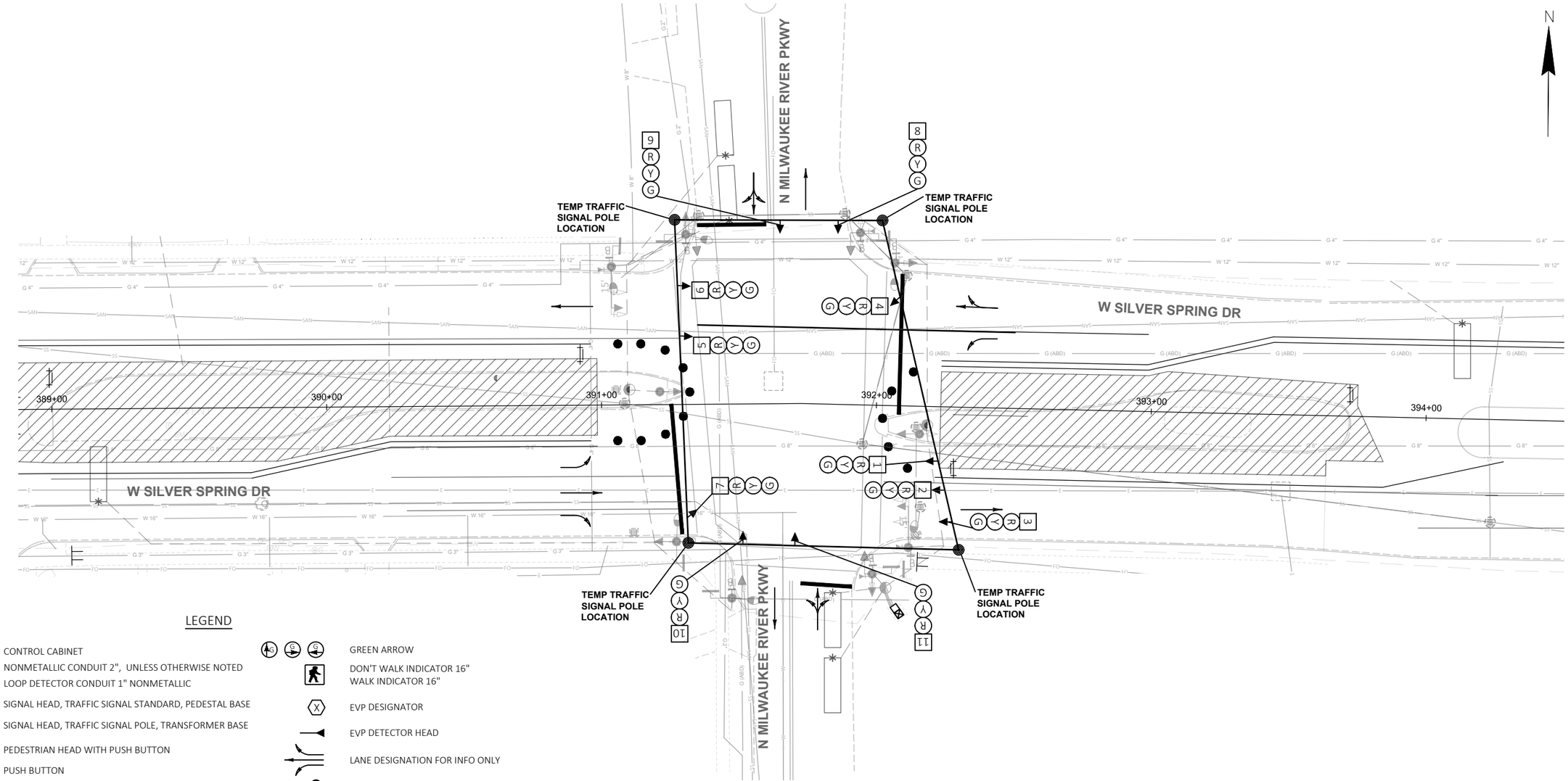
TRAFFIC CONTROL SIGNAL
MILWAUKEE RIVER PKWY & SILVER SPRINGS DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	SIGNAL REMOVAL - MILWAUKEE RIVER PKWY	SHEET 185	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL REM SHEETS.DWG PLOT DATE : 1/23/2025 3:16 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
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TRAFFIC CONTROL SIGNAL

MILWAUKEE RIVER PKWY & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

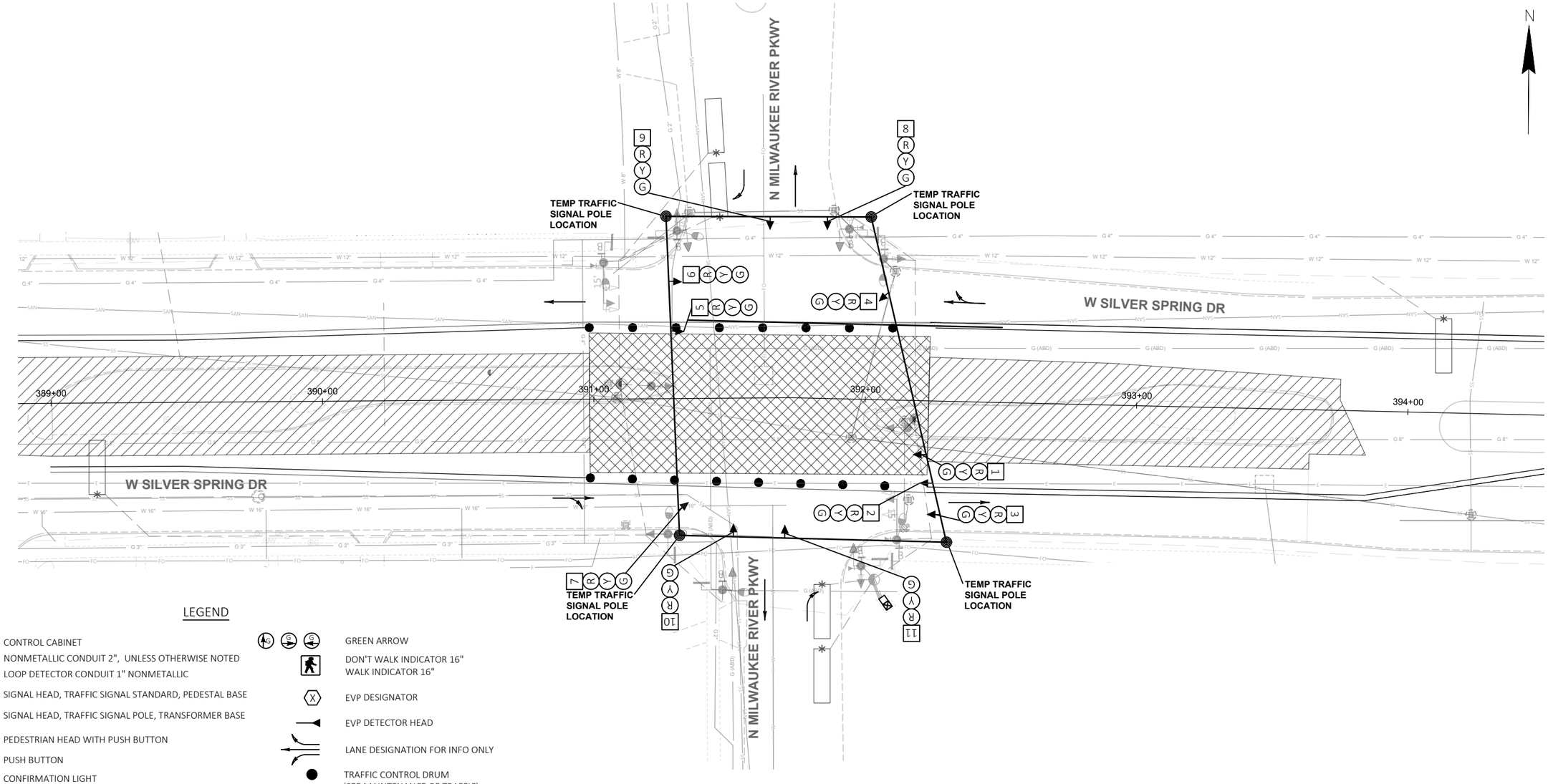
PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL - STAGE 1A	SHEET 186	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE1A.DWG PLOT DATE : 1/23/2025 3:16 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

N



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
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- PUSH BUTTON
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- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:
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CONSTRUCTION NOTES:

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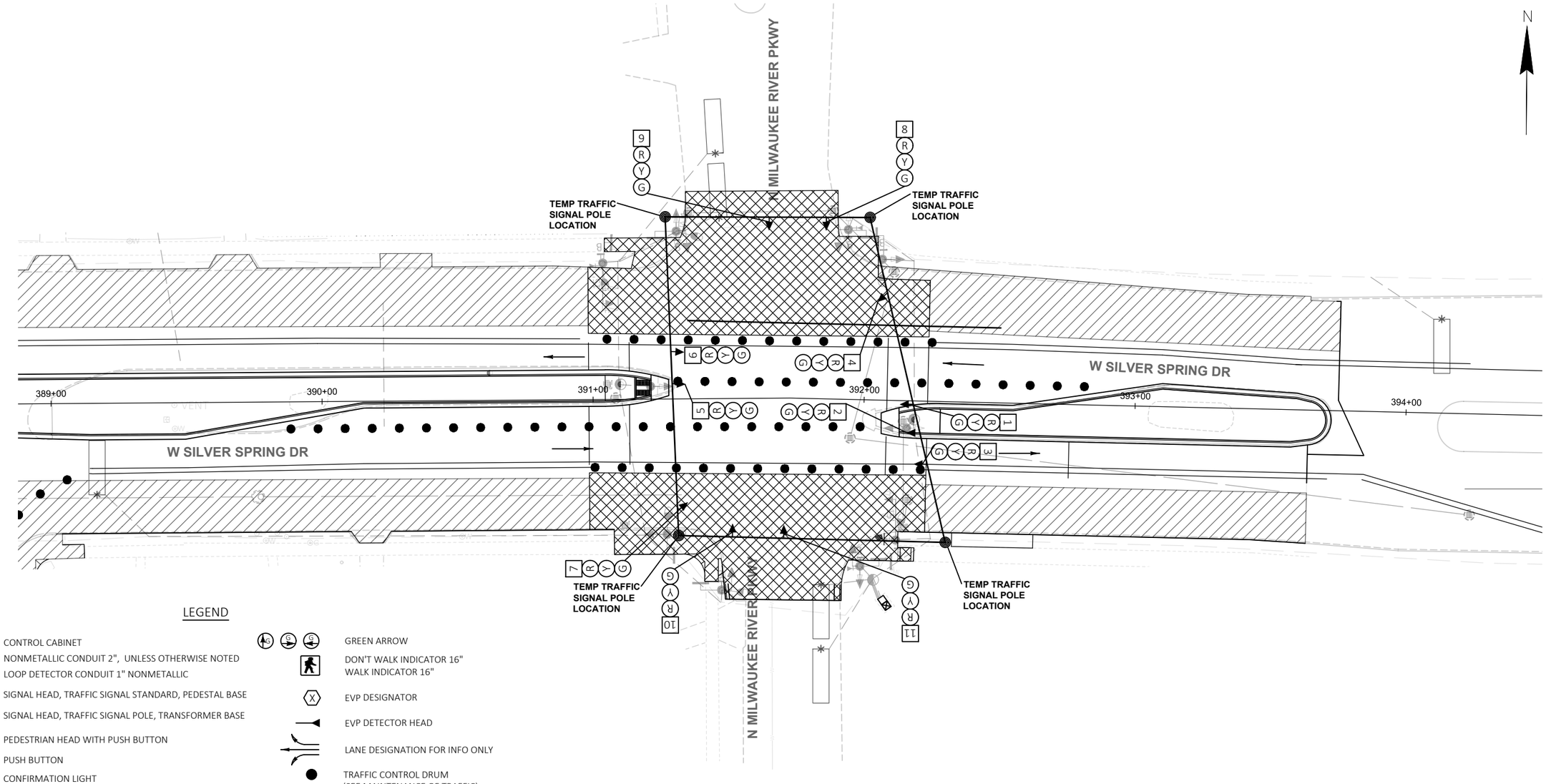
TRAFFIC CONTROL SIGNAL
MILWAUKEE RIVER PKWY & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL - STAGE 1B	SHEET 187	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE1B.DWG
PLOT DATE : 1/23/2025 3:17 PM
PLOT BY : ANDREW J. TOROLA
PLOT NAME :
PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MAINTAIN PROPER TEMPORARY TRAFFIC SIGNAL CLEARANCE REQUIREMENTS FOR ALL STAGES OF CONSTRUCTION.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
9. SIGNALS TO OPERATE IN FLASH MODE FOR CURRENT STAGE.

TRAFFIC CONTROL SIGNAL

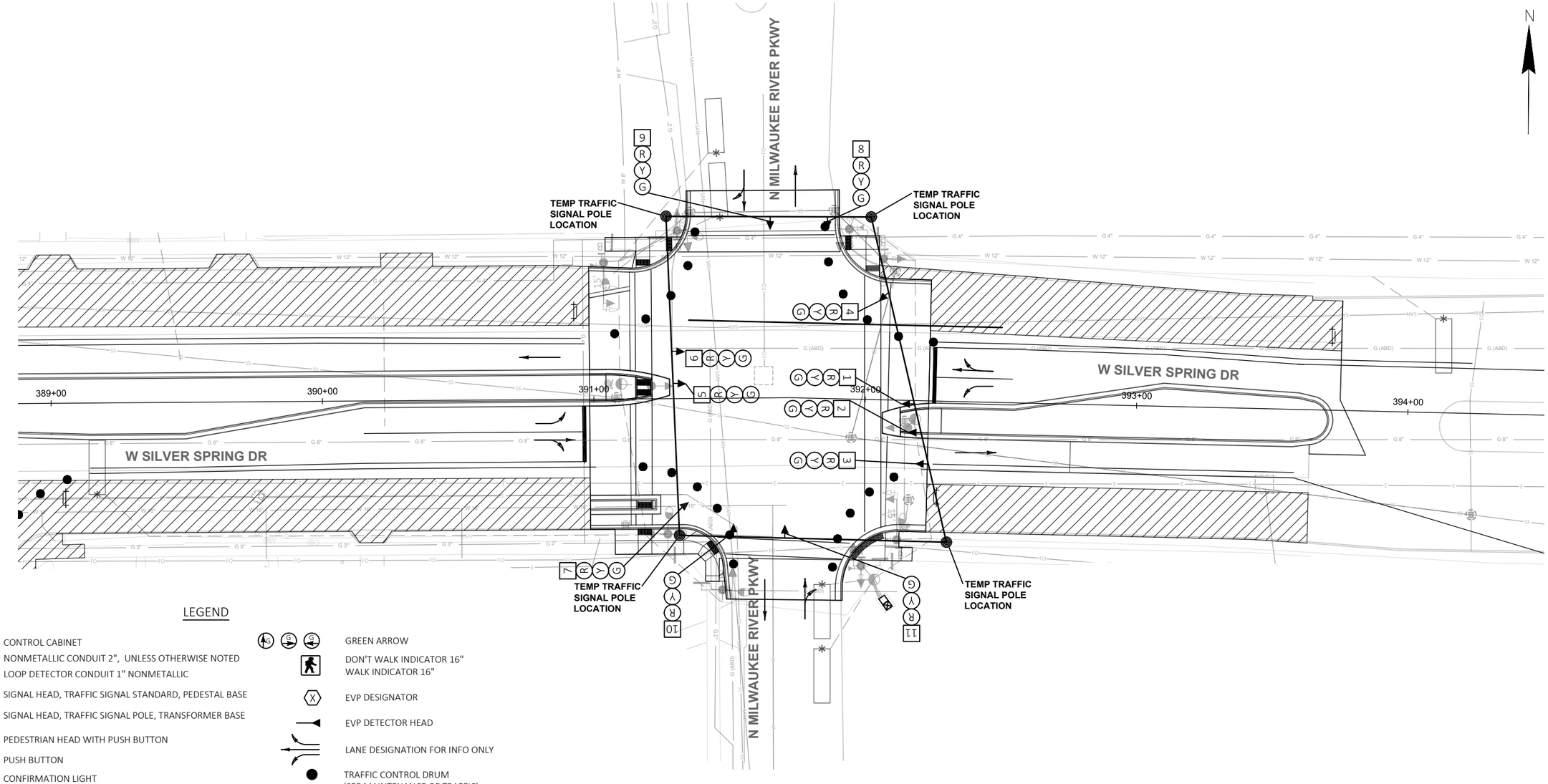
MILWAUKEE RIVER PKWY & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL - STAGE 2A	SHEET 188	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE2A.DWG PLOT DATE : 1/23/2025 3:17 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- TRAFFIC CONTROL DRUM (SEE MAINTENANCE OF TRAFFIC)

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MAINTAIN PROPER TEMPORARY TRAFFIC SIGNAL CLEARANCE REQUIREMENTS FOR ALL STAGES OF CONSTRUCTION.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. NO ADDITIONAL COST IF NEED TO WIRE TEMPORARY SIGNAL EQUIPMENT INTO NEW PERMANENT SIGNAL EQUIPMENT.
8. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

TRAFFIC CONTROL SIGNAL

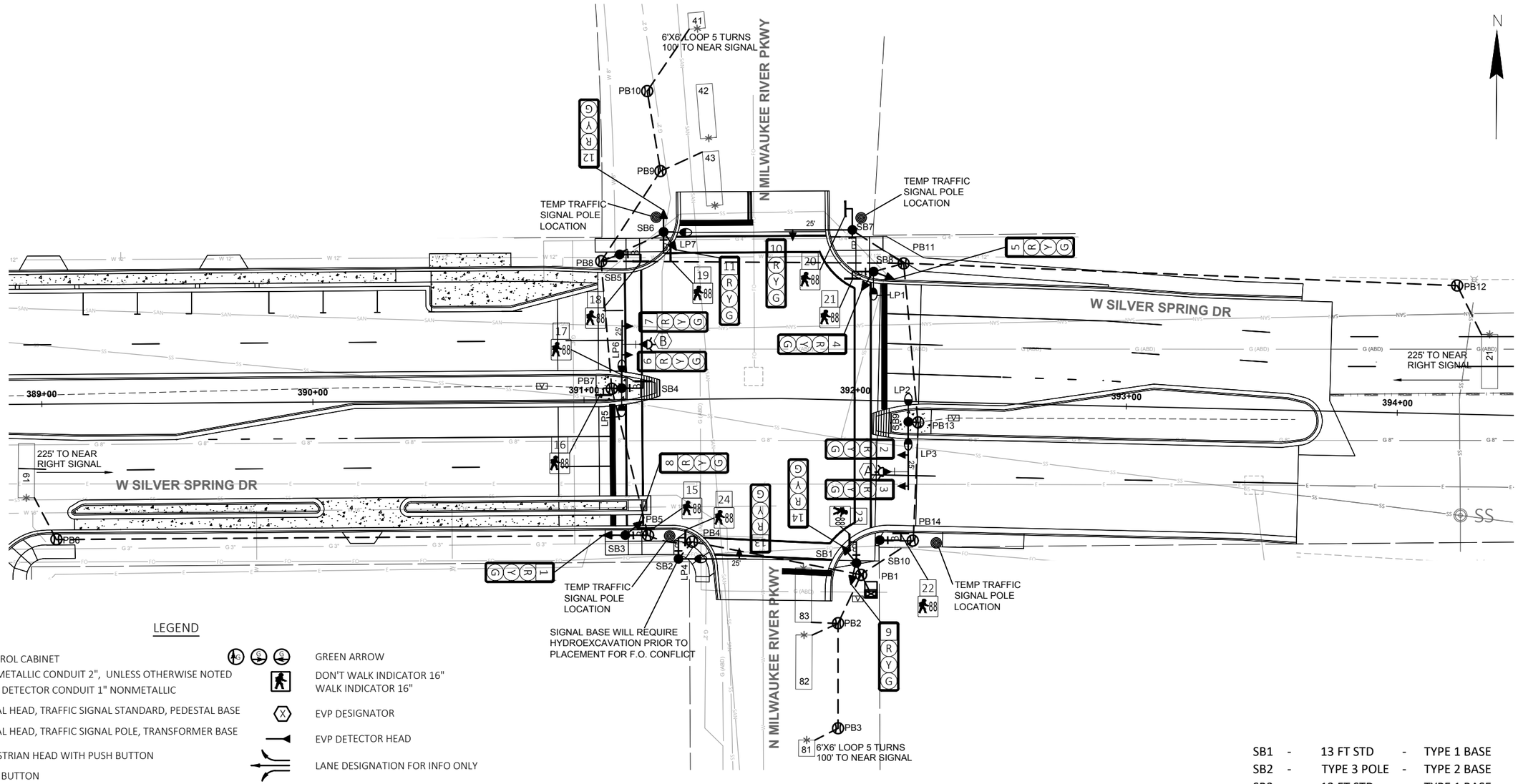
MILWAUKEE RIVER PKWY & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL - STAGE 2B	SHEET 189	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNALS STAGE2B.DWG PLOT DATE : 1/23/2025 3:17 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- GA GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

SB1	- 13 FT STD	-	TYPE 1 BASE
SB2	- TYPE 3 POLE	-	TYPE 2 BASE
SB3	- 13 FT STD	-	TYPE 1 BASE
SB4	- TYPE 3 POLE	-	TYPE 2 BASE
SB5	- 10 FT STD	-	TYPE 1 BASE
SB6	- TYPE 4 POLE	-	TYPE 2 BASE
SB7	- TYPE 2 POLE	-	TYPE 2 BASE
SB8	- TYPE 4 POLE	-	TYPE 2 BASE
SB9	- TYPE 3 POLE	-	TYPE 2 BASE
SB10	- 10 FT STD	-	TYPE 1 BASE

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 CITY OF GLENDALE TO MAKE ARRANGEMENTS. (414) 228-1710.
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 NEW TRAFFIC CABINET BASE 6" ABOVE ROADWAY ELEVATION.
5. ALL LUMINARIES ARE LED-C UNLESS OTHERWISE NOTED.
6. PROPOSED STORM SEWER, LIGHTING, FTMS, AND TRAGGIC SIGNAL INTERCONNECT PLANS SHOWN GREYSHADED FOR PLAN CLARITY.
7. ANY CASING ARE INCIDENTAL TO THE CONCRETE SIGNAL BASE ITEMS.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS
2. THE ENGINEER WILL DETERMINE THE EXACT LOCATIONS OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.

TRAFFIC CONTROL SIGNAL

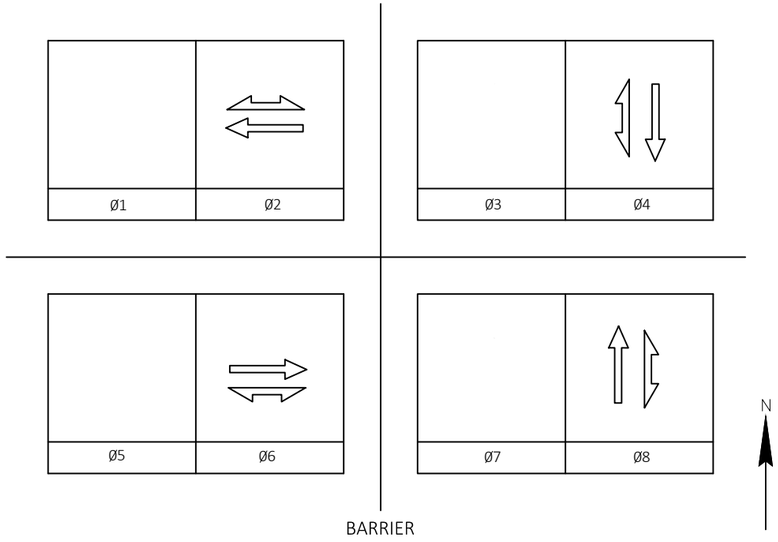
MILWAUKEE RIVER PKWY & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	SIGNAL PLAN - MILWAUKEE RIVER PKWY	SHEET 190	E

	HEAD NUMBERS	FLASH
Ø1		R
Ø2	5,6,7,8	R
Ø3		R
Ø4	12,13,14	R
Ø5		R
Ø6	1,2,3,4	R
Ø7		R
Ø8	9.10,11	R
Ø2 PED	19,20	
Ø4 PED	15,16,17,18	
Ø6 PED	23,24	
Ø8 PED	21,22	





CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W/Ø	PHASE RECALL	PHASE ACTIVE
1		5		
2		6	MAX	X
3		7		
4		8	MIN	X
5		1		
6		2	MAX	X
7		3		
8		4	MIN	X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	
TRAFFIC RESPONSIVE	X
CLOSED LOOP	
ADAPTIVE	
*LOCATION OF MASTER	
CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29	DETECTOR INPUT
PLAN LOOP DETECTOR #(S)	11	21	41	43		61	81	83									PLAN LOOP DETECTOR #(S)
ASSIGNED PHASE		2	4	4		6	8	8									ASSIGNED PHASE
OPERATION MODE		VEH	VEH	VEH		VEH	VEH	VEH									OPERATION MODE
SWITCH																	SWITCH
EXTEND			X				X										EXTEND
DELAY				X													DELAY

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30	DETECTOR INPUT
PLAN LOOP DETECTOR #(S)			42				82										PLAN LOOP DETECTOR #(S)
ASSIGNED PHASE			4				8										ASSIGNED PHASE
OPERATION MODE			VEH				VEH										OPERATION MODE
SWITCH																	SWITCH
EXTEND																	EXTEND
DELAY							X										DELAY

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TRAFFIC CONTROL SIGNAL
MILWAUKEE RIVER PKWY & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71 | HWY: W. SILVER SPRING DR | COUNTY: MILWAUKEE | MILWAUKEE RIVER PKWY - SEQUENCE OF OPERATIONS | SHEET 191 | E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL CONST SHEETS.DWG PLOT DATE : 1/23/2025 3:18 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE :

PROJECT ID:	2090-07-71
INTERSECTION:	SILVER SPRING DRIVE/MILWAUKEE RIVER PKWY

SIGNAL WIRE COLOR CODING	BLK=BLACK WHT=WHITE	RED=RED BLU=BLUE	GRN=GREEN ORG=ORANGE

CB1 TO	NO. OF CONDUCTORS	HEAD NO	SIGNAL INDICATION WIRE COLOR											
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK	PED BUTTON	OTHER
SB1	9	9	RED	ORG	GRN								
		14	RED	ORG	GRN								
		23								BLK	BLU		
		B										WHT/BLK	
SB2	3	24								BLK	BLU		
		13	RED	ORG	GRN								
		B										WHT/BLK	
SB3	7	1	RED	ORG	GRN								
		8	RED	ORG	GRN								
		15								BLK	BLU		
		B										WHT/BLK	
SB4	12	6	RED	ORG	GRN								
		7	RED	ORG	GRN								
		16								BLK	BLU		
		17								BLK	BLU		
		B										WHT/BLK	
SB5	3	18								BLK	BLU		
		B										WHT/BLK	
SB6	9	11	RED	ORG	GRN								
		12	RED	ORG	GRN								
		19								BLK	BLU		
		B										WHT/BLK	
SB7	3	10	RED	ORG	GRN								
		20								BLK	BLU		
		B										WHT/BLK	
SB8	9	4	RED	ORG	GRN								
		5	RED	ORG	GRN								
		21								BLK	BLU		
		B										WHT/BLK	
SB9	7	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
SB10	3	22								BLK	BLU		
		B										WHT/BLK	

Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the underground conductors.
At the signal bases, connect one terminal from the pedestrian push button to the color indicated in the chart. Connect the other terminal to the grounded conductor.
Reconnect the grounding conductors wherever the circuit has been interupted to ensure the grounding circuit is complete.

CONFIRMATION LIGHTS	
FROM	TO
CB1	SB9 (HEAD A)
CB1	SB4 (HEAD B)

EMERGENCY VEHICLE	
FROM	TO
CB1	SB9 (HEAD A)
CB1	SB4 (HEAD B)

LIGHTING UF 2-10 AWG GROUNDED	
FROM	TO
CB1	LP1
CB1	LP2
CB1	LP3
CB1	LP4
CB1	LP5
CB1	LP6
CB1	LP7

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GREEN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	CB1

PULL BOX BONDING JUMPER 10 AWG GREEN XLP	
FROM	TO
PB1	SB1
PB1	PB2
PB2	PB3
PB1	PB4
PB4	SB2
PB4	PB5
PB5	SB3
PB5	PB6
PB5	PB7
PB7	PB8
PB8	SB5
PB8	SB6
PB8	PB9
PB9	PB10
PB8	SB9
PB10	PB11

TRAFFIC CONTROL SIGNAL
MILWAUKEE RIVER PKWY & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

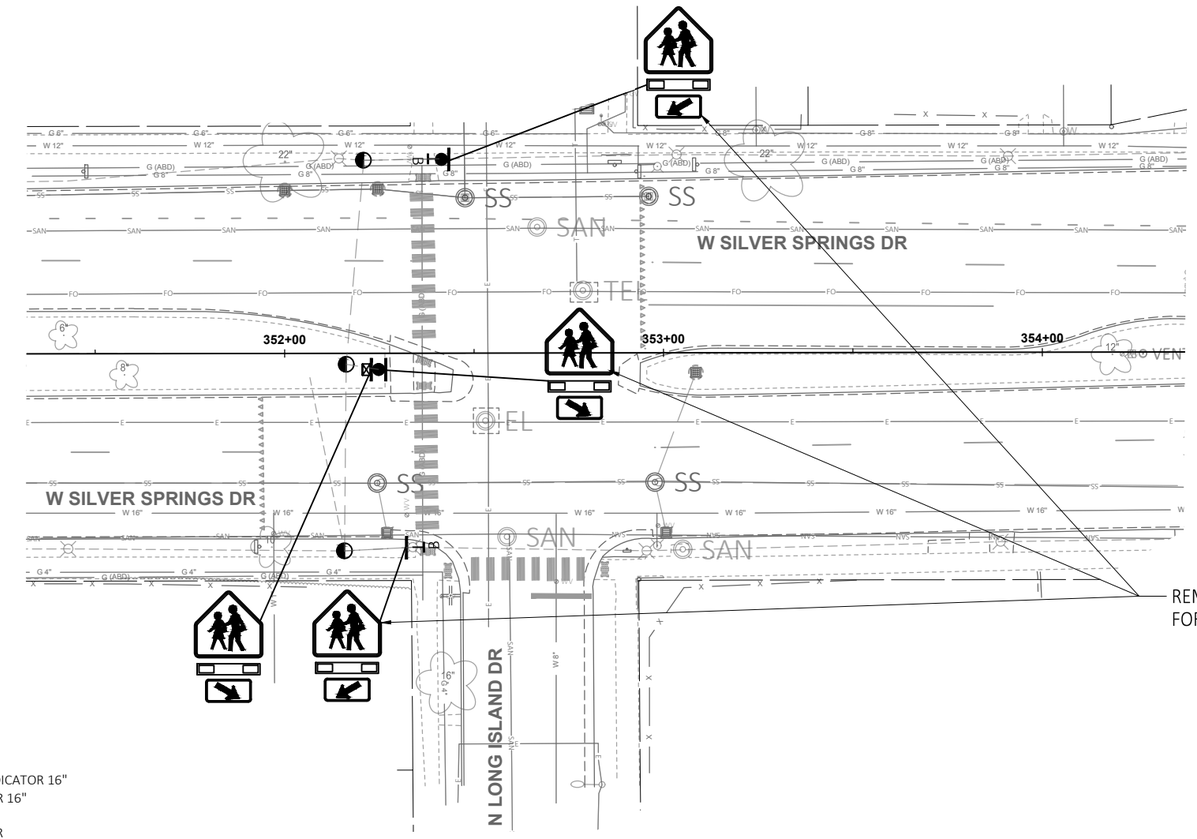
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	MILWAUKEE RIVER PKWY - CABLE ROUTING	SHEET 192	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL CONST SHEETS.DWG PLOT DATE : 1/23/2025 3:18 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE :

2

N



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
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- PUSH BUTTON
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- YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RECTANGULAR RAPID FLASHING BEACON

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
N LONG ISLAND DR & SILVER SPRINGS DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

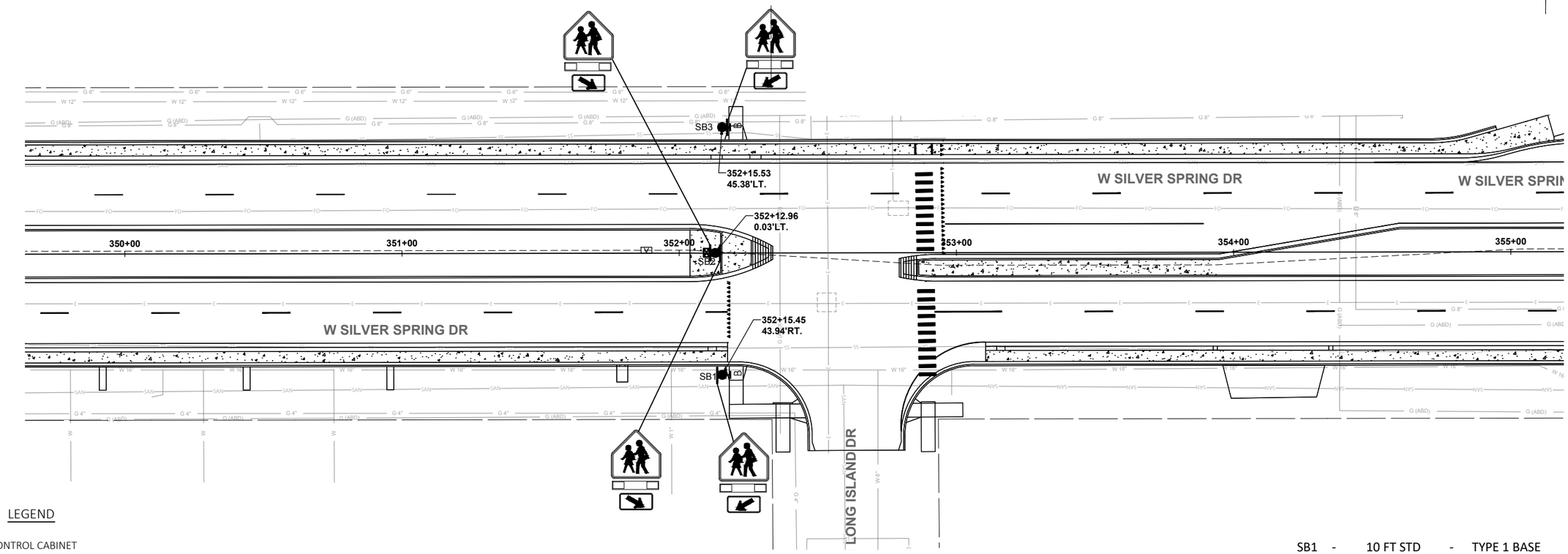
PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVAL SCHOOL X-ING RAPID FLASHING BEACON	SHEET 193	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL REM SHEETS.DWG PLOT DATE : 1/23/2025 3:18 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2

N



LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- PUSH BUTTON
- RECTANGULAR RAPID FLASHING BEACON

SB1	-	10 FT STD	-	TYPE 1 BASE
SB2	-	10 FT STD	-	TYPE 1 BASE
SB3	-	10 FT STD	-	TYPE 1 BASE

TRAFFIC CONTROL SIGNAL
N LONG ISLAND DR & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

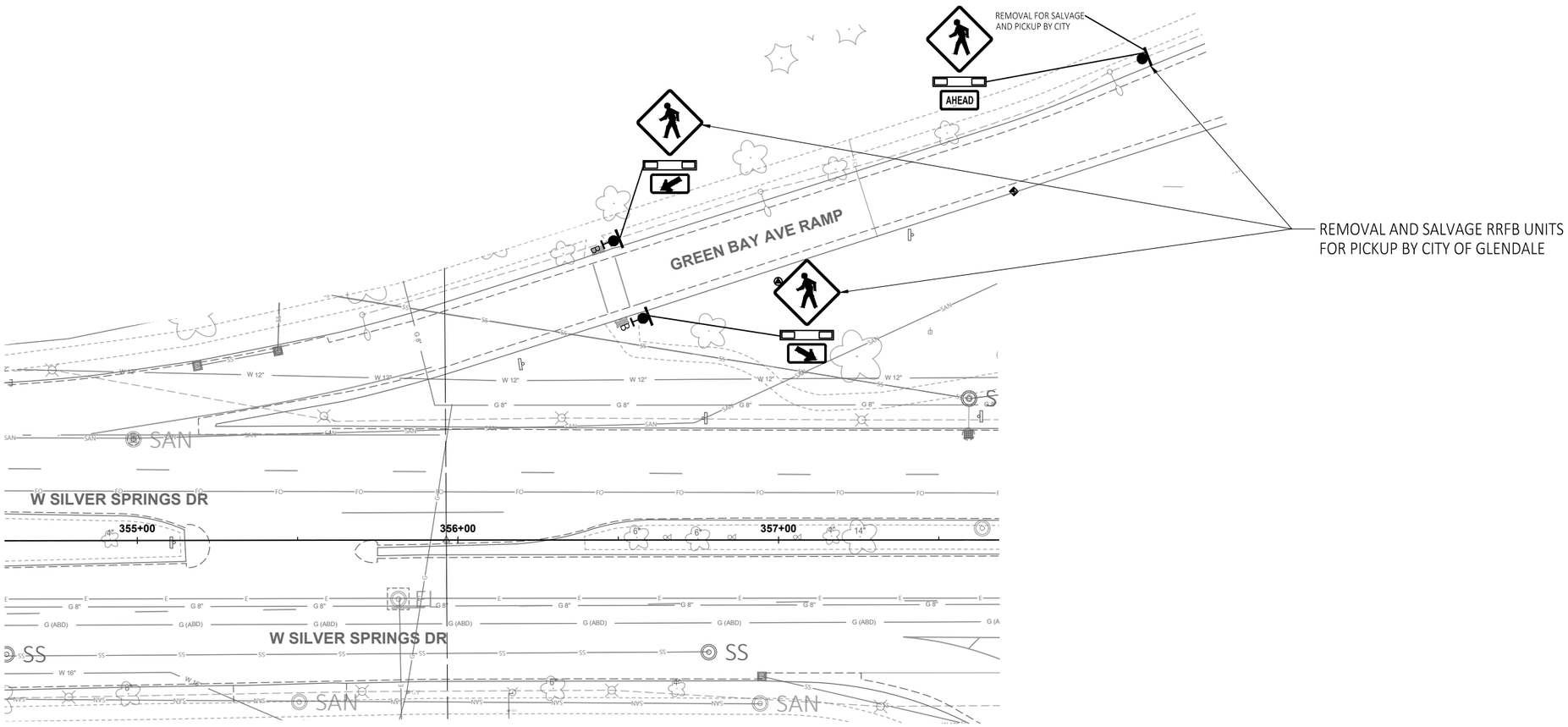
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PROPOSED SCHOOL X-ING RAPID FLASHING BEACON	SHEET 194	E

2

N



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R R RED ARROW
- FY Y Y YELLOW ARROW
- LUMINAIRE TRAFFIC POLE
- G G G GREEN ARROW
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RECTANGULAR RAPID FLASHING BEACON

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
GREEN BAY AVE RAMP & SILVER SPRINGS DR
CITY OF GLENDALE
MILWAUKEE COUNTY

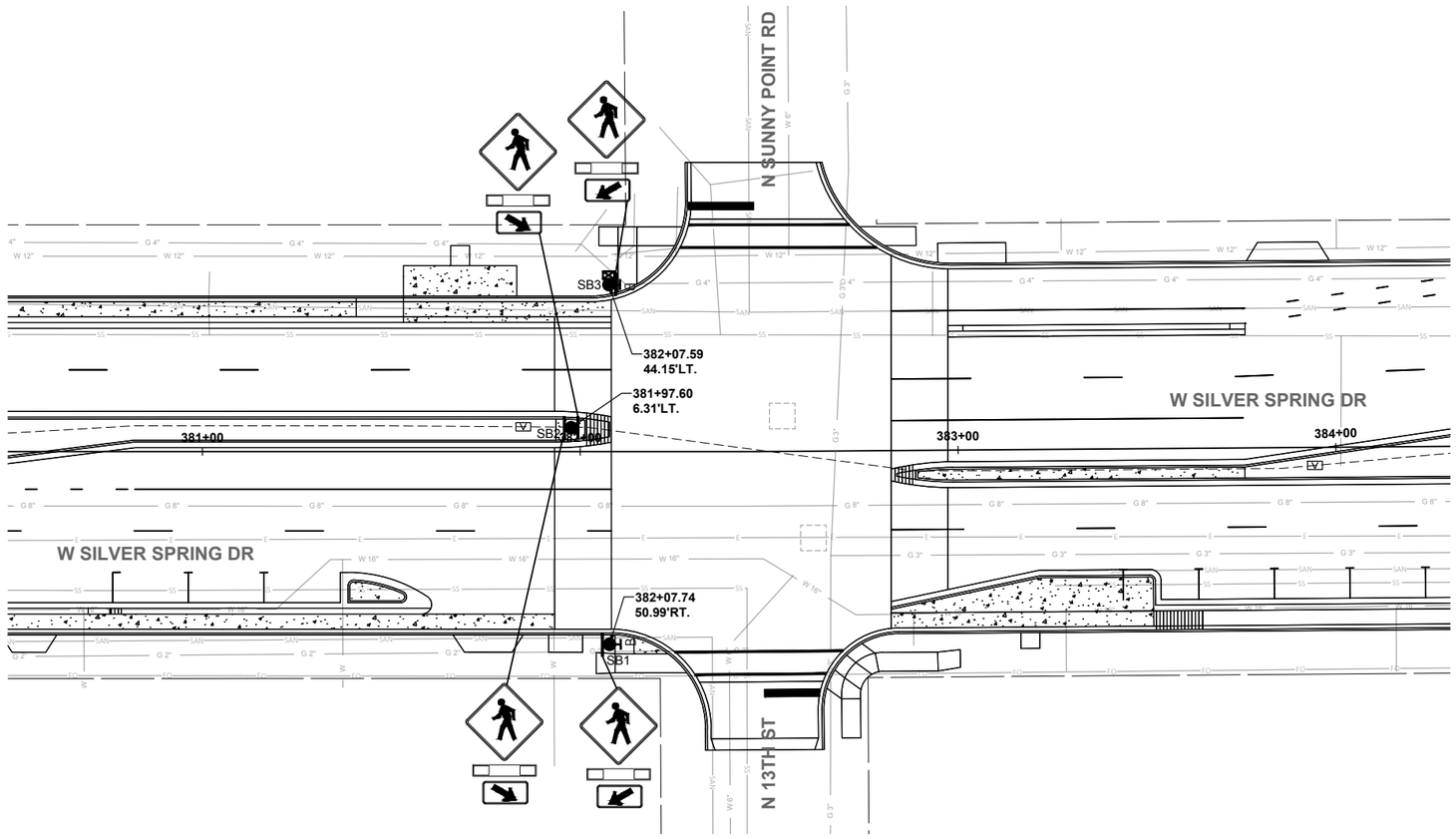
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVAL RECTANGULAR RAPID FLASHING BEACON	SHEET 195	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\CD-MI\MI SHEETS\SIGNAL REM SHEETS.DWG PLOT DATE : 1/23/2025 3:18 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

2



LEGEND

- ⊠ CONTROL CABINET
- ● TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- PB PUSH BUTTON
- ▌ RECTANGULAR RAPID FLASHING BEACON

SB1	-	10 FT STD	-	TYPE 1 BASE
SB2	-	10 FT STD	-	TYPE 1 BASE
SB3	-	10 FT STD	-	TYPE 1 BASE

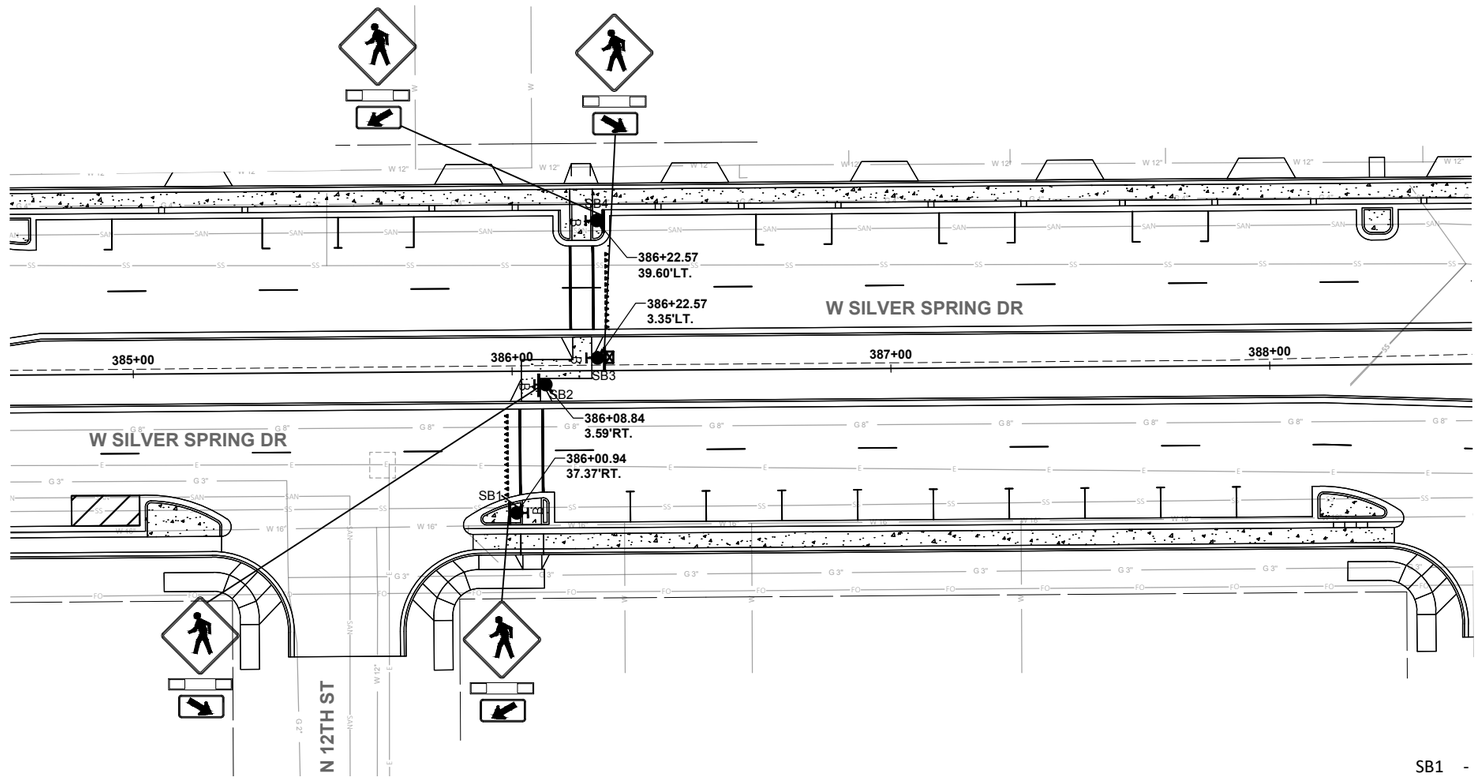
TRAFFIC CONTROL SIGNAL
N SUNNY POINT RD & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PROPOSED RECTANGULAR RAPID FLASHING BEACON	SHEET 196	E

2



LEGEND

- ⊠ CONTROL CABINET
- ● TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- PB PUSH BUTTON
- ▌ RECTANGULAR RAPID FLASHING BEACON

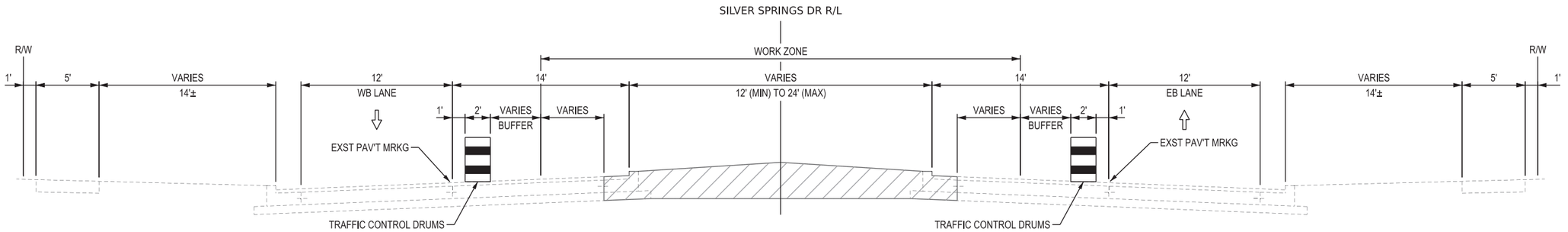
SB1	-	10 FT STD	-	TYPE 1 BASE
SB2	-	10 FT STD	-	TYPE 1 BASE
SB3	-	10 FT STD	-	TYPE 1 BASE
SB4	-	10 FT STD	-	TYPE 1 BASE

TRAFFIC CONTROL SIGNAL
N 12TH ST & SILVER SPRING DR
CITY OF GLENDALE
MILWAUKEE COUNTY

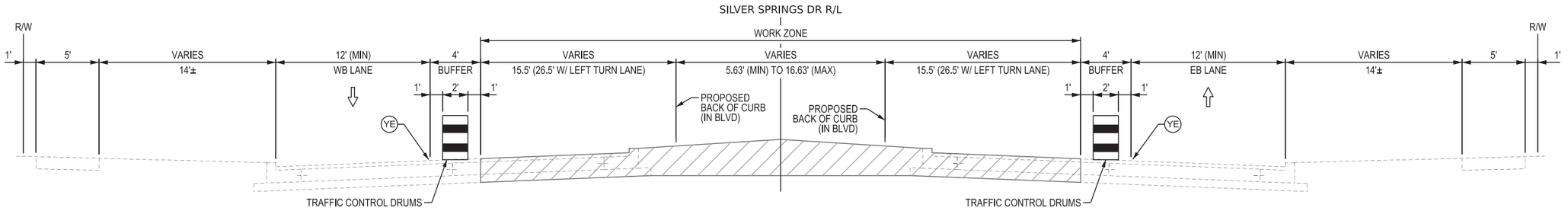
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: CLARK DIETZ
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PROPOSED RECTANGULAR RAPID FLASHING BEACON	SHEET 197	E

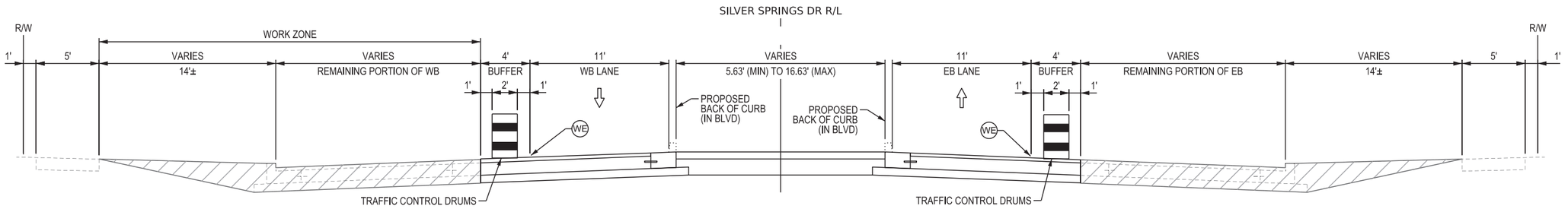


SILVER SPRING DR - CONSTRUCTION STAGE 1A TYPICAL SECTION



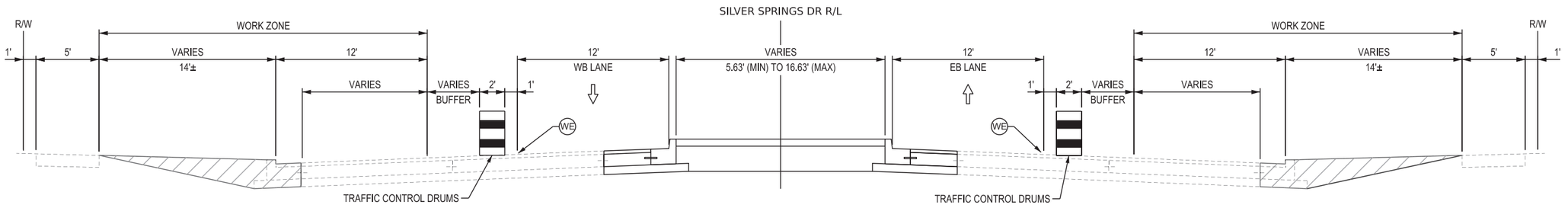
SILVER SPRING DR - CONSTRUCTION STAGE 1B AT RAISED INTERSECTION TYPICAL SECTION

MAINTAIN TRAFFIC SIMILAR TO CONSTRUCTION STAGE 1A OUTSIDE THE LIMITS OF RAISED INTERSECTION WORK



SILVER SPRING DR - CONSTRUCTION STAGE 2A AT RAISED INTERSECTION TYPICAL SECTION

MAINTAIN TRAFFIC SIMILAR TO CONSTRUCTION STAGE 2B OUTSIDE THE LIMITS OF RAISED INTERSECTION WORK

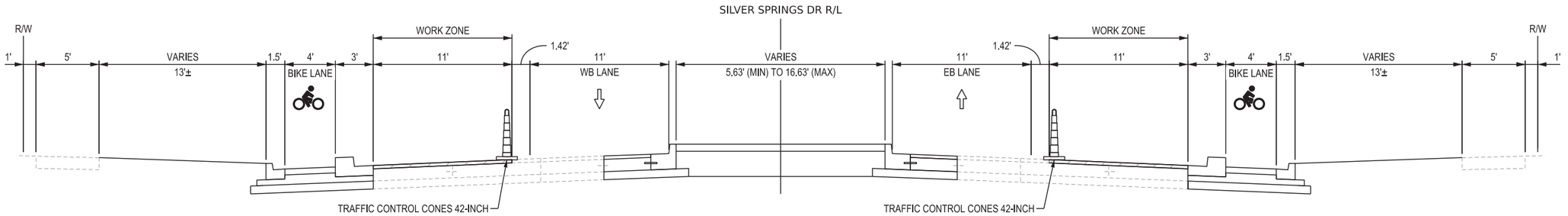


SILVER SPRING DR - CONSTRUCTION STAGE 2B TYPICAL SECTION

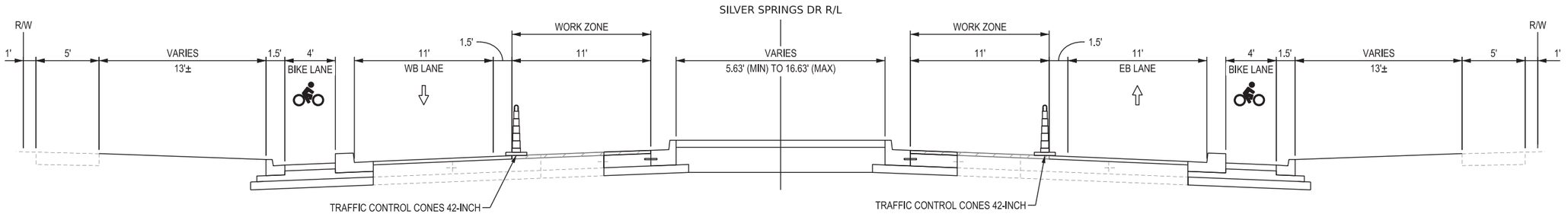
PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - CONSTRUCTION STAGING TYPICALS	SHEET 198	E

FILE NAME : S:\AUTODESK\C3D\2024\TEMPLATES\XREFS\BORDERS\02-SS-SHT-BRDR.DWG PLOT DATE : ---- PLOT BY : OWEN L. SHARP PLOT NAME :

2



SILVER SPRING DR - CONSTRUCTION STAGE 3 TYPICAL SECTION



SILVER SPRING DR - CONSTRUCTION STAGE 4 TYPICAL SECTION

STAGE 1A:
CONSTRUCTION:
- CONSTRUCT TO THE MEDIAN RECONSTRUCT LIMITS INCLUDING THE CURB AND GUTTER ALONG SILVER SPRING DR AS SHOWN ON ROAD PLANS. GAP-OUT THE RAISED INTERSECTIONS.
- CONSTRUCT THE INSIDE HALF OF THE CHICANE FOR EB AND WB SILVER SPRING DR LOCATED AT APPROX. STA 340+00 AND 344+00 RESPECTIVELY.
- INSTALL ALL TRAFFIC SIGNAL AND LIGHTING EQUIPMENT LOCATED WITHIN MAINLINE RECONSTRUCTION MEDIAN LIMITS.
- RECONSTRUCT MEDIAN HALF OF THE RAISED INTERSECTIONS. CONSTRUCT INTERSECTIONS PART-WIDTH AS SHOWN ON TRAFFIC CONTROL PLAN.

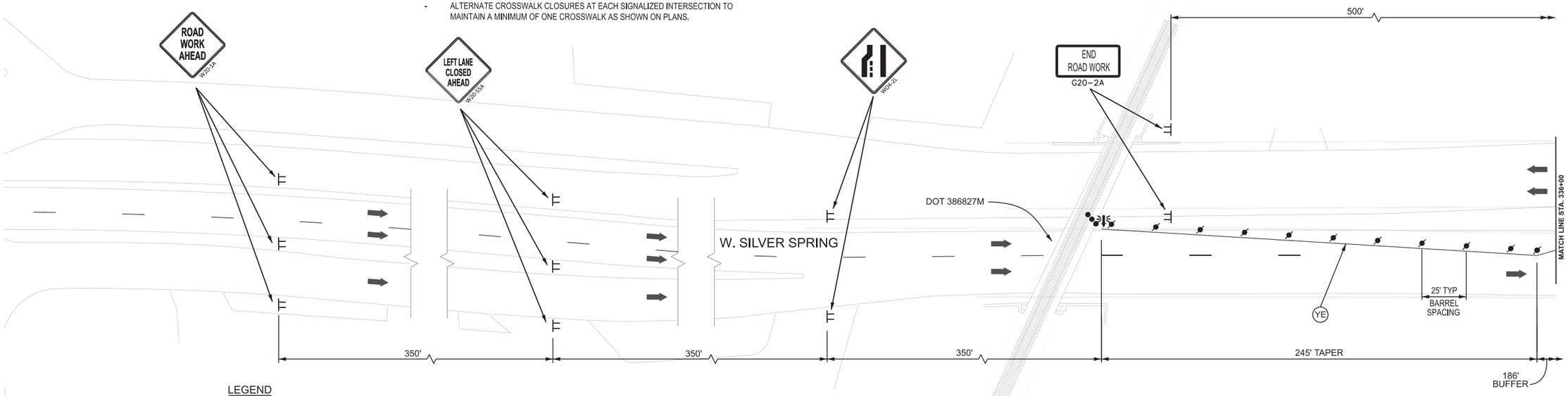
TRAFFIC CONTROL:
- CLOSE THE INSIDE LANE AND MAINTAIN A SINGLE LANE OF TRAFFIC ON THE EXISTING OUTSIDE LANE OF EB AND WB SILVER SPRING DR.
- MAINTAIN EXISTING RIGHT AND LEFT TURN LANES AT THE SIGNALIZED INTERSECTIONS AS SHOWN ON PLANS.
- MAINTAIN SIGNALIZED INTERSECTIONS IN EXISTIG OPERATIONS. SEE TEMPORARY TRAFFIC SIGNALS FOR DETAILS.
- MAINTAIN ACCESS TO ALL SIDE STREES WHEN ACTIVE WORK IS NOT PRESENT. DO NOT CLOSE CONSECUTIVE SIDE STREETS OR CROSSOVERS.
- MAINTAIN ACCESS TO GREEN BAY AVE (57) RAMPS AT ALL TIMES.
- MAINTAIN ALL BUS STOP, PEDESTRIAN, AND DRIVEWAY ACCESS IN EXISTING CONDITIONS.

STAGE 1B:
CONSTRUCTION
- RECONSTRUCT MEDIAN HALF OF THE RAISED INTERSECTIONS. CONSTRUCT INTERSECTIONS PART-WIDTH AS SHOWN ON TRAFFIC CONTROL PLAN.
- INSTALL ALL TRAFFIC SIGNAL AND LIGHTING EQUIPMENT LOCATED WITHIN RECONSTRUCTION MEDIAN LIMITS.

TRAFFIC CONTROL:
- CLOSE THE INSIDE LANE AND MAINTAIN A SINGLE LANE OF TRAFFIC ON THE EXISTING OUTSIDE LANE OF EB AND WB SILVER SPRING DR PER STAGE 1A.
- AT RAISED INTERSECTIONS REDUCE LANE WIDTHS / BUFFERS, TIGHTEN DRUM SPACING, SHIFT TRAFFIC OUTSIDE, AND CLOSE OFF RIGHT AND LEFT TURN LANES AS SHOWN ON PLANS.
- MAINTAIN ACCESS TO AND FROM RAISED INTERSECTIONS AS A RIGHT-IN, RIGHT-OUT ONLY AS SHOWN ON PLANS.
- CLOSE AND DETOUR LEFT TURN AND SIDE STREET THROUGH ACCESS THE RAISED INTERSECTIONS. DETOUR MILWAUKEE RIVER PKWY AS SHOWN ON PLANS. ALL OTHER CLOSURES WILL USE LOCAL ROADWAY NETWORK UTILIZING PCMS BOARDS.
- SEE TEMPORARY TRAFFIC SIGNAL PLANS FOR TEMPORARY SIGNAL OPERATIONS AT SIGNALIZED INTERSECTIONS.
  DO NOT CLOSE CONSECUTIVE RAISED INTERSECTIONS.
- MAINTAIN ACCESS TO ALL THE SIDE STREETS AND CROSSOVERS (NOT RAISED).
- MAINTAIN ACCESS TO GREEN BAY AVE (57) RAMPS AT ALL TIMES.
- MAINTAIN ALL BUS STOP AND DRIVEWAY ACCESS IN EXISTING CONDITIONS.
- ALTERNATE CROSSWALK CLOSURES AT EACH SIGNALIZED INTERSECTION TO MAINTAIN A MINIMUM OF ONE CROSSWALK AS SHOWN ON PLANS.

STAGE 2A:
CONSTRUCTION
- RECONSTRUCT OUTSIDE HALF OF THE RAISED INTERSECTIONS. CONSTRUCT INTERSECTIONS PART-WIDTH AS SHOWN ON TRAFFIC CONTROL PLAN.
- INSTALL ALL TRAFFIC SIGNAL AND LIGHTING EQUIPMENT LOCATED WITHIN RECONSTRUCTION MEDIAN LIMITS.

TRAFFIC CONTROL:
- CLOSE THE OUTSIDE LANE AND MAINTAIN A SINGLE LANE OF TRAFFIC ON THE RECONSTRUCTED INSIDE LANE OF EB AND WB SILVER SPRING DR.
- AT RAISED INTERSECTIONS REDUCE LANE WIDTHS / BUFFERS, TIGHTEN DRUM SPACING, SHIFT TRAFFIC INSIDE AND CLOSE OFF RIGHT AND LEFT TURN LANES AS SHOWN ON PLANS.
- CLOSE AND DETOUR ACCESS AT RAISED INTERSECTIONS. DETOUR MILWAUKEE RIVER PKWY AS SHOWN ON PLANS. ALL OTHER CLOSURES WILL USE LOCAL ROADWAY NETWORK UTILIZING PCMS BOARDS AS SHOWN ON PLANS.
- THE TRAFFIC SIGNALS WILL TEMPORARILY OPERATE IN FREE FLOW FOR EB AND WB SILVER SPRING DR.
- DO NOT CLOSE CONSECUTIVE RAISED INTERSECTIONS.
- MAINTAIN ACCESS TO ALL THE SIDE STREETS AND CROSSOVERS (NOT RAISED).
- MAINTAIN ACCESS TO GREEN BAY AVE (57) RAMPS AT ALL TIMES.
- MAINTAIN ALL BUS STOP AND DRIVEWAY ACCESS IN EXISTING CONDITIONS.
- ALTERNATE CROSSWALK CLOSURES AT EACH SIGNALIZED INTERSECTION TO MAINTAIN A MINIMUM OF ONE CROSSWALK AS SHOWN ON PLANS.



LEGEND

- TYPE II BARRICADE
- TYPE III BARRICADE WITH WARNING LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- WORK ZONE
- SIGN ON TEMPORARY SUPPORTS
- TRAFFIC CONTROL ARROW BOARD
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TRAFFIC FLOW ARROW
- (YE) TEMP, PAVT MARKING, 6 INCH, PAINT, YELLOW EDGE LINE
- (WL) TEMP, PAVT MARKING, 4 INCH, PAINT, WHITE LANE LINE
- (WE) TEMP, PAVT MARKING, 6 INCH, PAINT, WHITE EDGE LINE
- (SB) TEMP, PAVT MARKING, 12 INCH, TAPE, STOP BAR
- (CW) TEMP, PAVT MARKING, 4 INCH, TAPE, CROSS WALK
- PORTABLE CHANGEABLE MESSAGE SIGN

GENERAL NOTES FOR TRAFFIC CONTROL
1) THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
2) CONFLICTING TRAFFIC SIGNS SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.
   CONFLICTING SIGNS WILL BE COVERED USING THE STANDARD BID ITEM, TRAFFIC CONTROL COVERING SIGNS, TYPE I/II.
3) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
4) FOR NIGHTTIME OPERATION, ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.
5) ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TYPE A(LOW INTENSITY FLASHING) LIGHTS.
6) ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.
7) BARRICADE STRIPES ARE TO BE SLOPED DOWNWARD IN THE DIRECTION OF FLOW OF TRAFFIC.
8) TYPICAL DRUM SPACING IS 100' (50' IN TAPERS) UNLESS OTHERWISE NOTED IN THE PLANS.
9) STATION/OFFSET LABELS ON CONCRETE BARRIER TEMPORARY PRECAST ARE TO CENTER OF BARRIER AT THE HINGE POINTS.
10) EXCEPT FOR RAILROAD CROSSING DOT #386827M WHERE STSP 107-026 APPLIES: DO NOT PLACE ANY ITEMS WITHIN 50' OF RAILROAD RIGHT-OF-WAY.
11) INTERSECTION WORK MUST BE COMPLETED DURING THE SAME SEASON.

STAGE 2B:
CONSTRUCTION:
- CONSTRUCT TO THE OUTSIDE RECONSTRUCT LIMITS INCLUDING THE CURB AND GUTTER FOR EB AND WB SILVER SPRING DR AS SHOWN ON ROAD PLANS. GAP-OUT AT THE RAISED INTERSECTIONS.
- CONSTRUCT THE OUTSIDE HALF OF THE CHICANE FOR EB AND WB SILVER SPRING DR LOCATED AT APPROX. STA 340+00 AND 344+00 RESPECTIVELY.
- INSTALL ALL TRAFFIC SIGNAL AND LIGHTING EQUIPMENT LOCATED WITHIN MAINLINE RECONSTRUCTION OUTSIDE LIMITS.
- RECONSTRUCT THE SB TO WB EXIT RAMP AT THE SILVER SPRING DR AND GREEN BAY AVE (57) INTERCHANGE. CONSTRUCT THE REMAINING RAMPS TO THE RECONSTRUCT LIMITS AS SHOWN ON ROAD PLANS.
- CONSTRUCT THE BIKE LANE ON EB AND WB SILVER SPRING DR.
- CONSTRUCT PROPOSED BUS STOPS
- RECONSTRUCT THE OUTSIDE SIDEWALK ON EB AND WB SILVER SPRING DR.
- RECONSTRUCT ALL DRIVEWAYS AND SIDE STREET APPROACHES LOCATED ALONG EB AND WB SILVER SPRING DR.

TRAFFIC CONTROL:
- CLOSE THE OUTSIDE LANE AND MAINTAIN A SINGLE LANE OF TRAFFIC ON THE RECONSTRUCTED INSIDE LANE OF EB AND WB SILVER SPRING DR.
- MAINTAIN EXISTING RIGHT AND LEFT TURN LANES AT THE SIGNALIZED INTERSECTIONS AS SHOWN ON PLANS.
- MAINTAIN SIGNALIZED INTERSECTIONS IN EXISTIG OPERATIONS. SEE TEMPORARY TRAFFIC SIGNALS FOR DETAILS.
- MAINTAIN ACCESS TO ALL SIDE STREES WHEN ACTIVE WORK IS NOT PRESENT. DO NOT CLOSE CONSECUTIVE SIDE STREETS OR CROSSOVERS.
- CLOSE AND DETOUR THE SB TO WB EXIT RAMP AT THE SILVER SPRING DR AND GREEN BAY AVE (57) INTERCHANGE AS SHOWN ON PLANS. MAINTAIN ACCESS TO AND FROM ALL OTHER RAMPS.
- MAINTAIN BUS STOPS AND PEDESTRIAN ACCESS DURING NON-ACTIVE WORK. SEE STANDARD DETAIL DRAWING 15D30 AND TRAFFIC CONTROL PLANS FOR DETAILS.
- MAINTAIN DRIVEWAY ACCESS DURING NON-ACTIVE WORK AS SHOWN ON PLANS OR DIRECTED BY THE ENGINEER. WHEN CLOSURES IS NECESSARY COORDINATE WITH BUSINESS AND RESIDENTAIL OWNERS DURING ACTIVE WORK.
- ALTERNATE CROSSWALK CLOSURES AT EACH SIGNALIZED INTERSECTION TO MAINTAIN A MINIMUM OF ONE CROSSWALK AS SHOWN ON PLANS.
- CLOSE UNSIGNALIZED SIDE STREETS DURING ACTIVE APPROACH WORK ONLY. MAINTAIN ACCESS USING ALTERNATE ROUTES. MAINTAIN ACCESS AT ALL OTHER TIMES, UNLESS DIRECTED BY THE ENGINEER.

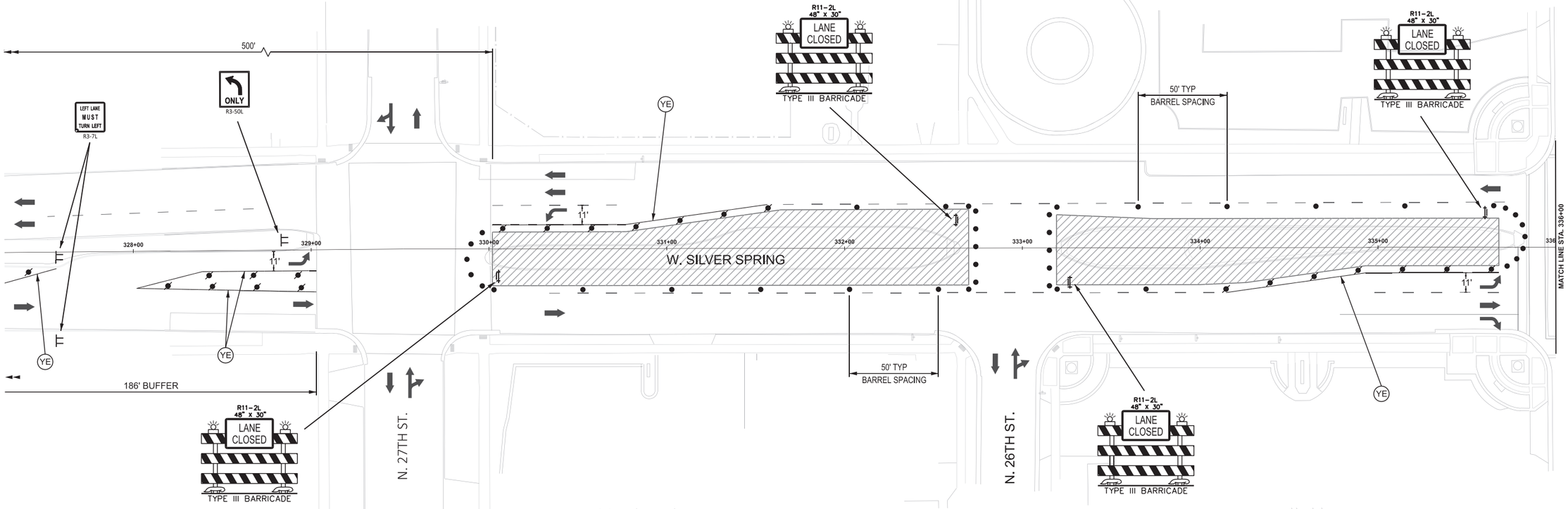
STAGE 3:
CONSTRUCTION:
- MILL AND RESURFACE THE OUTSIDE HALF OF SILVER SPRING DR EXISTING HMA PAVEMENT.

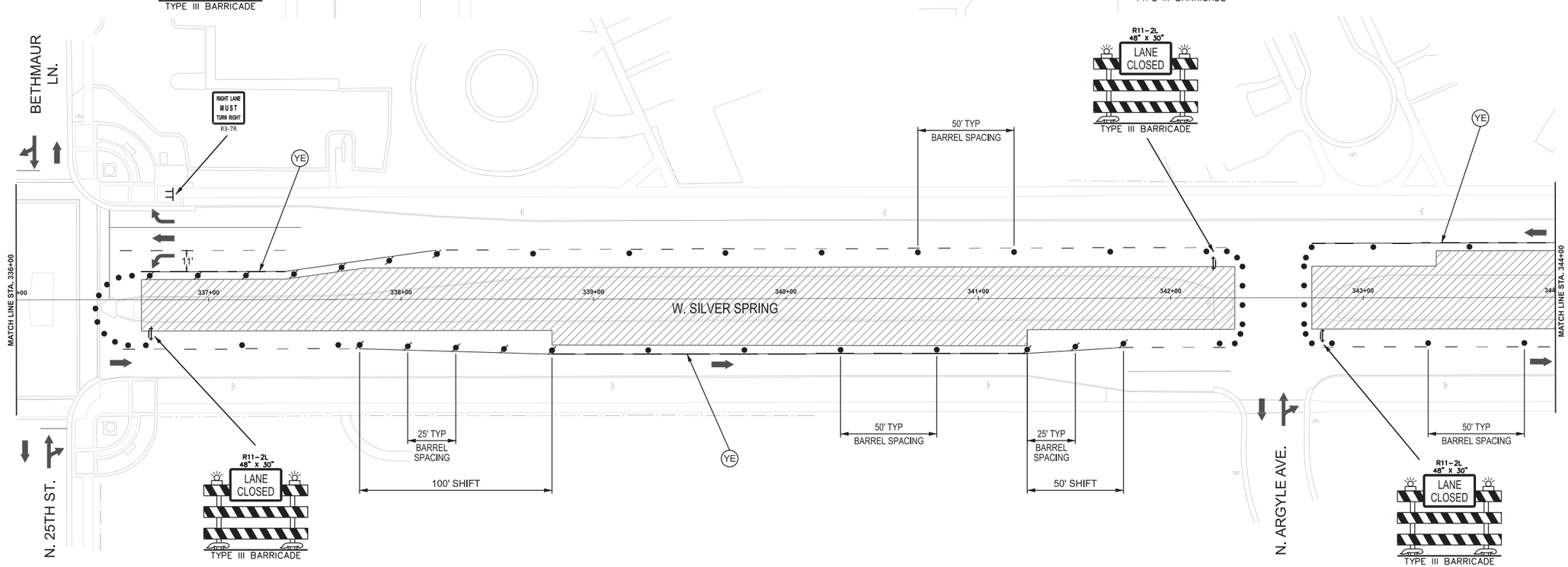
TRAFFIC CONTROL:
- CLOSE THE OUTSIDE LANE AND MAINTAIN A SINGLE LANE OF TRAFFIC ON THE PROPOSED INSIDE LANE OF SILVER SPRING DR.
- NEAR ACTIVE WORK REDUCE LANE WIDTH AND SHIFT TRAFIC ONTO GUTTER PAN TO MAXIMIZE BUFFER TO WORKZONE AS SHOWN ON TOC TYPICALS.
- MAINTAIN ACCESS AT ALL TIMES TO ALL SIDE-STREETS, RAISED INTERSECTIONS, AND CROSSOVERS.
- MAINTAIN ACCESS AT ALL TIMES TO GREEN BAY AVE ENTRANCE AND EXIT RAMPS.

STAGE 4:
CONSTRUCTION:
- MILL AND RESURFACE THE INSIDE HALF OF SILVER SPRING DR EXISTING HMA PAVEMENT.

TRAFFIC CONTROL:
- CLOSE THE INSIDE LANE AND MAINTAIN A SINGLE LANE OF TRAFFIC ON THE PROPOSED OUTSIDE LANE OF SILVER SPRING DR.
- NEAR ACTIVE WORK REDUCE LANE WIDTH AND SHIFT TRAFIC ONTO GUTTER PAN TO MAXIMIZE BUFFER TO WORKZONE AS SHOWN ON TOC TYPICALS.
- MAINTAIN ACCESS AT ALL TIMES TO ALL SIDE-STREETS, RAISED INTERSECTIONS, AND CROSSOVERS.
- MAINTAIN ACCESS AT ALL TIMES TO GREEN BAY AVE ENTRANCE AND EXIT RAMPS.

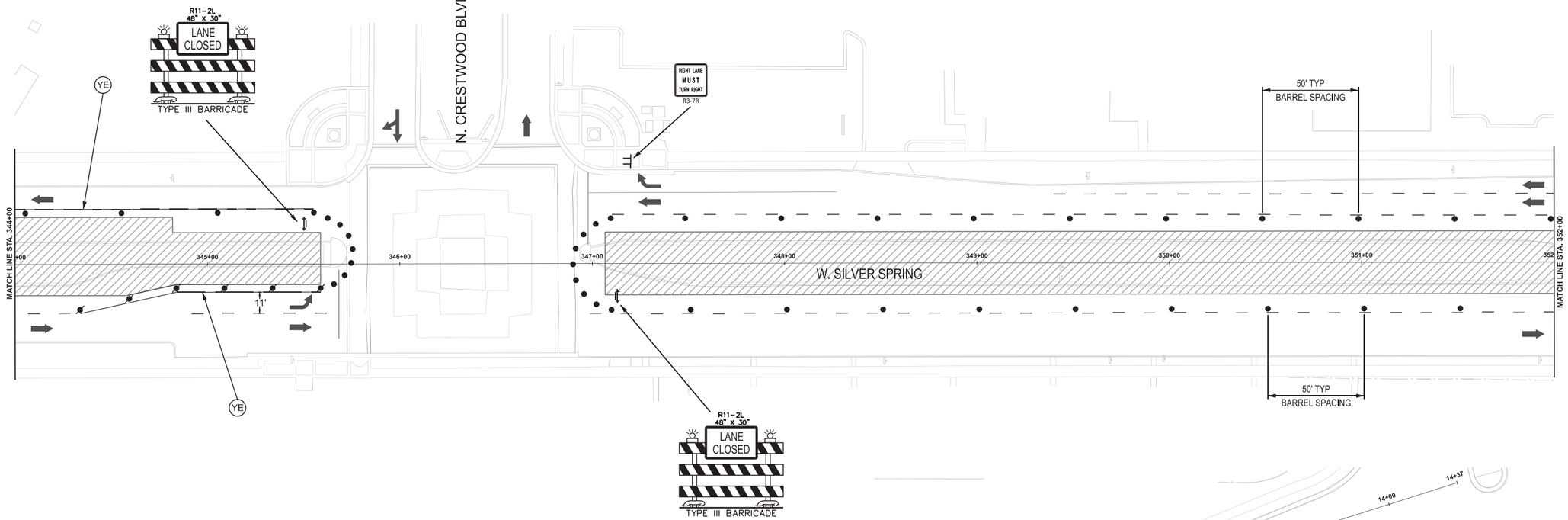
PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 1	SHEET 200	E





PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 1	SHEET 201	E

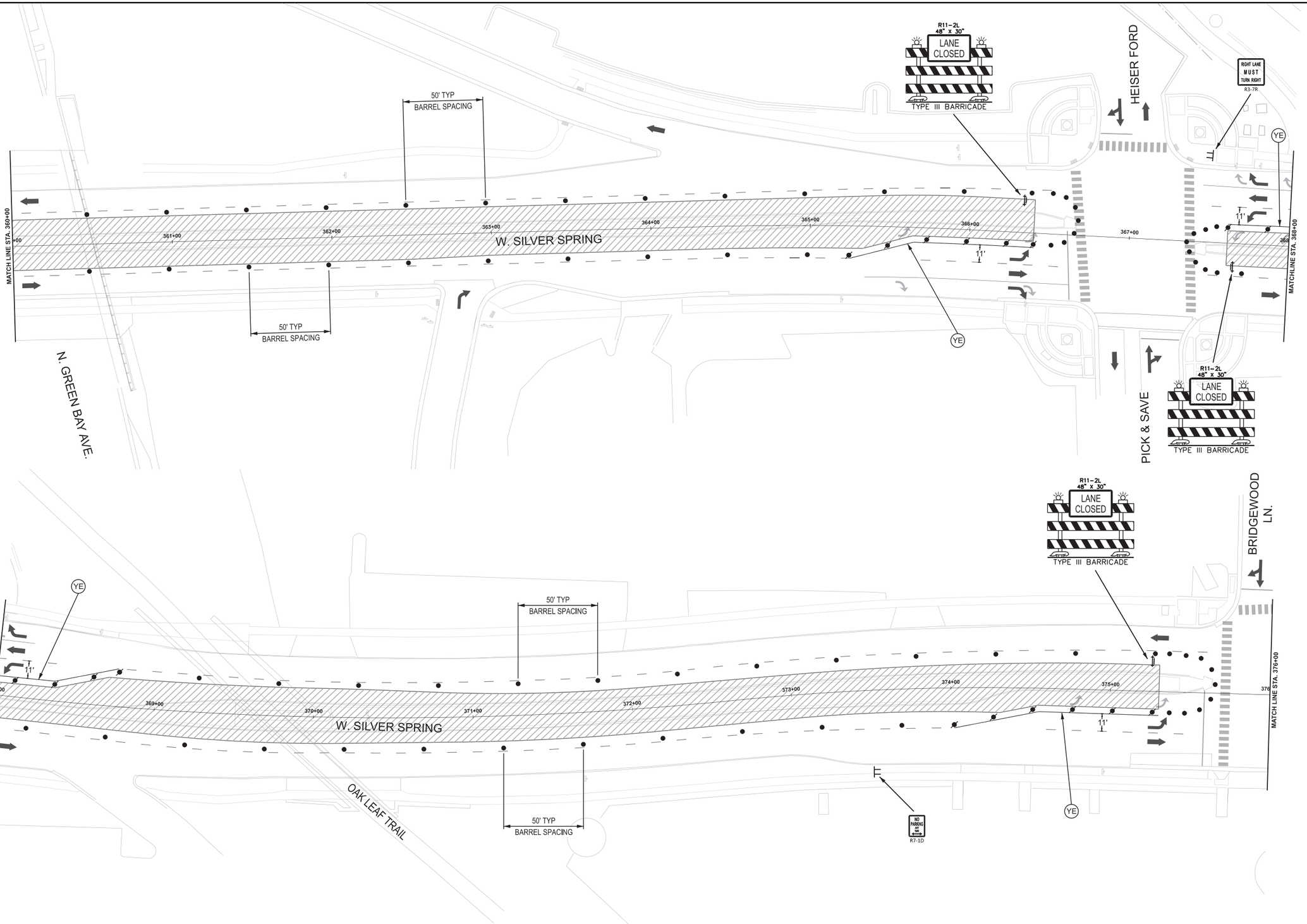
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PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 1	SHEET 202 E

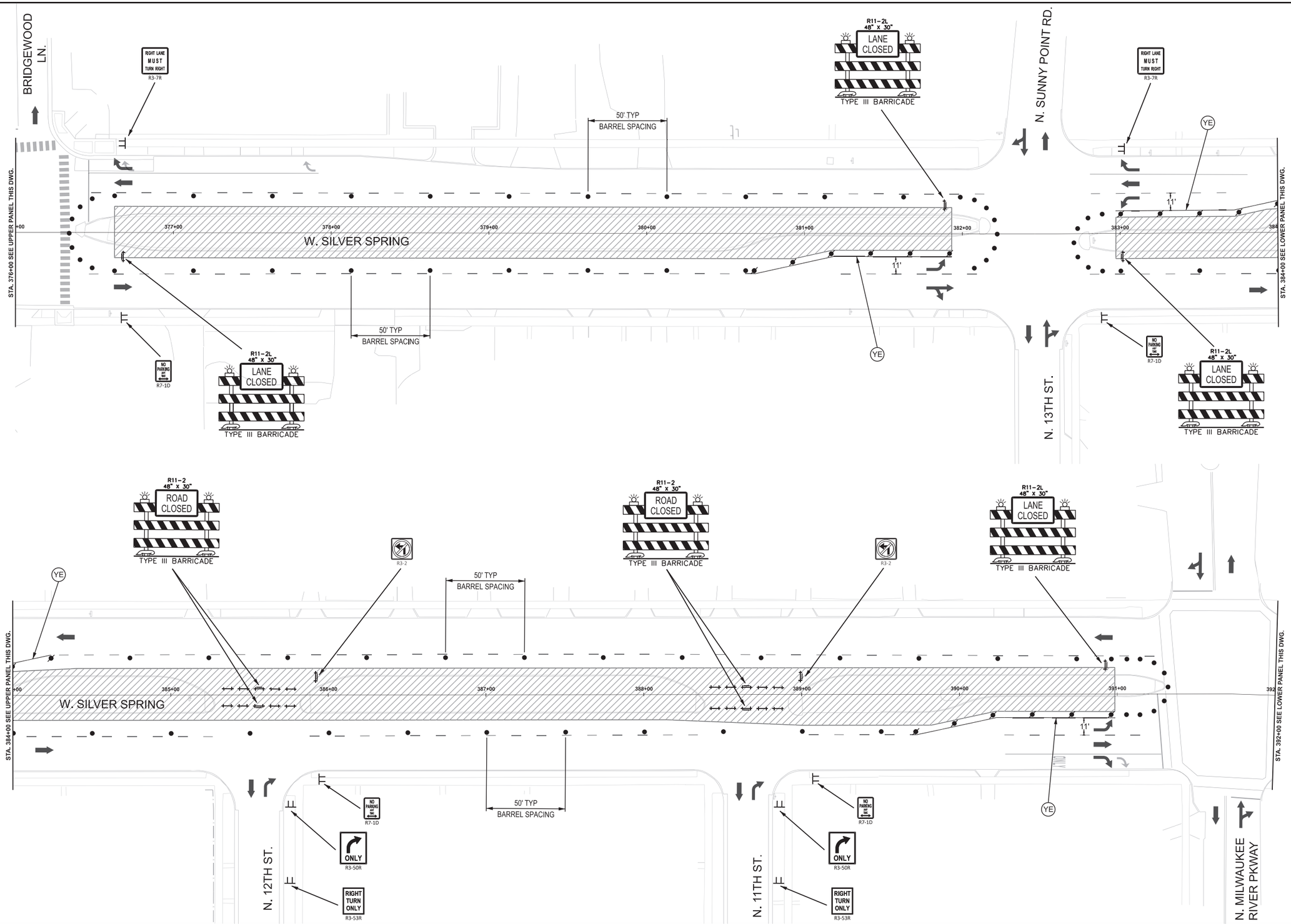
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WISDOT/CADDS SHEET 41

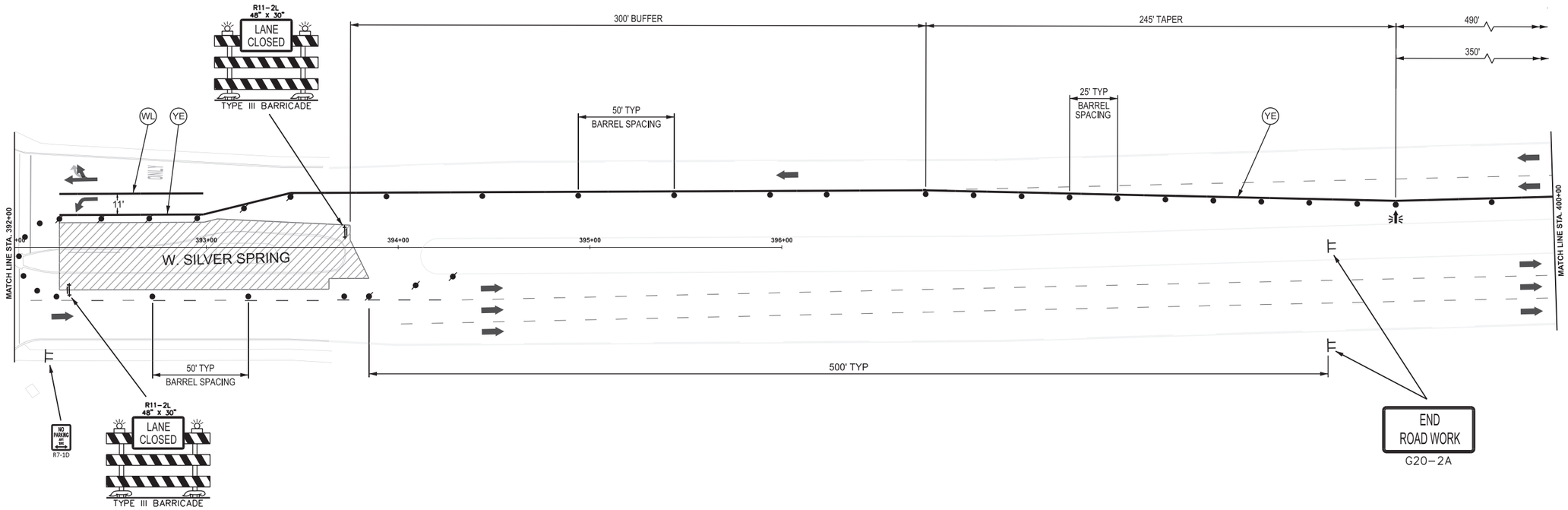


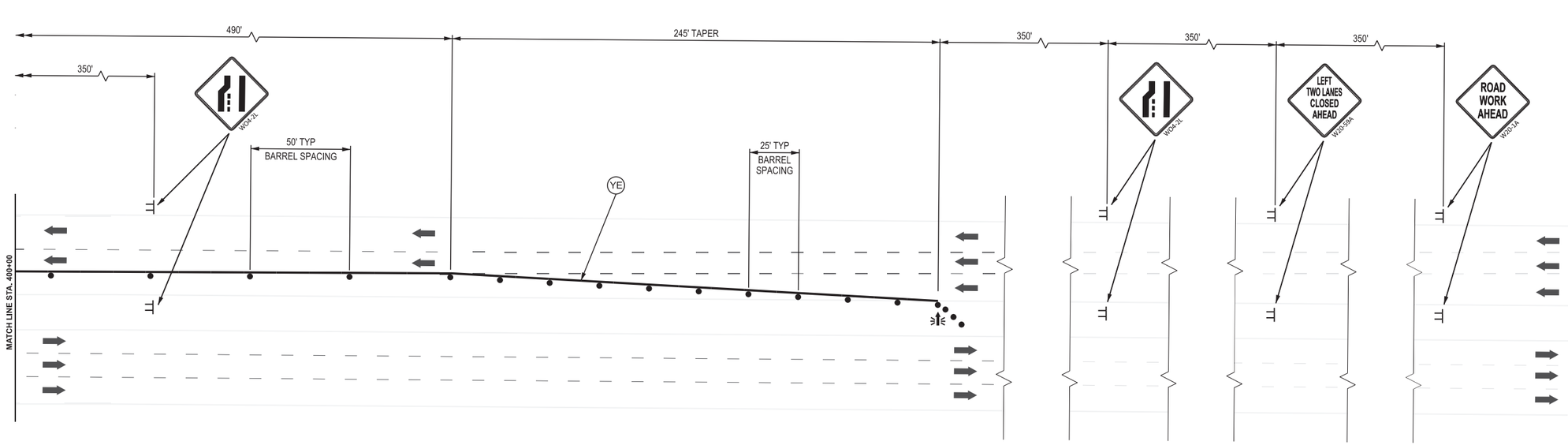
PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 1	SHEET 203	E

FILE NAME : S:\AUTODESK\C3D\2024\TEMPLATES\XREFS\BORDERS\02-SS-SHT-BRDR.DWG PLOT DATE : ---- PLOT BY : OWEN L. SHARP PLOT NAME :



PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 1	SHEET 204	E





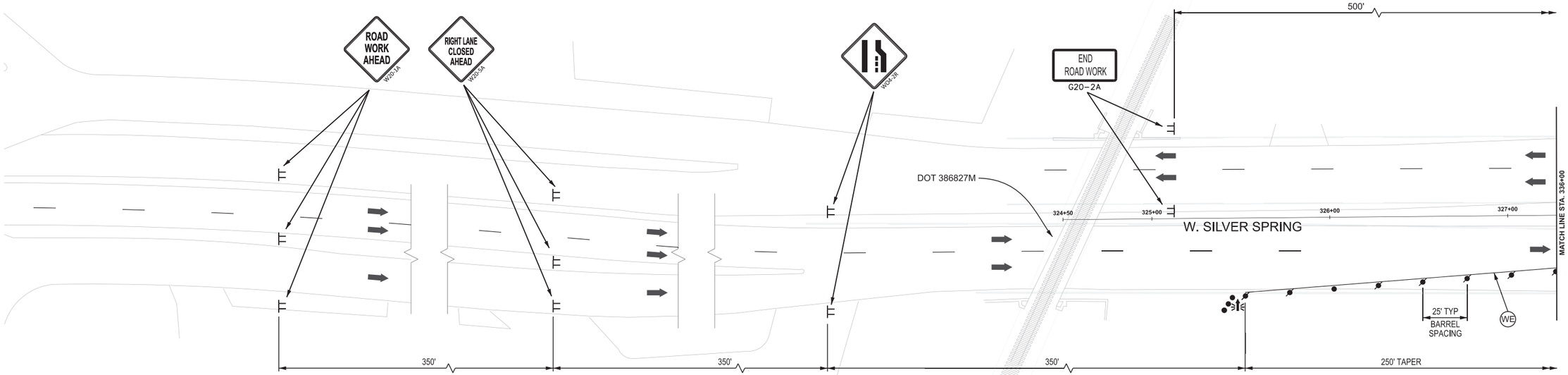
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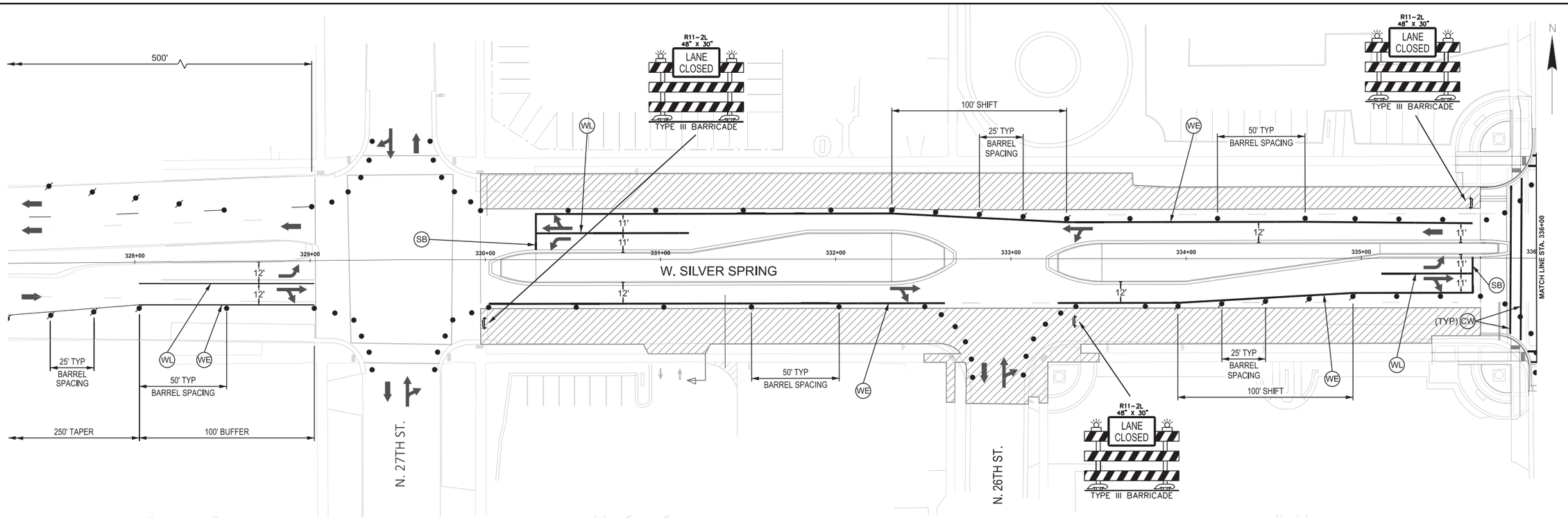
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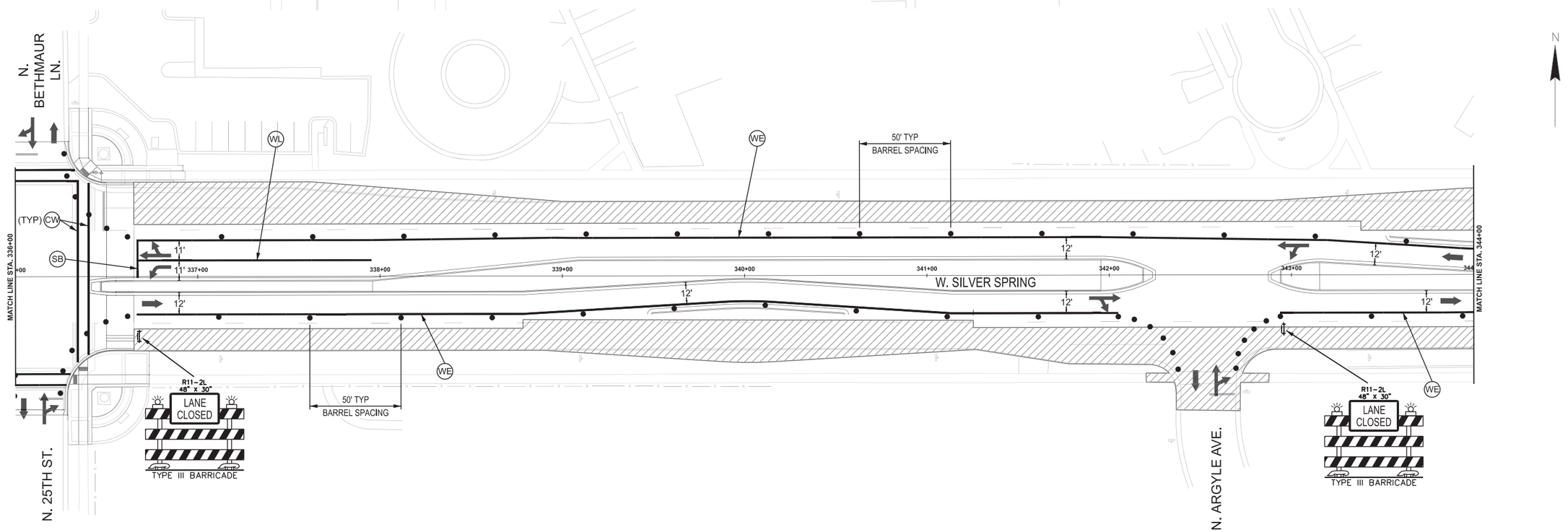
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PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 2	SHEET 206	E

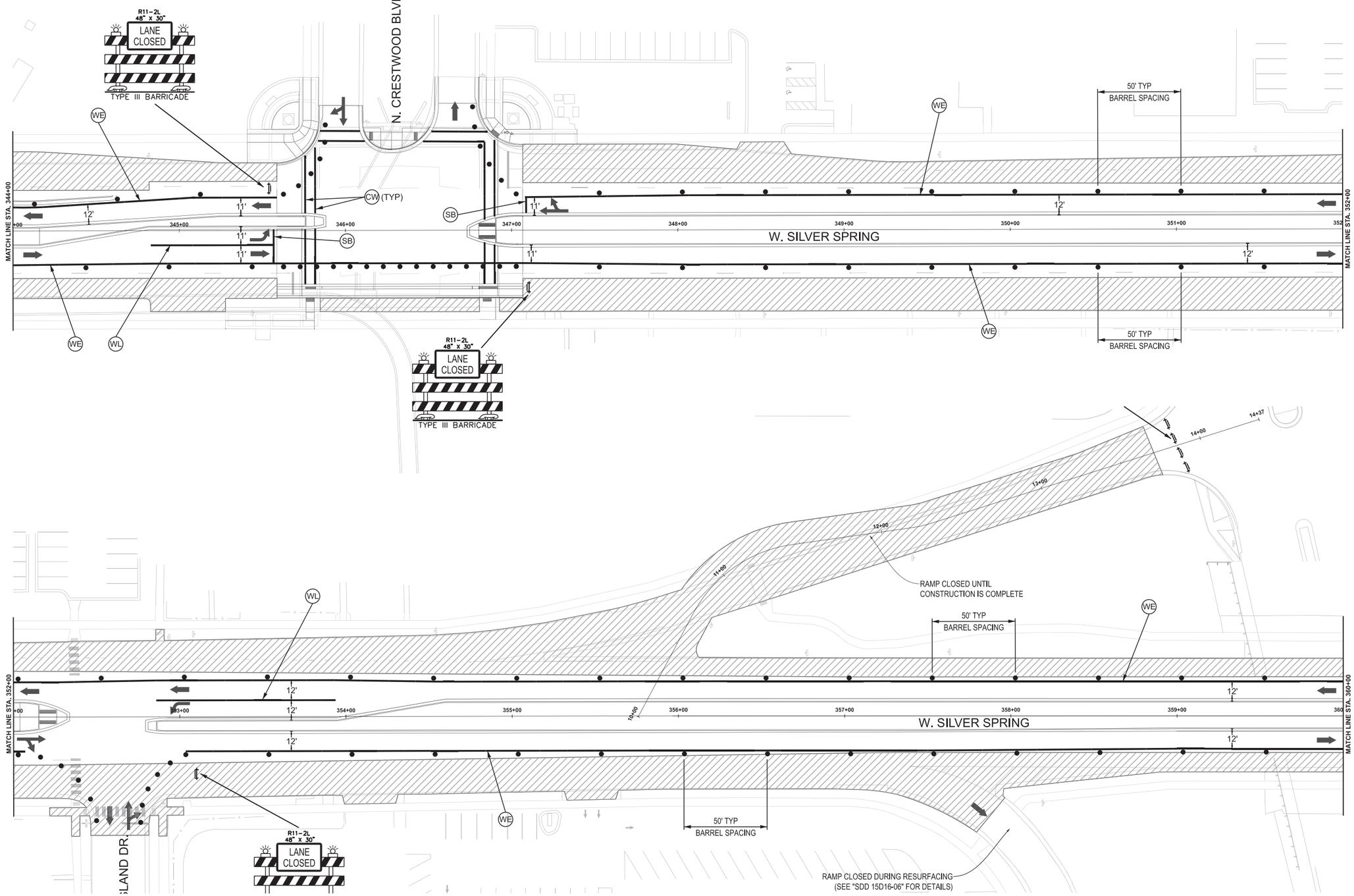
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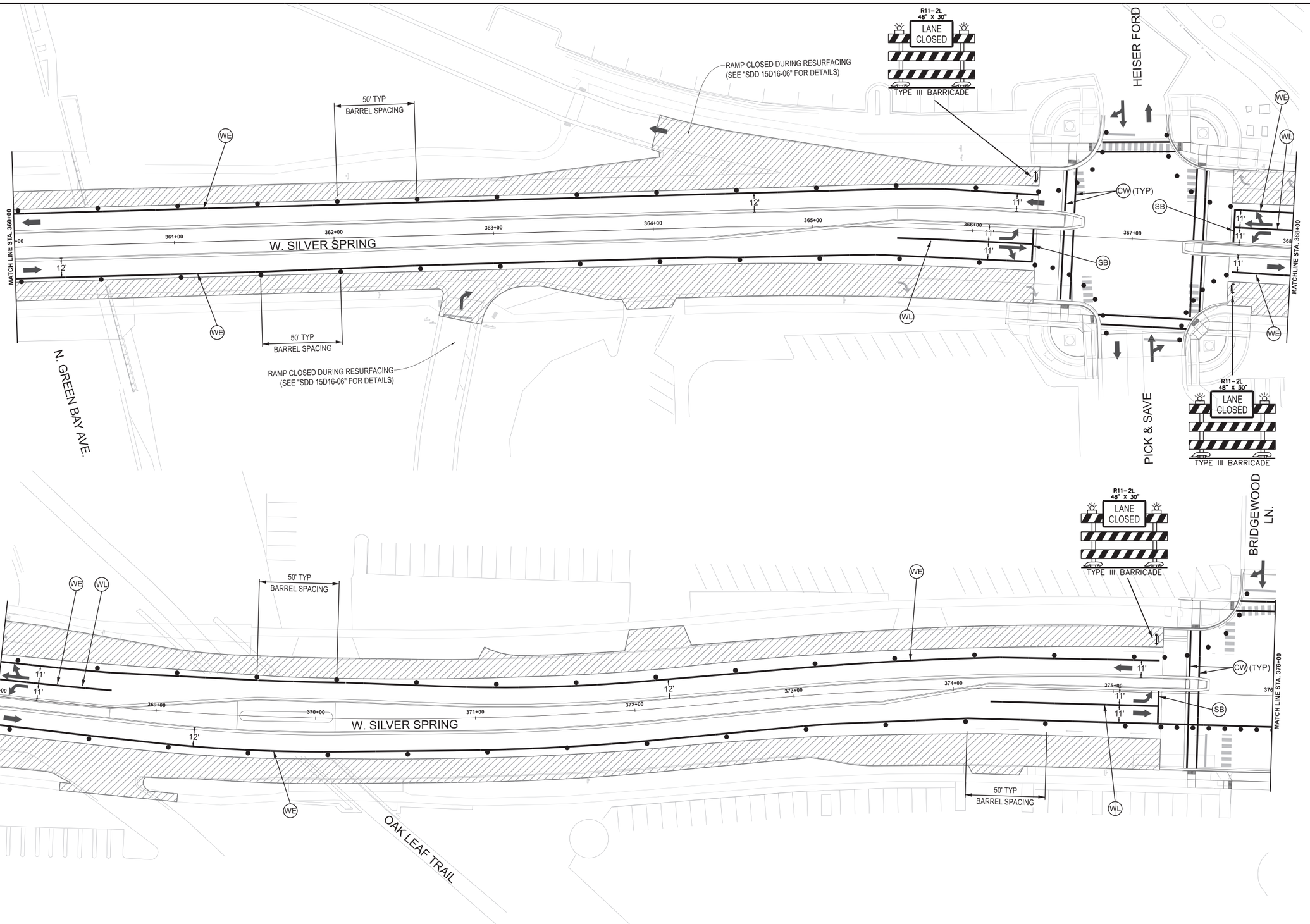




PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 2	SHEET 207	E

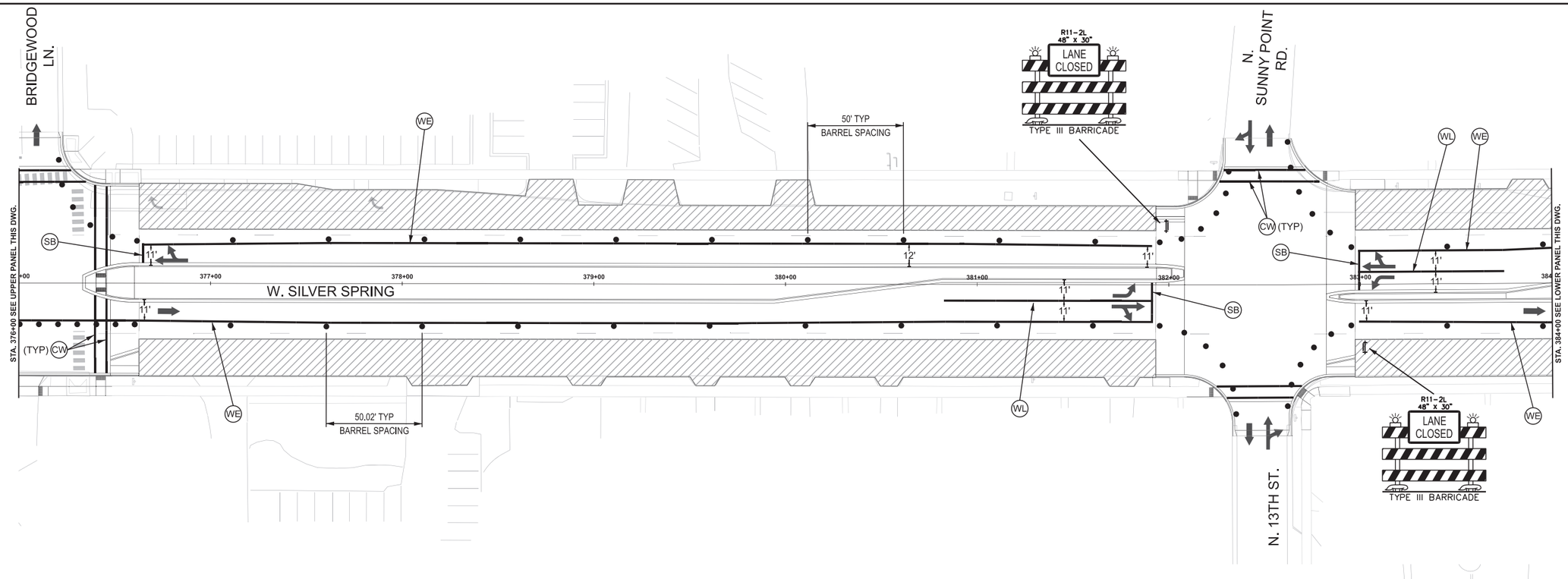
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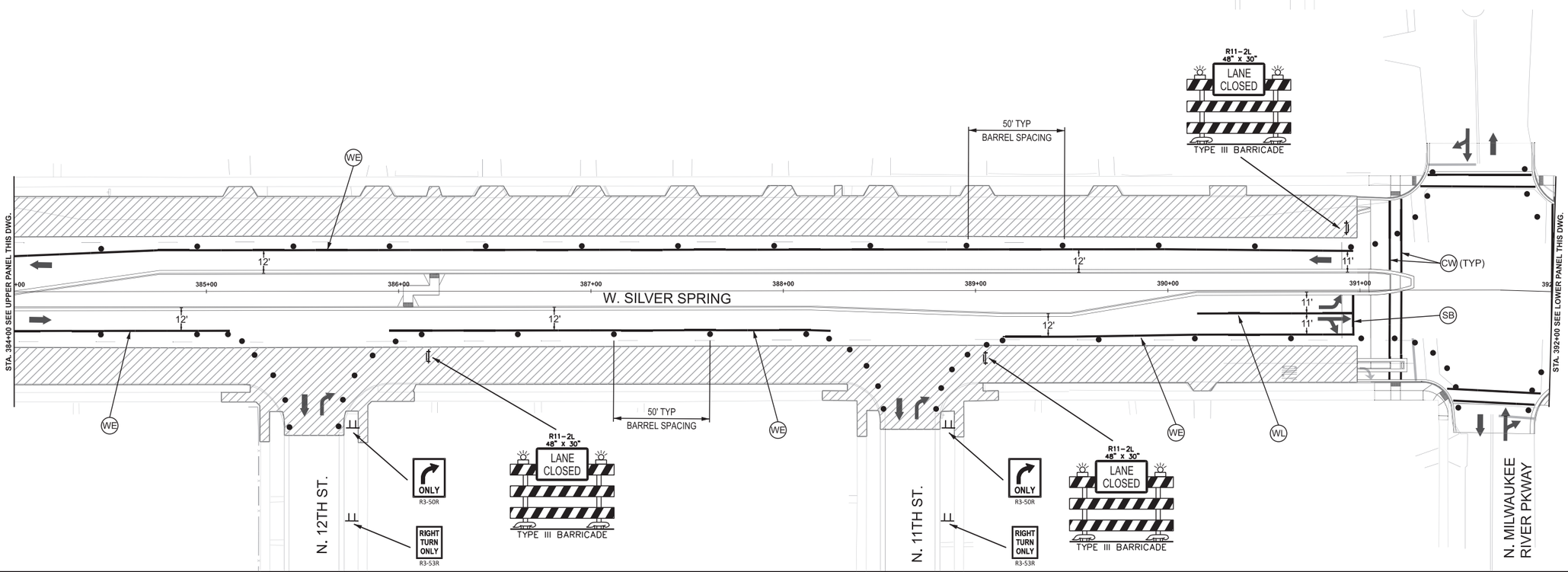

R11-2L
48" x 30"
LANE CLOSED
TYPE III BARRICADE
N. CRESTWOOD BLVD.
WE
WL
CW (TYP)
SB
MATCH LINE STA. 344+00
MATCH LINE STA. 352+00
345+00
346+00
347+00
348+00
349+00
350+00
351+00
11'
12'
W. SILVER SPRING
50' TYP
BARREL SPACING
N
14+37
14+00
13+00
12+00
11+00
10+00
RAMP CLOSED UNTIL
CONSTRUCTION IS COMPLETE
MATCH LINE STA. 352+00
MATCH LINE STA. 360+00
353+00
354+00
355+00
356+00
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358+00
359+00
RAMP CLOSED DURING RESURFACING
(SEE "SDD 15D16-06" FOR DETAILS)



2

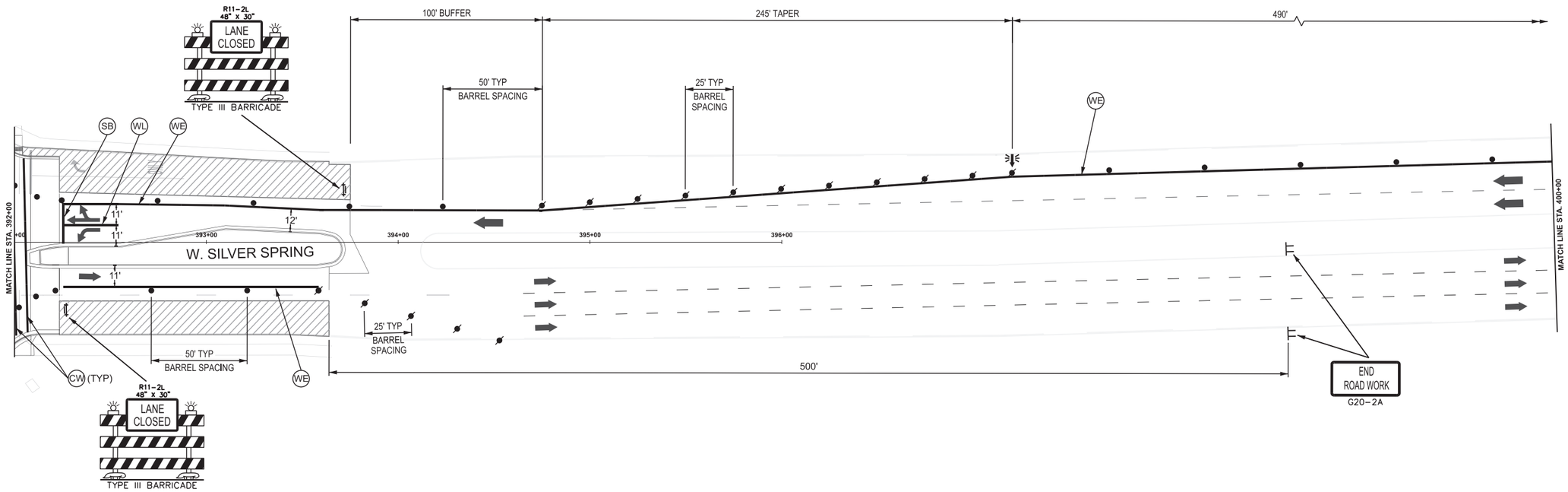
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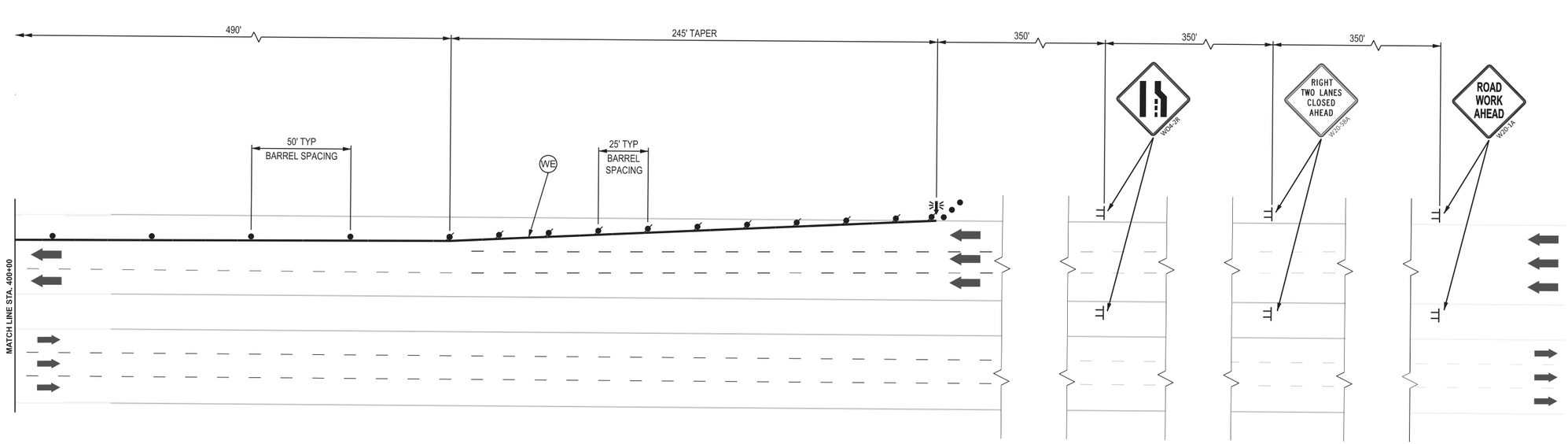




PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 2	SHEET 210	E

FILE NAME : S:\AUTODESK\C3D\2024\TEMPLATES\XREFS\BORDERS\02-SS-SHT-BRDR.DWG PLOT DATE : ---- PLOT BY : OWEN L. SHARP PLOT NAME :

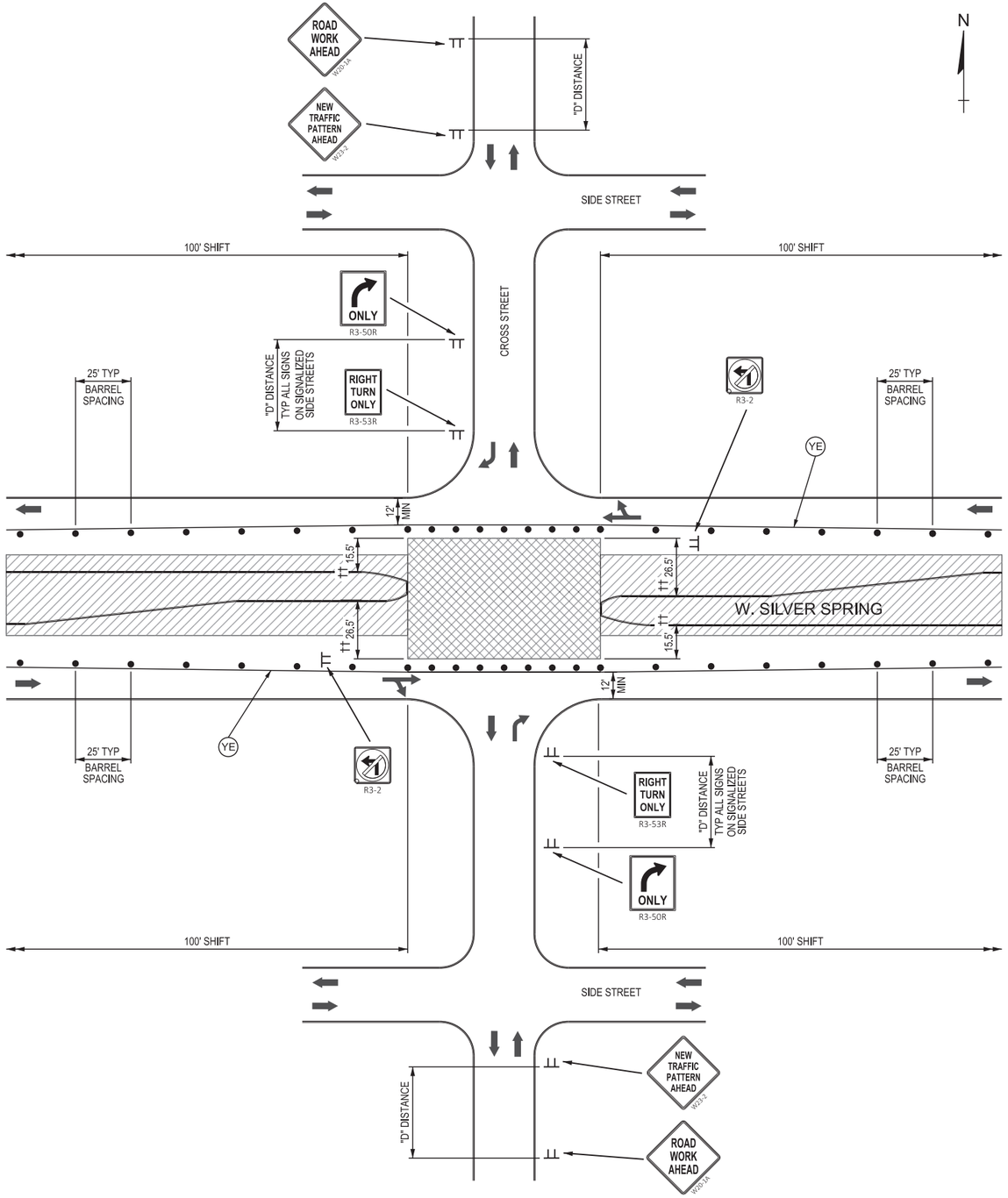




PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 2	SHEET 211	E

FILE NAME : S:\AUTODESK\C3D\2024\TEMPLATES\XREFS\BORDERS\02-SS-SHT-BRDR.DWG PLOT DATE : ---- PLOT BY : OWEN L. SHARP PLOT NAME :

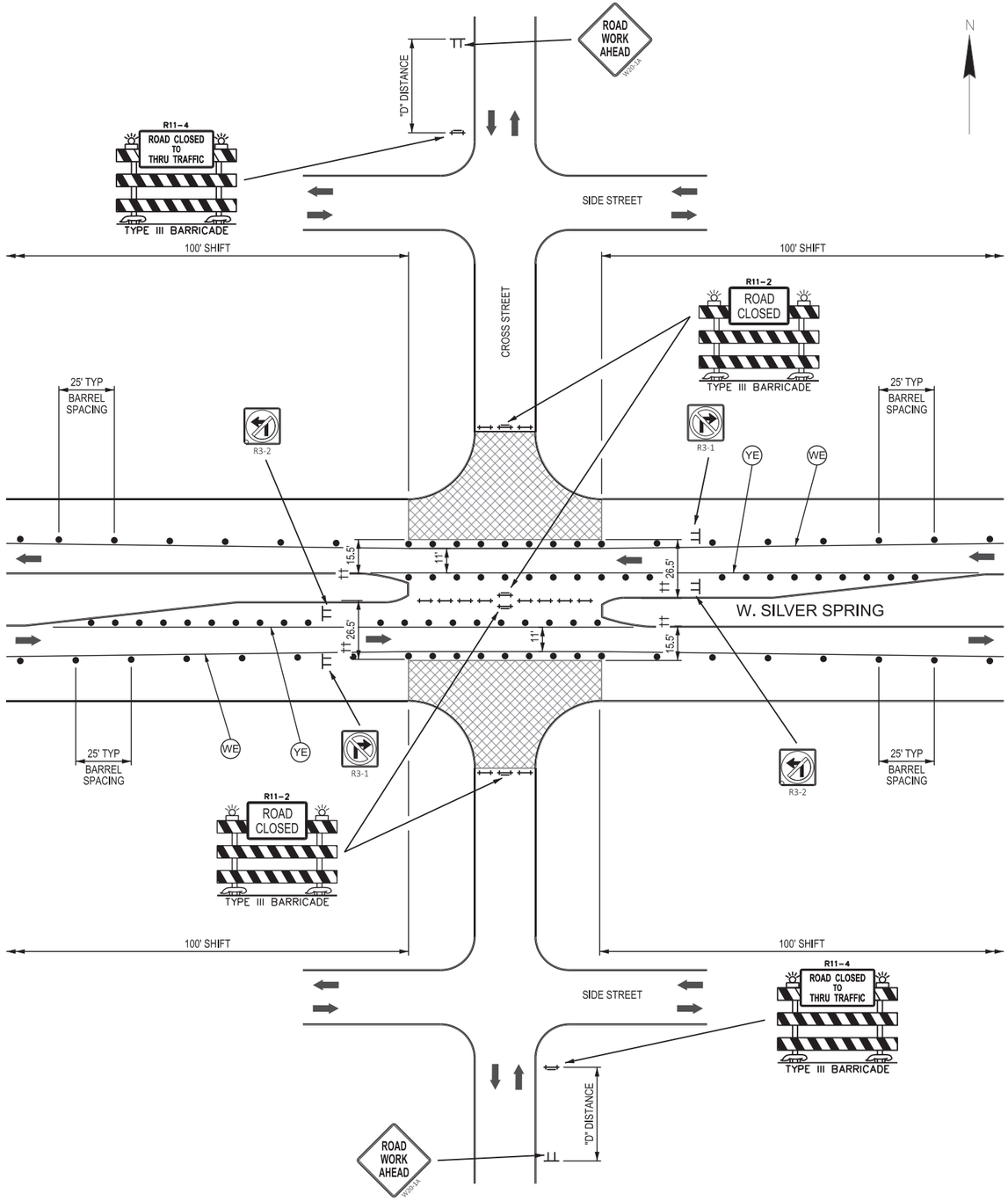
WISDOT/CADDS SHEET 41



SIDE STREET TRAFFIC - CONSTRUCTION STAGE 1B

APPLIES TO:
ALL SIGNALIZED SIDE STREETS
& N. SUNNY ST. RD. / 13 TH. ST.

†† MEASURED FROM BACK OF CURB TO SAW CUT LINE



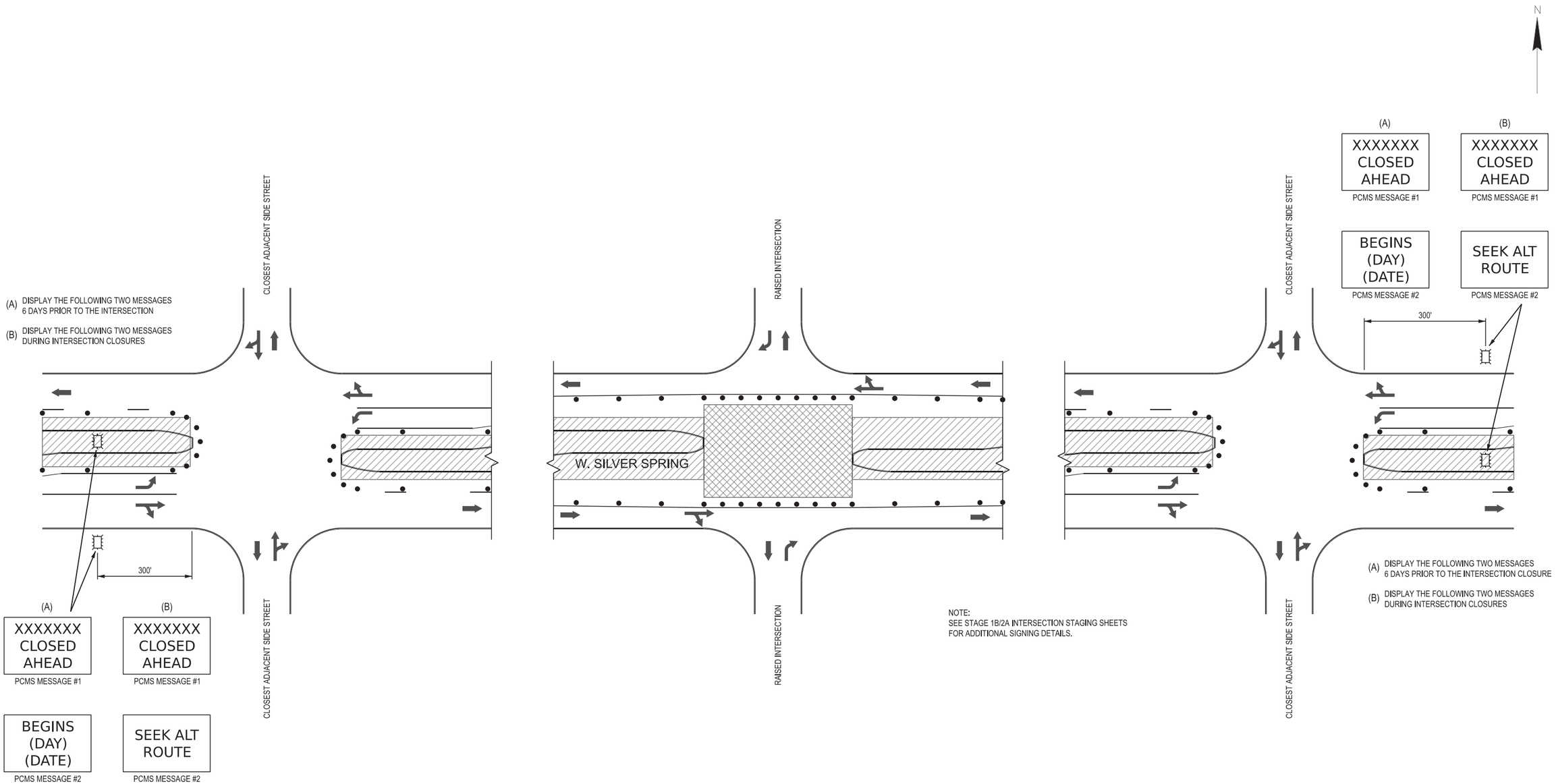
SIDE STREET TRAFFIC - CONSTRUCTION STAGE 2A

APPLIES TO:
ALL SIGNALIZED SIDE STREETS
& N. SUNNY ST. RD. / 13 TH. ST.

†† MEASURED FROM BACK OF CURB TO SAW CUT LINE

PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 1B & 2A - INTERSECTION DETAILS	SHEET 212	E

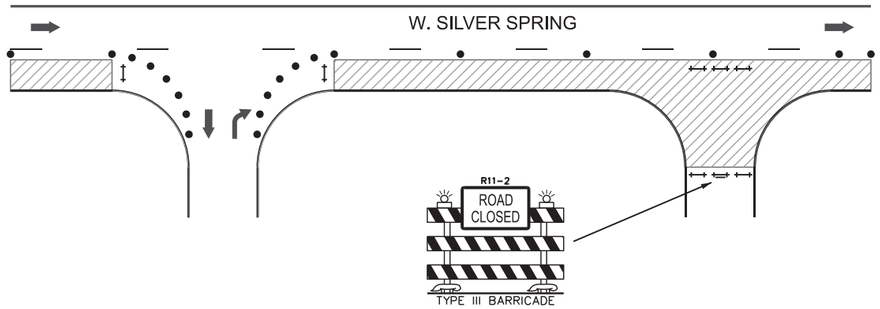
2

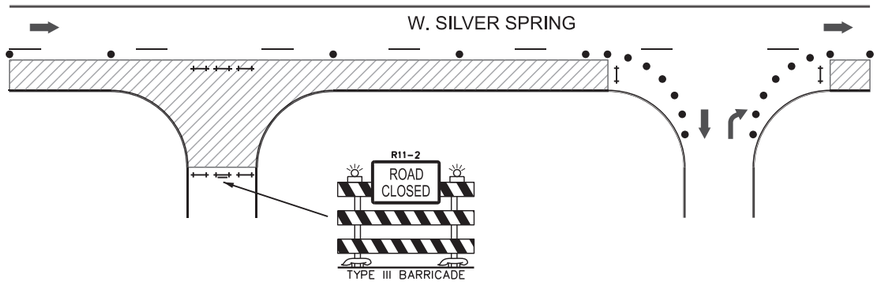


NOTE:
SEE STAGE 1B/2A INTERSECTION STAGING SHEETS FOR ADDITIONAL SIGNING DETAILS.

PCMS PLACEMENT - WITHIN THE WORK ZONE

APPLIES TO ALL SIGNALIZED INTERSECTIONS AND N. SUNNY POINT RD. / 13TH ST. EXCEPT N. MILWAUKEE RIVER PKWY
CONSTRUCTION 2A SHOWN; CONSTRUCTION 2B SIMILAR
(SEE MOT PLAN SHEETS FOR ADDITIONAL SIGNS)





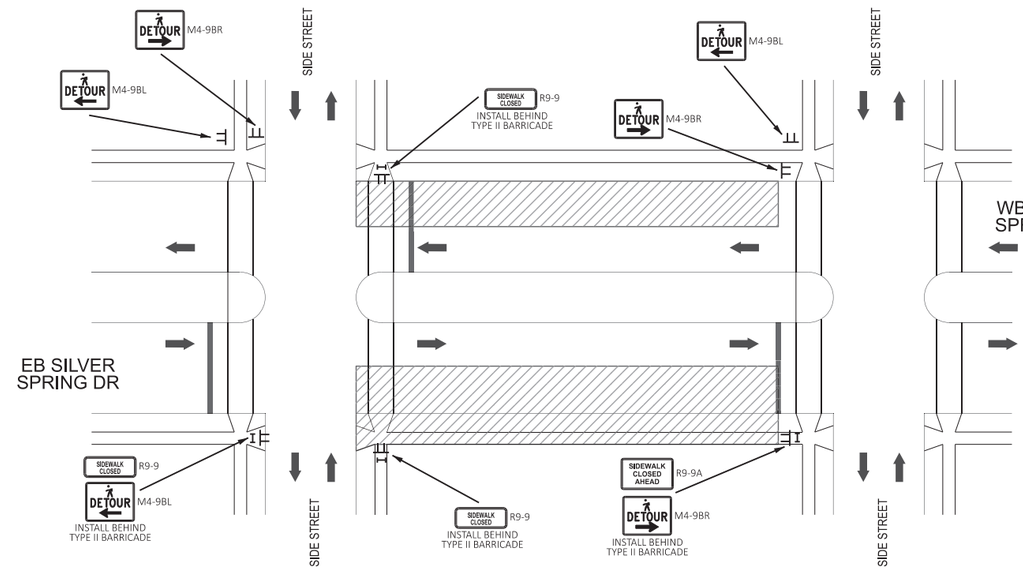
DRIVEWAY STAGING DETAIL

APPLIES TO ALL DRIVEWAYS WITH MULTIPLE ACCESS POINTS

NOTE:
PROPERTIES WITH DEDICATED DRIVEWAY ENTRANCES AND EXITS SHALL BE MAINTAINED ONE AT A TIME. THE DRIVEWAY BEING MAINTAINED WILL PROVIDE TWO WAY ACCESS TO THE PROPERTY WHILE THE OTHER IS BEING CONSTRUCTED.

TEMPORARY BUS STOP DETAILS

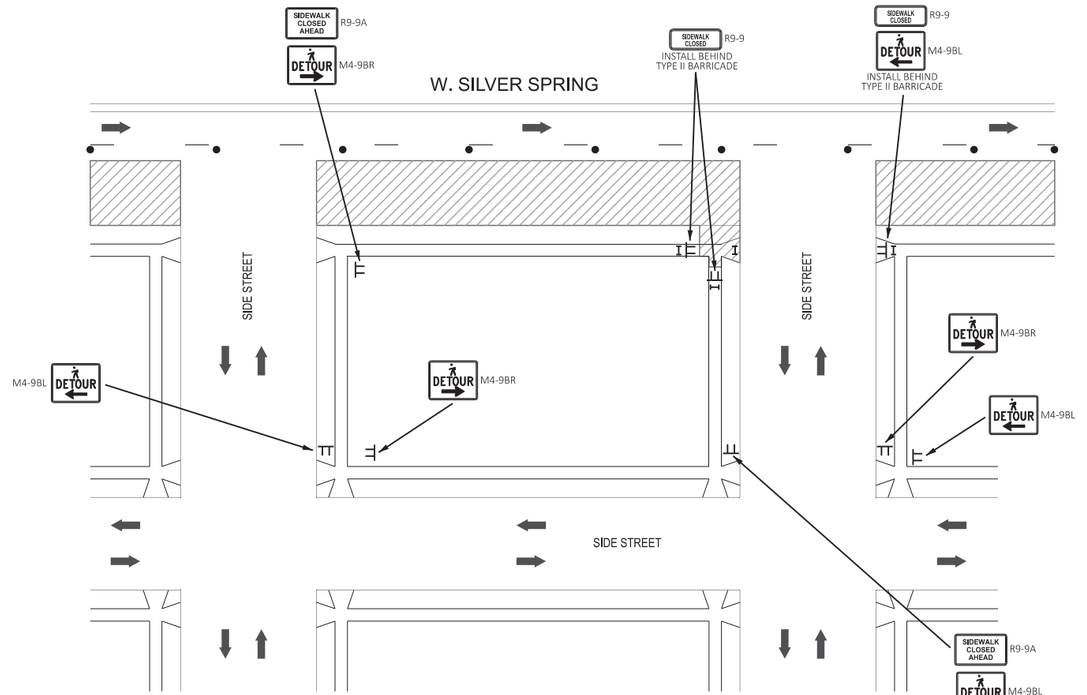
SEE STANDARD DETAIL DRAWING 15D30 FOR TEMPORARY BUS STOP DETAILS. THIS DETAIL WILL APPLY TO ALL EXISTING BUS STOPS THAT ARE TO BE RETAINED AFTER CONSTRUCTION. MAINTAIN BUS STOP PER DETAIL DURNING NOT ACTIVE BUS STOP CONSTRUCTION. DURING ACTIVE CONSTRUCTION CLOSE BUS STOP. DO NOT CLOSE CONSECUTIVE BUS STOPS. COORDINATE CLOSURES WITH THE MILWAUKEE COUNTY TRANSIT SYSTEM (MCTS) AND THE CITY OF GLENDALE. DETAIL ONLY APPLIES DURING STAGE 2B.



ALTERNATING PEDESTRIAN CROSSWALK DETAIL

EB SHOWN; WB SIMILAR

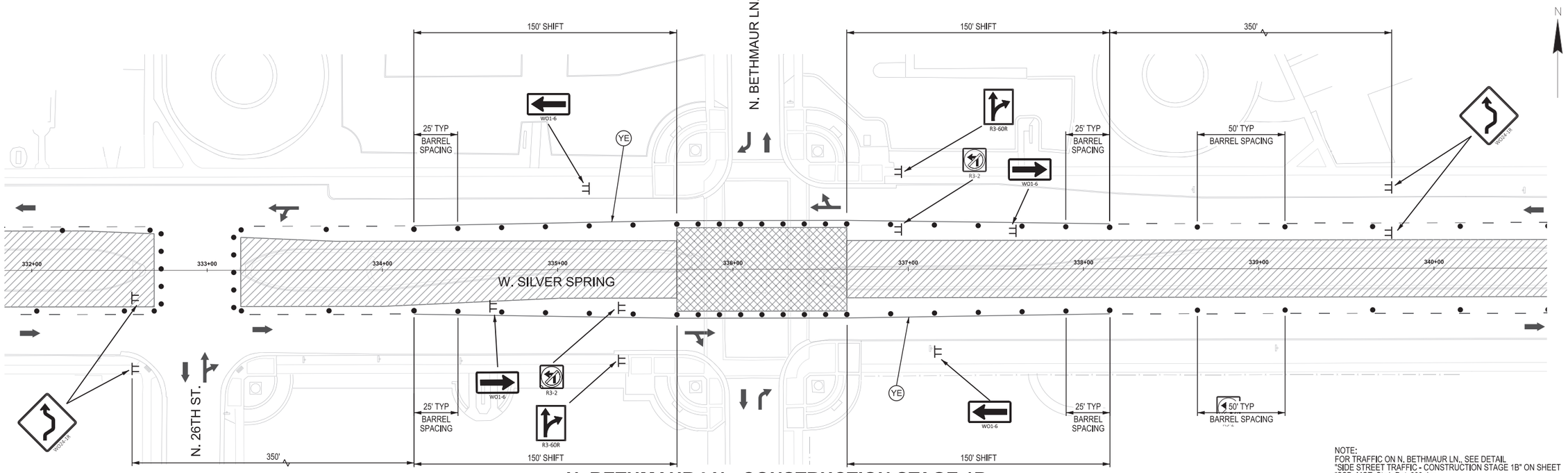
I TYPE II BARRICADE



NOTE:
ADJACENT SIDESTREET CROSSWALKS MAY NOT BE CLOSED AT THE SAME TIME.

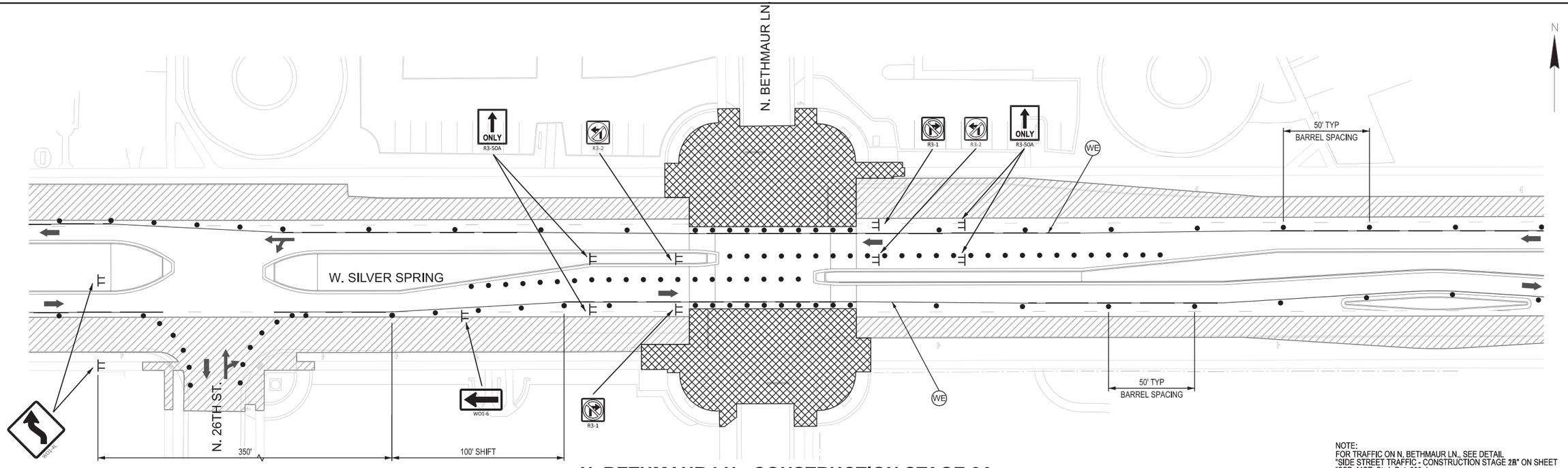
TYPICAL PEDESTRIAN DETOUR DETAIL

EB SHOWN; WB SIMILAR



NOTE:
FOR TRAFFIC ON N. BETHMAUR LN., SEE DETAIL "SIDE STREET TRAFFIC - CONSTRUCTION STAGE 1B" ON SHEET "SSD_MOT_Stg1_Det_000.dgn

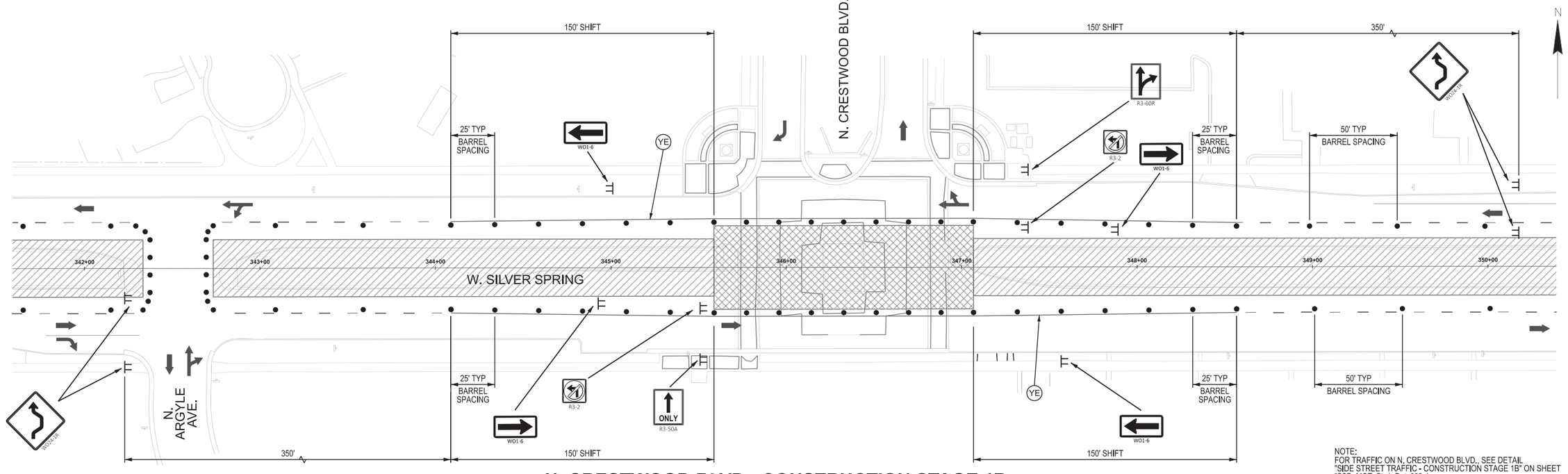
N. BETHMAUR LN - CONSTRUCTION STAGE 1B



NOTE:
FOR TRAFFIC ON N. BETHMAUR LN., SEE DETAIL "SIDE STREET TRAFFIC - CONSTRUCTION STAGE 2B" ON SHEET "SSD_MOT_Stg1_Det_000.dgn

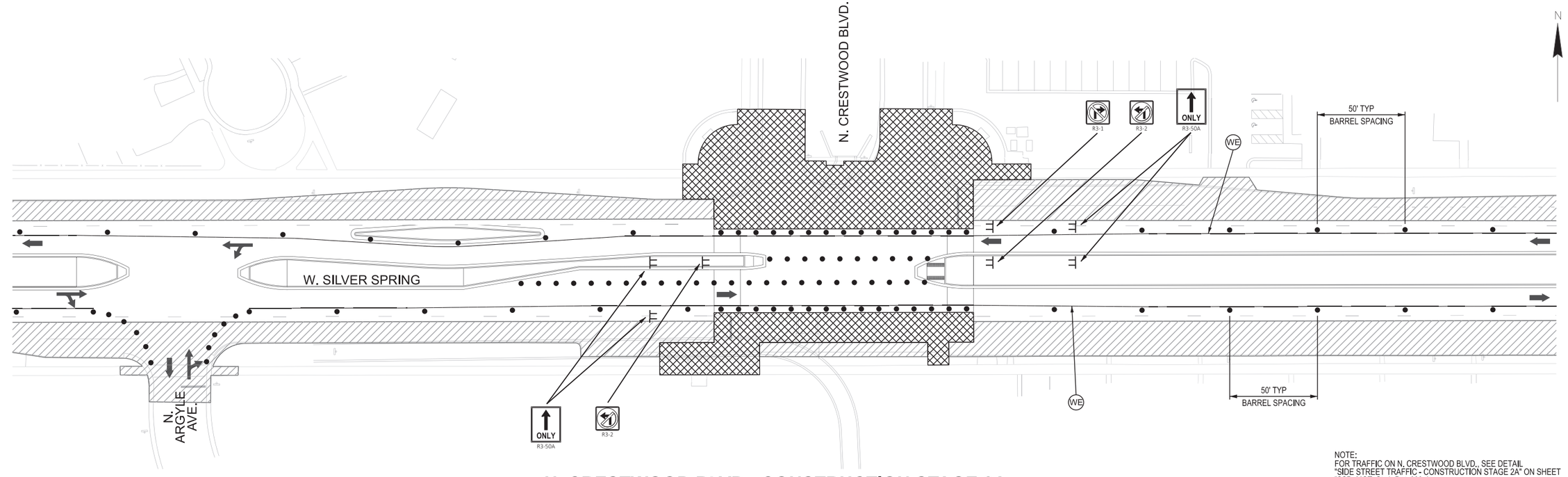
N. BETHMAUR LN - CONSTRUCTION STAGE 2A

PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 1B & 2A - INTERSECTION DETAILS	SHEET 215	E



NOTE:
FOR TRAFFIC ON N. CRESTWOOD BLVD., SEE DETAIL "SIDE STREET TRAFFIC - CONSTRUCTION STAGE 1B" ON SHEET "SSD_MOT_Stg1_Det_000.dgn

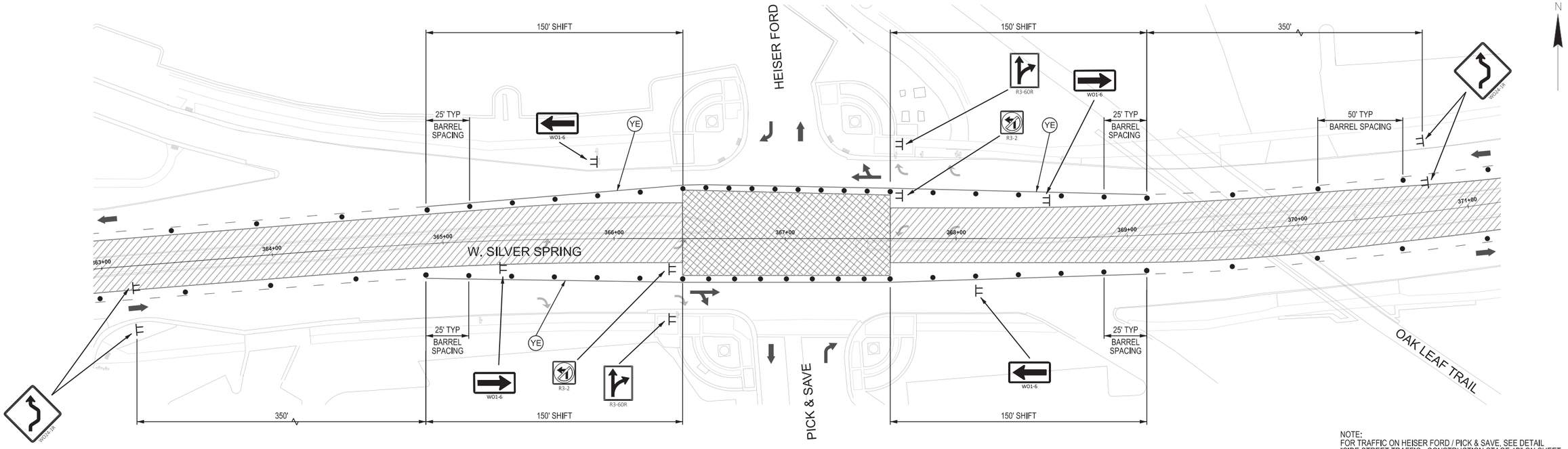
N. CRESTWOOD BLVD - CONSTRUCTION STAGE 1B



NOTE:
FOR TRAFFIC ON N. CRESTWOOD BLVD., SEE DETAIL "SIDE STREET TRAFFIC - CONSTRUCTION STAGE 2A" ON SHEET "SSD_MOT_Stg1_Det_000.dgn

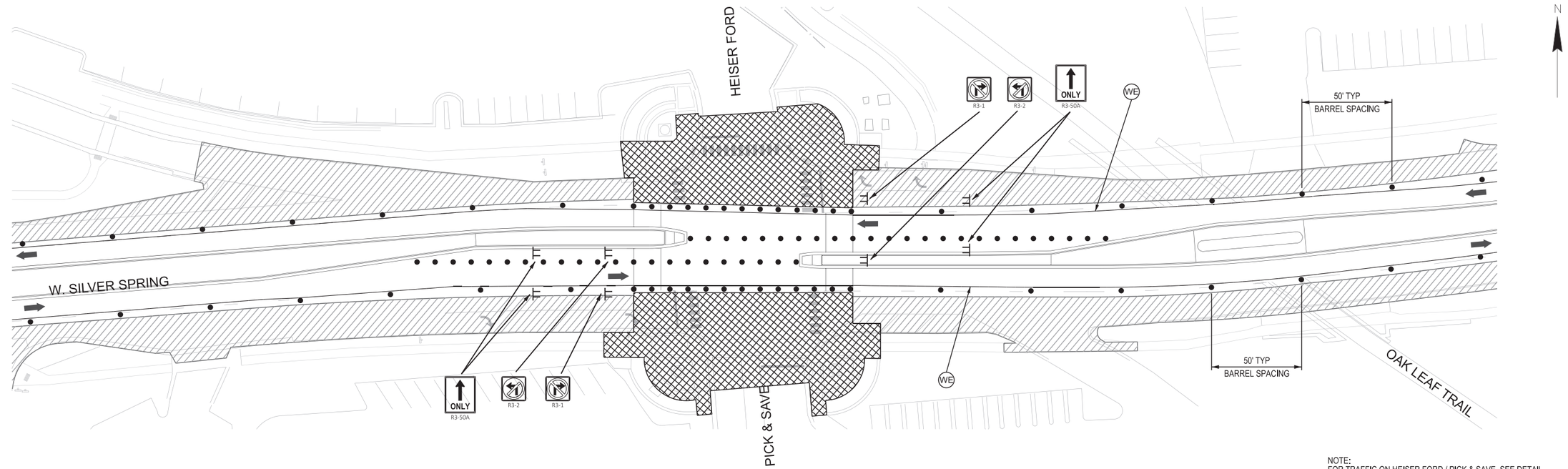
N. CRESTWOOD BLVD - CONSTRUCTION STAGE 2A

PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 1B & 2A - INTERSECTION DETAILS	SHEET 216	E



HEISER FORD AND PICK & SAVE - CONSTRUCTION STAGE 1B

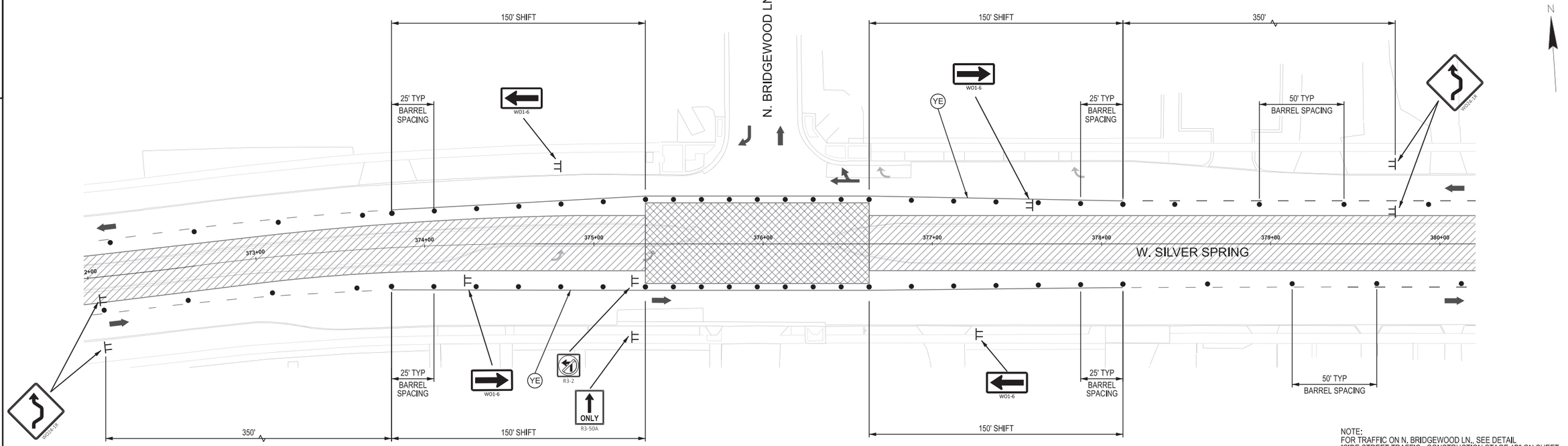
NOTE:
FOR TRAFFIC ON HEISER FORD / PICK & SAVE, SEE DETAIL "SIDE STREET TRAFFIC - CONSTRUCTION STAGE 1B" ON SHEET "SSD_MOT_Stg1_Det_000.dgn



HEISER FORD AND PICK & SAVE - CONSTRUCTION STAGE 2A

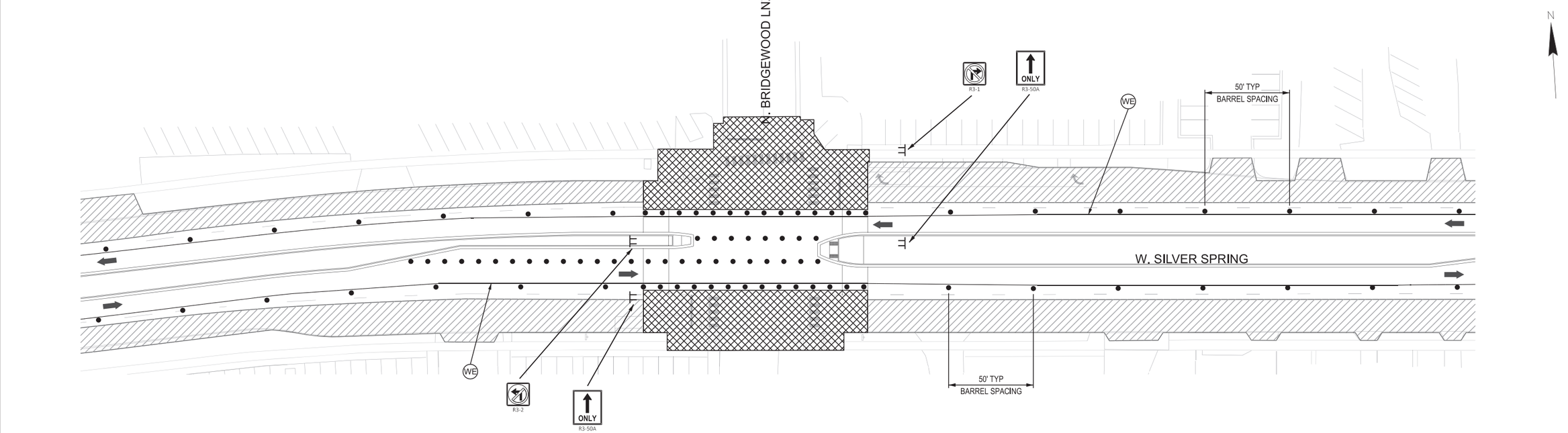
NOTE:
FOR TRAFFIC ON HEISER FORD / PICK & SAVE, SEE DETAIL "SIDE STREET TRAFFIC - CONSTRUCTION STAGE 2A" ON SHEET "SSD_MOT_Stg1_Det_000.dgn

PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 1B & 2A - INTERSECTION DETAILS	SHEET 217	E



NOTE:
FOR TRAFFIC ON N. BRIDGEWOOD LN., SEE DETAIL "SIDE STREET TRAFFIC - CONSTRUCTION STAGE 1B" ON SHEET "SSD_MOT_Stg1_Det_000.dgn

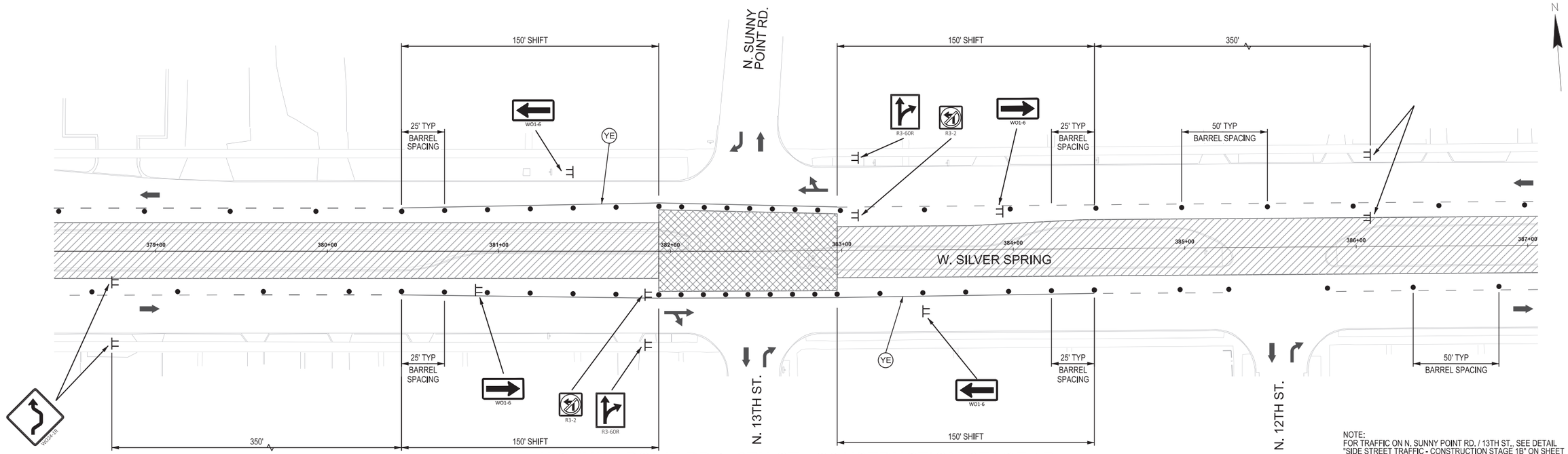
N BRIDGEWOOD LANE - CONSTRUCTION STAGE 1B



NOTE:
FOR TRAFFIC ON N. BRIDGEWOOD LN., SEE DETAIL "SIDE STREET TRAFFIC - CONSTRUCTION STAGE 2A" ON SHEET "SSD_MOT_Stg1_Det_000.dgn

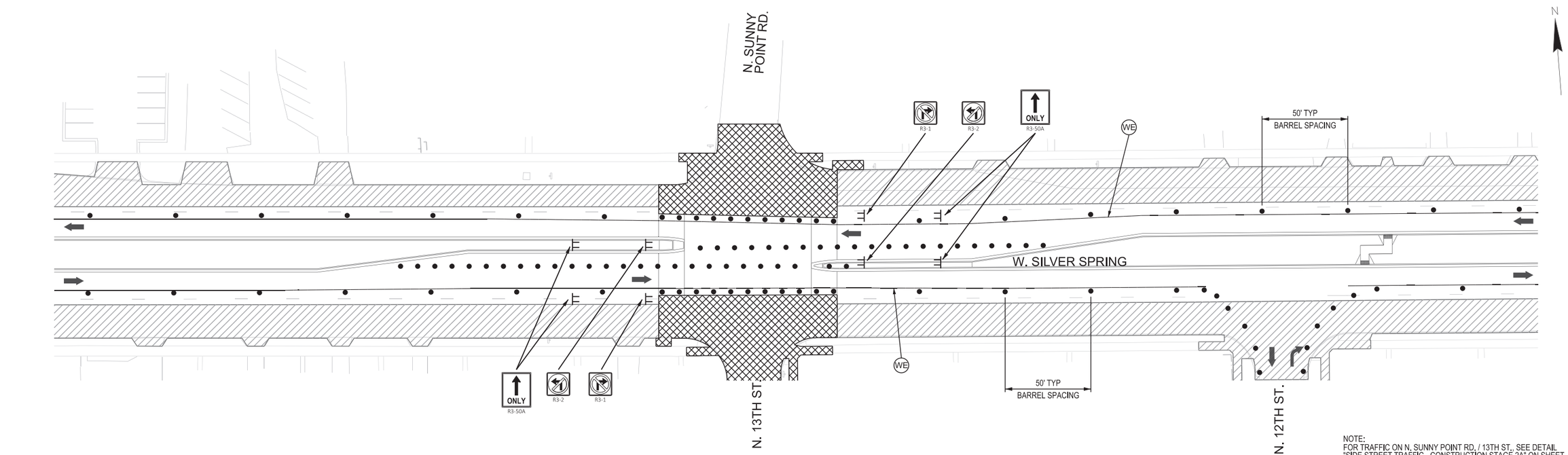
N BRIDGEWOOD LANE - CONSTRUCTION STAGE 2A

PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 1B & 2A - INTERSECTION DETAILS	SHEET 218	E



N SUNNY POINT RD / 13TH ST - CONSTRUCTION STAGE 1B

NOTE:
FOR TRAFFIC ON N. SUNNY POINT RD. / 13TH ST., SEE DETAIL "SIDE STREET TRAFFIC - CONSTRUCTION STAGE 1B" ON SHEET "SSD_MOT_Stg1_Det_000.dgn

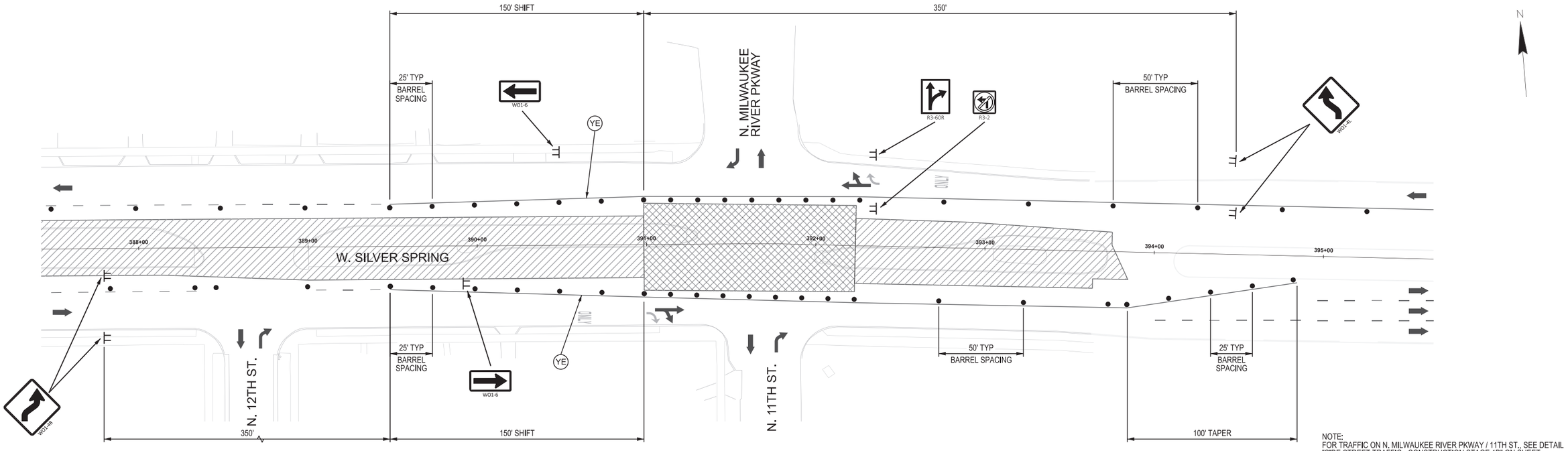


N SUNNY POINT RD / 13TH ST - CONSTRUCTION STAGE 2A

NOTE:
FOR TRAFFIC ON N. SUNNY POINT RD. / 13TH ST., SEE DETAIL "SIDE STREET TRAFFIC - CONSTRUCTION STAGE 2A" ON SHEET "SSD_MOT_Stg1_Det_000.dgn

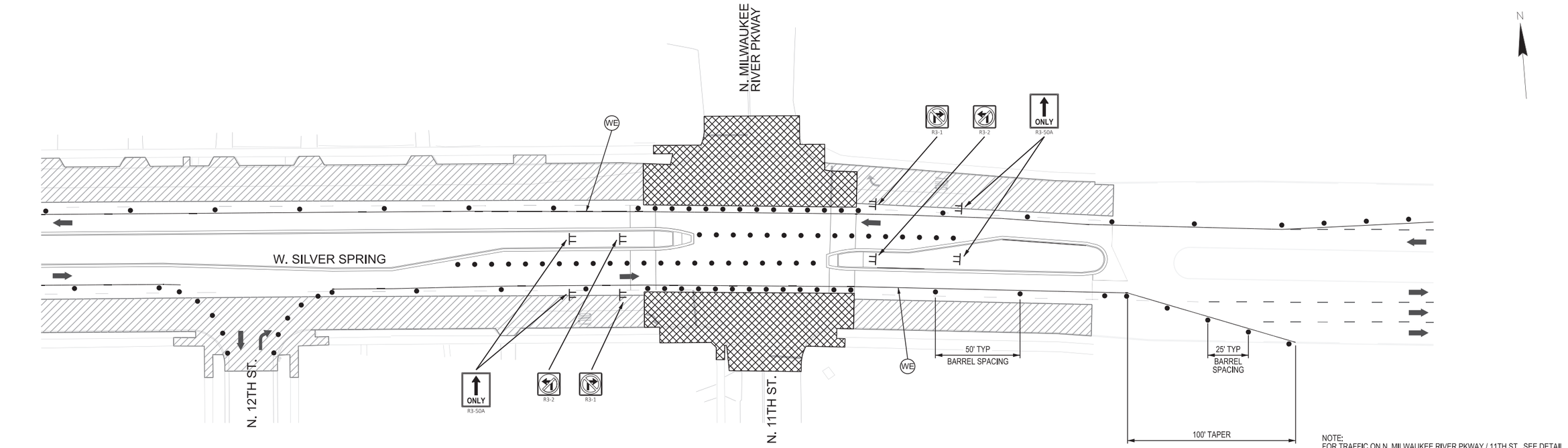
PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 1B & 2A - INTERSECTION DETAILS	SHEET 219	E

FILE NAME : S:\AUTODESK\C3D\2024\TEMPLATES\XREFS\BORDERS\02-SS-SHT-BRDR.DWG PLOT DATE : ---- PLOT BY : OWEN L. SHARP PLOT NAME :



N MILWAUKEE RIVER PARKWAY - CONSTRUCTION STAGE 1B

NOTE:
FOR TRAFFIC ON N. MILWAUKEE RIVER PKWAY / 11TH ST., SEE DETAIL "SIDE STREET TRAFFIC - CONSTRUCTION STAGE 1B" ON SHEET "SSD_MOT_Stg1_Det_000.dgn



N MILWAUKEE RIVER PARKWAY - CONSTRUCTION STAGE 2A

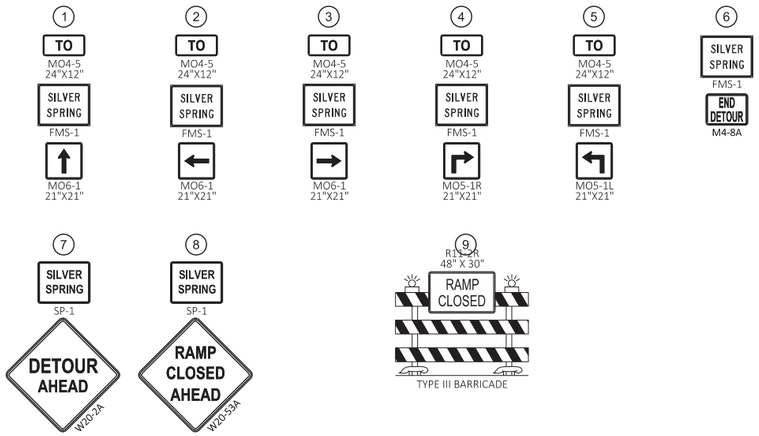
NOTE:
FOR TRAFFIC ON N. MILWAUKEE RIVER PKWAY / 11TH ST., SEE DETAIL "SIDE STREET TRAFFIC - CONSTRUCTION STAGE 2A" ON SHEET "SSD_MOT_Stg1_Det_000.dgn

PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	MAINTAINING OF TRAFFIC - STAGE 1B & 2A - INTERSECTION DETAILS	SHEET 220	E

LEGEND:

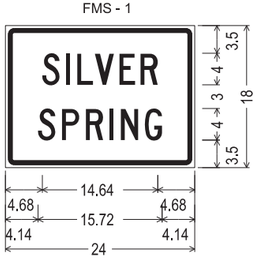
- TRAFFIC CONTROL SIGN
- TYPE III BARRICADE
- ROAD/RAMP CLOSURE
- DETOUR TRAFFIC FLOW DIRECTION
- DETOUR ROUTE

NOTES:
1. SEE STANDARD DETAIL DRAWINGS FOR SIGN SPACING.
2. COVER SIGNS WHEN NOT IN USE.
3. PLACE TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH STANDARD DETAIL DRAWING: "TRAFFIC CONTROL, TWO LANE FULL FREEWAY CLOSURE".
   FOR RAMP CLOSURE, PLACE TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH DETAIL: "TRAFFIC CONTRROL FOR EXIT RAMP CLOSURE".
4. ALL EXISTING SIGN MESSAGES THAT CONFLICT WITH DETOUR SIGNS SHALL BE COVERED BY THE CONTRACTOR.
5. PLACE DETOUR ASSEMBLIES ON BOTH THE OUTSIDE AND MEDIAN SHOULDERS WHEN DETOURS ARE ROUTED ON DIVIDED ROADWAYS.
6. WITH THE EXCEPTION OF DOT 386872M, DO NOT PLACE SIGNS OR TRAFFIC CONTROL DEVICES WITHIN 50' OF RAILROAD RIGHT-OF-WAY.



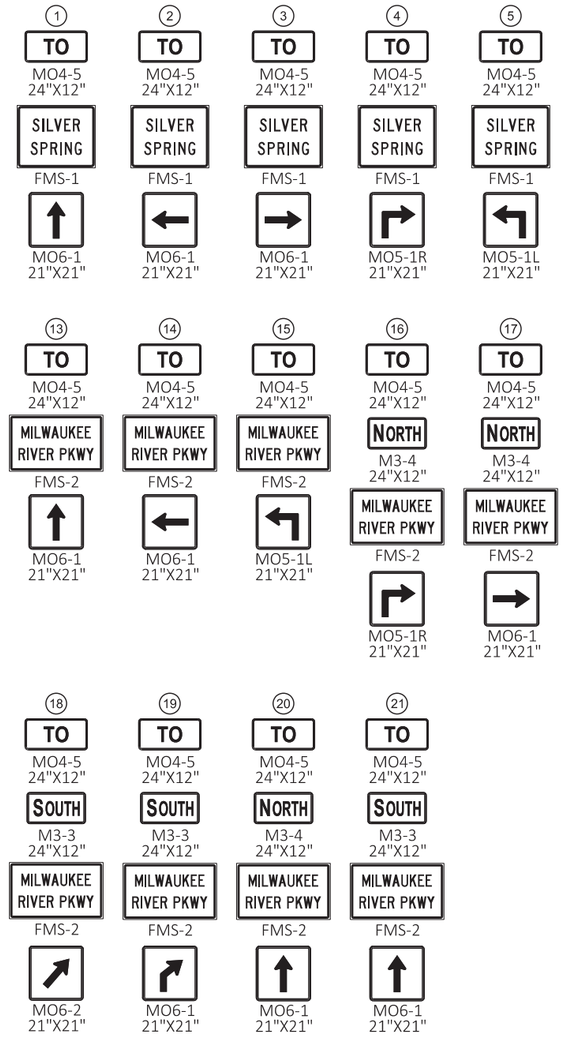


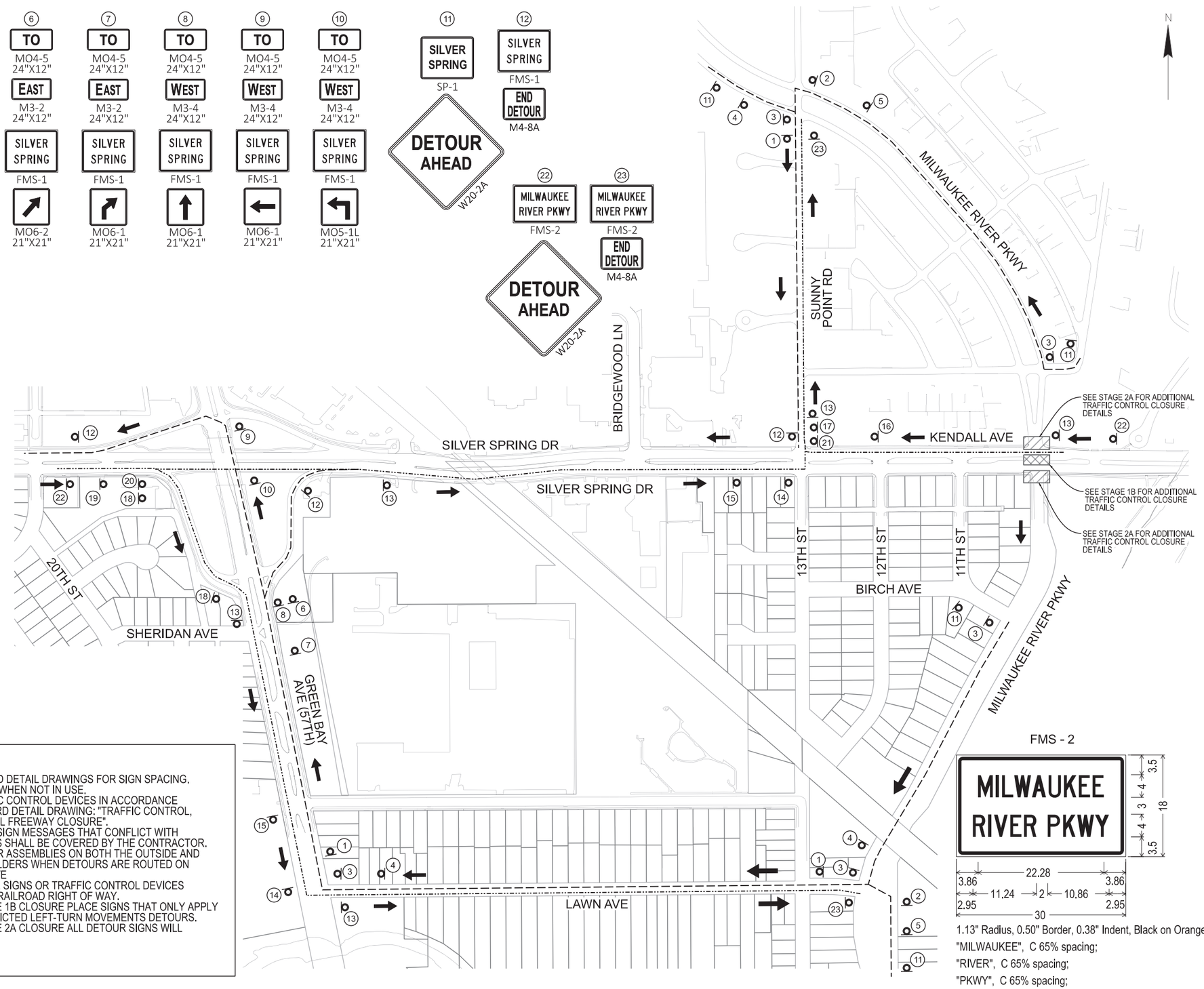
FMS - 1



1.13" Radius, 0.50" Border, 0.38" Indent, Black on Orange;
"SILVER", C;
"SPRING", C;

PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	SB GREEN BAY AVE TO WB SILVER SPRING DR RAMP CLOSURE DETOUR	SHEET 221	E





LEGEND:

- TRAFFIC CONTROL SIGN
- STAGE 1B CLOSURE
- STAGE 2A CLOSURE
- DETOUR TRAFFIC FLOW DIRECTION
- TO SILVER SPRING DETOUR ROUTES
- TO MILWAUKEE RIVER DEOUR ROUTES

NOTES:

1. SEE STANDARD DETAIL DRAWINGS FOR SIGN SPACING.
2. COVER SIGNS WHEN NOT IN USE.
3. PLACE TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH STANDARD DETAIL DRAWING: "TRAFFIC CONTROL, TWO LANE FULL FREEWAY CLOSURE".
4. ALL EXISTING SIGN MESSAGES THAT CONFLICT WITH DETOUR SIGNS SHALL BE COVERED BY THE CONTRACTOR.
5. PLACE DETOUR ASSEMBLIES ON BOTH THE OUTSIDE AND MEDIAN SHOULDERS WHEN DETOURS ARE ROUTED ON GREEN BAY AVE
6. DO NOT PLACE SIGNS OR TRAFFIC CONTROL DEVICES WITHIN 50' OF RAILROAD RIGHT OF WAY.
7. DURING STAGE 1B CLOSURE PLACE SIGNS THAT ONLY APPLY TO THE RESTRICTED LEFT-TURN MOVEMENTS DETOURS.
8. DURING STAGE 2A CLOSURE ALL DETOUR SIGNS WILL APPLY.

FMS - 2

1.13" Radius, 0.50" Border, 0.38" Indent, Black on Orange;
"MILWAUKEE", C 65% spacing;
"RIVER", C 65% spacing;
"PKWY", C 65% spacing;

PROJECT NO: 2090-07-71	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	SILVER SPRING DR AT MILWAUKEE RIVER PKWY APPROACH CLOSURE DETOUR	SHEET 222	E

2

NOTES:

SURVEY REPORT
FIELD WORK PERFORMED BY CLARK DIETZ, INC. IN NOVEMBER OF 2023.

INTENT OF SURVEY
CLARK DIETZ WAS CHARGED WITH THE PURPOSE OF COLLECTING DATA FOR THE PREPARATION OF DESIGN PLANS FOR ROADWAY REHABILITATION OF SILVER SPRING DR.

FIELD MEASUREMENT PROCEDURE
THE TOPOGRAPHIC SURVEY WAS COLLECTED PRIMARILY USING A ROBOTIC TOTAL STATION AND SUPPLEMENTED WITH RTK GPS.

SUBSURFACE UTILITIES AND FEATURES SHOWN ON THIS MAP HAVE BEEN APPROXIMATED BY LOCATING TOPOGRAPHICAL FEATURES AND APPURTENANCES, BY UTILIZING AVAILABLE UTILITY PLANNING PRINTS, AND BY LOCATING VISIBLE HOTLINE FIELD MARKINGS WHEN ENCOUNTERED. DIGGER HOTLINE TICKET NO. 20234314508 (PLANNING LOCATE) & NO. 20234314518 (PLANNING PRINTS)

RIGHT-OF-WAY AND PARCEL BOUNDARIES
A BOUNDARY SURVEY WAS NOT PERFORMED. ANY RIGHT-OF-WAY AND PARCEL LINES SHOWN HEREON WERE DERIVED USING GIS PARCEL LINES, FOUND PROPERTY PIPES, ANY FOUND RECORDED SURVEYS, AND MAY OR MAY NOT BE ACCURATE.

PROJECT DATUMS
BEARINGS AND COORDINATES FOR THIS SURVEY AND MAP ARE REFERENCED TO WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM, 1983. (NAD83.)

ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88) ACQUIRED WITH RTK GPS

HORIZONTAL AND VERTICAL CONTROL POINTS
PRIMARY LOCAL CONTROL WAS ESTABLISHED USING RTK GPS SURVEYING TECHNIQUES. ADDITIONAL CONTROL POINTS AND BENCHMARKS WERE SET USING ROBOTIC TOTAL STATION. A LEVEL LOOP WAS PERFORMED THRU BENCHMARKS.

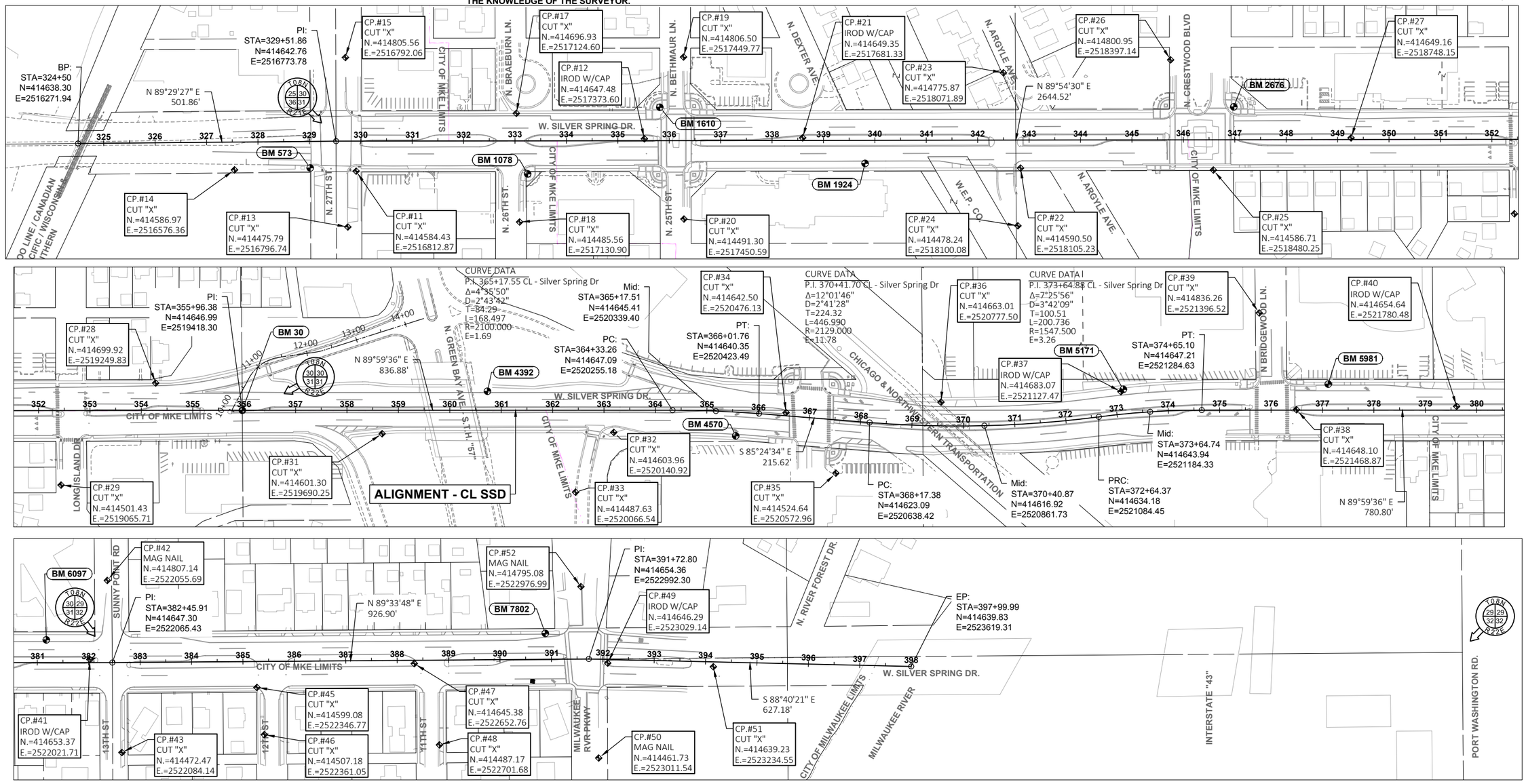
GENERAL NOTES
SINCE THE DATE OF THIS SURVEY, IT IS POSSIBLE CONDITIONS MAY HAVE BEEN ALTERED BEYOND THE KNOWLEDGE OF THE SURVEYOR.

BENCHMARKS

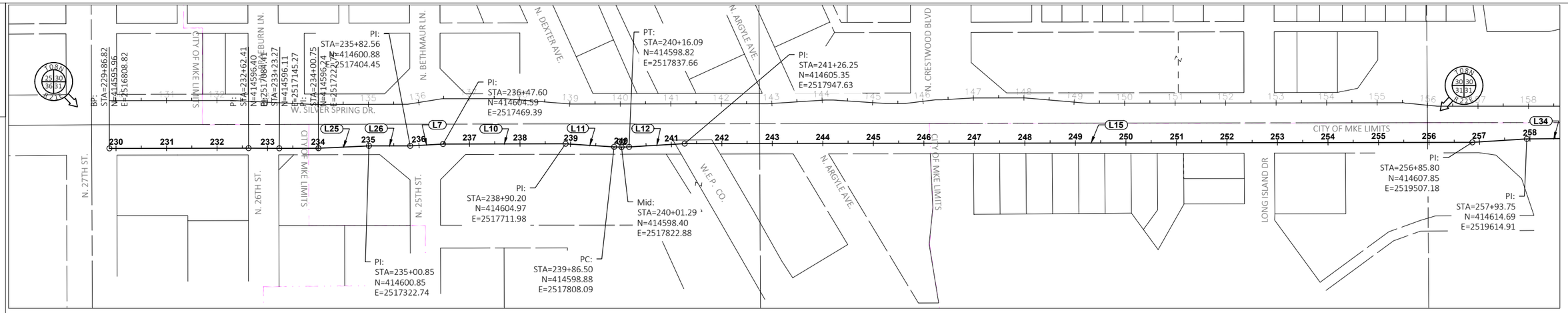
PNT. NO.	DESCRIPTION	ELEV.
30	BRASS SEC. COR. MON.	634.60
573	FH SE FLANGE BOLT	643.54
1078	CUT 'X' NW CORNER PLANTER FOUNDATION	642.85
1610	CUT 'X' SE CORNER PLANTER FOUNDATION	642.55
1924	FH NE FLANGE BOLT	641.77
2676	CUT 'X' SW CORNER PLANTER FOUNDATION	635.58
4392	CUT 'X' S SIDE LP FND.	629.45
4570	FH NW FLANGE BOLT	632.70

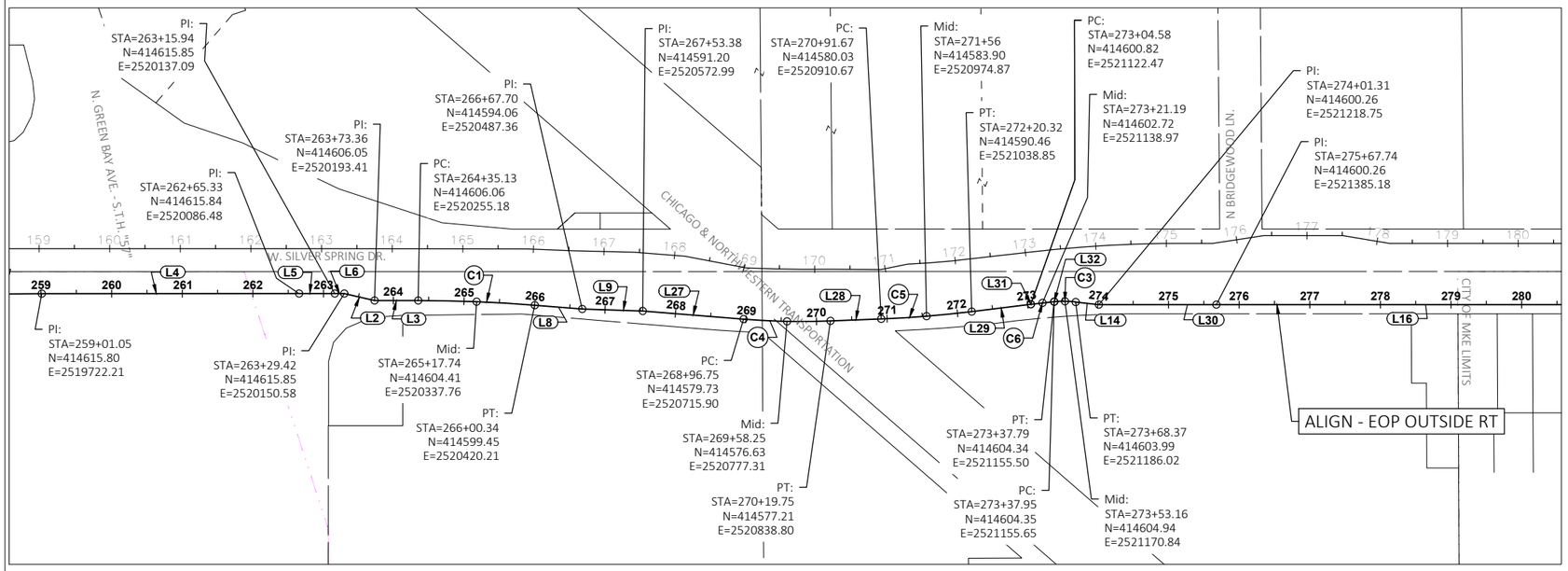
BENCHMARKS

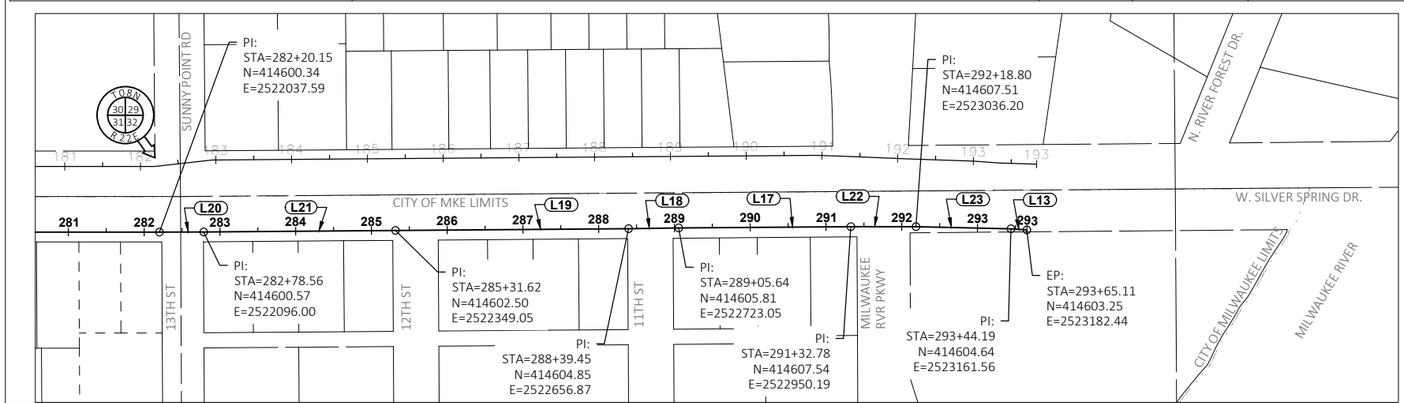
PNT. NO.	DESCRIPTION	ELEV.
5171	FH NW FLANGE BOLT	629.39
5981	FH NE FLANGE BOLT	630.76
6097	CUT '+' SE COR. CABINET PAD	629.05
7802	FH NE FLANGE BOLT	630.67



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	ALIGNMENT & CONTROL	SHEET 223	E







N

LINE TABLE - ALIGNMENTS		
LINE #	DIRECTION	DISTANCE
L2	S77° 06' 57.07"E	43.94'
L3	N89° 59' 35.84"E	61.77'
L4	N89° 59' 35.84"E	364.27'
L5	N89° 59' 47.23"E	50.61'
L6	N89° 58' 52.21"E	13.48'
L7	N86° 44' 01.54"E	65.04'
L8	S85° 24' 34.16"E	67.36'
L9	S88° 05' 07.35"E	85.68'
L10	N89° 54' 34.18"E	242.59'
L11	S86° 22' 33.83"E	96.30'
L12	N86° 36' 11.20"E	110.16'
L13	S86° 10' 41.06"E	20.92'
L14	S83° 30' 07.01"E	32.94'
L15	N89° 54' 30.07"E	1559.55'
L16	N89° 59' 35.84"E	652.41'
L17	N89° 33' 48.38"E	227.15'
L18	N89° 10' 03.95"E	66.19'
L19	N89° 33' 47.39"E	307.83'
L20	N89° 46' 10.71"E	58.41'
L21	N89° 33' 48.38"E	253.06'

LINE TABLE - ALIGNMENTS		
LINE #	DIRECTION	DISTANCE
L22	S89° 58' 49.52"E	86.01'
L23	S88° 41' 20.63"E	125.39'
L25	N87° 21' 40.33"E	100.10'
L26	N89° 58' 36.64"E	81.71'
L27	S85° 24' 34.16"E	143.37'
L28	N87° 45' 17.04"E	71.92'
L29	N82° 56' 24.83"E	84.26'
L30	N89° 59' 59.11"E	166.43'
L31	N82° 56' 24.91"E	0.00'
L32	N84° 52' 41.35"E	0.15'
L34	N89° 24' 32.83"E	107.31'

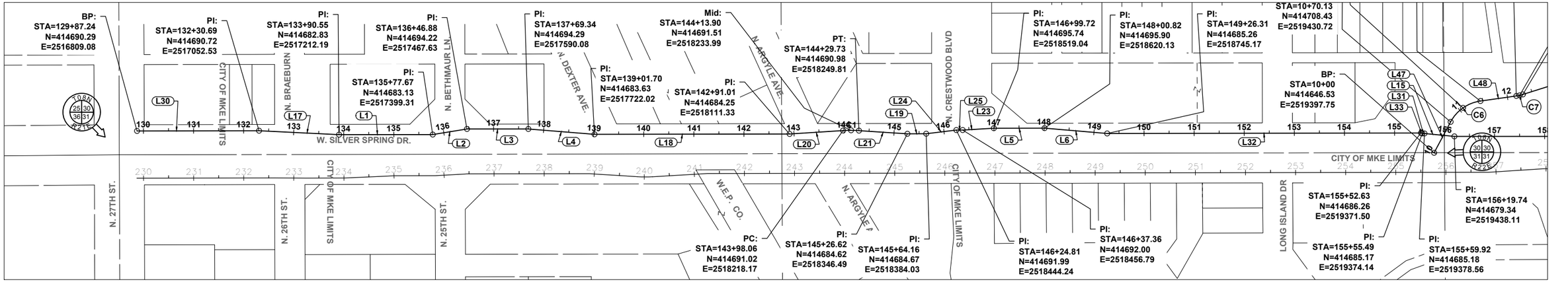
CURVE TABLE - ALIGNMENTS							
CURVE #	PI	DELTA	DEG-CHRD	EXT. TAN	LENGTH	RADIUS	E
C1	265+17.78	4°35'50"	2°46'59"	82.65'	165.20'	2058.97'	1.66
C2	240+01.31	7°01'15"	23°53'52"	14.81'	29.59'	241.50'	0.45
C3	273+53.21	11°37'12"	38°56'33"	15.26'	30.42'	150.00'	0.77
C4	269+58.32	6°50'09"	5°33'34"	61.58'	123.01'	1031.00'	1.84
C5	271+56.03	4°48'52"	3°44'35"	64.36'	128.65'	1531.00'	1.35
C6	273+21.19	1°56'17"	5°50'14"	16.61'	33.21'	982.00'	0.14

ALIGNMENT PLAN - EOP OUTSIDE RIGHT

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	ALIGNMENT - CURB RT	SHEET 224	E

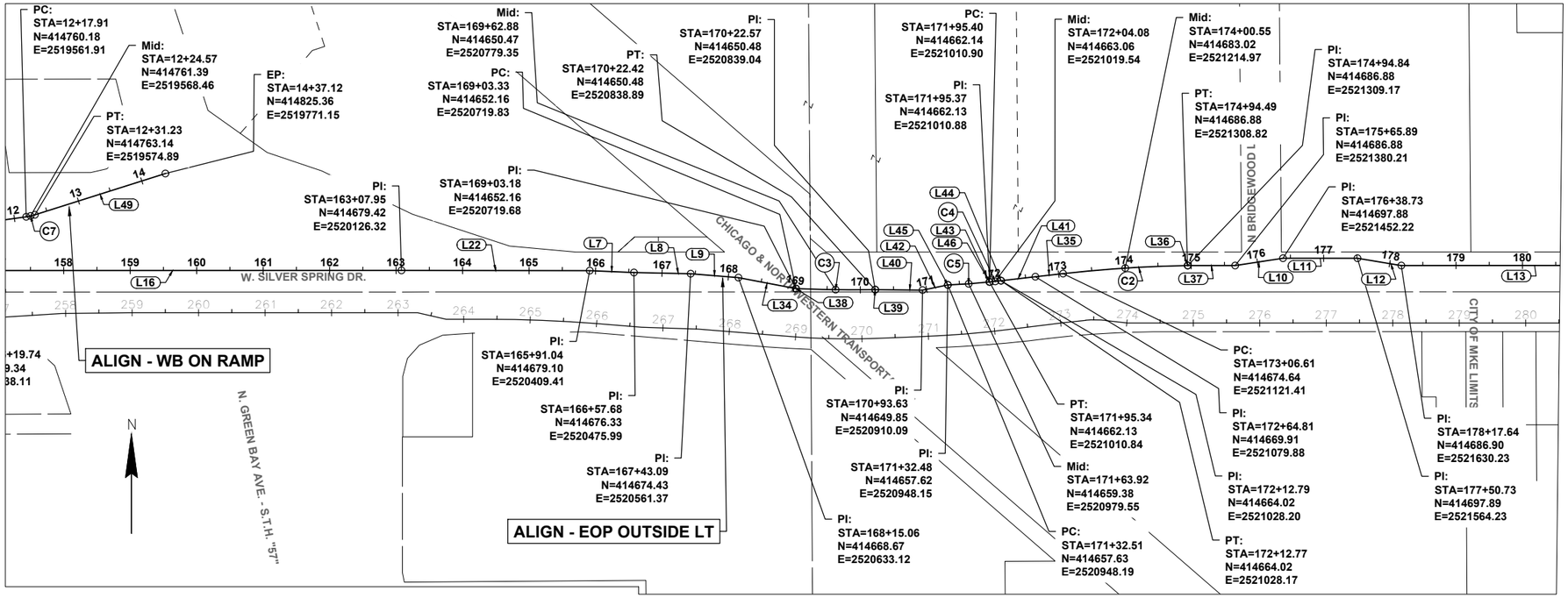
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\ALIGNMENT & CONTROL - CURB RT.DWG PLOT DATE : 1/23/2025 3:22 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 200'

2

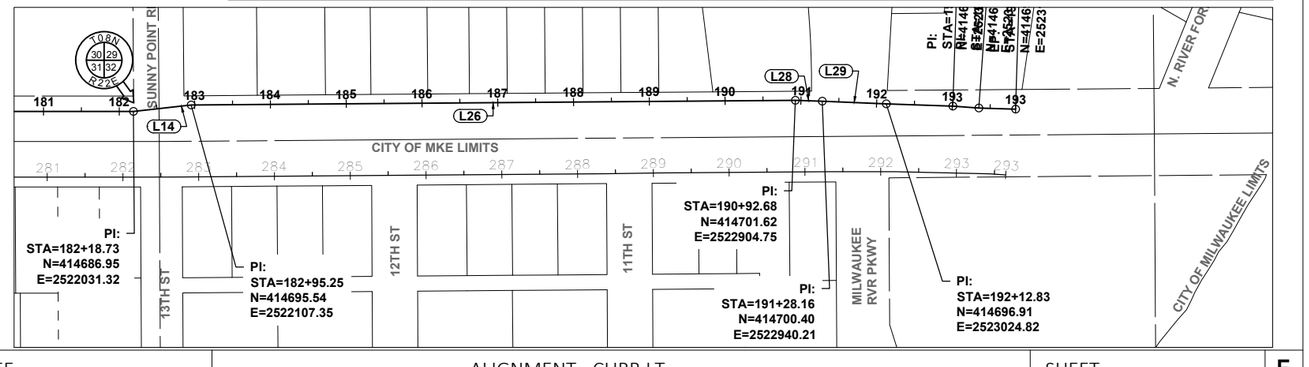


LINE TABLE - ALIGNMENTS		
LINE #	DIRECTION	DISTANCE
L1	N89° 54' 30.07"E	187.12'
L2	N80° 46' 55.73"E	69.22'
L3	N89° 58' 00.47"E	122.45'
L4	S85° 22' 44.34"E	132.37'
L5	N89° 54' 34.54"E	101.09'
L6	S85° 08' 14.98"E	125.49'
L7	S87° 37' 03.00"E	66.64'
L8	S88° 43' 15.84"E	85.40'
L9	S85° 24' 34.16"E	71.98'
L10	N81° 19' 02.52"E	72.85'
L11	N89° 59' 35.84"E	112.00'
L12	S80° 32' 39.80"E	66.91'
L13	N89° 59' 35.03"E	401.09'
L14	N83° 33' 05.46"E	76.52'
L15	S84° 24' 05.37"E	59.83'
L16	N89° 59' 35.85"E	688.21'
L17	S87° 10' 12.53"E	159.86'
L18	N89° 54' 30.07"E	389.31'
L19	N89° 55' 38.09"E	37.54'
L20	N86° 22' 21.36"E	107.05'
L21	S86° 14' 12.78"E	96.89'
L22	S89° 56' 07.44"E	283.09'
L23	N86° 33' 56.56"E	62.36'
L24	N83° 04' 26.16"E	60.66'
L25	N89° 55' 13.45"E	12.55'
L26	N89° 33' 48.51"E	797.43'
L28	S88° 02' 23.61"E	35.48'
L29	S87° 38' 01.30"E	84.67'
L30	N89° 53' 53.73"E	243.45'
L31	N89° 53' 36.56"E	4.42'

LINE TABLE - ALIGNMENTS		
LINE #	DIRECTION	DISTANCE
L32	N89° 54' 30.32"E	626.32'
L33	S67° 31' 56.00"E	2.86'
L34	S79° 12' 20.99"E	88.12'
L35	N83° 29' 56.55"E	41.80'
L36	N89° 01' 55.96"E	0.35'
L37	N90° 00' 00.00"E	71.05'
L38	S87° 33' 41.25"E	0.15'
L39	N89° 10' 24.20"E	0.15'
L40	S89° 29' 19.39"E	71.06'
L41	N83° 29' 56.55"E	52.02'
L42	N78° 27' 15.77"E	38.84'
L43	N83° 59' 09.73"E	0.02'
L44	N83° 33' 59.70"E	0.02'
L45	N87° 43' 24.00"E	0.03'
L46	N84° 03' 13.01"E	0.03'
L47	N28° 02' 11.03"E	70.13'
L48	N81° 57' 14.47"E	72.49'
L49	N72° 24' 30.02"E	205.89'



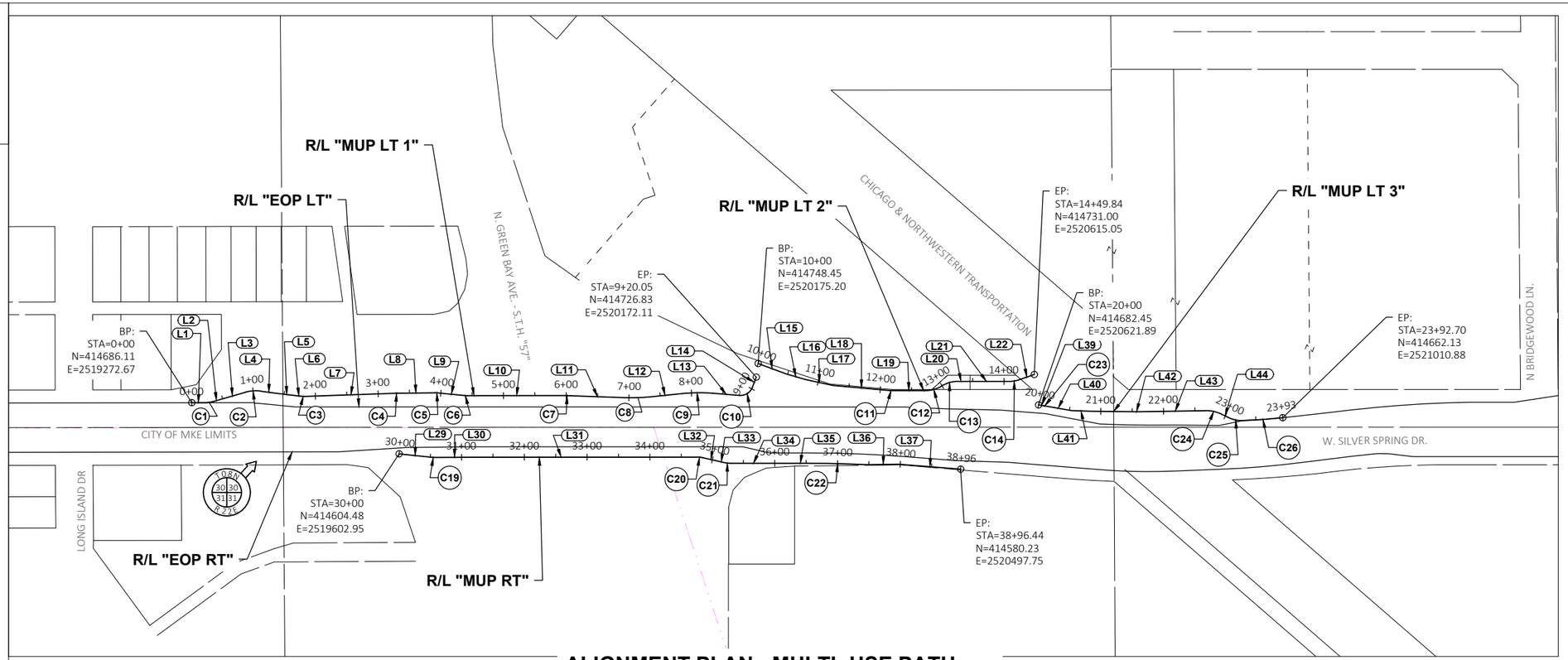
CURVE TABLE - ALIGNMENTS					
CURVE #	RADIUS	LENGTH	CHORD DIRECTION	START POINT	END POINT
C1	245.50'	31.67'	S89° 55' 55.71"E	N=414691.02, E=2518218.17	N=414690.98, E=2518249.81
C2	1945.43'	187.87'	N86° 15' 56.26"E	N=414674.64, E=2521121.41	N=414686.88, E=2521308.82
C3	2089.71'	119.09'	S89° 11' 38.53"E	N=414652.16, E=2520719.83	N=414650.48, E=2520838.89
C4	2373.39'	17.38'	N83° 46' 34.72"E	N=414662.14, E=2521010.90	N=414664.02, E=2521028.17
C5	981.00'	62.83'	N85° 53' 18.50"E	N=414657.63, E=2520948.19	N=414662.13, E=2521010.84
C6	80.00'	75.28'	N54° 59' 42.75"E	N=414708.43, E=2519430.72	N=414750.04, E=2519490.13
C7	80.00'	13.33'	N77° 10' 52.25"E	N=414760.18, E=2519561.91	N=414763.14, E=2519574.89



ALIGNMENT PLAN - EOP OUTSIDE LEFT

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	ALIGNMENT - CURB LT	SHEET 225	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\ALIGNMENT & CONTROL - CURB LT.DWG PLOT DATE : 1/23/2025 3:22 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 200'



ALIGNMENT PLAN - MULTI -USE PATH

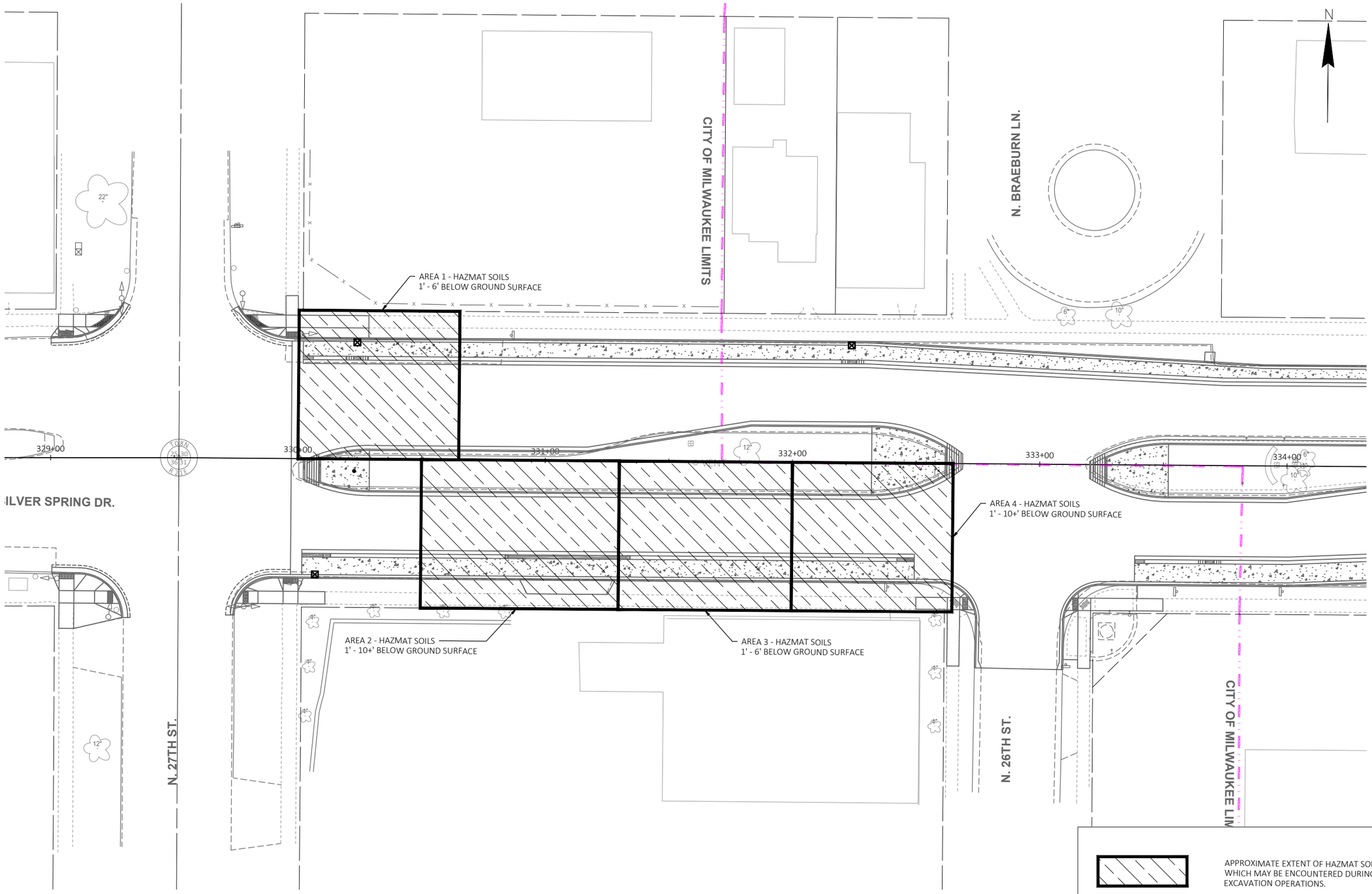
LINE TABLE - ALIGNMENTS		
LINE #	DIRECTION	DISTANCE
L1	N89° 54' 30.32"E	20.89'
L2	N74° 02' 33.05"E	10.00'
L3	N74° 02' 33.05"E	43.00'
L4	S82° 19' 48.90"E	25.79'
L5	S83° 18' 24.32"E	32.02'
L6	S83° 06' 10.44"E	6.47'
L7	N88° 00' 53.50"E	144.25'
L8	N89° 21' 25.29"E	60.34'
L9	S84° 19' 44.67"E	39.90'
L10	N89° 58' 17.45"E	158.57'
L11	S87° 57' 12.40"E	94.78'
L12	N84° 06' 35.60"E	51.84'
L13	S85° 15' 53.28"E	42.55'
L14	N20° 47' 31.71"E	17.48'
L15	S69° 45' 19.84"E	47.57'
L16	S73° 47' 05.20"E	32.00'
L17	S77° 58' 06.09"E	45.39'
L18	S84° 50' 55.11"E	90.06'
L19	N90° 00' 00.00"E	52.51'
L20	N89° 59' 20.30"E	9.25'

LINE TABLE - ALIGNMENTS		
LINE #	DIRECTION	DISTANCE
L21	N89° 59' 20.30"E	71.98'
L22	N70° 46' 58.87"E	25.00'
L29	S84° 04' 13.73"E	51.61'
L30	N89° 35' 17.03"E	61.47'
L31	N89° 58' 21.05"E	354.65'
L32	S77° 13' 29.43"E	27.15'
L33	S77° 13' 13.06"E	6.71'
L34	N89° 59' 35.84"E	97.24'
L35	N89° 59' 35.84"E	25.40'
L36	N89° 20' 26.00"E	51.09'
L37	S85° 26' 51.31"E	98.01'
L39	S81° 26' 23.87"E	9.97'
L40	S80° 13' 53.76"E	43.43'
L41	S87° 55' 16.06"E	29.88'
L42	S89° 23' 51.05"E	74.65'
L43	N89° 08' 00.21"E	108.65'
L44	S64° 29' 18.64"E	12.20'

CURVE TABLE - ALIGNMENTS							
CURVE #	PI	DELTA	DEG-CHRD	EXT. TAN	LENGTH	RADIUS	E
C1	0+27.86	15°51'57"	0°00'00"	6.97'	13.85'	50.00'	0.48
C2	1+00.29	23°37'38"	112°53'07"	12.55'	24.74'	60.00'	1.30
C3	1+80.65	8°52'56"	179°59'46"	3.88'	7.75'	50.00'	0.15
C4	3+29.45	1°20'32"	119°05'58"	0.68'	1.36'	58.00'	0.00
C5	3+93.66	6°18'50"	119°05'58"	3.20'	6.39'	58.00'	0.09
C6	4+39.25	5°41'58"	179°59'37"	2.49'	4.97'	50.00'	0.06
C7	6+01.36	2°04'30"	119°05'58"	1.05'	2.10'	58.00'	0.01
C8	7+14.53	7°56'12"	23°04'26"	17.34'	34.63'	250.00'	0.60
C9	8+09.00	10°15'10"	20°23'16"	25.35'	50.55'	282.52'	1.13
C10	8+91.82	73°56'35"	0°00'00"	15.06'	25.81'	20.00'	5.03
C11	12+17.27	5°09'05"	0°00'00"	2.25'	4.50'	50.00'	0.05
C12	12+86.09	31°25'12"	0°00'00"	14.06'	27.42'	50.00'	1.94
C13	13+13.51	31°24'32"	179°59'57"	14.06'	27.41'	50.00'	1.94
C14	14+16.55	19°12'21"	0°00'00"	8.46'	16.76'	50.00'	0.71
C19	30+54.83	6°20'29"	119°05'58"	3.21'	6.42'	58.00'	0.09
C20	34+79.14	11°23'41"	0°00'00"	4.99'	9.94'	50.00'	0.25
C21	35+24.45	12°47'11"	119°05'58"	6.50'	12.94'	58.00'	0.36
C22	37+00.44	2°37'54"	2°48'20"	46.91'	93.81'	2042.47'	0.54
C23	20+10.00	1°12'30"	0°00'00"	0.03'	0.06'	3.00'	0.00
C24	22+80.24	26°22'41"	119°05'58"	13.59'	26.70'	58.00'	1.57

CURVE TABLE - ALIGNMENTS							
CURVE #	PI	DELTA	DEG-CHRD	EXT. TAN	LENGTH	RADIUS	E
C25	23+17.92	27°47'17"	179°59'56"	12.37'	24.25'	50.00'	1.51
C26	23+61.26	3°40'11"	5°50'14"	31.46'	62.90'	982.00'	0.50

2



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	HAZMAT SOILS	SHEET 227	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\HAZMAT PLAN.DWG PLOT DATE : 1/29/2025 10:19 AM PLOT BY : OWEN L. SHARP PLOT NAME : PLOT SCALE : 1" = 40'

2

N

N. GREEN BAY AVE. - S.T.H. "57"

AREA 5 - HAZMAT SOILS
4' - 10+' BELOW GROUND SURFACE

AREA 7 - HAZMAT SOILS
1' - 10+' BELOW GROUND SURFACE

AREA 8 - HAZMAT SOILS
4' - 10+' BELOW GROUND SURFACE

WB OFF RAMP

360+00 361+00 362+00 363+00 364+00

MATCH LINE STA. 365+00

AREA 6 - HAZMAT SOILS
4' - 10+' BELOW GROUND SURFACE

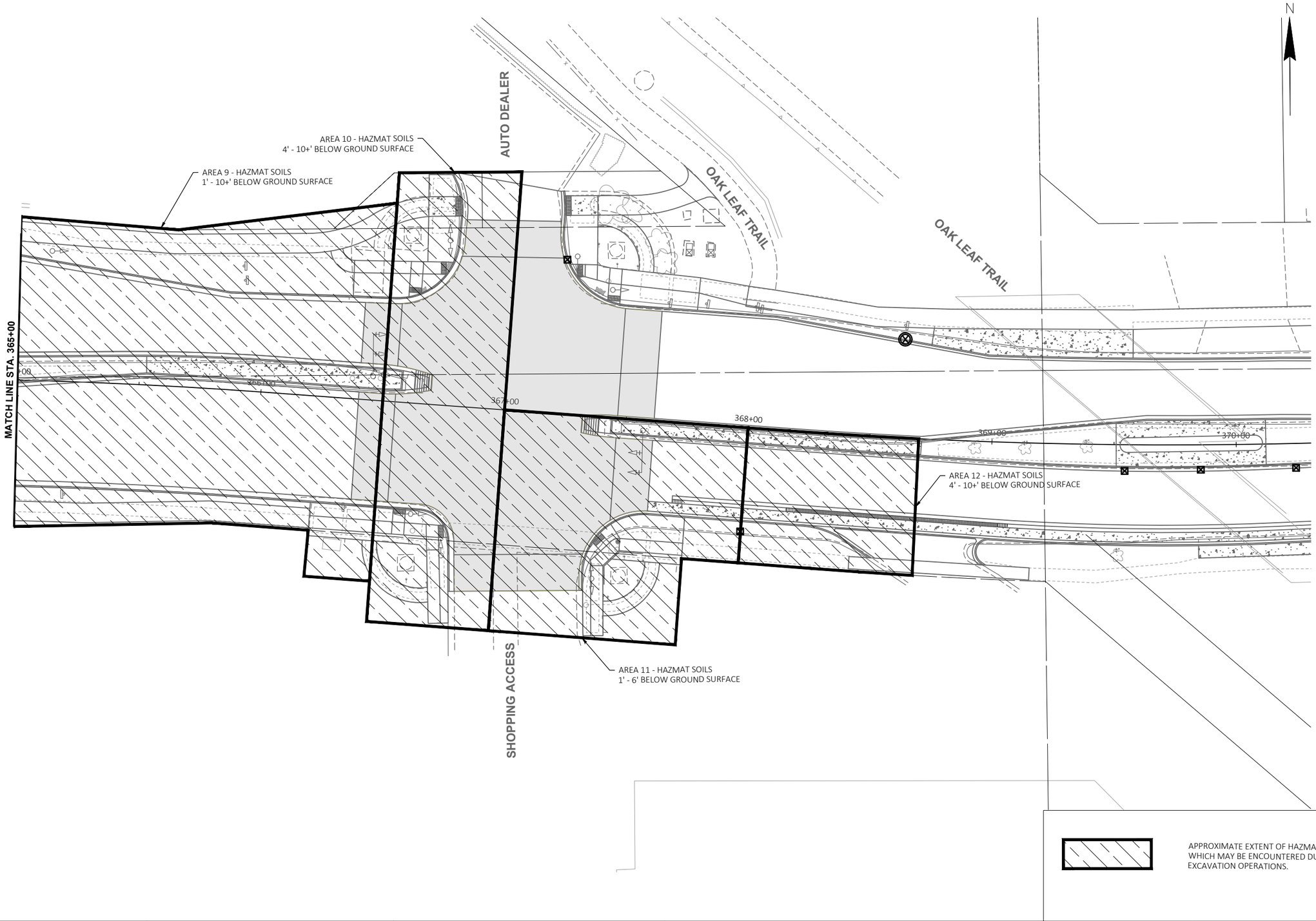
EB ON RAMP

APPROXIMATE EXTENT OF HAZMAT SOILS WHICH MAY BE ENCOUNTERED DURING EXCAVATION OPERATIONS.

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	HAZMAT SOILS	SHEET 228	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\HAZMAT PLAN.DWG PLOT DATE : 1/29/2025 10:19 AM PLOT BY : OWEN L. SHARP PLOT NAME : PLOT SCALE : 1" = 40'

2



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	HAZMAT SOILS	SHEET 229	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\HAZMAT PLAN.DWG PLOT DATE : 1/29/2025 10:19 AM PLOT BY : OWEN L. SHARP PLOT NAME : PLOT SCALE : 1" = 40'

Estimate Of Quantities

2090-07-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0220	Grubbing	ID	1,510.000	1,510.000
0004	204.0100	Removing Concrete Pavement	SY	21,050.000	21,050.000
0006	204.0110	Removing Asphaltic Surface	SY	3,045.000	3,045.000
0008	204.0120	Removing Asphaltic Surface Milling	SY	29,465.000	29,465.000
0010	204.0150	Removing Curb & Gutter	LF	14,830.000	14,830.000
0012	204.0155	Removing Concrete Sidewalk	SY	3,665.000	3,665.000
0014	204.0195	Removing Concrete Bases	EACH	54.000	54.000
0016	204.0220	Removing Inlets	EACH	22.000	22.000
0018	204.0245	Removing Storm Sewer (size) 01. 12-Inches	LF	90.000	90.000
0020	204.0245	Removing Storm Sewer (size) 02. 15-Inches	LF	64.000	64.000
0022	204.0280	Sealing Pipes	EACH	10.000	10.000
0024	204.9060.S	Removing (item description) 01. Removing Lighting Units Crestwood Blvd System	EACH	57.000	57.000
0026	204.9060.S	Removing (item description) 02. Removing Lighting Units Pick-N-Save System	EACH	77.000	77.000
0028	204.9060.S	Removing (item description) 03. Removing Traffic Signals Bethmaur Lane	EACH	1.000	1.000
0030	204.9060.S	Removing (item description) 04. Removing Traffic Signals Crestwood Blvd	EACH	1.000	1.000
0032	204.9060.S	Removing (item description) 05. Removing Traffic Signals Pick N Save	EACH	1.000	1.000
0034	204.9060.S	Removing (item description) 06. Removing Traffic Signals Bridgewood Lane	EACH	1.000	1.000
0036	204.9060.S	Removing (item description) 07. Removing Traffic Signals Milwaukee River Pkwy	EACH	1.000	1.000
0038	205.0100	Excavation Common	CY	14,195.000	14,195.000
0040	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	16,650.000	16,650.000
0042	311.0110	Breaker Run	TON	2,145.000	2,145.000
0044	320.0165	Concrete Base 10-Inch	SY	4,605.000	4,605.000
0046	405.0100	Coloring Concrete WisDOT Red	CY	14.000	14.000
0048	415.0060	Concrete Pavement 6-Inch	SY	4,630.000	4,630.000
0050	415.0100	Concrete Pavement 10-Inch	SY	8,150.000	8,150.000
0052	416.0610	Drilled Tie Bars	EACH	7,500.000	7,500.000
0054	416.0620	Drilled Dowel Bars	EACH	900.000	900.000
0056	455.0605	Tack Coat	GAL	2,710.000	2,710.000
0058	460.2000	Incentive Density HMA Pavement	DOL	4,960.000	4,960.000
0060	460.6223	HMA Pavement 3 MT 58-28 S	TON	3,870.000	3,870.000
0062	460.6244	HMA Pavement 4 MT 58-34 S	TON	3,870.000	3,870.000
0064	465.0125	Asphaltic Surface Temporary	TON	510.000	510.000
0066	520.8000	Concrete Collars for Pipe	EACH	28.000	28.000
0068	602.0410	Concrete Sidewalk 5-Inch	SF	27,445.000	27,445.000
0070	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	1,050.000	1,050.000
0072	602.0810	Concrete Driveway 6-Inch	SY	135.000	135.000
0074	602.0860	Concrete Driveway HES 6-Inch	SY	10.000	10.000
0076	602.0870	Concrete Driveway HES 8-Inch	SY	405.000	405.000
0078	602.3010	Concrete Surface Drains	CY	1.000	1.000
0080	608.0512	Storm Sewer Pipe Reinforced Concrete Class V 12-Inch	LF	1,530.000	1,530.000
0082	608.0515	Storm Sewer Pipe Reinforced Concrete Class V 15-Inch	LF	59.000	59.000
0084	608.0518	Storm Sewer Pipe Reinforced Concrete Class V 18-Inch	LF	141.000	141.000
0086	608.0521	Storm Sewer Pipe Reinforced Concrete Class V 21-Inch	LF	20.000	20.000
0088	611.0420	Reconstructing Manholes	EACH	13.000	13.000
0090	611.0430	Reconstructing Inlets	EACH	23.000	23.000
0092	611.0535	Manhole Covers Type J-Special	EACH	34.000	34.000
0094	611.0612	Inlet Covers Type C	EACH	7.000	7.000
0096	611.0624	Inlet Covers Type H	EACH	42.000	42.000
0098	611.0645	Inlet Covers Type MS-A	EACH	2.000	2.000

Estimate Of Quantities

2090-07-71

Line	Item	Item Description	Unit	Total	Qty
0100	611.0651	Inlet Covers Type S	EACH	54.000	54.000
0102	611.0666	Inlet Covers Type Z	EACH	29.000	29.000
0104	611.2004	Manholes 4-FT Diameter	EACH	2.000	2.000
0106	611.3003	Inlets 3-FT Diameter	EACH	6.000	6.000
0108	611.3004	Inlets 4-FT Diameter	EACH	20.000	20.000
0110	611.3230	Inlets 2x3-FT	EACH	40.000	40.000
0112	611.3901	Inlets Median 1 Grate	EACH	2.000	2.000
0114	611.8110	Adjusting Manhole Covers	EACH	37.000	37.000
0116	611.8115	Adjusting Inlet Covers	EACH	56.000	56.000
0118	619.1000	Mobilization	EACH	1.000	1.000
0120	620.0300	Concrete Median Sloped Nose	SF	975.000	975.000
0122	624.0100	Water	MGAL	30.000	30.000
0124	625.0100	Topsoil	SY	18,570.000	18,570.000
0126	628.1504	Silt Fence	LF	990.000	990.000
0128	628.1520	Silt Fence Maintenance	LF	990.000	990.000
0130	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0132	628.2002	Erosion Mat Class I Type A	SY	1,950.000	1,950.000
0134	628.7010	Inlet Protection Type B	EACH	170.000	170.000
0136	629.0210	Fertilizer Type B	CWT	15.000	15.000
0138	630.0140	Seeding Mixture No. 40	LB	5.000	5.000
0140	630.0500	Seed Water	MGAL	45.000	45.000
0142	631.0300	Sod Water	MGAL	370.000	370.000
0144	631.1000	Sod Lawn	SY	16,625.000	16,625.000
0146	634.0808	Posts Tubular Steel 2x2-Inch X 8-FT	EACH	2.000	2.000
0148	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	140.000	140.000
0150	637.2210	Signs Type II Reflective H	SF	915.000	915.000
0152	637.2215	Signs Type II Reflective H Folding	SF	98.000	98.000
0154	637.2230	Signs Type II Reflective F	SF	190.000	190.000
0156	638.2102	Moving Signs Type II	EACH	8.000	8.000
0158	638.2602	Removing Signs Type II	EACH	180.000	180.000
0160	638.3000	Removing Small Sign Supports	EACH	80.000	80.000
0162	643.0300	Traffic Control Drums	DAY	324,870.000	324,870.000
0164	643.0410	Traffic Control Barricades Type II	DAY	12,701.000	12,701.000
0166	643.0420	Traffic Control Barricades Type III	DAY	33,605.000	33,605.000
0168	643.0705	Traffic Control Warning Lights Type A	DAY	31,400.000	31,400.000
0170	643.0715	Traffic Control Warning Lights Type C	DAY	96,285.000	96,285.000
0172	643.0800	Traffic Control Arrow Boards	DAY	1,588.000	1,588.000
0174	643.0900	Traffic Control Signs	DAY	82,467.000	82,467.000
0176	643.0920	Traffic Control Covering Signs Type II	EACH	82.000	82.000
0178	643.1000	Traffic Control Signs Fixed Message	SF	462.000	462.000
0180	643.1050	Traffic Control Signs PCMS	DAY	3,117.000	3,117.000
0182	643.1070	Traffic Control Cones 42-Inch	DAY	2,940.000	2,940.000
0184	643.3105	Temporary Marking Line Paint 4-Inch	LF	79.000	79.000
0186	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	6,573.000	6,573.000
0188	643.3165	Temporary Marking Line Paint 6-Inch	LF	23,415.000	23,415.000
0190	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	3,780.000	3,780.000
0192	643.3350	Temporary Marking Crosswalk Removable Tape 6-inch	LF	2,730.000	2,730.000
0194	643.3850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	263.000	263.000
0196	643.5000	Traffic Control	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0198	644.1601	Temporary Pedestrian Curb Ramp	DAY	11.000	11.000
0200	644.1605	Temporary Pedestrian Detectable Warning Field	SF	210.000	210.000
0202	644.1810	Temporary Pedestrian Barricade	LF	252.000	252.000
0204	646.1020	Marking Line Epoxy 4-Inch	LF	2,523.000	2,523.000
0206	646.3020	Marking Line Epoxy 8-Inch	LF	2,654.000	2,654.000
0208	646.5020	Marking Arrow Epoxy	EACH	76.000	76.000
0210	646.5120	Marking Word Epoxy	EACH	2.000	2.000
0212	646.5220	Marking Symbol Epoxy	EACH	49.000	49.000
0214	646.6120	Marking Stop Line Epoxy 18-Inch	LF	964.000	964.000
0216	646.6220	Marking Yield Line Epoxy 18-Inch	EACH	42.000	42.000
0218	646.7120	Marking Diagonal Epoxy 12-Inch	LF	432.000	432.000
0220	646.7220	Marking Chevron Epoxy 24-Inch	LF	149.000	149.000
0222	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	3,649.000	3,649.000
0224	646.7520	Marking Crosswalk Epoxy Block Style 24-Inch	LF	151.000	151.000
0226	646.8120	Marking Curb Epoxy	LF	1,064.000	1,064.000
0228	646.8220	Marking Island Nose Epoxy	EACH	19.000	19.000
0230	646.8320	Marking Parking Stall Epoxy	LF	352.000	352.000
0232	650.4000	Construction Staking Storm Sewer	EACH	85.000	85.000
0234	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	33,631.000	33,631.000
0236	650.7000	Construction Staking Concrete Pavement	LF	1,000.000	1,000.000
0238	650.8501	Construction Staking Electrical Installations (project) 01. 2090-07-71	EACH	1.000	1.000
0240	650.9000	Construction Staking Curb Ramps	EACH	82.000	82.000
0242	650.9500	Construction Staking Sidewalk (project) 01. 2090-07-71	EACH	1.000	1.000
0244	650.9911	Construction Staking Supplemental Control (project) 01. 2090-07-71	EACH	1.000	1.000
0246	652.0210	Conduit Rigid Nonmetallic Schedule 40 1-Inch	LF	7,100.000	7,100.000
0248	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	12,148.000	12,148.000
0250	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	5,164.000	5,164.000
0252	652.0800	Conduit Loop Detector	LF	2,635.000	2,635.000
0254	653.0140	Pull Boxes Steel 24x42-Inch	EACH	81.000	81.000
0256	653.0905	Removing Pull Boxes	EACH	101.000	101.000
0258	654.0101	Concrete Bases Type 1	EACH	19.000	19.000
0260	654.0102	Concrete Bases Type 2	EACH	29.000	29.000
0262	654.0105	Concrete Bases Type 5	EACH	39.000	39.000
0264	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	5.000	5.000
0266	654.0230	Concrete Control Cabinet Bases Type L30	EACH	2.000	2.000
0268	655.0210	Cable Traffic Signal 3-14 AWG	LF	1,587.000	1,587.000
0270	655.0240	Cable Traffic Signal 7-14 AWG	LF	3,537.000	3,537.000
0272	655.0250	Cable Traffic Signal 9-14 AWG	LF	1,920.000	1,920.000
0274	655.0260	Cable Traffic Signal 12-14 AWG	LF	501.000	501.000
0276	655.0270	Cable Traffic Signal 15-14 AWG	LF	460.000	460.000
0278	655.0320	Cable Type UF 2-10 AWG Grounded	LF	3,034.000	3,034.000
0280	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	8,705.000	8,705.000
0282	655.0610	Electrical Wire Lighting 12 AWG	LF	3,393.000	3,393.000
0284	655.0615	Electrical Wire Lighting 10 AWG	LF	15,500.000	15,500.000
0286	655.0620	Electrical Wire Lighting 8 AWG	LF	14,200.000	14,200.000
0288	655.0625	Electrical Wire Lighting 6 AWG	LF	8,700.000	8,700.000
0290	655.0700	Loop Detector Lead In Cable	LF	7,790.000	7,790.000
0292	655.0800	Loop Detector Wire	LF	2,395.000	2,395.000
0294	656.0201	Electrical Service Meter Breaker Pedestal (location) 01. Lighting Cabinet at Crestwood	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
		Blvd			
0296	656.0201	Electrical Service Meter Breaker Pedestal (location) 02. Lighting Cabinet at Pick N Save	EACH	1.000	1.000
0298	656.0201	Electrical Service Meter Breaker Pedestal (location) 03. Signal Cabinet at Bethmaur Lane	EACH	1.000	1.000
0300	656.0201	Electrical Service Meter Breaker Pedestal (location) 04. Signal Cabinet at Crestwood Blvd	EACH	1.000	1.000
0302	656.0201	Electrical Service Meter Breaker Pedestal (location) 05. Signal Cabinet at Pick N Save	EACH	1.000	1.000
0304	656.0201	Electrical Service Meter Breaker Pedestal (location) 06. Signal Cabinet at Bridgewood Lane	EACH	1.000	1.000
0306	656.0201	Electrical Service Meter Breaker Pedestal (location) 07. Signal Cabinet at Milwaukee River Pkwy	EACH	1.000	1.000
0308	657.0100	Pedestal Bases	EACH	19.000	19.000
0310	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	61.000	61.000
0312	657.0305	Poles Type 2	EACH	6.000	6.000
0314	657.0310	Poles Type 3	EACH	12.000	12.000
0316	657.0315	Poles Type 4	EACH	11.000	11.000
0318	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	12.000	12.000
0320	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	1.000	1.000
0322	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	6.000	6.000
0324	657.0585	Trombone Arms 15-FT	EACH	2.000	2.000
0326	657.0595	Trombone Arms 25-FT	EACH	16.000	16.000
0328	658.0173	Traffic Signal Face 3S 12-Inch	EACH	65.000	65.000
0330	658.0174	Traffic Signal Face 4S 12-Inch	EACH	4.000	4.000
0332	658.0416	Pedestrian Signal Face 16-Inch	EACH	50.000	50.000
0334	658.0500	Pedestrian Push Buttons	EACH	43.000	43.000
0336	658.5070	Signal Mounting Hardware (location) 01. Signal Cabinet at Bethmaur Lane	EACH	1.000	1.000
0338	658.5070	Signal Mounting Hardware (location) 02. Signal Cabinet at Crestwood Blvd	EACH	1.000	1.000
0340	658.5070	Signal Mounting Hardware (location) 03. Signal Cabinet at Pick N Save	EACH	1.000	1.000
0342	658.5070	Signal Mounting Hardware (location) 04. Signal Cabinet at Bridgewood Lane	EACH	1.000	1.000
0344	658.5070	Signal Mounting Hardware (location) 05. Signal Cabinet at Milwaukee River Pkwy	EACH	1.000	1.000
0346	659.2230	Lighting Control Cabinets 240/480 30-Inch	EACH	2.000	2.000
0348	659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH	134.000	134.000
0350	661.0201	Temporary Traffic Signals for Intersections (location) 01. Signal at Bethmaur Lane	EACH	1.000	1.000
0352	661.0201	Temporary Traffic Signals for Intersections (location) 02. Signal at Crestwood Blvd	EACH	1.000	1.000
0354	661.0201	Temporary Traffic Signals for Intersections (location) 03. Signal at Pick N Save	EACH	1.000	1.000
0356	661.0201	Temporary Traffic Signals for Intersections (location) 04. Signal at Bridgewood Lane	EACH	1.000	1.000
0358	661.0201	Temporary Traffic Signals for Intersections (location) 05. Signal at Milwaukee River Pkwy	EACH	1.000	1.000
0360	671.0222	Conduit HDPE Directional Bore 2-Duct 2-Inch	LF	1,800.000	1,800.000
0362	673.0105	Communication Vault Type 1	EACH	23.000	23.000
0364	678.0036	Install Fiber Optic Cable Outdoor Plant 36-CT	LF	7,450.000	7,450.000
0366	678.0200	Fiber Optic Splice Enclosure	EACH	5.000	5.000
0368	678.0300	Fiber Optic Splice	EACH	5.000	5.000
0370	678.0400	Fiber Optic Termination	EACH	5.000	5.000
0372	678.0501	Communication System Testing	EACH	5.000	5.000
0374	678.0600	Install Ethernet Switches	EACH	5.000	5.000
0376	690.0150	Sawing Asphalt	LF	1,160.000	1,160.000
0378	690.0250	Sawing Concrete	LF	24,015.000	24,015.000
0380	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	3,840.000	3,840.000
0382	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000

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Line	Item	Item Description	Unit	Total	Qty
0384	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	2,000.000	2,000.000
0386	SPV.0060	Special 01. Sanitary Manhole Internal/External Seal and Adjustment	EACH	35.000	35.000
0388	SPV.0060	Special 02. Adjusting Valve Boxes	EACH	40.000	40.000
0390	SPV.0060	Special 03. Adjusting Water Boxes	EACH	25.000	25.000
0392	SPV.0060	Special 04. Pipe Connection to Existing Structure	EACH	32.000	32.000
0394	SPV.0060	Special 05. Inlet Covers Special	EACH	10.000	10.000
0396	SPV.0060	Special 06. Inlets 4-FT Diameter, Special	EACH	7.000	7.000
0398	SPV.0060	Special 07. Manholes 4-FT Diameter, Special	EACH	3.000	3.000
0400	SPV.0060	Special 08. Manholes 5-FT Diameter, Special	EACH	2.000	2.000
0402	SPV.0060	Special 09. Inlets 2-FT Diameter	EACH	5.000	5.000
0404	SPV.0060	Special 10. Marking Speed Hump Epoxy 12-Inch (White)	EACH	49.000	49.000
0406	SPV.0060	Special 11. Municipal Light Pole and LED Luminaire Single	EACH	4.000	4.000
0408	SPV.0060	Special 12. Municipal Light Pole and LED Luminaire Double	EACH	32.000	32.000
0410	SPV.0060	Special 13. Municipal LED Luminaire	EACH	30.000	30.000
0412	SPV.0060	Special 14. Lighting System Survey	EACH	1.000	1.000
0414	SPV.0060	Special 15. Backplates with Reflective Border 3 Section 12-Inch	EACH	65.000	65.000
0416	SPV.0060	Special 16. Backplates with Reflective Border 4 Section 12-Inch	EACH	4.000	4.000
0418	SPV.0060	Special 17. Traffic Signal Control Cabinet (Bethmaur Lane)	EACH	1.000	1.000
0420	SPV.0060	Special 18. Traffic Signal Control Cabinet (Crestwood Blvd)	EACH	1.000	1.000
0422	SPV.0060	Special 19. Traffic Signal Control Cabinet (Pick N Save)	EACH	1.000	1.000
0424	SPV.0060	Special 20. Traffic Signal Control Cabinet (Bridgewood Lane)	EACH	1.000	1.000
0426	SPV.0060	Special 21. Traffic Signal Control Cabinet (Milwaukee River Parkway)	EACH	1.000	1.000
0428	SPV.0060	Special 22. Temporary EVP System (Bethmaur Lane)	EACH	1.000	1.000
0430	SPV.0060	Special 23. Temporary EVP System (Crestwood Blvd)	EACH	1.000	1.000
0432	SPV.0060	Special 24. Temporary EVP System (Pick N Save)	EACH	1.000	1.000
0434	SPV.0060	Special 25. Temporary EVP System (Bridgewood Lane)	EACH	1.000	1.000
0436	SPV.0060	Special 26. Temporary EVP System (Milwaukee River Pkwy)	EACH	1.000	1.000
0438	SPV.0060	Special 27. Emergency Vehicle Detection System (Bethmaur)	EACH	1.000	1.000
0440	SPV.0060	Special 28. Emergency Vehicle Detection System (Crestwood)	EACH	1.000	1.000
0442	SPV.0060	Special 29. Emergency Vehicle Detection System (Pick N Save)	EACH	1.000	1.000
0444	SPV.0060	Special 30. Emergency Vehicle Detection System (Bridgewood)	EACH	1.000	1.000
0446	SPV.0060	Special 31. Emergency Vehicle Detection System (Milw. River Pkwy)	EACH	1.000	1.000
0448	SPV.0060	Special 32. Fire Hydrant Relocation	EACH	4.000	4.000
0450	SPV.0060	Special 33. Remove, Salvage & Replace Light Pole	EACH	3.000	3.000
0452	SPV.0060	Special 34. Rectangular Rapid Flashing Beacon (Long Island Dr)	EACH	1.000	1.000
0454	SPV.0060	Special 35. Rectangular Rapid Flashing Beacon (Sunny Point)	EACH	1.000	1.000
0456	SPV.0060	Special 36. Rectangular Rapid Flashing Beacon (Sta 386+10)	EACH	1.000	1.000
0458	SPV.0060	Special 37. Rectangular Rapid Flashing Beacon Removal & Salvage (Green Bay Ave On-Ramp)	EACH	1.000	1.000
0460	SPV.0060	Special 38. Rectangular Rapid Flashing Beacon Removal & Salvage (Sunny Point Rd)	EACH	1.000	1.000
0462	SPV.0060	Special 39. Manhole Covers Type MS 58A	EACH	28.000	28.000
0464	SPV.0060	Special 40. Manhole Covers Type MS 58A	EACH	7.000	7.000
0466	SPV.0090	Special 01. Concrete Curb & Gutter 30-Inch Type A	LF	3,540.000	3,540.000
0468	SPV.0090	Special 02. Concrete Curb & Gutter 24-Inch Type A	LF	12,155.000	12,155.000
0470	SPV.0090	Special 03. Concrete Curb & Gutter 36-Inch Type A	LF	7,355.000	7,355.000
0472	SPV.0090	Special 04. Concrete Curb & Gutter 18-Inch Type A	LF	10,585.000	10,585.000
0474	SPV.0090	Special 05. Marking Speed Hump Epoxy 12-Inch (White)	LF	864.000	864.000
0476	SPV.0090	Special 06. Marking Bike Epoxy Transverse (Green)	LF	432.000	432.000
0478	SPV.0090	Special 07. Conduit HDPE Directional Bore 2-Duct 3-Inch	LF	2,200.000	2,200.000

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Line	Item	Item Description	Unit	Total	Qty
0480	SPV.0090	Special 08. Storm Sewer Pipe PVC SDR 26, 6-Inch	LF	37.000	37.000
0482	SPV.0090	Special 09. Trench Drain R-4995, 11 1/2-Inch	LF	8.000	8.000
0484	SPV.0165	Special 01. Marking Bike Lanes (Green Boxes at Intersections)	SF	7,141.000	7,141.000
0486	SPV.0165	Special 02. Cast Iron Tactile Directional Indicator	SF	36.000	36.000
0488	SPV.0180	Special 01. Concrete Pavement HES 6-Inches	SY	400.000	400.000
0490	SPV.0195	Special 01. Management of Solid Waste	TON	190.000	190.000

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GRUBBING

STATION - STATION	LOCATION	201.0220 ID
329+00 - 336+14	27TH - 25TH	50
336+14 - 346+32	25TH - CRESTWOOD	180
346+32 - 352+63	CRESTWOOD - LONGVIEW	220
352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	370
367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	160
376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	190
382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	340
391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	-
	PROJECT TOTAL	**1510**

REMOVING CURB & GUTTER

STAGE	STATION - STATION	LOCATION	204.0150 LF
1			
	329+00 - 336+14	27TH - 25TH	1103
	336+14 - 346+32	25TH - CRESTWOOD	962
	346+32 - 352+63	CRESTWOOD - LONGVIEW	1130
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	2694
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	1660
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	1176
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	1570
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	371
		STAGE 1 SUBTOTAL	**10666**
2			
	329+00 - 336+14	27TH - 25TH	174
	336+14 - 346+32	25TH - CRESTWOOD	460
	346+32 - 352+63	CRESTWOOD - LONGVIEW	211
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	2371
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	429
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	230
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	-
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	289
		STAGE 2 SUBTOTAL	**4164**
		PROJECT TOTAL	**14830**

REMOVING PAVEMENT

STAGE	STATION - STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0110 REMOVING ASPHALTIC SURFACE	204.0120 REMOVING ASPHALTIC SURFACE MILLING	204.1550 REMOVING CONCRETE SIDEWALK
1						
	329+00 - 336+14	27TH - 25TH	383	-	-	-
	336+14 - 346+32	25TH - CRESTWOOD	1384	-	-	-
	346+32 - 352+63	CRESTWOOD - LONGVIEW	502	-	-	-
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	828	-	-	-
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	156	-	-	-
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	297	-	-	-
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	1024	-	-	-
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	331	-	-	-
		STAGE 1 SUBTOTAL	**4910**			
2						
	329+00 - 336+14	27TH - 25TH	2006	-	-	431
	336+14 - 346+32	25TH - CRESTWOOD	2684	-	-	508
	346+32 - 352+63	CRESTWOOD - LONGVIEW	2134	-	-	168
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	2561	-	-	1489
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	1675	-	-	589
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	1664	-	-	124
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	2885	-	-	235
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	531	-	-	120
		STAGE 2 SUBTOTAL	**16140**			**3665**
3						
	329+00 - 336+14	27TH - 25TH	-	-	1596	-
	336+14 - 346+32	25TH - CRESTWOOD	-	-	1270	-
	346+32 - 352+63	CRESTWOOD - LONGVIEW	-	-	1076	-
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	-	432	4159	-
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	-	1004	1553	-
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	-	378	1282	-
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	-	-	2503	-
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	-	-	593	-
		STAGE 3 SUBTOTAL		**1815**	**14033**	
4						
	329+00 - 336+14	27TH - 25TH	-	-	1910	-
	336+14 - 346+32	25TH - CRESTWOOD	-	-	2258	-
	346+32 - 352+63	CRESTWOOD - LONGVIEW	-	-	1482	-
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	-	282	3534	-
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	-	631	2119	-
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	-	315	1459	-
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	-	-	2241	-
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	-	-	428	-
		STAGE 4 SUBTOTAL		**1230**	**15432**	
		PROJECT TOTAL	**21050**	**3045**	**29465**	**3665**

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REMOVING CURB & GUTTER

STAGE	STATION - STATION	LOCATION	204.0150 LF
1			
	329+00 - 336+14	27TH - 25TH	1103
	336+14 - 346+32	25TH - CRESTWOOD	962
	346+32 - 352+63	CRESTWOOD - LONGVIEW	1130
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	2694
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	1660
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	1176
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	1570
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	371
		STAGE 1 SUBTOTAL	**10666**
2			
	329+00 - 336+14	27TH - 25TH	174
	336+14 - 346+32	25TH - CRESTWOOD	460
	346+32 - 352+63	CRESTWOOD - LONGVIEW	211
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	2371
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	429
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	230
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	-
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	289
		STAGE 2 SUBTOTAL	**4164**
		PROJECT TOTAL	**14830**

STORM SEWER REMOVALS

STATION	OFFSET	SIDE	LOCATION	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER 12-INCHES LF	204.0245.02 REMOVING STORM SEWER 15-INCHES LF	204.0280 SEALING PIPES EACH
333+31.95	47.57	LT		1	10	-	-
337+98.14	0	LT		1	-	-	1
345+85.58	75.15	LT		1	-	-	-
347+98.18	46.91	LT		1	-	-	1
350+48.67	46.87	LT		1	-	10	1
352+26.98	47.38	RT		1	-	-	1
353+00.65	47.44	RT		1	-	-	1
355+18.82	54.43	LT		1	26	-	-
355+43.92	59.06	LT		1	-	-	1
367+82.51	45.07	LT		1	-	10	-
369+60.92	36.24	LT		1	-	8	-
370+16.30	36.05	LT		1	10	-	-
370+44.09	35.77	LT		1	8	-	-
371+75.00	35.83	RT		1	8	-	-
374+28.81	38.01	LT		1	-	8	-
374+98.63	47.13	LT		1	-	-	1
374+98.63	40.1	LT		1	-	8	-
382+01.98	46.58	RT		1	-	-	1
382+62.09	74.09	LT		1	28	-	-
383+01.6	46.71	RT		1	-	-	1
384+01.29	4.87	RT		1	-	-	1
391+07.55	46.33	LT		1	-	20	-
			PROJECT TOTAL	**22.0**	**90.0**	**64.0**	**10.0**

3

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

BASE AGGREGATE DENSE

STAGE	STATION - STATION	LOCATION	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
1			
	329+00 - 336+14	27TH - 25TH	280
	336+14 - 346+32	25TH - CRESTWOOD	944
	346+32 - 352+63	CRESTWOOD - LONGVIEW	406
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	495
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	532
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	497
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	622
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	174
		STAGE 1 SUBTOTAL	**3950**
2			
	329+00 - 336+14	27TH - 25TH	740
	336+14 - 346+32	25TH - CRESTWOOD	1151
	346+32 - 352+63	CRESTWOOD - LONGVIEW	543
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	2010
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	6427
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	701
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	939
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	189
		STAGE 2 SUBTOTAL	**12700**
		PROJECT TOTAL	**16650**

ASPHALT PAVEMENT ITEMS

STAGE	STATION - STATION	LOCATION	460.6223 HMA PAVEMENT 3MT 58-28 S TON	460.6244 HMA PAVEMENT 4MT 58-34 S TON	455.0605 TACK COAT GAL
3					
	329+00 - 336+14	27TH - 25TH	164	164	114
	336+14 - 346+32	25TH - CRESTWOOD	215	215	149
	346+32 - 352+63	CRESTWOOD - LONGVIEW	137	137	95
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	690	690	496
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	211	211	150
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	152	152	106
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	296	296	206
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	64	64	44
		STAGE 1 SUBTOTAL	**1928**	**1928**	**1360**
4					
	329+00 - 336+14	27TH - 25TH	200	200	139
	336+14 - 346+32	25TH - CRESTWOOD	361	361	251
	346+32 - 352+63	CRESTWOOD - LONGVIEW	196	196	136
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	378	378	263
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	264	264	184
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	199	199	139
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	289	289	201
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	55	55	37
		STAGE 2 SUBTOTAL	**1942**	**1942**	**1350**
		PROJECT TOTAL	**3870**	**3870**	**2710**

MOBILIZATION

STAGE	LOCATION	619.1000 MOBILIZATION EA
	SILVER SPRING PROJECT AREA	1
	PROJECT TOTAL	**1**

ASPHALTIC SURFACE TEMPORARY

STATION - STATION	LOCATION	465.0125 ASPHALTIC SURFACE TEMPORARY TON
329+00 - 336+14	27TH - 25TH	41
336+14 - 346+32	25TH - CRESTWOOD	77
346+32 - 352+63	CRESTWOOD - LONGVIEW	37
352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	41
367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	87
376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	79
382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	99
391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	48
	PROJECT TOTAL	**510**

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Common Excavation

STAGE	STATION - STATION	LOCATION	205.0100 COMMON EXCAVATION CY
1			
	329+00 - 336+14	27TH - 25TH	350
	336+14 - 346+32	25TH - CRESTWOOD	1505
	346+32 - 352+63	CRESTWOOD - LONGVIEW	525
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	850
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	325
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	525
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	980
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	235
		STAGE 1 SUBTOTAL	**5295**
2			
	329+00 - 336+14	27TH - 25TH	1105
	336+14 - 346+32	25TH - CRESTWOOD	1480
	346+32 - 352+63	CRESTWOOD - LONGVIEW	1175
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	1410
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	925
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	920
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	1590
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	295
		STAGE 2 SUBTOTAL	**8900**
		PROJECT TOTAL	**14195**

Breaker Run

STAGE	STATION - STATION	LOCATION	311.0110 BREAKER RUN TON
1			
	329+00 - 336+14	27TH - 25TH	40
	336+14 - 346+32	25TH - CRESTWOOD	140
	346+32 - 352+63	CRESTWOOD - LONGVIEW	55
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	85
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	20
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	30
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	105
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	35
		STAGE 1 SUBTOTAL	**510**
2			
	329+00 - 336+14	27TH - 25TH	205
	336+14 - 346+32	25TH - CRESTWOOD	270
	346+32 - 352+63	CRESTWOOD - LONGVIEW	215
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	260
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	170
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	170
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	290
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	55
		STAGE 2 SUBTOTAL	**1635**
		PROJECT TOTAL	**2145**

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TIE BARS

STATION - STATION	LOCATION	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
329+00 - 336+14	27TH - 25TH	760	72
336+14 - 346+32	25TH - CRESTWOOD	982	143
346+32 - 352+63	CRESTWOOD - LONGVIEW	802	63
352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	1840	69
367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	1024	150
376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	770	154
382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	1120	169
391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	202	80
	PROJECT TOTAL	**7500**	**900**

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

STAGE	STATION - STATION	LOCATION	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA TON
2			
	329+00 - 336+14	27TH - 25TH	160
	336+14 - 346+32	25TH - CRESTWOOD	110
	346+32 - 352+63	CRESTWOOD - LONGVIEW	140
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	210
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	90
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	120
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	160
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	60
		STAGE 2 SUBTOTAL	**1050**
		PROJECT TOTAL	**1050**

TACTILE DIRECTIONAL INDICATORS

STATION	SIDE	LOCATION	SPV.0165.02 CAST IRON TACTILE DIRECTIONAL INDICATORS SF
358+25	RT		24
371+00	LT		12
		STAGE 2 SUBTOTAL	**36**
		PROJECT TOTAL	**36**

3

CONCRETE

STAGE	STATION - STATION	LOCATION	320.0165 CONCRETE BASE 10-INCH SY	405.0100 COLORING CONCRETE WISDOT RED CY	415.0060 CONCRETE PAVEMENT 6-INCH SY	415.0100 CONCRETE PAVEMENT 10-INCH SY	602.0415 CONCRETE SIDEWALK 5-INCH SF	602.0810 CONCRETE DRIVEWAY 6-INCH SY	602.0870 CONCRETE DRIVEWAY 8-INCH SY	602.0860 CONCRETE DRIVEWAY HES 6-INCH SY	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	SPV.0180.01 CONCRETE PAVEMENT HES 6-INCH SY
1												
	329+00 - 336+14	27TH - 25TH	224	-	196	239	-	-	-	-	233	-
	336+14 - 346+32	25TH - CRESTWOOD	1550	-	308	646	-	-	-	-	155	-
	346+32 - 352+63	CRESTWOOD - LONGVIEW	445	-	71	374	-	-	-	-	115	-
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	162	14	156	276	-	-	-	-	103	-
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	473	-	166	641	-	-	-	-	104	-
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	498	-	38	565	-	-	-	-	120	-
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	669	-	62	571	-	-	-	-	80	-
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	112	-	17	297	-	-	-	-	65	-
		STAGE 1 SUBTOTAL	**4133**	**14**	**1014**	**3609**						
2												
	329+00 - 336+14	27TH - 25TH	-		668	316	4640	-	22	-	-	39
	336+14 - 346+32	25TH - CRESTWOOD	469		693	644	4440	-	-	-	-	-
	346+32 - 352+63	CRESTWOOD - LONGVIEW	-		372	350	1770	-	19	-	-	-
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	-		385	363	4625	-	143	-	-	45
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	-		613	827	7570	-	88	-	-	65
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	-		286	744	900	38	132	5	-	134
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	-		599	859	2280	97	-	5	-	117
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	-		-	438	1220	-	-	-	-	-
		STAGE 2 SUBTOTAL	**469**		**3616**	**4541**	**27445**	**135**	**405**	**10**	**975**	**400**
		PROJECT TOTAL	**4605**	**14**	**4630**	**8150**	**27445**	**135**	**405**	**10**	**975**	**400**

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SAWCUTTING ITEMS

STAGE	STATION - STATION	LOCATION	690.0250 SAWING CONCRETE LF	690.0150 SAWING ASPHALT LF
1				
	329+00 - 336+14	27TH - 25TH	1125	-
	336+14 - 346+32	25TH - CRESTWOOD	1620	-
	346+32 - 352+63	CRESTWOOD - LONGVIEW	1150	-
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	2770	125
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	1610	255
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	1125	135
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	1675	-
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	105	-
		STAGE 1 SUBTOTAL	**11180**	**515**
2				
	329+00 - 336+14	27TH - 25TH	1335	100
	336+14 - 346+32	25TH - CRESTWOOD	1785	100
	346+32 - 352+63	CRESTWOOD - LONGVIEW	1225	80
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	3020	-
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	1690	180
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	1230	-
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	2120	-
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	430	185
		STAGE 2 SUBTOTAL	**12835**	**645**
		PROJECT TOTAL	**24015**	**1160**

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ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

3

STORM SEWER PIPES

STRUCTURE NUMBER	TO	STRUCTURE NUMBER	LOCATION	608.0512 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH LF	608.0515 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 15-INCH LF	608.0518 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 18-INCH LF	608.0521 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 21-INCH LF	SPV.0090.08 STORM SEWER PIPE PVC SDR 26 6-INCH LF	SPV.0090.09 TRENCH DRAIN R-4995, 11 1/2-INCH LF
MH 333A		-		11	-	-	-	-	-
MH 333A		INL 333B		36	-	-	-	-	-
INL 333B		INL 333C		14	-	-	-	-	-
EX-INL 334A		INL 334B		7	-	-	-	-	-
INL 335B		MH 335A		31	-	-	-	-	-
INL 335C		INL 335B		12	-	-	-	-	-
MH 335A		-		-	-	10	-	-	-
MH 335A		-		-	-	10	-	-	-
INL 338B		EX-MH 338A		12	-	-	-	-	-
INL 338D		EX-INL 338C		6	-	-	-	-	-
EX-MH 339A		INL 339B		57	-	-	-	-	-
INL 339B		INL 339C		8	-	-	-	-	-
INL 339C		INL 339D		24	-	-	-	-	-
INL 342C		INL 342B		9	-	-	-	-	-
INL 342B		EX-INL 342A		13	-	-	-	-	-
INL 342F		EX-INL 342E		8	-	-	-	-	-
INL 345B		EX-INL 345A		40	-	-	-	-	-
INL 345C		INL 345B		8	-	-	-	-	-
INL 346B		INL 346A		25	-	-	-	-	-
INL 346D		EX-MH 346C		34	-	-	-	-	-
INL 347A		INL 347B		42	-	-	-	-	-
INL 347A		-		-	-	10	-	-	-
INL 347A		-		-	-	10	-	-	-
INL 347C		INL 347A		6	-	-	-	-	-
MH 347D		-		-	-	-	10	-	-
INL 347F		MH 347D		9	-	-	-	-	-
MH 347D		-		-	-	-	10	-	-
INL 347E		MH 347D		11	-	-	-	-	-
INL 348A		-		-	-	10	-	-	-
INL 348A		-		-	-	10	-	-	-
INL 348B		INL 348A		13	-	-	-	-	-
INL 350A		INL 350C		6	-	-	-	-	-
INL 350A		-		-	-	10	-	-	-
INL 350A		-		-	-	10	-	-	-
INL 350B		INL 350A		8	-	-	-	-	-
MH 351A		-		-	-	10	-	-	-
INL 351B		MH 351A		12	-	-	-	-	-
MH 351A		-		-	-	10	-	-	-
INL 352A		-		-	-	10	-	-	-
INL 352A		-		-	-	10	-	-	-
INL 352B		INL 352A		9	-	-	-	-	-
INL 356C		INL 356B		29	-	-	-	-	-
INL 356B		INL 356A		14	-	-	-	-	-
INL 356A		-		10	-	-	-	-	-
INL 356A		-		10	-	-	-	-	-

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

3

STORM SEWER PIPES

STRUCTURE NUMBER	TO	STRUCTURE NUMBER	LOCATION	608.0512 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH LF	608.0515 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 15-INCH LF	608.0518 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 18-INCH LF	608.0521 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 21-INCH LF	SPV.0090.08 STORM SEWER PIPE PVC SDR 26 6-INCH LF	SPV.0090.09 TRENCH DRAIN R-4995, 11 1/2-INCH LF
INL 356E		EX-MH 356D		7	-	-	-	-	-
INL 366B		EX-INL 366A		12	-	-	-	-	-
INL 366D		EX-INL 366C		28	-	-	-	-	-
INL 367A		-		-	10	-	-	-	-
INL 369B		EX-INL 369A		-	9	-	-	-	-
INL 369D		EX-INL 369C		30	-	-	-	-	-
INL 370B		EX-MH 370A		11	-	-	-	-	-
INL 370C		INL 370D		85	-	-	-	-	-
INL 370C		-		-	10	-	-	-	-
INL 370C		-		-	10	-	-	-	-
INL 370D		INL 370E		6	-	-	-	-	-
INL 371B		EX-INL 371A		12	-	-	-	-	-
EX-INL 374A		INL 374B		7	-	-	-	-	-
INL 374B		INL 374C		36	-	-	-	-	-
INL 374C		INL 374D		6	-	-	-	-	-
INL 374F		EX-INL 374E		7	-	-	-	-	-
INL 375C		INL 375B		17	-	-	-	-	-
INL 375B		EX-MH 375A		48	-	-	-	-	-
TRENCH DRAIN		INL 375B		-	-	-	-	22	4
TRENCH DRAIN		EX-INL 375D		-	-	-	-	15	4
INL 376B		EX-INL 376A		14	-	-	-	-	-
INL 376C		INL 376B		17	-	-	-	-	-
INL 377D		INL 377C		29	-	-	-	-	-
INL 377C		INL 377B		21	-	-	-	-	-
INL 377B		INL 377A		14	-	-	-	-	-
INL 377A		-		10	-	-	-	-	-
INL 377A		-		10	-	-	-	-	-
INL 378D		INL 378C		45	-	-	-	-	-
INL 378H		EX-INL 378G		7	-	-	-	-	-
INL 378C		INL 378B		41	-	-	-	-	-
INL 378B		EX-INL 378A		12	-	-	-	-	-
INL 378E		INL 378B		90	-	-	-	-	-
INL 378F		INL 378E		7	-	-	-	-	-
INL 381B		EX-INL 381A		7	-	-	-	-	-
INL 382B		EX-MH 382A		29	-	-	-	-	-
INL 382D		EX-INL 382C		5	-	-	-	-	-
INL 383B		EX-MH 383A		27	-	-	-	-	-
INL 383C		INL 383B		14	-	-	-	-	-
INL 383D		INL 383C		24	-	-	-	-	-
INL 382E		INL 382D		18	-	-	-	-	-

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STORM SEWER PIPES

STRUCTURE NUMBER	TO	STRUCTURE NUMBER	LOCATION	608.0512 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH	608.0515 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 15-INCH	608.0518 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 18-INCH	608.0521 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 21-INCH	SPV.0090.08 STORM SEWER PIPE PVC SDR 26 6-INCH	SPV.0090.09 TRENCH DRAIN R-4995, 11 1/2-INCH
				LF	LF	LF	LF	LF	LF
INL 385D		EX-INL 385C		62	-	-	-	-	-
INL 385B		EX-INL 385A		6	-	-	-	-	-
INL 391D		INL 391C		15	-	-	-	-	-
INL 391C		INL 391B		47	-	-	-	-	-
MH 390A		INL 390B		11	-	-	-	-	-
MH 390A		-		-	10	-	-	-	-
MH 390A		-		-	10	-	-	-	-
INL 391B		MH 391A		21	-	-	-	-	-
MH 391A		-		-	-	10	-	-	-
MH 391A		-		-	-	11	-	-	-
INL 391F		EX-INL 391E		7	-	-	-	-	-
INL 391H		EX-INL 391G		7	-	-	-	-	-
INL 392D		EX-MH 392C		16	-	-	-	-	-
INL 392B		EX-MH 392A		51	-	-	-	-	-
			PROJECT TOTAL	**1530.0**	**59.0**	**141.0**	**20.0**	**37.0**	**8.0**

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STORM SEWER ADJUSTMENTS AND RECONSTRUCTIONS

*** - ADDITIONAL QUANTITIES FOR ITEM LISTED ELSEWHERE**

STRUCTURE NUMBER	STATION	SIDE	611.0420 RECONSTRUCTING MANHOLES EACH	611.0430 RECONSTRUCTING INLETS EACH	611.0535 * MANHOLE COVERS TYPE J-SPECIAL EACH	611.0624 * INLET COVERS TYPE H EACH	611.0612 * INLET COVERS TYPE C EACH	611.0651 INLET COVERS TYPE S EACH	611.0666 * INLET COVERS TYPE Z EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	SPV.0060.05 * INLET COVERS SPECIAL EACH	SPV.0060.39 MANHOLE COVERS TYPE MS-58A EACH
-	330+07	RT	-	1	-	-	-	1	-	-	-	-	-
-	330+13	RT	-	-	-	-	-	-	-	-	1	-	1
-	330+24	LT	-	1	-	-	-	1	-	-	-	-	-
-	332+24	LT	-	1	-	-	-	1	-	-	-	-	-
-	332+47	RT	-	-	-	-	-	1	-	-	1	-	-
-	332+49	CL	-	-	-	-	-	-	-	-	1	-	1
-	333+69	RT	-	-	-	-	-	1	-	-	1	-	-
EX-INL 334A	334+99	LT	-	-	-	-	-	1	-	-	1	-	-
-	335+97	RT	-	1	-	-	-		1	-	-	-	-
-	335+99	LT	-	-	-	-	-	1	-	-	1	-	-
-	336+08	LT	-	-	1	-	-	-	-	1	-	-	-
-	336+08	LT	-	-	1	-	-	-	-	1	-	-	-
-	336+08	LT	-	-	1	-	-	-	-	1	-	-	-
-	336+08	RT	-	-	1	-	-	-	-	1	-	-	-
-	336+28	LT	-	-	-	-	-	1	-	-	1	-	-
-	336+28	RT	-	1	-	-	-		1	-	-	-	-
-	337+99	LT	-	-	-	-	-	1	-	-	1	-	-
-	337+99	LT	-	-	-	1	-	-	-	-	1	-	-
EX-INL 338C	338+49	RT	-	-	-	-	-	1	-	-	1	-	-
-	339+24	LT	-	-	1	-	-	-	-	1	-	-	-
EX-MH 339A	339+48	RT	-	-	1	-	-	-	-	1	-	-	-
-	342+01	RT	-	-	1	-	-	-	-	-	1	-	-
EX-INL 342A	342+21	RT	-	1	1	-	-		-	-	-	-	-
EX-INL 342E	342+77	LT	-	-	-	-	-	1	-	-	1	-	-
-	342+88	CL	-	-	1	-	-	-	-	-	1	-	-
-	343+57	LT	1	-	1	-	-	-	-	-	-	-	-
EX-INL 345A	345+49	LT	-	-	1	-	-	-	-	-	1	-	-
-	345+57	LT	-	1	-	-	-	1	-	-	-	-	-
-	346+07	RT	-	-	-	-	-	-	-	-	1	-	-
-	346+29	RT	-	1	-	-	-	1	-	-	-	-	-
-	346+43	RT	-	-	-	-	-	-	-	1	-	-	1
EX-MH 346C	346+59	LT	-	-	1	-	-	-	-	1	-	-	-
-	346+79	LT	-	1	-	-	-	1	-	-	-	-	-
-	346+98	LT	-	-	1	-	-	-	-	1	-	-	-
-	347+00	RT	1	-	-	-	-	-	-	-	-	-	1
-	348+23	RT	-	-	-	-	-	-	-	1	-	-	1
-	348+24	LT	-	-	1	-	-	-	-	1	-	-	-
-	349+49	LT	-	-	-	-	-	1	-	-	1	-	-
-	349+64	RT	-	-	-	-	-	-	-	1	-	-	1
-	350+94	RT	-	-	-	-	-	-	-	1	-	-	1
-	351+02	LT	-	-	1	-	-	-	-	1	-	-	-
-	352+00	LT	-	1	-	-	-	1	-	-	-	-	-
EX-MH 352D	352+24	RT	-	-	1	-	-	-	-	1	-	-	-
-	352+25	LT	-	1	-	-	-	1	-	-	-	-	-
-	352+27	RT	-	-	-	-	-	-	-	1	-	-	1

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ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

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STORM SEWER ADJUSTMENTS AND RECONSTRUCTIONS (CONTINUED)

*** - ADDITIONAL QUANTITIES FOR ITEM LISTED ELSEWHERE**

STRUCTURE NUMBER	STATION	SIDE	611.0420 RECONSTRUCTING MANHOLES EACH	611.0430 RECONSTRUCTING INLETS EACH	611.0535 * MANHOLE COVERS TYPE J-SPECIAL EACH	611.0624 * INLET COVERS TYPE H EACH	611.0612 * INLET COVERS TYPE C EACH	611.0651 INLET COVERS TYPE S EACH	611.0666 * INLET COVERS TYPE Z EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	SPV.0060.05 * INLET COVERS SPECIAL EACH	SPV.0060.39 MANHOLE COVERS TYPE MS-58A EACH
-	352+48	LT	-	-	1	-	-	-	-	1	-	-	-
-	352+96	LT	-	-	1	-	-	-	-	1	-	-	-
-	352+98	RT	-	-	-	-	-	-	-	1	-	-	1
-	353+09	RT	-	-	-	-	-	-	-	-	1	-	1
-	354+59	RT	-	-	-	-	-	-	-	1	-	-	1
EX-MH 356D	356+78	RT	-	-	-	-	1	-	-	1	-	-	-
-	356+95	RT	-	1	-	-	-	1	-	-	-	-	-
-	357+59	LT	-	-	-	-	-	1	-	-	1	-	-
-	357+59	LT	-	-	1	-	-	-	-	1	-	-	-
-	359+39	LT	-	-	1	-	-	-	-	1	-	-	-
-	359+40	LT	-	1	-	-	-	1	-	-	-	-	-
-	359+45	RT	-	-	-	-	-	-	-	1	-	-	1
-	359+48	RT	-	-	-	-	-	1	-	-	1	-	-
-	360+60	LT	-	-	-	-	-	1	-	-	1	-	-
-	360+60	LT	-	-	1	-	-	-	-	1	-	-	-
-	360+63	RT	-	-	-	-	-	1	-	-	1	-	-
-	360+65	RT	-	-	-	-	-	-	-	1	-	-	1
-	362+23	RT	-	-	-	-	-	1	-	-	1	-	-
-	363+29	LT	-	-	-	-	-	1	-	-	1	-	-
-	364+19	RT	-	1	-	-	-	1	-	-	-	-	-
EX-INL 366A	366+50	LT	-	-	-	-	-	1	-	-	1	-	-
EX-INL 366C	366+66	RT	-	-	-	-	-	1	-	-	1	-	-
-	366+77	LT	-	-	-	-	-	1	-	-	1	-	-
-	366+83	RT	-	-	-	-	-	1	-	-	1	-	-
-	367+21	LT	-	1	-	-	-	1	-	-	-	-	-
-	368+00	RT	-	1	-	-	-	1	-	-	-	-	-
-	368+62	LT	1	-	1	-	-	-	-	-	-	-	-
-	369+54	RT	-	1	-	-	-	-	-	-	-	1	-
EX-INL 369A	369+61	LT	-	-	-	-	-	-	-	-	1	-	-
EX-INL 369C	369+85	RT	-	1	-	-	-	-	-	-	-	1	-
EX-MH 370A	370+11	LT	-	-	1	-	-	-	-	1	-	-	-
-	370+24	RT	-	1	-	-	-	-	-	-	-	1	-
-	370+44	LT	-	-	-	-	-	-	-	-	1	-	-
EX-INL 371A	371+74	RT	-	-	-	-	-	-	-	-	1	-	-
-	372+47	RT	-	-	1	-	-	-	-	1	-	-	-
-	373+57	LT	-	-	-	-	-	1	-	-	1	-	-
EX-INL 374A	374+29	LT	-	-	-	-	-	-	-	-	1	-	-
EX-INL 374E	374+96	RT	-	-	-	-	-	1	-	-	1	-	-
EX-INL 375D	375+79	LT	-	-	-	-	-	1	-	-	1	-	-
EX-MH 375A	375+91	LT	-	-	1	-	-	-	-	1	-	-	-
-	375+92	LT	1	-	1	-	-	-	-	-	-	-	-
-	375+98	RT	-	-	-	-	-	1	-	-	1	-	-
-	376+22	LT	-	-	-	-	-	1	-	-	1	-	-
EX-INL 376A	376+77	LT	-	-	-	-	-	1	-	-	1	-	-
-	376+93	RT	-	-	-	-	-	-	-	-	1	-	-

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STORM SEWER ADJUSTMENTS AND RECONSTRUCTIONS (CONTINUED)

*** - ADDITIONAL QUANTITIES FOR ITEM LISTED ELSEWHERE**

STRUCTURE NUMBER	STATION	SIDE	611.0420 RECONSTRUCTING MANHOLES EACH	611.0430 RECONSTRUCTING INLETS EACH	611.0535 * MANHOLE COVERS TYPE J-SPECIAL EACH	611.0624 * INLET COVERS TYPE H EACH	611.0612 * INLET COVERS TYPE C EACH	611.0651 INLET COVERS TYPE S EACH	611.0666 * INLET COVERS TYPE Z EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	SPV.0060.05 * INLET COVERS SPECIAL EACH	SPV.0060.39 MANHOLE COVERS TYPE MS-58A EACH
EX-INL 378G	378+01	RT	-	-	-	-	-	1	-	-	1	-	-
-	378+52	LT	-	-	-	-	-	-	-	-	1	-	-
EX-INL 378A	378+57	LT	-	1	-	-	-	1	-	-	-	-	-
-	379+28	RT	1	-	-	-	-	-	-	-	-	-	1
-	379+32	RT	-	-	-	-	-	1	-	-	1	-	-
-	380+74	RT	-	-	-	-	-	1	-	-	1	-	-
-	380+75	RT	1	-	-	-	-	-	-	-	-	-	1
EX-INL 381A	381+02	LT	-	-	-	-	-	1	-	-	1	-	-
-	381+02	LT	-	-	-	-	-	-	-	-	1	-	-
EX-MH 382A	382+34	LT	-	-	1	-	-	-	-	1	-	-	-
-	382+37	LT	-	-	1	-	-	-	-	1	-	-	-
-	382+44	RT	1	-	-	-	-	-	-	-	-	-	1
EX-INL 382C	382+94	LT	-	-	-	-	-	1	-	-	1	-	-
EX-MH 383A	383+25	RT	1	-	-	-	-	-	-	-	-	-	1
-	384+00	RT	1	-	-	-	-	-	-	-	-	-	1
-	384+01	RT	-	-	-	-	-	1	-	-	1	-	-
EX-INL 385C	385+12	RT	-	-	-	-	-	1	-	-	1	-	-
-	385+20	RT	-	-	-	-	-	-	-	1	-	-	1
EX-INL 385A	385+51	LT	-	-	-	-	-	1	-	-	1	-	-
-	386+71	RT	1	-	-	-	-	-	-	-	-	-	1
-	386+87	RT	-	-	-	-	-	1	-	-	1	-	-
-	388+21	RT	-	-	-	-	-	-	-	-	1	-	-
-	388+21	RT	-	-	-	-	-	1	-	-	1	-	-
-	388+31	RT	1	-	-	-	-	-	-	-	-	-	1
-	388+37	LT	-	-	-	-	-	1	-	-	1	-	-
-	388+52	LT	-	-	1	-	-	-	-	1	-	-	-
-	389+76	RT	-	-	-	-	-	-	-	1	-	-	1
-	391+05	LT	-	-	-	-	-	-	-	-	1	-	-
-	391+08	CL	-	-	-	-	-	-	-	1	-	-	1
-	391+11	RT	-	-	-	-	-	1	-	-	1	-	-
-	391+34	RT	1	-	-	-	-	-	-	-	-	-	1
EX-INL 391E	391+36	LT	-	1	-	-	-	1	-	-	-	-	-
-	391+52	RT	1	-	-	-	-	-	-	-	-	-	1
EX-INL 391G	391+87	LT	-	1	-	-	-	1	-	-	-	-	-
-	391+95	RT	-	-	-	-	-	-	-	1	-	-	1
EX-MH 392A	392+10	LT	-	1	1	-	-	-	-	-	-	-	-
-	392+15	RT	-	-	-	-	-	-	-	-	1	-	1
-	392+15	RT	-	-	-	-	-	1	-	-	1	-	-
EX-MH 392C	392+17	RT	-	-	-	-	-	-	-	1	-	-	1
		PROJECT TOTAL	**13.0**	**23.0**	**30.0**	**1.0**	**1.0**	**54.0**	**2.0**	**37.0**	**56.0**	**3.0**	**28.0**

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

STORM SEWER STRUCTURES

*** - ADDITIONAL QUANTITIES FOR ITEM LISTED ELSEWHERE**

STRUCTURE NUMBER	STATION	OFFSET	SIDE	520.8000 CONCRETE COLLARS FOR PIPE EACH	611.0535 * MANHOLE COVERS TYPE J-SPECIAL EACH	611.0624 * INLET COVERS TYPE H EACH	611.0612 * INLET COVERS TYPE C EACH	611.0645 INLET COVERS TYPE MS-A EACH	611.0666 * INLET COVERS TYPE Z EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.3003 INLETS 3-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	SPV.0060.04 PIPE CONNECTION TO EXISTING STRUCTURE EA	SPV.0060.05 * INLET COVERS SPECIAL EA	SPV.0060.06 INLETS 4-FT DIAMETER, SPECIAL EA	SPV.0060.07 MANHOLES 4-FT DIAMETER, SPECIAL EA	SPV.0060.08 MANHOLES 5-FT DIAMETER, SPECIAL EA	SPV.0060.09 INLETS 2-FT DIAMETER EA	650.4000 CONSTRUCTION STAKING STORM SEWER EA
MH 333A	333+32.66	46.86	LT	1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
INL 333C	333+68.44	33.62	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 333B	333+68.52	46.80	LT	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	
INL 334B	334+98.60	33.37	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
EX-INL 334A	334+98.89	39.46	LT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 335B	335+66.51	44.66	RT	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	1
INL 335C	335+66.51	33.28	RT	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	1
MH 335A	335+96.84	50.60	RT	2	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1
INL 338B	337+98.29	47.54	LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
EX-MH 338A	338+05.36	57.02	LT	-	*	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 338D	338+49.46	33.29	RT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
EX-INL 338C	338+49.48	39.02	RT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
EX-MH 339A	339+48.37	45.97	RT	-	*	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 339B	340+05.01	47.81	RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
INL 339C	340+05.01	40.07	RT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 339D	340+05.02	17.02	RT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 342C	342+07.44	33.28	RT	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	1
INL 342B	342+09.87	41.08	RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
EX-INL 342A	342+21.21	47.25	RT	-	*	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 342F	342+72.52	33.35	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
EX-INL 342E	342+76.69	39.27	LT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
EX-INL 345A	345+48.56	4.97	LT	-	*	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 345B	345+57.00	33.28	RT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 345C	345+57.00	40.59	RT	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	1
INL 346A	345+85.01	75.37	LT	1	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 346B	346+09.92	75.18	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 346D	346+54.49	74.93	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
EX-MH 346C	346+58.74	41.57	LT	-	*	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 347A	347+19.49	33.29	RT	2	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1
INL 347C	347+19.51	39.17	RT	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1
INL 347B	347+59.26	45.90	RT	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1
INL 347F	347+96.76	33.35	LT	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	1
MH 347D	347+96.85	41.40	LT	2	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1
INL 347E	347+96.86	51.76	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 348A	348+57.33	46.04	RT	2	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1
INL 348B	348+57.33	39.79	RT	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1
INL 350C	350+48.67	46.87	LT	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	
INL 350A	350+48.83	40.90	LT	2	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	1
INL 350B	350+48.90	33.35	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
MH 351A	351+79.40	34.15	RT	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
INL 351B	351+79.39	46.47	RT	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1
INL 352A	351+93.81	41.74	LT	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1
INL 352B	351+93.84	33.35	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 353A	353+19.00	33.29	RT	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
INL 356C	355+91.33	57.67	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	1	-	-	-	2

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

STORM SEWER STRUCTURES (CONTINUED)

*** - ADDITIONAL QUANTITIES FOR ITEM LISTED ELSEWHERE**

STRUCTURE NUMBER	STATION	OFFSET	SIDE	520.8000 CONCRETE COLLARS FOR PIPE EACH	611.0535 * MANHOLE COVERS TYPE J-SPECIAL EACH	611.0624 * INLET COVERS TYPE H EACH	611.0612 * INLET COVERS TYPE C EACH	611.0645 INLET COVERS TYPE MS-A EACH	611.0666 * INLET COVERS TYPE Z EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.3003 INLETS 3-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	SPV.0060.04 PIPE CONNECTION TO EXISTING STRUCTURE EA	SPV.0060.05 * INLET COVERS SPECIAL EA	SPV.0060.06 INLETS 4-FT DIAMETER, SPECIAL EA	SPV.0060.07 MANHOLES 4-FT DIAMETER, SPECIAL EA	SPV.0060.08 MANHOLES 5-FT DIAMETER, SPECIAL EA	SPV.0060.09 INLETS 2-FT DIAMETER EA	650.4000 CONSTRUCTION STAKING STORM SEWER EA
INL 356B	356+19.03	54.03	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 356A	356+26.36	65.52	LT	2	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	1
EX-MH 356D	356+78.23	35.00	RT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 356E	356+78.23	41.00	RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
INL 366B	366+38.50	41.08	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 366D	366+38.56	42.53	RT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
EX-INL 366A	366+49.80	40.97	LT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
EX-INL 366C	366+65.81	42.26	RT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 367A	367+82.50	46.66	LT	2	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
INL 369B	369+60.93	35.73	LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
EX-INL 369A	369+60.95	44.23	LT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
EX-INL 369C	369+85.46	10.18	RT	-	-	-	-	-	-	-	-	-	-	-	1	*	-	-	-	-	
INL 369D	369+86.13	39.54	RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
EX-MH 370A	370+10.57	43.74	LT	-	*	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 370B	370+17.55	35.83	LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
INL 370C	370+45.18	33.94	LT	2	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	1
INL 370D	371+31.21	30.68	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 370E	371+31.37	36.45	LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
EX-INL 371A	371+73.93	43.97	RT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 371B	371+75.31	32.57	RT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
EX-INL 374A	374+28.51	45.18	LT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 374B	374+28.52	38.83	LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
INL 374C	374+63.15	38.81	LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
INL 374D	374+63.35	33.06	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
EX-INL 374E	374+95.76	47.03	RT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 374F	374+95.81	40.95	RT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 375C	375+28.95	33.67	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 375B	375+43.95	39.39	LT	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
EX-INL 375D	375+79.12	74.23	LT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
EX-MH 375A	375+90.72	31.49	LT	-	*	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 376B	376+64.22	50.37	LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
INL 376C	376+64.22	33.65	LT	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	1
INL 377D	376+64.43	34.21	RT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
EX-INL 376A	376+76.98	47.28	LT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 377C	376+93.40	32.96	RT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 377B	377+12.73	40.96	RT	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
INL 377A	377+25.23	46.77	RT	2	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	1
INL 378D	377+73.52	45.58	LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
INL 378H	377+99.93	40.96	RT	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	1
EX-INL 378G	378+01.14	46.84	RT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 378C	378+16.21	33.65	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
EX-INL 378A	378+57.15	44.74	LT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 378B	378+57.15	33.64	LT	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	1
INL 378F	379+46.54	40.15	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 378E	379+46.54	33.65	LT	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	1

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STORM SEWER STRUCTURES (CONTINUED)

*** - ADDITIONAL QUANTITIES FOR ITEM LISTED ELSEWHERE**

STRUCTURE NUMBER	STATION	OFFSET	SIDE	520.8000 CONCRETE COLLARS FOR PIPE EACH	611.0535 * MANHOLE COVERS TYPE J-SPECIAL EACH	611.0624 * INLET COVERS TYPE H EACH	611.0612 * INLET COVERS TYPE C EACH	611.0645 INLET COVERS TYPE MS-A EACH	611.0666 * INLET COVERS TYPE Z EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.3003 INLETS 3-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	SPV.0060.04 PIPE CONNECTION TO EXISTING STRUCTURE EA	SPV.0060.05 * INLET COVERS SPECIAL EA	SPV.0060.06 INLETS 4-FT DIAMETER, SPECIAL EA	SPV.0060.07 MANHOLES 4-FT DIAMETER, SPECIAL EA	SPV.0060.08 MANHOLES 5-FT DIAMETER, SPECIAL EA	SPV.0060.09 INLETS 2-FT DIAMETER EA	650.4000 CONSTRUCTION STAKING STORM SEWER EA
EX-INL 381A	381+01.68	39.58	LT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 381B	381+04.67	33.65	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
EX-MH 382A	382+34.47	70.60	LT	-	*	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 382B	382+63.29	74.51	LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
EX-INL 382C	382+93.58	47.39	LT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 382D	382+98.71	48.42	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 383B	382+98.70	37.58	RT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 382E	382+98.71	30.91	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 383C	383+01.40	50.62	RT	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	1
INL 383D	383+24.83	50.51	RT	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1
EX-MH 383A	383+25.13	35.60	RT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 385D	384+50.17	47.74	RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
EX-INL 385C	385+11.56	46.80	RT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 385B	385+51.39	41.92	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
EX-INL 385A	385+51.40	47.60	LT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 391D	390+30.10	47.67	LT	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	1
INL 391C	390+42.92	40.93	LT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
MH 390A	390+89.43	35.50	RT	2	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1
INL 390B	390+89.43	46.29	RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
INL 391B	390+89.33	38.00	LT	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
MH 391A	391+07.55	46.33	LT	2	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
INL 391F	391+35.32	75.01	LT	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	1
EX-INL 391E	391+35.89	68.62	LT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
EX-INL 391G	391+86.93	69.40	LT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 391H	391+87.91	75.48	LT	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	1
EX-MH 392A	392+10.00	47.42	LT	-	*	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
EX-MH 392C	392+16.85	36.61	RT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
INL 392D	392+27.84	47.32	RT	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
INL 392B	392+60.58	43.46	LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1
		PROJECT TOTAL		**28.0**	**4.0**	**41.0**	**6.0**	**2.0**	**27.0**	**2.0**	**6.0**	**20.0**	**40.0**	**2.0**	**32.0**	**7.0**	**7.0**	**3.0**	**2.0**	**5.0**	**85.0**

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LANDSCAPING

STATION - STATION	LOCATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEED MIXTURE NO.40 LB	630.0500 SEED WATER MGAL	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
329+00 - 336+14	27th - 25th	1655	1.04	-	-	37	1655
336+14 - 346+32	25th - Crestwood	2684	1.69	-	-	60	2684
346+32 - 352+63	Crestwood - Longview	2278	1.44	-	-	51	2278
352+63 - 367+00	Longview - Pick and Save entrance	5536	3.49	3.47	39	84	3800
367+00 - 376+00	Pick and Save entrance - Bridgewood	2401	1.51	0.43	5	49	2188
376+00 - 382+46	Bridgewood - Sunny Point	1609	1.01	-	-	36	1609
382+46 - 391+65	Sunny Point - Milwaukee River Parkway	2017	1.27	-	-	45	2017
391+65 - 394+00	Milwaukee River Parkway - project limit	389	0.25	-	-	9	389
	PROJECT TOTAL	**18570**	**15**	**5**	**45**	**370**	**16625**

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EROSION CONTROL

STATION - STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EA	628.2002 EROSION MAT CLASS 1 TYPE A SY	628.7010 INLET PROTECTION TYPE B SY	624.0100 WATER MGAL
329+00 - 336+14	27th - 25th	-	-	1	-	15	-
336+14 - 346+32	25th - Crestwood	-	-	1	-	21	-
346+32 - 352+63	Crestwood - Longview	-	-	1	-	20	-
352+63 - 367+00	Longview - Pick and Save entrance	990	990	1	1736	33	-
367+00 - 376+00	Pick and Save entrance - Bridgewood	-	-	1	213	30	-
376+00 - 382+46	Bridgewood - Sunny Point	-	-	-	-	18	-
382+46 - 391+65	Sunny Point - Milwaukee River Parkway	-	-	-	-	24	-
391+65 - 394+00	Milwaukee River Parkway - project limit	-	-	-	-	7	-
	Silver Spring Project Area						30
	PROJECT TOTAL	**990**	**990**	**5**	**1950**	**170**	**30**

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TRAFFIC CONTROL

STAGE	STAGE DURATION DAYS		643.0920 TRAFFIC CONTROL SIGNS COVERING SIGNS TYPE II EACH	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	644.1601 TEMPORARY PEDESTRIAN CURB RAMP EACH	644.1605 TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD SF	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF	643.5000 TRAFFIC CONTROL EACH
STAGE 1A	**70**	MAINLINE	6					
		DETAILS	6					
	STAGE 1A SUBTOAL		**12**	**0**	**0**	**0**	**0**	**0**
STAGE 1B	**70**	MAINLINE	6					
		DETAILS	6					
		DETOUR 2	6	240				
	STAGE 1B SUBTOAL		**18**	**240**	**0**	**0**	**0**	**0**
STAGE 2A	**70**	MAINLINE	6		10	200	240	
		DETAILS	6					
		DETOUR 2						
		DETOUR 1	6	100				
	STAGE 2A SUBTOAL		**18**	**100**	**10**	**200**	**240**	**0**
STAGE 2B	**280**	MAINLINE	6					
		DETAILS	6					
		DETOUR 1	6	100				
	STAGE 2B SUBTOAL		**18**	**100**	**0**	**0**	**0**	**0**
STAGE 3	**7**	MAINLINE	6					
	STAGE 3 SUBTOAL		**6**	**0**	**0**	**0**	**0**	**0**
STAGE 4	**7**	MAINLINE	6					
	STAGE 4 SUBTOAL		**6**	**0**	**0**	**0**	**0**	**0**
	ALL STAGING SUBTOTALS:		**78**	**440**	**10**	**200**	**240**	0
	CONTINGENCY (5%)		**4**	**22**	**1**	**10**	**12**	0
		TOTAL	**82**	**462**	**11**	**210**	**252**	**1**

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TRAFFIC CONTROL CONT. (2)

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STAGE	STAGE DURATION DAYS		643.1070 TRAFFIC CONTROL CONES 42-INCH EACH	643.1070 DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH	643.0300 DAYS	643.0410 TRAFFIC CONTROL BARRICADES TYPE II EACH	643.0410 DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	643.0715 DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH	643.0800 DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 DAYS	643.1050 TRAFFIC CONTROL TRAFFIC SIGNS PCMS EACH	643.1050 DAYS
STAGE 1A	**70**	MAINLINE		0	500	35000		0	26	1820	26	1820	100	7000	3	210	60	4200	6	420
		DETAILS		0	100	7000	24	1680	30	2100	30	0	100	0		0	40	0		0
	STAGE 1A SUBTOTAL			**0**		**42000**		**1680**		**3920**		**1820**		**7000**		**210**		**4200**		**420**
STAGE 1B	**70**	MAINLINE		0	600	42000		0	26	1820	26	1820	100	7000	3	210	60	4200	6	420
		DETAILS		0	100	7000	24	1680	30	2100	30	2100	100	7000		0	40	2800		0
		DETOUR 2		0		0		0	5	350	5	350		0		0	150	10500		0
	STAGE 1B SUBTOTAL			**0**		**49000**		**1680**		**4270**		**4270**		**14000**		**210**		**17500**		**420**
STAGE 2A	**70**	MAINLINE		0	600	42000		0	26	1820	26	1820	100	7000	3	210	60	4200	6	420
		DETAILS		0	100	7000	24	1680	30	2100	30	2100	100	7000		0	40	2800		0
		DETOUR 2		0		0		0	5	350	5	350		0		0	100	7000		
		DETOUR 1		0		0		0	10	700	10	700		0		0	40	2800		0
	STAGE 2A SUBTOTAL			**0**		**49000**		**1680**		**4970**		**4970**		**14000**		**210**		**16800**		**420**
STAGE 2B	**280**	MAINLINE		0	500	140000		0	26	7280	26	7280	100	28000	3	840	60	16800	6	1680
		DETAILS		0	100	28000	24	6720	30	8400	30	8400	100	28000		0	40	11200		0
		DETOUR 1		0		0		0	10	2800	10	2800		0		0	40	11200		0
	STAGE 2B SUBTOTAL			**0**		**168000**		**6720**		**18480**		**18480**		**56000**		**840**		**39200**		**1680**
STAGE 3	**7**	MAINLINE	200	1400	100	700	24	168	26	182	26	182	50	350	3	21	60	420	2	14
	STAGE 3 SUBTOTAL			**1400**		**700**		**168**		**182**		**182**		**350**		**21**		**420**		**14**
STAGE 4	**7**	MAINLINE	200	1400	100	700	24	168	26	182	26	182	50	350	3	21	60	420	2	14
	STAGE 4 SUBTOTAL			**1400**		**700**		**168**		**182**		**182**		**350**		**21**		**420**		**14**
	ALL STAGING SUB TOTALS:			**2800**		**309400**		**12096**		**32004**		**29904**		**91700**		**1512**		**78540**		**2968**
	CONTINGENCY (5%)			**140**		**15470**		**605**		**1601**		**1496**		**4585**		**76**		**3927**		**149**
	TOTAL			**2940**		**324870**		**12701**		**33605**		**31400**		**96285**		**1588**		**82467**		**3117**

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TRAFFIC CONTROL MARKINGS

		643.3105		643.3165		643.3150		643.3180		643.3350	643.3850
		TEMPORARY MARKING LINE PAINT 4-INCH		TEMPORARY MARKING LINE PAINT 6-INCH		TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH		TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH		TEMPORARY MARKING CROSSWALK REMOVABLE TAPE 6-INCH	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
STAGE	ROADWAY	WHITE LF	YELLOW LF	WHITE LF	YELLOW LF	WHITE LF	YELLOW LF	WHITE LF	YELLOW LF	TOTAL LF	TOTAL LF
PRE-STAGE	SILVER SPRING DR	0	0	0	0	0		0	0	0	0
	PRE-STAGE SUBTOTAL	**0**		**0**		**0**		**0**		**0**	**0**
STAGE 1A	SILVER SPRING DR	75	0	0	3800	0	0	0	0	0	0
	STAGE 1A SUBTOTAL	**75**		**3800**		**0**		**0**		**0**	**0**
STAGE 1B	SILVER SPRING DR	0	0	0	4600	0	0	0	0	0	0
	STAGE 1B SUBTOTAL	**0**		**4600**		**0**		**0**		**0**	**0**
STAGE 2A	SILVER SPRING DR	0	0	13900	0	400	0	2400	0	0	0
	STAGE 2A SUBTOTAL	**0**		**13900**		**400**		**2400**		**0**	**0**
STAGE 2B	SILVER SPRING DR	0	0	0	0	900		1200	0	2600	250
	STAGE 2B SUBTOTAL	**0**		**0**		**900**		**1200**		**2600**	**250**
STAGE 3	SILVER SPRING DR	0	0	0	0	2480	0	0	0	0	0
	STAGE 3 SUBTOTAL	**0**		**0**		**2480**		**0**		**0**	**0**
STAGE 4	**SILVER SPRING DR**	0	0	0	0	2480	0	0	0	0	0
	STAGE 4 SUBTOTAL	**0**		**0**		**2480**		**0**		**0**	**0**
	ALL STAGING SUBTOTALS	**75**		**22300**		**6260**		**3600**		**2600**	**250**
	CONTINGENCY (5%)	**4**		**1115**		**313**		**180**		**130**	**13**
	TOTAL	**79**		**23415**		**6573**		**3780**		**2730**	**263**

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

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PAVEMENT MARKING

STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH LF	646.3020 MARKING LINE EPOXY 8-INCH LF	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.5220 MARKING SYMBOL EPOXY EACH	646.6220 MARKING YIELD LINE EPOXY 18-INCH EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH (WHITE) LF	SPV.0090.06 MARKING BIKE EPOXY TRANSVERSE (GREEN) LF
330+00 - 336+00	N. 27TH ST	269	232	10	-	3	2	152	-	-
336+00 - 346+00	25TH ST/ N. BETHMAUR LN	277	422	15	-	9	2	162	-	132
346+00 - 367+00	N. CRESTWOOD BLVD	997	619	20	2	8	28	135	-	160
367+00 - 376+00	HEISSER FORD/ PICK & SAVE	369	645	9	-	10	2	139	260	-
376+00 - 382+50	N. BRIDGEWOOD LN	295	205	8	-	7	4	111	172	64
382+50 - 391+50	N. 13TH ST/ N. SUNNY POINT RD	228	336	13	-	8	4	194	-	76
391+50 -	N. MILWAUKEE RIVER PKWAY	88	195	1	-	4	-	71	-	-
	PROJECT TOTAL	**2523**	**2654**	**76**	**2**	**49**	**42**	**964**	**432**	**432**

STATION	LOCATION	646.7220 MARKING CHEVRON EPOXY 24-INCH LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.7520 MARKING CROSSWALK EPOXY LADDER PATTERN 24-INCH LF	646.8120 MARKING CURB EPOXY LF	646.8220 MARKING ISLAND NOSE EPOXY EACH	646.8320 MARKING PARKING STALL EPOXY LF	SPV.0060.10 MARKING SPEED HUMP EPOXY 12-INCH (WHITE) EA	SPV.0090.05 MARKING SPEED HUMP EPOXY 12-INCH (WHITE) LF	SPV.0165.01 MARKING BIKE (GREEN EPOXY PAINT) SF
330+00 - 336+00	N. 27TH ST	39	810	-	274	4	-	3	72	923
336+00 - 346+00	25TH ST/ N. BETHMAUR LN	110	680	1	212	4	-	9	144	1242
346+00 - 367+00	N. CRESTWOOD BLVD	-	511	95	244	4	-	8	144	1463
367+00 - 376+00	HEISSER FORD/ PICK & SAVE	-	431	19	68	2	-	10	144	777
376+00 - 382+50	N. BRIDGEWOOD LN	-	439	2	112	2	72	7	144	1154
382+50 - 391+50	N. 13TH ST/ N. SUNNY POINT RD	-	496	34	98	2	280	8	144	1582
391+50 -	N. MILWAUKEE RIVER PKWAY	-	282	-	56	1	-	4	72	-
	PROJECT TOTAL	**149**	**3649**	**151**	**1064**	**19**	**352**	**49**	**864**	**7141**

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

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CONCRETE CURB & GUTTER

STAGE	STATION - STATION	LOCATION	SPV.0090.01 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	SPV.0090.02 CONCRETE CURB & GUTTER 24-INCH TYPE A LF	SPV.0090.03 CONCRETE CURB & GUTTER 36-INCH TYPE A LF	SPV.0090.04 CONCRETE CURB & GUTTER 18-INCH TYPE A LF	602.3010 CONCRETE SURFACE DRAINS CY
1							
	329+00 - 336+14	27TH - 25TH	-	966	-	-	-
	336+14 - 346+32	25TH - CRESTWOOD	215	2226	-	-	-
	346+32 - 352+63	CRESTWOOD - LONGVIEW	-	1090	-	-	-
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	-	2761	-	-	-
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	-	1637	-	-	-
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	-	1126	-	-	-
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	-	2023	-	-	-
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	-	326	-	-	-
		STAGE 1 SUBTOTAL	**215**	**12155**	-	-	-
2							
	329+00 - 336+14	27TH - 25TH	-	-	1044	1410	-
	336+14 - 346+32	25TH - CRESTWOOD	215	-	1639	2124	-
	346+32 - 352+63	CRESTWOOD - LONGVIEW	-	-	962	1301	1
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	2920	-	375	755	-
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	-	-	1204	1662	-
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	-	-	958	1301	-
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	-	-	1170	1832	-
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	190	-	-	199	-
		STAGE 2 SUBTOTAL	**3325**	-	**7355**	**10585**	**1**
		PROJECT TOTAL	**3540**	**12155**	**7355**	**10585**	**1**

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

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CONTRUCTION STAKING

STAGE	STATION - STATION	LOCATION	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.8501 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (2090-07-71) LF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	650.9500 CONSTRUCTION STAKING SIDEWALK (PROJECT) EACH	650.9911 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) EACH
1								
	329+00 - 336+14	27TH - 25TH	966	-	-	-	-	-
	336+14 - 346+32	25TH - CRESTWOOD	2441	-	-	1	-	-
	346+32 - 352+63	CRESTWOOD - LONGVIEW	1090	-	-	2	-	-
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	2761	-	-	1	-	-
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	1637	-	-	2	-	-
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	1126	-	-	1	-	-
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	2023	-	-	2	-	-
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	326	-	-	-	-	-
		SILVER SPRING PROJECT AREA	-	500	0.5		-	0.5
		STAGE 1 SUBTOTAL	**12370**	**500**	**0.5**	**9**	**0**	**0.5**
2								
	329+00 - 336+14	27TH - 25TH	2454			14		-
	336+14 - 346+32	25TH - CRESTWOOD	3978			8		-
	346+32 - 352+63	CRESTWOOD - LONGVIEW	2263			6		-
	352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	4050			14		-
	367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	2866			7		-
	376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	2259			6		-
	382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	3002			15		-
	391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	389			3		-
		SILVER SPRING PROJECT AREA		500	0.5	-	1	0.5
		STAGE 2 SUBTOTAL	**21261**	**500**	**0.5**	**73**	**1**	**0.5**
		PROJECT TOTAL	**33631**	**1000**	**1**	**82**	**1**	**1.0**

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

STATION	OFFSET	SIGN CODE	SIGN MESSAGE	SIGN SIZE INxIN	634.0808 POST TUBULAR STEEL 2X2-INCH 8FT EACH	634.0814 POST TUBULAR STEEL 2X2-INCH X 14-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
328+00	RT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
328+00	RT	R3-17AP	AHEAD	24"X8"	---	---	1.33	---	---	---	---	---	
328+00	RT	R7-7L	NO PARKING BUS STOP - LEFT ARROW	12"X18"	---	---	1.50	---	---	---	1	1	
330+01	LT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	---	---	---	---	---	1	1	
330+03	LT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
330+03	LT	R3-17BP	ENDS	24"X8"	---	---	1.33	---	---	---	---	---	
330+03	RT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
330+11	MED	R4-7	KEEP RIGHT	24"X30"	---	---	5.00	---	---	---	1	---	MOUNT ON LIGHT POLE
330+86	LT	R7-7L	NO PARKING BUS STOP - LEFT ARROW	12"X18"	---	---	---	---	---	---	1	1	
331+47	LT	SPECIAL	CITY OF MILWAUKEE NO PARKING 2AM TO 6AM ON ANY STREET WITHOUT POLICE PERMIT	SPECIAL	---	---	---	---	---	---	1	---	RETURN TO CITY
331+47	LT	SPECIAL	NO ENGINE BRAKING EXCEPT IN EMERGENCY WITHIN MILWAUKEE CITY LIMITS	SPECIAL	---	---	---	---	---	---	1	---	RETURN TO CITY
331+47	LT	R2-1	SPEED LIMIT 35 MPH	24"X30"	---	1	5.00	---	---	---	1	---	
332+39	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	1	
332+55	MED	M1-94	GLENDALE N 26TH ST	36"X9"	---	1	2.25	---	---	---	1	---	
332+55	MED	M1-94	GLENDALE W SILVER SPRING DR	48"X9"	---	---	3.00	---	---	---	1	---	
332+55	MED	R4-7	KEEP RIGHT	24"X30"	---	1	5.00	---	---	---	1	---	
333+31	MED	R4-7	KEEP RIGHT	24"X30"	---	1	5.00	---	---	---	1	---	
333+41	RT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
333+56	LT	R2-1	SPEED LIMIT 30 MPH	24"X30"	---	---	---	---	---	---	1	1	
333+98	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	1	
334+00	MED	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24"X36"	---	1	6.00	---	---	---	---	---	
334+46	RT	R3-7R	RIGHT LANE MUST TURN RIGHT	30"X30"	---	---	---	---	---	---	1	1	
334+46	RT	SPECIAL	WELCOME GLENDALE CRIME WATCH COMMUNITY	SPECIAL	---	---	---	---	---	---	1	---	RETURN TO CITY
334+60	LT	R2-1	SPEED LIMIT 30 MPH	24"X30"	---	1	5.00	---	---	---	---	---	
335+24	LT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	1	---	---	---	---	---	---	MOVED FROM 336+49
335+65	LT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
335+66	RT	R10-15R	TURNING VEHICLES YIELD TO BIKES (RIGHT ARROW)	30"X30"	---	1	6.25	---	---	---	---	---	
335+70	LT	M1-94	GLENDALE N BETHMAUR LN	84"X18"	---	---	10.50	---	---	---	---	---	MOUNT ON MAST ARM
335+73	MED	M1-94	GLENDALE W SILVER SPRING DR	---	---	---	---	---	---	---	1	---	
335+73	MED	R4-7	KEEP RIGHT	24"X30"	---	---	5.00	---	---	---	1	---	MOUNT ON SIGNAL POLE
335+78	RT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	---	---	---	---	1	---	---	
335+93	LT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	6.50	---	---	1	---	MOUNT ON SIGNAL POLE
336+00	RT	M1-94	GLENDALE W SILVER SPRING DR	96"X18"	---	---	12.00	---	---	---	---	---	MOUNT ON MAST ARM
336+30	RT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	6.50	---	---	1	---	MOUNT ON SIGNAL POLE
336+30	LT	M1-94	GLENDALE W SILVER SPRING DR	96"X18"	---	---	12.00	---	---	---	---	---	MOUNT ON MAST ARM
336+49	LT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	---	---	---	---	1	---	1	MOUNT TO LIGHT POLE
336+58	RT	M1-94	GLENDALE N BETHMAUR LN	84"X18"	---	---	10.50	---	---	---	---	---	MOUNT ON MAST ARM
336+58	RT	M1-94	GLENDALE N BETHMAUR LN	---	---	---	---	---	---	---	1	---	
336+58	RT	R4-7	KEEP RIGHT	24"X30"	---	---	5.00	---	---	---	1	---	MOUNT ON SIGNAL POLE
336+67	RT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
337+00	RT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	1	---	---	---	---	---	---	MOVED FROM 335+78
337+13	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	1	
337+38	RT	SPECIAL	BIRD CITY WISCONSIN	SPECIAL	---	---	---	---	---	---	1	---	RETURN TO CITY
338+28	RT	SPECIAL	21 YEARS TREE CITY USA ARBOOR DAY FOUNDATION	SPECIAL	---	---	---	---	---	---	1	---	RETURN TO CITY
338+62	LT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	1	
339+00	LT	R4-4	BEGIN RIGHT TURN LANE - YIELD TO BIKES	36"X30"	---	1	7.50	---	---	---	---	---	
339+07	MED	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24"X36"	---	1	6.00	---	---	---	---	---	
339+11	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	1	
339+72	RT	W12-1D	DOUBLE DOWN ARROWS	24"X24"	1	---	---	---	4.00	---	---	---	
340+51	LT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	1	
341+06	RT	R2-1	SPEED LIMIT 30 MPH	24"X30"	---	1	5.00	---	---	---	1	1	
341+06	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	---	
342+15	MED	R4-7	KEEP RIGHT	24"X30"	---	1	5.00	---	---	---	1	1	
342+75	RT	R1-1	STOP	30"X30"	---	1	6.25	---	---	---	1	1	
342+90	RT	M1-94	GLENDALE N ARGYLE AVE	42"X9"	---	---	2.63	---	---	---	1	---	
342+90	RT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
343+00	MED	M1-94	GLENDALE W SILVER SPRING DR	48"X9"	---	---	3.00	---	---	---	---	---	MOUNT TO LIGHT POLE
343+00	MED	R4-7	KEEP RIGHT	24"X30"	---	1	5.00	---	---	---	---	---	MOUNT TO MEDIAN SIGNAL
343+29	LT	R2-1	SPEED LIMIT 30 MPH	24"X30"	---	1	5.00	---	---	---	1	1	
343+29	LT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	---	
343+44	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	1	
344+15	MED	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24"X36"	---	1	6.00	---	---	---	---	---	
344+35	LT	W12-1D	DOUBLE DOWN ARROWS	24"X24"	1	---	---	---	4.00	---	---	---	
344+81	LT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	1	
345+27	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	1	

WHERE THERE IS A SIGN SIZE DISCREPANCY BETWEEN PLANS AND THIS TABLE, THE VALUES IN THIS TABLE GOVERNS

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

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STATION	OFFSET	SIGN CODE	SIGN MESSAGE	SIGN SIZE INxIN	634.0808 POST TUBULAR STEEL 2X2-INCH 8FT EACH	634.0814 POST TUBULAR STEEL 2X2-INCH X 14-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
345+45	RT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	---	---	---	---	1	---	1	MOVE TO 347+50
345+56	LT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
345+66	RT	R9-6	BIKES YIELD TO PEDS	12"X18"	---	1	1.50	---	---	---	---	---	MOUNT ON SIGNAL POLE
345+76	MED	M1-94	GLENDALE N CRESTWOOD BLVD	84"X18"	---	---	10.50	---	---	---	1	---	MOUNT ON SIGNAL MAST ARM
345+76	MED	M1-94	GLENDALE W SILVER SPRING DR	96"X18"	---	---	12.00	---	---	---	1	---	MOUNT ON SIGNAL MAST ARM
345+76	MED	R4-7	KEEP RIGHT	24"X30"	---	---	5.00	---	---	---	---	---	MOUNT ON SIGNAL POLE
345+81	RT	M1-94H	GLENDALE W SILVER SPRING DR	96"X18"	---	---	12.00	---	---	---	---	---	MOUNT ON SIGNAL MAST ARM
345+81	LT	R5-1	DO NOT ENTER	30"X30"	---	---	6.25	---	---	---	1	---	MOUNT ON SIGNAL POLE
345+81	LT	R6-2L	ONE WAY LEFT ARROW	18"X24"	---	---	3.00	---	---	---	1	---	MOUNT ON SIGNAL POLE
345+81	LT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	6.50	---	---	1	---	MOUNT ON SIGNAL POLE
346+13	LT	R5-1	DO NOT ENTER	30"X30"	---	1	6.25	---	---	---	1	1	
346+45	LT	R4-7	KEEP RIGHT	24"X30"	---	1	5.00	---	---	---	1	1	
346+78	RT	R9-6	BIKES YIELD TO PEDS	12"X18"	---	---	1.50	---	---	---	---	---	MOUNT ON SIGNAL POLE
346+83	LT	R5-2	NO TRUCK SYMBOL	24"X24"	---	1	4.00	---	---	---	1	1	
346+83	LT	SPECIAL	NO TRUCKS	24"X24"	---	---		---	---	---	1	---	
346+87	LT	M1-94	GLENDALE N CRESTWOOD BLVD	84"X18"	---	---	10.50	---	---	---	1	---	MOUNT ON SIGNAL MAST ARM
346+87	LT	R6-2L	ONE WAY LEFT ARROW	18"X24"	---	---	3.00	---	---	---	1	---	MOUNT ON SIGNAL POLE
346+92	MED	R4-7	KEEP RIGHT	24"X30"	---	---	5.00	---	---	---	1	---	MOUNT ON SIGNAL POLE
347+04	LT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	---	---	---	---	---	1	---	MOVED TO 347+50
347+50	RT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	1	---	---	---	---	---	---	MOVED FROM 345+45
347+50	LT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	1	---	---	---	---	---	---	MOVED FROM 347+04
348+53	RT	S1-1	SCHOOL ADVANCE (FL.YELLOW GREEN)	36"X36"	---	1	---	---	9.00	---	1	1	
348+53	RT	S16-9P	AHEAD PLAQUE (FL.YELLOW GREEN)	24"X12"	---	---	---	---	2.00	---	---	---	
349+25	LT	R4-4	BEGIN RIGHT TURN LANE - YIELD TO BIKES	36"X30"	---	1	7.50	---	---	---	---	---	
349+56	LT	R2-1	SPEED LIMIT 30 MPH	24"X30"	---	1	5.00	---	---	---	1	1	
349+56	LT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	---	
349+70	RT	R7-2	NO PARKING 7:00 AM TO 6:00 PM	18"X24"	---	---	---	---	---	---	1	1	
349+70	RT	R8-3GP (MOD)	LOADING ZONE (RIGHT ARROW)	12"X18"	---	---	---	---	---	---	1	---	
349+98	RT	R7-2	NO PARKING 7:00 AM TO 6:00 PM	18"X24"	---	---	---	---	---	---	1	1	
349+97	RT	R8-3GP (MOD)	LOADING ZONE (LEFT ARROW)	12"X18"	---	---	---	---	---	---	1	---	
351+46	LT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	1	
351+93	RT	R1-5L	YIELD HERE TO PEDESTRIANS [LA]	36"X36"	---	1	9.00	---	---	---	1	1	
352+10	MED	M1-94H	GLENDALE W SILVER SPRING DR	48"X9"	---	---	3.00	---	---	---	---	---	MOUNT TO RRFB POLE
352+25	RT	S1-1	SCHOOL ADVANCE (FL.YELLOW GREEN)	36"X36"	---	---	---	---	9.00	---	1	---	
352+25	RT	S16-7R	RIGHT DIAGONAL DOWNWARD POINTING ARROW (FL. YELLOW GREEN)	24"X12"	---	---	---	---	2.00	---	1	---	
352+25	RT	S1-1	SCHOOL ADVANCE (FL.YELLOW GREEN)	36"X36"	---	---	---	---	9.00	---	1	---	
352+25	RT	S16-7R	RIGHT DIAGONAL DOWNWARD POINTING ARROW (FL. YELLOW GREEN)	24"X12"	---	---	---	---	2.00	---	1	---	
352+34	RT	S1-1	SCHOOL ADVANCE (FL.YELLOW GREEN)	36"X36"	---	---	---	---	9.00	---	1	---	
352+34	RT	S16-7L	LEFT DIAGONAL DOWNWARD POINTING ARROW (FL. YELLOW GREEN)	24"X12"	---	---	---	---	2.00	---	1	---	
352+40	LT	S1-1	SCHOOL ADVANCE (FL.YELLOW GREEN)	36"X36"	---	---	---	---	9.00	---	1	---	
352+40	LT	S16-7L	LEFT DIAGONAL DOWNWARD POINTING ARROW (FL. YELLOW GREEN)	24"X12"	---	---	---	---	2.00	---	1	---	
352+43	RT	M1-94	GLENDALE N LONG ISLAND DR	48"X9"	---	1	3.00	---	---	---	1	1	
352+84	RT	R1-1	STOP	30"X30"	---	1	6.25	---	---	---	1	1	
352+87	LT	R9-3A	NO PEDESTRIAN CROSSING	24"X24"	---	1	4.00	---	---	---	1	1	
352+87	LT	R9-3BR	USE CROSSWALK (RIGHT ARROW)	18"X12"	---	---	1.50	---	---	---	1	---	
352+90	RT	R9-3A	NO PEDESTRIAN CROSSING	24"X24"	---	1	4.00	---	---	---	1	1	
352+90	RT	R9-3BL	USE CROSSWALK (LEFT ARROW)	18"X12"	---	---	1.50	---	---	---	1	---	
352+93	LT	R1-5L	YIELD HERE TO PEDESTRIANS [LA]	36"X36"	---	1	9.00	---	---	---	1	1	
352+78	LT	R9-6	BIKES YIELD TO PEDS	12"X18"	---	---	1.50	---	---	---	---	---	
353+08	LT	S1-1	SCHOOL ADVANCE (FL.YELLOW GREEN)	36"X36"	---	---	---	---	---	---	1	1	
353+13	RT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
354+48	LT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
354+53	LT	S1-1	SCHOOL ADVANCE (FL.YELLOW GREEN)	36"X36"	---	---	---	---	---	---	1	1	
354+53	LT	S16-9P	AHEAD PLAQUE (FL.YELLOW GREEN)	30"X18"	---	---	---	---	---	---	1	---	
354+53	LT	R2-6P	FINES HIGHER PLAQUE	36"X24	---	---	---	---	---	---	1	---	
354+58	MED	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24"X36"	---	1	6.00	---	---	---	---	---	
354+73	LT	R1-2	YIELD	30"X26"	---	---	---	---	---	---	1	---	
355+09	RT	R4-7	KEEP RIGHT	24"X30"	---	---	---	---	---	---	1	1	
355+58	LT	R1-2	YIELD	30"X26"	---	---	---	---	---	---	1	---	
355+63	LT	R6-1	ONE WAY LEFT ARROW	36"X12"	---	1	3.00	---	---	---	---	---	
355+70	LT	R6-1	ONE WAY LEFT ARROW	54"X18"	---	2	6.75	---	---	---	---	---	
355+75	LT	R5-1	DO NOT ENTER	36"X36"	---	1	9.00	---	---	---	---	---	
355+85	LT	R1-1	STOP	36"X36"	---	1	9.00	---	---	---	---	---	
356+00	RT	D1-57SR	GREEN BAY AVE RT ARROW	72"X24"	---	2	12.00	---	---	---	---	---	
356+17	LT	R5-1	DO NOT ENTER	36"X36"	---	1	9.00	---	---	---	---	---	

WHERE THERE IS A SIGN SIZE DISCREPANCY BETWEEN PLANS AND THIS TABLE, THE VALUES IN THIS TABLE GOVERNS

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

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STATION	OFFSET	SIGN CODE	SIGN MESSAGE	SIGN SIZE INxIN	634.0808 POST TUBULAR STEEL 2X2-INCH 8FT EACH	634.0814 POST TUBULAR STEEL 2X2-INCH X 14-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
356+21	LT	R1-1	STOP	36"X36"	---	1	9.00	---	---	---	---	---	
356+22	LT	R6-1	ONE WAY LEFT ARROW	36"X12"	---	1	3.00	---	---	---	---	---	
356+27	LT	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	---	---	---	---	---	1	1	ON GREEN BAY AVE RAMP
356+27	LT	W16-7PL	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24"X12"	---	---	---	---	---	---	1	---	ON GREEN BAY AVE RAMP
356+32	LT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	1	3.00	---	---	---	1	1	
356+47	LT	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	---	---	---	---	---	1	1	ON GREEN BAY AVE RAMP
356+47	LT	W16-7PR	RIGHT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24"X12"	---	---	---	---	---	---	1	---	ON GREEN BAY AVE RAMP
356+50	LT	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	---	---	---	---	---	1	1	ON GREEN BAY AVE RAMP
356+50	LT	W16-9P	AHEAD PLAQUE (YELLOW)	24"X12"	---	---	---	---	---	---	1	---	ON GREEN BAY AVE RAMP
356+54	LT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
356+54	LT	R3-17AP	AHEAD	24"X8"	---	---	1.33	---	---	---	---	---	
356+59	LT	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	---	---	---	---	---	1	---	
356+59	LT	W16-7PR	RIGHT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24"X12"	---	---	---	---	---	---	1	---	
356+76	LT	S1-1	SCHOOL ADVANCE (FL.YELLOW GREEN)	36"X36"	---	1	---	---	9.00	---	1	1	
356+76	LT	S16-9P	AHEAD PLAQUE (FL.YELLOW GREEN)	24"X12"	---	---	---	---	2.00	---	1	---	
356+76	LT	R2-6P	FINES HIGHER PLAQUE	36"X24"	---	---	---	---	---	---	1	---	
356+78	RT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
356+78	RT	R3-17BP	ENDS	24"X8"	---	---	1.33	---	---	---	---	---	
357+41	LT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
357+41	LT	R3-17AP	AHEAD	24"X8"	---	---	1.33	---	---	---	---	---	
357+41	LT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	ON GREEN BAY AVE RAMP
357+41	LT	R3-17AP	AHEAD	24"X8"	---	---	1.33	---	---	---	---	---	ON GREEN BAY AVE RAMP
357+62	LT	W4-1R	MERGING TRAFFIC SYMBOL (RIGHT)	36"X36"	---	1	---	---	9.00	---	---	1	
357+76	RT	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	1	---	---	6.25	---	---	---	
357+76	RT	W16-7PL	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24"X12"	---	---	---	---	2.00	---	---	---	
358+02	RT	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	1	---	---	6.25	---	---	---	
358+02	RT	W16-7PR	RIGHT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24"X12"	---	---	---	---	2.00	---	---	---	
358+04	RT	D1-57	GREEN BAY AVE RT ARROW	36"X18"	---	---	---	---	---	---	1	1	
358+26	RT	R9-7	DIVIDED PATH	12"X18"	---	1	1.50	---	---	---	---	---	
359+92	LT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	---	---	---	---	---	1	1	
360+76	RT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	---	---	---	---	---	1	1	
362+08	LT	R2-1	SPEED LIMIT 30 MPH	24"X30"	---	1	5.00	---	---	---	1	1	
362+08	LT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---		3.00	---	---	---	1	---	
362+28	RT	R3-1	NO RIGHT TURN SYMBOL	24"X24"	---	1	4.00	---	---	---	1	1	
362+57	RT	R5-1	DO NOT ENTER	36"X36"	---	1	9.00	---	---	---	1	1	
362+57	RT	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	1	---	---	6.25	---	1	---	
326+57	RT	W16-7PR	RIGHT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24"X12"	---	1	---	---	2.00	---	1	---	
362+60	RT	R1-1	STOP	36"X36"	---	1	9.00	---	---	---	1	1	
362+91	RT	R6-1R	ONE WAY RIGHT ARROW	54"X18"	---	2	6.75	---	---	---	1	1	
362+94	RT	R1-1	STOP	36"X36"	---	1	9.00	---	---	---	1	1	
362+98	RT	R5-1	DO NOT ENTER	36"X36"	---	1	9.00	---	---	---	1	1	
362+98	RT	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	1	---	---	6.25	---	1	---	
362+98	RT	W16-7PL	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24"X12"	---	1	---	---	2.00	---	1	---	
363+44	RT	R3-20R	BEGIN RIGHT TURN LANE WITH DOWN LEFT ARROW	24"X36"	---	1	6.00	---	---	---	---	---	
363+51	LT	R9-7	DIVIDED PATH	12"X18"	---	1	1.50	---	---	---	---	---	
364+34	RT	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24"X36"	---	1	6.00	---	---	---	---	---	
365+12	LT	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	1	---	---	6.25	---	1	1	
365+12	LT	W16-9P	AHEAD PLAQUE (YELLOW)	24"X12"	---	1	---	---	2.00	---	1	---	
365+22	RT	R2-1	SPEED LIMIT 30 MPH	24"X30"	---	1	5.00	---	---	---	1	1	
365+22	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	1	3.00	---	---	---	1	---	
365+48	LT	M4-1	ALTERNATE MARKER	24"X12"	---	1	2.00	---	---	---	1	1	
365+48	LT	M1-1	INTERSTATE SHIELD	24"X24"	---	---	4.00	---	---	---	1	---	
365+48	LT	M6-2	ARROW TILT RIGHT	21"X15"	---	---	3.06	---	---	---	1	---	
365+91	LT	D1-57SR	GREEN BAY AVE (RIGHT ARROW) STACKED MESSAGE	72"X24"	---	2	12.00	---	---	---	1	2	
366+00	RT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
366+22	RT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	1	---	---	---	---	---	---	
366+38	RT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	---	---	---	---	1	---	1	MOVE TO 366+22
366+46	LT	R3-4	NO U-TURN SYMBOL	24"X24"	---	---	4.00	---	---	---	1	---	MOUNT ON SIGNAL POLE
366+46	RT	R4-7	KEEP RIGHT	24"X30"	---	---	5.00	---	---	---	---	---	MOUNT ON SIGNAL POLE
366+65	RT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	6.50	---	---	1	---	MOUNT ON SIGNAL POLE
366+73	LT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	7	---	---	1	---	MOUNT ON SIGNAL POLE
366+78	RT	R3-4	NO U-TURN SYMBOL	24"X24"	---	---	4.00	---	---	---	1	---	MOUNT ON SIGNAL POLE
366+78	RT	R9-5	USE PED SIGNAL	12"X18"	---	---	1.50	---	---	---	---	---	MOUNT ON SIGNAL POLE
366+85	RT	M1-94H	GLENDALE W SILVER SPRING DR	96"X18"	---	---	12.00	---	---	---	---	---	MOUNT ON SIGNAL MAST ARM
367+15	LT	M1-94H	GLENDALE W SILVER SPRING DR	96"X18"	---	---	12.00	---	---	---	---	---	MOUNT ON SIGNAL MAST ARM

WHERE THERE IS A SIGN SIZE DISCREPANCY BETWEEN PLANS AND THIS TABLE, THE VALUES IN THIS TABLE GOVERNS

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

STATION	OFFSET	SIGN CODE	SIGN MESSAGE	SIGN SIZE INxIN	634.0808 POST TUBULAR STEEL 2X2-INCH 8FT EACH	634.0814 POST TUBULAR STEEL 2X2-INCH X 14-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
367+25	LT	R3-4	NO U-TURN SYMBOL	24"X24"	---	---	4.00	---	---	---	1	---	MOUNT ON SIGNAL POLE
367+40	LT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	6.50	---	---	1	---	MOUNT ON SIGNAL POLE
367+40	RT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	6.50	---	---	1	---	MOUNT ON SIGNAL POLE
367+57	RT	R4-7	KEEP RIGHT	24"X30"	---	---	5.00	---	---	---	---	---	MOUNT ON SIGNAL POLE
367+57	RT	R3-4	NO U-TURN SYMBOL	24"X24"	---	---	4.00	---	---	---	1	---	MOUNT ON SIGNAL POLE
367+64	LT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	1	---	---	---	---	1	1	
367+74	RT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
367+79	LT	R3-7R	RIGHT LANE MUST TURN RIGHT	30"X30"	---	---	---	---	---	---	1	1	
367+83	LT	R9-7	DIVIDED PATH	12"X18"	---	1	1.50	---	---	---	---	---	
367+83	LT	R9-5	USE PED SIGNAL	12"X18"	---	---	1.50	---	---	---	---	---	
367+93	RT	M3-1	NORTH CARDINAL ROUTE MARKER	24"X12"	---	1	2.00	---	---	---	1	1	
367+93	RT	M1-1	INTERSTATE SHIELD	24"X24"	---	1	4.00	---	---	---	1	---	
367+93	RT	M6-1	ARROW - AHEAD	21"X21"	---	1	3.06	---	---	---	1	---	
368+17	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---			---	---	---	1	---	
368+96	LT	R3-20R	BEGIN RIGHT TURN LANE WITH DOWN LEFT ARROW	24"X36"	---	1	6.00	---	---	---	---	---	
369+63	LT	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24"X36"	---	1	6.00	---	---	---	---	---	
370+33	LT	D1-63	GREEN BAY AVE RIGHT LANE (NEXT INTERSECTION)	78"X21"	---	2	11.38	---	---	---	1	2	
370+65	LT	R9-7	DIVIDED PATH	12"X18"	---	1	1.50	---	---	---	---	---	
371+46	LT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
371+46	LT	R3-17BP	ENDS	24"X8"	---	---	1.33	---	---	---	---	---	
371+70	RT	R2-1	SPEED LIMIT 30 MPH	24"X30"	---	1	5.00	---	---	---	1	1	
371+70	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	---	
373+44	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	1	
373+57	RT	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24"X36"	---	1	6.00	---	---	---	---	---	
374+50	LT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
374+86	LT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	1	3.00	---	---	---	1	1	
376+90	LT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	1	---	---	---	---	---	---	MOVED FROM 376+44
374+98	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	1	3.00	---	---	---	1	1	
375+47	LT	R3-4	NO U-TURN SYMBOL	24"X24"	---	---	4.00	---	---	---	1	---	MOUNT ON SIGNAL POLE
375+47	MED	M1-94H	W SILVER SPRING DR	96"X18"	---	---	12.00	---	---	---	---	---	MOUNT ON SIGNAL POLE
375+47	MED	R4-7	KEEP RIGHT	24"X30"	---	---	5.00	---	---	---	1	---	MOUNT ON SIGNAL POLE
375+48	LT	M1-94H	GLENDALE N BRIDGEWOOD LN	90"X18"	---	---	11.25	---	---	---	1	---	MOUNT ON SIGNAL MAST ARM
375+63	RT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	---	---	---	---	1	---	---	MOVE TO 377+10
375+63	RT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	6.50	---	---	1	---	MOUNT ON SIGNAL POLE
375+75	LT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	6.50	---	---	1	---	MOUNT ON SIGNAL POLE
376+00	RT	M1-94H	GLENDALE W SILVER SPRING DR	96"X18"	---	---	6.50	---	---	---	---	---	MOUNT ON SIGNAL MAST ARM
376+10	LT	M1-94H	GLENDALE W SILVER SPRING DR	96"X18"	---	---	6.50	---	---	---	---	---	MOUNT ON SIGNAL MAST ARM
376+19	RT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	6.50	---	---	1	---	MOUNT ON SIGNAL POLE
376+27	LT	R3-4	NO U-TURN SYMBOL	24"X24"	---	---	4.00	---	---	---	---	---	
376+44	LT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	---	---	---	---	1	---	---	MOVE TO 376+90
376+44	LT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	7	---	---	1	---	MOUNT ON SIGNAL POLE
376+47	RT	M1-94H	GLENDALE N BRIDGEWOOD LN	90"X18"	---	---	11.25	---	---	---	1	---	MOUNT ON SIGNAL MAST ARM
376+53	MED	R4-7	KEEP RIGHT	24"X30"	---	---	5.00	---	---	---	1	---	MOUNT ON SIGNAL POLE
376+53	MED	R3-4	NO U-TURN SYMBOL	24"X24"	---	---	4.00	---	---	---	1	---	MOUNT ON SIGNAL POLE
376+61	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	1	
376+74	RT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
377+10	RT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	1	---	---	---	---	---	---	MOVE FROM 375+63
378+10	LT	R3-20R	BEGIN RIGHT TURN LANE WITH DOWN LEFT ARROW	24"X36"	---	1	6.00	---	---	---	---	---	
379+96	RT	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24"X36"	---	1	6.00	---	---	---	---	---	
381+29	LT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18"X24"	---	---	---	---	---	---	1	1	
381+30	RT	R7-7L	NO PARKING BUS STOP - LEFT ARROW	12"X18"	---	---	---	---	---	---	1	1	
381+58	RT	R10-15R	TURNING VEHICLES YIELD TO BIKES (RIGHT ARROW)	30"X30"	---	1	6.25	---	---	---	---	---	
381+40	LT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
381+50	LT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	1	---	---	---	---	---	---	MOVE FROM 383+19
382+00	MED	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	---	---	---	6.25	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
382+00	MED	W16-7PR	RIGHT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24"X12"	---	---	---	---	2.00	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
382+00	MED	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	---	---	---	6.25	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
382+00	MED	W16-7PR	RIGHT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24"X12"	---	---	---	---	2.00	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
382+05	RT	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	---	---	---	6.25	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
382+05	RT	W16-7PL	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24"X12"	---	---	---	---	2.00	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
382+08	RT	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	---	---	---	6.25	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
382+08	RT	W16-7PL	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24"X12"	---	---	---	---	2.00	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
382+08	RT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	---	---	---	---	---	1	---	MOVED TO 383+30
382+23	LT	M1-94	GLENDALE N SUNNY POINT RD	48"X9"	---	1	3.00	---	---	---	1	---	
382+23	LT	M1-94	GLENDALE W SILVER SPRING DR	48"X9"	---	1	3.00	---	---	---	1	---	

WHERE THERE IS A SIGN SIZE DISCREPANCY BETWEEN PLANS AND THIS TABLE, THE VALUES IN THIS TABLE GOVERNS

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

STATION	OFFSET	SIGN CODE	SIGN MESSAGE	SIGN SIZE INxIN	634.0808 POST TUBULAR STEEL 2X2-INCH 8FT EACH	634.0814 POST TUBULAR STEEL 2X2-INCH X 14-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
382+23	LT	R1-1	STOP	36"X36"	---	2	9.00	---	---	---	1	1	
382+67	RT	M1-94	GLENDALE N 13TH ST	36"X9"	---	1	2.25	---	---	---	1		
382+67	RT	R1-1	STOP	36"X36"	---	2	9.00	---	---	---	1	1	
382+84	RT	R4-7	KEEP RIGHT	24"X30"	---	---	---	---	---	---	1	1	
383+03	RT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
383+07	RT	R4-7	KEEP RIGHT	24"X30"	---	---	5.00	---	---	---	---	---	MOUNT ON SIGNAL POLE
383+19	LT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	---	---	---	---	---	1	1	MOVED TO 381+50
383+30	RT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	---	---	---	---	---	1	---	MOVED FROM 382+08
383+61	LT	R7-7L	NO PARKING BUS STOP - LEFT ARROW	12"X18"	---	---	---	---	---	---	1	1	
384+48	LT	R3-9 (MOD)	THROUGH, THROUGH, RIGHT	SPECIAL	---	---	---	---	---	---	1	1	
384+68	LT	R4-4	BEGIN RIGHT TURN LANE YIELD TO BIKES WITH DOWN LEFT ARROW	36"X30"	---	1	7.50	---	---	---	---	---	
384+73	LT	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24"X36"	---	1	6.00	---	---	---	---	---	
385+11	RT	R4-7	KEEP RIGHT	24"X30"	---	---	---	---	---	---	1	1	
385+18	RT	R10-15R	TURNING VEHICLES YIELD TO BIKES (RIGHT ARROW)	30"X30"	---	1	6.25	---	---	---	---	---	
385+76	RT	M1-94	GLENDALE N 12TH ST	36"X9"	---	1	2.25	---	---	---	1	---	
385+76	RT	R1-1	STOP	36"X36"	---	2	9.00	---	---	---	1	1	
385+93	RT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
385+93	RT	R9-6	BIKES YIELD TO PEDS	12"X18"	---	1	1.50	---	---	---	---	---	
386+07	LT	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	---	---	---	6.25	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
386+07	LT	W16-7PR	RIGHT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24"X12"	---	---	---	---	2.00	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
386+07	LT	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	---	---	---	6.25	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
386+07	LT	W16-7PL	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24"X12"	---	---	---	---	2.00	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
386+15	RT	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	---	---	---	6.25	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
386+15	RT	W16-7PL	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24"X12"	---	---	---	---	2.00	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
386+15	RT	W11-2	PEDESTRIAN CROSSING SYMBOL	30"X30"	---	---	---	---	6.25	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
386+15	RT	W16-7PR	RIGHT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24"X12"	---	---	---	---	2.00	---	---	---	MOUNT ON SIGNAL POLE (SEE SIGNAL PLANS)
386+34	LT	R9-6	BIKES YIELD TO PEDS	12"X18"	---	1	1.50	---	---	---	---	---	
388+15	RT	R10-15R	TURNING VEHICLES YIELD TO BIKES (RIGHT ARROW)	30"X30"	---	1	6.25	---	---	---	---	---	
388+84	RT	M1-94	GLENDALE N 11TH ST	36"X9"	---	1	2.25	---	---	---	1	1	
388+84	RT	R1-1	STOP	36"X36"	---	---	9.00	---	---	---	1	---	
389+17	RT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
389+47	RT	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24"X36"	---	1	6.00	---	---	---	---	---	
390+01	LT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	---	---	---	---	1		---	MOVE TO 390+50
390+01	LT	R2-1	SPEED LIMIT 30 MPH	24"X30"	---	1	5.00	---	---	---	1	---	
390+50	LT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	1	---	---	---	---	---	---	MOVE FROM 390+01
390+72	LT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
390+92	RT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
390+92	RT	R3-17BP	ENDS	24"X8"	---	---	1.33	---	---	---	---	---	
391+04	LT	M1-94H	GLENDALE N MILW. RIVER PKWY	90"X18"	---	---	11.25	---	---	---	1	---	MOUNT ON SIGNAL MAST ARM
391+04	LT	R7-7L	NO PARKING BUS STOP - LEFT ARROW	12"X18"	---	---		---	---	---	1	---	MOUNT ON SIGNAL POLE
391+15	LT	R3-4	NO U-TURN SYMBOL	24"X24"	---	---	4.00	---	---	---	---	---	MOUNT ON SIGNAL POLE
391+15	LT	R4-7	KEEP RIGHT	24"X30"	---	---	5.00	---	---	---	---	---	MOUNT ON SIGNAL POLE
391+21	LT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	---	---	---	1	---	
391+21	LT	R3-4	NO U-TURN SYMBOL	24"X24"	---	---	4.00	---	---	---	1	---	
391+27	RT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	---	---	---	---	1	---	---	MOVE TO 392+50
391+27	RT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	7	---	---	1	---	MOUNT ON SIGNAL POLE
391+31	RT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	6.50	---	---	1	---	MOUNT ON SIGNAL POLE
391+47	RT	M1-94	GLENDALE W SILVER SPRING DR	96"X18"	---	---	12.00	---	---	---	1	---	MOUNT ON SIGNAL MAST ARM
391+47	RT	R3-4	NO U-TURN SYMBOL	24"X24"	---	---	4.00	---	---	---	1	---	MOUNT ON SIGNAL POLE
391+47	RT	SPECIAL	MILWAUKEE COUNTY PARKS OAK LEAF TRAIL UP LEFT ARROW	SPECIAL	---	---	---	---	---	---	1	---	RETURN TO CITY
391+70	LT	M1-94H	GLENDALE W SILVER SPRING DR	96"X18"	---	---	12.00	---	---	---	---	---	MOUNT ON SIGNAL MAST ARM
392+00	RT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	6.50	---	---	1	---	MOUNT ON SIGNAL POLE
392+06	LT	R1-1F	STOP (FOLDING)	30"X30"	---	---	---	6.50	---	---	1	---	MOUNT ON SIGNAL POLE
392+13	RT	M1-94H	GLENDALE N MILW. RIVER PKWY	90"X18"	---	---	11.25	---	---	---	1	---	MOUNT ON SIGNAL MAST ARM
392+18	LT	R3-17	BIKE LANE	24"X18"	---	1	3.00	---	---	---	---	---	
392+18	LT	R3-17AP	AHEAD	24"X8"	---	---	1.33	---	---	---	---	---	
392+20	RT	R4-7	KEEP RIGHT	24"X30"	---	---	5.00	---	---	---	---	---	MOUNT ON SIGNAL POLE
392+20	RT	R3-4	NO U-TURN SYMBOL	24"X24"	---	---	4.00	---	---	---	---	---	MOUNT ON SIGNAL POLE
392+50	RT	TRANSIT	ROUTE 63: SILVER SPRING DRIVE	9"X18"	---	1	---	---	---	---	---	---	MOVE FROM 391+27
393+09	LT	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24"X36"	---	1	6.00	---	---	---	---	---	
393+20	LT	SPECIAL	GLENDALE CITY HALL POLICE STATION FIRE STATION MUNICIPAL COURT	SPECIAL	---	---	---	---	---	---	1	---	RETURN TO CITY
PROJECT 2090-07-71 TOTAL					2	140	915.00	98.00	190.00	8	180	80	

WHERE THERE IS A SIGN SIZE DISCREPANCY BETWEEN PLANS AND THIS TABLE, THE VALUES IN THIS TABLE GOVERNS

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

SUMMARY OF SIGNALS & LIGHTING

3

ITEM NUMBER	SUMMARY OF QUANTITIES FOR LIGHTING AND SIGNALS	QUANTTNY	UNIT
204.0195	REMOVING CONCRETE BASES	54	EACH
204.9060.S.01 - 07	REMOVING TRAFFIC SIGNALS & LIGHTING UNITS	134	EACH
652.0210	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1-INCH	7,100	LF
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH (SIGNALS AND LIGHTING)	12,148	LF
652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	5,164	LF
652.0800	CONDUIT LOOP DETECTOR	2,635	LF
653.0140	PULL BOXES STEEL 24X42-INCH (SIGNALS AND LIGHTING)	81	EACH
653.0905	REMOVING PULL BOXES (SIGNALS AND LIGHTING)	101	EACH
654.0101	CONCRETE BASES TYPE 1	19	EACH
654.0102	CONCRETE BASES TYPE 2	29	EACH
654.0105	CONCRETE BASES TYPE 5	39	EACH
654.0217	CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL	5	EACH
654.0230	CONCRETE CONTROL CABINET BASES TYPE L30	2	EACH
655.0210	CABLE TRAFFIC SIGNAL 3-14 AWG	1,587	LF
655.0240	CABLE TRAFFIC SIGNAL 7-14 AWG	3,537	LF
655.0250	CABLE TRAFFIC SIGNAL 9-14 AWG	1,920	LF
655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	501	LF
655.0270	CABLE TRAFFIC SIGNAL 15-14 AWG	460	LF
655.0320	CABLE TYPE UF 2-10 AWG GROUNDED	3,034	LF
655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	8,705	LF
655.0610	ELECTRICAL WIRE LIGHTING 12 AWG	3,393	LF
655.0615	ELECTRICAL LIGHTING WIRE 10 AWG	15,500	LF
655.0620	ELECTRICAL LIGHTING WIRE 8 AWG	14,200	LF
655.0625	ELECTRICAL LIGHTING WIRE 6 AWG	8,700	LF
655.0700	LOOP DETECTOR LEAD IN CABLE	7,790	LF
656.0201.01 - 07	ELECTRICAL SERVICE METER BREAKER PEDESTAL (SIGNALS & LIGHTING)	7	EACH
658.5070.01 - 05	SIGNAL MOUNTING HARDWARE (ALL SIGNALS)	5	EACH
655.0800	LOOP DETECTOR WIRE	2,395	LF
657.0100	PEDESTAL BASES	19	EACH
657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE (SIGNALS & LIGHTING)	61	EACH
657.0305	POLES TYPE 2	6	EACH
657.0310	POLES TYPE 3	12	EACH
657.0315	POLES TYPE 4	11	EACH
657.0420	TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT	12	EACH
657.0425	TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT	1	EACH
657.0430	TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT	6	EACH
657.0585	TROMBONE ARMS 15-FT	2	EACH
657.0595	TROMBONE ARMS 25-FT	16	EACH
658.0173	TRAFFIC SIGNAL FACE 3S 12-INCH	65	EACH
658.0174	TRAFFIC SIGNAL FACE 4S 12-INCH	4	EACH
658.0416	PEDESTRIAN SIGNAL FACE 16-INCH	50	EACH

3

ITEM NUMBER	SUMMARY OF QUANTITIES FOR LIGHTING AND SIGNALS	QUANTTNY	UNIT
658.0500	PEDESTRIAN PUSH BUTTONS	43	EACH
659.2230	LIGHTING CONTROL CABINETS 240/480 30-INCH	2	EACH
659.5000.S	LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	134	EACH
661.0201	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (ALL)	5	EACH
671.0222	CONDUIT HDPE DIRECTIONAL BORE 2-DUCT 2-INCH	1,800	LF
673.0105	COMMUNICATION VAULT TYPE 1	23	EACH
678.0036	INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36-CT	7,450	LF
678.0200	FIBER OPTIC SPLICE ENCLOSURE	5	EACH
678.0300	FIBER OPTIC SPLICE	5	EACH
678.0400	FIBER OPTIC TERMINATION	5	EACH
678.0501	COMMUNICATION SYSTEM TESTING	5	EACH
678.0600	INSTALL ETHERNET SWITCHES	5	EACH
SPV.0060.11	MUNICIPAL LIGHT POLE AND LED LUMINAIRE SINGLE	4	EACH
SPV.0060.12	MUNICIPAL LIGHT POLE AND LED LUMINAIRE DOUBLE	32	EACH
SPV.0060.13	MUNICIPAL LED LUMINAIRE	30	EACH
SPV.0060.14	LIGHTING SYSTEM SURVEY	1	EACH
SPV.0060.15	BACKPLATES WITH REFLECTIVE BORDER 3 SECTION 12-INCH	65	EACH
SPV.0060.16	BACKPLATES WITH REFLECTIVE BORDER 4 SECTION 12-INCH	4	EACH
SPV.0060.17 - 21	TRAFFIC SIGNAL CONTROL CABINET	5	EACH
SPV.0060.22 - 26	TEMPORARY EVP SYSTEM	5	EACH
SPV.0060.27 - 31	EMERGENCY VEHICLE DETECTION SYSTEM	5	EACH
SPV.0060.33	REMOVE, SALVAGE AND REPLACE LIGHT POLE	3	EACH
SPV.0060.34 - 36	RECTANGULAR RAPID FLASHING BEACON (LONG ISLAND, SUNNY POINT, STA 386+10)	3	EACH
SPV.0060.37 - 38	RECTANGULAR RAPID FLASHING BEACON REMOVE & SALVAGE (GB AVE, LONG ISLAND)	2	EACH
SPV.0090.07	CONDUIT HDPE DIRECTIONAL BORE 2-DUCT 2-INCH	2,200	EACH

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	REMOVING LIGHT POLES		REMOVING LIGHT POLES	
	204.9060.S.01	659.5000.S	204.9060.S.01	659.5000.S
	REMOVING LIGHTING UNITS	LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	REMOVING LIGHTING UNITS	LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
	CRESTWOOD BLVD SYSTEM		PICK N SAVE SYSTEM	
LOCATION			LOCATION	
STATION / OFFSET	EACH	EACH	STATION / OFFSET	EACH	EACH
333+71.48 51.61	1	1	360+73.80 -37.46	1	1
333+75.35 -45.35	1	1	360+90.80 52.51	1	1
334+74.10 51.96	1	1	361+67.21 -37.68	1	1
334+83.04 -42.85	1	1	361+72.83 50.96	1	1
335+72.75 -4.03	1	1	362+47.01 50.39	1	1
335+77.99 52.42	1	1	362+70.23 -37.78	1	1
336+30.72 64.04	1	1	363+62.32 -43.27	1	1
336+49.56 -51.99	1	1	363+66.65 -87.22	1	1
337+38.79 43.12	1	1	363+73.04 57.19	1	1
337+41.12 -51.90	1	1	364+60.63 -61.38	1	1
338+28.65 44.72	1	1	364+61.68 47.66	1	1
338+32.21 -50.30	1	1	365+48.66 -46.82	1	1
339+15.47 43.82	1	1	365+54.07 46.93	1	1
339+19.91 -43.73	1	1	366+64.77 45.33	1	1
340+15.49 43.23	1	1	367+25.25 -64.88	1	1
340+16.62 -43.37	1	1	367+40.59 -52.23	1	1
341+10.45 43.55	1	1	368+16.24 -49.89	1	1
341+11.36 -43.43	1	1	368+16.88 46.45	1	1
342+00.27 51.88	1	1	368+92.56 -43.17	1	1
342+06.59 -43.55	1	1	368+94.49 45.17	1	1
342+89.24 43.09	1	1	369+76.25 41.52	1	1
342+90.75 -43.45	1	1	369+77.73 -41.64	1	1
343+76.40 -43.68	1	1	370+73.84 39.87	1	1
343+77.69 43.72	1	1	370+75.19 -40.18	1	1
344+73.80 43.17	1	1	371+71.54 39.90	1	1
344+76.47 -43.42	1	1	371+74.80 -39.67	1	1
345+63.23 51.65	1	1	372+54.58 39.31	1	1
345+81.41 -66.67	1	1	372+58.60 -39.72	1	1
347+79.55 51.64	1	1	373+53.24 49.38	1	1
347+84.62 -51.53	1	1	373+60.09 -40.23	1	1
348+59.12 51.55	1	1	374+52.70 49.93	1	1
348+71.81 -51.10	1	1	374+54.22 -42.66	1	1
349+44.27 51.54	1	1	375+62.63 50.45	1	1
349+52.54 -44.00	1	1	376+27.17 -66.11	1	1
350+38.56 -43.74	1	1	376+44.24 -50.15	1	1
350+59.47 51.41	1	1	377+32.61 -51.25	1	1
351+22.69 -51.50	1	1	377+38.66 50.15	1	1
351+42.80 51.49	1	1	378+33.44 -50.59	1	1
352+14.39 -51.42	1	1	378+45.32 49.75	1	1
352+33.72 51.20	1	1	379+42.36 50.19	1	1
352+95.46 52.23	1	1	379+50.06 -44.08	1	1
353+03.53 -52.32	1	1	380+29.47 -44.17	1	1
353+88.90 49.99	1	1	380+38.59 50.20	1	1
353+91.03 -51.79	1	1	381+22.28 50.21	1	1
354+73.47 -53.20	1	1	381+24.79 -44.20	1	1
354+78.54 48.81	1	1	382+01.86 -44.20	1	1
355+58.26 -38.73	1	1	382+02.81 50.65	1	1

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

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REMOVING LIGHT POLES

CRESTWOOD BLVD SYSTEM

LOCATION		204.9060.S.01	659.5000.S
		REMOVING LIGHTING UNITS	LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
STATION	OFFSET	EACH	EACH
355+70.02	47.22	1	1
355+70.24	-70.30	1	1
356+32.36	-38.06	1	1
356+47.97	46.85	1	1
357+25.93	-37.41	1	1
357+31.81	51.89	1	1
358+25.57	-37.57	1	1
358+33.24	51.26	1	1
359+23.91	-37.58	1	1
359+34.87	53.83	1	1
		57	57
TOTALS		134	134

REMOVING LIGHT POLES

PICK N SAVE SYSTEM

LOCATION		204.9060.S.02	659.5000.S
		REMOVING LIGHTING UNITS	LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
STATION	OFFSET	EACH	EACH
382+90.33	-51.31	1	1
382+91.42	51.18	1	1
383+69.04	-51.11	1	1
383+77.41	51.27	1	1
384+65.28	-51.19	1	1
384+89.90	51.27	1	1
385+69.92	-51.19	1	1
386+08.92	50.68	1	1
386+83.18	-51.39	1	1
387+01.70	50.23	1	1
387+82.28	-51.45	1	1
388+09.04	50.57	1	1
388+83.52	-51.31	1	1
389+05.61	50.58	1	1
389+92.02	50.45	1	1
390+01.75	-51.15	1	1
391+03.78	-50.18	1	1
391+26.90	49.90	1	1
391+31.09	-61.85	1	1
392+05.56	-51.93	1	1
392+13.00	51.33	1	1
393+20.46	-49.27	1	1
393+23.83	51.11	1	1
394+27.22	-49.76	1	1
394+32.01	54.94	1	1
395+26.85	-52.54	1	1
395+33.89	54.58	1	1
396+17.49	-51.66	1	1
396+38.30	54.42	1	1
397+17.40	-54.73	1	1
		77	77

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

3

REMOVING PULL BOXES

653.0905 *
REMOVING PULL BOXES
(LEFT SIDE OF REF. LINE)

EACH STATION	EACH OFFSET	EACH STATION	EACH OFFSET	EACH STATION	EACH OFFSET
332+93.80	-51.60	352+20.87	-50.94	375+63.32	-51.79
334+11.55	-51.49	355+61.82	-37.01	376+50.15	-52.61
334+11.90	-7.04	355+61.89	-37.08	378+27.99	-50.62
335+78.57	-55.48	356+54.85	-94.47	378+29.31	-7.84
335+93.24	-79.06	356+70.90	-73.20	380+44.02	-43.41
336+50.72	-54.79	356+74.11	-36.60	382+93.80	-53.00
338+61.06	-43.70	357+83.48	-135.77	385+03.34	-50.96
340+88.41	-42.41	361+36.09	-36.41	386+34.06	-51.62
343+38.58	-42.59	363+53.87	-63.54	389+85.34	-52.11
345+70.90	-54.45	363+62.80	-87.98	391+10.00	-51.05
346+27.31	-52.79	363+87.54	-45.94	391+94.73	-66.72
347+09.92	-3.50	366+55.94	-49.95	392+17.48	-52.23
347+16.53	-52.03	366+67.19	-50.45		
348+91.99	-45.56	367+55.73	-51.68		
351+42.83	-45.61	369+47.24	-40.17		
Totals	15		15		12
42					

* ADDITIONAL WIRE QUANTITIES SHOWN ELSEWHERE IN THE SIGNAL QUANTITIES

653.0905 *
REMOVING PULL BOXES
(RIGHT SIDE OF REF. LINE)

EACH STATION	EACH OFFSET	EACH STATION	EACH OFFSET	EACH STATION	EACH OFFSET
357+37.26	0.65	382+07.83	50.39	391+94.88	79.67
362+50.82	0.76	347+00.48	50.68		
371+50.13	3.22	333+80.84	50.73		
367+50.09	3.70	392+25.99	50.87		
343+79.41	5.21	352+15.70	52.14		
339+90.92	5.59	346+50.70	52.24		
352+06.67	6.38	376+38.47	52.33		
371+38.31	40.23	376+38.48	52.33		
343+48.81	43.41	345+88.34	52.70		
339+90.60	43.42	336+42.56	53.03		
362+52.62	46.71	362+55.68	57.41		
367+54.97	47.82	375+63.04	57.43		
389+35.70	49.28	366+76.82	58.31		
373+44.58	49.30	392+04.73	66.23		
391+19.15	49.80	391+46.85	75.10		
Totals	15		15		1
31					
TOTAL RIGHT AND LEFT					
73					

* ADDITIONAL WIRE QUANTITIES SHOWN ELSEWHERE IN THE SIGNAL QUANTITIES

MUNICIPAL LIGHT POLE AND LED LUMINAIRE

SPV.0060.11 MUNICIPAL LIGHT POLE AND LED LUMINAIRE SINGLE		SPV.0060.12 MUNICIPAL LIGHT POLE AND LED LUMINAIRE DOUBLE					
EACH STATION	EACH OFFSET	EACH STATION	EACH OFFSET	EACH STATION	EACH OFFSET	EACH STATION	EACH OFFSET
395+00.96	54.70	333+52.01	2.19	360+97.48	-0.56	389+49.47	1.29
395+26.85	-52.54	335+12.36	-5.54	362+58.42	-0.66	393+62.40	4.36
396+38.30	54.42	338+23.60	4.13	364+19.05	-1.16		
397+17.40	-54.73	339+84.01	-3.13	365+79.61	-8.80		
		341+41.79	-0.12	369+31.60	0.91		
		343+04.09	0.81	370+92.38	0.31		
		344+62.97	-2.05	372+52.17	0.80		
		348+84.37	0.00	374+11.93	-1.69		
		350+44.89	-0.03	378+26.81	-0.35		
		352+03.88	-0.03	379+87.05	-0.35		
		353+44.72	5.55	381+46.90	-5.85		
		355+04.49	-0.03	383+06.73	6.52		
		356+64.78	-0.03	384+67.43	-0.25		
		357+99.30	-0.21	386+27.74	-0.48		
		359+36.84	-0.56	387+87.71	-0.48		
Subtotal	4	15		15		2	
Totals	**4**	**32**					

3

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

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TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE

657.0255
TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE

EACH		EACH		EACH		EACH	
STATION	OFFSET	STATION	OFFSET	STATION	OFFSET	STATION	OFFSET
395+00.96	54.70	333+52.01	2.19	360+97.48	-0.56	389+49.47	1.29
395+26.85	-52.54	335+12.36	-5.54	362+58.42	-0.66	393+62.40	4.36
396+38.30	54.42	338+23.60	4.13	364+19.05	-1.16		
397+17.40	-54.73	339+84.01	-3.13	365+79.61	-8.80		
		341+41.79	-0.12	369+31.60	0.91		
		343+04.09	0.81	370+92.38	0.31		
		344+62.97	-2.05	372+52.17	0.80		
		348+84.37	0.00	374+11.93	-1.69		
		350+44.89	-0.03	378+26.81	-0.35		
		352+03.88	-0.03	379+87.05	-0.35		
		353+44.72	5.55	381+46.90	-5.85		
		355+04.49	-0.03	383+06.73	6.52		
		356+64.78	-0.03	384+67.43	-0.25		
		357+99.30	-0.21	386+27.74	-0.48		
		359+36.84	-0.56	387+87.71	-0.48		
Subtotal	4	15		15		2	
Totals	**32**						

PULL BOXES STEEL 24x42-INCH

653.0140 *
PULL BOXES STEEL 24x42-INCH
(RIGHT & LEFT SIDE OF REF. LINE)

EACH		EACH	
STATION	OFFSET	STATION	OFFSET
334+26.10	-1.38	372+58.21	0.94
338+37.53	3.50	380+34.53	-3.10
340+62.90	-1.63	384+23.53	3.38
344+15.97	3.28	387+07.73	-0.48
347+37.93	0.00	393+53.31	-49.42
347+37.93	-59.99	393+53.56	4.53
351+33.47	-0.03	393+55.04	51.30
354+62.47	2.09		
356+94.42	-0.07		
358+34.32	-158.43		
364+29.30	-1.48		
367+80.81	-61.52		
367+82.60	3.45		
369+47.36	7.71		
370+67.89	6.57		
Totals	15		7
22			

* ADDITIONAL WIRE QUANTITIES SHOWN ELSEWHERE IN THE SIGNAL QUANTITIES

SPV.0060.33
REMOVE, SALVAGE AND REPLACE LIGHT POLE

EACH	
STATION	OFFSET
355+83.25	-63.91
356+80.82	-120.82
358+05.24	-148.89
Subtotal	3
Totals	**3**

SPV.0060.14
LIGHTING SYSTEM SURVEY

EACH	
333+00 TO 394+00	1
Totals	**1**

654.0105 *
CONCRETE BASES TYPE 5

EACH		EACH		EACH		EACH	
STATION	OFFSET	STATION	OFFSET	STATION	OFFSET	STATION	OFFSET
395+00.96	54.70	333+52.01	2.19	360+97.48	-0.56	389+49.47	1.29
395+26.85	-52.54	335+12.36	-5.54	362+58.42	-0.66	393+62.40	4.36
396+38.30	54.42	338+23.60	4.13	364+19.05	-1.16	355+83.25	-63.91
397+17.40	-54.73	339+84.01	-3.13	365+79.61	-8.80	356+80.82	-120.82
		341+41.79	-0.12	369+31.60	0.91	358+05.24	-148.89
		343+04.09	0.81	370+92.38	0.31		
		344+62.97	-2.05	372+52.17	0.80		
		348+84.37	0.00	374+11.93	-1.69		
		350+44.89	-0.03	378+26.81	-0.35		
		352+03.88	-0.03	379+87.05	-0.35		
		353+44.72	5.55	381+46.90	-5.85		
		355+04.49	-0.03	383+06.73	6.52		
		356+64.78	-0.03	384+67.43	-0.25		
		357+99.30	-0.21	386+27.74	-0.48		
		359+36.84	-0.56	387+87.71	-0.48		
Subtotal	4	15		15		5	
Totals	**39**						

* ADDITIONAL WIRE QUANTITIES SHOWN ELSEWHERE IN THE SIGNAL QUANTITIES

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

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LIGHTING WIRE AND CONDUIT

	LOCATION		LOCATION	655.0625 ELECTRICAL LIGHTING WIRE 6 AWG LF	655.0620 ELECTRICAL LIGHTING WIRE 8 AWG LF	655.0615 ELECTRICAL LIGHTING WIRE 10 AWG LF	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	671.0222 CONDUIT HDPE DIRECTIONAL BORE 2-DUCT 2-INCH LF	SPV.0090.07 CONDUIT HDPE DIRECTIONAL BORE 2-DUCT 3-INCH LF
CIRCUITS CW- C & D - West	333+52	TO	347+38	-	-	6700	1400		
CIRCUITS CW- A & B - East	347+38	TO	359+37	-	-	5450	1200		
CIRCUITS OL- E & F - West	360+98	TO	367+83	-	-	3350	700		
CIRCUITS OL- A & B - East	367+83	TO	393+63	4950	8250	-	2600		
CIRCUITS OL- C & D - East	367+83	TO	397+17	3750	5950	-	3000		
CIRCUITS FROM MEDIAN TO CABINET							700		
ACROSS 26TH STREET								150	
ACROSS BETHMAUR LANE								250	400
ACROSS ARGYLE AVENUE								100	
ACROSS CRESTWOOD BLVD								300	475
ACROSS LONG ISLAND DRIVE								100	
ACROSS PICK N SAVE								300	450
ACROSS BRIDGEWOOD LANE								150	450
ACROSS SUNNY POINT								150	
ACROSS MILW. RIVER PKWY								300	425
				8700	**14200**	**15500**	**9600**	**1800**	**2200**

NOTES:
CW - CRESTWOOD BLVD CABINET
OL - OAK LEAF TRAIL CABINET
ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN THE SIGNAL QUANTITIES

COMMUNICATION VAULT TYPE 1

673.0105
COMMUNICATION VAULT TYPE 1
(BOTH SIDES OF REF. LINE)

EACH STATION	EACH OFFSET	EACH STATION	EACH OFFSET
330+35.25	4.32	375+24.41	-6.75
335+49.23	-6.45	375+32.80	-45.19
336+73.92	4.35	376+69.96	-1.35
336+80.30	-60.80	381+84.94	-6.57
341+06.11	-1.80	383+94.44	4.78
345+38.42	-5.36	390+84.50	-5.21
347+11.17	-1.00	392+02.72	73.26
347+28.56	-58.35	392+36.53	5.72
351+88.18	-1.03		
356+39.57	-1.01		
360+90.77	-1.56		
366+36.71	-9.68		
367+66.56	2.49		
367+81.74	-65.93		
370+58.61	5.61		
Totals	15		8
23			

3

FIBER OPTIC CABLE AND CONDUIT

LOCATION		LOCATION	652.0210 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1-INCH LF	678.0036 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36-CT LF
330+35	TO	393+62	7100	7100
		SLACK		350
			7100	**7450**

FIBER OPTIC SPICE ENCLOSURE

LOCATION		LOCATION	678.0200 FIBER OPTIC SPICE ENCLOSURE EA	678.0300 FIBER OPTIC SPICE EA	678.0400 FIBER OPTIC TERMINATION EA	678.0501 COMMUNICATION SYSTEM TESTING EA
330+35	TO	393+62	5	5	5	5
			5	**5**	**5**	**5**

LIGHTING CABINET, BASE, PEDESTAL

STATION	OFFSET	656.0201.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL, LIGHTING CABINET AT CRESTWOOD EACH	656.0201.02 ELECTRICAL SERVICE METER BREAKER PEDESTAL, LIGHTING CABINET AT PICK N SAVE EACH	654.0230 CONCRETE CONTROL CABINET BASES TYPE L30 EACH
347+38	-60	1		1
367+81	-62		1	1
		1	**1**	**2**

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

N BETHMAUR LANE **BM 1/5**

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REMOVING CONCRETE BASES

SB NO	STATION	LOCATION	204.0195 * REMOVING CONCRETE BASES EACH
CB1	336+76.9	73.3 L	1
SB1	336+49.6	52.0 L	1
SB2	336+59.0	4.1 R	1
SB3	336+46.4	45.0 R	1
SB4	336+30.7	64.1 R	1
SB5	335+90.7	63.6 R	1
SB6	335+78.0	52.5 R	1
SB7	335+72.9	3.9 L	1
SB8	335+79.8	47.9 L	1
SB9	335+93.3	65.6 L	1
		PROJECT TOTAL	**10**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONCRETE BASES

SB NO	STATION	LOCATION	654.0101 * CONCRETE BASES TYPE 1 EACH	654.0102 * CONCRETE BASES TYPE 2 EACH	654.0217 * CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
CB1	336+80.6	65.9' LT	-	-	1
SB1	336+45.7	55.9' LT	-	1	
SB2	336+60.2	5.4' RT	-	1	
SB3	336+41.9	47.8' RT	1	-	
SB4	336+32.7	63.7' RT	-	1	
SB5	335+91.7	61.2' RT	-	1	
SB6	335+83.2	50.1' RT	1	-	
SB7	335+68.5	5.7' LT	-	1	
SB8	335+83.8	47.5' LT	1	-	
SB9	335+93.4	60.3' LT	-	1	
SB10	336+36.4	62.4' LT	-	1	
		PROJECT TOTAL	**3**	**7**	**1**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

REMOVING PULL BOXES

SB NO	STATION	LOCATION	653.0905 * REMOVING PULL BOXES EACH
PB1	336+50.2	55.6 L	1
PB2	338+42.9	54.0 L	1
PB3	336+66.1	6.9 R	1
PB4	336+42.6	53.0 R	1
PB5	336+32.4	126.3 R	1
PB6	335+78.9	58.6 R	1
PB7	333+87.7	52.0 R	1
PB8	335+64.9	3.8 L	1
PB9	335+78.7	55.5 L	1
PB10	335+93.2	79.0 L	1
PB11	335+93.3	131.8 L	1
		PROJECT TOTAL	**11**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL PULL BOX

PULL BOX NO.	STATION	LOCATION	653.0140 * PULL BOXES STEEL 24X42-INCH EACH
PB1	336+50.0	59.9 LT	1
PB2	338+55.5	46.0 LT	1
PB3	336+64.1	5.9 RT	1
PB4	336+48.0	52.0 RT	1
PB5	336+30.5	75.5 RT	1
PB6	336+30.4	123.4 RT	1
PB7	335+73.9	51.9 RT	1
PB8	333+64.0	51.6 RT	1
PB9	335+64.1	5.6 LT	1
PB10	335+72.0	47.5 LT	1
PB11	335+93.5	75.6 LT	1
PB12	335+94.9	132.9 LT	1
		PROJECT TOTAL	**12**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

N BETHMAUR LANE **BM 2/5**

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TRAFFIC SIGNAL CONDUIT SUMMARY

FROM	TO	LENGTH	CONDUIT #	652.0225 * CONDUIT RIGID NON METALLIC SCHEDULE 40 2-INCH LF	652.0235 * CONDUIT RIGID NON METALLIC SCHEDULE 40 3-INCH LF
CB1	PB1	30	3	-	90
PB1	PB2	205	1	205	
PB1	PB3	67	3	-	201
PB3	PB4	48	2		96
PB4	PB5	30	2	-	60
PB5	PB6	47	1	47	-
PB4	PB7	75	2	-	150
PB7	PB8	210	1	210	-
PB7	PB9	58	2	-	116
PB9	PB10	42	1	-	42
PB10	PB11	34	2	-	68
PB11	PB12	57	1	57	-
PB11	PB1	60	3	-	180
PB1	SB1	5	1	-	5
PB3	SB2	5	1	-	5
PB4	SB4	18	1	-	10
PB4	SB3	8	1	-	8
PB7	SB5	20	1	-	20
PB7	SB6	11	1	-	11
PB9	SB7	5	1	-	5
PB10	SB8	0	1	-	15
PB11	SB9	16	1	-	16
PB1	SB10	15	1	-	15
			PROJECT TOTAL	**519**	**1098**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LOOP DETECTOR SCHEDULE

LOOP #	FROM	TO	LENGTH TO PB	LENGTH TO LOOP	LOOP LENGTH	TURNS #	652.0800* CONDUIT LOOP DETECTOR LF	655.0700* LOOP DETECTOR LEAD IN CABLE LF	655.0800* LOOP DETECTOR WIRE LF
Loop 61	CB1	PB8	440	20	55	4	75	440	80
Loop 81	CB1	PB6	225	15	25	5	40	225	75
Loop 82	CB1	PB5	180	15	55	3	70	180	45
Loop 83	CB1	PB5	180	10	55	3	65	180	30
Loop 21	CB1	PB2	240	25	55	4	80	240	100
Loop 41	CB1	PB12	150	10	25	5	35	150	50
Loop 42	CB1	PB11	90	15	55	3	70	90	45
Loop 43	CB1	PB11	90	15	55	3	70	90	45
					PROJECT TOTAL		**505**	**1595**	**470**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL CABLE SUMMARY

FROM	TO	# Heads	Plan Length	TRAFFIC SIGNAL CABLE 655.0210 * 3-14 AWG LF	655.0240 * 7-14 AWG LF	655.0250 * 9-14 AWG LF	655.0260 * 12-14 AWG LF	655.0270 * 15-14 AWG LF
CB1	SB1		38	-	-	57	-	-
CB1	SB2		102	-	152	-	-	-
CB1	SB3		154	-	172	-	-	-
CB1	SB4		165	-	184	-	-	-
CB1	SB5		241	-	281	-	-	-
CB1	SB6		231	-	-	250	-	-
CB1	SB7		173	-	223	-	-	-
CB1	SB8		137	155	-	-	-	-
CB1	SB9		105	-	-	124	-	-
CB1	SB10		47	-	87	-	-	-
			PROJECT TOTAL	**155**	**1099**	**431**	**0**	**0**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

N BETHMAUR LANE **BM 3/5**

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ELECTRIC WIRE TRAFFIC SIGNALS 10 AWG

FROM	TO	# OF WIRES	LENGTH	655.0515 * ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
CB1	SB1	1	40	40
SB1	SB2	1	82	82
SB2	SB3	1	60	60
SB3	SB4	1	25	25
SB4	SB5	1	112	112
SB5	SB6	1	40	40
SB6	SB7	1	72	72
SB7	SB8	1	60	60
SB8	SB9	1	63	63
SB9	SB10	1	91	91
SB10	CB1	1	47	47
PB1	SB1	1	10	10
PB1	PB10	1	58	58
PB1	PB2	1	205	205
PB1	PB11	1	147	147
PB3	SB2	1	5	5
PB3	PB4	1	50	50
PB4	SB3	1	8	8
PB4	SB4	1	18	18
PB4	PB5	1	30	30
PB4	PB6	1	74	74
PB6	SB5	1	20	20
PB6	SB6	1	10	10
PB6	PB8	1	56	56
PB8	SB7	1	5	5
PB8	PB9	1	42	42
PB9	SB8	1	12	12
PB9	PB10	1	35	35
PB10	SB9	1	15	15
PB10	PB11	1	60	60
		PROJECT TOTAL		**1552**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL FACES SUMMARY

SIGNAL HEAD NO.	SIGNAL BASE 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
1	SB6	1	-	-
2	SB2	1	-	-
3	SB2	1	-	-
4	SB1	1	-	-
5	SB1	1	-	-
6	SB7	1	-	-
7	SB7	1	-	-
8	SB6	1	-	-
9	SB4	1	-	-
10	SB10	1	-	-
11	SB9	1	-	-
12	SB9	1	-	-
13	SB5	1	-	-
14	SB3	1	-	-
15	SB6	-	-	1
16	SB8	-	-	1
17	SB9	-	-	1
18	SB10	-	-	1
19	SB1	-	-	1
20	SB3	-	-	1
21	SB4	-	-	1
22	SB5	-	-	1
	PROJECT TOTAL	**14**	**0**	**8**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

N BETHMAUR LANE **BM 4/5**

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TRAFFIC SIGNAL LIGHTING WIRE SUMMARY

Bethmaur

FROM	TO	655.0320 * CABLE TYPE UF 2-10 AWG GROUNDED LF	655.0610 * ELECTRICAL WIRE LIGHTING 12 AWG LF
CB1	LP1	40	-
LP1	LUMN	-	117
CB1	LP2/3	105	-
LP2/3	LUMN	-	234
CB1	LP4	170	-
LP4	LUMN	-	117
CB1	LP5	105	-
LP5	LUMN	-	117
PROJECT TOTAL		**420**	**585**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL BASES, POLES, TROMBONE ARMS, PUSH BUTTONS, AND LUMINAIRES

SIGNAL BASE NO.	657.0100 * PEDESTAL BASES EACH	657.0255 * TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0305 * POLES TYPE 2 EACH	657.0310 * POLES TYPE 3 EACH	657.0315 * POLES TYPE 4 EACH	657.0420 * TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 * TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0430 * TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0585 * TROMBONE ARMS 15-FT EACH	657.0595 * TROMBONE ARMS 25-FT EACH	658.0500 * PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.13 MUNICIPAL LED LUMINAIRES LED C EACH
SB1	-	1	-	-	1	-	-	-	-	-	1	1
SB2	-	1	-	1	-	-	-	-	-	1	-	2
SB3	1	-	-	-	-	1	-	-	-	-	1	-
SB4	-	1	-	-	1	-	-	-	-	-	1	1
SB5	-	1	1	-	-		-		1	-	1	-
SB6	1	-	-	-	-	1	-	-	-	-	1	-
SB7	-	1	1	-	-	-	-	-	-	1	-	-
SB8	1	-	-	-	-	-	-	1	-	-	1	-
SB9	-	1	-	-	1	-	-	-	-	-	1	1
SB10	-	1	1	-	-	-	-	-	1	-	1	-
PROJECT TOTAL	**3**	**7**	**3**	**1**	**3**	**2**	**0**	**1**	**2**	**2**	**8**	**5**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

N BETHMAUR LANE **BM 5/5**

3

3

SIGNAL CABINET, SERVICE, BACKPLATES & COMMUNICATIONS

656.0201.01 *	658.5070.01 *	678.0600 *	661.0201.01 *
ELECTRICAL SERVICE METER BREAKER PEDESTAL (BETHMAUR)	SIGNAL MOUNTING HARDWARE (BETHMAUR)	INSTALL ETHERNET SWITCHES	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS
EA	EA	EACH	EACH
1	1	1	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

SPV.0060.15 * BACKPLATES WITH REFLECTIVE BORDER 3 SECTION 12-INCH	SPV.0060.16 * BACKPLATES WITH REFLECTIVE BORDER 4 SECTION 12-INCH	SPV.0060.17 * TRAFFIC SIGNAL CONTROL CABINET (BETHMAUR)	204.9060.03 * REMOVING TRAFFIC SIGNALS (BETHMAUR)
EA	EA	EA	EA
14	0	1	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LOCATION	SPV.0060.27 * EMERGENCY VEHICLE DETECTION SYSTEM (BETHMAUR)	SPV.0060.22 * TEMPORARY EVP SYSTEM (BETHMAUR)
	EACH	EACH
BETHMAUR	1	1

ITEMS FURNISHED WITH EVP SYSTEM FOR INTALLATION

QUANTITY	UNIT	DESCRIPTION
1	EACH	PROCESSOR CARD
2	EACH	EVP DETECTORS
2	EACH	CONFIRMATION LIGHTS
2	EACH	MOUNTING BRACKETS
800	LF	EVP DETECTOR CABLE

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

N CRESTWOOD BOULEVARD **CW 1/4**

3

REMOVING CONCRETE BASES

SB NO	STATION	LOCATION	204.0195 * REMOVING CONCRETE BASES EACH
CB1	347+30.2	71.1 LT	1
SB1	347+03.8	51.5 LT	1
SB2	347+00.0	4.7 LT	1
SB3	346+93.5	51.6 RT	1
SB4	346+47.9	50.8 RT	1
SB5	345+94.2	52.1 RT	1
SB6	345+63.3	51.6 RT	1
SB7	345+62.9	5.6 LT	1
SB8	345+67.0	43.8 LT	1
SB9	345+81.5	66.7 LT	1
SB10	346+86.3	66.4 LT	1
		PROJECT TOTAL	**11**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONCRETE BASES

SB NO	STATION	LOCATION	654.0101 * CONCRETE BASES TYPE 1 EACH	654.0102 * CONCRETE BASES TYPE 2 EACH	654.0217 * CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
CB1	347+29.4	71.3 LT	-	-	1
SB1	346+96.4	58.0 LT	1	-	
SB2	346+92.3	0	-	1	
SB3	346+92.8	44.3 RT	1	-	
SB4	346+43.4	44.3 RT	-	1	
SB5	345+73.8	43.3 RT	1	-	
SB6	345+73.8	5.7 LT	-	1	
SB7	345+70.6	50.3 LT	1	-	
SB8	345+81.5	63.9 LT	-	1	
SB9	346+87.7	63.1 LT	-	1	
		PROJECT TOTAL	**4**	**5**	**1**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING PULL BOXES

SB NO	STATION	LOCATION	653.0905 * REMOVING PULL BOXES EACH
PB1	347+04.9	56.8 LT	1
PB2	347+05.8	4.2 LT	1
PB3	345+58.4	5.4 LT	1
PB4	345+82.6	81.8 LT	1
PB5	345+83.7	120.3 LT	1
		PROJECT TOTAL	**5**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL PULL BOX

PULL BOX NO.	STATION	LOCATION	653.0140 * PULL BOXES STEEL 24X42-INCH EACH
PB1	347+10.2	53.8 LT	1
PB2	349+10.3	50.9 LT	1
PB3	347+03.8	0	1
PB4	347+07.1	44.6 RT	1
PB5	346+48.3	47.2 RT	1
PB6	345+89.2	48.4 RT	1
PB7	343+51.4	42.8 RT	1
PB8	345+69.2	5.3 LT	1
PB9	345+57.8	44.8 LT	1
PB10	345+82.7	86.6 LT	1
PB11	345+83.1	141.4 LT	1
PB12	346+29.6	51.2 LT	1
		PROJECT TOTAL	**12**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

N CRESTWOOD BOULEVARD **CW 2/4**

3

TRAFFIC SIGNAL CONDUIT SUMMARY

FROM	TO	LENGTH	CONDUIT #	652.0225 * CONDUIT RIGID NON METALLIC SCHEDULE 40 2-INCH LF	652.0235 * CONDUIT RIGID NON METALLIC SCHEDULE 40 3-INCH LF
CB1	PB1	25	3	-	75
PB1	PB2	205	1	205	
PB1	PB3	67	3	-	201
PB3	PB4	48	2		96
PB4	PB5	60	2	-	120
PB5	PB6	47	1	47	-
PB4	PB7	75	2	-	150
PB7	PB8	210	1	210	-
PB7	PB9	58	2	-	116
PB9	PB10	42	1	-	42
PB10	PB11	34	2	-	68
PB11	PB12	57	1	57	-
PB11	PB1	60	3	-	180
PB1	SB1	5	1	-	5
PB3	SB2	15	1	-	5
PB4	SB4	18	1	-	10
PB4	SB3	8	1	-	8
PB7	SB5	20	1	-	20
PB7	SB6	11	1	-	11
PB9	SB7	15	1	-	15
PB10	SB8	0	1	-	15
PB11	SB9	16	1	-	16
PB1	SB10	15	1	-	15
			PROJECT TOTAL	519	1153

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LOOP DETECTOR SCHEDULE

LOOP #	FROM	TO	LENGTH TO PB	LENGTH TO LOOP	LOOP LENGTH	TURNS #	652.0800* CONDUIT LOOP DETECTOR LF	655.0700* LOOP DETECTOR LEAD IN CABLE LF	655.0800* LOOP DETECTOR WIRE LF
Loop 61	CB1	PB8	520	15	55	4	70	520	60
Loop 21	CB1	PB6	230	25	55	4	80	230	100
Loop 41	CB1	PB5	290	15	25	5	40	290	75
Loop 42	CB1	PB5	235	15	55	3	70	235	45
Loop 43	CB1	PB2	235	15	55	3	70	235	45
					PROJECT TOTAL		330	1510	325

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL LIGHTING WIRE SUMMARY

Crestwood

FROM	TO	655.0320 * CABLE TYPE UF 2-10 AWG GROUNDED LF	655.0610 * ELECTRICAL WIRE LIGHTING 12 AWG LF
CB1	LP1	51	-
LP1	LUMN	-	117
CB1	LP2/3	93	-
LP2/3	LUMN	-	234
CB1	LP4	189	-
LP4	LUMN	-	117
CB1	LP5/6	227	-
LP5/6	LUMN	-	234
CB1	LP7	209	-
LP7	LUMN	-	117
	PROJECT TOTAL	769	819

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL CABLE SUMMARY

TRAFFIC SIGNAL CABLE

FROM	TO	# Heads	Plan Length	655.0210 * 3-14 AWG LF	655.0240 * 7-14 AWG LF	655.0250 * 9-14 AWG LF	655.0260 * 12-14 AWG LF	655.0270 * 15-14 AWG LF
CB1	SB1		40	-	-	60	-	-
CB1	SB2		93	-	115	-	-	-
CB1	SB3		137	-	160	-	-	-
CB1	SB4		186	209	-	-	-	-
CB1	SB5		261	-	311	-	-	-
CB1	SB6		226	-	-	277	-	-
CB1	SB7		194	212	-	-	-	-
CB1	SB8		209	-	232	-	-	-
CB1	SB9		51	75	-	-	-	-
			PROJECT TOTAL	496	818	337	0	0

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

3

N CRESTWOOD BOULEVARD CW 3/4

ELECTRIC WIRE TRAFFIC SIGNALS 10 AWG

FROM	TO	# OF WIRES	LENGTH	655.0515 * ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
CB1	SB1	1	40	40
SB1	SB2	1	290	290
SB2	SB4	1	85	85
SB3	SB4	1	260	260
SB4	SB5	1	90	90
SB5	SB6	1	30	30
SB6	SB7	1	200	200
SB7	CB1	1	100	100
PB1	SB1	1	15	15
PB1	PB2	1	205	205
PB2	PB3	1	55	55
PB3	SB2	1	15	15
PB3	PB4	1	50	50
PB3	PB5	1	60	60
PB5	SB4	1	10	10
PB5	SB3	1	240	240
PB5	SB5	1	10	10
PB10	SB6	1	10	10
PB10	PB9	1	50	50
PB10	PB11	1	75	75
PB11	SB7	1	15	15
PB11	PB12	1	85	85
		PROJECT TOTAL		**1990**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL FACES SUMMARY

SIGNAL HEAD NO.	SIGNAL BASE 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
1	SB5	1	-	-
2	SB2	1	-	-
3	SB2	1	-	-
4	SB1	1	-	-
5	SB1	1	-	-
6	SB6	1	-	-
7	SB6	1	-	-
8	SB8	1	-	-
9	SB5	1	-	-
10	SB4	1	-	-
11	SB3	1	-	-
12	SB5	-	-	1
13	SB6	-	-	1
14	SB6	-	-	1
15	SB7	-	-	1
16	SB8	-	-	1
17	SB9	-	-	1
18	SB1	-	-	1
19	SB2	-	-	1
20	SB2	-	-	1
21	SB3	-	-	1
	PROJECT TOTAL	**11**	**0**	**10**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL BASES, POLES, TROMBONE ARMS, PUSH BUTTONS, AND LUMINAIRES

SIGNAL BASE NO.	657.0100 * PEDESTAL BASES EACH	657.0255 * TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0305 * POLES TYPE 2 EACH	657.0310 * POLES TYPE 3 EACH	657.0315 * POLES TYPE 4 EACH	657.0420 * TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 * TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0430 * TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0585 * TROMBONE ARMS 15-FT EACH	657.0595 * TROMBONE ARMS 25-FT EACH	658.0500 * PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.13 MUNICIPAL LED LUMINAIRES LED C EACH
SB1	1	-	-	-	-	1	-	-	-	-	1	1
SB2	-	1	-	1	-	-	-	-	-	1	1	2
SB3	1	-	-	-	-	1	-	-	-	-	1	-
SB4	-	1	-	-	1	-	-	-	-	-	-	1
SB5	1	-	-	-	-	1	-	-	-	1	1	-
SB6	-	1	-	1	-	-	-	-	-	1	1	2
SB7	1	-	-	-	-	-	-	1	-	-	1	-
SB8	-	1	-	-	1	-	-	-	-	-	1	1
SB9	-	1	-	-	1	-	-	-	-	-	1	-
PROJECT TOTAL	**4**	**5**	**0**	**2**	**3**	**3**	**0**	**1**	**0**	**3**	**8**	**7**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

N CRESTWOOD BOULEVARD **CW 4/4**

3

3

SIGNAL CABINET, SERVICE, BACKPLATES & COMMUNICATIONS

656.0201.01 * ELECTRICAL SERVICE METER BREAKER PEDESTAL (CRESTWOOD)	658.5070.01 * SIGNAL MOUNTING HARDWARE (CRESTWOOD)	678.0600 * INSTALL ETHERNET SWITCHES	661.0201.02 * TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS
EA	EA	EACH	EACH
1	1	1	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

SPV.0060.15 * BACKPLATES WITH REFLECTIVE BORDER 3 SECTION 12-INCH	SPV.0060.16 * BACKPLATES WITH REFLECTIVE BORDER 4 SECTION 12-INCH	SPV.0060.18 * TRAFFIC SIGNAL CONTROL CABINET (CRESTWOOD)	204.9060.03 * REMOVING TRAFFIC SIGNALS (CRESTWOOD)
EA	EA	EA	EA
11	0	1	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LOCATION	SPV.0060.28 * EMERGENCY VEHICLE DETECTION SYSTEM (CRESTWOOD) EACH	SPV.0060.23 * TEMPORARY EVP SYSTEM (CRESTWOOD) EACH
BETHMAUR	1	1

ITEMS FURNISHED WITH EVP SYSTEM FOR INTALLATION

QUANTITY	UNIT	DESCRIPTION
1	EACH	PROCESSOR CARD
2	EACH	EVP DETECTORS
2	EACH	CONFIRMATION LIGHTS
2	EACH	MOUNTING BRACKETS
800	LF	EVP DETECTOR CABLE

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

PICK 'N SAVE - FORD PF 1/5

3

REMOVING CONCRETE BASES

SB NO	STATION	LOCATION	204.0195 * REMOVING CONCRETE BASES EACH
CB1	367+70.6	71.1 LT	1
SB1	367+40.6	52.2 LT	1
SB2	367+57.3	4.1 RT	1
SB3	367+50.3	50.4 RT	1
SB4	367+40.5	66.2 RT	1
SB5	366+78.4	61.4 RT	1
SB6	366+64.8	45.3 RT	1
SB7	366+45.2	9.6 LT	1
SB8	366+59.4	46.3 LT	1
SB9	366+72.9	67.6 LT	1
SB10	367+25.3	64.8 LT	1
		PROJECT TOTAL	**11**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONCRETE BASES

SB NO	STATION	LOCATION	654.0101 * CONCRETE BASES TYPE 1 EACH	654.0102 * CONCRETE BASES TYPE 2 EACH	654.0217 * CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
CB1	367+69.9	70.2 LT	-	-	1
SB1	367+45.2	50.9 LT	-	1	
SB2	367+45.9	3.5 RT	-	1	
SB3	367+46.4	47.2 RT	1	-	
SB4	367+40.7	55.6 RT	1	-	
SB5	366+76.6	55.1 RT	-	1	
SB6	366+56.5	46.3 RT	-	1	
SB7	366+56.7	8.8 LT	-	1	
SB8	366+55.1	48.6 LT	1	-	
SB9	366+71.9	61.3 LT	-	1	
SB10	367+26.3	64.1 LT	-	1	
LP1	367+45.2	50.9 LT	-	-	
LP2	367+44.8	3.6 RT	-	-	
LP3	367+44.8	3.6 RT	-	-	
LP4	366+76.6	55.1 RT	-	-	
LP5	366+56.5	46.3 RT	-	-	
LP6	366+71.9	61.3 LT	-	-	
		PROJECT TOTAL	**3**	**7**	**1**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING PULL BOXES

SB NO	STATION	LOCATION	653.0905 * REMOVING PULL BOXES EACH
PB1	367+38.6	55.6 LT	1
PB2	367+50.2	53.7 RT	1
PB3	367+39.1	77.3 RT	1
PB4	366+66.0	52.2 RT	1
PB5	366+48.4	9.2 LT	1
PB6	366+36.9	8.3 LT	1
PB7	366+72.2	75.0 LT	1
		PROJECT TOTAL	**7**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL PULL BOX

PULL BOX NO.	STATION	LOCATION	653.0140 * PULL BOXES STEEL 24X42-INCH EACH
PB1	367+45.5	58.7 LT	1
PB2	369+67.1	38.3 LT	1
PB3	367+51.7	3.2 RT	1
PB4	367+49.3	55.9 RT	1
PB5	367+39.1	78.5 RT	1
PB6	366+65.8	52.4 RT	1
PB7	364+30.8	47.3 RT	1
PB8	366+51.1	8.7 LT	1
PB9	366+55.5	52.4 LT	1
PB10	366+72.1	76.6 LT	1
		PROJECT TOTAL	**10**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

PICK 'N SAVE - FORD PF 2/5

3

TRAFFIC SIGNAL CONDUIT SUMMARY

FROM	TO	LENGTH	CONDUIT #	652.0225 * CONDUIT RIGID NON METALLIC SCHEDULE 40 2-INCH LF	652.0235 * CONDUIT RIGID NON METALLIC SCHEDULE 40 3-INCH LF
CB1	PB1	25	3	-	75
PB1	PB3	65	2	-	130
PB3	PB4	55	2	-	110
PB4	PB5	25	1	25	-
PB4	PB6	85	2	-	170
PB6	PB8	65	2	-	130
PB8	PB9	45	2	-	90
PB9	PB10	30	1	30	-
PB9	PB1	90	3	-	270
PB1	PB2	220	1	220	-
PB6	PB7	235	1	235	-
PB1	SB1	10	1	-	10
PB1	SB10	20	1	-	20
PB3	SB2	10	1	-	10
PB4	SB3	10	1	-	10
PB4	SB4	10	1	-	10
PB6	SB5	15	1	-	15
PB6	SB6	15	1	-	15
PB8	SB7	10	1	-	10
PB9	SB8	5	1	-	5
PB9	SB9	20	1	-	20
	PROJECT TOTAL			510	1100

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LOOP DETECTOR SCHEDULE

LOOP #	FROM	TO	LENGTH TO PB	LENGTH TO LOOP	LOOP LENGTH	TURNS #	652.0800* CONDUIT LOOP DETECTOR LF	655.0700* LOOP DETECTOR LEAD IN CABLE LF	655.0800* LOOP DETECTOR WIRE LF
Loop 61	CB1	PB7	455	25	55	4	80	455	100
Loop 51	CB1	PB3	90	20	55	3	75	90	60
Loop 52	CB1	PB3	90	15	55	3	70	90	45
Loop 21	CB1	PB3	250	10	55	4	65	250	40
Loop 82	CB1	PB5	170	20	55	3	75	170	60
Loop 83	CB1	PB5	170	20	55	3	75	170	60
Loop 84	CB1	PB5	170	10	55	3	65	170	30
Loop 85	CB1	PB5	170	10	55	3	65	170	30
Loop 42	CB1	PB11	150	10	55	3	65	150	30
Loop 43	CB1	PB11	150	25	55	3	80	150	75
					PROJECT TOTAL		715	1865	530

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL CABLE SUMMARY

				TRAFFIC SIGNAL CABLE				
FROM	TO	# Heads	Plan Length	655.0210 * 3-14 AWG LF	655.0240 * 7-14 AWG LF	655.0250 * 9-14 AWG LF	655.0260 * 12-14 AWG LF	655.0270 * 15-14 AWG LF
CB1	SB1		35	-	-	54	-	-
CB1	SB2		96	-	146	-	-	-
CB1	SB3		151	-	170	-	-	-
CB1	SB4		150	-	169	-	-	-
CB1	SB5		236	-	286	-	-	-
CB1	SB6		237	-	-	259	-	-
CB1	SB7		167	-	-	-	-	217
CB1	SB8		120	138	-	-	-	-
CB1	SB9		136	-	-	155	-	-
CB1	SB10		47	-	65	-	-	-
		PROJECT TOTAL		138	836	468	0	217

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ELECTRIC WIRE TRAFFIC SIGNALS 10 AWG

FROM	TO	# OF WIRES	LENGTH	655.0515 * ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
CB1	SB1	1	32	32
SB1	SB2	1	76	76
SB2	SB3	1	70	70
SB3	SB4	1	19	19
SB4	SB5	1	104	104
SB5	SB6	1	22	22
SB6	SB7	1	80	80
SB7	SB8	1	54	54
SB8	SB9	1	23	23
SB9	SB10	1	129	129
SB10	CB1	1	11	11
PB1	SB1	1	7	7
PB1	PB2	1	231	231
PB1	PB3	1	62	62
PB3	SB2	1	7	7
PB3	PB4	1	53	53
PB4	PB5	1	25	25
PB4	SB4	1	9	9
PB4	SB3	1	10	10
PB4	PB6	1	84	84
PB6	SB5	1	11	11
PB6	SB6	1	11	11
PB6	PB7	1	231	231
PB6	PB8	1	63	63
PB8	SB7	1	6	6
PB8	PB9	1	44	44
PB9	SB8	1	4	4
PB9	SB9	1	19	19
PB9	PB10	1	30	30
PB9	PB1	1	90	90
PB1	SB10	1	20	20
		PROJECT TOTAL		**1637**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL FACES SUMMARY

SIGNAL HEAD NO.	SIGNAL BASE 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
1	SB6	1	-	-
2	SB2	1	-	-
3	SB2	1	-	-
4	SB1	1	-	-
5	SB1	1	-	-
6	SB7	1	-	-
7	SB7	1	-	-
8	SB6	-	1	-
9	SB7	-	1	-
10	SB4	1	-	-
11	SB10	1	-	-
12	SB9	1	-	-
13	SB9	1	-	-
14	SB5	1	-	-
15	SB3	1	-	-
16	SB5	-	-	1
17	SB7	-	-	1
18	SB7	-	-	1
19	SB8	-	-	1
20	SB9	-	-	1
21	SB10	-	-	1
22	SB1	-	-	1
23	SB2	-	-	1
24	SB2	-	-	1
25	SB3	-	-	1
26	SB4	-	-	1
27	SB5	-	-	1
	PROJECT TOTAL	**13**	**2**	**12**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

PICK 'N SAVE - FORD **PF 4/5**

3

3

TRAFFIC SIGNAL LIGHTING WIRE SUMMARY

Pick N Save

FROM	TO	655.0320 * CABLE TYPE UF 2-10 AWG GROUNDED LF	655.0610 * ELECTRICAL WIRE LIGHTING 12 AWG LF
CB1	LP1	35	-
SB1	LUMN	-	117
CB1	LP2/3	96	-
LP2/3	LUMN	-	234
CB1	LP4	234	-
LP4	LUMN	-	117
CB1	LP5	136	-
LP5	LUMN	-	117
	PROJECT TOTAL	**501**	**585**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL BASES, POLES, TROMBONE ARMS, PUSH BUTTONS, AND LUMINAIRES

SIGNAL BASE NO.	657.0100 * PEDESTAL BASES EACH	657.0255 * TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0305 * POLES TYPE 2 EACH	657.0310 * POLES TYPE 3 EACH	657.0315 * POLES TYPE 4 EACH	657.0420 * TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 * TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0430 * TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0585 * TROMBONE ARMS 15-FT EACH	657.0595 * TROMBONE ARMS 25-FT EACH	658.0500 * PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.13 MUNICIPAL LED LUMINAIRES LED C EACH
SB1	-	1	-	-	1	-	-	-	-	-	1	1
SB2	-	1	-	1	-	-	-	-	-	1	1	2
SB3	1	-	-	-	-	1	-	-	-	-	1	-
SB4	1	-	-	-	-	1	-	-	-	-	1	-
SB5	-	1	-	1	-	-	-	-	-	1	1	1
SB6	-	1	-	-	1	-	-	-	-	-	1	1
SB7	-	1	1	-	-	-	-	-	-	1	1	-
SB8	1	-	-	-	-	-	-	1	-	-	1	-
SB9	-	1	-	-	1	-	-	-	-	-	1	1
SB10	-	1	1	-	-	-	-	-	-	1	1	-
PROJECT TOTAL	**3**	**7**	**2**	**2**	**3**	**2**	**0**	**1**	**0**	**4**	**10**	**6**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

PICK 'N SAVE - FORD PF 5/5

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SIGNAL CABINET, SERVICE, BACKPLATES & COMMUNICATIONS

656.0201.01 * ELECTRICAL SERVICE METER BREAKER PEDESTAL (PICKnSAVE)	658.5070.01 * SIGNAL MOUNTING HARDWARE (PICKnSAVE)	678.0600 * INSTALL ETHERNET SWITCHES	661.0201.03 * TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS
EA	EA	EACH	EACH
1	1	1	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

SPV.0060.15 * BACKPLATES WITH REFLECTIVE BORDER 3 SECTION 12-INCH	SPV.0060.16 * BACKPLATES WITH REFLECTIVE BORDER 4 SECTION 12-INCH	SPV.0060.19 * TRAFFIC SIGNAL CONTROL CABINET (PICKnSAVE)	204.9060.03 * REMOVING TRAFFIC SIGNALS (PICKnSAVE)
EA	EA	EA	EA
13	2	1	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LOCATION	SPV.0060.29 * EMERGENCY VEHICLE DETECTION SYSTEM (PICKnSAVE) EACH	SPV.0060.24 * TEMPORARY EVP SYSTEM (PICKnSAVE) EACH
BETHMAUR	1	1

ITEMS FURNISHED WITH EVP SYSTEM FOR INTALLATION

QUANTITY	UNIT	DESCRIPTION
1	EACH	PROCESSOR CARD
2	EACH	EVP DETECTORS
2	EACH	CONFIRMATION LIGHTS
2	EACH	MOUNTING BRACKETS
500	LF	EVP DETECTOR CABLE

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

N BRIDGEWOOD LANE **BW 1/5**

3

REMOVING CONCRETE BASES

SB NO	STATION	LOCATION	204.0195 * REMOVING CONCRETE BASES EACH
CB1	375+32.9	51.2 LT	1
SB1	375+63.4	47.2 LT	1
SB2	375+74.8	65.5 LT	1
SB3	376+27.2	66.1 LT	1
SB4	376+44.2	50.2 LT	1
SB5	376+52.9	0.8 RT	1
SB6	376=48.7	49.7 RT	1
SB7	376+18.9	52.4 RT	1
SB8	375+72.6	61.6 RT	1
SB9	375+62.6	50.5 RT	1
SB10	375+47.3	7.9 LT	1
		PROJECT TOTAL	**11**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONCRETE BASES

SB NO	STATION	LOCATION	654.0101 * CONCRETE BASES TYPE 1 EACH	654.0102 * CONCRETE BASES TYPE 2 EACH	654.0217 * CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
CB1	375+33.0	50.9 LT	-	-	1
SB1	375+45.7	44.6 LT	1	-	
SB2	375+73.9	62.6 LT	1	-	
SB3	376+29.2	64.5 LT	-	1	
SB4	376+47.5	53.7 LT	1	-	
SB5	376+49.2	2.8 RT	-	1	
SB6	376+48.4	50.1 RT	1	-	
SB7	376+14.6	50.3 RT	-	1	
SB8	375+45.0	50.4 RT	1	-	
SB9	375+46.2	5.9 LT	-	1	
LP1	376+29.2	64.5 LT	-	-	
LP2	376+47.5	2.8 RT	-	-	
LP3	376+14.6	51.3 RT	-	-	
LP4	375+46.9	5.9 LT	-	-	
LP5	375+46.9	5.9 LT	-	-	
		PROJECT TOTAL	**5**	**4**	**1**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING PULL BOXES

SB NO	STATION	LOCATION	653.0905 * REMOVING PULL BOXES EACH
PB1	376+55.2	2.1 LT	1
PB2	375+47.7	4.2 LT	1
PB3	375+75.4	84.9 LT	1
		PROJECT TOTAL	**3**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL PULL BOX

PULL BOX NO.	STATION	LOCATION	653.0140 * PULL BOXES STEEL 24X42-INCH EACH
PB1	375+63.8	48.9 LT	1
PB2	375+75.5	82.3 LT	1
PB3	375+76.1	133.7 LT	1
PB4	376+60.3	53.9 LT	1
PB5	378+61.5	53.3 LT	1
PB6	376+58.1	0	1
PB7	376+52.0	50.5 RT	1
PB8	376+18.8	50.2 RT	1
PB9	375+30.8	51.9 RT	1
PB10	373+22.6	43.8 RT	1
PB11	375+38.9	5.7 LT	1
		PROJECT TOTAL	**11**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

N BRIDGEWOOD LANE **BW 2/5**

3

TRAFFIC SIGNAL CONDUIT SUMMARY

FROM	TO	LENGTH	CONDUIT #	652.0225 * CONDUIT RIGID NON METALLIC SCHEDULE 40 2-INCH LF	652.0235 * CONDUIT RIGID NON METALLIC SCHEDULE 40 3-INCH LF
CB1	PB1	30	3	-	90
PB1	PB2	25	2	-	50
PB1	PB4	100	3	-	300
PB2	PB3	65	1	65	-
PB4	PB6	55	2	-	110
PB6	PB7	55	2	-	110
PB7	PB8	40	2	-	80
PB8	PB9	90	2	-	180
PB9	PB11	60	2	-	120
PB11	PB1	50	3	-	150
PB4	PB5	205	1	205	-
PB9	PB10	175	1	175	-
PB1	SB1	20	1	-	20
PB2	SB2	10	1	-	10
PB4	SB3	35	1	-	35
PB4	SB4	15	1	-	15
PB6	SB5	10	1	-	10
PB7	SB6	10	1	-	10
PB8	SB7	10	1	-	10
PB9	SB8	15	1	-	15
PB11	SB9	10	1	-	10
		PROJECT TOTAL		**445**	**1325**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LOOP DETECTOR SCHEDULE

LOOP #	FROM	TO	LENGTH TO PB	LENGTH TO LOOP	LOOP LENGTH	TURNS #	652.0800* CONDUIT LOOP DETECTOR LF	655.0700* LOOP DETECTOR LEAD IN CABLE LF	655.0800* LOOP DETECT WIRE LF
Loop 61	CB1	PB10	345	15	55	4	70	345	60
Loop 11	CB1	PB11	85	25	55	3	80	85	75
Loop 12	CB1	PB11	85	10	55	3	65	85	30
Loop 83	CB1	PB8	230	20	55	3	75	230	60
Loop 21	CB1	PB5	330	25	55	4	80	330	100
Loop 41	CB1	PB3	120	10	25	5	35	120	50
Loop 42	CB1	PB2	55	30	55	3	85	55	90
Loop 43	CB1	PB2	55	10	55	3	65	55	30
					PROJECT TOTAL		**555**	**1305**	**495**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

TRAFFIC SIGNAL CABLE SUMMARY

TRAFFIC SIGNAL CABLE SUMMARY

TRAFFIC SIGNAL CABLE

FROM	TO	# Heads	Plan Length	655.0210 * 3-14 AWG LF	655.0240 * 7-14 AWG LF	655.0250 * 9-14 AWG LF	655.0260 * 12-14 AWG LF	655.0270 * 15-14 AWG LF
CB1	SB1		49	67	-	-	-	-
CB1	SB2		60	-	-	83	-	-
CB1	SB3		160	178	-	-	-	-
CB1	SB4		140	-	-	-	162	-
CB1	SB5		193	-	-	-	-	243
CB1	SB6		239	-	258	-	-	-
CB1	SB7		230	-	280	-	-	-
CB1	SB8		150	-	-	169	-	-
CB1	SB9		89	-	-	-	139	-
		PROJECT TOTAL		**245**	**538**	**252**	**301**	**243**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ELECTRIC WIRE TRAFFIC SIGNALS 10 AWG

FROM	TO	# OF Wires	LENGTH	655.0515 * Electrical Wire Traffic Signals 10 AWG LF
CB1	SB1	1	47	47
SB1	SB2	1	50	50
SB2	SB3	1	162	162
SB3	SB4	1	46	46
SB4	SB5	1	77	77
SB5	SB6	1	70	70
SB6	SB7	1	56	56
SB7	SB8	1	107	107
SB8	SB9	1	78	78
SB9	CB1	1	89	89
PB1	SB1	1	18	18
PB1	PB2	1	24	24
PB2	PB3	1	65	65
PB2	SB2	1	8	8
PB1	PB4	1	97	97
PB4	SB3	1	33	33
PB4	SB4	1	13	13
PB4	PB5	1	202	202
PB4	PB6	1	54	54
PB6	SB5	1	10	10
PB6	PB7	1	52	52
PB7	SB6	1	8	8
PB7	PB8	1	40	40
PB8	SB7	1	8	8
PB8	PB9	1	88	88
PB9	SB8	1	11	11
PB9	PB10	1	175	175
PB9	PB11	1	59	59
PB11	SB9	1	8	8
PB11	PB1	1	50	50
PB11	SB7	1	8	8
			PROJECT TOTAL	**1813**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL FACES SUMMARY

SIGNAL HEAD NO.	SIGNAL BASE 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
1	SB8	1	-	-
2	SB5	1	-	-
3	SB5	1	-	-
4	SB4	-	1	-
5	SB5	-	1	-
6	SB4	1	-	-
7	SB9	1	-	-
8	SB9	1	-	-
9	SB8	1	-	-
10	SB7	1	-	-
11	SB3	1	-	-
12	SB2	1	-	-
13	SB2	1	-	-
14	SB7	1	-	-
15	SB6	1	-	-
16	SB8	-	-	1
17	SB9	-	-	1
18	SB9	-	-	1
19	SB1	-	-	1
20	SB2	-	-	1
21	SB3	-	-	1
22	SB4	-	-	1
23	SB5	-	-	1
24	SB5	-	-	1
25	SB6	-	-	1
	PROJECT TOTAL	**13**	**2**	**10**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

N BRIDGEWOOD LANE **BW 4/5**

3

3

TRAFFIC SIGNAL LIGHTING WIRE SUMMARY

Bridgewood

FROM	TO	655.0320 * CABLE TYPE UF 2-10 AWG GROUNDED LF	655.0610 * ELECTRICAL WIRE LIGHTING 12 AWG LF
CB1	LP1	161	-
SB1	LUMN	-	117
CB1	LP2	192	-
LP2	LUMN	-	117
CB1	LP3	231	-
LP3	LUMN	-	117
CB1	LP4/5	90	-
LP4/5	LUMN	-	234
PROJECT TOTAL		**674**	**585**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL BASES, POLES, TROMBONE ARMS, PUSH BUTTONS, AND LUMINAIRES

SIGNAL BASE NO.	657.0100 * PEDESTAL BASES EACH	657.0255 * TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0305 * POLES TYPE 2 EACH	657.0310 * POLES TYPE 3 EACH	657.0315 * POLES TYPE 4 EACH	657.0420 * TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 * TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0430 * TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0585 * TROMBONE ARMS 15-FT EACH	657.0595 * TROMBONE ARMS 25-FT EACH	658.0500 * PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.13 MUNICIPAL LED LUMINAIRES LED C EACH
SB1	1	-	-	-	-	-	-	1	-	-	1	-
SB2	1	-	-	-	-	1	-	-	-	1	1	-
SB3	-	1	-	1	-	-	-	-	-	-	1	1
SB4	1	-	-	-	-	-	1	-	-	-	1	-
SB5	-	1	-	1	-	-	-	-	-	-	1	1
SB6	1	-	-	-	-	1	-	-	-	1	1	-
SB7	-	1	-	1	-	-	-	-	-	-	-	1
SB8	1	-	-	-	-	1	-		-	-	1	-
SB9	-	1	-	1	-	-	-	-	-	1	1	2
PROJECT TOTAL	**5**	**4**	**0**	**4**	**0**	**3**	**1**	**1**	**0**	**3**	**8**	**5**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

3

3

SIGNAL CABINET, SERVICE, BACKPLATES & COMMUNICATIONS

656.0201.01 * ELECTRICAL SERVICE METER BREAKER PEDESTAL (BRIDGEWOOD)	658.5070.01 * SIGNAL MOUNTING HARDWARE (BRIDGEWOOD)	678.0600 * INSTALL ETHERNET SWITCHES	661.0201.04 * TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS
EA	EA	EACH	EACH
1	1	1	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

SPV.0060.15 * BACKPLATES WITH REFLECTIVE BORDER 3 SECTION 12-INCH	SPV.0060.16 * BACKPLATES WITH REFLECTIVE BORDER 4 SECTION 12-INCH	SPV.0060.20 * TRAFFIC SIGNAL CONTROL CABINET (BRIDGEWOOD)	204.9060.03 * REMOVING TRAFFIC SIGNALS (BRIDGEWOOD)
EA	EA	EA	EA
13	2	1	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LOCATION	SPV.0060.30 * EMERGENCY VEHICLE DETECTION SYSTEM (BRIDGEWOOD) EACH	SPV.0060.25 * TEMPORARY EVP SYSTEM (BRIDGEWOOD) EACH
BETHMAUR	1	1

ITEMS FURNISHED WITH EVP SYSTEM FOR INTALLATION

QUANTITY	UNIT	DESCRIPTION
1	EACH	PROCESSOR CARD
2	EACH	EVP DETECTORS
2	EACH	CONFIRMATION LIGHTS
2	EACH	MOUNTING BRACKETS
800	LF	EVP DETECTOR CABLE

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

MILWAUKEE RIVER PARKWAY **MRP 1/5**

3

REMOVING CONCRETE BASES

SB NO	STATION	LOCATION	204.0195 * REMOVING CONCRETE BASES EACH
CB1	392+09.3	74.6 RT	1
SB1	391+99.9	61.2 RT	1
SB2	391+47.0	70.7 RT	1
SB3	391+26.9	49.9 RT	1
SB4	391+21.3	4.7 LT	1
SB5	391+04.0	50.4 LT	1
SB6	391+31.1	61.9 LT	1
SB7	391+92.8	62.7 LT	1
SB8	392+05.6	52 LT	1
SB9	392+15.9	10.2 RT	1
SB10	392+12.8	51.5 RT	1
		PROJECT TOTAL	**11**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONCRETE BASES

SB NO	STATION	LOCATION	654.0101 * CONCRETE BASES TYPE 1 EACH	654.0102 * CONCRETE BASES TYPE 2 EACH	654.0217 * CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
CB1	392+07.5	69.8 RT	-	-	1
SB1	392+01.8	60.1 RT	1	-	
SB2	391+34.3	58.9 RT	-	1	
SB3	391+14.9	50.2 RT	1	-	
SB4	391+13.9	4.3 LT	-	1	
SB5	391+13.6	53.6 LT	1	-	
SB6	391+29.8	61.8 LT	-	1	
SB7	391+97.5	62.8 LT	-	1	
SB8	392+05.7	47.6 LT	-	1	
SB9	392+19.8	7.6 RT	-	1	
SB10	392+10.3	51.4 RT	1	-	
LP1	392+06.4	48.4 LT	-	-	
LP2	392+19.8	7.6 RT	-	-	
LP3	392+19.8	7.6 RT	-	-	
LP4	391+37.5	58.1 RT	-	-	
LP5	391+15.0	4.3 LT	-	-	
LP6	391+15.0	4.3 LT	-	-	
LP7	391+29.8	61.8 LT	-	-	
		PROJECT TOTAL	**4**	**6**	**1**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING PULL BOXES

SB NO	STATION	LOCATION	653.0905 * REMOVING PULL BOXES EACH
PB1	392+18.6	7.0 RT	1
PB2	391+10.1	5.5 LT	1
		PROJECT TOTAL	**2**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL PULL BOX

PULL BOX NO.	STATION	LOCATION	653.0140 * PULL BOXES STEEL 24X42-INCH EACH
PB1	392+03.7	64.3 RT	1
PB2	391+95.6	82.4 RT	1
PB3	391+96.5	121.2 RT	1
PB4	391+39.5	52.6 RT	1
PB5	391+23.2	50.1 RT	1
PB6	389+05.0	49.9 RT	1
PB7	391+11.3	4.1 LT	1
PB8	391+06.7	51.2 LT	1
PB9	391+28.8	84.3 LT	1
PB10	391+24.2	113.8 LT	1
PB11	392+16.7	50.8 LT	1
PB12	394+21.0	47.5 LT	1
PB13	392+23.4	7.6 RT	1
PB14	392+22.4	51.3 RT	1
		PROJECT TOTAL	**14**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

MILWAUKEE RIVER PARKWAY **MRP 2/5**

3

TRAFFIC SIGNAL CONDUIT SUMMARY

FROM	TO	LENGTH	CONDUIT #	652.0225 * CONDUIT RIGID NON METALLIC SCHEDULE 40 2-INCH LF	652.0235 * CONDUIT RIGID NON METALLIC SCHEDULE 40 3-INCH LF
CB1	PB1	10	3	-	30
PB1	PB2	20	1	20	-
PB1	PB4	70	3	-	210
PB2	PB3	40	1	40	-
PB4	PB5	20	2	-	40
PB5	PB7	60	2	-	120
PB7	PB8	50	2	-	100
PB8	PB9	40	1	40	-
PB8	PB11	112	1		112
PB9	PB10	30	1	30	-
PB11	PB13	60	2	-	120
PB13	PB14	45	3	-	135
PB14	PB1	25	3	-	75
PB11	PB12	205	1	205	-
PB5	PB6	220	1	220	-
PB1	SB1	5	1	-	5
PB4	SB2	5	1	-	5
PB5	SB3	10	1	-	10
PB7	SB4	5	1	-	5
PB8	SB5	10	1	-	10
PB8	SB6	25	1	-	25
PB11	SB7	30	1	-	30
PB11	SB8	15	1	-	15
PB13	SB9	5	1	-	5
PB14	SB10	15	1	-	15
	PROJECT TOTAL			**555**	**1067**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LOOP DETECTOR SCHEDULE

LOOP #	FROM	TO	LENGTH TO PB	LENGTH TO LOOP	LOOP LENGTH	TURNS #	652.0800* CONDUIT LOOP DETECTOR LF	655.0700* LOOP DETECTOR LEAD IN CABLE LF	655.0800* LOOP DETECTOR WIRE LF
Loop 61	CB1	PB6	310	20	55	4	75	310	80
Loop 81	CB1	PB3	70	10	25	5	35	70	50
Loop 82	CB1	PB2	30	15	55	3	70	30	45
Loop 83	CB1	PB2	30	10	55	3	65	30	30
Loop 21	CB1	PB12	340	25	55	4	80	340	100
Loop 41	CB1	PB10	265	30	25	5	55	265	150
Loop 42	CB1	PB9	235	20	55	3	75	235	60
Loop 43	CB1	PB9	235	20	55	3	75	235	60
						PROJECT TOTAL	**530**	**1515**	**575**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

TRAFFIC SIGNAL CABLE SUMMARY

FROM	TO	# Heads	Plan Length	TRAFFIC SIGNAL CABLE 655.0210 * 3-14 AWG LF	655.0240 * 7-14 AWG LF	655.0250 * 9-14 AWG LF	655.0260 * 12-14 AWG LF	655.0270 * 15-14 AWG LF
CB1	SB1		12	-	-	31	-	-
CB1	SB2		78	96	-	-	-	-
CB1	SB3		99	-	118	-	-	-
CB1	SB4		150	-	-	-	200	-
CB1	SB5		201	219	-	-	-	-
CB1	SB6		220	-	-	239	-	-
CB1	SB7		158	176	-	-	-	-
CB1	SB8		143	-	-	162	-	-
CB1	SB9		78	-	128	-	-	-
CB1	SB10		44	62	-	-	-	-
		PROJECT TOTAL		**553**	**246**	**432**	**200**	**0**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ELECTRIC WIRE TRAFFIC SIGNALS 10 AWG

FROM	TO	# OF Wires	LENGTH	655.0515 * Electrical Wire Traffic Signals 10 AWG LF
CB1	SB1	1	13	13
SB1	SB2	1	77	77
SB2	SB3	1	28	28
SB3	SB4	1	68	68
SB4	SB5	1	62	62
SB5	SB6	1	34	34
SB6	SB7	1	162	162
SB7	SB8	1	37	37
SB8	SB9	1	74	74
SB9	SB10	1	63	63
SB10	CB1	1	23	23
PB1	SB1	1	5	5
PB1	PB2	1	20	20
PB2	PB3	1	68	68
PB4	SB2	1	4	4
PB4	PB5	1	16	16
PB5	SB3	1	16	16
PB5	PB6	1	218	218
PB5	PB7	1	56	56
PB7	SB4	1	4	4
PB7	PB8	1	48	48
PB8	SB5	1	30	30
PB8	SB6	1	44	44
PB8	PB9	1	40	40
PB9	PB10	1	30	30
PB8	PB11	1	112	112
PB11	SB7	1	26	26
PB11	SB8	1	11	11
PB11	PB12	1	205	205
PB11	PB13	1	59	59
PB13	SB9	1	11	11
PB13	PB14	1	4	4
PB14	SB10	1	15	15
PB14	CB1	1	30	30
			PROJECT TOTAL	**1713**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL FACES SUMMARY

SIGNAL HEAD NO.	SIGNAL BASE 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
1	SB3	1	-	-
2	SB9	1	-	-
3	SB9	1	-	-
4	SB8	1	-	-
5	SB8	1	-	-
6	SB4	1	-	-
7	SB4	1	-	-
8	SB3	1	-	-
9	SB1	1	-	-
10	SB7	1	-	-
11	SB6	1	-	-
12	SB6	1	-	-
13	SB2	1	-	-
14	SB1	1	-	-
15	SB3	-	-	1
16	SB4	-	-	1
17	SB4	-	-	1
18	SB5	-	-	1
19	SB6	-	-	1
20	SB7	-	-	1
21	SB8	-	-	1
22	SB10	-	-	1
23	SB1	-	-	1
24	SB2	-	-	1
	PROJECT TOTAL	**14**	**0**	**10**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL PAY ITEMS ARE GROUP CODE 010 UNLESS OTHERWISE NOTED

3

3

TRAFFIC SIGNAL LIGHTING WIRE SUMMARY

Milwaukee River

FROM	TO	655.0320 * CABLE TYPE UF 2-10 AWG GROUNDED LF	655.0610 * ELECTRICAL WIRE LIGHTING 12 AWG LF
CB1	LP1	144	-
LP1	LUMN	-	117
CB1	LP2/3	78	-
LP2/3	LUMN	-	234
CB1	LP4	79	-
LP4	LUMN	-	117
CB1	LP5/6	150	-
LP5/6	LUMN	-	234
CB1	LP7	219	-
LP7	LUMN	-	117
	PROJECT TOTAL	**670**	**819**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL BASES, POLES, TROMBONE ARMS, PUSH BUTTONS, AND LUMINAIRES

SIGNAL BASE NO.	657.0100 * PEDESTAL BASES EACH	657.0255 * TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0305 * POLES TYPE 2 EACH	657.0310 * POLES TYPE 3 EACH	657.0315 * POLES TYPE 4 EACH	657.0420 * TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 * TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0430 * TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0585 * TROMBONE ARMS 15-FT EACH	657.0595 * TROMBONE ARMS 25-FT EACH	658.0500 * PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.13 MUNICIPAL LED LUMINAIRES LED C EACH
SB1	1	-	-	-	-	1	-	-	-	-	1	-
SB2	-	1	-	1	-	-	-	-	-	1	1	1
SB3	1	-	-	-	-	1	-	-	-	-	1	-
SB4	-	1	-	1	-	-	-	-	-	1	1	2
SB5	1	-	-	-	-	-	-	1	-	-	1	-
SB6	-	1	-	-	1	-	-	-	-	-	1	1
SB7	-	1	1	-	-	-	-	-	-	1	1	-
SB8	-	1	-	-	1	-	-	-	-	-	1	1
SB9	-	1	-	1	-	-	-	-	-	1	-	2
SB10	1	-	-	-	-	-	-	1	-	-	1	-
PROJECT TOTAL	**4**	**6**	**1**	**3**	**2**	**2**	**0**	**2**	**0**	**4**	**9**	**7**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

SIGNAL CABINET, SERVICE, BACKPLATES & COMMUNICATIONS

656.0201.01 * ELECTRICAL SERVICE METER BREAKER PEDESTAL (MILW RIVER PKWY)	658.5070.01 * SIGNAL MOUNTING HARDWARE (MILW RIVER PKWY)	678.0600 * INSTALL ETHERNET SWITCHES	661.0201.05 * TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS
EA	EA	EACH	EACH
1	1	1	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

SPV.0060.15 * BACKPLATES WITH REFLECTIVE BORDER 3 SECTION 12-INCH	SPV.0060.16 * BACKPLATES WITH REFLECTIVE BORDER 4 SECTION 12-INCH	SPV.0060.21 * TRAFFIC SIGNAL CONTROL CABINET (MILW RIVER PKWY)	204.9060.07 * REMOVING TRAFFIC SIGNALS (MILW RIVER PKWY)
EA	EA	EA	EA
14	0	1	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LOCATION	SPV.0060.31 * EMERGENCY VEHICLE DETECTION SYSTEM (MILW RIVER PKWY)		SPV.0060.26 * TEMPORARY EVP SYSTEM (MILW RIVER PKWY)
	EACH		EACH
BETHMAUR	1		1

ITEMS FURNISHED WITH EVP SYSTEM FOR INTALLATION

QUANTITY	UNIT	DESCRIPTION
1	EACH	PROCESSOR CARD
2	EACH	EVP DETECTORS
2	EACH	CONFIRMATION LIGHTS
2	EACH	MOUNTING BRACKETS
800	LF	EVP DETECTOR CABLE

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING RECTANGULAR RAPID FLASHING BEACON

	SPV.0060.37 RECTANGULAR RAPID FLASHING BEACON REMOVAL AND SALVAGE
	EACH
GREEN BAY AVE ON-RAMP	1

	SPV.0060.38 RECTANGULAR RAPID FLASHING BEACON REMOVAL AND SALVAGE
	EACH
SUNNY POINT ROAD	1

RECTANGULAR RAPID FLASHING BEACON

SPV.0060.34 RECTANGULAR RAPID FLASHING BEACON (LONG ISLAND DR)	SPV.0060.35 RECTANGULAR RAPID FLASHING BEACON (SUNNY POINT RD)	SPV.0060.36 RECTANGULAR RAPID FLASHING BEACON (STA 386+10)
EACH	EACH	EACH
1	1	1

ALL PAY ITEMS ARE GROUP CODE 020 UNLESS OTHERWISE NOTED

3

UTILITY RELOCATIONS

STATION	OFFSET	SIDE	LOCATION	SPV.0060.32 FIRE HYDRANT RELOCATION EACH
339+80.60	44.73	RT		1
347+79.59	49.99	LT		1
377+10.40	50.19	LT		1
377+26.07	49.45	RT		1
			PROJECT TOTAL	4.0

MANAGEMENT OF SOLID WASTE

STATION - STATION	LOCATION	SPV.0195.01 TON
330+00 - 330+65	SILVER SPRING PROJECT AREA	-
330+50 - 331+30	SILVER SPRING PROJECT AREA	15
331+30 - 332+00	SILVER SPRING PROJECT AREA	13
336+10 - 336+75	SILVER SPRING PROJECT AREA	12
360+00 - 362+50	SILVER SPRING PROJECT AREA	2
362+00 - 363+50	SILVER SPRING PROJECT AREA	-
363+50 - 364+20	SILVER SPRING PROJECT AREA	14
364+20 - 365+00	SILVER SPRING PROJECT AREA	-
365+00 - 366+50	SILVER SPRING PROJECT AREA	107
366+50 - 367+00	SILVER SPRING PROJECT AREA	11
367+00 - 368+00	SILVER SPRING PROJECT AREA	15
368+00 - 368+70	SILVER SPRING PROJECT AREA	-
	PROJECT TOTAL	190

ADJUSTMENTS (NON PARTICIPATING)

STATION - STATION	LOCATION	SPV.0060.01 SANITARY MANHOLE INTERNAL / EXTERNAL SEAL AND ADJUSTMENT TON	SPV.0060.02 ADJUSTING VALVE BOXES	SPV.0060.03 ADJUSTING WATER BOXES
329+00 - 336+14	27TH - 25TH	2	5	0
336+14 - 346+32	25TH - CRESTWOOD	4	5	0
346+32 - 352+63	CRESTWOOD - LONGVIEW	4	5	9
352+63 - 367+00	LONGVIEW - PICK & SAVE ENTRANCE	8	3	1
367+00 - 376+00	PICK & SAVE ENTRANCE - BRIDGEWOOD	7	4	0
376+00 - 382+46	BRIDGEWOOD - SUNNY POINT	6	3	5
382+46 - 391+65	SUNNY POINT - MILWAUKEE RIVER PARKWAY	4	12	7
391+65 - 394+00	MILWAUKEE RIVER PARKWAY - PROJECT LIMIT	0	1	0
	STAGE 1 SUBTOTAL	0		
	PROJECT TOTAL	35	40	25

STATION	SIDE	LOCATION	SPV.0060.40 MANHOLE COVERS TYPE MS-58A EACH
349+26.87	33.48' RT		1
352+58.58	48.45' RT		1
353+04.98	51.86' RT		1
379+10.21	50.12' RT		1
382+34.62	49.02' RT		1
383+28.27	32.03' RT		1
385+56.82	32.47' RT		1
		SUBTOTAL	7
		PROJECT TOTAL	7

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE (P.L.)
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) (W (TYPE))
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
TO BE REMOVED
BRIDGE
CULVERT

SECTION CORNER SYMBOL (18 / 23 24 / 26 25 / 35 36)
SECTION CORNER MONUMENT
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN (SIGN)
OFF-PREMISE SIGN (#1-25, SIGN)

R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED) IP

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE	■	□
TELEPHONE POLE	●	○
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)	▣	⊡

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)

PARCEL NUMBER 25
UTILITY NUMBER 40
PARALLEL OFFSETS

CONVENTIONAL UTILITY SYMBOLS

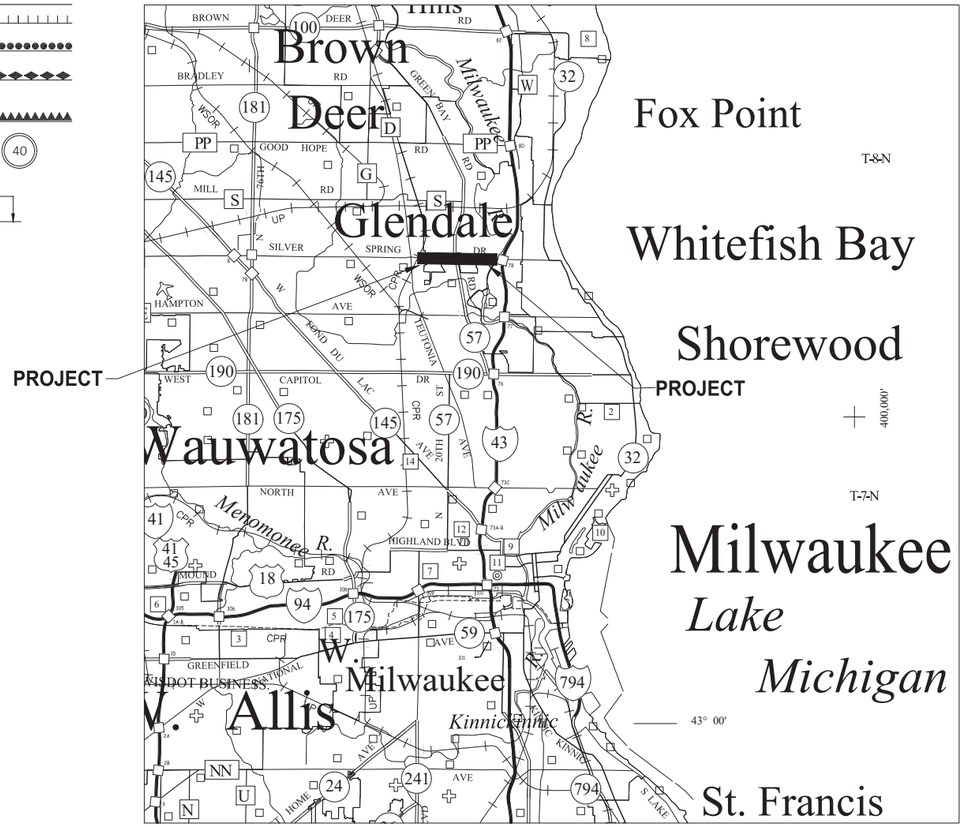
WATER	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS
ELECTRIC TOWER	☒

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REEL / IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
CERTIFIED SURVEY MAP	CSM		
CONCRETE	CONC	RIGHT	RT
COUNTY	CO	RIGHT OF WAY	R/W
COUNTY TRUNK HIGHWAY	CTH	SECTION	SEC
DISTANCE	DIST	SEPTIC VENT	SEPV
CORNER	COR	SQUARE FEET	SF
DOCUMENT NUMBER	DOC	STATE TRUNK HIGHWAY	STH
EASEMENT	EASE	STATION	STA
EXISTING	EX	TELEPHONE PEDESTAL	TP
GAS VALVE	GV	TEMPORARY LIMITED EASEMENT	TLE
GRID NORTH	GN		
HIGHWAY EASEMENT	HE	TRANSPORTATION PROJECT PLAT	TPP
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

CURVE DATA ABBREVIATIONS

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ /DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB



LAYOUT
SCALE 0 0.5mi

TOTAL NET LENGTH OF CENTERLINE = LENGTH

R/W PROJECT NUMBER N\A	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER N\A	1	6

PLAT OF RIGHT OF WAY REQUIRED FOR

W. SILVER SPRING DR. RECONSTRUCTION
N. 27TH ST. EAST TO MILWAUKEE RIVER

W. SILVER SPRING DR.	MILWAUKEE

CONSTRUCTION PROJECT NUMBER
2090-07-71

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), COUNTY, NAD83 (2011)IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

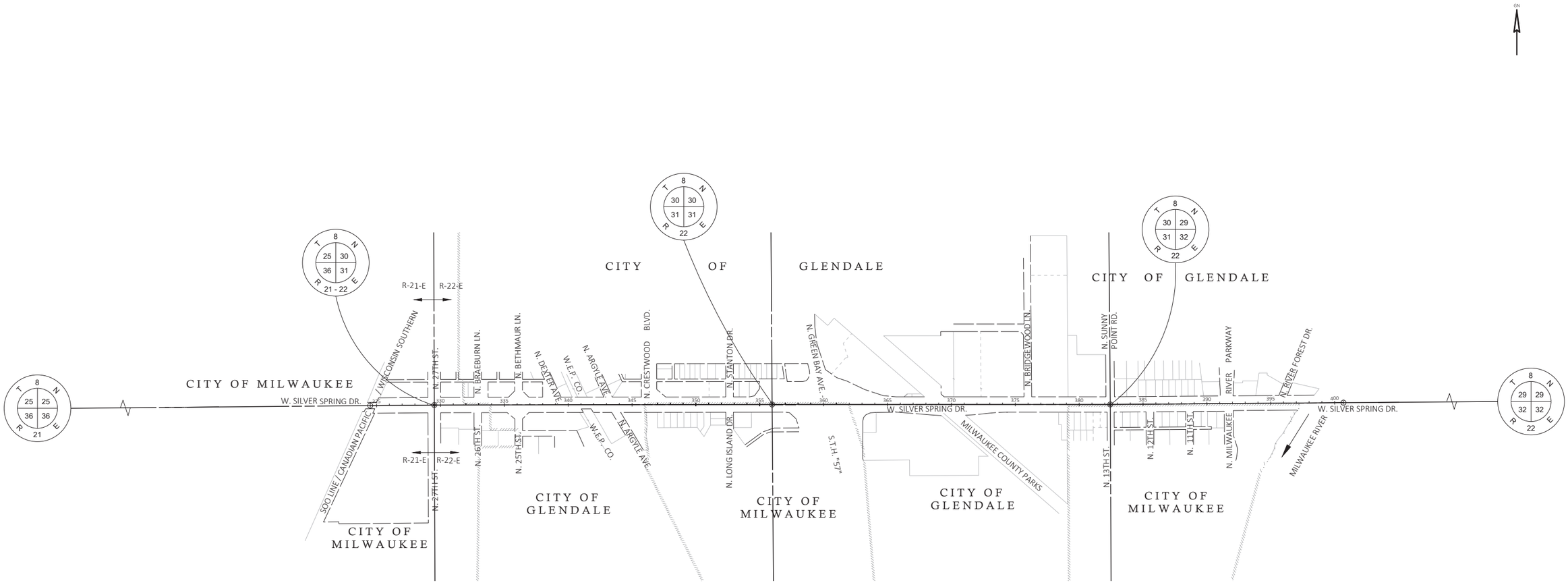
DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS.

FILE NAME : I:\CLARK DIETZ\22682-SILVER SPRING ROW PLAT\060 CAD\300_SURVEY\020_SURVEY DELIVERABLES (ALTA, CSM, PLAT TEXT)\22682 SILVER SPRING PLAT TITLE.DWG PLOT DATE : 11/21/2024 12:32 PM PLOT BY : JAMES BEAVER PLOT NAME :

4



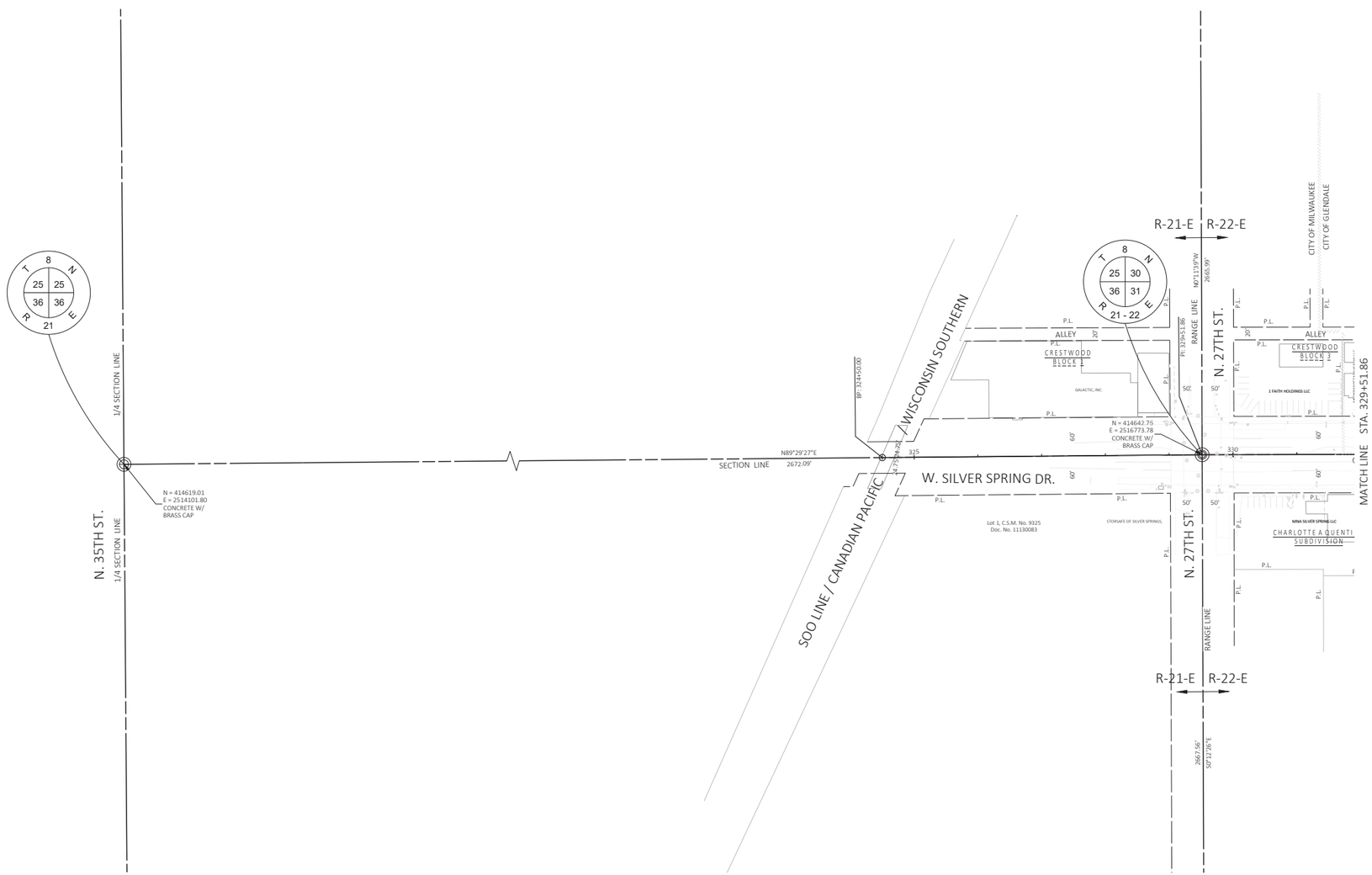
4

REVISION DATE	DATE NOVEMBER 21, 2024	SCALE, FEET 0 400 800	HWY: W. SILVER SPRING DR.	STATE R/W PROJECT NUMBER: N.A.	PLAT SHEET 4. .1
	GRID FACTOR 0.999999733		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER: 2090-07-71	PS&E SHEET 295 E

FILE NAME : 22682 - SILVER SPRING PLAT LAYOUT.DWG
LAYOUT NAME - RW 1 IN 400 FT

PLOT DATE : 11/21/2024 12:27 PM PLOT BY : JAMES BEAVER PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 75


GN
T 8 N
R 25 25 E
36 36
21
1/4 SECTION LINE
N. 35TH ST.
1/4 SECTION LINE
N = 414619.01
E = 2514101.80
CONCRETE W/
BRASS CAP
N89°29'27"E
SECTION LINE
2672.09'
R-21-E R-22-E
T 8 N
R 25 30 E
36 31
21 - 22
CITY OF MILWAUKEE
CITY OF GLENDALE
N0°1'19"W
2665.99'
RANGE LINE
Pr. 329+51.86
BP. 324+50.00
WISCONSIN SOUTHERN
SOO LINE / CANADIAN PACIFIC
ALLEY
CRESTWOOD
BLOCK 1
GALACTIC, INC.
N = 414642.75
E = 2516773.78
CONCRETE W/
BRASS CAP
W. SILVER SPRING DR.
Lot 1, C.S.M. No. 9325
Doc. No. 11130083
STORSAFE OF SILVER SPRINGS,
N. 27TH ST.
RANGE LINE
STA. 329+51.86
MATCH LINE
CRESTWOOD
BLOCK 2
1 FAITH HOLDINGS LLC
MINA SILVER SPRING LLC
CHARLOTTE A QUENTI
SUBDIVISION
R-21-E R-22-E
2627.58'
S0°12'26"E

HIGHWAY/STREET	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
STH 57/N. GREEN BAY AVE.	U 5709 (6)	VARIES	1957

GN

T 8 N R 21 - 22 E — 25 30 36 31

R-21-E R-22-E

N. 27TH ST. — RANGE LINE — N0°13'39"W 1665.99' — Pt: 329+51.86

CITY OF MILWAUKEE / CITY OF GLENDALE

N. BRAEBURN LN.

N. BETHMAUR LN.

N. DEXTER AVE.

N. ARGYLE AVE.

W.E.P. CO.

1/16TH LINE

N. CRESTWOOD BLVD.

W. KENDALL AVE.

T 8 N R 22 E — 30 30 31 31

1/4 SECTION LINE

N. STANTON DR.

N = 414642.75
E = 2516773.78
CONCRETE W/ BRASS CAP

STA. 329+51.86

MATCH LINE

CITY OF GLENDALE
CITY OF MILWAUKEE

330 — 335 — SECTION LINE — 340 — SECTION LINE N89°54'30"E 2644.52' — 345 — 350 — SECTION LINE — 355

W. SILVER SPRING DR.

N = 414646.99
E = 2519418.30
CONCRETE W/ BRASS CAP

STA. 355+96.38

MATCH LINE

CRESTWOOD BLOCK 5 — CRESTWOOD BLOCK 6 — CRESTWOOD BLOCK 7 — CRESTWOOD BLOCK 8 — CRESTWOOD BLOCK 13 — CRESTWOOD BLOCK 14 — CRESTWOOD BLOCK 20

ALLEY

Parcel 2, C.S.M. No. 6767 Doc. No. _____ — PROVIDENCE MEDICAL GROUP LLC

Parcel 1, C.S.M. No. 6767 Doc. No. _____ — ANDRIC COMPANY LLC

WAYNE J DIEDRICH — WILLIAM ROCKETT — CITY OF GLENDALE CDA — SCHMITZ & WALTERS

Lot 2, C.S.M. No. 6598 Doc. No. 7640538 — 250 HEGENBERGER PARTNERS

Lot 1, C.S.M. No. 6598 Doc. No. 7640538

1 FAITH HOLDINGS LLC — LAKE KNOTT BAY MILW LLC — KASSTASSIS BRIAN LLC

N. 27TH ST. — RANGE LINE — Pt: 329+51.86 — STORSATE OF SILVER SPRINGS, — MINA SILVER SPRING LLC — CHARLOTTE A QUENTIN'S SUBDIVISION

N. 26TH ST. — HANRY LIMITED PARTNERSHIP — Lot 1, C.S.M. No. 6608 Doc. No. 7658375

N. 25TH ST. — GLENDALE SENIOR APTS LLC — Lot 1, C.S.M. No. 6600 Doc. No. 7645557

N. DEXTER AVE. — W.E.P. CO. — 1/16TH LINE — N. ARGYLE AVE.

CITY OF GLENDALE CDA — CRESTWOOD ADDITION BLOCK 4 — CRESTWOOD ADDITION BLOCKS — CITY OF GLENDALE — CITY OF MILWAUKEE

CITY OF MILWAUKEE - DRAINAGE JONES ISLAND

KYLE S WALLACE — ROBERT LEE III — LONG ISLAND SUBDIVISION NO. 3 BLOCKS — LUCAS MEETEER — FLOYD D BOWIE I

N. LONG ISLAND DR. — PIT STOP OF WISCONSIN INC — SILVER SPRING HOLDING LLC — ALLEY 30'

1/4 SECTION LINE — Pt: 355+96.38 — N0°23'11"W 2653.73' — 30.00' — 1/4

R-21-E R-22-E — RANGE LINE — 2667.56' S0°12'26"E

CITY OF MILWAUKEE / CITY OF GLENDALE

OUT-OF-GLENDALE - OPEN SPACE LOT - 10,000 S.F.

2666.65' S0°18'58"E

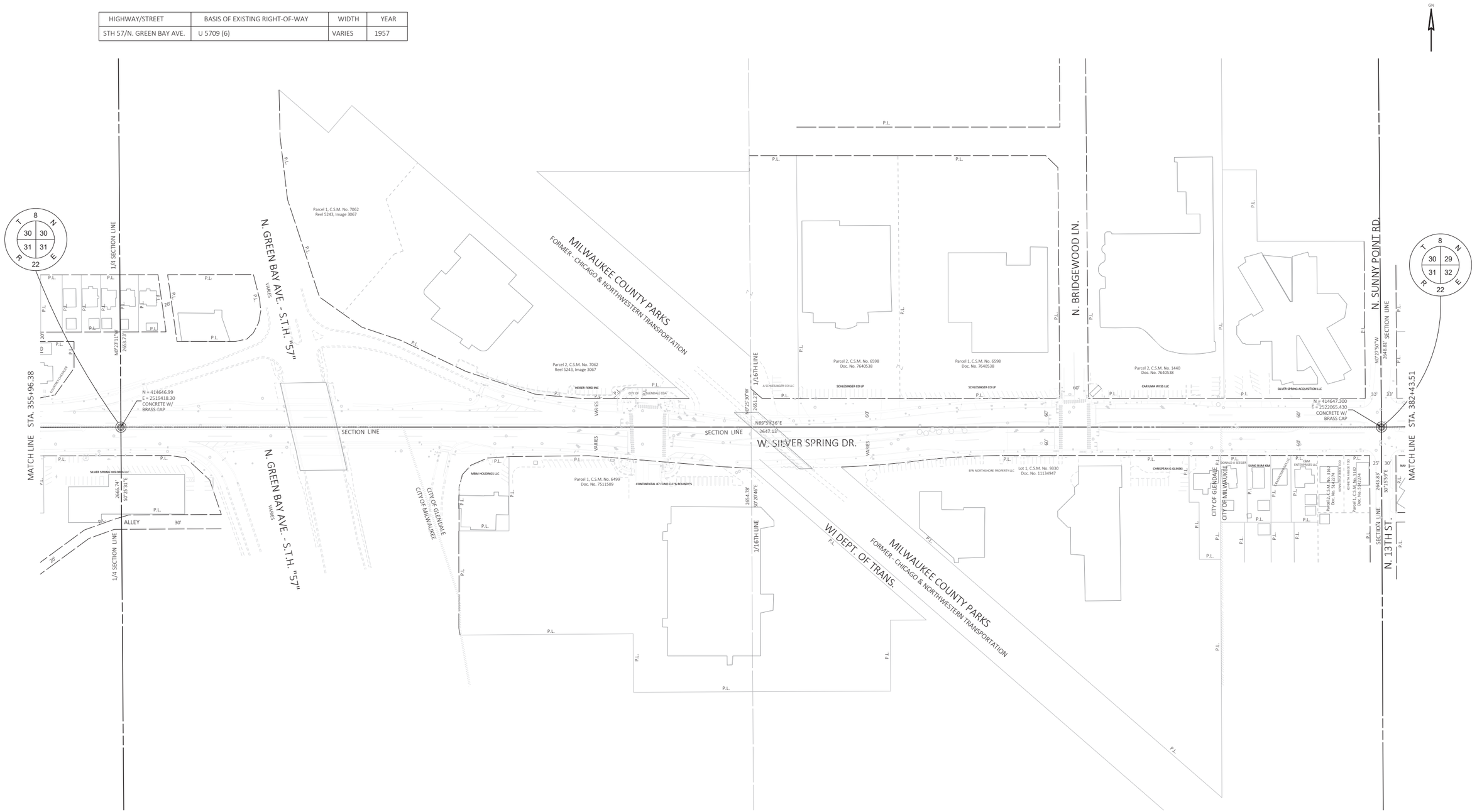
REVISION DATE	DATE NOVEMBER 21, 2024	SCALE, FEET 0 100 200	HWY: W. SILVER SPRING DR.	STATE R/W PROJECT NUMBER: N.A.	PLAT SHEET 4. .3	
	GRID FACTOR 0.999999733		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER: 2090-07-71	PS&E SHEET 297	E

FILE NAME : 22682 - SILVER SPRING PLAT.DWG
LAYOUT NAME - 2 RW 1 IN 100 FT

PLOT DATE : 11/21/2024 12:33 PM PLOT BY : JAMES BEAVER PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 75

HIGHWAY/STREET	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
STH 57/N. GREEN BAY AVE.	U 5709 (6)	VARIES	1957



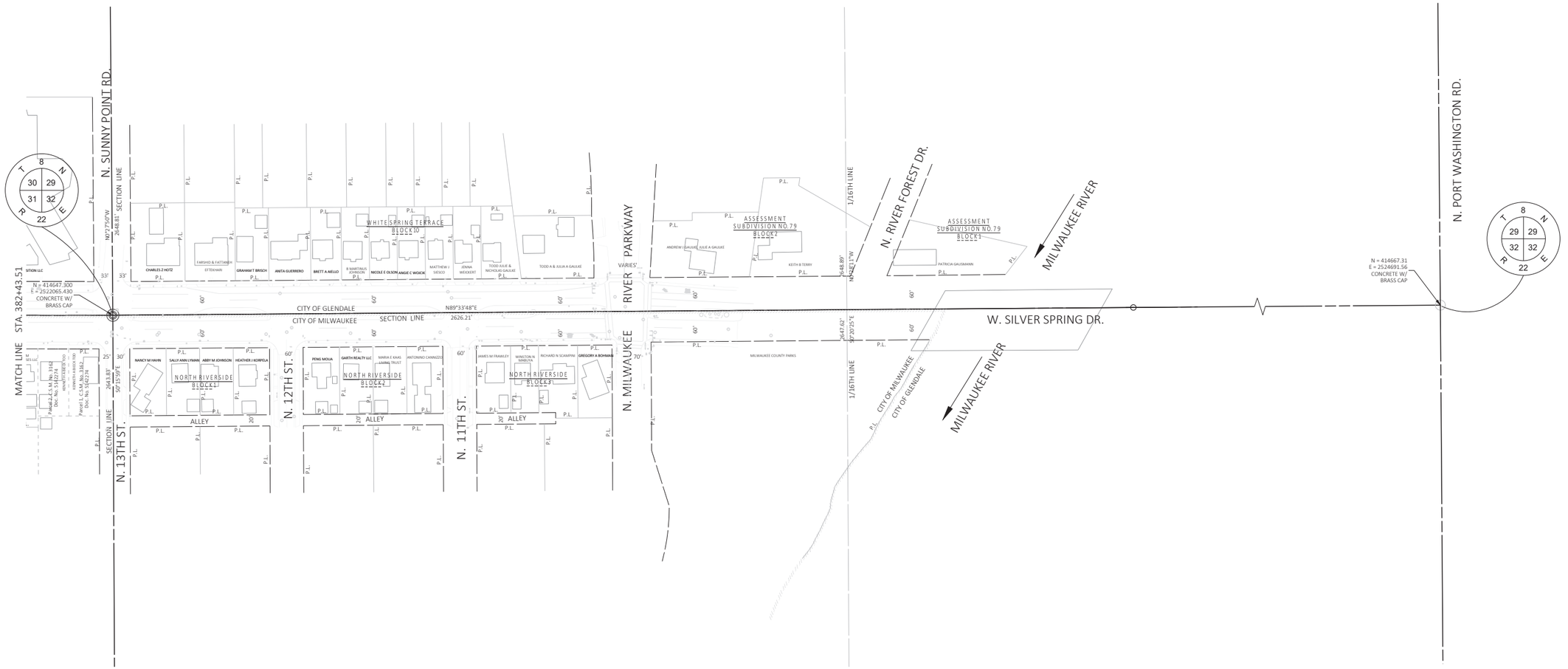
REVISION DATE	DATE NOVEMBER 21, 2024	SCALE, FEET	HWY: W. SILVER SPRING DR.	STATE R/W PROJECT NUMBER: N.A.	PLAT SHEET 4. .4	
	GRID FACTOR 0.999999733	0 100 200	COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER: 2090-07-71	PS&E SHEET 298	E

FILE NAME : 22682 - SILVER SPRING PLAT.DWG
LAYOUT NAME - 3 RW 1 IN 100 FT

PLOT DATE : 11/21/2024 12:33 PM PLOT BY : JAMES BEAVER PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 75

4

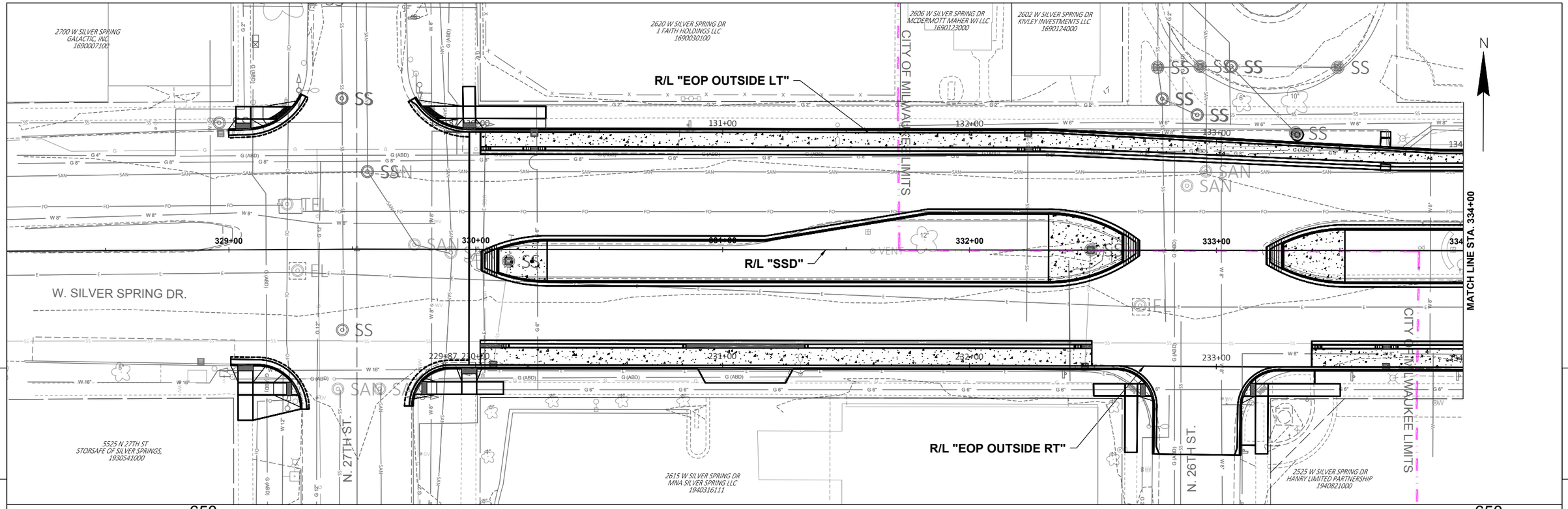


REVISION DATE	DATE NOVEMBER 21, 2024	SCALE, FEET 0 100 200	HWY: W. SILVER SPRING DR.	STATE R/W PROJECT NUMBER: N.A.	PLAT SHEET 4. .5
	GRID FACTOR 0.999999733		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER: 2090-07-71	PS&E SHEET 299 E

FILE NAME : 22682 - SILVER SPRING PLAT.DWG
LAYOUT NAME - 4 RW 1 IN 100 FT

PLOT DATE : 11/21/2024 12:34 PM PLOT BY : JAMES BEAVER PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 75



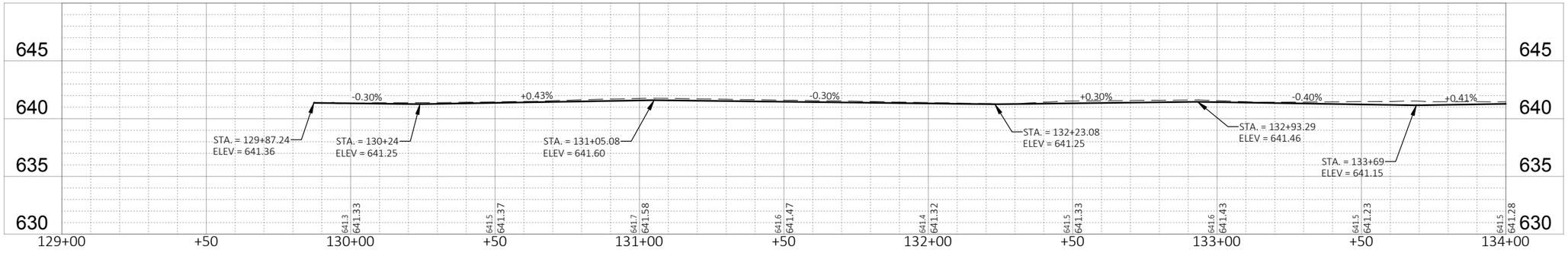
5

5

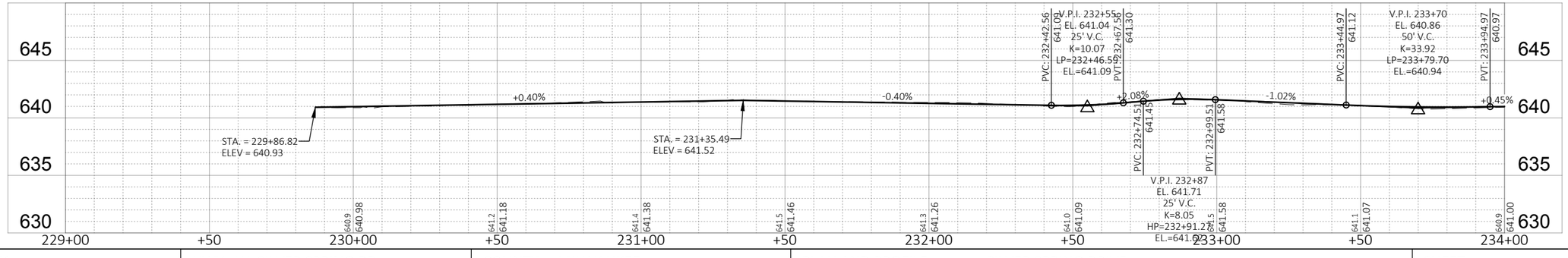
650

Profile View of EOP Outside LT

650

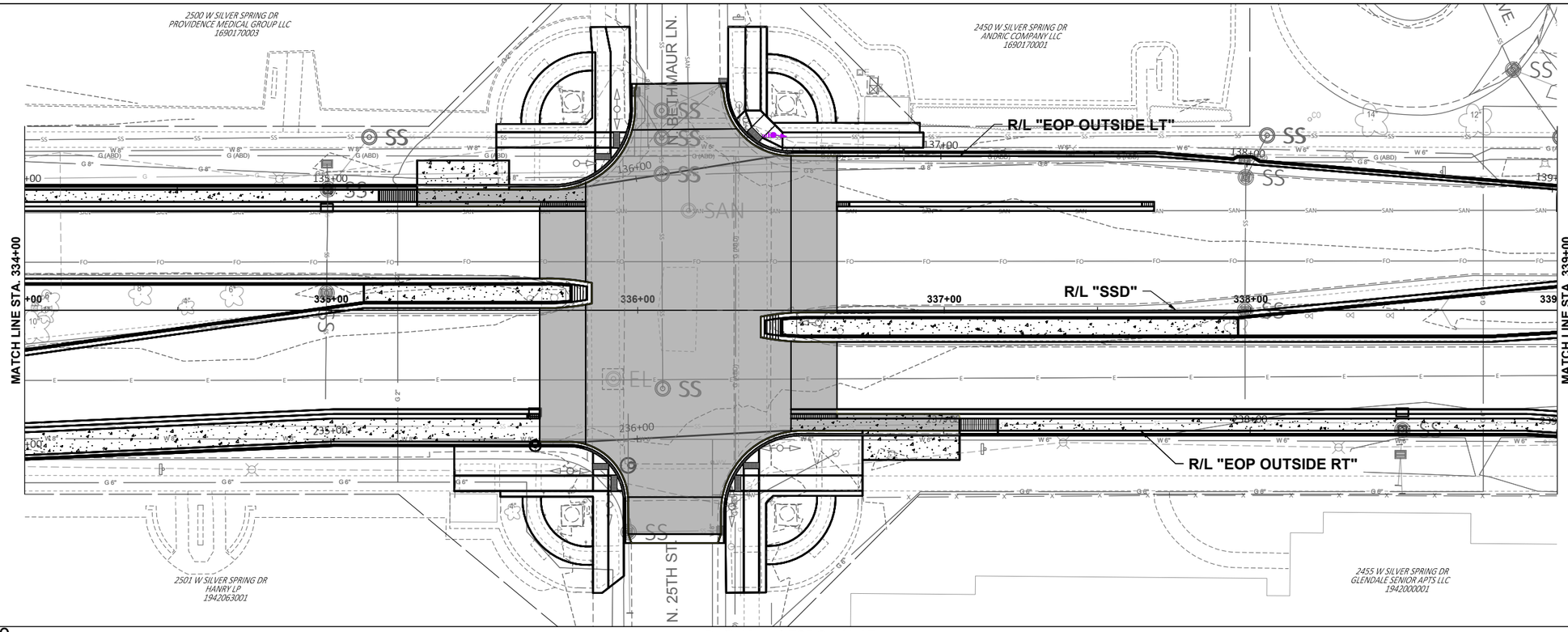


Profile View of EOP Outside RT

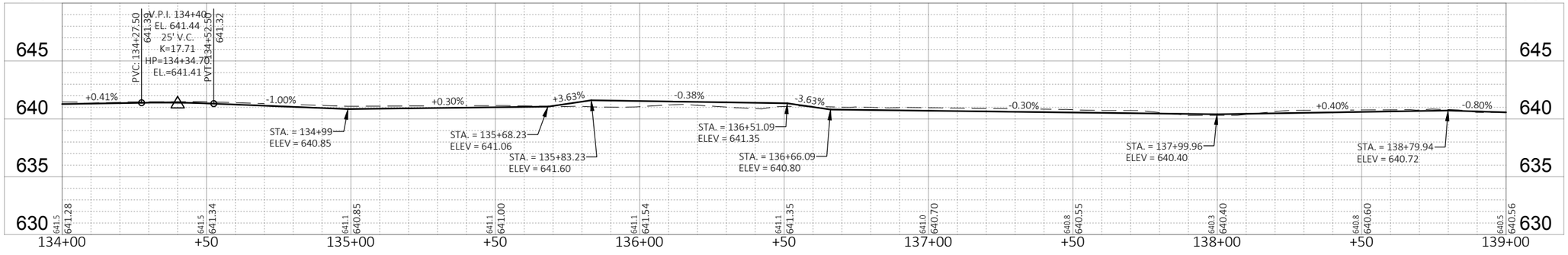


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: SILVER SPRING DRIVE	SHEET 300	E

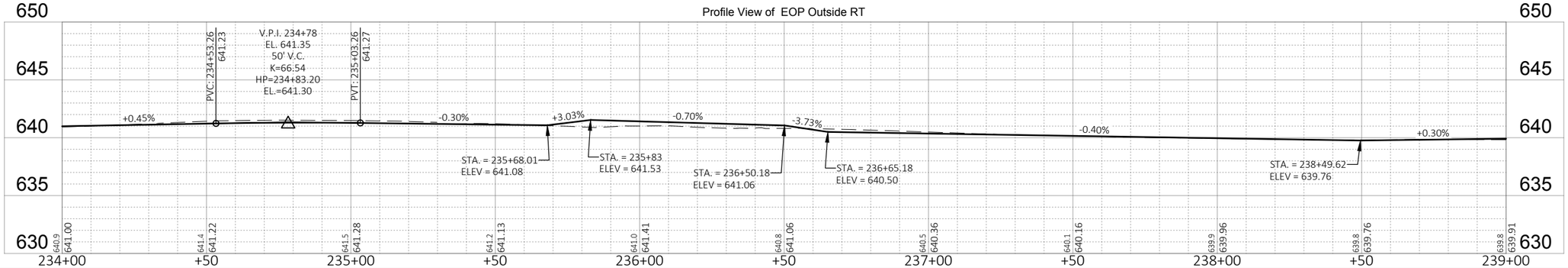
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PP - (1).DWG PLOT DATE : 1/23/2025 3:23 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'



Profile View of EOP Outside LT

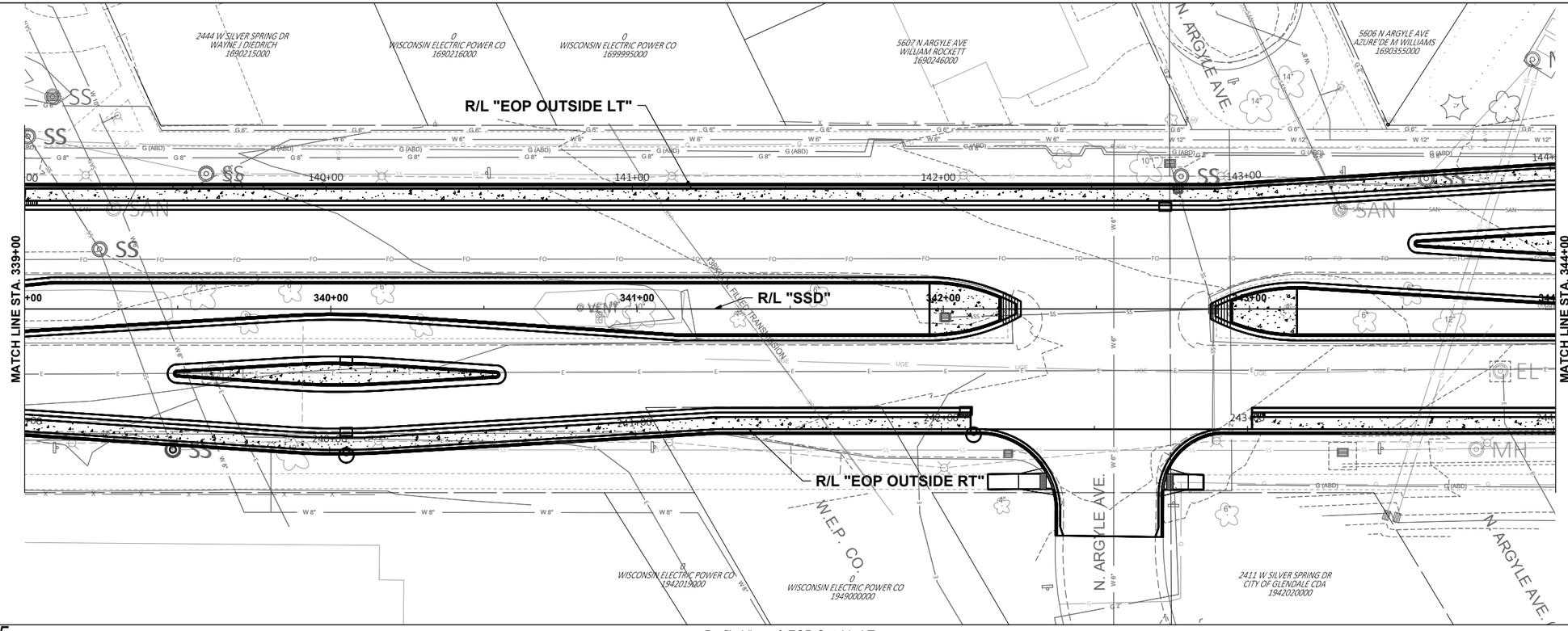


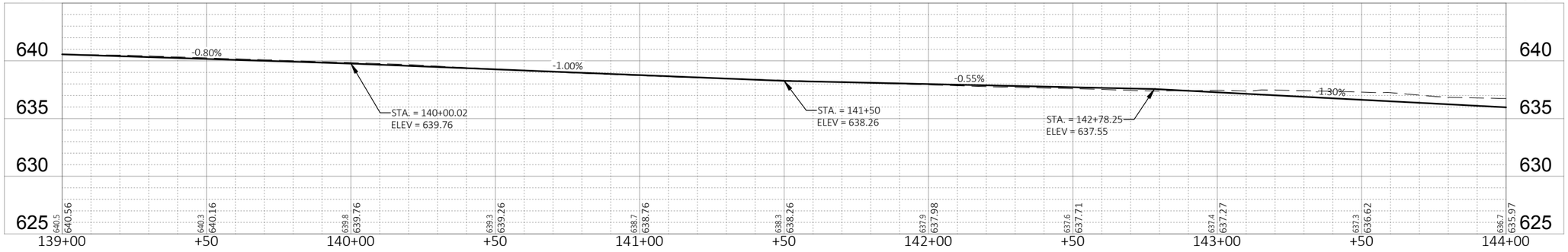
Profile View of EOP Outside RT

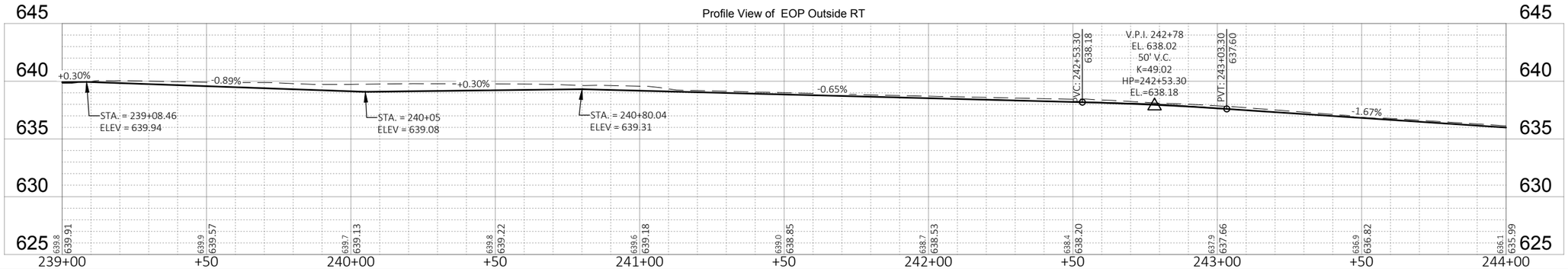


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: SILVER SPRING DRIVE	SHEET 301	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PP - (1).DWG PLOT DATE : 1/23/2025 3:24 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

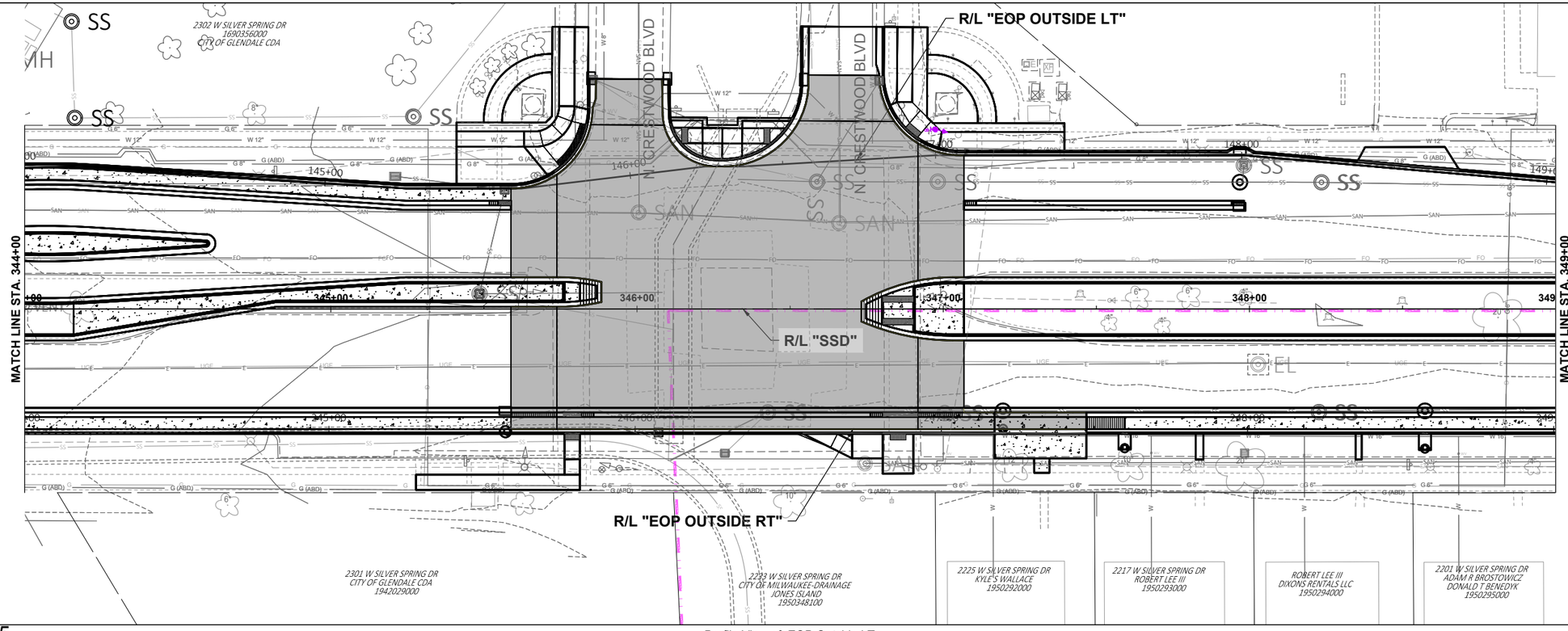


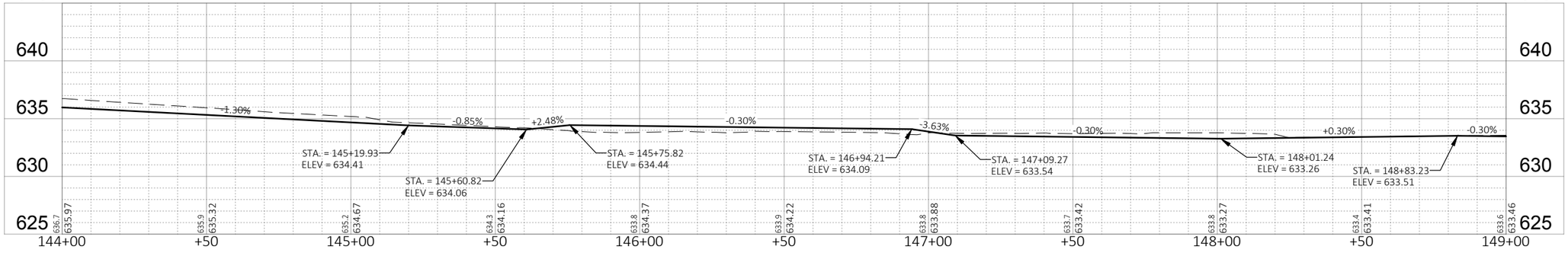


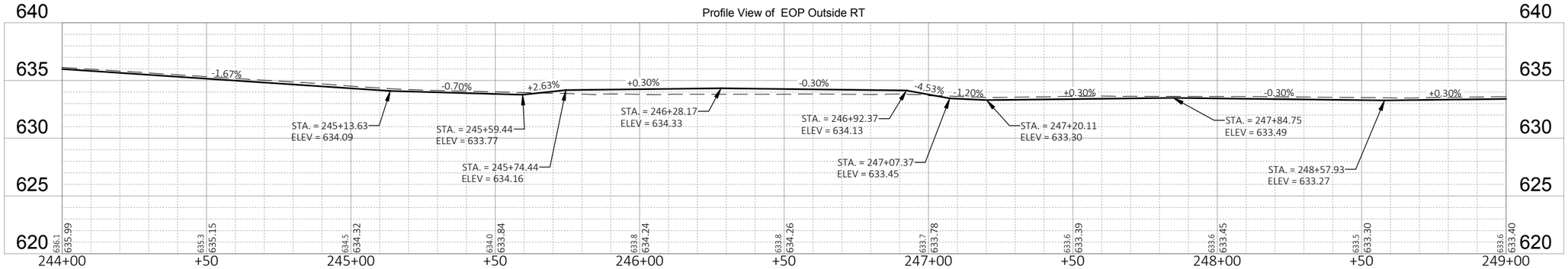


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PLOT: SILVER SPRING DRIVE	SHEET 302	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PP - (1).DWG PLOT DATE : 1/23/2025 3:24 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

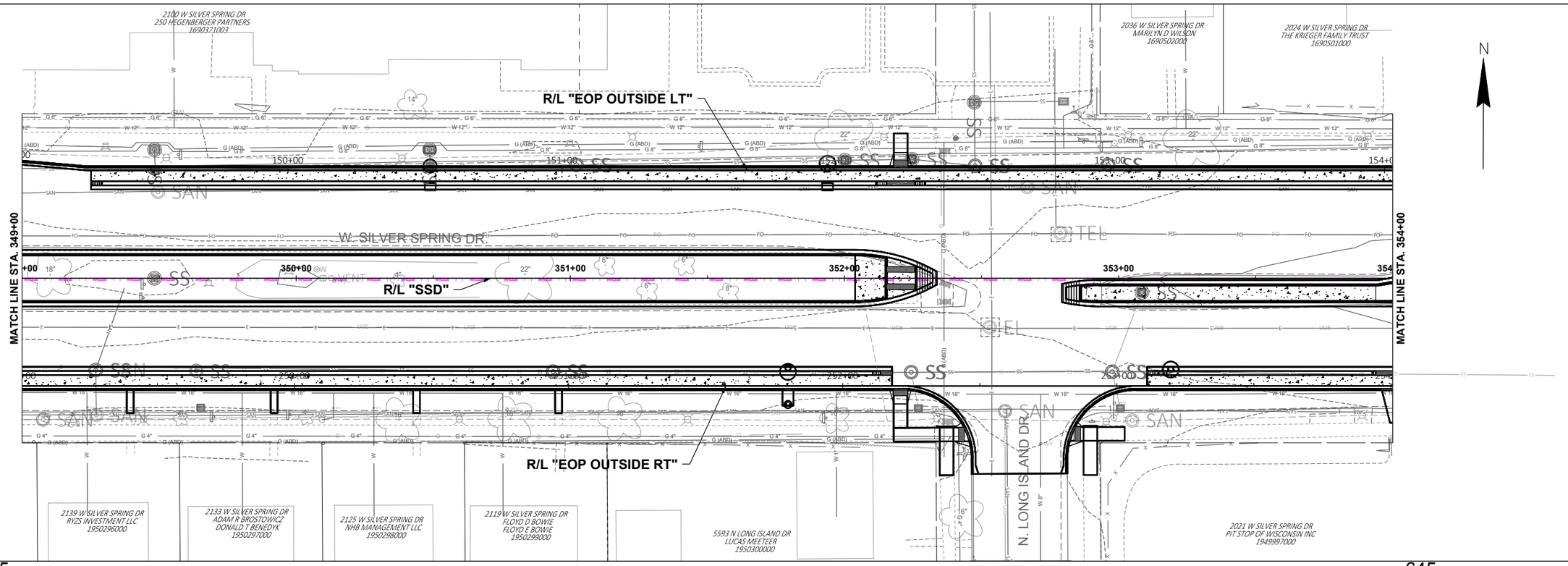






PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: SILVER SPRING DRIVE	SHEET 303	E

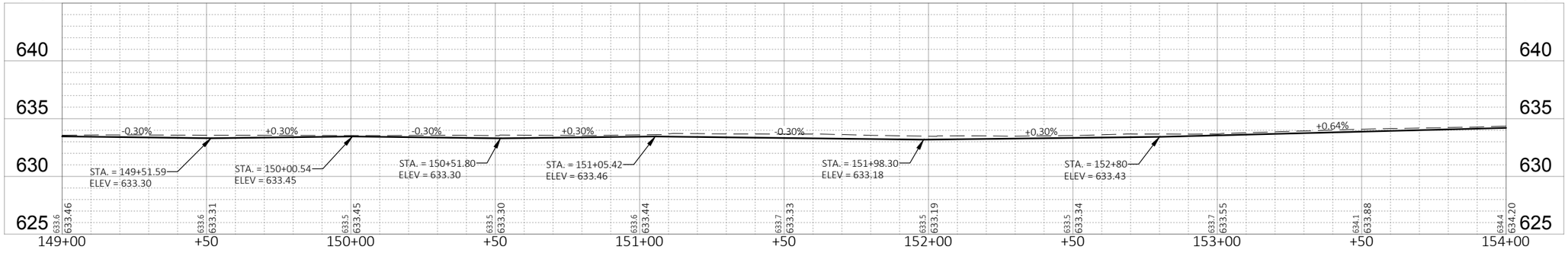
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PP - (1).DWG PLOT DATE : 1/23/2025 3:24 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'



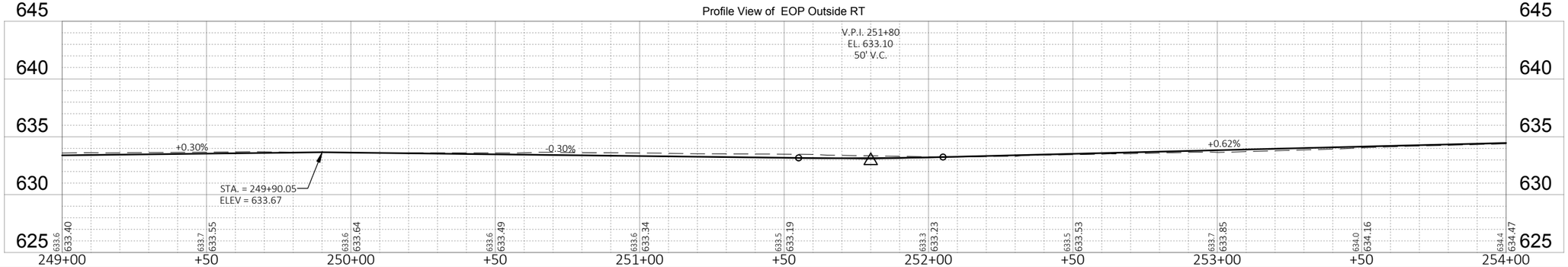
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Profile View of EOP Outside LT

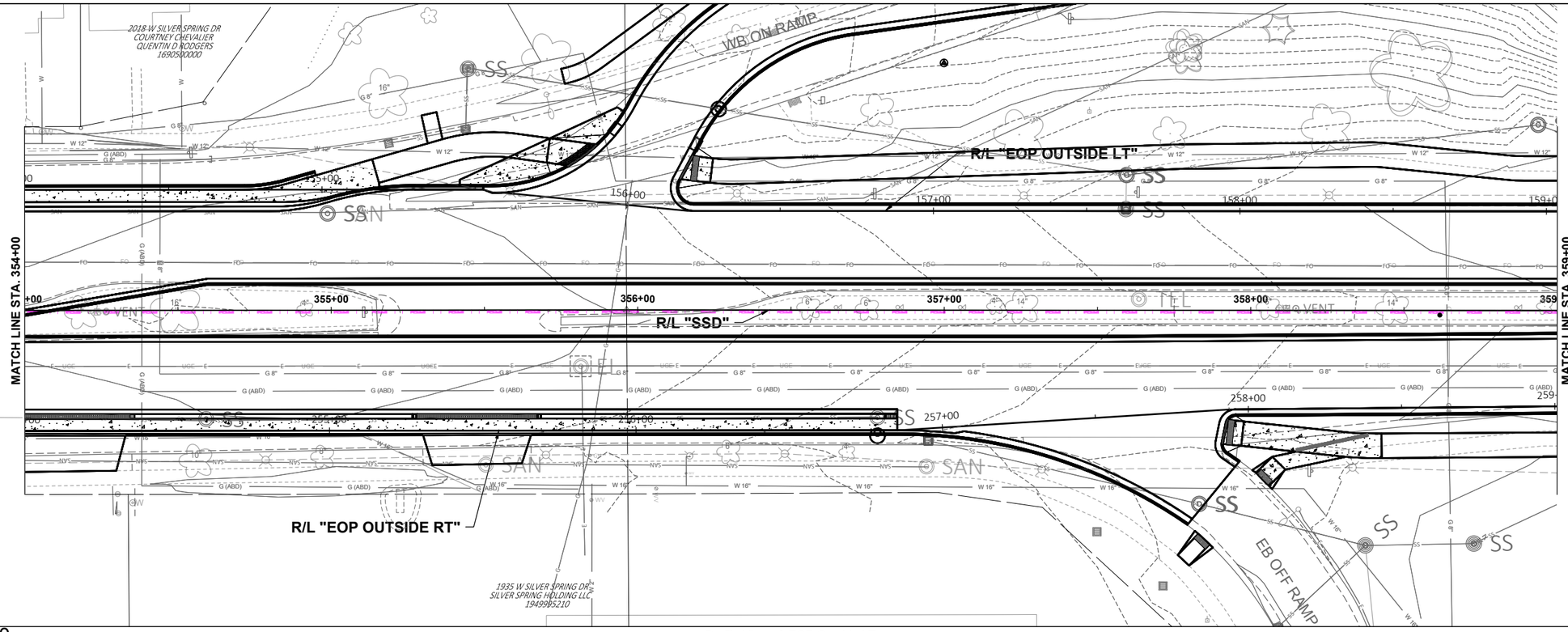


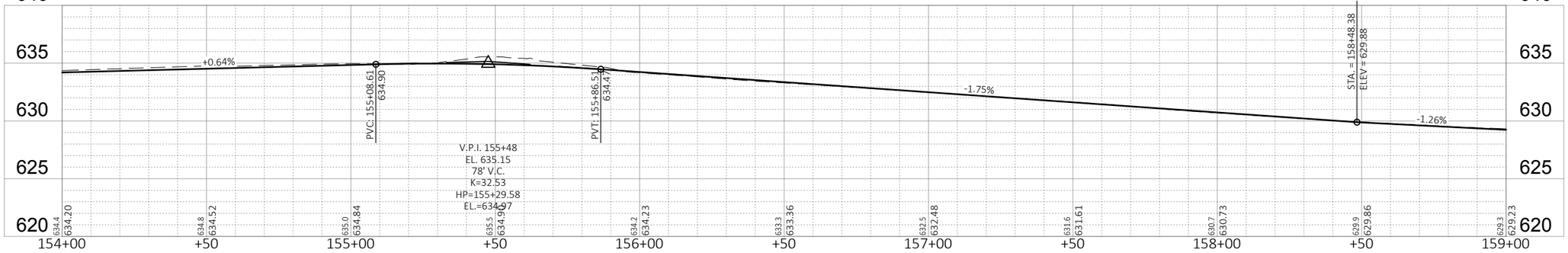
Profile View of EOP Outside RT

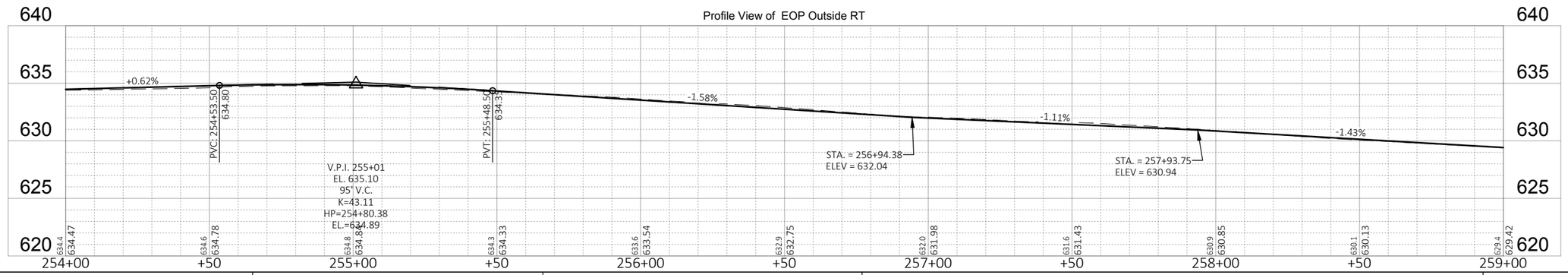


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: SILVER SPRING DRIVE	SHEET 304	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PP - (1).DWG PLOT DATE : 1/23/2025 3:24 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

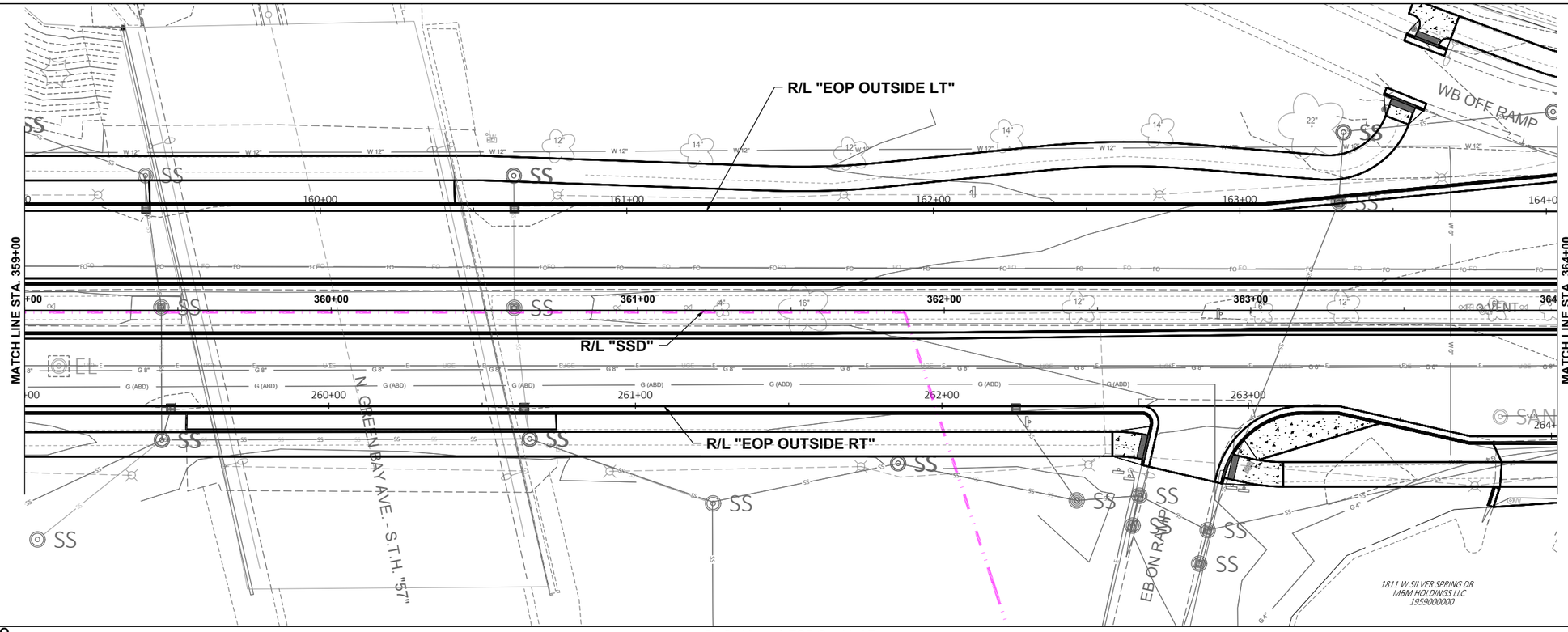


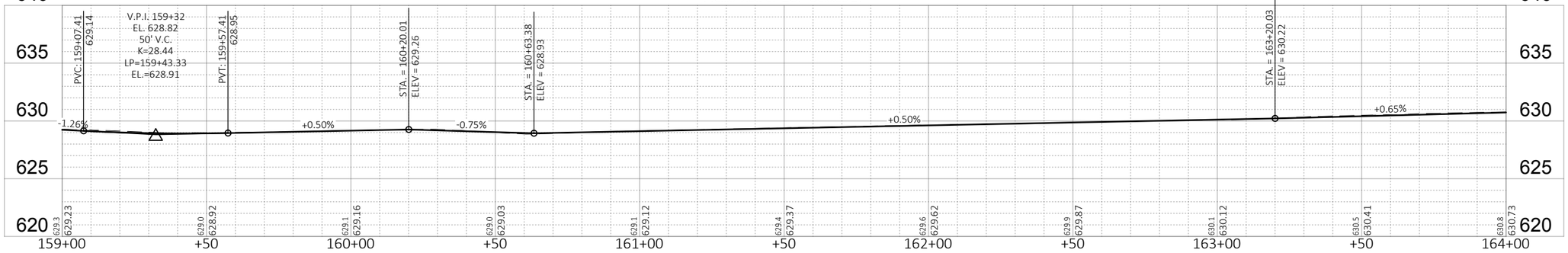


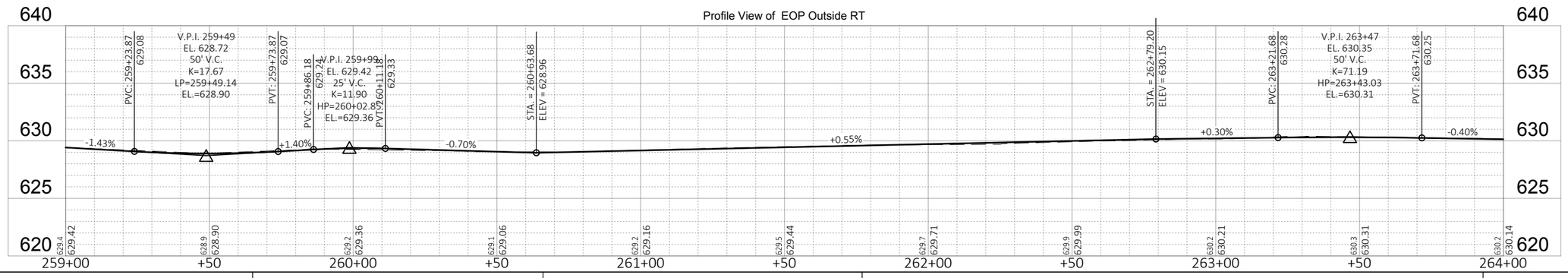


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: SILVER SPRING DRIVE	SHEET 305 E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PP - (1).DWG PLOT DATE : 1/23/2025 3:25 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

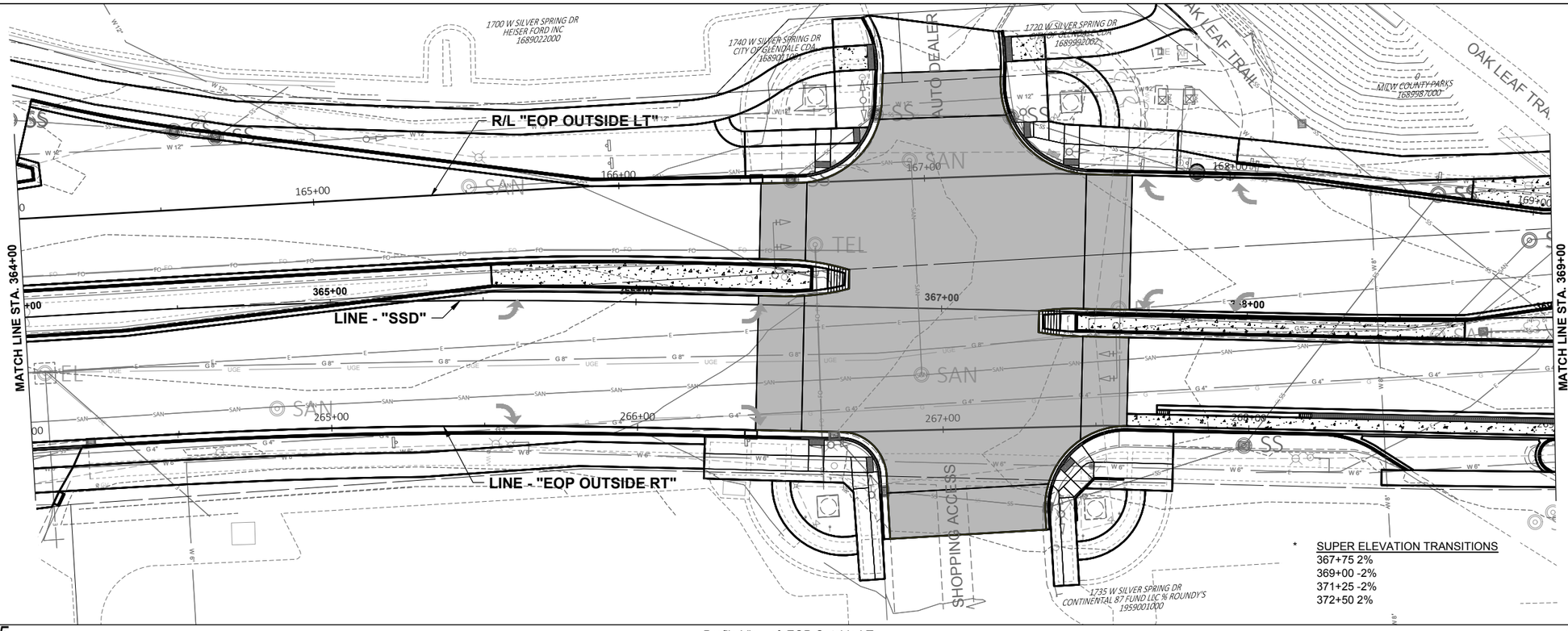






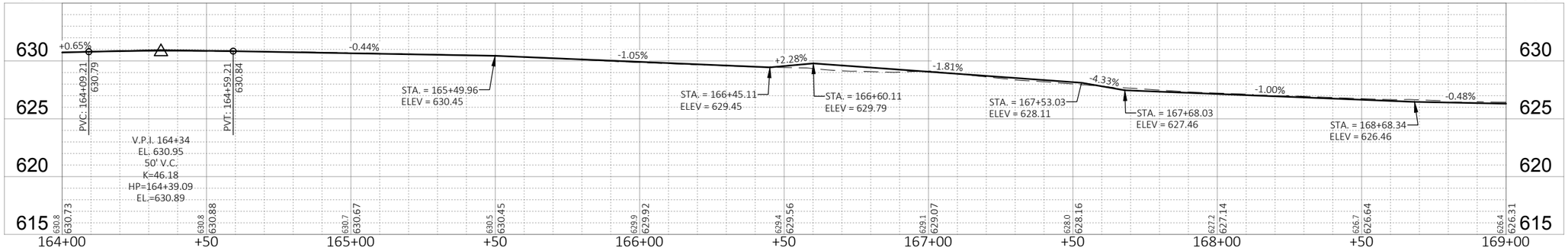
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: SILVER SPRING DRIVE	SHEET 306	E

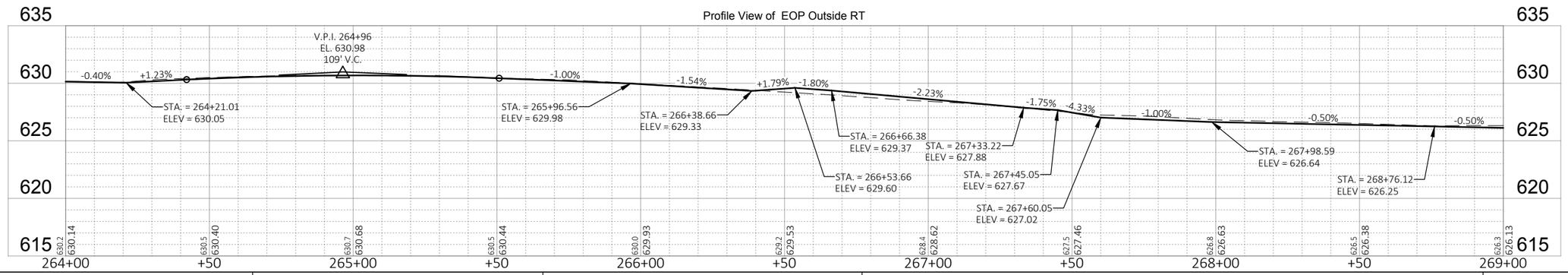
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PP - (1).DWG PLOT DATE : 1/23/2025 3:25 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'



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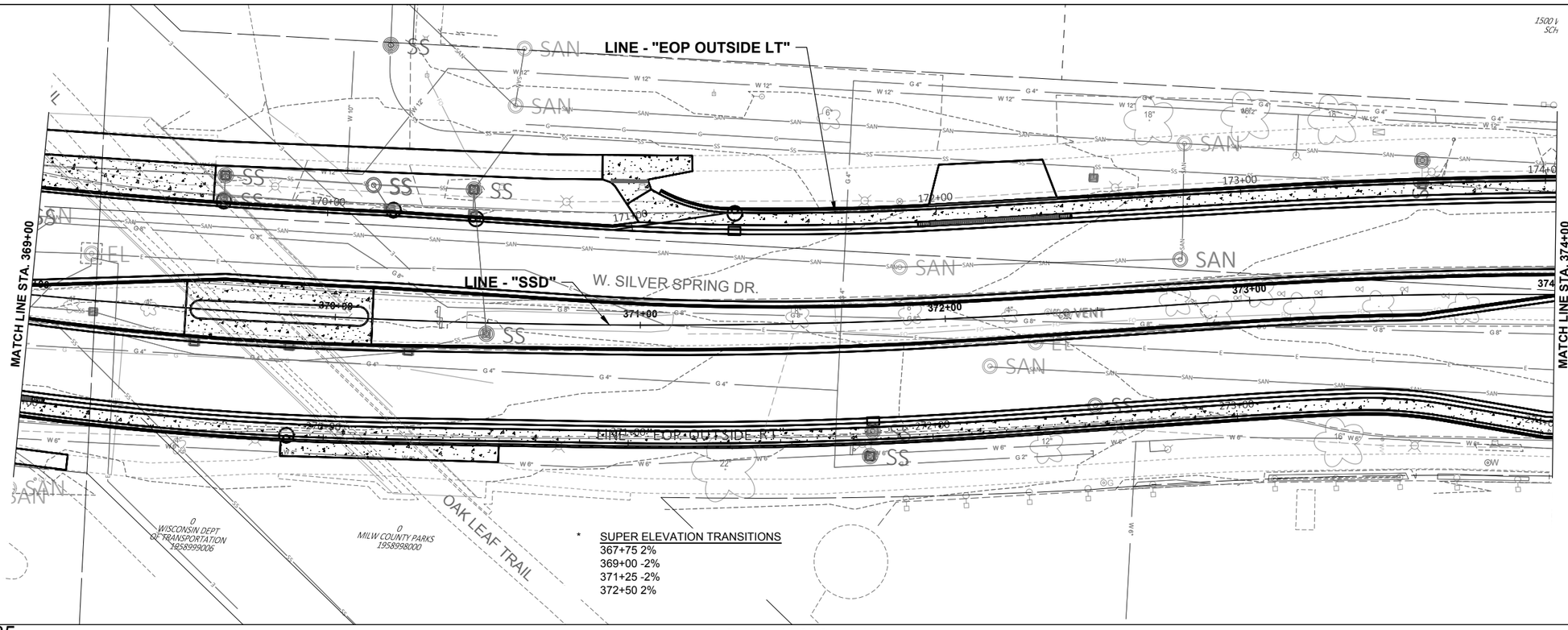
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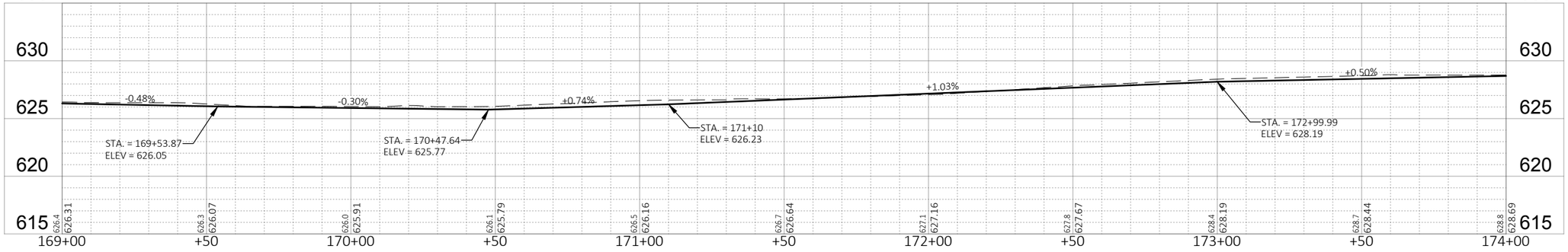


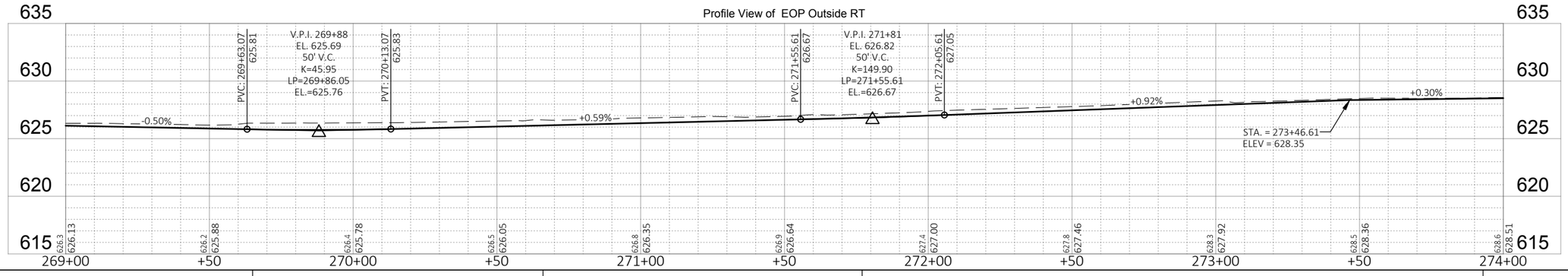


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: SILVER SPRING DRIVE	SHEET 307	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PP - (1).DWG PLOT DATE : 1/23/2025 3:25 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

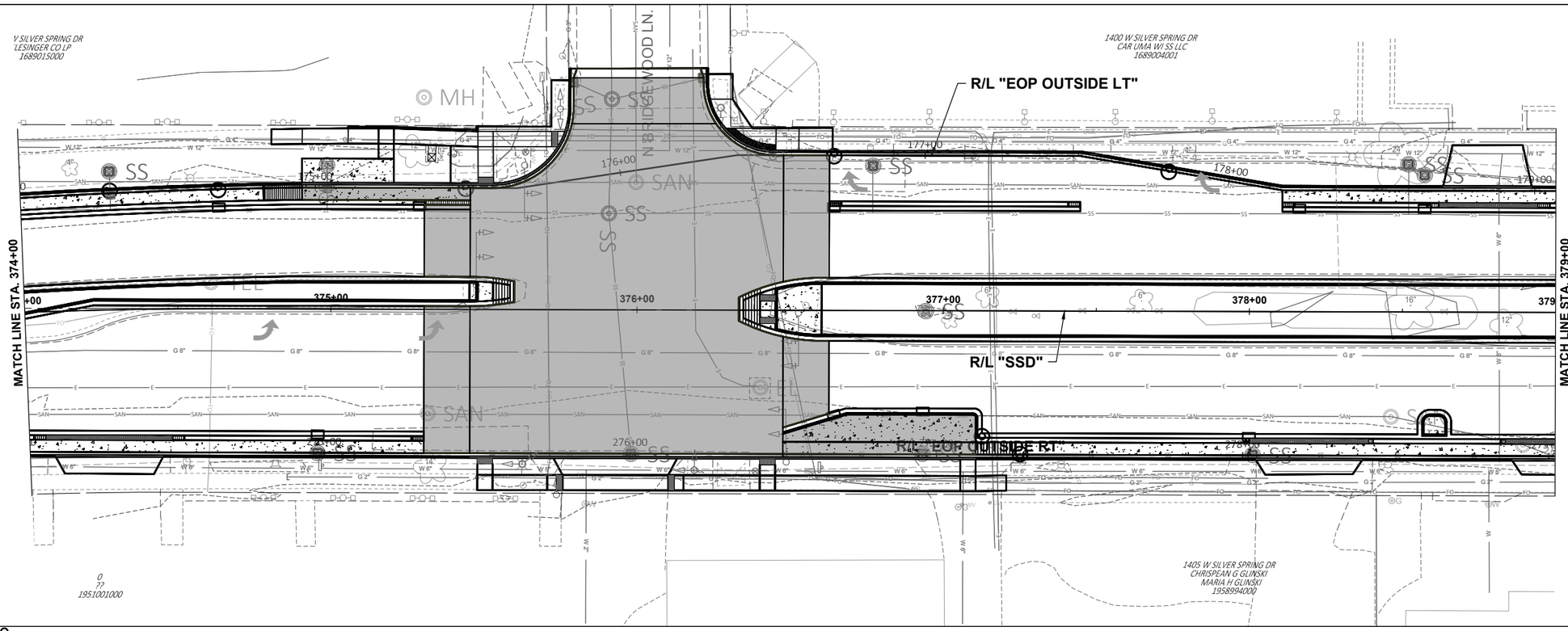


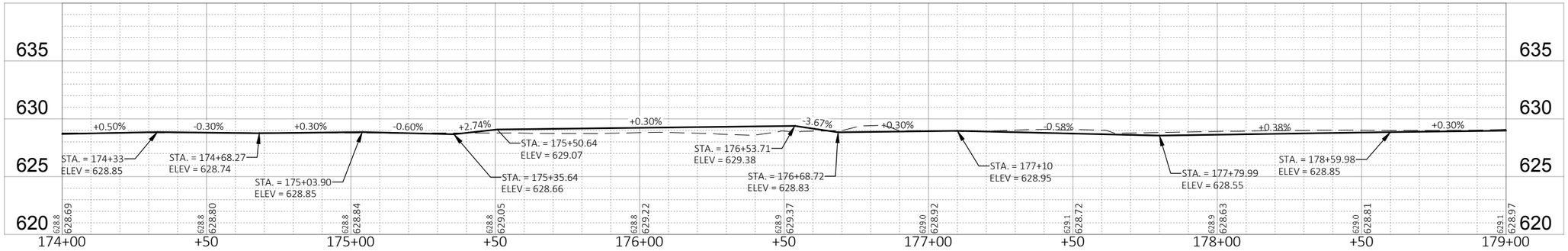


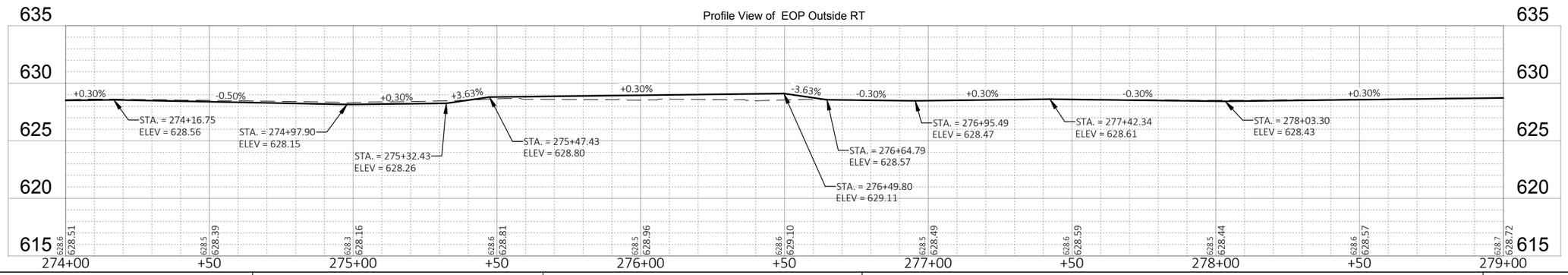


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: SILVER SPRING DRIVE	SHEET 308	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PP - (1).DWG PLOT DATE : 1/23/2025 3:25 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

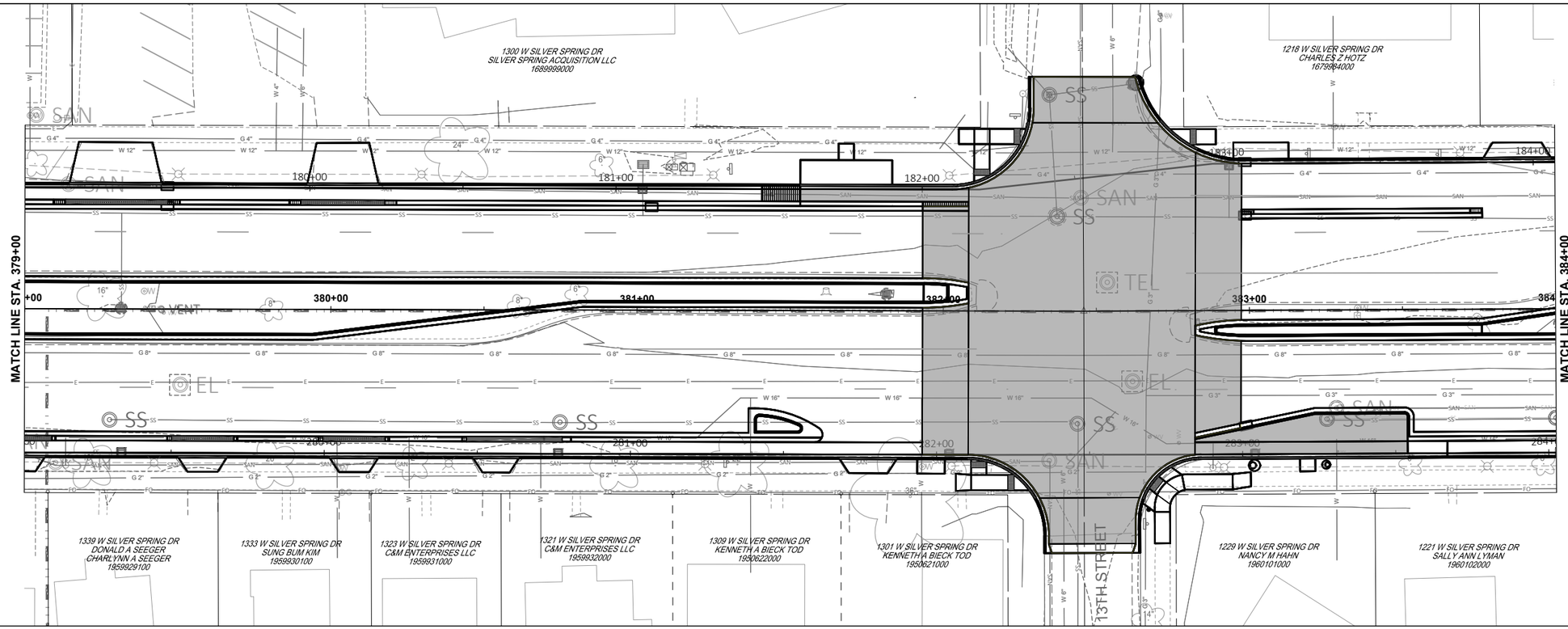






PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: SILVER SPRING DRIVE	SHEET 309 E

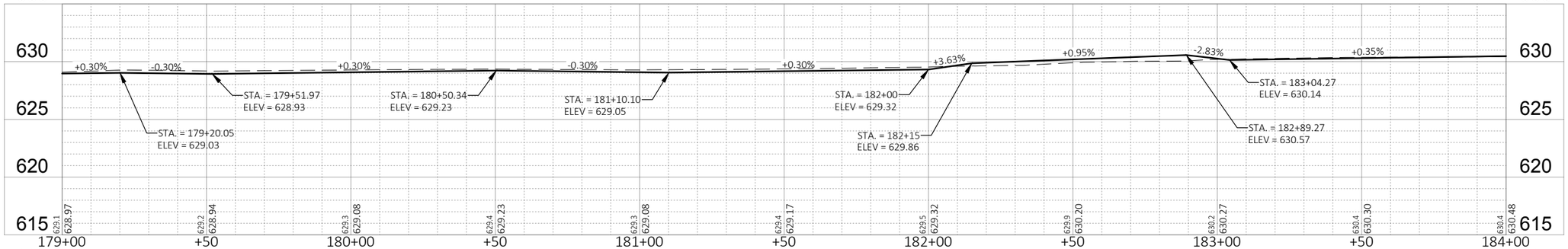
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PP - (1).DWG PLOT DATE : 1/23/2025 3:26 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'



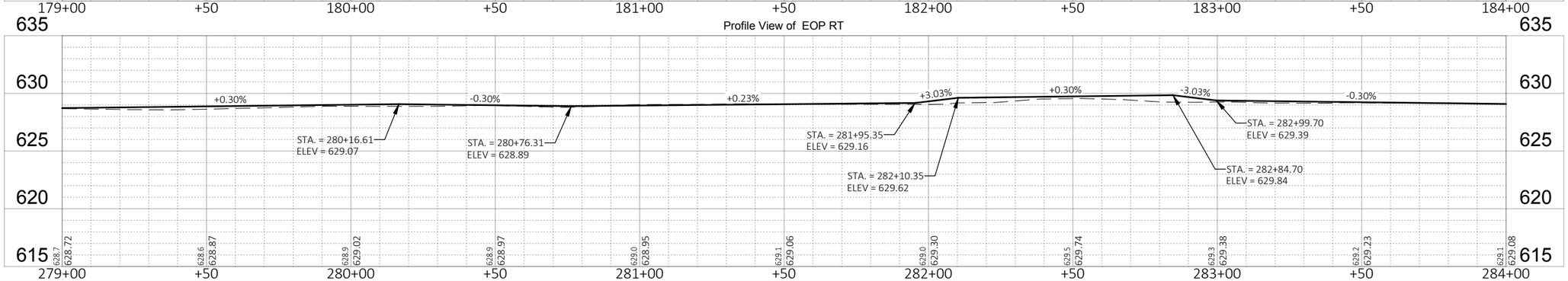
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Profile View of EOP LT

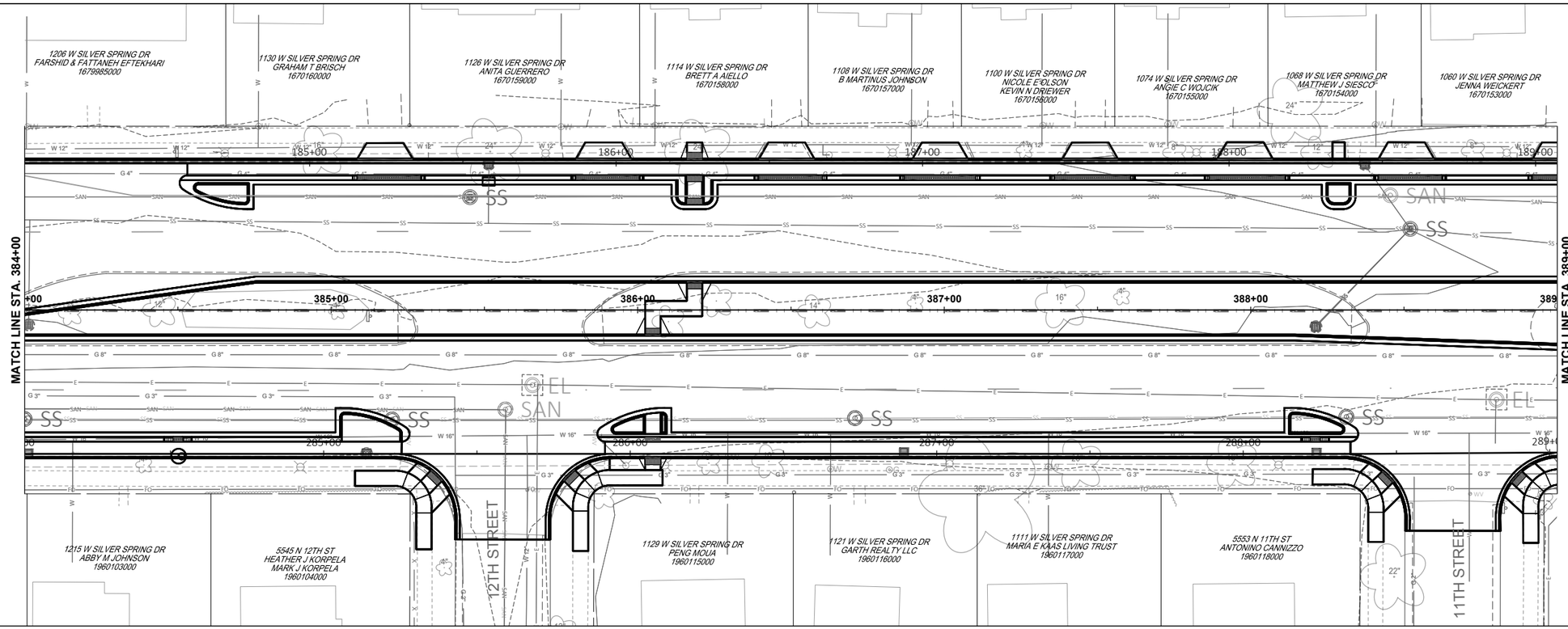


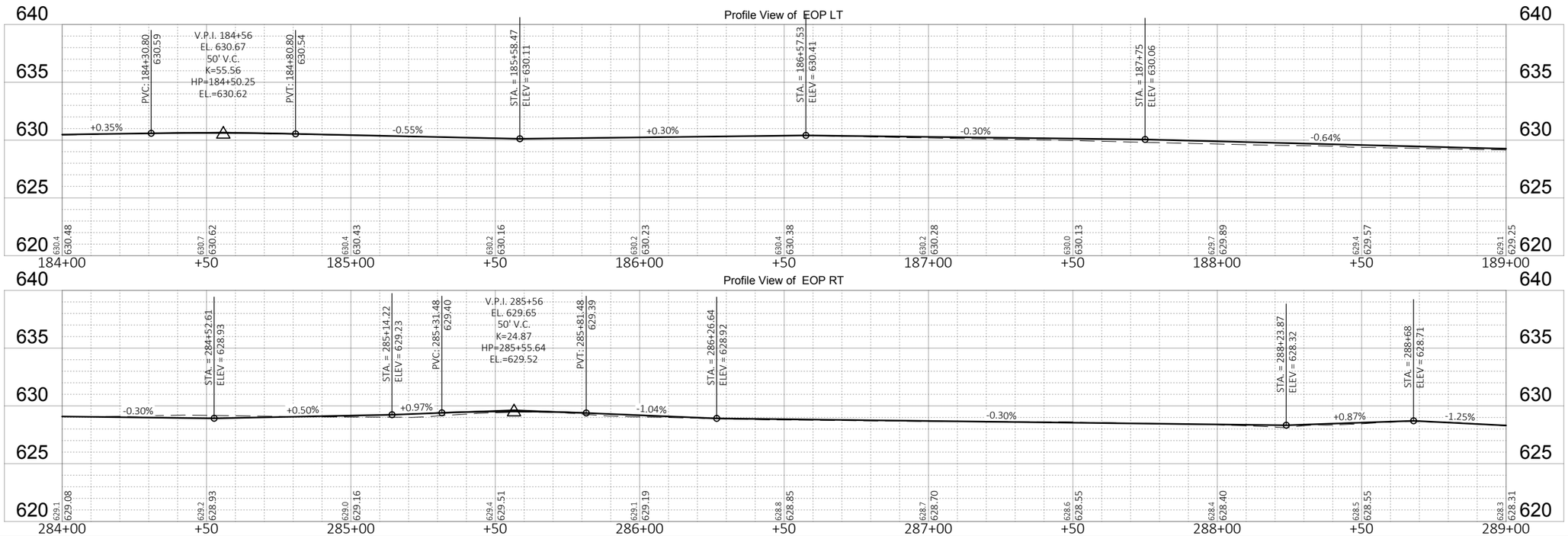
Profile View of EOP RT



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: SILVER SPRING DRIVE	SHEET 310	E

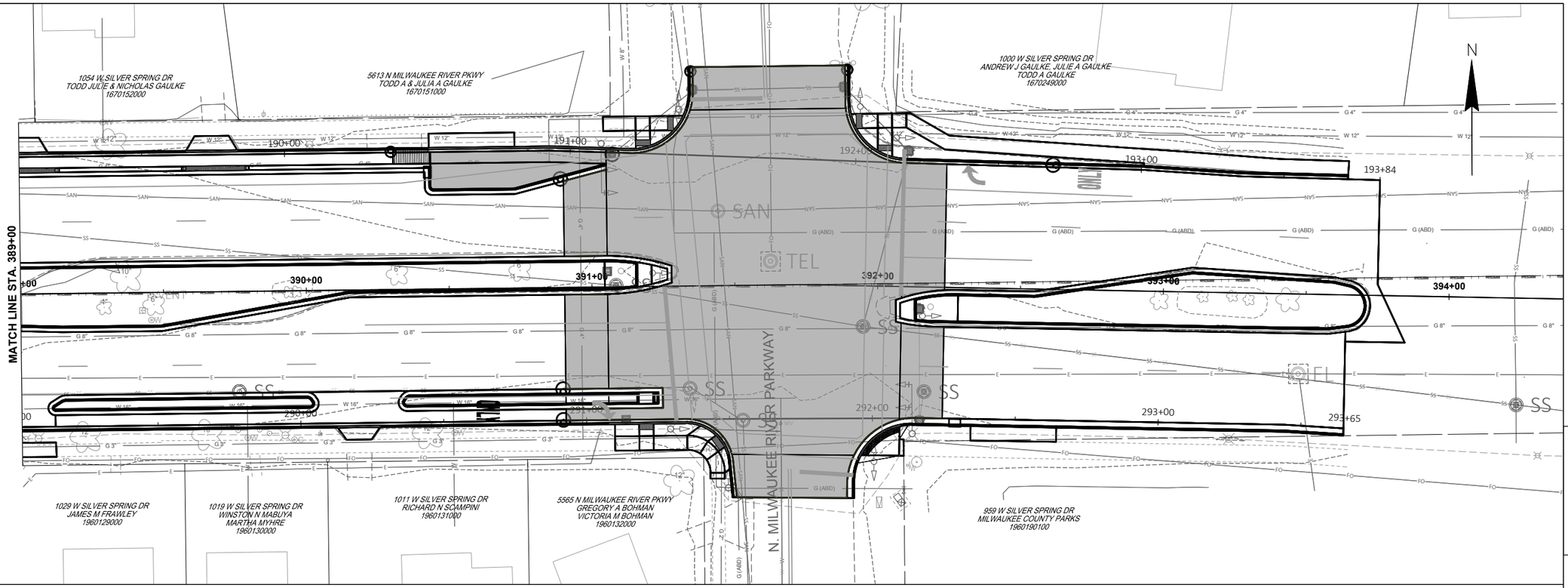
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PP - (2).DWG PLOT DATE : 1/23/2025 3:26 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'





PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: SILVER SPRING DRIVE	SHEET 311 E

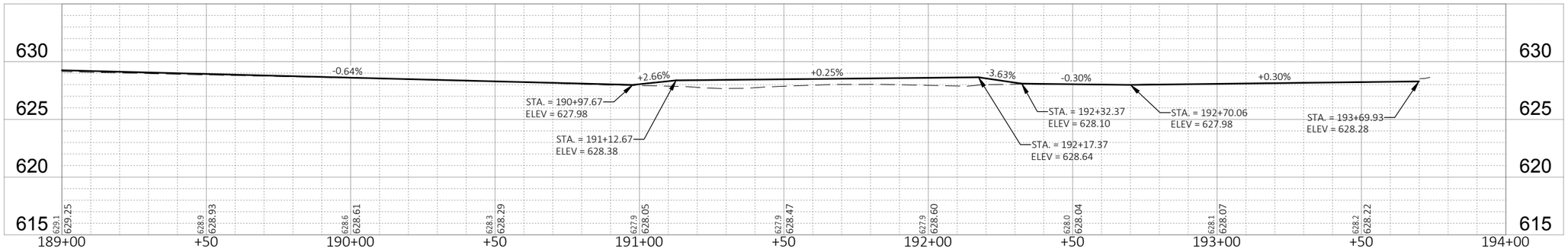
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PP - (2).DWG PLOT DATE : 1/23/2025 3:27 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'



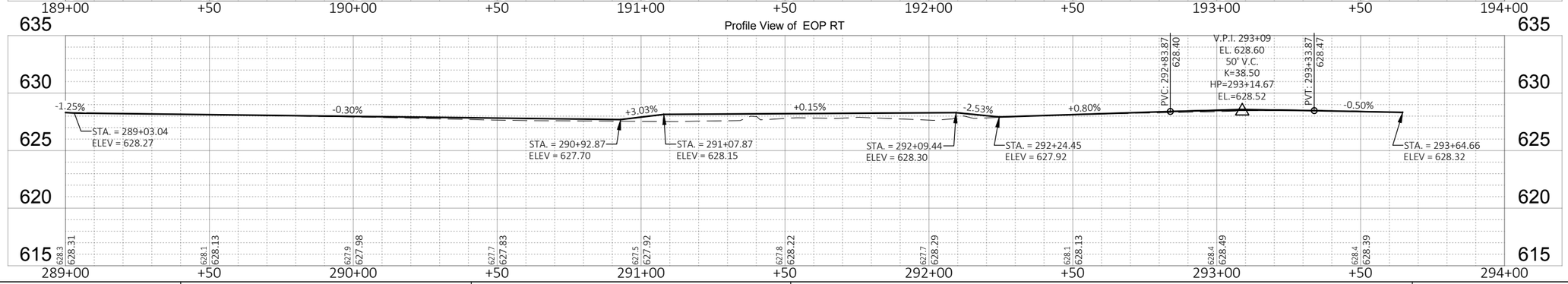
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Profile View of EOP LT



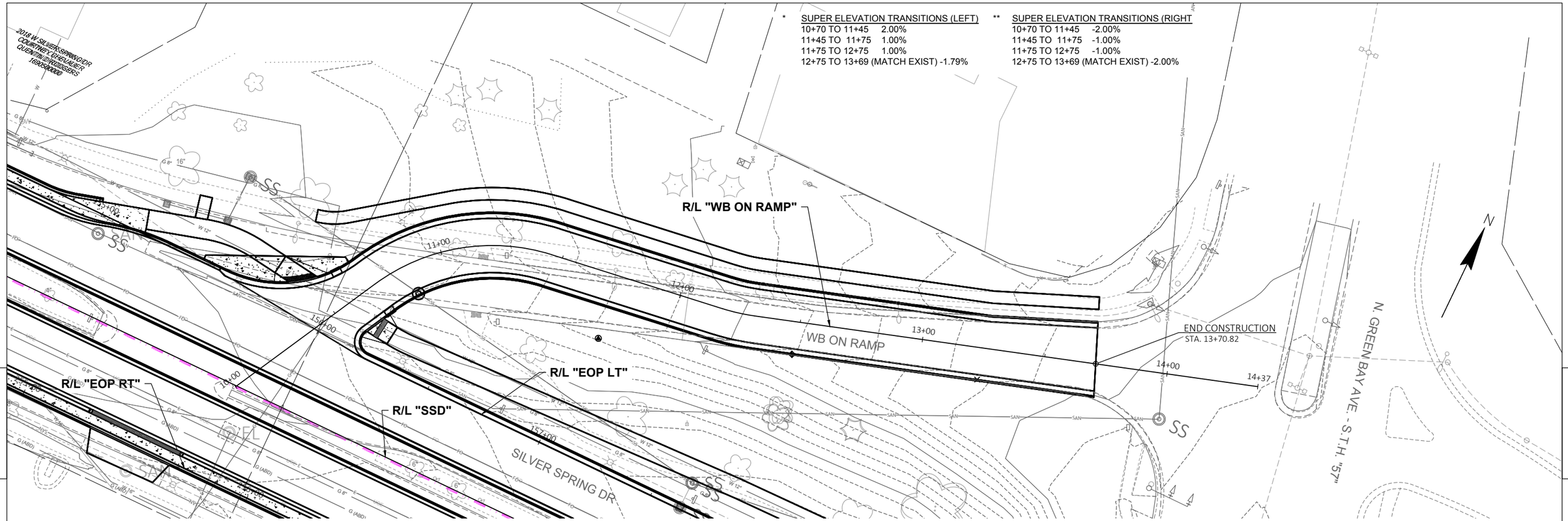
Profile View of EOP RT

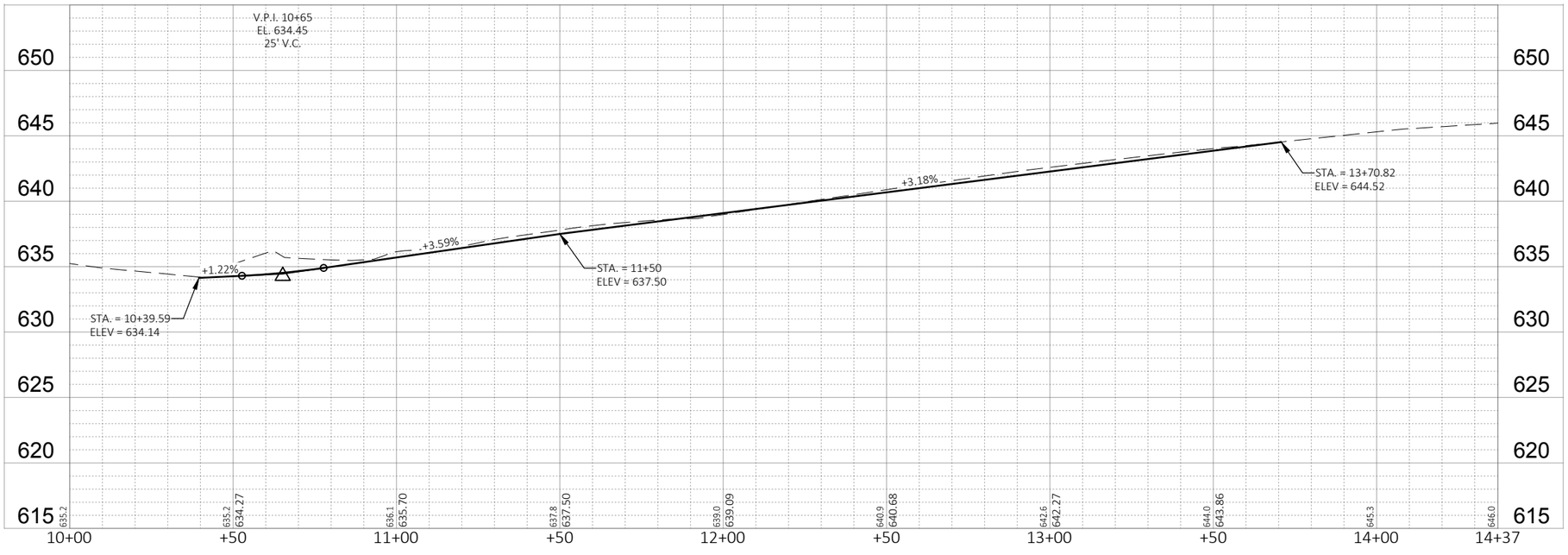


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: SILVER SPRING DRIVE	SHEET 312	E

* SUPER ELEVATION TRANSITIONS (LEFT)
10+70 TO 11+45 2.00%
11+45 TO 11+75 1.00%
11+75 TO 12+75 1.00%
12+75 TO 13+69 (MATCH EXIST) -1.79%

** SUPER ELEVATION TRANSITIONS (RIGHT
10+70 TO 11+45 -2.00%
11+45 TO 11+75 -1.00%
11+75 TO 12+75 -1.00%
12+75 TO 13+69 (MATCH EXIST) -2.00%





PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	PLAN AND PROFILE: WB ON RAMP	SHEET 313	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\PP - (ON RAMP).DWG PLOT DATE : 1/23/2025 3:27 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 40'

Standard Detail Drawing List

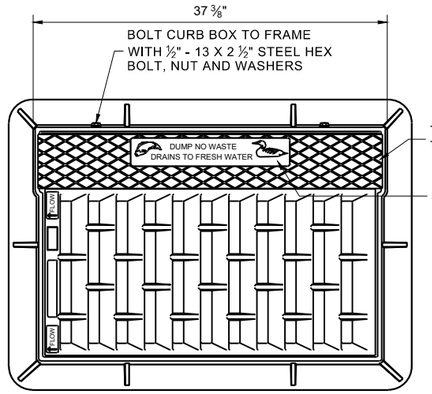
08A05-21A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-21B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-21E	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C06-03	INLETS 3-FT AND 4-FT DIAMETER
08C07-03	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT
08C08-03	INLETS MEDIAN 1 AND 2 GRATE
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D16-11	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09B02-10	CONDUIT
09B04-12	PULL BOX
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C14-03	CONCRETE CONTROL CABINET BASE, TYPE L
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09E01-15A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-15C	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E02-05	FREEWAY LIGHTING UNIT POLE WIRING
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09F09-05	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)
09F10-04	LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09H05-01	CABINET BREAKER DISCONNECT BOX INSTALLATION
09H06-02	SIGNAL ASSEMBLY ADVANCE FLASHER TYPE 1
09H08-03	COMMUNICATIONS MANHOLE DETAILS
09H09-02	COMMUNICATION VAULT TYPE 1
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"
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"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09E	OFF RAMP LANE CLOSURE
15C02-09F	ADVANCED WIDTH RESTRICTION SIGNING
15C02-09G	TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
15C02-09H	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

6

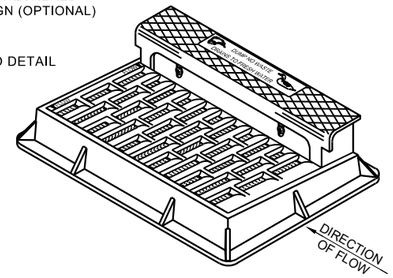
Standard Detail Drawing List

15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C07-15E	PAVEMENT MARKING FOR BIKE LANES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23C	PAVEMENT MARKING (TURN LANES)
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C11-10A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-08A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C18-08B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C18-08C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C19-09C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C20-02	YIELD MARKING
15C29-08A	BICYCLE LANE MARKING
15C29-08B	PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS
15C31-06A	PAVEMENT MARKING EXIT RAMP AND PARALLEL EXIT RAMP
15C31-06C	PAVEMENT MARKING ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C34-04	STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKER, TYPE 2
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15C36-01	PARKING STALL MARKING
15D04-01	TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING
15D12-13B	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D15-07C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D20-08A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY
15D20-08B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-09E	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D36-01	BARRICADE RACK
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D40-05C	TRAFFIC CONTROL, PARTIAL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D43-02	TRAFFIC CONTROL, SHORT DURATION MOBILE OPERATIONS
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D50-03A	TRAFFIC CONTROL, ADDED LANE CLOSURE WITHOUT LANE SHIFT
15D50-03B	TRAFFIC CONTROL, ADDED LANE CLOSURE WITH LANE SHIFT

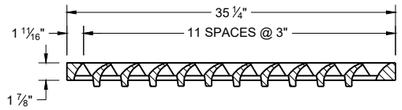
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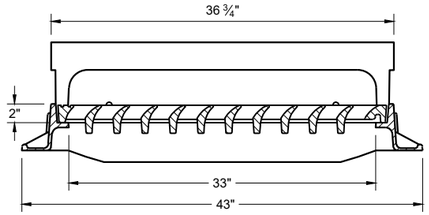


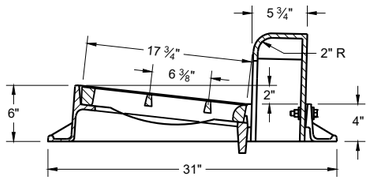
NOTE: EITHER CASTING IS ACCEPTABLE

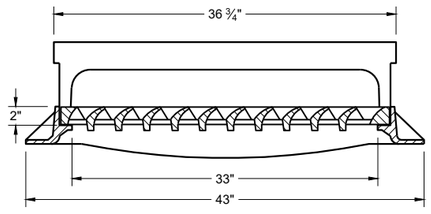


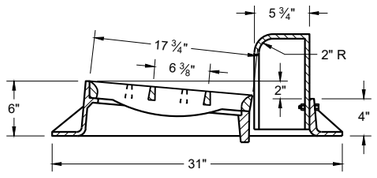
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"







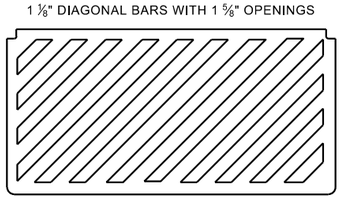




TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

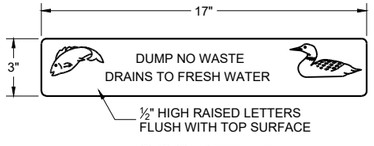
1 1/8" DIAGONAL BARS WITH 1 5/8" OPENINGS



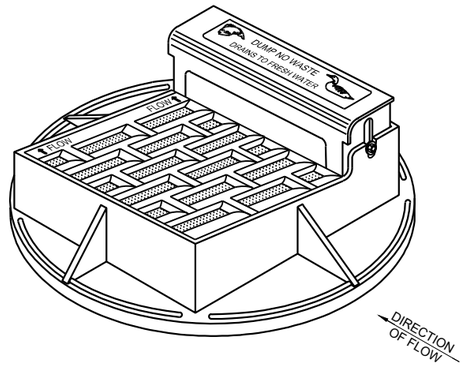
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

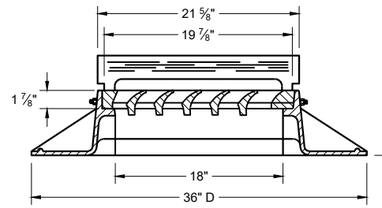


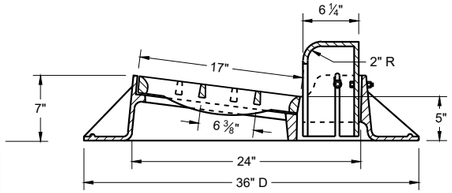
LOGO DETAIL



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

NOTE: EITHER CASTING IS ACCEPTABLE





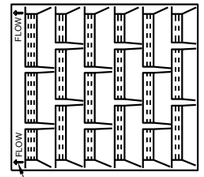
TYPE "A"

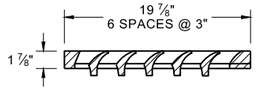
GENERAL NOTES

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

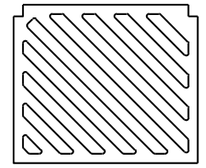
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.





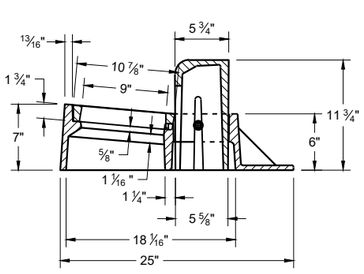
1" DIAGONAL BARS WITH 1 1/2" OPENINGS



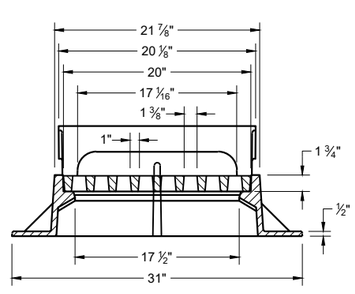
SPECIAL GRATE FOR TYPE "A" COVER

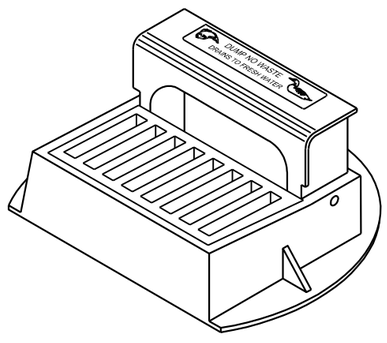
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "Z"





INLET COVERS
TYPES A, H, A-S, H-S AND Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

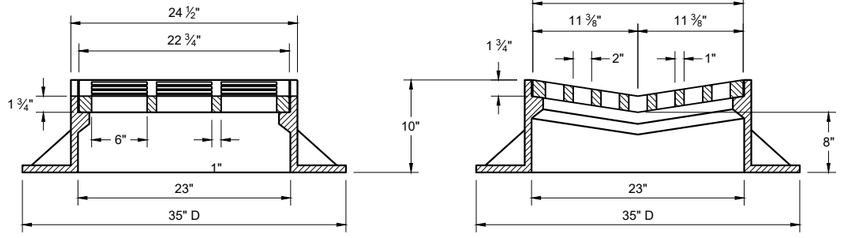
APPROVED
December 2023
DATE

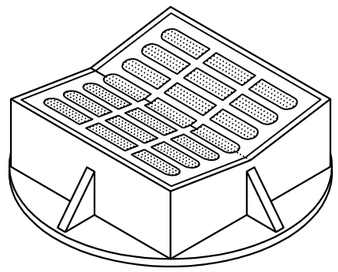
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

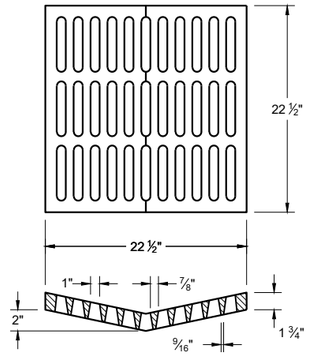
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SDD 08A05-21a





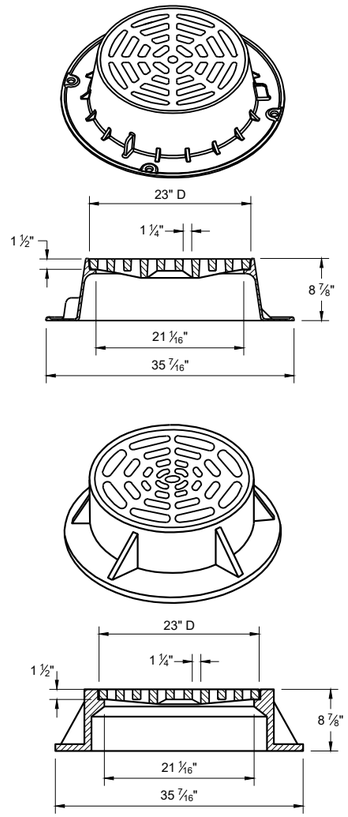
TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS POSSIBLE

NOTED AS TYPE B - A ON THE DRAINAGE TABLE



TYPE "C"

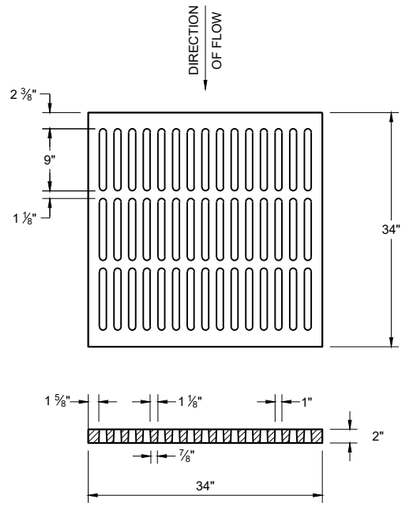
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR 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.

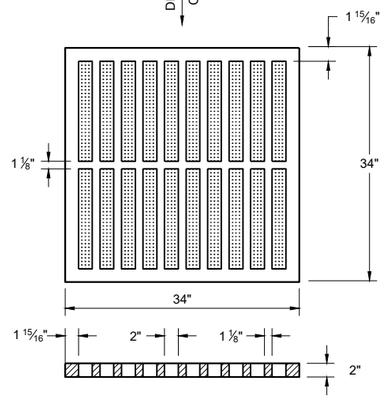
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS PERMITTED

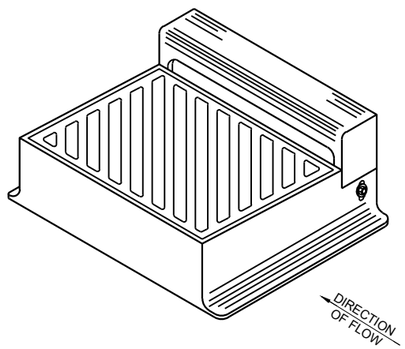
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



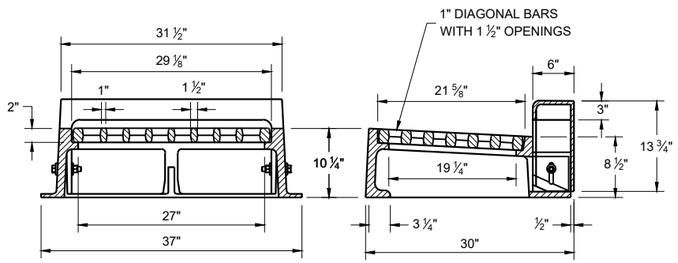
TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON THE DRAINAGE TABLE



DIAGONAL SLOTS SHALL BE ORIENTEDTO THE DIRECTION OF FLOW AS ILLUSTRATED.
GRATES ARE MANUFACTURED TO BE REVERSIBLE.



TYPE "WM"

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

INLET COVERS TYPES B, B-A, C, MS, MS-A AND WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6

SDD 08A05-21b

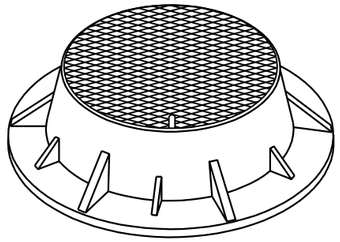
SDD 08A05-21b

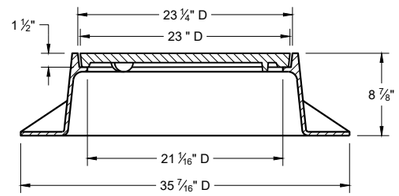
GENERAL NOTES

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

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

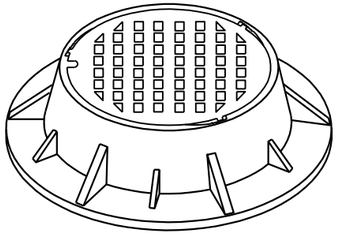
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

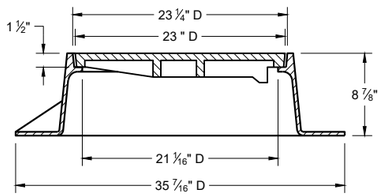




TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

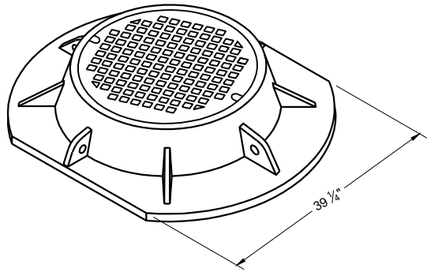


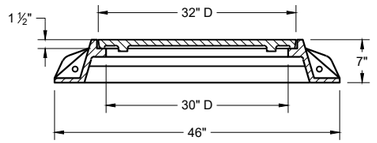


TYPE "J" SPECIAL

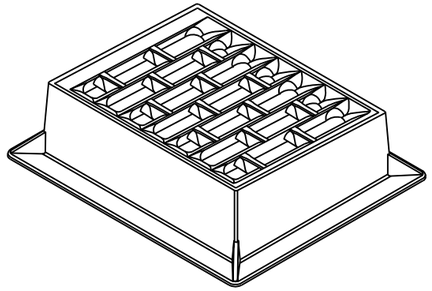
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

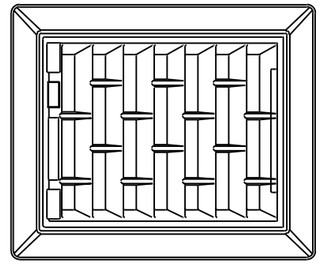
NOTE: EITHER CASTING IS ACCEPTABLE

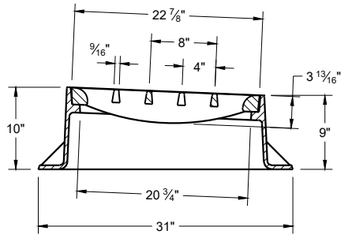


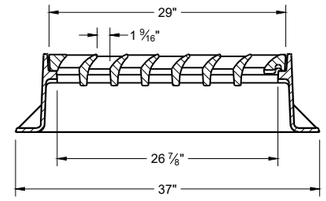


TYPE "K"

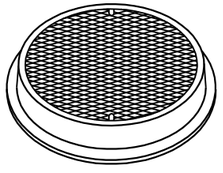


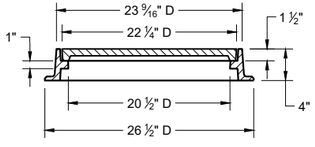




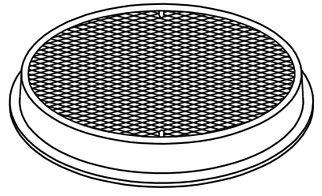


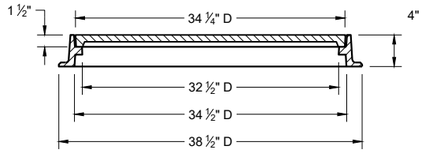
INLET COVER TYPE "BW"





TYPE "L"





TYPE "M"

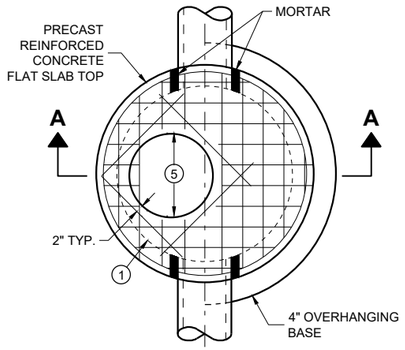
INLET COVERS TYPES BW
MANHOLE COVERS TYPES K, J, J-S, L, AND M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

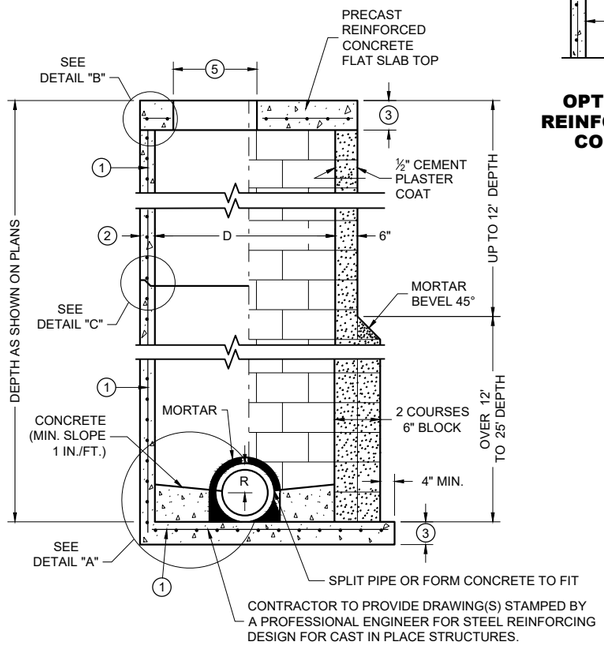
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SDD 08A05-21e



PLAN VIEW

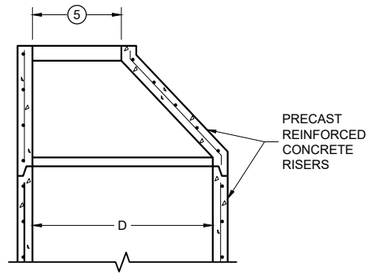
CIRCULAR OPENING



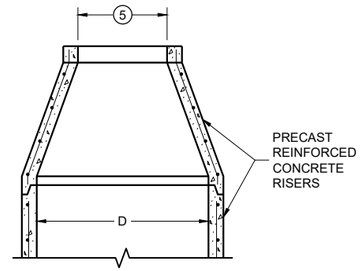
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

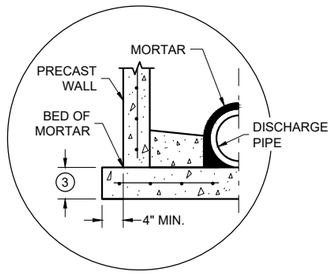
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)



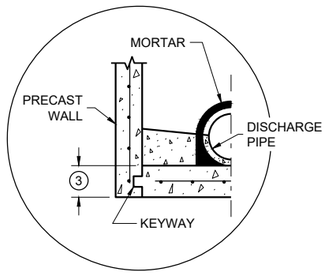
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

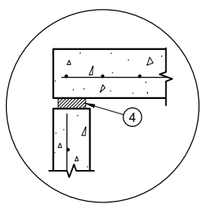


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

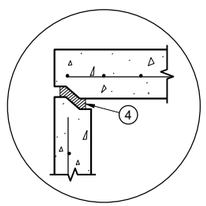


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

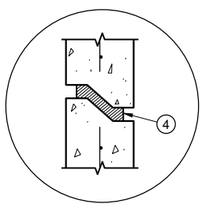
DETAIL "A"



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".

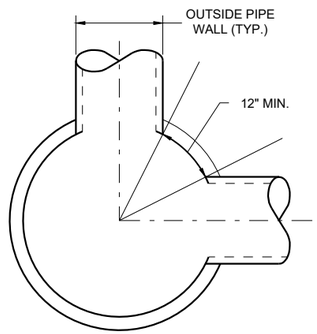
(1) FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(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

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

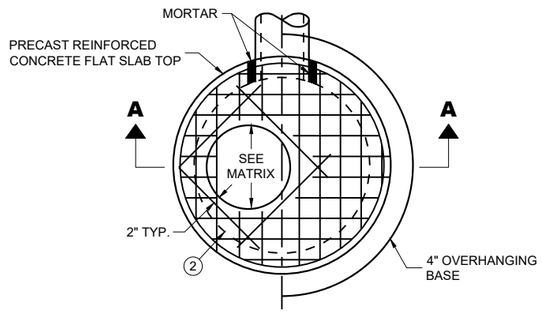
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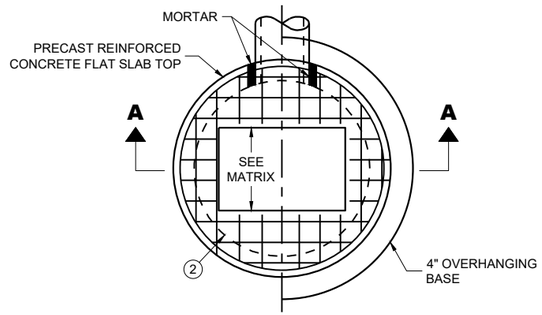
SDD 08B09-04

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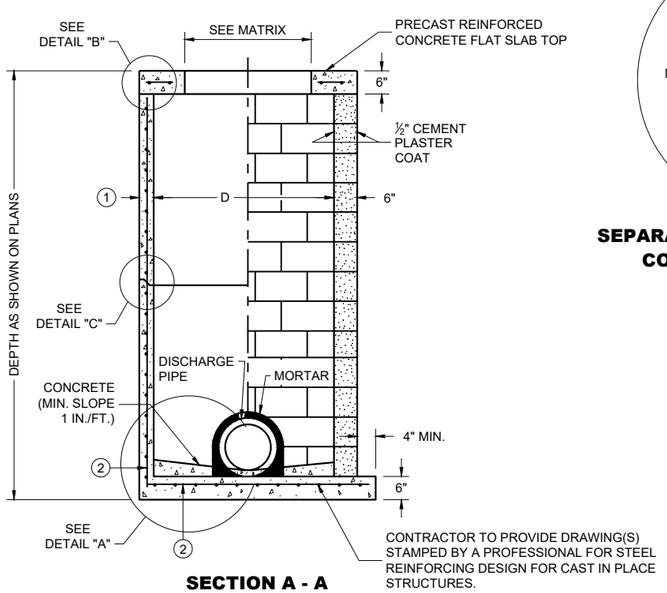
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PLAN VIEW CIRCULAR OPENING



PLAN VIEW RECTANGULAR OPENING



SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (2)

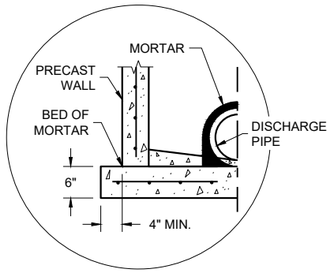
CIRCULAR INLETS WITH FLAT TOP

CATCH BASIN COVER OPENING MATRIX

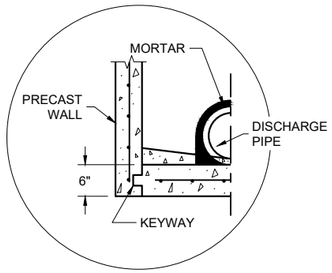
INLET SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT.)											
3-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
4-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
	2 X 2.5			X				X	X	X	X	
	2 X 3						X					
	2.5 X 3					X						

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

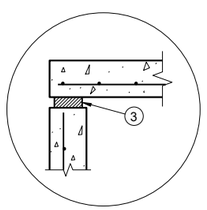


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

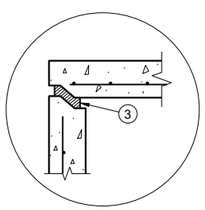


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

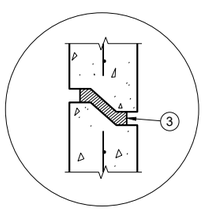
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B" **DETAIL "C"**

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

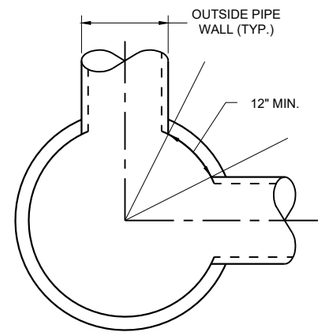
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

(1) MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT DIAMETER AND 5 INCHES FOR 4-FT DIAMTER PRECAST INLETS.

(2) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(3) 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.



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

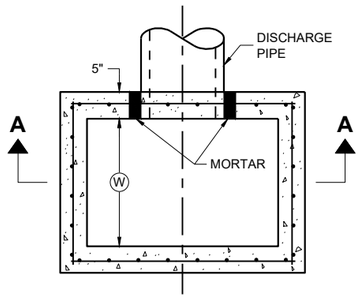
APPROVED
December 2023 — DATE
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FHWA

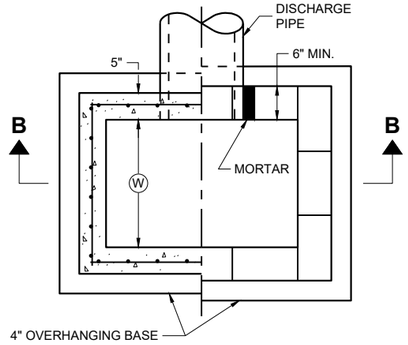
INLETS 3-FT AND 4-FT DIAMETER

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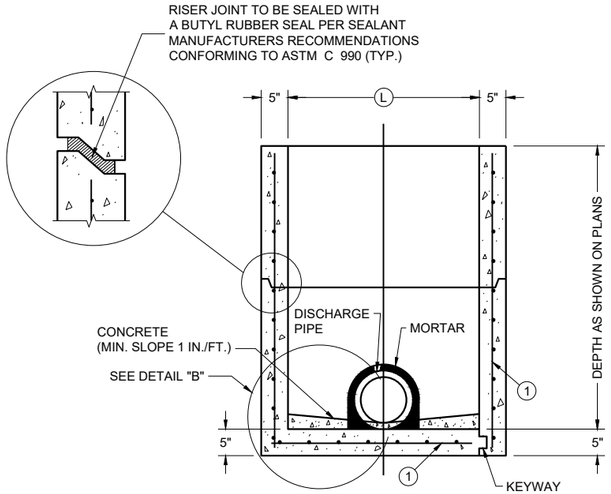
SDD 08C06-03



PLAN VIEW



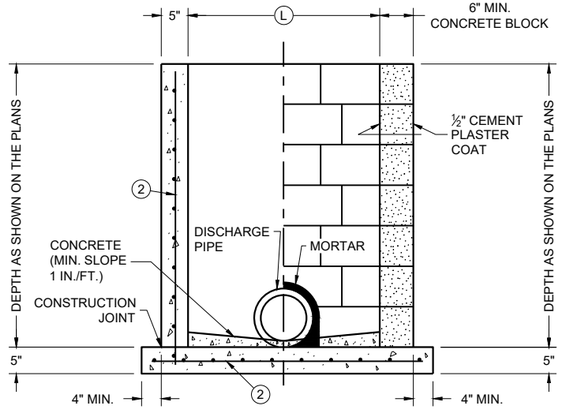
PLAN VIEW



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

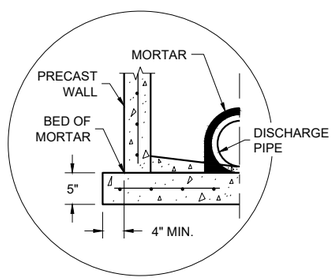
SECTION A - A



CAST IN PLACE REINFORCED CONCRETE

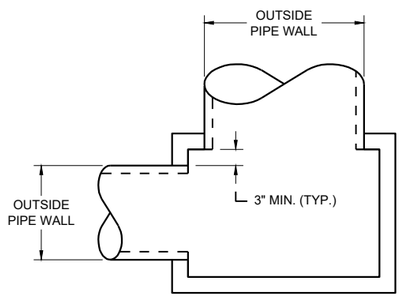
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)

SECTION B - B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "B"



DETAIL "A"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP N0T SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

(1) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913
(2) CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

CATCH BASIN COVER MATRIX

INLET SIZE	WIDTH (W) (FT.)	LENGTH (L) (FT.)	INLET COVER TYPE									
			ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM	V V-B
2 X 2-FT	2	2	X	X				X				
2 X 2.5-FT	2	2.5			X			X	X	X	X	
2 X 3-FT	2	3					X					
2.5 X 3-FT	2.5	3				X						
2 X 3.5-FT	2	3.5										X

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2 X 2-FT	12	12
2 X 2.5-FT	12	18
2 X 3-FT	12	24
2.5 X 3-FT	18	24
2 X 3.5-FT	12	30

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2X3.5-FT

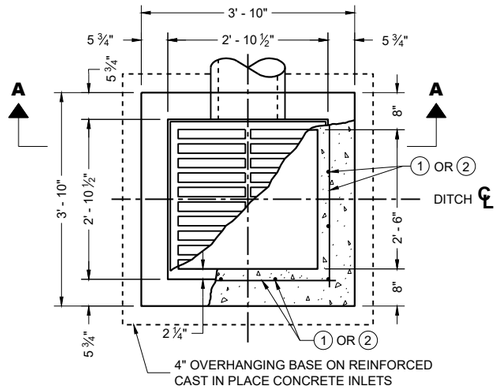
INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2 X 3.5-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

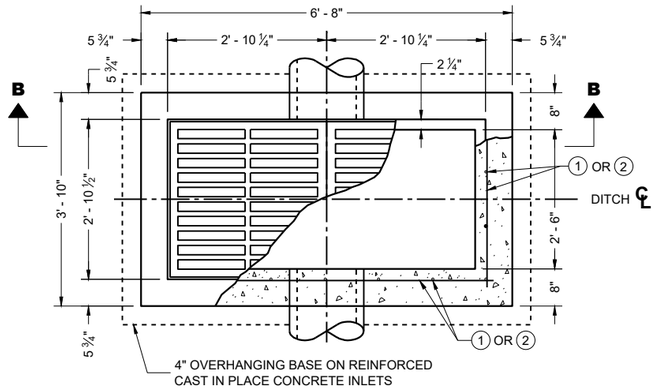
APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

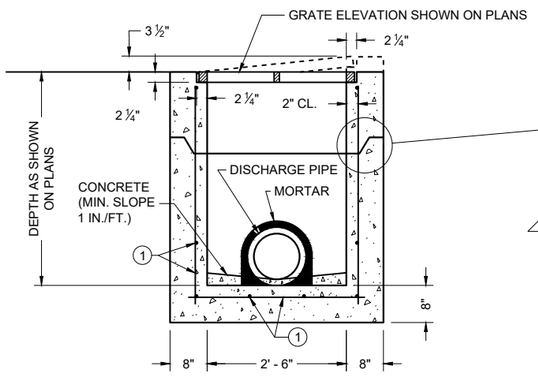
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SDD 08C07-03



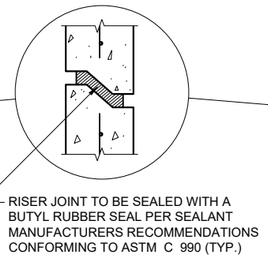
PLAN VIEW

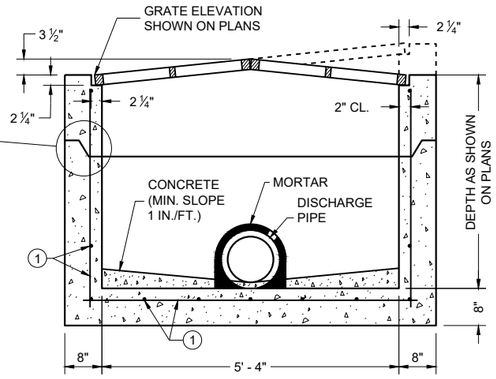


PLAN VIEW

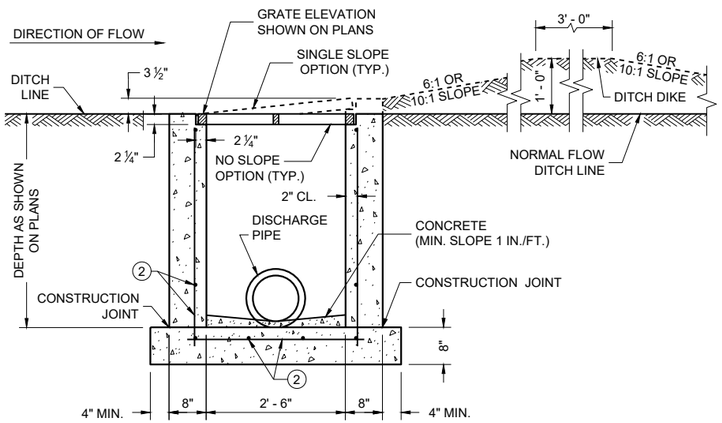


PRECAST REINFORCED CONCRETE SECTION A - A



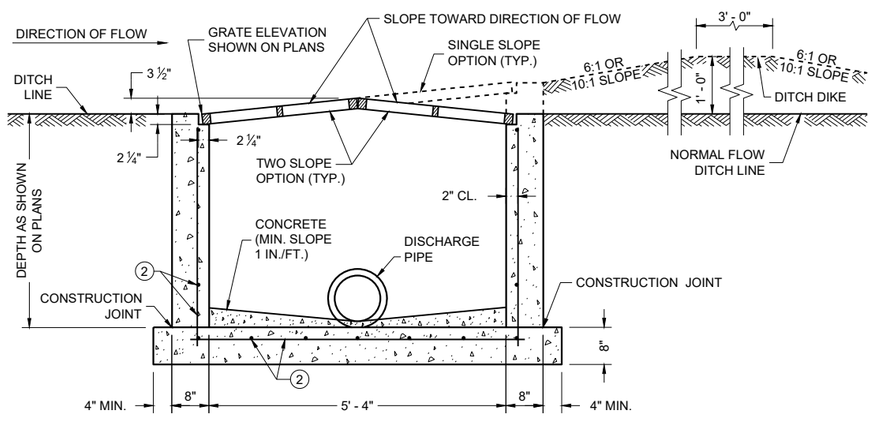


PRECAST REINFORCED CONCRETE SECTION B - B



REINFORCED CAST IN PLACE CONCRETE SECTION A - A

INLETS MEDIAN 1 GRATE



REINFORCED CAST IN PLACE CONCRETE SECTION B - B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP N0T SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

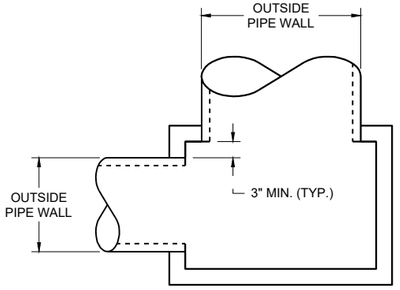
ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

(1) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

(2) CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.



DETAIL "A"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42

INLETS
MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

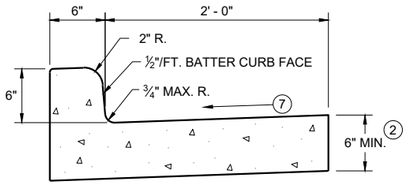
FHWA

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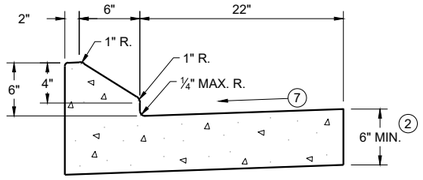
SDD 08C08-03

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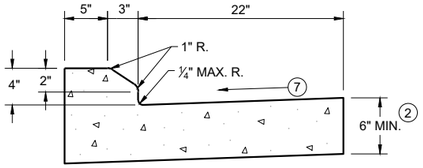
SDD 08C08-03



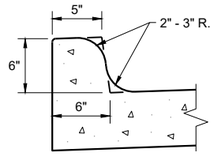
TYPES A (1) & D



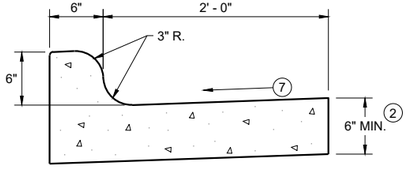
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

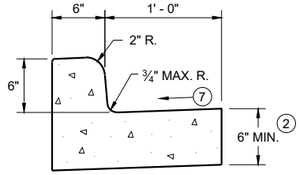


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



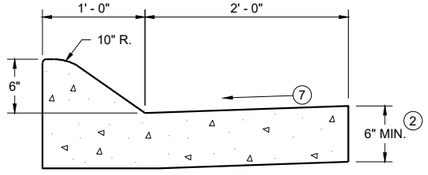
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

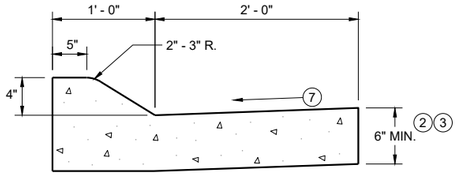


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

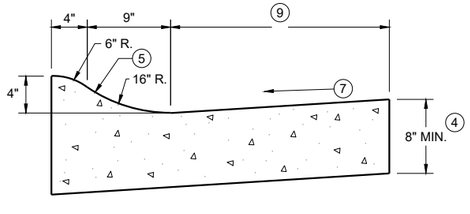


6" SLOPED CURB TYPES A (1) & D



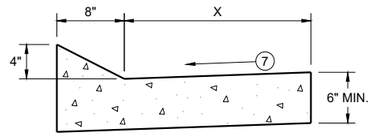
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

TBT & TBTT	X
30"	22"
36"	28"

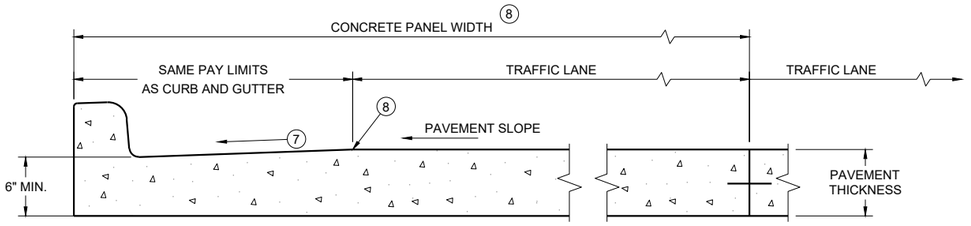


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

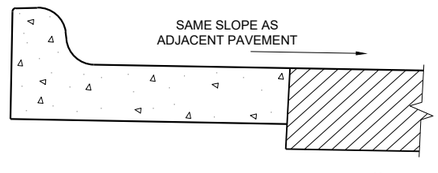
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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.

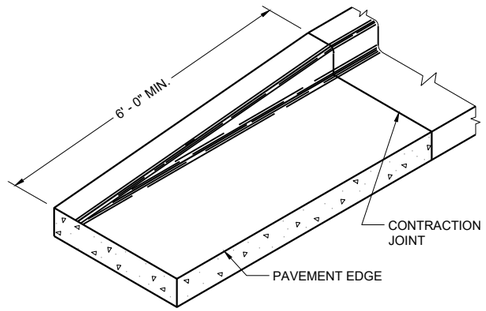
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

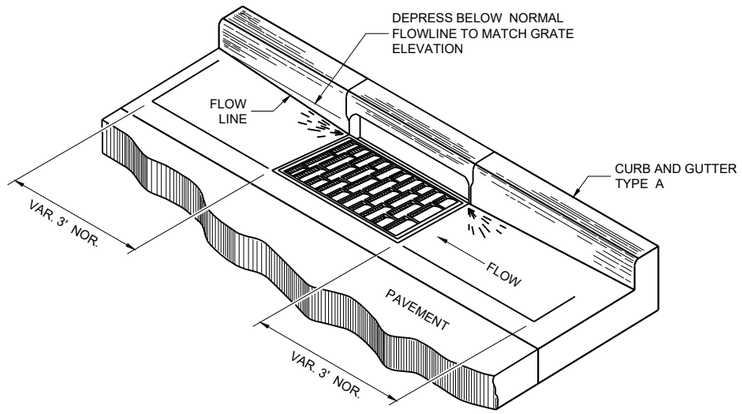
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D01-23a



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.

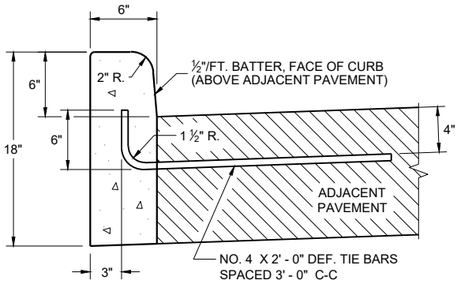
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

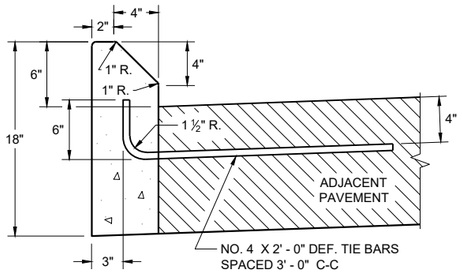
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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.

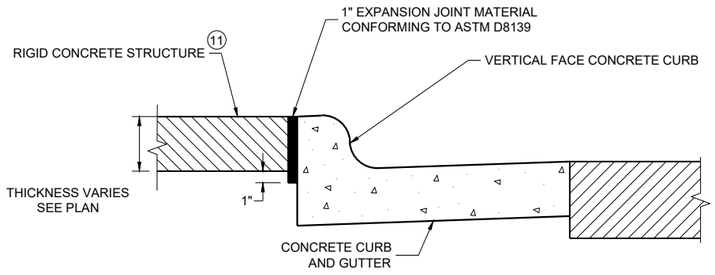


TYPES A (1) & D

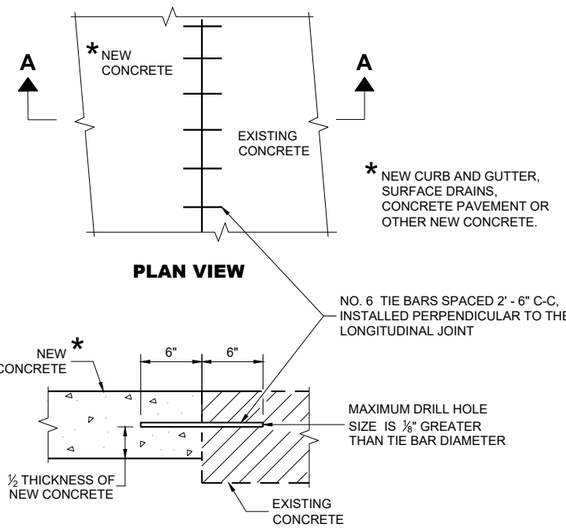


TYPES G (1) & J

CONCRETE CURB



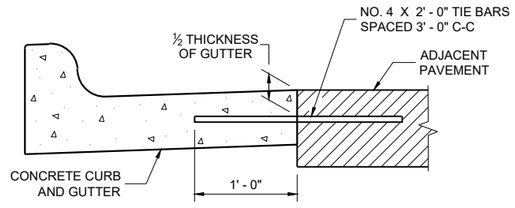
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



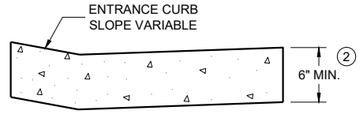
PLAN VIEW

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
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

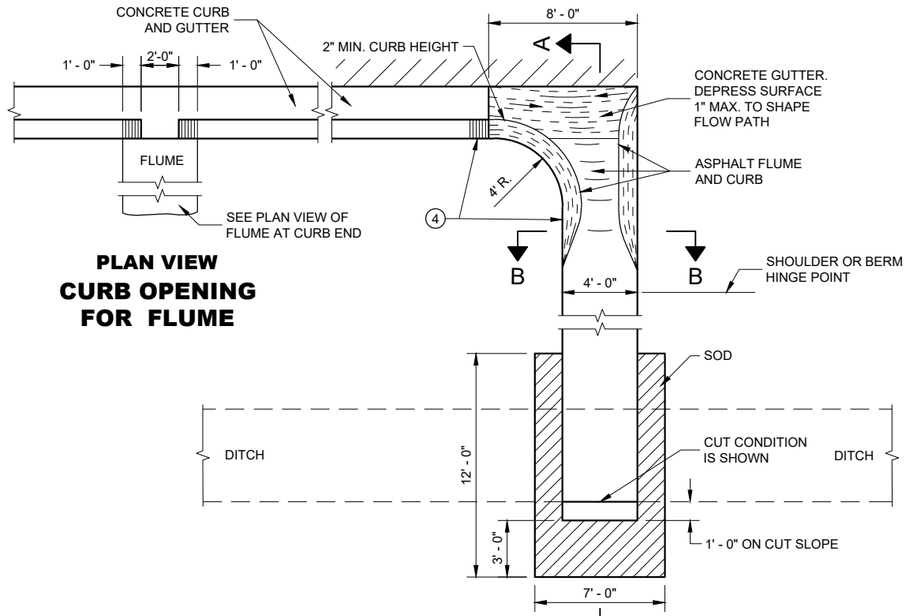
FHWA

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SDD 08D01-23b

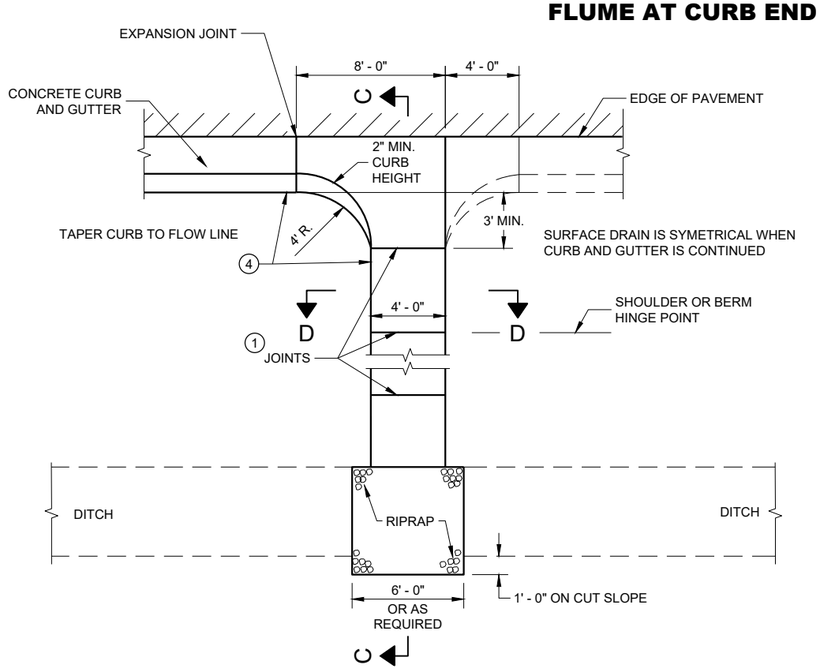
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



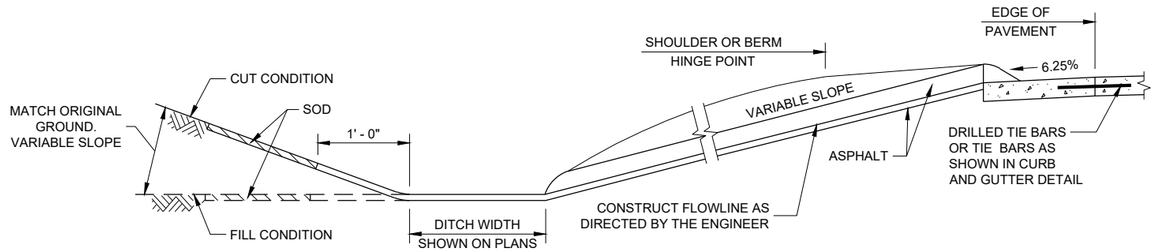
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

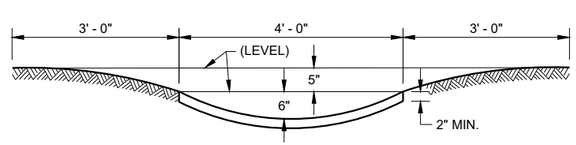
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

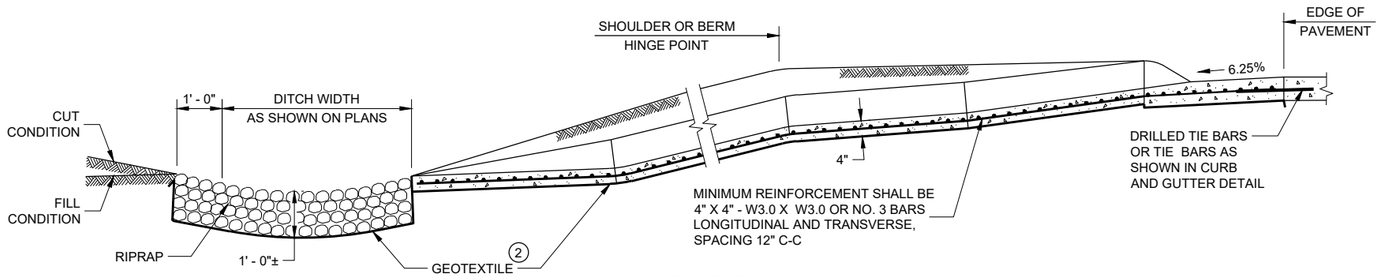
1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



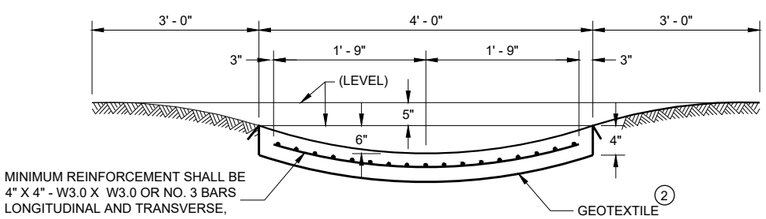
SECTION A - A



SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

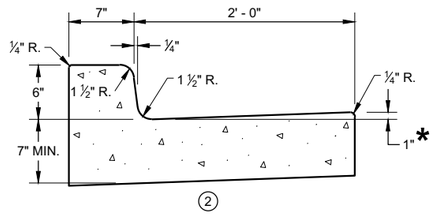
FHWA

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SDD 08D04 - 07

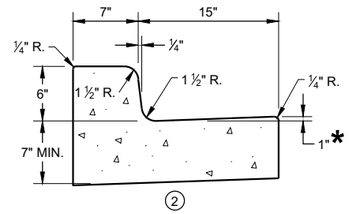
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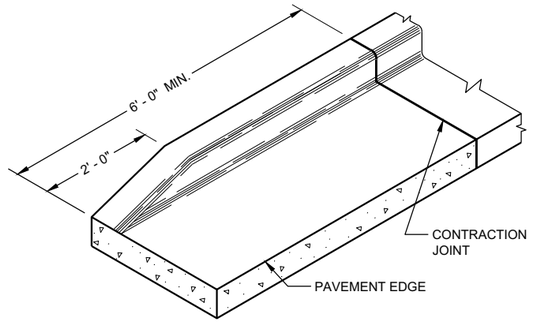


CONCRETE CURB AND GUTTER 31" ①

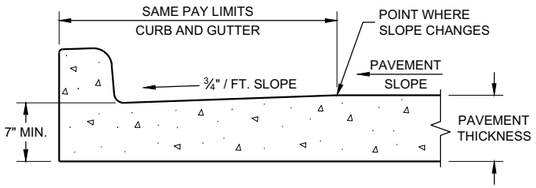
*TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



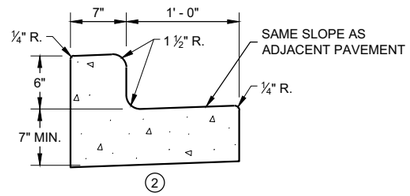
CONCRETE CURB AND GUTTER 22" ①



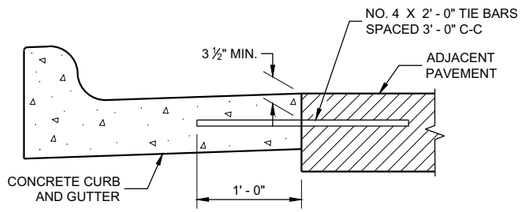
END SECTIONCURB AND GUTTER



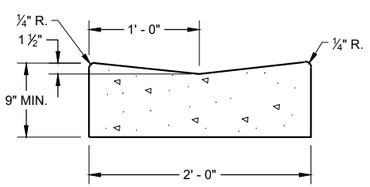
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER



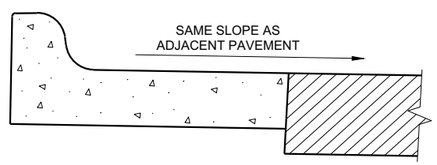
CONCRETE CURB AND GUTTER 19" ①



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.

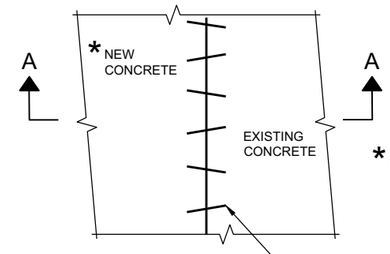
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

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".

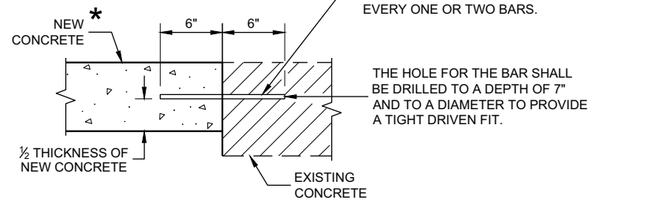
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLANS



*EXISTING AND NEW CONCRETE MAY BE CURB AND GUTTER, SURFACE DRAINS, PAVEMENT OR OTHER CONCRETE STRUCTURE.

PLAN VIEW



SECTION A - A

PAVEMENT TIES

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

(For Optional use in Milwaukee Co. Only)

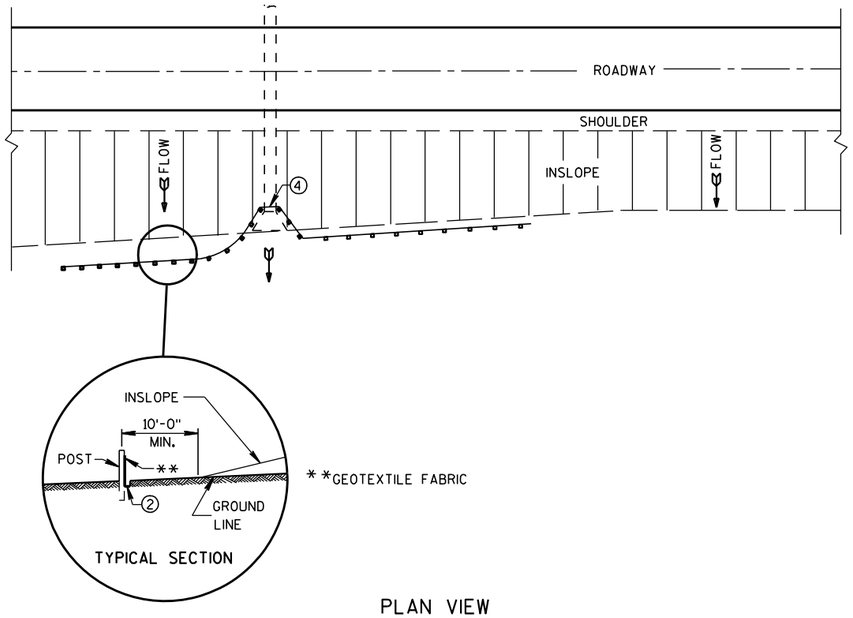
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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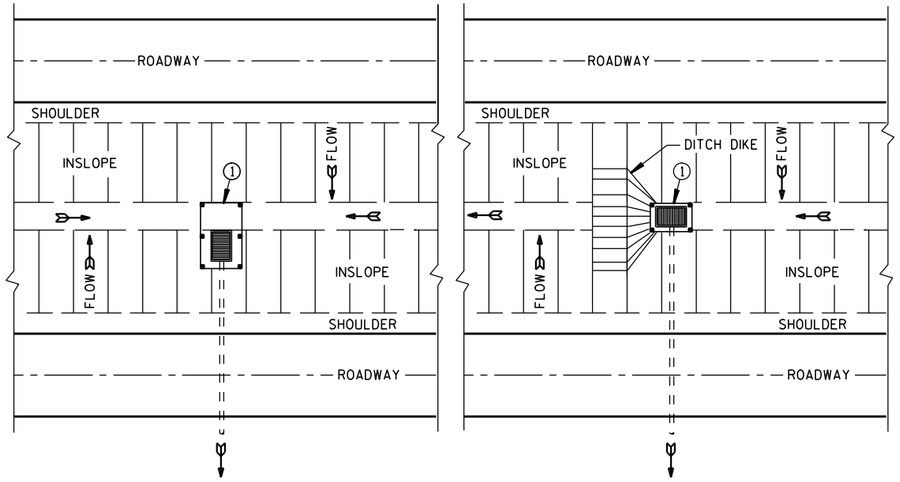
SDD 08D16 - 11

SDD 08D16 - 11



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



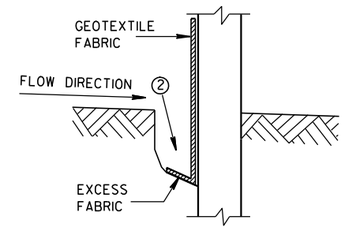
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

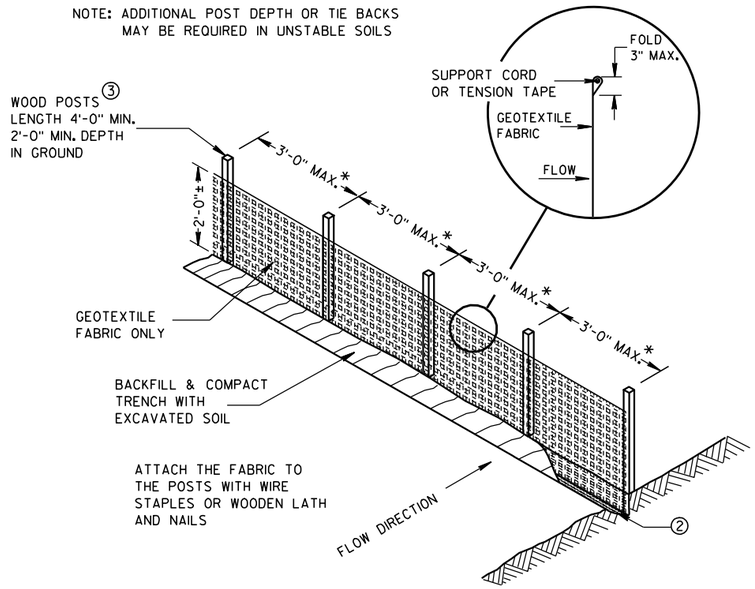
GENERAL NOTES

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

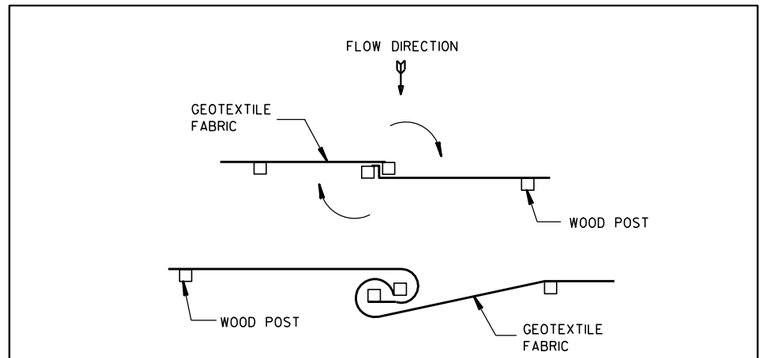
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



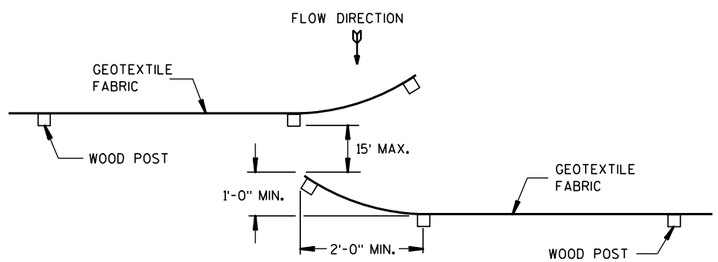
TRENCH DETAIL



SILT FENCE

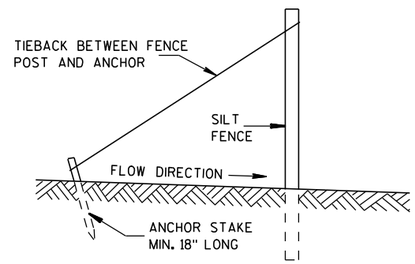


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

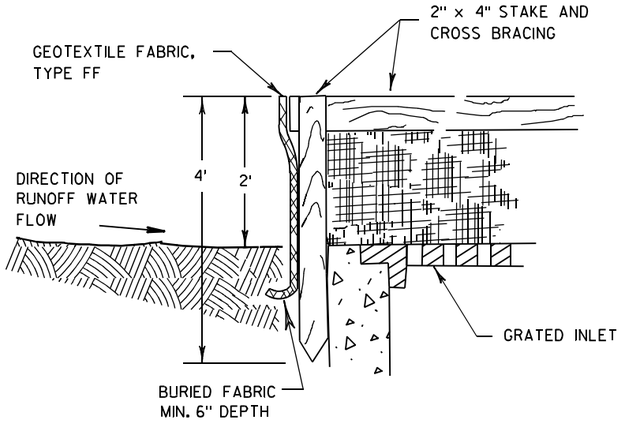
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

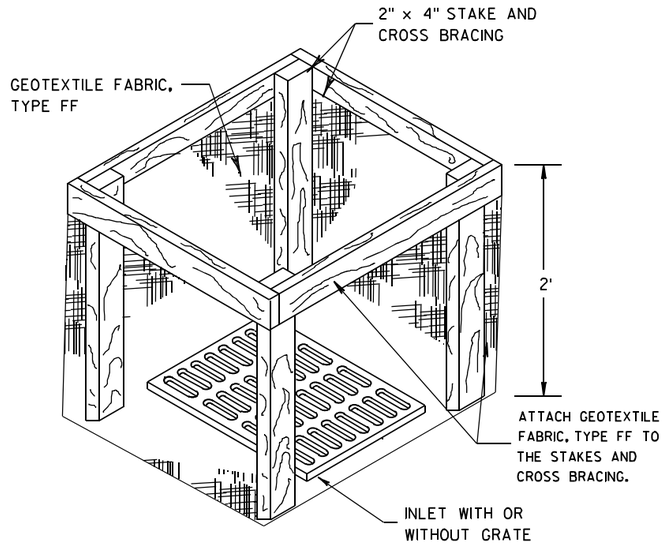
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S.D.D. 8 E 9-6

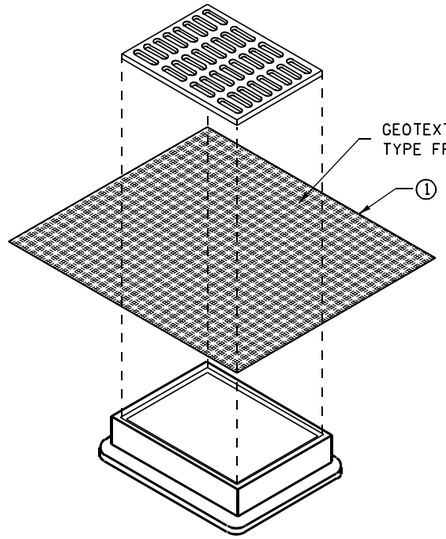
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S.D.D. 8 E 9-6



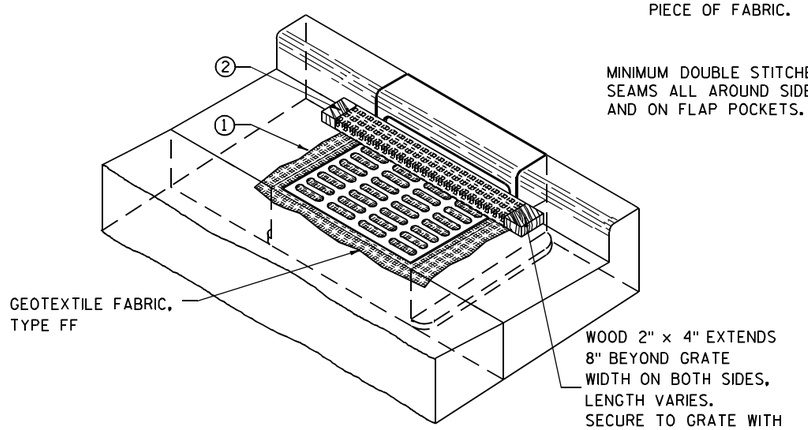


INLET PROTECTION, TYPE A

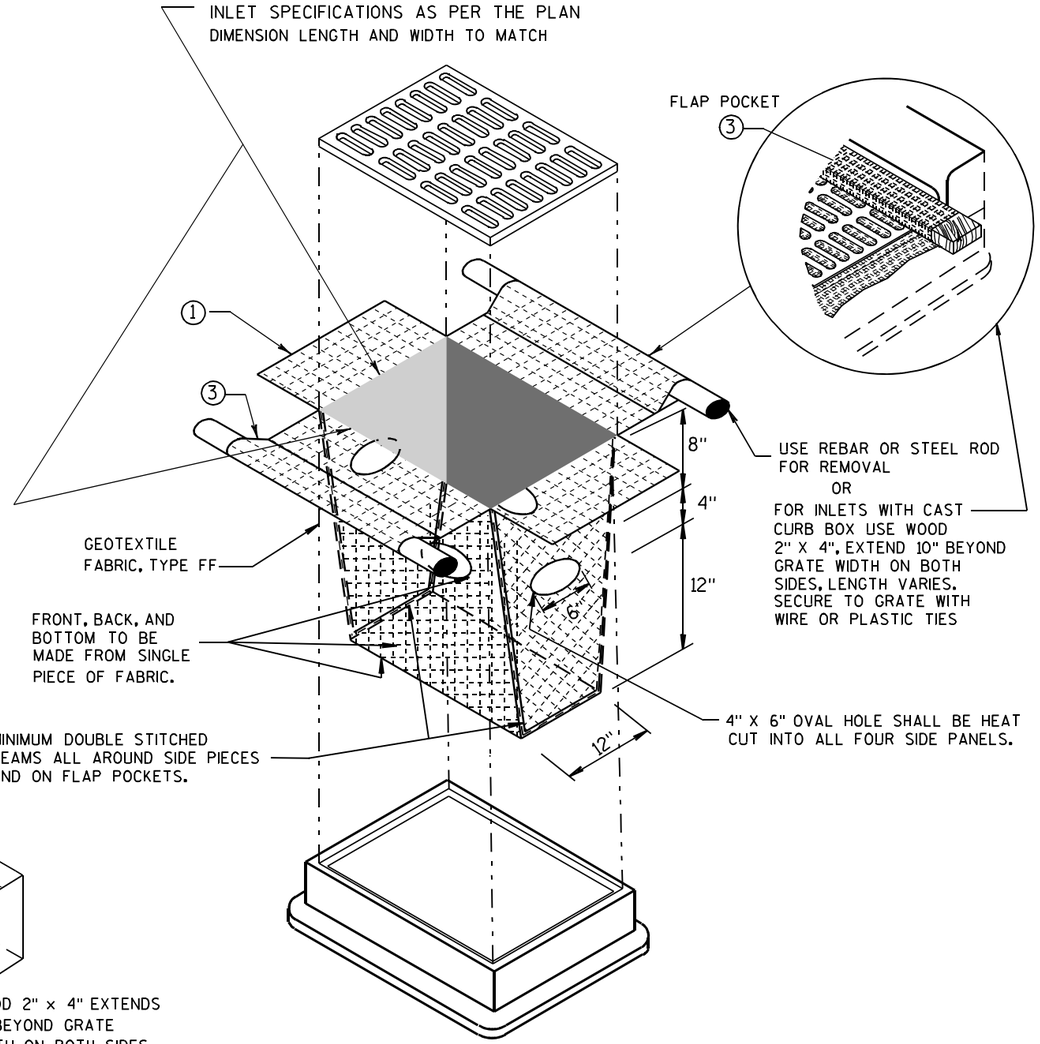


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE 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

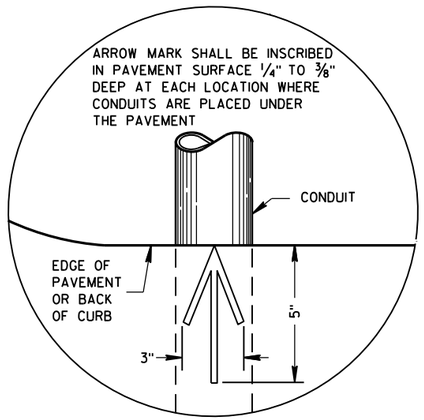
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S.D.D. 8 E 10-2

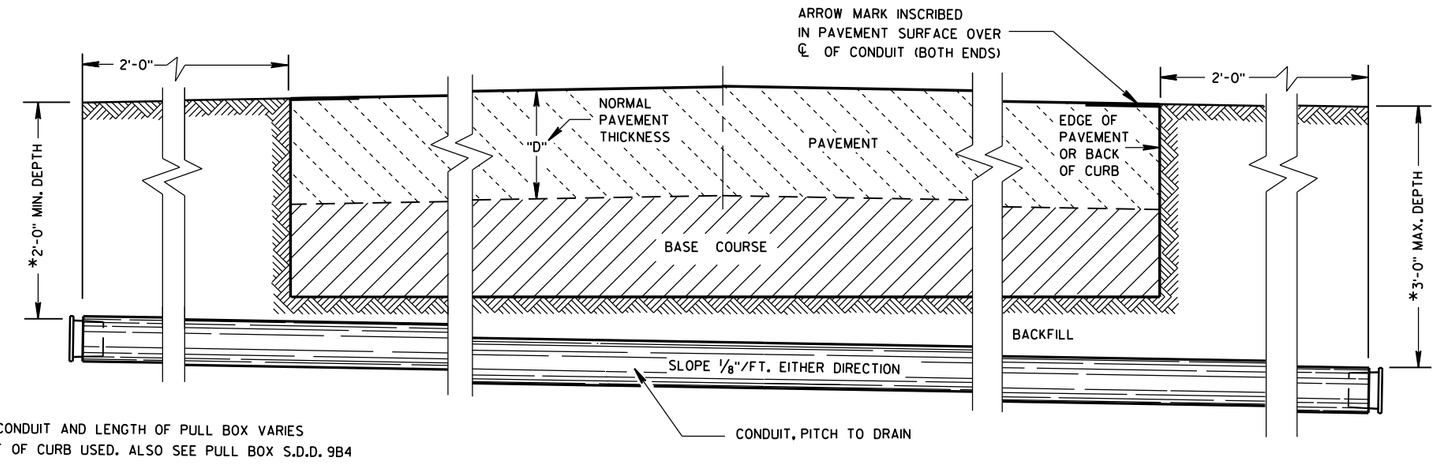
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S.D.D. 8 E 10-2



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.

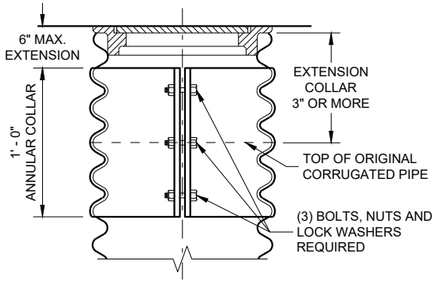
ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

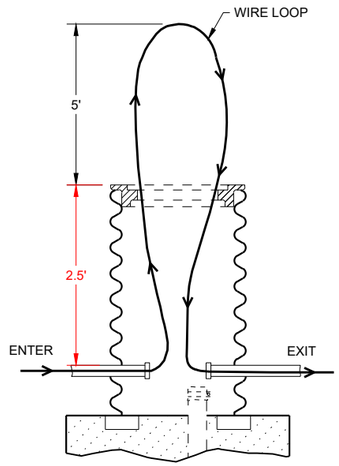
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 329
FHWA

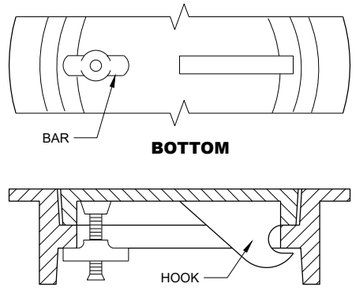
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S.D.D. 9 B 2-10



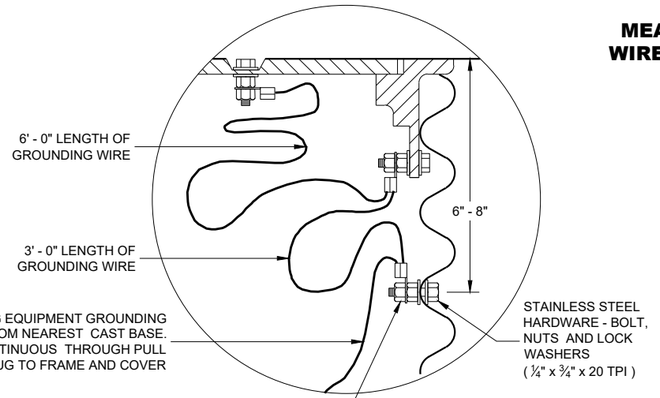
CORRUGATED PIPE EXTENDER



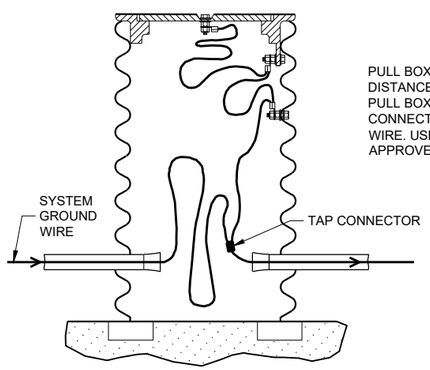
MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



ALTERNATE COVER (LOCKING)
TIGHTENING BAR TYPE

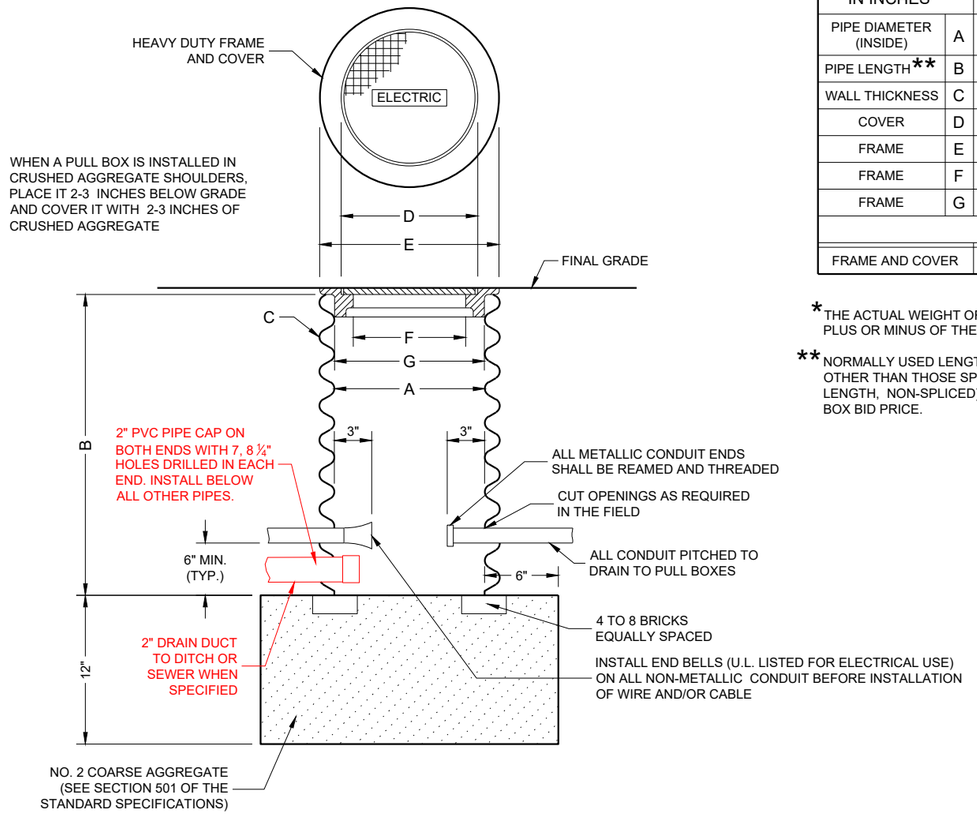


EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

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

ALL 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.

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

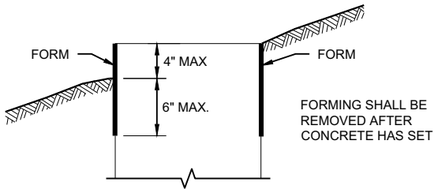
APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 330

FHWA

6
SDD 09B04-12

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.

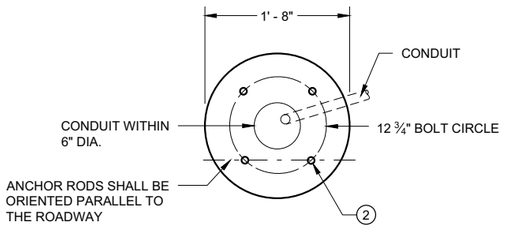
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

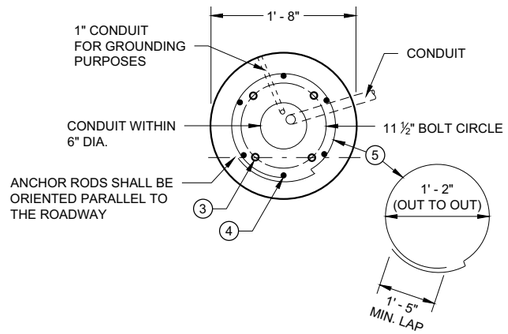
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

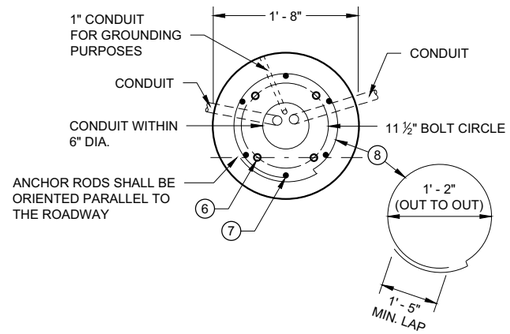
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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).







1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

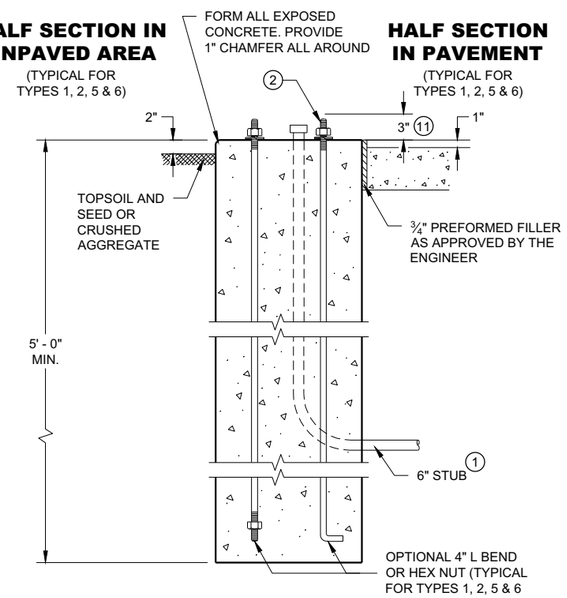
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

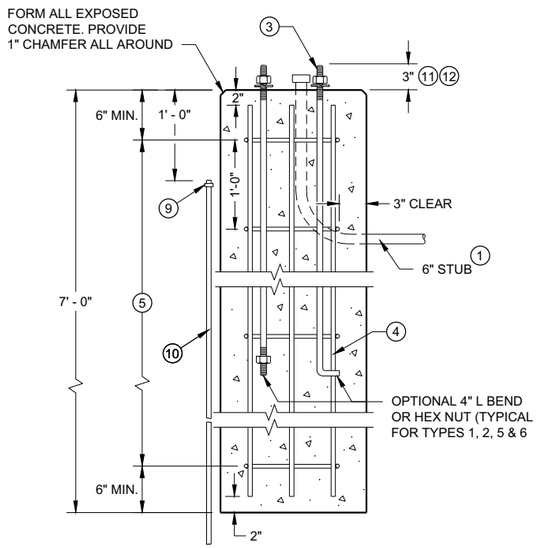
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

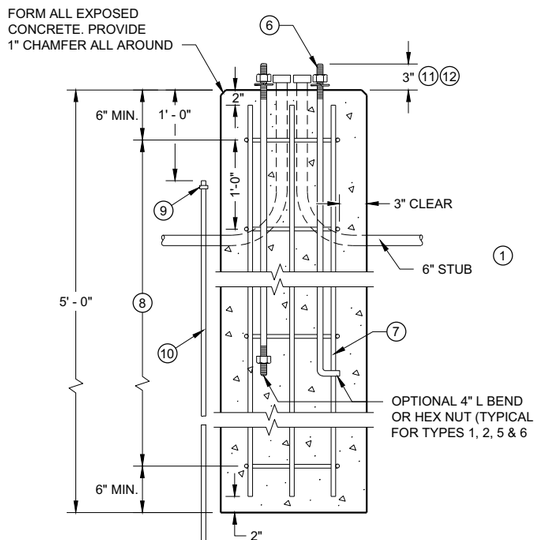
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 331

FHWA

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 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.

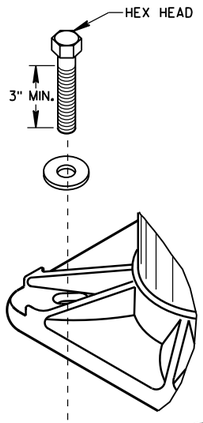
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

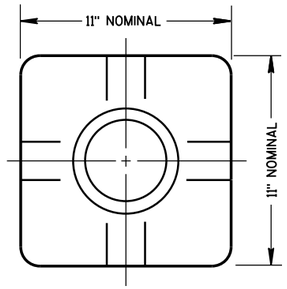
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

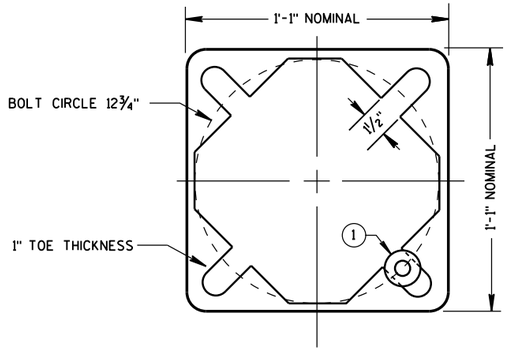
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

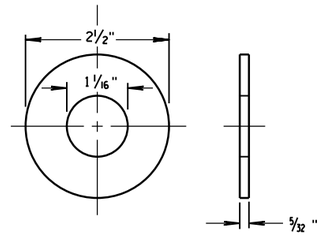




TOP VIEW
(PEDESTAL BASE)

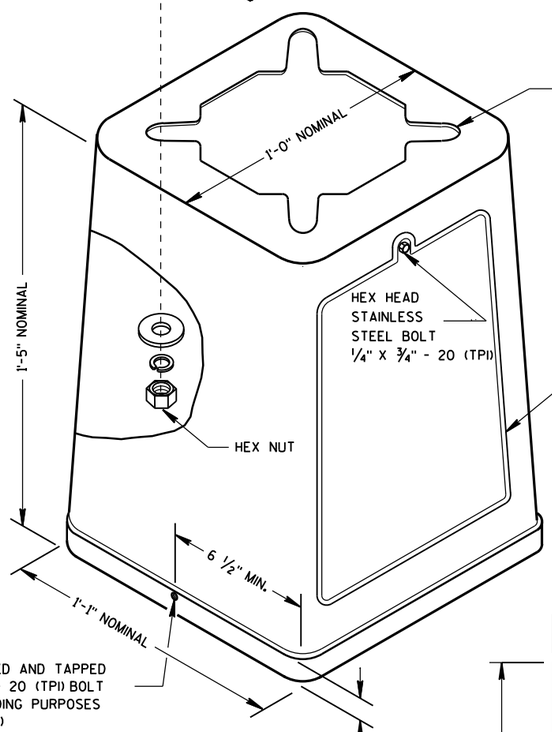


BOTTOM VIEW
(PEDESTAL BASE)

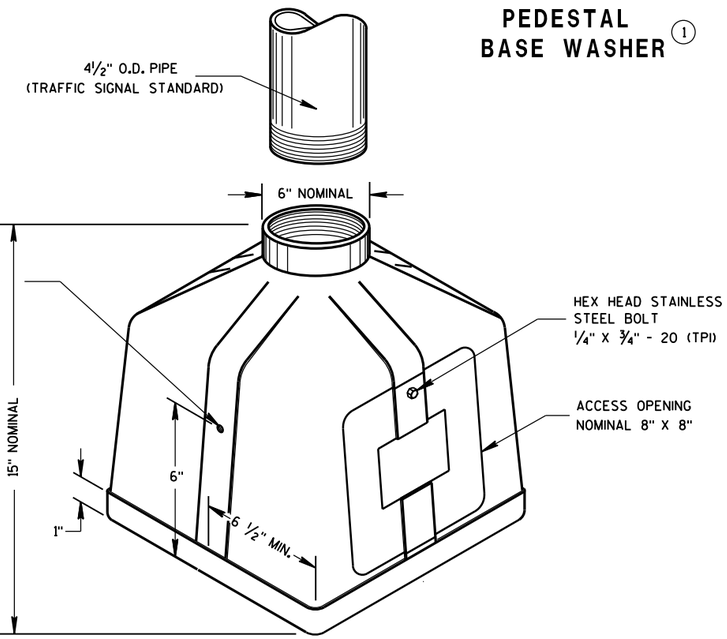


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

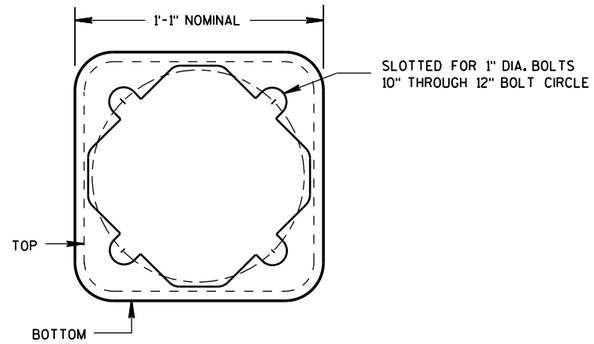


ISOMETRIC VIEW

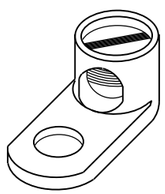


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

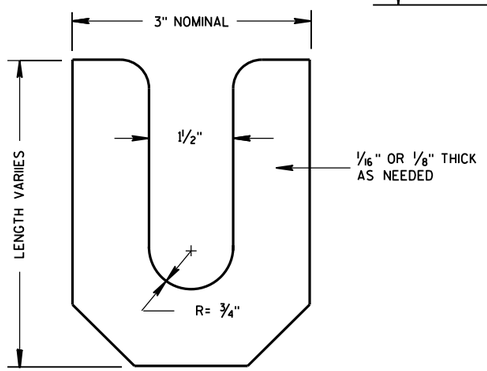


TYPICAL MECHANICAL CONNECTOR LUG

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
FHWA

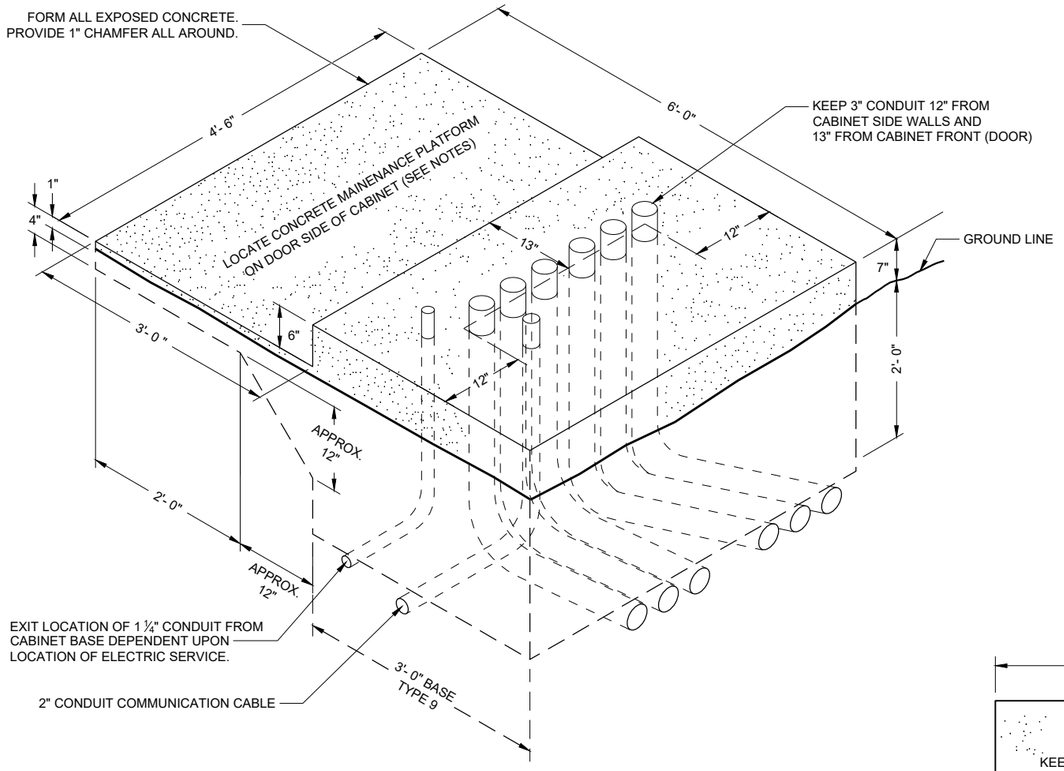
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S.D.D. 9 C 3-4

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S.D.D. 9 C 3-4

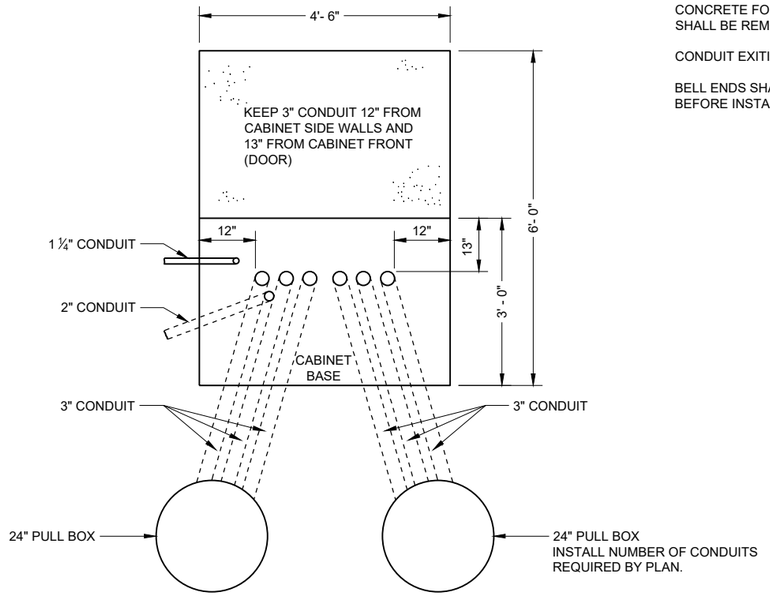
SDD 09C06 Concrete Control Cabinet Base, Type 9, Special



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 333

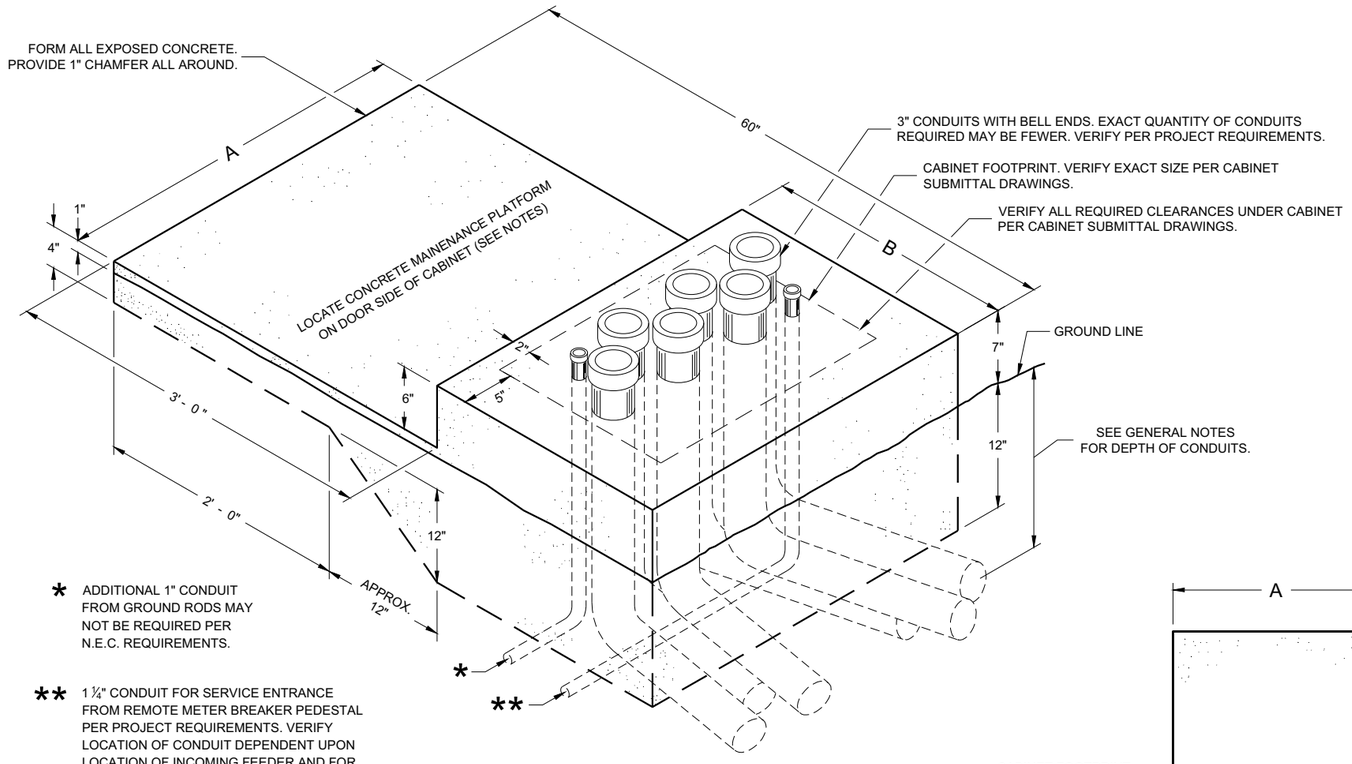
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SDD 09C06 - 07

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SDD 09C06 - 07



* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

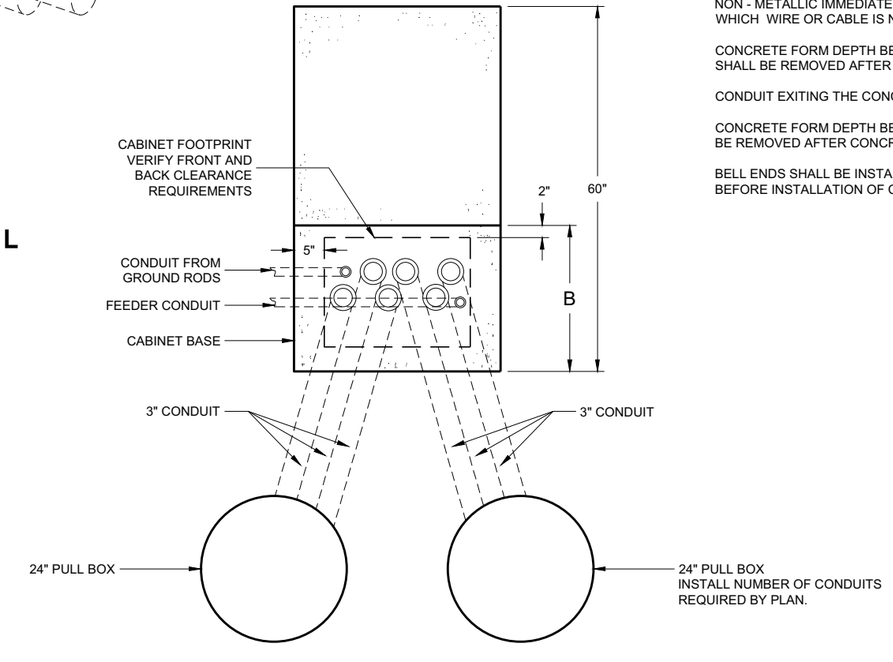
** 1 ¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL NOTES

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

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS UNLESS DETERMINED BY THE ENGINEER IN THE FIELD.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCH MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 334

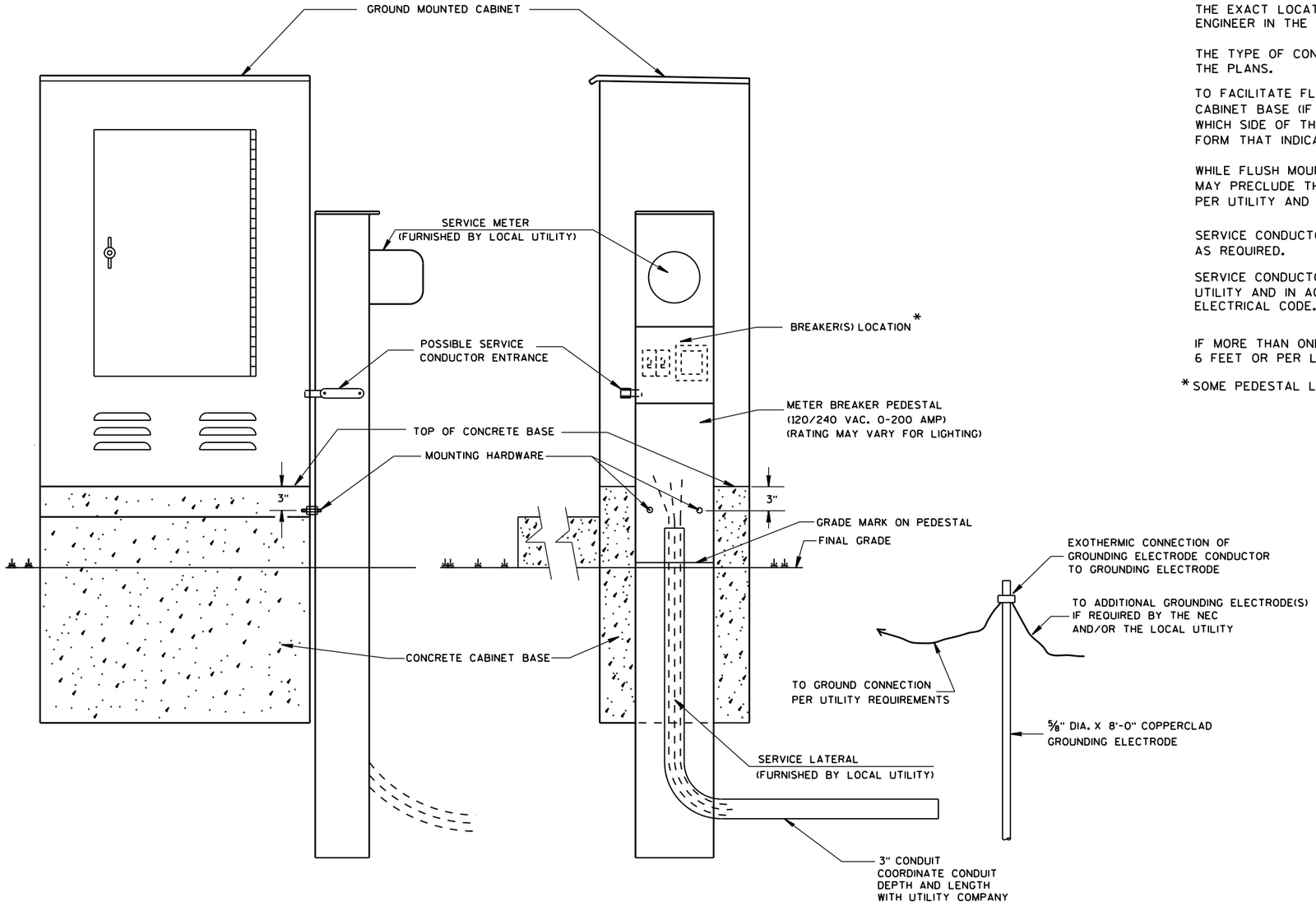
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SDD 09C14 - 03

SDD 09C14 - 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.

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S.D.D. 9 D 1-5

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S.D.D. 9 D 1-5

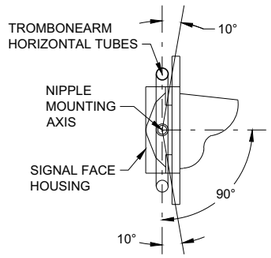
CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

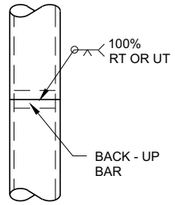


SECTION A-A

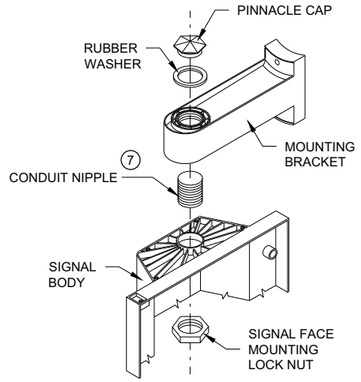
(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

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.



POLE SPLICE DETAIL



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

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

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

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.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

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 ⅜" 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) ASREQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

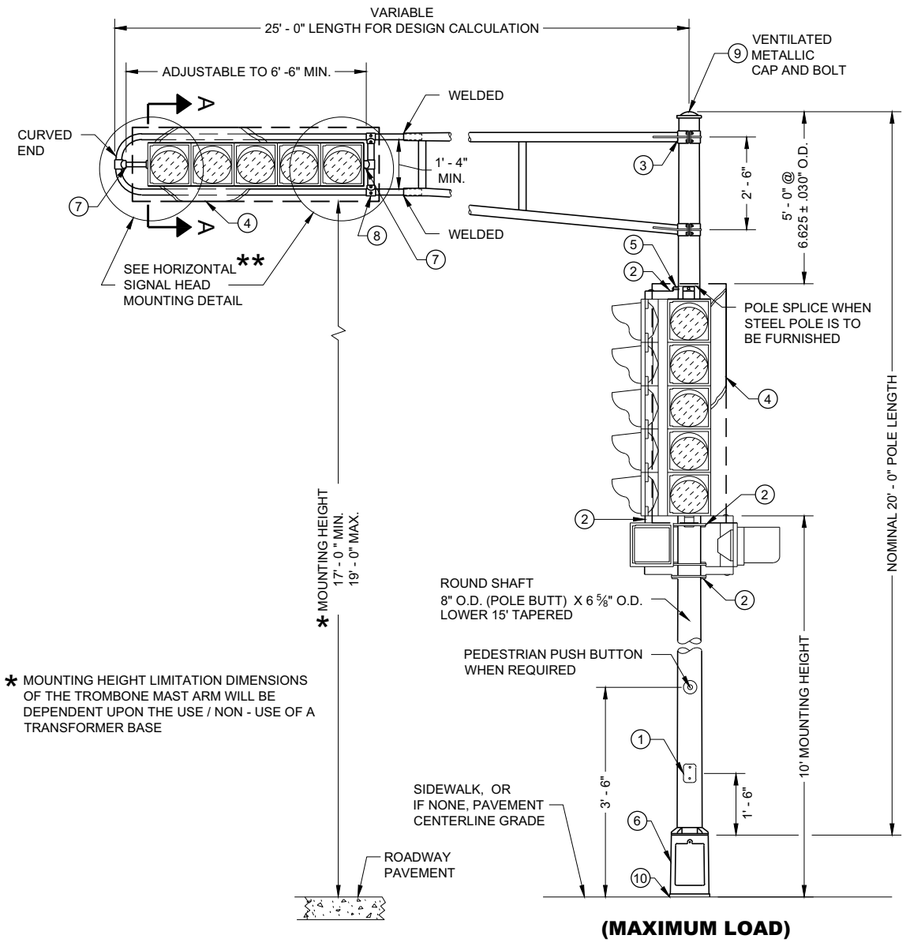
(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOTINTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE 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 STRUTIS 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.

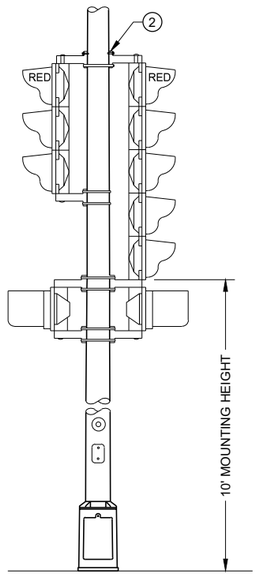
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

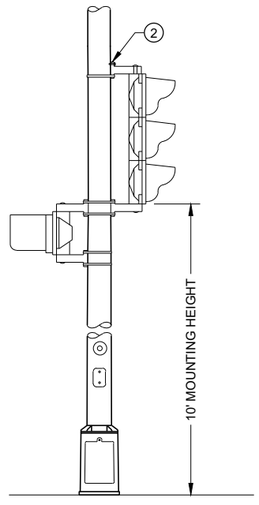


* MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE / NON - USE OF A TRANSFORMER BASE

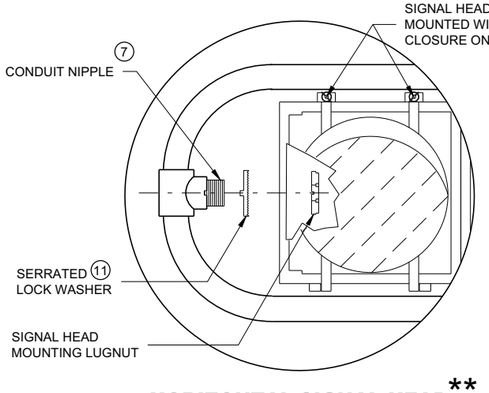
(MAXIMUM LOAD)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

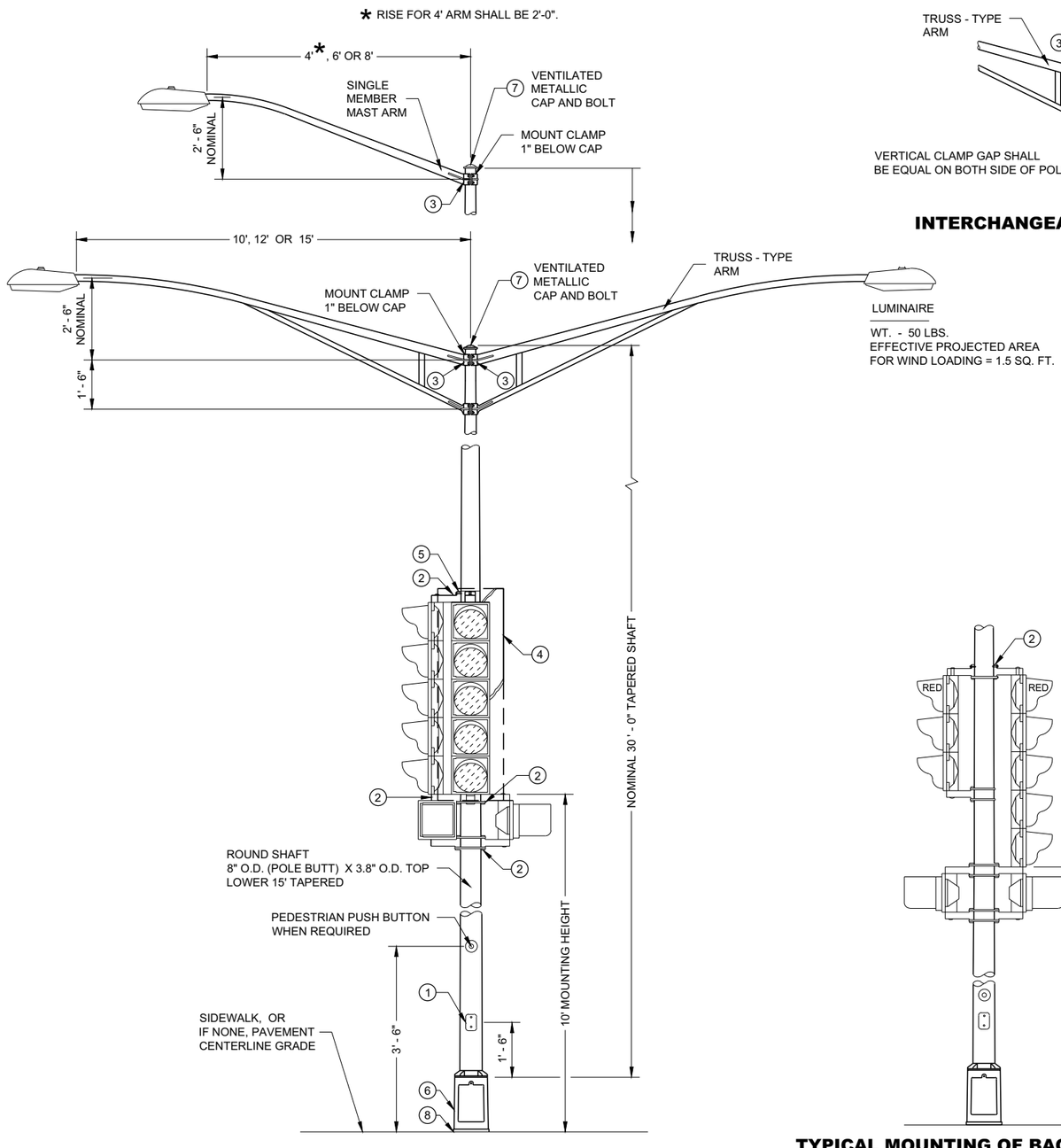
** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

TYPE 2 POLE MOUNTING CONFIGURATION

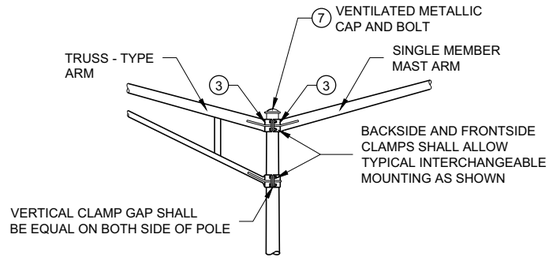
POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

STATE OF WISCONSIN
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SDD 09E01 - 15a



(MAXIMUM LOAD)



INTERCHANGEABLE MOUNTING DETAIL

GENERAL NOTES

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

ALL TYPE 4 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL WITH A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

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 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) 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 ⅜" 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.

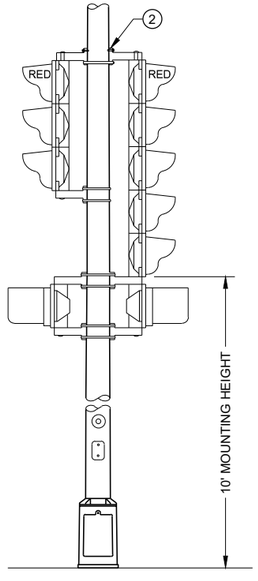
(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

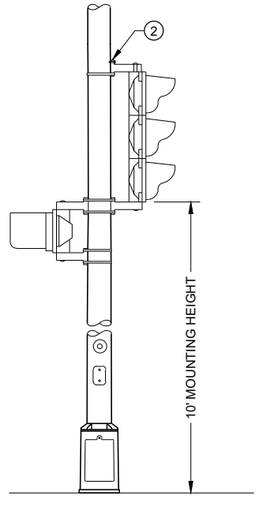
(7) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(8) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

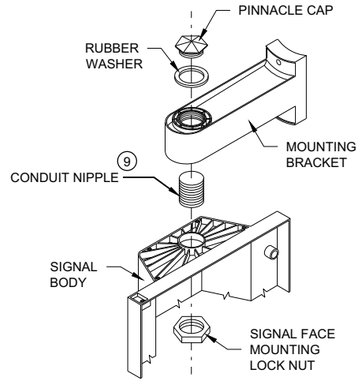
(9) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



SIGNAL FACE MOUNTING DETAIL
(BANDED)

TYPE 4 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4

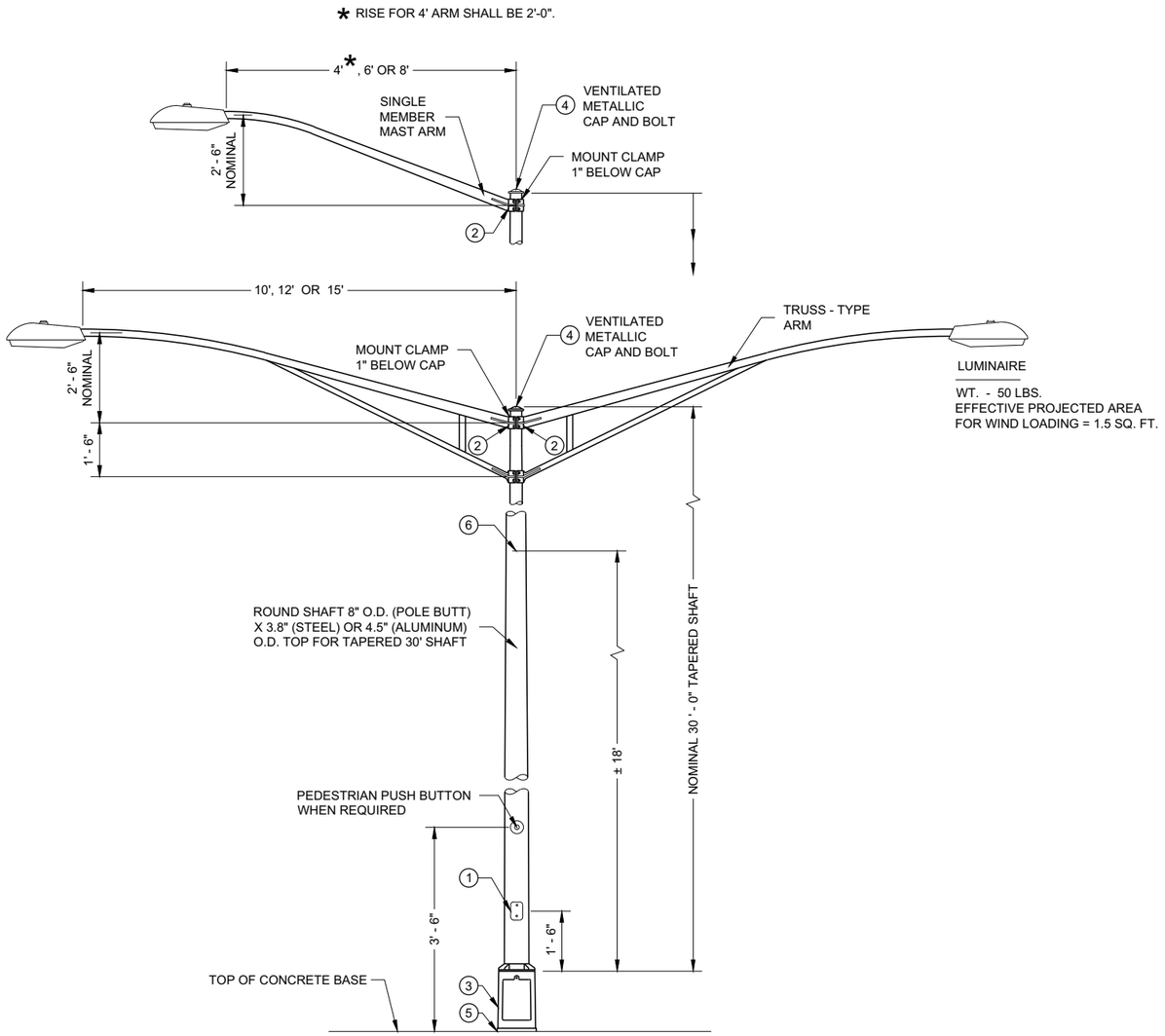
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY

GENERAL NOTES

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

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

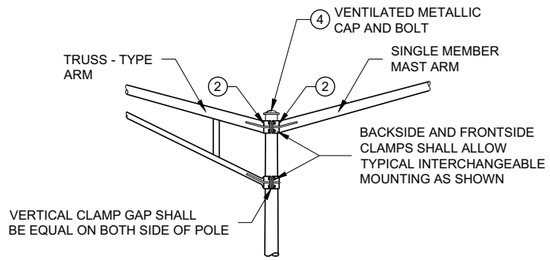
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(6) INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.

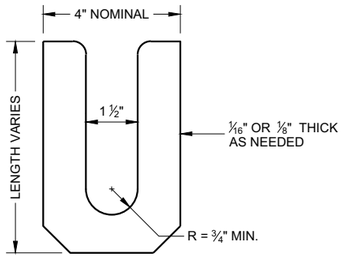


INTERCHANGEABLE MOUNTING DETAIL

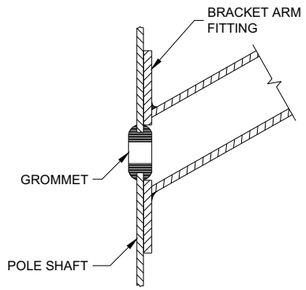
POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

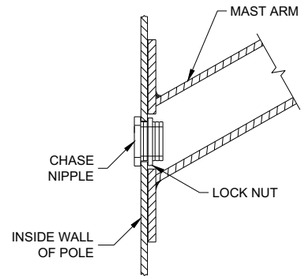
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SDD 09E01 - 15d



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.

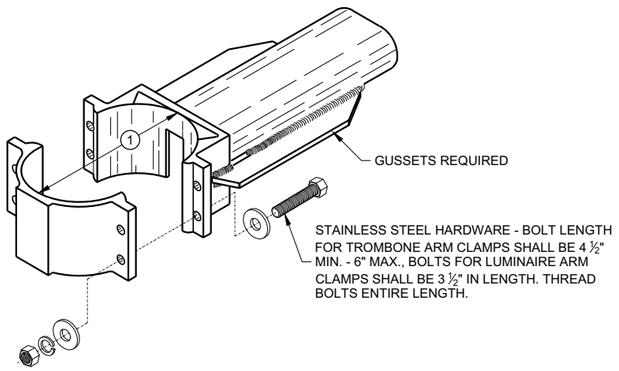
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

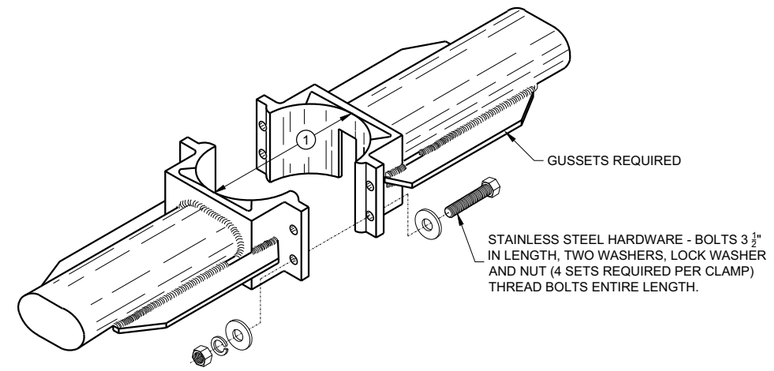
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(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.

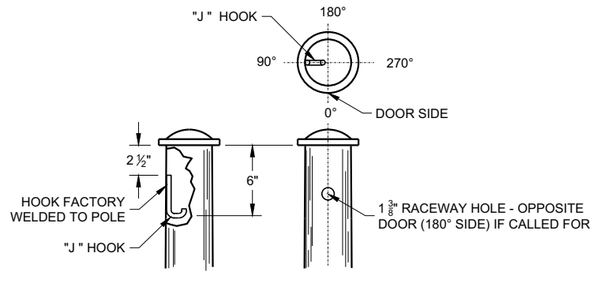
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



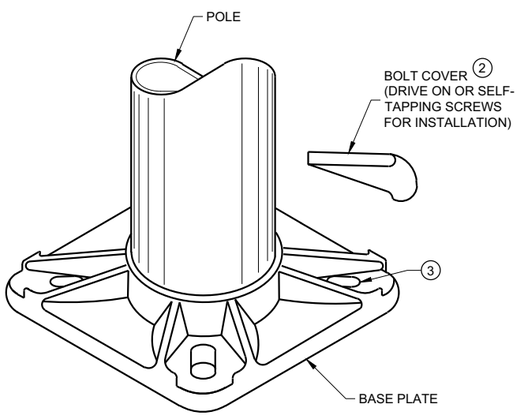
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



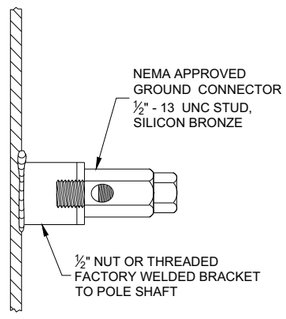
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

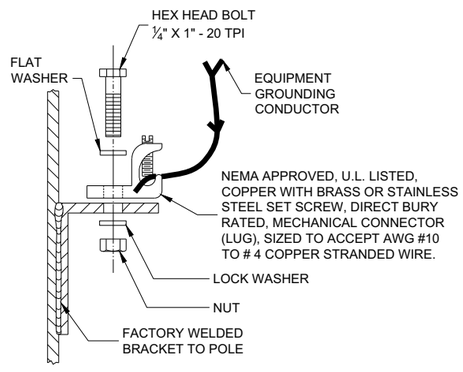


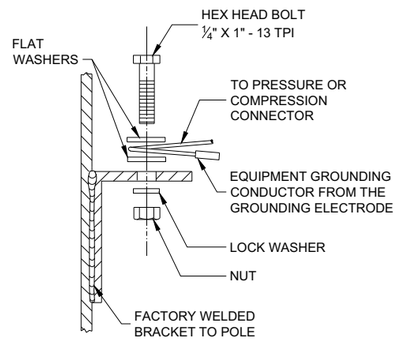
TYPICAL "J" HOOK LOCATION



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 339

FHWA

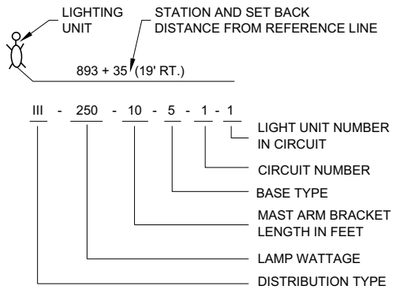
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GENERAL NOTES

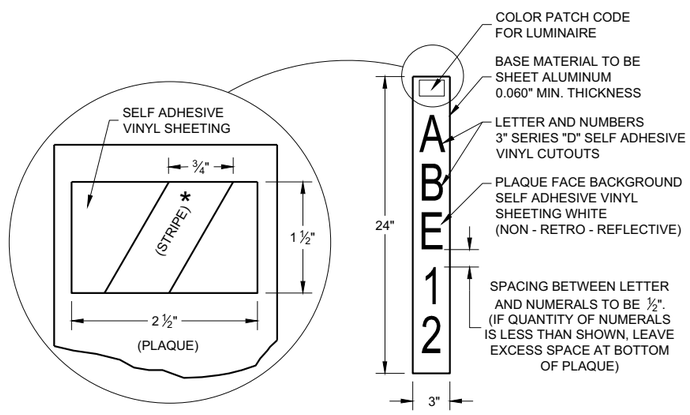
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



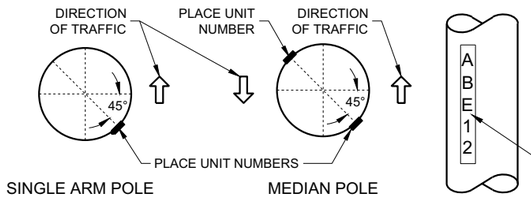
LIGHTING UNIT CODE
(TYPICAL)



COLOR PATCH CODE FOR LUMINAIRES

(HIGH PRESSURE SODIUM)	(MERCURY VAPOR)
1000 WATT - NO PATCH	400 WATT - NO PATCH
400 WATT - ORANGE	250 WATT - YELLOW
310 WATT - BLUE	
250 WATT - ORANGE W / WHITE STRIPE *	
200 WATT - RED	
150 WATT - GREEN	
100 WATT - BROWN	

IDENTIFICATION PLAQUE



NOTES

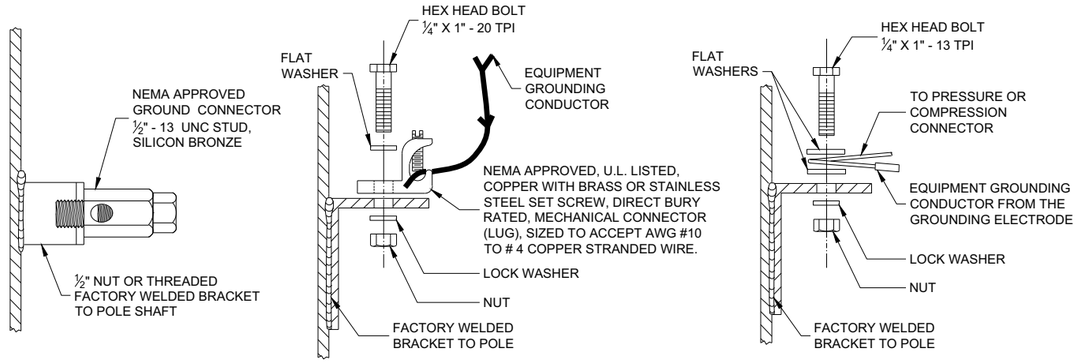
1) PLACE BOTTOM OF UNIT NUMBER PLAQUE 5'-0" ABOVE ELEVATION OF ADJACENT CURB OR SHOULDER.

2) UNIT NUMBER: ONE REQUIRED FOR SINGLE ARM POLES. TWO REQUIRED FOR MEDIAN MOUNT POLES.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE WITH 3 ALUMINUM POP RIVETS (ALUMINUM POLES) OR STAINLESS STEEL POP RIVETS (STEEL POLES).

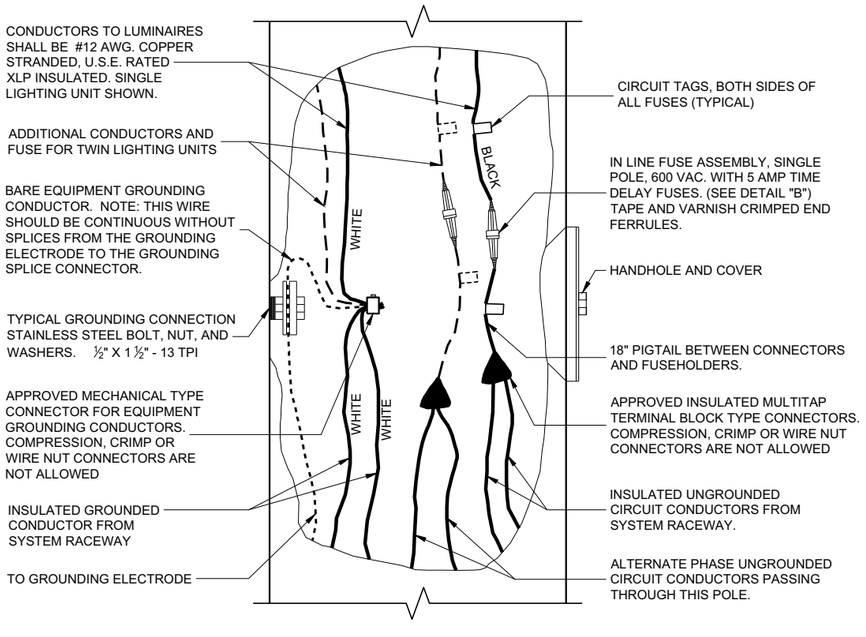
LIGHTING UNIT IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENT
(TYPICAL, ALL LIGHTING UNITS)

FURNISH PLAQUE WHEN CALLED FOR BY SPECIAL PROVISIONS

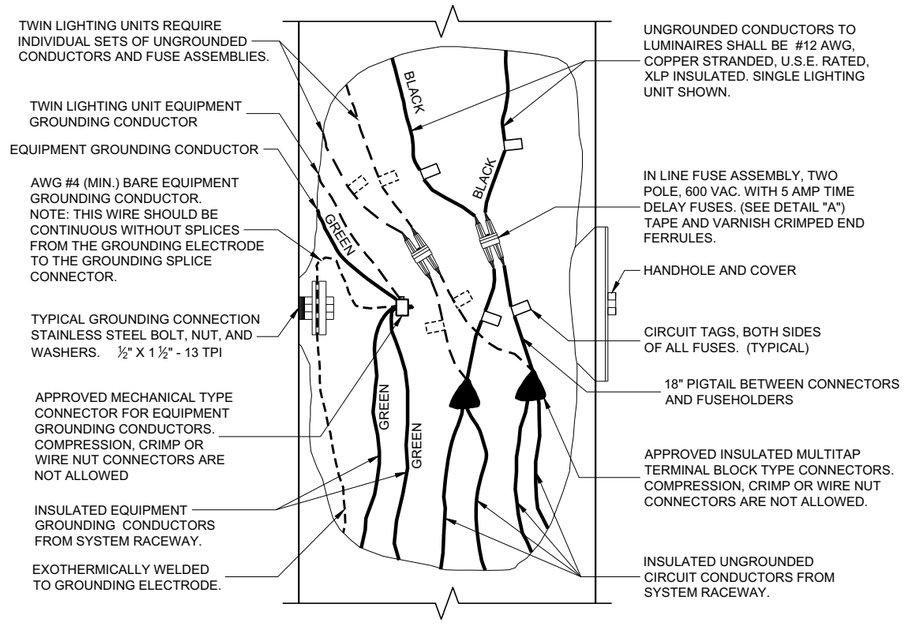


TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

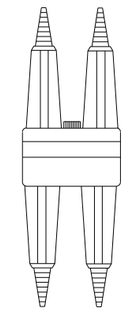
OLD EXISTING FREEWAY WIRING (SOME AREAS)



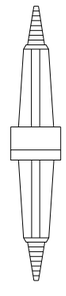
2 WIRE - 120, 240, OR 480 VAC TO GROUND



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR



DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT

FREEWAY LIGHTING UNIT POLE WIRING

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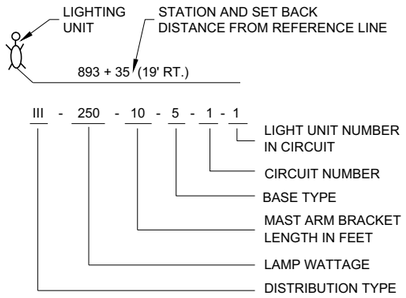
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STATE ELECTRICAL ENGI 340
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GENERAL NOTES

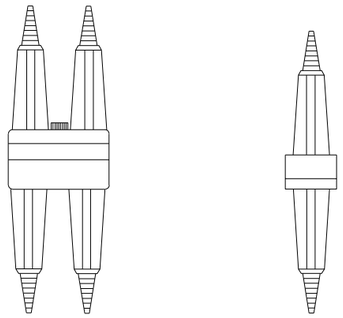
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

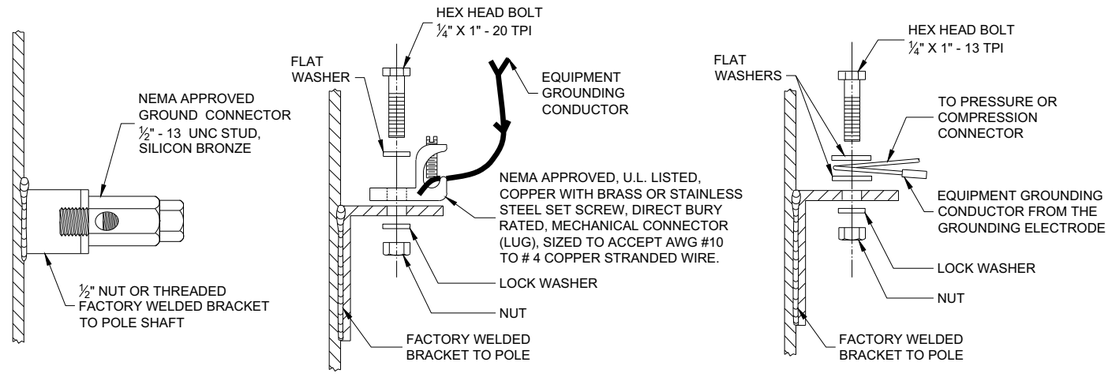


LIGHTING UNIT CODE
(TYPICAL)

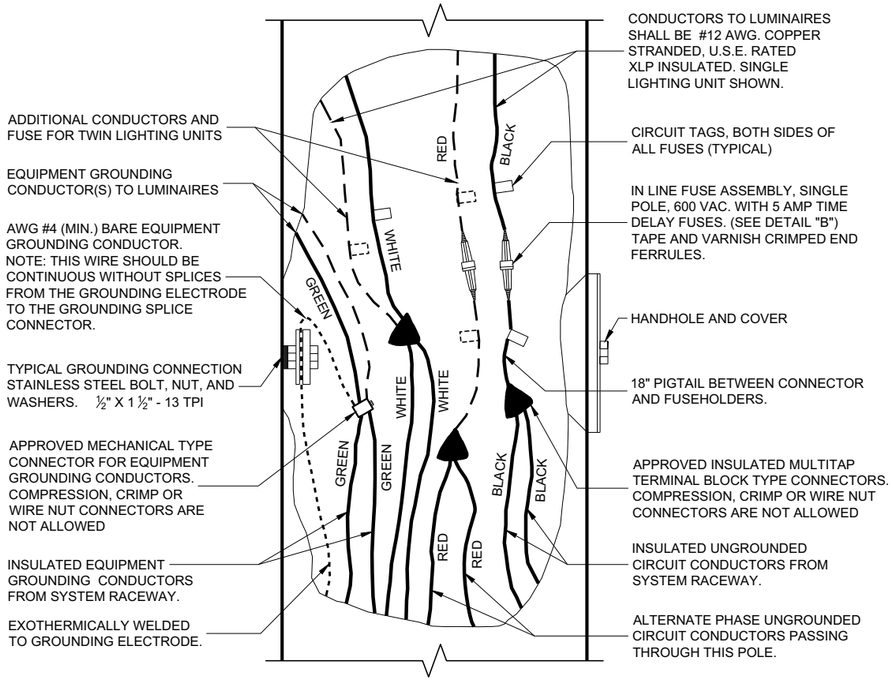


DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT

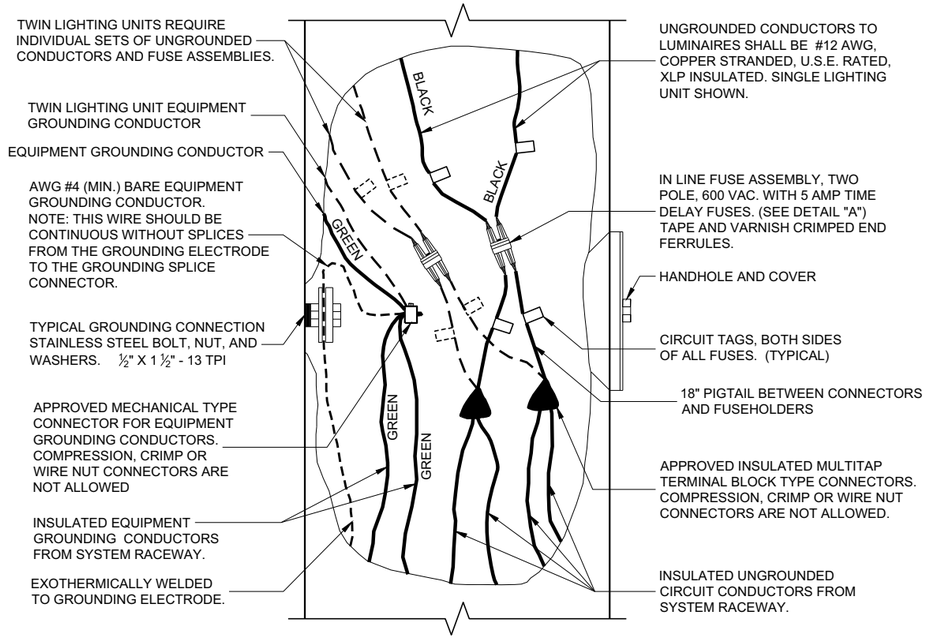
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR

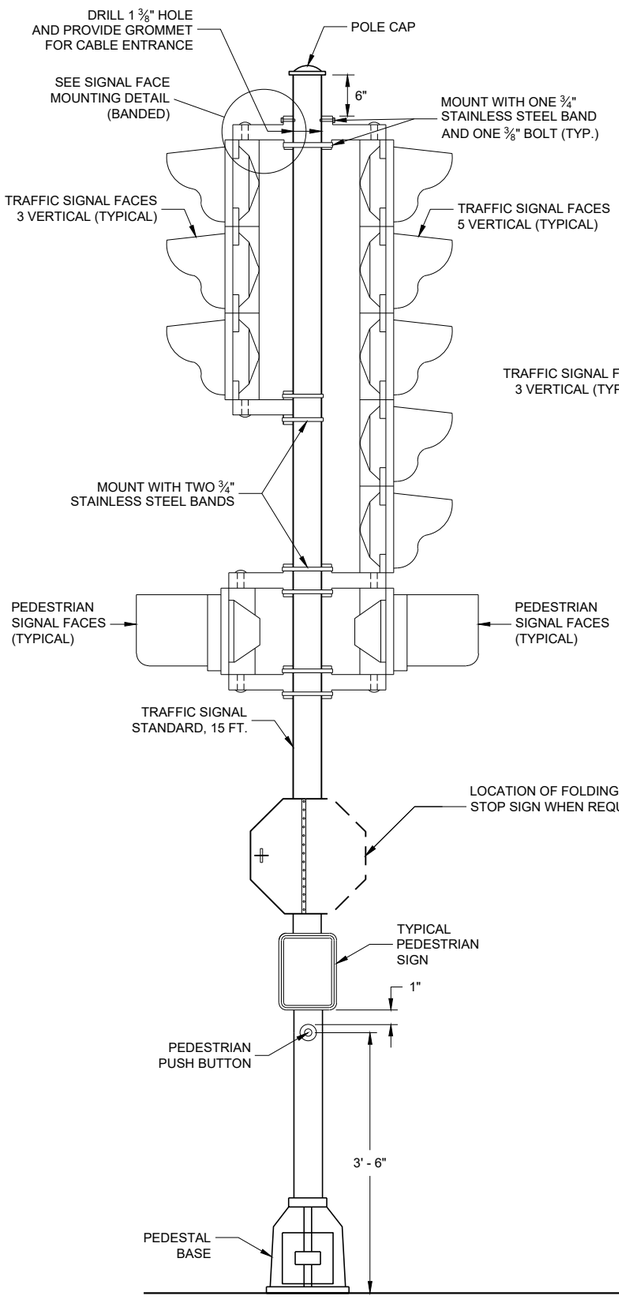


2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

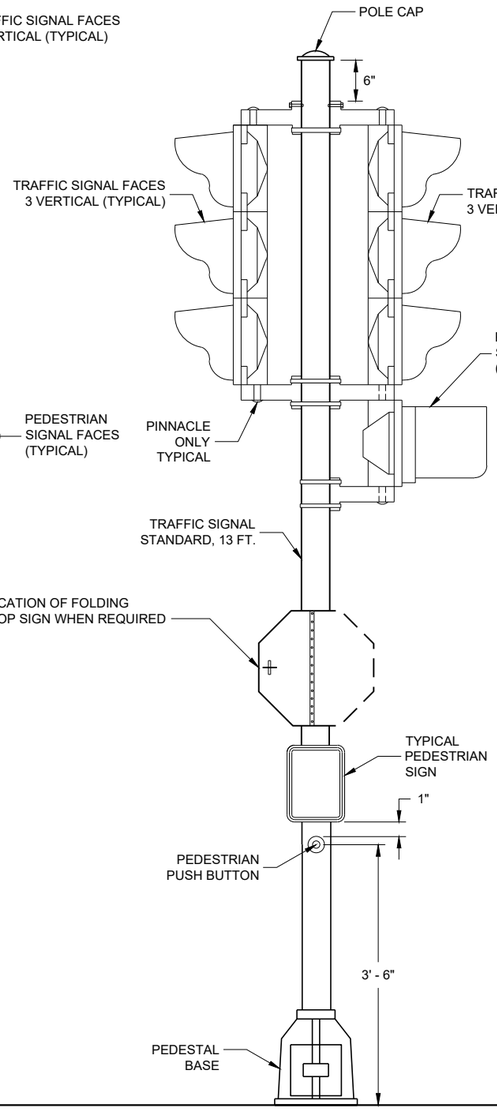
NON - FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

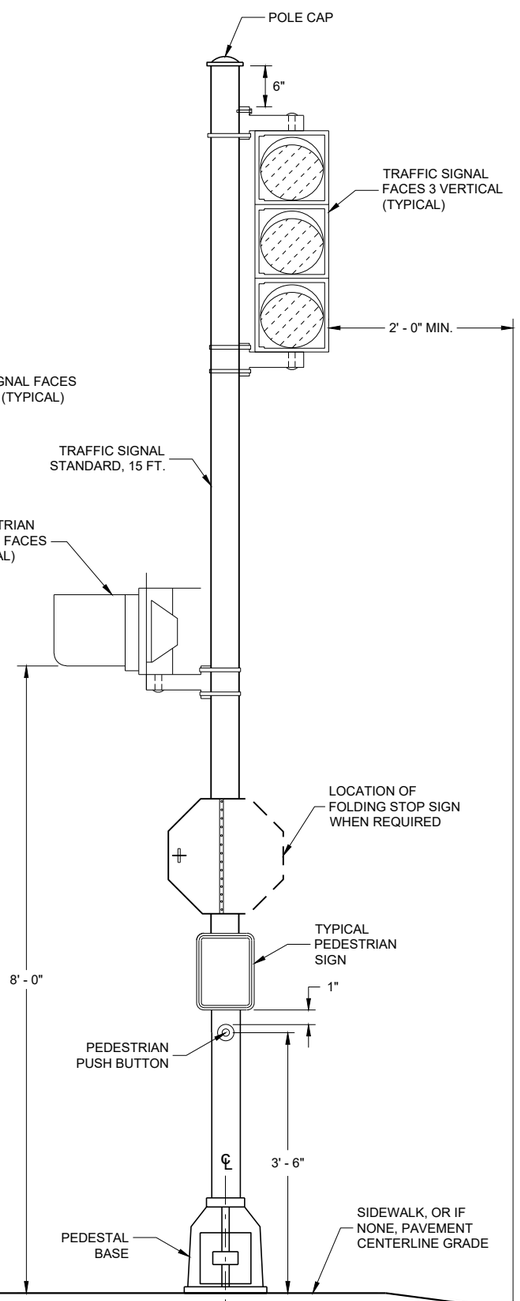
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TRAFFIC SIGNAL STANDARD - 15 FT.



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.

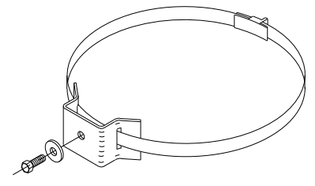
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

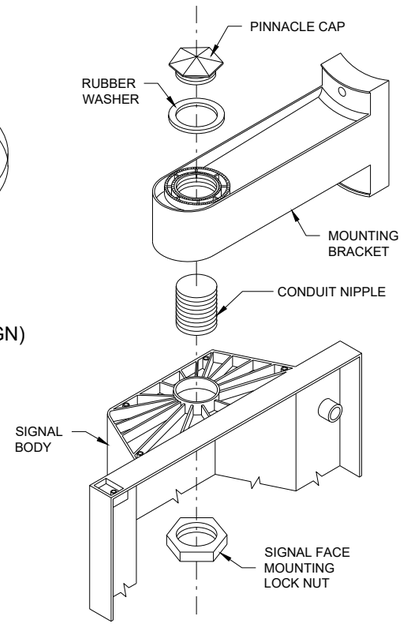
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 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.

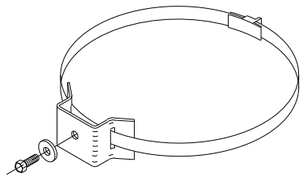
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013
DATE

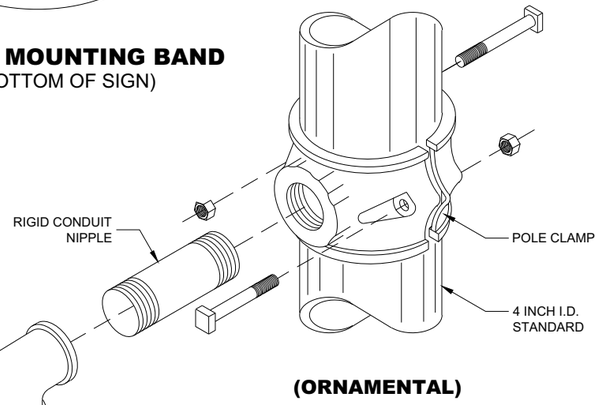
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 342

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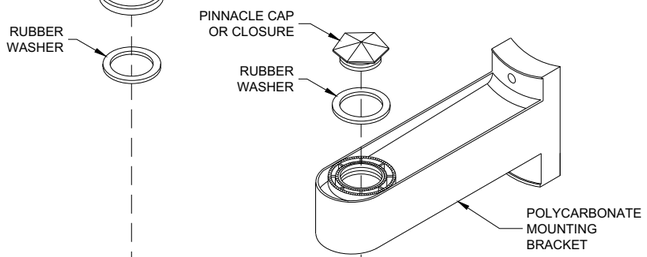
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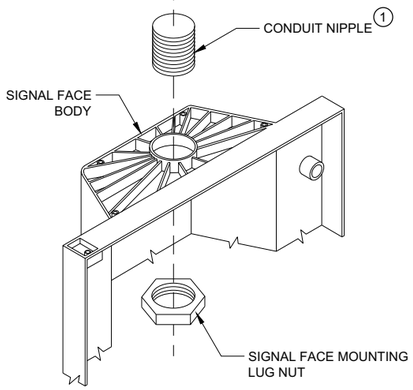
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



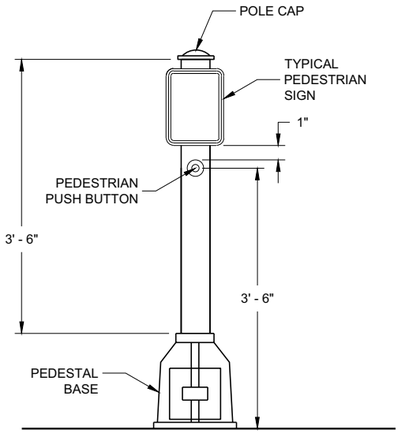
(ORNAMENTAL)



(BANDED)



SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

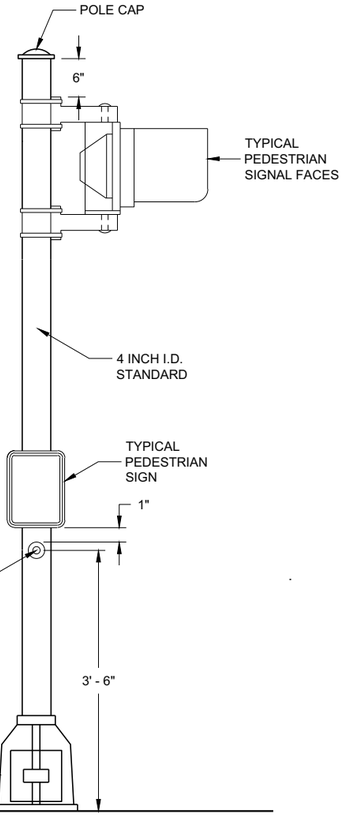
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

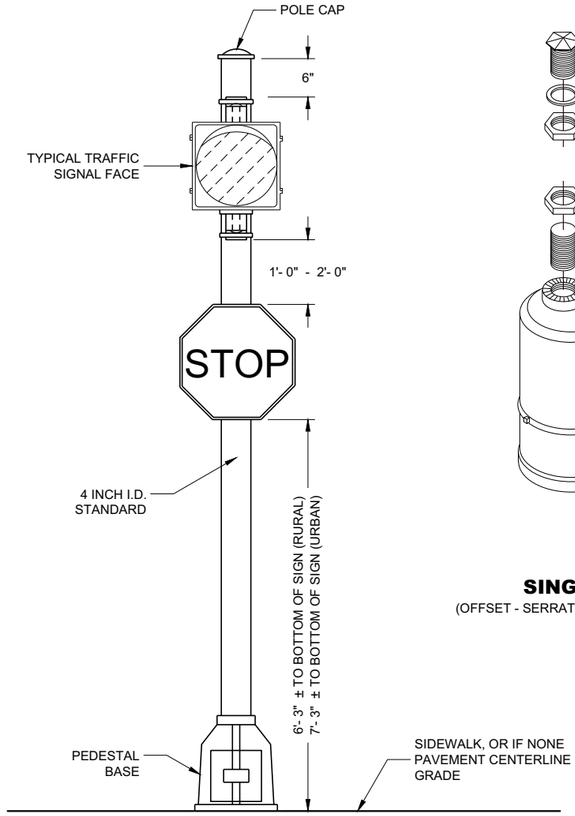
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

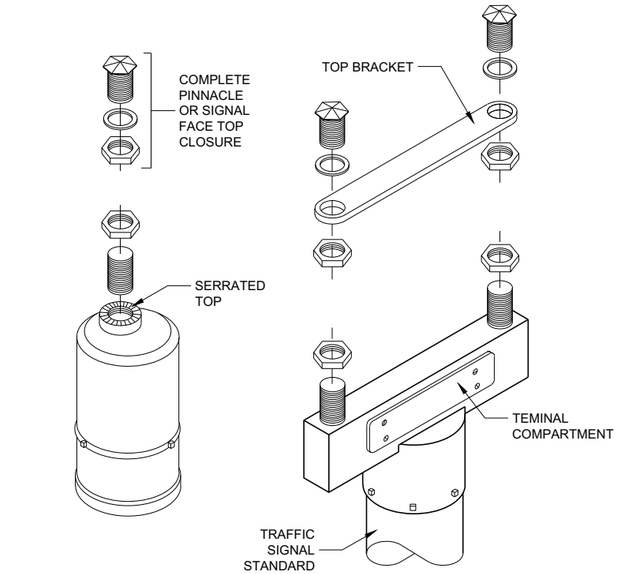
(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



PEDESTRIAN FACE STANDARD - 10 FT.
(WALK - DON'T WALK)



STANDARD FLASHER
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD
PEDESTRIAN AND FLASHER
TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
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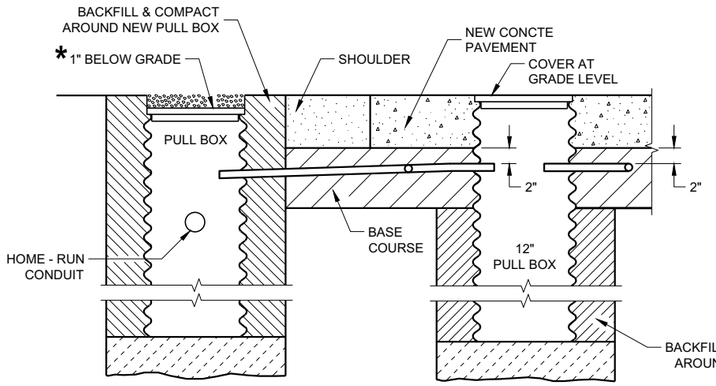
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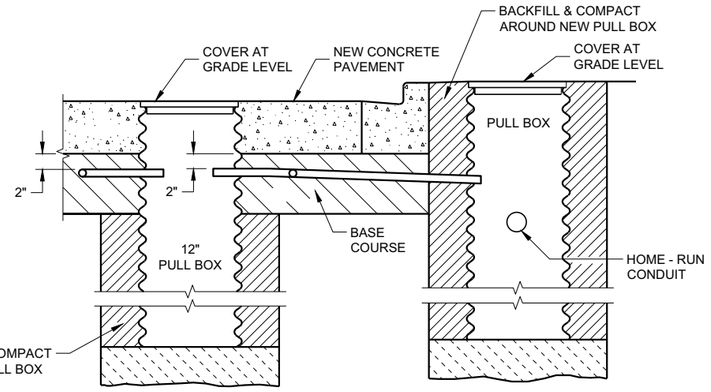
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SECTION A - A
NO CURB AND GUTTER

LOOP DETECTOR INSTALLATION DETAIL



SECTION B - B
CURB AND GUTTER

LOOP DETECTOR INSTALLATION DETAIL

* RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

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 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.

ANY PVC LEADOUT CONDUIT CONTAINING MORE THAN ONE TWISTED PAIR OF LOOP LEAD WIRE SHALL BE 2".

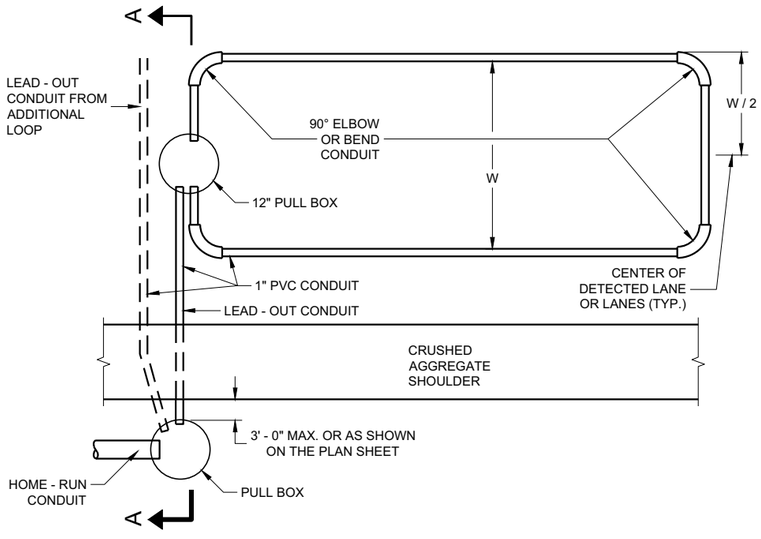
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

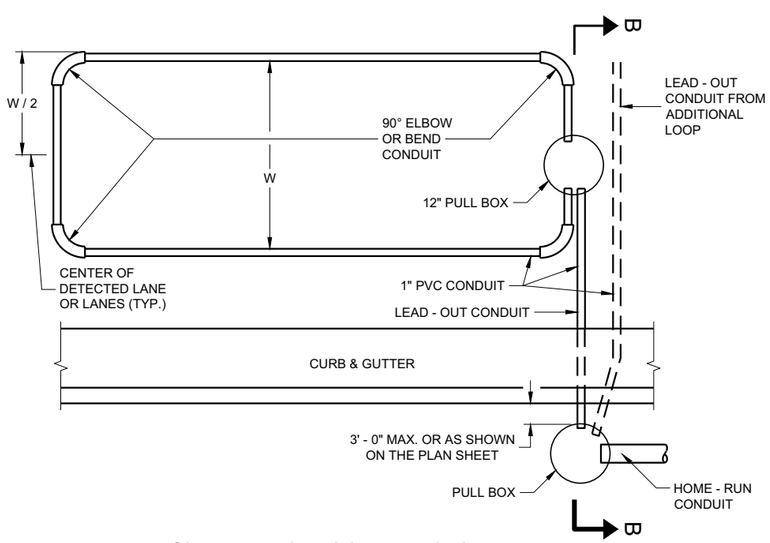
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, INTO THE PULL BOX IN THE PAVEMENT, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT, CONDULET, PULL BOX SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW CONCRETE PAVEMENT IS POURED.

12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)

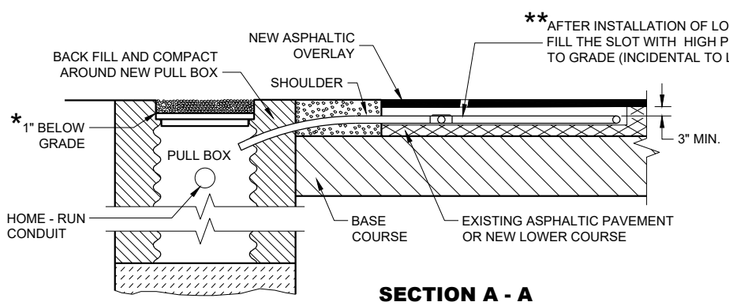
STATE OF WISCONSIN
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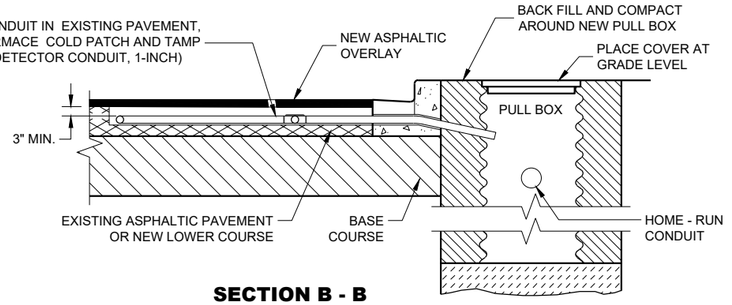
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SECTION A - A
NO CURB AND GUTTER

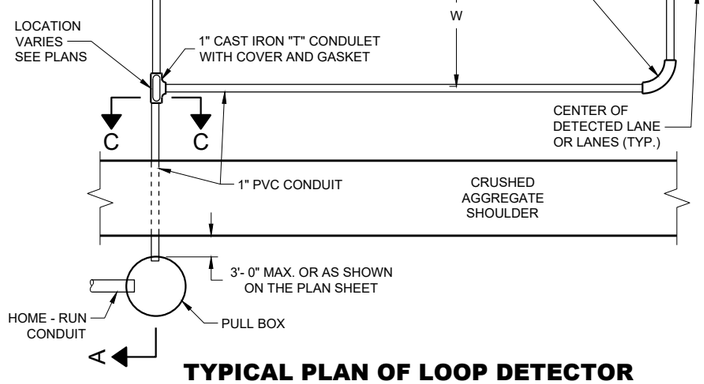
LOOP DETECTOR INSTALLATION DETAIL



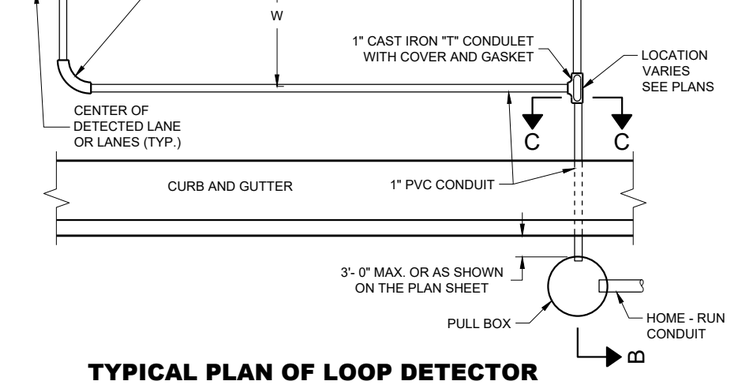
SECTION B - B
CURB AND GUTTER

LOOP DETECTOR INSTALLATION DETAIL

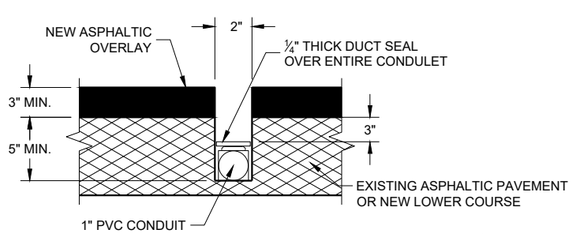
* RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.



TYPICAL PLAN OF LOOP DETECTOR



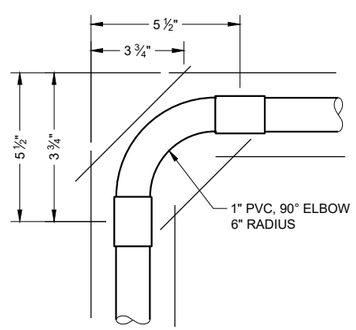
TYPICAL PLAN OF LOOP DETECTOR



SIDE VIEW
SECTION C - C

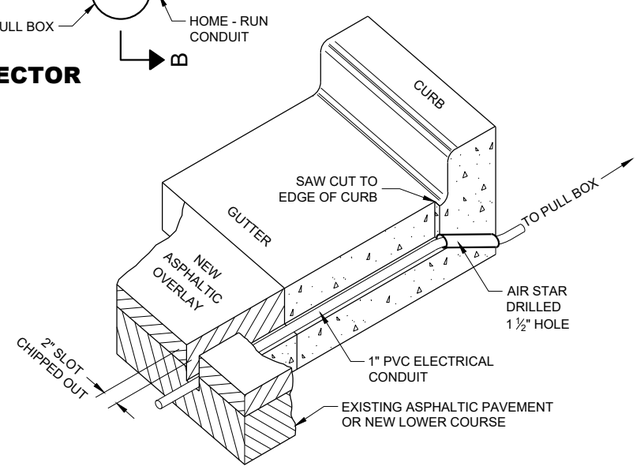
IF PAVEMENT IS LESS THAN 4 INCHES THICK, CONDUIT SHALL BE PLACED IN BASE COURSE.

LOOP DETECTOR SLOT DETAIL



TOP VIEW

CORNER SAW SLOT DETAIL



ISOMETRIC VIEW

TYPICAL SAW CUT DETAIL FOR LEAD-IN CONDUIT

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 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 FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE NON-SPLICED, CONTINUOUS LENGTH.

BEFORE PLACING THE 1 INCH CONDUIT IN THE CLEANED OUT SLOT, PLACE SOME OF THE TAR OR EPOXY SEALANT IN THE SLOT TO A DEPTH OF APPROXIMATELY ½ INCH. IF THE CONDUIT MUST BE PLACED IN THE BASE COURSE, DO NOT PLACE THE TAR OR EPOXY SEALANT IN THE SLOT.

ONCE THE 2" LOOP SLOT HAS BEEN CHIPPED OUT, THE LOOP INSTALLATION SHALL BE COMPLETED PRIOR TO OPENING THE LANE(S) TO TRAFFIC.

** AFTER THE HIGH PERFORMANCE COLD PATCH HAS BEEN TAMPED, SEAL THE SLOT/HIGH PERFORMANCE COLD PATCH/PAVEMENT OPENING WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

IN THE EVENT HIGH PERFORMANCE COLD PATCH IS NOT AVAILABLE, AND FLEXIBLE TYPE EPOXY IS USED AS A LOOP SLOT FILLER, THE 2 INCH SLOT SHALL BE TOTALLY CLEAN AND DRY BEFORE ITS INSTALLATION. EPOXY USE SHALL BE APPROVED BY THE DISTRICT TRAFFIC ENGINEER AND THE FURNISHED EPOXY SHALL BE INSTALLED AFTER WRITTEN APPROVAL BY THE PROJECT ENGINEER.

LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY

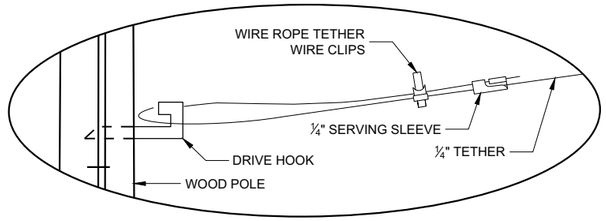
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

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SDD 09F10 - 04

MINIMUM POLE LENGTHS	POLE BURIAL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

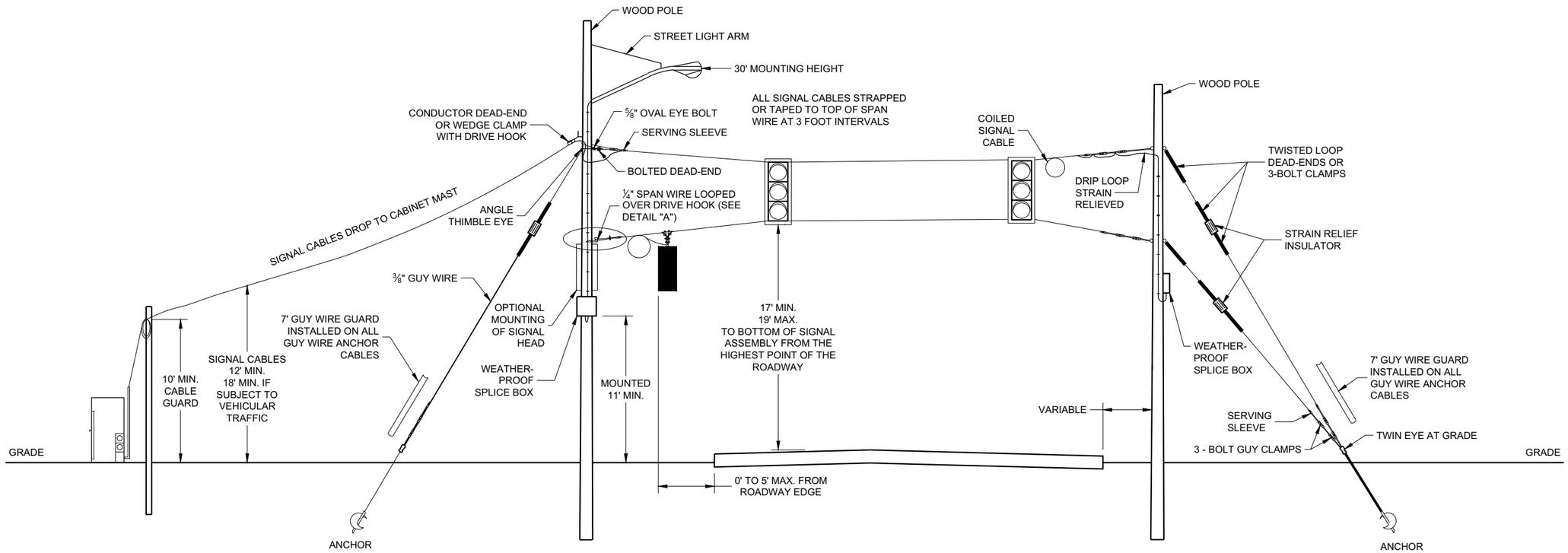


DETAIL "A"

GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 — DATE
/S/ Ahmet Demerbilek — STATE ELECTRICAL ENGI
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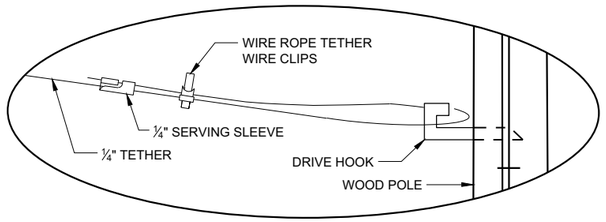
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SDD09G01 - 04a

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SDD09G01 - 04a

MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

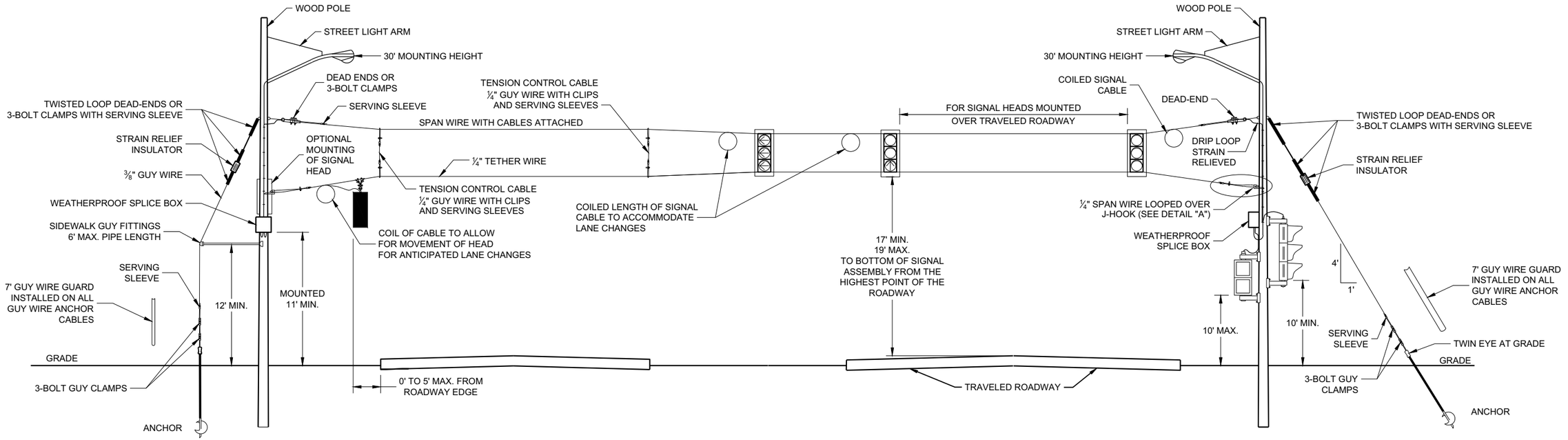


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   - E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
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SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

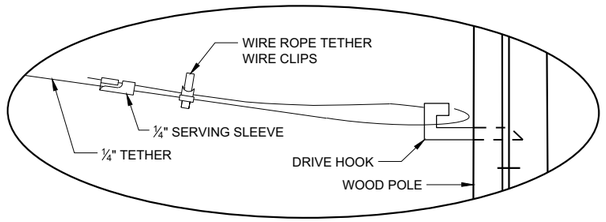
APPROVED
June 2015
DATE
/S/ Ahmet Demerbilek
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SDD09G01 - 04b

MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

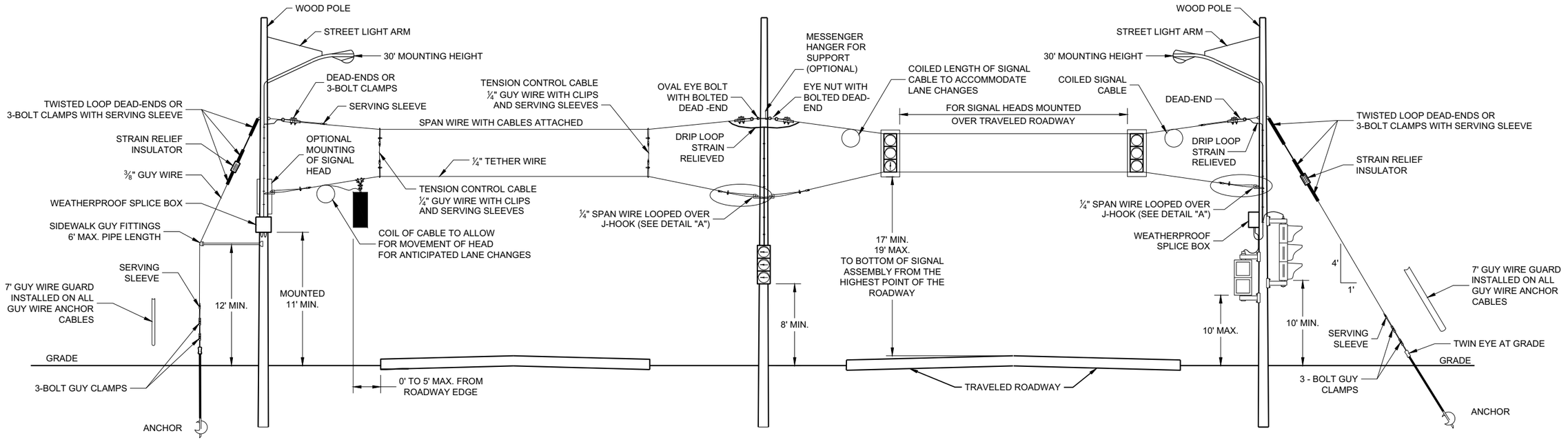


DETAIL "A"

GENERAL NOTES

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SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

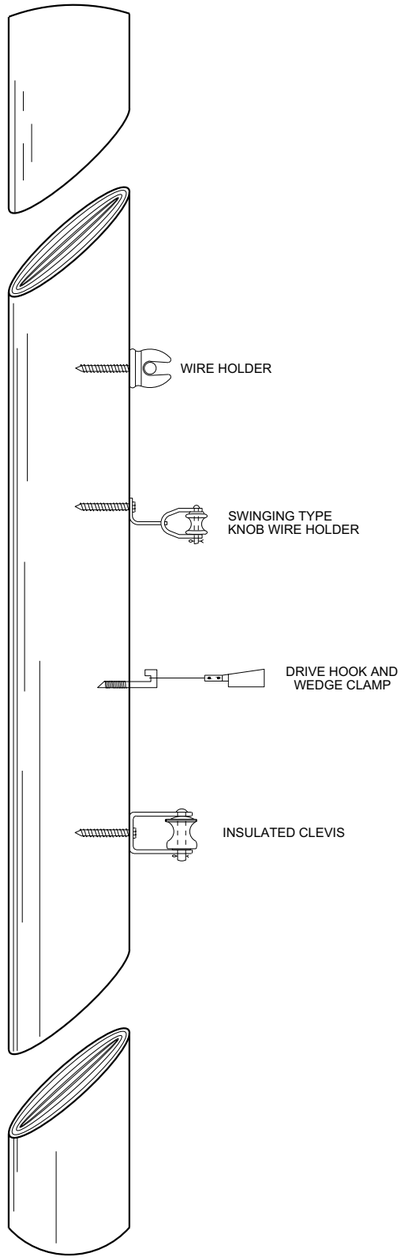
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

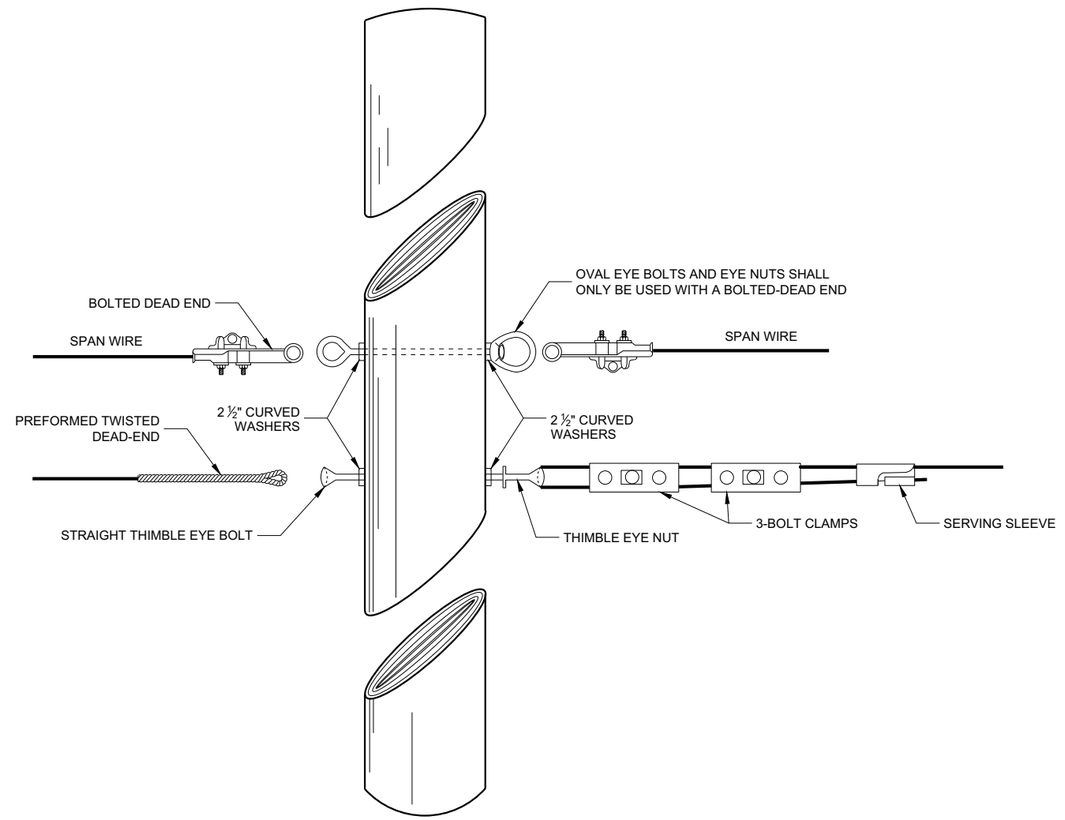
APPROVED
June 2015
DATE
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SDD 09G01 - 4d

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SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

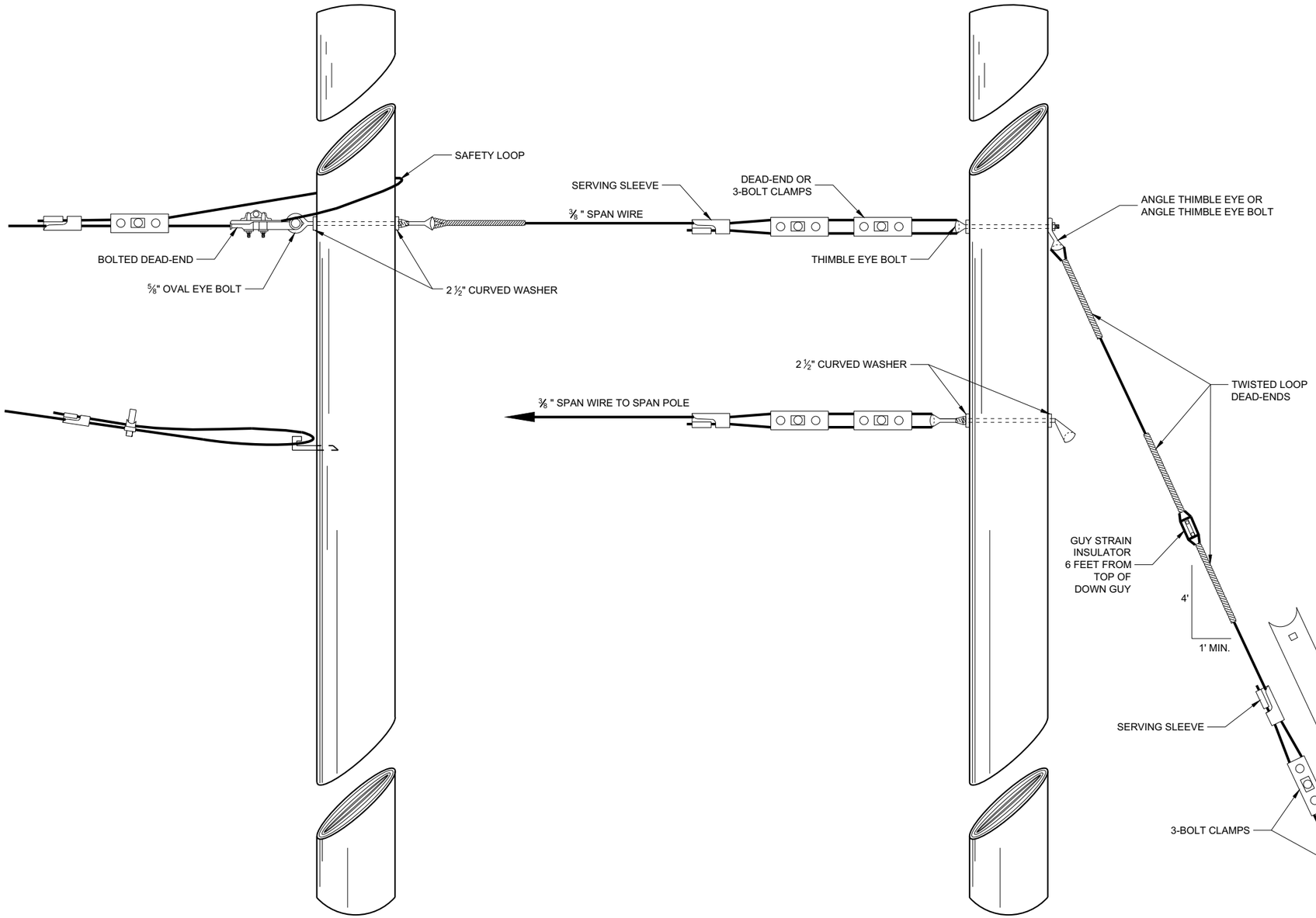
June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE FOR ⅝" BOLTS.
2. SAFETY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE

GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

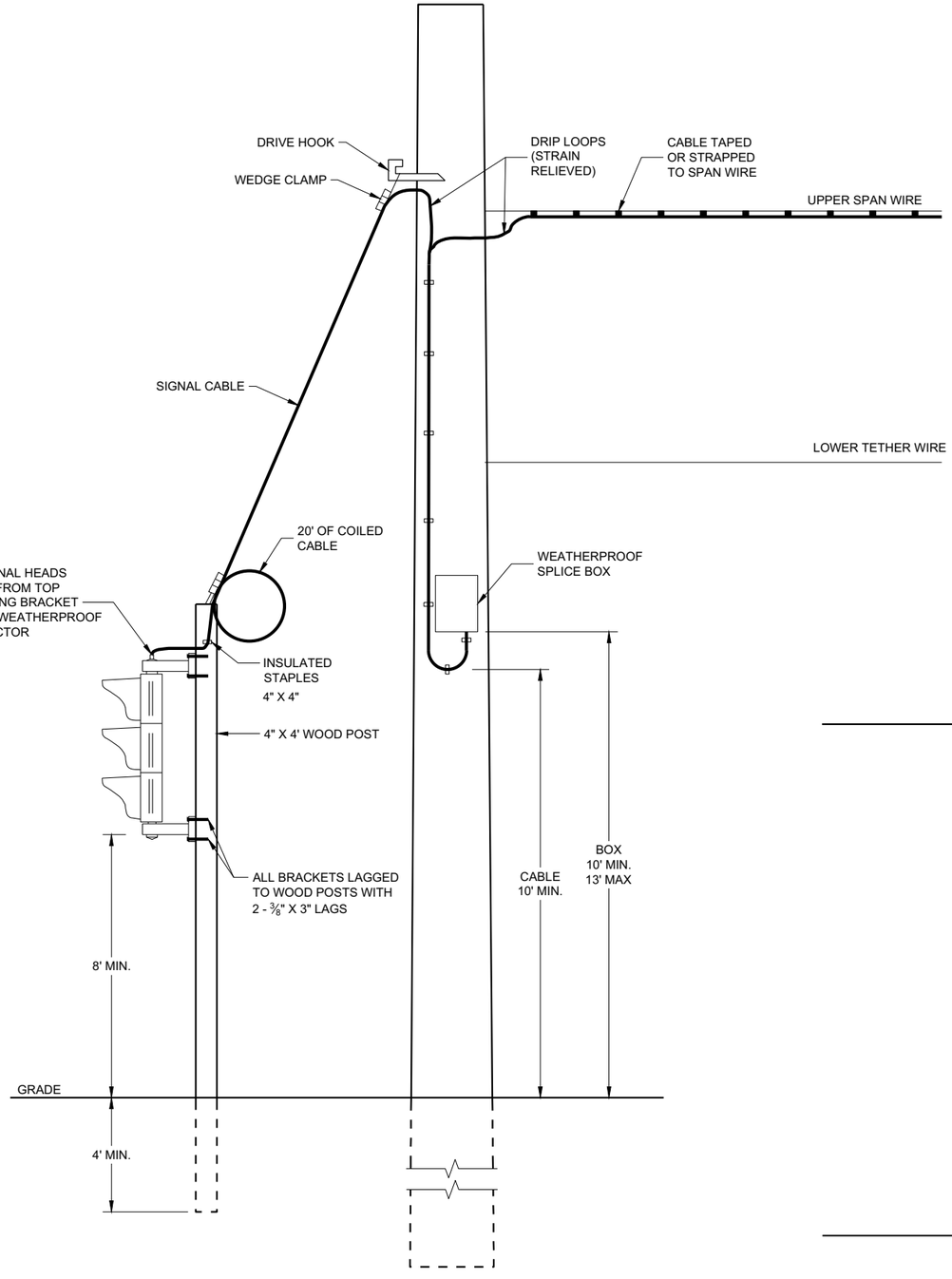
SPAN WIRE TEMPORARY TRAFFIC SIGNAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2015 DATE	/S/ Ahmet Demerbilek ROADWAY STANDARDS DEVE ENGINEER
FHWA	350

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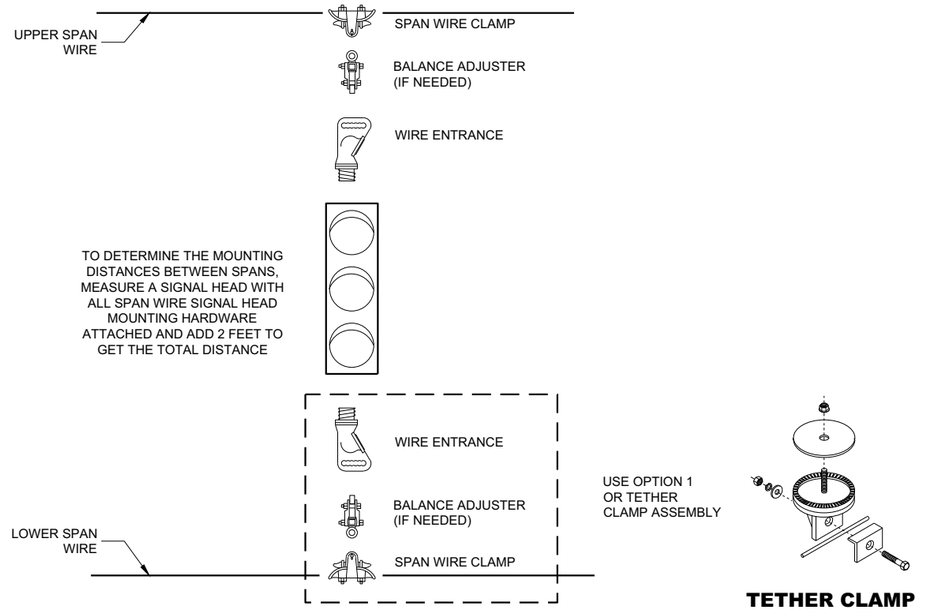
SDD 09G01 - 4e

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SDD 09G01 - 4e



TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL

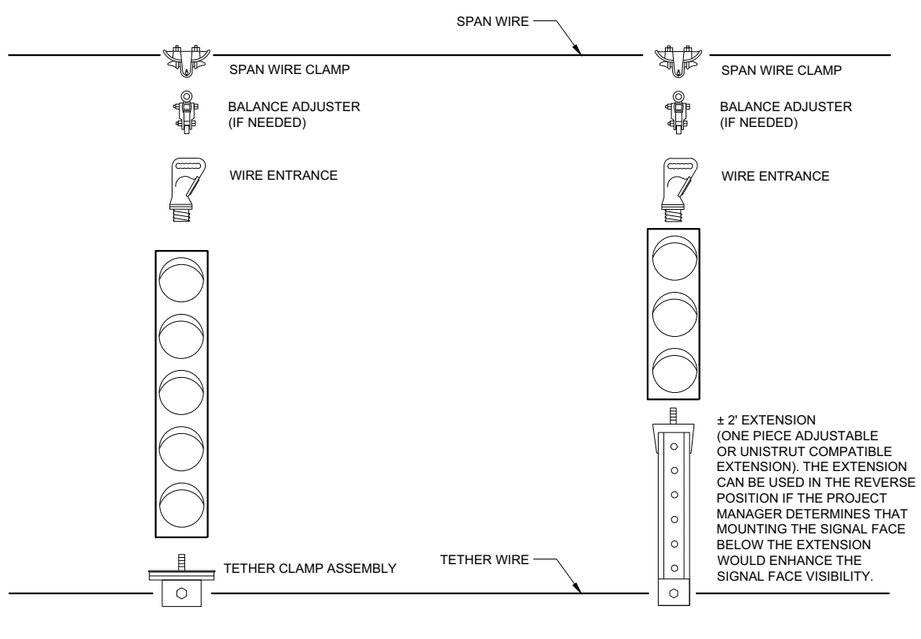


OPTION 1

USE OPTION 1 OR TETHER CLAMP ASSEMBLY

TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

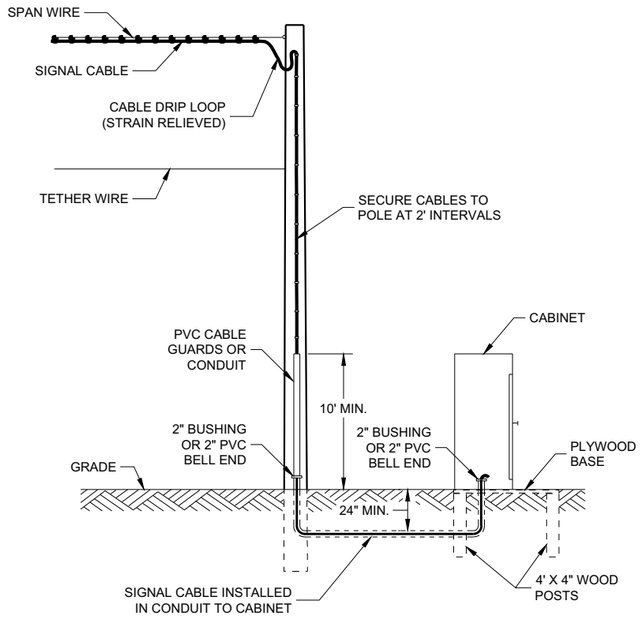
APPROVED
June 2015
DATE

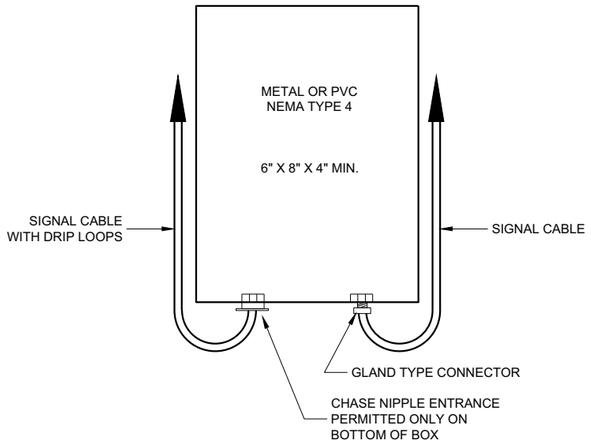
/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

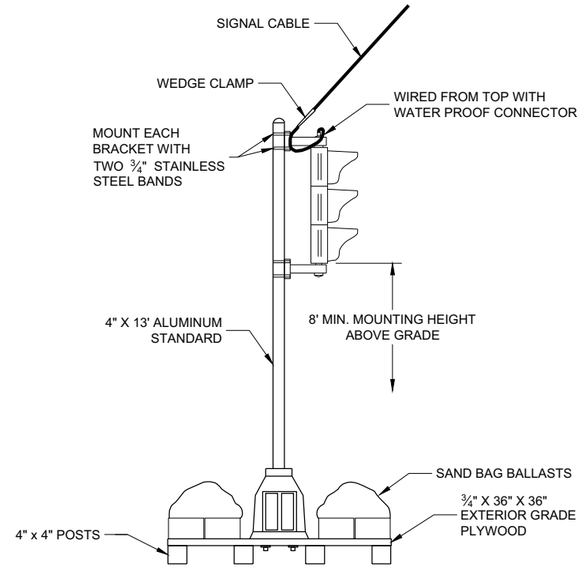
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SDD 09G01 - 4f

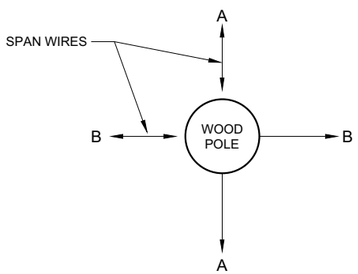




SPLICE BOX

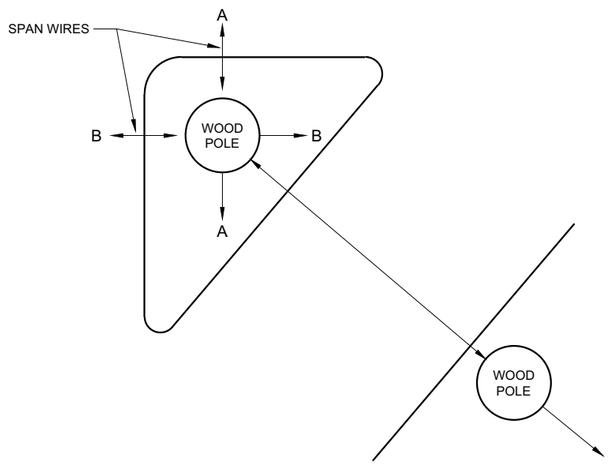


TYPICAL SKID TYPE TEMPORARY

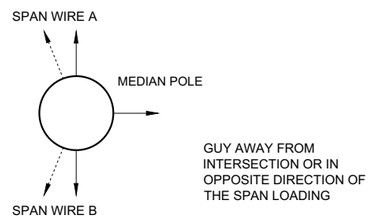


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF
THE SPAN LOADING

MEDIAN POLES

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

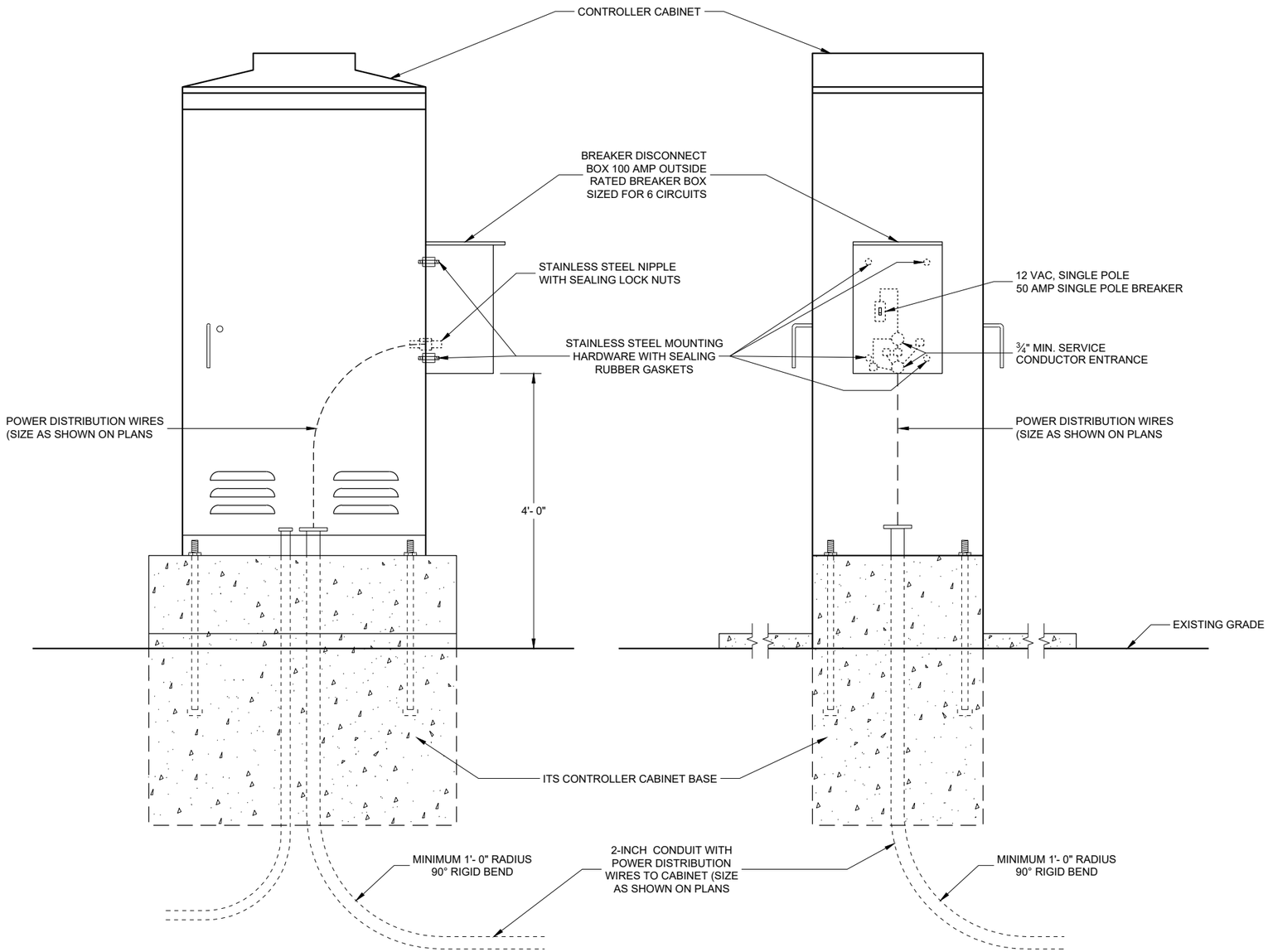
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SDD 09G01 - 4g

GENERAL NOTES

MINIMUM REQUIREMENT SHOWN. ADDITIONAL BREAKERS MAY BE REQUIRED.

UP TO THREE BREAKERS WILL BE CONSIDERED INCIDENTAL TO THE ITEM BREAKER DISCONNECT BOX.



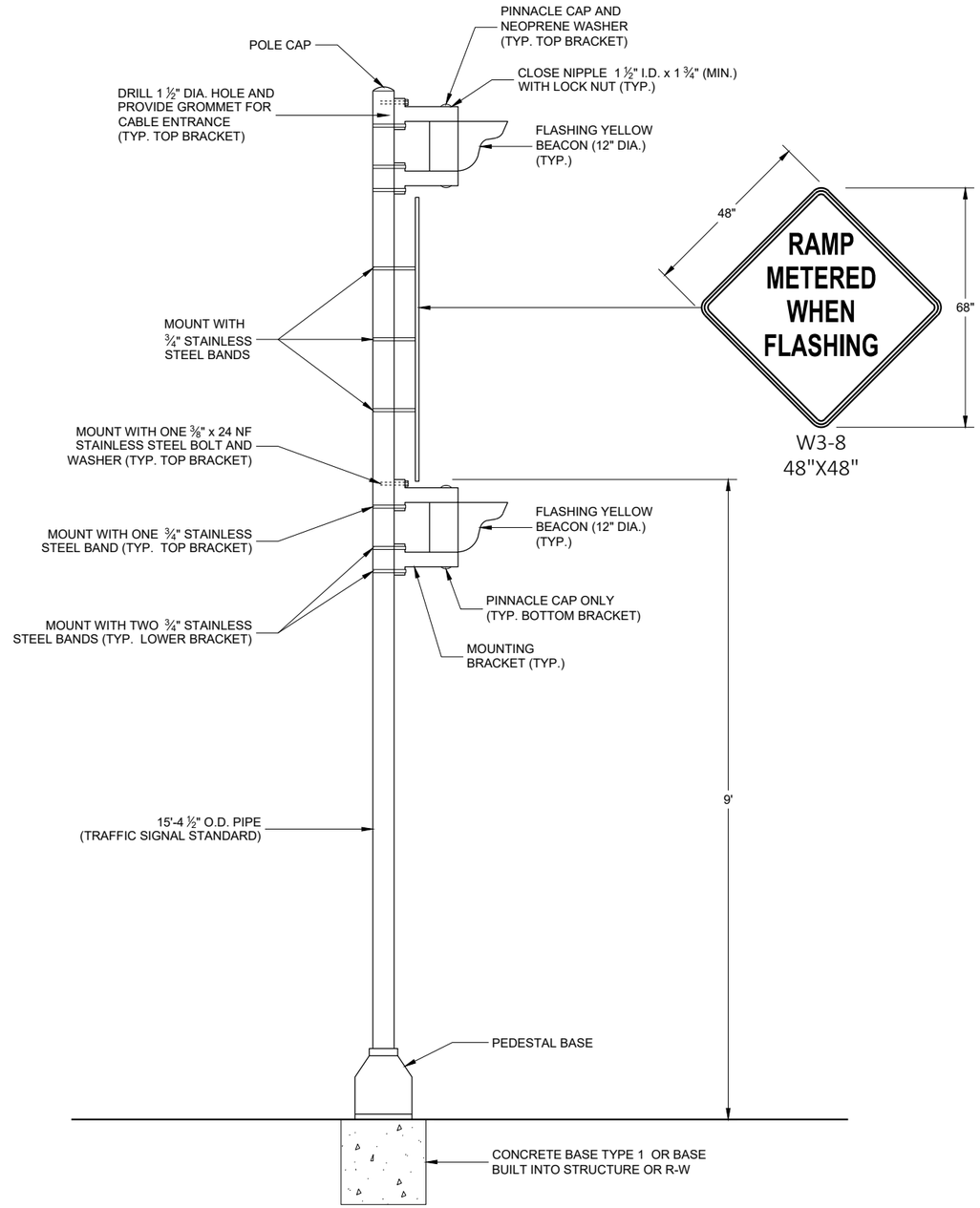
FRONT VIEW **SIDE VIEW**

CIRCUIT BREAKER DISCONNECT BOX INSTALLATION

CABLE BREAKER DISCONNECT BOX INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI 353
FHWA



SIGNAL ASSEMBLY ADVANCE FLASHER TYPE 1

SIGNAL ASSEMBLY
ADVANCE FLASHER TYPE 1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

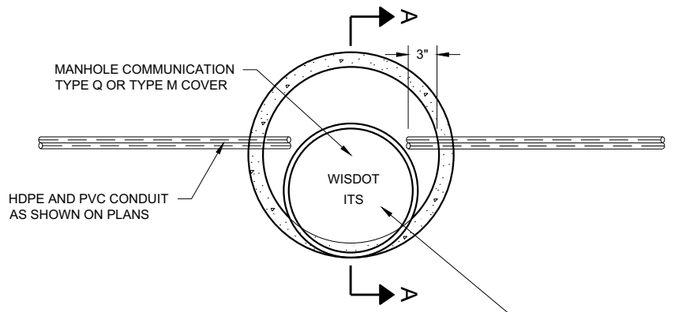
APPROVED
June 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 354

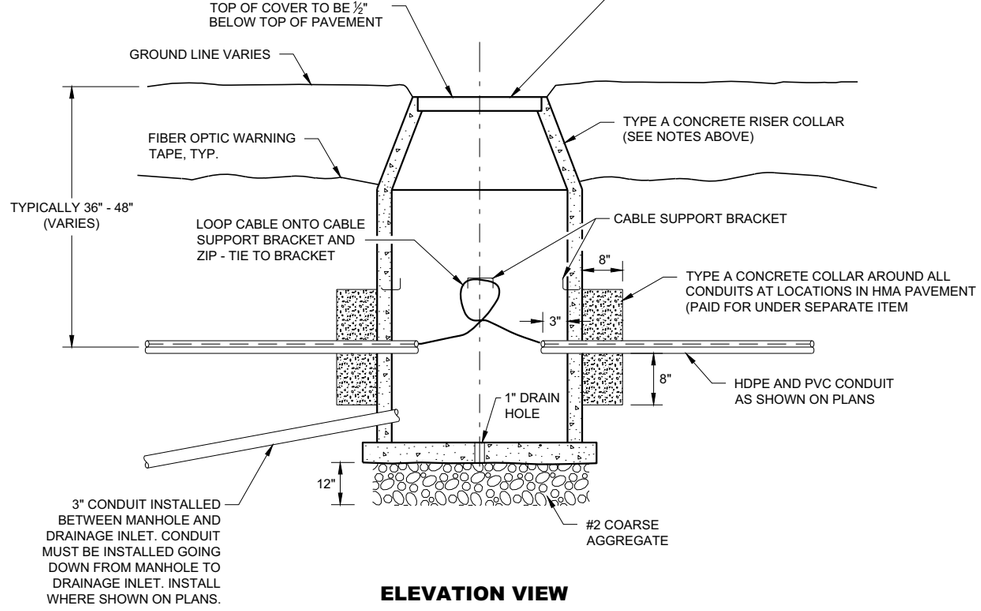
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SDD 09H06 - 02



PLAN VIEW



ELEVATION VIEW

GENERAL NOTES

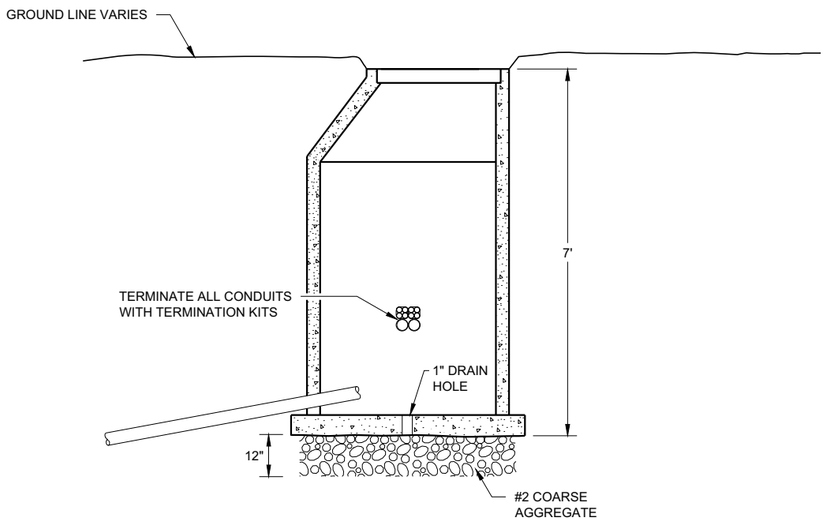
ALL OPENINGS IN STRUCTURE MUST BE CORED OR BLOCKED OUT AT TIME OF FABRICATION, OR CORED AT TIME OF PLACEMENT.

FOR MANHOLES PLACED OUTSIDE PAVED AREA, TYPE "M" COVERS SHALL BE INSTALLED SO THAT THE FRAME AND LID ARE RECESSED INTO THE TOP OF THE CONCRETE MANHOLES AS TO PREVENT LATERAL MOVEMENT OF THE COVER. THE FRAME SHALL BE INVERTED AND PLACED INTO THE OPENING OF THE MANHOLE PROTRUDING LESS THAN ONE INCH ABOVE THE TOP OF THE CONCRETE.

FOR MANHOLES WITHIN PAVED AREAS, TYPE "Q" COVERS SHALL BE USED.

MANHOLE COVERS TO BE IMPRINTED WITH "WISDOT ITS" IN 2 - INCH LETTERING.

ALL MANHOLES, INLETS, AND PULL BOXES LOCATED WITHIN HMA PAVEMENT SHALL BE COVER PLATED AT OR BELOW THE TOP OF THE BASE COURSE AND COVERS BROUGHT TO FINAL GRADE PRIOR TO PLACING THE UPPER HMA LAYER. ALL WORK IS INCIDENTAL TO OTHER ITEMS OF WORK.



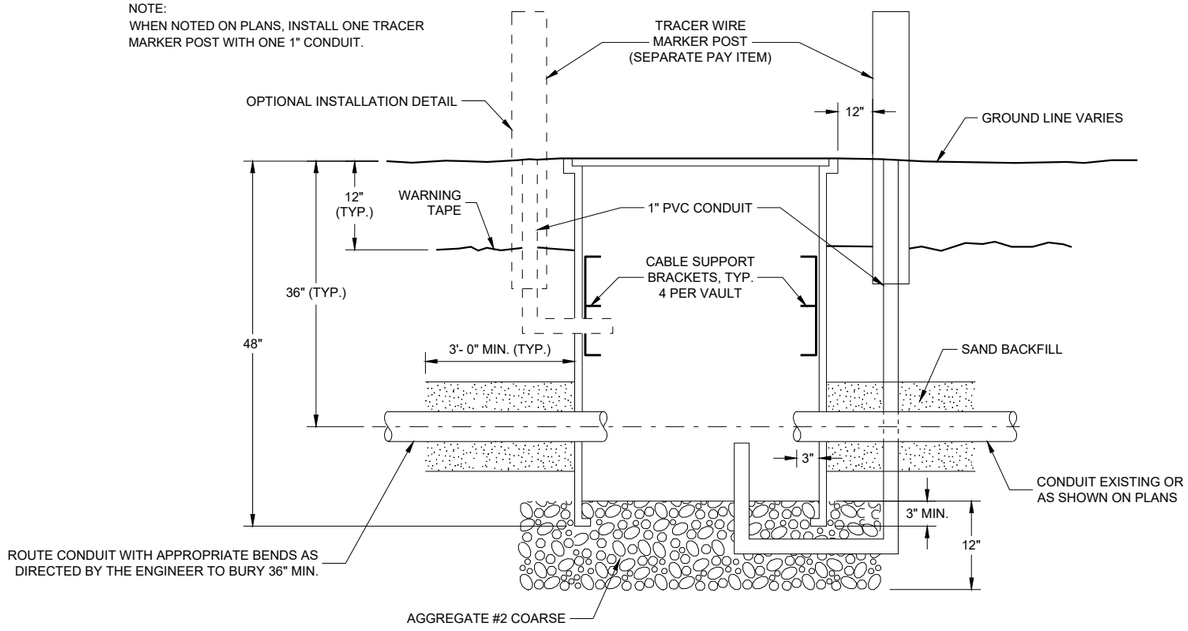
SECTION A - A

COMMUNICATIONS MANHOLE

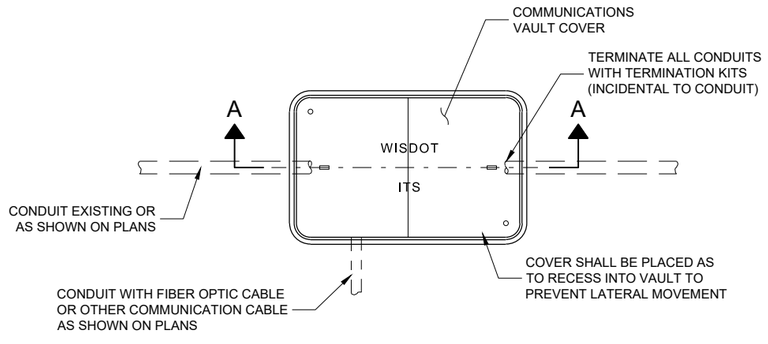
COMMUNICATIONS MANHOLE DETAIL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2018 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGI 355
FHWA	

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SDD 09H08 - 03

NOTE:
WHEN NOTED ON PLANS, INSTALL ONE TRACER MARKER POST WITH ONE 1" CONDUIT.



SECTION A - A



PLAN VIEW

COMMUNICATIONS VAULT TYPE 1

GENERAL NOTES

PROVIDE VAULT WITH OPEN BASE.

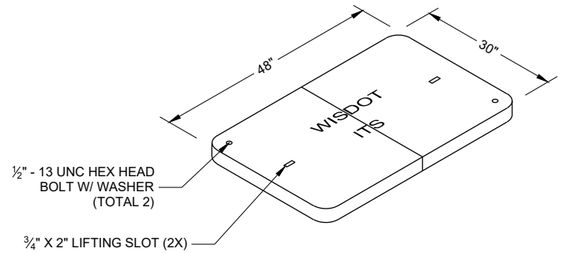
COVER SHALL HAVE A MINIMUM DESIGN LOAD OF 15,000 LBS AND SHALL LOCK.

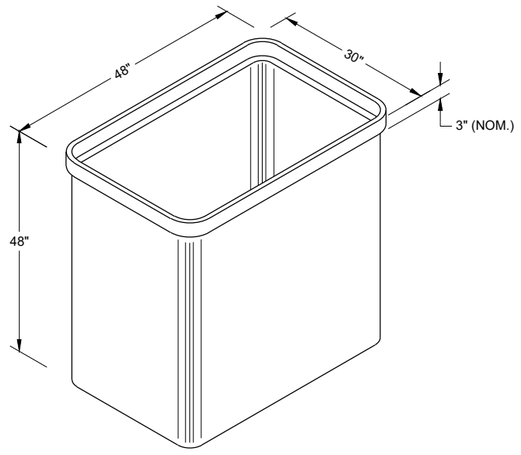
ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION, OR PUNCH DRIVEN AT TIME OF PLACEMENT.

VAULTS SHALL BE OF ONE-PIECE CONSTRUCTION. TWO-PIECE/STACKABLE VAULTS WILL NOT BE PERMITTED.

FIELD PLACEMENT OF COMMUNICATIONS VAULTS SHALL BE AS DIRECTED BY THE ENGINEER.

FIBER TRACER MARKER POSTS SHALL BE CONSTRUCTED WITH HIGH-IMPACT PLASTIC MATERIAL WHICH IS FADE RESISTANT AND UV STABLE. ALL HARDWARE SHALL BE STAINLESS STEEL AND CONTAIN A MINIMUM OF FIVE STANDARD TERMINALS.





ISOMETRIC VIEW

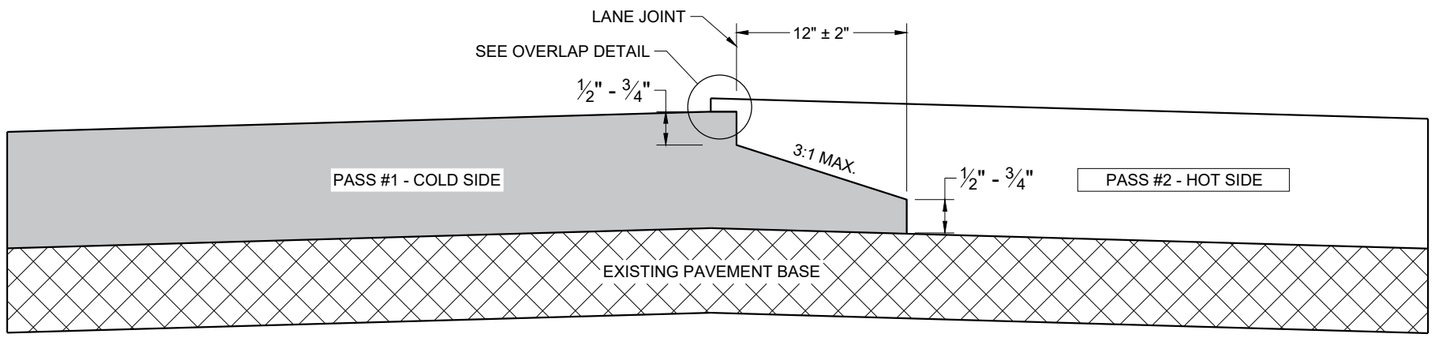
COMMUNICATION VAULT TYPE 1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

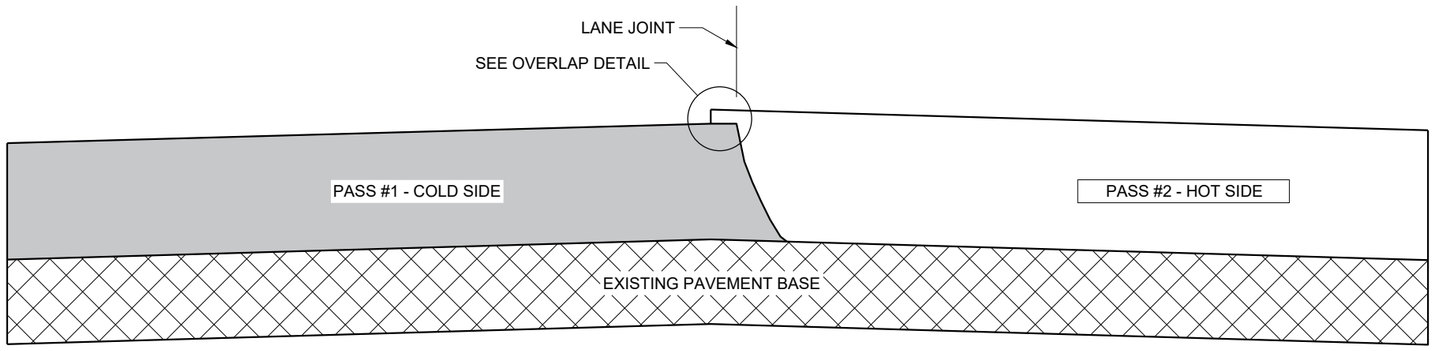
APPROVED
May 2017
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 356

FHWA

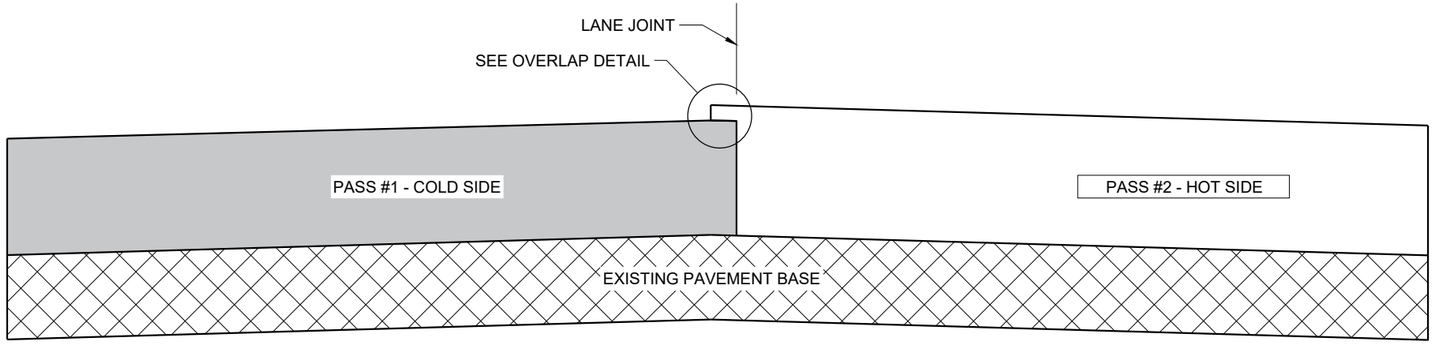
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SDD 09H09 - 02



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

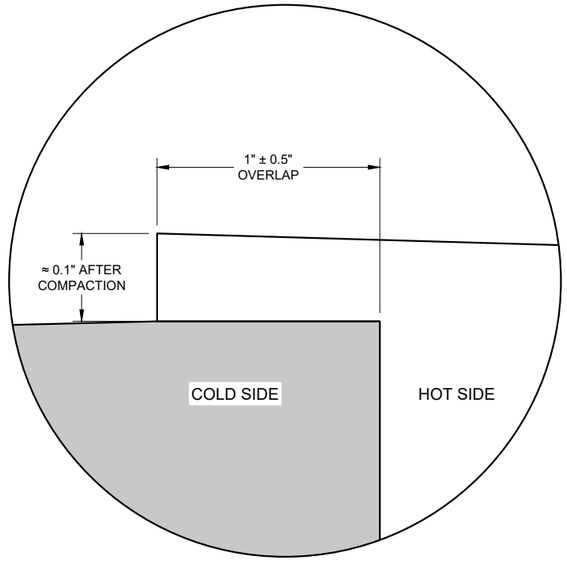
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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.

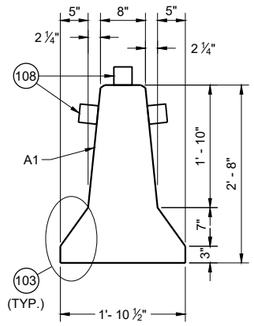


OVERLAP DETAIL (TYPICAL)

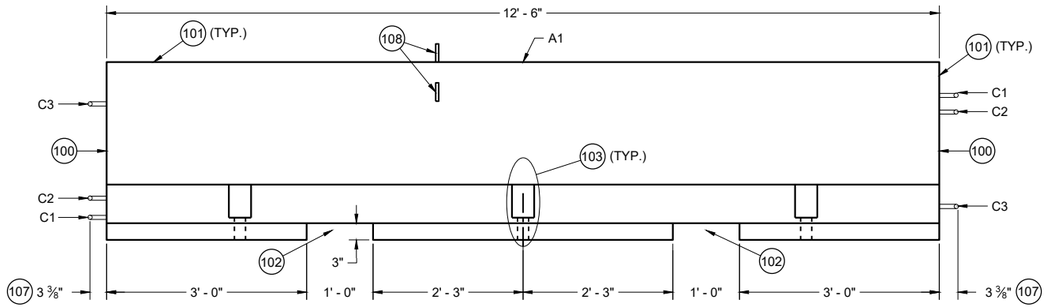
HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGIN

FHWA

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SDD 13C19 - 03



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

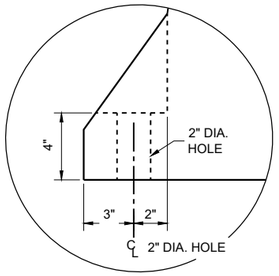
(104) 1 ¾" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

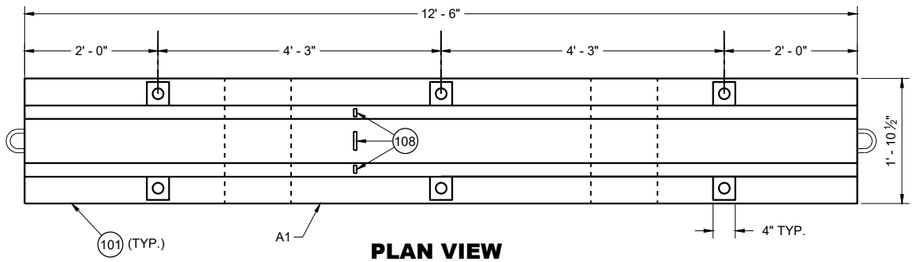
(106) 1" MIN. CLEAR COVER

(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.

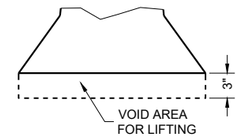


ANCHOR BLOCK DETAIL

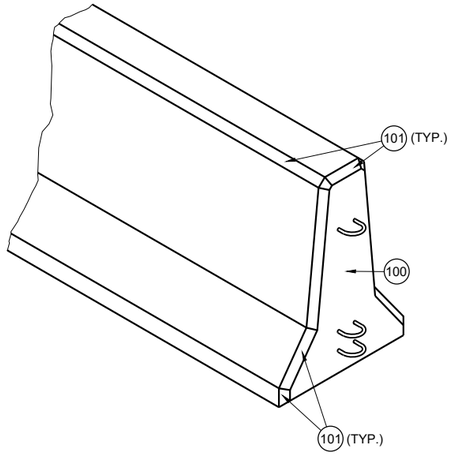


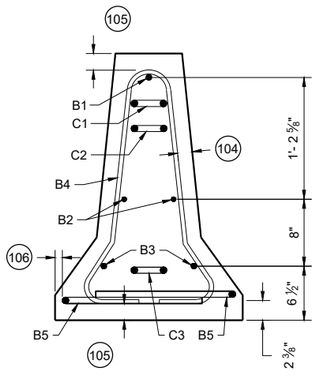
PLAN VIEW

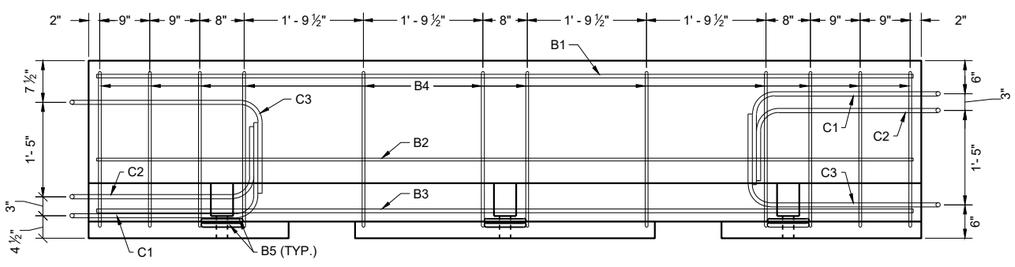
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)





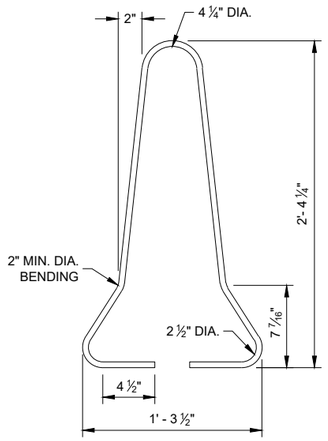


PROFILE VIEW

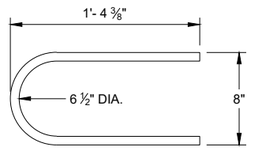
TEMPORARY BARRIER REINFORCEMENT

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

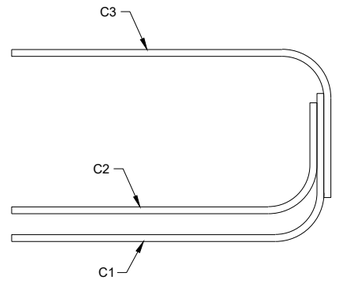
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



B4 BAR DETAIL

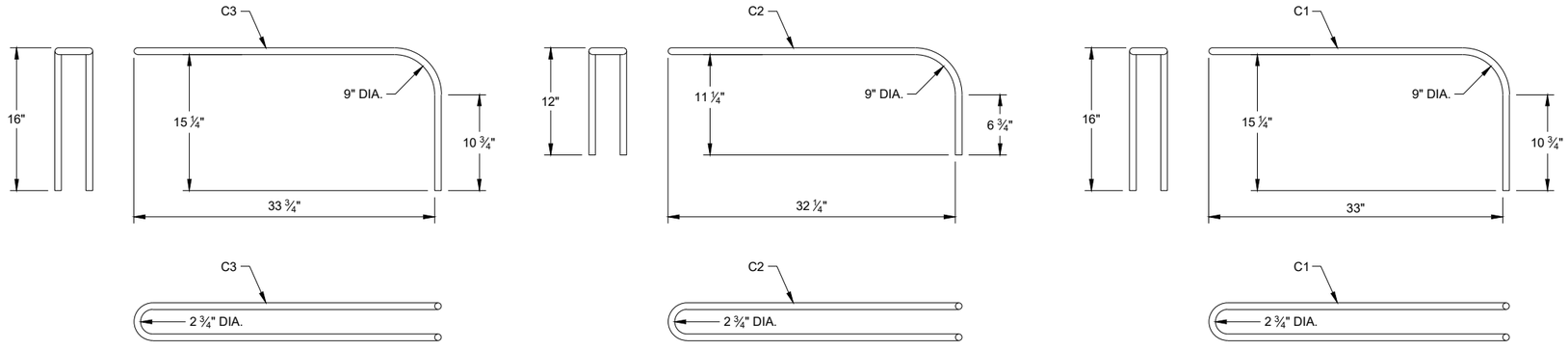


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY



C BAR DETAILS

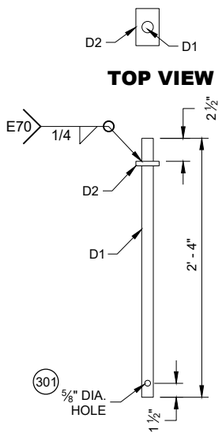
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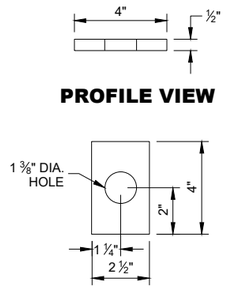
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"



TOP VIEW

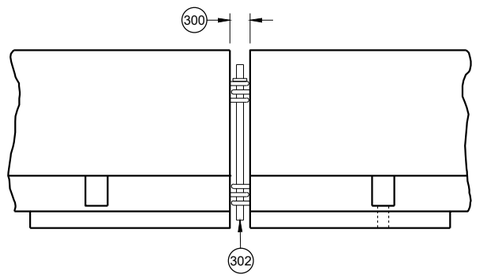
PROFILE VIEW

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.

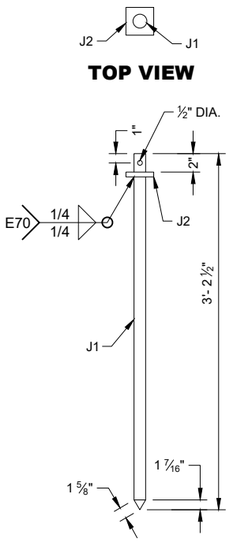
305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

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"

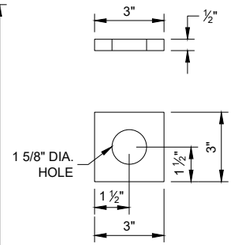
309 WHEN THERE IS ASPHALT OVERLAYING CONCRETE PAVEMENT, A 1 5/8" DIA. PILOT HOLE CAN BE DRILLED INTO THE OVERLAY AND CONCRETE. IF NEEDED DRILL A 3/4" PILOT HOLE IN BASE COURSE.



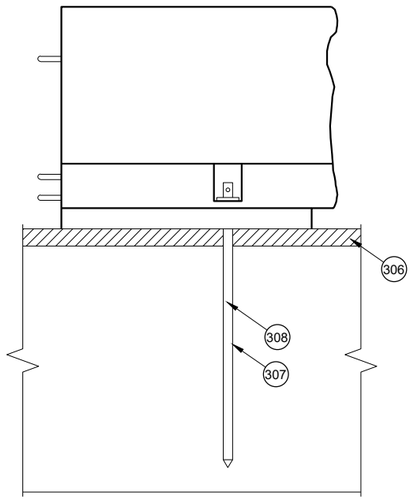
TOP VIEW

PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY

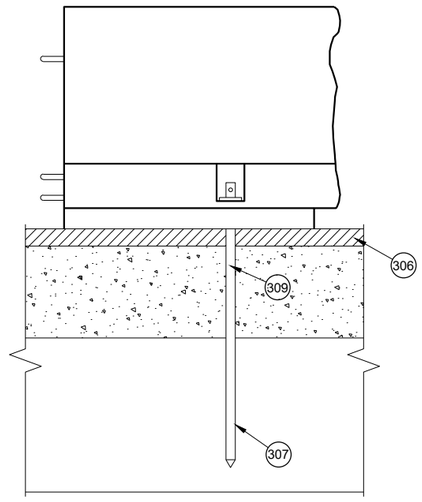


TOP VIEW J2



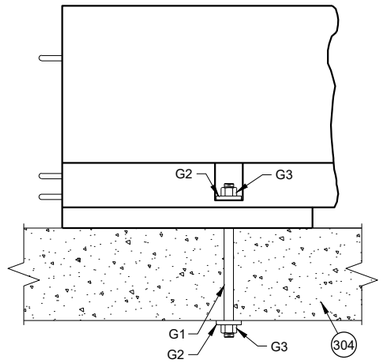
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT PAVEMENT



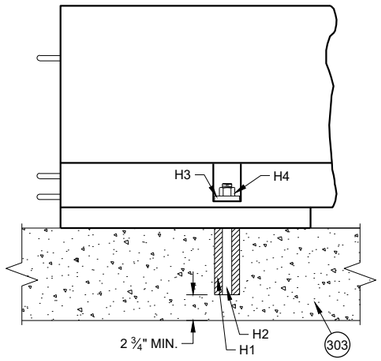
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT OVERLAY ON TOP OF CONCRETE PAVEMENT



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION (305)



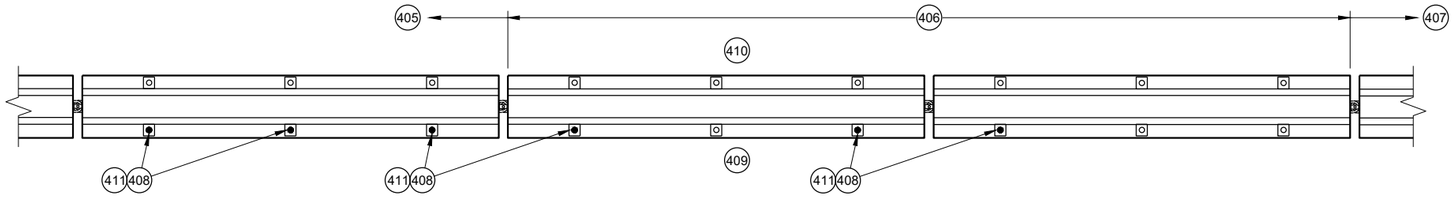
SIDE VIEW

ADHESIVE ANCHOR INSTALLATION (305)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

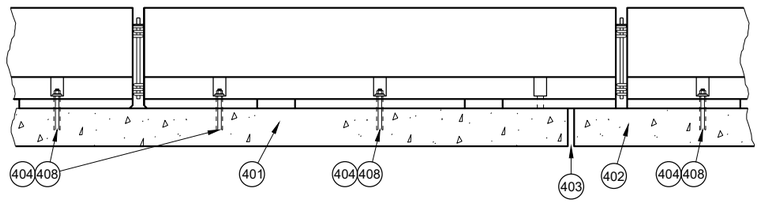
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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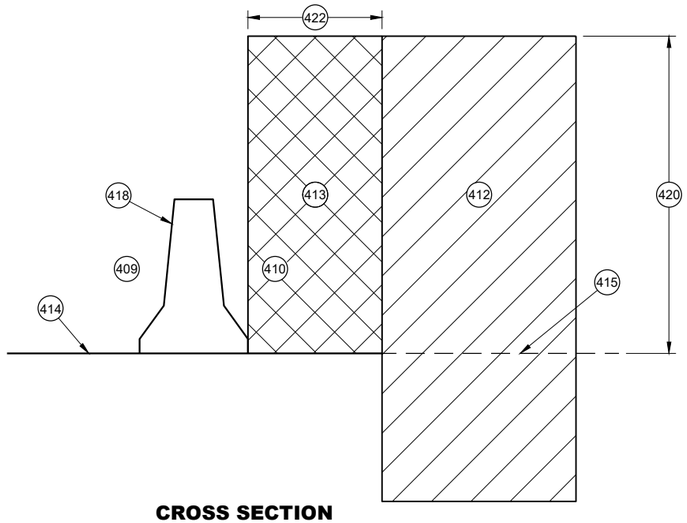
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



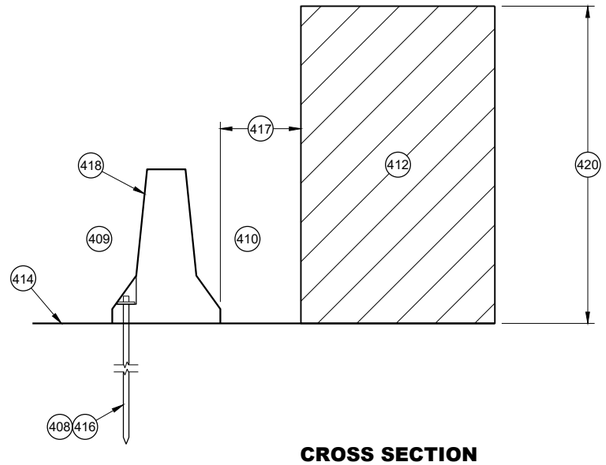
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



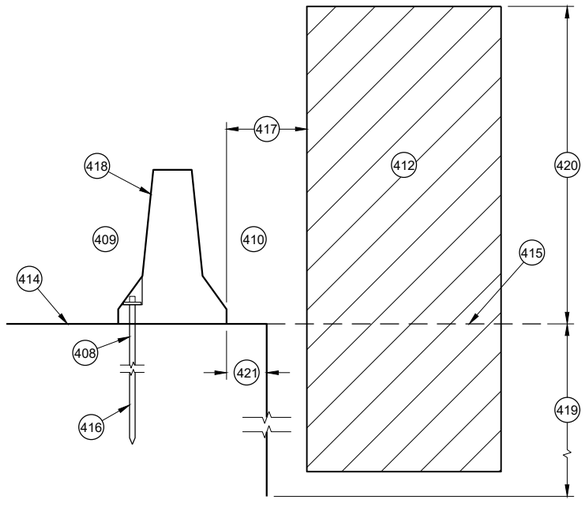
CROSS SECTION

FREE STANDING BARRIER



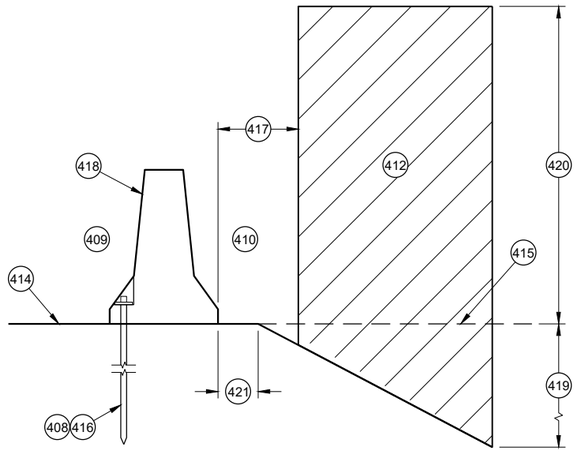
CROSS SECTION

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

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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

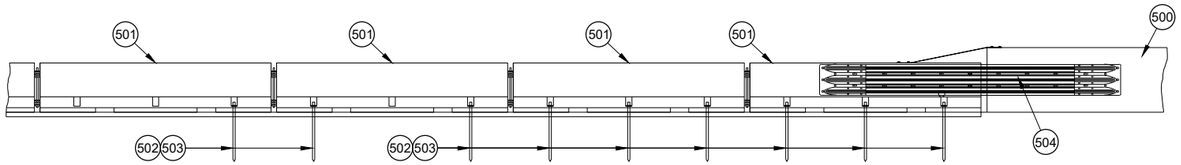
(516) CUT WOOD BLOCK TO FIT.

(517) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.

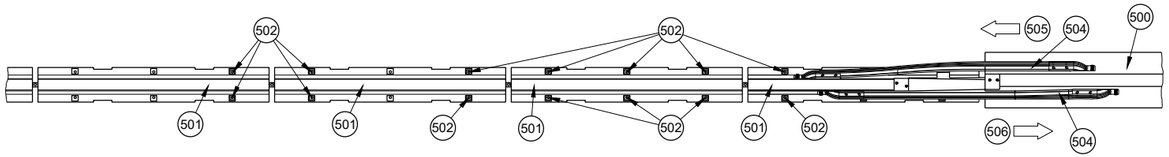
(518) CAP ASSEMBLY

(519) 4" MAX. GAP BETWEEN TEMPORARY BARRIER AND RIGID BARRIER.

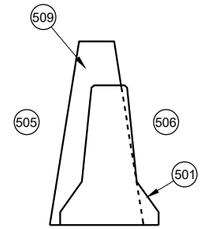
(520) ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



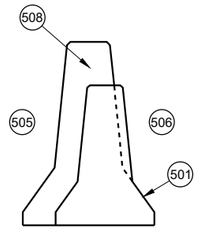
PROFILE VIEW



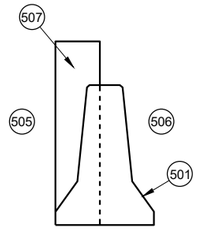
PLAN VIEW



CROSS SECTION TEMPORARY BARRIER PLACEMENT SINGLE SLOPE

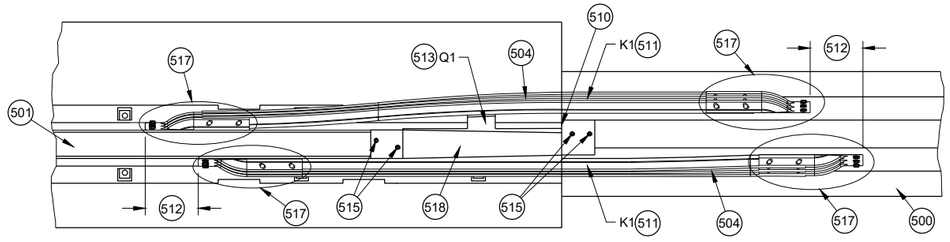


CROSS SECTION TEMPORARY BARRIER PLACEMENT SAFETY SHAPE

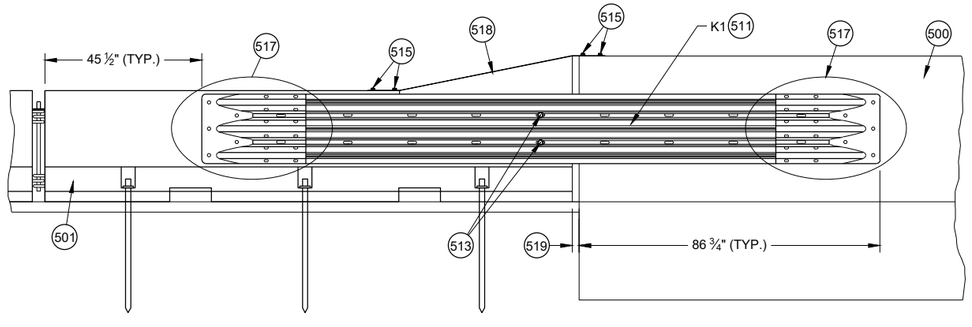


CROSS SECTION TEMPORARY BARRIER PLACEMENT VERTICAL

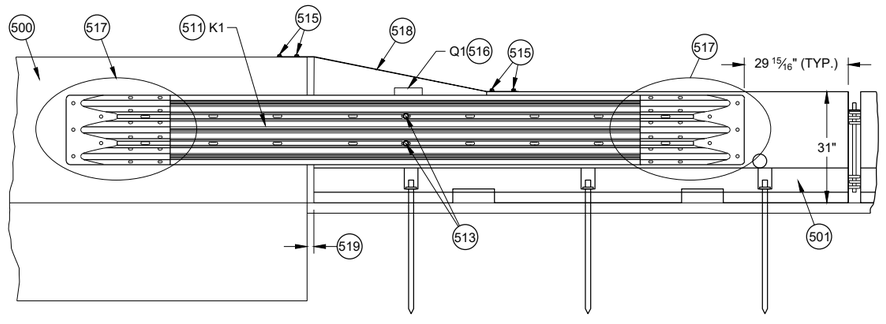
PLAN VIEW
TRANSITION TO RIGID BARRIER



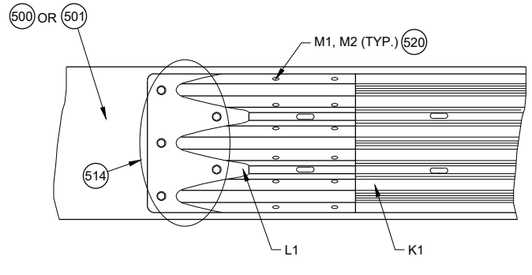
PLAN DETAIL VIEW
TRANSITION TO RIGID BARRIER



FRONT DETAIL VIEW
TRANSITION TO RIGID BARRIER



BACK DETAIL VIEW
TRANSITION TO RIGID BARRIER



(517) DETAIL PLAN VIEW
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

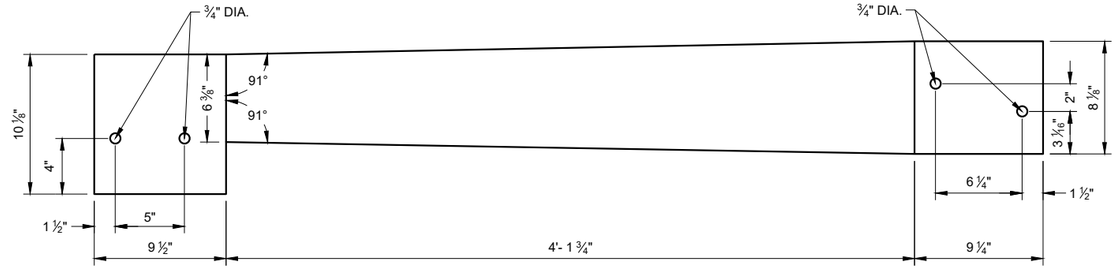
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07-16e

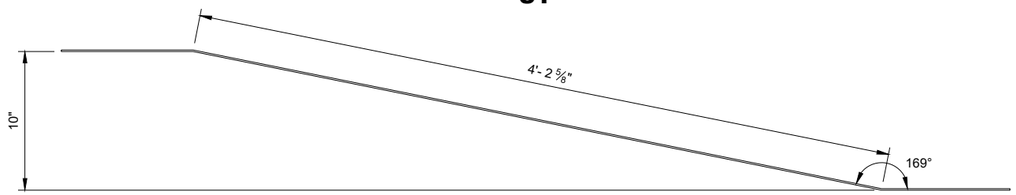
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SDD 14B07-16e



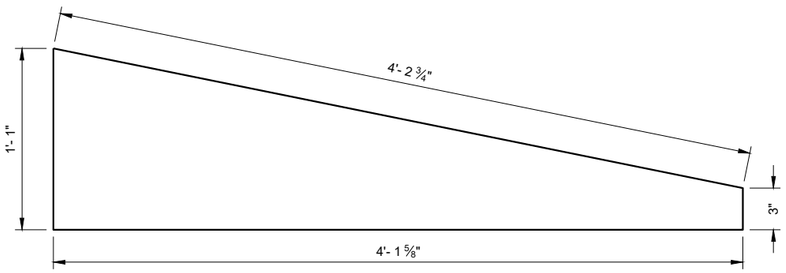
TOP VIEW

S1



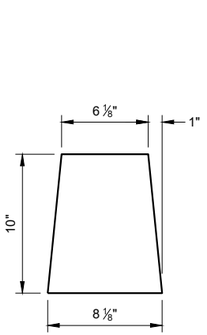
ELEVATION VIEW

S1

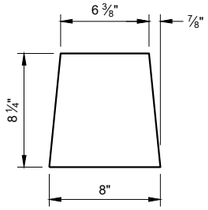


SIDE VIEW

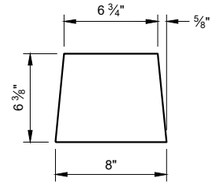
S3



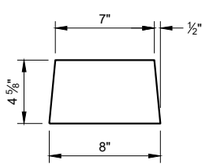
S2



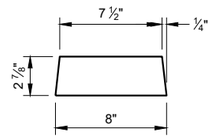
S4



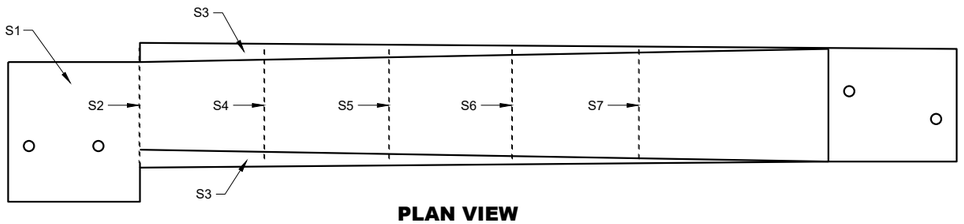
S5



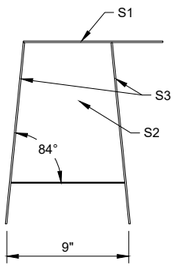
S6



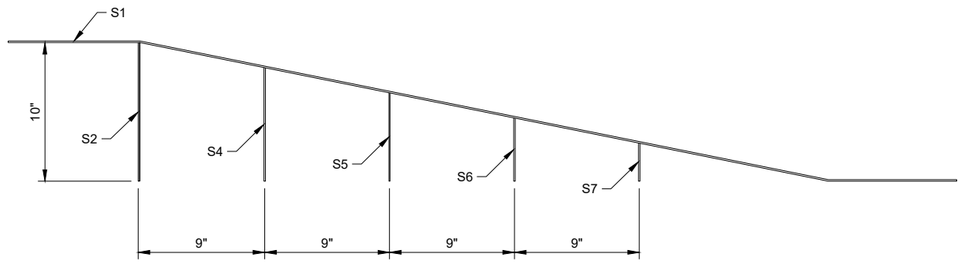
S7



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.

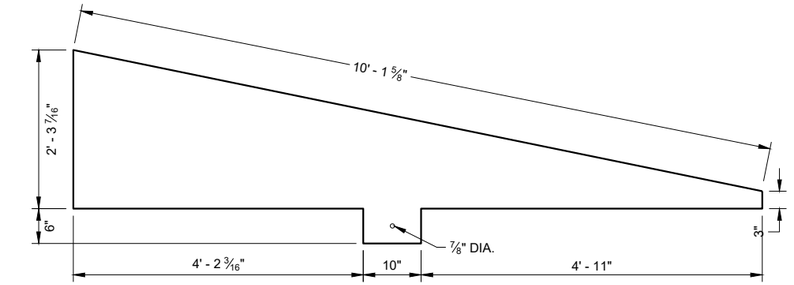
(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

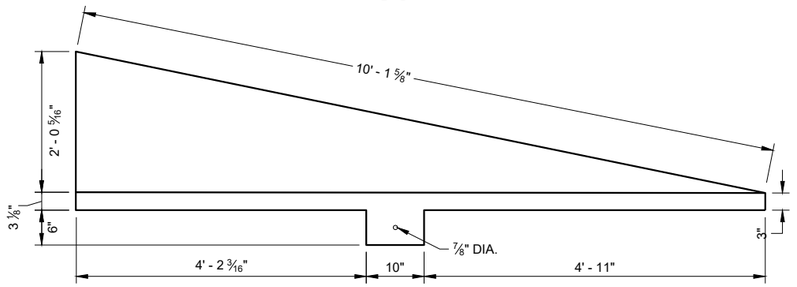
SDD 14B07-16f



SIDE VIEW
T4



END VIEW



SIDE VIEW
T3

END VIEW

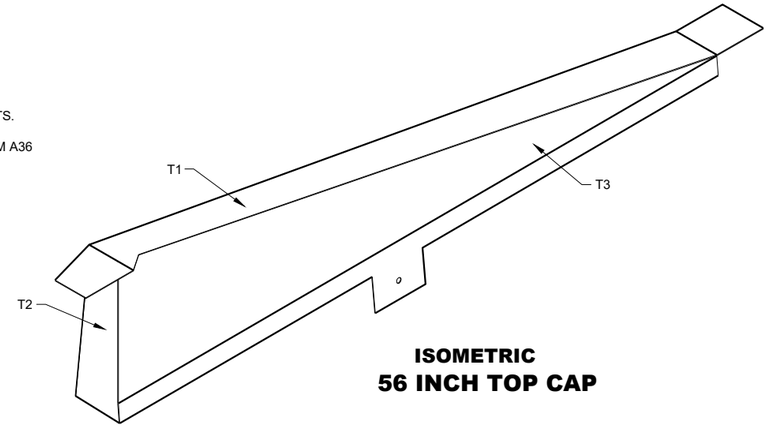
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

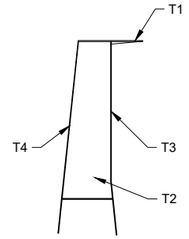
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

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

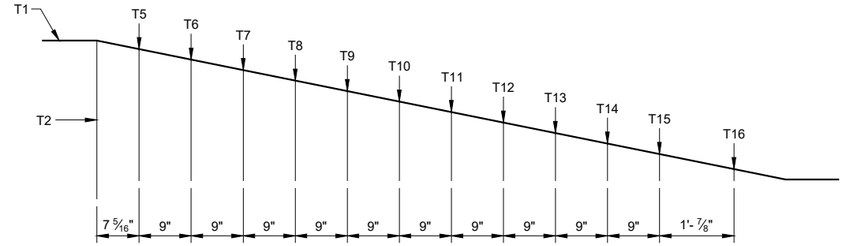
(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



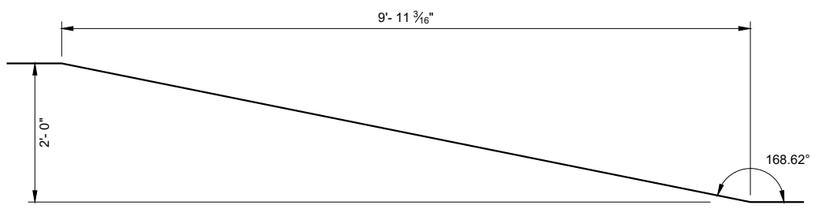
ISOMETRIC
56 INCH TOP CAP



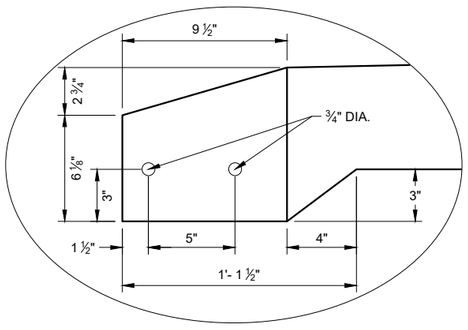
END VIEW
56 INCH TOP CAP



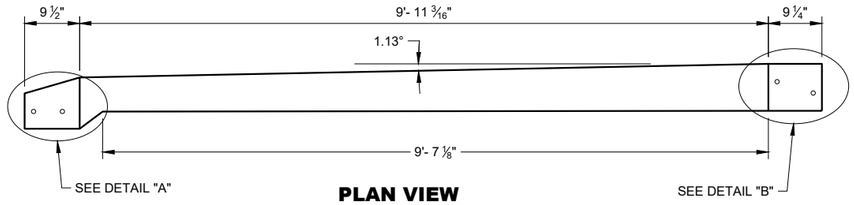
SIDE VIEW (700)
56 INCH TOP CAP



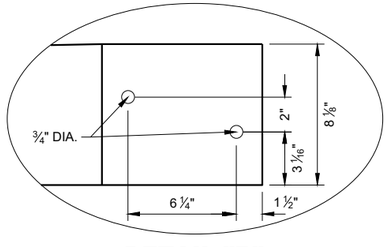
SIDE VIEW
TOP PLATE T1



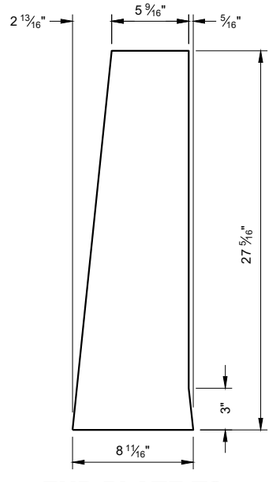
DETAIL "A"



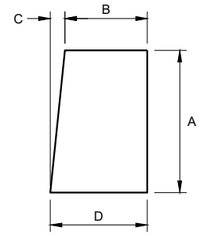
PLAN VIEW
TOP PLATE T1



DETAIL "B"



END PLATE T2



GUSSET PLATES
T5 - T16

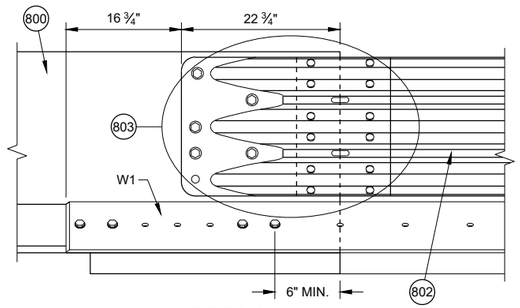
GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 5/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"	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 1/16"	7 9/16"	1/2"	8"
T16	2 7/8"	7 3/4"	1/4"	8"

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

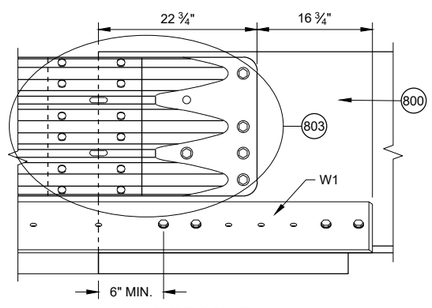
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

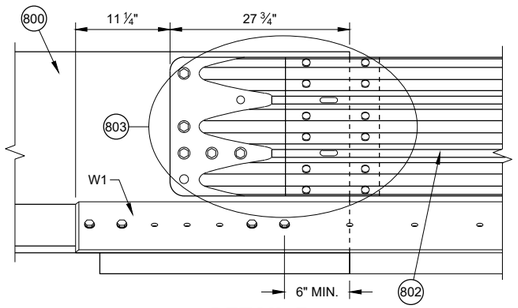
SDD 14B07-16g



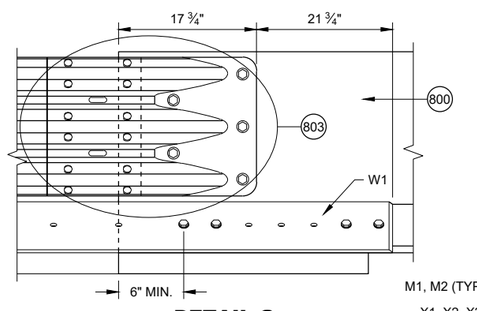
DETAIL D



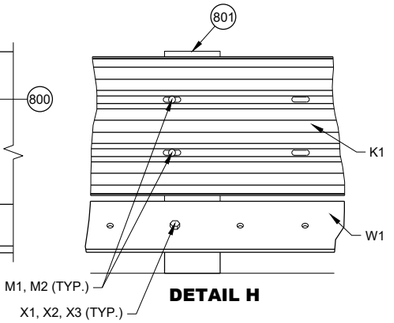
DETAIL E



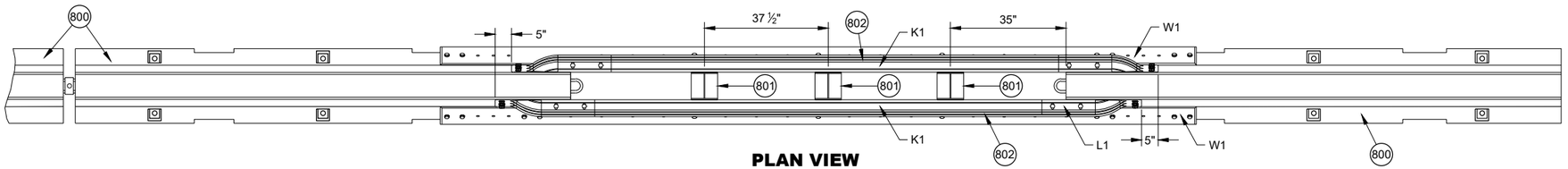
DETAIL F



DETAIL G



DETAIL H



PLAN VIEW

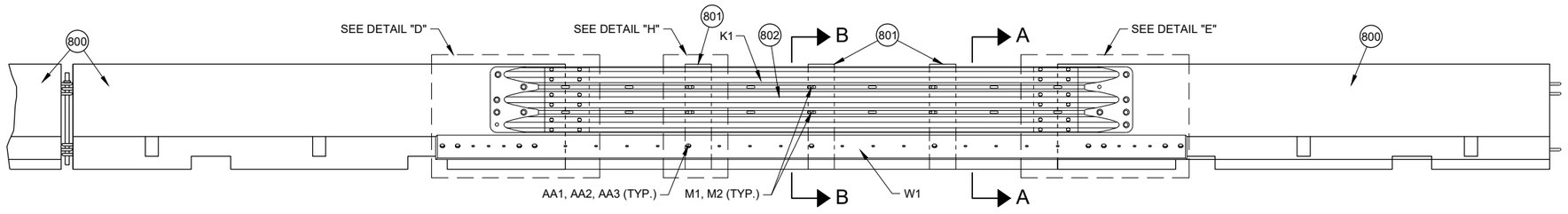
GENERAL NOTES

(800) FREE STANDING TEMPORARY BARRIER

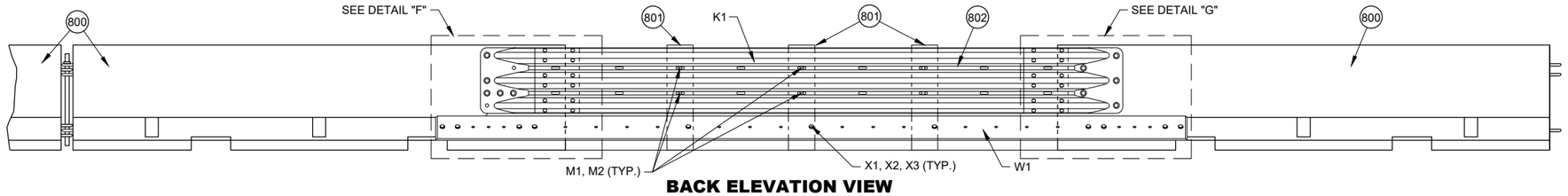
(801) GAP STIFFENER ASSEMBLY

(802) THRIE BEAMS ARE NESTED ON BOTH SIDES OF THE TEMPORARY BARRIER.

(803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



FRONT ELEVATION VIEW



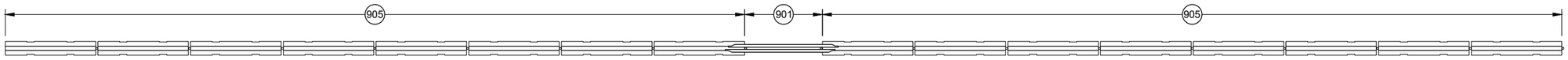
BACK ELEVATION VIEW

PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

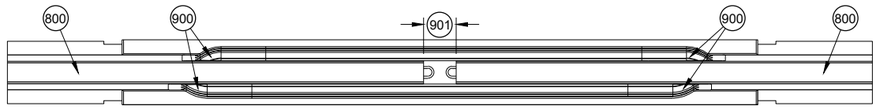
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16h



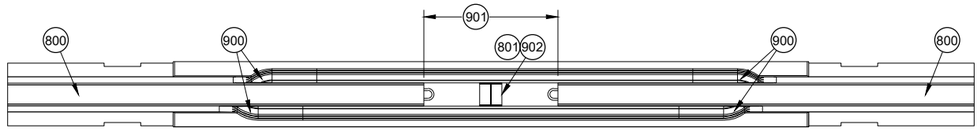
PLAN VIEW
GAP WITHIN SPACING



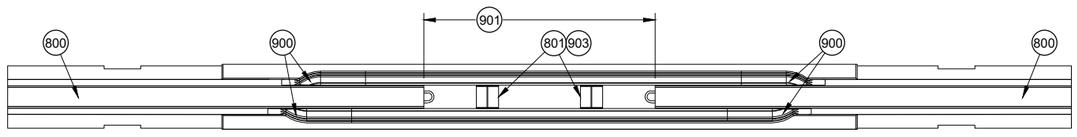
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)

GENERAL NOTES

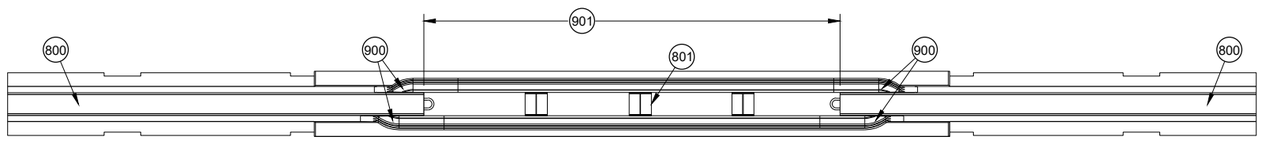
(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
(901) TEMPORARY BARRIER GAP
(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER
(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING TEMPORARY BARRIERS



PLAN VIEW
TEMPORARY BARRIER GAP OVER 1' TO 4' MAX. (904)



PLAN VIEW
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. (904)

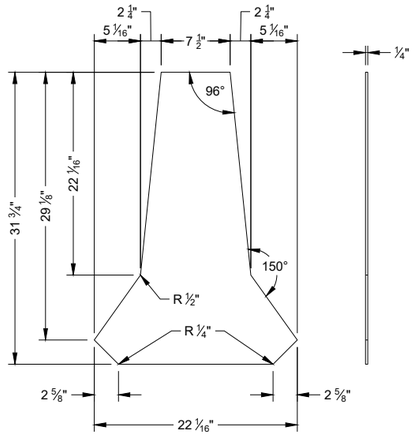


PLAN VIEW
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. (904)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

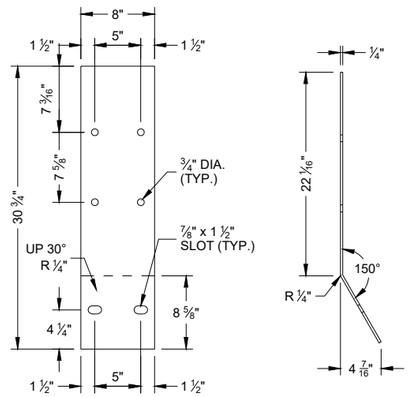
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16i



PROFILE VIEW SIDE VIEW

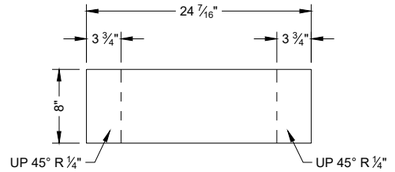
STIFFENER ASSEMBLY CENTER PANEL U1



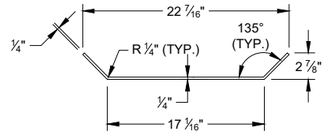
FLAT PATTERN

SIDE VIEW

STIFFENER ASSEMBLY SIDE PANEL U2

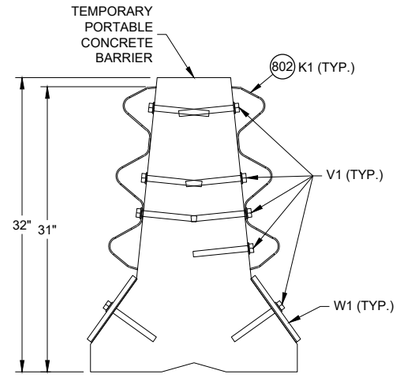


FLAT PATTERN

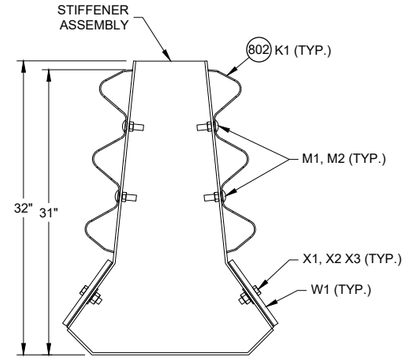


PROFILE VIEW

STIFFENER ASSEMBLY BOTTOM PANEL U3

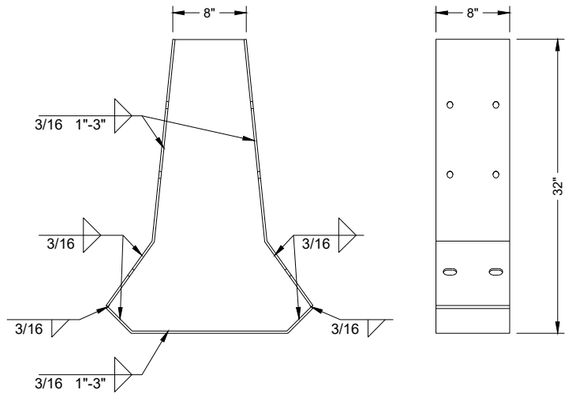


SECTION A - A



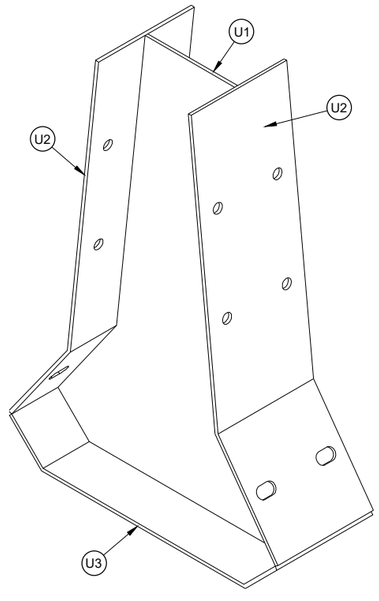
SECTION B - B

PLAN VIEW



PROFILE VIEW

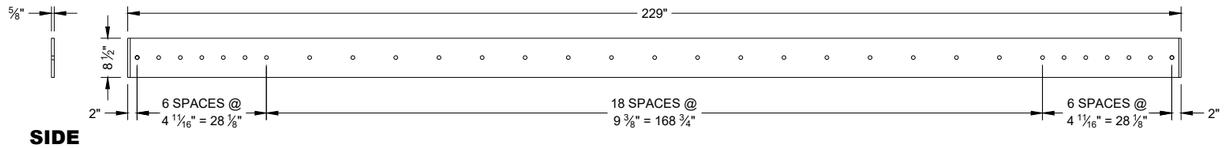
SIDE VIEW



ISOMETRIC

GAP STIFFENER ASSEMBLY

PLAN VIEW

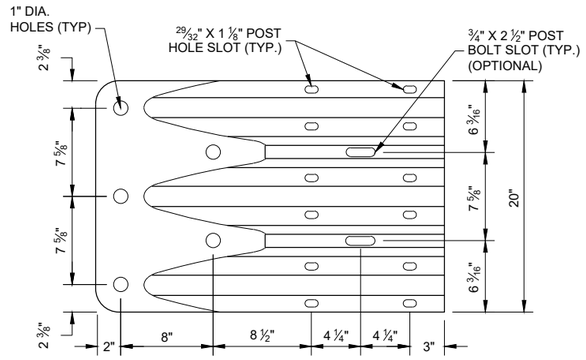


SIDE VIEW

ELEVATION VIEW

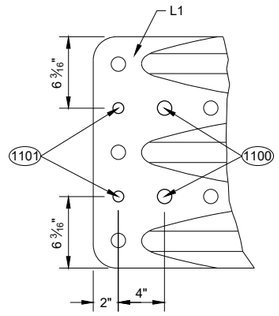
W1 TOE PLATE

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"



ELEVATION VIEW

THRIE BEAM TERMINAL CONNECTOR



ELEVATION VIEW

ADDITIONAL THRIE BEAM (1102) TERMINAL CONNECTOR HOLE DETAIL

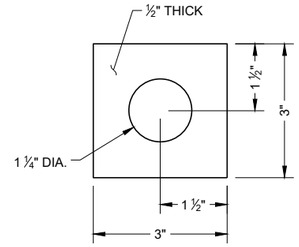


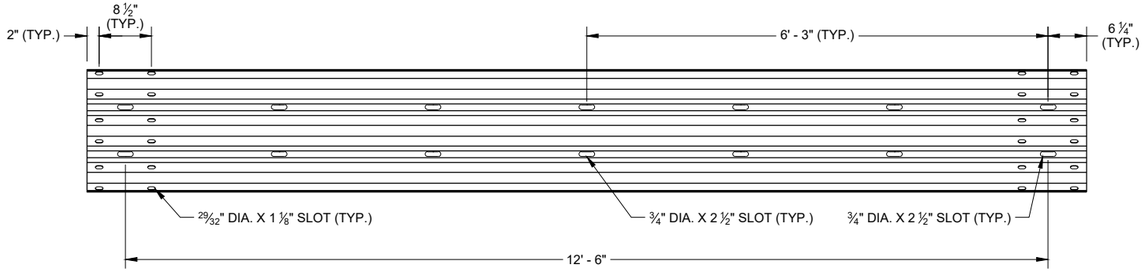
PLATE WASHER DETAIL G2, H3

GENERAL NOTES

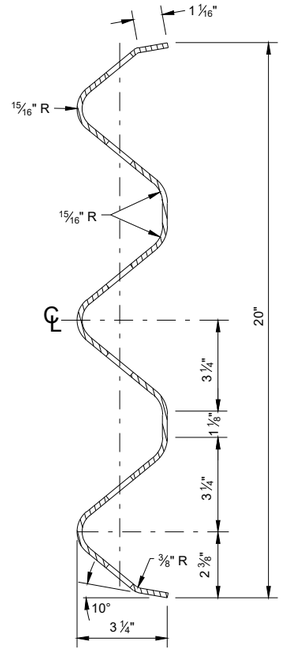
(1100) 1" DIA. HOLE

(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



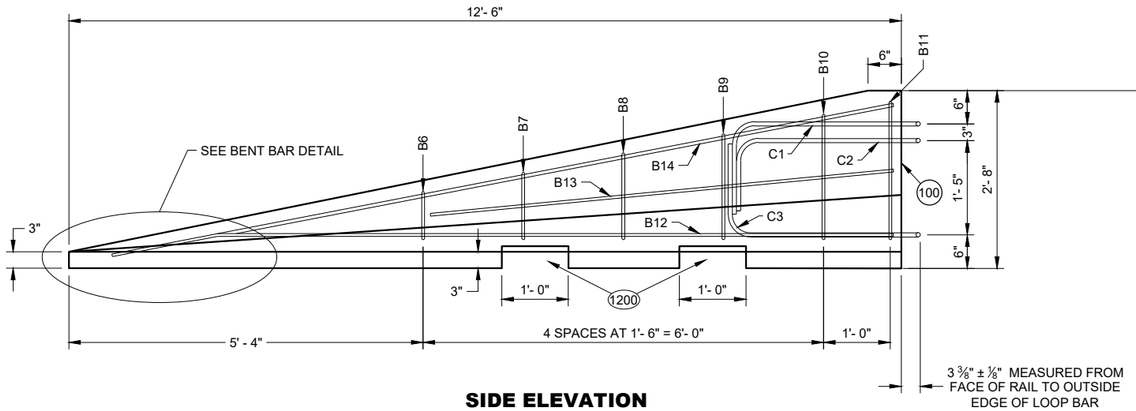
SECTION THROUGH BEAM K1

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

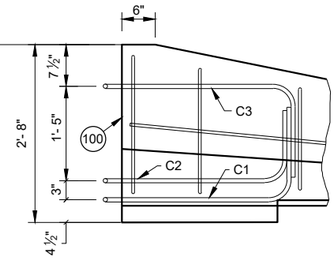
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B07-16k



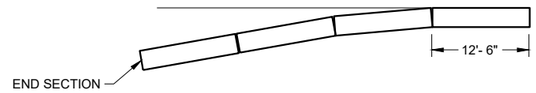
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



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

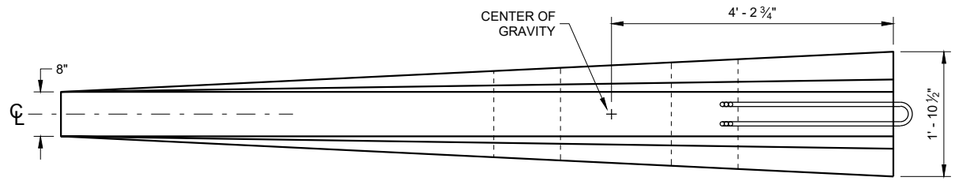
GENERAL NOTES

(1200) SEE LIFTING SLOT DETAIL. LOCATION OF LIFTING SLOTS DETERMINED BY CONTRACTOR.

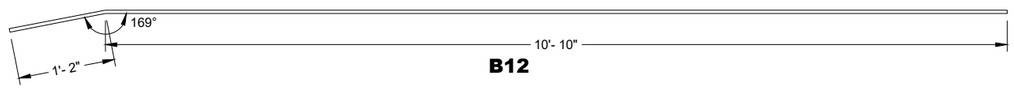


FLARE AT BARRIER END

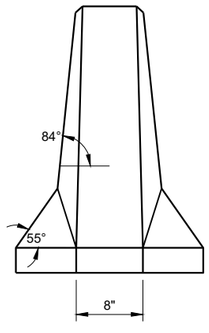
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



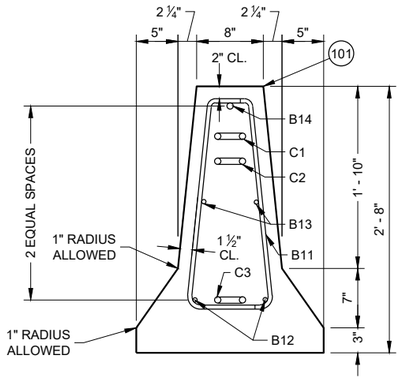
PLAN VIEW



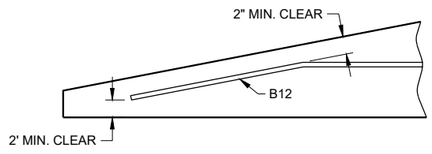
B12



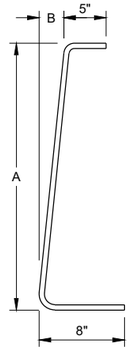
FRONT ELEVATION



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

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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

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SDD 14B07-16m

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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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"

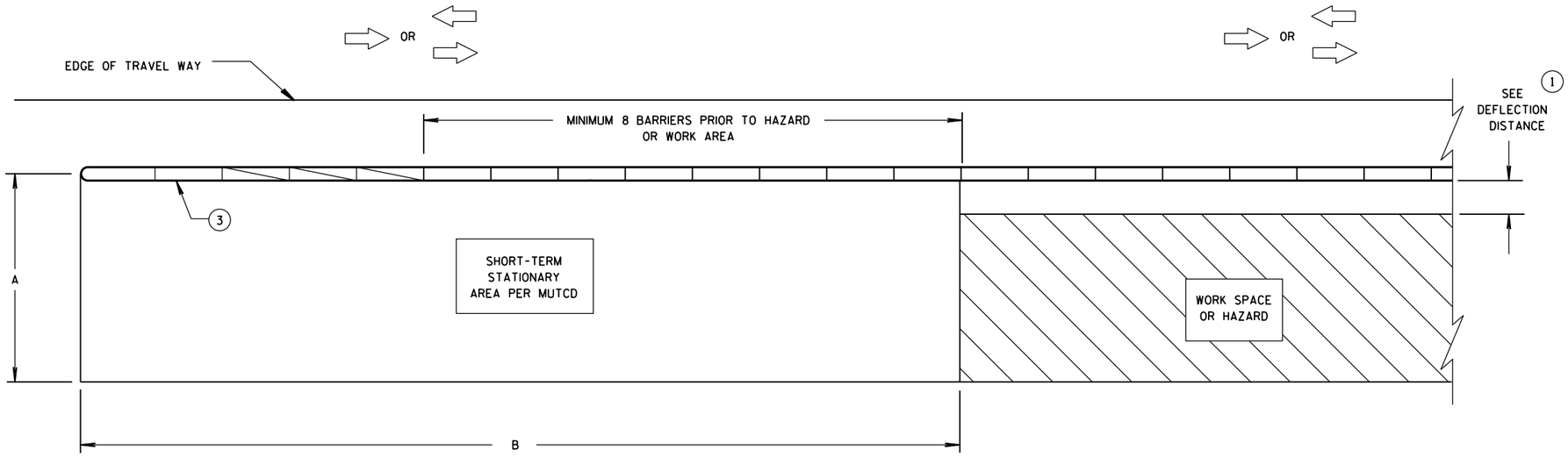
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 14B07-16n



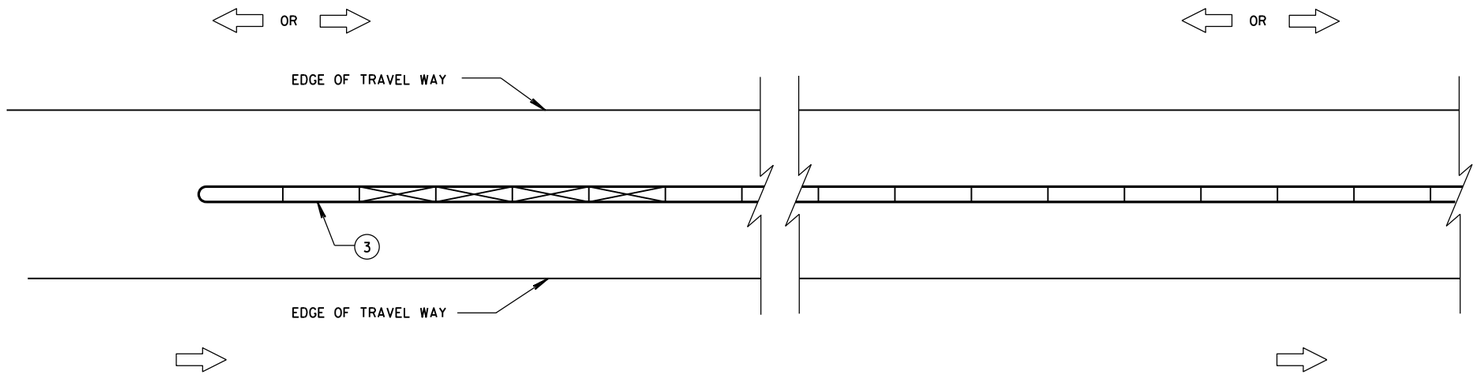
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

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

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

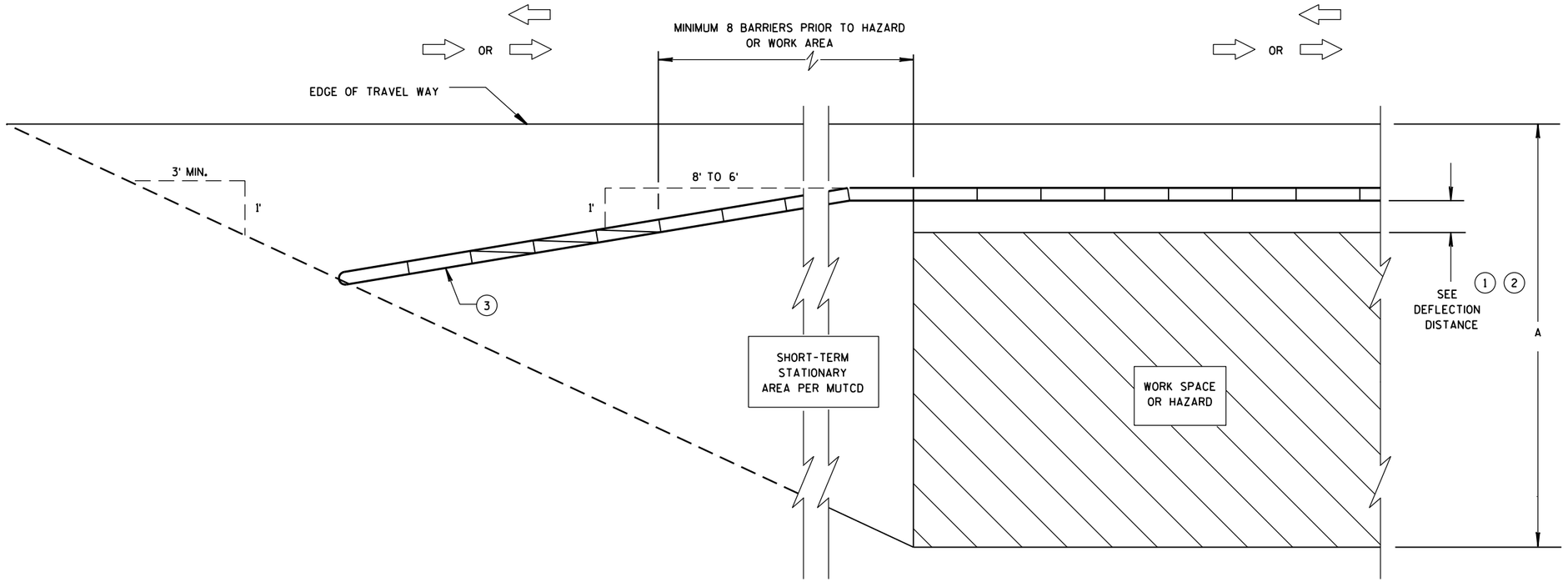
(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

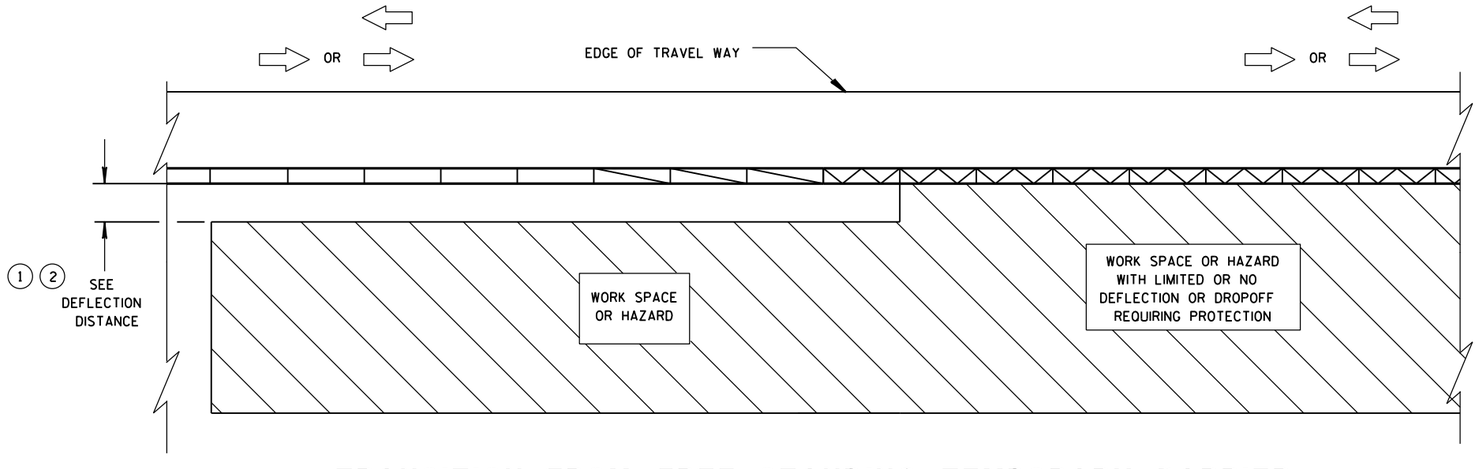
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

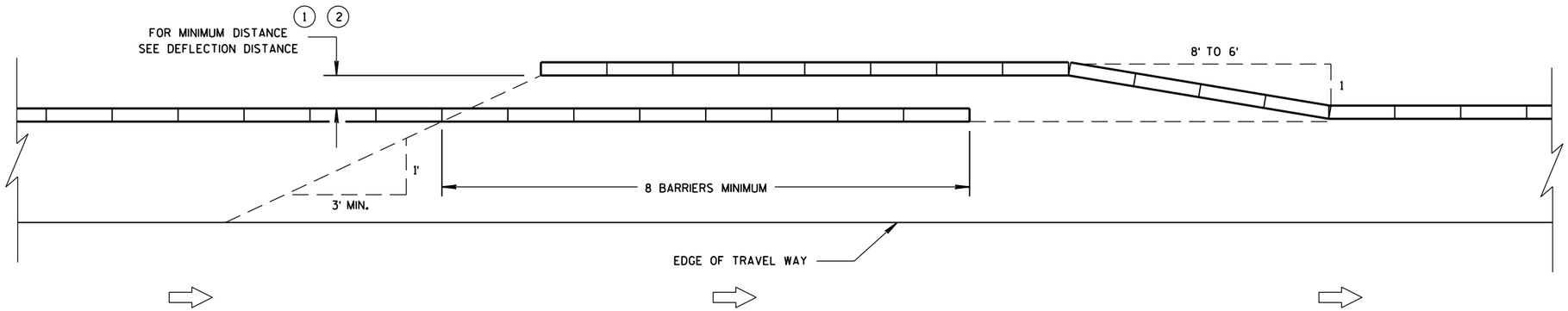
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

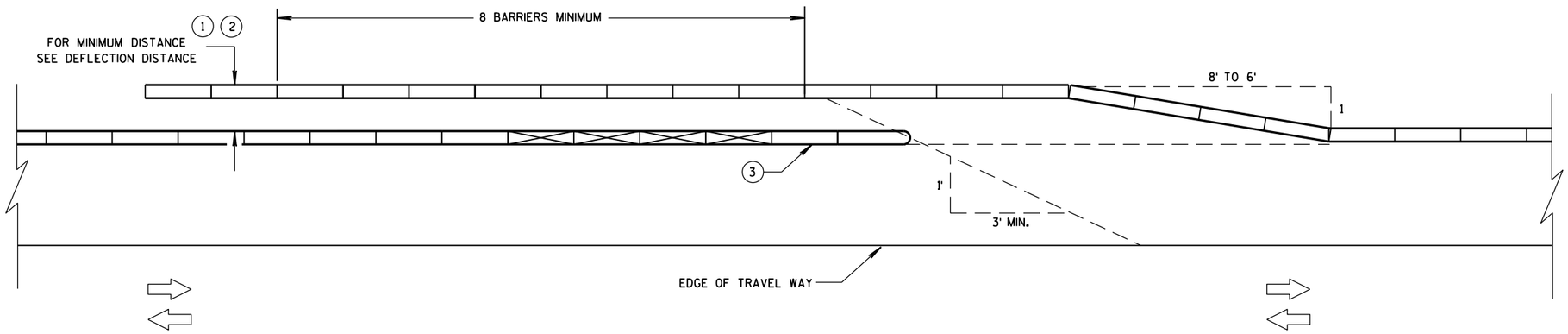
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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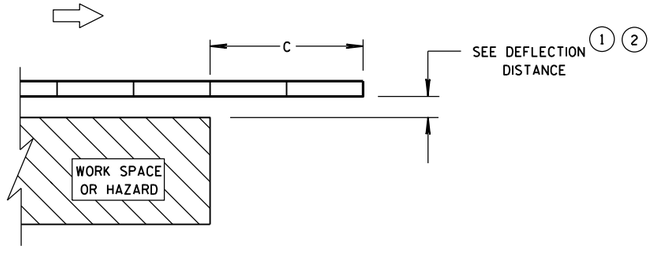
S.D.D. 14 B 8-2b



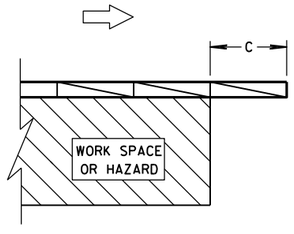
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

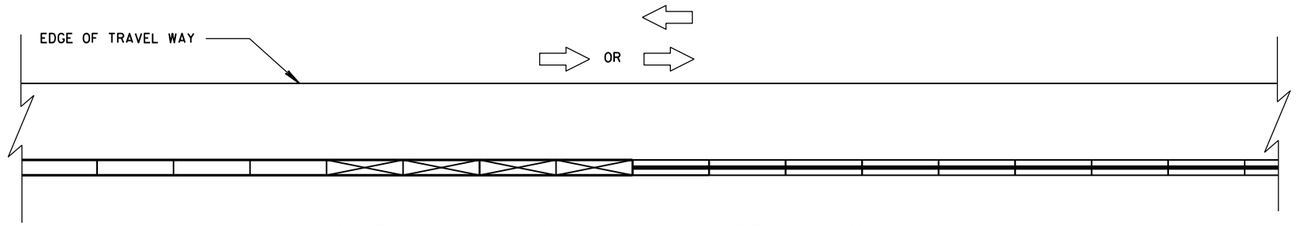
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

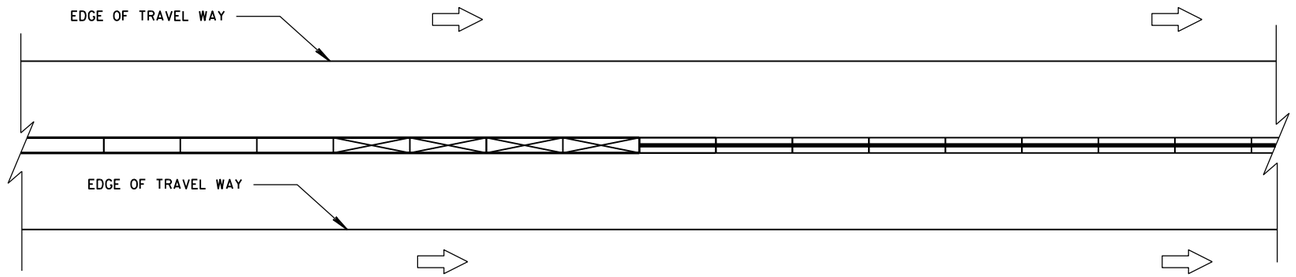
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

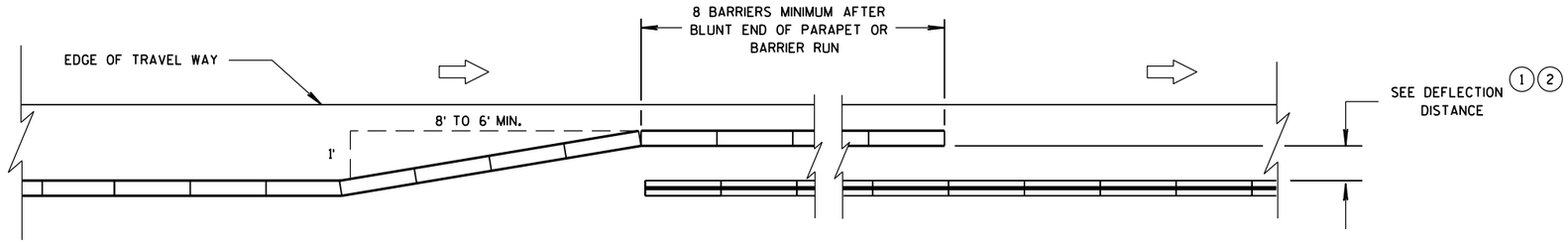
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

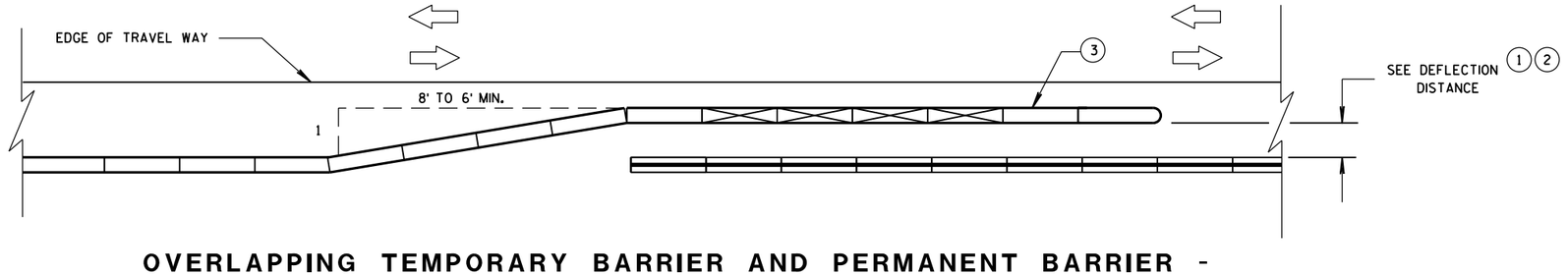
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

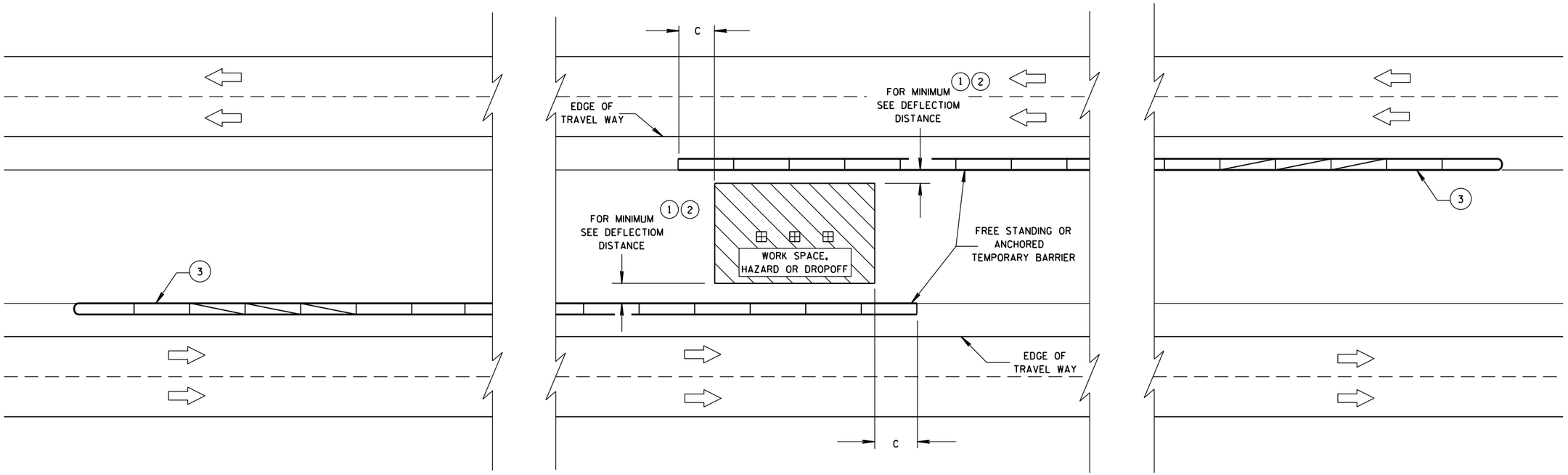
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

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



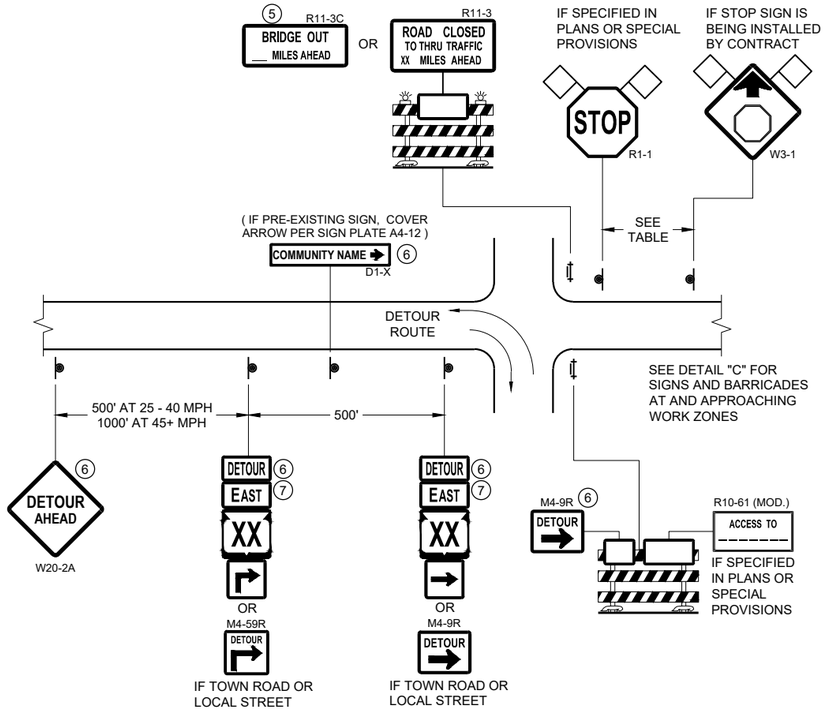
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

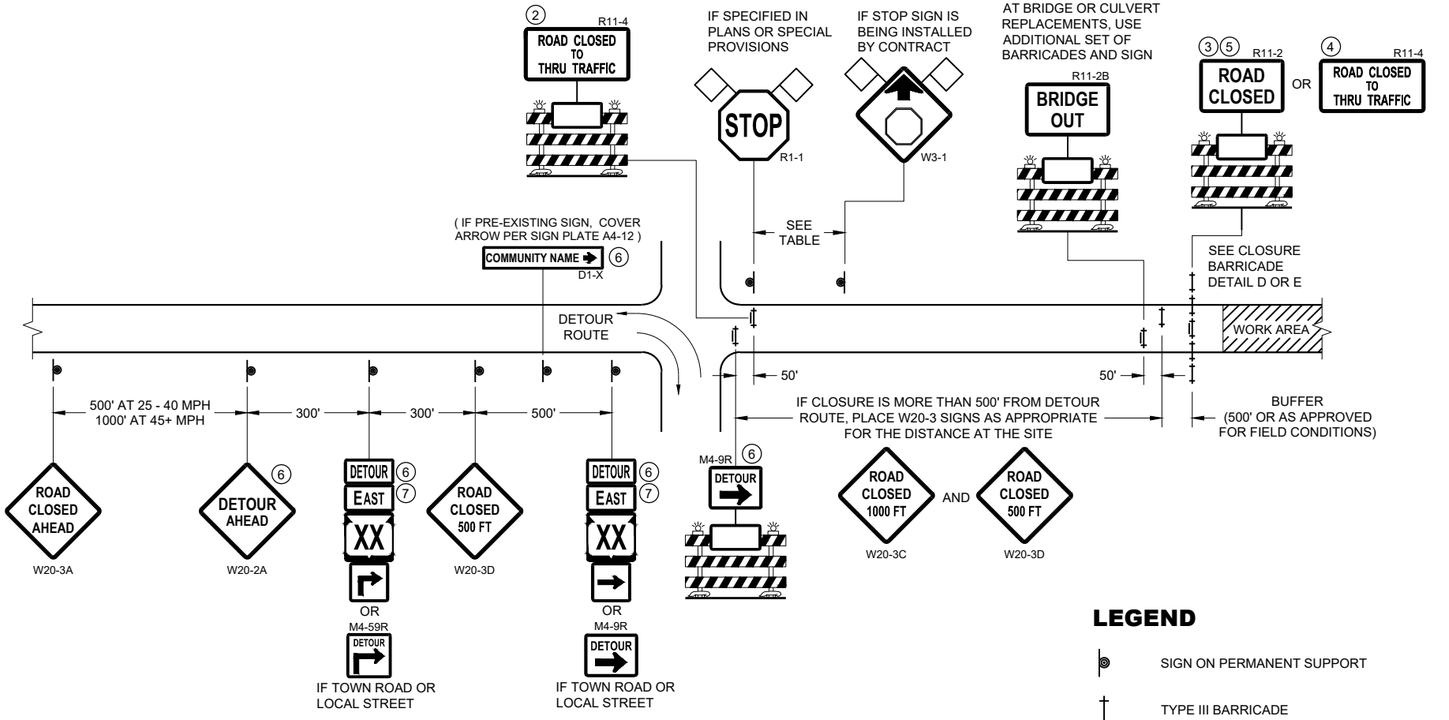
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S.D.D. 14 B 8-2e



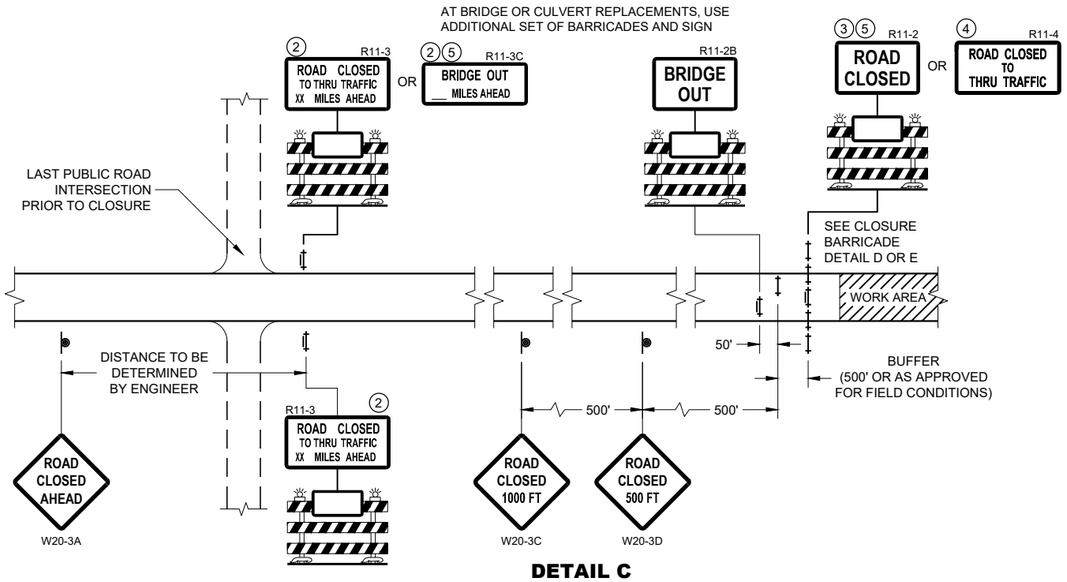
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

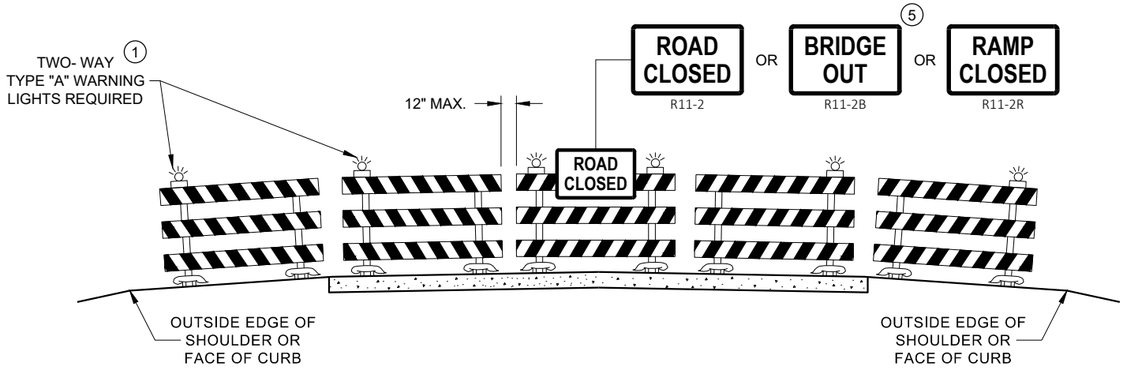
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

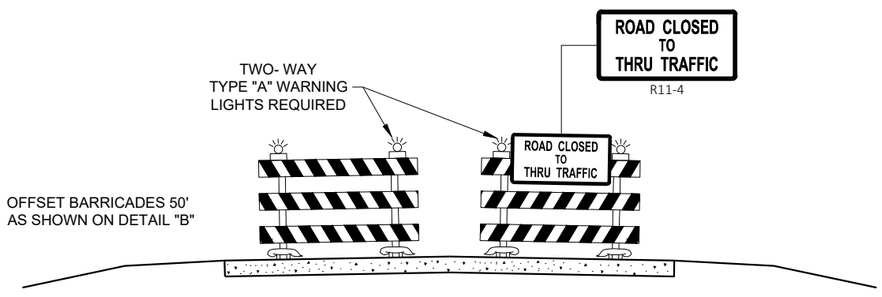
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SDD 15C02 - 09a

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

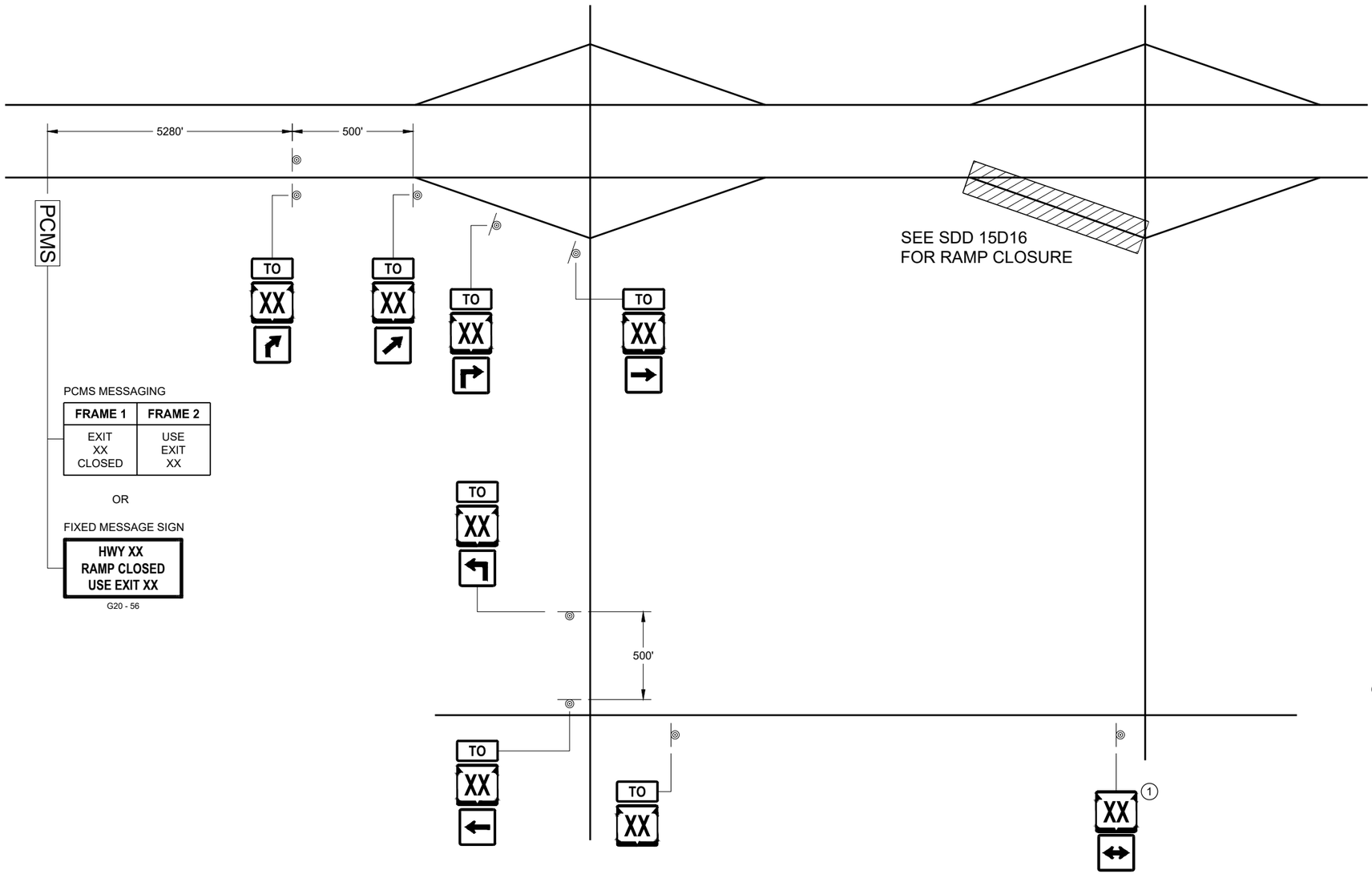
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SDD 15C02 - 09b

6

SDD 15C02 - 09b

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.

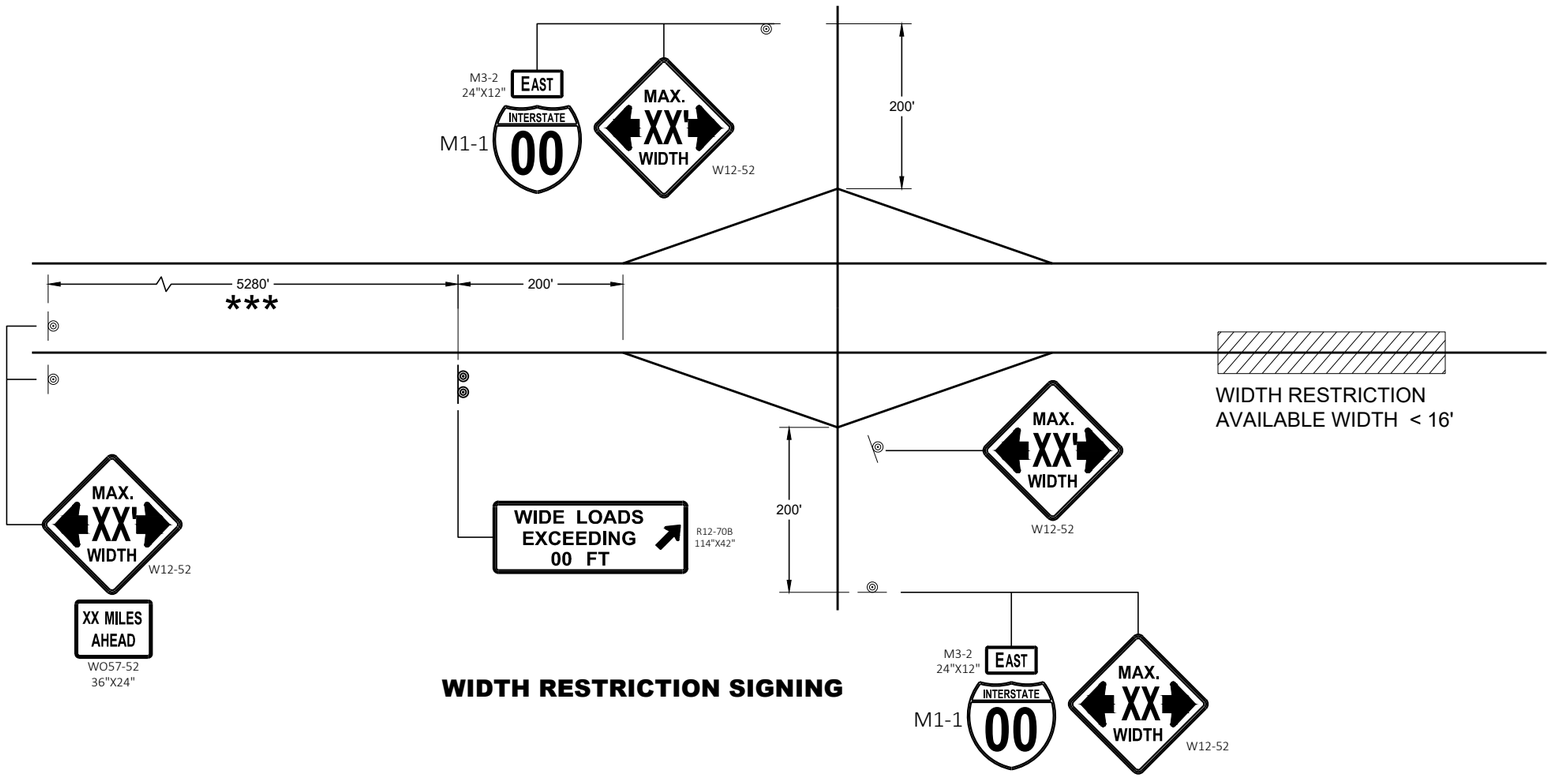
OFF RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

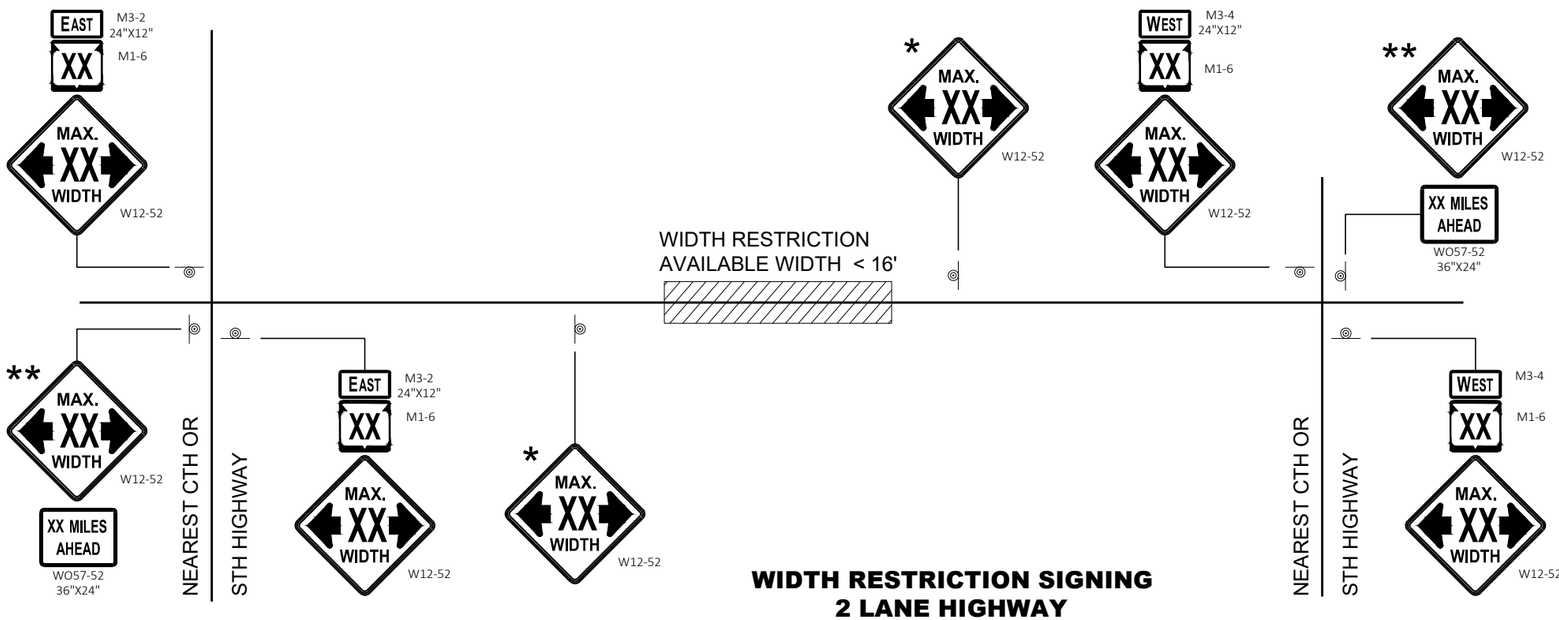
APPROVED
May 2023 DATE
/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA

6

SDD 15C02 - 09e
SDD 15C02 - 09e



WIDTH RESTRICTION SIGNING



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

LEGEND

◎ SIGN ON PERMANENT SUPPORT

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS 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 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.

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

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

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.



WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

ADVANCED WIDTH RESTRICTION SIGNING

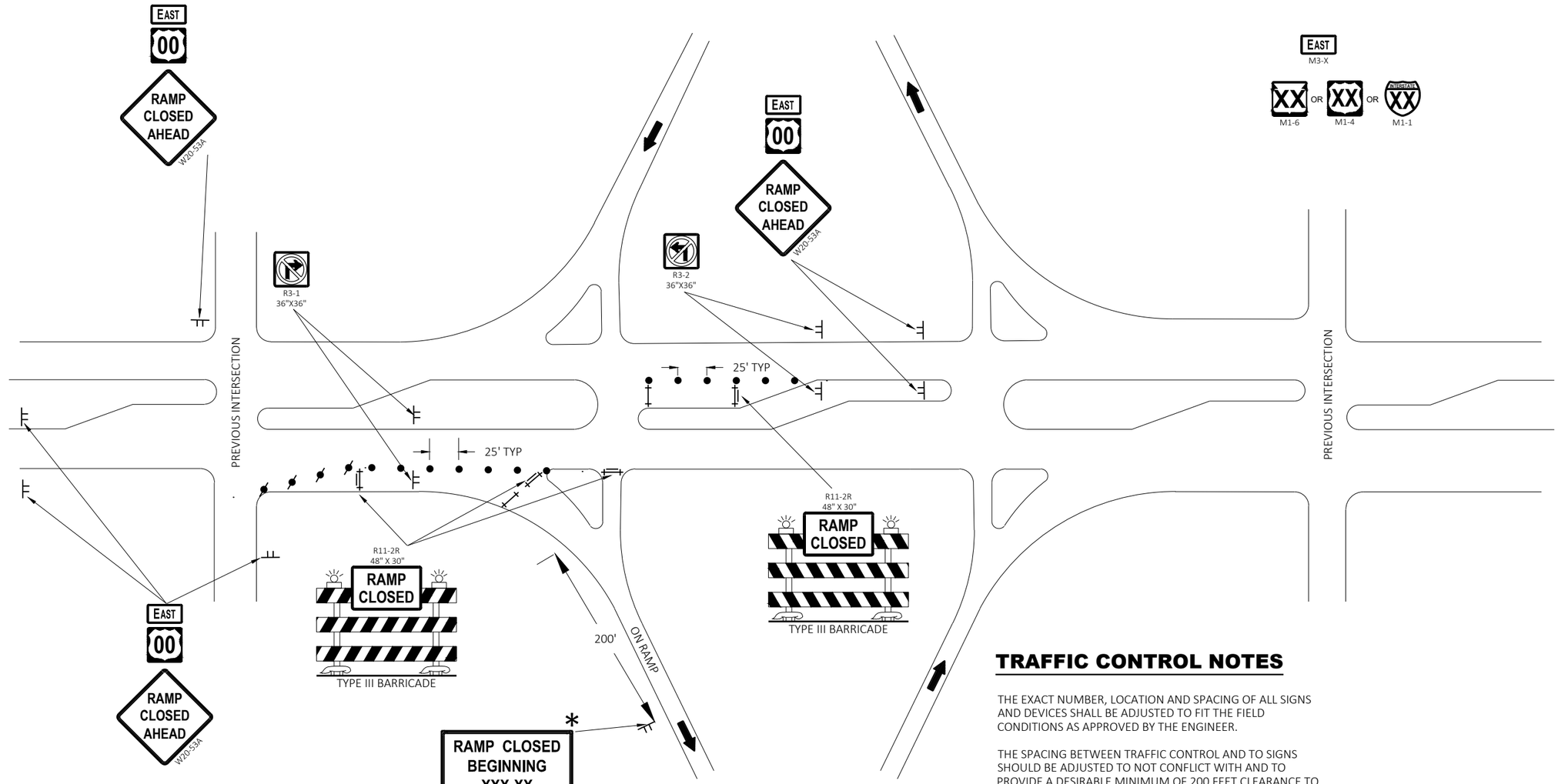
STATE OF WISCONSIN
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May 2023 — DATE
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LEGEND

- 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
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May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE

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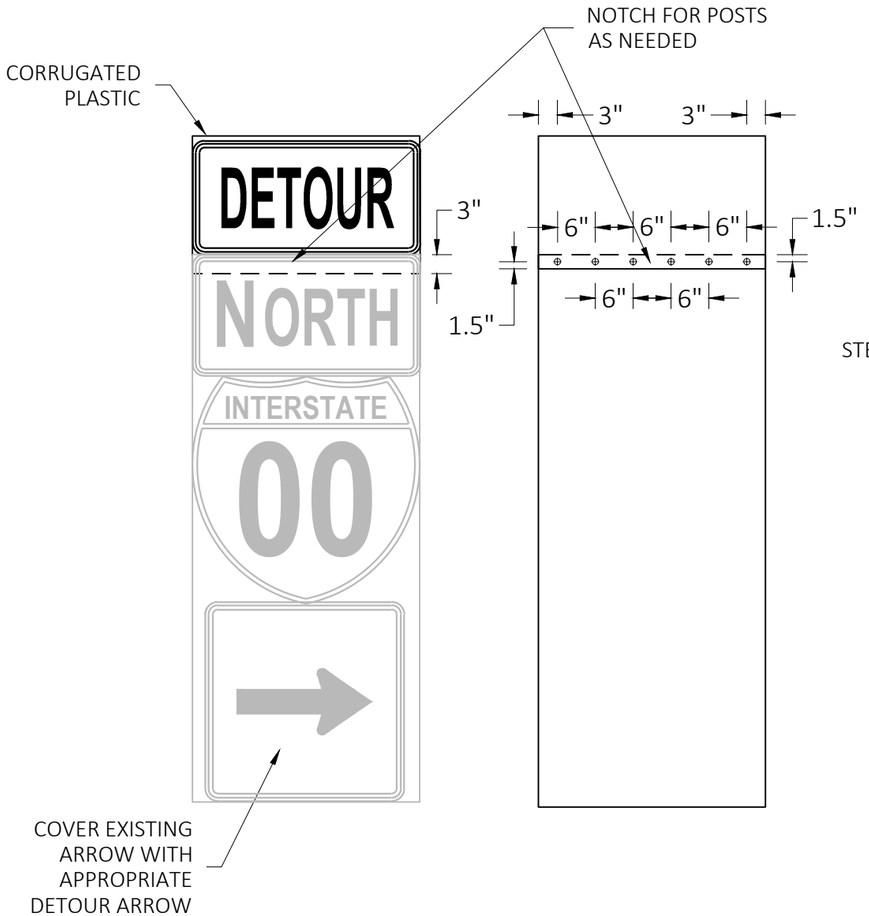
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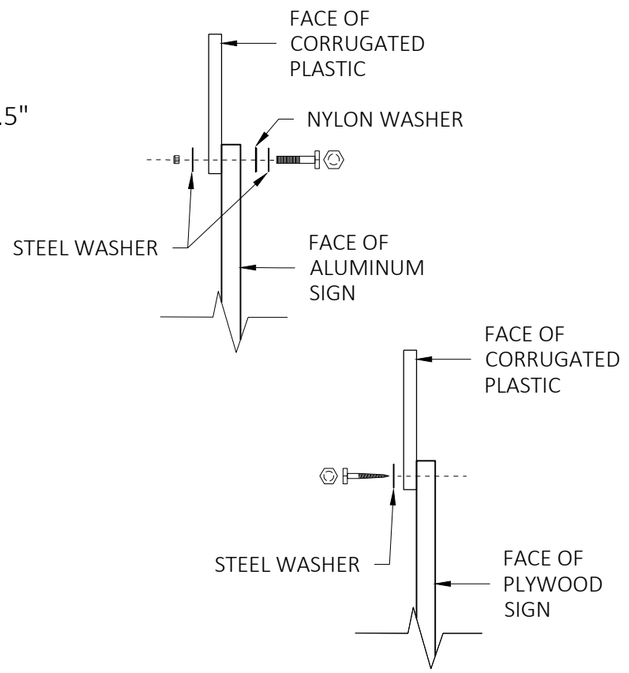
SDD 15C02-09g

FRONT SIDE

BACK SIDE

SIDE VIEW





GENERAL NOTES

CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.

PROVIDE A 0.4-INCH THICK BASE CORRUGATED PLASTIC WITH A 0.035-INCH WALL THICKNESS AND 0.4-INCH CELL SIZE.

FOR 36" WIDE SIGNS: USE 6 FASTENERS AS SHOWN.

FOR 24" WIDE SIGNS: USE 4 FASTENERS WITH EDGE SPACING AS SHOWN AND 6" SPACING BETWEEN FASTENERS.

METAL WASHERS, NUTS, BOLTS AND LAGS 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, SC3

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.

PLYWOOD SIGNS:
LAG SCREWS - 5/16" x 1"
ALUMINUM SIGNS:
MACHINE BOLTS - 5/16" x 1-1/4" LENGTH W/NUTS
WASHERS:
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

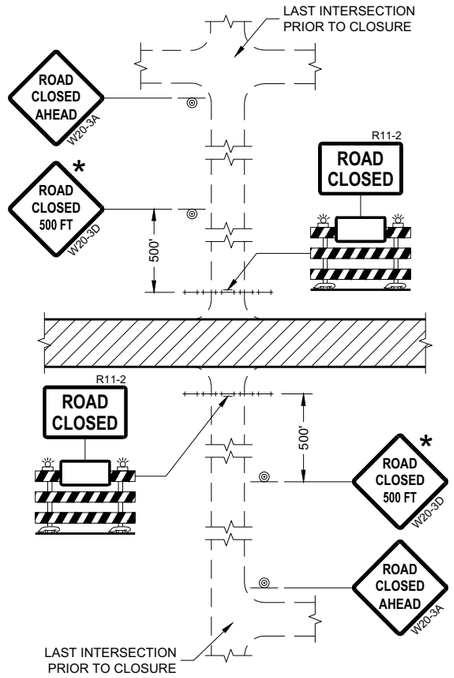
MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

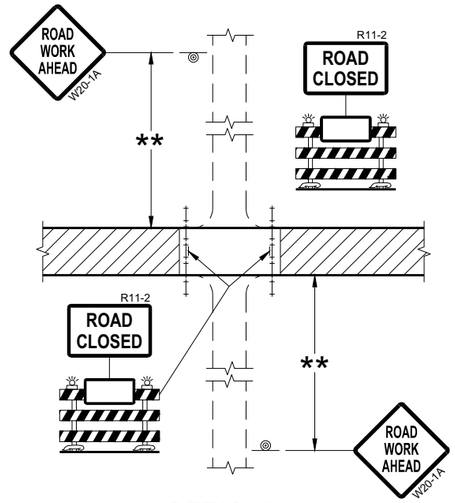
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVEL ENGINEER
FHWA

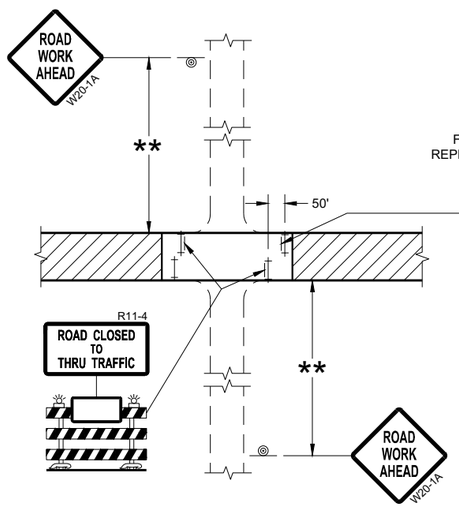
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SDD 15C02-09h



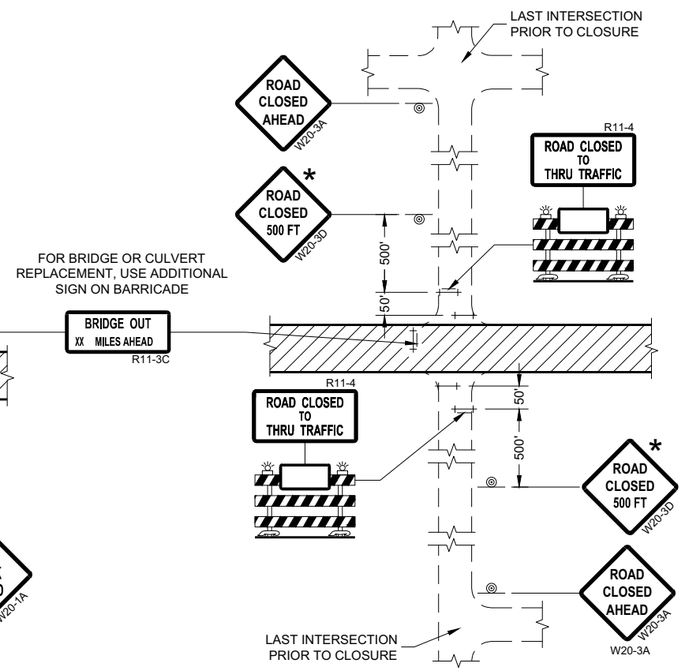
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

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SDD 15C03 - 05

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SDD 15C03 - 05

GENERAL NOTES

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

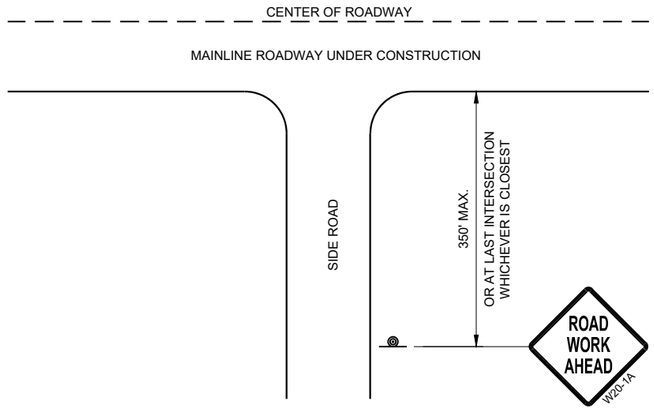
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

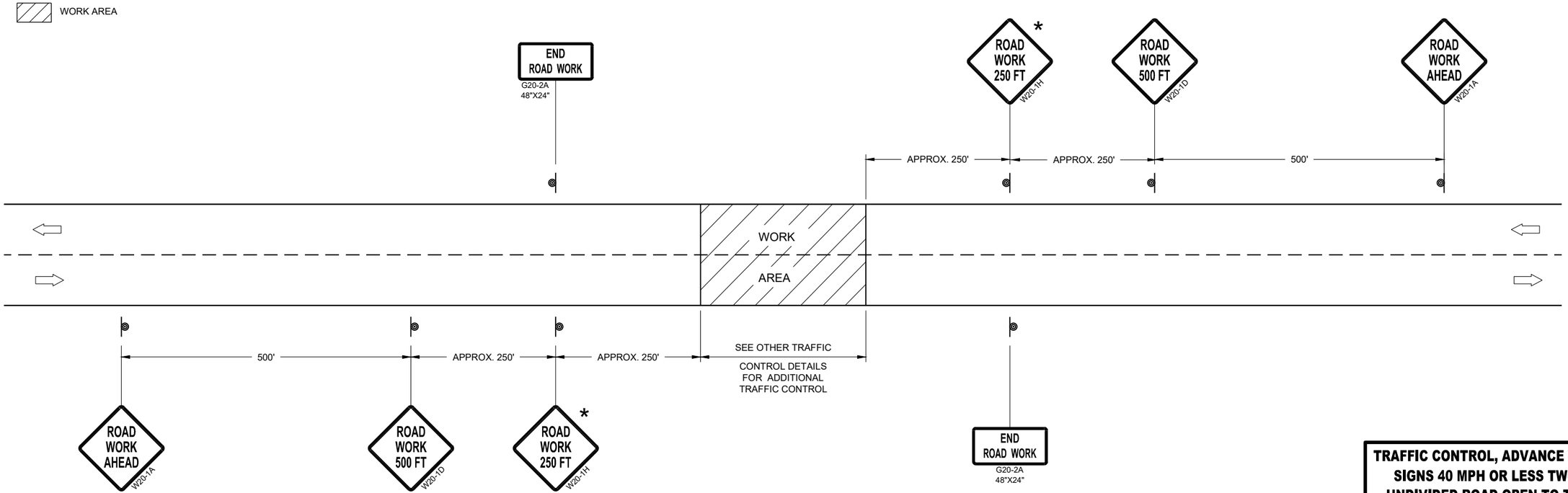
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

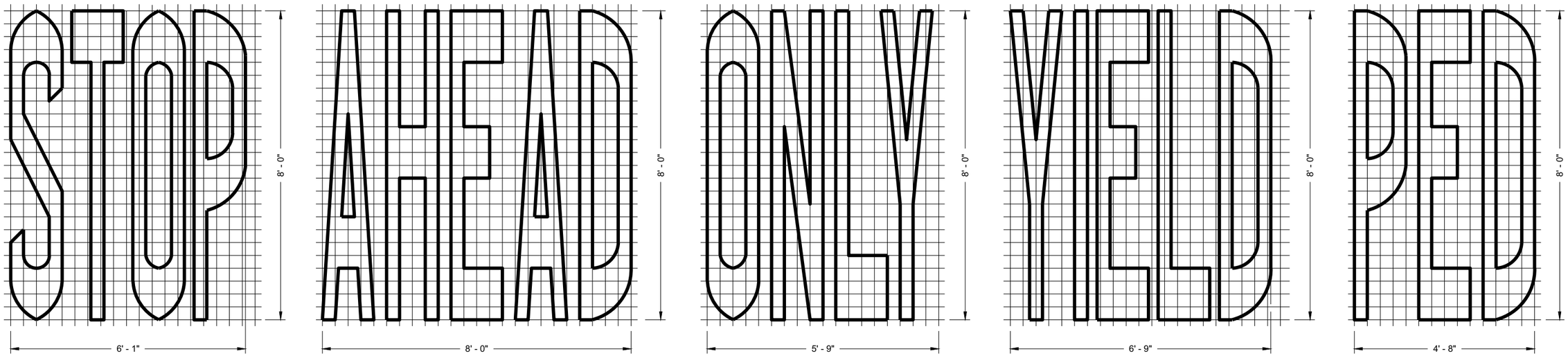
APPROVED
July 2018
DATE

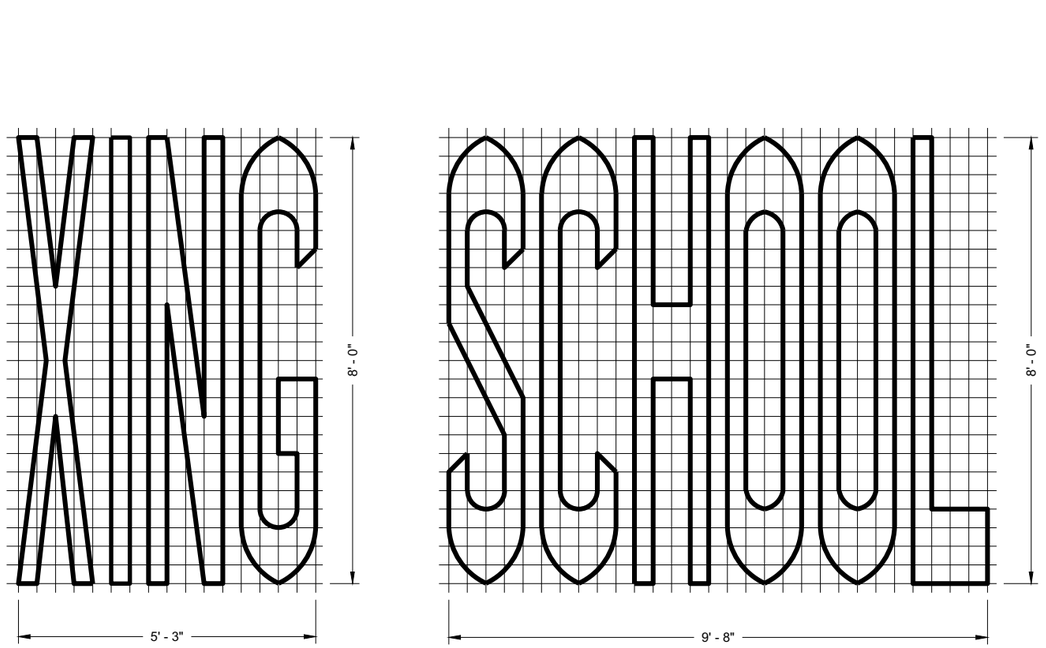
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

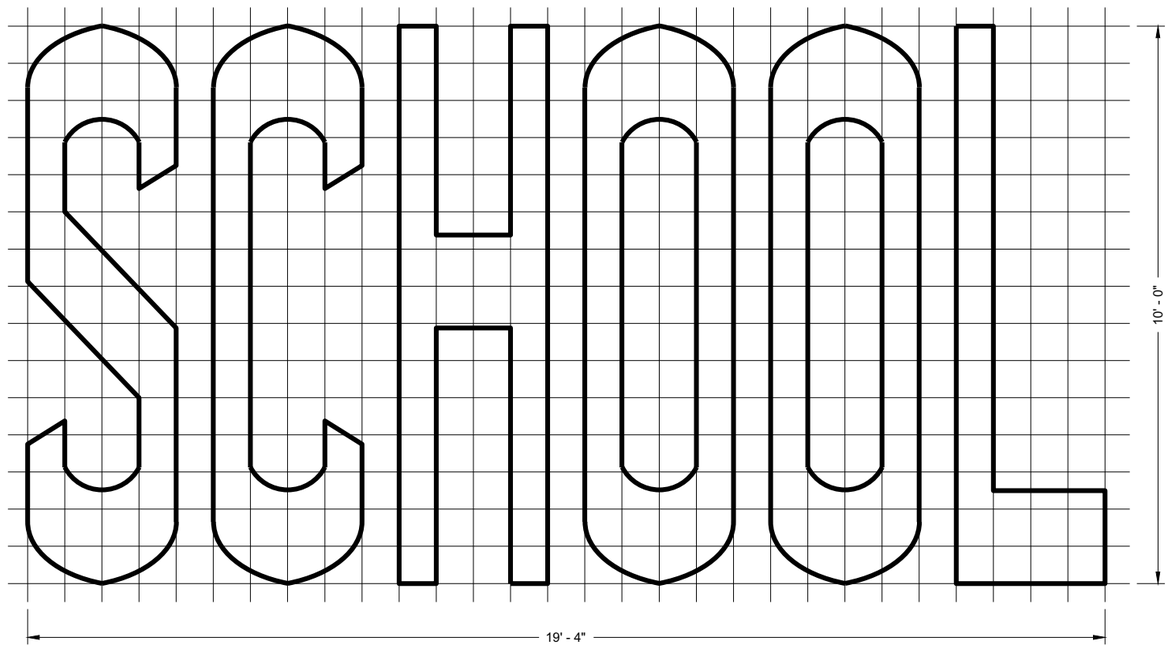
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SDD 15C05 - 05





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 2019
DATE

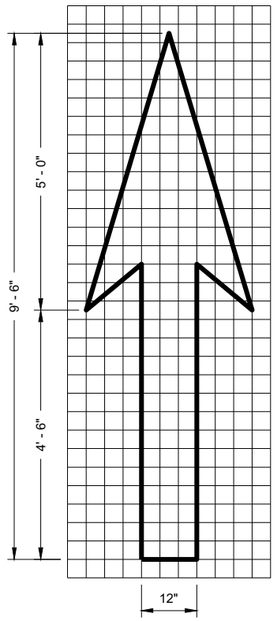
/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

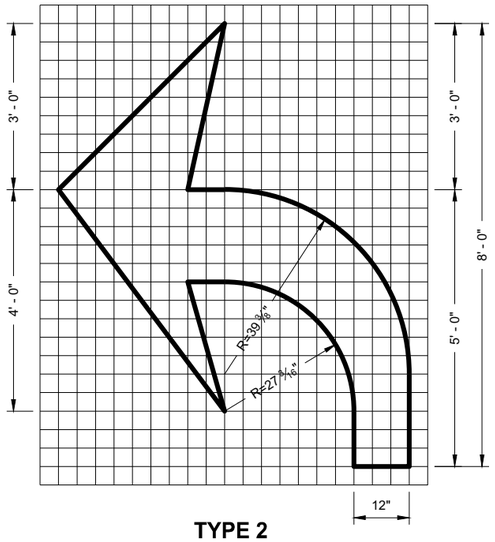
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SDD 15C07 - 15b

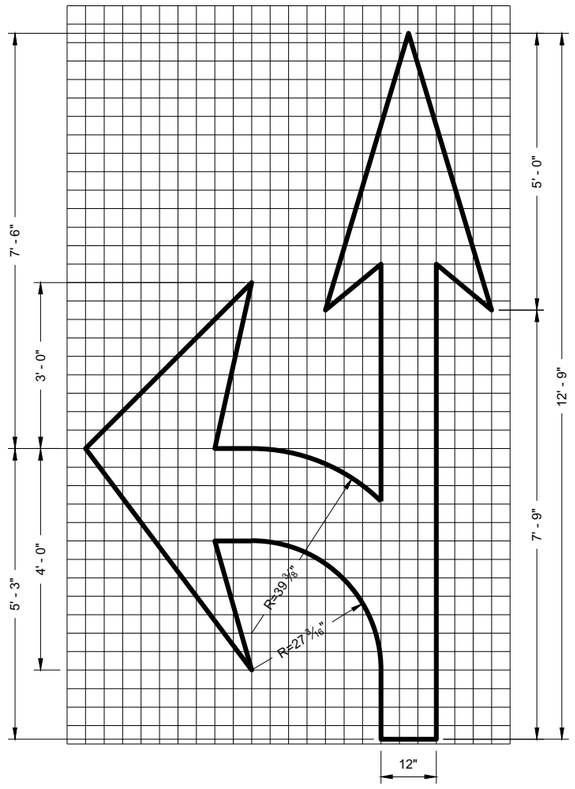
SDD 15C07 - 15b



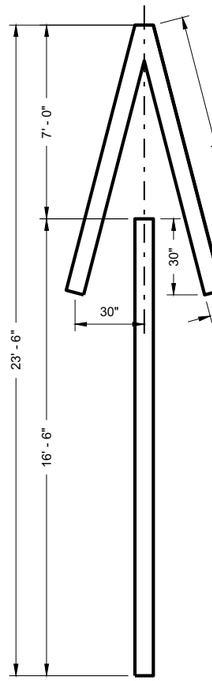
TYPE 1



TYPE 2



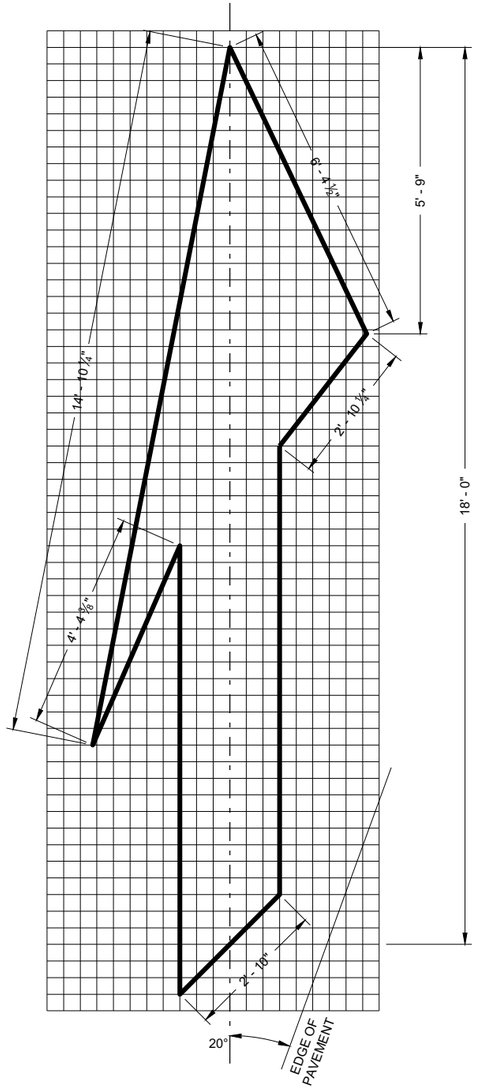
TYPE 3



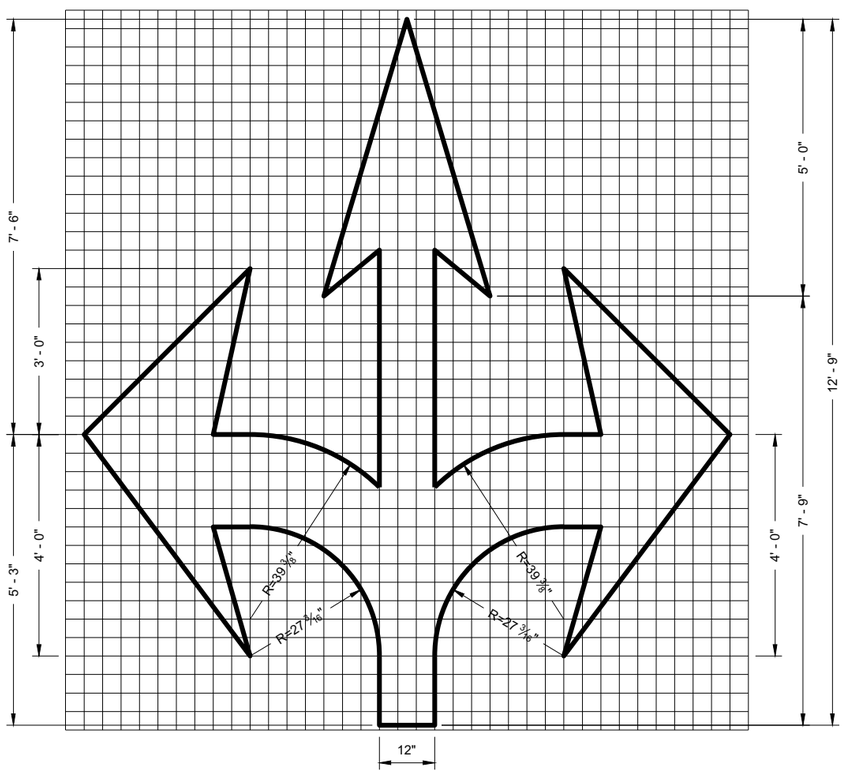
TYPE 4

GENERAL NOTES

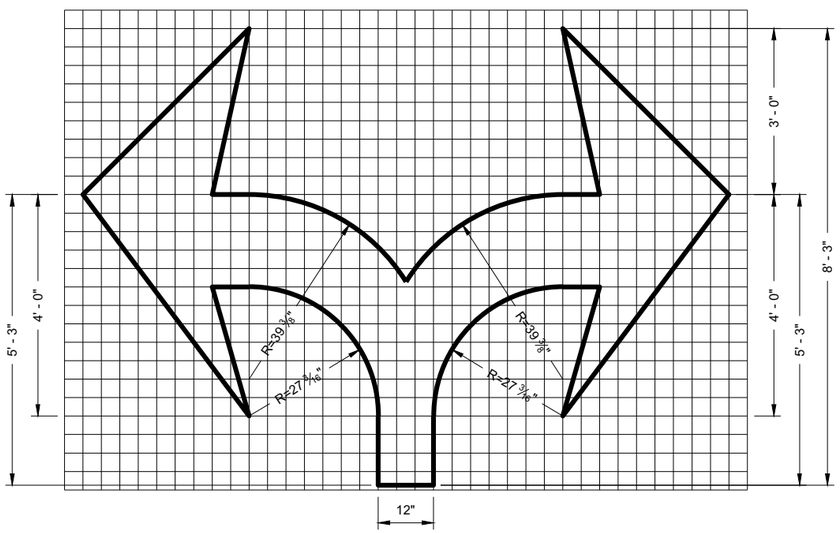
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

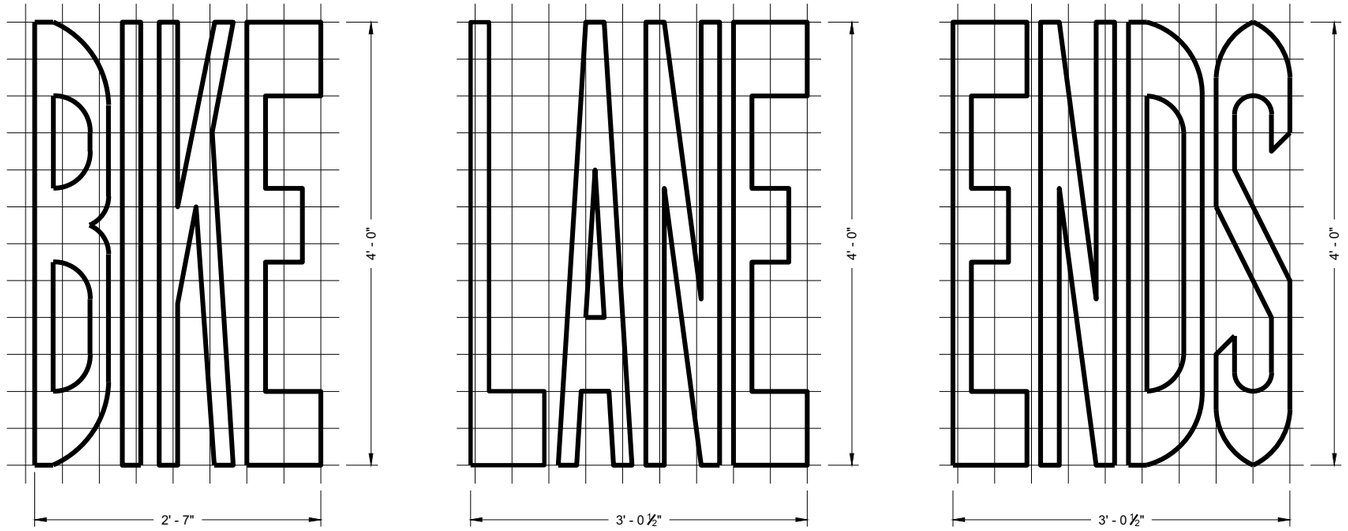
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SDD 15C07 - 15c

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SDD 15C07 - 15c

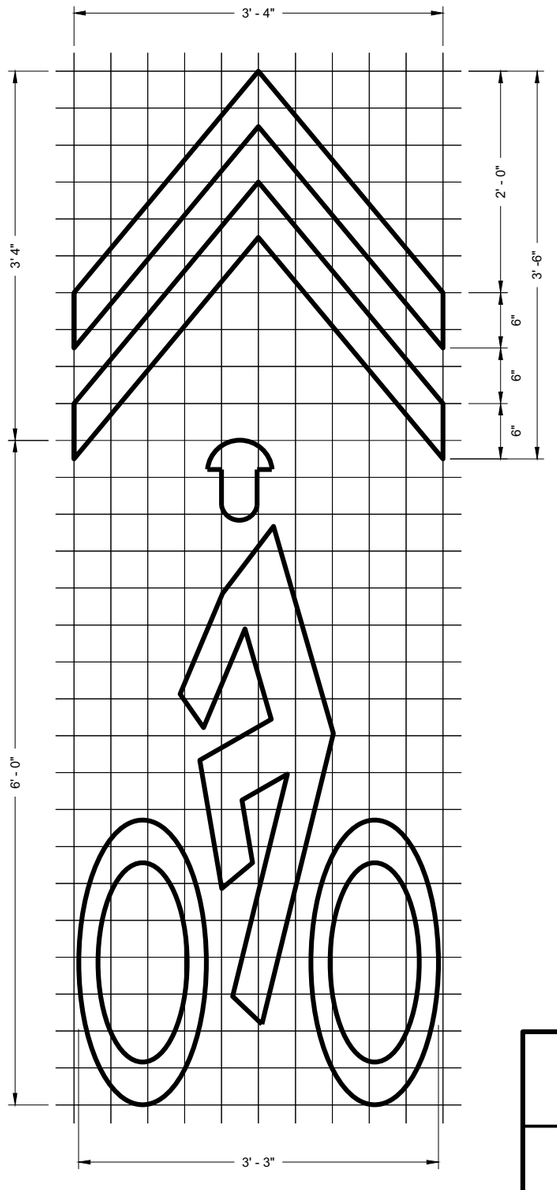
SDD 15C7-e Pavement Marking For Bike Lanes

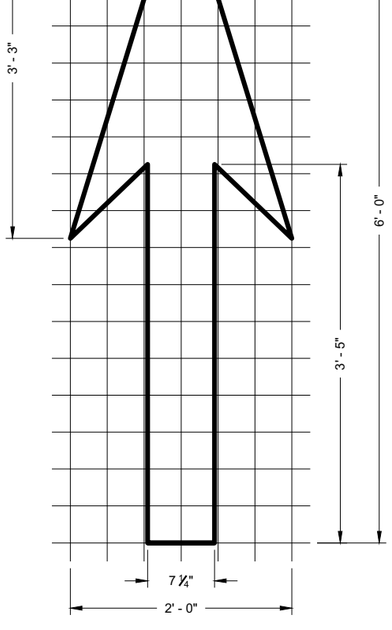


BIKE LANE WORDS

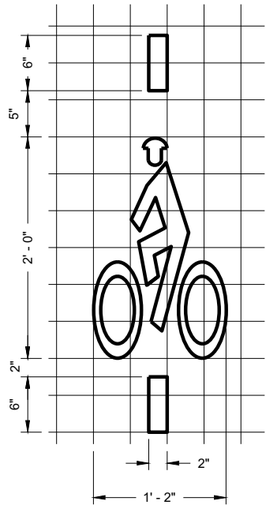
GENERAL NOTES

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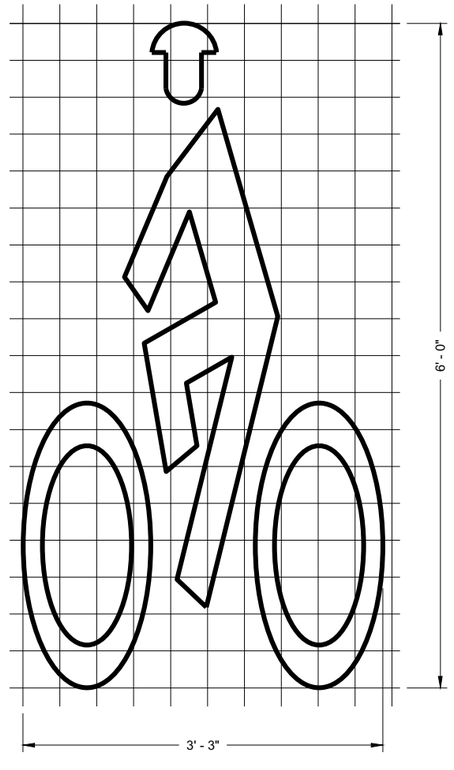




BIKE LANE ARROW



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 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

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SDD 15C07 - 15e

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.

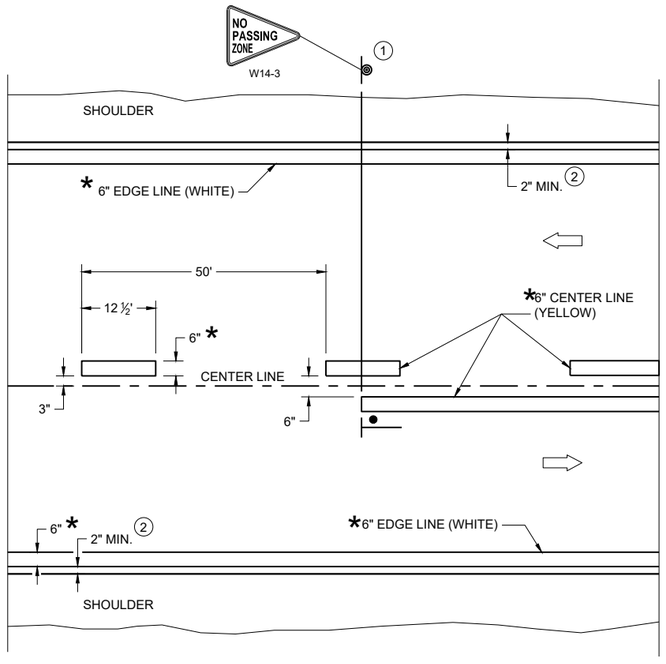
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

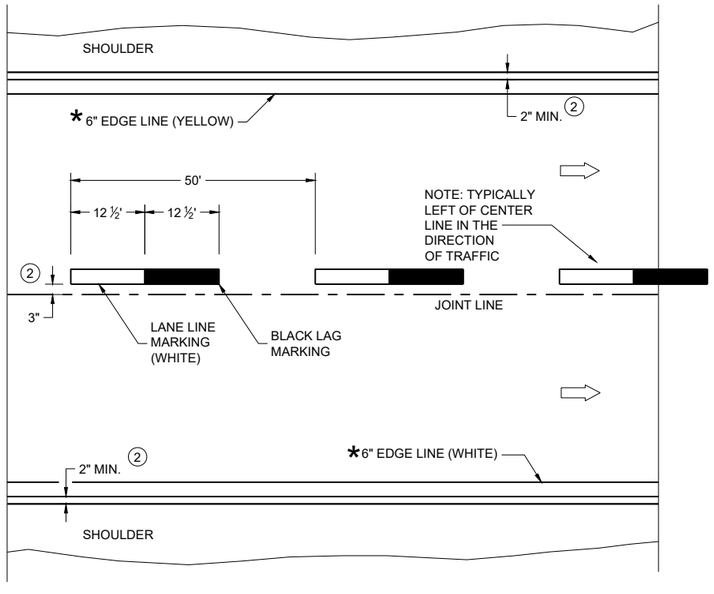
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

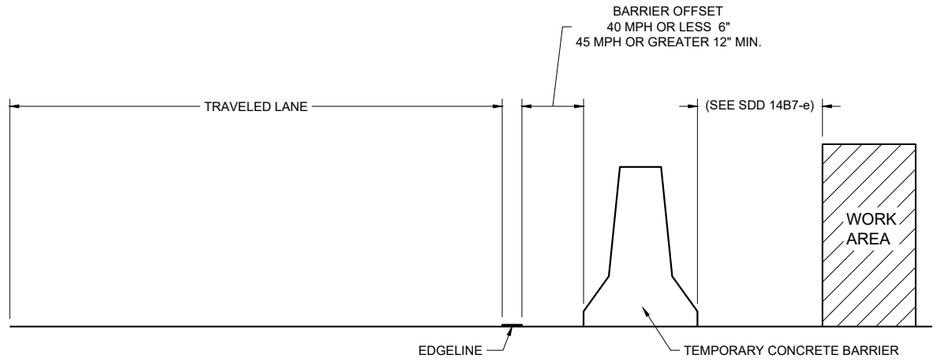
PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — Statewide Pavement Marking Engineer
FHWA

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SDD 15C08-23a



TEMPORARY BARRIER OFFSET FROM EDGELINE

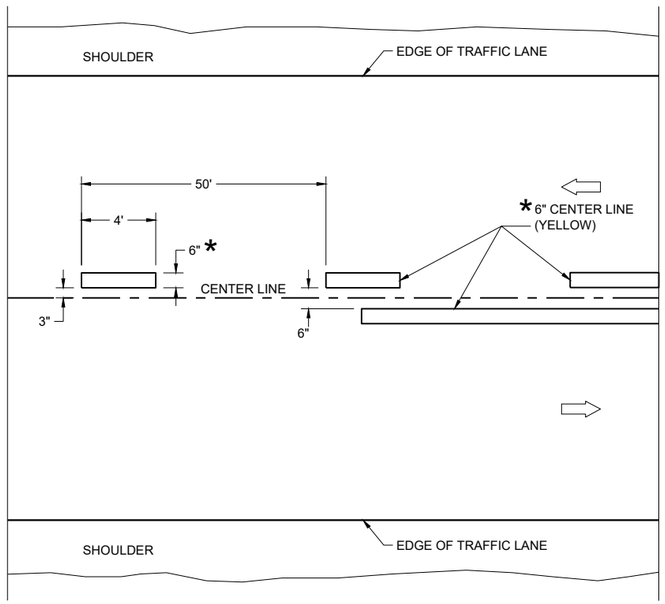
GENERAL NOTES

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

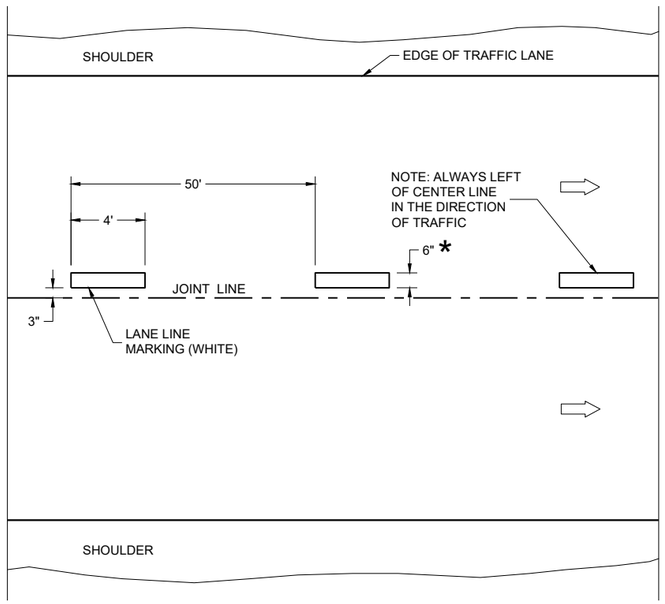
LEGEND

DIRECTION OF TRAFFIC

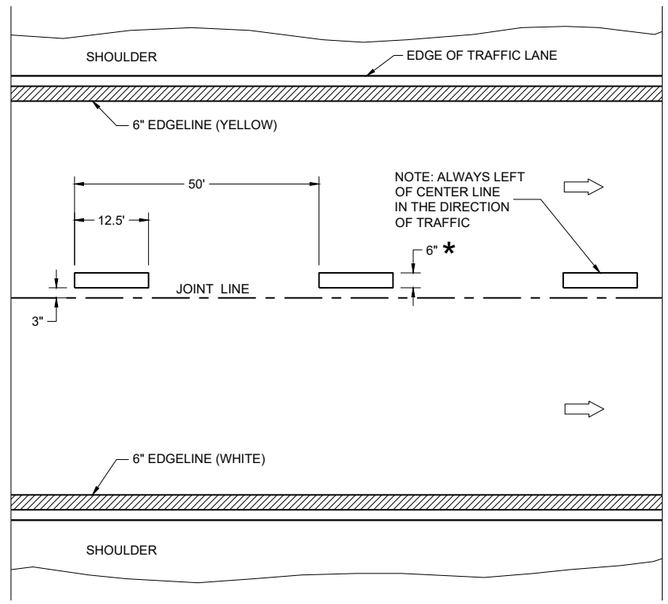
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

6

SDD 15C08-23b

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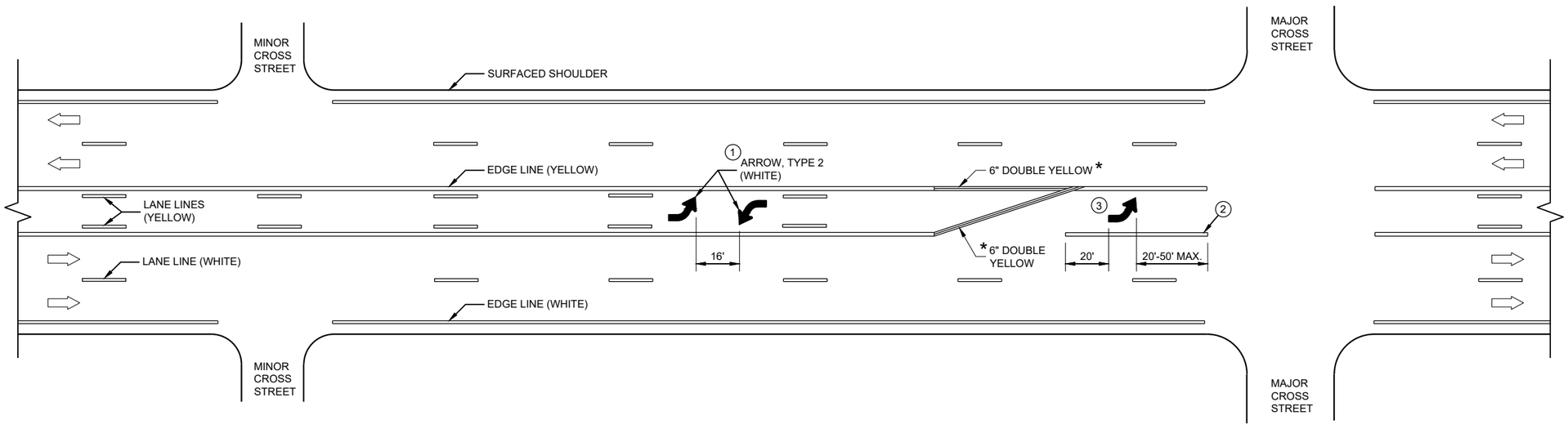
SDD 15C08-23b

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 10" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

⇨ DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY LEFT TURN LANE

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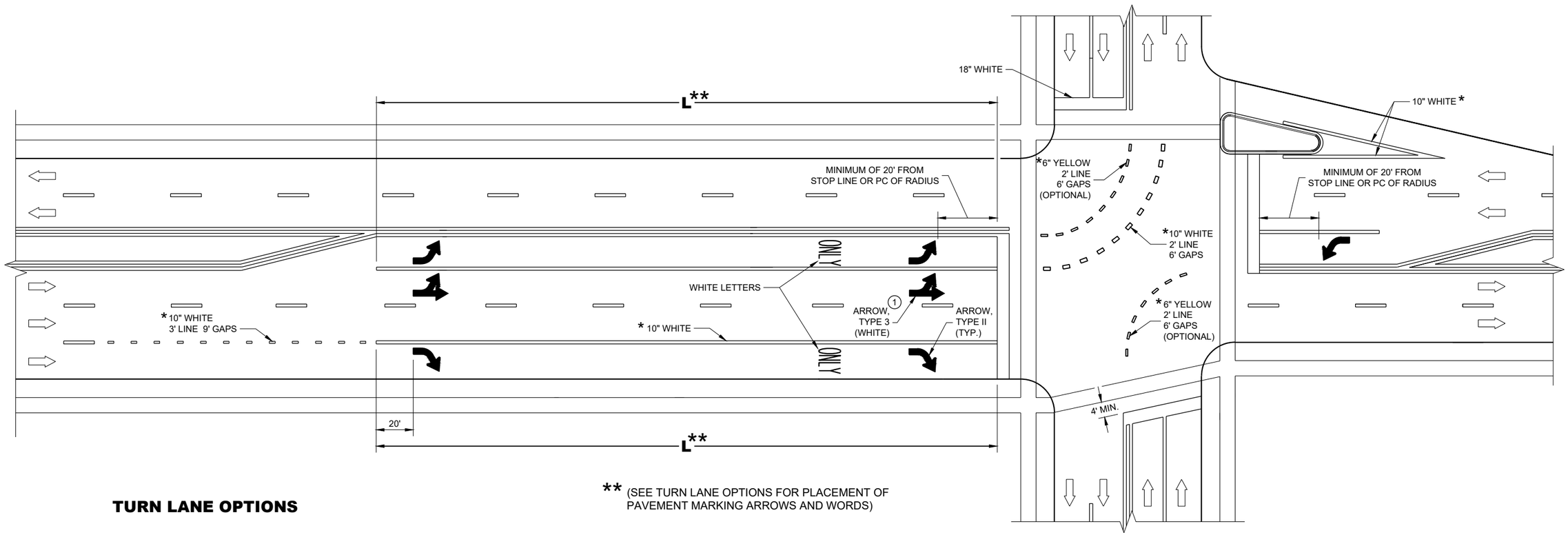
SDD 15C08-23c

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA· 390

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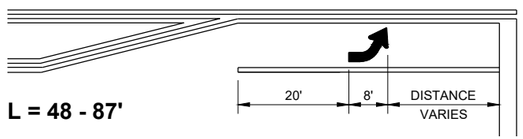
SDD 15C08-23c



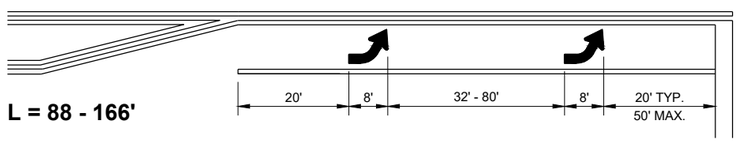
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

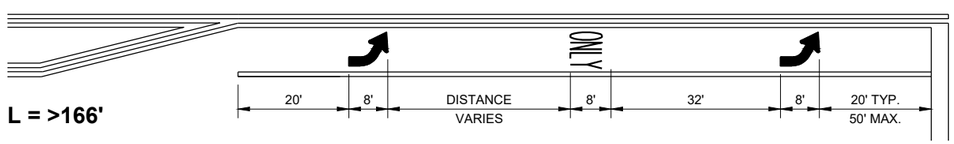
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



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

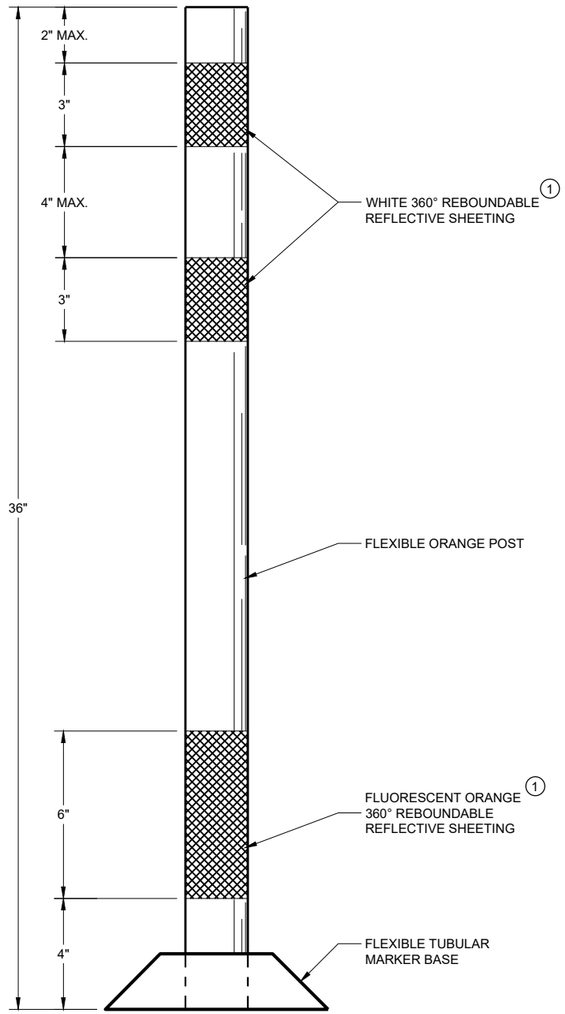
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08-23d



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

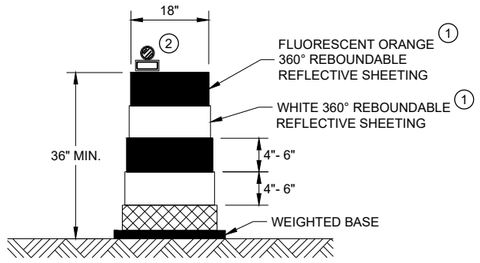
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SDD 15C11 - 10a

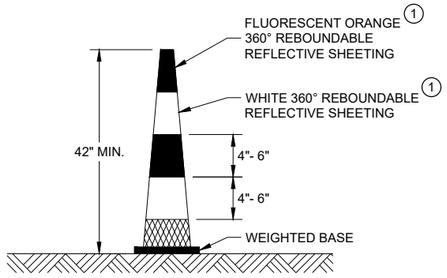
GENERAL NOTES

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

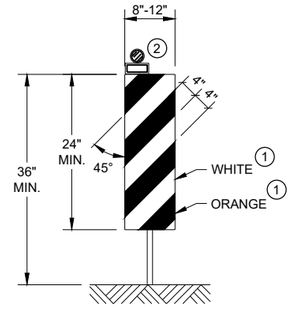
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

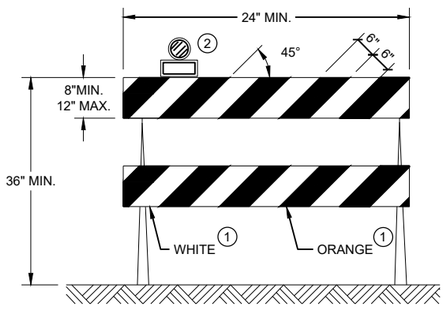
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



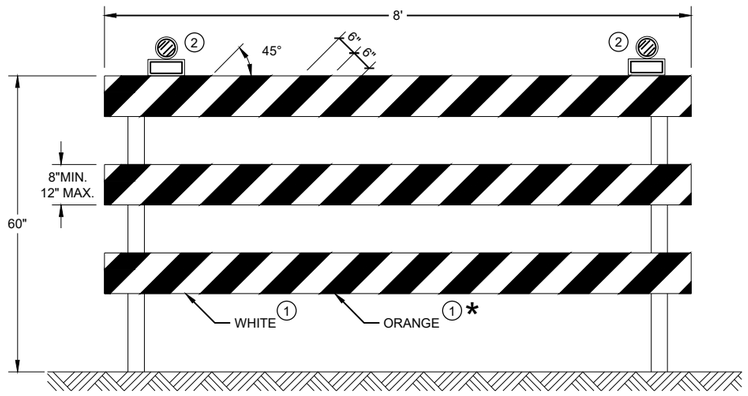
VERTICAL PANEL

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

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SDD 15C11 - 10b

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LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

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

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

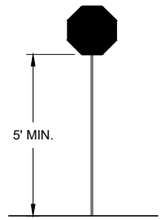
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



STOP/SLOW PADDLE ON SUPPORT STAFF

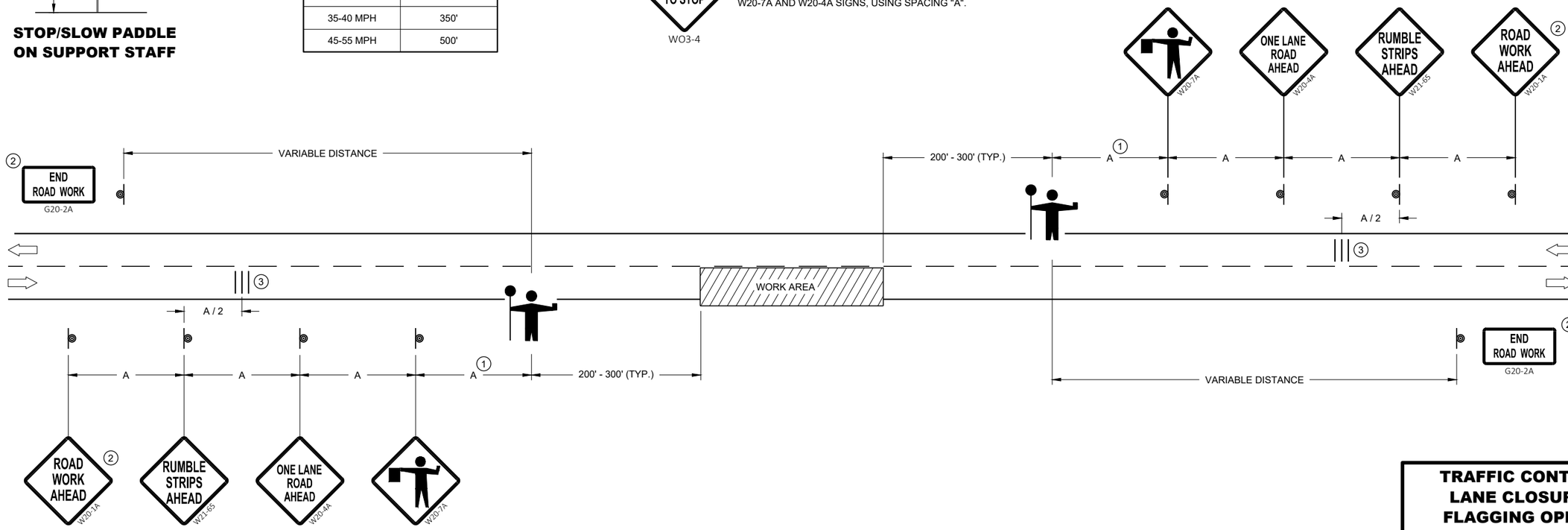
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

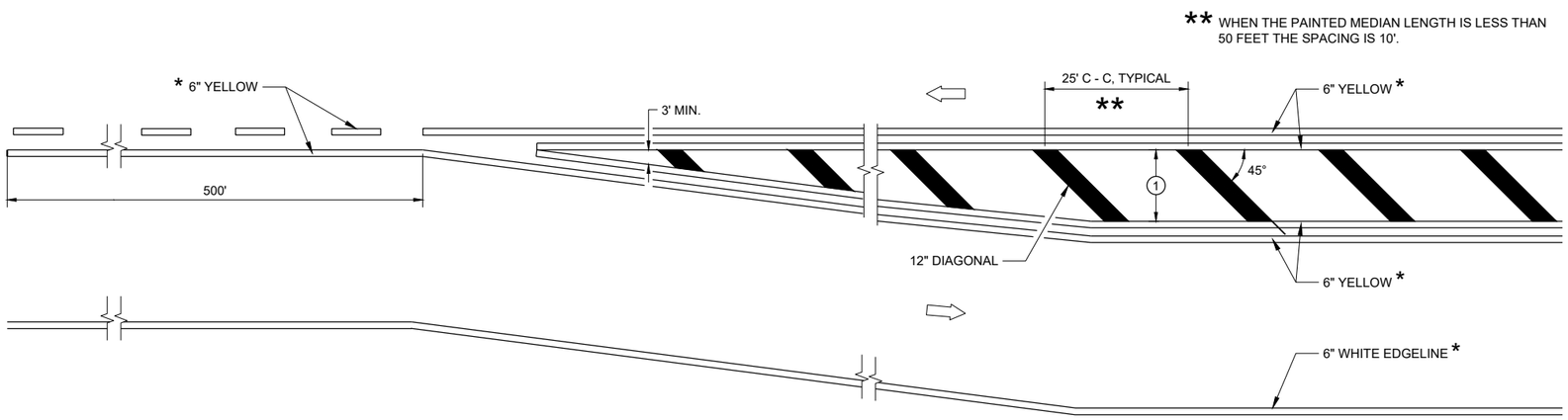
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SDD 15C12 - 09a

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SDD 15C12 - 09a



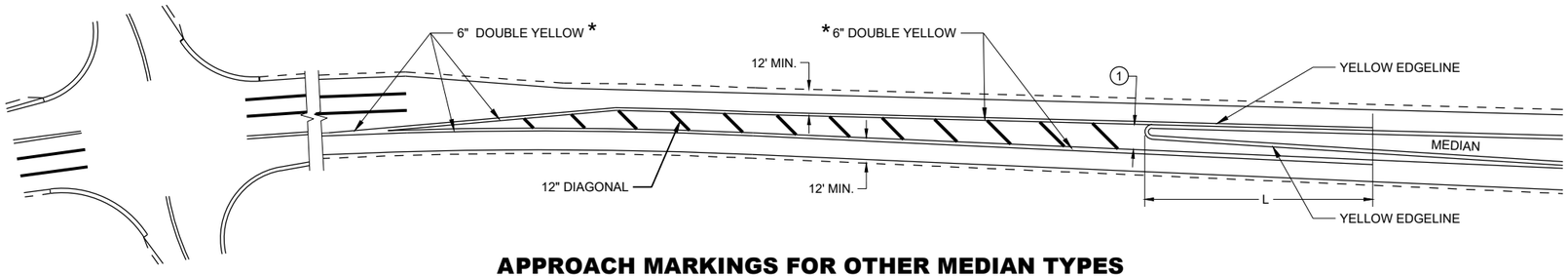
MEDIAN ISLAND DETAIL

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.

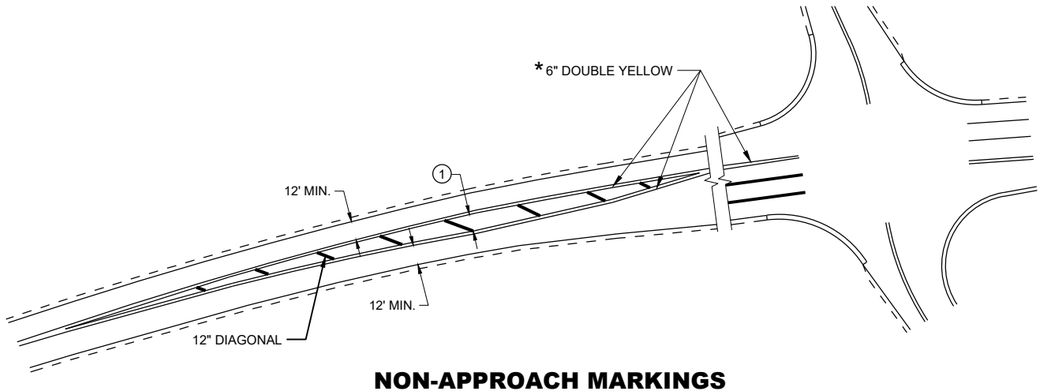
DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



APPROACH MARKINGS FOR OTHER MEDIAN TYPES

SPEED LIMIT	L
<35 MPH	5'
35> MPH	50'



NON-APPROACH MARKINGS

MEDIAN ISLAND PAVEMENT MARKINGS

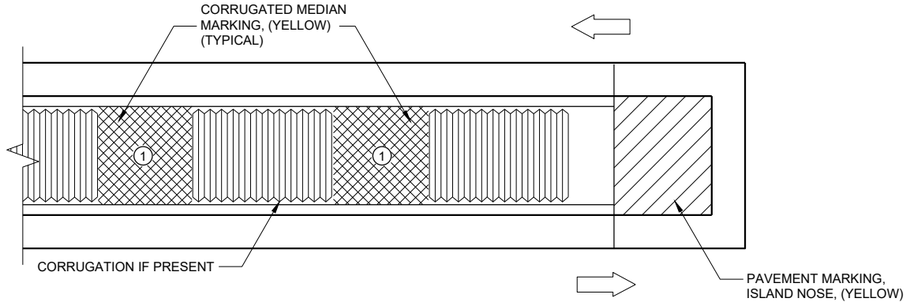
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

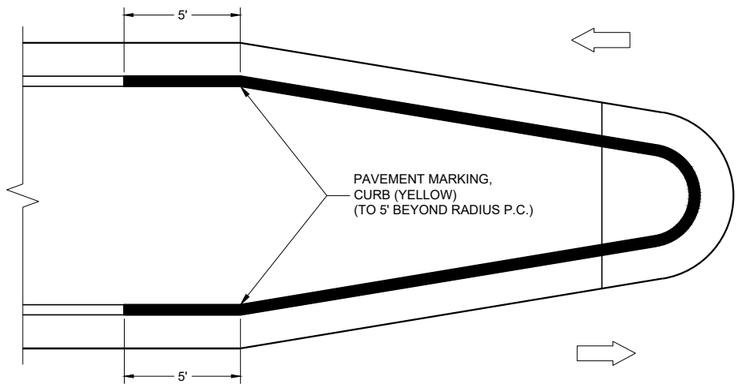
FHWA

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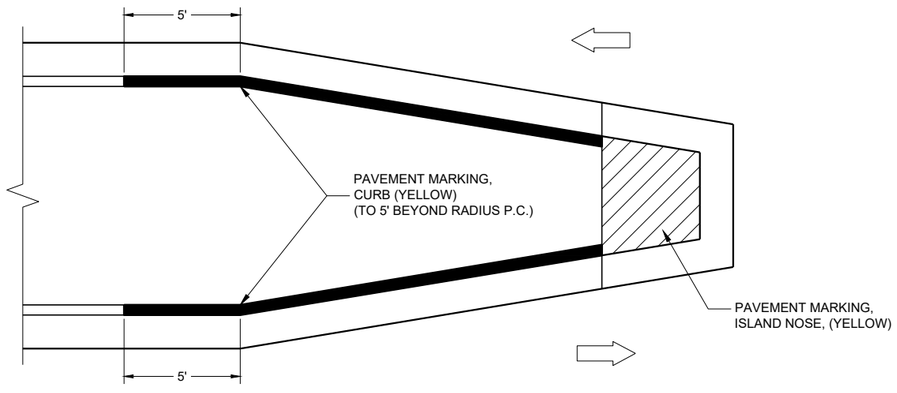
SDD 15C18-08a



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

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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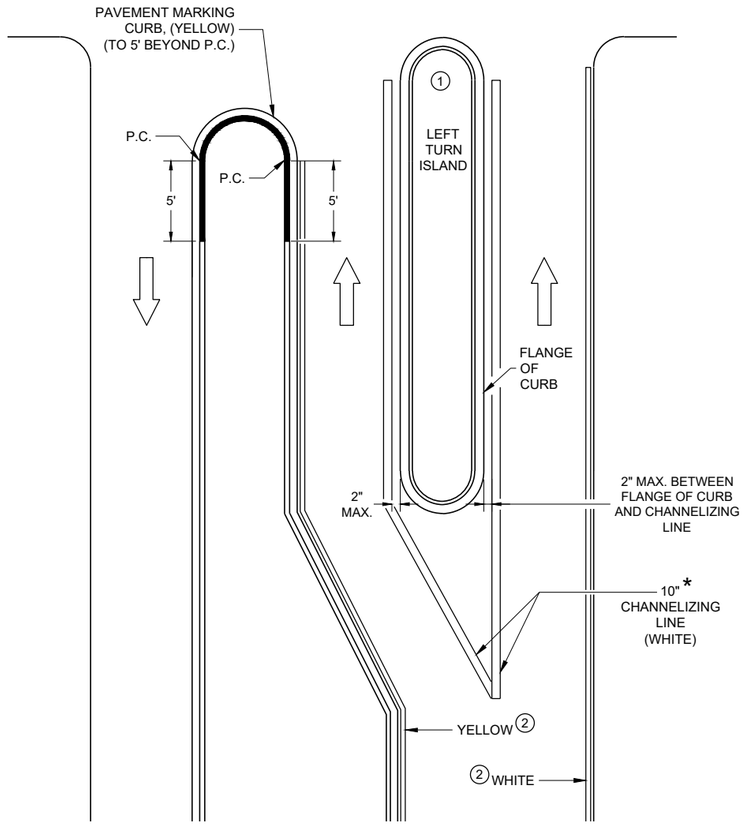
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SDD 15C18-08b

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SDD 15C18-08b

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



* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEFT TURN & MEDIAN ISLAND

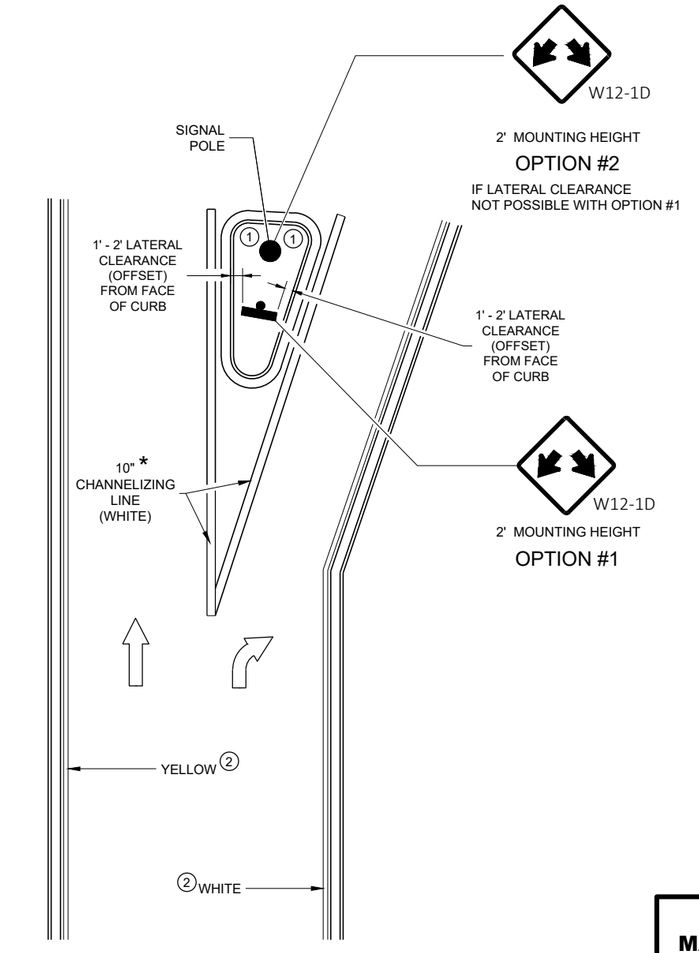
GENERAL NOTES

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

1. MARK CURB NOSES YELLOW.
2. MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

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SDD 15C18-08c

LEGEND

V1 MARKING VEHICLE

V2 SHADOW VEHICLE

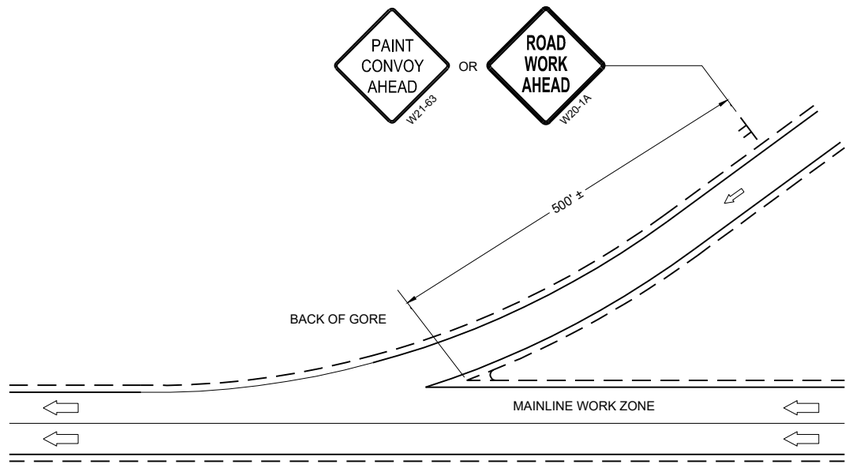
V3 TRAIL VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)



GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.

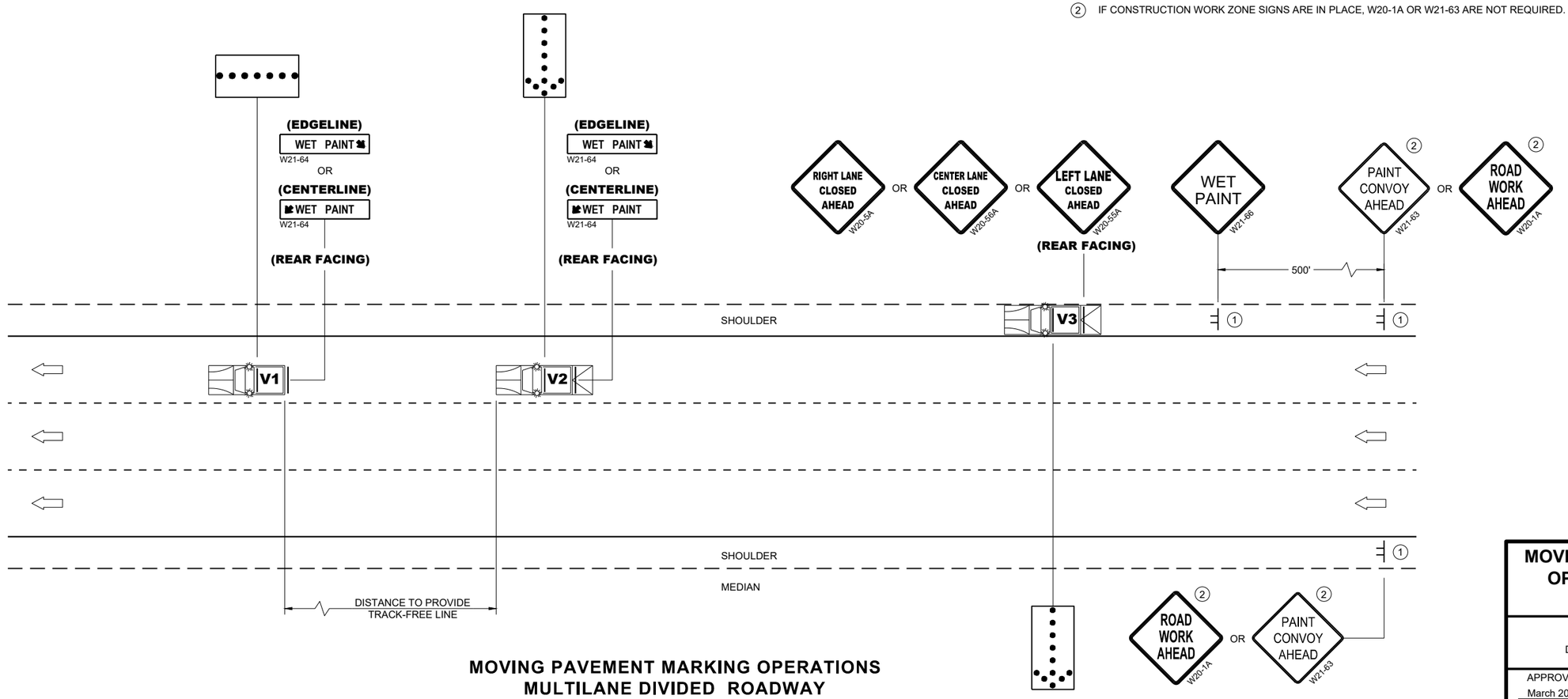
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM HEIGHT OF 28" FOR WET PAVEMENT MARKINGS

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS
MULTILANE DIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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SDD 15C19-9c

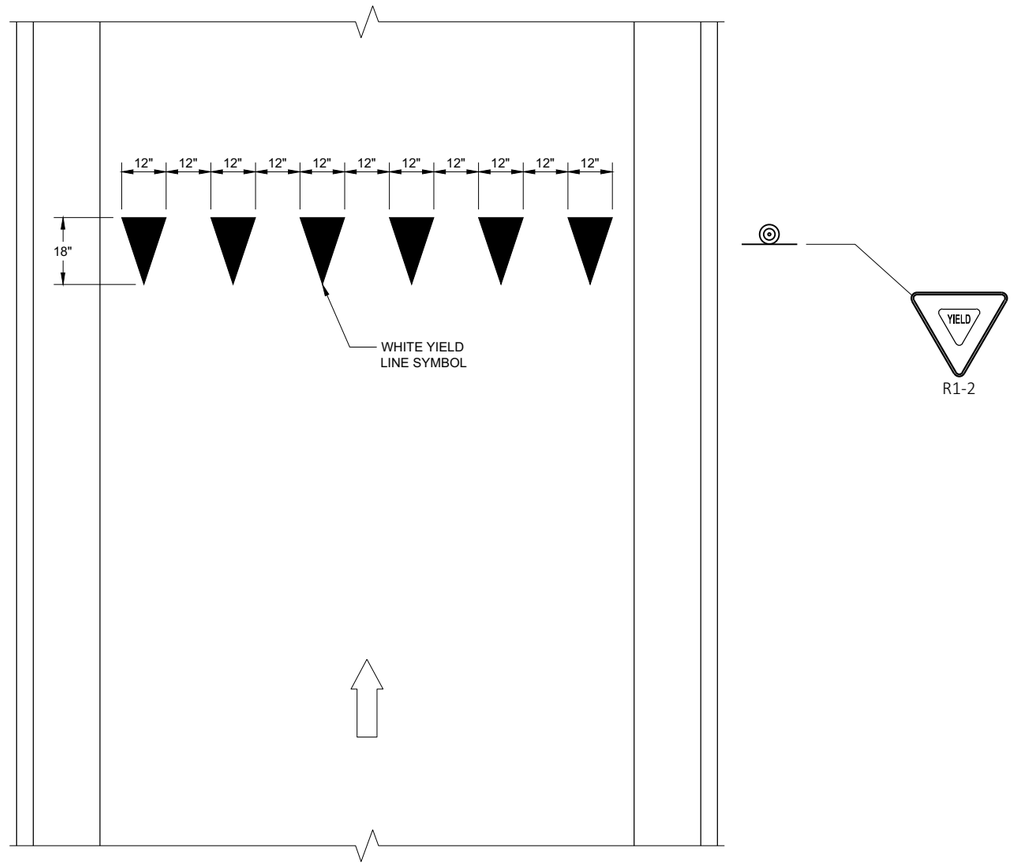
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SDD 15C19-9c

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAVEL



YIELD LINE

YIELD MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

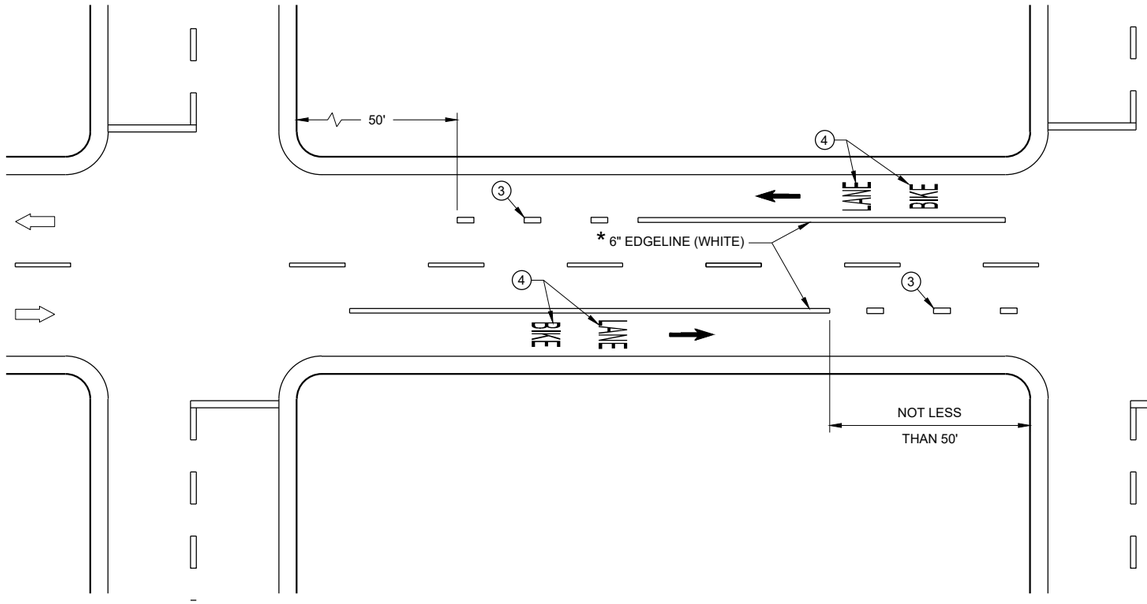
4-81-2016
DATE

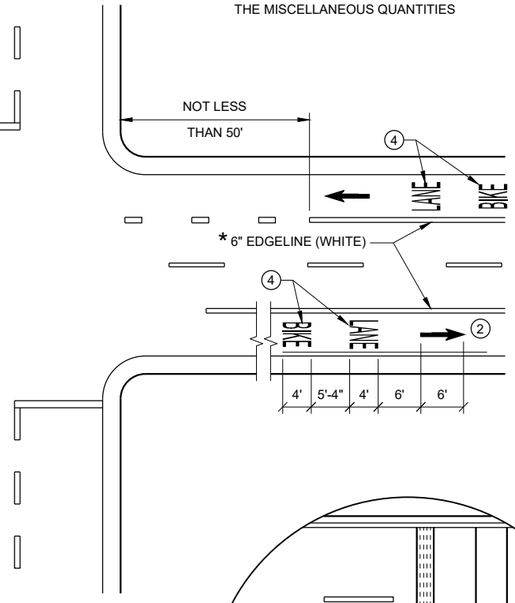
/S/ Matthew R. Rauch
STATE SIGNING AND MAR ENGINEER

FHWA

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SDD 15C20 - 02



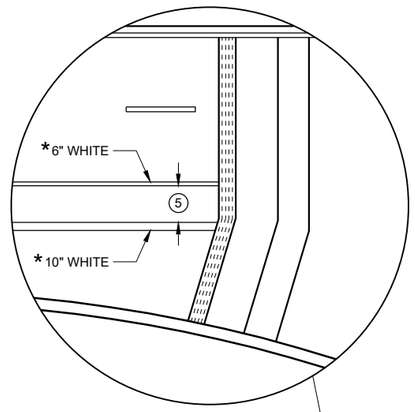


GENERAL NOTES

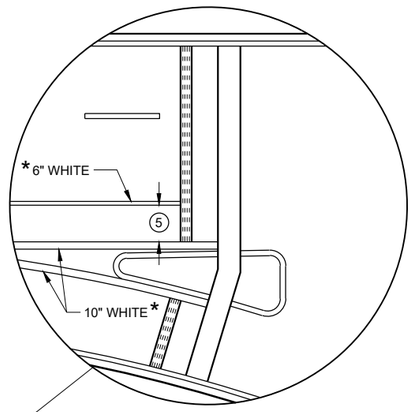
1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY 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

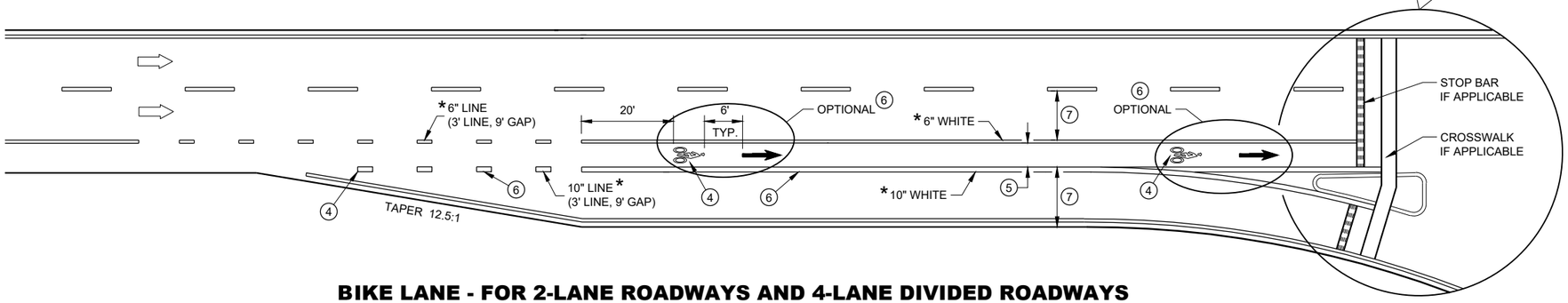
DESIGNATED BIKE LANE - NO PARKING



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

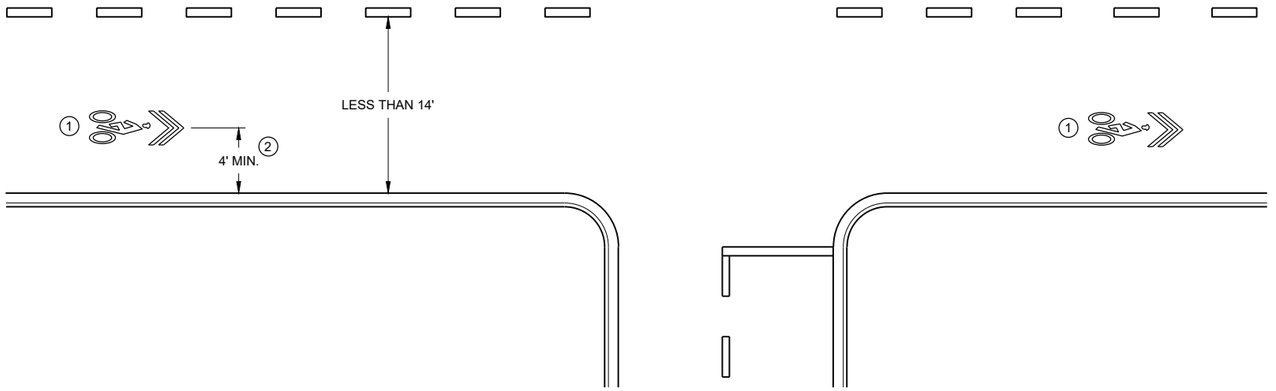
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SDD 15C29-08a

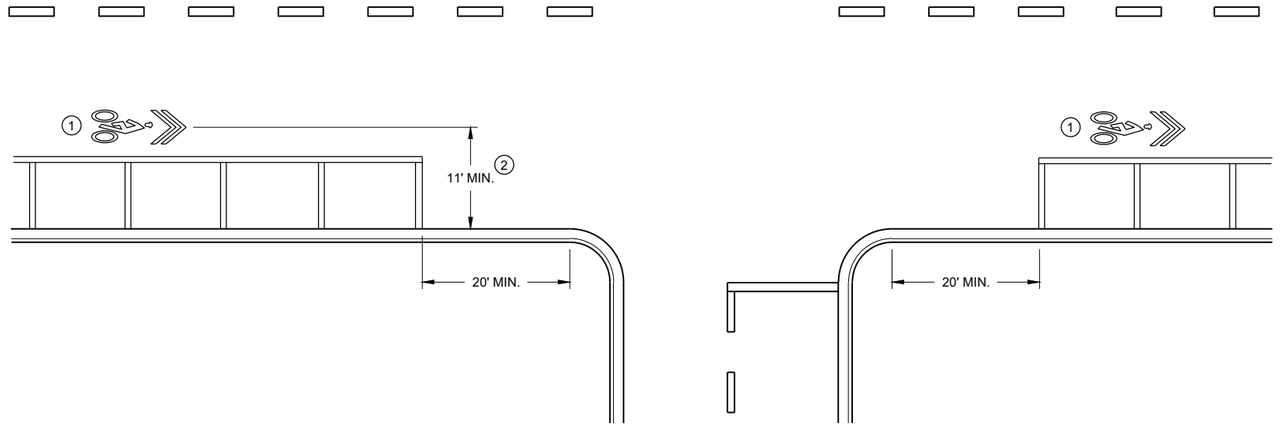
GENERAL NOTES

(1) MINIMUM OF ONE PER BLOCK, MAXIMUM OF 250 FEET.

(2) OR TO EDGE OF PAVEMENT WITHOUT CURB.



WITHOUT PARKING



WITH PARKING

6

SDD 15C29-08b

PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

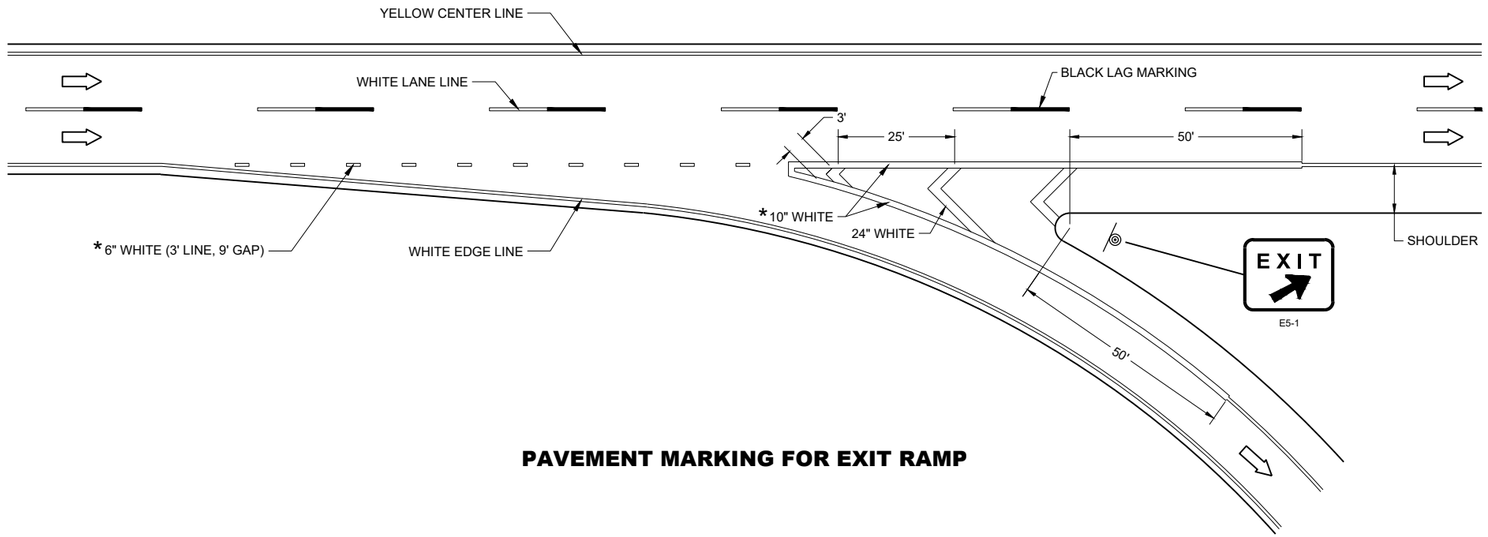
May 2023
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

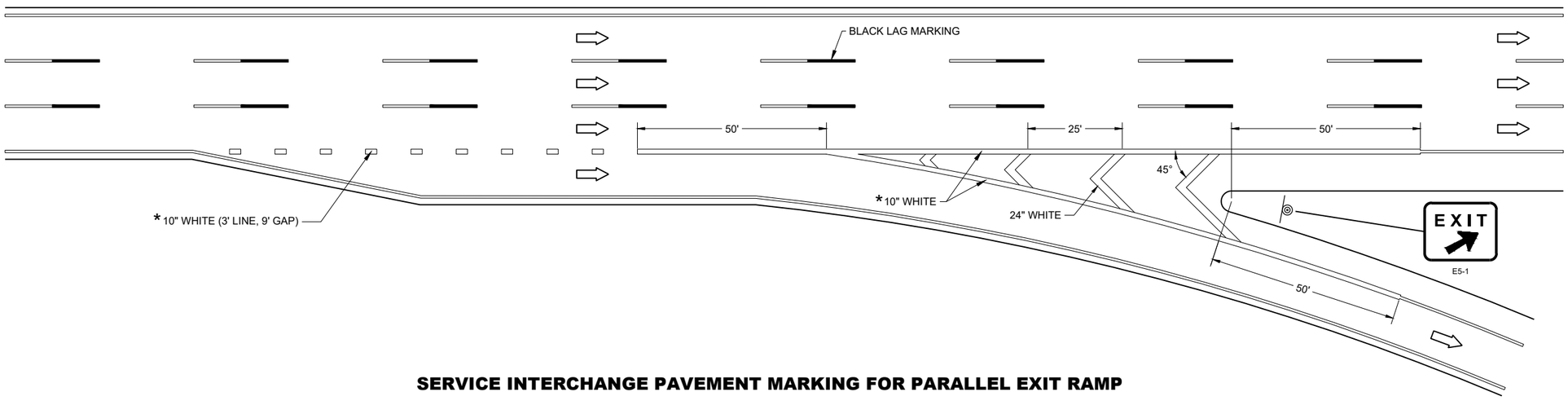
FHWA

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SDD 15C29-08b



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

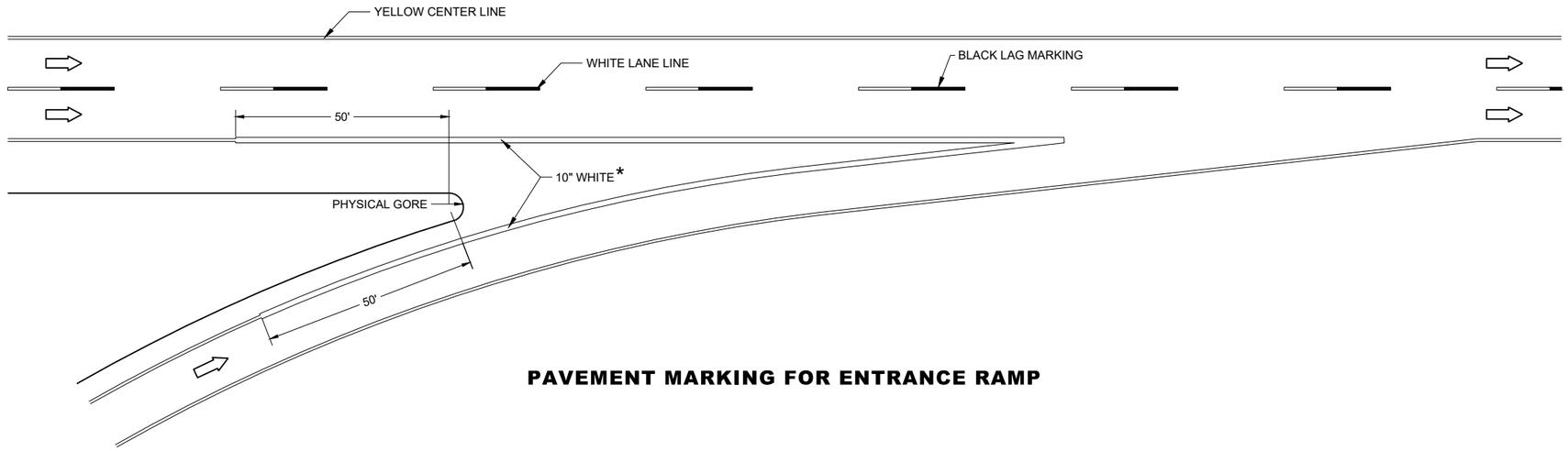
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING, EXIT RAMP AND PARALLEL EXIT RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C31-06a



PAVEMENT MARKING FOR ENTRANCE RAMP

GENERAL NOTES

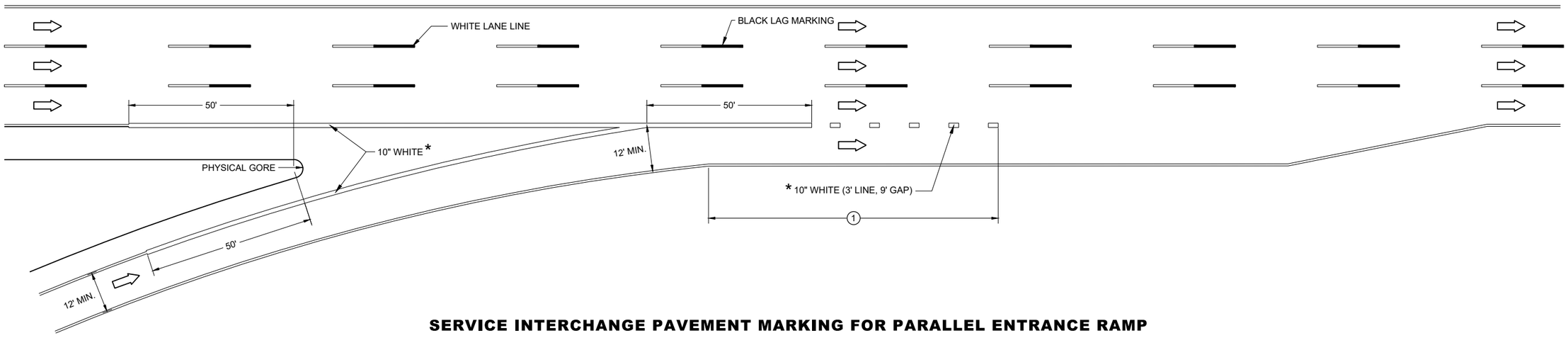
PLACE GROOVE 3 INCHES LEFT OF JOINT.

(1) ½ LENGTH OF FULL WIDTH ACCELERATION LANE.

LEGEND

DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE RAMP

PAVEMENT MARKING, ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

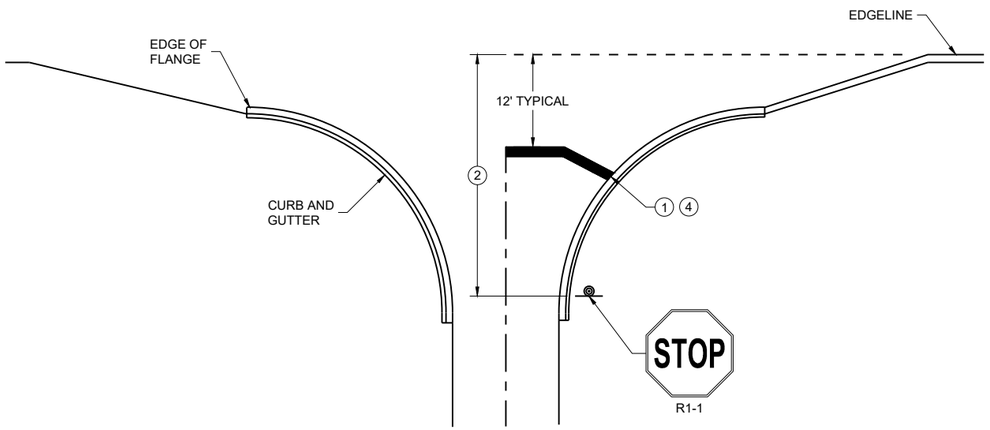
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SDD 15C31-06c

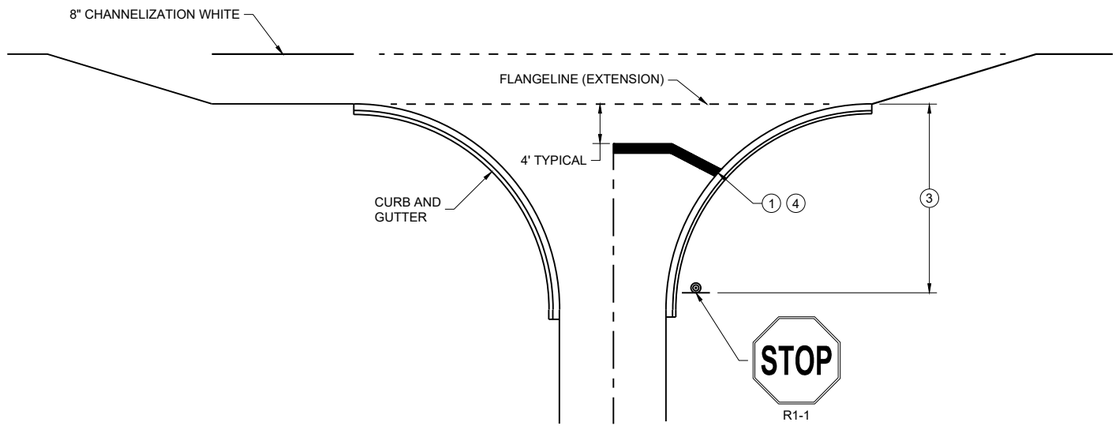
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

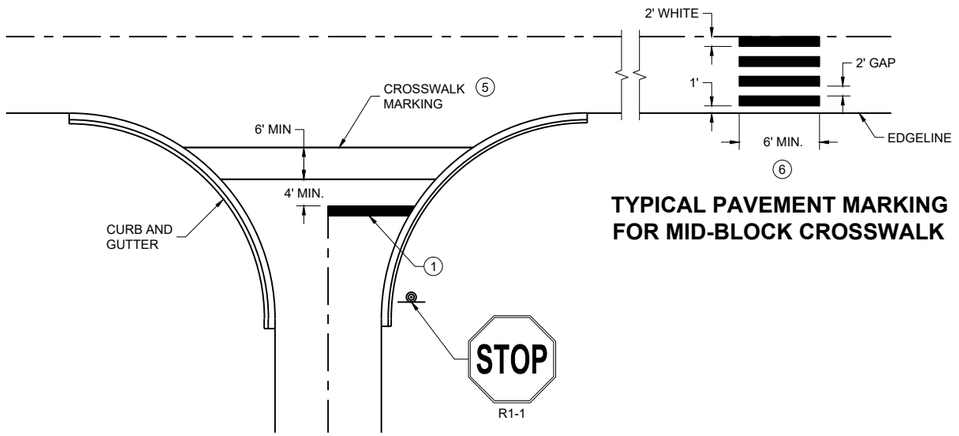
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE 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

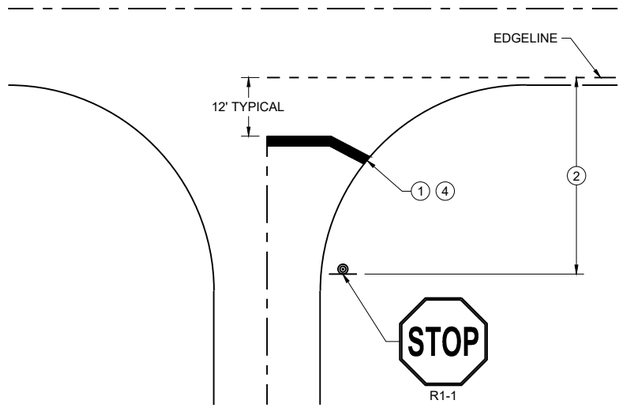


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



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

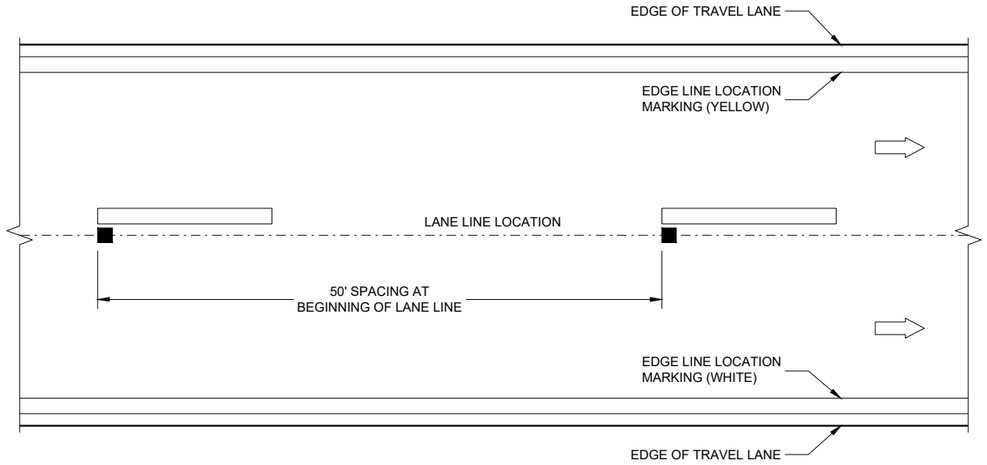
FHWA

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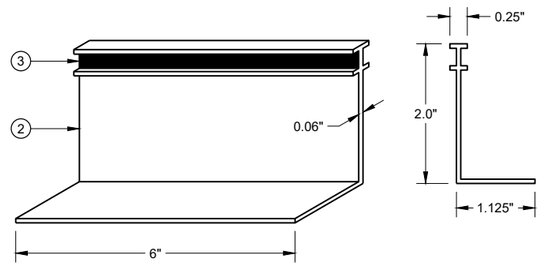
SDD 15C33-05

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SDD 15C33-05



LONGITUDINAL PLACEMENT 6 - INCH LANE LINE



ISOMETRIC VIEW **SIDE VIEW**

TEMPORARY RAISED PAVEMENT MARKER, TYPE II

GENERAL NOTES

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

COLOR OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II, SHALL MATCH THE COLOR OF THE MARKING THEY SUPPLEMENT.

PLACEMENT OF TEMPORARY RAISED PAVEMENT MARKERS ON EDGE LINES IS OPTIONAL. IF PLACED ON EDGE LINES, MAXIMUM SPACING SHALL BE 50 FEET.

PROVIDE SINGLE OR MULTI-COVER TEMPORARY RAISED PAVEMENT MARKERS AS SHOWN ON PLAN.

MARK "T"s ON PAVEMENT FOR REESTABLISHING NO PASSING ZONES.

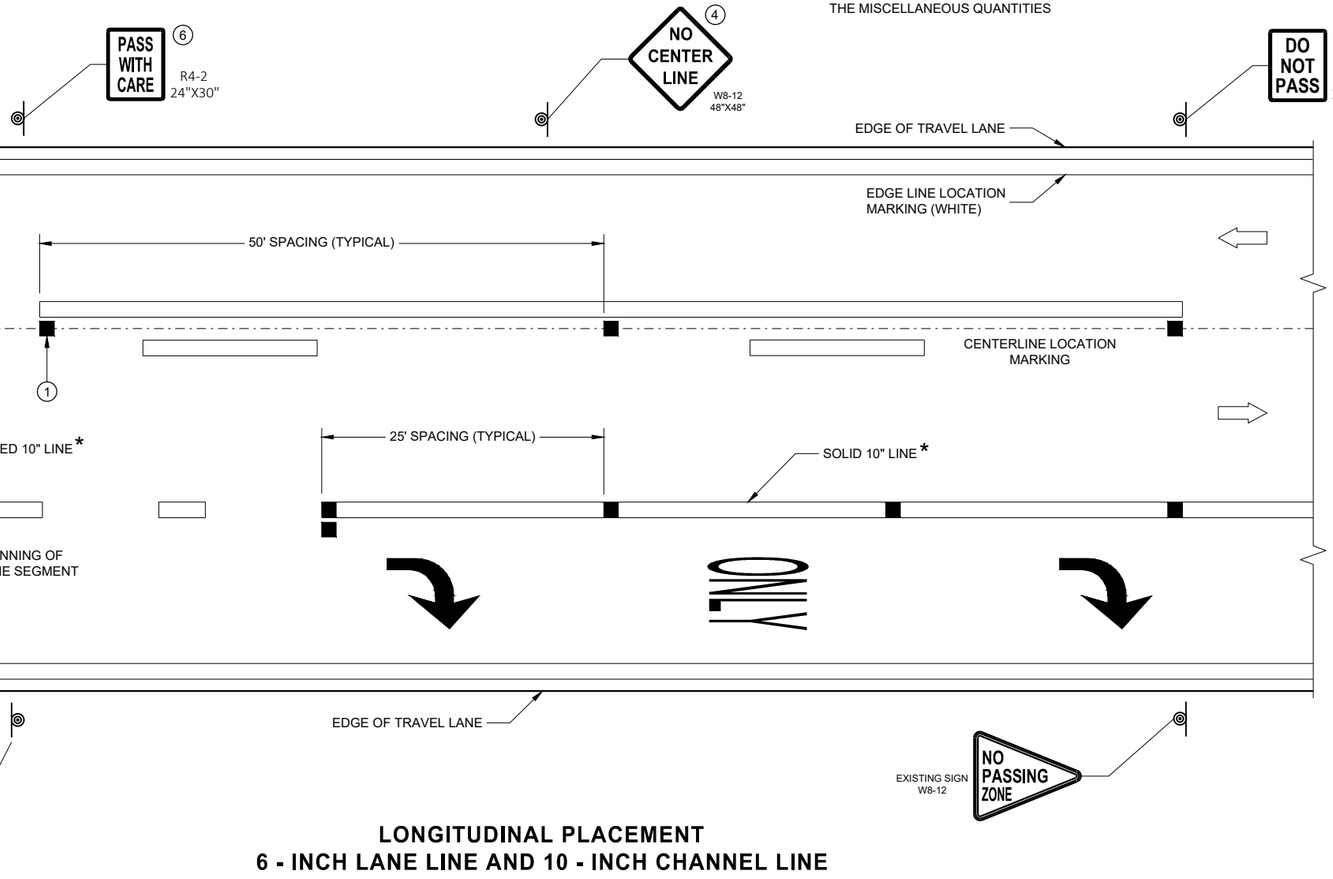
SAME DAY TEMPORARY PAVEMENT MARKING MAY BE USED IN LIEU OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II.

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

IF TEMPORARY SAME DAY PAVEMENT MARKING IS USED, ENSURE PROPOSED PAVEMENT MARKING ARE PLACED IN THE EXACT LOCATIONS AS THE EXISTING MARKINGS, USING A MINIMAL AMOUNT OF TEMPORARY RAISED MARKERS, TYPE II OR OTHER METHODS AS APPROVED BY THE ENGINEER.

IF ROADWAY IS DETOURED DURING CONSTRUCTION, THE "DO NOT PASS, "PASS WITH CARE" AND "NO CENTERLINE" SIGNS MAY BE OMITTED, PROVIDING A LIQUID MARKING IS INSTALLED BEFORE THE ROADWAY IS REOPENED TO TRAFFIC.

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



LONGITUDINAL PLACEMENT
6 - INCH LANE LINE AND 10 - INCH CHANNEL LINE

1. FOR DOUBLE SOLID YELLOW, PLACE THE MARKERS BETWEEN THE LINES.
2. MARKERS SHALL BE OF POLYURETHANE MATERIAL.
3. MARKERS SHALL HAVE A MINIMUM SIZE REFLECTIVE SURFACE OF 6-INCH WIDTH X 0.25 INCH HEIGHT.
4. "NO CENTER LINE" SIGNS SHALL BE PLACED AT THE BEGINNING OF PROJECT, AT TWO MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS.
5. "DO NOT PASS" SIGNS SHALL BE INSTALLED AT THE BEGINNING OF NO PASSING ZONES. ADDITIONAL "DO NOT PASS" SIGNS SHALL BE INSTALLED AT ONE MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS WITHIN THE NO PASSING ZONE.
6. "PASS WITH CARE" SIGNS SHALL BE PLACED AT THE DOWNSTREAM END OF NO PASSING ZONES.

LEGEND

- TEMPORARY RAISED PAVEMENT MARKER, TYPE II
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC.

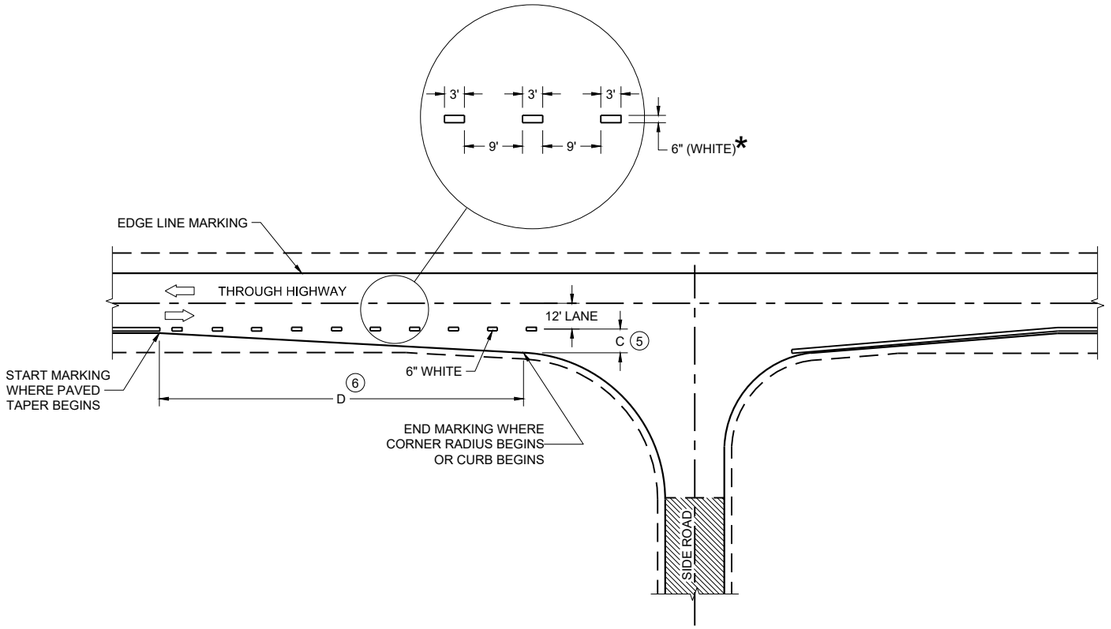
STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKERS, TYPE II

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

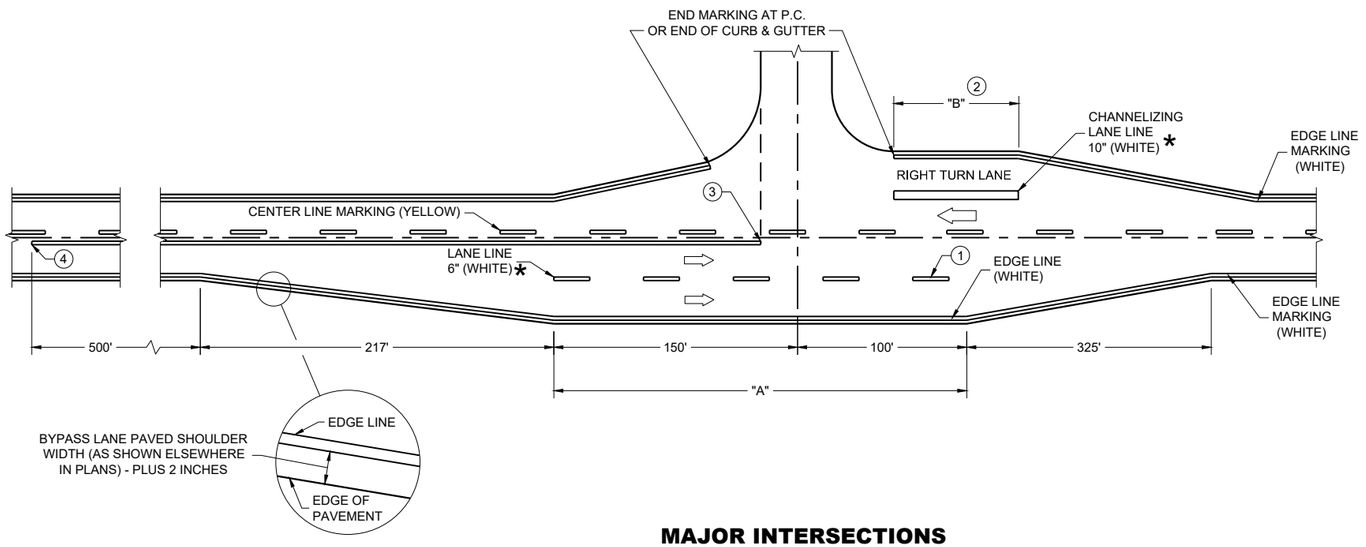
APPROVED
May 2023 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

FHWA

6 SDD 15C34-04



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

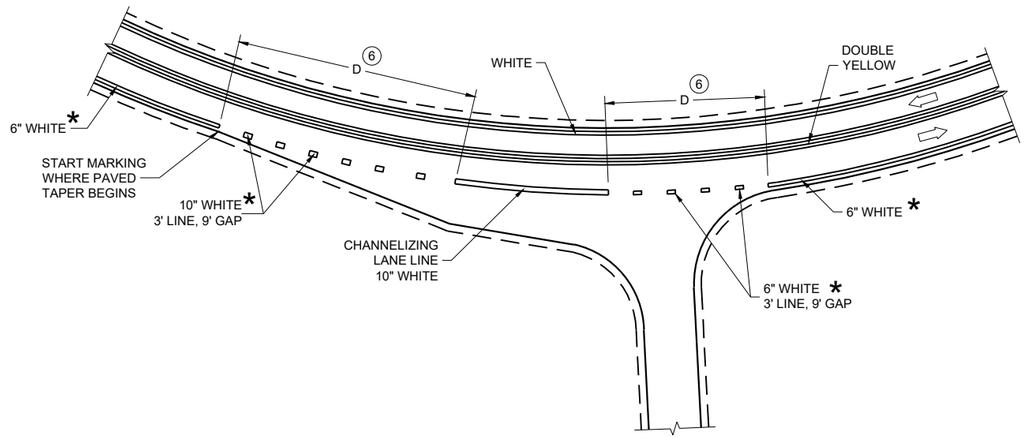
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
6. WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

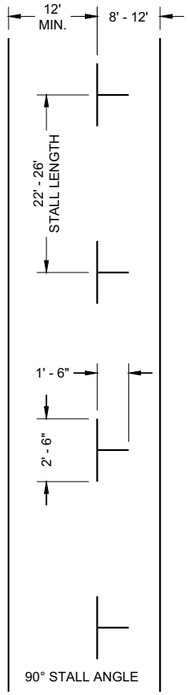
PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

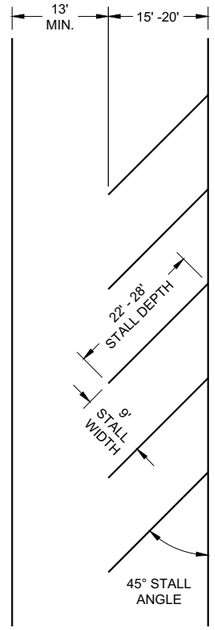
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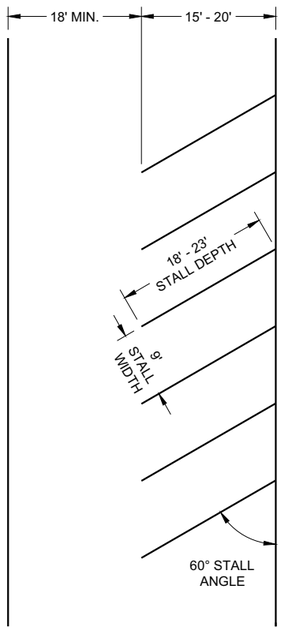
SDD 15C35-06a

SDD 15C35-06a



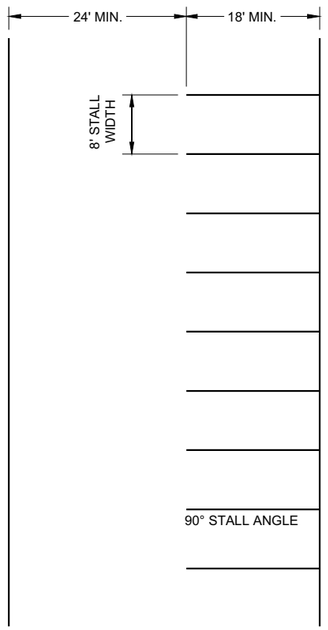
PARALLEL PARKING





ANGLED PARKING

(ANGLED PARKING IS NOT ALLOWED ON STATE HIGHWAYS UNLESS A DESIGN JUSTIFICATION HAS BEEN COMPLETED.)



PARKING LOTS

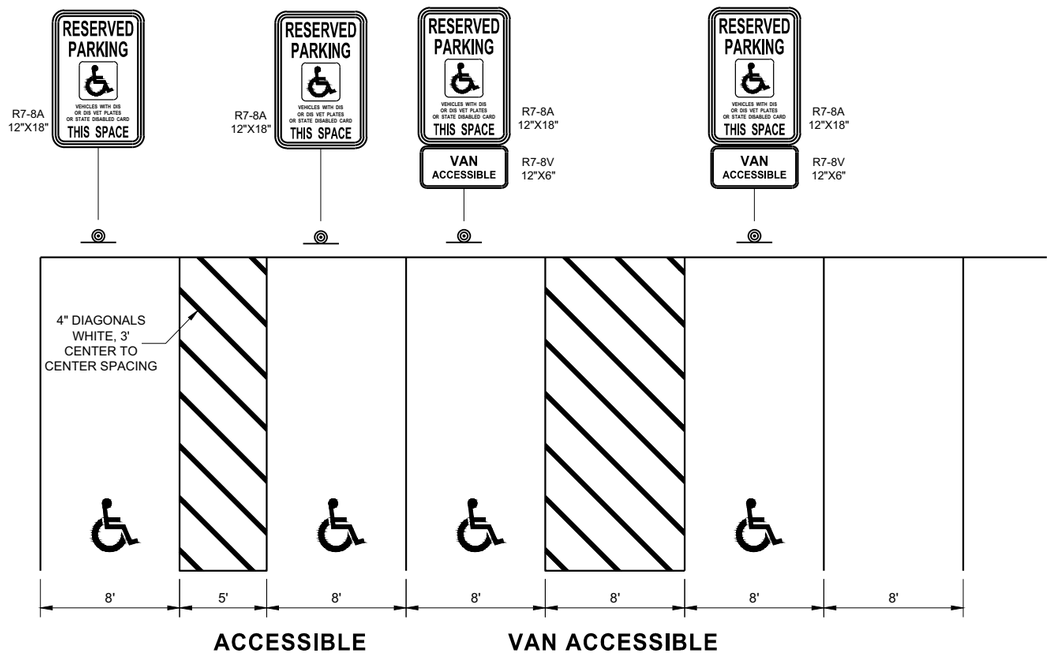
GENERAL NOTES

ALL LINES 4" WHITE (UNLESS OTHERWISE NOTED)

LAST PARKING STALL IS A MINIMUM OF 15' FROM THE CROSSWALK.

LEGEND

SIGN ON PERMANENT SUPPORT



ACCESSIBLE VAN ACCESSIBLE

PARKING STALL MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

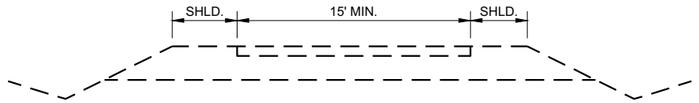
FHWA

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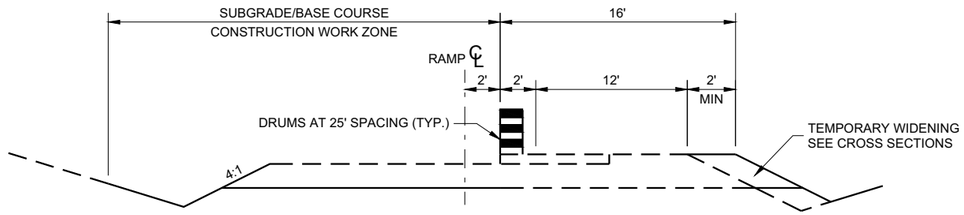
SDD 15C36 - 01

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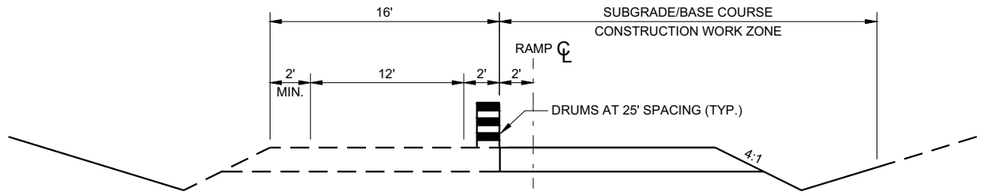
SDD 15C36 - 01



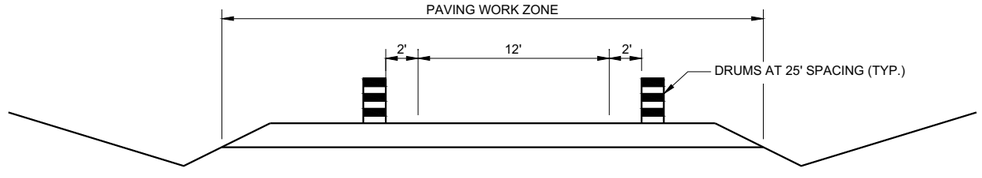
INITIAL RAMP - TYPICAL



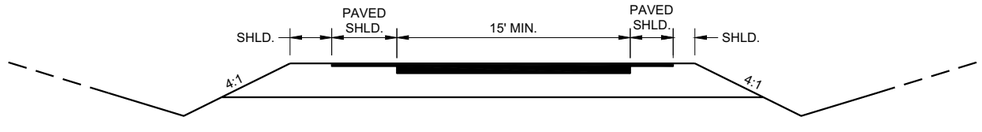
STAGE I - CONSTRUCTION TO SUBGRADE, LEFT



STAGE II - CONSTRUCTION TO SUBGRADE, RIGHT



STAGE III - TRAFFIC ON BASE COURSE



STAGE IV - PAVING

GENERAL NOTES

WORK SHALL BE SCHEDULED FOR ALL STAGES TO MINIMIZE INCONVENIENCE TO THE TRAFFIC USING THE RAMP WHILE IT IS ONLY BASE COURSE.

IN STATE III, A MINIMUM 12' LANE WIDTH SHALL BE DELINEATED WITH DRUMS ALONG BOTH EDGES AT ALL TIMES UNTIL PAVED AND PAVEMENT MARKINGS ARE PLACED.

6

SDD 15D04 - 01

TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 1994
DATE

/S/ Chester J. Spano
DIRECTOR, OFFICE OF TR

FHWA

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SDD 15D04 - 01

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

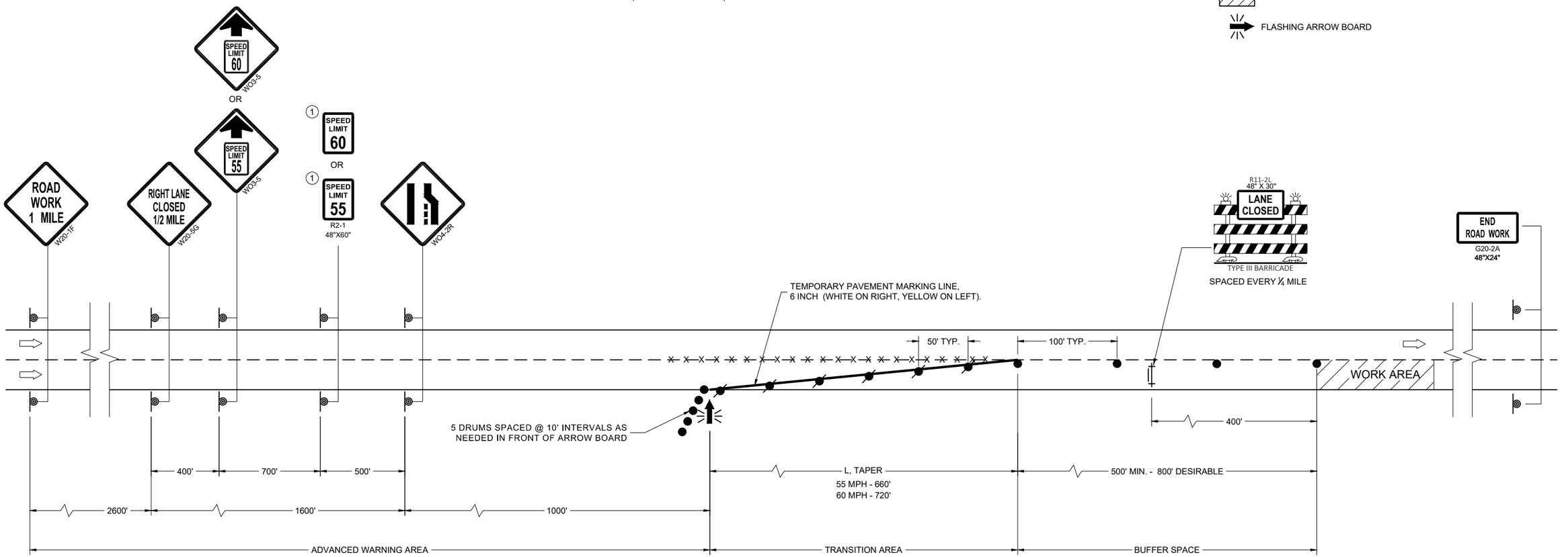
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

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

(1) A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

LEGEND

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



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024 — DATE
/S/ Andrew Heidtke — Work Zone Engineer

FHWA

6

SDD 15D12-13b

SDD 15D12-13b

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

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

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

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

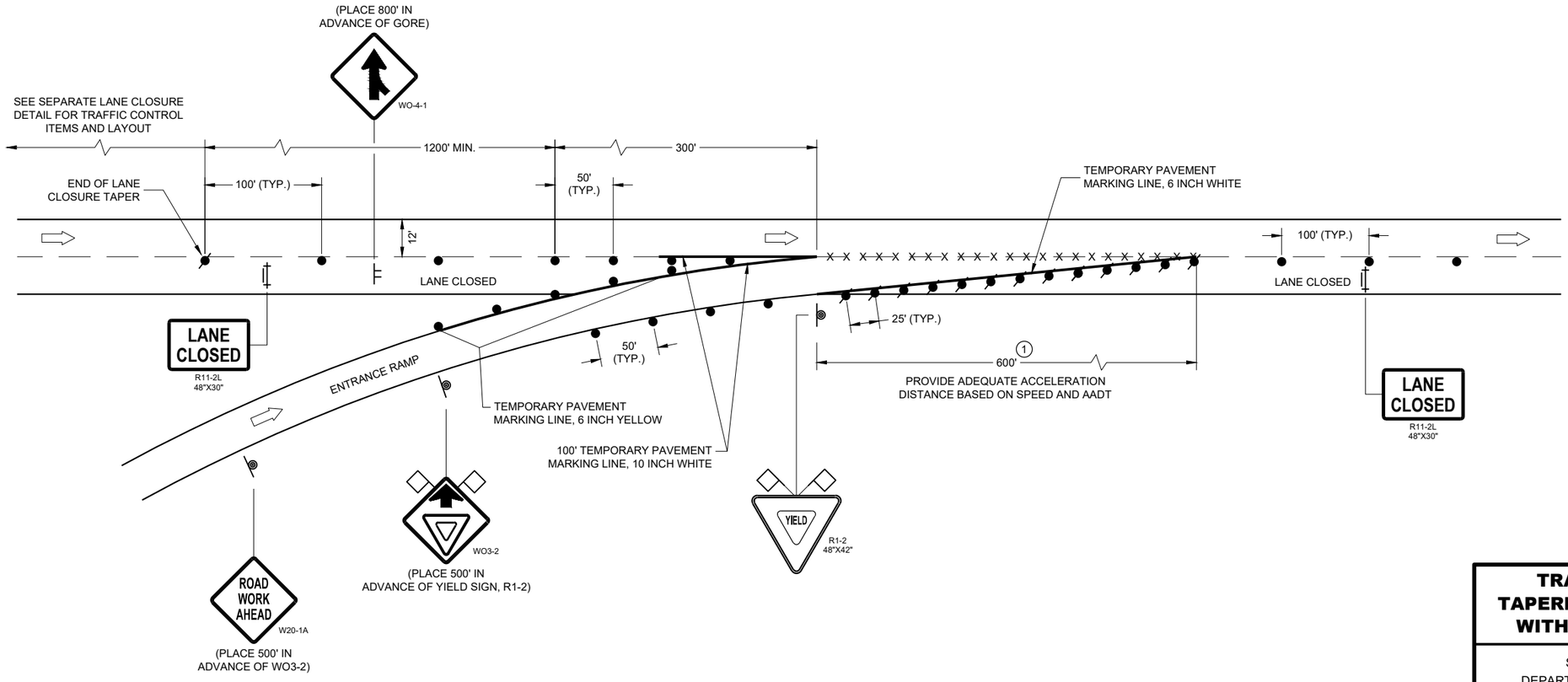
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING 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.

(1) CONSULT WITH REGIONAL WORK ZONE ENGINEER IF NEED TO REDUCE LENGTH EXISTS.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE 410

FHWA

6

SDD 15D15-07c

6

SDD 15D15-07c

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

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

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

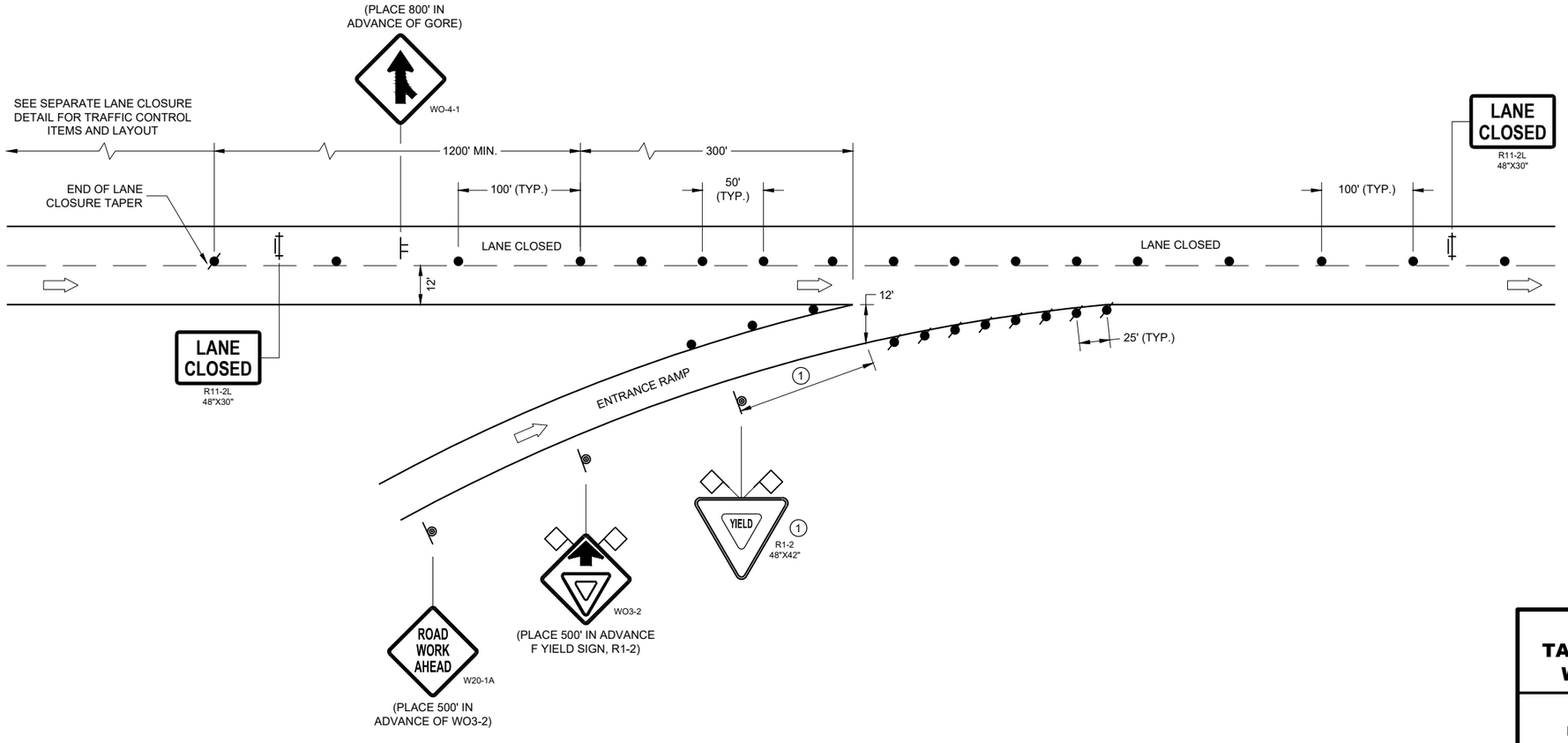
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

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

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

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

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



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15-07d

6

SDD 15D15-07d

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

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

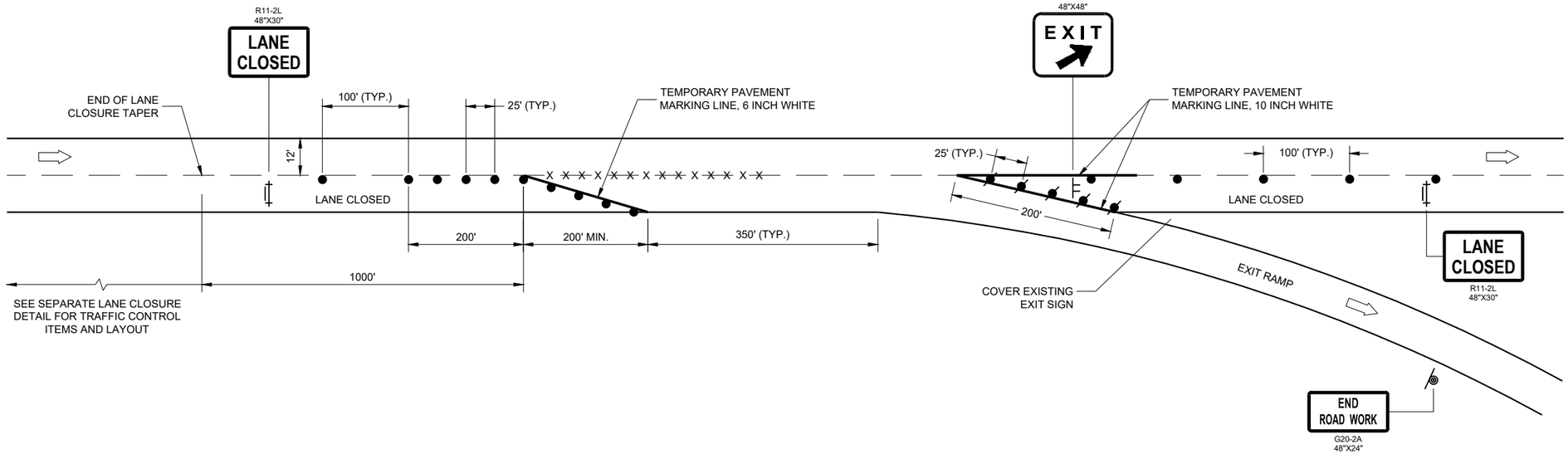
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING 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.



TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15-07e
SDD 15D15-07e

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
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

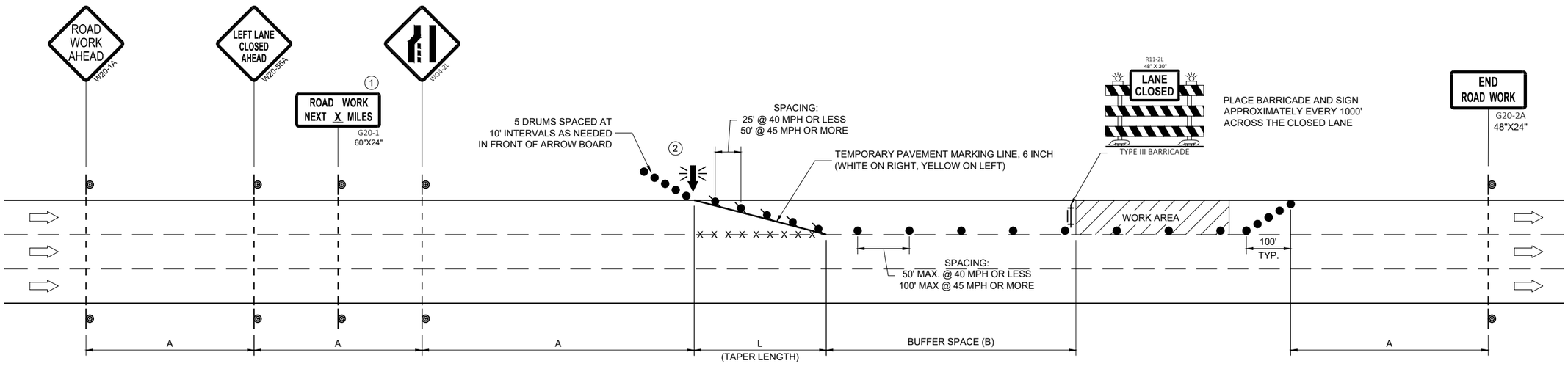
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

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

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D20-08a

6

SDD 15D20-08a

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
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

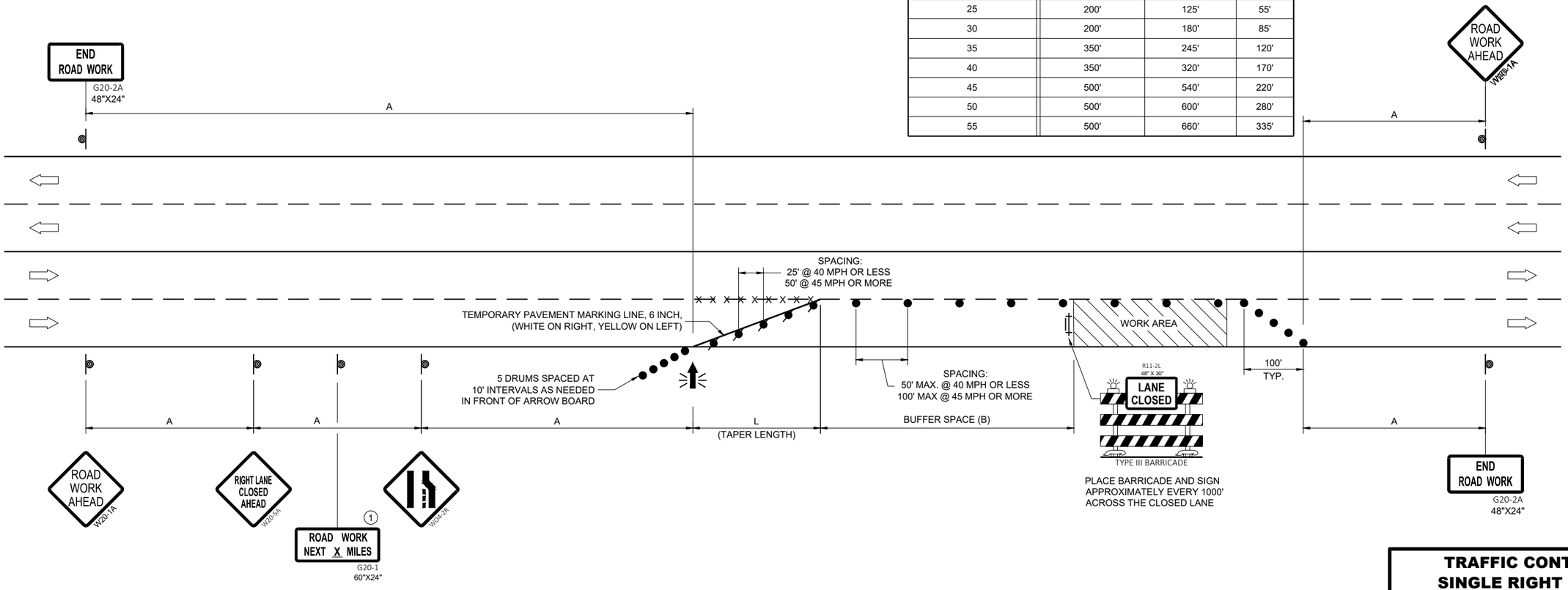
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

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

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2024
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

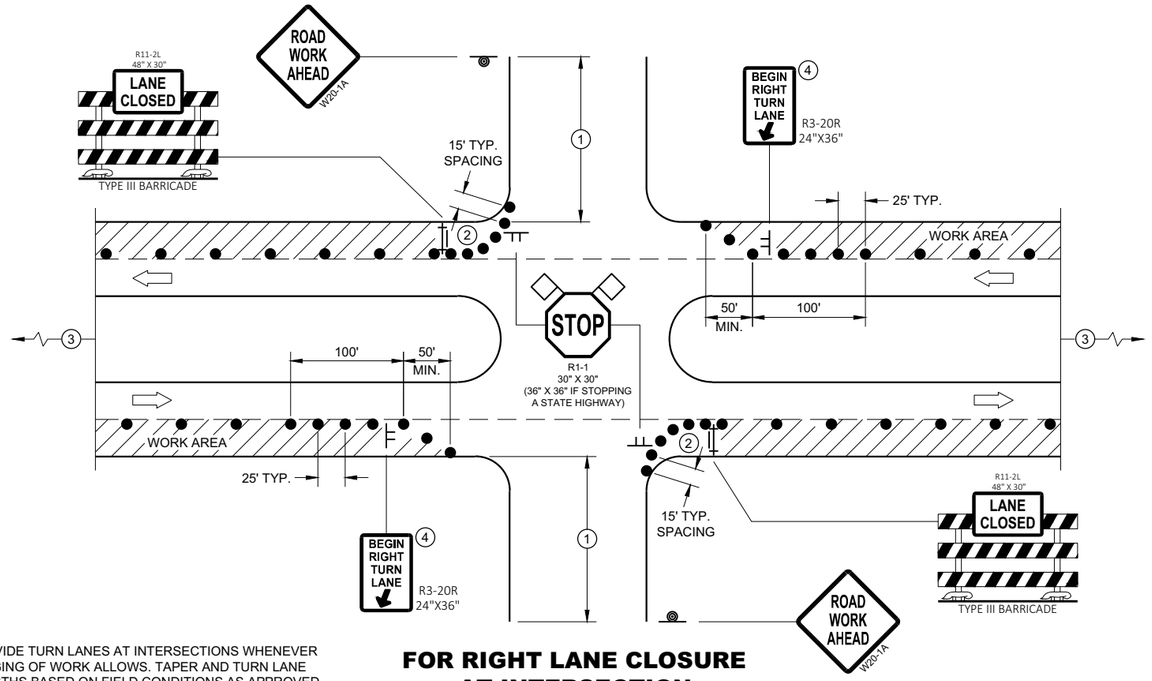
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SDD 15D20-08b

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SDD 15D20-08b



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

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

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

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

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

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

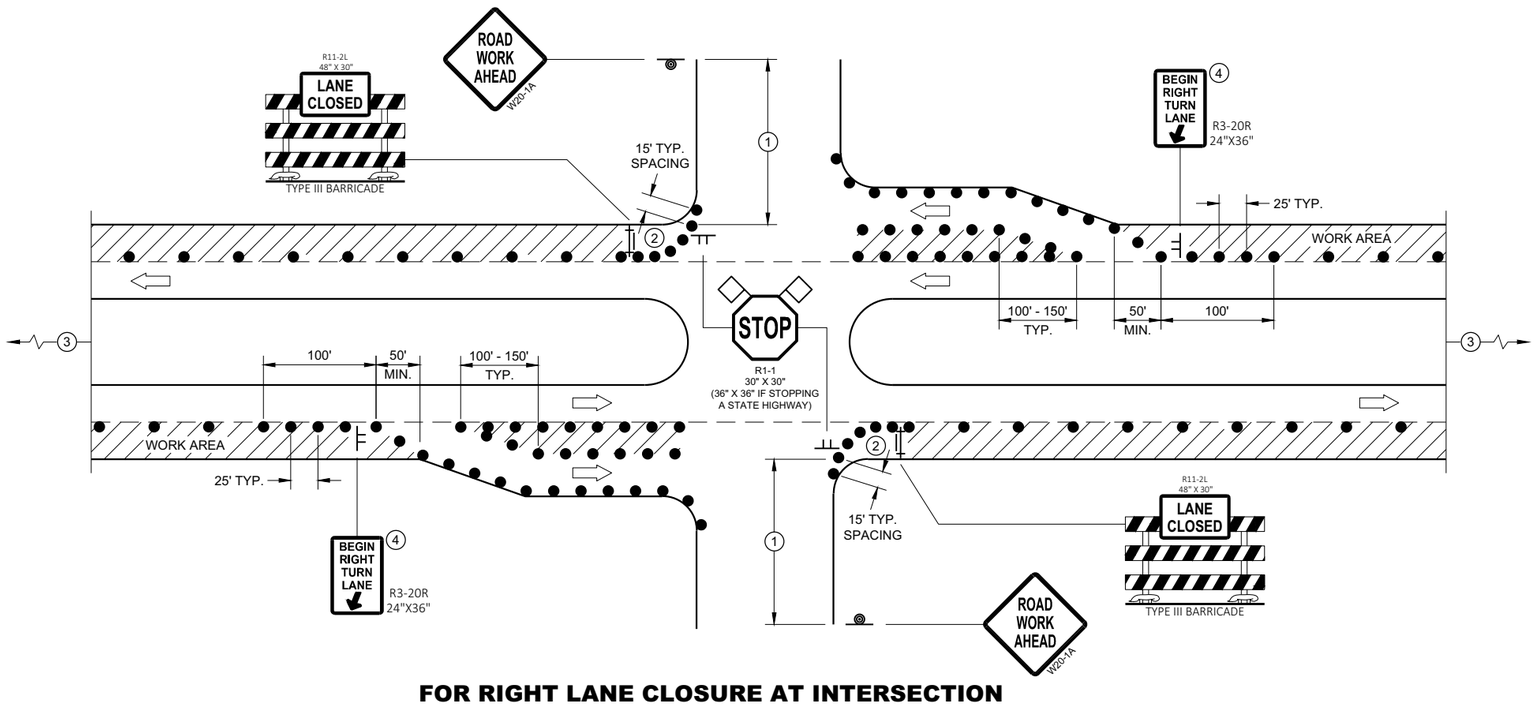
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

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

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

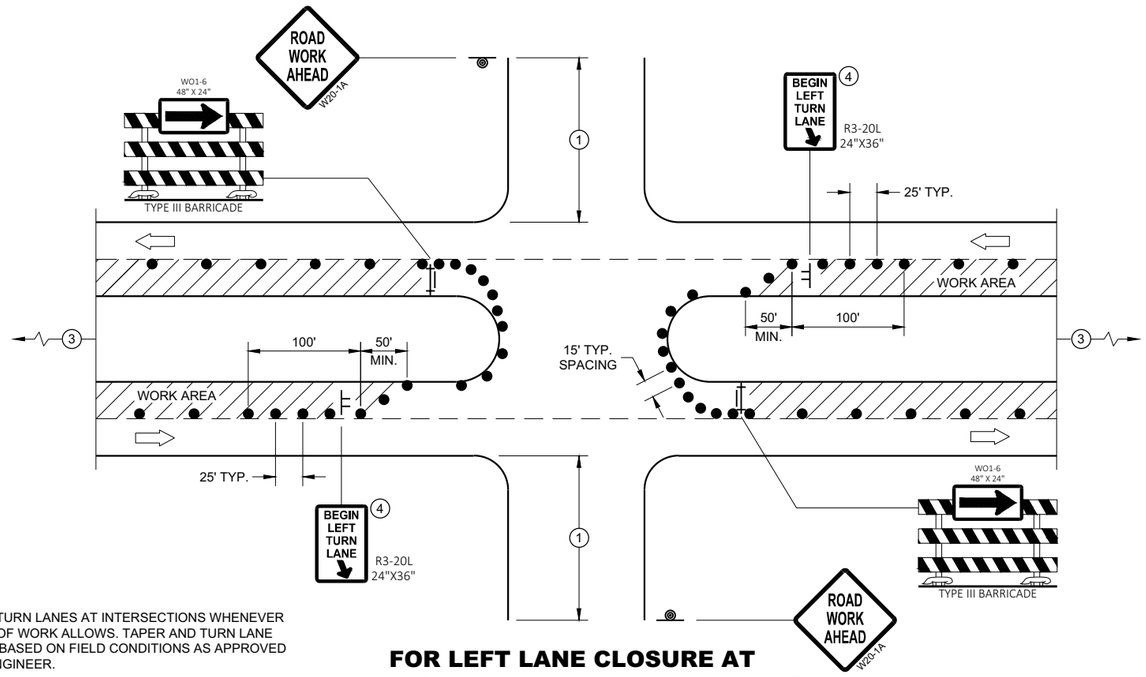
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 15D21 - 07a

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SDD 15D21 - 07a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

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

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

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

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

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

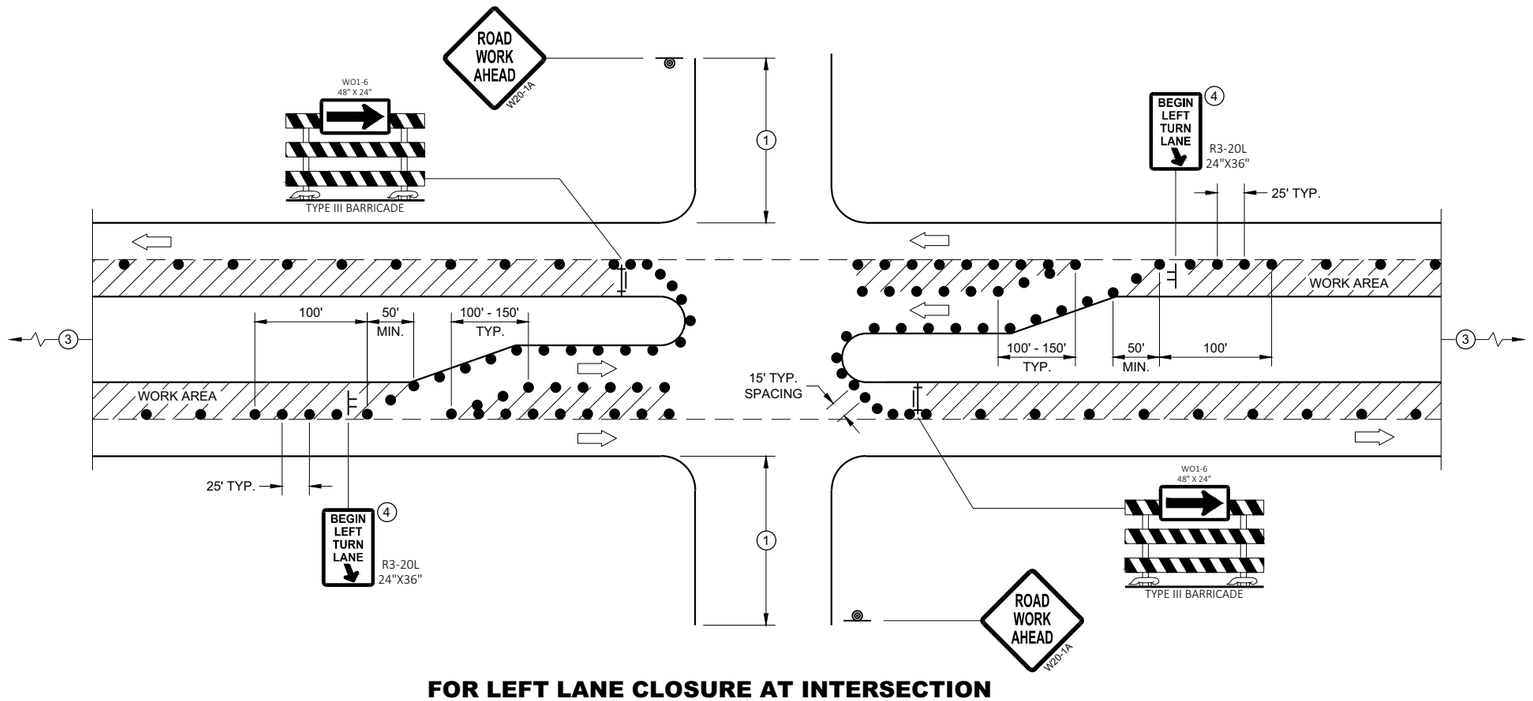
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

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

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

WORK ZONE

GENERAL NOTES

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

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

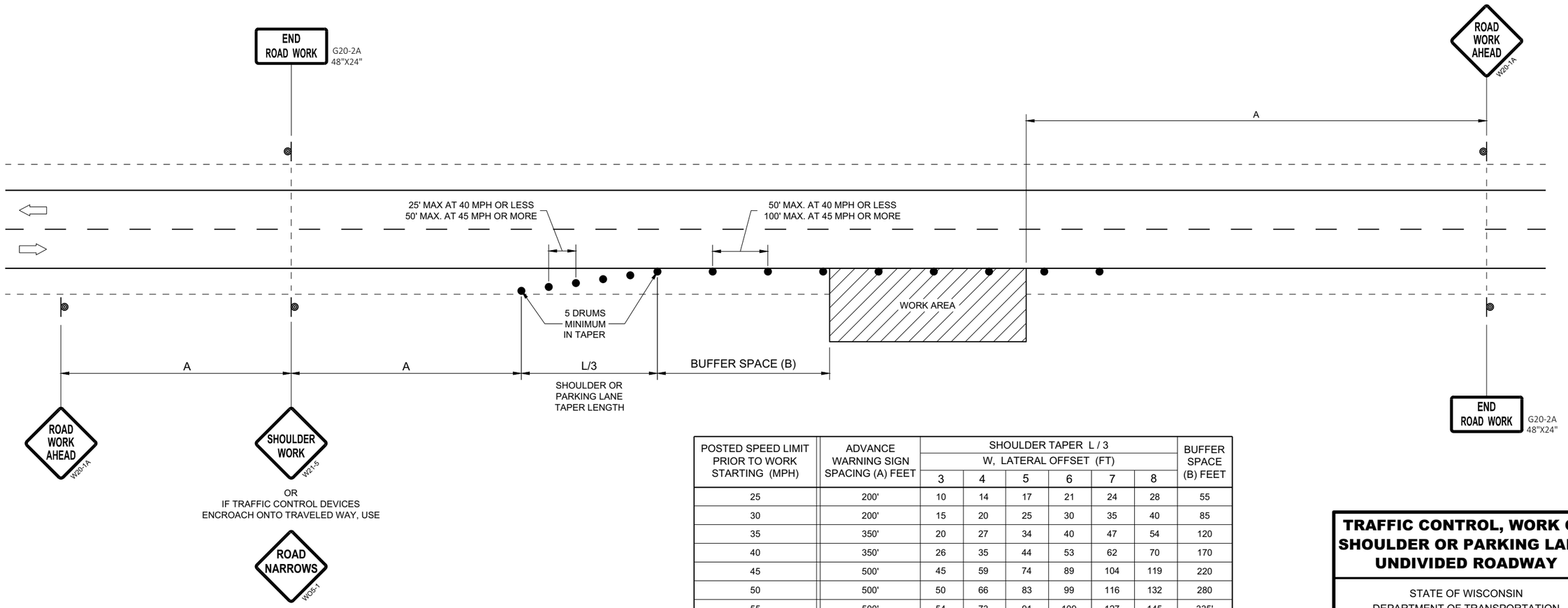
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THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

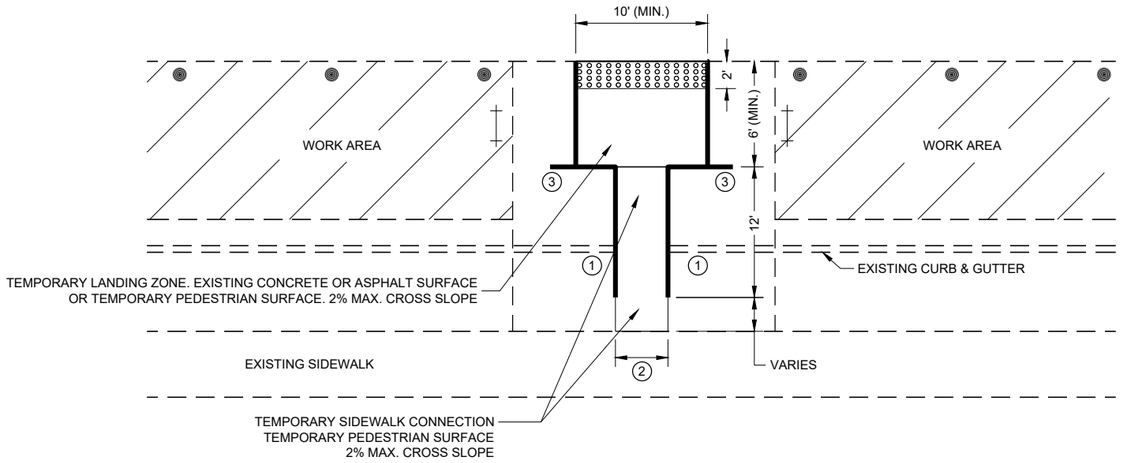
APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

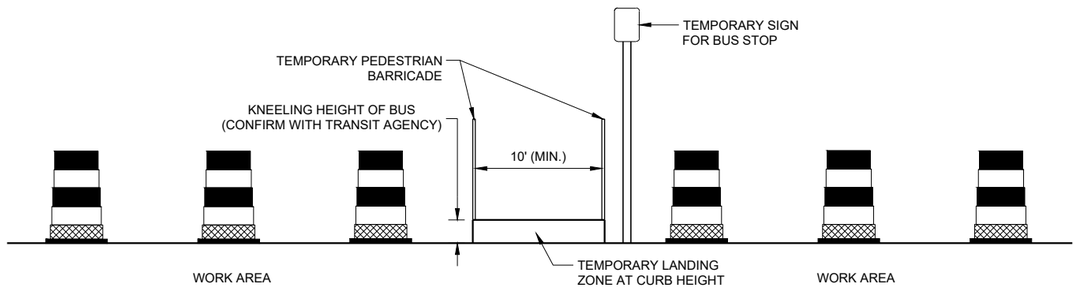
FHWA

SDD 15D28 - 04

SDD 15D28 - 04



PLAN VIEW



PROFILE VIEW

TEMPORARY BUS STOP PAD

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

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.

DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

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".

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

(1) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(2) 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.

(3) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.

LEGEND

- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY DETECTABLE WARNING FIELD
- WORK AREA

6

SDD 15D30 - 09e

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

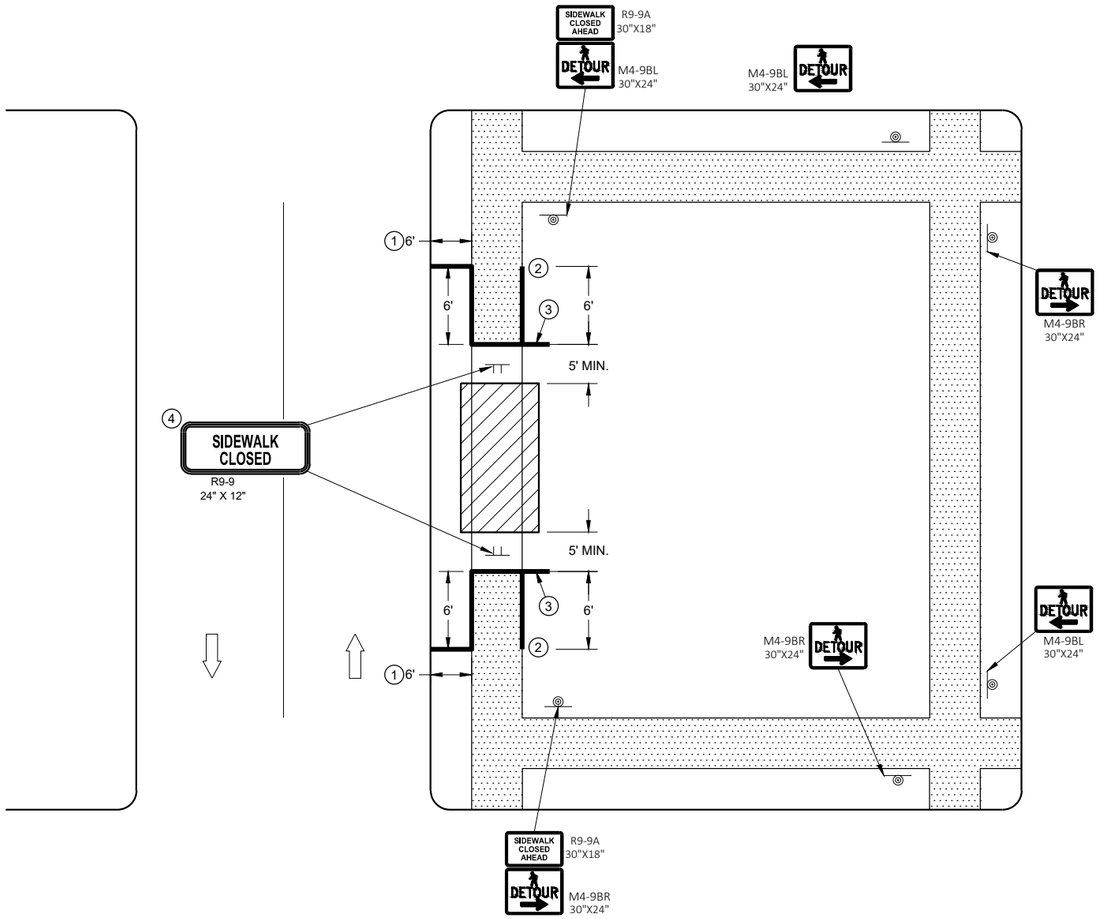
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30 - 09e

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC



GENERAL NOTES

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

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 CONFLICTS 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.

SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6

SDD 15D30 - 09f

LEGEND

SIGN ON PERMANENT SUPPORT

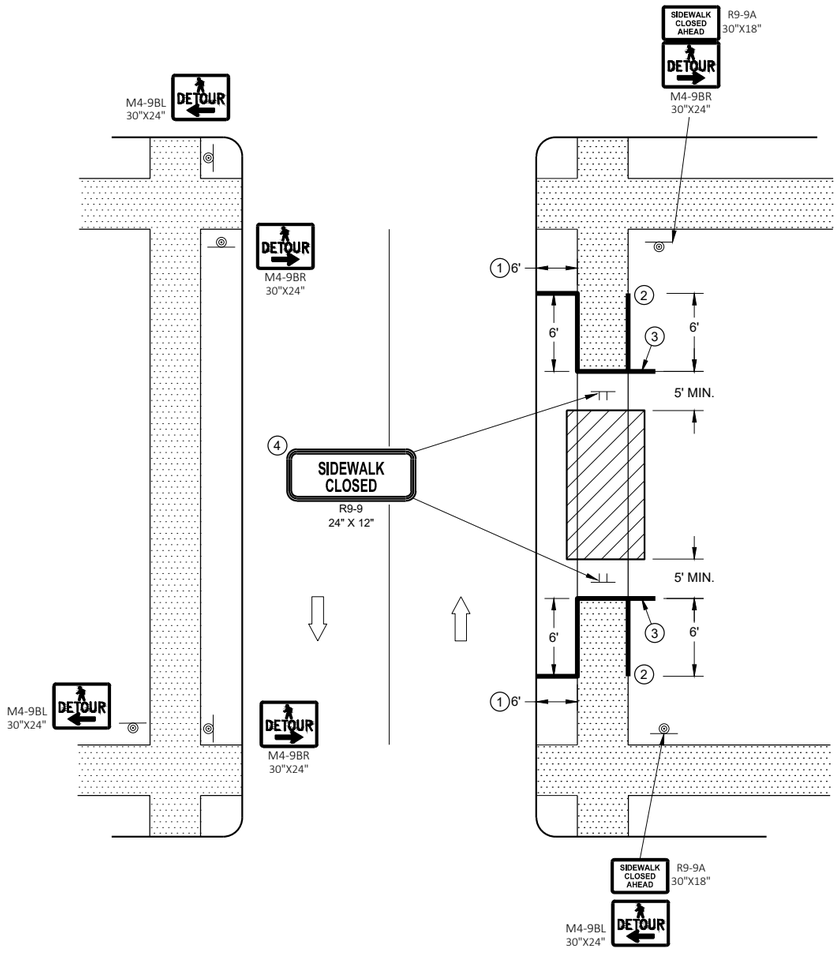
SIGN ON TEMPORARY SUPPORT

UNDER PEDESTRIAN TRAFFIC

WORK AREA

TEMPORARY PEDESTRIAN BARRICADE

DIRECTION OF TRAFFIC



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

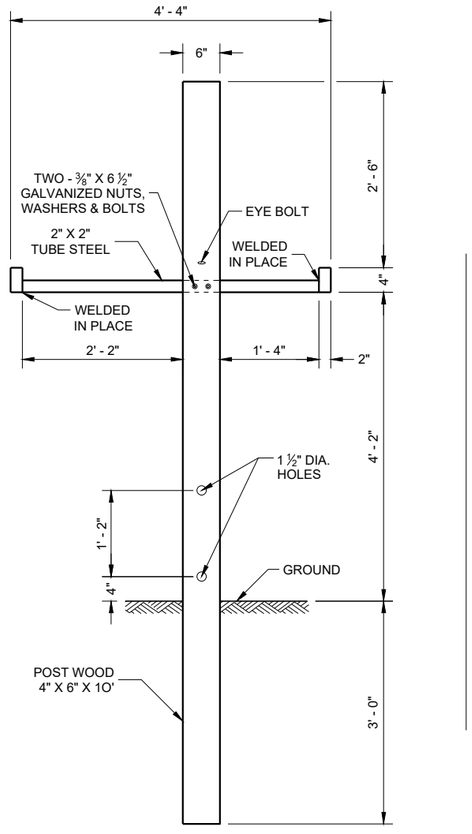
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

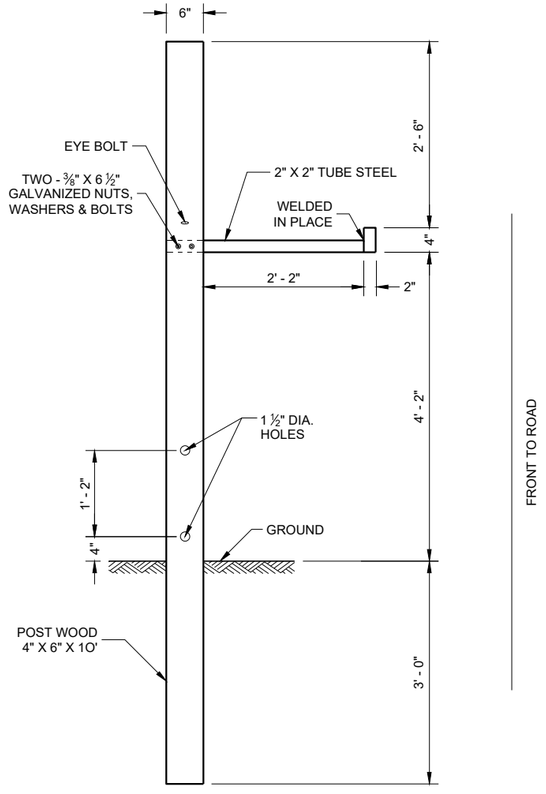
SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

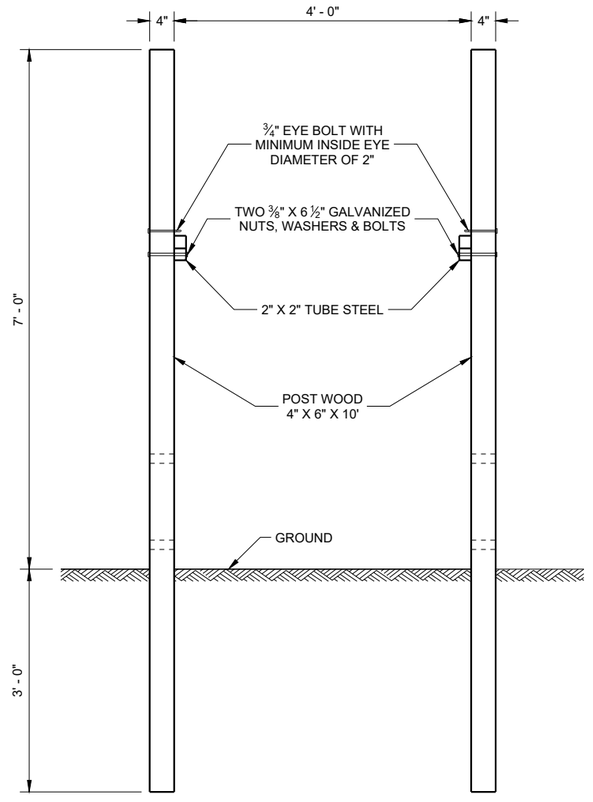
1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN 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.



SIDE VIEW
(3 BARRICADE SYSTEM)



SIDE VIEW
(2 BARRICADE SYSTEM)



FRONT VIEW

BARRICADE RACK

LOCATE OUTSIDE CLEAR ZONE AS DIRECTED BY ENGINEER

BARRICADE RACK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013
DATE
/S/ Bill Wondrachek
STATE TRAFFIC INCIDE MANAGEMENT ENGINE

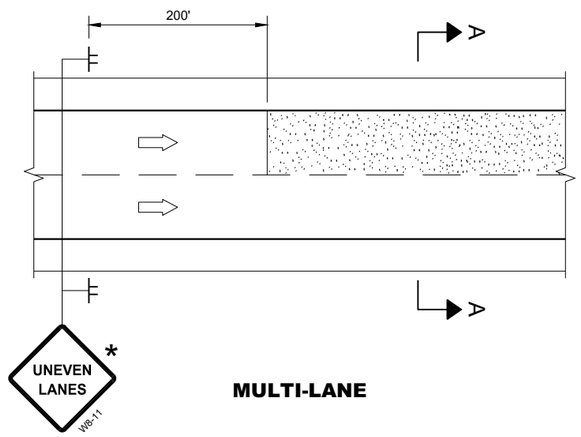
FHWA

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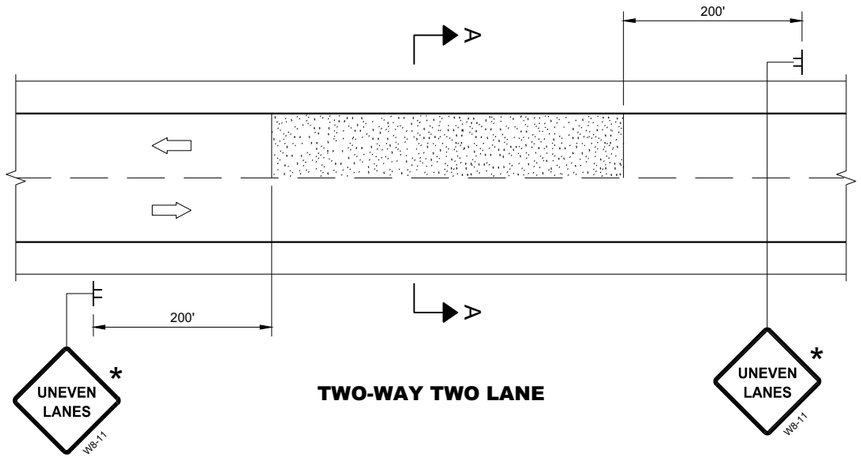
SDD 15D36 - 01

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SDD 15D36 - 01



MULTI-LANE



TWO-WAY TWO LANE

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

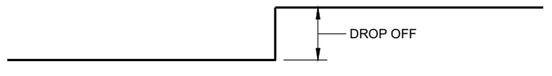
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

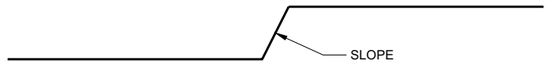
LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

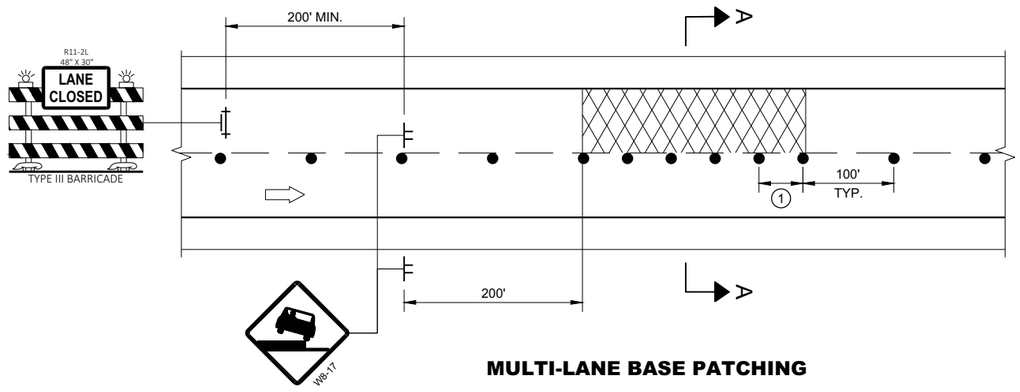


SECTION A - A

OR

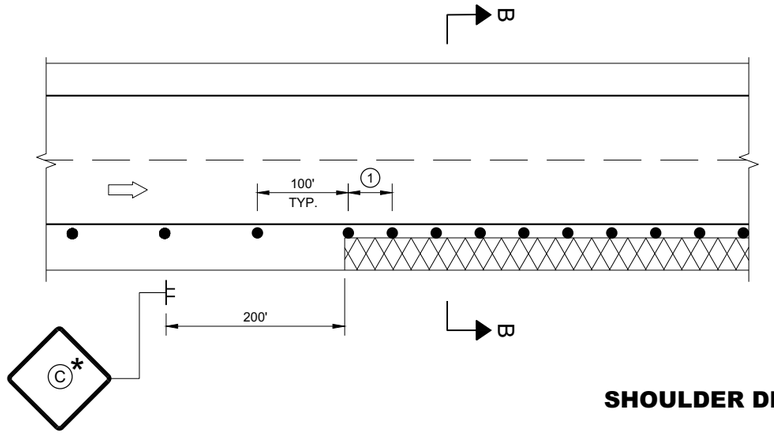


SECTION A - A

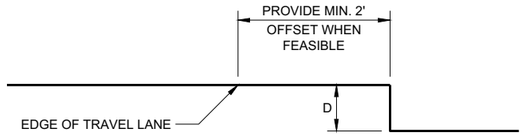


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

6

SDD 15D39 - 02

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.

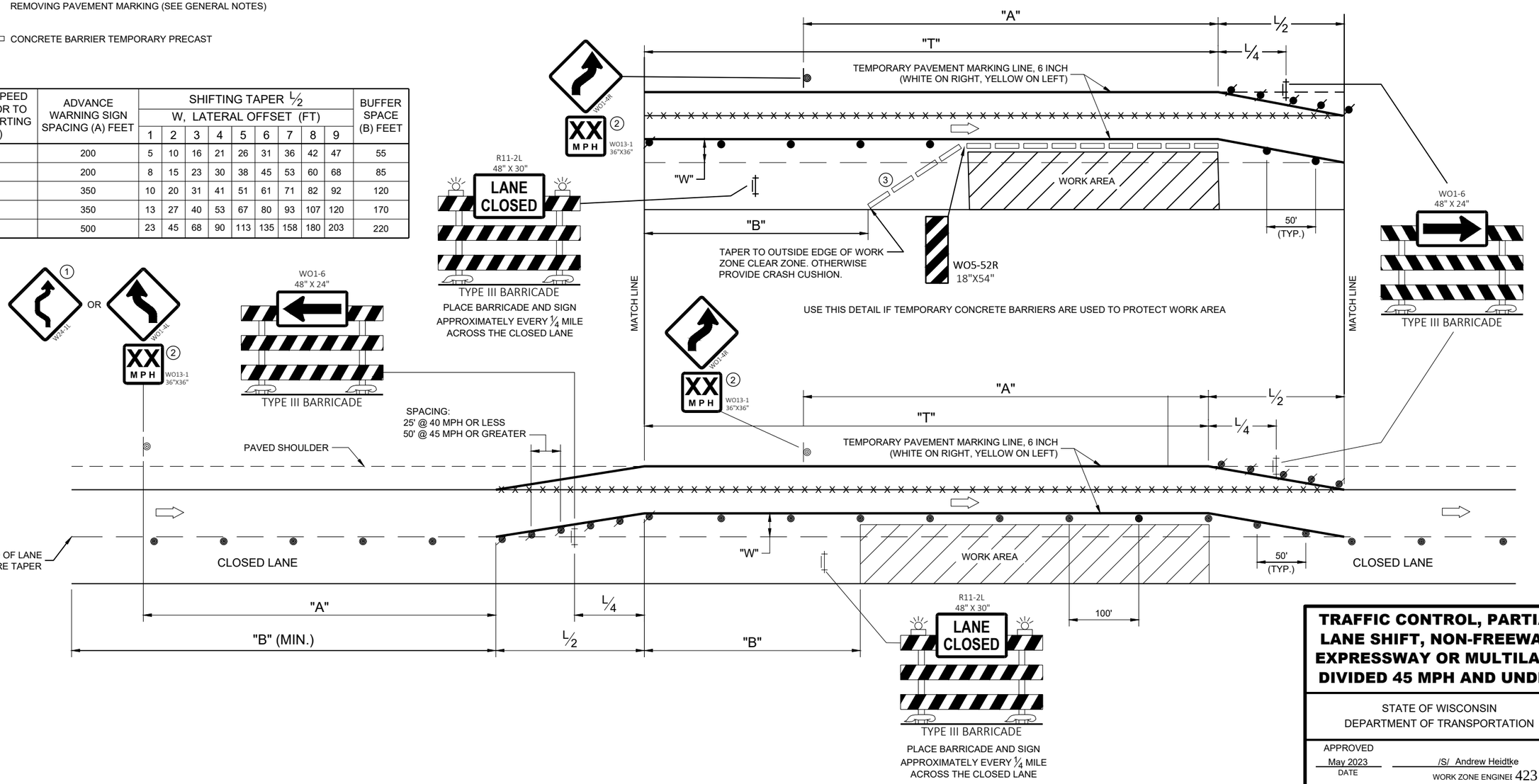
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP 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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER L/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	55
30	200	8	15	23	30	38	45	53	60	68	85
35	350	10	20	31	41	51	61	71	82	92	120
40	350	13	27	40	53	67	80	93	107	120	170
45	500	23	45	68	90	113	135	158	180	203	220



TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

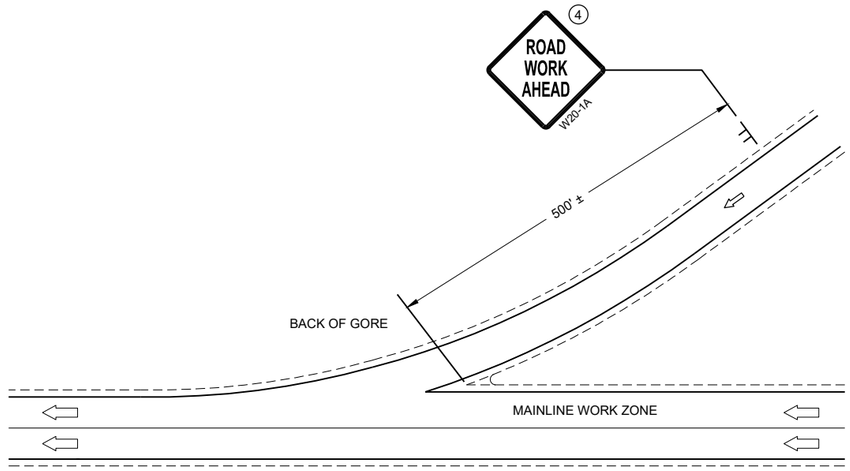
SDD 15D40-05c

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SDD 15D40-05c

LEGEND

- V1 SHADOW VEHICLE 1
- V2 SHADOW VEHICLE 2
- V3 ADVANCE WARNING TRUCK
- ● TRAFFIC CONTROL DRUM
- TRUCK MOUNTED ATTENUATOR (TMA)
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW PANEL (MERGE)
- FLASHING ARROW PANEL (CAUTION)
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- WORK AREA



GENERAL NOTES

SHORT DURATION IS WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR.

MOBILE IS WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY.

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

WHEN WORK ACTIVITY BLOCKS THE RIGHT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

(1) DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

(2) DRUMS ARE TO BE USED FOR BRIDGE DECK SEALING AND OTHER PROJECTS THAT REQUIRE DELINEATION.

(3) WITHIN 5 MILES, RELOCATE SIGNS AS WORK PROGRESSES AND NECESSARY OR AS DIRECTED BY THE ENGINEER.

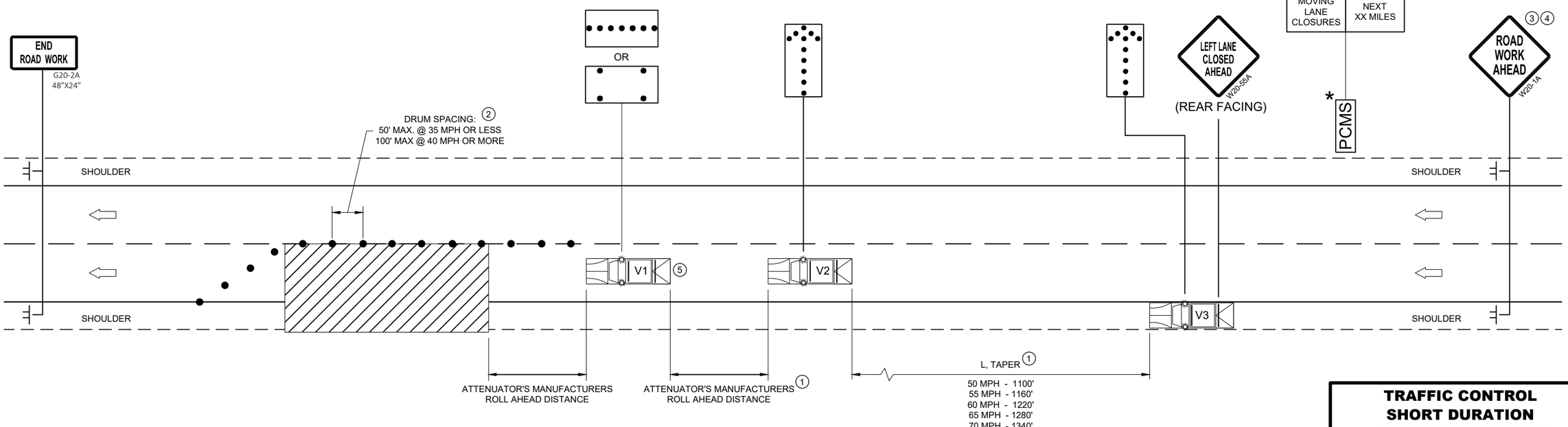
(4) SIGN NOT REQUIRED IF MOVING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

(5) SHADOW VEHICLE 1 (V1) IS OPTIONAL

* PCMS OPTIONAL

PCMS MESSAGING

FRAME 1	FRAME 2
MOVING LANE CLOSURES	NEXT XX MILES



TRAFFIC CONTROL SHORT DURATION MOBILE OPERATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE 424

FHWA

6

SDD 15D43 - 02

6

SDD 15D43 - 02

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

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.

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

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

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 INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

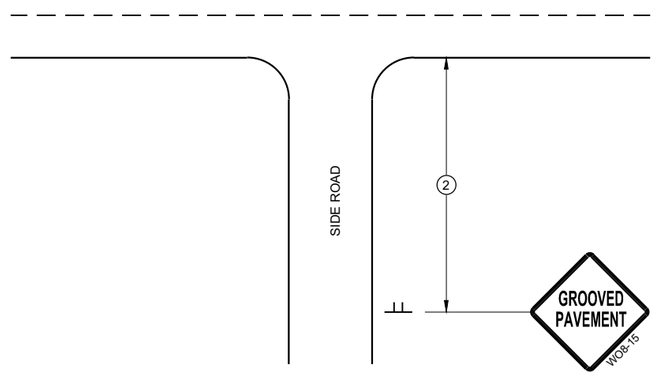
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

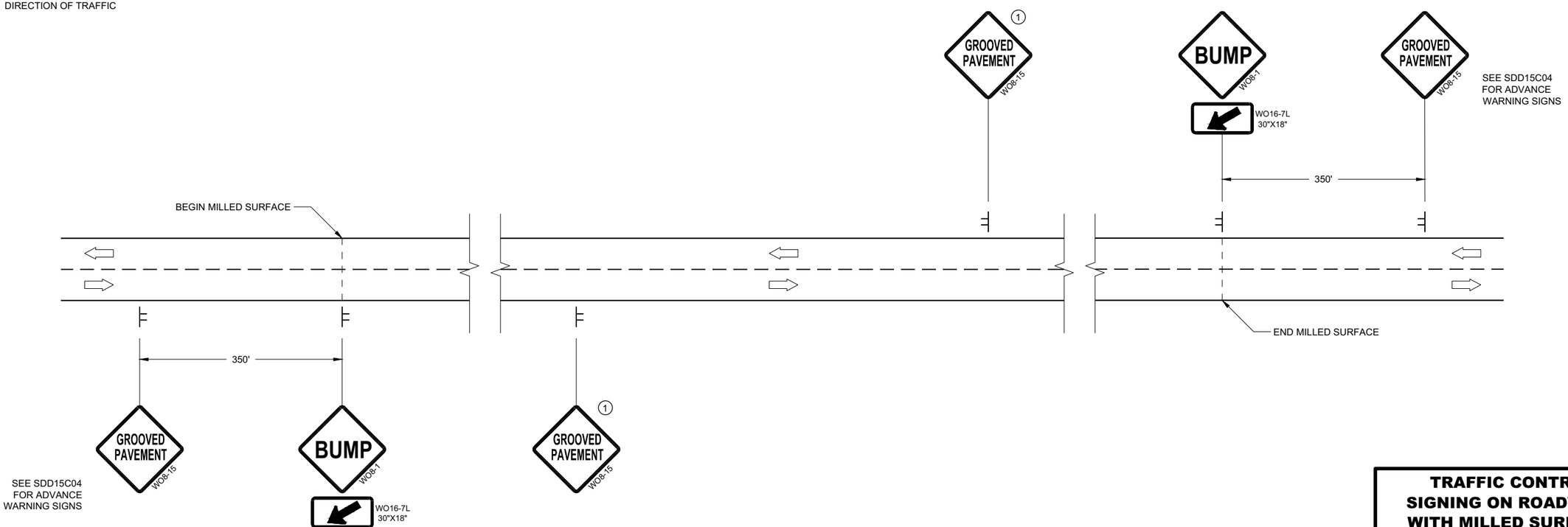
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15D44 - 02

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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)					
		3	4	5	6	7	8
25	200	10	14	17	21	24	28
30	200	15	20	25	30	35	40
35	350	20	27	34	40	47	54
40	350	26	35	44	53	62	70
45	500	45	59	74	89	104	119
50	500	50	66	83	99	116	132
55	500	54	73	91	109	127	145

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.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"x36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

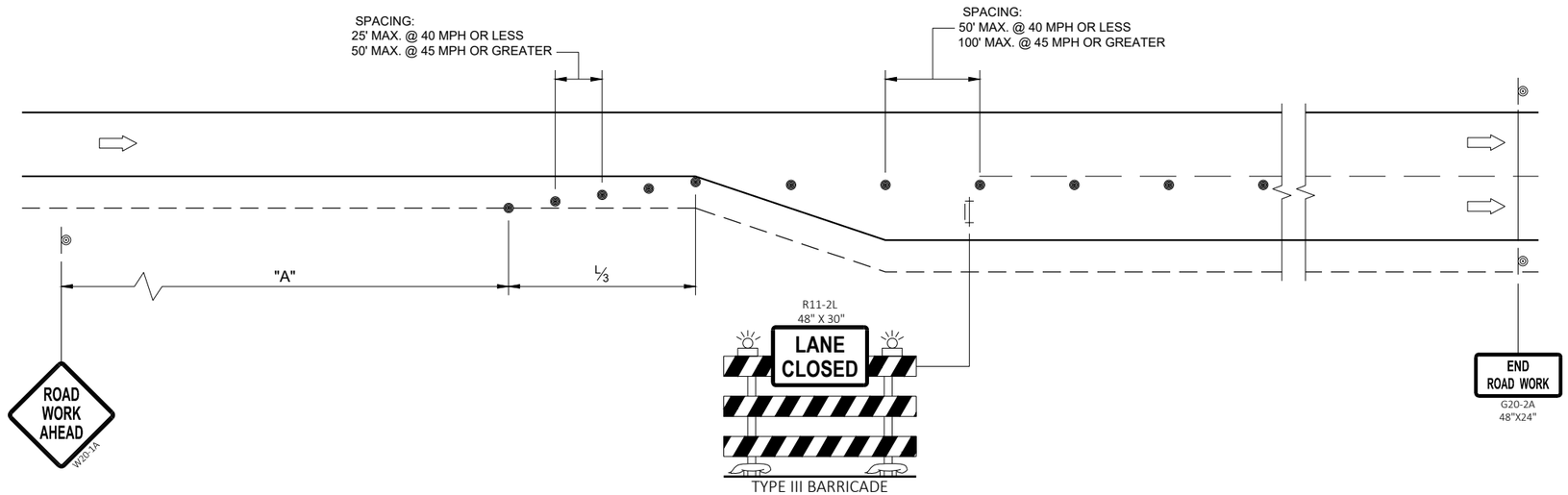
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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.

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

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

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION WORK IS LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS.



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

TRAFFIC CONTROL
ADDED LANE CLOSURE
WITHOUT LANE SHIFT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15D50-03a

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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER (L/2) FEET
25	200	60
30	200	90
35	350	120
40	350	160
45	500	270
50	500	300
55	500	330

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.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"x36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

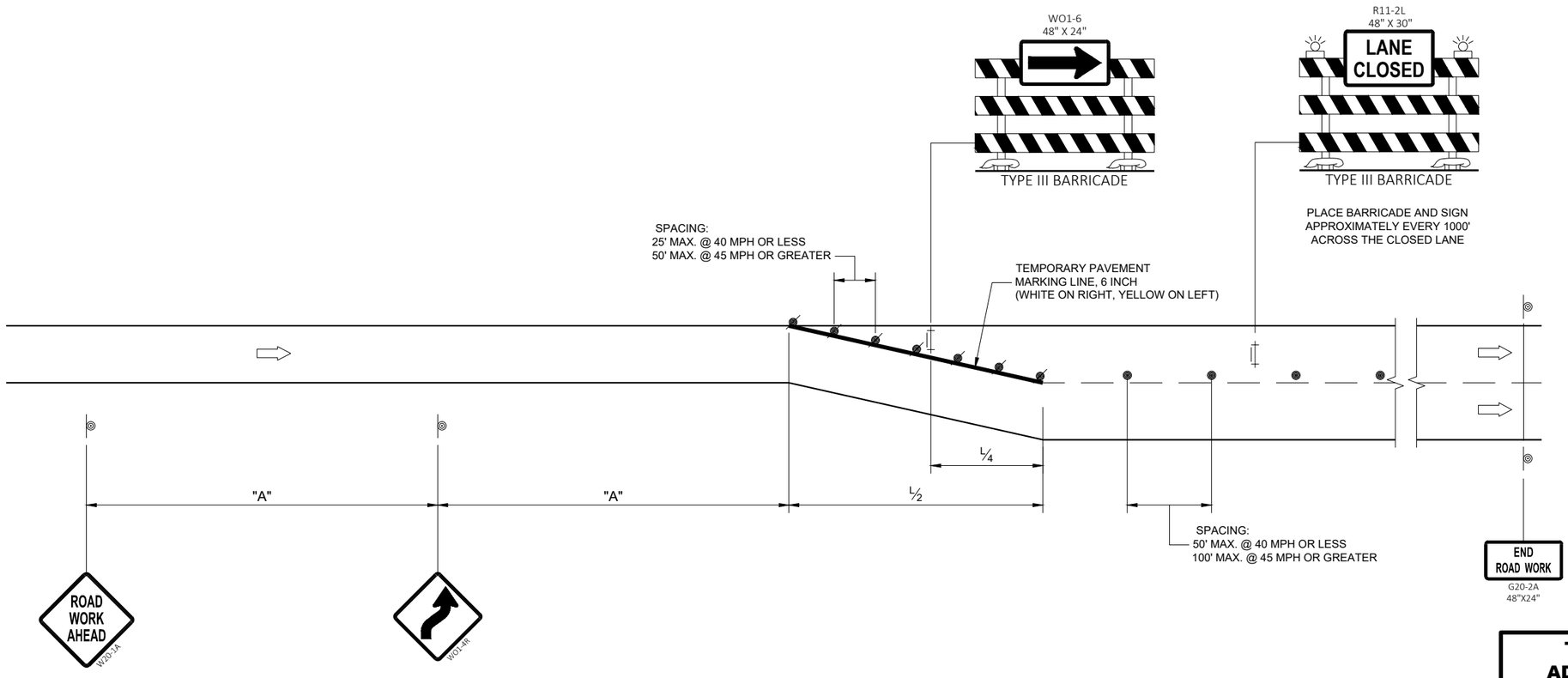
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION WORK IS LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS.

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



TRAFFIC CONTROL, ADDED LANE CLOSURE WITH LANE SHIFT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

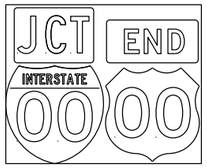
APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE
427
FHWA

6
SDD 15D50-03b

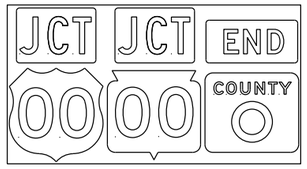
TYPICAL ASSEMBLIES



J1-1



J1-2



J1-3



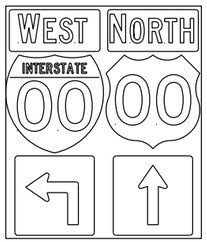
JR1-1



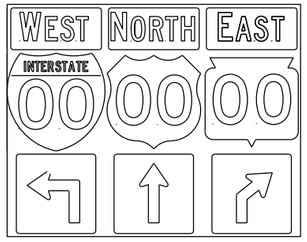
JV
(Typical Vertical J-Assembly
See Note 10 and 11)



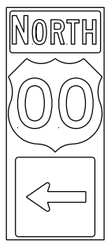
J2-1



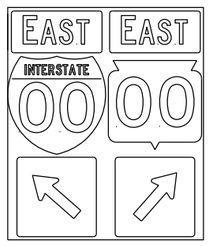
J2-2



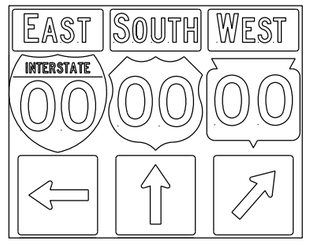
J2-3



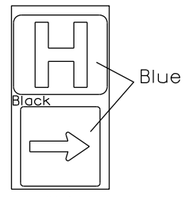
J3-1



J3-2



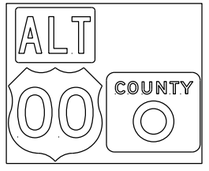
J3-3



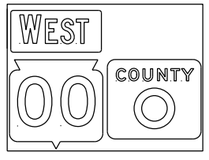
JH-1



J4-1



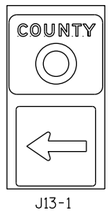
J4-2



J4-2



J12-1



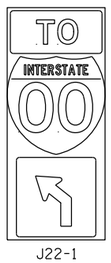
J13-1



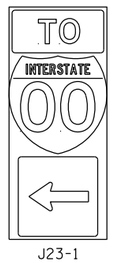
J32-1



J33-1



J22-1



J23-1



JR13-1



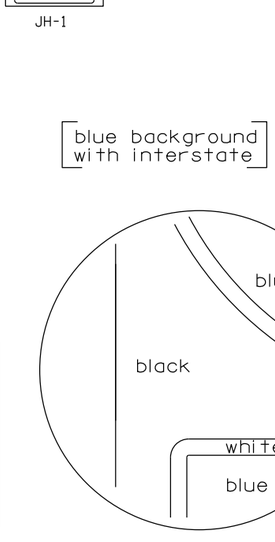
JR23-1

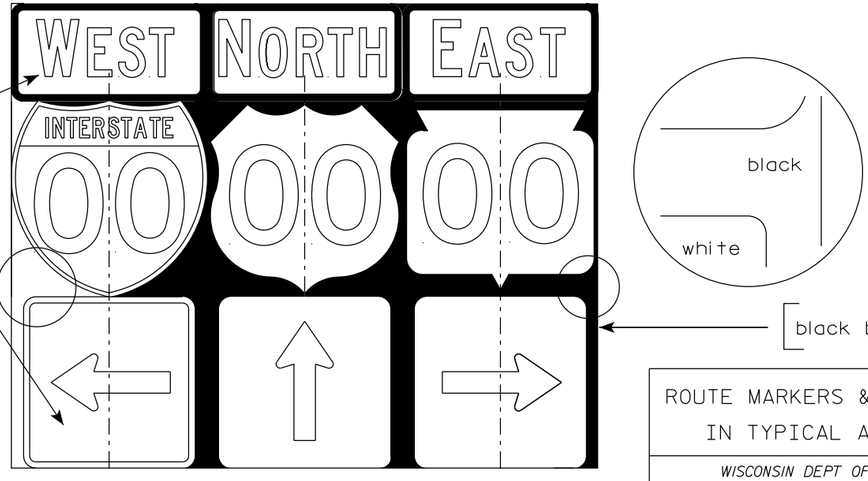


JR99-1

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

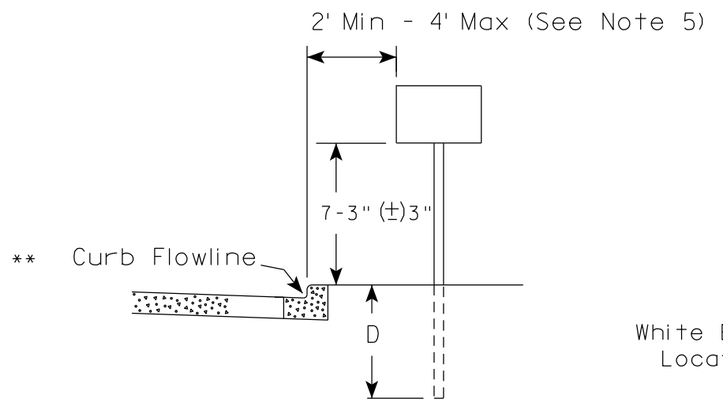
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/23 PLATE NO. A2-1S.10

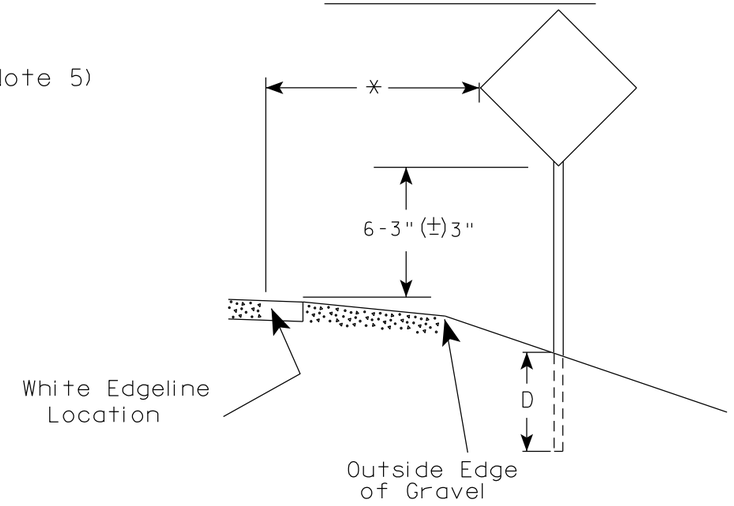
PROJECT NO:

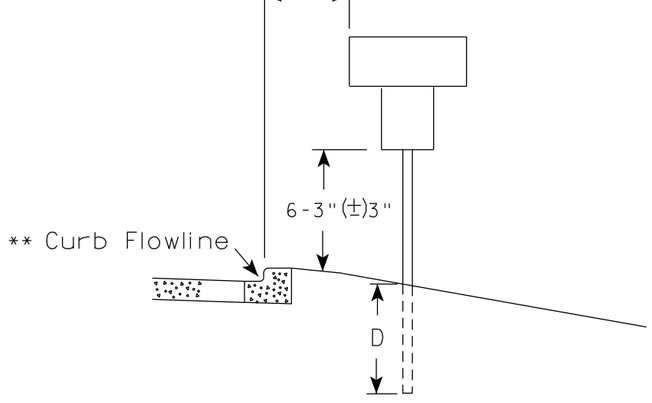
SHEET NO: 428 E

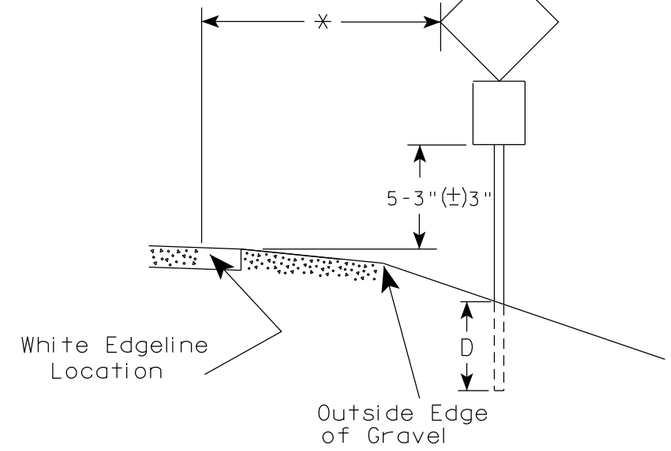
URBAN AREA



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.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on 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.

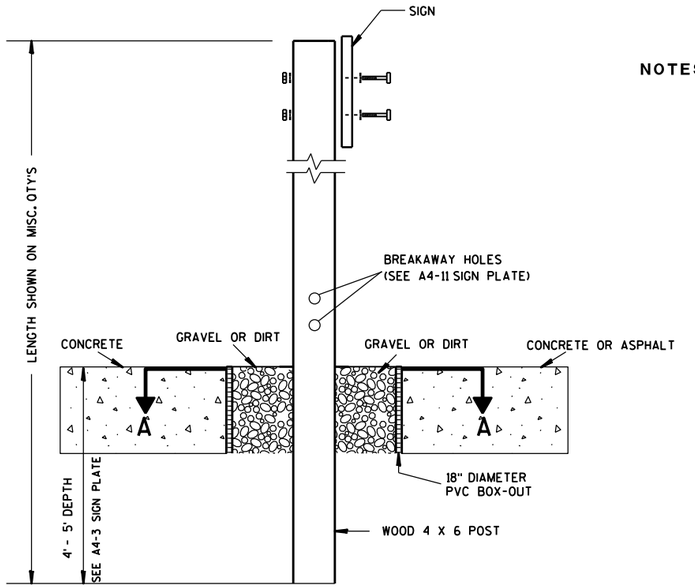
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

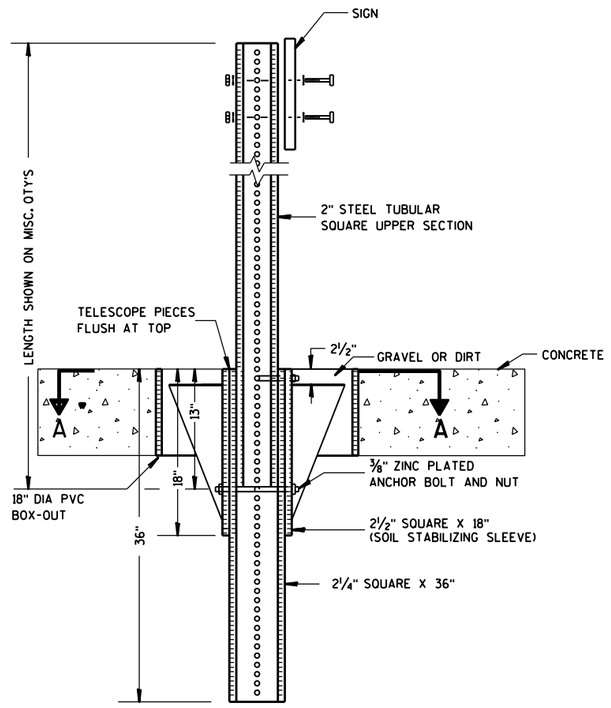
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 429	E



ELEVATION VIEW

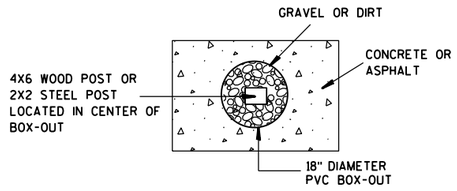
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

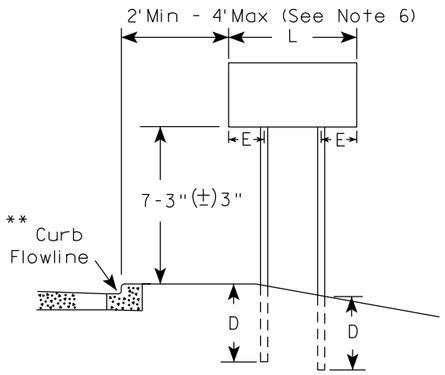
APPROVED Matthew R Rauch
for State Traffic Engineer

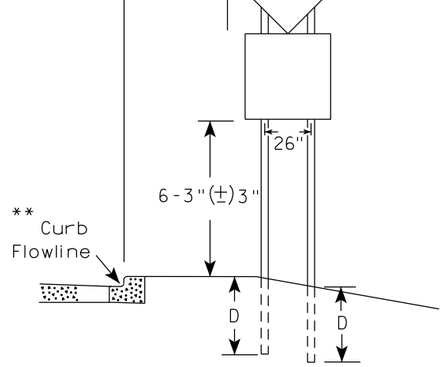
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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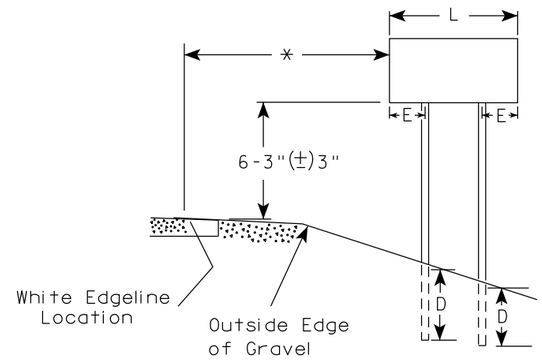
URBAN AREA

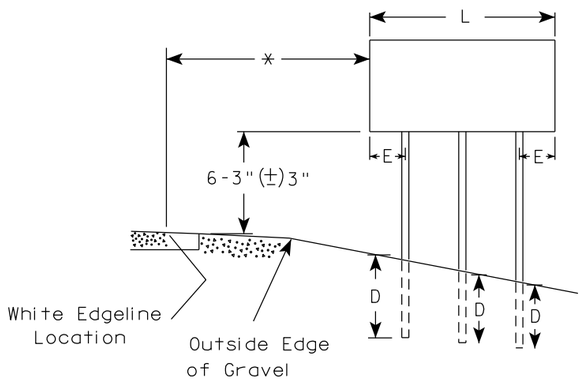


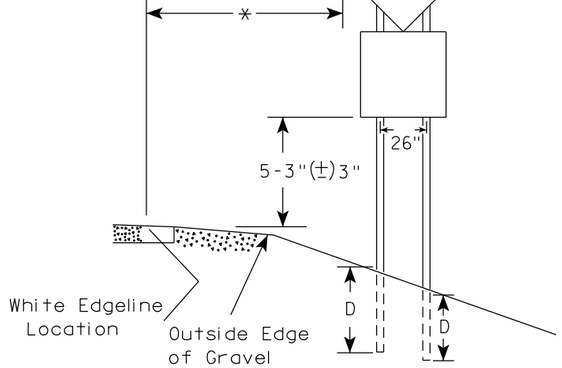


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







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'

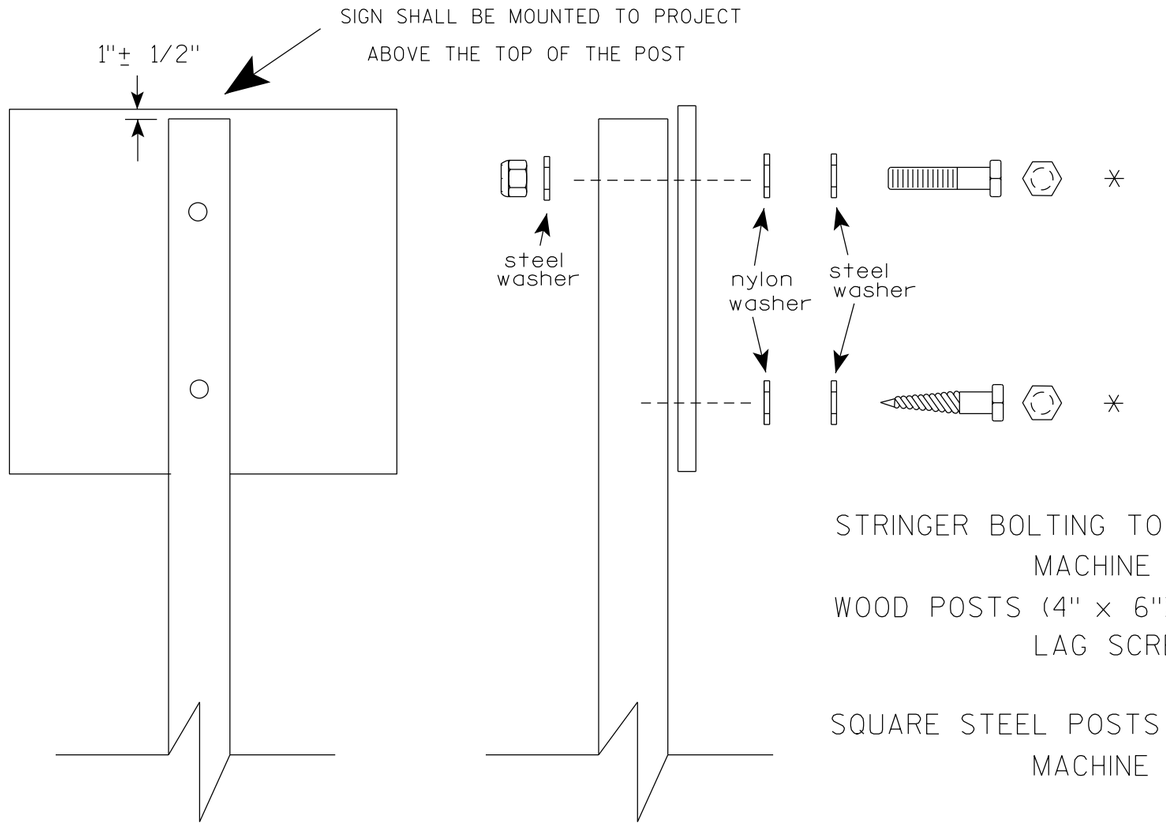
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 431	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

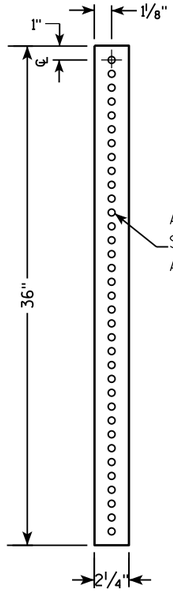
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

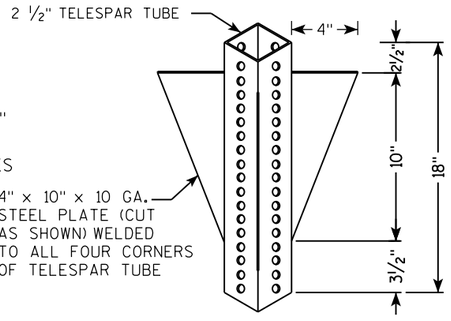
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

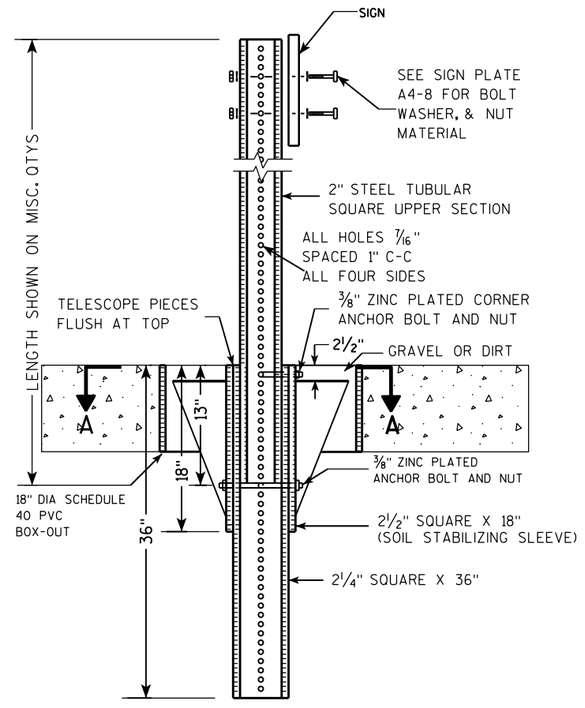
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



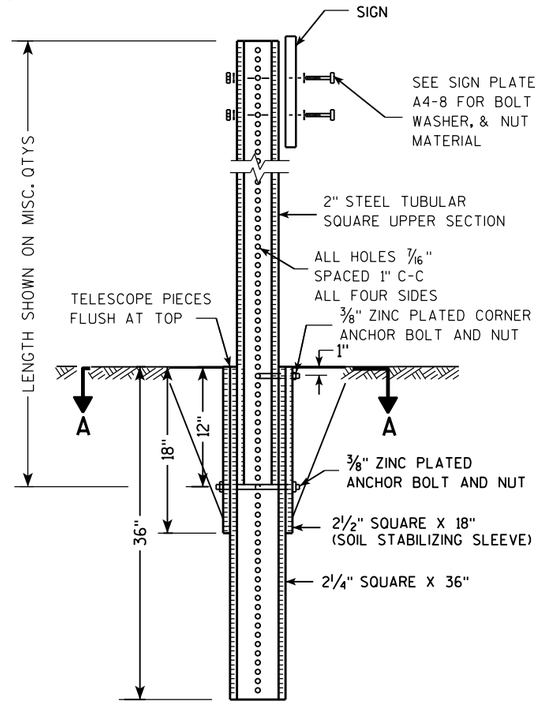
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

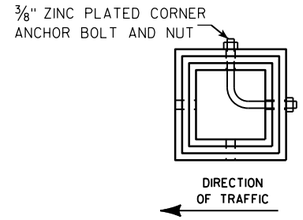


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

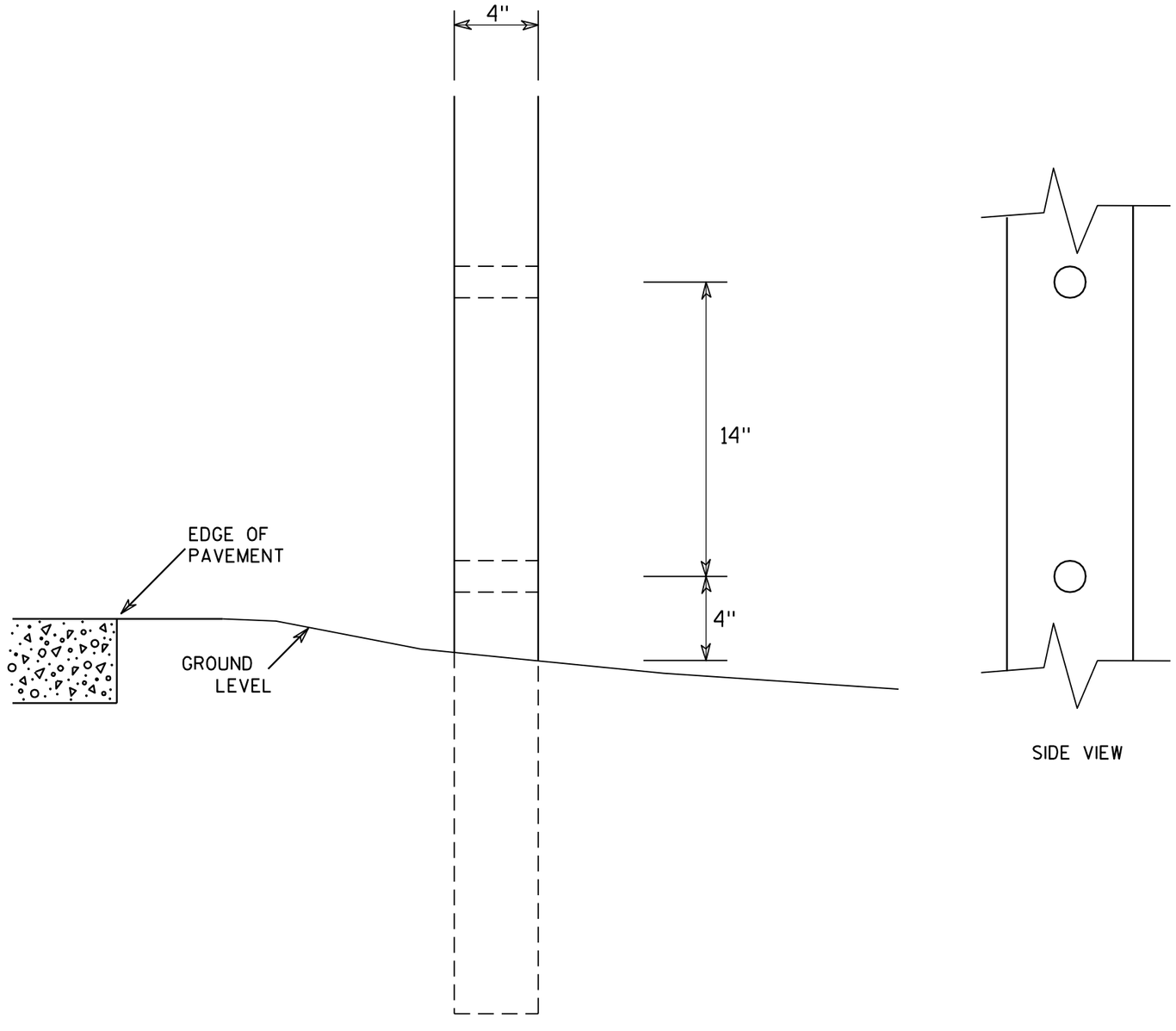
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 433 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

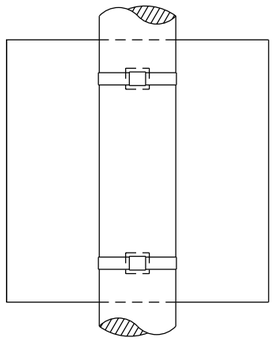
APPROVED Chester J Spang for State Traffic Engineer

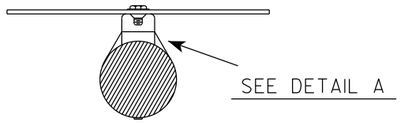
DATE 3/27/97 PLATE NO. A4-11.2

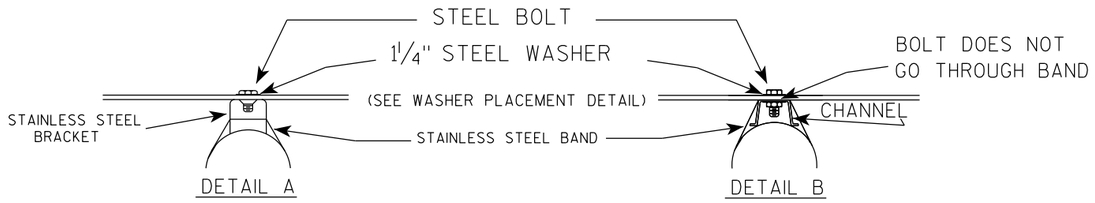
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 434	E

BANDING

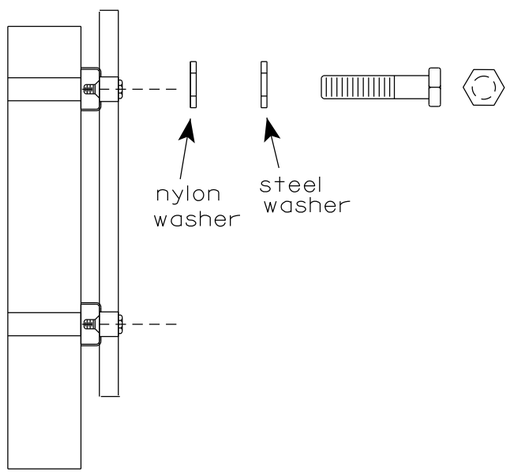
SINGLE SIGN







WASHER PLACEMENT

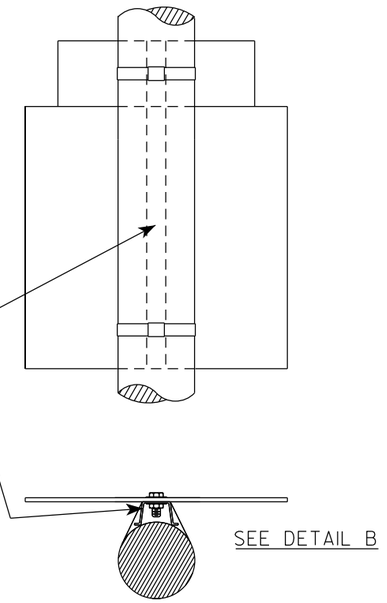


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

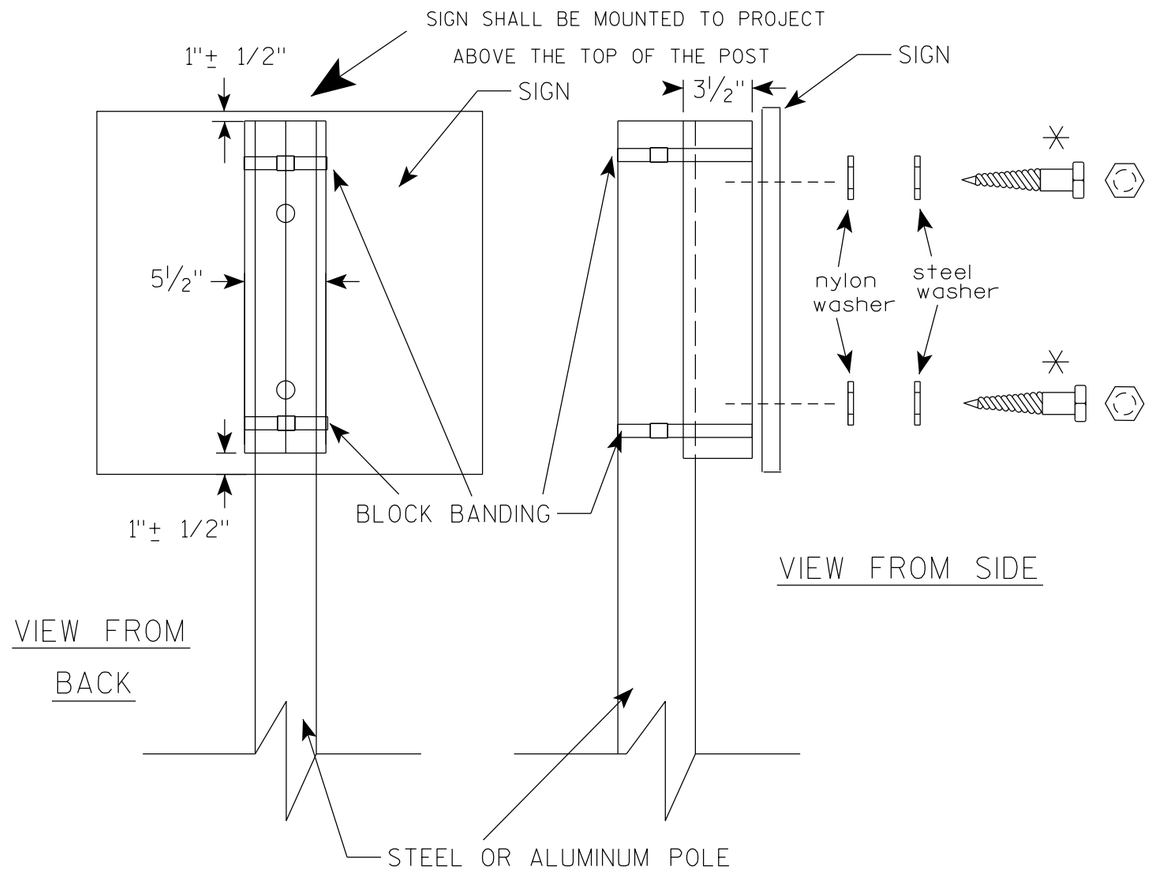
DATE 6/10/19 PLATE NO. A5-9.4

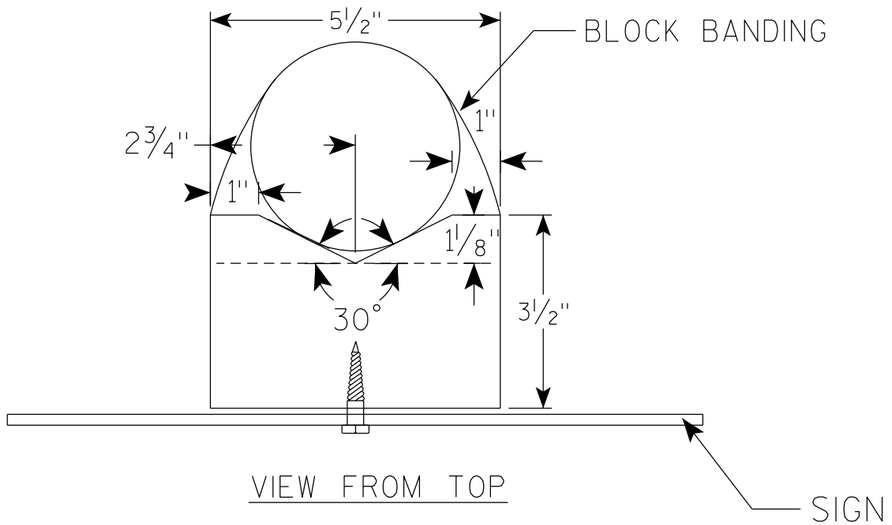
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 435	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

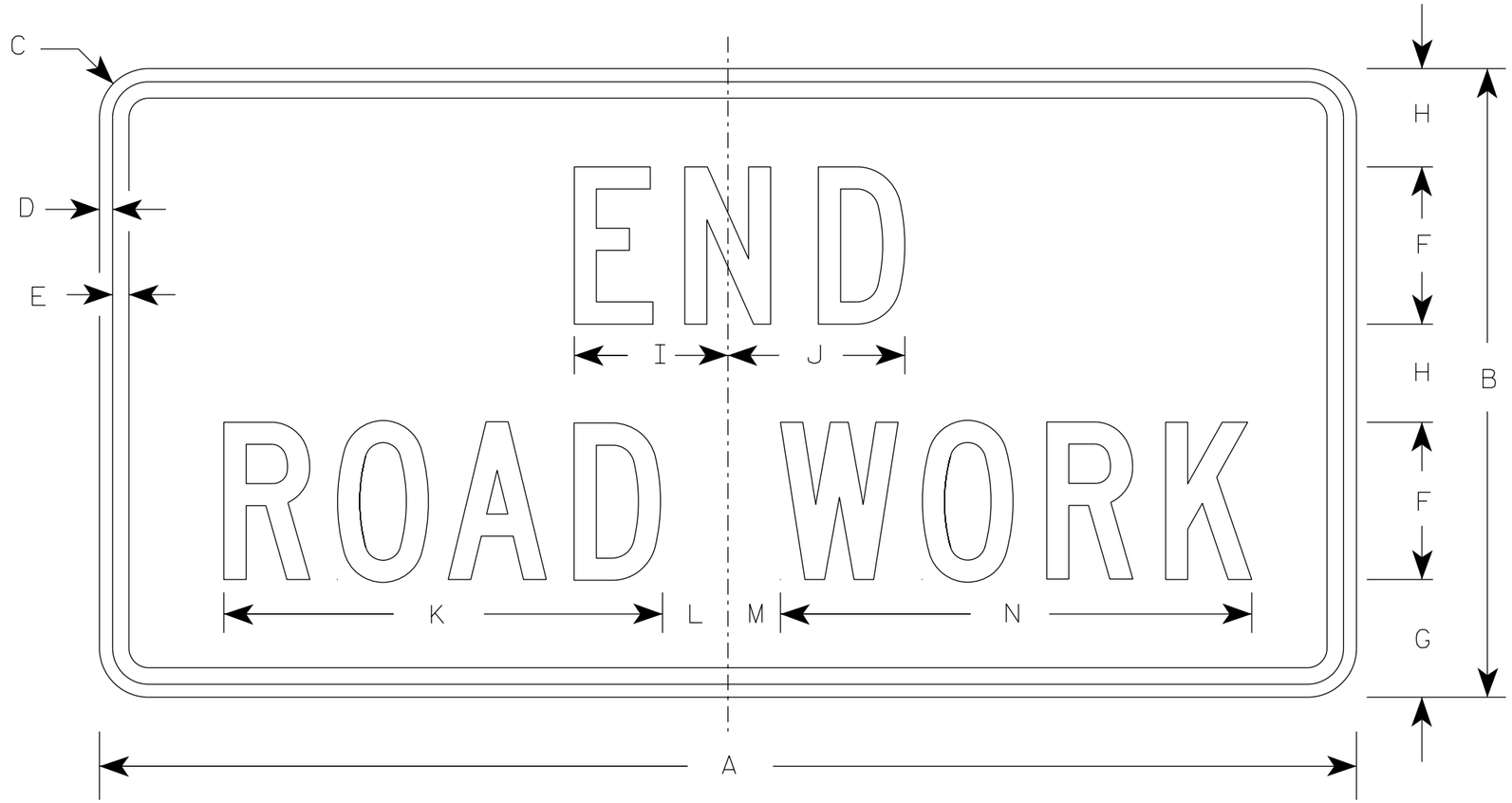
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 436 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

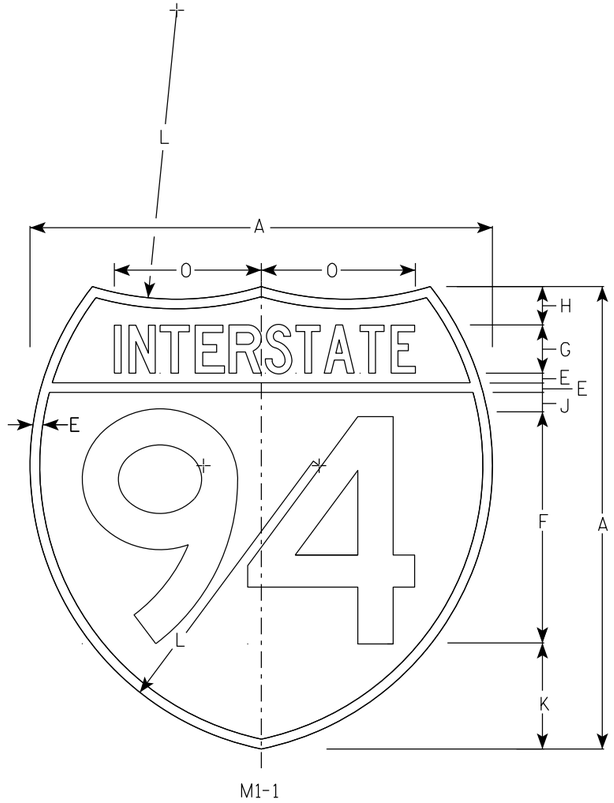
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

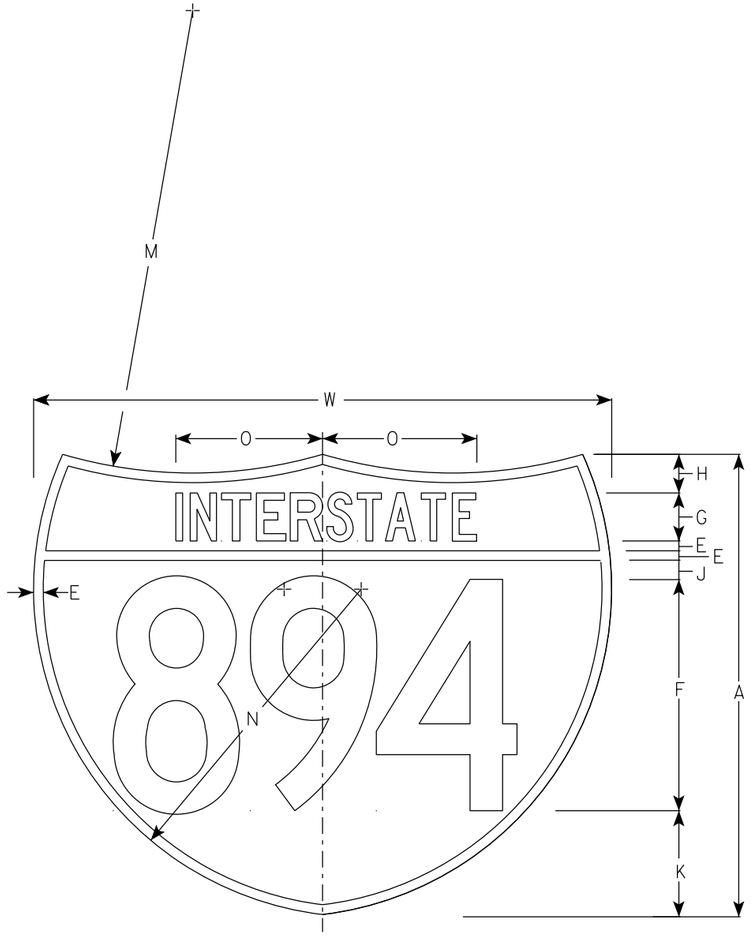
DATE 1/26/2023 PLATE NO. G20-2A.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 437 E

7



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

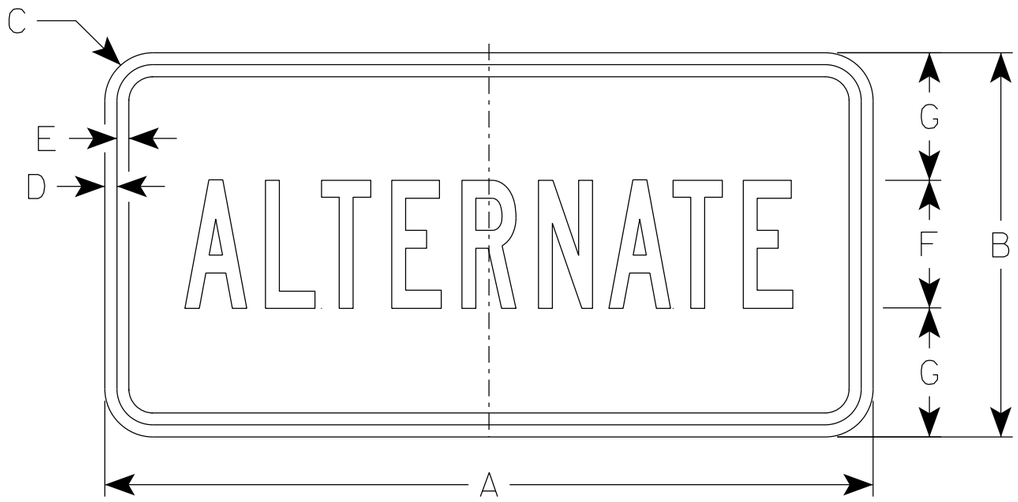
INTERSTATE ROUTE MARKER M1-1 FOR ASSEMBLIES

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: 438 E



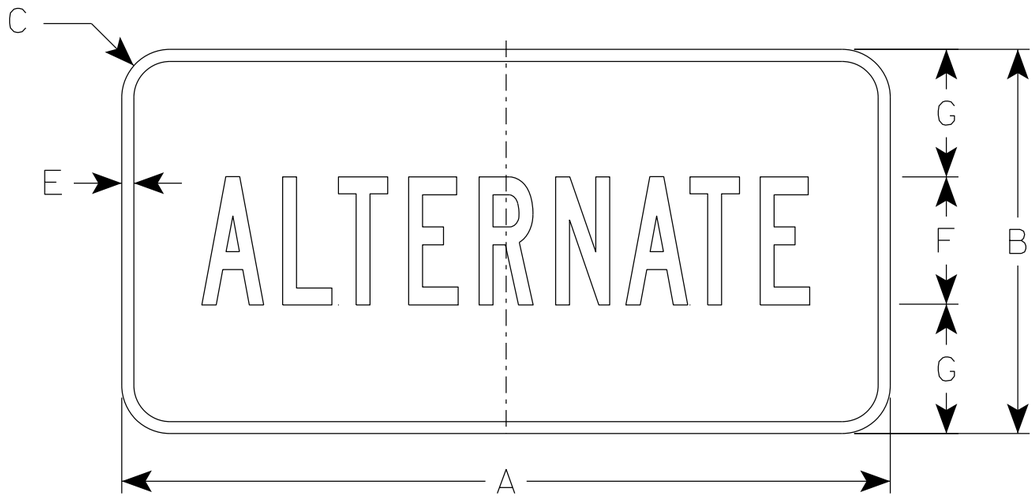
M4-1
MO4-1

NOTES

1. Sign is Type II - Type H Reflective except as Shown
2. Color:
   Background - See Note 5
   Message - See note 5
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.
5. M4-1 Background - White
   Message - Black

   MB4-1 Background - Blue
   Message - White

   MO4-1 Background - Orange - Type F Reflective
   Message - Black



MB4-1

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																											
2S	24	12	1 1/2	3/8	3/8	4	4	9 3/4	9 1/2																		2.00
2M	24	12	1 1/2	3/8	3/8	4	4	9 3/4	9 1/2																		2.00
3	36	18	1 1/2	3/8	1/2	7	5 1/2	16 3/8	16 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	7	5 1/2	16 3/8	16 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	7	5 1/2	16 3/8	16 1/2																		4.5

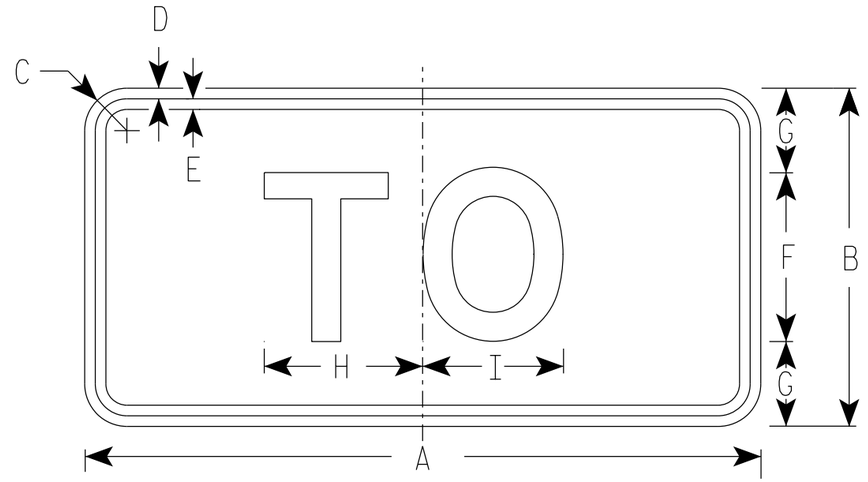
STANDARD SIGN
M4-1

WISCONSIN DEPT OF TRANSPORTATION

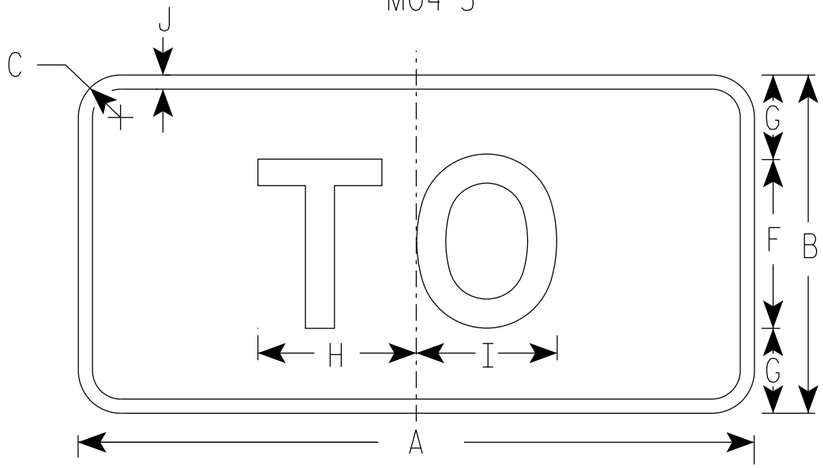
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/8/2023 PLATE NO. M4-1.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 439 | E



M4-5
MM4-5
MP4-5
M04-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

   M04-5 Background - Orange Type F Reflective
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 ½	⅜	⅜	6	3	5 ⅜	5 ¼	½																	2.00
2M	24	12	1 ½	⅜	⅜	6	3	5 ⅜	5 ¼	½																	2.00
3	36	18	1 ½	⅜	½	9	4 ½	8 ¼	8 ⅜	½																	4.5
4	36	18	1 ½	⅜	½	9	4 ½	8 ¼	8 ⅜	½																	4.5
5	36	18	1 ½	⅜	½	9	4 ½	8 ¼	8 ⅜	½																	4.5

STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

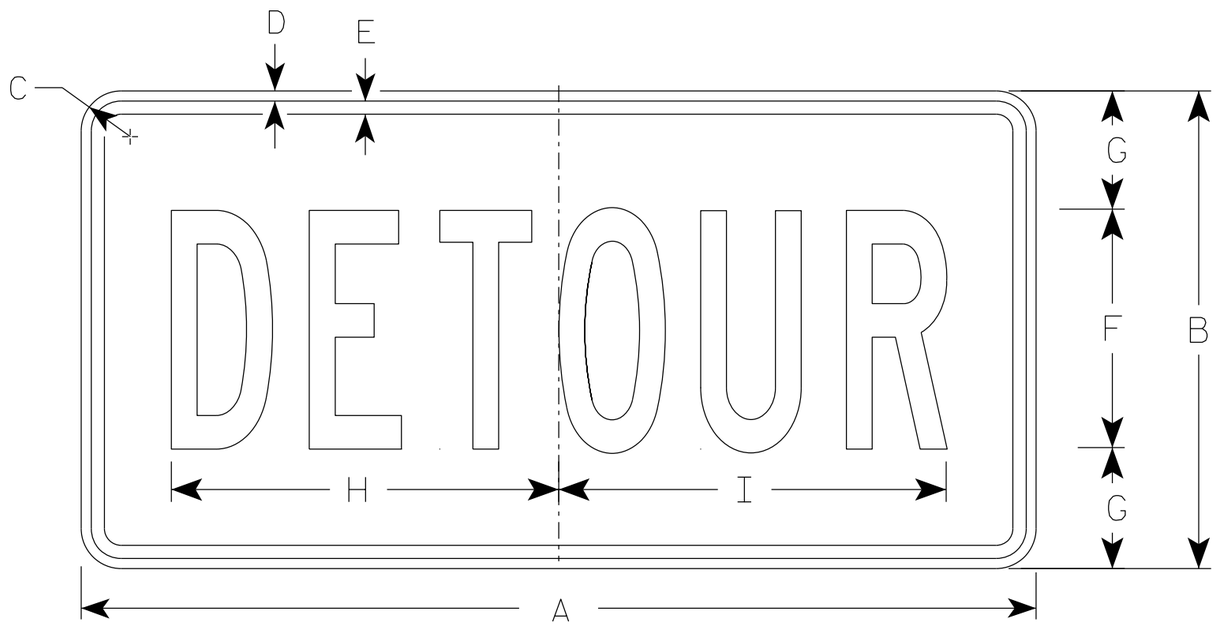
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/8/2023 PLATE NO. M4-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 440 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

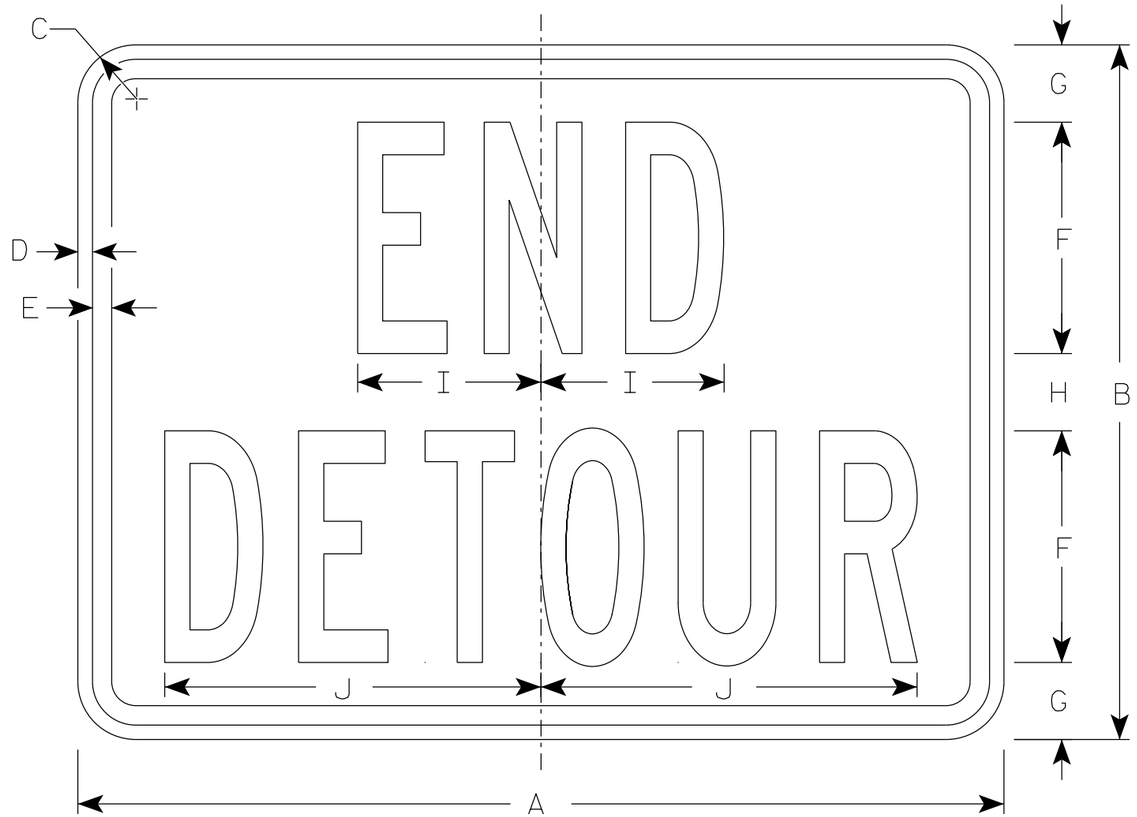
STANDARD SIGN
M4-8

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: 441	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

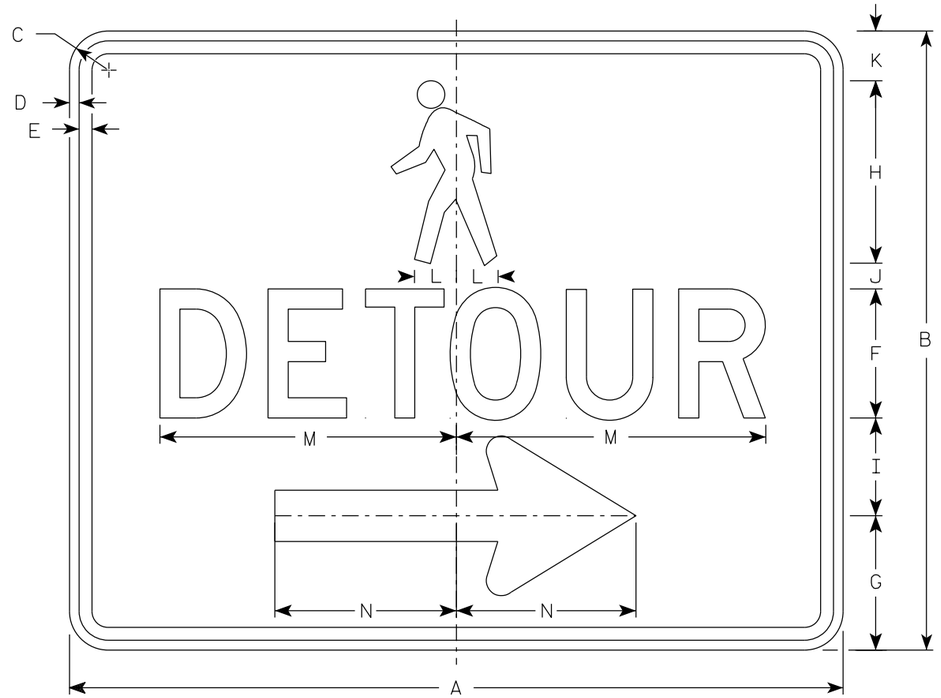
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

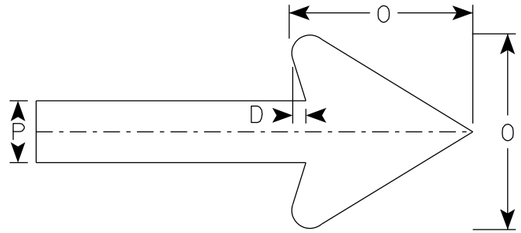
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 442 | E



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																											

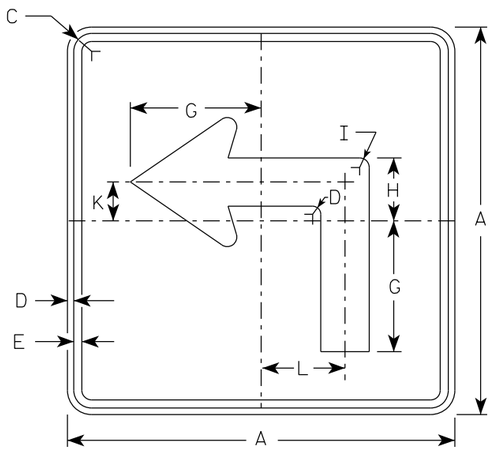
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

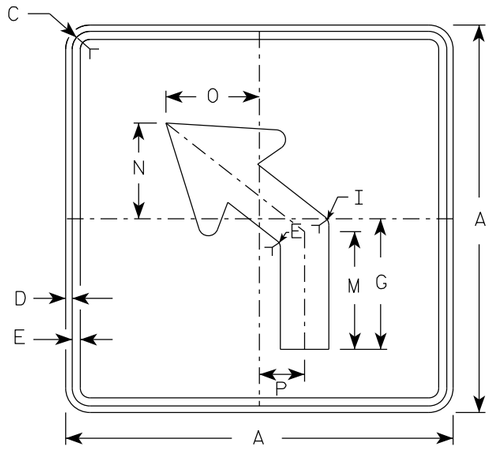
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9B.4

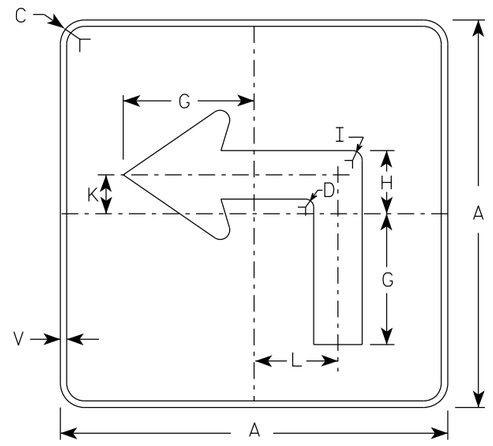
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 443 | E



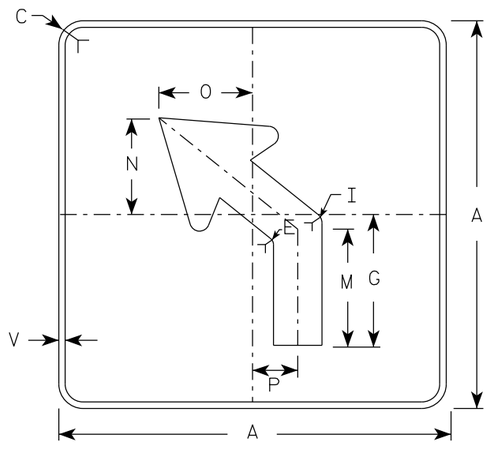
M5-1L
MM5-1L
MO5-1L
MP5-1L



M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L

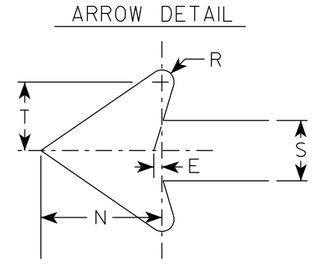


MB5-2L
MK5-2L
MN5-2L
MR5-2L

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

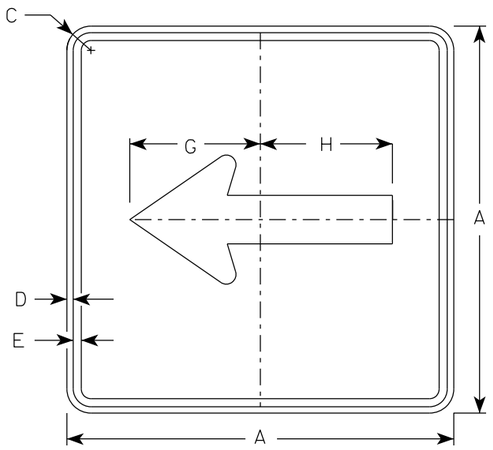
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

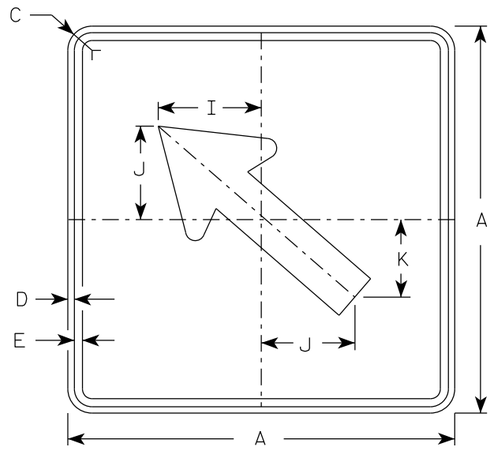
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

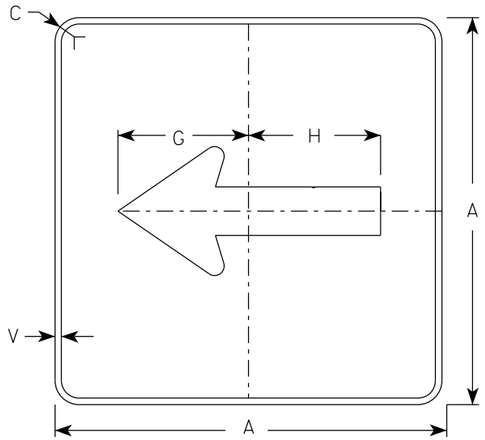
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 444 | E



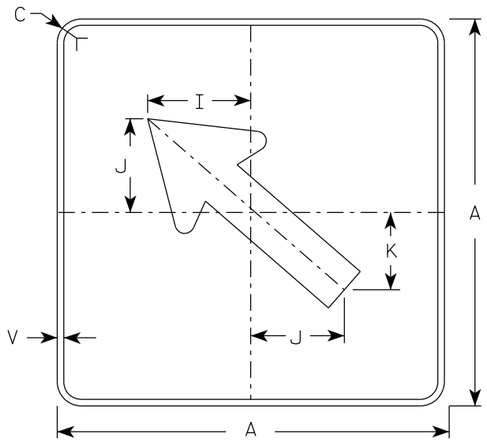
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1

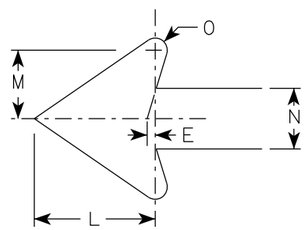


MB6-2
MK6-2
MN6-2
MR6-2

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

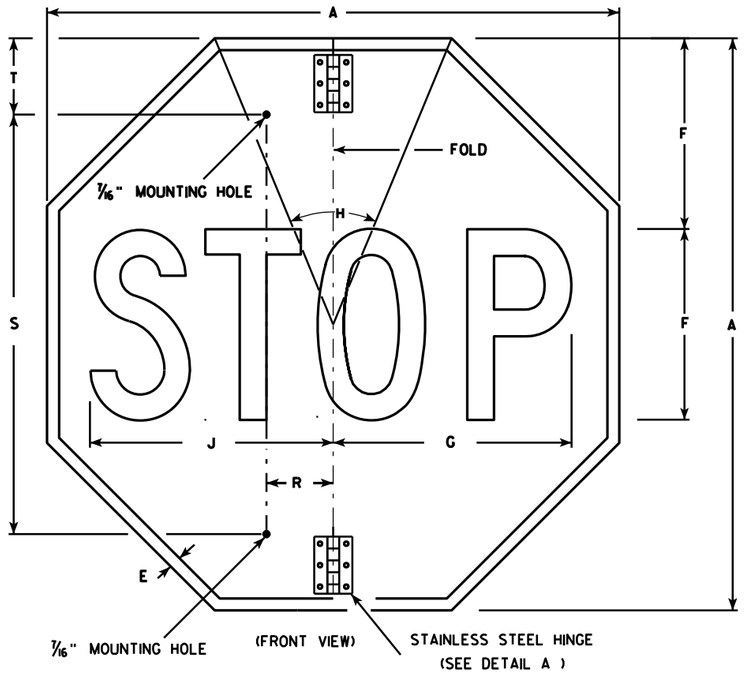
STANDARD SIGN M6-1 & M6-2 SERIES

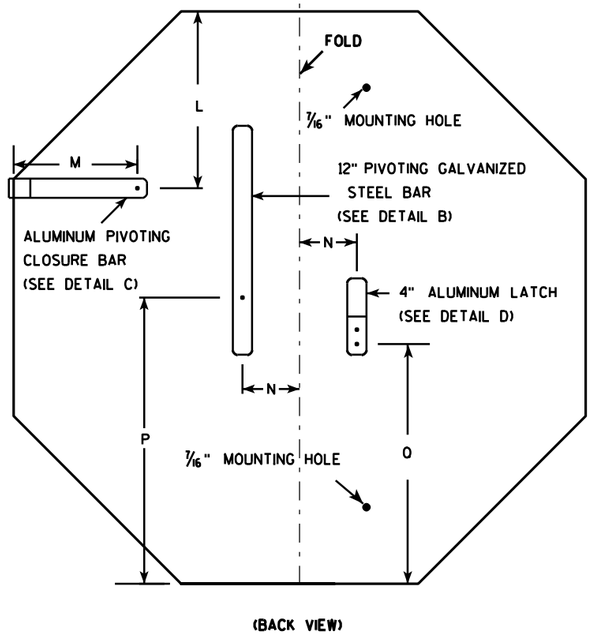
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

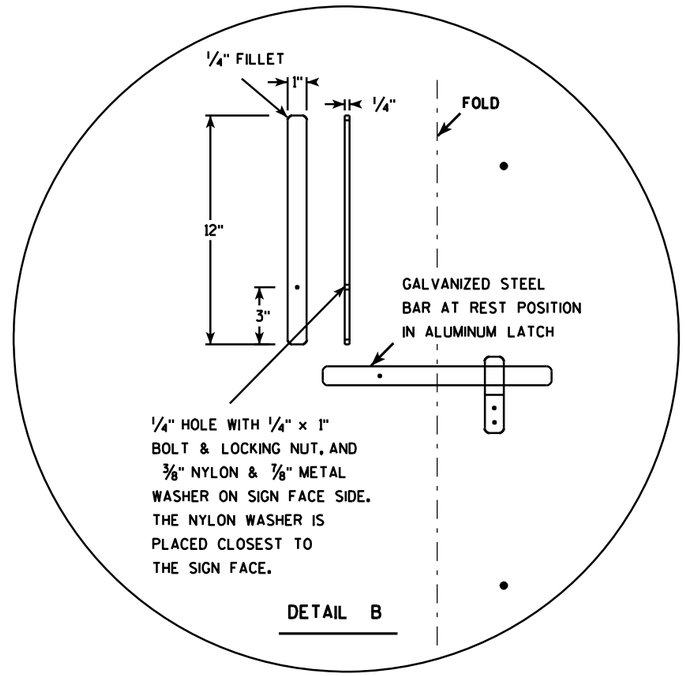
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 445 | E



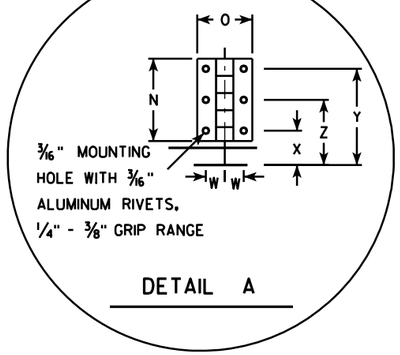


NOTES

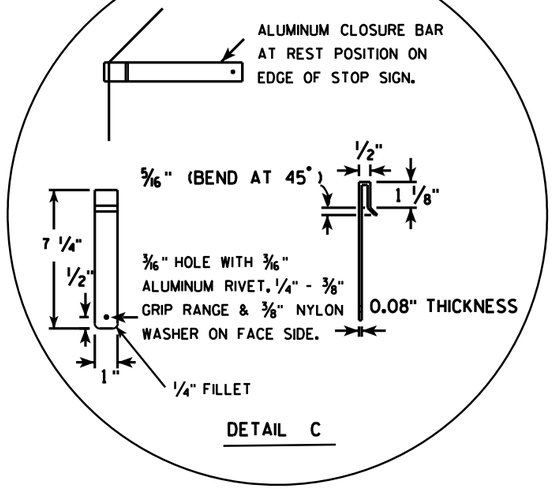
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



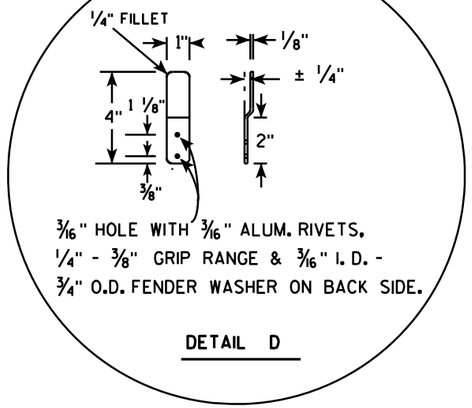
DETAIL B



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

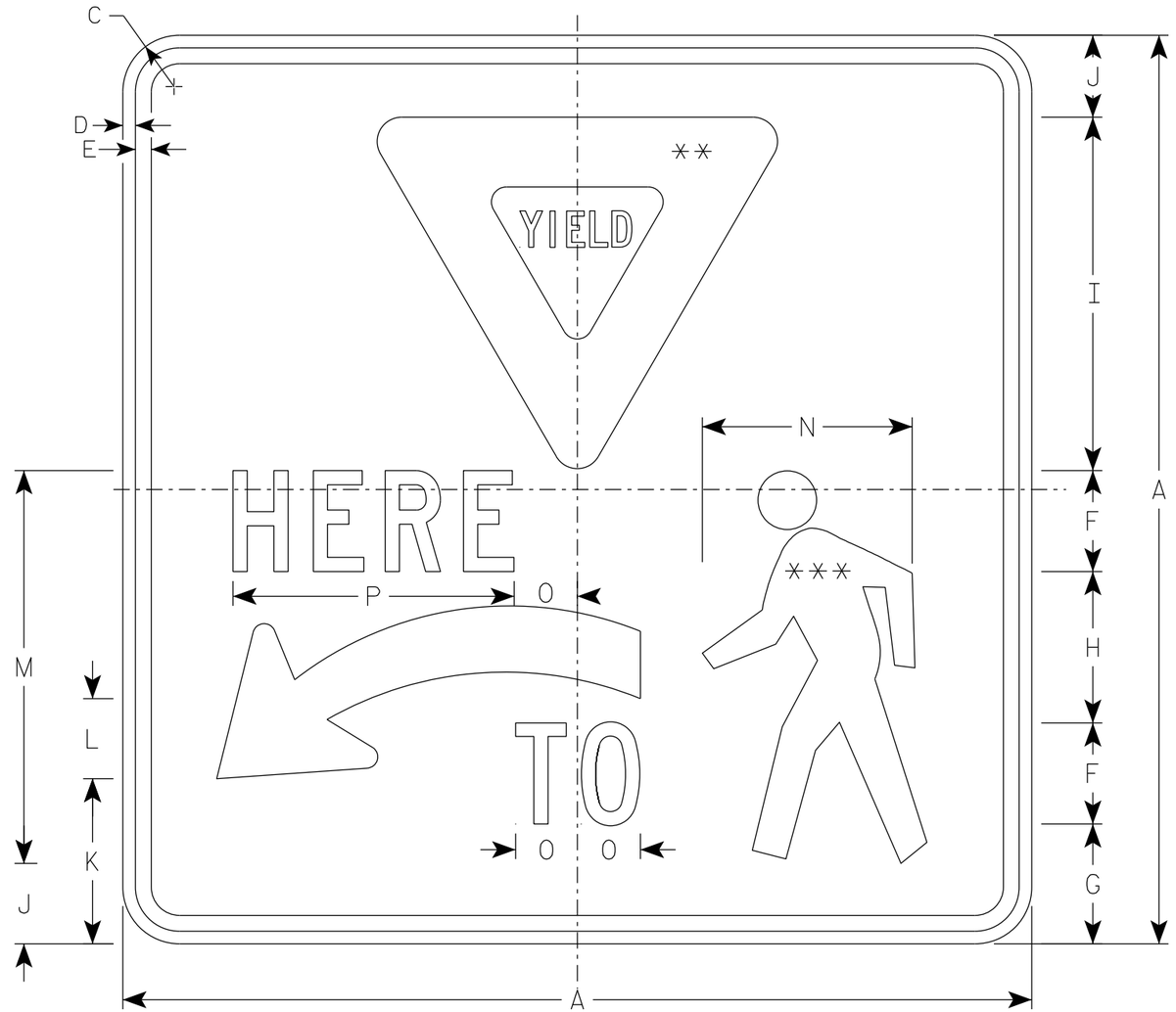
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 446 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R11F.DGN PLOT DATE : 02-DEC-2010 15:26 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 7.945391:1.000000

WISDOT/CADDS SHEET 42

7

7



R1-5L

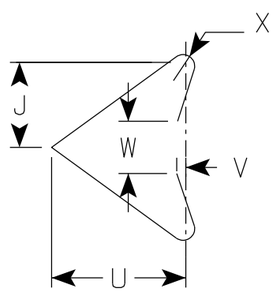
NOTES

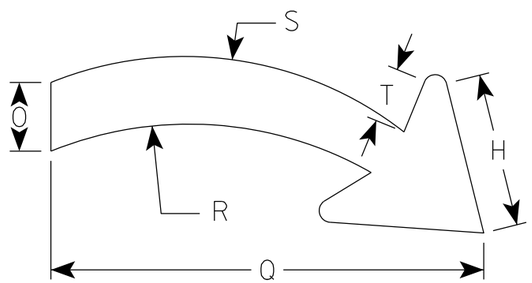
1. Sign is Type II - Type H Reflective
2. Color:
   - Background - WHITE
   - Message - BLACK
   - YIELD SYMBOL - RED ON WHITE
   - PED SYMBOL - BLACK ON WHITE
3. Message Series - D

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT

Arrow Detail





SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	1/2	5/8	4	4 3/4	6	14	3 1/4	6 1/2	3 1/8	15	8 1/4	2 1/2	11 1/8	16 3/4	28 1/2	27 3/4	2 1/8	5 1/4	3/8	2	1			9.0
2S	36		2 1/4	1/2	5/8	4	4 3/4	6	14	3 1/4	6 1/2	3 1/8	15	8 1/4	2 1/2	11 1/8	16 3/4	28 1/2	27 3/4	2 1/8	5 1/4	3/8	2	1			9.0
2M	36		2 1/4	1/2	5/8	4	4 3/4	6	14	3 1/4	6 1/2	3 1/8	15	8 1/4	2 1/2	11 1/8	16 3/4	28 1/2	27 3/4	2 1/8	5 1/4	3/8	2	1			9.0
3	36		2 1/4	1/2	5/8	4	4 3/4	6	14	3 1/4	6 1/2	3 1/8	15	8 1/4	2 1/2	11 1/8	16 3/4	28 1/2	27 3/4	2 1/8	5 1/4	3/8	2	1			9.0
4																											
5																											

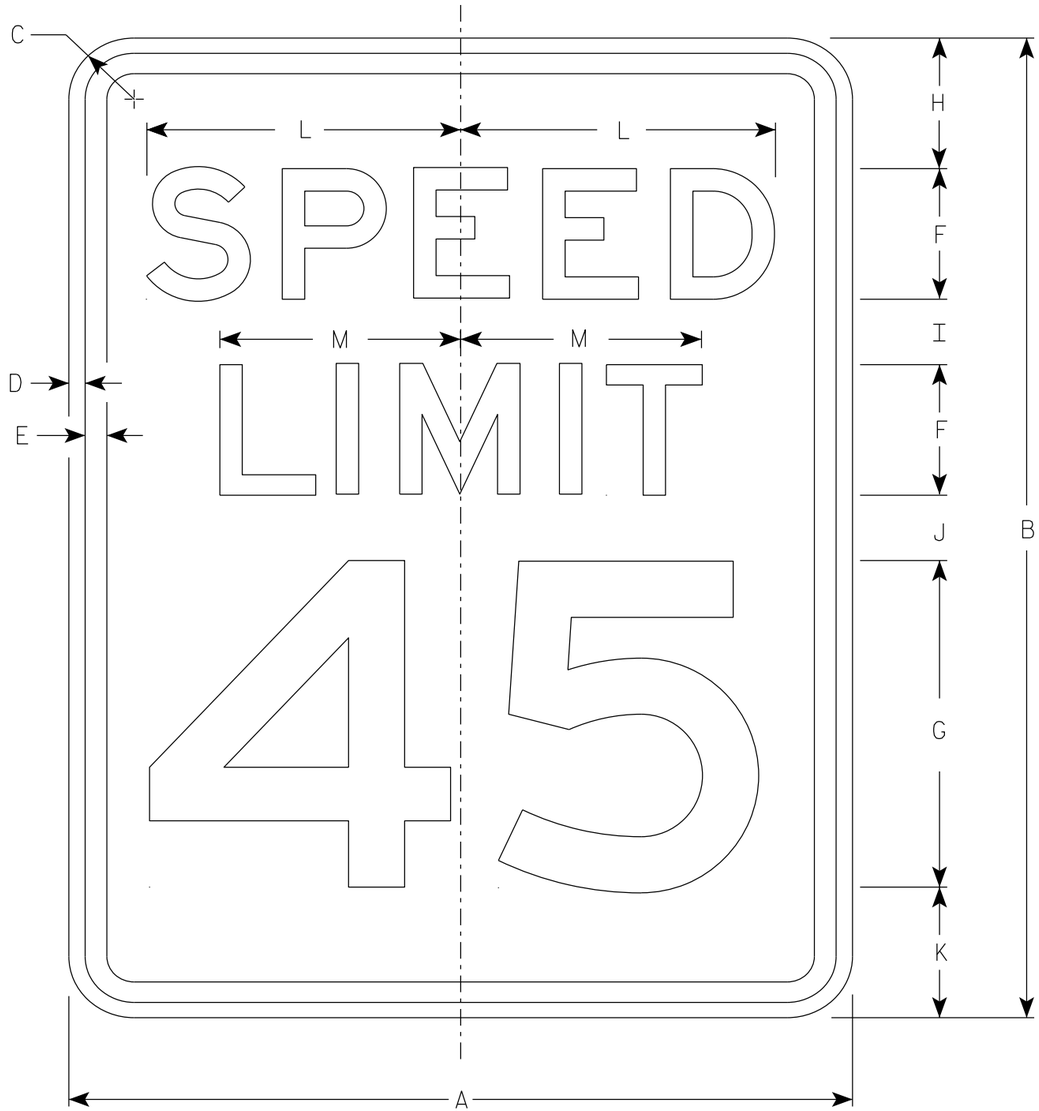
STANDARD SIGN
R1-5L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/19/23 PLATE NO. R1-5L.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 447 | 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

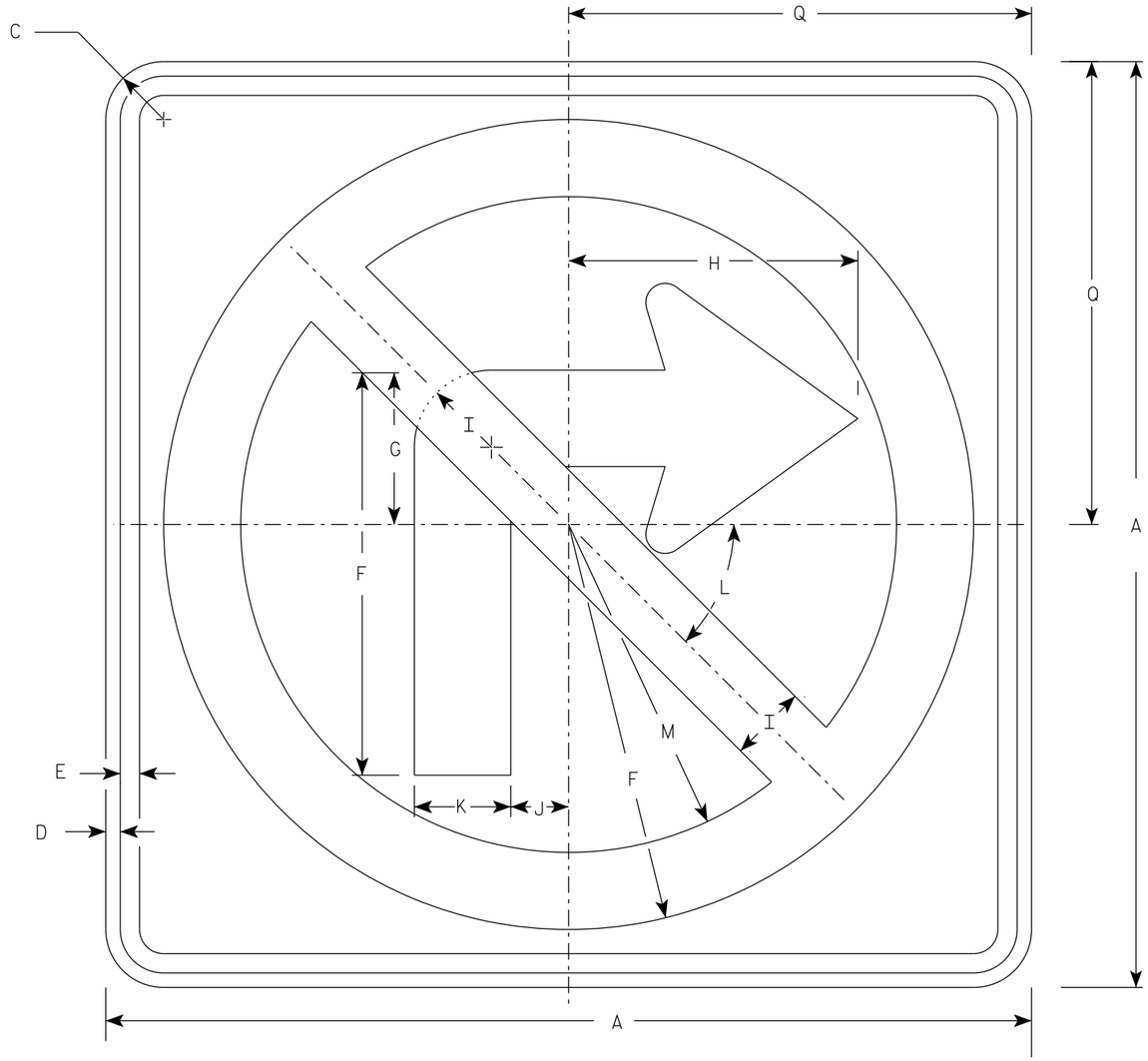
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14

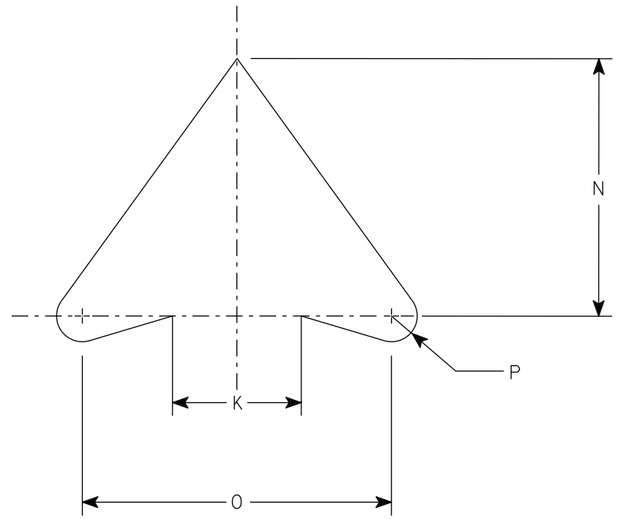
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 448 | E



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

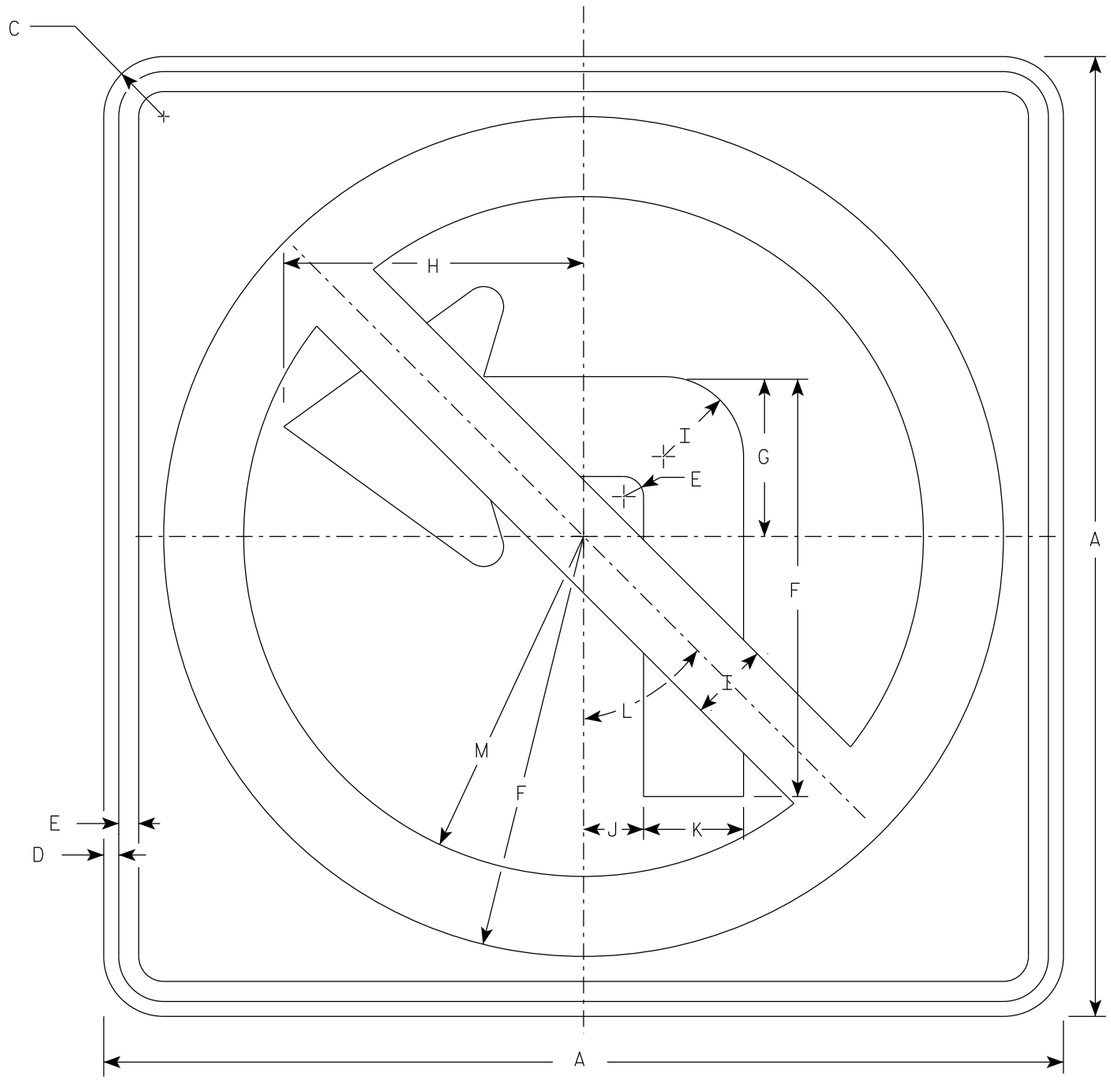
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/2/23 PLATE NO. R3-1.6

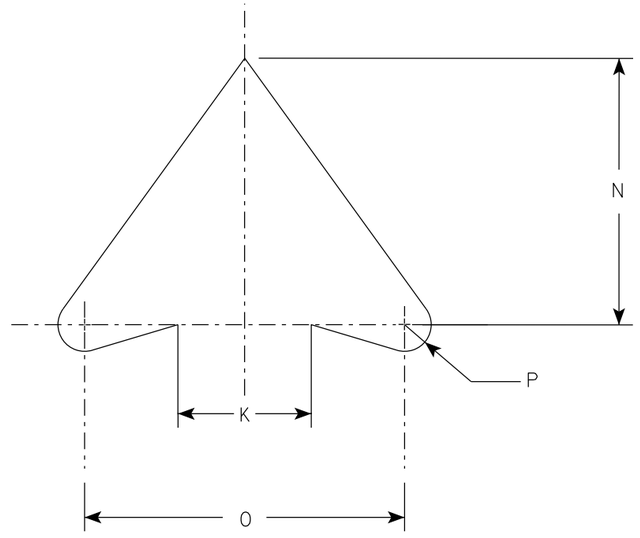
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 449 | E



R3-2

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											4.0
2S	24		1 ½	⅜	½	10 ½	4	7 ½	2	1 ½	2 ½	45°	8 ½	5	6	½											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											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											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											9.0
5	48		2 ¼	¾	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

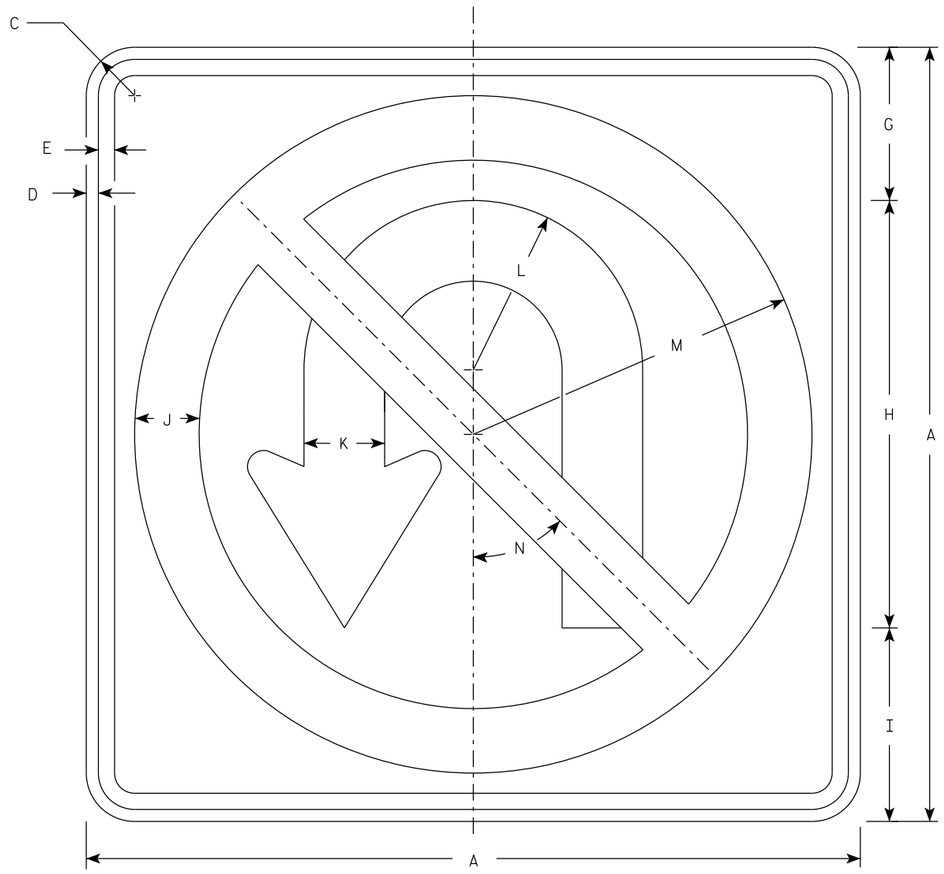
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/2/23 PLATE NO. R3-2.11

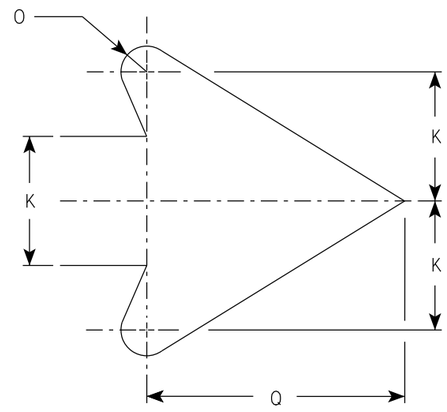
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 450 | E



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

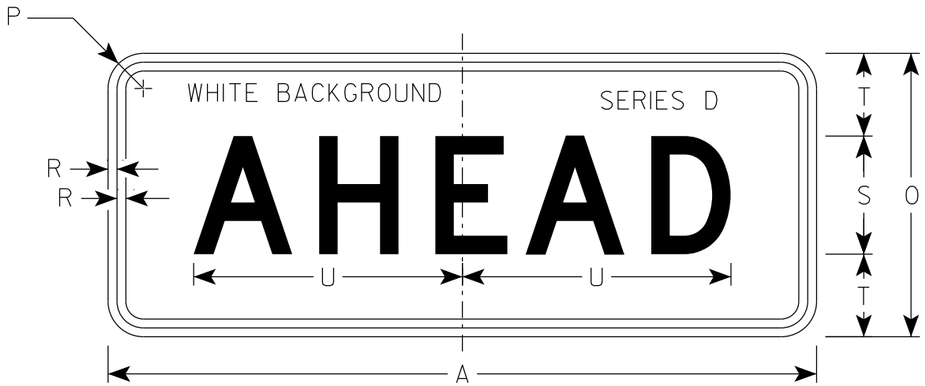
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 451	E



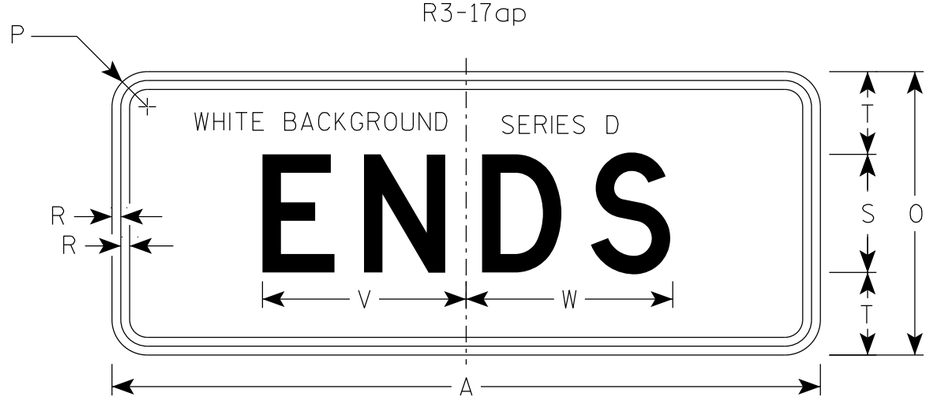
R3-17

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

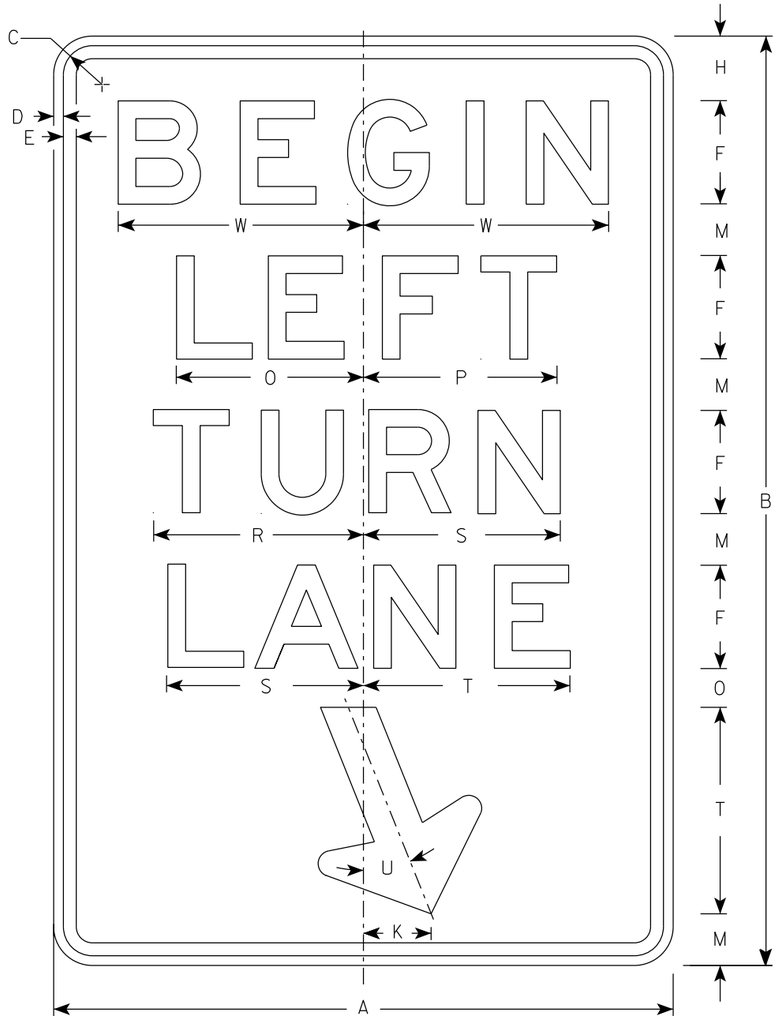
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-17.3

PROJECT NO:

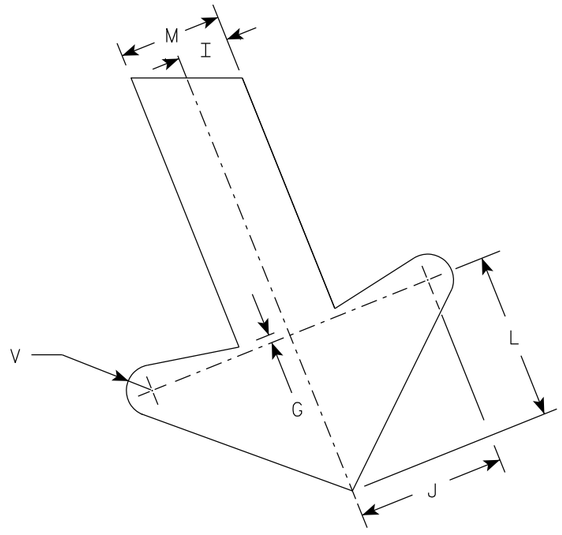
SHEET NO: 452 E



R3-20L

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - 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	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 7/8	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

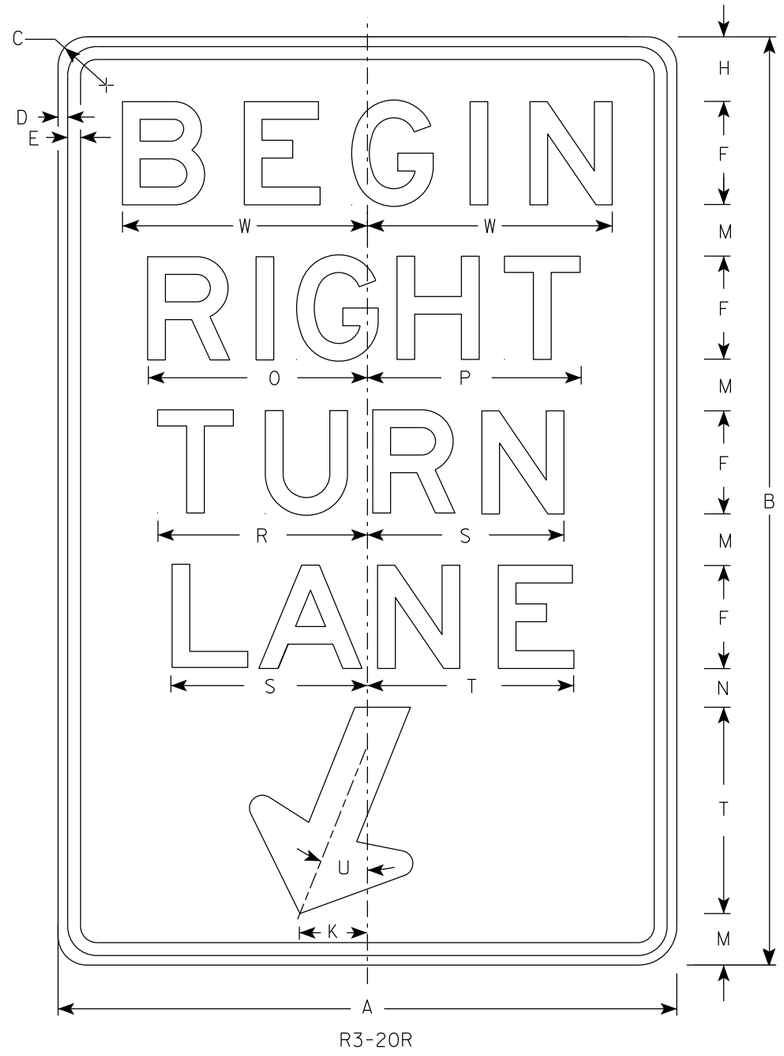
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-20L.8

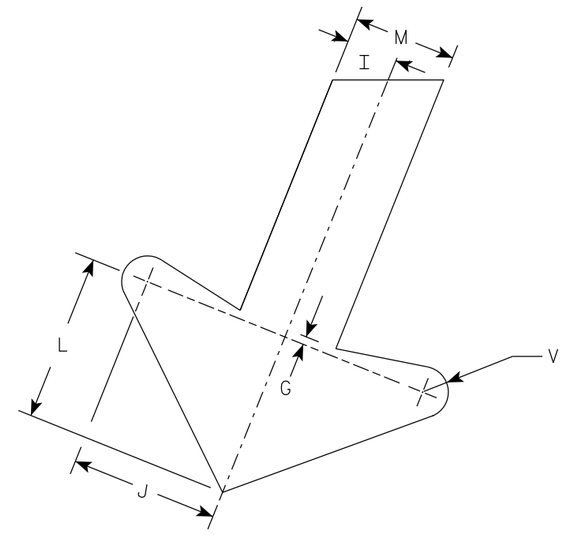
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 453 | E



R3-20R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - 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	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 7/8	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

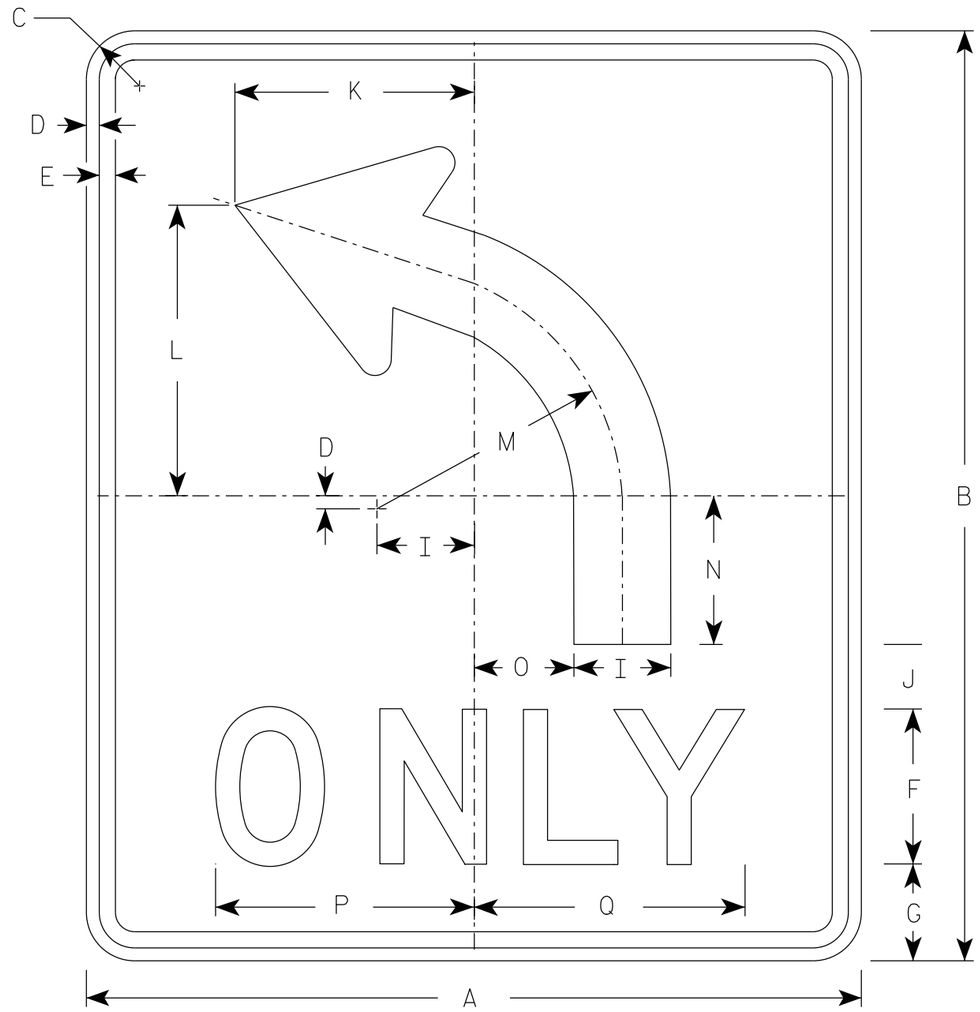
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-20R.7

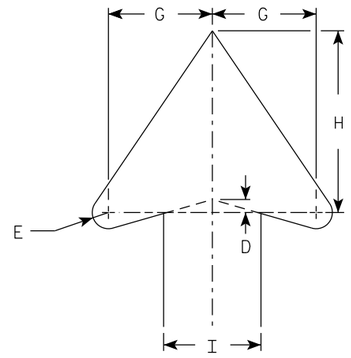
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 454 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. R3-50R is the same as R3-50L except curved portion of arrow points right.



R3-50L



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 7/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2										7.5
2M	30	36	1 7/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2										7.5
3																											
4																											
5																											

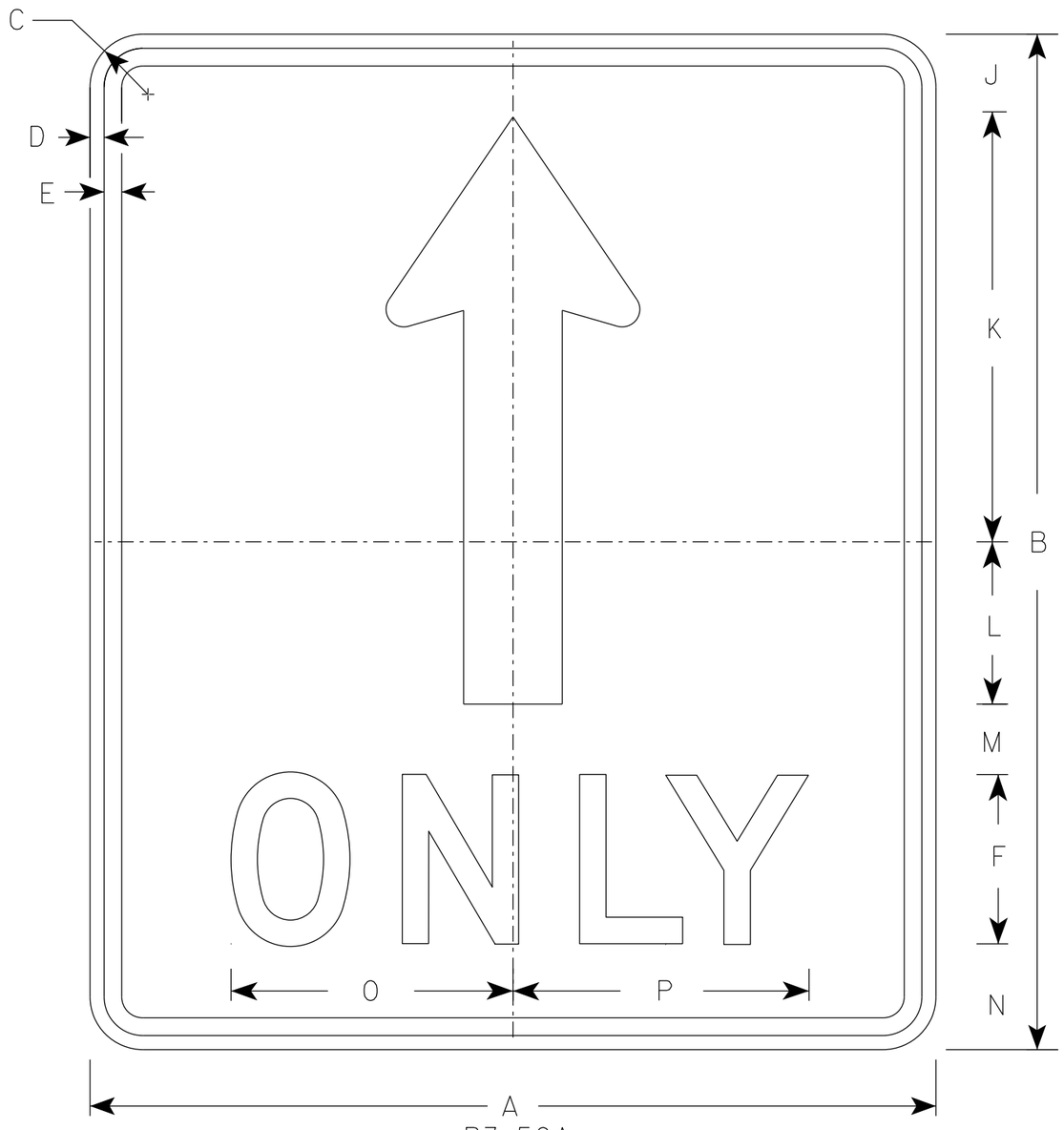
STANDARD SIGN
R3-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-50.3

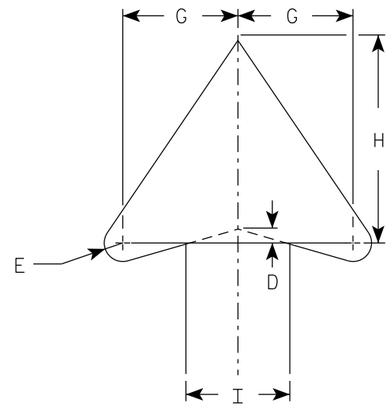
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 455	E



R3-50A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - 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	Area sq. ft.
1																											
2S	30	36	1 7/8	1/2	5/8	6	4	7	3 1/2	2 3/4	15 1/4	5 3/4	2 1/2	3 3/4	10	10 1/2											7.5
2M	30	36	1 7/8	1/2	5/8	6	4	7	3 1/2	2 3/4	15 1/4	5 3/4	2 1/2	3 3/4	10	10 1/2											7.5
3																											
4																											
5																											

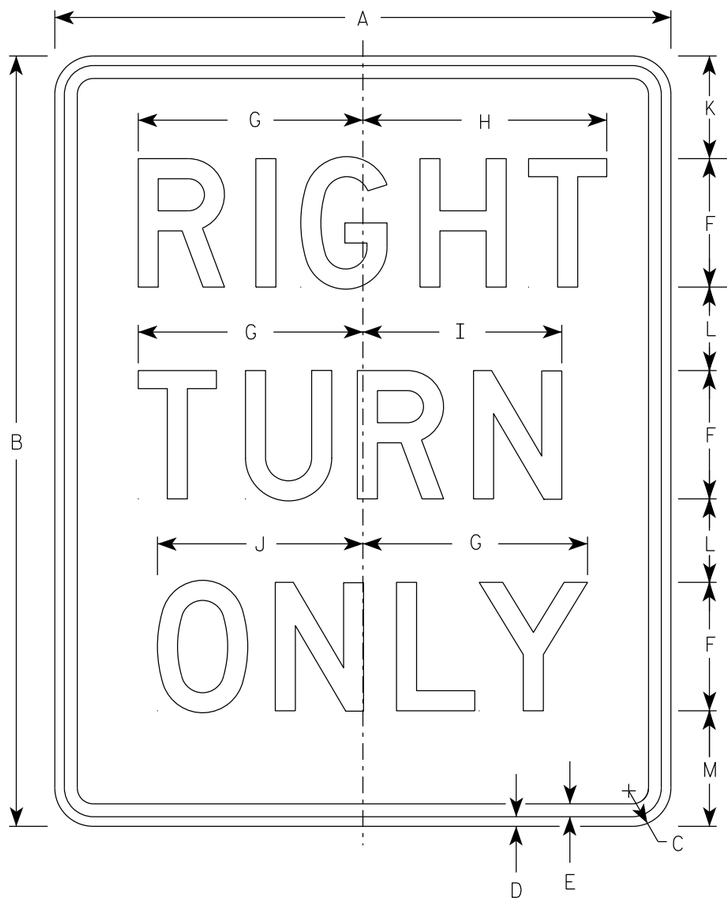
STANDARD SIGN
R3-50A

WISCONSIN DEPT OF TRANSPORTATION

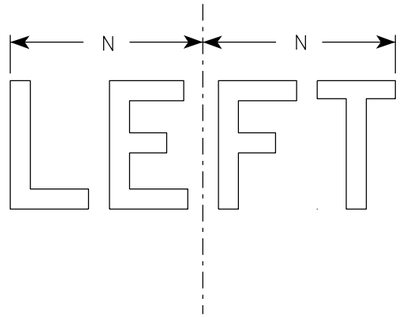
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-50A.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 456	E



R3-53R



R3-53L

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. R3-53L same as R3-53R except LEFT is substituted for RIGHT

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/2	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
2M	24	30	1 1/2	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
3	24	30	1 1/2	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
4																											
5																											

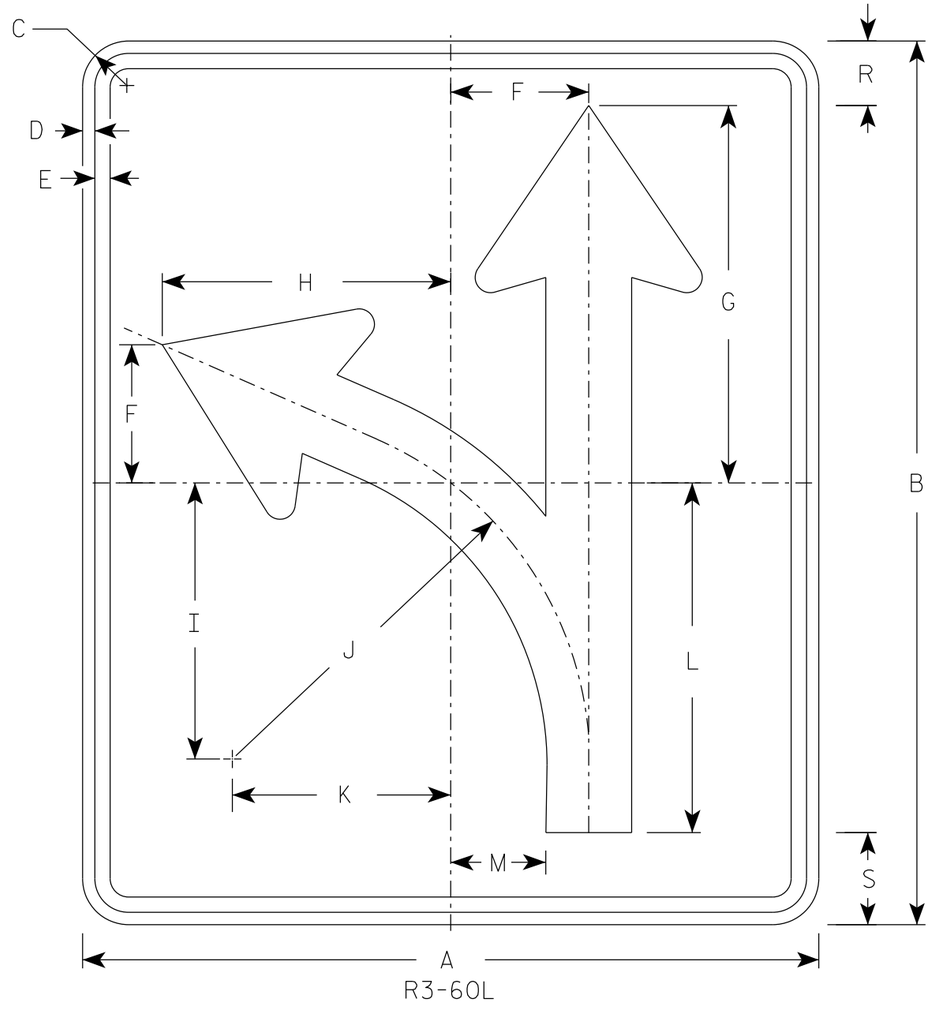
STANDARD SIGN
R3-53

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-53.9

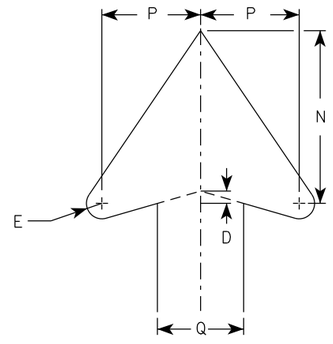
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 457 | E



R3-60L

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. R3-60R is the same as R3-60L except curved portion of arrow points to 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	30	36	1 7/8	1/2	5/8	5 5/8	15 3/8	11 1/4	5 3/8	14 1/2	8 7/8	14 1/4	3 7/8	7		4	3 1/2	2 5/8	3 3/4								7.5
2M	30	36	1 7/8	1/2	5/8	5 5/8	15 3/8	11 1/4	5 3/8	14 1/2	8 7/8	14 1/4	3 7/8	7		4	3 1/2	2 5/8	3 3/4								7.5
3																											
4																											
5																											

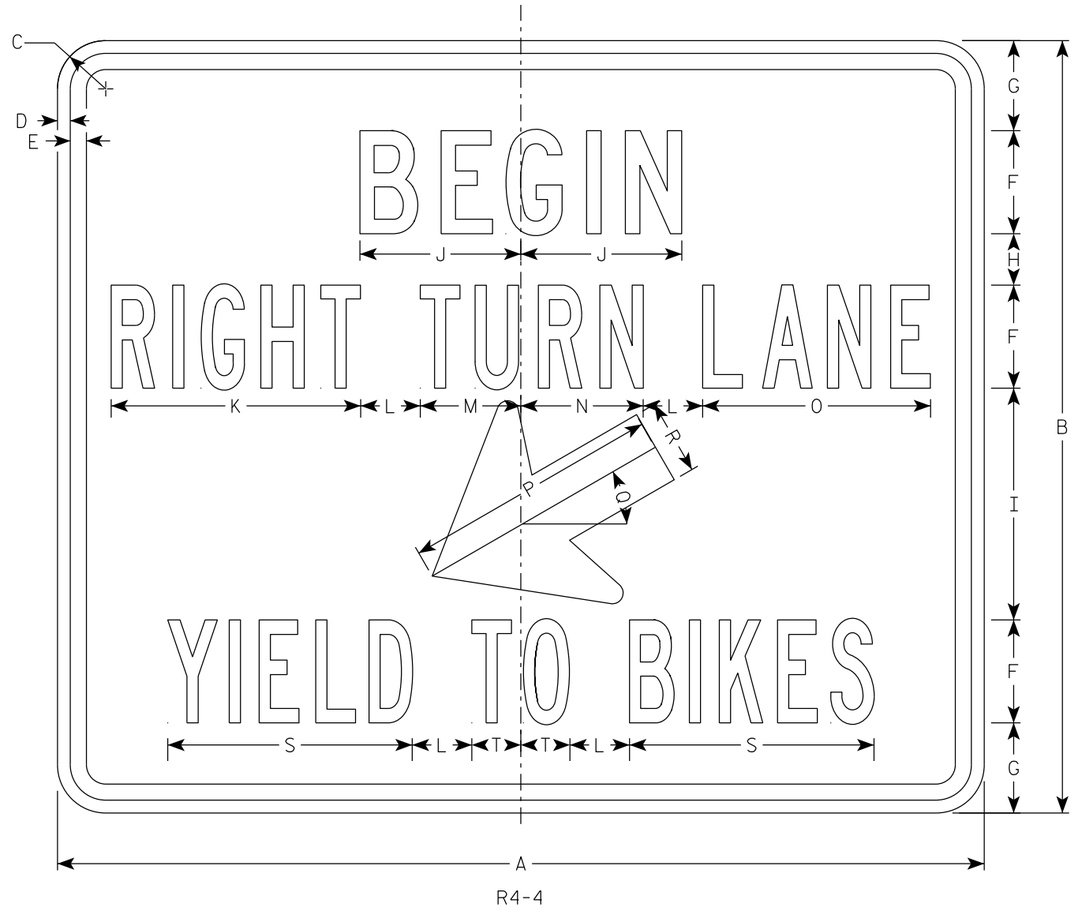
STANDARD SIGN
R3-60

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/23 PLATE NO. R3-60.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 458	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

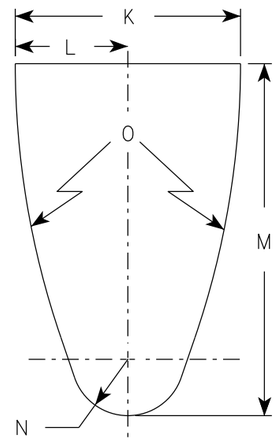
DATE 5/31/23 PLATE NO. R4-4.3

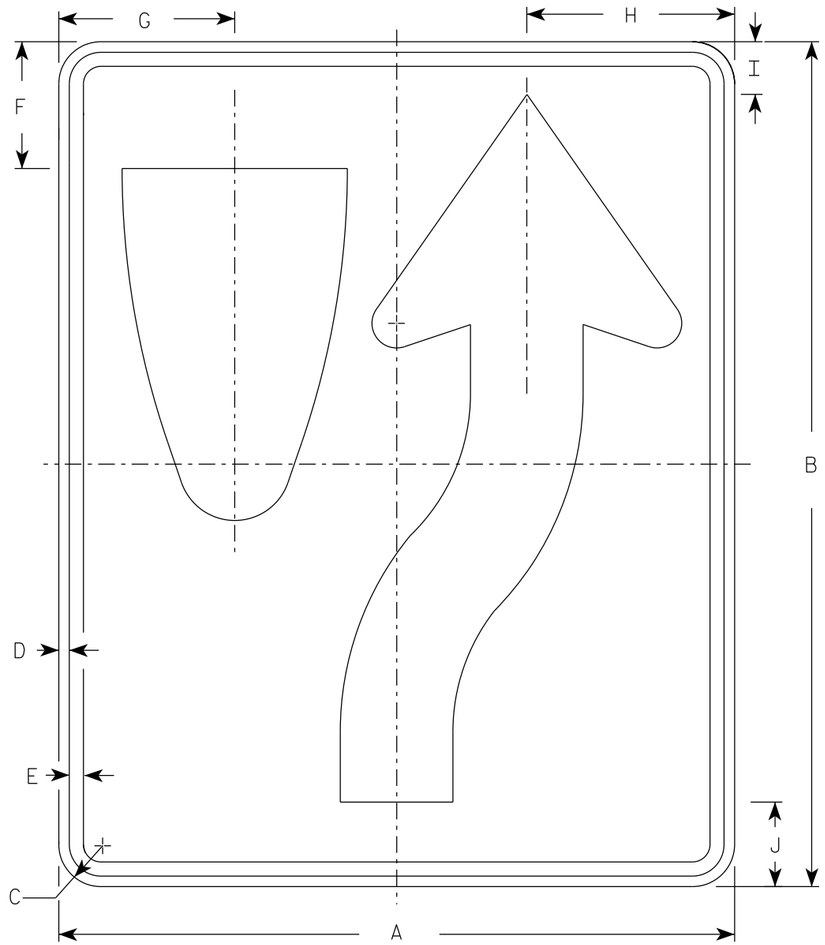
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 459 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. R4-8 is the same as R4-7 except Legend is reversed.

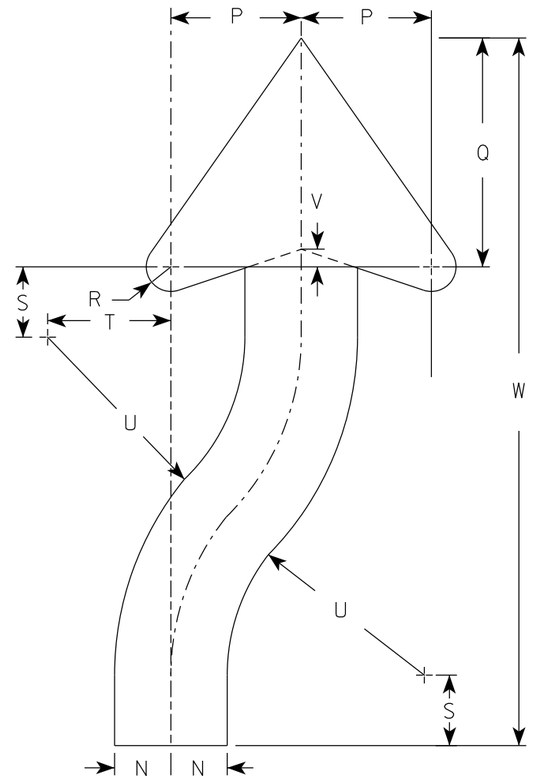
DIVIDER DETAIL





R4-7

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/2	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/2	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/2	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 7/8	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 7/8	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	3	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

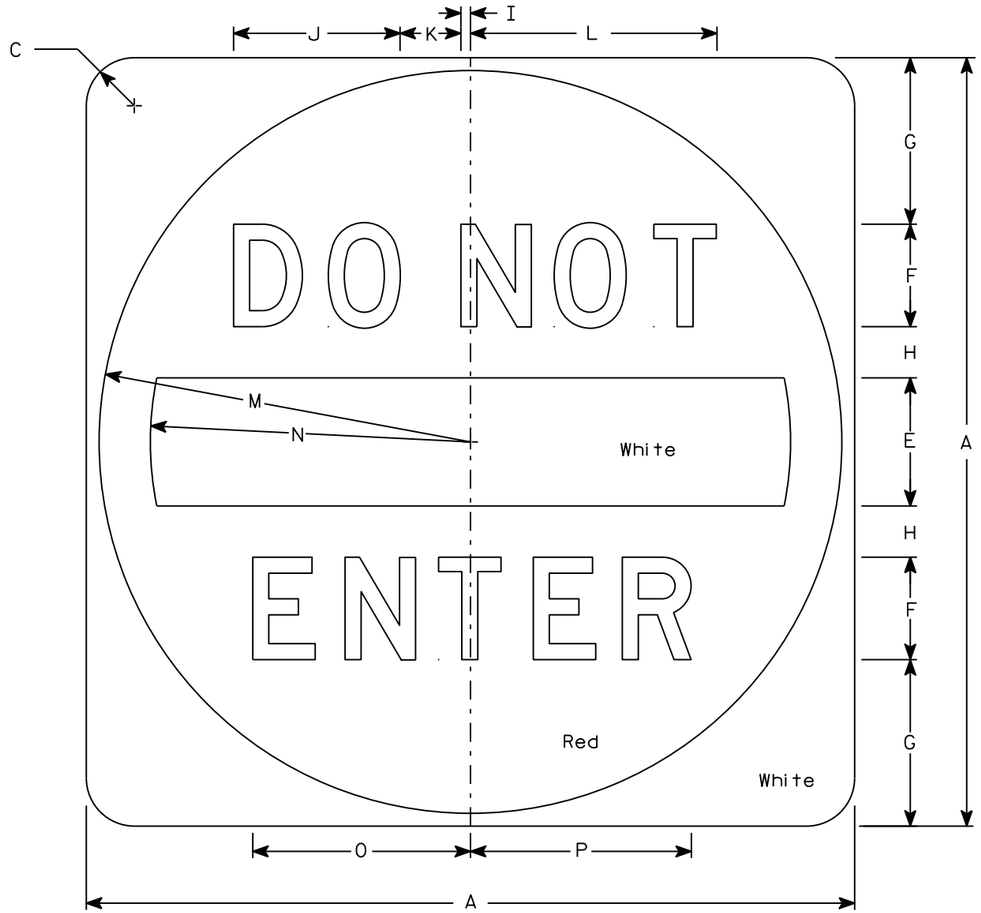
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 8/17/23 PLATE NO. R4-7.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 460	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

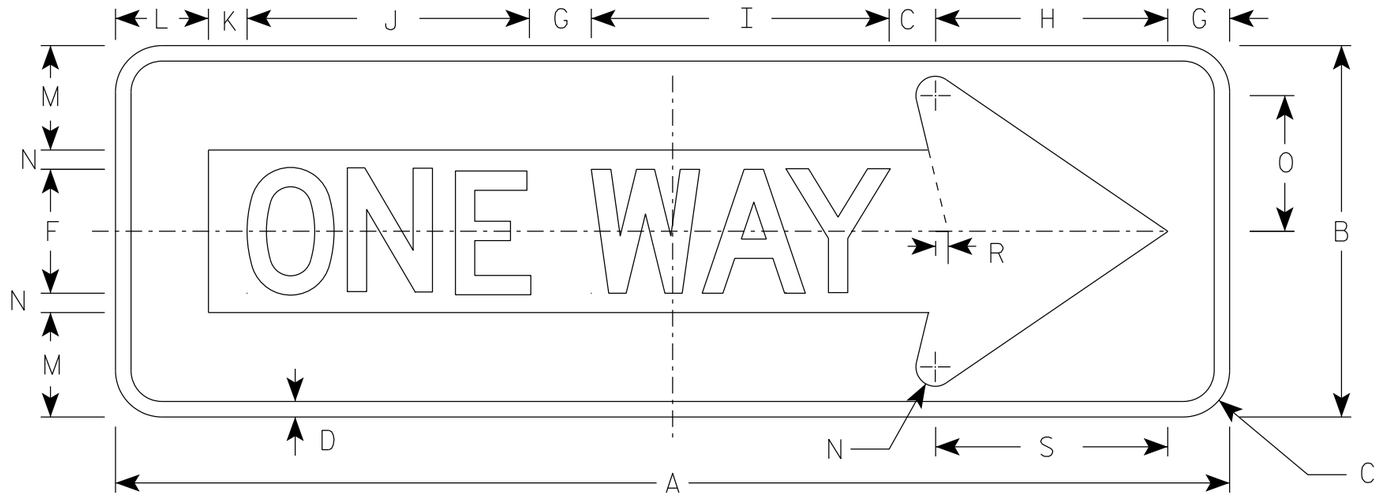
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

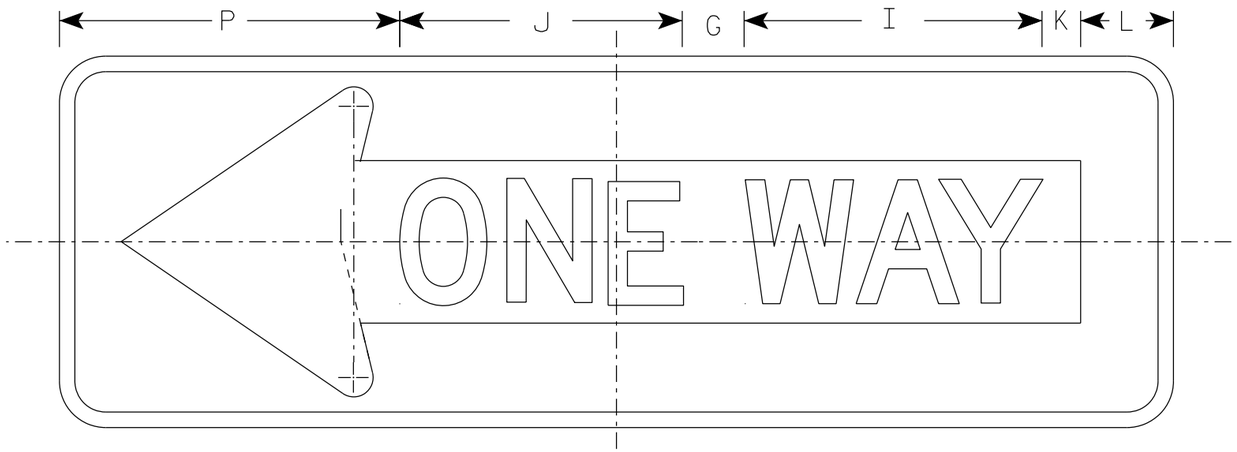
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 461 | E



R6-1R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Black
   Message - Black Legend & White Arrow & Border
3. Message Series - D



R6-1L

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	12	1 ½	½		4	2	7 ½	9 ⅝	9 ⅛	1 ¼	3	3 ⅜	⅝	4 ⅜	11		⅜	7 ½								3.0
2M	54	18	1 ½	¾		6	3	11 ¼	13 ⅝	14 ½	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
3	54	18	1 ½	¾		6	3	11 ¼	13 ⅝	14 ½	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
4	54	18	1 ½	¾		6	3	11 ¼	13 ⅝	14 ½	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
5																											

STANDARD SIGN
R6-1 L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

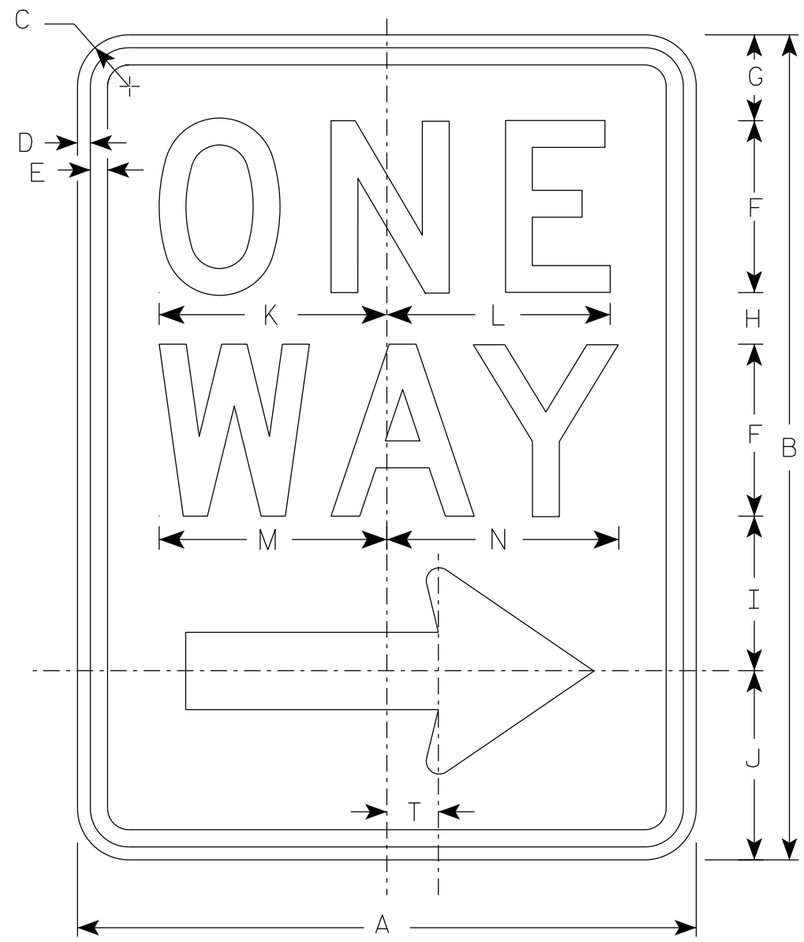
DATE 8/30/23 PLATE NO. R6-1.4

PROJECT NO:

SHEET NO: 462 E

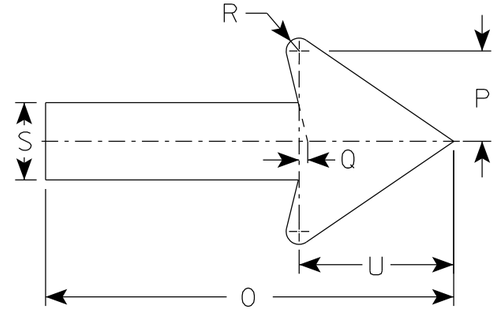
NOTES

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																										

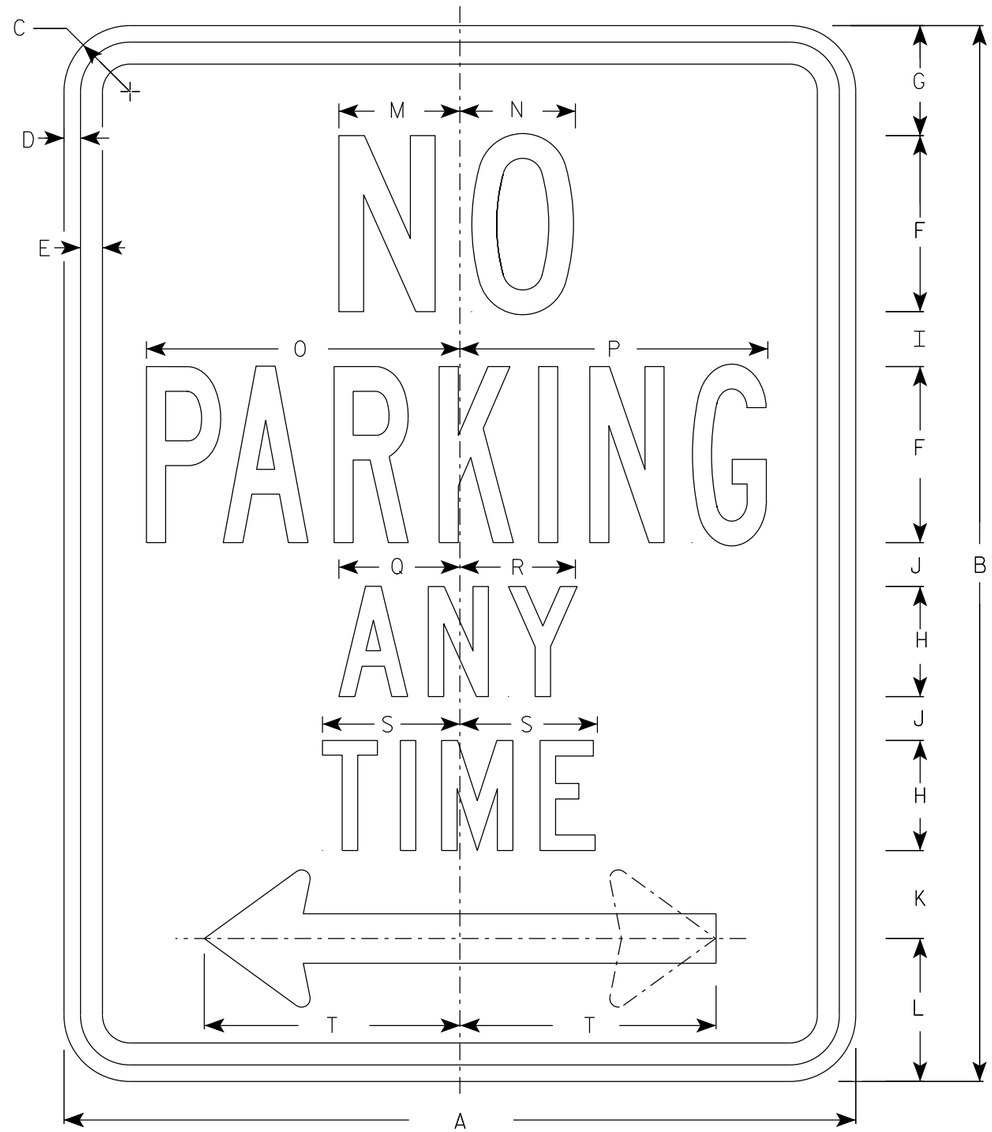
STANDARD SIGN
R6-2 R&L

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: 463	E

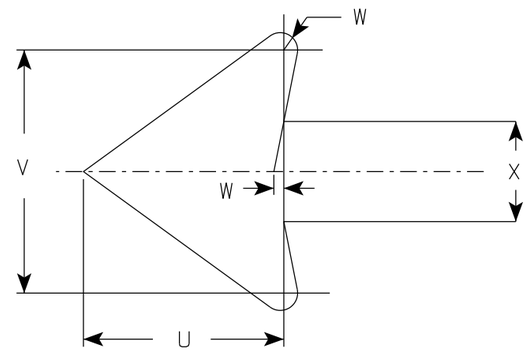


R7-1

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: 464 E



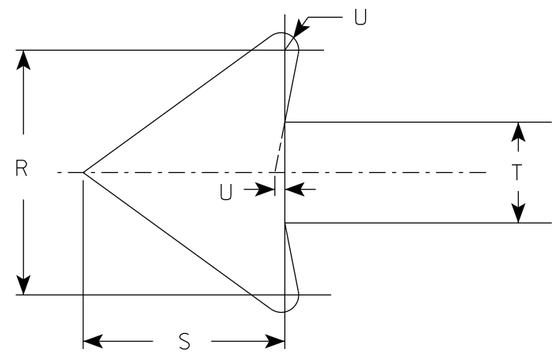
R7-2

* - See Note 5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 6
4. Substitute appropriate numerals as required & adjust spacing to achieve proper balance.
5. R7-2D (double arrow)
   R7-2L (left arrow)
   R7-2R (right arrow)
6. Lines 1, 3 and 4 are series C, line 2 is series 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	12	18	1 1/2	3/8	3/8	3	1 7/8	1 1/2	7/8	7/8	2	2 1/2	2	2	4 7/8	4 7/8	3 7/8	1 3/4	1 1/2	3/4	1/8						1.5
2S	18	24	1 1/2	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	5 7/8	2 5/8	2 1/4	1 1/8	1/4						3.0
2M	24	30	1 1/2	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 3/4	3 1/2	3	1 1/2	1/4						5.0
3	24	30	1 1/2	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 3/4	3 1/2	3	1 1/2	1/4						5.0
4																											
5																											

STANDARD SIGN
R7-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/26/23 PLATE NO. R7-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 465	E

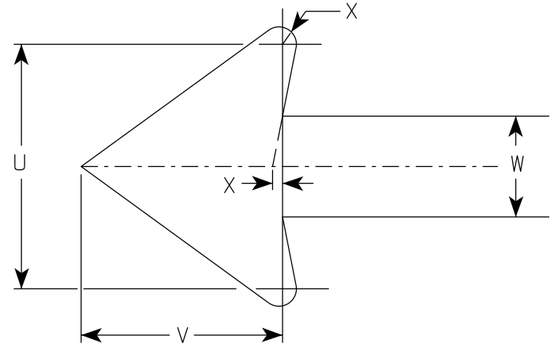


R7-7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. R7-7D (double arrow)
   R7-7R (right arrow)
   R7-7L (left arrow)
5. Lines 1, 3 and 4 are Series C.
   Line 2 is Series 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	12	18	1 ½	⅜	⅜	3	2	1 ⅞	⅞	⅝	1 ½	2 ½	2	2	4 ⅞	4 ⅞	2	2 ¾	2 ⅝	3 ⅞	1 ¾	1 ½	¾	⅛			1.50
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 ½	3 ⅜	3 ⅜	5 ⅞	2 ⅝	2 ¼	1 ⅛	¼			3.00
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	4 ⅛	4	7 ¾	3 ½	3	1 ½	¼			5.00
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	4 ⅛	4	7 ¾	3 ½	3	1 ½	¼			5.00
4																											
5																											

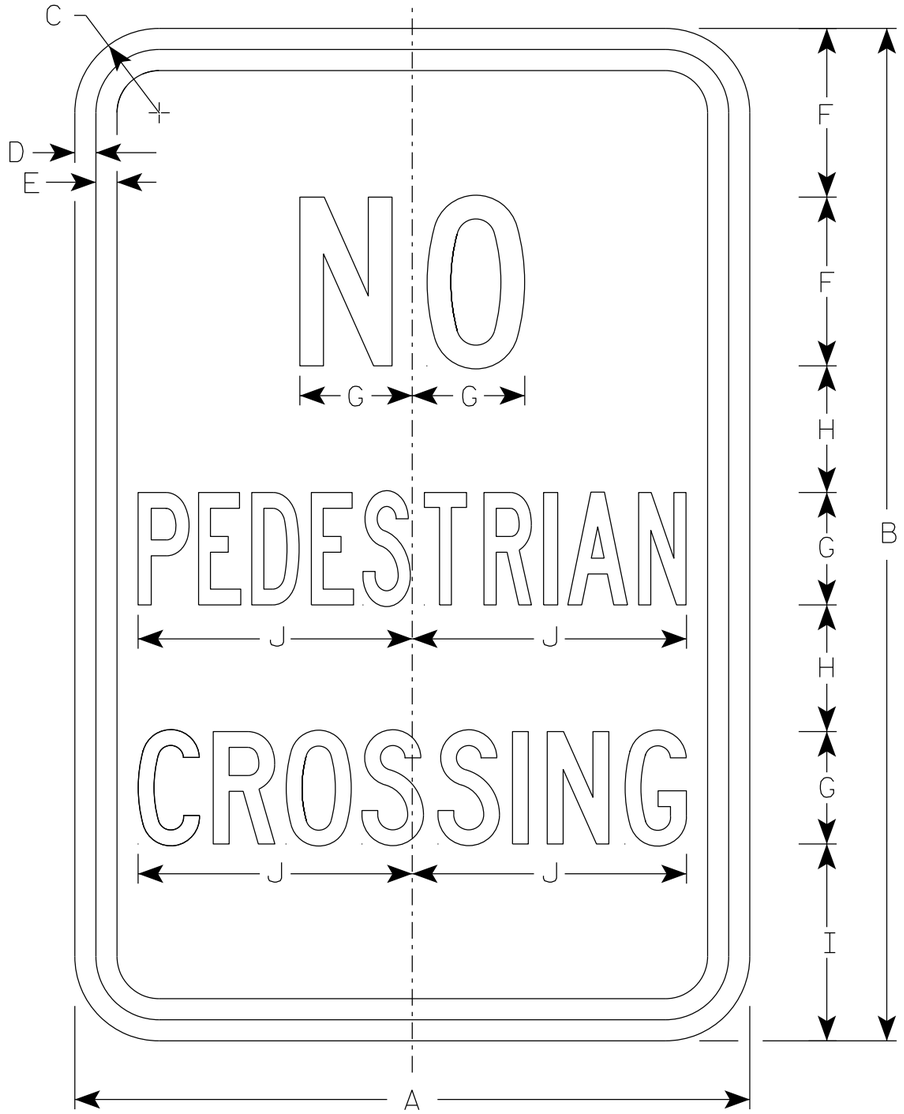
STANDARD SIGN
R7-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/26/23 PLATE NO. R7-7.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 466	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

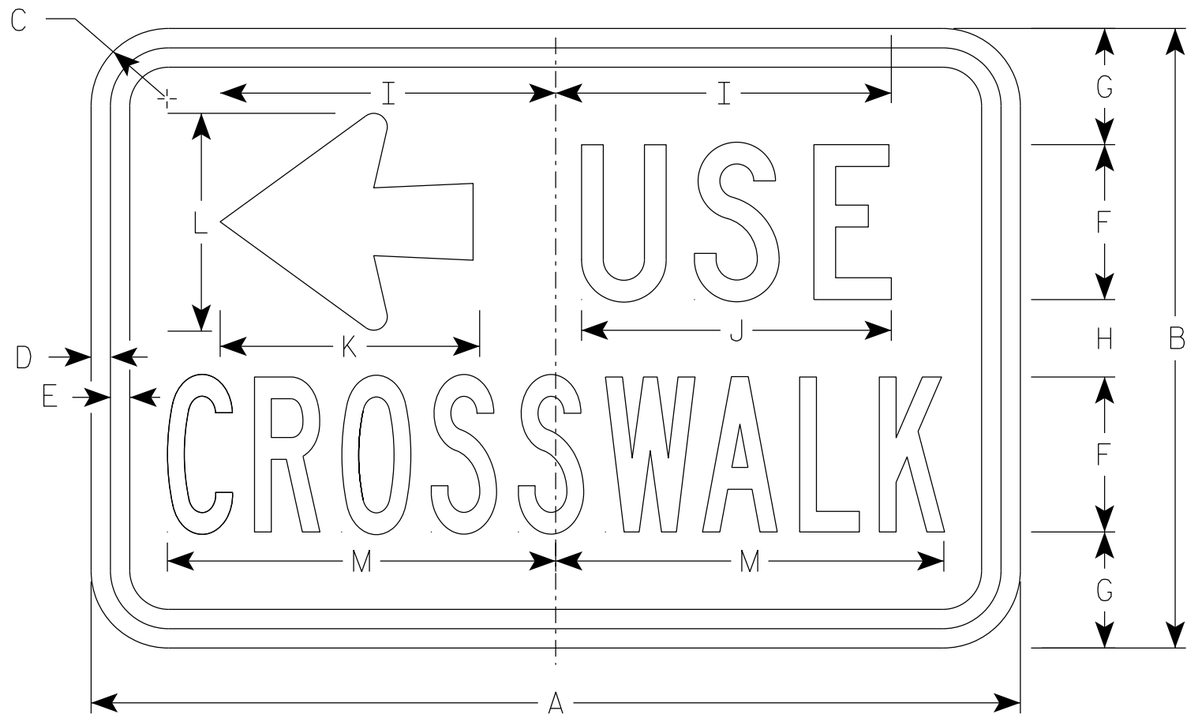
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/23/24 PLATE NO. R9-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 467 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C Line 1, Series B Line 2



R9-3BL

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	18	12	1 ½	⅜	⅜	3	2 ¼	1 ½	6 ½	6	5	4 ¼	7 ½														1.5
2M	18	12	1 ½	⅜	⅜	3	2 ¼	1 ½	6 ½	6	5	4 ¼	7 ½														1.5
3																											
4																											
5																											

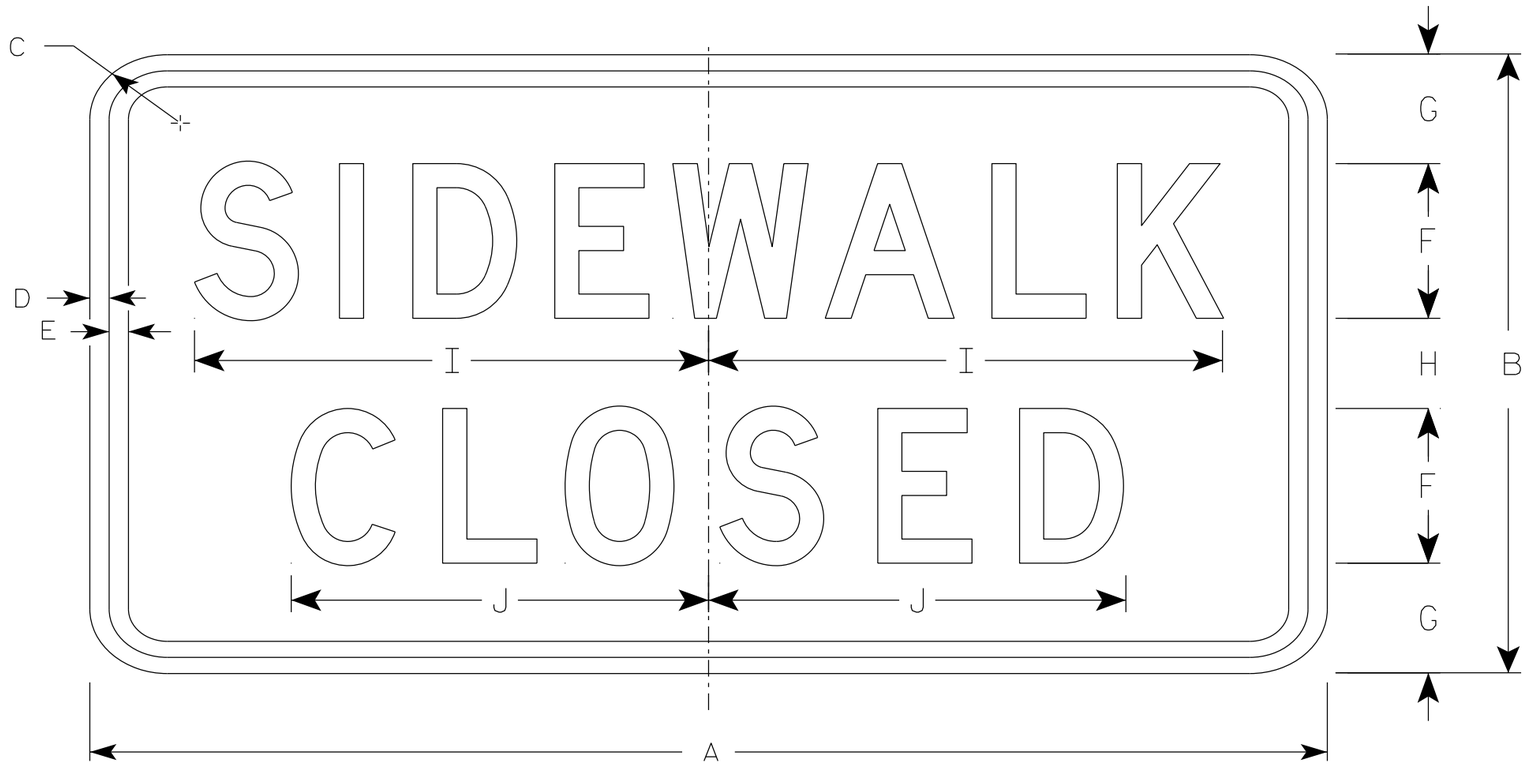
STANDARD SIGN
R9-3BL

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/23/24 PLATE NO. R9-3BL.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 468	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

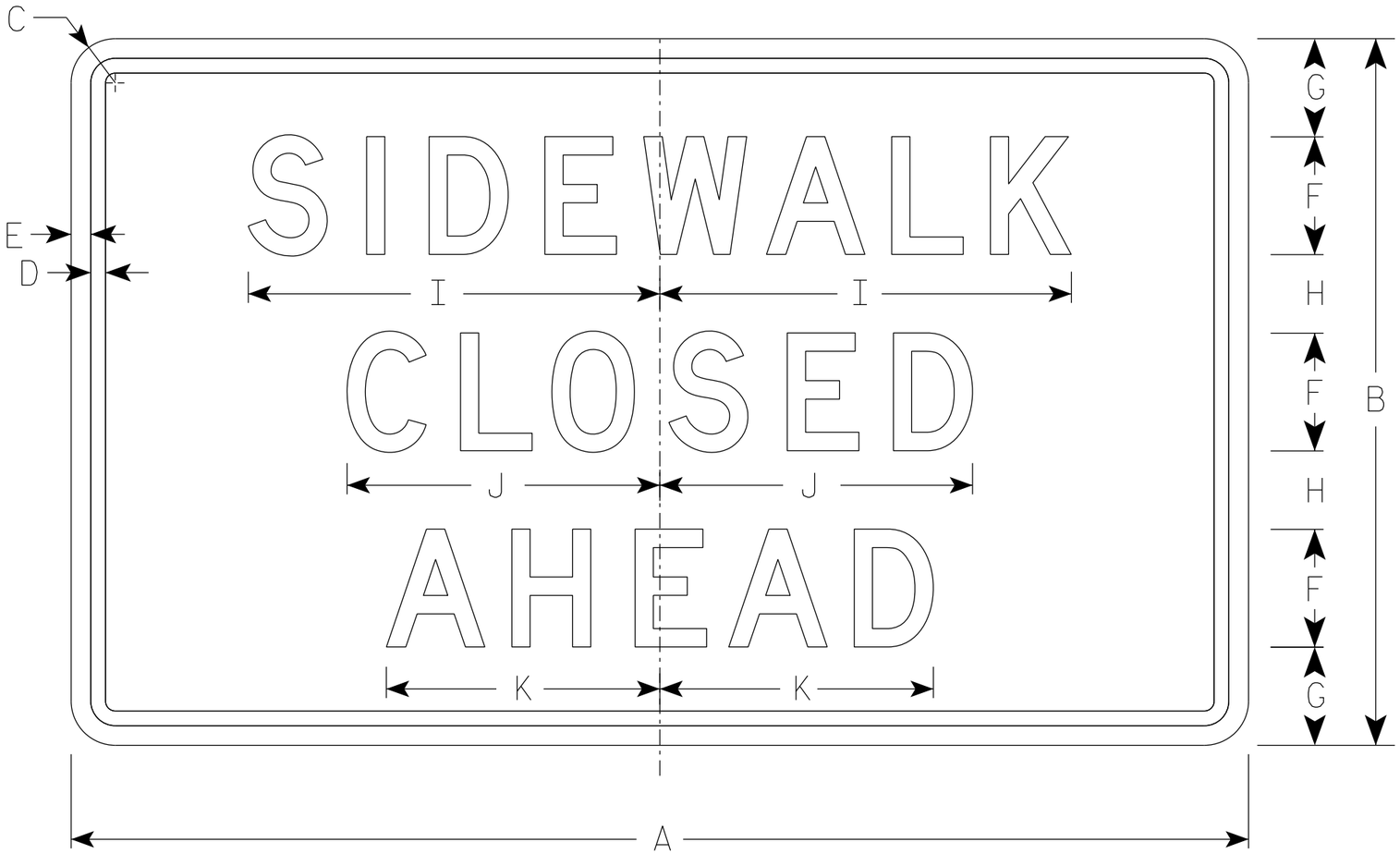
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 469 | 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																											

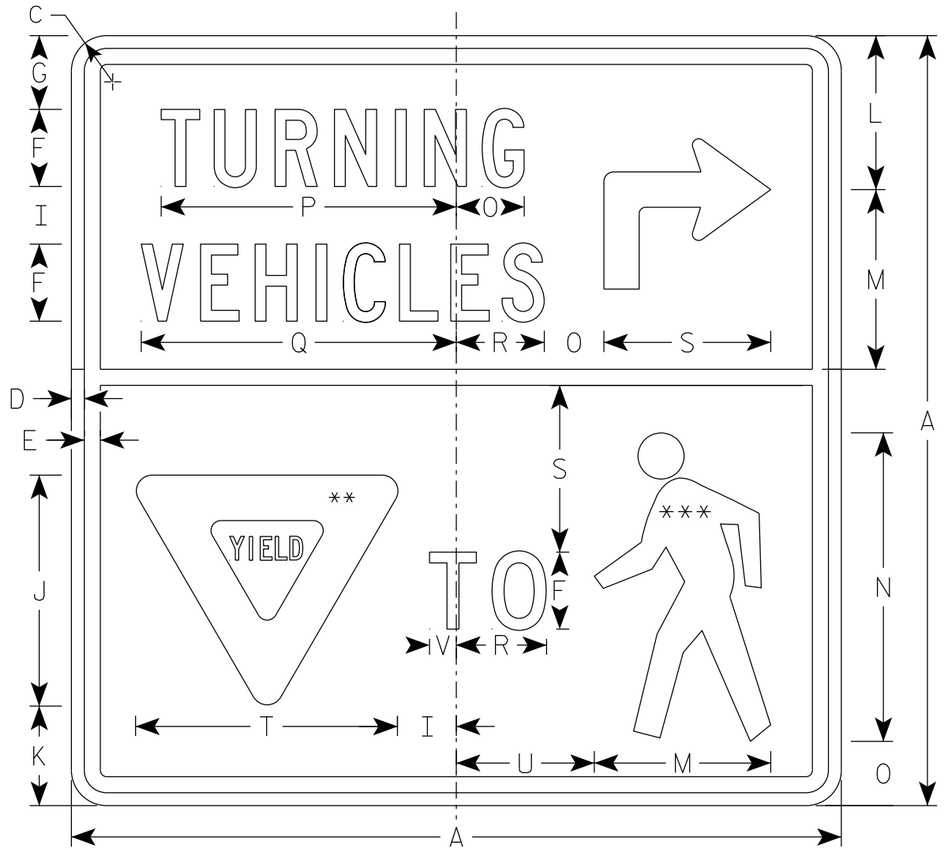
STANDARD SIGN
R9-9A

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: 470 | E



R10-15R

NOTES

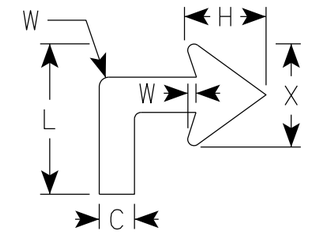
1. Sign is Type II - See Note 2 for Sheeting Type

2. Color:
   Background - Top Half - Yellow (Type F Reflective)
   Bottom Half - White (Type SH Reflective)
   Message - Black
   Yield Symbol - Red on White (Type SH Reflective)
   Ped Symbol - Black on White (Type SH Reflective)

3. Message Series - C except "TO" Series D

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
2M	30		1 7/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
3																											
4																											
5																											

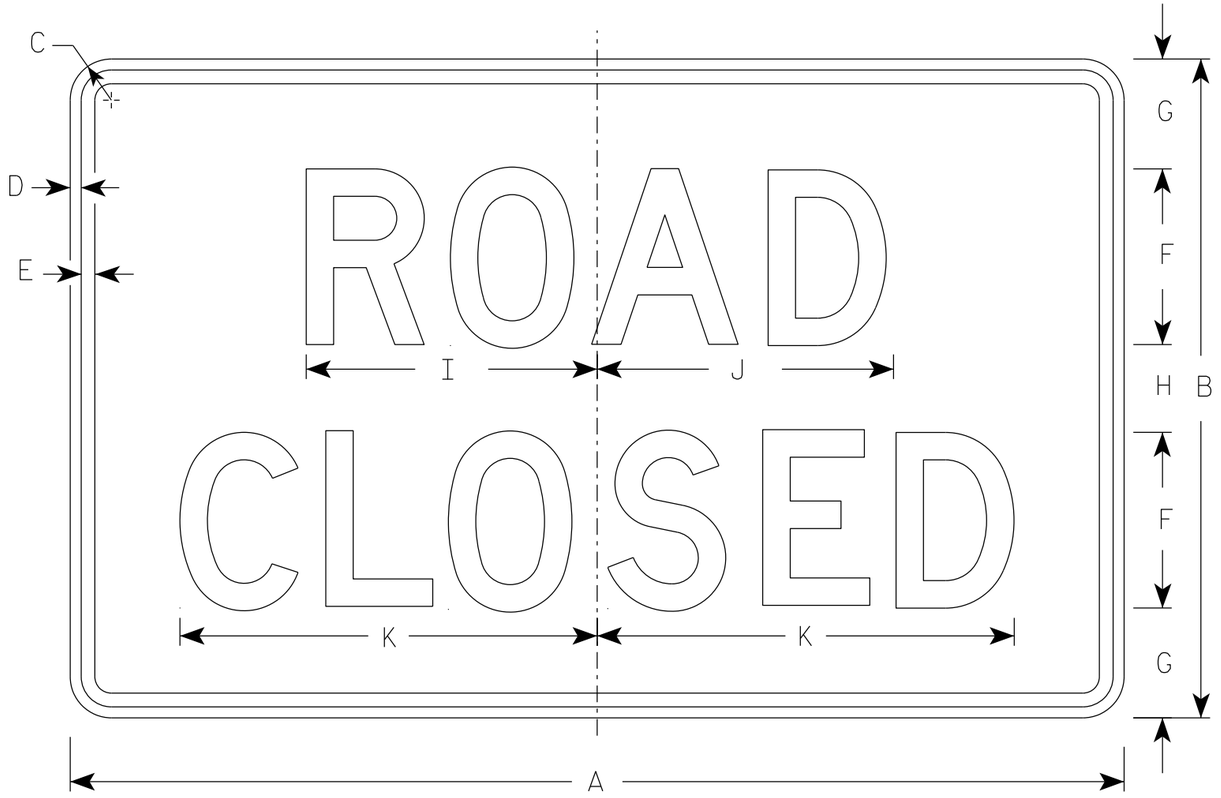
STANDARD SIGN
R10-15R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/24 PLATE NO. R10-15R.3

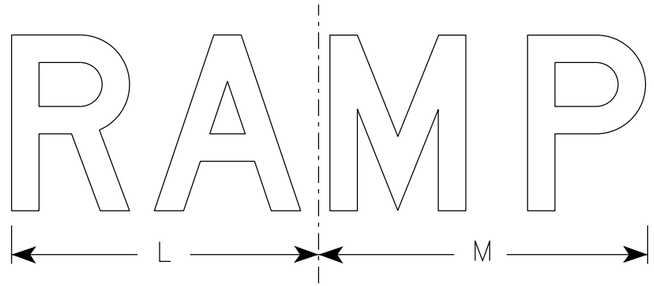
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 471	E



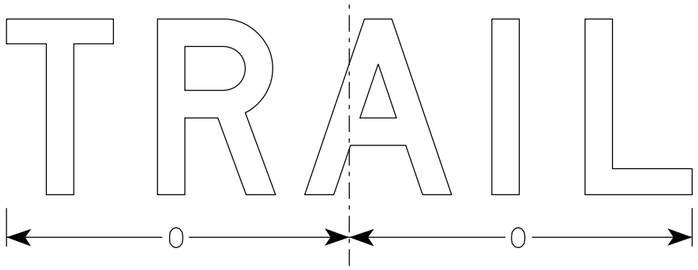
R11-2

NOTES

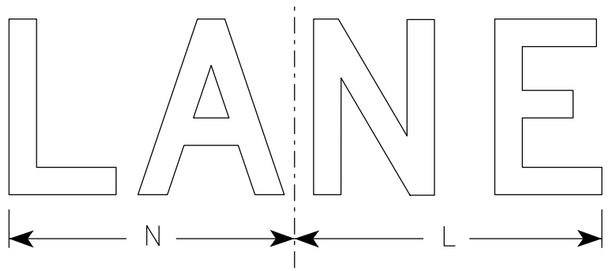
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the 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

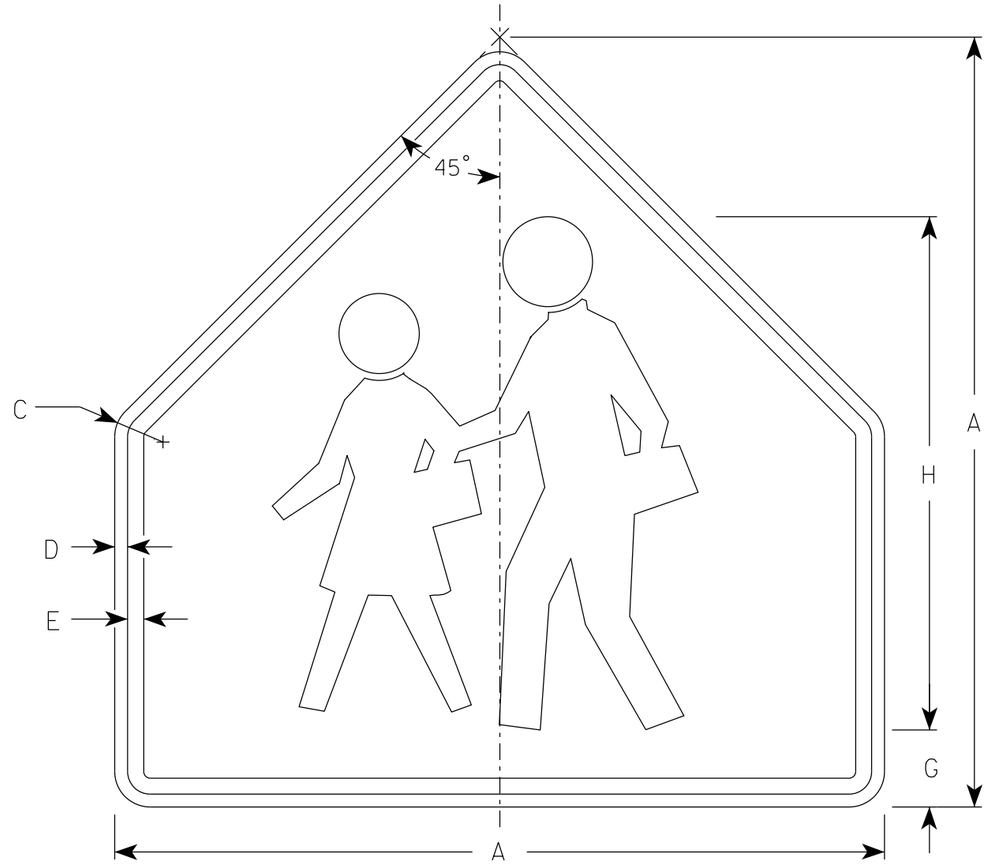
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 472 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

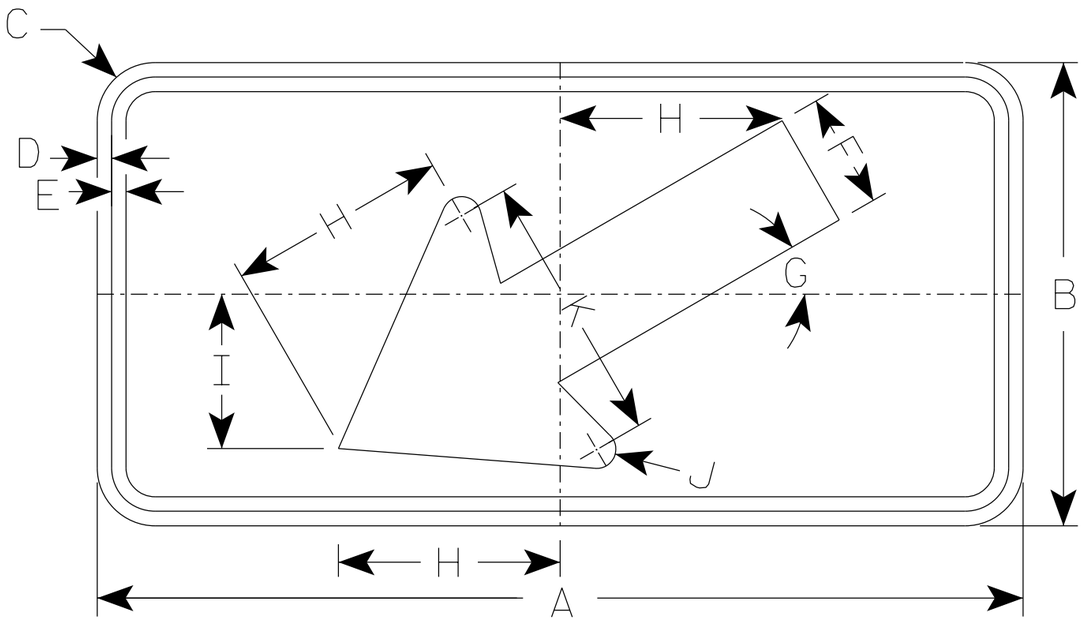
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 473 | E

7

7

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow-Green
   Message - Black
3. S16-7R is the same as S16-7L except the arrow is reversed along the vertical centerline.



S16-7L

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 ½	⅜	⅜	3	30°	5 ¾	4	½	7																2.0
2S	30	18	1 ½	⅜	½	4 ½	30°	8 ½	6	⅝	10 ¼																3.75
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
S16-7

WISCONSIN DEPT OF TRANSPORTATION

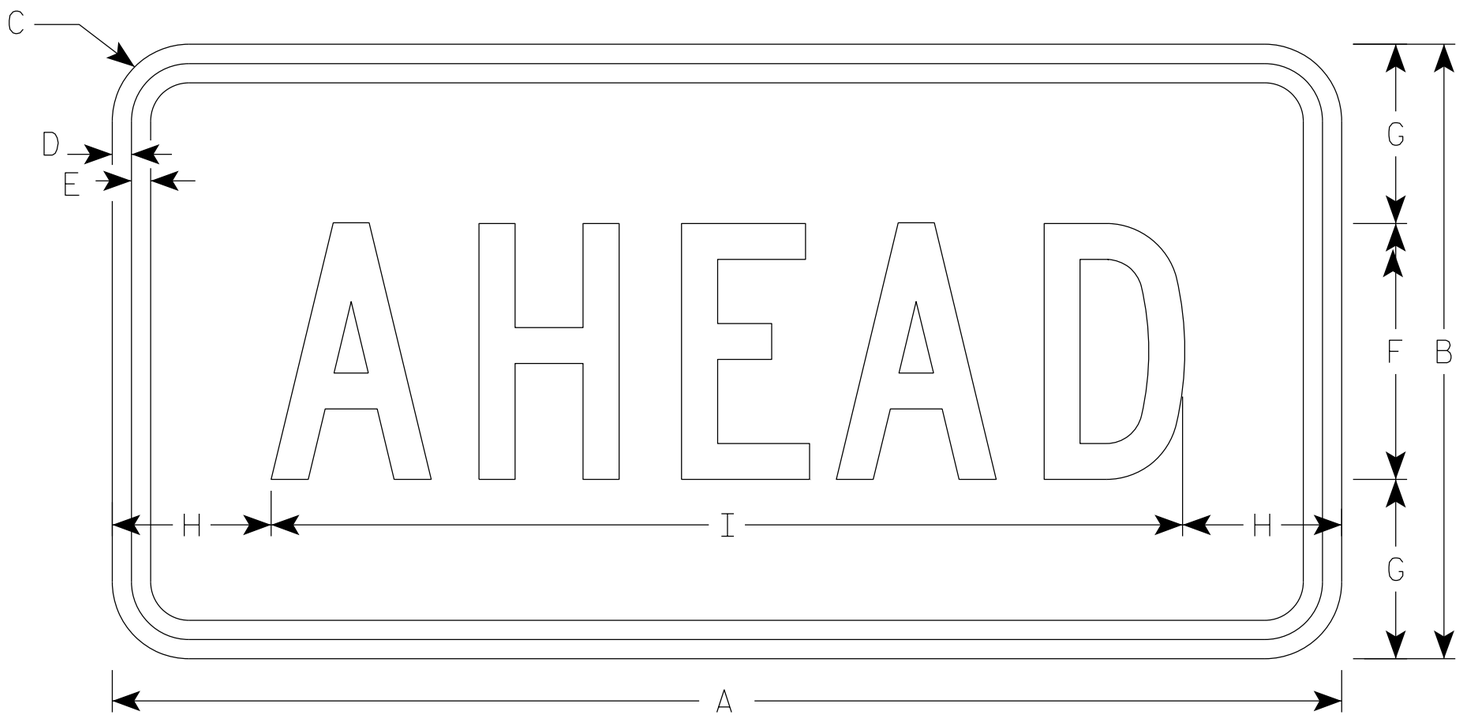
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/2023 PLATE NO. S16-7.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 474 | E

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

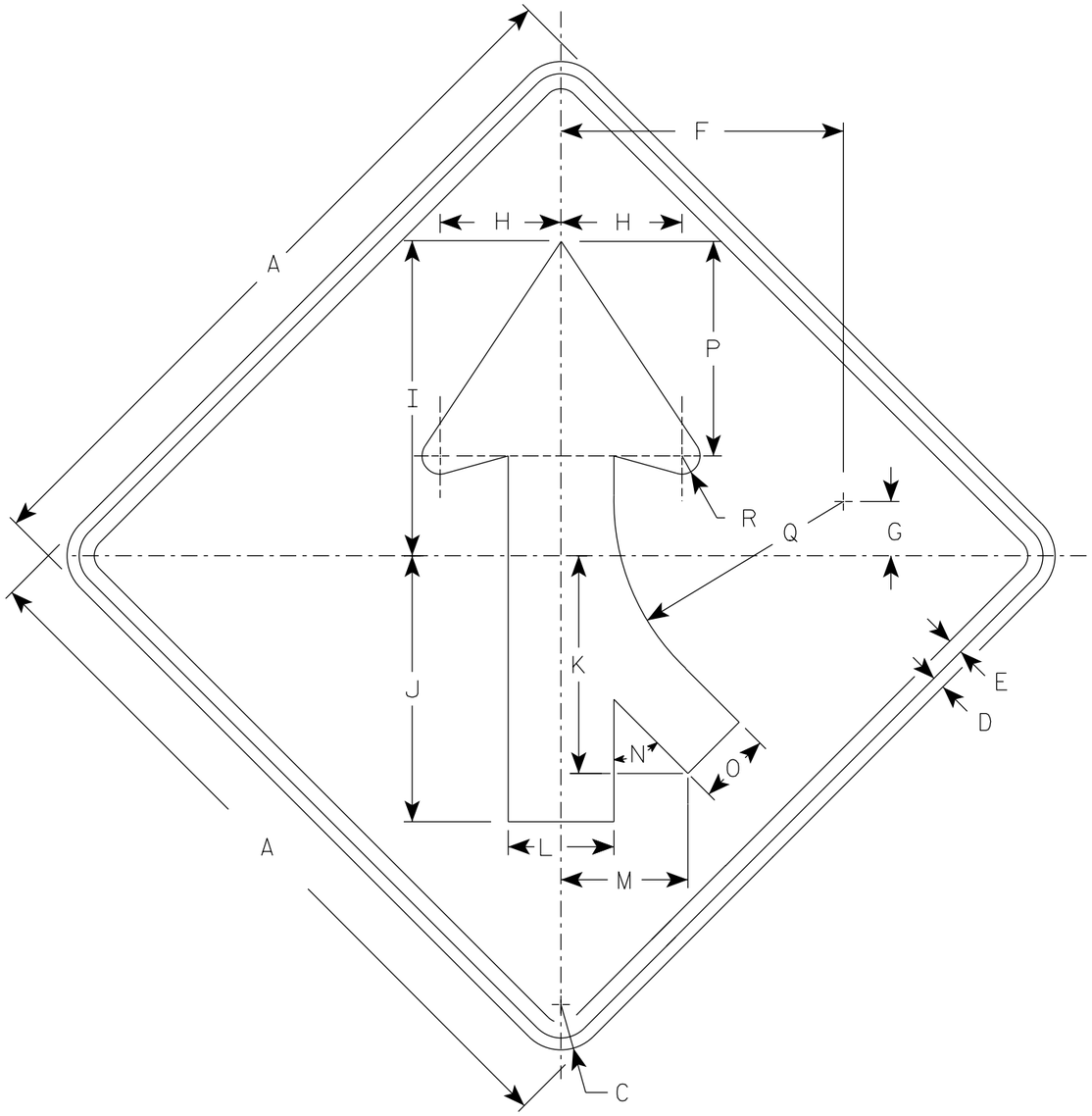
DATE 2/23/2023 PLATE NO. S16-9P.2

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

7

7



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

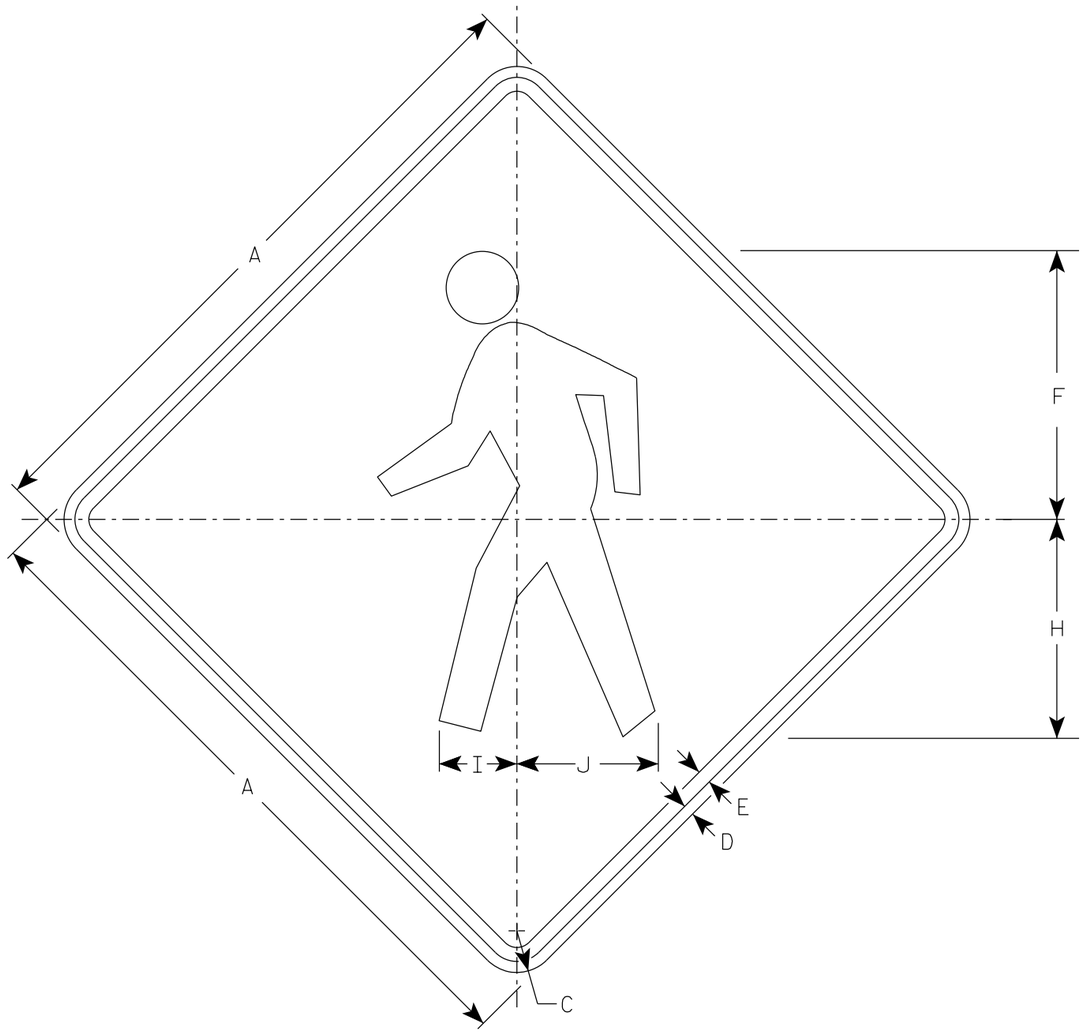
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/31/2023 PLATE NO. W4-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 476 E

7



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																											

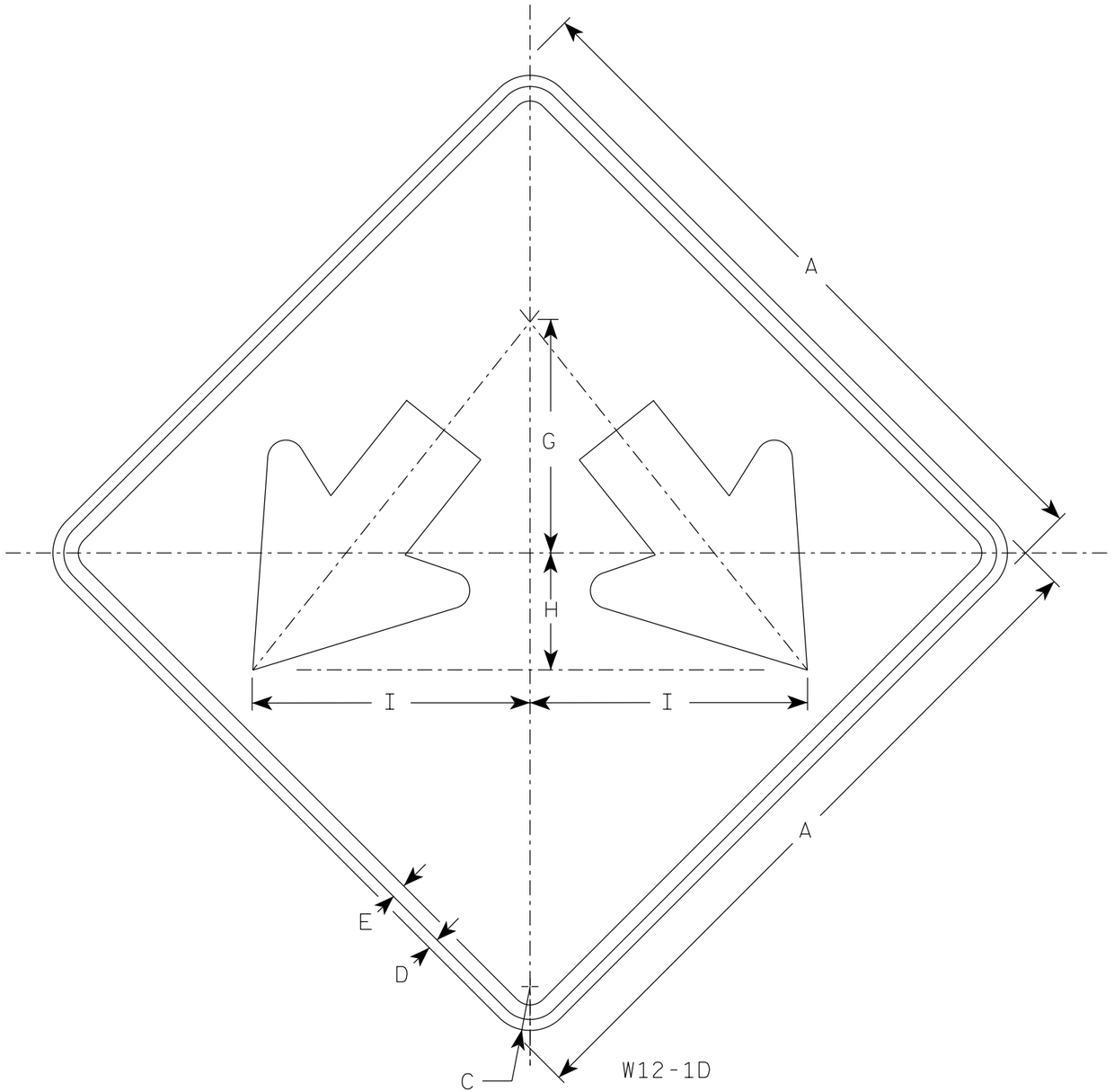
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

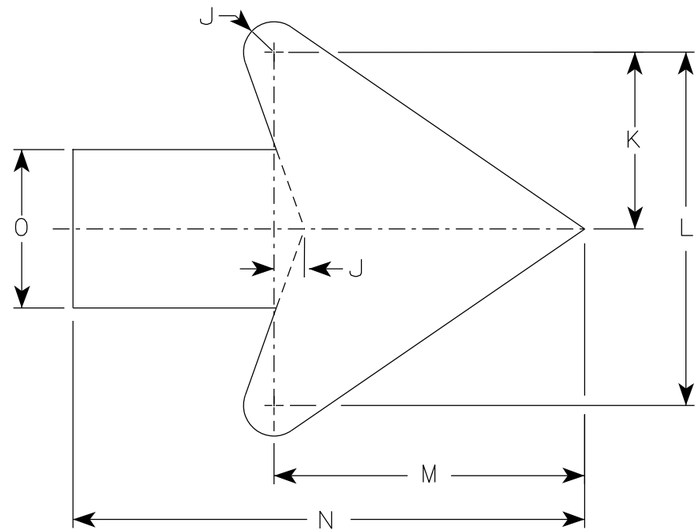
DATE 6/15/2023 PLATE NO. W11-2.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 477 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

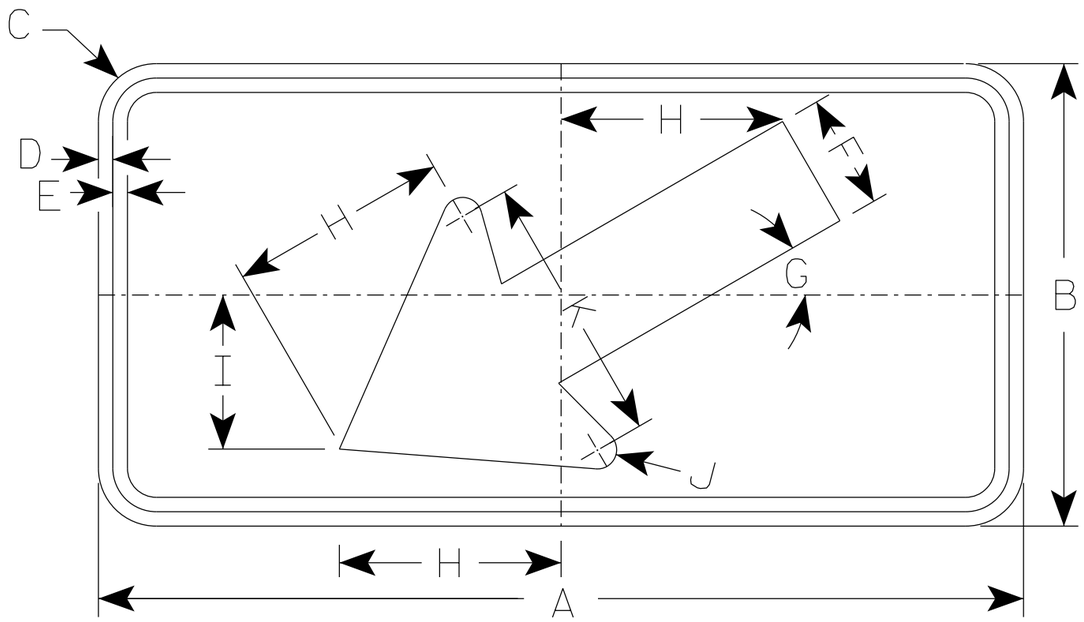
STANDARD SIGN
W12-1D

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: 478	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

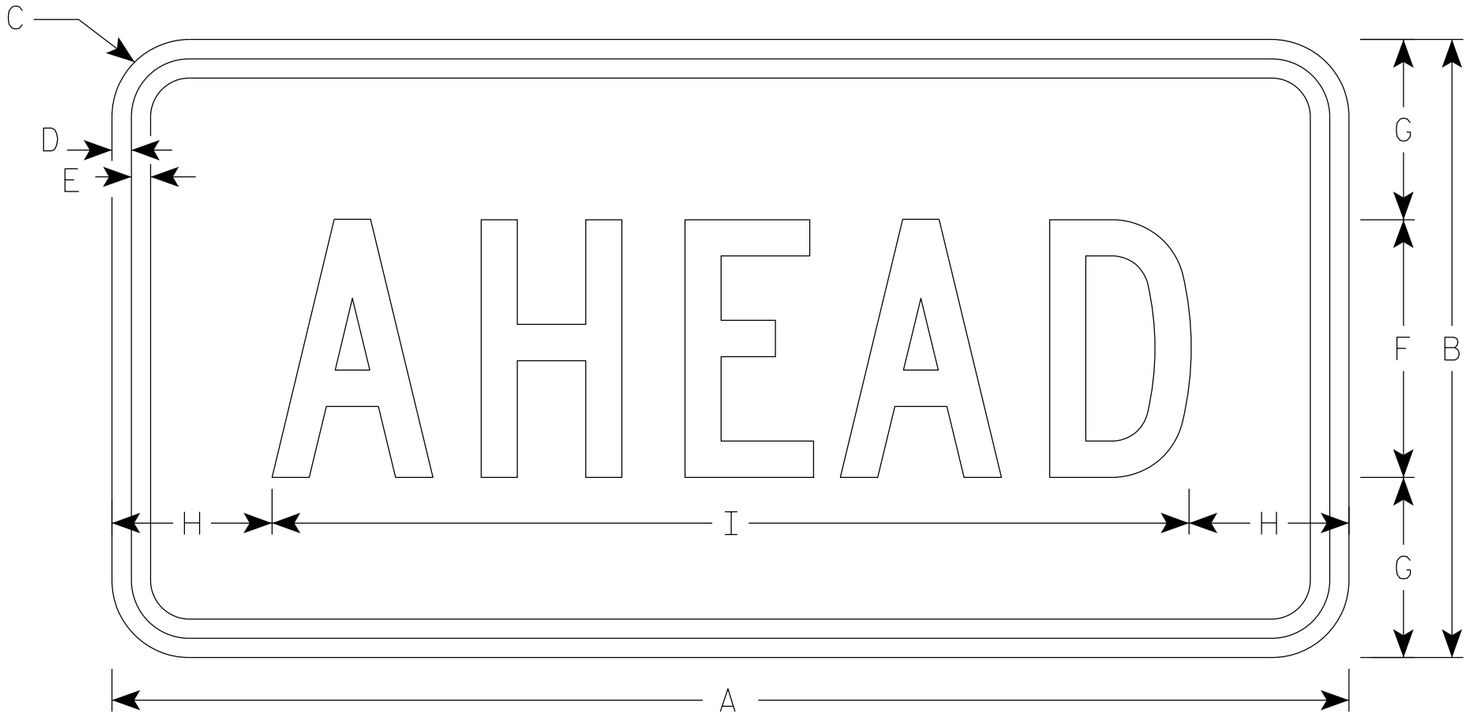
DATE 1/9/2024 PLATE NO. W16-7.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 479 E

7

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C



W16-9P

* For 36" x 36" Warning Signs, use 30" x 18" W16-9P signs.
* For 48" x 48" Warning Signs, use 48" x 24" W16-9P 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 1/2	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
*	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																											

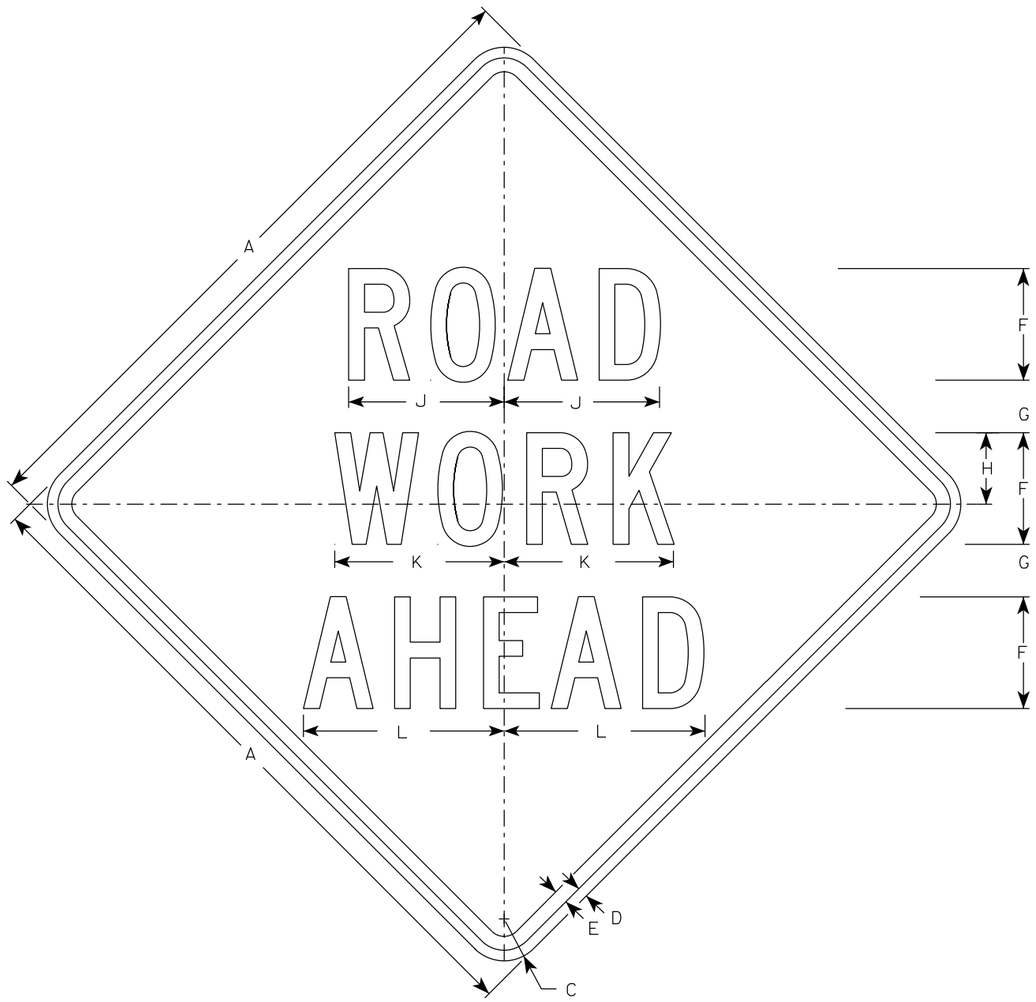
STANDARD SIGN
W16-9P

WISCONSIN DEPT OF TRANSPORTATION

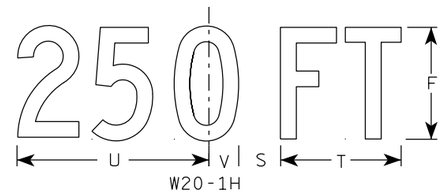
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/9/2024 PLATE NO. W16-9P.9

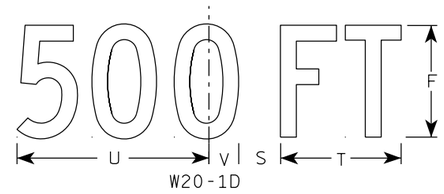
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 480 E



W20-1A



W20-1H



W20-1D



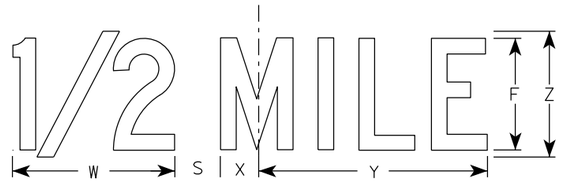
W20-1C



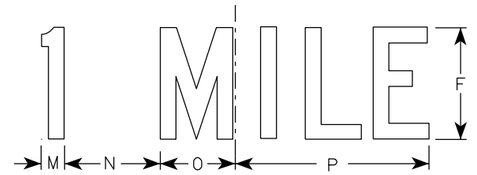
W20-1B

NOTES

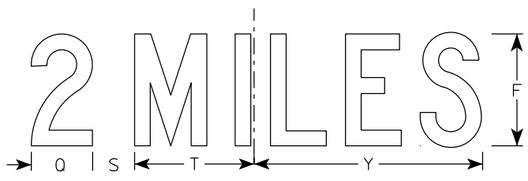
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



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

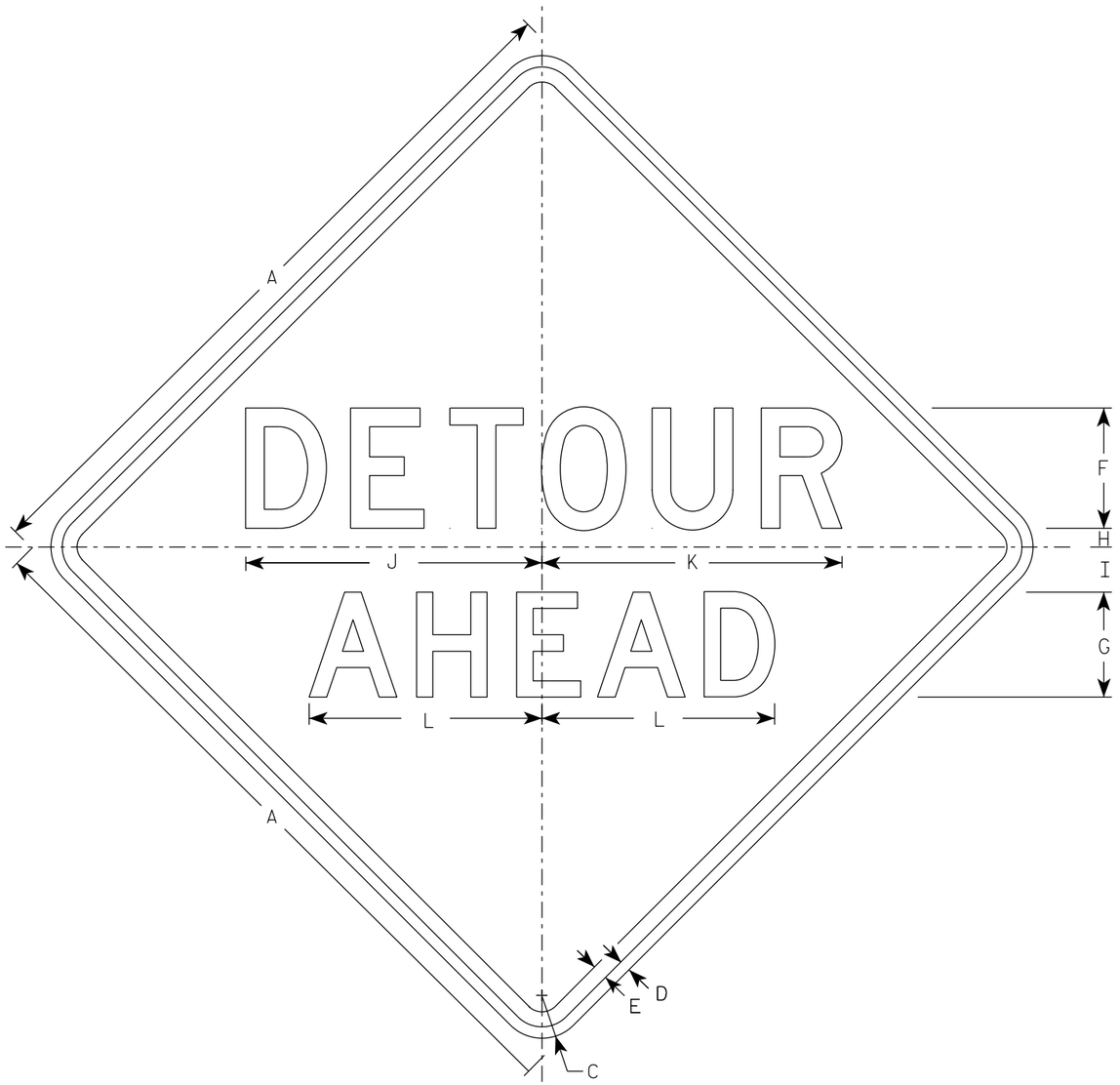
DATE 1/10/2024 PLATE NO. W20-1.12

PROJECT NO:

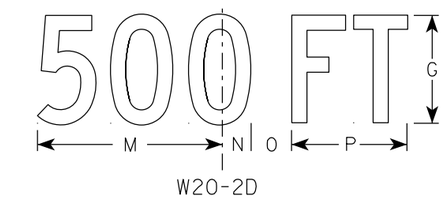
SHEET NO: 481 E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 10-JAN 2024 11:16 PLOT BY : dotc4c

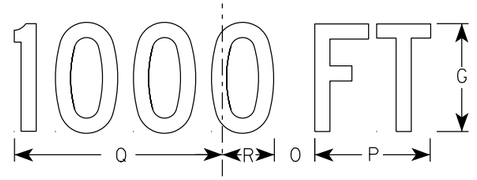
WISDOT/CADDS SHEET 42



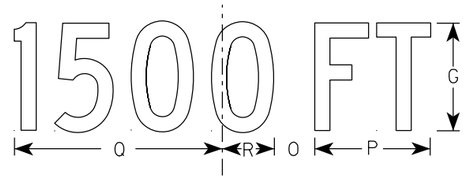
W20-2A



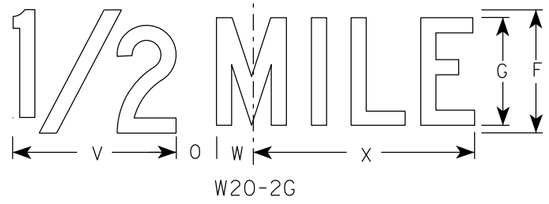
W20-2D



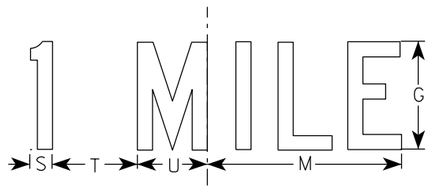
W20-2C



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

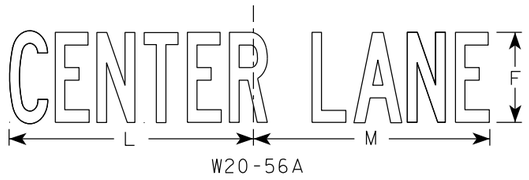
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

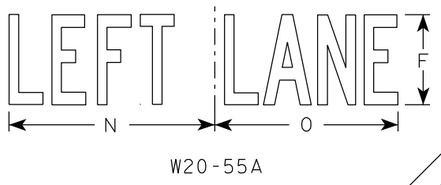
DATE 1/10/2024 PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

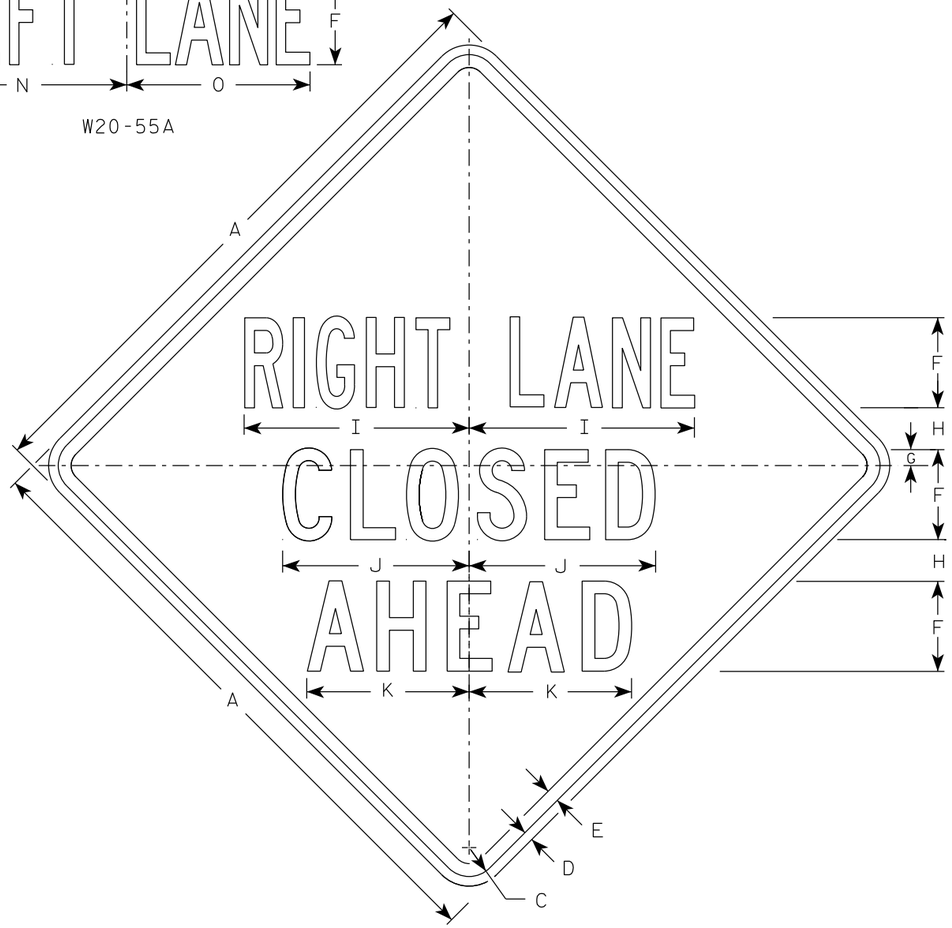
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W202.DGN PLOT DATE : 10-JAN 2024 11:36 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



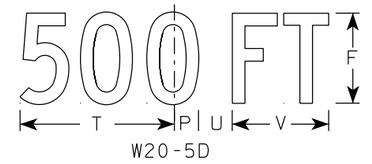
W20-56A



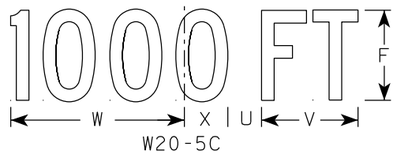
W20-55A



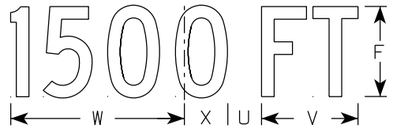
W20-5A



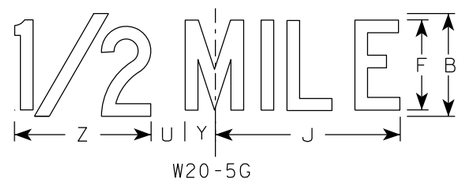
W20-5D



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

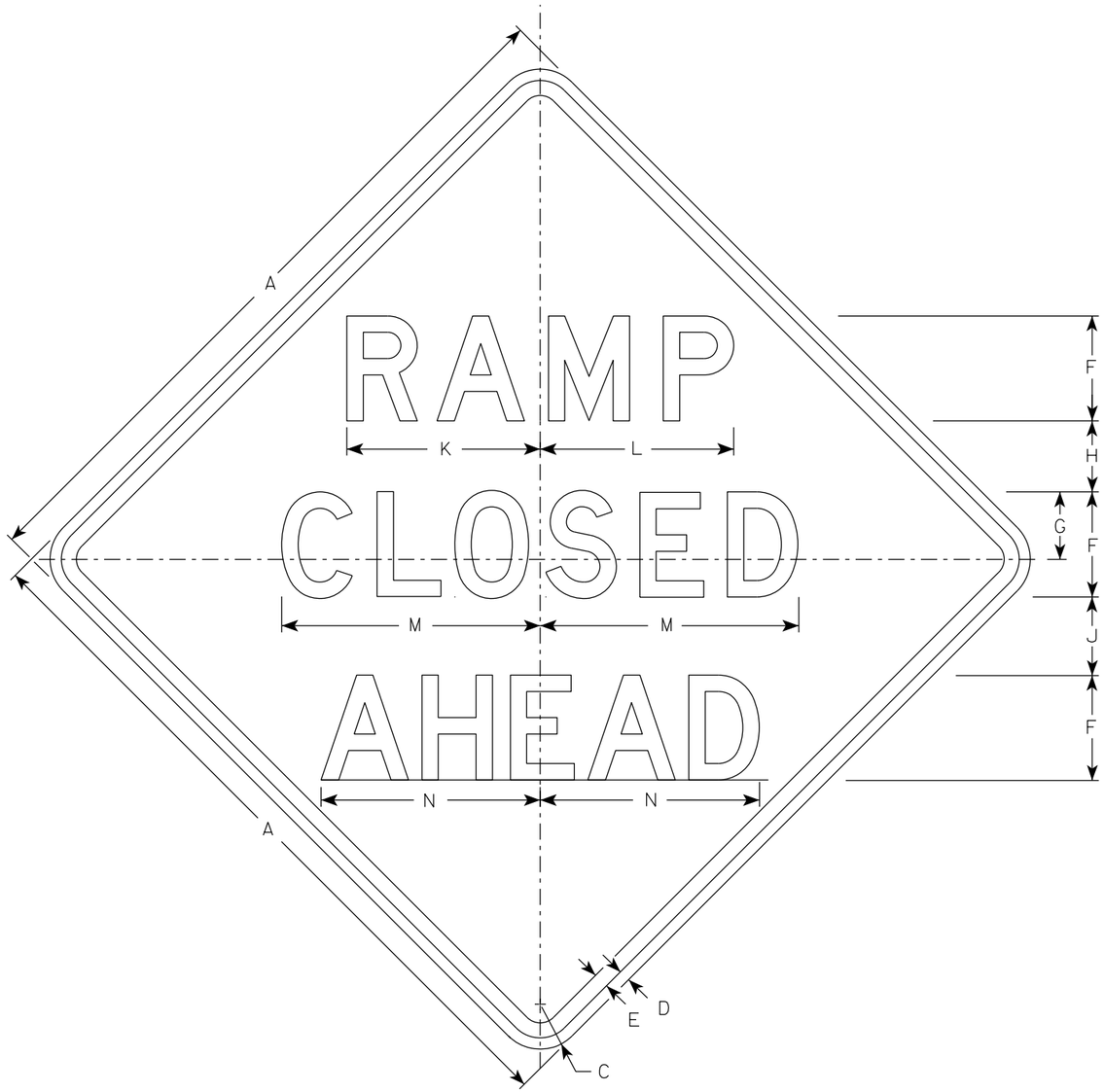
STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

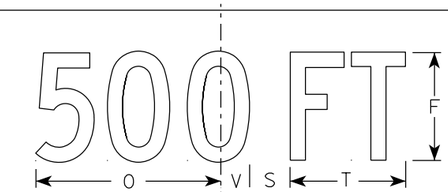
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/27/24 PLATE NO. W20-5.12

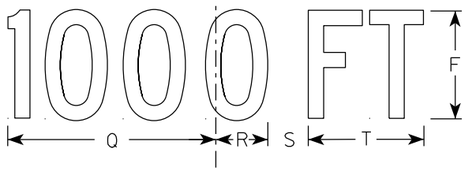
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 483	E



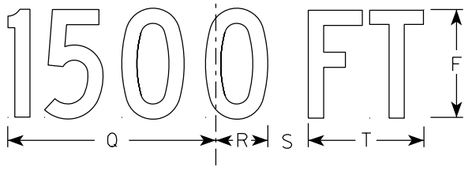
W20-53A



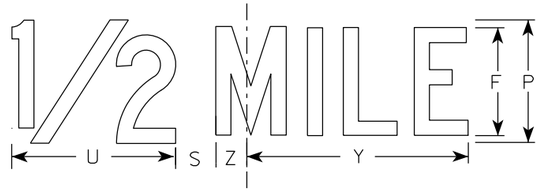
W20-53D



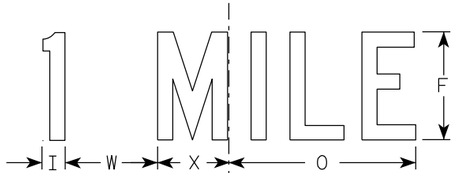
W20-53C



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

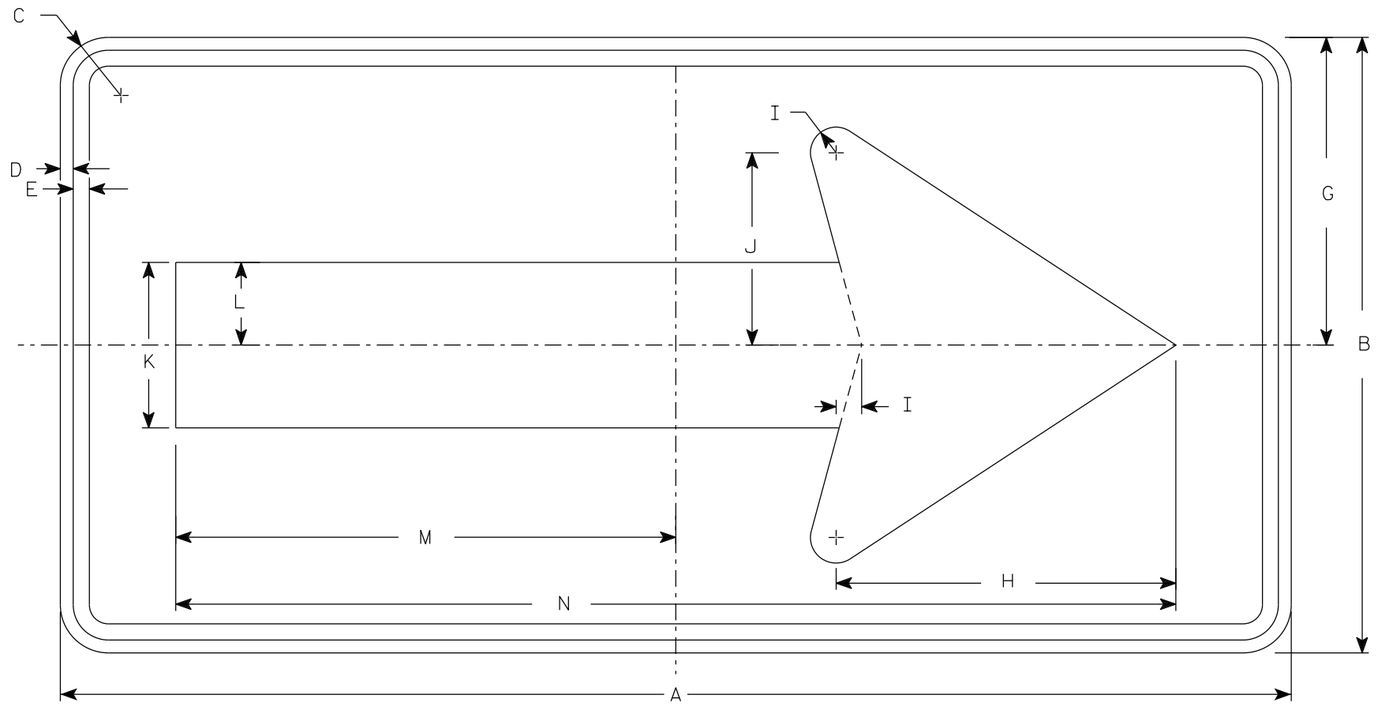
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-53.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W2053.DGN PLOT DATE : 10-JAN 2024 2:38 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

7



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

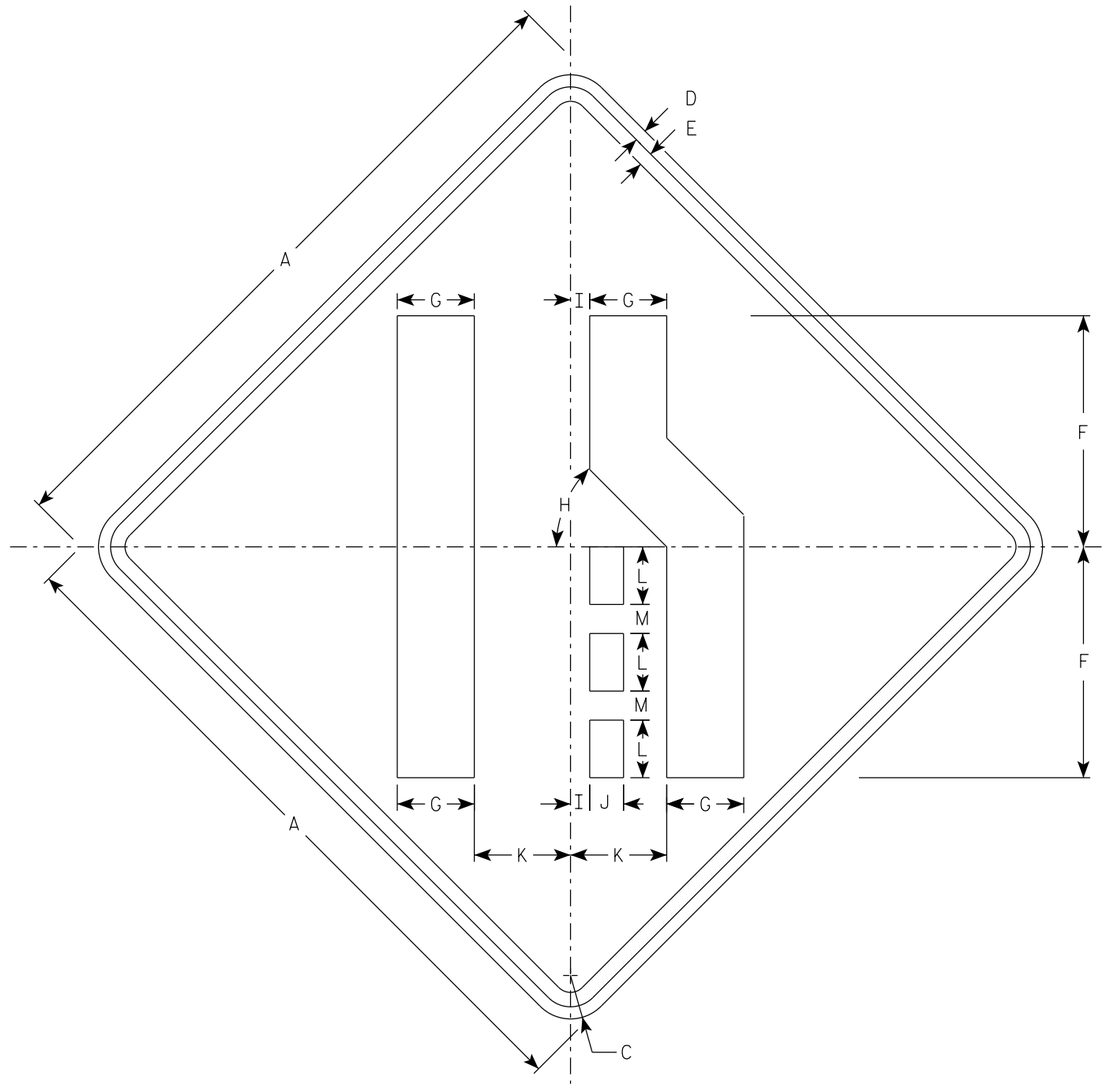
STANDARD SIGN
WO1-6

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

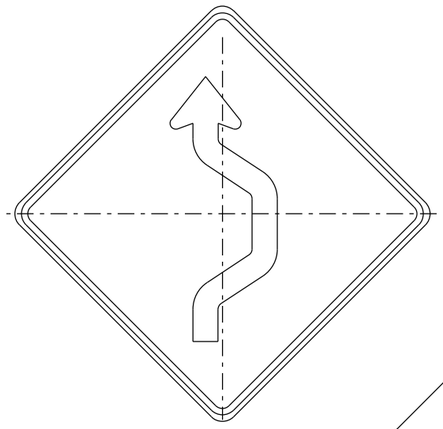
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

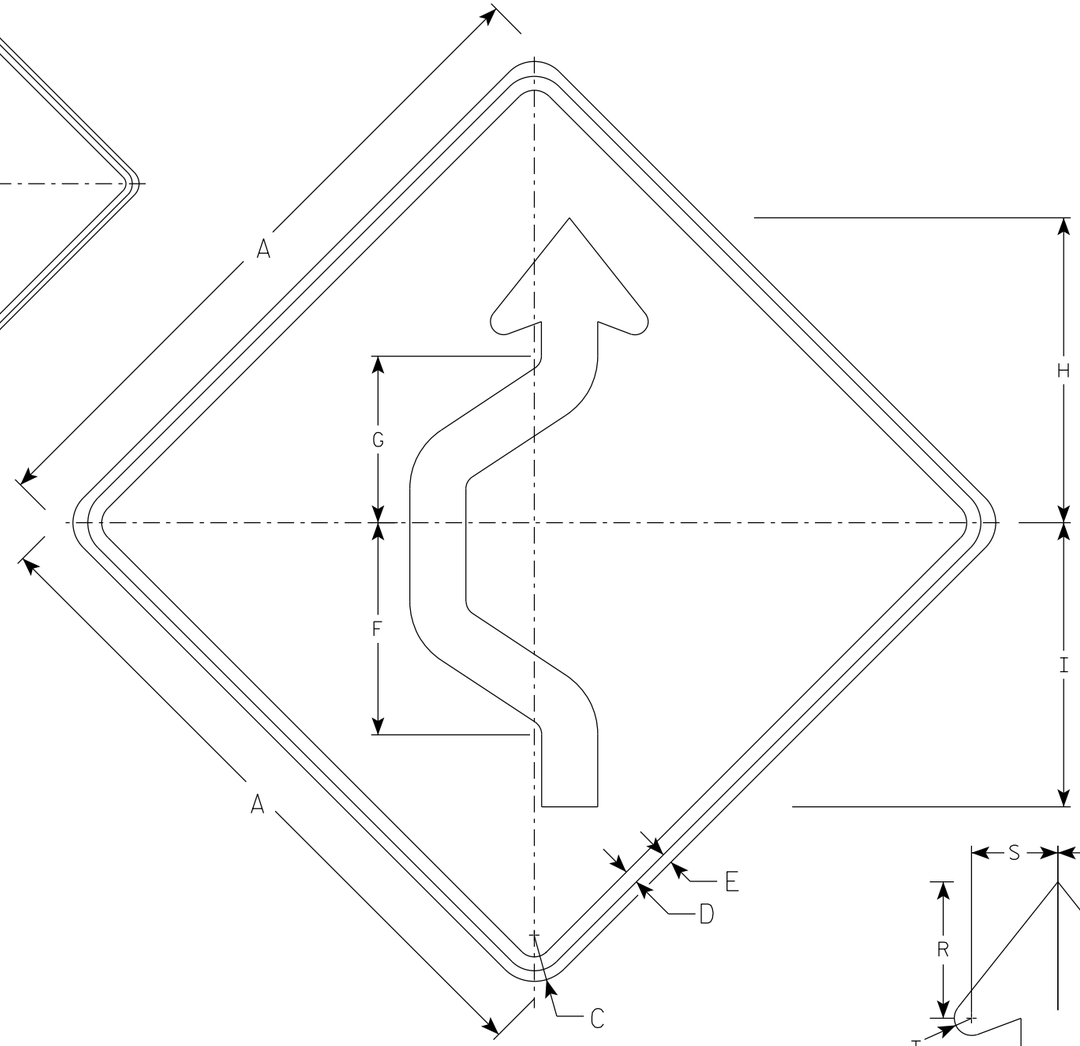
DATE 1/25/2024 PLATE NO. W04-2.2

PROJECT NO:

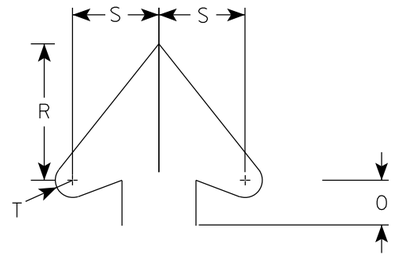
SHEET NO: 486 E



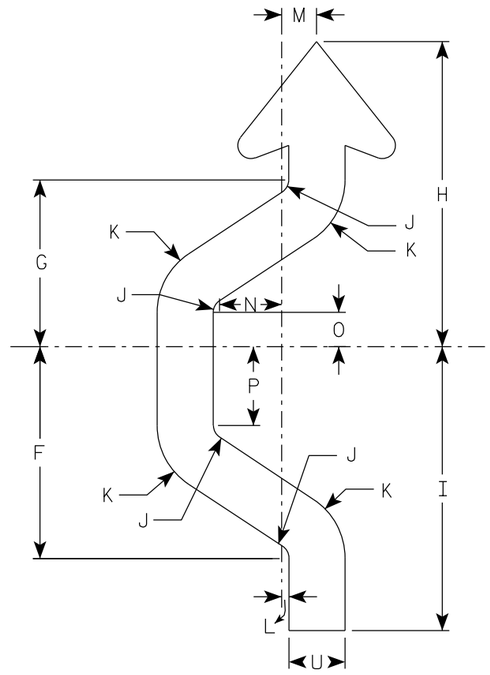
W024-1R



W024-1L



Arrowhead Detail



Arrow Detail

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. W024-1R is the same as W024-1L 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	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
2S	48		3	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16.0
2M	48		3	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16.0
3	48		3	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16.0
4	48		3	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16.0
5	48		3	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16.0

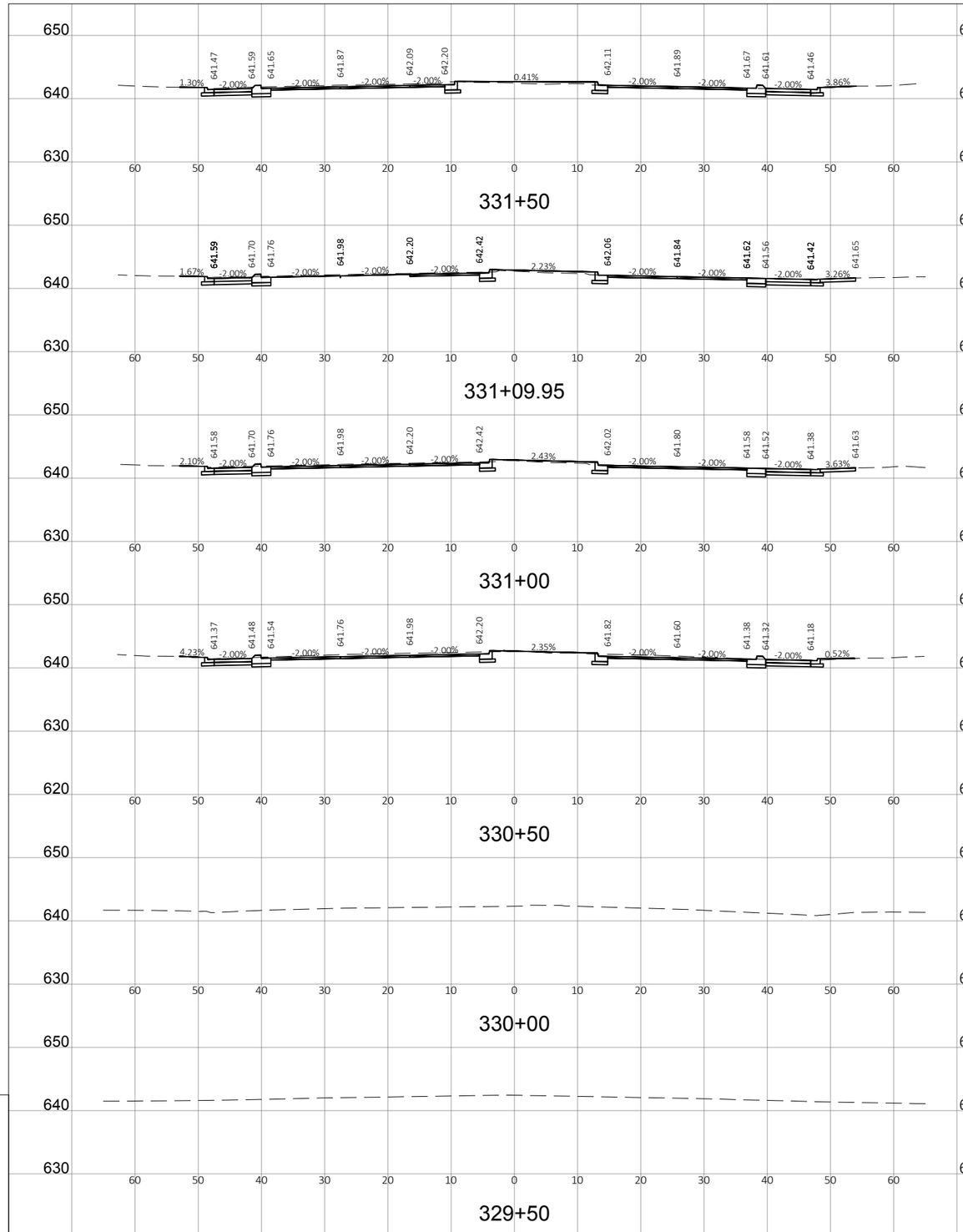
STANDARD SIGN
W024-1 L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W024-1.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

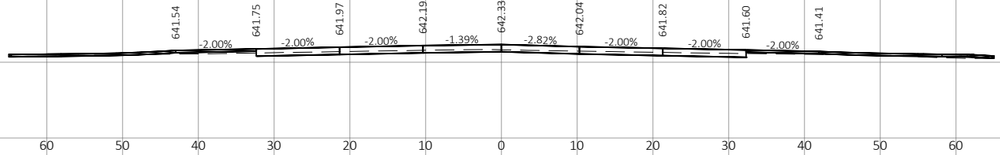


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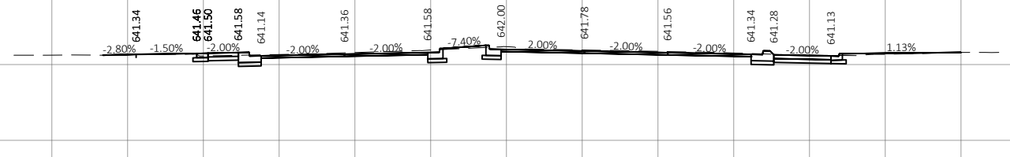
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 488	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CROSS SECTIONS.DWG PLOT DATE : 1/23/2025 3:29 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20' HORZ. / 1" = 20' VERT.

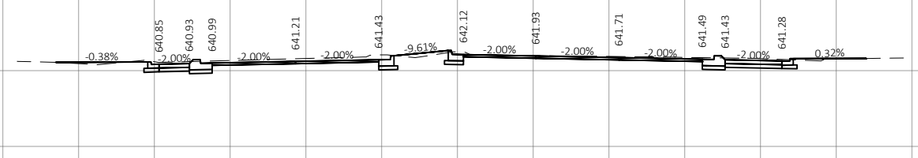
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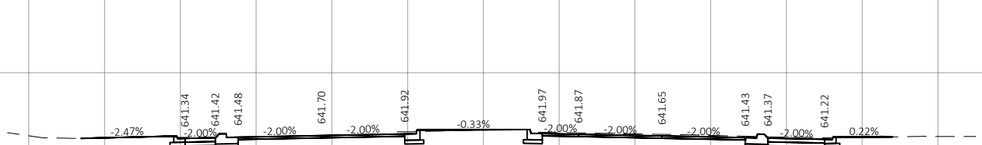
336+00



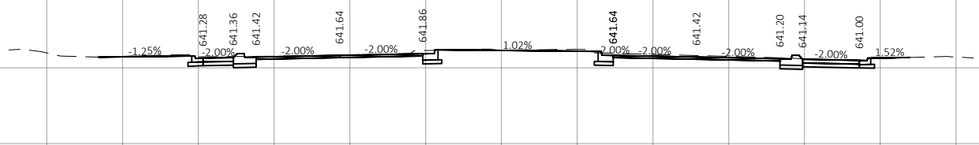
335+50



335+00

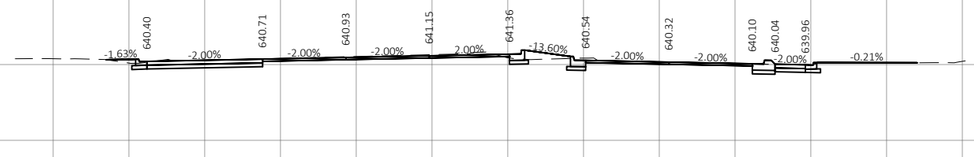


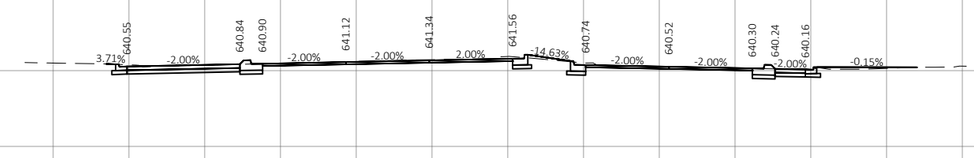
334+50



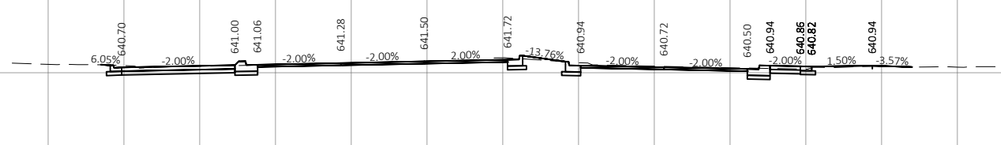
334+00

338+00

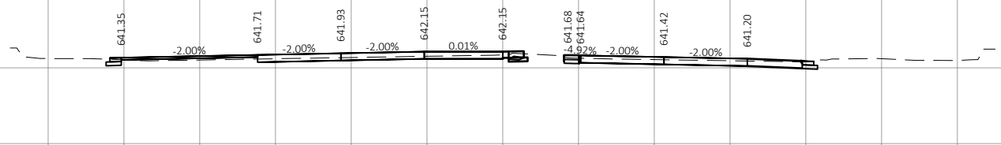




337+50



337+00



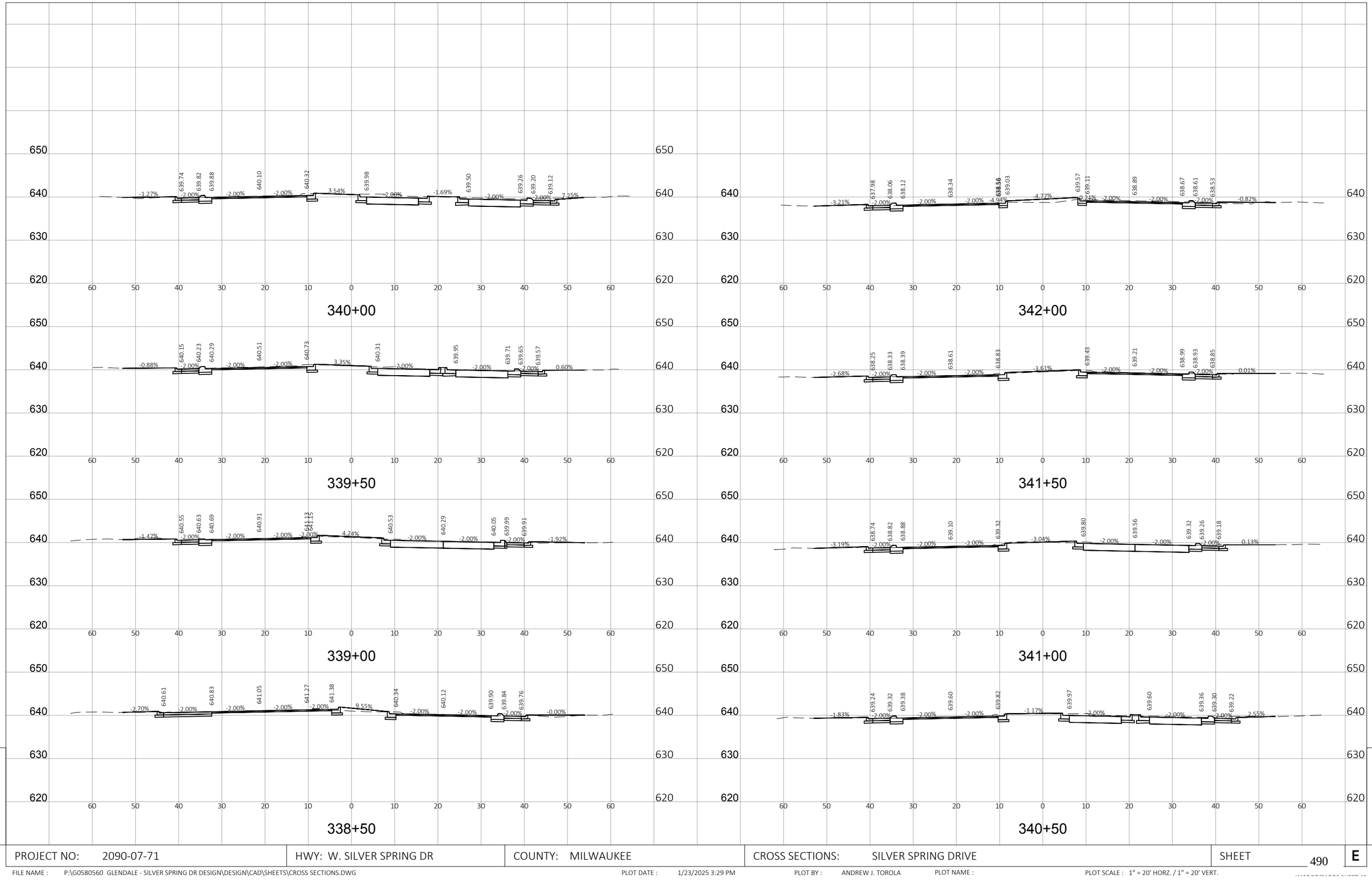
336+50

9

9

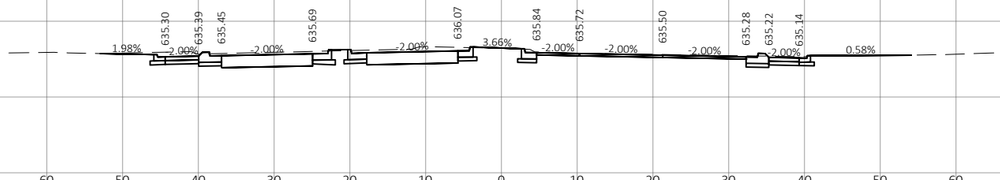
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 489	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CROSS SECTIONS.DWG PLOT DATE : 1/23/2025 3:29 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20' HORZ. / 1" = 20' VERT.

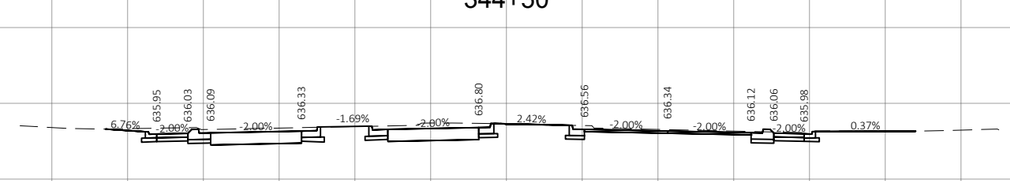


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 490 E

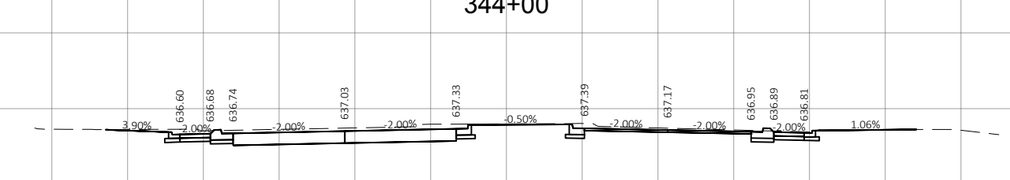
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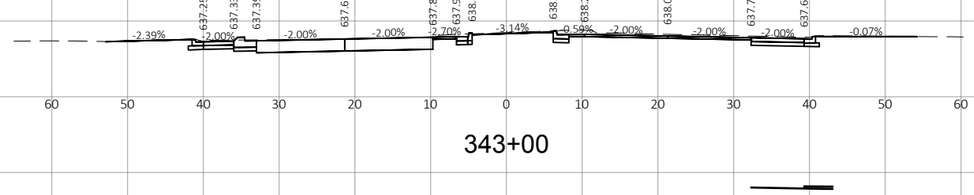
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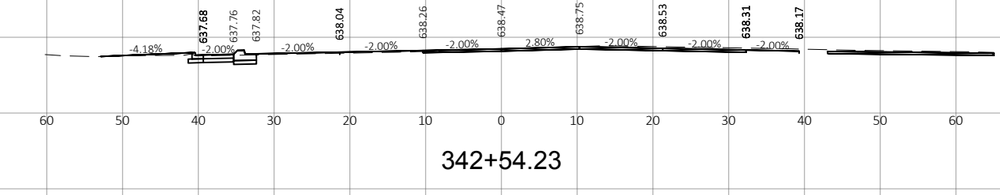
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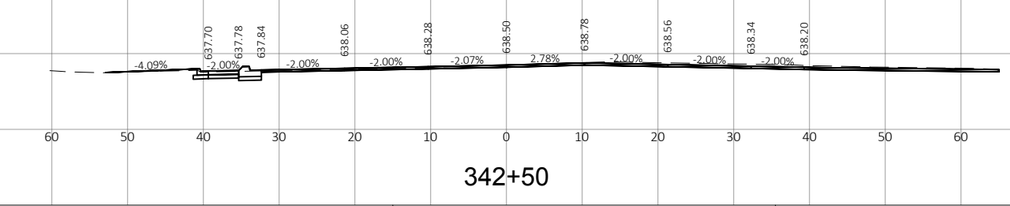
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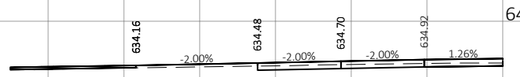
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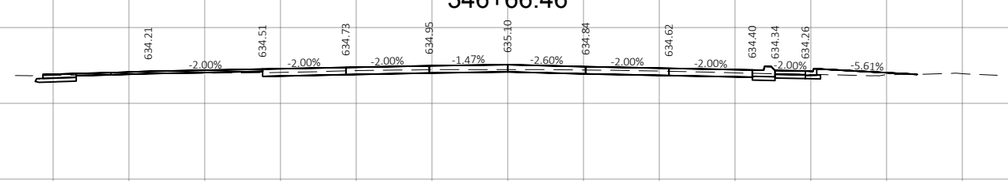
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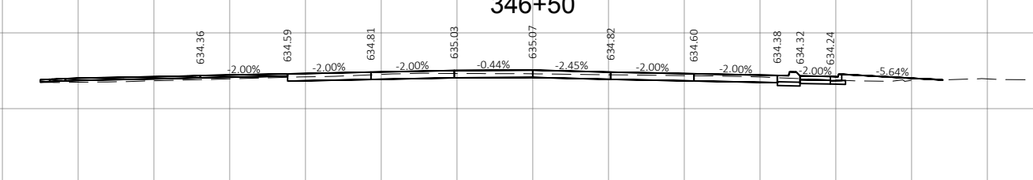
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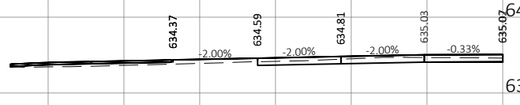
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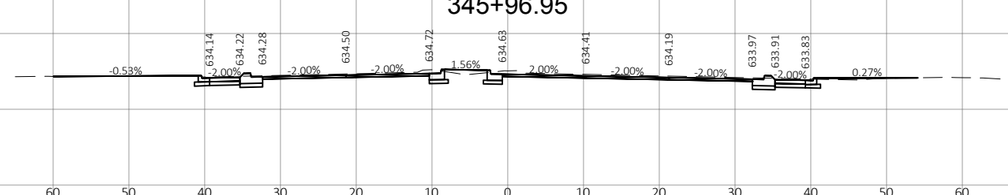
346+50



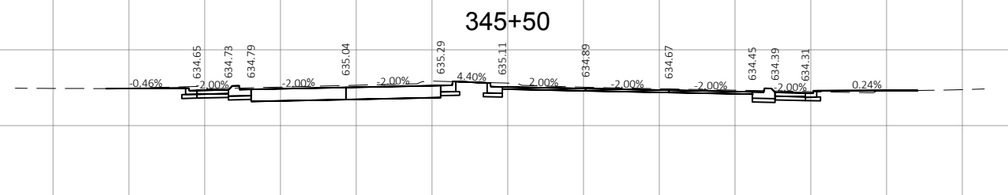
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345+96.95



345+50



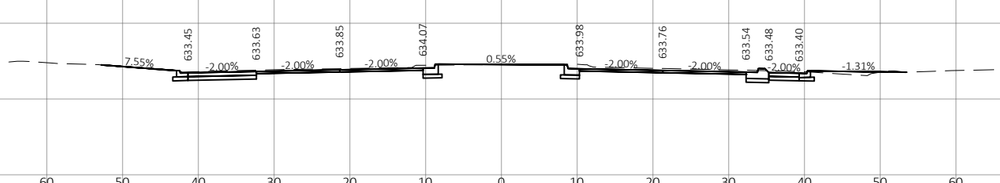
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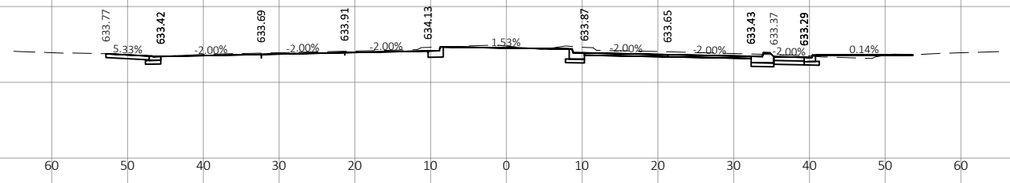
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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 491	E

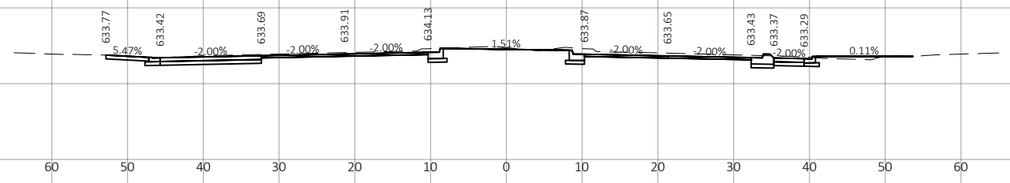
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CROSS SECTIONS.DWG PLOT DATE : 1/23/2025 3:30 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20' HORZ. / 1" = 20' VERT.



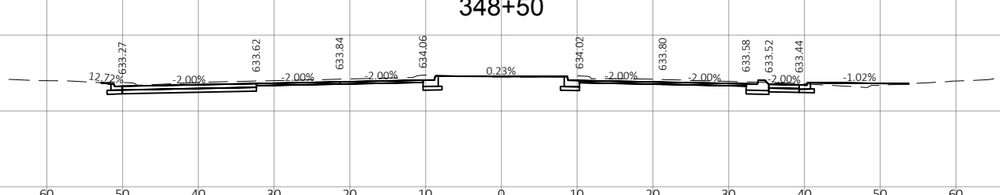
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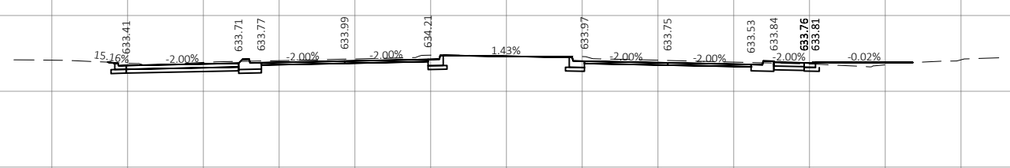
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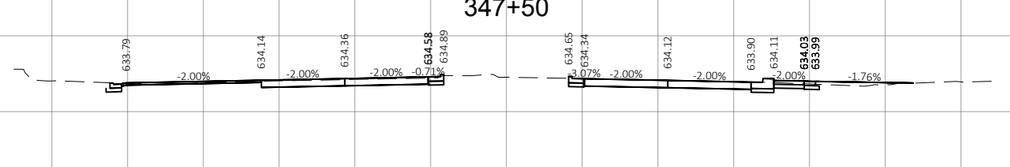
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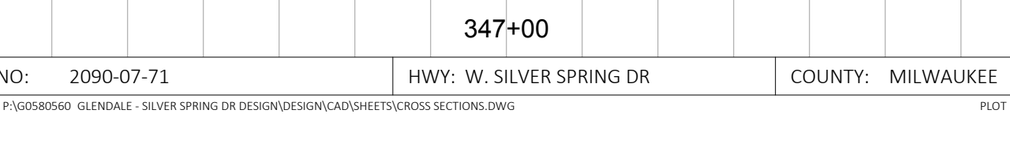
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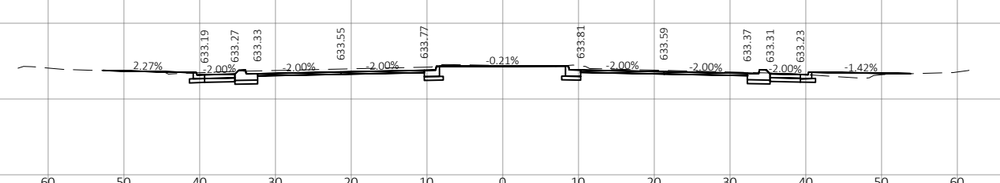
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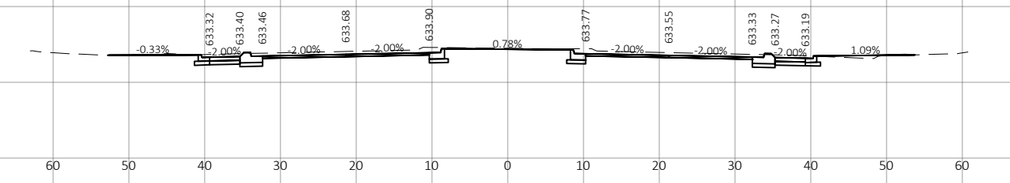
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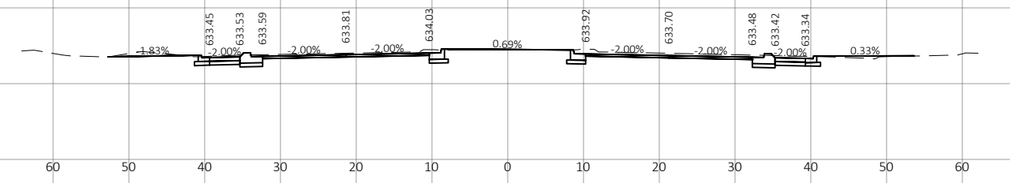
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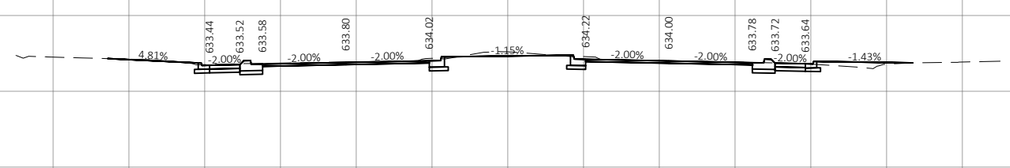
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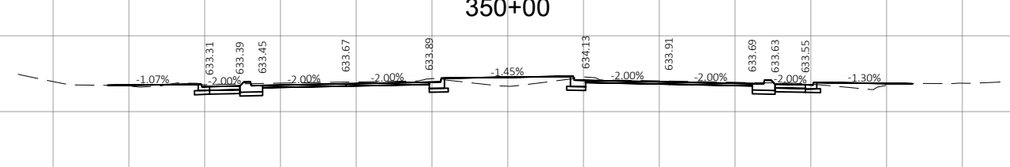
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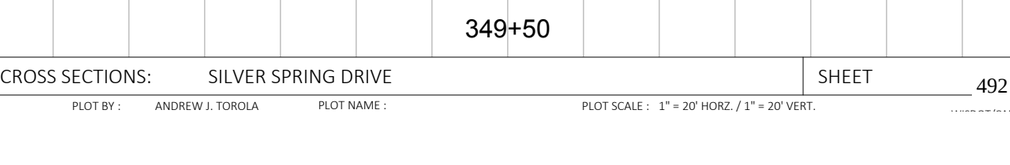
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350+00



349+50

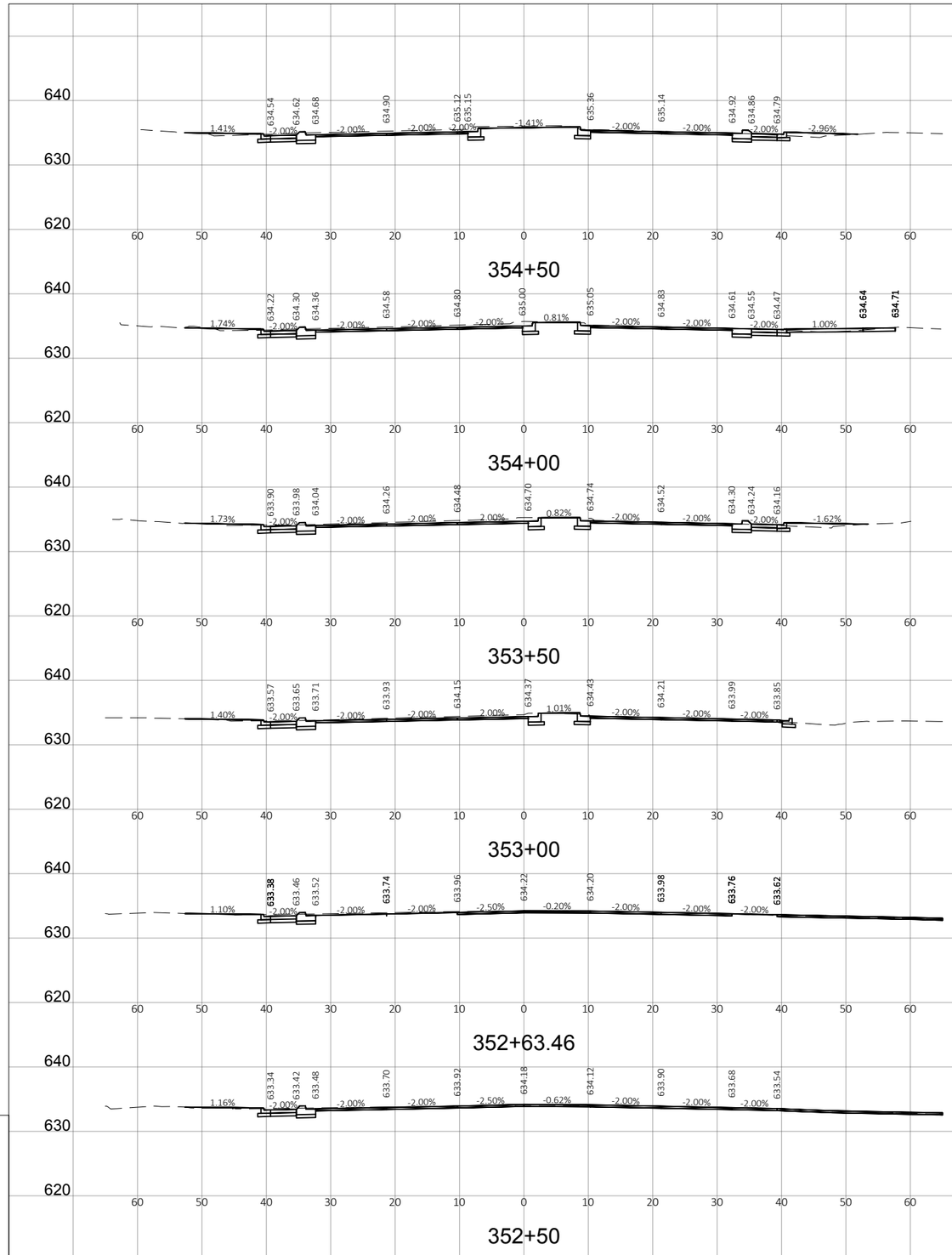


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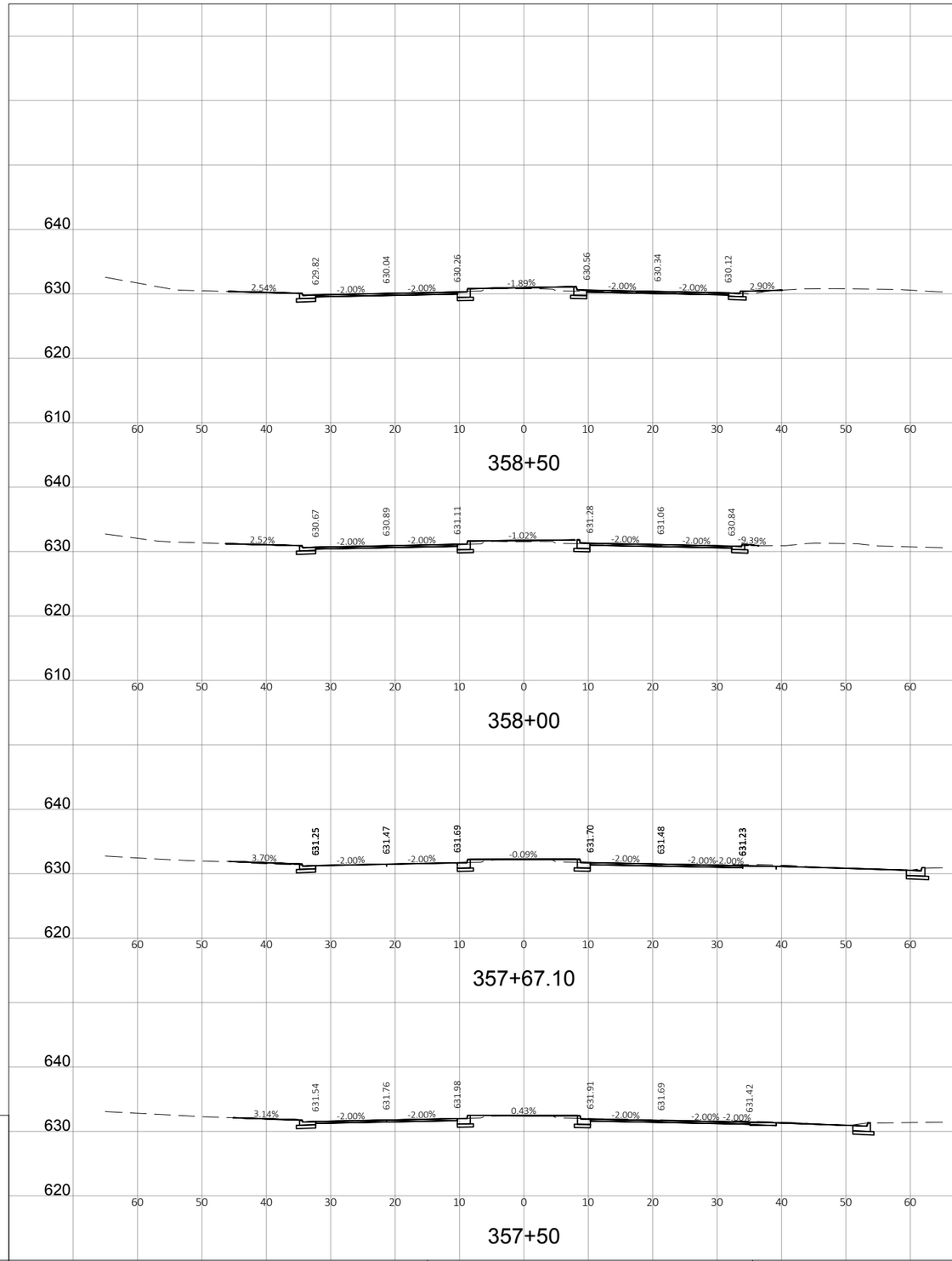
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 492	E

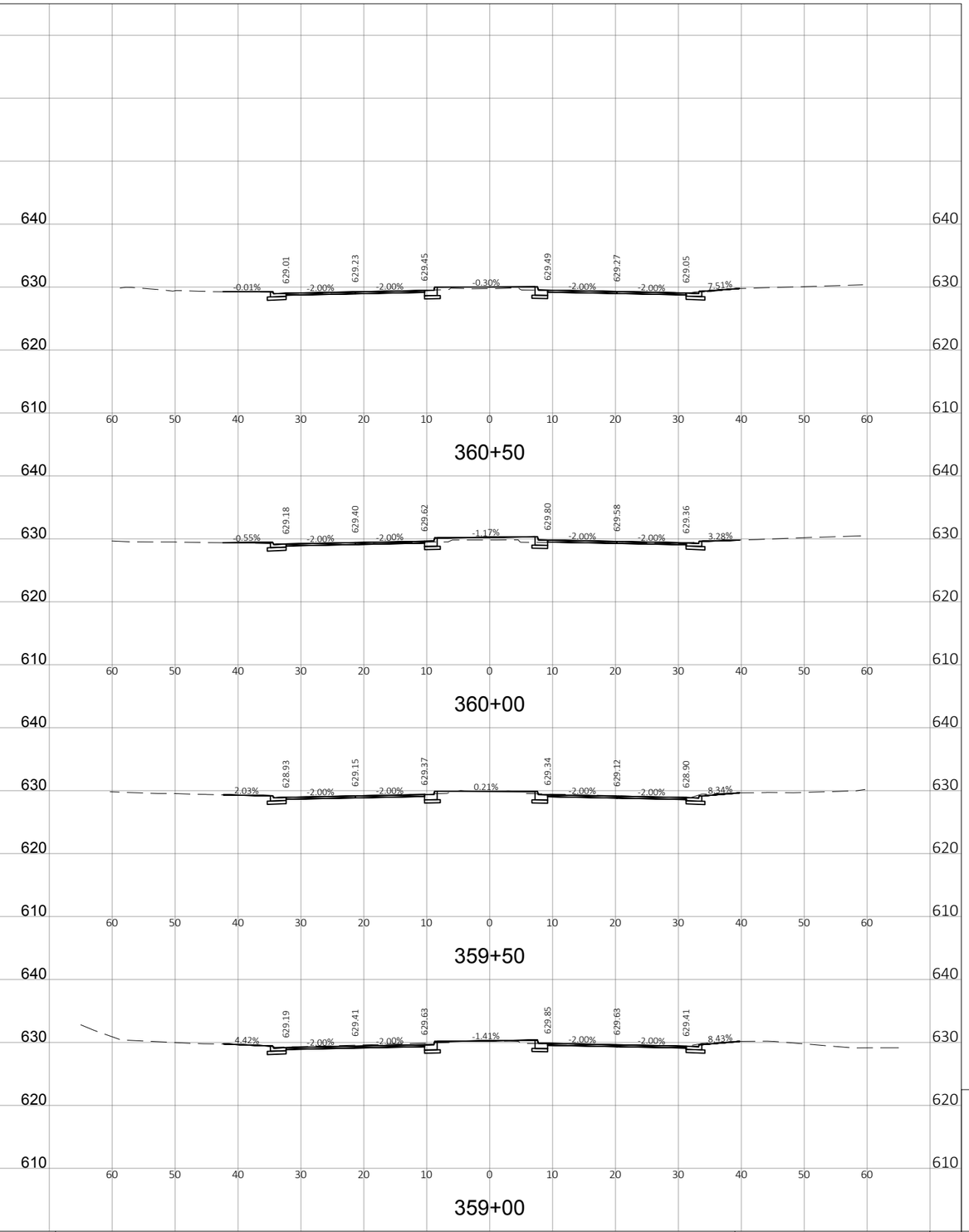
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CROSS SECTIONS.DWG PLOT DATE : 1/23/2025 3:30 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20' HORZ. / 1" = 20' VERT.



PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 493 E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CROSS SECTIONS.DWG PLOT DATE : 1/23/2025 3:31 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20' HORZ. / 1" = 20' VERT.

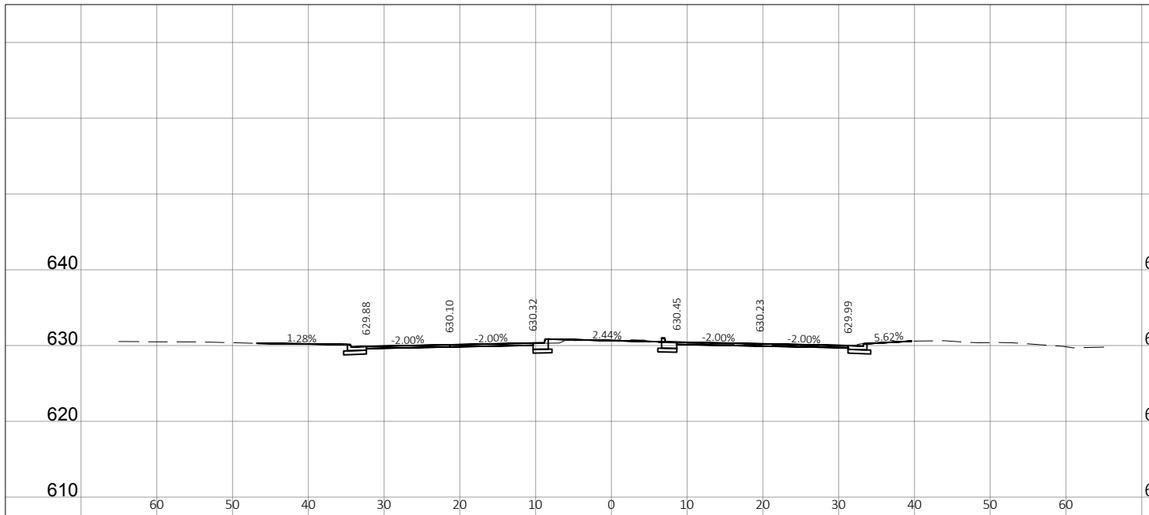




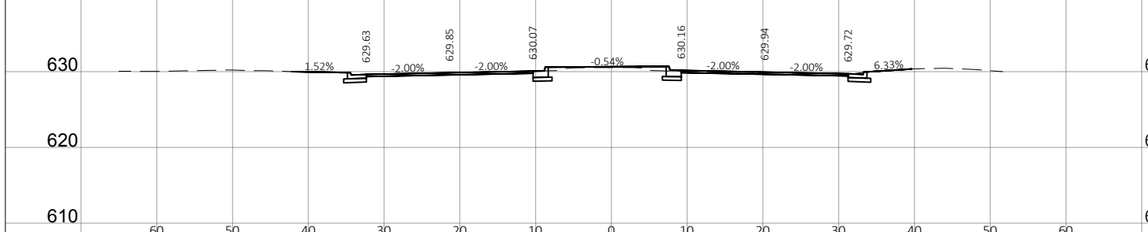
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FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CROSS SECTIONS.DWG PLOT DATE : 1/23/2025 3:31 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20' HORZ. / 1" = 20' VERT.

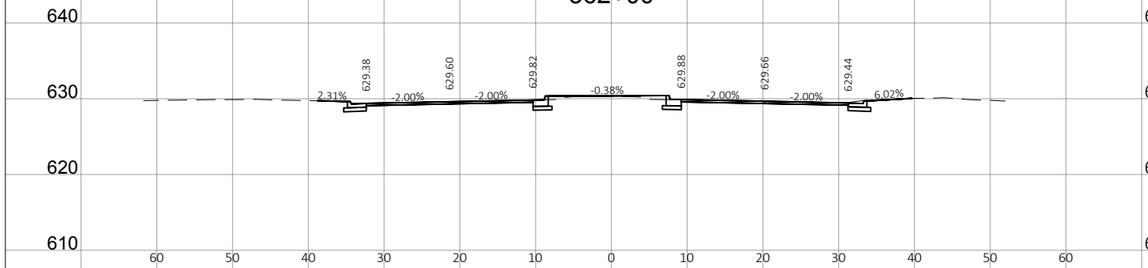
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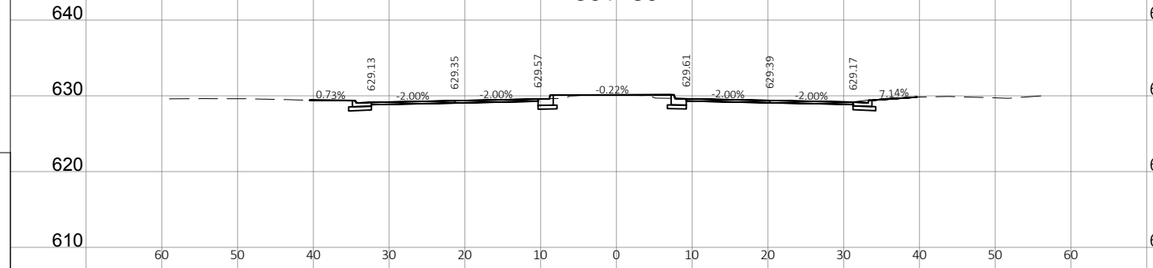
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362+00

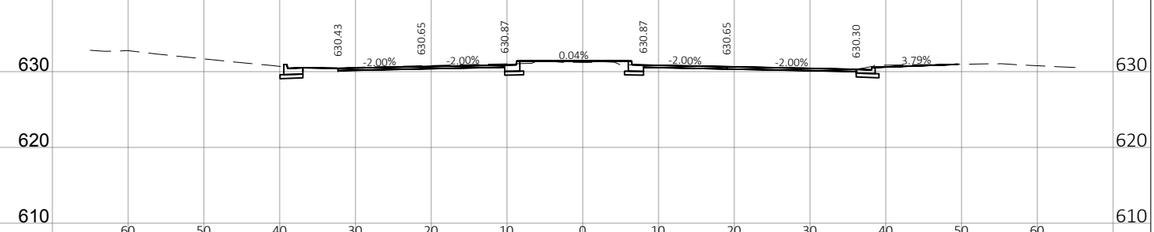


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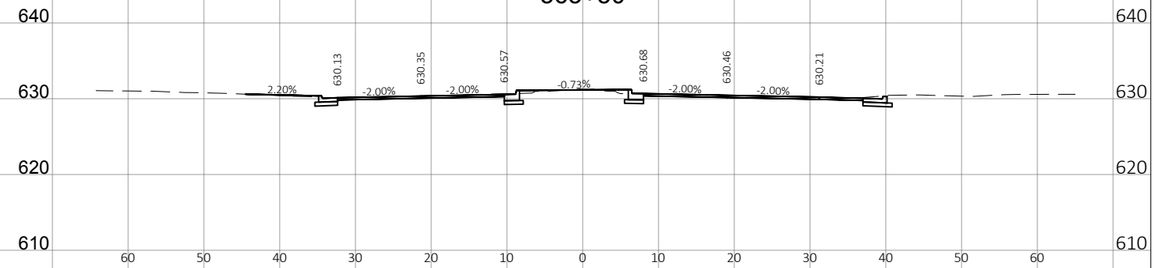


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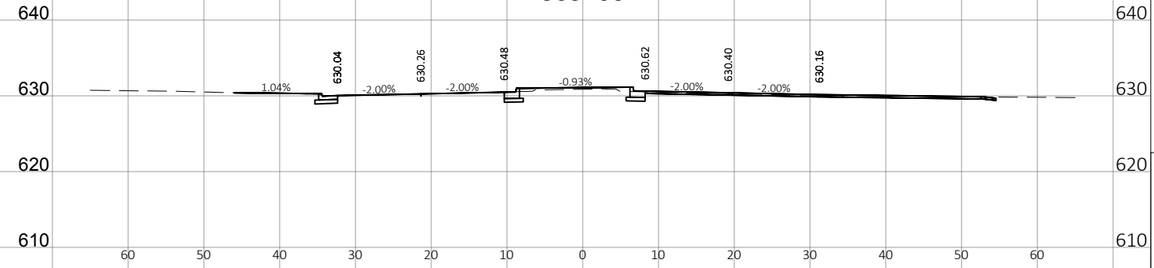
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363+50



363+00



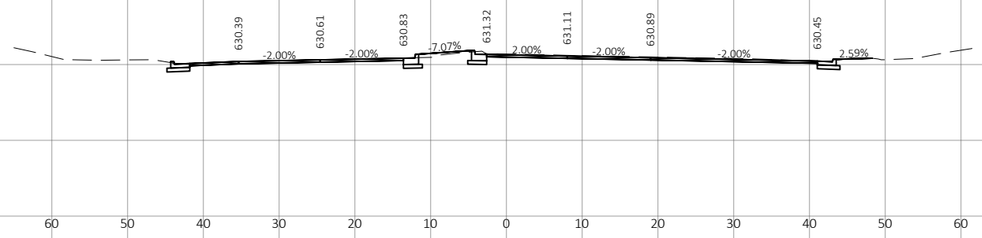
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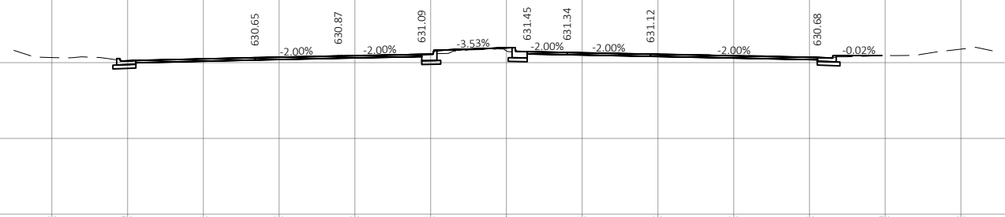
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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 495	E

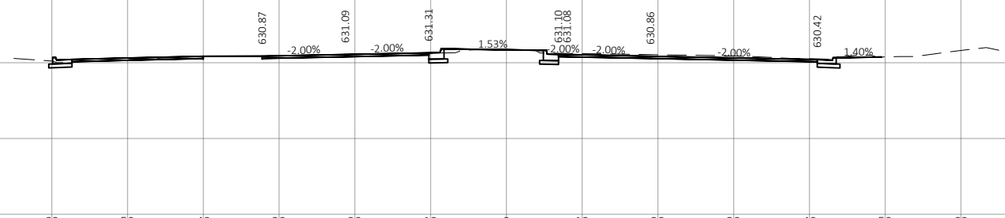
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CROSS SECTIONS.DWG PLOT DATE : 1/23/2025 3:31 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20' HORZ. / 1" = 20' VERT.



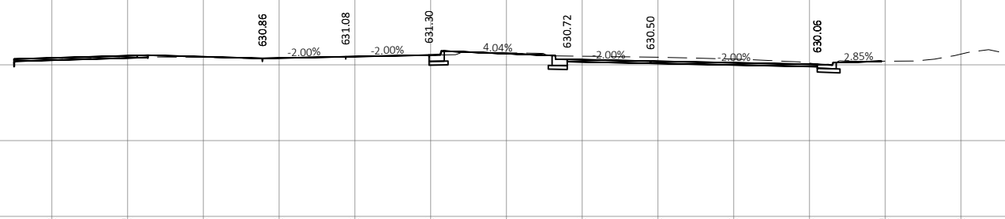
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365+00

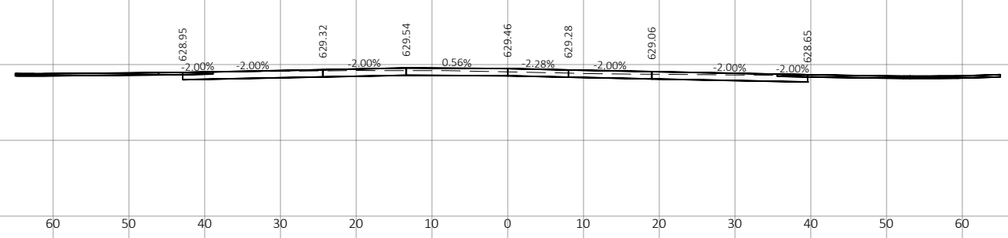


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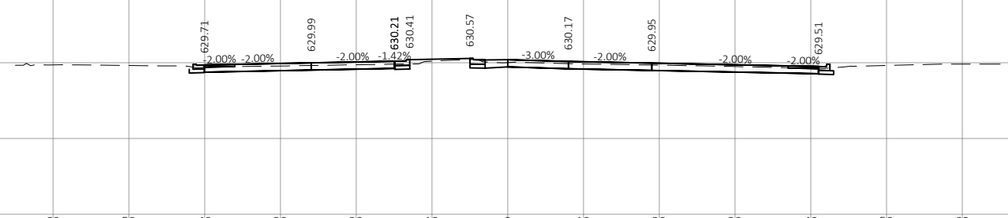


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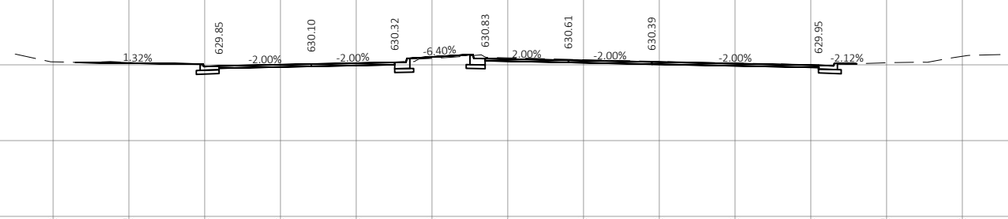
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366+98.12



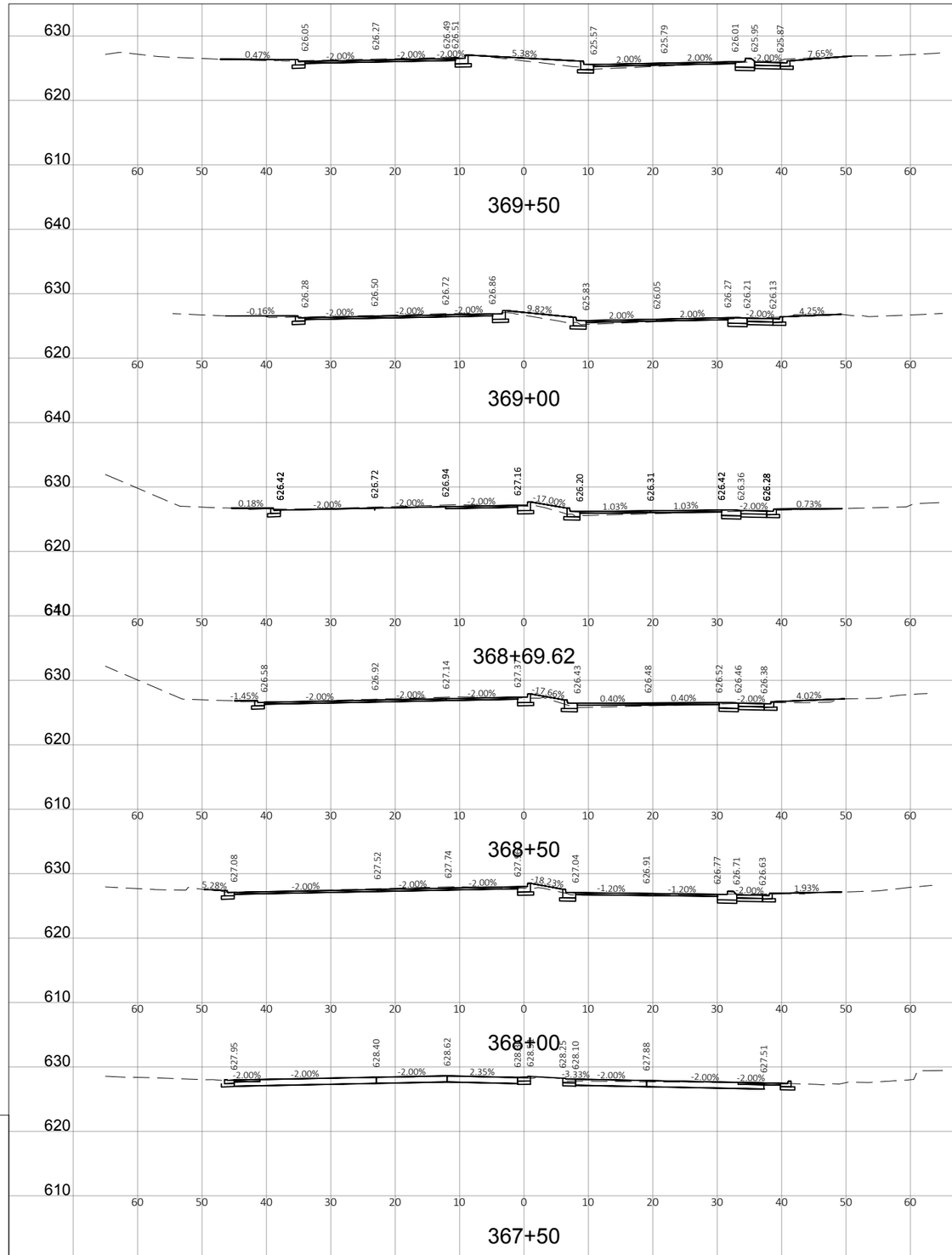
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366+00

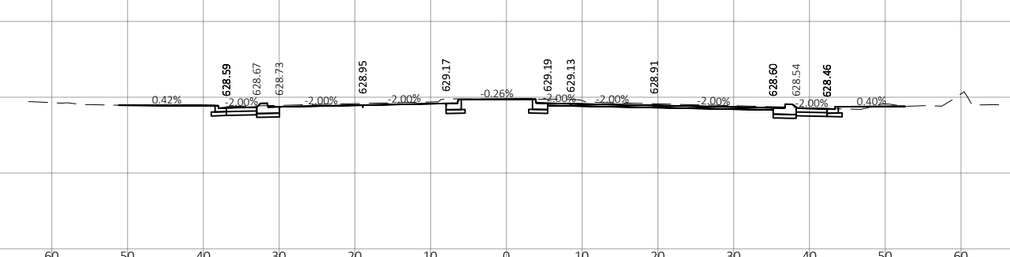
PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 496	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CROSS SECTIONS.DWG PLOT DATE : 1/23/2025 3:32 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20' HORZ. / 1" = 20' VERT.

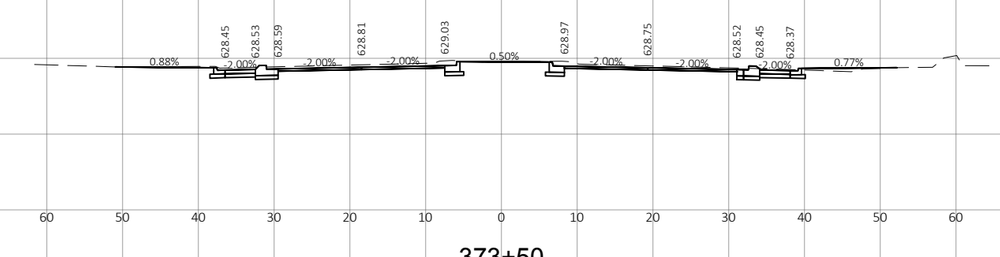


PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 497

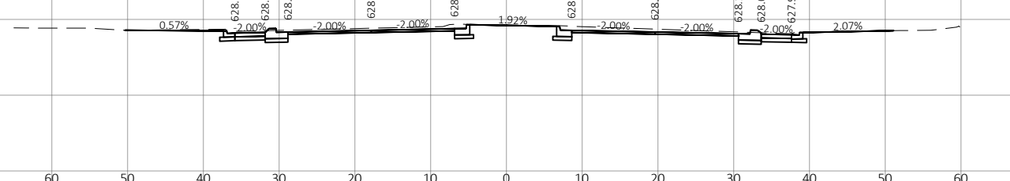
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CROSS SECTIONS.DWG PLOT DATE : 1/23/2025 3:32 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20' HORZ. / 1" = 20' VERT.



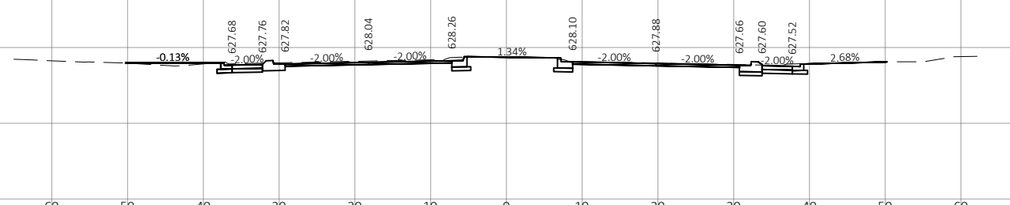
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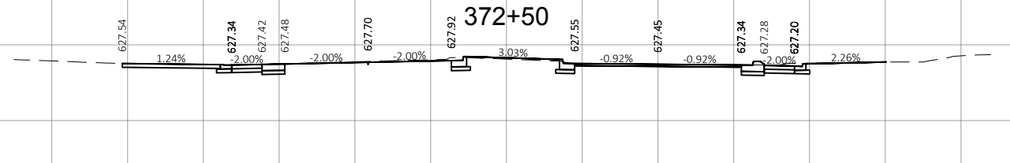
373+50



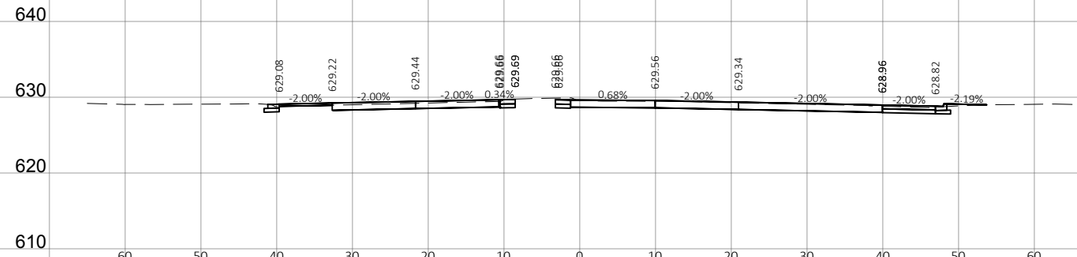
373+00



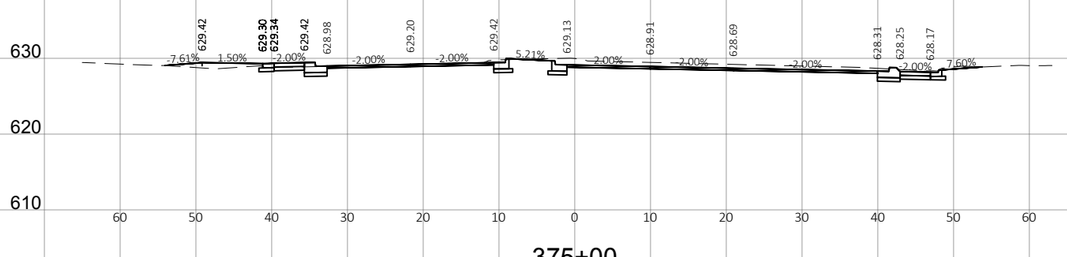
372+50



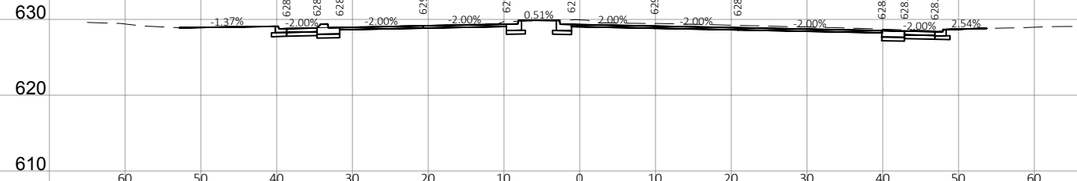
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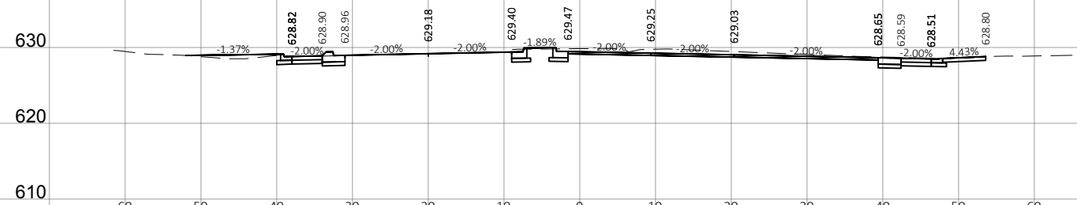
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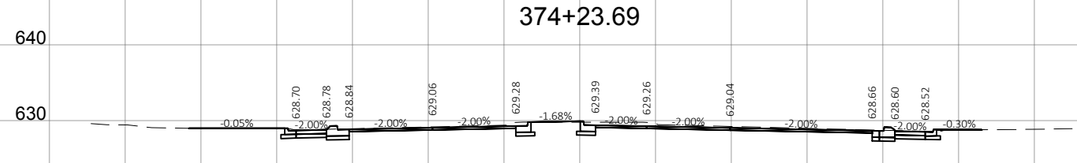
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374+50



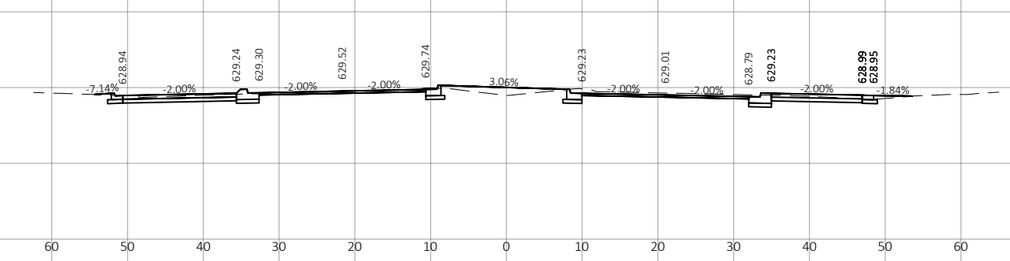
374+23.69



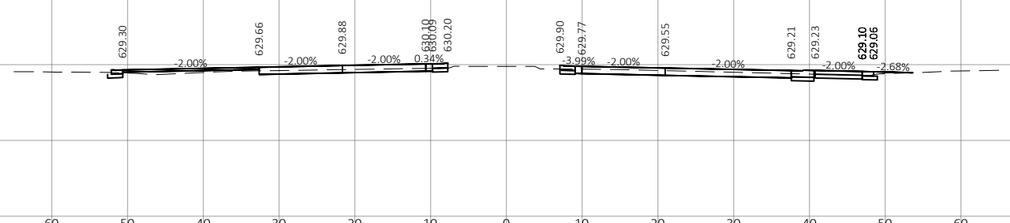
374+00

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 498 E

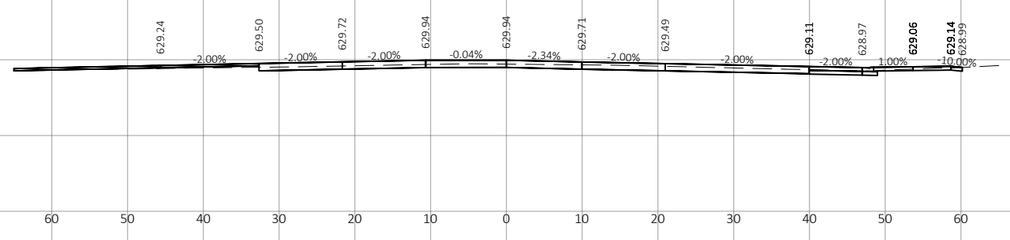
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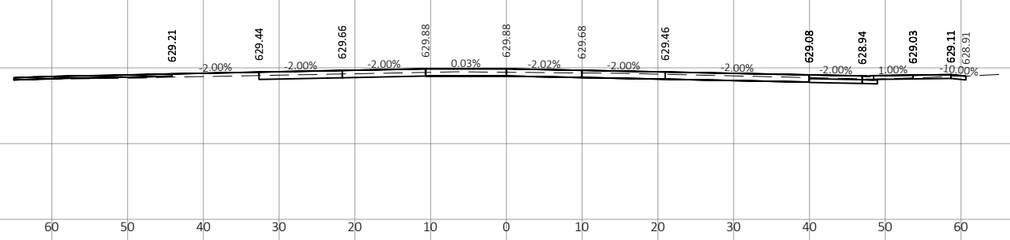
377+00



376+50

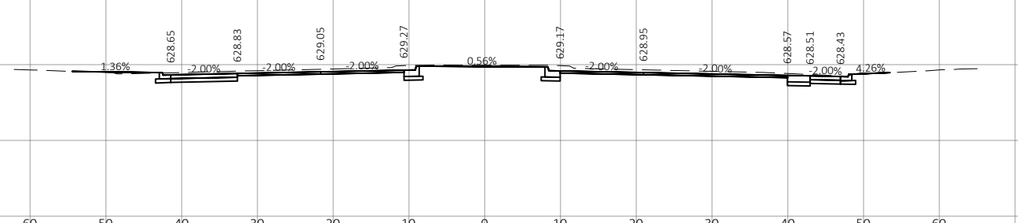


376+00

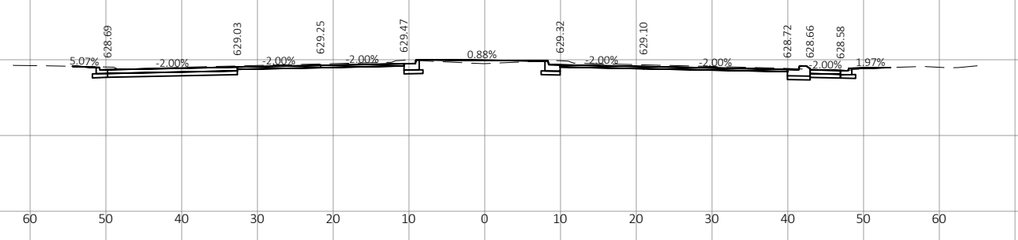


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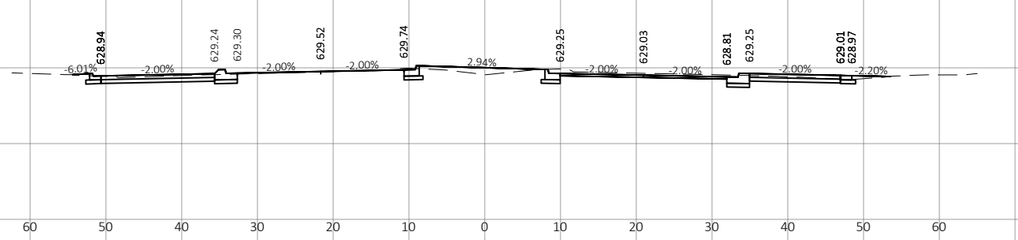
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378+00



377+50



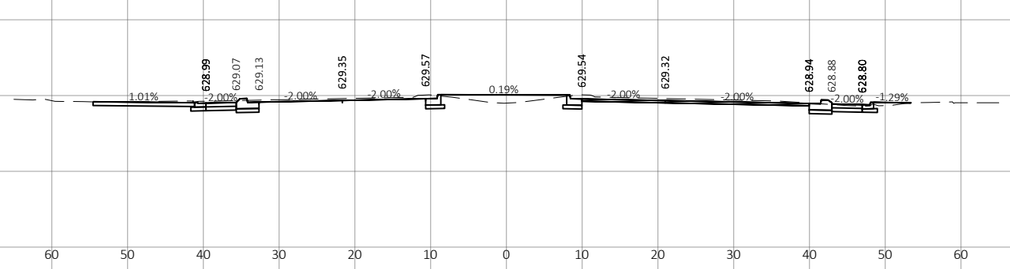
377+06.35

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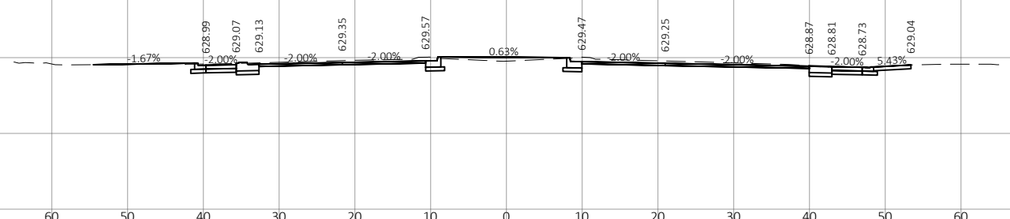
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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 499 E

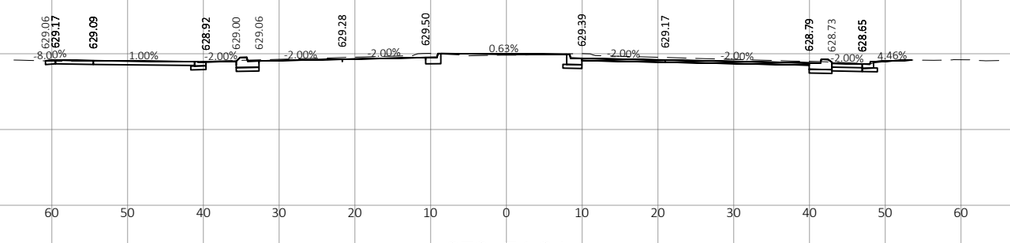
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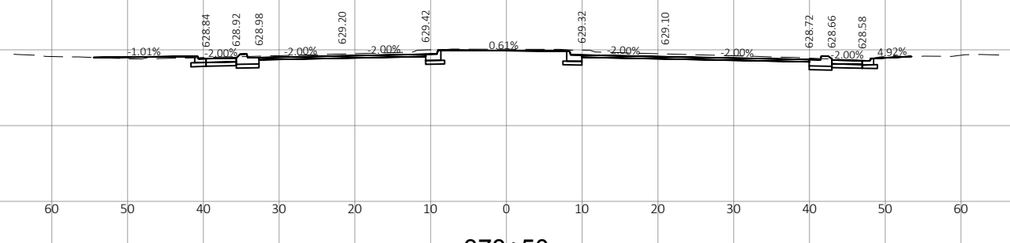
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379+00

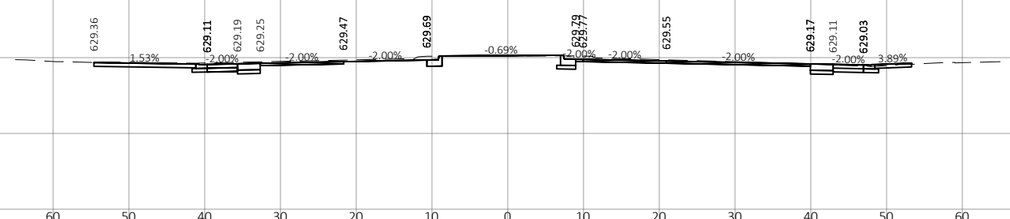


378+74.94

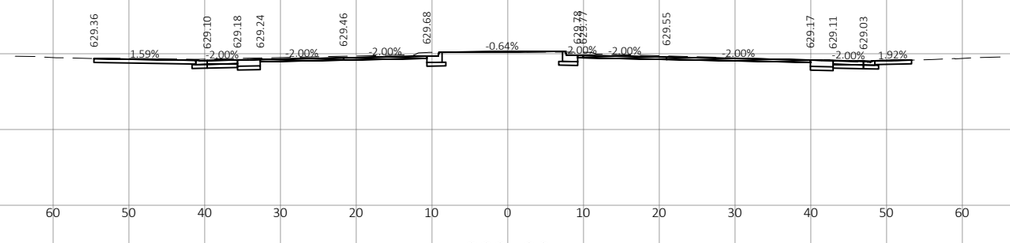


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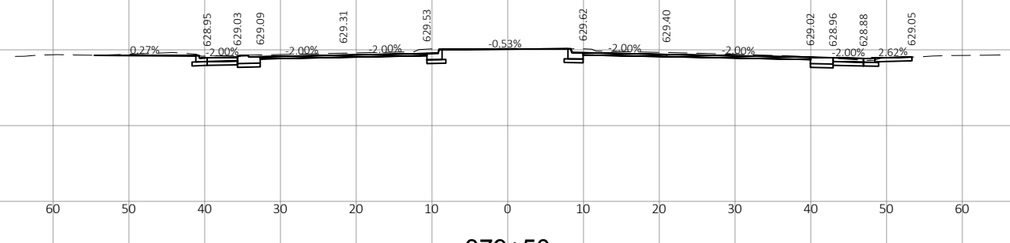
380+50



380+02.11



380+00



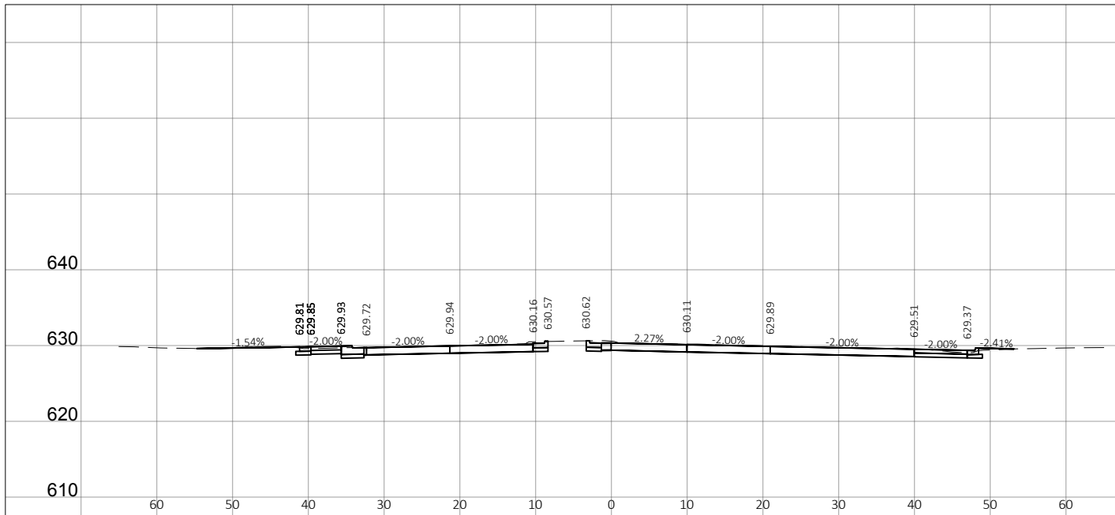
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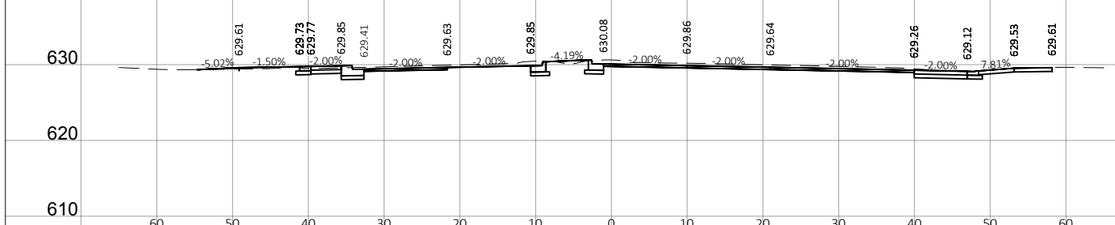
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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 500 E

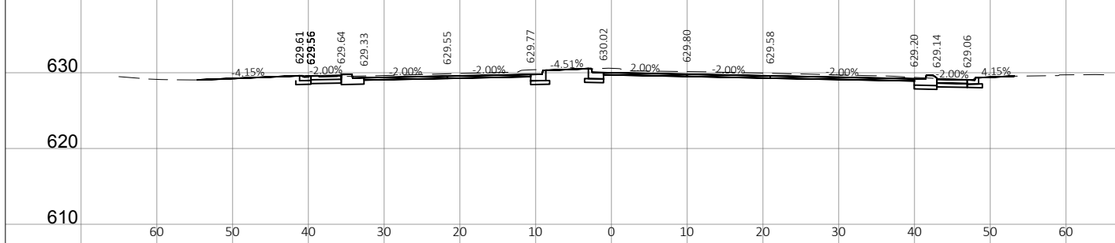
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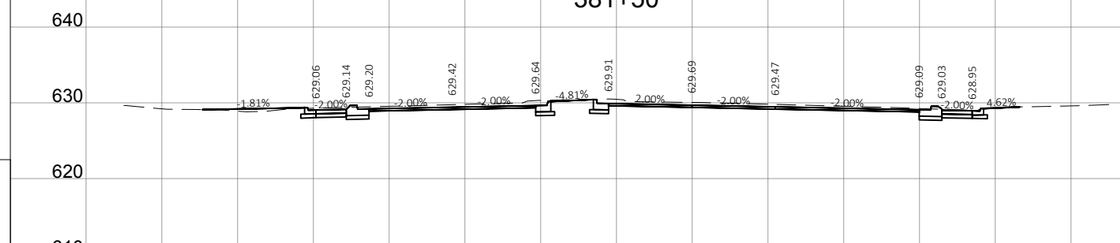
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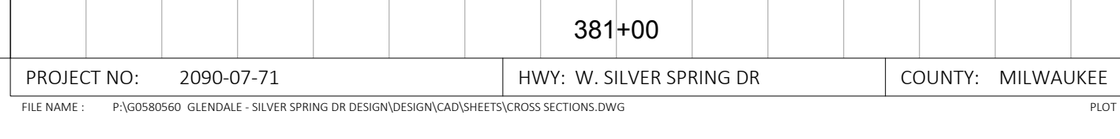
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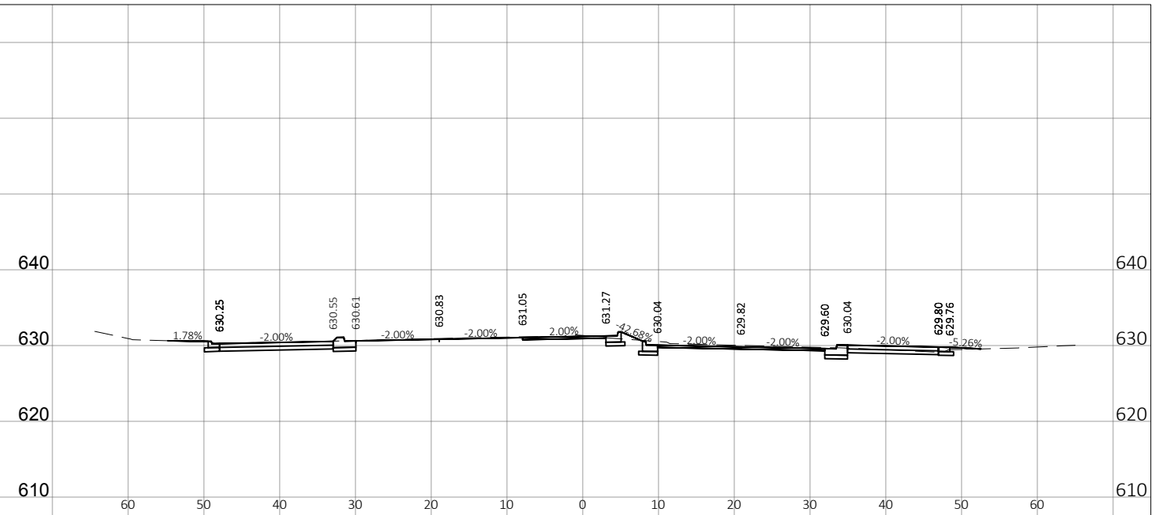


381+50

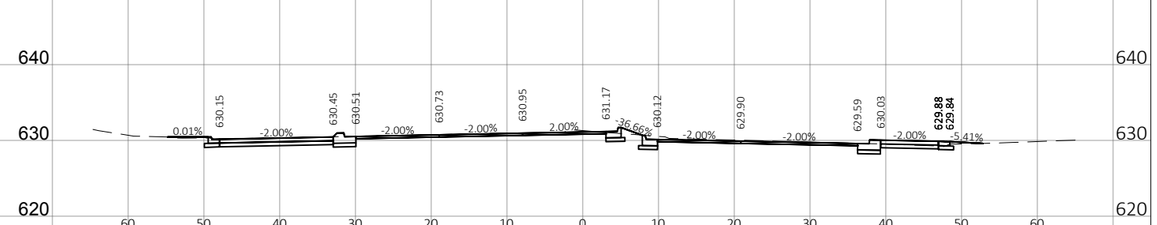


381+00

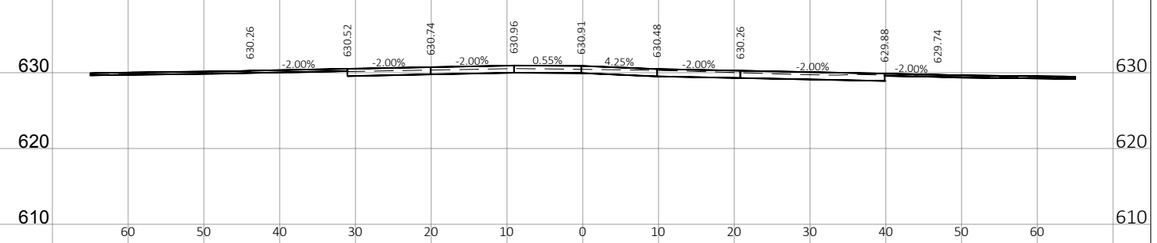




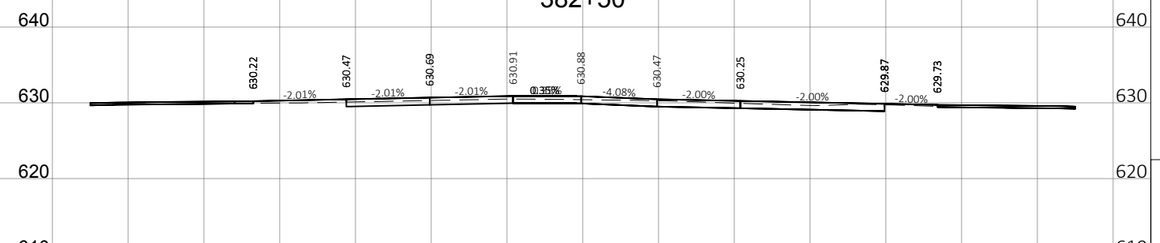
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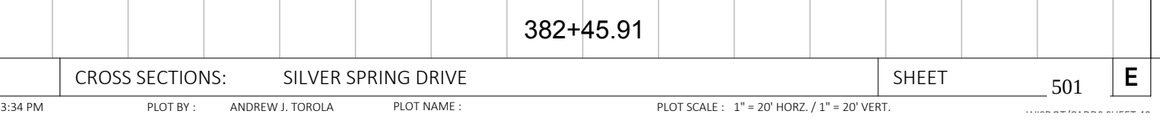
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382+50



382+45.91

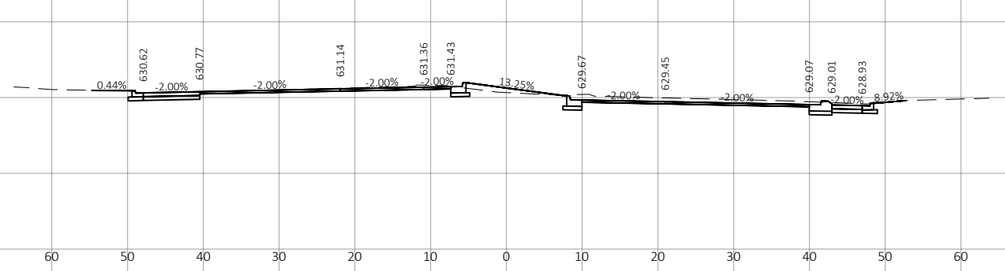


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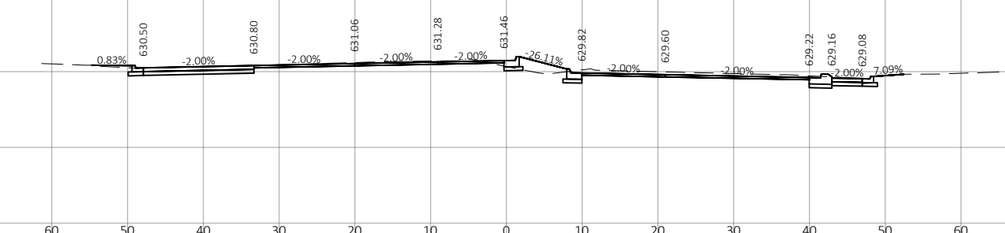
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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 501 E

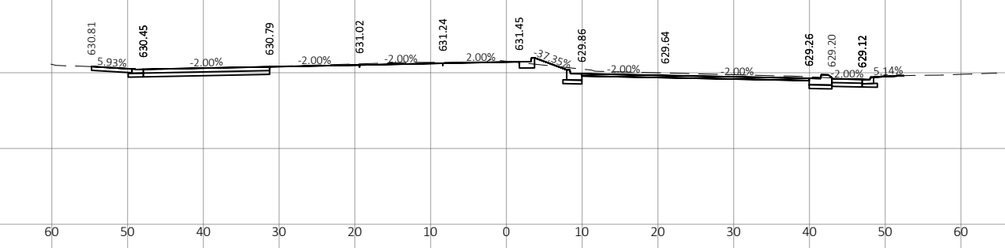
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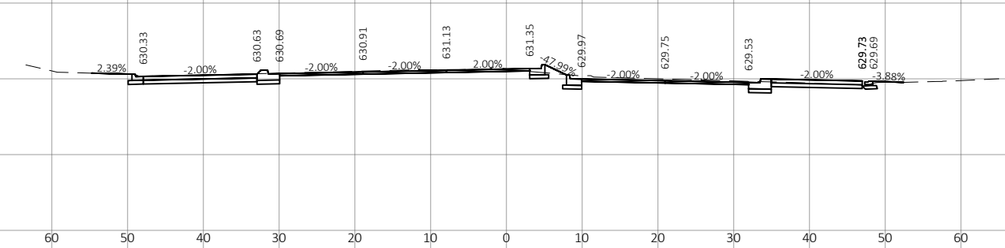
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384+00

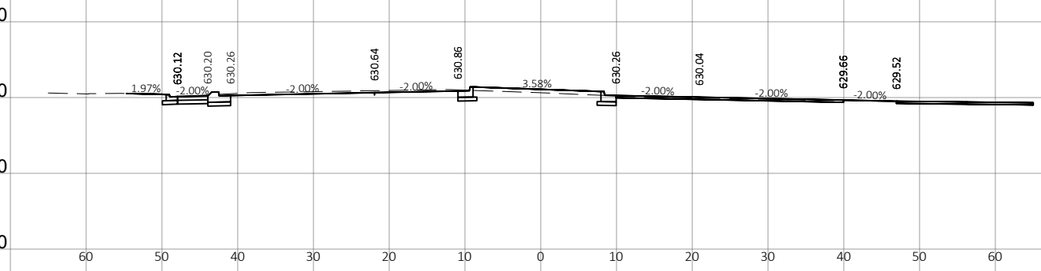


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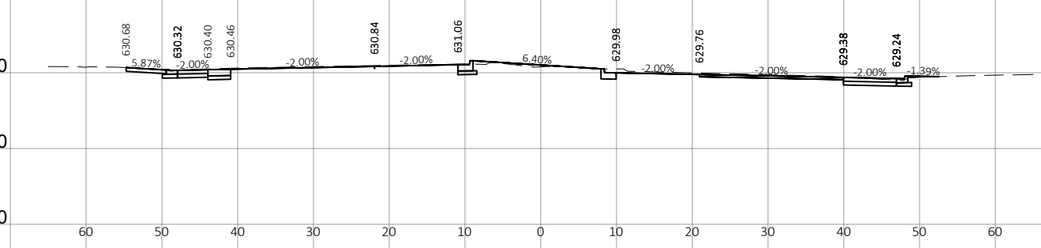


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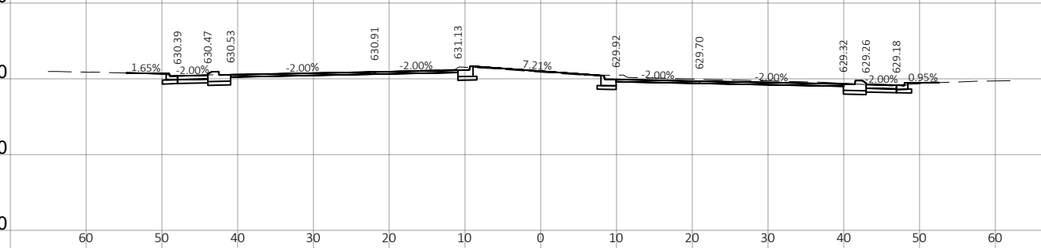
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385+50



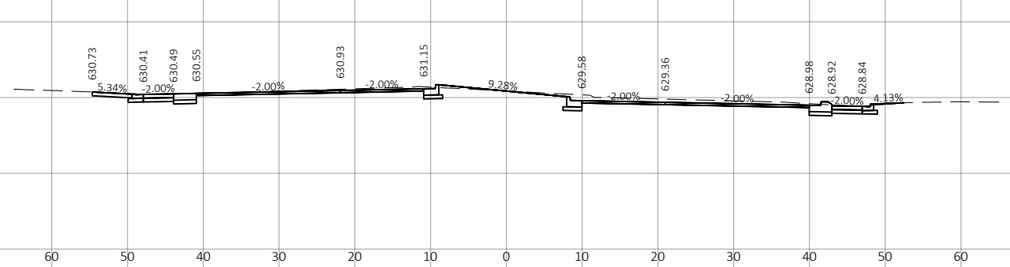
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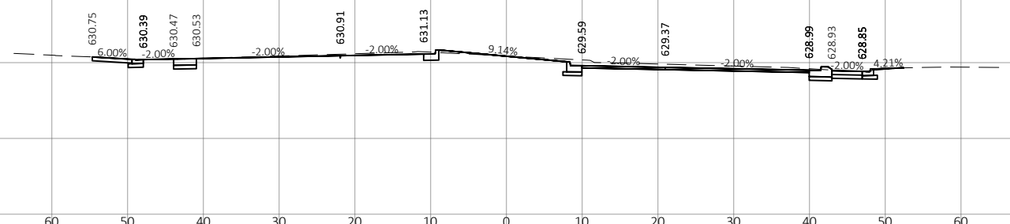
385+00

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 502	E

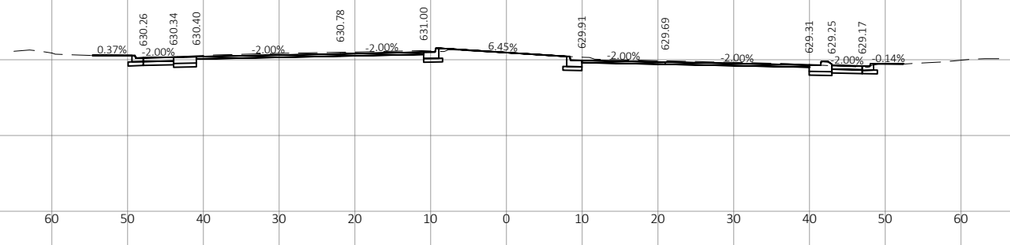
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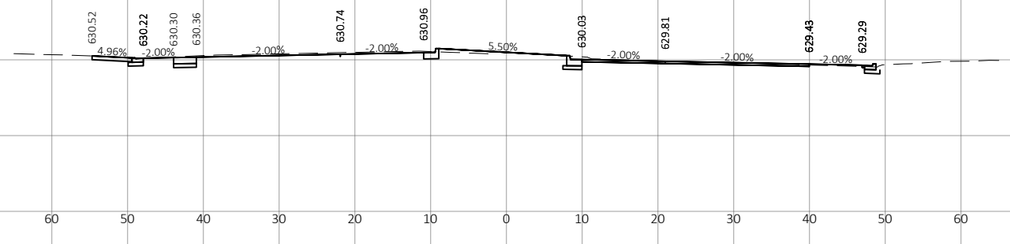
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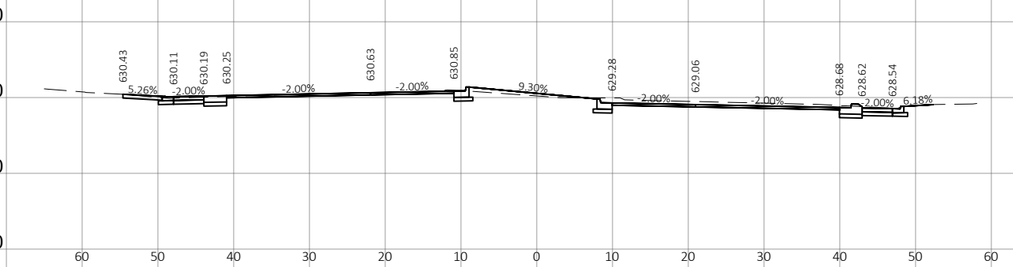
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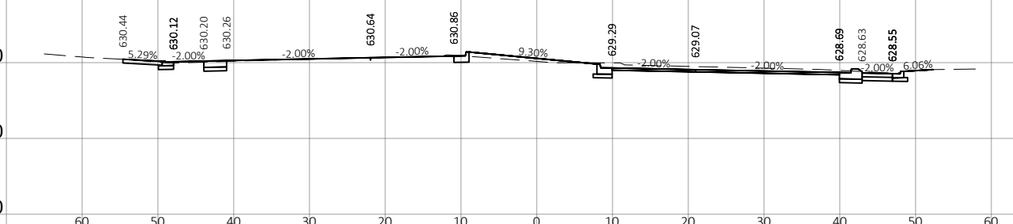
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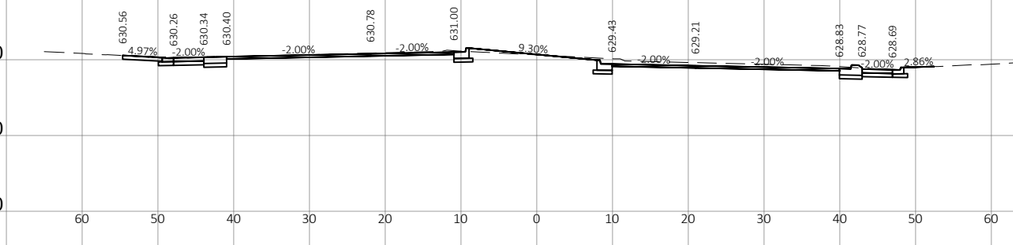
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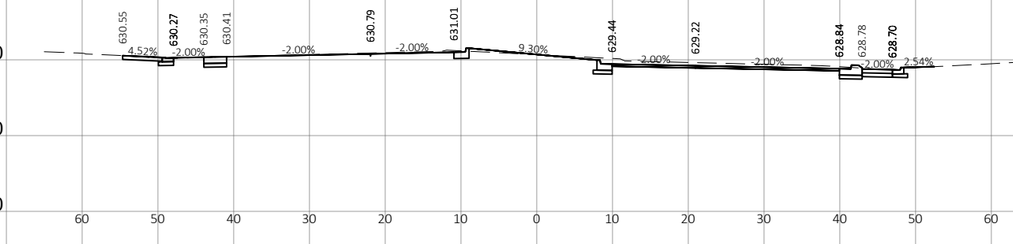
387+50



387+45.05



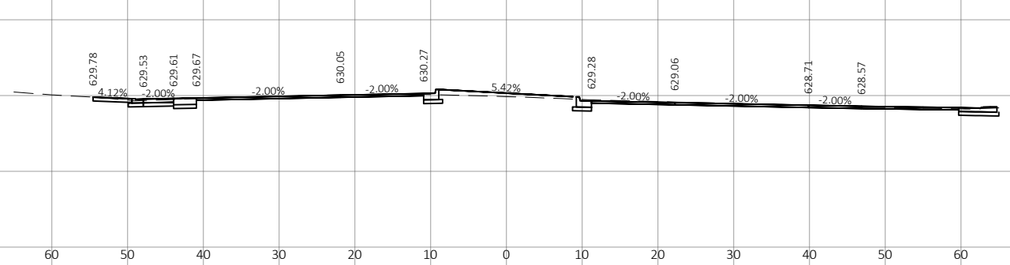
387+00



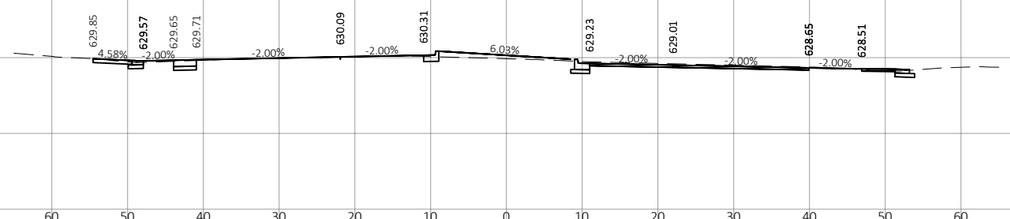
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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 503 E

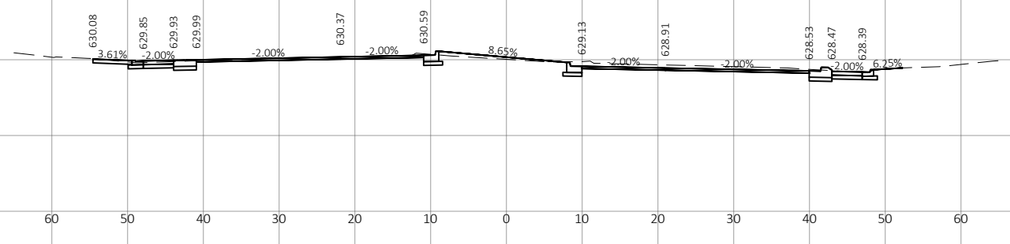
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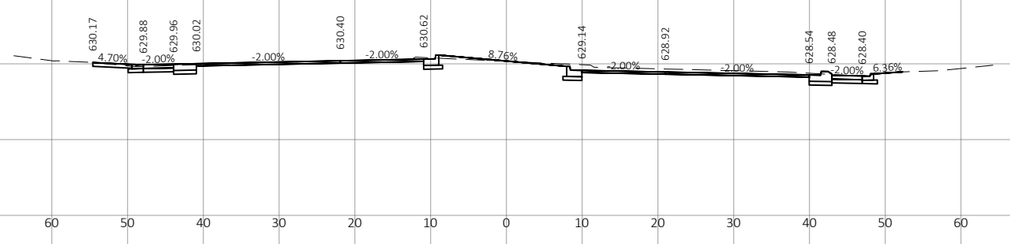
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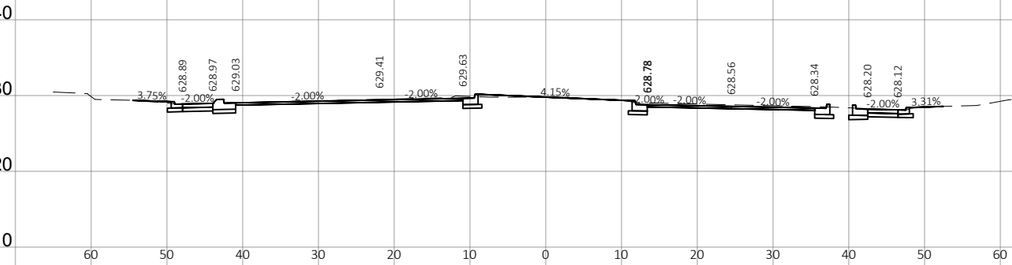
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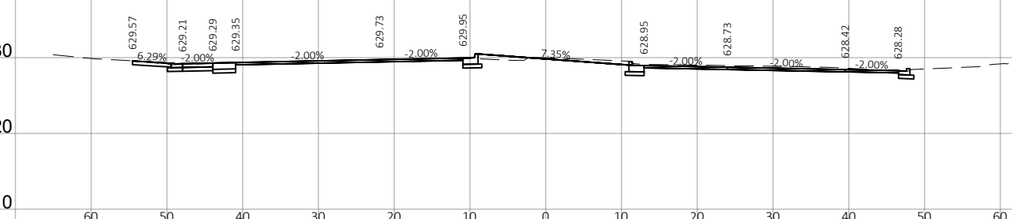
388+00



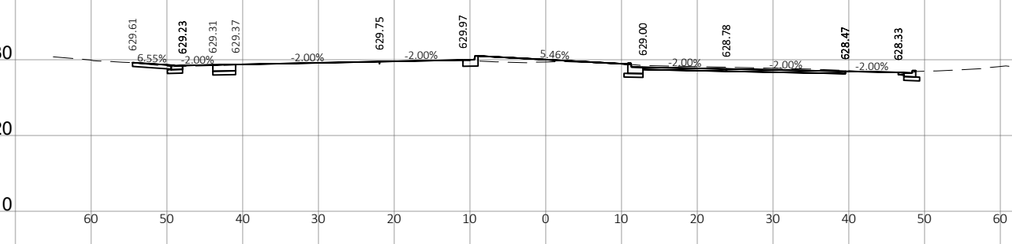
387+94.91



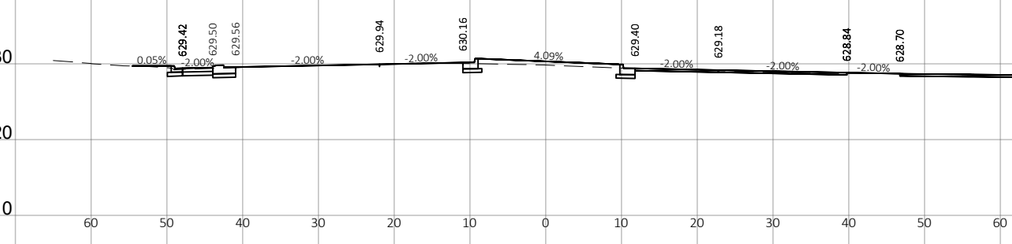
389+50



389+00



388+95.79



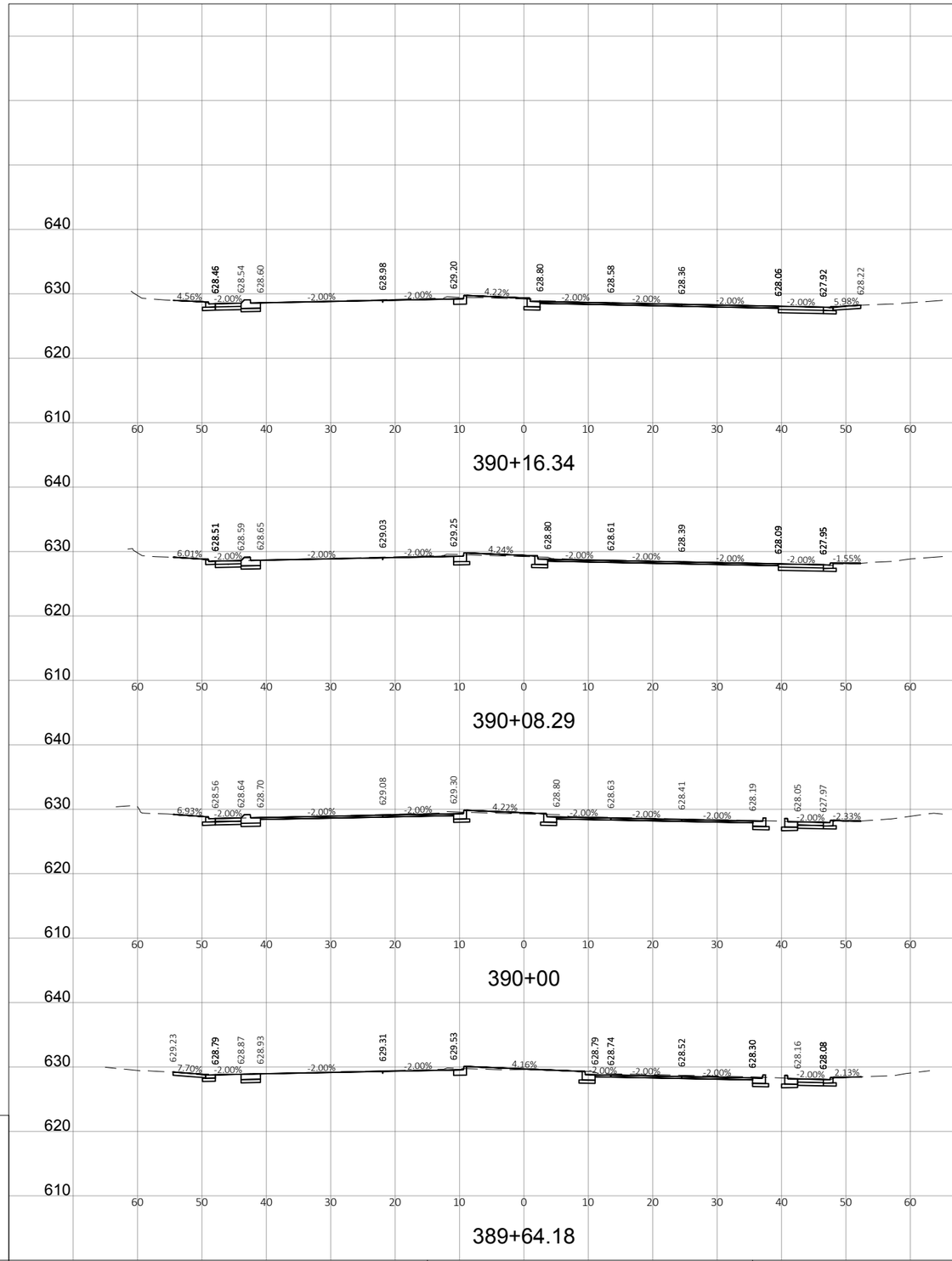
388+66.12

9

9

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 504 E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CROSS SECTIONS.DWG PLOT DATE : 1/23/2025 3:35 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20' HORZ. / 1" = 20' VERT.

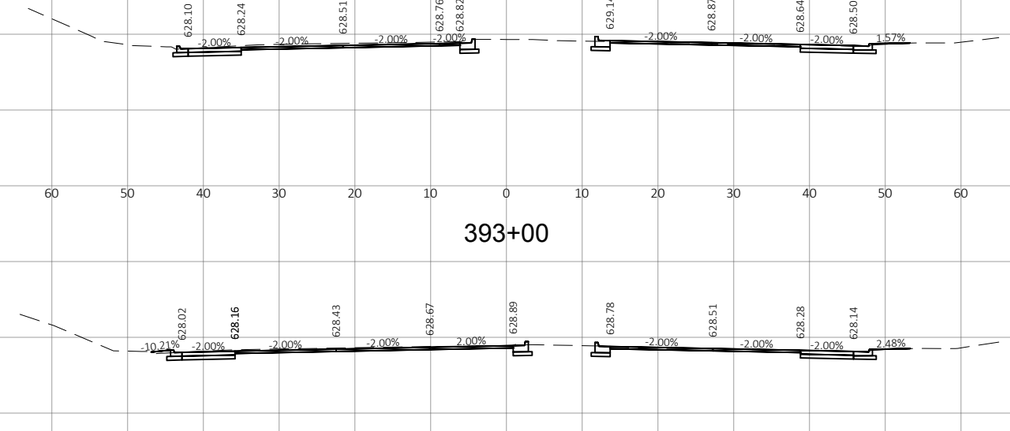


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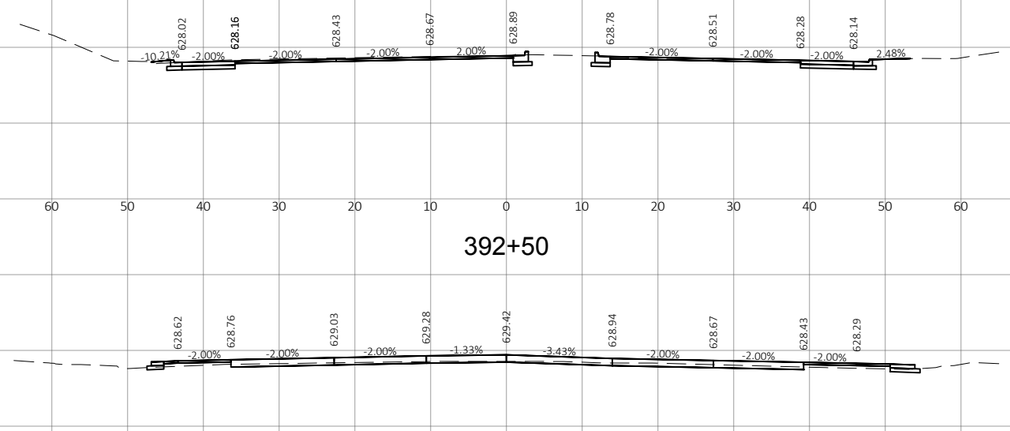
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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 505	E

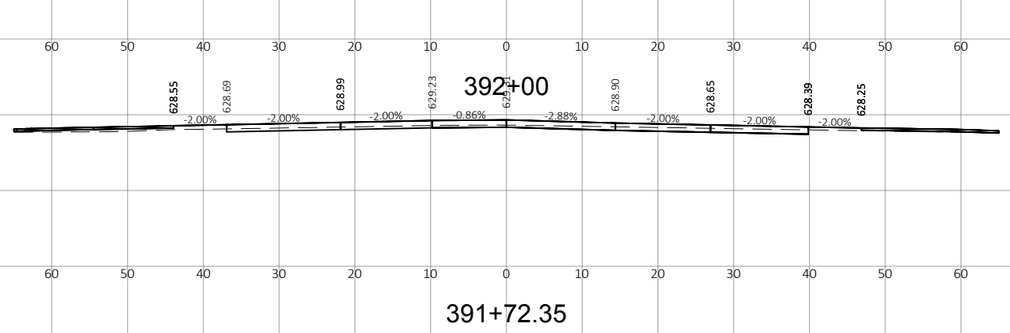
FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CROSS SECTIONS.DWG PLOT DATE : 1/23/2025 3:36 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20' HORZ. / 1" = 20' VERT.



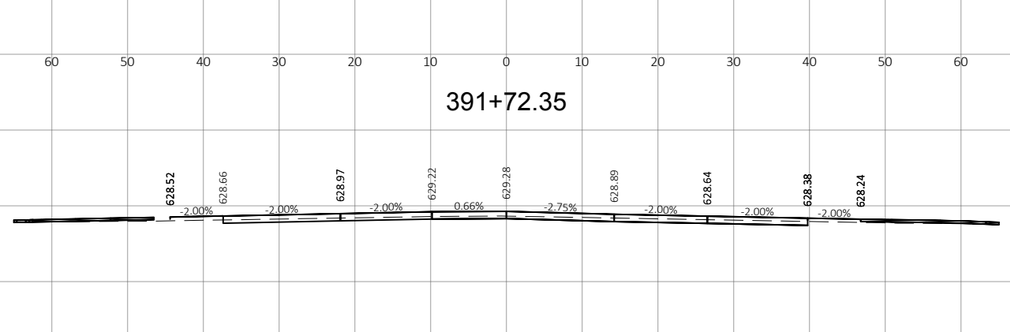
393+00



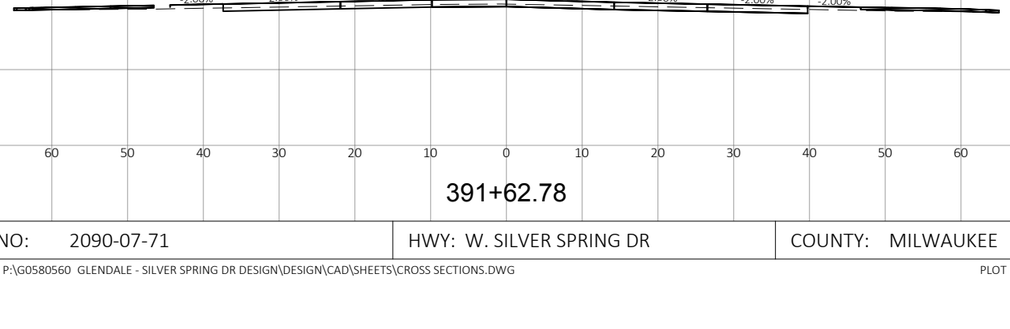
392+50



392+00



391+72.35

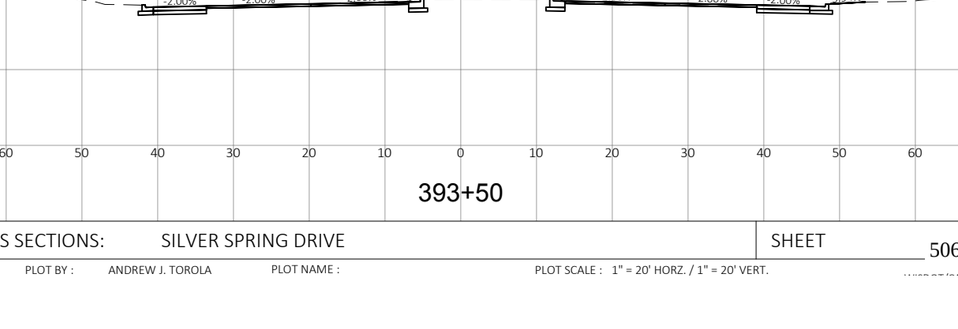


391+62.78

394+00

393+73.99

393+63.82



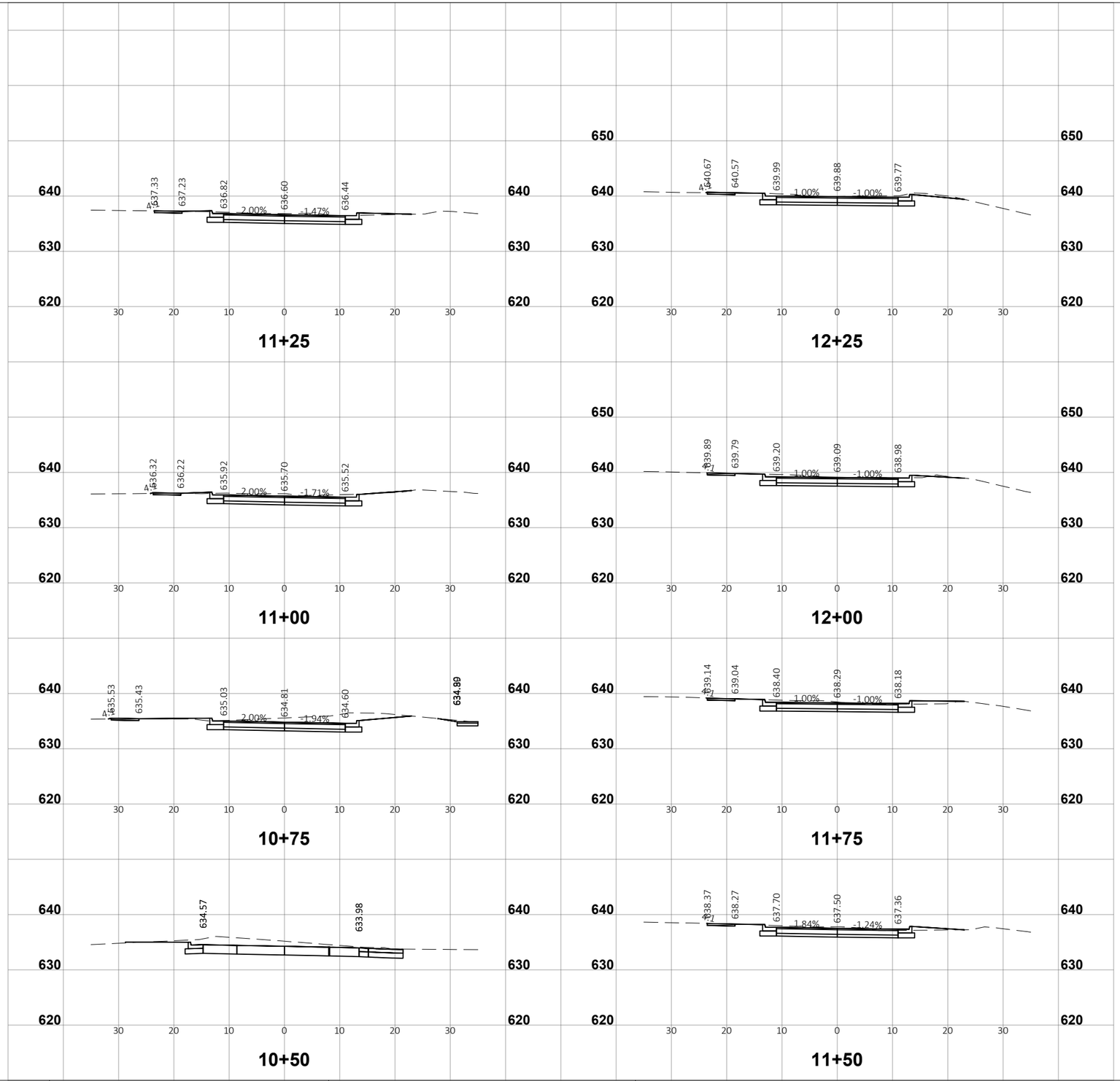
393+50

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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: SILVER SPRING DRIVE	SHEET 506	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CROSS SECTIONS.DWG PLOT DATE : 1/23/2025 3:36 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20' HORZ. / 1" = 20' VERT.

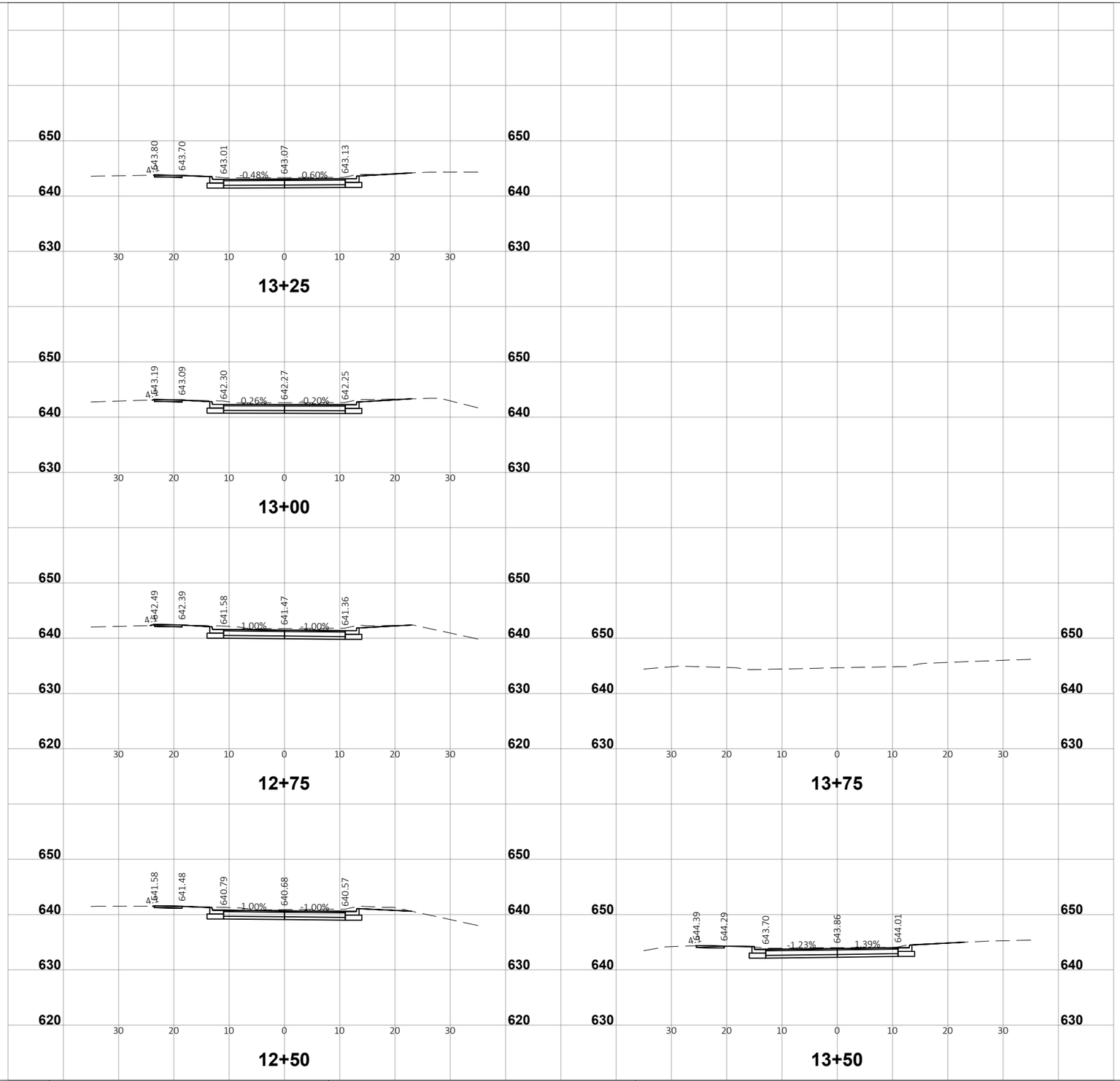


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PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: WB ON RAMP	SHEET 507	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CROSS SECTIONS - ON RAMP.DWG PLOT DATE : 1/23/2025 3:36 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20' HORZ. / 1" = 20' VERT.



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9

PROJECT NO: 2090-07-71	HWY: W. SILVER SPRING DR	COUNTY: MILWAUKEE	CROSS SECTIONS: WB ON RAMP	SHEET 508	E

FILE NAME : P:\G0580560 GLENDALE - SILVER SPRING DR DESIGN\DESIGN\CAD\SHEETS\CROSS SECTIONS - ON RAMP.DWG PLOT DATE : 1/23/2025 3:36 PM PLOT BY : ANDREW J. TOROLA PLOT NAME : PLOT SCALE : 1" = 20' HORZ. / 1" = 20' VERT.

Notes

Wisconsin Department of Transportation

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