wke Dec 12, 2023

PROJECT ID: 2195-04-70

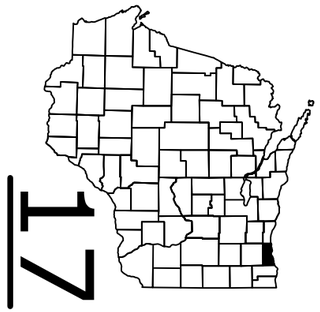
WITH: N/A

COUNTY: MILWAUKEE

ORDER OF SHEETS

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

TOTAL SHEETS = 314



N

DESIGN DESIGNATION

A.A.D.T.	2024	=	8,100
A.A.D.T.	2044	=	9,315
D.H.V.		=	13.1%
D.D.		=	58/42
T.		=	3.5%
DESIGN SPEED		=	35 MPH
ESALS		=	460,000

CONVENTIONAL SYMBOLS

COUNTY LINE
CORPORATE LIMITS
PROPERTY LINE
LIMITED EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE
FENCE
GUARD RAIL
SLOPE INTERCEPT
ORIGINAL GROUND
MARSH OR ROCK PROFILE (To be noted as such) — ROCK
MARSH AREA
WOODED OR SHRUB AREA
STREAM OR WATER EDGE
BUSH
PINE TREE (SIZE)
TREE (SIZE)
TRAFFIC SIGNAL CONTROL CABINET
TRAFFIC SIGNAL
TRAFFIC SIGNAL MAST-ARM
TRAFFIC SIGNAL WITH LIGHT
EXISTING PULL BOX
BOLLARD

HIGH VOLTAGE ELECTRIC — CAUTION
COMBUSTIBLE FLUIDS — CAUTION
UNDERGROUND UTILITIES
GAS (SIZE) G
SANITARY SEWER (SIZE) SAN
STORM SEWER (SIZE) SS
COMBINED SANITARY AND STORM SEWER (SIZE) SSS
WATER (SIZE) W
TELEPHONE T
FIBER OPTIC FO
CABLE TELEVISION TV
FORCE MAIN FM
STEAM TUNNEL AND TRENCH BOXES PIPL
MANHOLE MH
UTILITY PEDESTAL
FIBER OPTIC HAND HOLE HH
POWER POLE
TELEPHONE POLE
RAILROAD
HYDRANT
LIGHT POLE
RAILROAD SIGNAL
SIGN
TRANSMISSION TOWER
VALVE (TYPE)
CURB STOP CS
EXISTING CULVERT (SIZE, TYPE)
PROPOSED CULVERT (Box or Pipe)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C MILWAUKEE WELLS STREET

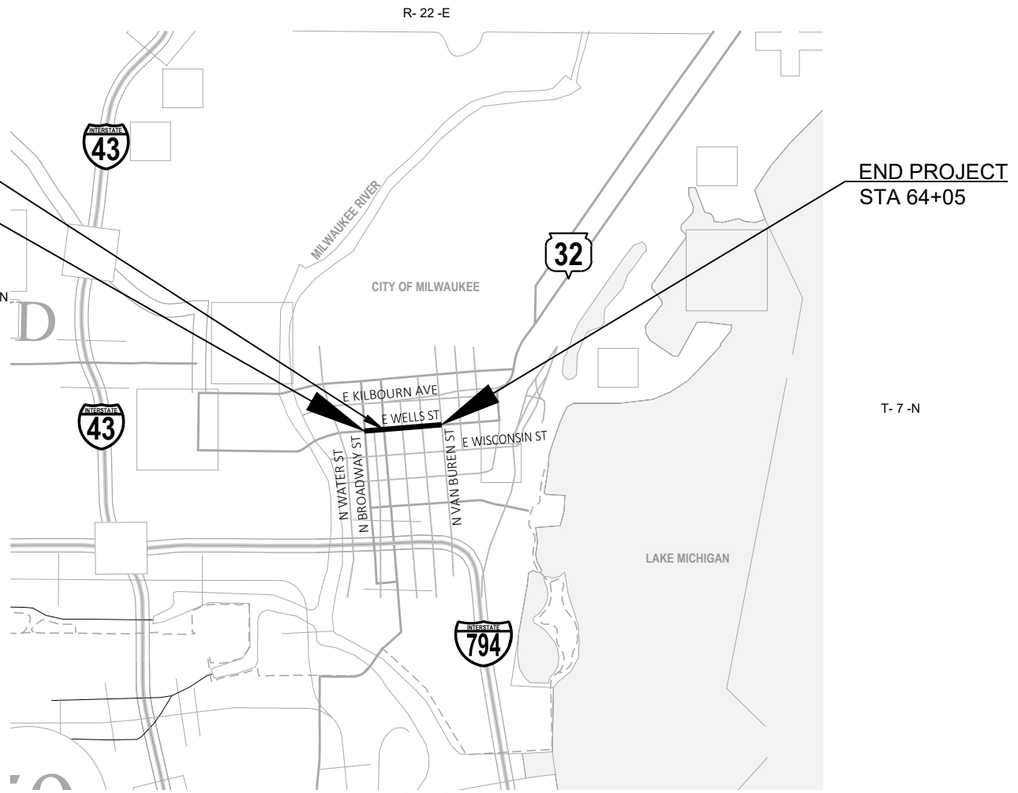
N BROADWAY TO N VAN BUREN STREET

STH 32

MILWAUKEE COUNTY

STATE PROJECT NUMBER
2195-04-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2195-04-70	WISC 2024065	1



LAYOUT

SCALE 0 0.5 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.260 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN STATE PLANE COORDINATE SYSTEM, NAD27 (SOUTH ZONE) IN U.S. SURVEY FEET.

ELEVATIONS ARE REFERENCED TO CITY OF MILWAUKEE DATUM.

TO CONVERT ELEVATIONS SHOWN ON THIS PLAN TO NATIONAL GEODETIC VERTICAL DATUM OF 1929, ADD 580.603.

ACCEPTED FOR

CITY of MILWAUKEE

7-25-2023 (Date) for COMMISSIONER OF PUBLIC WORKS

ORIGINAL PLANS PREPARED BY

raSmith

CREATIVITY BEYOND ENGINEERING

rasmith.com

WISCONSIN
ANDREW J. AXT
E-45143-6
MILWAUKEE, WI
PROFESSIONAL ENGINEER

7/26/2023 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	raSmith
Designer	raSmith
Project Manager	CHRISTINE HANNA
Regional Examiner	SOUTHEAST REGION
Regional Supervisor	JOSHUA LEVEQUE

APPROVED FOR THE DEPARTMENT

DATE: 07/24/2023 (Signature)

E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\010101-TI.DWG PLOT DATE : 7/26/2023 12:03 PM PLOT BY : AXT, ANDREW PLOT NAME :

2

DESIGNER
raSmith
ANDREW AXT
16745 W BLUEMOUND RD, SUITE 200
BROOKFIELD, WI 53005
(262) 317-3357
ANDREW.AXT@RASMITH.COM

WISCONSIN DEPT OF TRANSPORTATION
SOUTHEAST REGION
CHRISTINE HANNA
141 NW BARSTOW ST
WAUKESHA, WI 53188
(262) 548-8809
CHRISTINE.HANNA@DOT.WI.GOV

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DAVID TAPIA
841 N BROADWAY, ROOM 902
MILWAUKEE, WI 53202
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DTAPIA@MILWAUKEE.GOV

CITY OF MILWAUKEE - FORESTRY
JAMES KRINGER
841 N BROADWAY, ROOM 501
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(414) 708-2428
JKRING@MILWAUKEE.GOV

WISCONSIN DEPT OF NATURAL RESOURCES
TRANSPORTATION LIAISON
RYAN PAPPAS
1027 W ST PAUL AVE
MILWAUKEE, WI 53233
(920) 893-8529
RYAN.PAPPAS@WISCONSIN.GOV

MILWAUKEE COUNTY TRANSIT
DAVID LOCHER
1942 N 17TH ST
MILWAUKEE, WI 53205
(414) 343-1727
DLOCHER@MCTS.ORG

SEWRPC
BOB MERRY
W239 N1812 ROCKWOOD DR
PO BOX 1607
WAUKESHA, WI 53187
(262) 547-6722 EXT 289
RMERRY@SEWRPC.ORG

GENERAL NOTES

1. EROSION CONTROL DEVICES ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS EROSION CONTROL IMPLEMENTATION PLAN AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER REQUIRED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. RE-TOPSOIL GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETE WITHIN THOSE AREAS. SOD AND FERTILIZE TOPSOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN 5 CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE TO BE LEFT EXPOSED FOR MORE THAN 14 CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED AND MULCH.
4. STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS, AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS TO BE LEFT FOR MORE THAN 14 DAYS, RESTORE THE STOCKPILE WITH TEMPORARY SEED AND MULCH.
5. RESHAPE, RESTORE, AND FINISH ALL PREVIOUSLY GRASSED AREAS DISTURBED OUTSIDE THE NORMAL CONSTRUCTION LIMITS AT NO EXPENSE TO THE DEPARTMENT.
6. PLACE TOPSOIL TO 1 INCH BELOW TOP OF ADJACENT CONCRETE CURBS OR SIDEWALKS IN SOD AREAS.
7. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS IN THE AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK.
8. SEE SUBSURFACE EXPLORATION REPORTS FOR SOIL BORING INFORMATION. REPORTS ARE AVAILABLE FROM WISDOT BY CONTACTING CHRISTINE HANNA, WISDOT PROJECT MANAGER, (262) 548-8809.
9. STATIONING, DISTANCES AND OFFSETS FOR SIGNS SHOWN ON THE PLANS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
10. ALL CURB AND GUTTER STATIONS, OFFSETS, RADII, AND GRADES ARE MEASURED TO THE FLANGE LINE UNLESS OTHERWISE NOTED.
11. VERIFY EXISTING PAVEMENT ELEVATIONS AT ALL TIE-INS TO EXISTING PAVEMENT PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IF A DISCREPANCY IS FOUND BETWEEN PROPOSED PLAN ELEVATIONS AND EXISTING PLACEMENT ELEVATIONS.
12. THE LIMITS OF SIDEWALK AND DRIVEWAY REMOVALS ARE APPROXIMATE. FINAL LOCATIONS TO BE DETERMINED BY THE ENGINEER.
13. SLOPE INTERCEPTS ARE AT THE BACK OF SIDEWALK UNLESS SHOWN OTHERWISE.
14. ALL OPENINGS OF HOLES BELOW SUBGRADE RESULTING FROM REMOVALS OR ABANDONMENTS, EXCEPT FOR STORM SEWER REMOVALS, SHALL BE BACKFILLED IN ACCORDANCE WITH SECTION 204 OF THE STANDARD SPECS. ALL BACKFILL MATERIAL IS INCIDENTAL TO THE REMOVAL ITEM.
15. VERIFY THE STORM SEWER SYSTEM CONNECTIONS, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING DRAINAGE STRUCTURES AND PIPES. NOTIFY THE ENGINEER OF ANY DEVIATION FROM THE INFORMATION SHOWN ON THE PLANS PRIOR TO INSTALLING THE PROPOSED STORM SEWER.
16. STORM SEWER RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITHIN CURB LINES. RIM ELEVATIONS ARE GIVEN AT THE CENTER OF ALL OTHER STRUCTURES.
17. TRAFFIC CONTROL DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. NO WORK MAY BEGIN UNTIL TRAFFIC CONTROL DEVICES ARE PLACED AND APPROVED BY THE ENGINEER.
18. SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND SHALL BE REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION.

ORDER OF SECTION 2 SHEETS

GENERAL NOTES & PROJECT CONTACTS
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
PAVING GRADES
CURB RAMP DETAILS
EROSION CONTROL
STORM SEWER
CITY UNDERGROUND CONDUIT
SIGNING
LIGHTING REMOVAL AND TEMPORARY OVERHEAD
LIGHTING PLAN
TRAFFIC SIGNAL REMOVAL
TRAFFIC SIGNAL PLAN
FIBER OPTIC PLAN
PAVEMENT MARKING
TRAFFIC CONTROL
DETOUR
ALIGNMENT

STANDARD ABBREVIATIONS

C-C	CENTER TO CENTER
CP	CONTROL POINT OR CONCRETE POLE
CUC	CITY UNDERGROUND CONDUIT
LC	LATERAL CLEARANCE
LPB	LIGHTING PULL BOX
MCTS	MILWAUKEE COUNTY TRANSIT SYSTEM
O-O	OUT TO OUT
OCS	OVERHEAD CATENARY SYSTEM
RCT	RAISED CYCLE TRACK
SCH	SCHEDULE
SEWRPC	SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
SS	STORM SEWER OR SIGNAL STANDARD
SSP PVC	STORM SEWER PIPE POLYVINYL CHLORIDE
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE

HMA PAVEMENT LAYERS SUMMARY TABLE

LAYER	THICKNESS	HMA TYPE
UPPER LAYER	2 1/2"	4 LT 58-28 S
LOWER LAYER	3"	4 LT 58-28 S

THE FOLLOWING ENTITIES HAVE PREPARED DESIGNS FOR THIS PROJECT:

SINGH & ASSOCIATES
- LIGHTING REMOVAL AND TEMPORARY OVERHEAD
- LIGHTING PLAN

UTILITIES

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

AT&T WISCONSIN - COMMUNICATIONS
JAY BULANEK
435 S 95TH ST
MILWAUKEE, WI 53214
(414) 491-2855
JB5175@ATT.COM

CITY OF MILWAUKEE - COMMUNICATIONS
DAVID HENKE
841 N BROADWAY, ROOM 920
MILWAUKEE, WI 53203
(414) 286-3248
DHENKE@MILWAUKEE.GOV

CITY OF MILWAUKEE - UNDERGROUND CONDUIT
KAREN ROGNEY
841 N BROADWAY, ROOM 920
MILWAUKEE, WI 53203
(414) 286-3243
KROGNE@MILWAUKEE.GOV

CITY OF MILWAUKEE - ELECTRIC (STREETCAR)
ANDREW DAVIS-LOCKWARD
841 N BROADWAY, ROOM 920
MILWAUKEE, WI 53203
(414) 286-5453
ADALOC@MILWAUKEE.GOV

CITY OF MILWAUKEE - SEWERS
ZAFAR YOUSUF
841 N BROADWAY, ROOM 821
MILWAUKEE, WI 53202
(414) 286-2467 OFFICE
(414) 559-7028 MOBILE
ZYOUSU@MILWAUKEE.GOV

CITY OF MILWAUKEE - LIGHTING
NEAL KARWEIK
1540 W CANAL ST
MILWAUKEE, WI 53233
(414) 286-5943 OFFICE
(414) 708-4245 MOBILE
NKARWE@MILWAUKEE.GOV

CITY OF MILWAUKEE - WATER
MWW CONTROL CENTER
841 N BROADWAY, ROOM 409
MILWAUKEE, WI 53202
(414) 286-3710 DISPATCH

CITY OF MILWAUKEE - SIGNALS
JOSEPH BLAKEMAN
841 N BROADWAY, ROOM 920
MILWAUKEE, WI 53203
(414) 286-8070
JBLAKE@MILWAUKEE.GOV

CROWN CASTLE FIBER LLC - COMMUNICATIONS
MARK MAYZURE
3025 HIGHLAND PKWY, SUITE 400
DOWNERS GROVE, IL 60515
(630) 703-8413
MARK.MAYZURE@CROWNCASTLE.COM

EVERSTREAM - COMMUNICATIONS
JOSEPH HENRIQUES
324 E WISCONSIN AVE, SUITE 730
MILWAUKEE, WI 53202
(414) 309-9212 MOBILE
JHENRIQUES@EVERSTREAM.NET

LEVEL 3 COMMUNICATIONS LLC - COMMUNICATIONS
BRAHIM GADDOUR
3236 INTERTECH DR, SUITE 600
BROOKFIELD, WI 53045
(414) 704-1026 MOBILE
(414) 908-1027 OFFICE
BRAHIM.GADDOUR@LUMEN.COM

MIDWEST FIBER NETWORKS LLC - COMMUNICATIONS
CORY SCHMUKI
6070 N FLINT RD
GLENDALE, WI 53209
(414) 349-2764 MOBILE
(414) 459-3561 OFFICE
RELOCATIONREQUESTS@MIDWESTFIBERNETWORKS.COM

MILWAUKEE COUNTY PARKS DEPARTMENT - ELECTRIC
BLAKE PRUSAK
1150 N 68TH ST
WAUWATOSA, WI 53213
(414) 257-5081
BLAKE.PRUSAK@MILWAUKEECOUNTYWI.GOV

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT - SEWERS
MICHAEL LEE
260 W SEEBOTH ST
MILWAUKEE, WI 53204
(414) 225-2241
MLEE@MMSD.COM

PAETEC COMMUNICATIONS, LLC - COMMUNICATIONS
LORI KETTER
969 WAUBE LN
GREEN BAY, WI 54304
(920) 410-6902
LORI.KETTER@WINDSTREAM.COM

SPECTRUM - COMMUNICATIONS
CHARLES BRASILE
1320 N DR. MARTIN LUTHER KING JR. DR
MILWAUKEE, WI 53212
(414) 277-4281
CHARLES.BRASILE@CHARTER.COM

VERIZON BUSINESS - COMMUNICATIONS
RANDY CICATELLO
15725 W RYERSON RD
NEW BERLIN, WI 53151
(262) 232-1323 MOBILE
RANDY.CICATELLO@VERIZON.COM

VERIZON WIRELESS - COMMUNICATIONS
RANDALL KULA
1515 WOODIFIELD RD
SCHAUMBURG, IL 60173
(630) 550-0907
RANDALL.KULA@VERIZON.COM

WE ENERGIES - ELECTRIC
DAVE THOMPSON
500 S 116TH ST
WEST ALLIS, WI 53214
(618) 975-7926 MOBILE
(800) 662-4797 DISPATCH
DAVID.THOMPSON@WE-ENERGIES.COM

WE ENERGIES - GAS
MATTHEW MIEROW
W140 N9100 LILLY RD
MENOMONEE FALLS, WI 53051
(414) 333-0325 MOBILE
(800) 261-5325 DISPATCH
MATTHEW.MIEROW@WE-ENERGIES.COM

WE ENERGIES - STEAM
CHAD HOFFMAN
613 N 35TH ST
MILWAUKEE, WI 53208
(262) 573-2994 MOBILE
(414) 221-2339 OFFICE
CHAD.HOFFMAN@WE-ENERGIES.COM

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

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	GENERAL NOTES & PROJECT CONTACTS	SHEET 2	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\020101-GN.DWG
LAYOUT NAME - Plan 1 IN 100 FT
PLOT DATE : 10/9/2023 8:27 AM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

HISTORIC PROPERTY

PROPERTY WITH CONTAMINATED SOILS

N

CITY OF MILWAUKEE

BEGIN CONSTRUCTION
STA 49+17

BEGIN PROJECT
STA 50+25
Y = 386,466.44
X = 2,559,239.30

N BROADWAY

N MILWAUKEE ST

N JEFFERSON ST

CATHEDRAL SQUARE PARK
(MILWAUKEE COUNTY)

N JACKSON ST

ST. JOHN THE EVANGELIST ROMAN
CATHOLIC CATHEDRAL COMPLEX

N VAN BUREN ST

END CONSTRUCTION
STA 64+15

END PROJECT
STA 64+05

50 52 54 56 58 60 62 64

E WELLS ST

EXCEPTION TO NET CENTERLINE
STA 53+40.90 TO STA 53+49.01
MILWAUKEE STREET CAR TRACKS

E WELLS ST R/L

WISCONSIN CONSISTORY
BUILDING

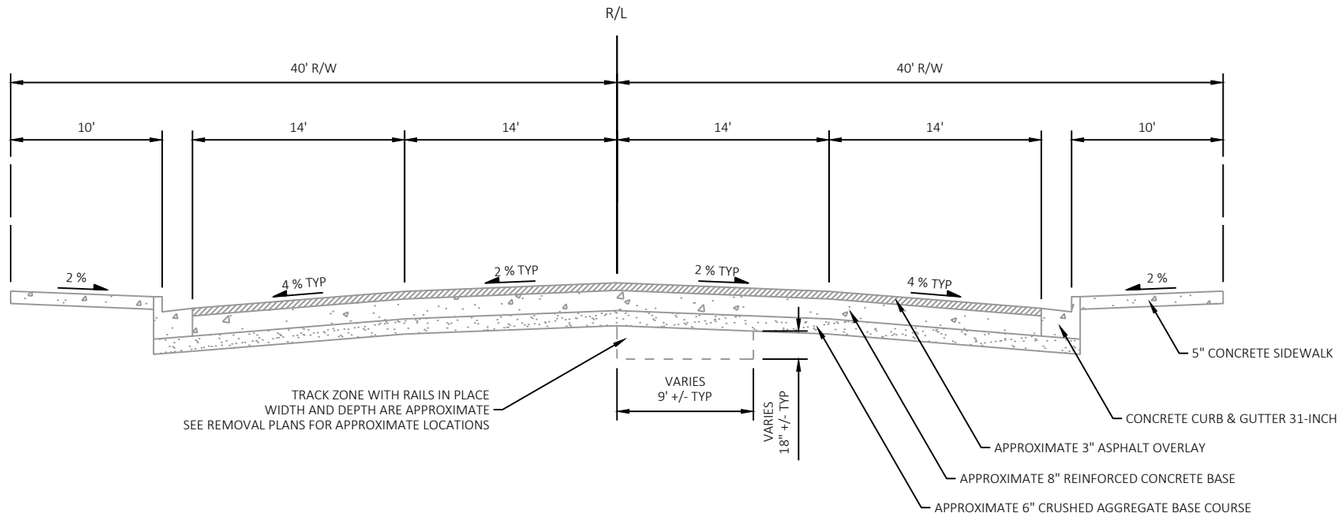
PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - Plan 1 IN 100 FT

PLOT DATE : 7/21/2023 4:08 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT

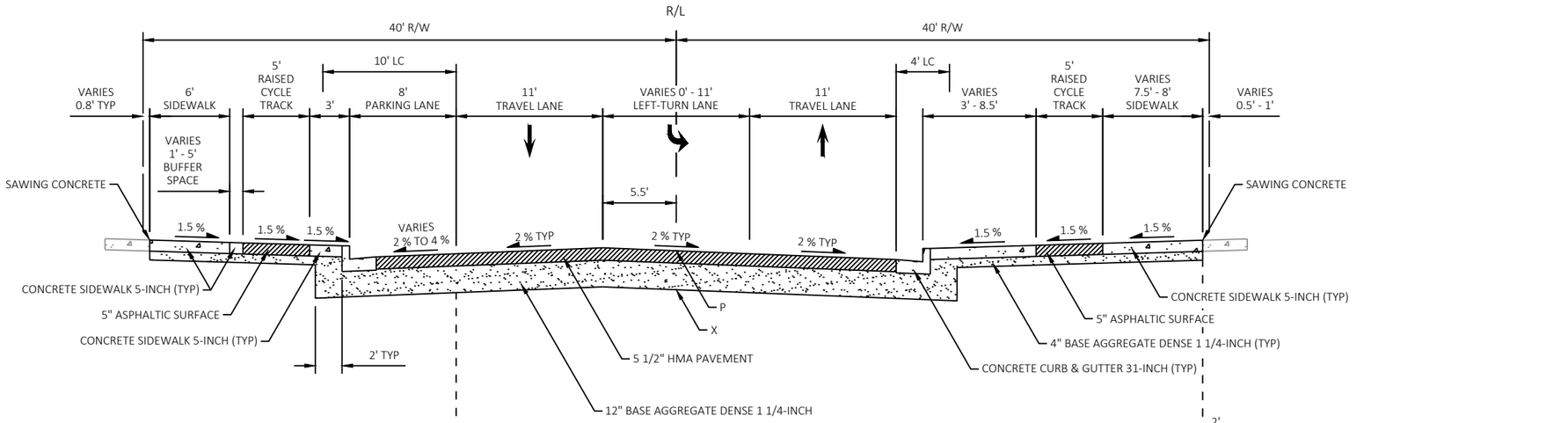
WISDOT/CADDS SHEET 42

2



EXISTING TYPICAL SECTION
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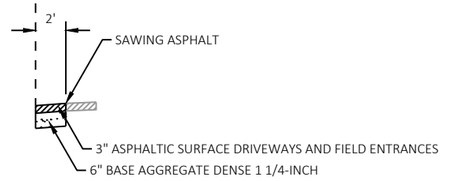
STA 50+25 - STA 64+05



FINISHED TYPICAL SECTION
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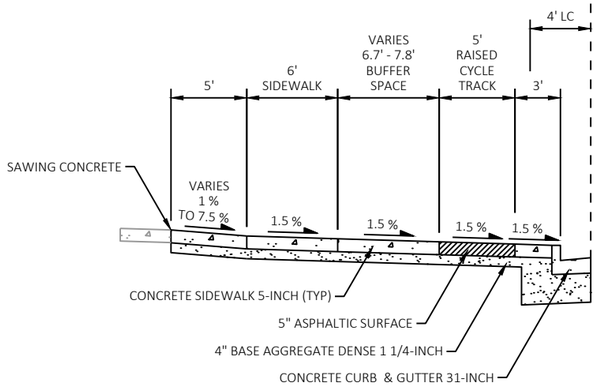
STA 50+25 - STA 53+41

V = 35 MPH



PARKING LOT REPLACEMENT

STA 50+96 - STA 51+69 RT



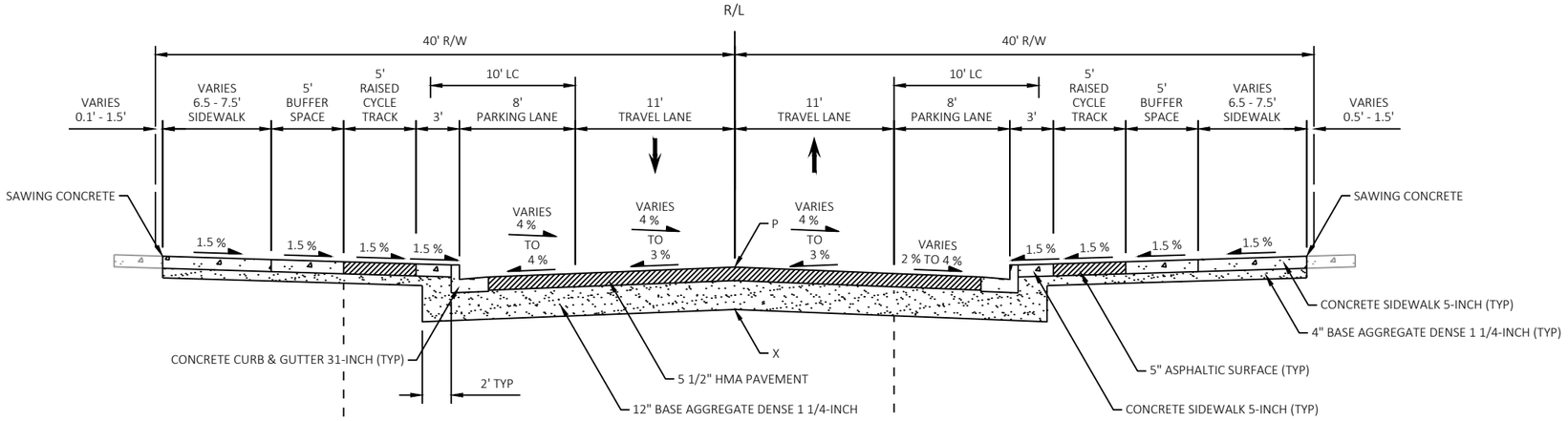
NO PARKING LANE

STA 50+67 - STA 51+45 LT

P = POINT REFERRED TO ON PROFILE
X = POINT REFERRED TO ON CROSS SECTIONS

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 5	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 02
PLOT DATE : 7/21/2023 4:08 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

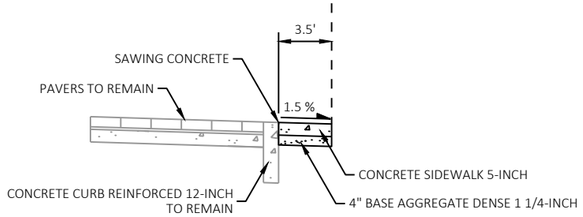


FINISHED TYPICAL SECTION
E WELLS ST

STA 53+49 - STA 54+65
STA 56+75 - STA 64+05

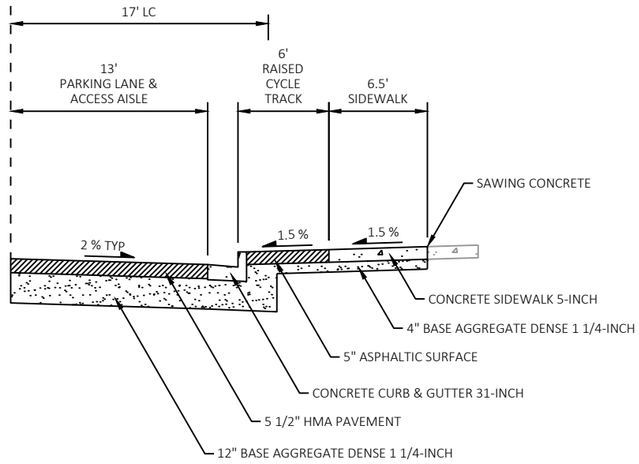
V = 35 MPH

P = POINT REFERRED TO ON PROFILE
X = POINT REFERRED TO ON CROSS SECTIONS



CATHEDRAL SQUARE PARK

STA 57+50 - STA 59+33 LT

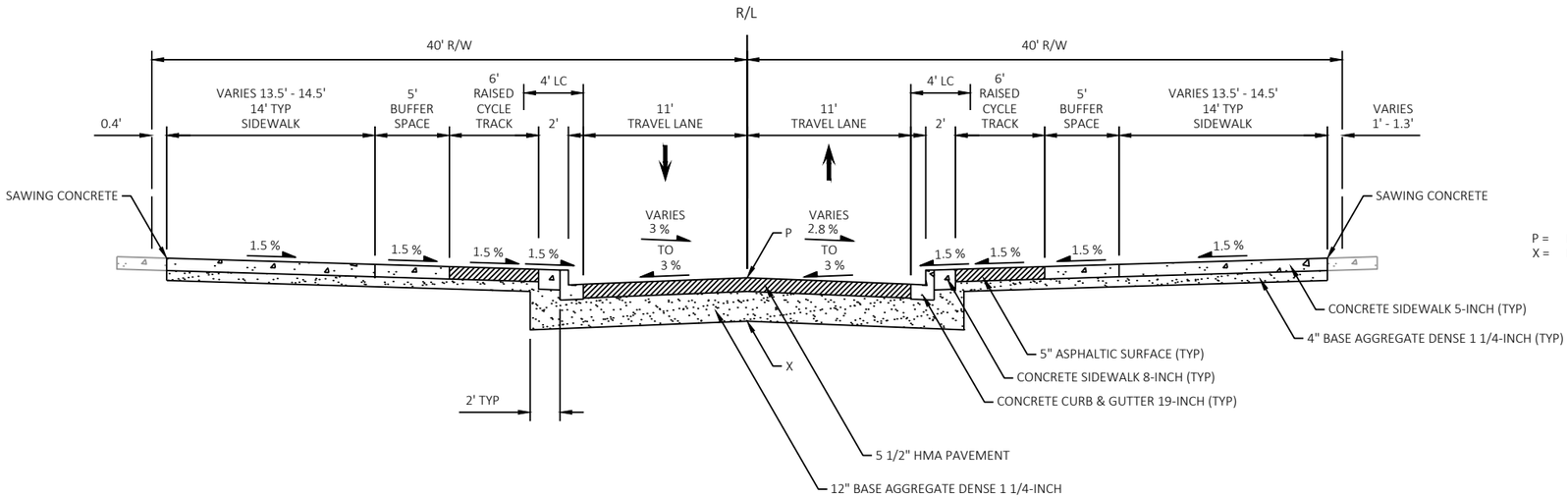


ADA ACCESSIBLE PARKING SPACE

STA 57+56 - STA 57+78 RT

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 6	E

2



P = POINT REFERRED TO ON PROFILE
X = POINT REFERRED TO ON CROSS SECTIONS

FINISHED TYPICAL SECTION
E WELLS ST

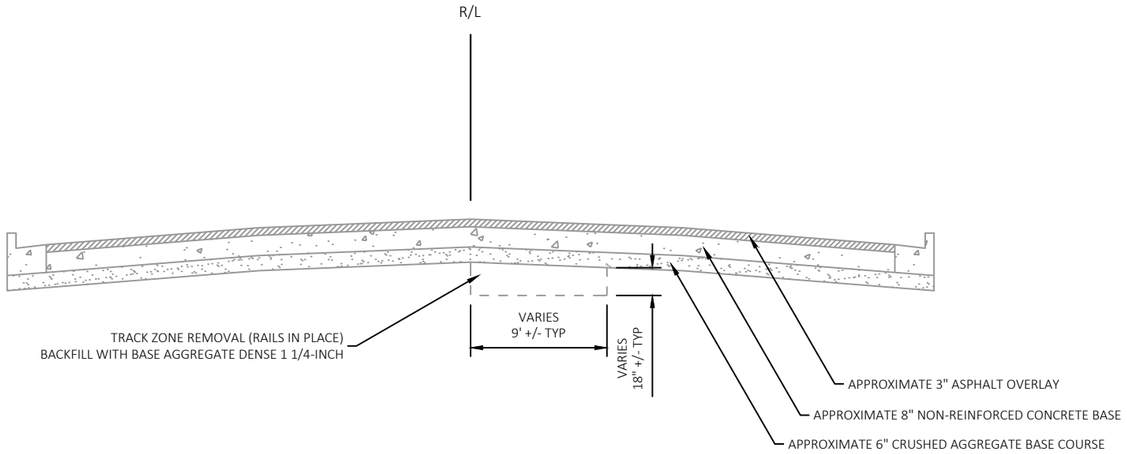
STA 54+65 - STA 56+75

V = 35 MPH

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 7	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 04

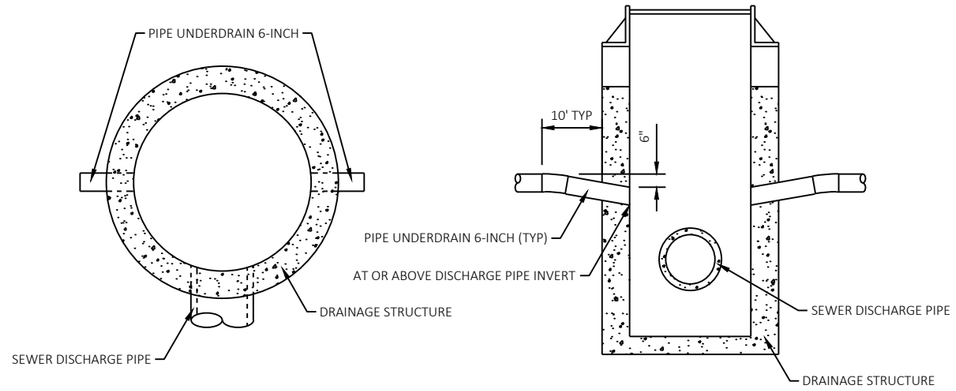
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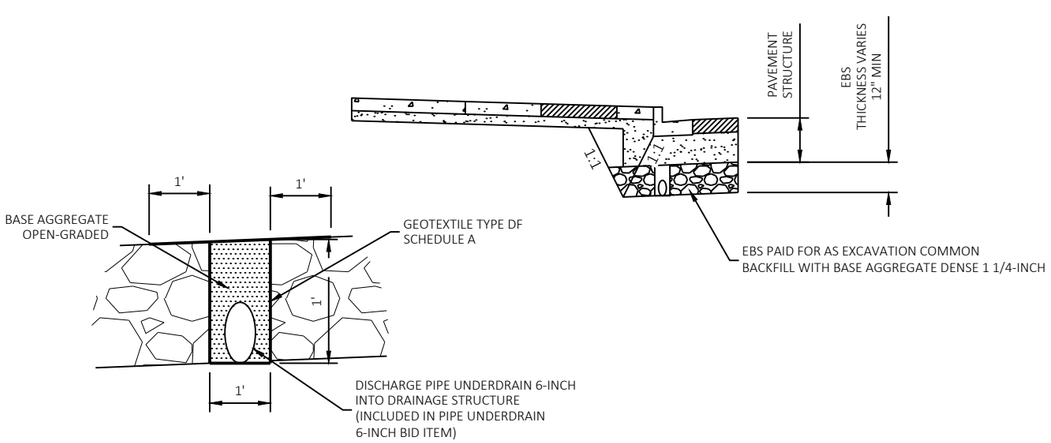
TRACK ZONE REMOVAL

NOTES:

1. EXISTING TYPICAL SECTION SHOWN.
2. WIDTH AND DEPTH OF TRACK ZONE ARE APPROXIMATE. SEE REMOVAL PLANS FOR APPROXIMATE LOCATIONS.
3. SEE SPECIAL PROVISIONS FOR TRACK ZONE REMOVAL.



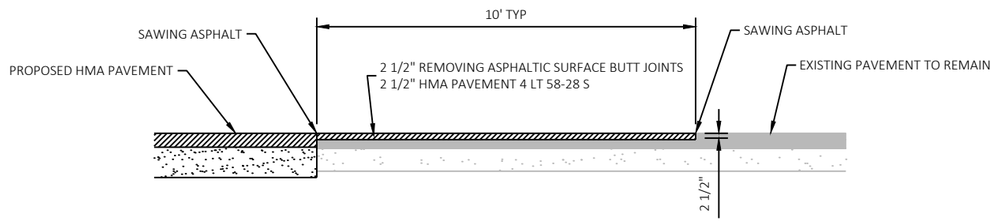
UNDERDRAIN OUTFALL



EXCAVATION BELOW SUBGRADE

NOTES:

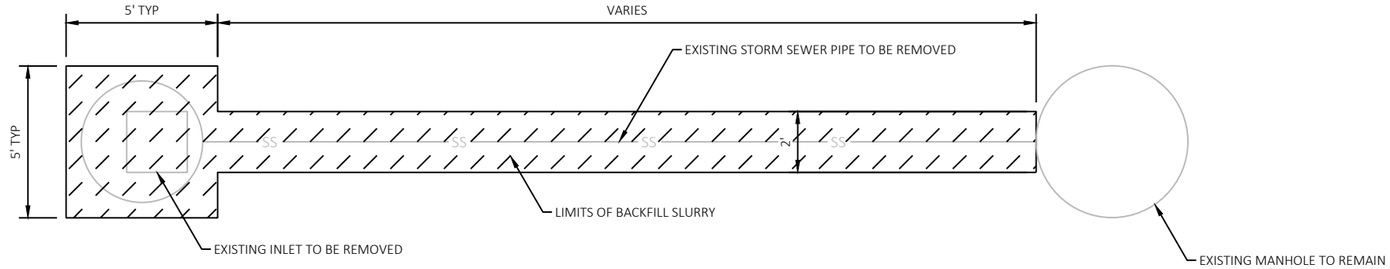
1. LOCATIONS AND DEPTHS TO BE DETERMINED BY THE ENGINEER. THE ENGINEER MAY DIRECT THE USE OF PROOF ROLLING TO DETERMINE LIMITS AND EXTENTS OF EBS.
2. INSTALL UNDERDRAIN TO 25' UPSTREAM OF CURB & GUTTER LOW POINTS. CONNECT UNDERDRAIN TO DRAINAGE STRUCTURE AT LOW POINT.



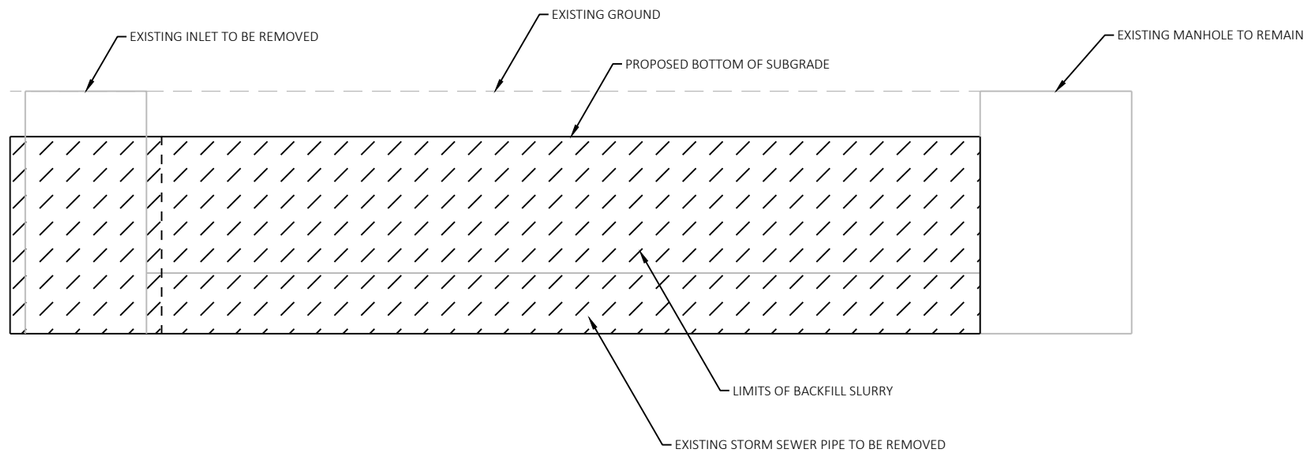
BUTT JOINTS

STA 50+25
STA 64+05
MILWAUKEE ST
JEFFERSON ST
JACKSON ST
VAN BUREN ST

2



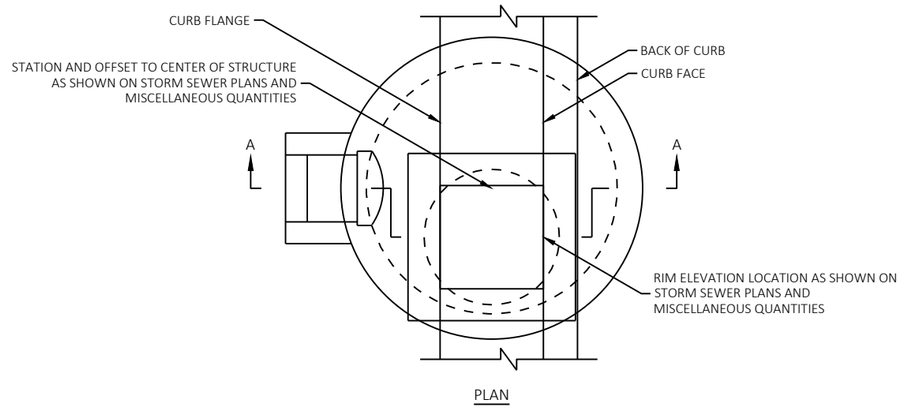
PLAN VIEW



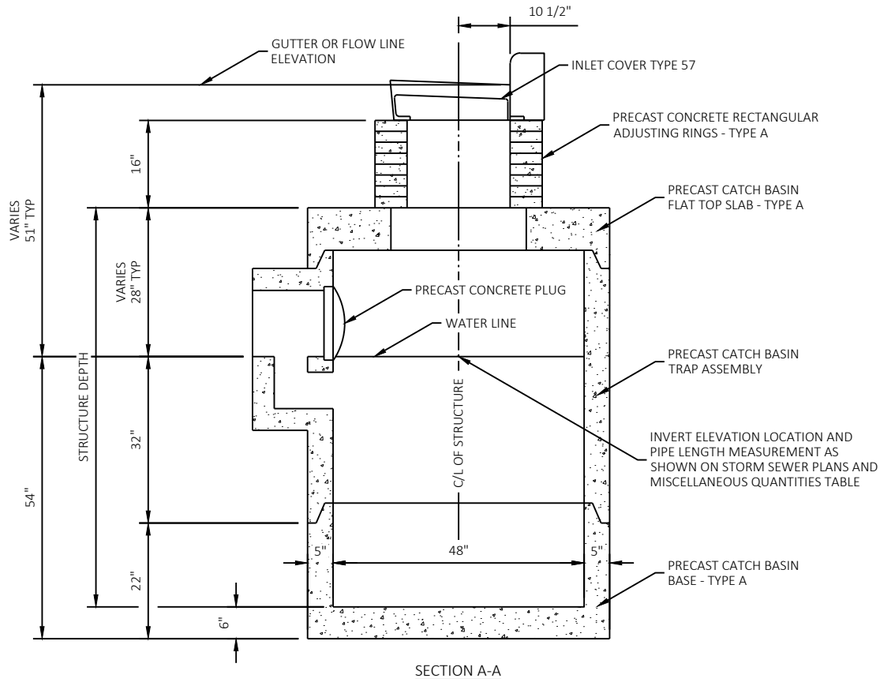
PROFILE VIEW

BACKFILL SLURRY

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 9	E



PLAN

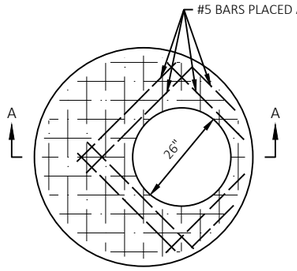


SECTION A-A

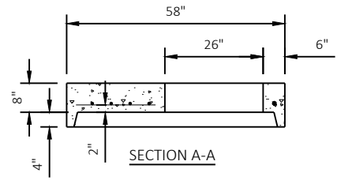
CATCH BASIN TYPE 44A

NOTES:

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



PLAN



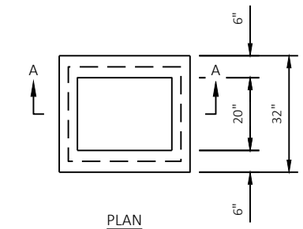
SECTION A-A

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

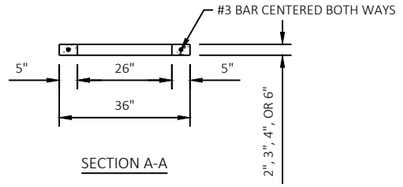
REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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

TOP SLAB - TYPE A



PLAN

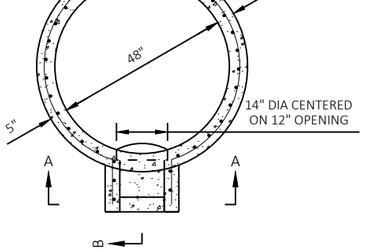


SECTION A-A

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

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

RECTANGULAR ADJUSTING RING - TYPE A



PLAN

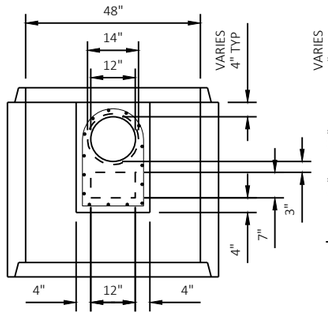
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

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

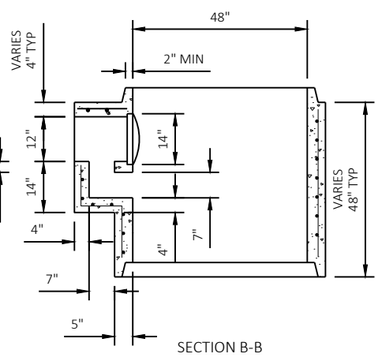
CIRCUMFERENTIAL AND TRAP ASSEMBLY REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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

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

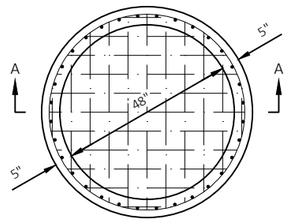


SECTION A-A

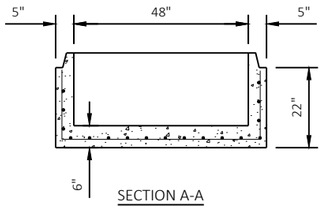


SECTION B-B

TRAP ASSEMBLY



PLAN



SECTION A-A

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

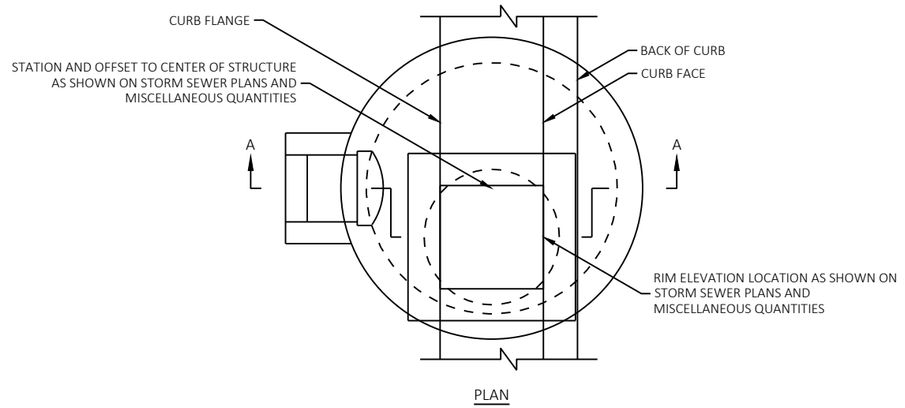
BOTTOM SLAB SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SLAB.

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

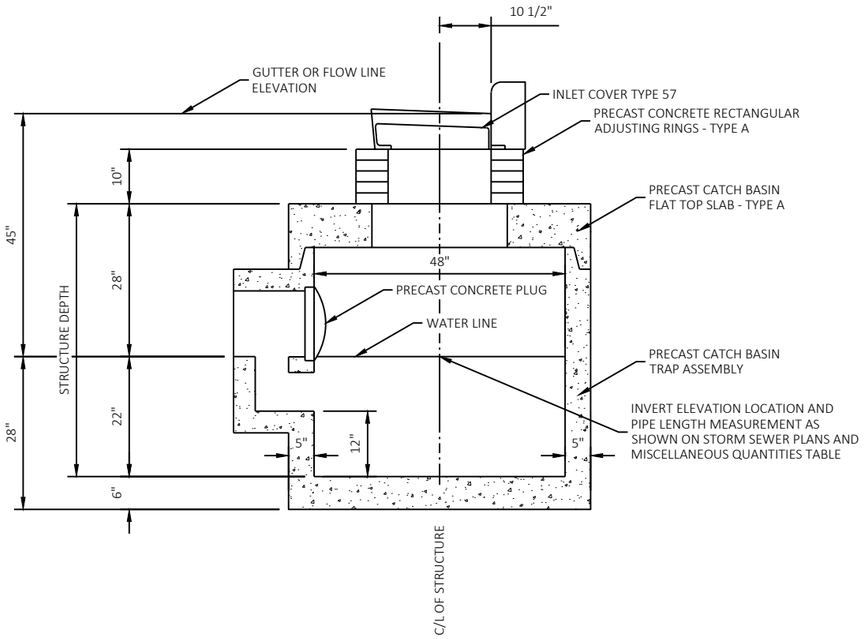
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.

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

BASE - TYPE A



PLAN

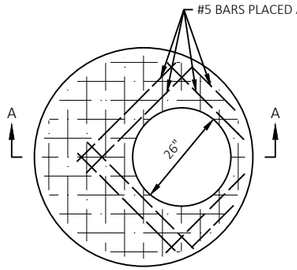


SECTION A-A

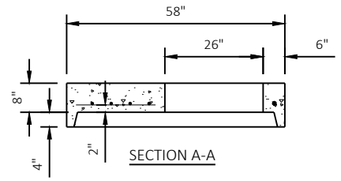
CATCH BASIN TYPE 44B

NOTES:

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



PLAN



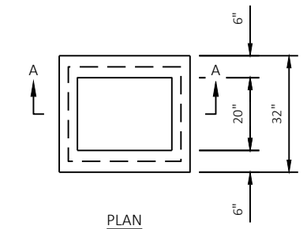
SECTION A-A

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

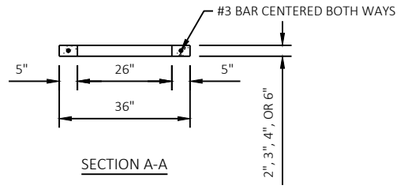
REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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

TOP SLAB - TYPE A



PLAN

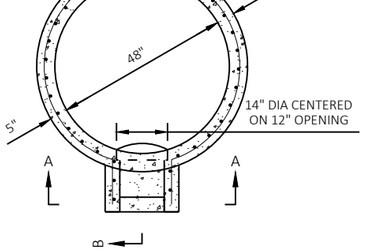


SECTION A-A

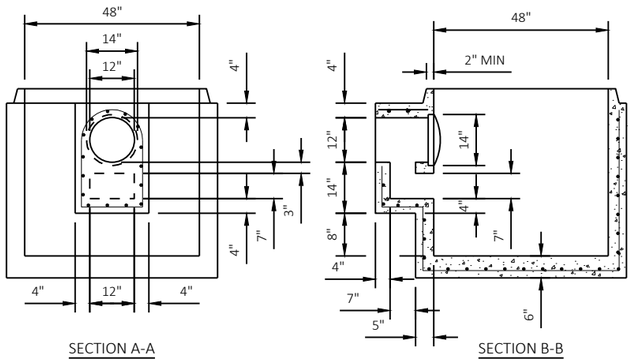
THE ADJUSTING RINGS SHALL BE 2" , 3" , 4" OR 6" IN HEIGHT.

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

RECTANGULAR ADJUSTING RING - TYPE A



PLAN



SECTION A-A SECTION B-B

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

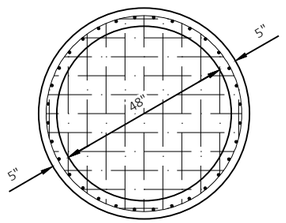
TRAP ASSEMBLY SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

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

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

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

TRAP ASSEMBLY



PLAN

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

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

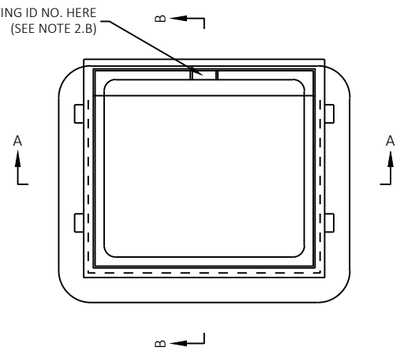
CIRCUMFERENTIAL AND BOTTOM SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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

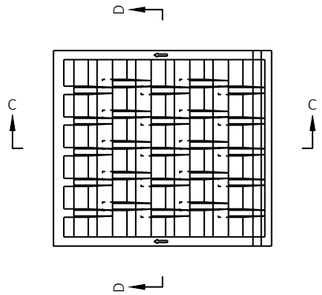
TWO HANDLING HOLES 2 1/4" IN DIAMETER SHALL BE CAST OR DRILLED IN THE WALL.

BOTTOM REINFORCEMENT

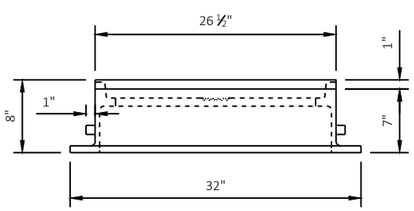
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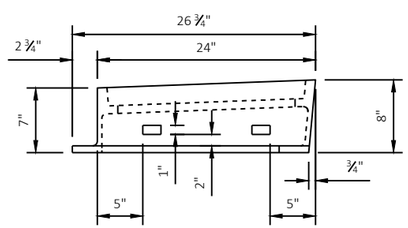


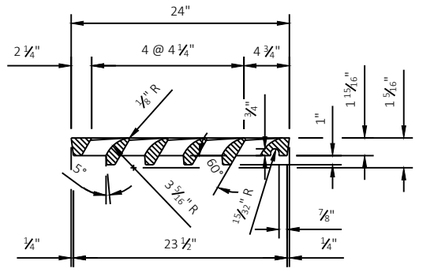
FRAME



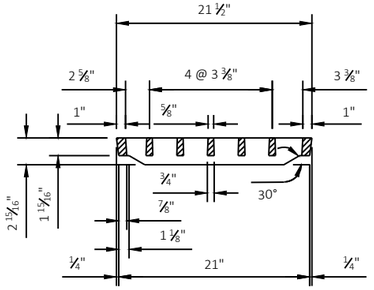
GRATE



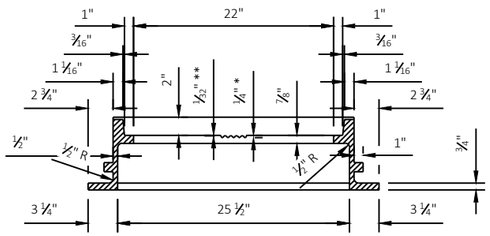




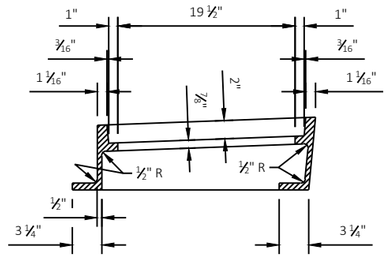
SECTION C-C



SECTION D-D



SECTION A-A



SECTION B-B

INLET COVER - TYPE 57

LID - 145 LBS, FRAME - 204 LBS

NOTES:

* DEPRESSION FOR LETTERS
** CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT

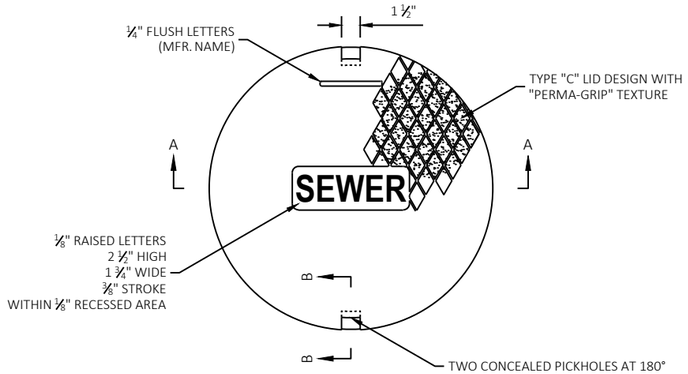
1. ALL EDGES ARE TO BE GROUND.
2. ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8" ON THE FRAME.

FRAME

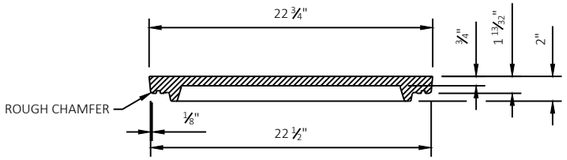
A. ON THE UPPER FACE OF THE FLANGE IN 1" HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.
B. ON THE SEAT OF THE FRAME IN 1" HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER.

GRATE

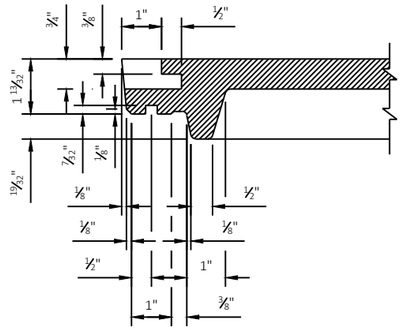
C. ON THE UPPER SIDE OF THE GRATE IN 1" HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (57) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.



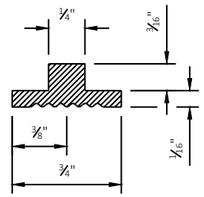
TOP VIEW

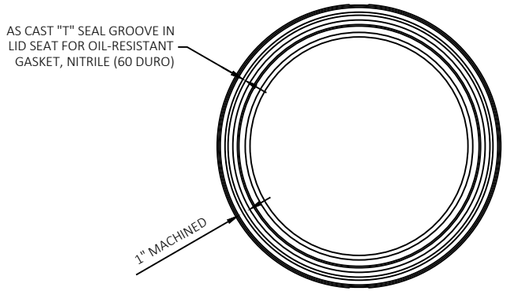


SECTION A-A

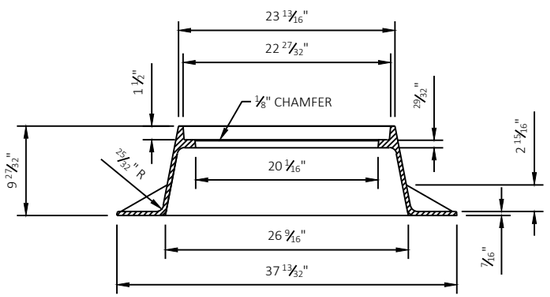


SECTION B-B





BOTTOM VIEW



MANHOLE FRAME TYPE 21

MANHOLE COVER - TYPE 58A

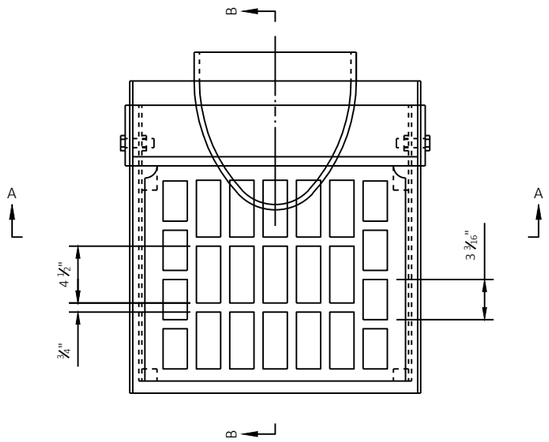
LID - 107 LBS, FRAME - 182 LBS

MANHOLE FRAME TYPE 21 INCLUDED WITH
MANHOLE COVER TYPE 58A BID ITEM

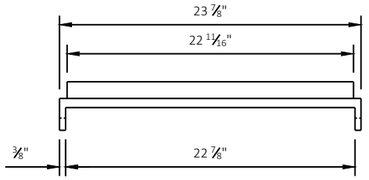
NOTES:

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:

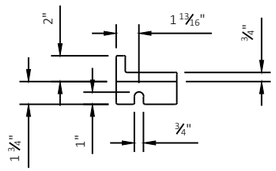
1. THE INITIALS OR MONOGRAM OF THE FOUNDRY.
2. THE CONTRACT NUMBER AND YEAR MADE.
3. THE CASTING IDENTIFICATION NUMBER.
4. THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.
   NOTE: ALL EXTERIOR EDGES SHALL BE GROUND.



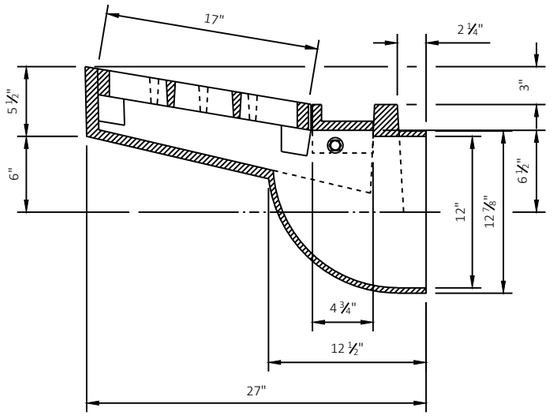
PLAN



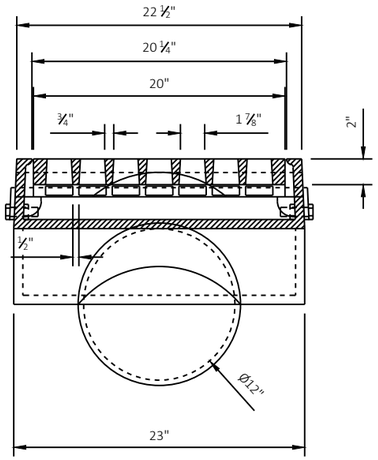
CURB PLATE - SECTION B-B



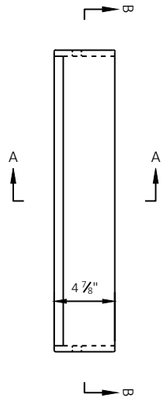
CURB PLATE - SECTION A-A



SECTION B-B



SECTION A-A



CURB PLATE - PLAN

NOTES:

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

FRAME

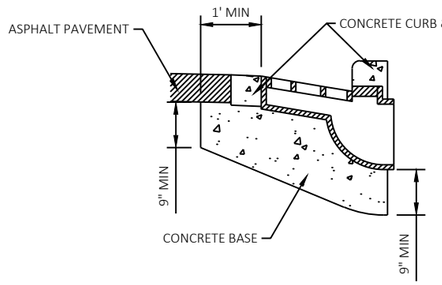
ON THE UPPER FACE OF THE FLANGE THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

GRATE

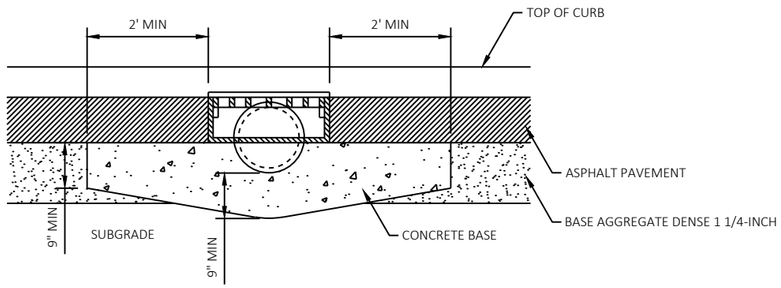
ON THE UPPER SIDE OF THE GRATE THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

INLET TYPE 70A

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 14	E



SECTION VIEW



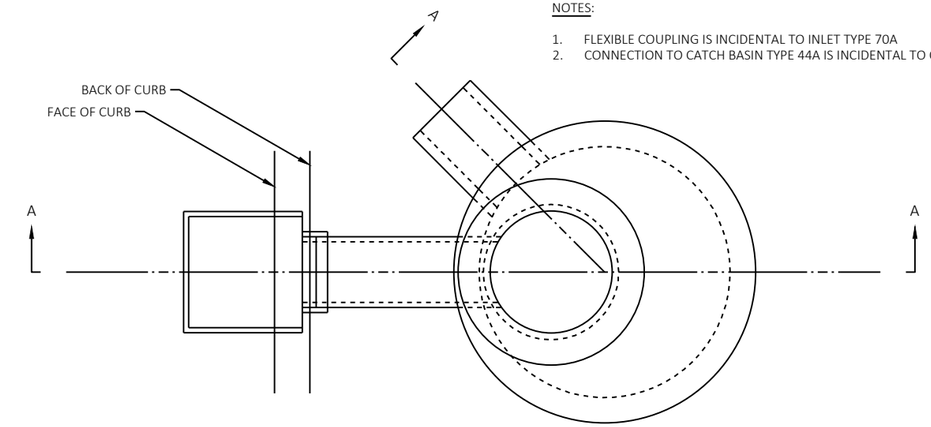
PROFILE VIEW

INLET TYPE 70A CONCRETE BASE

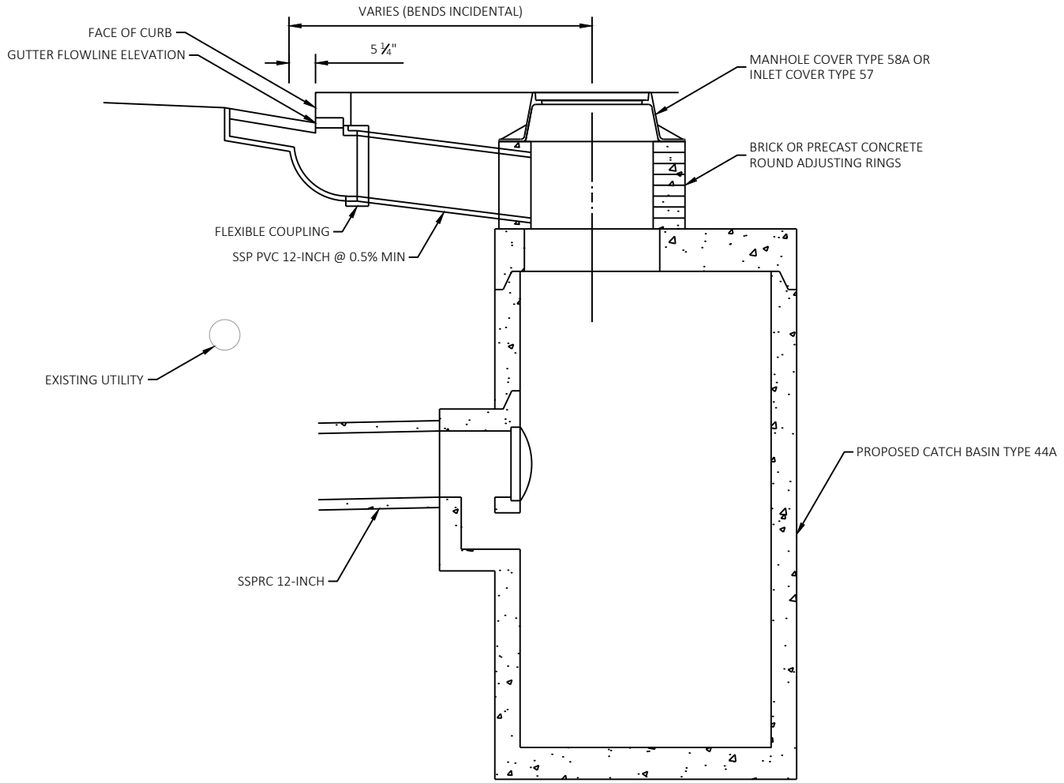
CONCRETE BASE IS INCIDENTAL TO INLET TYPE 70A

NOTES:

1. FLEXIBLE COUPLING IS INCIDENTAL TO INLET TYPE 70A
2. CONNECTION TO CATCH BASIN TYPE 44A IS INCIDENTAL TO CATCH BASIN TYPE 44A



PLAN

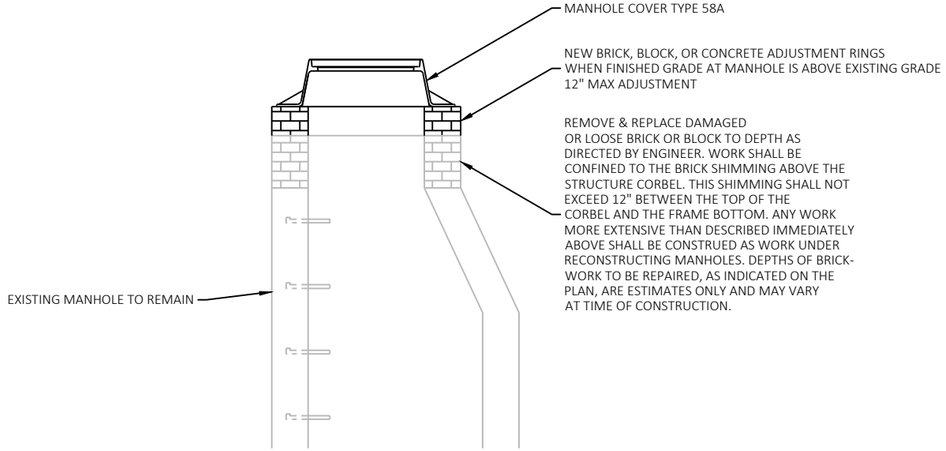


SECTION A-A

INLET TYPE 70A AND CATCH BASIN TYPE 44A CONNECTION DETAIL

SEE STORM SEWER PLANS FOR LOCATIONS

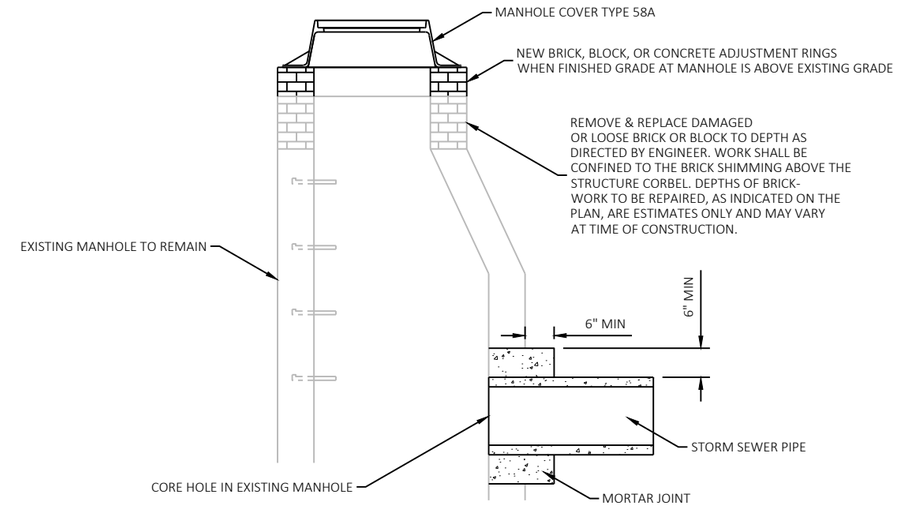
2



ADJUSTING MANHOLE COVERS

STA 51+45, 4' LT
STA 51+77, 3' LT
STA 55+08, 3' LT
STA 56+78, 52' RT
STA 60+11, 2' LT
STA 63+21, 2' LT
STA 63+98, 3' LT

ADJUSTMENT WORK IS INCLUDED IN MANHOLE COVERS TYPE 58A BID ITEM

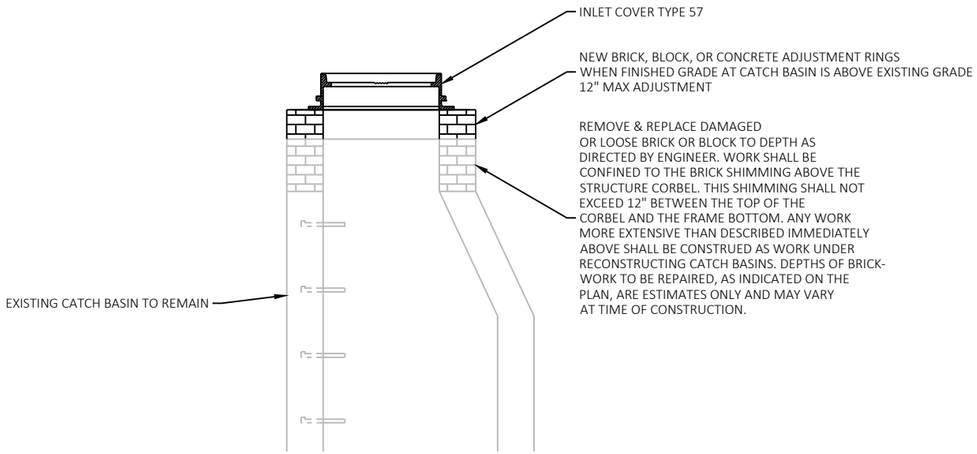


RECONSTRUCTING MANHOLES

STA 56+77, 47' LT
STA 60+10, 44' LT
STA 63+48, 50' LT

NOTES:

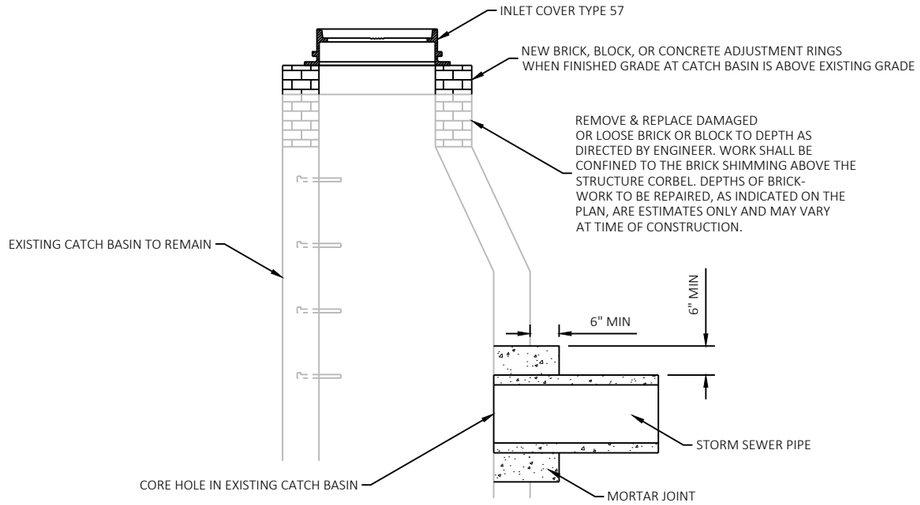
1. ADJUSTMENT WORK EXCEEDING 12", BRICK OR BLOCK REPAIRS EXCEEDING 12", OR STORM SEWER PIPE CONNECTIONS TO EXISTING MANHOLES TO BE PAID AS RECONSTRUCTING MANHOLES. ALL WORK PERFORMED AT A SINGLE MANHOLE TO BE QUANTIFIED AS ONE RECONSTRUCTING MANHOLE.
2. CONNECT STORM SEWER PIPE TO EXISTING STRUCTURE IN ACCORDANCE TO STANDARD SPEC 611.3.2.



ADJUSTING CATCH BASIN COVERS

STA 49+62, 50' LT
STA 57+01, 48' LT
STA 59+88, 54' LT
STA 63+71, 51' LT
STA 63+92, 21' LT
STA 63+93, 21' RT

ADJUSTMENT WORK IS INCLUDED IN INLET COVERS TYPE 57 BID ITEM

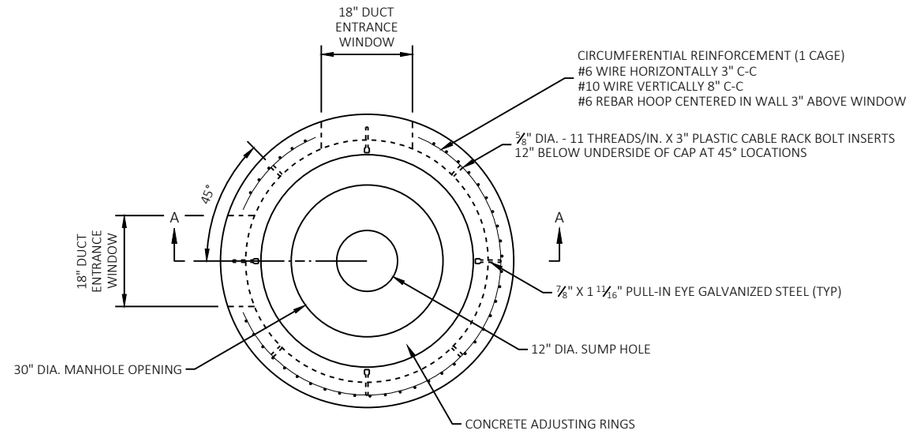


RECONSTRUCTING CATCH BASINS

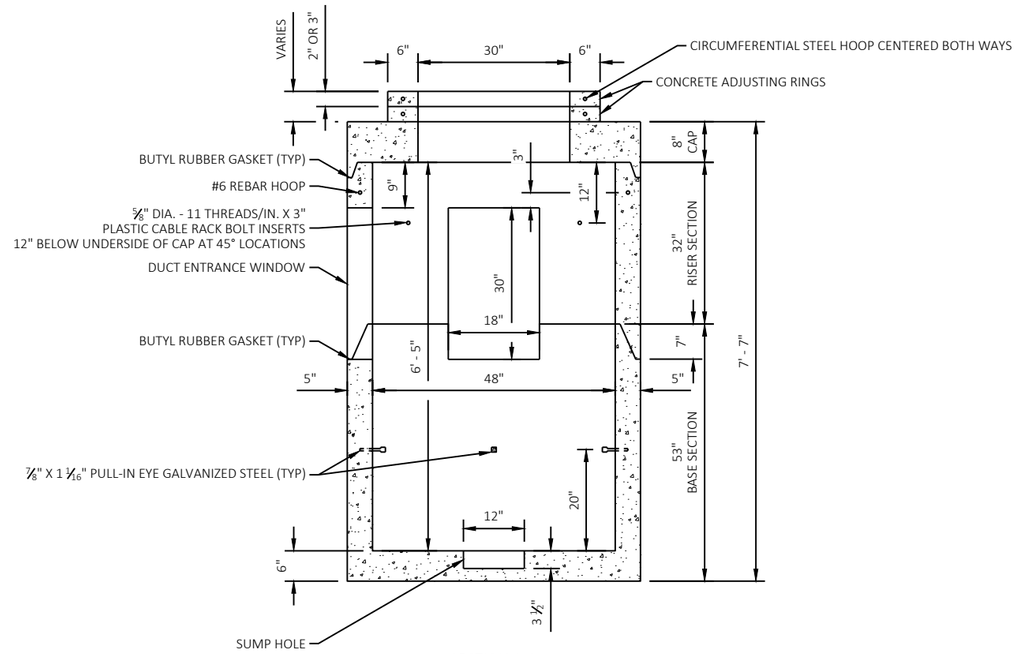
STA 53+20, 46' RT
STA 53+67, 56' RT

NOTES:

1. ADJUSTMENT WORK EXCEEDING 12", BRICK OR BLOCK REPAIRS EXCEEDING 12", OR STORM SEWER PIPE CONNECTIONS TO EXISTING CATCH BASINS TO BE PAID AS RECONSTRUCTING CATCH BASINS. ALL WORK PERFORMED AT A SINGLE CATCH BASIN TO BE QUANTIFIED AS ONE RECONSTRUCTING CATCH BASINS.
2. CONNECT STORM SEWER PIPE TO EXISTING STRUCTURE IN ACCORDANCE TO STANDARD SPEC 611.3.2.



PLAN



SECTION A-A

CUC MANHOLE DOGHOUSE 4-FT DIAMETER

NOTES:

1. MANHOLE FRAMES AND LIDS FURNISHED BY THE CITY OF MILWAUKEE.

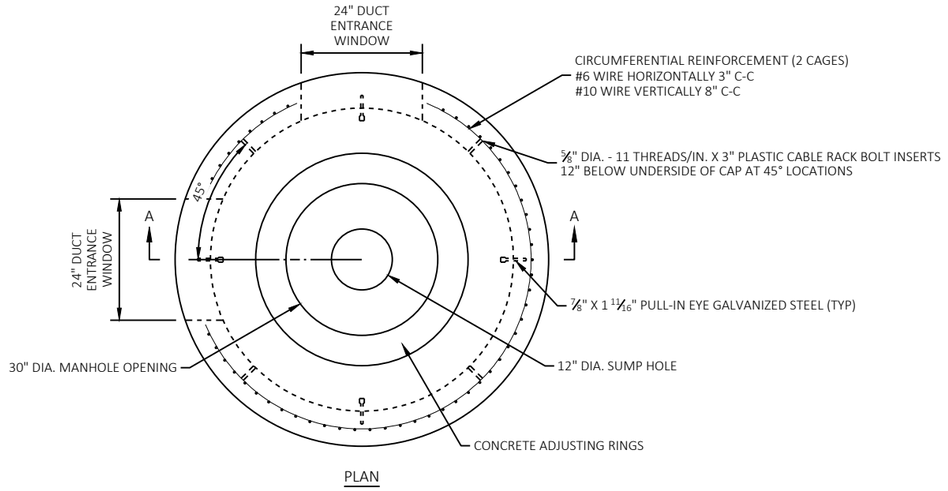
MANHOLE

1. JOINTS MAY BE EITHER "BELL UP" OR "SPIGOT UP". THE NUMBER OF PULL-IN IRONS AND CABLE RACK BOLT INSERTS MAY VARY BASED ON THE NUMBER AND ORIENTATION OF WINDOWS.
2. REINFORCING IN THE BASE AND CAP SHALL CONFORM TO ASTM C-478.
3. DETAIL SHOWS A 2-WINDOW OPENING MANHOLE. THE ACTUAL NUMBER AND ORIENTATION OF WINDOWS MAY VARY DEPENDING ON THE REQUIRED DUCT PACKAGES.

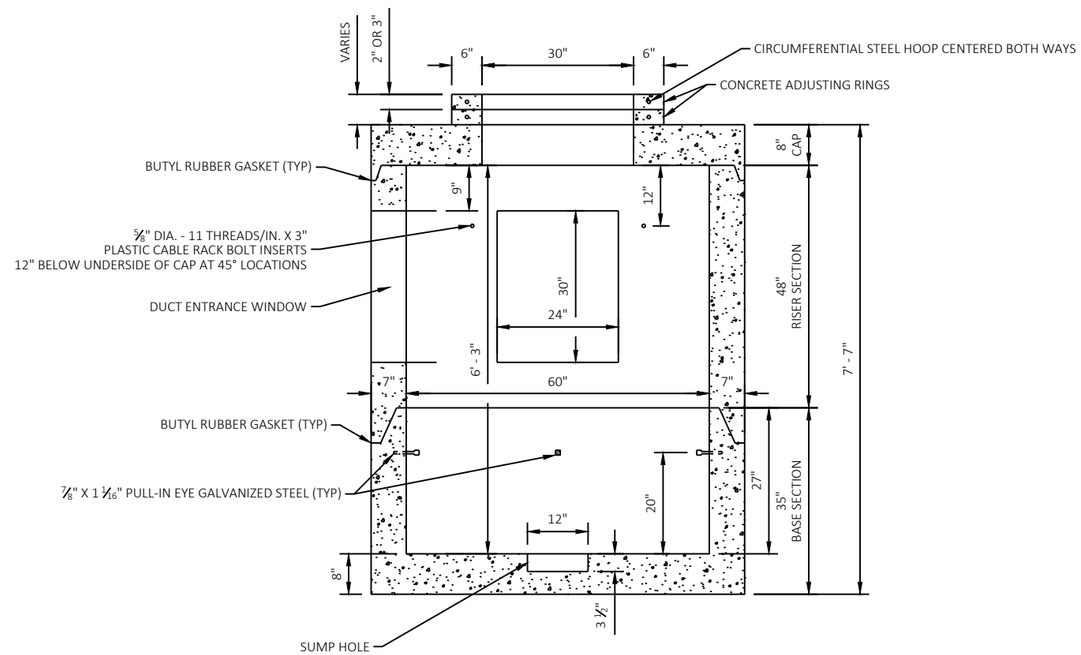
CONCRETE ADJUST ING RINGS

1. RINGS SHALL BE EITHER 2" OR 3" IN HEIGHT.
2. CIRCUMFERENTIAL STEEL SHALL BE CENTERED WITHIN THE RING.
3. AREA OF CIRCUMFERENTIAL STEEL = 0.07 SQ. IN. PER VERTICAL FOOT. MINIMUM AREA = 0.024 SQ. IN. IN ANY ONE RING.
4. MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE RING SHALL BE 4000 PSI

2



PLAN



SECTION A-A

CUC MANHOLE 5-FT DIAMETER

NOTES:

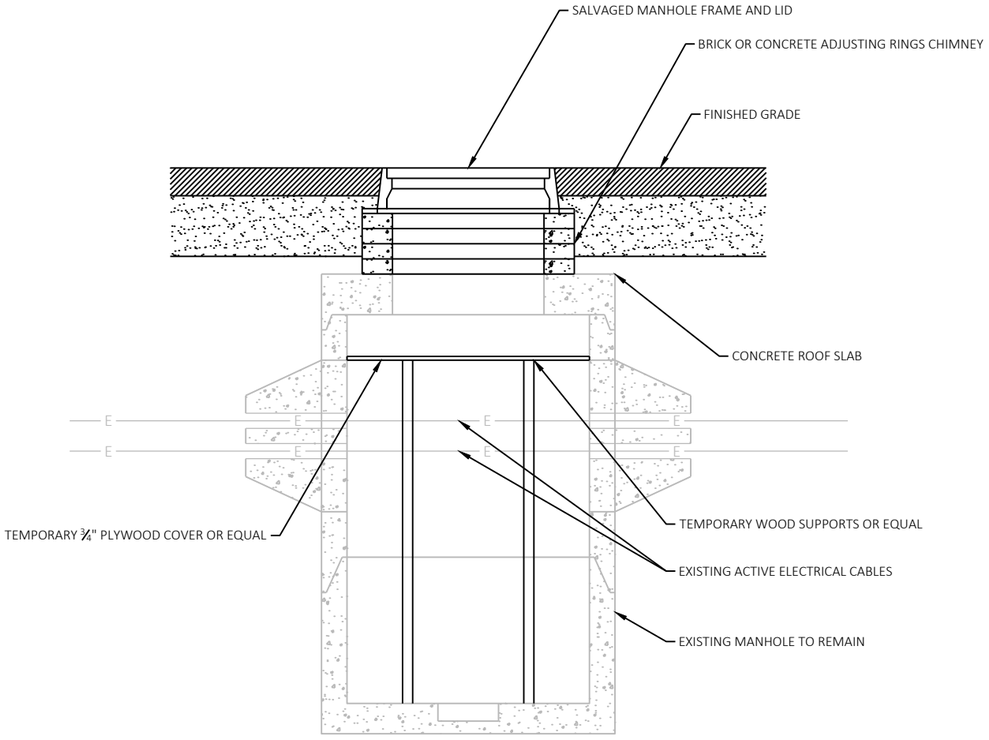
1. MANHOLE FRAMES AND LIDS FURNISHED BY THE CITY OF MILWAUKEE.

MANHOLE

1. JOINTS MAY BE EITHER "BELL UP" OR "SPIGOT UP". THE NUMBER OF PULL-IN IRONS AND CABLE RACK BOLT INSERTS MAY VARY BASED ON THE NUMBER AND ORIENTATION OF WINDOWS.
2. REINFORCING IN THE BASE AND CAP SHALL CONFORM TO ASTM C-478.
3. DETAIL SHOWS A 2-WINDOW OPENING MANHOLE. THE ACTUAL NUMBER AND ORIENTATION OF WINDOWS MAY VARY DEPENDING ON THE REQUIRED DUCT PACKAGES.

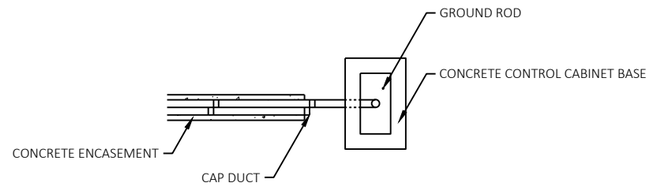
CONCRETE ADJUST ING RINGS

1. RINGS SHALL BE EITHER 2" OR 3" IN HEIGHT.
2. CIRCUMFERENTIAL STEEL SHALL BE CENTERED WITHIN THE RING.
3. AREA OF CIRCUMFERENTIAL STEEL = 0.07 SQ. IN. PER VERTICAL FOOT. MINIMUM AREA = 0.024 SQ. IN. IN ANY ONE RING.
4. MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE RING SHALL BE 4000 PSI

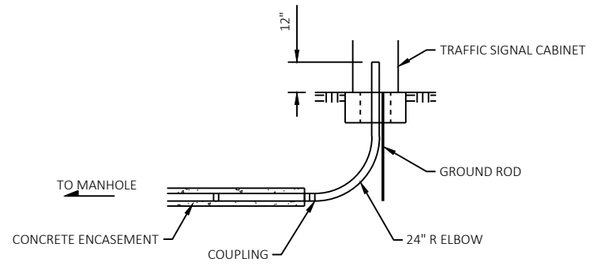


ADJUSTING CUC MANHOLE COVERS

STA 50+24, 44' LT
STA 53+00, 24' LT
STA 53+37, 54' LT
STA 59+73, 22' LT
STA 63+61, 3' LT

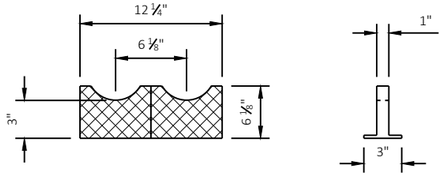


PLAN

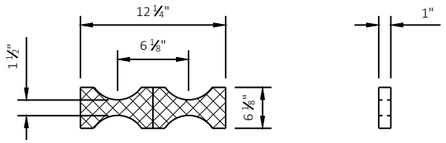


PROFILE

CUC DUCT PACKAGE AT TRAFFIC SIGNAL CABINET

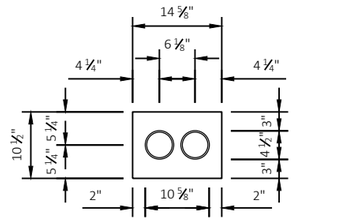


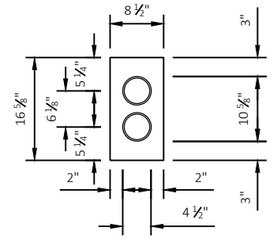
BASE SPACER

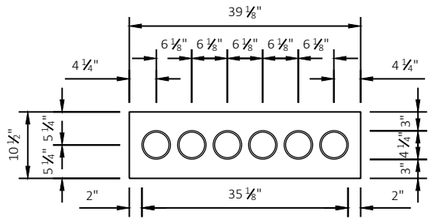


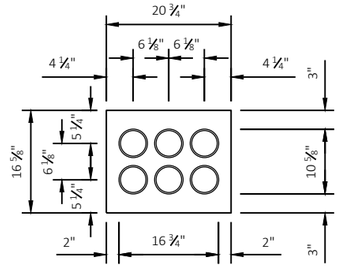
INTERMEDIATE SPACER

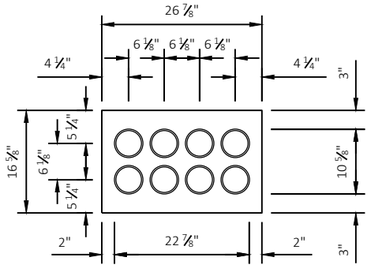
CUC INTERMEDIATE AND BASE SPACERS

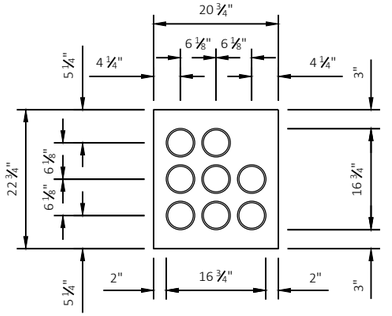




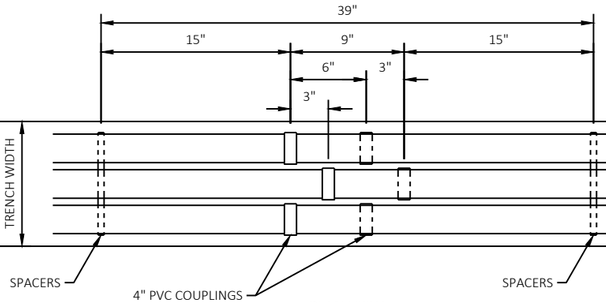




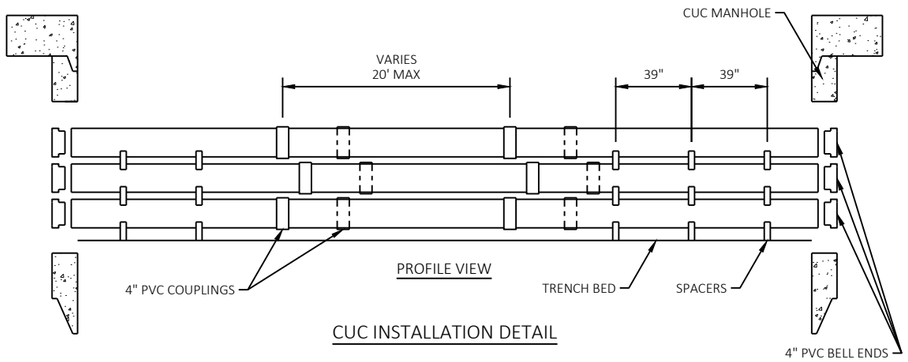




CUC DUCT PACKAGE CROSS SECTIONS

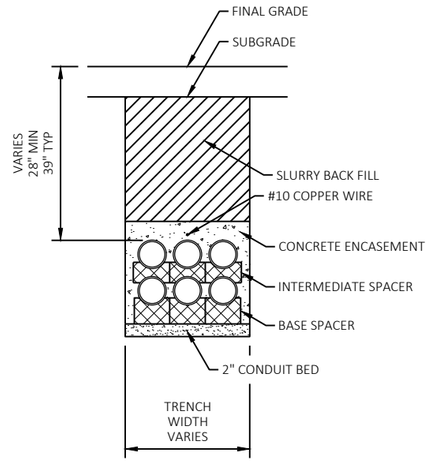


PLAN VIEW



PROFILE VIEW

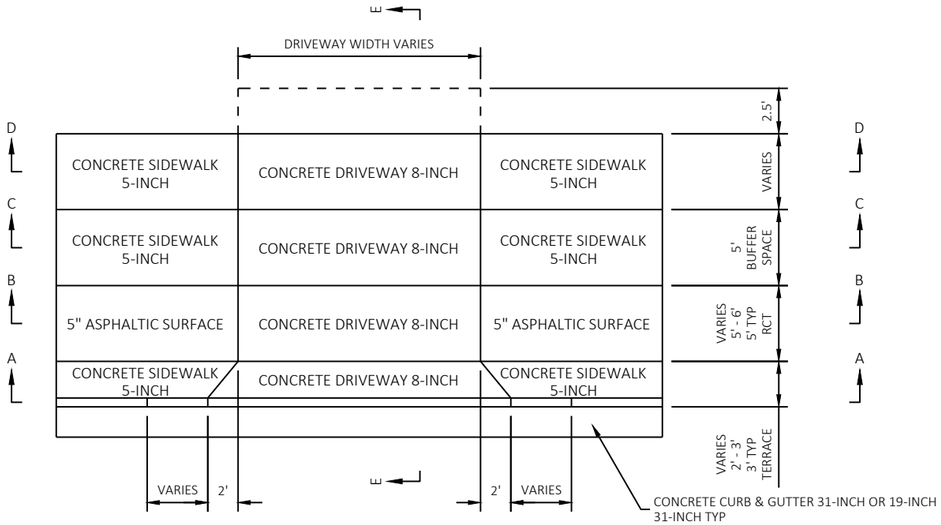
CUC INSTALLATION DETAIL

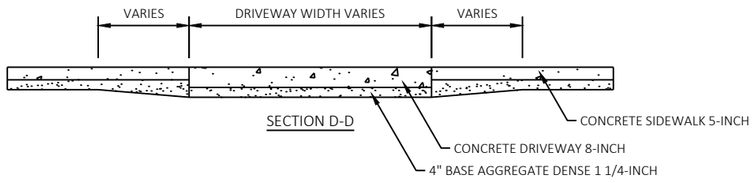


CUC TRENCHES

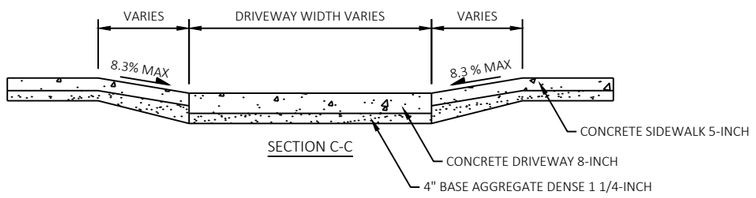
6-DUCT PACKAGE SHOWN. MINIMUM TRENCH WIDTH IS THE WIDTH OF THE DUCT PACKAGE CROSS SECTION.
COPPER TRACER WIRE SHALL BE CENTERED WITHIN THE WIDTH OF THE DUCT PACKAGE.

2

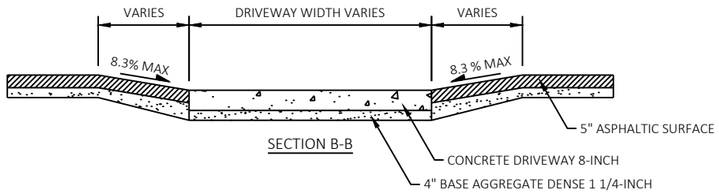




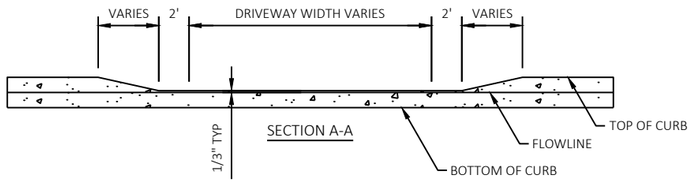
SECTION D-D



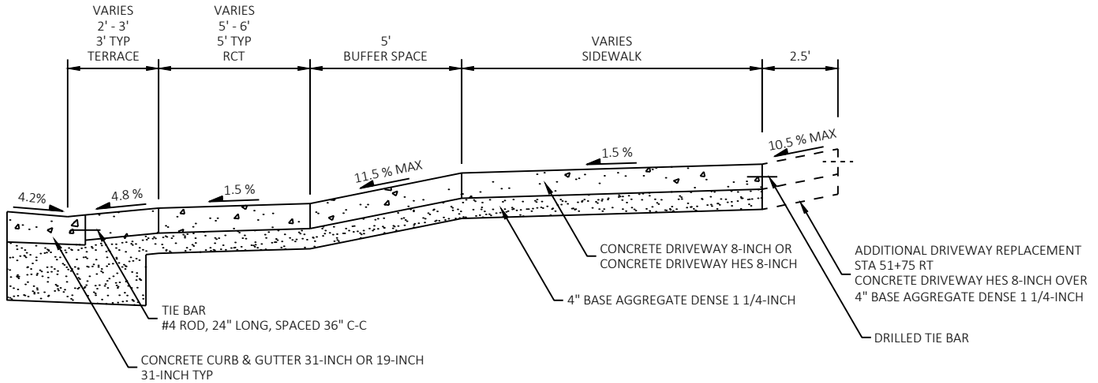
SECTION C-C



SECTION B-B



SECTION A-A

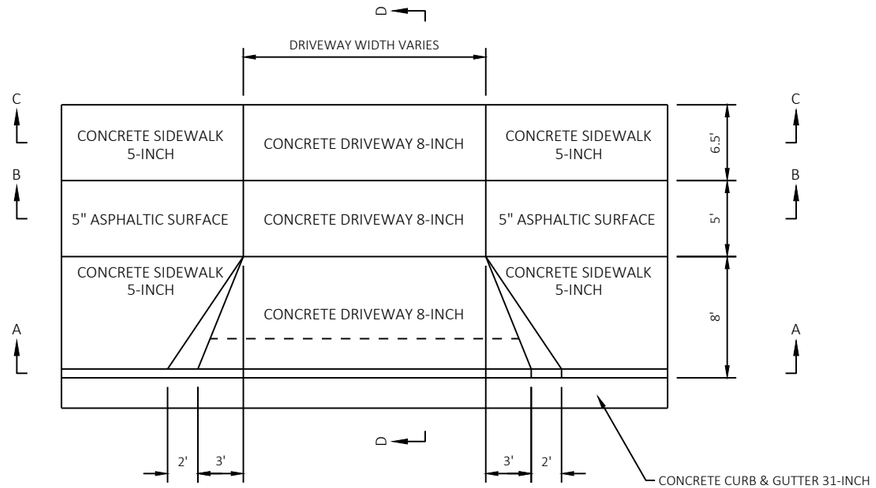


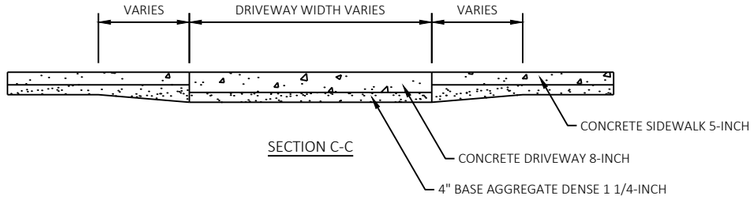
SECTION E-E

DRIVEWAY DETAIL - TERRACE < 5'

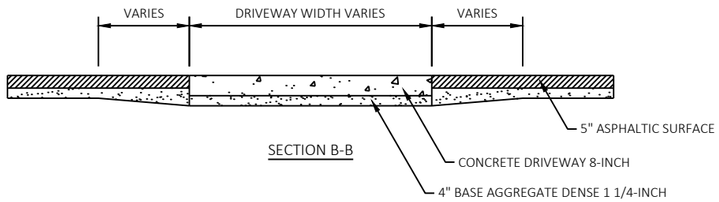
STA 51+10 LT
STA 51+75 RT
STA 55+10 LT & RT
STA 58+00 LT
STA 62+15 LT

2

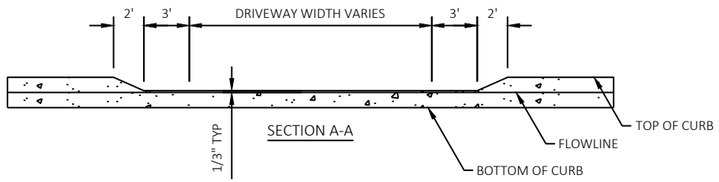




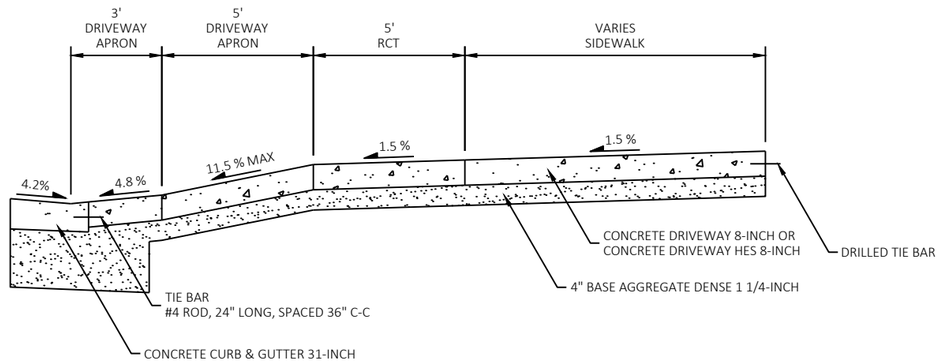
SECTION C-C



SECTION B-B



SECTION A-A



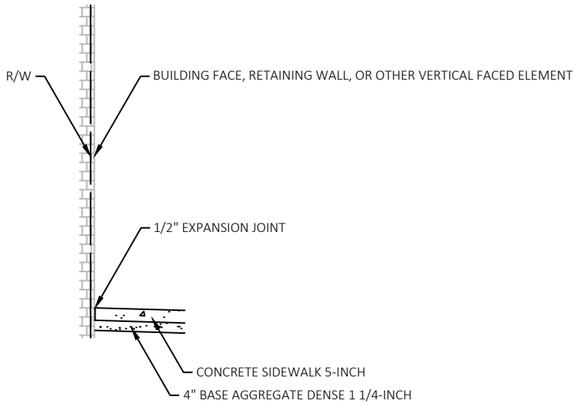
SECTION D-D

DRIVEWAY DETAIL - TERRACE > 5'

STA 58+25 RT

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 22	E

2

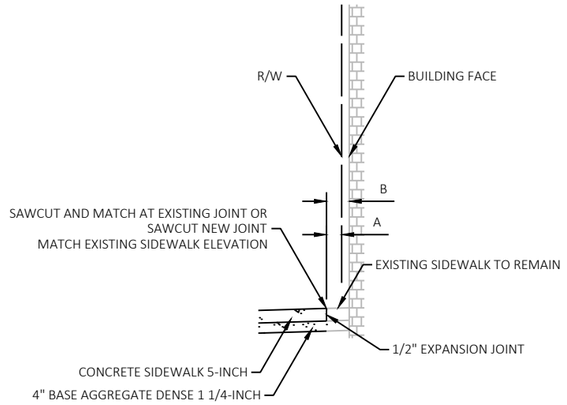


SIDEWALK REPLACEMENT AT BUILDING OR WALL FACE

LEFT SIDE SHOWN. RIGHT SIDE IS MIRROR IMAGE.

STA 50+57 - STA 53+00 LT
STA 54+73 - STA 55+03 LT
STA 55+17 - STA 56+37 LT
STA 60+52 - STA 61+79 RT
STA 61+73 - STA 62+03 LT
STA 62+27 - STA 63+07 LT

NOTES:
1. REMOVE EXISTING SIDEWALK WITHOUT DAMAGING OR DISTURBING EXISTING BUILDING FACE OR RETAINING WALL.



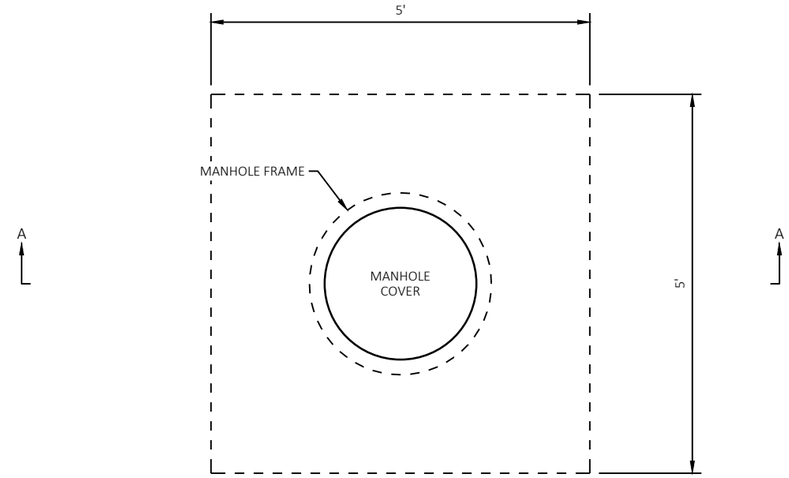
SIDEWALK REPLACEMENT NEAR BUILDING FACE

RIGHT SIDE SHOWN. LEFT SIDE IS MIRROR IMAGE.

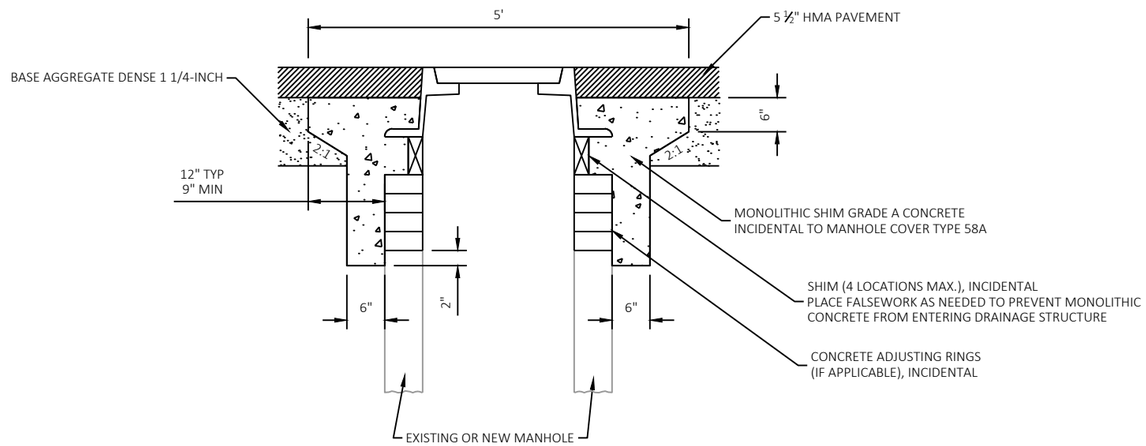
STA 51+87 - STA 52+98 RT	A = 12"	B = 18" +/-
STA 54+73 - STA 54+98 RT	A = 12"	B = 20" +/-
STA 55+17 - STA 56+37 RT	A = VARIES 12" - 15"	B = VARIES 18" - 20" +/-
STA 57+23 - STA 59+52 RT	A = 6"	B = VARIES
STA 60+52 - STA 61+73 LT	A = 18"	B = VARIES 18" - 22" +/-

NOTES:
1. REMOVE EXISTING SIDEWALK WITHOUT DAMAGING OR DISTURBING EXISTING BUILDING FACE.

2



PLAN VIEW

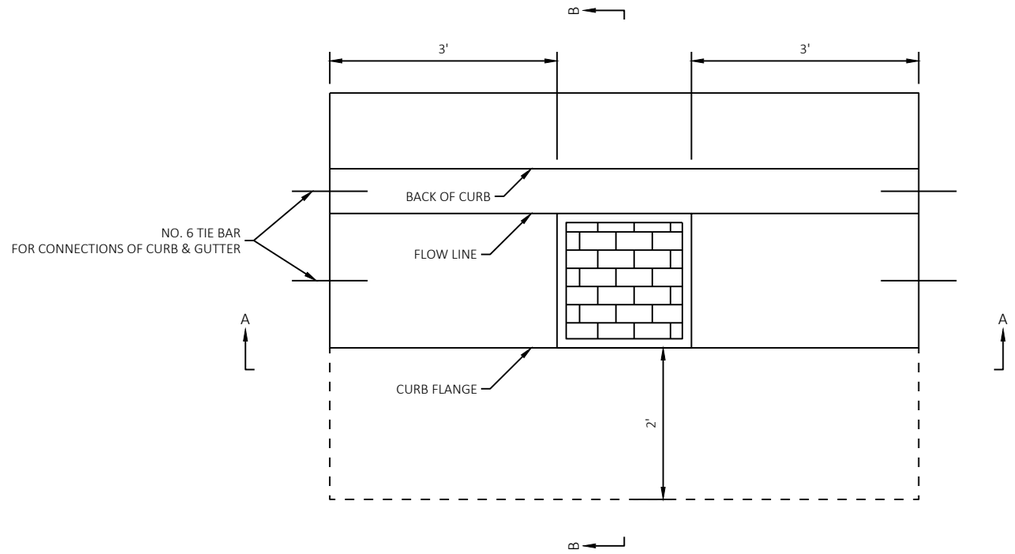


SECTION A-A

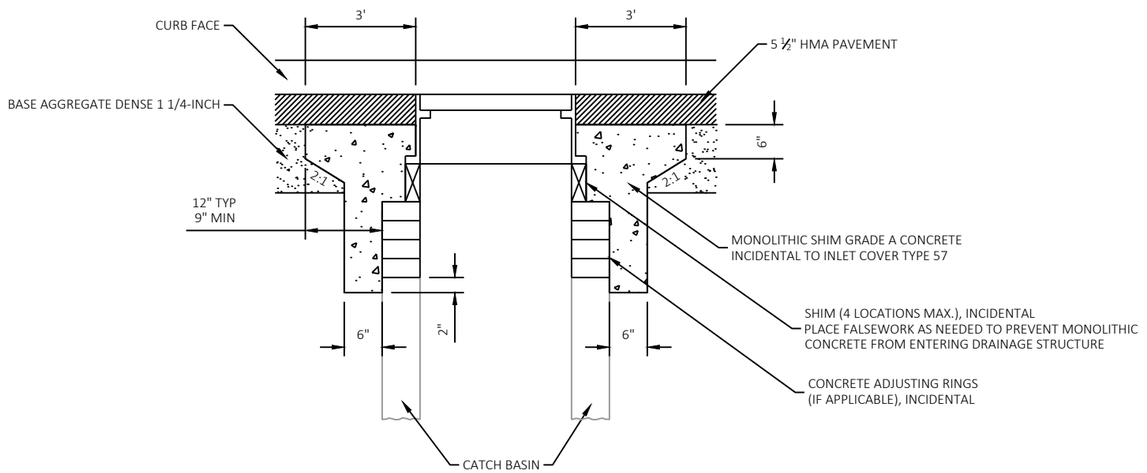
MANHOLE MONOLITHIC SHIM DETAIL

DETAIL APPLIES TO ANY STRUCTURE THAT RECEIVES A MANHOLE COVER TYPE 58A

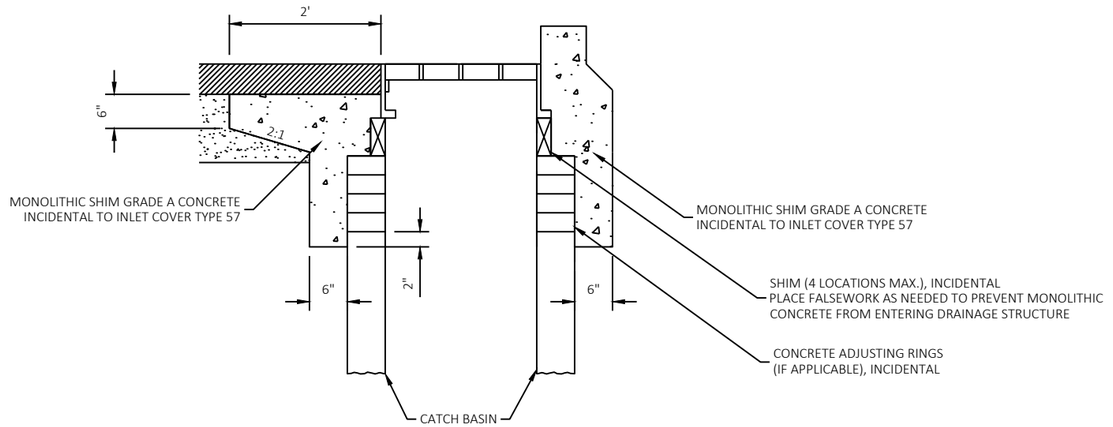
2



PLAN VIEW



SECTION A-A

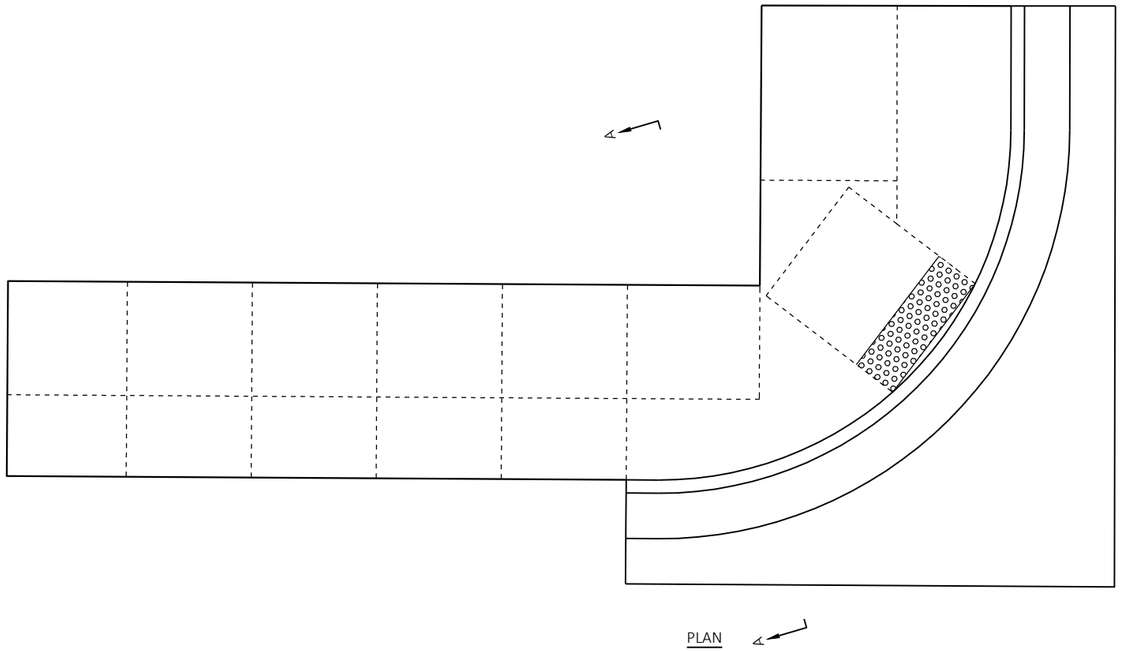


SECTION B-B

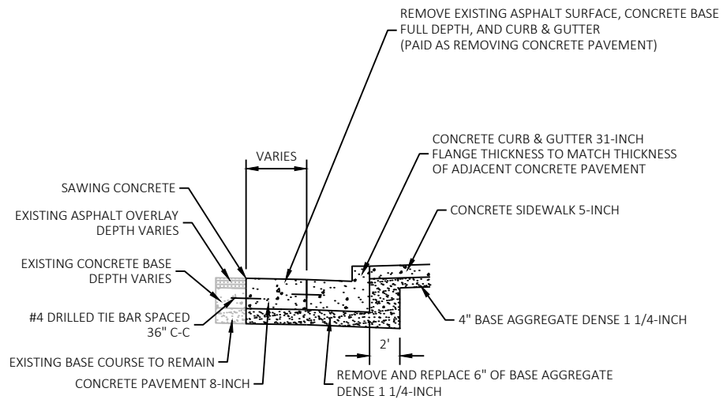
CATCH BASIN MONOLITHIC SHIM DETAIL

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 25	E

2



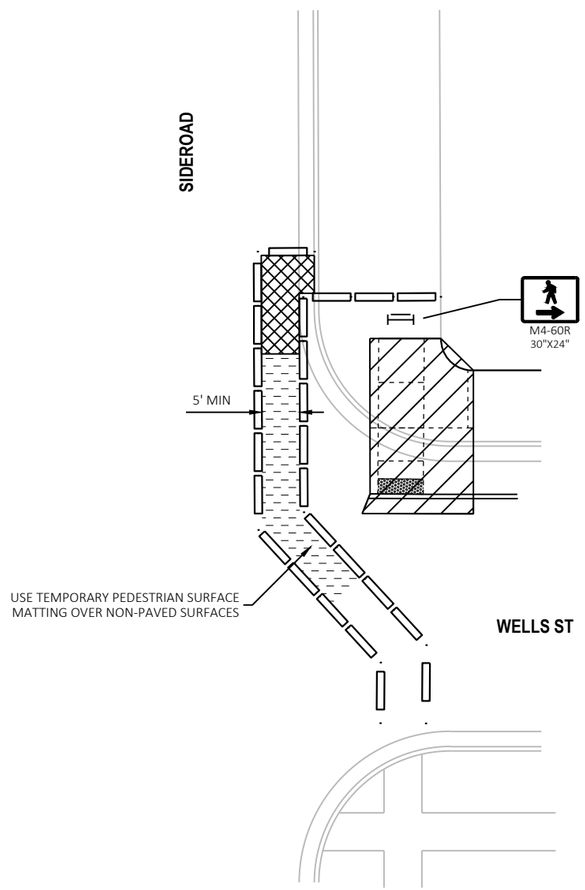
PLAN



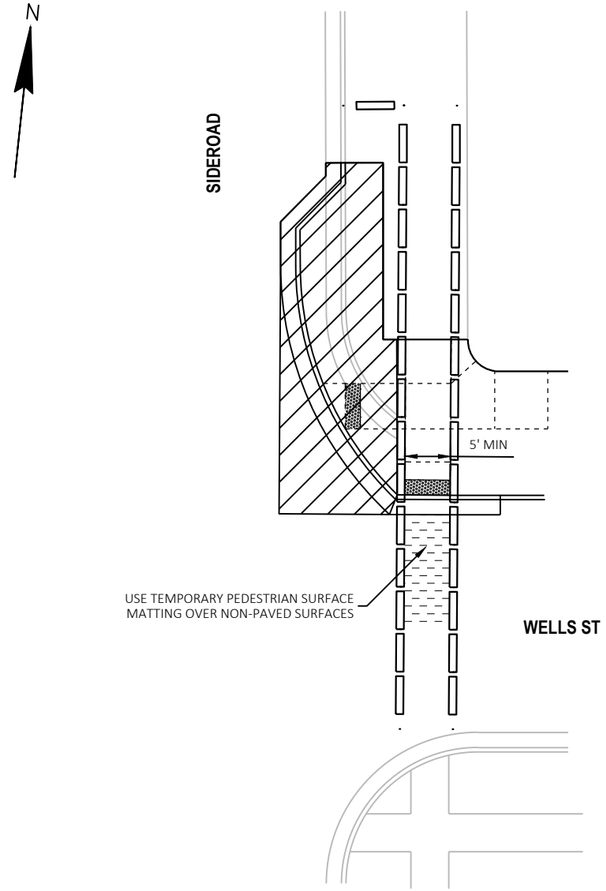
SECTION A-A

CURB & GUTTER AND CURB RAMP REPLACEMENT DETAILS

WELLS ST/BROADWAY INTERSECTION - NORTHWEST CORNER
WELLS ST/BROADWAY INTERSECTION - SOUTHWEST CORNER



CURB RAMP - STAGE A



CURB RAMP - STAGE B

NOTES:

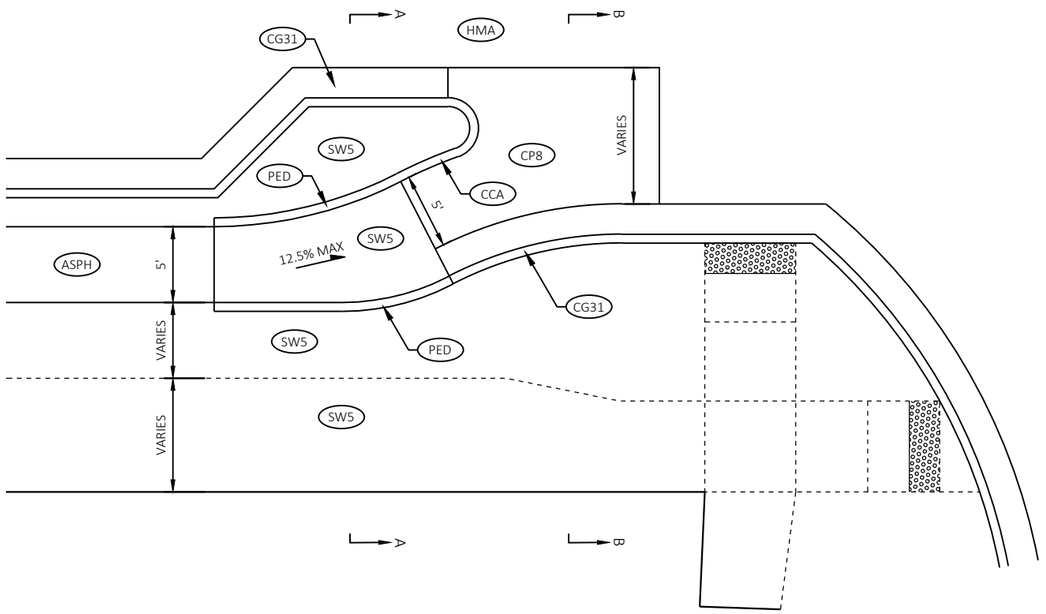
1. CURB RAMP WORK ZONE IS CONTAINED WITHIN THE LARGER WORK ZONE OF A GIVEN CONSTRUCTION STAGE.
2. NORTHEAST INTERSECTION CORNER SHOWN. DETAIL APPLIES TO ALL INTERSECTION CORNERS. SEE TRAFFIC CONTROL PLANS.
3. SEE SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION.

LEGEND

- CURB RAMP WORK ZONE
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE MATTING
- BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN

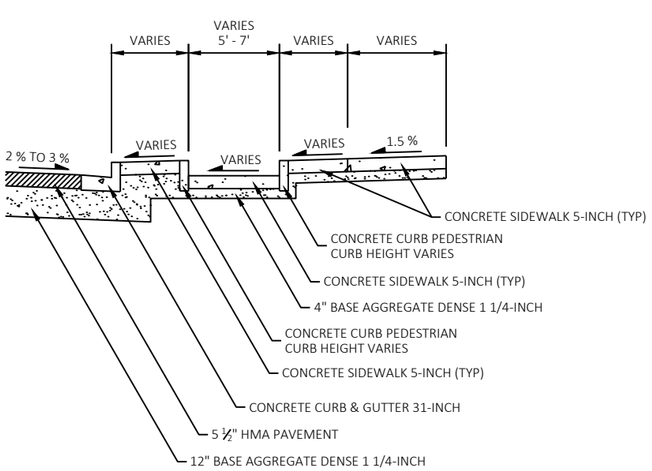
CURB RAMP STAGING DETAIL

2

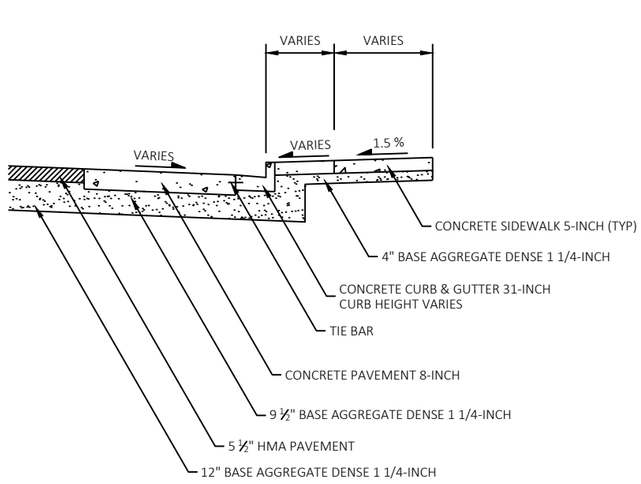


LEGEND

HMA	5 ½" HMA PAVEMENT
ASPH	5" ASPHALTIC SURFACE
SW5	CONCRETE SIDEWALK 5-INCH
CP8	CONCRETE PAVEMENT 8-INCH
CG31	CONCRETE CURB & GUTTER 31-INCH
CCA	CONCRETE CURB TYPE A
PED	CONCRETE CURB PEDESTRIAN



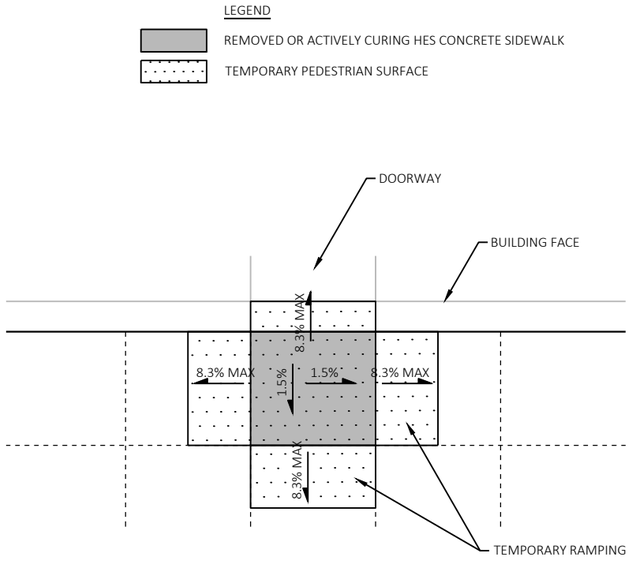
SECTION A-A



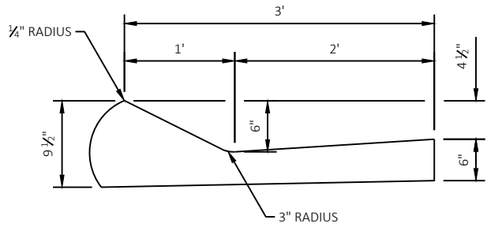
SECTION B-B

RAISED CYCLE TRACK TRANSITION DETAIL

SEE PLAN DETAILS, PAVING GRADES, AND CURB RAMP DETAILS FOR ADDITIONAL INFORMATION



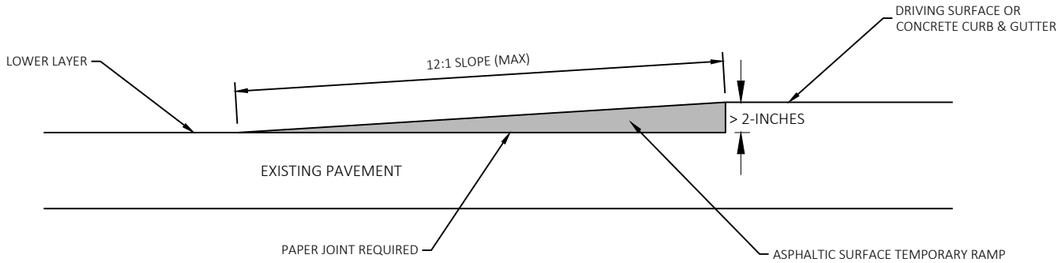
TEMPORARY PEDESTRIAN ACCESS AT DOORWAYS



ASPHALTIC CURB

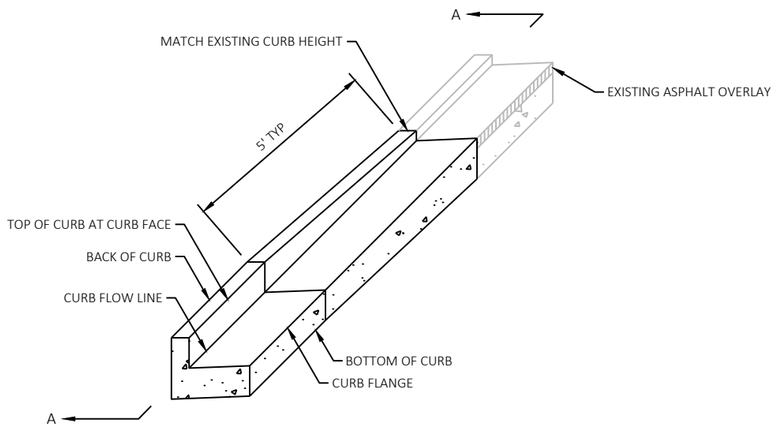
TRAFFIC CONTROL STAGE 2B: STA 54+50 - STA 55+00

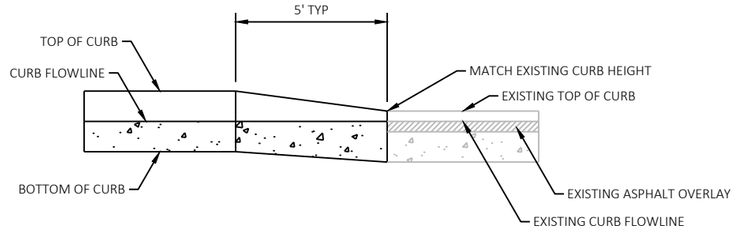
NOTES:
1. THESE CONSTRUCTION DETAILS AND THE SPECIAL PROVISIONS SUPPLEMENT THE REQUIREMENTS FOR PROVIDING DROP-OFF PROTECTION AS STATED IN STANDARD SPECIFICATION 104.6.1.2.3.
2. PAVING OF ASPHALTIC SURFACE TEMPORARY RAMP PAID AS 'ASPHALTIC SURFACE TEMPORARY'
3. REMOVAL OF RAMPS PAID AS 'REMOVING ASPHALTIC SURFACE BUTT JOINTS'.



ASPHALTIC SURFACE TEMPORARY RAMP

INSTALL AT THE FOLLOWING LOCATIONS PRIOR TO SHUTDOWN:
STA 50+25
MILWAUKEE ST
IN FRONT OF ALL CURB RAMPS AND DRIVEWAYS

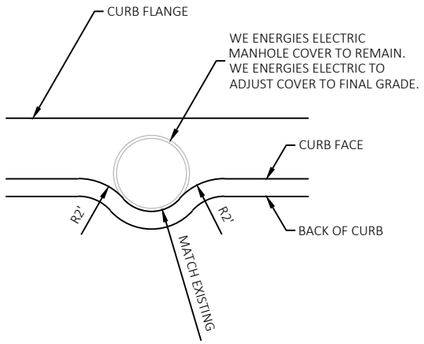




SECTION A-A

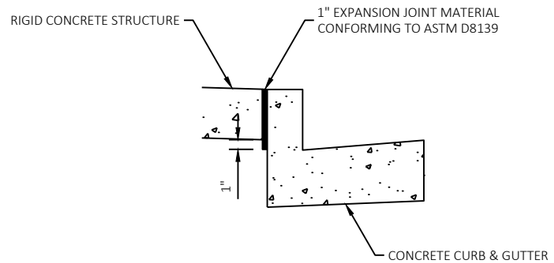
CONCRETE CURB & GUTTER AT MATCH POINT WITH EXISTING OVERLAID GUTTER PAN

SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION

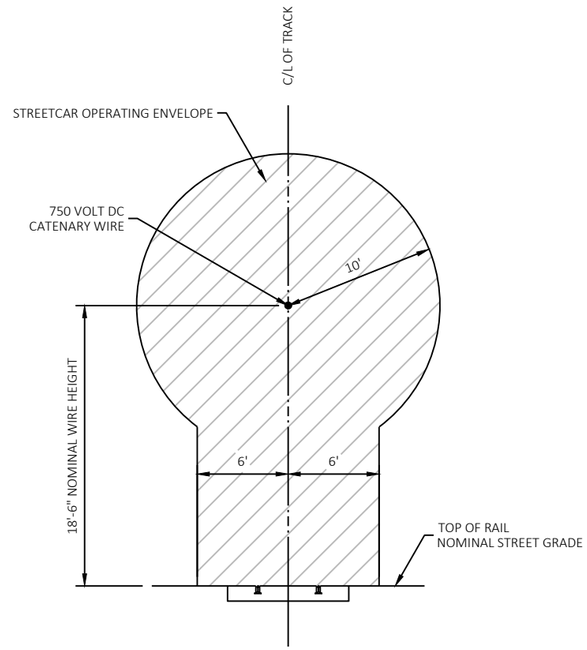


CONCRETE CURB & GUTTER AT UTILITY MANHOLES

STA 51+67, 18' RT
STA 55+07, 11' RT
STA 57+62, 19' LT



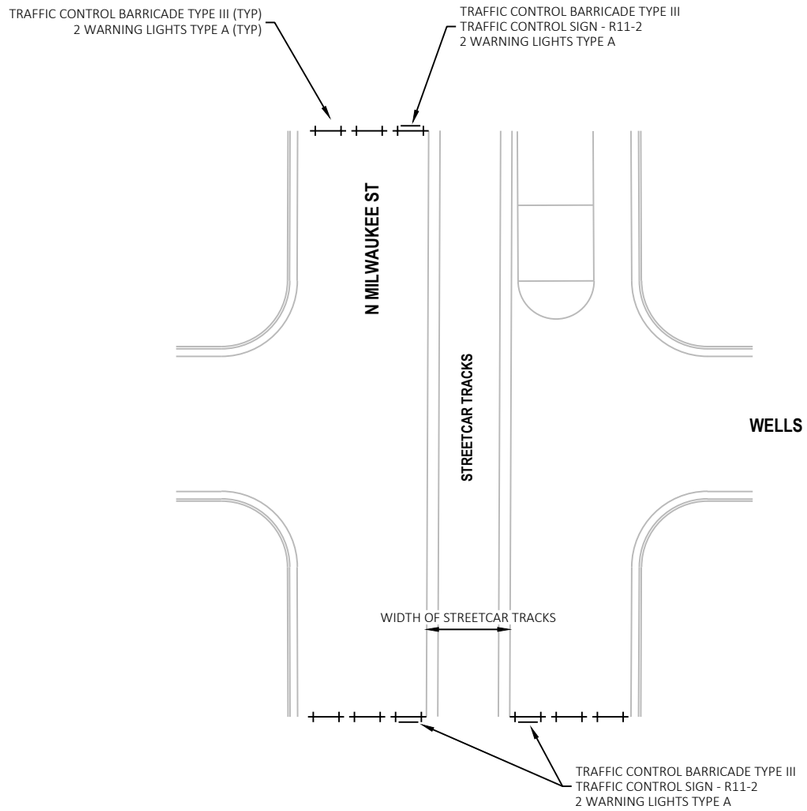
CONCRETE CURB & GUTTER EXPANSION JOINT



STREETCAR OPERATING ENVELOPE

FOR INFORMATION ONLY. FOR ADDITIONAL INFORMATION SEE SPECIAL PROVISIONS.

2



TRAFFIC CONTROL BARRICADES AND SIGNING DURING SHORT-TERM CLOSURE

N MILWAUKEE ST DURING STAGES 1 AND 2 WHEN WORKING WITHIN 10' OF STREETCAR TRACKS
PLACE "ROAD CLOSED AHEAD" W20-3A SIGN AT UPSTREAM INTERSECTION

2

TRAFFIC SIGNAL & STREET LIGHTING GENERAL NOTES

PRIOR TO CONSTRUCTION, THE LOCATION OF UNDERGROUND UTILITIES SHALL BE DETERMINED IN THE FIELD BY CONTACTING "DIGGERS HOTLINE."

STREET LIGHTING & TRAFFIC SIGNALS SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 652 EXCEPT: THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING REPAIRS, REPLACEMENT OR RELOCATION ETC. OF STREET LIGHTING OR TRAFFIC SIGNAL FACILITIES IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING OR TRAFFIC SIGNAL DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED PERMISSION.

1. DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
2. LOCATIONS OF THE PVC CONDUITS WHERE THEY ARE REQUIRED ARE IDENTIFIED IN THE PRINTS. HOWEVER, INSTALLATION MAY REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. ANY RELOCATIONS MUST BE APPROVED BY THE ENGINEER. FIELD MARK EACH CONDUIT LOCATION BY STAMPING AND PAINTING WITH RED PAINT ON TOP AND BACKSIDE OF CURB.
3. TYPICAL CONDUIT INSTALLED UP TO DIRECT BURIED STREET LIGHT POLES IS AS FOLLOWS 3-INCH OR 2.5-INCH (AS NOTED) SCHEDULE 40 RIGID PVC TO STREET LIGHTING METAL HOUSING (PEDESTAL), THE 1.5-INCH SCHEDULE 40 RIGID PVC TO STREET LIGHT POLE CABLE SLOT, AND THE 2-INCH SCHEDULE 40 RIGID PVC TO SIGNAL STANDARD BASE AND RISER FOR TRAFFIC SIGNAL ON STREET LIGHT POLE.
4. DEPTH OF CONDUIT INSTALLED BELOW THE STREETS, HIGHWAYS, ROADS, AND ALLEYS SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM. (MEASURED FROM FINISHED FLANGE LINE)
5. CONDUIT INSTALLED BEHIND CURB, AND UNDER DRIVEWAYS SHALL BE INSTALLED AT A DISTANCE OF 6 INCHES AWAY FROM THE BACK OF CURB TO THE CENTER LINE OF CONDUIT, AND 18 INCHES DOWN MEASURED FROM THE TOP OF CURB OR FINISHED GRADE TO THE TOP OF CONDUIT.
6. WHEN THERE IS MORE THAN ONE CONDUIT TO BE INSTALLED, PLACE ALL CONDUITS IN THE SAME TRENCH.
7. ANY EXCEPTION TO THE MINIMUM OR MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.
8. THE CONTRACTOR OR HIS SUBCONTRACTOR MUST MAKE SURE THE AREA BEHIND CURB AND/OR TRENCH SHALL BE FREE OF DEBRIS AND OVERPOUR AND SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.
9. BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.
10. ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS. (SEE NEC 352.28 2008 CODE)
11. PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED IMMEDIATELY AFTER INSTALLATION WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.
12. ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.
13. CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX OR JUNCTION BOX OR BASE TO BASE, ETC.).
14. PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUIT.
15. ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS UNLESS OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.
16. WHEN ENDS OF CONDUIT DO NOT CONNECT TO A PULL BOX / VAULT AND WILL END UP UNDER CONCRETE WALK. THE CONTRACTOR IS REQUIRED TO LEAVE A 24" X 24" BOX FORM CENTERED OVER THE END OF CONDUIT AND FILL THE BOXFORM WITH CRUSHED GRAVEL. (PER WISDOT SPEC 209.2.1(1) GRANULAR BACKFILL)
17. ALL PIPE CROSSINGS AND PULL BOXES / VAULTS SHALL BE AT LEAST SIX (6) FEET AWAY FROM FIRE HYDRANTS, UNLESS NOTED OTHERWISE, OR APPROVED BY THE STREET LIGHTING ENGINEER.
18. ALL POLES AND TRAFFIC STANDARDS IN CONCRETE ARE REQUIRED TO HAVE A 30"X30" BOX SHAPED JOINT PLACED AROUND THEM USING AN EXPANSION JOINT FILLER. UNLESS NOTED OTHERWISE (SEE DETAIL 122)
19. TYPICAL RECTANGULAR PULL BOXES / VAULTS SHOULD BE INSTALLED AS SHOWN ON PLANS, BUT WHEN IT IS NOT POSSIBLE, A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS AND FIRE HYDRANTS SHOULD BE USED, OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.
20. LIGHT POLES AND TRAFFIC STANDARDS INSTALLED BEHIND THE CURB MUST MEET A MINIMUM DISTANCE OF 24 INCHES FROM THE FACE OF CURB TO THE CURB SIDE FACE OF THE POLE OR TRAFFIC STANDARD.
21. COORDINATE NEW CONDUIT CONNECTIONS WITH EXISTING CONDUIT, DUCT PACKAGES, AND PULL BOXES/ VAULTS/ MANHOLES WITH CITY OF MILWAUKEE STREET LIGHTING. THE CITY REQUIRES THREE WORKING DAYS ADVANCED NOTICE. CONTACT ELECTRICAL SUPERVISOR STREET LIGHTING - MARK MACRAE (OFFICE) 414-286-5928 (CELL) 414-708-0434 TRAFFIC SIGNALS - RUDY GUTIERREZ (OFFICE) 414-286-3687 (CELL) 414-708-5148 OR DISPATCHER @ 414-286-3687
22. IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL PULL BOXES / VAULTS, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONCRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP SUPERVISORS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK. STREET LIGHTING - NEAL KARWEIK (OFFICE) 414-286-5943 (CELL) 414-708-4245 STREET LIGHTING - MARK MACRAE (OFFICE) 414-286-5928 (CELL) 414-708-0434 STREET LIGHTING - DISPATCHER @ 414-286-3015 TRAFFIC SIGNALS - RUDY GUTIERREZ (OFFICE) 414-286-5941 (CELL) 414-708-5148 TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687
23. CONDUIT WILL ONLY BE INSTALLED AFTER THE CURB IS POURED, UNLESS APPROVED BY BOTH THE ENGINEER & STREET LIGHTING SHOP SUPERVISOR.
24. CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.
25. CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.
26. ALL PURPOSE ANTISEIZE (OR EQUIVALENT) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIVALENT) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.
27. PROVIDE 3 SETS OF AS-BUILT DRAWINGS DETAILING THE FINAL PLACEMENT OF CONDUIT, CABLING, EQUIPMENT, AND GEOMETRIC MODIFICATIONS UNDER THE CONTRACT. PROVIDE PDF COPIES CONFORMING TO CMM 1-65.14 OR RECORD ALL CHANGES IN RED INK ONLY ON THE AS-LET (DESIGN) PAPER DRAWINGS. THE CITY WILL REJECT AS-BUILTS WITH INCOMPLETE OR INCORRECT CONTENT OR NOT CONFORMING TO CMM STANDARDS.
28. RETURN ALL REMOVED STREET LIGHTING FIXTURES TO STREET LIGHTING FIELD OFFICE (ATTN: MIKE GUERRERO) 1540 W. CANAL ST. MILWAUKEE WI 53233

TRAFFIC SIGNAL & STREET LIGHTING AS-BUILT GUIDELINES

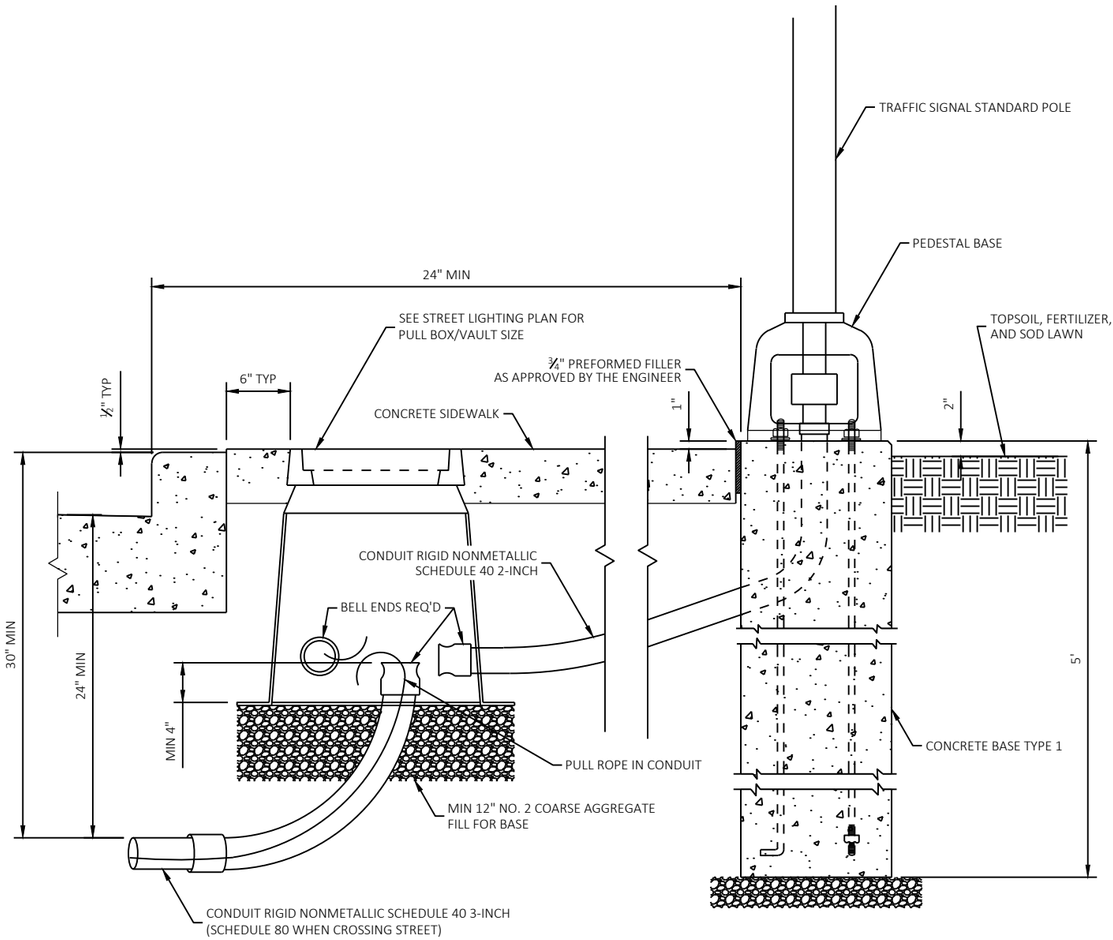
1. IT IS CRITICAL THAT THE CONTRACTOR WORK ON THE AS-BUILTS DRAWINGS WHILE THE JOB IS PROGRESSING SO THAT CHANGES ARE DOCUMENTED WHILE THEY ARE STILL FRESH IN YOUR MIND.
2. IF THERE IS A STRUCTURE DRAWING INCLUDE ALL STRUCTURES DRAWING SHEETS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSERT ANY ADDENDUM OR REPLACEMENT DRAWING SHEETS. TO DO THIS, RENUMBER THEM SIMILARLY TO THE ORIGINAL DRAWING SHEET. FOR EXAMPLE, "REVISED SHEET 5" WOULD REPLACE SHEET 5. HOWEVER, ALL ORIGINAL SHEETS SHALL REMAIN IN THE AS-BUILT. IF THE SHEET HAS BEEN REPLACED CROSS IT OUT WITH AN "X" AND INDICATE THE NUMBER OF ITS REPLACEMENT SHEET. IF ADDITIONAL SHEETS WERE ADDED, INSERT THEM IN THE LOGICAL LOCATION AND LABEL THEM WITH THE PREVIOUS SHEET NUMBER FOLLOWED BY AN "A", "B", "C", ETC.
3. NOTE THE SHEET CHANGES ON THE TITLE SHEET UNDER THE ORDER OF SHEETS.
4. THE TITLE SHEET OF THE AS-BUILT DRAWING SHALL INCLUDE THE FOLLOWING INFORMATION:

   AS-BUILT DRAWING
   SUPERVISOR
   PROJECT MANAGER
   CONTRACTOR LEADER
   CONTRACTOR COMPANY
   DATE WORK STARTED
   DATE WORK COMPLETED

5. LINE OUT OR CROSS OUT ALL CHANGED INFORMATION AND WRITE-IN THE CORRECTED INFORMATION ABOVE THE ORIGINAL OR CLOSE TO IT WHERE EVER POSSIBLE. USE BLANK SPACES ON THE DRAWING SO NOTES ARE NOT SUPERIMPOSED. DRAWINGS WITH EXCESSIVE DETAIL MAY REQUIRE AN ALTERNATE APPROACH. NUMBERED CHANGES OR ADDITIONAL MAY BE SHOWN ON SUPPLEMENTAL NON-DRAWING SHEETS.
6. LOCATE AND CLEARLY LABEL ALL CONDUIT RUNS, FITTINGS, SPLICE VAULTS, PULL BOXES, METER PEDESTALS, CONCRETE BASES, TRANSFORMERS, POLES, AND OTHER APPURTENANCES IN TWO DIRECTIONS. SWING TIES SHOULD BE MADE FROM OBJECTS THAT ARE PERMANENT IN NATURE AND VISIBLE ON THE FINISHED SURFACE.
7. STREET NAMES SHALL BE ON ALL SHEETS.
8. SHOW ALL SIZES AND MATERIAL TYPES OF PIPES AND CONDUITS IF CHANGED OR MODIFIED FROM ORIGINAL DESIGN.
9. ALL HORIZONTAL DISTANCES SHALL BE SHOWN TO THE NEAREST TENTH OF A FOOT (E.G. 205.3'). ALL VERTICAL DISTANCES SHALL BE SHOWN TO THE NEAREST INCH (E.G. 24").
10. SHOW LOCATION AND ELEVATIONS ON PIPES AND FITTINGS WHERE CHANGES OR DEFLECTIONS IN DIRECTION OCCUR.
11. SPECIAL DETAIL DRAWINGS MAY BE REQUIRED WHERE INSTALLATIONS ARE NOT SHOWN ON APPROVED CONSTRUCTION DRAWINGS FOR WHATEVER REASON OR WHERE REQUIRED FOR CLARITY.
12. TYPICAL SERVICE INSTALLATION DETAILS WITH DEVIATIONS FROM ORIGINAL PLANS OR STANDARD DETAILS SHALL BE NOTED ON AS-BUILT DRAWINGS.
13. NO ARBITRARY MARK-UPS WILL BE PERMITTED.
14. IF THERE ARE NO CORRECTIONS OR ADDITIONS THE AS-LET PLAN(S) PUT "NO CHANGE" ON THE SHEET WITH OTHER REQUIRED AS-BUILT INFORMATION
15. SEND AS-BUILT PLANS TO:

    CITY OF MILWAUKEE
    INFRASTRUCTURE SERVICES DIVISION
    TRANSPORTATION SECTION
    STREET LIGHTING & CUC ENGINEERING MANAGER
    841 N BROADWAY, ROOM 920
    MILWAUKEE, WI 53202

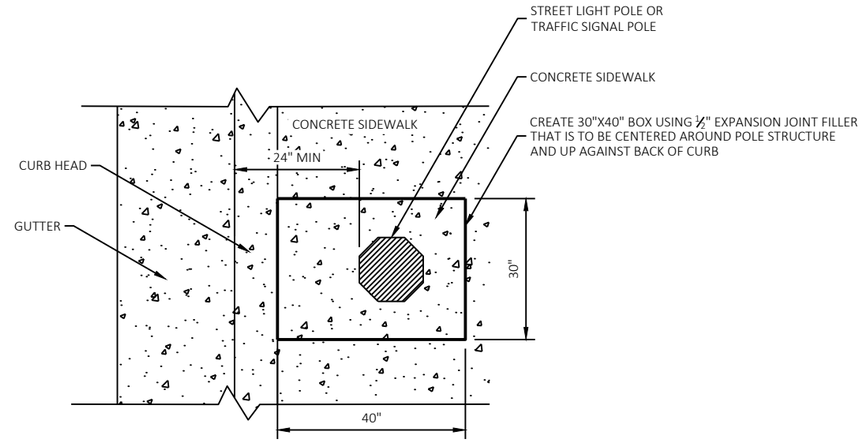
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



CONDUIT INSTALLATION FROM PULL BOX/VAULT TO TRAFFIC SIGNAL STANDARD

NOT TO SCALE

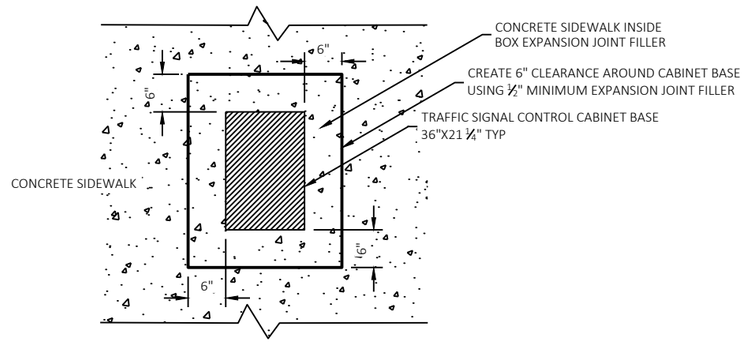
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



BOX EXPANSION JOINT FILLER AROUND STREET LIGHT POLE OR TRAFFIC SIGNAL POLE

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



BOX EXPANSION JOINT FILLER AROUND TRAFFIC SIGNAL CABINET

NOT TO SCALE

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 33	E

2

STREET LIGHTING GENERAL NOTES:

1. UNLESS OTHERWISE NOTED WITH INDIVIDUAL PAY ITEMS, ALL WORK SHALL BE INCIDENTAL TO THE STREET LIGHTING PAY ITEMS.
2. STREET LIGHTING SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTIONS 652 TO 657 AND 659 EXCEPT:
3. ALL CHANGES OR ANY DEVIATIONS FROM PLANS AND ALLOWANCES IN THESE GENERAL NOTES MUST BE APPROVED BY STREET LIGHTING ENGINEERING. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING REPAIRS, REPLACEMENT OR RELOCATION ETC. OF THE STREET LIGHTING FACILITIES IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED PERMISSION.
4. DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THESE DRAWINGS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
5. LOCATIONS OF THE HDPE AND NONMETALLIC PVC CONDUITS ARE IDENTIFIED IN THE PLANS WHERE THEY ARE REQUIRED. HOWEVER, INSTALLATION MAY REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. UNDER THE APPROVAL OF THE CITY OF MILWAUKEE DPW STREET LIGHTING, 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 TO ILLUSTRATE AS BUILT CONDITIONS.
6. CONDUIT INSTALLED BEHIND CURB SHALL BE INSTALLED A MINIMUM OF 6 INCHES BEHIND THE BACK OF CURB TO THE CENTER LINE OF CONDUIT, AND MINIMUM 24 INCHES DOWN MEASURED FROM THE TOP OF CURB OR FINISHED GRADE TO THE TOP OF CONDUIT. CONDUIT MAY BE INSTALLED 36 INCHES BEHIND THE CURB WHEN OTHER UTILITIES ARE DIRECTLY BEHIND THE CURB.
7. DEPTH OF CONDUIT INSTALLED BELOW STREETS, HIGHWAYS, AND ALLEYS SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM. (MEASURED FROM FINISHED FLANGE LINE).
8. CONDUIT LATERALS SHALL BE TRENCHED UNDER PAVEMENT BEFORE PAVEMENT CONSTRUCTION.
9. WHEN THERE IS MORE THAN ONE CONDUIT TO BE INSTALLED, PLACE ALL CONDUITS IN THE SAME TRENCH, OR BORE MULTIPLE CONDUITS TOGETHER AT THE SAME TIME.
10. CONDUIT INSTALLATION THAT REQUIRE TRENCHING SHALL NOT BE BACKFILLED PRIOR TO INSPECTION ON THE CONDUIT.
11. 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.
12. ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS.
13. PRIOR TO CONDUIT ACCEPTANCE, ALL OPEN CONDUIT ENDS, AND UN-TERMINATED CONDUITS SHALL BE THOROUGHLY CLEANED AND BE CAPPED IMMEDIATELY AFTER INSTALLATION WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.
14. ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.
15. PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUIT.
16. CONDUIT RUNS SHALL BE THE SAME SIZE CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX-TO-PULL BOX OR JUNCTION BOX OR PULL BOX TO CONCRETE BASE, OR BASE-TO-BASE ET.)
17. UNLESS THE CONDUIT IS DESIGNED AND SHOWN WITH BENDS ON THE PLANS, ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO CONCRETE BASE, AND PULL BOX TO ENCLOSURE.
18. MINIMUM CONDUIT CLEARANCES FOR CONDUIT CROSSINGS AND PULL BOXES FROM THE FOLLOWING:

    FIRE HYDRANTS: 6-FT TREE TRUNKS: 10-FT END OF DRIVEWAY FLARES: 6-FT

    UNLESS OTHERWISE NOTED IN THE PLANS OR APPROVED BY THE STREET LIGHTING ENGINEER

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STREET LIGHTING GENERAL NOTES:

19. HAND DIGGING MAY BE REQUIRED FOR LOCATIONS ADJACENT TO EXISTING GAS, STEAM, AND POWER LINES. HAND EXCAVATION WILL BE CONSIDERED INCIDENTAL TO THE BID ITEM BEING INSTALLED. COORDINATE ALL WORK NEAR THESE FACILITIES WITH WE ENERGIES.
20. INSTALL PULL BOXES/VAULTS AS SHOWN ON PLANS. IF FIELD CONDITIONS DO NOT ALLOW FOR PULL BOXES/VAULTS TO BE INSTALLED PER PLAN, A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS AND FIRE HYDRANTS SHOULD BE USED, OR OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.
21. TYPICAL CONDUIT INSTALLATION FROM THE PULL BOX TO A DIRECT BURIED STREET LIGHT POLE IS AS FOLLOWS:

    USE A NYLON LIQUIDTIGHT CONNECTOR (UL APPROVED) TO CONNECT THE 1 1/2-INCH LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT LFNC-B (UL APPROVED) TO THE PULL BOX AND CONNECT TO STREET LIGHT POLE BY STUBBING UP A MINIMUM OF 6 INCHES OF THE LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT (LFNC-B) INTO THE CABLE SLOT.
22. ALL CONDUITS AND JUNCTION BOXES EMBEDDED IN STRUCTURE SHALL BE PAID UNDER STRUCTURE PAY ITEMS. CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF EMBEDDED CONDUITS.
23. THE SUPPORT CHANNELS FOR INSTALLATION OF CONDUITS, LUMINAIRES, JUNCTION BOXES AND ENCLOSURES SHALL BE STAINLESS STEEL UNISTRUT P100 SERIES OR APPROVED EQUAL, CHANNELS SHALL BE SLOTTED OR PERFORATED.
24. ALL HDPE OR NONMETALLIC PVC CONDUITS THAT CONNECT TO PULL BOXES REQUIRE A PVC END BELL CONNECTOR INSIDE THE PULL BOX.
25. PROVIDE REMOVABLE SEALANT SUCH AS DUCT SEAL IN THE CONDUITS AT THE CABINETS, PULL BOXES AND JUNCTION BOXES TO AVOID CONDENSATION CAUSED BY AIRFLOW THROUGH THE CONDUITS DUE TO TEMPERATURE DIFFERENCE. THIS WORK SHALL BE INCIDENTAL TO ASSOCIATED CONDUIT PAY ITEM.
26. PROVIDE 3 INCH PVC SCHEDULE 40 CONDUIT ELBOWS IN ALL GROUND MOUNTED CONCRETE LIGHT BASES FOR CABLE IN DUCT TYPE INSTALLATION. THIS WORK IS INCIDENTAL TO CONCRETE BASES PAY ITEMS.
27. AT EACH SIGNAL STANDARD BASE PROVIDE 2 INCH PVC SCHEDULE 40 CONDUIT FROM PULL BOX TO SIGNAL STANDARD BASE. INSTALLATION OF PULL BOX AND CONDUIT ARE INCIDENTAL TO SIGNAL STANDARD BASE INSTALLATION WORK.
28. CONDUCTOR COLORS: 240/480, 1 PHASE - BLACK (HOT)/WHITE (NEUTRAL) // RED (HOT)/GRAY (NEUTRAL) / GREEN (GROUND)
29. INSTALL COMMON GROUND CONDUCTOR IN CONDUIT WHERE MULTIPLE BRANCH CIRCUITS CONDUCTORS ARE INSTALLED IN SAME CONDUIT AND SPLICE THE GROUND CONDUCTOR WITH TAP CONNECTOR IN PULLBOX.
30. PROVIDE MINIMUM CABLE/CONDUCTOR(S) SLACK AS NOTED BELOW:

    PULL BOXES: SEE DETAIL "TYPICAL WATERTIGHT MULTI-PORT CONNECTIONS"
    - CONNECTED WIRES TO LIGHT POLE IN PULL BOX MUST BE EXTENDED MINIMUM 3 FT. BEYOND TOP OF PULL BOX
    - UNCONNECTED WIRES THAT PASS THROUGH PULL BOX MUST HAVE A MINIMUM OF 6FT . SLACK COIL LEFT INSIDE PULL BOX.

    DISTRIBUTION CENTER / LOAD CENTER: EXTEND 10-FT.

    BREAK AWAY TRANSFORMER BASE: EXTEND 2-FT.
31. UNDERGROUND WIRE & CONDUIT SHOWN ON PLANS TO BE ABANDONED IN PLACE UNLESS DIRECTED BY THE ENGINEER. CONTRACTOR MAY CHOOSE TO REMOVE CONDUCTOR AT THEIR OWN EXPENSE.
32. LIGHT POLES INSTALLED BEHIND THE CURB NEED TO BE SET 30 INCHES BACK FROM FACE OF CURB TO CENTER OF POLE, SO TO MEET THE MINIMUM DISTANCE OF 24 INCHES FROM THE CURB FACE TO THE CURB SIDE FACE OF THE POLE.
33. ON ALL NEW STREET LIGHT POLES A PLAQUE WITH THE POLE NUMBER AS SHOWN ON THE PLANS SHALL BE AFFIXED ONTO THE POLE SHAFT.
34. ALL WIRE CONNECTIONS REQUIRE ANTI-OXIDANT TO BE APPLIED TO THE CONNECTIONS
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    PULL BOXES: SEE DETAIL "TYPICAL WATERTIGHT MULTI-PORT CONNECTIONS"
    - CONNECTED WIRES TO LIGHT POLE IN PULL BOX MUST BE EXTENDED MINIMUM 3 FT. BEYOND TOP OF PULL BOX
    - UNCONNECTED WIRES THAT PASS THROUGH PULL BOX MUST HAVE A MINIMUM OF 6FT . SLACK COIL LEFT INSIDE PULL BOX.

    DISTRIBUTION CENTER / LOAD CENTER: EXTEND 10-FT.

    BREAK AWAY TRANSFORMER BASE: EXTEND 2-FT.
31. UNDERGROUND WIRE & CONDUIT SHOWN ON PLANS TO BE ABANDONED IN PLACE UNLESS DIRECTED BY THE ENGINEER. CONTRACTOR MAY CHOOSE TO REMOVE CONDUCTOR AT THEIR OWN EXPENSE.
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STREET LIGHTING GENERAL NOTES:

36. COORDINATE NEW CONDUIT CONNECTIONS WITH EXISTING CONDUIT, DUCT PACKAGES, AND PULL BOXES/VAULTS/MANHOLES WITH CITY OF MILWAUKEE STREET LIGHTING. THE CITY REQUIRES THREE WORKING DAYS ADVANCED NOTICE. CONTACT ELECTRICAL SUPERVISOR
    STREET LIGHTING - NEAL KARWEIK (OFFICE 414-286-5943 (CELL) 414-708-4245
    STREET LIGHTING - WILLIE COTTON (OFFICE) 414-286-5997 (CELL) 414-708-1629
    STREET LIGHTING - DISPATCHER @ 414-286-3944
    TRAFFIC SIGNALS - RUDY GUTIERREZ (OFFICE) 414-286-5941 (CELL) 414-708-5148
    TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687
37. IMMEDIATELY AFTER THE CONTRACTOR HAD COMPLETED ALL THE ELECTRICAL PULL BOXES / VAULTS, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONCRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP SUPERVISORS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK.
    STREET LIGHTING - NEAL KARWEIK (OFFICE 414-286-5943 (CELL) 414-708-4245
    STREET LIGHTING - WILLIE COTTON (OFFICE) 414-286-5997 (CELL) 414-708-1629
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    TRAFFIC SIGNALS - RUDY GUTIERREZ (OFFICE) 414-286-5941 (CELL) 414-708-5148
    TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687
38. CONTRACTOR SHALL SUPPLY AS-BUILT DRAWINGS FOR ALL WORK BEING DONE DETAILING THE FINAL PLACEMENT OF CONDUIT, CABLING, EQUIPMENT, AND GEOMETRIC MODIFICATIONS UNDER THE CONTRACT. PROVIDE (.PDF FORMAT) COPY CONFORMING TO CMM 1-65.14, OR RECORD ALL CHANGES IN RED INK ONLY ON THE AS-LET (DESIGN) PAPER DRAWINGS. THE CITY OF MILWAUKEE DPW ENGINEER WILL REJECT AS-BUILTS WITH INCOMPLETE OR INCORRECT CONTENT OR NOT CONFORMING TO CMM STANDARDS.
39. CONTRACTOR TO DELIVER THE FOLLOWING REMOVED STREET LIGHTING MATERIALS:
    -ALUMINUM AND WOOD POLES
    -LUMINAIRE BRACKET ARMS
    -LUMINAIRES
    -BREAKAWAY TRANSFORMER PEDESTALS
    -WIRING PEDESTALS (GREEN IN COLOR)
    TO CITY OF MILWAUKEE STREET LIGHTING YARD AT 1540 W. CANAL ST.
    CALL RICO LOPEZ AT 414-286-5983 (CANAL OFFICE) OR 414-286-6123 (DPW FIELD OFFICE) OR DISPATCHER AT 414-286-5944 THREE (3) WORKING DAYS BEFORE TO COORDINATE DELIVERY OF MATERIALS
40. CONTRACTOR WILL BE RESPONSIBLE FOR THE DISPOSAL OF CONCRETE POLES, CONCRETE BASES, AND WIRING.
41. CONTRACTOR SHALL DISPOSE OF REMOVED EXISTING LAMPS IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
42. ONLY WHEN THE CITY OF MILWAUKEE IS FURNISHING MATERIALS FOR A PROJECT THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE STREET LIGHTING SHOP YARD CONTACT PERSON FOUR (4) WORKING DAYS BEFORE, AND WILL NEED TO PROVIDE THE EXACT QUANTITY OF MATERIALS NEEDED. THE ADVANCE NOTICE WILL ALLOW THE SHOP TO GATHER THE REQUEST ITEMS FOR THE CONTRACTOR TO PICK UP AND SIGN FOR TAKING POSSESSION OF THE MATERIALS.

    THE CONTRACTOR WILL BE RESPONSIBLE FOR THE MATERIALS THAT THEY TAKE POSSESSION OF AND FOR THE ANY RETURNING OF ANY UNUSED MATERIALS BACK TO THE SHOP IN GOOD CONDITION. IF ANY MATERIALS COME BACK DAMAGED OR BROKEN THE CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING THE BROKEN OR DAMAGED ITEMS.

    STREET LIGHTING SHOP YARD CONTACT PERSON:
    NEAL KARWEIK 414-286-5943 (OFFICE) 414-708-4245 (CELL)
    ALL THE MATERIALS MUST BE EITHER PICKED OR DROPPED OFF ALL AT ONE TIME.
    THE STREET LIGHTING SHOP YARD HOURS FOR PICKING UP MATERIALS IS FROM 8AM TO 2PM:
    MONDAY THROUGH FRIDAY.

    CONTRACTOR MUST BE OUT OF THE SHOP YARD BY 2PM NO LATER.

STREET LIGHTING GENERAL NOTES:

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AS-BUILT GUIDELINES:

PROVIDE AS-BUILT DRAWINGS DETAILING THE FINAL PLACEMENT OF CONDUIT, CABLING, EQUIPMENT, AND GEOMETRIC MODIFICATIONS UNDER THE CONTRACT. PROVIDE PDF COPY CONFORMING TO CMM 1-65.14, OR RECORD ALL CHANGES IN RED INK ONLY ON THE AS-LET (DESIGN) PAPER DRAWINGS. THE ENGINEER WILL REJECT AS-BUILTS WITH INCOMPLETE OR INCORRECT CONTENT OR NOT CONFORMING TO CMM STANDARDS.

UPON PROJECT COMPLETION, FOLLOW THE WISDOT REQUIREMENTS PER CMM 165.12 AS-BUILT PLANS, THE PROJECT ENGINEER AND/OR ELECTRICAL CONTRACTOR SHALL SUBMIT AN ELECTRONIC AS-BUILT PLAN. ANY CHANGES FROM THE AS-LET PLAN THAT WERE BUILT INTO THE PROJECT SHOULD BE RECORDED IN RED USING ADOBE ACROBAT PROFESSIONAL OR EQUIVALENT SOFTWARE. DO NOT SCAN FIELD NOTES TO CREATE THE DIGITAL AS-BUILT PLAN.

IF THERE IS A STRUCTURE DRAWING, INCLUDE ALL STRUCTURES DRAWING SHEETS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSERT ANY ADDENDUM OR REPLACEMENT DRAWING SHEETS. TO DO THIS, RENUMBER THEM SIMILARLY TO THE ORIGINAL DRAWING SHEET.

FOR EXAMPLE:

REVISED SHEET 5 WOULD REPLACE SHEET 5. HOWEVER, ALL THE ORIGINAL SHEETS SHALL REMAIN IN THE AS-BUILTS. IF THE SHEET HAS BEEN REPLACED CROSS IT OUT WITH AND X AND INDICATE THE NUMBER OF ITS REPLACEMENT SHEET IF ADDITIONAL SHEETS WERE ADDED, INSERT THEM IN THE ORIGINAL LOCATION AND LABEL THEM WITH THE PREVIOUS SHEET NUMBER FOLLOWED BY AN "A", "B", "C", ETC.

NOTE THE SHEET CHANGES ON THE TITLE SHEET UNDER THE ORDER OF SHEETS.

THE TITLE SHEET OF THE AS-BUILT DRAWING SHOULD INCLUDE THE FOLLOWING INFORMATION:

AS-BUILT DRAWING
SUPERVISOR:
PROJECT MANAGER:
CONTRACTOR LEADER:
CONTRACTOR COMPANY:
WORK STARTED:
WORK COMPLETED:

LINE OUT OR CROSS OUT ALL CHANGED INFORMATION AND WRITE-IN THE CORRECTED INFORMATION ABOVE THE ORIGINAL OR CLOSE TO IT WHEREVER POSSIBLE. USE BLANK SPACES ON THE DRAWING SO NOTES ARE NOT SUPERIMPOSED. DRAWINGS WITH EXCESSIVE DETAIL MAY REQUIRE AN ALTERNATE APPROACH. NUMBERED CHANGES OR ADDITIONS MAY BE SHOWN ON SUPPLEMENTAL NON-DRAWING SHEETS.

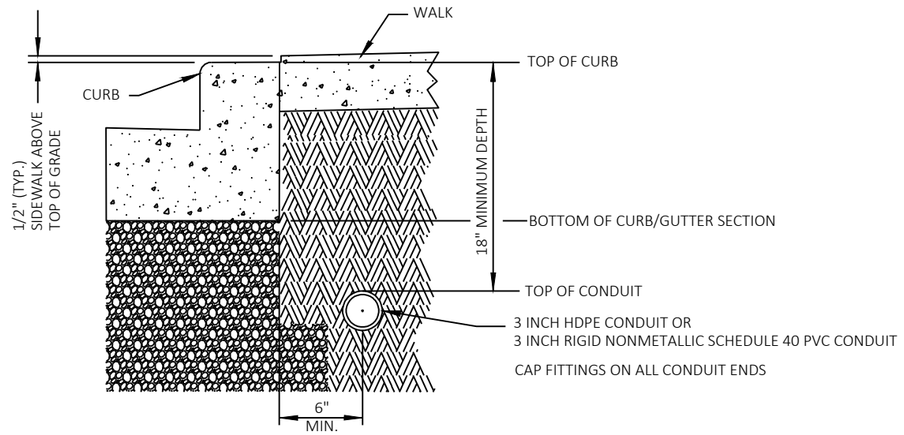
- LOCATE AND CLEARLY LABEL ALL CONDUIT RUNS, FITTINGS, SPLICE VAULTS, PULL BOXES, METER PEDESTALS, CONCRETE BASES, TRANSFORMERS, POLES AND OTHER APPURTENANCES IN TWO DIRECTIONS. SWING TIES SHOULD BE MADE FORM THE OBJECTS THAT ARE PERMANENT IN NATURE AND VISIBLE ON THE FINISHED SURFACE.
- STREET NAMES SHALL BE ON ALL SHEETS.
- SHOW ALL SIZES AND MATERIAL TYPES OF PIPES AND CONDUITS IF CHANGED OR MODIFIED FROM ORIGINAL DESIGN.
- ALL HORIZONTAL DISTANCES SHALL BE KNOWN TO THE NEAREST TENTH OF A FOOT (I.E., 205.3').
  ALL VERTICAL DISTANCES SHALL BE TO THE NEAREST INCH (I.E., 24").
- SHOW LOCATION AND ELEVATIONS ON CONDUIT AND FITTINGS WHERE CHANGES OR DEFLECTIONS IN DIRECTION OCCUR.
- SPECIAL DETAIL DRAWINGS MAY BE REQUIRED WHERE INSTALLATIONS ARE NOT SHOWN ON APPROVED CONSTRUCTION DRAWINGS FOR WHATEVER REASON OR WHERE REQUIRED FOR CLARITY.
- TYPICAL SERVICE INSTALLATION DETAILS WITH DEVIATIONS FROM ORIGINAL PLANS OR STANDARD DETAILS SHALL BE NOTED ON AS-BUILT DRAWINGS.
- NO ARBITRARY MARK-UPS WILL BE PERMITTED.

IF THERE ARE NO CORRECTIONS OR ADDITIONS TO THE AS-LET PLAN(S) PUT "NO CHANGE" ON THE SHEET WITH ALL OTHER REQUIRED AS-BUILT INFORMATION.

BY MAIL SEND TO:
CITY OF MILWAUKEE
INFRASTRUCTURE SERVICES DIVISION
TRANSPORTATION SECTION - CONSTRUCTION
CHIEF CONSTRUCTION ENGINEER TONY KOTECKI
841 NORTH BROADWAY, ROOM 701
MILWAUKEE, WISCONSIN 53202

BY EMAIL SEND TO:
CITY OF MILWAUKEE
INFRASTRUCTURE SERVICES DIVISION
TRANSPORTATION SECTION - CONSTRUCTION
CHIEF CONSTRUCTION ENGINEER TONY KOTECKI
AKOTEC@MILWAUKEE.GOV

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED 6 INCHES ON CENTER DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER

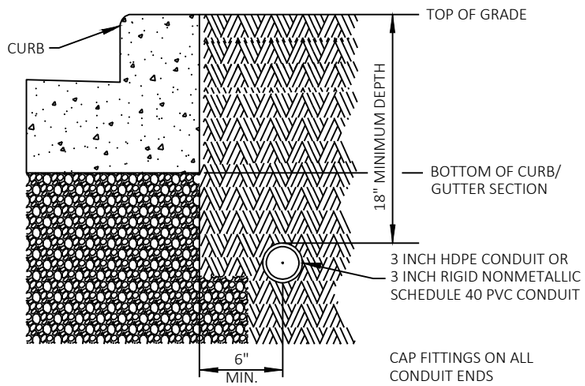


DETAIL "A"

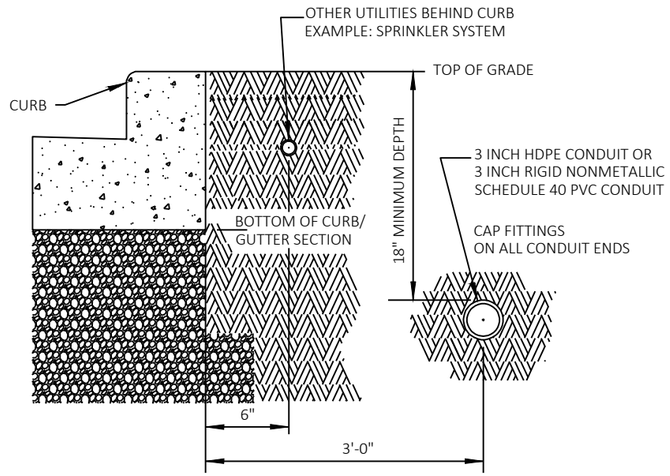
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

CONDUIT TO BE PLACED 6 INCHES ON CENTER DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER

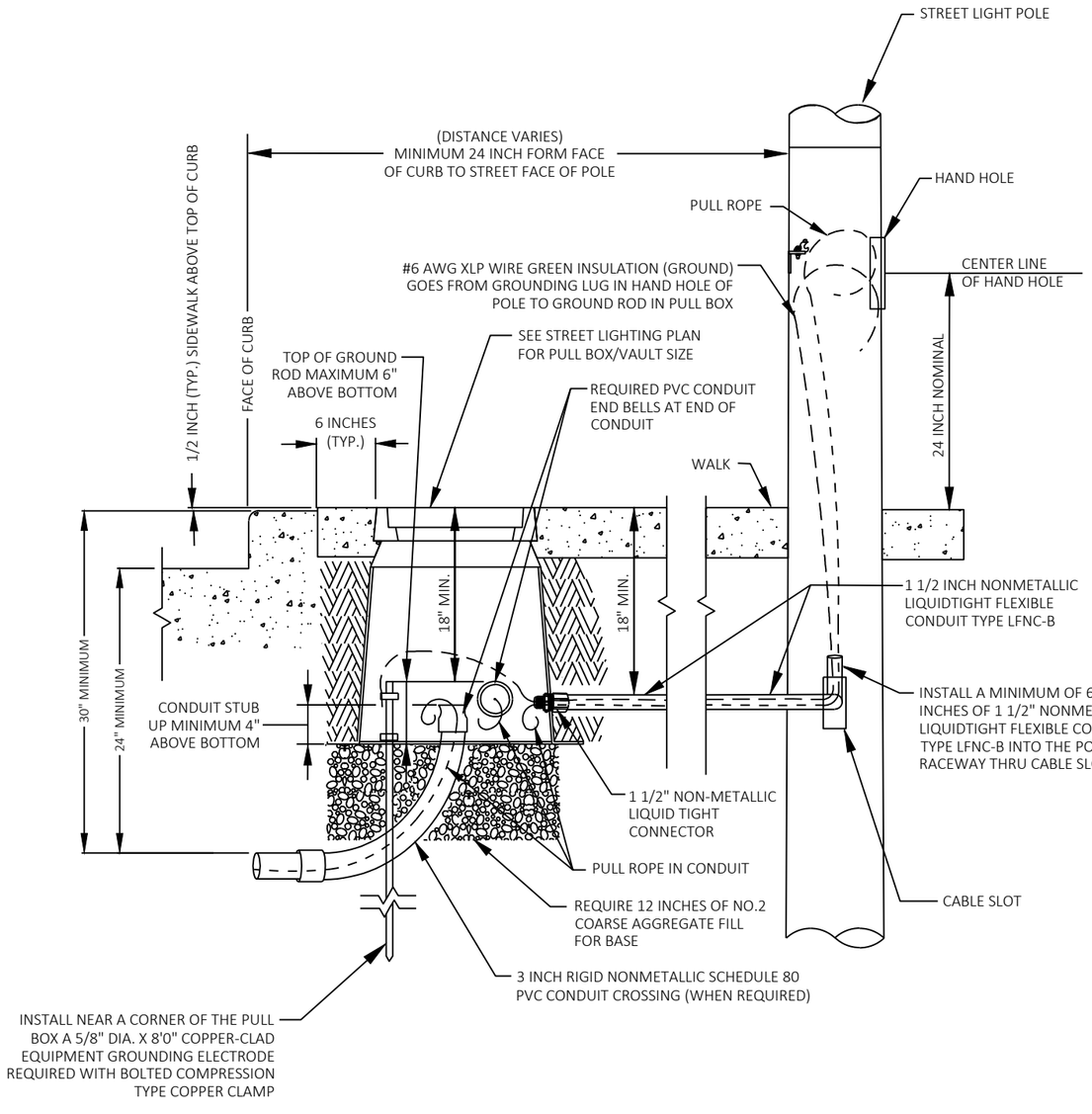


DETAIL "C"

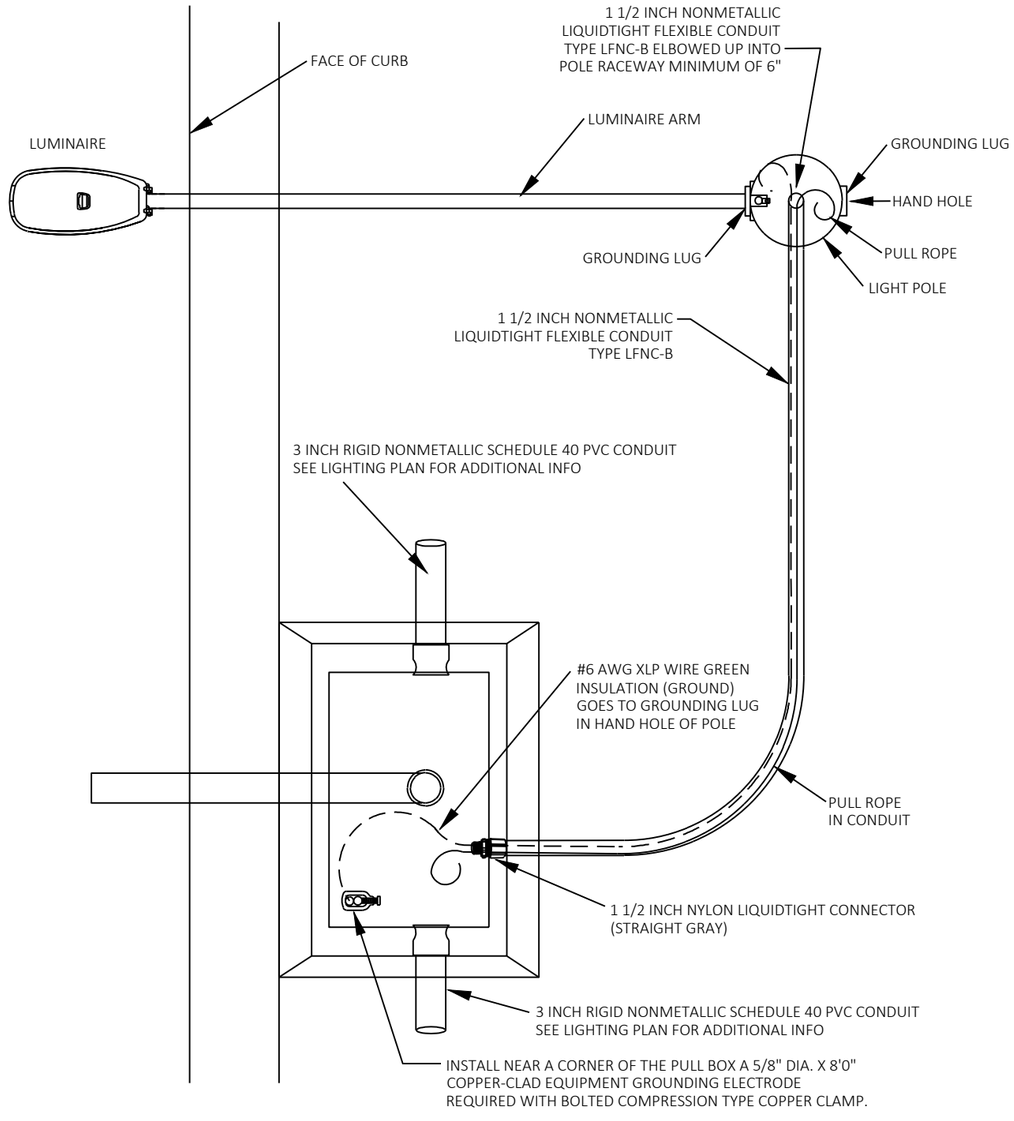


TYPICAL CONDUIT INSTALLATION
BEHIND CURB

FOR INSTALLATION OF CONDUIT ON SIDE ROADS
ANY DEVIATIONS FORM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414)286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR



SECTION VIEW
NOT TO SCALE

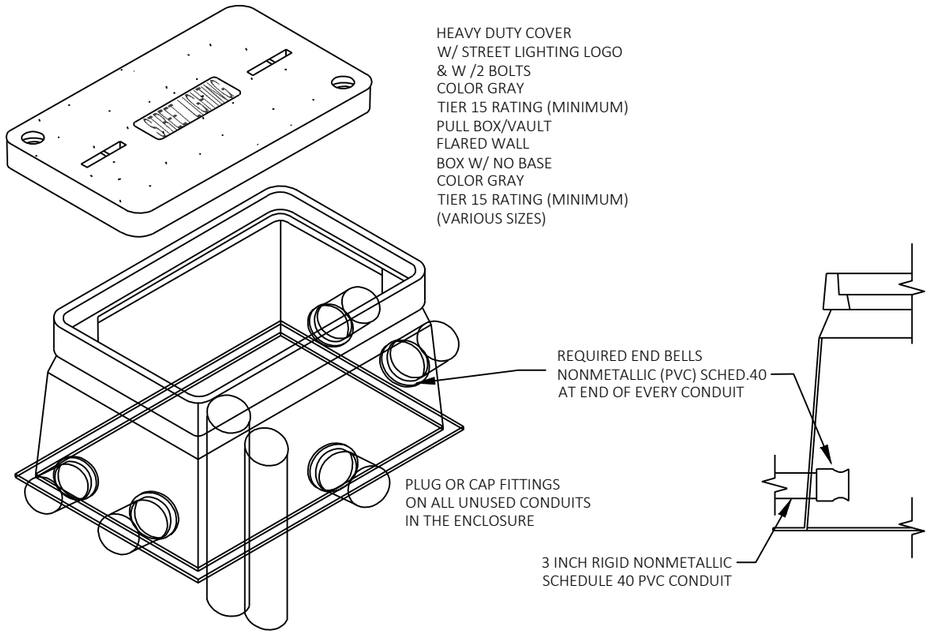


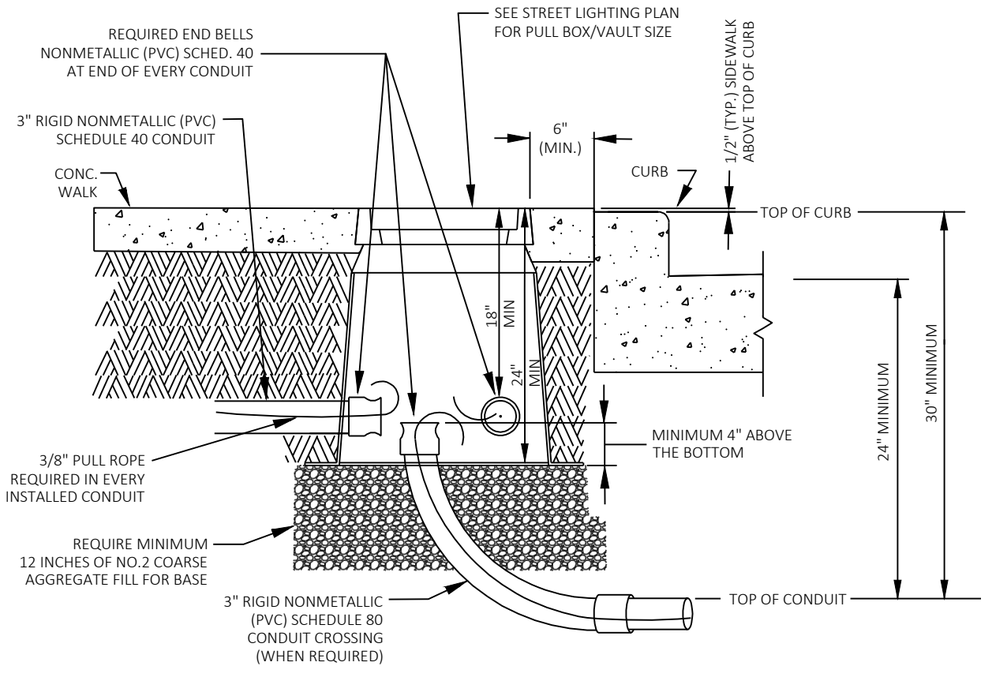
PLAN VIEW
NOT TO SCALE

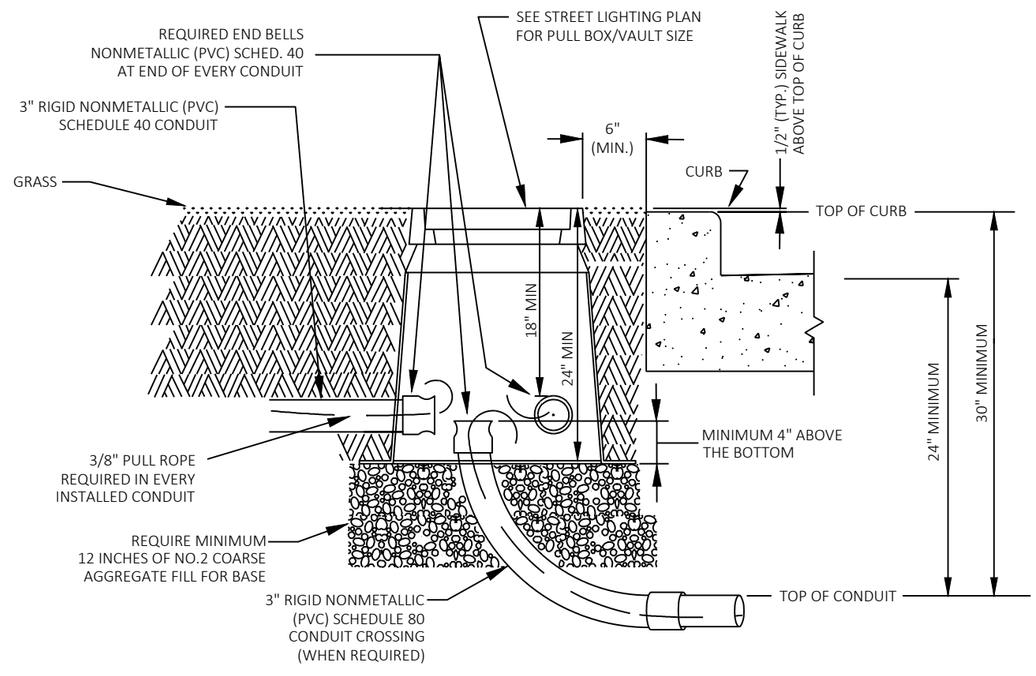
TYPICAL CONDUIT INSTALLATION FROM PULL BOX/VAULT TO POLE

ANY DEVIATIONS FORM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414)286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR

2



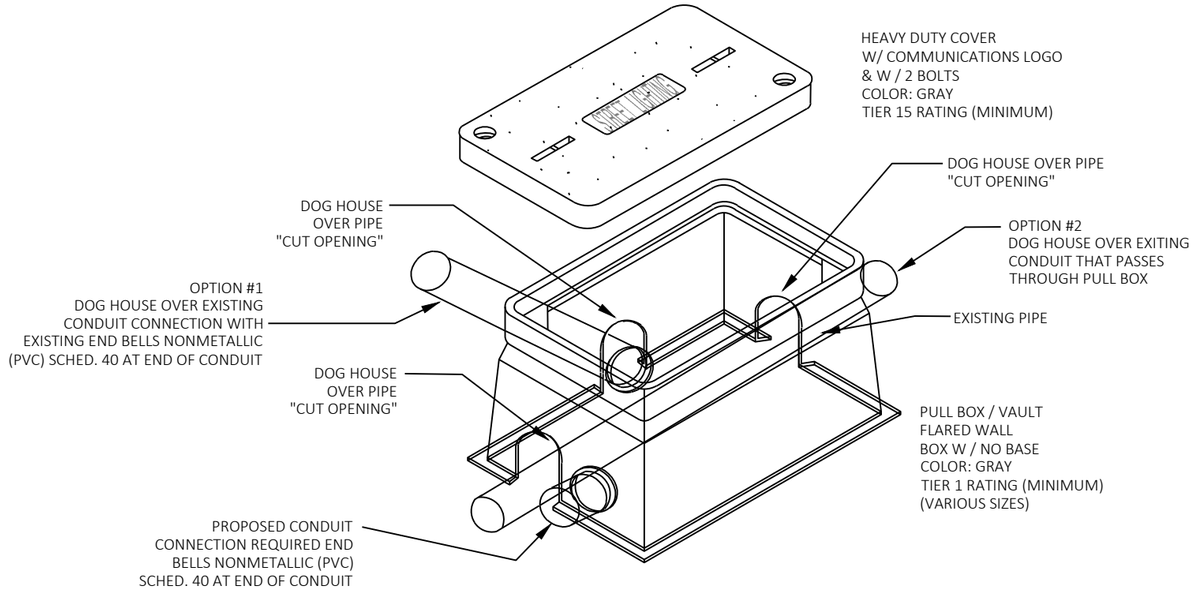


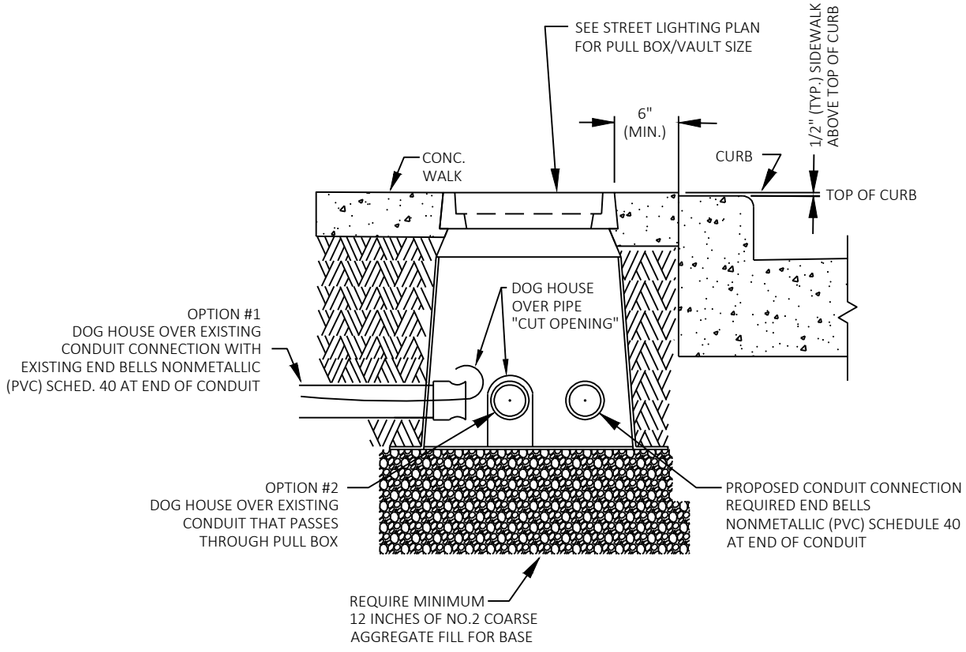


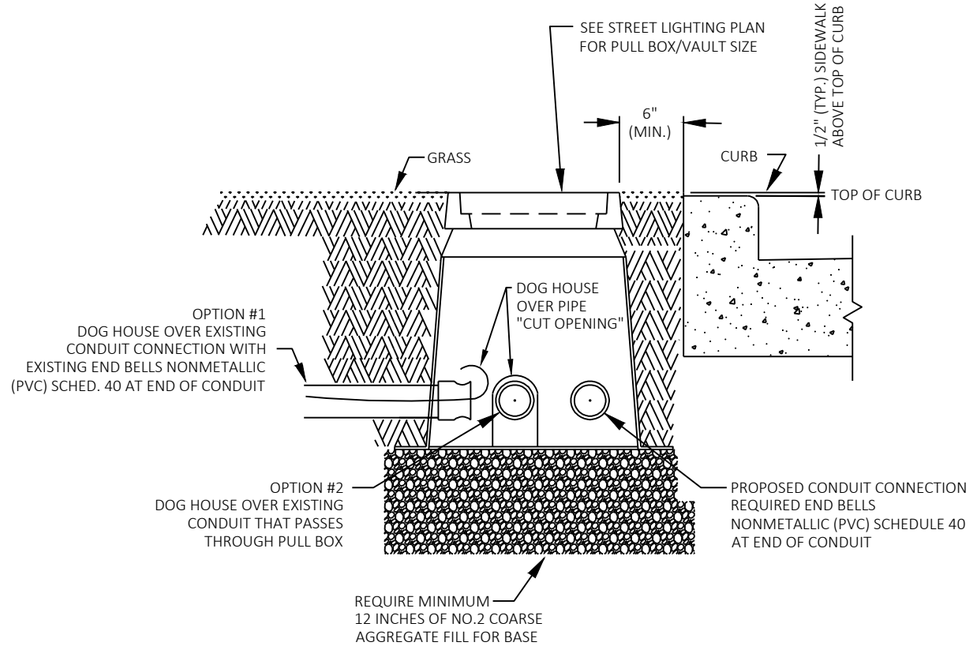
TYPICAL PULL BOX/VAULT INSTALLATION
IN EITHER PAVEMENT OR GRASS AREAS

ANY DEVIATIONS FORM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414)286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR

2

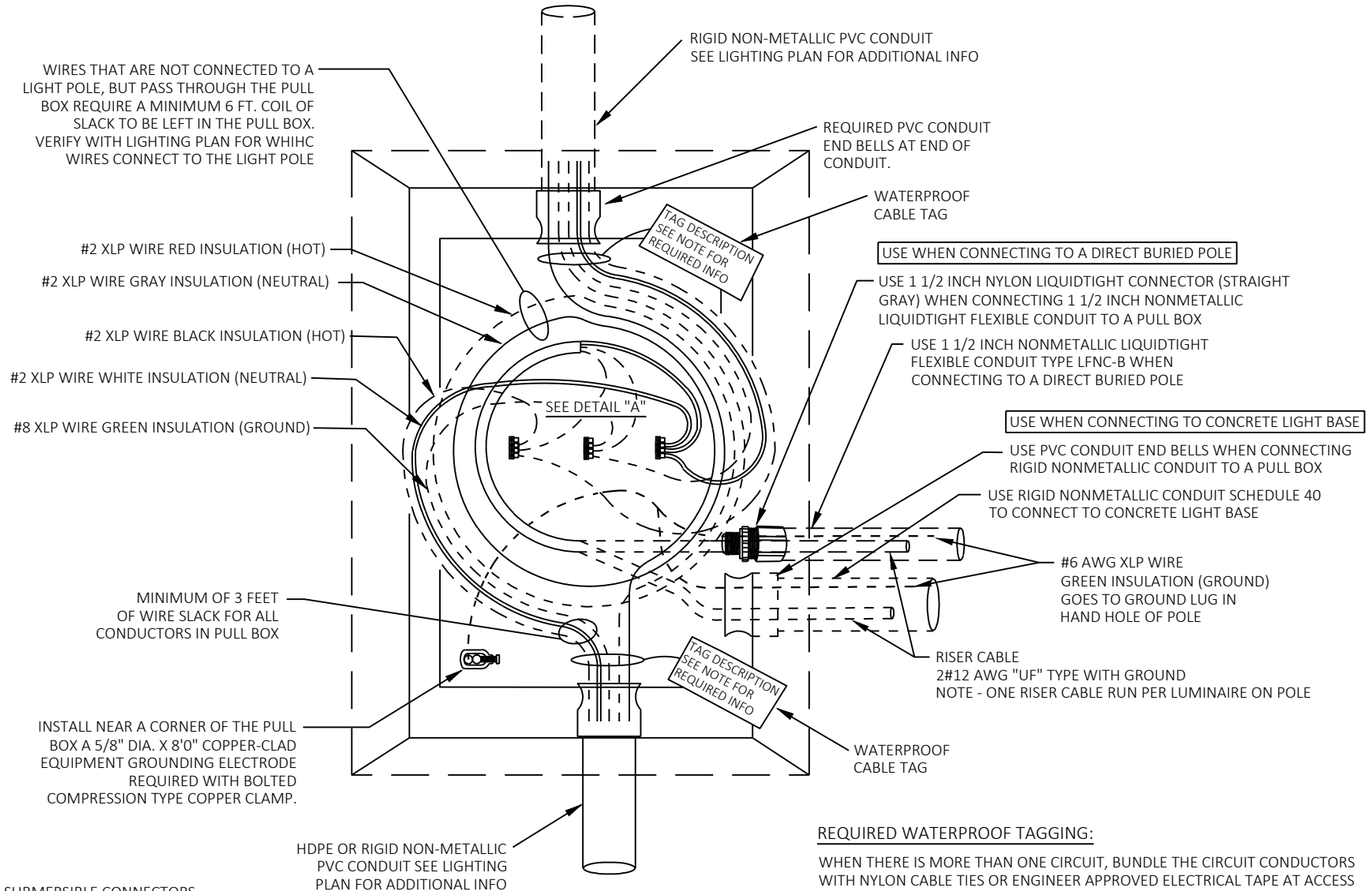




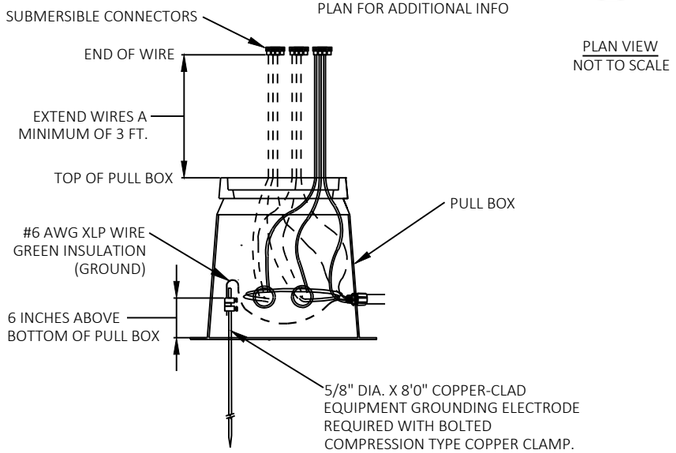


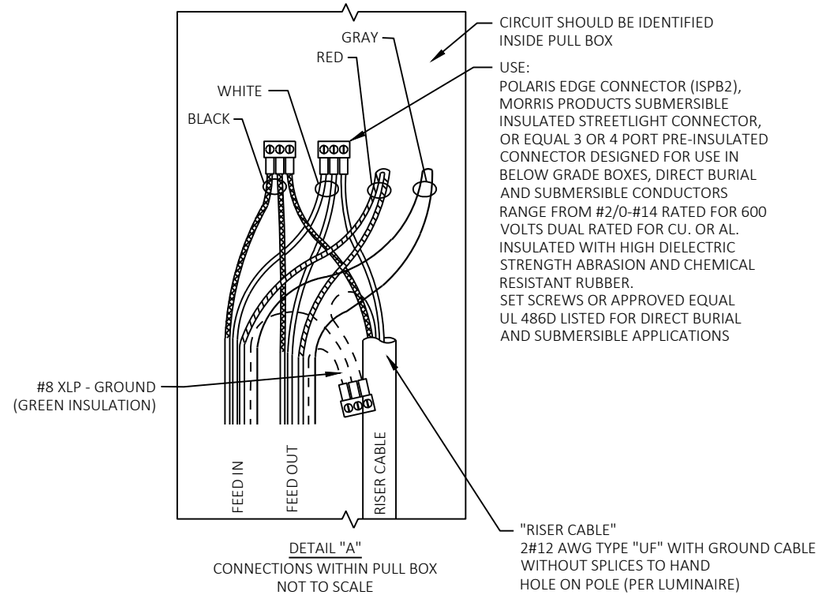
TYPICAL DOG HOUSING OVER EXISTING
CONDUIT IN PAVEMENT OR GRASS AREA

ANY DEVIATIONS FORM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414)286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR



PLAN VIEW
NOT TO SCALE





DETAIL "A"
CONNECTIONS WITHIN PULL BOX
NOT TO SCALE

REQUIRED WATERPROOF TAGGING:

WHEN THERE IS MORE THAN ONE CIRCUIT, BUNDLE THE CIRCUIT CONDUCTORS WITH NYLON CABLE TIES OR ENGINEER APPROVED ELECTRICAL TAPE AT ACCESS POINTS.

AT EACH PULL BOX, IDENTIFY THE LINE SIDE OF EACH CIRCUIT WITH AN ATTACHED TAG USING A FADE-RESISTANT WATERPROOF BLACK MARKER PEN AND PROVIDE THE FOLLOWING INFO:

CIRCUIT ID: (CIR.WD-E)
LINE SIDE COMING FROM UNIT STREET LIGHT UNIT IS ON: (STREET NAME)
SIDE OF STREET LIGHT UNIT IS ON: (N,S,E,W)
NUMBER OF STREET LIGHTING UNITS FROM NEAREST CROSSING STREET: (1,2,3,4,5)
DIRECTION FROM THE NEAREST CROSSING STREET: (N,S,E OR W)
NAME OF THE NEAREST CROSSING STREET: (STREET NAME)

EXAMPLE OF TAG INFO:

CIR.WD-E

LINE SIDE FROM: W.CANAL ST. / N / 1/ W / OF POTAWATOMI CIR.

TYPICAL WATERTIGHT MULTI-PORT CONNECTIONS

SPLICING CONDUCTORS WITH THE PULL BOX

NOTES:

WHEN WIRING A LUMINAIRE EITHER
BLACK (HOT) WITH WHITE (NEUTRAL) GO TOGETHER
OR
RED (HOT) WITH GRAY (NEUTRAL) GO TOGETHER

ALL WIRE CONNECTIONS REQUIRE ANTI-OXIDANT TO BE APPLIED TO THE CONNECTIONS

ALL HARDWARE NUT AND BOLT CONNECTIONS REQUIRE ANTI SEIZE TO BE APPLIED TO THEM

PULL ROPE/TAPE SHALL BE INSTALLED IN ALL NEW CONDUITS

CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS FOR ALL THE WORK BEING DONE

PROVIDE MINIMUM WIRE SLACK FOR PULL BOXES: 3-FT
ONE WAY IN OR OUT

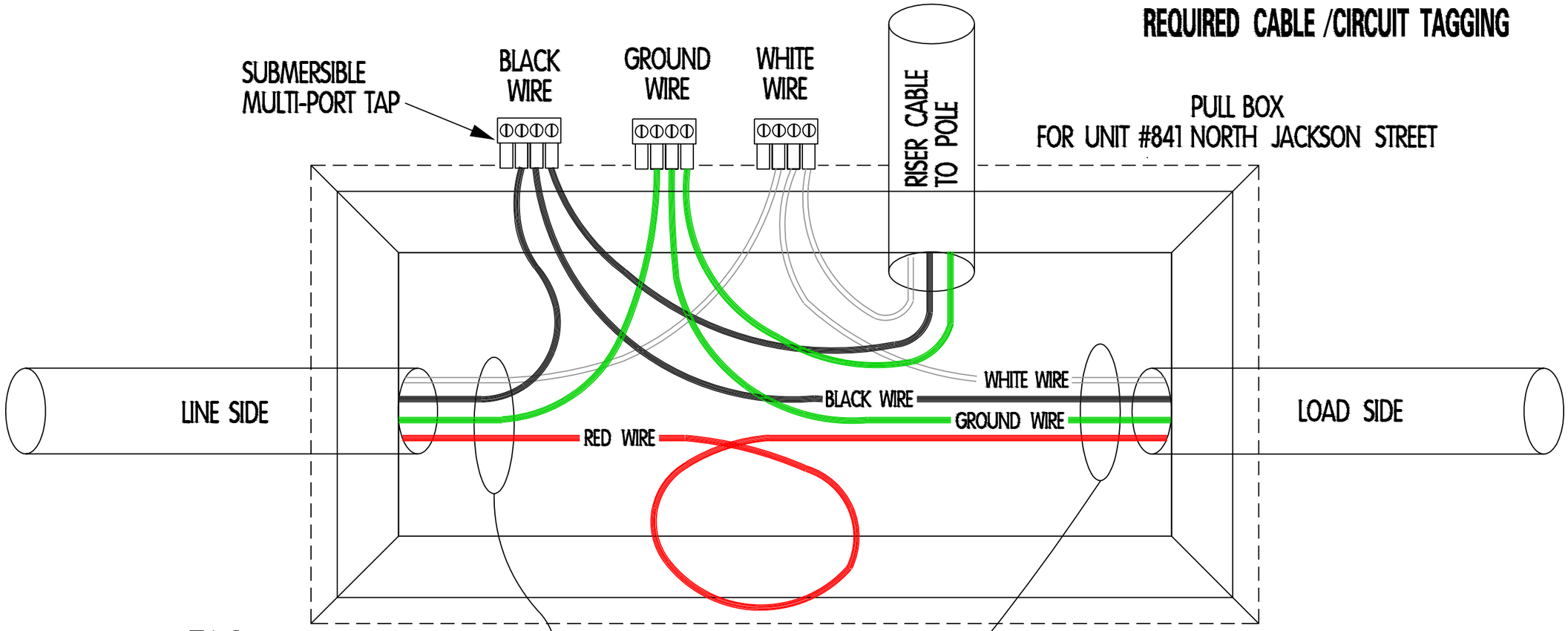
PROVIDE REMOVABLE SEALANT SUCH AS DUCT SEAL IN THE CONDUITS AT THE CABINETS, PULL BOXES AND JUNCTION BOXES TO AVOID CONDENSATION CAUSED BY AIRFLOW THROUGH THE CONDUITS DUE TO TEMPERATURE DIFFERENCE. THIS WORK SHALL BE INCIDENTAL TO ASSOCIATED CONDUIT PAY ITEM.

IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL PULL BOXES/VAULTS, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONCRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP MANAGERS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK. THESE NAMES AND NUMBERS CAN BE FOUND ON THE STREET LIGHTING GENERAL NOTES SHEET

ANY DEVIATIONS FORM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414)286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR

2

REQUIRED CABLE /CIRCUIT TAGGING



TAG

CIR. ENCL.#3 EB-R
N. JACKSON ST./W /4 /S / E.WELLS ST..

TAG DESCRIPTION BREAKDOWN - LINE SIDE

CIRCUIT ID: (CIR. ENCL.#3 EB-R)
LINE SIDE COMING FROM UNIT STREET LIGHT UNIT IS ON: (N. JACKSON ST.)
SIDE OF STREET LIGHT UNIT IS ON: (WEST SIDE)
NUMBER OF STREET LIGHTING UNITS FROM NEAREST CROSSING STREET: (COMING FROM UNIT 4)
DIRECTION FROM THE NEAREST CROSSING STREET: (TO THE SOUTH)
NAME OF THE NEAREST CROSSING STREET: (E. WELLS ST.)

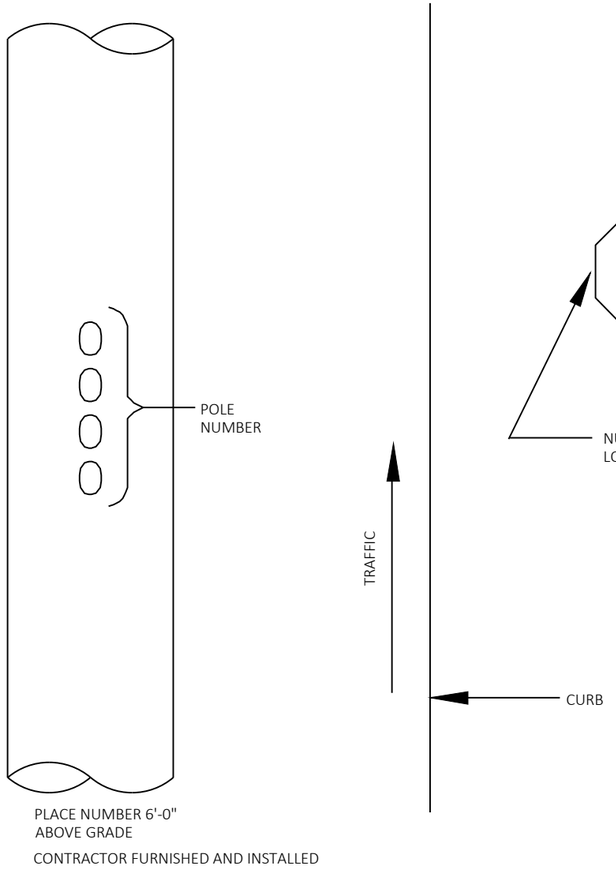
TAG

CIR. ENCL.#3 EB-R
N. JACKSON ST./W /6 /N /E.KILBOURN AVE.

TAG DESCRIPTION BREAKDOWN - LOAD SIDE

CIRCUIT ID: (CIR. ENCL.#3 EB-R)
LINE SIDE COMING FROM UNIT STREET LIGHT UNIT IS ON: (N. JACKSON ST.)
SIDE OF STREET LIGHT UNIT IS ON: (WEST SIDE)
NUMBER OF STREET LIGHTING UNITS FROM NEAREST CROSSING STREET: (GOING TO UNIT 6)
DIRECTION FROM THE NEAREST CROSSING STREET: (TO THE NORTH)
NAME OF THE NEAREST CROSSING STREET: (E. KILBOURN AVE.)

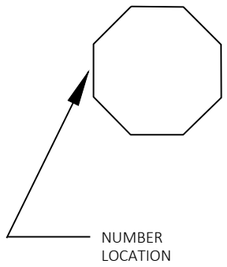
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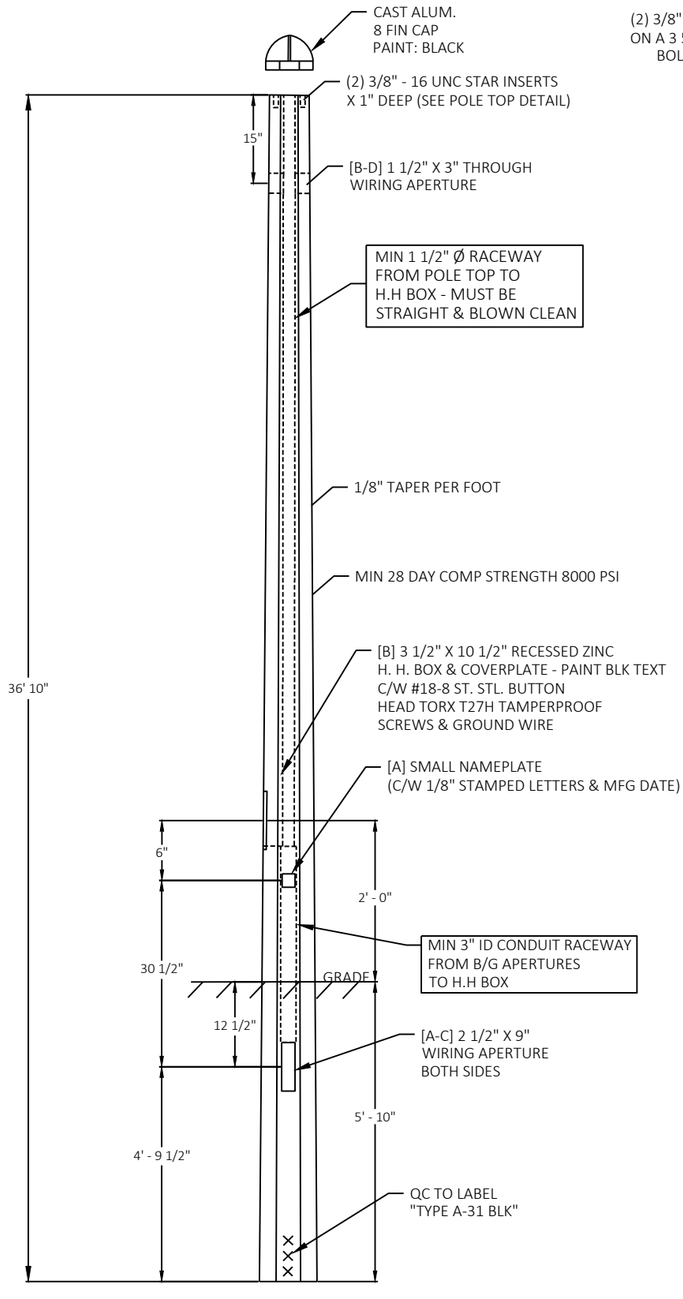


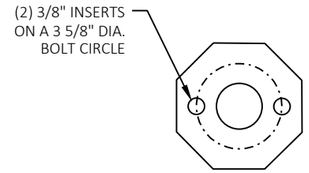
PLACE NUMBER 6'-0"
ABOVE GRADE

CONTRACTOR FURNISHED AND INSTALLED

POLE NUMBER PLAQUE



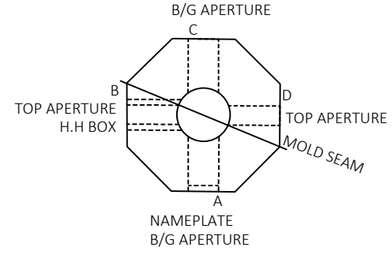




POLE TOP DETAIL

LOADING:	10 SQ FT AT 90 MPH	*	30% GUST
DESIGN SPEC:	AASHTO LTS 5-2007		
WORKING LOAD:	400 LBS		
ULT GRND LINE:	26,100 FT-LBS		
MOMENT:	"		
SECTION:	OCTAGONAL		
COLOR:	BLACK, FINAL FINISH TO BE APPROVED BY STREET LIGHTING ENGINEERING		
FINISH:	POLISHED		
POLE LENGTH:	36' - 10"		
POLE TOP:	6" FL/FL		
POLE BUTT:	10 5/8" FL/FL		
POLE TAPER:	1/8" /FT		
APPROX. WGT:	TO BE PROVIDED BY MANUFACTURER		
RACEWAY:	1 1/2" TO POLE TOP		
RACEWAY:	MIN 3" HH TO APER		

NOTES:
1) RACEWAY TO BE CLEAR OF SHARP EDGES AND DEBRIS
2) MIN 1 1/2" RACEWAY FORM POLE TOP TO H.H BOX
3) MIN 3" RACEWAY FROM B/G APERTURES TO H.H BOX



TOP VIEW

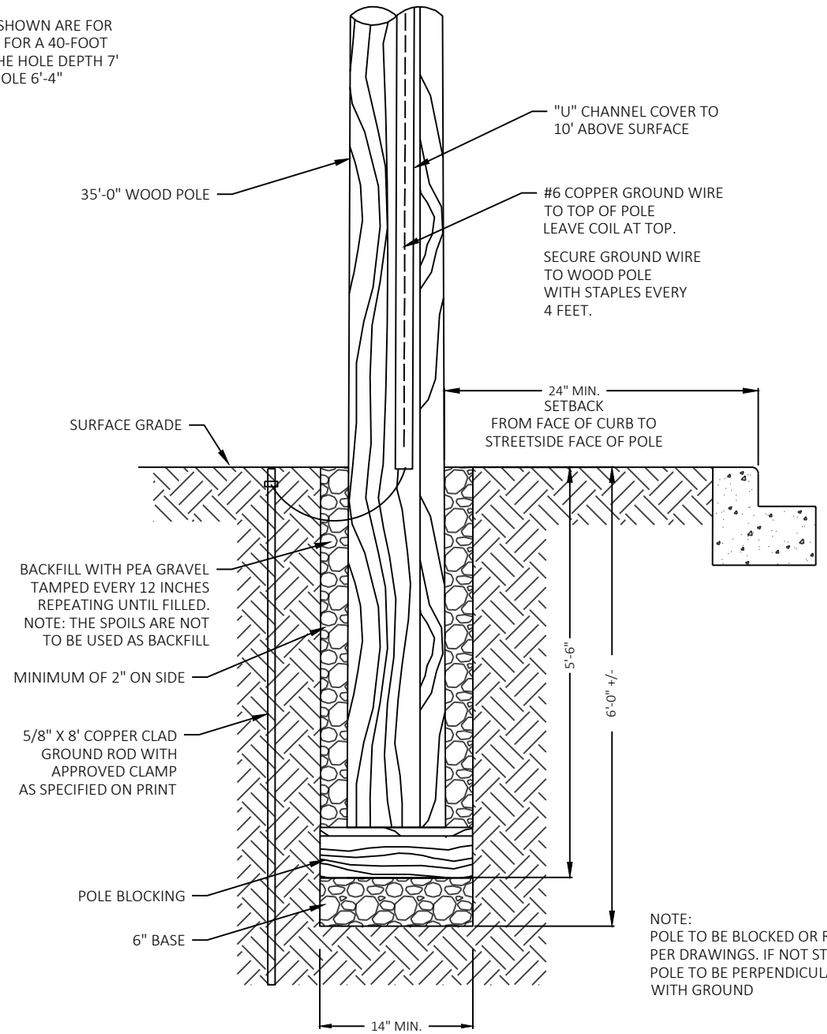
POLES TYPE A31 BLACK CONCRETE

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SHEET 43

FILE NAME : V:\PROJECTS\21436_RAS_WELLS STREET\04_CADD_01\CADD_SHEETS\021001_CD.DWG
LAYOUT NAME - 05
PLOT DATE : 5/8/2023 1:26 PM
PLOT BY : ALEXANDER UNDERWOOD
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

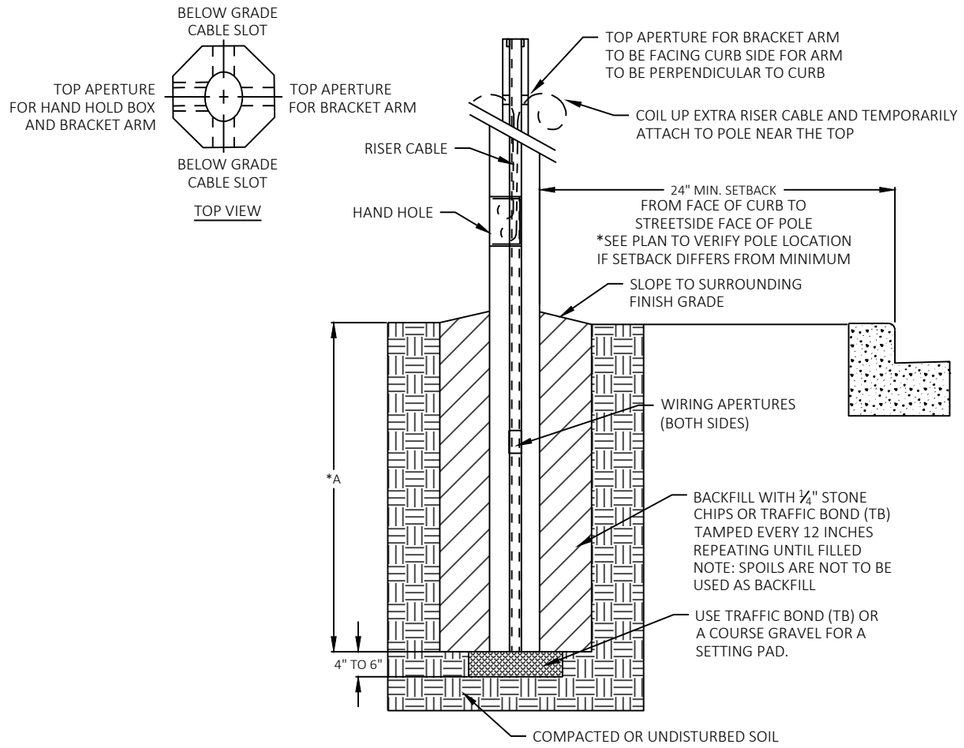
2

NOTE:
DIMENSIONS SHOWN ARE FOR
A 35-FT POLE, FOR A 40-FOOT
POLE MAKE THE HOLE DEPTH 7'
AND EMBER POLE 6'-4"



NOTE:
POLE TO BE BLOCKED OR RAKED
PER DRAWINGS. IF NOT STATED,
POLE TO BE PERPENDICULAR
WITH GROUND

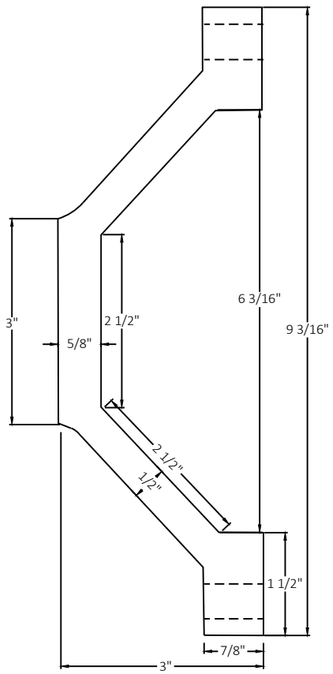
TYPICAL 35 FT. WOOD POLE INSTALLATION

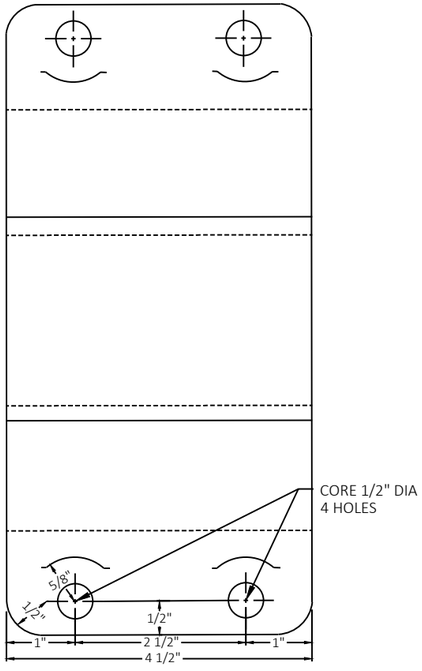


POLE TYPE BURIAL DEPTH CHART
FOR DIMENSION *A USE THE FOLLOWING BURIAL DEPTHS DEPENDING ON THE LENGTH OF THE POLE.
A21 = 26 FT. POLE LENGTH BURIED DEPTH = 5 FT.
A26 = 31 FT. POLE LENGTH BURIED DEPTH = 5 FT. - 6 INCHES
A31 = 36 FT. 10 INCHES POLE LENGTH BURIED DEPTH = 6 FT. - 4 INCHES

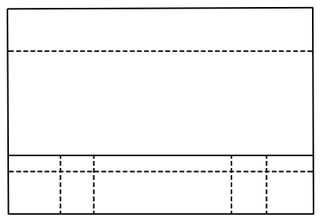
RISER CABLE LENGTH CHART
INTERNAL RISER CABLE IS COPPER 2#12UF WITH GROUND
A21 = 30 FT. OF CABLE
A26 = 35 FT. OF CABLE
A31 = 40 FT. OF CABLE

TYPICAL CONCRETE POLE INSTALLATION

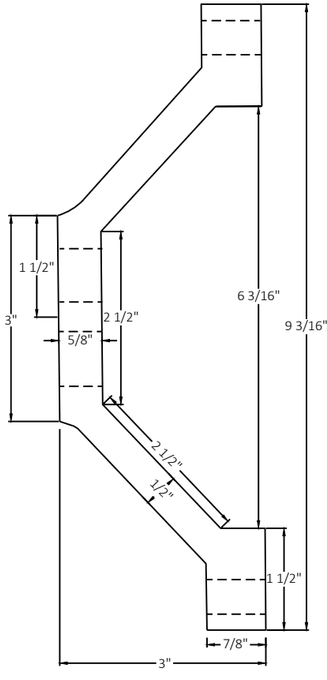




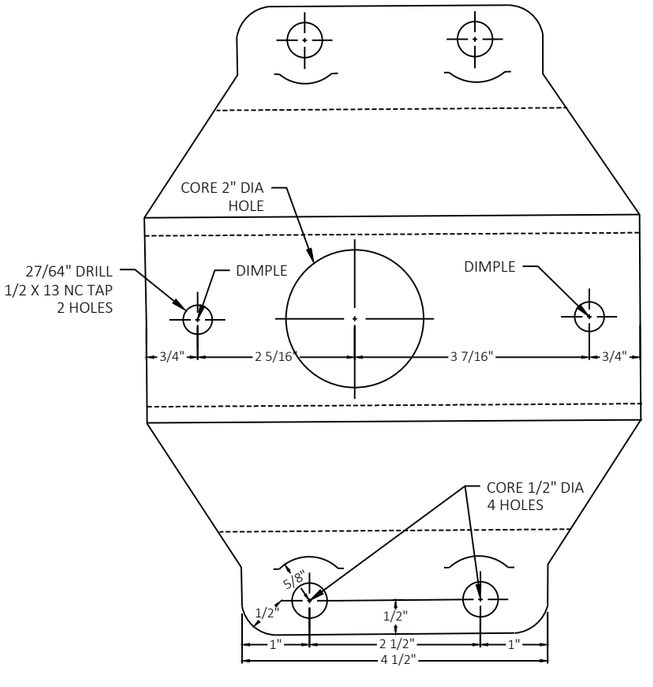
MATERIAL: CAST ALUMINUM
AA #713
ES #445



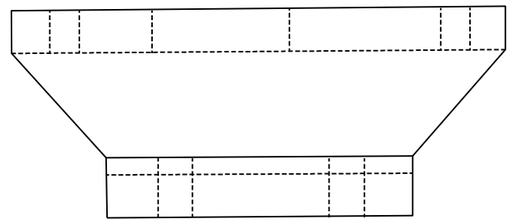
REAR BRACKET



MATERIAL: CAST ALUMINUM
AA #713



ES #444

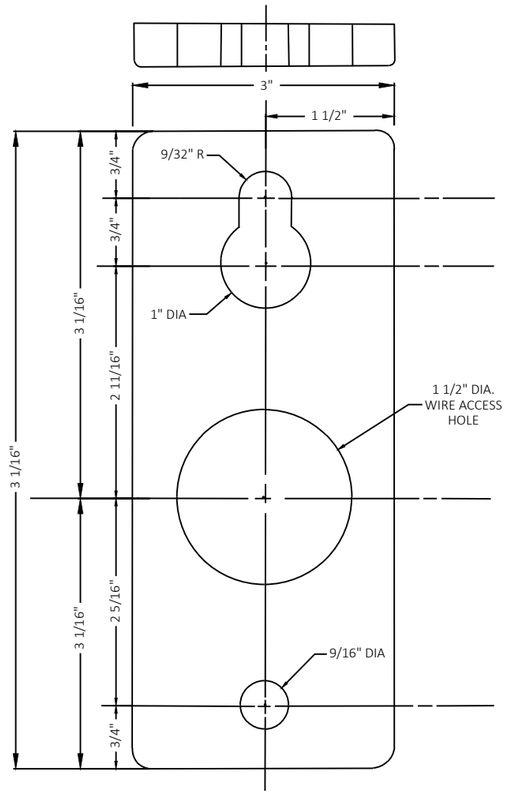


FRONT BRACKET

TYPE A31 BRACKET PLATE

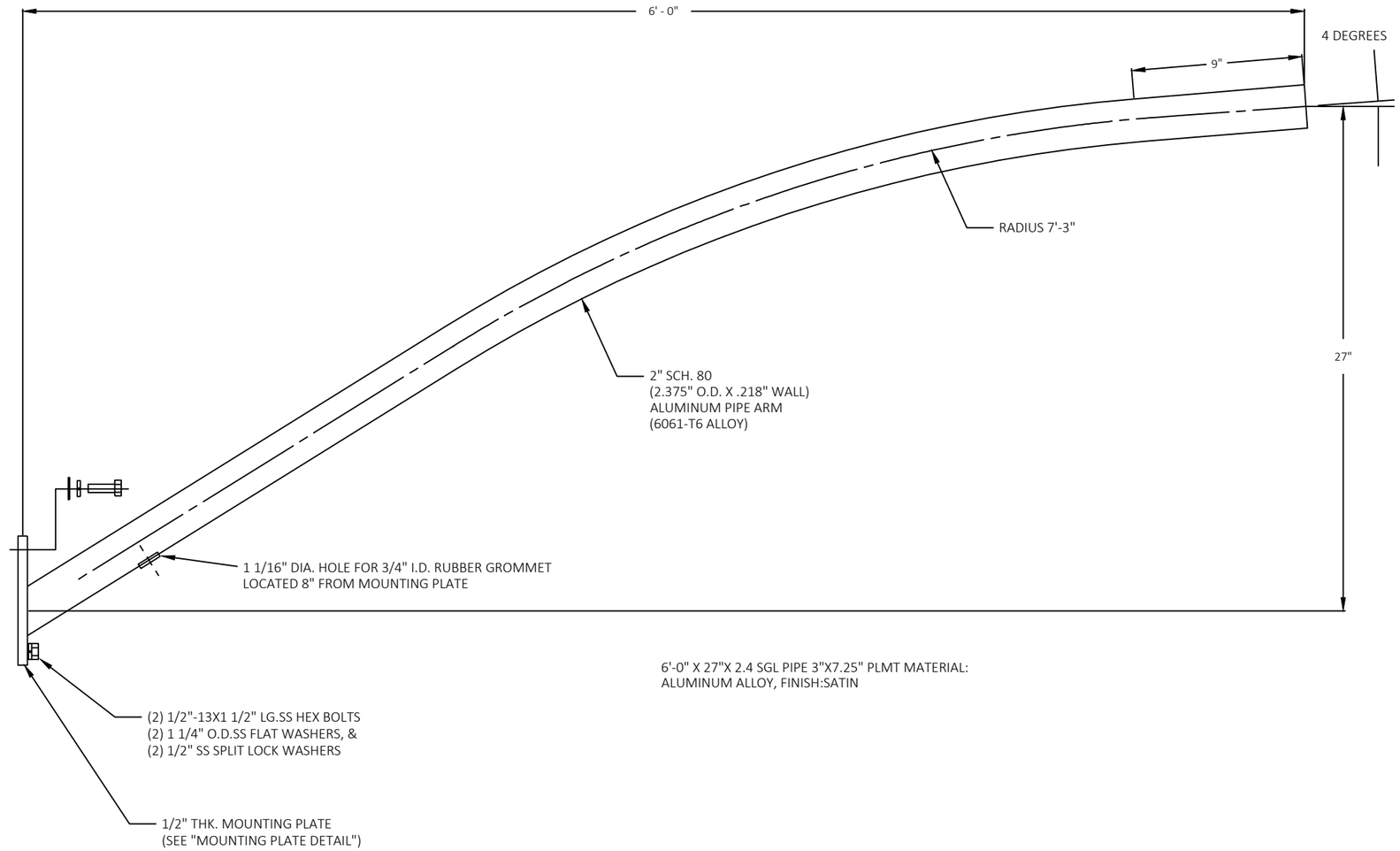
PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SHEET 45	E

2



MOUNTING PLATE DETAIL "ES #436"
1/2" THK. ALUMINUM
(6061-T6 ALLOY)

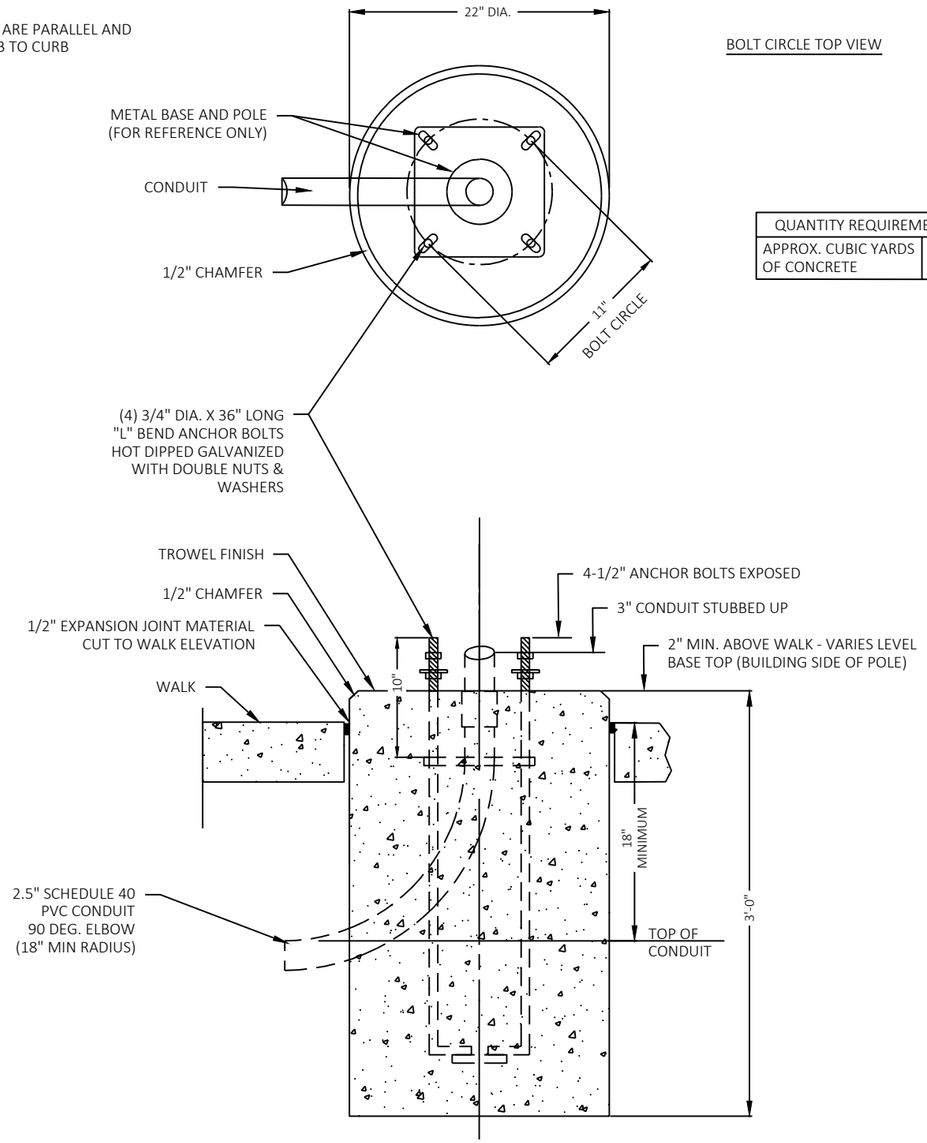
NOTE:
1" I.D. RUBBER GROMMET PROVIDED
FOR USE IN POLE SHAFT



6'-0" X 27"X 2.4 SGL PIPE 3"X7.25" PLMT MATERIAL:
ALUMINUM ALLOY, FINISH:SATIN

LUMINAIRE ARM SINGLE MEMBER 6-FT - SPECIAL

NOTE:
BOLTS ARE PARALLEL AND PLUMB TO CURB



BOLT CIRCLE TOP VIEW

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	0.29

TYPICAL CONCRETE LIGHT BASE TYPE 1

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 3 INCHES.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE PLUGGED IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE. ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE PLUGGED.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE IN LAYERS OF 1 FOOT OR LESS.

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 "L" BEND ARE FURNISHED, THE "4" "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.

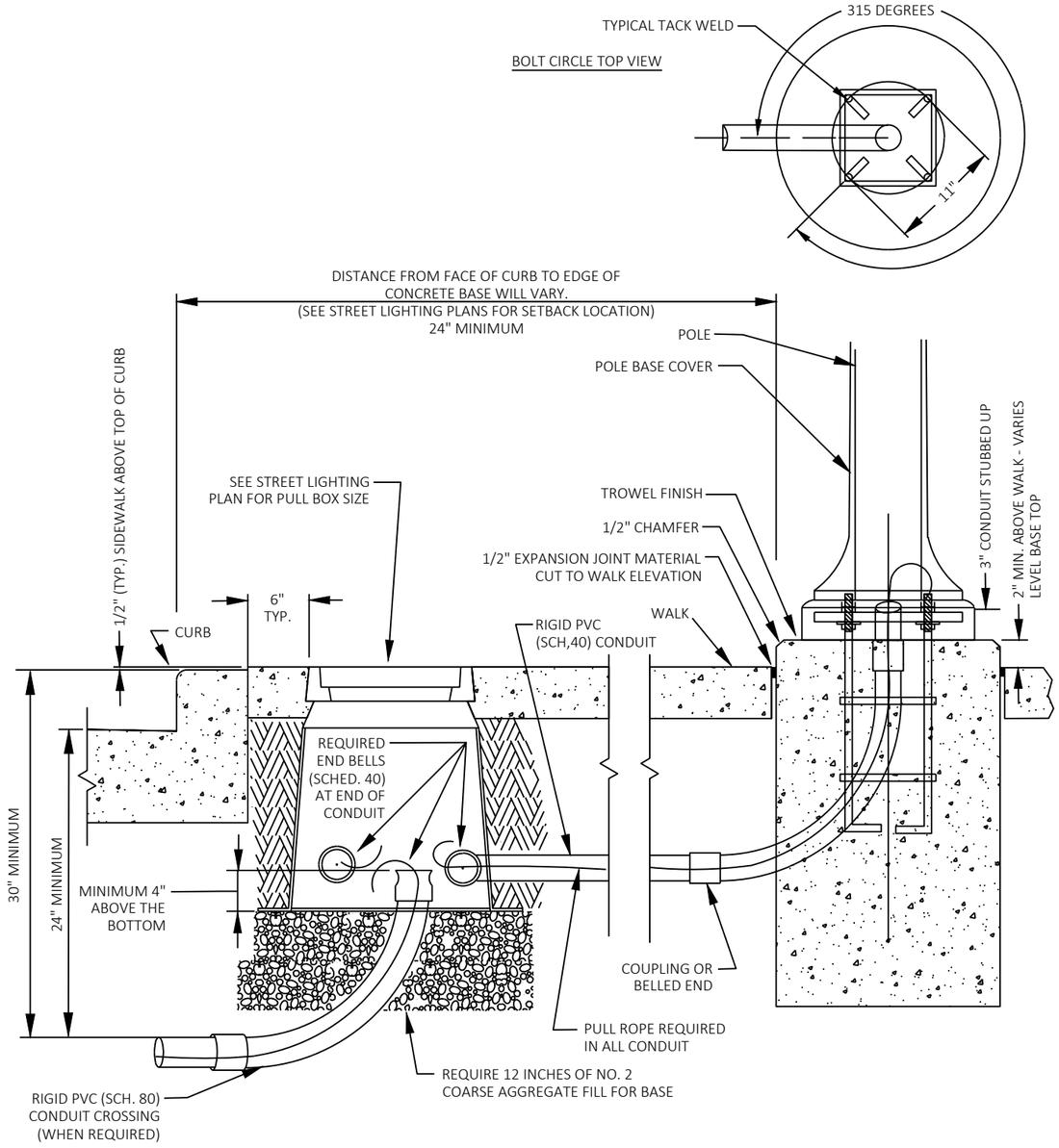
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

*ANY ANCHOR ROD PROJECTION SHORTER THAN 4" OR LONGER THAN 4-1/2" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

ANY DEVIATIONS FORM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414)286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR

2



TYPICAL DETAIL CONDUIT INSTALLATION
FROM PULL BOX TO POLE FOUNDATION

GENERAL NOTES

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

USE THIS DETAIL 142 IN CONJUNCTION WITH THIS DETAIL FOR ELECTRICAL WIRING.

USE WITHER THE POLARIS EDGE (ISPB2) OR MORRIS PRODUCT SUBMERSIBLE INSULATED CONNECTOR OR ELSE AN EQUAL CONNECTOR THAT IS 3 OR 4 PORT PRE-INSULATED, THAT IS DESIGNED FOR USE IN BELOW GRADE BOXES, DIRECT BURIAL, AND SUBMERSIBLE. THE CONDUCTORS RANGE FROM #2/0 - #14 RATED FOR 600 VOLTS DUAL RATED FOR CU OR AL.

USE A WATERPROOF IN-LINE FUSE HOLDER ASSEMBLY THAT NEEDS TO BE 600 VOLT RATED, AND UP TO 30 AMPS, 1-POLE BREAKAWAY, WITH COPPER SET SCREW TERMINALS FOR LOAD, AND WIRE SIZE RANGE #12 TO #8 AWG. PROVIDE A FAST ACTING 3 AMP 250 VOLT FUSES, FROM THE RECOMMENDED FUSE LIST FROM THE IN-LINE FUSE HOLDER MANUFACTURER.

USE WATERPROOF AND TEAR RESISTANT CABLE TAGS/LABELS AT EACH PULL BOX, TO IDENTIFY THE LINE SIDE OF EACH CIRCUIT USING A FADE-RESISTANT WATERPROOF BLACK MARKER PEN AND PROVIDE THE FOLLOWING INFO:

CIRCUIT ID: (CIR.WD-E)

LINE SIDE COMING FROM UNIT STREET LIGHT UNIT IS ON: (STREET NAME)

SIDE OF STREET LIGHT UNIT IS ON: (N,S,E,W)

NUMBER OF STREET LIGHTING UNITS FROM NEAREST CROSSING STREET: (1,2,3,4,5)

DIRECTION FROM THE NEAREST CROSSING STREET: (N,S,E OR W)

NAME OF THE NEAREST CROSSING STREET: (STREET NAME)

EXAMPLE OF TAG INFO:

CIR.WD-E,

LINE SIDE FROM: W. CANAL ST. / N. / 1 / W. / OF POTAWATOMI CIR.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

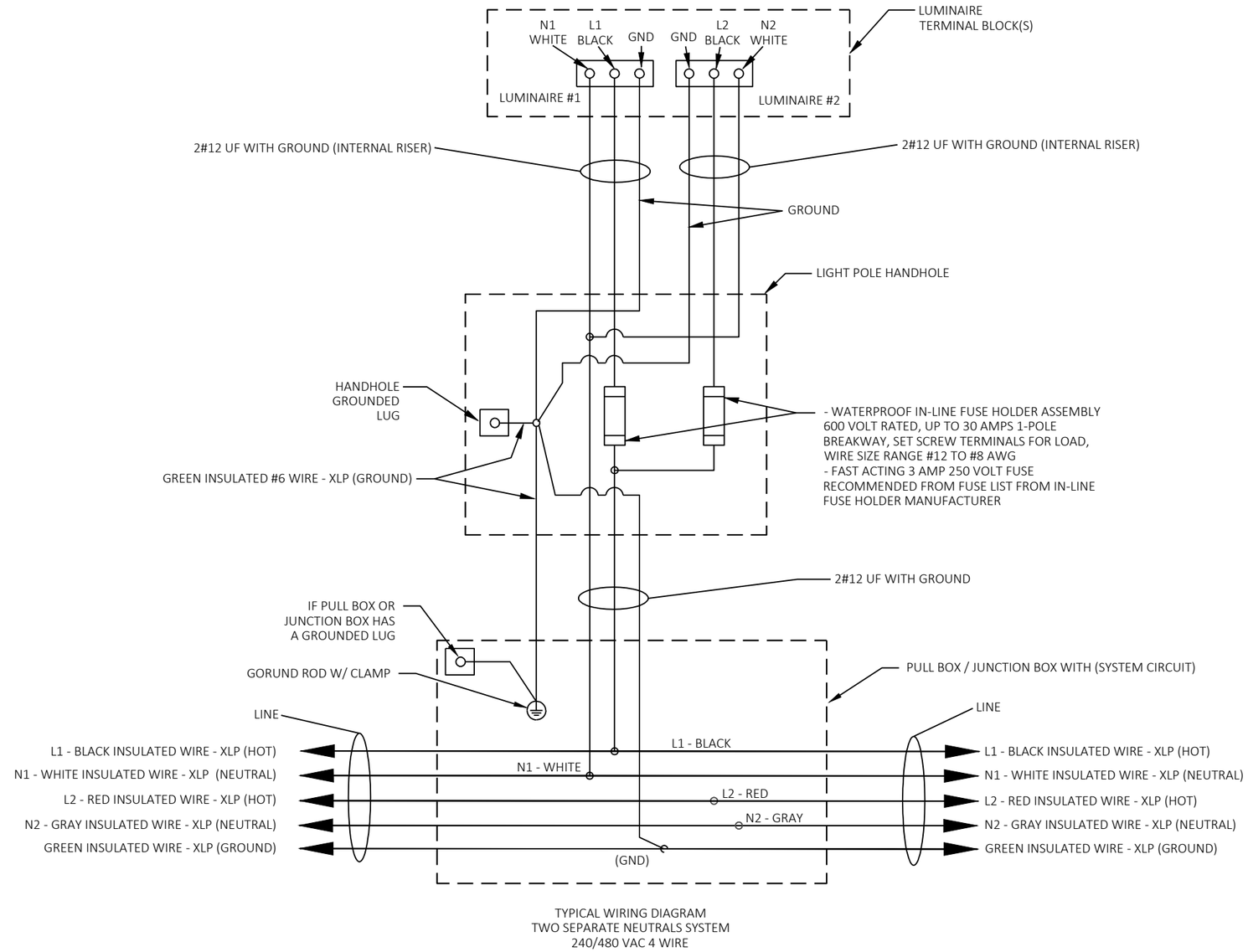
THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

USE 2#12UF WITH GROUND FROM THE PULL BOX / JUNCTION BOX TO THE POLE HANDHOLE

THE INTENT OF THE PULL BOX / JUNCTION BOX SPLICES AS SHOWN IN THIS DETAIL IS FOR LIGHTING SYSTEMS WITH HEAVY LINE WIRE TOO LARGE TO PULL THROUGH THE CONDUIT INTO THE POLE HANDHOLE, DUE TO CONDUIT FILL REQUIREMENTS OF N.E.C AND / OR THE STIFFNESS OF THE WIRE COMPARED TO THE NUMBER OF BENDS IN THE CONDUIT.

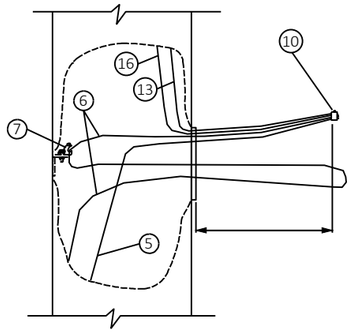
LEGEND

BLACK & RED	UNDERGROUND SYSTEM CIRCUIT CONDUCTORS (L1 & L2)
WHITE & GRAY (N)	GROUNDED SYSTEM CIRCUIT CONDUCTORS (N1 & N2)
GREEN (GND)	EQUIPMENT GROUNDING CONDUCTOR
	HANDHOLE GROUNDED LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	TERMINAL
	SPLICE
	CONDUCTOR
	GROUND ROD

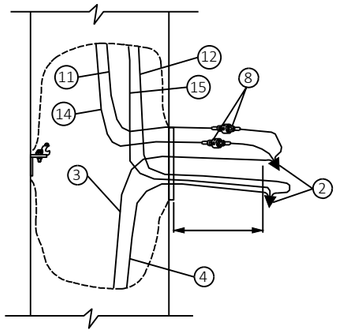


TYPICAL WIRING DIAGRAM
TWO SEPARATE NEUTRALS SYSTEM
240/480 VAC 4 WIRE

ELECTRICAL DETAILS STRUCTURE MOUNT
LIGHT POLES SEPARATED NEUTRALS SYSTEM

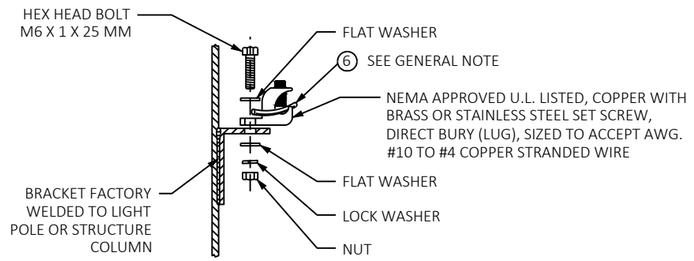


EQUIPMENT GROUNDING
CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK
(AND GROUNDED NEUTRAL SLACK
IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK
AT HANDHOLES

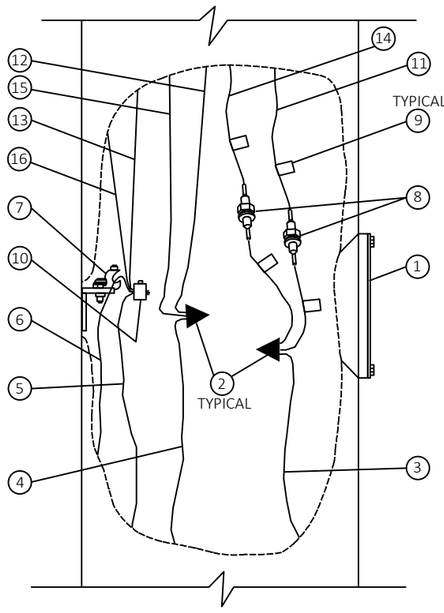


HANDHOLE GROUNDING LUG
(NUT, BOLT, WASHERS, AND LOCK WASHERS SHALL BE STAINLESS STEEL)

CONDUCTOR COLOR CODES

KEY	CONDUCTOR	COLOR
3	UNGROUNDED LINE WIRE	BLACK OR RED
4	GROUNDED LINE WIRE	WHITE OR GRAY
5	SYSTEM GROUNDING LINE WIRE	GREEN
6	GROUNDING ELECTRODE CONDUCTOR	GREEN
11	UNGROUNDED POLE WIRE	*
12	GROUNDED POLE WIRE	WHITE
13	EQUIPMENT GROUNDING POLE WIRE	GREEN

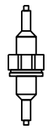
* FOLLOW COLOR CODING SHOWN IN THE PLANS.
WHERE THE PLANS DO NOT SHOW COLOR CODING,



CUTAWAY HANDHOLE DETAIL
RATED NEUTRAL SYSTEMS
SINGLE PHRASE

NOTE: REQUIRED CONDUCTOR NOT SHOWN ON "CUTAWAY HAND HOLE" DETAILS FOR DRAWING CLARITY, SEE TYPICAL CONDUCTOR SLACK AT HANDHOLES ON THIS STREET.

1. HANDHOLE AND COVER
2. INSULATED SPLICE
3. SYSTEM UNGROUNDED LINE WIRE
4. SYSTEM GROUNDED LINE WIRE
5. SYSTEM GORUNDING LINE WIRE
6. GROUNDING ELECTRODE CONDUCTOR
7. HANDHOLE GROUNDING LUG
8. FUSE ASSEMBLY, 1P OR 2P AS REQUIRED
9. CIRCUIT TAG (SEE GENERAL NOTE)
10. REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTOR (NOT INSULATED)
11. RISER UNDERGROUND POLE WIRE - LUMINAIRE #1
12. RISER GROUNDED POLE WIR - LUMINAIRE #1
13. RISER EQUIPMENT GROUNDING POLE WIRE - LUMINAIRE #1
14. RISER UNGROUNDED POLE WIRE - LUMINAIRE #2
15. RISER GROUNDED POLE WIRE - LUMINAIRE #2
16. RISER EQUIPMENT GROUNDING POLE WIRE - LUMINAIRE #2



- 600 VOLT RATED, UP TO 30 AMPS
  1-POLE BREAKAWAY, SET SCREW TERMINALS
  FOR LOAD, WIRE SIZE RANGE #12 TO #8 AWG
- FAST ACTING 3 AMP 250 VOLT FUSE
  RECOMMENDED FROM FUSE LIST FROM
  IN-LINE FUSE HOLDER MANUFACTURER

WATERPROOF IN-LINE FUSE
HOLDER ASSEMBLY

ELECTRICAL HANDHOLE WIRING DETAIL
NOT TO SCALE

GENERAL NOTES

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

USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

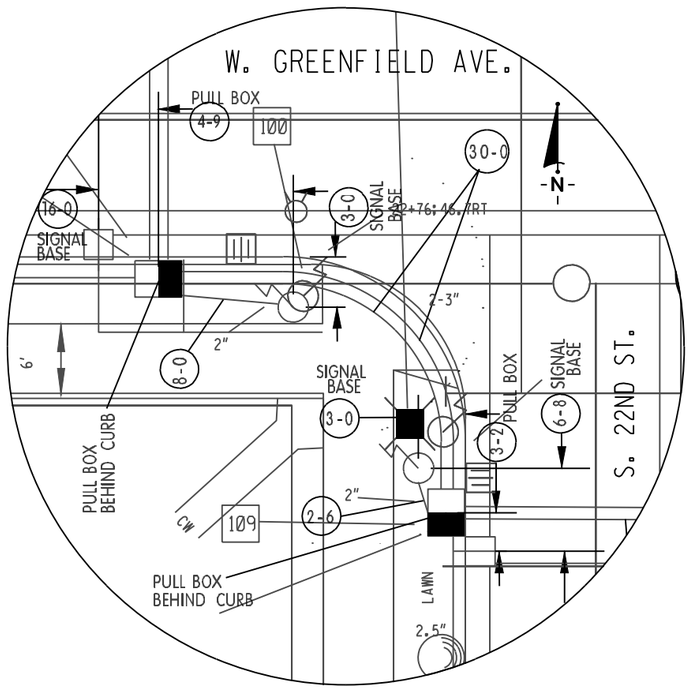
THREE POLE WIRES ARE SHOWN FOR A SINGLE LUMINAIRE LIGHT POLE. THREE ADDITIONAL POLE WIRES REQUIRED FOR TWIN LUMINAIRE LIGHT POLES ARE OMITTED FROM THE DRAWINGS FOR CLARITY. IN THE TWIN POLE CASE, BUNDLE EACH SET OF THREE WIRES WITH A NYLON CABLE TIE.

CIRCUIT TAGS SHALL BE INSTALLED IN ALL THE PULL BOXES AND WHERE INDICATED ON THE PLANS AND SPECIAL PROVISIONS.

2

RECORD RETENTION GUIDELINES:

- CONTRACTOR TO LOCATE AND CLEARLY DIMENSION ALL OF THERE NEWLY INSTALLED CONDUIT RUNS, FITTINGS, SPLICE VAULTS, PULL BOXES, METER PEDESTALS, CONCRETE BASES, TRANSFORMERS, POLES AND OTHER APPURTENANCES IN TWO (2) DIRECTIONS. SWING TIES SHOULD BE MADE FROM OBJECTS THAT ARE PERMANENT IN NATURE AND VISIBLE ON THE FINISHED SURFACE.
- STREET NAMES SHALL BE ON ALL SHEETS.
- SHOW ALL SIZES AND MATERIAL TYPES OF PIPES AND CONDUITS, IF CHANGED OR MODIFIED FROM ORIGINAL DESIGN.
- ALL HORIZONTAL DISTANCES SHALL BE SHOWN TO THE NEAREST TENTH OF A FOOT (I.E., 205.3')
  ALL VERTICAL DISTANCES SHALL BE SHOWN TO THE NEAREST INCH (I.E. 24")
- SHOW LOCATIONS AND ELEVATIONS OF PIPES AND FITTINGS WHERE CHANGES OR DEFLECTIONS IN DIRECTION OCCUR.
- SPECIAL DETAIL DRAWINGS WILL BE SUPPLIED WHERE REQUIRED FOR CLARITY.
- DEVIATIONS FROM ORIGINAL PLANS OR STANDARD DETAILS SHALL BE NOTED ON AS-BUILT DRAWINGS.
- IF THERE ARE NO CORRECTIONS OR ADDITIONS TO THE AS-LET PLAN(S) PUT "NO CHANGE" ON THE SHEET.



NOT TO SCALE

FIELD RECORD EXAMPLE DETAIL

TYPICAL DIMENSIONING OF CONDUIT, PULL BOXES, AND CONCRETE BASES

MEASURING GUIDE LINES

IF CONDUIT IS NOT PLACED DIRECTLY BEHIND THE CURB IN THE ISLANDS & SIDE TERRACE AREAS, A MEASURED DISTANCE FROM THE FACE OF CURB TO THE CONDUIT WILL NEED TO BE PROVIDED

PROVIDE A MEASURED DISTANCE OF UNINTERRUPTED CONDUIT RUNS

USE PERMANENT OBJECTS LIKE HYDRANTS, CATCH BASINS, OR EVEN CURB FACE LINES EXTENDED TO MEASURE OFF WHEN LOCATING CONDUIT, PULL BOXES AND CONCRETE BASES.

MEASURE TO OR FROM THE CENTERS OF OBJECTS FOR DISTANCE TAKING.

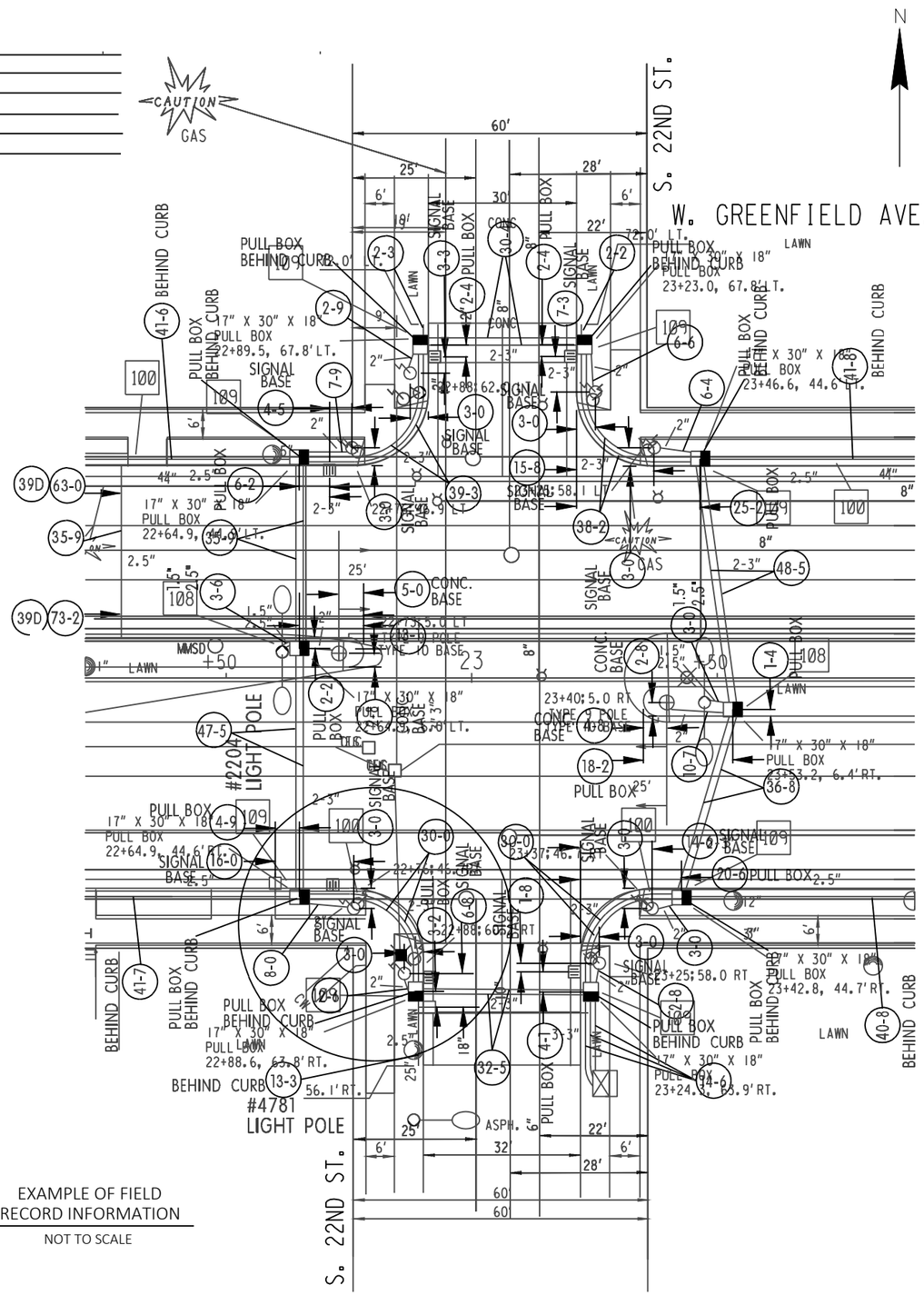
(39D) MEANS = CONDUIT IS 39" DEEP

(48-5) MEANS = LENGTH OF CONDUIT IS 48.5 FT. LONG (MEASURED TO NEAREST TENTH OF A FOOT)

OR

(25-6) MEANS = DISTANCE OF 25.6 FT. BETWEEN PERMANENT OBJECT OF CURB FACE TO CONDUIT, PULL BOX, AND CONCRETE BASE. (MEASURED TO NEAREST TENTH OF A FOOT)

SUPERVISOR: _____
PROJECT MANAGER: _____
CONTRACTOR LEADER: _____
CONTRACTOR COMPANY: _____
WORK STARTED: _____
WORK COMPLETED: _____



EXAMPLE OF FIELD RECORD INFORMATION

NOT TO SCALE

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SHEET 51	E

NOTES:

1. SEE SIGNAL REMOVALS AND LIGHTING REMOVALS FOR ADDITIONAL REMOVAL INFORMATION.

LEGEND

- RCB — REMOVING CATCH BASINS
- RM — REMOVING MANHOLES
- REMOVING STORM SEWER
- REMOVING CURB & GUTTER
- REMOVING TRACK ZONE (LOCATIONS ARE APPROXIMATE)
- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE BUTT JOINTS
- MANAGEMENT OF SOLID WASTE
- ASPHALT PAVEMENT REMOVAL (PAID AS EXCAVATION COMMON)
- TREE REMOVAL (DIAMETER AS NOTED)
- SAWING ASPHALT
- XXXXXX SAWING CONCRETE
- SLOPE INTERCEPT

N

EXISTING CATCH BASIN TO REMAIN
EXISTING SIGNAL POLE TO REMAIN
EXISTING SIGNAL POLE, SIGNAL CABINET, AND UTILITY VAULTS TO REMAIN
N BROADWAY
+49.9 51.5'LT
+61.6 51.5'LT
+16.8 39.2'LT
+16.8 30.6'LT
+44.1 29.8'LT
+22.0 69.3'LT
+22.0 34.7'LT
+25.0 34.7'LT
EXISTING CATCH BASIN TO REMAIN
+35.3 69.4'LT
+35.4 46.1'LT
+46.7 46.2'LT
6' MIN REMOVING STORM SEWER 30-INCH FOR NEW MANHOLE CONNECTION
RCB
+97.0 46.3'LT
+19.0 46.3'LT
EXISTING MANHOLE TO REMAIN
6' MIN REMOVING STORM SEWER 30-INCH FOR NEW MANHOLE CONNECTION
EXISTING CATCH BASIN TO REMAIN
+14.8 69.9'LT
+15.0 47.7'LT
+05.3 47.7'LT
+02.6 47.2'LT
N MILWAUKEE ST
+41.0 70.0'LT
+49.0 36.2'LT
+60.7 49.6'LT
+60.7 36.1'LT
+83.4 49.7'LT
+83.4 39.6'LT
RCB
6' MIN REMOVING STORM SEWER 30-INCH FOR NEW MANHOLE CONNECTION
3" 4" 6" 3" 2"
WELLS ST R/L
WELLS ST
WELLS ST / STH 32
6" 20"
49+00 50+00 51+00 52+00 53+00 54+00 55
MATCH LINE - STA 55+00

+44.6 29.6'RT
+44.7 39.8'RT
EXISTING SIGNAL POLES TO REMAIN
+50.0 48.1'RT
+56.4 55.7'RT
CAUTION
+63.1 47.2'RT
+25.0 52.7'RT
N BROADWAY
+49.8 41.5'RT
+30.8 61.2'RT
+49.6 61.1'RT
RCB
BILLBOARD
+69.4 41.5'RT
RM
+81.4 39.0'RT
+81.4 41.5'RT
CAUTION
+98.6 39.0'RT
+03.2 46.5'RT
+09.2 46.8'RT
+09.1 67.8'RT
+20.9 67.8'RT
+40.4 67.8'RT
N MILWAUKEE ST
+66.1 67.9'RT
+48.3 67.9'RT
+77.4 67.9'RT
+77.4 46.6'RT
+91.4 39.0'RT
+91.4 40.7'RT
+83.4 40.7'RT
+83.4 46.6'RT
RCB

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 52	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 01
PLOT DATE : 7/21/2023 4:09 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

NOTES:

1. SEE SIGNAL REMOVALS AND LIGHTING REMOVALS FOR ADDITIONAL REMOVAL INFORMATION.

LEGEND

- RCB — REMOVING CATCH BASINS
- RM — REMOVING MANHOLES
- REMOVING STORM SEWER
- REMOVING CURB & GUTTER
- REMOVING TRACK ZONE (LOCATIONS ARE APPROXIMATE)
- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE BUTT JOINTS
- MANAGEMENT OF SOLID WASTE
- ASPHALT PAVEMENT REMOVAL (PAID AS EXCAVATION COMMON)
- TREE REMOVAL (DIAMETER AS NOTED)
- SAWING ASPHALT
- XXXXXX SAWING CONCRETE
- SLOPE INTERCEPT

N

MATCH LINE - STA 55+00

MATCH LINE - STA 61+00

N JEFFERSON ST

N JACKSON ST

WELLS ST / STH 32

WELLS ST R/L

EXISTING MANHOLE TO REMAIN

EXISTING CATCH BASIN TO REMAIN

6' MIN REMOVING STORM SEWER 30-INCH FOR NEW MANHOLE CONNECTION

RCB

RM

56+00 57+00 58+00 59+00 60+00

+03.5 39.6'LT
+16.5 39.6'LT
+52.4 67.8'LT
+42.7 65.2'LT
+42.7 50.0'LT
+37.3 50.0'LT
+37.4 39.6'LT
+52.4 51.6'LT
+81.9 67.9'LT
+81.9 51.6'LT
+11.6 51.6'LT
+11.6 43.8'LT
+16.6 43.8'LT
+16.6 38.6'LT
+21.4 33.9'LT
+28.9 33.9'LT
+28.9 30.5'LT
+88.2 30.5'LT
+88.2 34.8'LT
+10.2 34.8'LT
+10.2 30.5'LT
+78.1 51.8'LT
+55.0 38.4'LT
+78.1 38.2'LT
+55.0 30.5'LT
+17.5 67.8'LT
+37.5 67.8'LT
+45.7 67.8'LT
+37.5 51.9'LT
+45.8 48.9'LT
+51.8 48.9'LT
+17.5 51.9'LT
+51.6 38.5'LT

+03.5 39.0'RT
+16.5 39.0'RT
+37.2 38.7'RT
+37.2 40.1'RT
+38.1 40.0'RT
+38.1 65.6'RT
+54.0 65.6'RT
+54.1 48.2'RT
+99.8 48.5'RT
+07.1 52.4'RT
+07.1 65.5'RT
+99.7 65.6'RT
+18.7 52.5'RT
+23.1 39.5'RT
+23.1 40.1'RT
+17.1 40.1'RT
+18.7 45.0'RT
+17.1 44.9'RT
+92.5 39.5'RT
+51.5 39.5'RT
+74.4 39.5'RT
+74.4 44.5'RT
+80.4 44.5'RT
+80.5 60.3'RT
+89.0 65.0'RT
+89.1 49.6'RT
+35.0 49.5'RT
+51.2 39.7'RT
+51.3 59.4'RT
+34.5 65.0'RT

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 53	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:09 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

NOTES:

1. SEE SIGNAL REMOVALS AND LIGHTING REMOVALS FOR ADDITIONAL REMOVAL INFORMATION.

LEGEND

- RCB — REMOVING CATCH BASINS
- RM — REMOVING MANHOLES
- REMOVING STORM SEWER
- REMOVING CURB & GUTTER
- REMOVING TRACK ZONE (LOCATIONS ARE APPROXIMATE)
- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE BUTT JOINTS
- MANAGEMENT OF SOLID WASTE
- ASPHALT PAVEMENT REMOVAL (PAID AS EXCAVATION COMMON)
- X — TREE REMOVAL (DIAMETER AS NOTED)
- SAWING ASPHALT
- XXXXXX — SAWING CONCRETE
- SLOPE INTERCEPT

N

MATCH LINE - STA 61+00

62+00 63+00 64+00 65+00 66+00 67+00

N VAN BUREN ST

WELLS ST / STH 32

WELLS ST R/L

GRASS TERRACE REMOVAL PAID AS EXCAVATION COMMON

+72.9 39.9'LT

+72.9 38.5'LT

+02.9 39.9'LT

+26.7 39.8'LT

+26.9 39.0'LT

RCB

+10.3 47.0'LT

+10.3 39.0'LT

3"

+48.3 67.9'LT

+25.6 67.9'LT

+23.6 47.1'LT

+69.6 67.9'LT

+69.7 47.2'LT

EXISTING CATCH BASIN TO REMAIN

GRASS TERRACE REMOVAL PAID AS EXCAVATION COMMON

+84.9 43.6'LT

+93.4 35.7'LT

EXISTING CATCH BASIN TO REMAIN

EXISTING MANHOLE TO REMAIN

EXISTING CATCH BASIN TO REMAIN

+91.9 31.1'RT

+91.9 37.1'RT

GRASS TERRACE REMOVAL PAID AS EXCAVATION COMMON

+87.0 42.9'RT

+86.9 37.0'RT

+69.8 43.0'RT

+60.8 45.7'RT

+08.7 39.5'RT

+08.7 48.5'RT

6' MIN REMOVING STORM SEWER 30-INCH FOR NEW MANHOLE CONNECTION

+87.1 39.5'RT

+73.0 39.5'RT

+73.0 39.7'RT

TRANSFORMER

GRASS TERRACE REMOVAL PAID AS EXCAVATION COMMON

+25.7 45.8'RT

+25.7 67.7'RT

+60.9 67.7'RT

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 54	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 03

PLOT DATE : 7/21/2023 4:10 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

TREE PLANTINGS

MAPLE, 'APOLLO'

ELM, 'FRONTIER'

PEAR, 'AUTUMN BLAZE'

SEE PLANT DATA CHART AND QUANTITY TABLE FOR ADDITIONAL INFORMATION

PROVIDE 5' X 5' BOX-OUT AROUND TREE

LEGEND

- HMA — 5 1/2" HMA PAVEMENT, 12" BASE AGGREGATE DENSE 1 1/4-INCH
- BUTT — 2 1/2" REMOVING ASPHALTIC SURFACE BUTT JOINTS, 2 1/2" HMA PAVEMENT
- ASPH — 5" ASPHALTIC SURFACE
- SW5 — CONCRETE SIDEWALK 5-INCH, 4" BASE AGGREGATE DENSE 1 1/4-INCH
- SW8 — CONCRETE SIDEWALK 8-INCH, 4" BASE AGGREGATE DENSE 1 1/4-INCH
- CP8 — CONCRETE PAVEMENT 8-INCH, 9 1/2" BASE AGGREGATE DENSE 1 1/4-INCH
- CG31 — CONCRETE CURB & GUTTER 31-INCH
- CG19 — CONCRETE CURB & GUTTER 19-INCH
- CCA — CONCRETE CURB TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- DWY8 — CONCRETE DRIVEWAY 8-INCH, 4" BASE AGGREGATE DENSE 1 1/4-INCH
- NOSE — CONCRETE MEDIAN SLOPED NOSE TYPE 2
- TFS — TOPSOIL, FERTILIZER TYPE B, SOD LAWN
- DETECTABLE WARNING FIELD, NATURAL PATINA
- STORM SEWER MANHOLE / INLET
- REVERSE SLOPE GUTTER

N

N BROADWAY

N MILWAUKEE ST

WELLS ST

WELLS ST R/L

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

49+00 50+00 51+00 52+00 53+00 54+00 55+

MATCH LINE - STA 55+00

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 55	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:10 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

TREE PLANTINGS

MAPLE, 'APOLLO'

ELM, 'FRONTIER'

PEAR, 'AUTUMN BLAZE'

SEE PLANT DATA CHART AND QUANTITY TABLE FOR ADDITIONAL INFORMATION

PROVIDE 5' X 5' BOX-OUT AROUND TREE

LEGEND

- HMA — 5 1/2" HMA PAVEMENT, 12" BASE AGGREGATE DENSE 1 1/4-INCH
- BUTT — 2 1/2" REMOVING ASPHALTIC SURFACE BUTT JOINTS, 2 1/2" HMA PAVEMENT
- ASPH — 5" ASPHALTIC SURFACE
- SW5 — CONCRETE SIDEWALK 5-INCH, 4" BASE AGGREGATE DENSE 1 1/4-INCH
- SW8 — CONCRETE SIDEWALK 8-INCH, 4" BASE AGGREGATE DENSE 1 1/4-INCH
- CP8 — CONCRETE PAVEMENT 8-INCH, 9 1/2" BASE AGGREGATE DENSE 1 1/4-INCH
- CG31 — CONCRETE CURB & GUTTER 31-INCH
- CG19 — CONCRETE CURB & GUTTER 19-INCH
- CCA — CONCRETE CURB TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- DWY8 — CONCRETE DRIVEWAY 8-INCH, 4" BASE AGGREGATE DENSE 1 1/4-INCH
- NOSE — CONCRETE MEDIAN SLOPED NOSE TYPE 2
- TFS — TOPSOIL, FERTILIZER TYPE B, SOD LAWN
- DETECTABLE WARNING FIELD, NATURAL PATINA
- STORM SEWER MANHOLE / INLET
- REVERSE SLOPE GUTTER

N

N JEFFERSON ST

N JACKSON ST

WELLS ST / STH 32

WELLS ST R/L

MATCH LINE - STA 55+00

MATCH LINE - STA 61+00

56+00 57+00 58+00 59+00 60+00

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 56	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:10 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

TREE PLANTINGS

MAPLE, 'APOLLO'

ELM, 'FRONTIER'

PEAR, 'AUTUMN BLAZE'

SEE PLANT DATA CHART AND QUANTITY TABLE FOR ADDITIONAL INFORMATION

PROVIDE 5' X 5' BOX-OUT AROUND TREE

LEGEND

HMA	5 1/2" HMA PAVEMENT, 12" BASE AGGREGATE DENSE 1 1/4-INCH
BUTT	2 1/2" REMOVING ASPHALTIC SURFACE BUTT JOINTS, 2 1/2" HMA PAVEMENT
ASPH	5" ASPHALTIC SURFACE
SW5	CONCRETE SIDEWALK 5-INCH, 4" BASE AGGREGATE DENSE 1 1/4-INCH
SW8	CONCRETE SIDEWALK 8-INCH, 4" BASE AGGREGATE DENSE 1 1/4-INCH
CP8	CONCRETE PAVEMENT 8-INCH, 9 1/2" BASE AGGREGATE DENSE 1 1/4-INCH
CG31	CONCRETE CURB & GUTTER 31-INCH
CG19	CONCRETE CURB & GUTTER 19-INCH
CCA	CONCRETE CURB TYPE A
PED	CONCRETE CURB PEDESTRIAN
DWY8	CONCRETE DRIVEWAY 8-INCH, 4" BASE AGGREGATE DENSE 1 1/4-INCH
NOSE	CONCRETE MEDIAN SLOPED NOSE TYPE 2
TFS	TOPSOIL, FERTILIZER TYPE B, SOD LAWN
	DETECTABLE WARNING FIELD, NATURAL PATINA
	STORM SEWER MANHOLE / INLET
	REVERSE SLOPE GUTTER

N

MATCH LINE - STA 61+00

62+00 63+00 64+00 65+00 66+00 67+00

N VAN BUREN ST

WELLS ST / STH 32

WELLS ST R/L

SLOPE INTERCEPT

CONCRETE PAVEMENT 9-INCH,
6" BASE AGGREGATE DENSE 1 1/4-INCH

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 57	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 03

PLOT DATE : 7/21/2023 4:10 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

N BROADWAY

N MILWAUKEE ST

WELLS ST

WELLS ST R/L

49+00 50+00 51+00 52+00 53+00 54+00 55+

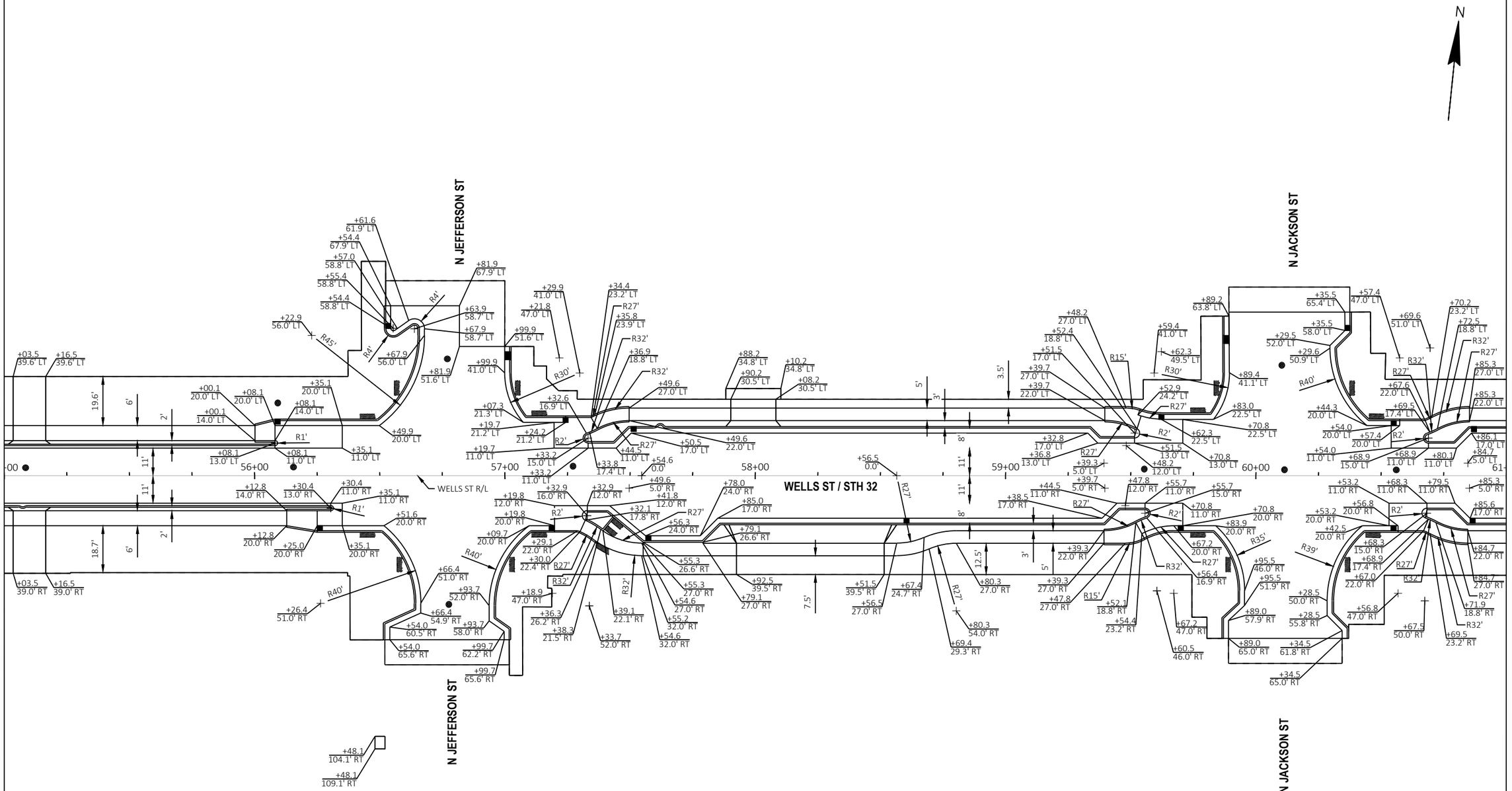
MATCH LINE - STA 55+00

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 58	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021202-PD.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:11 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 59	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021202-PD.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:11 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

MATCH LINE - STA 61+00

WELLS ST R/L

WELLS ST / STH 32

N VAN BUREN ST

N VAN BUREN ST

61+00 62+00 63+00 64+00 65+00 66+00 67+00

+16.0 163.3' LT
+16.0 155.3' LT
+88.7 18.8' LT
+84.4 27.0' LT
+75.9 27.0' LT
+75.9 22.0' LT
+75.1 17.0' LT
+02.9 39.9' LT
+26.9 39.9' LT
+03.8 47.0' LT
+91.6 51.0' LT
+91.1 23.2' LT
+25.6 67.9' LT
+25.6 63.0' LT
+31.6 56.9' LT
+31.6 51.1' LT
+69.6 67.9' LT
+69.7 36.9' LT
+86.7 37.0' LT
+05.0 20.0' LT
+87.0 20.0' LT
+92.3 15.0' LT
+92.3 11.0' LT
+16.9 20.0' LT
+03.8 20.0' LT
+06.8 20.0' LT
+06.8 11.0' LT
+81.1 11.0' LT
+83.8 9.0' LT
+75.9 5.0' LT
R18' R27' R32' R2' R40' R17'
5' 3' 12' 8' 11' 11' 8' 3' 12.5' 5' 12.8'

+75.9 5.0' RT
+83.7 9.0' RT
+92.3 11.0' RT
+06.0 11.0' RT
+81.1 11.0' RT
+75.1 17.0' RT
+03.8 20.0' RT
+06.0 20.0' RT
+23.1 20.0' RT
+86.8 20.0' RT
+69.8 37.0' RT
+05.0 20.0' RT
+75.9 22.0' RT
+92.3 15.0' RT
+31.7 40.9' RT
+31.7 46.7' RT
+86.8 37.0' RT
+60.8 37.0' RT
+75.9 27.0' RT
+84.4 27.0' RT
+88.7 18.8' RT
+91.1 23.2' RT
+01.7 41.0' RT
+03.8 47.0' RT
+25.7 52.8' RT
+25.7 67.7' RT
+60.9 67.7' RT
+69.9 67.7' RT
R18' R27' R32' R30' R2' R17'

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 60	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021202-PD.DWG
LAYOUT NAME - 03

PLOT DATE : 7/21/2023 4:11 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

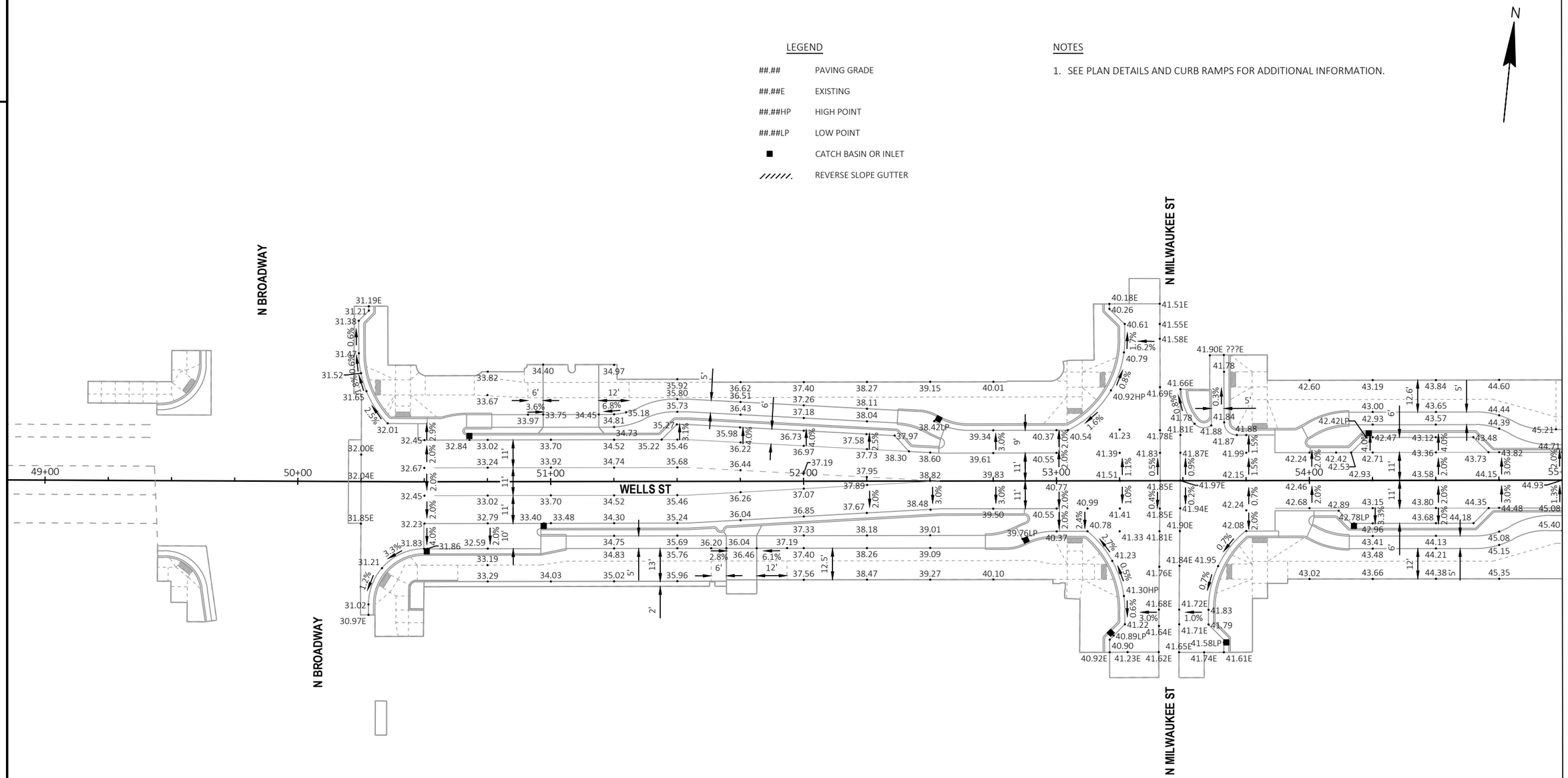
2

LEGEND

##.##	PAVING GRADE
##.##E	EXISTING
##.##HP	HIGH POINT
##.##LP	LOW POINT
■	CATCH BASIN OR INLET
//////	REVERSE SLOPE GUTTER

NOTES

1. SEE PLAN DETAILS AND CURB RAMPS FOR ADDITIONAL INFORMATION.



PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 61	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021203-PG.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:12 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

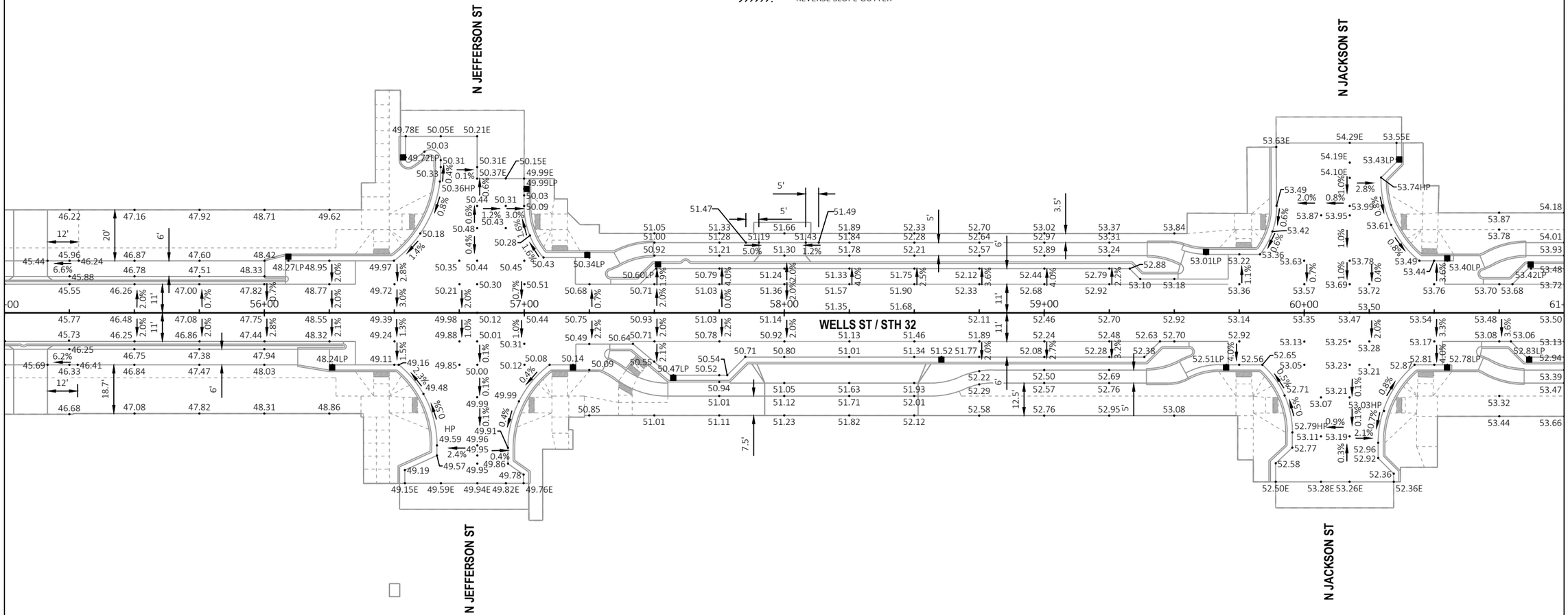
LEGEND

##.##	PAVING GRADE
##.##E	EXISTING
##.##HP	HIGH POINT
##.##LP	LOW POINT
■	CATCH BASIN OR INLET
//////	REVERSE SLOPE GUTTER

NOTES

1. SEE PLAN DETAILS AND CURB RAMPS FOR ADDITIONAL INFORMATION.

N



PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 62 E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021203-PG.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:12 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

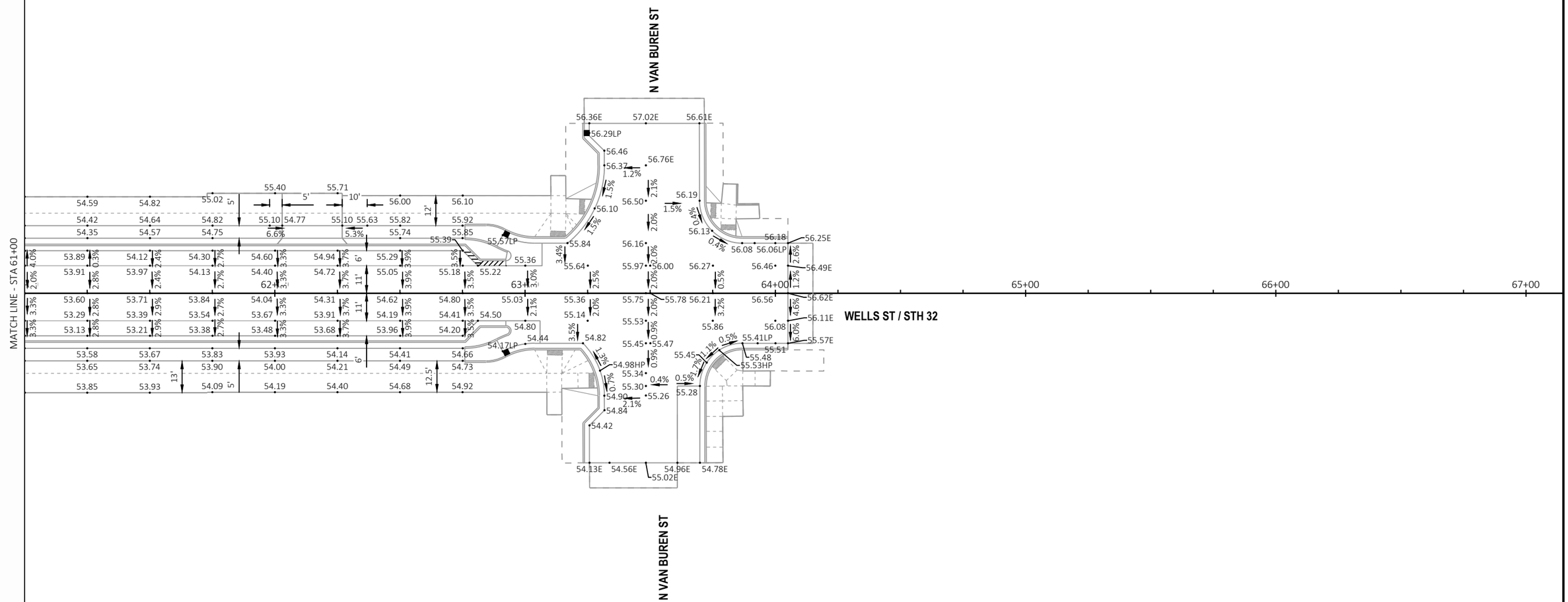
LEGEND

##.##	PAVING GRADE
##.##E	EXISTING
##.##HP	HIGH POINT
##.##LP	LOW POINT
■	CATCH BASIN OR INLET
//////	REVERSE SLOPE GUTTER

NOTES

1. SEE PLAN DETAILS AND CURB RAMPS FOR ADDITIONAL INFORMATION.

N



PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 63	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021203-PG.DWG
LAYOUT NAME - 03

PLOT DATE : 7/21/2023 4:12 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WELLS ST & BROADWAY
NORTHWEST QUADRANT

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. MATCH EXISTING SIDEWALK WIDTH AND CROSS SLOPE AT MATCH POINT.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE SUGGESTED JOINT LOCATIONS. THESE ARE FOR INFORMATION ONLY.
5. THE CROSS SLOPE OF THE GUTTER SHALL BE 4.2% UNLESS OTHERWISE SHOWN.
6. MATCH EXISTING CURB & GUTTER SHAPE AND ELEVATIONS AT MATCH POINT.
7. THE MAXIMUM GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11%
8. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%
9. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
10. ALL CURB RAMP FLARES ARE PAVED UNLESS NOTED OTHERWISE.

LEGEND

- XM — CURB RAMP TYPE MODIFIED
- LEVEL LANDING
- DETECTABLE WARNING FIELD
- MEF — MAXIMUM EXTENT FEASIBLE, TECHNICAL INFEASIBILITY PRESENT
- PED — CONCRETE CURB PEDESTRIAN
- ### / ##.## — POINT NUMBER / ELEVATION
- ##.##(F) — CURB FLANGE ELEVATION
- ##.##(E) — EXISTING ELEVATION
- ##.##(G) — GUTTER FLOWLINE ELEVATION
- ##.##(T) — TOP OF CURB ELEVATION
- ##.##(HP) — HIGH POINT ELEVATION
- ##.##(LP) — LOW POINT ELEVATION

N

SIDEWALK CROSS SLOPE EXCEEDS 2%

SIDEWALK CROSS SLOPE EXCEEDS 2%

N BROADWAY

WELLS ST

WELLS ST R/L

50+00

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CURB RAMPS (BROADWAY)	SHEET 64	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:13 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:10 FT

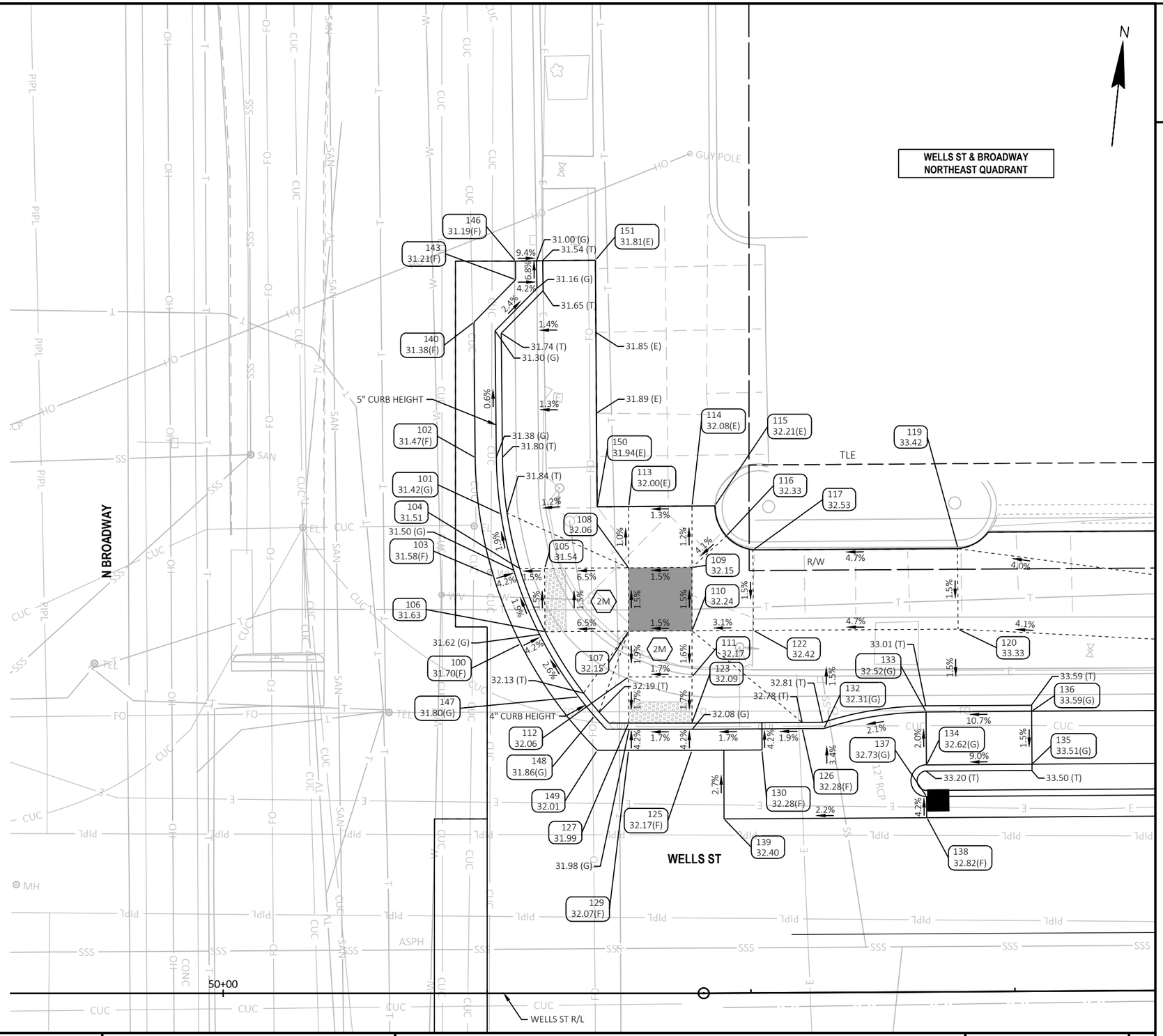
2

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. MATCH EXISTING SIDEWALK WIDTH AND CROSS SLOPE AT MATCH POINT.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE SUGGESTED JOINT LOCATIONS. THESE ARE FOR INFORMATION ONLY.
5. THE CROSS SLOPE OF THE GUTTER SHALL BE 4.2% UNLESS OTHERWISE SHOWN.
6. MATCH EXISTING CURB & GUTTER SHAPE AND ELEVATIONS AT MATCH POINT.
7. THE MAXIMUM GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11%
8. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%
9. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
10. ALL CURB RAMP FLARES ARE PAVED UNLESS NOTED OTHERWISE.

LEGEND

- XM — CURB RAMP TYPE MODIFIED
- LEVEL LANDING
- DETECTABLE WARNING FIELD
- MEF — MAXIMUM EXTENT FEASIBLE, TECHNICAL INFEASIBILITY PRESENT
- PED — CONCRETE CURB PEDESTRIAN
- ### / ##.## — POINT NUMBER / ELEVATION
- ##.##(F) — CURB FLANGE ELEVATION
- ##.##(E) — EXISTING ELEVATION
- ##.##(G) — GUTTER FLOWLINE ELEVATION
- ##.##(T) — TOP OF CURB ELEVATION
- ##.##(HP) — HIGH POINT ELEVATION
- ##.##(LP) — LOW POINT ELEVATION



PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CURB RAMPS (BROADWAY)	SHEET 65	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:13 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

WELLS ST & BROADWAY NW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1	49+49.91	51.48' LT	30.11	386510.28	2559159.52
2	49+55.88	51.51' LT	30.24	386510.90	2559165.46
3	49+49.92	43.80' LT	30.08	386502.64	2559160.28
4	49+55.92	43.80' LT	30.05	386503.23	2559166.25
5	49+53.80	43.51' LT	30.07	386502.74	2559164.17
6	49+55.93	41.91' LT	30.03	386501.35	2559166.44
7	49+59.39	39.31' LT	29.96	386499.10	2559170.15
8	49+50.19	38.72' LT	30.03	386497.61	2559161.05
9	49+49.92	34.16' LT	29.95	386493.04	2559161.23
10	49+44.09	39.16' LT	29.57	386497.45	2559154.94
11	49+49.92	39.16' LT	30.03	386498.02	2559160.74
12	49+44.09	34.16' LT	29.50	386492.47	2559155.43
13	49+55.79	34.51' LT	29.93	386493.97	2559167.03
14	49+61.39	37.18' LT	30.03	386497.18	2559172.35
15	49+16.83	30.58' LT	27.32	386486.23	2559128.66
16	49+61.72	38.18' LT	30.04	386498.21	2559172.58
17	49+57.51	32.59' LT	30.00	386492.23	2559168.94
18	49+22.09	30.58' LT	27.69	386486.75	2559133.89
19	49+58.39	33.18' LT	30.01	386492.91	2559169.75
20	49+38.59	30.58' LT	28.85	386488.37	2559150.31
21	49+38.59	34.16' LT	29.07	386491.93	2559149.96
22	49+38.59	39.16' LT	29.14	386496.90	2559149.46
23	49+33.09	30.58' LT	28.46	386487.83	2559144.83
24	49+33.09	34.16' LT	28.63	386491.39	2559144.48
25	49+33.09	39.16' LT	28.71	386496.36	2559143.99
26	49+27.59	30.58' LT	28.07	386487.29	2559139.36
27	49+27.59	34.16' LT	28.20	386490.85	2559139.01
28	49+27.59	39.16' LT	28.28	386495.82	2559138.52
29	49+22.09	34.16' LT	27.77	386490.31	2559133.54
30	49+22.09	39.16' LT	27.85	386495.28	2559133.04
31	49+16.83	39.16' LT	27.51	386494.76	2559127.81
32	49+16.83	34.16' LT	27.36	386489.79	2559128.30
33	49+44.09	28.00' LT	28.87	386486.34	2559156.03
34	49+61.51	46.07' LT	29.91	386506.04	2559171.59
35	49+63.48	51.54' LT	29.84	386511.68	2559173.01
36	49+65.39	34.17' LT	30.10	386494.58	2559176.62
37	49+51.10	31.01' LT	29.39	386490.03	2559162.71
38	49+62.38	30.17' LT	30.10	386490.31	2559174.02

WELLS ST & BROADWAY NE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
100	50+28.17	33.07' LT	31.70	386499.67	2559239.21
101	50+26.31	45.38' LT	31.42	386511.73	2559236.14
102	50+23.87	50.72' LT	31.47	386516.81	2559233.19
103	50+25.60	39.47' LT	31.58	386505.78	2559236.02
104	50+28.08	40.22' LT	31.51	386506.77	2559238.41
105	50+30.46	40.24' LT	31.54	386507.02	2559240.78
106	50+30.49	34.24' LT	31.63	386501.05	2559241.40
107	50+38.40	34.29' LT	32.15	386501.88	2559249.27
108	50+38.40	40.29' LT	32.06	386507.85	2559248.68
109	50+44.40	40.33' LT	32.15	386508.48	2559254.65
110	50+44.40	34.33' LT	32.24	386502.51	2559255.24
111	50+44.40	29.95' LT	32.17	386498.16	2559255.67
112	50+38.40	29.95' LT	32.06	386497.57	2559249.70
113	50+38.40	46.09' LT	32.00	386513.63	2559248.11
114	50+44.40	46.14' LT	32.08	386514.27	2559254.07
115	50+46.85	46.15' LT	32.21	386514.50	2559256.23
116	50+47.92	43.28' LT	32.33	386511.75	2559257.59
117	50+50.47	41.95' LT	32.53	386510.70	2559260.26
119	50+69.85	42.00' LT	33.42	386512.78	2559279.53
120	50+69.82	34.33' LT	33.33	386505.14	2559280.30
122	50+50.44	34.33' LT	32.42	386503.12	2559261.02
123	50+44.40	25.58' LT	32.09	386493.81	2559256.10
125	50+44.40	23.00' LT	32.17	386491.24	2559256.35
126	50+55.00	25.00' LT	32.28	386494.31	2559266.54
127	50+38.40	25.58' LT	31.99	386493.22	2559250.13

WELLS ST & BROADWAY NE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
129	50+38.40	23.00' LT	32.07	386490.65	2559250.38
130	50+51.18	23.00' LT	32.28	386491.92	2559262.95
132	50+57.06	25.00' LT	32.31	386494.53	2559268.59
133	50+66.75	26.50' LT	32.52	386497.03	2559278.06
134	50+66.75	21.50' LT	32.62	386492.06	2559278.59
135	50+76.75	21.50' LT	33.51	386493.11	2559288.53
136	50+76.75	26.50' LT	33.59	386498.08	2559288.01
137	50+66.75	18.50' LT	32.73	386489.08	2559278.90
138	50+66.75	16.50' LT	32.82	386487.09	2559279.11
139	50+47.54	16.50' LT	32.40	386485.08	2559260.01
140	50+23.75	63.54' LT	31.38	386529.55	2559231.81
143	50+27.71	67.58' LT	31.21	386533.96	2559235.35
146	50+27.69	69.34' LT	31.19	386535.71	2559235.16
147	50+33.66	28.07' LT	31.80	386495.23	2559245.16
148	50+35.16	26.23' LT	31.86	386493.54	2559246.83
149	50+35.42	23.00' LT	32.01	386490.35	2559247.41
150	50+35.43	46.07' LT	31.94	386513.31	2559245.15
151	50+35.26	69.41' LT	31.81	386536.53	2559242.68

2

2

LEGEND

- XM — CURB RAMP TYPE MODIFIED
- LEVEL LANDING
- DETECTABLE WARNING FIELD
- MEF — MAXIMUM EXTENT FEASIBLE, TECHNICAL INFEASIBILITY PRESENT
- PED — CONCRETE CURB PEDESTRIAN
- ### / ##.## — POINT NUMBER / ELEVATION
- ##.##(F) — CURB FLANGE ELEVATION
- ##.##(E) — EXISTING ELEVATION
- ##.##(G) — GUTTER FLOWLINE ELEVATION
- ##.##(T) — TOP OF CURB ELEVATION
- ##.##(HP) — HIGH POINT ELEVATION
- ##.##(LP) — LOW POINT ELEVATION

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. MATCH EXISTING SIDEWALK WIDTH AND CROSS SLOPE AT MATCH POINT.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE SUGGESTED JOINT LOCATIONS. THESE ARE FOR INFORMATION ONLY.
5. THE CROSS SLOPE OF THE GUTTER SHALL BE 4.2% UNLESS OTHERWISE SHOWN.
6. MATCH EXISTING CURB & GUTTER SHAPE AND ELEVATIONS AT MATCH POINT.
7. THE MAXIMUM GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11%
8. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%
9. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
10. ALL CURB RAMP FLARES ARE PAVED UNLESS NOTED OTHERWISE.

N

50+00

WELLS ST R/L

WELLS ST

N BROADWAY

R/W

6" OFF BUILDING FACE

HIGH VOLTAGE ELECTRICAL STREETCAR CONDUITS. LOCATION IS APPROXIMATE.

CAUTION

WELLS ST & BROADWAY SOUTHWEST QUADRANT

WELLS ST & BROADWAY SOUTHEAST QUADRANT

LEVEL LANDING CROSS SLOPES EXCEED 2%

4" CURB HEIGHT

SIDEWALK CROSS SLOPE EXCEEDS 2%

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CURB RAMPS (BROADWAY)	SHEET 67	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 03

PLOT DATE : 7/21/2023 4:13 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

WELLS ST & BROADWAY SW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
200	49+58.60	35.64' RT	29.95	386424.44	2559176.74
201	49+56.70	38.03' RT	30.12	386421.88	2559175.08
202	49+56.50	38.28' RT	30.12	386421.61	2559174.90
203	49+56.49	41.94' RT	30.18	386417.96	2559175.25
204	49+56.46	48.11' RT	30.24	386411.82	2559175.84
205	49+59.24	26.04' RT	29.98	386434.06	2559176.43
206	49+63.15	29.17' RT	30.09	386431.33	2559180.62
207	49+56.12	29.94' RT	29.95	386429.86	2559173.71
208	49+49.99	39.78' RT	30.08	386419.48	2559168.58
209	49+49.99	41.92' RT	30.12	386417.35	2559168.78
210	49+49.96	48.11' RT	30.28	386411.18	2559169.37
211	49+44.65	39.78' RT	29.83	386418.95	2559163.26
212	49+60.02	33.07' RT	30.02	386427.14	2559177.90
213	49+44.65	34.28' RT	29.78	386424.42	2559162.72
214	49+48.89	34.28' RT	29.99	386424.84	2559166.93
215	49+52.01	34.28' RT	30.04	386425.15	2559170.04
216	49+53.92	31.90' RT	29.87	386427.71	2559171.71
217	49+56.44	55.72' RT	30.18	386404.24	2559176.56
218	49+60.60	34.01' RT	30.02	386426.26	2559178.57
219	49+63.48	50.74' RT	29.85	386409.90	2559183.07
220	49+55.08	29.59' RT	29.95	386430.12	2559172.63
221	49+66.17	55.37' RT	29.91	386405.55	2559186.21
222	49+44.65	27.78' RT	29.26	386430.89	2559162.07
223	49+47.44	27.78' RT	29.44	386431.16	2559164.86
224	49+62.29	42.62' RT	29.89	386417.86	2559181.10
225	49+49.48	29.92' RT	29.55	386429.24	2559167.10
226	49+64.27	42.33' RT	29.98	386418.34	2559183.04

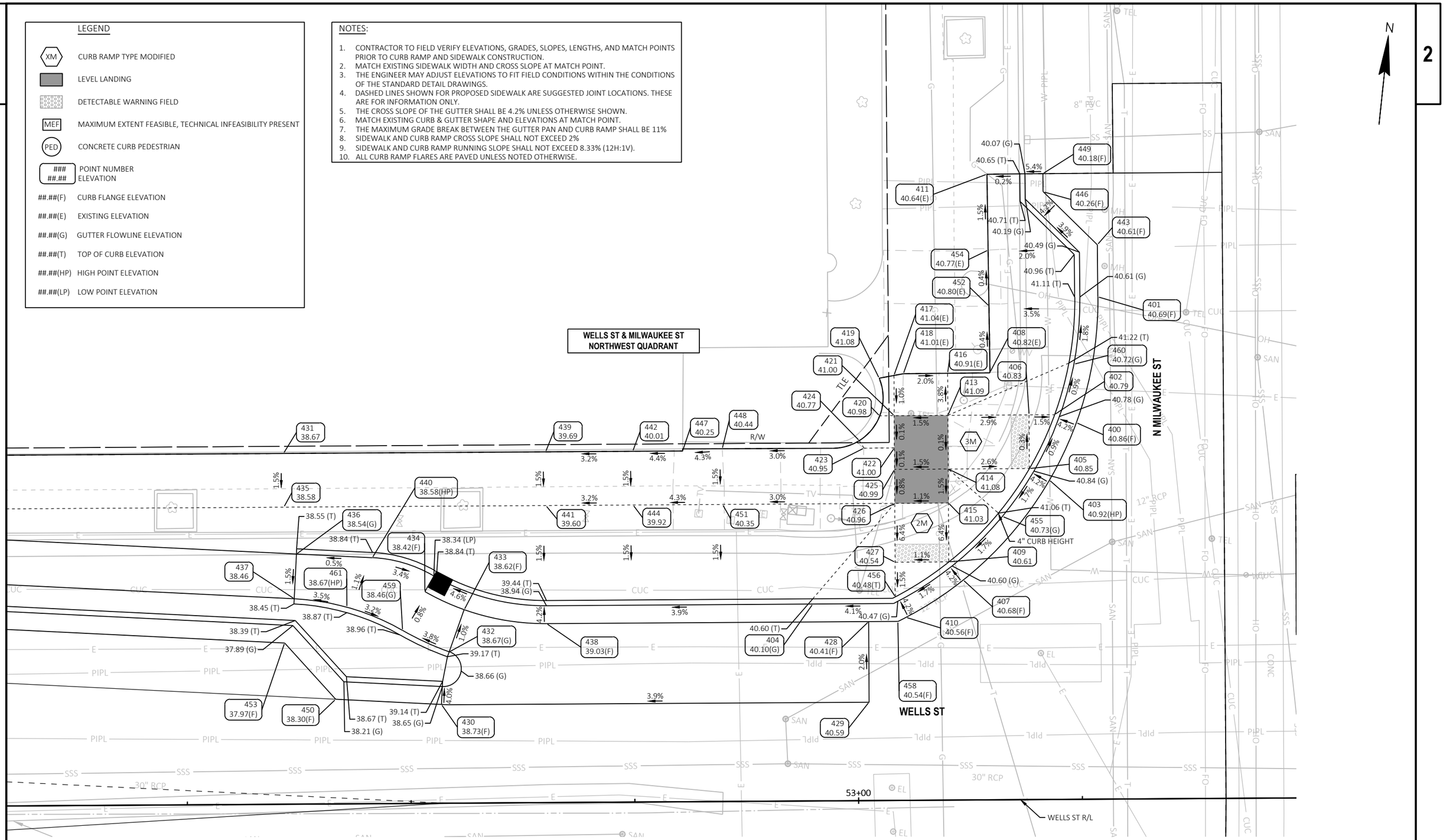
WELLS ST & BROADWAY SE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
300	50+29.82	40.01' RT	31.13	386427.10	2559248.03
301	50+28.15	52.71' RT	30.97	386414.30	2559247.63
302	50+32.20	41.01' RT	31.05	386426.34	2559250.51
303	50+36.66	43.74' RT	31.39	386424.06	2559255.21
304	50+39.03	45.19' RT	31.43	386422.85	2559257.72
305	50+33.37	34.22' RT	31.21	386433.21	2559251.00
306	50+35.34	35.89' RT	31.14	386431.74	2559253.12
307	50+49.82	26.50' RT	31.83	386442.55	2559266.78
308	50+39.79	38.62' RT	31.48	386429.46	2559257.83
309	50+44.33	40.73' RT	31.55	386427.81	2559262.55
310	50+44.03	45.22' RT	31.51	386423.31	2559262.69
311	50+42.40	33.02' RT	31.50	386435.29	2559259.86
312	50+47.19	33.00' RT	31.52	386435.81	2559264.84
313	50+47.19	39.00' RT	31.61	386429.85	2559265.46
314	50+63.19	33.00' RT	32.76	386437.49	2559280.75
315	50+63.19	39.00' RT	32.85	386431.52	2559281.38
316	50+39.00	50.67' RT	31.82	386417.39	2559258.23
317	50+44.00	50.70' RT	31.89	386417.86	2559263.21
318	50+38.98	55.67' RT	31.89	386412.41	2559258.69
319	50+43.98	55.71' RT	31.97	386412.87	2559263.67
320	50+49.63	55.76' RT	32.33	386413.44	2559269.65
321	50+49.69	50.76' RT	32.39	386418.42	2559269.18
322	50+39.96	61.16' RT	31.55	386407.05	2559260.21
323	50+43.95	61.14' RT	31.82	386407.46	2559264.18
324	50+28.41	32.23' RT	31.37	386434.70	2559245.87
325	50+25.80	36.49' RT	31.26	386430.20	2559243.69
326	50+32.67	34.84' RT	31.20	386432.52	2559250.37
327	50+30.06	39.11' RT	31.14	386428.02	2559248.19
328	50+44.57	29.26' RT	31.55	386439.25	2559261.66
329	50+28.13	48.61' RT	31.02	386418.38	2559247.20
330	50+49.79	41.50' RT	32.44	386427.63	2559268.32
332	50+49.57	61.13' RT	32.25	386408.09	2559270.15

LEGEND

- XM — CURB RAMP TYPE MODIFIED
- LEVEL LANDING
- DETECTABLE WARNING FIELD
- MEF — MAXIMUM EXTENT FEASIBLE, TECHNICAL INFEASIBILITY PRESENT
- PED — CONCRETE CURB PEDESTRIAN
- ### / ##.## — POINT NUMBER / ELEVATION
- ##.##(F) CURB FLANGE ELEVATION
- ##.##(E) EXISTING ELEVATION
- ##.##(G) GUTTER FLOWLINE ELEVATION
- ##.##(T) TOP OF CURB ELEVATION
- ##.##(HP) HIGH POINT ELEVATION
- ##.##(LP) LOW POINT ELEVATION

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. MATCH EXISTING SIDEWALK WIDTH AND CROSS SLOPE AT MATCH POINT.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE SUGGESTED JOINT LOCATIONS. THESE ARE FOR INFORMATION ONLY.
5. THE CROSS SLOPE OF THE GUTTER SHALL BE 4.2% UNLESS OTHERWISE SHOWN.
6. MATCH EXISTING CURB & GUTTER SHAPE AND ELEVATIONS AT MATCH POINT.
7. THE MAXIMUM GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11%
8. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%
9. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
10. ALL CURB RAMP FLARES ARE PAVED UNLESS NOTED OTHERWISE.



PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CURB RAMPS (MILWAUKEE ST)	SHEET 69	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 04

PLOT DATE : 7/21/2023 4:13 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- XM — CURB RAMP TYPE MODIFIED
- LEVEL LANDING
- DETECTABLE WARNING FIELD
- MEF — MAXIMUM EXTENT FEASIBLE, TECHNICAL INFEASIBILITY PRESENT
- PED — CONCRETE CURB PEDESTRIAN
- ### / ##.## — POINT NUMBER / ELEVATION
- ##.##(F) — CURB FLANGE ELEVATION
- ##.##(E) — EXISTING ELEVATION
- ##.##(G) — GUTTER FLOWLINE ELEVATION
- ##.##(T) — TOP OF CURB ELEVATION
- ##.##(HP) — HIGH POINT ELEVATION
- ##.##(LP) — LOW POINT ELEVATION

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. MATCH EXISTING SIDEWALK WIDTH AND CROSS SLOPE AT MATCH POINT.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE SUGGESTED JOINT LOCATIONS. THESE ARE FOR INFORMATION ONLY.
5. THE CROSS SLOPE OF THE GUTTER SHALL BE 4.2% UNLESS OTHERWISE SHOWN.
6. MATCH EXISTING CURB & GUTTER SHAPE AND ELEVATIONS AT MATCH POINT.
7. THE MAXIMUM GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11%
8. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%
9. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
10. ALL CURB RAMP FLARES ARE PAVED UNLESS NOTED OTHERWISE.

N

WELLS ST & MILWAUKEE ST NORTHEAST QUADRANT

N MILWAUKEE ST

WELLS ST

WELLS ST R/L

54+00

R/W

SIDEWALK CROSS SLOPE EXCEEDS 2%

5" CURB HEIGHT

3" CURB HEIGHT

526 41.47(F) · 41.37 (G) · 41.83 (T) · 505 42.14(E) · 504 42.33(E) · 529 41.78(F) · 41.70 (G) · 500 41.71(T) · 501 42.25 · 502 42.34(E) · 528 42.33(E) · 503 42.32 · 518 42.53(E) · 536 42.60(E) · 537 42.98(E) · 541 43.19(E) · 527 41.80(F) · 41.58 (G) · 41.79 (G) · 41.72 (G) · 42.29 (T) · 42.09 (T) · 510 41.74 · 511 42.28 · 506 42.24 · 522 41.73(G) · 42.43 (T) · 42.15 (T) · 42.20 (T) · 41.93 (G) · 507 42.20 · 508 41.86 · 533 42.42 · 534 42.49 · 514 42.01(G) · 540 42.86 · 515 42.80(G) · 542 43.08 · 509 41.82 · 41.76 (G) · 42.18 (T) · 41.85 (G) · 42.36 (T) · 42.24 (T) · 42.18 (T) · 512 41.93(G) · 516 42.72(G) · 538 42.09(G) · 43.03 (T) · 42.65 (T) · 42.34 (G) · 531 41.84(F) · 41.70 (G) · 42.02 (G) · 539 42.21(G) · 42.74 (T) · 517 42.13(G) · 530 41.87(F) · 525 41.90(F) · 523 41.94(F) · 42.20 (T) · 41.78 (G) · 513 42.00(G) · 42.14 (G) · 42.67 (T) · 42.64 (T) · 535 42.42(F) · 521 41.96(F) · 42.93 (T) · 42.44 (G) · 42.16 (G) · 520 42.08 · 519 42.24(F) · 532 42.53(F)

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CURB RAMPS (MILWAUKEE ST)	SHEET 70	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 05

PLOT DATE : 7/21/2023 4:13 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:10 FT

WELLS ST & MILWAUKEE ST NW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
400	53+24.57	42.10' LT	40.86	386539.52	2559532.84
401	53+27.06	56.14' LT	40.69	386553.74	2559533.85
402	53+22.15	43.00' LT	40.79	386540.15	2559530.34
403	53+21.52	35.69' LT	40.92	386532.82	2559530.48
404	52+95.00	22.00' LT	40.10	386516.43	2559505.54
405	53+19.30	37.00' LT	40.85	386533.89	2559528.13
406	53+19.30	43.00' LT	40.83	386539.86	2559527.51
407	53+11.83	24.59' LT	40.68	386520.77	2559522.01
408	53+14.96	47.79' LT	40.82	386544.17	2559522.69
409	53+10.23	26.62' LT	40.61	386522.62	2559520.20
410	53+05.42	20.46' LT	40.56	386515.99	2559516.06
411	53+14.77	69.93' LT	40.64	386566.16	2559520.18
413	53+10.23	43.00' LT	41.09	386538.91	2559518.49
414	53+10.23	37.00' LT	41.08	386532.94	2559519.12
415	53+10.23	33.20' LT	41.03	386529.16	2559519.51
416	53+10.23	47.70' LT	40.91	386543.59	2559518.00
417	53+04.23	47.50' LT	41.04	386542.75	2559512.05
418	53+05.28	47.69' LT	41.01	386543.05	2559513.07
419	53+02.57	47.20' LT	41.08	386542.28	2559510.43
420	53+02.61	43.00' LT	40.98	386538.11	2559510.91
421	53+04.23	43.00' LT	41.00	386538.28	2559512.52
422	53+04.23	39.39' LT	41.00	386534.69	2559512.90
423	53+00.84	39.40' LT	40.95	386534.34	2559509.53
424	53+00.31	40.25' LT	40.77	386535.13	2559508.91
425	53+04.23	37.00' LT	40.99	386532.31	2559513.15
426	53+04.23	33.20' LT	40.96	386528.53	2559513.55
427	53+04.23	26.62' LT	40.54	386521.99	2559514.24
428	53+01.23	20.00' LT	40.41	386515.09	2559511.94
429	53+01.23	11.00' LT	40.59	386506.14	2559512.89
430	52+53.45	11.04' LT	38.73	386501.18	2559465.36
431	52+35.97	39.20' LT	38.67	386527.36	2559445.03
432	52+54.35	16.91' LT	38.67	386507.12	2559465.64
433	52+56.06	21.61' LT	38.62	386511.97	2559466.85
434	52+51.68	23.66' LT	38.42	386513.55	2559462.28
435	52+35.97	33.20' LT	38.58	386521.40	2559445.66
436	52+37.35	27.95' LT	38.54	386516.32	2559447.58
437	52+37.07	22.96' LT	38.46	386511.32	2559447.83
438	52+65.25	20.00' LT	39.03	386511.33	2559476.16
439	52+65.25	39.20' LT	39.69	386530.42	2559474.15
440	52+45.82	27.48' LT	38.58	386516.74	2559456.06

WELLS ST & MILWAUKEE ST NW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
441	52+65.25	33.20' LT	39.60	386524.46	2559474.78
442	52+75.00	39.20' LT	40.01	386531.44	2559483.85
443	53+27.04	61.97' LT	40.61	386559.53	2559533.22
444	52+75.00	33.20' LT	39.92	386525.48	2559484.47
446	53+21.07	67.91' LT	40.26	386564.81	2559526.66
447	52+80.57	39.20' LT	40.25	386532.03	2559489.39
448	52+85.00	39.42' LT	40.44	386532.71	2559493.77
449	53+21.02	69.95' LT	40.18	386566.84	2559526.40
450	52+41.63	11.69' LT	38.30	386500.59	2559453.54
451	52+85.00	33.20' LT	40.35	386526.52	2559494.42
452	53+14.90	55.19' LT	40.80	386551.52	2559521.86
453	52+35.97	18.01' LT	37.97	386506.29	2559447.25
454	53+14.84	61.45' LT	40.77	386557.74	2559521.15
455	53+16.26	31.66' LT	40.73	386528.26	2559525.67
456	53+04.23	22.75' LT	40.48	386518.15	2559514.64
458	53+04.50	20.00' LT	40.54	386515.43	2559515.19
459	52+49.17	19.34' LT	38.46	386508.99	2559460.23
460	53+24.36	48.64' LT	40.72	386545.99	2559531.94
461	52+42.95	21.97' LT	38.67	386510.96	2559453.78

WELLS ST & MILWAUKEE ST NE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
500	53+68.87	43.00' LT	41.71	386545.04	2559576.80
501	53+77.40	43.00' LT	42.25	386545.94	2559585.29
502	53+83.41	43.00' LT	42.34	386546.56	2559591.26
503	53+83.40	37.00' LT	42.32	386540.59	2559591.88
504	53+83.42	49.68' LT	42.33	386553.20	2559590.57
505	53+77.55	49.67' LT	42.14	386552.58	2559584.74
506	53+83.40	32.00' LT	42.24	386535.62	2559592.41
507	53+77.40	32.00' LT	42.20	386534.99	2559586.44
508	53+83.40	20.58' LT	41.86	386524.27	2559593.60
509	53+77.40	20.58' LT	41.82	386523.64	2559587.63
510	53+68.87	37.00' LT	41.74	386539.07	2559577.43
511	53+77.40	37.00' LT	42.28	386539.97	2559585.92
512	53+87.50	20.00' LT	41.93	386524.12	2559597.74
513	53+94.58	20.00' LT	42.00	386524.86	2559604.78
514	53+97.09	21.18' LT	42.01	386526.29	2559607.16
515	54+15.71	26.99' LT	42.80	386534.02	2559625.06
516	54+15.71	22.00' LT	42.72	386529.05	2559625.58
517	53+99.45	16.76' LT	42.13	386522.15	2559609.96
518	53+94.47	39.60' LT	42.53	386544.34	2559602.62
519	54+00.39	11.00' LT	42.24	386516.51	2559611.50
520	53+86.40	11.00' LT	42.08	386515.05	2559597.59
521	53+86.40	18.00' LT	41.96	386522.01	2559596.85
522	53+68.29	32.07' LT	41.73	386534.11	2559577.38
523	53+83.40	18.00' LT	41.94	386521.70	2559593.87
525	53+77.40	18.00' LT	41.90	386521.07	2559587.90
526	53+66.26	49.65' LT	41.47	386551.38	2559573.52
527	53+66.29	37.00' LT	41.80	386538.80	2559574.86
528	53+83.40	39.60' LT	42.33	386543.18	2559591.61
529	53+66.28	43.00' LT	41.78	386544.77	2559574.23
530	53+71.31	18.00' LT	41.87	386520.43	2559581.84
531	53+66.31	22.99' LT	41.84	386524.87	2559576.35
532	54+16.54	11.00' LT	42.53	386518.20	2559627.56
533	53+94.47	32.00' LT	42.42	386536.78	2559603.41
534	54+00.42	32.00' LT	42.49	386537.40	2559609.33
535	54+22.54	17.00' LT	42.42	386524.80	2559632.90
536	54+00.42	39.60' LT	42.60	386544.96	2559608.54
537	54+15.47	39.60' LT	42.98	386546.53	2559623.50
538	54+00.42	23.11' LT	42.09	386528.56	2559610.26
539	54+01.37	17.88' LT	42.21	386523.46	2559611.76
540	54+15.47	32.00' LT	42.86	386538.97	2559624.30

WELLS ST & MILWAUKEE ST NE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
541	54+25.00	39.60' LT	43.19	386547.53	2559632.98
542	54+25.00	32.00' LT	43.08	386539.97	2559633.78

2

2

N

53+00

54+00

WELLS ST R/L

WELLS ST

N MILWAUKEE ST

WELLS ST & MILWAUKEE ST SOUTHWEST QUADRANT

WELLS ST & MILWAUKEE ST SOUTHEAST QUADRANT

SIDEWALK CROSS SLOPE EXCEEDS 2%

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. MATCH EXISTING SIDEWALK WIDTH AND CROSS SLOPE AT MATCH POINT.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE SUGGESTED JOINT LOCATIONS. THESE ARE FOR INFORMATION ONLY.
5. THE CROSS SLOPE OF THE GUTTER SHALL BE 4.2% UNLESS OTHERWISE SHOWN.
6. MATCH EXISTING CURB & GUTTER SHAPE AND ELEVATIONS AT MATCH POINT.
7. THE MAXIMUM GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11%
8. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%
9. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
10. ALL CURB RAMP FLARES ARE PAVED UNLESS NOTED OTHERWISE.

LEGEND

- XM — CURB RAMP TYPE MODIFIED
- LEVEL LANDING
- DETECTABLE WARNING FIELD
- MEF — MAXIMUM EXTENT FEASIBLE, TECHNICAL INFEASIBILITY PRESENT
- PED — CONCRETE CURB PEDESTRIAN
- ### / ##.## — POINT NUMBER / ELEVATION
- ##.##(F) — CURB FLANGE ELEVATION
- ##.##(E) — EXISTING ELEVATION
- ##.##(G) — GUTTER FLOWLINE ELEVATION
- ##.##(T) — TOP OF CURB ELEVATION
- ##.##(HP) — HIGH POINT ELEVATION
- ##.##(LP) — LOW POINT ELEVATION

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CURB RAMPS (MILWAUKEE ST)	SHEET 72	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 06
PLOT DATE : 7/21/2023 4:14 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

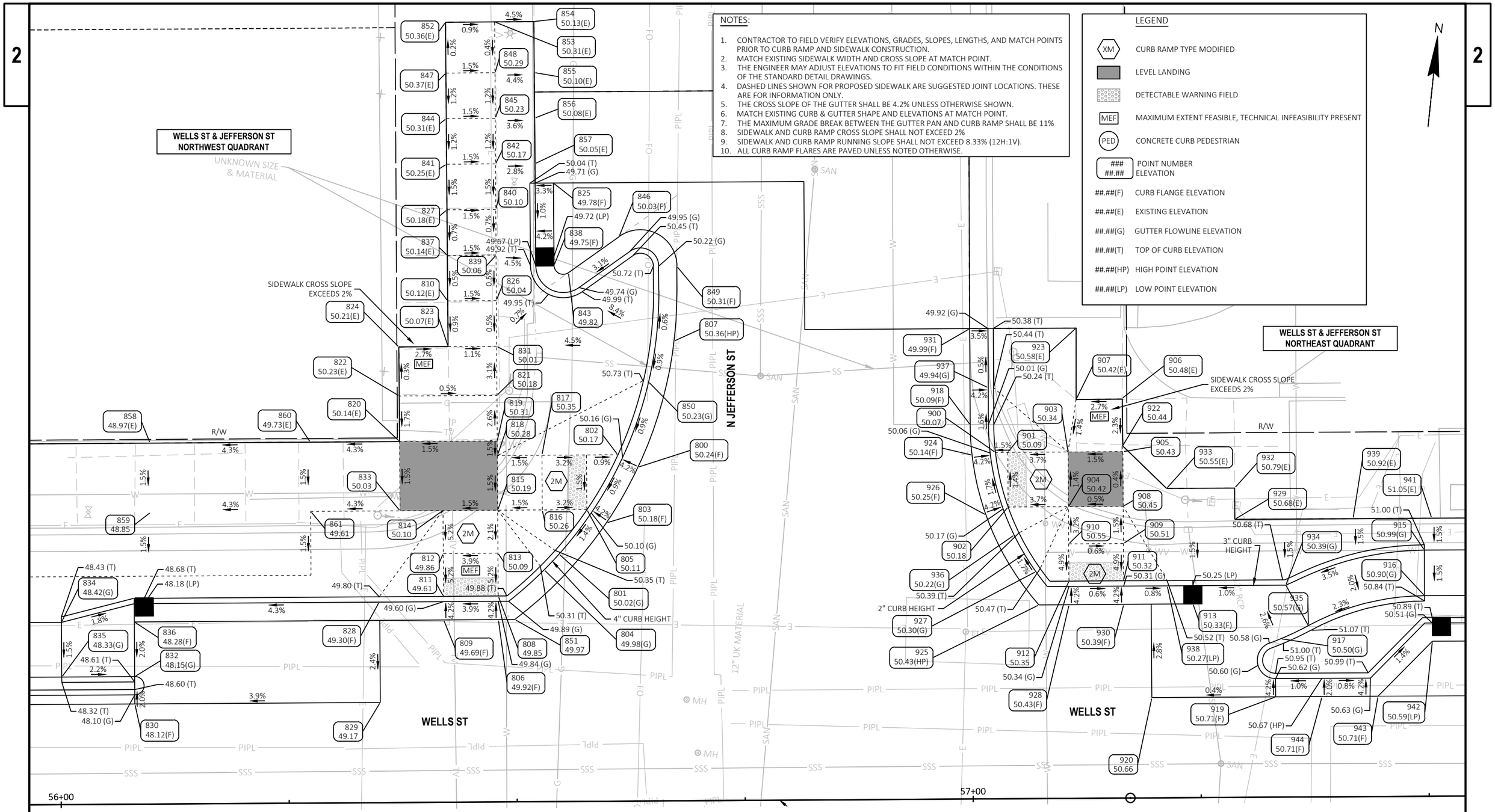
WELLS ST & MILWAUKEE ST SW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
600	53+22.36	39.00' RT	41.19	386458.63	2559539.13
601	53+19.72	39.00' RT	41.23	386458.35	2559536.50
602	53+19.72	33.00' RT	41.16	386464.32	2559535.87
603	53+14.98	39.00' RT	41.30	386457.85	2559531.78
604	53+14.98	33.00' RT	41.23	386463.82	2559531.16
605	53+10.23	39.00' RT	41.04	386457.36	2559527.07
606	53+10.23	33.00' RT	40.95	386463.32	2559526.44
607	53+04.23	33.00' RT	40.86	386462.70	2559520.47
608	53+04.23	39.00' RT	40.95	386456.73	2559521.10
609	53+09.22	46.76' RT	41.07	386449.54	2559526.87
610	53+03.90	46.56' RT	41.10	386449.17	2559521.55
611	53+10.23	27.79' RT	40.77	386468.50	2559525.89
612	53+04.23	27.79' RT	40.60	386467.88	2559519.93
613	53+10.23	22.58' RT	40.60	386473.68	2559525.35
614	53+04.23	22.58' RT	40.42	386473.06	2559519.38
615	52+80.33	31.50' RT	40.15	386461.69	2559496.55
616	53+10.23	20.00' RT	40.67	386476.25	2559525.08
617	52+80.33	39.00' RT	40.26	386454.23	2559497.33
618	53+04.23	20.00' RT	40.50	386475.63	2559519.11
619	53+09.18	54.26' RT	41.35	386442.07	2559527.61
620	53+24.81	38.17' RT	41.26	386459.71	2559541.47
621	53+09.13	61.76' RT	41.39	386434.61	2559528.35
622	53+21.99	31.76' RT	41.23	386465.79	2559538.00
623	52+98.59	39.00' RT	40.82	386456.14	2559515.49
624	52+98.59	33.00' RT	40.73	386462.11	2559514.86
625	52+91.09	31.50' RT	40.46	386462.81	2559507.25
627	53+01.23	11.00' RT	40.60	386484.26	2559515.19
628	52+87.28	11.00' RT	40.04	386482.80	2559501.31
629	52+91.09	39.00' RT	40.57	386455.36	2559508.03
630	52+87.96	16.88' RT	39.96	386477.02	2559502.60
631	52+84.17	18.53' RT	39.81	386474.99	2559499.00
632	52+86.45	22.97' RT	39.76	386470.81	2559501.74
633	52+98.77	20.00' RT	40.32	386475.05	2559513.68
634	52+71.85	31.50' RT	40.06	386460.80	2559488.11
635	52+83.90	26.07' RT	39.71	386467.46	2559499.53
636	52+71.85	26.50' RT	39.98	386465.77	2559487.58
637	52+71.85	21.50' RT	39.91	386470.75	2559487.06
638	52+71.85	39.00' RT	40.17	386453.34	2559488.89
639	53+17.51	28.46' RT	41.00	386468.60	2559533.20
640	53+24.57	45.88' RT	41.22	386452.01	2559542.05

WELLS ST & MILWAUKEE ST SW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
642	53+03.19	46.54' RT	41.10	386449.12	2559520.85
643	53+09.09	67.83' RT	41.54	386428.56	2559528.95
644	53+26.92	56.84' RT	41.22	386441.37	2559545.52
646	53+20.92	62.83' RT	40.90	386434.77	2559540.18
648	53+20.92	67.83' RT	40.92	386429.80	2559540.71
649	53+03.36	40.39' RT	41.08	386455.25	2559520.37

WELLS ST & MILWAUKEE ST SE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
700	53+83.40	20.00' RT	42.14	386483.91	2559597.85
701	53+98.03	32.00' RT	42.86	386473.50	2559613.65
702	53+83.40	22.58' RT	42.07	386481.34	2559598.12
703	53+77.40	22.58' RT	42.02	386480.71	2559592.15
704	53+98.03	39.00' RT	42.97	386466.54	2559614.38
705	53+77.40	20.00' RT	42.09	386483.28	2559591.88
706	53+67.22	33.00' RT	41.90	386469.28	2559583.11
707	54+06.87	32.00' RT	43.11	386474.43	2559622.44
708	53+64.96	31.76' RT	41.97	386470.28	2559580.73
709	53+64.58	39.00' RT	41.85	386463.04	2559581.12
710	54+06.87	39.00' RT	43.21	386467.46	2559623.17
711	53+62.14	38.17' RT	41.92	386463.61	2559578.60
712	53+67.22	39.00' RT	41.89	386463.32	2559583.74
713	53+77.40	39.00' RT	42.49	386464.38	2559593.87
714	53+77.40	33.00' RT	42.48	386470.35	2559593.24
715	53+77.40	46.63' RT	42.38	386456.80	2559594.66
716	53+60.02	51.10' RT	41.83	386450.53	2559577.85
717	53+83.41	46.63' RT	42.58	386457.42	2559600.63
718	53+83.39	40.70' RT	42.60	386463.32	2559600.00
719	53+77.40	56.63' RT	42.20	386446.85	2559595.71
720	53+91.40	40.70' RT	42.79	386464.16	2559607.97
721	53+91.40	39.00' RT	42.75	386465.85	2559607.79
722	53+91.40	32.00' RT	42.65	386472.81	2559607.06
723	53+83.40	32.00' RT	42.54	386471.97	2559599.10
724	53+77.40	32.00' RT	42.49	386471.34	2559593.13
725	53+77.40	40.70' RT	42.51	386462.69	2559594.04
726	53+60.04	56.93' RT	41.79	386444.74	2559578.47
727	54+16.54	32.00' RT	43.35	386475.44	2559632.05
728	54+16.54	39.00' RT	43.46	386468.48	2559632.79
729	53+66.05	62.91' RT	41.61	386439.41	2559585.08
730	54+11.54	12.00' RT	42.89	386494.80	2559624.99
732	53+87.83	20.00' RT	42.18	386484.37	2559602.25
733	54+17.64	17.00' RT	42.78	386490.47	2559631.58
735	53+98.03	22.00' RT	42.22	386483.45	2559612.60
737	53+98.92	22.38' RT	42.26	386483.16	2559613.53
738	54+00.98	17.82' RT	42.48	386487.91	2559615.10
739	54+15.71	27.00' RT	43.26	386480.32	2559630.71
740	54+15.71	22.00' RT	43.17	386485.30	2559630.18
741	53+77.40	61.63' RT	42.27	386441.88	2559596.23
742	54+01.80	12.00' RT	42.72	386493.79	2559615.30

WELLS ST & MILWAUKEE ST SE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
750	53+86.40	12.00' RT	42.40	386492.18	2559599.99
751	53+77.40	51.63' RT	42.31	386451.82	2559595.19
752	53+77.40	67.91' RT	42.36	386435.63	2559596.89
754	53+66.07	67.91' RT	41.61	386434.44	2559585.62
755	53+62.60	44.44' RT	41.80	386457.43	2559579.71
758	53+74.75	20.00' RT	42.08	386483.00	2559589.24
759	53+68.90	29.20' RT	41.92	386473.24	2559584.39
760	53+71.86	25.49' RT	41.95	386477.24	2559586.94

2



PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CURB RAMPS (JEFFERSON ST)	SHEET 74	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 07
PLOT DATE : 7/21/2023 4:14 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

WELLS ST & JEFFERSON ST NW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
800	56+63.48	36.63' LT	50.24	386569.52	2559870.46
801	56+54.75	27.16' LT	50.02	386559.18	2559862.78
802	56+61.27	38.00' LT	50.17	386570.65	2559868.12
803	56+59.96	30.54' LT	50.18	386563.09	2559867.61
804	56+53.10	25.43' LT	49.98	386557.29	2559861.31
805	56+57.83	32.00' LT	50.11	386564.32	2559865.33
806	56+48.06	20.00' LT	49.92	386551.37	2559856.87
807	56+67.51	50.43' LT	50.36	386583.66	2559873.03
808	56+48.06	22.58' LT	49.85	386553.93	2559856.60
809	56+42.06	20.00' LT	49.69	386550.74	2559850.90
810	56+42.72	54.99' LT	50.12	386585.60	2559847.90
811	56+42.06	22.58' LT	49.61	386553.31	2559850.63
812	56+42.06	27.29' LT	49.86	386557.99	2559850.14
813	56+48.06	27.29' LT	50.09	386558.62	2559856.10
814	56+42.06	32.00' LT	50.10	386562.67	2559849.64
815	56+48.06	32.00' LT	50.19	386563.30	2559855.61
816	56+52.94	32.00' LT	50.26	386563.81	2559860.47
817	56+52.94	38.00' LT	50.35	386569.78	2559859.84
818	56+48.06	38.00' LT	50.28	386569.27	2559854.98
819	56+48.06	39.60' LT	50.31	386570.86	2559854.82
820	56+37.35	39.60' LT	50.14	386569.74	2559844.17
821	56+48.06	44.60' LT	50.18	386575.83	2559854.29
822	56+37.34	44.60' LT	50.23	386574.71	2559843.64
823	56+42.73	49.99' LT	50.07	386580.63	2559848.43
824	56+37.34	49.98' LT	50.21	386580.06	2559843.07
825	56+54.39	67.85' LT	49.78	386599.62	2559858.16
826	56+48.06	54.99' LT	50.04	386586.16	2559853.21
827	56+42.70	64.99' LT	50.18	386595.55	2559846.84
828	56+35.00	22.00' LT	49.30	386551.99	2559843.67
829	56+35.06	11.00' LT	49.17	386541.05	2559844.88
830	56+08.14	11.00' LT	48.12	386538.24	2559818.11
831	56+48.06	49.99' LT	50.01	386581.19	2559853.73
832	56+08.14	14.00' LT	48.15	386541.22	2559817.80
833	56+37.35	32.00' LT	50.03	386562.18	2559844.97
834	56+00.14	20.00' LT	48.42	386546.35	2559809.21
835	56+00.14	14.00' LT	48.33	386540.39	2559809.84
836	56+08.14	20.00' LT	48.28	386547.19	2559817.17
837	56+42.71	59.99' LT	50.14	386590.57	2559847.37
838	56+54.40	58.83' LT	49.75	386590.64	2559859.11
839	56+48.06	59.99' LT	50.06	386591.13	2559852.68
840	56+48.06	64.99' LT	50.10	386596.11	2559852.16

WELLS ST & JEFFERSON ST NW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
841	56+42.70	69.99' LT	50.25	386600.52	2559846.31
842	56+48.06	69.99' LT	50.17	386601.08	2559851.64
843	56+55.97	58.01' LT	49.82	386589.99	2559860.77
844	56+42.69	74.99' LT	50.31	386605.49	2559845.77
845	56+48.06	74.99' LT	50.23	386606.05	2559851.11
846	56+61.56	61.93' LT	50.03	386594.48	2559865.91
847	56+42.68	79.99' LT	50.37	386610.46	2559845.24
848	56+48.06	79.99' LT	50.29	386611.02	2559850.59
849	56+67.86	58.65' LT	50.31	386591.88	2559872.52
850	56+64.68	45.98' LT	50.23	386578.94	2559870.68
851	56+49.86	20.00' LT	49.97	386551.55	2559858.66
852	56+42.67	85.56' LT	50.36	386616.00	2559844.65
853	56+48.06	85.57' LT	50.31	386616.57	2559850.01
854	56+52.22	85.57' LT	50.13	386617.02	2559854.15
855	56+52.37	79.99' LT	50.10	386611.47	2559854.88
856	56+52.37	74.99' LT	50.08	386606.50	2559855.41
857	56+52.38	69.99' LT	50.05	386601.53	2559855.94
858	56+10.00	39.60' LT	48.97	386566.88	2559816.97
859	56+10.00	32.00' LT	48.85	386559.32	2559817.76
860	56+27.55	39.60' LT	49.73	386568.71	2559834.42
861	56+27.55	32.00' LT	49.61	386561.15	2559835.21

WELLS ST & JEFFERSON ST NE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
900	57+02.67	38.00' LT	50.07	386574.98	2559909.30
901	57+04.03	38.00' LT	50.09	386575.12	2559910.65
902	57+04.03	32.00' LT	50.18	386569.15	2559911.28
903	57+10.65	38.00' LT	50.34	386575.81	2559917.23
904	57+10.65	32.00' LT	50.42	386569.85	2559917.86
905	57+16.65	38.00' LT	50.43	386576.44	2559923.20
906	57+16.59	43.84' LT	50.48	386582.24	2559922.53
907	57+11.55	43.75' LT	50.42	386581.63	2559917.53
908	57+16.65	32.00' LT	50.45	386570.47	2559923.82
909	57+16.65	27.92' LT	50.51	386566.41	2559924.25
910	57+10.65	27.92' LT	50.55	386565.78	2559918.28
911	57+16.65	23.83' LT	50.32	386562.35	2559924.68
912	57+10.65	23.83' LT	50.35	386561.72	2559918.71
913	57+24.22	21.25' LT	50.33	386560.57	2559932.49
915	57+49.62	27.00' LT	50.99	386568.94	2559957.15
916	57+49.62	22.00' LT	50.90	386563.97	2559957.68
917	57+33.85	17.38' LT	50.50	386557.72	2559942.47
918	56+99.93	41.04' LT	50.09	386577.71	2559906.25
919	57+33.24	11.00' LT	50.71	386551.32	2559942.52
920	57+19.65	11.00' LT	50.66	386549.90	2559929.01
922	57+16.61	38.61' LT	50.44	386577.05	2559923.09
923	57+11.60	51.58' LT	50.58	386589.42	2559916.76
924	57+00.11	37.72' LT	50.14	386574.43	2559906.78
925	57+07.34	21.25' LT	50.43	386558.81	2559915.70
926	57+01.59	31.15' LT	50.25	386568.05	2559908.94
927	57+07.02	24.89' LT	50.30	386562.39	2559915.00
928	57+10.65	21.25' LT	50.43	386559.15	2559918.98
929	57+28.86	30.50' LT	50.68	386570.26	2559936.14
930	57+16.65	21.25' LT	50.39	386559.78	2559924.95
931	56+99.94	51.60' LT	49.99	386588.22	2559905.16
932	57+28.86	33.93' LT	50.79	386573.67	2559935.78
933	57+21.40	33.93' LT	50.55	386572.89	2559928.36
934	57+34.42	23.25' LT	50.39	386563.62	2559942.42
935	57+36.87	18.80' LT	50.57	386559.45	2559945.32
936	57+04.67	28.91' LT	50.22	386566.15	2559912.24
937	57+01.93	45.10' LT	49.94	386581.97	2559907.82
938	57+21.41	23.25' LT	50.27	386562.27	2559929.49
939	57+41.83	30.50' LT	50.92	386571.61	2559949.04
941	57+50.45	30.50' LT	51.05	386572.51	2559957.61
942	57+50.45	17.00' LT	50.59	386559.08	2559959.02
943	57+44.45	11.00' LT	50.71	386552.49	2559953.68

WELLS ST & JEFFERSON ST NE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
944	57+38.31	11.00' LT	50.71	386551.85	2559947.57

2

2

57+00

WELLS ST R/L

WELLS ST

N JEFFERSON ST

WELLS ST & JEFFERSON ST
SOUTHWEST QUADRANT

WELLS ST & JEFFERSON ST
SOUTHEAST QUADRANT

SIDEWALK CROSS SLOPE EXCEEDS 2%

5" CURB HEIGHT

4" CURB HEIGHT

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. MATCH EXISTING SIDEWALK WIDTH AND CROSS SLOPE AT MATCH POINT.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE SUGGESTED JOINT LOCATIONS. THESE ARE FOR INFORMATION ONLY.
5. THE CROSS SLOPE OF THE GUTTER SHALL BE 4.2% UNLESS OTHERWISE SHOWN.
6. MATCH EXISTING CURB & GUTTER SHAPE AND ELEVATIONS AT MATCH POINT.
7. THE MAXIMUM GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11%
8. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%
9. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
10. ALL CURB RAMP FLARES ARE PAVED UNLESS NOTED OTHERWISE.

LEGEND

- XM — CURB RAMP TYPE MODIFIED
- LEVEL LANDING
- DETECTABLE WARNING FIELD
- MEF — MAXIMUM EXTENT FEASIBLE, TECHNICAL INFEASIBILITY PRESENT
- PED — CONCRETE CURB PEDESTRIAN
- ### / ##.## — POINT NUMBER / ELEVATION
- ##.##(F) — CURB FLANGE ELEVATION
- ##.##(E) — EXISTING ELEVATION
- ##.##(G) — GUTTER FLOWLINE ELEVATION
- ##.##(T) — TOP OF CURB ELEVATION
- ##.##(HP) — HIGH POINT ELEVATION
- ##.##(LP) — LOW POINT ELEVATION

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CURB RAMPS (JEFFERSON ST)	SHEET 76	E

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WELLS ST & JEFFERSON ST SW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1000	56+42.06	20.00' RT	48.88	386510.96	2559855.08
1001	56+12.80	25.00' RT	48.47	386502.92	2559826.51
1002	56+42.06	22.58' RT	48.81	386508.39	2559855.35
1003	56+48.06	20.00' RT	49.06	386511.58	2559861.05
1004	56+12.80	38.70' RT	48.67	386489.30	2559827.94
1005	56+48.06	22.58' RT	48.99	386509.02	2559861.32
1006	56+58.88	32.50' RT	49.41	386500.28	2559873.12
1007	56+53.04	23.95' RT	49.15	386508.18	2559866.42
1008	56+61.13	31.22' RT	49.48	386501.79	2559875.22
1009	56+61.63	38.50' RT	49.45	386494.61	2559876.48
1010	56+56.21	27.48' RT	49.26	386504.99	2559869.94
1011	56+64.06	37.64' RT	49.52	386495.72	2559878.81
1012	56+58.88	38.50' RT	49.49	386494.32	2559873.75
1013	56+53.47	32.50' RT	49.49	386499.72	2559867.74
1014	56+53.47	38.50' RT	49.57	386493.75	2559868.37
1015	56+48.06	38.50' RT	49.32	386493.19	2559862.98
1016	56+42.06	32.00' RT	49.30	386499.02	2559856.34
1017	56+48.06	40.07' RT	49.33	386491.63	2559863.15
1018	56+38.06	40.07' RT	49.43	386490.58	2559853.21
1019	56+38.06	38.70' RT	49.36	386491.94	2559853.06
1020	56+37.16	38.70' RT	49.36	386491.85	2559852.17
1021	56+37.16	32.00' RT	49.26	386498.51	2559851.47
1022	56+10.96	45.10' RT	0.00	386482.75	2559826.78
1023	56+48.06	32.00' RT	49.24	386499.65	2559862.30
1024	56+42.06	27.29' RT	49.00	386503.71	2559855.84
1025	56+48.06	27.29' RT	49.18	386504.33	2559861.81
1028	56+51.64	20.00' RT	49.16	386511.96	2559864.61
1029	56+48.07	45.04' RT	49.39	386486.69	2559863.68
1030	56+38.07	45.07' RT	49.54	386485.61	2559853.74
1031	56+66.36	51.00' RT	49.59	386482.67	2559882.49
1032	56+38.10	55.07' RT	49.72	386475.67	2559854.81
1033	56+48.10	55.04' RT	49.57	386476.74	2559864.76
1034	56+27.55	38.70' RT	48.95	386490.84	2559842.61
1035	56+48.13	65.57' RT	49.69	386466.27	2559865.89
1036	56+38.13	65.60' RT	49.74	386465.20	2559855.94
1039	56+54.01	65.56' RT	49.15	386466.90	2559871.73
1042	56+53.99	60.48' RT	49.19	386471.95	2559871.19
1045	56+66.36	54.87' RT	49.57	386478.82	2559882.90
1046	56+35.00	22.00' RT	48.55	386508.23	2559848.27
1047	56+25.00	20.00' RT	48.20	386509.17	2559838.12

WELLS ST & JEFFERSON ST SW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1048	56+63.83	44.67' RT	49.47	386488.70	2559879.32
1050	56+12.80	20.00' RT	48.39	386507.90	2559825.99
1051	56+12.80	14.00' RT	48.34	386513.86	2559825.36
1052	56+25.00	14.00' RT	48.28	386515.14	2559837.49
1053	56+30.44	14.00' RT	48.51	386515.71	2559842.90
1054	56+27.54	32.00' RT	48.85	386497.51	2559841.90
1055	56+30.44	11.00' RT	48.54	386518.69	2559842.59
1056	56+35.06	11.00' RT	48.74	386519.18	2559847.18

WELLS ST & JEFFERSON ST SE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1100	57+47.40	20.03' RT	50.48	386521.94	2559959.84
1101	57+43.56	16.83' RT	50.53	386524.72	2559955.69
1102	57+45.48	22.33' RT	50.53	386519.44	2559958.17
1103	57+41.64	19.13' RT	50.57	386522.23	2559954.02
1104	57+43.56	24.64' RT	50.57	386516.95	2559956.50
1105	57+39.14	22.13' RT	50.63	386518.98	2559951.85
1106	57+41.51	29.20' RT	50.65	386512.20	2559954.95
1107	57+36.27	26.23' RT	50.60	386514.61	2559949.43
1108	57+55.26	27.00' RT	50.89	386515.82	2559968.39
1109	57+55.24	32.00' RT	50.97	386510.85	2559968.89
1110	57+41.51	31.66' RT	50.69	386509.75	2559955.20
1111	57+36.27	31.66' RT	50.68	386509.21	2559949.99
1112	57+41.51	34.50' RT	50.89	386506.93	2559955.50
1113	57+36.27	34.50' RT	50.89	386506.38	2559950.29
1114	57+41.51	39.50' RT	50.97	386501.96	2559956.02
1115	57+36.27	39.50' RT	50.96	386501.41	2559950.81
1116	57+30.03	22.38' RT	50.20	386517.78	2559942.82
1117	57+32.09	17.82' RT	50.40	386522.53	2559944.38
1118	57+29.13	22.00' RT	50.13	386518.07	2559941.88
1119	57+07.08	63.80' RT	50.55	386474.19	2559924.33
1120	57+07.09	68.85' RT	50.56	386469.18	2559924.87
1121	57+07.10	73.79' RT	50.55	386464.26	2559925.40
1122	57+19.80	20.00' RT	50.14	386519.09	2559932.40
1123	57+19.80	12.00' RT	50.46	386527.04	2559931.56
1124	57+32.91	12.00' RT	50.58	386528.41	2559944.59
1125	57+06.88	25.08' RT	49.96	386512.69	2559920.08
1126	57+07.11	79.79' RT	50.58	386458.29	2559926.04
1127	57+25.00	22.00' RT	50.09	386517.64	2559937.77
1128	57+41.80	12.00' RT	50.64	386529.34	2559953.44
1129	57+01.89	79.80' RT	50.31	386457.74	2559920.84
1130	57+01.86	77.38' RT	50.32	386460.14	2559920.56
1131	57+56.20	24.00' RT	50.47	386518.90	2559969.01
1132	57+55.24	39.50' RT	51.08	386503.39	2559969.67
1133	57+23.08	32.00' RT	50.85	386507.49	2559936.91
1134	57+23.08	39.50' RT	50.96	386500.03	2559937.69
1135	57+23.08	40.13' RT	50.97	386499.41	2559937.76
1136	57+17.07	32.00' RT	50.54	386506.87	2559930.94
1137	57+16.65	32.00' RT	50.54	386506.82	2559930.52
1138	57+16.65	22.58' RT	50.05	386516.19	2559929.53
1139	57+10.65	22.58' RT	50.00	386515.56	2559923.56
1140	57+10.65	32.00' RT	50.49	386506.20	2559924.55

WELLS ST & JEFFERSON ST SE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1141	57+10.64	32.51' RT	50.49	386505.69	2559924.60
1142	57+01.76	32.50' RT	49.93	386504.77	2559915.77
1143	57+01.76	38.50' RT	49.95	386498.80	2559916.39
1144	57+10.65	38.50' RT	50.51	386499.73	2559925.23
1145	57+10.65	40.08' RT	50.53	386498.16	2559925.39
1146	57+17.07	40.08' RT	50.63	386498.83	2559931.79
1147	57+10.65	46.29' RT	50.78	386491.98	2559926.04
1148	57+17.05	46.32' RT	50.88	386492.63	2559932.42
1149	57+17.03	52.48' RT	51.07	386486.50	2559933.04
1150	57+12.04	52.46' RT	50.83	386485.99	2559928.08
1151	57+18.68	45.01' RT	50.84	386494.10	2559933.89
1152	57+17.07	44.91' RT	50.82	386494.03	2559932.29
1153	57+18.73	52.49' RT	51.21	386486.66	2559934.71
1154	57+07.07	57.44' RT	50.58	386480.52	2559923.65
1155	57+01.80	72.38' RT	50.32	386465.11	2559919.98
1156	56+93.69	51.99' RT	49.91	386484.55	2559909.78
1157	56+99.71	65.56' RT	49.76	386471.68	2559917.18
1160	56+99.70	62.21' RT	49.78	386475.00	2559916.82
1163	56+93.68	58.00' RT	49.86	386478.57	2559910.40
1165	57+09.70	20.00' RT	50.08	386518.03	2559922.35
1167	57+49.05	18.04' RT	50.56	386524.08	2559961.28
1169	57+45.21	14.84' RT	50.60	386526.87	2559957.13
1170	56+98.80	38.50' RT	49.90	386498.49	2559913.45
1172	56+96.39	37.57' RT	49.98	386499.17	2559910.95
1174	56+99.56	31.15' RT	50.01	386505.88	2559913.43
1176	57+16.65	20.00' RT	50.12	386518.76	2559929.26
1177	57+07.05	52.44' RT	50.61	386485.49	2559923.12
1178	57+10.65	20.00' RT	50.08	386518.13	2559923.29
1179	56+96.58	43.83' RT	49.87	386492.96	2559911.80
1180	57+05.04	27.04' RT	49.95	386510.54	2559918.46

2

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LEGEND

- XM — CURB RAMP TYPE MODIFIED
- LEVEL LANDING
- DETECTABLE WARNING FIELD
- MEF — MAXIMUM EXTENT FEASIBLE, TECHNICAL INFEASIBILITY PRESENT
- PED — CONCRETE CURB PEDESTRIAN
- ### / ##.## — POINT NUMBER / ELEVATION
- ##.##(F) — CURB FLANGE ELEVATION
- ##.##(E) — EXISTING ELEVATION
- ##.##(G) — GUTTER FLOWLINE ELEVATION
- ##.##(T) — TOP OF CURB ELEVATION
- ##.##(HP) — HIGH POINT ELEVATION
- ##.##(LP) — LOW POINT ELEVATION

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. MATCH EXISTING SIDEWALK WIDTH AND CROSS SLOPE AT MATCH POINT.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE SUGGESTED JOINT LOCATIONS. THESE ARE FOR INFORMATION ONLY.
5. THE CROSS SLOPE OF THE GUTTER SHALL BE 4.2% UNLESS OTHERWISE SHOWN.
6. MATCH EXISTING CURB & GUTTER SHAPE AND ELEVATIONS AT MATCH POINT.
7. THE MAXIMUM GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11%
8. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%
9. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
10. ALL CURB RAMP FLARES ARE PAVED UNLESS NOTED OTHERWISE.

WELLS ST & JACKSON ST NORTHWEST QUADRANT

WELLS ST & JACKSON ST NORTHEAST QUADRANT

N JACKSON ST

WELLS ST

WELLS ST R/L

60+00

EXISTING CURB AND FENCE TO REMAIN

4" CURB HEIGHT

1216 54.15(E) · 53.55 (G) · 54.05 (T) · 1232 53.63(F)
1220 54.22(E)
1217 54.19(E)
1213 53.69(E)
1214 53.94(E)
1206 53.67(E)
1203 53.58
1205 53.61(E)
1204 53.59
1201 53.41
1240 53.42(G)
53.92 (T)
1233 53.49(F)
1200 53.39
53.38 (G)
1238 53.47(F)
1208 53.57
1209 53.52
1207 53.57
1236 53.42(F)
1211 53.35
1210 53.45
53.64 (T)
53.34 (G)
1202 53.35
1239 53.13
1221 53.31(G)
1237 53.36(F)
1212 53.23
53.22 (G)
1218 53.30(F)
1219 53.20(F)
53.12 (G)
1215 53.91(E)
53.64 (T)
53.48 (T)
52.98 (G)
1235 53.28(G)
53.55 (T)
1227 53.55(G)
1226 53.47(G)
1224 53.06(F)
1223 53.01(LP)
1228 53.02(G)
53.30 (T)
52.80 (G)
53.62 (T)
1225 53.10(G)
53.52 (T)
53.62 (T)
53.61 (T)
53.12 (G)
53.02 (G)
53.11 (G)
1230 53.10(F)
1231 53.19(F)
1229 53.29
1241 52.88(G)

1332 53.55(F) · 53.47 (G) · 53.97 (T)
1330 54.17(E)
53.33 (LP)
53.83 (T)
1327 53.41(F)
1307 54.18(E)
1328 53.74(F)
1309 54.00(E)
1310 54.11(E)
1329 53.75(HP)
54.13 (T)
53.67 (G)
1352 53.62(G)
54.12 (T)
1323 53.93(E)
1343 54.05(E)
53.56 (G)
1346 53.64(F)
1313 53.57
1312 53.60
1308 53.73
1306 53.81(E)
1311 53.51
53.50 (G)
1305 53.64
1304 53.71
1356 53.99
1344 53.58(F)
1355 53.47(G)
53.79 (T)
1303 53.57
1302 53.53
1326 53.83
53.92 (T)
1320 53.91(G)
1321 53.85(G)
53.74 (T)
1319 53.41(G)
4" CURB HEIGHT
53.77 (T)
1351 53.45(G)
1300 53.37
53.35 (G)
53.66 (T)
1301 53.41
53.39 (G)
1315 53.49(F)
1348 53.43(F)
53.40 (LP)
1316 53.41(F)
53.33 (G)
53.85 (T)
53.84 (T)
53.34 (G)
1322 53.59(G)
54.10 (T)
54.13 (T)
54.14 (T)
1350 53.47(F)
1325 53.76
53.60 (G)
53.64 (G)
1324 53.73(F)
1358 53.42(F)
1357 53.68(F)

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CURB RAMPS (JACKSON ST)	SHEET 78	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 09
PLOT DATE : 7/21/2023 4:15 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

WELLS ST & JACKSON ST NW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1200	59+86.61	38.00' LT	53.39	386604.59	2560191.70
1201	59+85.26	38.00' LT	53.41	386604.45	2560190.36
1202	59+85.26	32.00' LT	53.35	386598.48	2560190.98
1203	59+79.79	38.00' LT	53.58	386603.88	2560184.92
1204	59+79.79	38.23' LT	53.59	386604.11	2560184.89
1205	59+78.11	38.23' LT	53.61	386603.93	2560183.23
1206	59+73.16	38.26' LT	53.67	386603.44	2560178.30
1207	59+73.16	32.00' LT	53.57	386597.22	2560178.96
1208	59+73.79	32.00' LT	53.57	386597.28	2560179.58
1209	59+79.79	32.00' LT	53.52	386597.91	2560185.54
1210	59+79.79	28.54' LT	53.45	386594.47	2560185.90
1211	59+73.79	28.54' LT	53.35	386593.84	2560179.94
1212	59+79.79	25.08' LT	53.23	386591.03	2560186.26
1213	59+78.09	43.23' LT	53.69	386608.90	2560182.68
1214	59+54.96	38.36' LT	53.94	386601.65	2560160.19
1215	59+54.96	30.50' LT	53.91	386593.83	2560161.01
1216	59+77.97	63.69' LT	54.15	386629.24	2560180.43
1217	59+78.03	53.23' LT	54.19	386618.84	2560181.58
1218	59+79.81	22.50' LT	53.30	386588.46	2560186.56
1219	59+73.81	22.50' LT	53.20	386587.84	2560180.59
1220	59+78.00	58.23' LT	54.22	386623.81	2560181.03
1221	59+84.19	28.06' LT	53.31	386594.45	2560190.33
1223	59+62.26	22.50' LT	53.01	386586.63	2560169.10
1224	59+52.86	24.19' LT	53.06	386587.33	2560159.58
1225	59+52.47	18.76' LT	53.10	386581.90	2560159.76
1226	59+39.66	22.00' LT	53.47	386583.78	2560146.67
1227	59+39.66	27.00' LT	53.55	386588.75	2560146.15
1228	59+67.50	24.50' LT	53.02	386589.17	2560174.10
1229	59+70.79	13.00' LT	53.29	386578.07	2560178.57
1230	59+36.83	13.00' LT	53.10	386574.53	2560144.80
1231	59+51.53	13.00' LT	53.19	386576.07	2560159.42
1232	59+89.25	63.75' LT	53.63	386630.48	2560191.64
1233	59+89.36	41.15' LT	53.49	386608.01	2560194.11
1235	59+48.16	27.00' LT	53.28	386589.64	2560154.61
1236	59+87.70	31.15' LT	53.42	386597.89	2560193.50
1237	59+82.98	22.50' LT	53.36	386588.79	2560189.70
1238	59+89.18	37.72' LT	53.47	386604.57	2560194.29
1239	59+73.79	25.08' LT	53.13	386590.40	2560180.30
1240	59+87.34	44.08' LT	53.42	386610.71	2560191.80
1241	59+32.83	17.00' LT	52.88	386578.09	2560140.40

WELLS ST & JACKSON ST NE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1300	60+51.12	22.58' LT	53.37	386595.98	2560257.47
1301	60+45.12	22.66' LT	53.41	386595.43	2560251.49
1302	60+51.25	27.16' LT	53.53	386600.54	2560257.12
1303	60+45.26	27.33' LT	53.57	386600.09	2560251.14
1304	60+51.39	32.00' LT	53.71	386605.37	2560256.76
1305	60+45.39	32.00' LT	53.64	386604.75	2560250.79
1306	60+51.58	38.50' LT	53.81	386611.86	2560256.26
1307	60+45.76	57.87' LT	54.18	386630.52	2560248.46
1308	60+45.56	38.00' LT	53.73	386610.73	2560250.33
1309	60+45.79	48.87' LT	54.00	386621.57	2560249.43
1310	60+51.80	48.88' LT	54.11	386622.21	2560255.40
1311	60+37.32	32.00' LT	53.51	386603.91	2560242.76
1312	60+37.32	38.00' LT	53.60	386609.87	2560242.13
1313	60+34.46	38.00' LT	53.57	386609.58	2560239.30
1315	60+44.27	20.00' LT	53.49	386592.70	2560250.93
1316	60+57.41	20.00' LT	53.41	386594.07	2560263.99
1319	60+67.61	22.00' LT	53.41	386597.12	2560273.93
1320	60+85.28	27.00' LT	53.91	386603.94	2560290.99
1321	60+85.28	22.00' LT	53.85	386598.96	2560291.51
1322	60+69.50	17.37' LT	53.59	386592.71	2560276.29
1323	60+66.98	38.50' LT	53.93	386613.46	2560271.58
1324	60+68.90	11.00' LT	53.73	386586.31	2560276.36
1325	60+54.05	11.00' LT	53.76	386584.77	2560261.59
1326	60+66.98	32.00' LT	53.83	386607.00	2560272.26
1327	60+35.54	58.01' LT	53.41	386629.59	2560238.28
1328	60+29.55	52.00' LT	53.74	386622.99	2560232.95
1329	60+29.55	50.93' LT	53.75	386621.92	2560233.06
1330	60+45.73	65.37' LT	54.17	386637.97	2560247.65
1332	60+35.53	65.35' LT	53.55	386636.89	2560237.50
1343	60+86.11	38.50' LT	54.05	386615.46	2560290.61
1344	60+35.09	30.69' LT	53.58	386602.37	2560240.68
1346	60+32.04	37.10' LT	53.64	386608.43	2560236.98
1348	60+51.23	20.00' LT	53.43	386593.42	2560257.84
1350	60+45.21	20.00' LT	53.47	386592.80	2560251.86
1351	60+40.65	26.33' LT	53.45	386598.61	2560246.66
1352	60+31.94	45.54' LT	53.62	386616.81	2560236.00
1355	60+39.17	28.18' LT	53.47	386600.30	2560244.99
1356	60+86.11	32.00' LT	53.99	386608.99	2560291.29
1357	60+80.11	11.00' LT	53.68	386587.48	2560287.51
1358	60+86.21	17.00' LT	53.42	386594.09	2560292.95

2

N

60+00

WELLS ST R/L

WELLS ST

WELLS ST

N JACKSON ST

WELLS ST & JACKSON ST
SOUTHWEST QUADRANT

WELLS ST & JACKSON ST
SOUTHEAST QUADRANT

3" CURB HEIGHT

5" CURB HEIGHT

4" CURB HEIGHT

4" CURB HEIGHT

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. MATCH EXISTING SIDEWALK WIDTH AND CROSS SLOPE AT MATCH POINT.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE SUGGESTED JOINT LOCATIONS. THESE ARE FOR INFORMATION ONLY.
5. THE CROSS SLOPE OF THE GUTTER SHALL BE 4.2% UNLESS OTHERWISE SHOWN.
6. MATCH EXISTING CURB & GUTTER SHAPE AND ELEVATIONS AT MATCH POINT.
7. THE MAXIMUM GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11%
8. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%
9. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
10. ALL CURB RAMP FLARES ARE PAVED UNLESS NOTED OTHERWISE.

LEGEND

- XM — CURB RAMP TYPE MODIFIED
- LEVEL LANDING
- DETECTABLE WARNING FIELD
- MEF — MAXIMUM EXTENT FEASIBLE, TECHNICAL INFEASIBILITY PRESENT
- PED — CONCRETE CURB PEDESTRIAN
- ### / ##.## — POINT NUMBER / ELEVATION
- ##.##(F) — CURB FLANGE ELEVATION
- ##.##(E) — EXISTING ELEVATION
- ##.##(G) — GUTTER FLOWLINE ELEVATION
- ##.##(T) — TOP OF CURB ELEVATION
- ##.##(HP) — HIGH POINT ELEVATION
- ##.##(LP) — LOW POINT ELEVATION

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CURB RAMPS (JACKSON ST)	SHEET 80	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 10
PLOT DATE : 7/21/2023 4:15 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

WELLS ST & JACKSON ST SW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1400	59+92.01	38.50' RT	52.67	386529.07	2560205.04
1401	59+89.94	38.50' RT	52.70	386528.85	2560202.99
1402	59+89.94	32.50' RT	52.63	386534.82	2560202.37
1403	59+80.44	38.50' RT	53.02	386527.86	2560193.54
1404	59+85.18	32.50' RT	52.80	386534.32	2560197.63
1405	59+80.43	31.99' RT	52.96	386534.33	2560192.85
1406	59+80.46	56.49' RT	53.06	386509.97	2560195.43
1407	59+80.44	39.50' RT	53.04	386526.87	2560193.64
1408	59+80.44	44.49' RT	53.11	386521.90	2560194.17
1409	59+74.44	44.50' RT	53.13	386521.27	2560188.20
1410	59+74.44	39.50' RT	53.12	386526.24	2560187.68
1411	59+73.79	39.50' RT	53.13	386526.17	2560187.03
1412	59+73.79	32.00' RT	53.01	386533.63	2560186.25
1413	59+73.79	27.29' RT	52.74	386538.31	2560185.76
1414	59+79.79	27.29' RT	52.80	386538.94	2560191.72
1415	59+73.79	22.58' RT	52.47	386543.00	2560185.27
1416	59+79.79	22.58' RT	52.52	386543.62	2560191.23
1417	59+38.48	32.00' RT	52.93	386529.95	2560151.13
1418	59+67.18	20.00' RT	52.53	386544.88	2560178.42
1419	59+74.46	56.50' RT	53.12	386509.34	2560189.47
1420	59+70.79	11.00' RT	52.88	386554.21	2560181.08
1421	59+55.69	11.00' RT	52.75	386552.63	2560166.06
1422	59+38.48	39.50' RT	53.04	386522.49	2560151.91
1423	59+52.06	18.80' RT	52.68	386544.50	2560163.26
1424	59+54.42	23.20' RT	52.60	386540.36	2560166.07
1425	59+51.81	32.00' RT	53.00	386531.34	2560164.39
1426	59+51.81	39.50' RT	53.12	386523.88	2560165.17
1427	59+39.30	22.00' RT	52.77	386539.98	2560150.91
1430	59+47.81	27.00' RT	52.66	386535.90	2560159.89
1431	59+44.48	11.00' RT	52.63	386551.46	2560154.91
1433	59+95.47	46.00' RT	52.79	386521.97	2560209.27
1434	59+38.48	17.00' RT	52.38	386544.87	2560149.56
1436	59+94.52	37.90' RT	52.74	386529.92	2560207.48
1438	59+92.29	31.42' RT	52.71	386536.13	2560204.59
1440	59+79.79	20.00' RT	52.60	386546.19	2560190.96
1442	59+73.79	20.00' RT	52.54	386545.57	2560185.00
1443	59+95.47	51.87' RT	52.77	386516.13	2560209.88
1446	59+89.04	57.87' RT	52.58	386509.49	2560204.11
1449	59+89.04	65.00' RT	52.50	386502.40	2560204.86
1452	59+80.47	65.01' RT	52.99	386501.50	2560196.33

WELLS ST & JACKSON ST SW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1453	59+88.00	27.81' RT	52.60	386539.28	2560199.95
1454	59+85.13	24.08' RT	52.57	386542.70	2560196.71
1457	59+83.90	20.00' RT	52.65	386546.62	2560195.05

WELLS ST & JACKSON ST SE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1500	60+32.92	38.50' RT	52.97	386533.33	2560245.73
1501	60+35.53	38.50' RT	53.01	386533.61	2560248.33
1502	60+38.87	38.50' RT	53.06	386533.95	2560251.66
1503	60+43.24	38.50' RT	52.97	386534.41	2560256.00
1504	60+35.53	32.50' RT	52.91	386539.57	2560247.71
1505	60+38.87	32.50' RT	52.96	386539.92	2560251.03
1506	60+66.98	32.00' RT	53.21	386543.35	2560278.93
1507	60+43.55	32.00' RT	52.87	386540.91	2560255.63
1508	60+49.55	32.00' RT	52.93	386541.53	2560261.60
1509	60+66.98	39.75' RT	53.33	386535.64	2560279.74
1510	60+43.21	39.77' RT	52.99	386533.14	2560256.10
1511	60+51.21	32.00' RT	52.96	386541.70	2560263.25
1512	60+43.24	51.38' RT	52.86	386521.60	2560257.35
1513	60+51.21	39.75' RT	53.07	386534.00	2560264.06
1515	60+51.24	51.35' RT	52.98	386522.46	2560265.30
1516	60+49.69	27.29' RT	52.79	386546.23	2560261.24
1517	60+43.69	27.12' RT	52.82	386545.77	2560255.26
1518	60+49.82	22.58' RT	52.74	386550.92	2560260.89
1519	60+43.82	22.58' RT	52.78	386550.30	2560254.92
1520	60+46.27	59.37' RT	52.86	386513.97	2560261.19
1521	60+85.49	32.00' RT	53.43	386545.28	2560297.34
1522	60+85.49	39.75' RT	53.54	386537.57	2560298.15
1523	60+34.47	65.00' RT	52.36	386507.14	2560250.04
1524	60+51.27	59.35' RT	52.91	386514.51	2560266.16
1525	60+37.05	59.39' RT	52.77	386512.98	2560252.02
1526	60+34.47	61.83' RT	52.36	386510.29	2560249.71
1529	60+28.47	55.83' RT	52.92	386515.63	2560243.12
1532	60+42.44	20.00' RT	52.87	386552.72	2560253.27
1535	60+56.78	20.00' RT	52.79	386554.22	2560267.54
1537	60+49.82	20.00' RT	52.82	386553.49	2560260.62
1539	60+43.82	20.00' RT	52.85	386552.87	2560254.65
1540	60+70.65	23.77' RT	52.86	386551.91	2560281.73
1541	60+53.16	11.00' RT	53.15	386562.79	2560263.00
1542	60+68.27	11.00' RT	53.11	386564.37	2560278.03
1543	60+72.80	19.26' RT	53.00	386556.63	2560283.40
1544	60+67.60	16.88' RT	52.94	386558.45	2560277.97
1545	60+68.87	17.37' RT	52.95	386558.10	2560279.29
1546	60+66.98	22.00' RT	52.78	386553.29	2560277.89
1547	60+84.66	27.00' RT	53.35	386550.16	2560295.99
1548	60+84.66	22.00' RT	53.25	386555.14	2560295.47

WELLS ST & JACKSON ST SE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1550	60+30.47	37.68' RT	53.04	386533.89	2560243.21
1552	60+33.27	31.26' RT	52.98	386540.57	2560245.33
1553	60+39.14	26.20' RT	52.83	386546.22	2560250.64
1554	60+37.68	28.06' RT	52.85	386544.21	2560249.38
1555	60+30.47	50.00' RT	52.87	386521.64	2560244.50
1556	60+57.50	32.00' RT	53.03	386542.36	2560269.50
1557	60+85.49	17.00' RT	52.83	386560.20	2560295.77
1558	60+57.50	39.75' RT	53.15	386534.65	2560270.31
1559	60+79.49	11.00' RT	53.06	386565.54	2560289.18

2

LEGEND

- XM — CURB RAMP TYPE MODIFIED
- LEVEL LANDING
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- PED — CONCRETE CURB PEDESTRIAN
- ### / ##.## — POINT NUMBER / ELEVATION
- ##.##(F) — CURB FLANGE ELEVATION
- ##.##(E) — EXISTING ELEVATION
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- ##.##(T) — TOP OF CURB ELEVATION
- ##.##(HP) — HIGH POINT ELEVATION
- ##.##(LP) — LOW POINT ELEVATION

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. MATCH EXISTING SIDEWALK WIDTH AND CROSS SLOPE AT MATCH POINT.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE SUGGESTED JOINT LOCATIONS. THESE ARE FOR INFORMATION ONLY.
5. THE CROSS SLOPE OF THE GUTTER SHALL BE 4.2% UNLESS OTHERWISE SHOWN.
6. MATCH EXISTING CURB & GUTTER SHAPE AND ELEVATIONS AT MATCH POINT.
7. THE MAXIMUM GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11%
8. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%
9. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
10. ALL CURB RAMP FLARES ARE PAVED UNLESS NOTED OTHERWISE.

WELLS ST & VAN BUREN ST NORTHWEST QUADRANT

WELLS ST & VAN BUREN ST NORTHEAST QUADRANT

N

N VAN BUREN ST

WELLS ST

WELLS ST R/L

63+00

64+00

EXISTING WALL AND FENCE TO REMAIN

REVERSE SLOPE GUTTER

GRADED FLARE

4" CURB HEIGHT

3" CURB HEIGHT

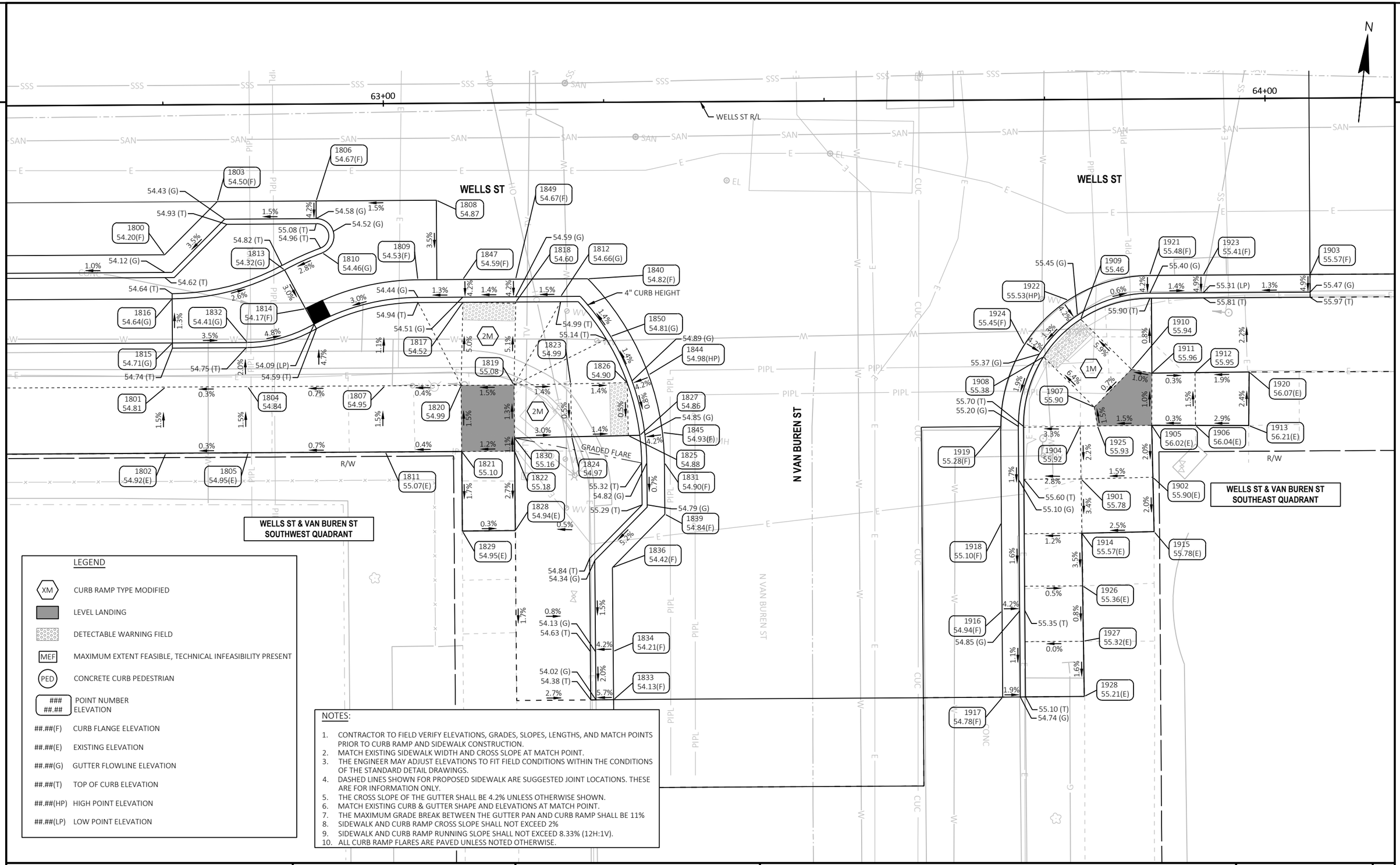
SIDEWALK CROSS SLOPE EXCEEDS 2%

24" RCP

1601 56.47(E)
1602 56.40(E)
1603 56.47
1604 56.46
1605 56.06
1606 56.07
1607 55.97
1608 56.37
1609 56.30
1610 55.78
1611 55.70
1612 55.84
1614 55.57(F)
1615 55.49(G)
1616 55.90(G)
1618 55.83(G)
1619 56.33(F)
1620 55.42
1621 55.29(F)
1622 56.22(G)
1623 55.71(G)
1624 56.16(E)
1627 56.06(G)
1628 55.22(F)
1631 55.39(F)
1632 55.45(G)
1635 56.37(F)
1638 56.46(F)
1641 56.27(F)
1644 56.36(F)
1646 56.15(F)
1648 56.04(F)
1650 55.77(F)
1652 55.84(F)
1654 55.84(F)
1665 56.17(G)
1666 55.88(G)
1668 55.71(F)
1700 56.12(F)
1701 56.06(F)
1702 56.05
1703 56.09(F)
1704 56.07(G)
1705 56.02
1707 56.18(F)
1708 56.11
1709 56.61(F)
1712 56.13
1713 56.40
1714 56.24(F)
1715 56.65(E)
1716 56.81(E)
1717 56.19(F)
1718 56.25(F)
1719 56.05(G)
1720 56.39
1722 56.88(E)
1723 56.84(E)
1724 56.33
1725 56.06
1726 56.34
1727 56.08
1729 56.15(F)
1732 56.08(F)

WELLS ST & VAN BUREN ST NW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1600	63+16.26	47.01' LT	56.54	386647.92	2560518.62
1601	63+10.30	47.00' LT	56.47	386647.29	2560512.69
1602	63+10.27	39.00' LT	56.40	386639.33	2560513.50
1603	63+16.27	39.01' LT	56.47	386639.96	2560519.46
1604	63+16.28	37.82' LT	56.46	386638.78	2560519.59
1605	63+23.81	37.59' LT	56.06	386639.33	2560527.11
1606	63+26.53	37.50' LT	56.07	386639.53	2560529.82
1607	63+23.62	31.59' LT	55.97	386633.35	2560527.55
1608	63+16.33	31.82' LT	56.37	386632.81	2560520.27
1609	63+10.33	32.00' LT	56.30	386632.37	2560514.29
1610	63+16.09	22.68' LT	55.78	386623.70	2560520.98
1611	63+10.09	22.58' LT	55.70	386622.98	2560515.02
1612	63+19.47	25.13' LT	55.84	386626.49	2560524.09
1614	62+91.06	23.20' LT	55.57	386621.61	2560496.03
1615	62+88.70	18.80' LT	55.49	386616.98	2560494.14
1616	62+75.94	27.00' LT	55.90	386623.81	2560480.60
1618	62+75.94	22.00' LT	55.83	386618.84	2560481.12
1619	63+00.00	39.00' LT	56.33	386638.26	2560503.28
1620	63+06.78	11.00' LT	55.42	386611.12	2560512.94
1621	62+92.33	11.00' LT	55.29	386609.61	2560498.57
1622	63+00.00	32.00' LT	56.22	386631.29	2560504.01
1623	62+84.44	27.00' LT	55.71	386624.70	2560489.06
1624	62+84.44	39.00' LT	56.16	386636.63	2560487.81
1627	62+84.44	32.00' LT	56.06	386629.67	2560488.54
1628	62+81.11	11.00' LT	55.22	386608.44	2560487.41
1631	62+75.11	17.00' LT	55.39	386613.78	2560480.82
1632	62+93.00	16.88' LT	55.45	386615.53	2560498.63
1635	63+31.63	51.06' LT	56.37	386653.55	2560533.48
1638	63+31.63	56.89' LT	56.46	386659.35	2560532.87
1641	63+25.64	62.85' LT	56.27	386664.65	2560526.29
1644	63+25.61	67.88' LT	56.36	386669.65	2560525.74
1646	63+28.94	36.57' LT	56.15	386638.86	2560532.32
1648	63+25.83	30.25' LT	56.04	386632.25	2560529.88
1650	63+10.09	20.00' LT	55.77	386620.41	2560515.29
1652	63+15.98	20.00' LT	55.84	386621.02	2560521.15
1654	63+16.91	20.00' LT	55.84	386621.12	2560522.08
1665	63+28.98	43.96' LT	56.17	386646.21	2560531.58
1666	63+21.03	26.92' LT	55.88	386628.43	2560525.46
1668	63+03.82	20.00' LT	55.71	386619.76	2560509.06

WELLS ST & VAN BUREN ST NE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1700	63+76.73	23.24' LT	56.12	386630.58	2560581.24
1701	63+91.71	20.00' LT	56.06	386628.92	2560596.48
1702	63+78.25	25.33' LT	56.05	386632.82	2560582.53
1703	63+83.79	20.25' LT	56.09	386628.35	2560588.57
1704	63+71.70	42.80' LT	56.07	386649.51	2560574.19
1705	63+84.24	22.80' LT	56.02	386630.92	2560588.75
1707	63+69.75	35.93' LT	56.18	386642.48	2560572.97
1708	63+72.33	36.09' LT	56.11	386642.91	2560575.52
1709	63+69.62	67.88' LT	56.61	386674.24	2560569.51
1712	63+74.28	36.03' LT	56.13	386643.05	2560577.46
1713	63+78.46	35.91' LT	56.40	386643.36	2560581.63
1714	63+69.67	50.99' LT	56.24	386657.44	2560571.32
1715	63+79.16	43.69' LT	56.65	386651.18	2560581.52
1716	63+84.51	43.60' LT	56.81	386651.65	2560586.85
1717	63+69.72	36.95' LT	56.19	386643.48	2560572.83
1718	64+05.00	20.00' LT	56.25	386630.31	2560609.69
1719	63+75.13	27.47' LT	56.05	386634.62	2560579.20
1720	63+84.42	35.21' LT	56.39	386643.28	2560587.64
1722	63+93.47	35.28' LT	56.88	386644.30	2560596.62
1723	63+93.75	29.88' LT	56.84	386638.96	2560597.47
1724	63+84.27	29.72' LT	56.33	386637.82	2560588.06
1725	63+84.25	25.30' LT	56.06	386633.41	2560588.50
1726	63+78.27	29.91' LT	56.34	386637.37	2560582.08
1727	63+74.09	30.04' LT	56.08	386637.07	2560577.90
1729	63+71.83	28.79' LT	56.15	386635.59	2560575.78
1732	63+86.71	20.00' LT	56.08	386628.40	2560591.50



LEGEND

XM	CURB RAMP TYPE MODIFIED
	LEVEL LANDING
	DETECTABLE WARNING FIELD
MEF	MAXIMUM EXTENT FEASIBLE, TECHNICAL INFEASIBILITY PRESENT
PED	CONCRETE CURB PEDESTRIAN
### ##.##	POINT NUMBER ELEVATION
##.##(F)	CURB FLANGE ELEVATION
##.##(E)	EXISTING ELEVATION
##.##(G)	GUTTER FLOWLINE ELEVATION
##.##(T)	TOP OF CURB ELEVATION
##.##(HP)	HIGH POINT ELEVATION
##.##(LP)	LOW POINT ELEVATION

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. MATCH EXISTING SIDEWALK WIDTH AND CROSS SLOPE AT MATCH POINT.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE SUGGESTED JOINT LOCATIONS. THESE ARE FOR INFORMATION ONLY.
5. THE CROSS SLOPE OF THE GUTTER SHALL BE 4.2% UNLESS OTHERWISE SHOWN.
6. MATCH EXISTING CURB & GUTTER SHAPE AND ELEVATIONS AT MATCH POINT.
7. THE MAXIMUM GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11%
8. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%
9. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
10. ALL CURB RAMP FLARES ARE PAVED UNLESS NOTED OTHERWISE.

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CURB RAMPS (VAN BUREN ST)	SHEET 84	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 12

PLOT DATE : 7/21/2023 4:15 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:10 FT

WELLS ST & VAN BUREN ST SW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1800	62+75.10	17.00' RT	54.20	386579.97	2560484.36
1801	62+75.11	32.00' RT	54.81	386565.05	2560485.93
1802	62+75.11	39.50' RT	54.92	386557.59	2560486.71
1803	62+81.10	11.00' RT	54.50	386586.56	2560489.70
1804	62+84.44	32.00' RT	54.84	386566.02	2560495.20
1805	62+84.44	39.50' RT	54.95	386558.56	2560495.99
1806	62+92.32	11.00' RT	54.67	386587.73	2560500.85
1807	63+00.00	32.00' RT	54.95	386567.64	2560510.68
1808	63+05.96	11.00' RT	54.87	386589.15	2560514.42
1809	63+03.81	20.00' RT	54.53	386579.97	2560513.22
1810	62+92.99	16.88' RT	54.46	386581.95	2560502.14
1811	63+00.00	39.50' RT	55.07	386560.18	2560511.46
1812	63+20.00	22.00' RT	54.66	386579.67	2560529.53
1813	62+88.69	18.80' RT	54.32	386579.59	2560498.06
1814	62+91.05	23.20' RT	54.17	386575.46	2560500.87
1815	62+75.93	27.00' RT	54.71	386570.11	2560486.23
1816	62+75.93	22.00' RT	54.64	386575.08	2560485.70
1817	63+08.89	22.58' RT	54.52	386577.94	2560518.55
1818	63+14.90	22.58' RT	54.60	386578.56	2560524.52
1819	63+14.65	32.00' RT	55.08	386569.17	2560525.25
1820	63+08.65	32.00' RT	54.99	386568.54	2560519.28
1821	63+08.67	39.50' RT	55.10	386561.09	2560520.08
1822	63+14.67	39.48' RT	55.18	386561.73	2560526.05
1823	63+21.06	31.90' RT	54.99	386569.94	2560531.62
1824	63+21.16	37.90' RT	54.97	386563.98	2560532.34
1825	63+27.57	37.80' RT	54.88	386564.74	2560538.71
1826	63+27.48	31.81' RT	54.90	386570.70	2560537.99
1827	63+28.88	37.78' RT	54.86	386564.90	2560540.01
1828	63+14.69	48.50' RT	54.94	386552.76	2560527.02
1829	63+08.69	48.52' RT	54.95	386552.12	2560521.05
1830	63+14.66	38.00' RT	55.16	386563.20	2560525.89
1831	63+31.65	40.92' RT	54.90	386562.08	2560543.09
1832	62+84.44	27.00' RT	54.41	386570.99	2560494.68
1833	63+25.73	67.74' RT	54.13	386534.78	2560539.99
1834	63+25.71	62.27' RT	54.21	386540.22	2560539.41
1836	63+25.68	52.76' RT	54.42	386549.67	2560538.39
1839	63+31.67	46.74' RT	54.84	386556.28	2560543.71
1840	63+23.08	20.00' RT	54.82	386581.98	2560532.38
1844	63+29.91	30.94' RT	54.98	386571.82	2560540.32
1845	63+31.44	37.48' RT	54.93	386565.47	2560542.53

WELLS ST & VAN BUREN ST SW QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1847	63+08.89	20.00' RT	54.59	386580.50	2560518.28
1849	63+14.90	20.00' RT	54.67	386581.13	2560524.25
1850	63+25.64	26.56' RT	54.81	386575.73	2560535.61

WELLS ST & VAN BUREN ST SE QUADRANT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1901	63+78.89	43.02' RT	55.78	386564.91	2560590.29
1902	63+87.04	42.88' RT	55.90	386565.89	2560598.38
1903	64+05.00	20.00' RT	55.57	386590.52	2560613.86
1904	63+78.83	37.03' RT	55.92	386570.86	2560589.61
1905	63+86.94	36.99' RT	56.02	386571.74	2560597.67
1906	63+91.91	37.03' RT	56.04	386572.22	2560602.61
1907	63+80.44	34.89' RT	55.90	386573.16	2560590.99
1908	63+74.71	29.16' RT	55.38	386578.25	2560584.68
1909	63+78.94	24.92' RT	55.46	386582.92	2560588.46
1910	63+84.68	30.64' RT	55.94	386577.82	2560594.76
1911	63+87.00	31.08' RT	55.96	386577.63	2560597.11
1912	63+91.87	31.05' RT	55.95	386578.17	2560601.96
1913	63+97.94	37.08' RT	56.21	386572.80	2560608.62
1914	63+78.94	49.18' RT	55.57	386558.79	2560590.98
1915	63+87.14	49.05' RT	55.78	386559.77	2560599.13
1916	63+69.84	57.94' RT	54.94	386549.13	2560582.85
1917	63+69.86	67.70' RT	54.78	386539.42	2560583.89
1918	63+69.83	47.94' RT	55.10	386559.07	2560581.79
1919	63+69.81	37.03' RT	55.28	386569.92	2560580.63
1920	63+98.02	31.01' RT	56.07	386578.84	2560608.07
1921	63+86.81	20.00' RT	55.48	386588.63	2560595.76
1922	63+77.54	22.75' RT	55.53	386584.93	2560586.83
1923	63+92.88	20.00' RT	55.41	386589.26	2560601.80
1924	63+72.54	27.76' RT	55.45	386579.43	2560582.38
1925	63+80.78	37.02' RT	55.93	386571.07	2560591.55
1926	63+78.99	55.14' RT	55.36	386552.86	2560591.66
1927	63+79.05	61.43' RT	55.32	386546.62	2560592.37
1928	63+79.11	67.69' RT	55.21	386540.40	2560593.08

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 3.7 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.9 ACRES

LEGEND

INLET PROTECTION (TYPE AS NOTED)

SLOPE INTERCEPT

N

N BROADWAY

N MILWAUKEE ST

WELLS ST

WELLS ST R/L

WELLS ST / STH 32

49+00 50+00 51+00 52+00 53+00 54+00 55+

MATCH LINE - STA 55+00

PLACE INLET PROTECTION TYPE B AT NEXT DOWNSTREAM INLET ON WEST SIDE OF BROADWAY

PLACE INLET PROTECTION TYPE B AT NEXT DOWNSTREAM INLET ON WEST SIDE OF MILWAUKEE ST

PLACE INLET PROTECTION TYPE B AT NEXT DOWNSTREAM INLET ON EAST SIDE OF MILWAUKEE ST

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 86	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:16 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

INLET PROTECTION (TYPE AS NOTED)

SLOPE INTERCEPT

N

N JEFFERSON ST

N JACKSON ST

WELLS ST / STH 32

WELLS ST R/L

MATCH LINE - STA 55+00

MATCH LINE - STA 61+00

56+00 57+00 58+00 59+00 60+00

PLACE INLET PROTECTION TYPE B AT NEXT DOWNSTREAM INLET ON WEST SIDE OF JEFFERSON ST

PLACE INLET PROTECTION TYPE B AT NEXT DOWNSTREAM INLET ON EAST SIDE OF JEFFERSON ST

PLACE INLET PROTECTION TYPE B AT NEXT DOWNSTREAM INLET ON WEST SIDE OF JACKSON ST

PLACE INLET PROTECTION TYPE B AT NEXT DOWNSTREAM INLET ON EAST SIDE OF JACKSON ST

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 87	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:16 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

LEGEND

INLET PROTECTION (TYPE AS NOTED)

SLOPE INTERCEPT

MATCH LINE - STA 61+00

62+00

63+00

64+00

65+00

66+00

67+00

N VAN BUREN ST

WELLS ST R/L

WELLS ST / STH 32

N VAN BUREN ST

TRANSFORMER

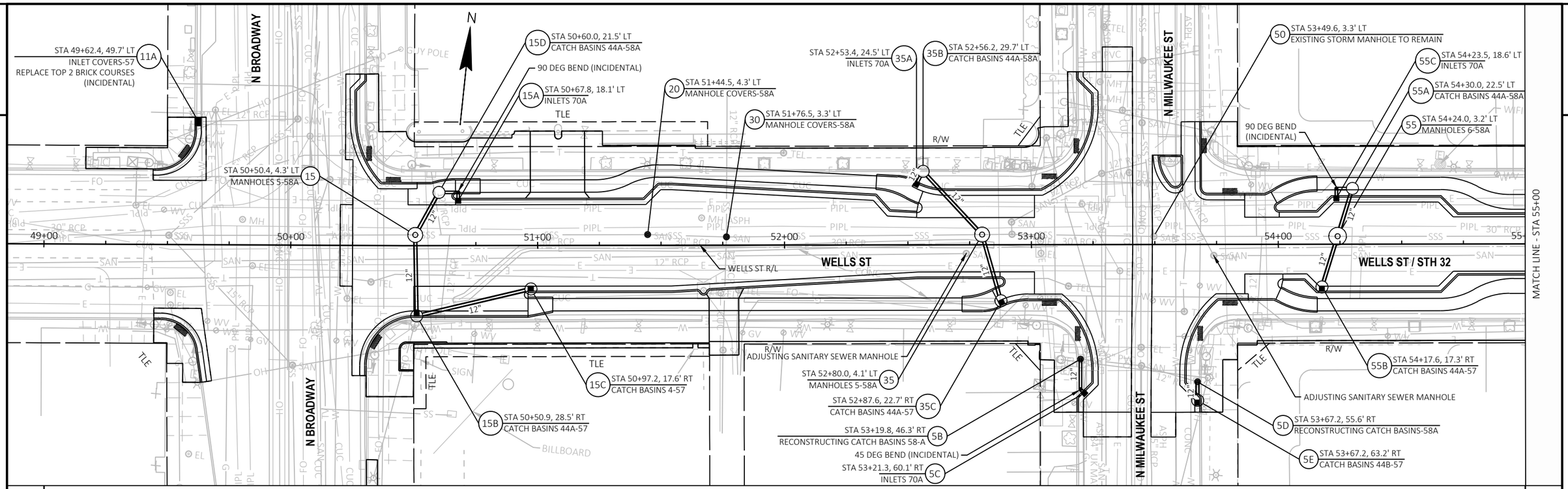
PLACE INLET PROTECTION TYPE B AT NEXT DOWNSTREAM INLET ON WEST SIDE OF VAN BUREN ST

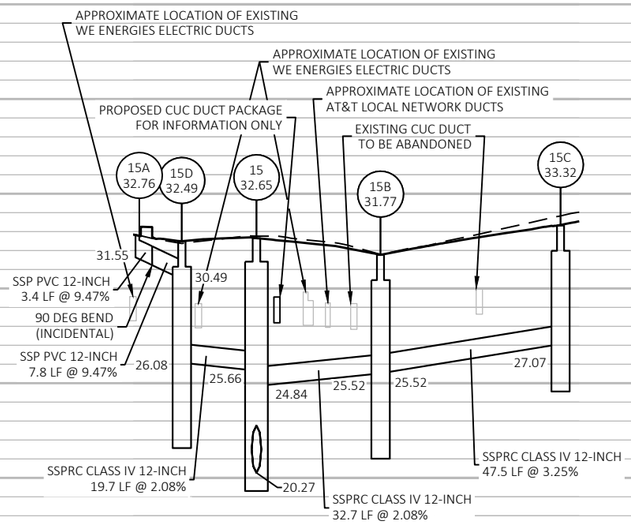
PLACE INLET PROTECTION TYPE B AT NEXT DOWNSTREAM INLET ON EAST SIDE OF VAN BUREN ST

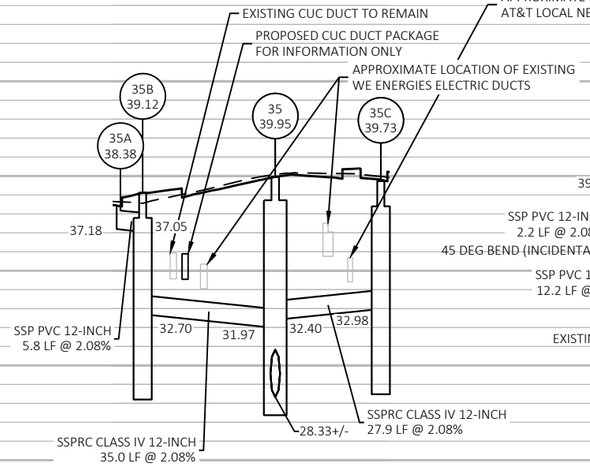
PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 88	E

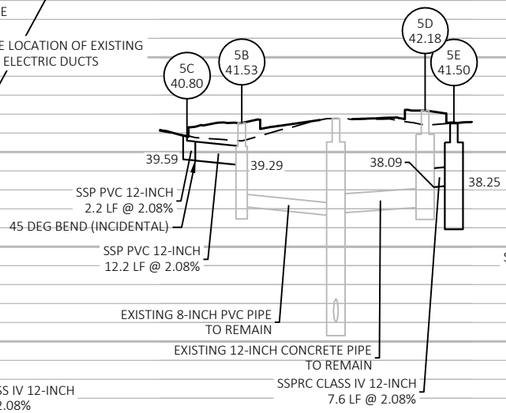
FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 03

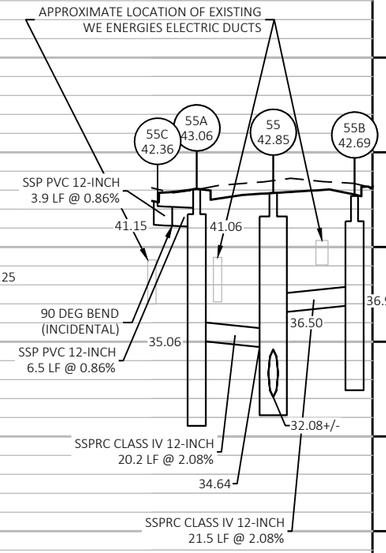
PLOT DATE : 7/21/2023 4:17 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT





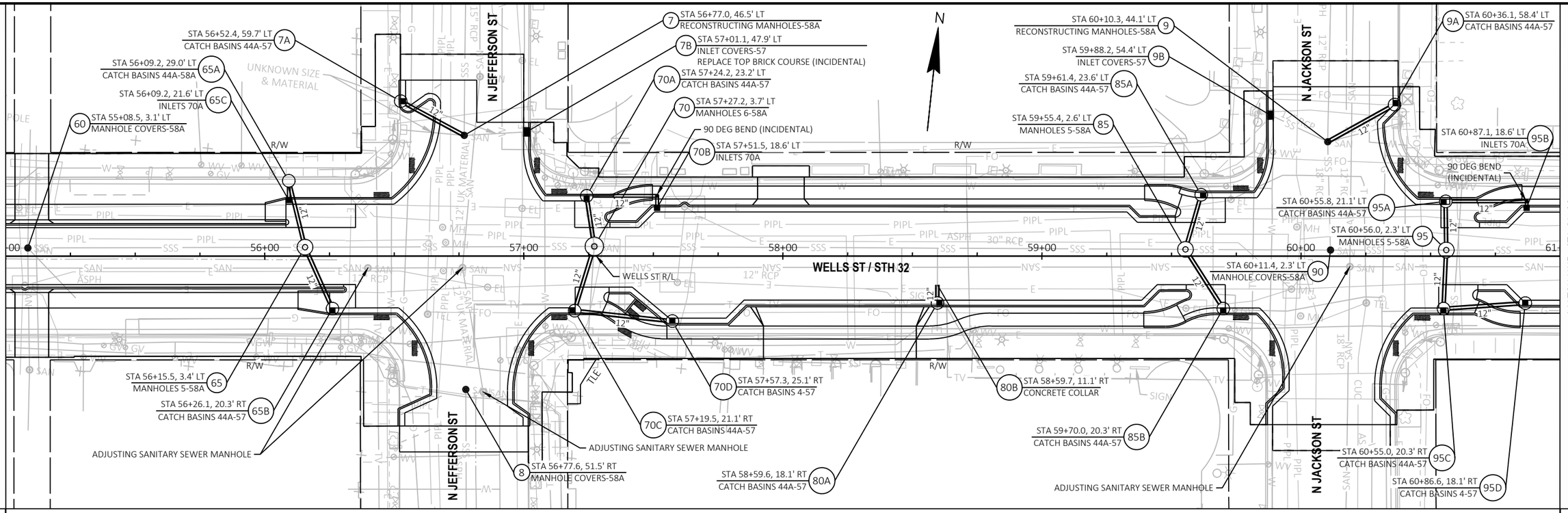


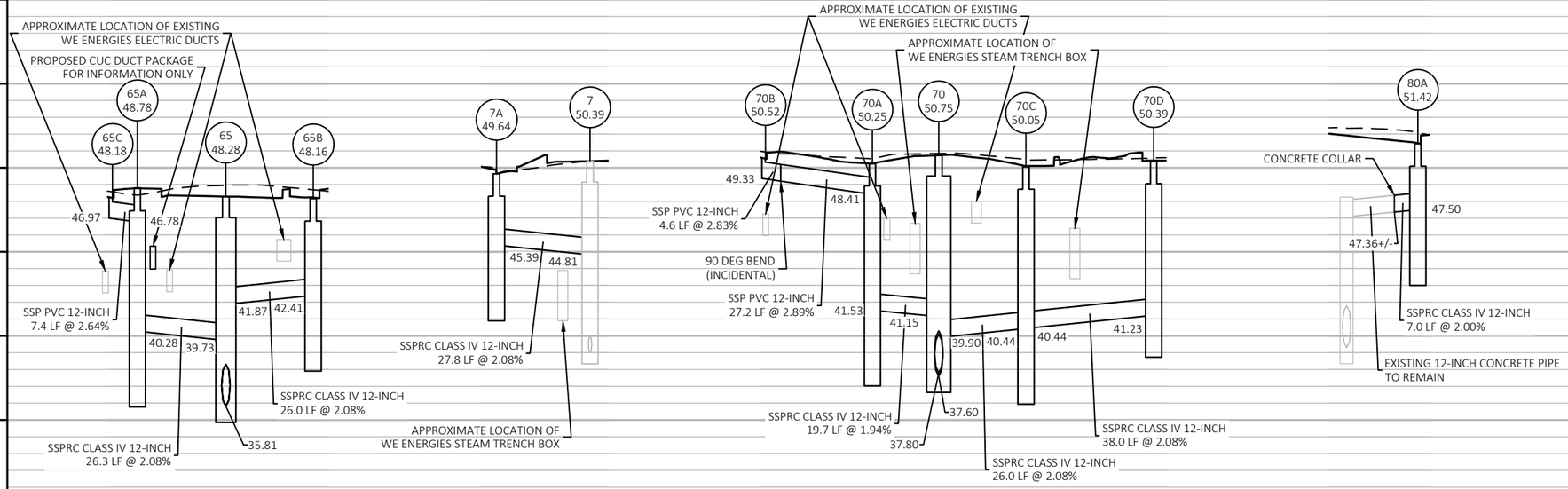




PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	STORM SEWER	SHEET 89	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 01
PLOT DATE : 7/27/2023 3:26 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41





PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	STORM SEWER	SHEET 90 E

MATCH LINE - STA 55+00

MATCH LINE - STA 61+00

N

WELLS ST / STH 32

N JEFFERSON ST

N JACKSON ST

STA 56+52.4, 59.7' LT
CATCH BASINS 44A-57 (7A)

STA 56+09.2, 29.0' LT
CATCH BASINS 44A-58 (65A)

STA 56+09.2, 21.6' LT
INLETS 70A (65C)

STA 55+08.5, 3.1' LT
MANHOLE COVERS-58A (60)

UNKNOWN SIZE & MATERIAL

R/W

STA 56+15.5, 3.4' LT
MANHOLES 5-58A (65)

STA 56+26.1, 20.3' RT
CATCH BASINS 44A-57 (65B)

ADJUSTING SANITARY SEWER MANHOLE

STA 56+77.6, 51.5' RT
MANHOLE COVERS-58A (8)

STA 56+77.0, 46.5' LT
RECONSTRUCTING MANHOLES-58A (7)

STA 57+01.1, 47.9' LT
INLET COVERS-57
REPLACE TOP BRICK COURSE (INCIDENTAL) (7B)

STA 57+24.2, 23.2' LT
CATCH BASINS 44A-57 (70A)

STA 57+27.2, 3.7' LT
MANHOLES 6-58A (70)

90 DEG BEND (INCIDENTAL)

STA 57+51.5, 18.6' LT
INLETS 70A (70B)

WELLS ST R/L

STA 57+57.3, 25.1' RT
CATCH BASINS 4-57 (70D)

STA 57+19.5, 21.1' RT
CATCH BASINS 44A-57 (70C)

ADJUSTING SANITARY SEWER MANHOLE

STA 58+59.6, 18.1' RT
CATCH BASINS 44A-57 (80A)

STA 58+59.7, 11.1' RT
CONCRETE COLLAR (80B)

STA 60+10.3, 44.1' LT
RECONSTRUCTING MANHOLES-58A (9)

STA 59+88.2, 54.4' LT
INLET COVERS-57 (9B)

STA 59+61.4, 23.6' LT
CATCH BASINS 44A-57 (85A)

STA 59+55.4, 2.6' LT
MANHOLES 5-58A (85)

STA 59+70.0, 20.3' RT
CATCH BASINS 44A-57 (85B)

ADJUSTING SANITARY SEWER MANHOLE

STA 60+36.1, 58.4' LT
CATCH BASINS 44A-57 (9A)

STA 60+87.1, 18.6' LT
INLETS 70A (95B)

90 DEG BEND (INCIDENTAL)

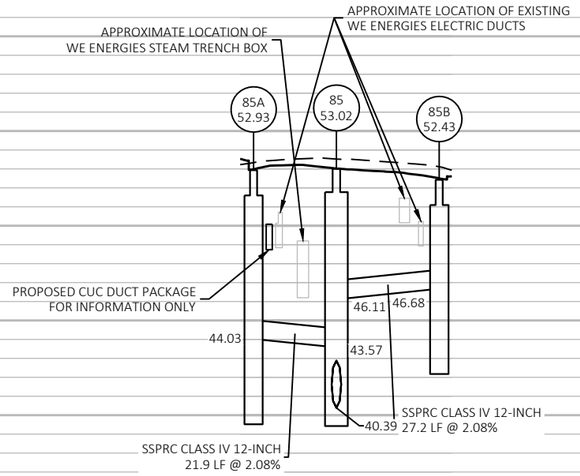
STA 60+55.8, 21.1' LT
CATCH BASINS 44A-57 (95A)

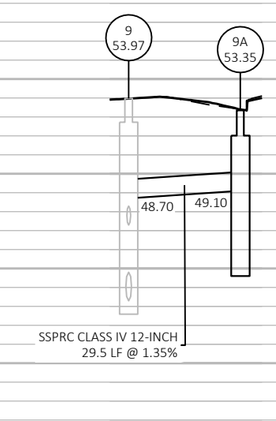
STA 60+56.0, 2.3' LT
MANHOLES 5-58A (95)

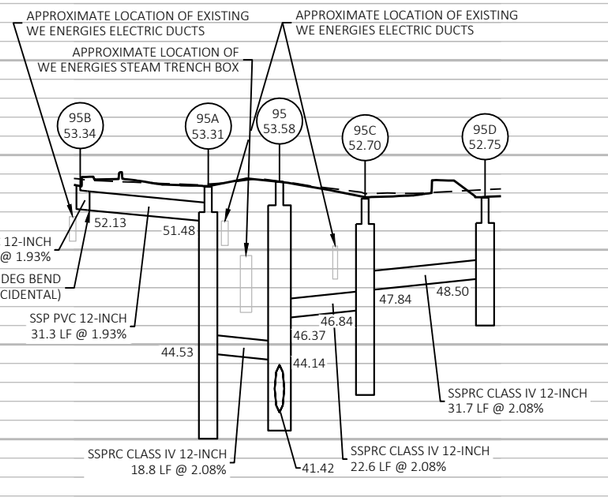
STA 60+11.4, 2.3' LT
MANHOLE COVERS-58A (90)

STA 60+55.0, 20.3' RT
CATCH BASINS 44A-57 (95C)

STA 60+86.6, 18.1' RT
CATCH BASINS 4-57 (95D)







PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	STORM SEWER	SHEET 91	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 02A

PLOT DATE : 7/21/2023 4:18 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

MATCH LINE - STA 61+00

STA 63+25.3, 64.0' LT
CATCH BASINS 44B-57
101A

STA 62+92.2, 22.9' LT
CATCH BASINS 44A-57
98A

STA 62+93.0, 2.2' LT
MANHOLES 5-58A
98

STA 62+92.2, 22.9' RT
CATCH BASINS 44B-57
98B

STA 63+20.6, 2.2' LT
MANHOLE COVERS-58A
100

ADJUSTING SANITARY SEWER MANHOLE

STA 63+47.8, 49.7' LT
RECONSTRUCTING MANHOLES-58A
101

STA 63+71, 50.9' LT
INLET COVERS-57
101B

STA 63+92, 21.1' LT
INLET COVERS-57
110A

STA 63+98, 3.4' LT
MANHOLE COVERS-58A
110

STA 63+93, 21.1' RT
INLET COVERS-57
110B

N VAN BUREN ST

WELLS ST / STH 32

WELLS ST R/L

R/W

TRANSFORMER

62+00 63+00 64+00 65+00 66+00 67+00

N

2

70 65 60 55 50 45 40 35

APPROXIMATE LOCATION OF EXISTING
WE ENERGIES ELECTRIC DUCTS

PROPOSED CUC DUCT PACKAGE
FOR INFORMATION ONLY

APPROXIMATE LOCATION OF
WE ENERGIES STEAM TRENCH BOX

98A 55.50
98 55.02
98B 54.12

48.84 49.37
45.75 45.32 43.48

SSPRC CLASS IV 12-INCH
25.1 LF @ 2.08%

SSPRC CLASS IV 12-INCH
20.8 LF @ 2.08%

101A 56.20
101 56.73

52.45 51.70

SSPRC CLASS IV 12-INCH
26.6 LF @ 2.82%

APPROXIMATE LOCATION OF
WE ENERGIES STEAM TRENCH BOX

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	STORM SEWER	SHEET 92 E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 03
PLOT DATE : 7/21/2023 4:18 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

NOTES:
1. THE LOCATION OF THE EXISTING AND PROPOSED CUC INSTALLATIONS ARE APPROXIMATE. LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD PRIOR TO INSTALLATION.
2. STATIONS, OFFSETS, AND DIMENSIONS ARE TO THE CENTER OF THE MANHOLE OR DUCT PACKAGE.
3. MAINTAIN A STANDARD DEPTH OF 39" FROM FINISHED GRADE TO TOP OF DUCT PACKAGE UNLESS NOTED OTHERWISE.
4. ALL EXISTING CUC CONDUIT WITHIN THE CONSTRUCTION LIMITS SHALL REMAIN UNLESS NOTED TO BE REMOVED OR ABANDONED, OR IF IN CONFLICT WITH NEW DUCT PACKAGE.

LEGEND

- CUC — 4-INCH NONMETALLIC CONDUIT CONCRETE ENCASED (NUMBER OF RUNS AS NOTED)
- CUC MANHOLE
- EXISTING CUC MANHOLE
- CUC — EXISTING CONDUIT
- EXISTING CONDUIT TO BE ABANDONED
- EXISTING CONDUIT TO BE REMOVED

STA 50+24, 44' LT
ADJUSTING CUC MANHOLE COVERS

STA 51+07, 18' LT
DIP CUC DUCT PACKAGE TO 63" DEPTH TO CLEAR ELECTRIC CONDUIT

280'
6 - 4" PVC CONDUIT
CONCRETE ENCASED

STA 53+37, 54' LT
ADJUSTING CUC MANHOLE COVERS

EXISTING CUC MANHOLE TO REMAIN

STA 53+00, 24' LT
ADJUSTING CUC MANHOLE COVERS
LOCATE AND ATTACH TO EXISTING 4-INCH PVC STUBS AT EXISTING MANHOLE

STA 53+91, 26' LT
LOCATE AND CONNECT CONDUIT TO EXISTING CONDUIT STUB

300'
6 - 4" PVC CONDUIT
CONCRETE ENCASED

WELLS ST R/L

STA 51+74, 19' RT
REMOVE MANHOLE

STA 50+25, 1' RT
LOCATE AND CONNECT CONDUIT TO EXISTING CONDUIT STUB

N BROADWAY

N MILWAUKEE ST

WELLS ST

WELLS ST / STH 32

49+00 50+00 51+00 52+00 53+00 54+00 55+

MATCH LINE - STA 55+00

CUC HUB INFORMATION			
HUB NO.	ANGLE, RADIUS	STA	OFFSET
1	30 DEG, 25' R	STA 50+68.3	23.9' LT
2	30 DEG, 25' R	STA 51+20.8	3.5' RT
3	30 DEG, 12.5' R	STA 54+00.4	38.5' LT
4	30 DEG, 12.5' R	STA 54+27.2	25.1' LT
5	30 DEG, 12.5' R	STA 54+86.1	25.1' LT

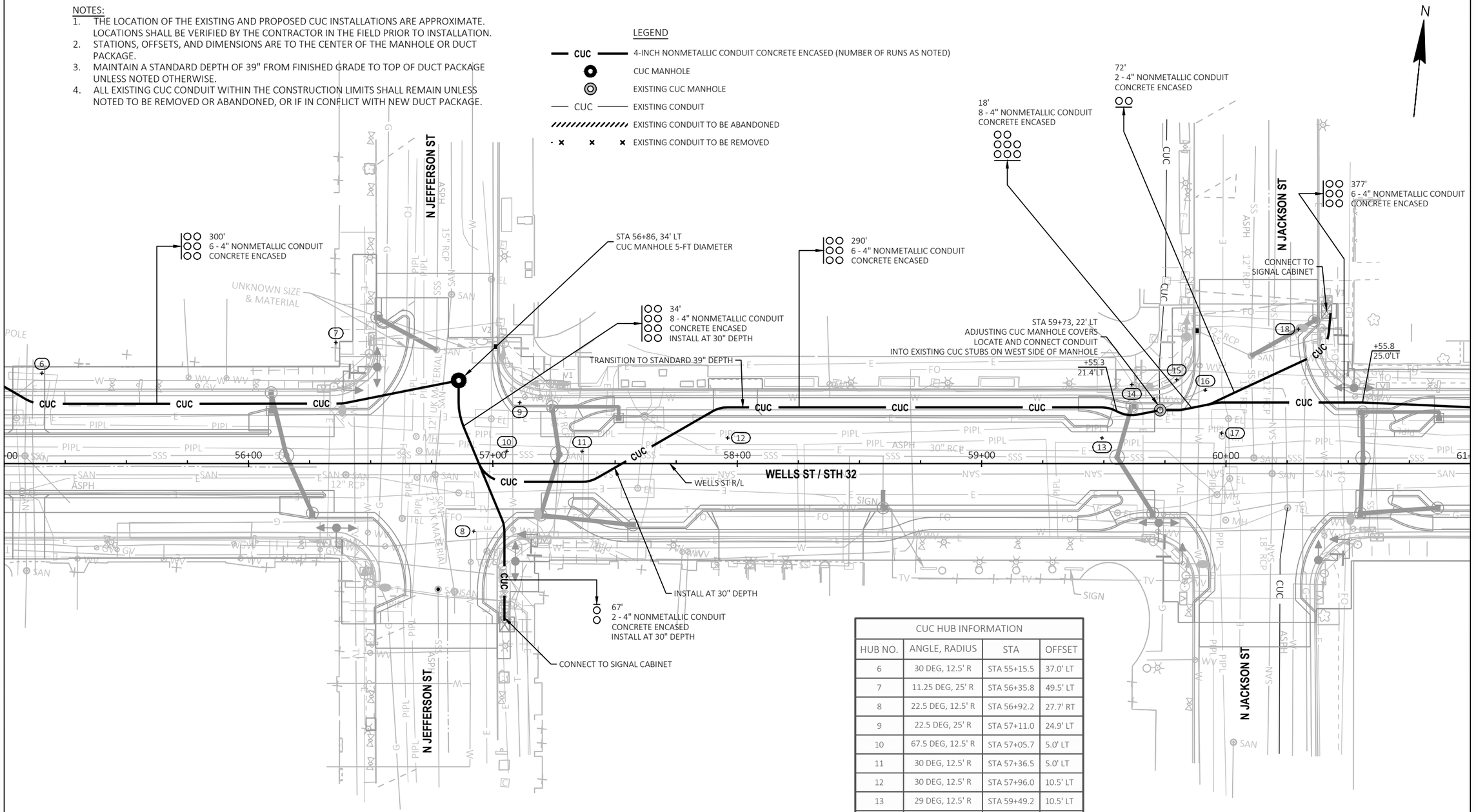
PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT	SHEET 93	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\023001-CUC.DWG
LAYOUT NAME - 01
PLOT DATE : 7/21/2023 4:19 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

NOTES:
1. THE LOCATION OF THE EXISTING AND PROPOSED CUC INSTALLATIONS ARE APPROXIMATE. LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD PRIOR TO INSTALLATION.
2. STATIONS, OFFSETS, AND DIMENSIONS ARE TO THE CENTER OF THE MANHOLE OR DUCT PACKAGE.
3. MAINTAIN A STANDARD DEPTH OF 39" FROM FINISHED GRADE TO TOP OF DUCT PACKAGE UNLESS NOTED OTHERWISE.
4. ALL EXISTING CUC CONDUIT WITHIN THE CONSTRUCTION LIMITS SHALL REMAIN UNLESS NOTED TO BE REMOVED OR ABANDONED, OR IF IN CONFLICT WITH NEW DUCT PACKAGE.

LEGEND

- CUC — 4-INCH NONMETALLIC CONDUIT CONCRETE ENCASED (NUMBER OF RUNS AS NOTED)
- CUC MANHOLE
- EXISTING CUC MANHOLE
- CUC — EXISTING CONDUIT
- EXISTING CONDUIT TO BE ABANDONED
- EXISTING CONDUIT TO BE REMOVED



CUC HUB INFORMATION

HUB NO.	ANGLE, RADIUS	STA	OFFSET
6	30 DEG, 12.5' R	STA 55+15.5	37.0' LT
7	11.25 DEG, 25' R	STA 56+35.8	49.5' LT
8	22.5 DEG, 12.5' R	STA 56+92.2	27.7' RT
9	22.5 DEG, 25' R	STA 57+11.0	24.9' LT
10	67.5 DEG, 12.5' R	STA 57+05.7	5.0' LT
11	30 DEG, 12.5' R	STA 57+36.5	5.0' LT
12	30 DEG, 12.5' R	STA 57+96.0	10.5' LT
13	29 DEG, 12.5' R	STA 59+49.2	10.5' LT
14	40 DEG, 12.5' R	STA 59+61.4	32.3' LT
15	11.25 DEG, 12.5' R	STA 59+79.8	34.3' LT
16	11.25 DEG, 6' R	STA 59+91.5	30.1' LT
17	11.25 DEG, 12.5' R	STA 59+98.2	12.5' LT
18	60 DEG, 12.5' R	STA 60+29.6	55.0' LT

NOTES:
1. THE LOCATION OF THE EXISTING AND PROPOSED CUC INSTALLATIONS ARE APPROXIMATE. LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD PRIOR TO INSTALLATION.
2. STATIONS, OFFSETS, AND DIMENSIONS ARE TO THE CENTER OF THE MANHOLE OR DUCT PACKAGE.
3. MAINTAIN A STANDARD DEPTH OF 39" FROM FINISHED GRADE TO TOP OF DUCT PACKAGE UNLESS NOTED OTHERWISE.
4. ALL EXISTING CUC CONDUIT WITHIN THE CONSTRUCTION LIMITS SHALL REMAIN UNLESS NOTED TO BE REMOVED OR ABANDONED, OR IF IN CONFLICT WITH NEW DUCT PACKAGE.

LEGEND

- CUC — 4-INCH NONMETALLIC CONDUIT CONCRETE ENCASED (NUMBER OF RUNS AS NOTED)
- CUC MANHOLE
- EXISTING CUC MANHOLE
- CUC — EXISTING CONDUIT
- EXISTING CONDUIT TO BE ABANDONED
- EXISTING CONDUIT TO BE REMOVED

N

MATCH LINE - STA 61+00

377'
6 - 4" NONMETALLIC CONDUIT
CONCRETE ENCASED

STA 63+61, 3' LT
ADJUSTING CUC MANHOLE COVERS

STA 62+81 TO STA 62+91, 9' LT TO 16' LT
DIP CUC DUCT PACKAGE TO 43" DEPTH
TO CLEAR ELECTRIC CONDUIT AND STEAM TRENCH BOX

TRANSITION CUC DUCT PACKAGE ORIENTATION
FROM 3WX2H TO 6WX1H

CONNECT TO SIGNAL CABINET

71'
2 - 4" NONMETALLIC CONDUIT
CONCRETE ENCASED

+24.5 22.0'LT
+96.7 22.0'LT
+19.5 24.0'LT

N VAN BUREN ST

WELLS ST R/L

WELLS ST / STH 32

62+00 63+00 64+00 65+00 66+00 67+00

STA 64+06, 16' RT
CAP CONDUIT ENDS

43'
6 - 4" NONMETALLIC CONDUIT
CONCRETE ENCASED

2'
6 - 4" NONMETALLIC CONDUIT
CONCRETE ENCASED

STA 63+22, 8' RT
DIP CUC DUCT PACKAGE TO 63" DEPTH TO
CLEAR ELECTRIC CONDUIT

TRANSFORMER

TRANSITION CUC DUCT PACKAGE ORIENTATION
FROM 6WX1H TO 3WX2H

STA 63+60, 16' RT
CUC MANHOLE DOGHOUSE 4-FT DIAMETER INSTALLED OVER CONDUIT

N VAN BUREN ST

CUC HUB INFORMATION

HUB NO.	ANGLE, RADIUS	STA	OFFSET
19	30 DEG, 12.5' R	STA 62+63.5	11.5' LT
20	30 DEG, 12.5' R	STA 63+39.5	3.5' RT
21	45 DEG, 6' R	STA 63+64.3	10.0' RT
22	45 DEG, 12.5' R	STA 63+87.7	22.6' LT

2

2

SIGNING LEGEND

▷ / ▯	EXISTING SIGN MOUNTED ON POST / POLE
▶ / ▮	PROPOSED SIGN MOUNTED ON POST / POLE
###	NEW SIGN NUMBER
M###	MOVING SIGNS
ESTR	EXISTING SIGN TO REMAIN

NOTE: CITY OF MILWAUKEE WILL REMOVE AND INSTALL ALL SIGNS UNLESS NOTED HERE

N

N BROADWAY

N MILWAUKEE ST

WELLS ST

49+00 50+00 51+00 52+00 53+00 54+00 55+

MATCH LINE - STA 55+00

ESTR TO EAST INTERSTATE 794

ESTR WEST 18

102 TO NORTH 32 M4-5 24"X12" M102

101 M4-5 24"X12" TO NORTH 32 SOUTH 32 EAST 18 M101

103 NORTH 32 M3-1 M1-6B M6-1 J3-1 24"X57"

ESTR NORTH 32 DO NOT PASS

GUY POLE V1 V2 V3 V4 SIGN BILLBOARD CONC ASPH

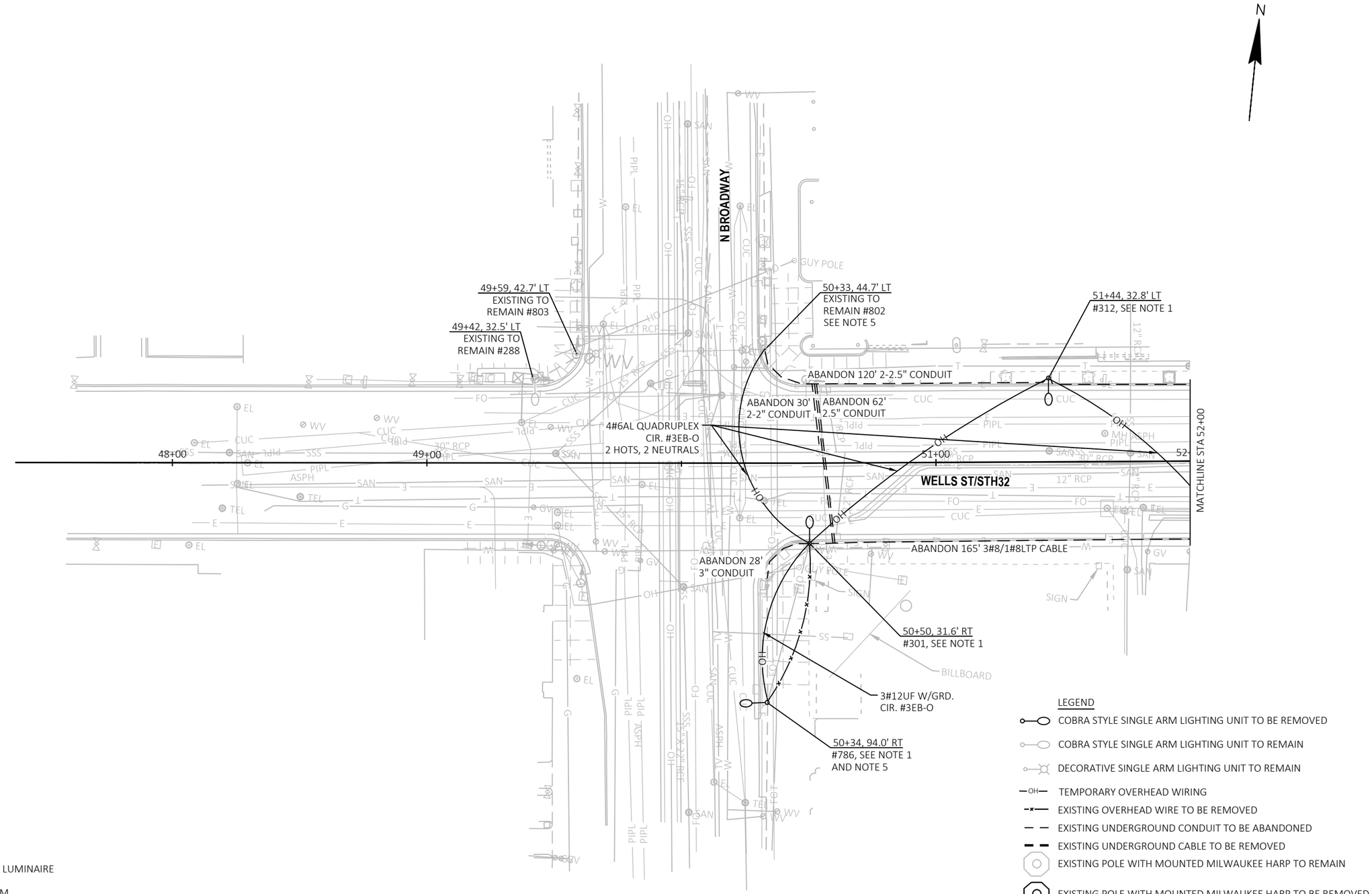
PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	EXISTING AND PERMANENT SIGNING	SHEET 96	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:20 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



NOTE:

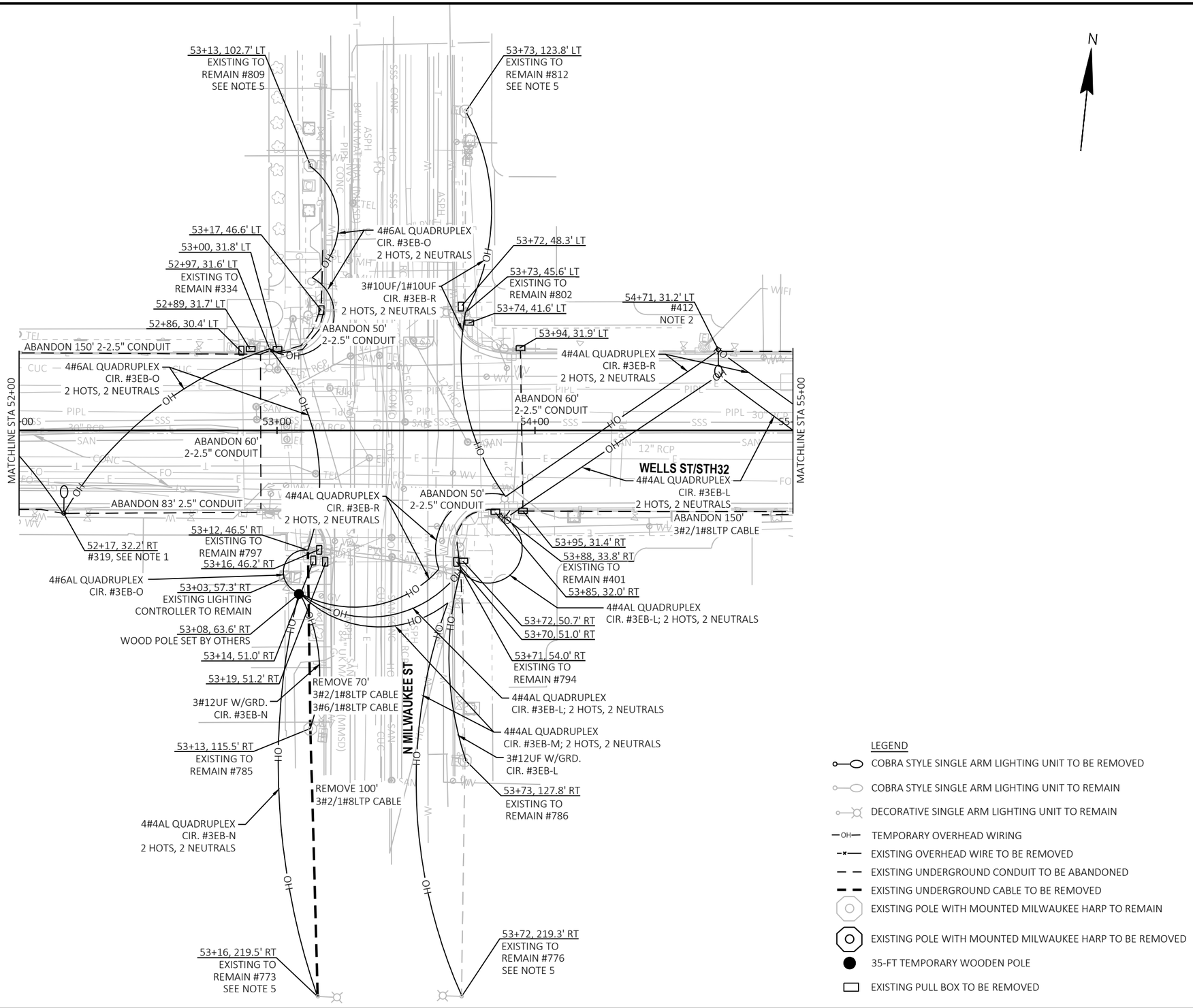
1. SALVAGE CLAMPS, BRACKET ARM, AND LUMINAIRE
2. SALVAGE LUMINAIRE
3. SALVAGE LUMINAIRE AND BRACKET ARM
4. ALL CONDUITS TO REMAIN UNLESS NOTED FOR ABANDONMENT OR REMOVAL
5. CONTRACTOR TO LEAVE 3 FT. COIL ON LIGHT POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY

LEGEND

- COBRA STYLE SINGLE ARM LIGHTING UNIT TO BE REMOVED
- COBRA STYLE SINGLE ARM LIGHTING UNIT TO REMAIN
- DECORATIVE SINGLE ARM LIGHTING UNIT TO REMAIN
- OH — TEMPORARY OVERHEAD WIRING
- EXISTING OVERHEAD WIRE TO BE REMOVED
- EXISTING UNDERGROUND CONDUIT TO BE ABANDONED
- EXISTING UNDERGROUND CABLE TO BE REMOVED
- EXISTING POLE WITH MOUNTED MILWAUKEE HARP TO REMAIN
- EXISTING POLE WITH MOUNTED MILWAUKEE HARP TO BE REMOVED
- 35-FT TEMPORARY WOODEN POLE
- EXISTING PULL BOX TO BE REMOVED

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	LIGHTING REMOVAL AND TEMPORARY OVERHEAD	SHEET 97	E

2

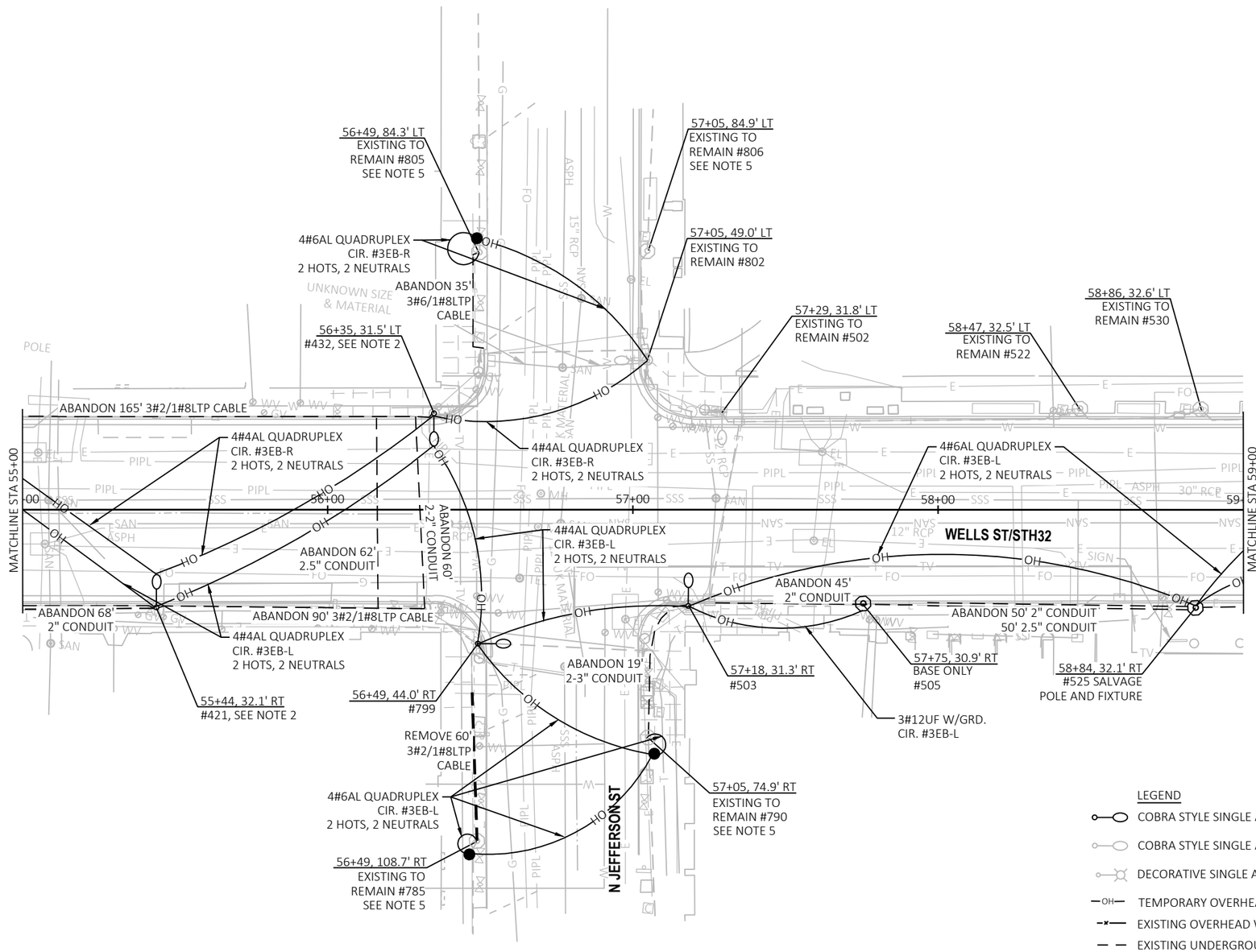


NOTE:

1. SALVAGE CLAMPS, BRACKET ARM, AND LUMINAIRE
2. SALVAGE LUMINAIRE
3. SALVAGE LUMINAIRE AND BRACKET ARM
4. ALL CONDUITS TO REMAIN UNLESS NOTED FOR ABANDONMENT OR REMOVAL
5. CONTRACTOR TO LEAVE 3 FT. COIL ON LIGHT POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	LIGHTING REMOVAL AND TEMPORARY OVERHEAD	SHEET 98	E

2



NOTE:

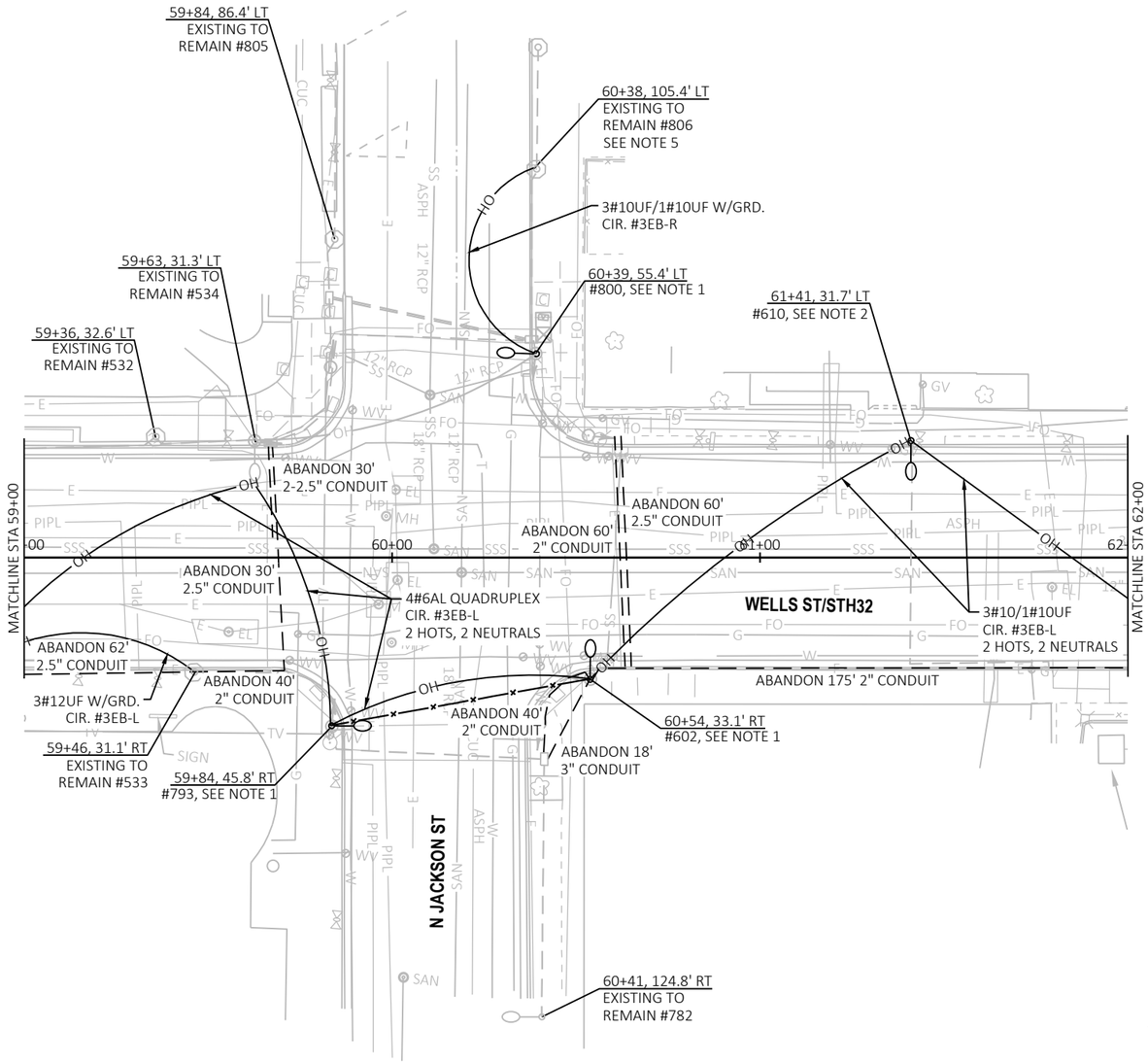
1. SALVAGE CLAMPS, BRACKET ARM, AND LUMINAIRE
2. SALVAGE LUMINAIRE
3. SALVAGE LUMINAIRE AND BRACKET ARM
4. ALL CONDUITS TO REMAIN UNLESS NOTED FOR ABANDONMENT OR REMOVAL
5. CONTRACTOR TO LEAVE 3 FT. COIL ON LIGHT POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY

LEGEND

- COBRA STYLE SINGLE ARM LIGHTING UNIT TO BE REMOVED
- COBRA STYLE SINGLE ARM LIGHTING UNIT TO REMAIN
- DECORATIVE SINGLE ARM LIGHTING UNIT TO REMAIN
- TEMPORARY OVERHEAD WIRING
- EXISTING OVERHEAD WIRE TO BE REMOVED
- EXISTING UNDERGROUND CONDUIT TO BE ABANDONED
- EXISTING UNDERGROUND CABLE TO BE REMOVED
- EXISTING POLE WITH MOUNTED MILWAUKEE HARP TO REMAIN
- EXISTING POLE WITH MOUNTED MILWAUKEE HARP TO BE REMOVED
- 35-FT TEMPORARY WOODEN POLE
- EXISTING PULL BOX TO BE REMOVED

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	LIGHTING REMOVAL AND TEMPORARY OVERHEAD	SHEET 99	E

2



NOTE:

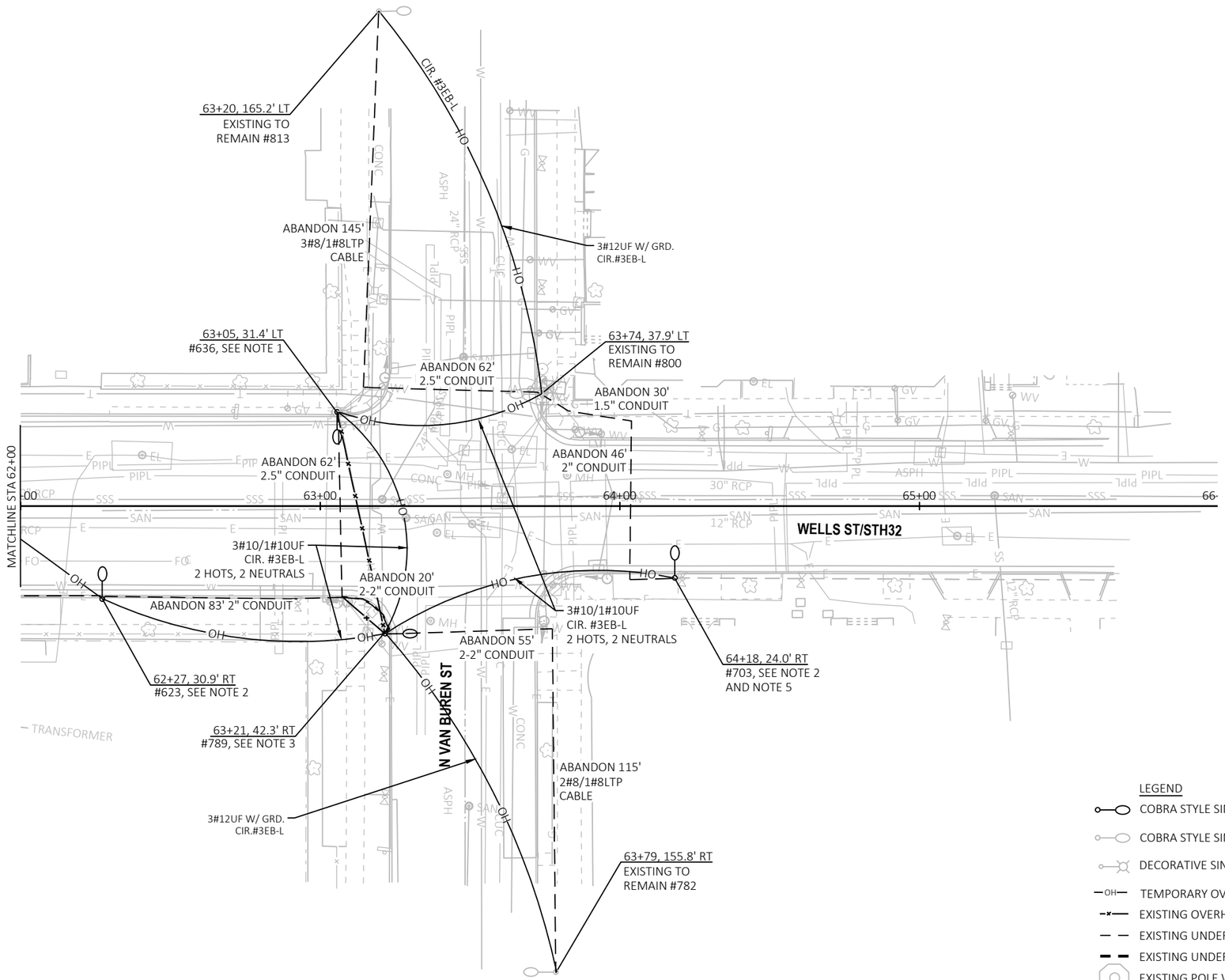
1. SALVAGE CLAMPS, BRACKET ARM, AND LUMINAIRE
2. SALVAGE LUMINAIRE
3. SALVAGE LUMINAIRE AND BRACKET ARM
4. ALL CONDUITS TO REMAIN UNLESS NOTED FOR ABANDONMENT OR REMOVAL
5. CONTRACTOR TO LEAVE 3 FT. COIL ON LIGHT POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY

LEGEND

- COBRA STYLE SINGLE ARM LIGHTING UNIT TO BE REMOVED
- COBRA STYLE SINGLE ARM LIGHTING UNIT TO REMAIN
- DECORATIVE SINGLE ARM LIGHTING UNIT TO REMAIN
- OH — TEMPORARY OVERHEAD WIRING
- EXISTING OVERHEAD WIRE TO BE REMOVED
- EXISTING UNDERGROUND CONDUIT TO BE ABANDONED
- EXISTING UNDERGROUND CABLE TO BE REMOVED
- EXISTING POLE WITH MOUNTED MILWAUKEE HARP TO REMAIN
- EXISTING POLE WITH MOUNTED MILWAUKEE HARP TO BE REMOVED
- 35-FT TEMPORARY WOODEN POLE
- EXISTING PULL BOX TO BE REMOVED

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	LIGHTING REMOVAL AND TEMPORARY OVERHEAD	SHEET 100	E

2



NOTE:

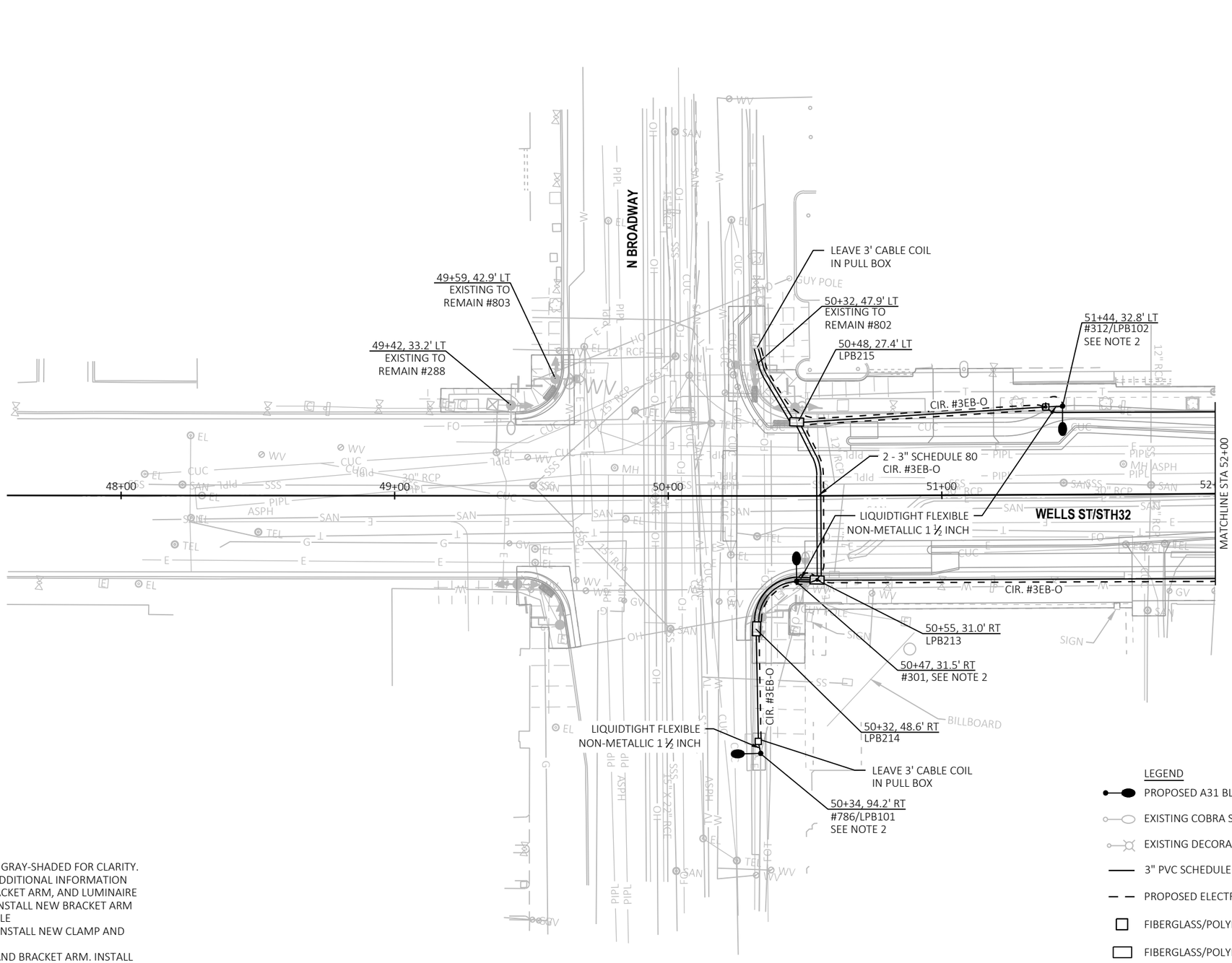
1. SALVAGE CLAMPS, BRACKET ARM, AND LUMINAIRE
2. SALVAGE LUMINAIRE
3. SALVAGE LUMINAIRE AND BRACKET ARM
4. ALL CONDUITS TO REMAIN UNLESS NOTED FOR ABANDONMENT OR REMOVAL
5. CONTRACTOR TO LEAVE 3 FT. COIL ON LIGHT POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY

LEGEND

- COBRA STYLE SINGLE ARM LIGHTING UNIT TO BE REMOVED
- COBRA STYLE SINGLE ARM LIGHTING UNIT TO REMAIN
- DECORATIVE SINGLE ARM LIGHTING UNIT TO REMAIN
- —OH— TEMPORARY OVERHEAD WIRING
- EXISTING OVERHEAD WIRE TO BE REMOVED
- EXISTING UNDERGROUND CONDUIT TO BE ABANDONED
- EXISTING UNDERGROUND CABLE TO BE REMOVED
- EXISTING POLE WITH MOUNTED MILWAUKEE HARP TO REMAIN
- EXISTING POLE WITH MOUNTED MILWAUKEE HARP TO BE REMOVED
- 35-FT TEMPORARY WOODEN POLE
- EXISTING PULL BOX TO BE REMOVED

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	LIGHTING REMOVAL AND TEMPORARY OVERHEAD	SHEET 101	E

2



NOTES:

1. PROPOSED SIGNALS SHOWN GRAY-SHADED FOR CLARITY. SEE SIGNAL PLAN FOR FOR ADDITIONAL INFORMATION
2. USE SALVAGED CLAMPS, BRACKET ARM, AND LUMINAIRE
3. USE SALVAGED LUMINAIRE INSTALL NEW BRACKET ARM ON EXISTING SMALL CELL POLE
4. USE SALVAGED LUMINAIRE. INSTALL NEW CLAMP AND BRACKET ARM.
5. USE SALVAGED LUMINAIRE AND BRACKET ARM. INSTALL NEW CLAMP.
6. LOCATIONS OF LIGHTING FACILITIES ARE APPROXIMATE AND MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

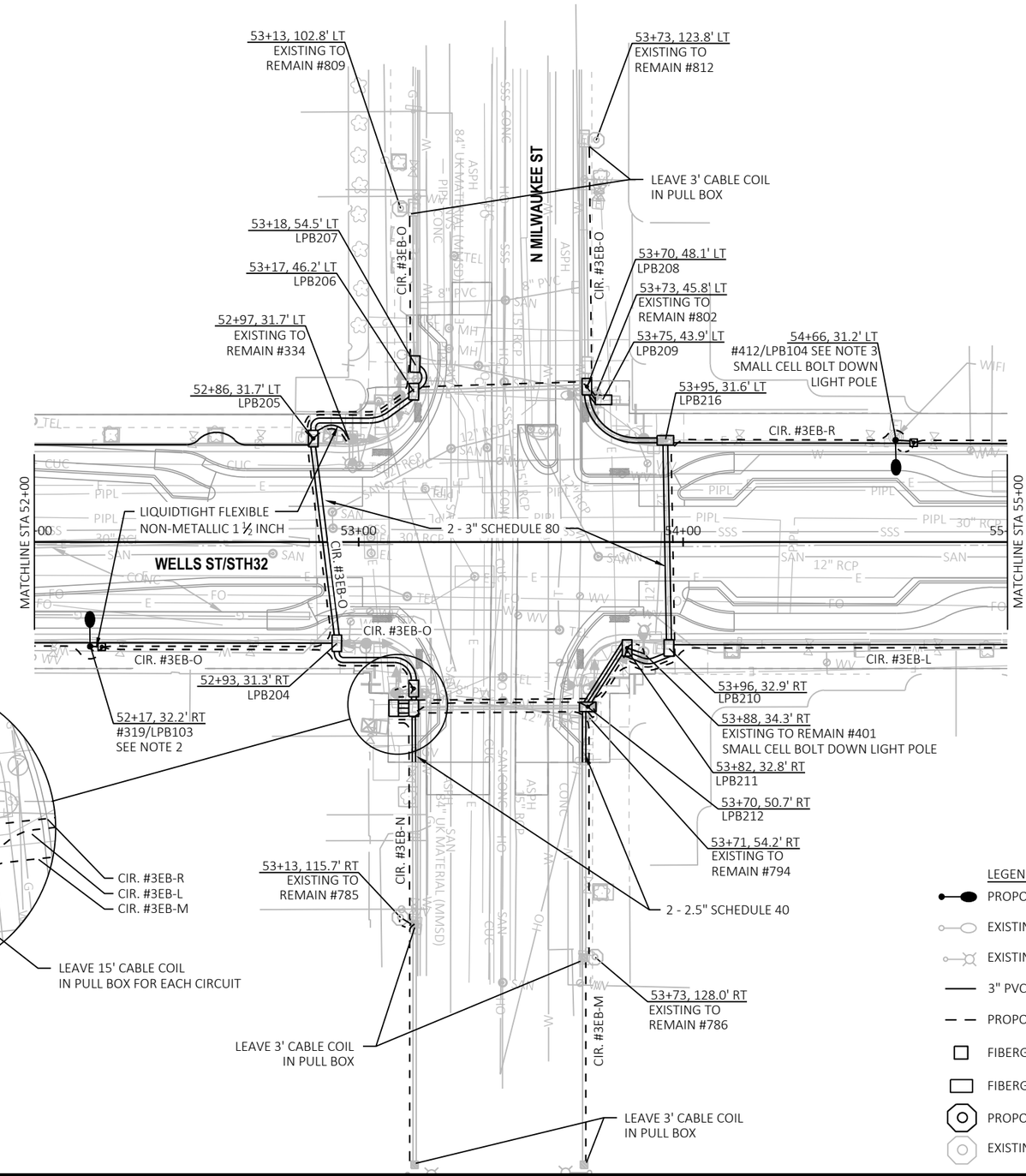
LEGEND

- PROPOSED A31 BLACK CONCRETE POLE, 6-FT ARM, COBRA LUMINAIRE
- EXISTING COBRA SINGLE ARM LIGHTING UNIT TO REMAIN
- EXISTING DECORATIVE SINGLE ARM LIGHTING UNIT TO REMAIN
- 3" PVC SCHEDULE 40 CONDUIT UNLESS OTHERWISE NOTED
- PROPOSED ELECTRICAL CABLE TYPE 4#2 / 1#8 XLP
- FIBERGLASS/POLYMER CONCRETE PULL BOX 13-INCH X 24-INCH X 24-INCH
- FIBERGLASS/POLYMER CONCRETE PULL BOX 17-INCH X 30-INCH X 24-INCH
- PROPOSED POLE WITH MOUNTED MILWAUKEE HARP
- EXISTING POLE WITH MOUNTED MILWAUKEE HARP TO REMAIN

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 102	E

FILE NAME : V:\PROJECTS\21436_RAS_WELLS STREET\04_CADD_01\CADD_SHEETS\023601_LP.DWG
LAYOUT NAME - 01
PLOT DATE : 7/31/2023 10:22 AM
PLOT BY : ALEXANDER UNDERWOOD
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



NOTES:

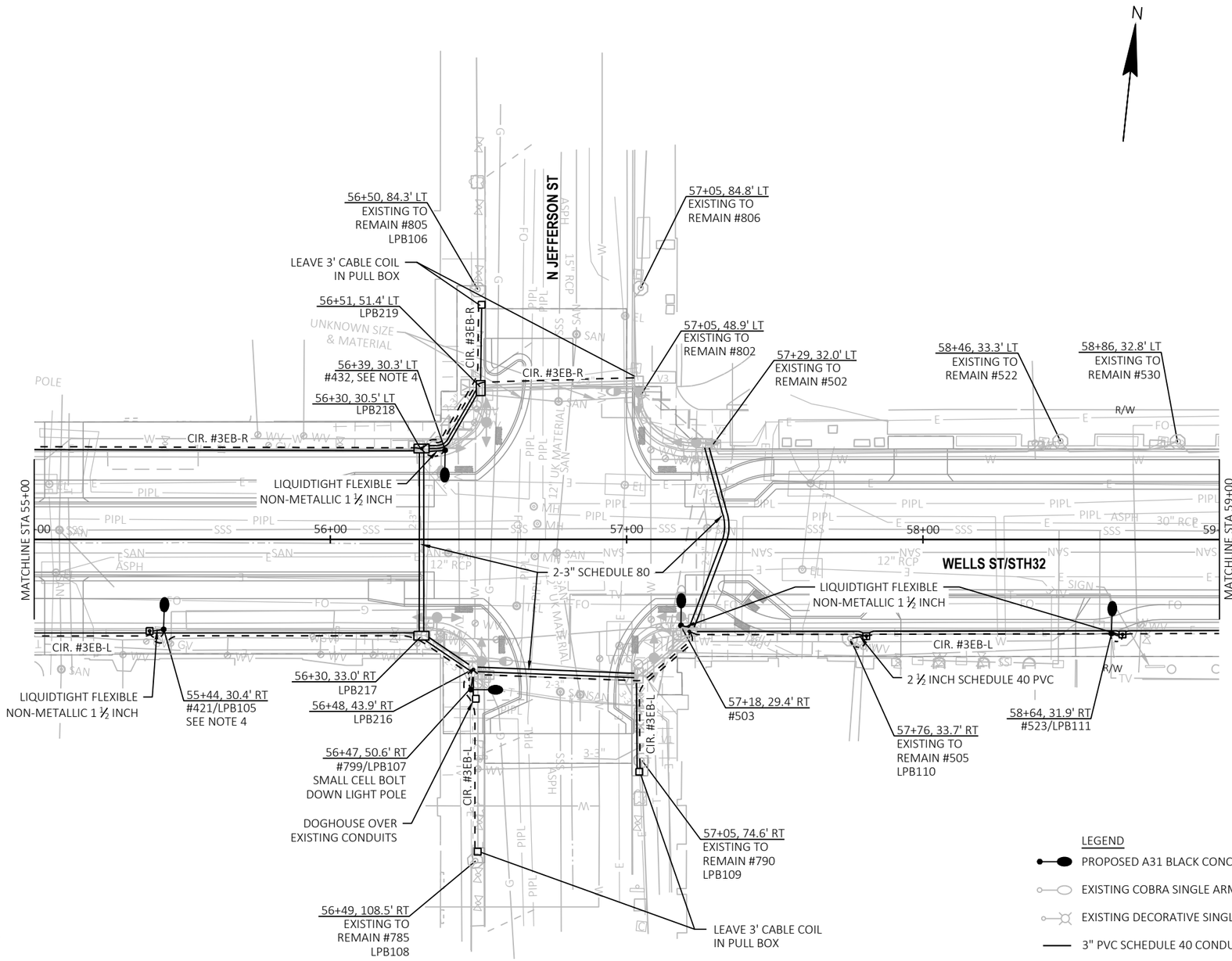
1. PROPOSED SIGNALS SHOWN GRAY-SHADED FOR CLARITY. SEE SIGNAL PLAN FOR FOR ADDITIONAL INFORMATION
2. USE SALVAGED CLAMPS, BRACKET ARM, AND LUMINAIRE
3. USE SALVAGED LUMINAIRE INSTALL NEW BRACKET ARM ON EXISTING SMALL CELL POLE
4. USE SALVAGED LUMINAIRE. INSTALL NEW CLAMP AND BRACKET ARM.
5. USE SALVAGED LUMINAIRE AND BRACKET ARM. INSTALL NEW CLAMP.
6. LOCATIONS OF LIGHTING FACILITIES ARE APPROXIMATE AND MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

LEGEND

- PROPOSED A31 BLACK CONCRETE POLE, 6-FT ARM, COBRA LUMINAIRE
- EXISTING COBRA SINGLE ARM LIGHTING UNIT TO REMAIN
- EXISTING DECORATIVE SINGLE ARM LIGHTING UNIT TO REMAIN
- 3" PVC SCHEDULE 40 CONDUIT UNLESS OTHERWISE NOTED
- PROPOSED ELECTRICAL CABLE TYPE 4#2 / 1#8 XLP
- FIBERGLASS/POLYMER CONCRETE PULL BOX 13-INCH X 24-INCH X 24-INCH
- FIBERGLASS/POLYMER CONCRETE PULL BOX 17-INCH X 30-INCH X 24-INCH
- PROPOSED POLE WITH MOUNTED MILWAUKEE HARP
- EXISTING POLE WITH MOUNTED MILWAUKEE HARP TO REMAIN

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 103	E

2



NOTES:

1. PROPOSED SIGNALS SHOWN GRAY-SHADED FOR CLARITY. SEE SIGNAL PLAN FOR FOR ADDITIONAL INFORMATION
2. USE SALVAGED CLAMPS, BRACKET ARM, AND LUMINAIRE
3. USE SALVAGED LUMINAIRE INSTALL NEW BRACKET ARM ON EXISTING SMALL CELL POLE
4. USE SALVAGED LUMINAIRE. INSTALL NEW CLAMP AND BRACKET ARM.
5. USE SALVAGED LUMINAIRE AND BRACKET ARM. INSTALL NEW CLAMP.
6. LOCATIONS OF LIGHTING FACILITIES ARE APPROXIMATE AND MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

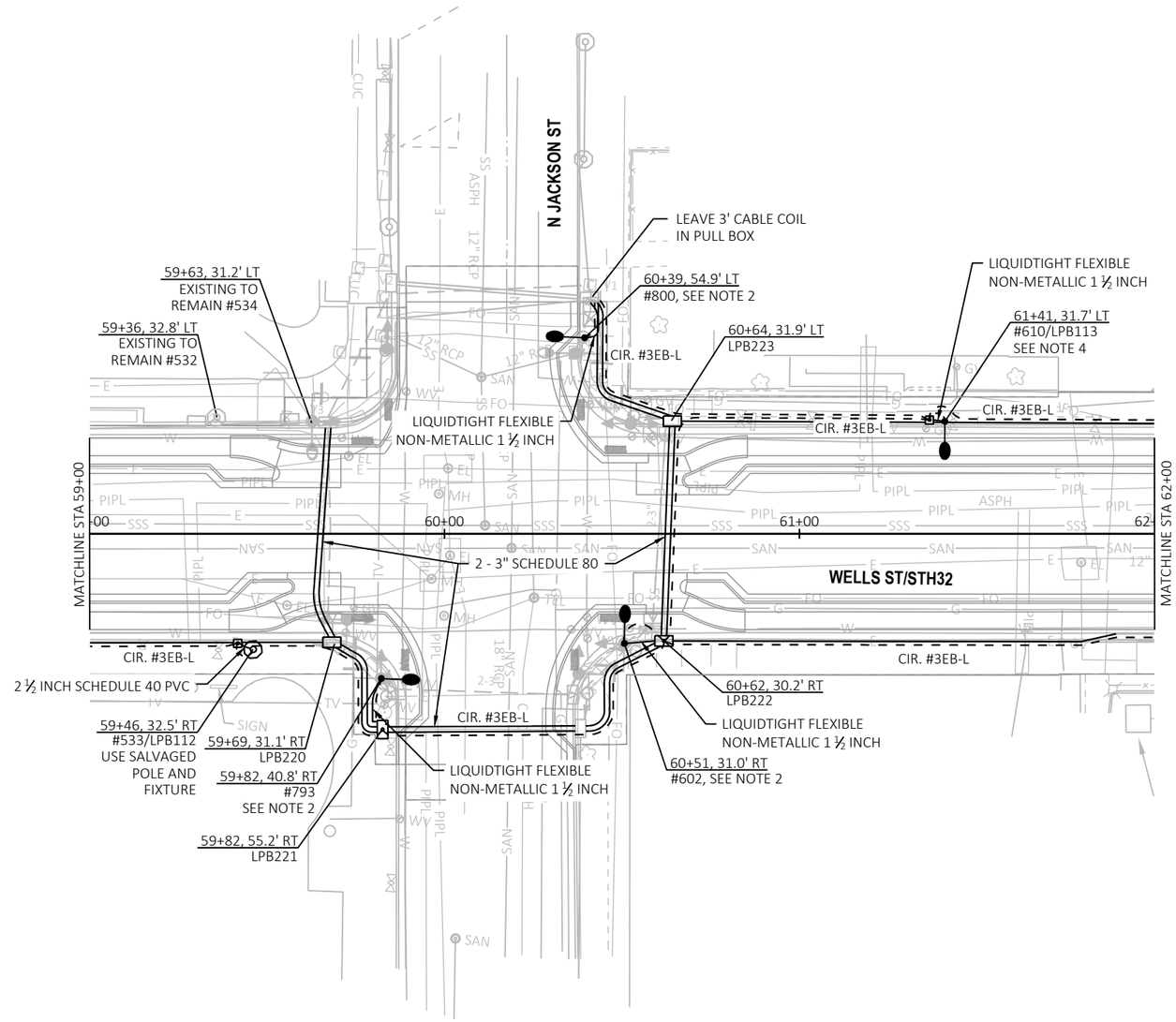
LEGEND

- PROPOSED A31 BLACK CONCRETE POLE, 6-FT ARM, COBRA LUMINAIRE
- EXISTING COBRA SINGLE ARM LIGHTING UNIT TO REMAIN
- EXISTING DECORATIVE SINGLE ARM LIGHTING UNIT TO REMAIN
- 3" PVC SCHEDULE 40 CONDUIT UNLESS OTHERWISE NOTED
- PROPOSED ELECTRICAL CABLE TYPE 4#2 / 1#8 XLP
- FIBERGLASS/POLYMER CONCRETE PULL BOX 13-INCH X 24-INCH X 24-INCH
- FIBERGLASS/POLYMER CONCRETE PULL BOX 17-INCH X 30-INCH X 24-INCH
- PROPOSED POLE WITH MOUNTED MILWAUKEE HARP
- EXISTING POLE WITH MOUNTED MILWAUKEE HARP TO REMAIN

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 104	E

2

N



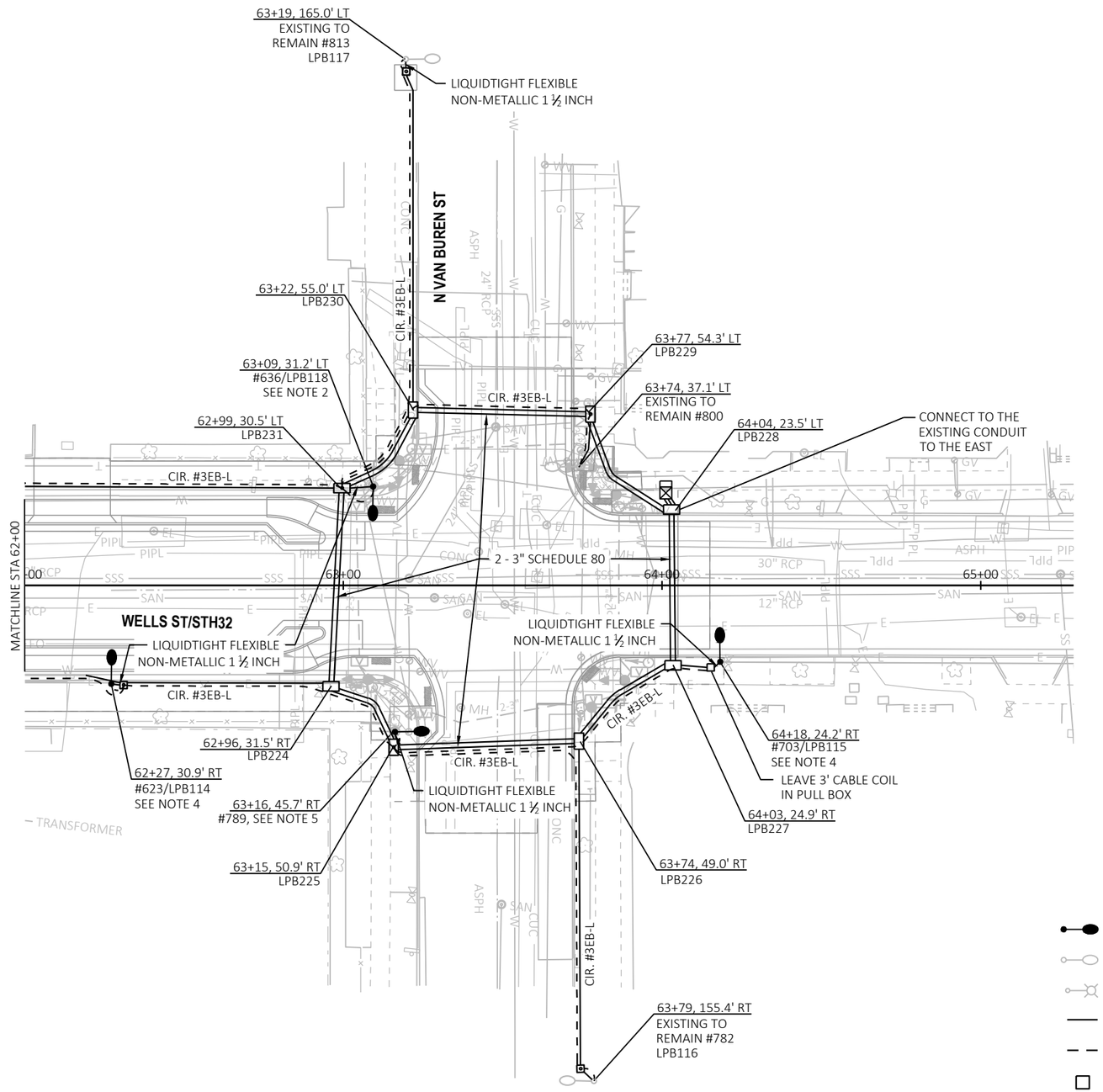
NOTES:

1. PROPOSED SIGNALS SHOWN GRAY-SHADED FOR CLARITY. SEE SIGNAL PLAN FOR FOR ADDITIONAL INFORMATION
2. USE SALVAGED CLAMPS, BRACKET ARM, AND LUMINAIRE
3. USE SALVAGED LUMINAIRE INSTALL NEW BRACKET ARM ON EXISTING SMALL CELL POLE
4. USE SALVAGED LUMINAIRE. INSTALL NEW CLAMP AND BRACKET ARM.
5. USE SALVAGED LUMINAIRE AND BRACKET ARM. INSTALL NEW CLAMP.
6. LOCATIONS OF LIGHTING FACILITIES ARE APPROXIMATE AND MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

LEGEND

- PROPOSED A31 BLACK CONCRETE POLE, 6-FT ARM, COBRA LUMINAIRE
- EXISTING COBRA SINGLE ARM LIGHTING UNIT TO REMAIN
- EXISTING DECORATIVE SINGLE ARM LIGHTING UNIT TO REMAIN
- 3" PVC SCHEDULE 40 CONDUIT UNLESS OTHERWISE NOTED
- PROPOSED ELECTRICAL CABLE TYPE 4#2 / 1#8 XLP
- FIBERGLASS/POLYMER CONCRETE PULL BOX 13-INCH X 24-INCH X 24-INCH
- FIBERGLASS/POLYMER CONCRETE PULL BOX 17-INCH X 30-INCH X 24-INCH
- PROPOSED POLE WITH MOUNTED MILWAUKEE HARP
- EXISTING POLE WITH MOUNTED MILWAUKEE HARP TO REMAIN

2



NOTES:

1. PROPOSED SIGNALS SHOWN GRAY-SHADED FOR CLARITY. SEE SIGNAL PLAN FOR FOR ADDITIONAL INFORMATION
2. USE SALVAGED CLAMPS, BRACKET ARM, AND LUMINAIRE
3. USE SALVAGED LUMINAIRE INSTALL NEW BRACKET ARM ON EXISTING SMALL CELL POLE
4. USE SALVAGED LUMINAIRE. INSTALL NEW CLAMP AND BRACKET ARM.
5. USE SALVAGED LUMINAIRE AND BRACKET ARM. INSTALL NEW CLAMP.
6. LOCATIONS OF LIGHTING FACILITIES ARE APPROXIMATE AND MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

LEGEND

- PROPOSED A31 BLACK CONCRETE POLE, 6-FT ARM, COBRA LUMINAIRE
- EXISTING COBRA SINGLE ARM LIGHTING UNIT TO REMAIN
- EXISTING DECORATIVE SINGLE ARM LIGHTING UNIT TO REMAIN
- 3" PVC SCHEDULE 40 CONDUIT UNLESS OTHERWISE NOTED
- PROPOSED ELECTRICAL CABLE TYPE 4#2 / 1#8 XLP
- FIBERGLASS/POLYMER CONCRETE PULL BOX 13-INCH X 24-INCH X 24-INCH
- FIBERGLASS/POLYMER CONCRETE PULL BOX 17-INCH X 30-INCH X 24-INCH
- PROPOSED POLE WITH MOUNTED MILWAUKEE HARP
- EXISTING POLE WITH MOUNTED MILWAUKEE HARP TO REMAIN

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 106	E

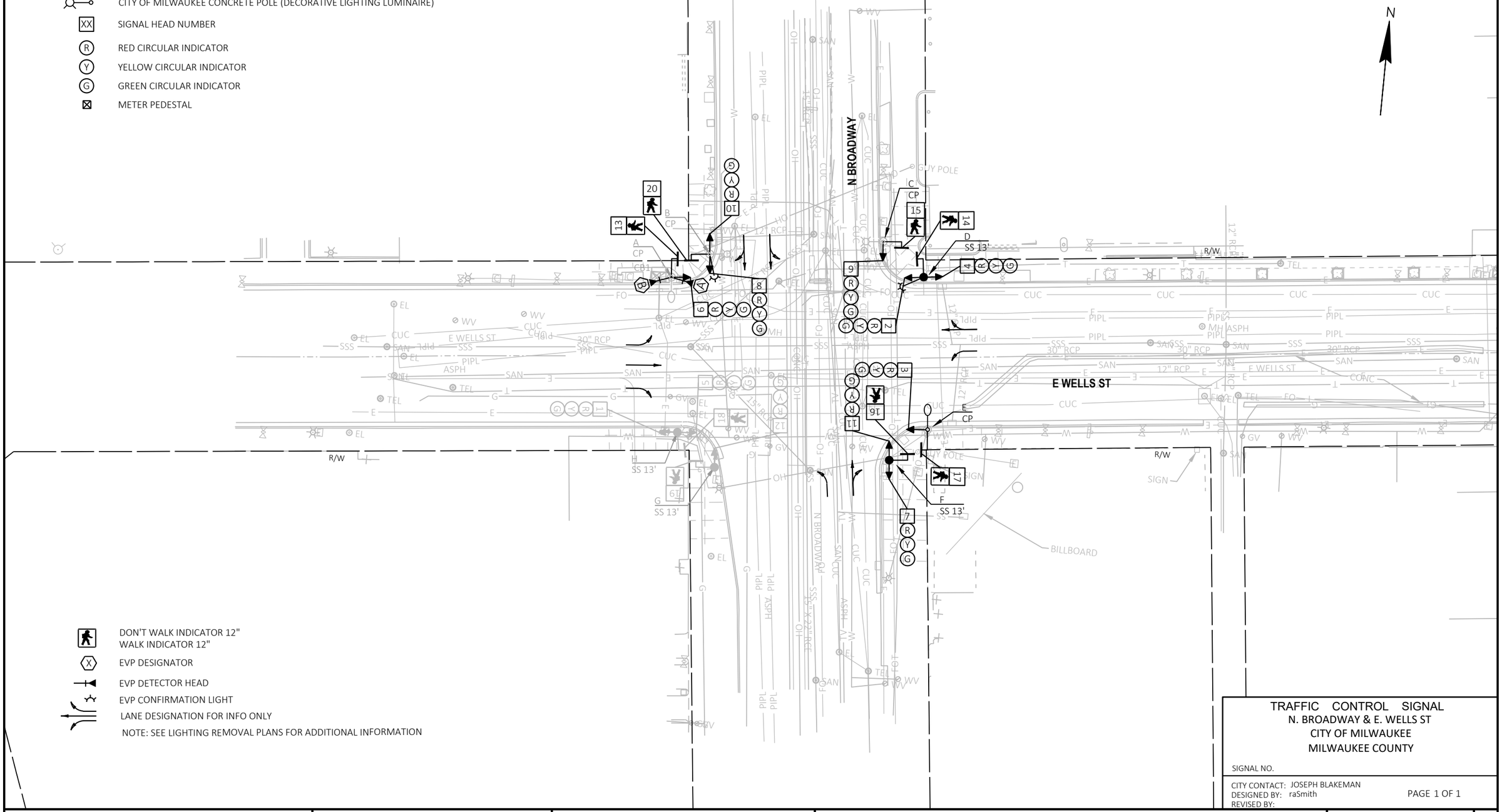
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LEGEND

- CONTROL CABINET
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- PEDESTRIAN HEAD
- CITY OF MILWAUKEE CONCRETE POLE (COBRA LIGHTING LUMINAIRE)
- CITY OF MILWAUKEE CONCRETE POLE (DECORATIVE LIGHTING LUMINAIRE)
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- METER PEDESTAL

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. EXISTING CONDUIT RUNS TO REMAIN IN PLACE. THE CONTRACTOR TO REMOVE CONDUCTORS REMAINING IN CONDUIT.
3. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.



- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

NOTE: SEE LIGHTING REMOVAL PLANS FOR ADDITIONAL INFORMATION

TRAFFIC CONTROL SIGNAL
N. BROADWAY & E. WELLS ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CITY CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: raSmith
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL	SHEET 107	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024001-SR.DWG
LAYOUT NAME - Plan 1 IN 40 FT

PLOT DATE : 7/24/2023 12:54 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

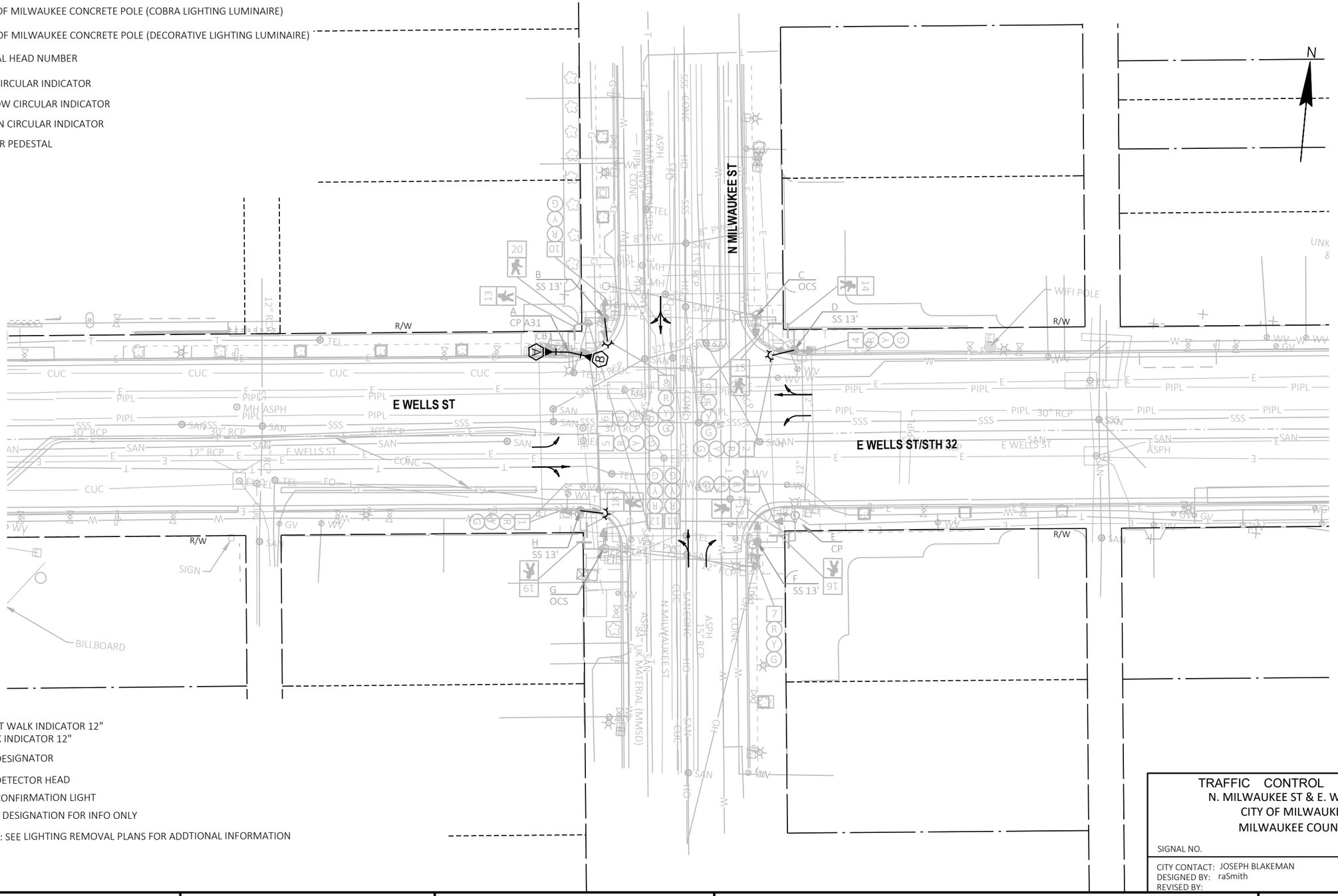
2

LEGEND

- CONTROL CABINET
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- PEDESTRIAN HEAD
- CITY OF MILWAUKEE CONCRETE POLE (COBRA LIGHTING LUMINAIRE)
- CITY OF MILWAUKEE CONCRETE POLE (DECORATIVE LIGHTING LUMINAIRE)
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- METER PEDESTAL

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. EXISTING CONDUIT RUNS TO REMAIN IN PLACE. THE CONTRACTOR TO REMOVE CONDUCTORS REMAINING IN CONDUIT.
3. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.



- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

NOTE: SEE LIGHTING REMOVAL PLANS FOR ADDTIONAL INFORMATION

TRAFFIC CONTROL SIGNAL
N. MILWAUKEE ST & E. WELLS ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CITY CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: raSmith
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL	SHEET 108	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024002-SR.DWG
LAYOUT NAME - Plan 1 IN 40 FT

PLOT DATE : 7/24/2023 12:55 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

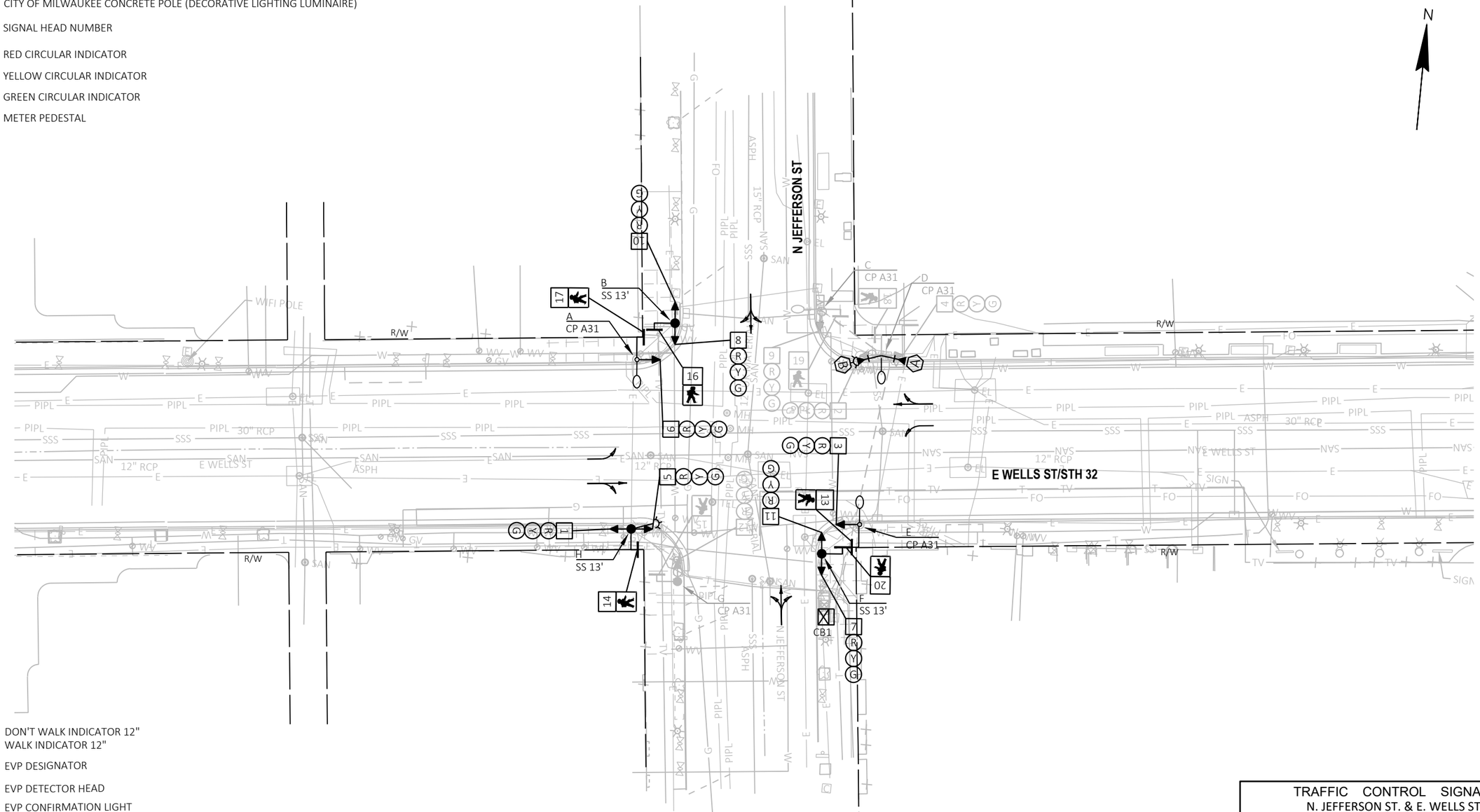
2

LEGEND

- CONTROL CABINET
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- PEDESTRIAN HEAD
- CITY OF MILWAUKEE CONCRETE POLE (COBRA LIGHTING LUMINAIRE)
- CITY OF MILWAUKEE CONCRETE POLE (DECORATIVE LIGHTING LUMINAIRE)
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- METER PEDESTAL

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. EXISTING CONDUIT RUNS TO REMAIN IN PLACE. THE CONTRACTOR TO REMOVE CONDUCTORS REMAINING IN CONDUIT.
3. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.
4. CABINET AND CONTROLLER TO BE REMOVED BY CONTRACTOR. REFER TO SPECIFICATION FOR NOTIFICATION REQUIREMENTS.
5. EXISTING METER PEDESTAL TO REMAIN.



- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

NOTE: SEE LIGHTING REMOVAL PLANS FOR ADDTIONAL INFORMATION

TRAFFIC CONTROL SIGNAL
N. JEFFERSON ST. & E. WELLS ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CITY CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: raSmith
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL	SHEET 109	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024003-SR.DWG
LAYOUT NAME - Plan 1 IN 40 FT

PLOT DATE : 7/24/2023 12:55 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

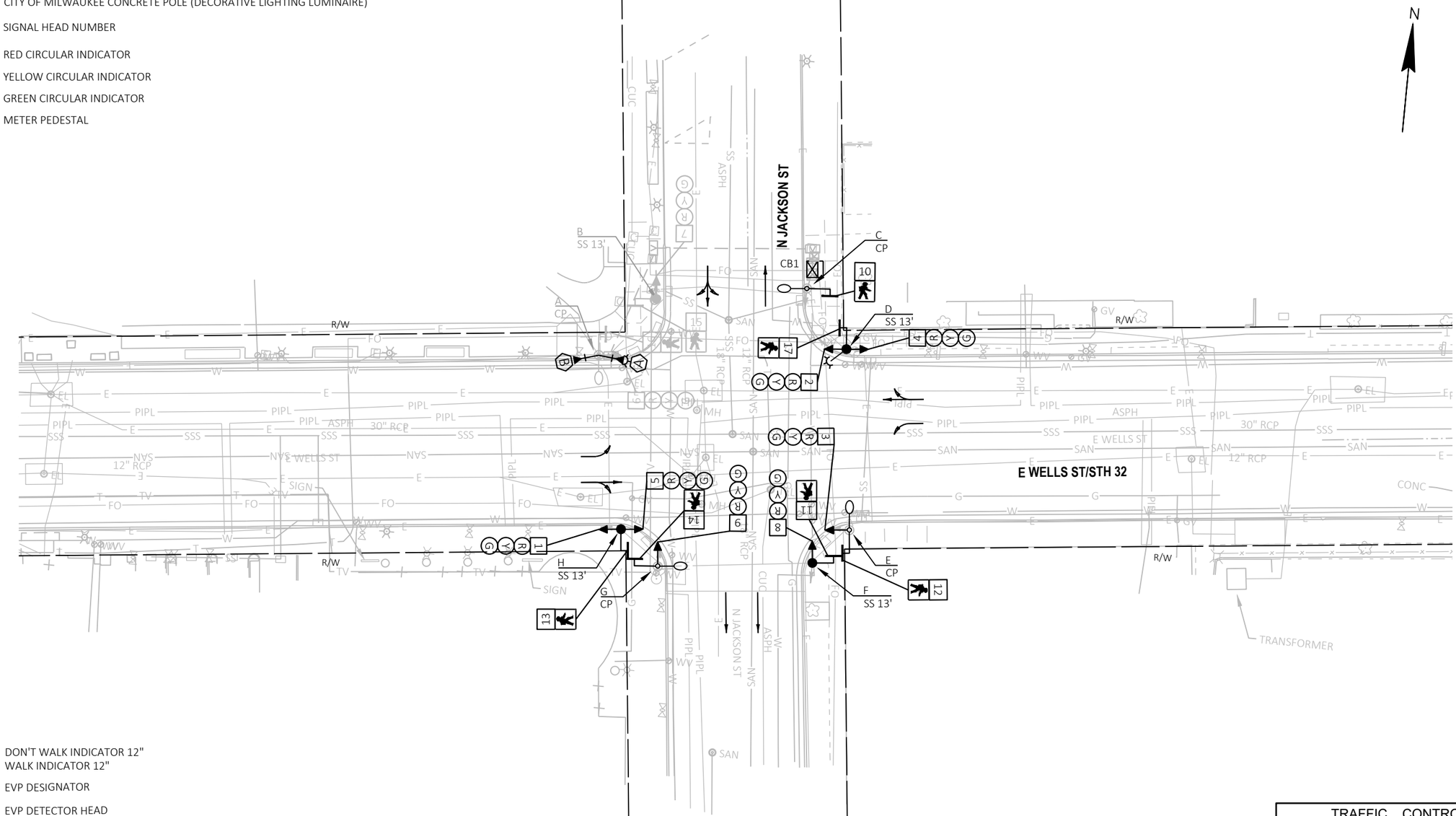
2

LEGEND

- CONTROL CABINET
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- PEDESTRIAN HEAD
- CITY OF MILWAUKEE CONCRETE POLE (COBRA LIGHTING LUMINAIRE)
- CITY OF MILWAUKEE CONCRETE POLE (DECORATIVE LIGHTING LUMINAIRE)
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- METER PEDESTAL

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. EXISTING CONDUIT RUNS TO REMAIN IN PLACE. THE CONTRACTOR TO REMOVE CONDUCTORS REMAINING IN CONDUIT.
3. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.
4. CABINET AND CONTROLLER TO BE REMOVED BY CONTRACTOR. REFER TO SPECIFICATION FOR NOTIFICATION REQUIREMENTS.
5. EXISTING METER PEDESTAL TO REMAIN.



- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

NOTE: SEE LIGHTING REMOVAL PLANS FOR ADDTIONAL INFORMATION

TRAFFIC CONTROL SIGNAL
N. JACKSON ST & E. WELLS ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CITY CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: raSmith
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL	SHEET 110	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024004-SR.DWG
LAYOUT NAME - Plan 1 IN 40 FT

PLOT DATE : 7/24/2023 12:56 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

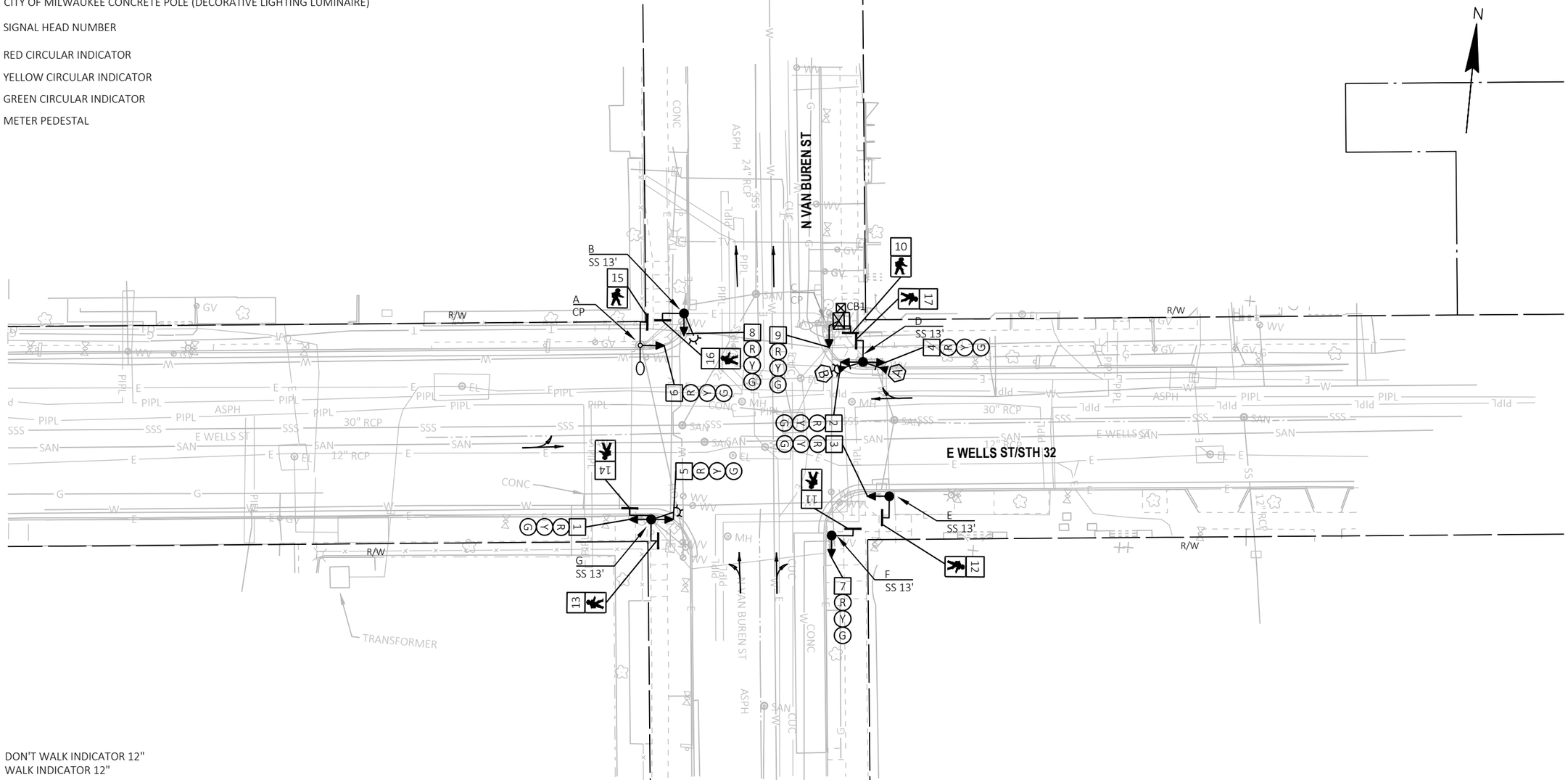
2

LEGEND

- CONTROL CABINET
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- PEDESTRIAN HEAD
- CITY OF MILWAUKEE CONCRETE POLE (COBRA LIGHTING LUMINAIRE)
- CITY OF MILWAUKEE CONCRETE POLE (DECORATIVE LIGHTING LUMINAIRE)
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- METER PEDESTAL

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. EXISTING CONDUIT RUNS TO REMAIN IN PLACE. THE CONTRACTOR TO REMOVE CONDUCTORS REMAINING IN CONDUIT.
3. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.
4. CABINET AND CONTROLLER TO BE REMOVED BY CONTRACTOR. REFER TO SPECIFICATION FOR NOTIFICATION REQUIREMENTS.



- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

NOTE: SEE LIGHTING REMOVAL PLANS FOR ADDTIONAL INFORMATION

TRAFFIC CONTROL SIGNAL
N. VAN BUREN ST & E. WELLS ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CITY CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: raSmith
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL	SHEET 111	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024005-SR.DWG
LAYOUT NAME - Plan 1 IN 40 FT

PLOT DATE : 7/24/2023 12:56 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

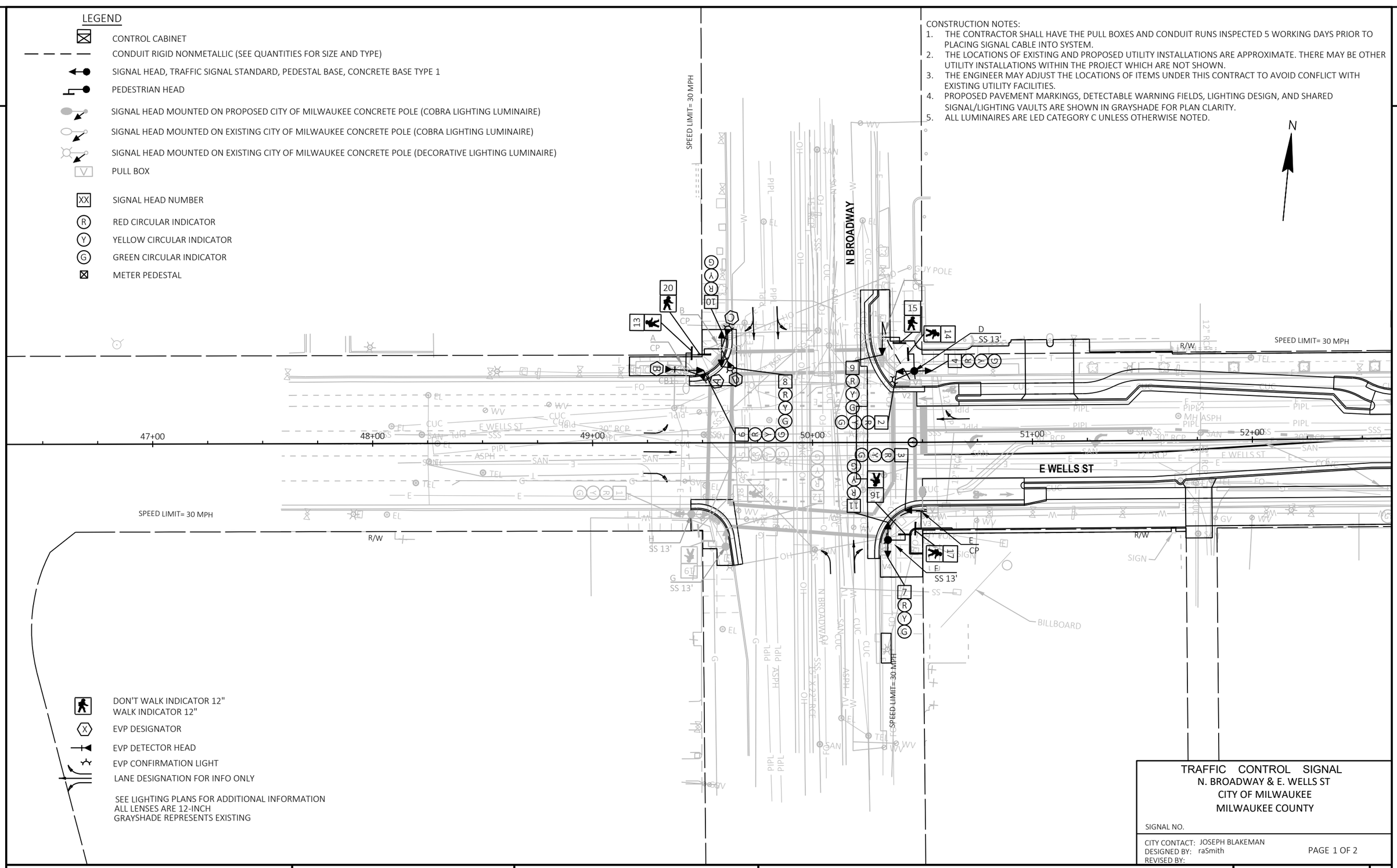
2

LEGEND

- CONTROL CABINET
- CONDUIT RIGID NONMETALLIC (SEE QUANTITIES FOR SIZE AND TYPE)
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE, CONCRETE BASE TYPE 1
- PEDESTRIAN HEAD
- SIGNAL HEAD MOUNTED ON PROPOSED CITY OF MILWAUKEE CONCRETE POLE (COBRA LIGHTING LUMINAIRE)
- SIGNAL HEAD MOUNTED ON EXISTING CITY OF MILWAUKEE CONCRETE POLE (COBRA LIGHTING LUMINAIRE)
- SIGNAL HEAD MOUNTED ON EXISTING CITY OF MILWAUKEE CONCRETE POLE (DECORATIVE LIGHTING LUMINAIRE)
- PULL BOX
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- METER PEDESTAL

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. PROPOSED PAVEMENT MARKINGS, DETECTABLE WARNING FIELDS, LIGHTING DESIGN, AND SHARED SIGNAL/LIGHTING VAULTS ARE SHOWN IN GRAYSHADE FOR PLAN CLARITY.
5. ALL LUMINAIRES ARE LED CATEGORY C UNLESS OTHERWISE NOTED.



- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

SEE LIGHTING PLANS FOR ADDITIONAL INFORMATION
ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
N. BROADWAY & E. WELLS ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

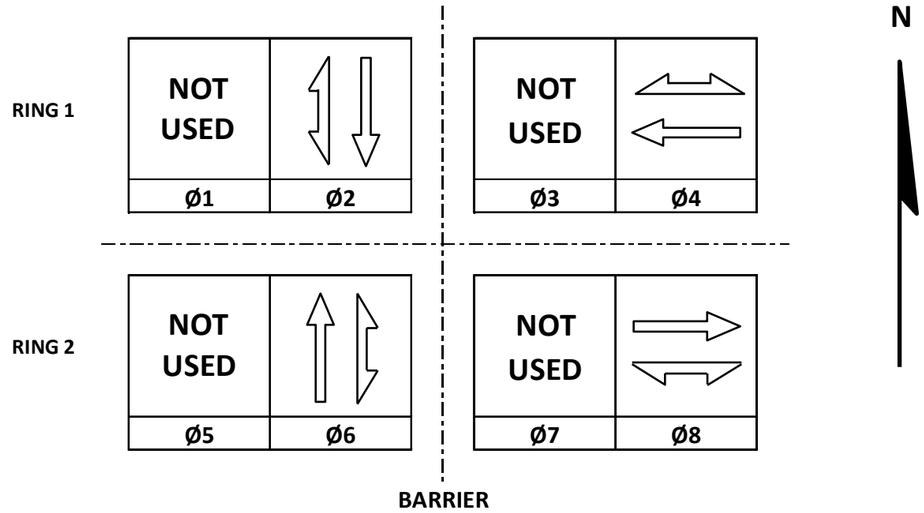
CITY CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: raSmith
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 112	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024201-SP.DWG
LAYOUT NAME - Plan 1 IN 40 FT
PLOT DATE : 7/24/2023 12:57 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
Ø1		
Ø2	10,11,12	R
Ø3		
Ø4	4,5,6	R
Ø5		
Ø6	7,8,9	R
Ø7		
Ø8	1,2,3	R
Ø2P	19,20	
Ø4P	13,14	
Ø6P	15,16	
Ø8P	17,18	
OLE		
OLF		
OLG		
OLH		



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

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

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	
IN SEPARATE CITY LIGHTING CABINET	X

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

CONTROLLER LOGIC

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	← →	← →	↓ ↑	↓ ↑
PHASE	4 + 8	8 + 4	2 + 6	6 + 2

AFTER PREEMPTION SEQUENCE 2 + 6 OR 6 + 2, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4 + 8 OR 8 + 4, CONTROLLER SHALL RETURN TO PHASES 4 + 8.

N. BROADWAY & E. WELLS ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO:	CABINET TYPE: TS2
	CONTROLLER TYPE: ECONOLITE
DATE: 5/2023	PAGE NO. 2 OF 2

FILE NAME : T:\1202715.10\Civil 3D\21950400\Design\Quantities\030201-mq.ppt PLOT DATE : 1/6/2023 1:22 PM PLOT BY : ANDREW AXT PLOT NAME : PLOT SCALE : 1:1

PROJECT ID:	2195-04-70
INTERSECTION:	WELLS STREET & BROADWAY

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

CB1 TO	AWG14 # OF CONDUCTORS	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK		
D	12	2	RED	ORG	GRN								
		4	RED/BLK	ORG/BLK	GRN/BLK								
		14								BLK	BLU		
E	9	3	RED	ORG	GRN								
		17								BLK	BLU		
F	12	7	RED	ORG	GRN								
		11	RED/BLK	ORG/BLK	GRN/BLK								
		16								BLK	BLU		

Emergency Vehicle Preemption	
From	To
CB1	A (HEAD A/B)
CB1	B (HEAD C/D)

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.
*Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.

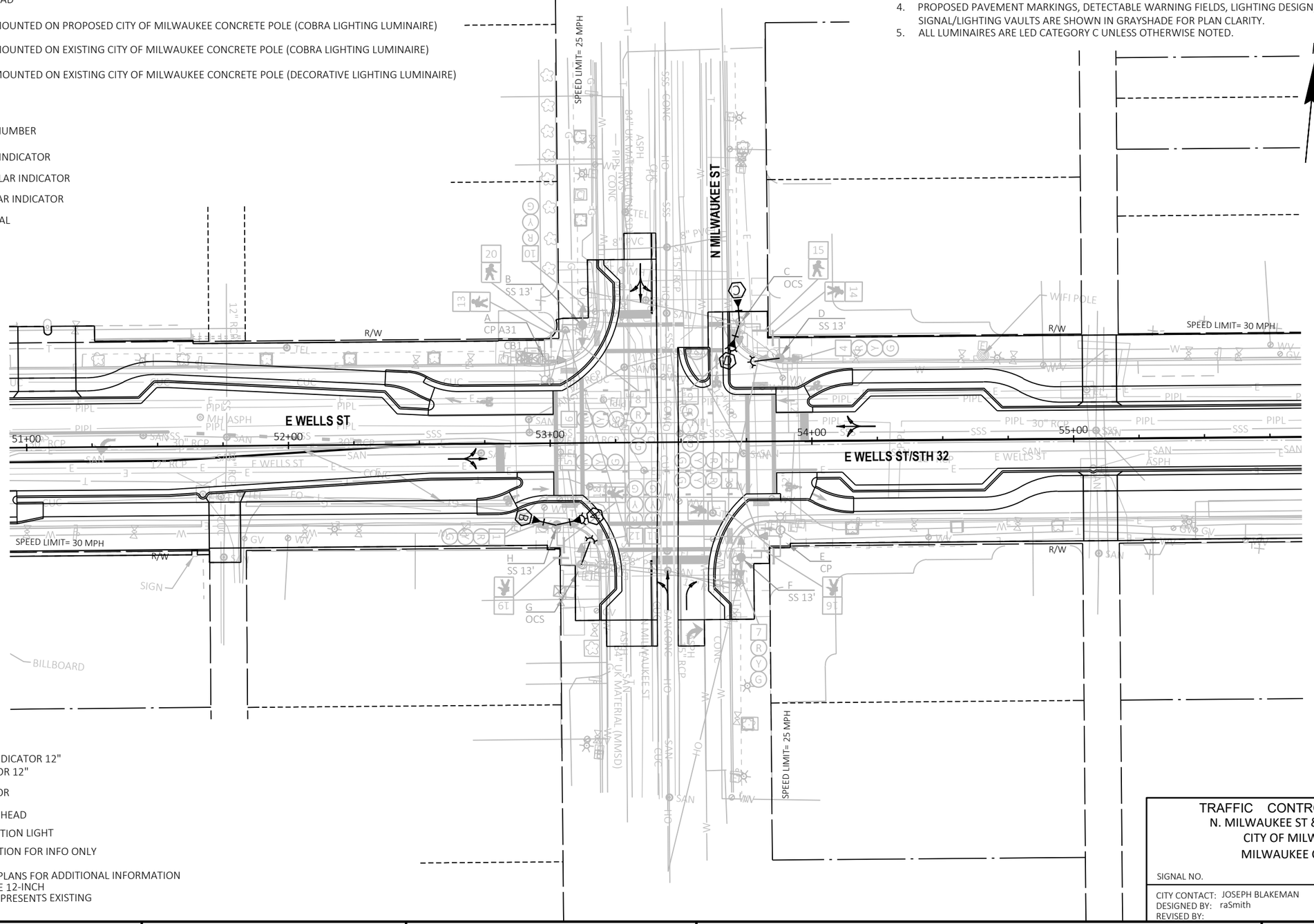
2

LEGEND

- CONTROL CABINET
- CONDUIT RIGID NONMETALLIC (SEE QUANTITIES FOR SIZE AND TYPE)
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE, CONCRETE BASE TYPE 1
- PEDESTRIAN HEAD
- SIGNAL HEAD MOUNTED ON PROPOSED CITY OF MILWAUKEE CONCRETE POLE (COBRA LIGHTING LUMINAIRE)
- SIGNAL HEAD MOUNTED ON EXISTING CITY OF MILWAUKEE CONCRETE POLE (COBRA LIGHTING LUMINAIRE)
- SIGNAL HEAD MOUNTED ON EXISTING CITY OF MILWAUKEE CONCRETE POLE (DECORATIVE LIGHTING LUMINAIRE)
- PULL BOX
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- METER PEDESTAL

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. PROPOSED PAVEMENT MARKINGS, DETECTABLE WARNING FIELDS, LIGHTING DESIGN, AND SHARED SIGNAL/LIGHTING VAULTS ARE SHOWN IN GRAYSHADE FOR PLAN CLARITY.
5. ALL LUMINAIRES ARE LED CATEGORY C UNLESS OTHERWISE NOTED.



DON'T WALK INDICATOR 12"
WALK INDICATOR 12"

- EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

SEE LIGHTING PLANS FOR ADDITIONAL INFORMATION
ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
N. MILWAUKEE ST & E. WELLS ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CITY CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: raSmith
REVISED BY:

PAGE 1 OF 2

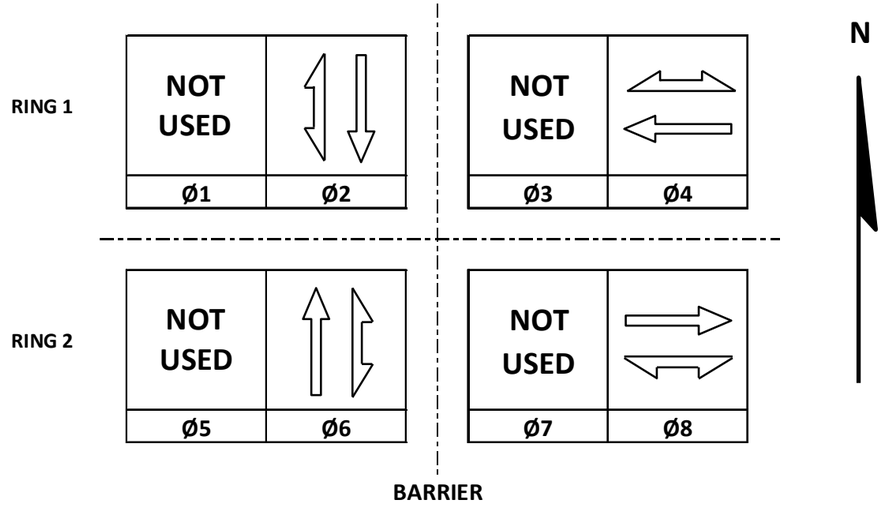
PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 115	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024202-SP.DWG
LAYOUT NAME - Plan 1 IN 40 FT

PLOT DATE : 7/24/2023 12:57 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1		
Ø2	10,11,12	R
Ø3		
Ø4	4,5,6	R
Ø5		
Ø6	7,8,9	R
Ø7		
Ø8	1,2,3	R
Ø2P	19,20	
Ø4P	13,14	
Ø6P	15,16	
Ø8P	17,18	
OLE		
OLF		
OLG		
OLH		



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

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

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	
IN SEPARATE CITY LIGHTING CABINET	X

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

CONTROLLER LOGIC

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	← →	← →	↓ ↑	↓ ↑
PHASE	4 + 8	8 + 4	2 + 6	6 + 2

AFTER PREEMPTION SEQUENCE 2 + 6 OR 6 + 2, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4 + 8 OR 8 + 4, CONTROLLER SHALL RETURN TO PHASES 4 + 8.

N. MILWAUKEE ST & E. WELLS ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO:	CABINET TYPE: TS2
	CONTROLLER TYPE: ECONOLITE
DATE: 5/2023	PAGE NO. 2 OF 2

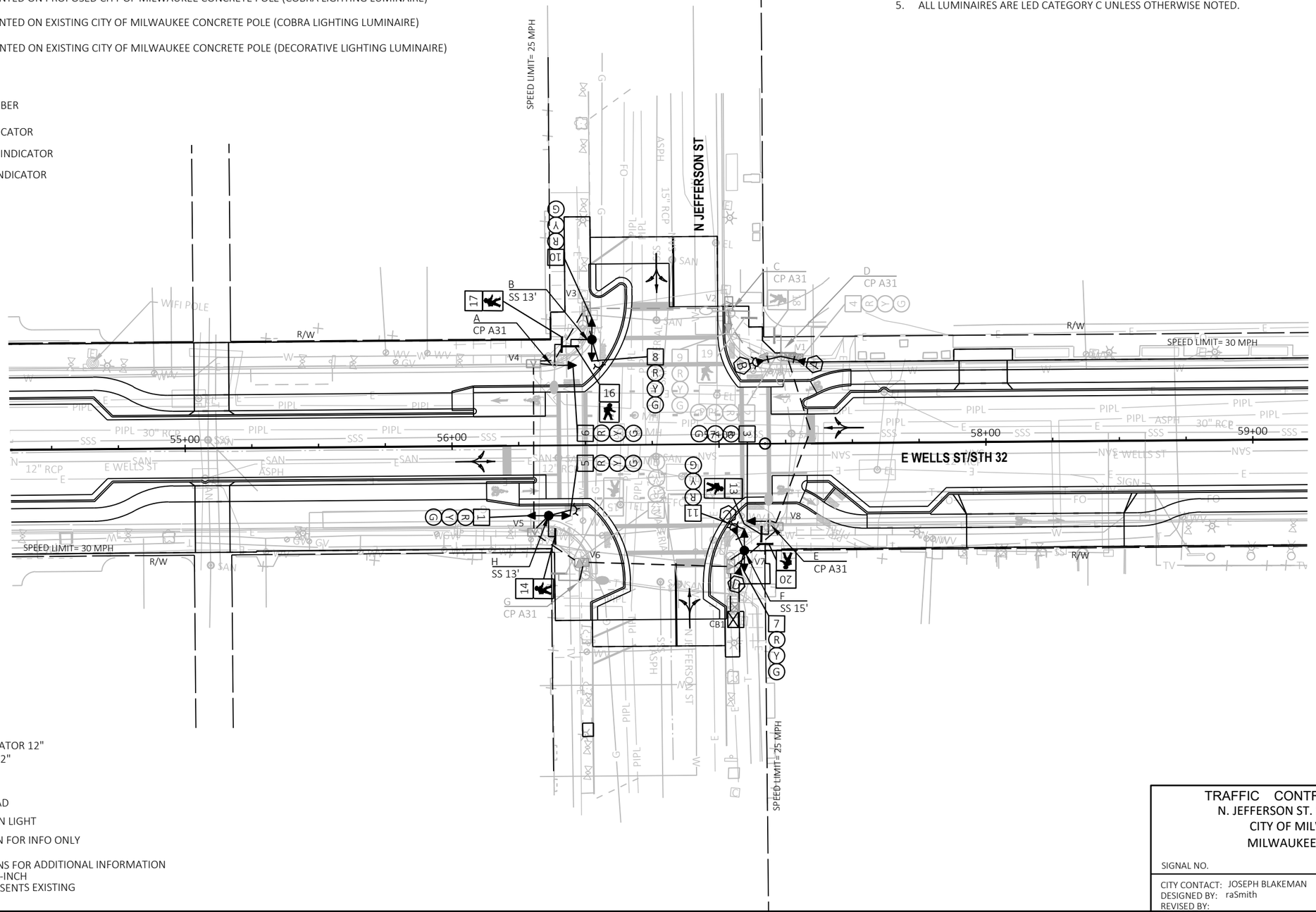
2

LEGEND

- CONTROL CABINET
- CONDUIT RIGID NONMETALLIC (SEE QUANTITIES FOR SIZE AND TYPE)
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE, CONCRETE BASE TYPE 1
- PEDESTRIAN HEAD
- SIGNAL HEAD MOUNTED ON PROPOSED CITY OF MILWAUKEE CONCRETE POLE (COBRA LIGHTING LUMINAIRE)
- SIGNAL HEAD MOUNTED ON EXISTING CITY OF MILWAUKEE CONCRETE POLE (COBRA LIGHTING LUMINAIRE)
- SIGNAL HEAD MOUNTED ON EXISTING CITY OF MILWAUKEE CONCRETE POLE (DECORATIVE LIGHTING LUMINAIRE)
- PULL BOX
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
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- METER PEDESTAL

CONSTRUCTION NOTES:

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5. ALL LUMINAIRES ARE LED CATEGORY C UNLESS OTHERWISE NOTED.



- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

SEE LIGHTING PLANS FOR ADDITIONAL INFORMATION
ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
N. JEFFERSON ST. & E. WELLS ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CITY CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: raSmith
REVISED BY:

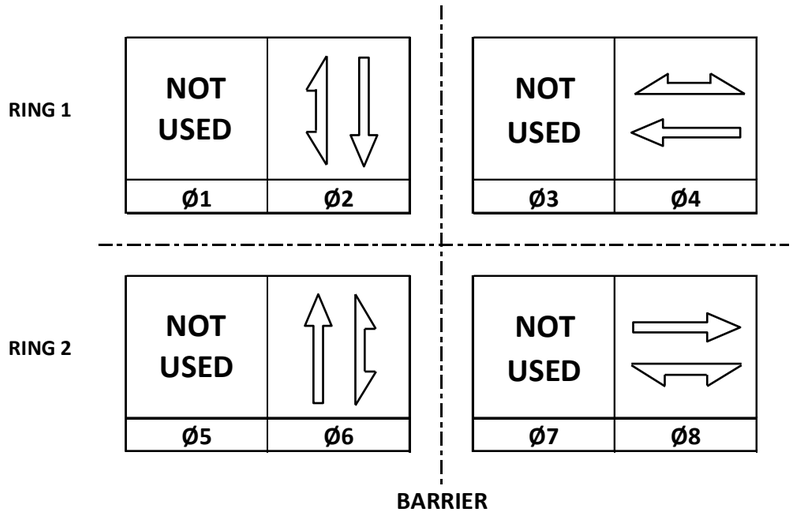
PAGE 1 OF 2

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 117	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024203-SP.DWG
LAYOUT NAME - Plan 1 IN 40 FT
PLOT DATE : 7/24/2023 12:58 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1		
Ø2	10,11,12	R
Ø3		
Ø4	4,5,6	R
Ø5		
Ø6	7,8,9	R
Ø7		
Ø8	1,2,3	R
Ø2P	15,16	
Ø4P	17,18	
Ø6P	19,20	
Ø8P	13,14	
OLE		
OLF		
OLG		
OLH		





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

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

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	
IN SEPARATE CITY LIGHTING CABINET	X

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

CONTROLLER LOGIC

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	4 + 8	8 + 4	2 + 6	6 + 2

AFTER PREEMPTION SEQUENCE 2 + 6 OR 6 + 2, CONTROLLER SHALL RETURN TO PHASES 2 + 6.
AFTER PREEMPTION SEQUENCE 4 + 8 OR 8 + 4, CONTROLLER SHALL RETURN TO PHASES 4 + 8.

N. JEFFERSON ST & E. WELLS ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO: CABINET TYPE: TS2
CONTROLLER TYPE: ECONOLITE
DATE: 5/2023 PAGE NO. 2 OF 2

PROJECT ID:	2195-04-70
INTERSECTION:	WELLS STREET & JEFFERSON STREET

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

CB1 TO	AWG14 # OF CONDUCTORS	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK		
A	9	6	RED	ORG	GRN								
		17								BLU	BLK		
B	12	8	RED	ORG	GRN								
		10	RED/BLK	ORG/BLK	GRN/BLK								
		16								BLU	BLK		
C	9	9	RED	ORG	GRN								
		19								BLU	BLK		
D	12	2	RED	ORG	GRN								
		4	RED/BLK	ORG/BLK	GRN/BLK								
		18								BLU	BLK		
E	9	3	RED	ORG	GRN								
		13								BLU	BLK		
F	12	7	RED	ORG	GRN								
		11	RED/BLK	ORG/BLK	GRN/BLK								
		20								BLU	BLK		
G	9	12	RED	ORG	GRN								
		15								BLU	BLK		
H	12	1	RED	ORG	GRN								
		5	RED/BLK	ORG/BLK	GRN/BLK								
		14								BLU	BLK		

Equipment Grounding Conductor 10 AWG Green XLP	
From	To
CB1	G
G	H
H	A
A	B
B	C
C	D
D	E
E	F
F	CB1

Emergency Vehicle Preemption	
From	To
CB1	D (HEAD A/B)
CB1	F (HEAD C/D)

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.
*Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.

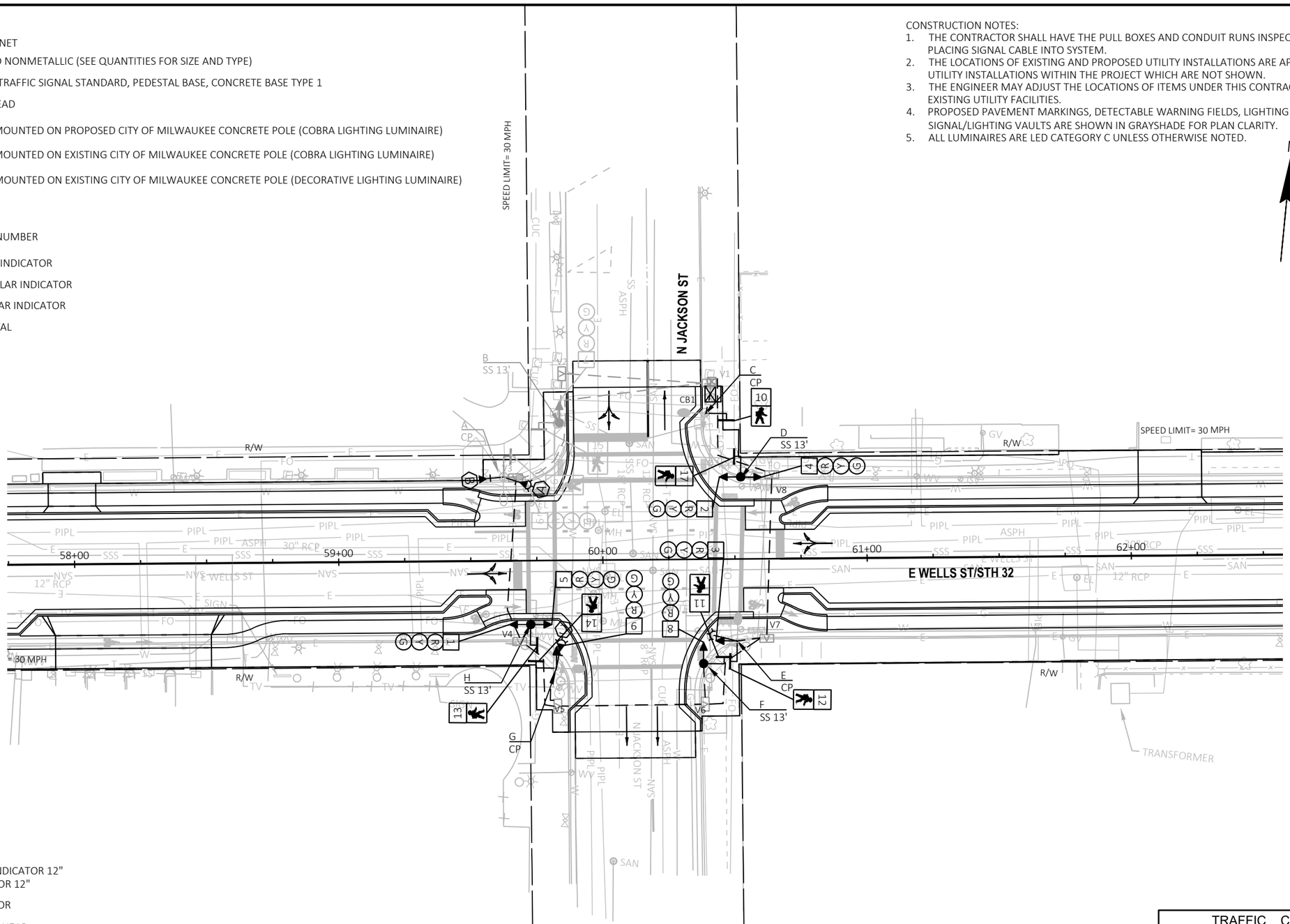
FILE NAME : T:\1202715.10\Civil 3D\21950400\Design\Quantities\030201-mq.ppt PLOT DATE : 1/6/2023 1:22 PM PLOT BY : ANDREW AXT PLOT NAME : PLOT SCALE : 1:1

LEGEND

- CONTROL CABINET
- CONDUIT RIGID NONMETALLIC (SEE QUANTITIES FOR SIZE AND TYPE)
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE, CONCRETE BASE TYPE 1
- PEDESTRIAN HEAD
- SIGNAL HEAD MOUNTED ON PROPOSED CITY OF MILWAUKEE CONCRETE POLE (COBRA LIGHTING LUMINAIRE)
- SIGNAL HEAD MOUNTED ON EXISTING CITY OF MILWAUKEE CONCRETE POLE (COBRA LIGHTING LUMINAIRE)
- SIGNAL HEAD MOUNTED ON EXISTING CITY OF MILWAUKEE CONCRETE POLE (DECORATIVE LIGHTING LUMINAIRE)
- PULL BOX
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- METER PEDESTAL

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. PROPOSED PAVEMENT MARKINGS, DETECTABLE WARNING FIELDS, LIGHTING DESIGN, AND SHARED SIGNAL/LIGHTING VAULTS ARE SHOWN IN GRAYSHADE FOR PLAN CLARITY.
5. ALL LUMINAIRES ARE LED CATEGORY C UNLESS OTHERWISE NOTED.



- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

SEE LIGHTING PLANS FOR ADDITIONAL INFORMATION
ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
N. JACKSON ST & E. WELLS ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CITY CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: raSmith
REVISED BY:

PAGE 1 OF 2

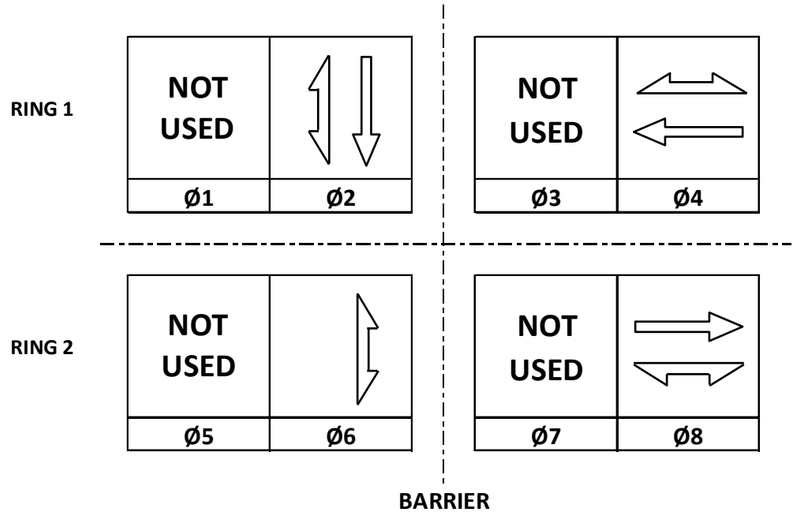
PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 120	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024204-SP.DWG
LAYOUT NAME - Plan 1 IN 40 FT

PLOT DATE : 7/24/2023 12:59 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1		
Ø2	7,8,9	R
Ø3		
Ø4	4,5,6	R
Ø5		
Ø6		
Ø7		
Ø8	1,2,3	R
Ø2P	14,15	
Ø4P	16,17	
Ø6P	10,11	
Ø8P	12,13	
OLE		
OLF		
OLG		
OLH		





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

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

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	
IN SEPARATE CITY LIGHTING CABINET	X

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

CONTROLLER LOGIC

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C
MOVEMENT	← →	← →	↓
PHASE	4 + 8	8 + 4	2

AFTER PREEMPTION SEQUENCE 2, CONTROLLER SHALL RETURN TO PHASE 2.
AFTER PREEMPTION SEQUENCE 4 + 8 OR 8 + 4, CONTROLLER SHALL RETURN TO PHASES 4 + 8.

N. JACKSON ST & E. WELLS ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO:	CABINET TYPE: TS2
	CONTROLLER TYPE: ECONOLITE
DATE: 5/2023	PAGE NO. 2 OF 2

PROJECT ID:	2191-04-70
INTERSECTION:	WELLS STREET & JACKSON STREET

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

CB1 TO	AWG14 # OF CONDUCTORS	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK		
A	9	6	RED	ORG	GRN								
		16								BLU	BLK		
B	12	7	RED	ORG	GRN								
		15								BLU	BLK		
C	12	10								BLU	BLK		
D	12	2	RED	ORG	GRN								
		4	RED/BLK	ORG/BLK	GRN/BLK								
		17								BLU	BLK		
E	9	3	RED	ORG	GRN								
		12								BLU	BLK		
F	12	8	RED	ORG	GRN								
		11								BLU	BLK		
G	9	9	RED	ORG	GRN								
		14								BLU	BLK		
H	12	1	RED	ORG	GRN								
		5	RED/BLK	ORG/BLK	GRN/BLK								
		13								BLU	BLK		

Equipment Grounding Conductor 10 AWG Green XLP	
From	To
CB1	C
C	D
D	E
E	F
F	G
G	H
H	A
A	B
B	CB1

Emergency Vehicle Preemption	
From	To
CB1	A (HEAD A/B)
CB1	G (HEAD C)

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.
*Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.

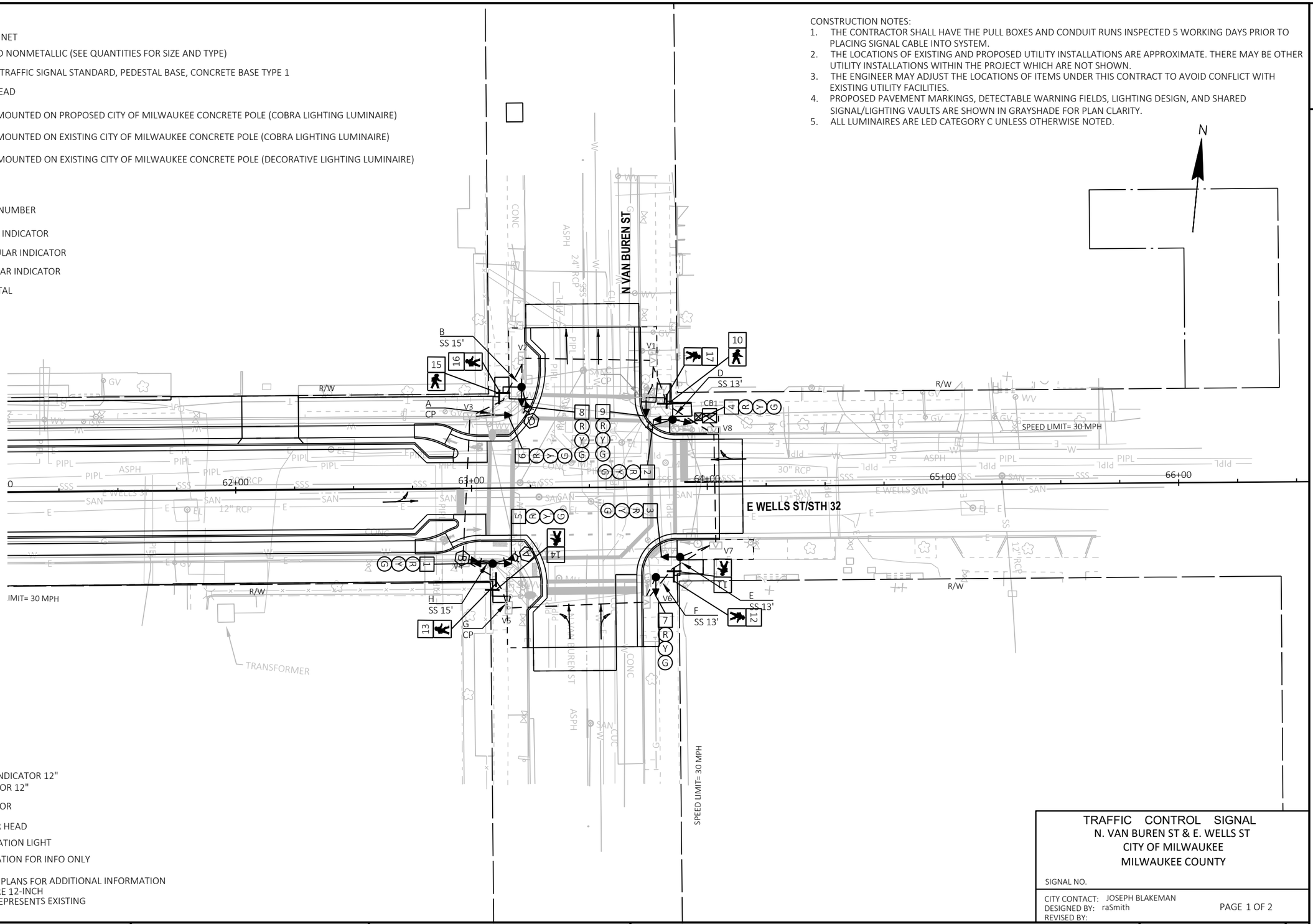
2

LEGEND

- CONTROL CABINET
- CONDUIT RIGID NONMETALLIC (SEE QUANTITIES FOR SIZE AND TYPE)
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE, CONCRETE BASE TYPE 1
- PEDESTRIAN HEAD
- SIGNAL HEAD MOUNTED ON PROPOSED CITY OF MILWAUKEE CONCRETE POLE (COBRA LIGHTING LUMINAIRE)
- SIGNAL HEAD MOUNTED ON EXISTING CITY OF MILWAUKEE CONCRETE POLE (COBRA LIGHTING LUMINAIRE)
- SIGNAL HEAD MOUNTED ON EXISTING CITY OF MILWAUKEE CONCRETE POLE (DECORATIVE LIGHTING LUMINAIRE)
- PULL BOX
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- METER PEDESTAL

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. PROPOSED PAVEMENT MARKINGS, DETECTABLE WARNING FIELDS, LIGHTING DESIGN, AND SHARED SIGNAL/LIGHTING VAULTS ARE SHOWN IN GRAYSHADE FOR PLAN CLARITY.
5. ALL LUMINAIRES ARE LED CATEGORY C UNLESS OTHERWISE NOTED.



- DON'T WALK INDICATOR 12"
  WALK INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

SEE LIGHTING PLANS FOR ADDITIONAL INFORMATION
ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
N. VAN BUREN ST & E. WELLS ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CITY CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: raSmith
REVISED BY:

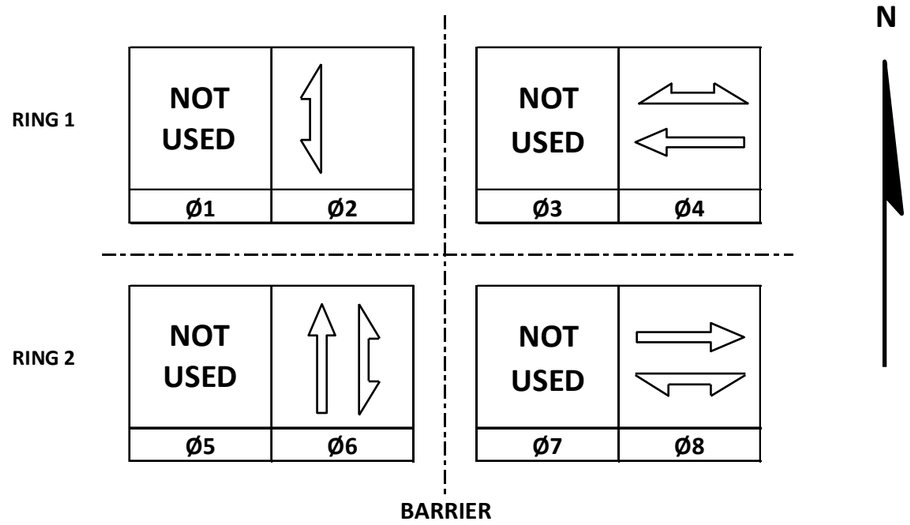
PAGE 1 OF 2

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 123	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024205-SP.DWG
LAYOUT NAME - Plan 1 IN 40 FT
PLOT DATE : 7/24/2023 12:59 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1		
Ø2		
Ø3		
Ø4	4,5,6	R
Ø5		
Ø6	7,8,9	R
Ø7		
Ø8	1,2,3	R
Ø2P	14,15	
Ø4P	16,17	
Ø6P	10,11	
Ø8P	12,13	
OLE		
OLF		
OLG		
OLH		



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

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

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	
IN SEPARATE CITY LIGHTING CABINET	X

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

CONTROLLER LOGIC

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	D
MOVEMENT	← →	← →	↑
PHASE	4 + 8	8 + 4	6

AFTER PREEMPTION SEQUENCE 6, CONTROLLER SHALL RETURN TO PHASE 6.
AFTER PREEMPTION SEQUENCE 4 + 8 OR 8 + 4, CONTROLLER SHALL RETURN TO PHASES 4 + 8.

N. VAN BUREN ST & E. WELLS ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO:	CABINET TYPE: TS2
	CONTROLLER TYPE: ECONOLITE
DATE: 5/2023	PAGE NO. 2 OF 2

PROJECT ID:	2195-04-70
INTERSECTION:	WELLS STREET & VAN BUREN STREET

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

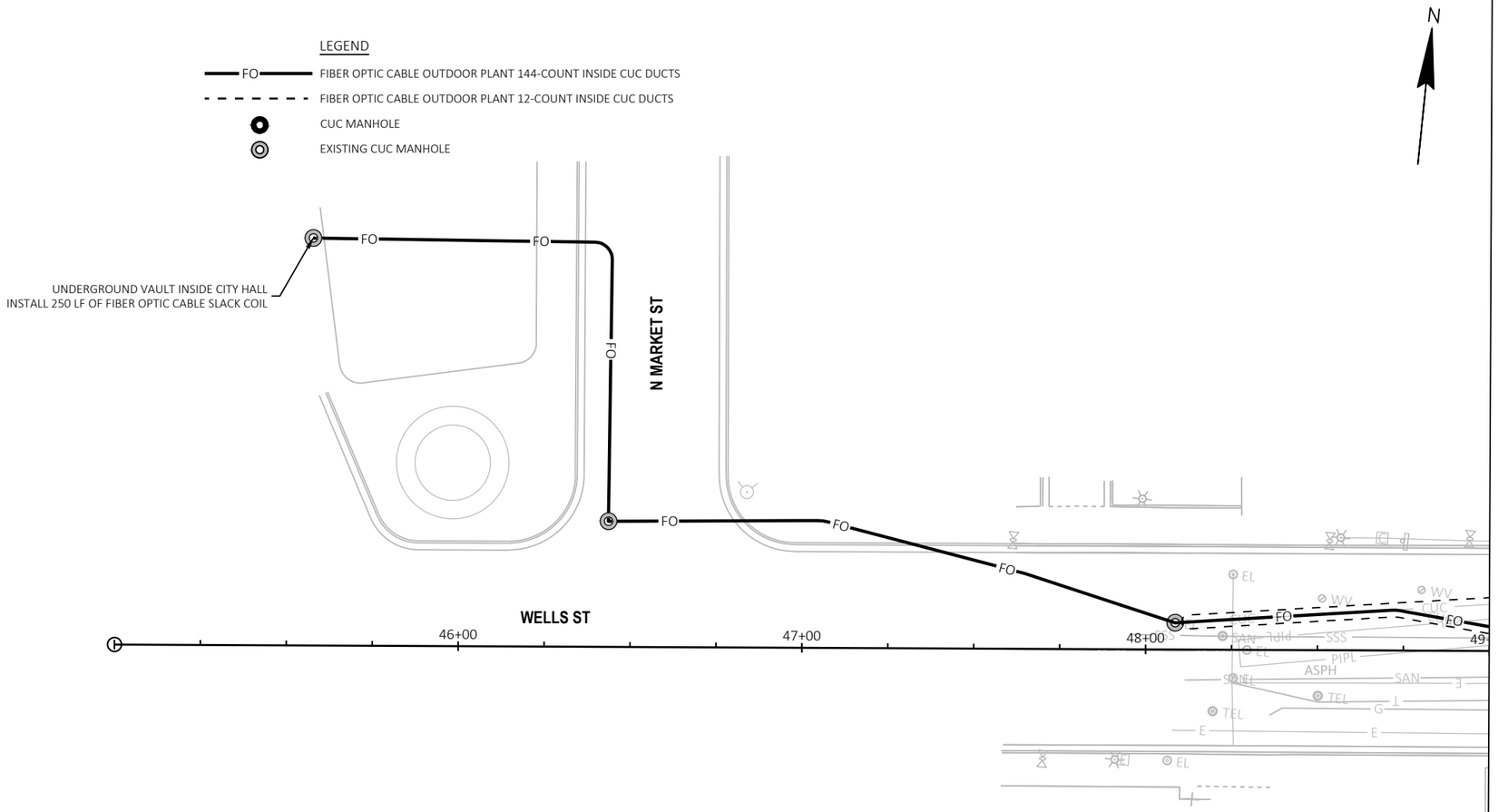
CB1 TO	AWG14 # OF CONDUCTORS	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK		
A	9	6	RED	ORG	GRN								
		16								BLU	BLK		
B	15	8	RED	ORG	GRN								
		15								BLU	BLK		
C	9	9	RED	ORG	GRN								
		10								BLU	BLK		
D	12	2	RED	ORG	GRN								
		4	RED/BLK	ORG/BLK	GRN/BLK								
		17								BLU	BLK		
E	9	3	RED	ORG	GRN								
		12								BLU	BLK		
F	12	7	RED	ORG	GRN								
		11								BLU	BLK		
G	12	14								BLU	BLK		
H	12	1	RED	ORG	GRN								
		5	RED/BLK	ORG/BLK	GRN/BLK								
		13								BLU	BLK		

Equipment Grounding Conductor 10 AWG Green XLP	
From	To
CB1	D
D	E
E	F
F	G
G	H
H	A
A	B
B	C
C	CB1

Emergency Vehicle Preemption	
From	To
CB1	H (HEAD A/B)
CB1	B (HEAD D)

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.
*Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.

NOTES:
1. SEE CUC PLANS FOR ADDITIONAL INFORMATION



PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	FIBER OPTIC PLAN	SHEET 126	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024401-FO.DWG
LAYOUT NAME - 00
PLOT DATE : 7/21/2023 4:26 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

NOTES:
1. SEE CUC PLANS FOR ADDITIONAL INFORMATION

LEGEND

FO — FIBER OPTIC CABLE OUTDOOR PLANT 144-COUNT INSIDE CUC DUCTS

FIBER OPTIC CABLE OUTDOOR PLANT 12-COUNT INSIDE CUC DUCTS

CUC MANHOLE

EXISTING CUC MANHOLE

N

INSTALL 250 LF OF FIBER OPTIC CABLE SLACK COIL

N BROADWAY

N MILWAUKEE ST

WELLS ST

WELLS ST / STH 32

SIGN

BILLBOARD

MATCHLINE - STA 49+00

MATCH LINE - STA 55+00

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	FIBER OPTIC PLAN	SHEET 127	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024401-FO.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:27 PM

PLOT BY : AXT, ANDREW

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

NOTES:
1. SEE CUC PLANS FOR ADDITIONAL INFORMATION

LEGEND
- FO — FIBER OPTIC CABLE OUTDOOR PLANT 144-COUNT INSIDE CUC DUCTS
- FIBER OPTIC CABLE OUTDOOR PLANT 12-COUNT INSIDE CUC DUCTS
- CUC MANHOLE
- EXISTING CUC MANHOLE

N

MATCH LINE - STA 55+00

MATCH LINE - STA 61+00

N JEFFERSON ST

N JACKSON ST

WELLS ST / STH 32

SIGNAL CABINET

SIGNAL CABINET

UNKNOWN SIZE & MATERIAL

POLE

55+00 56+00 57+00 58+00 59+00 60+00 61+00

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	FIBER OPTIC PLAN	SHEET 128 E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024401-FO.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:27 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

NOTES:
1. SEE CUC PLANS FOR ADDITIONAL INFORMATION

LEGEND
- FO — FIBER OPTIC CABLE OUTDOOR PLANT 144-COUNT INSIDE CUC DUCTS
- FIBER OPTIC CABLE OUTDOOR PLANT 12-COUNT INSIDE CUC DUCTS
- CUC MANHOLE
- EXISTING CUC MANHOLE

N

2

MATCH LINE - STA 61+00

N VAN BUREN ST

WELLS ST / STH 32

SIGNAL CABINET

INSTALL 250 LF OF FIBER OPTIC CABLE SLACK COIL

TRANSFORMER

62+00 63+00 64+00 65+00 66+00 67+00

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	FIBER OPTIC PLAN	SHEET 129	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024401-FO.DWG
LAYOUT NAME - 03

PLOT DATE : 7/21/2023 4:27 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

PAVEMENT MARKING LEGEND

4W	MARKING LINE EPOXY 4-INCH (WHITE)	8	MARKING LINE EPOXY 8-INCH (WHITE)
4YD	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)	12	MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
6	MARKING LINE EPOXY 6-INCH (WHITE)	24	MARKING STOP LINE EPOXY 24-INCH (WHITE)
4-26	MARKING LINE EPOXY 4-INCH (2' LINE, 6' GAP, WHITE)	6-26	MARKING LINE EPOXY 6-INCH (2' LINE, 6' GAP, WHITE)
8-39	MARKING LINE EPOXY 8-INCH (3' LINE, 9' GAP, WHITE)	4LN	MARKING LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
AR-2	MARKING ARROW EPOXY (TYPE 2, WHITE)		MARKING REMOVAL LINE WIDE
BK-P	SKID/SLIP RESISTANT GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE PANEL (LOCATIONS SHOWN SHADED)	BK-A	SKID/SLIP RESISTANT GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE ARROW
BK-S	SKID/SLIP RESISTANT GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE SYMBOL		MARKERS PERMANENT FLEXIBLE (WHITE)

N

N BROADWAY

DO NOT MARK ON STREETCAR RAILS

+63.7 31.4' LT

+63.5 23.0' LT

+63.3 17.1' LT

+28.7 32.2' LT

+36.4 23.0' LT

49+00

50+00

51+00

52+00

WELLS ST

+53.9 0.0'

+80.8 0.0'

53+00

+50.6 5.5' RT

+53.9 5.5' RT

+62.3 17.0' RT

+62.1 27.0' RT

+62.0 27.9' RT

+36.7 18.0' RT

+27.7 32.7' RT

DO NOT MARK ON STREETCAR RAILS

N BROADWAY

+39.3 80.0' LT

N MILWAUKEE ST

DO NOT MARK ON STREETCAR RAILS

+39.2 49.0' LT

+97.2 0.0'

MATCH LINE - STA 55+00

+38.3 45.0' RT

+49.4 45.0' RT

DO NOT MARK ON STREETCAR RAILS (TYP)

+38.3 77.8' RT

+49.3 77.9' RT

N MILWAUKEE ST

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 130	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:27 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

PAVEMENT MARKING LEGEND

4W	MARKING LINE EPOXY 4-INCH (WHITE)	8	MARKING LINE EPOXY 8-INCH (WHITE)
4YD	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)	12	MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
6	MARKING LINE EPOXY 6-INCH (WHITE)	24	MARKING STOP LINE EPOXY 24-INCH (WHITE)
4-26	MARKING LINE EPOXY 4-INCH (2' LINE, 6' GAP, WHITE)	6-26	MARKING LINE EPOXY 6-INCH (2' LINE, 6' GAP, WHITE)
8-39	MARKING LINE EPOXY 8-INCH (3' LINE, 9' GAP, WHITE)	4LN	MARKING LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
AR-2	MARKING ARROW EPOXY (TYPE 2, WHITE)	X X X	MARKING REMOVAL LINE WIDE
BK-P	SKID/SLIP RESISTANT GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE PANEL (LOCATIONS SHOWN SHADED)	BK-A	SKID/SLIP RESISTANT GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE ARROW
BK-S	SKID/SLIP RESISTANT GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE SYMBOL	⊙	MARKERS PERMANENT FLEXIBLE (WHITE)

N

N JEFFERSON ST

N JACKSON ST

WELLS ST / STH 32

MATCH LINE - STA 55+00

MATCH LINE - STA 61+00

56+00 57+00 58+00 59+00 60+00

+68.0 78.6' LT
+52.6 67.8' LT
+83.4 77.9' LT
+83.4 51.8' LT
+20.5 0.0'
+34.4 0.0'
+67.8 0.0'
+17.5 75.4' LT
+17.5 46.4' LT
+67.1 0.0'
+83.4 44.5' RT
+52.1 72.1' RT
+68.3 65.1' RT
+52.1 81.9' RT
+68.3 74.9' RT
+83.5 75.6' RT
+18.0 40.5' RT
+18.4 140.5' RT

2

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 131	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 02

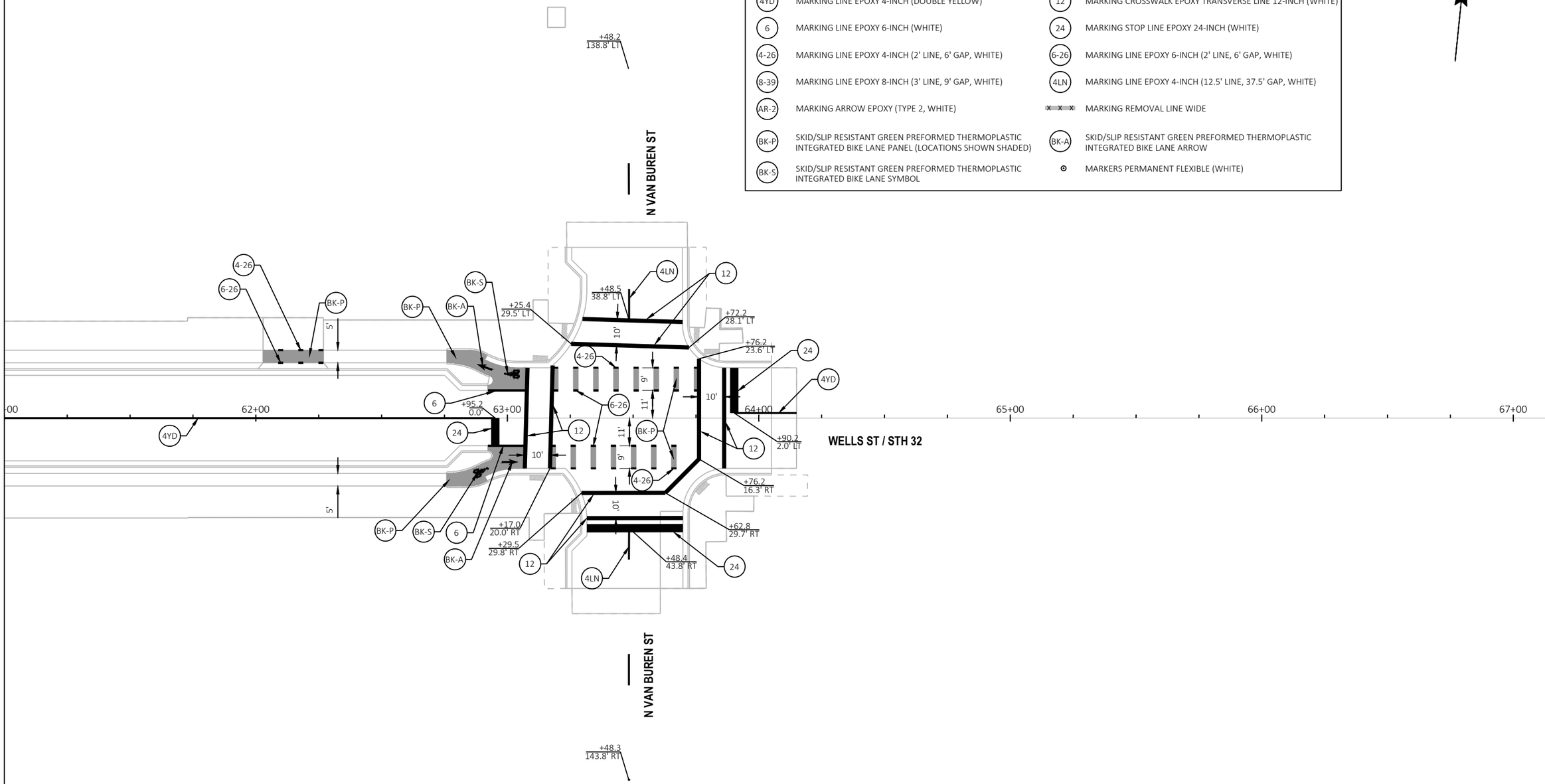
PLOT DATE : 7/21/2023 4:27 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

PAVEMENT MARKING LEGEND

4W	MARKING LINE EPOXY 4-INCH (WHITE)	8	MARKING LINE EPOXY 8-INCH (WHITE)
4YD	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)	12	MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
6	MARKING LINE EPOXY 6-INCH (WHITE)	24	MARKING STOP LINE EPOXY 24-INCH (WHITE)
4-26	MARKING LINE EPOXY 4-INCH (2' LINE, 6' GAP, WHITE)	6-26	MARKING LINE EPOXY 6-INCH (2' LINE, 6' GAP, WHITE)
8-39	MARKING LINE EPOXY 8-INCH (3' LINE, 9' GAP, WHITE)	4LN	MARKING LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
AR-2	MARKING ARROW EPOXY (TYPE 2, WHITE)	XXX	MARKING REMOVAL LINE WIDE
BK-P	SKID/SLIP RESISTANT GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE PANEL (LOCATIONS SHOWN SHADED)	BK-A	SKID/SLIP RESISTANT GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE ARROW
BK-S	SKID/SLIP RESISTANT GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE SYMBOL	⊙	MARKERS PERMANENT FLEXIBLE (WHITE)

N



PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 132	E

2

END ROAD WORK
G20-2A
48"X24"

MILWAUKEE ST
AT KILBOURN AVE

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

N

2

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

NO PARKING ANY TIME
R7-1D
18"X24"

NO TURNS
R3-3
24"X24"

SIDEWALK CLOSED
R9-9
24"X12"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BR
30"X24"

N BROADWAY

MIL WAUKEE STREETCAR

MAINTAIN EXISTING ACCESS TO DOORWAY

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE. SEE CURB RAMP STAGING DETAIL.

MAINTAIN ACCESS TO ONE ENTRY LANE OF PARKING STRUCTURE BY CONSTRUCTING DRIVEWAY ONE HALF AT A TIME.

TEMPORARILY CLOSE PEDESTRIAN RAMP AND STAIRWAY

MAINTAIN EXISTING ACCESS TO DOORWAY

N MILWAUKEE ST

CLOSE NORTHBOUND AND SOUTHBOUND MILWAUKEE ST SHORT-TERM TO CONSTRUCT NORTHEAST QUADRANT IMMEDIATELY ADJACENT TO STREETCAR TRACKS. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION. SEE SDD BARRICADES AND SIGNS FOR MAINLINE CLOSURE, DETAIL C FOR TRAFFIC CONTROL SIGNING DURING CLOSURE.

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE. SEE CURB RAMP STAGING DETAIL.

NO PARKING ANY TIME
R7-1D
18"X24"

SIDEWALK CLOSED
R9-9
24"X12"

49+00 | 50+00 | 51+00 | 52+00 | 53+00 | 54+00 | 55+

WELLS ST R/L

WELLS ST

WELLS ST / STH 32

MATCH LINE - STA 55+00

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

ROAD CLOSED AHEAD
W20-3A

WELLS ST
AT PLANKINTON AVE

ROAD CLOSED 500 FT
W20-3D

WELLS ST
AT WATER ST

SEE SDD BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAIL C

N BROADWAY

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

NO PARKING ANY TIME
R7-1D
18"X24"

ROAD CLOSED
R11-2
48"X30"

MAINTAIN TWO TRAVEL LANES THROUGH THE WORK ZONE FOR BUSINESS AND ALLEY ACCESS

BILLBOARD

ALLEY

ROAD CLOSED
R11-2
48"X30"

NO PARKING ANY TIME
R7-1D
18"X24"

MILWAUKEE STREETCAR

N MILWAUKEE ST

LANE CLOSED
R11-2L
48"X30"

NO TURNS
R3-3
24"X24"

NO PARKING ANY TIME
R7-1D
18"X24"

CLOSE NB OUTSIDE LANE.
SEE SDD TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY.
4 - TRAFFIC CONTROL SIGNS
12 - TRAFFIC CONTROL DRUMS (25' SPACING)
7 - WARNING LIGHTS TYPE C
1 - BARRICADE TYPE III
2 - WARNING LIGHTS TYPE A
180 - TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
50 - TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH

BROADWAY
AT MASON ST

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 133	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC1A.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:28 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

N

MATCH LINE - STA 55+00

ALLEY

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BL
30"X24"

N JEFFERSON ST

ASPH

ROAD CLOSED 500 FT
W20-3D

N JACKSON ST

WELLS ST AT VAN BUREN ST

ROAD CLOSED AHEAD
W20-3A

55+00 56+00 57+00 58+00 59+00 60+00 61+

WELLS ST R/L

WELLS ST / STH 32

ASPH

MATCH LINE - STA 61+00

NO PARKING ANY TIME
R7-1D
18"X24"

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BR
30"X24"

ALLEY

N JEFFERSON ST

ASPH

SIGN

SIGN

ALLEY

ASPH

N JACKSON ST

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 134	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC1A.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:28 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

END ROAD WORK
G20-2A
48"X24"

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

MILWAUKEE ST AT STATE ST
ROAD CLOSED AHEAD
W20-3A

MILWAUKEE ST AT KILBOURN AVE
ROAD CLOSED 500 FT
W20-3D

END ROAD WORK
G20-2A
48"X24"

N

ROAD CLOSED
R11-2
48"X30"

NO PARKING ANY TIME
R7-1D
18"X24"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BR
30"X24"

N BROADWAY

MILWAUKEE STREETCAR

MAINTAIN EXISTING ACCESS TO DOORWAY

MAINTAIN ACCESS TO ONE ENTRY LANE OF PARKING STRUCTURE BY CONSTRUCTING DRIVEWAY ONE HALF AT A TIME.

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE. SEE CURB RAMP STAGING DETAIL.

TEMPORARILY CLOSE PEDESTRIAN RAMP AND STAIRWAY

MAINTAIN EXISTING ACCESS TO DOORWAY

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE. SEE CURB RAMP STAGING DETAIL.

N MILWAUKEE ST

CLOSE NORTHBOUND AND SOUTHBOUND MILWAUKEE ST SHORT-TERM TO CONSTRUCT NORTHWEST QUADRANT IMMEDIATELY ADJACENT TO STREETCAR TRACKS. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION. SEE SDD BARRICADES AND SIGNS FOR MAINLINE CLOSURE, DETAIL C FOR TRAFFIC CONTROL SIGNING DURING CLOSURE.

SIDEWALK CLOSED
R9-9
24"X12"

NO PARKING ANY TIME
R7-1D
18"X24"

SIDEWALK CLOSED
R9-9
24"X12"

49+00 | 50+00 | 51+00 | 52+00 | 53+00 | 54+00 | 55+

WELLS ST

WELLS ST R/L

WELLS ST / STH 32

MATCH LINE - STA 55+00

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

ROAD CLOSED AHEAD
W20-3A
WELLS ST AT PLANKINTON AVE

ROAD CLOSED 500 FT
W20-3D
WELLS ST AT WATER ST

N BROADWAY

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

NO PARKING ANY TIME
R7-1D
18"X24"

ROAD CLOSED
R11-2
48"X30"

MAINTAIN TWO TRAVEL LANES THROUGH THE WORK ZONE FOR BUSINESS AND ALLEY ACCESS

BILLBOARD

ALLEY

ROAD CLOSED
R11-2
48"X30"

NO PARKING ANY TIME
R7-1D
18"X24"

N MILWAUKEE ST

MILWAUKEE STREETCAR

LANE CLOSED
R11-2L
48"X30"

NO TURNS
R3-3
24"X24"

NO PARKING ANY TIME
R7-1D
18"X24"

CLOSE NB OUTSIDE LANE.
SEE SDD TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY.
4 - TRAFFIC CONTROL SIGNS
12 - TRAFFIC CONTROL DRUMS (25' SPACING)
7 - WARNING LIGHTS TYPE C
1 - BARRICADE TYPE III
2 - WARNING LIGHTS TYPE A

BROADWAY AT MASON ST
ROAD WORK AHEAD
W20-1A

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 135 E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC1B.DWG
LAYOUT NAME - 01
PLOT DATE : 7/21/2023 4:29 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

2

LEGEND

WORK ZONE (NO ACCESS)

WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)

TRAFFIC CONTROL DRUMS (12.5' SPACING)

TRAFFIC CONTROL DRUMS (25' SPACING)

TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN

TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN

TEMPORARY PEDESTRIAN BARRICADE

TRAFFIC DIRECTION

PEDESTRIAN DIRECTION

N

MATCH LINE - STA 55+00

ALLEY

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BL
30"X24"

N JEFFERSON ST

ROAD CLOSED 500 FT
W20-3D

N JACKSON ST

WELLS ST AT VAN BUREN ST

ROAD CLOSED AHEAD
W20-3A

ASPH

56+00

57+00

58+00

59+00

60+00

61+

WELLS ST R/L

WELLS ST / STH 32

MATCH LINE - STA 61+00

NO PARKING ANY TIME
R7-1D
18"X24"

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BR
30"X24"

SIGN

SIGN

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 136	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC1B.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:29 PM

PLOT BY : AXT, ANDREW

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

END ROAD WORK
G20-2A
48"X24"

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

MILWAUKEE ST AT STATE ST
ROAD CLOSED AHEAD
W20-3A

MILWAUKEE ST AT KILBOURN AVE
ROAD CLOSED 500 FT
W20-3D

END ROAD WORK
G20-2A
48"X24"

N

ROAD CLOSED
R11-2
48"X30"

NO PARKING ANY TIME
R7-1D
18"X24"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

MAINTAIN ONE EASTBOUND TRAVEL LANE THROUGH THE WORK ZONE FOR BUSINESS AND ALLEY ACCESS

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

N BROADWAY

MILWAUKEE STREETCAR

ROAD CLOSED
R11-2
48"X30"

N MILWAUKEE ST

ASPH

CONC

49+00 50+00 51+00 52+00 53+00 54+00 55+00

WELLS ST

WELLS ST R/L

WELLS ST / STH 32

MATCH LINE - STA 55+00

SIDEWALK CLOSED
R9-9
24"X12"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BL
30"X24"

SIGN

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE. SEE CURB RAMP STAGING DETAIL.

BILLBOARD

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE. SEE CURB RAMP STAGING DETAIL.

DO NOT ENTER
R5-1
30"X30"

ALLEY

MAINTAIN ACCESS TO ALLEY EXCEPT DURING REMOVAL OF EXISTING DRIVEWAY, CONSTRUCTION OF HES CONCRETE, AND CURING OF HES CONCRETE

LANE CLOSED
R11-2L
48"X30"

CLOSE NORTHBOUND AND SOUTHBOUND MILWAUKEE ST SHORT-TERM TO CONSTRUCT SOUTHWEST QUADRANT IMMEDIATELY ADJACENT TO STREETCAR TRACKS. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION. SEE SDD BARRICADES AND SIGNS FOR MAINLINE CLOSURE, DETAIL C FOR TRAFFIC CONTROL SIGNING DURING CLOSURE.

NO TURNS
R3-3
24"X24"

CLOSE NB OUTSIDE LANE.
SEE SDD TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY.
4 - TRAFFIC CONTROL SIGNS
12 - TRAFFIC CONTROL DRUMS (25' SPACING)
7 - WARNING LIGHTS TYPE C
1 - BARRICADE TYPE III
2 - WARNING LIGHTS TYPE A

ROAD CLOSED AHEAD
W20-3A
WELLS ST AT PLANKINTON AVE

ROAD CLOSED 500 FT
W20-3D
WELLS ST AT WATER ST

BROADWAY AT MASON ST
ROAD WORK AHEAD
W20-1A

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET 137	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC2A.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:29 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

N

ALLEY

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

N JEFFERSON ST

ASPH

ROAD CLOSED 500 FT
W20-3D

N JACKSON ST

WELLS ST AT VAN BUREN ST

ROAD CLOSED AHEAD
W20-3A

MATCH LINE - STA 55+00

56+00 57+00 58+00 59+00 60+00 61+

WELLS ST R/L

WELLS ST / STH 32

ASPH

SIGN

NO PARKING ANY TIME
R7-1D
18"X24"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BR
30"X24"

ALLEY

N JEFFERSON ST

ASPH

ALLEY

N JACKSON ST

ASPH

MATCH LINE - STA 61+00

2

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET 138	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC2A.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:29 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

END ROAD WORK
G20-2A
48"X24"

MILWAUKEE ST
AT KILBOURN AVE

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

N

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- 5" ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

NO PARKING ANY TIME
R7-1D
18"X24"

NO TURNS
R3-3
24"X24"

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

MAINTAIN ONE EASTBOUND TRAVEL LANE THROUGH THE WORK ZONE FOR BUSINESS AND ALLEY ACCESS

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

N BROADWAY

MILWAUKEE STREETCAR

N MILWAUKEE ST

ASPHALTIC CURB

MATCH LINE - STA 55+00

49+00 50+00 51+00 52+00 53+00 54+00

WELLS ST

WELLS ST R/L

WELLS ST / STH 32

SIDEWALK CLOSED
R9-9
24"X12"

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE. SEE CURB RAMP STAGING DETAIL.

CLOSE NORTHBOUND AND SOUTHBOUND MILWAUKEE ST SHORT-TERM TO CONSTRUCT SOUTHEAST QUADRANT IMMEDIATELY ADJACENT TO STREETCAR TRACKS. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION. SEE SDD BARRICADES AND SIGNS FOR MAINLINE CLOSURE, DETAIL C FOR TRAFFIC CONTROL SIGNING DURING CLOSURE.

LANE CLOSED
R11-2L
48"X30"

SIGN

BILLBOARD

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE. SEE CURB RAMP STAGING DETAIL.

DO NOT ENTER
R5-1
30"X30"

ALLEY

MAINTAIN ACCESS TO ALLEY EXCEPT DURING REMOVAL OF EXISTING DRIVEWAY, CONSTRUCTION OF HES CONCRETE, AND CURING OF HES CONCRETE

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BL
30"X24"

ROAD CLOSED AHEAD
W20-3A
WELLS ST
AT PLANKINTON AVE

ROAD CLOSED 500 FT
W20-3D
WELLS ST
AT WATER ST

BROADWAY
AT MASON ST

ROAD WORK AHEAD
W20-1A

CLOSE NB OUTSIDE LANE.
SEE SDD TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY.
4 - TRAFFIC CONTROL SIGNS
12 - TRAFFIC CONTROL DRUMS (25' SPACING)
7 - WARNING LIGHTS TYPE C
1 - BARRICADE TYPE III
2 - WARNING LIGHTS TYPE A

END ROAD WORK
G20-2A
48"X24"

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B	SHEET 139	E

2

2

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- 5" ASPHALTIC SURFACE TEMPORARY
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

N

MATCH LINE - STA 55+00

ALLEY

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

N JEFFERSON ST

ASPH

ROAD CLOSED 500 FT
W20-3D

N JACKSON ST

ASPH

WELLS ST AT VAN BUREN ST

ROAD CLOSED AHEAD
W20-3A

MATCH LINE - STA 61+00

56+00 57+00 58+00 59+00 60+00

WELLS ST / STH 32

WELLS ST R/L

ASPH

SIGN

SIGN

NO PARKING ANY TIME
R7-1D
18"X24"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BR
30"X24"

ALLEY

N JEFFERSON ST

ASPH

ALLEY

N JACKSON ST

ASPH

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B	SHEET 140	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC2B.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:30 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- WORK ZONE (TEMPORARY PEDESTRIAN SURFACE MATTING)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

NOTE: TEMPORARY PAVEMENT MARKINGS TO BE APPLIED AT THE END OF STAGE 2B PRIOR TO SHUTDOWN.

END ROAD WORK
G20-2A
48"X24"

N

TEMPORARY ASPHALT WEDGING WITHIN 10' OF STREETCAR TRACKS

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BR
30"X24"

SIDEWALK CLOSED
R9-9
24"X12"

R3-2
24"X24"

ROAD CLOSED
R11-2
48"X30"

TEMPORARY ASPHALT WEDGING WITHIN 10' OF STREETCAR TRACKS

N BROADWAY

MILWAUKEE STREETCAR

N MILWAUKEE ST

WELLS ST

WELLS ST / STH 32

WELLS ST R/L

ALLEY

49+00 50+00 51+00 52+00 53+00 54+00 55+00

MATCH LINE - STA 55+00

+36.7 18.0' RT
+27.7 32.7' RT
+50.6 5.5' RT
+53.9 5.5' RT
+53.9 0.0'
+80.8 0.0'
+39.2 49.0' LT
+38.3 45.0' RT

ROAD CLOSED AHEAD
W20-3A
WELLS ST AT WATER ST

ROAD CLOSED 500 FT
W20-3D

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BR
30"X24"

R3-1
24"X24"

LANE CLOSED
R11-2L
48"X30"

LEGEND

- T4Y — TEMPORARY MARKING LINE PAINT 4-INCH (DOUBLE YELLOW)
- T8 — TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
- TXW6 — TEMPORARY MARKING CROSSWALK PAINT 6-INCH (WHITE)
- T18 — TEMPORARY MARKING STOP LINE PAINT 18-INCH (WHITE)
- TARW — TEMPORARY MARKING ARROW PAINT (WHITE)

CLOSE NB OUTSIDE LANE.
SEE SDD TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY.
4 - TRAFFIC CONTROL SIGNS
12 - TRAFFIC CONTROL DRUMS (25' SPACING)
7 - WARNING LIGHTS TYPE C
1 - BARRICADE TYPE III
2 - WARNING LIGHTS TYPE A
180 - TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
50 - TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3A	SHEET 141	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC3A.DWG
LAYOUT NAME - 01
PLOT DATE : 7/21/2023 4:31 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- WORK ZONE (TEMPORARY PEDESTRIAN SURFACE MATTING)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

JEFFERSON ST AT KILBOURN AVE — ROAD CLOSED AHEAD W20-3A

JACKSON ST AT KILBOURN AVE — ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48"X24"

N

ROAD CLOSED R11-2 48"X30"

N JEFFERSON ST

N JACKSON ST

ALLEY

MAINTAIN EXISTING ACCESS TO DOORWAY

MAINTAIN CROSS ACCESS BETWEEN ALLEYS. CLOSE ALLEY ACCESS DURING DRIVEWAY APRON REMOVAL, CONSTRUCTION OF HES CONCRETE, AND CURING OF HES CONCRETE.

MAINTAIN CROSS ACCESS TO "THIS IS IT" BAR WITH TEMPORARY CURB RAMPS, PEDESTRIAN BARRICADES, AND PEDESTRIAN SURFACES

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE. SEE CURB RAMP STAGING DETAIL.

R3-1 24"X24"

SIDEWALK CLOSED R9-9 24"X12"

MATCH LINE - STA 55+00

MATCH LINE - STA 61+00

56+00 57+00 58+00 59+00 60+00 61

WELLS ST / STH 32

WELLS ST R/L

ROAD CLOSED R11-2 48"X30"

DO NOT ENTER R5-1 30"X30"

10'

MAINTAIN CROSS ACCESS TO "THIS IS IT" BAR WITH TEMPORARY CURB RAMPS, PEDESTRIAN BARRICADES, AND PEDESTRIAN SURFACES

MAINTAIN CROSS ACCESS BETWEEN ALLEYS. CLOSE ALLEY ACCESS DURING DRIVEWAY APRON REMOVAL, CONSTRUCTION OF HES CONCRETE, AND CURING OF HES CONCRETE.

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30"

NO PARKING ANY TIME R7-1D 18"X24"

ONE WAY R6-2R 24"X30"

WRONG WAY R5-1A 36"X24"

ROAD CLOSED R11-2 48"X30"

ONE WAY R6-2R 24"X30"

MAINTAIN ONE EASTBOUND TRAVEL LANE THROUGH THE WORK ZONE FOR ACCESS TO PARKING STRUCTURE AND ALLEYWAY

ROAD CLOSED 500 FT W20-3D — JEFFERSON ST AT MASON ST

ROAD CLOSED AHEAD W20-3A — JEFFERSON ST AT WISCONSIN AVE

END ROAD WORK G20-2A 48"X24"

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3A	SHEET 142	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC3A.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:31 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- WORK ZONE (TEMPORARY PEDESTRIAN SURFACE MATTING)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

N

MATCH LINE - STA 61+00

END ROAD WORK
G20-2A
48"X24"

NO PARKING ANY TIME
R7-1D
18"X24"

SIDEWALK CLOSED
R9-9
24"X12"

CONC

ASPH

N VAN BUREN ST

MAINTAIN CROSS ACCESS TO "SEEDS OF HEALTH" WITH TEMPORARY CURB RAMPS, PEDESTRIAN BARRICADES, AND PEDESTRIAN SURFACE. CONSTRUCT SIDEWALK IN FRONT OF STAIRWAY ONE HALF AT A TIME.

MAINTAIN ACCESS TO CATHEDRAL PARKING LOT BY CONSTRUCTING DRIVEWAY ONE HALF AT A TIME.

MAINTAIN EXISTING ACCESS TO DOORWAY

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE.
SEE CURB RAMP STAGING DETAIL.

ROAD CLOSED
R11-2
48"X30"

DO NOT ENTER
R5-1
30"X30"

10'

61+00

62+00

63+00

64+00

65+00

66+00

67+00

WELLS ST / STH 32

WELLS ST R/L

NORTHWEST CORNER CASS ST INTERSECTION

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BL
30"X24"

WELLS ST AT CASS ST

ROAD CLOSED 500 FT
W20-3D

WELLS ST AT MARSHALL ST

ROAD CLOSED AHEAD
W20-3A

LANE CLOSED
R11-2L
48"X30"

ROAD CLOSED
R11-2
48"X30"

R3-2
24"X24"

NO PARKING ANY TIME
R7-1D
18"X24"

SOUTHWEST CORNER CASS ST INTERSECTION

END ROAD WORK
G20-2A
48"X24"

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BR
30"X24"

MAINTAIN TWO TRAVEL LANES THROUGH THE WORK ZONE FOR ACCESS TO CATHEDRAL PARKING LOT

CLOSE NB RIGHT LANE.
SEE SDD TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY.
4 - TRAFFIC CONTROL SIGNS
12 - TRAFFIC CONTROL DRUMS (25' SPACING)
7 - WARNING LIGHTS TYPE C
1 - BARRICADE TYPE III
2 - WARNING LIGHTS TYPE A
180 - TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
50 - TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3A	SHEET 143	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC3A.DWG
LAYOUT NAME - 03

PLOT DATE : 7/21/2023 4:31 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- WORK ZONE (TEMPORARY PEDESTRIAN SURFACE MATTING)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

SEE TRAFFIC CONTROL STAGE 3A FOR TEMPORARY PAVEMENT MARKINGS PREVIOUSLY PLACED

END ROAD WORK
G20-2A
48"X24"

N

R3-2
24"X24"

ROAD CLOSED
R11-2
48"X30"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BR
30"X24"

SIDEWALK CLOSED
R9-9
24"X12"

N BROADWAY

MILWAUKEE STREETCAR

N MILWAUKEE ST

ASPH

CONC

49+00 50+00 51+00 52+00 53+00 54+00

WELLS ST

WELLS ST R/L

WELLS ST / STH 32

MATCH LINE - STA 55+00

ROAD CLOSED AHEAD
W20-3A
WELLS ST
AT WATER ST

ROAD CLOSED 500 FT
W20-3D

SIGN

BILLBOARD

ALLEY

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

R3-1
24"X24"

LANE CLOSED
R11-2L
48"X30"

CLOSE NB OUTSIDE LANE.
SEE SDD TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY.
4 - TRAFFIC CONTROL SIGNS
12 - TRAFFIC CONTROL DRUMS (25' SPACING)
7 - WARNING LIGHTS TYPE C
1 - BARRICADE TYPE III
2 - WARNING LIGHTS TYPE A

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3B	SHEET 144	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC3B.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:31 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- WORK ZONE (TEMPORARY PEDESTRIAN SURFACE MATTING)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

N

JEFFERSON ST AT KILBOURN AVE

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

JACKSON ST AT STATE ST

ROAD CLOSED AHEAD
W20-3A

JACKSON ST AT KILBOURN AVE

ROAD CLOSED 500 FT
W20-3D

NO TURNS
R3-3
24"X24"

N JEFFERSON ST

ROAD CLOSED
R11-2
48"X30"

SIDEWALK CLOSED
R9-9
24"X12"

ROAD CLOSED
R11-2
48"X30"

N JACKSON ST

MAINTAIN EXISTING ACCESS TO RECTORY ENTRANCE

ALLEY

MAINTAIN CROSS ACCESS BETWEEN ALLEYS. CLOSE ALLEY ACCESS DURING DRIVEWAY APRON REMOVAL, CONSTRUCTION OF HES CONCRETE, AND CURING OF HES CONCRETE.

MAINTAIN CROSS ACCESS TO "THIS IS IT" BAR WITH TEMPORARY CURB RAMPS, PEDESTRIAN BARRICADES, AND PEDESTRIAN SURFACES

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE. SEE CURB RAMP STAGING DETAIL.

MATCH LINE - STA 55+00

56+00

57+00

58+00

59+00

60+00

61

MATCH LINE - STA 61+00

WELLS ST R/L

WELLS ST / STH 32

DO NOT ENTER
R5-1
30"X30"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

NO PARKING ANY TIME
R7-1D
18"X24"

ONE WAY
R6-2R
24"X30"

NO PARKING ANY TIME
R7-1D
18"X24"

WRONG WAY
R5-1A
36"X24"

ONE WAY
R6-2R
24"X30"

NO TURNS
R3-3
24"X24"

MAINTAIN ONE EASTBOUND TRAVEL LANE THROUGH THE WORK ZONE FOR ACCESS TO PARKING STRUCTURE AND ALLEYWAY

ALLEY

MAINTAIN CROSS ACCESS TO "THIS IS IT" BAR WITH TEMPORARY CURB RAMPS, PEDESTRIAN BARRICADES, AND PEDESTRIAN SURFACES

MAINTAIN CROSS ACCESS BETWEEN ALLEYS. CLOSE ALLEY ACCESS DURING DRIVEWAY APRON REMOVAL, CONSTRUCTION OF HES CONCRETE, AND CURING OF HES CONCRETE.

ALLEY

N JEFFERSON ST

N JACKSON ST

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

JEFFERSON ST AT MASON ST

END ROAD WORK
G20-2A
48"X24"

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3B	SHEET 145	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC3B.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:31 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- WORK ZONE (TEMPORARY PEDESTRIAN SURFACE MATTING)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

N

MATCH LINE - STA 61+00

END ROAD WORK
G20-2A
48"X24"

NO PARKING ANY TIME
R7-1D
18"X24"

ONE WAY
R6-2R
24"X30"

ROAD CLOSED
R11-2
48"X30"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BL
30"X24"

STOP
R1-1
30"X30"

WELLS ST AT CASS ST
ROAD CLOSED 500 FT
W20-3D

WELLS ST AT MARSHALL ST
ROAD CLOSED AHEAD
W20-3A

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE. SEE CURB RAMP STAGING DETAIL.

MAINTAIN CROSS ACCESS TO "SEEDS OF HEALTH" WITH TEMPORARY CURB RAMPS, PEDESTRIAN BARRICADES, AND PEDESTRIAN SURFACE. CONSTRUCT SIDEWALK IN FRONT OF STAIRWAY ONE HALF AT A TIME.

MAINTAIN ACCESS TO CATHEDRAL PARKING LOT BY CONSTRUCTING DRIVEWAY ONE HALF AT A TIME.

N VAN BUREN ST

CONC

ASPH

10'

62+00

63+00

64+00

65+00

66+00

67+00

WELLS ST R/L

WELLS ST / STH 32

LANE CLOSED
R11-2L
48"X30"

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

END ROAD WORK
G20-2A
48"X24"

NO PARKING ANY TIME
R7-1D
18"X24"

ROAD CLOSED
R11-2
48"X30"

NO PARKING ANY TIME
R7-1D
18"X24"

R3-2
24"X24"

MAINTAIN TWO TRAVEL LANES THROUGH THE WORK ZONE FOR ACCESS TO CATHEDRAL PARKING LOT

CLOSE NB LEFT LANE.
SEE SDD TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY.
4 - TRAFFIC CONTROL SIGNS
12 - TRAFFIC CONTROL DRUMS (25' SPACING)
7 - WARNING LIGHTS TYPE C
1 - BARRICADE TYPE III
2 - WARNING LIGHTS TYPE A
180 - TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

NO PARKING ANY TIME
R7-1D
18"X24"

NO PARKING ANY TIME
R7-1D
18"X24"

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3B	SHEET 146	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC3B.DWG
LAYOUT NAME - 03

PLOT DATE : 7/21/2023 4:31 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- WORK ZONE (TEMPORARY PEDESTRIAN SURFACE MATTING)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

SEE TRAFFIC CONTROL STAGE 3A FOR TEMPORARY PAVEMENT MARKINGS PREVIOUSLY PLACED

END ROAD WORK
G20-2A
48"X24"

N

R3-2
24"X24"

ROAD CLOSED
R11-2
48"X30"

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

N BROADWAY

MILWAUKEE STREETCAR

N MILWAUKEE ST

ASPH

CONC

49+00 50+00 51+00 52+00 53+00 54+00 55+

WELLS ST

WELLS ST R/L

WELLS ST / STH 32

MILWAUKEE STREETCAR

ROAD CLOSED AHEAD
W20-3A
WELLS ST
AT WATER ST

ROAD CLOSED 500 FT
W20-3D

SIGN

BILLBOARD

ALLEY

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

SIDEWALK CLOSED
R9-9
24"X12"

R3-1
24"X24"

DETOUR
M4-9BL
30"X24"

LANE CLOSED
R11-2L
48"X30"

CLOSE NB OUTSIDE LANE.
SEE SDD TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY.
4 - TRAFFIC CONTROL SIGNS
12 - TRAFFIC CONTROL DRUMS (25' SPACING)
7 - WARNING LIGHTS TYPE C
1 - BARRICADE TYPE III
2 - WARNING LIGHTS TYPE A

MATCH LINE - STA 55+00

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4A	SHEET 147	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC4A.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:32 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- WORK ZONE (TEMPORARY PEDESTRIAN SURFACE MATTING)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

N

JEFFERSON ST AT KILBOURN AVE — ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48"X24"

JACKSON ST AT STATE ST — ROAD CLOSED AHEAD W20-3A

END ROAD WORK G20-2A 48"X24"

JACKSON ST AT KILBOURN AVE — ROAD CLOSED 500 FT W20-3D

ROAD CLOSED R11-2 48"X30"

NO TURNS R3-3 24"X24"

N JEFFERSON ST

N JACKSON ST

ASPH

ALLEY

MAINTAIN CROSS ACCESS BETWEEN ALLEYS. CLOSE ALLEY ACCESS DURING DRIVEWAY APRON REMOVAL, CONSTRUCTION OF HES CONCRETE, AND CURING OF HES CONCRETE.

MAINTAIN CROSS ACCESS TO SOUTH SIDE BUSINESSES WITH TEMPORARY CURB RAMPS, PEDESTRIAN BARRICADES, AND PEDESTRIAN SURFACES

MAINTAIN ONE EASTBOUND TRAVEL LANE THROUGH THE WORK ZONE FOR ACCESS TO PARKING STRUCTURE AND ALLEY

ROAD CLOSED R11-2 48"X30"

ONE WAY R6-2R 24"X30"

NO PARKING ANY TIME R7-1D 18"X24"

DO NOT ENTER R5-1 30"X30"

WRONG WAY R5-1A 36"X24"

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30"

NO PARKING ANY TIME R7-1D 18"X24"

MATCH LINE - STA 55+00

56+00 57+00 58+00 59+00 60+00 61

MATCH LINE - STA 61+00

WELLS ST R/L

WELLS ST / STH 32

SIDEWALK CLOSED R9-9 24"X12"

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30"

NO TURNS R3-3 24"X24"

ONLY R3-50R 30"X36"

MAINTAIN ACCESS TO ALLEY EXCEPT DURING DRIVEWAY REMOVAL, CONSTRUCTION OF HES CONCRETE, AND CURING OF HES CONCRETE

MAINTAIN ACCESS TO ONE EXIT LANE BY CONSTRUCTING DRIVEWAY ONE HALF AT A TIME

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE. SEE CURB RAMP STAGING DETAIL.

MAINTAIN ACCESS TO ENTRY LANE EXCEPT DURING DRIVEWAY REMOVAL, CONSTRUCTION OF HES CONCRETE, AND CURING OF HES CONCRETE

MAINTAIN CROSS ACCESS TO SOUTH SIDE BUSINESSES WITH TEMPORARY CURB RAMPS, PEDESTRIAN BARRICADES, AND PEDESTRIAN SURFACES

MAINTAIN CROSS ACCESS BETWEEN ALLEYS. CLOSE ALLEY ACCESS DURING DRIVEWAY APRON REMOVAL, CONSTRUCTION OF HES CONCRETE, AND CURING OF HES CONCRETE.

END ROAD WORK G20-2A 48"X24"

ROAD WORK AHEAD W20-1A — JEFFERSON ST AT MASON ST

END ROAD WORK G20-2A 48"X24"

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4A	SHEET 148	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC4A.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:32 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- WORK ZONE (TEMPORARY PEDESTRIAN SURFACE MATTING)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

N

WELLS ST AT CASS ST

ROAD CLOSED 500 FT
W20-3D

WELLS ST AT MARSHALL ST

ROAD CLOSED AHEAD
W20-3A

MATCH LINE - STA 61+00

MAINTAIN ONE TRAVEL LANE THROUGH THE WORK ZONE FOR ACCESS TO CATHEDRAL PARKING LOT

NO PARKING ANY TIME
R7-1D
18"X24"

ROAD CLOSED
R11-2
48"X30"

ASPH

62+00

63+00

CONC

R3-2
24"X24"

N VAN BUREN ST

ASPH

NO PARKING ANY TIME
R7-1D
18"X24"

END ROAD WORK
G20-2A
48"X24"

ONE WAY
R6-2R
24"X30"

ROAD CLOSED
R11-2
48"X30"

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

STOP
R1-1
30"X30"

ASPH

64+00

65+00

66+00

67+00

WELLS ST / STH 32

WELLS ST R/L

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE.
SEE CURB RAMP STAGING DETAIL.

LANE CLOSED
R11-2L
48"X30"

CLOSE NB LEFT LANE.
SEE SDD TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY.
4 - TRAFFIC CONTROL SIGNS
12 - TRAFFIC CONTROL DRUMS (25' SPACING)
7 - WARNING LIGHTS TYPE C
1 - BARRICADE TYPE III
2 - WARNING LIGHTS TYPE A

NO PARKING ANY TIME
R7-1D
18"X24"

ASPH

CONC

N VAN BUREN ST

CONC

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BR
30"X24"

NO PARKING ANY TIME
R7-1D
18"X24"

END ROAD WORK
G20-2A
48"X24"

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4A	SHEET 149	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC4A.DWG
LAYOUT NAME - 03

PLOT DATE : 7/21/2023 4:32 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- WORK ZONE (TEMPORARY PEDESTRIAN SURFACE MATTING)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

SEE TRAFFIC CONTROL STAGE 3A FOR TEMPORARY PAVEMENT MARKINGS PREVIOUSLY PLACED

END ROAD WORK
G20-2A
48"X24"

N

R3-2
24"X24"

ROAD CLOSED
R11-2
48"X30"

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

N BROADWAY

MILWAUKEE STREETCAR

N MILWAUKEE ST

ASPH

CONC

49+00 50+00 51+00 52+00 53+00 54+00 55+

WELLS ST

WELLS ST R/L

WELLS ST / STH 32

MATCH LINE - STA 55+00

ROAD CLOSED AHEAD
W20-3A
WELLS ST
AT WATER ST

ROAD CLOSED 500 FT
W20-3D

SIGN

BILLBOARD

ALLEY

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

SIDEWALK CLOSED
R9-9
24"X12"

R3-1
24"X24"

DETOUR
M4-9BL
30"X24"

LANE CLOSED
R11-2L
48"X30"

CLOSE NB OUTSIDE LANE.
SEE SDD TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY.
4 - TRAFFIC CONTROL SIGNS
12 - TRAFFIC CONTROL DRUMS (25' SPACING)
7 - WARNING LIGHTS TYPE C
1 - BARRICADE TYPE III
2 - WARNING LIGHTS TYPE A

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4B	SHEET 150	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC4B.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:33 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- WORK ZONE (TEMPORARY PEDESTRIAN SURFACE MATTING)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

N

JEFFERSON ST AT KILBOURN AVE

ROAD CLOSED AHEAD W20-3A

JACKSON ST AT KILBOURN AVE

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48"X24"

ROAD CLOSED R11-2 48"X30"

N JEFFERSON ST

NO PARKING ANY TIME R7-1D 18"X24"

ROAD CLOSED R11-2 48"X30"

MAINTAIN ONE EASTBOUND TRAVEL LANE THROUGH THE WORK ZONE FOR ACCESS TO PARKING STRUCTURE AND ALLEY

ONE WAY R6-2R 24"X30"

NO PARKING ANY TIME R7-1D 18"X24"

NO TURNS R3-3 24"X24"

DO NOT ENTER R5-1 30"X30"

WRONG WAY R5-1A 36"X24"

N JACKSON ST

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30"

ALLEY

MAINTAIN CROSS ACCESS BETWEEN ALLEYS. CLOSE ALLEY ACCESS DURING DRIVEWAY APRON REMOVAL, CONSTRUCTION OF HES CONCRETE, AND CURING OF HES CONCRETE.

MAINTAIN CROSS ACCESS TO SOUTH SIDE BUSINESSES WITH TEMPORARY CURB RAMPS, PEDESTRIAN BARRICADES, AND PEDESTRIAN SURFACES

MATCH LINE - STA 55+00

55+00 56+00 57+00 58+00 59+00 60+00 61+00

WELLS ST / STH 32

WELLS ST R/L

MATCH LINE - STA 61+00

MAINTAIN CROSS ACCESS TO SOUTH SIDE BUSINESSES WITH TEMPORARY CURB RAMPS, PEDESTRIAN BARRICADES, AND PEDESTRIAN SURFACES

MAINTAIN CROSS ACCESS BETWEEN ALLEYS. CLOSE ALLEY ACCESS DURING DRIVEWAY APRON REMOVAL, CONSTRUCTION OF HES CONCRETE, AND CURING OF HES CONCRETE.

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE. SEE CURB RAMP STAGING DETAIL.

ALLEY

N JEFFERSON ST

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30"

MAINTAIN ACCESS TO ENTRY LANE EXCEPT DURING DRIVEWAY REMOVAL, CONSTRUCTION OF HES CONCRETE, AND CURING OF HES CONCRETE

ONLY R3-50R 30"X36"

ALLEY

MAINTAIN ACCESS TO ALLEY EXCEPT DURING DRIVEWAY REMOVAL, CONSTRUCTION OF HES CONCRETE, AND CURING OF HES CONCRETE

MAINTAIN ACCESS TO ONE EXIT LANE BY CONSTRUCTING DRIVEWAY ONE HALF AT A TIME

SIDEWALK CLOSED R9-9 24"X12"

SIDEWALK CLOSED R9-9 24"X12"

N JACKSON ST

ROAD CLOSED R11-2 48"X30"

ROAD CLOSED 500 FT W20-3D

JEFFERSON ST AT MASON ST

ROAD CLOSED AHEAD W20-3A

JEFFERSON ST AT WISCONSIN AVE

END ROAD WORK G20-2A 48"X24"

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4B	SHEET 151	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC4B.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:33 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- WORK ZONE (TEMPORARY PEDESTRIAN SURFACE MATTING)
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

N

MATCH LINE - STA 61+00

END ROAD WORK
G20-2A
48"X24"

NO PARKING ANY TIME
R7-1D
18"X24"

MAINTAIN ONE TRAVEL LANE THROUGH THE WORK ZONE FOR ACCESS TO CATHEDRAL PARKING LOT

ROAD CLOSED
R11-2
48"X30"

CONC

ASPH

N VAN BUREN ST

ONE WAY
R6-2R
24"X30"

ROAD CLOSED
R11-2
48"X30"

STOP
R1-1
30"X30"

NO TURNS
R3-3
24"X24"

62+00

63+00

64+00

65+00

66+00

67+00

WELLS ST / STH 32

WELLS ST R/L

SOUTHWEST CORNER CASS ST INTERSECTION

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

WELLS ST AT CASS ST

ROAD CLOSED 500 FT
W20-3D

WELLS ST AT MARSHALL ST

ROAD CLOSED AHEAD
W20-3A

SIDEWALK CLOSED
R9-9
24"X12"

MAINTAIN NORTH-SOUTH PEDESTRIAN ACCESS THROUGH THE WORK ZONE.
SEE CURB RAMP STAGING DETAIL.

NO PARKING ANY TIME
R7-1D
18"X24"

LANE CLOSED
R11-2L
48"X30"

CLOSE NB RIGHT LANE.
SEE SDD TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY.
4 - TRAFFIC CONTROL SIGNS
12 - TRAFFIC CONTROL DRUMS (25' SPACING)
7 - WARNING LIGHTS TYPE C
1 - BARRICADE TYPE III
2 - WARNING LIGHTS TYPE A
180 - TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

END ROAD WORK
G20-2A
48"X24"

SOUTHWEST CORNER CASS ST INTERSECTION

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BR
30"X24"

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4B	SHEET 152	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC4B.DWG
LAYOUT NAME - 03
PLOT DATE : 7/21/2023 4:33 PM
PLOT BY : AXT, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

CLOSE SB PARKING LANE.
SEE SDD TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY.
5 - TRAFFIC CONTROL DRUMS
2 - TRAFFIC CONTROL SIGNS

LEGEND

- WORK ZONE (NO ACCESS)
- WORK ZONE (LOCAL ACCESS ONLY, GRAVEL OR PAVED SURFACE)
- TCR — TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
- TRAFFIC CONTROL DRUMS (12.5' SPACING)
- TRAFFIC CONTROL DRUMS (25' SPACING)
- TRAFFIC CONTROL BARRICADE TYPE II, ONE WARNING LIGHT TYPE A, WITH ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III, TWO WARNING LIGHTS TYPE A, WITH/WITHOUT ATTACHED SIGN
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC DIRECTION
- PEDESTRIAN DIRECTION

N

WELLS ST
200' WEST OF WORK ZONE

END ROAD WORK
G20-2A
48"X24"

TCR

5'

N BROADWAY

MILWAUKEE STREETCAR

SHOULDER WORK
W21-5

ROAD WORK AHEAD
W20-1A

N MILWAUKEE ST

ASPH

CONC

49+00 50+00 51+00 52+00 53+00 54+00 55+00

MATCH LINE - STA 55+00

WELLS ST R/L

WELLS ST

WELLS ST / STH 32

SIGN

BILLBOARD

END ROAD WORK
G20-2A
48"X24"

CLOSE EB PARKING LANE.
SEE SDD TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY.
5 - TRAFFIC CONTROL DRUMS
2 - TRAFFIC CONTROL SIGNS

END ROAD WORK
G20-2A
48"X24"

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 5	SHEET 153	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\025101-TC5.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:33 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

1
NORTH
M3-1
24"X12"
32
M1-6B
24"X24"
DETOUR AHEAD
W20-2A

2
NORTH
M3-1
24"X12"
32
M1-6B
24"X24"
WEST
M3-4
24"X12"
18
M1-4
24"X24"
DETOUR AHEAD
W20-2A

3
DETOUR
M4-8
24"X12"
NORTH
M3-1
24"X12"
32
M1-6B
24"X24"

4
DETOUR
M4-8
24"X12"
WEST
M3-4
24"X12"
18
M1-4
24"X24"

5
END DETOUR
M4-8A
24"X18"
NORTH
M3-1
24"X12"
32
M1-6B
24"X24"

6
END DETOUR
M4-8A
24"X18"
WEST
M3-4
24"X12"
18
M1-4
24"X24"

7
DETOUR AHEAD
W20-2A

8
ROAD CLOSED AHEAD
W20-3A

9
ROAD CLOSED 500 FT
W20-3D

A
MO6-1
21"X21"

B
MO5-1L
21"X21"

C
MO6-1
21"X21"

D
MO5-1R
21"X21"

E
MO6-1
21"X21"

LEGEND

XXXXXXX WORK ZONE

DIRECTION OF TRAFFIC

DETOUR ROUTE

SIGN MOUNTED ON POST

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

N

18
EAST 18
WEST 18
145
6TH ST
VEL R. PHILLIPS AVE
DR. MARTIN LUTHER KING JR. DR
INTERSTATE 43
STATE ST
KILBOURN AVE
WATER ST
BROADWAY
MILWAUKEE ST
JEFFERSON ST
JACKSON ST
VAN BUREN ST
PROSPECT AVE
SOUTH 32
NORTH 32
WELLS ST
MASON ST
WISCONSIN AVE
PCMS
SEE TRAFFIC CONTROL PLANS

1 - TRAFFIC CONTROL SIGN (R11-4)
1 - BARRICADE TYPE III WITH ATTACHED SIGN
2 - WARNING LIGHTS TYPE A

NOTES:

1. MAINTAIN ACCESS WITHIN WORK ZONE TO LOCAL TRAFFIC AND EMERGENCY VEHICLES AT ALL TIMES.
2. PORTABLE CHANGEABLE MESSAGE SIGNS TO BE PLACED 7 CALENDAR DAYS PRIOR TO CONSTRUCTION. REMOVE ON THE SAME DAY CONSTRUCTION STARTS.
3. REFERENCE THE FOLLOWING STANDARD DETAIL DRAWINGS (SDD):
   - BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAILS B AND C
   - BARRICADES AND SIGN FOR VARIOUS CLOSURES, DETAIL E
   - DETOUR SIGNING FOR MAINLINE CLOSURES

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	DETOUR (STAGES 1 & 2)	SHEET 154	E

1
NORTH
M3-1
24"X12"
32
M1-6B
24"X24"
DETOUR AHEAD
W20-2A

2
DETOUR
M4-8
24"X12"
NORTH
M3-1
24"X12"
32
M1-6B
24"X24"

3
END DETOUR
M4-8A
24"X18"
NORTH
M3-1
24"X12"
32
M1-6B
24"X24"

4
DETOUR AHEAD
W20-2A

5
ROAD CLOSED AHEAD
W20-3A

6
ROAD CLOSED 500 FT
W20-3D

A
MO6-1
21"X21"

B
MO5-1L
21"X21"

C
MO6-1
21"X21"

D
MO5-1R
21"X21"

E
MO6-1
21"X21"

LEGEND
XXXXXXX WORK ZONE
DIRECTION OF TRAFFIC
DETOUR ROUTE
SIGN MOUNTED ON POST
PCMS PORTABLE CHANGEABLE MESSAGE SIGN

N

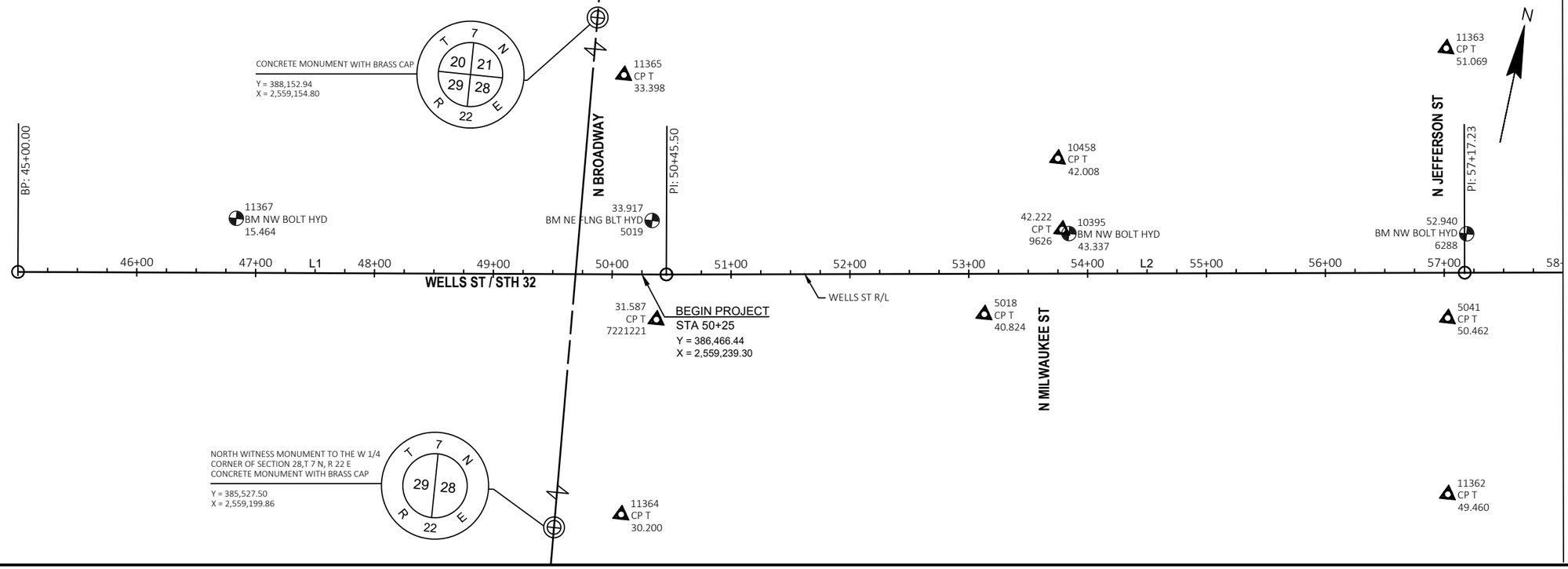


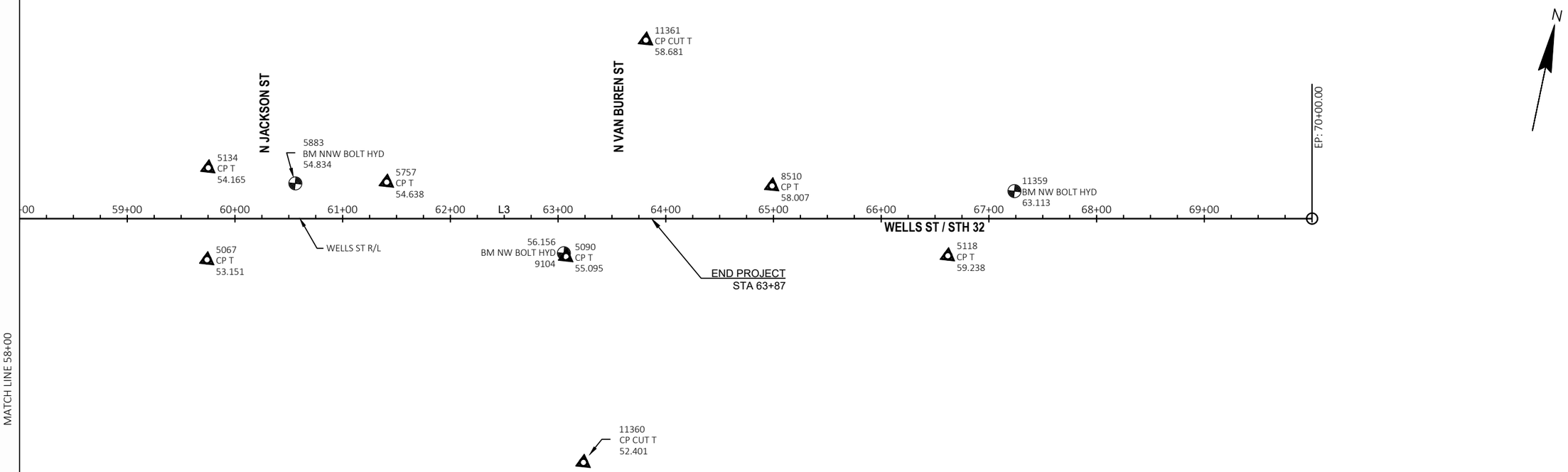
1 - TRAFFIC CONTROL SIGN (R11-4)
1 - BARRICADE TYPE III WITH ATTACHED SIGN
2 - WARNING LIGHTS TYPE A

NOTES:

1. MAINTAIN ACCESS WITHIN WORK ZONE TO LOCAL TRAFFIC AND EMERGENCY VEHICLES AT ALL TIMES.
2. PORTABLE CHANGEABLE MESSAGE SIGNS TO BE PLACED 7 CALENDAR DAYS PRIOR TO THE BEGINNING OF STAGE 3. REMOVE ON THE SAME DAY STAGE 3 STARTS.
3. REFERENCE THE FOLLOWING STANDARD DETAIL DRAWINGS (SDD):
   - BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAILS B AND C
   - BARRICADES AND SIGN FOR VARIOUS CLOSURES, DETAIL E
   - DETOUR SIGNING FOR MAINLINE CLOSURES

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	DETOUR (STAGES 3 & 4)	SHEET 155	E





PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	ALIGNMENT	SHEET 156	E

2

Wells																
NUMBER	BEGIN LINE (STA)	END LINE (STA)	BEGIN LINE (Y,X)	END LINE (Y,X)	PI (STA)	PI (Y,X)	DELTA	DEGREE	TANGENT	LENGTH	EXTERNAL	RADIUS	PC (STA)	PT (STA)	BEARING BACK	BEARING AHEAD
L1	45+00.00	50+45.50	386414.79 2558716.85	386468.46 2559259.71						545.50'						N84°21'12.9"E
L2	50+45.50	57+17.23	386468.46 2559259.71	386538.71 2559927.75						671.73'						N83°59'48.4"E
L3	57+17.23	70+00.00	386538.71 2559927.75	386672.45 2561203.53						1282.77'						N84°00'55.9"E

BENCHMARKS & CONTROL POINTS						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	DESCRIPTION
5018	53+13.00	34.08 RT	386462.535	2559529.299	40.82	CP T
5019	50+33.41	45.22 LT	386512.272	2559243.222	33.92	BM NE FLNG BLT HYD
5041	57+02.90	38.22 RT	386499.204	2559917.494	50.46	CP T
5067	59+74.06	38.25 RT	386527.445	2560187.171	53.15	CP T
5090	63+07.31	35.40 RT	386565.018	2560518.303	55.10	CP T
5118	66+61.76	34.62 RT	386602.752	2560870.748	59.24	CP T
5134	59+75.10	47.06 LT	386612.399	2560179.314	54.16	CP T
5757	61+40.86	33.71 LT	386616.398	2560345.557	54.64	CP T
5883	60+55.94	32.63 LT	386606.475	2560261.210	54.83	BM NNW BOLT HYD
6288	57+18.95	32.69 LT	386571.396	2559926.050	52.94	BM NW BOLT HYD
8510	64+98.60	30.27 LT	386650.282	2560701.704	58.01	CP T
9104	63+05.37	32.14 RT	386568.060	2560516.042	56.16	BM NW BOLT HYD
9626	53+78.66	36.91 LT	386540.005	2559587.178	42.22	CP T
10395	53+84.37	33.61 LT	386537.320	2559593.199	43.34	BM NW BOLT HYD
10458	53+75.18	96.70 LT	386599.104	2559577.469	42.01	CP T
11359	67+23.64	25.45 LT	386668.947	2560926.025	63.11	BM NW BOLT HYD
11360	63+23.51	226.36 RT	386376.798	2560554.331	52.40	CP CUT T
11361	63+81.50	165.55 LT	386772.614	2560571.145	58.68	CP CUT T
11362	57+02.60	186.21 RT	386351.989	2559932.673	49.46	CP T
11363	57+02.23	188.60 LT	386724.705	2559893.110	51.07	CP T
11364	50+08.35	201.88 RT	386263.905	2559242.599	30.20	CP T
11365	50+09.24	167.46 LT	386631.538	2559207.148	33.40	CP T
11367	46+83.56	45.65 LT	386478.276	2558895.030	15.46	BM NW BOLT HYD
7221221	50+37.34	38.01 RT	386429.828	2559255.324	31.59	CP T

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Line	Item	Item Description	Unit	Total	Qty
0002	108.4400	CPM Progress Schedule	EACH	1.000	1.000
0004	201.0105	Clearing	STA	2.000	2.000
0006	201.0120	Clearing	ID	6.000	6.000
0008	201.0205	Grubbing	STA	2.000	2.000
0010	201.0220	Grubbing	ID	6.000	6.000
0012	204.0100	Removing Concrete Pavement	SY	10,665.000	10,665.000
0014	204.0115	Removing Asphaltic Surface Butt Joints	SY	526.000	526.000
0016	204.0150	Removing Curb & Gutter	LF	165.000	165.000
0018	204.0155	Removing Concrete Sidewalk	SY	2,309.000	2,309.000
0020	204.0195	Removing Concrete Bases	EACH	18.000	18.000
0022	204.0210	Removing Manholes	EACH	2.000	2.000
0024	204.0215	Removing Catch Basins	EACH	12.000	12.000
0026	204.0245	Removing Storm Sewer (size) 012. 12-Inch	LF	336.000	336.000
0028	204.0245	Removing Storm Sewer (size) 030. 30-Inch	LF	42.000	42.000
0030	204.9060.S	Removing (item description) 201. Traffic Signals E Wells St & N Broadway	EACH	1.000	1.000
0032	204.9060.S	Removing (item description) 202. Traffic Signals E Wells St & N Milwaukee St	EACH	1.000	1.000
0034	204.9060.S	Removing (item description) 203. Traffic Signals E Wells St & N Jefferson St	EACH	1.000	1.000
0036	204.9060.S	Removing (item description) 204. Traffic Signals E Wells St & N Jackson St	EACH	1.000	1.000
0038	204.9060.S	Removing (item description) 205. Traffic Signals E Wells St & N Van Buren St	EACH	1.000	1.000
0040	204.9060.S	Removing (item description) 301. Lighting Units	EACH	2.000	2.000
0042	205.0100	Excavation Common	CY	7,442.000	7,442.000
0044	213.0100	Finishing Roadway (project) 001. 2195-04-70	EACH	1.000	1.000
0046	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	12,844.000	12,844.000
0048	310.0110	Base Aggregate Open-Graded	TON	72.000	72.000
0050	415.0080	Concrete Pavement 8-Inch	SY	357.000	357.000
0052	415.0090	Concrete Pavement 9-Inch	SY	31.000	31.000
0054	416.0610	Drilled Tie Bars	EACH	108.000	108.000
0056	450.4000	HMA Cold Weather Paving	TON	1,836.000	1,836.000
0058	455.0605	Tack Coat	GAL	469.000	469.000
0060	460.2000	Incentive Density HMA Pavement	DOL	1,410.000	1,410.000
0062	460.5224	HMA Pavement 4 LT 58-28 S	TON	2,194.000	2,194.000
0064	465.0105	Asphaltic Surface	TON	223.000	223.000
0066	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	5.000	5.000
0068	465.0125	Asphaltic Surface Temporary	TON	7.000	7.000
0070	465.0310	Asphaltic Curb	LF	100.000	100.000
0072	520.8000	Concrete Collars for Pipe	EACH	1.000	1.000
0074	601.0105	Concrete Curb Type A	LF	128.000	128.000
0076	601.0110	Concrete Curb Type D	LF	10.000	10.000
0078	601.0319	Concrete Curb & Gutter 19-Inch	LF	260.000	260.000
0080	601.0331	Concrete Curb & Gutter 31-Inch	LF	2,679.000	2,679.000
0082	601.0600	Concrete Curb Pedestrian	LF	492.000	492.000
0084	602.0410	Concrete Sidewalk 5-Inch	SF	37,774.000	37,774.000
0086	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	468.000	468.000
0088	602.0820	Concrete Driveway 8-Inch	SY	231.000	231.000
0090	602.0870	Concrete Driveway HES 8-Inch	SY	175.000	175.000
0092	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	608.000	608.000
0094	611.0410	Reconstructing Catch Basins	EACH	2.000	2.000
0096	611.0420	Reconstructing Manholes	EACH	3.000	3.000
0098	611.1004	Catch Basins 4-FT Diameter	EACH	3.000	3.000
0100	611.2005	Manholes 5-FT Diameter	EACH	6.000	6.000

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Line	Item	Item Description	Unit	Total	Qty
0102	611.2006	Manholes 6-FT Diameter	EACH	2.000	2.000
0104	612.0106	Pipe Underdrain 6-Inch	LF	625.000	625.000
0106	619.1000	Mobilization	EACH	1.000	1.000
0108	620.0200	Concrete Median Blunt Nose	SF	61.000	61.000
0110	620.0300	Concrete Median Sloped Nose	SF	37.000	37.000
0112	624.0100	Water	MGAL	186.000	186.000
0114	625.0100	Topsoil	SY	142.000	142.000
0116	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0118	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0120	628.7005	Inlet Protection Type A	EACH	21.000	21.000
0122	628.7010	Inlet Protection Type B	EACH	52.000	52.000
0124	628.7560	Tracking Pads	EACH	4.000	4.000
0126	629.0210	Fertilizer Type B	CWT	0.090	0.090
0128	631.0300	Sod Water	MGAL	3.550	3.550
0130	631.1000	Sod Lawn	SY	142.000	142.000
0132	632.0101	Trees (species, root, size) 101. Apollo Maple 3" Cal B&B	EACH	2.000	2.000
0134	632.0101	Trees (species, root, size) 102. Frontier Elm 3" Cal B&B	EACH	4.000	4.000
0136	632.0101	Trees (species, root, size) 103. Autumn Blaze Pear 3" Cal B&B	EACH	5.000	5.000
0138	632.9101	Landscape Planting Surveillance and Care Cycles	EACH	10.000	10.000
0140	633.5350	Markers Permanent Flexible	EACH	2.000	2.000
0142	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	2.000	2.000
0144	637.2210	Signs Type II Reflective H	SF	13.500	13.500
0146	638.2102	Moving Signs Type II	EACH	2.000	2.000
0148	643.0300	Traffic Control Drums	DAY	13,569.000	13,569.000
0150	643.0410	Traffic Control Barricades Type II	DAY	3,373.000	3,373.000
0152	643.0420	Traffic Control Barricades Type III	DAY	8,680.000	8,680.000
0154	643.0705	Traffic Control Warning Lights Type A	DAY	20,733.000	20,733.000
0156	643.0715	Traffic Control Warning Lights Type C	DAY	2,295.000	2,295.000
0158	643.0900	Traffic Control Signs	DAY	21,874.000	21,874.000
0160	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0162	643.3105	Temporary Marking Line Paint 4-Inch	LF	590.000	590.000
0164	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	900.000	900.000
0166	643.3205	Temporary Marking Line Paint 8-Inch	LF	128.000	128.000
0168	643.3305	Temporary Marking Crosswalk Paint 6-inch	LF	385.000	385.000
0170	643.3505	Temporary Marking Arrow Paint	EACH	2.000	2.000
0172	643.3805	Temporary Marking Stop Line Paint 18-Inch	LF	67.000	67.000
0174	643.3960	Temporary Marking Removable Mask Out Tape 6-Inch	LF	150.000	150.000
0176	643.5000	Traffic Control	EACH	1.000	1.000
0178	644.1410	Temporary Pedestrian Surface Asphalt	SF	200.000	200.000
0180	644.1430	Temporary Pedestrian Surface Plate	SF	200.000	200.000
0182	644.1440	Temporary Pedestrian Surface Matting	SF	5,045.000	5,045.000
0184	644.1601	Temporary Pedestrian Curb Ramp	DAY	589.000	589.000
0186	644.1605	Temporary Pedestrian Detectable Warning Field	SF	50.000	50.000
0188	644.1810	Temporary Pedestrian Barricade	LF	5,685.000	5,685.000
0190	645.0111	Geotextile Type DF Schedule A	SY	667.000	667.000
0192	646.2020	Marking Line Epoxy 6-Inch	LF	539.000	539.000
0194	646.5020	Marking Arrow Epoxy	EACH	3.000	3.000
0196	646.6464	Cold Weather Marking Epoxy 4-Inch	LF	2,469.000	2,469.000
0198	646.6468	Cold Weather Marking Epoxy 8-Inch	LF	128.000	128.000
0200	646.9200	Marking Removal Line Wide	LF	307.000	307.000

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Line	Item	Item Description	Unit	Total	Qty
0202	650.4000	Construction Staking Storm Sewer	EACH	39.000	39.000
0204	650.4500	Construction Staking Subgrade	LF	1,362.000	1,362.000
0206	650.5000	Construction Staking Base	LF	1,362.000	1,362.000
0208	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	3,162.000	3,162.000
0210	650.7000	Construction Staking Concrete Pavement	LF	202.000	202.000
0212	650.8501	Construction Staking Electrical Installations (project) 001. 2195-04-70	EACH	1.000	1.000
0214	650.9000	Construction Staking Curb Ramps	EACH	39.000	39.000
0216	650.9500	Construction Staking Sidewalk (project) 001. 2195-04-70	EACH	1.000	1.000
0218	650.9911	Construction Staking Supplemental Control (project) 001. 2195-04-70	EACH	1.000	1.000
0220	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	275.000	275.000
0222	652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	100.000	100.000
0224	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	3,474.000	3,474.000
0226	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	2,097.000	2,097.000
0228	653.0905	Removing Pull Boxes	EACH	14.000	14.000
0230	654.0101	Concrete Bases Type 1	EACH	13.000	13.000
0232	655.0210	Cable Traffic Signal 3-14 AWG	LF	1,332.000	1,332.000
0234	655.0230	Cable Traffic Signal 5-14 AWG	LF	1,080.000	1,080.000
0236	655.0250	Cable Traffic Signal 9-14 AWG	LF	1,961.000	1,961.000
0238	655.0260	Cable Traffic Signal 12-14 AWG	LF	2,483.000	2,483.000
0240	655.0270	Cable Traffic Signal 15-14 AWG	LF	160.000	160.000
0242	655.0305	Cable Type UF 2-12 AWG Grounded	LF	1,070.000	1,070.000
0244	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	2,382.000	2,382.000
0246	655.0900	Traffic Signal EVP Detector Cable	LF	1,558.000	1,558.000
0248	657.0100	Pedestal Bases	EACH	13.000	13.000
0250	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	10.000	10.000
0252	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	3.000	3.000
0254	658.0173	Traffic Signal Face 3S 12-Inch	EACH	33.000	33.000
0256	658.0412	Pedestrian Signal Face 12-Inch	EACH	25.000	25.000
0258	658.5070	Signal Mounting Hardware (location) 001. E Wells St & N Broadway	EACH	1.000	1.000
0260	658.5070	Signal Mounting Hardware (location) 003. E Wells St & N Jefferson St	EACH	1.000	1.000
0262	658.5070	Signal Mounting Hardware (location) 004. E Wells St & N Jackson St	EACH	1.000	1.000
0264	658.5070	Signal Mounting Hardware (location) 005. E Wells St & N Van Buren St	EACH	1.000	1.000
0266	659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH	63.000	63.000
0268	674.0300	Remove Cable	LF	300.000	300.000
0270	690.0150	Sawing Asphalt	LF	1,891.000	1,891.000
0272	690.0250	Sawing Concrete	LF	4,562.000	4,562.000
0274	715.0715	Incentive Flexural Strength Concrete Pavement	DOL	500.000	500.000
0276	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0278	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000
0280	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	4,800.000	4,800.000
0282	SPV.0035	Special 101. Structural Soil	CY	33.000	33.000
0284	SPV.0035	Special 102. Backfill Slurry	CY	146.000	146.000
0286	SPV.0060	Special 101. Utility Line Opening	EACH	20.000	20.000
0288	SPV.0060	Special 102. Adjusting Water Valve Boxes	EACH	62.000	62.000
0290	SPV.0060	Special 104. Adjusting Sanitary Sewer Manholes	EACH	7.000	7.000
0292	SPV.0060	Special 105. Catch Basins Type 44A	EACH	18.000	18.000
0294	SPV.0060	Special 106. Catch Basins Type 44B	EACH	3.000	3.000
0296	SPV.0060	Special 107. Inlet Type 70A	EACH	7.000	7.000
0298	SPV.0060	Special 108. Inlet Covers Type 57	EACH	26.000	26.000
0300	SPV.0060	Special 109. Manhole Covers Type 58A	EACH	24.000	24.000

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Line	Item	Item Description	Unit	Total	Qty
0302	SPV.0060	Special 110. CUC Manhole 5-FT Diameter	EACH	1.000	1.000
0304	SPV.0060	Special 111. CUC Manhole Doghouse 4-FT Diameter Installed Over Conduit	EACH	1.000	1.000
0306	SPV.0060	Special 112. Adjusting CUC Manhole Covers	EACH	5.000	5.000
0308	SPV.0060	Special 114. Installing Conduit Into Existing CUC Manhole	EACH	1.000	1.000
0310	SPV.0060	Special 115. Skid/Slip Resistant Green Preformed Thermoplastic Integrated Bike Lane Arro	EACH	17.000	17.000
0312	SPV.0060	Special 116. Skid/Slip Resistant Green Preformed Thermoplastic Integrated Bike Lane Symb	EACH	17.000	17.000
0314	SPV.0060	Special 117. Field Facilities Office Space	EACH	1.000	1.000
0316	SPV.0060	Special 118. Temporary No Parking Signs	EACH	17.000	17.000
0318	SPV.0060	Special 201. Fiberglass/Polymer Concrete Pull Boxes 13-Inch x 24-Inch x 24-Inch	EACH	15.000	15.000
0320	SPV.0060	Special 202. Fiberglass/Polymer Concrete Pull Boxes 17-Inch x 30-Inch x 24-Inch	EACH	31.000	31.000
0322	SPV.0060	Special 203. Install Precast Controller Base	EACH	3.000	3.000
0324	SPV.0060	Special 204. ATC Controller & Cabinet	EACH	3.000	3.000
0326	SPV.0060	Special 205. Electrical Service Pedestal	EACH	1.000	1.000
0328	SPV.0060	Special 206. EVP 1 Direction Infrared Detector	EACH	2.000	2.000
0330	SPV.0060	Special 207. EVP 2 Direction Infrared Detector	EACH	8.000	8.000
0332	SPV.0060	Special 208. EVP Phase Selector Card 4 Channel	EACH	3.000	3.000
0334	SPV.0060	Special 209. EVP Confirmation Light	EACH	18.000	18.000
0336	SPV.0060	Special 210. Pedestrian Countdown Signal Face 12-Inch	EACH	25.000	25.000
0338	SPV.0060	Special 211. Electrical Riser	EACH	8.000	8.000
0340	SPV.0060	Special 301. Lighting Units Salvaged	EACH	16.000	16.000
0342	SPV.0060	Special 302. Poles Type A31 Black Concrete	EACH	17.000	17.000
0344	SPV.0060	Special 303. Luminaire Arms Single Member 6-FT - Special	EACH	9.000	9.000
0346	SPV.0060	Special 304. Luminaires Utility 3 LED	EACH	3.000	3.000
0348	SPV.0060	Special 305. Installing A31 Mounting Clamp (Single Bracket)	EACH	9.000	9.000
0350	SPV.0060	Special 306. Watertight Splices and Connections	EACH	19.000	19.000
0352	SPV.0060	Special 307. Installing Lighting Units	EACH	1.000	1.000
0354	SPV.0060	Special 308. Pole Wood 35-FT	EACH	3.000	3.000
0356	SPV.0060	Special 309. Concrete Light Bases Type 1	EACH	1.000	1.000
0358	SPV.0090	Special 102. Marking Stop Line Epoxy 24-Inch	LF	245.000	245.000
0360	SPV.0090	Special 103. Marking Crosswalk Epoxy Transverse Line 12-Inch	LF	1,740.000	1,740.000
0362	SPV.0090	Special 104. Storm Sewer Pipe PVC 12-Inch	LF	115.000	115.000
0364	SPV.0090	Special 105. 4-Inch Nonmetallic Conduit Concrete Encased 2-Duct	LF	210.000	210.000
0366	SPV.0090	Special 107. 4-Inch Nonmetallic Conduit Concrete Encased 6-Duct	LF	1,289.000	1,289.000
0368	SPV.0090	Special 108. 4-Inch Nonmetallic Conduit Concrete Encased 8-Duct	LF	54.000	54.000
0370	SPV.0090	Special 109. Concrete Curb & Gutter HES 19-Inch	LF	34.000	34.000
0372	SPV.0090	Special 110. Concrete Curb & Gutter HES 31-Inch	LF	51.000	51.000
0374	SPV.0090	Special 111. Fiber Optic Cable Outdoor Plant 144-Count	LF	2,691.000	2,691.000
0376	SPV.0090	Special 112. Fiber Optic Cable Outdoor Plant 12-Count	LF	1,730.000	1,730.000
0378	SPV.0090	Special 301. Electrical Cable Type 4#2/1#8 XLP	LF	3,985.000	3,985.000
0380	SPV.0090	Special 302. Cable Aerial Aluminum 4 AWG Quadruplex	LF	1,430.000	1,430.000
0382	SPV.0090	Special 303. Cable Aerial Aluminum 6 AWG Quadruplex	LF	1,275.000	1,275.000
0384	SPV.0090	Special 304. Cable Type UF 3#10 AWG Grounded	LF	790.000	790.000
0386	SPV.0090	Special 305. Cable Type UF 3#12 AWG Grounded	LF	620.000	620.000
0388	SPV.0090	Special 306. Liquidtight Flexible Non-Metallic Conduit 1 1/2-Inch	LF	120.000	120.000
0390	SPV.0165	Special 101. Skid/Slip Resistant Green Preformed Thermoplastic Integrated Bike Lane Pane	SF	6,877.000	6,877.000
0392	SPV.0165	Special 102. Concrete Sidewalk HES 5-Inch	SF	1,990.000	1,990.000
0394	SPV.0165	Special 103. Concrete Sidewalk 8-Inch	SF	288.000	288.000
0396	SPV.0180	Special 101. Track Zone Removal	SY	270.000	270.000

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0398	SPV.0195	Special 101. Management of Solid Waste	TON	283.000	283.000	

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CLEARING & GRUBBING

CATEGORY	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0120 CLEARING ID	201.0205 GRUBBING STA	201.0220 GRUBBING ID
0010	51+00	-	52+00	-	1	-	1	-
			52+23	33' LT	-	3	-	3
	54+00	-	55+00	-	1	-	1	-
			63+20	53' LT	-	3	-	3
				TOTAL 0010	**2**	**6**	**2**	**6**

MISCELLANEOUS REMOVALS

CATEGORY	STATION	TO	STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY
0010	50+25	-	55+00		3,696	144	-	1,017
	55+00	-	61+00		4,673	245	110	837
	61+00	-	63+87		2,296	137	55	455
				TOTAL 0010	**10,665**	**526**	**165**	**2,309**

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DRAINAGE REMOVALS

CATEGORY	STATION	TO	STATION	LOCATION	# 204.0210 REMOVING MANHOLES EACH	204.0215 REMOVING CATCH BASINS EACH	204.0245.012 REMOVING STORM SEWER 12-INCH LF	204.0245.030 REMOVING STORM SEWER 30-INCH LF	SPV.0035.102 BACKFILL SLURRY CY
0010	50+47, 4.3'LT	-	50+53, 4.3'LT	-	-	-	-	6	-
	50+57, 30.0'LT	-	50+61, 4.3'LT	-	-	-	26	-	6
	50+61, 28.1'RT	-	50+64, 4.3'LT	-	-	-	33	-	7
			50+57	30' LT	-	1	-	-	7
			50+60	30' RT	-	1	-	-	7
	52+77, 4.1'LT	-	52+83, 4.1'LT	-	-	-	-	6	-
			53+90	30' LT	-	1	-	-	7
			53+90	30' LT	-	1	-	-	7
	53+91, 29.6'LT	-	53+91, 3.2'LT	-	-	-	27	-	6
	53+92, 28.2'RT	-	53+93, 3.2'LT	-	-	-	32	-	7
	54+15, 3.2'LT	-	54+21, 3.2'LT	-	-	-	-	6	-
	56+13, 3.4'LT	-	56+19, 3.4'LT	-	-	-	-	6	-
	56+52, 48.8'LT	-	56+77, 46.5'LT	-	-	-	25	-	6
			56+53	48' LT	-	1	-	-	7
	57+24, 29.7'LT	-	57+27, 3.7'LT	-	-	-	27	-	-
			57+24	30' LT	-	1	-	-	7
	57+24, 30.1'RT	-	57+27, 3.7'LT	-	-	-	34	-	7
			57+25	30' RT	-	1	-	-	7
			57+27	4' LT	1	-	-	-	-
			58+59	29' RT	-	1	-	-	7
	58+60, 11.1'RT	-	58+60, 28.9'RT	-	-	-	18	-	4
	59+52, 2.6'LT	-	59+58, 2.6'LT	-	-	-	-	6	-
	60+10, 44.1'LT	-	60+38, 51.0'LT	-	-	-	29	-	6
			60+36	51' LT	-	1	-	-	7
	60+53, 2.3'LT	-	60+59, 2.3'LT	-	-	-	-	6	-
	60+58, 29.8'RT	-	60+62, 30.0'LT	-	-	-	60	-	13
			60+58	30' RT	-	1	-	-	7
			60+62	30' LT	-	1	-	-	7
	62+90, 2.2'LT	-	62+96, 2.2'LT	-	-	-	-	6	-
			63+24	46' LT	-	1	-	-	7
	63+24, 45.9'LT	-	63+48, 49.7'LT	-	-	-	25	-	-
				TOTAL 0010	**1**	**12**	**336**	**42**	**146**

ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "CITY UNDERGROUND CONDUIT" TABLE.

3

EARTHWORK

				(1) (2) (3) 205.0100		(4)	(5)	(6)	(7)	# 305.0120
				EXCAVATION COMMON						
CATEGORY	ROADWAY	FROM/TO STATION	LOCATION	CUT CY	EBS CY	SALVAGED/UNUSABLE PAVEMENT MATERIAL CY	AVAILABLE MATERIAL CY	MASS ORDINATE +/- CY	WASTE CY	BASE AGGREGATE DENSE 1 1/4-INCH TON
0010	WELLS ST	50+25 - 64+05		5,287	2,155	2,881	2,406	2,406	4,561	4,957
			TOTAL	**7,442**						**4,957**

NOTES:

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(3) EBS EXCAVATION ESTIMATED AS 1 FT BELOW SUBGRADE FOR ENTIRE LENGTH OF PROJECT. EBS EXCAVATION TO BE BACKFILLED WITH BASE AGGREGATE DENSE 1 1/4-INCH.

(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL INCLUDES ASPHALT PAVEMENT, CONCRETE PAVEMENT, CURB & GUTTER, AND SIDEWALK.

(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL

(6) THE MASS ORDINATE IS EITHER + OR - QTY. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS INDICATES A SHORTAGE OF MATERIAL. EACH CATEGORY'S MASS ORDINATE IS CALCULATED INDEPENDENTLY.

(7) WASTE = EBS EXCAVATION + MASS ORDINATE. FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "AGGREGATE" TABLE.

FILE NAME : T:\1202715.10\Civil 3D\21950400\Design\Quantities\030201-mq.ppt PLOT DATE : 1/6/2023 1:22 PM PLOT BY : ANDREW AXT PLOT NAME : PLOT SCALE : 1:1

3

AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	# 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	310.0110 BASE AGGREGATE OPEN-GRADED TON	## 624.0100 WATER MGAL	645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY
0010	50+25	-	55+00		2,651	15	54	134
	55+00	-	61+00		3,434	42	70	395
	61+00	-	63+87		1,802	15	37	138
				TOTAL 0010	**7,887**	**72**	**161**	**667**

ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "EARTHWORK" TABLE.
ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "EROSION CONTROL" TABLE.

CONCRETE PAVEMENT

CATEGORY	STATION	TO	STATION	LOCATION	415.0080 CONCRETE PAVEMENT 8-INCH SY	415.0090 CONCRETE PAVEMENT 9-INCH SY	416.0610 DRILLED TIE BARS EACH
0010	50+25	-	55+00		192	-	65
	55+00	-	61+00		133	-	31
	61+00	-	63+87		32	31	12
				TOTAL 0010	**357**	**31**	**108**

ASPHALT

CATEGORY	STATION	TO	STATION	LOCATION	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	465.0310 ASPHALTIC CURB LF
0010	50+25	-	55+00		310	142	670	77	-	7	100
	55+00	-	61+00		983	209	982	92	-	-	-
	61+00	-	63+87		543	116	542	54	-	-	-
				TOTAL 0010	**1,836**	**467**	**2,194**	**223**	**0**	**7**	**100**
0020	50+25	-	55+00		-	2	-	-	5	-	-
	55+00	-	61+00		-	-	-	-	-	-	-
	61+00	-	63+87		-	-	-	-	-	-	-
				TOTAL 0020	**0**	**2**	**0**	**0**	**5**	**0**	**0**
				PROJECT TOTAL	**1,836**	**469**	**2,194**	**223**	**5**	**7**	**100**

CONCRETE

CATEGORY	STATION	TO	STATION	LOCATION	601.0105 CONCRETE CURB TYPE A LF	601.0110 CONCRETE CURB TYPE D LF	601.0319 CONCRETE CURB & GUTTER 19-INCH LF	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0600 CONCRETE CURB PEDESTRIAN LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	602.0820 CONCRETE DRIVEWAY 8-INCH SY	602.0870 CONCRETE DRIVEWAY HES 8-INCH SY	620.0200 CONCRETE MEDIAN BLUNT NOSE SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	SPV.0090.109 CONCRETE CURB & GUTTER HES 19-INCH LF	SPV.0090.110 CONCRETE CURB & GUTTER HES 31-INCH LF	SPV.0165.102 CONCRETE SIDEWALK HES 5-INCH SF	SPV.0165.103 CONCRETE SIDEWALK 8-INCH SF
0010	50+25	-	55+00		42	10	55	1,048	209	15,230	156	67	37	37	14	-	16	802	-
	55+00	-	61+00		76	-	205	1,035	206	15,644	228	109	138	18	17	34	35	824	288
	61+00	-	63+87		10	-	-	596	77	6,900	84	55	-	6	6	-	-	364	-
				TOTAL 0010	**128**	**10**	**260**	**2,679**	**492**	**37,774**	**468**	**231**	**175**	**61**	**37**	**34**	**51**	**1,990**	**288**

STORM SEWER PIPES (1 OF 2)

FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE %	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	SPV.0090.104 STORM SEWER PIPE PVC 12-INCH LF
11A	EXIST	-	-	-	-	-
15A	15D	31.55	30.49	9.47%	-	11.2
15D	15	26.08	25.66	2.08%	19.7	-
15B	15	25.52	24.84	2.08%	32.7	-
15C	15B	27.07	25.52	3.25%	47.5	-
15	EXIST	20.27	-	-	-	-
20	15	-	-	-	-	-
30	20	-	-	-	-	-
35A	35B	37.18	37.05	2.08%	-	5.8
35B	35	32.70	31.97	2.08%	35.0	-
35C	35	32.98	32.40	2.08%	27.9	-
35	30	28.33	-	-	-	-
5B	5	-	-	-	-	-
5C	5B	39.59	39.29	2.08%	-	14.4
5D	5	-	-	-	-	-
5E	5D	38.25	38.09	2.08%	7.6	-
55C	55A	41.15	41.06	0.86%	-	10.4
55A	55	35.06	34.64	2.08%	20.2	-
55B	55	36.94	36.50	2.08%	21.5	-
55	50	32.08	-	-	-	-
60	55	-	-	-	-	-
65C	65A	46.97	46.78	2.64%	-	7.4
65A	65	40.28	39.73	2.08%	26.3	-
65B	65	42.41	41.87	2.08%	26.0	-
65	60	35.81	-	-	-	-
7A	7	45.39	44.81	2.08%	27.8	-
7B	7	-	-	-	-	-
7	EXIST	-	-	-	-	-
8	EXIST	-	-	-	-	-
70A	70	41.53	41.15	1.94%	19.7	-
70B	70A	49.33	48.41	2.83%	-	31.8
70C	70	40.44	39.90	2.08%	26.0	-
70D	70C	41.23	40.44	2.08%	38.0	-
70	65	37.60	-	-	-	-
80A	80B	47.50	47.36	2.00%	7.0	-
80B	80	-	-	-	-	-
85A	85	44.03	43.57	2.08%	21.9	-
85B	85	46.68	46.11	2.08%	27.2	-
85	80	40.39	-	-	-	-
9A	9	49.10	48.70	1.35%	29.5	-
SUBTOTALS					**461.5**	**81.0**

NOTES:
1. PIPE LENGTHS AND SLOPES ARE FROM CENTER TO CENTER OF STRUCTURES.

STORM SEWER PIPES (2 OF 2)

FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE %	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	SPV.0090.104 STORM SEWER PIPE PVC 12-INCH LF
9B	9	-	-	-	-	-
9	90	-	-	-	-	-
90	85	-	-	-	-	-
95A	95	44.53	44.14	2.08%	18.8	-
95B	95A	52.13	51.48	1.93%	-	33.8
95C	95	46.84	46.37	2.08%	22.6	-
95D	95C	48.50	47.84	2.08%	31.7	-
95	90	41.42	-	-	-	-
98A	98	45.75	45.32	2.08%	20.8	-
98B	98	49.37	48.84	2.08%	25.1	-
98	95	43.48	-	-	-	-
100	98	-	-	-	-	-
101A	101	52.45	51.70	2.82%	26.6	-
101B	101	-	-	-	-	-
101	100	-	-	-	-	-
110A	110	-	-	-	-	-
110B	110	-	-	-	-	-
110	100	-	-	-	-	-
SUBTOTALS					**145.6**	**33.8**
TOTAL 0010					**608**	**115**

NOTES:
1. PIPE LENGTHS AND SLOPES ARE FROM CENTER TO CENTER OF STRUCTURES.

STORM SEWER STRUCTURES (1 OF 2)

STRUCTURE NUMBER	STATION	OFFSET	RIM ELEV	INVERT ELEV	ADJUSTING RING(S) INCHES	STR DEPTH FEET	520.8000 CONCRETE COLLARS FOR PIPE EACH	611.0410 RECONSTRUCTING CATCH BASINS EACH	611.0420 RECONSTRUCTING MANHOLES EACH	611.1004 CATCH BASINS 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	612.0106 PIPE UNDERDRAIN 6-INCH LF	SPV.0060.105 CATCH BASINS TYPE 44A EACH	SPV.0060.106 CATCH BASINS TYPE 44B EACH	SPV.0060.107 INLETS TYPE 70A EACH	SPV.0060.108 INLET COVERS TYPE 57 EACH	SPV.0060.109 MANHOLE COVERS TYPE 58A EACH	COMMENTS
11A	49+62.4	49.7'LT	29.71	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	REPLACE TOP 2 BRICK COURSES
15A	50+67.8	18.1'LT	32.76	31.55	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
15D	50+60.0	21.5'LT	32.49	26.08	16	8.24	-	-	-	-	-	-	-	1	-	-	-	1	ROUND ADJUSTING RINGS
15B	50+50.9	28.5'RT	31.77	25.52	16	8.33	-	-	-	-	-	-	-	1	-	-	1	-	-
15C	50+97.2	17.6'RT	33.32	27.07	6	7.17	-	-	-	1	-	-	-	-	-	-	1	-	20"X26" COVER OPENING
15	50+50.4	4.3'LT	32.65	20.27	6	11.05	-	-	-	-	1	-	-	-	-	-	-	1	-
20	51+44.5	4.3'LT	35.44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
30	51+76.5	3.3'LT	36.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
35A	52+53.4	24.5'LT	38.38	37.18	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
35B	52+56.2	29.7'LT	39.12	32.70	16	8.25	-	-	-	-	-	-	25	1	-	-	-	1	ROUND ADJUSTING RINGS, HOLE NEEDED FOR UNDERDRAIN CONNECTION
35C	52+87.6	22.7'RT	39.73	32.98	16	8.83	-	-	-	-	-	-	25	1	-	-	1	-	HOLE NEEDED FOR UNDERDRAIN CONNECTION
35	52+80.0	4.1'LT	39.95	28.33	6	10.29	-	-	-	-	1	-	-	-	-	-	-	1	-
5B	53+19.8	46.3'RT	41.53	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-
5C	53+21.3	60.1'RT	40.80	39.59	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
5D	53+67.2	55.6'RT	42.18	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-
5E	53+67.2	63.2'RT	41.50	38.25	4	4.17	-	-	-	-	-	-	-	-	1	-	1	-	-
55C	54+23.5	18.6'LT	42.36	41.15	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
55A	54+30.0	22.5'LT	43.06	35.06	16	9.83	-	-	-	-	-	-	25	1	-	-	-	1	ROUND ADJUSTING RINGS, HOLE NEEDED FOR UNDERDRAIN CONNECTION
55B	54+17.6	17.3'RT	42.69	36.94	16	7.83	-	-	-	-	-	-	25	1	-	-	1	-	HOLE NEEDED FOR UNDERDRAIN CONNECTION
55	54+24.0	3.2'LT	42.85	32.08	6	9.44	-	-	-	-	-	1	-	-	-	-	-	1	-
60	55+08.5	3.1'LT	45.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
65C	56+09.2	21.6'LT	48.18	46.97	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
65A	56+09.2	29.0'LT	48.78	40.28	16	10.33	-	-	-	-	-	-	50	1	-	-	-	1	ROUND ADJUSTING RINGS, HOLES NEEDED FOR UNDERDRAIN CONNECTION
65B	56+26.1	20.3'RT	48.16	42.41	16	7.83	-	-	-	-	-	-	50	1	-	-	1	-	HOLES NEEDED FOR UNDERDRAIN CONNECTION
65	56+15.5	3.4'LT	48.28	35.81	6	11.14	-	-	-	-	1	-	-	-	-	-	-	1	
7A	56+52.4	59.7'LT	49.64	45.39	16	6.33	-	-	-	-	-	-	50	1	-	-	1	-	HOLES NEEDED FOR UNDERDRAIN CONNECTION
7B	57+01.1	47.9'LT	49.95	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	REPLACE TOP BRICK COURSE
7	56+77.0	46.5'LT	50.39	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-
8	56+77.6	51.5'RT	49.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
70A	57+24.2	23.2'LT	50.25	41.53	16	10.80	-	-	-	-	-	-	50	1	-	-	1	-	HOLES NEEDED FOR UNDERDRAIN CONNECTION
70B	57+51.4	18.6'LT	50.52	49.33	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
70C	57+19.5	21.1'RT	50.05	40.44	16	11.69	-	-	-	-	-	-	-	1	-	-	1	-	-
70D	57+57.3	25.1'RT	50.39	41.23	6	10.08	-	-	-	1	-	-	50	-	-	-	1	-	20"X26" COVER OPENING, HOLES NEEDED FOR UNDERDRAIN CONNECTION
70	57+27.2	3.7'LT	50.75	37.60	6	11.82	-	-	-	-	-	1	-	-	-	-	-	1	-
80A	58+59.6	18.1'RT	51.42	47.50	16	6.00	-	-	-	-	-	-	-	1	-	-	1	-	-
80B	58+59.7	11.1'RT	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
85A	59+61.4	23.6'LT	52.93	44.03	16	10.98	-	-	-	-	-	-	50	1	-	-	1	-	HOLES NEEDED FOR UNDERDRAIN CONNECTION
85B	59+70.0	20.3'RT	52.43	46.68	16	7.83	-	-	-	-	-	-	50	1	-	-	1	-	HOLES NEEDED FOR UNDERDRAIN CONNECTION
85	59+55.4	2.6'LT	53.02	40.39	6	11.30	-	-	-	-	1	-	-	-	-	-	-	1	-
9A	60+36.1	58.4'LT	53.35	49.10	16	6.33	-	-	-	-	-	-	-	1	-	-	1	-	-
SUBTOTALS							**1**	**2**	**1**	**2**	**4**	**2**	**450**	**15**	**1**	**6**	**16**	**17**	

NOTES:

1. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITHIN CURB LINES. RIM ELEVATIONS ARE GIVEN AT THE CENTER OF ALL OTHER STRUCTURES.
2. STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES.
3. STRUCTURE DEPTH FOR CATCH BASINS 4-FT: RIM - INVERT - CASTING HEIGHT - ADJUSTING RINGS + 24 INCH SUMP
4. STRUCTURE DEPTH FOR CATCH BASINS 44A: RIM - INVERT - CASTING HEIGHT - ADJUSTING RINGS + 48 INCH SUMP
5. STRUCTURE DEPTH FOR CATCH BASINS 44B: RIM - INVERT - CASTING HEIGHT - ADJUSTING RINGS + 22 INCH SUMP
6. STRUCTURE DEPTH FOR MANHOLES: RIM - INVERT - CASTING HEIGHT - ADJUSTING RINGS
7. CASTING HEIGHT = 7" FOR TYPE 57 COVERS, 10" FOR TYPE 58A COVERS.

STORM SEWER STRUCTURES (2 OF 2)

STRUCTURE NUMBER	STATION	OFFSET	RIM ELEV	INVERT ELEV	ADJUSTING RING(S) INCHES	STR DEPTH FEET	520.8000 CONCRETE COLLARS FOR PIPE EACH	611.0410 RECONSTRUCTING CATCH BASINS EACH	611.0420 RECONSTRUCTING MANHOLES EACH	611.1004 CATCH BASINS 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	612.0106 PIPE UNDERDRAIN 6-INCH LF	SPV.0060.105 CATCH BASINS TYPE 44A EACH	SPV.0060.106 CATCH BASINS TYPE 44B EACH	SPV.0060.107 INLETS TYPE 70A EACH	SPV.0060.108 INLET COVERS TYPE 57 EACH	SPV.0060.109 MANHOLE COVERS TYPE 58A EACH	COMMENTS
9B	59+88.2	54.4'LT	53.49	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
9	60+10.3	44.1'LT	53.97	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-
90	60+11.4	2.3'LT	53.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	HOLES NEEDED FOR UNDERDRAIN CONNECTION
95A	60+55.8	21.1'LT	53.31	44.53	16	10.86	-	-	-	-	-	-	50	1	-	-	1	-	-
95B	60+87.1	18.6'LT	53.34	52.13	-	-	-	-	-	-	-	-	-	-	-	1	-	-	HOLE NEEDED FOR UNDERDRAIN CONNECTION
95C	60+55.0	20.3'RT	52.70	46.84	16	7.94	-	-	-	-	-	-	25	1	-	-	1	-	20"X26" COVER OPENING, HOLES NEEDED FOR UNDERDRAIN CONNECTION
95D	60+86.6	18.1'RT	52.75	48.50	6	5.17	-	-	-	1	-	-	50	-	-	-	1	-	-
95	60+56.0	2.3'LT	53.58	41.42	6	10.83	-	-	-	-	1	-	-	-	-	-	-	1	HOLE NEEDED FOR UNDERDRAIN CONNECTION
98A	62+92.2	22.9'LT	55.50	45.75	16	11.83	-	-	-	-	-	-	25	1	-	-	1	-	HOLE NEEDED FOR UNDERDRAIN CONNECTION
98B	62+92.2	22.9'RT	54.12	49.37	6	5.50	-	-	-	-	-	-	25	-	1	-	1	-	-
98	62+93.0	2.2'LT	55.02	43.48	6	10.21	-	-	-	-	1	-	-	-	-	-	-	1	-
100	63+20.6	2.2'LT	55.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
101A	63+25.3	64.0'LT	56.20	52.45	6	4.50	-	-	-	-	-	-	-	-	1	-	1	-	-
101B	63+70.8	50.9'LT	56.08	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	
101	63+47.8	49.7'LT	56.73	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	
110A	63+92.0	21.1'LT	55.95	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	
110B	63+93.0	21.1'RT	55.32	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	
110	63+97.7	3.4'LT	56.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
SUBTOTALS							**0**	**0**	**2**	**1**	**2**	**0**	**175**	**3**	**2**	**1**	**10**	**7**	
TOTAL 0010							**1**	**2**	**3**	**3**	**6**	**2**	**625**	**18**	**3**	**7**	**26**	**24**	

NOTES:
1. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITHIN CURB LINES. RIM ELEVATIONS ARE GIVEN AT THE CENTER OF ALL OTHER STRUCTURES.
2. STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES.
3. STRUCTURE DEPTH FOR CATCH BASINS 4-FT: RIM - INVERT - CASTING HEIGHT - ADJUSTING RINGS + 24 INCH SUMP
4. STRUCTURE DEPTH FOR CATCH BASINS 44A: RIM - INVERT - CASTING HEIGHT - ADJUSTING RINGS + 48 INCH SUMP
5. STRUCTURE DEPTH FOR CATCH BASINS 44B: RIM - INVERT - CASTING HEIGHT - ADJUSTING RINGS + 22 INCH SUMP
6. STRUCTURE DEPTH FOR MANHOLES: RIM - INVERT - CASTING HEIGHT - ADJUSTING RINGS
7. CASTING HEIGHT = 7" FOR TYPE 57 COVERS, 10" FOR TYPE 58A COVERS.

RESTORATION

CATEGORY	STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
0010	61+00	-	63+87	LT & RT	142	0.09	3.55	142
				TOTAL 0010	**142**	**0.09**	**3.55**	**142**

EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	# 624.0100 WATER MGAL	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7560 TRACKING PADS EACH
0010	50+25	-	55+00	-	8	-	-	5	19	-
	55+00	-	61+00	-	10	-	-	12	22	-
	61+00	-	63+87	-	5	-	-	3	8	-
				UNDISTRIBUTED	2	3	5	1	3	4
				TOTAL 0010	**25**	**3**	**5**	**21**	**52**	**4**

ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "AGGREGATE" TABLE.

TREE PLANTINGS

CATEGORY	STATION	LOCATION	632.0101.101 TREES APOLLO MAPLE, 3" CAL., B&B EACH	632.0101.102 TREES FRONTIER ELM, 3" CAL., B&B EACH	632.0101.103 TREES AUTUMN BLAZE PEAR, 3" CAL., B&B EACH	632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES EACH	SPV.0035.101 STRUCTURAL SOIL CY
0020	51+05	29.5' RT	1	-	-	-	3
	52+80	29.5' RT	1	-	-	-	3
	54+25	29.5' LT	-	1	-	-	3
	54+50	29.5' RT	-	1	-	-	3
	55+80	29.5' RT	-	1	-	-	3
	55+95	29.5' LT	-	1	-	-	3
	61+10	29.5' RT	-	-	1	-	3
	61+50	29.5' RT	-	-	1	-	3
	61+80	29.5' LT	-	-	1	-	3
	62+50	29.5' LT	-	-	1	-	3
	62+70	29.5' RT	-	-	1	-	3
		PROJECT-WIDE	-	-	-	10	-
		TOTAL 0020	**2**	**4**	**5**	**10**	**33**

PLANT DATA CHART

COMMON NAME	SCIENTIFIC NAME	PLANTING SIZE	ROOT ZONE MODE	ROOT SPREAD	MINIMUM SIZE BALL/POT DIAMETER	MINIMUM SIZE BALL/POT DEPTH	MINIMUM SIZE PLANT HOLE DIAMETER	MINIMUM SIZE PLANT HOLE DEPTH	BRACE OR GUY	FERTILIZER UNITS REQUIRED	RODENT PROTECTION REQUIRED	MULCH RING DIMENSIONS	REMARKS
APOLLO MAPLE	ACER SACCHARUM	3" CAL.	B&B	INDEFINITE	39"	24"	54"	24"	GUY	4	NO	4'X 4'	SPECIMEN QUALITY
FRONTIER ELM	ULMUS PARVIFOLIA 'FRONTIER'	3" CAL.	B&B	INDEFINITE	39"	24"	54"	24"	GUY	4	NO	4'X 4'	SPECIMEN QUALITY
AUTUMN BLAZE PEAR	PYRUS CALLERYANA	3" CAL.	B&B	INDEFINITE	39"	24"	54"	24"	GUY	4	NO	4'X 4'	SPECIMEN QUALITY

PERMANENT SIGNING

SIGN #	SIGN CODE	SIGN SIZE	SIGN SIZE W IN.	X	SIGN SIZE H IN.	637.2210 SIGNS TYPE II REFLECTIVE H SF	634.0814 POSTS TUBULAR STEEL 2X2-INCH X 14-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	SIGN MOUNTED ON SAME POST AS #	DESCRIPTION	NOTES
101	M4-5	2S	24	X	12	2	-	-	M101	TO	-
M101	J3-2	2S	48	X	57	-	-	1	STREET LIGHT POLE	DIRECTIONAL ASSEMBLY (2 HEADED ROUTE PANEL)	-
102	M4-5	2S	24	X	12	2	-	-	M102	TO	-
M102	J3-1	2S	24	X	57	-	-	1	STREET LIGHT POLE	DIRECTIONAL ASSEMBLY (1 HEADED ROUTE PANEL)	-
103	J3-1	2S	24	X	57	9.5	2	-	-	DIRECTIONAL ASSEMBLY (1 HEADED ROUTE PANEL)	-
	M3-1	2S	24	X	12	-	-	-	-	NORTH CARDINAL ROUTE MARKER	-
	M1-6B	2S	24	X	24	-	-	-	-	STATE ROUTE 32 MARKER	-
	M6-1	2S	21	X	21	-	-	-	-	ARROW - RIGHT, LEFT, OR AHEAD	-
TOTAL 0010						**13.5**	**2**	**2**			

DETOUR

CATEGORY	LOCATION	# 643.0420 TRAFFIC CONTROL BARRICADES TYPE III + EACH	DAY	# 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A + EACH	DAY	# 643.0900 TRAFFIC CONTROL SIGNS + EACH	DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS + EACH	DAY	+ ESTIMATED CALENDAR DAYS
0010	STAGES 1 & 2	1	94	2	188	135	12,690	2	14	94
	STAGES 3 & 4	1	112	2	224	82	9,184	2	14	112
	TOTAL 0010		**206**		**412**		**21,874**		**28**	

ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "TRAFFIC CONTROL" TABLE.
+ FOR INFORMATIONAL PURPOSES ONLY.

TRAFFIC CONTROL

CATEGORY	LOCATION	643.0300 TRAFFIC CONTROL DRUMS + EACH	DAY	# 643.0410 TRAFFIC CONTROL BARRICADES TYPE II + EACH	DAY	# 643.0420 TRAFFIC CONTROL BARRICADES TYPE III + EACH	DAY	# 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A + EACH	DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C + EACH	DAY	SPV.0060.118 TEMPORARY NO PARKING SIGNS EACH	+ ESTIMATED CALENDAR DAYS
0010	STAGE 1A	47	1,128	12	288	29	696	70	1,680	7	168	6	24
	STAGE 1B	50	1,150	11	253	34	782	79	1,817	7	161	-	23
	STAGE 2A	53	1,272	12	288	27	648	66	1,584	7	168	-	24
	STAGE 2B	46	1,058	13	299	23	529	59	1,357	7	161	-	23
	STAGE 3A	81	2,106	17	442	56	1,456	129	3,354	14	364	6	26
	STAGE 3B	78	1,950	17	425	48	1,200	113	2,825	14	350	-	25
	STAGE 4A	71	1,846	21	546	43	1,118	107	2,782	14	364	-	26
	STAGE 4B	69	1,725	21	525	51	1,275	123	3,075	14	350	-	25
	STAGE 5	10	100	-	-	-	-	-	-	-	-		10
	UNDISTRIBUTED		1,234		307		770		1,847		209	5	
	TOTAL 0010		**13,569**		**3,373**		**8,474**		**20,321**		**2,295**	**17**	

ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "DETOUR" TABLE.
+ FOR INFORMATION PURPOSES ONLY.

3

TEMPORARY PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	643.3105 TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW) LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) LF	643.3205 TEMPORARY MARKING LINE PAINT 8-INCH (WHITE) LF	643.3305 TEMPORARY MARKING CROSSWALK PAINT 6-INCH (WHITE) LF	643.3505 TEMPORARY MARKING ARROW PAINT (WHITE) EACH	643.3805 TEMPORARY MARKING STOP LINE PAINT 18-INCH (WHITE) LF	643.3960 TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH LF	REMARKS
0010	50+25	-	55+00	N MILWAUKEE ST	-	180	-	-	-	-	50	STAGE 1A
	50+25	-	55+00	WELLS ST / N MILWAUKEE ST	590	180	128	385	2	67	50	STAGE 3A
	61+00	-	63+87	N VAN BUREN ST	-	180	-	-	-	-	50	STAGE 3A
	61+00	-	63+87	N VAN BUREN ST	-	180	-	-	-	-	-	STAGE 3B
	61+00	-	63+87	N VAN BUREN ST	-	180	-	-	-	-	-	STAGE 4B
				TOTAL 0010	**590**	**900**	**128**	**385**	**2**	**67**	**150**	

3

TEMPORARY PEDESTRIAN ACCOMMODATIONS

CATEGORY	STAGE	STATION	TO	STATION	LOCATION	644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT SF	644.1430 TEMPORARY PEDESTRIAN SURFACE PLATE SF	644.1440 TEMPORARY PEDESTRIAN SURFACE MATTING SF	644.1601 TEMPORARY PEDESTRIAN CURB RAMP +EACH	DAY	644.1605 TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD SF	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF	+ ESTIMATED CALENDAR DAYS
0010	STAGE 1	50+25	-	55+00		-	-	210	2		-	754	
		55+00	-	61+00		-	-	-	-		-	-	
		61+00	-	63+87		-	-	-	-		-	-	
					SUBTOTAL	-	-	210	2	94	-	754	47
	STAGE 2	50+25	-	55+00		-	-	210	2		-	764	
		55+00	-	61+00		-	-	-	-		-	-	
		61+00	-	63+87		-	-	-	-		-	-	
					SUBTOTAL	-	-	210	2	94	-	764	47
	STAGE 3	50+25	-	55+00		-	-	-	-		-	102	
		55+00	-	61+00		-	-	1,635	2		-	1,166	
		61+00	-	63+87		-	-	485	1		-	500	
					SUBTOTAL	-	-	2,120	3	153	-	1,768	51
	STAGE 4	50+25	-	55+00		-	-	-	-		-	92	
		55+00	-	61+00		-	-	1,975	2		-	955	
		61+00	-	63+87		-	-	70	1		-	420	
					SUBTOTAL	-	-	2,045	3	153	-	1,467	51
	STAGE 5	50+25	-	55+00		-	-	-	4	40	50	412	10
					UNDISTRIBUTED	200	200	460		55	-	520	
					TOTAL 0010	**200**	**200**	**5,045**		**589**	**50**	**5,685**	

3

PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	633.5350 MARKERS PERMANENT FLEXIBLE EACH	646.5020 MARKING ARROW EPOXY EACH	# 646.6464 COLD WEATHER MARKING EPOXY 4-INCH LF	646.6468 COLD WEATHER MARKING EPOXY 8-INCH LF	646.9200 MARKING REMOVAL LINE WIDE LF	SPV.0060.115 SKID/SLIP RESISTANT GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE ARROW EACH	SPV.0060.116 SKID/SLIP RESISTANT GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE SYMBOL EACH	646.2020 MARKING LINE EPOXY 6-INCH LF	SPV.0090.102 MARKING STOP LINE EPOXY 24-INCH LF	SPV.0090.103 MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH LF	SPV.0165.101 SKID/SLIP RESISTANT GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE PANEL SF	REMARKS
0010	50+25	-	55+00		1	3	901	128	307	-	-	241	78	758	-	
	55+00	-	61+00		1	-	1,092		-	-	-	231	99	644	-	
	61+00	-	63+87		-	-	476		-	-	-	67	68	338	-	
				TOTAL 0010	**2**	**3**	**2,469**	**128**	**307**	**0**	**0**	**539**	**245**	**1,740**	**0**	
0020	50+25	-	55+00		-	-		-	-	7	7	-	-	-	2,799	
	55+00	-	61+00		-	-		-	-	8	8	-	-	-	3,203	
	61+00	-	63+87		-	-		-	-	2	2	-	-	-	875	
				TOTAL 0020	**0**	**0**	**0**	**0**	**0**	**17**	**17**	**0**	**0**	**0**	**6,877**	
				PROJECT TOTAL	**2**	**3**	**2,469**	**128**	**307**	**17**	**17**	**539**	**245**	**1,740**	**6,877**	

TOTAL YELLOW QUANTITY = 2180 LF. TOTAL WHITE QUANTITY = 289 LF.

3

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.8501.01 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS 2195-04-70 EACH	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	650.9500.01 CONSTRUCTION STAKING SIDEWALK 2195-04-70 EACH	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 2195-04-70 EACH
0010	50+25	-	55+00		15	475	475	1,171	111	-	13	-	-
	55+00	-	61+00		20	600	600	1,385	76	-	19	-	-
	61+00	-	63+87		4	287	287	606	15	-	7	-	-
				TOTAL 0010	**39**	**1,362**	**1,362**	**3,162**	**202**	**1**	**39**	**1**	**1**

3

SAWING

CATEGORY	STATION	TO	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
0010	50+25	-	55+00		461	1,850
	55+00	-	61+00		1,102	1,798
	61+00	-	63+87		328	914
				TOTAL 0010	**1,891**	**4,562**

UTILITY LINE OPENING

CATEGORY	LOCATION	SPV.0060.101 UTILITY LINE OPENING EACH
0010	PROJECT-WIDE	20
	TOTAL 0010	**20**

WATER & SANITARY

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0060.102 ADJUSTING WATER VALVE BOXES EACH	SPV.0060.104 ADJUSTING SANITARY SEWER MANHOLES EACH
0020	50+25	-	55+00	-	21	2
	55+00	-	61+00	-	29	4
	61+00	-	63+87	-	12	1
			53+20	46'RT	-	-
			53+20	63'RT	-	-
			53+67	56'RT	-	-
			53+67	63'RT	-	-
			54+18	17'LT	-	-
			59+62	23'LT	-	-
			62+92	23'LT	-	-
			62+92	23'RT	-	-
				TOTAL 0020	**62**	**7**

TRACK ZONE REMOVAL

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0180.101 TRACK ZONE REMOVAL SY
0010	50+25	-	55+00	RT	86
	55+00	-	61+00	RT	184
				TOTAL 0010	**270**

MANAGEMENT OF SOLID WASTE

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0195.101 MANAGEMENT OF SOLID WASTE TON
0010	50+25	-	51+00	RT	283
				TOTAL 0010	**283**

CITY UNDERGROUND CONDUIT

CATEGORY	STATION	TO	STATION	LOCATION	# 204.0210 REMOVING MANHOLES EACH	SPV.0060.110 CUC MANHOLE 5-FT DIAMETER EACH	SPV.0060.111 CUC MANHOLE DOGHOUSE 4-FT DIAMETER INSTALLED OVER CONDUIT EACH	SPV.0060.112 ADJUSTING CUC MANHOLE COVERS EACH	SPV.0060.114 INSTALLING CONDUIT INTO EXISTING CUC MANHOLE EACH	SPV.0090.105 4-INCH NONMETALLIC CONDUIT CONCRETE ENCASED 2-DUCT LF	SPV.0090.107 4-INCH NONMETALLIC CONDUIT CONCRETE ENCASED 6-DUCT LF	SPV.0090.108 4-INCH NONMETALLIC CONDUIT CONCRETE ENCASED 8-DUCT LF
0010			50+24	44' LT	-	-	-	1	-	-	-	-
			51+74	19' RT	1	-	-	-	-	-	-	-
	50+25	-	53+00	RT & LT	-	-	-	-	-	-	280	-
			53+00	24' LT	-	-	-	1	-	-	-	-
			53+37	54' LT	-	-	-	1	-	-	-	-
	53+91	-	56+86	LT	-	-	-	-	-	-	300	-
			56+86	34' LT	-	1	-	-	-	-	-	-
	56+86	-	56+95	LT & RT	-	-	-	-	-	-	-	34
	56+95	-	57+05	RT	-	-	-	-	-	67	-	-
	56+95	-	59+73	RT & LT	-	-	-	-	-	-	290	-
			59+73	22' LT	-	-	-	1	1	-	-	-
	59+73	-	59+93	LT	-	-	-	-	-	-	-	18
	59+93	-	60+42	LT	-	-	-	-	-	72	-	-
	59+93	-	63+60	LT & RT	-	-	-	-	-	-	377	-
			63+60	16' RT	-	-	1	-	-	-	-	-
			63+61	3' LT	-	-	-	1	-	-	-	-
	63+60	-	63+62	RT	-	-	-	-	-	-	-	2
	63+62	-	64+00	RT & LT	-	-	-	-	-	71	-	-
	63+62	-	64+06	RT	-	-	-	-	-	-	42	-
				TOTAL 0010	**1**	**1**	**1**	**5**	**1**	**210**	**1,289**	**54**

#ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "DRAINAGE REMOVALS "TABLE

FIBER OPTIC CABLE

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0090.111 FIBER OPTIC CABLE OUTDOOR PLANT 144-COUNT LF	SPV.0090.112 FIBER OPTIC CABLE OUTDOOR PLANT 12-COUNT LF
0010	45+00	-	49+00		662	160
	49+00	-	55+00		873	710
	55+00	-	61+00		636	510
	61+00	-	64+05		520	350
				TOTAL 0010	**2,691**	**1,730**

3

LAMP, BALLAST, LED, SWITCH DISPOSAL

FIXTURE TYPE	* 659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
PEDESTRIAN SIGNAL - 12 INCH	6
TRAFFIC SIGNAL, THREE SECTION	9
TOTAL	15

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

LAMP, BALLAST, LED, SWITCH DISPOSAL (FOR INFORMATION ONLY)

SIGNAL BASE NO.	PEDESTRIAN SIGNAL, 12 INCH EACH	TRAFFIC SIGNAL, THREE SECTION EACH
A	1	1
B	1	2
C	1	1
D	1	2
E	1	1
F	1	2
TOTAL	6	9

3

REMOVING CONCRETE BASES

SIGNAL BASE NO.	* 204.0195 REMOVING CONCRETE BASES EACH
D	1
F	1
TOTAL	2

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL REMOVALS

LOCATION	204.9060.S.201 REMOVING TRAFFIC SIGNALS EACH
E WELLS ST & N BROADWAY	1
TOTAL	1

CONCRETE BASES

SIGNAL BASE NO.	ALIGNMENT	STATION^	OFFSET^	* 654.0101 CONCRETE BASES TYPE 1 EACH
D	E WELLS ST	50+46.5	32.4' LT	1
F	E WELLS ST	50+34.2	44.3' RT	1
			TOTAL	2

^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

E WELLS STREET & N BROADWAY
CITY OF MILWAUKEE
MILWAUKEE COUNTY

CATEGORY 0010 PAGE 1 OF 3

FILE NAME : T:\1202715.10\Civil 3D\21950400\Design\Quantities\030201-mq.ppt PLOT DATE : 1/6/2023 1:22 PM PLOT BY : ANDREW AXT PLOT NAME : PLOT SCALE : 1:1

3

TRAFFIC SIGNAL CONDUIT

FROM	TO	# SIGNAL CONDUITS	# 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH TO	* SPV.0060.211 ELECTRICAL RISER EACH	# 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.
V1	C	1	7	--	--
V1	V2	1	--	--	33
V2	D	1	5	--	--
V3	E	1	5	--	--
E	SIGNAL HEADS	--	--	1	--
V3	V4	1	--	--	29
V4	F	1	5	--	--
		TOTAL	22	1	62

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "TRAFFIC SIGNAL CONDUIT" TABLES.
# ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "TRAFFIC SIGNAL CONDUIT" TABLES AND "LIGHTING CONDUIT AND WIRE" TABLE.

TRAFFIC SIGNAL CABLE AND WIRE (UNDERGROUND)

FROM	TO	* 655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG L.F.	* 655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.
CB1	D	--	203
CB1	E	319	--
CB1	F	--	276
	TOTAL	319	479

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CABLE AND WIRE (ABOVE GROUND)

FROM	TO	* 655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.
D	HEAD 2	19
D	HEAD 4	19
D	HEAD 14	15
E	HEAD 3	19
E	HEAD 17	15
F	HEAD 7	19
F	HEAD 11	19
F	HEAD 16	15
	TOTAL	140

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	* 655.0210 CABLE TRAFFIC SIGNAL 3-14 AWG L.F.	* 655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
CB1	A (HEAD A/B)	--	24
CB1	B (HEAD C/D)	--	57
CB1	D (BEACON)	222	--
	TOTAL	222	81

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

E WELLS STREET & N BROADWAY
CITY OF MILWAUKEE
MILWAUKEE COUNTY

CATEGORY 0010 PAGE 2 OF 3

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EVP DETECTORS

LOCATION	* SPV.0060.207 EVP 2 DIRECTION INFRARED DETECTOR EACH	* SPV.0060.209 EVP CONFIRMATION LIGHT EACH
A (HEAD A/B)	1	1
B (HEAD C/D)	1	2
D (BEACON)	--	1
TOTAL	2	4

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

SIGNAL MOUNTING HARDWARE

LOCATION	658.5070.001 SIGNAL MOUNTING HARDWARE EACH
E WELLS ST & N BROADWAY	1
TOTAL	1

POLES (CONTRACTOR FURNISHED)

SIGNAL BASE NO.	* 657.0100 PEDESTAL BASES EACH	* 657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH
D	1	1
F	1	1
TOTAL	2	2

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

3

FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	* 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	* 658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	* SPV.0060.210 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
2	D	1	--	--
3	E	1	--	--
4	D	1	--	--
6	A	1	--	--
7	F	1	--	--
8	B	1	--	--
9	C	1	--	--
10	B	1	--	--
11	F	1	--	--
13	A	--	1	1
14	D	--	1	1
15	C	--	1	1
16	F	--	1	1
17	E	--	1	1
20	B	--	1	1
TOTAL		9	6	6

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

LED MODULES SUMMARY (FOR INFORMATION ONLY)

SIGNAL HEAD NO.	SIGNAL BASE NO.	PEDESTRIAN SIGNAL FACE 12-INCH EACH	PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH	LED MODULES 12-INCH RED BALL EACH	LED MODULES 12-INCH YELLOW BALL EACH	LED MODULES 12-INCH GREEN BALL EACH
2	D	--	--	1	1	1
3	E	--	--	1	1	1
4	D	--	--	1	1	1
6	A	--	--	1	1	1
7	F	--	--	1	1	1
8	B	--	--	1	1	1
9	C	--	--	1	1	1
10	B	--	--	1	1	1
11	F	--	--	1	1	1
13	A	1	1	--	--	--
14	D	1	1	--	--	--
15	C	1	1	--	--	--
16	F	1	1	--	--	--
17	E	1	1	--	--	--
20	B	1	1	--	--	--
TOTAL		6	6	9	9	9

E WELLS STREET & N BROADWAY
CITY OF MILWAUKEE
MILWAUKEE COUNTY

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EVP DETECTORS

LOCATION	* SPV.0060.207 EVP 2 DIRECTION INFRARED DETECTOR EACH	* SPV.0060.209 EVP CONFIRMATION LIGHT EACH
H (HEAD A/B)	1	1
C (HEAD C/D)	1	1
D (BEACON)	--	1
G (BEACON)	--	1
TOTAL	2	4

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL REMOVALS

LOCATION	204.9060.S.202 REMOVING TRAFFIC SIGNALS EACH
E WELLS ST & N MILWAUKEE ST	1
TOTAL	1

3

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	* 655.0210 CABLE TRAFFIC SIGNAL 3-14 AWG L.F.	* 655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
CB1	H (HEAD A/B)	--	136
CB1	C (HEAD C/D)	--	155
CB1	D (BEACON)	198	--
CB1	G (BEACON)	182	--
	TOTAL	380	291

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

E WELLS STREET & N MILWAUKEE ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

CATEGORY 0010 PAGE 1 OF 1

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TRAFFIC SIGNAL REMOVALS

LOCATION	204.9060.S.203 REMOVING TRAFFIC SIGNALS EACH
E WELLS ST & N JEFFERSON ST	1
TOTAL	1

LAMP, BALLAST, LED, SWITCH DISPOSAL

FIXTURE TYPE	* 659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
PEDESTRIAN SIGNAL - 12 INCH	5
TRAFFIC SIGNAL, THREE SECTION	8
MERCURY SWITCHES	1
TOTAL	14

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

3

LAMP, BALLAST, LED, SWITCH DISPOSAL (FOR INFORMATION ONLY)

SIGNAL BASE NO.	PEDESTRIAN SIGNAL, 12 INCH EACH	TRAFFIC SIGNAL, THREE SECTION EACH	MERCURY SWITCHES EACH
A	1	1	--
B	1	2	--
E	1	1	--
F	1	2	--
H	1	2	--
CB1	--	--	1
TOTAL	5	8	1

REMOVING CONCRETE BASES

SIGNAL BASE NO.	* 204.0195 REMOVING CONCRETE BASES EACH
B	1
F	1
H	1
CB1	1
TOTAL	4

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

E WELLS STREET & N JEFFERSON ST
CITY OF MILWAUKEE
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CONCRETE BASES

SIGNAL BASE NO.	ALIGNMENT	STATION^	OFFSET^	* 654.0101 CONCRETE BASES TYPE 1 EACH	* SPV.0060.203 INSTALL PRECAST CONTROLLER BASE EACH
B	E WELLS ST	56+52.7	39.5' LT	1	--
F	E WELLS ST	57+09.2	40.0' RT	1	--
H	E WELLS ST	56+35.9	26.3' RT	1	--
CB1	E WELLS ST	57+04.8	65.8' RT	--	1
			TOTAL	3	1

^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

SIGNAL MOUNTING HARDWARE

LOCATION	658.5070.003 SIGNAL MOUNTING HARDWARE EACH
E WELLS ST & N JEFFERSON ST	1
TOTAL	1

3

TRAFFIC SIGNAL CONDUIT

FROM	TO	# SIGNAL CONDUIT	# 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	# 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	# 652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH L.F.	* SPV.0060.211 ELECTRICAL RISER EACH
CB1	V7	3	--	69	--	--
V7	F	1	4	--	--	--
V7	V8	1	--	17	--	--
V8	E	1	3	--	--	--
V8	V1	1	--	--	68	--
V3	B	1	12	--	--	--
V3	V4	1	--	28	--	--
V4	A	1	8	--	--	--
V4	V5	1	--	--	63	--
V5	H	1	8	--	--	--
V5	V6	1	--	21	--	--
V6	G	1	7	--	--	--
V6	V7	1	--	--	61	--
A	SIGNAL HEADS	--	--	--	--	1
E	SIGNAL HEADS	--	--	--	--	1
		TOTAL	42	135	192	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE ON PLAN. SEE "TRAFFIC SIGNAL CONDUIT" TABLES.
# ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "TRAFFIC SIGNAL CONDUIT" TABLES AND "LIGHTING CONDUIT AND WIRE" TABLE.

POLES (CONTRACTOR FURNISHED)

SIGNAL BASE NO.	* 657.0100 PEDESTAL BASES EACH	* 657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	* 657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH
B	1	1	--
F	1	--	1
H	1	1	--
TOTAL	3	2	1

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

E WELLS STREET & N JEFFERSON ST
CITY OF MILWAUKEE
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TRAFFIC SIGNAL CABLE AND WIRE (ABOVE GROUND)

FROM	TO	* 655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.
A	HEAD 6	19
A	HEAD 17	15
B	HEAD 8	19
B	HEAD 10	19
B	HEAD 16	15
C	HEAD 9	19
C	HEAD 19	15
D	HEAD 2	19
D	HEAD 4	19
D	HEAD 18	15
E	HEAD 3	19
E	HEAD 13	15
F	HEAD 7	21
F	HEAD 11	21
F	HEAD 20	15
G	HEAD 12	19
G	HEAD 15	15
H	HEAD 1	19
H	HEAD 5	19
H	HEAD 14	15
	TOTAL	352

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CABLE AND WIRE (UNDERGROUND)

FROM	TO	* 655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.
CB1	G	121
G	H	61
H	A	109
A	B	75
B	C	97
C	D	61
D	E	104
E	F	49
F	CB1	40
	TOTAL	717

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

3

TRAFFIC SIGNAL CABLE AND WIRE (UNDERGROUND)

FROM	TO	* 655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG L.F.	* 655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.
CB1	A	237	--
CB1	B	--	283
CB1	C	199	--
CB1	D	--	155
CB1	E	70	--
CB1	F	--	40
CB1	G	121	--
CB1	H	--	157
	TOTAL	627	635

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	* 655.0210 CABLE TRAFFIC SIGNAL 3-14 AWG L.F.	* 655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
CB1	D (HEAD A/B)	--	174
CB1	F (HEAD C/D)	--	62
CB1	B (BEACON)	302	--
CB1	H (BEACON)	176	--
	TOTAL	478	236

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

E WELLS STREET & N JEFFERSON ST
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FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	* 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	* 658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	* SPV.0060.210 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	H	1	--	--
3	E	1	--	--
5	H	1	--	--
6	A	1	--	--
7	F	1	--	--
8	B	1	--	--
10	B	1	--	--
11	F	1	--	--
13	E	--	1	1
14	H	--	1	1
16	B	--	1	1
17	A	--	1	1
20	F	--	1	1
	TOTAL	8	5	5

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

ATC CONTROLLER & CABINET

LOCATION	* SPV.0060.204 ATC CONTROLLER & CABINET EACH
E WELLS ST & N JEFFERSON ST	1
TOTAL	1

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

3

EVP DETECTORS

LOCATION	* SPV.0060.207 EVP 2 DIRECTION INFRARED DETECTOR EACH	* SPV.0060.209 EVP CONFIRMATION LIGHT EACH
D (HEAD A/B)	1	1
F (HEAD C/D)	1	1
B (BEACON)	--	1
H (BEACON)	--	1
TOTAL	2	4

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

LED MODULES SUMMARY (FOR INFORMATION ONLY)

SIGNAL HEAD NO.	SIGNAL BASE NO.	PEDESTRIAN SIGNAL FACE 12-INCH EACH	PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH	LED MODULES 12-INCH RED BALL EACH	LED MODULES 12-INCH YELLOW BALL EACH	LED MODULES 12-INCH GREEN BALL EACH
1	H	--	--	1	1	1
3	E	--	--	1	1	1
5	H	--	--	1	1	1
6	A	--	--	1	1	1
7	F	--	--	1	1	1
8	B	--	--	1	1	1
10	B	--	--	1	1	1
11	F	--	--	1	1	1
13	E	1	1	--	--	--
14	H	1	1	--	--	--
16	B	1	1	--	--	--
17	A	1	1	--	--	--
20	F	1	1	--	--	--
	TOTAL	5	5	8	8	8

EVP PHASE SELECTOR CARD 4 CHANNEL

LOCATION	* SPV.0060.208 EVP PHASE SELECTOR CARD 4 CHANNEL EACH
E WELLS ST & N JEFFERSON ST	1
TOTAL	1

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

E WELLS STREET & N JEFFERSON ST
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LAMP, BALLAST, LED, SWITCH DISPOSAL

FIXTURE TYPE	* 659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
PEDESTRIAN SIGNAL - 12 INCH	6
TRAFFIC SIGNAL, THREE SECTION	7
MERCURY SWITCHES	1
TOTAL	14

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

REMOVING CONCRETE BASES

SIGNAL BASE NO.	* 204.0195 REMOVING CONCRETE BASES EACH
D	1
F	1
H	1
CB1	1
TOTAL	4

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

LAMP, BALLAST, LED, SWITCH DISPOSAL (FOR INFORMATION ONLY)

SIGNAL BASE NO.	PEDESTRIAN SIGNAL, 12 INCH EACH	TRAFFIC SIGNAL, THREE SECTION EACH	MERCURY SWITCHES EACH
C	1	--	--
D	1	2	--
E	1	1	--
F	1	1	--
G	1	1	--
H	1	2	--
CB1	--	--	1
TOTAL	6	7	1

TRAFFIC SIGNAL REMOVALS

LOCATION	204.9060.S.204 REMOVING TRAFFIC SIGNALS EACH
E WELLS ST & N JACKSON ST	1
TOTAL	1

E WELLS STREET & N JACKSON ST
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CONCRETE BASES

SIGNAL BASE NO.	ALIGNMENT	STATION^	OFFSET^	* 654.0101 CONCRETE BASES TYPE 1 EACH	* SPV.0060.203 INSTALL PRECAST CONTROLLER BASE EACH
D	E WELLS ST	60+52.4	31.0' LT	1	--
F	E WELLS ST	60+37.8	39.5' RT	1	--
H	E WELLS ST	59+72.5	24.2' RT	1	--
CB1	E WELLS ST	60+41.1	62.5' LT	--	1
			TOTAL	3	1

^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CONDUIT

FROM	TO	# SIGNAL CONDUITS	# 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	# 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	# 652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH L.F.	* SPV.0060.211 ELECTRICAL RISER EACH
CB1	C	1	8	--	--	--
V1	V8	1	--	50	--	--
V8	D	1	9	--	--	--
V8	V7	1	--	--	62	--
V7	E	1	11	--	--	--
V7	V6	1	--	34	--	--
V6	F	1	16	--	--	--
V6	V5	1	--	--	59	--
V5	G	1	10	--	--	--
V5	V4	1	--	26	--	--
V4	H	1	8	--	--	--
V4	STUB (NEAR V3)	1	--	--	57	--
C	SIGNAL HEADS	--	--	--	--	1
E	SIGNAL HEADS	--	--	--	--	1
G	SIGNAL HEADS	--	--	--	--	1
		TOTAL	62	110	178	3

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE ON PLAN. SEE "TRAFFIC SIGNAL CONDUIT" TABLES.
# ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "TRAFFIC SIGNAL CONDUIT" TABLES AND "LIGHTING CONDUIT AND WIRE" TABLE.

TRAFFIC SIGNAL CABLE AND WIRE (UNDERGROUND)

FROM	TO	* 655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG L.F.	* 655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.
CB1	A	157	--
CB1	B	--	115
CB1	C	--	21
CB1	D	--	95
CB1	E	177	--
CB1	F	--	230
CB1	G	282	--
CB1	H	--	239
	TOTAL	616	700

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CABLE AND WIRE (UNDERGROUND)

FROM	TO	* 655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.
CB1	C	21
C	D	115
D	E	113
E	F	89
F	G	116
G	H	71
H	A	104
A	B	94
B	CB1	115
	TOTAL	838

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

E WELLS STREET & N JACKSON ST
CITY OF MILWAUKEE
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FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	* 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	* 658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	* SPV.0060.210 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	H	1	--	--
2	D	1	--	--
3	E	1	--	--
4	D	1	--	--
5	H	1	--	--
8	F	1	--	--
9	G	1	--	--
10	C	--	1	1
11	F	--	1	1
12	E	--	1	1
13	H	--	1	1
14	G	--	1	1
17	D	--	1	1
	TOTAL	7	6	6

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	* 655.0210 CABLE TRAFFIC SIGNAL 3-14 AWG L.F.	* 655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
CB1	A (HEAD A/B)	--	176
CB1	G (HEAD C)	--	301
CB1	E (BEACON)	196	--
	TOTAL	196	477

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

3

SIGNAL MOUNTING HARDWARE

LOCATION	658.5070.004 SIGNAL MOUNTING HARDWARE EACH
E WELLS ST & N JACKSON ST	1
TOTAL	1

TRAFFIC SIGNAL CABLE AND WIRE (ABOVE GROUND)

FROM	TO	* 655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.
A	HEAD 6	19
A	HEAD 16	15
B	HEAD 7	19
B	HEAD 15	15
C	HEAD 10	15
D	HEAD 2	19
D	HEAD 4	19
D	HEAD 17	15
E	HEAD 3	19
E	HEAD 12	15
F	HEAD 8	19
F	HEAD 11	15
G	HEAD 9	19
G	HEAD 14	15
H	HEAD 1	19
H	HEAD 5	19
H	HEAD 13	15
	TOTAL	291

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

POLES (CONTRACTOR FURNISHED)

SIGNAL BASE NO.	* 657.0100 PEDESTAL BASES EACH	* 657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH
D	1	1
F	1	1
H	1	1
TOTAL	3	3

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

E WELLS STREET & N JACKSON ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

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EVP PHASE SELECTOR CARD 4 CHANNEL

LOCATION	* SPV.0060.208 EVP PHASE SELECTOR CARD 4 CHANNEL EACH
E WELLS ST & N JACKSON ST	1
TOTAL	1

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

LED MODULES SUMMARY (FOR INFORMATION ONLY)

SIGNAL HEAD NO.	SIGNAL BASE NO.	PEDESTRIAN SIGNAL FACE 12-INCH EACH	PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH	LED MODULES 12-INCH RED BALL EACH	LED MODULES 12-INCH YELLOW BALL EACH	LED MODULES 12-INCH GREEN BALL EACH
1	H	--	--	1	1	1
2	D	--	--	1	1	1
3	E	--	--	1	1	1
4	D	--	--	1	1	1
5	H	--	--	1	1	1
8	F	--	--	1	1	1
9	G	--	--	1	1	1
10	C	1	1	--	--	--
11	F	1	1	--	--	--
12	E	1	1	--	--	--
13	H	1	1	--	--	--
14	G	1	1	--	--	--
17	D	1	1	--	--	--
TOTAL		6	6	7	7	7

3

EVP DETECTORS

LOCATION	* SPV.0060.207 EVP 2 DIRECTION INFRARED DETECTOR EACH	* SPV.0060.209 EVP CONFIRMATION LIGHT EACH	* SPV.0060.206 EVP 1 DIRECTION INFRARED DETECTOR EACH
A (HEAD A/B)	1	1	--
G (HEAD C)	--	1	1
E (BEACON)	--	1	--
TOTAL	1	3	1

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

ATC CONTROLLER & CABINET

LOCATION	* SPV.0060.204 ATC CONTROLLER & CABINET EACH
E WELLS ST & N JACKSON ST	1
TOTAL	1

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

E WELLS STREET & N JACKSON ST
CITY OF MILWAUKEE
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LAMP, BALLAST, LED, SWITCH DISPOSAL

FIXTURE TYPE	* 659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
PEDESTRIAN SIGNAL - 16 INCH	8
TRAFFIC SIGNAL, THREE SECTION	9
MERCURY SWITCHES	1
TOTAL	18

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

LAMP, BALLAST, LED, SWITCH DISPOSAL (FOR INFORMATION ONLY)

SIGNAL BASE NO.	PEDESTRIAN SIGNAL, 12 INCH EACH	TRAFFIC SIGNAL, THREE SECTION EACH	MERCURY SWITCHES EACH
A	1	1	--
B	1	1	--
C	1	1	--
D	1	2	--
E	1	1	--
F	1	1	--
G	2	2	--
CB1	--	--	1
TOTAL	8	9	1

3

REMOVING CONCRETE BASES

SIGNAL BASE NO.	* 204.0195 REMOVING CONCRETE BASES EACH
B	1
D	1
E	1
F	1
G	1
CB1	1
TOTAL	6

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL REMOVALS

LOCATION	204.9060.S.205 REMOVING TRAFFIC SIGNALS EACH
E WELLS ST & N VAN BUREN ST	1
TOTAL	1

E WELLS STREET & N VAN BUREN ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

CATEGORY 0010

3

TRAFFIC SIGNAL CONDUIT

FROM	TO	# SIGNAL CONDUITS	# 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	# 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	# 652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH L.F.	* SPV.0060.211 ELECTRICAL RISER EACH
CB1	V8	3	--	18	--	--
V8	D	1	18	--	--	--
V8	V1	1	--	42	--	--
V1	C	1	16	--	--	--
V1	V2	1	--	--	56	--
V2	B	1	12	--	--	--
V2	V3	1	--	35	--	--
V3	A	1	10	--	--	--
V3	V4	1	--	--	60	--
V4	H	1	11	--	--	--
V4	V5	1	--	30	--	--
V5	G	1	5	--	--	--
V5	V6	1	--	--	62	--
V6	F	1	11	--	--	--
V6	V7	1	--	37	--	--
V7	E	1	16	--	--	--
V7	V8	1	--	--	49	--
A	SIGNAL HEADS	--	--	--	--	1
G	SIGNAL HEADS	--	--	--	--	1
		TOTAL	99	162	227	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE ON PLAN. SEE "TRAFFIC SIGNAL CONDUIT" TABLES.
# ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "TRAFFIC SIGNAL CONDUIT" TABLES AND "LIGHTING CONDUIT AND WIRE" TABLE.

CONCRETE BASES

SIGNAL BASE NO.	ALIGNMENT	STATION^	OFFSET^	* 654.0101 CONCRETE BASES TYPE 1 EACH	* SPV.0060.203 INSTALL PRECAST CONTROLLER BASE EACH
B	E WELLS ST	63+21.5	42.8' LT	1	--
D	E WELLS ST	63+85.5	28.5' LT	1	--
E	E WELLS ST	63+88.3	29.8' RT	1	--
F	E WELLS ST	63+77.9	38.3' RT	1	--
H	E WELLS ST	63+07.7	31.0' RT	1	--
CB1	E WELLS ST	64+01.2	29.0' LT	--	1
			TOTAL	5	1

^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CABLE AND WIRE (UNDERGROUND)

FROM	TO		* 655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG L.F.	* 655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG L.F.
CB1	A		207	--	--
CB1	B		--	--	160
CB1	C		93	--	--
CB1	D		--	37	--
CB1	E		99	--	--
CB1	F		--	145	--
CB1	G		--	218	--
CB1	H		--	269	--
					--
		TOTAL	399	669	160

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO		* 655.0210 CABLE TRAFFIC SIGNAL 3-14 AWG L.F.	* 655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
CB1	H (HEAD A/B)		--	291
CB1	B (HEAD D)		--	182
CB1	D (BEACON)		56	--
		TOTAL	56	473

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

E WELLS STREET & N VAN BUREN ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

CATEGORY 0010

3

ATC CONTROLLER & CABINET

LOCATION	* SPV.0060.204 ATC CONTROLLER & CABINET EACH
E WELLS ST & N VAN BUREN ST	1
TOTAL	1

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CABLE AND WIRE (UNDERGROUND)

FROM	TO	* 655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.
CB1	D	37
D	E	113
E	F	92
F	G	107
G	H	73
H	A	112
A	B	85
B	C	115
C	CB1	93
	TOTAL	827

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CABLE AND WIRE (ABOVE GROUND)

FROM	TO	* 655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.
A	HEAD 6	19
A	HEAD 16	15
B	HEAD 8	21
B	HEAD 15	15
C	HEAD 9	19
C	HEAD 10	15
D	HEAD 2	19
D	HEAD 4	19
D	HEAD 17	15
E	HEAD 3	19
E	HEAD 12	15
F	HEAD 7	19
F	HEAD 11	15
G	HEAD 14	15
H	HEAD 1	21
H	HEAD 5	21
H	HEAD 13	15
	TOTAL	297

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

3

SIGNAL MOUNTING HARDWARE

LOCATION	658.5070.005 SIGNAL MOUNTING HARDWARE EACH
E WELLS ST & N VAN BUREN ST	1
TOTAL	1

ELECTRICAL SERVICE PEDESTAL

LOCATION ^	SPV.0060.205 ELECTRICAL SERVICE PEDESTAL EACH
E WELLS ST & N VAN BUREN ST	1
TOTAL	1

^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

POLES (CONTRACTOR FURNISHED)

SIGNAL BASE NO.	* 657.0100 PEDESTAL BASES EACH	* 657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	* 657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH
B	1	--	1
D	1	1	--
E	1	1	--
F	1	1	--
H	1	--	1
TOTAL	5	3	2

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

E WELLS STREET & N VAN BUREN ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

CATEGORY 0010 PAGE 3 OF 4

3

FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	* 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	* 658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	* SPV.0060.210 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	H	1	--	--
2	D	1	--	--
3	E	1	--	--
4	D	1	--	--
5	H	1	--	--
6	A	1	--	--
7	F	1	--	--
8	B	1	--	--
9	C	1	--	--
10	C	--	1	1
11	F	--	1	1
12	E	--	1	1
13	H	--	1	1
14	G	--	1	1
15	B	--	1	1
16	A	--	1	1
17	D	--	1	1
	TOTAL	9	8	8

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

LED MODULES SUMMARY (FOR INFORMATION ONLY)

SIGNAL HEAD NO.	SIGNAL BASE NO.	PEDESTRIAN SIGNAL FACE 12-INCH EACH	PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH	LED MODULES 12-INCH RED BALL EACH	LED MODULES 12-INCH YELLOW BALL EACH	LED MODULES 12-INCH GREEN BALL EACH
1	H	--	--	1	1	1
2	D	--	--	1	1	1
3	E	--	--	1	1	1
4	D	--	--	1	1	1
5	H	--	--	1	1	1
6	A	--	--	1	1	1
7	F	--	--	1	1	1
8	B	--	--	1	1	1
9	C	--	--	1	1	1
10	C	1	1	--	--	--
11	F	1	1	--	--	--
12	E	1	1	--	--	--
13	H	1	1	--	--	--
14	G	1	1	--	--	--
15	B	1	1	--	--	--
16	A	1	1	--	--	--
17	D	1	1	--	--	--
	TOTAL	8	8	9	9	9

3

EVP PHASE SELECTOR CARD 4 CHANNEL

LOCATION	* SPV.0060.208 EVP PHASE SELECTOR CARD 4 CHANNEL EACH
E WELLS ST & N VAN BUREN ST	1
TOTAL	1

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

EVP DETECTORS

LOCATION	* SPV.0060.207 EVP 2 DIRECTION INFRARED DETECTOR EACH	* SPV.0060.209 EVP CONFIRMATION LIGHT EACH	* SPV.0060.206 EVP 1 DIRECTION INFRARED DETECTOR EACH
H (HEAD A/B)	1	1	--
B (HEAD D)	--	1	1
D (BEACON)	--	1	--
TOTAL	1	3	1

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

E WELLS STREET & N VAN BUREN ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

CATEGORY 0010

3

LIGHTING REMOVAL

SYSTEM	DESCRIPTION	STATION	OFFSET	204.0195 REMOVING CONCRETE BASES EACH	204.9060.S.301 REMOVING LIGHTING UNITS EACH	653.0905 REMOVING PULL BOXES EACH	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH	SPV.0060.301 LIGHTING UNITS SALVAGED EACH	SPV.0060.308 POLE WOOD 35-FT EACH	COMMENTS
CITY OF MILWAUKEE	#786	50+34	94.0' RT	--	--	--	--	1	--	SALVAGE CLAMPS, BRACKET ARM, LUMINAIRE
	#301	50+50	31.6' RT	--	--	--	--	1	--	SALVAGE CLAMPS, BRACKET ARM, LUMINAIRE
	#312	51+44	32.8' LT	--	--	--	--	1	--	SALVAGE CLAMPS, BRACKET ARM, LUMINAIRE
	#319	52+17	32.2' RT	--	--	--	--	1	--	SALVAGE CLAMPS, BRACKET ARM, LUMINAIRE
	EX PB	52+86	30.4' LT	--	--	1	--	--	--	--
	EX PB	52+89	31.7' LT	--	--	1	--	--	--	--
	EX PB	52+97	31.6' LT	--	--	1	--	--	--	--
	EX PB	53+14	51.0' RT	--	--	1	--	--	--	--
	EX PB	53+16	46.2' RT	--	--	1	--	--	--	--
	EX PB	53+17	46.6' LT	--	--	1	--	--	--	--
	EX PB	53+19	51.0' RT	--	--	1	--	--	--	--
	EX PB	53+70	51.0' RT	--	--	1	--	--	--	--
	EX PB	53+72	50.7' RT	--	--	1	--	--	--	--
	EX PB	53+72	48.3' LT	--	--	1	--	--	--	--
	EX PB	53+74	41.6' LT	--	--	1	--	--	--	--
	EX PB	53+85	32.0' RT	--	--	1	--	--	--	--
	EX PB	53+94	31.9' LT	--	--	1	--	--	--	--
	EX PB	53+95	31.4' RT	--	--	1	--	--	--	--
	#412	54+71	31.2' LT	--	--	--	--	1	--	SALVAGE LUMINAIRE
	#421	55+44	32.1' RT	--	--	--	--	1	--	SALVAGE LUMINAIRE
	#432	56+35	31.5' LT	--	--	--	--	1	--	SALVAGE LUMINAIRE
		56+46	108.7' RT	--	--	--	--	--	1	--
		56+49	84.3' LT	--	--	--	--	--	1	--
	#799	56+49	44.0' RT	--	1	--	1	--	--	--
		57+05	74.9' RT	--	--	--	--	--	1	--
	#503	57+18	31.3' RT	--	1	--	1	--	--	--
	#507	57+75	30.9' RT	1	--	--	--	--	--	CONCRETE BASE ONLY
	#525	58+84	32.1' RT	1	--	--	--	1	--	SALVAGE POLE AND FIXTURE
	#793	59+84	45.8' RT	--	--	--	--	1	--	SALVAGE CLAMPS, BRACKET ARM, LUMINAIRE
	#800	60+39	55.4' LT	--	--	--	--	1	--	SALVAGE CLAMPS, BRACKET ARM, LUMINAIRE
	#602	60+54	33.1' RT	--	--	--	--	1	--	SALVAGE CLAMPS, BRACKET ARM, LUMINAIRE
	#610	61+41	31.7' LT	--	--	--	--	1	--	SALVAGE LUMINAIRE
	#623	62+27	30.9' RT	--	--	--	--	1	--	SALVAGE LUMINAIRE
	#636	63+05	31.4' LT	--	--	--	--	1	--	SALVAGE CLAMPS, BRACKET ARM, LUMINAIRE
	#789	63+21	42.3' RT	--	--	--	--	1	--	SALVAGE BRACKET ARM AND LUMINAIRE
	#703	64+18	24.0' RT	--	--	--	--	1	--	SALVAGE LUMINAIRE
			TOTAL	2	2	14	2	16	3	

ALL ITEMS CATEGORY 0010

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LIGHTING CONDUIT REMOVAL

SYSTEM	FROM	TO	* 674.0300 ABANDONING UNDERGROUND CONDUIT LF	674.0300 REMOVE CABLE LF
CITY OF MILWAUKEE	EX PB	#301	28	--
	EX PB	EX PB	122	--
	#802	#312	240	--
	EX PB	#319	165	--
	#312	EX PB	300	--
	#319	EX PB	83	--
	EX PB	EX PB	120	--
	EX PB	EX PB	100	--
	#797	#773	--	240
	#794	#401	100	--
	#401	EX PB	120	--
	#401	#421	150	--
	#412	#432	165	--
	EX PB	EX PB	62	--
	EX PB	EX PB	120	--
	#421	EX PB	90	--
	#805	EX PB	35	--
	#779	#785	--	60
		SUBTOTAL	2000	300

LIGHTING CONDUIT REMOVAL

SYSTEM	FROM	TO	* 674.0300 ABANDONING UNDERGROUND CONDUIT LF	674.0300 REMOVE CABLE LF
CITY OF MILWAUKEE	#790	#503	19	--
	#503	#507	45	--
	#507	#525	100	--
	#525	EX PB	102	--
	EX PB	EX PB	90	--
	EX PB	#602	58	--
	EX PB	EX PB	120	--
	#602	#623	175	--
	#623	EX PB	83	--
	EX PB	#789	40	--
	#636	EX PB	62	--
	#789	EX PB	110	--
	EX PB	#782	115	--
	#813	EX PB	145	--
	EX PB	#800	62	--
	#800	EX PB	30	--
	EX PB	EX PB	46	--
		SUBTOTAL	1402	0
		TOTAL	3402	300

* FOR INFORMATION PURPOSES ONLY

ALL ITEMS CATEGORY 0010

3

LIGHTING TEMPORARY WIRE

SYSTEM	FROM	TO	SPV.0090.302 CABLE AERIAL ALUMINUM 4 AWG QUADRUPLEX LF	SPV.0090.303 CABLE AERIAL ALUMINUM 6 AWG QUADRUPLEX LF	SPV.0090.304 CABLE TYPE UF 3#10 AWG GROUNDED LF	SPV.0090.305 CABLE TYPE UF 3#12 AWG GROUNDED LF
CITY OF MILWAUKEE	#786	#301	--	--	--	70
	#301	#802	--	80	--	--
	#301	#312	--	115	--	--
	#312	#319	--	100	--	--
	#319	#334	--	105	--	--
	#334	OCS	--	35	--	--
	OCS	#809	--	45	--	--
	#334	#797	--	85	--	--
	#797	WOOD POST	--	25	--	--
	WOOD POST	#794	180	--	--	--
	WOOD POST	#785	--	--	--	55
	WOOD POST	#773	155	--	--	--
	#794	#786	--	--	--	75
	#794	#776	165	--	--	--
	#794	#401	80	--	--	--
	#401	#802	--	--	75	--
	#802	#812	--	--	80	--
	#401	#412	210	--	--	--
	#412	#421	190	--	--	--
	#421	#432	220	--	--	--
	#432	#802	75	--	--	--
	SUBTOTAL		1,275	590	155	200

3

LIGHTING TEMPORARY WIRE

SYSTEM	FROM	TO	SPV.0090.302 CABLE AERIAL ALUMINUM 4 AWG QUADRUPLEX LF	SPV.0090.303 CABLE AERIAL ALUMINUM 6 AWG QUADRUPLEX LF	SPV.0090.304 CABLE TYPE UF 3#10 AWG GROUNDED LF	SPV.0090.305 CABLE TYPE UF 3#12 AWG GROUNDED LF
CITY OF MILWAUKEE	#802	#805	--	100	--	--
	#432	#799	75	--	--	--
	#799	#790	--	85	--	--
	#790	#785	--	90	--	--
	#799	#503	80	--	--	--
	#503	#505	--	--	--	60
	#503	#525	--	155	--	--
	#525	#533	--	--	--	85
	#525	#534	--	110	--	--
	#800	#806	--	--	65	--
	#534	#793	--	70	--	--
	#793	#602	--	75	--	--
	#602	#610	--	--	110	--
	#610	#623	--	--	110	--
	#623	#789	--	--	100	--
	#789	#782	--	--	--	130
	#789	#703	--	--	100	--
	#789	#636	--	--	80	--
	#636	#800	--	--	70	--
	#800	#813	--	--	--	145
	SUBTOTAL		155	685	635	420
	TOTAL		1430	1275	790	620

ALL ITEMS CATEGORY 0010

LIGHTING CONDUIT AND WIRE

SYSTEM	FROM	TO	# 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0230 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 1/2-INCH LF	# 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	# 652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	SPV.0090.301 ELECTRICAL CABLE TYPE 4#2/1#8 XLP LF
CITY OF MILWAUKEE	#786	LPB214	--	--	40	--	40
	LPB214	LPB213	--	--	60	--	30
	LPB213	LPB215	--	--	--	120	60
	LPB215	EX LPB N	--	--	60	--	30
	LPB213	#319	--	--	170	--	170
	LPB215	#312	--	--	90	--	180
	#319	LPB204	--	--	75	--	150
	#312	LPB205	--	--	150	--	--
	LPB204	LPB205	--	--	--	120	60
	LPB204	LPB203	--	--	60	--	30
	LPB203	LPB202	--	--	10	--	10
	LPB202	LPB201	--	--	15	--	15
	LPB202	LPB212	--	--	--	--	180
	LPB202	#785	--	50	--	--	65
	#785	CONNECT S	--	--	--	--	75
	LPB205	LPB206	--	--	70	--	70
	LPB206	LPB207	--	--	20	--	20
	LPB207	#809	--	--	--	--	45
	#794	#786	--	50	--	--	80
	#786	CONNECT S	--	--	--	--	65
	LPB212	LPB211	--	--	60	--	40
	LPB211	LPB210	--	--	25	--	25
	LPB206	LPB208	--	--	--	--	50
	#812	LPB208	--	--	--	--	75
	LPB208	LPB209	--	--	10	--	--
	LPB208	LPB216	--	--	60	--	--
	LPB216	LPB210	--	--	--	120	60
	LPB216	#412	--	--	75	--	75
	LPB210	#421	--	--	145	--	145
	#412	LPB218	--	--	160	--	160
	#421	LPB217	--	--	90	--	90
	LPB217	LPB218	--	--	--	120	--
	LPB218	LPB219	--	--	50	--	50
	LPB219	#805	--	--	25	--	25
	SUBTOTAL		0	100	1,520	480	2,170

LIGHTING CONDUIT AND WIRE

SYSTEM	FROM	TO	# 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0230 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 1/2-INCH LF	# 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	# 652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	SPV.0090.301 ELECTRICAL CABLE TYPE 4#2/1#8 XLP LF
CITY OF MILWAUKEE	LPB219	#802	--	--	--	--	50
	LPB217	LPB216	--	--	40	--	20
	LPB216	EX LPB	--	--	--	110	55
	LPB216	#785	--	--	--	--	65
	EX LPB	#790	--	--	30	--	30
	EX LPB	#503	--	--	--	--	45
	#503	#502	--	--	--	130	--
	#503	#505	--	--	60	--	60
	#505	#523	--	--	85	--	85
	#523	#533	--	--	75	--	75
	#534	LPB220	--	--	--	120	--
	#533	LPB220	--	--	25	--	25
	LPB220	LPB221	--	--	60	--	30
	LPB221	EX LPB	--	--	--	110	55
	EX LPB	LPB222	--	--	70	--	35
	EX LPB	#800	--	--	15	--	15
	EX LPB	LPB223	--	--	90	--	45
	LPB223	LPB222	--	--	--	120	60
	LPB223	#610	--	--	70	--	140
	LPB222	#623	--	--	145	--	175
	#610	LPB231	--	--	170	--	170
	#623	LPB224	--	--	65	--	65
	LPB231	LPB224	--	--	--	120	--
	LPB224	LPB225	10	--	50	--	25
	LPB231	LPB230	--	--	60	--	60
	LPB230	#813	10	--	105	--	105
	LPB225	LPB226	--	--	--	110	110
	LPB230	LPB229	--	--	--	110	55
	LPB226	#782	10	--	100	--	100
	LPB226	LPB227	--	--	70	--	35
	LPB227	#703	10	--	10	--	10
	LPB229	#800	--	--	15	--	15
	LPB227	LPB228	--	--	--	90	--
	LPB228	LPB229	10	--	75	--	--
	SUBTOTAL		50	0	1485	1020	1815
	TOTAL		50	100	3,005	1,500	3,985

ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "TRAFFIC SIGNAL CONDUIT" TABLES.

ALL ITEMS CATEGORY 0010

3

LIGHTING PULL BOXES

SYSTEM	DESCRIPTION	STATION	OFFSET	LF	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED EACH	SPV.0060.201 FIBERGLASS/ POLYMER CONCRETE PULL BOXES 13-INCH X 24-INCH X 24-INCH EACH	SPV.0060.202 FIBERGLASS/ POLYMER CONCRETE PULL BOXES 17-INCH X 30-INCH X 24-INCH EACH
CITY OF MILWAUKEE	LPB101	50+34	94.2' RT	5	1	--
	LPB214	50+32	48.6' RT	5	--	1
	LPB213	50+55	31.0' RT	5	--	1
	LPB215	50+48	27.4' LT	5	--	1
	LPB102	51+44	32.8' LT	5	1	--
	LPB103	52+17	32.2' RT	5	1	--
	LPB205	52+86	31.7' LT	5	--	1
	LPB204	52+93	31.3' RT	5	--	1
	LPB201	53+11	53.8' RT	5	--	1
	LPB202	53+17	53.8' RT	5	--	1
	LPB203	53+18	44.5' RT	5	--	1
	LPB206	53+17	46.2' LT	5	--	1
	LPB207	53+18	54.5' LT	5	--	1
	LPB212	53+70	50.7' RT	5	--	1
	LPB208	53+70	48.1' LT	5	--	1
	LPB209	53+75	43.9' LT	5	--	1
	LPB211	53+82	32.8' RT	5	--	1
	LPB210	53+96	32.9' RT	5	--	1
	LPB216	53+95	31.6' LT	5	--	1
	LPB104	54+66	31.2' LT	5	1	--
	LPB105	55+44	30.4' RT	5	1	--
	LPB218	56+30	30.5' LT	5	--	1
	LPB217	56+30	33.0' RT	5	--	1
			SUBTOTAL	115	5	18

3

LIGHTING PULL BOXES

SYSTEM	DESCRIPTION	STATION	OFFSET	LF	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED EACH	SPV.0060.201 FIBERGLASS/ POLYMER CONCRETE PULL BOXES 13-INCH X 24-INCH X 24-INCH EACH	SPV.0060.202 FIBERGLASS/ POLYMER CONCRETE PULL BOXES 17-INCH X 30-INCH X 24-INCH EACH
CITY OF MILWAUKEE	LPB107	56+47	50.6' RT	5	1	--
	LPB219	56+51	51.4' RT	5	--	1
	LPB108	56+49	108.5' RT	5	1	--
	LPB106	56+50	84.3' LT	5	1	--
	LPB109	57+05	74.6' RT	5	1	--
	LPB110	57+76	33.7' RT	5	1	--
	LPB111	58+64	31.9' RT	5	1	--
	LPB112	59+46	32.5' RT	5	1	--
	LPB220	59+69	31.1' RT	5	--	1
	LPB221	59+82	55.2' RT	5	--	1
	LPB222	60+62	30.2' RT	5	--	1
	LPB223	60+64	31.9' LT	5	--	1
	LPB113	61+41	31.7' LT	5	1	--
	LPB114	62+27	30.9' RT	5	1	--
	LPB224	62+96	31.5' RT	5	--	1
	LPB231	62+99	30.5' LT	5	--	1
	LPB225	63+15	50.9' RT	5	--	1
	LPB230	63+22	55.0' LT	5	--	1
	LPB226	63+74	49.0' RT	5	--	1
	LPB229	63+77	54.3' LT	5	--	1
	LPB227	64+03	24.9' RT	5	--	1
	LPB228	64+04	23.5' LT	5	--	1
	LPB115	64+18	24.2' RT	5	1	--
			SUBTOTAL	115	10	13
			TOTAL	230	15	31

ALL ITEMS CATEGORY 0010

3

LIGHTING LUMINAIRE ARMS AND POLES

SYSTEM	DESCRIPTION	STATION	OFFSET	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED LF	SPV.0060.302 POLES TYPE A31 BLACK CONCRETE EACH	SPV.0060.303 LUMINAIRE ARMS SINGLE MEMBER 6-FT - SPECIAL EACH	SPV.0060.304 LUMINAIRES UTILITY 3 LED EACH	SPV.0060.305 INSTALLING A31 MOUNTING CLAMP (SINGLE BRACKET) EACH	SPV.0060.306 WATERTIGHT SPLICES AND CONNECTIONS EACH	SPV.0060.307 INSTALLING LIGHTING UNITS EACH	SPV.0060.309 CONCRETE LIGHT BASES TYPE 1 EACH	SPV.0090.306 LIQUIDTIGHT FLEXIBLE NON-METALLIC CONDUIT 1 1/2-INCH LF
CITY OF MILWAUKEE	#786	50+34	94.2' RT	45	1	--	--	--	1	--	--	5
	#301	50+47	31.5' RT	45	1	--	--	--	1	--	--	5
	#312	51+44	32.8' LT	45	1	--	--	--	1	--	--	5
	#319	52+17	32.2' RT	45	1	--	--	--	1	--	--	5
	#334	52+97	31.7' LT	--	--	--	--	--	--	--	--	10
	#412	54+66	31.2' LT	40	--	1	--	--	1	--	--	--
	#421	55+44	30.4' RT	45	1	1	--	1	1	--	--	5
	#432	56+39	30.5' LT	45	1	1	--	1	1	--	--	5
	#799	56+47	50.6' RT	45	1	1	1	1	1	--	--	5
	#503	57+18	29.4' RT	45	1	1	1	1	1	--	--	5
	#505	57+76	33.7' RT	--	--	--	--	--	--	--	--	5
	#523	58+64	31.9' RT	45	1	1	1	1	1	--	--	5
	#533	59+46	32.5' RT	20	--	--	--	--	1	1	1	5
	#793	59+82	40.8' RT	50	1	--	--	--	1	--	--	10
	#800	60+39	54.9' LT	50	1	--	--	--	1	--	--	10
	#602	60+51	31.0' RT	50	1	--	--	--	1	--	--	10
	#610	61+41	31.7' LT	45	1	1	--	1	1	--	--	5
	#623	62+27	30.9' RT	45	1	1	--	1	1	--	--	5
	#636	63+09	31.2' LT	45	1	--	--	--	1	--	--	5
	#789	63+16	45.7' RT	45	1	--	--	1	1	--	--	5
	#703	64+18	24.2' RT	45	1	1	--	1	1	--	--	5
			TOTAL	840	17	9	3	9	19	1	1	120

ALL ITEMS CATEGORY 0010

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

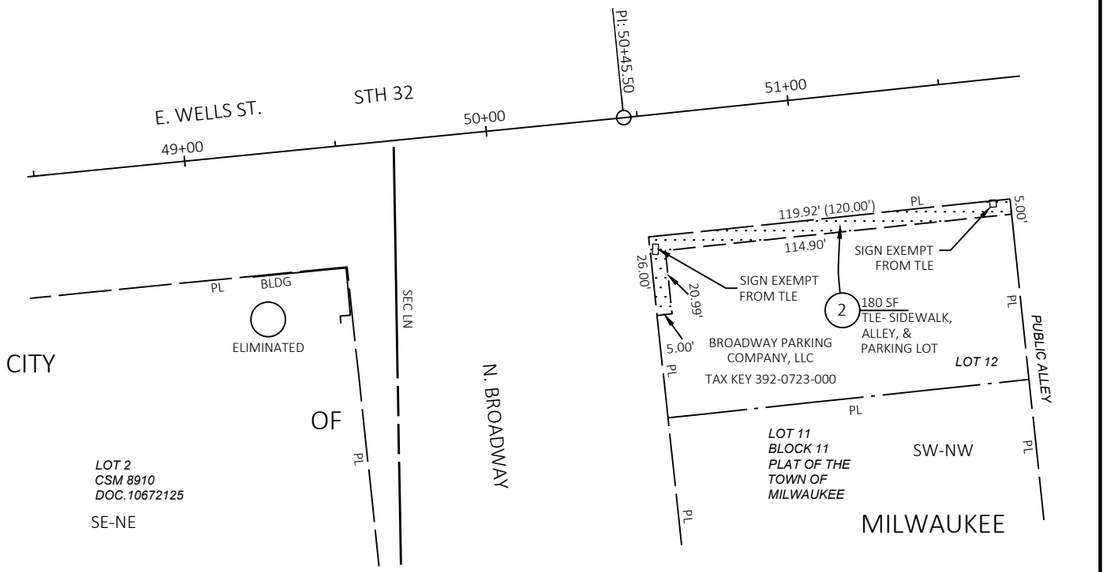
PURPOSE FOR ALL TLES IS FOR SIDEWALK REPLACEMENT, UNLESS OTHERWISE NOTED.

R/W PROJECT NUMBER: 2195-04-20	SHEET NO. 4.01

TLE ACQUISITION EXHIBIT
CITY OF MILWAUKEE, EAST WELLS STREET
NORTH BROADWAY TO NORTH VAN BUREN STREET
STH 32 MILWAUKEE COUNTY

THAT PART OF LOT 2 OF C.S.M. 8910, LOCATED IN THE SE 1/4 OF THE NE 1/4 OF SECTION 29; ALSO THAT PART OF LOT 12 BLOCK 11, PLAT OF THE TOWN OF MILWAUKEE LOCATED IN THE SW 1/4 OF THE NW 1/4 OF SECTION 28; ALL IN T7N, R22E, CITY OF MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN.

4



HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
E. WELLS ST.	PLAT OF THE TOWN OF MILWAUKEE	80'	1837
N. BROADWAY	PLAT OF THE TOWN OF MILWAUKEE	100'	1837

GN

SCALE, FEET
0 25 50

REVISED 6/30/2023

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	S.F.
1 (2)	ELIMINATED	-	-
2	BROADWAY PARKING COMPANY, LLC	TLE	705

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
N/A		

THIS MAP IS APPROVED FOR THE CITY OF MILWAUKEE

SIGNATURE: _____ DATE: 10/12/22

PRINT NAME: KEVIN J MUHS

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

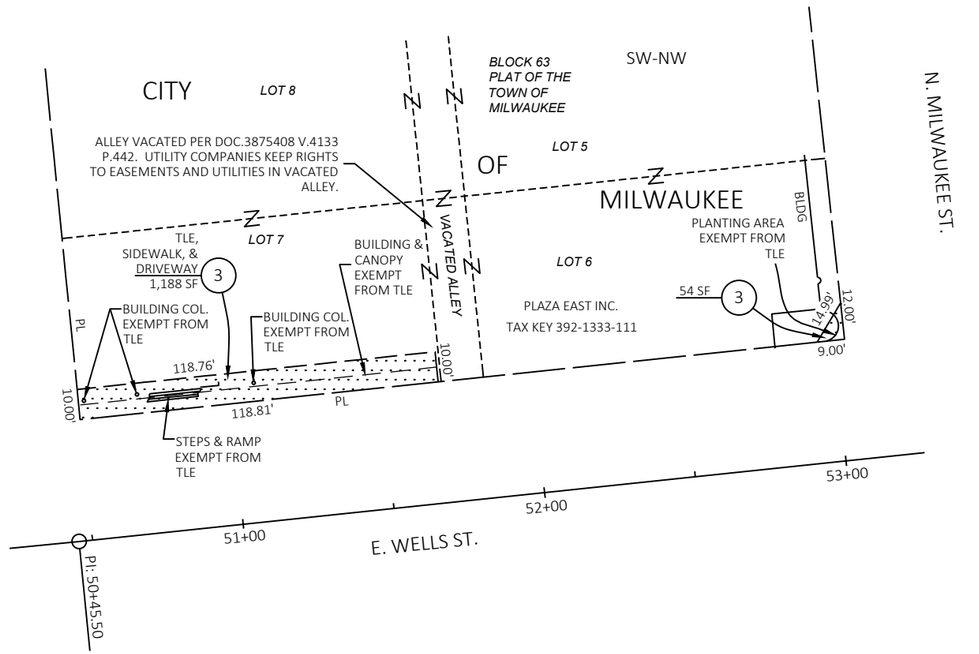
PURPOSE FOR ALL TLES IS FOR SIDEWALK REPLACEMENT, UNLESS OTHERWISE NOTED.

R/W PROJECT NUMBER: 2195-04-20	SHEET NO. 4.02

TLE ACQUISITION EXHIBIT
CITY OF MILWAUKEE, EAST WELLS STREET
NORTH BROADWAY TO NORTH VAN BUREN STREET
STH 32 MILWAUKEE COUNTY

THAT PART OF LOTS 6 & 7, BLOCK 63, PLAT OF THE TOWN OF MILWAUKEE, LOCATED IN THE SW 1/4 OF THE NW 1/4 OF SECTION 28, T7N, R22E, CITY OF MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN.

4



HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
E. WELLS ST.	PLAT OF THE TOWN OF MILWAUKEE	80'	1837
N. BROADWAY	PLAT OF THE TOWN OF MILWAUKEE	100'	1837
E. MILWAUKEE ST.	PLAT OF THE TOWN OF MILWAUKEE	80'	1837

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TLE S.F.
3	PLAZA EAST INC.	TLE	1,242

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
N/A		

GN

SCALE, FEET
0 25 50

REVISED 6/30/2023 (N.C.)

THIS MAP IS APPROVED FOR THE CITY OF MILWAUKEE

SIGNATURE: _____ DATE: 10/12/22

PRINT NAME: KEVIN J MUHS

4

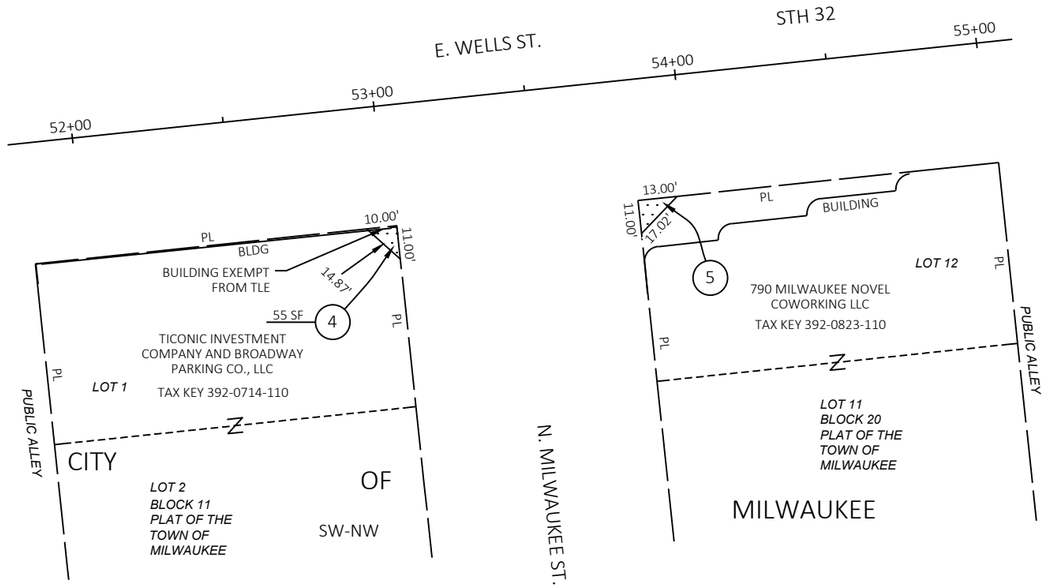
NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

PURPOSE FOR ALL TLES IS FOR SIDEWALK REPLACEMENT, UNLESS OTHERWISE NOTED.

R/W PROJECT NUMBER: 2195-04-20	SHEET NO. 4.03

TLE ACQUISITION EXHIBIT
CITY OF MILWAUKEE, EAST WELLS STREET
NORTH BROADWAY TO NORTH VAN BUREN STREET
STH 32 MILWAUKEE COUNTY

THAT PART OF LOT 1 BLOCK 11 & LOT 12 BLOCK 20, PLAT OF THE TOWN OF MILWAUKEE, LOCATED IN THE SW 1/4 OF THE NW 1/4 OF SECTION 28, T7N, R22E, CITY OF MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN.



HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
E. WELLS ST.	PLAT OF THE TOWN OF MILWAUKEE	80'	1837
N. MILWAUKEE ST.	PLAT OF THE TOWN OF MILWAUKEE	80'	1837
PUBLIC ALLEYS	PLAT OF THE TOWN OF MILWAUKEE	14'	1837

GN

SCALE, FEET
0 25 50

REVISED 6/30/2023 (N.C.)

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	S.F.
4	TICONIC INVESTMENT COMPANY AND BROADWAY PARKING CO., LLC	TLE	55
5	790 MILWAUKEE NOVEL COWORKING LLC	TLE	72

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
N/A		

THIS MAP IS APPROVED FOR THE CITY OF MILWAUKEE

SIGNATURE: _____ DATE: 10/2/23

PRINT NAME: KEVIN J MUHS

4

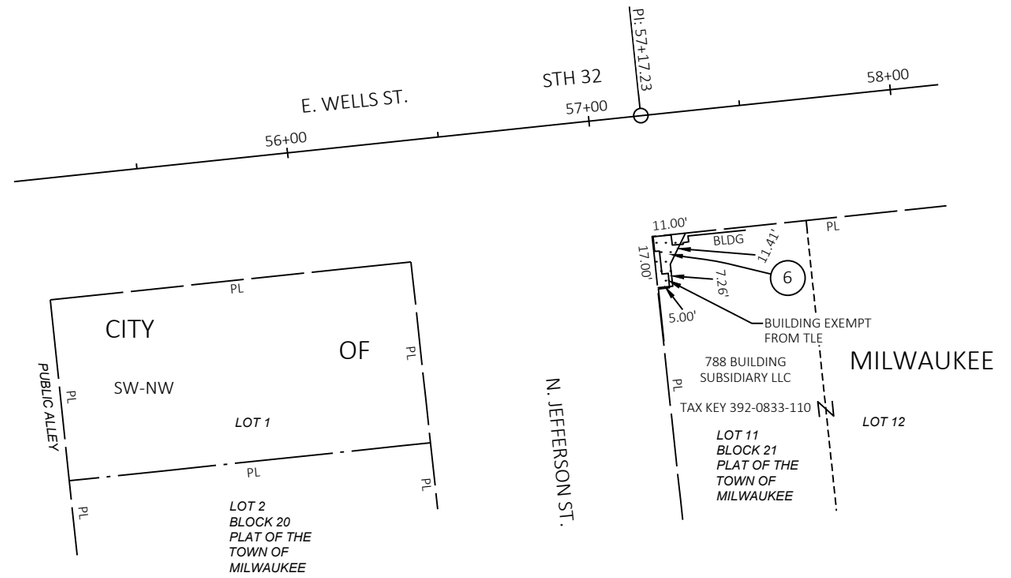
NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

PURPOSE FOR ALL TLES IS FOR SIDEWALK REPLACEMENT, UNLESS OTHERWISE NOTED.

R/W PROJECT NUMBER: 2195-04-20	SHEET NO. 4.04

TLE ACQUISITION EXHIBIT
CITY OF MILWAUKEE, EAST WELLS STREET
NORTH BROADWAY TO NORTH VAN BUREN STREET
STH 32 MILWAUKEE COUNTY

THAT PART OF LOT 11 BLOCK 21, PLAT OF THE TOWN OF MILWAUKEE, LOCATED IN THE SW 1/4 OF THE NW 1/4 OF SECTION 28, T7N, R22E, CITY OF MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN.



HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
E. WELLS ST.	PLAT OF THE TOWN OF MILWAUKEE	80'	1837
N. JEFFERSON ST.	PLAT OF THE TOWN OF MILWAUKEE	80'	1837
PUBLIC ALLEYS	PLAT OF THE TOWN OF MILWAUKEE	14'	1837

GN

SCALE, FEET
0 25 50

REVISED 6/30/2023 (N.C.)

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TLE S.F.
6	788 BUILDING SUBSIDIARY LLC	TLE	114

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
N/A		

THIS MAP IS APPROVED FOR THE CITY OF MILWAUKEE

SIGNATURE: _____ DATE: 10/2/23

PRINT NAME: KEVIN J MUHS

NOTES:

1. EXISTING PARKING METERS TO BE REMOVED BY OTHERS PRIOR TO CONSTRUCTION

BENCHMARKS & CONTROL POINTS						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	DESCRIPTION
5019	50+33.41	45.22 LT	386512.272	2559243.222	33.92	BM NE FLNG BLT HYD
10395	53+84.37	33.61 LT	386537.320	2559593.199	43.34	BM NW BOLT HYD
10458	53+75.18	96.70 LT	386599.104	2559577.469	42.01	CP T

EXISTING TRAFFIC SIGNAL POLES, SIGNAL CABINET, AND UTILITY VAULTS TO REMAIN

809 N BROADWAY
CITY OF MILWAUKEE

N BROADWAY

EXISTING RETAINING WALL AND LANDSCAPING TO REMAIN

TLE

BM 5019

330 E WELLS ST
330 KILBOURN WISCONSIN REALTY LP

CAUTION

R/W

HMA

49+00 50+00 51+00 52+00 53+00 54+00 55+00

WELLS ST

WELLS ST R/L

WELLS ST / STH 32

N MILWAUKEE ST

CP 10458

804 N MILWAUKEE ST
700 NORTH WATER TOWER LLC

BM 10395

MATCH LINE - STA 55+00

BEGIN CONSTRUCTION
STA 49+17

EXISTING TRAFFIC SIGNAL POLES TO REMAIN

CAUTION

BEGIN PROJECT
STA 50+25
Y = 386,466.44
X = 2,559,239.30

790 N WATER ST
BROADWAY TIERRA
PARTNERS LLC

LEAD-CONTAMINATED SOIL
APPROXIMATELY 1' TO 4' BELOW GROUND SURFACE
STA 50+25 TO STA 51+00 RT

EXISTING SIGN TO REMAIN

792 N BROADWAY
BROADWAY PARKING CO LLC

EXISTING SIGN TO REMAIN

EXISTING STREETCAR POLE TO REMAIN

ALLEY

EXCEPTION TO NET CENTERLINE
STA 53+40.90 TO STA 53+49.01
MILWAUKEE STREET CAR TRACKS

CAUTION

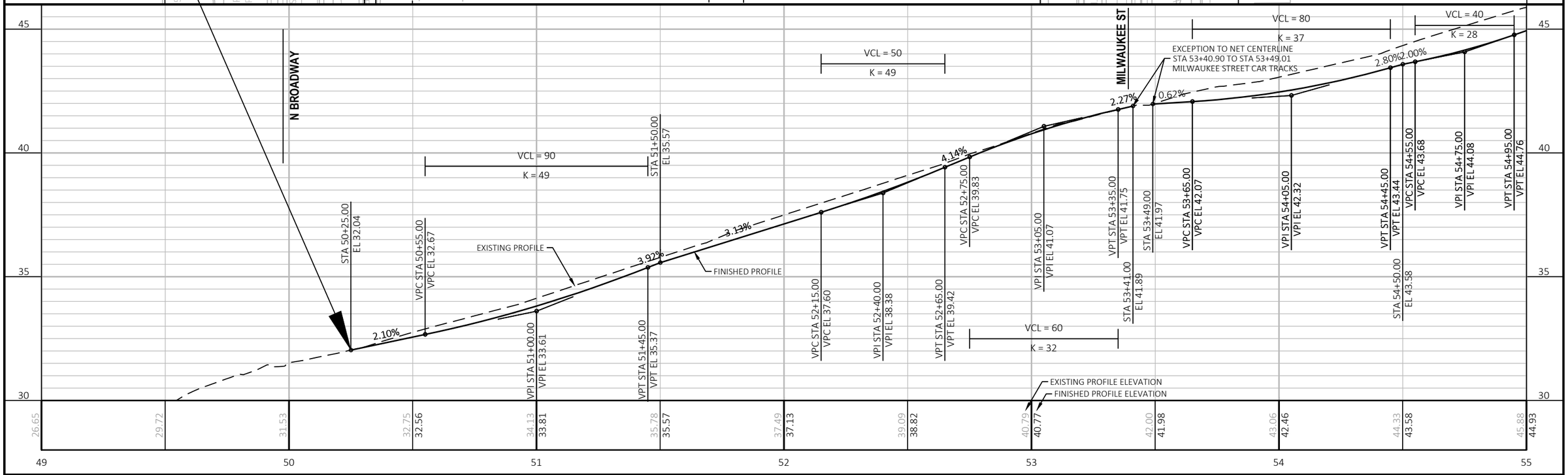
777 N MILWAUKEE ST
BROADWAY PARKING CO LLC

EXISTING BRICK PAVERS TO REMAIN

782 N MILWAUKEE ST
790 MILWAUKEE NOVEL COWORKING

5

5



PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 199	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:35 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

NOTES:

1. EXISTING PARKING METERS TO BE REMOVED BY OTHERS PRIOR TO CONSTRUCTION

MATCH LINE - STA 55+00

MATCH LINE - STA 61+00

418 E WELLS ST
CATHEDRAL SQUARE LIMITED

520 E WELLS ST
MILWAUKEE COUNTY PARKS

CATHEDRAL SQUARE PARK

802 N JACKSON ST
ST. JOHN'S CATHEDRAL

ST. JOHN THE EVANGELIST ROMAN CATHOLIC COMPLEX
HISTORIC PROPERTY

419 E WELLS ST
DANIEL J HELFER REV TRUST

788 N JEFFERSON ST
788 BUILDING SUBSIDIARY LLC

545 E WELLS ST
CATHERINE D KAHL REV LIVING TRUST

790 N JACKSON ST
ABFH LLC

ALLEY

N JEFFERSON ST

N JACKSON ST

WELLS ST / STH 32

WELLS ST R/L

CAUTION

UNKNOWN SIZE & MATERIAL

MATCH EXISTING BACK OF ROADWAY CURB & GUTTER

SIDEWALK BY OTHERS (FRAME THE SQUARE DEVELOPMENT)

EXISTING BRICK PAVERS TO REMAIN

EXISTING CURB AND FENCE TO REMAIN

CP 11368

CP 5134

BM 6288

BM 5883

HMA

R/W

TILE

BENCHMARKS & CONTROL POINTS						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	DESCRIPTION
5134	59+75.10	47.06 LT	386612.399	2560179.314	54.16	CP T
5883	60+55.94	32.63 LT	386606.475	2560261.210	54.83	BM NNW BOLT HYD
6288	57+18.95	32.69 LT	386571.396	2559926.050	52.94	BM NW BOLT HYD
11368	59+67.32	58.42 LT	386622.885	2560170.388	54.15	CP MAG

VPC STA 55+10.00 VPC EL 45.28
VPI STA 55+35.00 VPI EL 46.13
VPT STA 55+60.00 VPT EL 46.72
VPC STA 55+70.00 VPC EL 46.96
VPI STA 56+00.00 VPI EL 47.66
VPT STA 56+30.00 VPT EL 48.72
VPC STA 56+50.00 VPC EL 49.39
VPI STA 57+00.00 VPI EL 50.73
VPT STA 57+50.00 VPT EL 50.93
VPC STA 57+90.00 VPC EL 51.09
VPI STA 58+25.00 VPI EL 51.23
VPT STA 58+60.00 VPT EL 51.85
VPC STA 58+65.00 VPC EL 51.94
VPI STA 58+90.00 VPI EL 52.39
VPT STA 59+15.00 VPT EL 52.61
VPC STA 59+95.00 VPC EL 53.31
VPI STA 60+35.00 VPI EL 53.66
HP STA 60+47.80 HP EL 53.54
VPT STA 60+75.00 VPT EL 53.48
LP STA 60+85.00 LP EL 53.436

VCL = 50, K = 47
VCL = 60, K = 51
VCL = 100, K = 44
VCL = 70, K = 50
VCL = 50, K = 55
VCL = 80, K = 60

3.42%
3.35%
2.68%
3.53%
0.40%
1.79%
0.88%
0.45%

EXISTING PROFILE
FINISHED PROFILE

EXISTING PROFILE ELEVATION
FINISHED PROFILE ELEVATION

| | | | | | |

802 N JACKSON ST
ST. JOHN'S CATHEDRAL

ST. JOHN THE EVANGELIST
ROMAN CATHOLIC
COMPLEX
HISTORIC PROPERTY

804 N VAN BUREN ST
TOMAR LIMITED PARTNERSHIP

802 N VAN BUREN ST
LAUREL CANYON PROPERTIES LLC

N VAN BUREN ST

SLOPE INTERCEPT

EXISTING STONE WALL AND FENCE TO REMAIN

HMA 12"

R/W

CAUTION

CP 8510

MATCH LINE - STA 61+00

62+00 63+00 64+00 65+00 66+00 67+00

WELLS ST R/L

WELLS ST / STH 32

BM 9104

END CONSTRUCTION
STA 64+15

CP 5118

REMOVE DRIVEWAY

EXISTING WE ENERGIES VAULT
TO REMAIN

790 N JACKSON ST
ABFH LLC

795 N VAN BUREN ST
NORTHWESTERN MUTUAL LIFE

WISCONSIN CONSISTORY
BUILDING
HISTORIC PROPERTY

790 N VAN BUREN ST
AH MASONIC LLC

END PROJECT
STA 64+05

NOTES:

1. EXISTING PARKING METERS TO BE REMOVED BY OTHERS PRIOR TO CONSTRUCTION

BENCHMARKS & CONTROL POINTS						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	DESCRIPTION
5118	66+61.76	34.62 RT	386602.752	2560870.748	59.24	CP T
8510	64+98.60	30.27 LT	386650.282	2560701.704	58.01	CP T
9104	63+05.37	32.14 RT	386568.060	2560516.042	56.16	BM NW BOLT HYD

VCL = 70
K = 84

VCL = 60
K = 59

STA 62+50.00
EL 54.62

STA 63+87.00
EL 56.42

STA 64+05.00
EL 56.62

EXISTING PROFILE

FINISHED PROFILE

0.42%

1.25%

0.70%

1.72%

1.14%

VPC STA 61+55.00
VPC EL 53.73

VPI STA 61+90.00
VPI EL 53.88

VPT STA 62+25.00
VPT EL 54.31

VPC STA 62+75.00
VPC EL 54.80

VPI STA 63+05.00
VPI EL 55.01

VPT STA 63+35.00
VPT EL 55.52

EXISTING PROFILE ELEVATION

FINISHED PROFILE ELEVATION

53.78	54.09	54.56	55.04	55.55	55.96	56.56	57.15	57.93	58.54			
53.50	53.71	54.04	54.62	55.03	55.78	56.56						

61 62 63 64 65 66 67

60 55 50 47

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 201	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 03

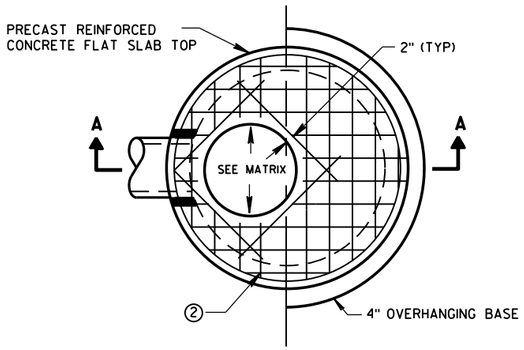
PLOT DATE : 7/21/2023 4:36 PM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

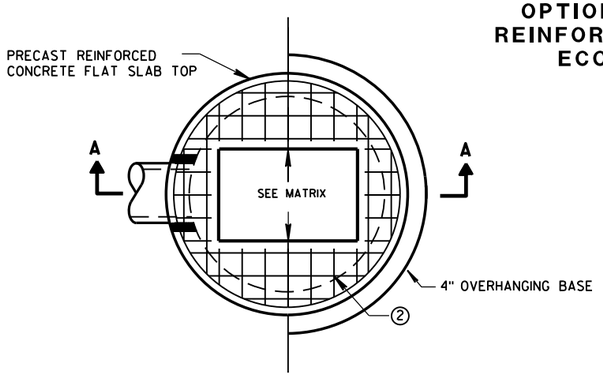
Standard Detail Drawing List

08A08-02	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08B09-03	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D15-05A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08D15-05B	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D16-11	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08D18-03	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-03	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E05-06	TRAFFIC SIGNAL STANDARD ORNAMENTAL BRACKET MOUNTINGS TYPICAL FOR 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
10A01-04	ELECTRICAL HANDHOLE WIRING
10A02-03	IDENTIFICATION PLAQUES LIGHT POLES
10A05-03	ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES ISOLATED NEUTRAL SYSTEMS
11B02-02	CONCRETE MEDIAN NOSE
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-11	URBAN DOWELED CONCRETE PAVEMENT
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C18-08D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
13C18-08F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
13C19-03	HMA LONGITUDINAL JOINTS
14A02-01	TREE PLANTING DETAIL
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-15A	PAVEMENT MARKING SYMBOLS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
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
15C29-08A	BICYCLE LANE MARKING
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-07B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-07C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-09A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

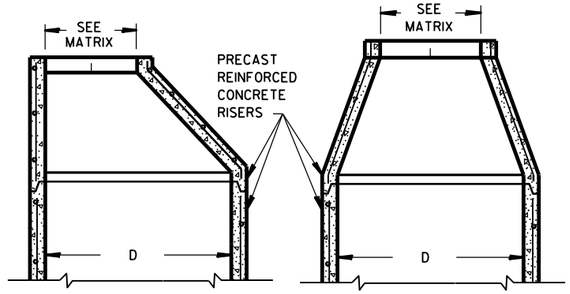
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PLAN VIEW CIRCULAR OPENING

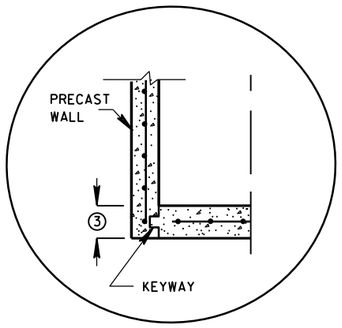


PLAN VIEW RECTANGULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

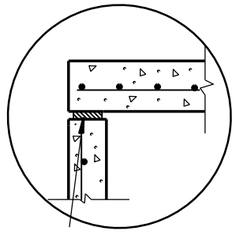
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



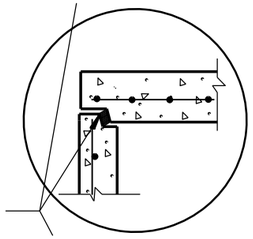
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

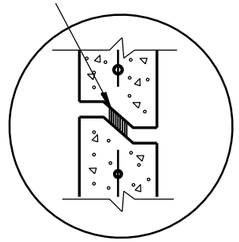


TOP WITH PLAIN END JOINT



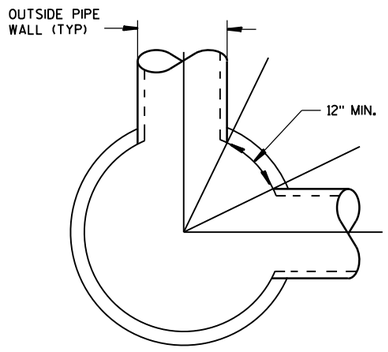
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT

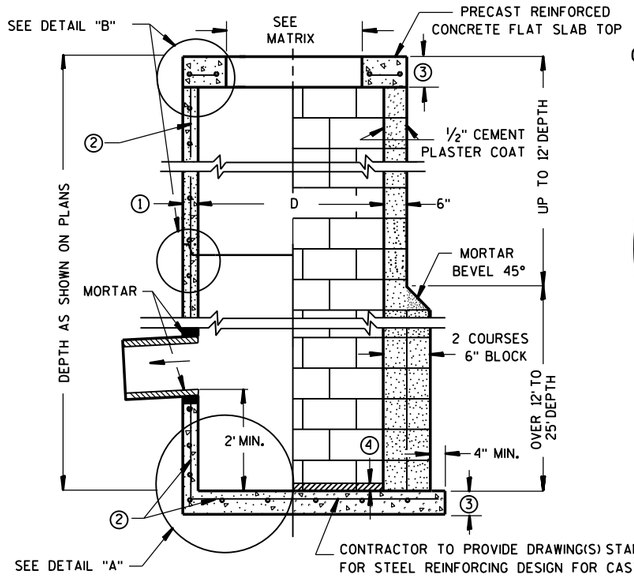


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



DETAIL "C"



CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF 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, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT)											
3-FT	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT-6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

PIPE MATRIX

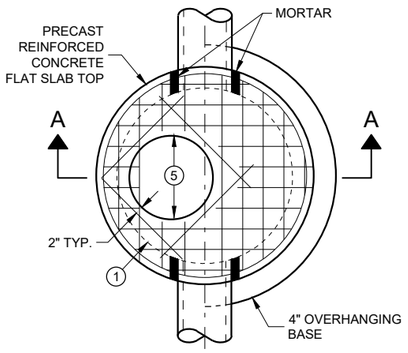
CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

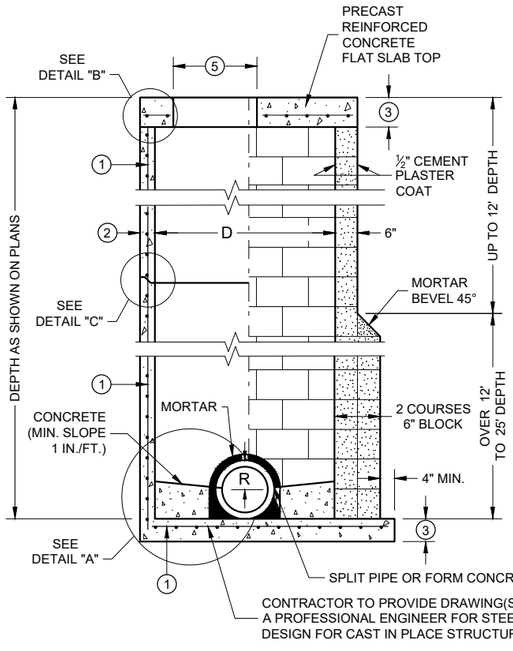
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6 S.D.D. 8 A 8-2



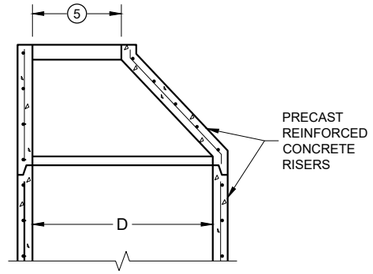
PLAN VIEW
CIRCULAR OPENING



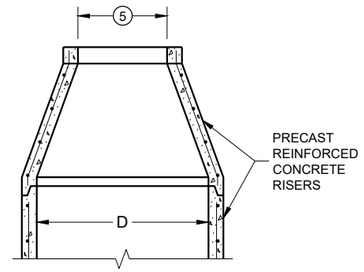
SECTION A - A

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

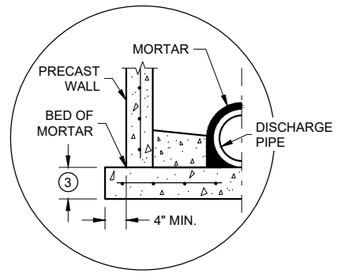
MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

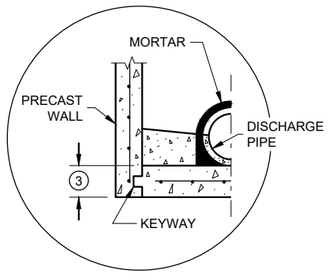
PIPE MATRIX

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.

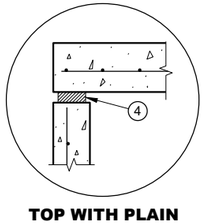


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

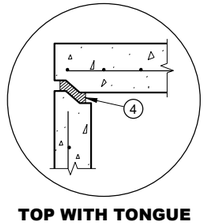


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

DETAIL "A"

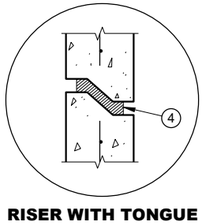


TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT

DETAIL "B"



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "C"

GENERAL NOTES

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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.

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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 DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST 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".

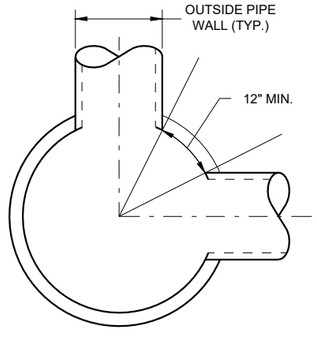
(1) FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(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 (TYP.).

(5) SEE MANHOLE COVER OPENING MATRIX.



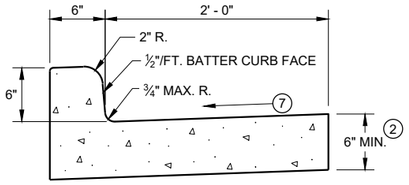
MINIMUM HORIZONTAL PIPE SEPARATION

MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

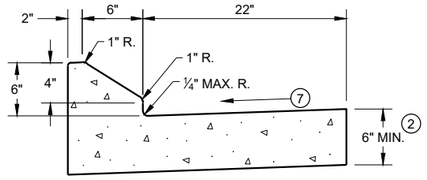
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

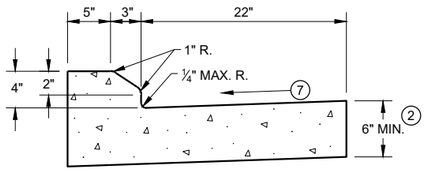
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER



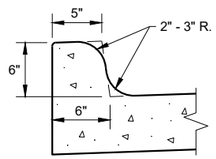
TYPES A (1) & D



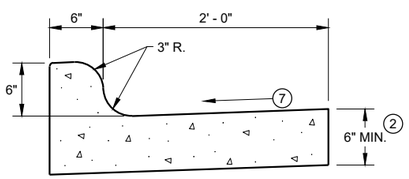
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

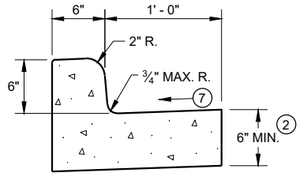


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



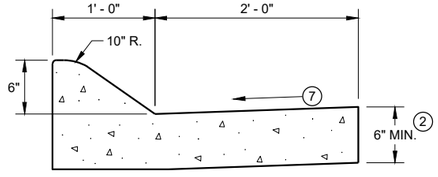
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

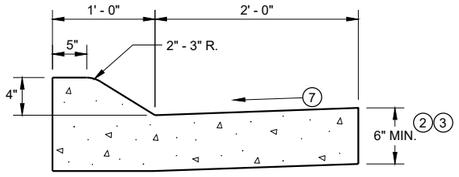


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

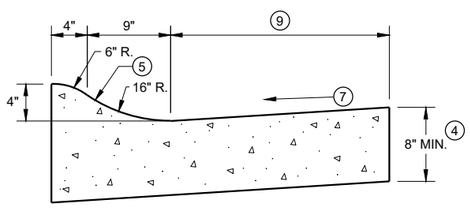


6" SLOPED CURB TYPES A (1) & D



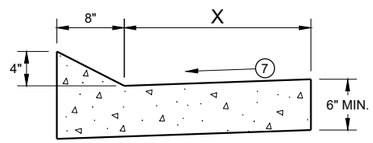
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

TBT & TBTT	X
30"	22"
36"	28"

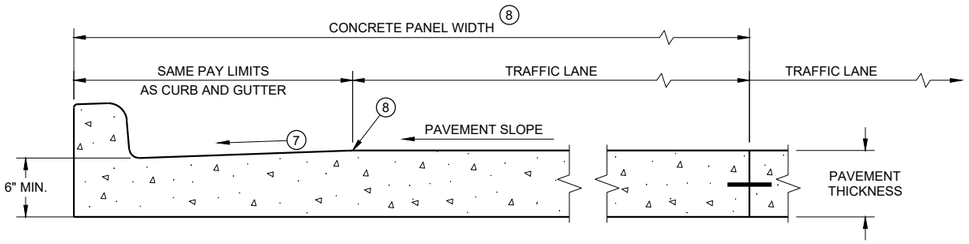


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

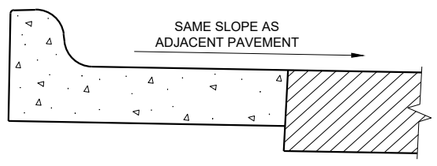
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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.

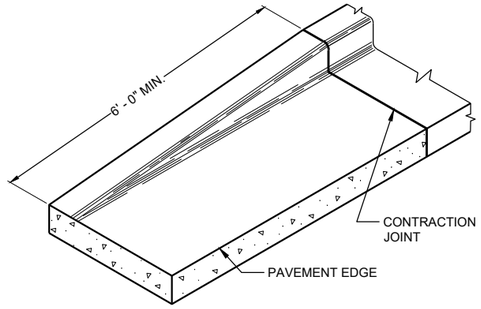
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

(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

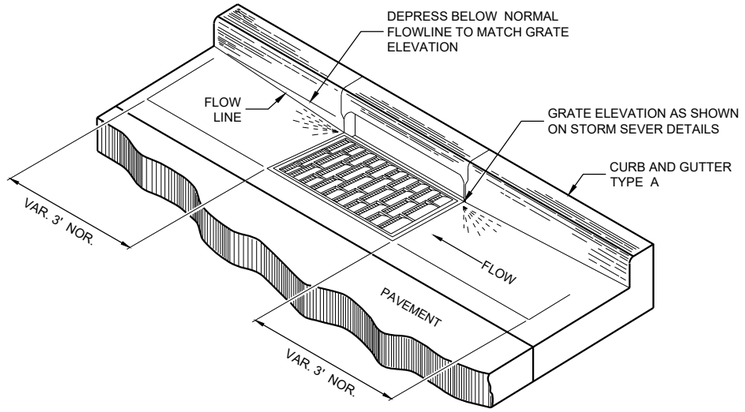
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 08D01 - 23a



END SECTIONCURB 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.

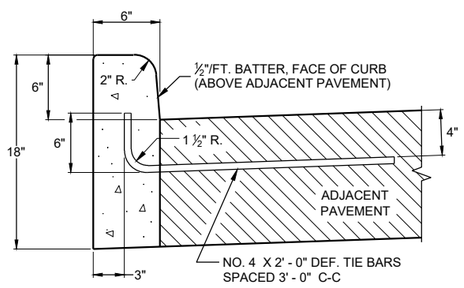
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

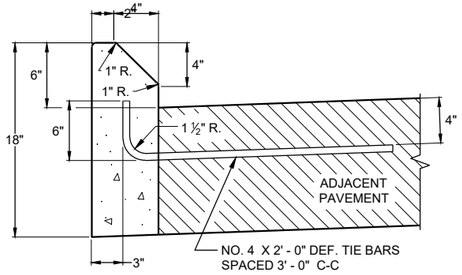
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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.

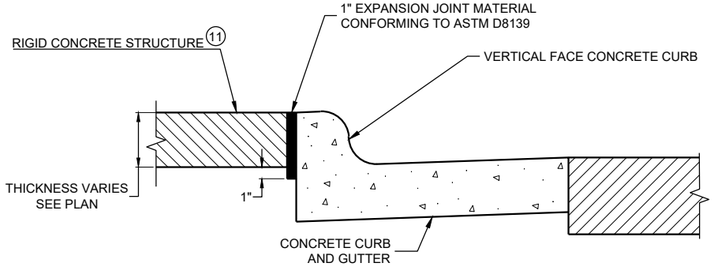


TYPES A (1) & D

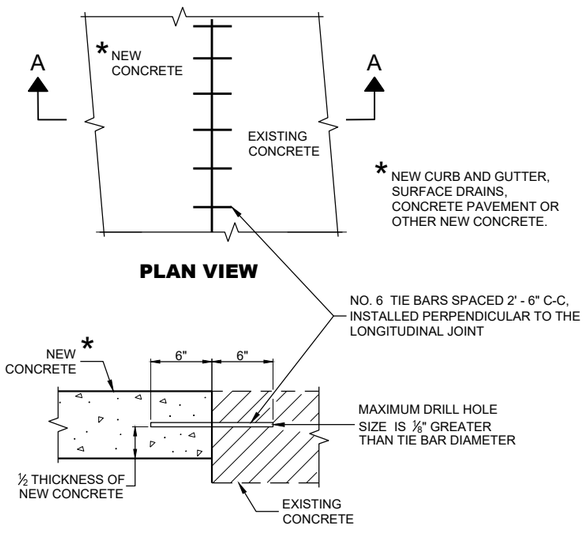


TYPES G (1) & J

CONCRETE CURB



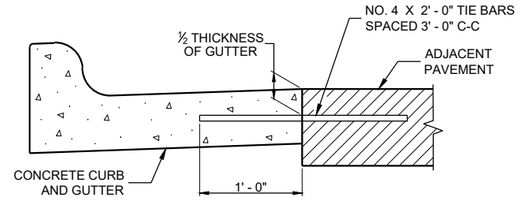
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



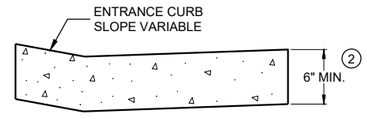
PLAN VIEW

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

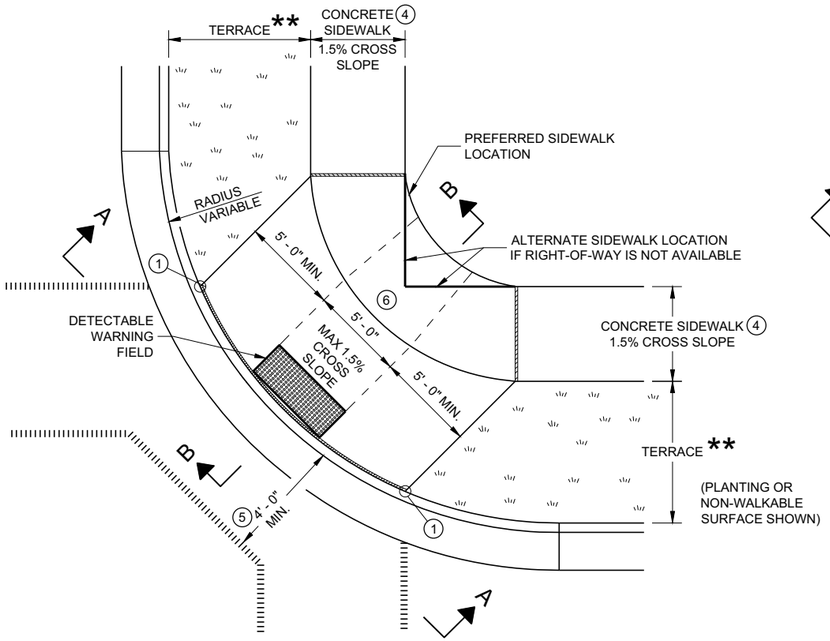
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

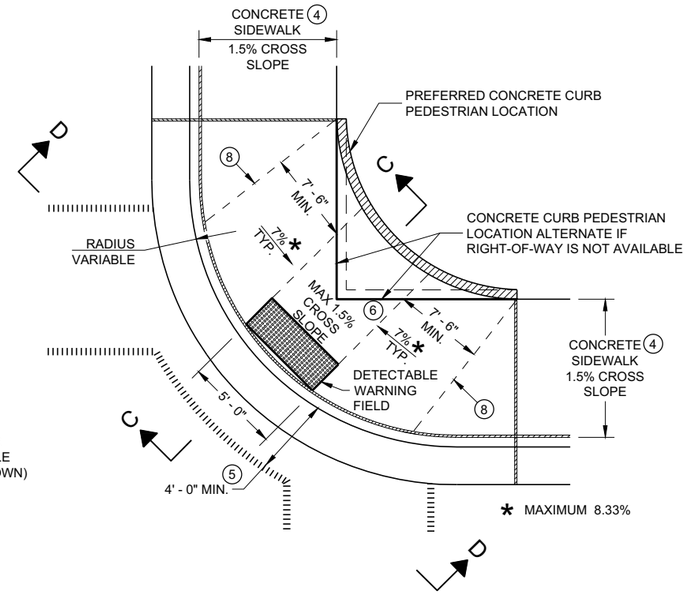
SDD08D01 - 23b



PLAN VIEW

CURB RAMP TYPE 1

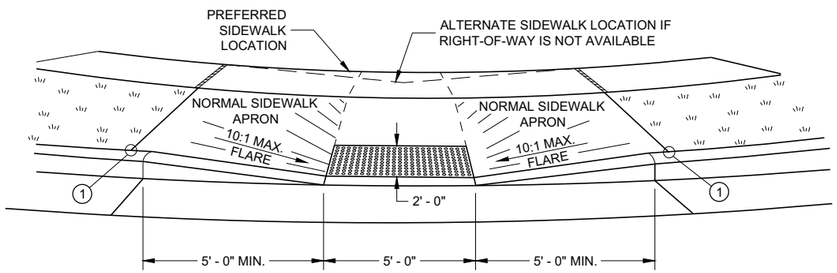
(CENTER OF CORNER RADIUS)



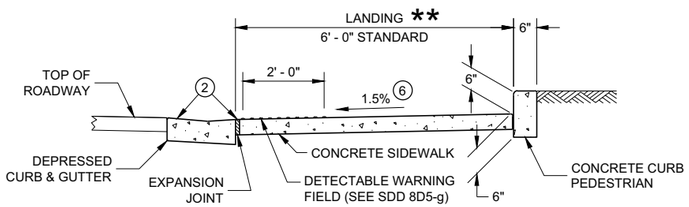
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

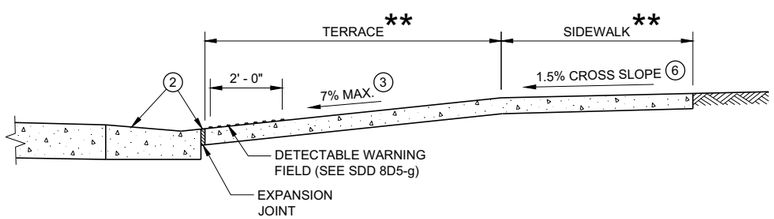


VIEW A - A FOR TYPE 1

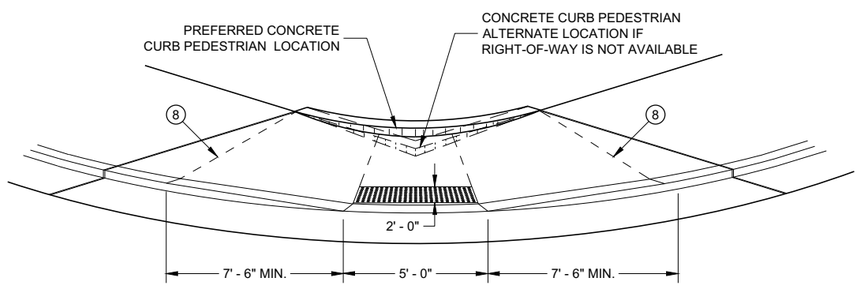


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

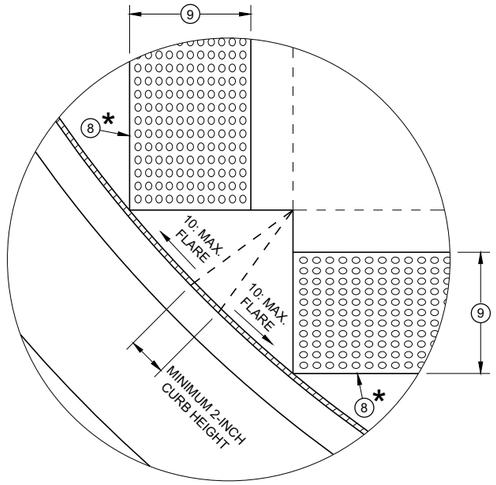
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

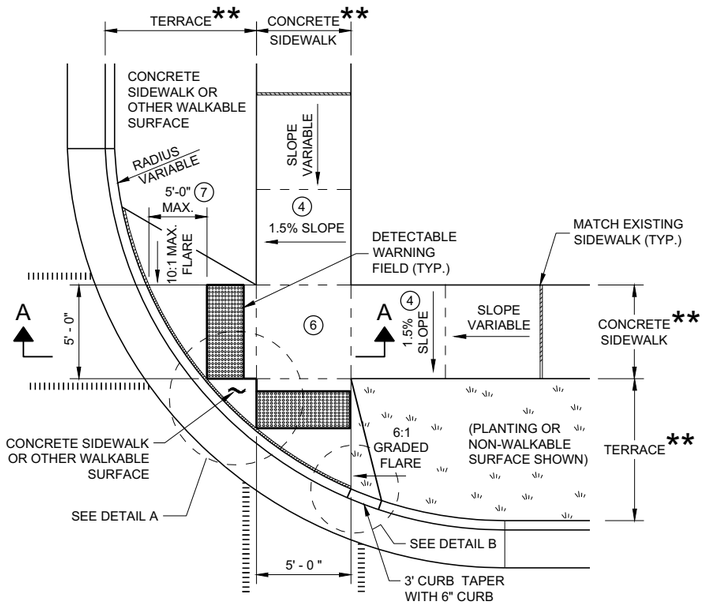
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 08D05 - 20a



DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

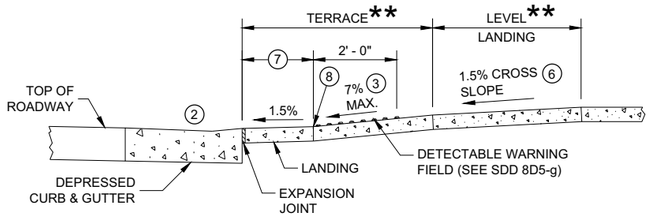
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

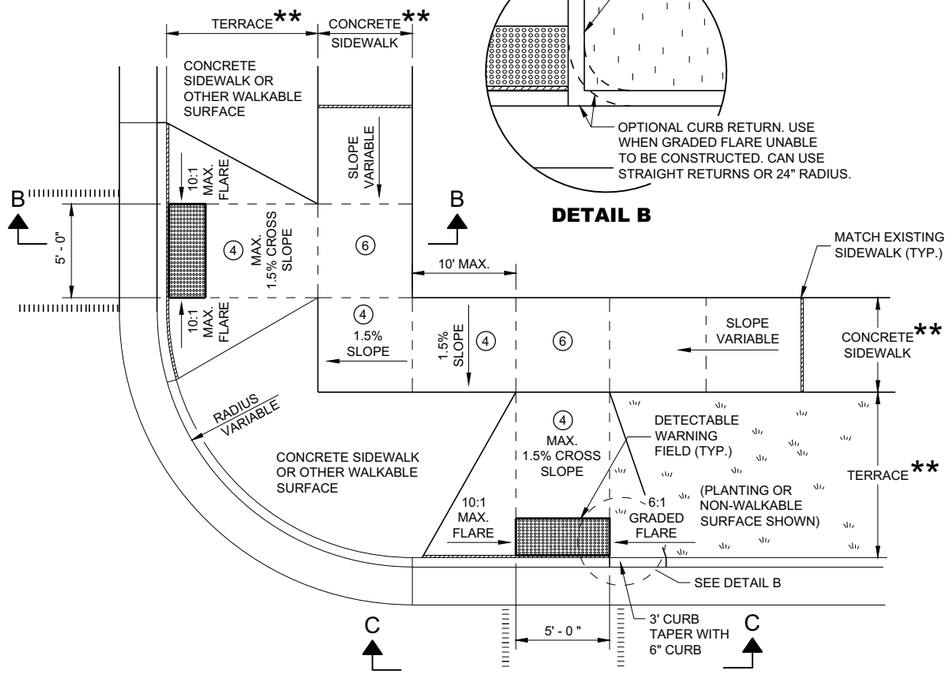
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



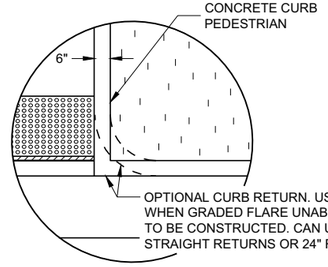
SECTION A - A FOR TYPE 2

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS



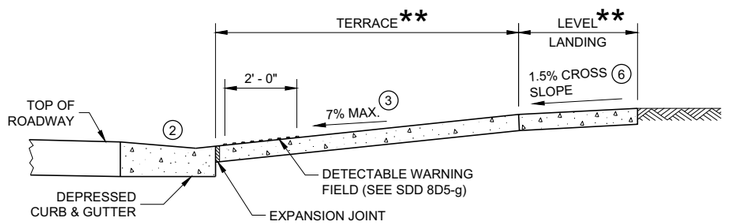
PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



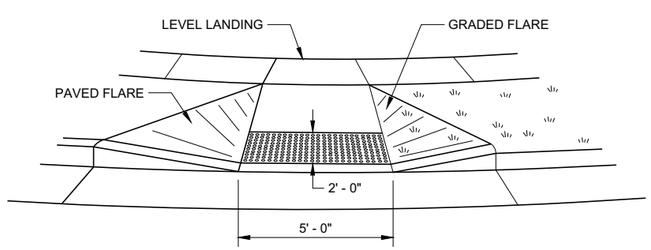
DETAIL B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



SECTION B - B FOR TYPE 3



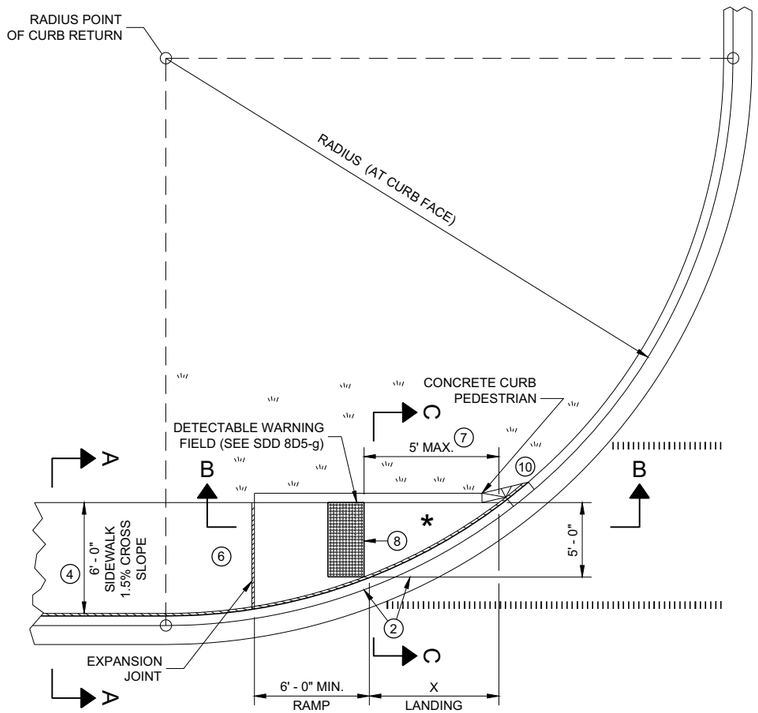
VIEW C - C FOR TYPE 3

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20b

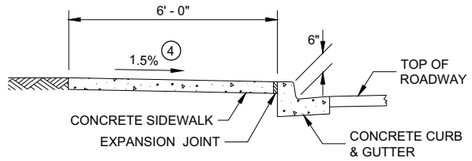


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

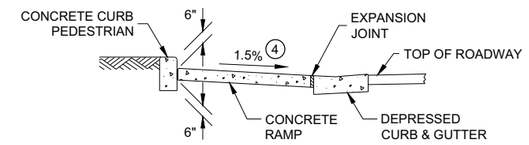
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

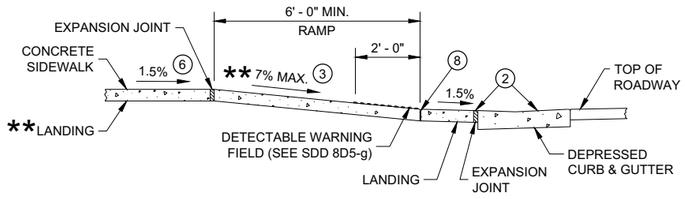
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



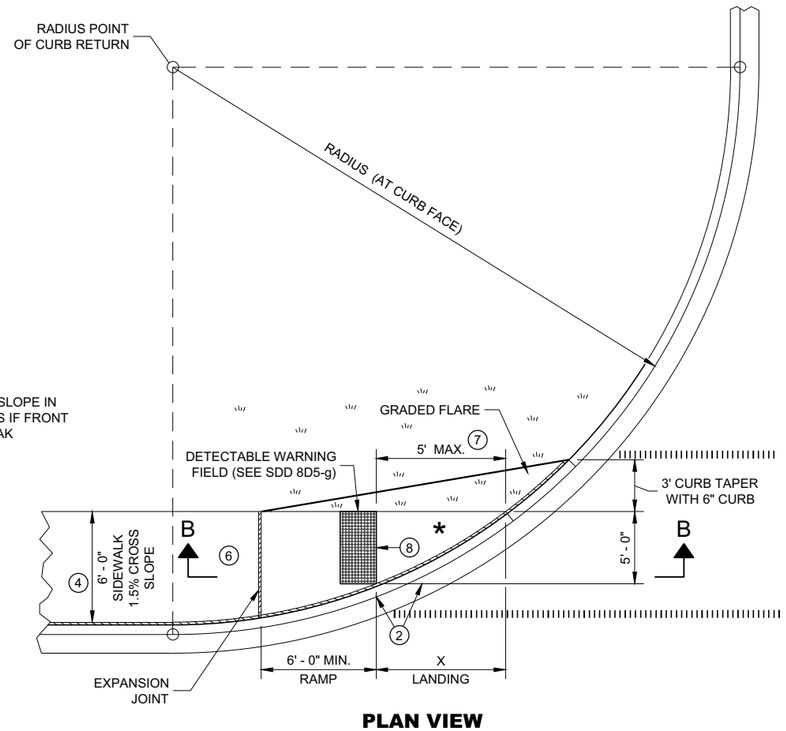
SECTION C - C FOR TYPE 4A



SECTION B - B FOR TYPE 4A AND TYPE 4A1

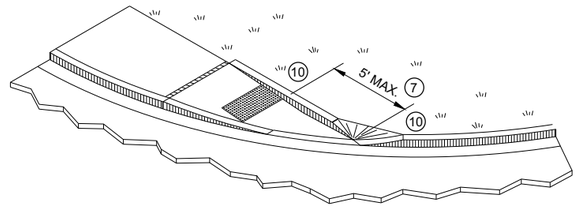
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

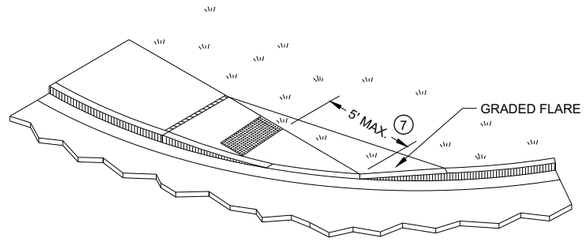


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



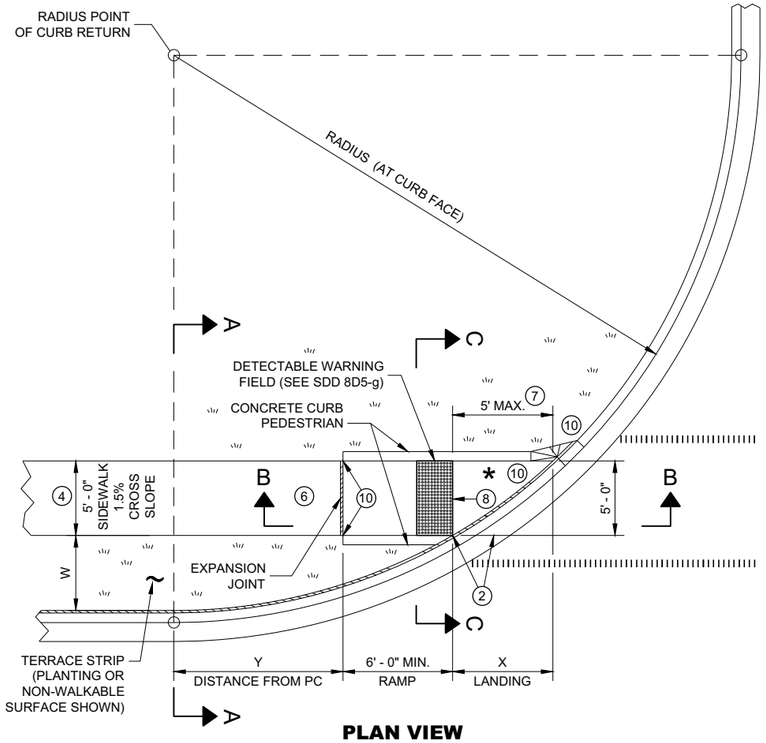
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20c

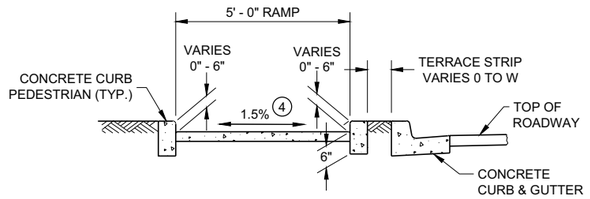


PLAN VIEW

CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	23' - 2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C - C FOR TYPE 4B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

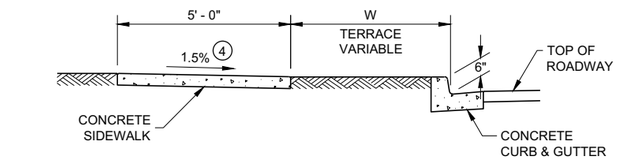
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

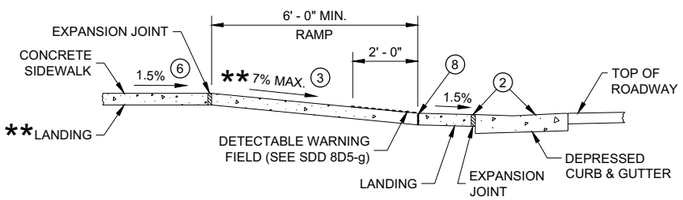
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



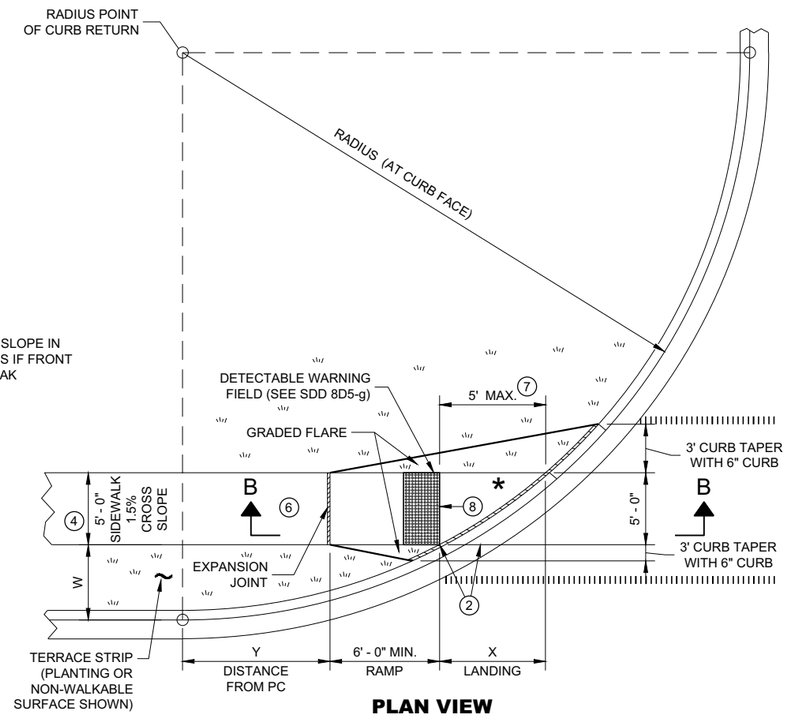
SECTION A - A FOR TYPE 4B



SECTION B - B FOR TYPE 4B AND TYPE 4B1

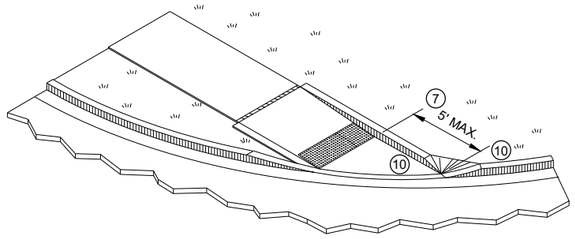
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

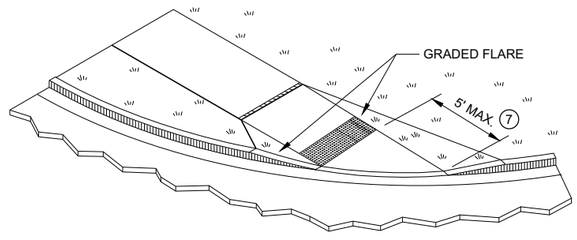


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



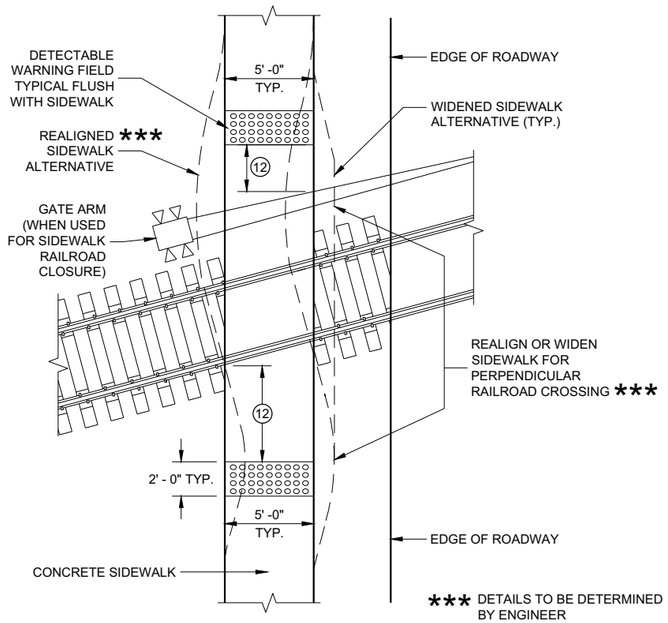
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

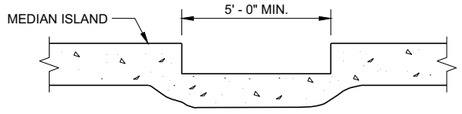
6

SDD 08D05 - 20d

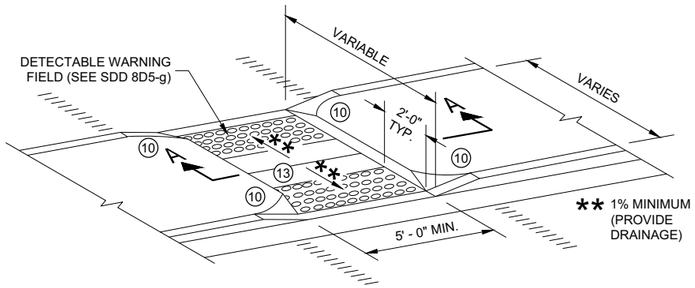


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ½ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

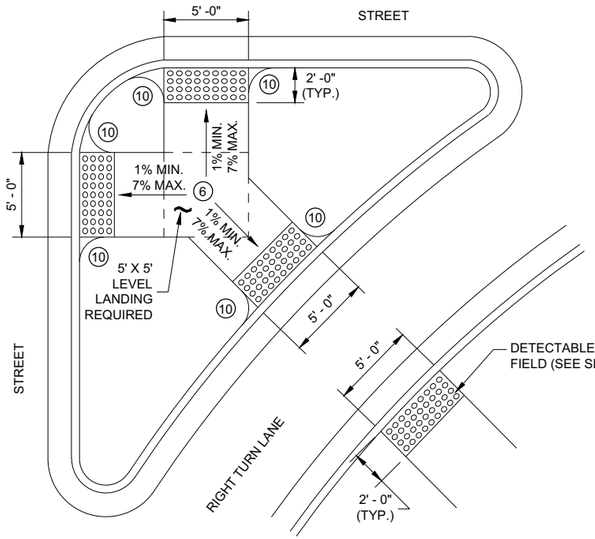
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

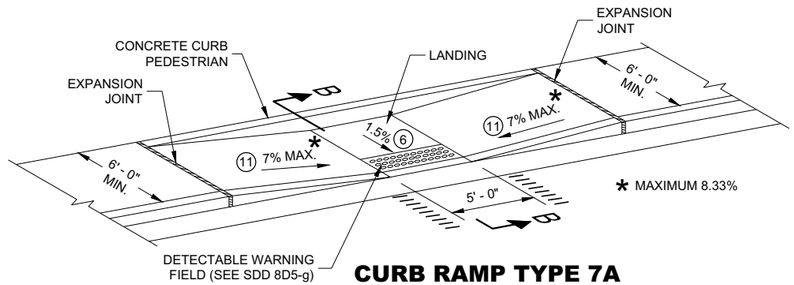
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

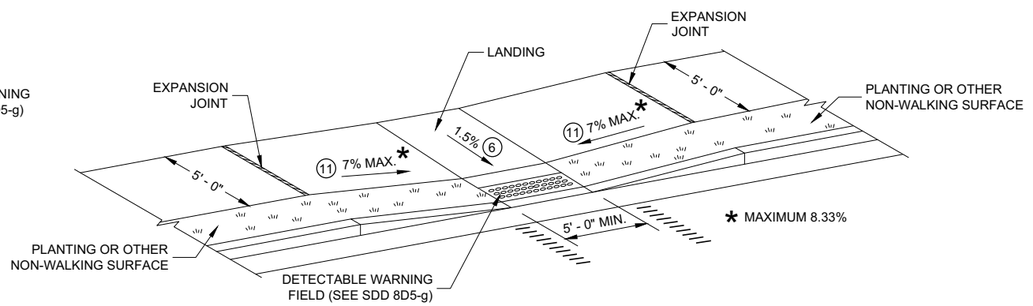
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 7A

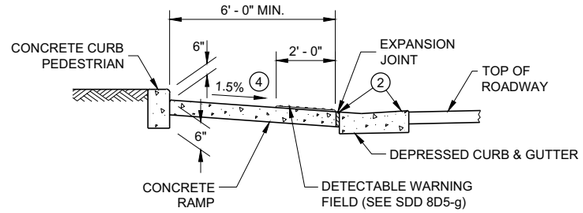
MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.



SECTION B - B FOR TYPE 7A

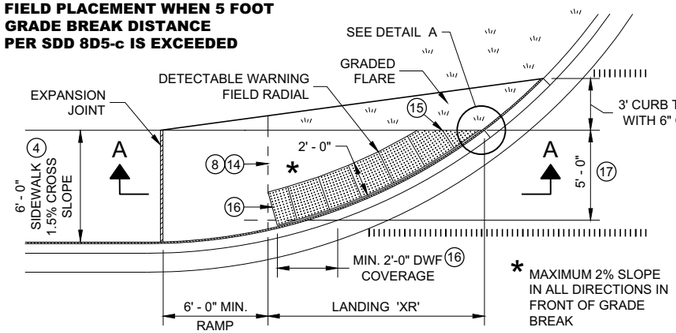
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20e

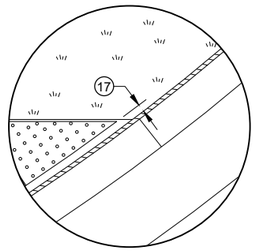
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



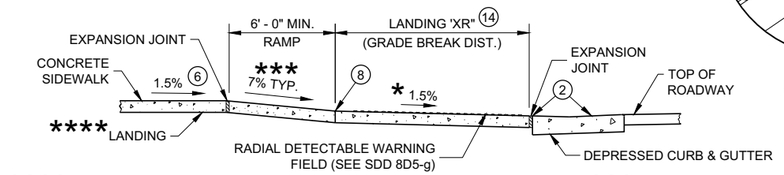
PLAN VIEW

CURB RAMP TYPE 4A1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL A

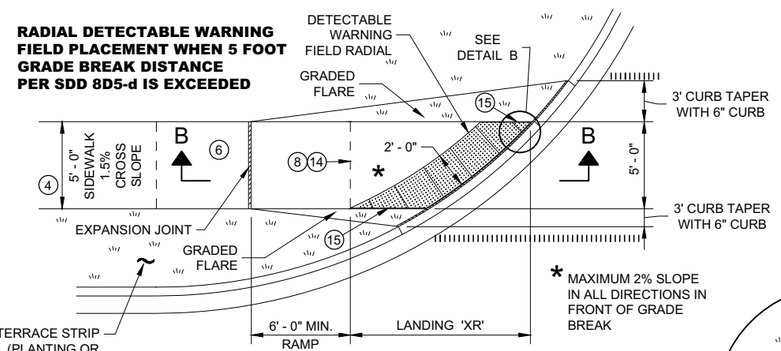


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1

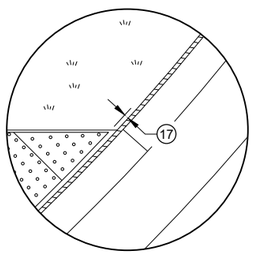
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



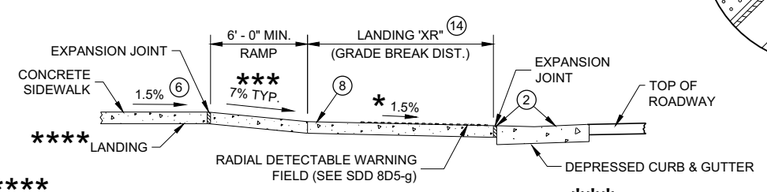
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

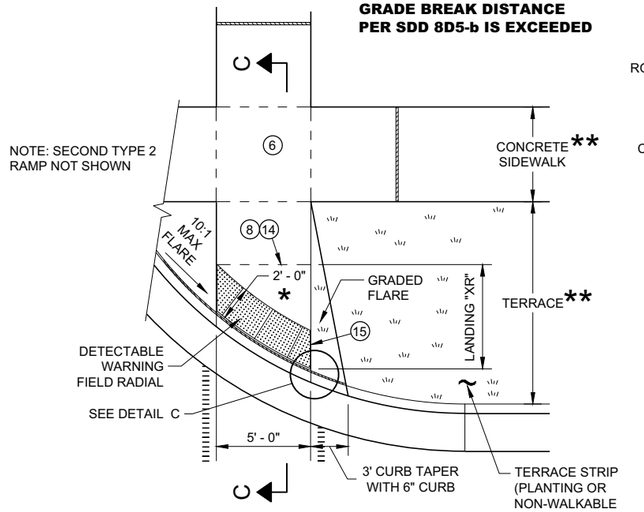
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

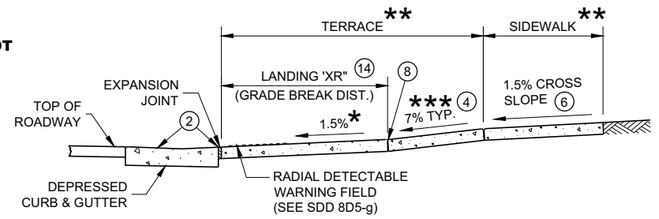


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

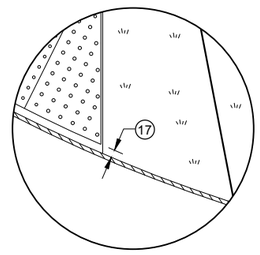


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



DETAIL C

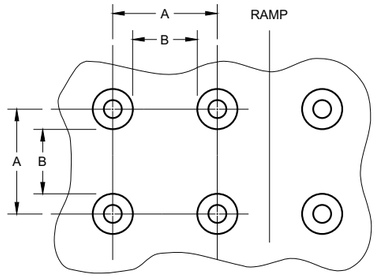
CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

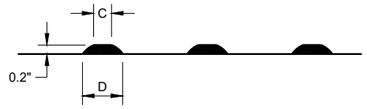
SDD 08D05 - 20f

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

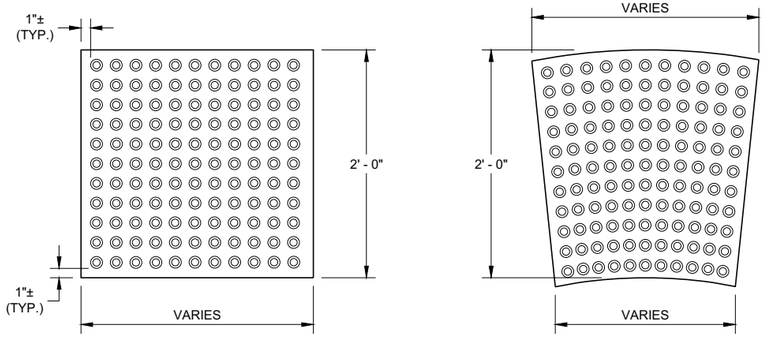


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

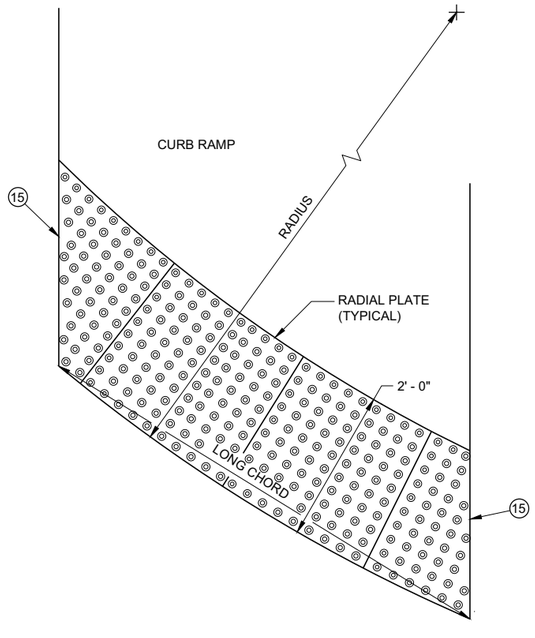
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

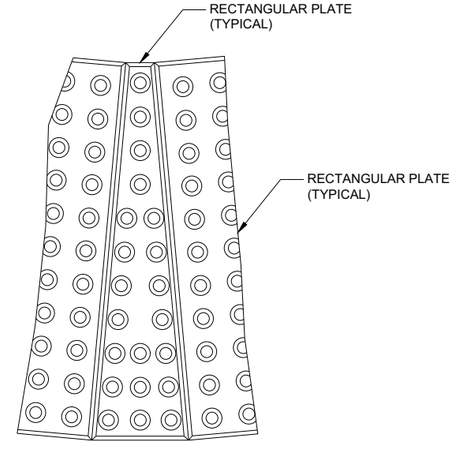
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE UNIT SUPERVISOR

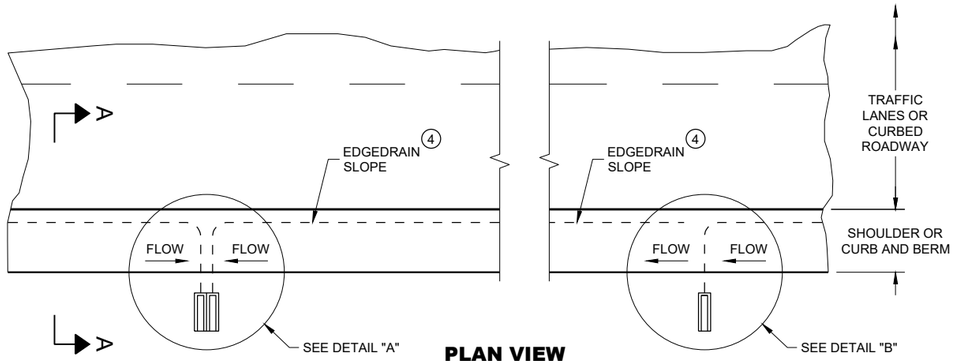
FHWA

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SDD 08D05 - 20g

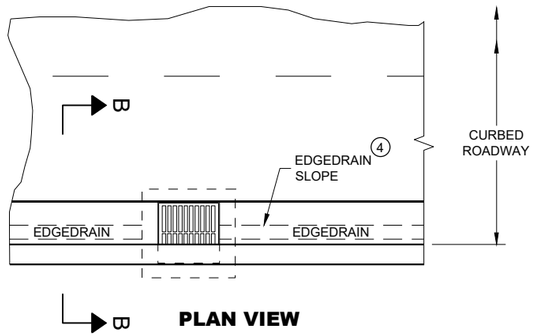
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SDD 08D05 - 20g



PLAN VIEW

ROADWAY WITH SHOULDERS OR CURBS
(EDGEDRAIN CONNECTS TO ROADSIDE) (2)



PLAN VIEW

ROADWAY WITH CURBS
(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)

GENERAL NOTES

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

(1) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

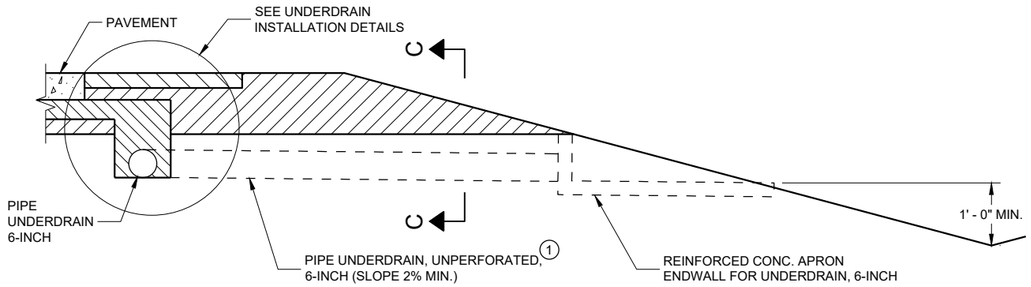
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

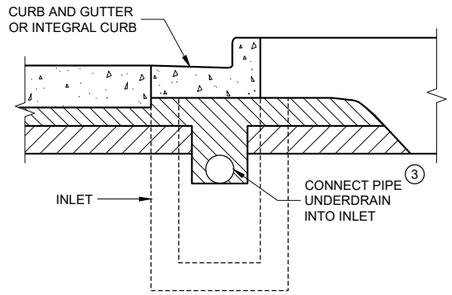
(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



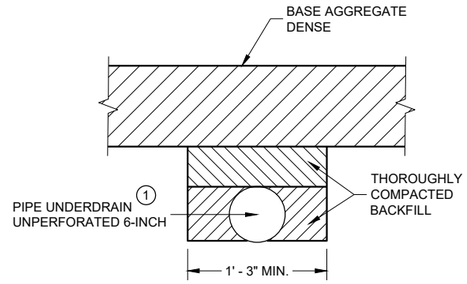
SECTION A - A

RURAL CROSS SECTION



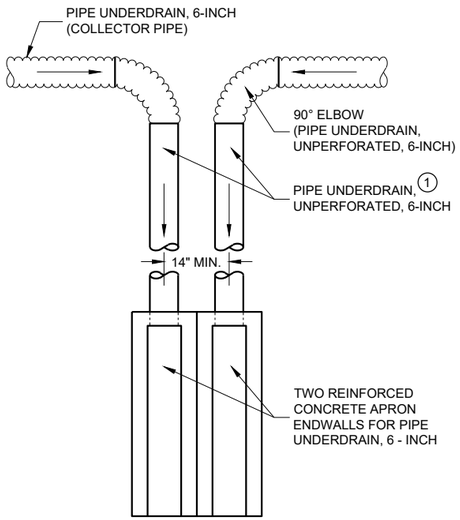
SECTION B - B

URBAN CROSS SECTION

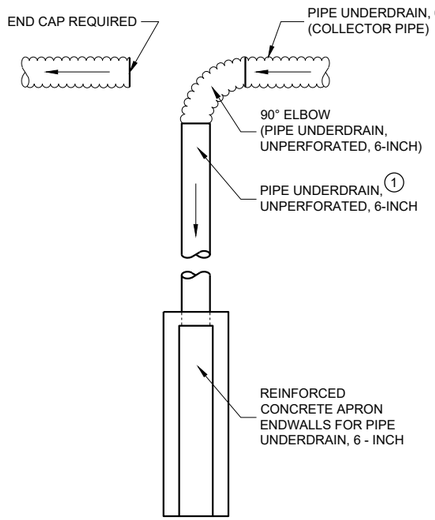


SECTION C - C

TRENCH FOR OUTFALL PIPE

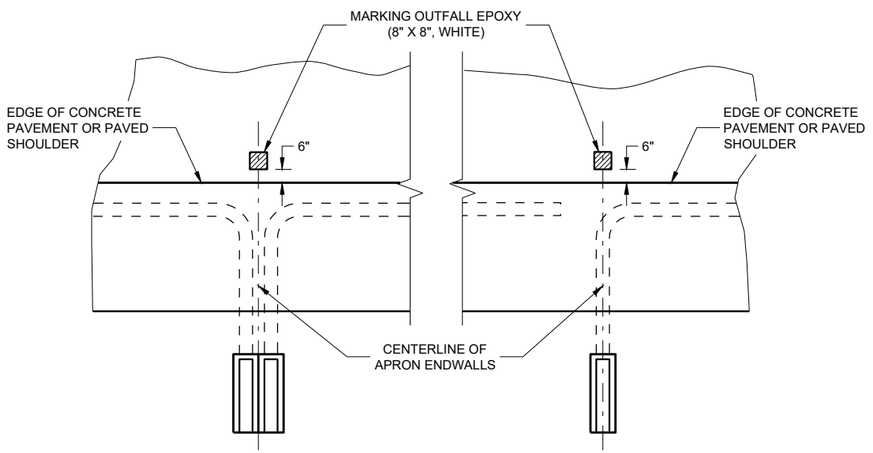


DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS



DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS



LOW POINT LOCATIONS — INTERMEDIATE LOCATIONS

PAVEMENT MARKINGS FOR OUTFALL MARKERS

EDGEDRAIN OUTLET AND OUTFALL MARKERS

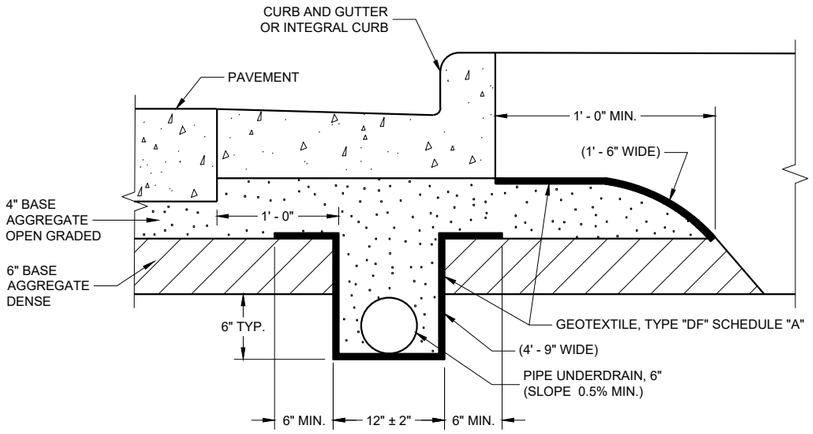
STATE OF WISCONSIN
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SDD08D15 - 05a

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SDD08D15 - 05a



EDGEDRAIN IN URBAN ROADWAY

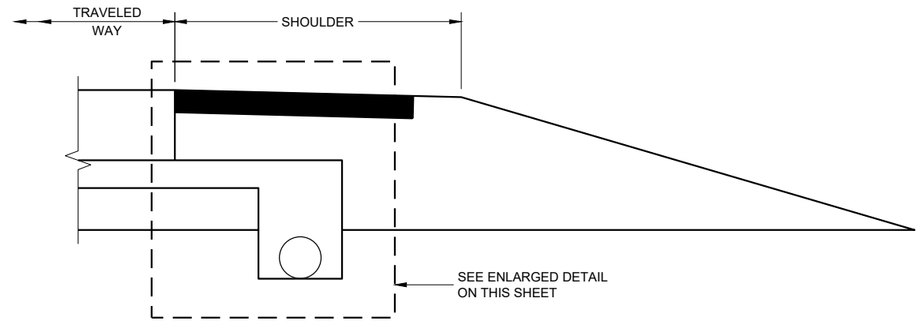
GENERAL NOTES

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

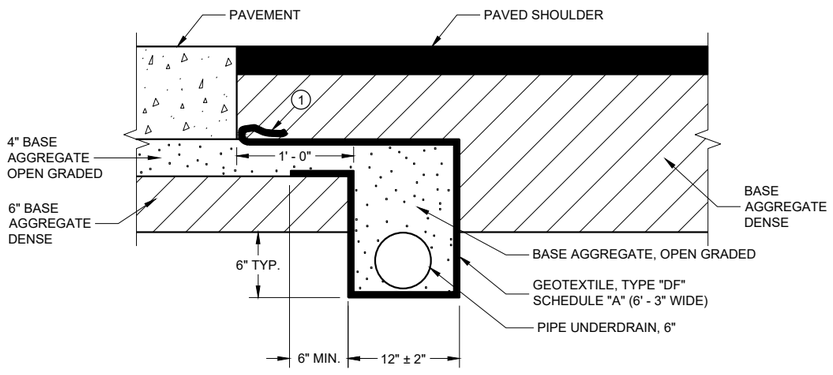
PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

(1) FOLD OVER EXCESS GEOTEXTILE AT THIS LOCATION.

(2) TOTAL GEOTEXTILE WIDTH IS 6'-3" FOR PAYMENT.

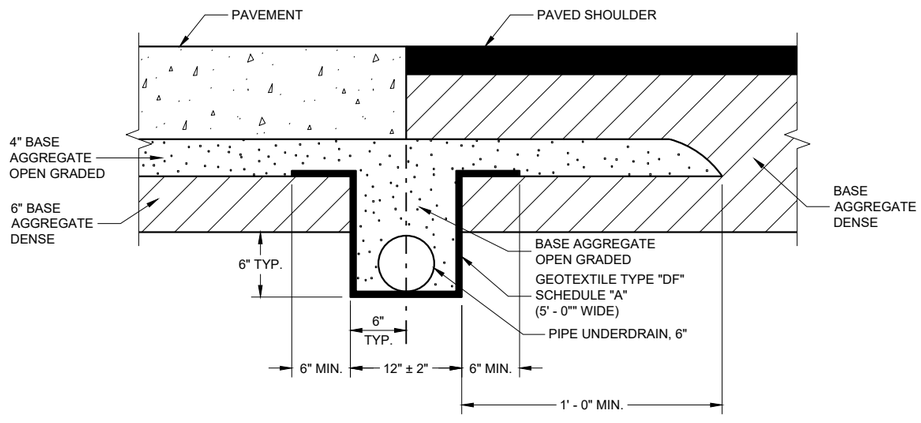


RURAL CROSS SECTION



POST PAVING INSTALLATION

(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

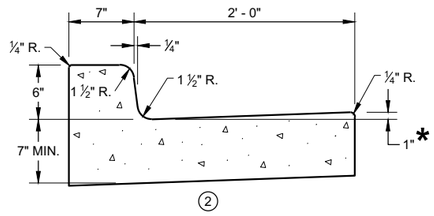
EDGEDRAIN IN RURAL ROADWAY

EGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

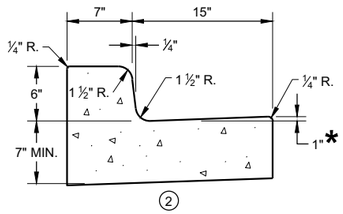
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SDD 08D15 - 05b

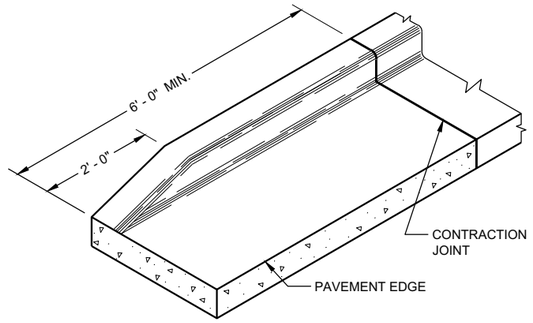


CONCRETE CURB AND GUTTER 31" ①

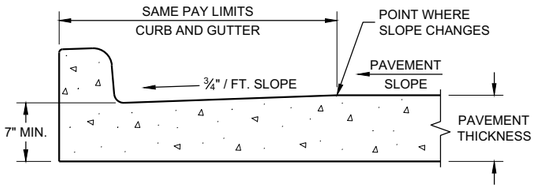
*TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



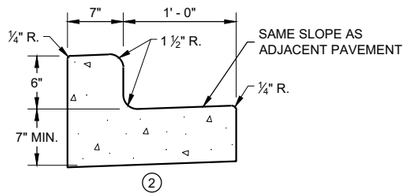
CONCRETE CURB AND GUTTER 22" ①



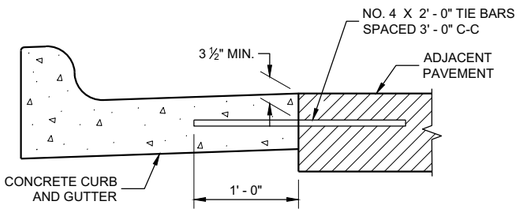
END SECTIONCURB AND GUTTER



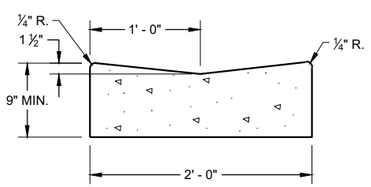
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER



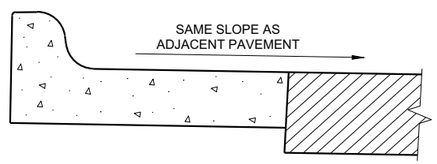
CONCRETE CURB AND GUTTER 19" ①



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.

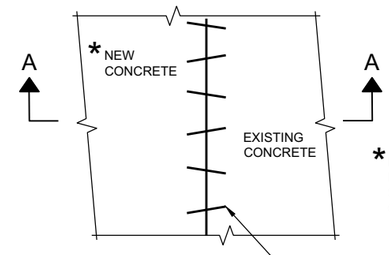
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

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".

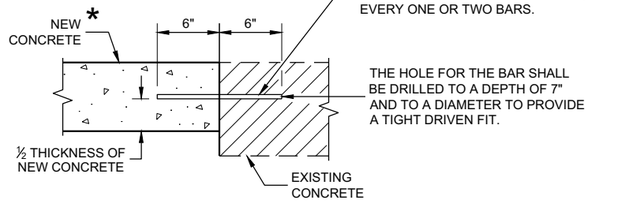
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

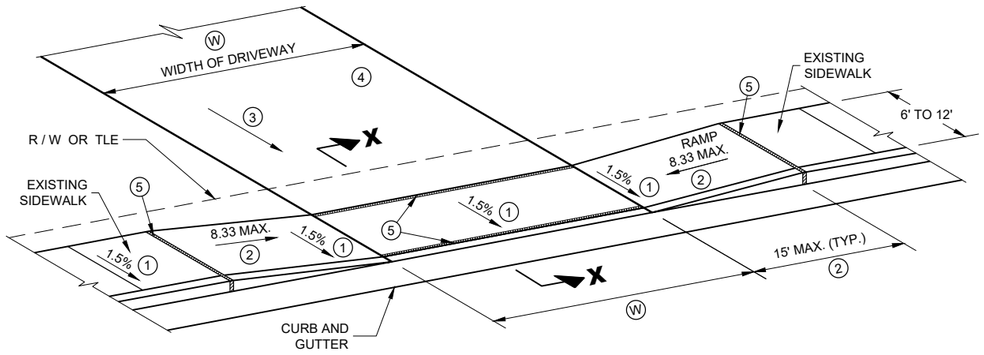
(For Optional use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

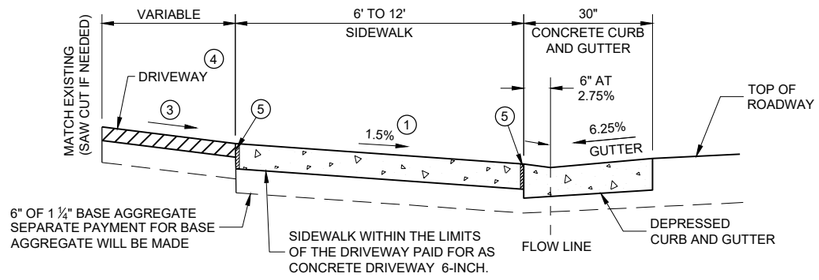
APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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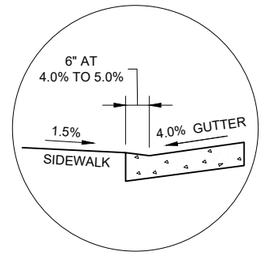
SDD 08D16 - 11



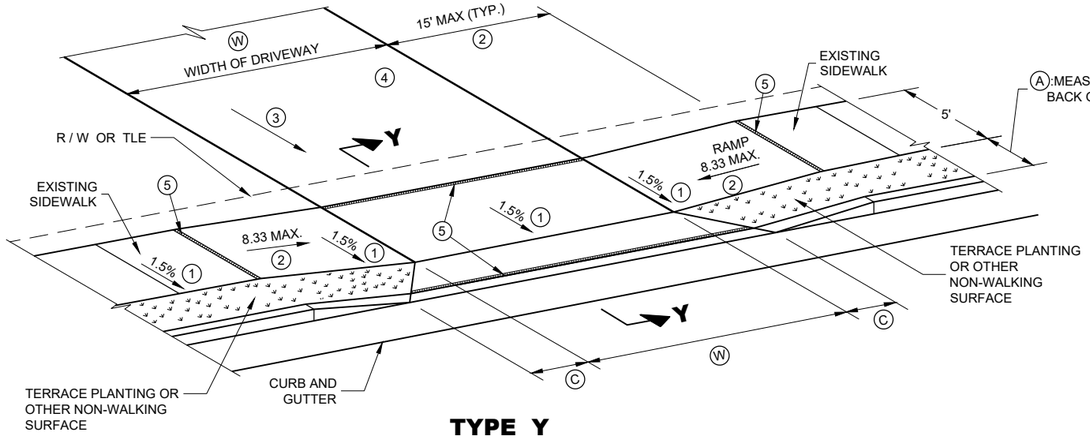
TYPE X
SIDEWALK ABUTS CURB AND GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X - X



SECTION X - X
4% GUTTER SLOPE



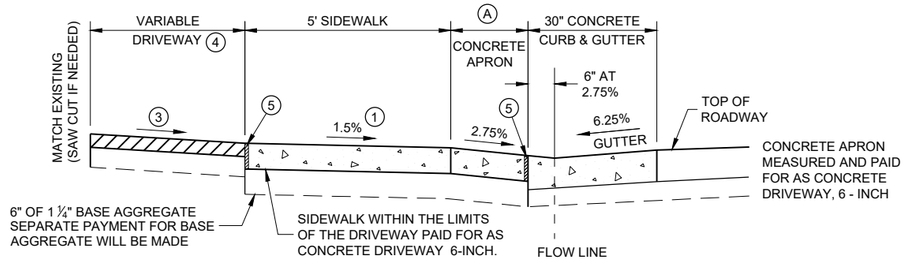
TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

Ⓦ: 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

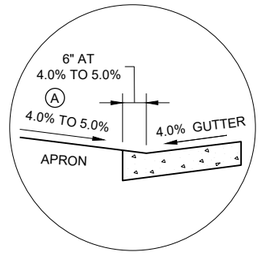
16' MIN. - 35' MAX. COMMERCIAL (CE)

TABLE Y

Ⓐ FEET	Ⓒ FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'



NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS



SECTION Y - Y
4% GUTTER SLOPE

SECTION Y - Y
DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER
(URBAN AND SUBURBAN)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

Ⓦ IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

(5) ½" EXPANSION JOINT FILLER

DRIVEWAY AND SIDEWALK RAMPS TYPES X AND Y

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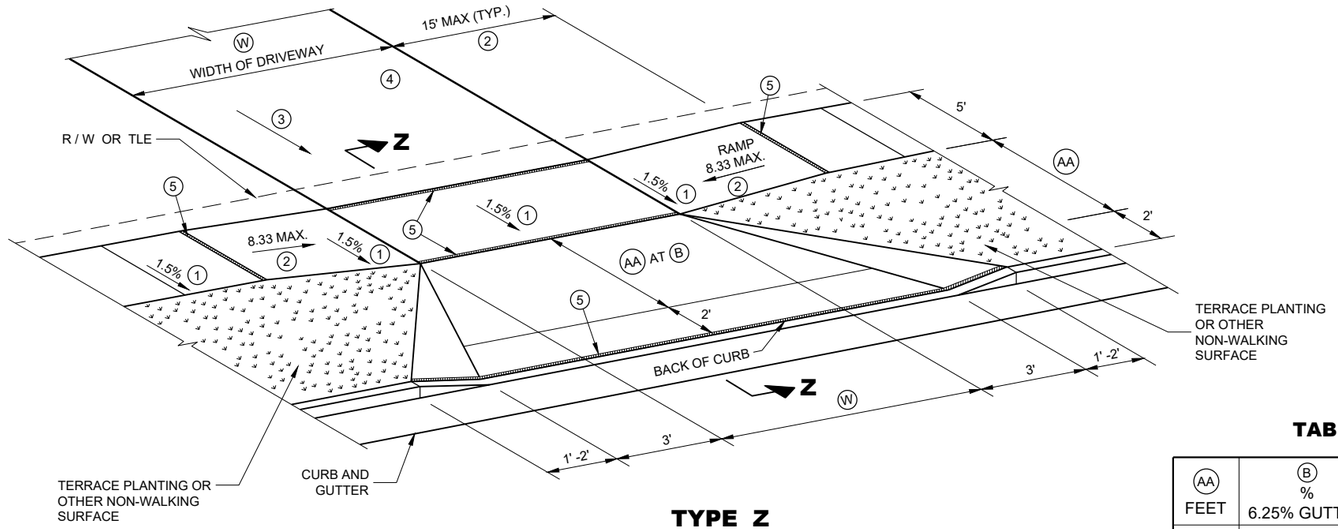
APPROVED
February 2022
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD 08D18 - 03

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TYPE Z
SIDEWALK WITH WIDER TERRACE
TERRACE VARIES 7 TO 12 FEET

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

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- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

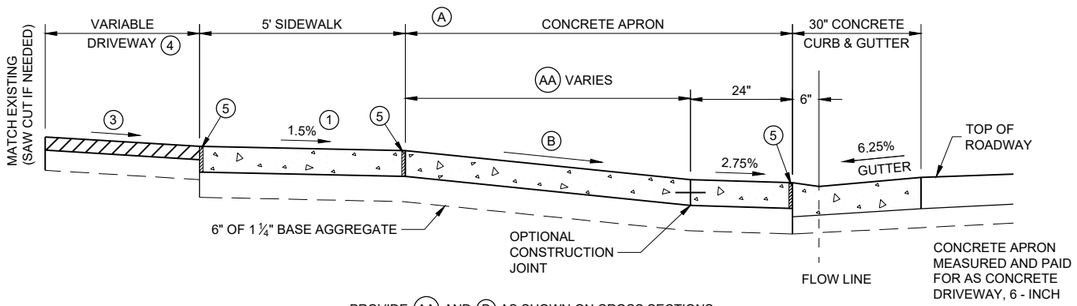
(5) ½" EXPANSION JOINT FILLER.

TABLE Z

(AA) FEET	(B) % 6.25% GUTTER	(B) % 4% GUTTER
4.5'	11.5%	9% TO 11.5%
5.5'	9% TO 11.5%	8% TO 11.5%
6.5'	8% TO 11.5%	6% TO 11.5%
7.5'	7% TO 11.5%	6% TO 11.5%
8.5'	6% TO 11.5%	5% TO 11.5%
9.5'	5% TO 11.5%	4% TO 11.5%

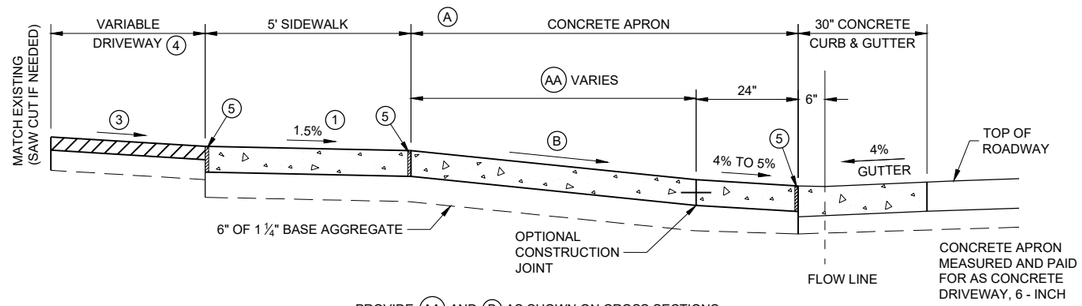
(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)



PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

6.25% GUTTER SLOPE



PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

4% GUTTER SLOPE

NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS FOR (B) VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.

SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

SECTION Z - Z

DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER

(URBAN AND SUBURBAN)

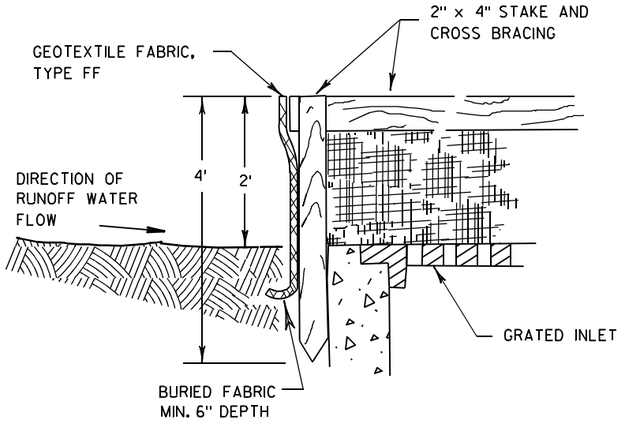
DRIVEWAY AND SIDEWALK RAMPS TYPE Z

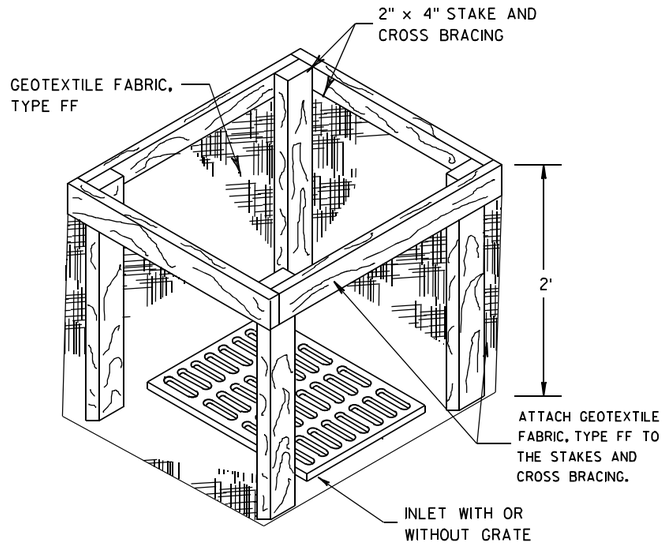
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February 2022 — DATE
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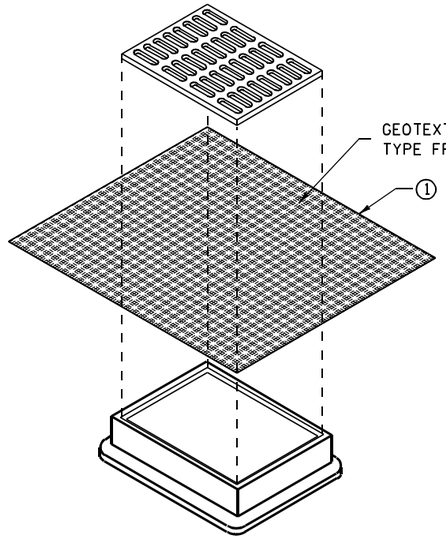
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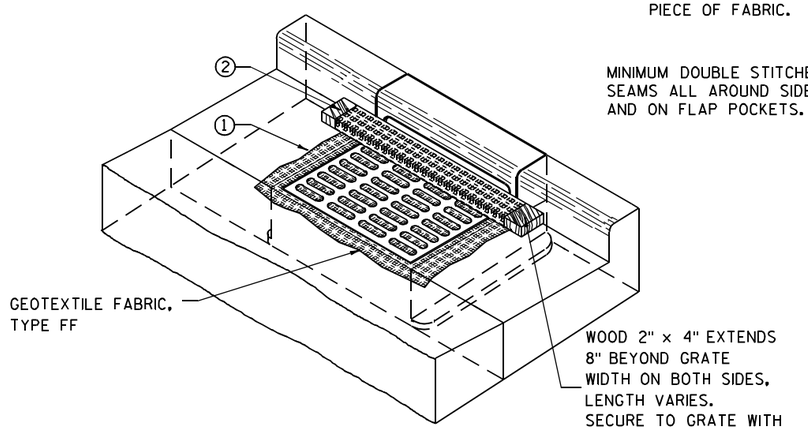


INLET PROTECTION, TYPE A

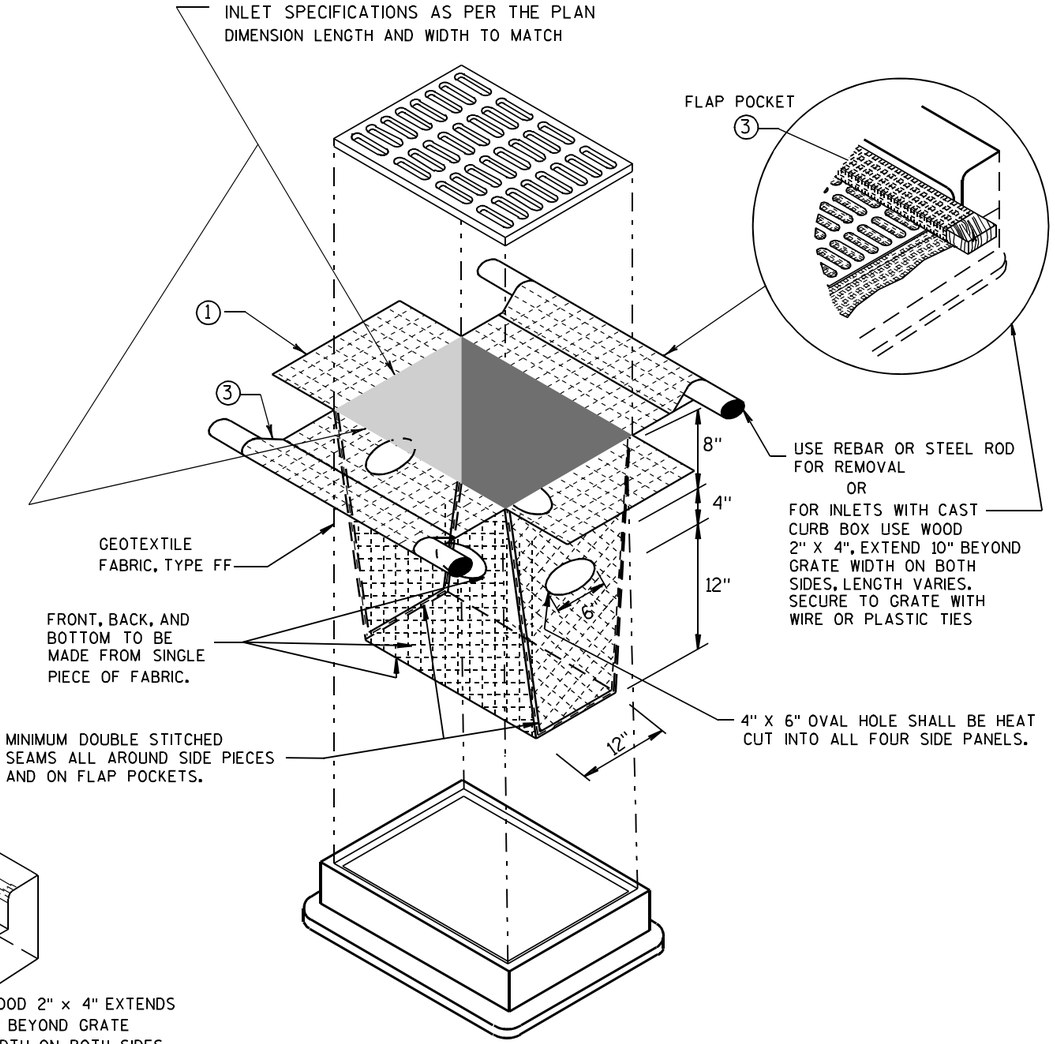


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
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APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

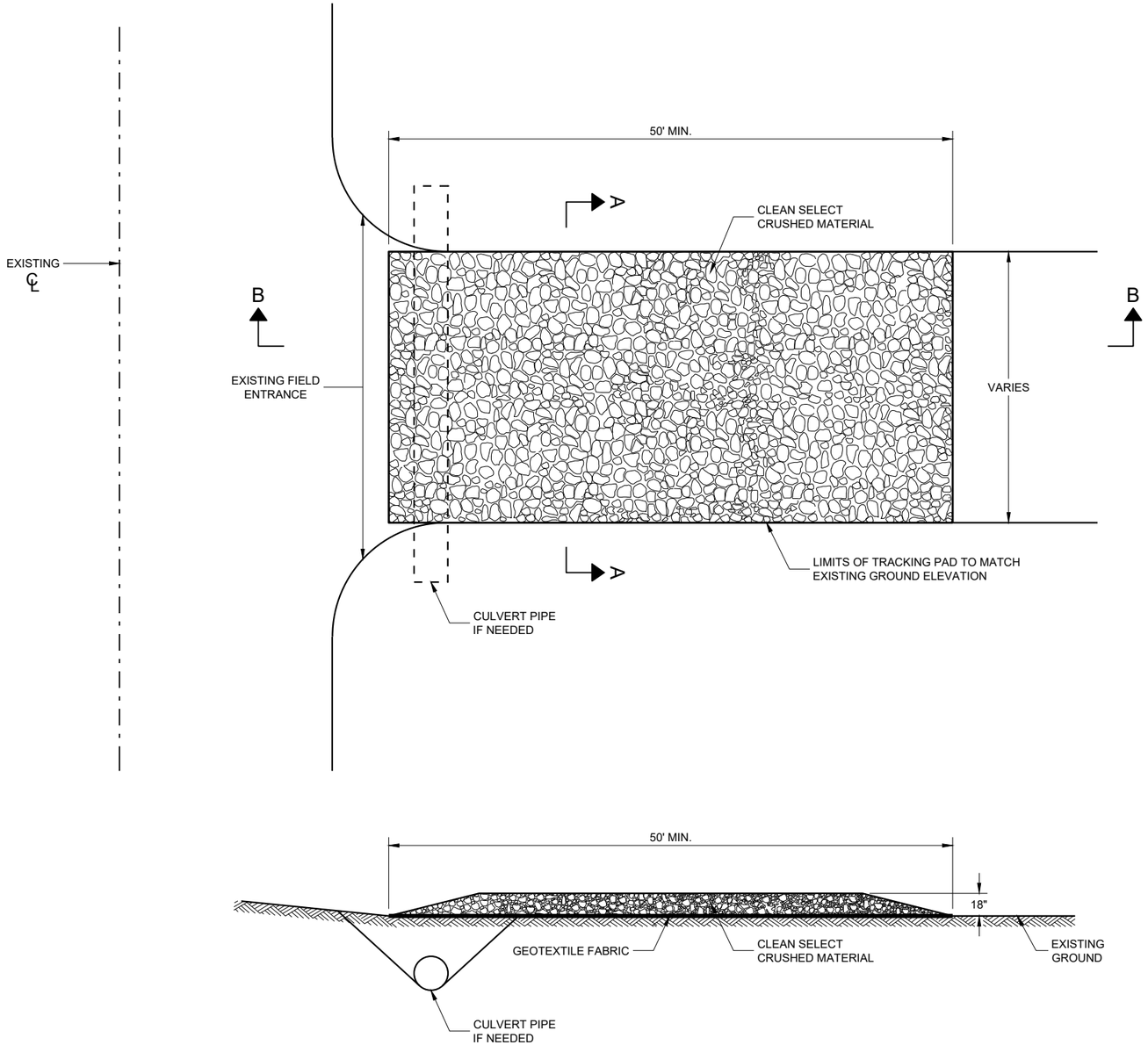
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S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



SECTION B - B

GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

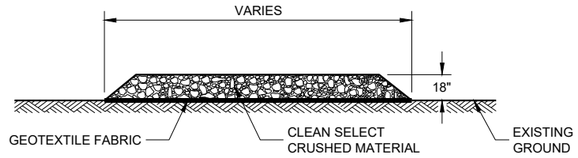
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A

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SDD 08E14 - 01

TRACKING PAD

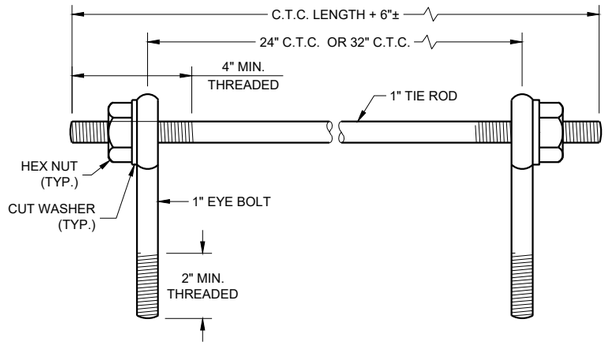
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER

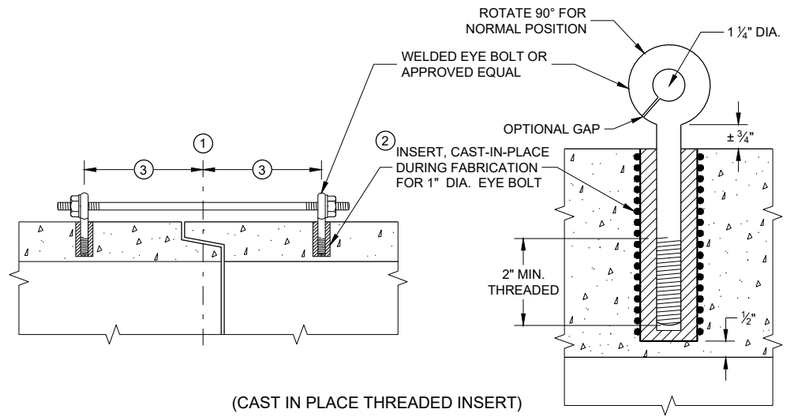
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SDD 08E14 - 01



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

(2) THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

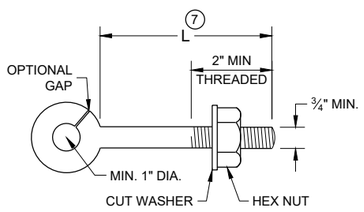
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

(4) BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

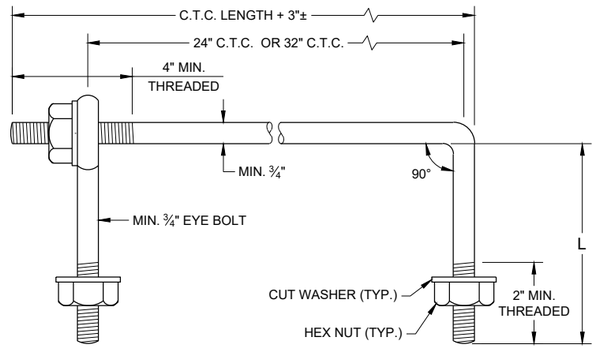
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

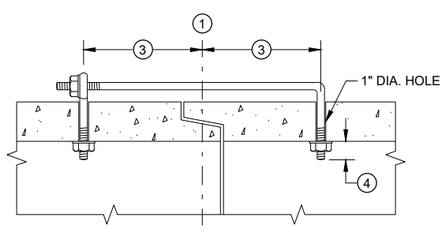


EYE BOLT (7)

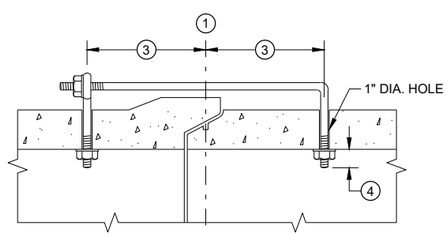
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

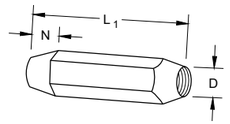
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

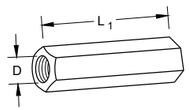
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



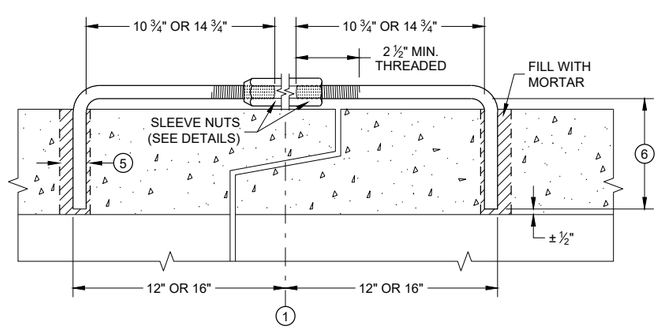
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PLAIN

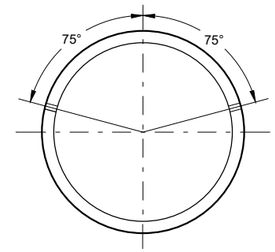
RIGHT AND LEFT THREADS

SLEEVE NUTS



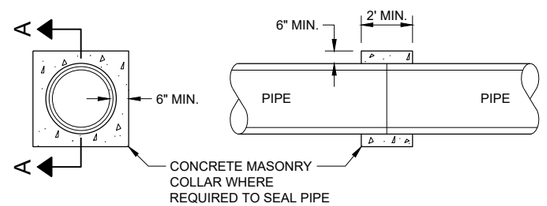
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

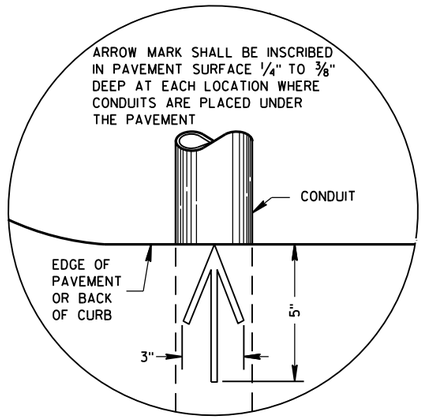
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

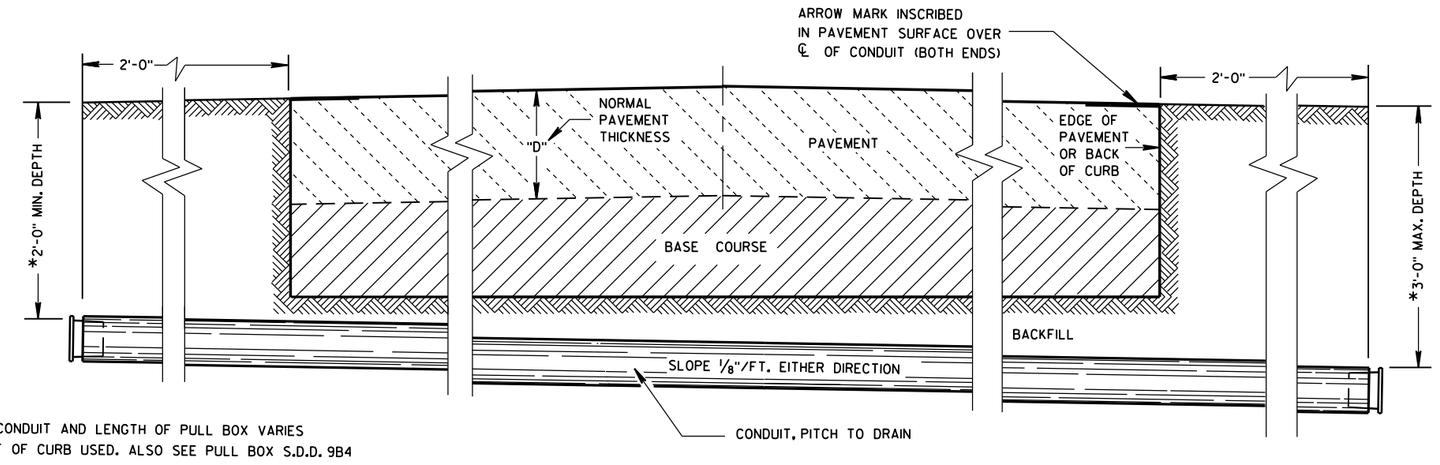
SDD 08F04 - 08

SDD 08F04 - 08



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

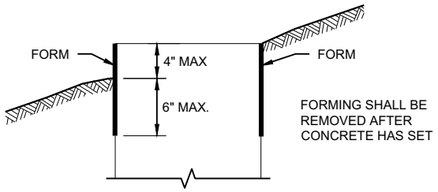
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 222
FHWA

6

S.D.D. 9 B 2-10

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.

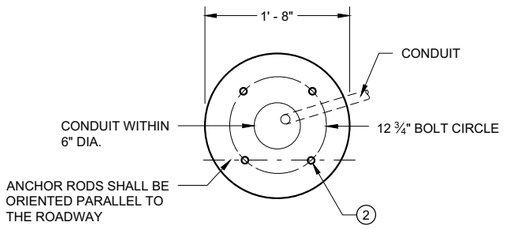
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

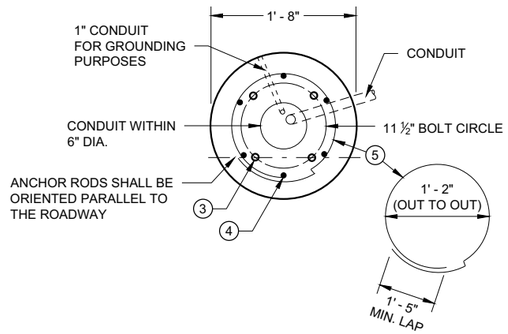
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

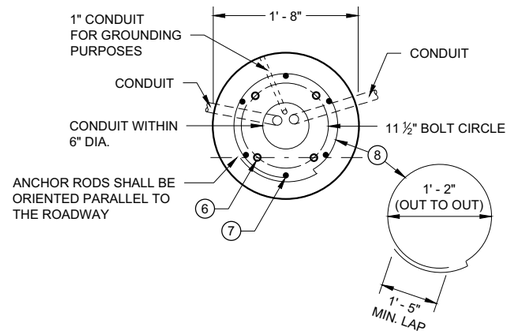
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

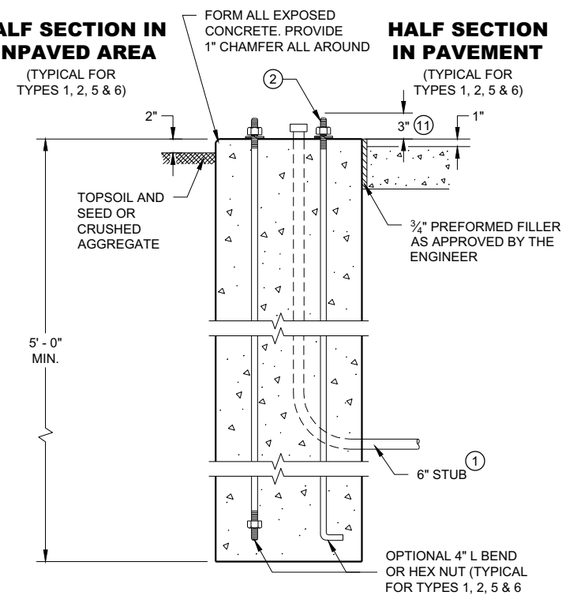
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

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.

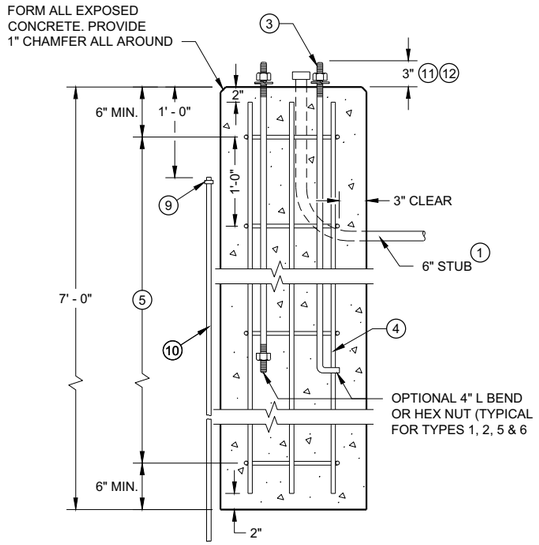
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

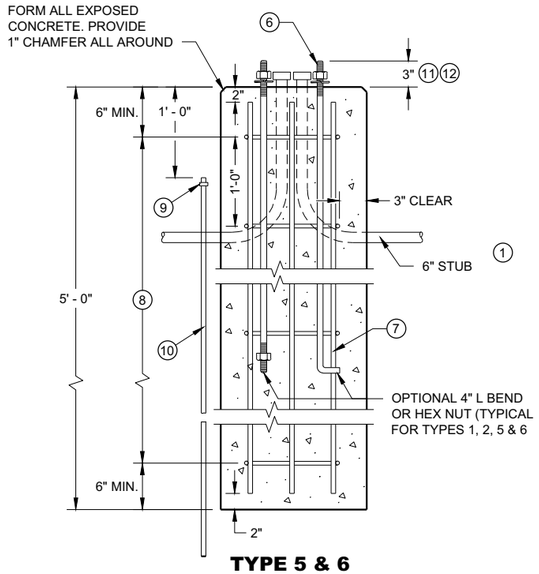
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



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

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.

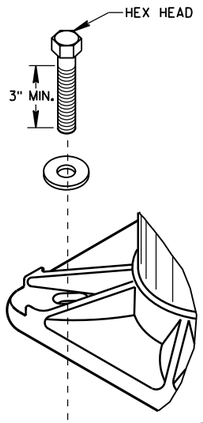
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

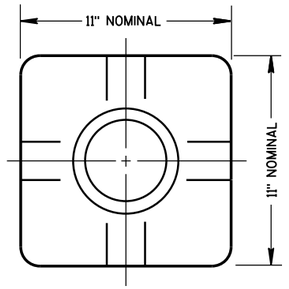
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

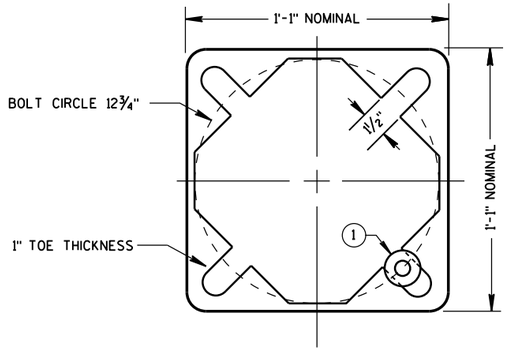
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

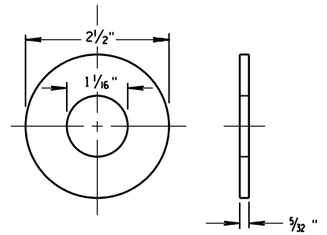




TOP VIEW
(PEDESTAL BASE)

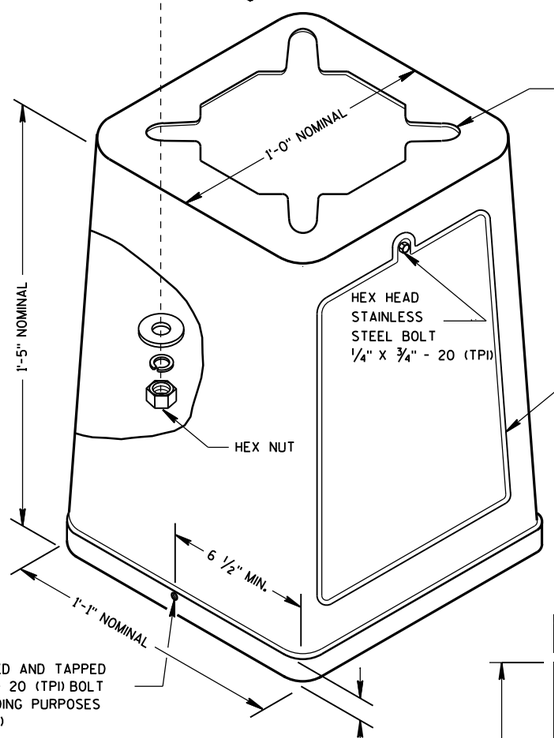


BOTTOM VIEW
(PEDESTAL BASE)

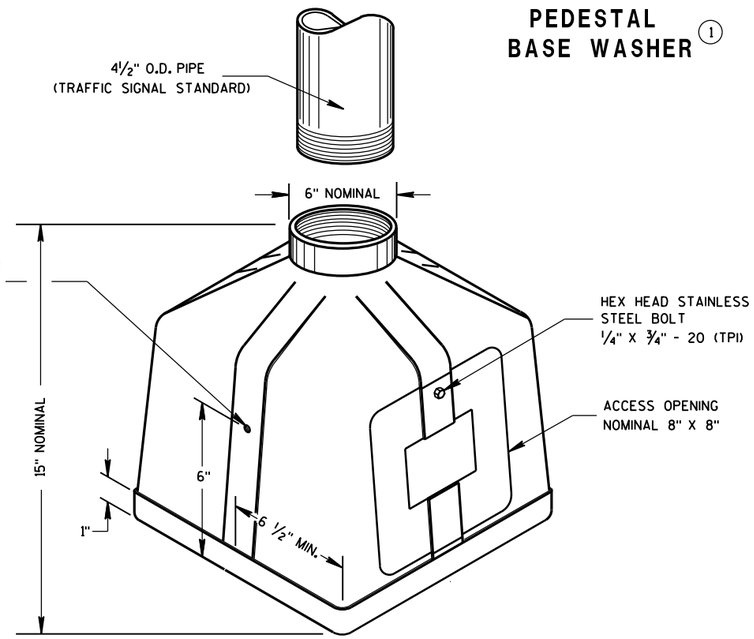


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

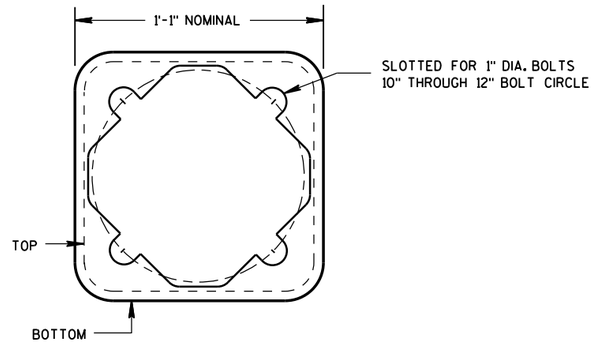
PEDESTAL BASE WASHER (1)



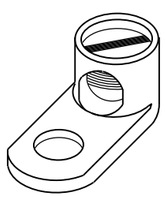
ISOMETRIC VIEW



ISOMETRIC VIEW
PEDESTAL BASE

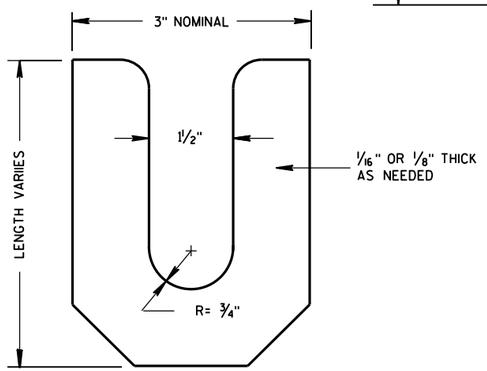


BOTTOM VIEW
(TRANSFORMER BASE)



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

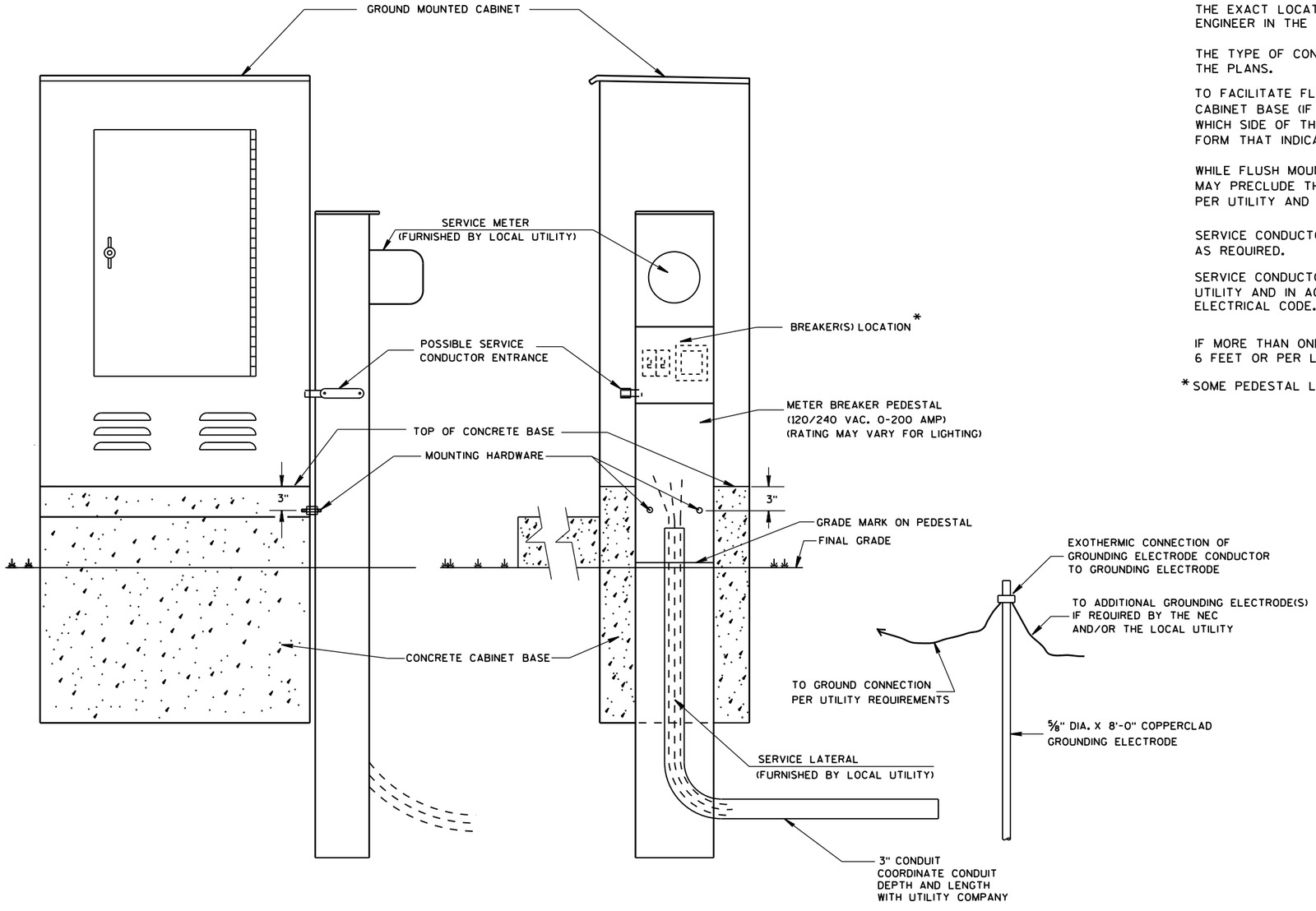
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 C 3-4

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S.D.D. 9 C 3-4



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

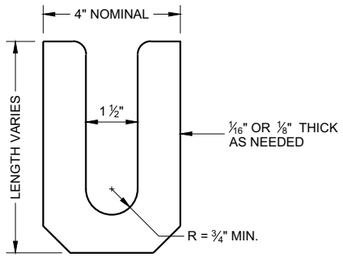
CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

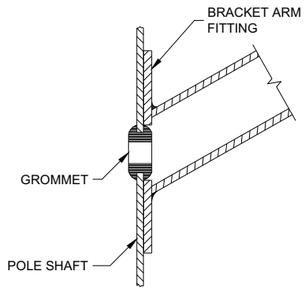
APPROVED
Sept. 2014
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

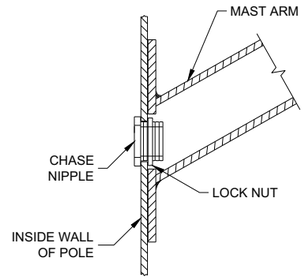
FHWA



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.

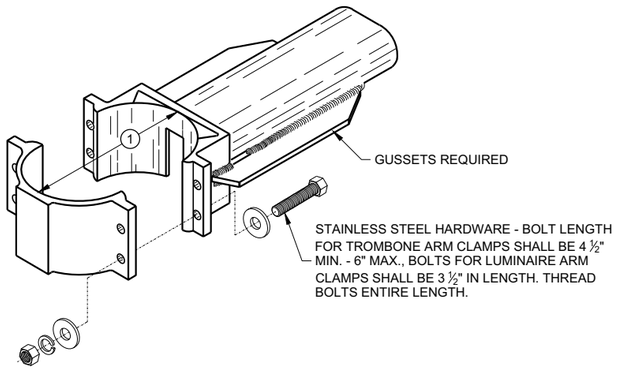
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

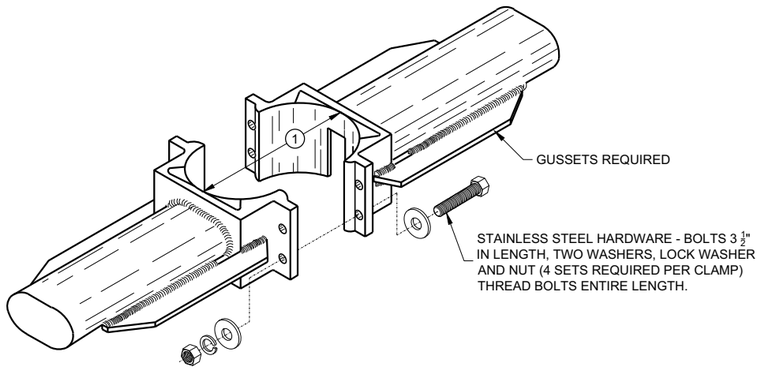
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(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.

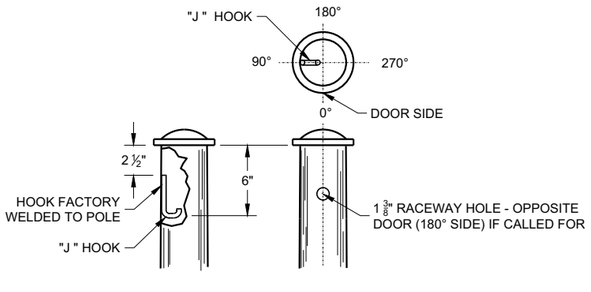
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



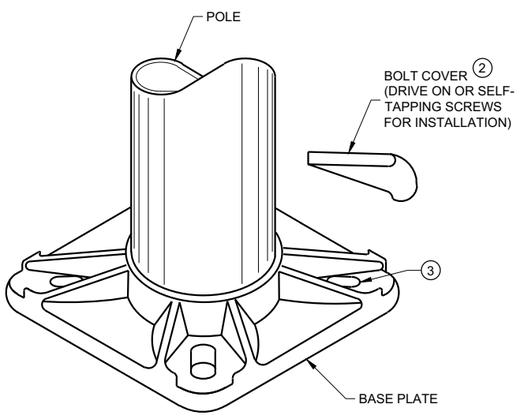
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



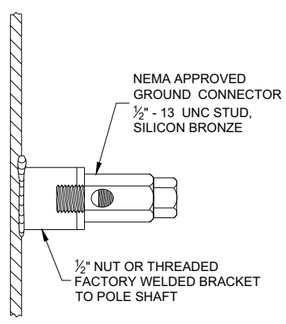
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

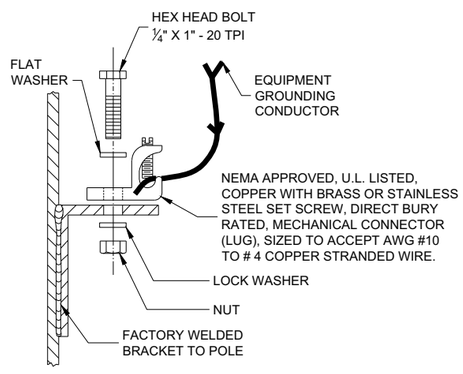


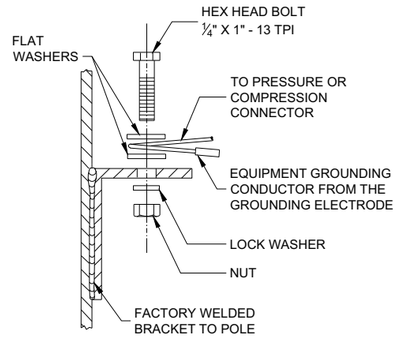
TYPICAL "J" HOOK LOCATION



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 226

FHWA

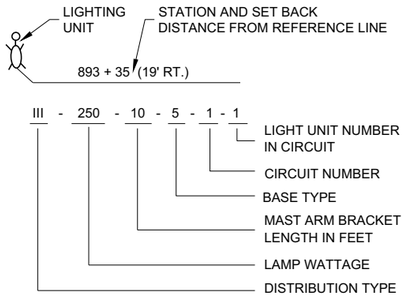
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GENERAL NOTES

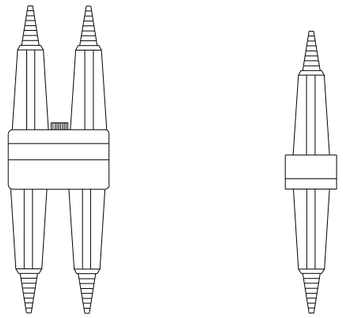
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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.

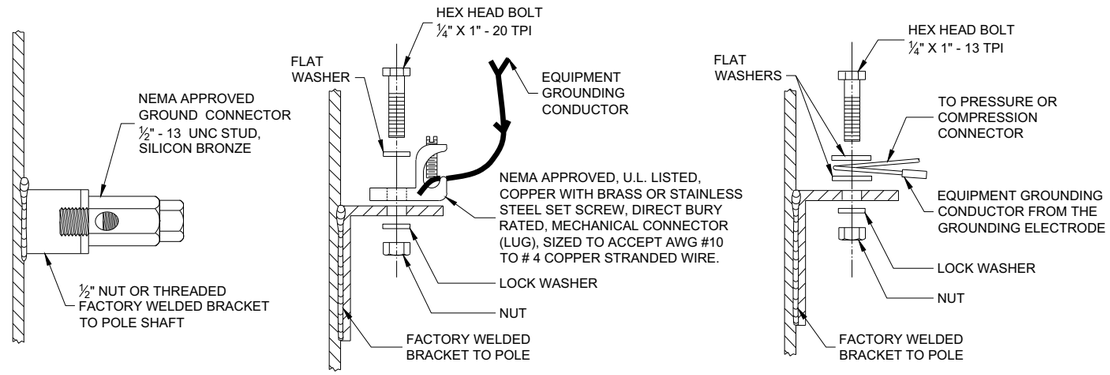


LIGHTING UNIT CODE
(TYPICAL)

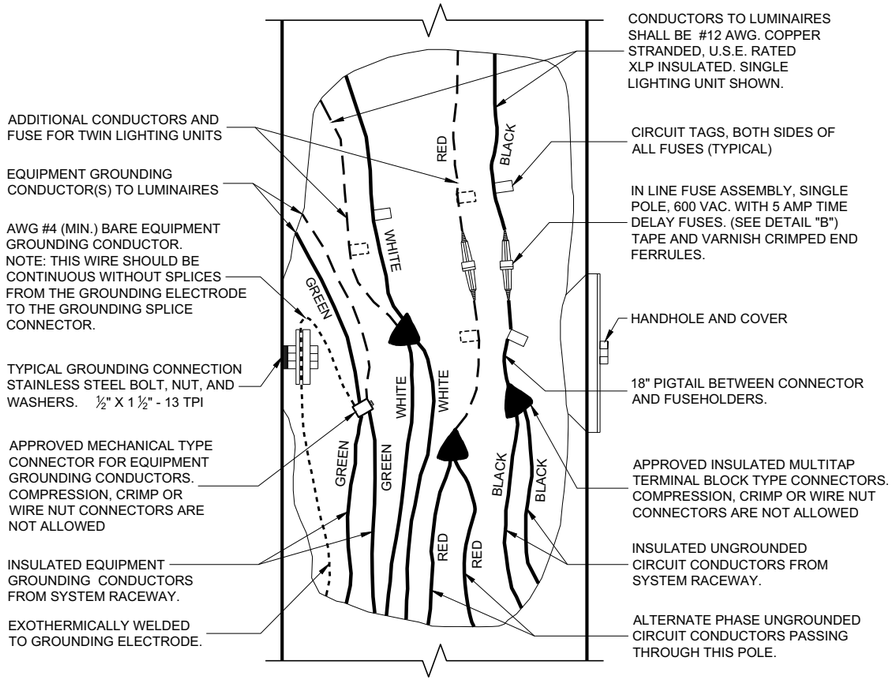


DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT

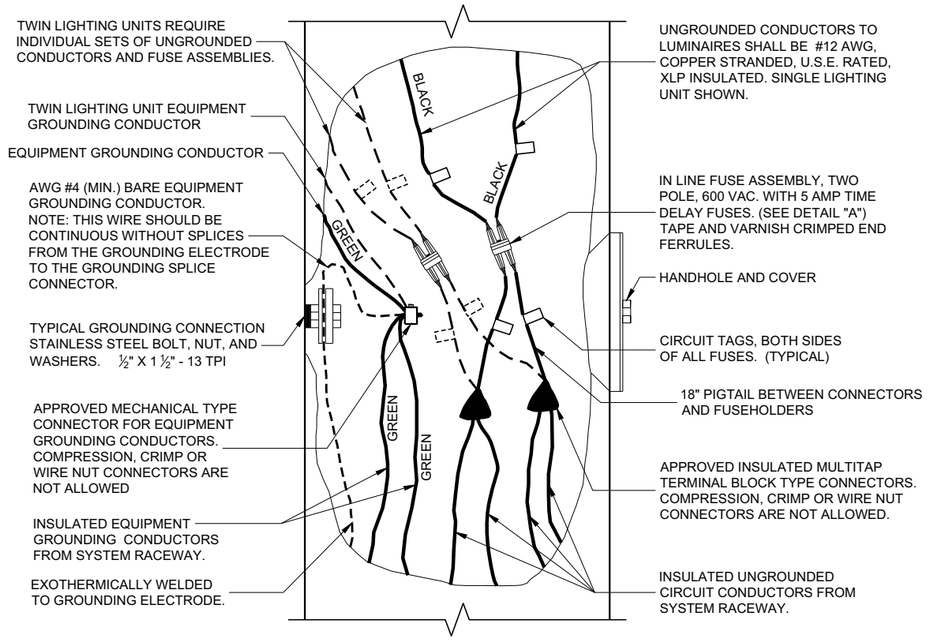
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 227

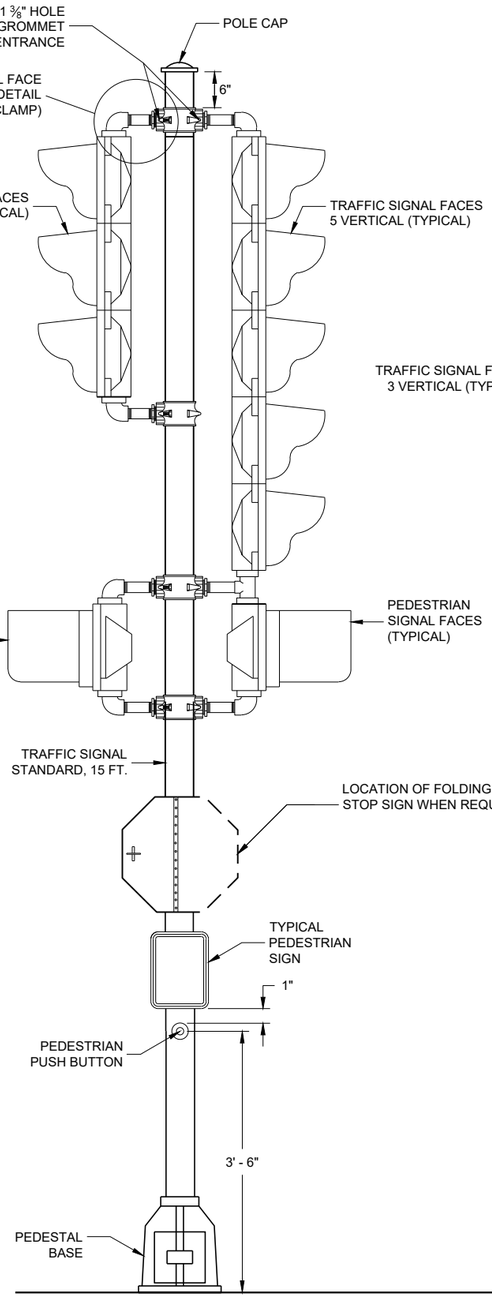
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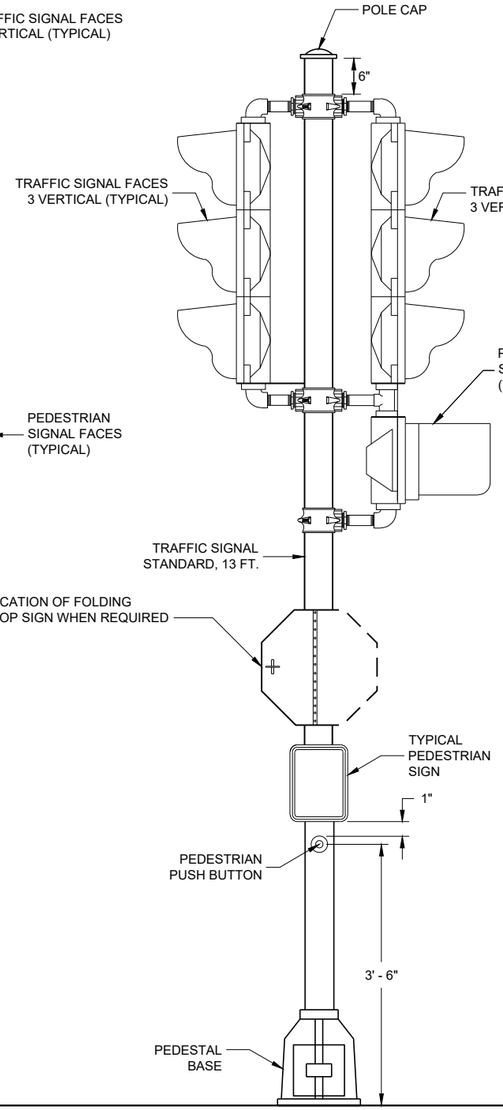
SDD 09E03 - 06

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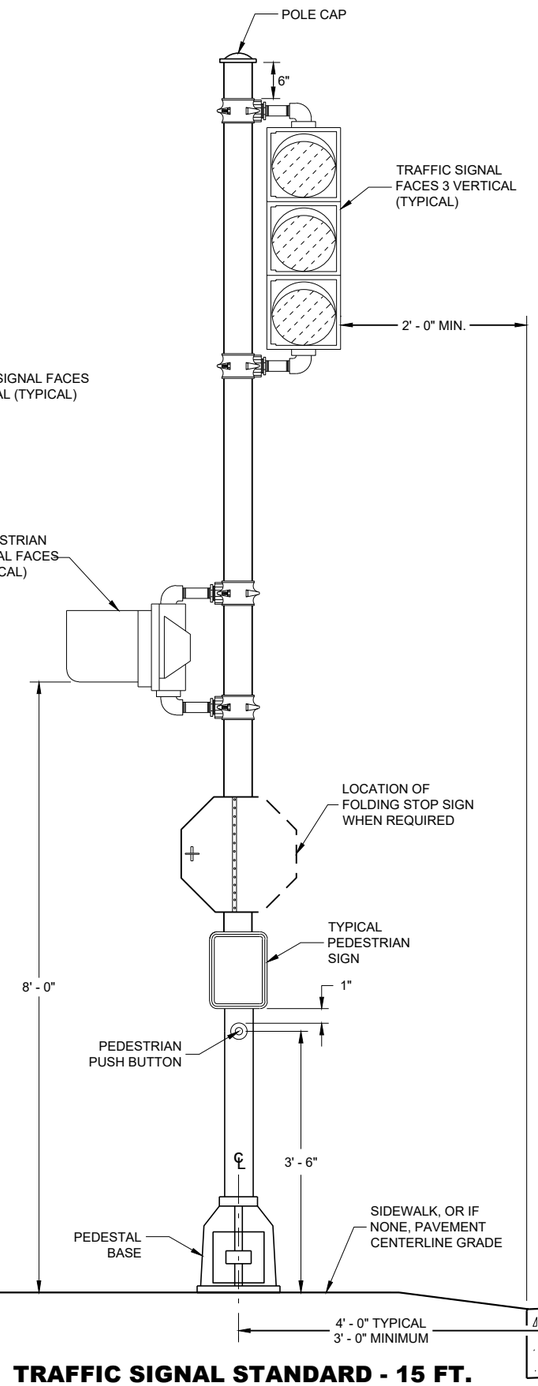
SDD 09E03 - 06



TRAFFIC SIGNAL STANDARD - 15 FT.



TRAFFIC SIGNAL STANDARD - 13 FT.



TRAFFIC SIGNAL STANDARD - 15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLE CLAMP (AS SHOWN) MOUNTING BRACKETS SHALL BE USED.

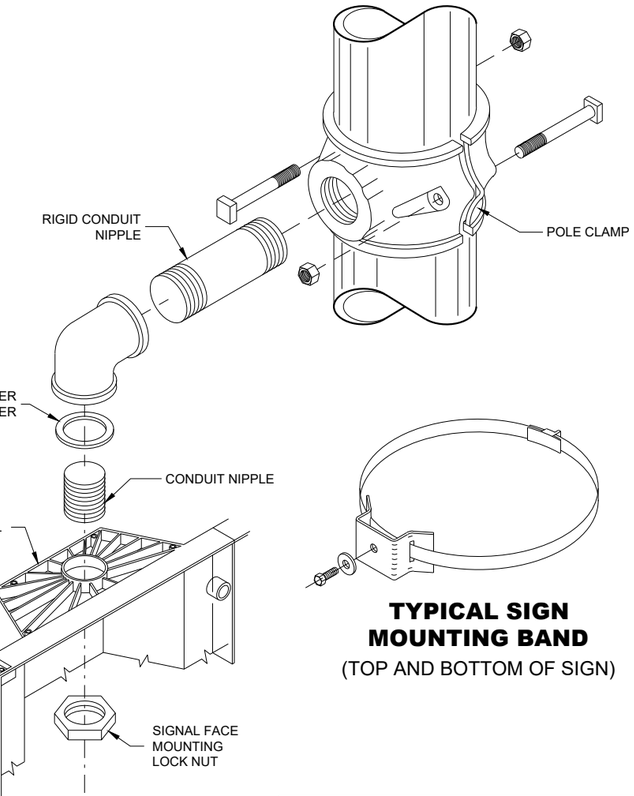
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL (ORNAMENTAL)

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)

TRAFFIC SIGNAL STANDARD ORNAMENTAL BRACKET MOUNTINGS TYPICAL FOR 13 FT. OR 15 FT.

STATE OF WISCONSIN
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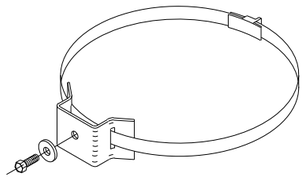
APPROVED
2/28/2013
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

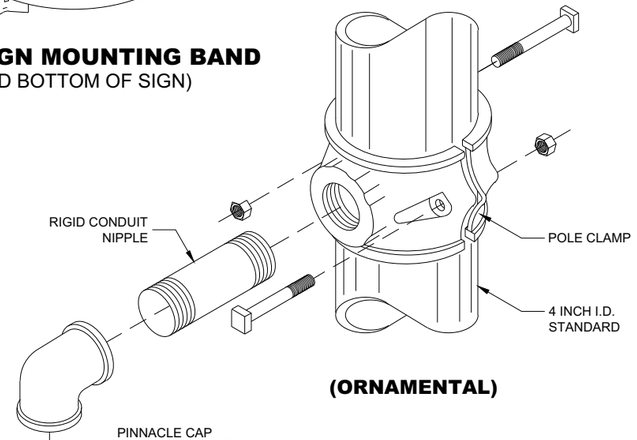
FHWA

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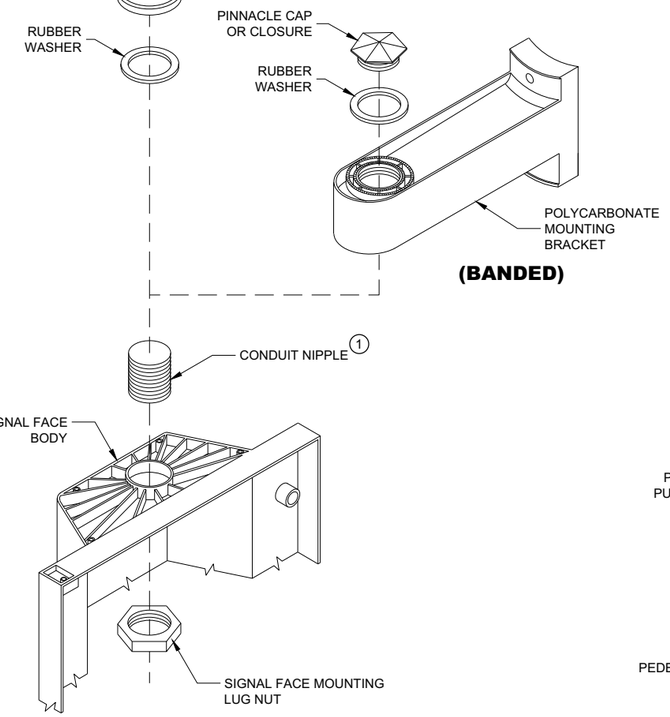
SDD 09E05 - 06



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)

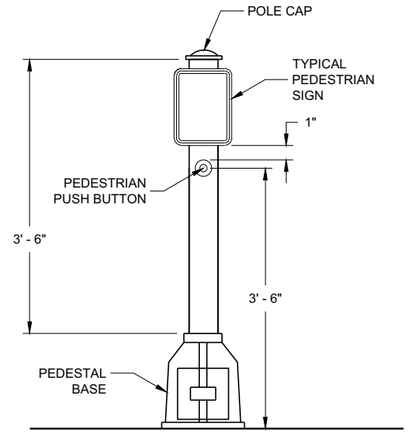


(ORNAMENTAL)



(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.

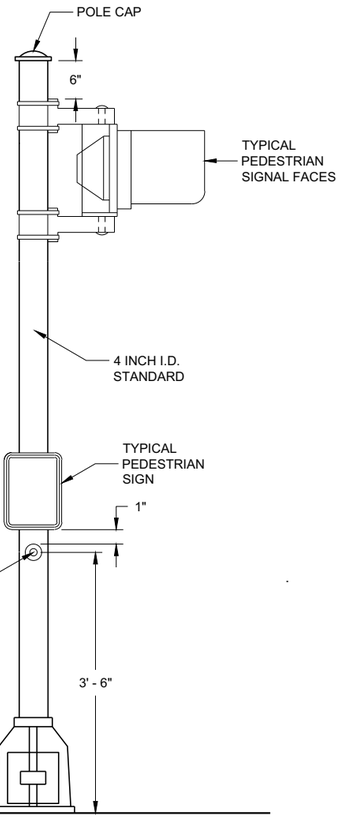
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

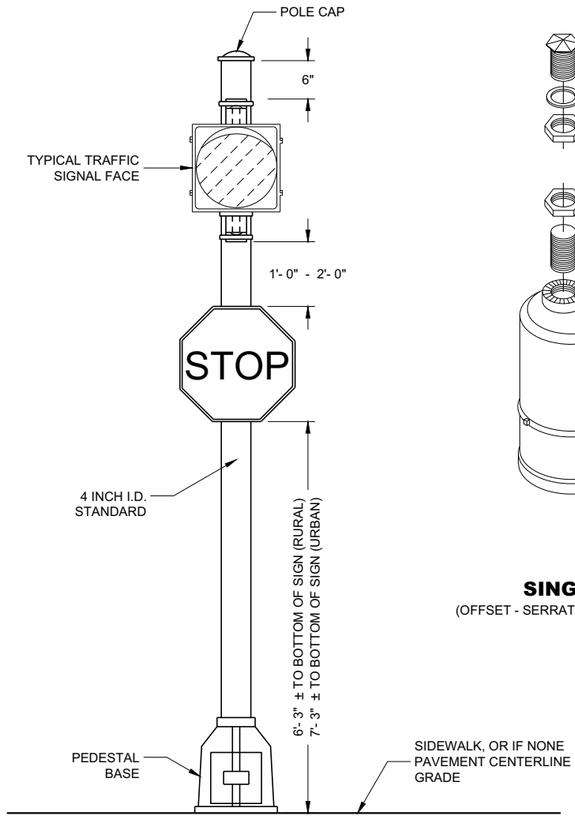
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

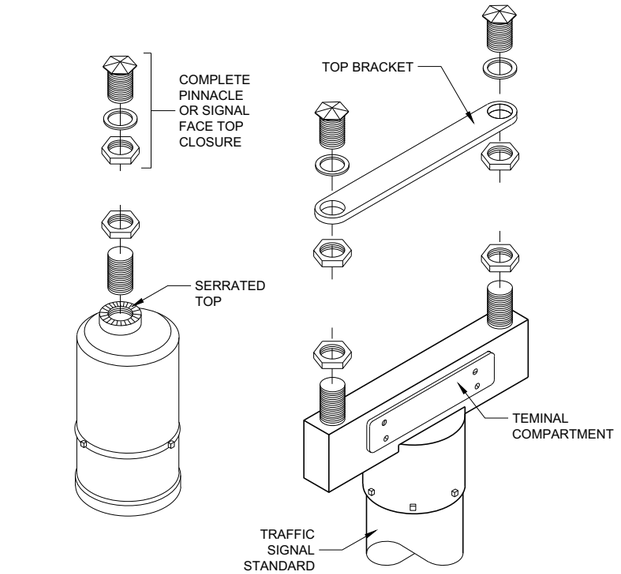
(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE 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

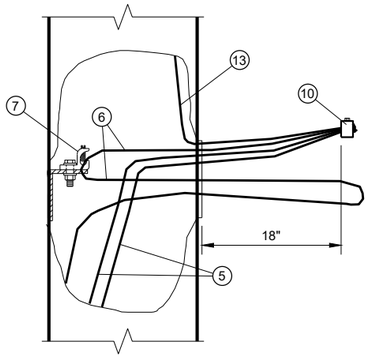
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 229

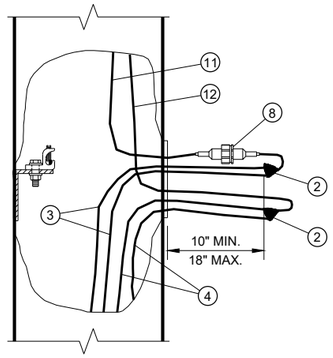
FHWA

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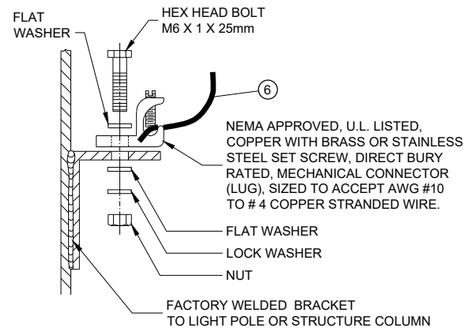


EQUIPMENT GROUNDING CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK (AND GROUNDED NEUTRAL SLACK IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



HANDHOLE GROUNDING LUG

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

GENERAL NOTES

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

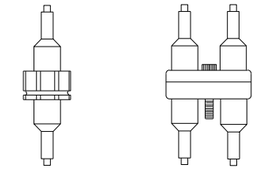
USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

THREE POLE WIRES ARE SHOWN FOR A SINGLE LUMINAIRE LIGHT POLE. THREE ADDITIONAL POLE WIRES REQUIRED FOR TWIN LUMINAIRE LIGHT POLES ARE OMITTED FROM THE DRAWING FOR CLARITY. IN THE TWIN POLE CASE, BUNDLE EACH SET OF THREE WIRES WITH A NYLON CABLE TIE.

IN 3-PHASE SYSTEMS, THERE WILL BE ONE MORE UNGROUNDED LINE WIRE, WHICH IS OMITTED FROM THE DRAWING FOR CLARITY.

CIRCUIT TAGS SHALL BE INSTALLED ONLY WHERE REQUIRED IN THE SPECIAL PROVISIONS.



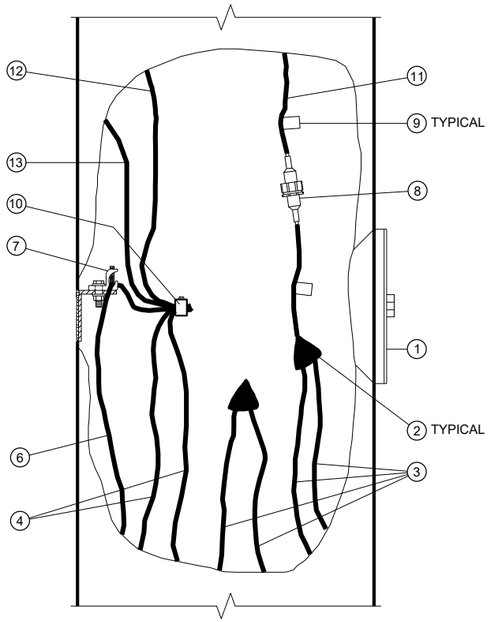
1 POLE (1P) 2 POLE (2P)

FUSE ASSEMBLIES

CONDUCTOR COLOR CODES

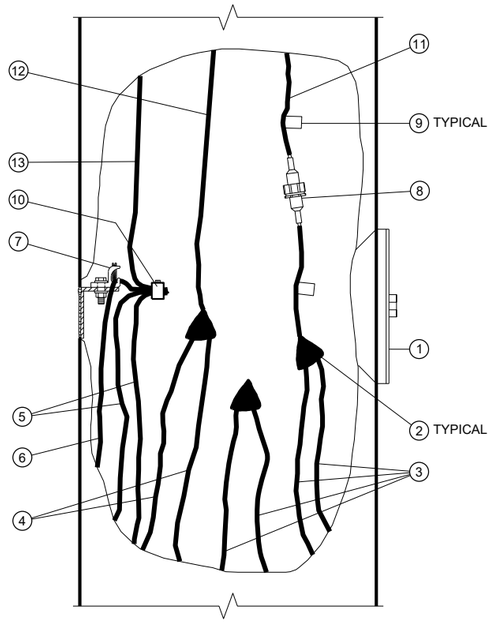
KEY	CONDUCTOR	COLOR
3	UNGROUNDED LINE WIRE	*
4	GROUNDED LINE WIRE	WHITE
5	SYSTEM GROUNDING LINE WIRE	GREEN
6	GROUNDING ELECTRODE CONDUCTOR	BARE
11	UNGROUNDED POLE WIRE	*
12	GROUNDED POLE WIRE	WHITE
13	EQUIPMENT GROUNDING POLE WIRE	GREEN

* FOLLOW COLOR CODING SHOWN IN THE PLANS. WHERE THE PLANS DO NOT SHOW COLOR CODING, USE BLACK FOR SINGLE LUMINAIRE POLES; BLACK AND RED FOR TWIN LUMINAIRE POLES.



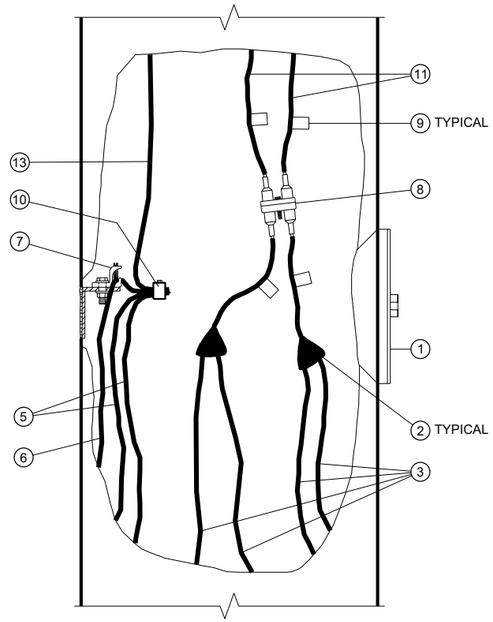
CUTAWAY HANDHOLE DETAIL

GROUNDED NEUTRAL SYSTEMS
1-ϕ



CUTAWAY HANDHOLE DETAIL

ISOLATED NEUTRAL SYSTEMS
1-ϕ SHOWN; 3-ϕ WYE SIMILAR
(SEE GENERAL NOTE)



CUTAWAY HANDHOLE DETAIL

PHASE TO PHASE SYSTEMS
1-ϕ SHOWN; 3-ϕ DELTA SIMILAR
(SEE GENERAL NOTE)

NOTE: REQUIRED CONDUCTOR SLACK NOT SHOWN ON "CUTAWAY HAND HOLE" DETAILS FOR DRAWING CLARITY, SEE "TYPICAL CONDUCTOR SLACK AT HANDHOLES" ON THIS SHEET.

1. HANDHOLE AND COVER
2. INSULATED SPLICE
3. UNGROUNDED LINE WIRE
4. GROUNDED LINE WIRE
5. SYSTEM GROUNDING LINE WIRE
6. GROUNDING ELECTRODE CONDUCTOR
7. HANDHOLE GROUNDING LUG
8. FUSE ASSEMBLY, 1P OR 2P AS REQUIRED
9. CIRCUIT TAG (SEE GENERAL NOTE)
10. REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTOR (NOT INSULATED)
11. UNGROUNDED POLE WIRE
12. GROUNDED POLE WIRE
13. EQUIPMENT GROUNDING POLE WIRE

ELECTRICAL HANDHOLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

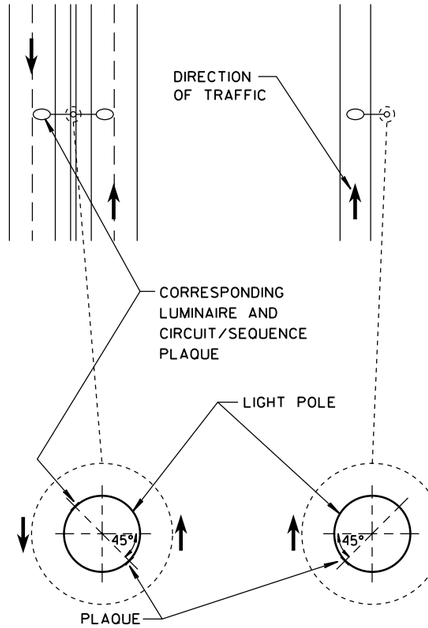
APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 230

FHWA

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SDD 10A01 - 04



MEDIAN POLE SINGLE ARM POLE

LOCATION OF LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

WHERE SHOWN IN THE PLANS, REPLACEMENT PLAQUES WILL BE MEASURED AND PAID SEPARATELY.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

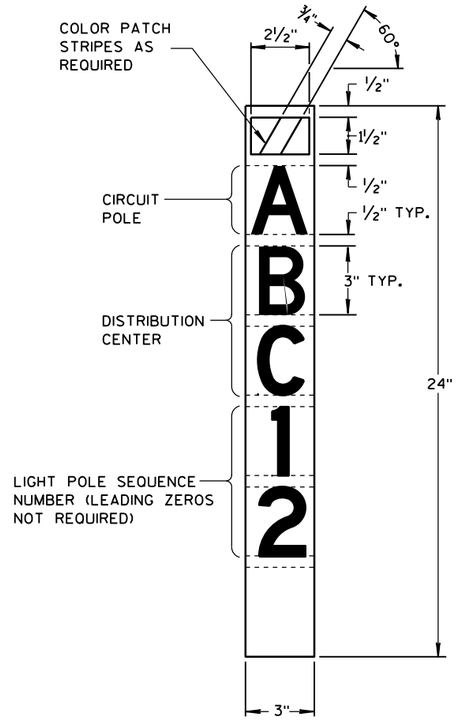
COLOR PATCHES - VARIOUS COLORS, SELF-ADHESIVE VINYL SHEETING

WITH THE APPROVAL OF THE ENGINEER, THE BASE MATERIAL MAY BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE SURFACE, IN CASES SUCH AS SMOOTH, CLEAN ALUMINUM POLES.

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.

COLOR PATCH CODE FOR HPS AND LED LUMINAIRES

HPS	LED	COLOR PATCH CODE
1000 WATT		NO PATCH
400 WATT	CATEGORY D	ORANGE
310 WATT		BLUE
250 WATT	CATEGORY C	ORANGE WITH WHITE STRIPE
200 WATT		RED
150 WATT	CATEGORY B	GREEN
100 WATT	CATEGORY A	BROWN
70 WATT	CATEGORY UDL	BROWN WITH WHITE STRIPE



LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

6

IDENTIFICATION PLAQUES
LIGHT POLES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

S.D.D. 10 A 2-3

GENERAL NOTES

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

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING, SDD10A01.

USE TIME DELAY FUSE PER LUMINAIRE MANUFACTURER RECOMMENDATION.

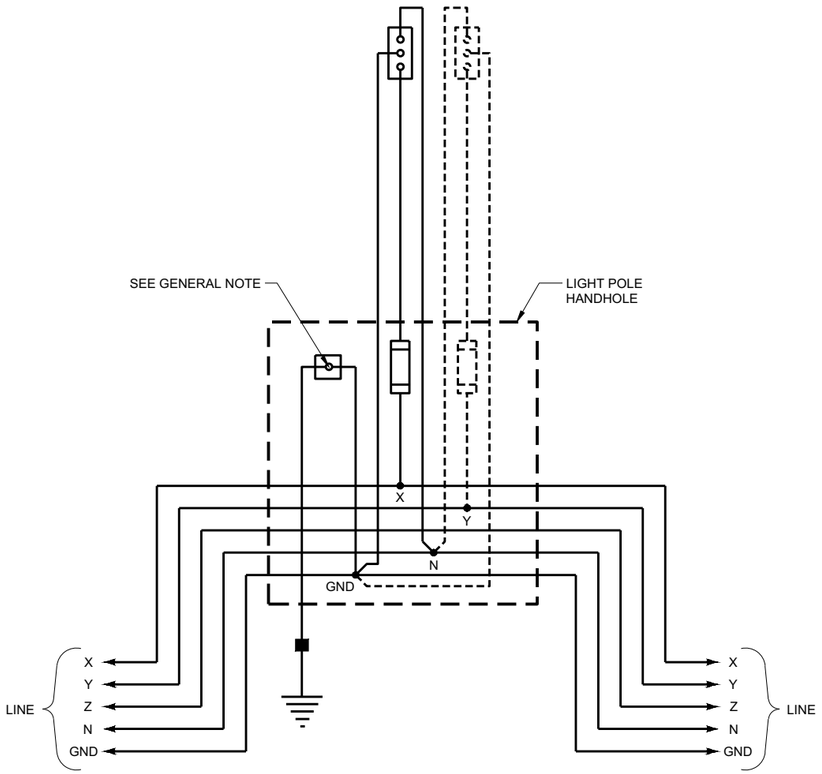
THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLD GROUNDING LUG TO THE CONNECTOR.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

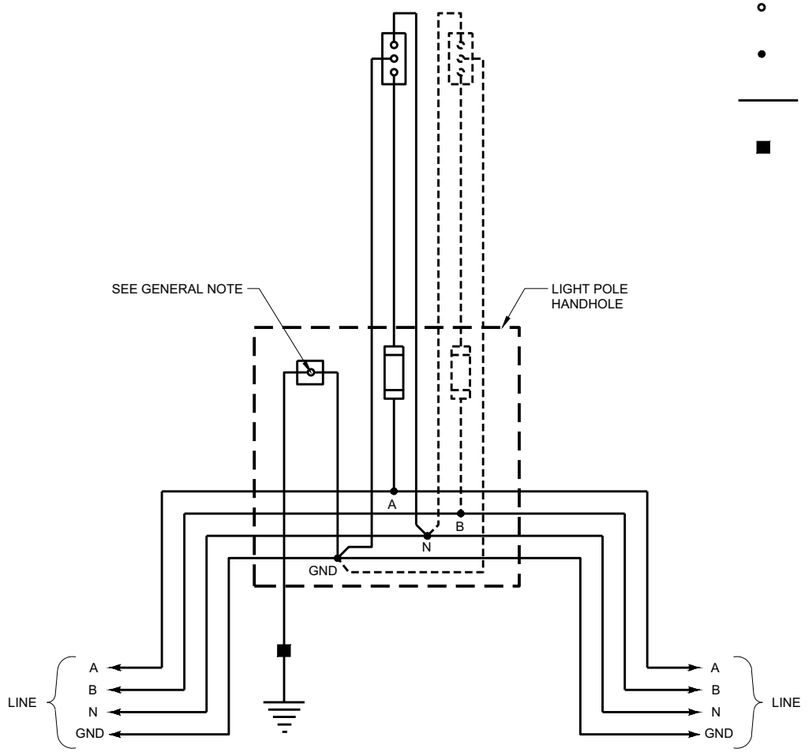
LEGEND

A,B,X,Y,Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
ϕ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD



TYPICAL WIRING DIAGRAM

ISOLATED NEUTRAL SYSTEM
3 - ϕ 208Y / 120VAC OR 480Y / 277VAC 4 WIRE



TYPICAL WIRING DIAGRAM

ISOLATED NEUTRAL SYSTEM
1 - ϕ 120 / 240VAC OR 240 / 480VAC 3 WIRE

ELECTRICAL DETAILS
GROUND MOUNT LIGHT POLES
ISOLATED NEUTRAL SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

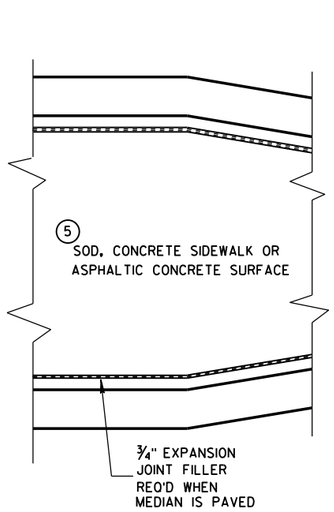
FHWA

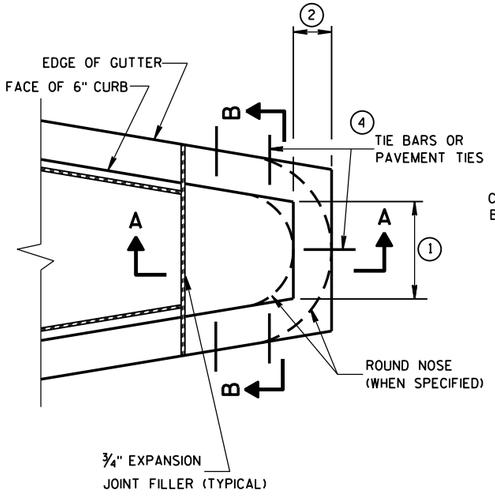
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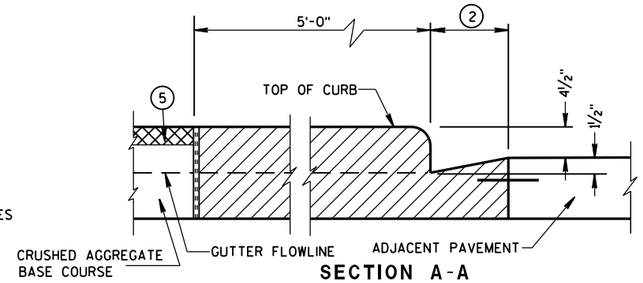
SDD 10A05 - 03

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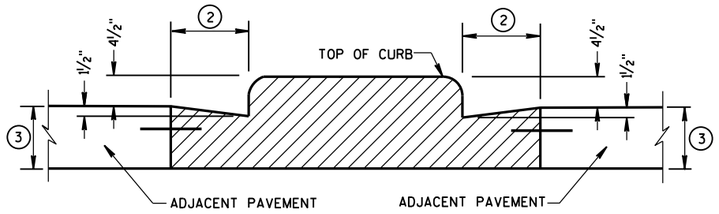
SDD 10A05 - 03







SECTION A-A



SECTION B-B

CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

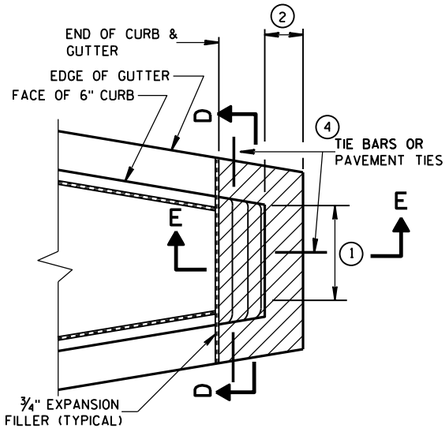
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

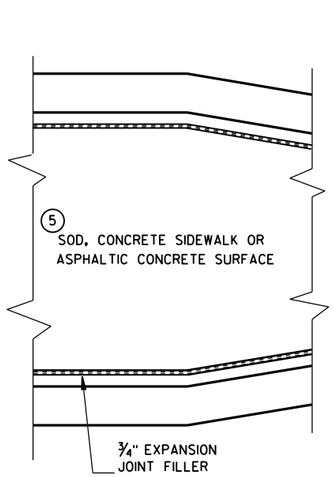
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

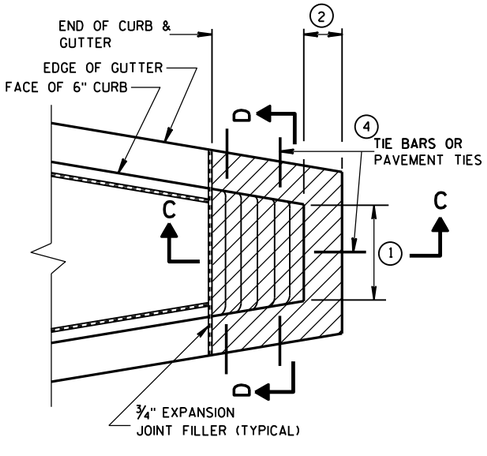
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

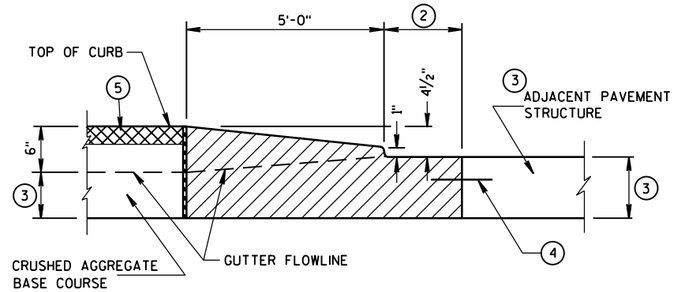
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



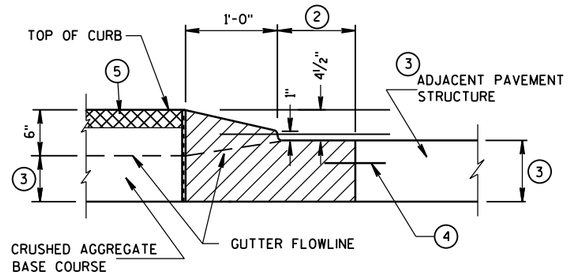




CONCRETE MEDIAN SLOPED NOSE TYPE 1

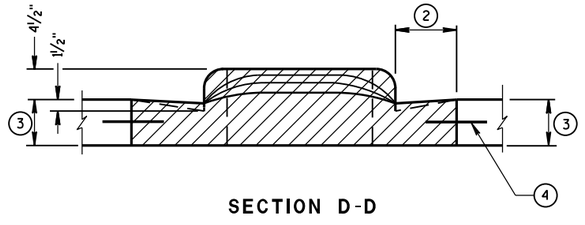


SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

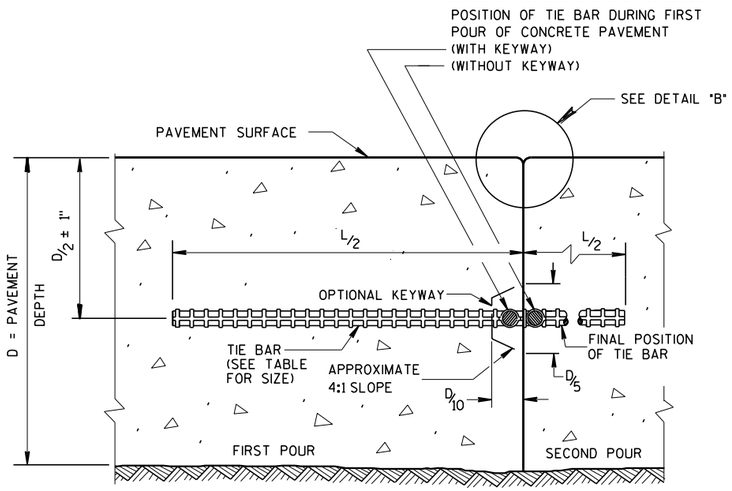
APPROVED
6/8/2006 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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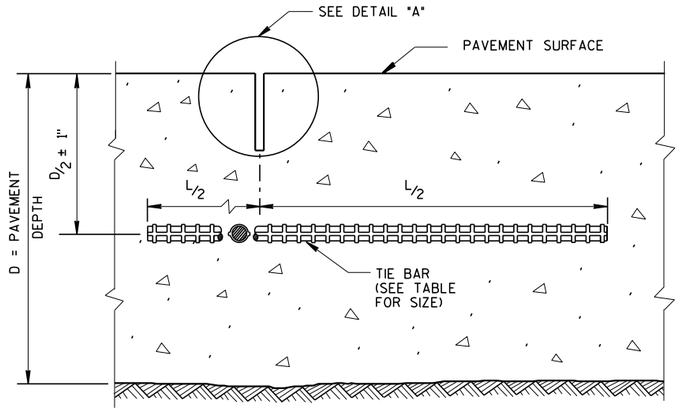
S.D.D. 11 B 2-2

6

S.D.D. 11 B 2-2



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Peter Kemp PE
PAVEMENT SUPE

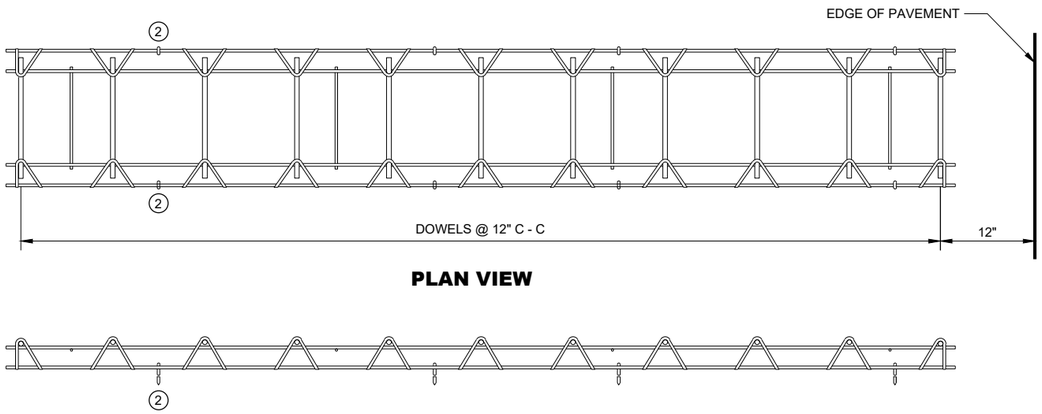
FHWA

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S.D.D. 13 C 1-19

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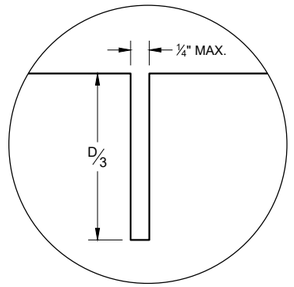
S.D.D. 13 C 1-19



PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY (1)



JOINT DETAIL

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES FROM AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

(1) OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTION CONTRACTION JOINTS.

(2) SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

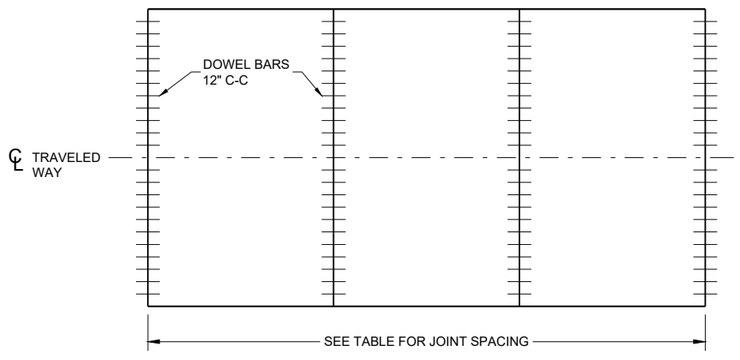
(3) FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼" RADIUS AT FORMED JOINTS.

(4) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

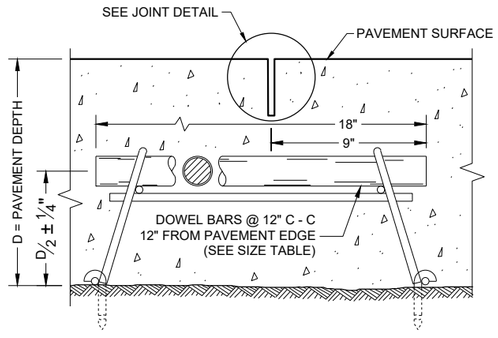
(5) INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED DOWEL BAR CONSTRUCTION JOINT" DETAIL.

(6) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

(7) ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



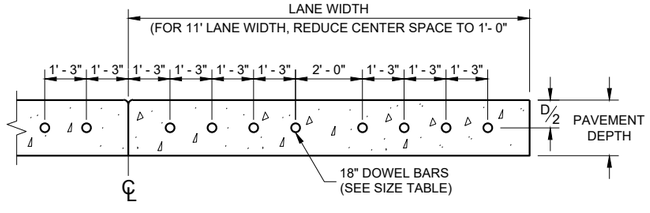
CONTRACTION JOINT LOCATIONS



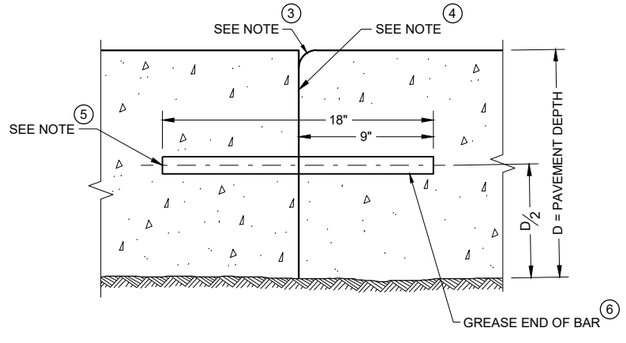
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8" & ABOVE	1 ¼"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT (7)



TRANSVERSE CONSTRUCTION JOINT

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

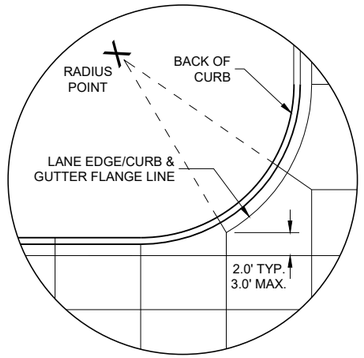
APPROVED
November 2022
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

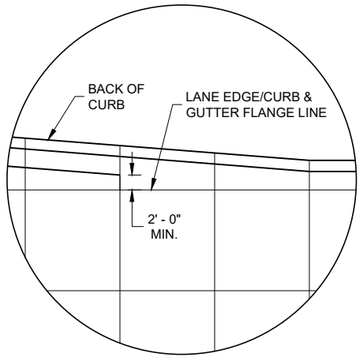
FHWA

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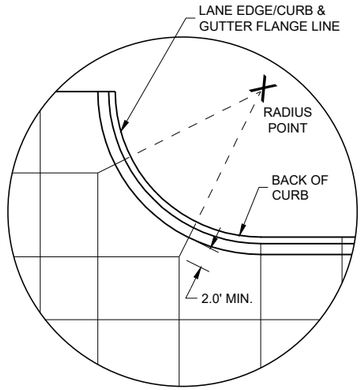
SDD 13C13 - 11



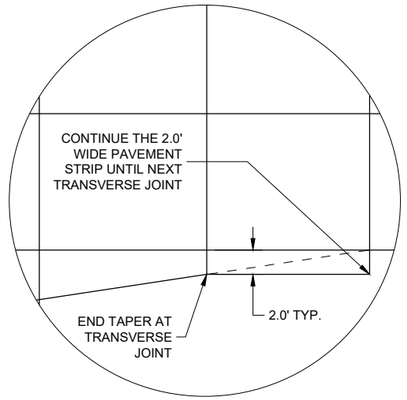
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

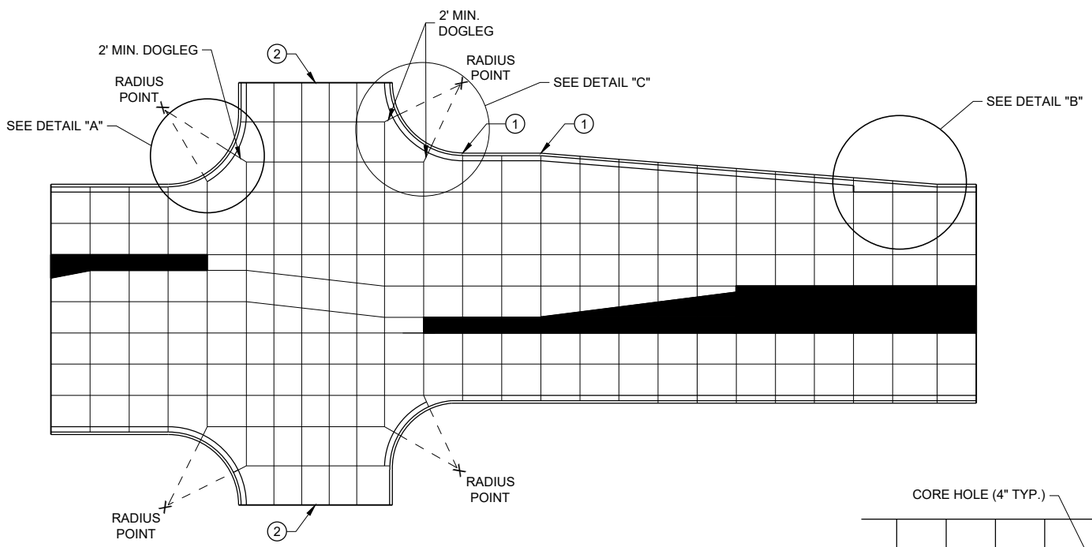
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

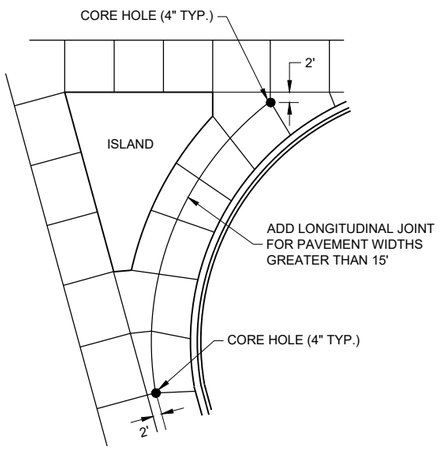
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



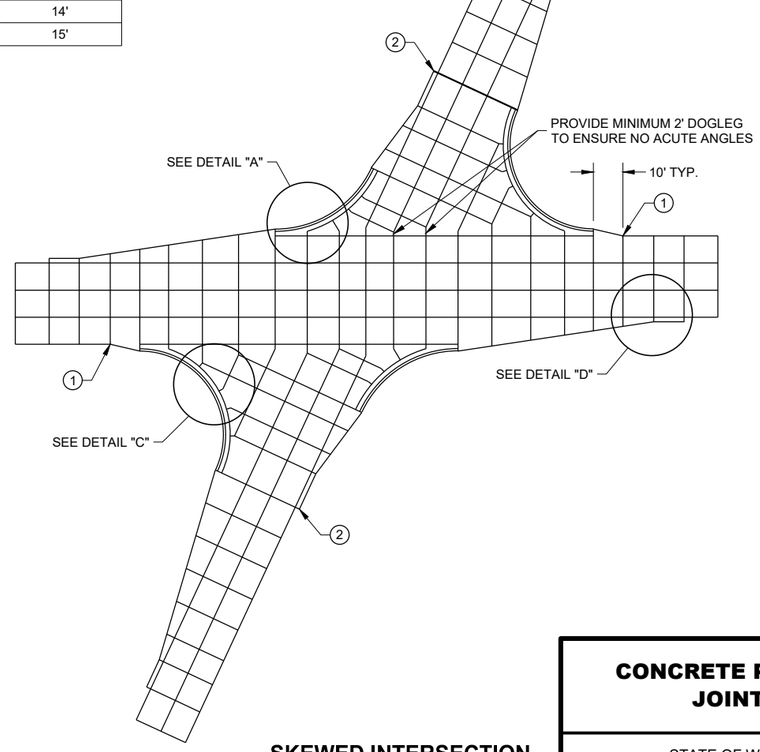
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

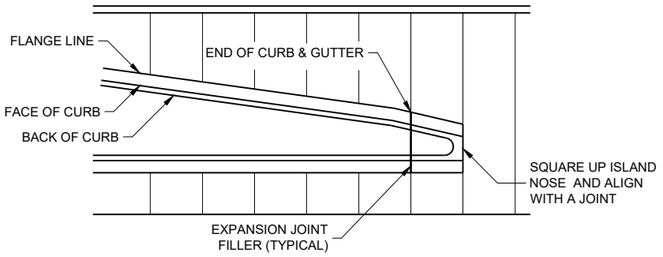
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



LARGE RIGHT TURN



SKEWED INTERSECTION



APPROACH TO MEDIAN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 08a

6

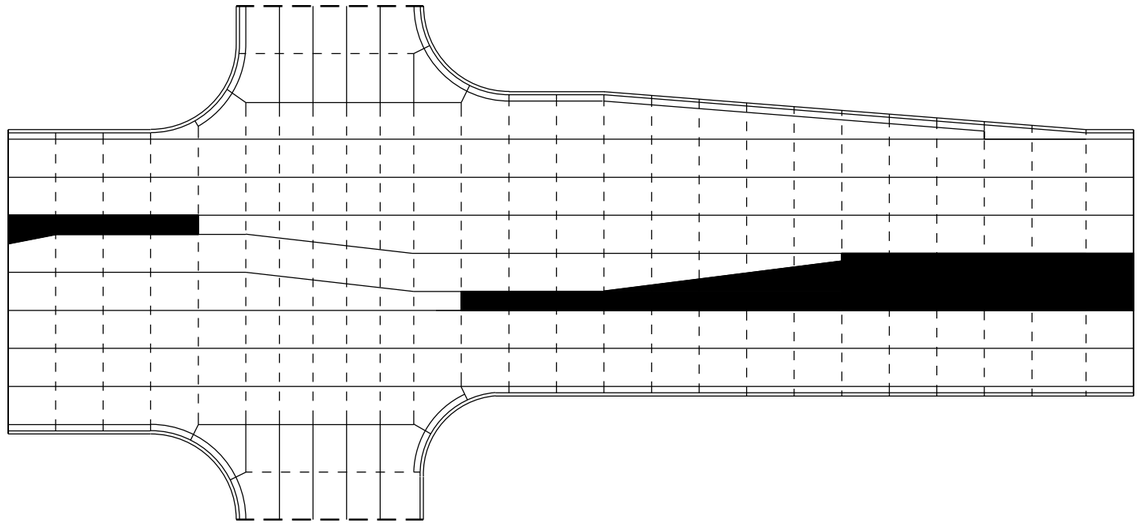
SDD 13C18 - 08a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

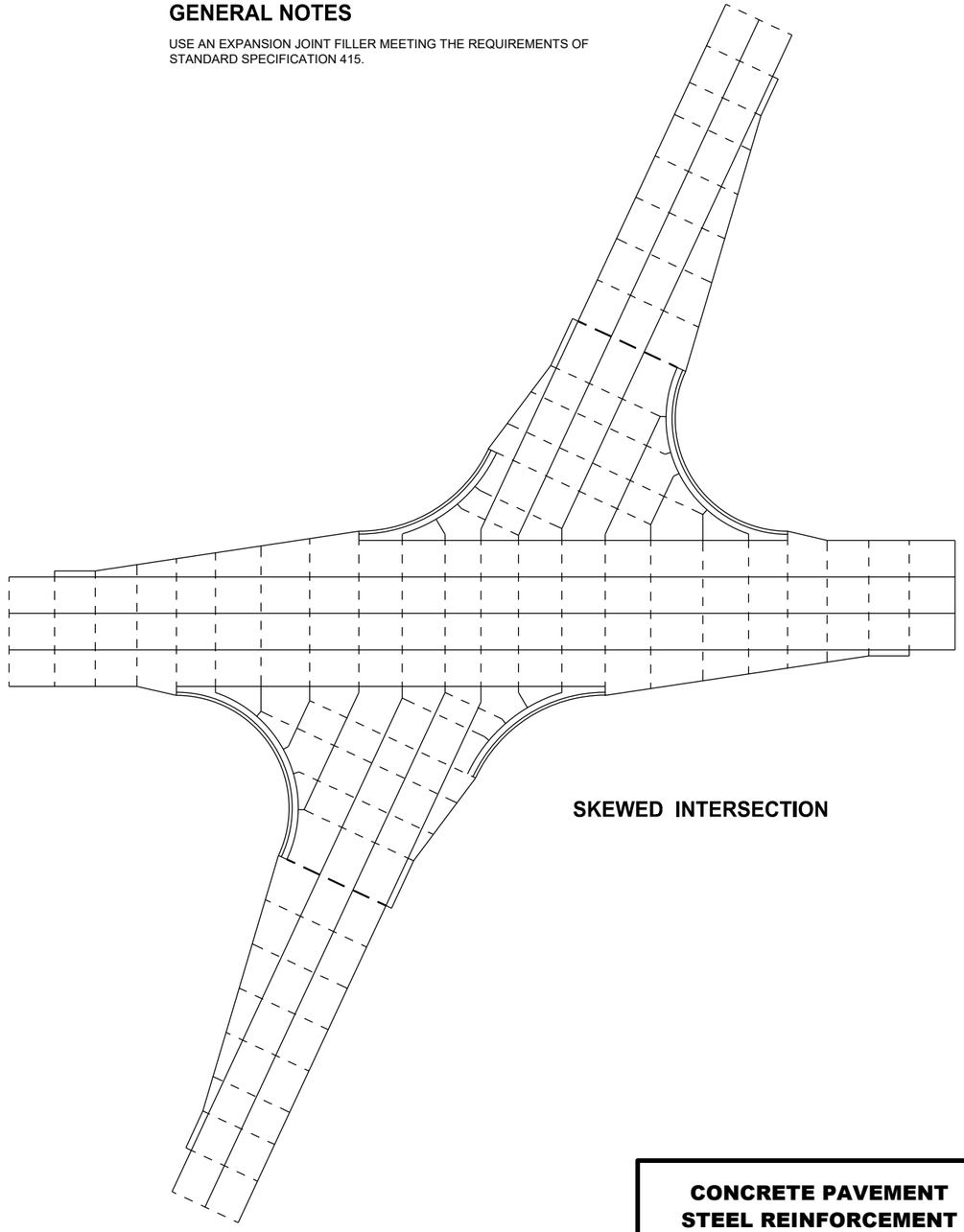
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

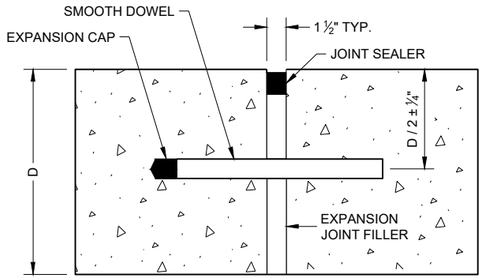
SDD 13C18 - 08b

CONCRETE PAVEMENT STEEL REINFORCEMENT

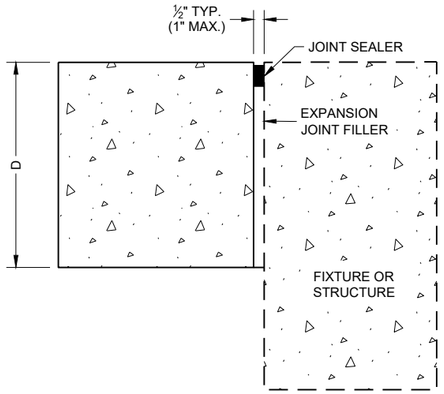
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 13C18 - 08b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

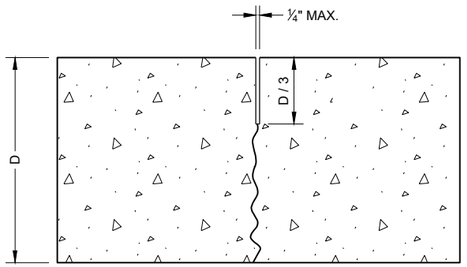
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

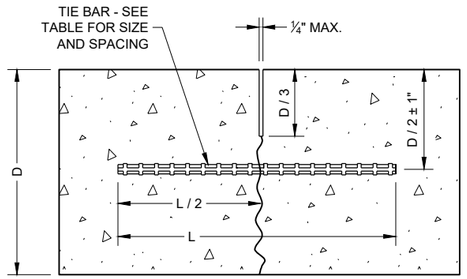
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

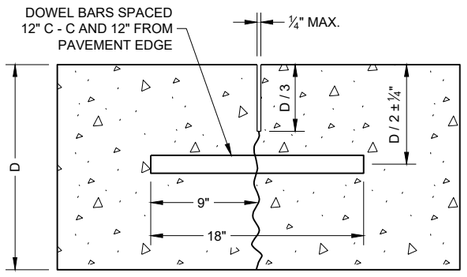
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

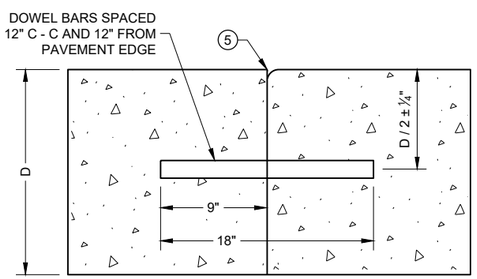


TIED LONGITUDINAL

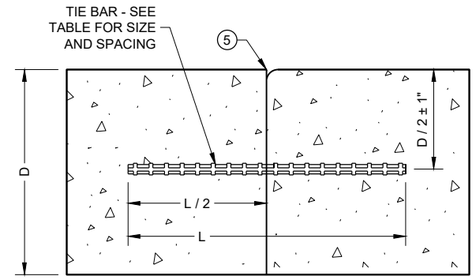


DOWELED TRANSVERSE

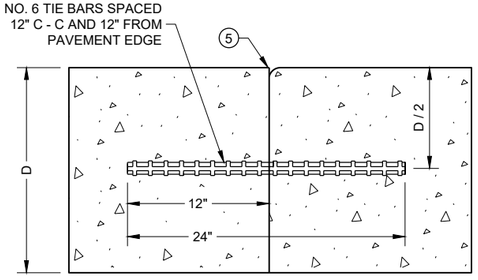
CONTRACTION JOINTS (2)



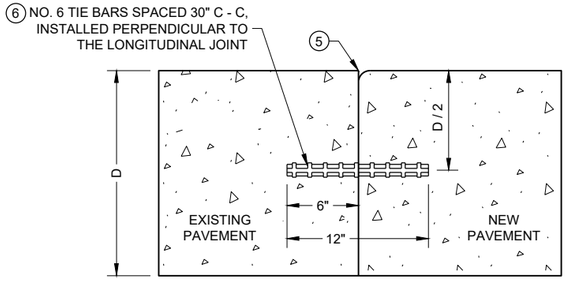
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

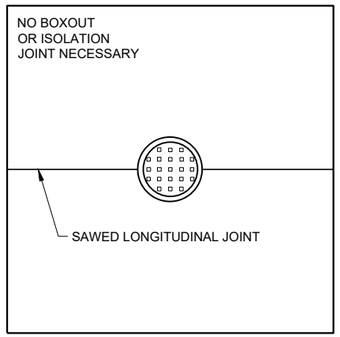
CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

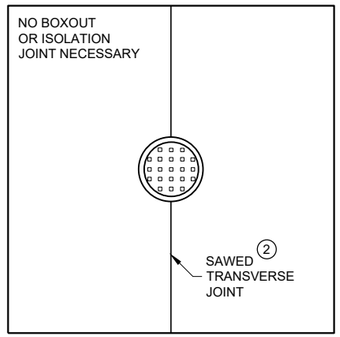
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

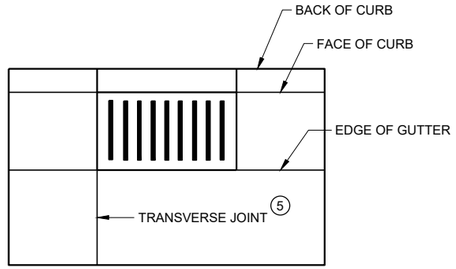
SDD 13C18 - 08c



MANHOLE WITH LONGITUDINAL JOINT



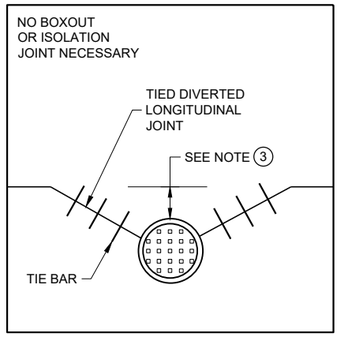
MANHOLE WITH TRANSVERSE JOINT



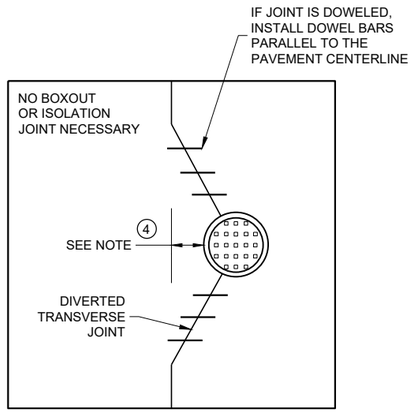
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

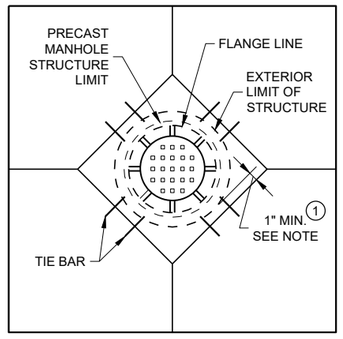
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVISO

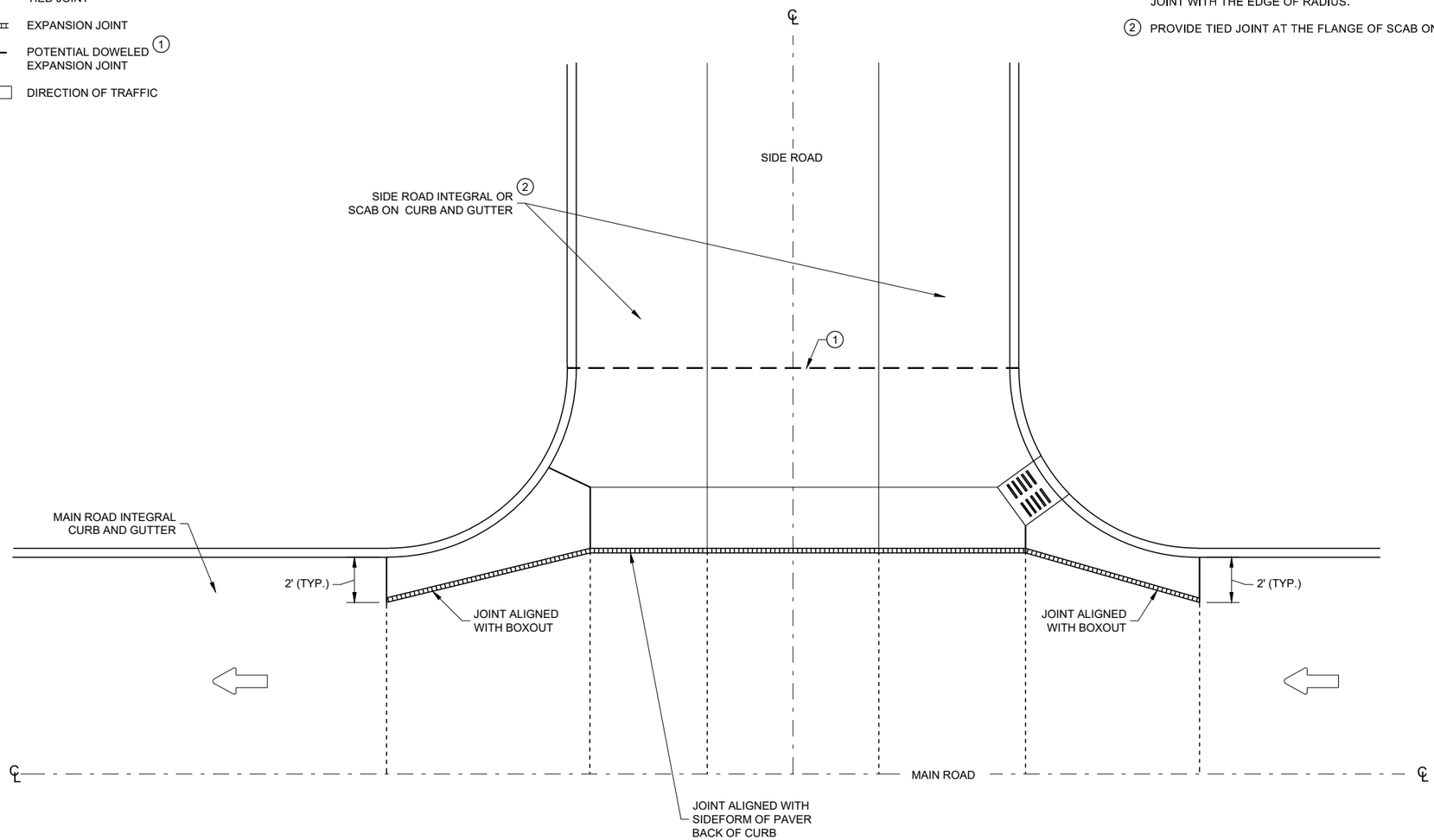
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SDD13C18 - 08d

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC



GENERAL NOTES

(1) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.

(2) PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

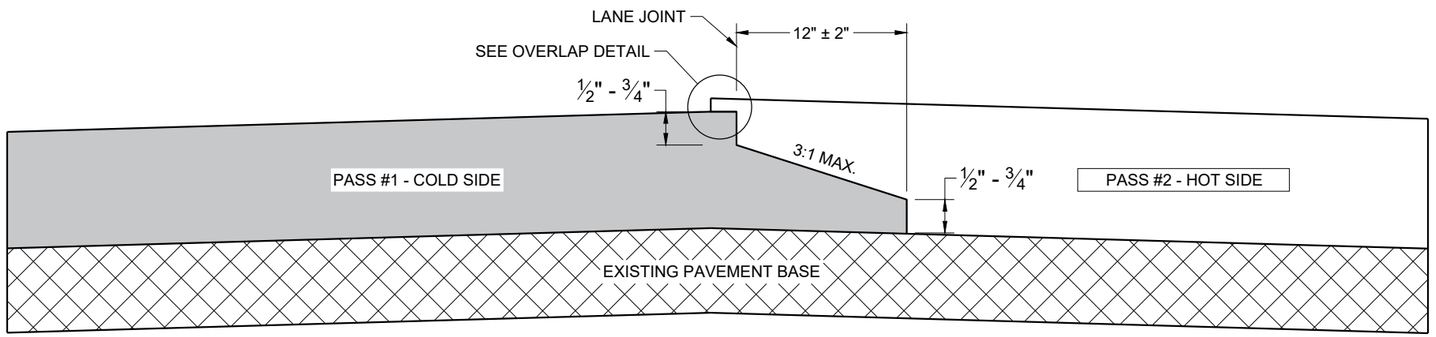
FHWA

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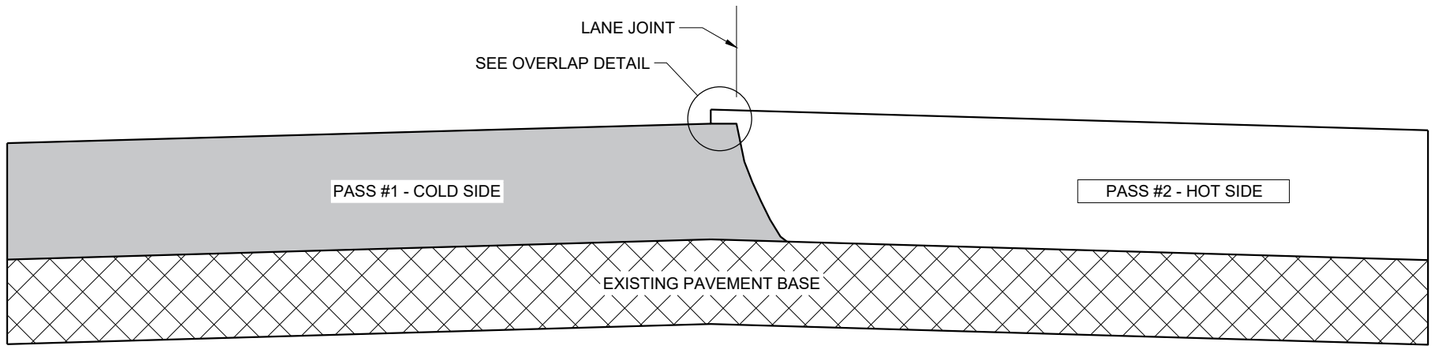
SDD 13C18 - 08f

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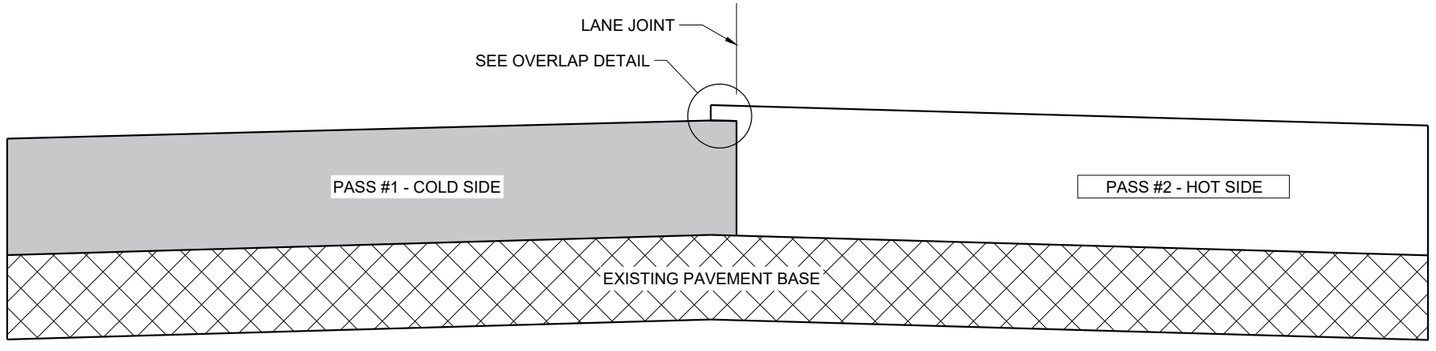
SDD 13C18 - 08f



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

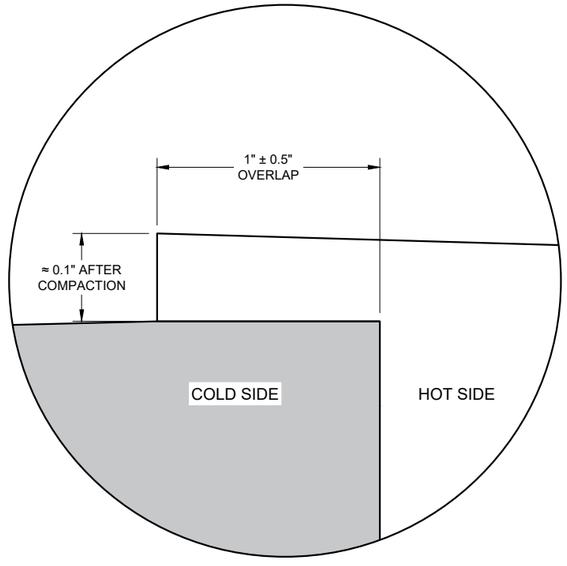
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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)

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SDD 13C19 - 03

SDD 13C19 - 03

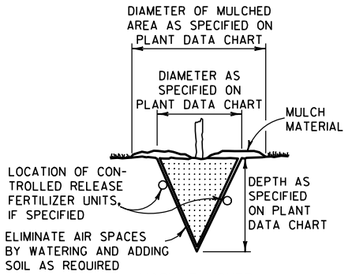
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

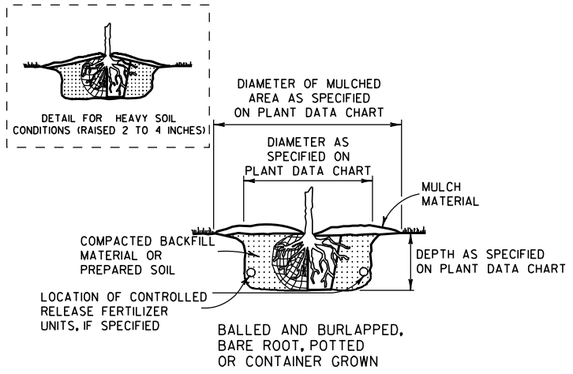
APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

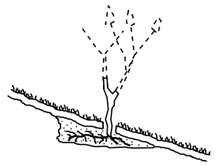
FHWA



MACHINE MOVED

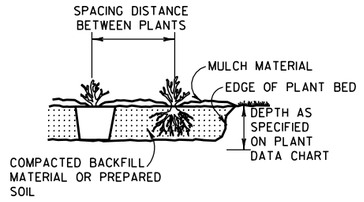


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



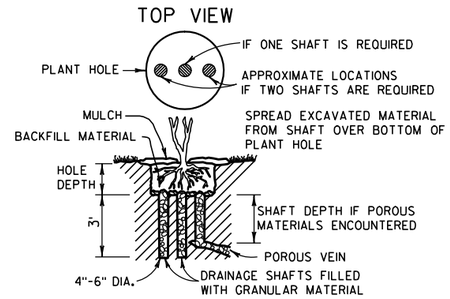
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

NOTE:
1) ENGINEER SHALL REQUIRE 3 SLITS IN POT TO SPEED DETERIORATION
2) METAL, PLASTIC OR OTHER NONDEGRADABLE POTS SHALL BE REMOVED PRIOR TO PLANTING



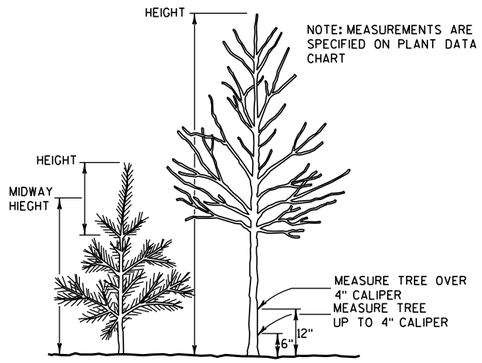
PREPARED BED (BARE ROOT AND POTTED)

PLANTING

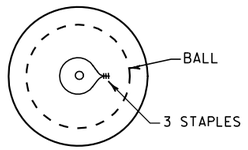


NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

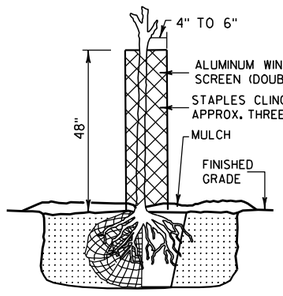
DRAINING



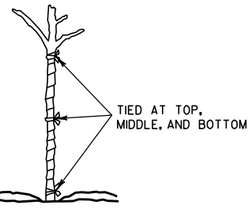
MEASURING



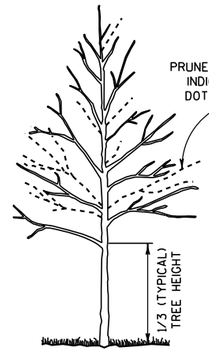
TOP VIEW



RODENT PROTECTION



WRAPPING

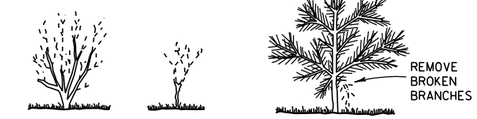


TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)

SINGLE STEMMED LOW DECIDUOUS TREES (CRABS AND OTHER SINGLE STEM TYPE)

MULTI-STEMMED LOW DECIDUOUS TREES OR LARGE SHRUBS (HAWTHORN, SERVICEBERRY)

NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES

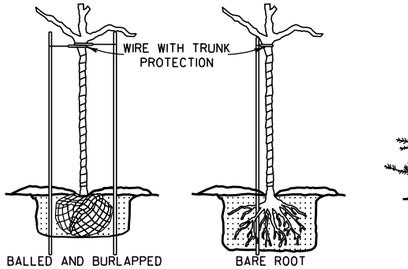


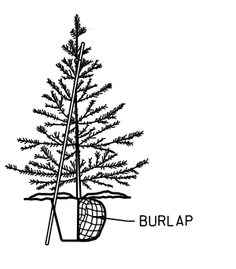
SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

SUMAC

TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

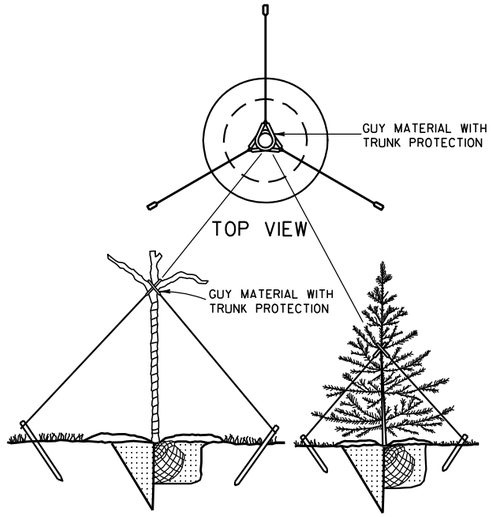
PRUNING





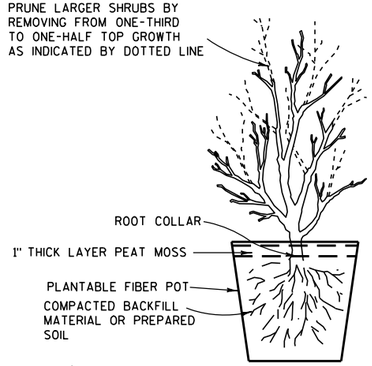
NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

BRACING



GUYING

PRUNE LARGER SHRUBS BY REMOVING FROM ONE-THIRD TO ONE-HALF TOP GROWTH AS INDICATED BY DOTTED LINE



POTTING

NOTES

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

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

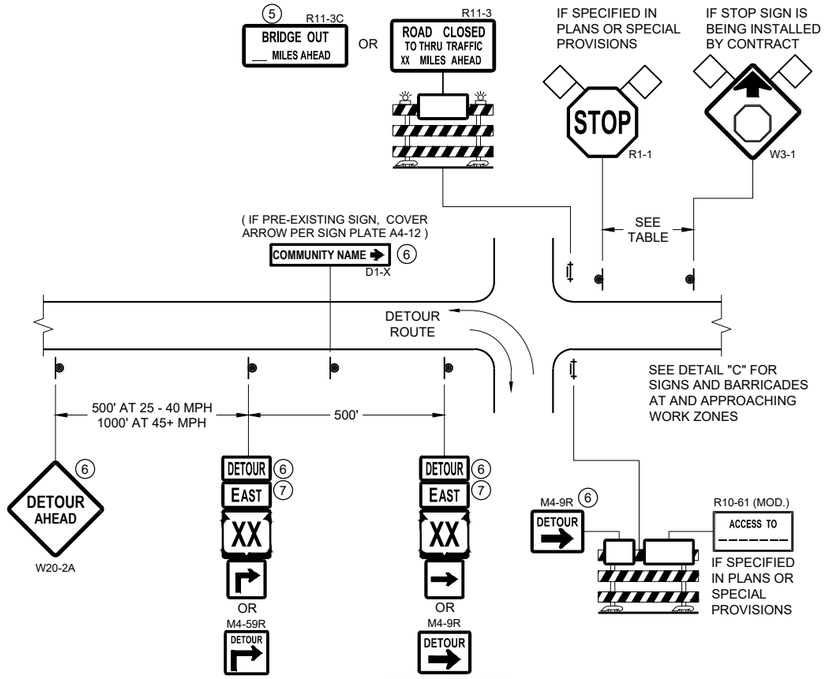
TREE PLANTING DETAIL

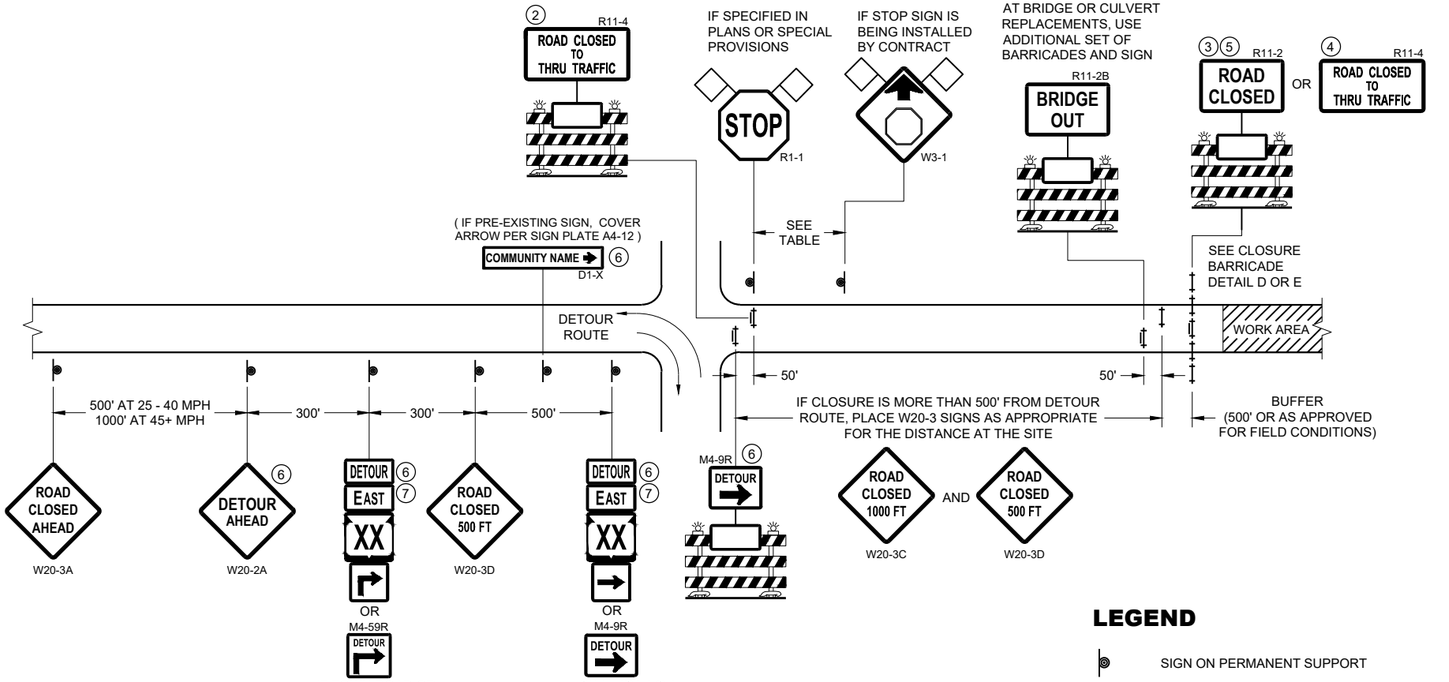
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/11/94 — DATE
/S/ Rory L. Rhinesmith — CHIEF METHODS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 A 2-1



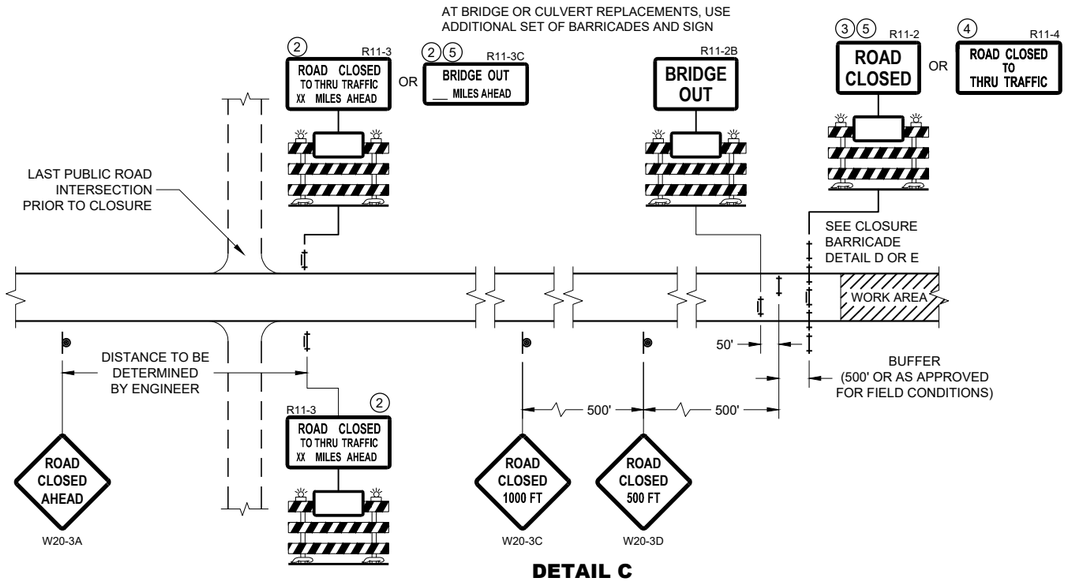


DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

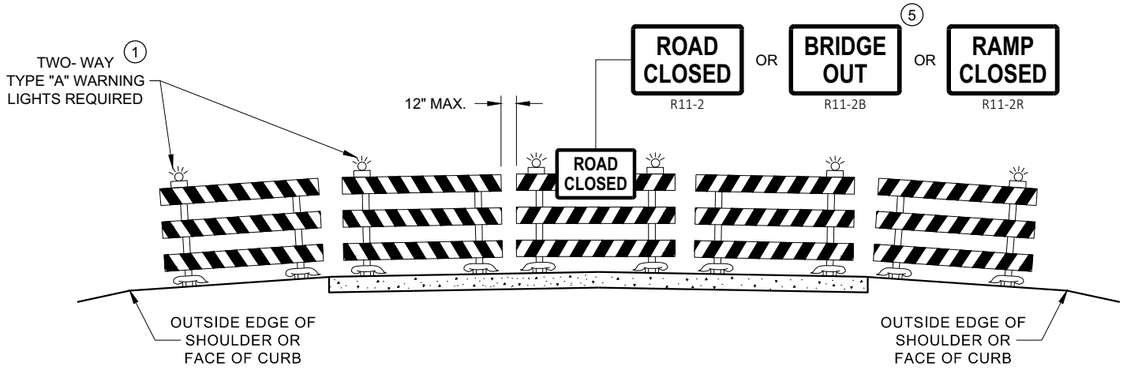
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

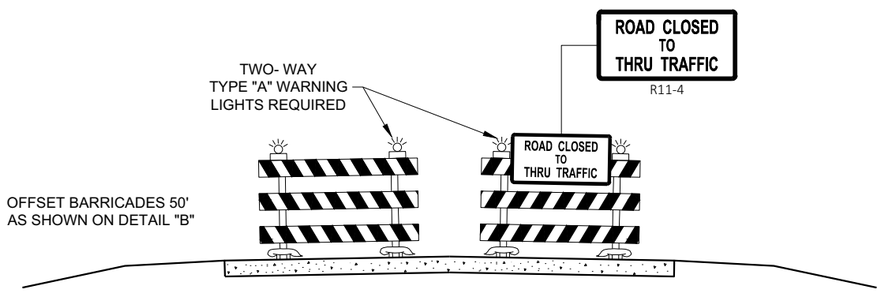
SDD 15C02 - 08a

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SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

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

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

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

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

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE 244
FHWA

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SDD 15C02 - 08b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

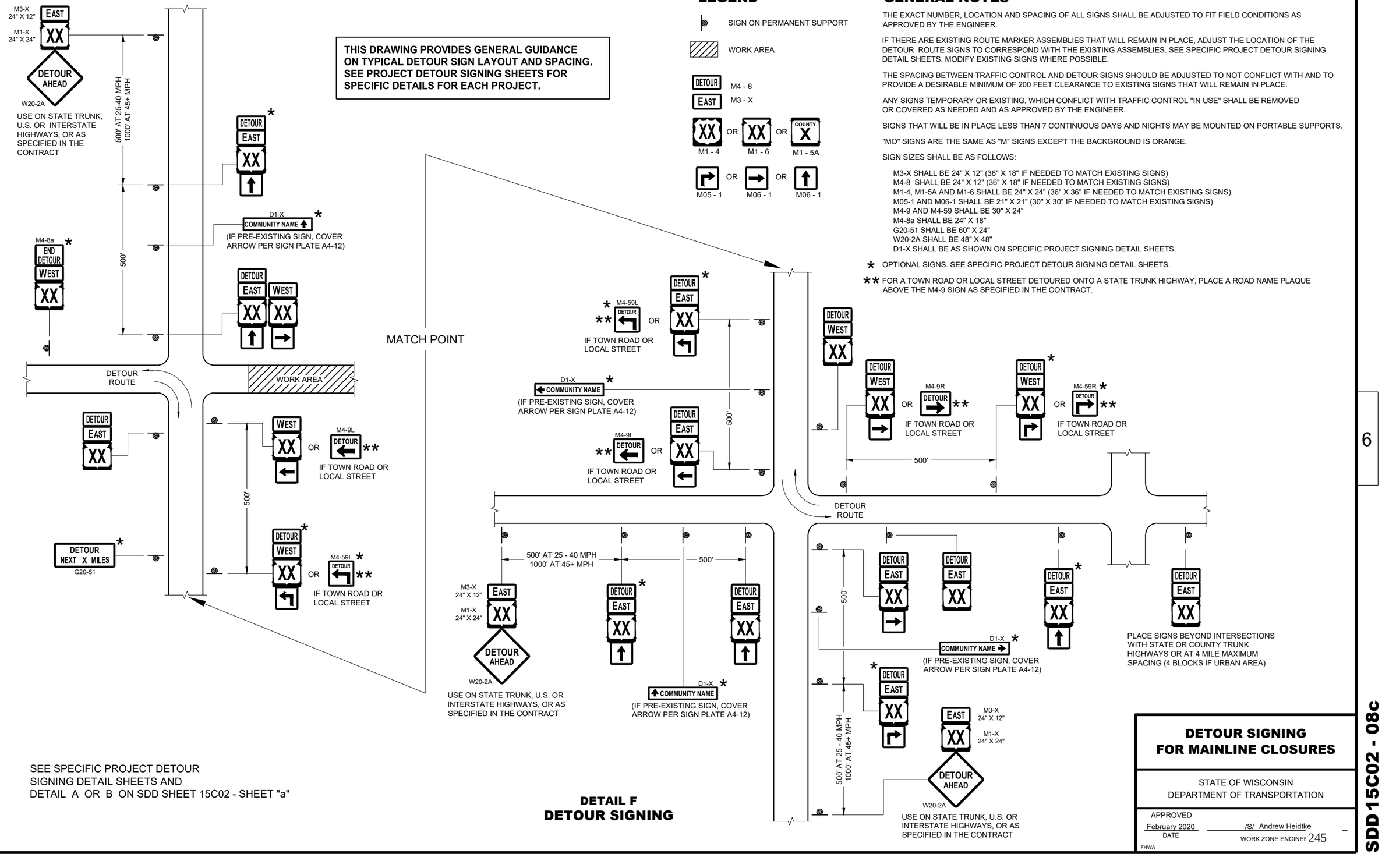
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

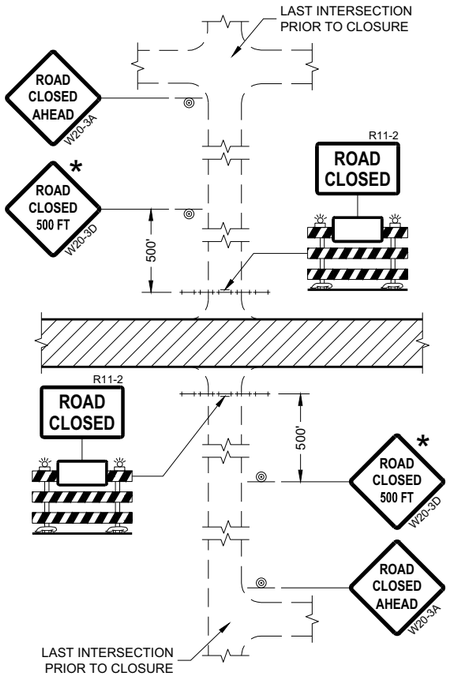
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

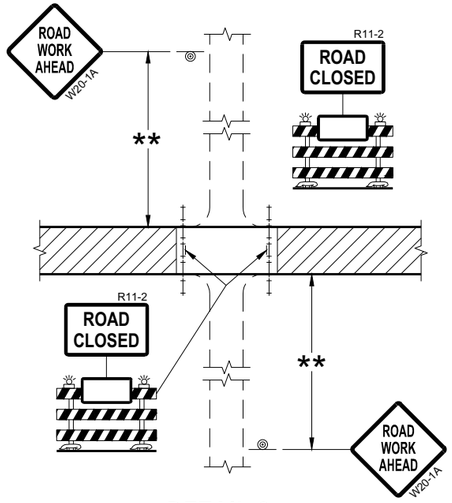
SDD 15C02 - 08c

SDD 15C02 - 08c

6



DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

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

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

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

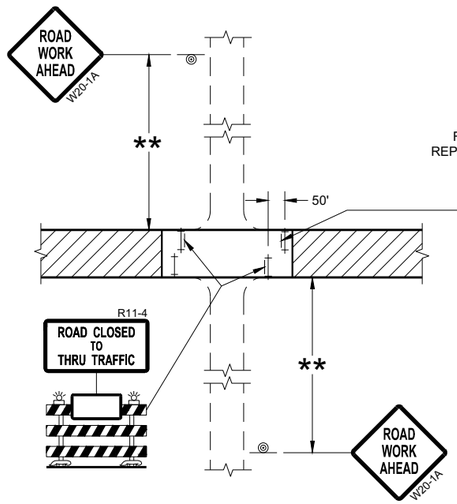
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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

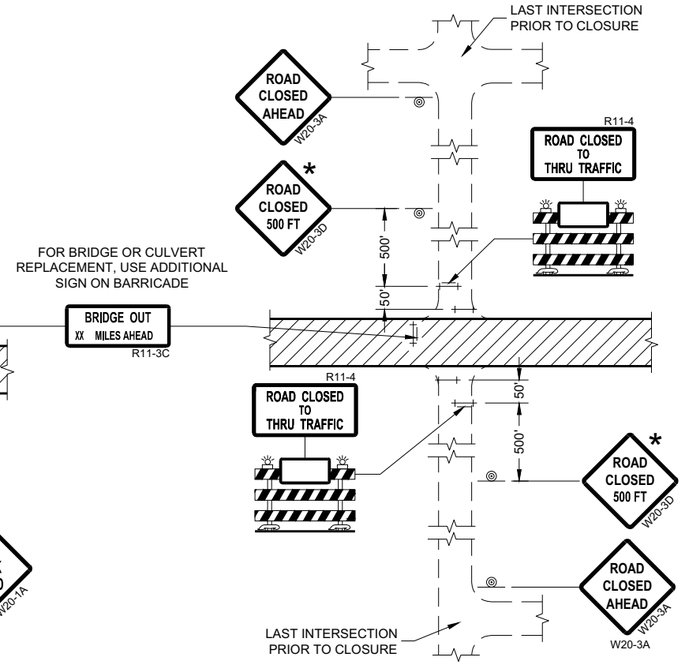
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

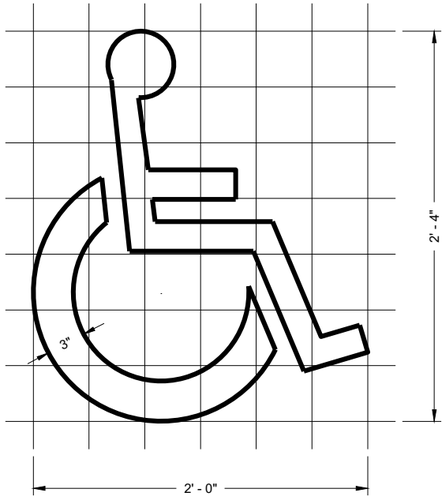
6

SDD 15C03 - 05

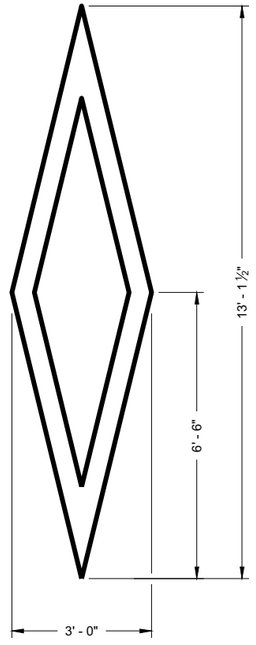
SDD 15C03 - 05

GENERAL NOTES

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



HANDICAP SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

SDD 15C07 - 15a

SDD 15C07 - 15a

PAVEMENT MARKING SYMBOLS

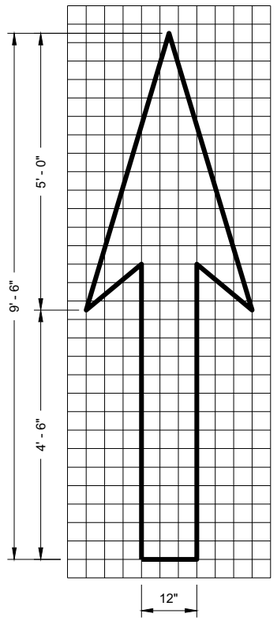
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

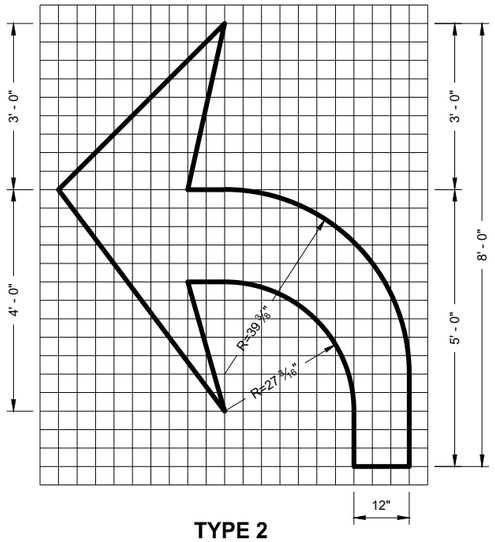
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAR ENGINEER

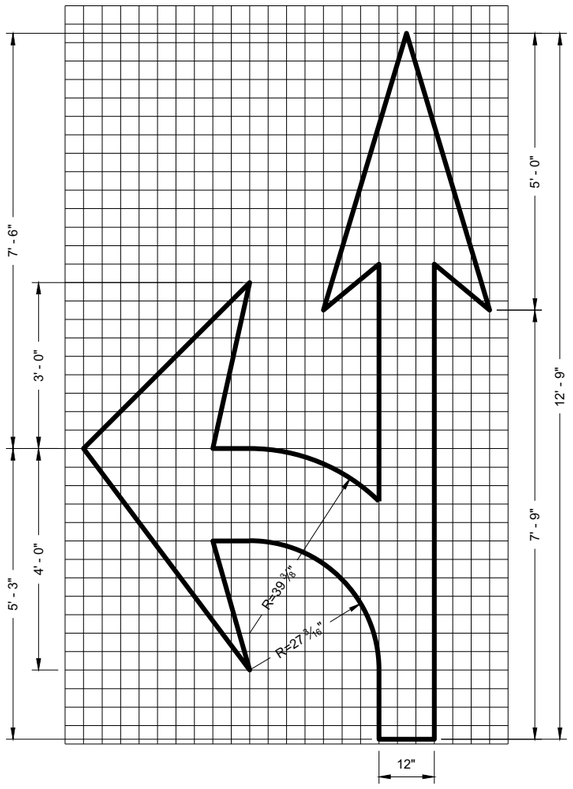
FHWA



TYPE 1



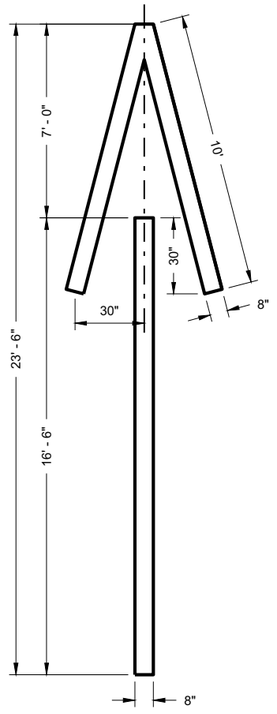
TYPE 2



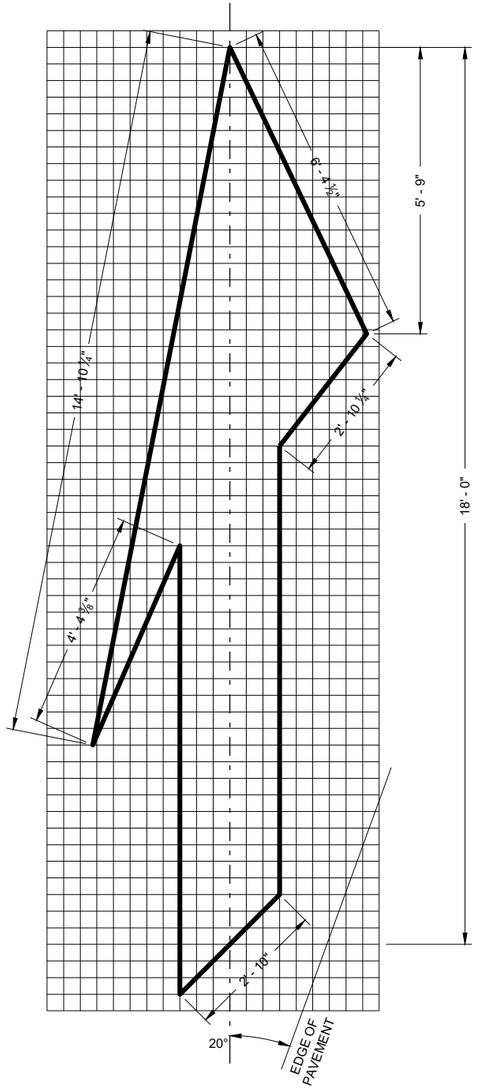
TYPE 3

GENERAL NOTES

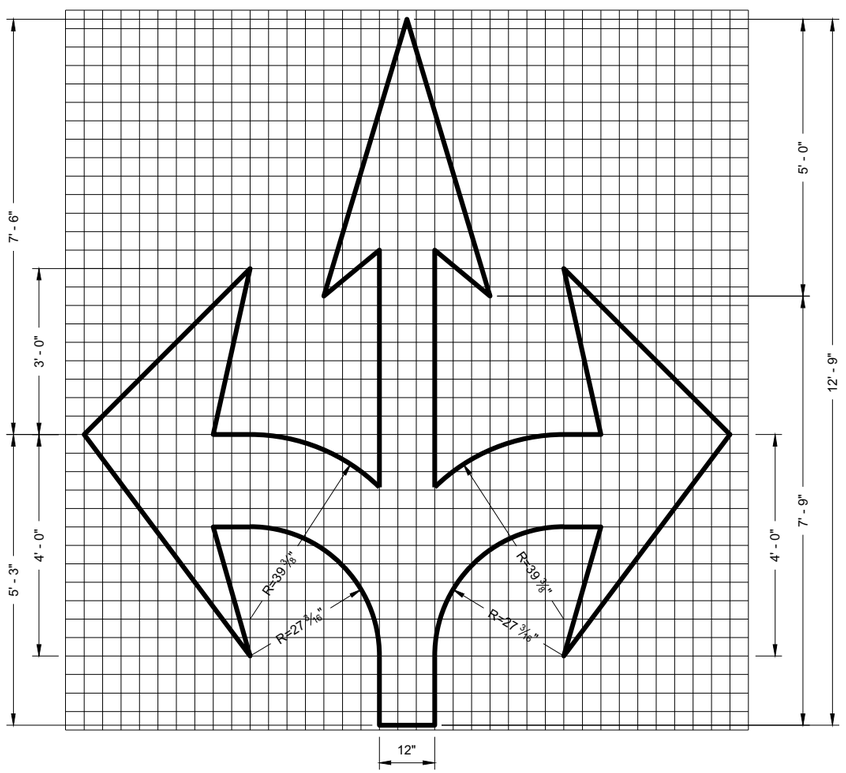
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



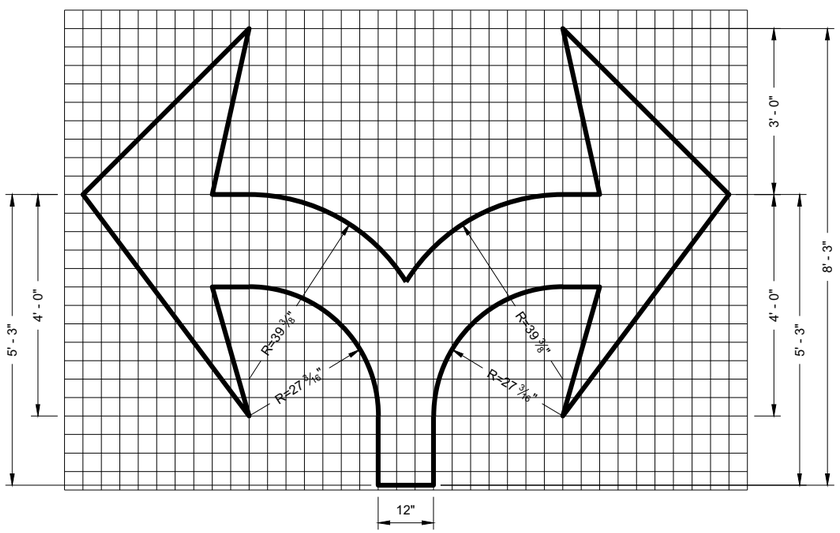
TYPE 4



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

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248

6

SDD 15C07 - 15c

6

SDD 15C07 - 15c

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

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

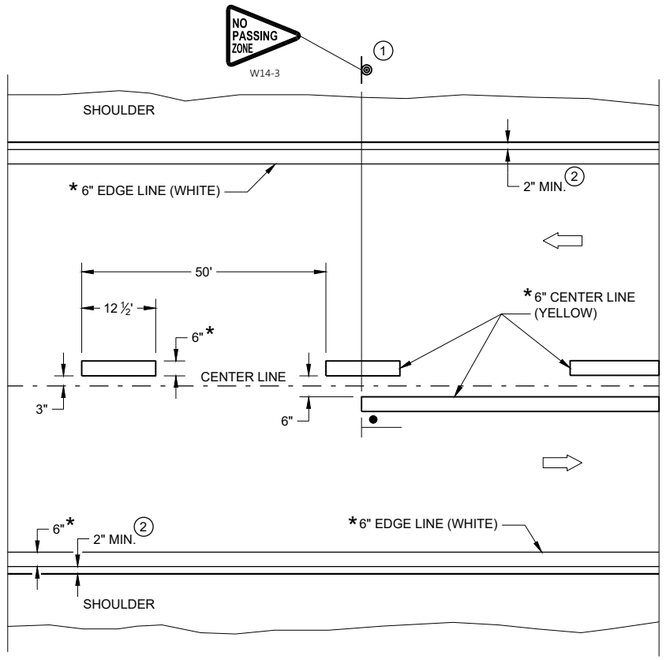
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

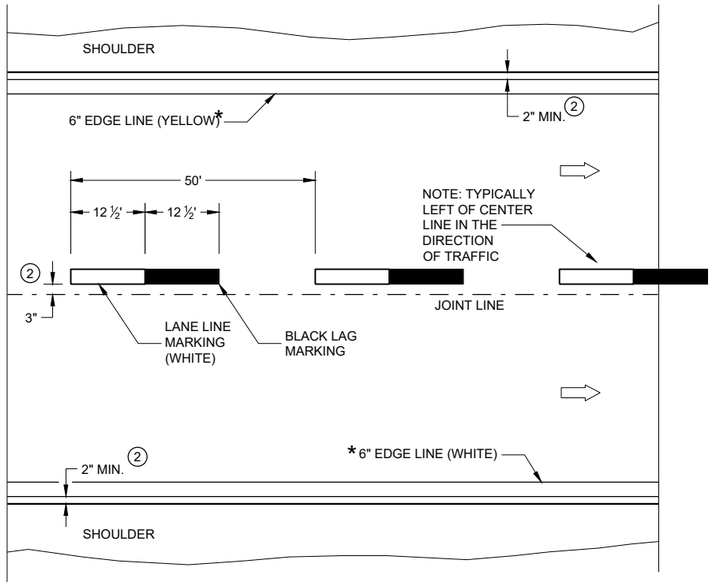
"T" MARKING

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

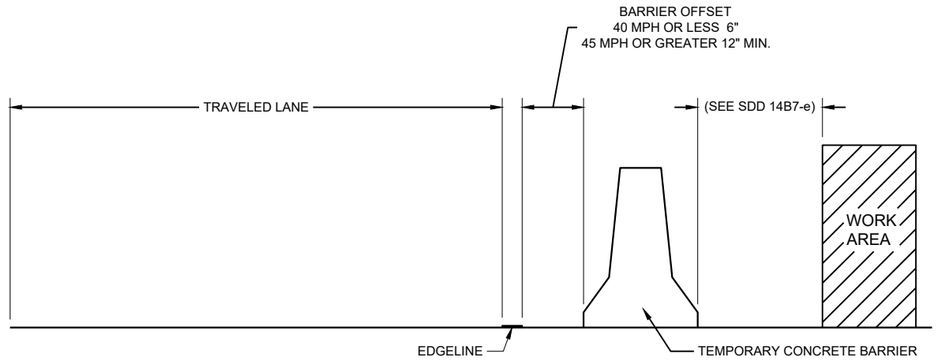
APPROVED
May 2023 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

FHWA

6

SDD 15C08-23a

SDD 15C08-23a



TEMPORARY BARRIER OFFSET FROM EDGELINE

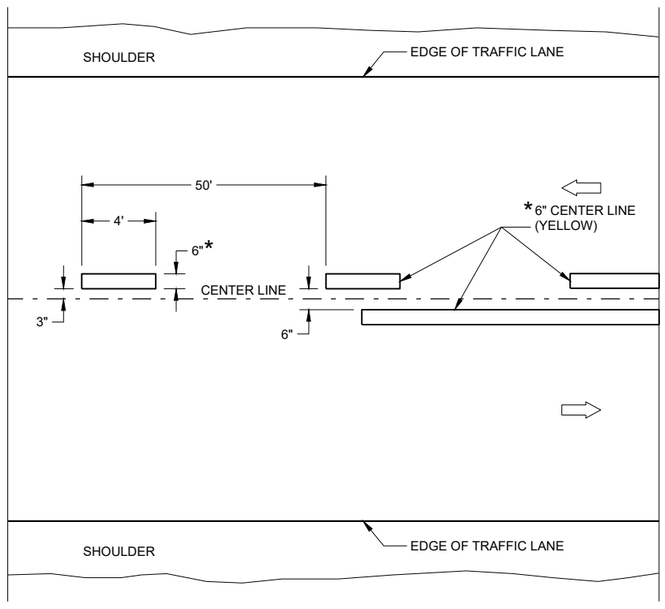
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

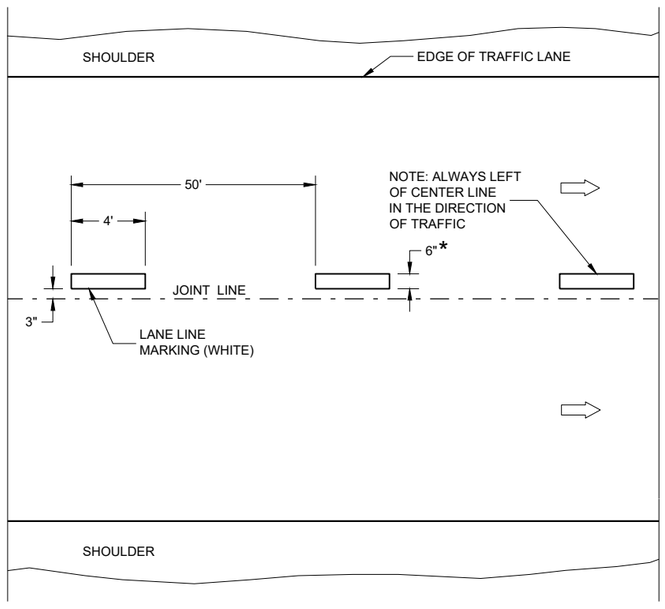
LEGEND

⇨ DIRECTION OF TRAFFIC

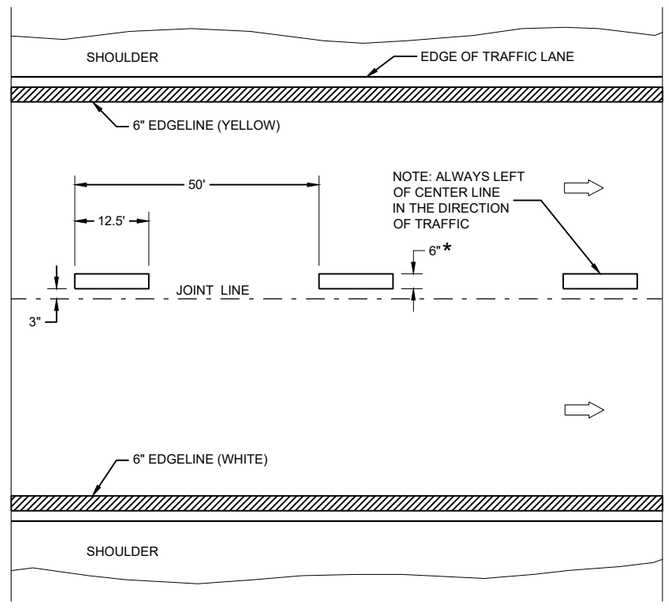
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



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 SIGNING AND M ENGINEER

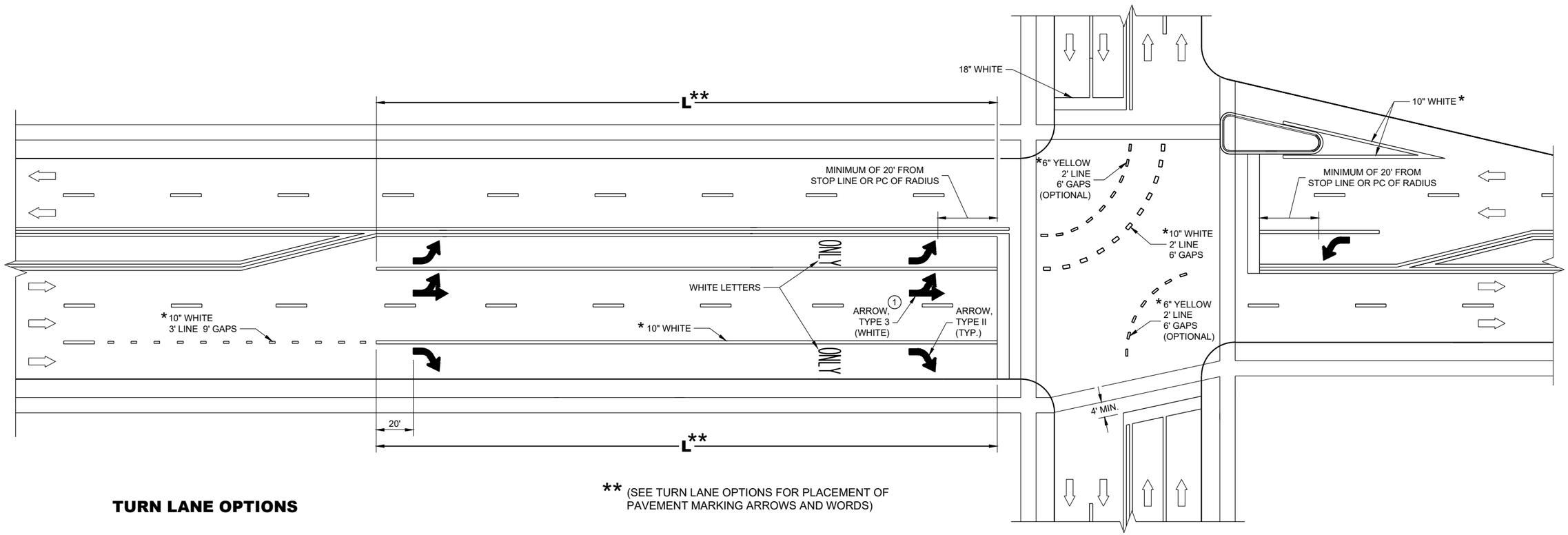
FHWA

6

SDD 15C08-23b

6

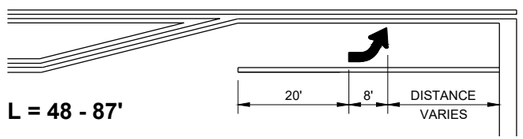
SDD 15C08-23b



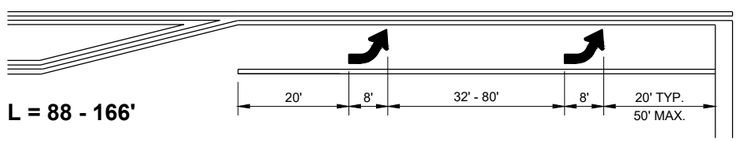
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

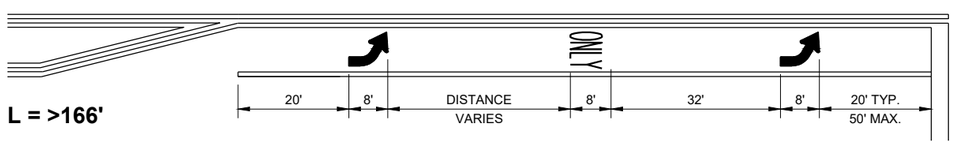
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



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

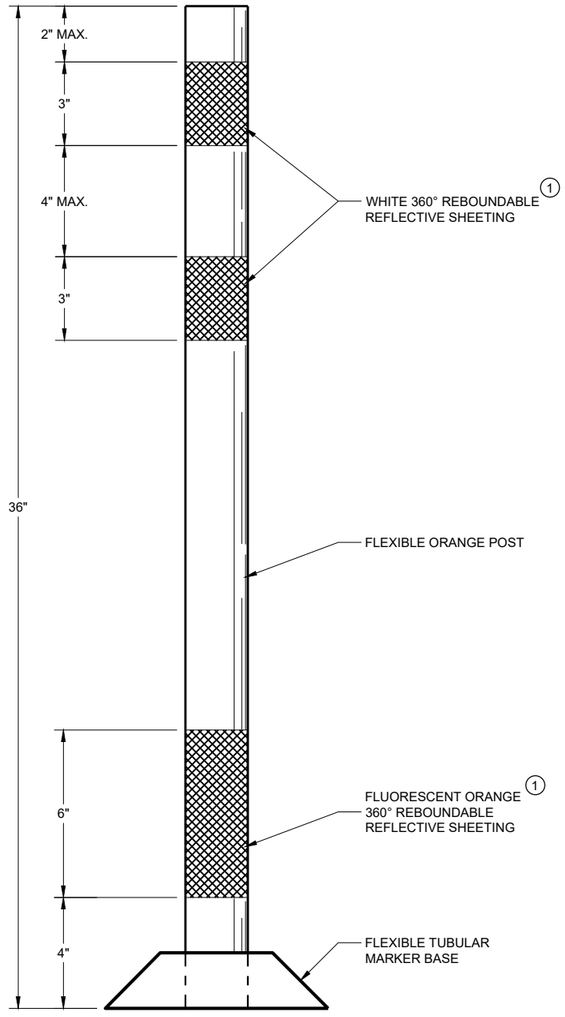
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

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.

CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

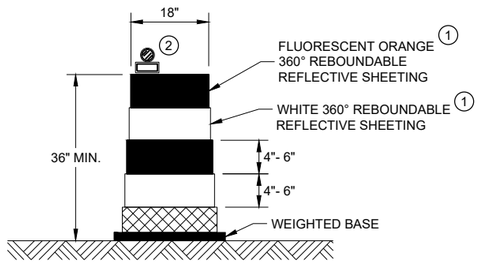
FHWA

6

SDD 15C11 - 10a

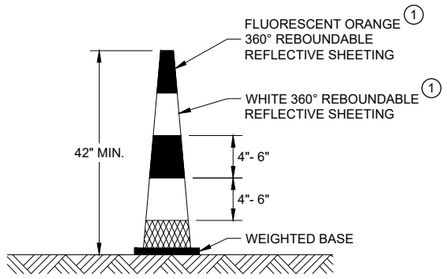
GENERAL NOTES

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



DRUM

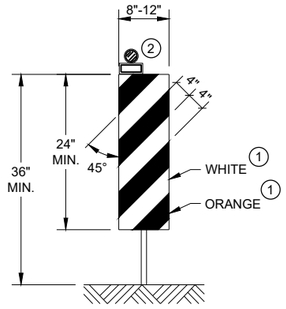
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

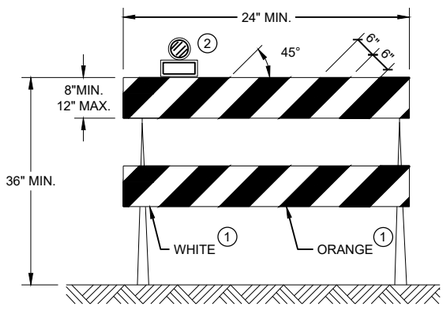
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



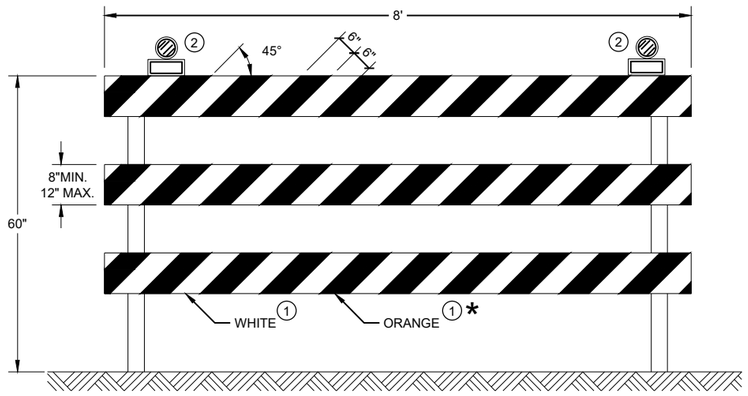
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15C11 - 10b

6

SDD 15C11 - 10b

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.

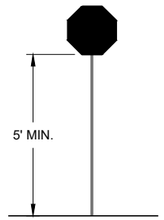
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

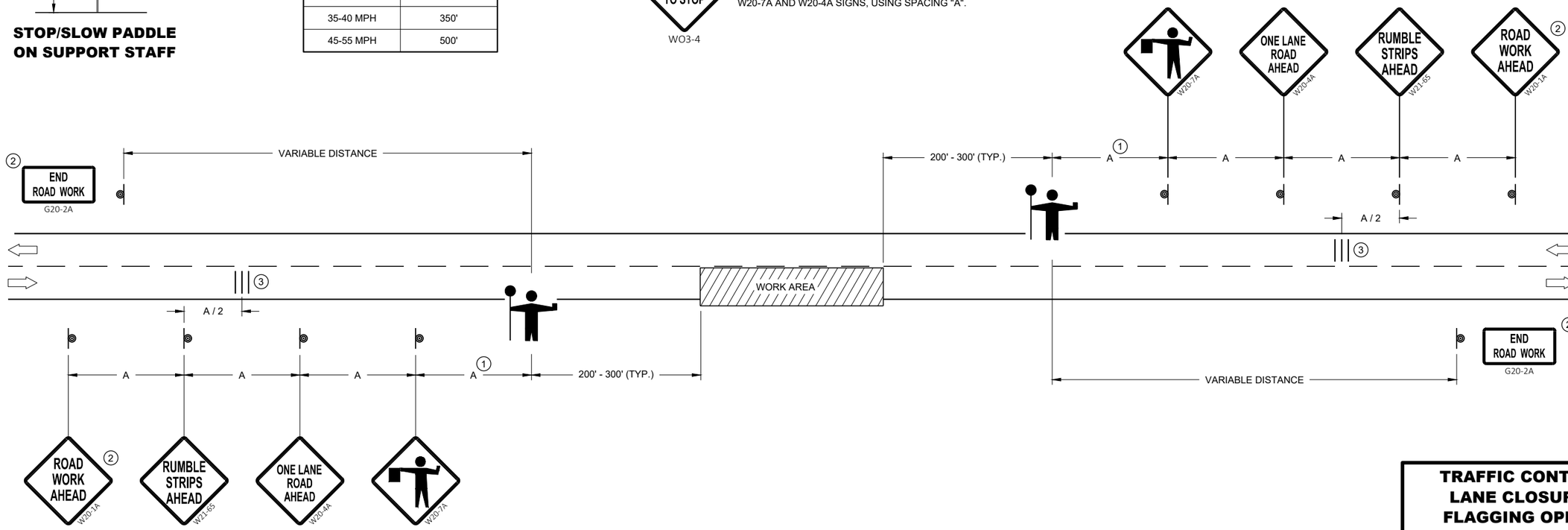
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

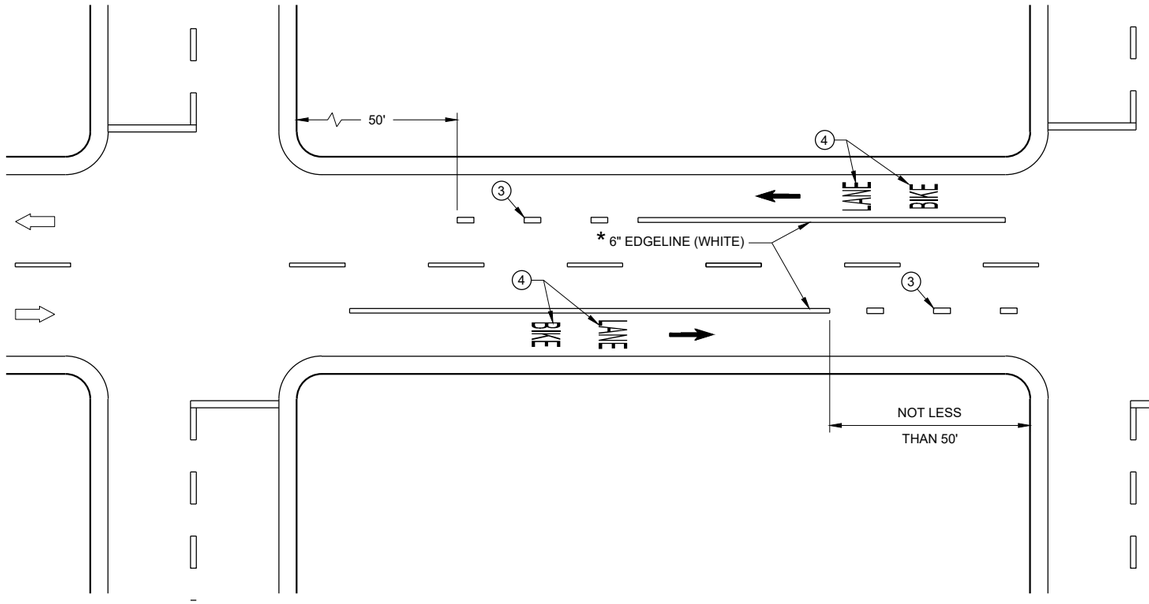
APPROVED
May 2022
DATE

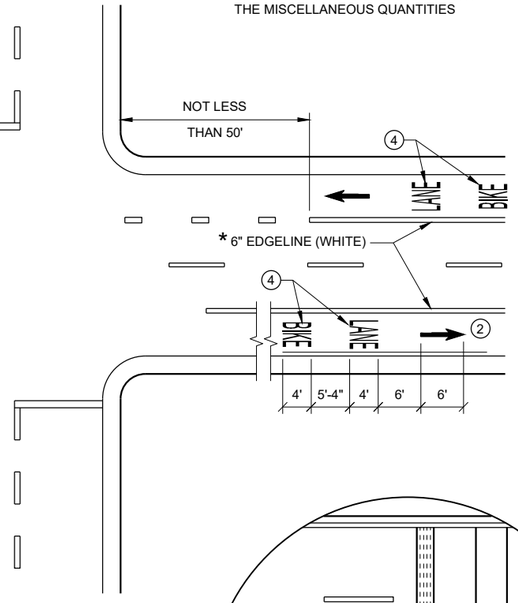
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15C12 - 09a

SDD 15C12 - 09a



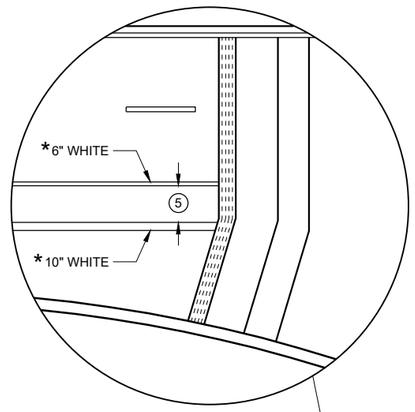


GENERAL NOTES

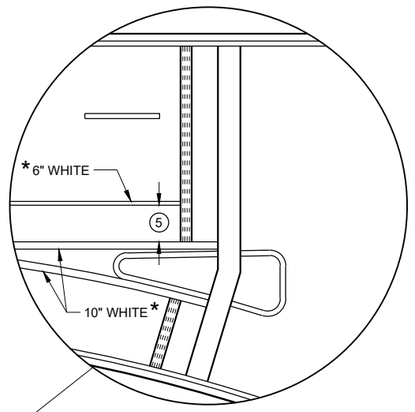
1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY 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

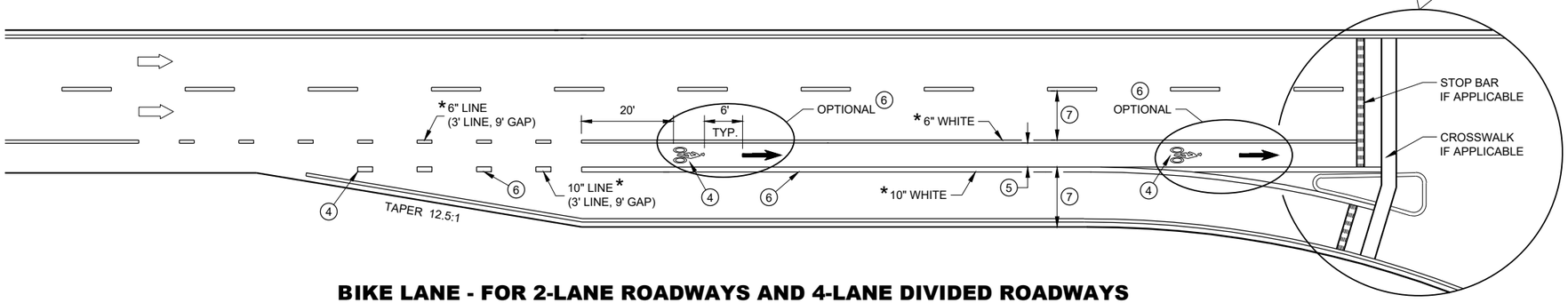
DESIGNATED BIKE LANE - NO PARKING



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

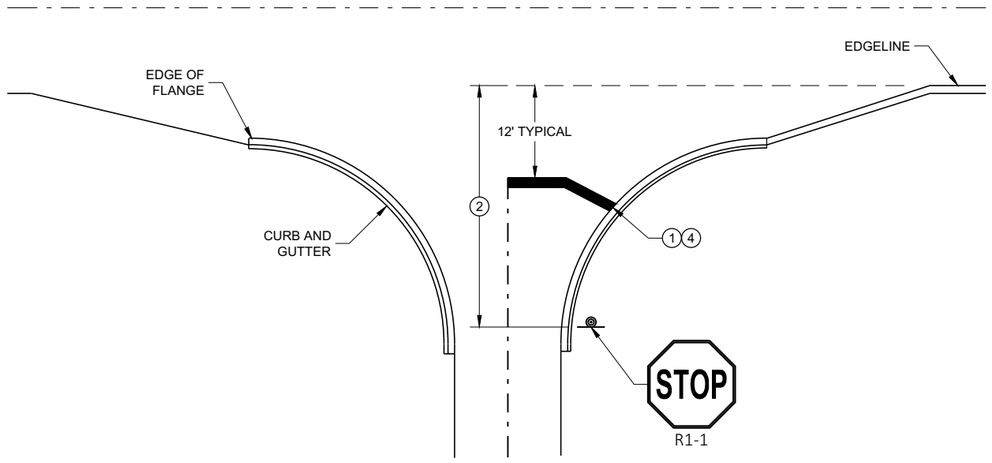
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SDD 15C29-08a

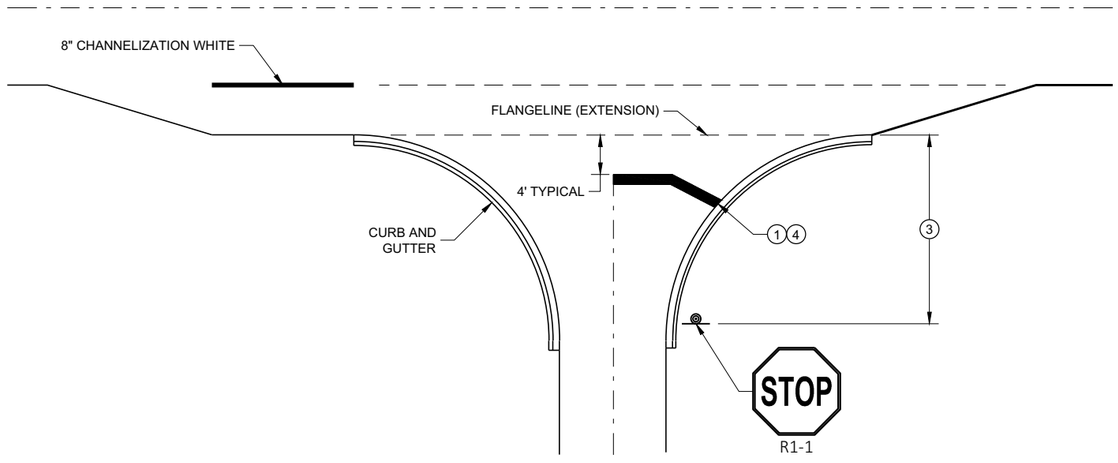
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

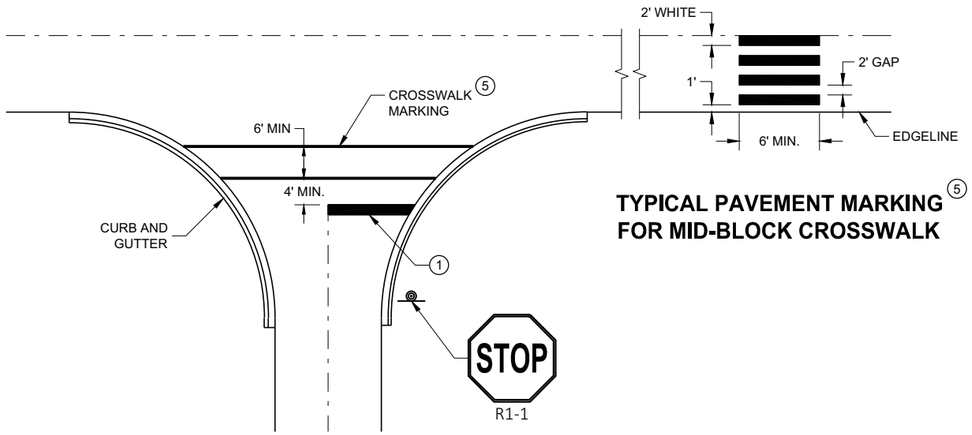
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE 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 INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

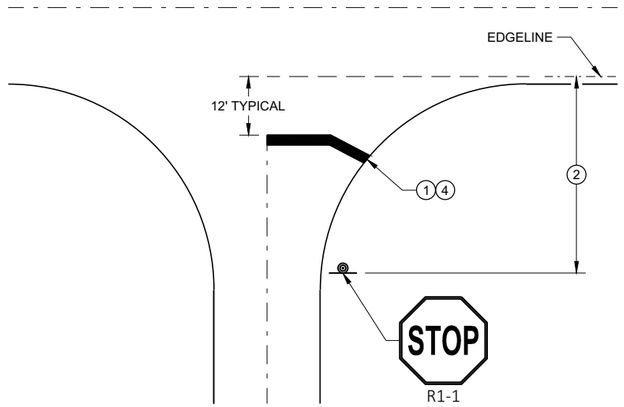


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS 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
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA

6

SDD 15C33 - 04

6

SDD 15C33 - 04

LEGEND

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



GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D20-07b

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

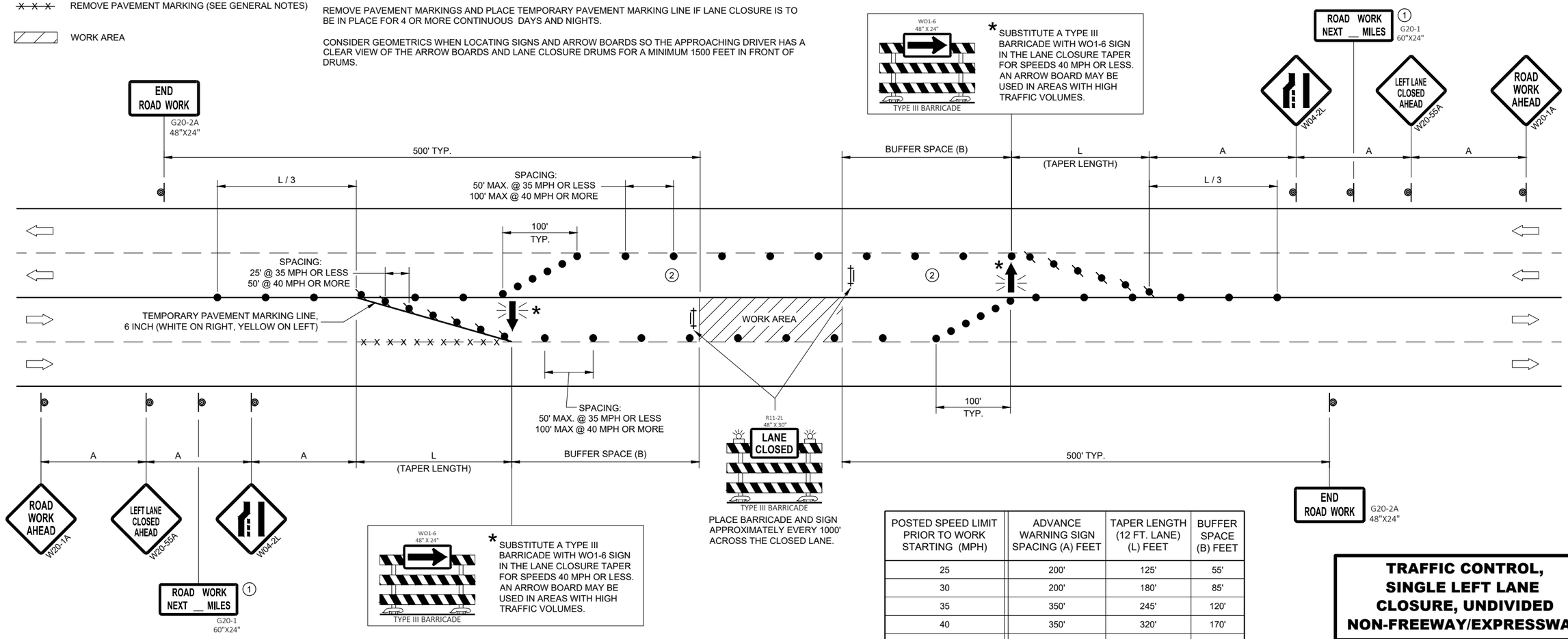
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

(2) LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.



WO1-6 48" X 24"

TYPE III BARRICADE

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D20-07c

6

SDD 15D20-07c

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.

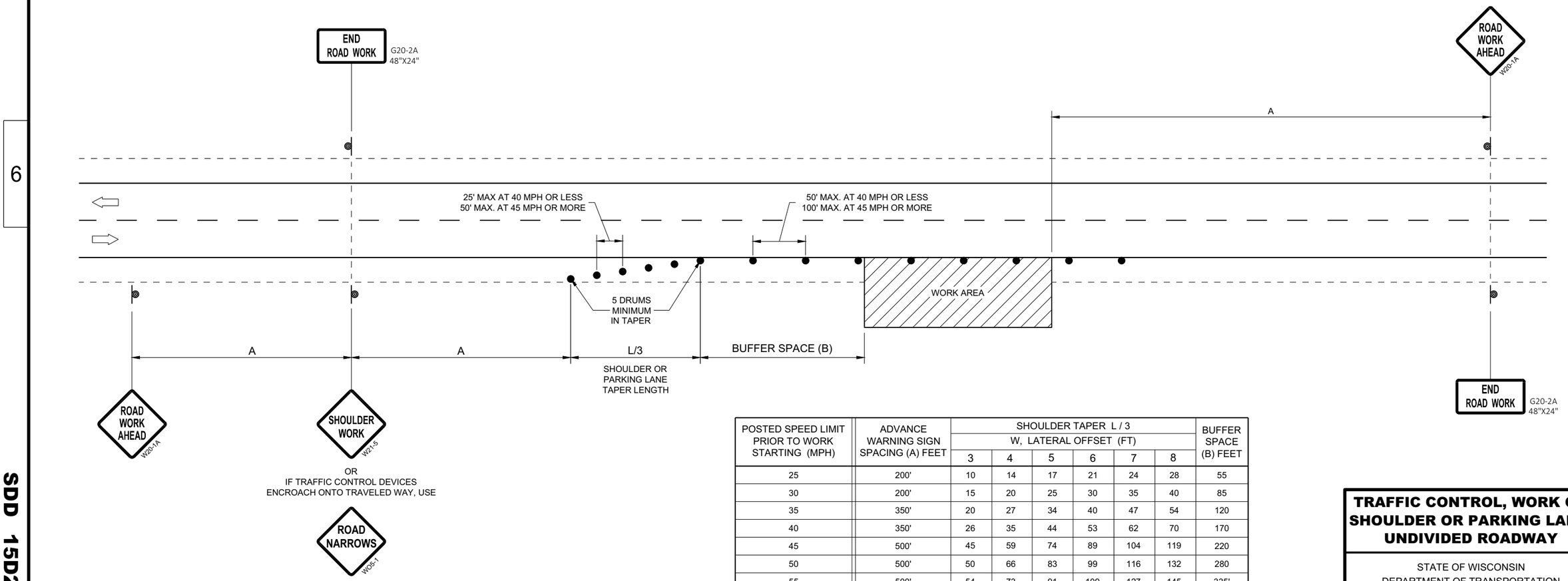
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

GENERAL NOTES

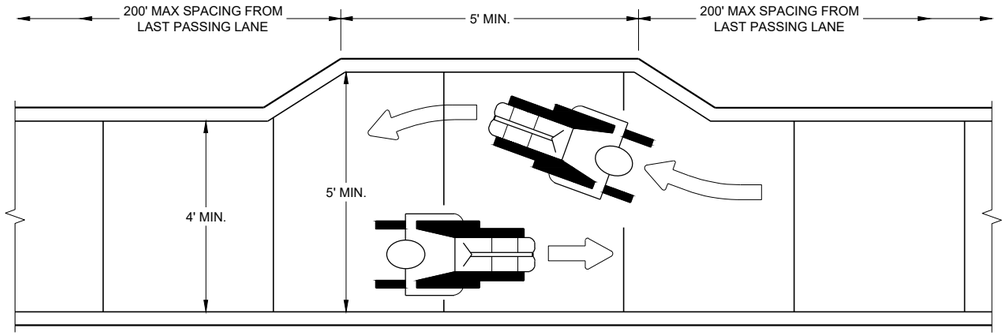
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

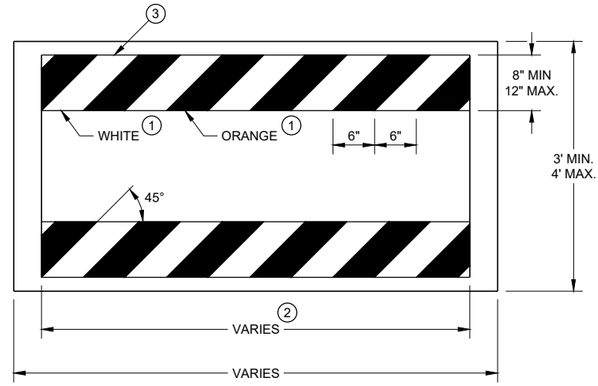
(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

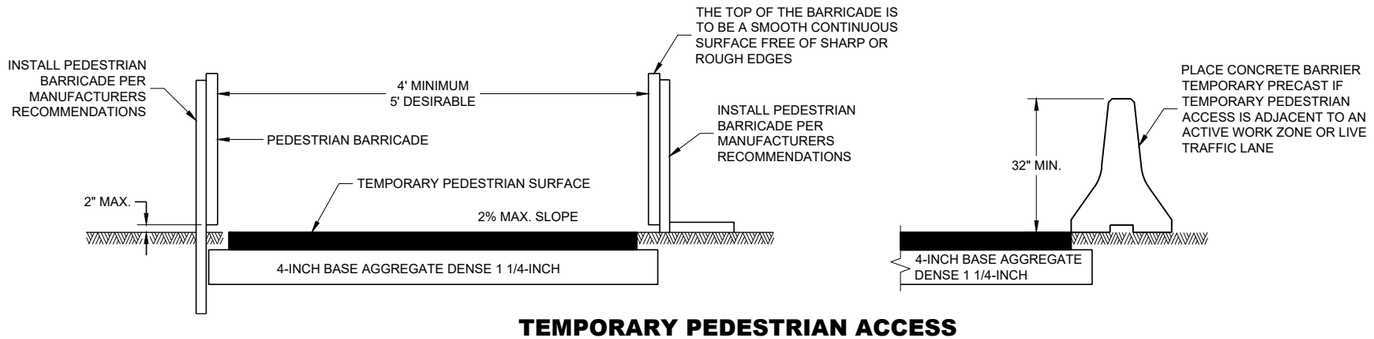
* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



NARROW SIDEWALK PASSING DETAIL



TEMPORARY PEDESTRIAN BARRICADE*



TEMPORARY PEDESTRIAN ACCESS

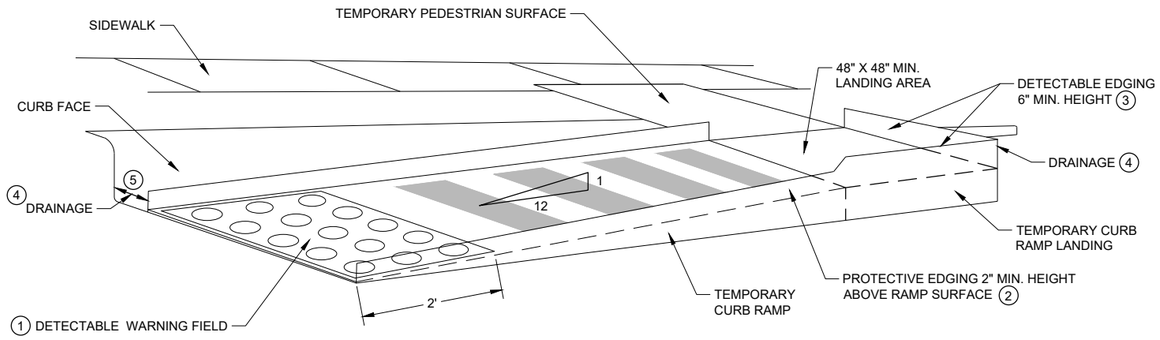
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6

SDD 15D30 - 09a

SDD 15D30 - 09a

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION



PERSPECTIVE VIEW

GENERAL NOTES

CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.

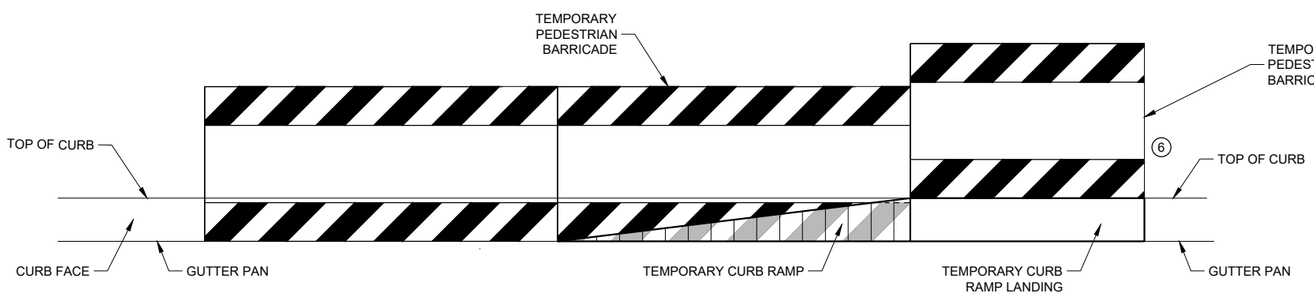
(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

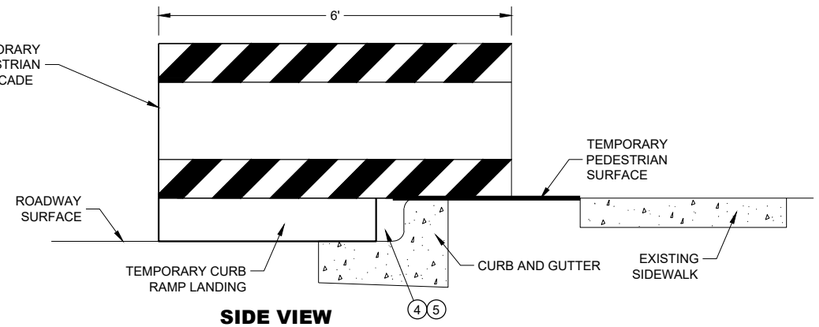
(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.

(6) IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.



FRONT VIEW



SIDE VIEW

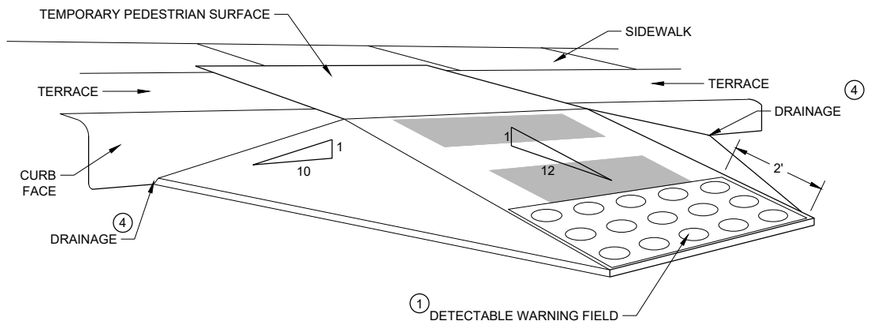
TEMPORARY CURB RAMP PARALLEL TO CURB

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

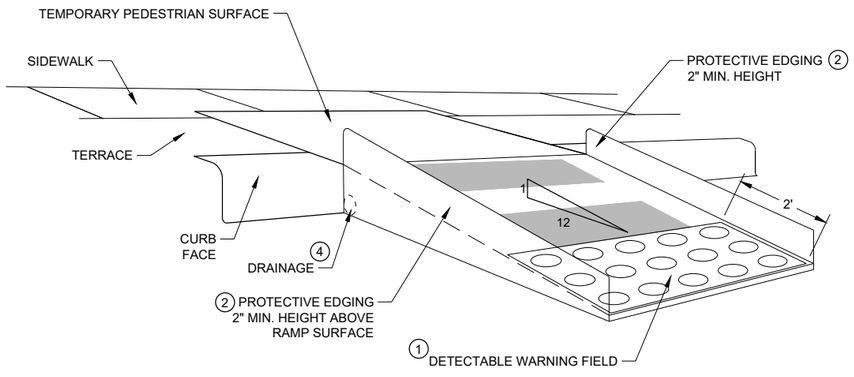
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30 - 09b



WITH SIDE APRON (5)



WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS

(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

LEGEND

SIGN ON PERMANENT SUPPORT

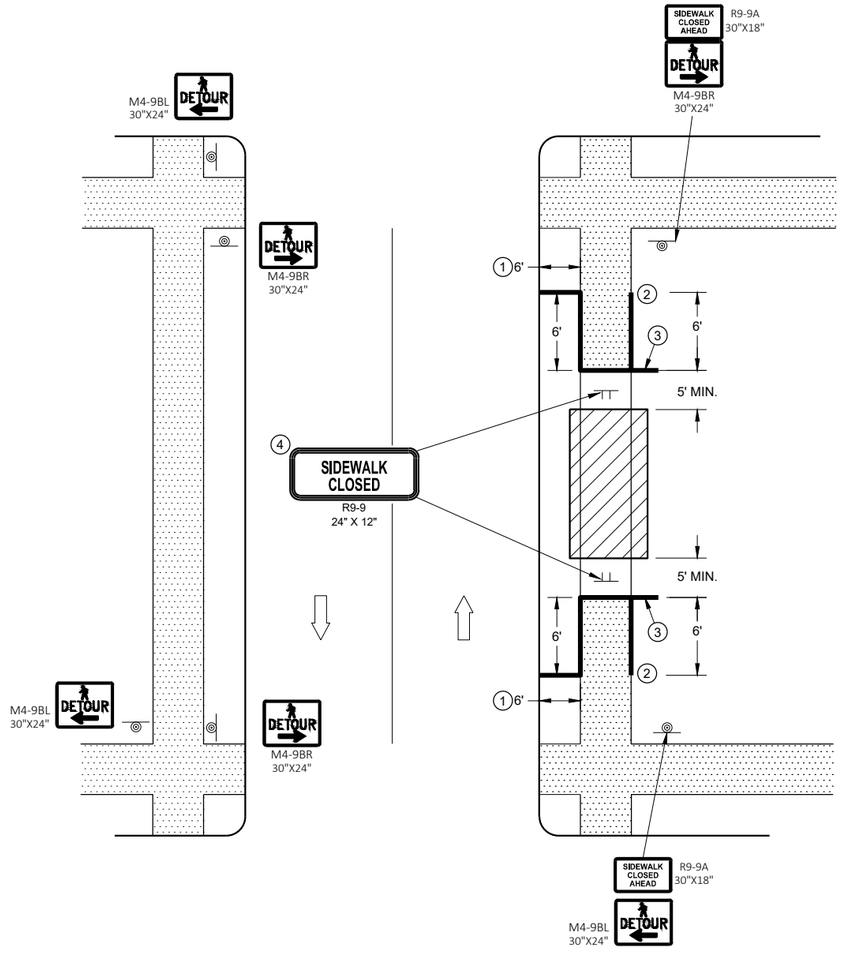
SIGN ON TEMPORARY SUPPORT

UNDER PEDESTRIAN TRAFFIC

WORK AREA

TEMPORARY PEDESTRIAN BARRICADE

DIRECTION OF TRAFFIC



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.

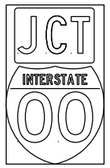
SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

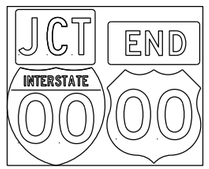
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SDD 15D30 - 09k

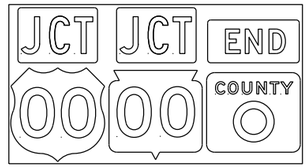
TYPICAL ASSEMBLIES



J1-1



J1-2



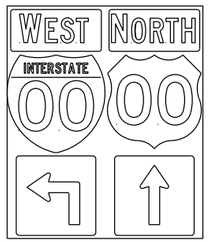
J1-3



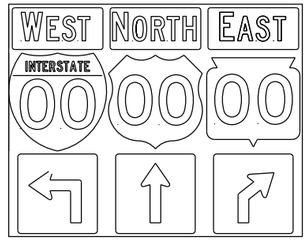
JR1-1



J2-1



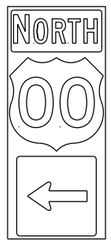
J2-2



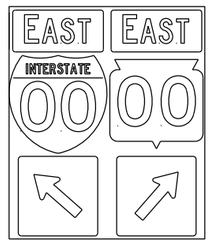
J2-3



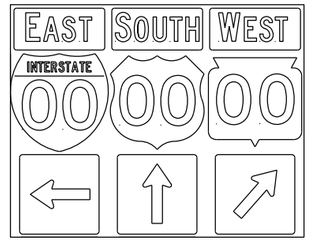
JV
(Typical Vertical J-Assembly
See Note 10 and 11)



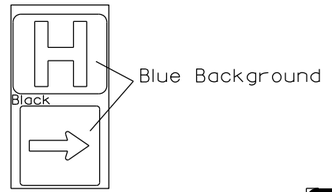
J3-1



J3-2



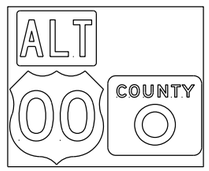
J3-3



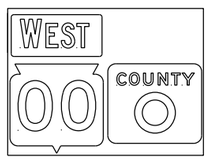
JH-1



J4-1



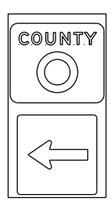
J4-2



J4-2



J12-1



J13-1



J32-1



J33-1



J22-1



J23-1



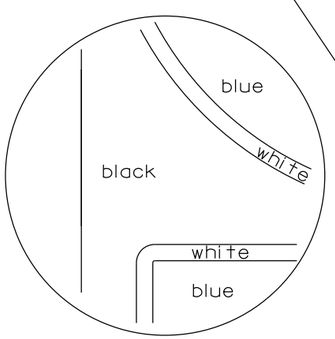
JR13-1

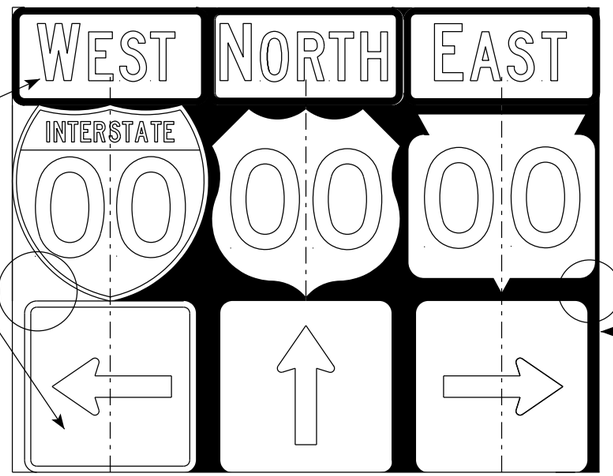


JR23-1



JR99-1





NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/21 PLATE NO. A2-1S.9

PROJECT NO:

SHEET NO: 264 E

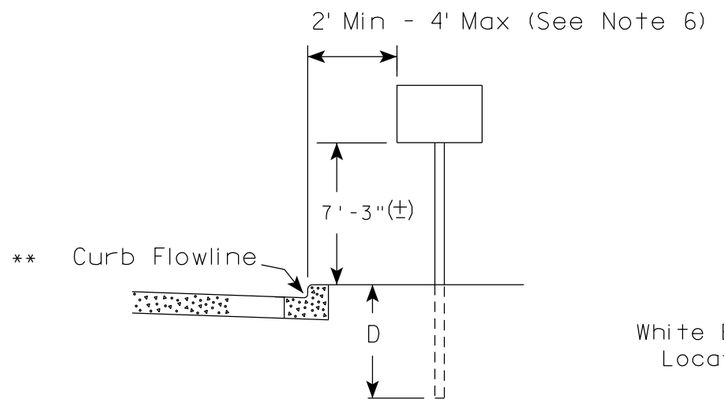
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WISDOT/CADDS SHEET 42

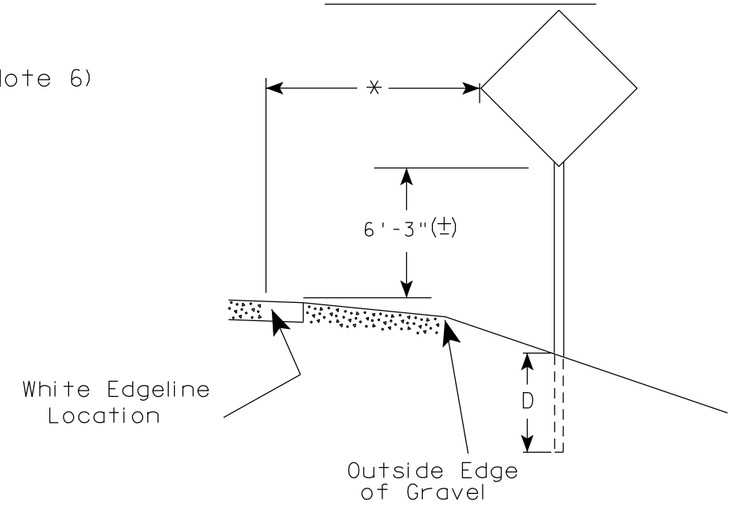
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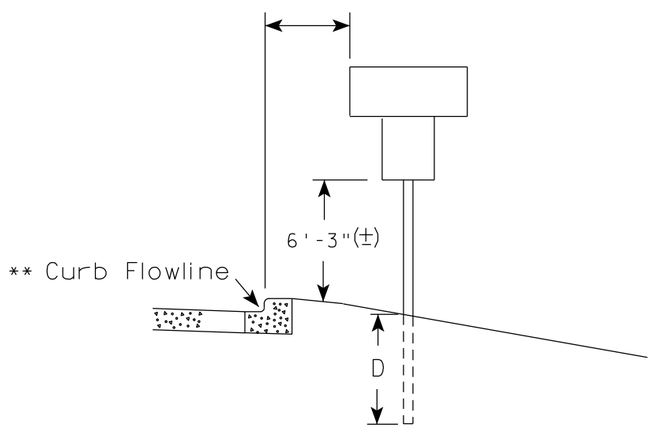
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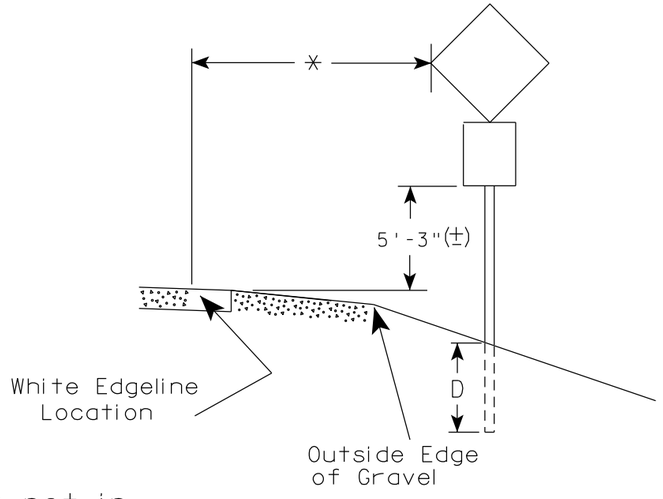
URBAN AREA



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" (±). 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. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

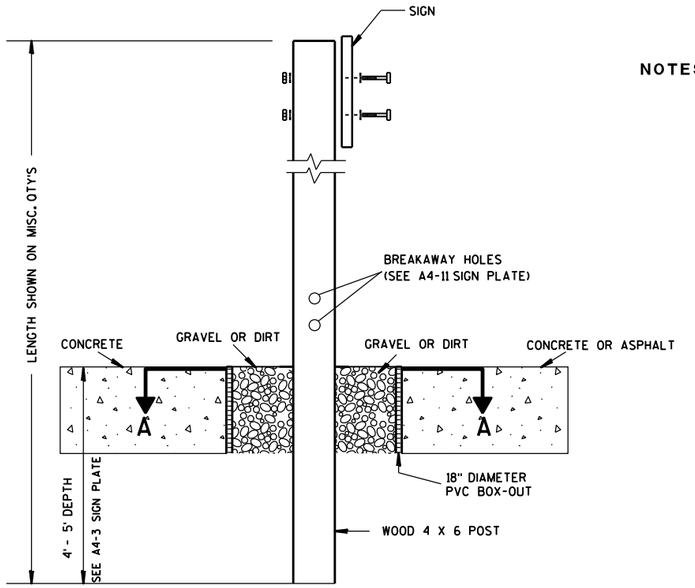
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

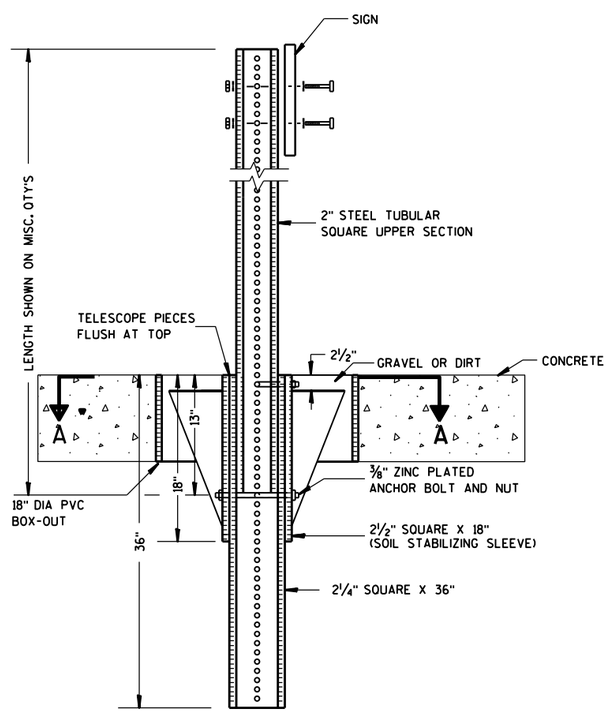
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 265	E



ELEVATION VIEW

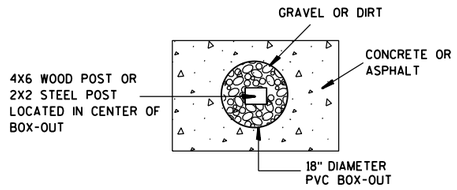
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

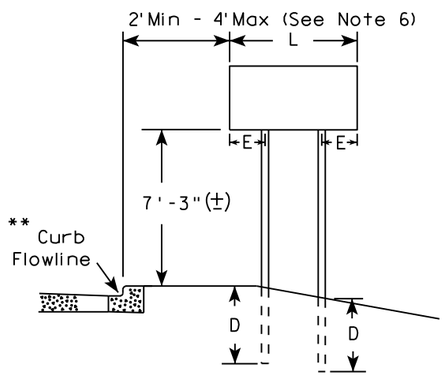
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

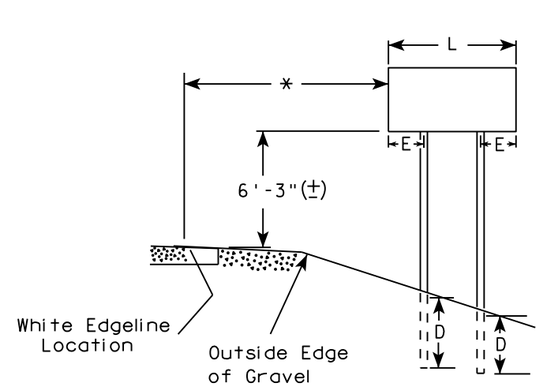
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

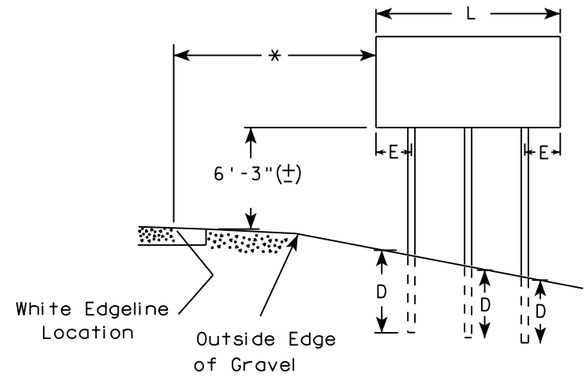
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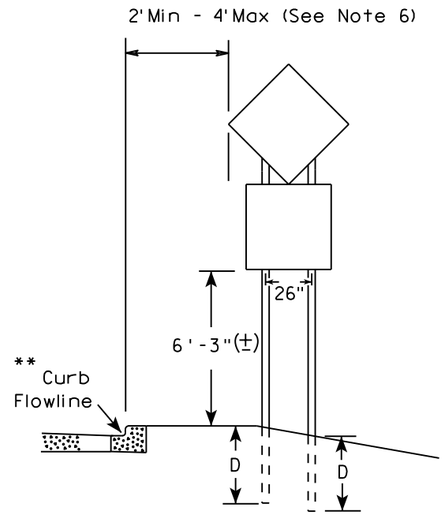
URBAN AREA



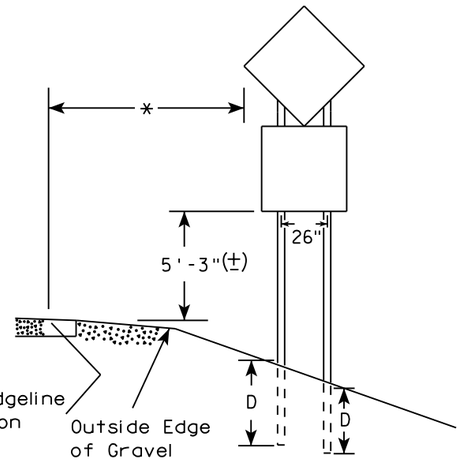
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

***	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

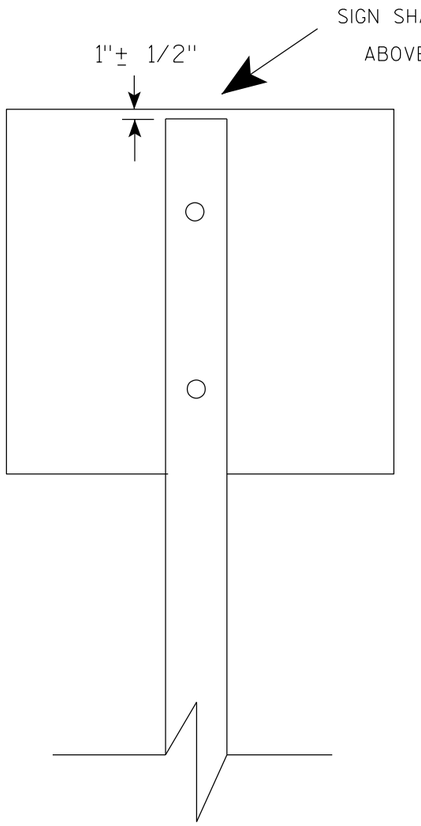
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

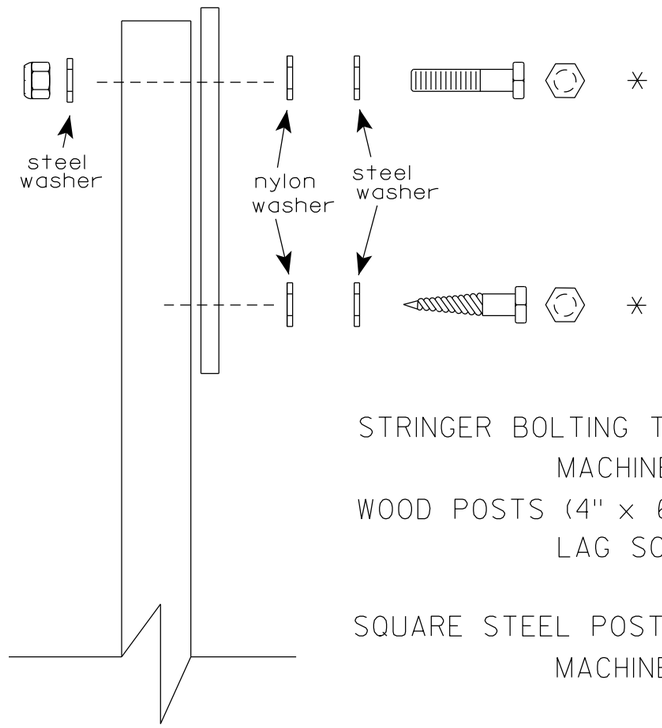
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 267	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

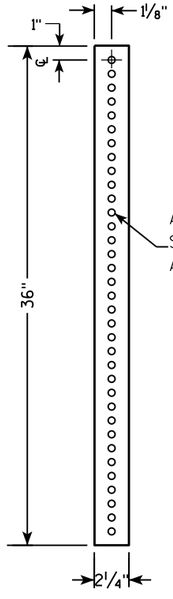
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

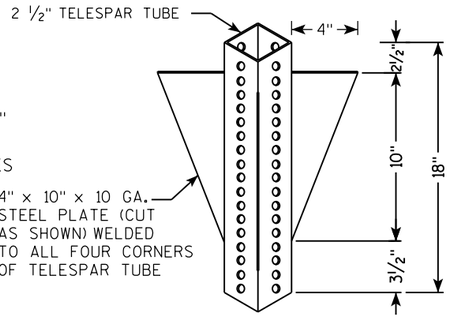
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

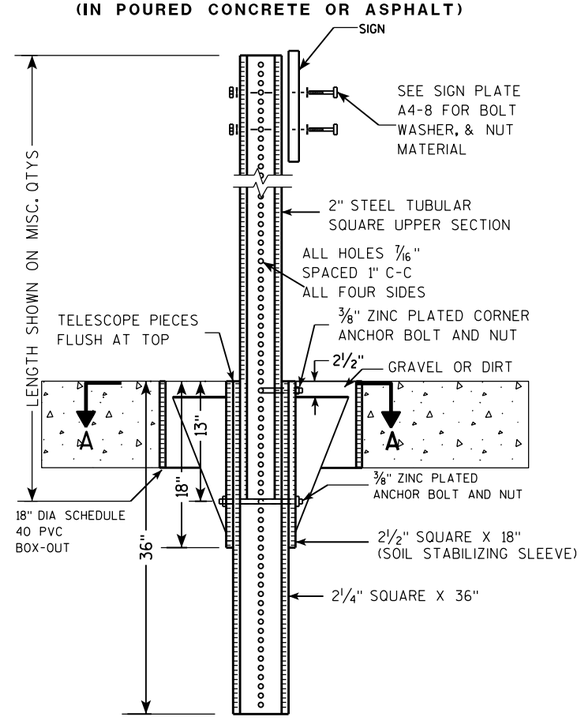
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



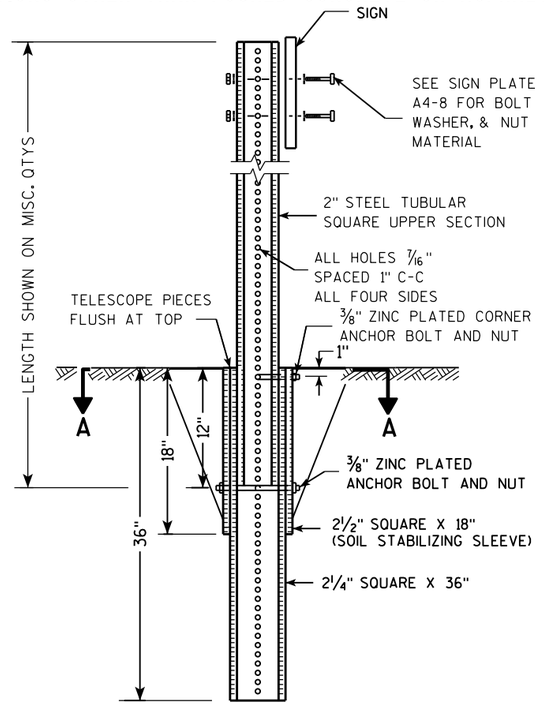
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

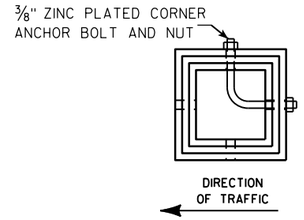


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

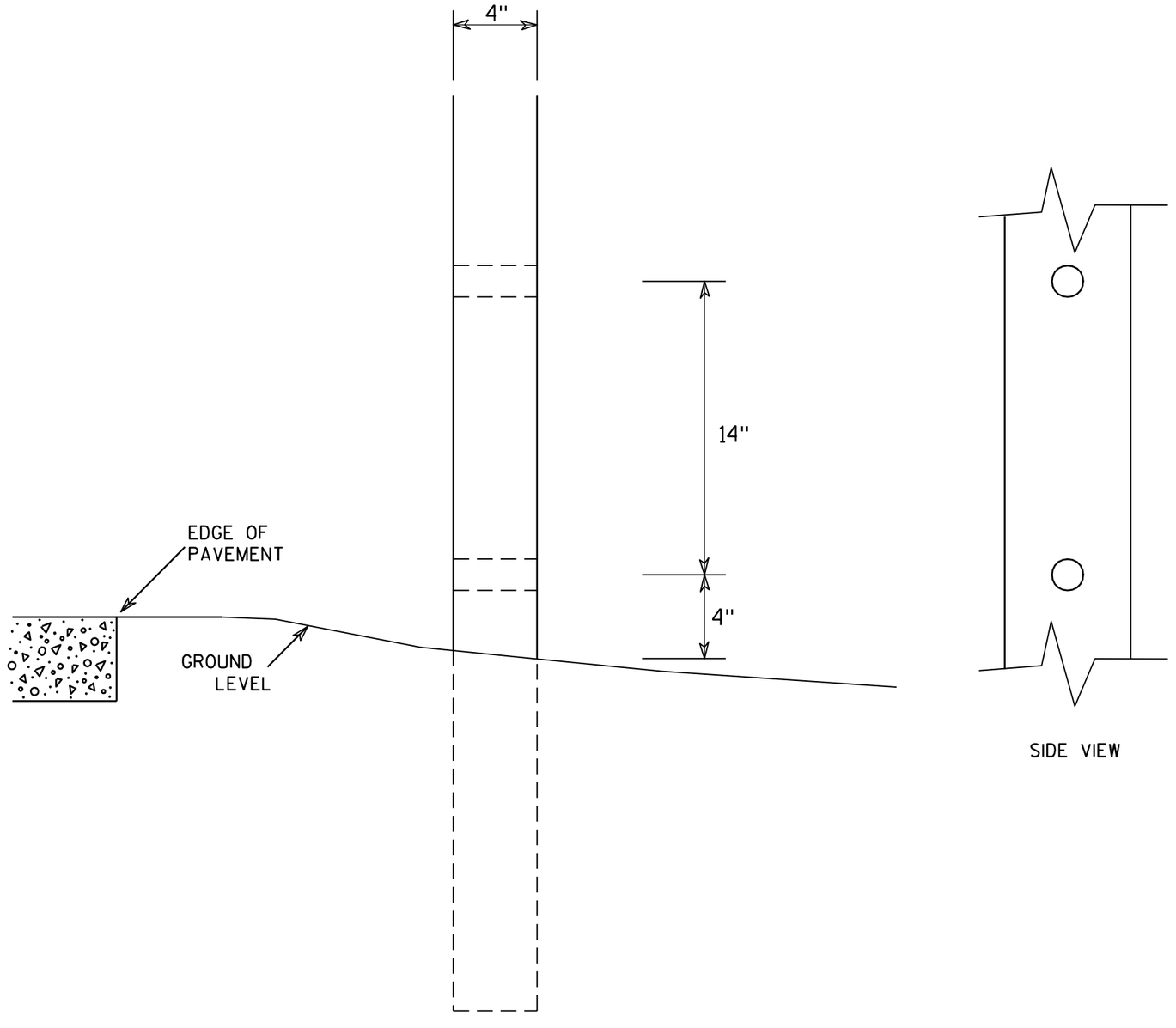
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

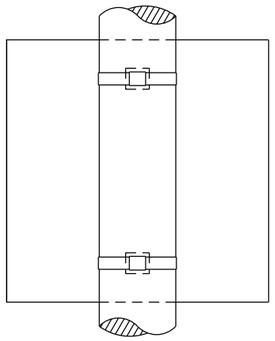
APPROVED Chester J Spang for State Traffic Engineer

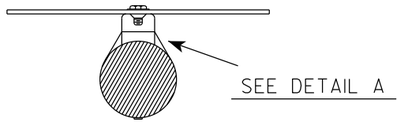
DATE 3/27/97 PLATE NO. A4-11.2

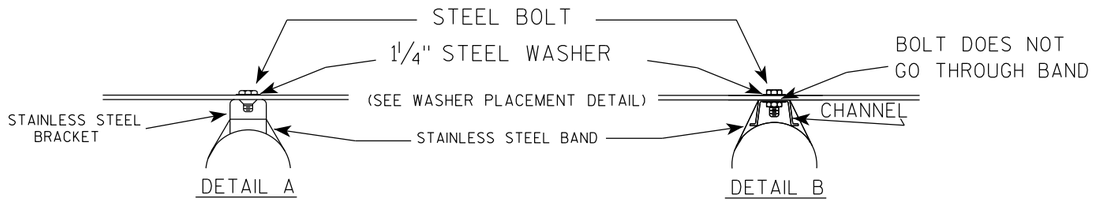
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 270	E

BANDING

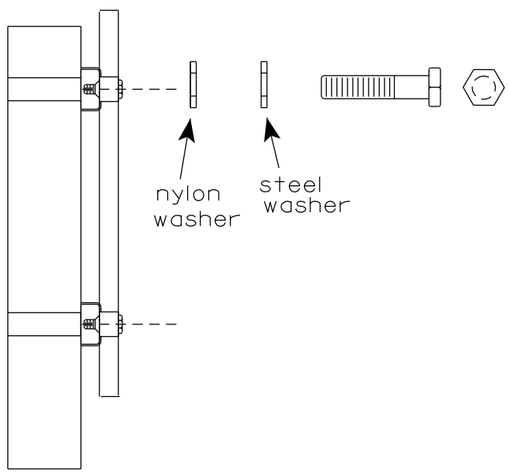
SINGLE SIGN







WASHER PLACEMENT

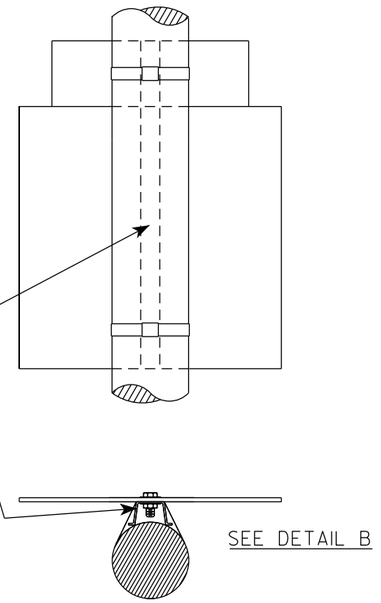


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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

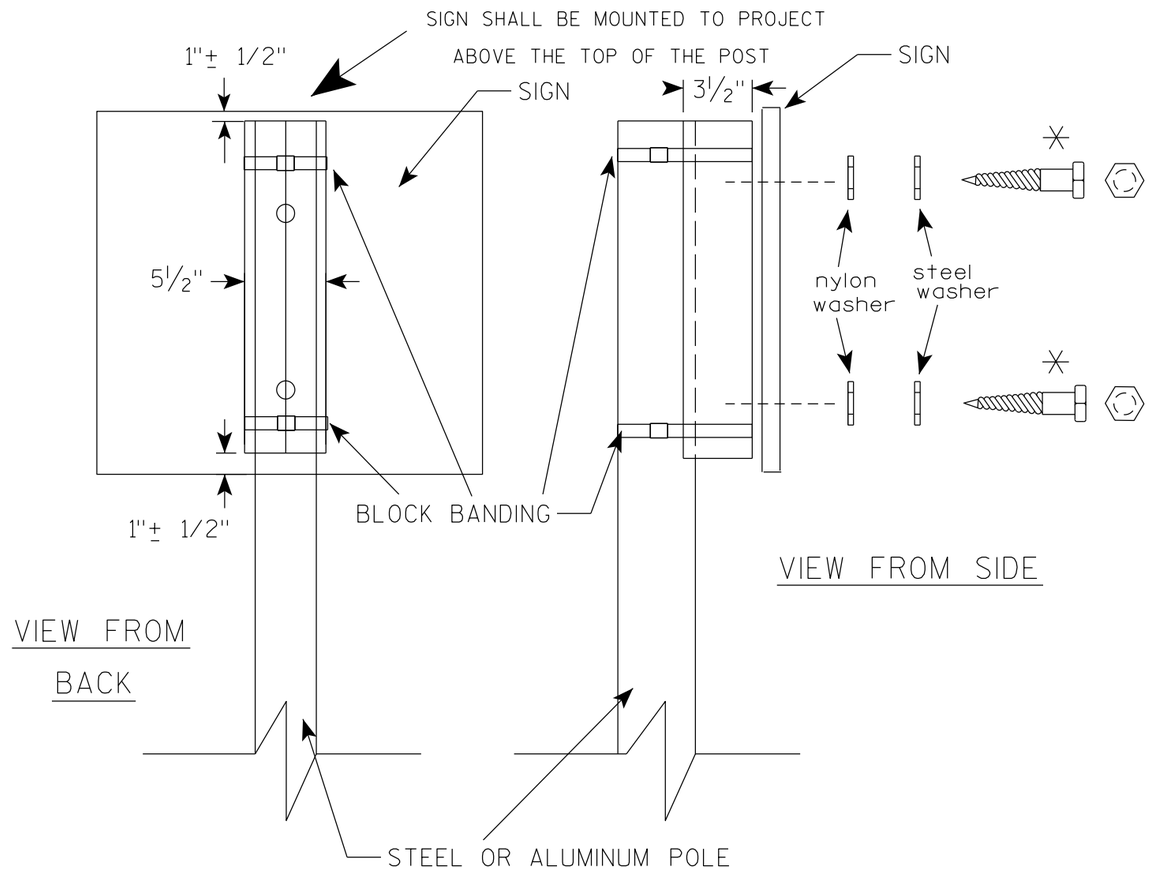
DATE 6/10/19 PLATE NO. A5-9.4

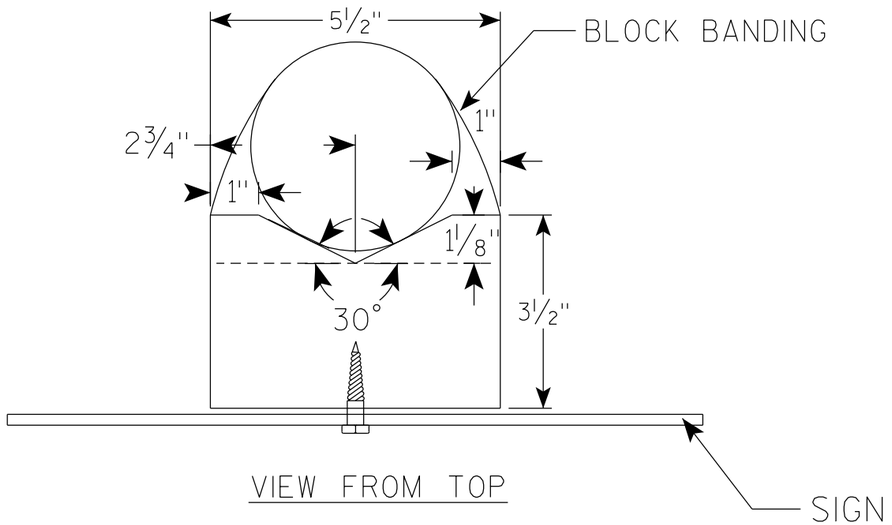
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 271	E

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)

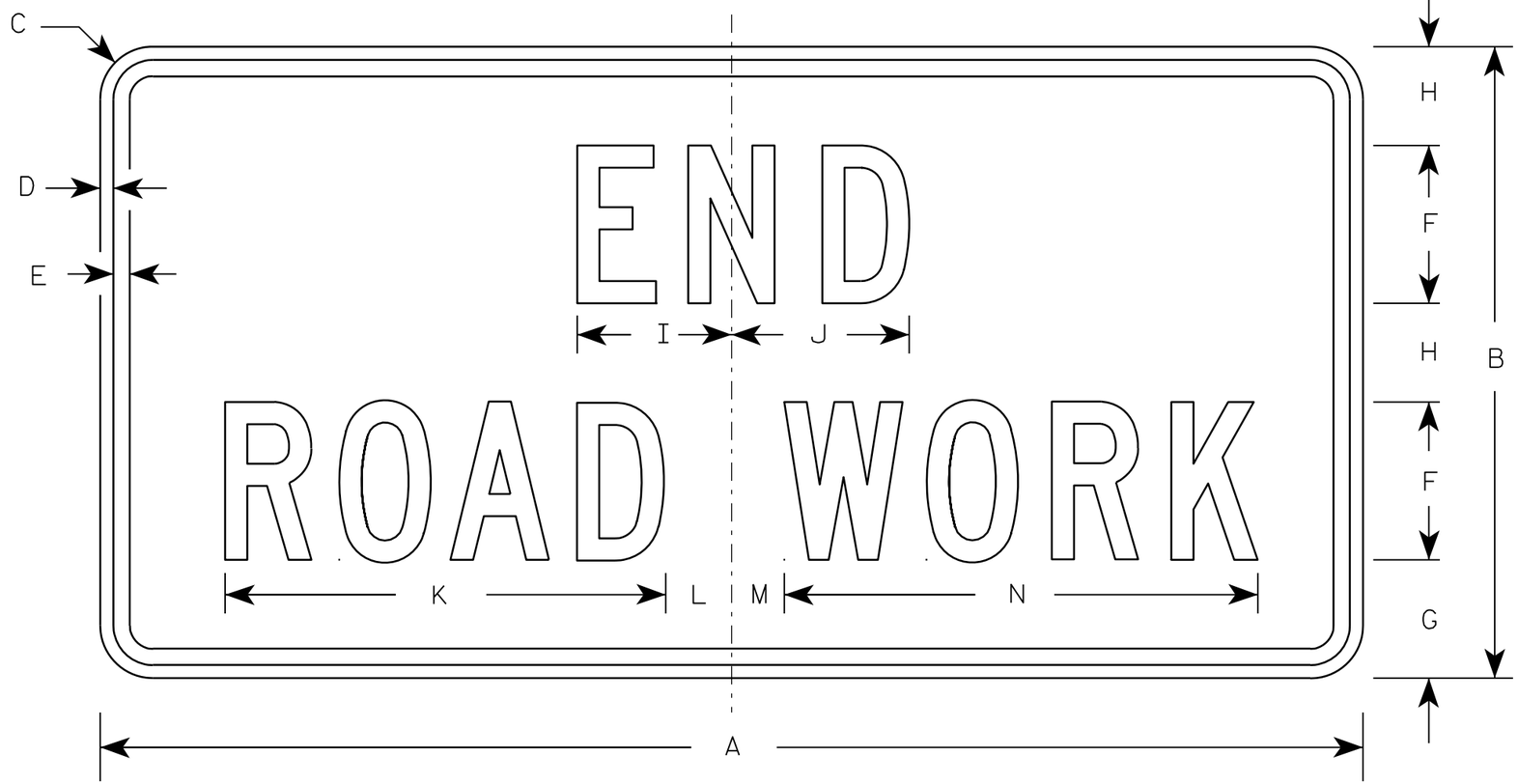
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 272 E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

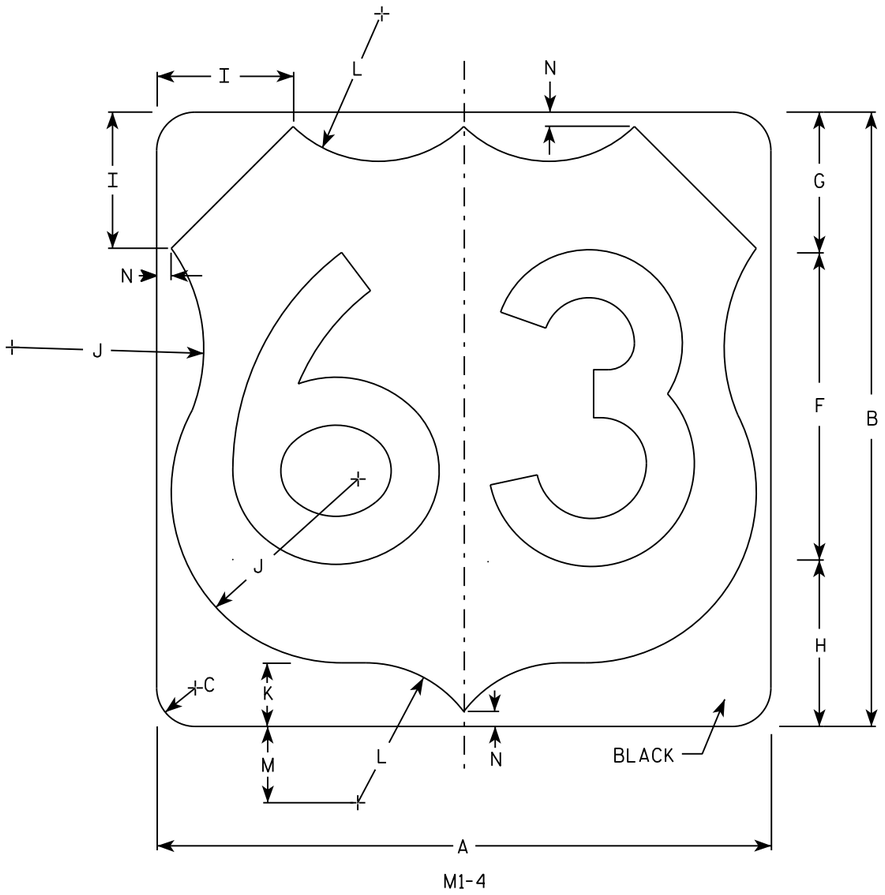
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

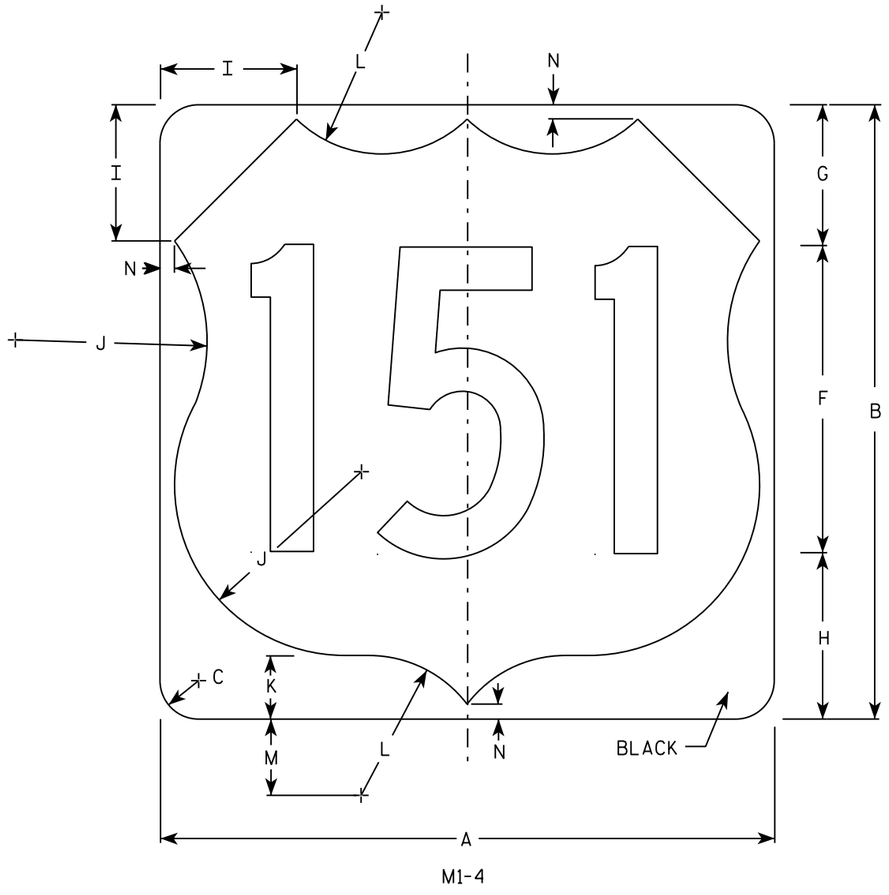
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 273	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs 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.



M1-4



M1-4

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area Sq. ft.
1																											
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

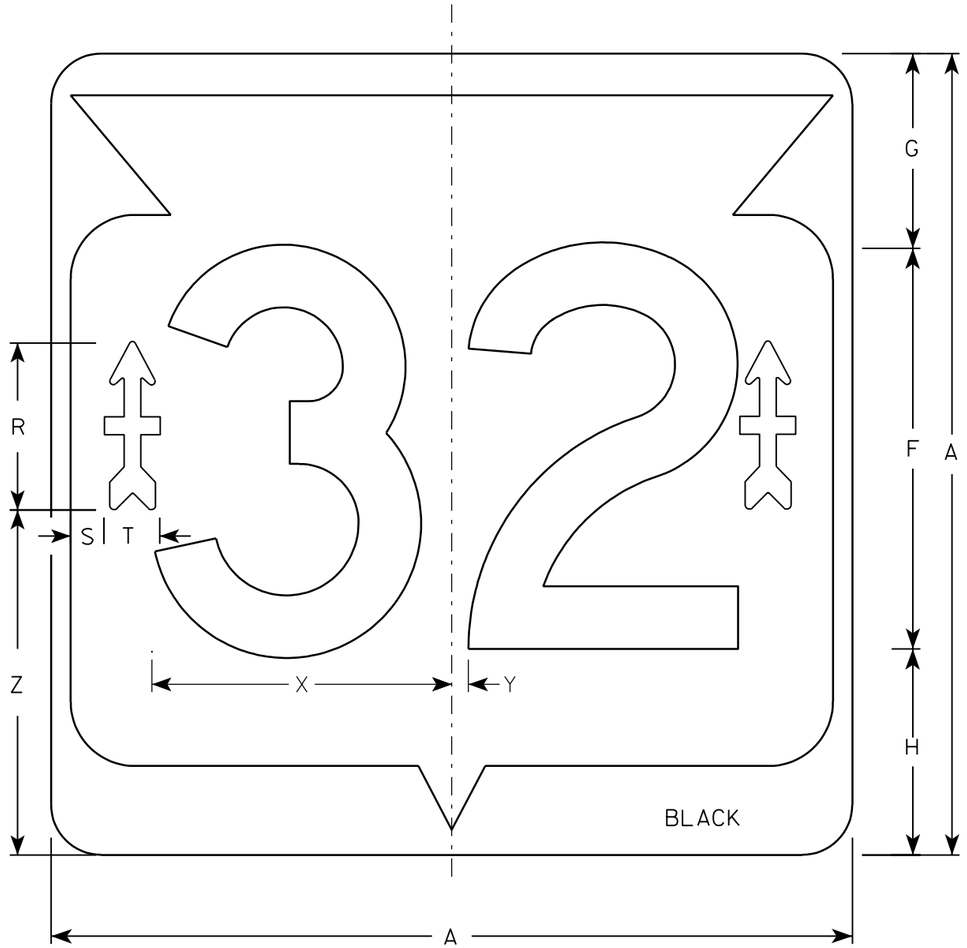
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-4.10

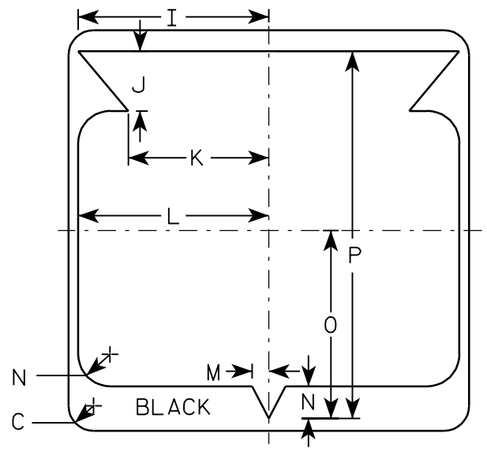
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 274 | E



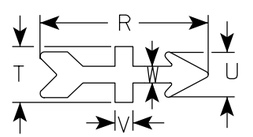
M1-6B

NOTES

1. Sign is Type II - Type H - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black
   Message - Black
   Arrow - Type H Reflective Red
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



32nd DIVISION ARROW
ACTUAL SIZE



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m²
1																												
2	24		1 ½			12	5 ½	6 ½	10 ¼	2 ½	8 ⅞	11 ½	1	1 ⅞	11 ¼	21 ⅞		5 ⅛	¾	1 ⅞	1 ½	⅝	⅝	9	½	10 ½	4.0	.36
3	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81
4	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81
5	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81

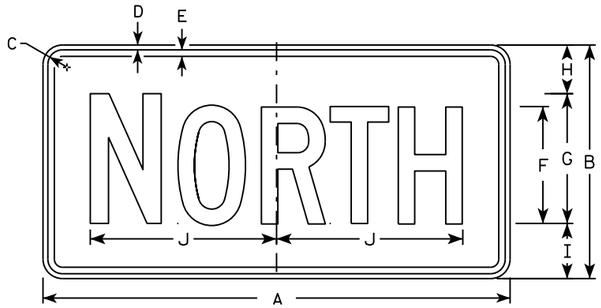
STATE ROUTE MARKER "32"
M1-6B FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

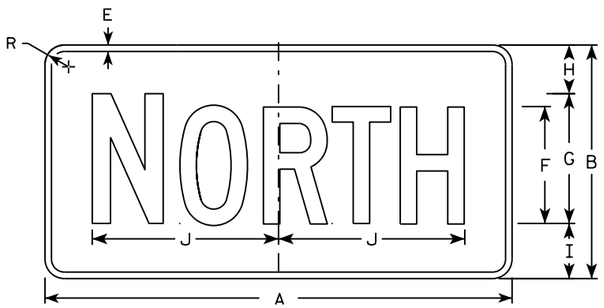
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 12/5/05 PLATE NO. M1-6B.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 275 | E



M3-1
MM3-1
MP3-1



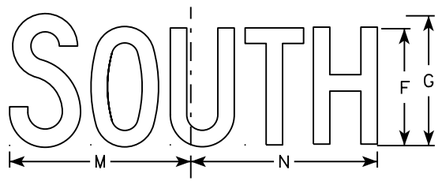
MB3-1
MK3-1
MN3-1



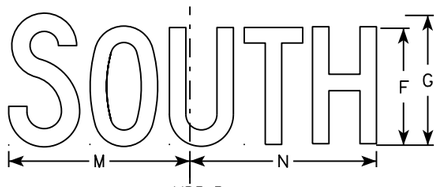
M3-2
MM3-2
MP3-2



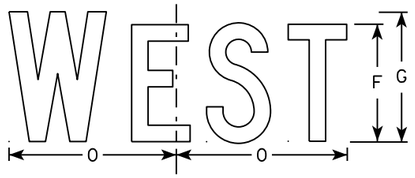
MB3-2
MK3-2
MN3-2



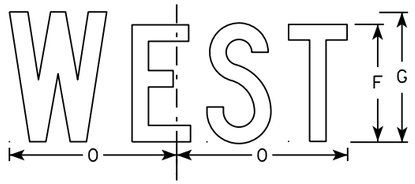
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

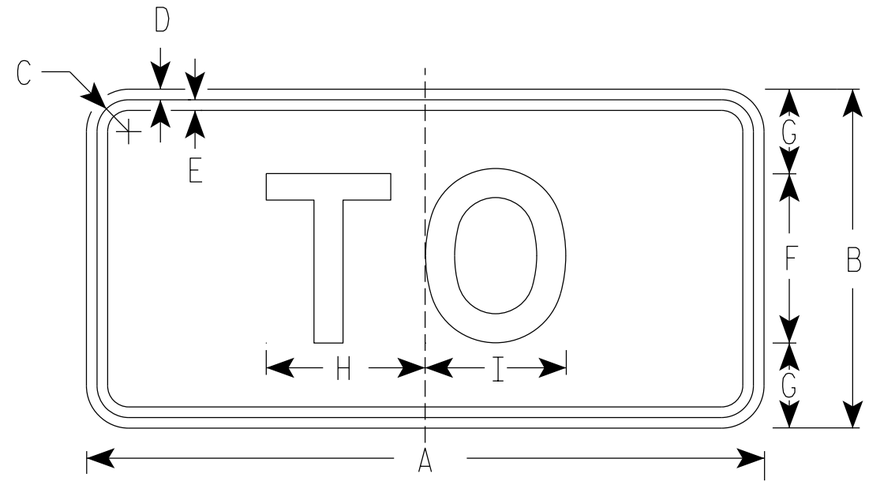
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

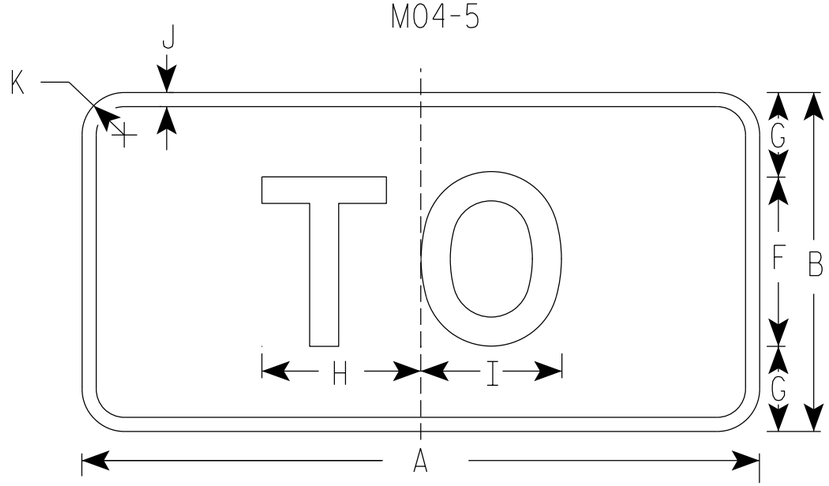
DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



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																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

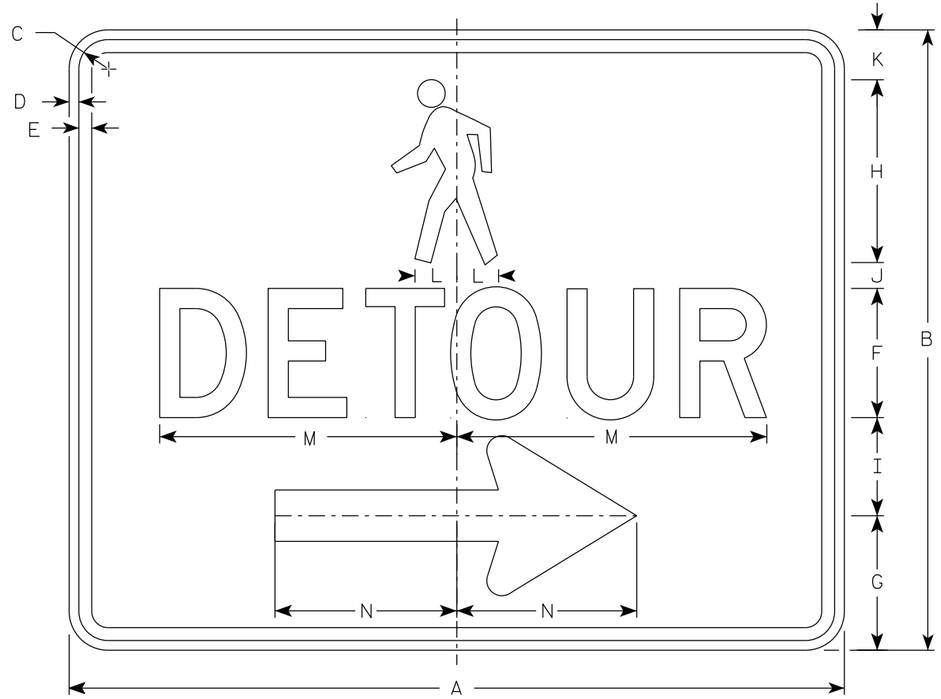
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/7/19 PLATE NO. M4-5.9

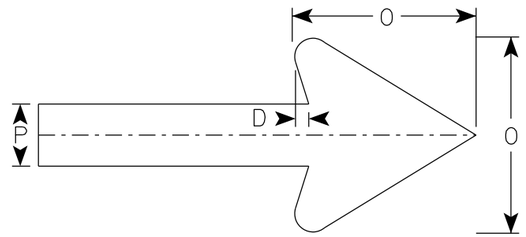
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 277 | E



M4-9BR

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.00
3																											
4																											
5																											

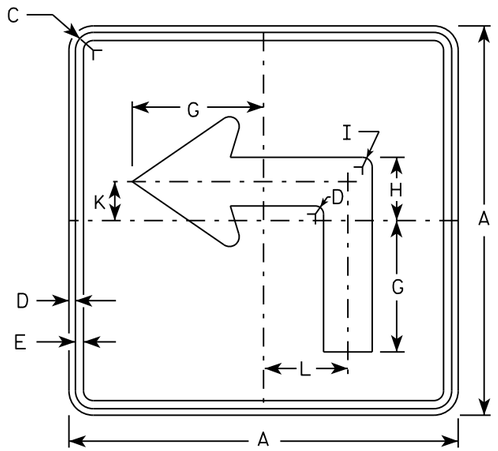
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

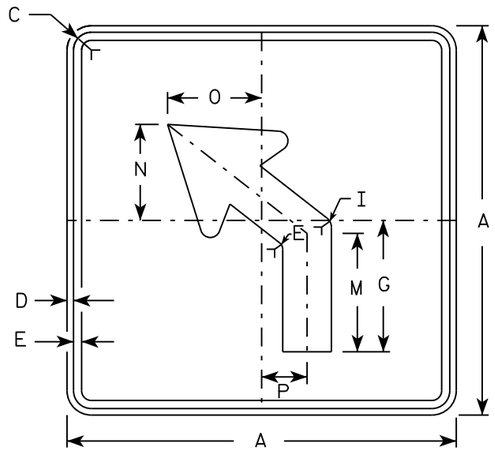
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 7/1/19 PLATE NO. M4-9B.2

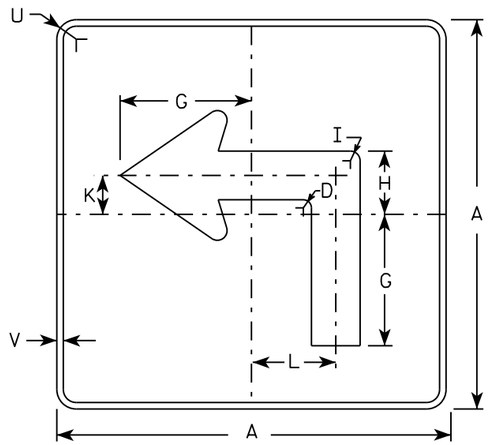
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 278 | E



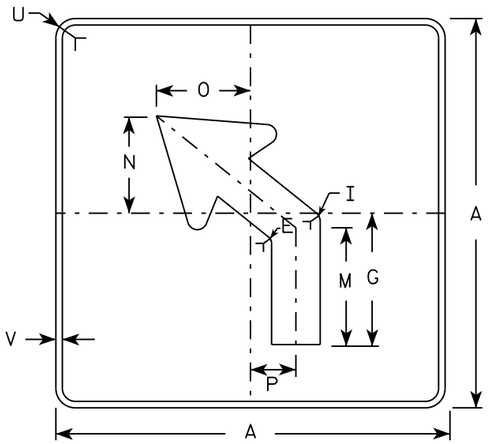
M5-1L
MM5-1L
MO5-1L
MP5-1L



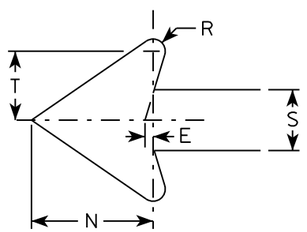
M5-2L
MM5-2L
MO5-2L
MP5-2L



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 - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

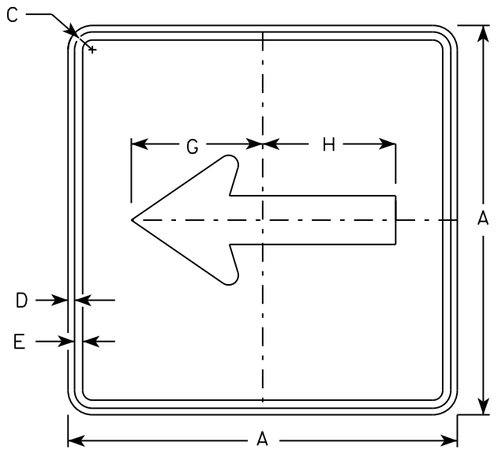
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

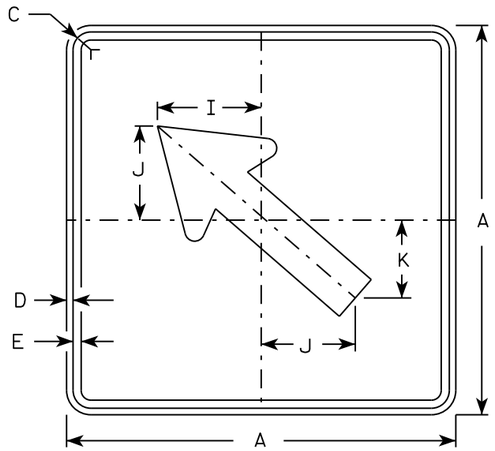
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



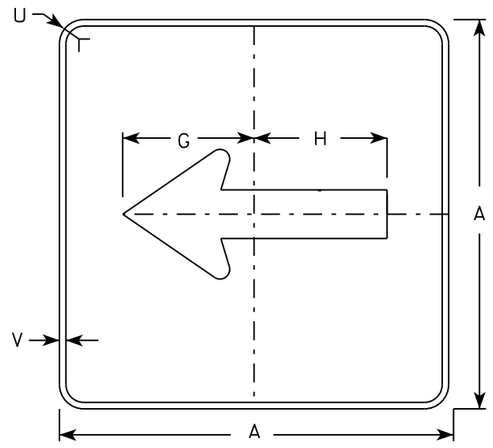
M6-1
MM6-1
MO6-1
MP6-1



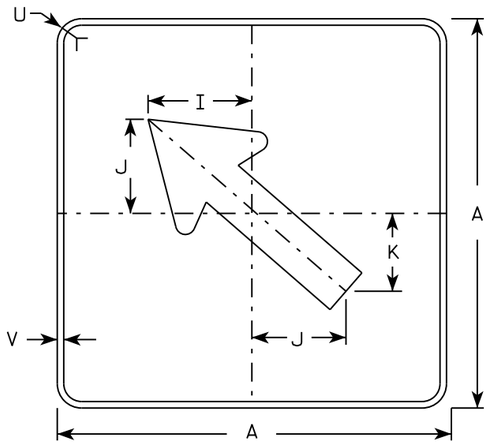
M6-2
MM6-2
MO6-2
MP6-2

NOTES

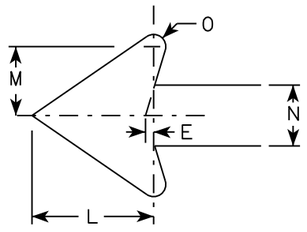
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN M6-1 & M6-2 SERIES

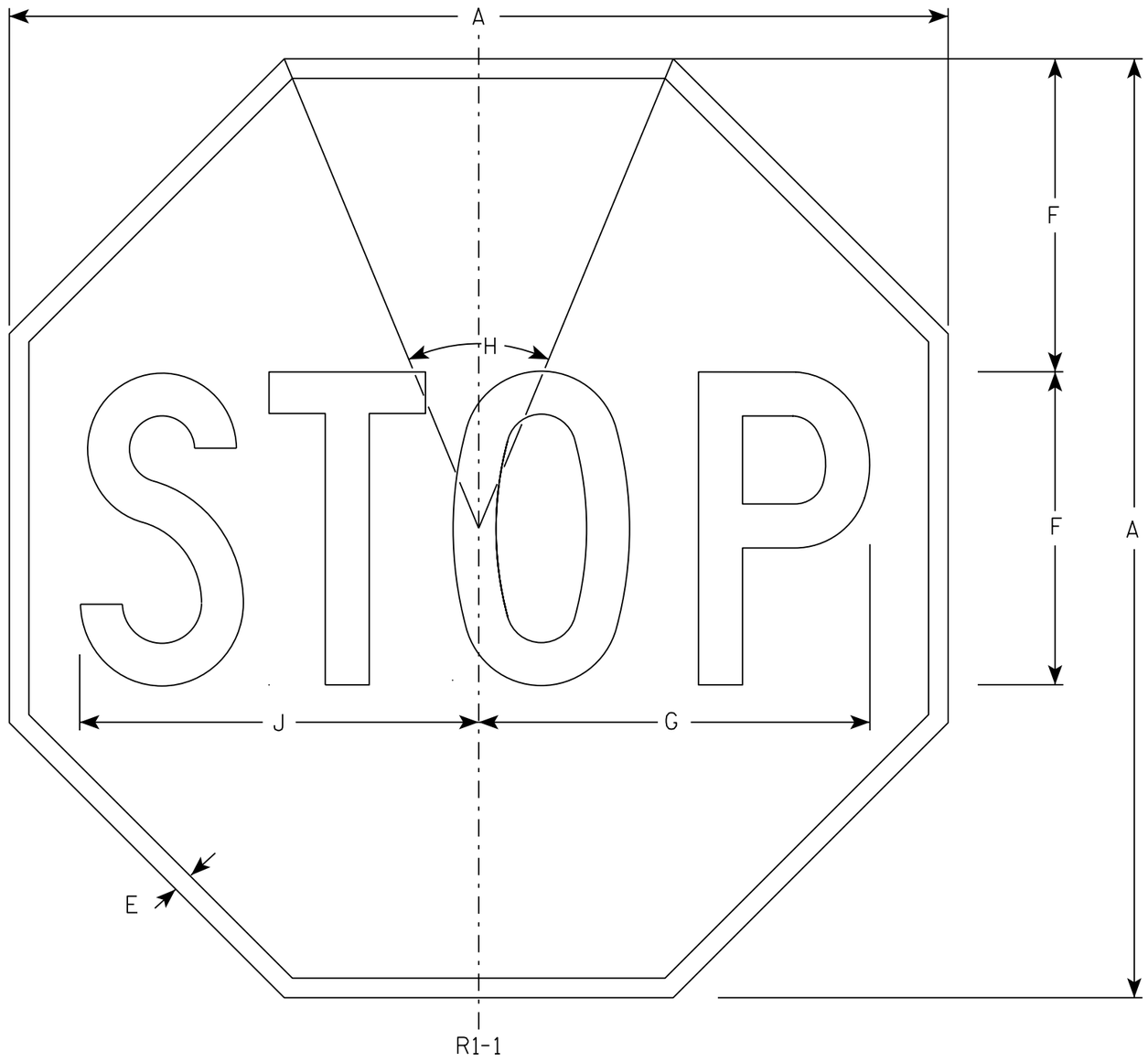
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATI 280 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

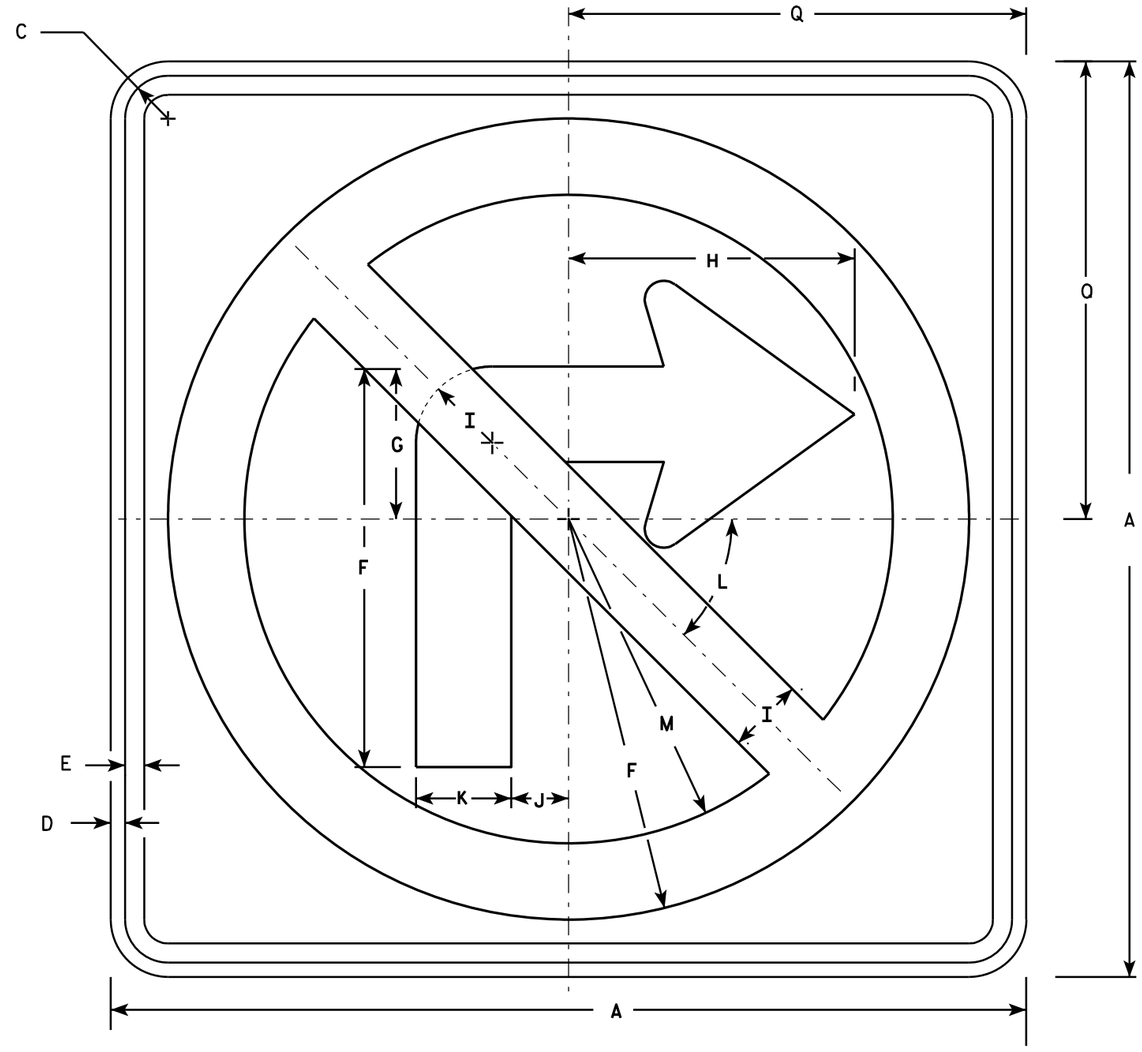
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

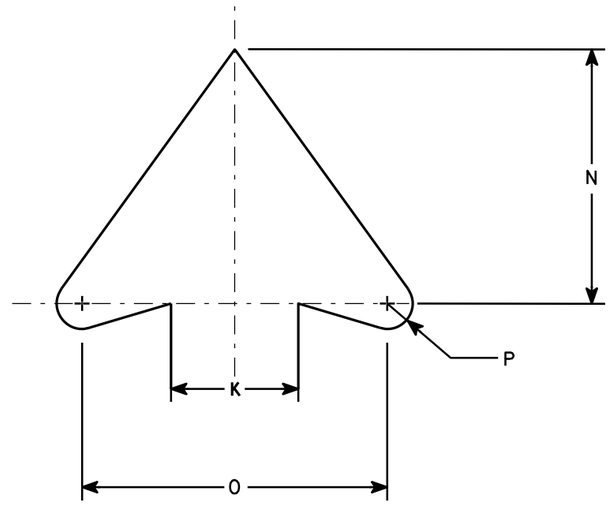
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 281	E



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

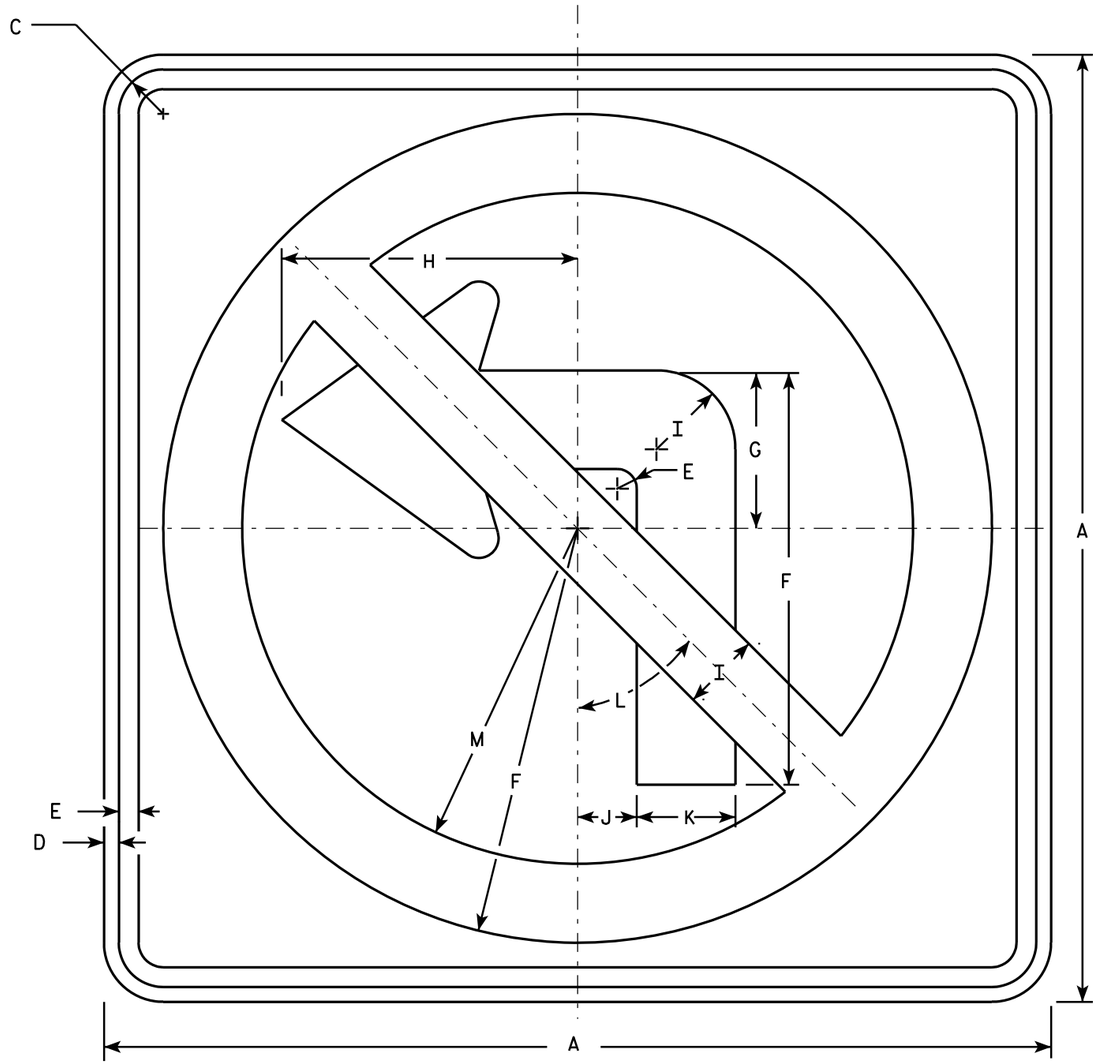
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

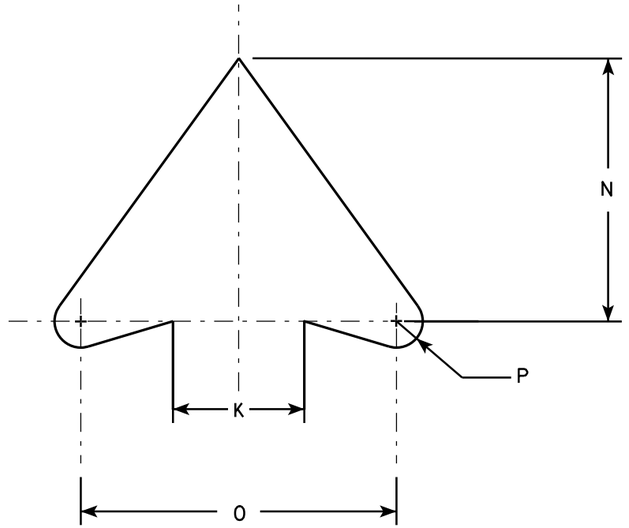
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 282	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

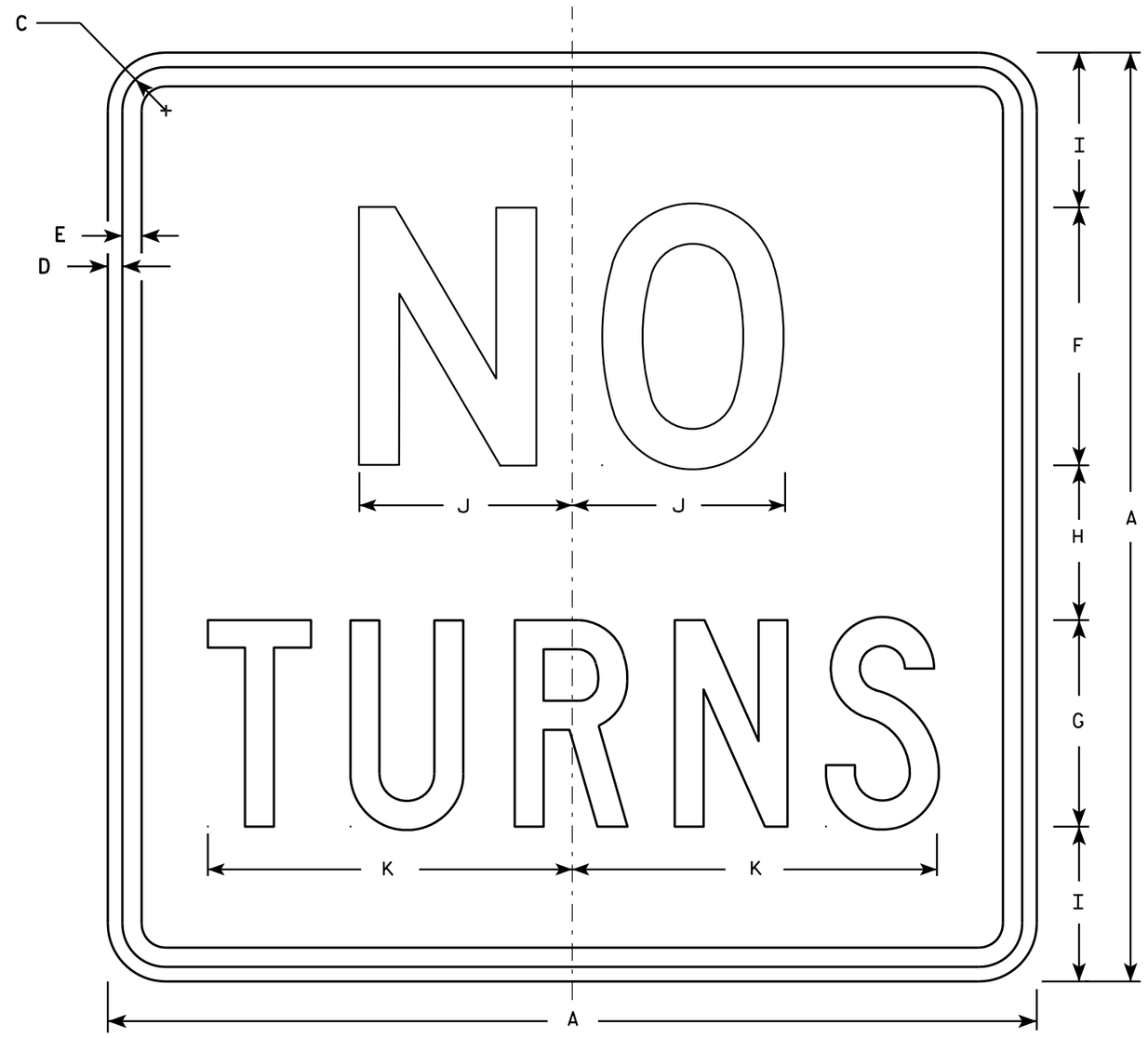
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 283	E



R3-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - 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 and Line 2 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																											
2S	24		1 1/8	3/8	1/2	6	5	4	4 1/2	5 1/8	8 3/4																4.0
2M	36		1 5/8	5/8	3/4	10	8	6	6	8 1/4	14 1/8																9.0
3	36		1 5/8	5/8	3/4	10	8	6	6	8 1/4	14 1/8																9.0
4	36		1 5/8	5/8	3/4	10	8	6	6	8 1/4	14 1/8																9.0
5	48		2 1/4	3/4	1	12	10	8	9	10 1/4	17 5/8																16.0

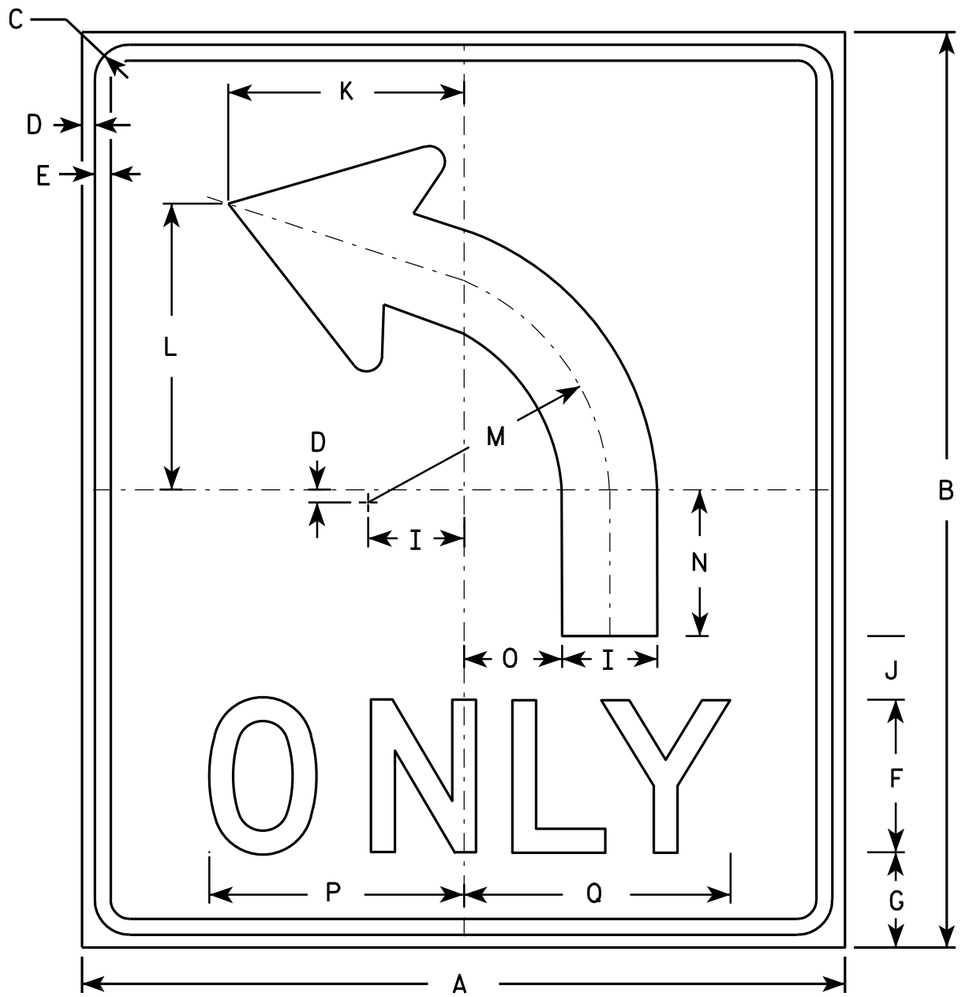
STANDARD SIGN
R3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-3.10

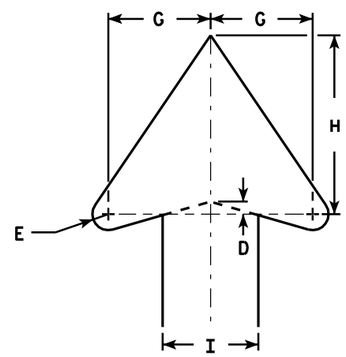
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 284 | E



R3-50L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R3-50R is the same as R3-50L except curved portion of arrow points 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 3/8	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 3/8	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																											

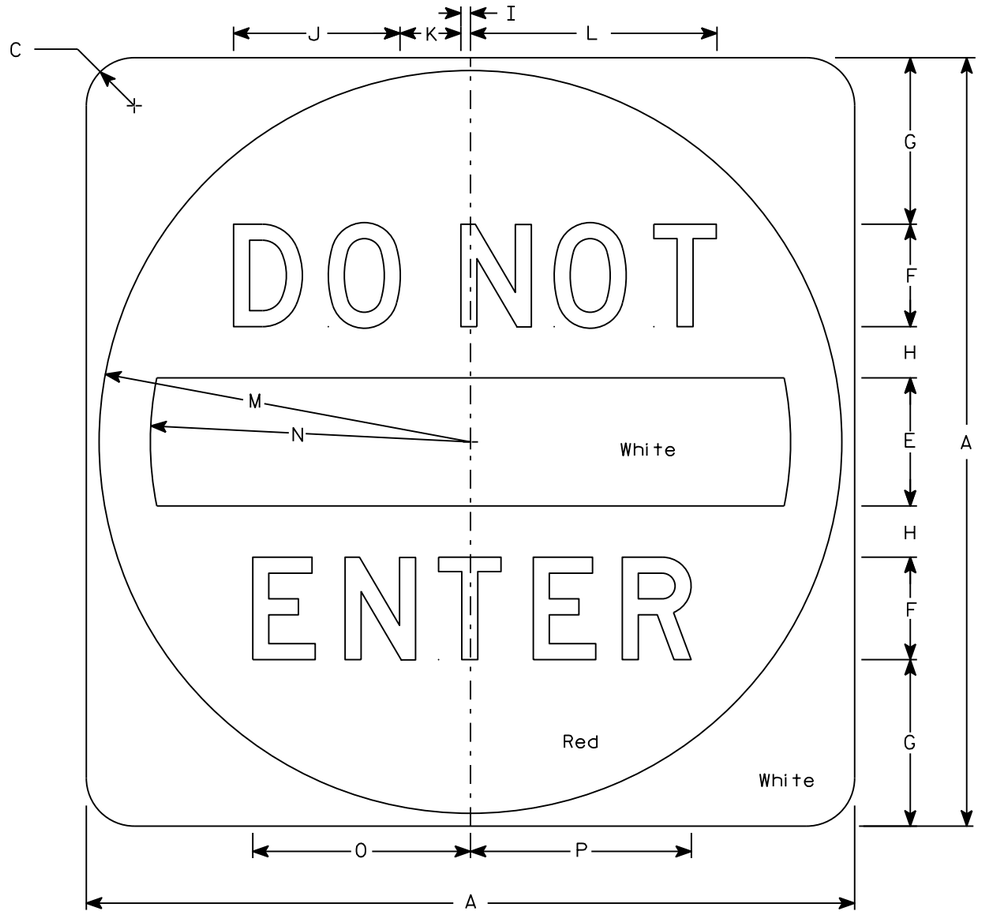
STANDARD SIGN
R3-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-50.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 285 | 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

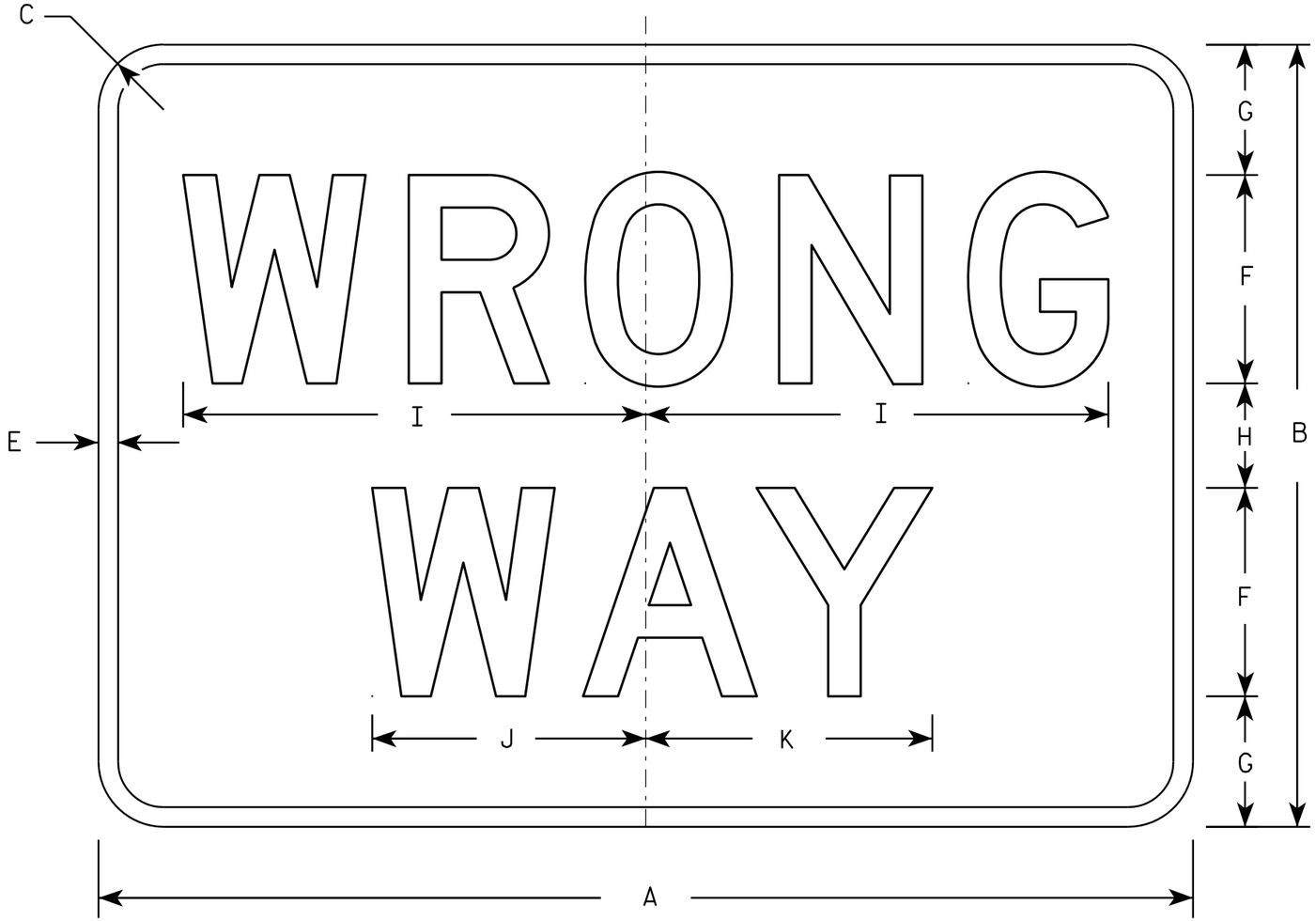
STANDARD SIGN
R5-1

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: 286 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

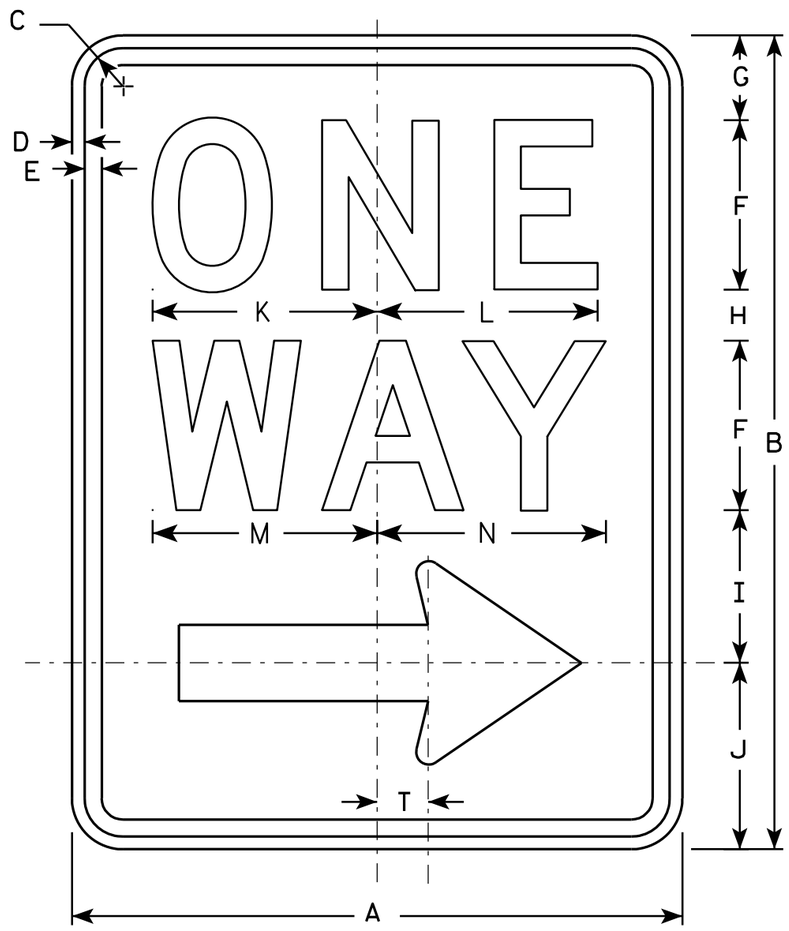
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 287 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R51A.DGN PLOT DATE : 17-DEC-2010 12:42 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 5.462457:1.000000

WISDOT/CADDS SHEET 42

7

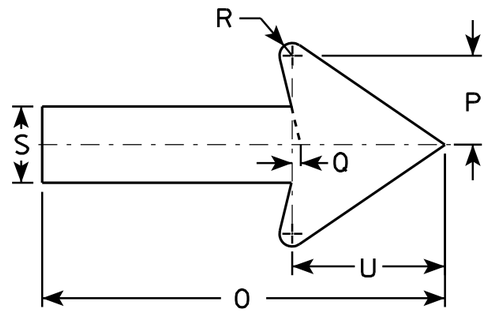
7



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

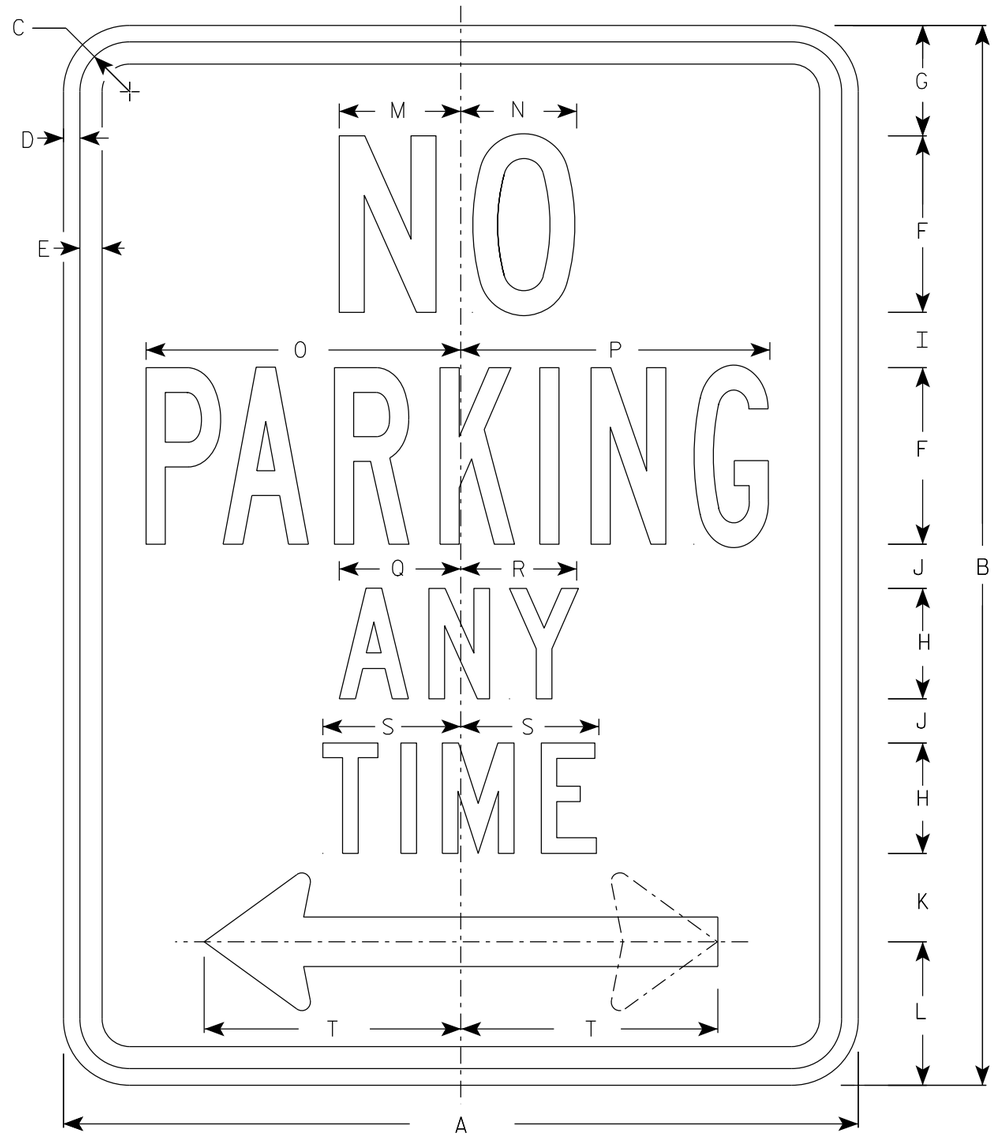
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

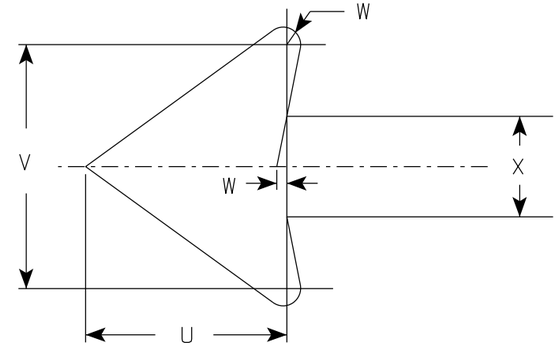
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 288	E



R7-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
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)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

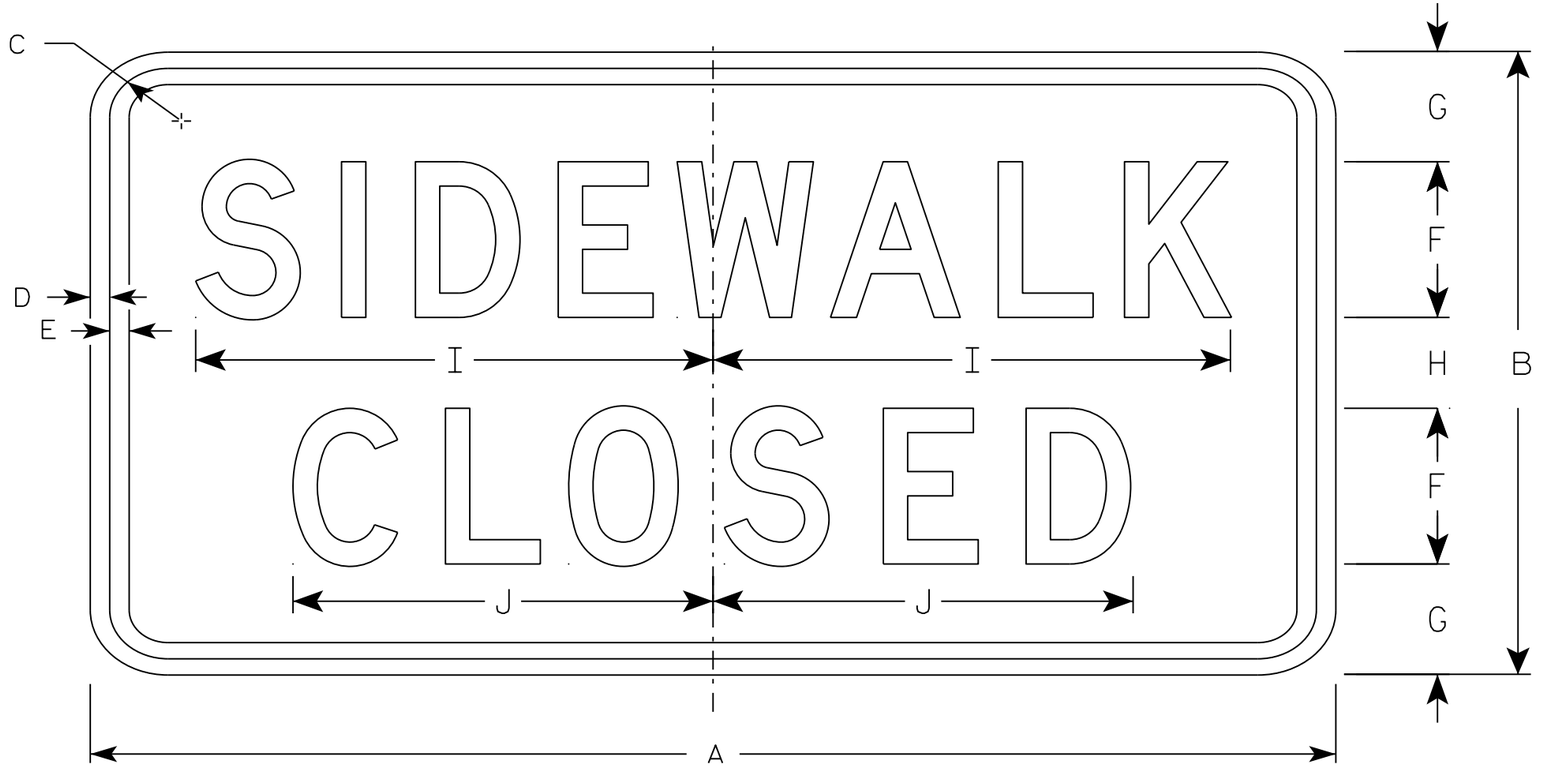
STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. R7-1.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 289 E



R9-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

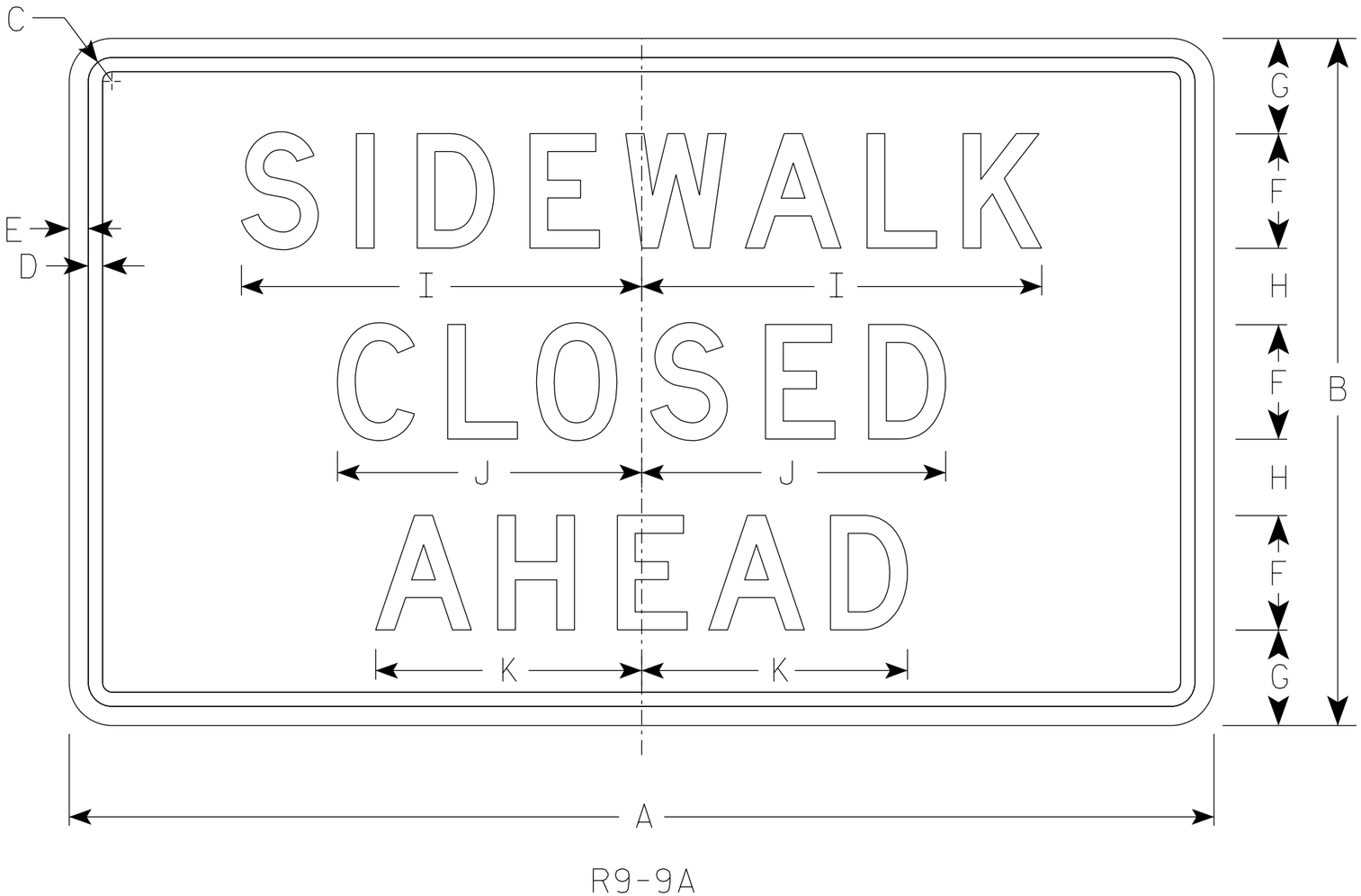
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 290 R9-9.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R9-9A

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.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
2M	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
3																											
4																											
5																											

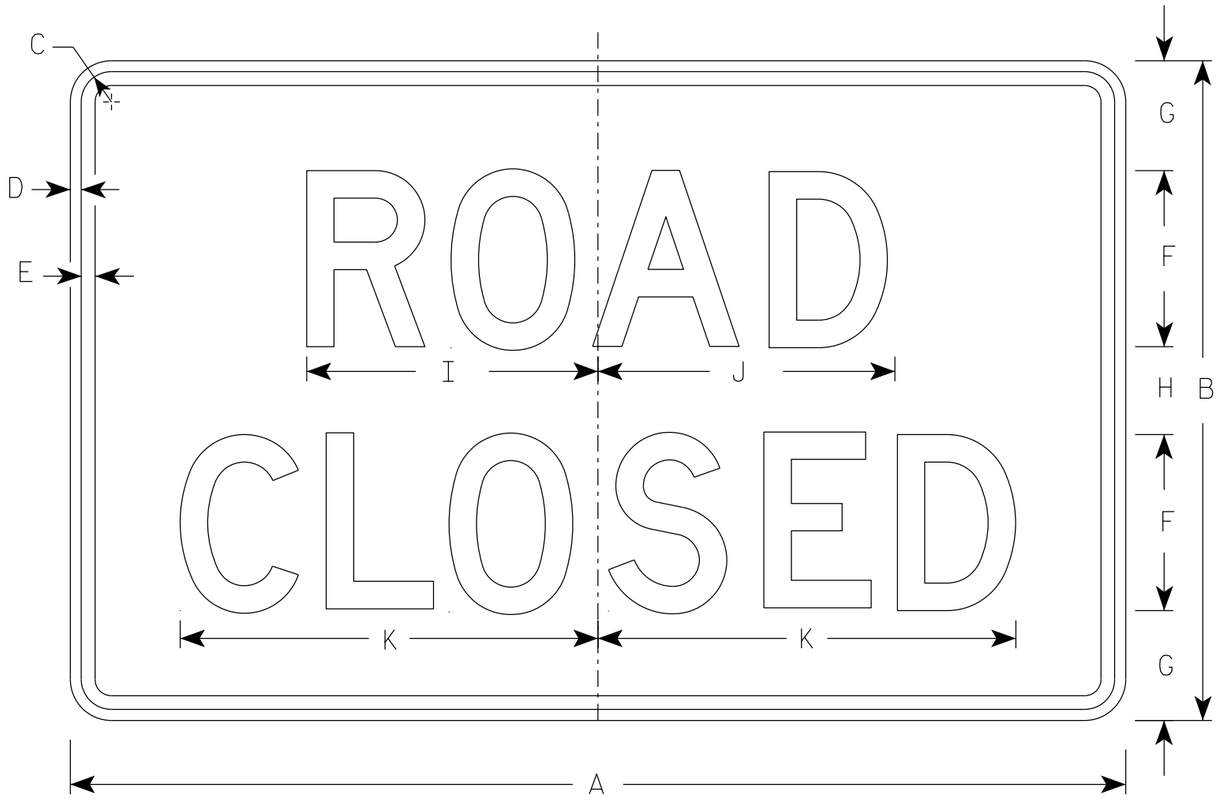
STANDARD SIGN
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/31/2020 PLATE NO. R9-9A.1

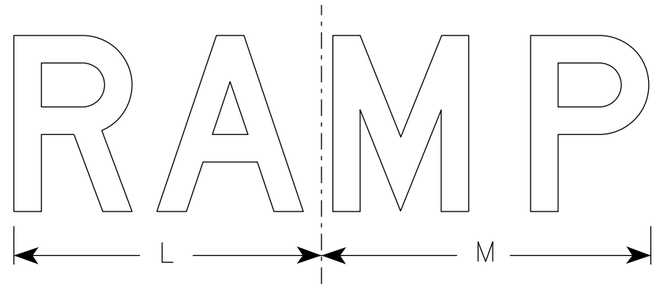
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 291 | E



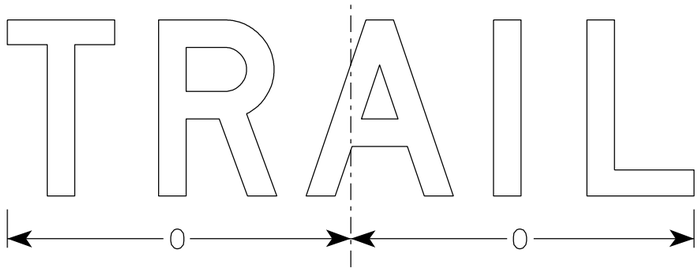
R11-2

NOTES

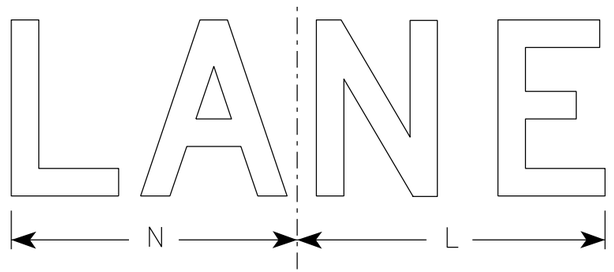
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the 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 3/8	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 3/8	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 3/8	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 3/8	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 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

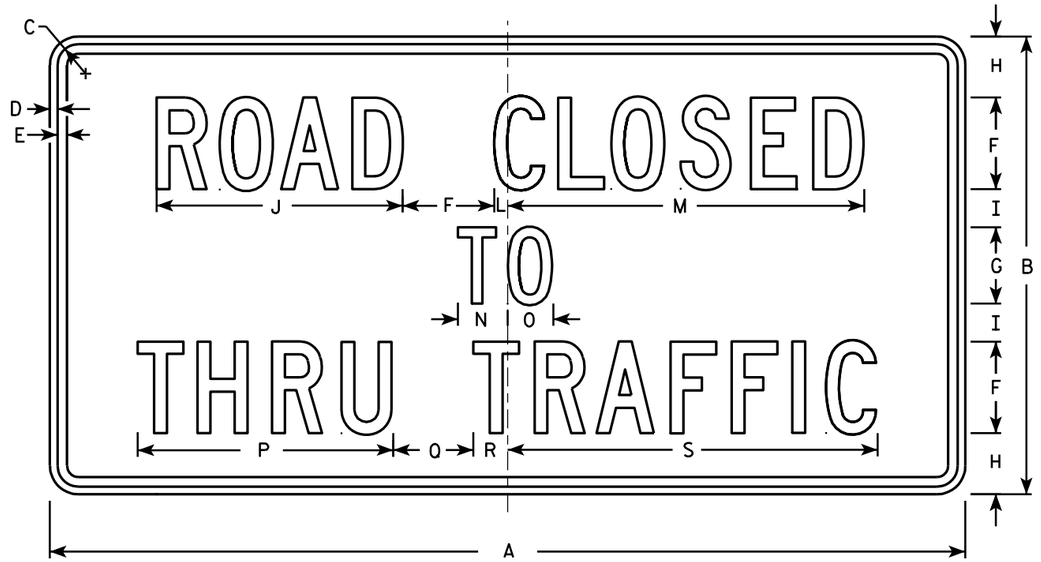
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 292 E



R11-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

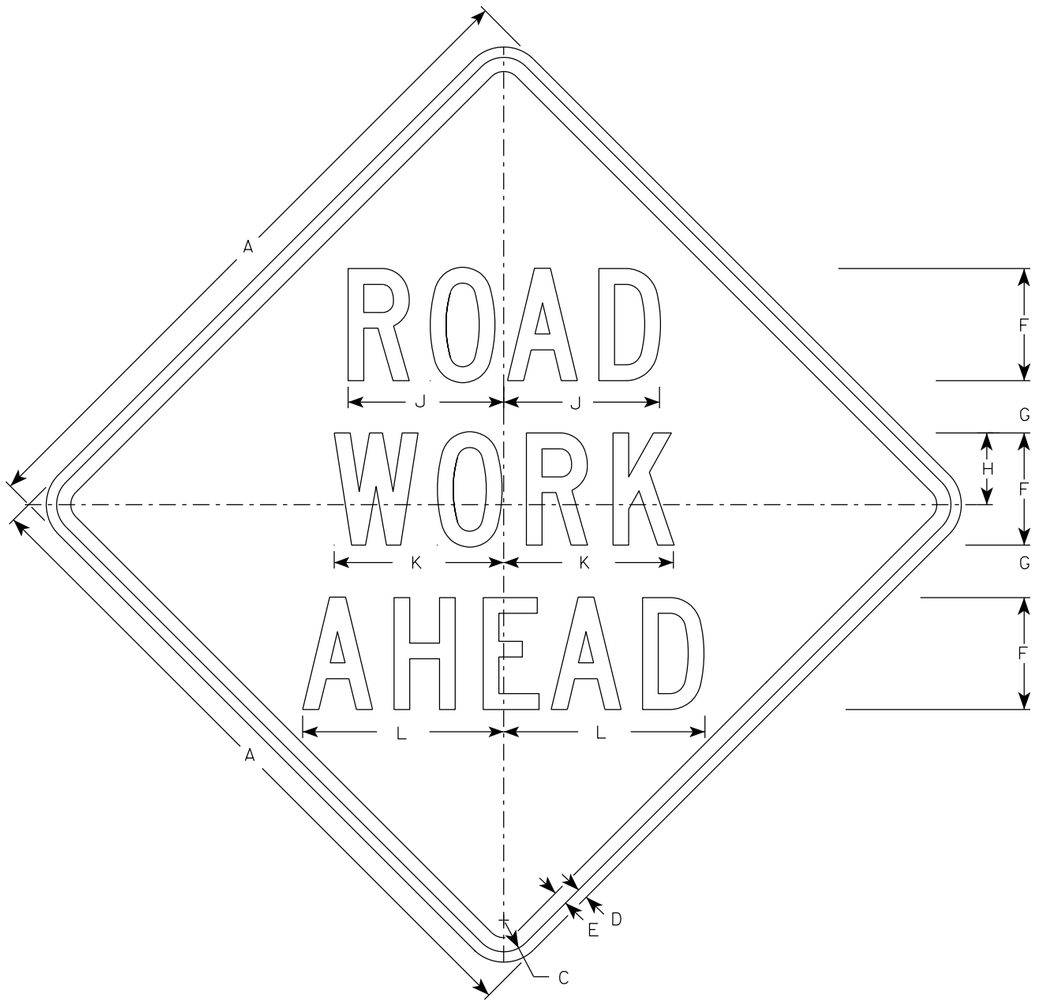
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

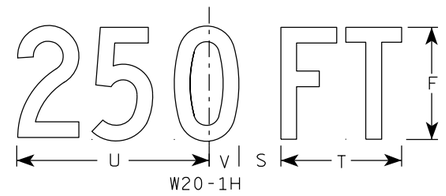
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 293 | E

NOTES

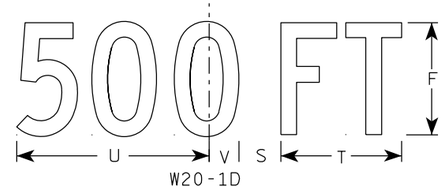
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1A



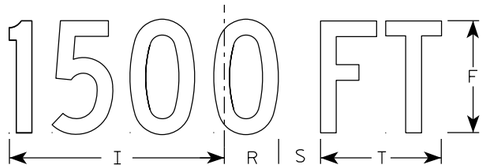
W20-1H



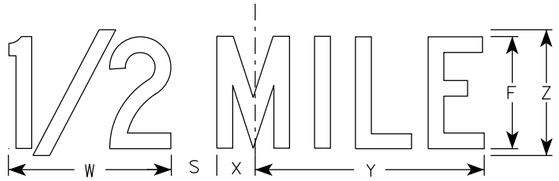
W20-1D



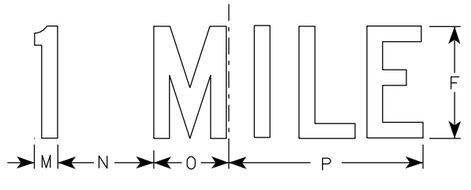
W20-1C



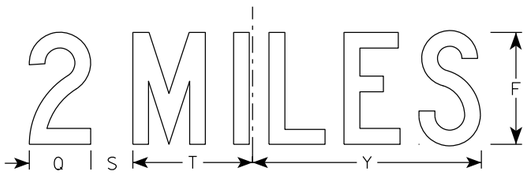
W20-1B



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		1 5/8	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		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

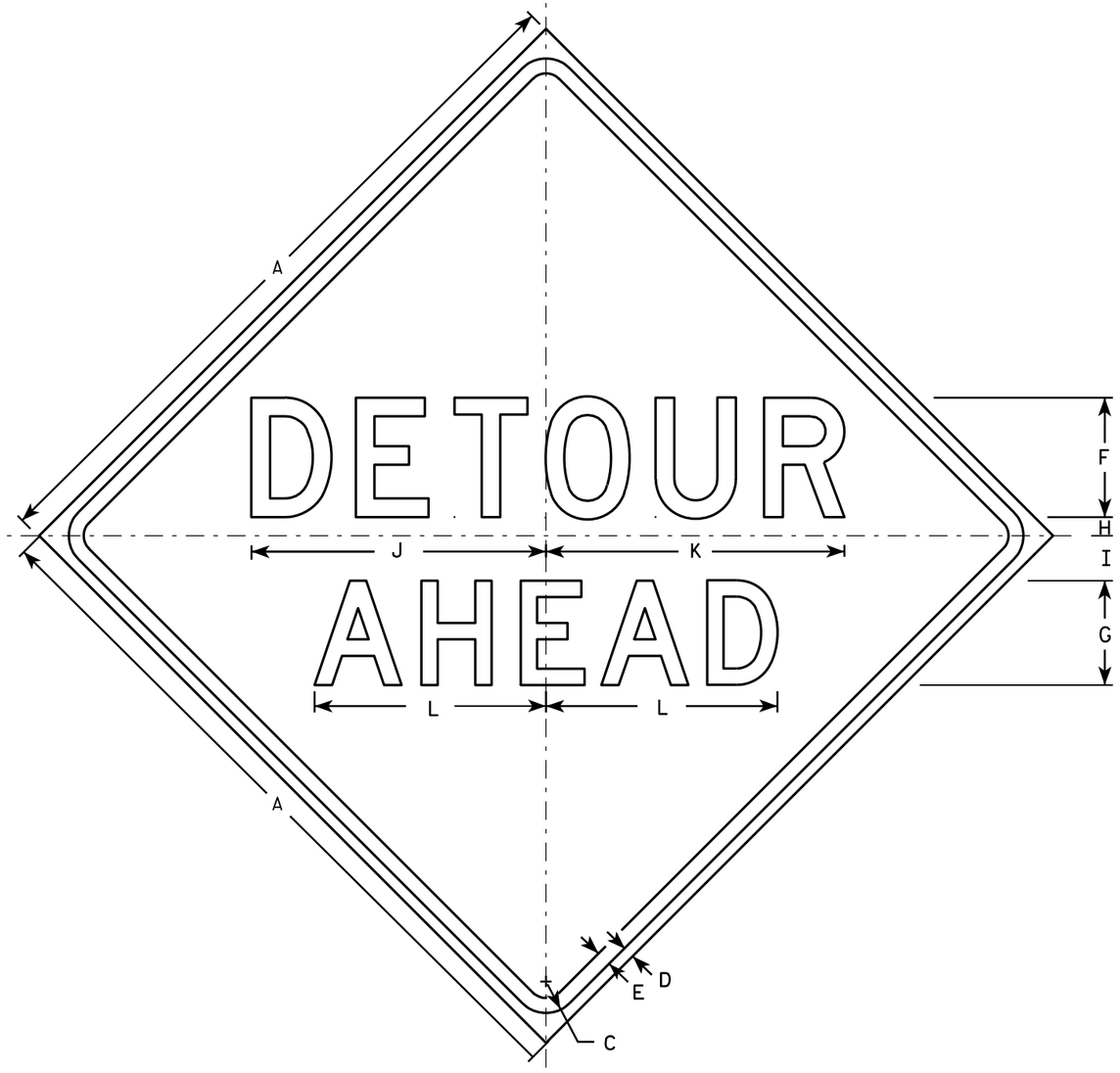
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

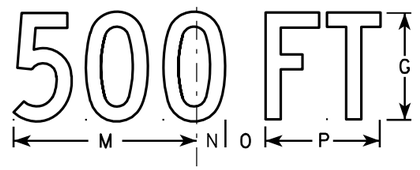
WISDOT/CADDS SHEET 42

7

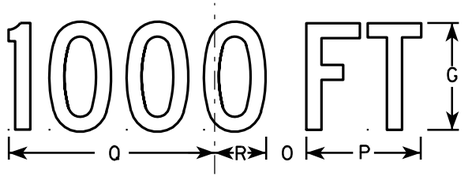
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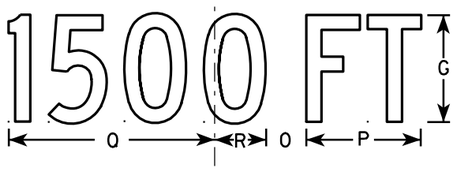
W20-2A



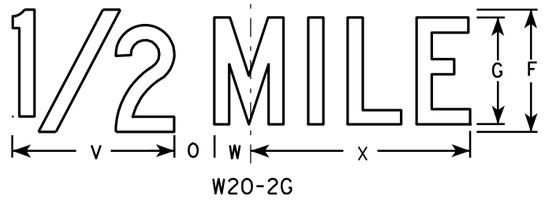
W20-2D



W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

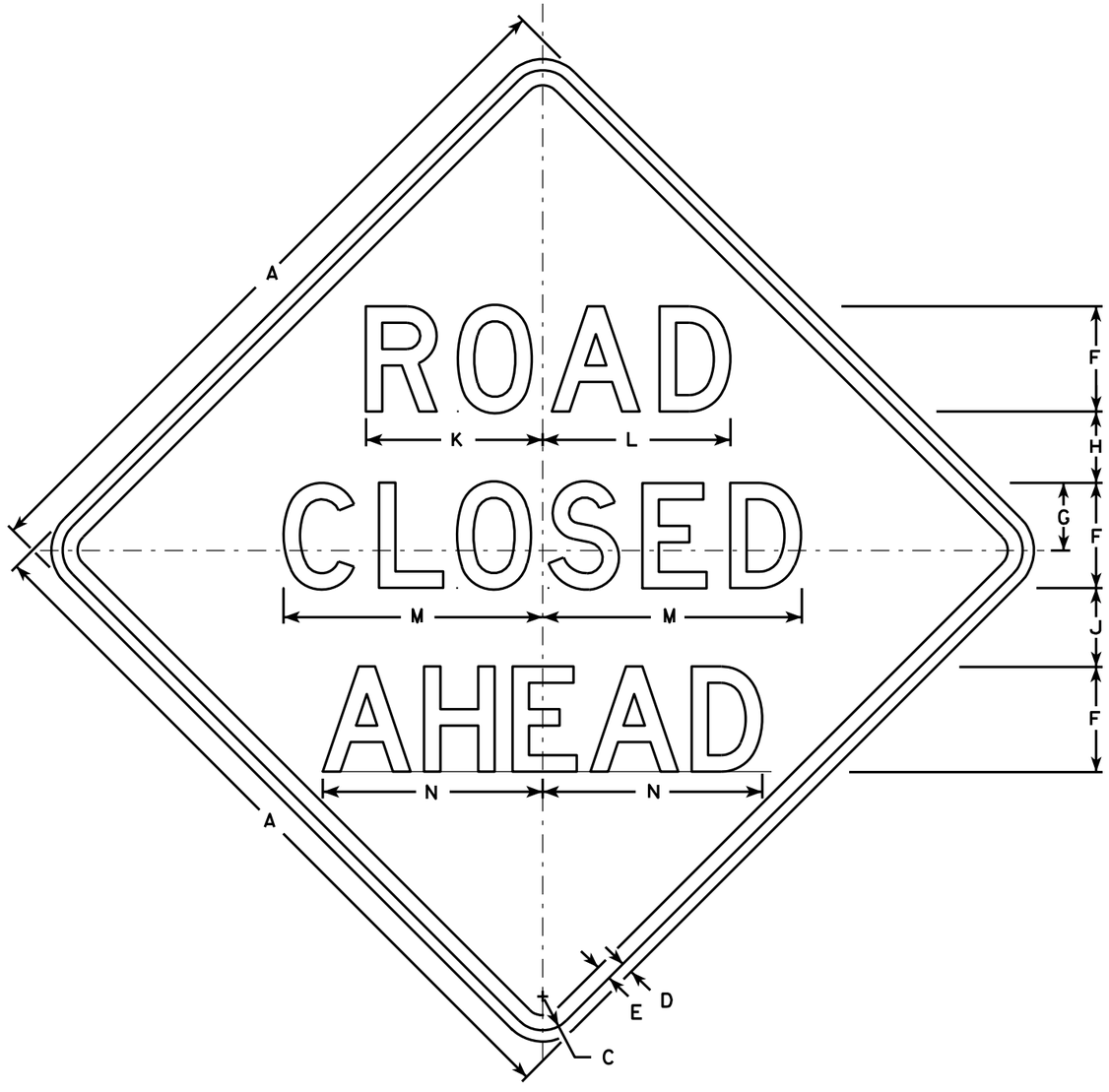
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

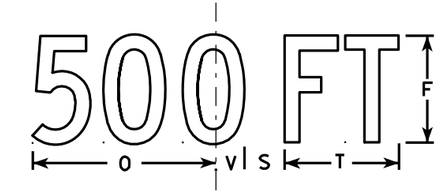
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-2.6

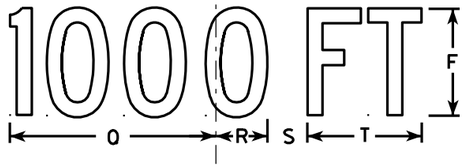
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 295	E



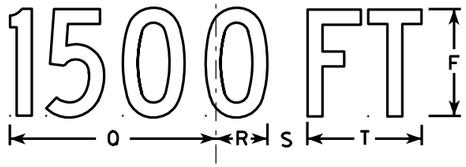
W20-3A



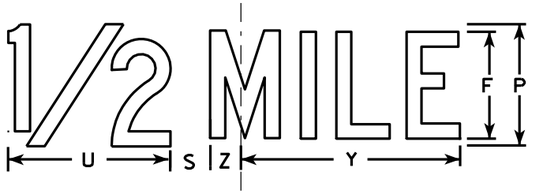
W20-3D



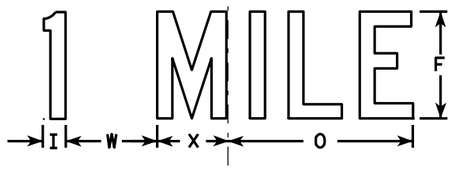
W20-3C



W20-3B



W20-3G



W20-3F

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

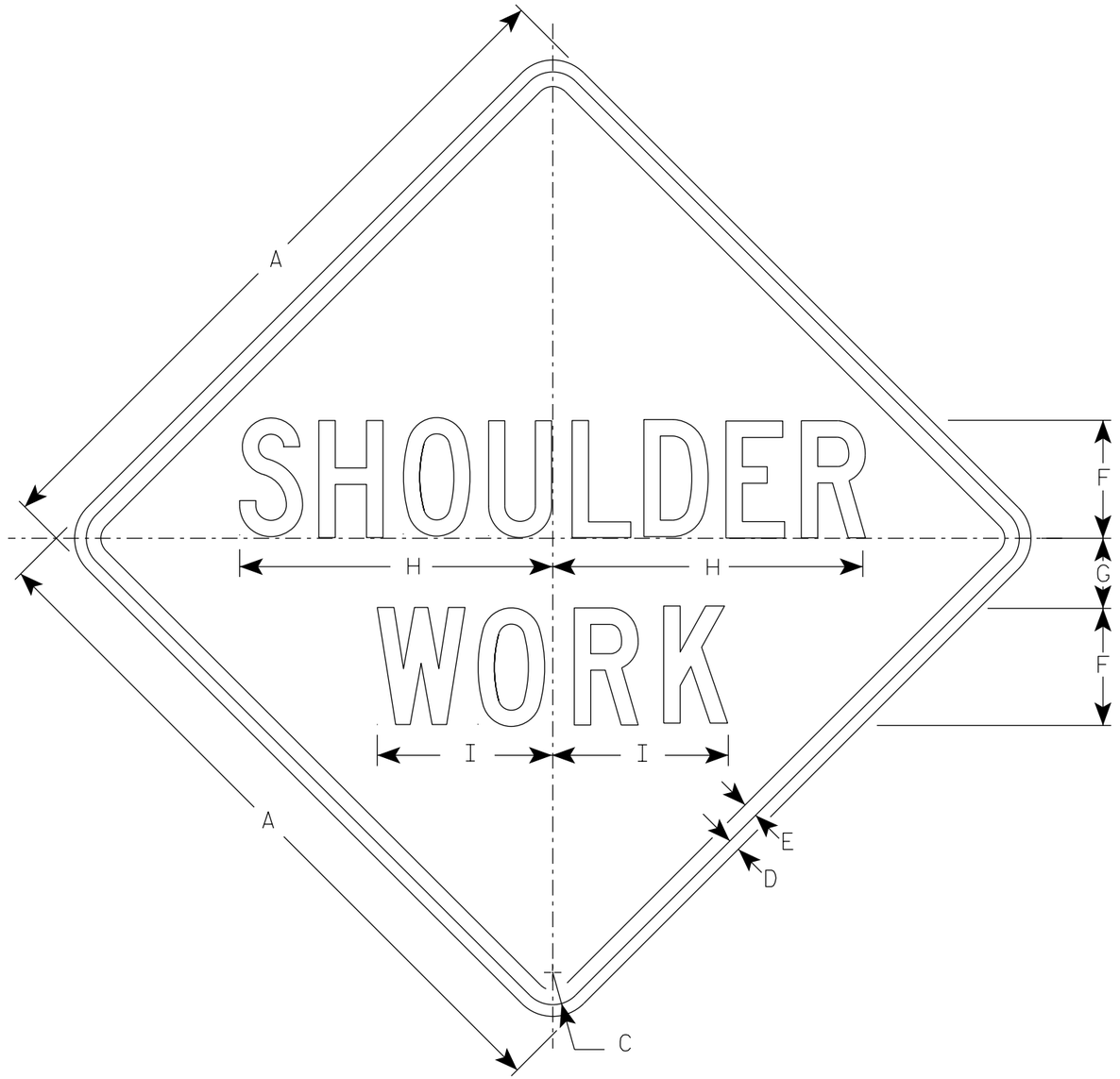
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 296 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN PLOT DATE : 18-MAR-2011 12:08 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



W21-5

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	3 1/2	16	9																		9.0
2S	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
2M	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
3	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
4	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0

STANDARD SIGN
W21-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

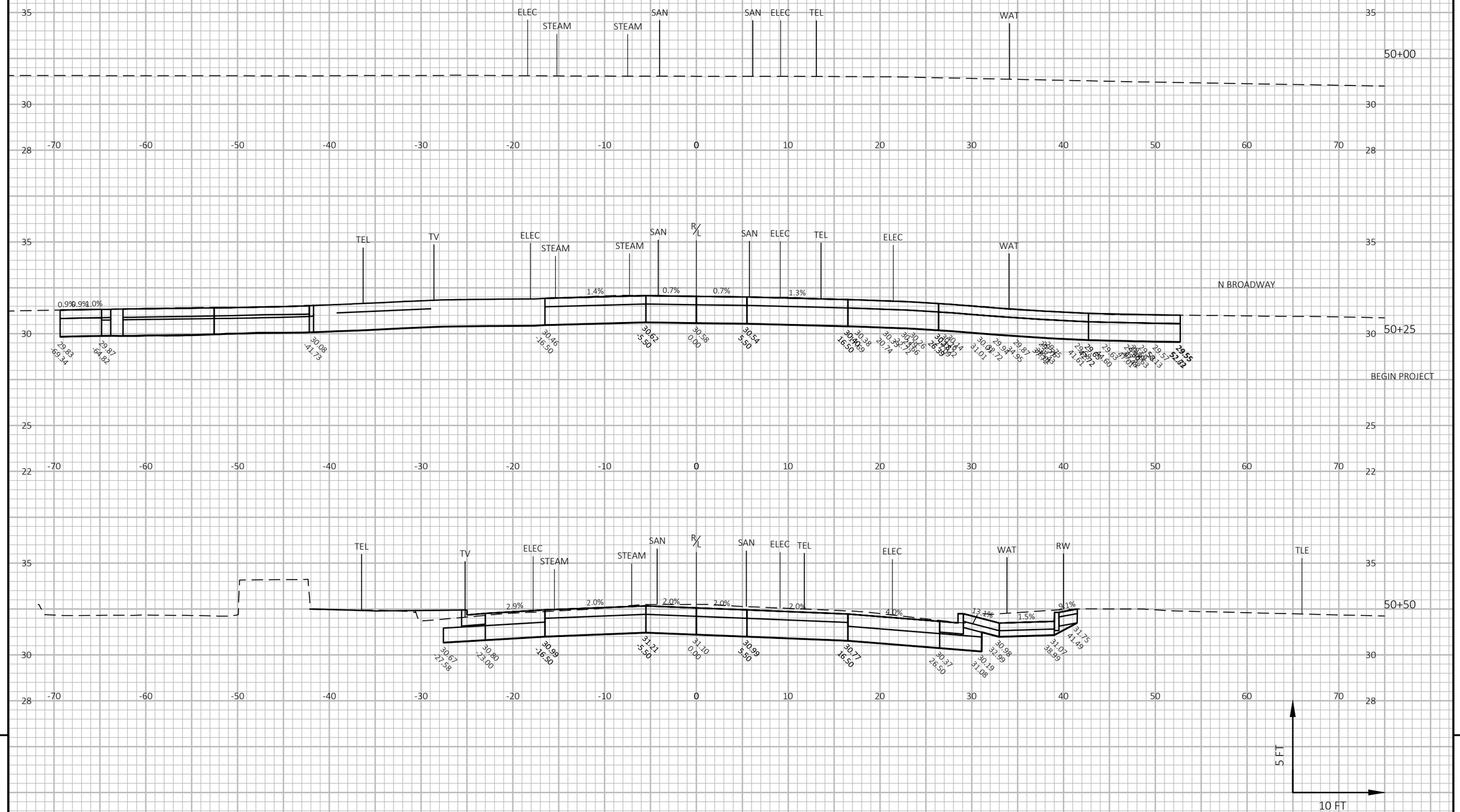
DATE 4/30/2020 PLATE NO. W21-5.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 297	E

WELLS ST

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
50+25	0.00	178.46	0.00	0	0	0	0	0
50+50	25.00	102.26	0.00	130	0	130	0	130
51+00	50.00	109.29	0.00	196	0	326	0	326
51+50	50.00	96.47	0.02	191	0	517	0	517
52+00	50.00	96.50	0.00	179	0	696	0	696
52+50	50.00	71.71	0.00	156	0	852	0	852
53+00	50.00	87.34	0.00	147	0	999	0	999
53+41	40.90	117.67	0.00	155	0	1,154	0	1,154
53+49	8.11	125.66	0.00	37	0	1,191	0	1,191
54+00	50.99	43.24	0.00	159	0	1,350	0	1,350
54+50	50.00	116.34	0.00	148	0	1,498	0	1,498
55+00	50.00	108.34	0.00	208	0	1,706	0	1,706
55+50	50.00	94.74	0.00	188	0	1,894	0	1,894
56+00	50.00	95.35	0.00	176	0	2,070	0	2,070
56+50	50.00	107.00	0.00	187	0	2,257	0	2,257
56+75	25.00	214.42	0.00	149	0	2,406	0	2,406
57+00	25.00	154.44	0.00	171	0	2,577	0	2,577
57+50	50.00	56.66	0.00	195	0	2,772	0	2,772
58+00	50.00	111.24	0.00	155	0	2,927	0	2,927
58+50	50.00	102.04	0.00	197	0	3,124	0	3,124
59+00	50.00	90.65	0.00	178	0	3,302	0	3,302
59+50	50.00	90.35	0.03	168	0	3,470	0	3,470
60+00	50.00	184.04	0.00	254	0	3,724	0	3,724
60+15	15.00	172.01	0.00	99	0	3,823	0	3,823
60+50	35.00	75.08	0.00	160	0	3,983	0	3,983
61+00	50.00	92.91	0.00	156	0	4,139	0	4,139
61+50	50.00	92.06	0.00	171	0	4,310	0	4,310
62+00	50.00	102.12	0.00	180	0	4,490	0	4,490
62+50	50.00	92.86	0.00	181	0	4,671	0	4,671
63+00	50.00	88.07	0.00	168	0	4,839	0	4,839
63+50	50.00	149.88	0.00	220	0	5,059	0	5,059
64+05	55.00	74.10	0.00	228	0	5,287	0	5,287
			SUBTOTAL	5,287	0			

STEAM TICKS REPRESENT THE APPROXIMATE OUTER LIMITS OF WE ENERGIES STEAM TUNNELS OR TRENCH BOXES. THE TICKS DO NOT REPRESENT TWO SEPARATE FACILITIES.



PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CROSS SECTIONS: WELLS ST	SHEET 299	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 4:37 PM

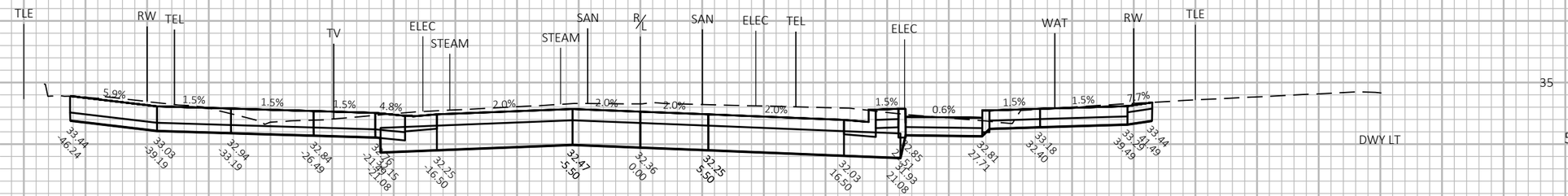
PLOT BY : AXT, ANDREW

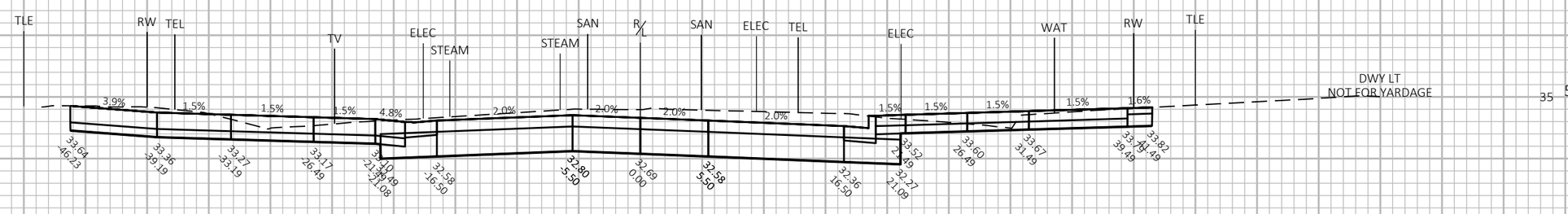
PLOT NAME :

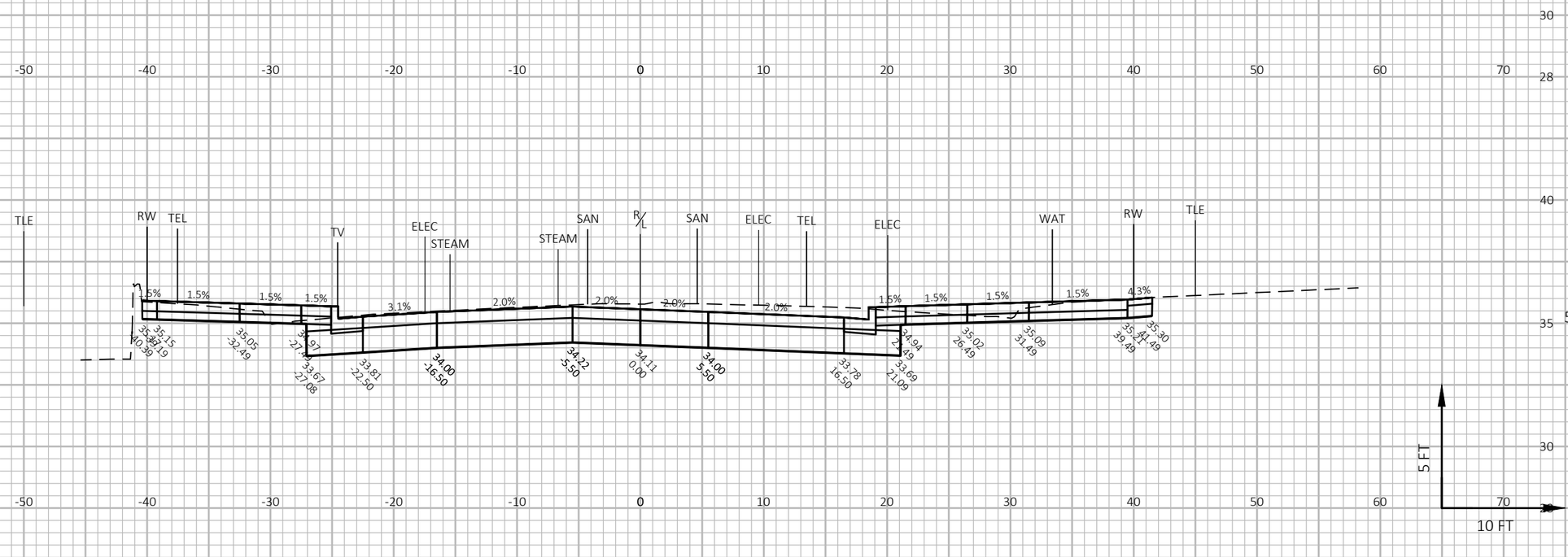
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

STEAM TICKS REPRESENT THE APPROXIMATE OUTER LIMITS OF WE ENERGIES STEAM TUNNELS OR TRENCH BOXES. THE TICKS DO NOT REPRESENT TWO SEPARATE FACILITIES.







9

9

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CROSS SECTIONS: WELLS ST	SHEET 300	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 7/21/2023 4:37 PM

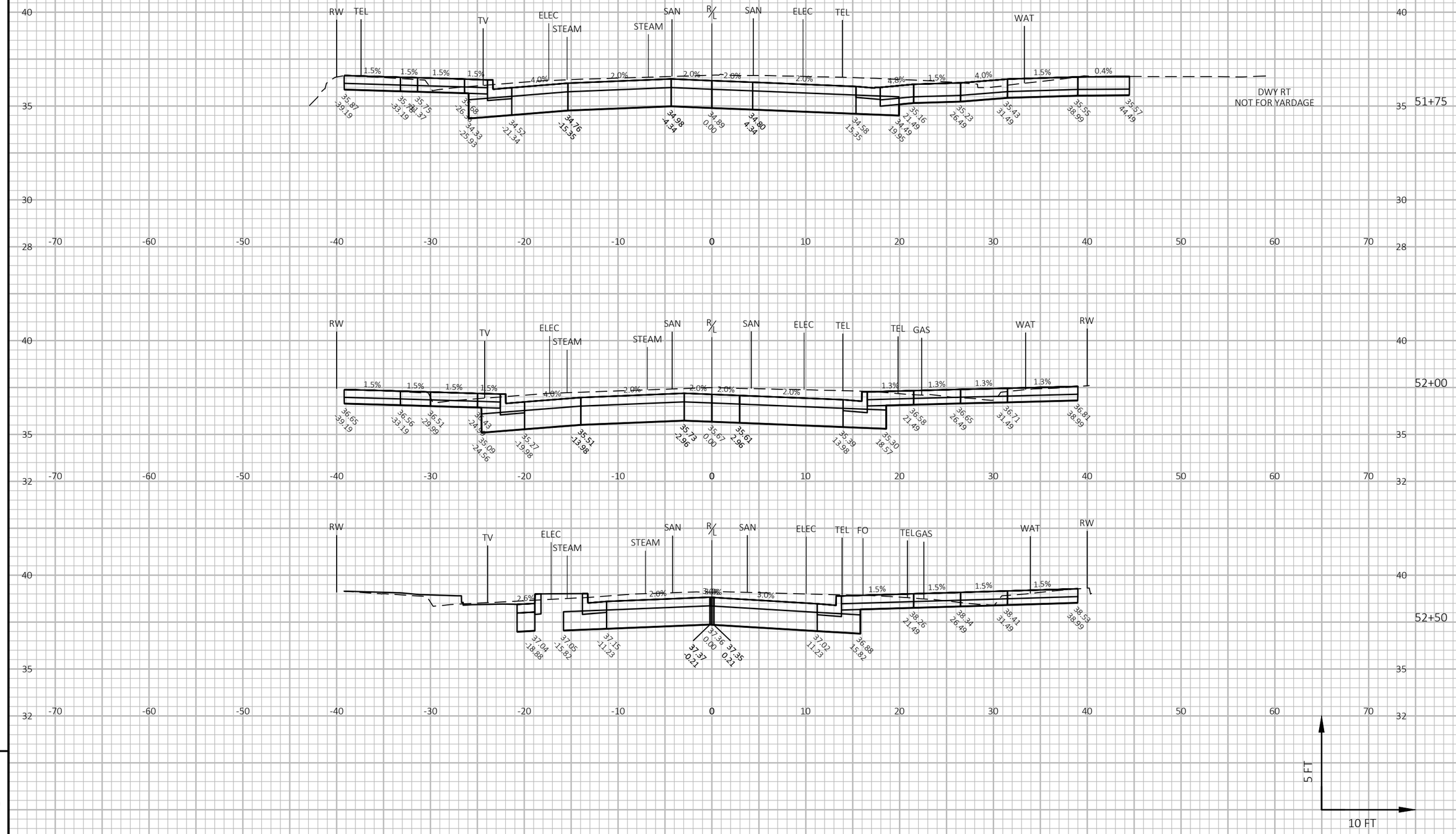
PLOT BY : AXT, ANDREW

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

STEAM TICKS REPRESENT THE APPROXIMATE OUTER LIMITS OF WE ENERGIES STEAM TUNNELS OR TRENCH BOXES. THE TICKS DO NOT REPRESENT TWO SEPARATE FACILITIES.



PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CROSS SECTIONS: WELLS ST	SHEET 301	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 7/21/2023 4:37 PM

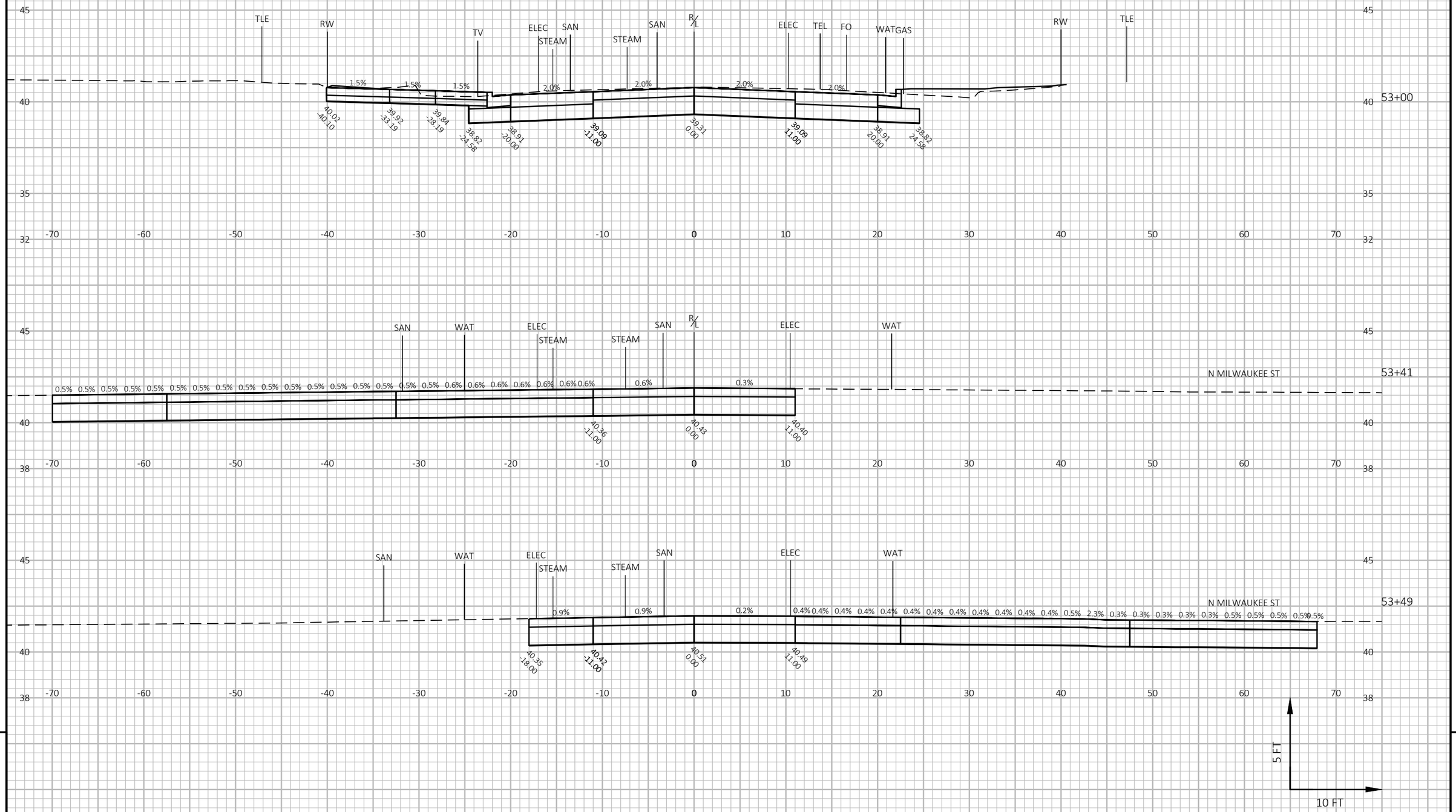
PLOT BY : AXT, ANDREW

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

STEAM TICKS REPRESENT THE APPROXIMATE OUTER LIMITS OF WE ENERGIES STEAM TUNNELS OR TRENCH BOXES. THE TICKS DO NOT REPRESENT TWO SEPARATE FACILITIES.



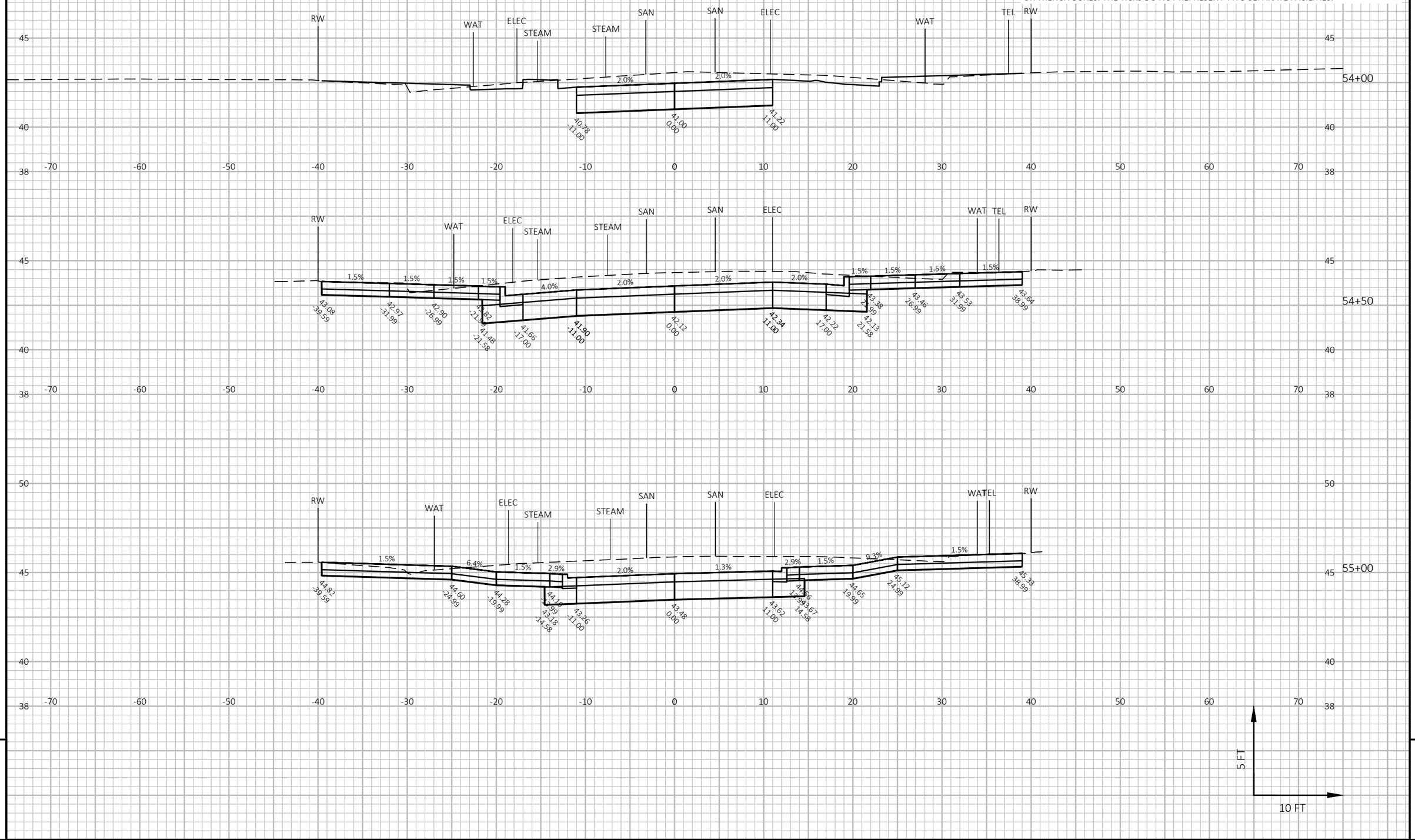
PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CROSS SECTIONS: WELLS ST	SHEET 302	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 7/21/2023 4:37 PM PLOT BY : AXT, ANDREW PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

STEAM TICKS REPRESENT THE APPROXIMATE OUTER LIMITS OF WE ENERGIES STEAM TUNNELS OR TRENCH BOXES. THE TICKS DO NOT REPRESENT TWO SEPARATE FACILITIES.



PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CROSS SECTIONS: WELLS ST	SHEET 303 E

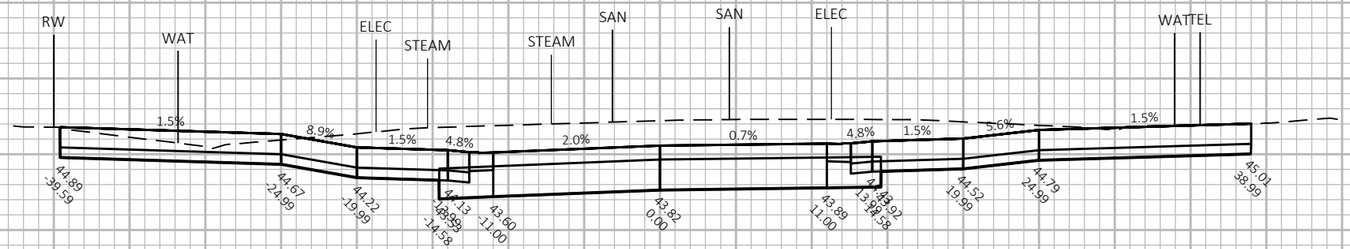
FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 7/21/2023 4:37 PM PLOT BY : AXT, ANDREW PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

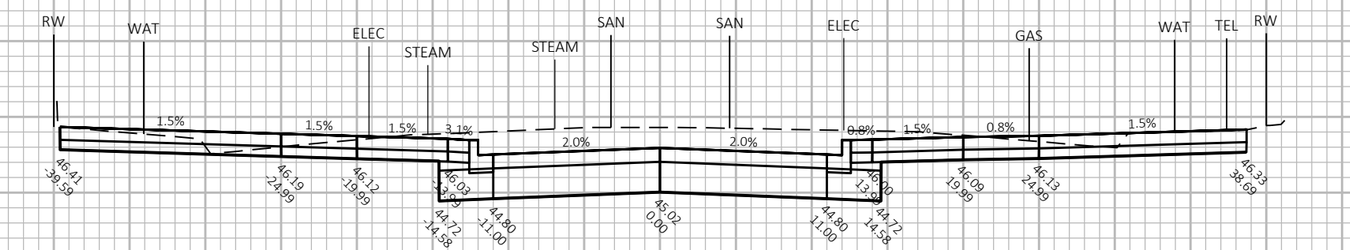
WISDOT/CADDS SHEET 49

STEAM TICKS REPRESENT THE APPROXIMATE OUTER LIMITS OF WE ENERGIES STEAM TUNNELS OR TRENCH BOXES. THE TICKS DO NOT REPRESENT TWO SEPARATE FACILITIES.

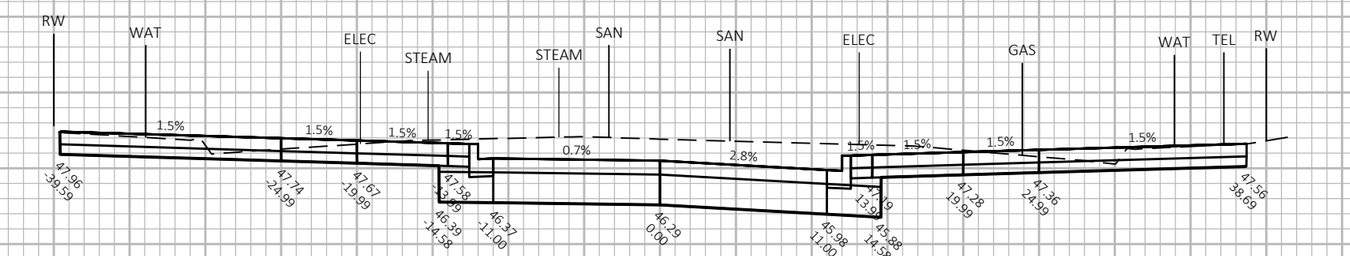


DWY LT & RT
NOT FOR YARDAGE

55+10



55+50



56+00

5 FT
10 FT

PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CROSS SECTIONS: WELLS ST	SHEET 304	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 7/21/2023 4:37 PM

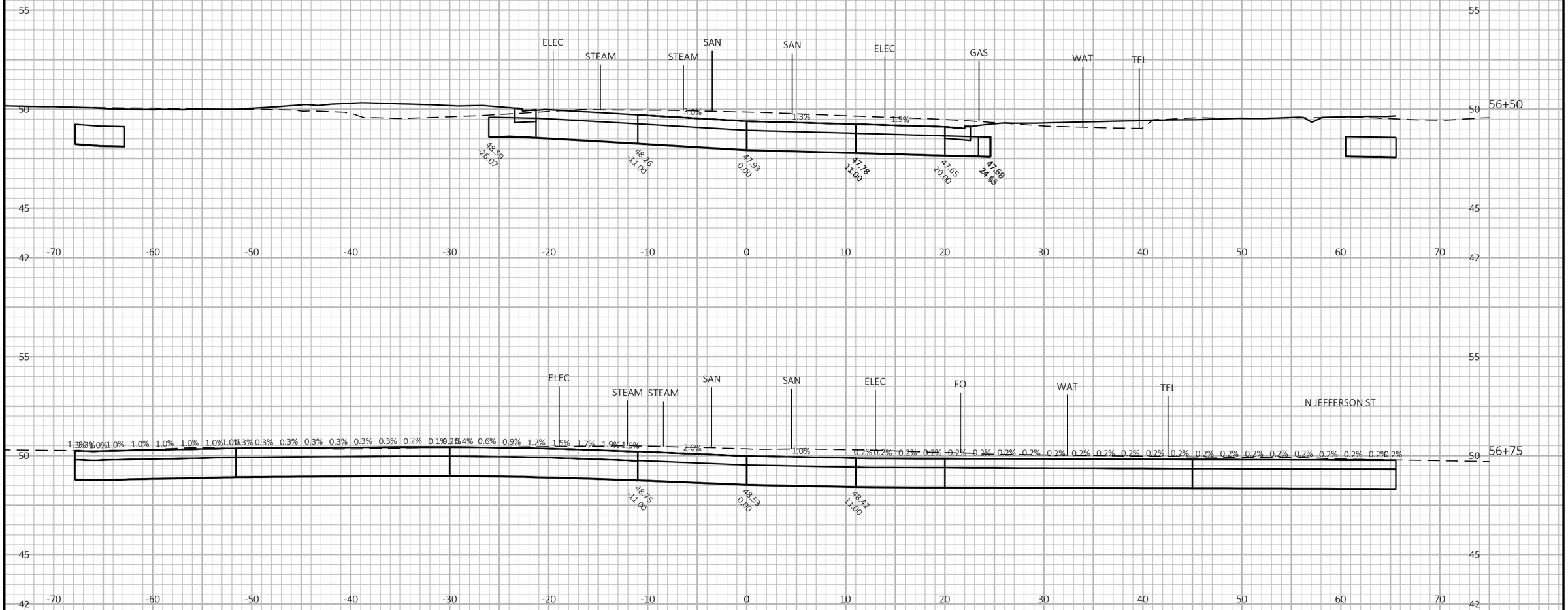
PLOT BY : AXT, ANDREW

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

STEAM TICKS REPRESENT THE APPROXIMATE OUTER LIMITS OF WE ENERGIES STEAM TUNNELS OR TRENCH BOXES. THE TICKS DO NOT REPRESENT TWO SEPARATE FACILITIES.



9

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PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CROSS SECTIONS: WELLS ST	SHEET 305	E

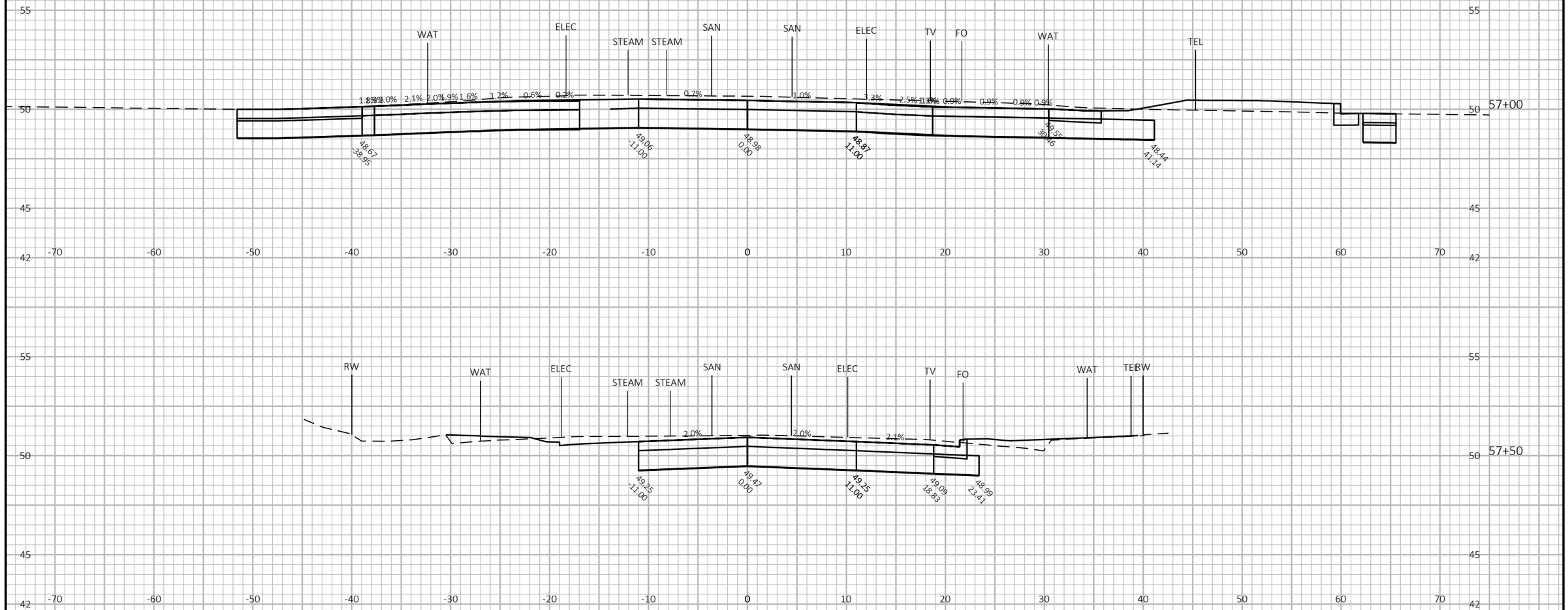
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LAYOUT NAME - 07

PLOT DATE : 7/21/2023 4:37 PM PLOT BY : AXT, ANDREW PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

STEAM TICKS REPRESENT THE APPROXIMATE OUTER LIMITS OF WE ENERGIES STEAM TUNNELS OR TRENCH BOXES. THE TICKS DO NOT REPRESENT TWO SEPARATE FACILITIES.



5 FT
10 FT

9

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PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CROSS SECTIONS: WELLS ST	SHEET 306	E

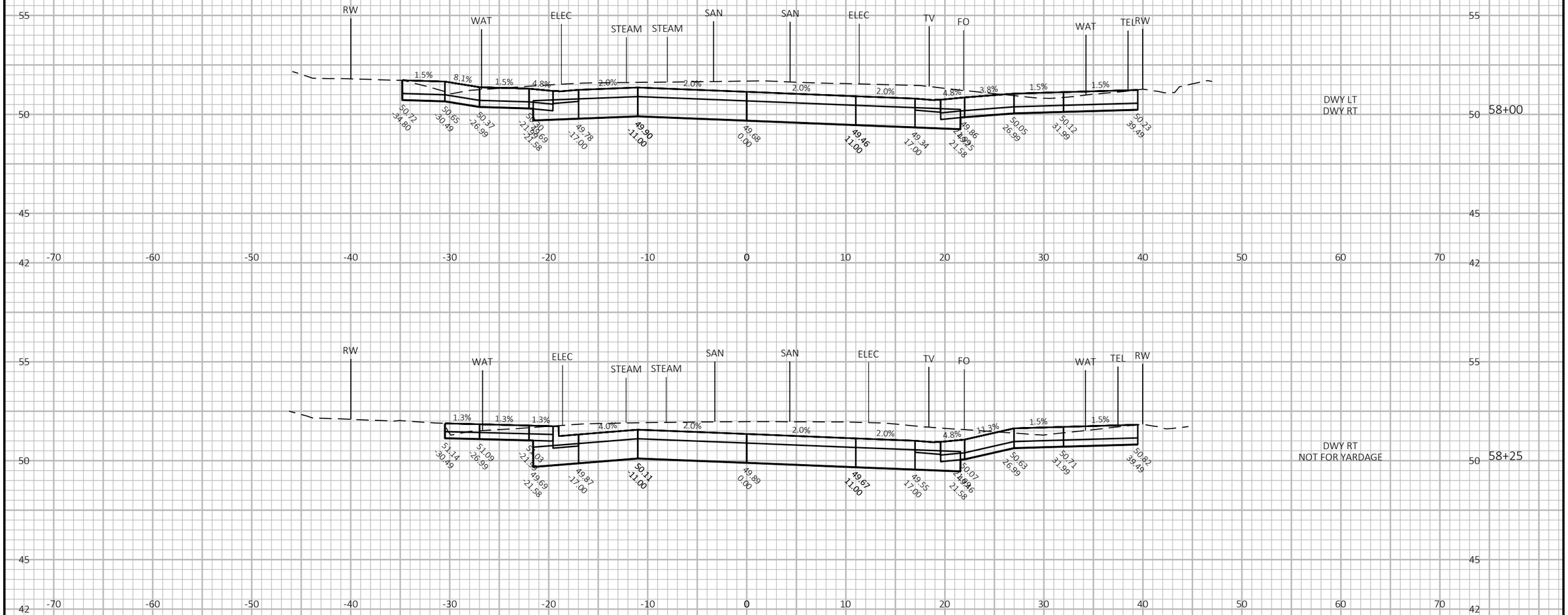
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LAYOUT NAME - 08

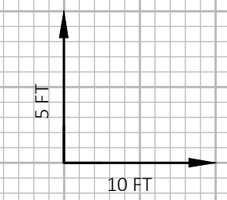
PLOT DATE : 7/21/2023 4:37 PM PLOT BY : AXT, ANDREW PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

STEAM TICKS REPRESENT THE APPROXIMATE OUTER LIMITS OF WE ENERGIES STEAM TUNNELS OR TRENCH BOXES. THE TICKS DO NOT REPRESENT TWO SEPARATE FACILITIES.





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PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CROSS SECTIONS: WELLS ST	SHEET 307	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 09

PLOT DATE : 7/21/2023 4:37 PM

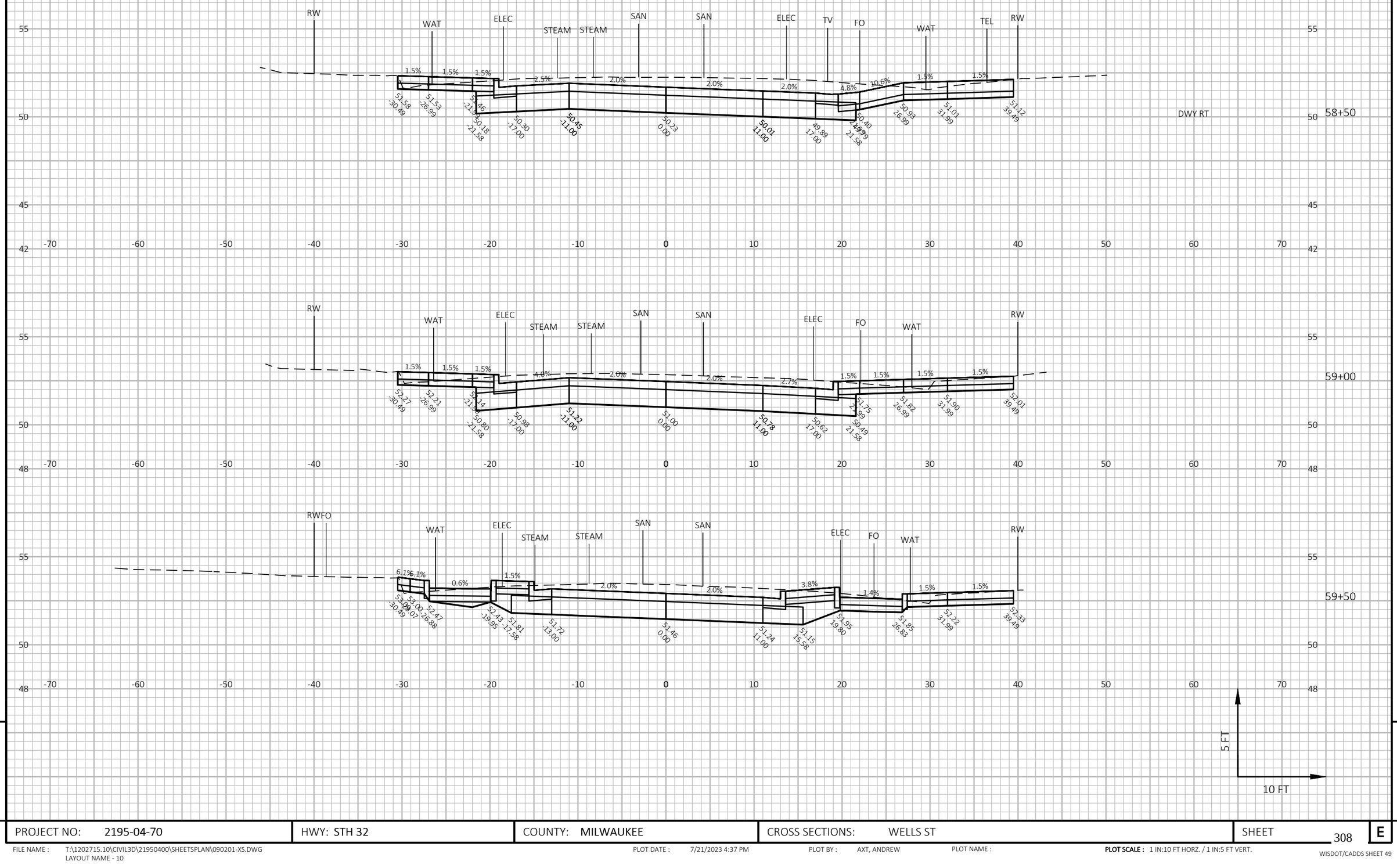
PLOT BY : AXT, ANDREW

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

STEAM TICKS REPRESENT THE APPROXIMATE OUTER LIMITS OF WE ENERGIES STEAM TUNNELS OR TRENCH BOXES. THE TICKS DO NOT REPRESENT TWO SEPARATE FACILITIES.



PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CROSS SECTIONS: WELLS ST	SHEET 308	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 10

PLOT DATE : 7/21/2023 4:37 PM

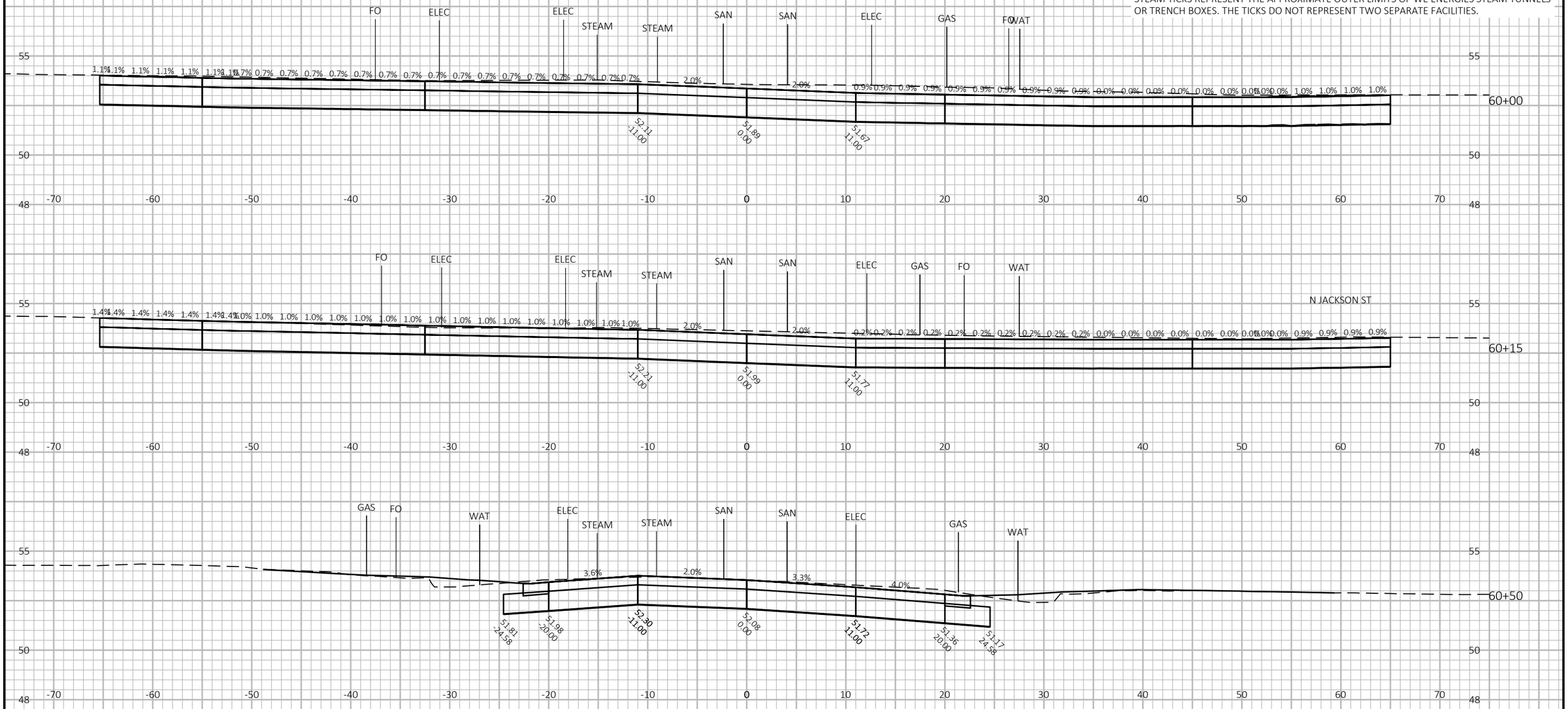
PLOT BY : AXT, ANDREW

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

STEAM TICKS REPRESENT THE APPROXIMATE OUTER LIMITS OF WE ENERGIES STEAM TUNNELS OR TRENCH BOXES. THE TICKS DO NOT REPRESENT TWO SEPARATE FACILITIES.



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PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CROSS SECTIONS: WELLS ST	SHEET 309	E

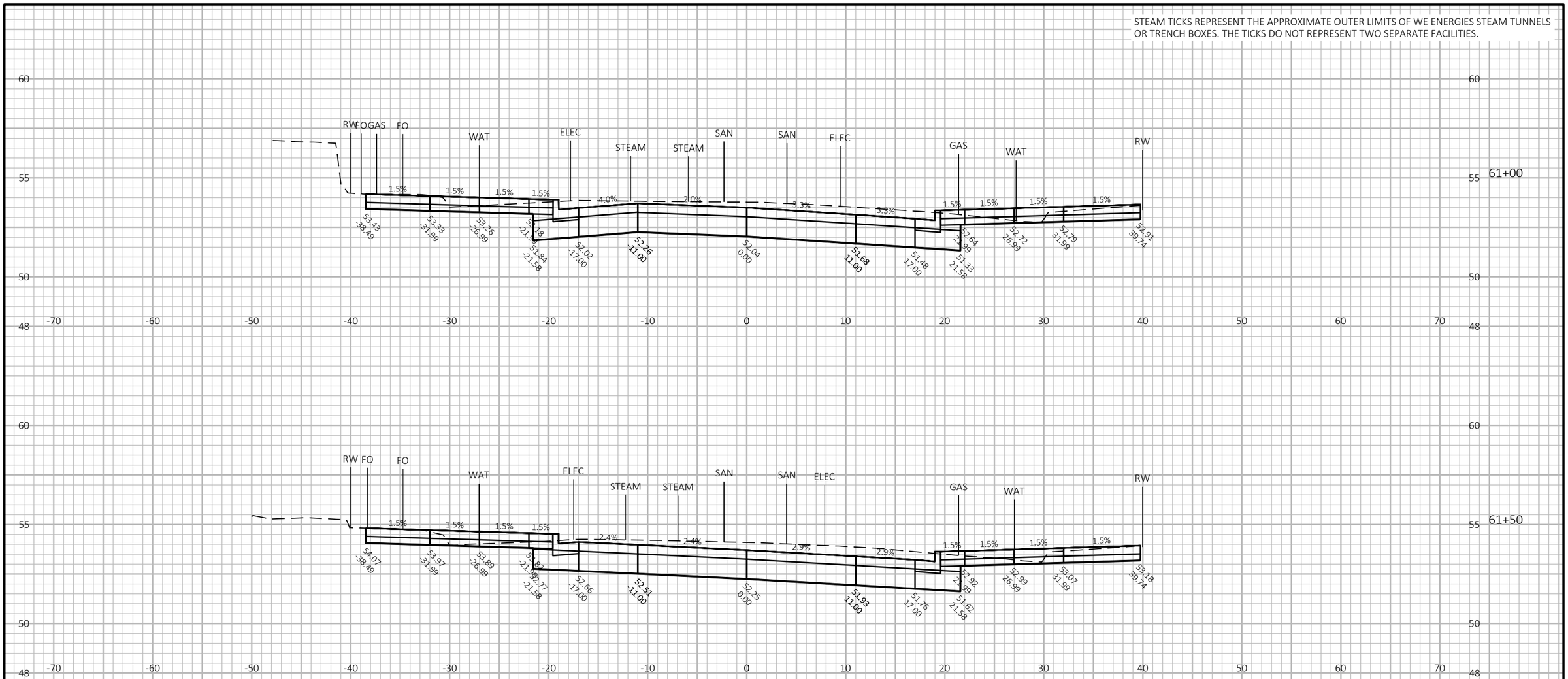
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LAYOUT NAME - 11

PLOT DATE : 7/21/2023 4:37 PM PLOT BY : AXT, ANDREW PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

STEAM TICKS REPRESENT THE APPROXIMATE OUTER LIMITS OF WE ENERGIES STEAM TUNNELS OR TRENCH BOXES. THE TICKS DO NOT REPRESENT TWO SEPARATE FACILITIES.



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PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CROSS SECTIONS: WELLS ST	SHEET 310	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 12

PLOT DATE : 7/21/2023 4:37 PM

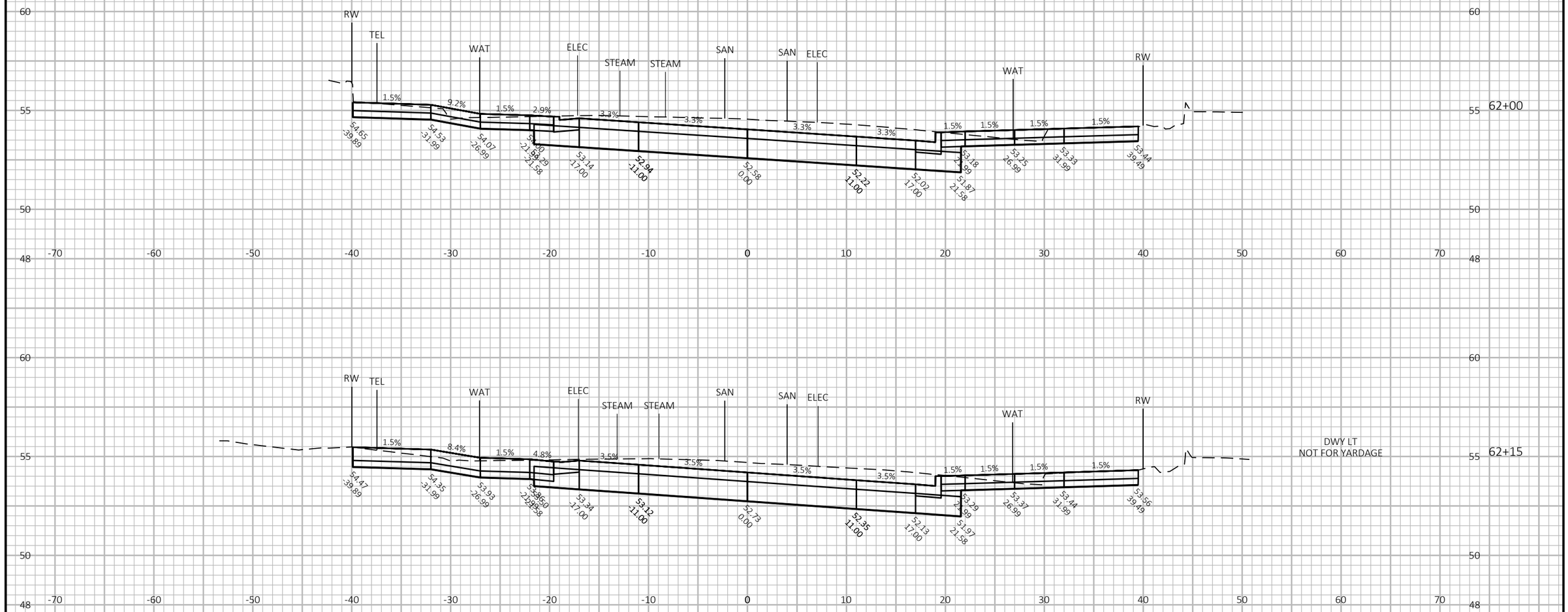
PLOT BY : AXT, ANDREW

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

STEAM TICKS REPRESENT THE APPROXIMATE OUTER LIMITS OF WE ENERGIES STEAM TUNNELS OR TRENCH BOXES. THE TICKS DO NOT REPRESENT TWO SEPARATE FACILITIES.



PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CROSS SECTIONS: WELLS ST	SHEET 311	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 13

PLOT DATE : 7/21/2023 4:37 PM PLOT BY : AXT, ANDREW PLOT NAME :

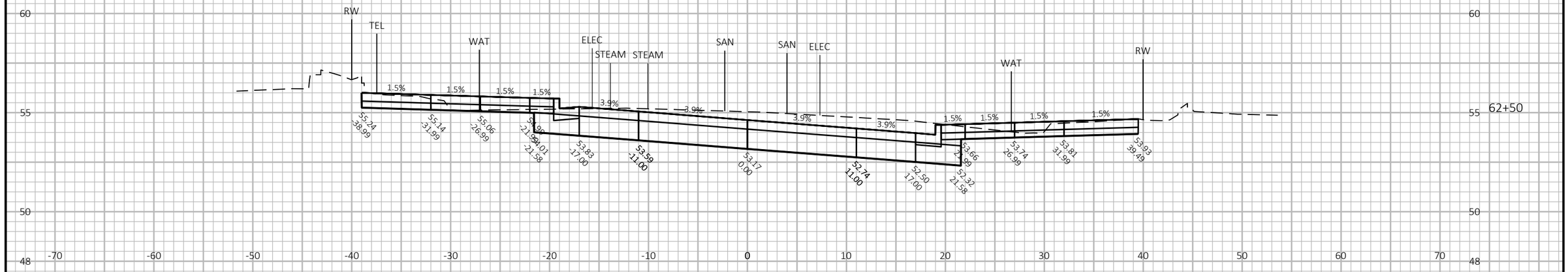
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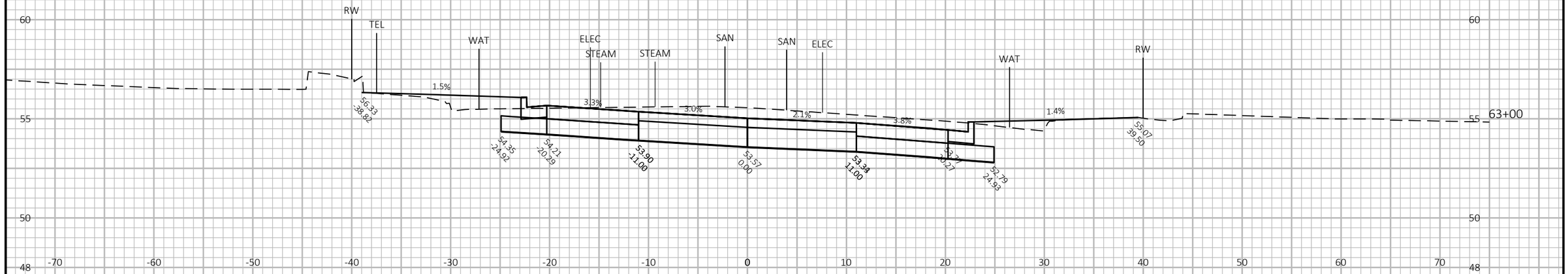
WISDOT/CADDS SHEET 49

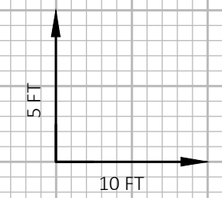
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PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CROSS SECTIONS: WELLS ST	SHEET 312	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 14

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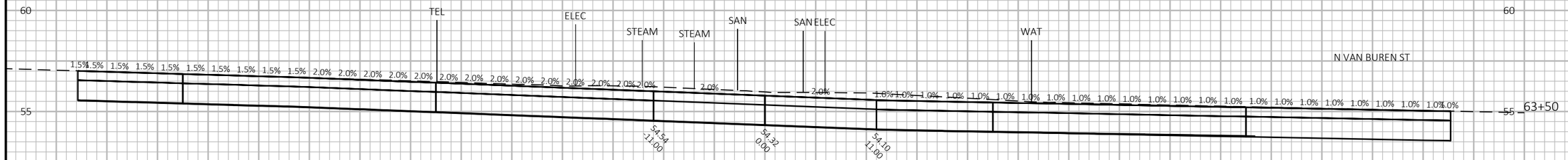
PLOT BY : AXT, ANDREW

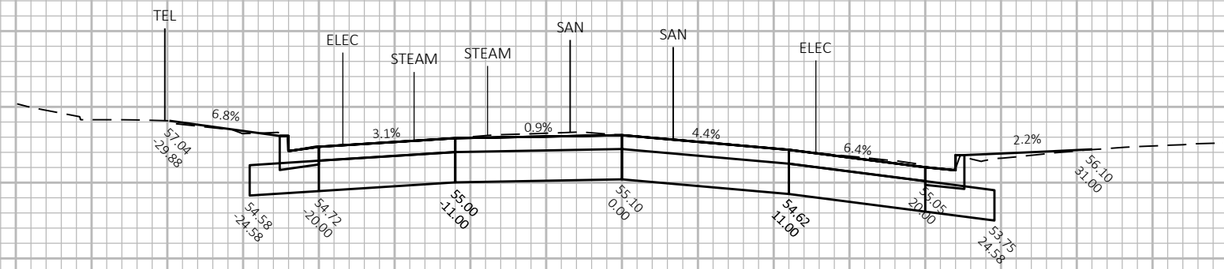
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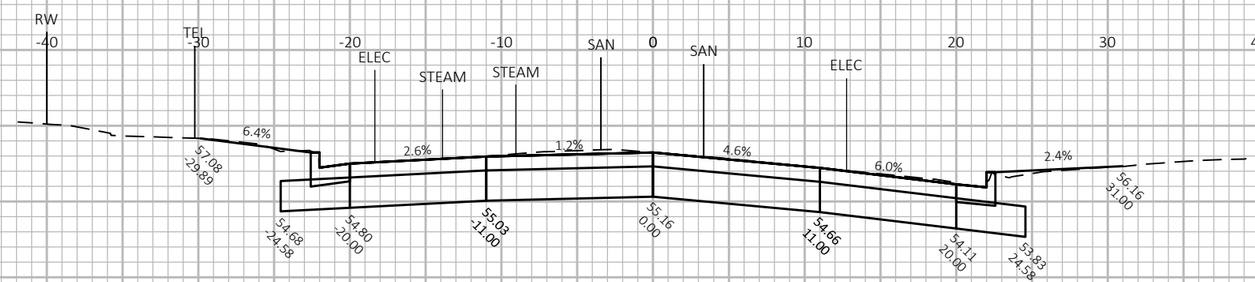
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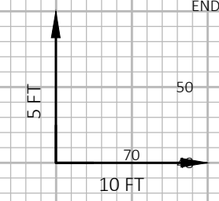
WISDOT/CADDS SHEET 49

STEAM TICKS REPRESENT THE APPROXIMATE OUTER LIMITS OF WE ENERGIES STEAM TUNNELS OR TRENCH BOXES. THE TICKS DO NOT REPRESENT TWO SEPARATE FACILITIES.









PROJECT NO: 2195-04-70	HWY: STH 32	COUNTY: MILWAUKEE	CROSS SECTIONS: WELLS ST	SHEET 313	E

FILE NAME : T:\1202715.10\CIVIL3D\21950400\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 15

PLOT DATE : 7/21/2023 4:37 PM PLOT BY : AXT, ANDREW PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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through innovation and exceptional service.

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