WKE NOVEMBER 2022

PROJECT ID 2265-00-78
WITH: 2674-02-70

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~~

TOTAL SHEETS = 138



24

N

DESIGN DESIGNATION

A.D.T. (CURRENT)	=	13,400-17,400
A.D.T. (	=	N/A
D.H.V.	=	N/A
D.	=	N/A
T.	=	N/A
DESIGN SPEED	=	35 MPH
ESALS	=	N/A

CONVENTIONAL SYMBOLS

PLAN

- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- CORPORATE OR CITY LIMITS
- PROPERTY LINE — P.L.
- STANDARD BENCH MARK
- EXISTING RIGHT OF WAY LINE — R/W
- PROPOSED SEWER LATERAL — (SIZE)
- BASE OF SURVEY LINE
- CONCRETE WALK/DWY. REMOVAL
- LIMITS OF CONCRETE PAVEMENT REMOVAL — X X X X X X
- CATCH BASIN OR INLET — EXISTING / PROPOSED
- EXISTING CUC MANHOLE

- UNDERGROUND HIGH-VOLTAGE ELECTRIC — CAUTION
- COMBUSTIBLE FLUIDS UNDER PRESSURE — CAUTION
- RAILROADS
- FENCE — (TYPE)
- FIRE & POLICE CALL BOX
- LIGHT POLE
- POWER POLE
- TELEPHONE OR TELEGRAPH POLE
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL CONTROL BOX
- HYDRANT
- GAS OR WATER GATE VALVE
- MANHOLES - SEWER / UTILITY (TYPE)
- TREES - EXISTING / TO BE REMOVED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

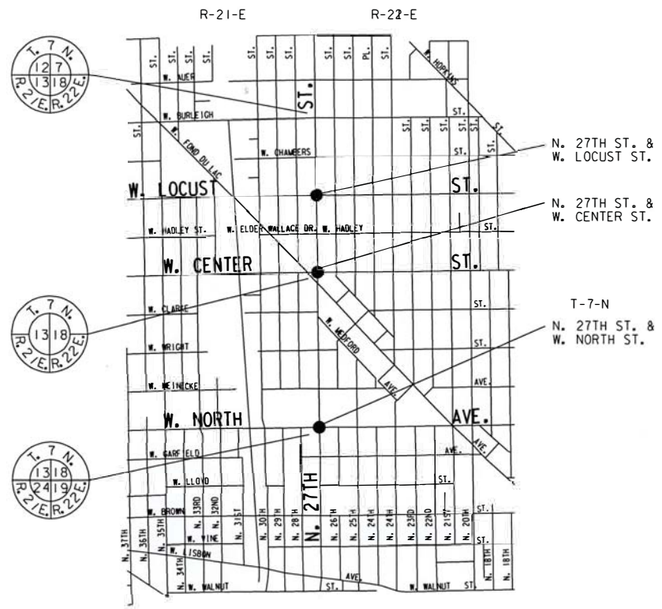
PLAN OF PROPOSED IMPROVEMENT

C MILWAUKEE N 27TH STREET

INTERSECT W/ LOCUST, CENTER & NORTH

LOCAL STREET
MILWAUKEE COUNTY

STATE PROJECT NUMBER
2265-00-78



LAYOUT

SCALE 1/2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI (URBAN)

THE COORDINATES ON THIS PLAN ARE BASED ON THE WISCONSIN STATE PLANE COORDINATE SYSTEM, MILWAUKEE COUNTY, NAD 27 SOUTH ZONE.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE CITY OF MILWAUKEE DATUM.

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

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2265-00-78	WISC 2023025	1

Accepted For
City of Milwaukee

7-25-2022 (Date) James Washington for Commissioner of Public Works

Original Plans Prepared By

WISCONSIN TIMOTHY J. THUR E-26840 MILWAUKEE WI PROFESSIONAL ENGINEER

7/25/22 (Date) Timothy J. Thur for City Engineer

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor CITY OF MILWAUKEE
Designer CITY OF MILWAUKEE
Region Examiner
Region Supervisor JEFF BOHEN

APPROVED FOR THE DEPARTMENT

DATE: 07/26/2022
(Signature)

E

FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\DESIGN\TITLE.DGN

PLOT DATE:

REVISED DATE: 03-31-2022 BY AA

GENERAL NOTES

1. ALL DISTURBED AREAS, NOT SURFACED, ARE TO BE COVERED WITH TOPSOIL AND SODDED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PLACE SOD, AS DESIGNATED BY THE ENGINEER, WITHIN 5 CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL.
2. NO TREES OR SHRUBS SHALL BE REMOVED UNLESS DESIGNATED FOR REMOVAL BY THE ENGINEER.
3. ALL STATION AND OFFSET OF CURB REFERENCED IN THE PLANS ARE TO THE FACE OF THE CURB.
4. CONSTRUCTION PERMITS FOR CONCRETE WALK AND/OR CONCRETE DRIVEWAY WORK HAVE BEEN OBTAINED, WHICH RIGHTS SHALL BE EXTENDED TO THE CONTRACTORS.
5. TRANSVERSE JOINTS IN THE CONCRETE WALK SHALL BE CONSTRUCTED AT INTERVALS EQUAL TO THE WIDTH OF THE CONCRETE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
6. EXISTING STORM SEWER INLETS AND CATCH BASINS TO REMAIN.
7. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.
8. FOR ANY EXCAVATION OF SIX FEET OR MORE IN THE CITY OF MILWAUKEE, THE CONTRACTOR WHEN REQUESTING A UTILITY LOCATE TICKET FROM DIGGERS HOTLINE SHALL SPECIFICALLY ASK FOR THE LOCATION TICKET TO INCLUDE THE MARKING OF ALL THE EXISTING SEWER FACILITIES WITHIN THE LIMITS REQUESTED.
9. CONTRACTOR MUST CONTACT THE PROJECT ENGINEER AND SEWRPC AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY SECTION CORNER MONUMENT.

STANDARD ABBREVIATIONS

ASPH.	-	ASPHALT
B.M.	-	BENCH MARK
CTR.	-	CENTER
C/L	-	CENTER LINE
COMB.	-	COMBINED
CONC.	-	CONCRETE
C.W.	-	CONCRETE WALK
COR.	-	CORNER
C	-	CURB
ELEV.	-	ELEVATION
ENT.	-	ENTRANCE
EXIST.	-	EXISTING
F	-	FLANGE
G	-	GUTTER, OR GAS
HYD.	-	HYDRANT
LT	-	LEFT
MMSD	-	MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
NB	-	NORTHBOUND
P/L	-	PROPERTY LINE
PGL	-	PROFILE GRADE LINE
R OR RAD.	-	RADIUS
RET.	-	RETAINING
RT	-	RIGHT
R/W	-	RIGHT OF WAY
SB	-	SOUTHBOUND
TEL	-	AMERITECH
TES	-	TRAFFIC ENGINEERING, AND ELECTRICAL SERVICES
T/L	-	TRANSIT LINE
V.T. 0R VT	-	VARIABLE THICKNESS
WEP	-	WISCONSIN ELECTRIC POWER

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
UTILITY CONTACTS
PROJECT OVERVIEW
CONSTRUCTION DETAILS
CONTAMINATED SOIL LIMITS
PLAN DETAIL
INTERSECTION DETAILS PLAN
RAMP DETAILS
EROSION CONTROL PLAN
SIGN INSTALLATION PLAN
SIGN SYSTEM INSTALLATION
TEMPORARY STREET LIGHTING
STREET LIGHTING
TEMPORARY TRAFFIC SIGNALS
TRAFFIC SIGNALS
PAVEMENT MARKING REMOVAL PLAN
TRAFFIC CONTROL PLAN
LANDMARK REFERENCE PLAN
ALIGNMENT PLAN

UTILITY CONTACTS

AT&T WISCONSIN
JAY C. BULANEK
2005 PEWAUKEE RD.
WAUKESHA, WI 54188
PHONE: 262-896-7669
CELL: 414-491-2855

CITY OF MILWAUKEE, CUC
KAREN ROGNEY
841 N. BROADWAY
MILWAUKEE, WI 53202
PHONE: 414-286-3243

CITY OF MILWAUKEE, COMMUNICATIONS
COMMUNICATIONS DISPATCH
1440 W. CANAL STREET
MILWAUKEE, WI 53233
PHONE: 414-286-3686

CITY OF MILWAUKEE, SEWERS
ZAFAR YOUSUF
841 N. BROADWAY
MILWAUKEE, WI 53202
PHONE: 414-286-2467

CITY OF MILWAUKEE, STREET LIGHTING
ENG-KIE LEE
841 N. BROADWAY
MILWAUKEE, WI 53202
PHONE: 414-286-2174
ELEE@MILWAUKEE.GOV

MARK MACRAE
PERMANENT STREET LIGHTING FIELD
OPERATION MANAGER
PHONE: 414-286-5928
MOBILE: 414-708-0434

NEAL KARWEIK
TEMPORARY STREET LIGHTING FIELD
OPERATION MANAGER
1540 W. CANAL STREET
PHONE: 414-286-5943
MOBILE: 414-708-4245

CITY OF MILWAUKEE – TRAFFIC SIGNALS
RUDY GUTIERREZ
1540 W. CANAL STREET
PHONE: 414-286-5941
MOBILE: 414-708-5148
EMAIL: RGUTIE@MILWAUKEE.GOV

CITY OF MILWAUKEE – WATER WORKS
DAVE GOLDAPP
841 N. BROADWAY, RM. 409
WAUKESHA, WI 54188
PHONE: 414-286-6301
CELL: 414-708-2695

EVERSTREAM
BILL DUCHAINE
324 E. WISCONSIN AVENUE, SUITE 730
MILWAUKEE, WI 53202
PHONE: 414-522-6685
MOBILE: 815-252-5956
BDUCHAINE@EVERSTREAM.NET

LUMEN
BRAHIM GADDOUR
3235 INTERTECH DRIVE, SUITE 600
BROOKFIELD, WI 53045
PHONE: 414-908-1027
BRAHIM.GADDOUR@LUMEN.COM

SPECTRUM
CHARLES BRASILE
1320 N. DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212
PHONE: 414-908-4822

WE ENERGIES – ALL CORRESPONDENCE
NICOLE SMULLEN
333 W. EVERETT STREET, RM A291
MILWAUKEE, WI 53203
PHONE: 414-221-5617
EMAIL: NICOLE.SMULLEN@WE-ENERGIES.COM

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

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

WINDSTREAM
LORI KETTER
314 N. DANZ AVENUE
GREEN BAY, WI 54302-3526
PHONE: 414-274-9215
LORI.KETTER@WINDSTREAM.COM

OTHER CONTACTS

WISCONSIN DEPT. OF NATURAL RESOURCES
KRISTINA BETZOLD
2300 N. DR. MARTIN LUTHER KING, JR. DR.
MILWAUKEE, WI 53212
PHONE: 414-343-9346
EMAIL: KRISTINA.BETZOLD@WISCONSIN.GOV

MILWAUKEE COUNTY TRANSIT SYSTEM (MCTS)
1942 N. 17TH STREET
MILWAUKEE, WI 53205

ARMOND SENSABAUGH
TRANSPORTATION COORDINATOR (DETOURS)
PHONE: 414-343-1728
EMAIL: ASENSABAUGH@MCTS.ORG

DAVID LOCHER
TRANSPORTATION MANAGER (BUS STOPS)
PHONE: 414-343-1727
DLOCHER@MCTS.ORG

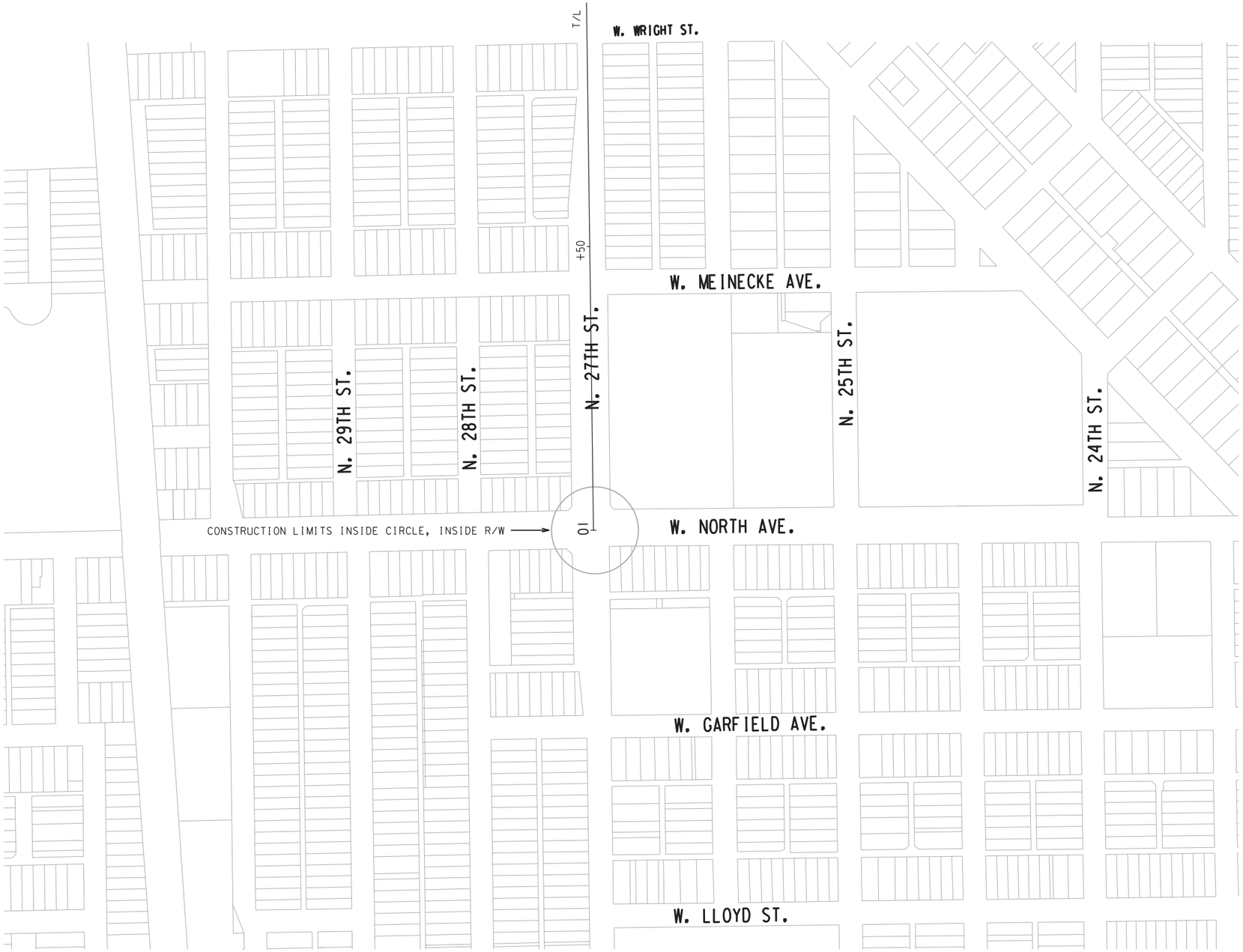
SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
ANDY TRAEGER
SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
W239 N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
OFFICE: 262 953-4296

CITY OF MILWAUKEE, FORESTRY
JAMES KRINGER
841 N. BROADWAY, RM 409
MILWAUKEE, WI 53202
PHONE: 414-708-2428

CITY OF MILWAUKEE, UTILITY COORDINATOR
MOHAMMAD O. ABULUGHOD
841 N. BROADWAY, RM 710
MILWAUKEE, WI 53202
PHONE: 414-286-2767
MABULU@MILWAUKEE.GOV

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

2



MONOTUBE MASTARM INTERSECTION ON N. 27TH ST.
W. NORTH AVE.

SHEET 1 OF 2

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0' 300'	SHEET NO: 4	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\DESIGN\OVERVIEW.DGN

REVISED DATE: 01-04-2021 BY JC



MONOTUBE MASTARM INTERSECTION ON N. 27TH ST.
W. CENTER ST.



MONOTUBE MASTARM INTERSECTION ON N. 27TH ST.
W. LOCUST ST.

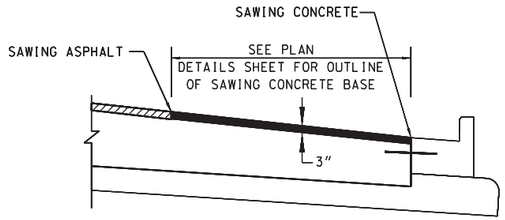
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SHEET 2 OF 2

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0' 300'	SHEET NO: 5	E

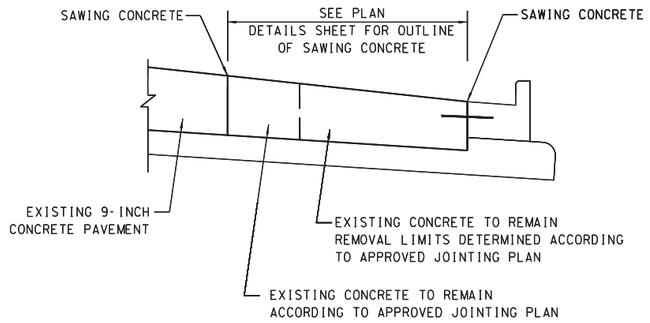
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REVISED DATE: 01-04-2021 BY JC

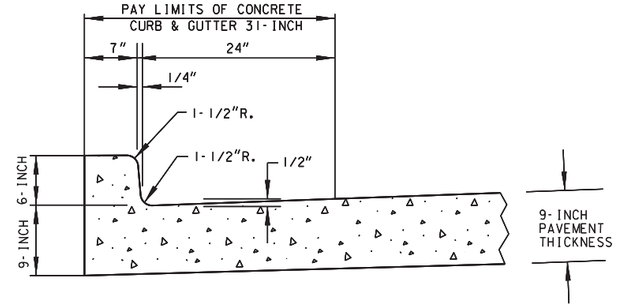


ASPHALTIC SURFACE REMOVAL DETAIL

WEST CENTER STREET
WEST LOCUST STREET

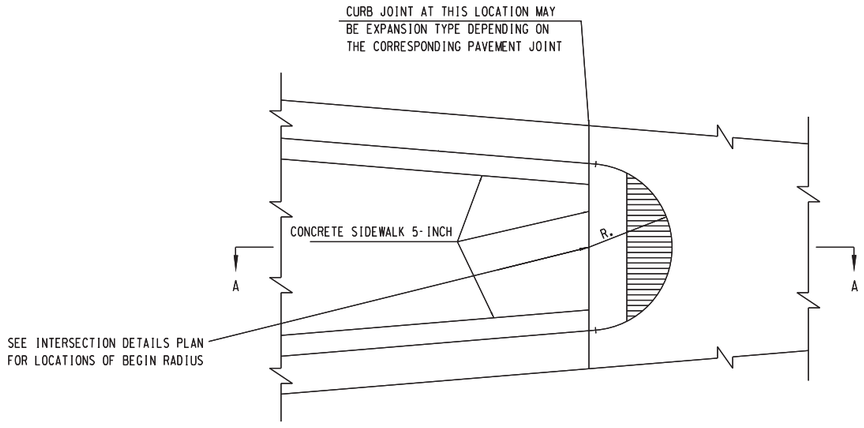


CONCRETE PAVEMENT REMOVAL DETAIL



(C31)

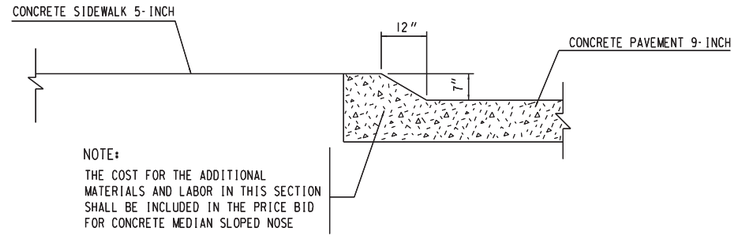
CONCRETE CURB & GUTTER INTEGRAL 31-INCH



(PCM) PLOWABLE CONCRETE MEDIAN SLOPED NOSE

TRANSITION TO CONCRETE CURB & GUTTER 31-INCH INCIDENTAL
TO BID ITEM CONCRETE MEDIAN SLOPED NOSE

00+61.0 OFFSET LEFT ON NORTH 27TH STREET
01+09.0 OFFSET RIGHT ON WEST NORTH AVENUE
01+65.8 OFFSET LEFT ON NORTH 27TH STREET

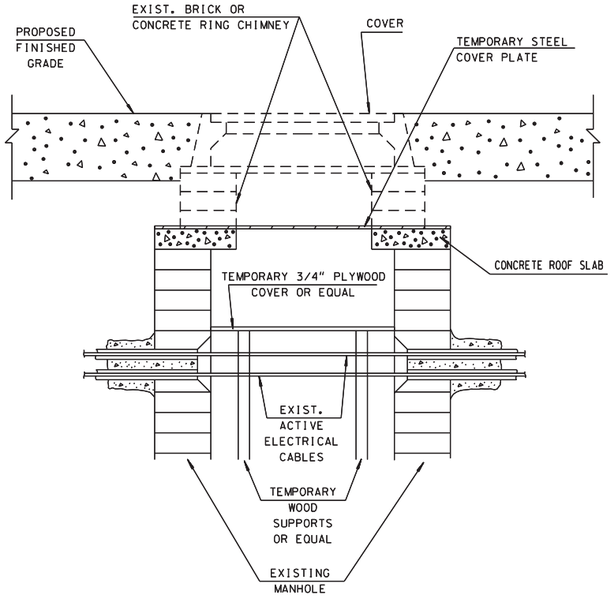


SECTION A-A

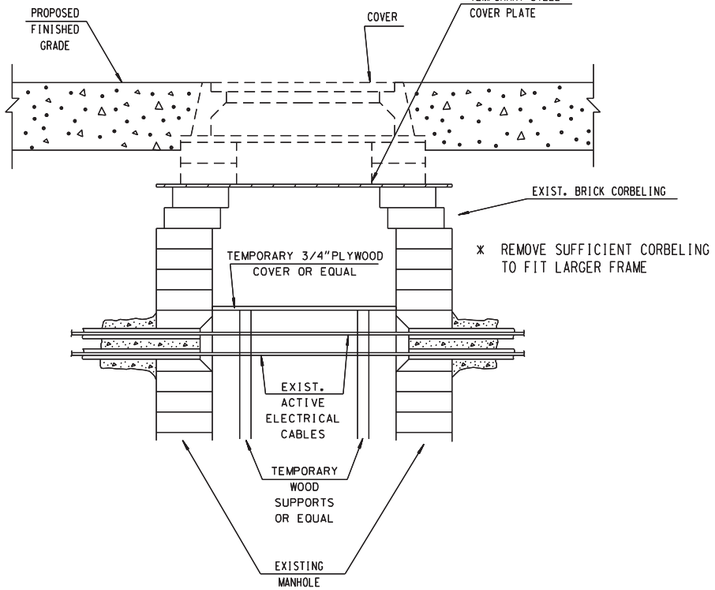
STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 6	E

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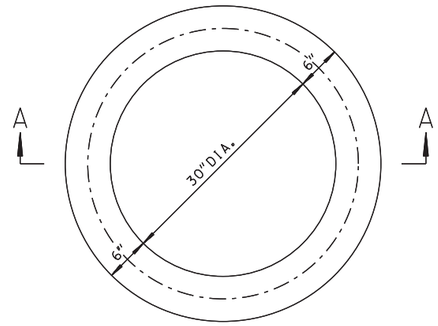
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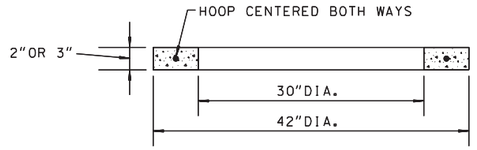
BLOCK OR PRECAST MANHOLE



BRICK ROUND MANHOLE



PLAN



SECTION A-A

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

THE CIRCUMFERENTIAL STEEL SHALL BE CENTERED WITHIN THE RING.

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

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

CONCRETE ADJUSTING RING

ADJUSTING CUC MANHOLES

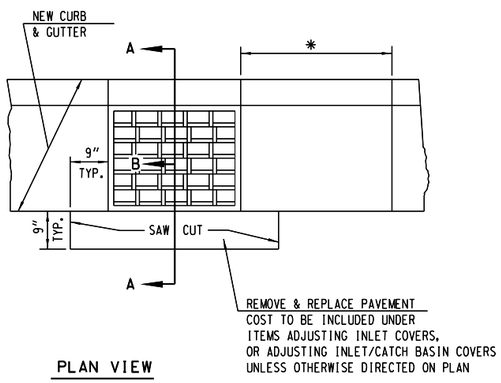
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FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\DESIGN\CONDET.DGN

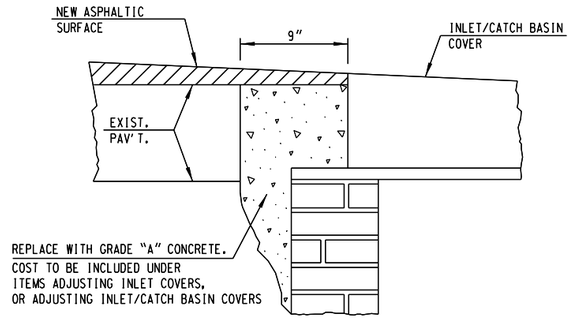
REVISED DATE: 04-04-2022 BY AA

2

* REMOVE 3'-0" CURB & GUTTER MIN. OR TO THE NEAREST JOINT, 6'-0" MAX. UNLESS OTHERWISE DIRECTED ON THE PLAN.

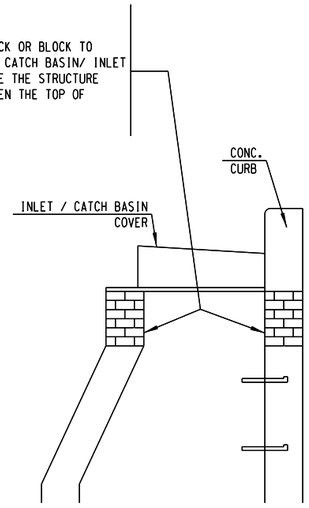


PLAN VIEW



SECTION A-B

REPAIR BY REMOVING & REPLACING DAMAGED OR LOOSE BRICK OR BLOCK TO DEPTH AS DIRECTED BY ENGINEER. WORK UNDER ADJUSTING CATCH BASIN/ INLET COVERS SHALL BE CONFINED TO THE BRICK SHIMMING ABOVE THE STRUCTURE CORBEL. THIS SHIMMING SHALL NOT EXCEED 1 FOOT BETWEEN THE TOP OF THE CORBEL AND THE FRAME BOTTOM.



SECTION A-A

ADJUSTING INLET / CATCH BASIN COVERS

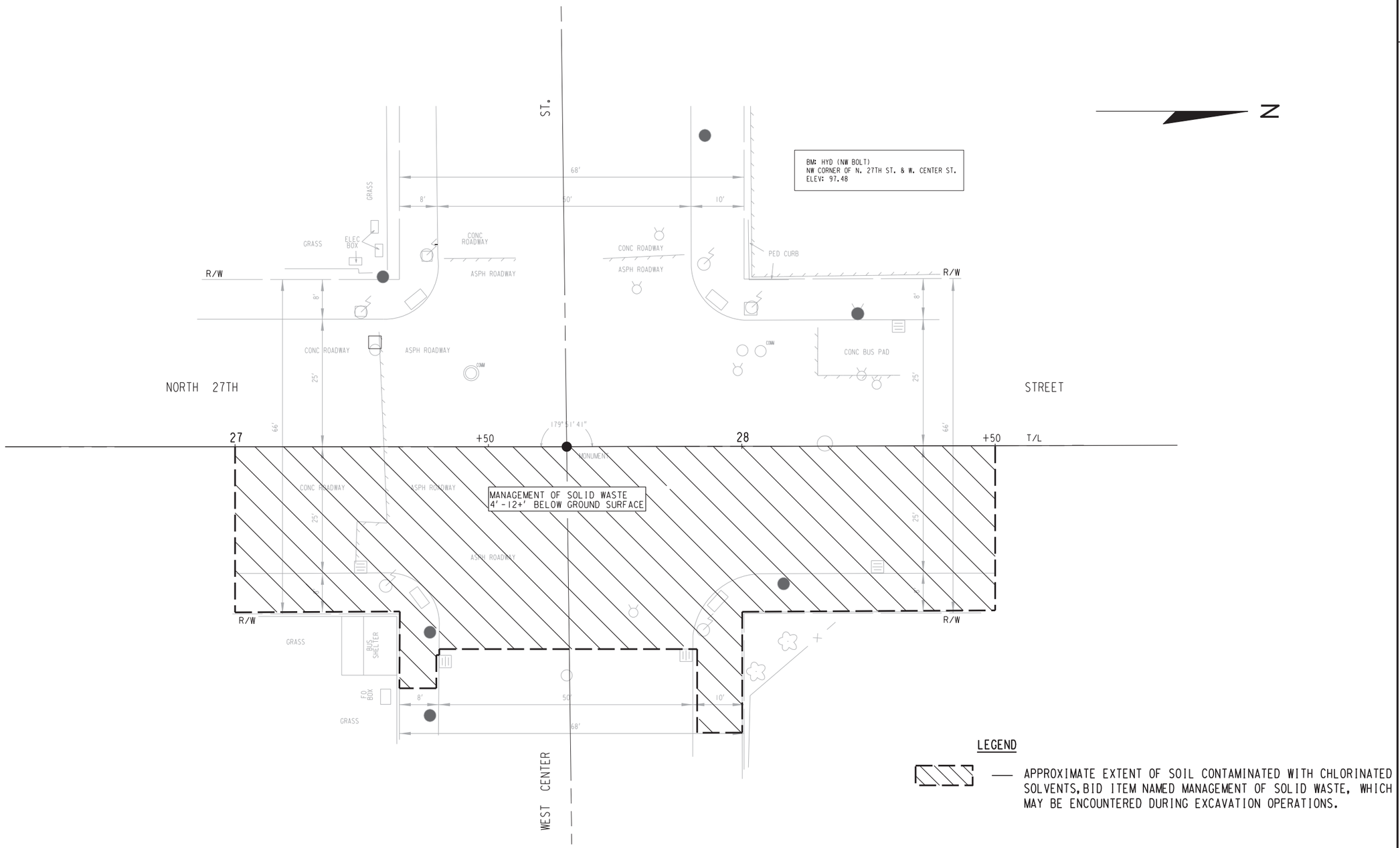
NOTE: ADJUSTMENT WORK INCIDENTAL WITH PLACING NEW COVER.

STATE PROJECT NUMBER 2265-00-78 - -	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 8	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\DESIGN\CONDET.DGN

REVISED DATE: 09-19-2022 BY RGS

2

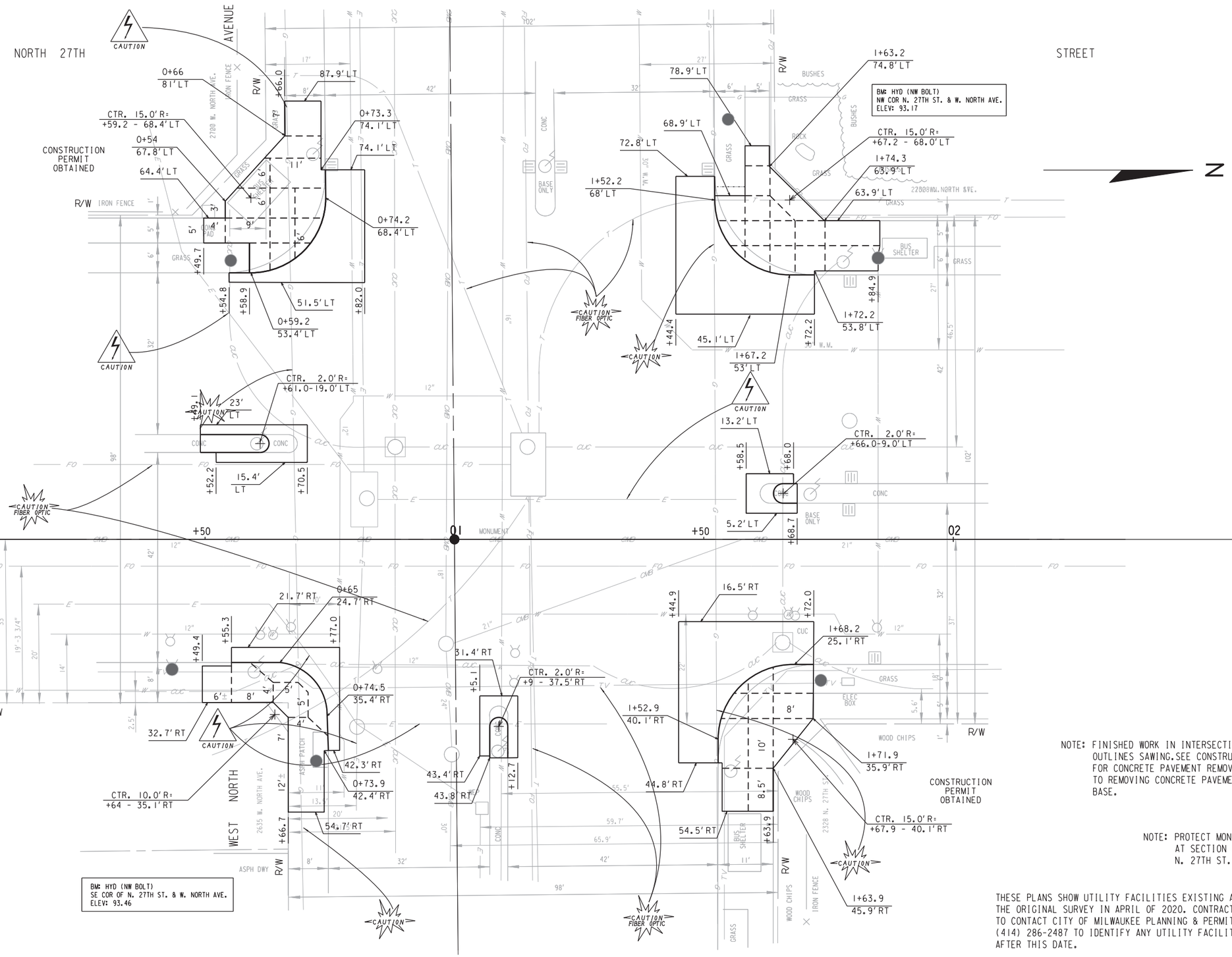


STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	CONTAMINATED SOILS LIMITS	SCALE FEET 0' 20'	SHEET NO: 9	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\DESIGN\REMOVAL CENTER - SOIL.DGN

REVISED DATE: 03-09-2022 BY AA

2



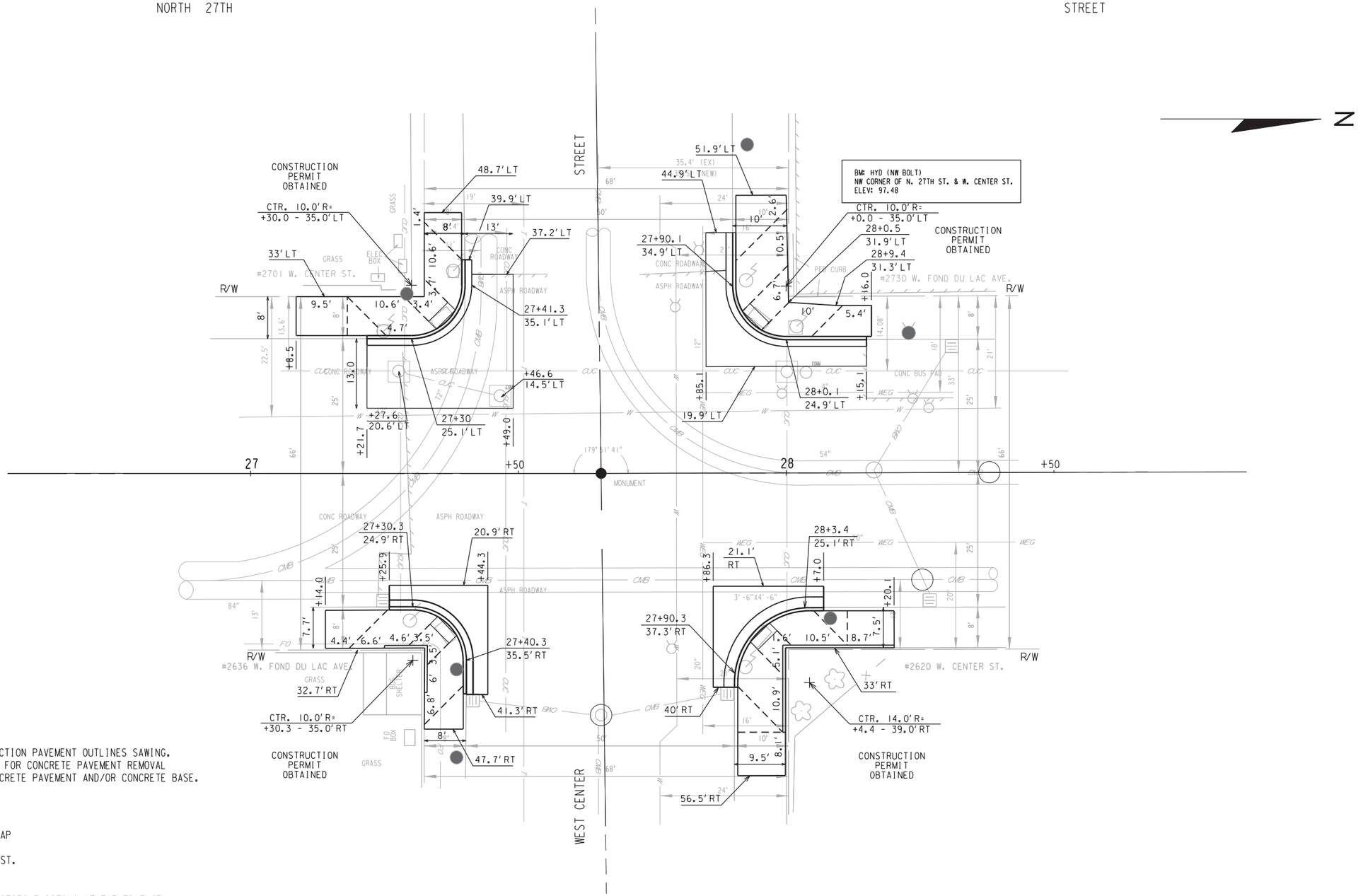
NOTE: FINISHED WORK IN INTERSECTION PAVEMENT OUTLINES SAWING. SEE CONSTRUCTION DETAILS FOR CONCRETE PAVEMENT REMOVAL APPLYING TO REMOVING CONCRETE PAVEMENT AND/OR CONCRETE BASE.

NOTE: PROTECT MONUMENT BRASS CAP AT SECTION CORNER N. 27TH ST. & W. NORTH AVE.

THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN APRIL OF 2020. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 20'	SHEET NO: 10	E

2



NOTE: FINISHED WORK IN INTERSECTION PAVEMENT OUTLINES SAWING. SEE CONSTRUCTION DETAILS FOR CONCRETE PAVEMENT REMOVAL APPLYING TO REMOVING CONCRETE PAVEMENT AND/OR CONCRETE BASE.

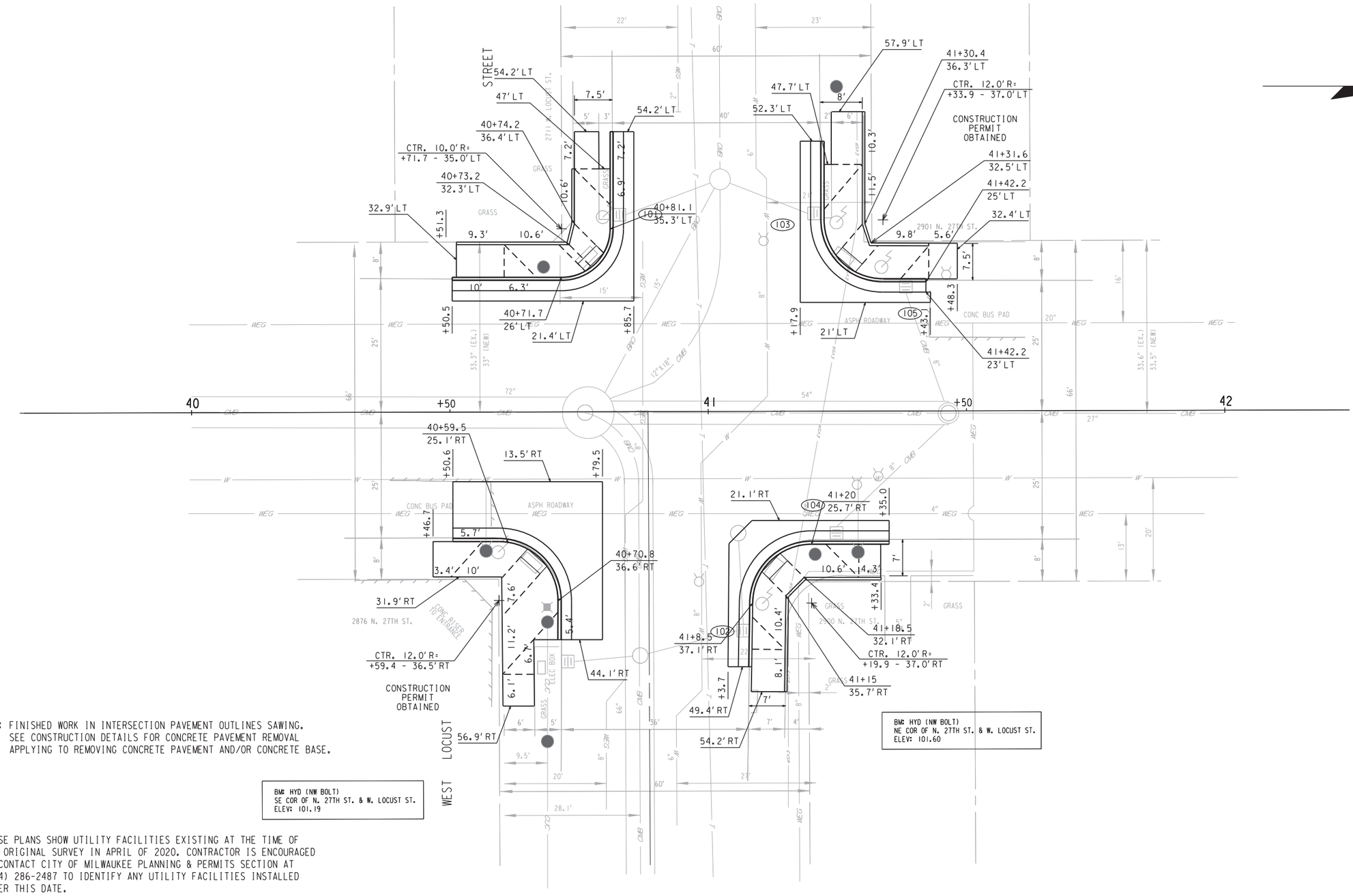
NOTE: PROTECT MONUMENT BRASS CAP AT SECTION CORNER N. 27TH ST. & W. CENTER ST.

THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN APRIL OF 2020. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 20'	SHEET NO: 11	E

2

NORTH 27TH STREET



NOTE: FINISHED WORK IN INTERSECTION PAVEMENT OUTLINES SAWING.
SEE CONSTRUCTION DETAILS FOR CONCRETE PAVEMENT REMOVAL
APPLYING TO REMOVING CONCRETE PAVEMENT AND/OR CONCRETE BASE.

BM: HYD (NW BOLT)
SE COR OF N. 27TH ST. & W. LOCUST ST.
ELEV: 101.19

BM: HYD (NW BOLT)
NE COR OF N. 27TH ST. & W. LOCUST ST.
ELEV: 101.60

THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN APRIL OF 2020. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 20'	SHEET NO: 12	E

NORTH 27TH STREET

AVENUE

WEST NORTH

00 +50 01 MONUMENT +50 02

BM: HYD (NW BOLT)
NW COR N. 27TH ST. & W. NORTH AVE.
ELEV: 93.17

BM: HYD (NW BOLT)
SE COR OF N. 27TH ST. & W. NORTH AVE.
ELEV: 93.46

LEGEND

- (CP9) CONCRETE PAVEMENT 9-INCH OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
- (C31) CONCRETE CURB & GUTTER 31-INCH
- (G) GRADE AND SOD
- (SC) SAWING CONCRETE
- (W) CONCRETE SIDEWALK 5-INCH
- (PCM) PLOWABLE CONCRETE MEDIAN SLOPED NOSE

NOTE: PROTECT MONUMENT BRASS CAP AT SECTION CORNER N. 27TH ST. & W. NORTH AVE.

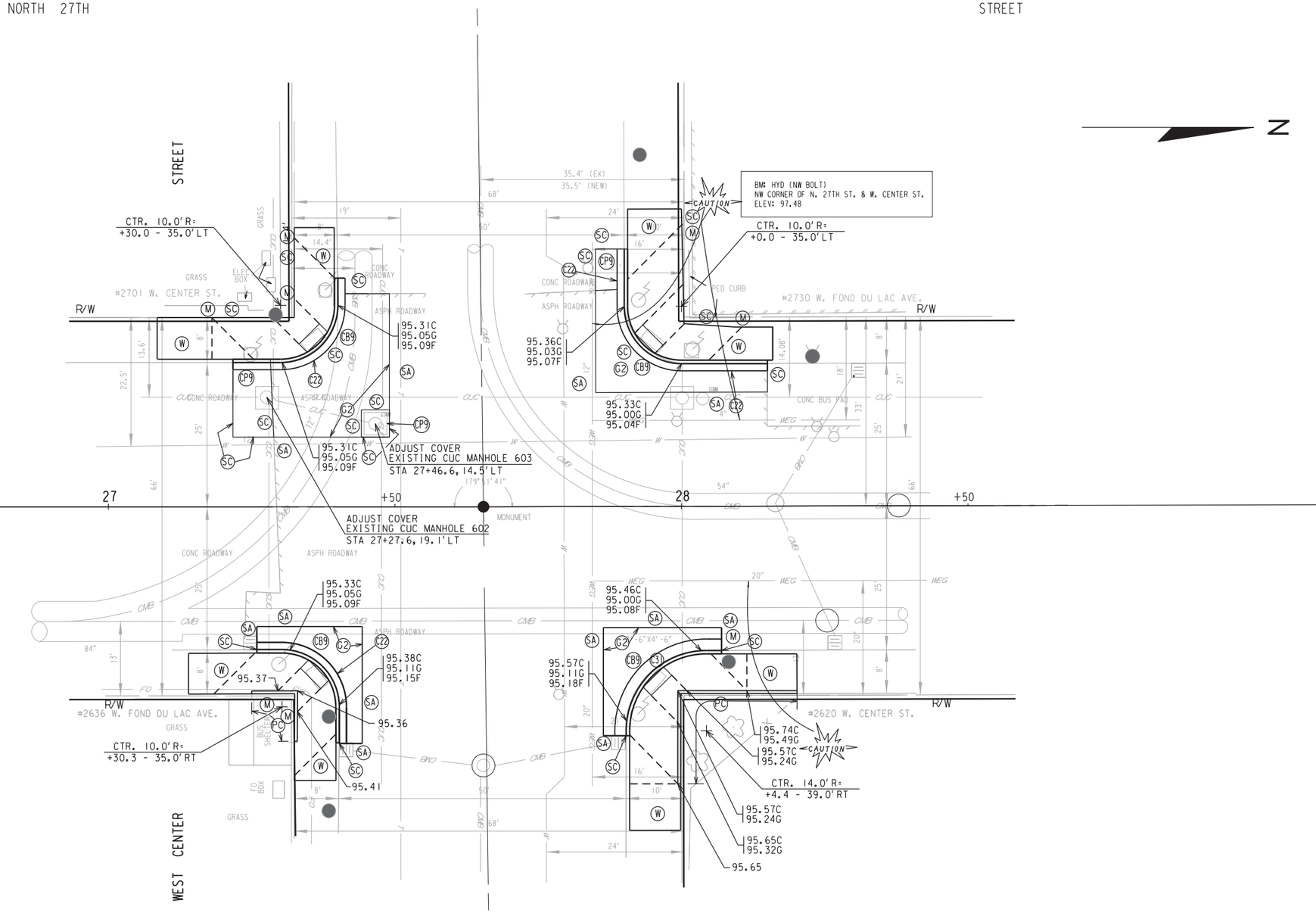
THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN APRIL OF 2020. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	INTERSECTION DETAILS PLAN	SCALE FEET 0' 20'	SHEET NO: 13	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\DESIGN\INT NORTH.DGN

REVISED DATE: 07-14-2022 BY SB

2



LEGEND

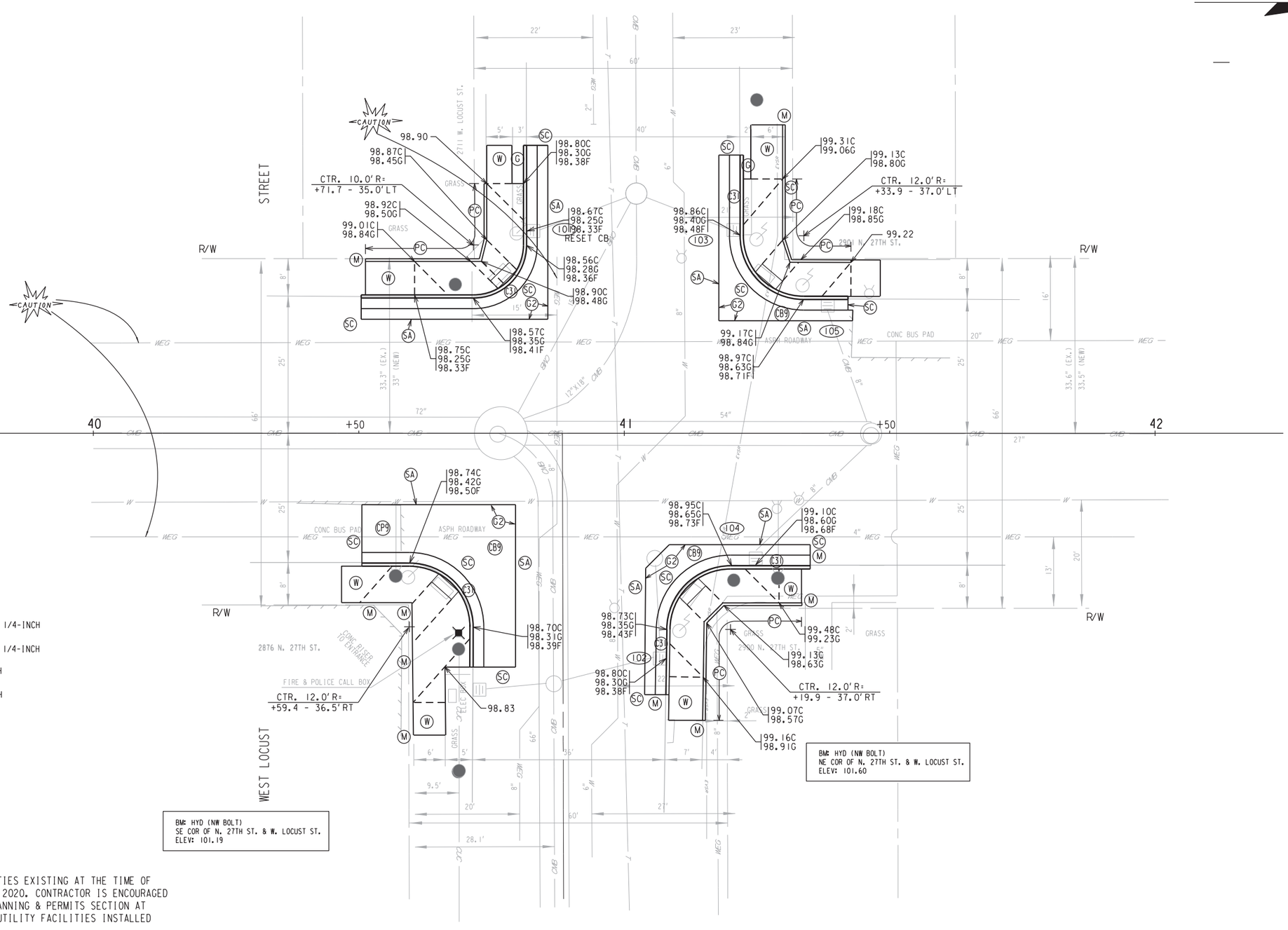
- (CB9) CONCRETE BASE 9-INCH OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
- (CP9) CONCRETE PAVEMENT 9-INCH OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
- (C22) CONCRETE CURB & GUTTER 22-INCH
- (C31) CONCRETE CURB & GUTTER 31-INCH
- (G2) PLACE 2-INCH ASPHALT
- (M) MATCH EXISTING ELEVATION
- (PC) CONCRETE CURB PEDESTRIAN
- (SA) SAWING ASPHALT
- (SC) SAWING CONCRETE
- (W) CONCRETE SIDEWALK 5-INCH

NOTE: PROTECT MONUMENT BRASS CAP
AT SECTION CORNER
N. 27TH ST. & W. CENTER ST.

THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN APRIL OF 2020. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	INTERSECTION DETAILS PLAN	SCALE FEET 0' 20'	SHEET NO: 14	E

2



LEGEND

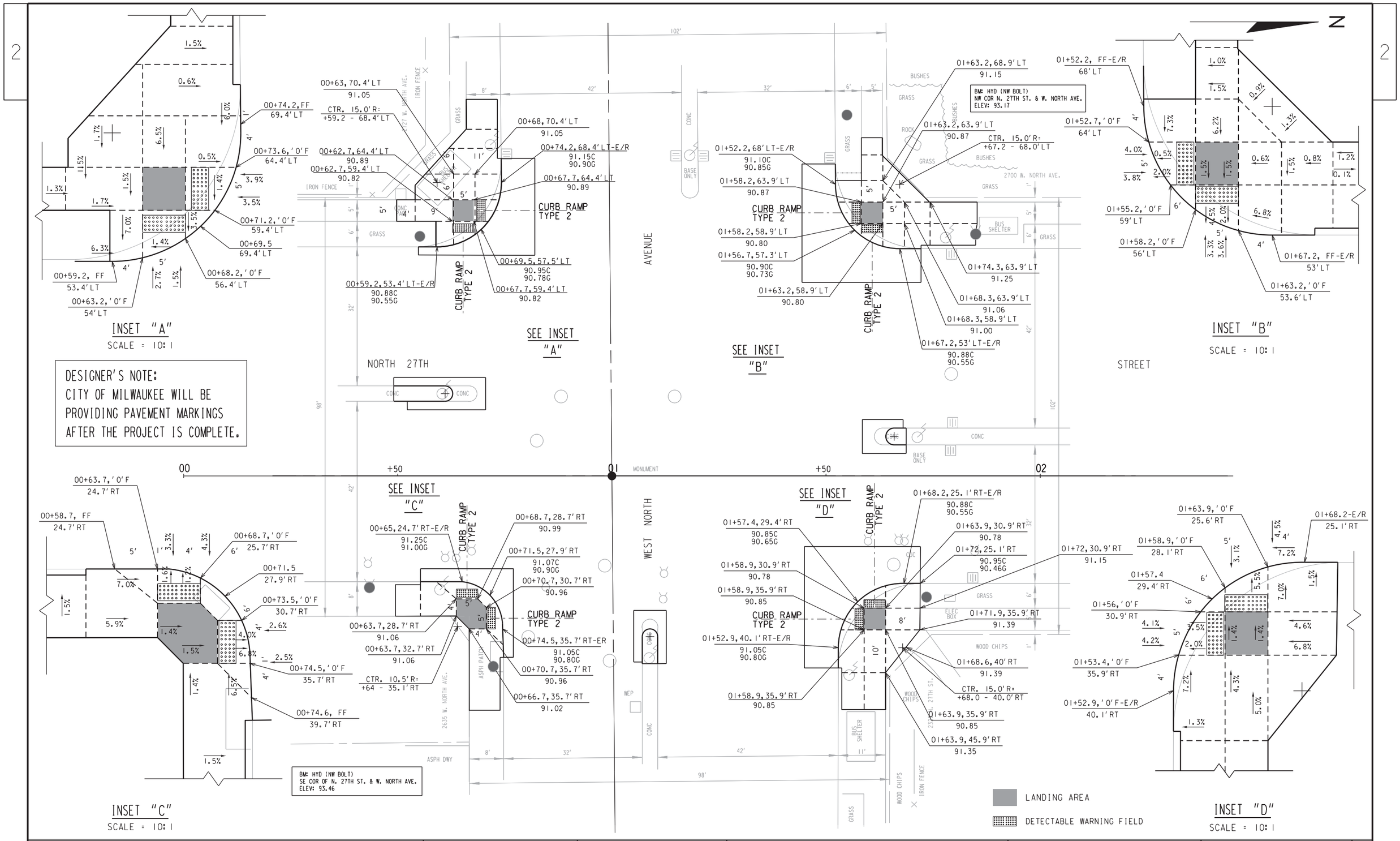
- (CB9) CONCRETE BASE 9-INCH OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
- (CP9) CONCRETE PAVEMENT 9-INCH OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
- (C22) CONCRETE CURB & GUTTER 22-INCH
- (C31) CONCRETE CURB & GUTTER 31-INCH
- (G2) PLACE 2-INCH ASPHALT
- (M) MATCH EXISTING ELEVATION
- (PC) CONCRETE CURB PEDESTRIAN
- (SA) SAWING ASPHALT
- (SC) SAWING CONCRETE
- (W) CONCRETE SIDEWALK 5-INCH

THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN APRIL OF 2020. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	INTERSECTION DETAILS PLAN	SCALE FEET 0' 20'	SHEET NO: 15	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\DESIGN\INT LOCUST.DGN

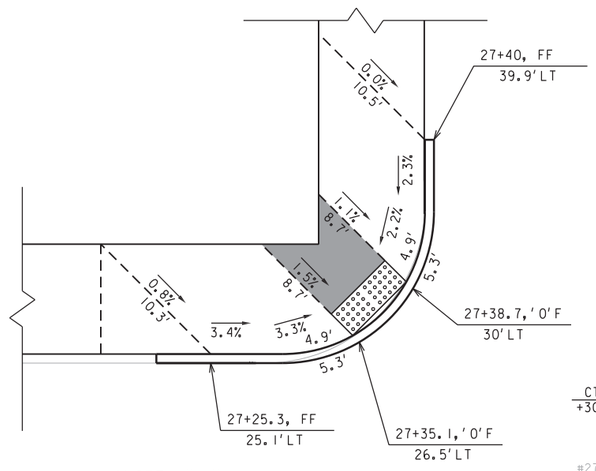
REVISED DATE: 04-26-2022 BY AA



STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET 0' 20'	SHEET NO: 16	E

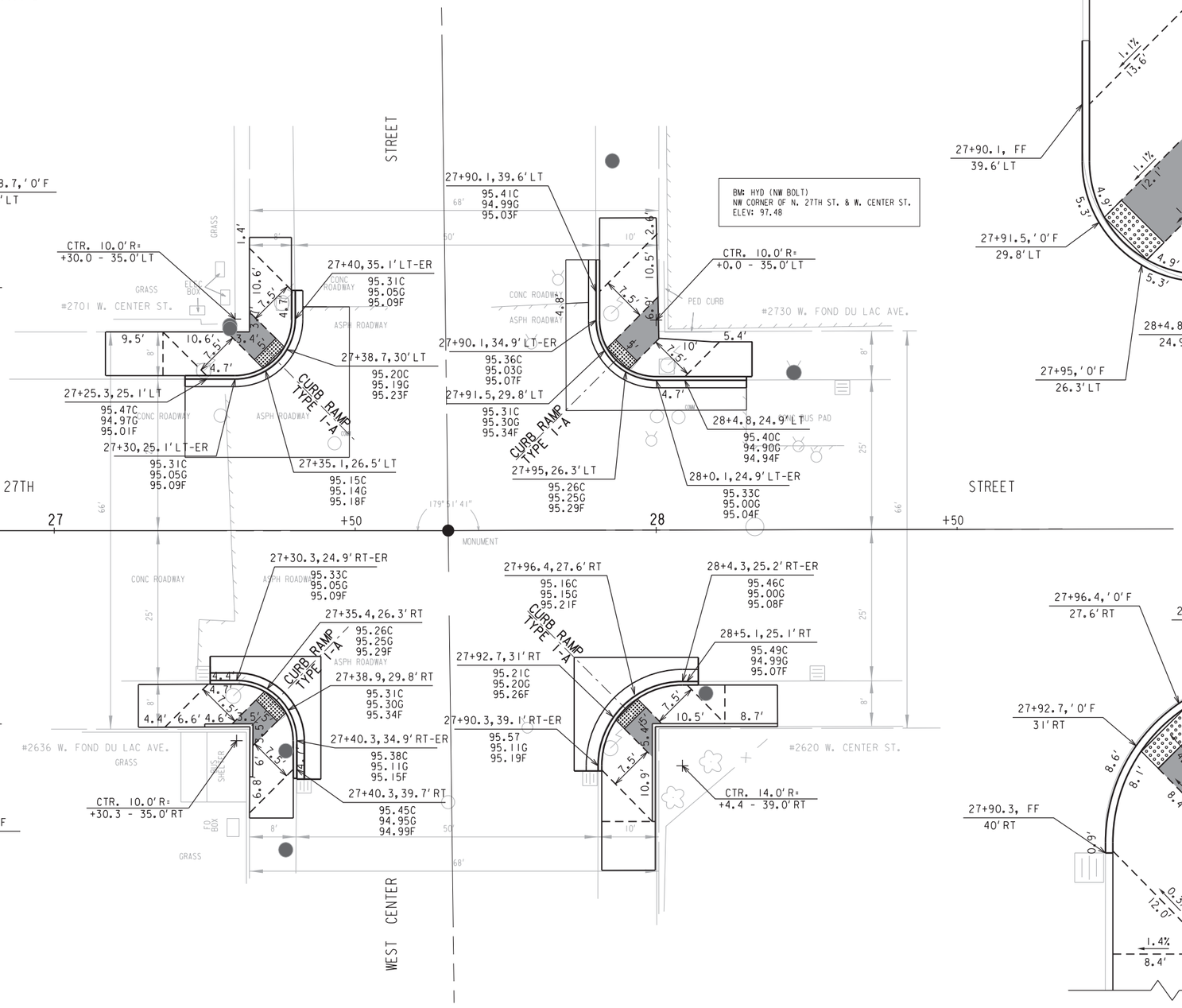
FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\RAMP DETAILS\RAMP DETAILS NORTH .DGN

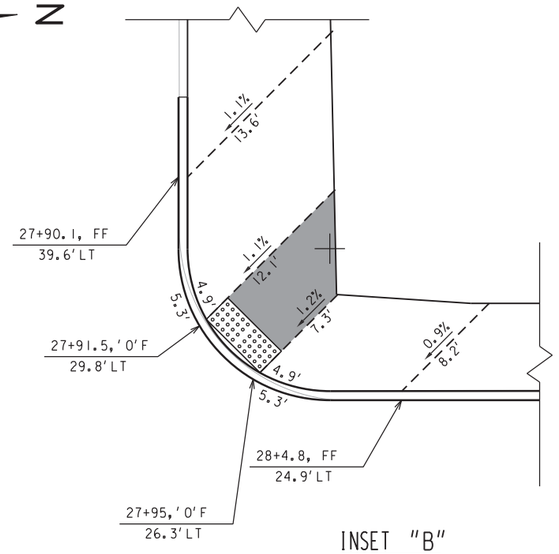
REVISED DATE: 07-15-2022 BY ES



INSET "A"

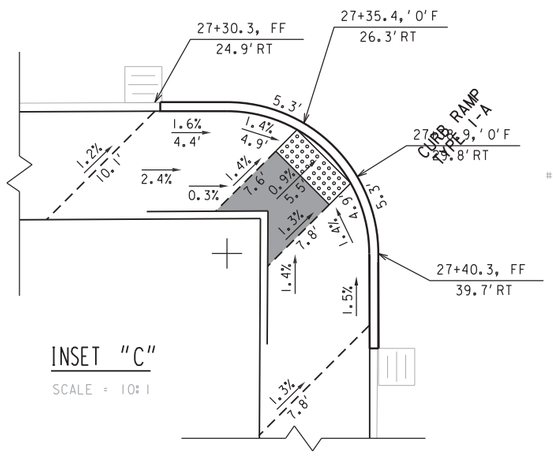
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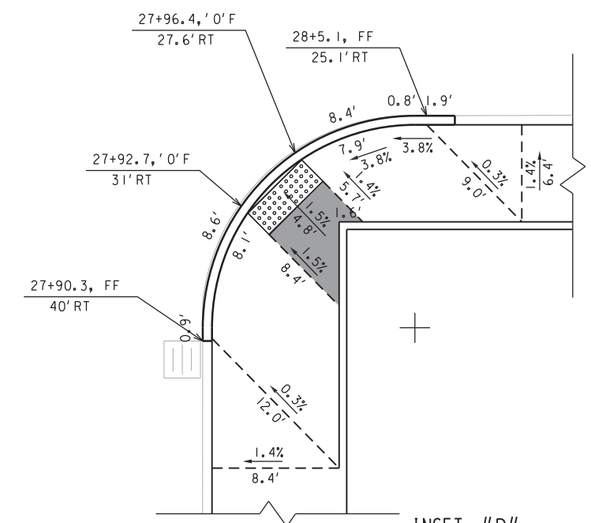
INSET "B"

SCALE = 10: 1



INSET "C"

SCALE = 10: 1



INSET "D"

SCALE = 10: 1

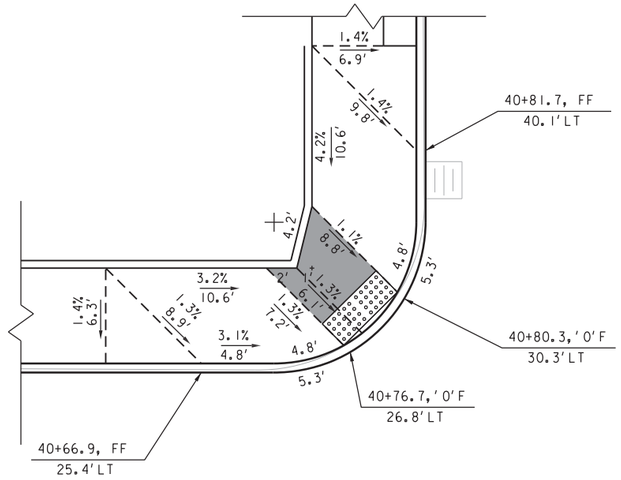
LANDING AREA

DETECTABLE WARNING FIELD

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET 0' 20'	SHEET NO: 17	E

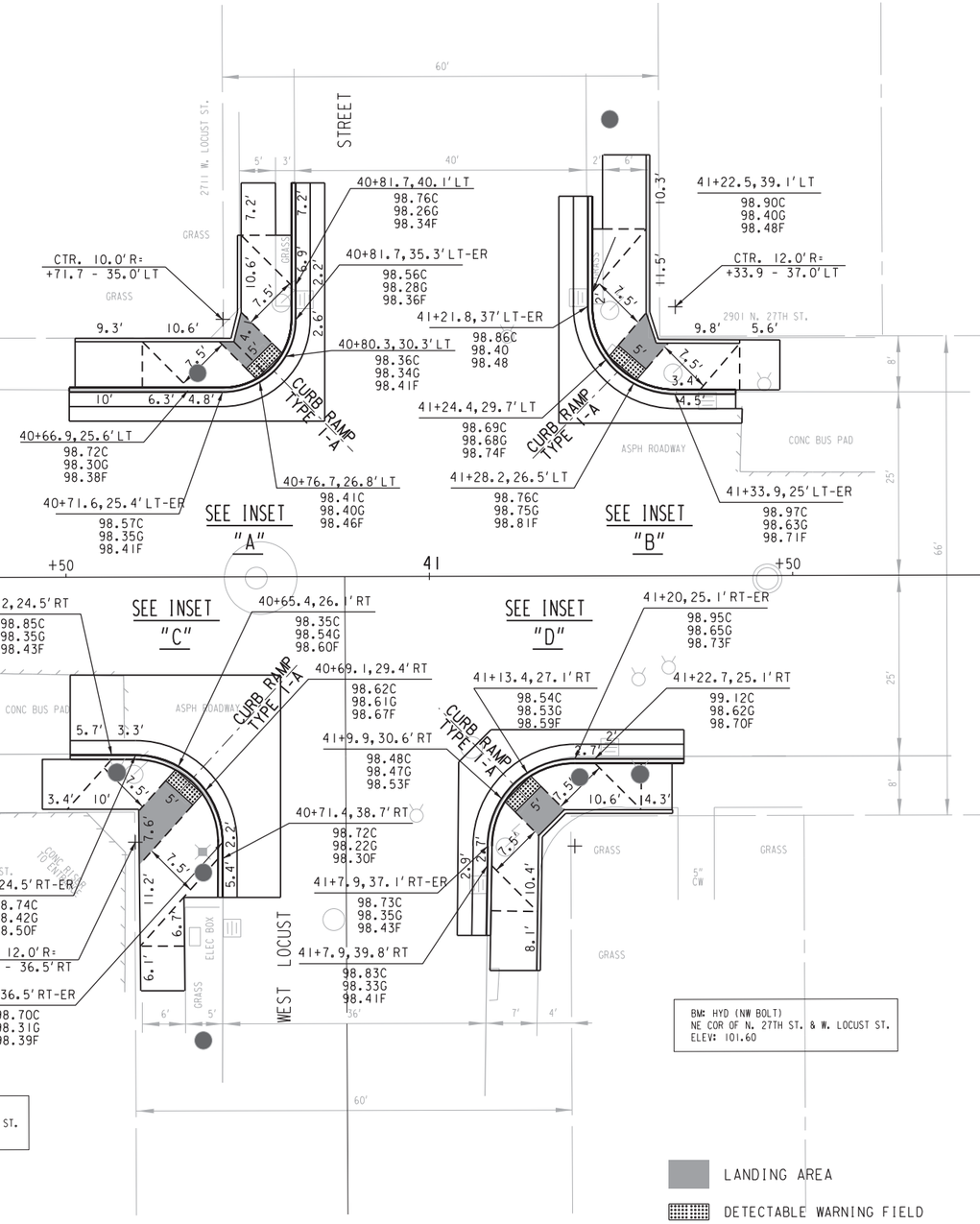
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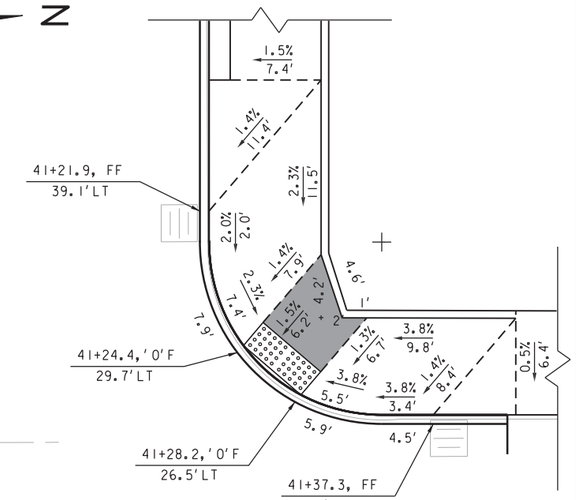
REVISED DATE: 07-14-2022 BY SDB



INSET "A"

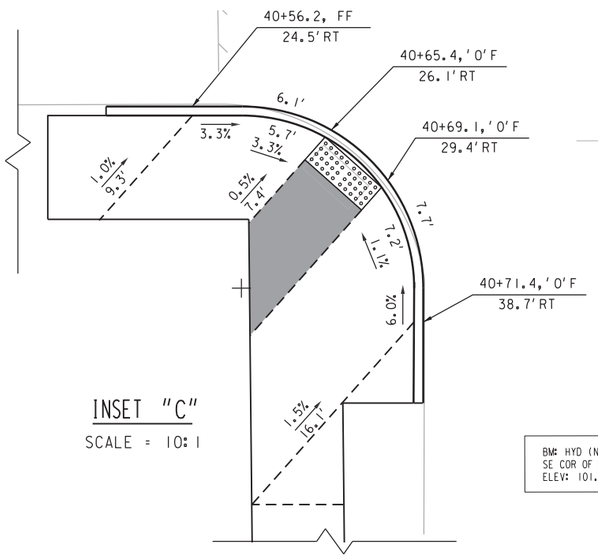
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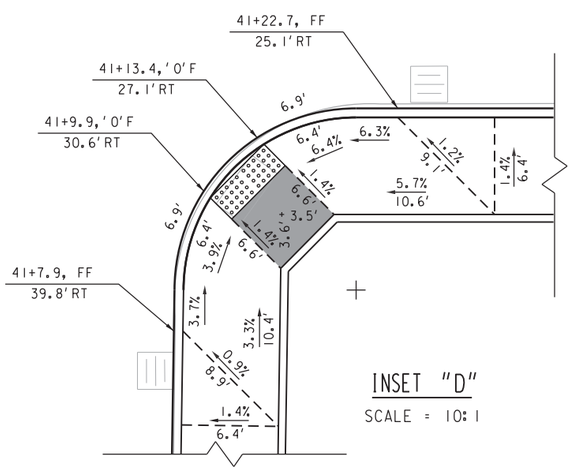
INSET "B"

SCALE = 10:1



INSET "C"

SCALE = 10:1



INSET "D"

SCALE = 10:1

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET 0' 20'	SHEET NO: 18	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\RAMP DETAILS\RAMP DETAILS LOCUST.DGN

REVISED DATE: 07-14-2022 BY SDB

2

N

102'

8'

42'

32'

6'

5'

BUSHES

GRASS

ROCK

BUSHES

90.87

BM: HYD (NW BOLT)
NW COR N. 27TH ST. & W. NORTH AVE.
ELEV: 93.17

2727 W. NORTH AVE.

IRON FENCE

GRASS

GRASS

90.82

IRON FENCE

1'

5'

6'

GRASS

CONC PAD

BUS SHELTER

CONC

BASE ONLY

2700 W. NORTH AVE.

GRASS

1'

5'

6'

GRASS

BUS SHELTER

AVENUE

NORTH 27TH STREET

32'

98'

CONC

CONC

42'

102'

CONC

BASE ONLY

00

+50

01

MONUMENT

+50

02

WEST NORTH

42'

8'

CUC

32'

GRASS

6'

5'

ELEC BOX

8'

10'

WOOD CHIPS

1'

ASPH PATCH

2635 W. NORTH AVE.

WEP

CONC

WOOD CHIPS

2328 N. 27TH ST.

BUS SHELTER

11'

ASPH DWY

8'

32'

42'

98'

WOOD CHIPS

IRON FENCE

GRASS

BM: HYD (NW BOLT)
SE COR OF N. 27TH ST. & W. NORTH AVE.
ELEV: 93.46

LEGEND

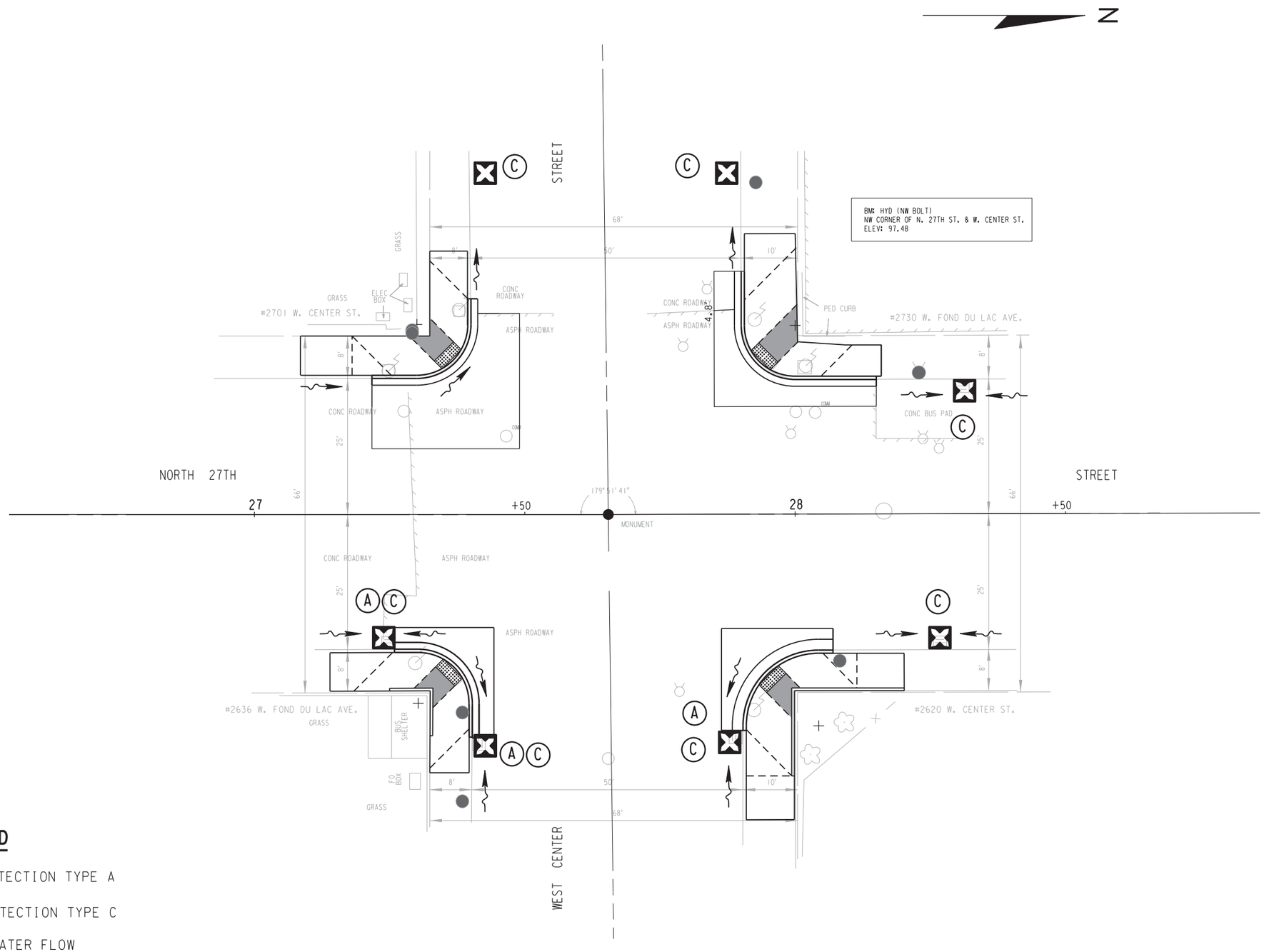
- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 20'	SHEET NO: 19	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\DESIGN\EROSION CONTROL NORTH.DGN

REVISED DATE: 12-08-2021 BY ES

2



LEGEND

- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 20'	SHEET NO: 20	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\DESIGN\EROSION CONTROL CENTER.DGN

REVISED DATE: 12-08-2021 BY ES

2

N

60'

STREET

2711 W. LOCUST ST.

5'

3'

40'

2'

6'

GRASS

GRASS

GRASS

GRASS

2901 N. 27TH ST.

8'

25'

66'

NORTH 27TH

STREET

ASPH ROADWAY

CONC BUS PAD

40

+50

41

+50

42

CONC BUS PAD

ASPH ROADWAY

2876 N. 27TH ST.

CONC RISER TO ENTRANCE

ELEC BOX

GRASS

6'

5'

WEST LOCUST

36'

7'

4'

60'

GRASS

GRASS

5% CW

BM: HYD (NW BOLT)
SE COR OF N. 27TH ST. & W. LOCUST ST.
ELEV: 101.19

BM: HYD (NW BOLT)
NE COR OF N. 27TH ST. & W. LOCUST ST.
ELEV: 101.60

LEGEND

- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 20'	SHEET NO: 21	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\DESIGN\EROSION CONTROL LOCUST.DGN

REVISED DATE: 04-02-2022 BY AA

LEGEND

X-X - SIGN NUMBER

- SIGN

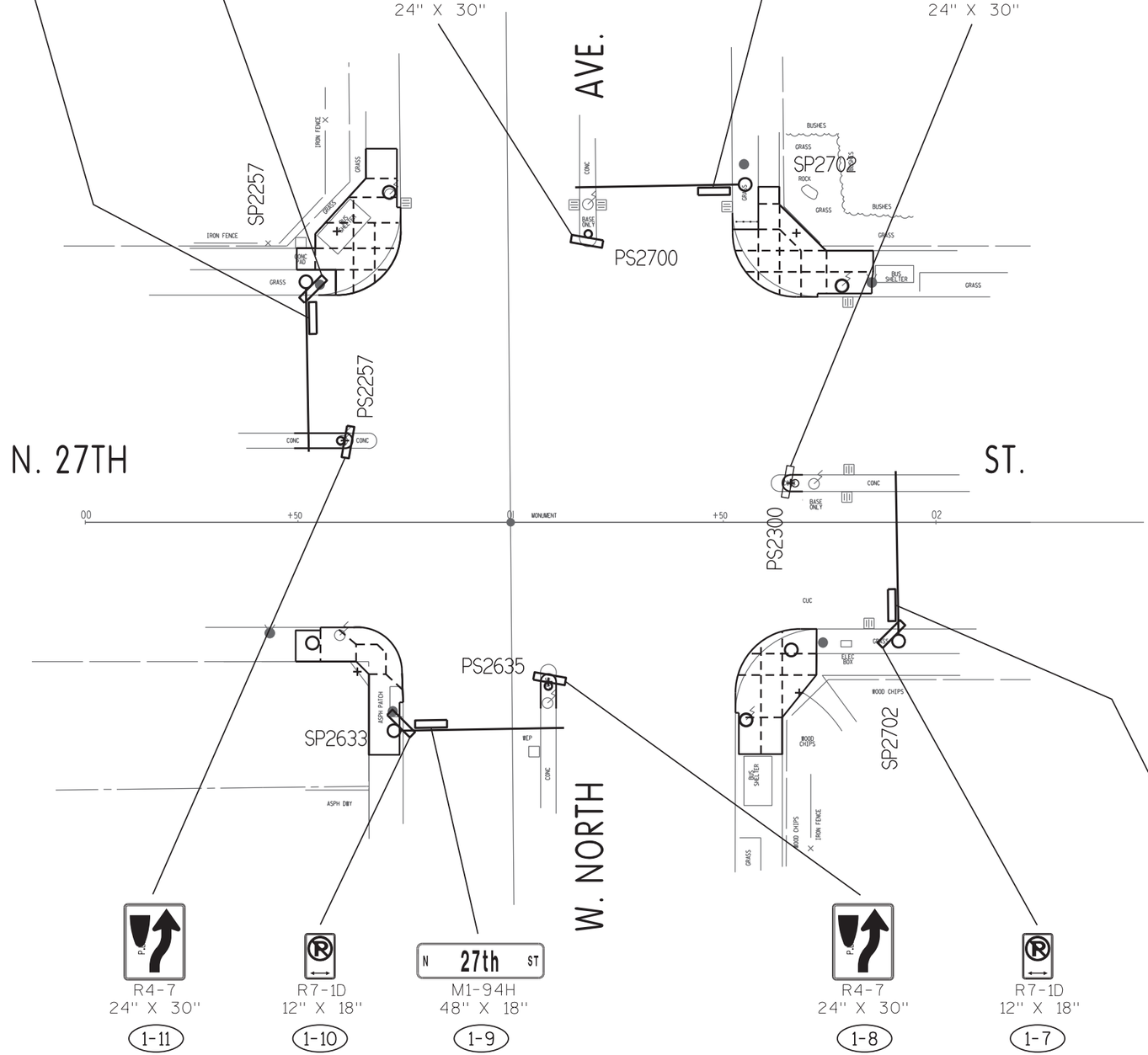
1-1
W North AV
M1-94H
48" X 18"

1-2
R7-1D
12" X 18"

1-3
R4-7
24" X 30"

1-4
N 27th ST
M1-94H
48" X 18"

1-5
R4-7
24" X 30"



1-11
R4-7
24" X 30"

1-10
R7-1D
12" X 18"

1-9
N 27th ST
M1-94H
48" X 18"

1-8
R4-7
24" X 30"

1-7
R7-1D
12" X 18"

1-6
W North AV
M1-94H
48" X 18"

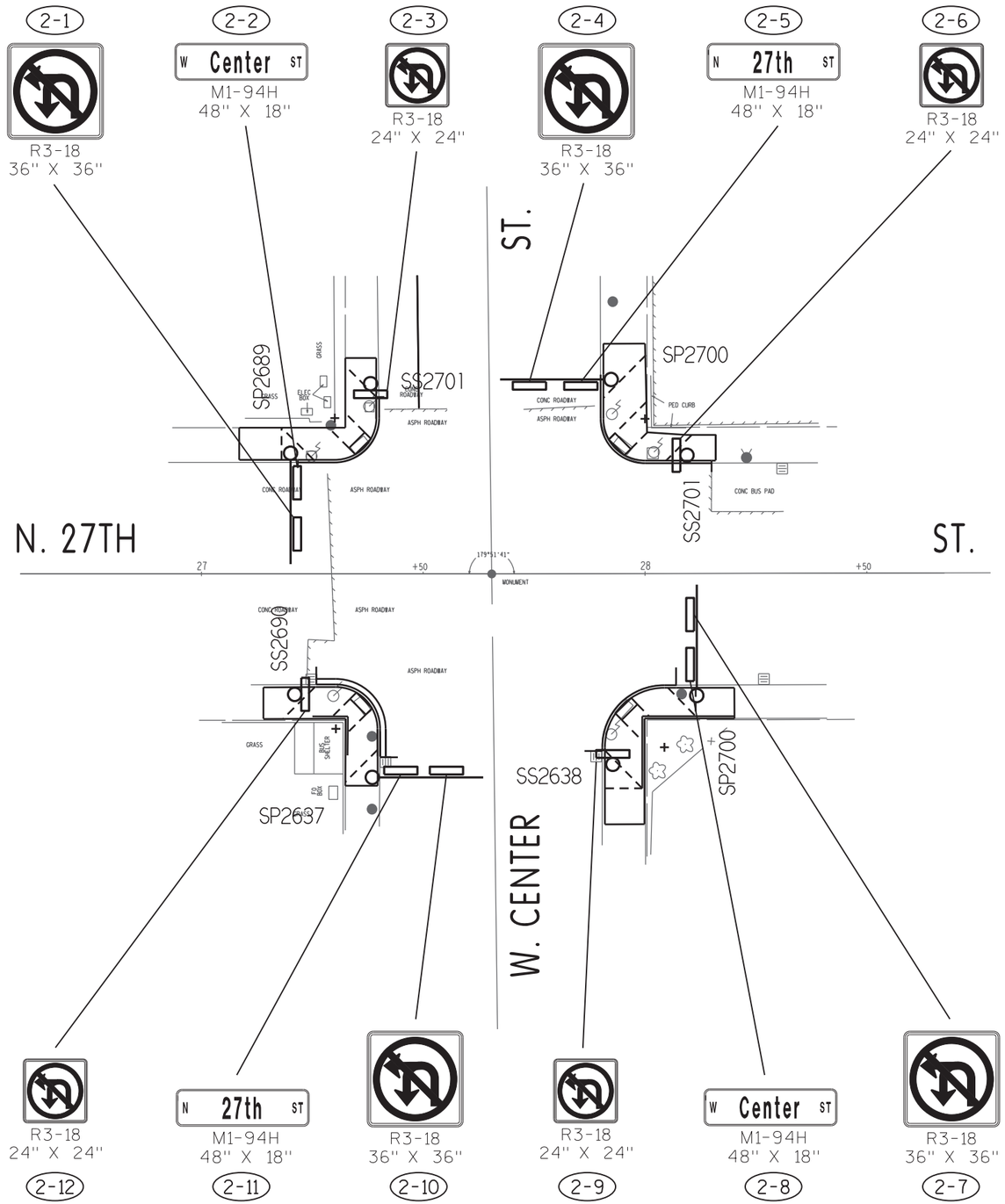
SCALE, FEET 0 30

PROJECT NO: 2265–00–78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	SIGN INSTALLATION PLAN	SHEET 22	E

LEGEND

(X-X) - SIGN NUMBER

▯ - SIGN



SCALE, FEET 0 30

PROJECT NO: 2265–00–78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	SIGN INSTALLATION PLAN	SHEET 23	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

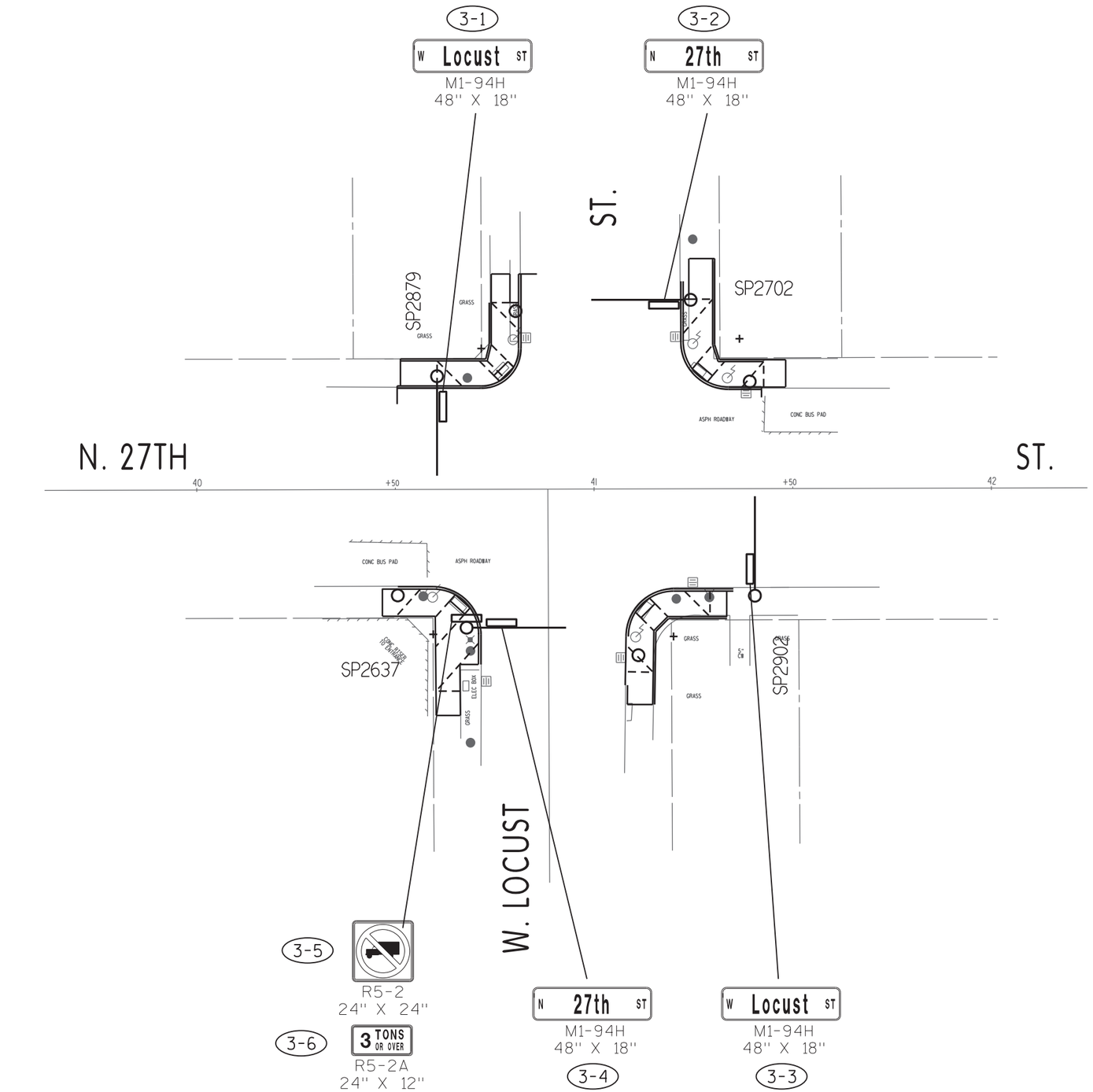
2

2

LEGEND

(X-X) - SIGN NUMBER

▯ - SIGN



SCALE, FEET 0 30

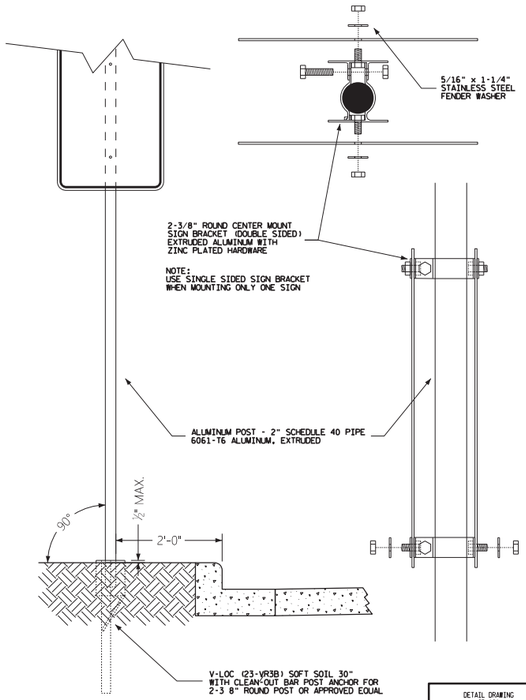
PROJECT NO: 2265–00–78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	SIGN INSTALLATION PLAN	SHEET 24	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

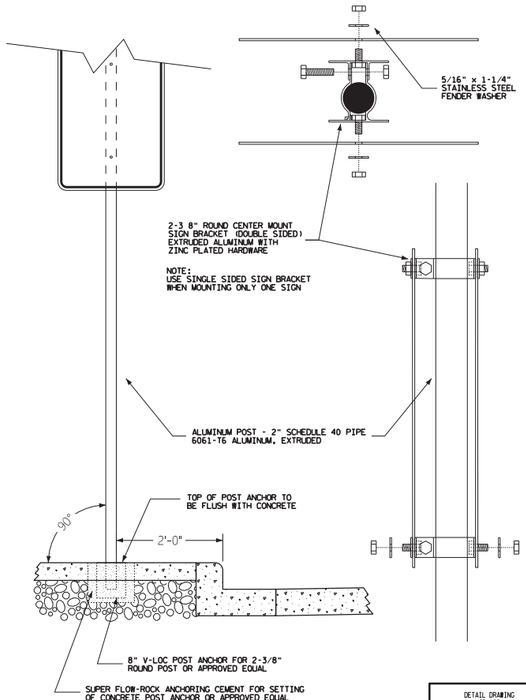
ROUND ALUMINUM SIGN POST SYSTEM FOR SOFT SURFACE INSTALLATION



DETAIL DRAWING SD-101

CITY OF MILWAUKEE DPW-INFRASTRUCTURE SERVICES TRANSPORTATION OPERATIONS

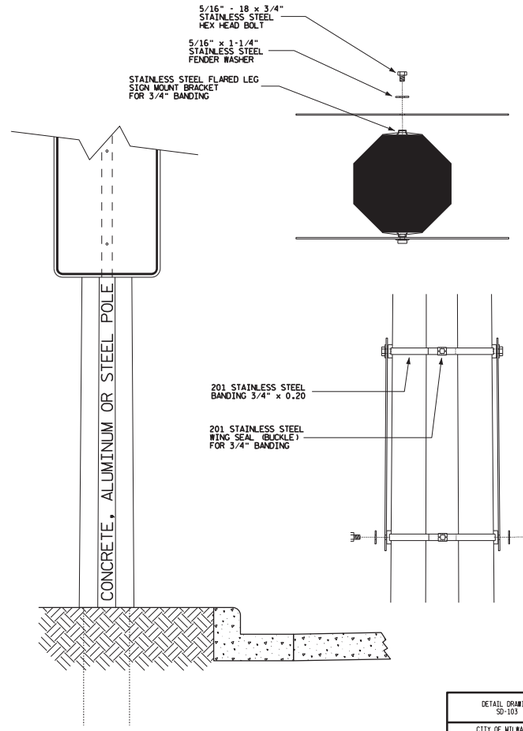
ROUND ALUMINUM SIGN POST SYSTEM FOR CONCRETE INSTALLATION



DETAIL DRAWING SD-102

CITY OF MILWAUKEE DPW-INFRASTRUCTURE SERVICES TRANSPORTATION OPERATIONS

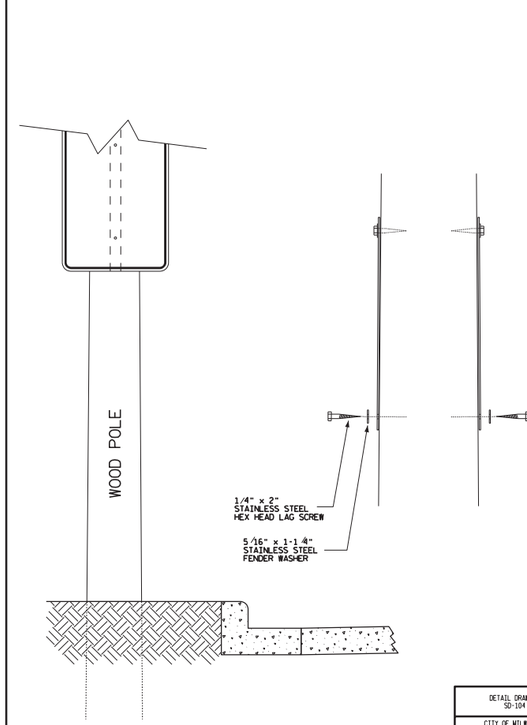
EXISTING CONCRETE, ALUMINUM OR STEEL POLE SIGN SYSTEM INSTALLATION



DETAIL DRAWING SD-103

CITY OF MILWAUKEE DPW-INFRASTRUCTURE SERVICES TRANSPORTATION OPERATIONS

EXISTING WOOD POLE SIGN SYSTEM INSTALLATION



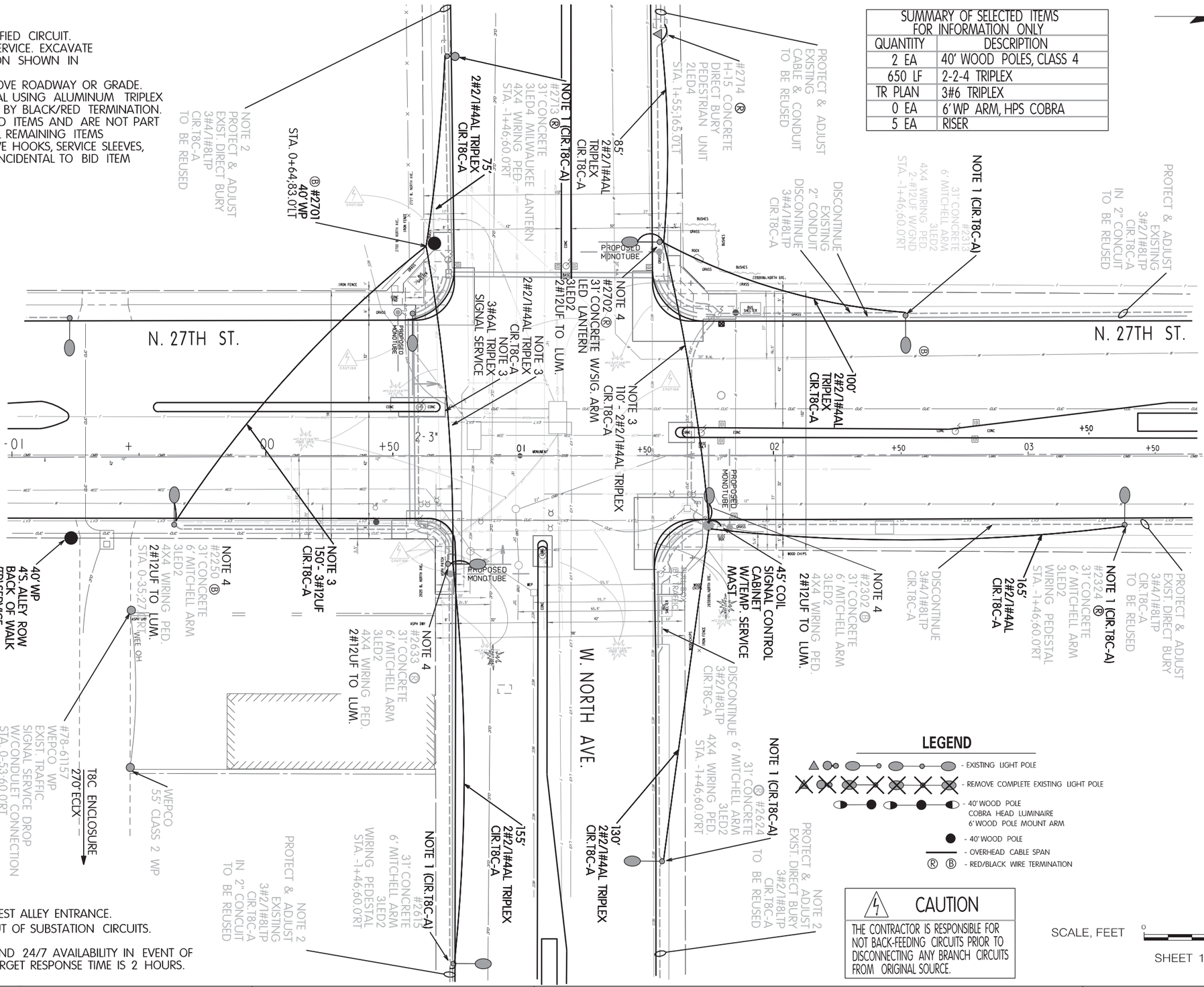
DETAIL DRAWING SD-104

CITY OF MILWAUKEE DPW-INFRASTRUCTURE SERVICES TRANSPORTATION OPERATIONS

NOTES:

1. SECONDARY CABLE RISER WITH PVC COVER ON SPECIFIED CIRCUIT.
2. EXISTING CONDUIT AND/OR CABLE TO REMAIN IN SERVICE. EXCAVATE 5' CABLE LENGTH ALLOWANCE FOR CONNECTION SHOWN IN STREET LIGHTING PLAN.
3. MINIMUM CLEARANCE AT CENTER OF SPAN: 17-FT. ABOVE ROADWAY OR GRADE.
4. TEMPORARY 240V FIXTURES WIRED PHASE TO NEUTRAL USING ALUMINUM TRIPLEX OR FLATSTRAP, LOAD BALANCED AS SPECIFIED BY BLACK/RED TERMINATION.
5. ALL LUMINAIRES AND AERIAL CABLES ARE SEPARATE BID ITEMS AND ARE NOT PART OF THE BID ITEM "WOOD POLE 40-FOOT". ALL REMAINING ITEMS SUCH AS WIRE ROPE TETHERS, WIRE CLIPS, DRIVE HOOKS, SERVICE SLEEVES, HEAVY DUTY INSULATED PULLY CLEVISES ARE INCIDENTAL TO BID ITEM "WOOD POLE 40-FOOT".

SUMMARY OF SELECTED ITEMS FOR INFORMATION ONLY	
QUANTITY	DESCRIPTION
2 EA	40' WOOD POLES, CLASS 4
650 LF	2-2-4 TRIPLEX
TR PLAN	3#6 TRIPLEX
0 EA	6' WP ARM, HPS COBRA
5 EA	RISER



SUBSTATION T8C IS LOCATED AT 2243 N26TH ST. AT WEST ALLEY ENTRANCE.
CONTACT CITY OF MILWAUKEE BES FOR LOCKOUT/TAGOUT OF SUBSTATION CIRCUITS.
FIELD CONDITIONS MAY VARY.
CONTRACTOR IS TO PROVIDE CONTACT INFORMATION AND 24/7 AVAILABILITY IN EVENT OF DAMAGE OR KNOCK DOWN WITHIN PAVING LIMITS. TARGET RESPONSE TIME IS 2 HOURS.

SHEET 1 OF 3

STATE PROJECT NO: 2265–00–78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	TEMPORARY STREET LIGHTING PLAN	SHEET 26	E

NOTES:

1. SECONDARY CABLE RISER WITH PVC COVER ON SPECIFIED CIRCUIT.
2. EXISTING CONDUIT AND/OR CABLE TO REMAIN IN SERVICE. EXCAVATE 5' CABLE LENGTH ALLOWANCE FOR CONNECTION SHOWN IN STREET LIGHTING PLAN.
3. MINIMUM CLEARANCE AT CENTER OF SPAN: 17-FT. ABOVE ROADWAY OR GRADE.
4. TEMPORARY 240V FIXTURES WIRED PHASE TO NEUTRAL USING ALUMINUM TRIPLEX OR FLATSTRAP, LOAD BALANCED AS SPECIFIED BY BLACK/RED TERMINATION.
5. ALL LUMINAIRES AND AERIAL CABLES ARE SEPARATE BID ITEMS AND ARE NOT PART OF THE BID ITEM "WOOD POLE 40-FOOT". ALL REMAINING ITEMS SUCH AS WIRE ROPE TETHERS, WIRE CLIPS, DRIVE HOOKS, SERVICE SLEEVES, HEAVY DUTY INSULATED PULLY CLEVISES ARE INCIDENTAL TO BID ITEM "WOOD POLE 40-FOOT".

SUMMARY OF SELECTED ITEMS FOR INFORMATION ONLY	
QUANTITY	DESCRIPTION
3 EA	40' WOOD POLES, CLASS 4
375 LF	2-2-4 TRIPLEX
0 LF	3#6 TRIPLEX
0 EA	6' ARM, HPS COBRA
6 EA	RISER

SUBSTATION WK IS LOCATED IN BUILDING AT 2620 W. CENTER ST. AND IS ACCESSIBLE VIA THE PARKING LOT OF THE WISCONSIN BLACK HISTORICAL SOCIETY/MUSEUM.

CONTACT CITY OF MILWAUKEE BES FOR LOCKOUT/TAGOUT OF SUBSTATION CIRCUITS. FIELD CONDITIONS MAY VARY.

CONTRACTOR IS TO PROVIDE CONTACT INFORMATION AND 24/7 AVAILABILITY IN EVENT OF DAMAGE OR KNOCK DOWN WITHIN PAVING LIMITS. TARGET RESPONSE TIME IS 2 HOURS.

LEGEND

- EXISTING LIGHT POLE
- REMOVE COMPLETE EXISTING LIGHT POLE
- 40' WOOD POLE COBRA HEAD LUMINAIRE 6' WOOD POLE MOUNT ARM
- 40' WOOD POLE
- OVERHEAD CABLE SPAN
- RED/BLACK WIRE TERMINATION

CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM ORIGINAL SOURCE.

SCALE, FEET 0 30

SHEET 2 OF 3

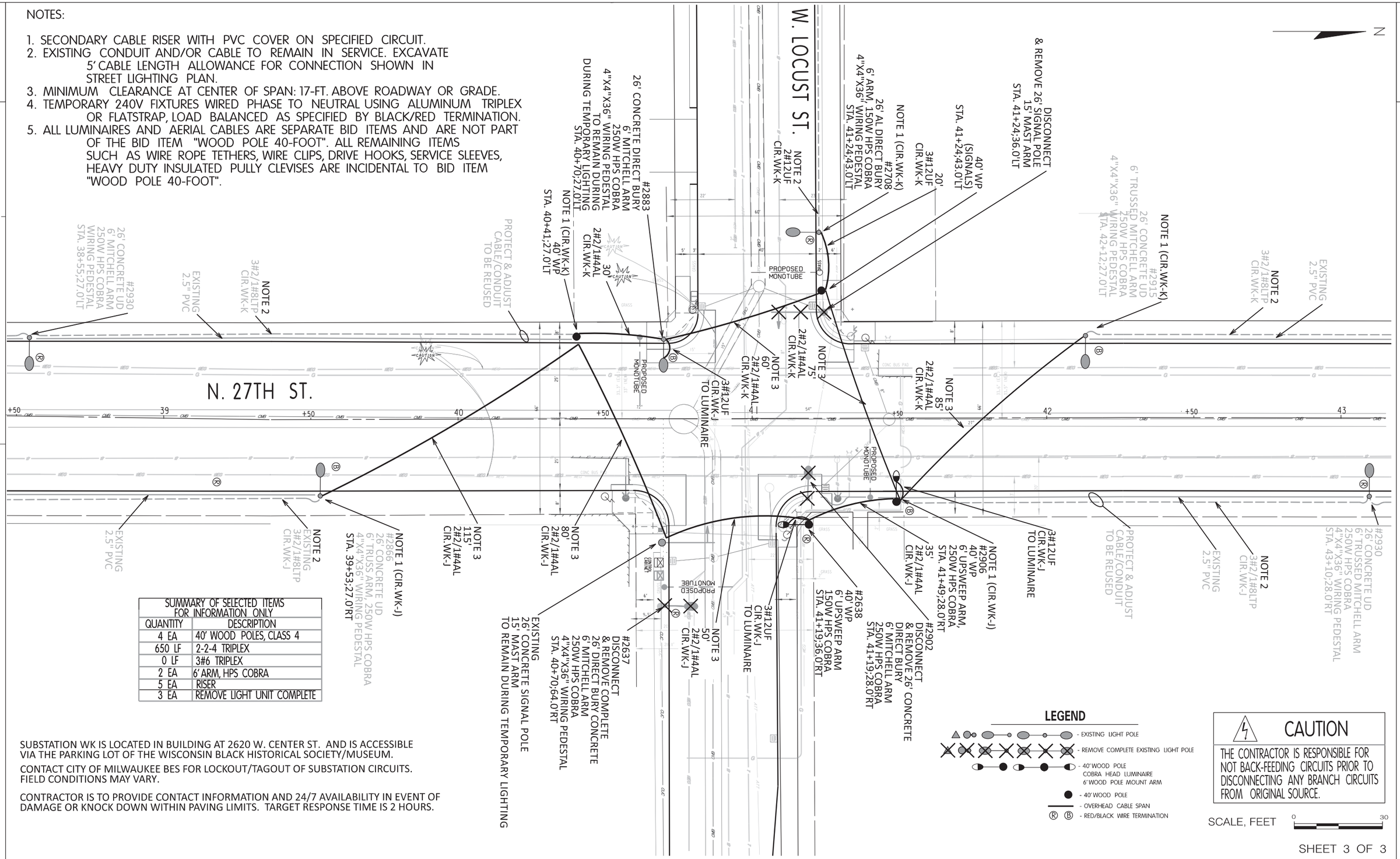
STATE PROJECT NO: 2265–00–78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	TEMPORARY STREET LIGHTING PLAN	SHEET 27	E

FILE NAME : $$.....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

NOTES:

1. SECONDARY CABLE RISER WITH PVC COVER ON SPECIFIED CIRCUIT.
2. EXISTING CONDUIT AND/OR CABLE TO REMAIN IN SERVICE. EXCAVATE 5' CABLE LENGTH ALLOWANCE FOR CONNECTION SHOWN IN STREET LIGHTING PLAN.
3. MINIMUM CLEARANCE AT CENTER OF SPAN: 17-FT. ABOVE ROADWAY OR GRADE.
4. TEMPORARY 240V FIXTURES WIRED PHASE TO NEUTRAL USING ALUMINUM TRIPLEX OR FLATSTRAP, LOAD BALANCED AS SPECIFIED BY BLACK/RED TERMINATION.
5. ALL LUMINAIRES AND AERIAL CABLES ARE SEPARATE BID ITEMS AND ARE NOT PART OF THE BID ITEM "WOOD POLE 40-FOOT". ALL REMAINING ITEMS SUCH AS WIRE ROPE TETHERS, WIRE CLIPS, DRIVE HOOKS, SERVICE SLEEVES, HEAVY DUTY INSULATED PULLY CLEVISES ARE INCIDENTAL TO BID ITEM "WOOD POLE 40-FOOT".



SUMMARY OF SELECTED ITEMS FOR INFORMATION ONLY	
QUANTITY	DESCRIPTION
4 EA	40' WOOD POLES, CLASS 4
650 LF	2-2-4 TRIPLEX
0 LF	3#6 TRIPLEX
2 EA	6' ARM, HPS COBRA
5 EA	RISER
3 EA	REMOVE LIGHT UNIT COMPLETE

SUBSTATION WK IS LOCATED IN BUILDING AT 2620 W. CENTER ST. AND IS ACCESSIBLE VIA THE PARKING LOT OF THE WISCONSIN BLACK HISTORICAL SOCIETY/MUSEUM.

CONTACT CITY OF MILWAUKEE BES FOR LOCKOUT/TAGOUT OF SUBSTATION CIRCUITS. FIELD CONDITIONS MAY VARY.

CONTRACTOR IS TO PROVIDE CONTACT INFORMATION AND 24/7 AVAILABILITY IN EVENT OF DAMAGE OR KNOCK DOWN WITHIN PAVING LIMITS. TARGET RESPONSE TIME IS 2 HOURS.

LEGEND

- EXISTING LIGHT POLE
- REMOVE COMPLETE EXISTING LIGHT POLE
- 40' WOOD POLE COBRA HEAD LUMINAIRE 6' WOOD POLE MOUNT ARM
- 40' WOOD POLE
- OVERHEAD CABLE SPAN
- Ⓡ Ⓑ - RED/BLACK WIRE TERMINATION

CAUTION

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACK-FEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM ORIGINAL SOURCE.

SCALE, FEET 0 30

SHEET 3 OF 3

STATE PROJECT NO: 2265–00–78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	TEMPORARY STREET LIGHTING PLAN	SHEET 28	E

LEGEND

- EXISTING LIGHT POLE
- NEW LIGHT POLE
  2LED LUMINAIRE
  2#12UF W/GND RISER CABLE
- NEW LIGHT POLE
  2 - 2#12UF W/G RISERS
  2 - LUMINAIRE ARMS
  2 - 2LED LUMINAIRE
- REMOVE COMPLETE EXISTING LIGHT POLE
- DOUBLE LUMINAIRE & ARMS (BY CONTRACTOR) MOUNTED ON MONOTUBE
- NEW LIGHT POLE
  80W SCREW-IN LED LANTERN
  2#12UF W/GND RISER CABLE
- NEW LIGHT POLE
  2 - 2#12UF W/G RISERS
  2 - 80W SCREW-IN LED LANTERNS
- LED HARP MH070HP-MT-2B-4-AG-S LUNIMAIRE

- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- EXISTING PULL BOX OR INSTALLED BY (TR) TRAFFIC
- PULL BOX TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM
- S40-XXXX - STRUCTURE NUMBER
- Ⓡ Ⓑ - RED/BLACK WIRE TERMINATION

N

W. NORTH AVE.

N. 27TH ST.

N. 27TH ST.

N. 27TH ST.

13"X24"X24" PULL BOX 1.5" FLEX TO CABLE SLOT STA. 0+445;27.0RT

3#2/1#8XLPE CIR.T8C-A

3" SPECIAL DETAIL B 100

#2714 H-15 CONCRETE PEDESTRIAN UNIT TO REMAIN 2LED4

STA. 1+55;165.0'LT

PROTECT & ADJUST EXISTING CABLE & CONDUIT TO BE REUSED

13"X24"X24" PULL BOX 1.5" LIQUIDTIGHT FLEX TO CABLE SLOT STA. 1+55;165.0'LT

20'-3#2/1#8XLPE CIR.T8C-A COILED/TAGGED IN PULLBOX

#2713 31' CONCRETE LED MILWAUKEE LANTERN 4X4 WIRING PED.

13"X24"X24" PULL BOX OVER EXISTING ITEM STA. 1+55;85.0'LT

20'-3#2/1#8XLPE CIR.T8C-A COILED/TAGGED IN PULLBOX

3#2/1#8XLPE CIR.T8C-A

3" SPECIAL DETAIL B 100

30' AL BD TYPE 5 BASE XFMR BASE LED LANTERN 2#12UF W/GND STA. 1+80;55.0'LT

40' ARM

LED LANTERN 2#12UF W/GND

30' AL BD TYPE 5 BASE XFMR BASE LED LANTERN 2#12UF W/GND STA. 0+72;76.0'LT

3#2/1#8XLPE CIR.T8C-A

LED LANTERN 2#12UF W/GND

3" SPECIAL DETAIL B 100

#2313 31' CONCRETE 6' MITCHELL ARM 3LED2 4X4 WIRING PED. 2-#12UF W/GND

PROTECT & ADJUST EXISTING 3#2/1#8LTP CIR.T8C-A IN 2" CONCUIT TO BE REUSED

20'-3#2/1#8XLPE CIR.T8C-A COILED/TAGGED IN PULLBOX

13"X24"X24" PULL BOX 1.5" FLEX TO CABLE SLOT STA. 2+53;55.0'LT

3#2/1#8XLPE CIR.T8C-A

40' ARM

LED LANTERN 2#12UF W/GND

30' AL BD TYPE 5 BASE XFMR BASE LED LANTERN 2#12UF W/GND STA. 1+52;47.0'RT

3" SCH. 40 SPECIAL 102

3#2/1#8XLPE CIR.T8C-A

3" SPECIAL DETAIL B 100

13"X24"X24" PULL BOX 1.5" LIQUIDTIGHT FLEX TO CABLE SLOT STA. 1+52;160.0'RT

#2624 31' CONCRETE 6' MITCHELL ARM 3LED2 4X4 WIRING PED.

20'-3#2/1#8XLPE CIR.T8C-A COILED/TAGGED IN PULLBOX

3#2/1#8XLPE CIR.T8C-A

3" SPECIAL DETAIL B 100

30' AL BD TYPE 5 BASE XFMR BASE LED LANTERN 2#12UF W/GND STA. 0+55;27.0'RT

LED LANTERN 2#12UF W/GND

3#2/1#8XLPE CIR.T8C-A

13"X24"X24" PULL BOX 1.5" LIQUIDTIGHT FLEX TO CABLE SLOT STA. 0+72;188.0'RT

#2615 31' CONCRETE 6' ARM, LED3 WIRING PEDESTAL

20'-3#2/1#8XLPE CIR.T8C-A COILED/TAGGED IN PULLBOX

LED LANTERN 2#12UF W/GND

#2324 31' CONCRETE 6' MITCHELL ARM 3LED2 WIRING PEDESTAL STA. 3+42;27.0'RT

3" SPECIAL DETAIL B 100

3#2/1#8XLPE CIR.T8C-A

PROTECT & ADJUST EXIST. DIRECT BURY 3#4/1#8LTP CIR.T8C-A TO BE REUSED

13"X24"X24" PULL BOX 1.5" LIQUIDTIGHT FLEX TO CABLE SLOT STA. 3+47;27.0'LT

20'-3#2/1#8XLPE CIR.T8C-A COILED/TAGGED IN PULLBOX

SCALE, FEET 0 40

SHEET 1 OF 3

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

TYPE 3 LIGHT DISTRIBUTION THIS INTERSECTION UNLESS OTHERWISE SPECIFIED.

STATE PROJECT NO: 2265–00–78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 29	E

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.
TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

TYPE 3 LIGHT DISTRIBUTION UNLESS OTHERWISE SPECIFIED.

W. FOND DU LAC AVE.

N. 27TH ST.

W. CENTER ST.

#2716 EXIST. CONC. POLE TO REMAIN IN SERVICE

3#8/1#8LTP CIR. WK-H IN CONDUIT

13"X24"X24" PULL BOX 123 OVER EXISTING ITEM (CONDUIT) STA. 27+92.847.0'LT

#2702 EXIST. HARP TO REMAIN

3#6/1#8XLPE CIR.WK-H

DETAIL B 100 3" HDPE

LED LANTERN 2-#12UF W/GND

#2710 SP (S40-1931) TYPE 10 POLE TYPE 10 BASE

25' ARM (B)

3#6/1#8XLPE CIR.WK-E

13"X24"X24" PULL BOX 129 STA. 28+62.27.0'LT

#2711 EXISTING TO REMAIN 31' CONCRETE 6' MITCHELL ARM 3LED2 4X4 WIRING PED. 2-#12UF W/GND (B)

DETAIL B 100 2-3" SPECIAL

EXISTING 13"X24"X24" PULL BOX 112 STA. 29+30.27.0'LT

MH#4386

LED LANTERN 2-#12UF W/GND (R)

EXISTING 3#2/1#8XLPE CIR. WK-E IN CONDUIT TO BE REUSED

3#2/1#8LTP CIR. WK-F

CIR. WK-C,D,E,F CIR.WK-3,4,7 IN DUCT

MH#4425

#2636 W. FOND DU LAC AVE.

#2620 W. CENTER ST.

3#2/1#8XLPE CIR. WK-E

SP (S40-1928) TYPE 9 POLE TYPE 10 BASE

3#2/1#8XLPE CIR. WK-E

PULL BOX 3#2/1#8XLPE CIR. WK-E

#2686 (B) EXIST. HARP UNIT TO REMAIN

LED LANTERN 2-#12UF W/GND ON CIR.WK-C

6' ARM 3LED3 2-#12UF W/GND

3#2/1#8XLPE CIR.WK-C

3#2/1#8XLPE CIR.WK-D

20'-3#2/1#8XLPE CIR.WK-C COILED/TAGGED IN PULLBOX #2619

6' ARM 3LED2 2-#12UF W/GND STA. 27+38.130.0'RT

13"X24"X24" PULL BOX 112 OVER EXISTING ITEM (CABLE) STA. 27+38.135.0'RT

DETAIL B 100 3" SPECIAL

20'-3#2/1#8XLPE CIR.WK-B COILED/TAGGED IN PULLBOX

3#2/1#8XLPE CIR.WK-D

LED LANTERN 2-#12UF W/GND

DETAIL B 100 3" SPECIAL

13"X24"X24" PULL BOX 129 1.5" FLEX TO CABLE SLOT STA. 27+92.145.0'RT

3-3#2/1#8XLPE CIR.WK-B,C,D

DETAIL B 100 2-3" SPECIAL

112 115 13"X24"X24" PULL BOX STA. 29+16.27.0'RT

114 2-4" PVC CONCRETE ENCASEMENT

200' COIL-3#2/1#8XLPE CIR.WK-B TAGGED

200' COIL-3#2/1#8XLPE CIR.WK-C TAGGED

200' COIL-3#2/1#8XLPE CIR.WK-D TAGGED

114 CORE & TRENCH EXIST. MH TO 2-4" PVC TO PULLBOX AS SHOWN STA. 29+30.35.0'RT

CONC BUS PAD

PED CURB

LONG ROADWAY

CMB

TERES

CAUTION 120/240V

LEGEND

- EXISTING LIGHT POLE
- NEW LIGHT POLE 2LED LUMINAIRE 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - LUMINAIRE ARMS 2 - 2LED LUMINAIRE
- REMOVE COMPLETE EXISTING LIGHT POLE
- DOUBLE LUMINAIRE & ARMS (BY CONTRACTOR) MOUNTED ON MONOTUBE
- NEW LIGHT POLE 80W SCREW-IN LED LANTERN 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - 80W SCREW-IN LED LANTERNS
- LED HARP MH070HP-MT-2B-4-AG-S LUNIMAIRE

- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- EXISTING PULL BOX OR INSTALLED BY (TR) TRAFFIC
- PULL BOX TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM
- S40-XXXX - STRUCTURE NUMBER
- (R) (B) - RED/BLACK WIRE TERMINATION

N

SCALE, FEET 0 30

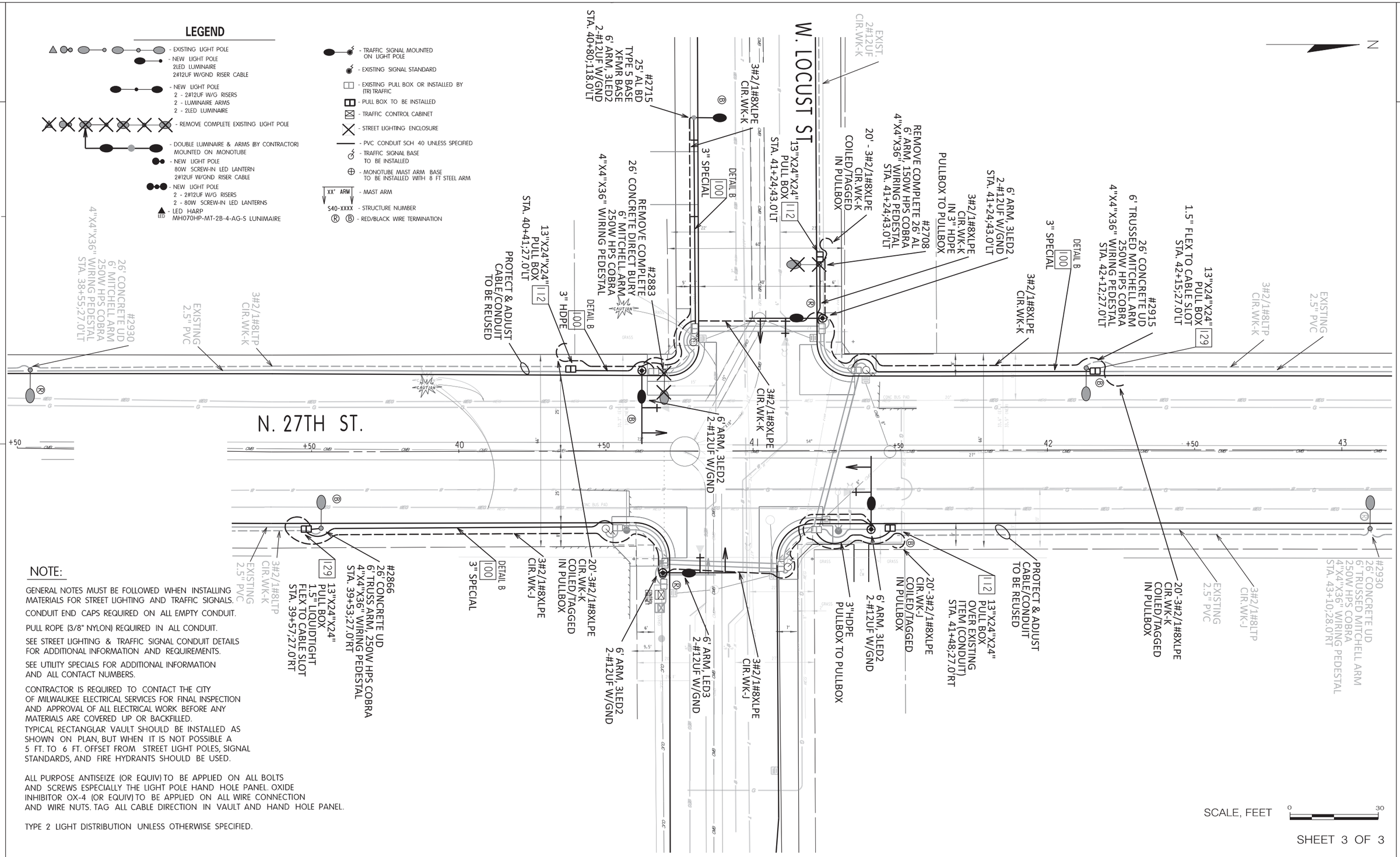
SHEET 2 OF 3

STATE PROJECT NO: 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 30	E

LEGEND

- EXISTING LIGHT POLE
- NEW LIGHT POLE
  2LED LUMINAIRE
  2#12UF W/GND RISER CABLE
- NEW LIGHT POLE
  2 - 2#12UF W/G RISERS
  2 - LUMINAIRE ARMS
  2 - 2LED LUMINAIRE
- REMOVE COMPLETE EXISTING LIGHT POLE
- DOUBLE LUMINAIRE & ARMS (BY CONTRACTOR) MOUNTED ON MONOTUBE
- NEW LIGHT POLE
  80W SCREW-IN LED LANTERN
  2#12UF W/GND RISER CABLE
- NEW LIGHT POLE
  2 - 2#12UF W/G RISERS
  2 - 80W SCREW-IN LED LANTERNS
- LED HARP
  MH070HP-MT-2B-4-AG-S LUNIMAIRE

- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- EXISTING PULL BOX OR INSTALLED BY (TR) TRAFFIC
- PULL BOX TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM
- S40-XXXX - STRUCTURE NUMBER
- Ⓡ Ⓑ - RED/BLACK WIRE TERMINATION



NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

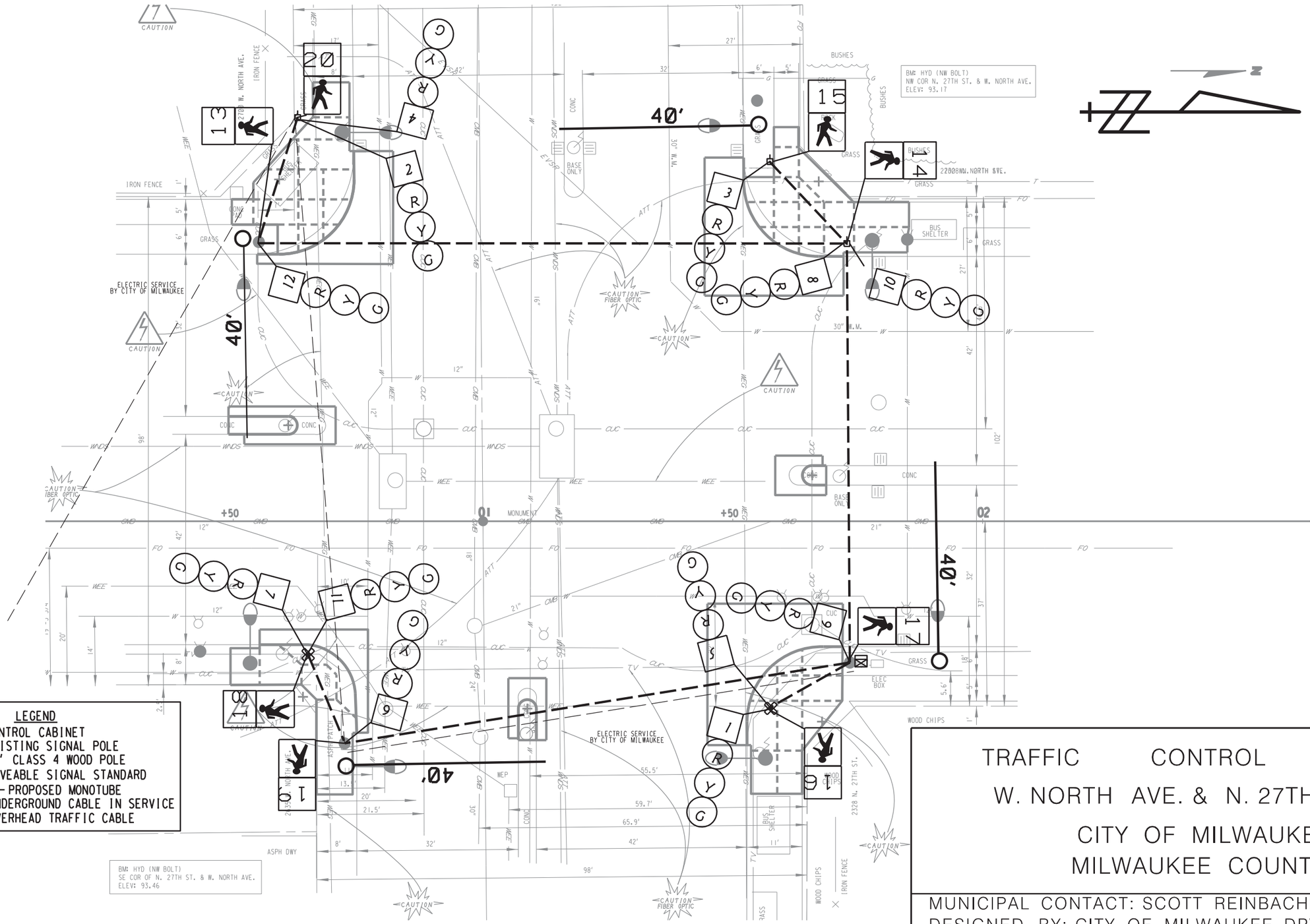
ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

TYPE 2 LIGHT DISTRIBUTION UNLESS OTHERWISE SPECIFIED.

SHEET 3 OF 3

STATE PROJECT NO: 2265–00–78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 31	E

2



LEGEND

- CONTROL CABINET
- EXISTING SIGNAL POLE
- 35' CLASS 4 WOOD POLE
- MOVEABLE SIGNAL STANDARD
- PROPOSED MONOTUBE
- UNDERGROUND CABLE IN SERVICE
- OVERHEAD TRAFFIC CABLE

TRAFFIC CONTROL SIGNAL

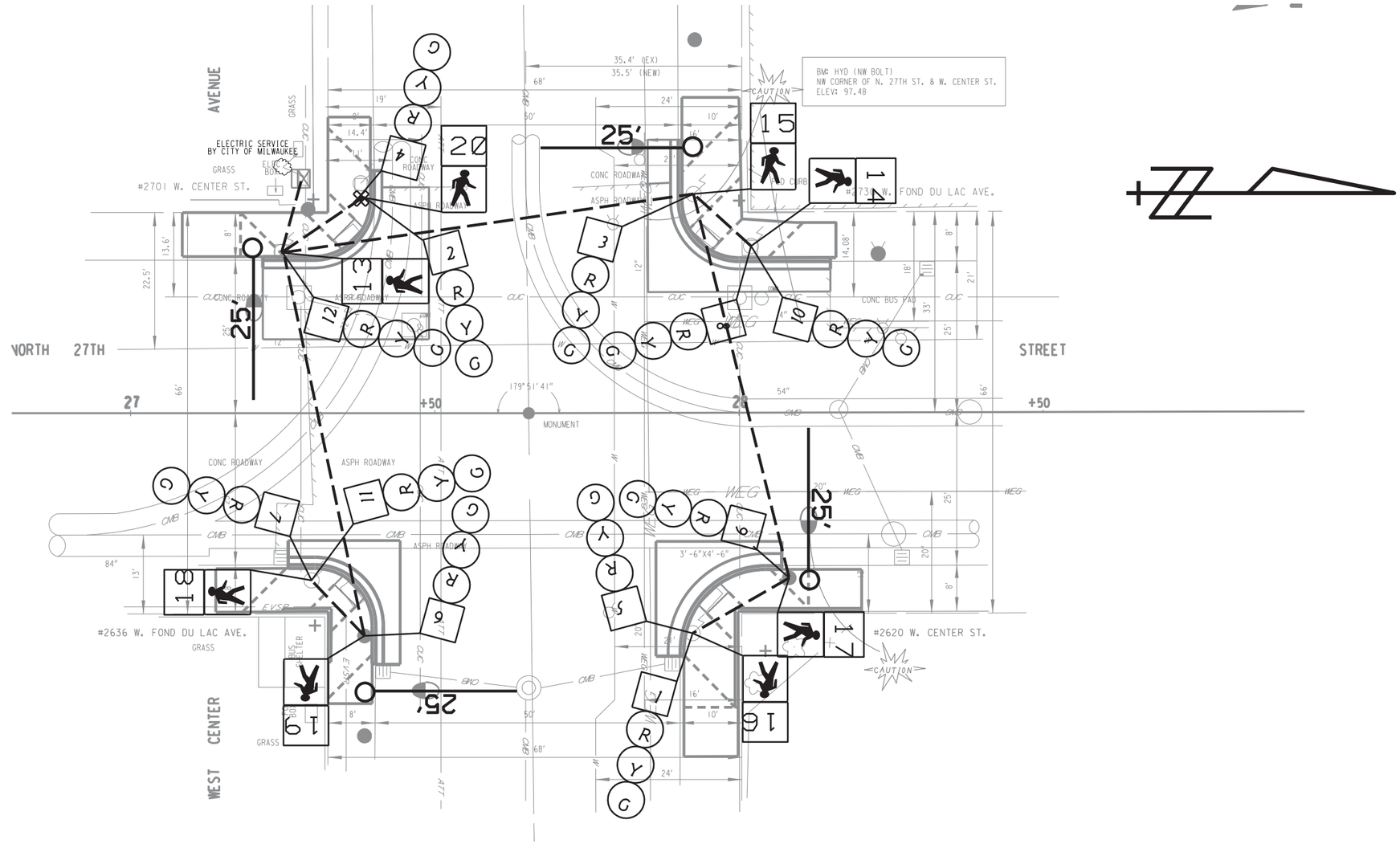
W. NORTH AVE. & N. 27TH ST.

CITY OF MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN	SCALE FEET 0 20	SHEET 32	E

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LEGEND

- CONTROL CABINET
- EXISTING SIGNAL POLE
- 35' CLASS 4 WOOD POLE
- PROPOSED MONOTUBE
- UNDERGROUND CABLE IN SERVICE
- OVERHEAD TRAFFIC CABLE

TRAFFIC CONTROL SIGNAL

W. CENTER ST. & N. 27TH ST.

CITY OF MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

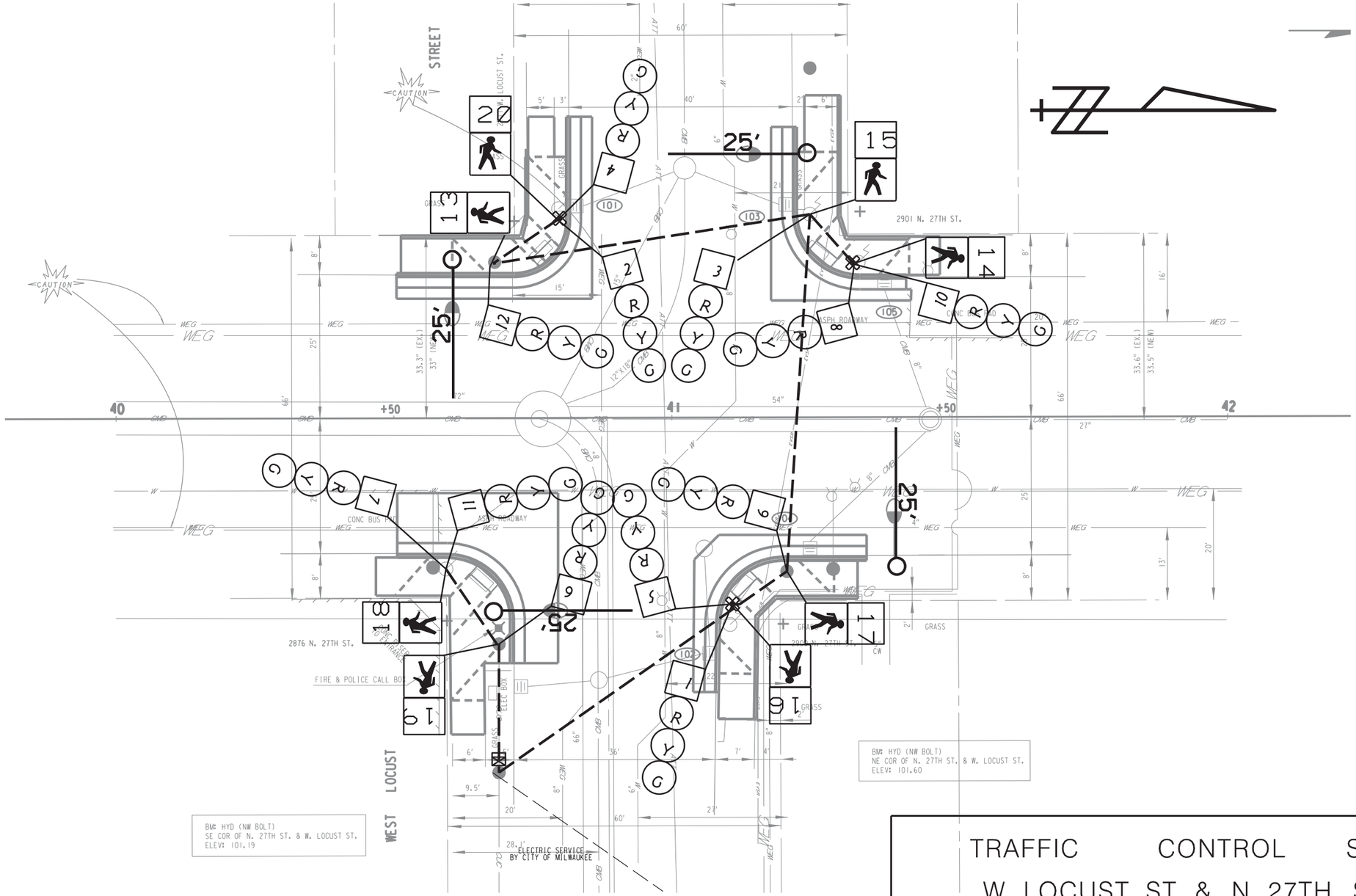
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WISDOT/CADDS SHEET 42

2

2



LEGEND

- CONTROL CABINET
- EXISTING SIGNAL POLE
- 35' CLASS 4 WOOD POLE
- PROPOSED MONOTUBE
- UNDERGROUND CABLE IN SERVICE
- OVERHEAD TRAFFIC CABLE

TRAFFIC CONTROL SIGNAL

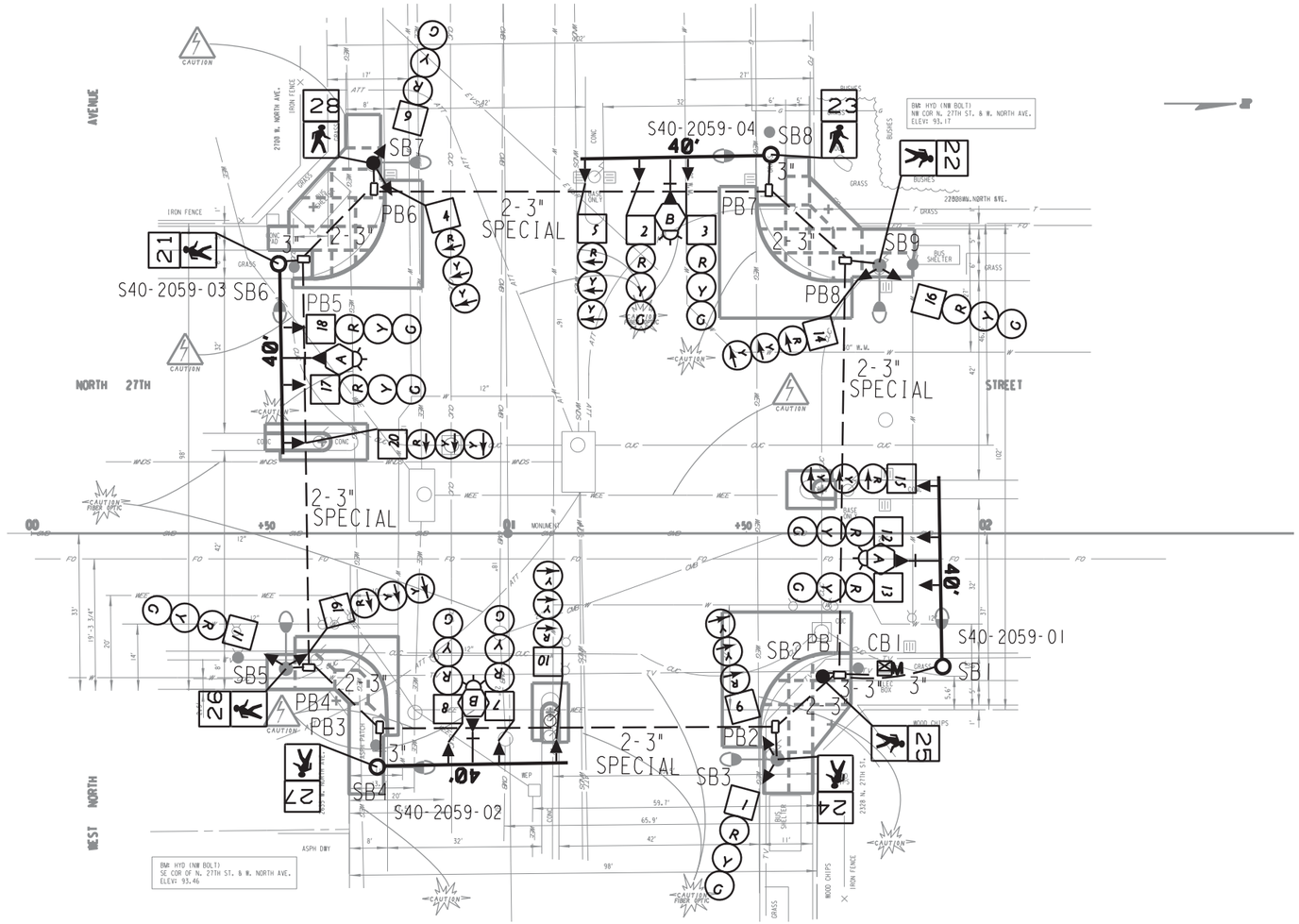
W. LOCUST ST. & N. 27TH ST.

CITY OF MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN	SCALE FEET 0 20	SHEET 34	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



LEGEND

- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 50'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-45' ARM
- LUMINAIRE
- CONFIRMATION LIGHT
- POLYMER CONCRETE PULL BOX, 17"X30"X24"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) (R) RED ARROW
- (Y) (Y) YELLOW ARROW
- (G) (G) (G) GREEN ARROW
- R Y G OPTICALLY PROGRAMMED HEAD
- WALK-DON'T WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

	S40-2059-01	S40-2059-02	S40-2059-03	S40-2059-04
657.0352	X	X	X	X
654.0120	X	X	X	X

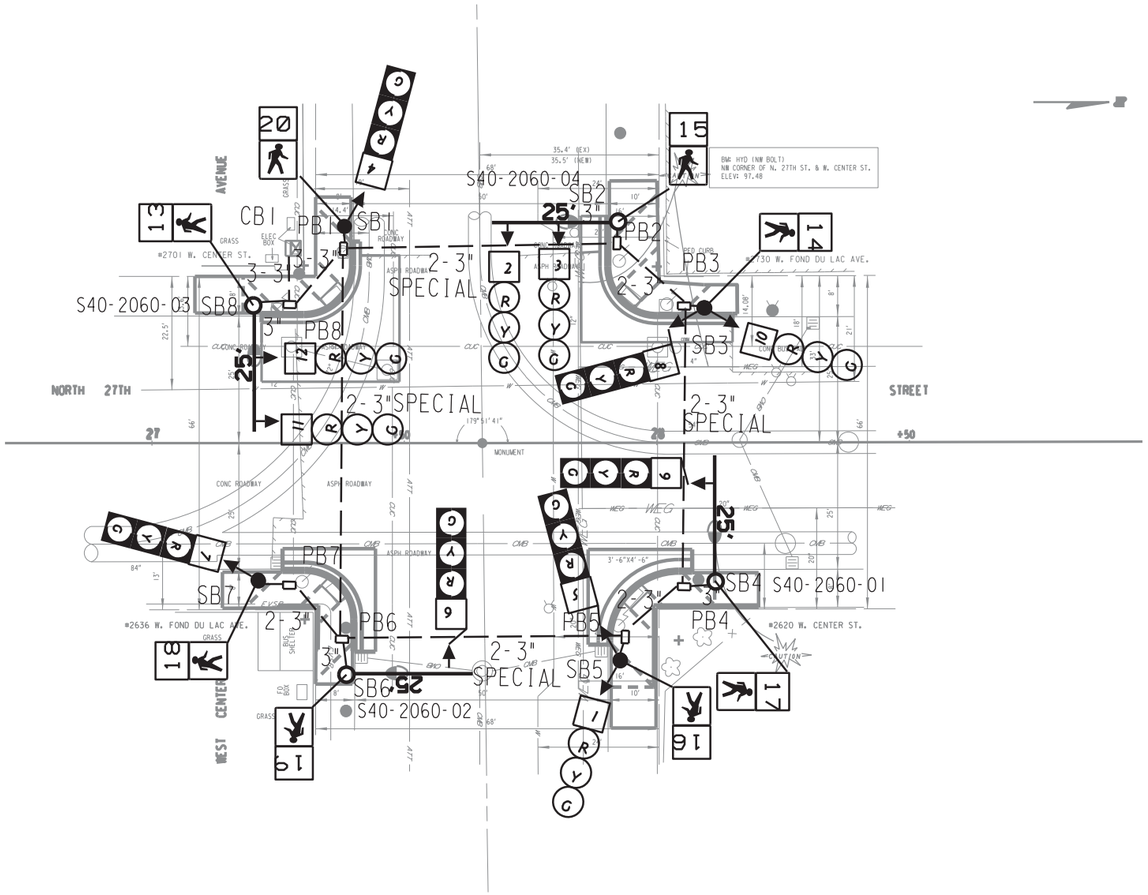
TRAFFIC CONTROL SIGNAL
W. NORTH AVE. & N. 27TH ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

REGION CONTACT: SCOTT REINBACHER
DESIGNED BY: KAP
REVISED BY:

PAGE OF

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE FEET 0 30	SHEET 35	E



	S40-2060-01	S40-2060-02	S40-2060-03	S40-2060-04
657.0350	X	X	X	X
654.0110	X	X	X	X

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 50'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-45' ARM
- LUMINAIRE
- CONFIRMATION LIGHT
- POLYMER CONCRETE PULL BOX, 17"X30"X24"
- SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- G GREEN ARROW
- R Y G OPTICALLY PROGRAMMED HEAD
- WALK-DON'T WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
W. CENTER ST. & N. 27TH ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

REGION CONTACT: SCOTT REINBACHER
DESIGNED BY: KAP
REVISED BY:

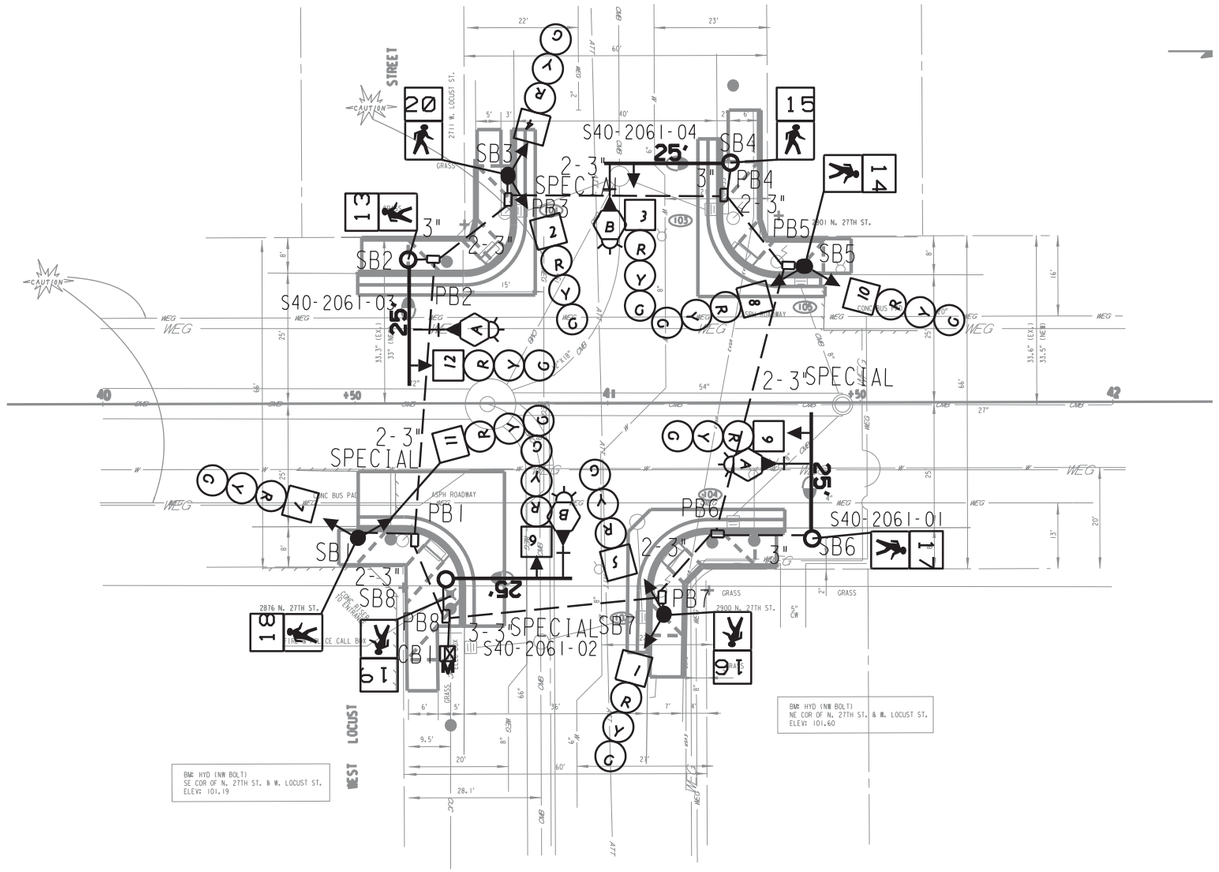
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STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE FEET 0 30	SHEET 36	E

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WISDOT/CADDS SHEET 42

2



LEGEND

- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 50'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-45' ARM
- LUMINAIRE
- CONFIRMATION LIGHT
- POLYMER CONCRETE PULL BOX, 17"X30"X24"
- SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
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- R R RED ARROW
- Y Y YELLOW ARROW
- G G G GREEN ARROW
- R Y G OPTICALLY PROGRAMMED HEAD
- WALK-DON'T WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

	S40-2061-01	S40-2061-02	S40-2061-03	S40-2061-04
657.0350	X	X	X	X
654.0110	X	X	X	X

TRAFFIC CONTROL SIGNAL
W. LOCUST ST. & N. 27TH ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

REGION CONTACT: SCOTT REINBACHER
DESIGNED BY: KAP
REVISED BY:

PAGE OF

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE FEET 0 30	SHEET 37	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

TRAFFIC & STREET LIGHTING GENERAL NOTES:

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

STREET LIGHTING & TRAFFIC SIGNALS SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 652 EXCEPT:

THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING REPAIRS, REPLACEMENT OR RELOCATION ETC. OF STREET LIGHTING OR TRAFFIC SIGNAL FACILITIES IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING OR TRAFFIC SIGNAL DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED PERMISSION.

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

2 LOCATIONS OF THE PVC CONDUITS WHERE THEY ARE REQUIRED ARE IDENTIFIED IN THE PRINTS. HOWEVER, INSTALLATION MAY REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. ANY RELOCATIONS MUST BE APPROVED BY THE ENGINEER. FIELD MARK EACH CONDUIT LOCATION BY STAMPING AND PAINTING WITH RED PAINT ON TOP AND BACKSIDE OF CURB.

3 TYPICAL CONDUIT INSTALLED UP TO DIRECT BURIED STREET LIGHT POLES IS AS FOLLOWS 3-INCH OR 2.5-INCH (AS NOTED) SCHEDULE 40 RIGID PVC TO STREET LIGHTING METAL HOUSING (PEDESTAL), THE 1.5-INCH SCHEDULE 40 RIGID PVC TO STREET LIGHT POLE CABLE SLOT, AND THE 2-INCH SCHEDULE 40 RIGID PVC TO SIGNAL STANDARD BASE AND RISER FOR TRAFFIC SIGNAL ON STREET LIGHT POLE.

4 DEPTH OF CONDUIT INSTALLED BELOW THE STREETS, HIGHWAYS, ROADS, AND ALLEYS SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM. (MEASURED FROM FINISHED FLANGE LINE)

5 CONDUIT INSTALLED BEHIND CURB, AND UNDER DRIVEWAYS SHALL BE INSTALLED AT 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 CONRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP SUPERVISORS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK.
STREET LIGHTING - 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 EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

27 Provide three sets 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 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

UTILITY LINE CODE

—— SAN ——	SANITARY SEWER
—— STO ——	STORM SEWER
—— W ——	WATER
—— G ——	GAS
- — — G — — —	PROPOSED GAS
—— E ——	ELECTRIC
—— TE&ES ——	TRAFFIC & STREET LIGHTING
— — — — —	OLD CITY UNDERGROUND CONDUIT
—— CUC ——	PROPOSED CITY UNDERGROUND CONDUIT
—— T ——	TELEPHONE
—— TV ——	CABLE

TRAFFIC & STREET LIGHTING GENERAL NOTES:

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.

IT IS CRITICAL THAT THE CONTRACTOR WORK ON THE AS-BUILT DRAWINGS WHILE THE JOB IS PROGRESSING, SO CHANGES ARE DOCUMENTED WHILE THEY ARE STILL FRESH IN YOUR MIND.

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-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 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 COMAPNY:
WORK STARTED:
WORK COMPLETED:

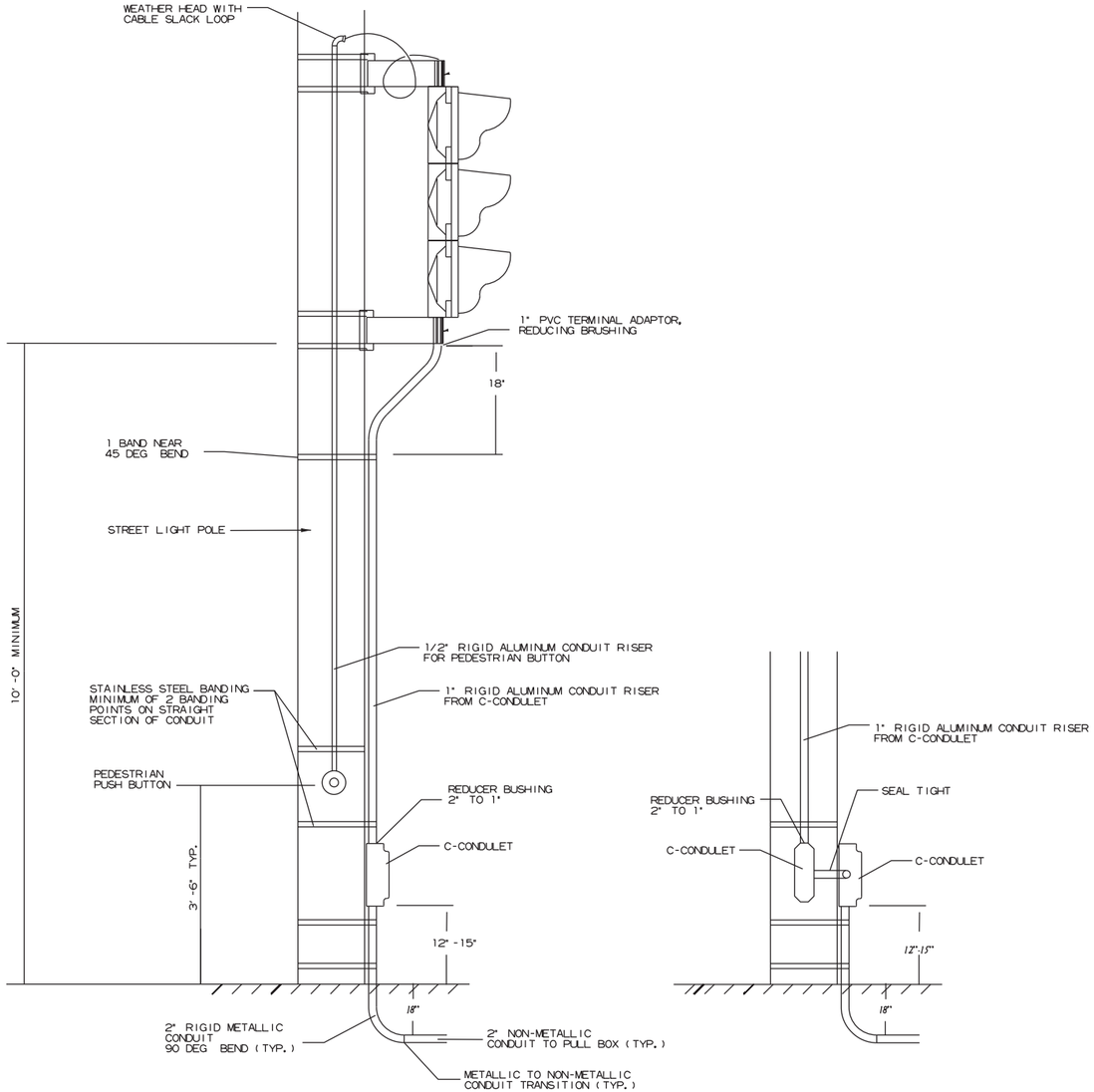
LINE OUT OR CROSS OUT ALL CHANGED INFORMATION AND WRITE-IN THE CORRECTED INFORMATION ABOVE THE ORIGINAL OR CLOSE TO IT WHEREVER POSSIBLE. USE BLANK SPACES ON THE DRAWING SO NOTES ARE NOT SUPERIMPOSED. DRAWINGS WITH EXCESSIVE DETAIL MAY REQUIRE AN ALTERNATE APPROACH. NUMBERED CHANGES OR ADDITIONS MAY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

SEND TO:
CITY OF MILWAUKEE
INFRASTRUCTURE SERVICES DIVISION
TRANSPORTATION SECTION
STREET LIGHTING & CUC MANAGER
841 NORTH BROADWAY
ROOM 920
MILWAUKEE, WISCONSIN 53202

2



OPTION 1

OPTION 2

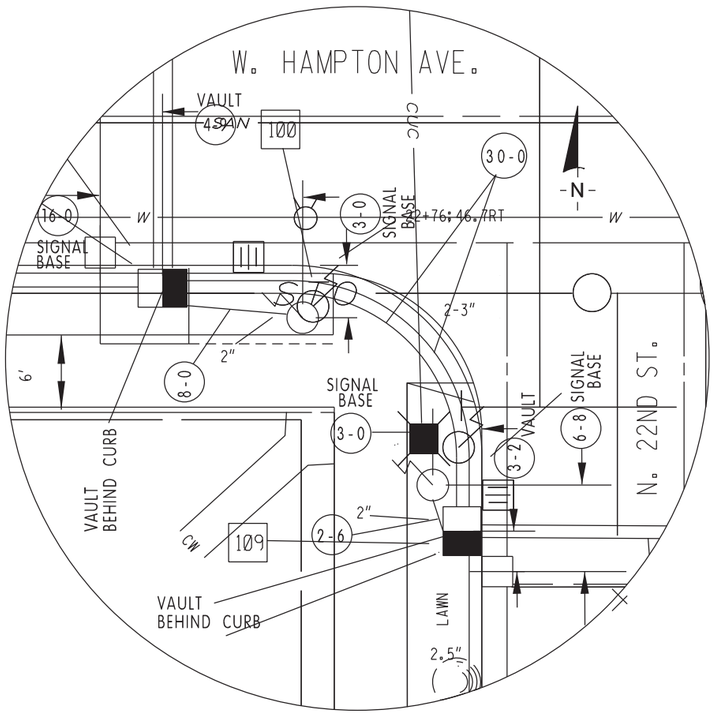
ELECTRICAL RISER

NTS

RECORD RETENTION REQUIREMENTS:

- 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 ORGINAL 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 LOCATION 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.

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



FIELD RECORD EXAMPLE DETAIL NOT TO SCALE

TYPICAL DIMENSIONING OF CONDUIT, VAULTS, 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 EXTENED TO MEASURE OFF WHEN LOCATING CONDUIT, VAULTS AND CONCRETE BASES.

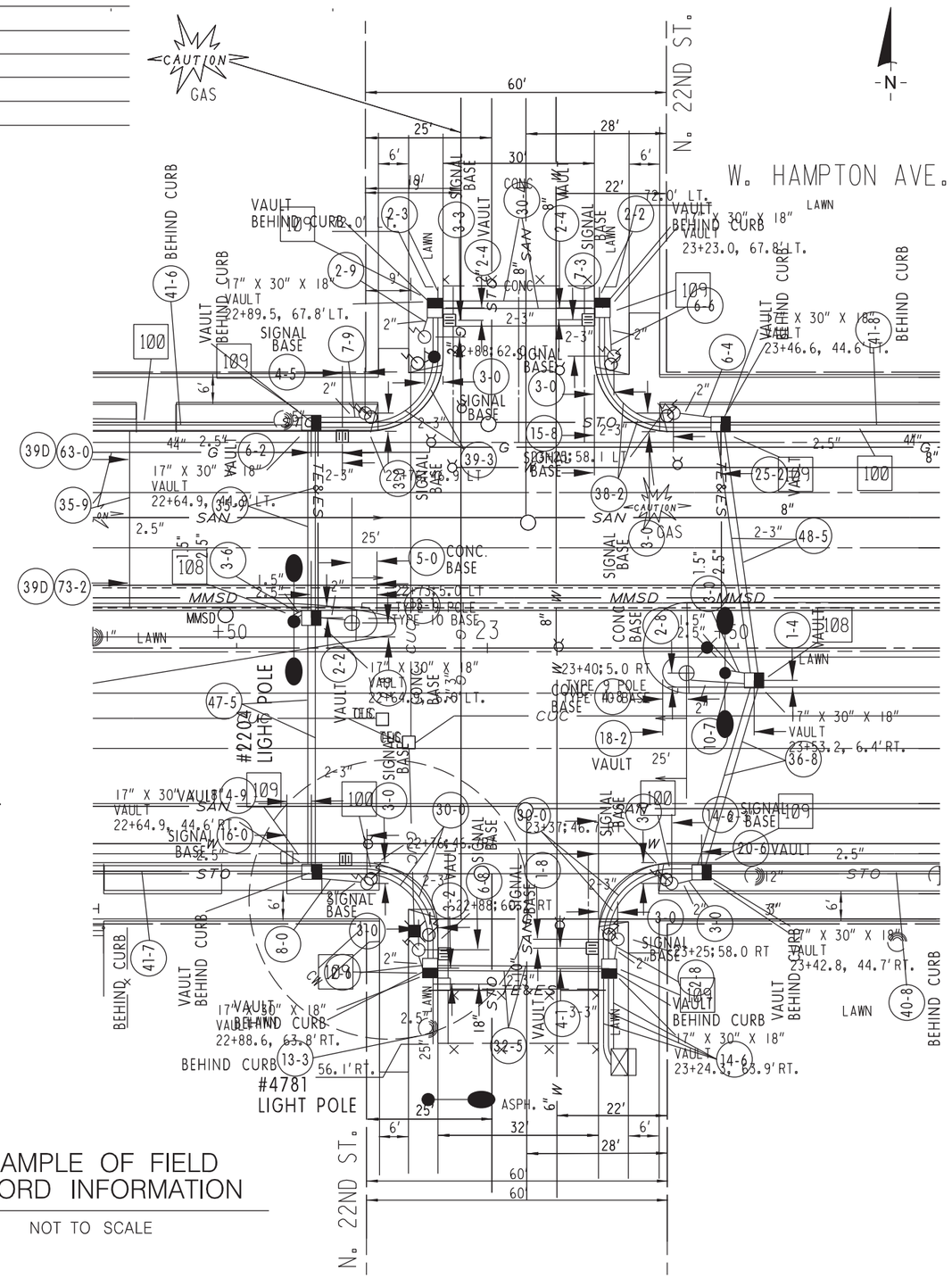
MEASURE TO OR FROM THE CENTERS OF OBJECTS FOR DISTANCE TAKING.

(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

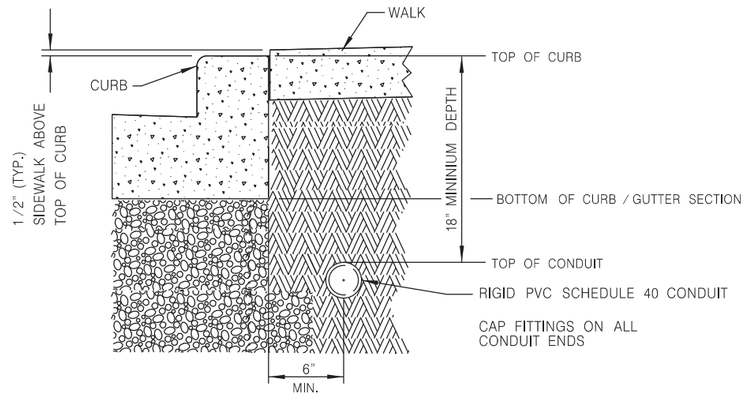
(25-6) MEANS = DISTANCE OF 25.6 FT. BETWEEN PERMANENT OBJECT OR CURB FACE TO CONDUIT, VAULT, AND CONCRETE BASE (MEASURED TO NEAREST TENTH OF A FOOT)



EXAMPLE OF FIELD RECORD INFORMATION

NOT TO SCALE

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.



100 DETAIL "A" NOT TO SCALE

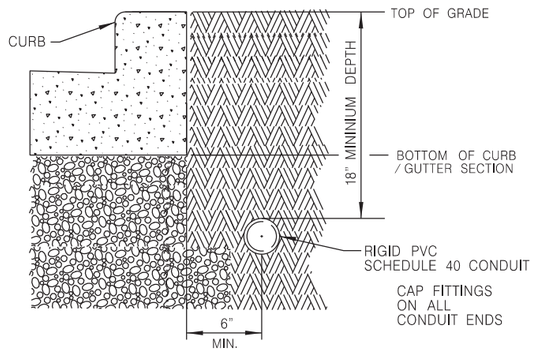
TYPICAL CONDUIT INSTALLATION
BEHIND CURB

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

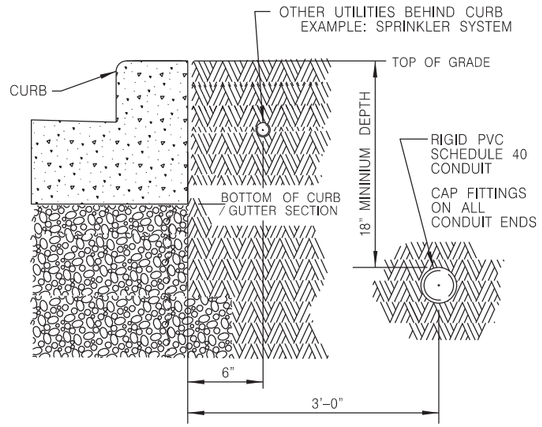
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

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



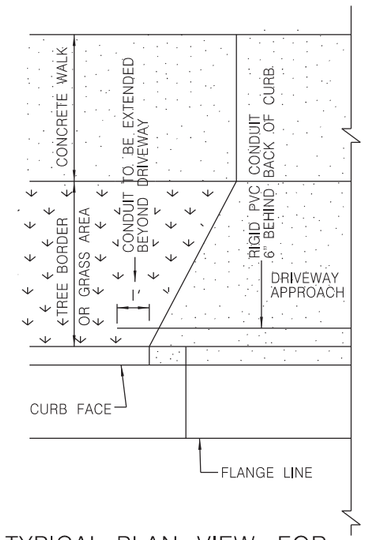
DETAIL "C"



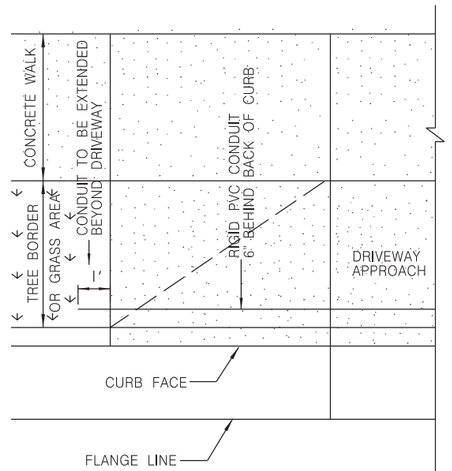
100 DETAIL "B" & "C" NOT TO SCALE

TYPICAL CONDUIT INSTALLATION
BEHIND CURB

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

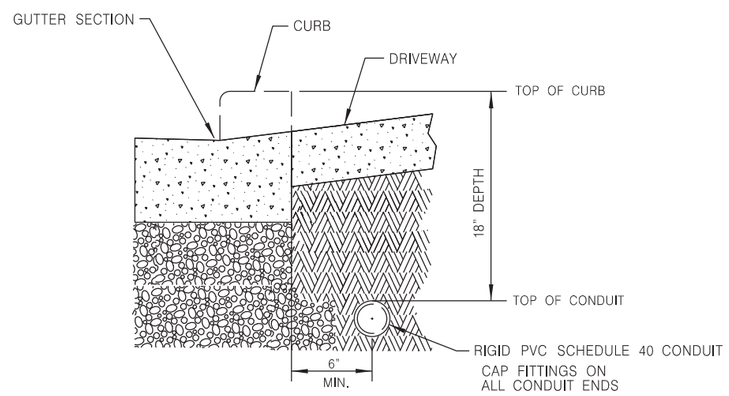


TYPICAL PLAN VIEW FOR
FLARED DRIVEWAY



TYPICAL PLAN VIEW FOR
DEPRESSED DRIVEWAY

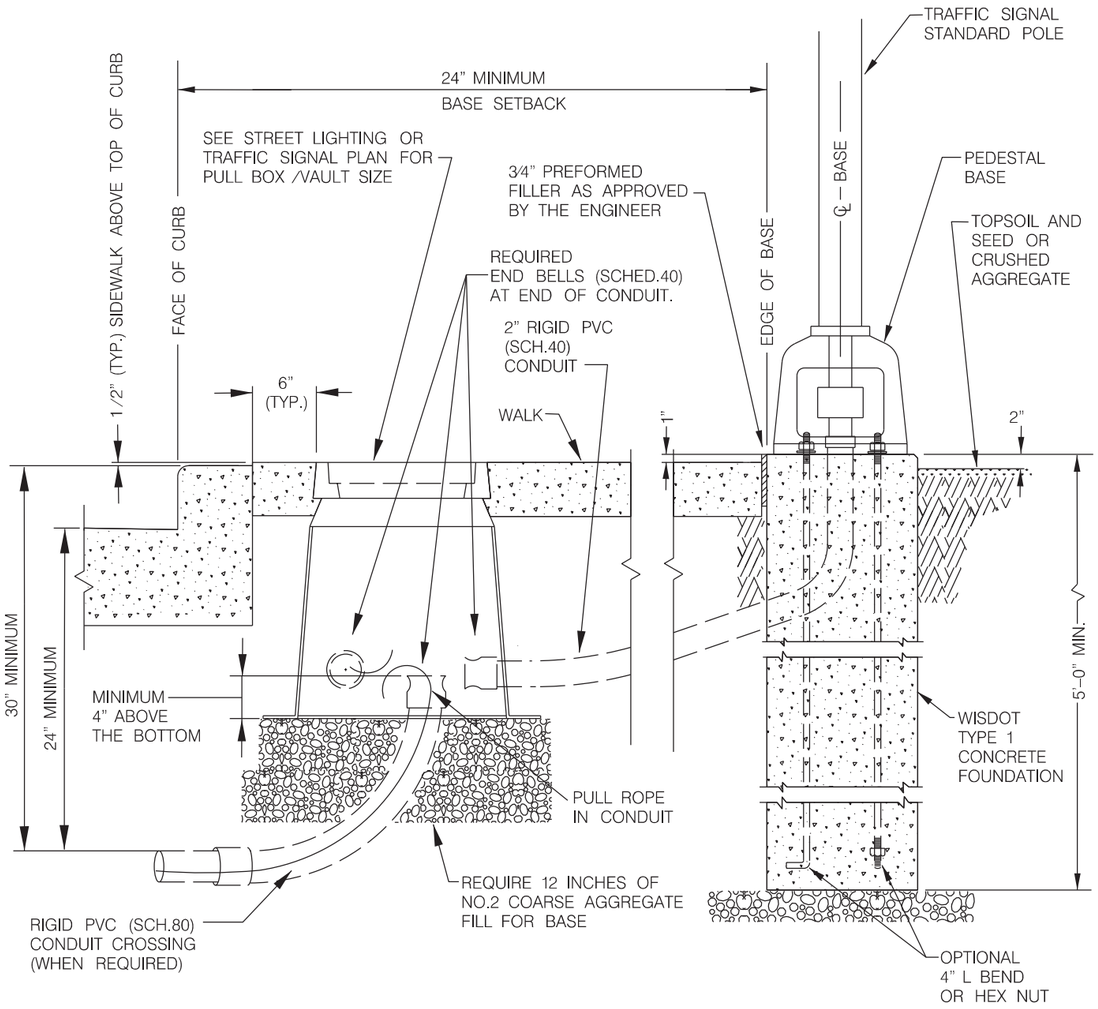
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED 6 INCHES ON CENTER DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



101 DETAIL NOT TO SCALE

TYPICAL CONDUIT INSTALLATION
UNDER DRIVEWAYS OR PEDESTRIAN RAMPS

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

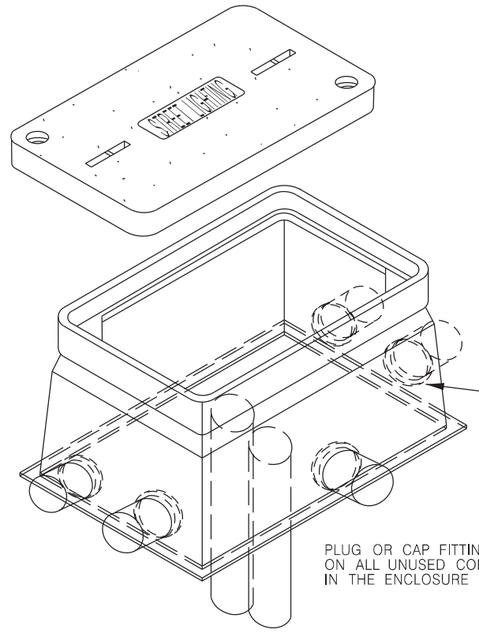


109 DETAIL

TYPICAL CONDUIT INSTALLATION FROM PULL BOX /VAULT TO SIGNAL STANDARD AND TYPICAL BASE INSTALLATION

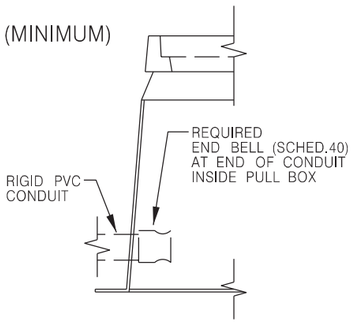
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

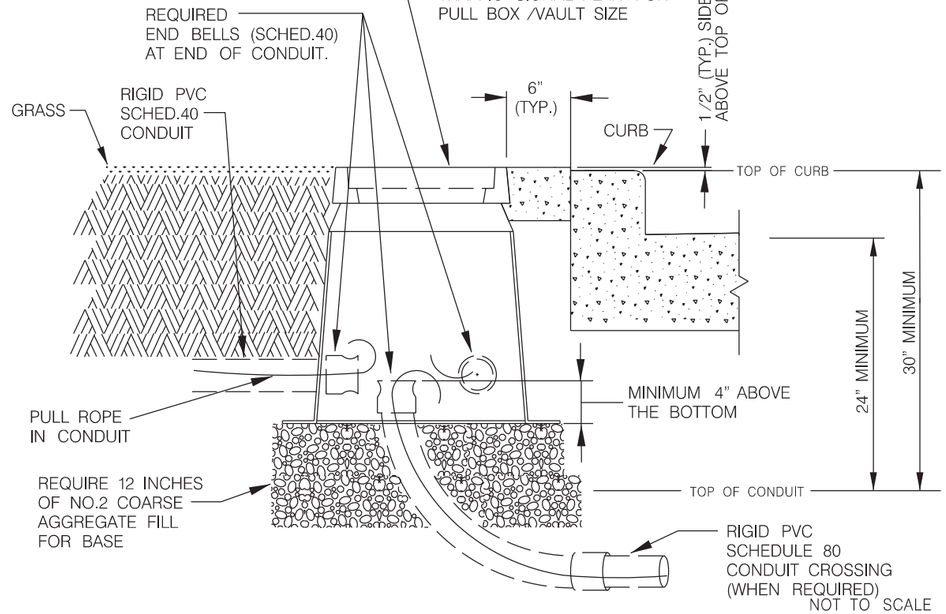
NOT TO SCALE



HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W / 2 BOLTS
COLOR: GRAY
TIER 15 RATING (MINIMUM)

PULL BOX /VAULT
FLARED WALL
BOX W / NO BASE
COLOR: GRAY
TIER 15 RATING (MINIMUM)
(VARIOUS SIZES)





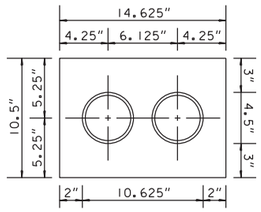
NOT TO SCALE

112 DETAIL

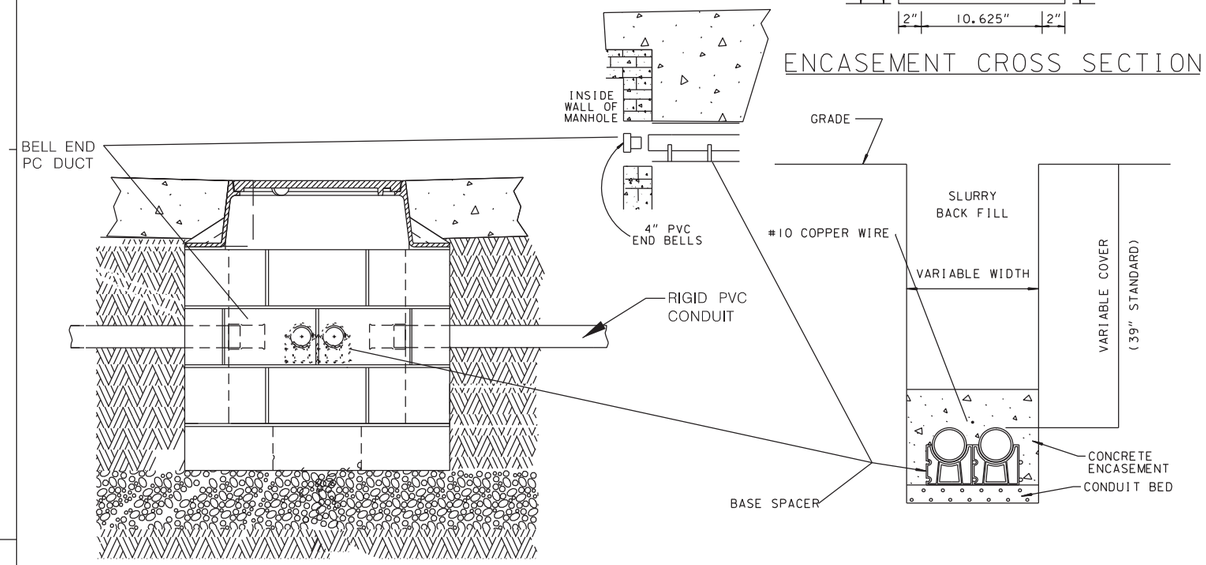
TYPICAL PULL BOX /VAULT INSTALLATION IN EITHER PAVEMENT OR GRASS AREAS

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

NOT TO SCALE

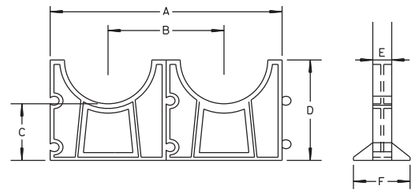


ENCASEMENT CROSS SECTION



TRENCH DETAIL

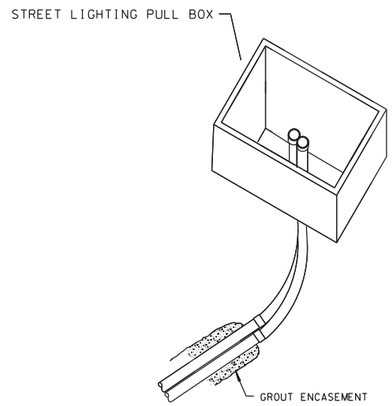
COND.	3"	4"
A	10 ¼"	12 ¼"
B	5.13"	6.13"
C	3"	3"
D	4 ¾"	5.31"
E	1"	1"
F	3"	3"

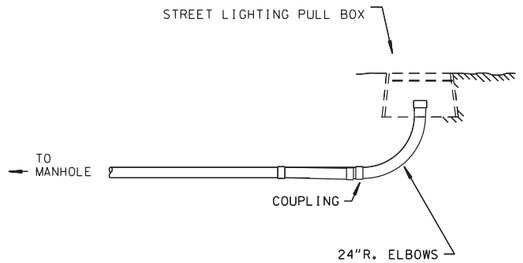


BASE SPACER

114 DETAIL

TYPICAL BES MANHOLE
(FOR CONDUIT INSTALLATION INTO EXISTING)

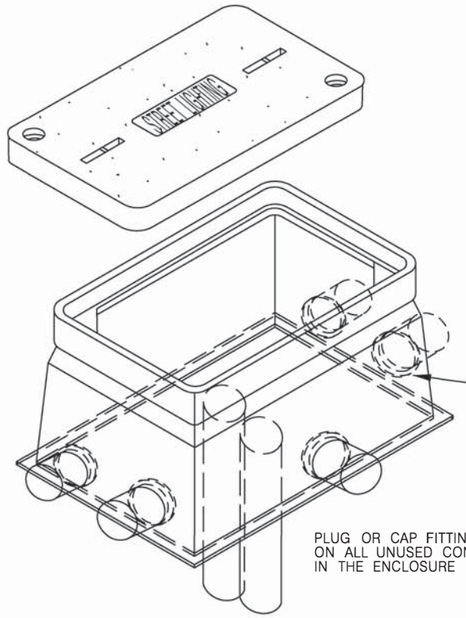




STREET LIGHTING PULLBOX DETAIL

115 DETAIL

CONDUIT INSTALLATION FROM MANHOLE TO PULLBOX

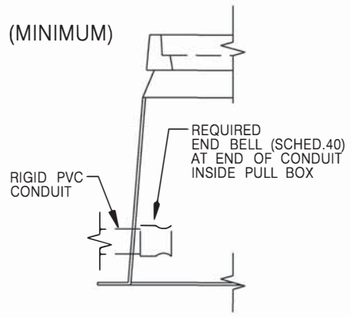


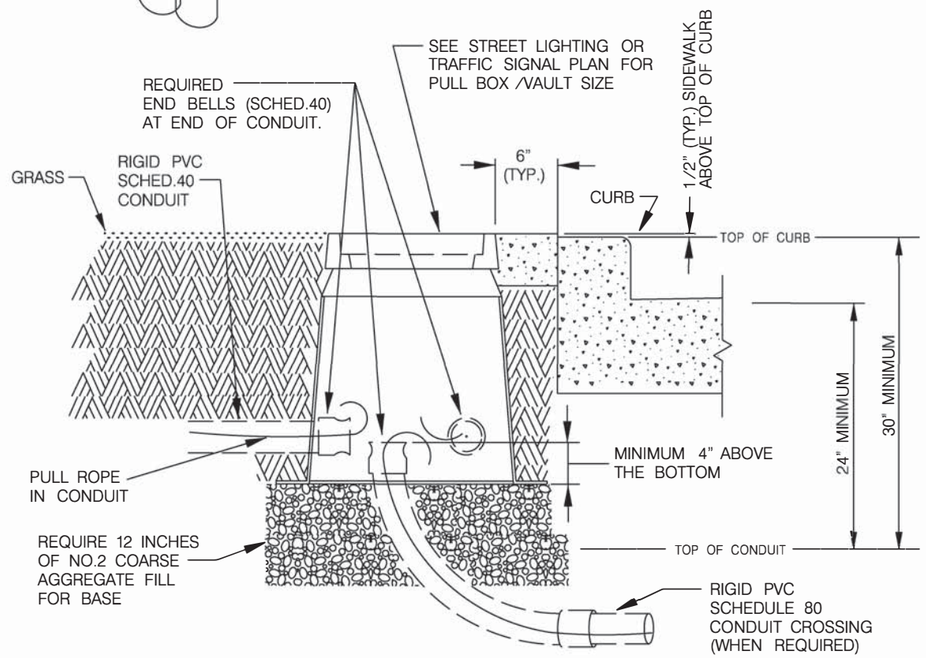
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W / 2 BOLTS
COLOR: GRAY
TIER 15 RATING (MINIMUM)

PULL BOX /VAULT
FLARED WALL
BOX W / NO BASE
COLOR: GRAY
TIER 15 RATING (MINIMUM)
(VARIOUS SIZES)

REQUIRED
END BELLS
(SCHED.40)
AT END OF
CONDUIT.

PLUG OR CAP FITTINGS
ON ALL UNUSED CONDUITS
IN THE ENCLOSURE





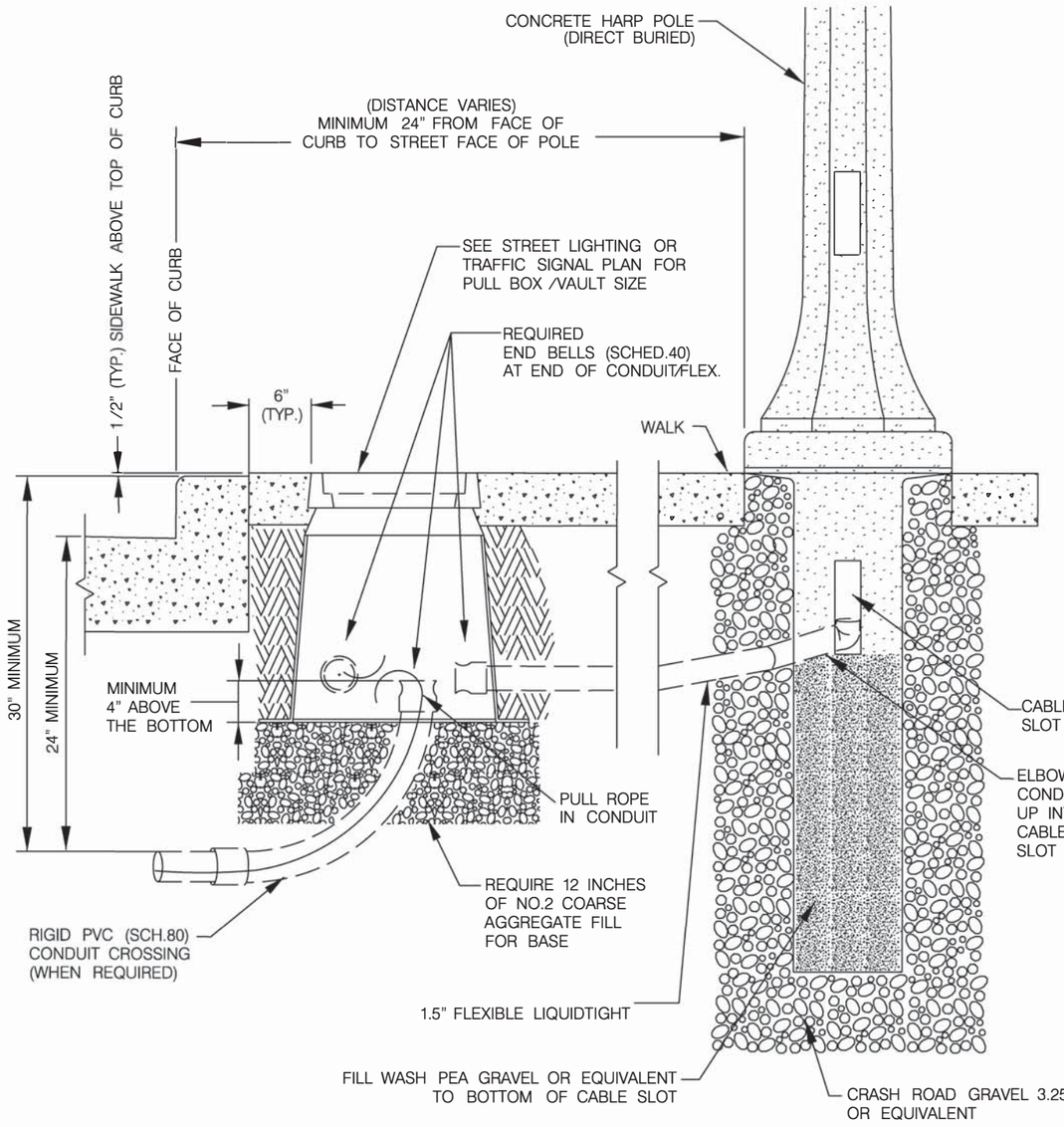
112 DETAIL

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

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

NOT TO SCALE

2

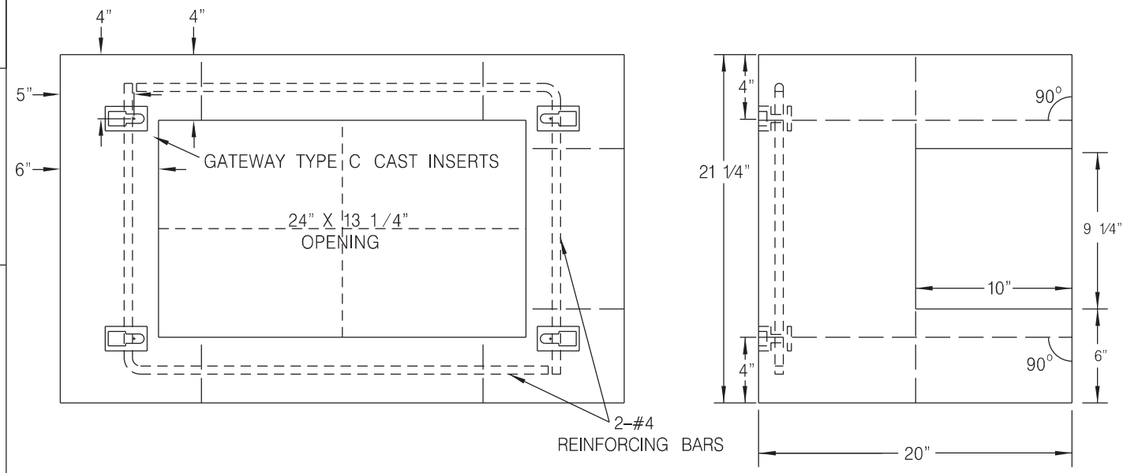


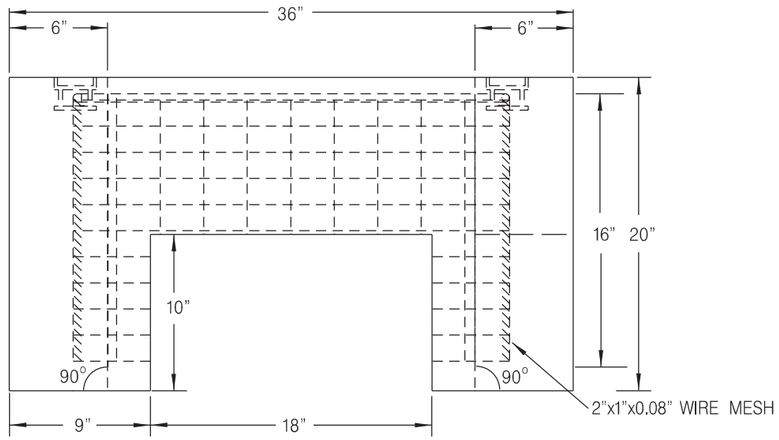
123 DETAIL

TYPICAL CONDUIT INSTALLATION
FROM PULL BOX TO POLES TYPE-6
(CONCRETE HARP POLE)

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

NOT TO SCALE





NOT TO SCALE

6 BAG MIX #1 STONE

COMM. CODE XXXX-XXX PRE-CAST CONCRETE FOUNDATION TRAFFIC SIGNAL CABINETS P1 AND P2				
TRAFFIC ENGINEERING AND ELECTRICAL SERVICES D.P.W. CITY OF MILWAUKEE				
TRAFFIC CONTROL MATERIAL				
DATE 8-30-16	SCALE N.T.S.	DRAWN JAB/JO	CHECKED SCR	APPROVED JCB
SUPERSEDES	REVISED DATE	DRG.		
SUPERSEDED BY	NEW DRG.	C-16-500-T		

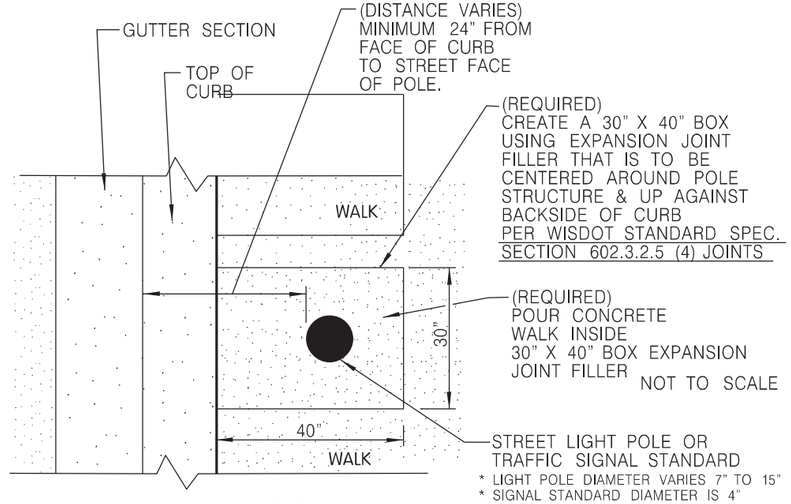
125 DETAIL

TYPICAL TRAFFIC CONTROL CABINET CONCRETE FOUNDATION

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM TRAFFIC SIGNAL FORCES.
CONTACT DISPATCHER AT (414) 286-3687 FOR SHOP SUPERVISOR.

THE CONTRACTOR IS REQUIRED TO INSTALL EXPANSION JOINT FILLER INTO THE CONCRETE WALK, WHICH SHALL BE 1/2" WIDE MINIMUM TO BE USED TO CREATE A SEPARATION BETWEEN A SMALL CONCRETE AREA AROUND THE TRAFFIC & STREET LIGHTING FACILITIES AND THE REST OF THE CONCRETE WALK.

THE BOX SIZE OF THE AREA CREATED USING THE EXPANSION JOINT FILLER IS STANDARD AROUND LIGHT POLES AND TRAFFIC SIGNALS, BUT WILL VARY WHEN PLACED AROUND TRAFFIC & LIGHTING CONTROL CABINETS.



NOT TO SCALE

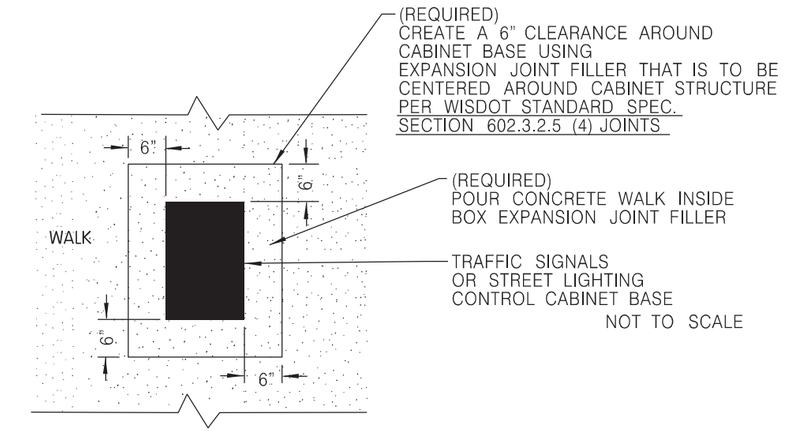
122 DETAIL VERSION #1

TYPICAL 30" X 40" BOX EXPANSION JOINT FILLER AROUND STREET LIGHTING AND TRAFFIC SIGNAL FACILITIES

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

THE CONTRACTOR IS REQUIRED TO INSTALL EXPANSION JOINT FILLER INTO THE CONCRETE WALK, WHICH SHALL BE 1/2" WIDE MINIMUM TO BE USED TO CREATE A SEPARATION BETWEEN A SMALL CONCRETE AREA AROUND THE TRAFFIC & STREET LIGHTING FACILITIES AND THE REST OF THE CONCRETE WALK.

THE BOX SIZE OF THE AREA CREATED USING THE EXPANSION JOINT FILLER IS STANDARD AROUND LIGHT POLES AND TRAFFIC SIGNALS, BUT WILL VARY WHEN PLACED AROUND TRAFFIC & LIGHTING CONTROL CABINETS.

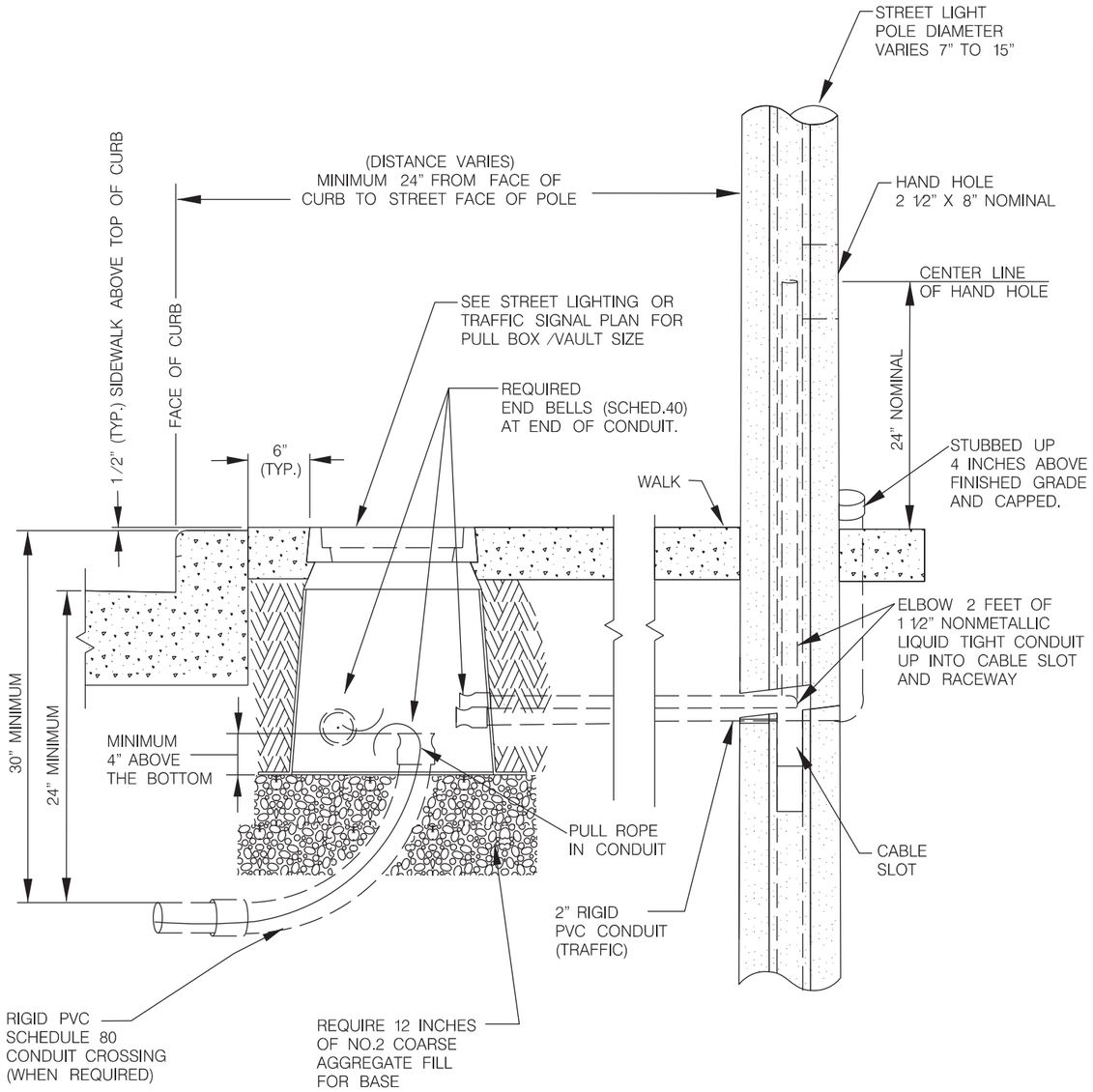


NOT TO SCALE

122 DETAIL VERSION #2

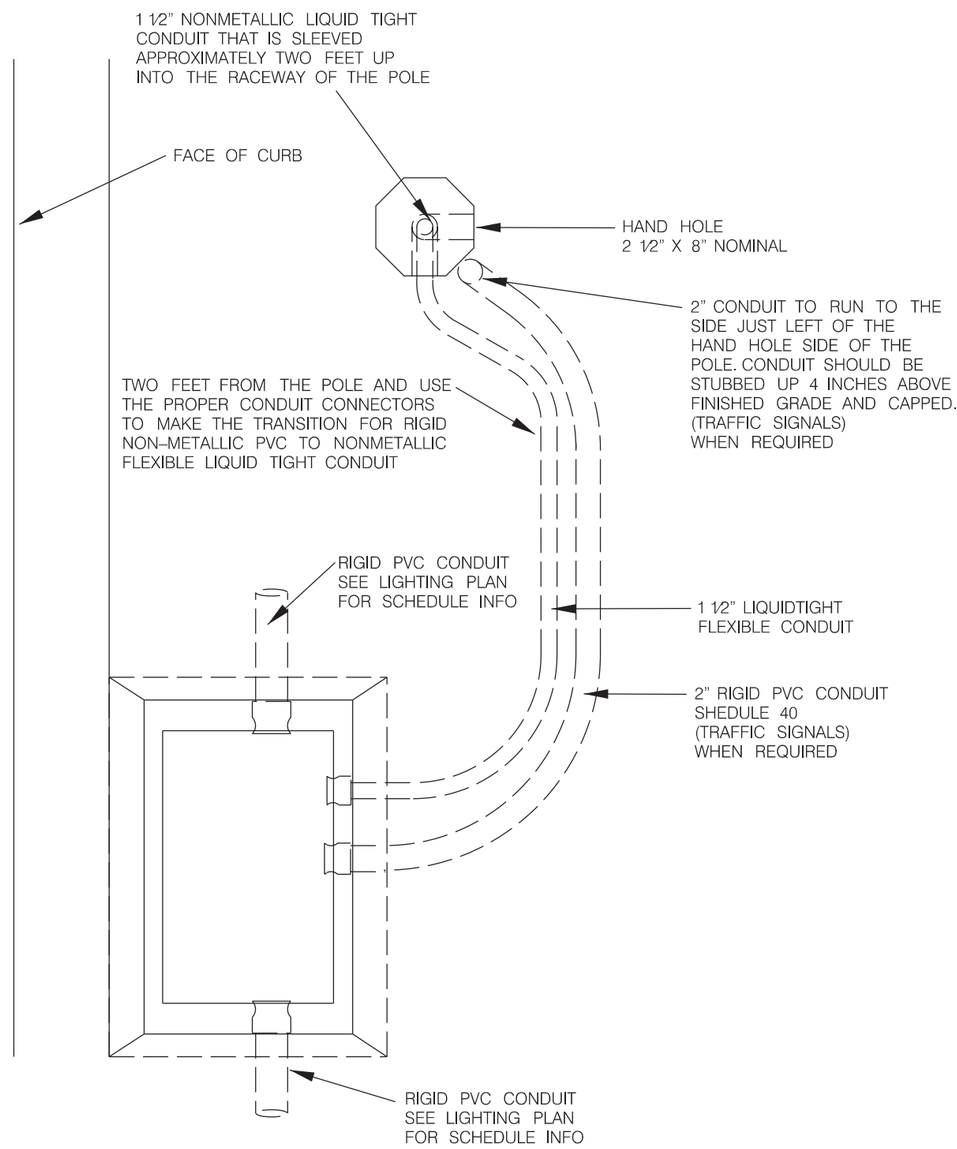
TYPICAL BOX EXPANSION JOINT FILLER AROUND TRAFFIC SIGNAL OR STREET LIGHTING CONTROL CABINET

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



SECTION VIEW

NOT TO SCALE



PLAN VIEW

NOT TO SCALE

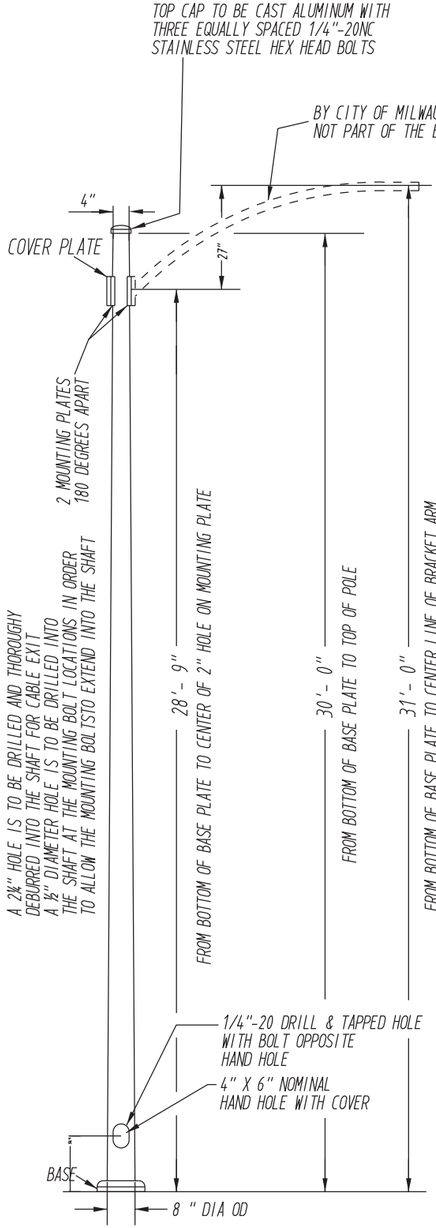
129

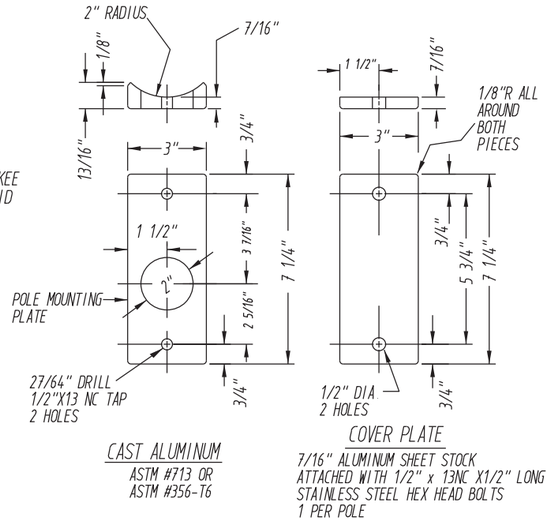
DETAIL VERSION

TYPICAL CONDUIT INSTALLATION FROM PULL BOX / VAULT TO 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.





BASE PLATE CASTING

REVISED DATE:	REVISED BY:
SPEC. NO. 12c-C-1	

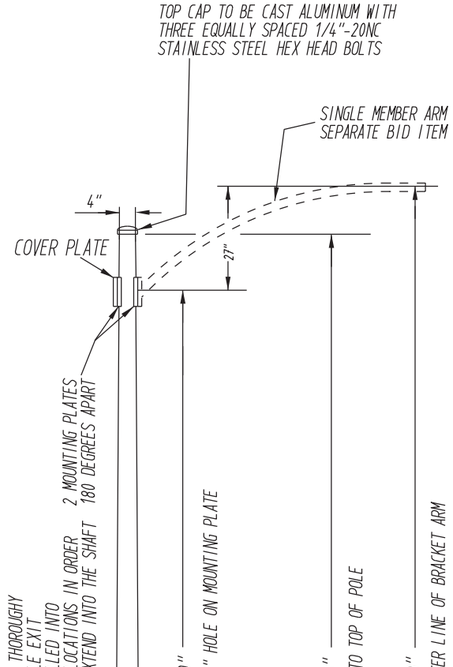
BOLT DOWN ALUMINUM POLE
30 FOOT MOUNTING HEIGHT

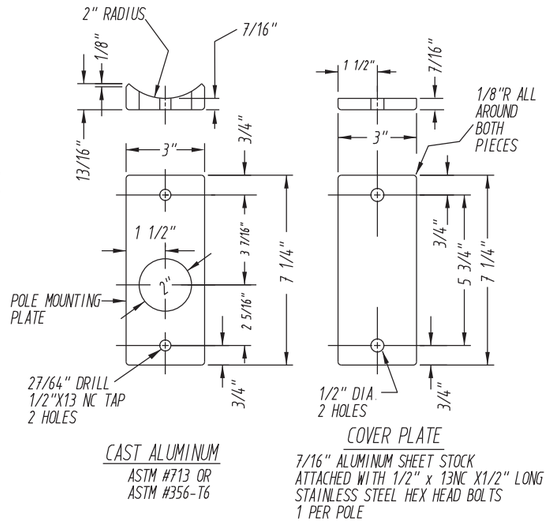
CITY OF MILWAUKEE D.P.W.
TRANSPORTATION SECTION
INFRASTRUCTURE SERVICES DIVISION
STREET LIGHTING DIVISION

DATE	SCALE	DRAWN	DESIGN	CHECKED	APPROVED
11-14-14	NONE	DK	BES	[illegible]	RWB

SUPERSEDES	DRG. #
SUPERSEDED BY	B-14-14

(30 FT. ALUMINUM, BOLT DOWN)





BASE PLATE CASTING

REVISED DATE:	REVISED BY:
SPEC. NO. 12c-C-1	

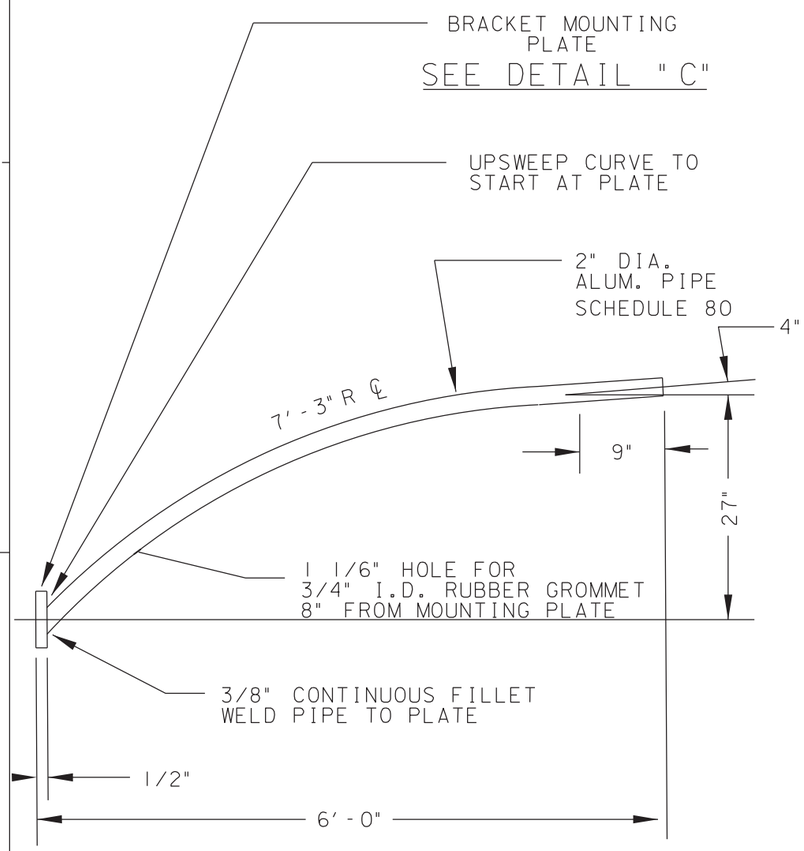
BOLT DOWN ALUMINUM POLE
25 FOOT MOUNTING HEIGHT

CITY OF MILWAUKEE D.P.W.
TRANSPORTATION SECTION
INFRASTRUCTURE SERVICES DIVISION
STREET LIGHTING DIVISION

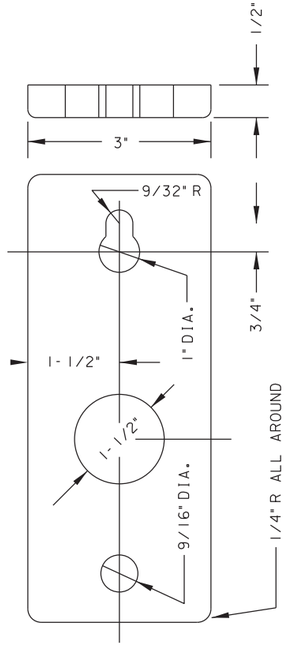
DATE	SCALE	DRAWN	DESIGN	CHECKED	APPROVED
11-14-14	NONE	DK	BES	[illegible]	RWB

SUPERSEDES	DRG. #
SUPERSEDED BY	B-14-13

(25 FT. ALUMINUM, BOLT DOWN)



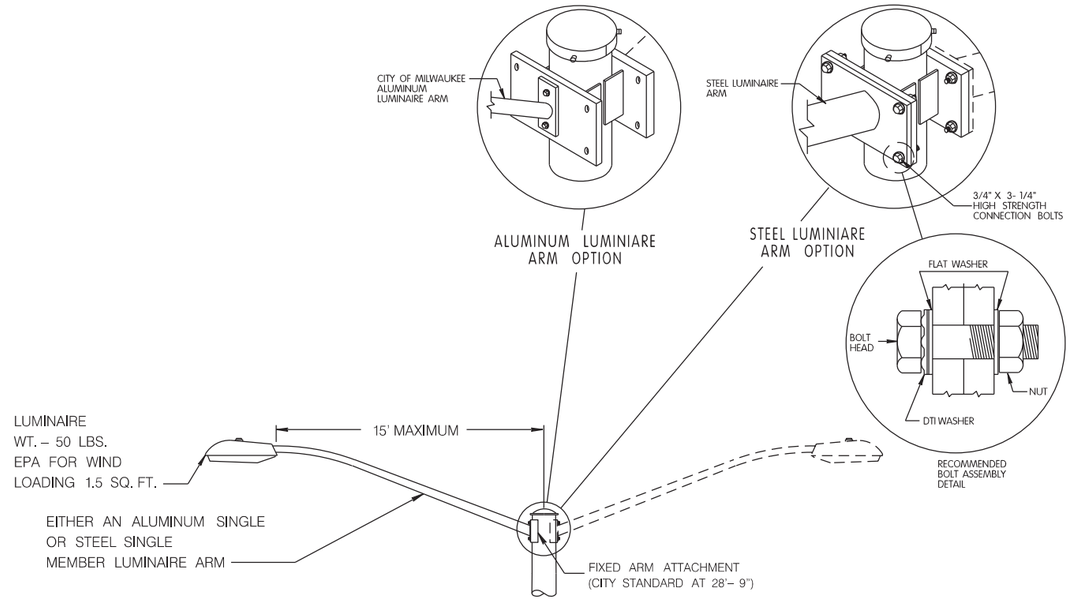
6' UPSWEEP ARM

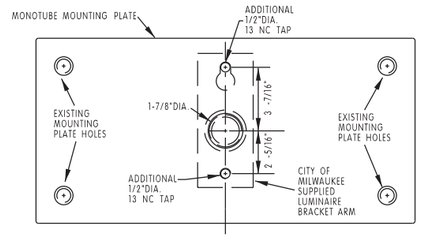


MOUNTING PLATE

EITHER
CAST ALUMINUM AA#713
OR EXTRUDED
6063-T6 BAR STOCK

NOT TO SCALE



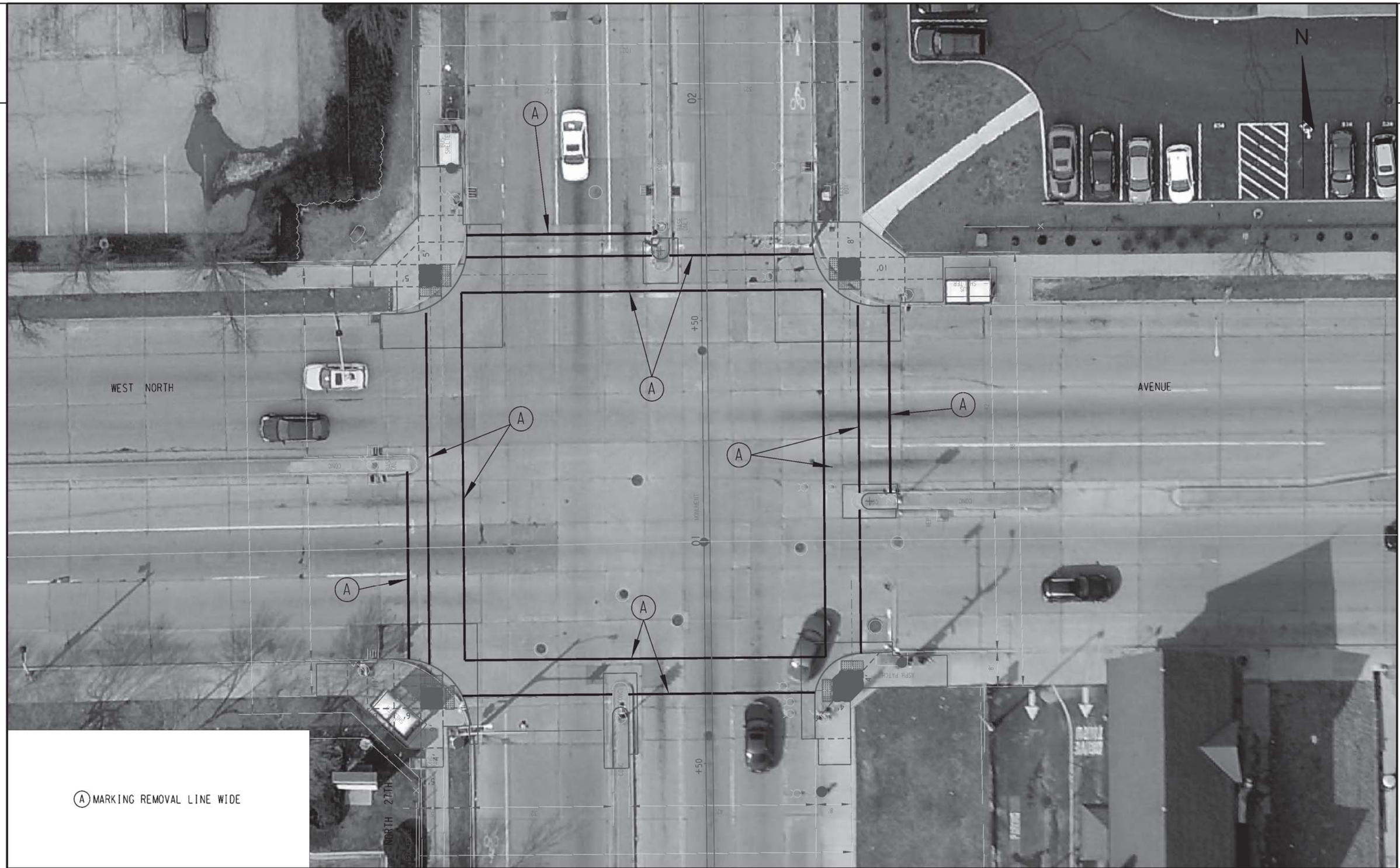


ADDITIONAL MOUNTING HOLES IN LUMINAIRE MOUNTING PLATE

NOT TO SCALE

DETAIL VERSION

6' – SINGLE MEMBER ARM



STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	PAVEMENT MARKING REMOVAL PLAN	SCALE FEET 0' 20'	SHEET NO: 50 E

FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\TRAFFIC & PAVEMARK\2265-00-78 - N 27TH ST - NORTH REMOVAL.DGN

REVISED DATE: 02-10-2022 BY

2

PHASE 2

N

W. LOCUST ST.

ST.

N. 27TH ST.

CROSSWALKS MUST REMAIN OPEN

DRUMS W/LIGHTS 25' SPACING — (13)

TYPE III BARRICADES — (14)

TYPE III BARRICADES W/ SIGN — (14) + (X)

TEMPORARY PEDESTRIAN ACCOMMODATION FOR ALL SIDEWALK AND CROSSWALK REMOVALS — (15)

WORK AREA

DIRECTION OF TRAFFIC

(1) W020-1A ROAD WORK AHEAD 36"X36"

(2) W020-5A RIGHT LANE CLOSED AHEAD 36"X36"

(3) R11-2L LANE CLOSED 48"X30"

(4) W01-6L 24"X48"

(5) W020-55A LEFT LANE CLOSED AHEAD 36"X36"

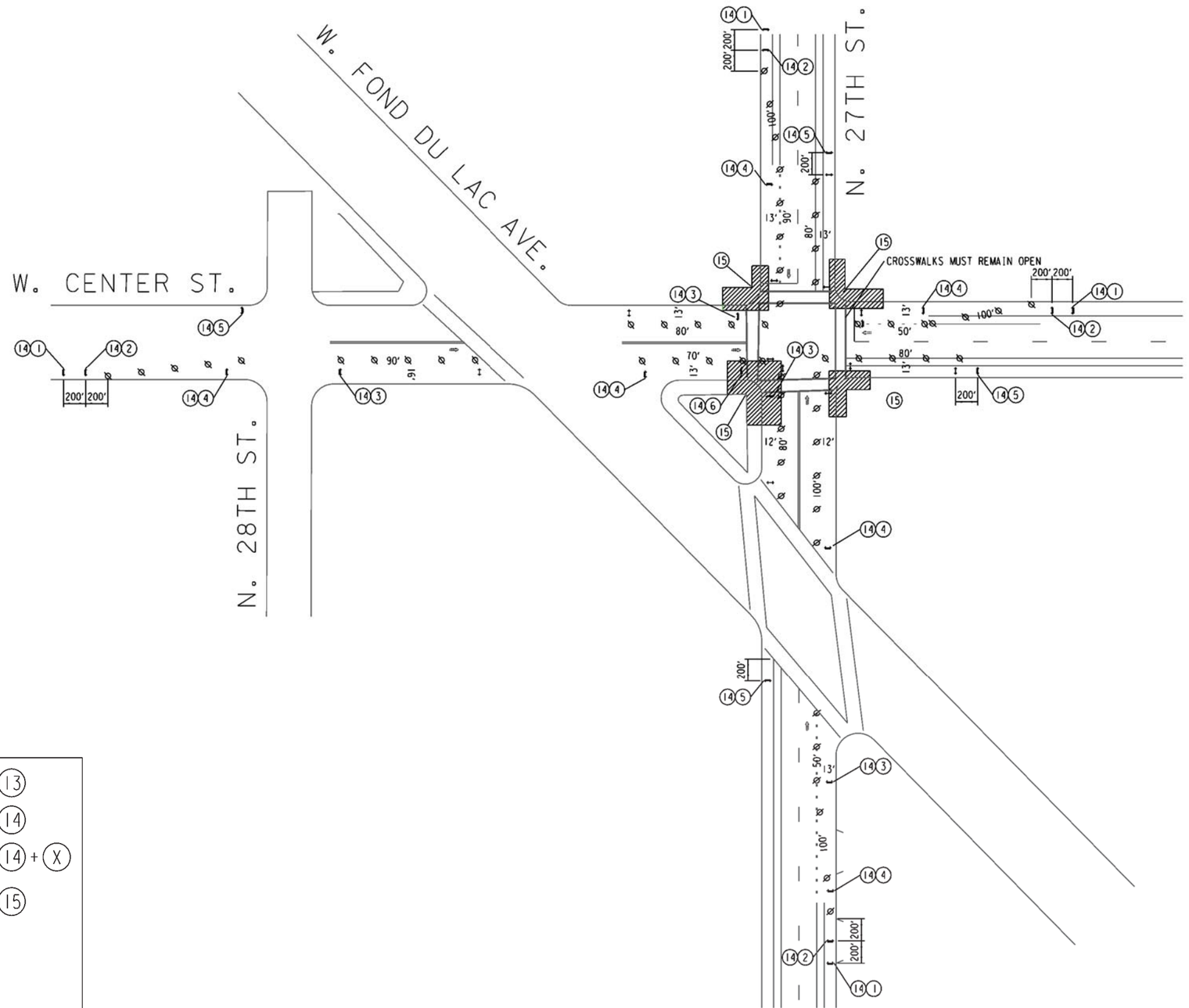
(6) G20-2A END ROAD WORK 36"X18"

STATE PROJECT NUMBER 2265-00-78	HWY: N 27TH STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 51	E

FILENAME: W:\BTE\CITYPAV\TRAFFIC CONTROL PLANS\N 27TH ST MONOTUBES\N 27TH ST MONOTUBES.DGN

REVISED DATE: - - BY

2



N

DRUMS W/LIGHTS 25' SPACING — (13)

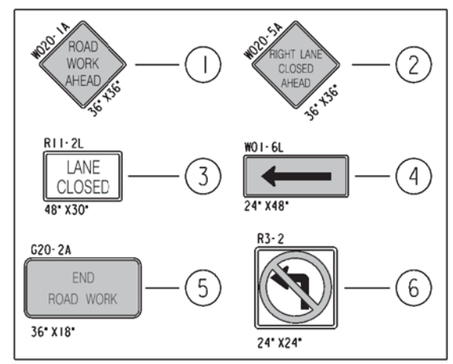
TYPE III BARRICADES — (14)

TYPE III BARRICADES W/ SIGN — (14) + (X)

TEMPORARY PEDESTRIAN ACCOMMODATION FOR ALL SIDEWALK AND CROSSWALK REMOVALS — (15)

WORK AREA

DIRECTION OF TRAFFIC



STATE PROJECT NUMBER 2265-00-78	HWY: N 27TH STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL PLAN	SCALE FEET 0' 80'	SHEET NO: 52	E

FILENAME: W:\BTE\CITYPAV\TRAFFIC CONTROL PLANS\N 27TH ST MONOTUBES\N 27TH ST MONOTUBES.DGN

REVISED DATE: - - BY

2

PHASE I

N

2

W. LOCUST ST.

N. 27TH ST.

CROSSWALKS MUST REMAIN OPEN

14 1 — 200', 200'
14 2
14 3
14 6 — 200'
90'
80'
15
14 6 — 200'
10'
80'
50'
16
14 3
14 4
200', 200'
14 2
14 1
14 2
80'
14 1 — 200', 200'
14 4
14 3
15
14 6 — 200'
80'
80'
100'
14 3
200'
14 6
14 2 — 200', 200'
14 1

DRUMS W/LIGHTS 25' SPACING — 13
TYPE III BARRICADES — 14
TYPE III BARRICADES W/ SIGN — 14 + X
TEMPORARY PEDESTRIAN ACCOMMODATION FOR ALL SIDEWALK AND CROSSWALK REMOVALS — 15
TEMPORARY MARKING REMOVABLE MASK OUT TAPE FOR LEFT TURN ARROWS — 16
WORK AREA
DIRECTION OF TRAFFIC

1 — W020-1A ROAD WORK AHEAD 36" X36"
2 — W020-5A RIGHT LANE CLOSED AHEAD 36" X36"
3 — R11-2L LANE CLOSED 48" X30"
4 — W01-6L 24" X48"
5 — W020-5A LEFT LANE CLOSED AHEAD 36" X36"
6 — G20-2A END ROAD WORK 36" X18"

STATE PROJECT NUMBER 2265-00-78	HWY: N 27TH STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 53	E

FILENAME: W:\BTE\CITYPAV\TRAFFIC CONTROL PLANS\N 27TH ST MONOTUBES\N 27TH ST MONOTUBES.DGN

REVISED DATE: - - BY

2

PHASE I

N

W. NORTH ST.

N. 27TH ST.

AVE.

CROSSWALKS MUST REMAIN OPEN

DRUMS W/LIGHTS 25' SPACING — (13)

TYPE III BARRICADES — (14)

TYPE III BARRICADES W/ SIGN — (14) + (X)

TEMPORARY PEDESTRIAN ACCOMMODATION FOR ALL SIDEWALK AND CROSSWALK REMOVALS — (15)

WORK AREA

DIRECTION OF TRAFFIC

(1) W020-1A ROAD WORK AHEAD 48" X48"

(2) W020-5A RIGHT LANE CLOSED AHEAD 36" X36"

(3) R11-2L LANE CLOSED 48" X30"

(4) W01-6L 24" X48"

(5) G20-2A END ROAD WORK 36" X18"

STATE PROJECT NUMBER 2265-00-78	HWY: N 27TH STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 54	E

FILENAME: W:\BTE\CITYPAV\TRAFFIC CONTROL PLANS\N 27TH ST MONOTUBES\N 27TH ST MONOTUBES.DGN

REVISED DATE: - - BY

2

PHASE 2

2

N

W. NORTH ST.

N. 27TH

AVE.

200' 200' 180' 100' 80' 80'

200' 200' 80' 40' 80' 40' 120' 80' 100' 80' 80' 100' 80' 200' 200' 180' 80' 100' 80' 200' 200'

14 1 14 2 14 3 14 4 14 5 14 6 14 7

DRUMS W/LIGHTS 25' SPACING — 13

TYPE III BARRICADES — 14

TYPE III BARRICADES W/ SIGN — 14 + X

TEMPORARY PEDESTRIAN ACCOMMODATION FOR ALL SIDEWALK AND CROSSWALK REMOVALS — 15

WORK AREA

DIRECTION OF TRAFFIC

W020-1A ROAD WORK AHEAD 48" X48" — 1

W020-55A LEFT LANE CLOSED AHEAD 36" X36" — 2

R11-2L LANE CLOSED 48" X30" — 3

W01-6L 24" X48" — 4

R3-20L BEGIN LEFT TURN LANE 24" X36" — 5

W012-1D 24" X24" — 6

G20-2A END ROAD WORK 36" X18" — 7

STATE PROJECT NUMBER 2265-00-78	HWY: N 27TH STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 55	E

FILENAME: W:\BTE\CITYPAV\TRAFFIC CONTROL PLANS\N 27TH ST MONOTUBES\N 27TH ST MONOTUBES.DGN

REVISED DATE: - - BY

2

PEDESTRIAN TRAFFIC CONTROL NOTES

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH PHASE.

ANY MID-BLOCK SIDEWALK REMOVALS MUST HAVE TEMPORARY ACCOMMODATIONS PLACED IMMEDIATELY UPON REMOVAL. SEE SDD 15D30: TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION.

TEMPORARY OR PERMANANT ACCOMMODATIONS MUST BE PLACED AT ANY AREA OF SIDEWALK REMOVALS BEFORE ANOTHER AREA OF REMOVALS MAY BEGIN.

PEDESTRIAN ACCOMMODATIONS MUST BE PROVIDED TO ALL RESIDENCES AND BUSINESSES USING EXISTING, NEWLY CONSTRUCTED OR TEMPORARY ACCOMMODATIONS DURING ALL PHASES OF CONSTRUCTION,

LOCATIONS

W. LOCUST ST. NORTHEAST CORNER
W. LOCUST ST. SOUTHEAST CORNER
W. LOCUST ST. SOUTHWEST CORNER
W. LOCUST ST. NORTHWEST CORNER

W. CENTER ST. NORTHEAST CORNER
W. CENTER ST. SOUTHEAST CORNER
W. CENTER ST. SOUTHWEST CORNER
W. CENTER ST. NORTHWEST CORNER

W. NORTH AVE. NORTHEAST CORNER
W. NORTH AVE. SOUTHEAST CORNER
W. NORTH AVE. SOUTHWEST CORNER
W. NORTH AVE. NORTHWEST CORNER

TRAFFIC CONTROL NOTES

1) MAINTAIN ONE 11' MINIMUM LANE IN BOTH DIRECTIONS AT ALL TIMES.

2) TRAFFIC CONTROL DRUMS ARE SPACED AT 25' O.C. EXCEPT AT DRIVEWAYS AND INTERSECTIONS, WHERE THE SPACING IS 10'.

3) THE CONTRACTOR SHALL REMOVE ALL EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THE TRAFFIC CONTROL. PAVEMENT MARKING SHOWN IS EXISTING.

4) THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL NECESSARY BARRICADES, SIGNS, DIRECTIONAL ARROWS, LIGHTS, TEMPORARY MARKINGS, FLAGMEN, AND SAFETY DEVICES AS CALLED FOR ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

5) DRAWINGS SHOW TRAFFIC CONTROL FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND /OR LAYOUT DETAILS MODIFIED DEPENDING ON CONTRACTORS METHOD OR SEQUENCES OF OPERATION.

6) "W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

7) ALL SIGNS ARE 48" X 48" EXCEPT OTHERWISE NOTED.

8) ANY "STOP" SIGNS THAT ARE REMOVED FOR A CONSTRUCTION OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED.

9) THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD LOCATIONS AS APPROVED BY THE ENGINEER IN THE FIELD.

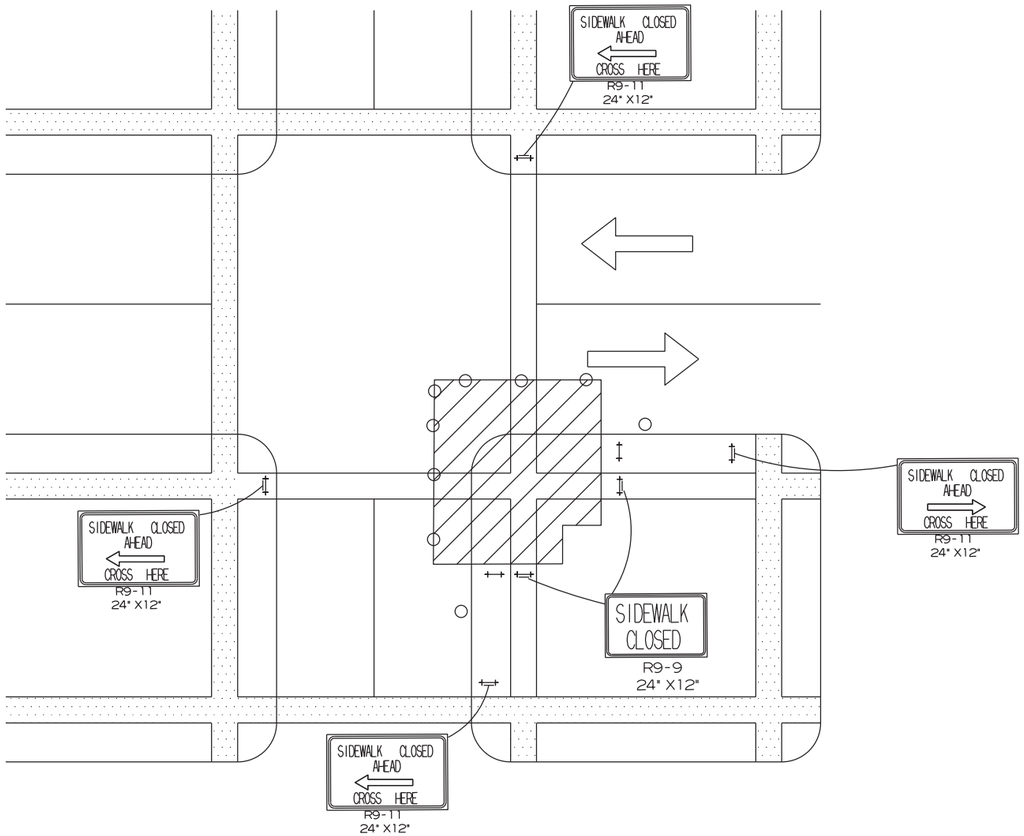
10) BOTH STEADY BURN LIGHTS AND FLASHING LIGHTS SHALL BE ONE WAY WITH THE LIGHT SOURCE SHOWING TOWARDS ADJACENT APPROACHING TRAFFIC.

11) CHANNELIZING DEVICES SHALL BE DRUMS WITH ATTACHED TYPE "C" STEADY BURN LIGHT.

12) CONTACT THE CITY OF MILWAUKEE TO PLACE TEMPORARY NO PARKING SIGNS WITHIN THE PROJECT LIMITS PRIOR TO SETTING UP WORK ZONES AND SHIFTING TRAFFIC. PROVIDE 5 DAY NOTICE PRIOR TO WHEN PLACEMENT OF SIGNS IS NEEDED AND FOR EACH PHASE TRANSITION.

NORTH 27TH STREET
SIDEWALK CLOSURE DETAIL

N



NOTE: CONSTRUCT ONE CORNER AT A TIME

WORK AREA

UNDER PEDESTRIAN TRAFFIC

TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)

DIRECTION OF TRAFFIC

TRAFFIC CONTROL DRUM

2

STATE PROJECT NUMBER 2265-00-78	HWY: N 27TH STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 56	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\TRAFFIC & PAVEMARK\TCP - 27TH ST MONOTUBES.DGN

REVISED DATE: 09-16-2022 BY CP

2

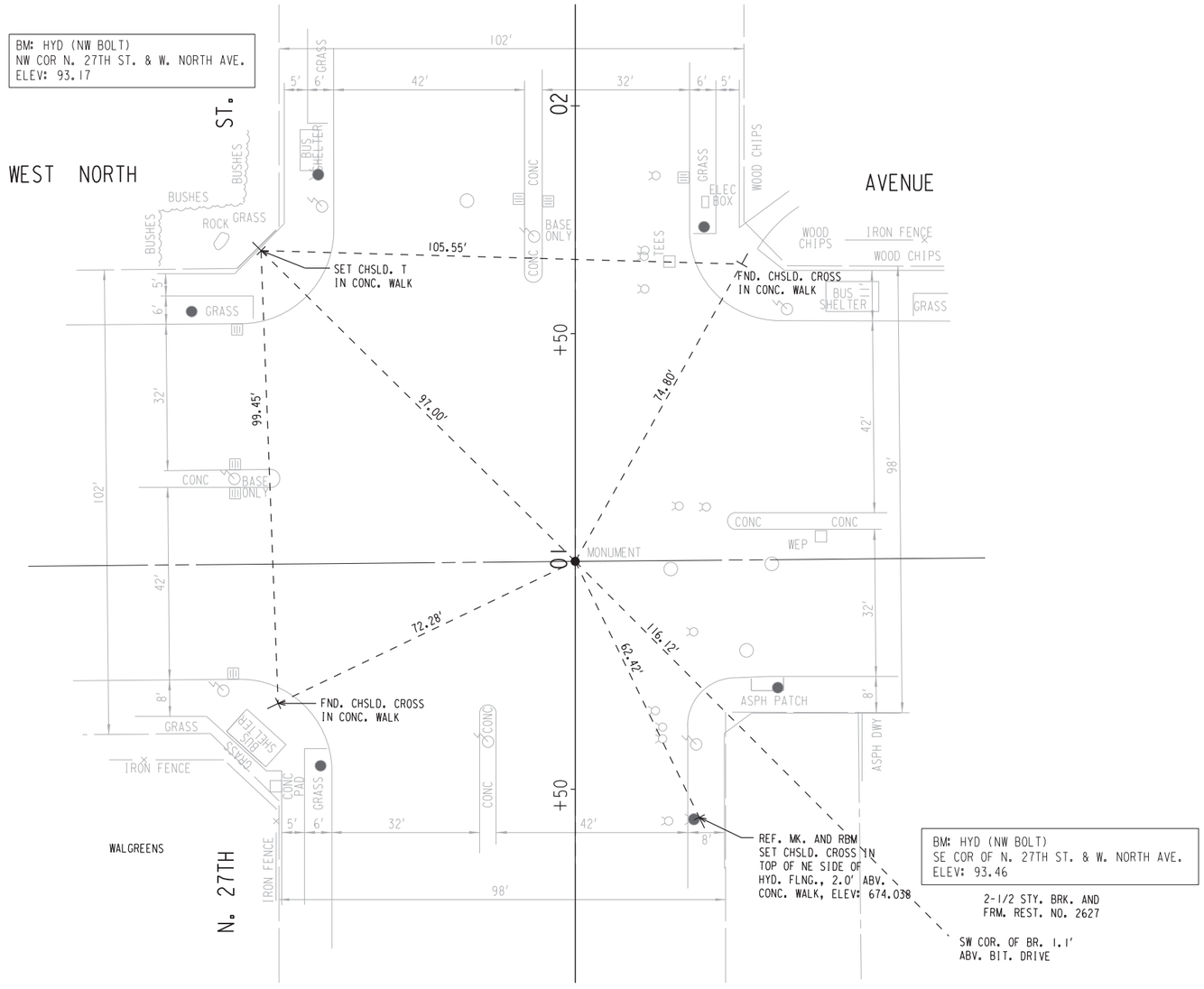


TOWNSHIP 7 NORTH, RANGE 21/22 EAST
MILWAUKEE COUNTY
CONCRETE MONUMENT W/ SEWRPC BRASS CAP

STATE PLANE COORDINATES OF SECTION CORNER
NORTH: 393,296.32
EAST: 2,548,502.59
ELEV: 671.14

SURVEY DATE: 1997

N



STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	LANDMARK REFERENCE PLAN	SCALE FEET 0' 30'	SHEET NO: 57	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\EXISTING\LANDMARK.DGN

REVISED: 07/14/2022 BY ES

2



TOWNSHIP 7 NORTH, RANGE 21/22 EAST
MILWAUKEE COUNTY
CONCRETE MONUMENT W/ SEWRPC BRASS CAP

STATE PLANE COORDINATES OF QUARTER SECTION CORNER
NORTH: 395,961.40
EAST: 2,548,469.63
ELEV: 676.05

SURVEY DATE: 2000

N

BM: HYD (NW BOLT)
NW CORNER OF N. 27TH ST. & W. CENTER ST.
ELEV: 97.48

WEST CENTER ST.

2 STY. BRK. BLDG.

STREET

REF. MK. AND RBM: SET CHSLD. CROSS IN TOP OF S. SIDE OF HYD. FLG., 2.3' ABV. TOP OF CONC. WALK ELEV: 678.067

SET CHSLD. T IN CONC. WALK

SW COR. OF CONC.FDN. AT CHSLD. NOTCHES 0.8' ABV. TOP OF CONC. WALK

SET CHSLD. T IN CONC. WALK

66'
8' 25' 25' 8'

28

62.47'

10'

63.80'

47.00'

72.54'

47.00'

67.75'

68' 50'

50' 68'

MONUMENT

47.00'

68.74'

47.00'

+50

SET CHSLD. T IN CONC. WALK

66.67'

SET CHSLD. T IN CONC. WALK

8'

8'

25' 25' 8'

66'

VACANT

GRASS

N. 27TH

27

STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	LANDMARK REFERENCE PLAN	SCALE FEET 0' 30'	SHEET NO: 58	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\EXISTING\LANDMARK.DGN

REVISED: 07/14/2022 BY ES

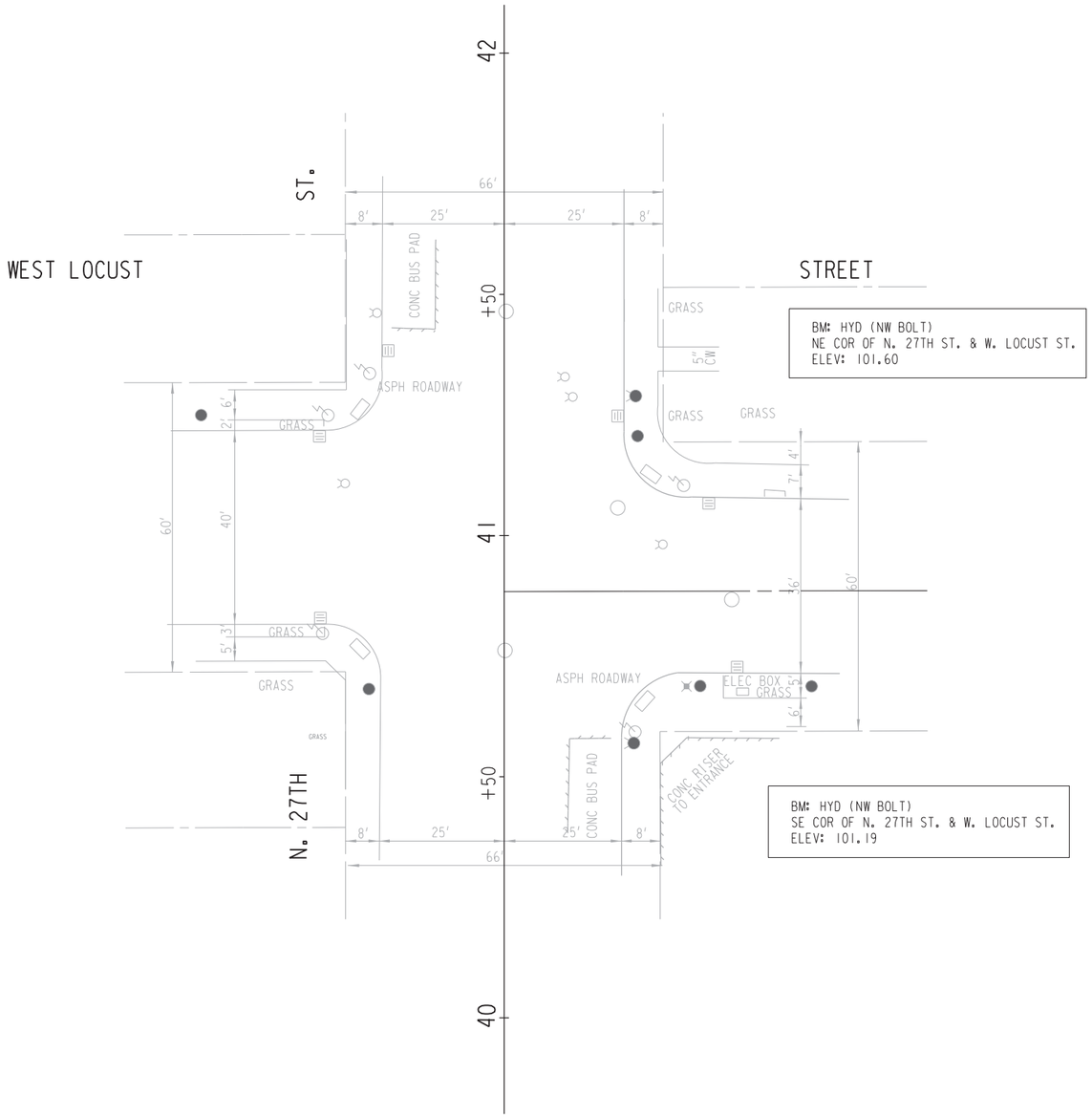
2



TOWNSHIP 7 NORTH, RANGE 21/22 EAST
MILWAUKEE COUNTY
CONCRETE MONUMENT W/ SEWRPC BRASS CAP

STATE PLANE COORDINATES OF QUARTER SECTION CORNER
NORTH: 395,961.40
EAST: 2,548,469.63
ELEV: 676.05

SURVEY DATE: 2000

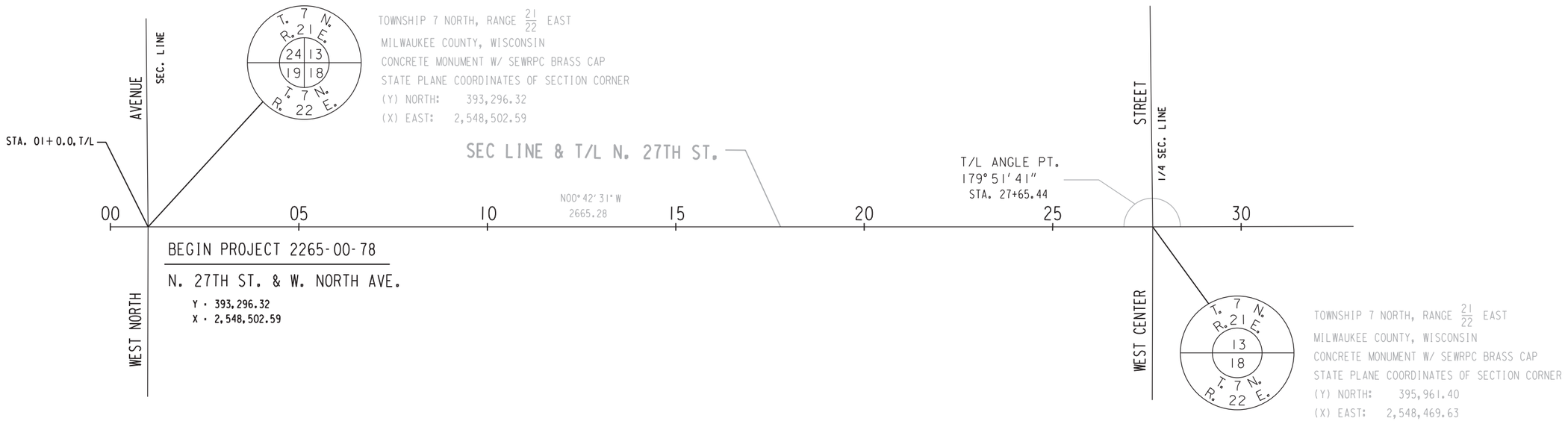


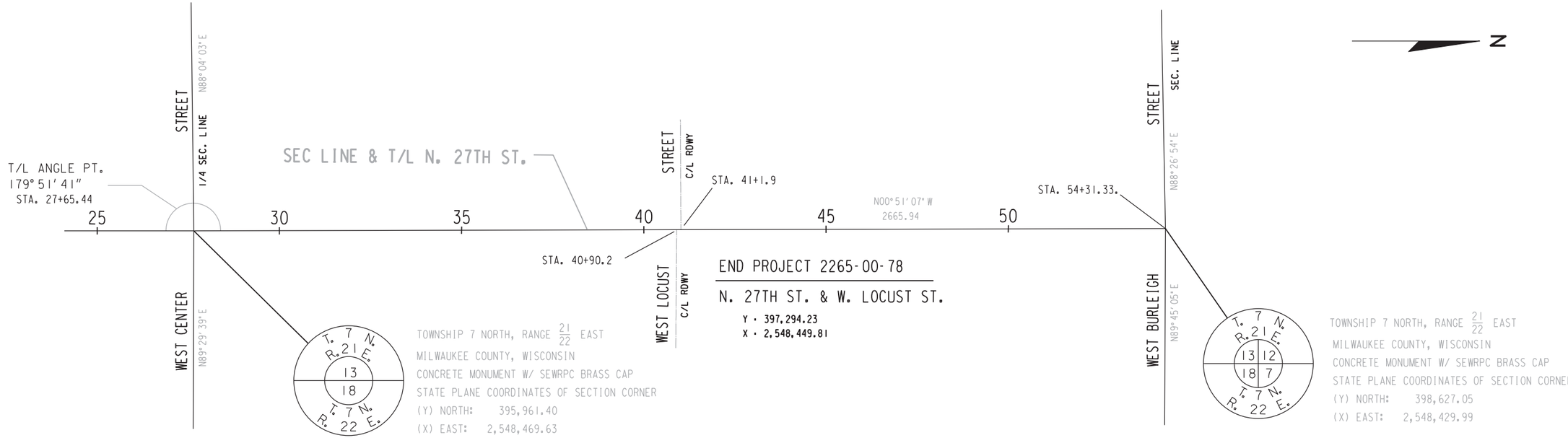
STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	LANDMARK REFERENCE PLAN	SCALE FEET 0' 30'	SHEET NO: 59	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\EXISTING\LANDMARK.DGN

REVISED: 07/26/2022 BY SB

ALIGNMENT (FROM SEWRPC)





STATE PROJECT NUMBER 2265-00-78	HWY: N. 27TH ST.	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SCALE FEET 0' 300'	SHEET NO: 60	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\27TH ST N 2265-00-78\DESIGN\ALIGNMENT.DGN

REVISED DATE: 01-04-2021 BY JC

2265-00-78

Line	Item	Item Description	Unit	Total	Qty
0010	204.0100	Removing Concrete Pavement	SY	390.000	390.000
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	52.000	52.000
0016	204.0150	Removing Curb & Gutter	LF	5.000	5.000
0018	204.0155	Removing Concrete Sidewalk	SY	470.000	470.000
0020	204.0195	Removing Concrete Bases	EACH	12.000	12.000
0034	205.0100	Excavation Common	CY	185.000	185.000
0038	213.0100	Finishing Roadway (project) 001. 2265-00-78	EACH	1.000	1.000
0042	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	130.000	130.000
0048	320.0155	Concrete Base 9-Inch	SY	120.000	120.000
0052	415.0090	Concrete Pavement 9-Inch	SY	180.000	180.000
0062	416.0610	Drilled Tie Bars	EACH	109.000	109.000
0064	416.0620	Drilled Dowel Bars	EACH	31.000	31.000
0068	455.0605	Tack Coat	GAL	10.000	10.000
0074	465.0105	Asphaltic Surface	TON	28.000	28.000
0086	601.0322	Concrete Curb & Gutter 22-Inch	LF	120.000	120.000
0088	601.0331	Concrete Curb & Gutter 31-Inch	LF	310.000	310.000
0090	601.0600	Concrete Curb Pedestrian	LF	190.000	190.000
0092	602.0410	Concrete Sidewalk 5-Inch	SF	4,240.000	4,240.000
0094	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	120.000	120.000
0110	611.8105	Adjusting Catch Basin Covers	EACH	5.000	5.000
0114	611.8120.S	Cover Plates Temporary	EACH	3.000	3.000
0116	619.1000	Mobilization	EACH	0.900	0.900
0118	620.0300	Concrete Median Sloped Nose	SF	94.000	94.000
0122	625.0100	Topsoil	SY	68.000	68.000
0132	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0134	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0136	628.7005	Inlet Protection Type A	EACH	8.000	8.000
0140	628.7015	Inlet Protection Type C	EACH	20.000	20.000
0152	631.1000	Sod Lawn	SY	68.000	68.000
0194	637.2210	Signs Type II Reflective H	SF	154.500	154.500
0204	643.0300	Traffic Control Drums	DAY	7,230.000	7,230.000
0206	643.0410	Traffic Control Barricades Type II	DAY	2,880.000	2,880.000
0208	643.0420	Traffic Control Barricades Type III	DAY	4,620.000	4,620.000
0214	643.0705	Traffic Control Warning Lights Type A	DAY	12,120.000	12,120.000
0216	643.0715	Traffic Control Warning Lights Type C	DAY	7,230.000	7,230.000
0218	643.0900	Traffic Control Signs	DAY	5,160.000	5,160.000
0236	643.3970	Temporary Marking Removable Mask Out Tape 10-Inch	LF	100.000	100.000
0238	643.5000	Traffic Control	EACH	0.900	0.900
0240	644.1410	Temporary Pedestrian Surface Asphalt	SF	5,000.000	5,000.000
0242	644.1430	Temporary Pedestrian Surface Plate	SF	5,000.000	5,000.000
0244	644.1440	Temporary Pedestrian Surface Matting	SF	5,000.000	5,000.000
0248	644.1605	Temporary Pedestrian Detectable Warning Field	SF	120.000	120.000
0272	646.9200	Marking Removal Line Wide	LF	810.000	810.000
0278	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	430.000	430.000
0282	650.8501	Construction Staking Electrical Installations (project) 001. 2265-00-78	EACH	1.000	1.000
0286	650.9000	Construction Staking Curb Ramps	EACH	12.000	12.000
0288	650.9500	Construction Staking Sidewalk (project) 001. 2265-00-78	EACH	1.000	1.000
0292	650.9911	Construction Staking Supplemental Control (project) 001. 2265-00-78	EACH	1.000	1.000
0298	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	70.000	70.000

2265-00-78

Line	Item	Item Description	Unit	Total	Qty
0300	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	580.000	580.000
0302	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	100.000	100.000
0304	652.0615	Conduit Special 3-Inch	LF	1,530.000	1,530.000
0308	654.0101	Concrete Bases Type 1	EACH	9.000	9.000
0312	654.0105	Concrete Bases Type 5	EACH	6.000	6.000
0314	654.0110	Concrete Bases Type 10	EACH	8.000	8.000
0316	654.0120	Concrete Bases Type 10-Special	EACH	4.000	4.000
0318	655.0230	Cable Traffic Signal 5-14 AWG	LF	2,110.000	2,110.000
0320	655.0260	Cable Traffic Signal 12-14 AWG	LF	925.000	925.000
0322	655.0270	Cable Traffic Signal 15-14 AWG	LF	1,370.000	1,370.000
0324	655.0280	Cable Traffic Signal 19-14 AWG	LF	565.000	565.000
0326	655.0305	Cable Type UF 2-12 AWG Grounded	LF	2,650.000	2,650.000
0328	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	1,740.000	1,740.000
0330	655.0900	Traffic Signal EVP Detector Cable	LF	1,325.000	1,325.000
0332	657.0100	Pedestal Bases	EACH	9.000	9.000
0334	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	6.000	6.000
0336	657.0350	Poles Type 10	EACH	8.000	8.000
0338	657.0352	Poles Type 10-Special	EACH	4.000	4.000
0342	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	8.000	8.000
0346	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	1.000	1.000
0350	657.0525	Monotube Arms 25-FT	EACH	8.000	8.000
0356	657.0541	Monotube Arms 40-FT-Special	EACH	4.000	4.000
0358	658.0173	Traffic Signal Face 3S 12-Inch	EACH	38.000	38.000
0360	658.0412	Pedestrian Signal Face 12-Inch	EACH	24.000	24.000
0364	658.1133	Programmable Traffic Signal Face 3S 12-Inch	EACH	6.000	6.000
0372	658.5070	Signal Mounting Hardware (location) 004. N 27TH ST & West North Avenue	EACH	1.000	1.000
0374	658.5070	Signal Mounting Hardware (location) 005. N 27TH ST & West Center Street	EACH	1.000	1.000
0376	658.5070	Signal Mounting Hardware (location) 006. N 27TH ST & West Locust Street	EACH	1.000	1.000
0386	661.0201	Temporary Traffic Signals for Intersections (location) 005. N 27TH ST & West North Avenue	EACH	1.000	1.000
0388	661.0201	Temporary Traffic Signals for Intersections (location) 006. N 27TH ST & West Center Street	EACH	1.000	1.000
0390	661.0201	Temporary Traffic Signals for Intersections (location) 007. N 27TH ST & West Locust Street	EACH	1.000	1.000
0392	674.0300	Remove Cable	LF	350.000	350.000
0394	690.0150	Sawing Asphalt	LF	450.000	450.000
0396	690.0250	Sawing Concrete	LF	830.000	830.000
0398	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0400	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,400.000	1,400.000
0402	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	900.000	900.000
0404	SPV.0060	Special 001. Utility Line Opening	EACH	12.000	12.000
0422	SPV.0060	Special 201. Install City Precast Controller Base	EACH	2.000	2.000
0424	SPV.0060	Special 205. ATC Controller and Cabinet Installed	EACH	2.000	2.000
0430	SPV.0060	Special 215. Electrical Service Pedestal	EACH	2.000	2.000
0432	SPV.0060	Special 218. EVP 1 Direction Detector	EACH	8.000	8.000
0434	SPV.0060	Special 221. EVP Phase Selector Card 4 Channel	EACH	2.000	2.000
0436	SPV.0060	Special 223. EVP Confirmation Light	EACH	8.000	8.000
0440	SPV.0060	Special 228. Electrical Riser	EACH	4.000	4.000
0442	SPV.0060	Special 267. Pedestrian Countdown Signal Face 12-Inch	EACH	24.000	24.000
0454	SPV.0060	Special 285. Round Aluminum Sign Post System in Concrete Surface 10-Foot	EACH	4.000	4.000

2265-00-78

Line	Item	Item Description	Unit	Total	Qty
0456	SPV.0060	Special 302. Pull Boxes 13-Inch X 24-Inch X 24-Inch	EACH	17.000	17.000
0458	SPV.0060	Special 303. Pull Boxes 17-Inch X 30-Inch X 24-Inch	EACH	24.000	24.000
0460	SPV.0060	Special 310. Remove Poles	EACH	13.000	13.000
0464	SPV.0060	Special 320. Poles Type 25-AL-BD	EACH	2.000	2.000
0466	SPV.0060	Special 321. Poles Type 30-AL-BD	EACH	4.000	4.000
0468	SPV.0060	Special 324. 40 FT. Wood Poles	EACH	9.000	9.000
0470	SPV.0060	Special 339. Secondary Riser	EACH	16.000	16.000
0472	SPV.0060	Special 345. Luminaire Arm Single Member 6-FT.	EACH	6.000	6.000
0474	SPV.0060	Special 346. Luminaire Arm Single Member 6-FT. WP Mount	EACH	2.000	2.000
0476	SPV.0060	Special 366. City Furnished Luminaire Utility High Pressure Sodium	EACH	2.000	2.000
0478	SPV.0060	Special 376. Luminaire Utility LED 3	EACH	6.000	6.000
0480	SPV.0060	Special 400. Adjusting CUC Manhole Cover	EACH	3.000	3.000
0488	SPV.0060	Special 425. Installing Conduit Into Existing Manhole	EACH	1.000	1.000
0496	SPV.0060	Special 866. Luminaire Historic Milwaukee Lantern LED 3	EACH	12.000	12.000
0498	SPV.0090	Special 009. Concrete Curb and Gutter Integral 22-Inch	LF	7.000	7.000
0500	SPV.0090	Special 010. Concrete Curb and Gutter Integral 31-Inch	LF	8.000	8.000
0506	SPV.0090	Special 304. Electrical Cable Type 2#2/1#4 AL Triplex	LF	1,700.000	1,700.000
0508	SPV.0090	Special 311. Electrical Cable Type 2#12 UF with Ground	LF	1,200.000	1,200.000
0510	SPV.0090	Special 314. Remove Aerial Cable	LF	1,900.000	1,900.000
0512	SPV.0090	Special 319. Liquidtight Flexible Nonmetallic Conduit 11/2-INCH	LF	250.000	250.000
0516	SPV.0090	Special 322. Electrical Cable Type 3#6/1#8 XLPE Type USE-2	LF	150.000	150.000
0518	SPV.0090	Special 323. Electrical Cable Type 3#4/1#8 XLPE Type USE-2	LF	30.000	30.000
0520	SPV.0090	Special 324. Electrical Cable Type 3#2/1#8 XLPE Type USE-2	LF	3,500.000	3,500.000
0522	SPV.0090	Special 325. 3-Inch HDPE Conduit	LF	2,250.000	2,250.000
0524	SPV.0090	Special 402. 2-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	20.000	20.000
0542	SPV.0195	Special 001. Management of Solid Waste	TON	5.000	5.000

3

PEDESTRIAN WAY REMOVAL ITEMS

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	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
W LOCUST STREET	130	22	-	143	249	100
W CENTER STREET	70	30	5	148	201	165
W NORTH AVENUE	190	-	-	179	-	565
PROJECT TOTAL	**390**	**52**	**5**	**470**	**450**	**830**

EXCAVATION COMMON

CATEGORY 0010

LOCATION	205.0100 EXCAVATION COMMON CY
W LOCUST STREET	62
W CENTER STREET	44
W NORTH AVENUE	79
PROJECT TOTAL	**185**

3

FINISHING ROADWAY

LOCATION	213.0100 FINISHING ROADWAY (PROJECT) 2265-00-78 EACH
N 27TH STREET	1
PROJECT TOTAL	**1**

UTILITY LINE OPENING

LOCATION	SPV.0060.001 UTILITY LINE OPENING EACH
W LOCUST STREET	4
W CENTER STREET	4
W NORTH AVENUE	4
PROJECT TOTAL	**12**

CONTAMINATED SOILS

LOCATION	SPV.0195.001 MANAGEMENT OF SOLID WASTE TON
W LOCUST STREET	--
W CENTER STREET	5
W NORTH AVENUE	--
PROJECT TOTAL	**5**

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ PLOT SCALE : 1:1

ROADWAY CONSTRUCTION ITEMS

LOCATION	305.0120 BASE AGGREGATE DENSE 1-1/4 INCH TON	320.0155 CONCRETE BASE 9-INCH SY	415.0090 CONCRETE PAVEMENT 9-INCH SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	601.0322 CONCRETE CURB & GUTTER 22-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	620.0300 CONCRETE MEDIAN SLOPED NOSE SF
W LOCUST STREET	42	50	50	12	8	4	12	-	176	115	1,303	40	0
W CENTER STREET	42	70	7	15	8	6	16	120	-	75	1,334	40	0
W NORTH AVENUE	46	-	123	82	15	-	-	-	134	-	1,603	40	94
PROJECT TOTAL	**130**	**120**	**180**	**109**	**31**	**10**	**28**	**120**	**310**	**190**	**4,240**	**120**	**94**

ROADWAY CONSTRUCTION INTEGRAL ITEMS

LOCATION	SPV.0090.009 CONCRETE CURB & GUTTER INTEGRAL 22-INCH LF	SPV.0090.010 CONCRETE CURB & GUTTER INTEGRAL 31-INCH LF
W LOCUST STREET	-	8
W CENTER STREET	7	-
W NORTH AVENUE	-	-
PROJECT TOTAL	**7**	**8**

CATCH BASIN ADJUSTMENTS

STRUCTURE NUMBER	LOCATION	STATION	CENTERLINE OFFSET	COVER ELEV.	611.8105 ADJUSTING CATCH BASIN COVERS EACH
101	W LOCUST STREET	40+81.9	38.1' LT	98.31	1
102	W LOCUST STREET	41+07.9	42.5' RT	98.46	1
103	W LOCUST STREET	41+21.9	38.3' LT	98.42	1
104	W LOCUST STREET	41+24.9	24.9' RT	98.73	1
105	W LOCUST STREET	41+38.4	25.2' LT	98.61	1
				TOTAL	**5**

3

COVER PLATES

LOCATION	611.8120.S COVER PLATES TEMPORARY EACH
W LOCUST STREET	-
W CENTER STREET	2
W NORTH AVENUE	1
PROJECT TOTAL	**3**

EROSION CONTROL ITEMS

LOCATION	625.0100 TOPSOIL SY	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	631.1000 SOD LAWN SY
W LOCUST STREET	28	5	6	28
W CENTER STREET	20	3	7	20
W NORTH AVENUE	20	0	7	20
PROJECT TOTAL	**68**	**8**	**20**	**68**

3

CITY UNDERGROUND CONDUIT

SPV.0060.400
ADJUSTING
CUC
MANHOLE COVERS

MH	LOCATION	STATION	OFFSET	EACH	COVER
601	W NORTH AV	01+65.8	20.7' RT	1	NEW COVER
602	W CENTER ST	27+27.6	19.1' LT	1	NEW COVER
603	W CENTER ST	27+46.6	14.5' LT	1	NEW COVER
			Total	**3**	

MOBILIZATION

LOCATION	619.1000 MOBILIZATION EACH
N 27TH STREET	0.9
PROJECT TOTAL	**0.9**

MOBILIZATION EROSION CONTROL

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
N 27TH STREET	3	1
PROJECT TOTAL	**3**	**1**

TRAFFIC CONTROL DEVICES

LOCATION	DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0410 TRAFFIC CONTROL BARRICADES TYPE II EACH	643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAYS
W LOCUST STREET	30	63	1,890	32	960	46	1,380	124	3,720	63	1,890	58	1,740
W CENTER STREET	30	61	1,830	32	960	34	1,020	100	3,000	61	1,830	47	1,410
W NORTH AVENUE	30	117	3,510	32	960	74	2,220	180	5,400	117	3,510	67	2,010
PROJECT TOTAL			**7,230**		**2,880**		**4,620**		**12,120**		**7,230**		**5,160**

(1) All Drums have one Type C Steady Burn Light

(2) All Type III Barricades have two Type A Flashing Lights

(3) All Type II Barricades have one Type A Flashing Light

ITEMS	QUANTITY	SIZE (INCH X INCH)
WO1-6L	15	24" X 48"
WO 20-1A	18	36" X 36"
WO 20-5A	13	36" X 36"
WO20-55A	5	36" X 36"
WO12-1D	1	24" X 24"
G20-2A	19	36" X 18"
R3-2	1	24" X 24"
R3-20L	1	24" X 36"
R9-9	24	24" X 12"
R9-11 ARROW LEFT	36	24" X 12"
R9-11 ARROW RIGHT	12	24" X 12"
R11-2L	27	48" X 30"
TOTALS	172	

3

SIGN INSTALLATION

SIGN NO.	SIGN CODE	MESSAGE	SIZE INCHES	X	SIZE INCHES	SPV.0060.285 ROUND ALUMINUM SIGN POST SYSTEM FOR CONCRETE INSTALLATION 10.0 FEET EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	REMARKS
1-1	M1-94H	W NORTH AV	48	X	18	-	6.0	ATTACH TO MAST ARM
1-2	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	1.5	ATTACH TO MAST ARM POLE
1-3	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	1	5.0	
1-4	M1-94H	N 27TH ST	48	X	18	-	6.0	ATTACH TO MAST ARM
1-5	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	1	5.0	
1-6	M1-94H	W NORTH AV	48	X	18	-	6.0	ATTACH TO MAST ARM
1-7	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	1.5	ATTACH TO MAST ARM POLE
1-8	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	1	5.0	
1-9	M1-94H	N 27TH ST	48	X	18	-	6.0	ATTACH TO MAST ARM
1-10	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	1.5	ATTACH TO MAST ARM POLE
1-11	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	1	5.0	
2-1	R3-18	(NO U TURN OR LEFT TURN SYMBOL)	36	X	36	-	9.0	ATTACH TO MAST ARM
2-2	M1-94H	W CENTER ST	48	X	18	-	6.0	ATTACH TO MAST ARM
2-3	R3-18	(NO U TURN OR LEFT TURN SYMBOL)	24	X	24	-	4.0	ATTACH TO SIGNAL POLE
2-4	R3-18	(NO U TURN OR LEFT TURN SYMBOL)	36	X	36	-	9.0	ATTACH TO MAST ARM
2-5	M1-94H	N 27TH ST	48	X	18	-	6.0	ATTACH TO MAST ARM
2-6	R3-18	(NO U TURN OR LEFT TURN SYMBOL)	24	X	24	-	4.0	ATTACH TO SIGNAL POLE
2-7	R3-18	(NO U TURN OR LEFT TURN SYMBOL)	36	X	36	-	9.0	ATTACH TO MAST ARM
2-8	M1-94H	W CENTER ST	48	X	18	-	6.0	ATTACH TO MAST ARM
2-9	R3-18	(NO U TURN OR LEFT TURN SYMBOL)	24	X	24	-	4.0	ATTACH TO SIGNAL POLE
2-10	R3-18	(NO U TURN OR LEFT TURN SYMBOL)	36	X	36	-	9.0	ATTACH TO MAST ARM
2-11	M1-94H	N 27TH ST	48	X	18	-	6.0	ATTACH TO MAST ARM
2-12	R3-18	(NO U TURN OR LEFT TURN SYMBOL)	24	X	24	-	4.0	ATTACH TO SIGNAL POLE
3-1	M1-94H	W LOCUST ST	48	X	18	-	6.0	ATTACH TO MAST ARM
3-2	M1-94H	N 27TH ST	48	X	18	-	6.0	ATTACH TO MAST ARM
3-3	M1-94H	W LOCUST ST	48	X	18	-	6.0	ATTACH TO MAST ARM
3-4	M1-94H	N 27TH ST	48	X	18	-	6.0	ATTACH TO MAST ARM
3-5	R5-2	(NO TRUCKS SYMBOL)	24	X	24	-	4.0	ATTACH TO MAST ARM POLE
3-6	R5-2A	3 TONS OR OVER	24	X	12	-	2.0	ON POLE WITH 3-5
		PROJECT TOTALS				4	154.5	

TEMPORARY MARKING MASKING

LOCATION	643.3970 TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH LF
W LOCUST STREET	100
W CENTER STREET	-
W NORTH AVENUE	-
PROJECT TOTAL	**100**

TRAFFIC CONTROL

LOCATION	643.5000 TRAFFIC CONTROL EACH
N 27TH STREET	0.9
PROJECT TOTAL	**0.9**

MARKING REMOVAL

LOCATION	646.9200 MARKING REMOVAL LINE WIDE LF
W LOCUST STREET	-
W CENTER STREET	-
W NORTH AVENUE	810
PROJECT TOTAL	**810**

PEDESTRIAN ACCOMMODATIONS

LOCATION	644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT SF	644.1430 TEMPORARY PEDESTRIAN SURFACE PLATE SF	644.1440 TEMPORARY PEDESTRIAN SURFACE MATTING SF	644.1605 TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD SF
W LOCUST STREET	1,600	1,600	1,600	40
W CENTER STREET	1,408	1,408	1,408	40
W NORTH AVENUE	1,992	1,992	1,992	40
PROJECT TOTAL	**5,000**	**5,000**	**5,000**	**120**

3

3

CONSTRUCTION STAKING

LOCATION	650.5500 CONSTRUCTION STAKING CURB & GUTTER LF	650.9000 CONSTRUCTION STAKING CURB RAMP EACH
W LOCUST STREET	179	4
W CENTER STREET	121	4
W NORTH AVENUE	130	4
PROJECT TOTAL	**430**	**12**

CONSTRUCTION STAKING ELECTRICAL

LOCATION	650.8501 CONSTRUCTION STAKING ELECTRICAL (PROJECT) 2265-00-78 EACH
N 27TH STREET	1
PROJECT TOTAL	**1**

CONSTRUCTION STAKING SIDEWALK

LOCATION	650.9500 CONSTRUCTION STAKING SIDEWALK (PROJECT) 2265-00-78 EACH
N 27TH STREET	1
PROJECT TOTAL	**1**

CONSTRUCTION STAKING SUPPLEMENTAL

LOCATION	650.9911 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 2265-00-78 EACH
N 27TH STREET	1
PROJECT TOTAL	**1**

TRAFFIC SIGNALS W. NORTH AVE. & N. 27TH ST.

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
SB3	1+55', 46' R	1
SB5	0+60', 27' R	1
SB7	0+72', 77' L	1
SB9	1+78', 55' L	1
	SUBTOTAL	4

SIGNAL BASE NO.	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0120 CONCRETE BASES TYPE 10 SPECIAL EACH
SB1	1+91', 28' R	-	1
SB2	1+66', 30' R	1	-
SB4	0+73', 49' R	-	1
SB6	0+52', 57' L	-	1
SB8	1+55', 79' L	-	1
		-	-
	SUBTOTAL	1	4

LOC.	TO	LOC.	652.0225 CONDUIT RIGID NONMETTALIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETTALIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
CB1	TO	PB1	-	20	-
PB1	TO	SB1	-	20	-
PB1	TO	SB2	5	-	-
PB1	TO	PB2	-	35	-
PB2	TO	SB3	5	-	-
PB2	TO	PB3	-	-	160
PB3	TO	SB4	-	5	-
PB3	TO	PB4	-	40	-
PB4	TO	SB5	5	-	-
PB4	TO	PB5	-	-	170
PB5	TO	SB6	-	5	-
PB5	TO	PB6	-	40	-
PB6	TO	SB7	5	-	-
PB6	TO	PB7	-	-	165
PB7	TO	SB8	-	5	-
PB7	TO	PB8	-	45	-
PB8	TO	SB9	5	-	-
PB8	TO	PB1	-	-	170
			-	-	-
		SUBTOTAL	25	215	665

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

	DESCRIPITON	L.F
655.0230	CABLE TRAFFIC SIGNAL 5-14 AWG	970
655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	25
655.0270	CABLE TRAFFIC SIGNAL 15-14 AWG	545
655.0280	CABLE TRAFFIC SIGNAL 19-14-AWG	565
655.0305	CABLE TYPE UF 2-12 AWG GROUNDED	755
655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	680
655.0900	TRAFFIC SIGNAL EVP DETECTOR CABLE	755
SPV.0090.323	ELECTRICAL CABLE TYPE 3#4/1#8 XLPE TYPE USE-2	15

TRAFFIC SIGNALS W. NORTH AVE. & N. 27TH ST.

	657.0100	657.0352	657.0430	657.0541	SPV.0060.218	SPV.0060.223	SPV.0060.228
SIGNAL BASE NUMBER	PEDESTAL BASES EACH	POLES TYPE 10 SPECIAL EACH	TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT ALUMINUM EACH	MONOTUBE ARMS 40-FT- SPECIAL EACH	EVP 1 CHANNEL 1 DIRECTION INFRARED DETECTOR EACH	EVP CONFIRMATION LIGHT EACH	ELECTRICAL RISER EACH
SB1	-	1	-	1	1	1	-
SB2	1	-	1	-	-	-	-
SB3	-	-	-	-	-	-	1
SB4	-	1	-	1	1	1	-
SB5	-	-	-	-	-	-	1
SB6	-	1	-	1	1	1	-
SB7	-	-	-	-	-	-	1
SB8	-	1	-	1	1	1	-
SB9	-	-	-	-	-	-	1
			-	-	-	-	-
SUBTOTAL	1	4	1	4	4	4	4

	658.5070	661.0201
	SIGNAL MOUNTING HARDWARE NORTH EACH	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS NORTH EACH
	1	1

		658.0173	658.0412	SPV.0060.267
SIGNAL HEAD NUMBER	SIGNAL BASE NUMBER	TRAFFIC SIGNAL FACE 3S 12-INCH EACH	PEDESTRIAN SIGNAL FACE 12-INCH EACH	PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	SB3	1	-	-
2	SB8	1	-	-
3	SB8	1	-	-
4	SB7	1	-	-
5	SB8	1	-	-
6	SB7	1	-	-
7	SB3	1	-	-
8	SB4	1	-	-
9	SB4	1	-	-
10	SB4	1	-	-
11	SB5	1	-	-
12	SB1	1	-	-
13	SB1	1	-	-
14	SB9	1	-	-
15	SB1	1	-	-
16	SB9	1	-	-
17	SB6	1	-	-
18	SB6	1	-	-
19	SB5	1	-	-
20	SB6	1	-	-
21	SB6	-	1	1
22	SB9	-	1	1
23	SB8	-	1	1
24	SB3	-	1	1
25	SB2	-	1	1
26	SB5	-	1	1
27	SB4	-	1	1
28	SB7	-	1	1
		-	-	-
	SUBTOTAL	20	8	8

TRAFFIC SIGNALS W. NORTH AVE. & N. 27TH ST.

LOCATION	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE EACH	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED EACH	SPV.0060.215 ELECTRICAL SERVICE PEDESTAL EACH	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL EACH
01+79', 28' R	1	1	1	1
SUBTOTAL	1	1	1	1

SPV.0060.303

PULL BOX NO.	LOCATION	PULLBOXES 17-INCH X 30-INCH X 24-INCH EACH
PB1	1+70', 30' R	1
PB2	1+56', 41' R	1
PB3	0+73', 41' R	1
PB4	0+58', 28' R	1
PB5	0+57', 58' L	1
PB6	0+72', 72' L	1
PB7	1+55', 72' L	1
PB8	1+71', 58' L	1
	SUBTOTAL	8

TRAFFIC SIGNALS W. CENTER ST. & N. 27TH ST.

3

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
1	27+38', 38' L	1
3	28+02', 27' L	1
5	27+92', 36' R	1
7	27+30', 27' R	1
	SUBTOTAL	4

SIGNAL BASE NO.	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0110 CONCRETE BASES TYPE 10 EACH
SB1	27+38', 43' L	1	-
SB2	27+92', 44' L	-	1
SB3	28+09', 27' L	1	-
SB4	28+12', 28' R	-	1
SB5	27+93', 43' R	1	-
SB6	27+38', 46' R		1
SB7	27+21', 27' R	1	-
SB8	27+20', 27' L	-	1
		-	-
	SUBTOTAL	4	4

LOC.	TO	LOC.	652.0225 CONDUIT RIGID NONMETTALIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETTALIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
CB1	TO	PB8	-	30	-
PB8	TO	PB1	-	45	-
PB1	TO	SB1	5	-	-
PB1	TO	PB2	-	-	105
PB2	TO	SB2	-	5	-
PB2	TO	PB3	-	35	-
PB3	TO	SB3	5	-	-
PB3	TO	PB4	-	-	110
PB4	TO	SB4	-	5	-
PB4	TO	PB5	-	30	-
PB5	TO	SB5	5	-	-
PB5	TO	PB6	-	-	110
PB6	TO	SB6	-	5	-
PB6	TO	PB7	-	25	-
PB7	TO	SB7	5	-	-
PB6	TO	PB1	-	-	150
PB8	TO	SB8	-	5	-
			-	-	-
		SUBTOTAL	20	185	475

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

	DESCRIPITON	L.F
655.0230	CABLE TRAFFIC SIGNAL 5-14 AWG	570
655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	500
655.0270	CABLE TRAFFIC SIGNAL 15-14 AWG	435
655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	560

TRAFFIC SIGNALS W. CENTER ST. & N. 27TH ST.

SIGNAL BASE NUMBER	657.0100 PEDESTAL BASES EACH	657.0350 POLES TYPE 10 EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0525 MONOTUBE ARMS 25-FT EACH
SB1	1	-	1	-
SB2	-	1	-	1
SB3	1	-	1	-
SB4	-	1	-	1
SB5	1	-	1	-
SB6	-	1	-	1
SB7	1	-	1	-
SB8	-	1	-	1
	-	-	-	-
SUBTOTAL	4	4	4	4

PULL BOX NO.	LOCATION	SPV.0060.303 PULL BOXES 17-INCH X 30-INCH X 24-INCH EACH
PB1	27+38', 38' L	1
PB2	27+92', 40' L	1
PB3	28+06', 27' L	1
PB4	28+05', 29' R	1
PB5	27+94', 38' R	1
PB6	27+38', 39' R	1
PB7	27+27', 28' R	1
PB8	27+27', 27' L	1
	SUBTOTAL	8

658.5070 SIGNAL MOUNTING HARDWARE CENTER EACH	661.0201 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS CENTER EACH
1	1

SIGNAL HEAD NUMBER	SIGNAL BASE NUMBER	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.1133 PROGRAMMABLE TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	SB5	1	-	-	-
2	SB2	1	-	-	-
3	SB2	1	-	-	-
4	SB1	-	1	-	-
5	SB5	-	1	-	-
6	SB6	-	1	-	-
7	SB7	-	1	-	-
8	SB3	-	1	-	-
9	SB4	-	1	-	-
10	SB3	1	-	-	-
11	SB8	1	-	-	-
12	SB8	1	-	-	-
13	SB8	-	-	1	1
14	SB3	-	-	1	1
15	SB2	-	-	1	1
16	SB5	-	-	1	1
17	SB4	-	-	1	1
18	SB7	-	-	1	1
19	SB6	-	-	1	1
20	SB1	-	-	1	1
		-	-	-	-
		-	-	-	-
	SUBTOTAL	6	6	8	8

TRAFFIC SIGNALS W. LOCUST ST. & N. 27TH ST.

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
1	40+59', 27' R	1
3	40+80', 37' L	1
5	41+34', 28' L	1
7	41+10', 37' R	1
	SUBTOTAL	4

SIGNAL BASE NO.	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0110 CONCRETE BASES TYPE 10 EACH
SB1	40+50', 27' R	1	-
SB2	40+60', 29' L	-	1
SB3	40+80', 45' L	1	-
SB4	41+24', 47' L	-	1
SB5	41+39', 27' L	1	-
SB6	41+41', 27' R	-	1
SB7	41+11', 42' R	1	-
SB8	40+69', 38' R	-	1
		-	-
	SUBTOTAL	4	4

LOC.	TO	LOC.	652.0225 CONDUIT RIGID NONMETTALIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETTALIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
CB1	TO	PB8	-	15	-
PB8	TO	SB8	-	5	-
PB8	TO	PB1	-	30	-
PB1	TO	SB1	10	-	-
PB1	TO	PB2	-	-	110
PB2	TO	SB2	-	5	-
PB2	TO	PB3	-	35	-
PB3	TO	SB3	5	-	-
PB3	TO	PB4	-	-	85
PB4	TO	SB4	-	5	-
PB4	TO	PB5	-	40	-
PB5	TO	SB5	5	-	-
PB5	TO	PB6	-	-	110
PB6	TO	SB6	-	15	-
PB6	TO	PB7	-	30	-
PB7	TO	SB7	5	-	-
PB7	TO	PB8	-	-	85
			-	-	-
		SUBTOTAL	25	180	390

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

	DESCRIPITON	L.F
655.0230	CABLE TRAFFIC SIGNAL 5-14 AWG	570
655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	400
655.0270	CABLE TRAFFIC SIGNAL 15-14 AWG	390
655.0305	CABLE TYPE UF 2-12 AWG GROUNDED	570
655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	500
655.0900	TRAFFIC SIGNAL EVP DETECTOR CABLE	570
SPV.0090.323	ELECTRICAL CABLE TYPE 3#4/1#8 XLPE TYPE USE-2	15

TRAFFIC SIGNALS W. LOCUST ST. & N. 27TH ST.

3

SIGNAL BASE NUMBER	657.0100 PEDESTAL BASES EACH	657.0350 POLES TYPE 10 EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0525 MONOTUBE ARMS 25-FT EACH	SPV.0060.218 EVP 1 CHANNEL 1 DIRECTION INFRARED DETECTOR EACH	SPV.0060.223 EVP CONFIRMATION LIGHT EACH
SB1	1	-	1	-	-	-
SB2	-	1	-	1	1	1
SB3	1	-	1	-	-	-
SB4	-	1	-	1	1	1
SB5	1	-	1	-	-	-
SB6	-	1	-	1	1	1
SB7	1	-	1	-	-	-
SB8	-	1	-	1	1	1
	-	-	-	-	-	-
SUBTOTAL	4	4	4	4	4	4

SIGNAL BASE NUMBER	658.5070 SIGNAL MOUNTING HARDWARE LOCUST EACH	661.0201 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS LOCUST EACH
	1	1

SIGNAL HEAD NUMBER	SIGNAL BASE NUMBER	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	SB7	1	-	-
2	SB3	1	-	-
3	SB4	1	-	-
4	SB3	1	-	-
5	SB7	1	-	-
6	SB8	1	-	-
7	SB1	1	-	-
8	SB5	1	-	-
9	SB6	1	-	-
10	SB5	1	-	-
11	SB1	1	-	-
12	SB2	1	-	-
13	SB2	-	1	1
14	SB5	-	1	1
15	SB4	-	1	1
16	SB7	-	1	1
17	SB6	-	1	1
18	SB1	-	1	1
19	SB8	-	1	1
20	SB3	-	1	1
		-	-	-
	SUBTOTAL	12	8	8

3

TRAFFIC SIGNALS W. LOCUST ST. & N. 27TH ST.

LOCATION	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE EACH	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED EACH	SPV.0060.215 ELECTRICAL SERVICE PEDESTAL EACH	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL EACH
40+69', 49' R	1	1	1	1
SUBTOTAL	1	1	1	1

SPV.0060.303

PULL BOX NO.	LOCATION	PULL BOXES 17-INCH X 30-INCH X 24-INCH EACH
PB1	40+61', 27' R	1
PB2	40+66', 28' L	1
PB3	40+80', 40' L	1
PB4	41+23', 41' L	1
PB5	41+36', 27' L	1
PB6	41+22', 26' R	1
PB7	41+11', 39' R	1
PB8	40+68', 42' R	1
	SUBTOTAL	8

3

TRAFFIC SIGNALS TOTALS

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	652.0615 CONDUIT SPECIAL 3-INCH	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG	655.0270 CABLE TRAFFIC SIGNAL 19-14 AWG	655.0280 CABLE TRAFFIC SIGNAL 19-14 AWG	655.0305* CABLE TYPE UF 2-12 AWG GROUNDED	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE	SPV.0090.323 ELECTRICAL CABLE TYPE 3 #4/1#8 XLPE TYPE USE-2
LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF
70	580	1,530	2,110	925	1,370	565	1,325	1,740	1,325	30

204.0195 REMOVING CONCRETE BASES	654.0101 CONCRETE BASES TYPE 1	654.0110 CONCRETE BASES TYPE 10	654.0120 CONCRETE BASES TYPE 10 SPECIAL	657.0100 PEDESTAL BASES	657.0350 POLES TYPE 10	657.0352 POLES TYPE 10 SPECIAL	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT	657.0525 MONOTUBE ARMS 25-FT	657.0541 MONOTUBE ARMS 40-FT SPECIAL	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH	658.1133 PROGRAMMABLE TRAFFIC SIGNAL FACE 3S 12-INCH
EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
12	9	8	4	9	8	4	8	1	8	4	38	24	6

658.5070 SIGNAL MOUNTING HARDWARE (LOCATION) 04. N 27TH ST & WEST NORTH AVENUE	658.5070 SIGNAL MOUNTING HARDWARE (LOCATION) 05. N 27TH ST & WEST CENTER STREET	658.5070 SIGNAL MOUNTING HARDWARE (LOCATION) 06. N 27TH ST & WEST LOCUST STREET
EACH	EACH	EACH
1	1	1

661.0201 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS 05. N 27TH ST & WEST NORTH AVENUE	661.0201 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS 06. N 27TH ST & WEST CENTER STREET	661.0201 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS 07. N 27TH ST & WEST LOCUST STREET
EACH	EACH	EACH
1	1	1

SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED	SPV.0060.215 ELECTRICAL SERVICE PEDESTAL	SPV.0060.218 EVP 1 DIRECTION DETECTOR	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL	SPV.0060.223 EVP CONFIRMATION LIGHT	SPV.0060.228 ELECTRICAL RISER	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH
EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
2	2	2	8	2	8	4	24

SPV.0060.303 PULLBOXES 17-INCH X 30-INCH X 24-INCH
EACH
24

(*) QUANTITIES LISTED ELSEWHERE

STREET LIGHTING TOTALS

	652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH	654.0105 CONCRETE BASE TYPE 5	655.0305* CABLE TYPE UF 2-12 AWG GROUNDED	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	674.0300 REMOVE CABLE
N. 27TH ST.	LF	EACH	LF	EACH	LF
PROJECT TOTAL	100	6	1,325	6	350

	SPV.0060.302 PULL BOXES 13-INCH X 24-INCH X 24-INCH	SPV.0060.310 REMOVE POLES	SPV.0060.320 POLES TYPE 25-AL-BD	SPV.0060.321 POLES TYPE 30-AL-BD	SPV.0060.324 40-FT. WOOD POLES	SPV.0060.339 SECONDARY RISER
N. 27TH ST.	EACH	EACH	EACH	EACH	EACH	EACH
PROJECT TOTAL	17	13	2	4	9	16

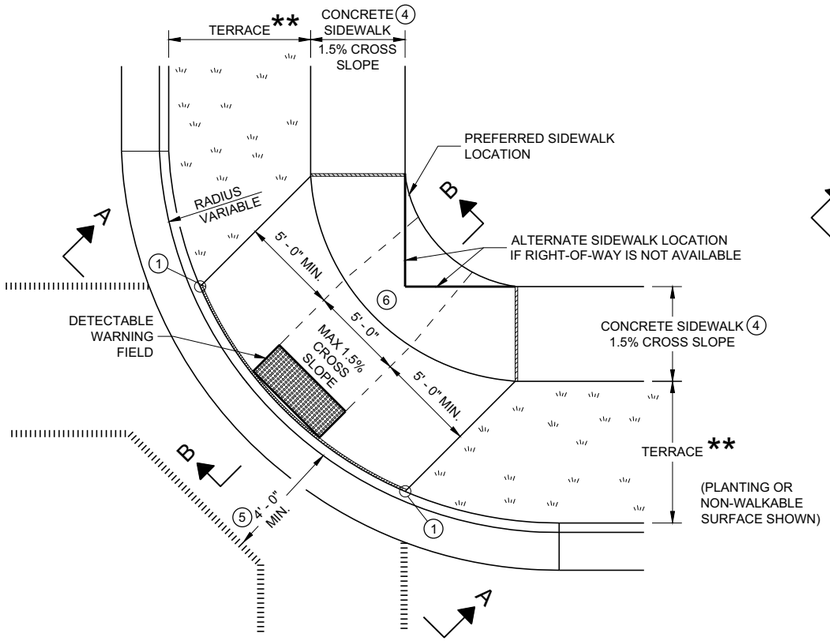
	SPV.0060.345 LUMINAIRE ARM SINGLE MEMBER 6-FT.	SPV.0060.346 LUMINAIRE ARM SINGLE MEMBER 6-FT. WP MOUNT	SPV.0060.366 CITY FURNISHED LUMINAIRE UTILITY HIGH PRESSURE SODIUM	SPV.0060.376 LUMINAIRE UTILITY LED 3	SPV.0060.425 INSTALLING CONDUIT INTO EXISTING MANHOLE	SPV.0060.866 LUMINAIRE HISTORIC MILWAUKEE LANTERN LED 3
N. 27TH ST.	EACH	EACH	EACH	EACH	EACH	EACH
PROJECT TOTAL	6	2	2	6	1	12

	SPV.0090.304 ELECTRIC CABLE TYPE 2#2/1#4 AL TRIPLEX	SPV.0090.311 ELECTRIC CABLE TYPE UF 2#12 AWG WITH GROUND	SPV.0090.314 REMOVE AERIAL CABLE	SPV.0090.319 LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT 1 1/2-INCH	SPV.0090.322 ELECTRIC CABLE TYPE 3#6/1#8 XLPE TYPE USE-2	SPV.0090.324 ELECTRIC CABLE TYPE 3#2/1#8 XLPE TYPE USE-2	SPV.0090.325 3-INCH HDPE CONDUIT	SPV.0090.402 2-DUCT CONDUIT, CEMENT ENCASED, 4-INCH RIGID NONMETALLIC CONDUIT DB-60
N. 27TH ST.	LF	LF	LF	LF	LF	LF	LF	LF
PROJECT TOTAL	1,700	1,200	1,900	250	150	3,500	2,250	20

(*) QUANTITIES LISTED ELSEWHERE

Standard Detail Drawing List

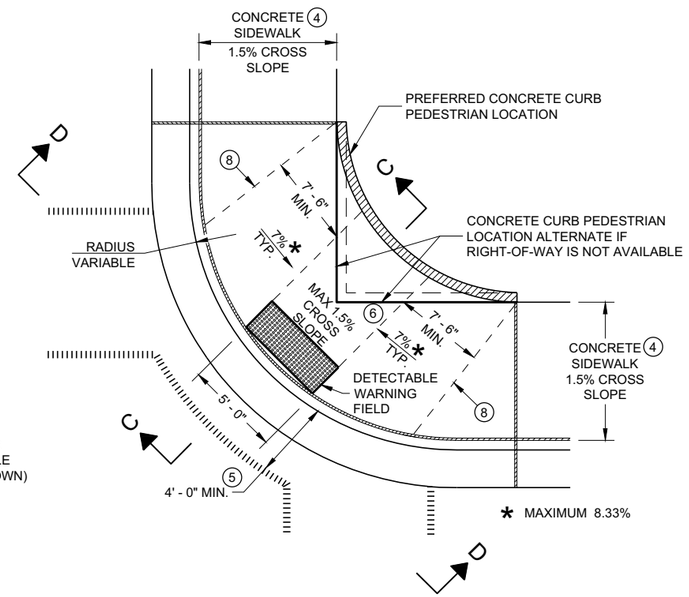
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D16-11	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C11-10	CONCRETE BASE TYPE 10
09C15-01	CONCRETE BASE TYPE 10 SPECIAL
09D02-03	SIGNAL CONTROL CABINET
09E01-15B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E08-09E	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-09G	TYPE 10 SPECIAL POLE 40' MONOTUBE ARM
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11B02-02	CONCRETE MEDIAN NOSE
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-09	URBAN DOWELED CONCRETE PAVEMENT
13C15-07A	CONCRETE BASE
13C15-07B	CONCRETE BASE
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



PLAN VIEW

CURB RAMP TYPE 1

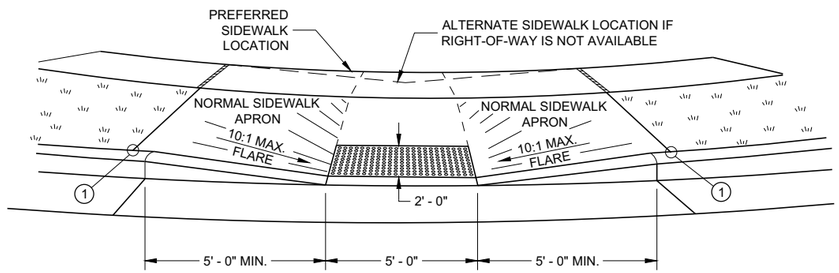
(CENTER OF CORNER RADIUS)



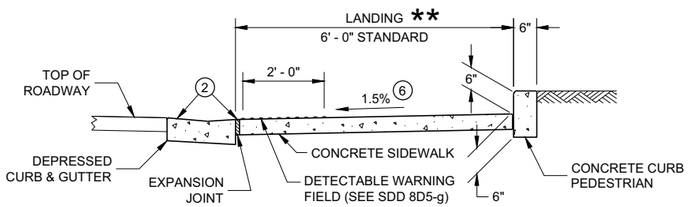
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

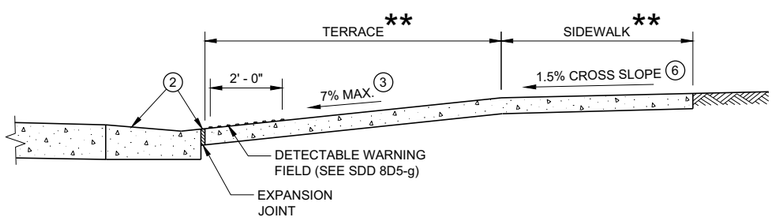


VIEW A - A FOR TYPE 1

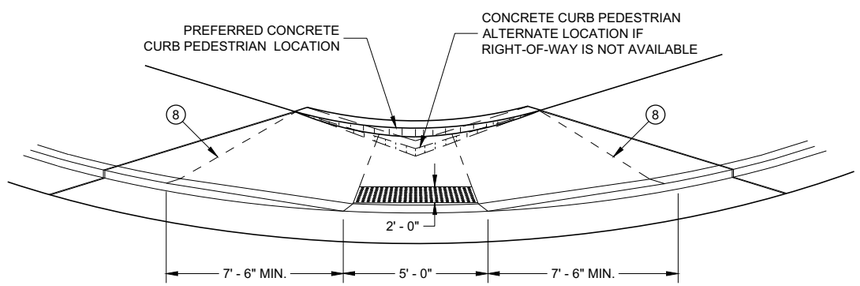


SECTION C - C FOR TYPE 1 - A

** 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

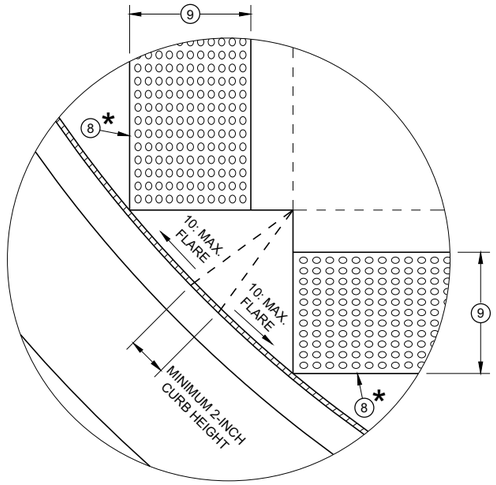
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

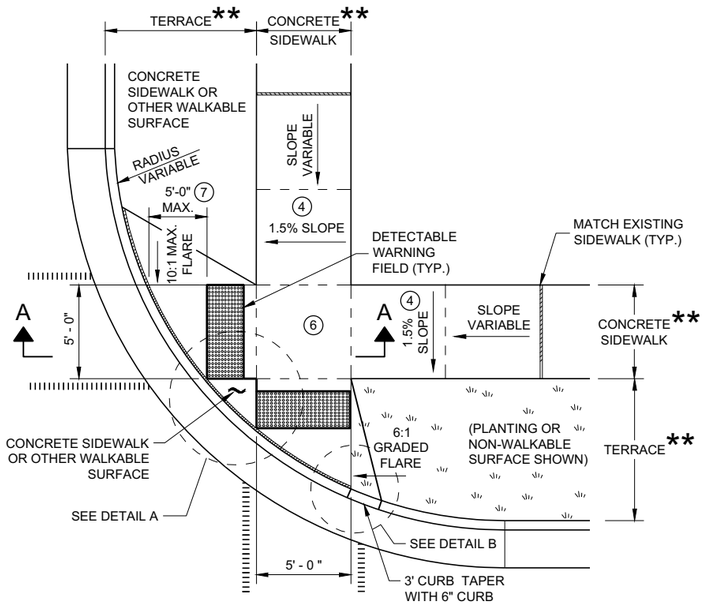
STATE OF WISCONSIN
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SDD 08D05 - 20a



DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

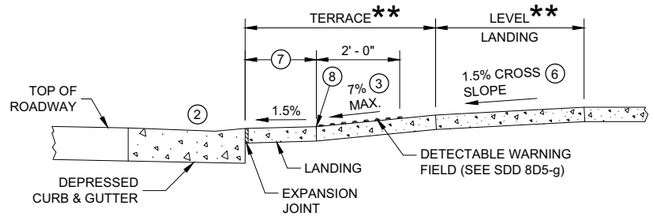
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

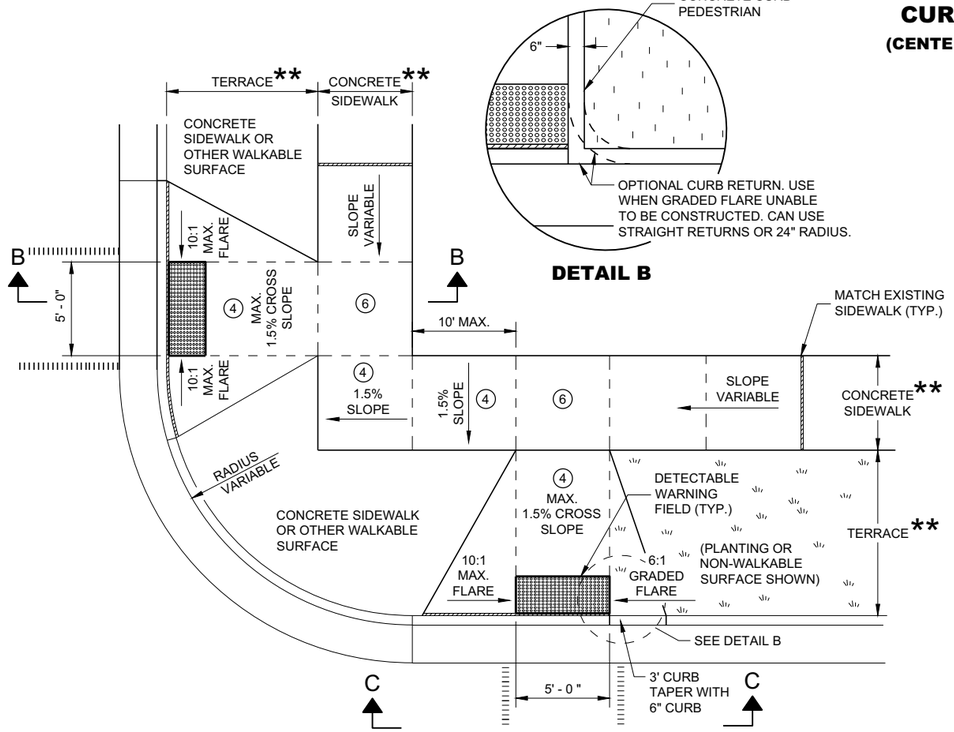
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2

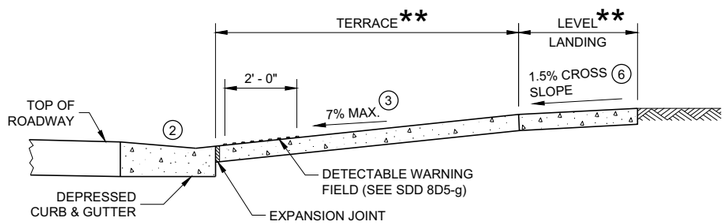
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

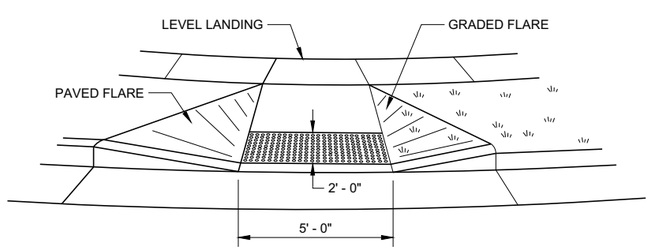


DETAIL B

PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

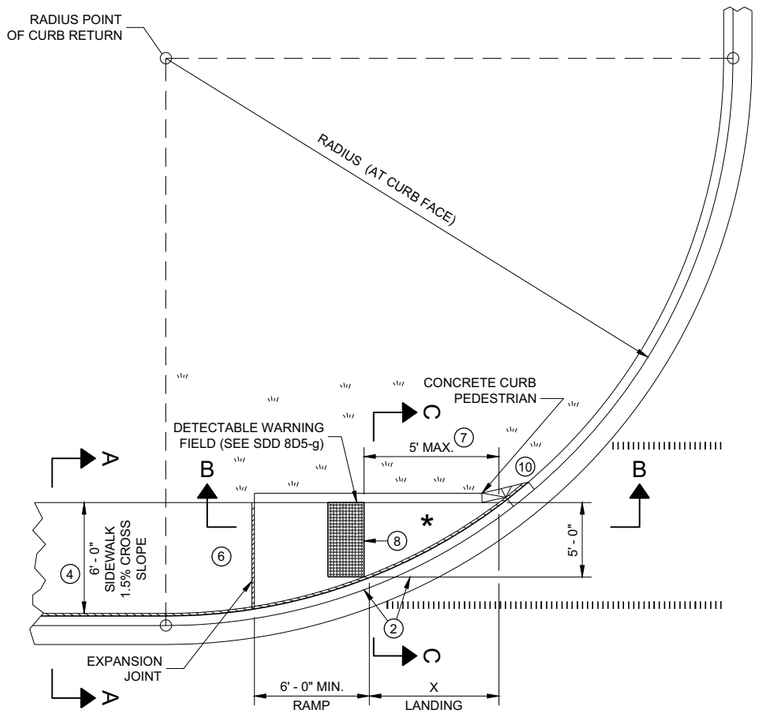
STATE OF WISCONSIN
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6

SDD 08D05 - 20b

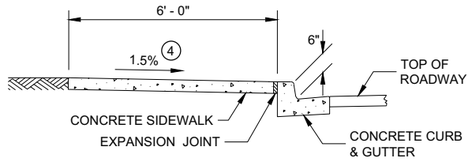


PLAN VIEW

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.

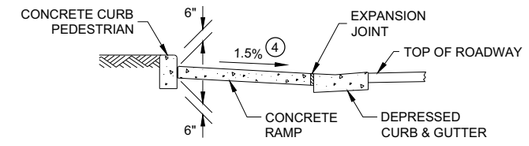
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

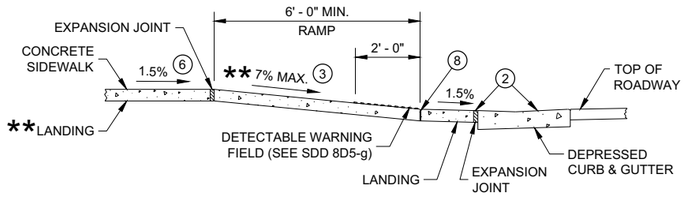
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



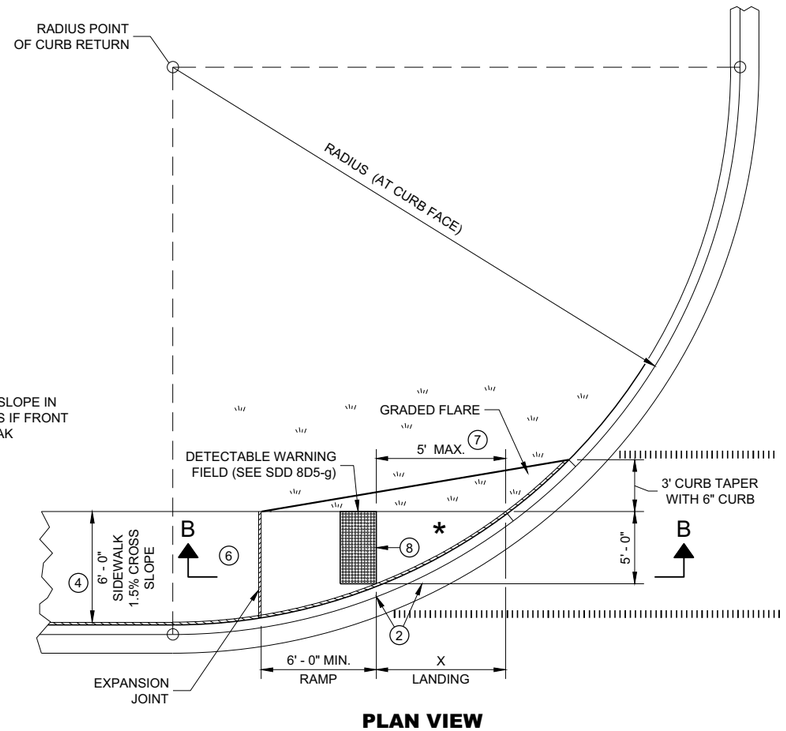
SECTION C - C FOR TYPE 4A



SECTION B - B FOR TYPE 4A AND TYPE 4A1

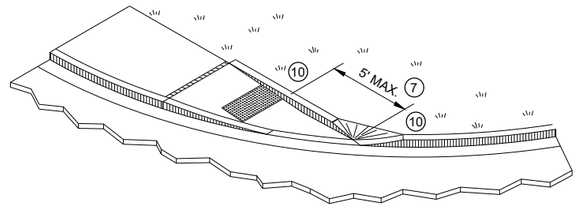
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

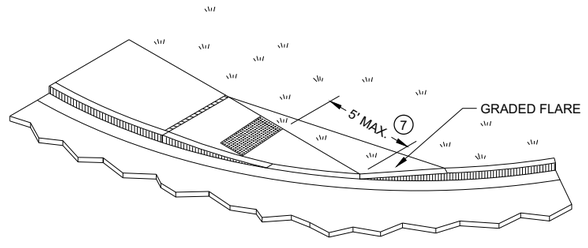


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



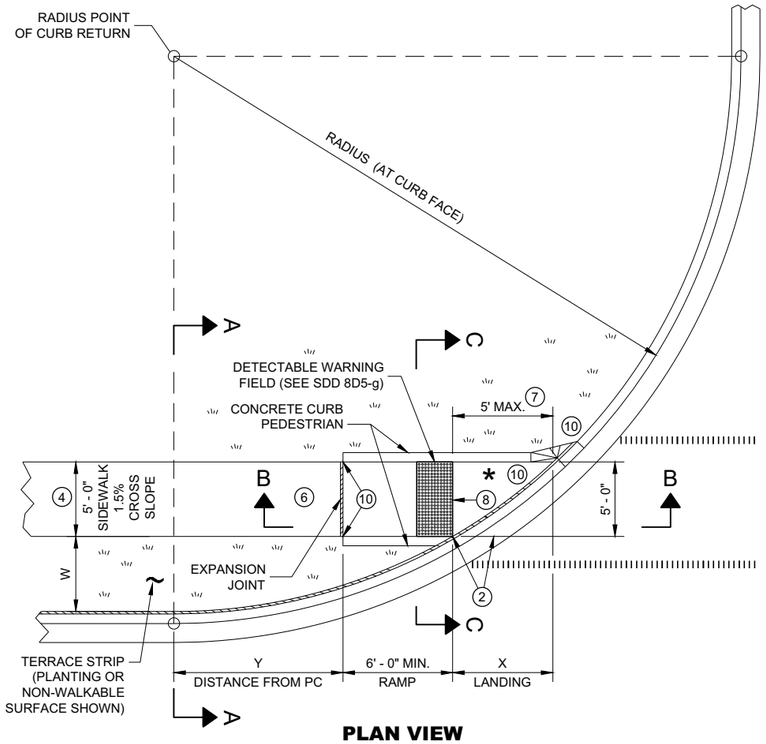
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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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

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.

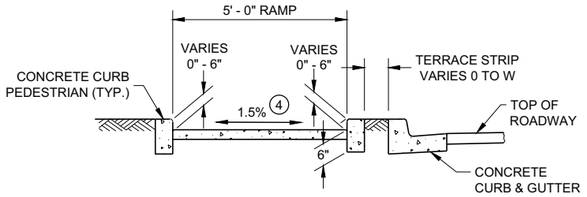
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

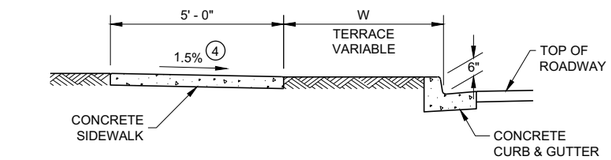
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

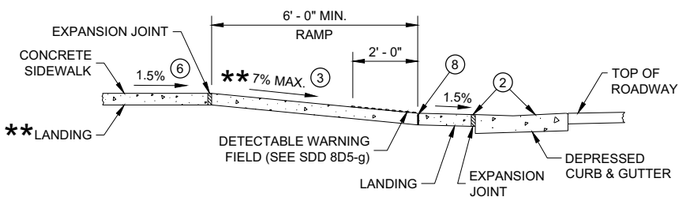
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



SECTION C - C FOR TYPE 4B



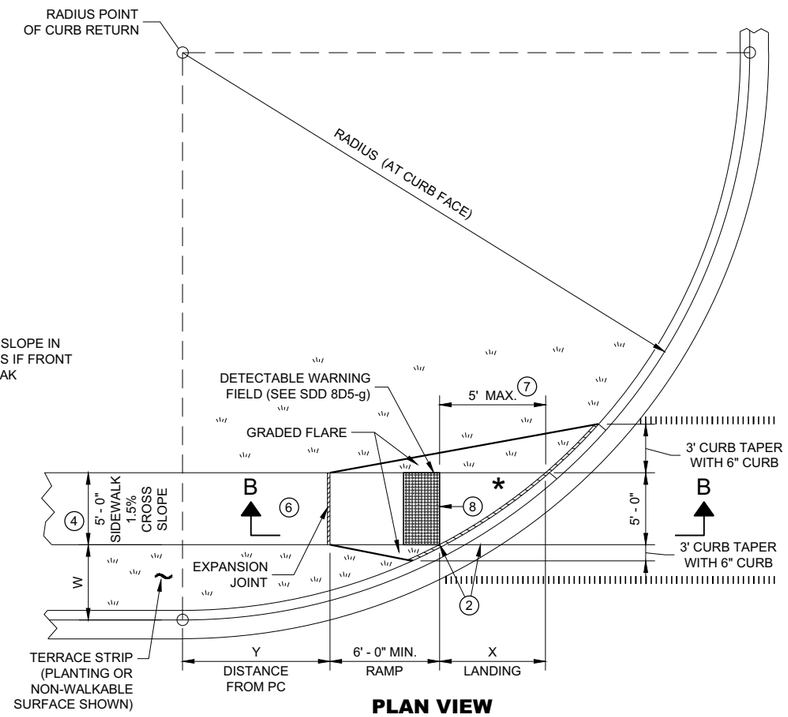
SECTION A - A FOR TYPE 4B



SECTION B - B FOR TYPE 4B AND TYPE 4B1

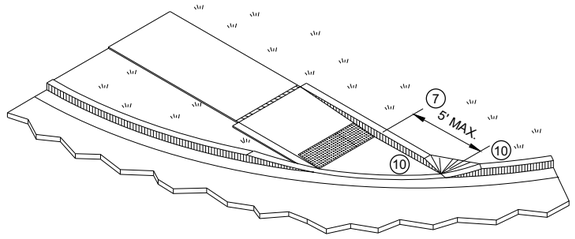
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

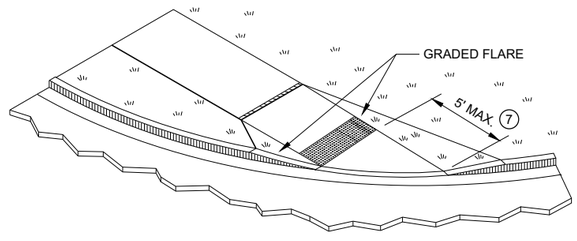


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



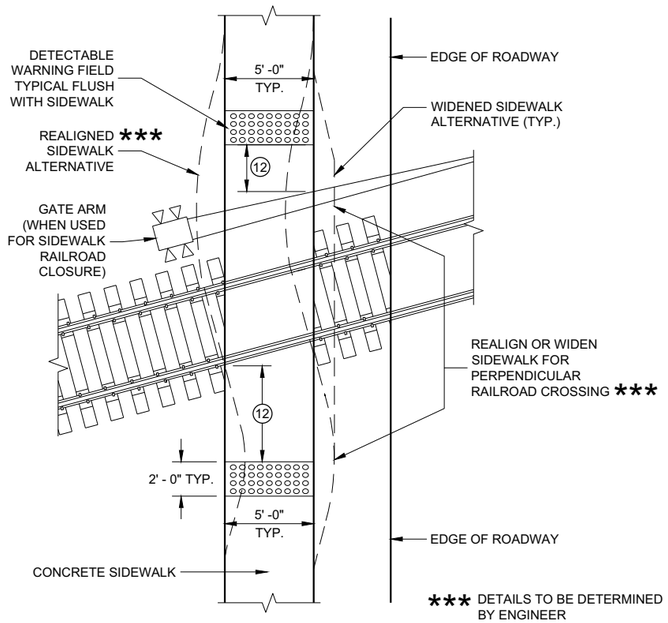
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

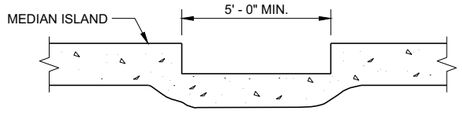
6

SDD 08D05 - 20d

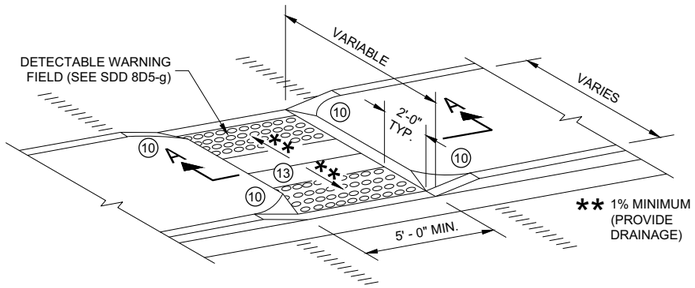


CURB RAMP TYPE 8

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.

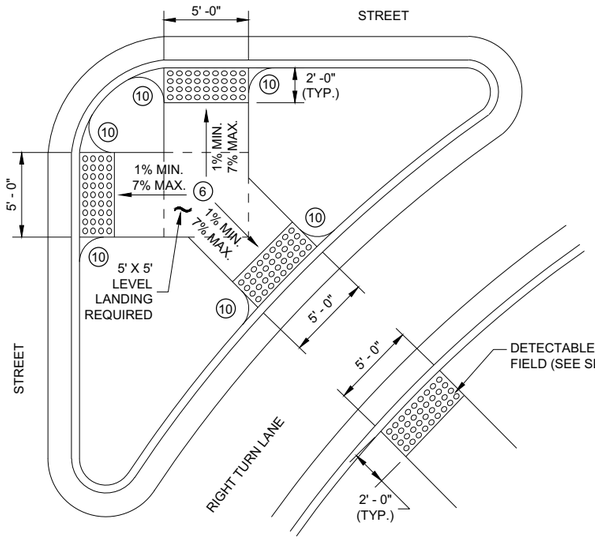
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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

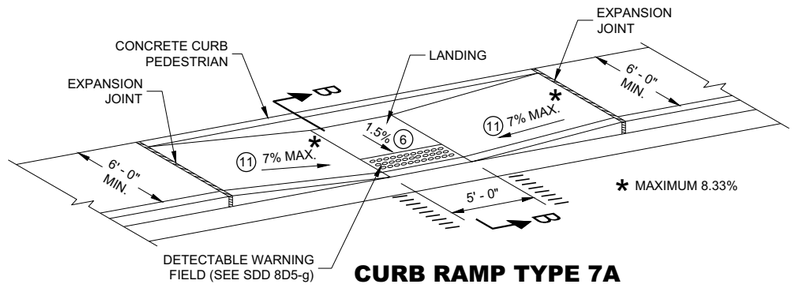
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

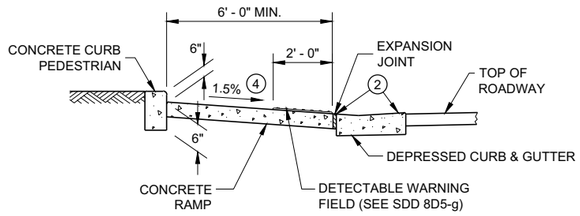
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS

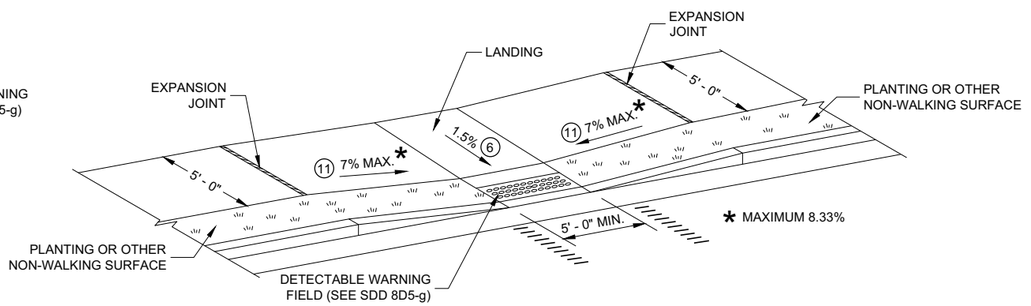


CURB RAMP TYPE 7A

MID BLOCK CROSSING



SECTION B - B FOR TYPE 7A



CURB RAMP TYPE 7B

MID BLOCK CROSSING

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

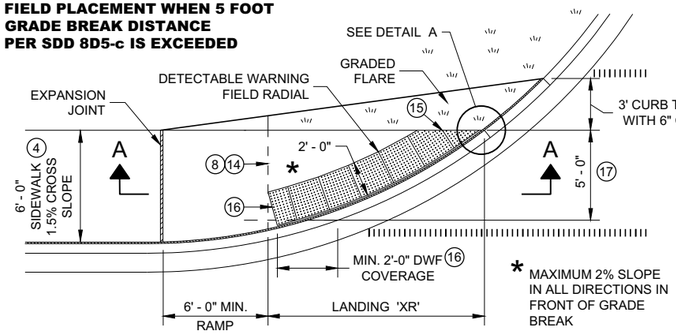
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20e
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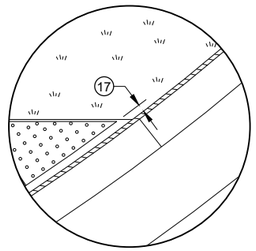
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



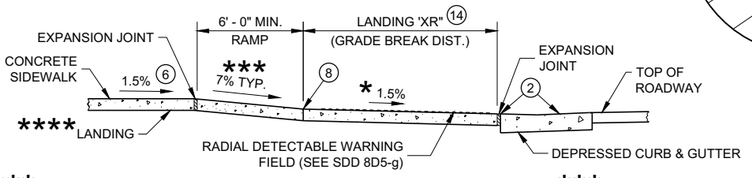
PLAN VIEW

CURB RAMP TYPE 4A1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL A

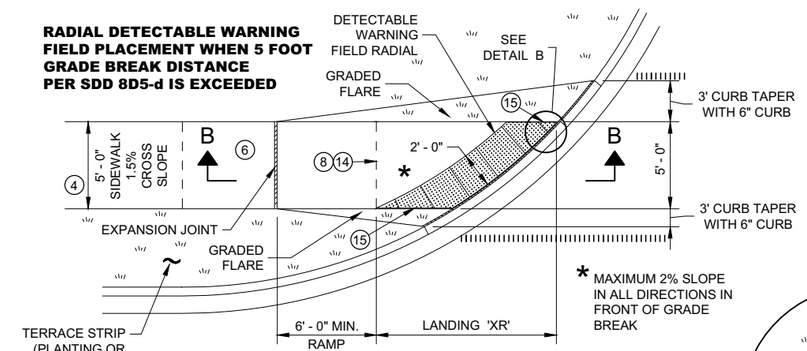


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1

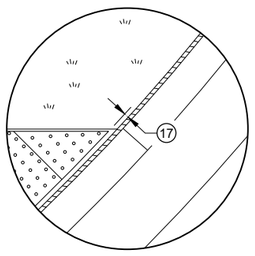
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



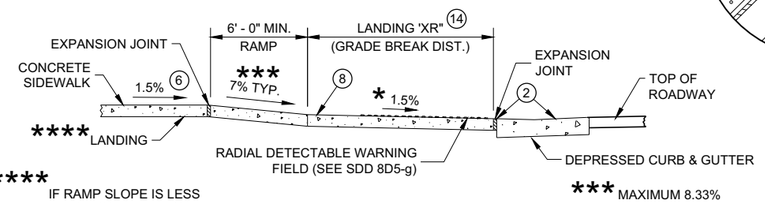
PLAN VIEW

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.

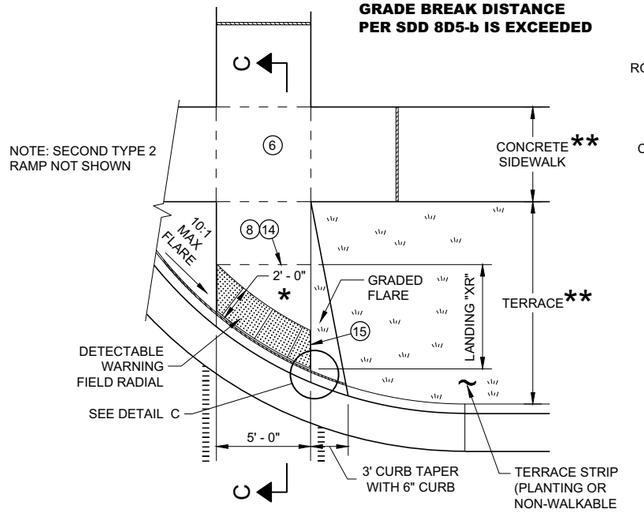
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(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

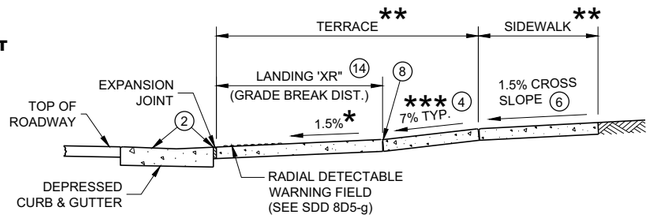


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

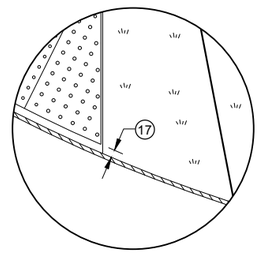


SECTION C - C FOR TYPE 2

* 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

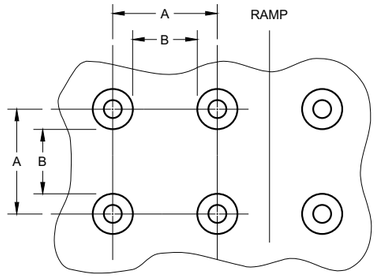
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

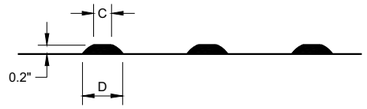
SDD 08D05 - 20f

	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.

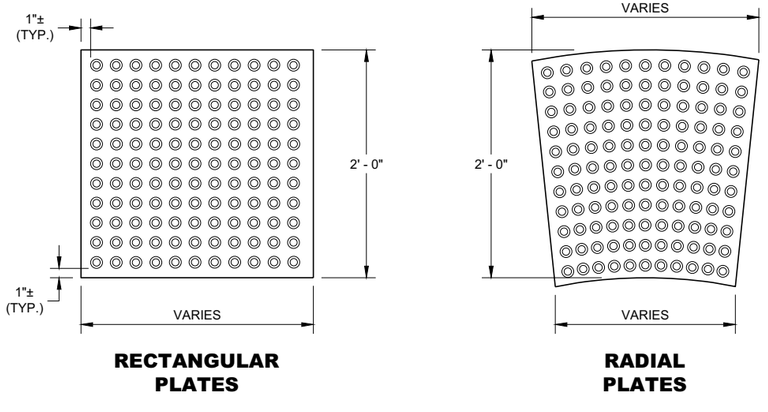


PLAN VIEW



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.

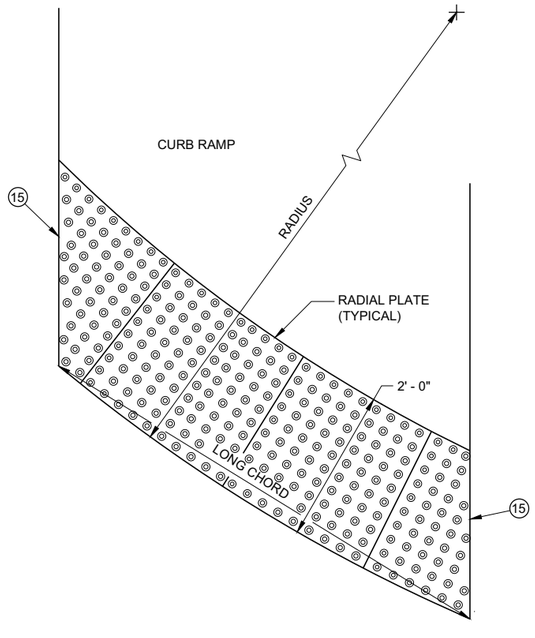
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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.

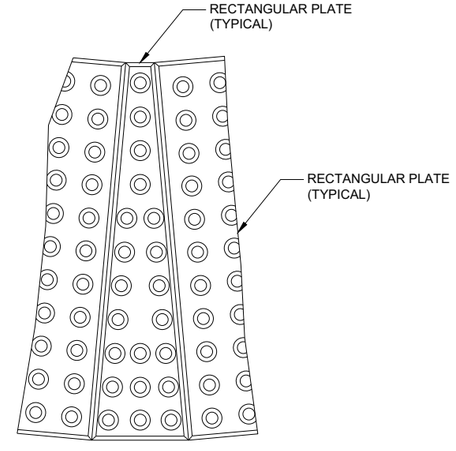
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

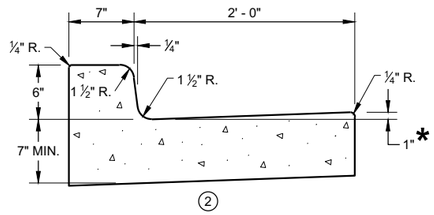
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

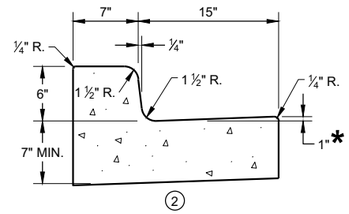
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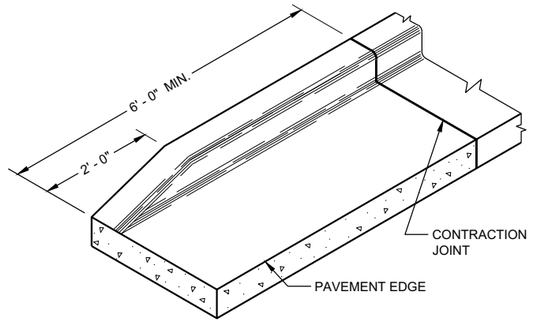


CONCRETE CURB AND GUTTER 31" ①

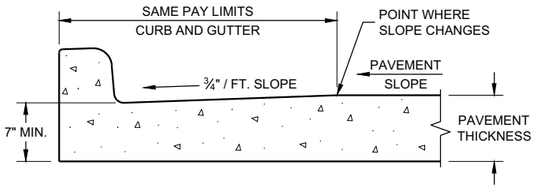
*TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



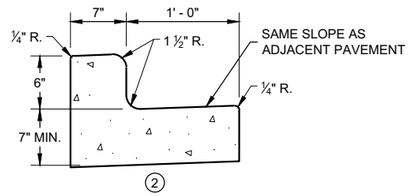
CONCRETE CURB AND GUTTER 22" ①



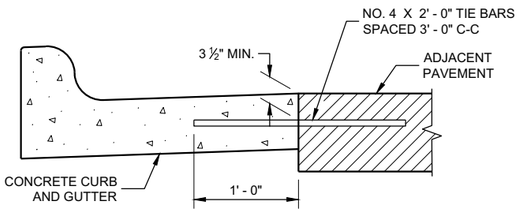
END SECTIONCURB AND GUTTER



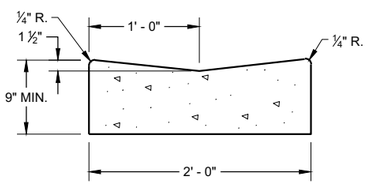
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER



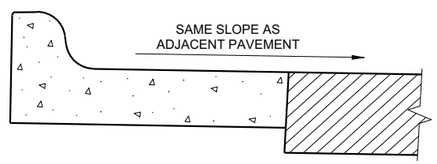
CONCRETE CURB AND GUTTER 19" ①



TYPICAL TIE BAR LOCATION ①



CONCRETE GUTTER 24" ①



HIGH SIDE SECTION ③

(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

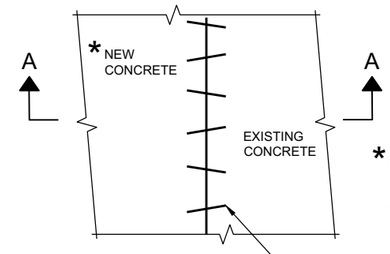
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUITED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

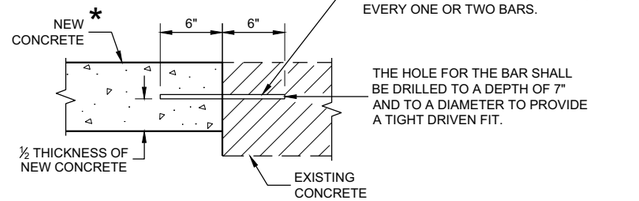
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLANS



PLAN VIEW

* EXISTING AND NEW CONCRETE MAY BE CURB AND GUTTER, SURFACE DRAINS, PAVEMENT OR OTHER CONCRETE STRUCTURE.



SECTION A - A

PAVEMENT TIES

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

(For Optional use in Milwaukee Co. Only)

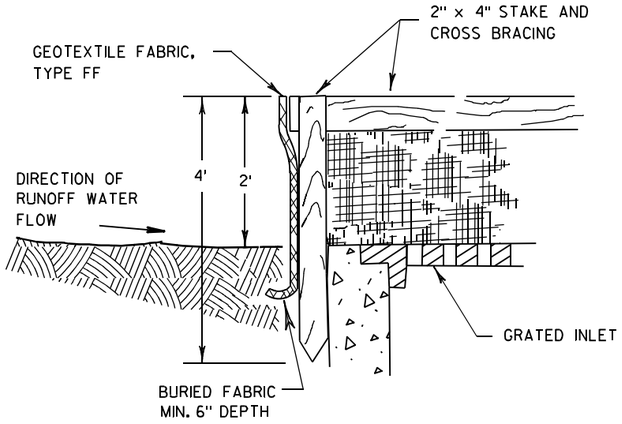
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

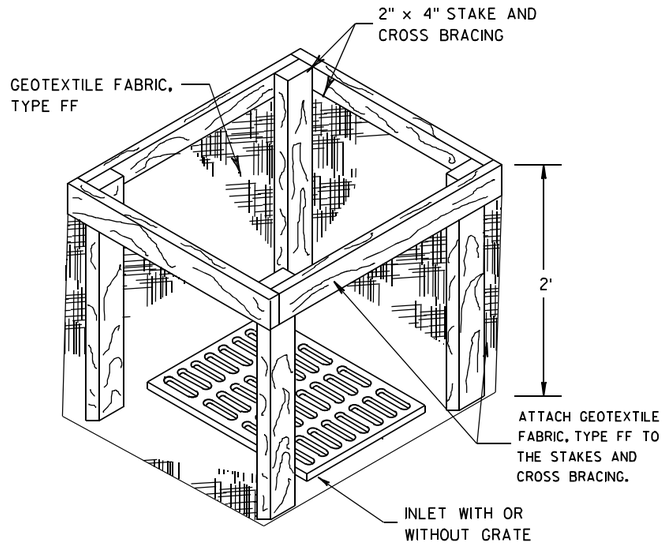
APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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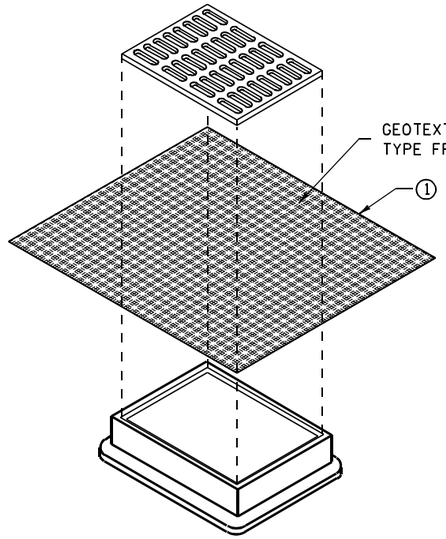
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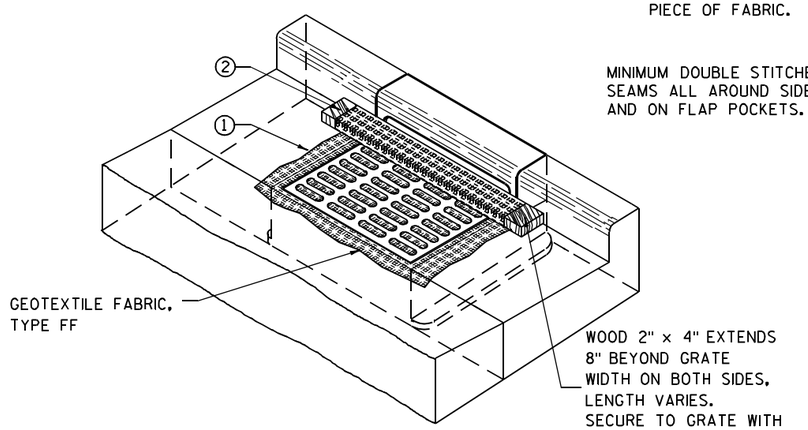


INLET PROTECTION, TYPE A

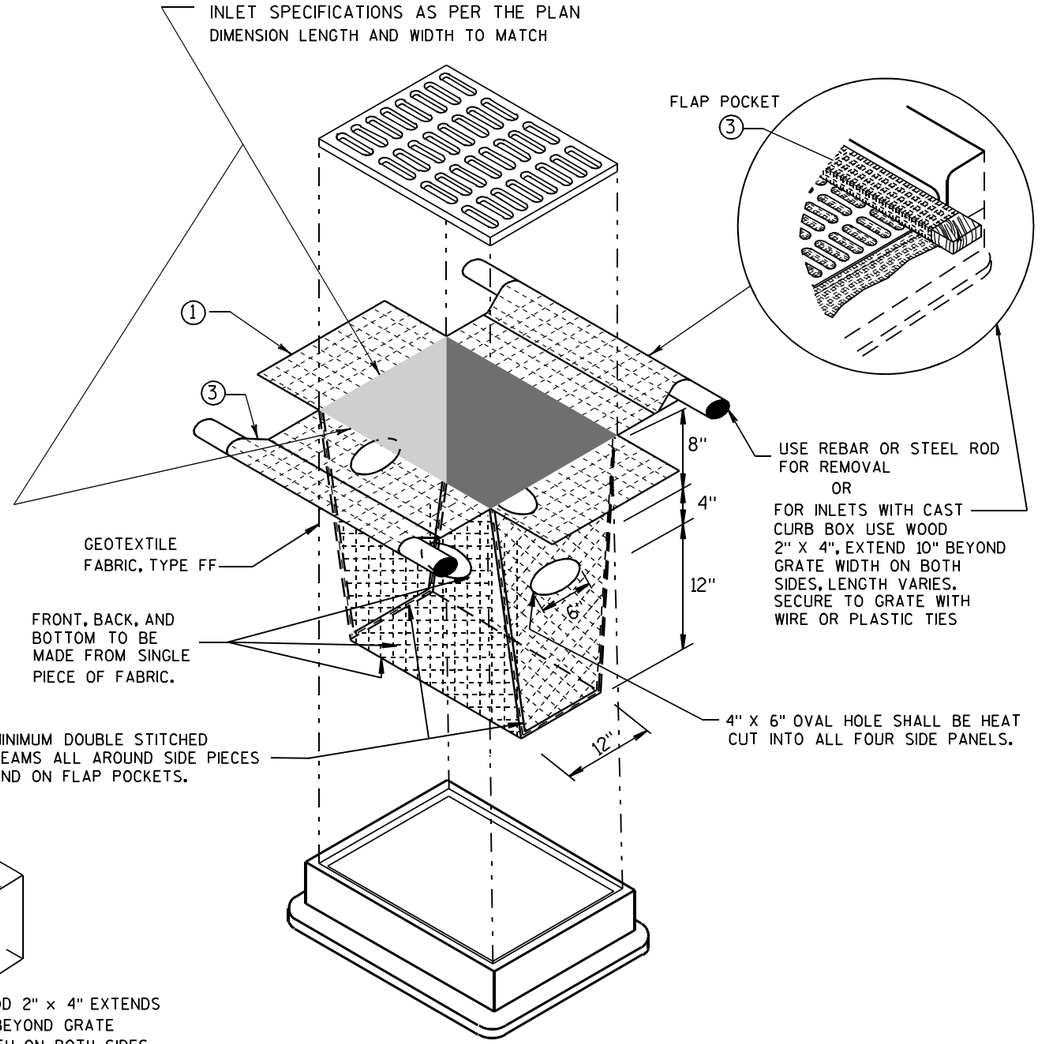


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

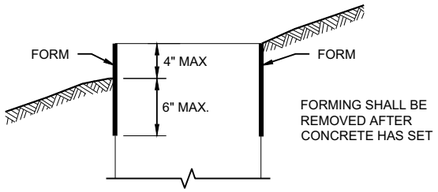
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S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

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

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

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

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

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

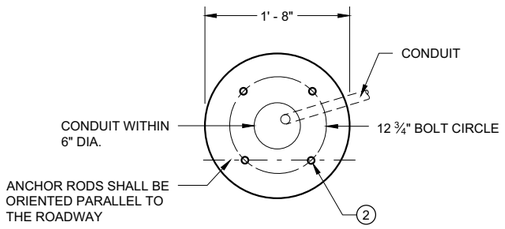
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

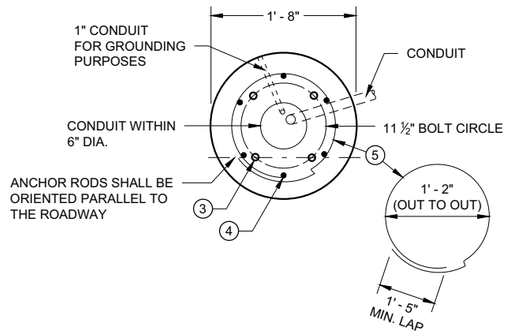
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

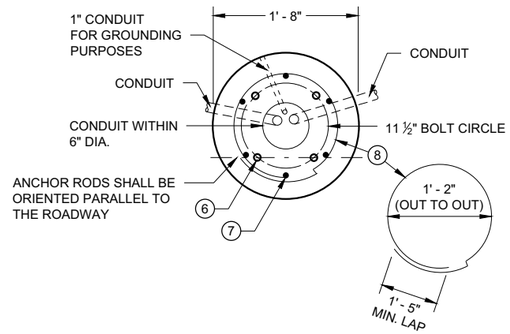
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

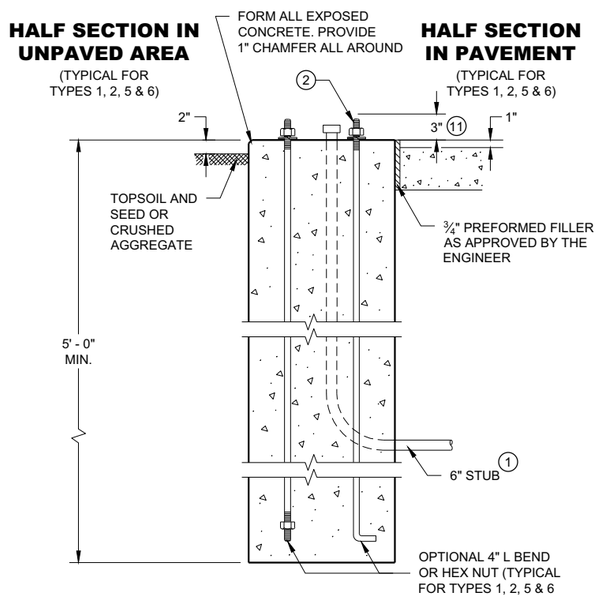
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

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

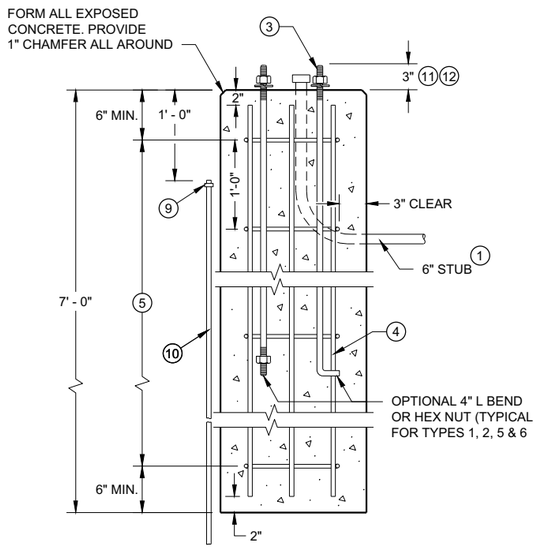




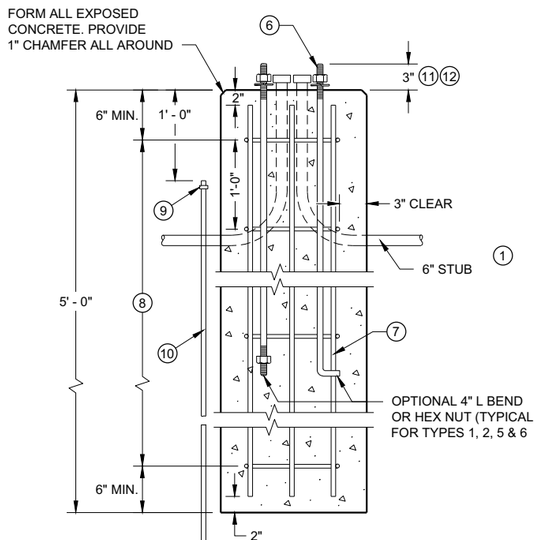




TYPE 1



TYPE 2



TYPE 5 & 6

1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES

CONCRETE BASES TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

GENERAL NOTES

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

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

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

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

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

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

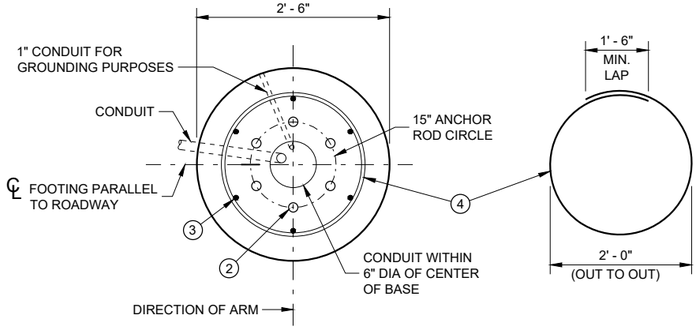
(2) (6) 1 ½ DIA. X 4' - 4" ANCHOR RODS

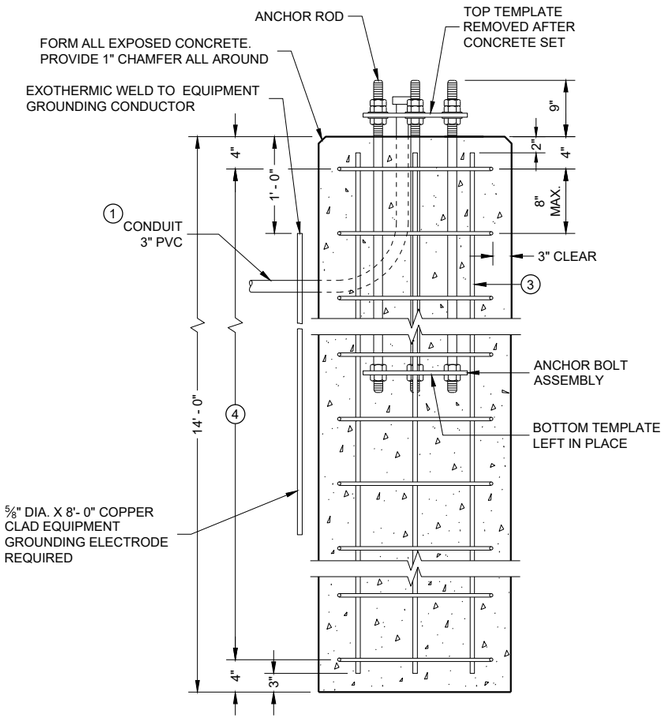
(3) (6) NO. 6 X 13' - 7" BAR STEEL REINFORCEMENT.

(4) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE .....fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.

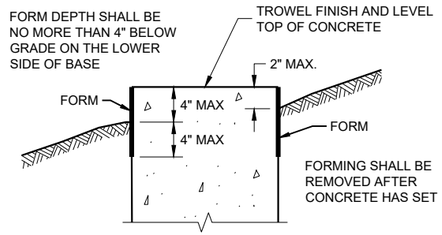
QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	172
LBS. OF VERTICAL BAR STEEL	122



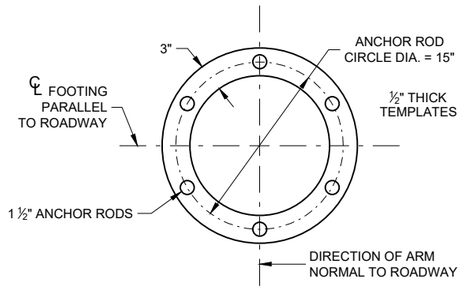


CONCRETE BASE, TYPE 10
(FOR TYPE 9, TYPE 10 AND OVER HEIGHT (OH) POLES)

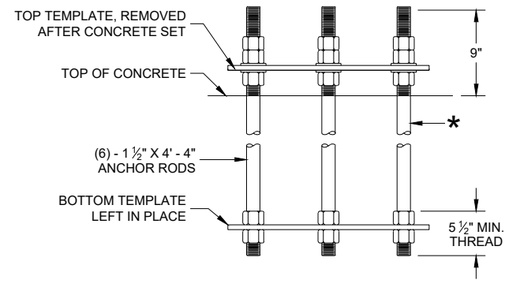
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE SDD 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demerbilek — WIND LOADED STRUCTU PROGRAM LEADER
FHWA

6
SDD 09C11 - 10

GENERAL NOTES

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

THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

ORIENT ANCHOR RODS IN FOUNDATION AND PROVIDE ANCHOR RODS STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

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

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

FORM ALL EXPOSED CONCRETE CORNERS WITH 1" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 ½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

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

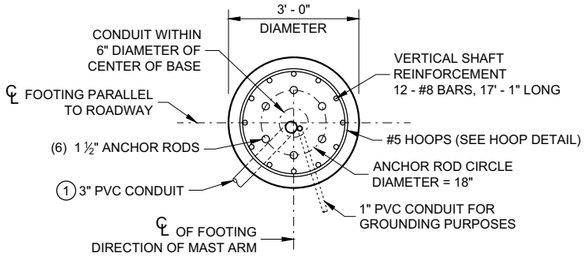
A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

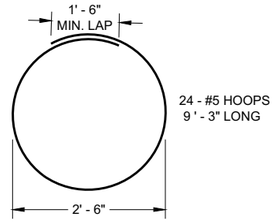
THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

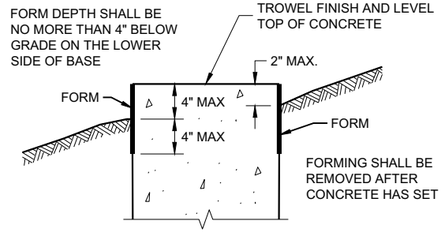
CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION).....fy = 55,000 p.s.i.
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.



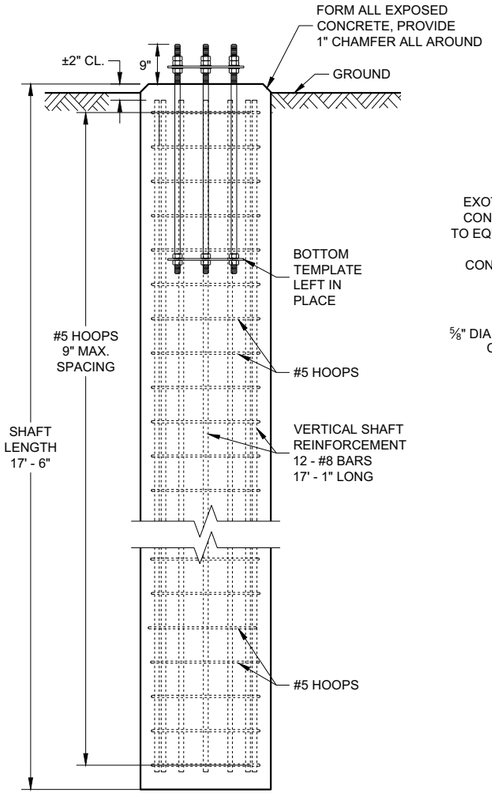
PLAN VIEW



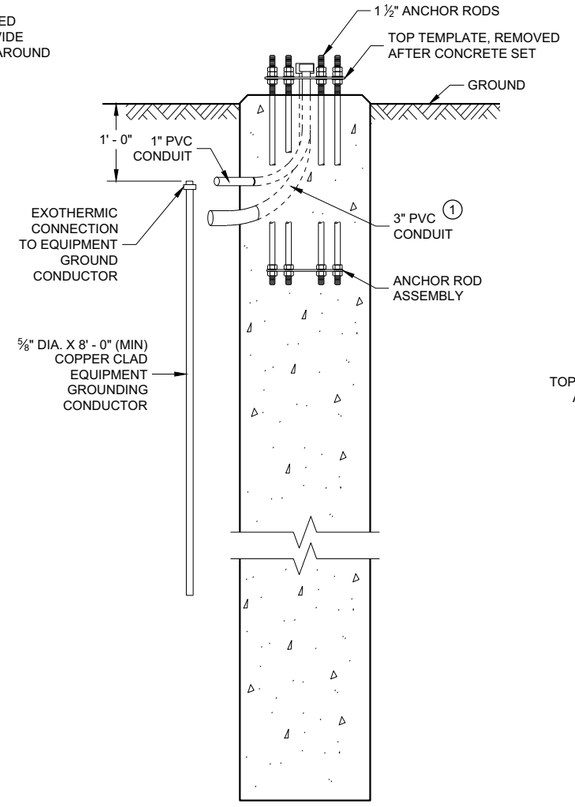
HOOP DETAIL



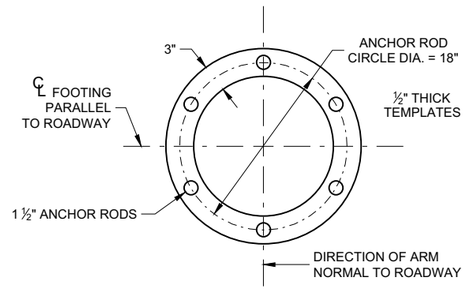
FORMING DETAIL



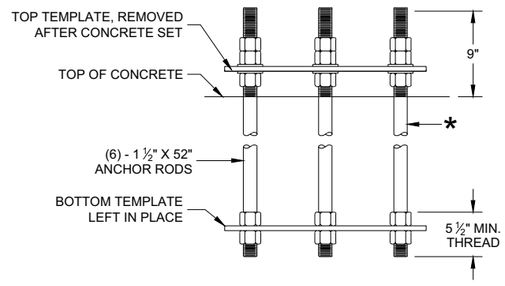
ELEVATION VIEW
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)



SIDE VIEW
(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

CONCRETE BASE, TYPE 10 SPECIAL
(FOR TYPE 9 SPECIAL AND TYPE 10 SPECIAL POLES)

CONCRETE = 4.6 CUBIC YARD
H.S. REINFORCEMENT = 779 LBS.

FOR USE WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 10 SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

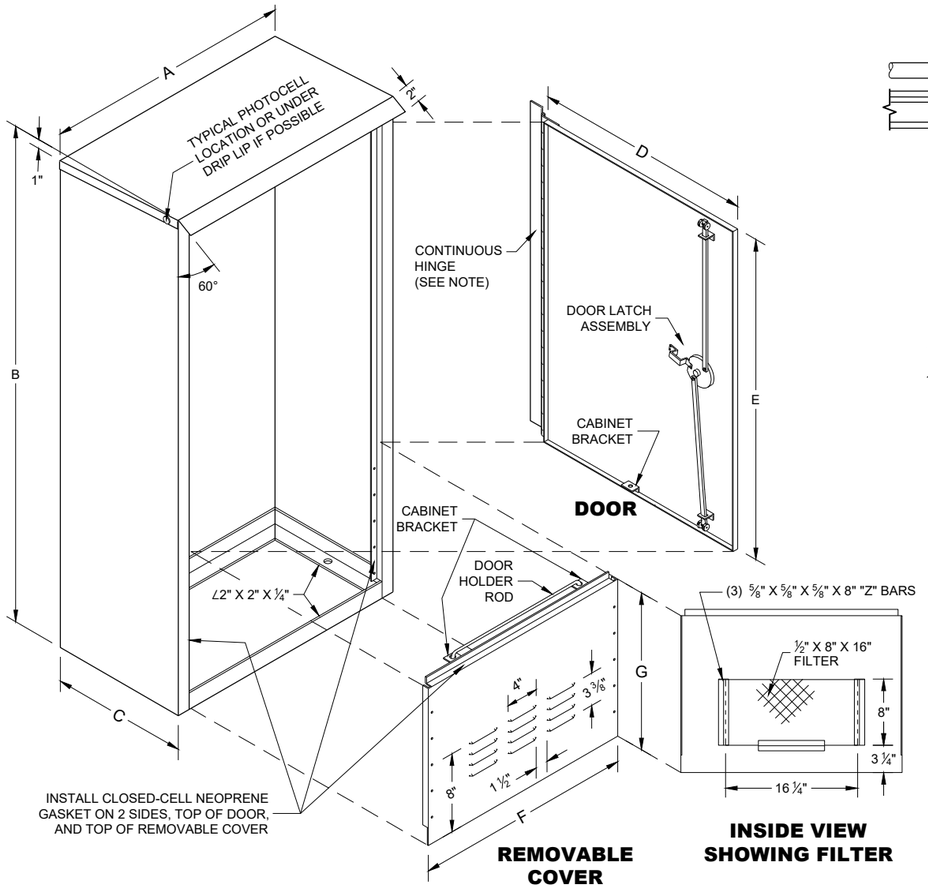
APPROVED
August 2020 — DATE
/S/ Alex Crabtree — WIND LOADED STRUCTU PROGRAM LEADER
FHWA

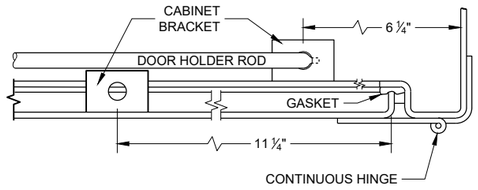
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SDD 09C15 - 01

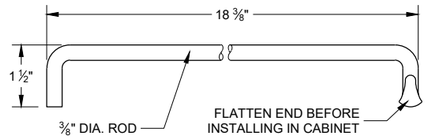
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SDD 09C15 - 01

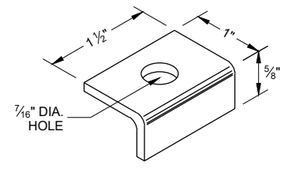




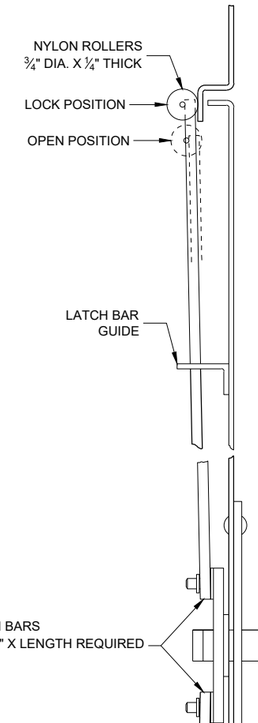
HINGE AND DOOR HOLDER

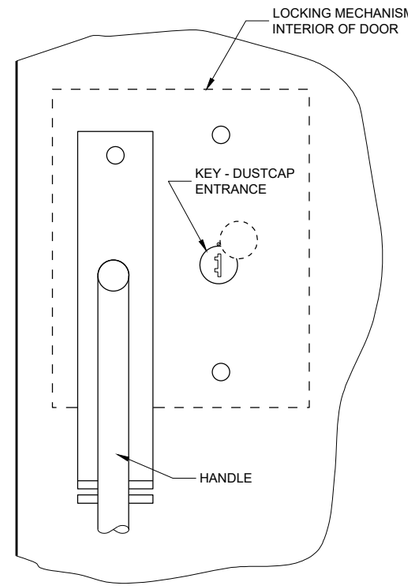


HOLDER ROD



CABINET BRACKET





SIDE VIEW **FRONT VIEW**

LATCH ASSEMBLY

GENERAL NOTES

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

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

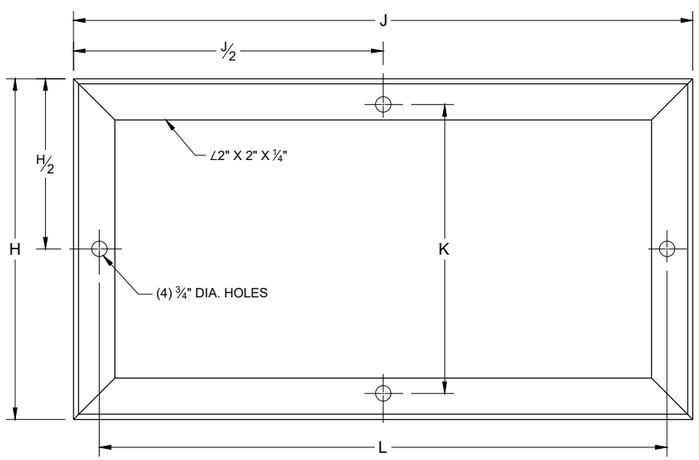
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH ¼" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH ¼" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH - NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

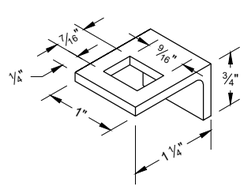
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 ½	16 ½	24
D	26 ½	34 ¾	33 ¾
E	38 ¾	38 ¾	38 ¾
F	26 ½	34 ¾	33 ¾
G	19	19	25
H	16 ½	16 ½	24
H/2	8 ¼	8 ¼	12
J	30	38	38
J/2	15	19	19
K	13 ¾	13 ¾	21 ¼
L	27 ½	35 ½	35 ½



LATCH BAR GUIDE

SIGNAL CONTROL CABINET

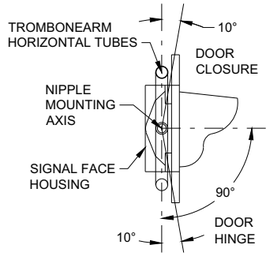
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE

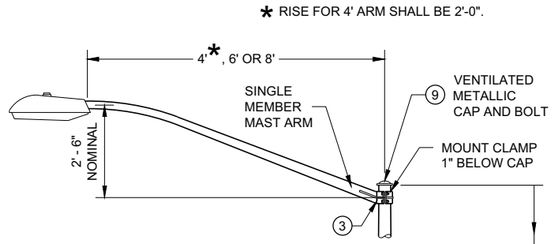
/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI 94

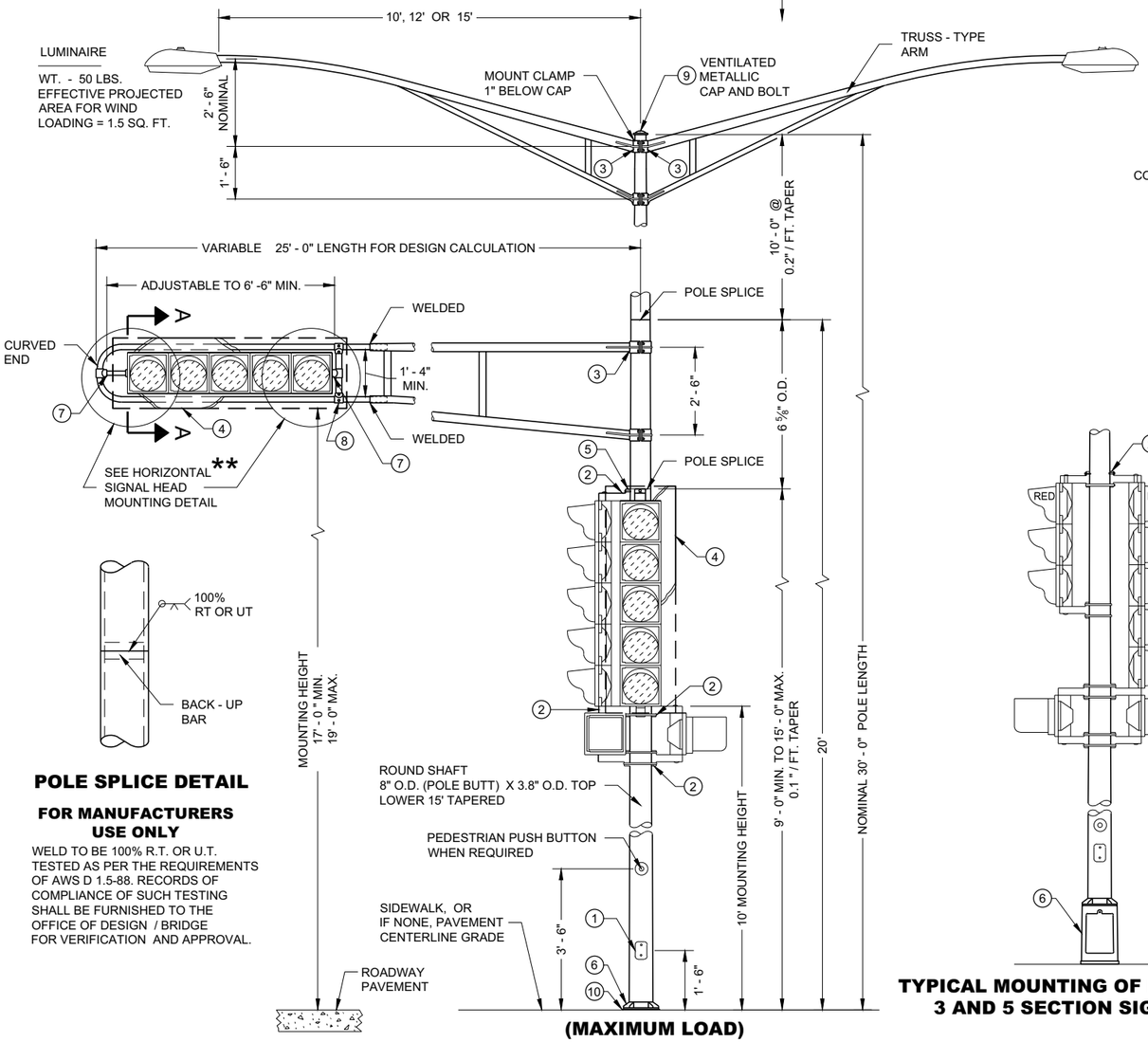
FHWA

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SDD 09D02 - 03



SECTION A-A



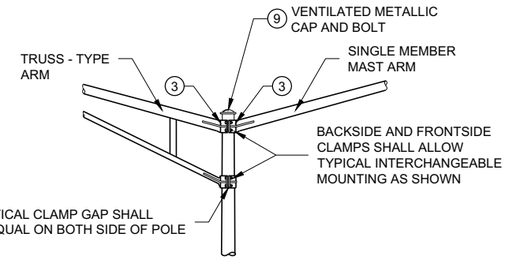


(MAXIMUM LOAD)

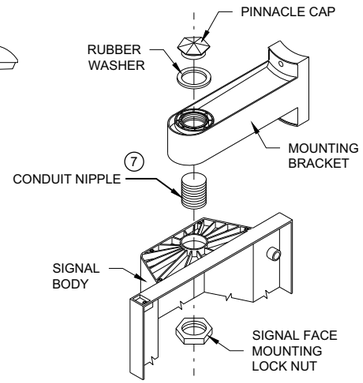
POLE SPLICE DETAIL

FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.

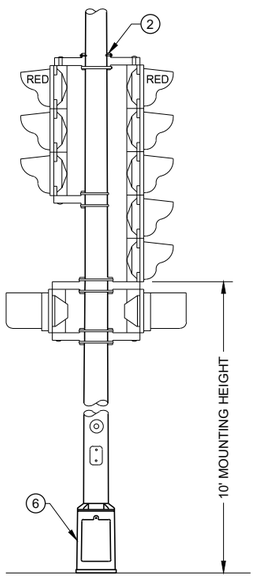


INTERCHANGEABLE MOUNTING DETAIL

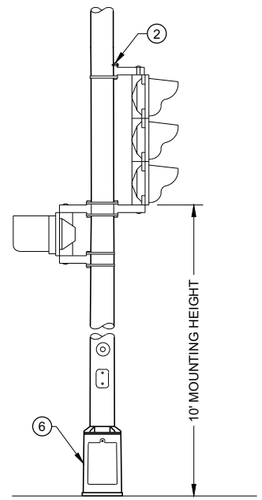


SIGNAL FACE MOUNTING DETAIL

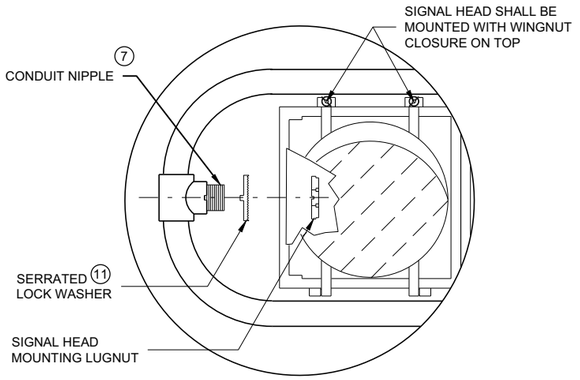
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD ** MOUNTING DETAIL

** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

TYPE 3 POLE MOUNTING CONFIGURATION

GENERAL NOTES

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

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED. UNDER MAX LOADING, TYPE 3 POLE SHALL BE MOUNTED DIRECTLY TO ITS CONCRETE BASE.

(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

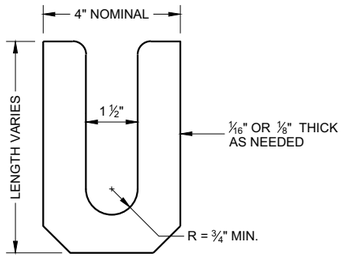
(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS TYPE 3 (HEAVY DUTY)

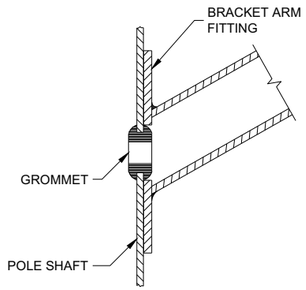
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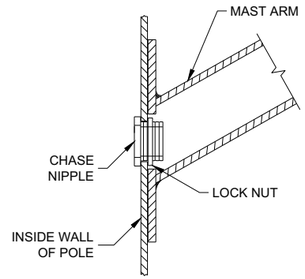
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LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

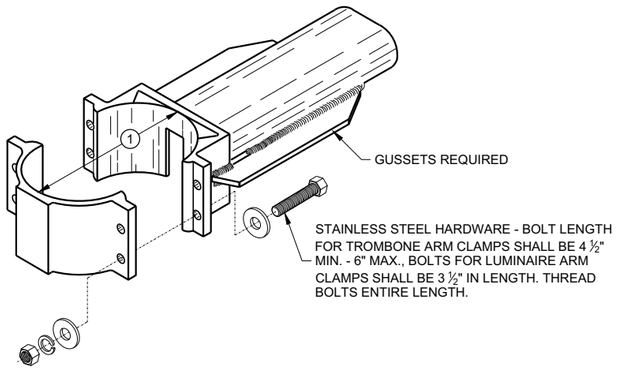
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

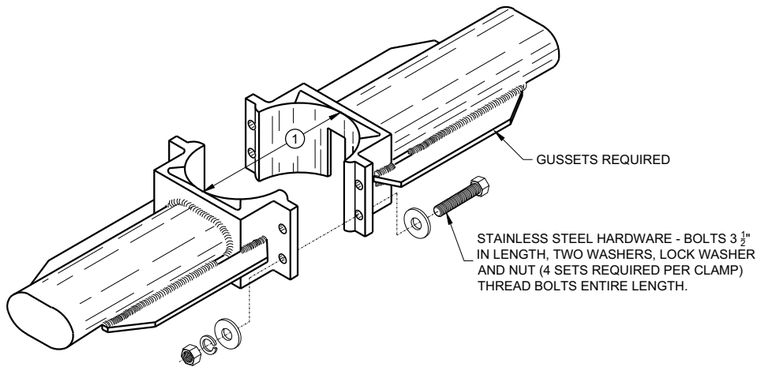
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

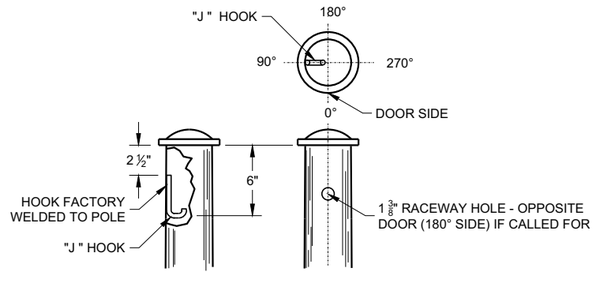
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



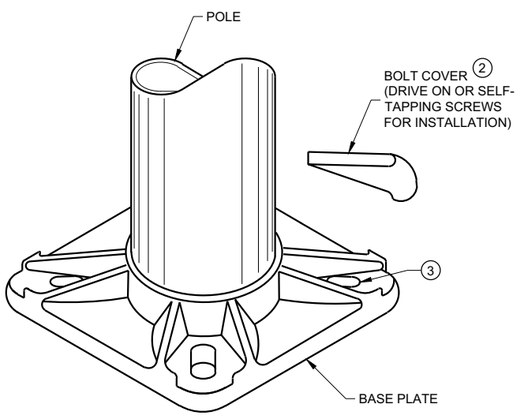
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



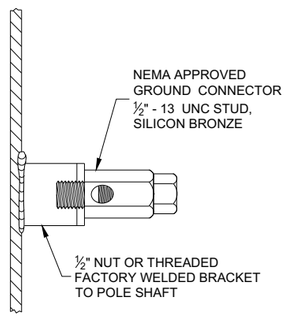
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

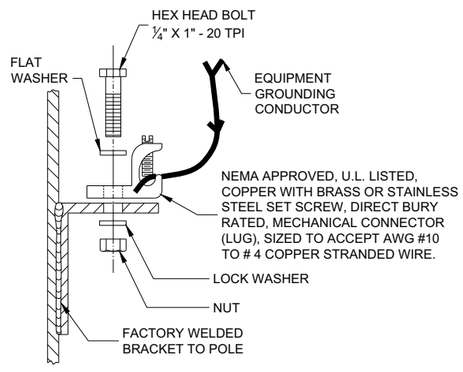


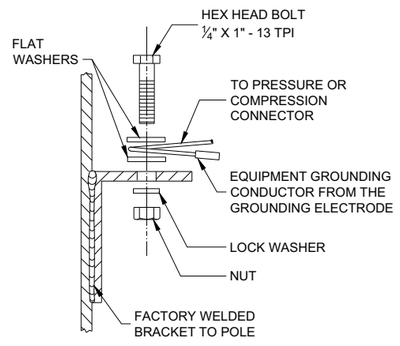
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

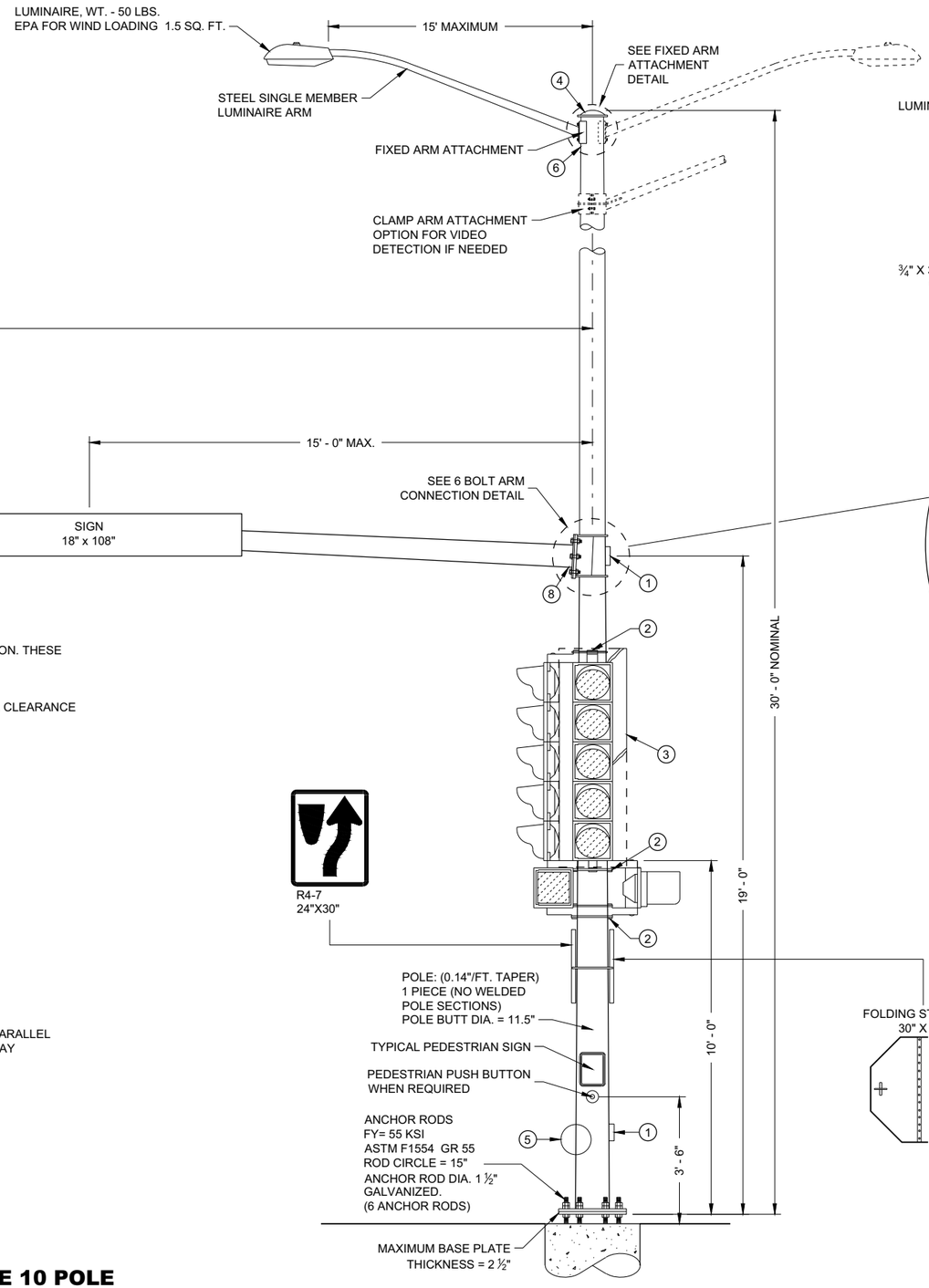
HARDWARE DETAILS FOR POLE MOUNTING

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DATE
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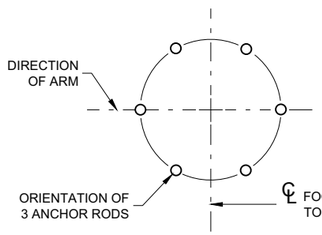
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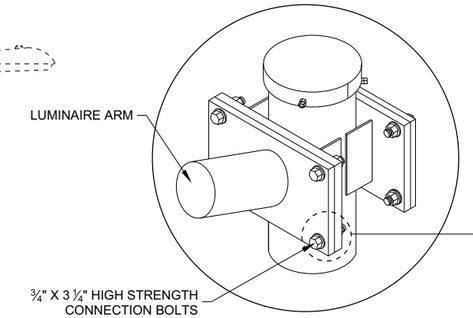


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

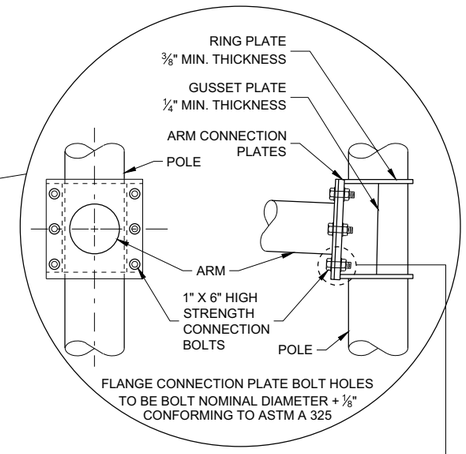
** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE



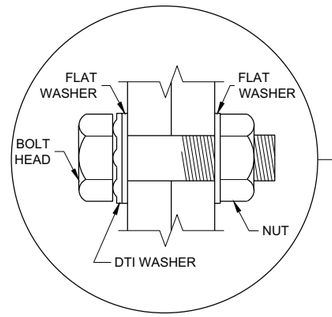
ANCHOR ROD LOCATION



FIXED ARM ATTACHMENT DETAIL



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 10 POLE
15' - 30' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 10 POLE
15' - 30' MONOTUBE ARM

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DEPARTMENT OF TRANSPORTATION

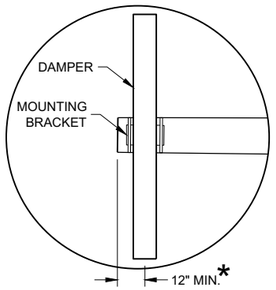
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August 2020
DATE

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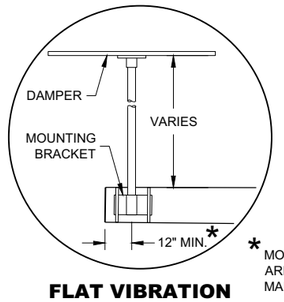
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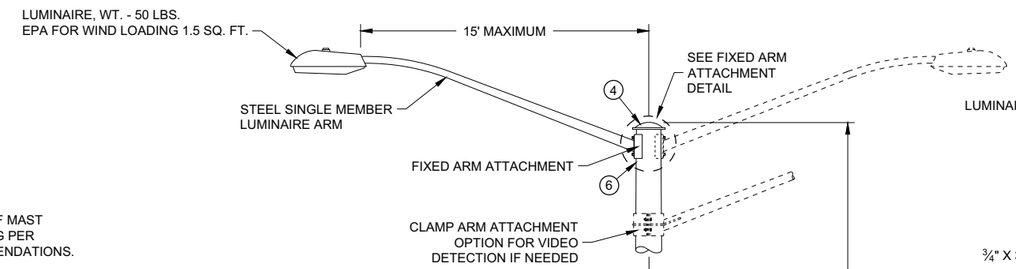


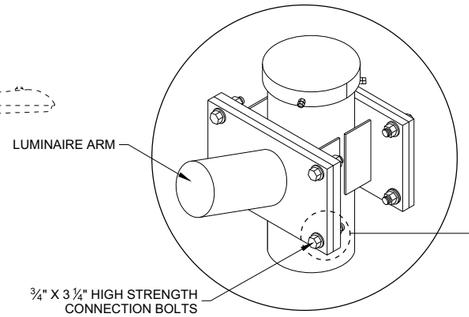
DUMBBELL VIBRATION DAMPER



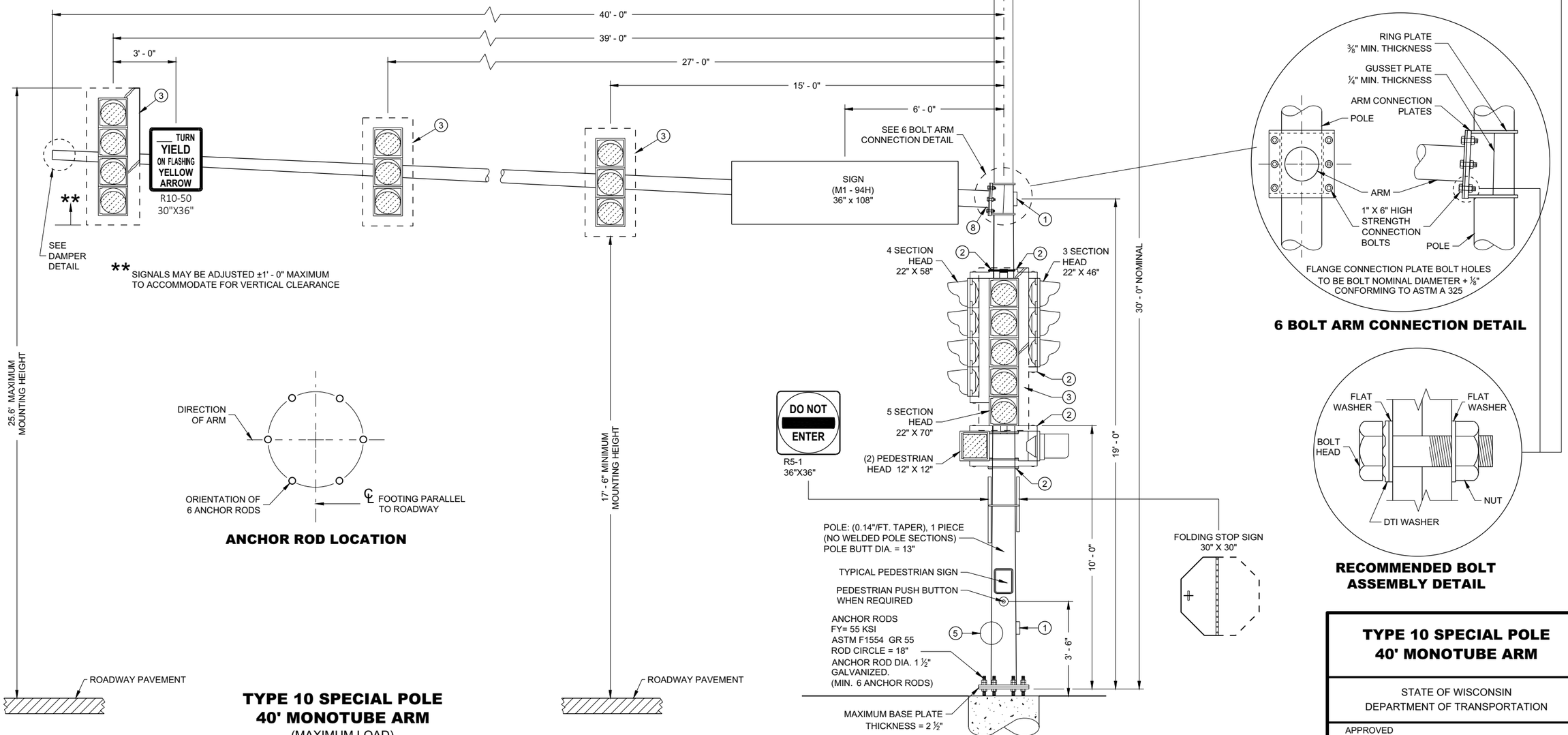
FLAT VIBRATION DAMPER

* MOUNT AS CLOSE TO END OF MAST ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.





FIXED ARM ATTACHMENT DETAIL



** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE

ANCHOR ROD LOCATION

TYPE 10 SPECIAL POLE
40' MONOTUBE ARM
(MAXIMUM LOAD)

6 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 10 SPECIAL POLE
40' MONOTUBE ARM

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August 2020
DATE

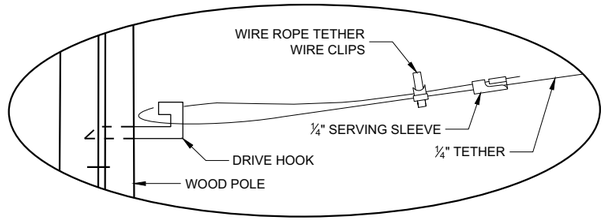
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MINIMUM POLE LENGTHS	POLE BURIAL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

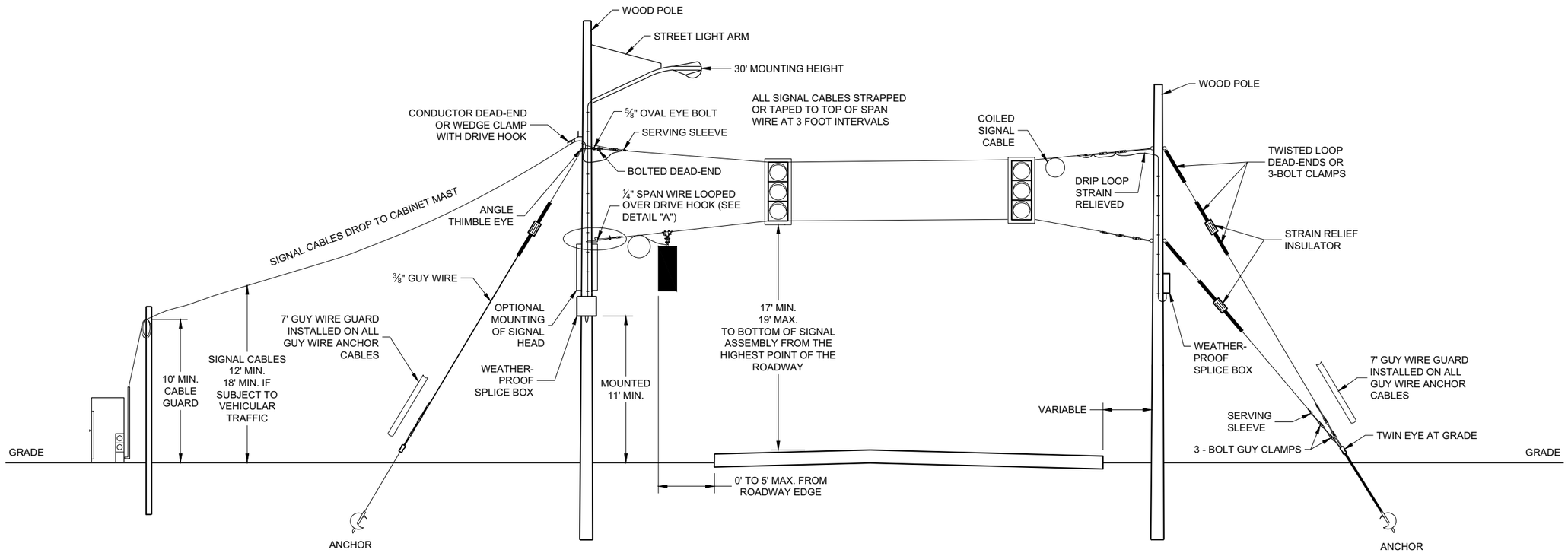


DETAIL "A"

GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
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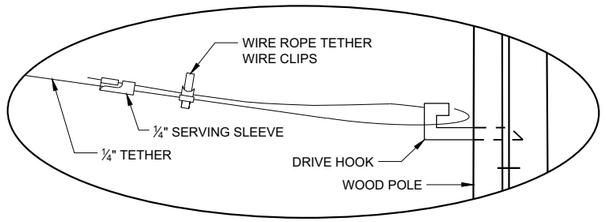
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MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

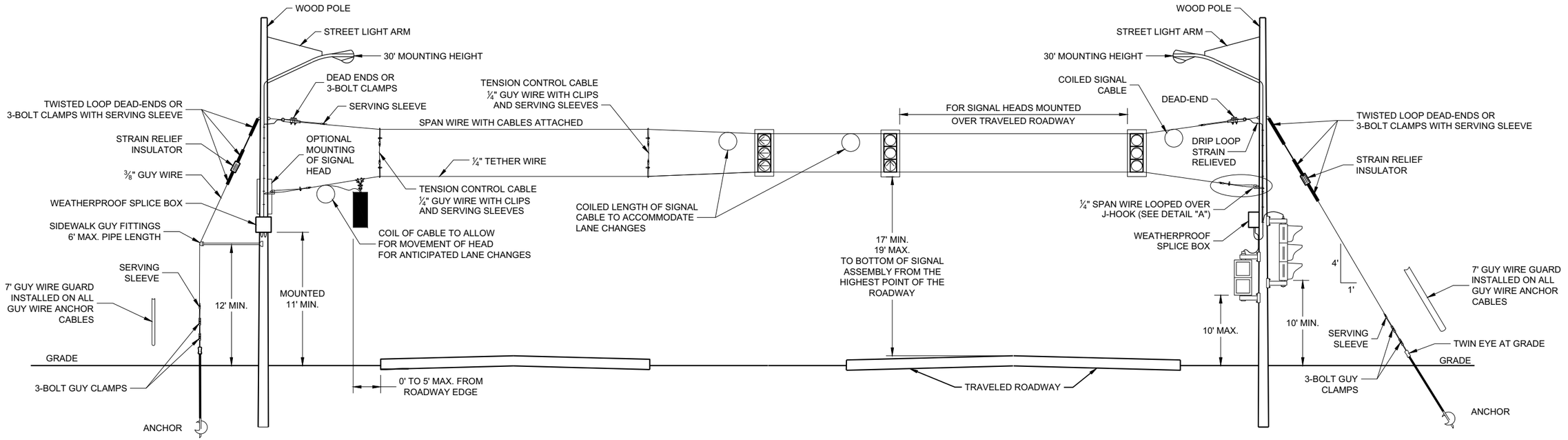


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   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
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SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

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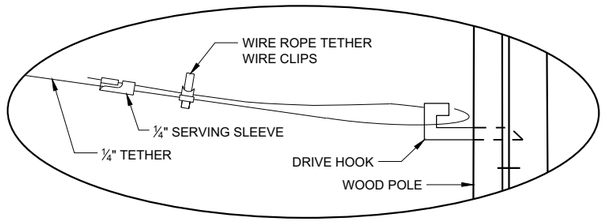
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MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

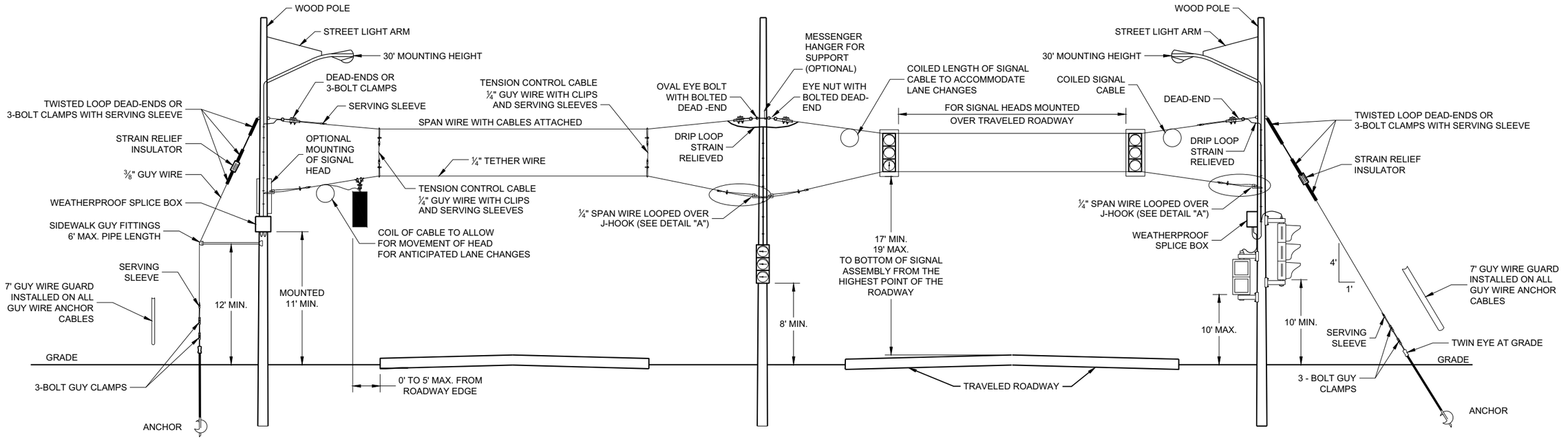


DETAIL "A"

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SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

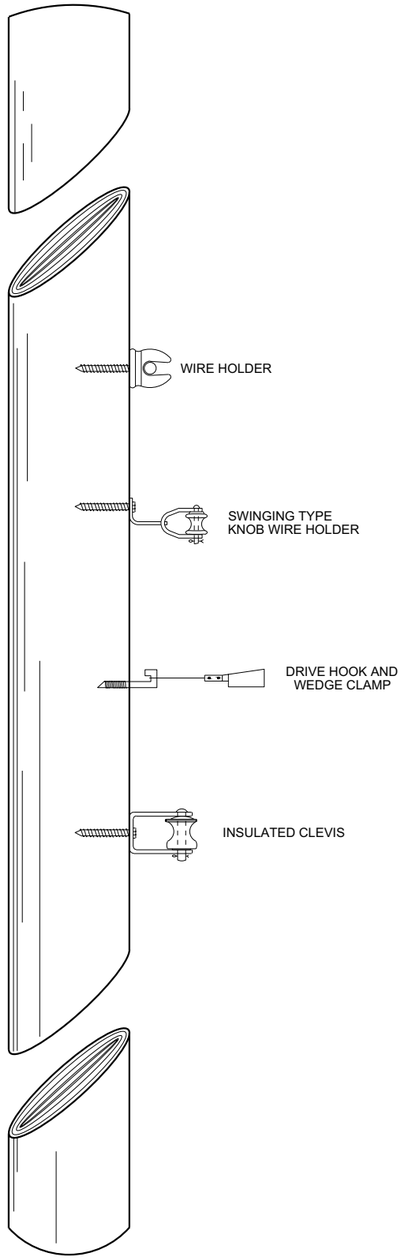
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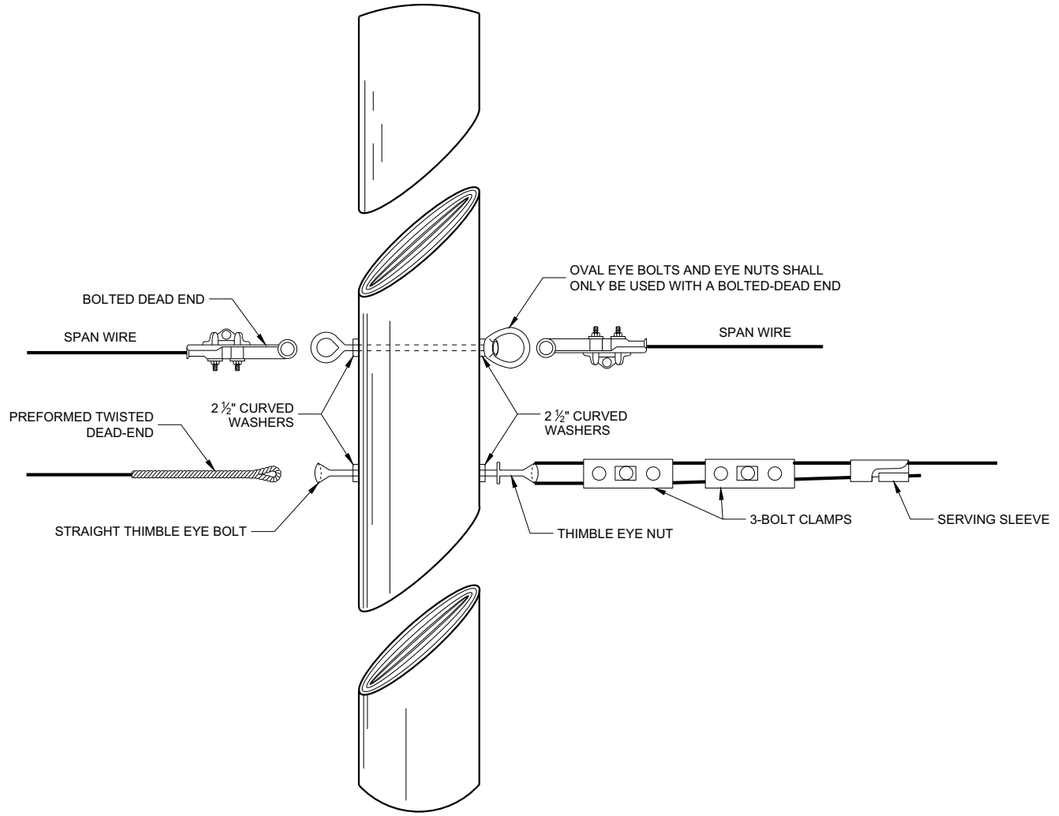
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SPAN WIRE TEMPORARY TRAFFIC SIGNAL

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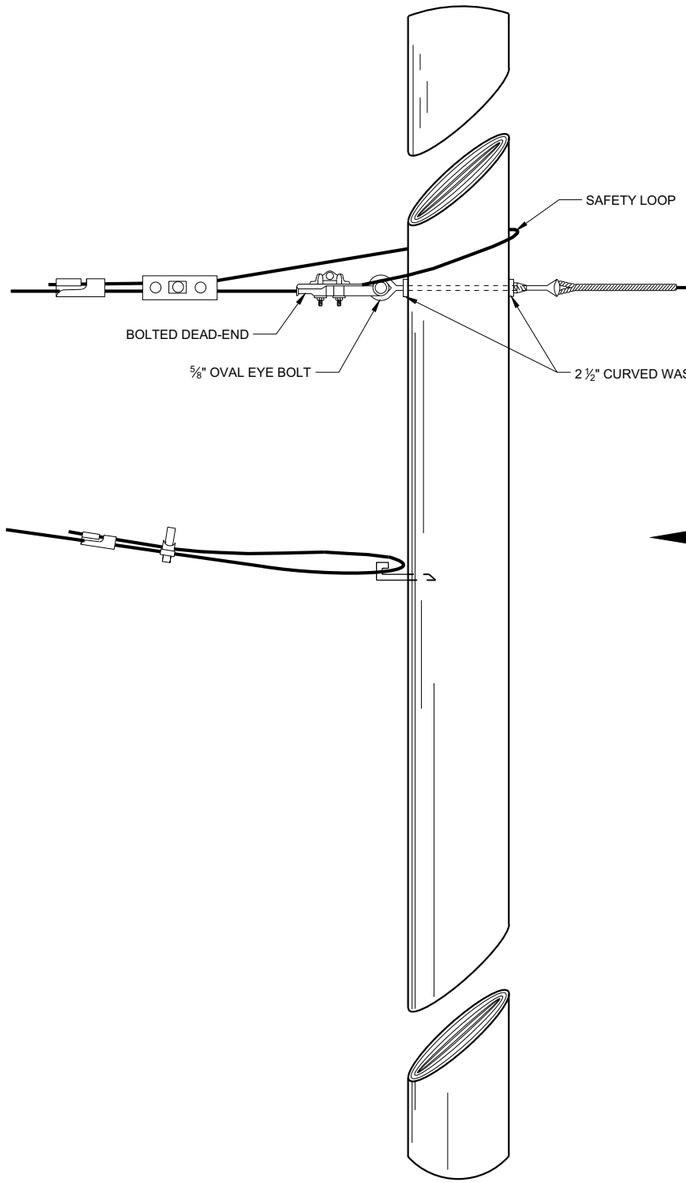
June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

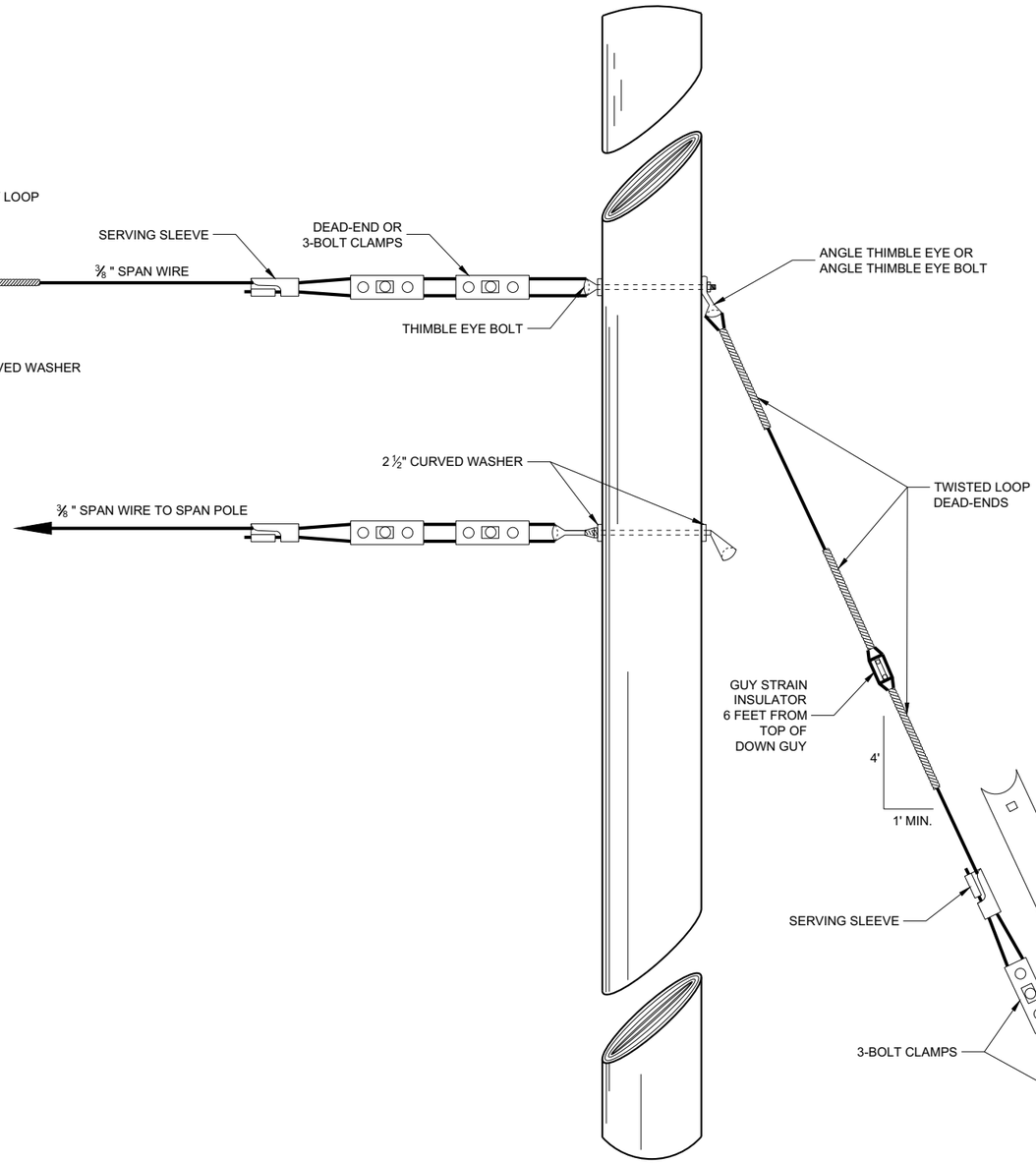
FHWA

GENERAL NOTES

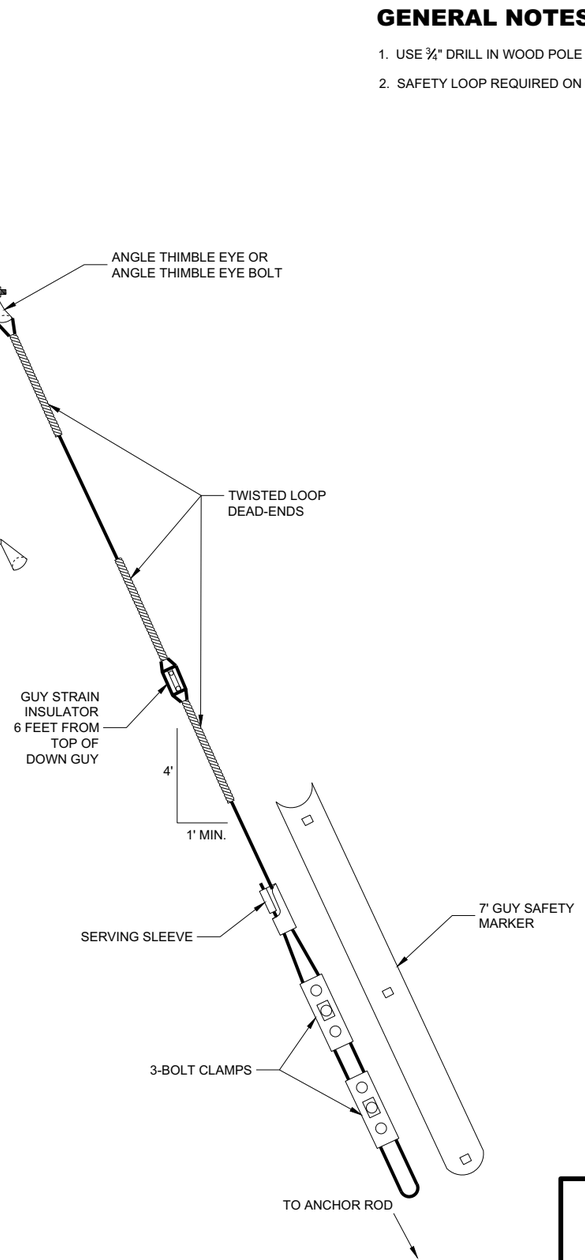
1. USE ¾" DRILL IN WOOD POLE TO PROVIDE FOR ⅝" BOLTS.
2. SAFETY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE



TYPICAL DEAD-ENDINGS OR GUYING

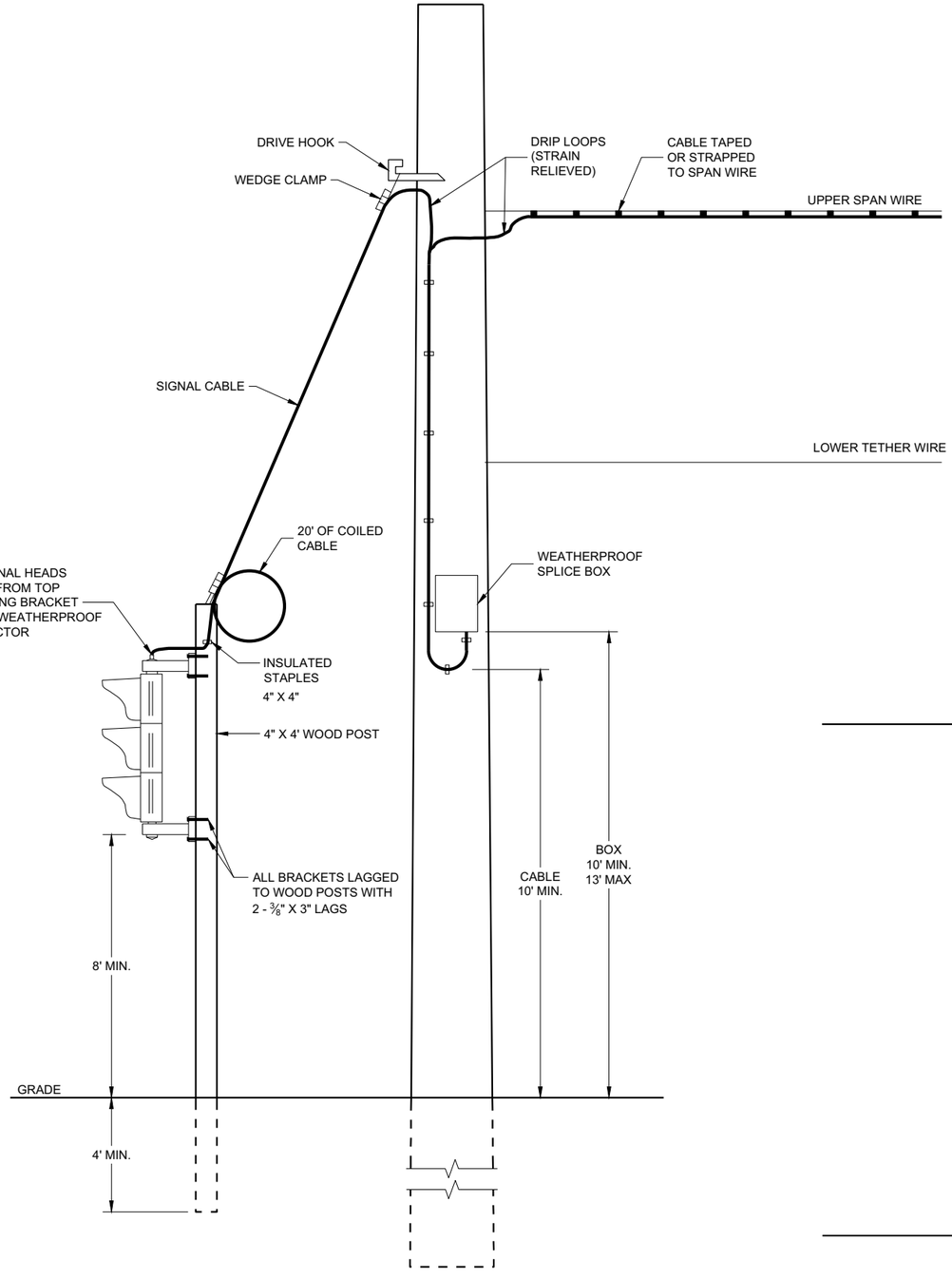
SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
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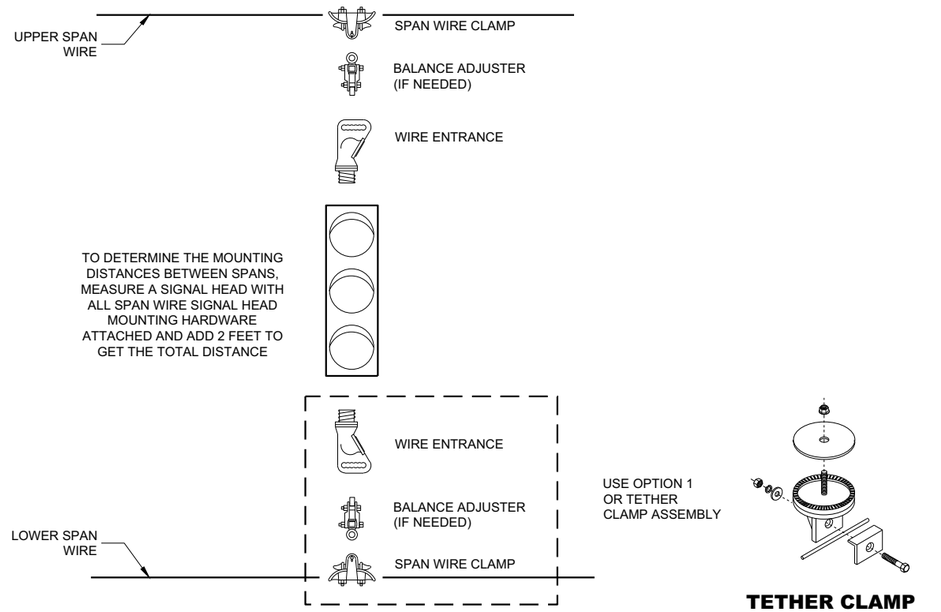
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TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL

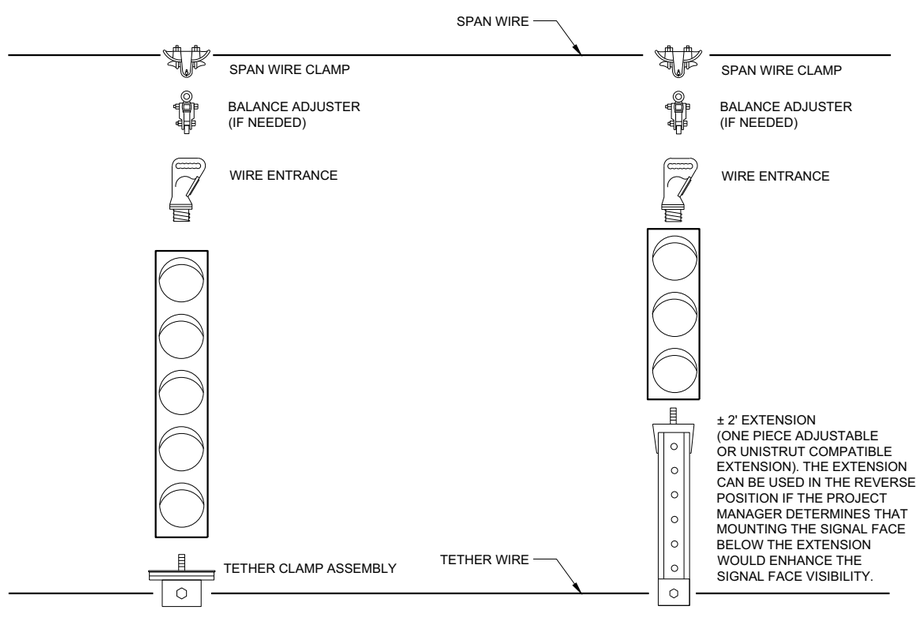


OPTION 1

USE OPTION 1 OR TETHER CLAMP ASSEMBLY

TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

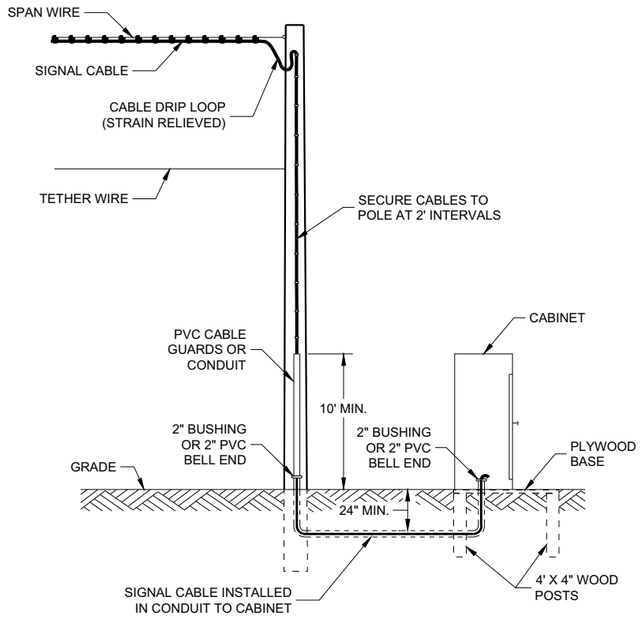
APPROVED
June 2015
DATE

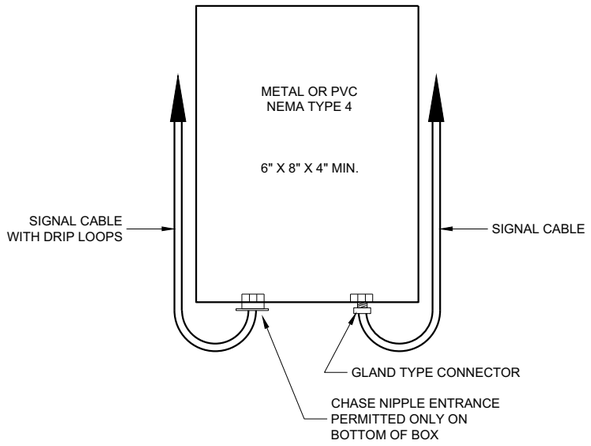
/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

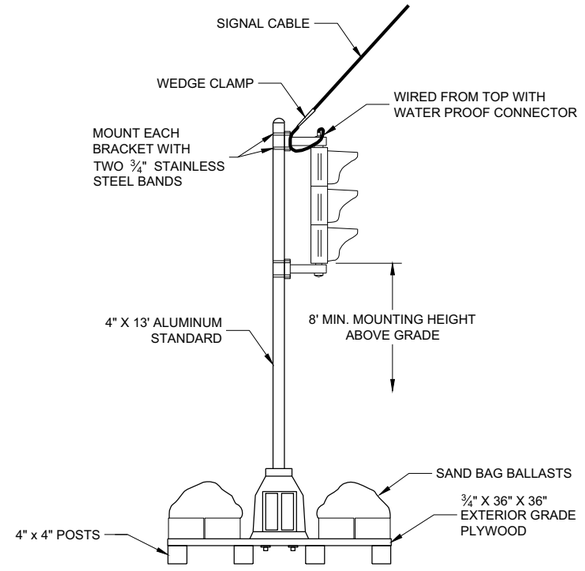
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SDD 09G01 - 4f

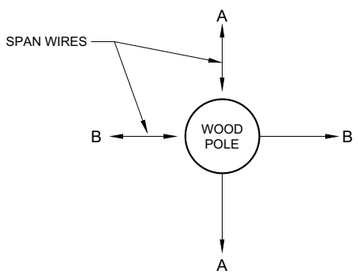




SPLICE BOX

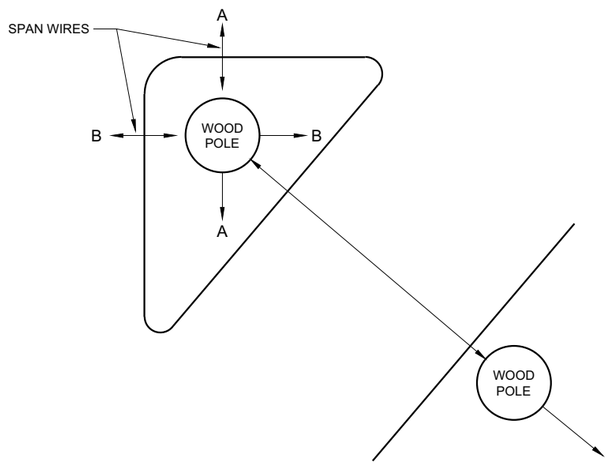


TYPICAL SKID TYPE TEMPORARY

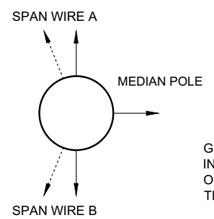


ALL DOWN OR SIDEWALK GUYS SHALL BE INSTALLED IN THE OPOSITE DIRECTION OF THE STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF
THE SPAN LOADING

MEDIAN POLES

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

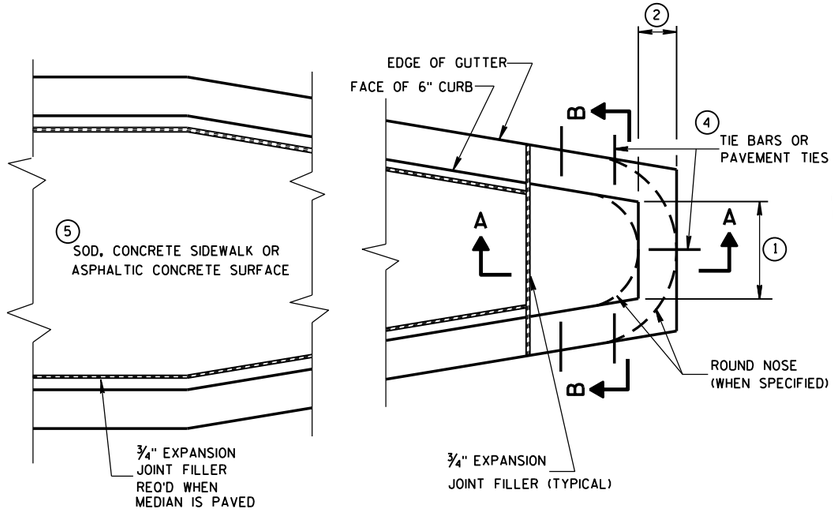
June 2015
DATE

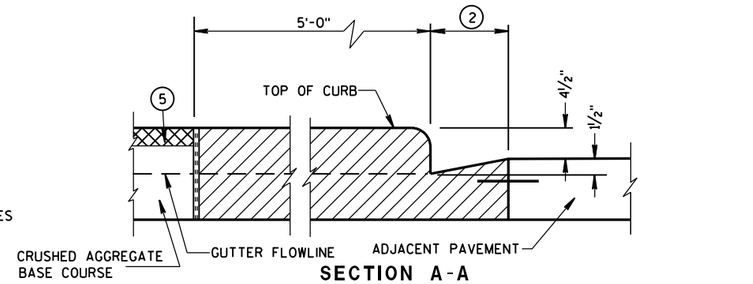
/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

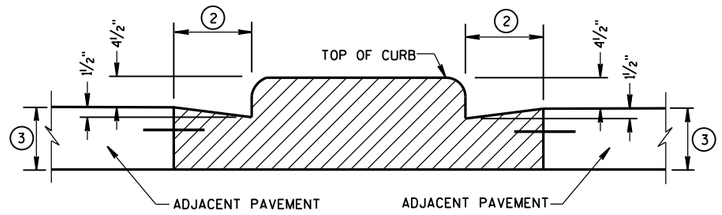
6

SDD 09G01 - 4g





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.

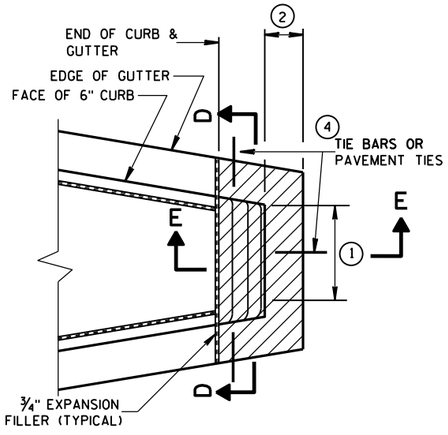
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

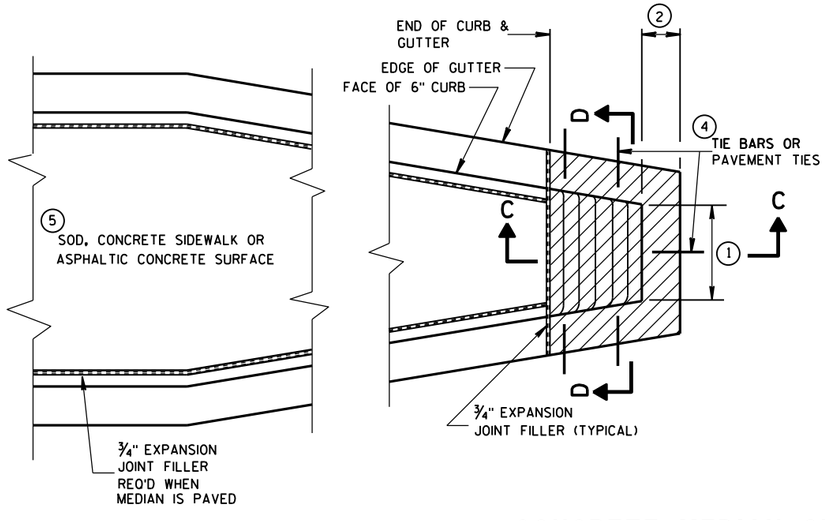
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(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.

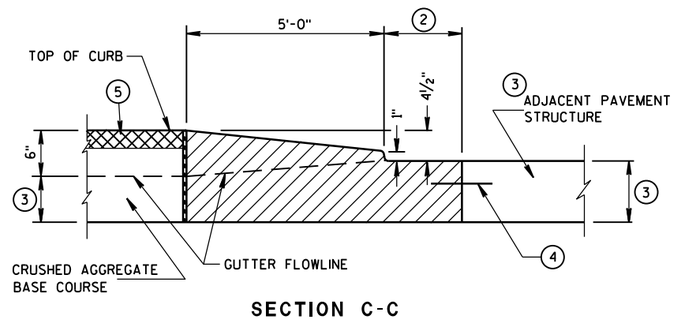
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

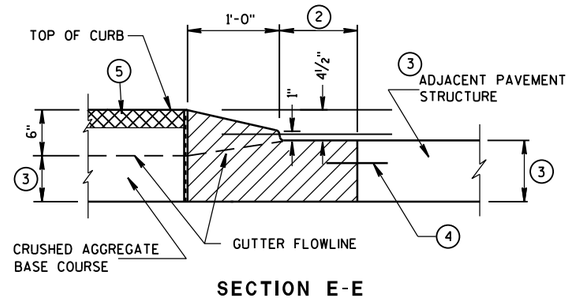




CONCRETE MEDIAN SLOPED NOSE TYPE 1

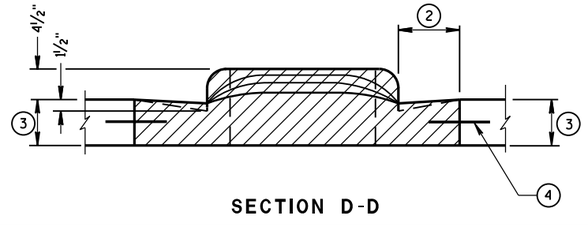


SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

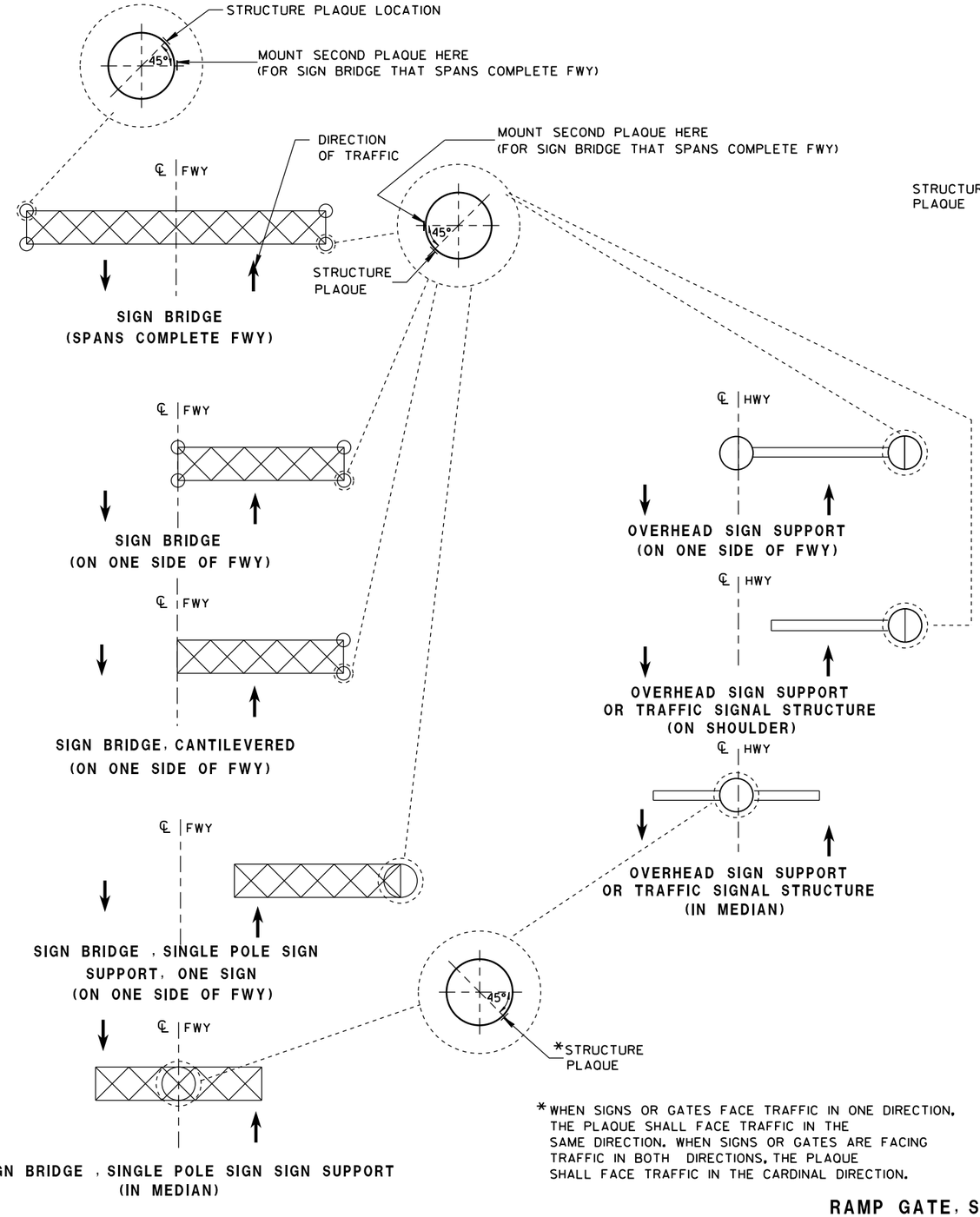
APPROVED
6/8/2006 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS D ENGINEER
FHWA

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S.D.D. 11 B 2-2

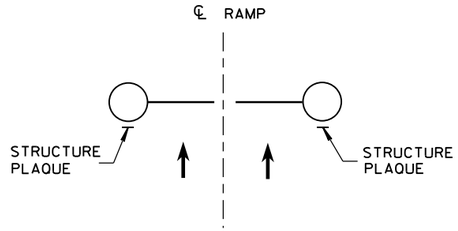
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S.D.D. 11 B 2-2

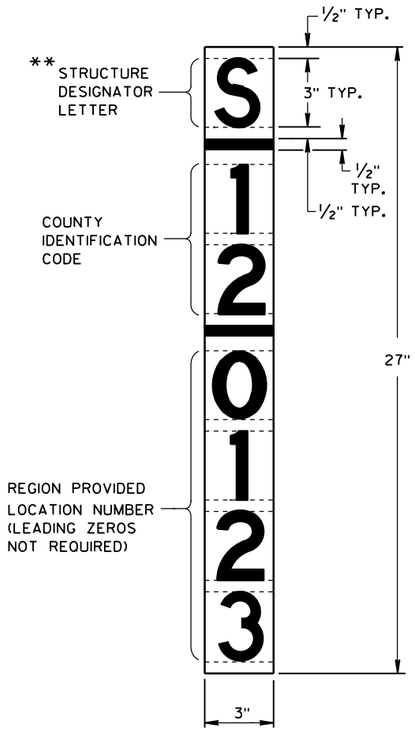


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



RAMP GATE
(ACROSS FWY ON-RAMP)



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

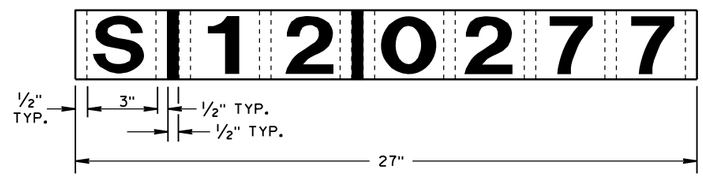
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

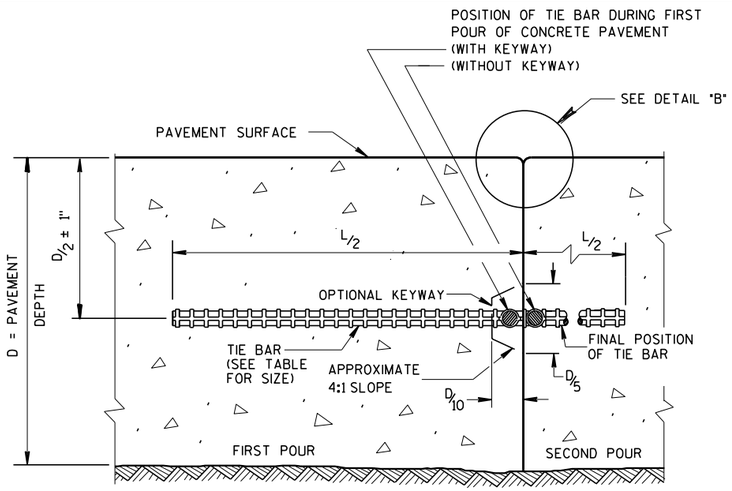
STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

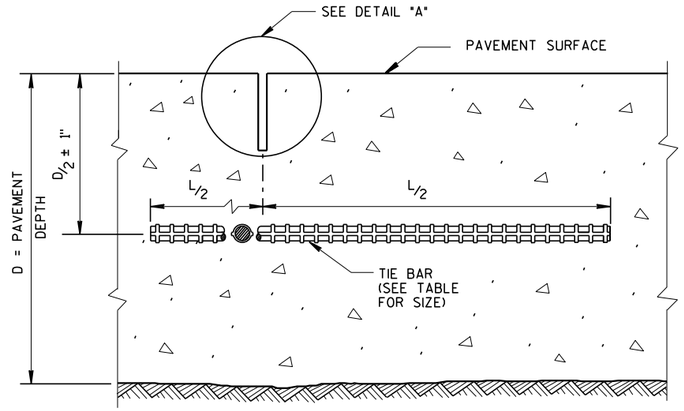
APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 12 A 4-3



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.

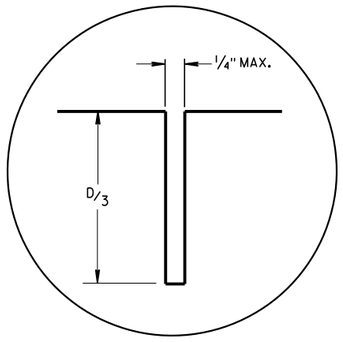
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

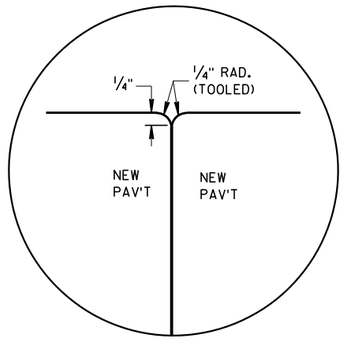
PLAN VIEW

SECTION A-A

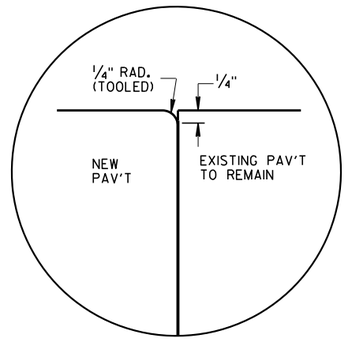
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



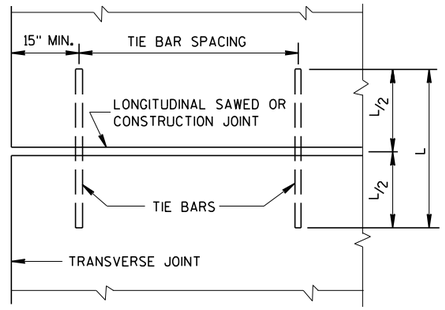
DETAIL "C"

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.

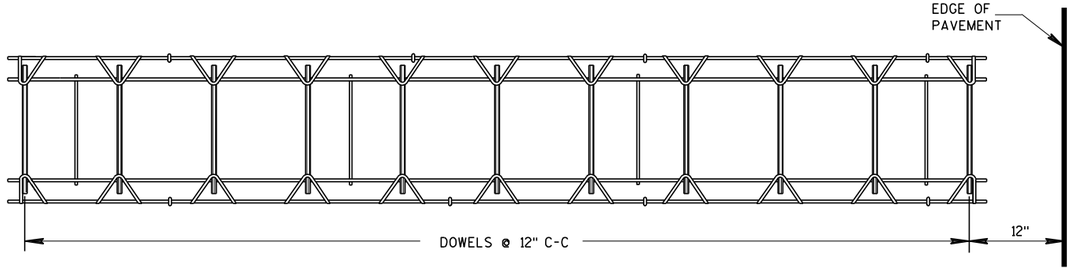


PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp PE — PAVEMENT SUPE
FHWA

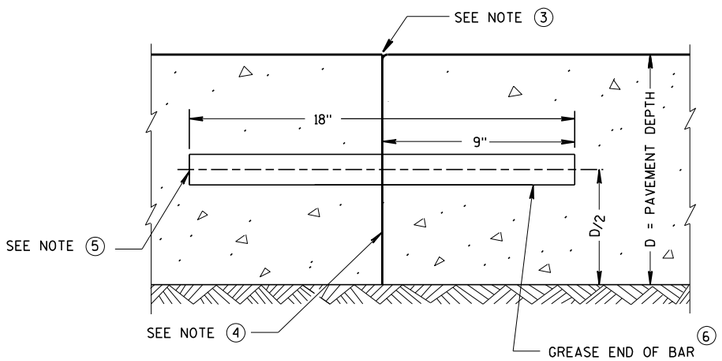


PLAN VIEW

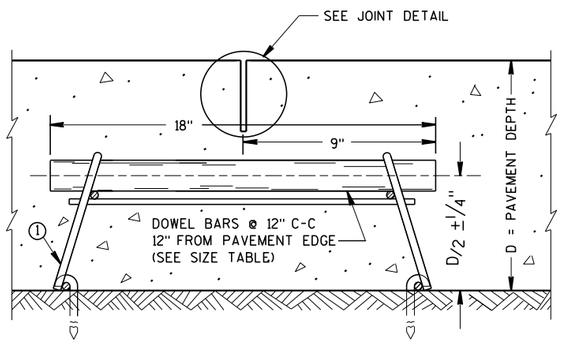


SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



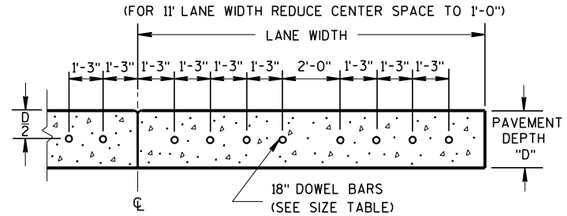
TRANSVERSE CONSTRUCTION JOINT



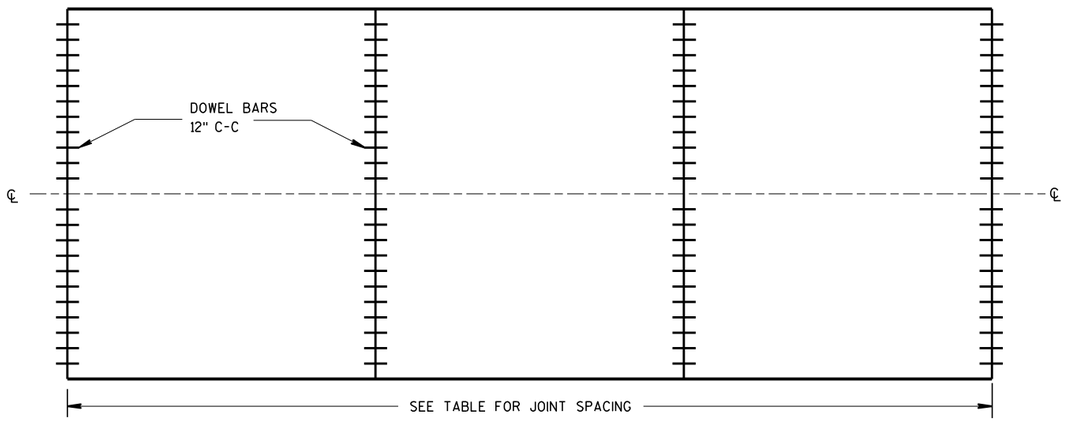
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

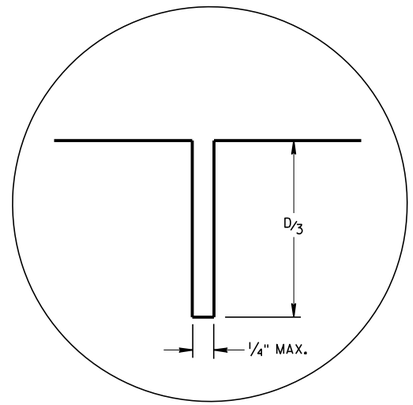
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

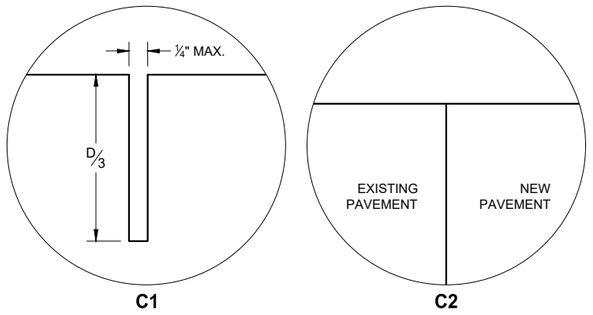
APPROVED
March 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUP

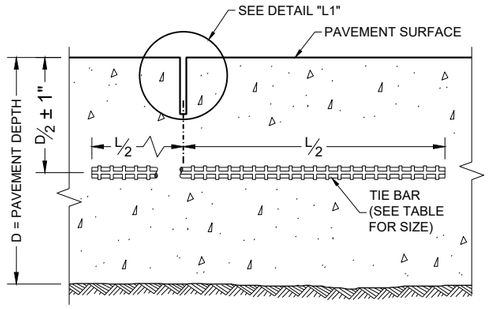
FHWA

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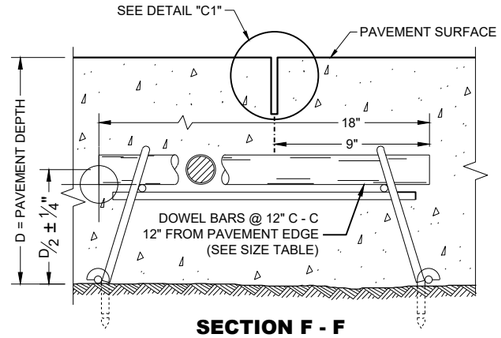
S.D.D. 13 C 13-9



TRANSVERSE JOINTS



SECTION C - C
SAWED JOINT



SECTION F - F
CONTRACTION JOINT

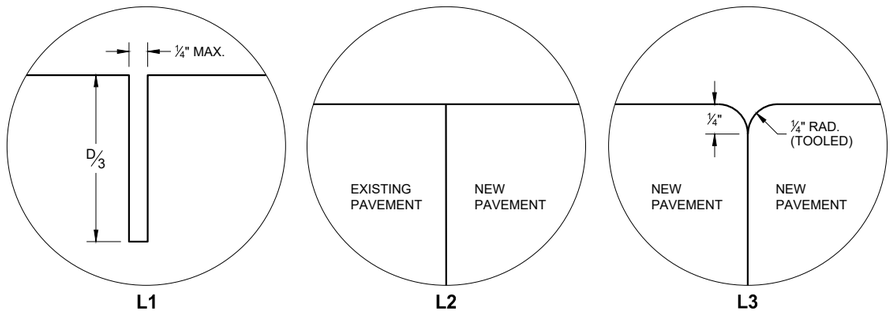
GENERAL NOTES

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

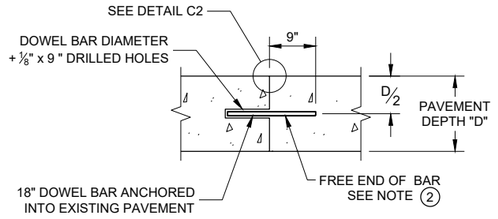
PROVIDE A MIMIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

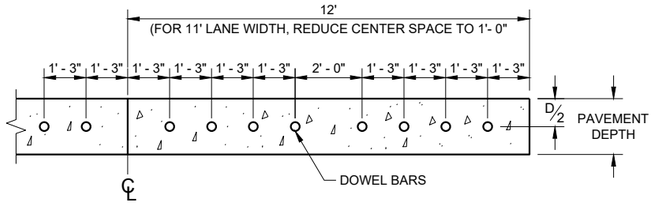
(2) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



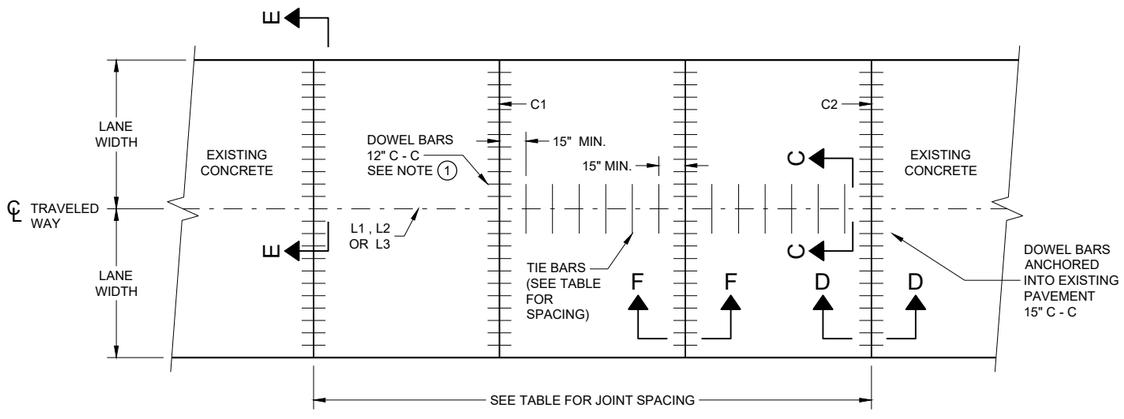
LONGITUDINAL JOINTS



SECTION D - D



SECTION E - E
SPACING OF DOWEL BARS
ANCHORED INTO EXISTING PAVEMENT



PLAN VIEW
CONCRETE BASE
CONTRACTION JOINT LOCATIONS

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9" & ABOVE	1 ¼"	15'

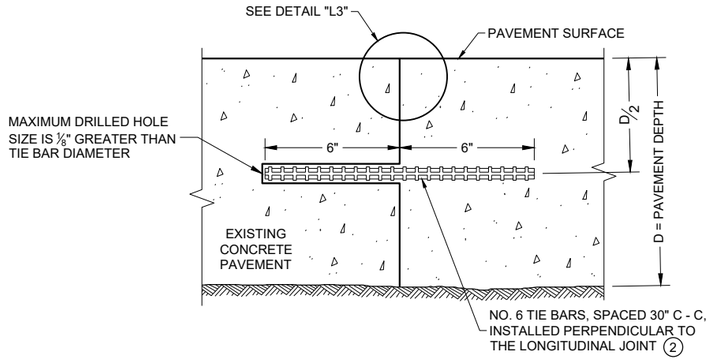
6

SDD 13C15 - 07a

CONCRETE BASE

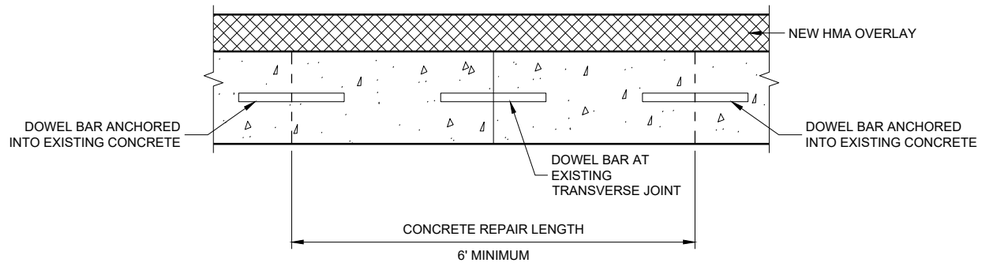
GENERAL NOTES

1. USE AN ENGINEER APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.
2. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
3. PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

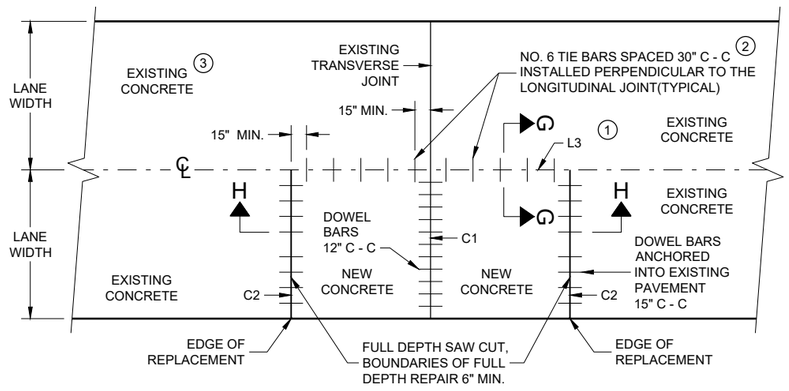


SECTION G - G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



SECTION H - H



PLAN VIEW

SINGLE LANE CONCRETE BASE REPAIR

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

6

SDD 13C15 - 07b
SDD 13C15 - 07b

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

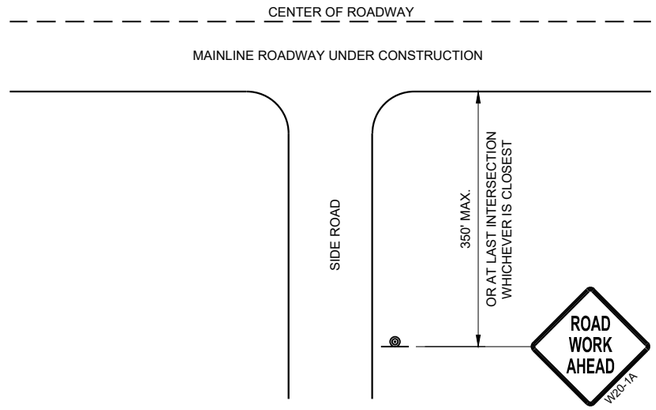
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

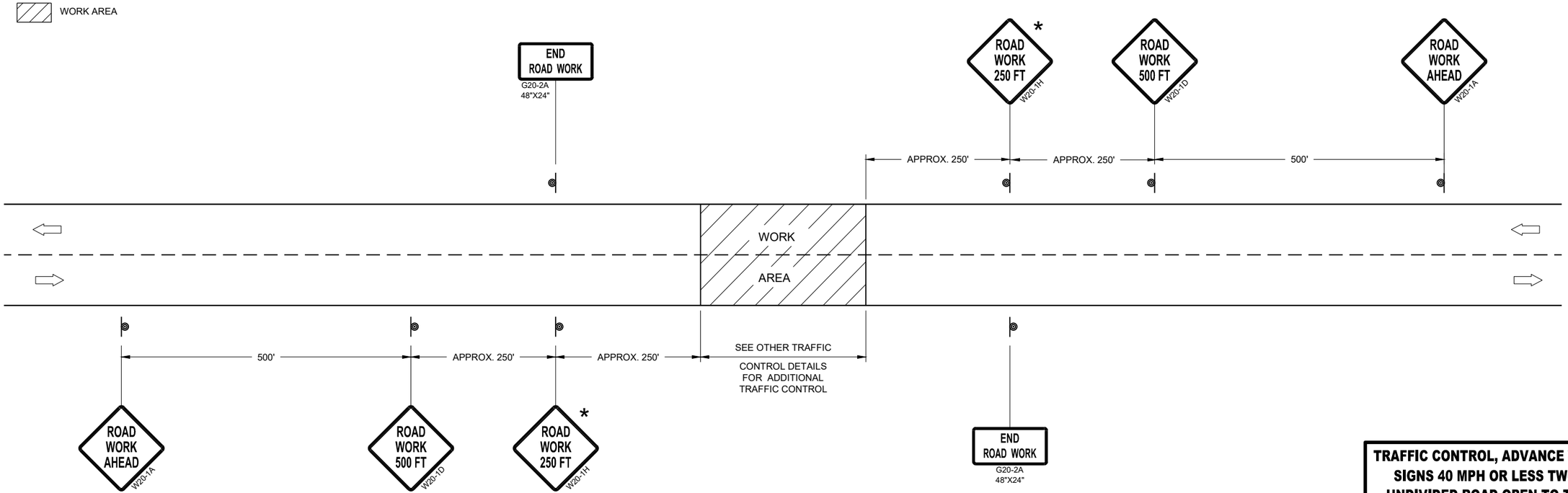
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C05 - 05

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.

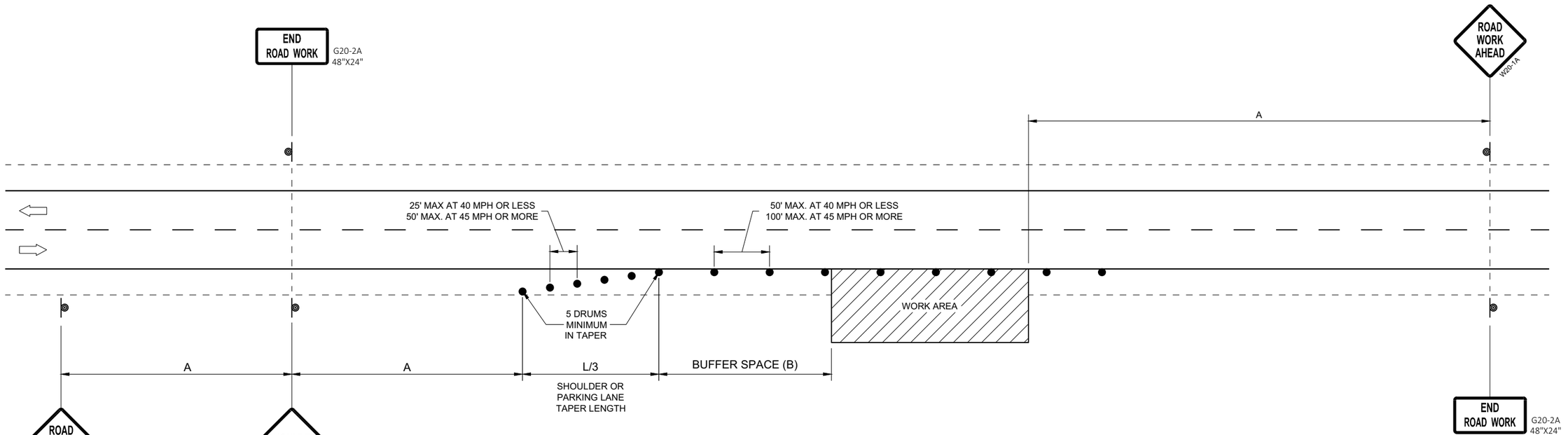
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

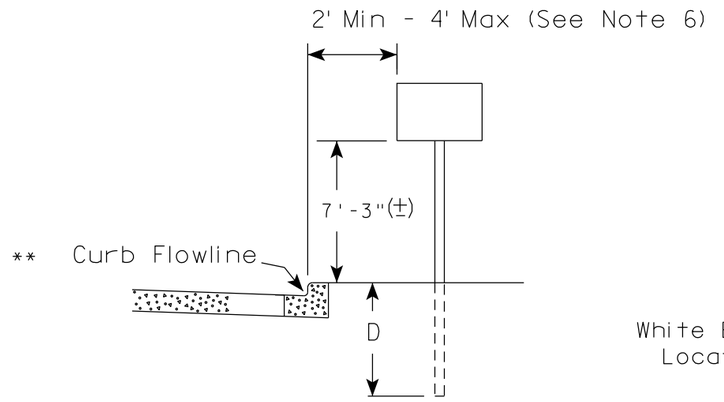
/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

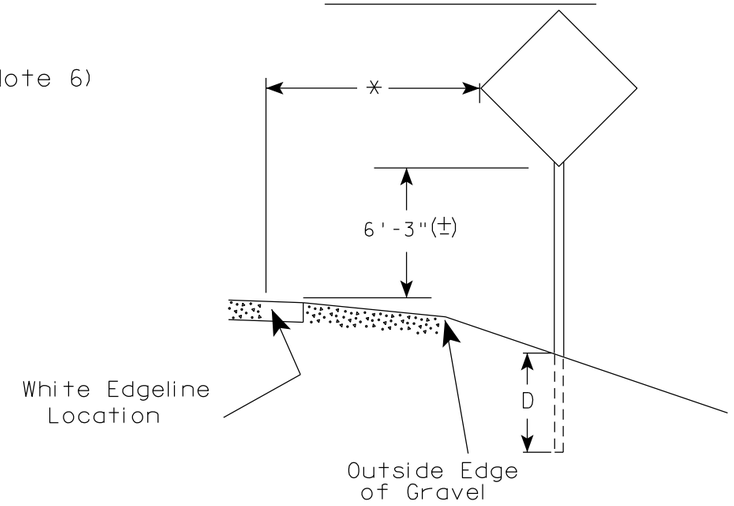
SDD 15D28 - 04

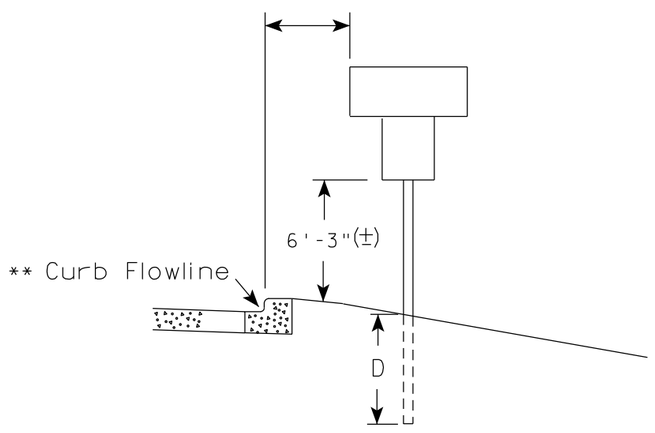
SDD 15D28 - 04

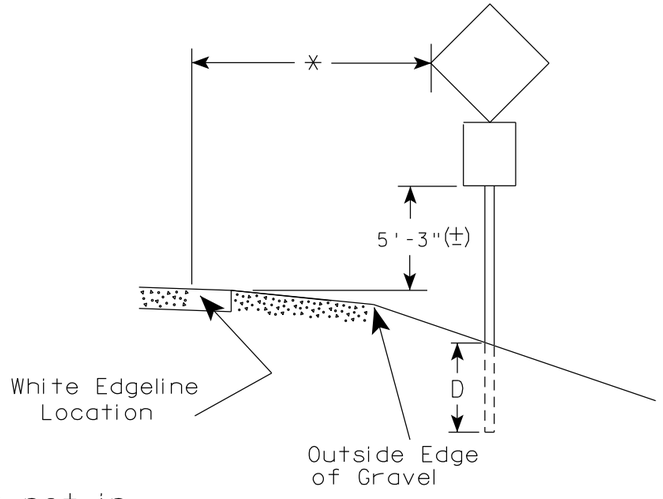
URBAN AREA



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.

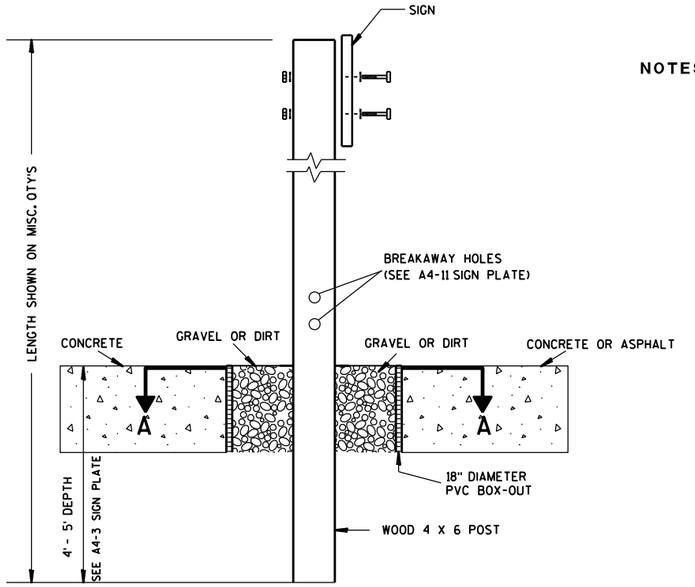
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

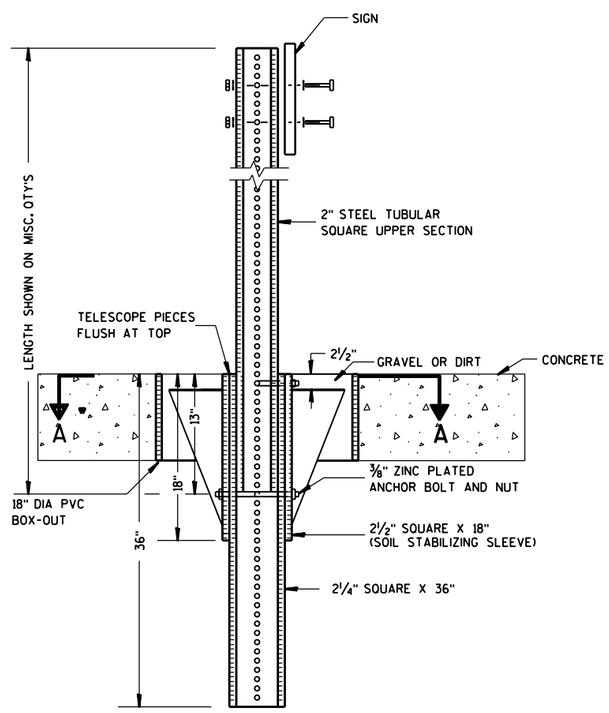
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 114	E



ELEVATION VIEW

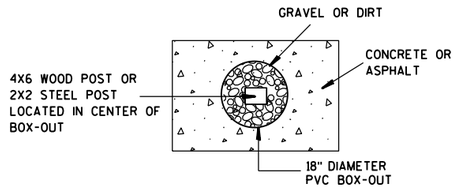
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

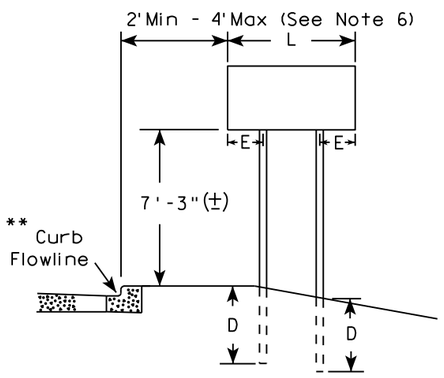
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

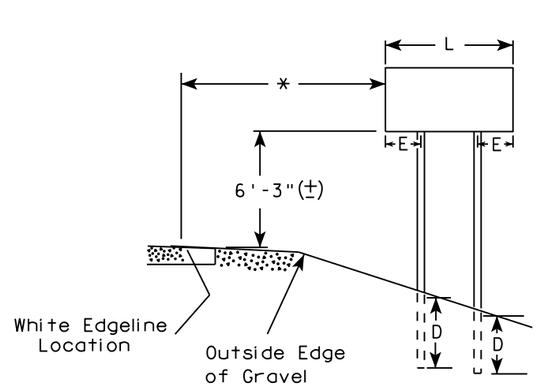
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

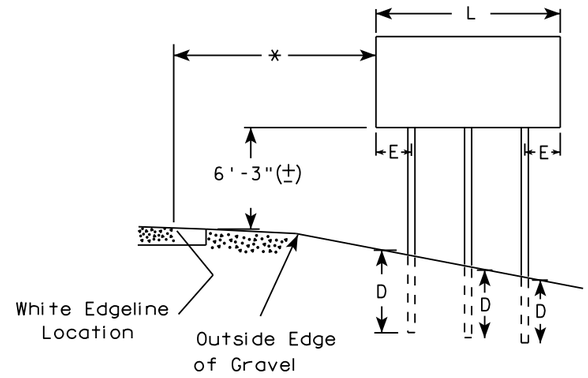
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

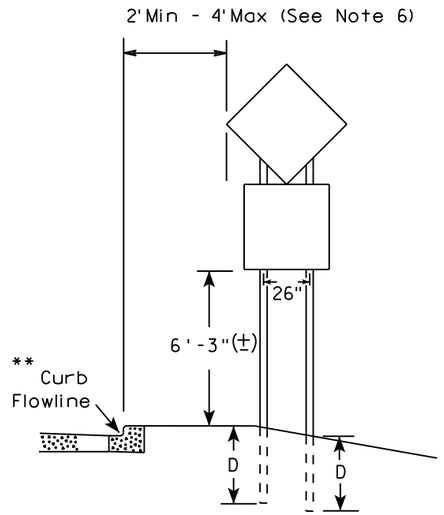
URBAN AREA



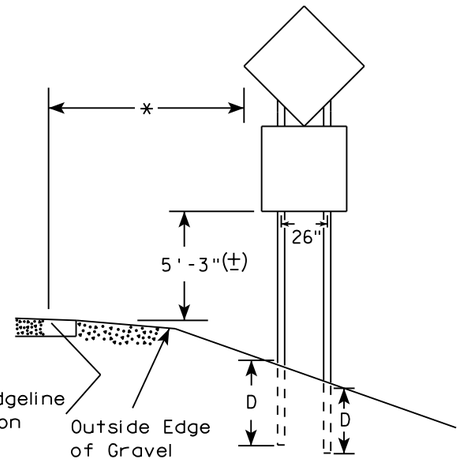
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

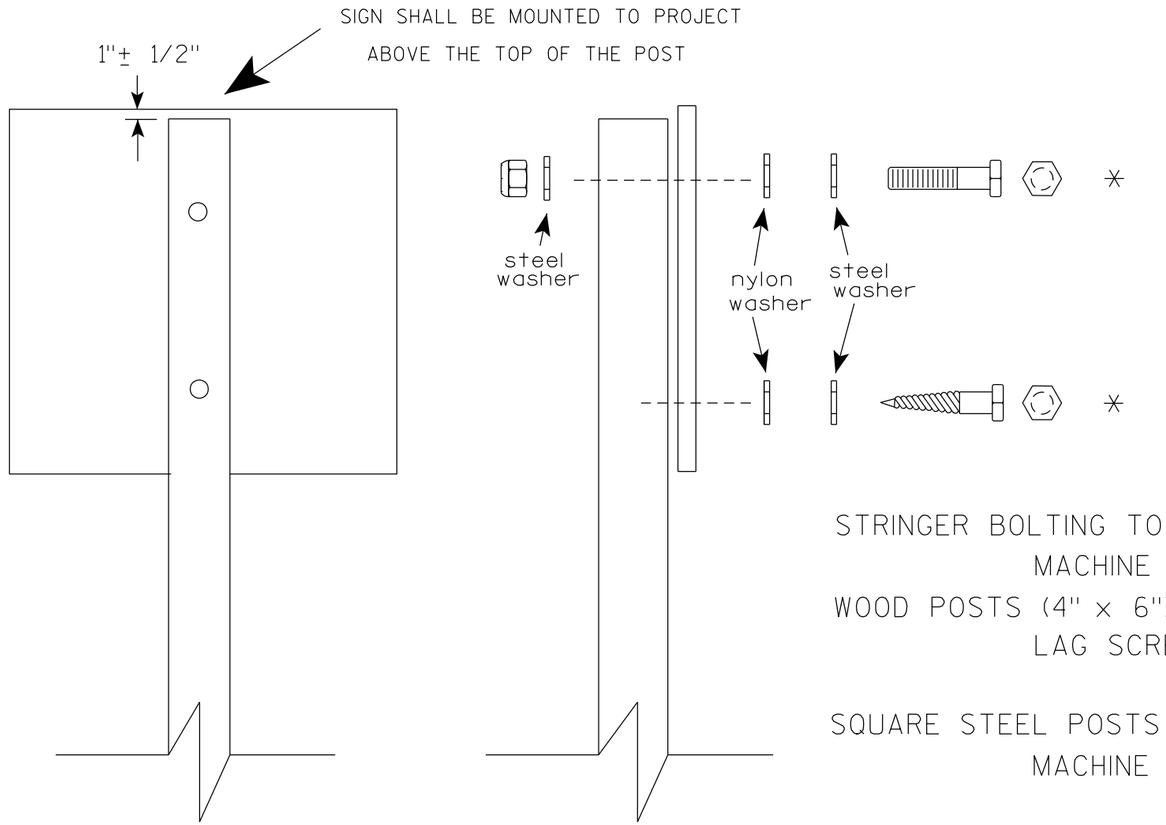
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 116	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

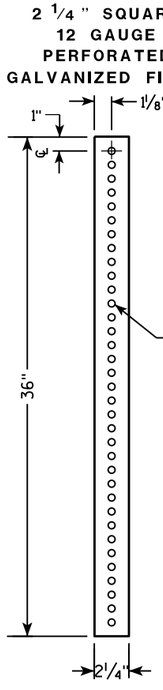
SHEET NO: 117 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 01-APRIL-2020 PLOT BY : dotc4c

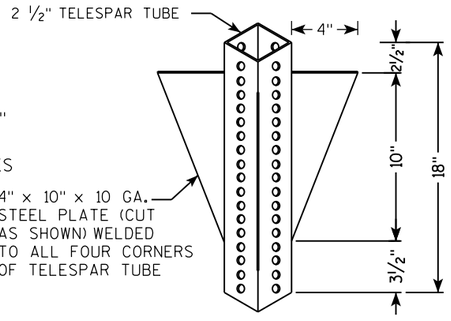
WISDOT/CADDS SHEET 42

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

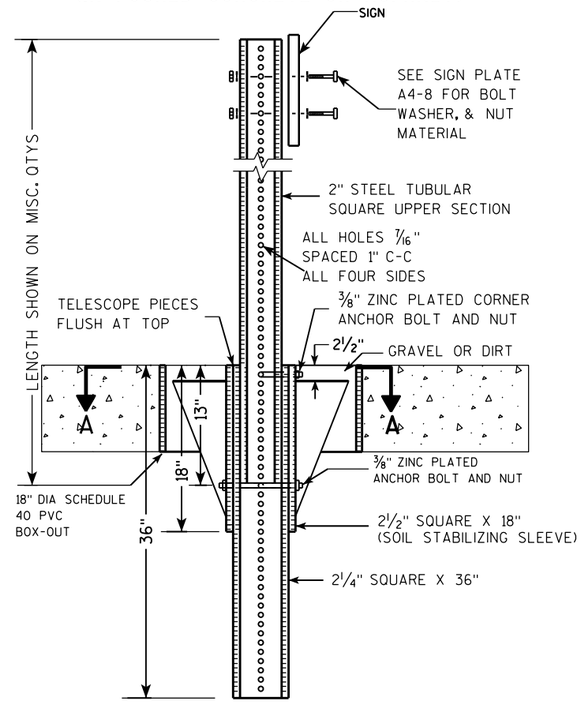
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



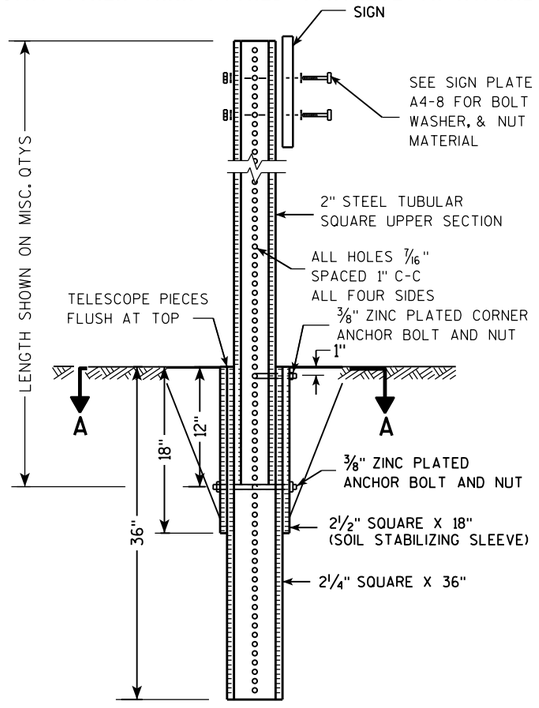
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

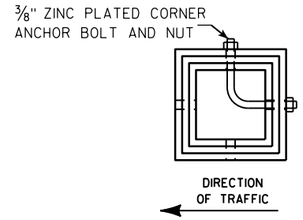


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

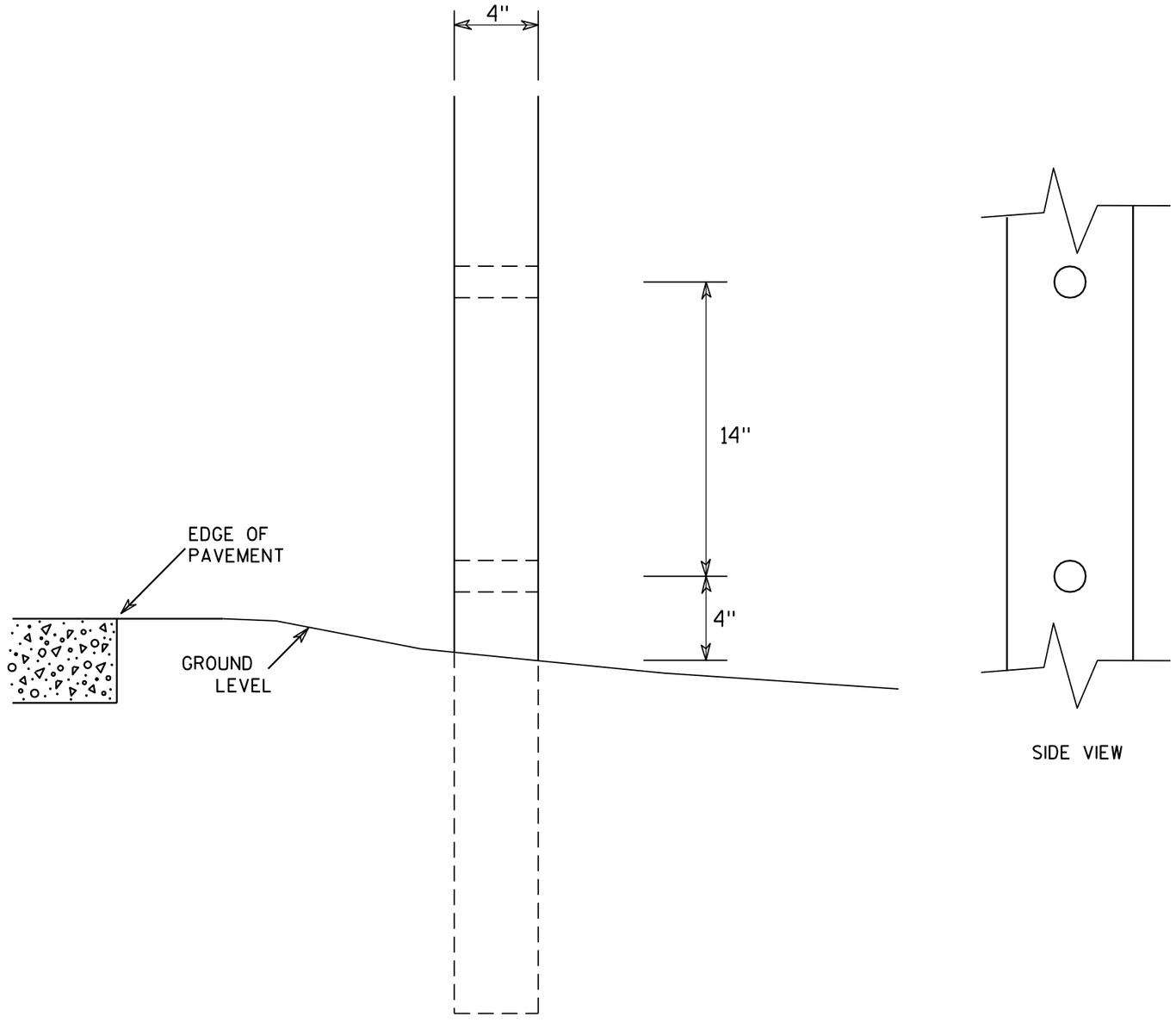
WISCONSIN DEPT OF TRANSPORTATION

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.

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

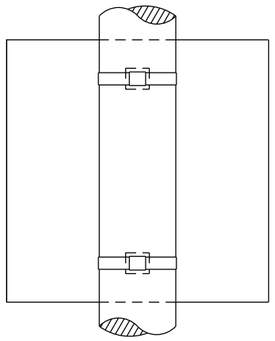
APPROVED Chester J Spang for State Traffic Engineer

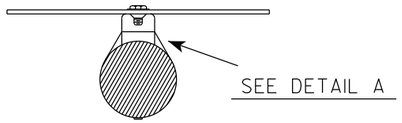
DATE 3/27/97 PLATE NO. A4-11.2

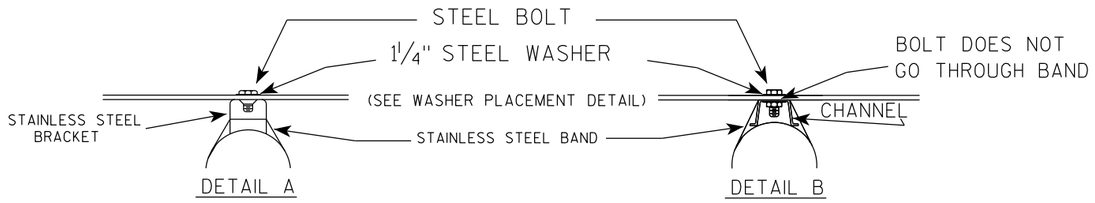
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 119	E

BANDING

SINGLE SIGN



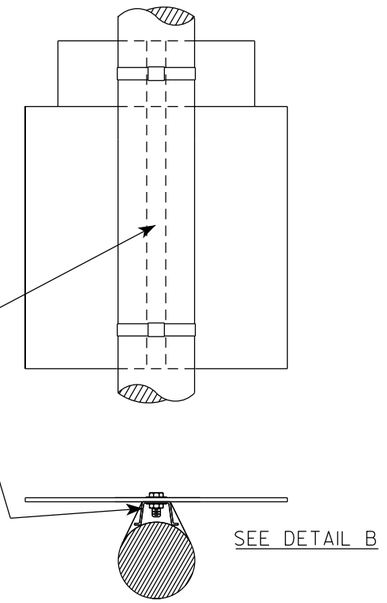




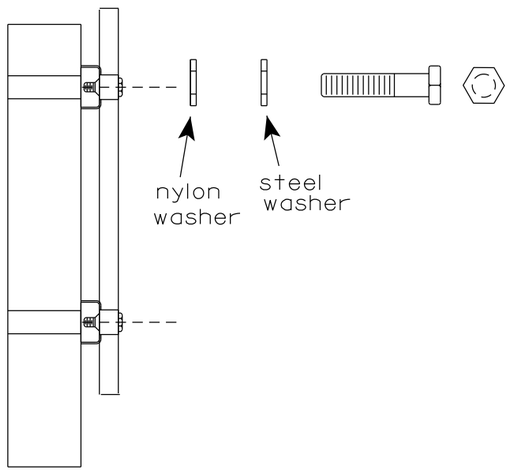
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

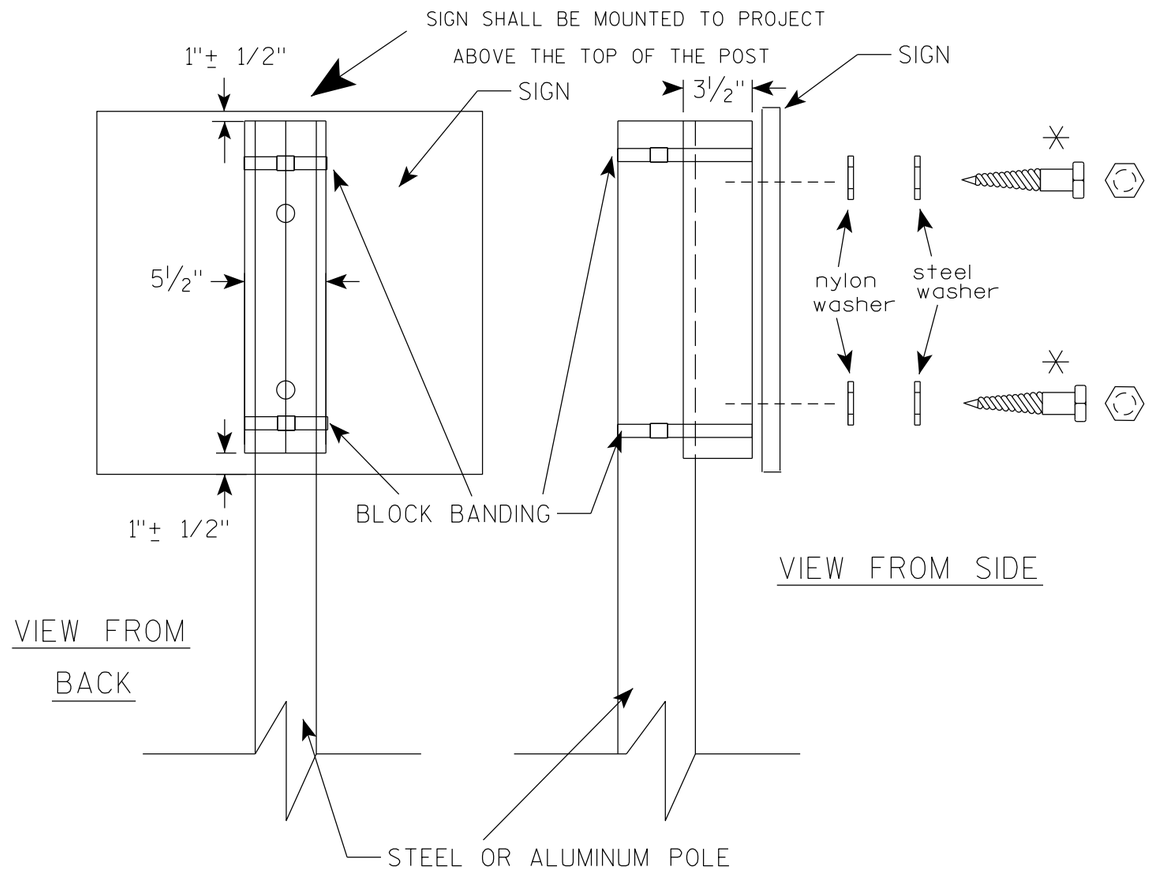
WISCONSIN DEPT OF TRANSPORTATION

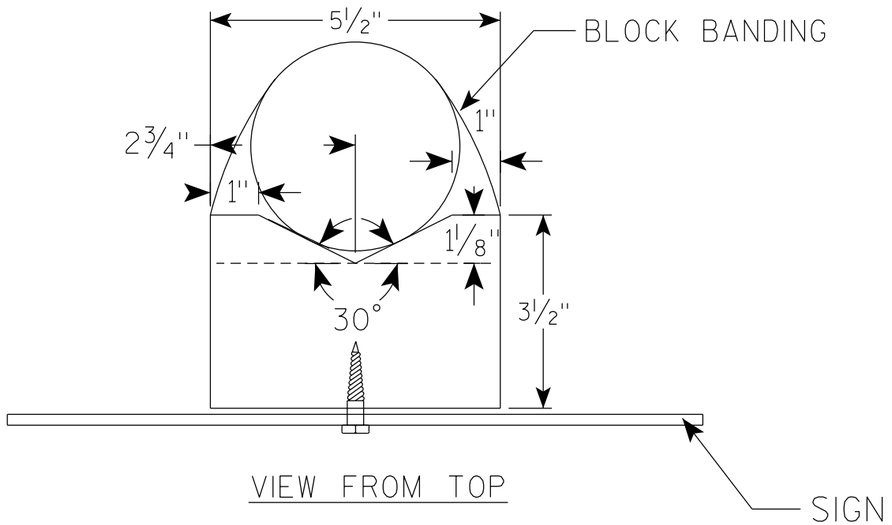
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 120	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

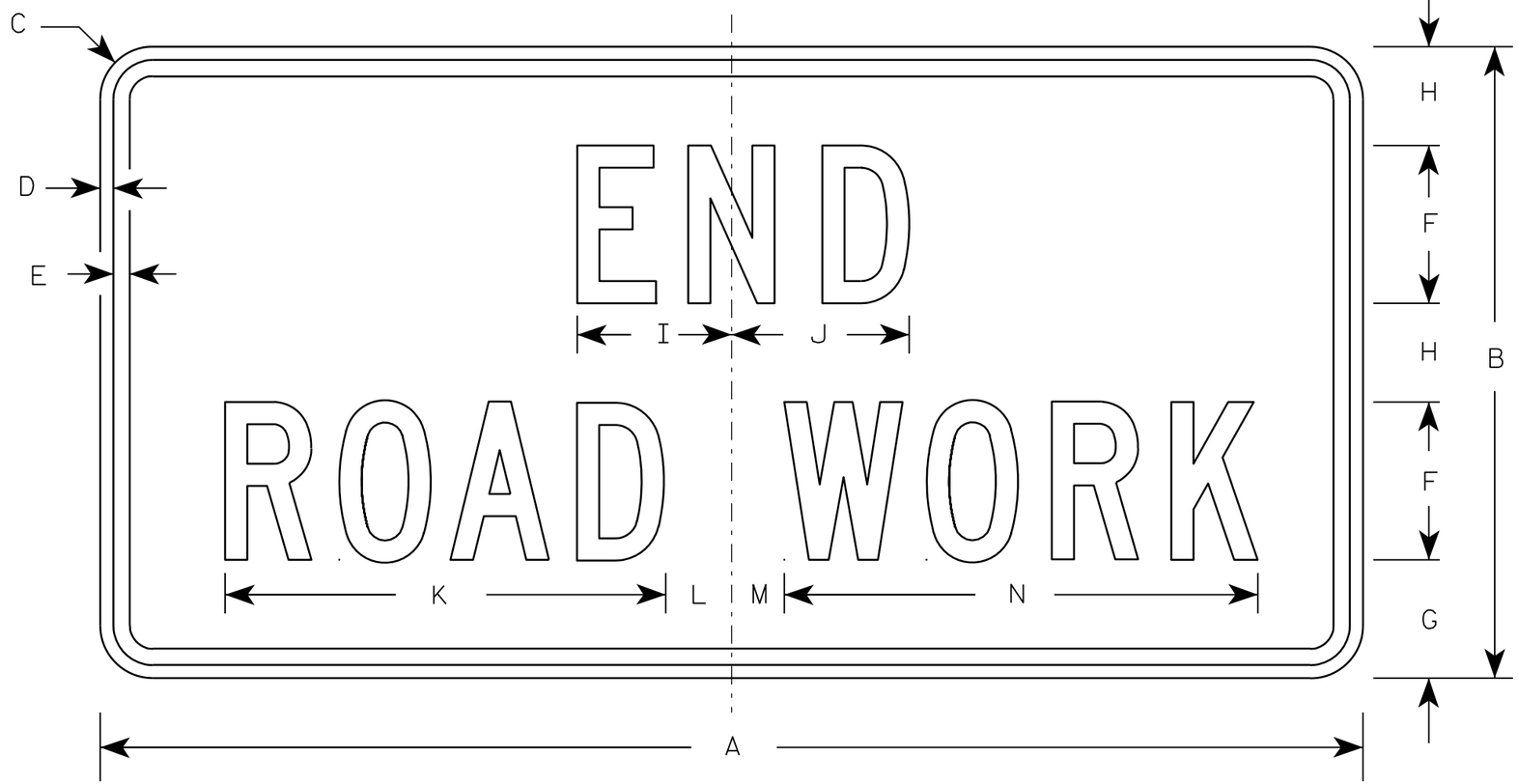
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 121 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

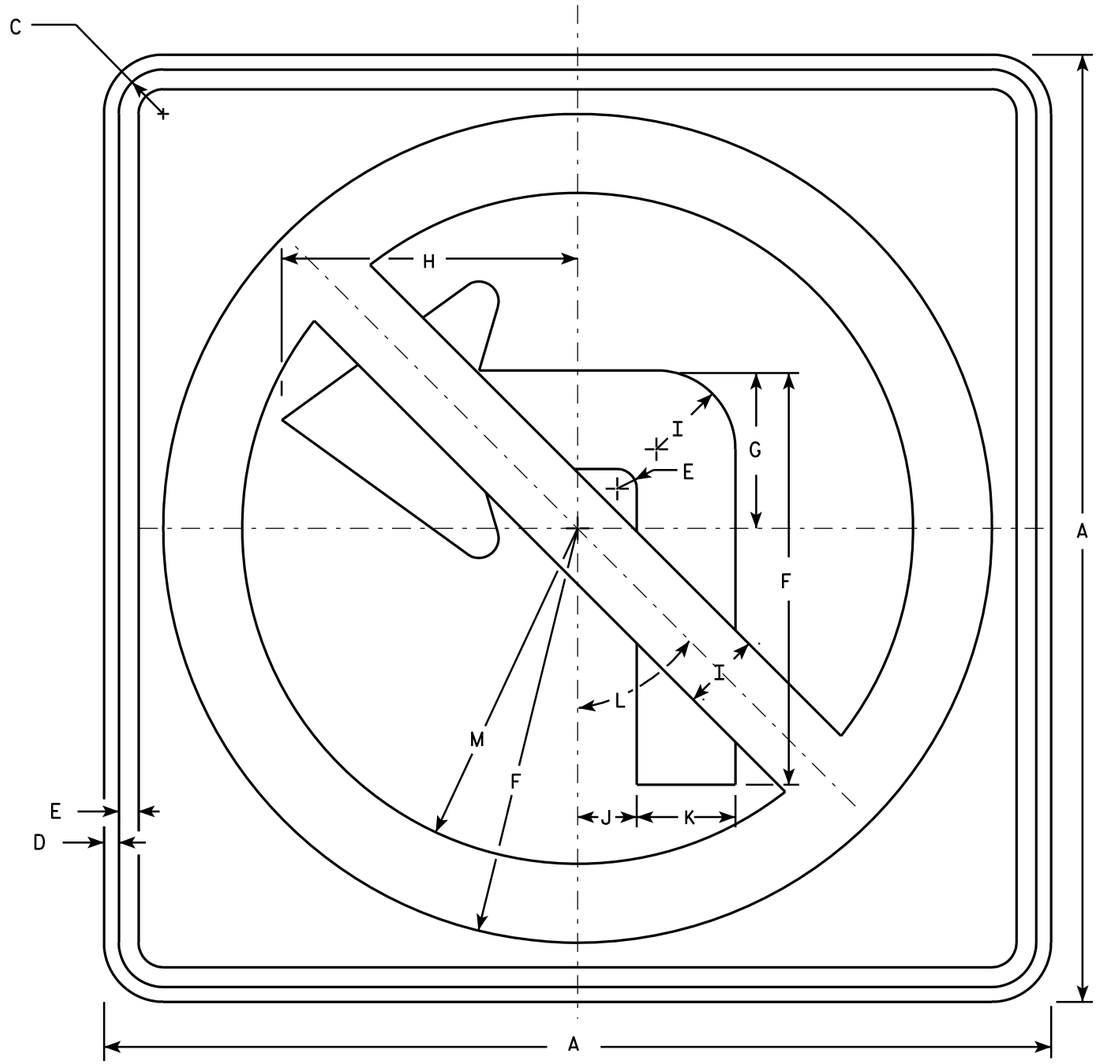
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

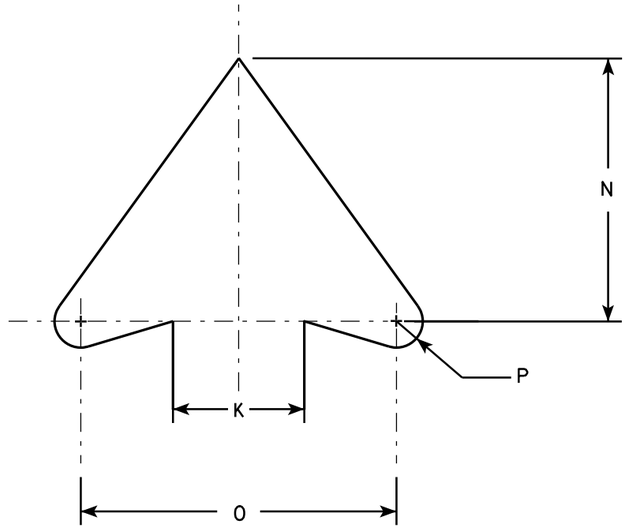
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 122	E



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

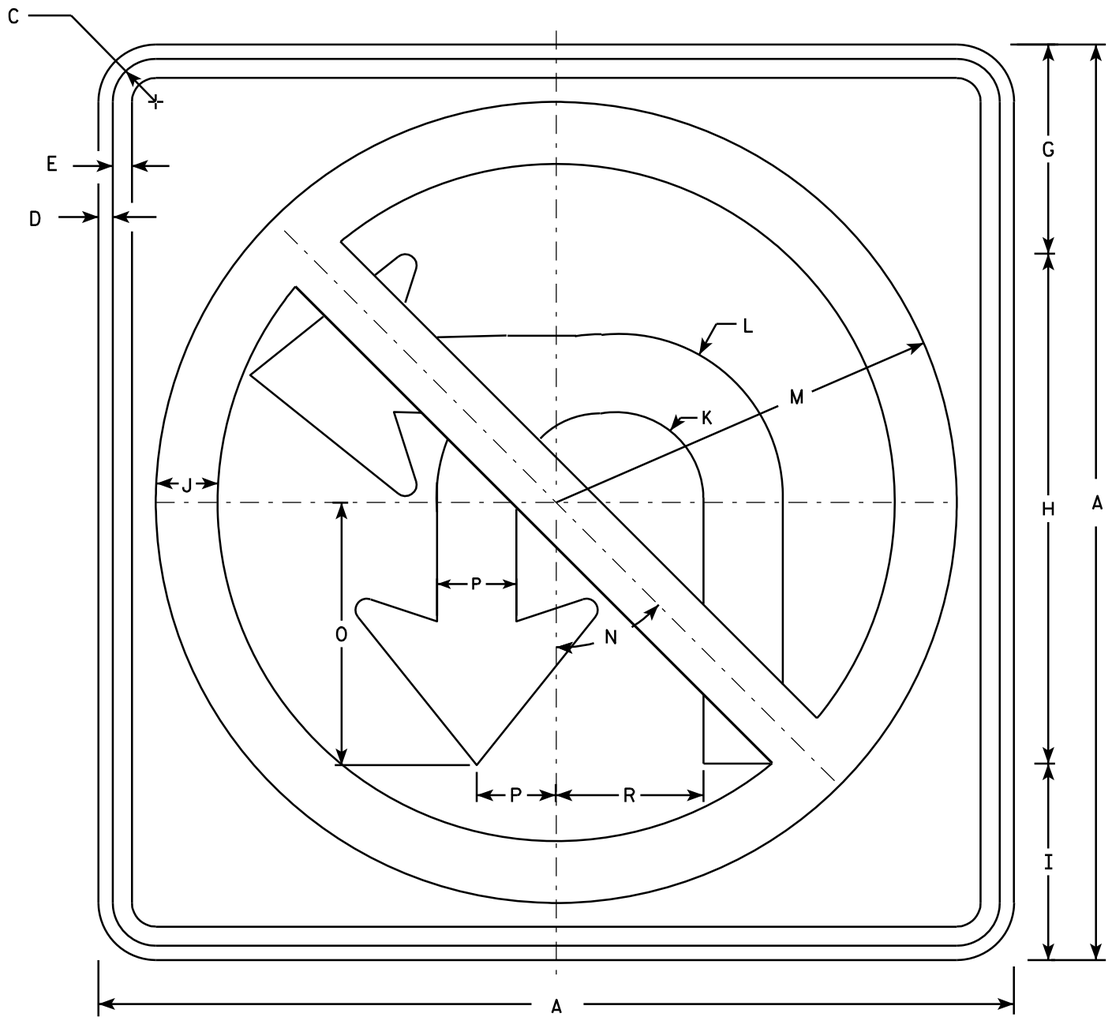
STANDARD SIGN
R3-2

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: 123	E



R3-18

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		5 1/2	13 3/8	5 1/8	1 5/8	2 1/4	4 1/4	10 1/2	45°	6 7/8	2 1/8		3 7/8									4.0
2M	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45°	10 3/8	3 1/8		5 3/4									9.0
3	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
4	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
5	48		2 1/4	3/4	1		11	26 3/4	10 1/4	3 1/4	4 5/8	8 5/8	21	45°	13 3/4	4 1/8		7 3/4									16.0

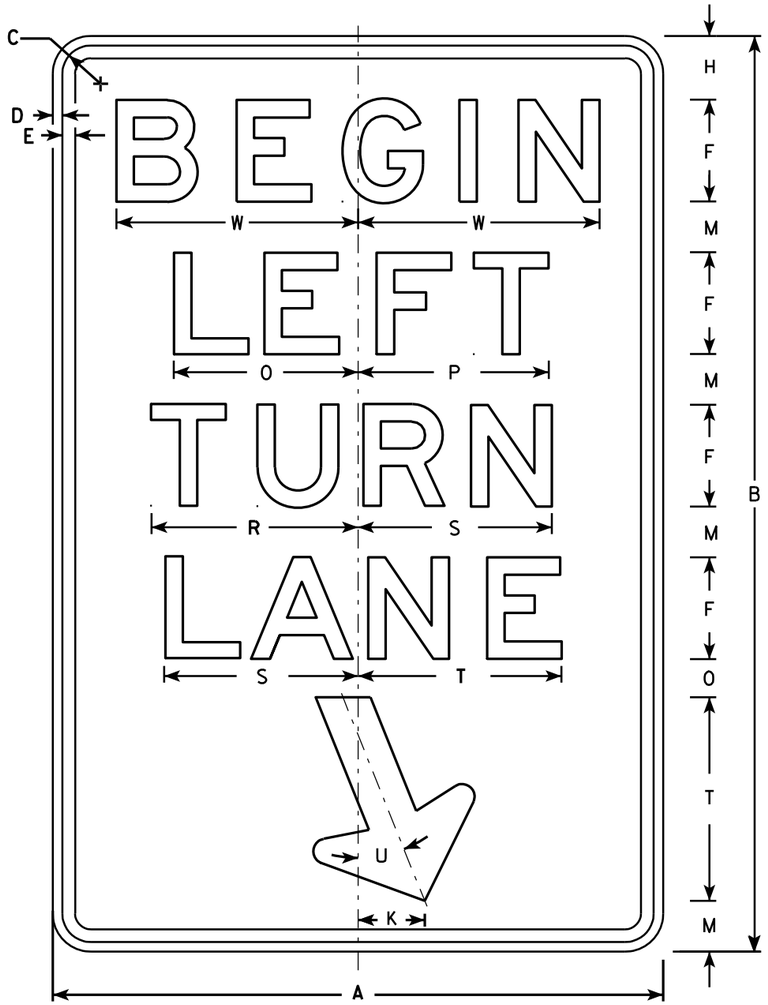
STANDARD SIGN
R3-18

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/10 PLATE NO. R3-18.2

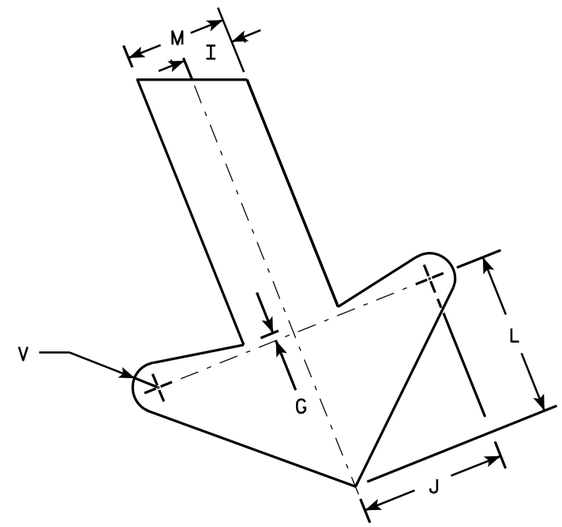
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 124	E



R3-20L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

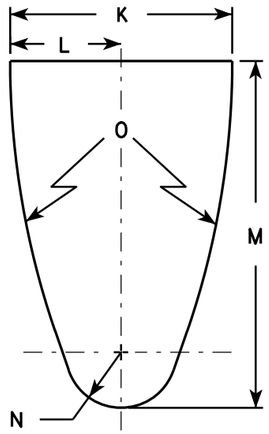
STANDARD SIGN
R3-20L

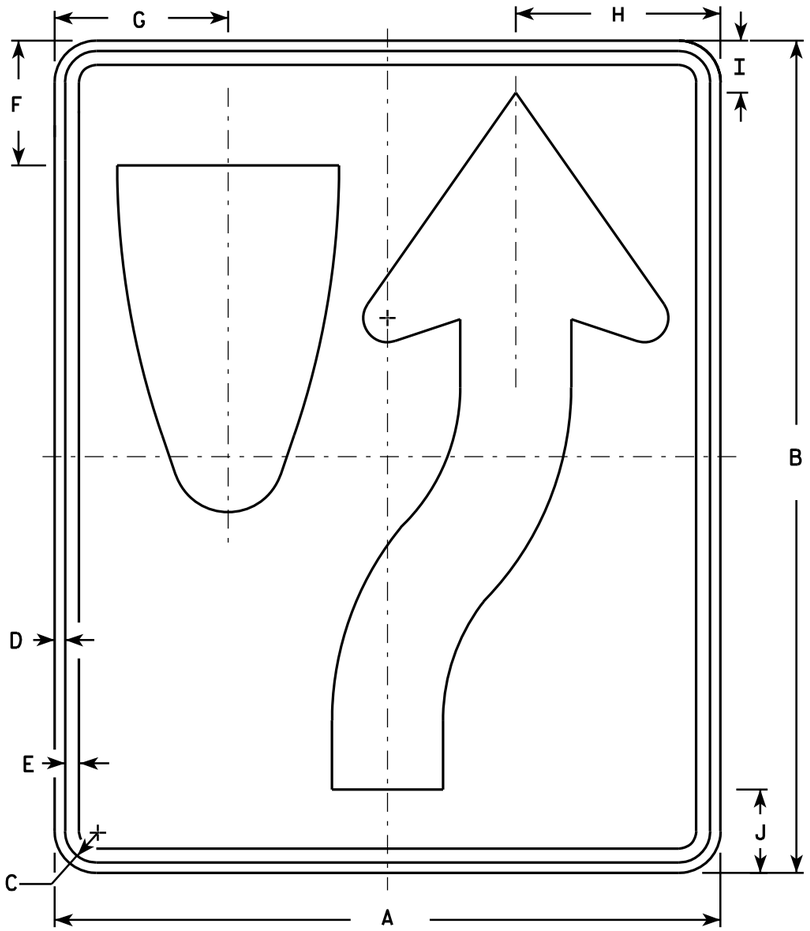
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 125 | E

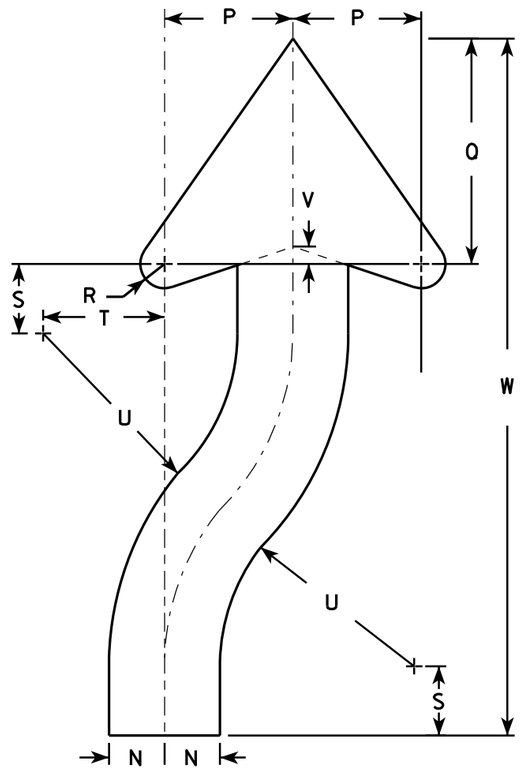




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

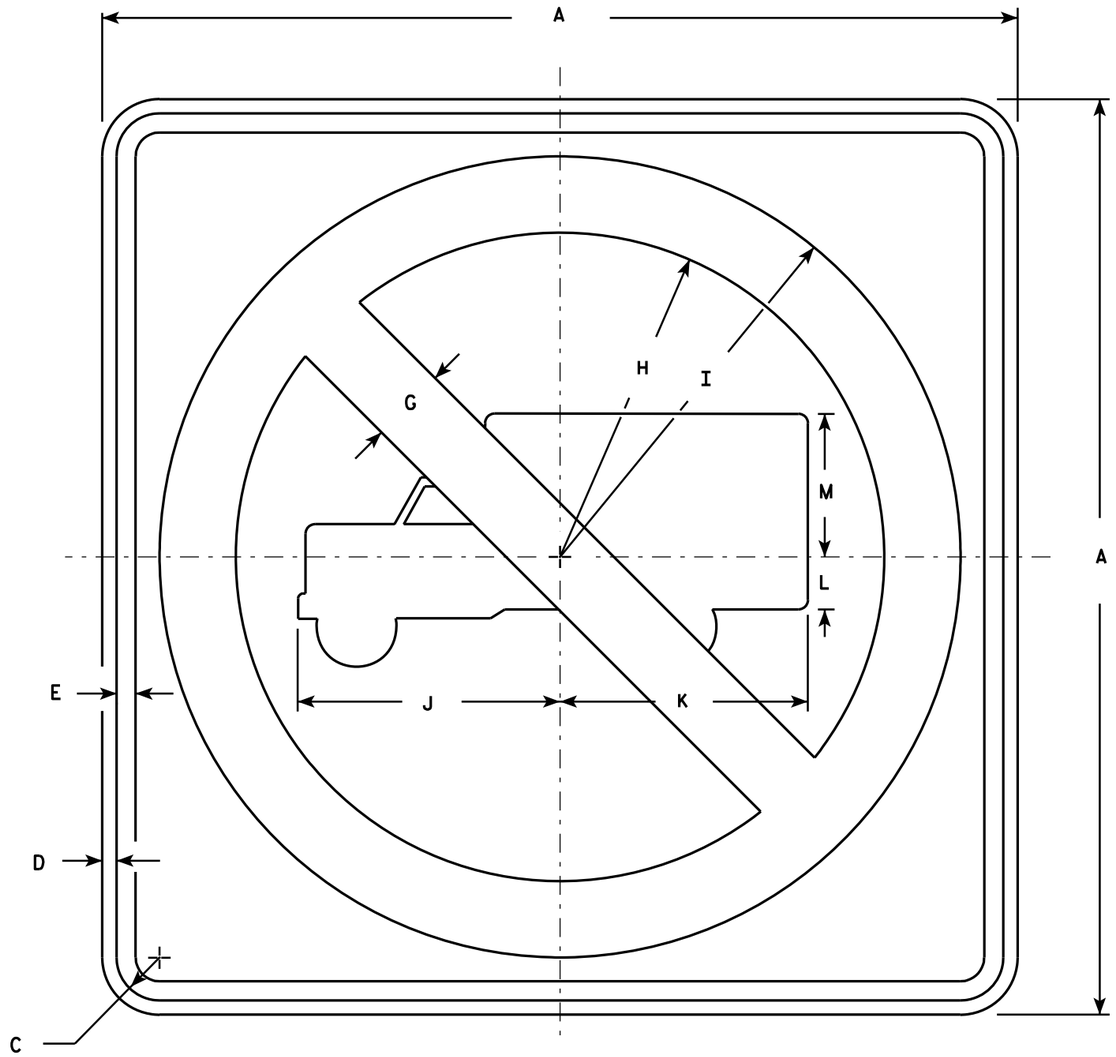
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 126	E



R5-2

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. Circle & Diagonal - Reflective red.
   Truck Symbol & Border - Non-reflective black.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
2M	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
3	30		1 3/8	1/2	5/8		2 1/2	10 5/8	13 1/8	8 1/2	8 1/8	1 5/8	4 3/4														6.25
4	36		1 5/8	5/8	3/4		3	12 3/4	15 3/4	10 1/4	9 3/4	2	5 3/4														9.0
5	48		2 1/4	3/4	1		4	17	21	13 5/8	13	2 5/8	7 5/8														16.0

STANDARD SIGN
R5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-2.6

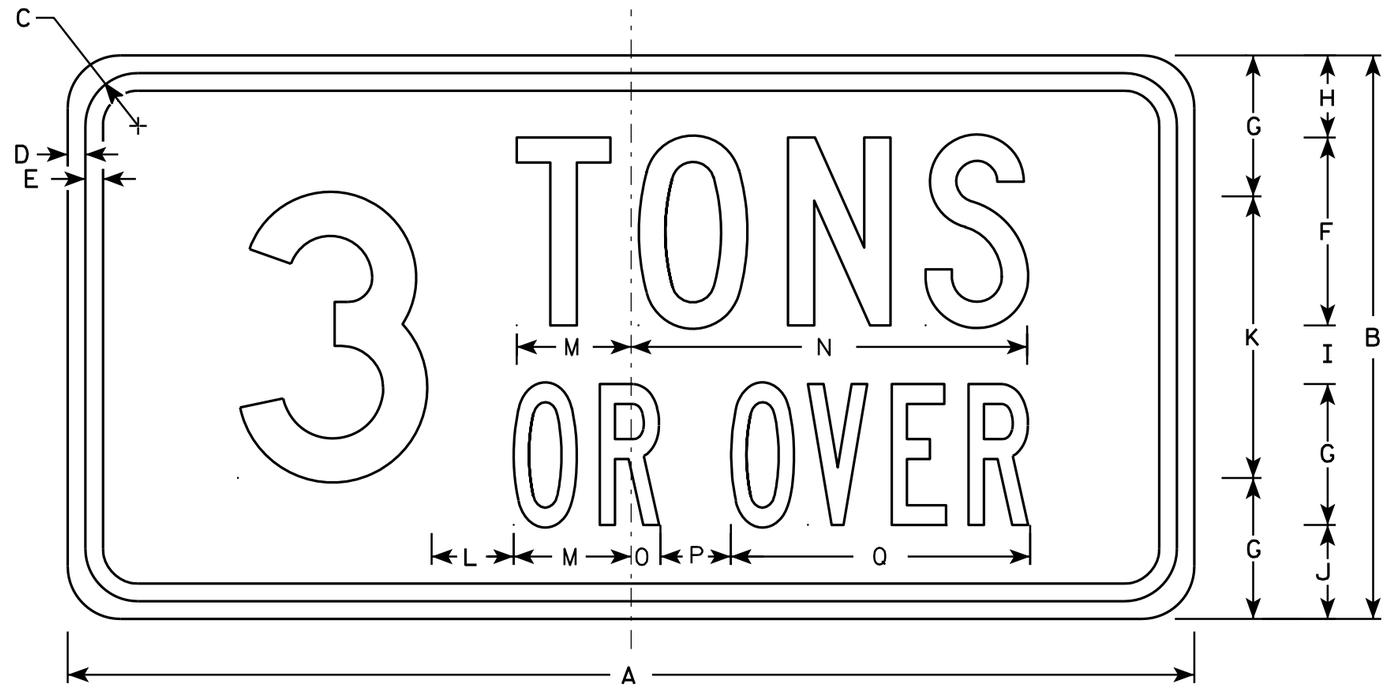
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 127	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R52.DGN PLOT DATE : 29-MAR-2011 11:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

7



R5-2A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series "C"
   Line 2 is Series "B"
   Numeral is Series "D"
6. Substitute appropriate numerals.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	4	3	1 3/4	1 1/4	2	6	1 3/4	2 1/2	8 1/2	5/8	1 1/2	6 3/8										2.0
2M	24	12	1 1/8	3/8	3/8	4	3	1 3/4	1 1/4	2	6	1 3/4	2 1/2	8 1/2	5/8	1 1/2	6 3/8										2.0
3	30	15	1 1/8	3/8	1/2	5	4	2 1/8	1 3/8	2 1/2	7	2 1/4	3 1/8	10 1/2	1	2 3/8	8 1/2										2.25
4	36	18	1 1/8	3/8	1/2	6	5	2 5/8	1 3/8	3	9	2 1/2	3 3/4	12 5/8	1 3/8	3 1/8	10 1/2										4.5
5	48	24	1 3/8	3/8	5/8	8	6	3 1/2	2 1/2	4	12	3 1/2	4 7/8	16 7/8	1 1/4	3	12 3/4										8.0

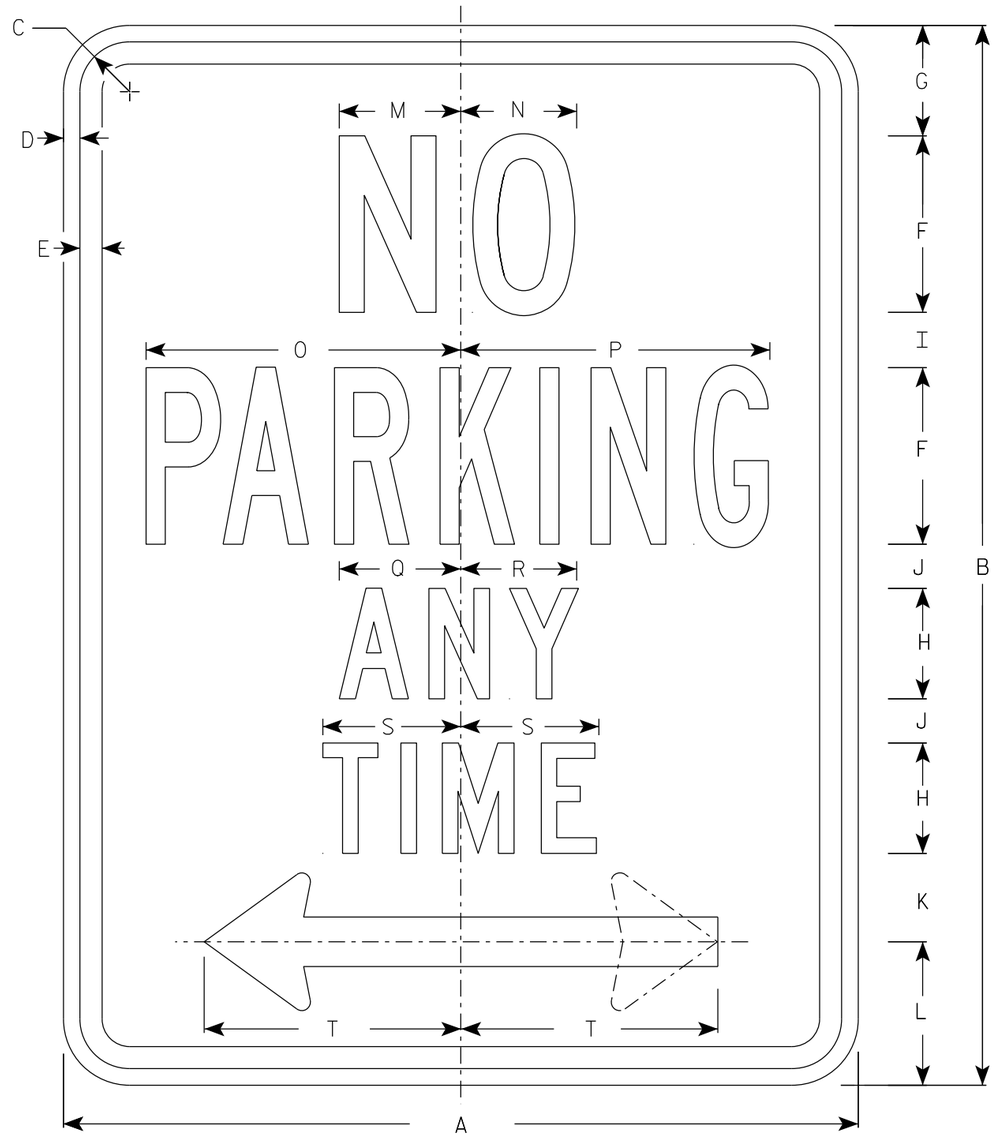
STANDARD SIGN
R5-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-2A.7

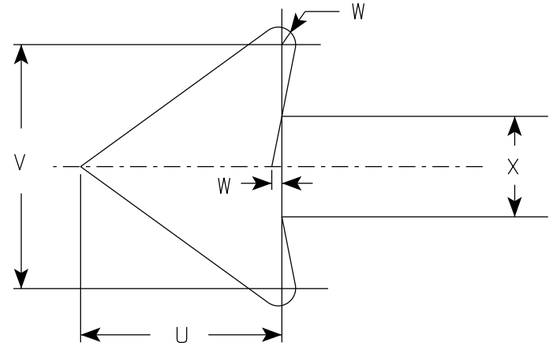
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 128 | E



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

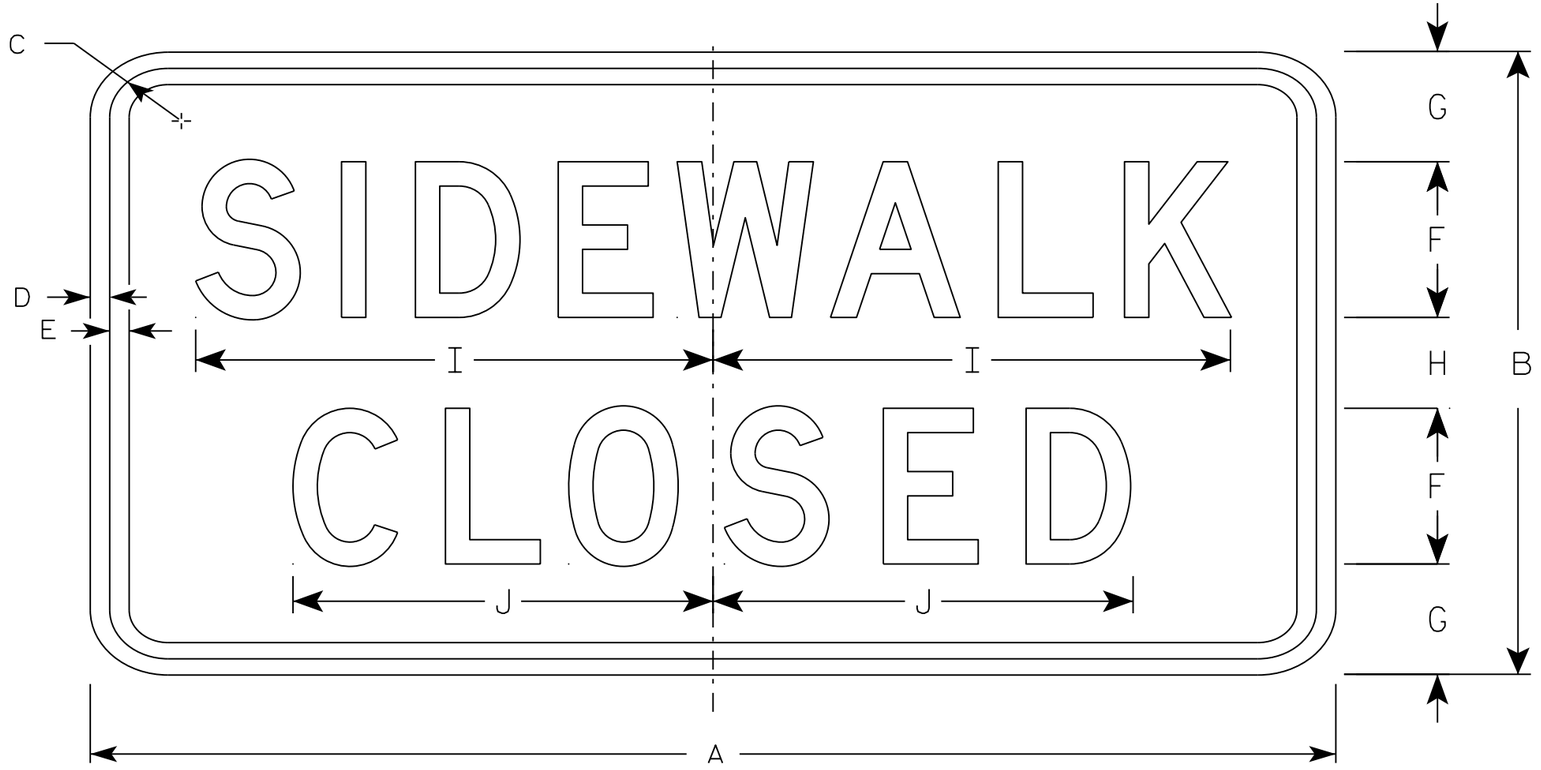
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. R7-1.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 129 E

7

7



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

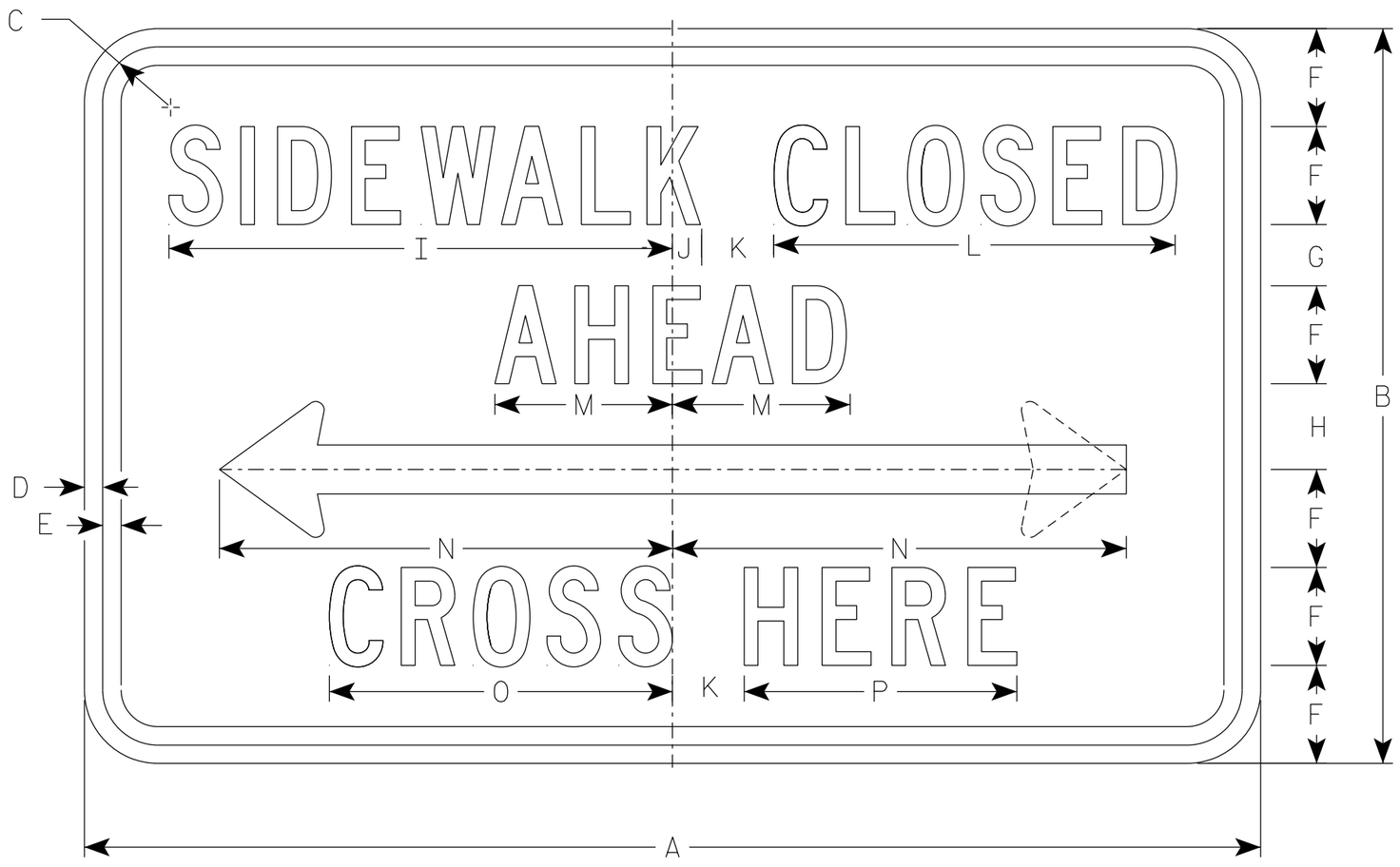
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

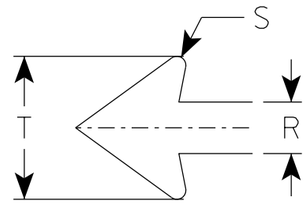
DATE 8/11/16 PLATE 130 R9-9.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R9-11



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C except Size 1 is Series D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.
6. R9-11 D (double arrow)
   R9-11 L (left arrow)
   R9-11 R (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																											
2S	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

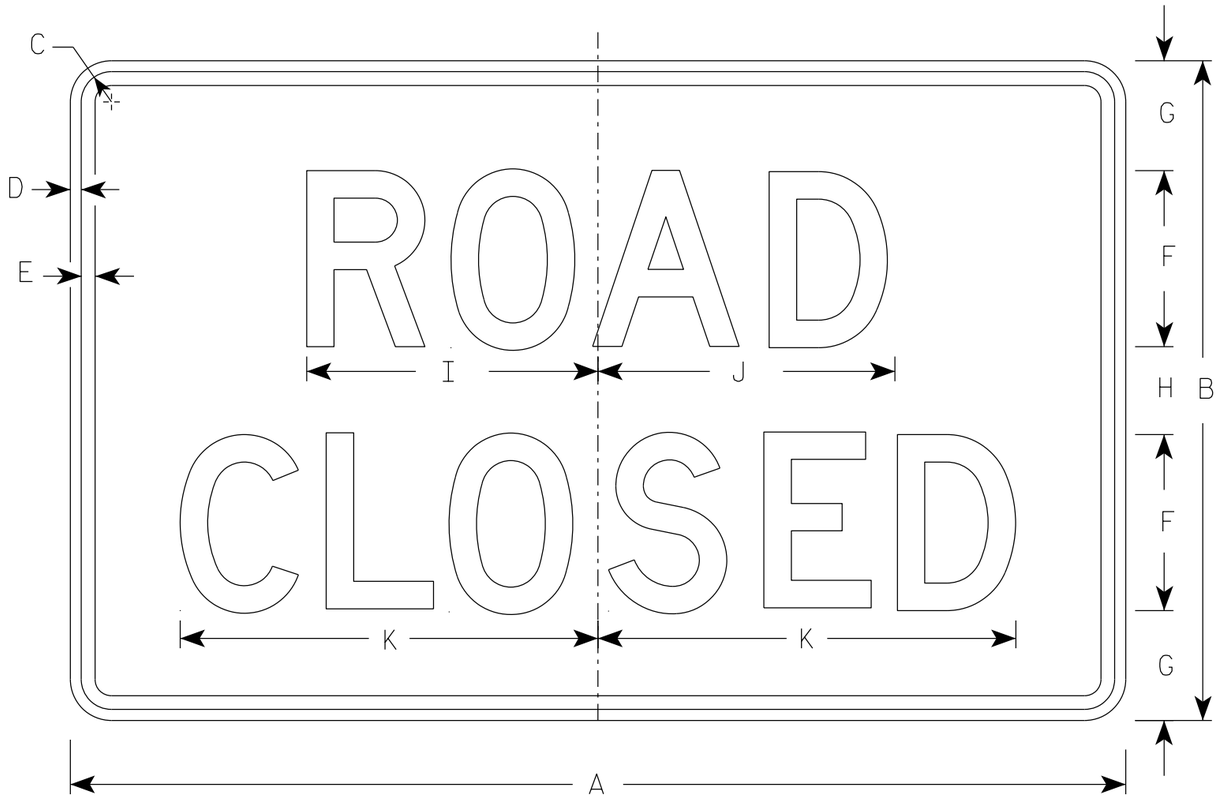
STANDARD SIGN
R9-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 3/30/2021 PLATE NO. R9-11.4

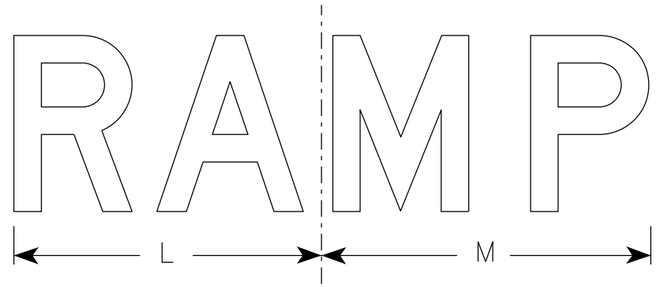
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 131 | E



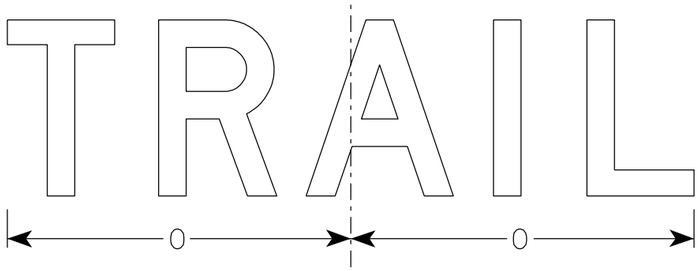
R11-2

NOTES

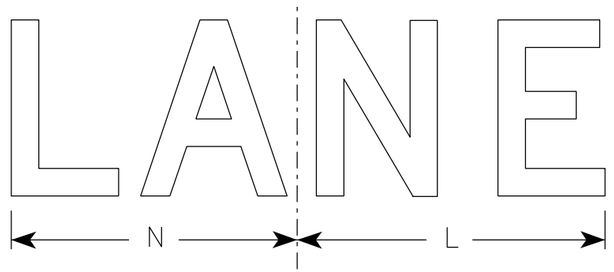
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the 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

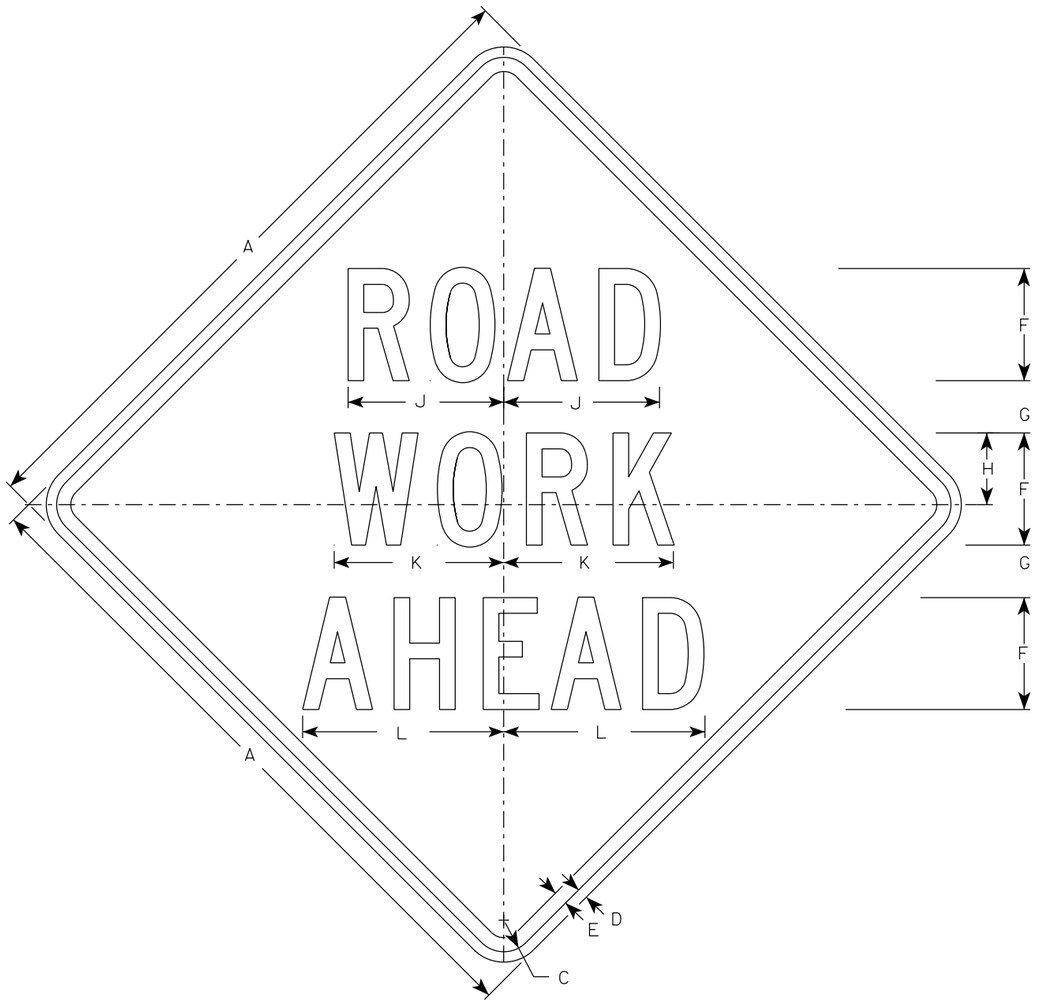
DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

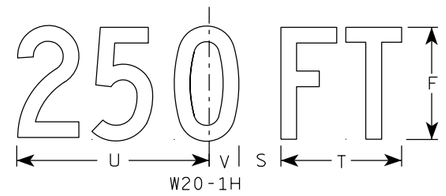
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112.dgn PLOT DATE : 29-MAR 2021 8:15 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

NOTES

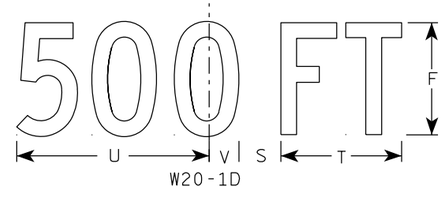
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1A



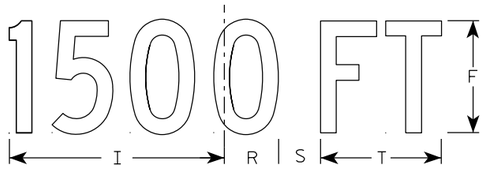
W20-1H



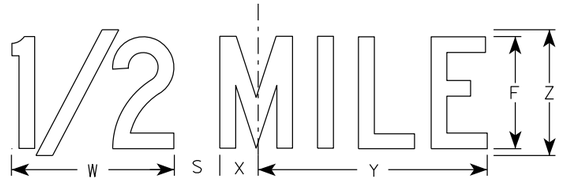
W20-1D



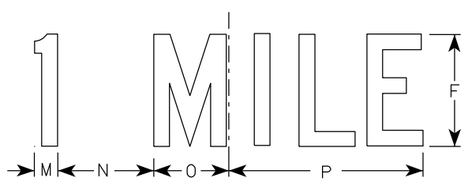
W20-1C



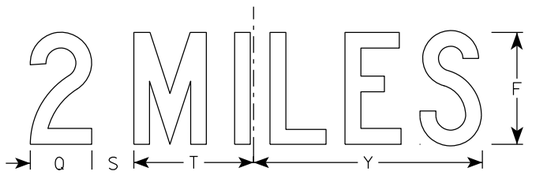
W20-1B



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

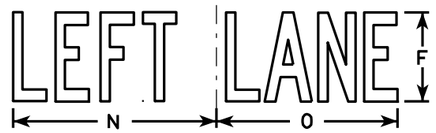
DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

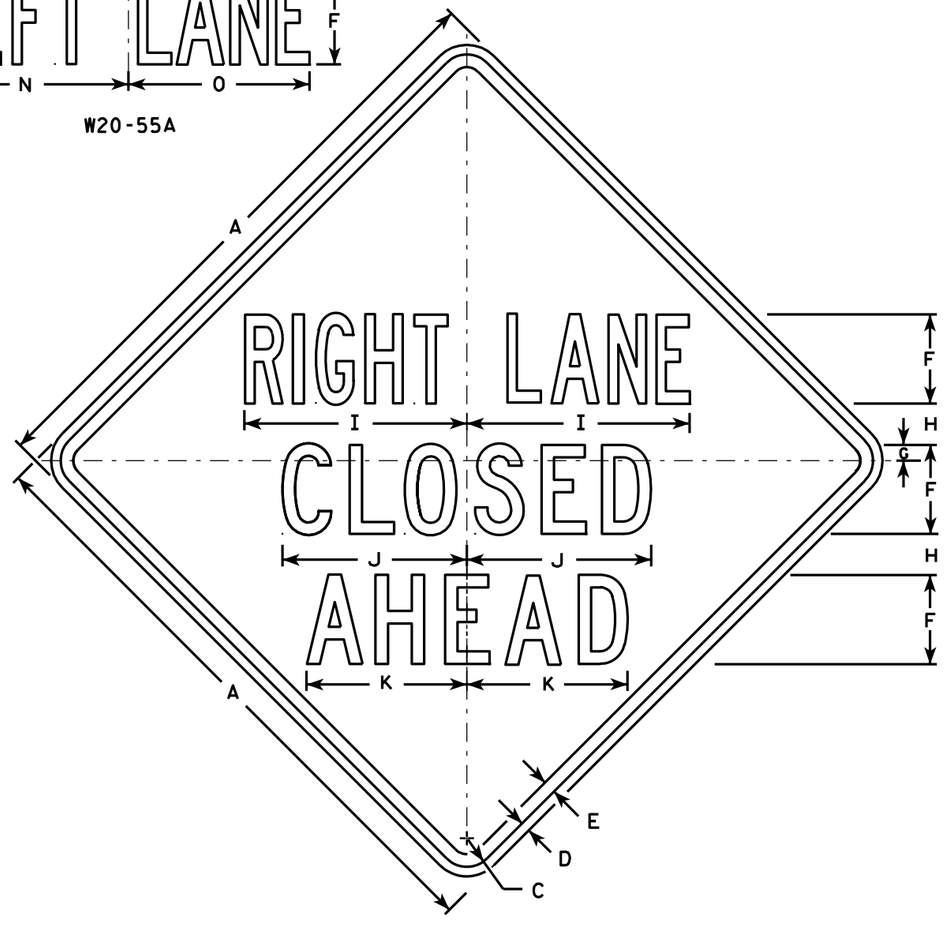
SHEET NO: E



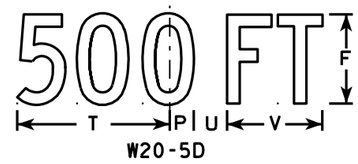
W20-56A



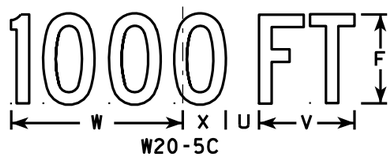
W20-55A



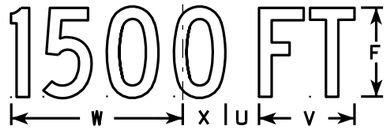
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

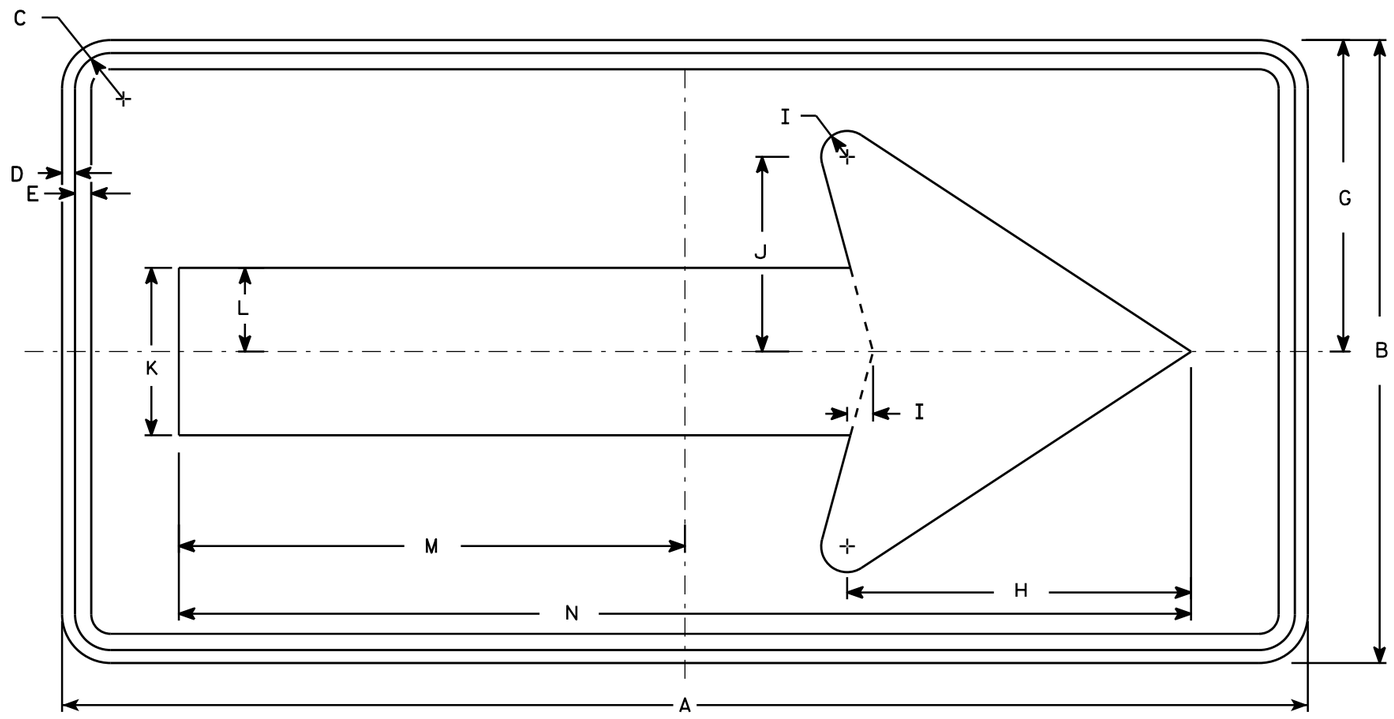
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 134	E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

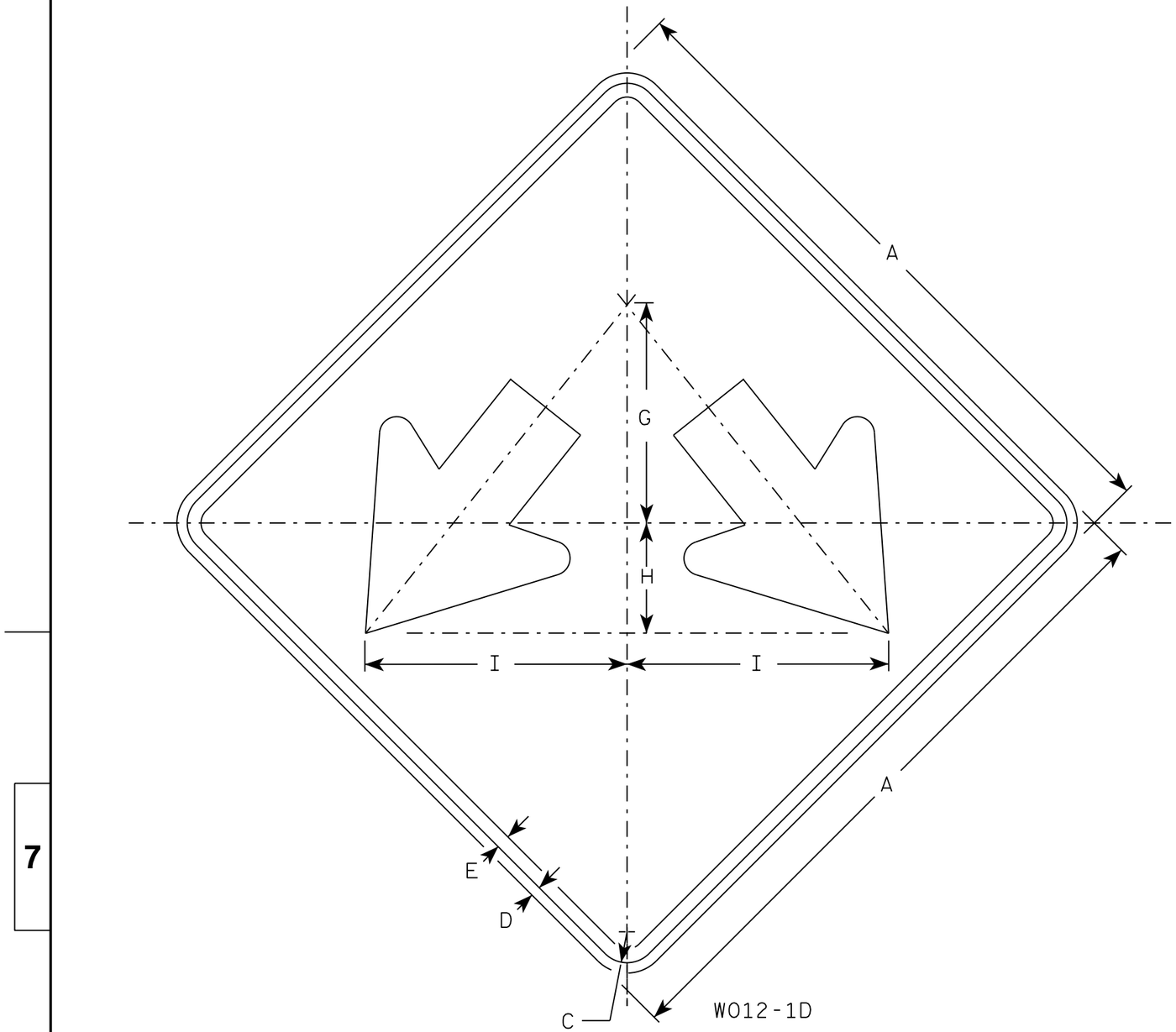
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

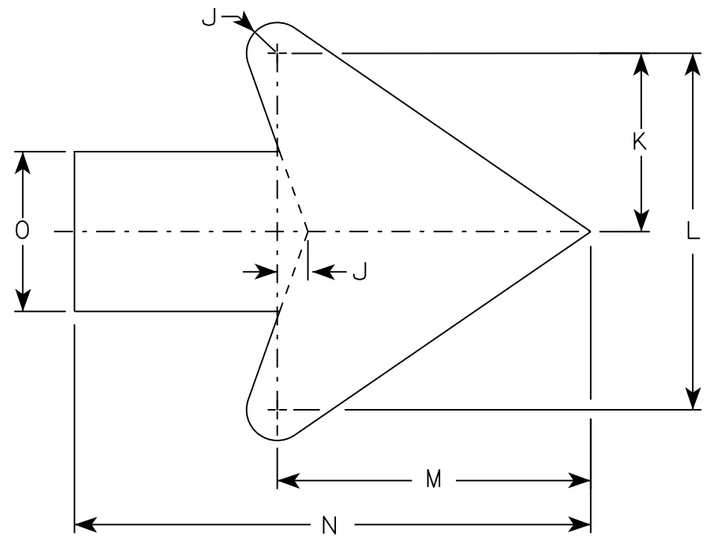
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W012-1D

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0

STANDARD SIGN
W012-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/28/16 PLATE NO W012-1D.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

WKE NOVEMBER 2022

PROJECT ID: 2674-02-70
WITH: 2265-00-78

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 = 464



24

N

DESIGN DESIGNATION

A.A.D.T.	2022	=	13,400
A.A.D.T.	2042	=	14,740
D.H.V.		=	1,480
D.D.		=	50/50
T.		=	6.9%
DESIGN SPEED		=	35 MPH
ESALS		=	1,400,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE	PL ± 58.1	ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
MARSH AREA		STORM SEWER	SS
WOODED OR SHRUB AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
		TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C MILWAUKEE W WALNUT STREET

N 20TH STREET TO N 12TH STREET

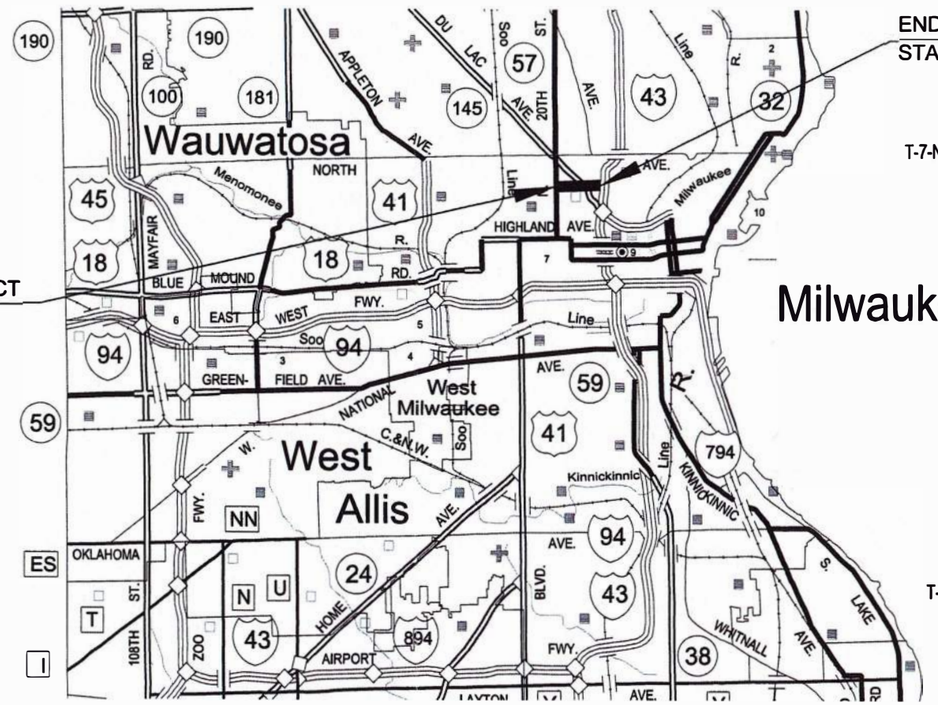
LOC STR

MILWAUKEE COUNTY

STATE PROJECT NUMBER
2674-02-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2674-02-70	WISC 2023026	1

R-21-E R-22-E



END PROJECT
STA. 45+71.41

T-7-N

Milwaukee

T-6-N

BEGIN PROJECT
STA. 13+50.00
Y=390,448.65
X=2,551,139.98

LAYOUT
SCALE 0 1.0 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.610 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (WSPCS), SOUTH ZONE, NAD27, GRID, US SURVEY FOOT

VERTICAL DATUM - CITY OF MILWAUKEE. (NGVD29 - 580.603)

ACCEPTED FOR
CITY MILWAUKEE
7/20/2022 (Date)
Commissioner of Public Works (Signature & Title of Official)

ORIGINAL PLANS PREPARED BY
GRAEF
WISCONSIN
STEVE L. HUBERTY 32396 WAUWATOSA, WI
PROFESSIONAL ENGINEER
7/19/22 (Date) (Signature)

CITY OF MILWAUKEE
(FOR TRAFFIC SIGNALS, CUC, PAVEMENT MARKING AND PERMANENT SIGNING PLANS)
WISCONSIN
JERREL KRUSCHKE 43536-6 MILWAUKEE, WIS.
PROFESSIONAL ENGINEER
7/20/22 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	GRAEF
Designer	GRAEF
Project Manager	GREG HAFEMAN
Regional Examiner	
Regional Supervisor	JEFFREY BOHEN
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 7/26/2022 (Signature)

E

2

GENERAL NOTES

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

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

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM THE ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES OR FROM GRUBBING OF TREES OR STUMPS SHALL BE BACKFILLED WITH GRANULAR BACKFILL. BACKFILL GRANULAR MATERIAL IS INCIDENTAL TO THE REMOVAL ITEM.

ALL RADIUS DIMENSIONS FOR CURB & GUTTER ARE GIVEN TO THE FACE OF CURB. ALL ELEVATIONS ALONG CURB & GUTTER ARE GIVEN TO THE FLANGE. OFFSETS NOTED ARE TO THE FACE OF CURB OR EDGE OF LANE IF NO CURB, UNLESS OTHERWISE NOTED.

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

ALL EROSION CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.

SILT FENCE SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

ASPHALT AND CONCRETE DRIVEWAYS SHALL BE SAWCUT AT THE MATCH LINE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

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

INLET PROTECTION IS REQUIRED AT ALL INLETS AS PER DETAIL OR AS DIRECTED BY THE ENGINEER.

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

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

CONCRETE JOINTS SHALL MATCH ABUTTING PAVEMENT AND CURB AND GUTTER JOINTS UNLESS OTHERWISE DESIGNATED BY THE ENGINEER.

ALL TIE OR DOWEL BARS INSERTED INTO A HOLE DRILLED IN THE EXISTING CONCRETE SHALL BE PAID FOR UNDER THE ITEM "DRILLED PAVEMENT TIES" AND "DRILLED DOWEL BARS." ALL OTHER TIE OR DOWEL BARS INCORPORATED INTO NEW POURED CONCRETE SHALL BE INCIDENTAL TO THE APPROPRIATE ITEM.

STORM SEWER STRUCTURE LOCATIONS ARE CALLED OUT TO THE FACE OF CURB WHEN IN CURB LINE AND TO THE CENTER OF STRUCTURE ELSEWHERE.

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

2" DEPTH - 2" OF HMA PAVEMENT 4 LT 58-28 S AS THE UPPER LAYER

STANDARD ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CONC	CONCRETE
CP	CULVERT PIPE
CPCM	CULVERT PIPE CORRUGATED METAL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CSCP	CORRUGATED STEEL CULVERT PIPE
CSPA	CORRUGATED STEEL PIPE ARCH
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC-YARD
D	DEGREE OF CURVE
	DELTA
DISCH	DISCHARGE
FE	FIELD ENTRANCE
HERCP	HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
NTS	NOT TO SCALE
PAVT	PAVEMENT
PB	PULL BOX
PC	POINT-OF-CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RAD	RADIUS
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
RCHESS	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL STORM SEWER
RCPSS	REINFORCED CONCRETE PIPE - STORM SEWER
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RT	RIGHT
SALV	SALVAGED
SB	SIGNAL BASE
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SF	SQUARE FOOT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TC	TOP OF CURB
TLE	TEMPORARY LIMITED EASEMENT

INDEX OF DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLAN
PLAN DETAILS
CURB RAMP DETAIL
PAVEMENT GRADES
EROSION CONTROL
STORM SEWER
CITY UNDERGROUND CONDUIT
LANDSCAPE PLAN
PERMANENT SIGNING
STREET LIGHTING
TRAFFIC SIGNAL PLANS
PAVEMENT MARKING
TRAFFIC CONTROL AND CONSTRUCTION STAGING
ALIGNMENT

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

DESIGN CONTACT

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STEVE.HUBERTY@GRAEF-USA.COM

DEPT OF NATURAL RESOURCES

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WISCONSIN DEPT. OF NATURAL RESOURCES
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MILWAUKEE, WI 53212
(414) 263-8517
KRISTINA.BETZOLD@WISCONSIN.GOV

MILWAUKEE COUNTY TRANSIT SYSTEM

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

OTHER CONTACTS

CITY OF MILWAUKEE - FORESTRY
JAMES KRINGER
841 N. BROADWAY
MILWAUKEE, WI 53202
(414) 708-2428
JKRING@MILWAUKEE.GOV

UTILITIES - CITY OF MILWAUKEE

CITY OF MILWAUKEE
JERREL KRUSCHKE
841 N BROADWAY
MILWAUKEE, WI 53202
(414) 286-2489
JKRUSC@MILWAUKEE.GOV

CITY OF MILWAUKEE - COMMUNICATIONS
DPW-COMMUNICATIONS DISPATCH & BRYAN PAWLAK
1440 W CANAL STREET
MILWAUKEE, WI 53233
(414) 286-3686

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

CITY OF MILWAUKEE - STREET LIGHTING
ENG-KIE LEE
841 N BROADWAY
MILWAUKEE, WI 53202
(414) 286-2174
ELEE@MILWAUKEE.GOV

CITY OF MILWAUKEE - TRAFFIC SIGNALS
SCOTT REINBACHER
841 N BROADWAY
MILWAUKEE, WI 53202
(414) 286-3232
SREINB@MILWAUKEE.GOV

CITY OF MILWAUKEE - UNDERGROUND CONDUIT
ENG-KIE LEE
841 N BROADWAY
MILWAUKEE, WI 53202
(414) 286-2174
ELEE@MILWAUKEE.GOV

CITY OF MILWAUKEE - WATER WORKS
JOSHUA IWEN
841 N BROADWAY
MILWAUKEE, WI 53202
(414) 286-3640
JIWEN@MILWAUKEE.GOV

MILWAUKEE WATER WORKS
MWW CONTROL CENTER
841 N BROADWAY ROOM 409
MILWAUKEE, WI 53202
(414) 286-3710; (414) 708-3042

UTILITIES

AMERICAN TRANSMISSION COMPANY
JEFF VANDERWERFF
W234N2000 RIDGEVIEW PARKWAY COURT
PEWAUKEE, WI 53188
(262) 206-4966

AT&T WISCONSIN
DAVE PINKOWSKI
435 S 95TH STREET
MILWAUKEE, WI 53214
(414) 257-0202; (414) 469-1395 MOBILE

CHARTER COMMUNICATIONS
BEAU ABUYA
1320 N MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212
(414) 758-9241
WIS.ENGINEERING@CHARTER.COM

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324 E WISCONSIN AVENUE
MILWAUKEE, WI 53202
(414) 409-1703; (815) 252-5956 (MOBILE)
SGARCIA@EVERSTREAM.NET

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15725 WEST RYERSON ROAD
NEW BERLIN, WI 53151
(262) 232-1323
RANDY.CICATELLO@VERIZON.COM

MIDWEST FIBER NETWORK
CORY SCHMUKI
6070 N FLINT DRIVE
GLENDALE, WI 53209
(414) 459-3561; (414) 349-2764 (MOBILE)

WE ENERGIES (ELECTRIC)
SEND ALL CORRESPONDENCE TO:

WE ENERGIES UTILITY COORDINATOR
500 S. 116TH STREET
WEST ALLIS, WI 53214
(414) 221-2738
WE ENERGIES ELECTRICAL DISPATCH
1-800-662-4797
WE-UTILITY-RELOCATIONS@WE-ENERGIES.COM

WE ENERGIES (ELECTRIC)
CONSTRUCTION CONTACT:
JAKE CHRISTENSEN
W140 N9100 LILLY ROAD
MENOMONEE FALLS, WI 53051
(262) 502-6819; (414) 750-8548 MOBILE
JACOB.CHRISTENEN@WE-ENERGIES.COM

WE ENERGIES (GAS OPERATIONS)
SEND ALL CORRESPONDENCE TO:

WE ENERGIES UTILITY COORDINATOR
500 S. 116TH STREET
WEST ALLIS, WI 53214
(414) 221-2738
WE ENERGIES GAS DISPATCH
1-800-261-5325
WE-UTILITY-RELOCATIONS@WE-ENERGIES.COM

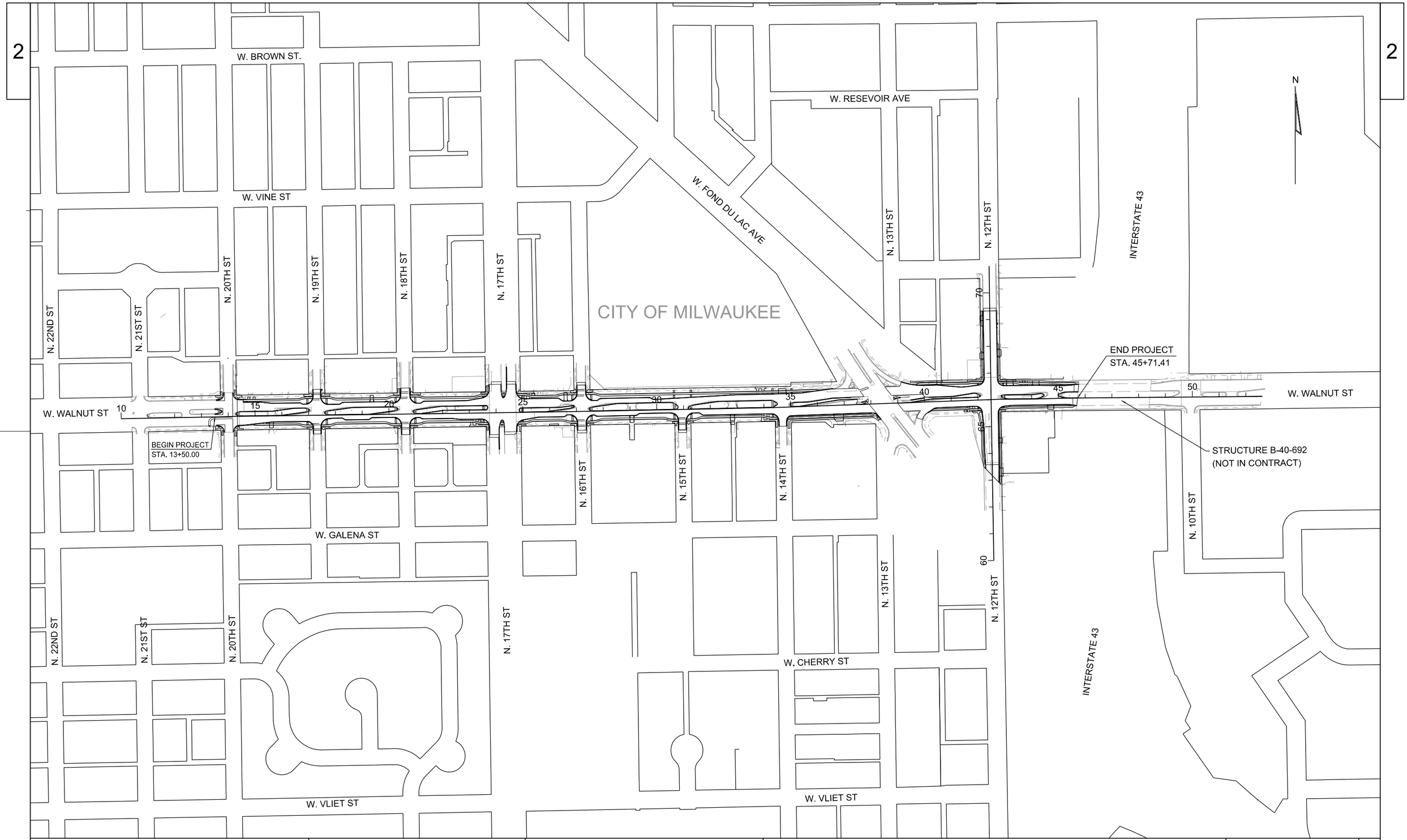
WE ENERGIES (GAS OPERATIONS)
CONSTRUCTION CONTACT:
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500 S 116TH STREET
WEST ALLIS, WI 53214
(920) 621-6903
ALEX.DANTINNE@WE-ENERGIES.COM

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GREEN BAY, WI 54302-3526
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WISDOT COMMUNICATIONS
JEFF MADSON
433 W ST PAUL AVENUE
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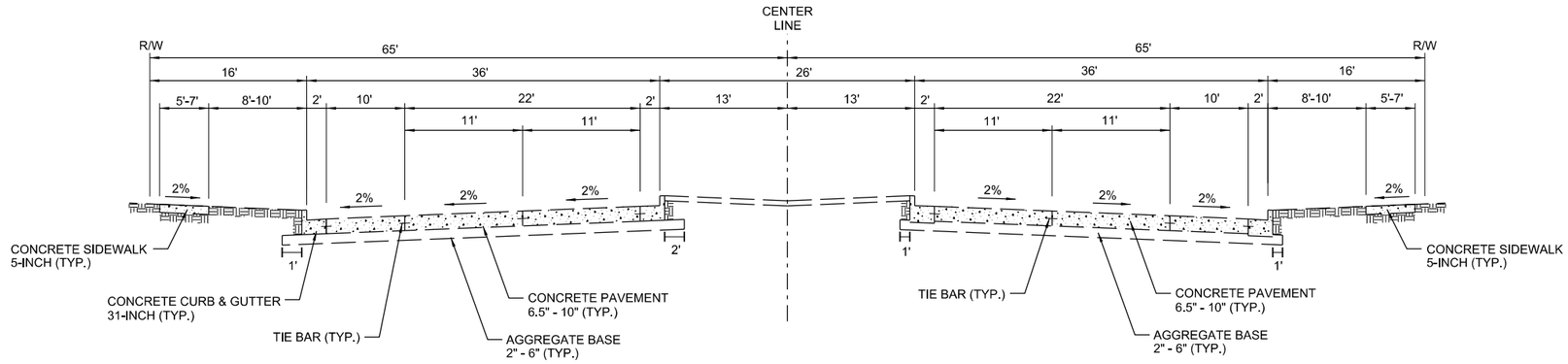
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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	GENERAL NOTES	SHEET 2	E



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PROJECT OVERVIEW MAP	SHEET 3	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\020201_po.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 320.0003 sf / in.



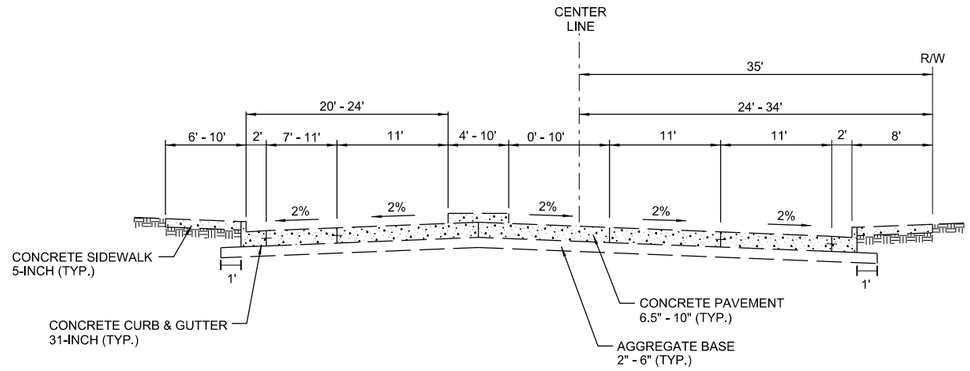
TYPICAL EXISTING SECTION

W. WALNUT STREET

STA. 14+40.41 - STA. 45+71.30

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTIONS	SHEET 4	E

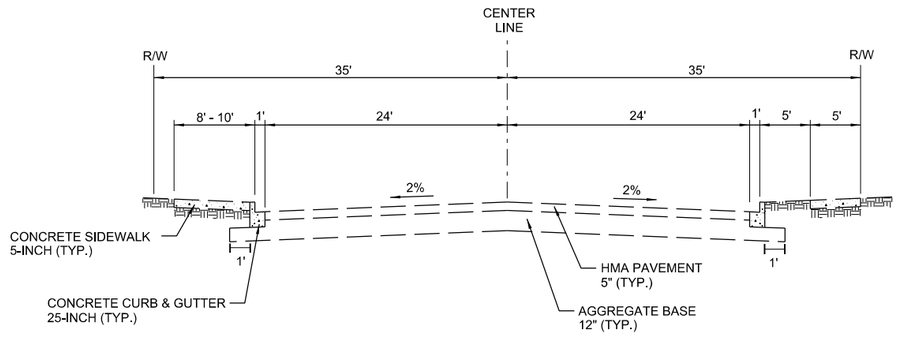
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TYPICAL EXISTING SECTION

N. 12TH STREET

STA. 62+90 - STA. 66+00



TYPICAL EXISTING SECTION

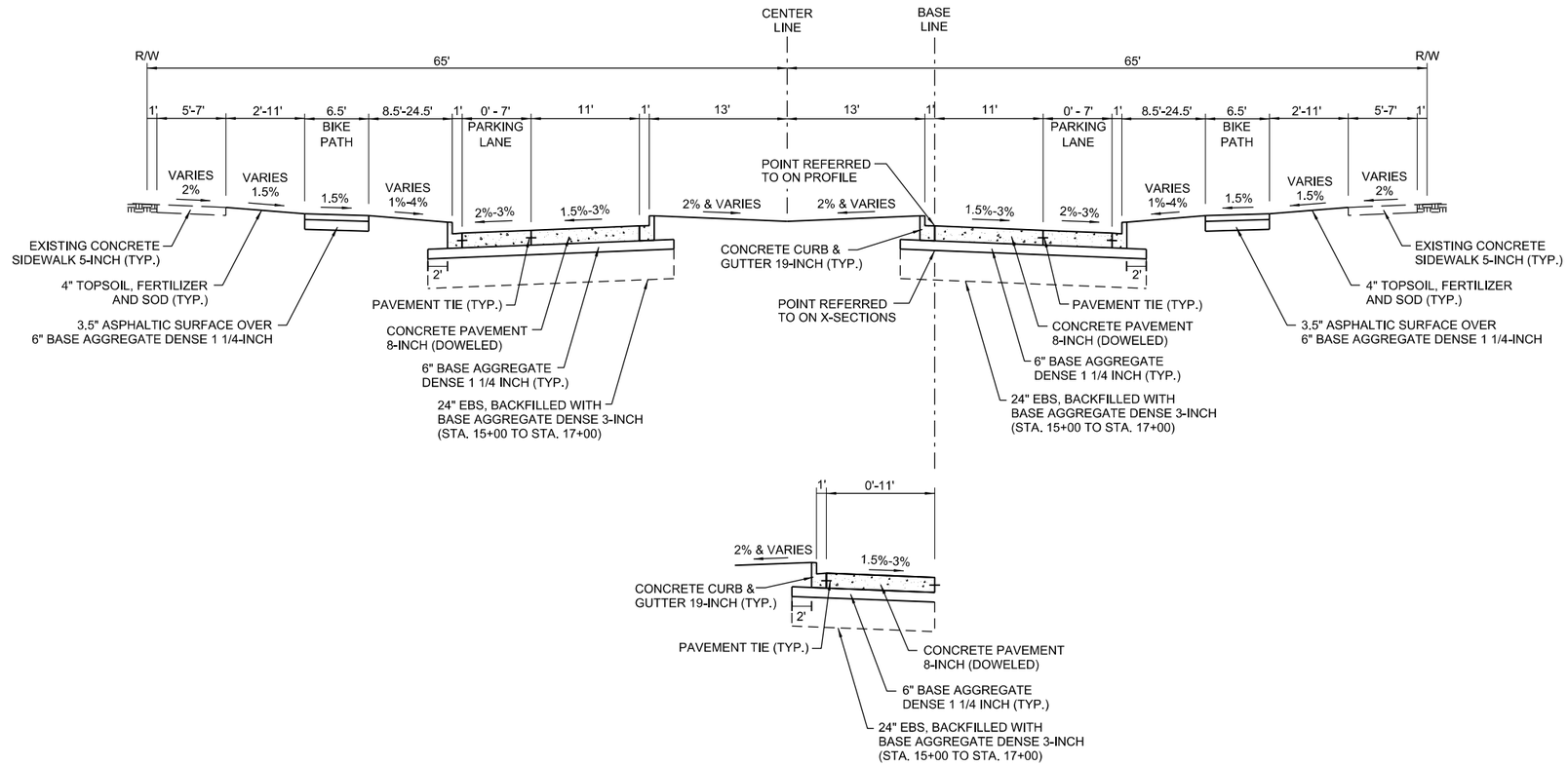
N. 12TH STREET

STA. 66+00 - STA. 69+32

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTIONS	SHEET 5	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\020301_ts.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 15.0000 sf / in.

WISDOT/CADDS SHEET 42



LEFT TURN LANE / TURNING TAPER

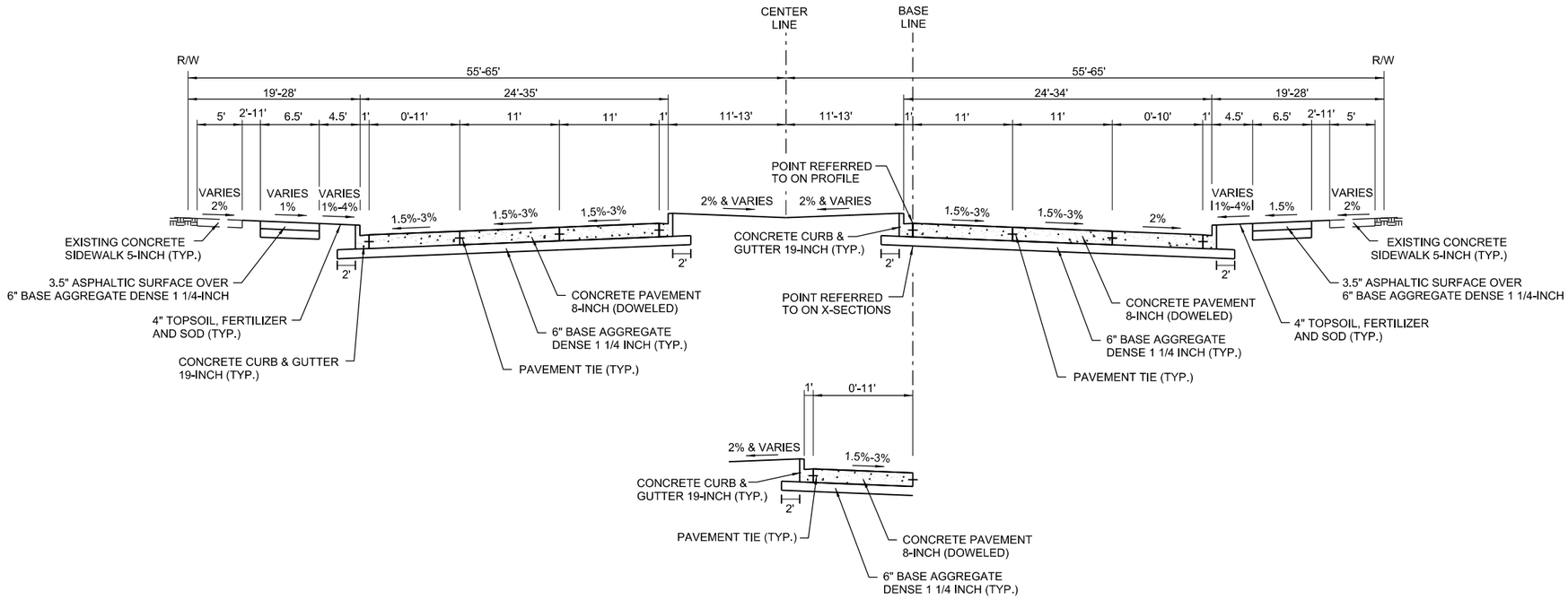
WESTBOUND WALNUT	EASTBOUND WALNUT
STA. 14+52 - STA. 16+46	STA. 15+97 - STA. 16+87
STA. 17+76 - STA. 18+67	STA. 19+27 - STA. 20+17
STA. 21+06 - STA. 21+97	STA. 21+18 - STA. 23+62
STA. 24+94 - STA. 26+89	STA. 25+84 - STA. 26+75
STA. 27+64 - STA. 28+54	

TYPICAL FINISHED SECTION

W. WALNUT STREET

STA. 14+40 TO STA. 31+50

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET 6	E



LEFT TURN LANE / TURNING TAPER

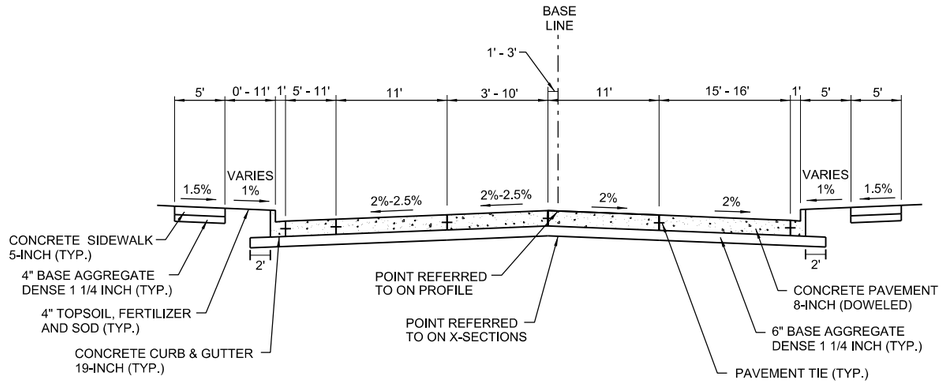
WESTBOUND WALNUT	EASTBOUND WALNUT
STA. 31+39 - STA. 32+30	STA. 35+30 - STA. 37+57
STA. 35+19 - STA. 36+57	STA. 39+51 - STA. 41+92
STA. 39+18 - STA. 41+85	
STA. 43+03 - STA. 44+37	

TYPICAL FINISHED SECTION

W. WALNUT STREET

STA. 31+50 TO STA. 45+72

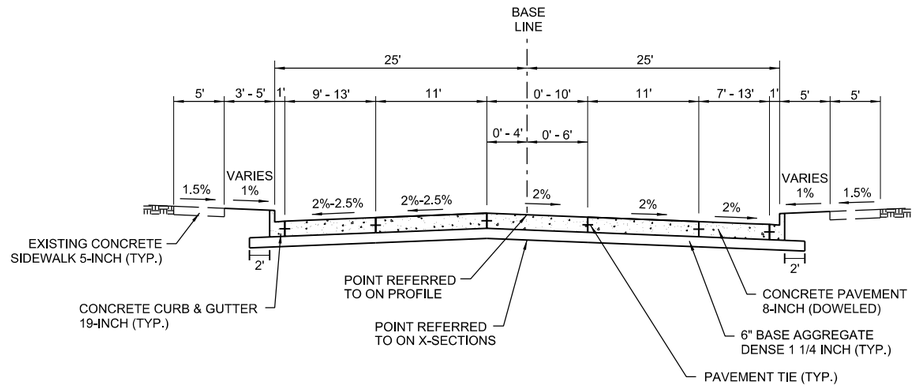
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET 7	E



TYPICAL FINISHED SECTION

N. 12TH STREET

STA. 62+90 - STA. 66+00



TYPICAL FINISHED SECTION

N. 12TH STREET

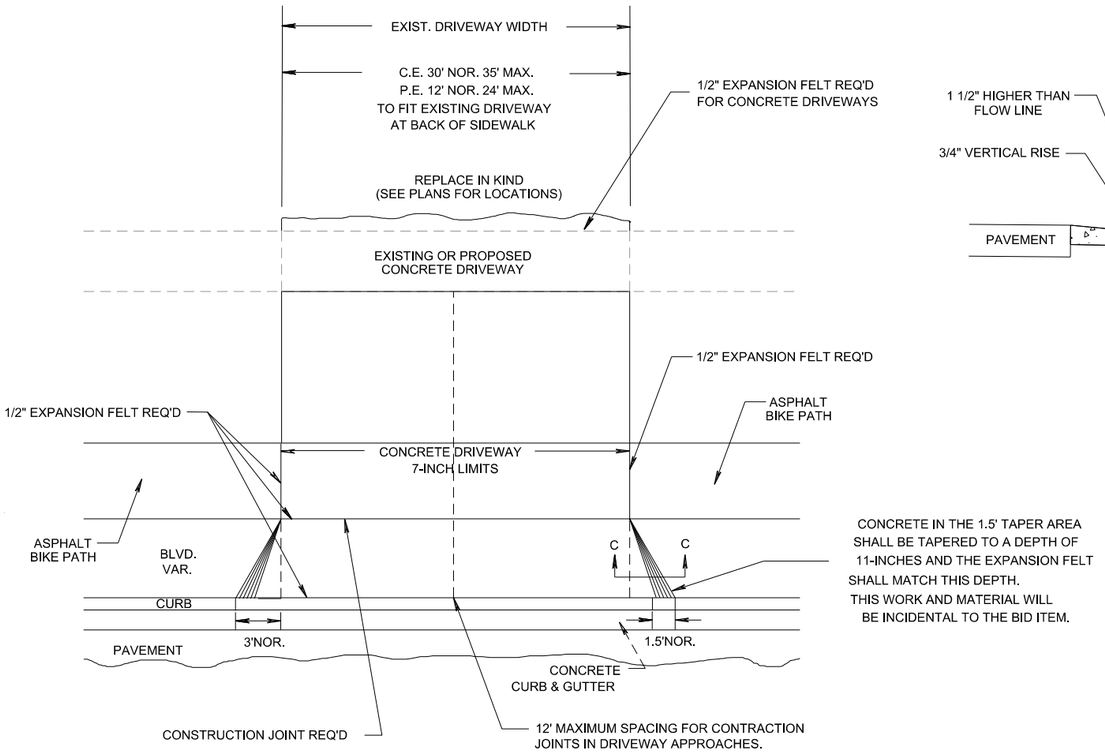
STA. 66+00 - STA. 69+32

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET 8	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\020301_ts.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 15.0000 sf / in.

WISDOT/CADDS SHEET 42

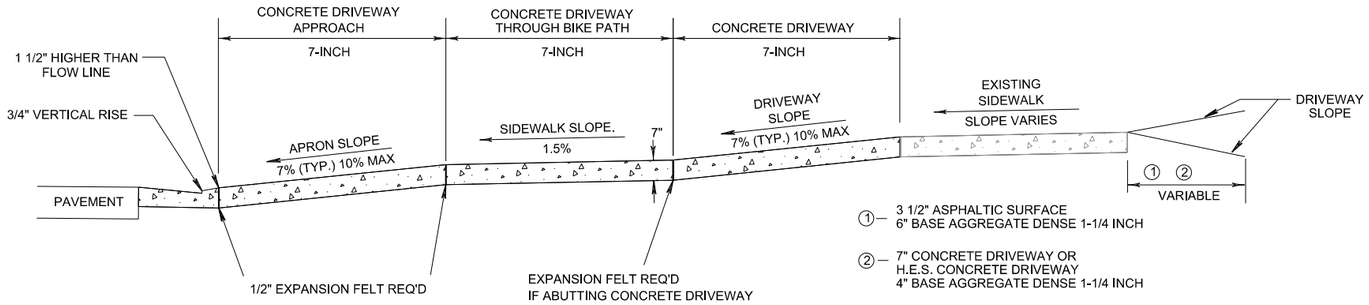
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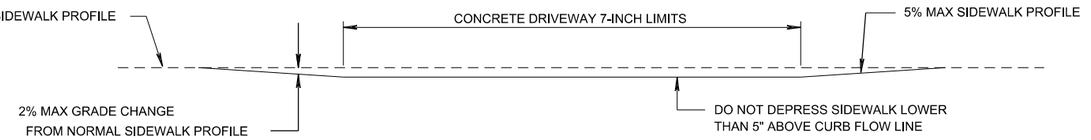
CONCRETE IN THE 1.5' TAPER AREA
SHALL BE TAPERED TO A DEPTH OF
11-INCHES AND THE EXPANSION FELT
SHALL MATCH THIS DEPTH.
THIS WORK AND MATERIAL WILL
BE INCIDENTAL TO THE BID ITEM.

PLAN VIEW

SECTION C-C



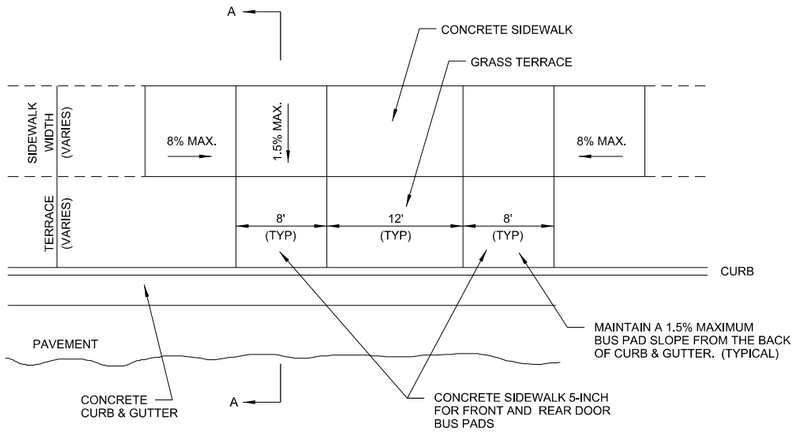
TYPICAL SIDEWALK SECTION



DEPRESSED SIDEWALK PROFILE DETAIL

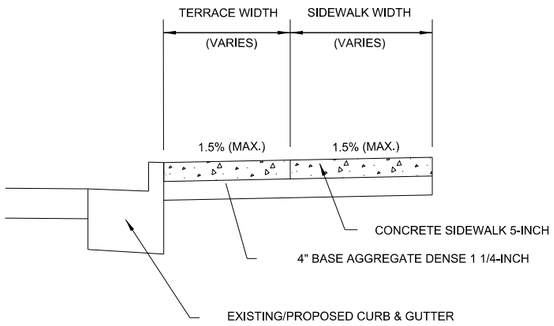
DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 9	E



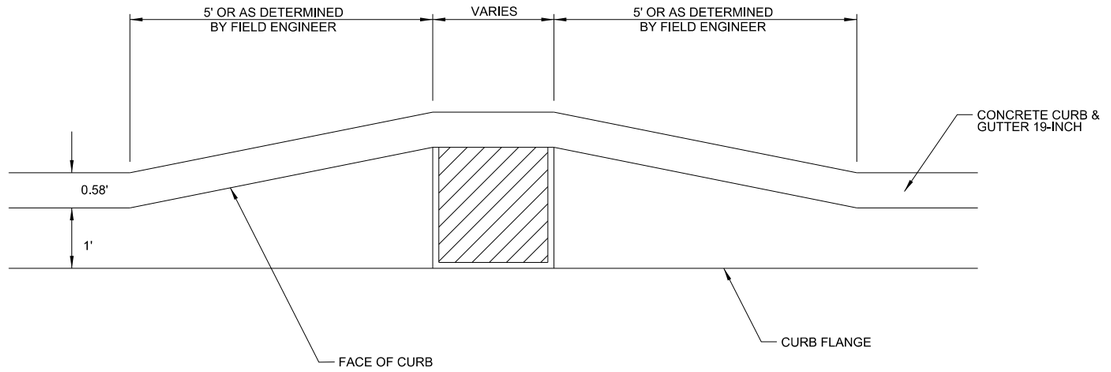
PLAN VIEW - SIDEWALK WITH TERRACE

NOTE: DEPRESS SIDEWALK AS NEEDED TO MAINTAIN 1.5% MAXIMUM CROSS SLOPE IN TERRACE AREA.



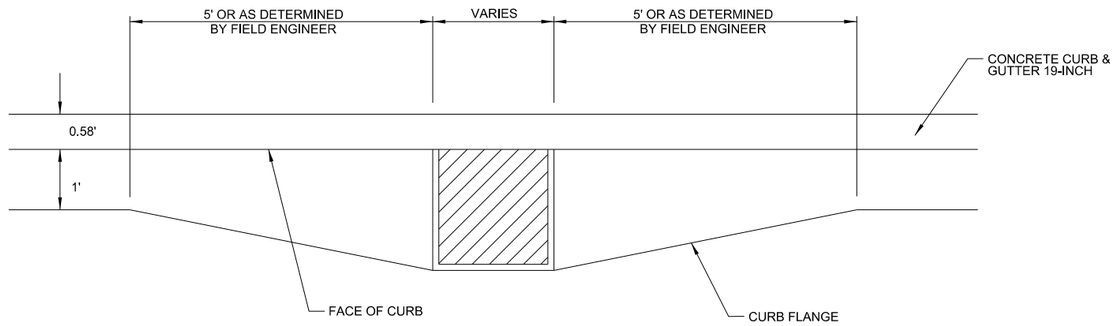
SECTION A-A

CONCRETE BUS PAD DETAIL



CURB TRANSITION AT INLETS IN TRAVEL LANES

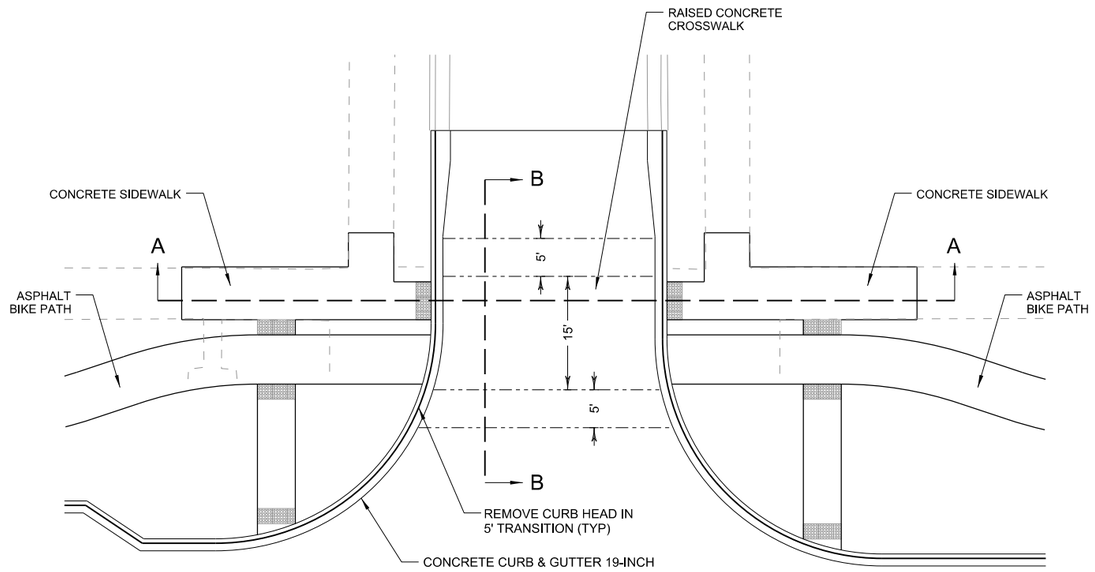
CURB TRANSITION PAID FOR AS CONCRETE CURB & GUTTER 19-INCH

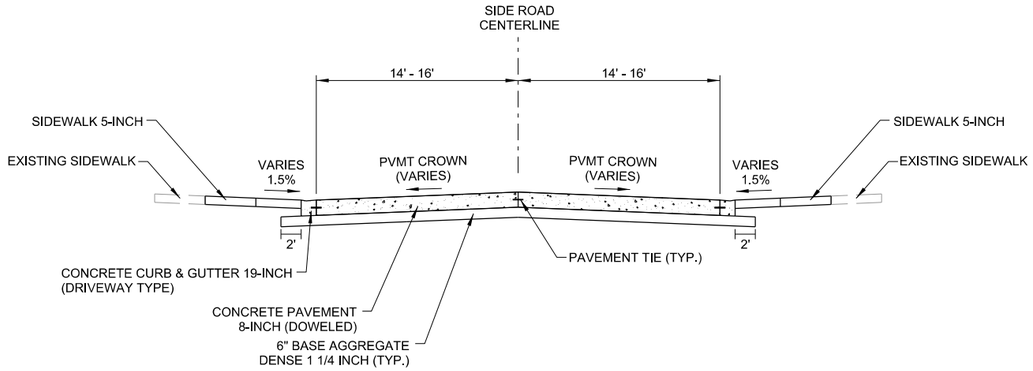


CURB TRANSITION AT INLET IN PARKING LANES

CURB TRANSITION PAID FOR AS CONCRETE CURB & GUTTER 19-INCH

2



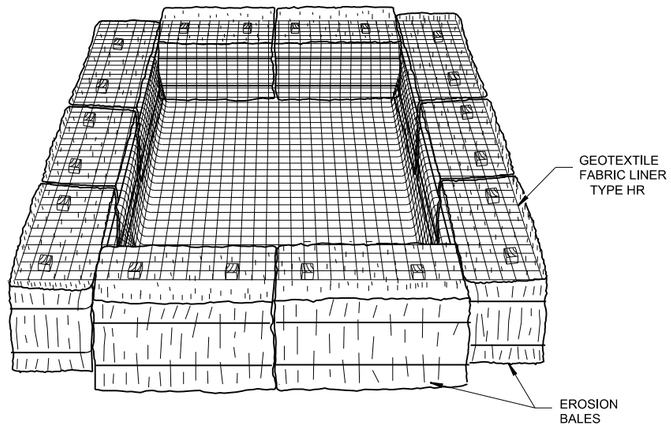


SECTION A-A

SECTION B-B

RAISED CONCRETE CROSSWALK

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 11	E



TEMPORARY SETTLING BASIN

(SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:)

STORAGE VOLUME (C.F.) = 16 X GPM (PUMP RATE)

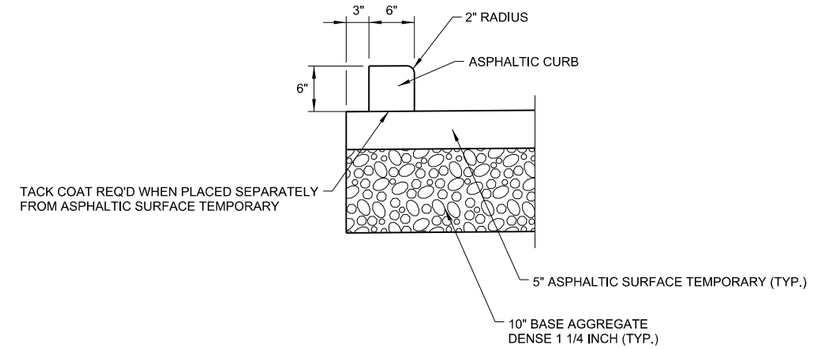
EXAMPLE:
CONTRACTOR INDICATES PUMP CAPABLE OF 50 GPM
HEIGHT OF BALES = 1.5 FT.

SOLUTION:
SV (C.F.) = 16 X 50
SV = 800 C.F.

$\frac{800\ C.F.}{1.5\ FT.}$ = 533 S.F.

USE A 20 FT. X 27 FT. BASIN

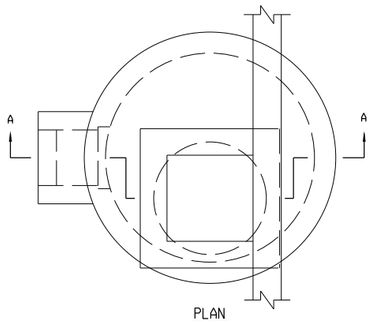
TEMPORARY SETTLING BASIN



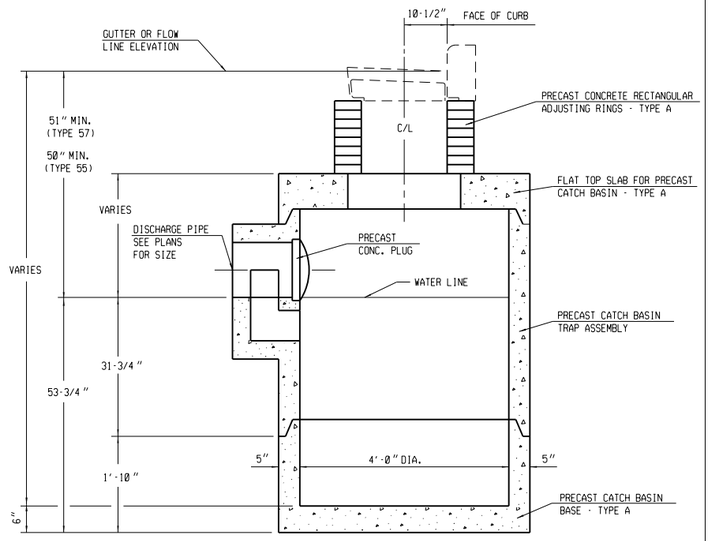
ASPHALTIC CURB

GENERAL NOTES

1. REINFORCEMENT FOR 5-INCH PRECAST REINFORCED CONCRETE SHALL BE 6-INCH X 6-INCH 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. SET FRAME ELEVATION 0.03-FEET LOWER THAN ELEVATION INDICATED ON PLAN.
4. A PRECAST CONCRETE PLUG SHALL BE CEMENTED INTO THE OPENING AT THE INNER FACE OF THE CATCH BASIN TRAP ASSEMBLY.
5. THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.
6. PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 4-INCH IN DEPTH WHICH MEETS REQUIREMENTS FOR GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.
7. 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.
8. TOP SLAB, BASE ASSEMBLY AND 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. ALL REINFORCEMENTS SHALL BE TIED OR WELDED TOGETHER.
9. THE TRAP ASSEMBLY REINFORCED CONCRETE SHALL BE INTERGRAL WITH THE CIRCUMFERENTIAL REINFORCED CONCRETE WALL.
10. THE BASE ASSEMBLY AND TRAP ASSEMBLY SHALL EACH HAVE TWO HANDLING HOLES 2 1/4 INCHES IN DIAMETER CAST OR DRILLED IN THE WALL.
11. ADDITIONAL NO. 5 BARS SHALL BE PLACED AROUND TOP SLAB OPENING AS SHOWN.
12. THE ADJUSTING RINGS SHALL BE 2-INCH, 3-INCH, 4-INCH OR 6-INCH IN HEIGHT.



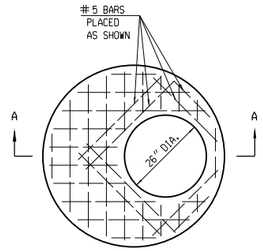
PLAN



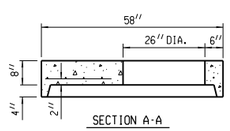
SECTION A-A

ENVIRONMENTAL ENGINEERING SECTION INFRASTRUCTURE SERVICES DIVISION DEPARTMENT OF PUBLIC WORKS MILWAUKEE, WISCONSIN	
SEWER DETAIL DRAWING	
CATCH BASIN TYPE 44A	
DATE: 2/2/2021	1 OF 2

$FILEL$

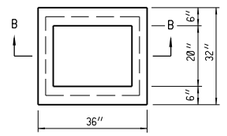


PLAN

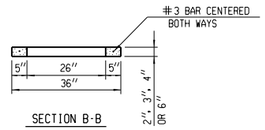


SECTION A-A

TOP SLAB - TYPE A

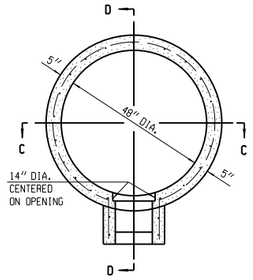


PLAN

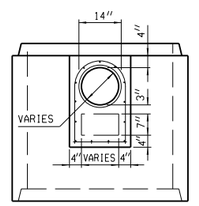


SECTION B-B

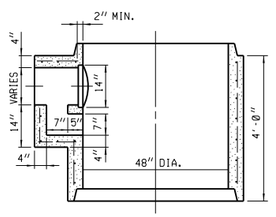
RECTANGULAR ADJUSTING RING - TYPE A



PLAN

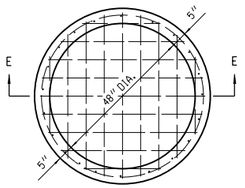


SECTION C-C

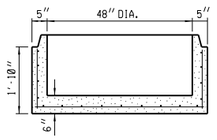


SECTION D-D

TRAP ASSEMBLY



PLAN



SECTION E-E

BASE ASSEMBLY

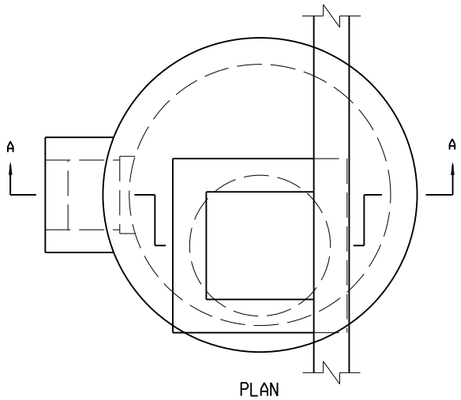
ENVIRONMENTAL ENGINEERING SECTION INFRASTRUCTURE SERVICES DIVISION DEPARTMENT OF PUBLIC WORKS MILWAUKEE, WISCONSIN	
SEWER DETAIL DRAWING	
CATCH BASIN TYPE 44A	
DATE: 2/2/2021	2 OF 2

$FILEL$

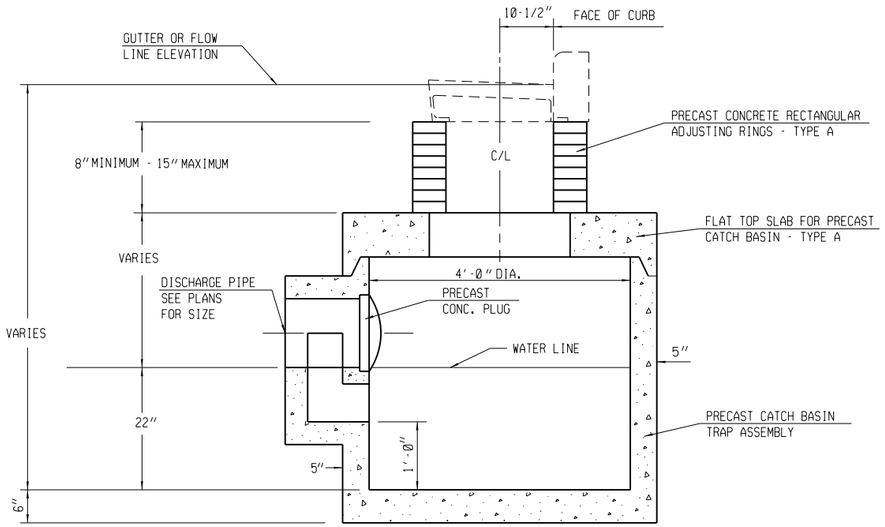
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 13	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021001_cd.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 200.0000 sf / in.

WISDOT/CADDS SHEET 42



PLAN

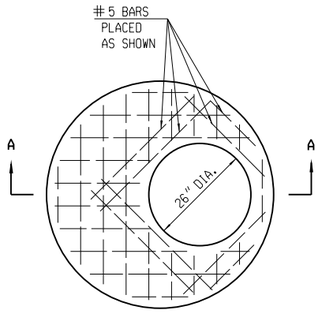


SECTION A-A

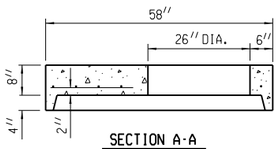
CATCH BASIN - TYPE 44B

GENERAL NOTES

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



PLAN



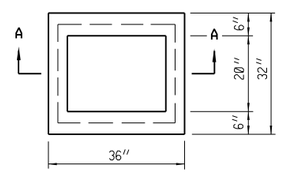
SECTION A-A

TOP SLAB - TYPE A

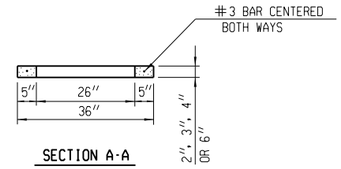
FLAT TOP SLAB SHALL BE 8" THICK REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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



PLAN

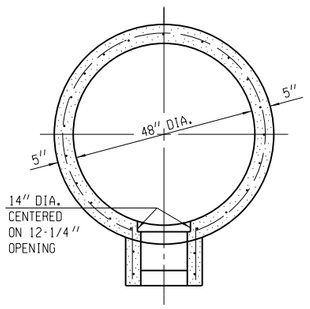


SECTION A-A

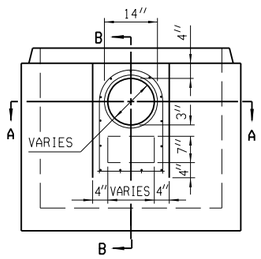
RECTANGULAR ADJUSTING RING - TYPE A

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

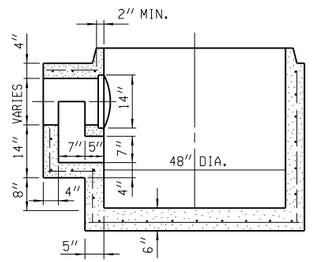
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.



SECTION A-A



PLAN



SECTION B-B

TRAP ASSEMBLY

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

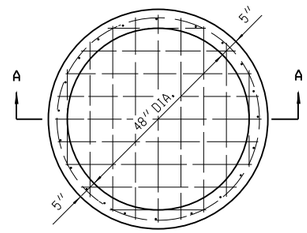
TRAP ASSEMBLY SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS.PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

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

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

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

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



PLAN

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

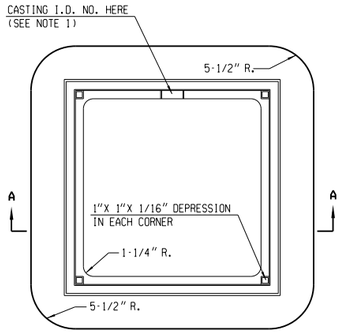
BOTTOM SLAB SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SLAB.

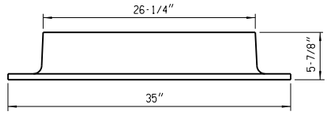
CIRCUMFERENTIAL AND BOTTOM SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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

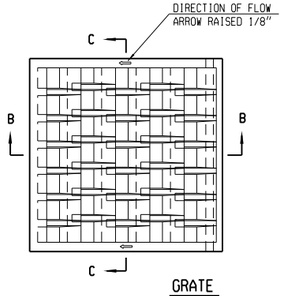
TWO HANDLING HOLES 2 1/4 INCHES IN DIAMETER SHALL BE CAST OR DRILLED IN THE WALL.

BOTTOM REINFORCEMENT

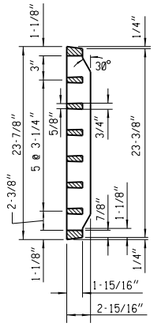




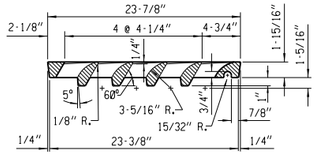
FRAME



GRATE



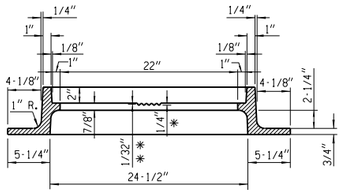
SECTION C-C



SECTION B-B

INLET COVER - TYPE 55

LID-180 LBS., FRAME-315 LBS.



* DEPRESSION FOR LETTERS

* * CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT

SECTION A-A

GENERAL NOTES

ALL EDGES ARE TO BE GROUND.

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

ON THE FRAME

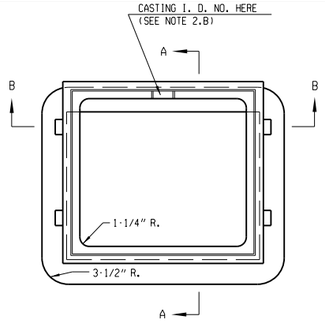
1. ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

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

ON THE GRATE

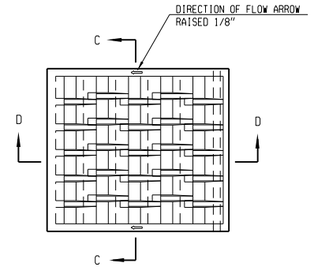
1. ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (55) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

ENVIRONMENTAL ENGINEERING SECTION
INFRASTRUCTURE SERVICES DIVISION
DEPARTMENT OF PUBLIC WORKS
MILWAUKEE, WISCONSIN
SEWER DETAIL DRAWING
ALLEY FRAME & INLET GRATE



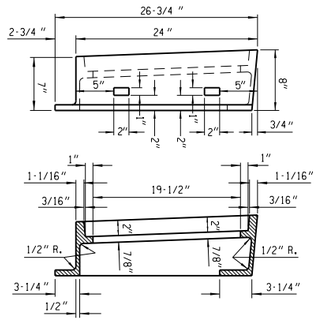
INLET FRAME - MS 51

WEIGHT 204 LBS.

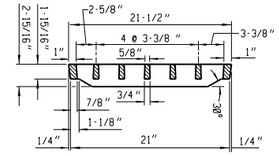


INLET COVER - MS 57

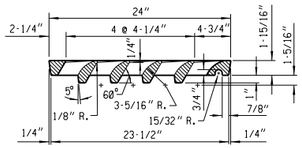
WEIGHT 145 LBS



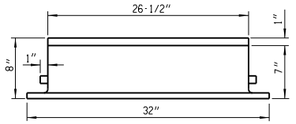
SECTION A-A

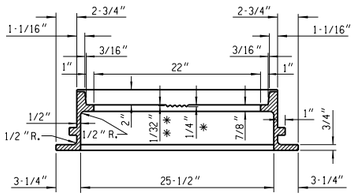


SECTION C-C



SECTION D-D





SECTION B-B

* DEPRESSION FOR LETTERS

* * CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT

GENERAL NOTES

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

ON THE FRAME

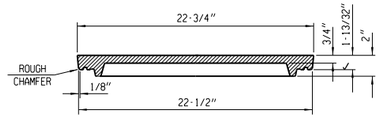
A) ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

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

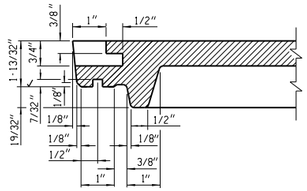
ON THE GRATE

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

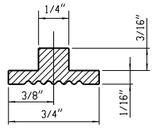
ENVIRONMENTAL ENGINEERING SECTION
INFRASTRUCTURE SERVICES DIVISION
DEPARTMENT OF PUBLIC WORKS
MILWAUKEE, WISCONSIN
SEWER DETAIL DRAWING
CATCH BASIN / INLET GRATE

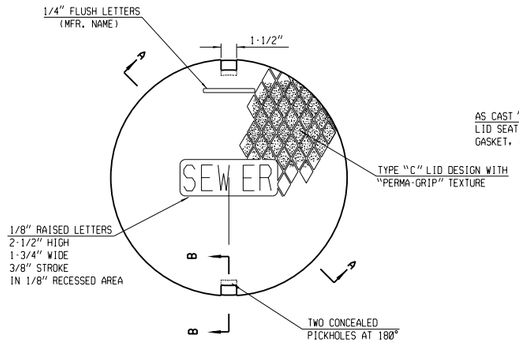


SECTION A-A

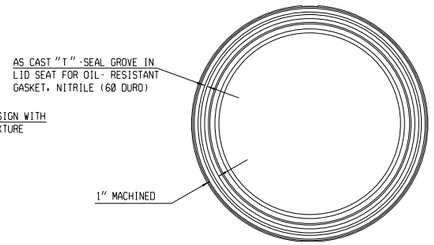


SECTION B-B





TOP VIEW



BOTTOM VIEW

MANHOLE COVER - TYPE MS 58-A

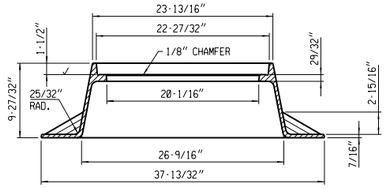
LID - 107 LBS.

NOTE:

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

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

NOTE: ALL EXTERIOR EDGES SHALL BE GROUND.



MANHOLE FRAME - TYPE MS 21

FRAME - 182 LBS.

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

SEWER DETAIL DRAWING

MANHOLE FRAME & COVER

2

BEGIN PROJECT
STA. 13+50.00

N. 20TH STREET

N. 19TH STREET

W. WALNUT STREET

W. WALNUT STREET

MATCH LINE STA. 18+50

#2010 #2004 #1930 #1910 #1904 #1902 #1834

#2011 #2005 #1644 #1637 #1644

13+00 +50 14+00 +50 15+00 +50 16+00 +50 17+00 +50 18+00 +50

R/W

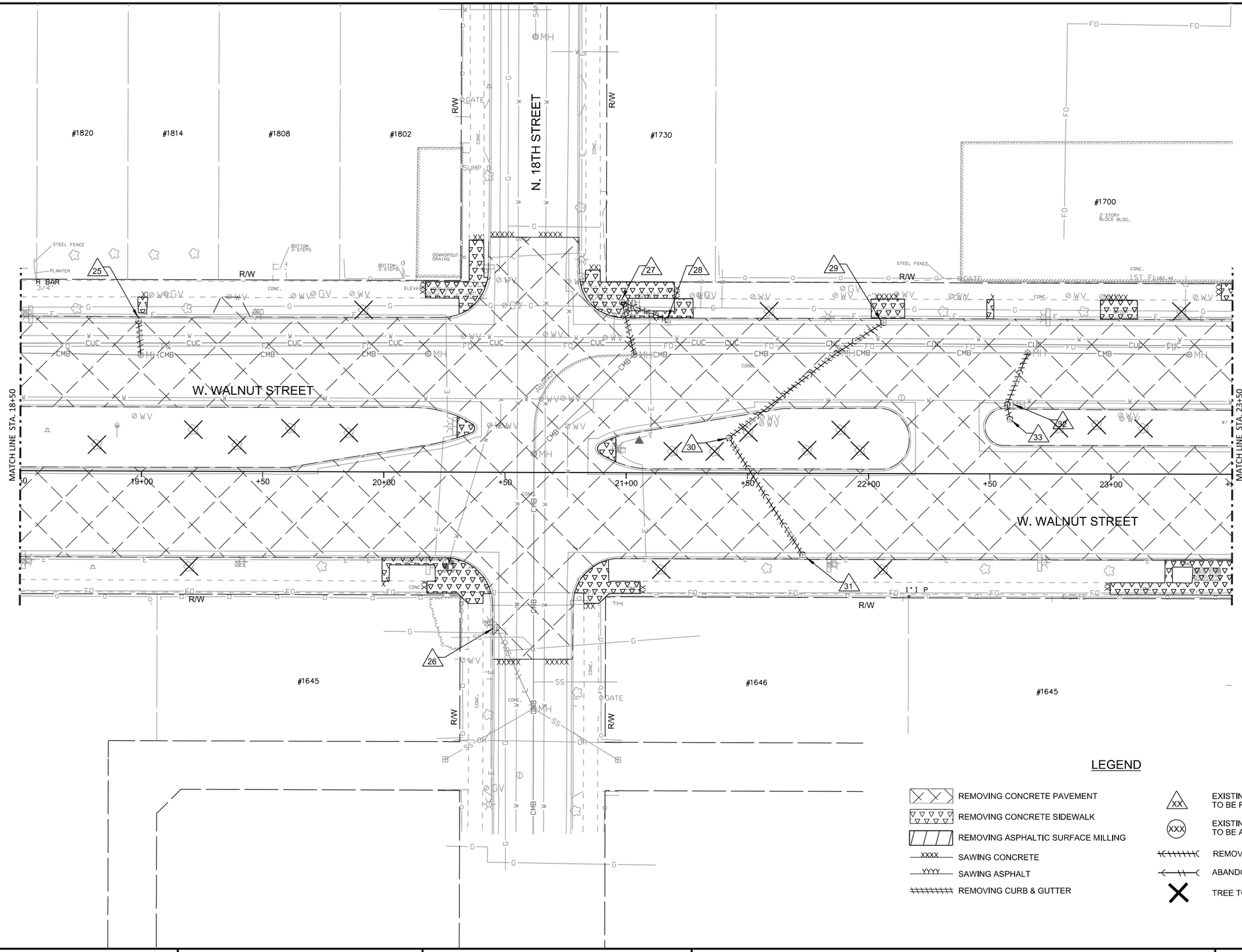
LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE MILLING
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- REMOVING CURB & GUTTER
- XX EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- REMOVE STORM SEWER
- ABANDON STORM SEWER
- TREE TO BE REMOVED

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 17	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021011_rm.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42



LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE MILLING
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- REMOVING CURB & GUTTER
- XX EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- REMOVE STORM SEWER
- ABANDON STORM SEWER
- TREE TO BE REMOVED

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 18	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021012_rm.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

APPROXIMATE LIMITS OF EXCAVATION, HAULING, AND DISPOSAL OF LEAD CONTAMINATED SOILS FROM 1' TO 3' BELOW GROUND SURFACE.

N. 17TH STREET

N. 16TH STREET

W. WALNUT STREET

#1622 #1614 #1608 #1606 #1525 #1646 #1647 #1532 #1643

MATCH LINE STA. 23+50

MATCH LINE STA. 29+50

24+00 +50 25+00 +50 26+00 +50 27+00 +50 28+00 +50 29+00

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE MILLING
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- REMOVING CURB & GUTTER
- XX EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- REMOVE STORM SEWER
- ABANDON STORM SEWER
- TREE TO BE REMOVED

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 19	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021013_rm.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE MILLING
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- REMOVING CURB & GUTTER
- XX EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- REMOVE STORM SEWER
- ABANDON STORM SEWER
- TREE TO BE REMOVED

#1525

N

APPROXIMATE LIMITS OF EXCAVATION, HAULING, AND DISPOSAL OF LEAD CONTAMINATED SOILS FROM 4' BELOW GROUND SURFACE TO MAXIMUM DEPTH OF EXCAVATION.

APPROXIMATE LIMITS OF EXCAVATION, HAULING, AND DISPOSAL OF LEAD CONTAMINATED SOILS FROM 1' TO 6' BELOW GROUND SURFACE.

W WALNUT STREET

W. WALNUT STREET

N. 15TH STREET

N. 14TH LANE

N. 14TH STREET

MATCH LINE STA. 29+50

MATCH LINE STA. 35+50

#1643 #1646 #1647 #1639 #1610

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 20	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021014_rm.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

2

APPROXIMATE LIMITS OF EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOILS FROM 1' BELOW GROUND SURFACE TO MAXIMUM DEPTH OF EXCAVATION.

CONTRACTOR TO PROTECT EXISTING TRAFFIC SIGNAL CONDUIT AND CABLING IN PLACE THROUGHOUT ROADWAY CONSTRUCTION.

W. FOND DU LAC AVENUE

W. WALNUT STREET

#1525

#1210

#1610

R/W

MATCH LINE STA. 35+50

MATCH LINE STA. 41+50

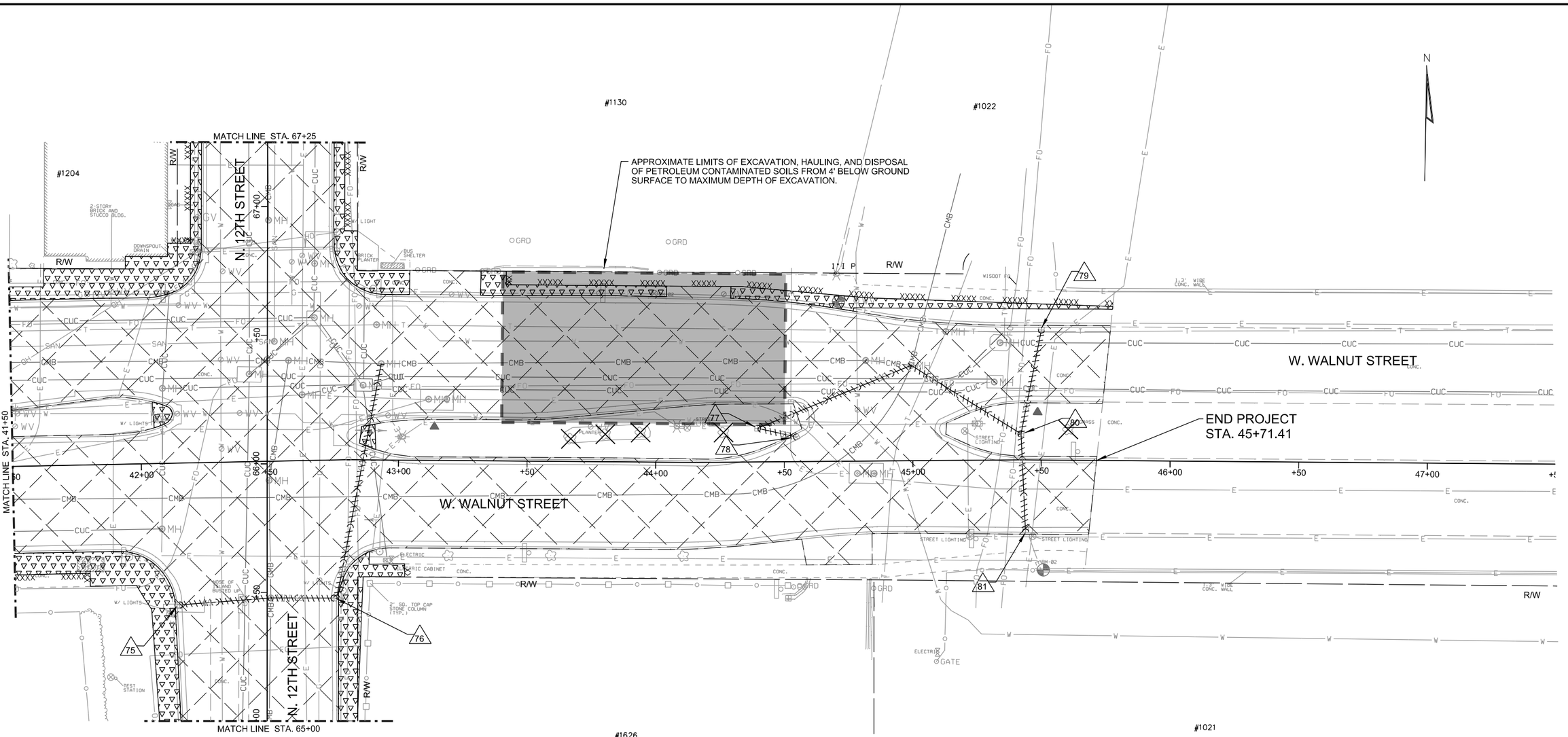
LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE MILLING
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- REMOVING CURB & GUTTER
- XX EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- REMOVE STORM SEWER
- ABANDON STORM SEWER
- TREE TO BE REMOVED

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 21	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021015_rm.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2



LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE MILLING
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- REMOVING CURB & GUTTER
- XX EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- REMOVE STORM SEWER
- ABANDON STORM SEWER
- TREE TO BE REMOVED

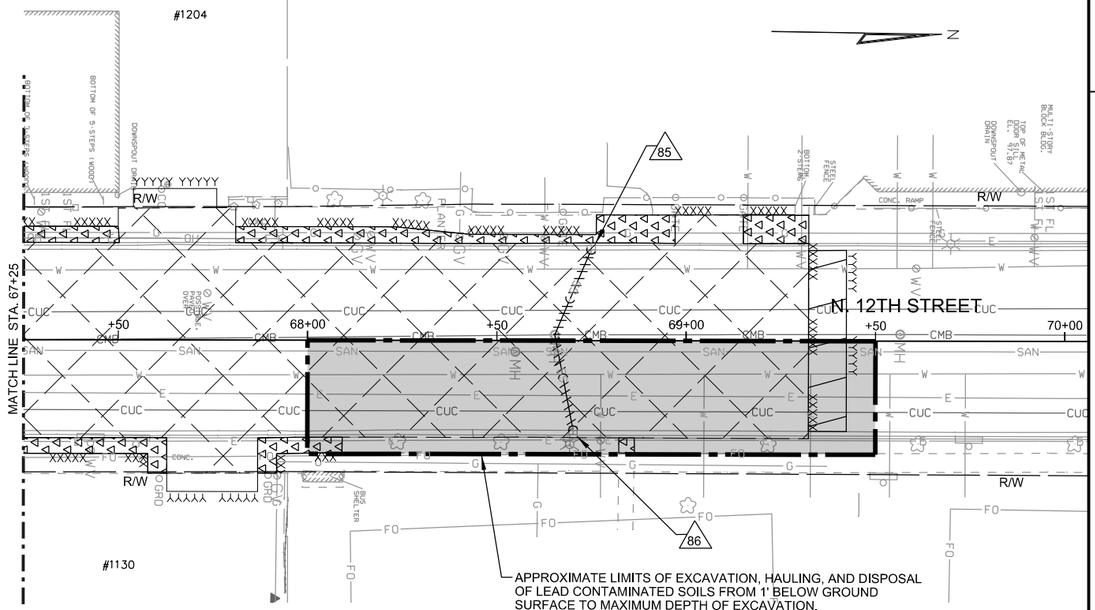
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 22	E

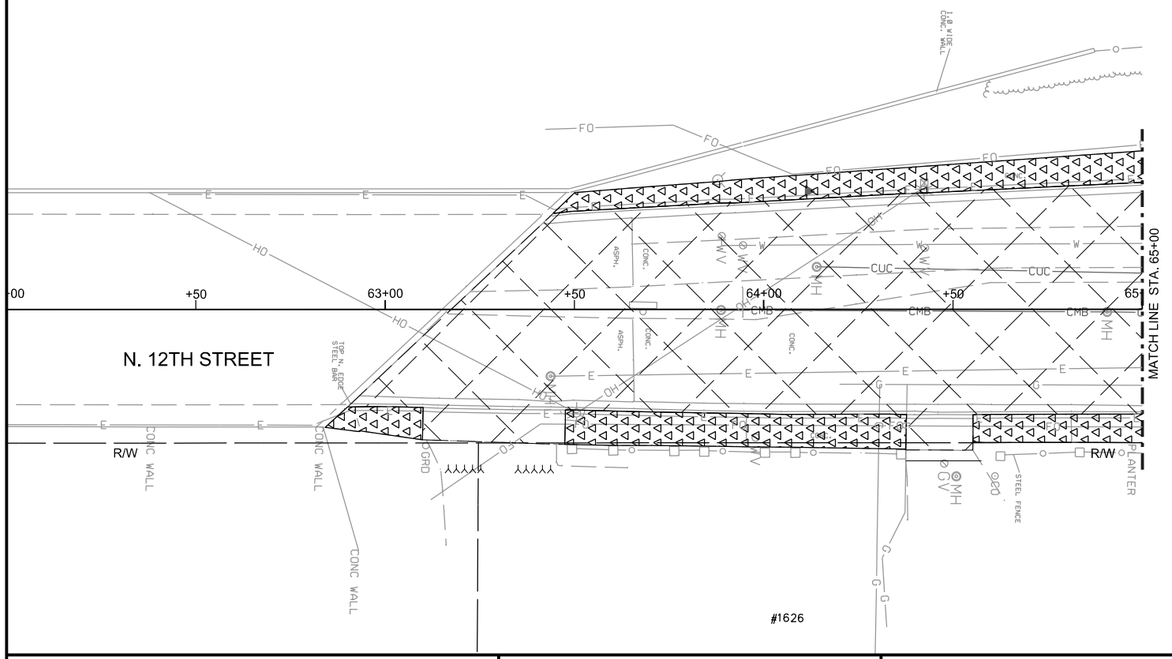
FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021016_rm.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

2

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE MILLING
- XXXX — SAWING CONCRETE
- YYYY — SAWING ASPHALT
- REMOVING CURB & GUTTER
- XX — EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- REMOVE STORM SEWER
- ABANDON STORM SEWER
- TREE TO BE REMOVED





PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 23	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021017_rm.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

2

N

N. 20TH STREET

N. 19TH STREET

W. WALNUT STREET

W. WALNUT STREET

#2010

#2004

#1930

#1910

#1904

#1902

#1834

#2011

#2005

#1644

#1637

#1644

BEGIN PROJECT
STA. 13+50.00

BUS SHELTER
TO REMAIN

PROVIDE CURB CUT
FOR ASPHALT PATH
STA. 14+92.07, 31.16 RT TO
STA. 15+18.64, 28.50 RT

STA. 15+61.04, 45.09 RT
14' DRIVEWAY

SLOPE
INTERCEPT
(TYP)

INSTALL RAISED
CROSSWALK

INSTALL RAISED
CROSSWALK

SLOPE
INTERCEPT
(TYP)

MATCH LINE STA. 18+50

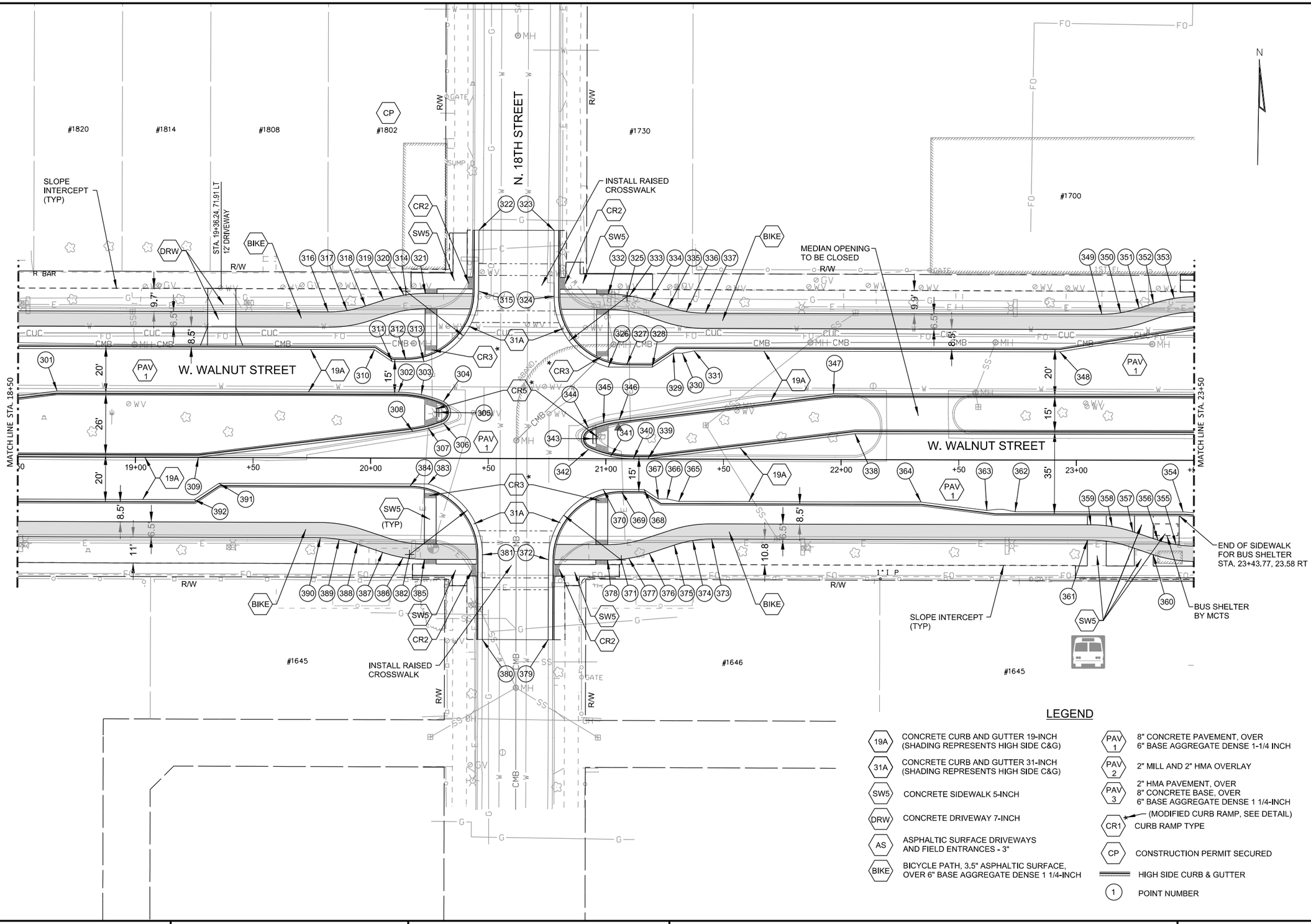
LEGEND

19A	CONCRETE CURB AND GUTTER 19-INCH (SHADING REPRESENTS HIGH SIDE C&G)
31A	CONCRETE CURB AND GUTTER 31-INCH (SHADING REPRESENTS HIGH SIDE C&G)
SW5	CONCRETE SIDEWALK 5-INCH
DRW	CONCRETE DRIVEWAY 7-INCH
AS	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES - 3"
BIKE	BICYCLE PATH, 3.5" ASPHALTIC SURFACE, OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
PAV 1	8" CONCRETE PAVEMENT, OVER 6" BASE AGGREGATE DENSE 1-1/4 INCH
PAV 2	2" MILL AND 2" HMA OVERLAY
PAV 3	2" HMA PAVEMENT, OVER 8" CONCRETE BASE, OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CR1 *	(MODIFIED CURB RAMP, SEE DETAIL) CURB RAMP TYPE
CP	CONSTRUCTION PERMIT SECURED
	HIGH SIDE CURB & GUTTER
1	POINT NUMBER

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PLAN DETAIL	SHEET 24	E

POINT NUMBER	STATION	OFFSET		DESCRIPTION
101	13+56.29	60.00	LT	SAW CUT & MATCH EXISTING
102	13+87.78	59.70	LT	SAW CUT & MATCH EXISTING
103	13+88.17	89.80	LT	SAW CUT & MATCH EXISTING
104	13+62.89	61.94	LT	BEGIN 23' RADIUS
105	13+63.1	84.93	LT	CENTER OF 23' RADIUS
106	13+86.1	84.64	LT	END 23' RADIUS
107	13+50.	31.50	LT	SAW CUT & MATCH EXISTING
108	13+80.29	31.27	LT	SAW CUT & MATCH EXISTING
109	13+80.07	7.77	LT	SAW CUT & MATCH EXISTING
110	13+50.	8.00	LT	SAW CUT & MATCH EXISTING
111	13+57.23	29.49	LT	BEGIN 50.25' RADIUS
112	13+51.95	20.50	RT	CENTER OF 50.25' RADIUS
113	13+74.66	24.26	LT	END 50.25' RADIUS
114	13+72.27	19.59	LT	CENTER OF 5.25' RADIUS
115	13+74.57	14.87	LT	END 50.25' RADIUS
116	13+51.97	60.00	LT	CENTER OF 50.25' RADIUS
117	13+57.07	9.99	LT	BEGIN 50.25' RADIUS
118	14+17.66	88.85	LT	SAW CUT & MATCH EXISTING
119	14+34.91	62.05	LT	BEGIN 8'' CONCRETE PAVEMENT
120	14+34.21	14.67	LT	BEGIN 8'' CONCRETE PAVEMENT
121				NOT USED
122				NOT USED
123	14+34.05	3.39	LT	BEGIN 8'' CONCRETE PAVEMENT
124	14+33.5	34.24	RT	BEGIN 8'' CONCRETE PAVEMENT
125	14+15.84	58.66	RT	SAW CUT & MATCH EXISTING
126	14+19.6	84.02	LT	BEGIN 23' RADIUS
127	14+41.36	83.75	LT	CENTER OF 23' RADIUS
128	14+41.36	60.75	LT	END 23' RADIUS
129	14+56.14	60.75	LT	BEGIN CURB TAPER
130	14+69.4	61.71	LT	END CURB TAPER
131	14+73.35	62.00	LT	BEGIN BUS STOP
132	15+01.35	62.00	LT	END BUS STOP
133	14+73.35	55.50	LT	BEGIN CURB
134	14+58.31	54.50	LT	BEGIN 1.25' RADIUS
135	14+58.39	52.00	LT	END 1.25' RADIUS
136	14+56.14	51.00	LT	END OF FLANGE
137	15+22.09	50.99	LT	BEGIN CURB TAPER
138	15+31.94	49.76	LT	BEGIN INLET CURB TRANSITION
139	15+45.84	48.02	LT	END INLET CURB TRANSITION
140	15+62.03	46.00	LT	END CURB TAPER
141	16+70.05	46.00	LT	BEGIN CURB TAPER
142	16+77.55	41.00	LT	END CURB TAPER
143	16+87.55	42.00	LT	BEGIN 29' RADIUS (FACE OF CURB)
144	16+95.36	41.00	LT	BEGIN 31' RADIUS
145	16+87.55	71.00	LT	CENTER OF 31' RADIUS
146	17+18.55	71.02	LT	END 31' RADIUS
147	16+53.35	62.00	LT	BEGIN 50' BIKE PATH RADIUS
148	16+53.35	112.00	LT	CENTER OF 50' BIKE PATH RADIUS
149	16+69.16	64.57	LT	END 50' BIKE PATH RADIUS
150	16+75.34	66.63	LT	BEGIN 56' BIKE PATH RADIUS
151	16+93.05	13.50	LT	CENTER OF 56' BIKE PATH RADIUS
152	16+93.05	69.50	LT	END 56' BIKE PATH RADIUS
153	17+18.54	96.50	LT	END CURB
154	16+81.68	28.00	LT	BEGIN 49' RADIUS
155	16+91.42	27.02	LT	49' RADIUS
156	17+00.77	24.13	LT	END 49' RADIUS
157	16+98.82	19.53	LT	CENTER OF 5' RADIUS
158	17+00.78	14.93	LT	END 49' RADIUS
159	16+81.56	60.00	LT	CENTER OF 49' RADIUS
160	16+87.61	11.38	LT	END CURB TAPER/BEGIN 49' RADIUS
161	15+96.61	0.00	RT	BEGIN CURB TAPER
162	14+51.68	0.00	RT	END 49' RADIUS
163	14+51.68	49.00	LT	CENTER OF 49' RADIUS
164	14+31.5	4.51	LT	BEGIN 49' RADIUS
165	14+33.63	9.03	LT	CENTER OF 5' RADIUS

POINT NUMBER	STATION	OFFSET		DESCRIPTION
166	14+31.6	13.60	LT	BEGIN 49' RADIUS
167	14+51.98	31.00	RT	CENTER OF 49' RADIUS
168	14+51.98	18.01	LT	END 49' RADIUS
169	15+65.89	18.00	LT	BEGIN CURB TAPER
170	16+45.89	28.00	LT	END CURB TAPER
171	17+44.54	96.50	LT	BEGIN CURB
172	17+44.55	68.98	LT	BEGIN 31' RADIUS
173	17+75.55	69.00	LT	CENTER OF 31' RADIUS
174	17+67.74	39.00	LT	END 31' RADIUS
175	17+75.55	40.00	LT	END 29' RADIUS (FACE OF CURB)
176	18+16.99	39.00	LT	BEGIN CURB TAPER
177	18+25.99	45.00	LT	END CURB TAPER
178	18+29.74	45.00	LT	BEGIN CURB TAPER
179	18+34.74	46.00	LT	END CURB TAPER
180	17+70.15	69.50	LT	BEGIN 56' BIKE PATH RADIUS
181	17+70.15	13.50	LT	CENTER OF 56' BIKE PATH RADIUS
182	17+87.86	66.63	LT	END 56' BIKE PATH RADIUS
183	17+94.04	64.57	LT	BEGIN 50' BIKE PATH RADIUS
184	18+09.85	112.00	LT	CENTER OF 50' BIKE PATH RADIUS
185	18+09.85	62.00	LT	END 50' BIKE PATH RADIUS
186	17+81.57	0.00	LT	END 49' RADIUS
187	17+81.57	49.00	LT	CENTER OF 49' RADIUS
188	17+62.47	3.87	LT	BEGIN 49' RADIUS
189	17+64.42	8.47	LT	CENTER OF 5' RADIUS
190	17+62.46	13.08	LT	BEGIN 49' RADIUS
191	17+81.67	32.00	RT	CENTER OF 49' RADIUS
192	17+75.62	16.62	LT	END 49' RADIUS
193	18+44.26	18.00	RT	END CURB TAPER
194	18+39.26	17.00	RT	BEGIN CURB TAPER
195	18+35.51	17.00	RT	END CURB TAPER
196	18+26.51	11.00	RT	BEGIN CURB TAPER
197	17+95.7	12.00	RT	END CURB TAPER
198	17+84.91	11.00	RT	BEGIN CURB TAPER
199	17+72.77	12.13	RT	END 31' RADIUS
200	17+75.66	43.00	RT	CENTER OF 31' RADIUS
201	17+44.66	42.96	RT	BEGIN 31' RADIUS
202	17+44.63	70.00	RT	BEGIN CURB
203	18+14.35	34.00	RT	END 50' BIKE PATH RADIUS
204	18+14.35	84.00	RT	CENTER OF 50' BIKE PATH RADIUS
205	17+98.54	36.57	RT	BEGIN 50' BIKE PATH RADIUS
206	17+87.86	40.13	RT	END 56' BIKE PATH RADIUS
207	17+70.15	13.00	LT	CENTER OF 56' BIKE PATH RADIUS
208	17+70.15	43.00	RT	BEGIN 56' BIKE PATH RADIUS
209	17+18.63	70.00	RT	END CURB
210	17+18.65	47.03	RT	END 26' RADIUS
211	16+92.65	47.00	RT	CENTER OF 26' RADIUS
212	16+99.79	22.00	RT	BEGIN 26' RADIUS
213	16+92.65	23.00	RT	BEGIN 24' RADIUS (FACE OF CURB)
214	16+93.05	43.00	RT	END 56' BIKE PATH RADIUS
215	16+93.06	13.00	LT	CENTER OF 56' BIKE PATH RADIUS
216	16+75.34	40.13	RT	BEGIN 56' BIKE PATH RADIUS
217	16+67.66	37.57	RT	END 50' BIKE PATH RADIUS
218	16+51.85	85.00	RT	CENTER OF 50' BIKE PATH RADIUS
219	16+51.85	35.00	RT	BEGIN 50' BIKE PATH RADIUS
220	15+67.77	22.00	RT	END CURB TAPER
221	14+57.77	33.00	RT	END CURB TAPER
222	14+47.82	35.00	RT	BEGIN CURB TAPER
223	14+41.74	33.00	RT	END 23' RADIUS
224	14+41.74	56.00	RT	CENTER OF 23' RADIUS
225	14+17.92	55.45	RT	BEGIN 23' RADIUS
226	13+85.84	58.25	RT	SAW CUT & MATCH EXISTING
227	13+86.53	30.29	RT	SAW CUT & MATCH EXISTING
228	13+55.4	30.00	RT	SAW CUT & MATCH EXISTING
229	13+83.88	56.63	RT	END 24' RADIUS
230	13+59.89	56.04	RT	CENTER OF 24' RADIUS
231	13+57.61	32.02	RT	BEGIN 24' RADIUS



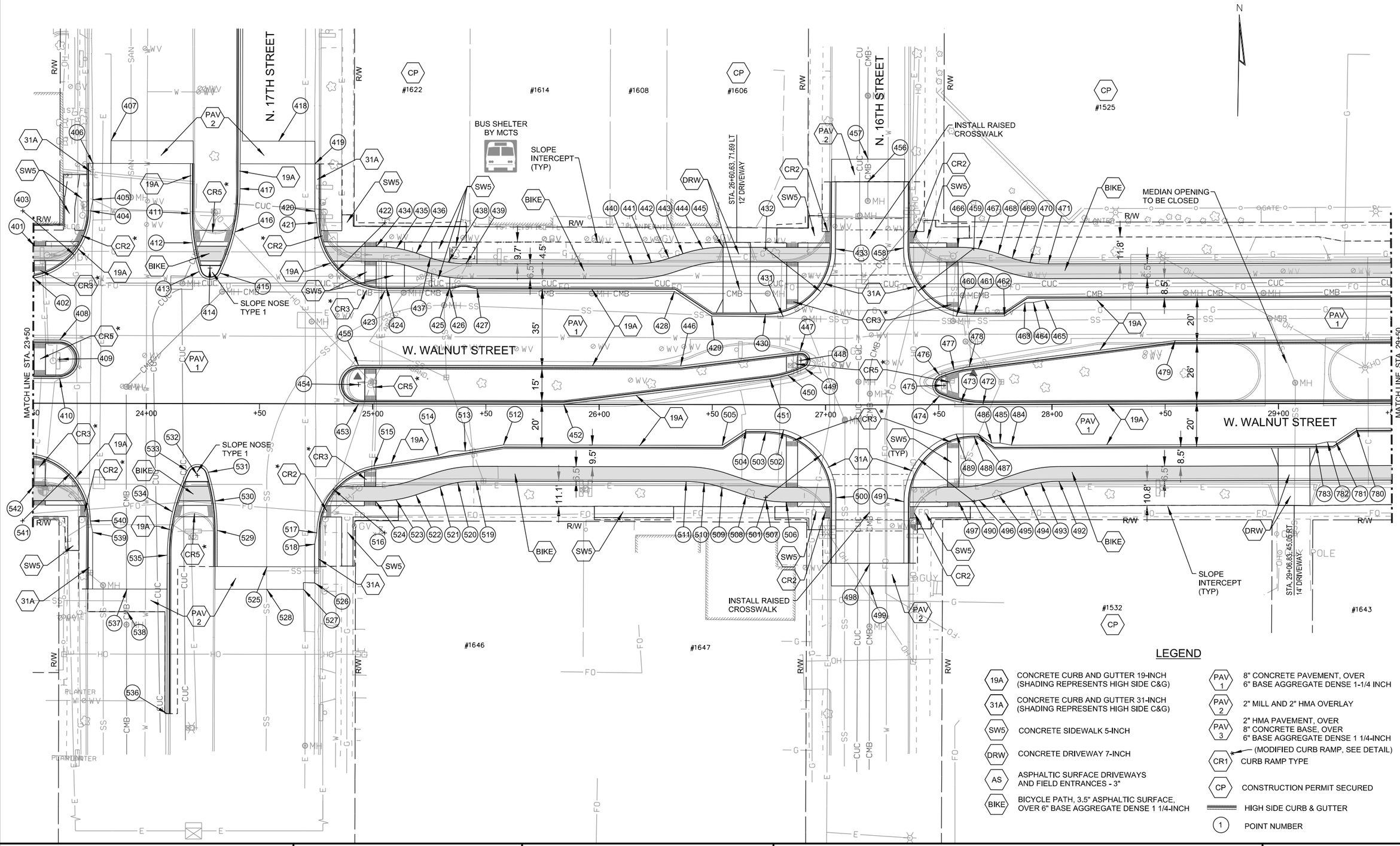
LEGEND

19A	CONCRETE CURB AND GUTTER 19-INCH (SHADING REPRESENTS HIGH SIDE C&G)
31A	CONCRETE CURB AND GUTTER 31-INCH (SHADING REPRESENTS HIGH SIDE C&G)
SW5	CONCRETE SIDEWALK 5-INCH
DRW	CONCRETE DRIVEWAY 7-INCH
AS	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES - 3"
BIKE	BICYCLE PATH, 3.5" ASPHALTIC SURFACE, OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
PAV 1	8" CONCRETE PAVEMENT, OVER 6" BASE AGGREGATE DENSE 1-1/4 INCH
PAV 2	2" MILL AND 2" HMA OVERLAY
PAV 3	2" HMA PAVEMENT, OVER 8" CONCRETE BASE, OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
*	(MODIFIED CURB RAMP, SEE DETAIL)
CR1	CURB RAMP TYPE
CP	CONSTRUCTION PERMIT SECURED
	HIGH SIDE CURB & GUTTER
1	POINT NUMBER

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PLAN DETAIL	SHEET 26	E

POINT NUMBER	STATION	OFFSET		DESCRIPTION
301	18+66.62	28.00	LT	END CURB TAPER
302	20+11.70	28.00	LT	BEGIN 49' RADIUS
303	20+11.7	21.00	RT	CENTER OF 49' RADIUS
304	20+30.87	24.09	LT	END 49' RADIUS
305	20+28.91	19.49	LT	CENTER OF 5' RADIUS
306	20+30.86	14.89	LT	END 49' RADIUS
307	20+11.73	60.00	LT	CENTER OF 49' RADIUS
308	20+17.85	11.38	LT	BEGIN 49' RADIUS/END CURB TAPER
309	19+26.78	0.00	LT	BEGIN CURB TAPER
310	20+01.49	46.00	LT	BEGIN CURB TAPER
311	20+08.99	41.00	LT	END CURB TAPER
312	20+14.73	42.00	LT	BEGIN 29' RADIUS (FACE OF CURB)
313	20+22.54	41.00	LT	BEGIN 31' RADIUS
314	20+14.73	71.00	LT	CENTER OF 31' RADIUS
315	20+45.73	71.01	LT	END 31' RADIUS
316	19+81.75	62.00	LT	BEGIN 50' BIKE PATH RADIUS
317	19+81.75	112.00	LT	CENTER OF 50' BIKE PATH RADIUS
318	19+97.56	64.57	LT	END 50' BIKE PATH RADIUS
319	20+05.24	67.13	LT	BEGIN 56' BIKE PATH RADIUS
320	2022.95	14.00	LT	CENTER OF 56' BIKE PATH RADIUS
321	20+22.95	70.00	LT	END 56' BIKE PATH RADIUS
322	20+45.72	97.00	LT	END CURB
323	20+77.72	97.00	LT	BEGIN CURB
324	20+77.73	68.99	LT	BEGIN 31' RADIUS
325	21+08.73	69.00	LT	CENTER OF 31' RADIUS
326	21+00.92	39.00	LT	END 31' RADIUS
327	21+08.73	40.00	LT	END 29' RADIUS (FACE OF CURB)
328	21+19.59	39.00	LT	BEGIN CURB TAPER
329	21+28.59	45.00	LT	END CURB TAPER
330	21+32.34	45.00	LT	BEGIN CURB TAPER
331	21+37.34	46.00	LT	END CURB TAPER
332	21+00.86	70.00	LT	BEGIN 56' BIKE PATH RADIUS
333	21+00.86	14.00	LT	CENTER OF 56' BIKE PATH RADIUS
334	21+18.57	67.13	LT	END 56' BIKE PATH RADIUS
335	21+26.25	64.57	LT	BEGIN 50' BIKE PATH RADIUS
336	21+00.86	13.00	LT	CENTER OF 50' BIKE PATH RADIUS
337	21+42.06	62.00	LT	END 50' BIKE PATH RADIUS
338	22+05.87	11.00	LT	END CURB TAPER
339	21+17.84	0.00	RT	BEGIN CURB TAPER
340	21+11.73	0.00	RT	END 49' RADIUS
341	21+11.73	49.00	LT	CENTER OF 49' RADIUS
342	20+92.56	3.91	LT	BEGIN 49' RADIUS
343	20+94.52	8.51	LT	CENTER OF 5' RADIUS
344	20+92.57	13.11	LT	BEGIN 49' RADIUS
345	21+11.70	32.00	RT	CENTER OF 49' RADIUS
346	21+05.67	16.63	LT	END 49' RADIUS
347	21+96.65	28.00	LT	END CURB TAPER
348	22+92.82	46.00	LT	BEGIN CURB TAPER
349	23+10.73	62.00	LT	BEGIN 50' BIKE PATH RADIUS
350	23+10.73	112.00	LT	CENTER OF 50' BIKE PATH RADIUS

POINT NUMBER	STATION	OFFSET		DESCRIPTION
351	23+26.54	64.57	LT	END 50' BIKE PATH RADIUS
352	23+32.72	66.63	LT	BEGIN 56' BIKE PATH RADIUS
353	23+50.43	13.50	LT	CENTER OF 56' BIKE PATH RADIUS
354	23+45.43	22.00	RT	BEGIN 30' RADIUS
355	23+50.43	13.00	LT	CENTER OF 49.5' BIKE PATH RADIUS
356	23+34.77	33.96	RT	BEGIN 49.5' BIKE PATH RADIUS
357	23+24.09	30.40	RT	END 56.5' BIKE PATH RADIUS
358	23+06.23	84.00	RT	CENTER OF 56.5' BIKE PATH RADIUS
359	23+06.23	27.50	RT	BEGIN 56.5' BIKE PATH RADIUS
360	23+32.77	40.14	RT	END BUS STOP
361	23+04.77	34.00	RT	BEGIN BUS STOP
362	22+74.00	22.00	RT	END INLET CURB TRANSITION
363	22+62.00	21.51	RT	BEGIN INLET CURB TRANSITION
364	22+33.99	18.00	RT	BEGIN CURB TAPER
365	21+31.06	18.00	RT	END CURB TAPER
366	21+26.06	17.00	RT	BEGIN CURB TAPER
367	21+22.31	17.00	RT	END CURB TAPER
368	21+16.31	13.00	RT	BEGIN CURB TAPER
369	21+06.71	14.00	RT	END 29' RADIUS (FACE OF CURB)
370	20+98.90	13.00	RT	END 31' RADIUS
371	21+06.71	43.00	RT	CENTER OF 31' RADIUS
372	20+75.71	43.02	RT	BEGIN 31' RADIUS
373	21+45.06	34.00	RT	END 50' BIKE PATH RADIUS
374	21+45.06	84.00	RT	CENTER OF 50' BIKE PATH RADIUS
375	21+29.25	36.57	RT	BEGIN 50' BIKE PATH RADIUS
376	21+18.57	40.13	RT	END 56' BIKE PATH RADIUS
377	21+00.86	13.00	LT	CENTER OF 56' BIKE PATH RADIUS
378	21+00.86	43.00	RT	BEGIN 56' BIKE PATH RADIUS
379	20+75.73	76.99	RT	BEGIN CURB
380	20+47.73	77.01	RT	END CURB
381	20+47.71	40.98	RT	END 31' RADIUS
382	20+16.71	41.00	RT	CENTER OF 31' RADIUS
383	20+24.52	11.00	RT	BEGIN 31' RADIUS
384	20+16.71	12.00	RT	BEGIN 29' RADIUS (FACE OF CURB)
385	20+22.95	43.00	RT	END 56' BIKE PATH RADIUS
386	20+22.96	13.00	LT	CENTER OF 56' BIKE PATH RADIUS
387	20+05.24	40.13	RT	BEGIN 56' BIKE PATH RADIUS
388	19+94.56	36.57	RT	END 50' BIKE PATH RADIUS
389	19+78.75	84.00	RT	CENTER OF 50' BIKE PATH RADIUS
390	19+78.75	34.00	RT	BEGIN 50' BIKE PATH RADIUS
391	19+35.51	11.00	RT	END CURB TAPER
392	19+25.01	18.00	RT	BEGIN CURB TAPER



LEGEND

19A	CONCRETE CURB AND GUTTER 19-INCH (SHADING REPRESENTS HIGH SIDE C&G)
31A	CONCRETE CURB AND GUTTER 31-INCH (SHADING REPRESENTS HIGH SIDE C&G)
SW5	CONCRETE SIDEWALK 5-INCH
DRW	CONCRETE DRIVEWAY 7-INCH
AS	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES - 3"
BIKE	BICYCLE PATH, 3.5" ASPHALTIC SURFACE, OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
PAV 1	8" CONCRETE PAVEMENT, OVER 6" BASE AGGREGATE DENSE 1-1/4 INCH
PAV 2	2" MILL AND 2" HMA OVERLAY
PAV 3	2" HMA PAVEMENT, OVER 8" CONCRETE BASE, OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CR1 *	(MODIFIED CURB RAMP, SEE DETAIL) CURB RAMP TYPE
CP	CONSTRUCTION PERMIT SECURED
	HIGH SIDE CURB & GUTTER
1	POINT NUMBER

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PLAN DETAIL	SHEET 28	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021203_pd.dgn PLOT DATE : 9/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

POINT NUMBER	STATION	OFFSET		DESCRIPTION
401	23+50.43	69.50	LT	END 56' BIKE PATH RADIUS
402	23+50.10	55.40	LT	BEGIN 30' RADIUS
403	23+45.17	85.01	LT	CENTER OF 30' RADIUS
404	23+75.24	84.99	LT	END 30' RADIUS/BEGIN CURB TAPER
405	23+76.24	89.99	LT	END CURB TAPER
406	23+76.25	106.01	LT	END CURB
407	23+84.20	116.01	LT	SAW CUT & MATCH EXISTING
408	23+61.72	28.00	LT	BEGIN 8.5' RADIUS
409	23+61.72	19.50	LT	CENTER OF 8.5' RADIUS
410	23+61.72	11.00	LT	END 8.5' RADIUS
411	24+19.24	84.03	LT	BEGIN 84' RADIUS
412	25+03.24	84.00	LT	CENTER OF 84' RADIUS
413	24+23.25	58.36	LT	END 84' RADIUS/BEGIN 5' RADIUS
414	24+28.01	59.88	LT	CENTER OF 5' RADIUS
415	24+32.49	57.66	LT	END 5' RADIUS/BEGIN 84' RADIUS
416	23+57.25	95.00	LT	CENTER OF 84' RADIUS
417	24+41.25	94.97	LT	END 84' RADIUS
418	24+58.25	115.98	LT	SAW CUT & MATCH EXISTING
419	24+74.25	105.97	LT	BEGIN CURB
420	24+74.24	85.01	LT	BEGIN CURB TAPER
421	24+75.24	80.01	LT	END CURB TAPER/BEGIN 30' RADIUS
422	25+05.24	80.00	LT	CENTER OF 30' RADIUS
423	25+05.24	50.00	LT	END 30' RADIUS
424	25+05.93	51.58	LT	BEGIN BUS STOP
425	25+33.93	51.58	LT	END BUS STOP
426	25+34.00	51.00	LT	BEGIN INLET CURB TRANSITION
427	25+46.00	51.00	LT	END INLET CURB TRANSITION
428	26+33.18	50.00	LT	BEGIN CURB TAPER
429	26+49.63	39.00	LT	END CURB TAPER
430	26+73.34	40.00	LT	BEGIN 29' RADIUS (FACE OF CURB)
431	26+81.15	39.00	LT	BEGIN 31' RADIUS
432	26.73+34	69.00	LT	CENTER OF 31' RADIUS
433	27+04.34	68.90	LT	END 31' RADIUS
434	25+01.43	69.50	LT	BEGIN 56' BIKE PATH RADIUS
435	25+01.43	13.50	LT	CENTER OF 56' BIKE PATH RADIUS
436	25+19.14	66.63	LT	END 56' BIKE PATH RADIUS
437	25+25.32	64.57	LT	BEGIN 50' BIKE PATH RADIUS
438	25+43.13	112.00	LT	CENTER OF 50' BIKE PATH RADIUS
439	25+41.13	62.00	LT	END 50' BIKE PATH RADIUS
440	26+14.93	62.00	LT	BEGIN 50' BIKE PATH RADIUS
441	26+14.93	112.00	LT	CENTER OF 50' BIKE PATH RADIUS
442	26+30.74	64.57	LT	END 50' BIKE PATH RADIUS
443	26+36.92	66.63	LT	BEGIN 56' BIKE PATH RADIUS
444	26+54.63	13.50	LT	CENTER OF 56' BIKE PATH RADIUS
445	26+54.63	69.50	LT	END 56' BIKE PATH RADIUS
446	26+35.99	17.00	LT	BEGIN CURB TAPER
447	26+88.67	23.58	LT	END CURB TAPER/BEGIN 4' RADIUS
448	26+89.16	19.62	LT	CENTER OF 4' RADIUS
449	26+90.93	16.03	LT	END 4' RADIUS/END 49' RADIUS
450	26+69.31	60.00	LT	CENTER OF 49' RADIUS
451	26+75.41	11.38	LT	BEGIN 49' RADIUS
452	25+84.36	0.00	RT	END CURB TAPER
453	24+93.72	0.00	RT	BEGIN 8.5' RADIUS
454	24+93.72	8.50	LT	CENTER OF 8.5' RADIUS
455	24+93.72	17.00	LT	END 8.5' RADIUS
456	27+18.57	98.54	LT	SAW CUT & END NEW PAVING
457	27+18.59	108.54	LT	SAW CUT & MATCH EXISTING
458	27+34.70	69.26	LT	BEGIN 31' RADIUS
459	27+65.70	69.00	LT	CENTER OF 31' RADIUS
460	27+57.89	39.00	LT	END 31' RADIUS
461	27+65.70	40.00	LT	END 29' RADIUS (FACE OF CURB)
462	27+79.20	39.00	LT	BEGIN CURB TAPER
463	27+88.20	45.00	LT	END CURB TAPER
464	27+91.95	45.00	LT	BEGIN CURB TAPER

POINT NUMBER	STATION	OFFSET		DESCRIPTION
465	27+96.95	46.00	LT	END CURB TAPER
466	27+58.77	69.50	LT	BEGIN 56' BIKE PATH RADIUS
467	27+58.77	13.50	LT	CENTER OF 56' BIKE PATH RADIUS
468	27+76.48	66.63	LT	END 56' BIKE PATH RADIUS
469	27+82.66	64.57	LT	BEGIN 50' BIKE PATH RADIUS
470	27+98.48	112.00	LT	CENTER OF 50' BIKE PATH RADIUS
471	27+98.48	62.00	LT	END 50' BIKE PATH RADIUS
472	27+69.53	0.00	RT	BEGIN 49' RADIUS
473	27+69.53	49.00	LT	CENTER OF 49' RADIUS
474	27+50.39	3.89	LT	END 49' RADIUS/BEGIN 5' RADIUS
475	27+52.34	8.49	LT	CENTER OF 5' RADIUS
476	27+50.39	13.10	LT	END 5' RADIUS/BEGIN 49' RADIUS
477	27+69.55	32.00	RT	CENTER OF 49' RADIUS
478	27+63.51	16.63	LT	END 49' RADIUS
479	28+54.51	28.00	LT	END CURB TAPER
480	29+34.33	11.00	RT	END CURB TAPER
481	29+25.33	17.00	RT	BEGIN CURB TAPER
482	29+21.58	17.00	RT	END CURB TAPER
483	29+16.58	18.00	RT	BEGIN CURB TAPER
484	27+82.08	18.00	RT	END CURB TAPER
485	27+77.08	17.00	RT	BEGIN CURB TAPER
486	27+73.33	17.00	RT	END CURB TAPER
487	27+67.33	13.00	RT	BEGIN CURB TAPER
488	27+65.49	14.00	RT	END 29' RADIUS (FACE OF CURB)
489	27+57.68	13.00	RT	END 31' RADIUS
490	27+65.49	43.00	RT	CENTER OF 31' RADIUS
491	27+34.49	42.83	RT	BEGIN 31' RADIUS
492	28+02.98	34.00	RT	END 50' BIKE PATH RADIUS
493	28+02.98	84.00	RT	CENTER OF 50' BIKE PATH RADIUS
494	27+87.16	36.57	RT	BEGIN 50' BIKE PATH RADIUS
495	27+76.48	40.13	RT	END 56' BIKE PATH RADIUS
496	27+58.77	13.00	LT	CENTER OF 56' BIKE PATH RADIUS
497	27+58.77	43.00	RT	BEGIN 56' BIKE PATH RADIUS
498	27+19.73	69.96	RT	SAW CUT & END NEW PAVING
499	27+19.73	79.96	RT	SAW CUT & MATCH EXISTING
500	27+04.71	41.01	RT	END 31' RADIUS
501	26+73.71	41.00	RT	CENTER OF 31' RADIUS
502	26+81.53	11.00	RT	BEGIN 31' RADIUS
503	26+73.71	12.00	RT	BEGIN 29' RADIUS (FACE OF CURB)
504	26+64.93	11.00	RT	END CURB TAPER
505	26+54.43	18.00	RT	BEGIN CURB TAPER
506	26+82.71	43.00	RT	END 56' BIKE PATH RADIUS
507	26+82.71	13.00	LT	CENTER OF 56' BIKE PATH RADIUS
508	26+65.00	40.13	RT	BEGIN 56' BIKE PATH RADIUS
509	26+54.32	36.57	RT	END 50' BIKE PATH RADIUS
510	26+38.51	84.00	RT	CENTER OF 50' BIKE PATH RADIUS
511	26+38.51	34.00	RT	BEGIN 50' BIKE PATH RADIUS
512	25+57.79	18.00	RT	END CURB TAPER
513	25+40.90	20.77	RT	END INLET CURB TRANSITION
514	25+29.06	22.72	RT	BEGIN INLET CURB TRANSITION
515	25+00.57	27.40	RT	END 30' RADIUS/BEGIN CURB TAPER
516	25+05.43	57.00	RT	CENTER OF 30' RADIUS
517	24+75.43	57.00	RT	BEGIN 30' RADIUS/END CURB TAPER
518	24+74.43	62.00	RT	BEGIN CURB TAPER
519	25+45.63	34.00	RT	END 50' BIKE PATH RADIUS
520	25+45.63	84.00	RT	CENTER OF 50' BIKE PATH RADIUS
521	25+29.82	36.57	RT	BEGIN 50' BIKE PATH RADIUS
522	25+19.14	40.13	RT	END 56' BIKE PATH RADIUS
523	25+01.43	13.00	LT	CENTER OF 56' BIKE PATH RADIUS
524	25+01.43	43.00	RT	BEGIN 56' BIKE PATH RADIUS
525	24+53.42	72.00	RT	SAW CUT & END NEW PAVING
526	24+74.54	79.12	RT	SAW CUT & MATCH EXISTING
527	24+69.57	78.99	RT	SAW CUT & MATCH EXISTING
528	24+53.42	82.00	RT	SAW CUT & MATCH EXISTING

POINT NUMBER	STATION	OFFSET		DESCRIPTION
529	24+31.43	56.01	RT	END 84' RADIUS
530	23+47.43	56.00	RT	CENTER OF 84' RADIUS
531	24+27.42	30.36	RT	BEGIN 84' RADIUS/END 5' RADIUS
532	24+22.66	31.89	RT	CENTER OF 5' RADIUS
533	24+18.18	29.67	RT	BEGIN 5' RADIUS/END 84' RADIUS
534	24+93.43	67.00	RT	CENTER OF 84' RADIUS
535	24+09.43	66.99	RT	BEGIN 84' RADIUS
536	24+09.42	136.99	RT	END CURB
537	23+91.63	81.99	RT	SAW CUT & END NEW PAVING
538	23+91.65	91.99	RT	SAW CUT & MATCH EXISTING
539	23+76.43	57.00	RT	END CURB TAPER
540	23+75.43	52.00	RT	BEGIN CURB TAPER/END 30' RADIUS
541	23+45.43	52.00	RT	CENTER OF 30' RADIUS
542	23+50.43	36.50	RT	END 49.5' BIKE PATH RADIUS

2

LEGEND

- 19A — CONCRETE CURB AND GUTTER 19-INCH (SHADING REPRESENTS HIGH SIDE C&G)
- 31A — CONCRETE CURB AND GUTTER 31-INCH (SHADING REPRESENTS HIGH SIDE C&G)
- SW5 — CONCRETE SIDEWALK 5-INCH
- DRW — CONCRETE DRIVEWAY 7-INCH
- AS — ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES - 3"
- BIKE — BICYCLE PATH, 3.5" ASPHALTIC SURFACE, OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
- PAV 1 — 8" CONCRETE PAVEMENT, OVER 6" BASE AGGREGATE DENSE 1-1/4 INCH
- PAV 2 — 2" MILL AND 2" HMA OVERLAY
- PAV 3 — 2" HMA PAVEMENT, OVER 8" CONCRETE BASE, OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
- CR1* — (MODIFIED CURB RAMP, SEE DETAIL) CURB RAMP TYPE
- CP — CONSTRUCTION PERMIT SECURED
- HIGH SIDE CURB & GUTTER
- (1) — POINT NUMBER

CP #1525

N

W. WALNUT STREET

MATCH LINE STA. 29+50

MATCH LINE STA. 35+50

SLOPE INTERCEPT (TYP)

STA. 34+70.63, 69.99 LT 28' DRIVEWAY

INSTALL RAISED CROSSWALK

MEDIAN OPENING TO BE CLOSED

SLOPE INTERCEPT (TYP)

STA. 32+81.95, 60.00 RT 15' DRIVEWAY

N. 15TH STREET

N. 14TH LANE

N. 14TH STREET

#1643 #1646 #1647 #1639 #1610

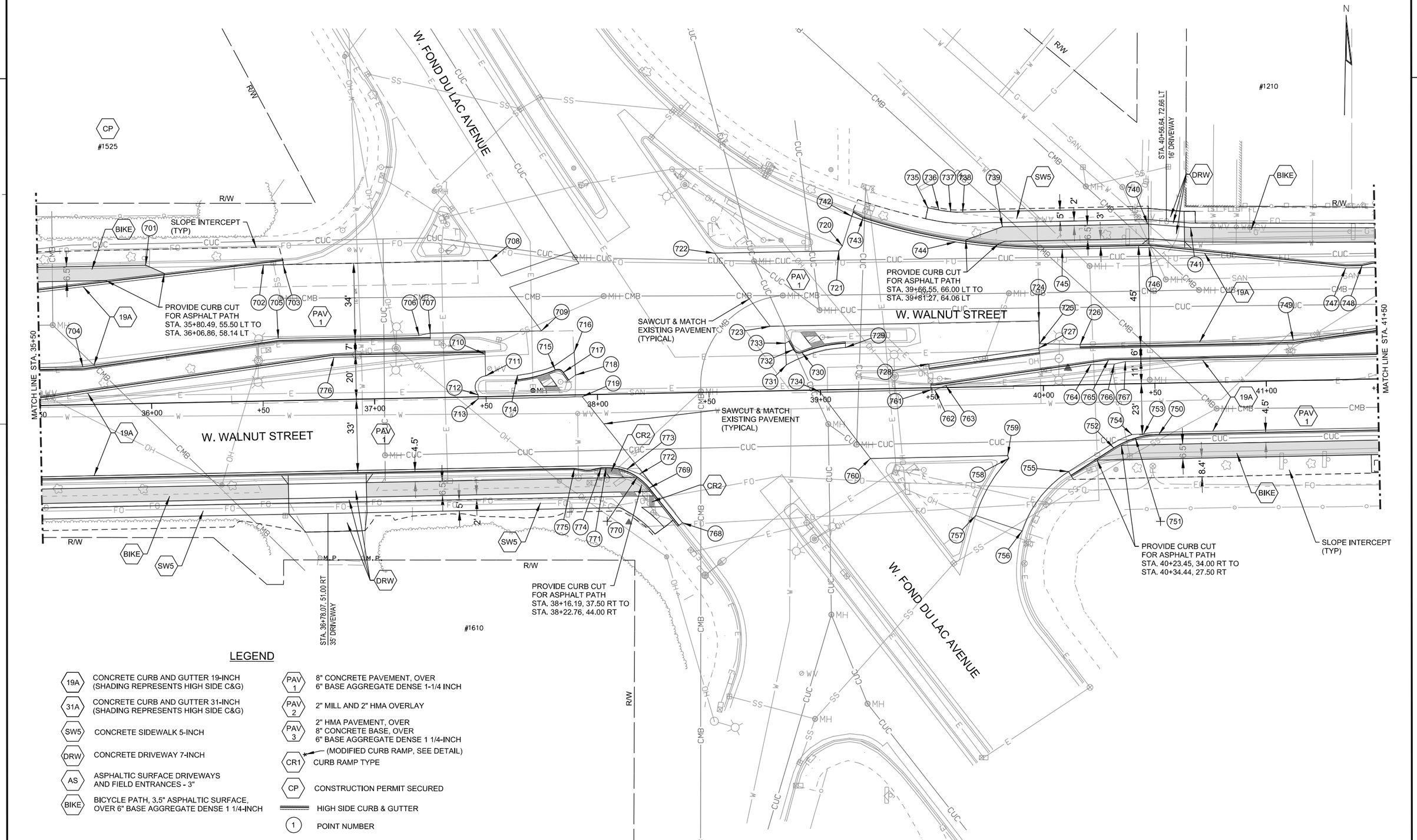
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PLAN DETAIL	SHEET 30	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021204_pd.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

POINT NUMBER	STATION	OFFSET		DESCRIPTION
601	29+67.00	46.00	LT	BEGIN CURB TAPER
602	29+72.00	45.00	LT	END CURB TAPER
603	29+77.20	45.00	LT	BEGIN CURB TAPER
604	29+86.20	39.00	LT	END CURB TAPER
605	30+00.04	39.00	LT	BEGIN CURB TAPER
606	30+49.00	41.80	LT	BEGIN INLET CURB TRANSITION
607	30+61.00	42.24	LT	END INLET CURB TRANSITION
608	30+44.89	28.00	LT	BEGIN 49' RADIUS
609	30+44.89	21.00	RT	CENTER OF 49' RADIUS
610	30+77.30	15.75	LT	END 49' RADIUS/BEGIN 9' RADIUS
611	30+71.35	9.00	LT	CENTER OF 9' RADIUS
612	30+71.35	0.00	RT	END 9' RADIUS
613	32+69.01	49.86	LT	BEGIN INLET CURB TRANSITION
614	32+81.00	50.30	LT	END INLET CURB TRANSITION
615	33+00.00	50.00	LT	END CURB TAPER
616	33+73.98	55.50	LT	BEGIN BUS STOP
617	34+01.98	55.50	LT	END BUS STOP
618	34+09.00	51.00	LT	BEGIN INLET CURB TRANSITION
619	34+21.00	51.00	LT	END INLET CURB TRANSITION
620	34+35.05	50.00	LT	BEGIN CURB TAPER
621	34+19.91	28.00	LT	BEGIN 49' RADIUS
622	34+19.91	21.00	LT	CENTER OF 49' RADIUS
623	34+49.85	17.77	LT	END 49' RADIUS/BEGIN 5' RADIUS
624	34+46.76	13.84	LT	CENTER OF 5' RADIUS
625	34+49.72	9.82	LT	END 5' RADIUS/BEGIN 49' RADIUS
626	34+19.81	49.00	LT	CENTER OF 49' RADIUS
627	34+19.81	0.00	RT	END 49' RADIUS
628	31+21.00	0.00	RT	BEGIN 5' RADIUS
629	31+21.00	5.00	LT	CENTER OF 5' RADIUS
630	31+18.30	9.20	LT	END 5' RADIUS/BEGIN 49' RADIUS
631	31+44.82	32.00	LT	CENTER OF 49' RADIUS
632	31+37.84	16.50	LT	END 49' RADIUS
633	32+29.83	28.00	LT	END CURB TAPER
634	35+41.37	50.00	LT	BEGIN CURB TAPER
635	35+30.13	0.00	RT	END CURB TAPER
636	35+20.63	0.00	RT	BEGIN 49' RADIUS
637	35+20.63	49.00	LT	CENTER OF 49' RADIUS
638	35+00.76	4.21	LT	END 49' RADIUS/BEGIN 5' RADIUS
639	35+02.79	8.78	LT	CENTER OF 5' RADIUS
640	35+00.91	13.41	LT	END 5' RADIUS/BEGIN 49' RADIUS
641	35+19.32	32.00	LT	CENTER OF 49' RADIUS
642	35+19.32	17.00	LT	END 49' RADIUS
643	35+02.83	33.00	RT	END 19' RADIUS (FACE OF CURB)

POINT NUMBER	STATION	OFFSET		DESCRIPTION
644	34+96.43	32.00	RT	END 21' RADIUS
645	35+02.83	52.00	RT	CENTER OF 21' RADIUS
646	34+81.84	51.49	RT	BEGIN 21' RADIUS
647	34+68.37	70.69	RT	SAW CUT & MATCH EXISTING
648	34+55.80	52.59	RT	END 31' RADIUS
649	34+25.68	52.00	RT	CENTER OF 31' RADIUS
650	34+33.41	21.98	RT	END 31' RADIUS
651	34+24.00	24.00	RT	END CURB TAPER
652	34+19.00	23.00	RT	BEGIN CURB TAPER
653	34+18.94	35.08	RT	END BUS STOP
654	33+90.94	27.68	RT	BEGIN BUS STOP
655	34+30.70	43.00	RT	END 56' BIKE PATH RADIUS
656	34+30.70	13.00	LT	CENTER OF 56' BIKE PATH RADIUS
657	34+12.99	40.13	RT	BEGIN 56' BIKE PATH RADIUS
658	34+02.31	36.57	RT	END 50' BIKE PATH RADIUS
659	33+86.50	84.00	RT	CENTER OF 50' BIKE PATH RADIUS
660	33+86.50	34.00	RT	BEGIN 50' BIKE PATH RADIUS
661	31+72.19	22.00	RT	END CURB TAPER
662	31+58.69	13.00	RT	BEGIN CURB TAPER
663	31+38.74	14.00	RT	END 29' RADIUS (FACE OF CURB)
664	31+30.93	13.00	RT	END 31' RADIUS
665	31+38.74	43.00	RT	CENTER OF 31' RADIUS
666	31+07.74	42.79	RT	BEGIN 31' RADIUS
667	31+75.39	34.00	RT	END 50' BIKE PATH RADIUS
668	31+75.39	84.00	RT	CENTER OF 50' BIKE PATH RADIUS
669	31+59.58	36.57	RT	BEGIN 50' BIKE PATH RADIUS
670	31+48.90	40.13	RT	END 56' BIKE PATH RADIUS
671	31+31.19	13.00	LT	CENTER OF 56' BIKE PATH RADIUS
672	31+31.19	43.00	RT	BEGIN 56' BIKE PATH RADIUS
673	30+94.48	76.36	RT	SAW CUT & END NEW PAVEMENT
674	30+94.43	86.37	RT	SAW CUT & MATCH EXISTING
675	30+81.75	41.21	RT	END 30' RADIUS
676	30+51.75	41.00	RT	CENTER OF 30' RADIUS
677	30+51.75	13.00	RT	END CURB TAPER
678	30+46.75	12.00	RT	BEGIN CURB TAPER
679	30+62.72	43.00	RT	END 56' BIKE PATH RADIUS
680	30+62.72	13.00	LT	CENTER OF 56' BIKE PATH RADIUS
681	30+45.01	40.13	RT	BEGIN 56' BIKE PATH RADIUS
682	30+34.33	36.57	RT	END 50' BIKE PATH RADIUS
683	30+18.52	84.00	RT	CENTER OF 50' BIKE PATH RADIUS
684	30+18.52	34.00	RT	BEGIN 50' BIKE PATH RADIUS



LEGEND

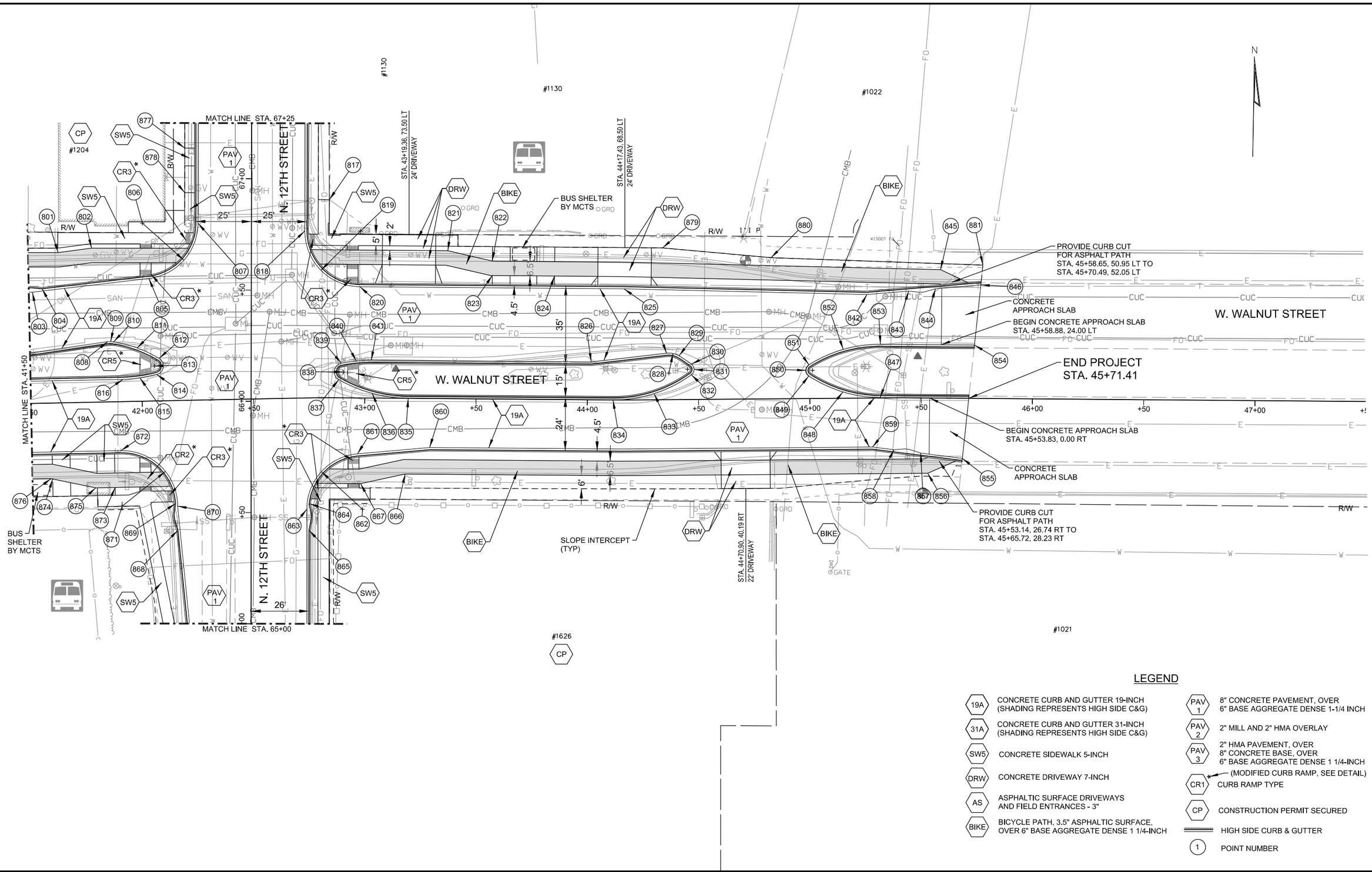
19A	CONCRETE CURB AND GUTTER 19-INCH (SHADING REPRESENTS HIGH SIDE C&G)
31A	CONCRETE CURB AND GUTTER 31-INCH (SHADING REPRESENTS HIGH SIDE C&G)
SW5	CONCRETE SIDEWALK 5-INCH
DRW	CONCRETE DRIVEWAY 7-INCH
AS	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES - 3"
BIKE	BICYCLE PATH, 3.5" ASPHALTIC SURFACE, OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
PAV 1	8" CONCRETE PAVEMENT, OVER 6" BASE AGGREGATE DENSE 1-1/4 INCH
PAV 2	2" MILL AND 2" HMA OVERLAY
PAV 3	2" HMA PAVEMENT, OVER 8" CONCRETE BASE, OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CR1*	(MODIFIED CURB RAMP, SEE DETAIL) CURB RAMP TYPE
CP	CONSTRUCTION PERMIT SECURED
	HIGH SIDE CURB & GUTTER
1	POINT NUMBER

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PLAN DETAIL	SHEET 32 E

POINT NUMBER	STATION	OFFSET		DESCRIPTION
701	35+98.57	62.00	LT	BEGIN BIKE PATH TAPER
702	36+51.37	61.00	LT	BEGIN CURB TAPER
703	36+60.16	61.00	LT	END CURB TAPER
704	35+69.44	17.01	LT	BEGIN CURB TAPER
705	36+57.38	28.00	LT	END CURB TAPER
706	37+20.53	28.00	LT	BEGIN CURB TAPER
707	37+25.53	29.00	LT	END CURB TAPER
708	37+52.96	61.00	LT	SAWCUT & MATCH EXISTING
709	37+75.41	29.00	LT	SAWCUT & MATCH EXISTING
710	37+50.00	19.00	LT	END CURB/SAWCUT & MATCH EXISTING
711	37+50.00	9.29	LT	SAWCUT & MATCH EXISTING
712	37+46.53	0.85	LT	SAWCUT & MATCH EXISTING
713	37+46.46	0.92	RT	SAWCUT & MATCH EXISTING
714	37+64.27	9.20	LT	BEGIN CURB
715	37+81.28	11.27	LT	BEGIN 3' RADIUS
716	37+89.91	19.16	LT	MATCH POINT
717	37+84.88	10.15	LT	END 3' RADIUS
718	37+90.39	8.87	LT	MATCH POINT
719	37+93.14	0.90	RT	SAWCUT & MATCH EXISTING
720	39+11.13	64.38	LT	SAWCUT & MATCH EXISTING
721	39+09.54	62.23	LT	SAWCUT & MATCH EXISTING
722	38+53.82	62.29	LT	SAWCUT & MATCH EXISTING
723	38+78.05	29.00	LT	SAWCUT & MATCH EXISTING
724	39+98.60	29.00	LT	SAWCUT & MATCH EXISTING
725	39+98.60	18.77	LT	SAWCUT & MATCH EXISTING
726	40+16.82	18.00	LT	BEGIN CURB
727	39+98.25	16.73	LT	END CURB
728	39+48.87	10.68	LT	BEGIN CURB
729	39+11.60	18.80	LT	END CURB
730	38+92.00	16.96	LT	END 3' RADIUS
731	38+84.94	11.55	LT	MATCH POINT
732	38+88.30	18.39	LT	BEGIN 3' RADIUS
733	38+84.63	21.27	LT	MATCH POINT
734	38+99.89	1.00	RT	SAWCUT & MATCH EXISTING
735	39+49.80	80.73	LT	BEGIN SIDEWALK
736	39+54.68	79.66	LT	BEGIN 50' RADIUS
737	39+65.39	128.50	LT	CENTER OF 50' SIDEWALK RADIUS
738	39+65.39	78.50	LT	END 50' RADIUS

POINT NUMBER	STATION	OFFSET		DESCRIPTION
739	39+83.04	71.50	LT	END BIKE PATH TAPER
740	40+48.29	71.50	LT	BEGIN BIKE PATH TAPER
741	40+67.43	69.56	LT	END BIKE PATH TAPER
742	39+15.59	77.60	LT	BEGIN CURB
743	39+20.65	76.87	LT	BEGIN 274' RADIUS
744	40+09.68	336.00	LT	CENTER OF 274' RADIUS
745	40+09.68	61.00	LT	END 274' RADIUS
746	40+48.64	61.00	LT	BEGIN CURB TAPER
747	41+36.64	50.00	LT	END CURB TAPER
748	41+44.00	51.00	LT	BEGIN INLET CURB TRANSITION
749	41+12.46	18.00	LT	BEGIN CURB TAPER
750	40+51.34	23.00	RT	END 39' RADIUS (FACE OF CURB)
751	40+51.34	62.00	RT	39' RADIUS (FACE OF CURB)
752	40+31.07	28.68	RT	BEGIN 39' RADIUS (FACE OF CURB)
753	40+44.51	22.59	RT	END CURB TAPER
754	40+39.31	22.80	RT	BEGIN CURB TAPER
755	40+10.51	38.85	RT	BEGIN CURB
756	39+89.18	65.06	RT	SAWCUT & MATCH EXISTING
757	39+68.52	57.71	RT	SAWCUT & MATCH EXISTING
758	39+83.87	32.36	RT	SAWCUT & MATCH EXISTING
759	39+83.40	31.15	RT	SAWCUT & MATCH EXISTING
760	39+21.83	31.15	RT	SAWCUT & MATCH EXISTING
761	39+49.57	1.00	RT	BEGIN CURB
762	39+51.26	1.00	RT	BEGIN CURB TAPER
763	39+56.26	0.84	LT	END CURB TAPER/BEGIN CURB TAPER
764	40+21.57	9.00	LT	END CURB TAPER/BEGIN CURB TAPER
765	40+29.51	11.00	LT	END CURB TAPER
766	40+32.00	9.00	LT	END CURB TAPER/BEGIN CURB TAPER
767	40+37.00	10.00	LT	END CURB TAPER
768	38+36.94	58.35	RT	END CURB
769	38+22.30	42.45	RT	END 24' RADIUS (FACE OF CURB)
770	38+03.22	57.00	RT	24' RADIUS (FACE OF CURB)
771	38+03.22	33.00	RT	BEGIN 24' RADIUS (FACE OF CURB)
772	38+18.17	36.08	RT	END CURB TAPER
773	38+12.60	33.83	RT	BEGIN CURB TAPER
774	38+01.00	33.00	RT	END INLET CURB TRANSITION
775	37+89.00	33.00	RT	BEGIN INLET CURB TRANSITION
776	36+82.13	19.00	LT	END CURB TAPER

2



LEGEND

- 19A — CONCRETE CURB AND GUTTER 19-INCH (SHADING REPRESENTS HIGH SIDE C&G)
- 31A — CONCRETE CURB AND GUTTER 31-INCH (SHADING REPRESENTS HIGH SIDE C&G)
- SW5 — CONCRETE SIDEWALK 5-INCH
- DRW — CONCRETE DRIVEWAY 7-INCH
- AS — ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES - 3"
- BIKE — BICYCLE PATH, 3.5" ASPHALTIC SURFACE, OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
- PAV 1 — 8" CONCRETE PAVEMENT, OVER 6" BASE AGGREGATE DENSE 1-1/4 INCH
- PAV 2 — 2" MILL AND 2" HMA OVERLAY
- PAV 3 — 2" HMA PAVEMENT, OVER 8" CONCRETE BASE, OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
- CR1 * — (MODIFIED CURB RAMP, SEE DETAIL) CURB RAMP TYPE
- CP — CONSTRUCTION PERMIT SECURED
- HIGH SIDE CURB & GUTTER
- 1 — POINT NUMBER

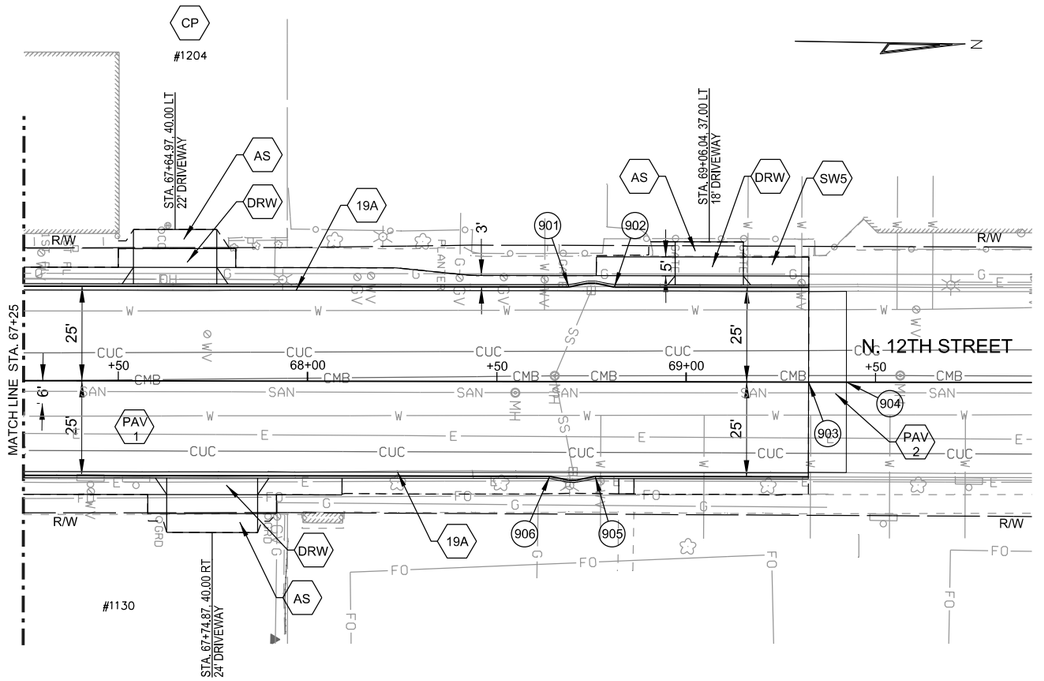
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PLAN DETAIL	SHEET 34	E

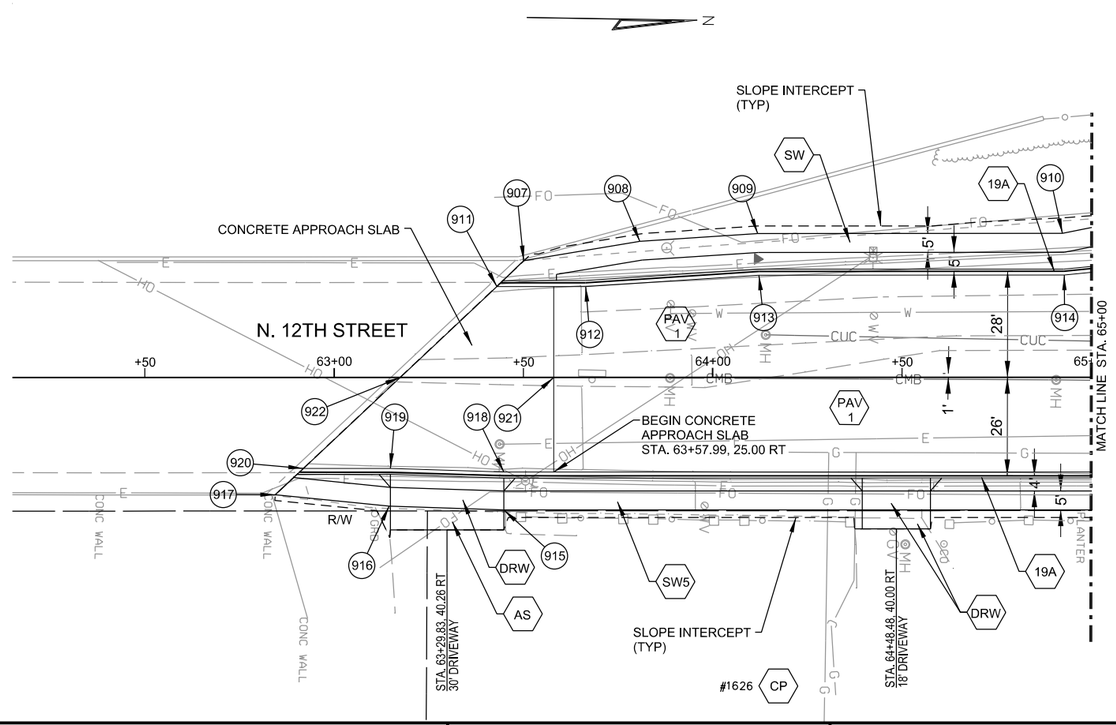
POINT NUMBER	STATION	OFFSET		DESCRIPTION
801	41+63.52	67.55	LT	BEGIN BIKE PATH TAPER
802	41+78.56	69.23	LT	END BIKE PATH TAPER
803	41+51.64	50.00	LT	BEGIN CURB TAPER
804	41+56.00	51.43	LT	END INLET CURB TRANSITION
805	42+04.07	55.12	LT	BEGIN 25' RADIUS
806	42+01.64	80.00	LT	CENTER OF 25' RADIUS
807	42+26.63	79.46	LT	END 25' RADIUS
808	41+84.95	27.06	LT	BEGIN 9' RADIUS
809	41+86.07	18.13	LT	CENTER OF 9' RADIUS
810	41+87.74	26.97	LT	END 9' RADIUS/BEGIN 59' RADIUS
811	41+76.79	31.00	RT	CENTER OF 59' RADIUS
812	42+07.91	19.13	LT	END 59' RADIUS/BEGIN 4' RADIUS
813	42+05.80	15.73	LT	CENTER OF 4' RADIUS
814	42+06.75	11.84	LT	END 4' RADIUS/BEGIN 64' RADIUS
815	41+91.5	74.00	LT	CENTER OF 64' RADIUS
816	41+91.50	10.00	LT	END 64' RADIUS
817	42+83.37	88.99	LT	END SIDEWALK
818	42+74.55	75.03	LT	BEGIN 25' RADIUS
819	42+97.46	75.00	LT	CENTER OF 25' RADIUS
820	42+97.46	50.00	LT	END 25' RADIUS
821	43+36.79	66.50	LT	BEGIN BIKE PATH TAPER
822	43+56.79	62.00	LT	END BIKE PATH TAPER
823	43+56.85	55.50	LT	BEGIN BUS STOP
824	43+84.85	55.50	LT	END BUS STOP
825	44+16.89	49.99	LT	BEGIN CURB TAPER
826	44+01.61	17.00	LT	BEGIN CURB TAPER
827	44+35.75	20.92	LT	END CURB TAPER/BEGIN 9' RADIUS
828	44+36.73	11.97	LT	CENTER OF 9' RADIUS
829	44+41.35	19.69	LT	END 9' RADIUS
830	44+46.90	15.92	LT	BEGIN 3' RADIUS
831	44+45.08	13.54	LT	CENTER OF 3' RADIUS
832	44+46.82	11.10	LT	END 3' RADIUS/BEGIN 59' RADIUS
833	44+11.53	59.00	LT	CENTER OF 59' RADIUS
834	44+11.53	0.00	RT	END 59' RADIUS
835	43+19.53	0.00	RT	BEGIN 64' RADIUS
836	43+19.53	64.00	LT	CENTER OF 64' RADIUS
837	42+88.24	8.17	LT	END 64' RADIUS/BEGIN 4' RADIUS
838	42+90.19	11.66	LT	CENTER OF 4' RADIUS
839	42+89.35	15.57	LT	END 4' RADIUS/BEGIN 64' RADIUS
840	43+02.80	47.00	RT	CENTER OF 64' RADIUS
841	43+02.80	17.00	LT	END 64' RADIUS

POINT NUMBER	STATION	OFFSET		DESCRIPTION
842	45+26.00	46.54	LT	BEGIN CURB TAPER
843	45+44.00	48.01	LT	BEGIN INLET CURB TRANSITION
844	45+56.00	49.12	LT	END INLET CURB TRANSITION
845	45+58.26	57.75	LT	BEGIN BIKE PATH TAPER
846	45+76.46	51.01	LT	END CURB
847	45+31.54	0.17	LT	BEGIN 59' RADIUS
848	45+32.48	59.17	LT	CENTER OF 59' RADIUS
849	44+99.62	10.16	LT	END 59' RADIUS/BEGIN 3' RADIUS
850	46+01.29	12.65	LT	CENTER OF 3' RADIUS
851	44+99.70	15.20	LT	END 3' RADIUS/BEGIN 59' RADIUS
852	45+30.99	34.82	RT	CENTER OF 59' RADIUS
853	45+31.92	24.17	LT	END 59' RADIUS
854	45+73.78	24.00	LT	END CURB
855	45+68.74	27.00	RT	END CURB
856	45+53.22	33.83	RT	BEGIN CURB TAPER
857	45+50.00	24.78	RT	END INLET CURB TRANSITION
858	45+37.63	23.29	RT	BEGIN INLET CURB TRANSITION
859	45+28.00	22.00	RT	BEGIN CURB TAPER
860	43+29.33	22.00	RT	END CURB TAPER
861	42+96.93	25.11	RT	END 25' RADIUS
862	42+99.3	50.00	RT	CENTER OF 25' RADIUS
863	42+72.93	50.02	RT	BEGIN 25' RADIUS
864	42+74.12	47.51	RT	END INLET CURB TRANSITION
865	42+73.74	59.50	RT	BEGIN INLET CURB TRANSITION
866	43+18.40	34.00	RT	END BIKE PATH TAPER
867	42+98.40	38.50	RT	BEGIN BIKE PATH TAPER
868	42+14.84	58.34	RT	END INLET CURB TRANSITION
869	42+13.97	46.32	RT	BEGIN INLET CURB TRANSITION
870	42+14.97	47.49	RT	END 25' RADIUS
871	41+89.97	47.00	RT	CENTER OF 25' RADIUS
872	41+89.97	22.00	RT	BEGIN 25' RADIUS
873	41+87.06	38.50	RT	END BUS STOP
874	41+59.06	34.16	RT	BEGIN BUS STOP
875	41+78.33	38.50	RT	END BIKE PATH TAPER
876	41+58.33	34.00	RT	BEGIN BIKE PATH TAPER
877	67+13.72	30.00	LT	END BUS STOP
878	66+93.72	30.00	LT	BEGIN BUS STOP
879	44+34.35	68.22	LT	EXISTING SIDEWALK SAWCUT POINT
880	44+83.08	63.45	LT	EXISTING SIDEWALK SAWCUT POINT
881	45+77.27	59.93	LT	EXISTING SIDEWALK SAWCUT POINT

LEGEND

- 19A — CONCRETE CURB AND GUTTER 19-INCH (SHADING REPRESENTS HIGH SIDE C&G)
- 31A — CONCRETE CURB AND GUTTER 31-INCH (SHADING REPRESENTS HIGH SIDE C&G)
- SW5 — CONCRETE SIDEWALK 5-INCH
- DRW — CONCRETE DRIVEWAY 7-INCH
- AS — ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES - 3"
- BIKE — BICYCLE PATH, 3.5" ASPHALTIC SURFACE, OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
- PAV 1 — 8" CONCRETE PAVEMENT, OVER 6" BASE AGGREGATE DENSE 1-1/4 INCH
- PAV 2 — 2" MILL AND 2" HMA OVERLAY
- PAV 3 — 2" HMA PAVEMENT, OVER 8" CONCRETE BASE, OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
- CR1 — (MODIFIED CURB RAMP, SEE DETAIL) CURB RAMP TYPE
- CP — CONSTRUCTION PERMIT SECURED
- HIGH SIDE CURB & GUTTER
- 1 — POINT NUMBER





POINT NUMBER	STATION	OFFSET		DESCRIPTION
901	68+69.00	25.00	LT	BEGIN CURB INLET TRANSITION
902	68+81.00	25.00	LT	END CURB INLET TRANSITION
903	69+32.33	0.00	RT	SAWCUT & END NEW PAVING
904	69+42.33	0.00	RT	SAWCUT & MATCH EXISTING
905	68+76.00	25.00	RT	END CURB INLET TRANSITION
906	68+64.00	25.00	RT	BEGIN CURB INLET TRANSITION
907	63+50.08	30.85	LT	BEGIN SIDEWALK
908	63+80.77	35.96	LT	BEGIN SIDEWALK TAPER
909	64+11.87	38.00	LT	END SIDEWALK TAPER
910	64+92.36	38.00	LT	BEGIN SIDEWALK TAPER
911	63+42.99	24.00	LT	BEGIN CURB
912	63+66.45	24.00	LT	BEGIN CURB TAPER
913	64+12.23	27.00	LT	END CURB TAPER
914	64+92.85	27.00	LT	BEGIN CURB TAPER
915	63+4467	35.00	RT	END SIDEWALK TAPER
916	63+14.50	33.99	RT	BEGIN SIDEWALK TAPER
917	62+84.47	30.97	RT	BEGIN SIDEWLAK
918	63+44.83	25.00	RT	END CURB TAPER
919	63+14.83	24.00	RT	BEGIN CURB TAPER
920	62+91.90	24.00	RT	BEGIN CURB
921	63+57.99	0.00	RT	SAWCUT & BEGIN NEW PAVING
922	63+17.28	0.00	RT	SAWCUT & MATCH EXISTING

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PLAN DETAIL	SHEET 36	E

2

N. 20TH STREET

W. WALNUT STREET

R/W

13+74.22
93.58 LT
99.87

13+74.15
88.58 LT
99.71

13+79.22
93.53 LT
99.79

13+79.15
88.53 LT
99.63

13+79.02
78.54 LT
99.23

13+83.09
78.50 LT
99.10

13+85.18
78.48 LT
99.18

13+83.06
73.50 LT
99.21

13+80.73
73.52 LT
99.13

13+73.98
73.58 LT
99.23

13+68.78
64.72 LT
99.08

13+68.74
62.64 LT
99.16

13+63.77
63.94 LT
99.04

13+63.72
61.94 LT
99.12

13+53.28
78.77 LT
99.72

13+59.01
78.72 LT
99.67

13+64.01
78.68 LT
99.47

13+69.01
78.63 LT
99.39

13+74.02
78.58 LT
99.31

13+53.26
73.77 LT
99.58

13+58.97
73.72 LT
99.59

13+63.97
73.68 LT
99.39

13+68.97
73.63 LT
99.31

13+63.05
29.43 LT
99.74

13+62.99
26.46 LT
99.76

13+68.00
27.09 LT
99.77

13+67.96
24.98 LT
99.79

13+67.74
14.24 LT
99.63

13+62.71
12.87 LT
99.55

13+67.69
12.12 LT
99.61

13+62.65
9.94 LT
99.53

14+24.54
98.74 LT
99.79

14+25.42
93.56 LT
99.75

14+30.04
98.66 LT
99.91

14+30.35
94.40 LT
99.83

14+27.09
83.70 LT
99.35

14+27.03
78.70 LT
99.15

14+27.00
76.71 LT
99.12

14+20.66
76.80 LT
99.19

14+22.78
76.77 LT
99.11

14+22.95
71.76 LT
99.11

14+25.36
71.73 LT
99.02

14+31.92
71.63 LT
99.12

14+32.10
84.09 LT
99.43

14+32.03
78.63 LT
99.23

14+37.19
78.56 LT
99.31

14+41.04
78.50 LT
99.39

14+51.04
78.50 LT
99.83

14+37.09
71.56 LT
99.20

14+41.04
71.50 LT
99.28

14+51.04
71.47 LT
99.68

14+36.97
63.49 LT
98.88

14+36.94
61.43 LT
98.96

14+41.04
62.75 LT
98.85

14+41.04
60.75 LT
98.93

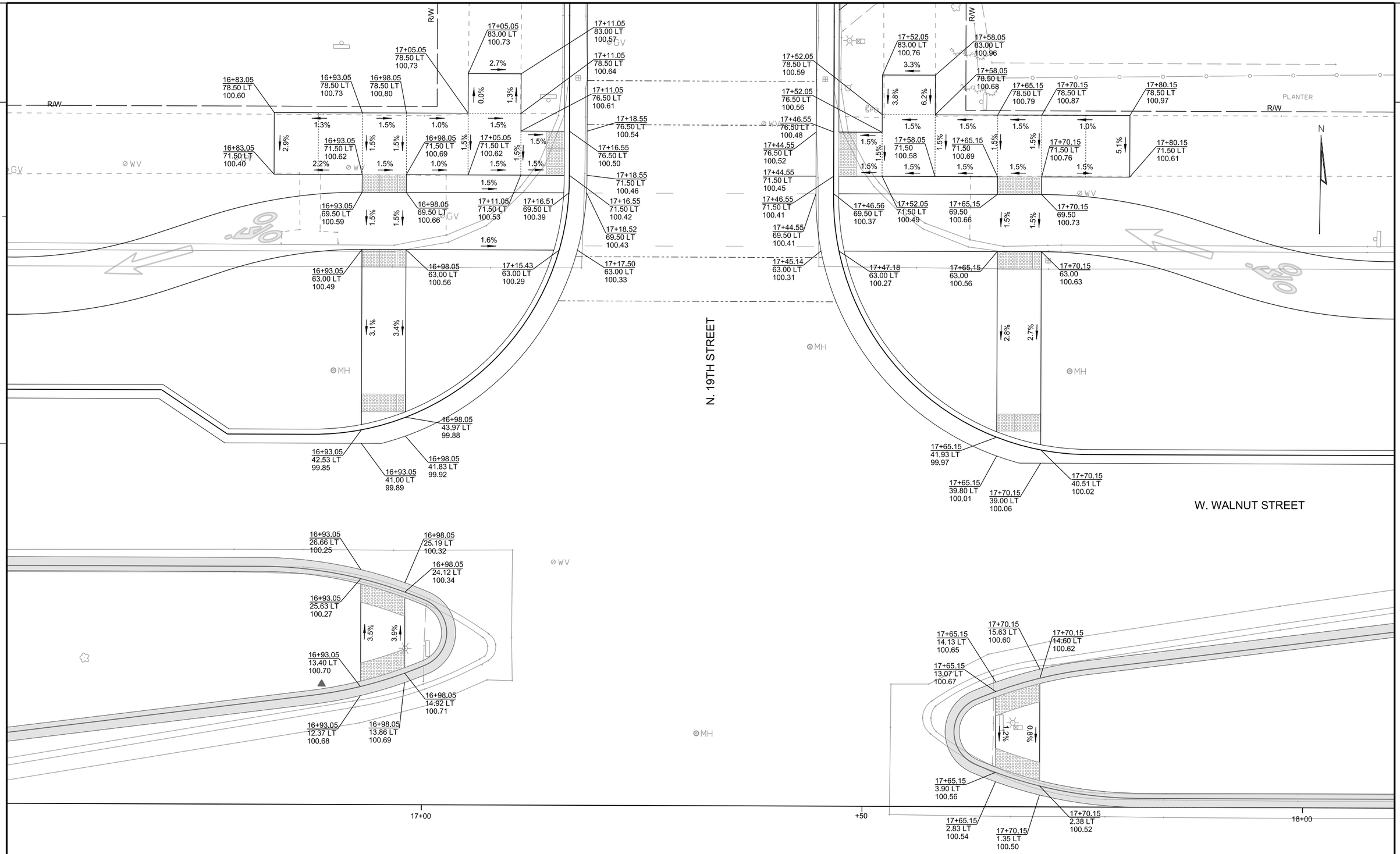
MH
WV
GV

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 37	E

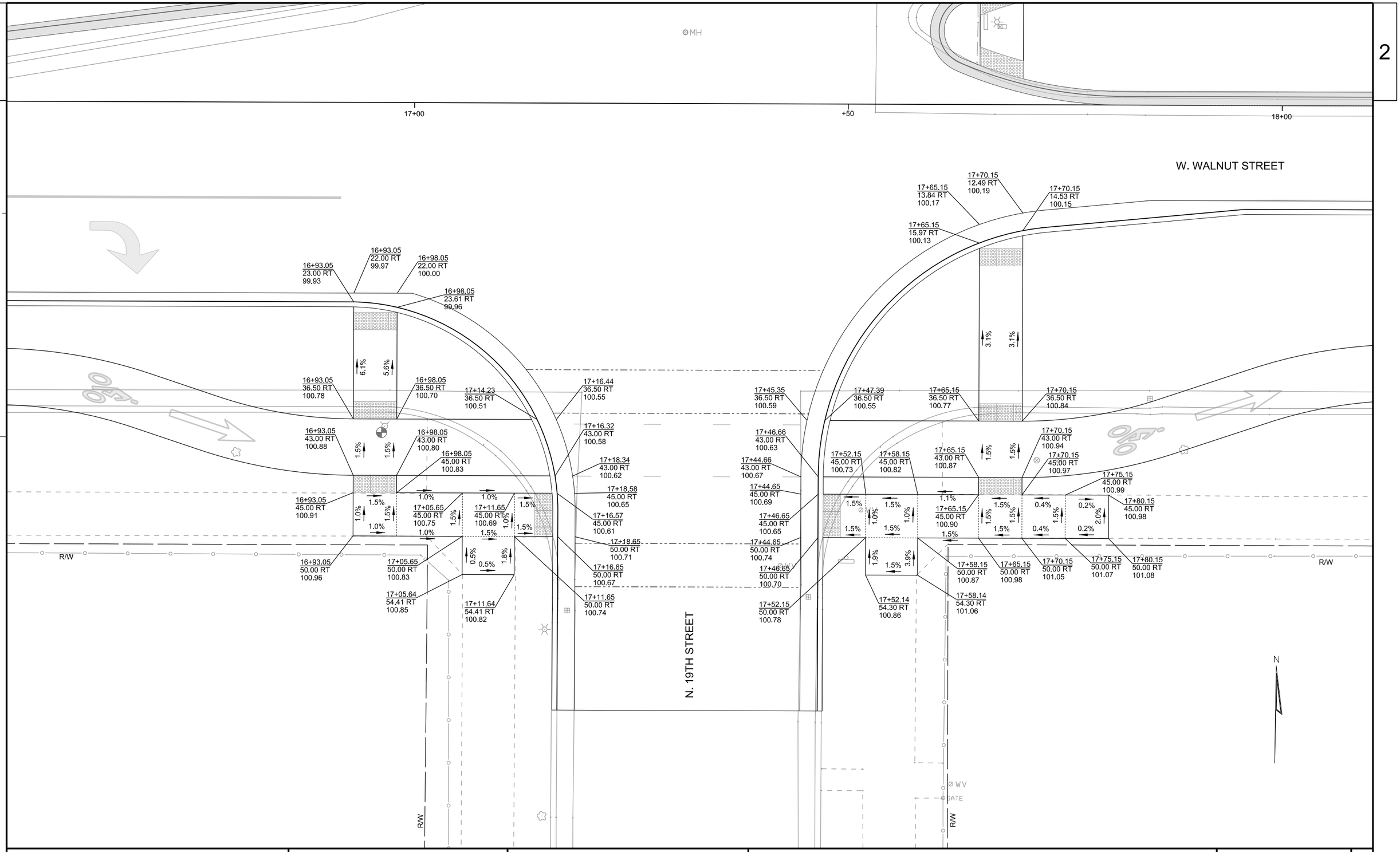
FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021300_cr.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 10.0000 sf / in.

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 38	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021300a_cr.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 10.0000 sf / in.
WISDOT/CADDS SHEET 42



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 39	E



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 40	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021302_cr.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 10.0000 sf / in.

2

2

N

R/W

N. 18TH STREET

W. WALNUT STREET

20+34.72
95.75 LT
101.80

20+34.72
89.75 LT
101.77

20+34.72
83.75 LT
101.74

20+34.72
78.75 LT
101.71

20+27.95
78.75 LT
101.84

20+22.95
78.75 LT
101.76

20+16.95
78.75 LT
101.72

20+16.95
72.00 LT
101.60

20+22.95
72.00 LT
101.69

20+27.95
72.00 LT
101.77

20+22.95
70.00 LT
101.66

20+27.95
70.00 LT
101.74

20+34.72
72.00 LT
101.64

20+43.71
70.00 LT
101.53

20+22.95
63.50 LT
101.56

20+27.95
63.50 LT
101.64

20+42.74
63.50 LT
101.46

20+40.72
95.75 LT
101.70

20+40.72
89.75 LT
101.68

20+40.72
83.75 LT
101.65

20+40.72
78.75 LT
101.62

20+40.72
77.00 LT
101.60

20+43.72
77.00 LT
101.55

20+45.72
77.00 LT
101.59

20+45.73
72.00 LT
101.54

20+43.71
72.00 LT
101.50

20+45.71
70.00 LT
101.52

20+44.80
63.50 LT
101.47

1.7%
0.5%
0.3%
1.5%
0.5%
0.5%
1.5%
0.5%
0.5%
0.5%
0.5%
0.7%
1.5%
1.9%
1.5%
1.8%
1.0%
1.0%
1.5%
1.5%
1.9%
1.5%
1.0%
1.0%
1.5%
1.5%
1.5%
1.5%
3.8%
4.4%

20+27.95
45.19 LT
100.83

20+22.95
43.19 LT
100.77

20+27.95
42.96 LT
100.80

20+22.95
41.11 LT
100.74

20+22.95
26.69 LT
101.02

20+27.95
25.22 LT
101.06

20+27.95
24.16 LT
101.08

20+22.95
25.66 LT
101.04

20+22.95
13.33 LT
101.27

20+27.95
14.82 LT
101.30

20+27.95
13.76 LT
101.28

20+22.95
12.30 LT
101.25

1.9%
2.4%

20+82.72
78.50 LT
101.62

20+82.72
77.00 LT
101.60

20+79.72
77.00 LT
101.55

20+77.72
77.00 LT
101.59

20+77.73
72.00 LT
101.56

20+79.73
72.00 LT
101.52

20+77.73
70.00 LT
101.54

20+78.22
63.50 LT
101.50

20+82.72
83.50 LT
101.53

20+88.72
83.50 LT
101.68

20+88.72
78.50 LT
101.71

20+95.86
78.50 LT
101.78

21+00.86
78.50 LT
101.74

21+06.86
78.50 LT
101.71

21+19.59
78.50 LT
101.67

20+88.72
72.00 LT
101.61

21+00.86
72.00 LT
101.64

21+06.86
72.00 LT
101.61

21+19.59
72.00 LT
101.61

20+82.72
72.00 LT
101.55

20+95.86
72.00 LT
101.68

21+00.86
70.00 LT
101.61

20+79.73
70.00 LT
101.50

20+95.86
70.00 LT
101.65

20+80.25
63.50 LT
101.46

20+95.86
63.50 LT
101.55

21+00.86
63.50 LT
101.51

2.5%
1.8%
1.5%
1.5%
1.0%
0.8%
0.5%
1.1%
1.5%
1.5%
1.5%
1.0%
1.0%
0.8%
0.5%
1.5%
1.5%
1.5%
0.9%
2.7%
2.5%

20+95.86
43.01 LT
100.98

20+95.86
40.80 LT
101.02

21+00.86
39.01 LT
100.99

21+00.86
41.09 LT
100.95

20+95.86
14.37 LT
101.49

21+00.86
15.79 LT
101.47

20+95.86
13.31 LT
101.51

21+00.86
14.76 LT
101.49

20+95.86
3.70 LT
101.42

20+95.86
2.64 LT
101.40

21+00.86
2.25 LT
101.43

21+00.86
1.22 LT
101.41

0.9%
0.5%

WV
GV
MH

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 41	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021303_cr.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 10.0000 sf / in.

WISDOT/CADDS SHEET 42

2

20+00

+50

21+00

2

N

W. WALNUT STREET

11.00 RT
100.87

12.11 RT
100.96

20+27.95
14.27 RT
100.88

20+22.95
12.68 RT
100.81

3.8%

3.4%

20+22.95
36.50 RT
101.72

20+27.95
36.50RT
101.64

20+45.36
36.50 RT
101.41

20+47.38
36.50 RT
101.45

20+27.95
43.00 RT
101.73

20+22.95
43.00 RT
101.81

1.5%

1.5%

20+34.95
45.00 RT
101.65

20+41.12
45.00 RT
101.56

20+45.71
43.00 RT
101.47

20+47.71
43.00 RT
101.51

20+47.71
45.00 RT
101.53

20+45.71
45.00 RT
101.49

20+47.71
50.00 RT
101.58

20+45.71
50.00 RT
101.54

20+41.12
50.00 RT
101.61

20+17.95
45.00 RT
101.89

20+22.95
45.00 RT
101.84

1.0%

1.4%

0.8%

1.5%

20+27.95
45.00 RT
101.76

1.6%

20+17.95
50.00 RT
101.96

20+22.95
50.00 RT
101.92

20+27.89
50.00 RT
101.84

20+34.95
50.00 RT
101.73

20+34.95
54.18 RT
101.67

20+41.12
54.18 RT
101.57

R/W

R/W

N. 18TH STREET

20+95.86
13.96 RT
101.07

21+00.86
13.00 RT
101.12

20+95.86
16.11 RT
101.03

21+00.86
14.60 RT
101.08

3.6%

3.5%

20+76.40
36.50 RT
101.55

20+78.45
36.50 RT
101.51

20+95.86
36.50 RT
101.76

21+00.86
36.50 RT
101.84

20+77.71
43.00 RT
101.54

20+75.71
43.00 RT
101.58

20+75.71
45.00 RT
101.59

20+77.71
45.00 RT
101.55

20+75.71
50.00 RT
101.62

20+77.71
50.00 RT
101.58

20+82.66
50.00 RT
101.71

20+82.66
45.00 RT
101.63

20+88.86
45.00 RT
101.72

20+95.86
43.00 RT
101.85

21+00.86
43.00 RT
101.93

1.5%

2.3%

1.5%

3.0%

21+05.86
45.00 RT
102.11

20+95.86
45.00 RT
101.88

21+00.86
45.00 RT
101.96

2.6%

2.4%

1.0%

20+88.86
50.00 RT
101.80

20+95.86
50.00 RT
101.96

21+00.86
50.00 RT
102.04

21+05.86
50.00 RT
102.16

1.3%

0.5%

20+82.66
53.93 RT
101.76

20+88.86
53.93 RT
101.82

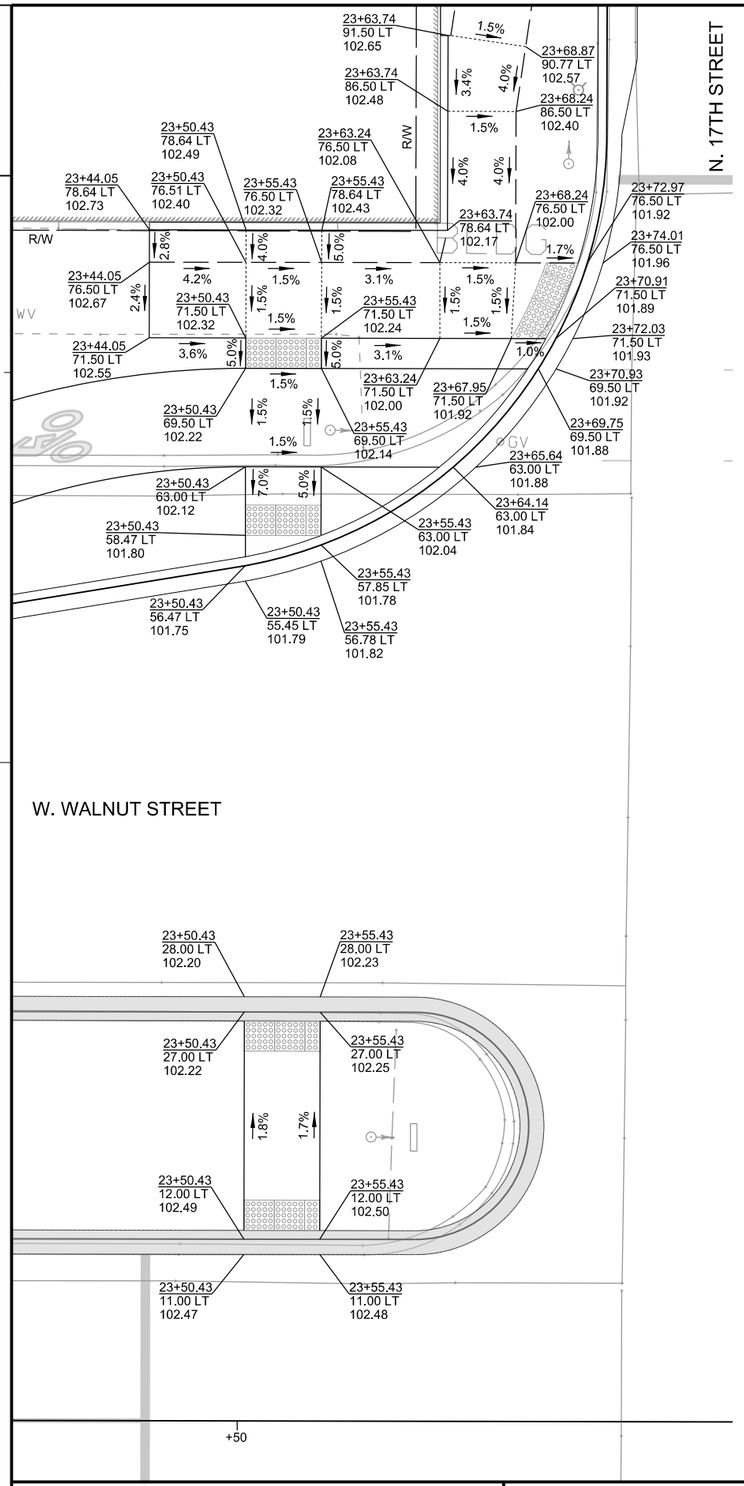
R/W

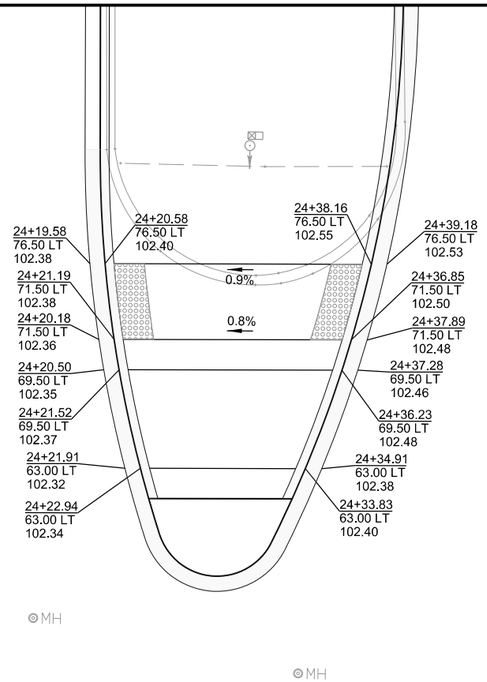
R/W

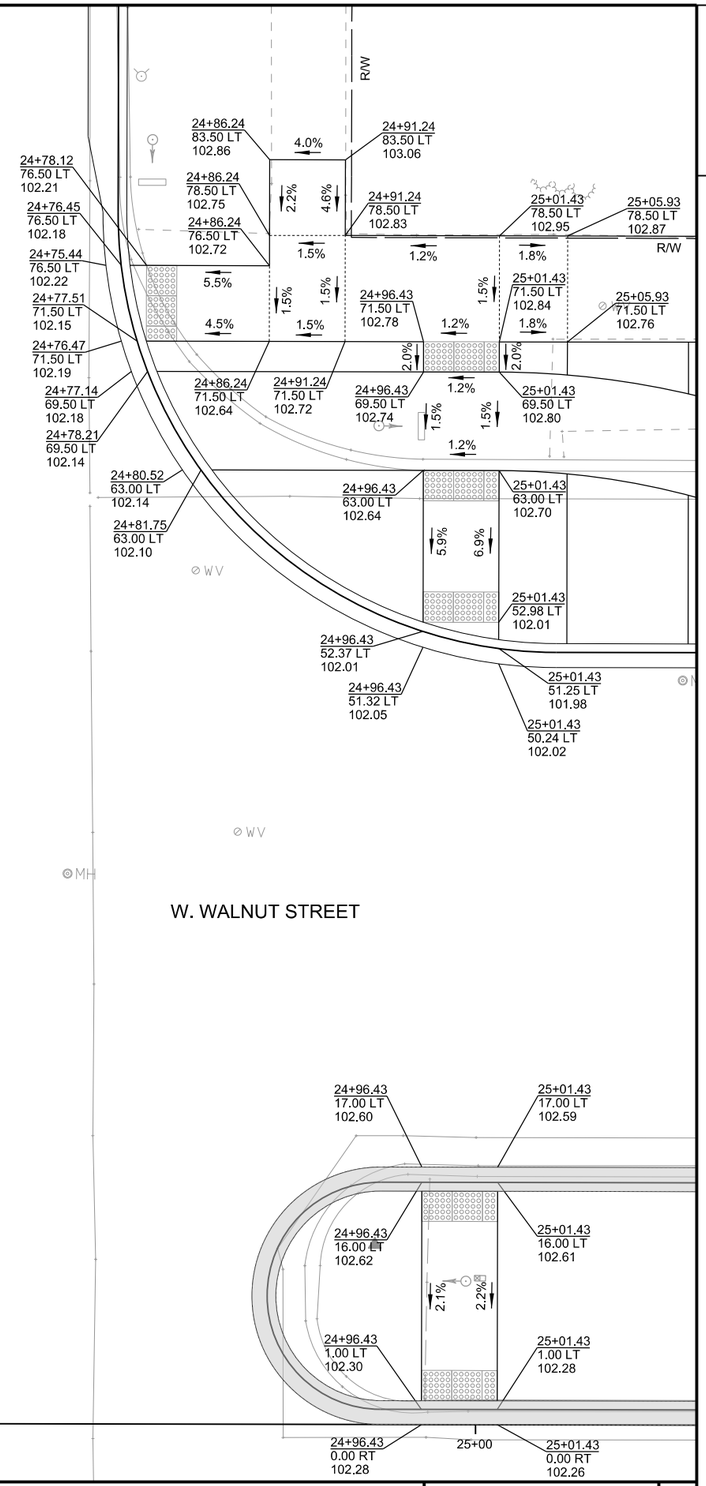
GATE

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 42	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021304_cr.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 10.0000 sf / in.







PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 43	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021305_cr.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 10.0000 sf / in.

2

+50

24+00

25+00

N

W. WALNUT STREET

N. 17TH STREET

R/W

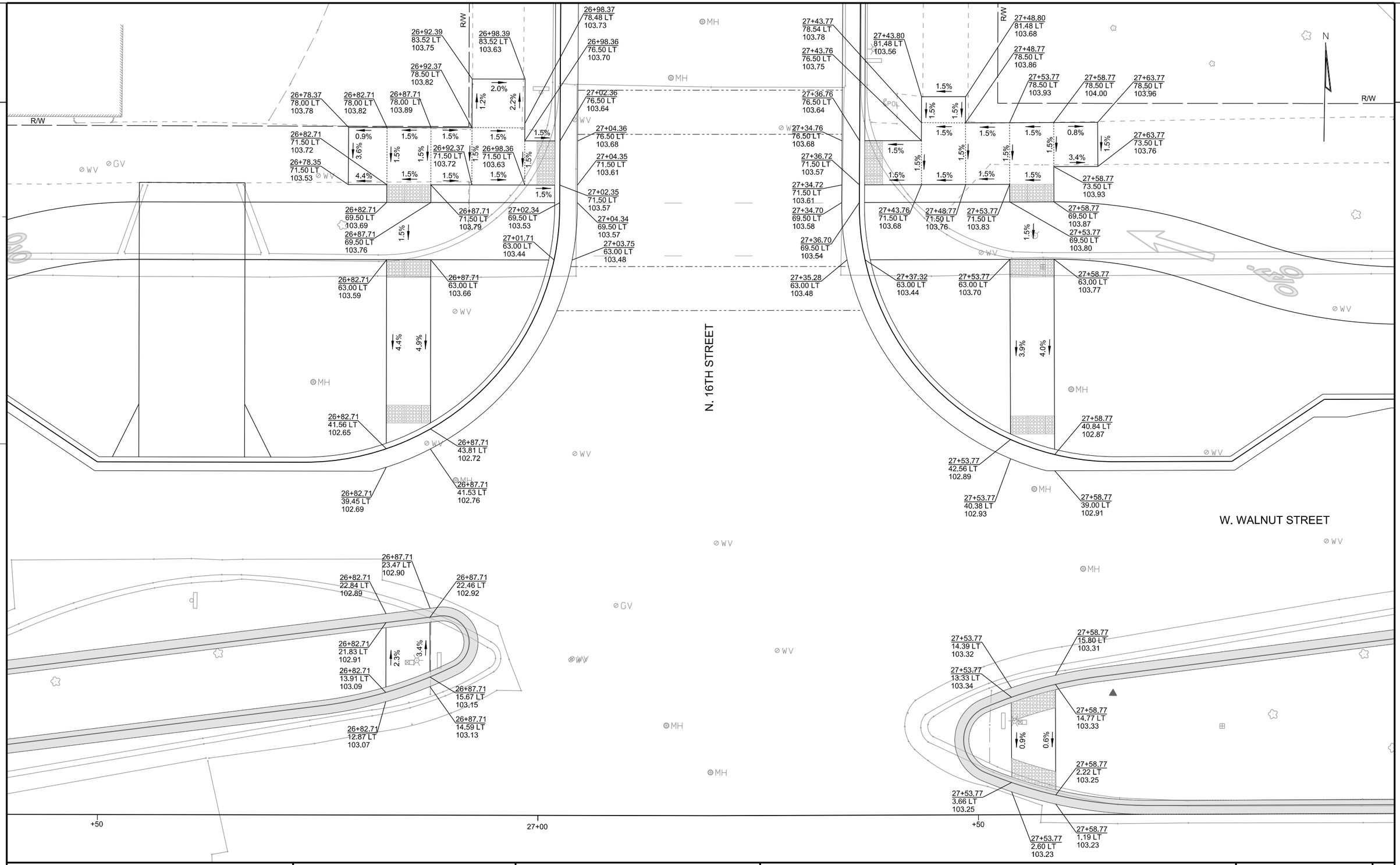
23+50.43 / 23.43 RT / 101.76
23+50.43 / 22.42 RT / 101.80
23+55.43 / 23.72 RT / 101.78
23+55.43 / 24.78 RT / 101.74
23+50.43 / 25.40 RT / 101.79
101.95
23+50.43 / 36.50 RT / 102.51
23+55.43 / 36.50 RT / 102.43
23+69.94 / 36.50 RT / 101.65
23+71.11 / 36.50 RT / 101.69
23+72.99 / 43.00 RT / 101.62
23+74.04 / 43.00 RT / 101.66
23+73.57 / 45.00 RT / 101.61
23+74.60 / 45.00 RT / 101.65
23+75.36 / 50.00 RT / 101.62
23+74.36 / 50.00 RT / 101.58
23+70.43 / 50.00 RT / 101.86
23+70.43 / 60.00 RT / 102.26
23+70.43 / 65.00 RT / 102.27
23+50.43 / 43.00 RT / 102.61
23+55.43 / 43.00 RT / 102.53
23+65.43 / 45.00 RT / 101.86
23+70.43 / 45.00 RT / 101.78
23+50.43 / 45.00 RT / 102.64
23+55.43 / 45.00 RT / 102.56
23+50.43 / 50.00 RT / 102.72
23+55.43 / 50.00 RT / 102.64
23+65.43 / 50.00 RT / 101.94
23+65.43 / 60.00 RT / 102.34
23+65.43 / 65.00 RT / 102.45
6.5%
5.9%
1.5%
7.0%
5.4%
4.0%
2.2%
0.2%
3.6%

24+16.23 / 36.50 RT / 102.14
24+15.16 / 36.50 RT / 102.18
24+13.97 / 43.00 RT / 102.11
24+12.93 / 43.00 RT / 102.15
24+12.36 / 45.00 RT / 102.14
24+13.39 / 45.00 RT / 102.10
24+11.16 / 50.00 RT / 102.12
24+12.18 / 50.00 RT / 102.08
24+28.10 / 36.50 RT / 102.30
24+29.13 / 36.50 RT / 102.28
24+29.40 / 43.00 RT / 102.31
24+30.41 / 43.00 RT / 102.29
24+30.70 / 45.00 RT / 102.31
24+29.69 / 45.00 RT / 102.33
24+31.21 / 50.00 RT / 102.37
24+30.21 / 50.00 RT / 102.39
1.4%
1.7%

24+96.43 / 28.38 RT / 101.75
25+01.43 / 27.25 RT / 101.73
24+96.43 / 29.43 RT / 101.71
25+01.43 / 28.27 RT / 101.69
25+01.43 / 30.04 RT / 101.72
24+84.91 / 36.50 RT / 101.77
24+83.52 / 36.50 RT / 101.81
24+96.43 / 36.50 RT / 102.12
24+80.03 / 43.00 RT / 101.80
24+78.89 / 43.00 RT / 101.84
25+01.43 / 36.50 RT / 102.17
25+06.43 / 45.00 RT / 102.55
25+11.43 / 45.00 RT / 102.59
24+86.43 / 45.00 RT / 102.16
24+91.43 / 45.00 RT / 102.24
24+96.43 / 43.00 RT / 102.22
25+01.43 / 43.00 RT / 102.27
24+77.93 / 45.00 RT / 101.85
24+79.03 / 45.00 RT / 101.81
24+76.25 / 50.00 RT / 101.87
24+77.28 / 50.00 RT / 101.83
24+96.43 / 45.00 RT / 102.32
25+01.43 / 45.00 RT / 102.37
24+86.43 / 50.00 RT / 102.24
24+79.66 / 50.00 RT / 101.87
24+91.43 / 50.00 RT / 102.32
24+96.43 / 50.00 RT / 102.40
25+01.43 / 50.00 RT / 102.45
25+11.43 / 50.00 RT / 102.77
25+06.43 / 50.00 RT / 102.63
24+86.43 / 60.00 RT / 102.64
24+91.43 / 60.00 RT / 102.72
24+86.43 / 65.00 RT / 102.72
24+91.43 / 65.00 RT / 102.80
24+86.42 / 71.67 RT / 102.65
24+91.42 / 71.67 RT / 102.73
5.8%
7.0%
1.0%
1.5%
5.0%
3.6%
4.7%
5.5%
0.8%
2.8%
4.0%
1.6%
1.4%

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 44	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021306_cr.dgn
PLOT DATE : 8/15/2022
PLOT BY : GRAEF
PLOT NAME :
PLOT SCALE : 10.0000 sf / in.



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 45	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021307_cr.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 10.0000 sf / in.

2

+50 27+00 +50

W. WALNUT STREET

N

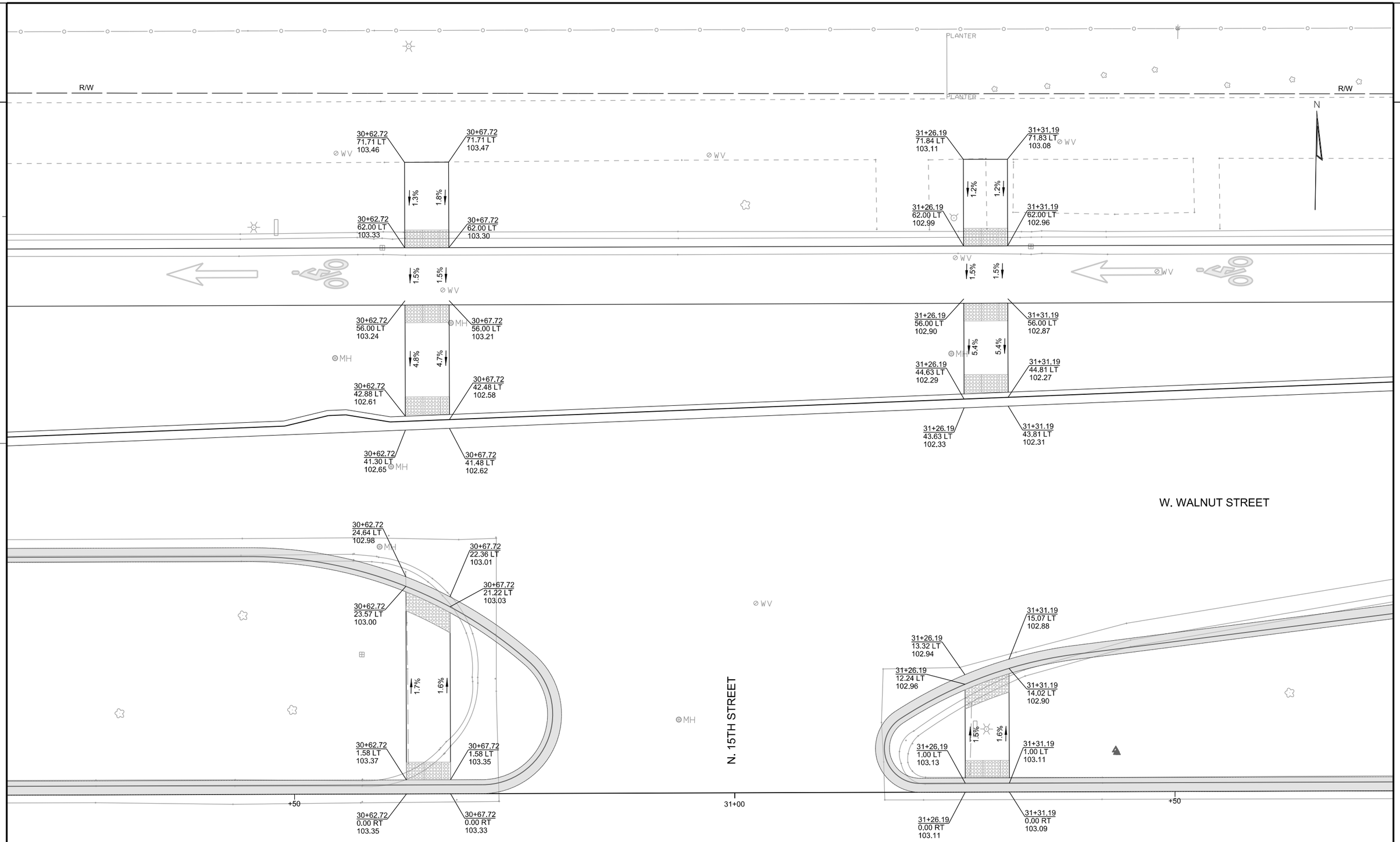
MH MH MH

26+82.71 11.33 RT 102.62
26+87.71 13.34 RT 102.67
26+87.71 15.60 RT 102.63
26+82.71 13.43 RT 102.58
4.2% 4.1%
26+82.71 36.50 RT 103.57
26+87.71 36.50 RT 103.49
26+87.71 43.00 RT 103.59
1.5%
26+82.71 43.00 RT 103.67
26+87.71 45.00 RT 103.62
26+82.71 45.00 RT 103.70
26+77.71 45.00 RT 103.60
0.2% 2.0% 2.8% 1.0% 1.5%
26+92.71 45.00 RT 103.55
26+77.71 50.00 RT 103.61
26+82.71 50.00 RT 103.75
26+87.71 50.00 RT 103.67
26+92.71 50.00 RT 103.60
26+92.71 55.20 RT 103.43
26+98.71 55.20 RT 103.32
27+02.36 36.50 RT 103.32
27+02.71 43.00 RT 103.38
27+04.39 36.50 RT 103.36
27+04.71 43.00 RT 103.42
27+02.71 45.00 RT 103.40
27+04.71 45.00 RT 103.44
27+04.71 50.00 RT 103.49
27+02.71 50.00 RT 103.45
26+98.71 49.94 RT 103.51
R/W
R/W
N. 16TH STREET

27+53.77 14.30 RT 102.97
27+58.77 13.00 RT 102.94
27+53.77 16.47 RT 102.89
27+58.77 14.79 RT 102.86
3.2% 3.5%
27+37.12 37.00 RT 103.31
27+53.77 36.50 RT 103.53
27+58.77 36.50 RT 103.61
27+35.18 36.50 RT 103.35
27+34.49 43.00 RT 103.42
27+36.49 43.00 RT 103.38
27+40.46 45.00 RT 103.46
27+46.46 45.00 RT 103.55
27+53.77 43.00 RT 103.63
27+58.77 43.00 RT 103.71
27+36.48 45.00 RT 103.40
27+34.48 45.00 RT 103.44
27+34.46 50.00 RT 103.49
27+36.46 50.00 RT 103.45
27+40.46 50.00 RT 103.51
27+53.77 45.00 RT 103.66
27+58.77 45.00 RT 103.74
27+63.77 45.00 RT 103.90
3.2% 1.2% 3.4%
27+53.77 50.00 RT 103.71
27+58.77 50.00 RT 103.79
27+63.77 50.00 RT 103.96
27+46.46 50.00 RT 103.60
27+40.43 54.81 RT 103.50
27+46.43 54.81 RT 103.67
R/W
R/W
WV GUY

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 46	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021308_cr.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 10.0000 sf / in.



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 47	E

2

2

+50

31+00

+50

N

W. WALNUT STREET

N. 15TH STREET

R/W

R/W

R/W

R/W

30+62.72
13.08 RT
103.13

30+67.72
15.61 RT
103.11

30+67.72
18.00 RT
103.07

30+62.72
15.24 RT
103.09

30+62.72
36.50 RT
103.69

30+67.72
36.50 RT
103.62

30+79.39
36.50 RT
103.45

30+81.41
36.50 RT
103.49

30+67.72
43.00 RT
103.72

30+62.72
43.00 RT
103.79

30+73.69
45.00 RT
103.66

30+79.74
43.00 RT
103.54

30+62.72
45.00 RT
103.82

30+81.74
43.00 RT
103.58

30+79.72
45.00 RT
103.57

30+57.72
45.00 RT
103.93

30+81.72
45.00 RT
103.61

30+81.69
50.00 RT
103.68

30+57.72
50.00 RT
104.03

30+62.69
50.00 RT
103.89

30+67.72
45.00 RT
103.75

30+67.69
50.00 RT
103.82

30+79.69
50.00 RT
103.64

30+73.69
50.00 RT
103.73

30+73.65
55.03 RT
103.76

30+67.65
54.99 RT
103.85

30+67.62
59.99 RT
103.87

30+73.62
60.03 RT
103.82

31+31.19
13.00 RT
102.81

31+26.19
14.65 RT
102.86

31+26.19
16.86 RT
102.78

31+31.19
15.00 RT
102.73

31+31.19
17.50 RT
102.77

31+10.48
36.50 RT
103.44

31+26.19
36.50 RT
103.66

31+31.19
36.50 RT
103.58

31+08.43
36.50 RT
103.48

31+09.74
43.00 RT
103.53

31+15.19
45.00 RT
103.65

31+21.19
45.00 RT
103.74

31+26.19
43.00 RT
103.76

31+31.19
43.00 RT
103.68

31+07.74
43.00 RT
103.57

31+07.72
45.00 RT
103.61

31+31.19
45.00 RT
103.71

31+26.19
45.00 RT
103.79

31+36.19
45.00 RT
103.60

31+09.72
45.00 RT
103.57

31+07.69
50.00 RT
103.68

31+09.69
50.00 RT
103.64

31+26.19
50.00 RT
103.86

31+31.19
50.00 RT
103.78

31+36.19
50.00 RT
103.68

31+21.19
50.00 RT
103.81

31+21.15
55.96 RT
104.01

31+15.19
50.00 RT
103.72

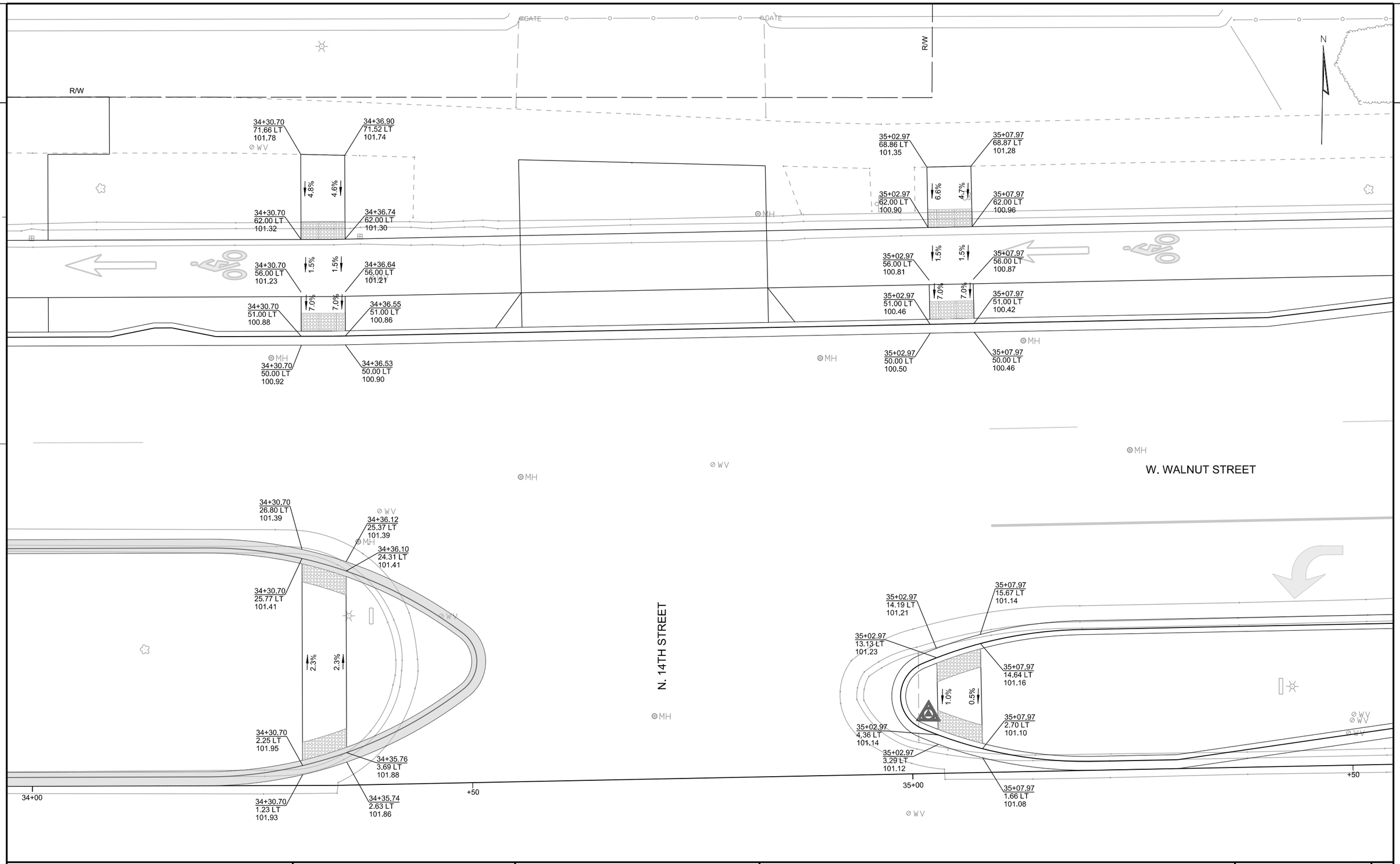
31+15.15
55.92 RT
103.85

1.5%
2.7%
2.9%
2.8%
2.0%
0.5%
1.2%
0.8%
4.5%
4.3%
1.0%
2.7%
2.8%

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 48	E

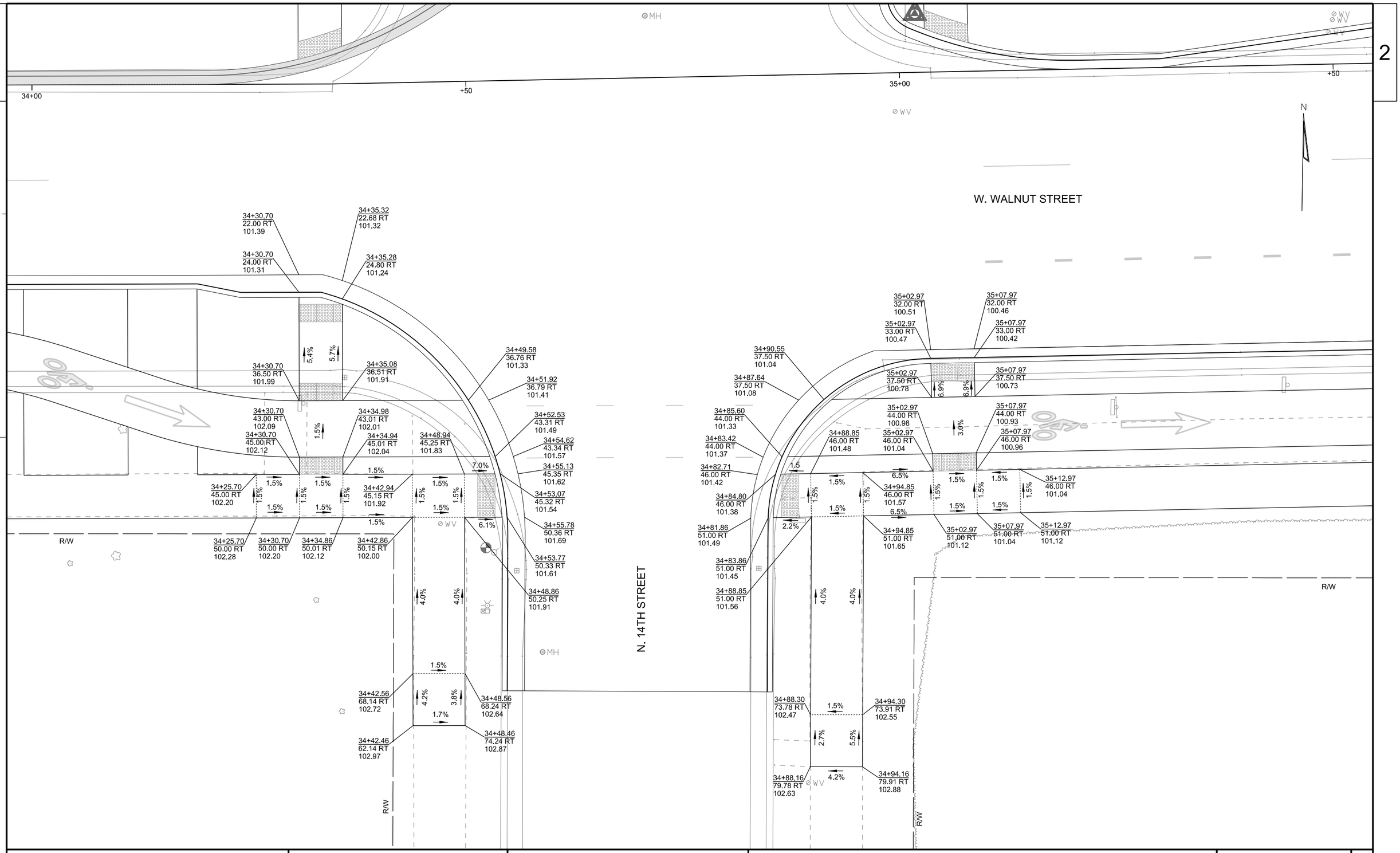
FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021310_cr.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 10.0000 sf / in.

WISDOT/CADDS SHEET 42



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 49	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021311_cr.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 10.0000 sf / in.



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 50	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021312_cr.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 10.0000 sf / in.

WISDOT/CADDS SHEET 42

2

N

37+71.49
10.42 LT
98.25

37+76.72
11.66 LT
98.21

37+77.85
10.03 LT
98.23

37+72.75
8.61 LT
98.27

1.3%

1.2%

1.2%

37+80.10
6.80 LT
98.28

37+75.99
3.94 LT
98.34

MH

38+00

+50

39+00

38+99.39
24.22 LT
97.61

38+95.12
21.57 LT
97.69

1.0%

1.0%

39+02.28
20.39 LT
97.66

39+02.68
19.87 LT
97.64

38+98.62
16.94 LT
97.73

39+04.03
18.07 LT
97.65

38+96.94
19.16 LT
97.72

38+97.32
18.66 LT
97.70

WV

W. WALNUT STREET

MH

MH

38+01.00
32.00 RT
97.51

38+01.69
33.00 RT
97.47

38+07.33
32.34 RT
97.55

38+08.14
33.51 RT
97.51

38+17.21
37.50 RT
97.44

38+20.12
37.50 RT
97.51

38+23.49
44.00 RT
97.41

38+26.00
44.00 RT
97.47

38+25.01
46.00 RT
97.37

38+27.53
46.00 RT
97.42

38+31.34
51.00 RT
97.33

38+28.82
51.00 RT
97.27

3.6%

1.5%

1.5%

38+04.82
37.50 RT
97.67

38+10.92
37.50 RT
97.58

38+09.35
44.00 RT
97.71

38+15.44
44.00 RT
97.62

38+18.73
46.00 RT
97.60

37+93.95
46.00 RT
98.24

37+98.95
46.00 RT
98.15

1.8%

4.0%

38+08.95
46.00 RT
97.75

1.5%

1.5%

38+16.83
46.00 RT
97.63

3.7%

1.5%

1.5%

1.5%

1.8%

4.0%

38+10.74
46.00 RT
97.72

6.1%

1.5%

0.9%

37+93.95
51.00 RT
98.32

37+98.95
51.00 RT
98.23

38+08.95
51.00 RT
97.83

38+18.73
51.00 RT
97.68

38+24.28
51.00 RT
97.34

38+24.02
55.30 RT
97.78

1.5%

1.5%

1.6%

1.5%

1.5%

38+15.83
55.07 RT
97.76

38+20.62
58.97 RT
97.86

1.4%

2.0%

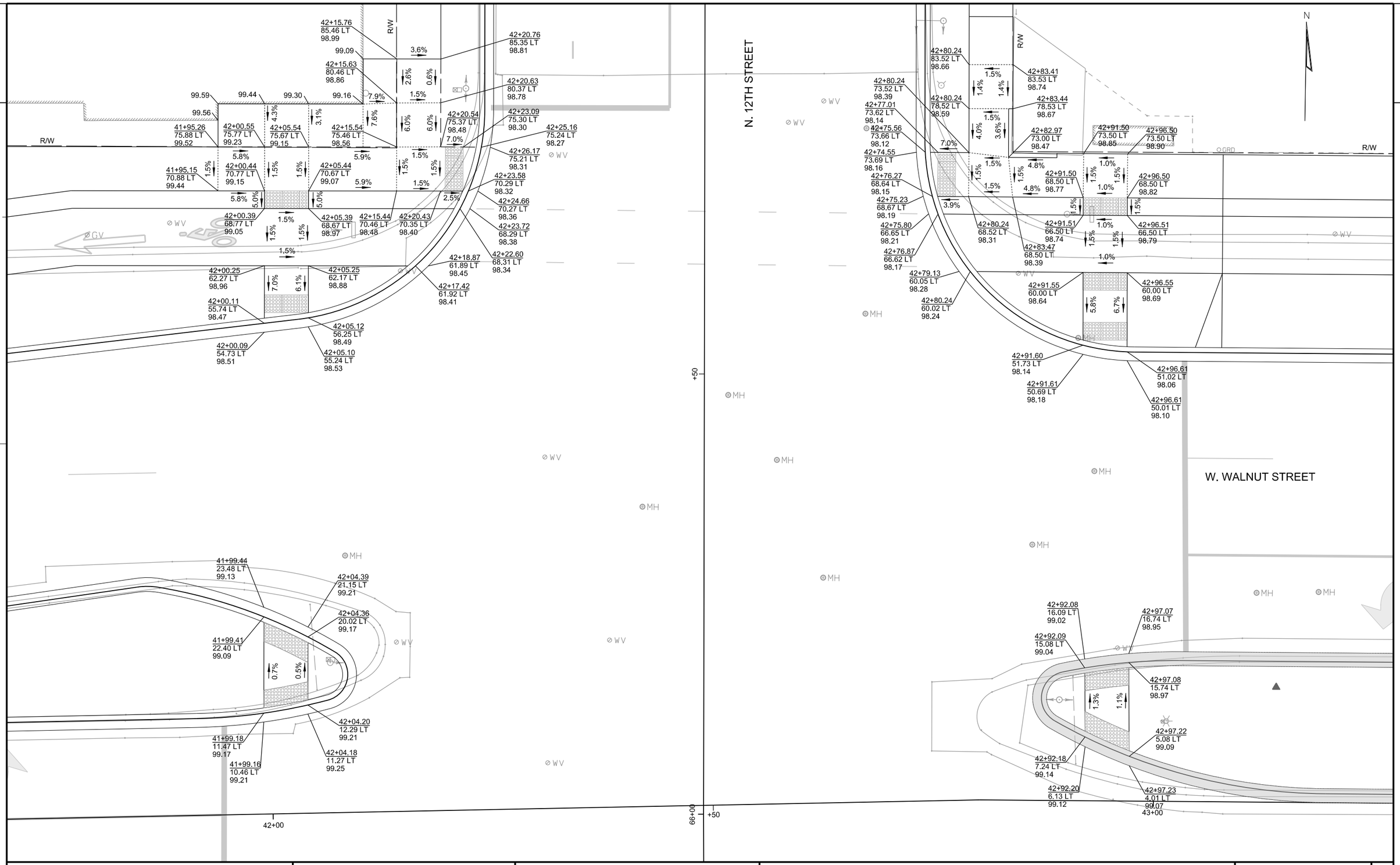
38+28.71
60.24 RT
97.68

38+24.59
63.12 RT
97.78

W. FOND DU LAC AVENUE

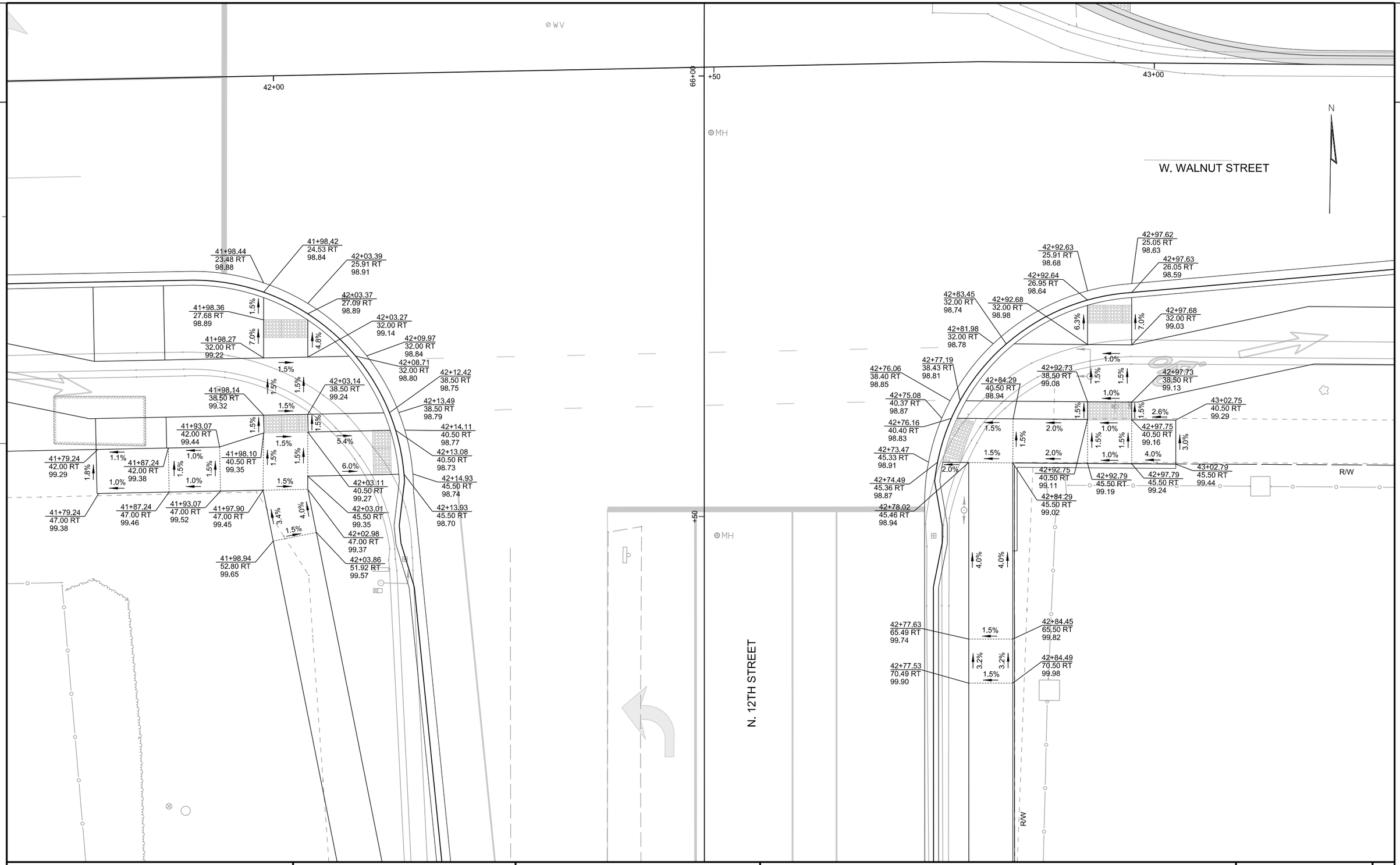
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 51	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021313_cr.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 10.0000 sf / in.



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 52	E

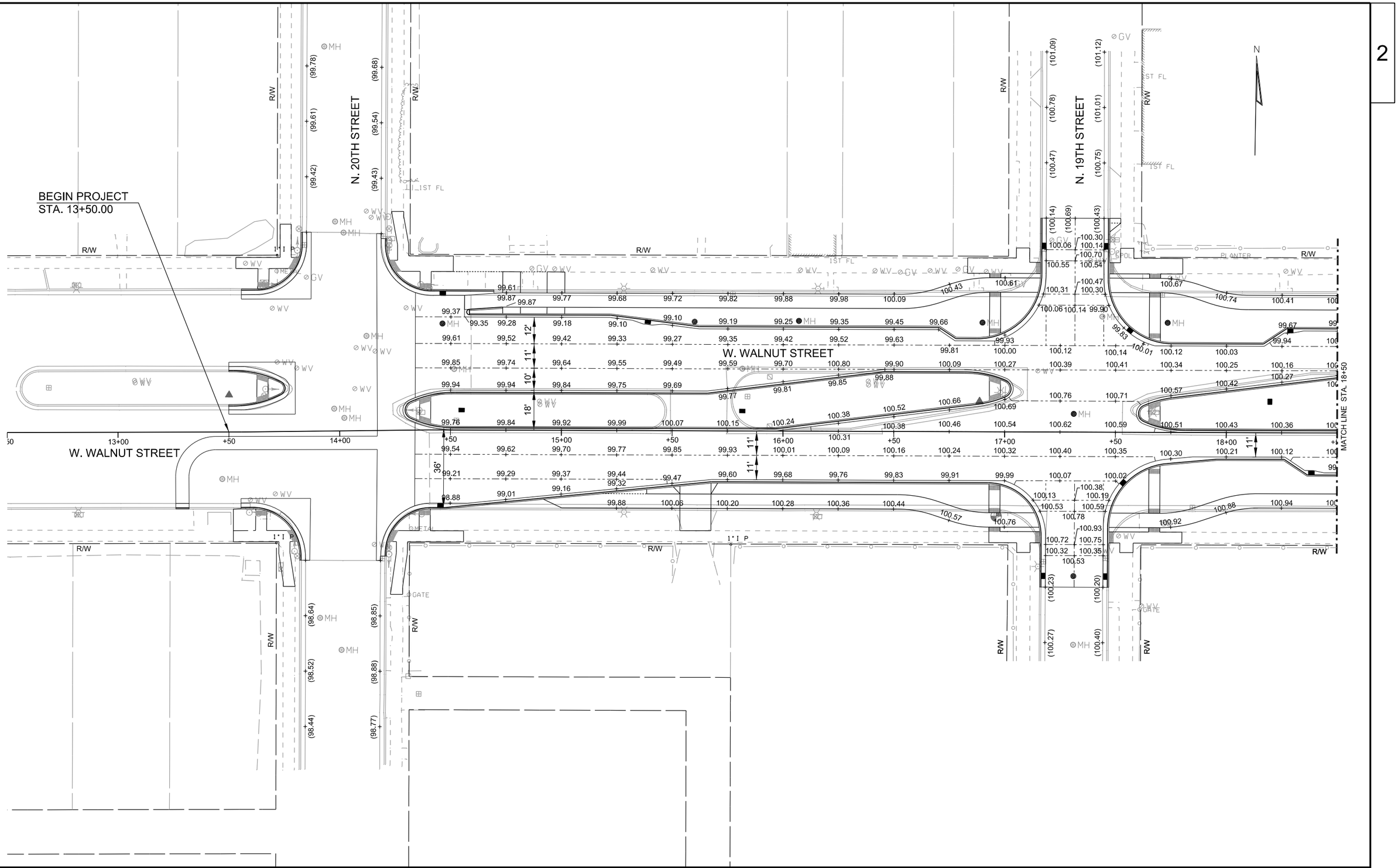
FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021314_cr.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 10.0000 sf / in.



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SHEET 53	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021315_cr.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 10.0000 sf / in.

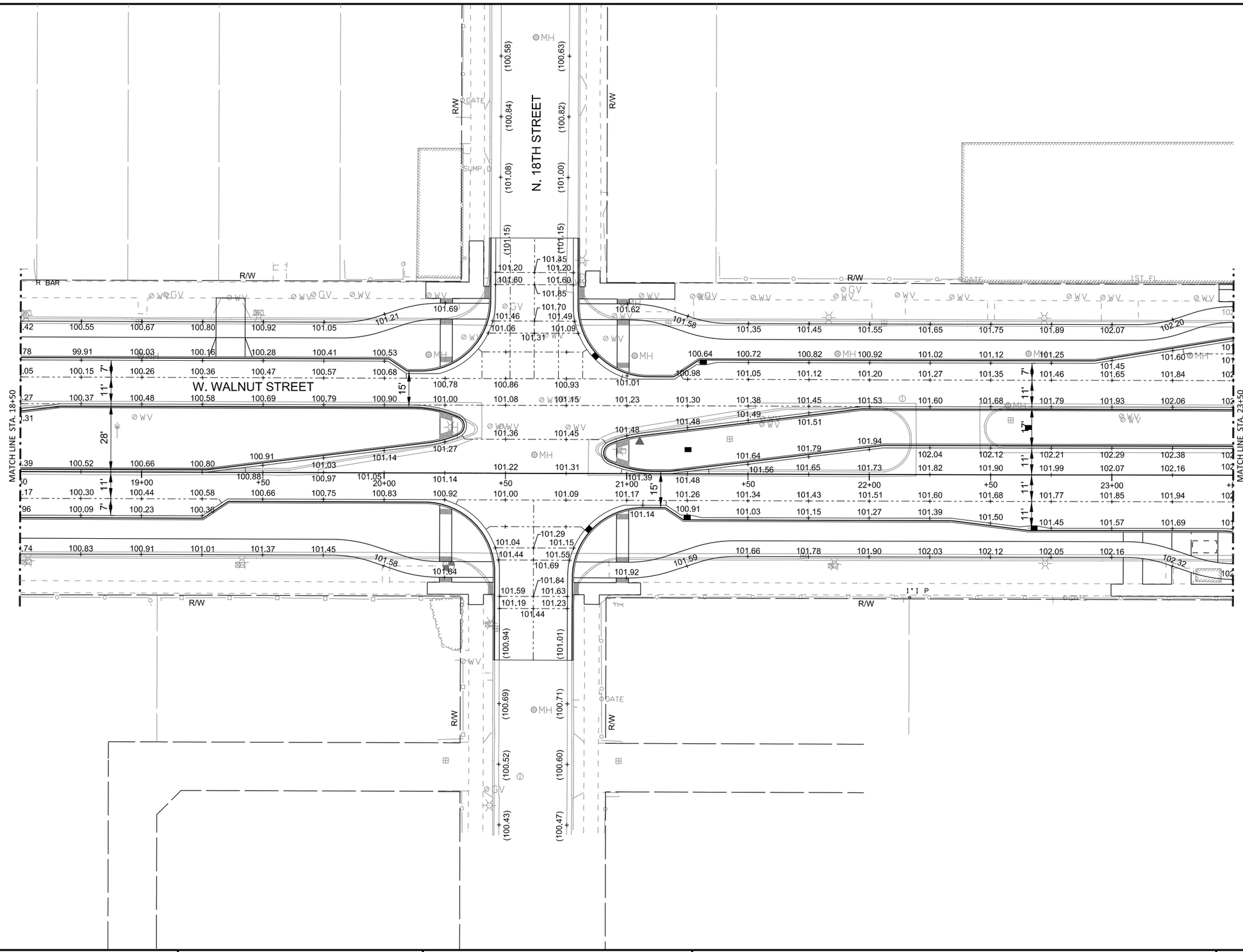
WISDOT/CADDS SHEET 42



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PAVEMENT GRADES & JOINTING	SHEET 54	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021401_jd.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

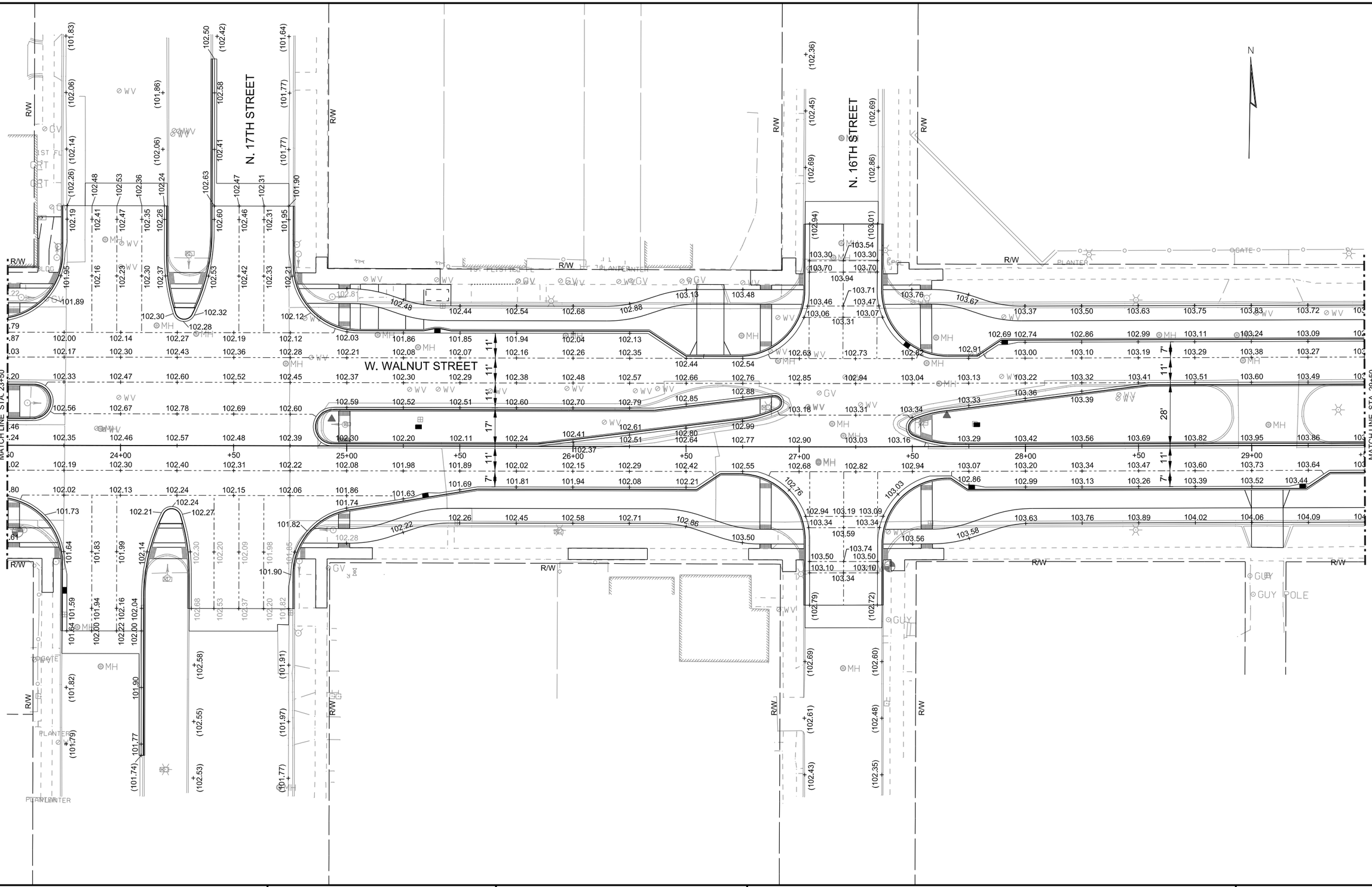
WISDOT/CADDS SHEET 42



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PAVEMENT GRADES & JOINTING	SHEET 55	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021402_jd.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

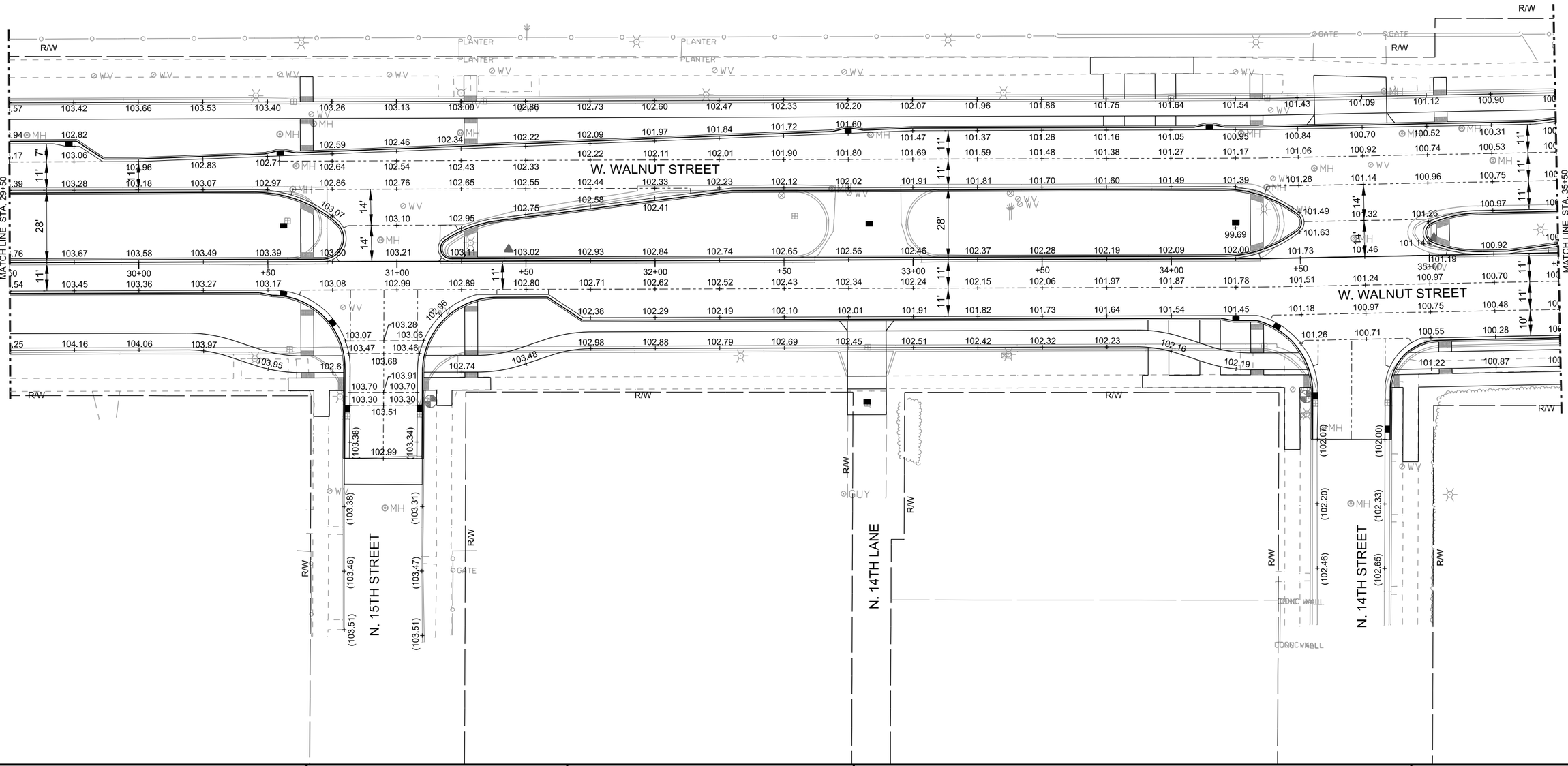
WISDOT/CADDS SHEET 42



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PAVEMENT GRADES & JOINTING	SHEET 56	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021403_jd.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

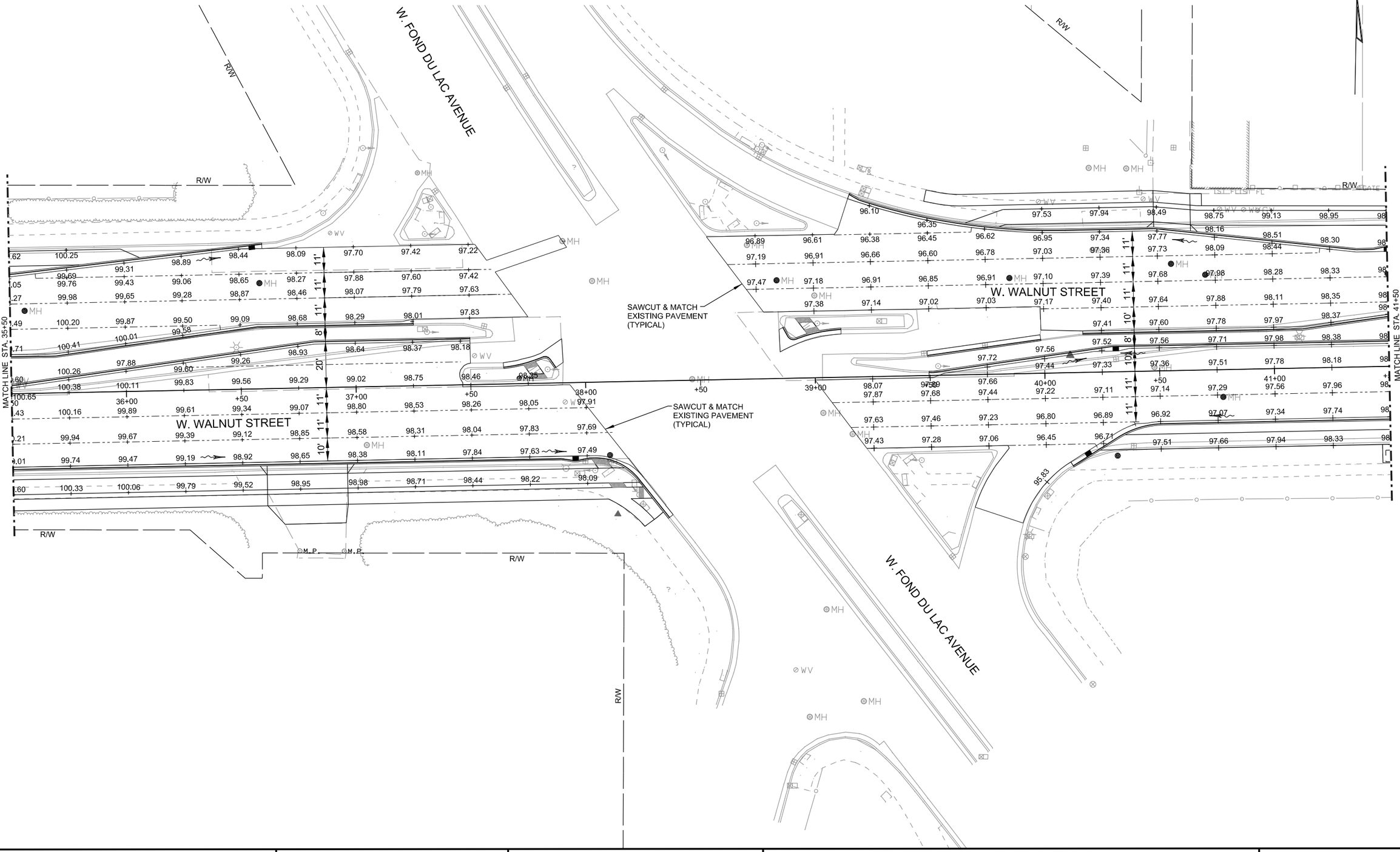
WISDOT/CADDS SHEET 42



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PAVEMENT GRADES & JOINTING	SHEET	E

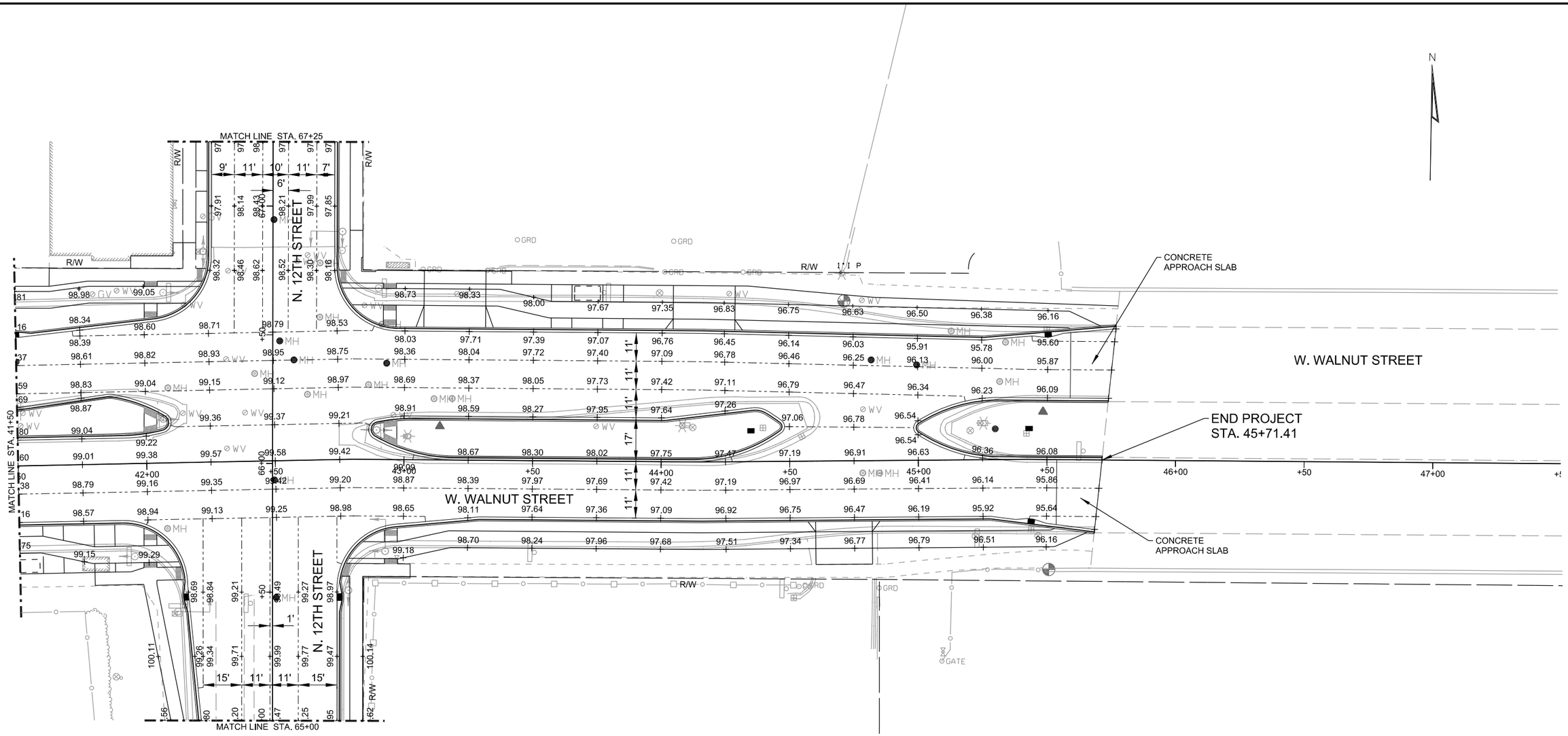
FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021404_jd.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2



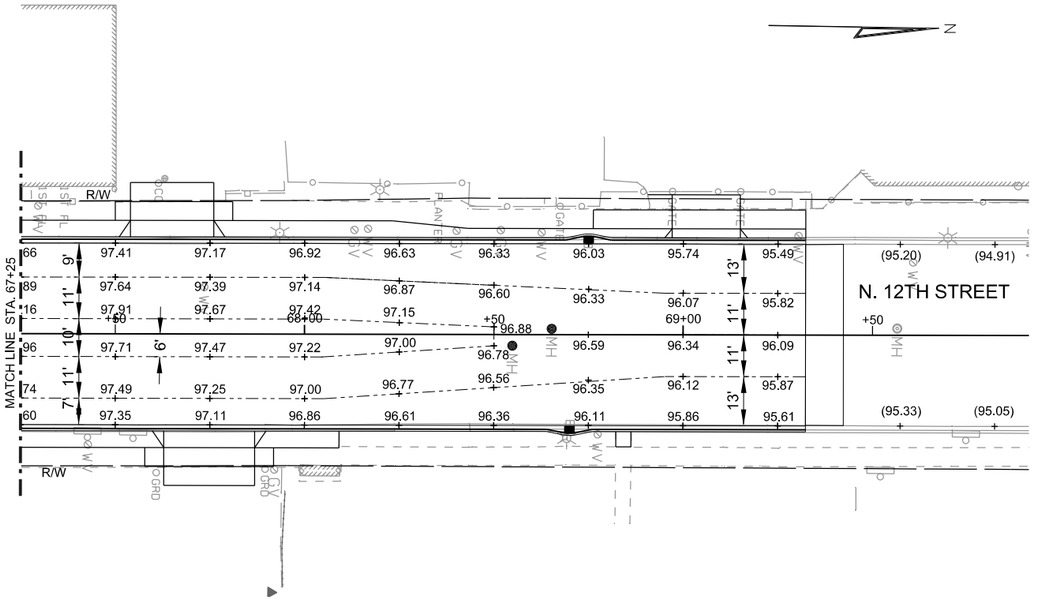
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PAVEMENT GRADES & JOINTING	SHEET 58	E

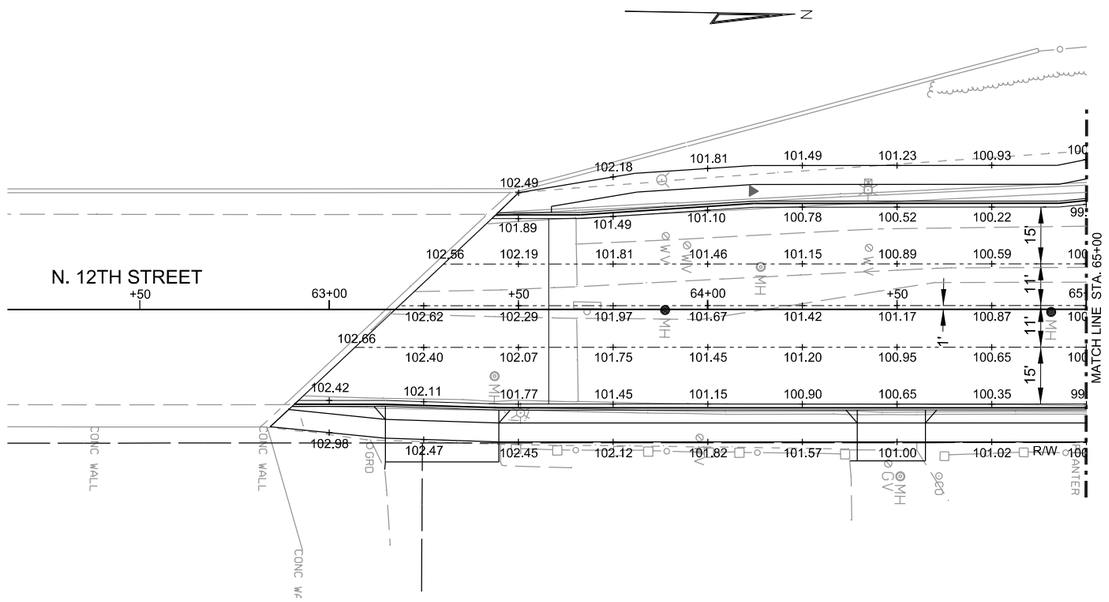
2



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PAVEMENT GRADES & JOINTING	SHEET 59	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021406_jd.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.





PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PAVEMENT GRADES & JOINTING	SHEET 60	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\021407_jd.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

BEGIN PROJECT
STA. 13+50.00

N. 20TH STREET

N. 19TH STREET

W. WALNUT STREET

W. WALNUT STREET

SLOPE INTERCEPT
(TYP)

SLOPE INTERCEPT
(TYP)

MATCH LINE STA. 18+50

R/W

1ST FL

1" I P

GATE

PLANTER

13+00 +50 14+00 +50 15+00 +50 16+00 +50 17+00 +50 18+00 +50

LEGEND

- INLET PROTECTION
- (A) INLET PROTECTION TYPE
- SLOPE INTERCEPT
- SOD LAWN

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 61	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\022001_ec.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

N

PLACE TYPE C INLET PROTECTION AT THE NEXT INLET NORTH OF WALNUT STREET

PLACE TYPE B INLET PROTECTION AT THE NEXT INLET NORTH OF WALNUT STREET

N. 18TH STREET

R/W

SLOPE INTERCEPT (TYP)

W. WALNUT STREET

MATCH LINE STA. 18+50

MATCH LINE STA. 23+50

19+00 +50 20+00 +50 21+00 +50 22+00 +50 23+00

PLACE TYPE C INLET PROTECTION AT THE NEXT INLET SOUTH OF WALNUT STREET

PLACE TYPE B INLET PROTECTION AT THE NEXT INLET SOUTH OF WALNUT STREET

SLOPE INTERCEPT (TYP)

LEGEND

- INLET PROTECTION
- A — INLET PROTECTION TYPE
- SLOPE INTERCEPT
- SOD LAWN

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 62	E

PLACE TYPE B INLET PROTECTION AT THE NEXT INLET NORTH OF WALNUT STREET

PLACE TYPE B INLET PROTECTION AT THE NEXT INLET NORTH OF WALNUT STREET

PLACE TYPE C INLET PROTECTION AT THE NEXT INLET NORTH OF WALNUT STREET

N

N. 16TH STREET

SLOPE INTERCEPT (TYP)

W. WALNUT STREET

MATCH LINE STA. 23+50

MATCH LINE STA. 29+50

24+00 +50 25+00 +50 26+00 +50 27+00 +50 28+00 +50 29+00

W. WALNUT STREET

N. 17TH STREET

SLOPE INTERCEPT (TYP)

PLACE TYPE B INLET PROTECTION AT THE NEXT INLET SOUTH OF WALNUT STREET

PLACE TYPE B INLET PROTECTION AT THE NEXT INLET SOUTH OF WALNUT STREET

LEGEND

- INLET PROTECTION
- A — INLET PROTECTION TYPE
- SLOPE INTERCEPT
- SOD LAWN

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 63	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\022003_ec.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

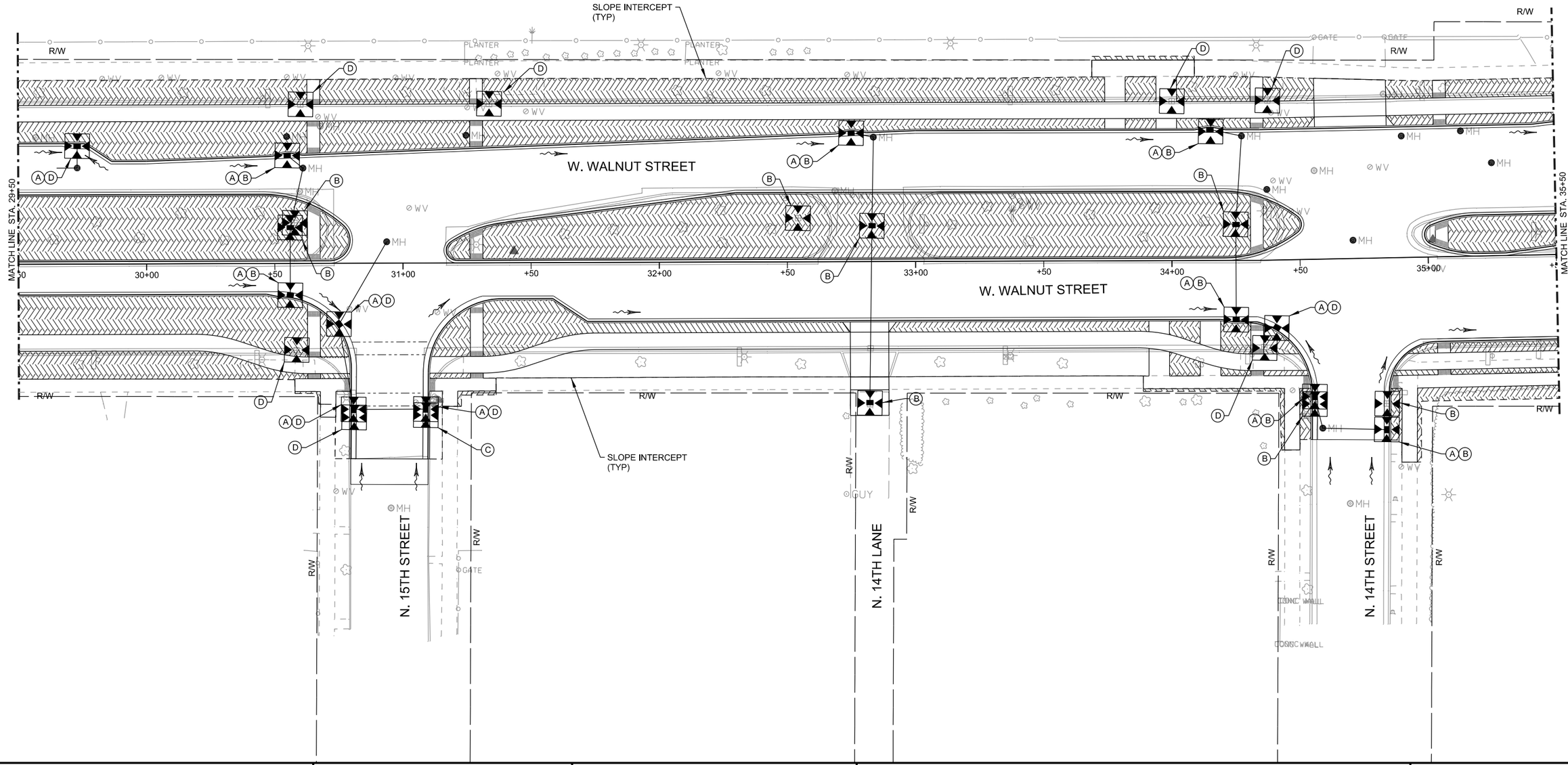
2

2

LEGEND

- INLET PROTECTION
- (A) INLET PROTECTION TYPE
- SLOPE INTERCEPT
- SOD LAWN

N

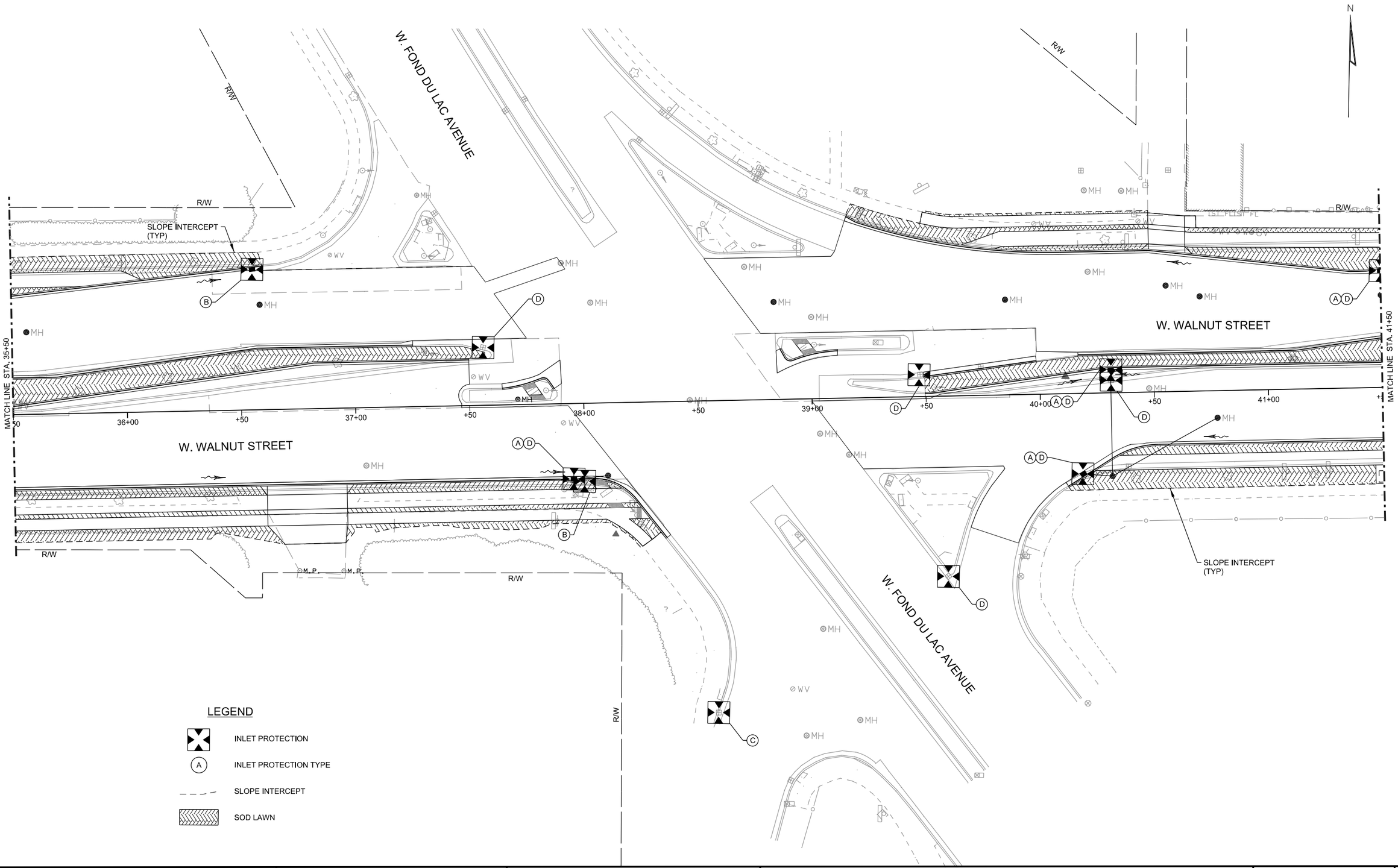


PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 64	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\022004_ec.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

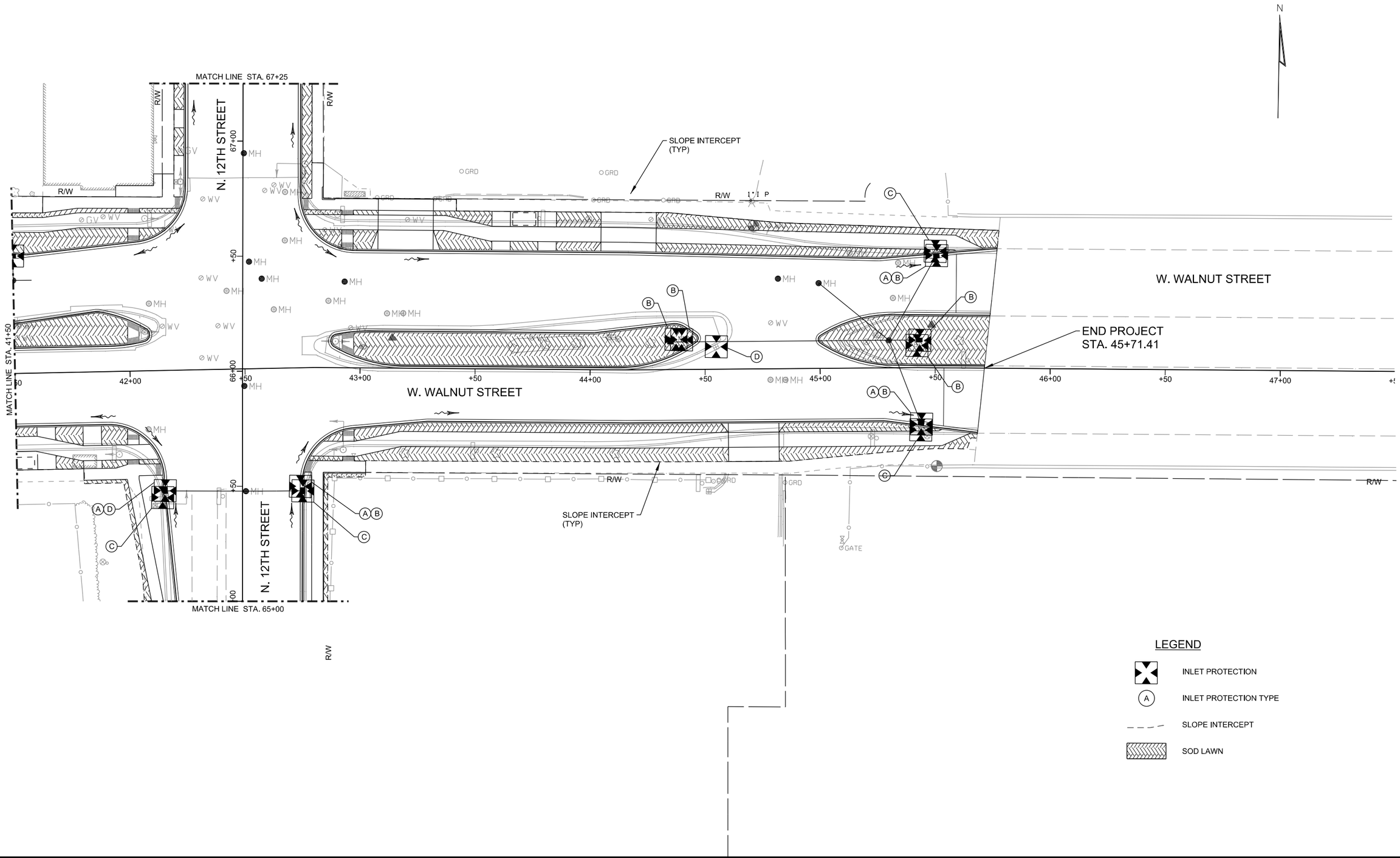
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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 65	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\022005_ec.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2



LEGEND

- INLET PROTECTION
- (A) INLET PROTECTION TYPE
- SLOPE INTERCEPT
- SOD LAWN

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 66	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\022006_ec.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

2

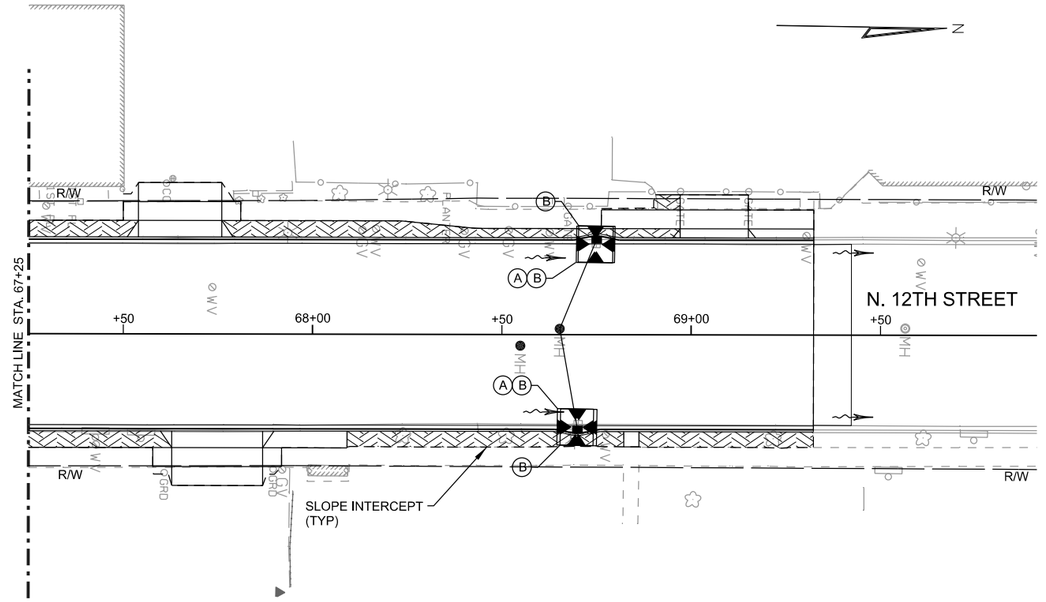
LEGEND

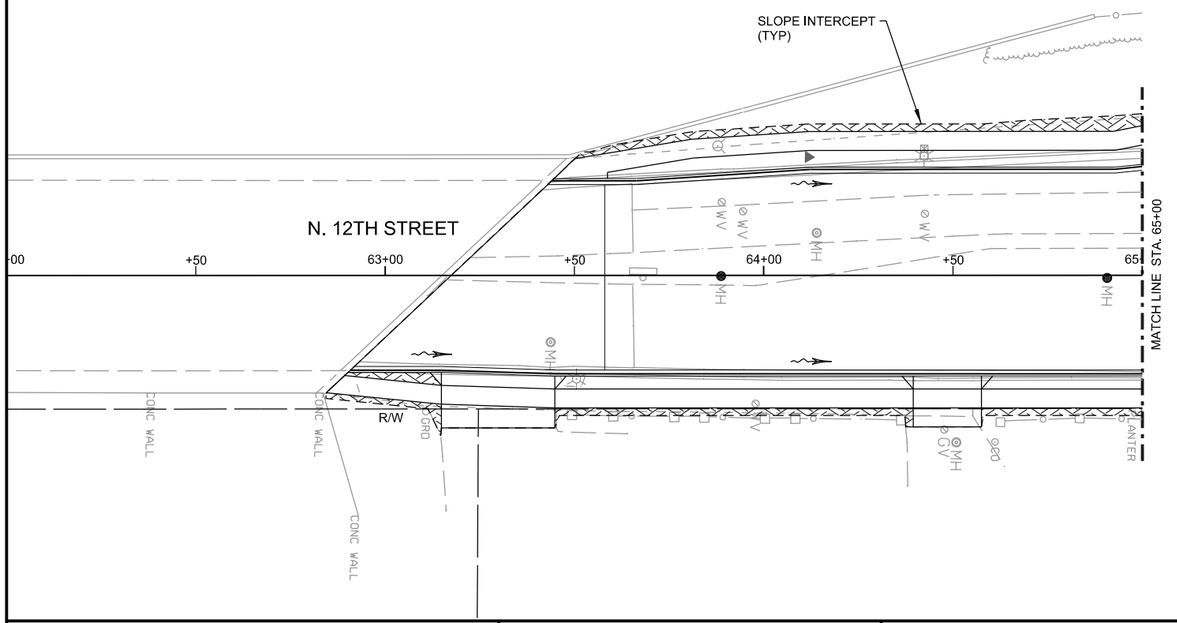
INLET PROTECTION

A INLET PROTECTION TYPE

SLOPE INTERCEPT

SOD LAWN





N

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 67	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\022007_ec.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

BEGIN PROJECT
STA. 13+50.00

N. 20TH STREET

N. 19TH STREET

W. WALNUT STREET

CAUTION

WE ENERGIES GAS

CITY OF MILWAUKEE ELECTRIC

CITY OF MILWAUKEE SEWER

CITY OF MILWAUKEE WATER

CITY OF MILWAUKEE LIGHTING

STA. 14+46.21, 61.87 LT
CATCH BASIN 44A - MS57

STA. 14+55.00, 9.00 LT
CATCH BASIN 44A - MS55

STA. 14+45.55, 34.13 RT
CATCH BASIN 44A - MS57

STA. 15+38.90, 49.00 LT
CATCH BASIN 44B - MS57

STA. 15+60.00, 49.00 LT
MANHOLES 4 FT - MS58A

STA. 15+81.61, 9.00 LT
CATCH BASIN 44B - MS55

STA. 17+17.42, 84.00 LT
CATCH BASIN 44A - MS57

STA. 17+45.67, 84.00 LT
CATCH BASIN 44A - MS57

STA. 17+56.44, 46.04 LT
CATCH BASIN 44A - MS57

STA. 17+53.68, 22.76 RT
CATCH BASIN 44A - MS57

STA. 17+17.51, 65.00 RT
CATCH BASIN 44A - MS57

STA. 17+31.21, 65.00 RT
MANHOLES 4 FT - MS58A

STA. 17+45.76, 65.00 RT
CATCH BASIN 44A - MS57

STA. 18+28.74, 46.12 LT
CATCH BASIN 44B - MS57

STA. 18+19.67, 14.00 LT
CATCH BASIN 44B - MS55

STA. 18+38.26, 18.13 RT
CATCH BASIN 44A - MS57

SPECTRUM COMMUNICATIONS
IN CUC DUCT

CITY OF MILWAUKEE LIGHTING

WE ENERGIES ELECTRIC

WE ENERGIES GAS

MCI

MATCH LINE STA. 18+50

REFER TO REMOVAL PLANS FOR STORM SEWER REMOVALS AND ABANDONMENTS.

LEGEND

P-XX STORM SEWER PIPE NUMBER

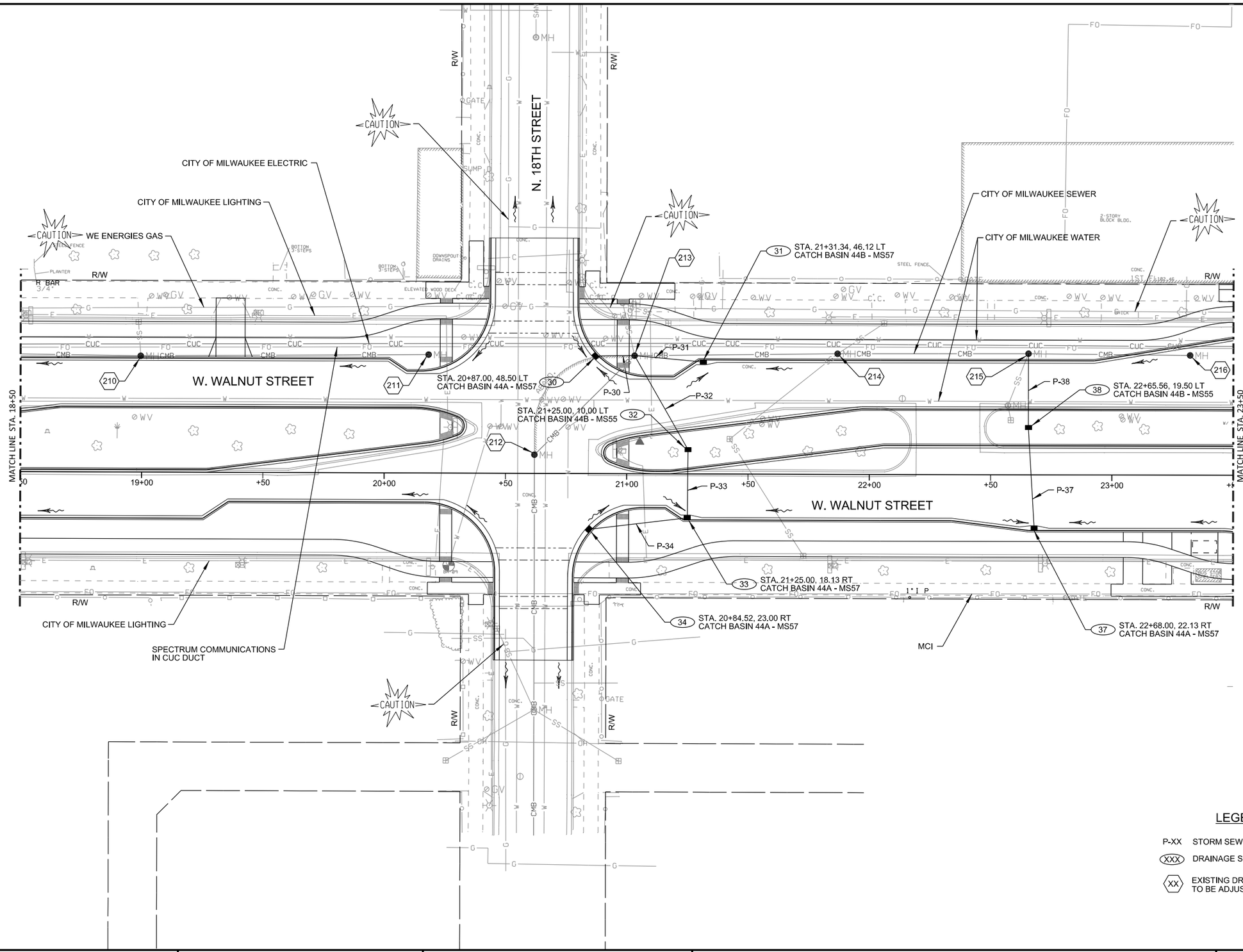
(XXX) DRAINAGE STRUCTURE NUMBER

(XX) EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 68	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\022501_ss.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42



LEGEND

P-XX STORM SEWER PIPE NUMBER

(XXX) DRAINAGE STRUCTURE NUMBER

(XX) EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 69	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\022502_ss.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

N

WE ENERGIES GAS

CAUTION

N. 17TH STREET

N. 16TH STREET

W. WALNUT STREET

CITY OF MILWAUKEE ELECTRIC

CITY OF MILWAUKEE WATER

CITY OF MILWAUKEE SEWER

CITY OF MILWAUKEE LIGHTING

46 STA. 25+40.00, 51.12 LT
CATCH BASIN 44B - MS57

48 STA. 25+31.80, 8.50 LT
CATCH BASIN 44B - MS55

49 STA. 27+47.84, 45.05 LT
CATCH BASIN 44B - MS57

50 STA. 27+90.95, 46.12 LT
CATCH BASIN 44B - MS57

52 STA. 27+78.51, 9.63 LT
CATCH BASIN 44B - MS55

54 STA. 29+07.50, 16.00 RT
MANHOLES 4 FT - MS58A

47 STA. 25+35.00, 21.87 RT
CATCH BASIN 44A - MS57

51 STA. 27+76.08, 18.13 RT
CATCH BASIN 44A - MS57

53 STA. 29+22.58, 18.13 RT
CATCH BASIN 44A - MS57

45 STA. 23+75.30, 64.00 RT
CATCH BASIN 44A - MS57

CONNECT 8" PIPE FROM
SOUTH TO MANHOLE 54

MCI

SPECTRUM COMMUNICATIONS
IN CUC DUCT

P-45 P-46 P-47 P-48 P-49 P-50 P-51 P-52 P-53 P-54

MATCH LINE STA. 23+50

MATCH LINE STA. 29+50

LEGEND

P-XX STORM SEWER PIPE NUMBER

(XXX) DRAINAGE STRUCTURE NUMBER

(XX) EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 70	E

FILE NAME : X:\IML\2019\20190270\Design\Transportation\SheetsPlan\022503_ss.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.1208 sf / in.

2

LEGEND

P-XX STORM SEWER PIPE NUMBER

(XXX) DRAINAGE STRUCTURE NUMBER

(XX) EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED

N

CITY OF MILWAUKEE WATER

CAUTION

WE ENERGIES GAS

CITY OF MILWAUKEE SEWER

CITY OF MILWAUKEE ELECTRIC

CITY OF MILWAUKEE SEWER

WE ENERGIES ELECTRIC

CITY OF MILWAUKEE LIGHTING

60 STA. 29+73.00, 46.12 LT
CATCH BASIN 44B - MS57

61 STA. 29+73.00, 37.50 LT
MANHOLES 4 FT - MS58A

STA. 32+75.00, 50.21 LT
CATCH BASIN 44A - MS57 (68)

STA. 34+15.00, 51.13 LT
CATCH BASIN 44A - MS57 (71)

MATCH LINE STA. 29+50

MATCH LINE STA. 35+50

W. WALNUT STREET

W. WALNUT STREET

STA. 30+55.00, 42.14 LT
CATCH BASIN 44A - MS57 (62)

STA. 30+56.00,14.00 LT
CATCH BASIN 44A - MS55 (64)

STA. 32+83.00, 14.00 LT
CATCH BASIN 44B - MS55 (70)

STA. 34+25.00, 14.00 LT
CATCH BASIN 44A - MS55 (74)

STA. 30+56.00, 12.44 RT
CATCH BASIN 44A - MS57 (63)

STA. 30+75.00, 23.88 RT
CATCH BASIN 44A - MS57 (67)

STA. 30+80.51, 57.00 RT
CATCH BASIN 44A - MS57 (66)

STA. 31+08.76, 57.00 RT
CATCH BASIN 44A - MS57 (65)

SPECTRUM COMMUNICATIONS
IN CUC DUCT

CITY OF MILWAUKEE LIGHTING

STA. 32+82.00, 55.00 RT
CATCH BASIN 44A - MS55 (69)

EVERSTREAM

MCI

STA. 34+25.00, 23.13 RT
CATCH BASIN 44A - MS57 (73)

STA. 34+40.46, 26.39 RT
CATCH BASIN 44A - MS57 (72)

STA. 34+54.66, 53.56 RT
CATCH BASIN 44A - MS57 (76)

STA. 34+82.59, 67.00 RT
CATCH BASIN 44A - MS57 (75)

N. 15TH STREET

N. 14TH LANE

N. 14TH STREET

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 71	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\022504_ss.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

N

CAUTION
WE ENERGIES GAS
CITY OF MILWAUKEE WATER
AT&T WISCONSIN
CITY OF MILWAUKEE SEWER
CITY OF MILWAUKEE ELECTRIC
ATC
CITY OF MILWAUKEE LIGHTING
CITY OF MILWAUKEE SEWER
W. FOND DU LAC AVENUE
R/W
W. WALNUT STREET
MATCH LINE STA. 35+50
MATCH LINE STA. 41+50
260
261
262
263
264
265
266
267
268
STA. 37+95.00, 33.12 RT
CATCH BASIN 44A - MS57
80
P-80
81
STA. 38+10.00, 31.90 RT
MANOLES 4 FT - MS58A
STA. 40+31.00, 10.13' LT
CATCH BASIN 44A - MS57
82
P-82
P-83
P-84
84
STA. 40+31.00, 36.50 RT
MANOLES 5 FT - MS58A
83
STA. 40+18.42, 35.36' RT
CATCH BASIN 44A - MS57
SPECTRUM COMMUNICATIONS
IN CUC DUCT
CITY OF MILWAUKEE WATER
WE ENERGIES ELECTRIC
MCI
EVERSTREAM
STREET LIGHTING
OVERHEAD SIGN
STAMPED CONC.

LEGEND

P-XX STORM SEWER PIPE NUMBER

(XXX) DRAINAGE STRUCTURE NUMBER

(XX) EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 72	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\022505_ss.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

N

MATCH LINE STA. 67+25

CAUTION

WE ENERGIES GAS

CITY OF MILWAUKEE ELECTRIC

WE ENERGIES ELECTRIC

CITY OF MILWAUKEE LIGHTING

CITY OF MILWAUKEE ELECTRIC

CITY OF MILWAUKEE SEWER

CITY OF MILWAUKEE WATER

AT&T WISCONSIN

SPECTRUM COMMUNICATIONS

ATC

R/W

N. 12TH STREET

STA. 41+50.00, 51.13 LT
CATCH BASIN 44A - MS57

P-85

P-86

STA. 41+50.00, 40.00 LT
MANHOLES 5 FT - MS58A

MATCH LINE STA. 41+50

STA. 44+35.00, 12.00 LT
CATCH BASIN 44B - MS55

W. WALNUT STREET

P-89

P-92

P-93

P-90

STA. 45+50.00, 48.69 LT
CATCH BASIN 44A - MS57

END PROJECT
STA. 45+71.41

STA. 45+43.00, 12.00 LT
CATCH BASIN 44B - MS55

STA. 45+30.00, 12.00 LT
MANHOLES 5 FT - MS58A

P-91

STA. 45+44.00, 24.20 RT
CATCH BASIN 44A - MS57

MCI

STA. 42+14.23, 52.33 RT
CATCH BASIN 44A - MS57

P-87

P-88

STA. 42+74.00, 53.50 RT
CATCH BASIN 44A - MS57

SPECTRUM COMMUNICATIONS
IN CUC DUCT

WE ENERGIES ELECTRIC

MIDWEST FIBER NETWORK

CITY OF MILWAUKEE ELECTRIC

WE ENERGIES GAS

MATCH LINE STA. 65+00

LEGEND

P-XX STORM SEWER PIPE NUMBER

(XXX) DRAINAGE STRUCTURE NUMBER

(XX) EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 73	E

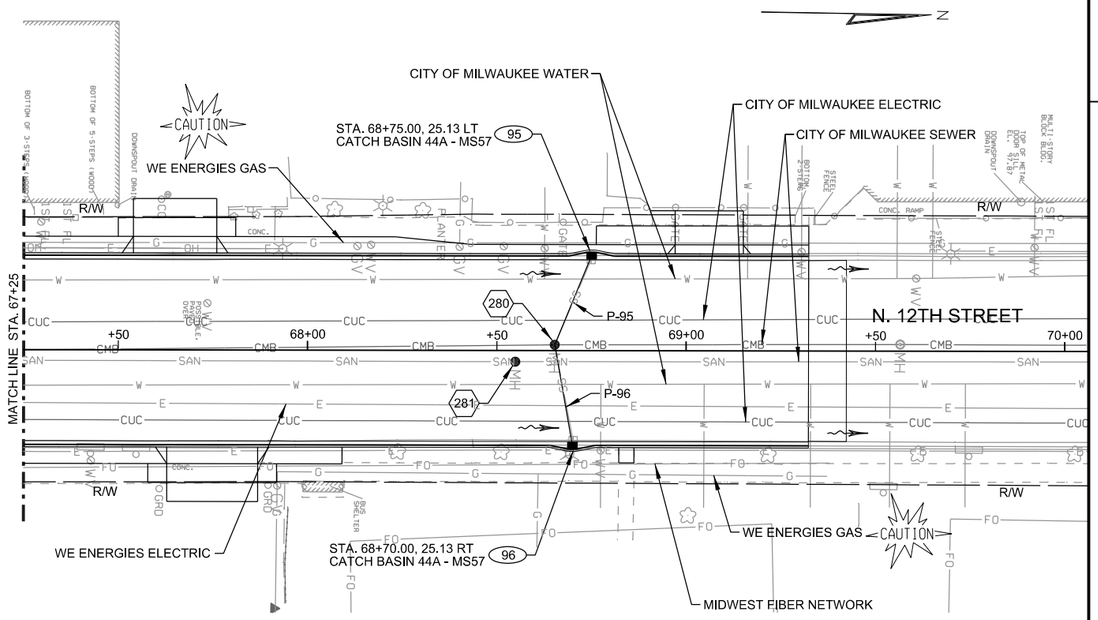
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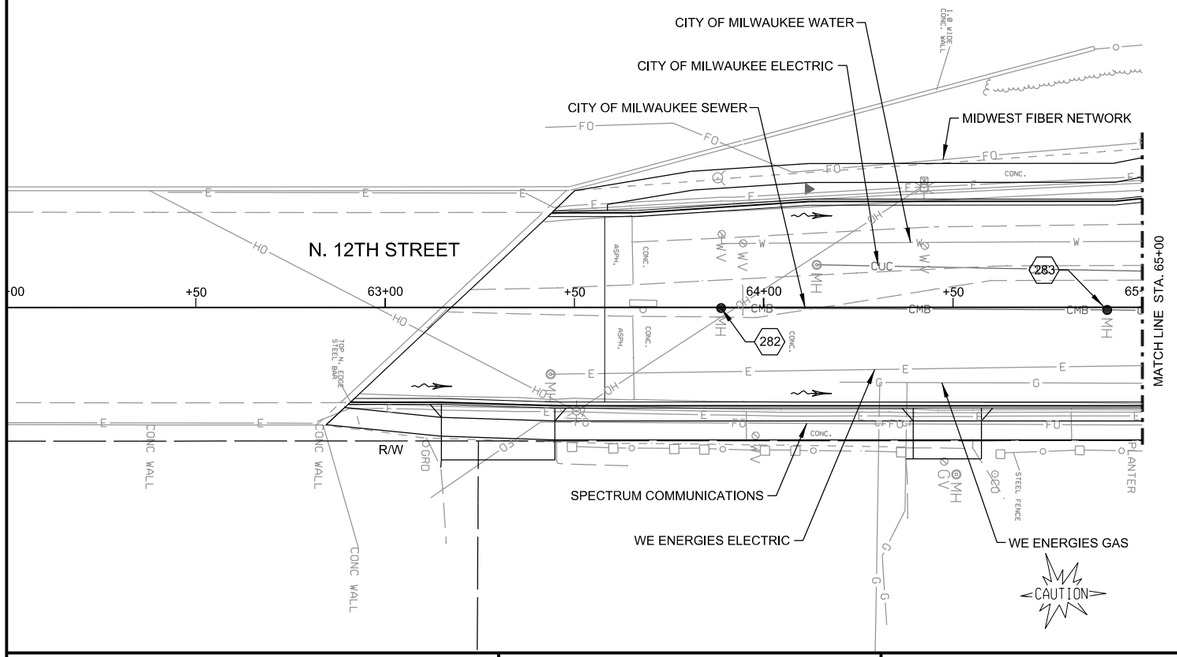
LEGEND

P-XX STORM SEWER PIPE NUMBER

XXX DRAINAGE STRUCTURE NUMBER

XX EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED

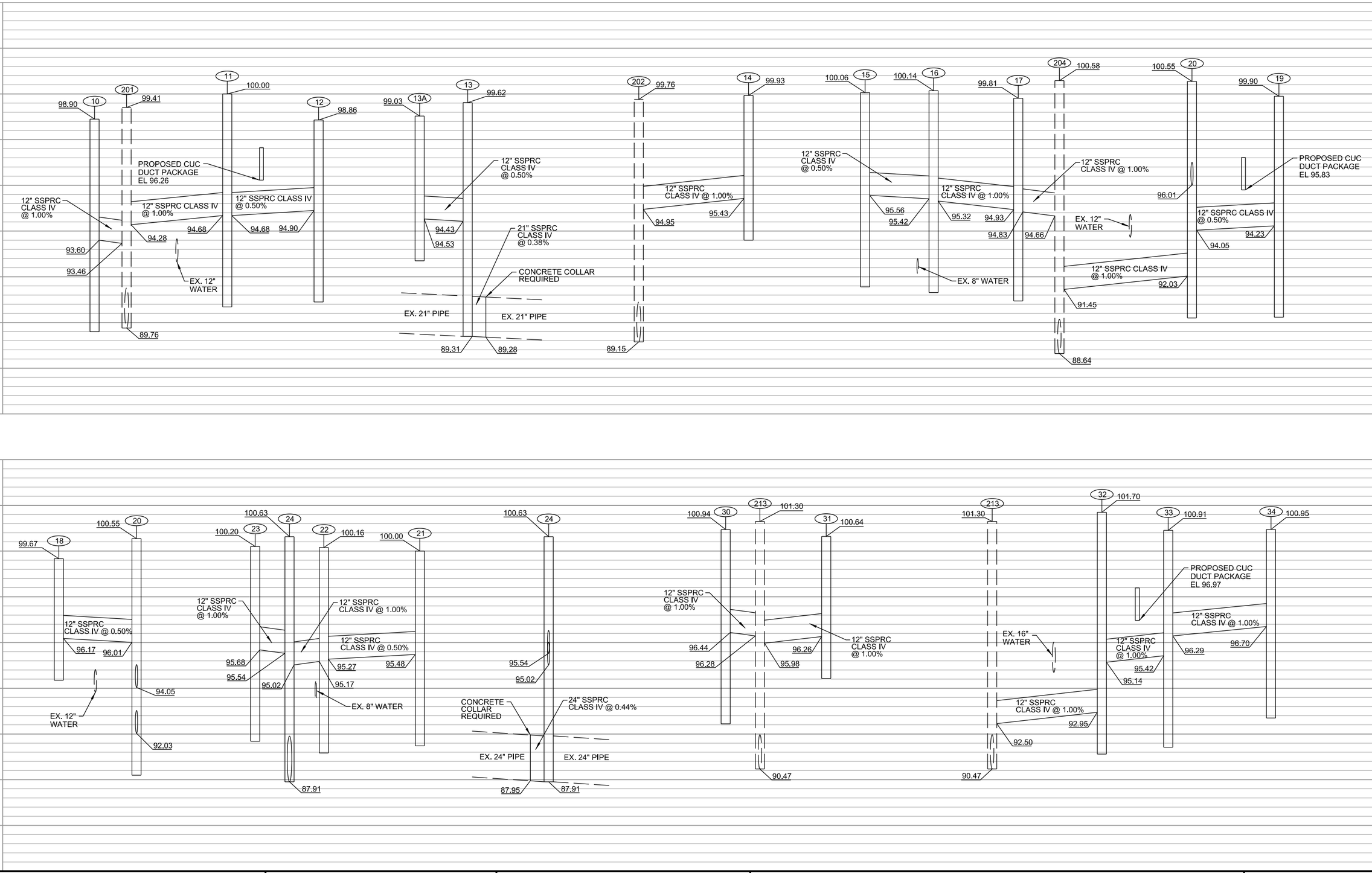




PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 74	E

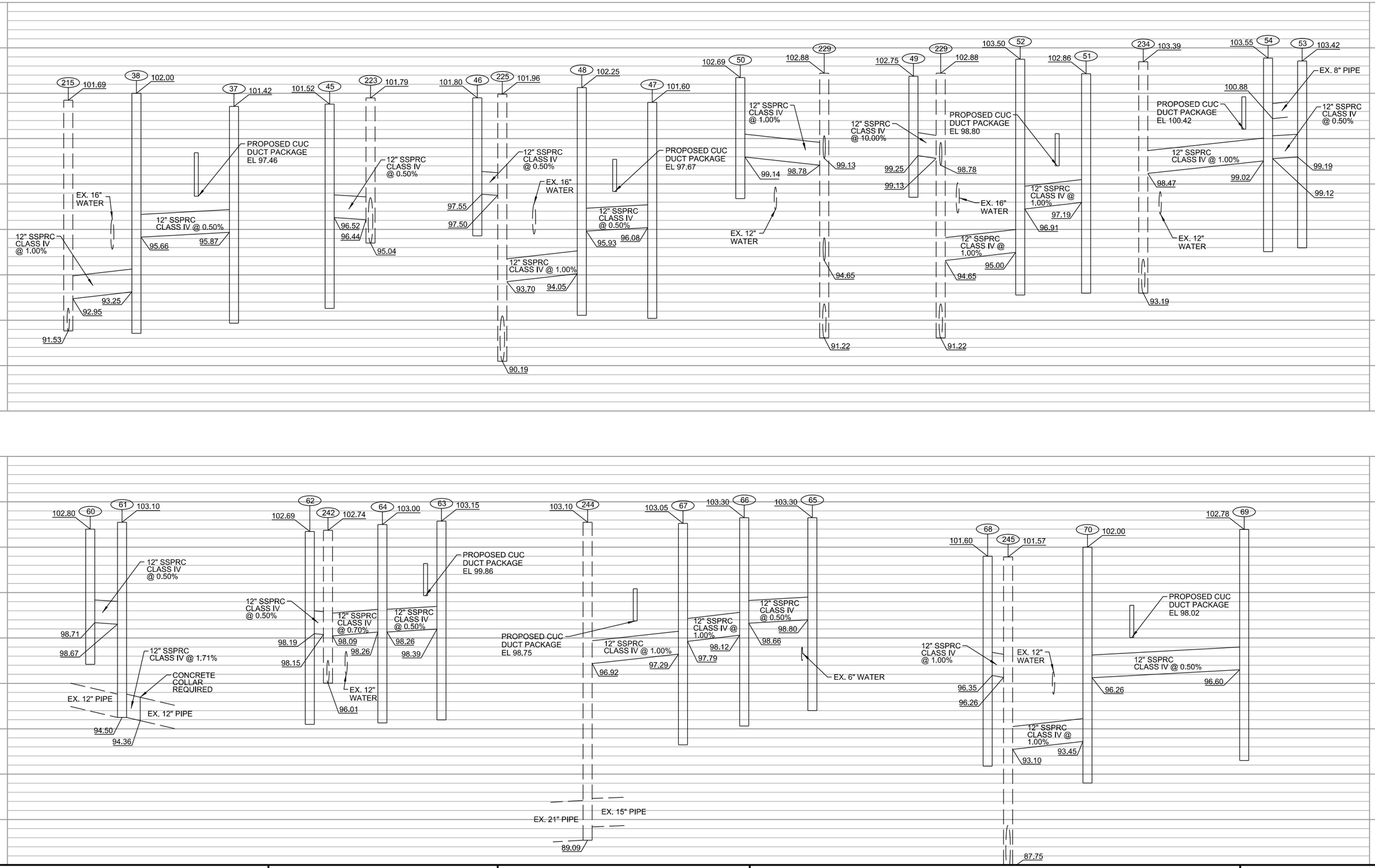
FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\022507_ss.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

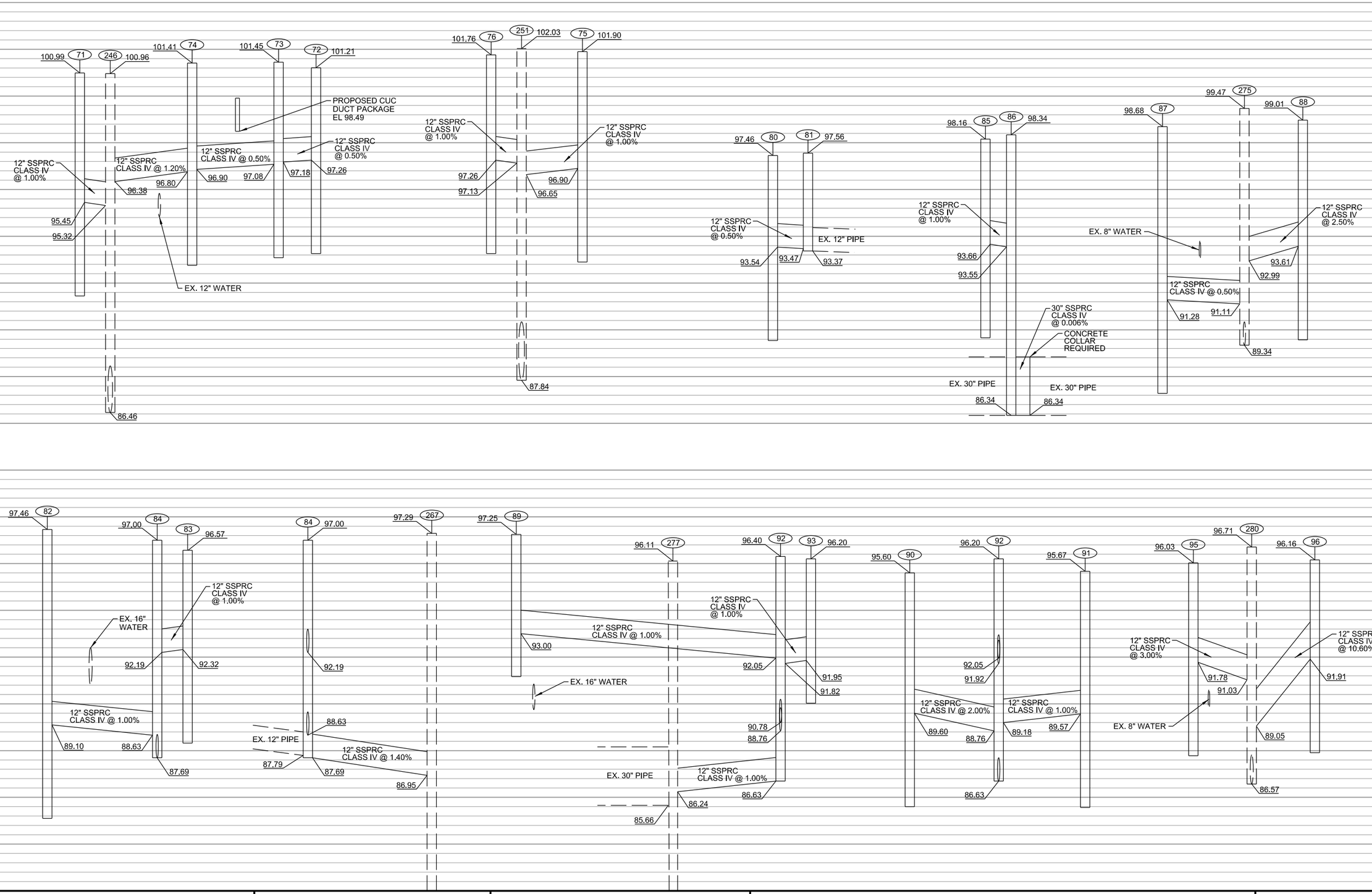


PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	STORM SEWER PROFILES	SHEET 75	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\022508_ss_profiles.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	STORM SEWER PROFILES	SHEET 76	E



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	STORM SEWER PROFILES	SHEET 77	E

STRUCT. NO.	STATION	OFFSET	PIPE NO.	C-C (FT)	TO STRUCT.	CB TYPE & COVER		MH TYPE & COVER		RIM/GRATE ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	INLET ELEV.	DISCH. ELEV.	LENGTH (FT)	SLOPE (%)	PIPE CLASS	REMARKS
10	14+46.21	61.87' LT	P-10	14	201	44A	MS57	--	--	98.90	5.30	12	93.60	93.46	14.00	1.00	IV	
11	14+55.00	9.00' LT	P-11	40	201	44A	MS55	--	--	100.00	5.32	12	94.68	94.28	40.00	1.00	IV	
12	14+45.55	34.13' RT	P-12	44	11	44A	MS57	--	--	98.86	3.96	12	94.90	94.68	44.00	0.50	IV	
13	15+60.00	49.00' LT	P-13	8	202	--	--	4 FT	MS58A	99.62	10.31	21	89.31	89.28	8.00	0.38	IV	CONCRETE COLLAR REQUIRED
13A	15+38.90	49.00' LT	P-13A	21	13	44B	MS57	--	--	99.03	4.50	12	94.53	94.43	21.00	0.50	IV	
14	15+81.61	9.00' LT	P-14	48	202	44B	MS55	--	--	99.93	4.50	12	95.43	94.95	48.00	1.00	IV	
15	17+17.42	84.00' LT	P-15	28	16	44A	MS57	--	--	100.06	4.50	12	95.56	95.42	28.00	0.50	IV	
16	17+45.67	84.00' LT	P-16	39	17	44A	MS57	--	--	100.14	4.82	12	95.32	94.93	39.00	1.00	IV	
17	17+54.44	17+54.44	P-17	17	204	44A	MS57	--	--	99.81	4.98	12	94.83	94.66	17.00	1.00	IV	
18	18+28.74	46.12' LT	P-18	33	20	44B	MS57	--	--	99.67	3.50	12	96.17	96.01	33.00	0.50	IV	
19	18+38.26	18.13' RT	P-19	37	20	44A	MS57	--	--	99.90	5.67	12	94.23	94.05	37.00	0.50	IV	
20	18+19.67	14.00' LT	P-20	58	204	44B	MS55	--	--	100.55	8.52	12	92.03	91.45	58.00	1.00	IV	
21	17+53.68	22.76' RT	P-21	43	22	44A	MS57	--	--	100.00	4.52	12	95.48	95.27	43.00	0.50	IV	
22	17+45.76	65.00' RT	P-22	15	24	44A	MS57	--	--	100.16	4.99	12	95.17	95.02	15.00	1.00	IV	
23	17+17.51	65.00' RT	P-23	14	24	44A	MS57	--	--	100.20	4.52	12	95.68	95.54	14.00	1.00	IV	
205	--	--	P-24	8	24	--	--	--	--	--	--	24	87.95	87.91	8.00	0.44	IV	CONCRETE COLLAR REQUIRED
24	17+31.22	65.00' RT	--	--	--	--	--	4 FT	MS58A	100.63	12.72	24	87.91	--	--	--	--	
30	20+87.00	48.50' LT	P-30	16	213	44A	MS57	--	--	100.94	4.50	12	96.44	96.28	16.00	1.00	IV	
31	21+31.34	46.12' LT	P-31	28	213	44B	MS57	--	--	100.64	4.38	12	96.26	95.98	28.00	1.00	IV	
32	21+25.00	10.00' LT	P-32	45	31	44B	MS55	--	--	101.70	8.75	12	92.95	92.50	45.00	1.00	IV	
33	21+25.00	18.13' RT	P-33	28	33	44A	MS57	--	--	100.91	5.49	12	95.42	95.14	28.00	1.00	IV	
34	20+84.52	23.00' RT	P-34	41	34	44A	MS57	--	--	100.95	4.25	12	96.70	96.29	41.00	1.00	IV	
37	22+68.00	22.13' RT	P-37	42	38	44A	MS57	--	--	101.42	5.55	12	95.87	95.66	42.00	0.50	IV	
38	22+65.56	19.50' LT	P-38	30	215	44B	MS55	--	--	102.00	8.75	12	93.25	92.95	30.00	1.00	IV	
45	23+75.30	64.00' RT	P-45	17	223	44A	MS57	--	--	101.52	5.00	12	96.52	96.44	17.00	0.50	IV	
46	25+40.00	51.12' LT	P-46	11	225	44B	MS57	--	--	101.80	4.25	12	97.55	97.50	11.00	0.50	IV	
47	25+35.00	21.87' RT	P-47	31	48	44A	MS57	--	--	101.60	5.52	12	96.08	95.93	31.00	0.50	IV	
48	25+31.80	8.50' LT	P-48	35	225	44B	MS55	--	--	102.25	8.20	12	94.05	93.70	35.00	1.00	IV	
49	27+47.84	45.05' LT	P-49	12	229	44B	MS57	--	--	102.75	3.50	12	99.25	99.13	12.00	1.00	IV	
50	27+90.95	46.12' LT	P-50	36	229	44B	MS57	--	--	102.69	3.55	12	99.14	98.78	36.00	1.00	IV	
51	27+76.08	18.13' RT	P-51	28	52	44A	MS57	--	--	102.86	5.67	12	97.19	96.91	28.00	1.00	IV	
52	27+78.51	9.63' LT	P-52	35	229	44B	MS55	--	--	103.50	8.50	12	95.00	94.65	35.00	1.00	IV	
53	29+22.58	18.13' RT	P-53	15	54	44A	MS57	--	--	103.42	4.23	12	99.19	99.12	15.00	0.50	IV	
54	29+07.50	16.00' RT	P-54	55	234	--	--	4 FT	MS58A	103.55	4.53	12	99.02	98.47	55.00	1.00	IV	
60	29+73.00	46.12' LT	P-60	9	61	44B	MS57	--	--	102.80	4.25	12	98.55	98.51	9.00	0.50	IV	
61	29+73.00	37.50' LT	P-61	8	234	--	--	4 FT	MS58A	103.10	8.60	12	94.50	94.36	8.00	1.71	IV	CONCRETE COLLAR REQUIRED
62	30+55.00	42.14' LT	P-62	8	242	44A	MS57	--	--	102.69	4.50	12	98.19	98.15	8.00	0.50	IV	
63	30+56.00	12.44' RT	P-63	26	64	44A	MS57	--	--	103.15	4.76	12	98.39	98.26	26.00	0.50	IV	
64	30+56.00	14.00' LT	P-64	24	242	44A	MS55	--	--	103.00	4.74	12	98.26	98.09	24.00	0.70	IV	
65	31+08.76	57.00' RT	P-65	28	66	44A	MS57	--	--	103.30	4.50	12	98.80	98.66	28.00	0.50	IV	
66	30+80.51	57.00' RT	P-66	33	67	44A	MS57	--	--	103.30	5.18	12	98.12	97.79	33.00	1.00	IV	
67	30+75.00	23.88' RT	P-67	37	244	44A	MS57	--	--	102.97	5.68	12	97.29	96.92	37.00	1.00	IV	
68	32+75.00	50.21' LT	P-68	9	245	44A	MS57	--	--	101.60	5.25	12	96.35	96.26	9.00	1.00	IV	
69	32+82.00	55.00' RT	P-69	69	70	44A	MS55	--	--	102.78	6.18	12	96.60	96.26	69.00	0.50	IV	
70	32+83.00	14.00' LT	P-70	35	245	44B	MS55	--	--	102.00	8.55	12	93.45	93.10	35.00	1.00	IV	

STRUCT. NO.	STATION	OFFSET	PIPE NO.	C-C (FT)	TO STRUCT.	CB TYPE & COVER		MH TYPE & COVER		RIM/GRATE ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	INLET ELEV.	DISCH. ELEV.	LENGTH (FT)	SLOPE (%)	PIPE CLASS	REMARKS
71	34+15.00	51.13' LT	P-71	13	246	44A	MS57	--	--	100.99	5.54	12	95.45	95.32	13.00	1.00	IV	
72	34+40.46	26.39' RT	P-72	16	73	44A	MS57	--	--	101.21	3.95	12	97.26	97.18	16.00	0.50	IV	
73	34+25.00	23.13' RT	P-73	37	74	44A	MS57	--	--	101.45	4.37	12	97.08	96.90	37.00	0.50	IV	
74	34+25.00	14.00' LT	P-74	35	246	44A	MS55	--	--	101.41	4.61	12	96.80	96.38	35.00	1.20	IV	
75	34+82.59	67.00' RT	P-75	25	251	44A	MS57	--	--	101.90	5.00	12	96.90	96.65	25.00	1.00	IV	
76	34+54.66	53.56' RT	P-76	13	251	44A	MS57	--	--	101.76	4.50	12	97.26	97.13	13.00	1.00	IV	
80	37+95.00	33.12' RT	P-80	15	81	44A	MS57	--	--	97.46	3.92	12	93.54	93.47	15.00	0.50	IV	
81	38+10.00	31.90' RT	--	--	--	--	--	4 FT	MS58A	97.56	4.19	12	93.37	--	--	--	--	
82	40+31.00	10.13' LT	P-82	47	84	44A	MS57	--	--	97.46	8.36	12	89.10	88.63	47.00	1.00	IV	
83	40+18.42	35.36' RT	P-83	13	84	44A	MS57	--	--	96.57	4.25	12	92.32	92.19	13.00	1.00	IV	
84	40+31.00	36.50' RT	P-84	53	267	--	--	5 FT	MS58A	97.00	9.31	12	87.69	86.95	53.00	1.40	IV	
85	41+50.00	51.13' LT	P-85	11	86	44A	MS57	--	--	98.16	4.50	12	93.66	93.55	11.00	1.00	IV	
86	41+50.00	40.00' LT	P-86	8	273	--	--	4 FT	MS58A	98.34	12.00	30	86.34	86.34	8.00	0.05	IV	CONCRETE COLLAR REQUIRED
87	42+14.23	52.33' RT	P-87	35	275	44A	MS57	--	--	98.68	7.40	12	91.28	91.11	35.00	0.50	IV	
88	42+74.00	53.50' RT	P-88	25	275	44A	MS57	--	--	99.01	5.40	12	93.61	92.99	25.00	2.50	IV	
89	44+37.15	13.10' LT	P-89	108	92	44B	MS55	--	--	97.25	4.25	12	93.00	91.92	108.00	1.00	IV	
90	45+50.00	48.69' LT	P-90	42	92	44A	MS57	--	--	95.60	6.00	12	89.60	88.76	42.00	2.00	IV	
91	45+44.00	24.20' RT	P-91	39	92	44A	MS57	--	--	95.67	6.10	12	89.57	89.18	39.00	1.00	IV	
92	45+30.00	12.00' LT	P-92	39	277	--	--	5 FT	MS58A	96.40	9.77	12	86.63	86.24	39.00	1.00	IV	
93	45+43.00	12.00' LT	P-93	13	92	44B	MS55	--	--	96.20	4.25	12	91.95	91.82	13.00	1.00	IV	
95	68+75.00	25.13' LT	P-95	25	280	44A	MS57	--	--	96.03	4.25	12	91.78	91.03	25.00	3.00	IV	
96	68+70.00	25.13' RT	P-96	27	280	44A	MS57	--	--	96.16	4.25	12	91.91	89.05	27.00	10.60	IV	

STORM SEWER NOTES:

1. STATION / OFFSETS TO MANHOLES ARE GIVEN TO THE CENTER OF STRUCTURE.
2. STATION / OFFSETS TO CATCH BASINS ARE GIVEN TO THE CENTER OF STRUCTURE.
3. MANHOLE RIM/GRATE ELEVATIONS ARE GIVEN TO THE CENTER OF THE STRUCTURE.
4. CATCH BASIN RIM/GRATE ELEVATIONS ARE GIVEN TO THE FLANGE LINE.
5. DEPTH OF MANHOLES AND CATCH BASINS ARE MEASURED FROM THE LOWEST INVERT OF THE STRUCTURE TO THE RIM/GRATE ELEVATION.
6. PIPE LENGTHS FOR STRUCTURES ARE SHOWN FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
7. CONTRACTOR SHALL VERIFY DEPTH OF ALL EXISTING STORM SEWER STRUCTURES PRIOR TO BEGINNING WORK AND SHALL REPORT ANY DISCREPANCIES TO ENGINEER.

2

N

EXISTING CUC MANHOLE 601
STA. 13+98.1, 94.9' LT.

EXISTING CUC MANHOLE 603
STA. 14+12.1, 43.5' LT.

EXISTING CUC MANHOLE 602
STA. 13+97.7, 10.0' LT.

ABANDON CUC MANHOLE 606A
STA. 22+32.2, 4.0' RT.

N. 20TH STREET

N. 19TH STREET

66'
8-4"PVC CONDUIT
CEMENT ENCASED
CAP ENDS OF THE
6 BOTTOM DUCTS

PI 13+55.88

PI 14+40.41

13+00

W. WALNUT STREET

W. WALNUT STREET

MATCH LINE STA. 18+50

42'
2-4"PVC CONDUIT
CEMENT ENCASED

PROPOSED TRAFFIC
CONTROL CABINET
BY OTHERS

90°, 12.5' RADIUS HUB
STA. 13+42.0, 16.7' RT.

PROPOSED 5' DIAMETER
"DOGHOUSE" MANHOLE 604
INSTALLED OVER CONDUIT
STA. 14+10.9, 5.0' RT.

435'
6-4"PVC CONDUIT
CEMENT ENCASED

NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT EXCEPT WHEN INSTALLED AT A DEPTH OF 27-INCHES TO CROSS ABOVE SEWER LATERALS WITH 4-INCHES OF CLEARANCE.
6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.
7) ATTACH PROPOSED 4" PVC TO EXISTING DUCTS USING APPROPRIATE ADAPTORS.

LEGEND

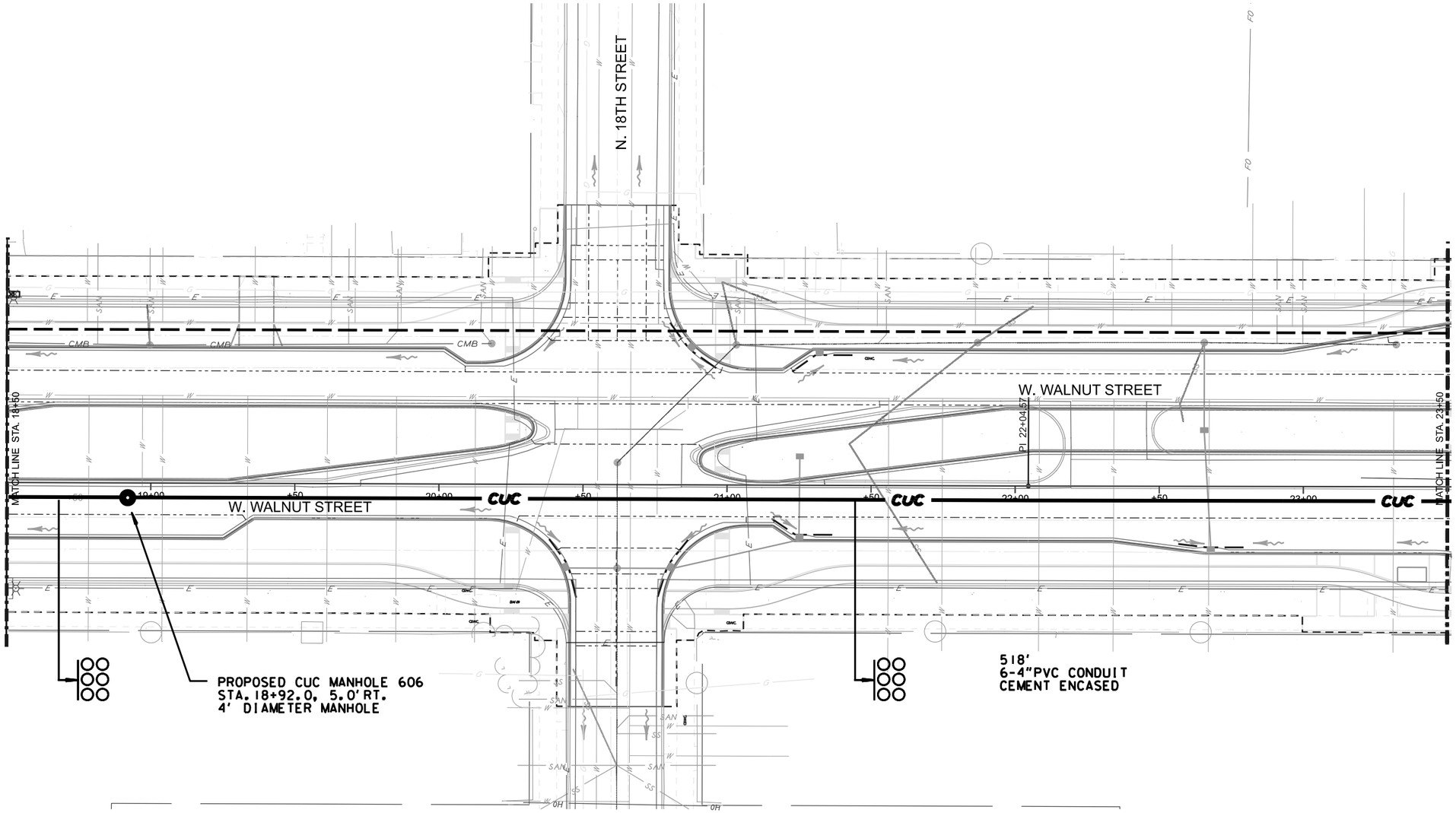
— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED CUC MANHOLE
▣	EXISTING CUC MANHOLE
— CUC —	EXISTING CONDUIT
— — —	ABANDONED CONDUIT

STATE PROJECT NUMBER 2674-02-70 - -	HWY: WALNUT STREET	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 1E

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PLOT NAME :
PLOT SCALE : 1:40

2

N



NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
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6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.
7) ATTACH PROPOSED 4" PVC TO EXISTING DUCTS USING APPROPRIATE ADAPTORS.

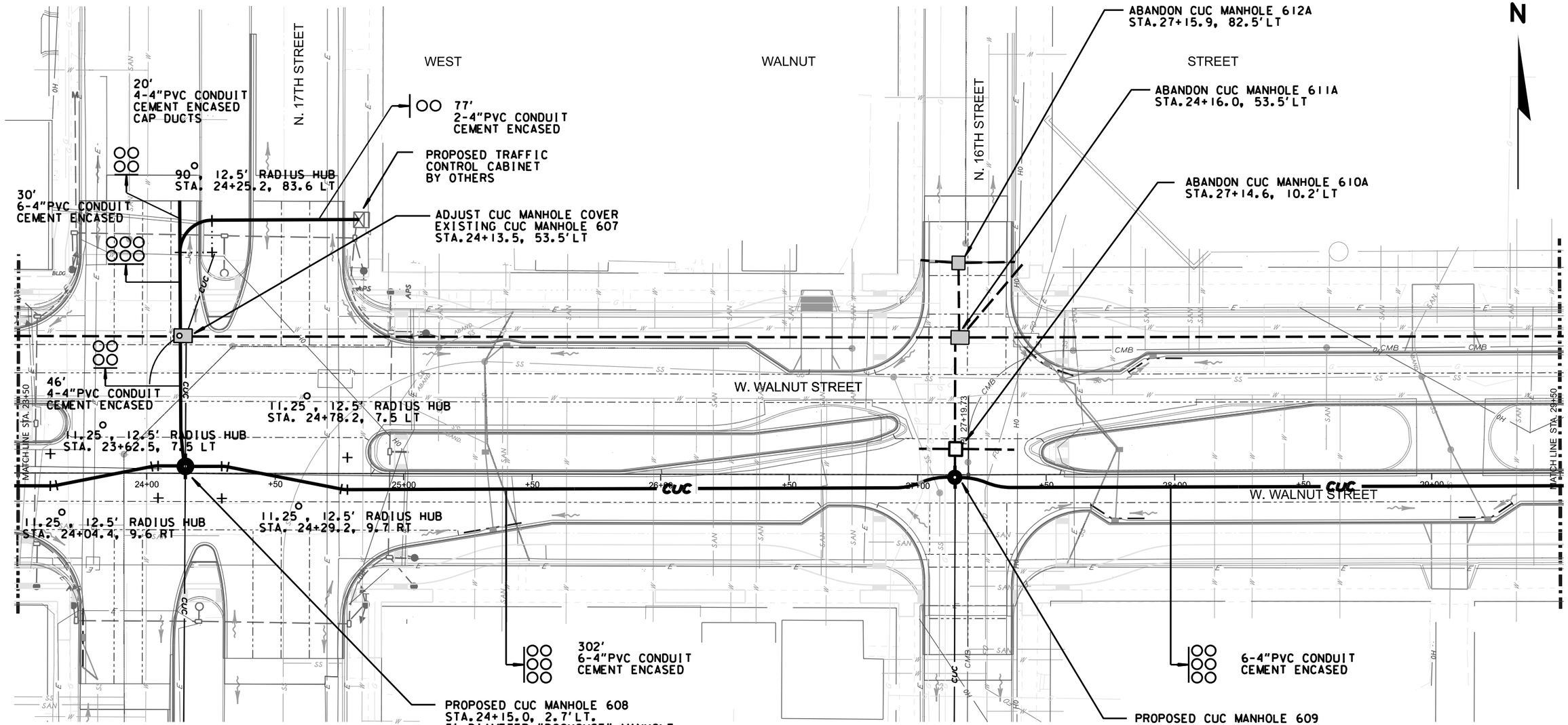
LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED CUC MANHOLE
▣	EXISTING CUC MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — ·	CONDUIT TO BE ABANDONED

STATE PROJECT NUMBER 2674-02-70 - -	HWY: WALNUT STREET	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 81 E

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PLOT NAME :
PLOT SCALE : 1:40

2



NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
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6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.
7) ATTACH PROPOSED 4" PVC TO EXISTING DUCTS USING APPROPRIATE ADAPTORS.

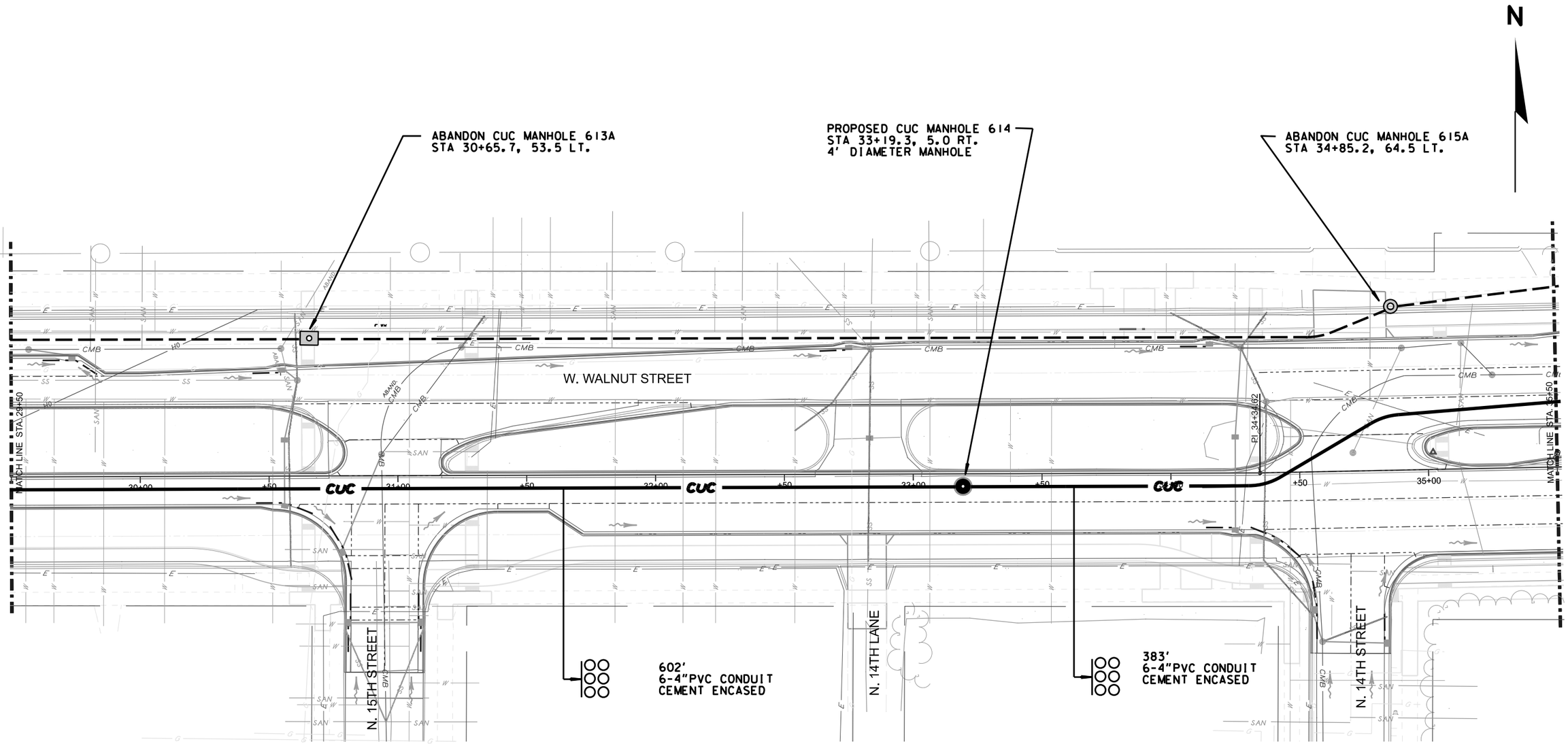
LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED CUC MANHOLE
▣	EXISTING CUC MANHOLE
— cuc —	EXISTING CONDUIT
— — — ·	CONDUIT TO BE ABANDONED

STATE PROJECT NUMBER 2674-02-70 - -	HWY: WALNUT STREET	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (CUC)	SCALE FEET 0' 40	SHEET NO: 82	E

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2



NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
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6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.
7) ATTACH PROPOSED 4" PVC TO EXISTING DUCTS USING APPROPRIATE ADAPTORS.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED CUC MANHOLE
⊡	EXISTING CUC MANHOLE
— cuc —	EXISTING CONDUIT
— — — ·	CONDUIT TO BE ABANDONED

SHEET 4 OF 9

STATE PROJECT NUMBER 2674-02-70 - -	HWY: WALNUT STREET	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 83 E

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PLOT NAME :
PLOT SCALE : 1:40

2

N

PROPOSED CUC MANHOLE 616
STA. 37+01.1, 34.7 LT.
4' DIAMETER "DOGHOUSE" MANHOLE
INSTALLED OVER CONDUIT

EXISTING CUC MANHOLE 618
STA. 37+91.6, 61.7' LT.

ADJUST CUC MANHOLE COVER
EXISTING CUC MANHOLE 619
STA. 38+59.2, 58.5 RT.

2-4"PVC CONDUIT
CEMENT ENCASED

EXISTING TRAFFIC
CONTROL CABINET

ADJUST CUC MANHOLE COVER
EXISTING CUC MANHOLE 620
STA. 39+03.1, 35.7' LT.

MATCH LINE STA. 36+50

MATCH LINE STA. 41+50

EXISTING CUC
MANHOLE 621

ADJUST CUC MANHOLE COVER
EXISTING CUC MANHOLE 625
STA. 42+08.5, 25.5' RT.

ADJUST CUC MANHOLE COVER
EXISTING CUC MANHOLE 617
STA. 37+03.9, 24.7' RT.

85'
6-4"PVC CONDUIT
CEMENT ENCASED

6-4"PVC CONDUIT
CEMENT ENCASED

EXISTING CUC
MANHOLE 623

EXISTING CUC
MANHOLE 624

NOTES:

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6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.
7) ATTACH PROPOSED 4" PVC TO EXISTING DUCTS USING APPROPRIATE ADAPTORS.

LEGEND

- CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
- PROPOSED CUC MANHOLE
- EXISTING CUC MANHOLE
- CUC — EXISTING CONDUIT
- CONDUIT TO BE ABANDONED

SHEET 5 OF 9

STATE PROJECT NUMBER 2674-02-70 - -	HWY: WALNUT STREET	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 84 E

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2

N

ADJUST CUC MANHOLE COVER
EXISTING CUC MANHOLE 630
STA. 42+68.6, 75.7'LT.

ADJUST CUC MANHOLE COVER
EXISTING CUC MANHOLE 626
STA. 42+09.6, 27.1'LT.

23' 2-4" PVC CONDUIT
CEMENT ENCASED

PROPOSED TRAFFIC
CABINET BY OTHERS

90° 5' RADIUS HUB
STA. 42+74.8, 89.0 LT.

ADJUST CUC MANHOLE COVER
EXISTING CUC MANHOLE 629
STA. 42+68.2, 54.1'LT.

ADJUST CUC MANHOLE COVER
EXISTING CUC MANHOLE 632
STA. 45+34.3, 46.3'LT.

ADJUST CUC MANHOLE COVER
EXISTING CUC MANHOLE 631
STA. 45+32.1, 31.7'LT.

ADJUST CUC MANHOLE COVER
EXISTING CUC MANHOLE 625
STA.42+08.5, 25.5'RT.

ADJUST CUC MANHOLE COVER
EXISTING CUC MANHOLE 627
STA.42+42.6, 32.8'LT.

ADJUST CUC MANHOLE COVER
EXISTING CUC MANHOLE 628
STA.42+85.4, 28.5'RT.

ADJUST CUC MANHOLE COVER
EXISTING CUC MANHOLE 633
STA.64+16.1, 9.0'LT.

MATCH LINE STA 41+50

Pf 66+00.00

Pl 42+80.32

Pl 44+15.07

Pl 45+02.45

R/W

NOTES:

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7) ATTACH PROPOSED 4" PVC TO EXISTING DUCTS USING APPROPRIATE ADAPTORS.

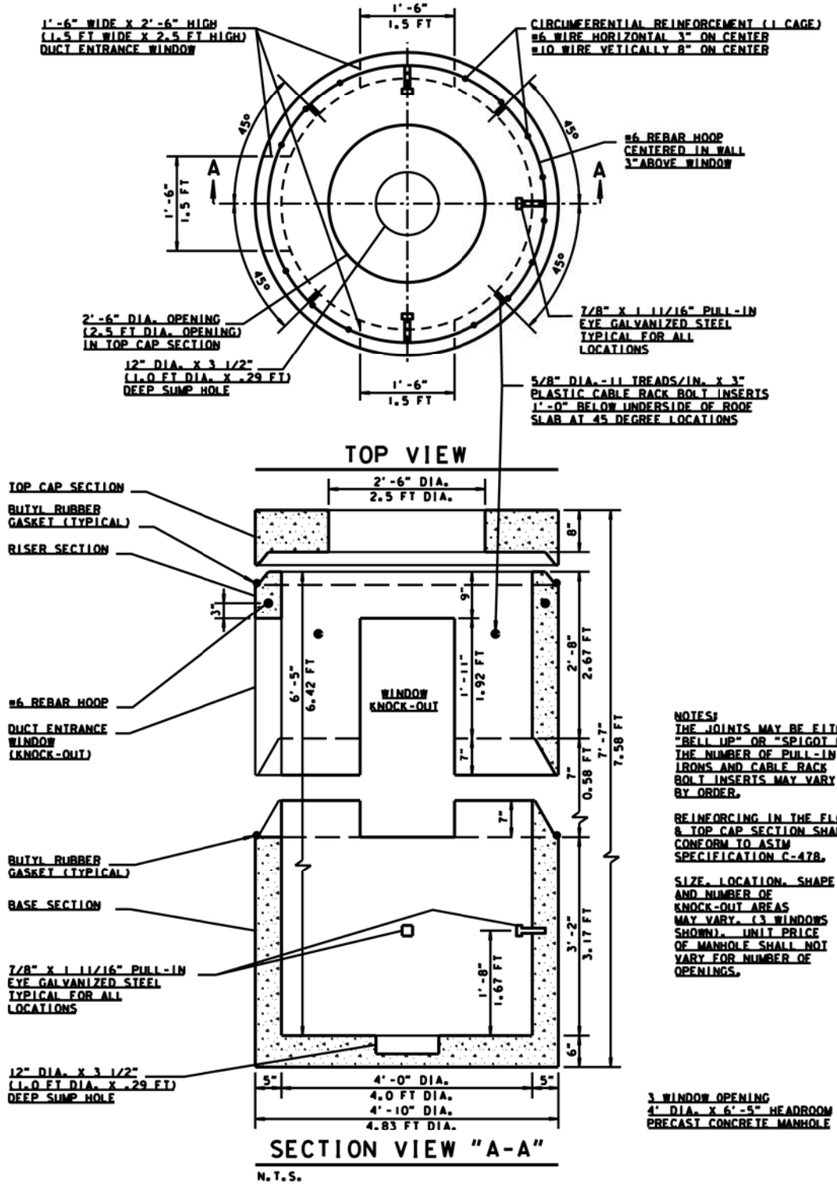
LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED CUC MANHOLE
⊡	EXISTING CUC MANHOLE
— cuc —	EXISTING CONDUIT
— — — ·	ABANDONED CONDUIT

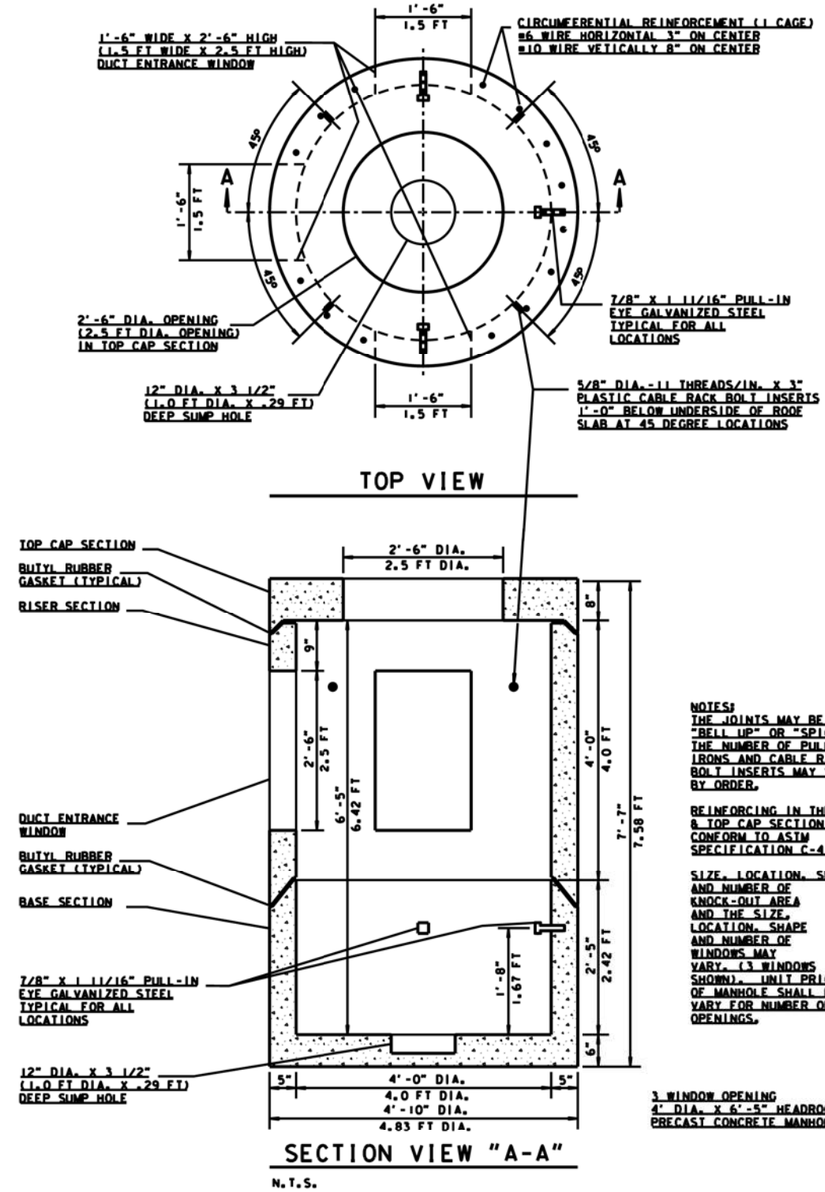
SHEET 6 OF 9

STATE PROJECT NUMBER 2674-02-70 - -	HWY: WALNUT STREET	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 85 E

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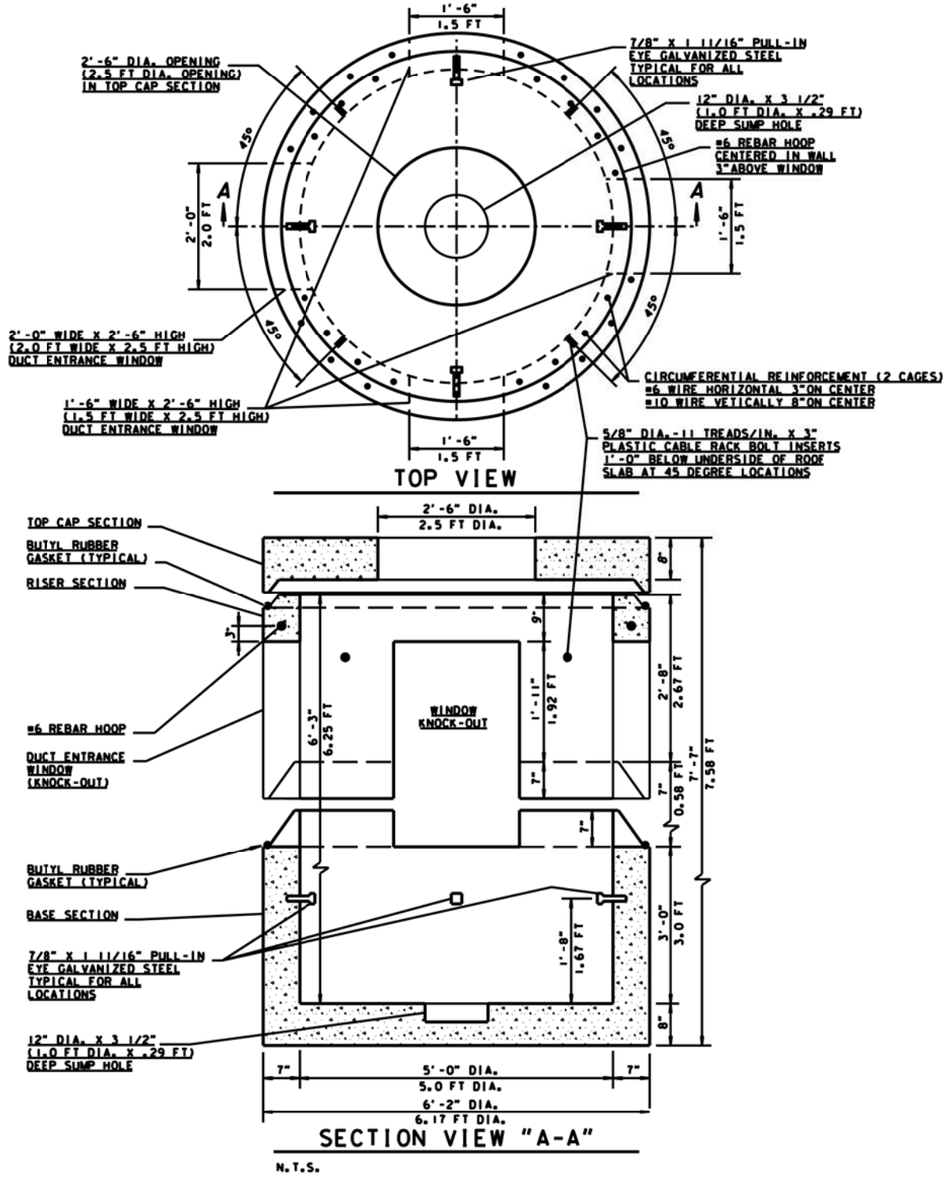


4' DIAMETER "DOGHOUSE" TYPE CUC MANHOLE

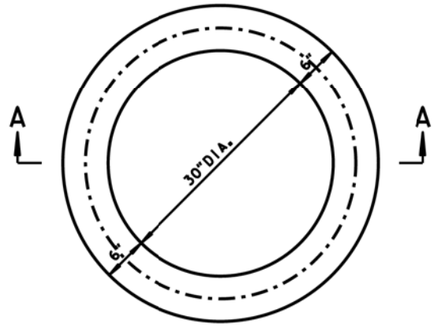


4' DIAMETER STANDARD TYPE CUC MANHOLE

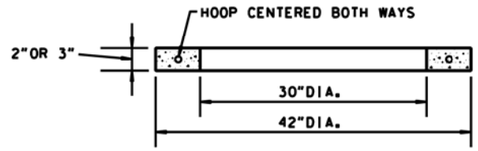
SHEET 7 OF 9



5' DIAMETER "DOGHOUSE" TYPE CUC MANHOLE



PLAN



SECTION A-A

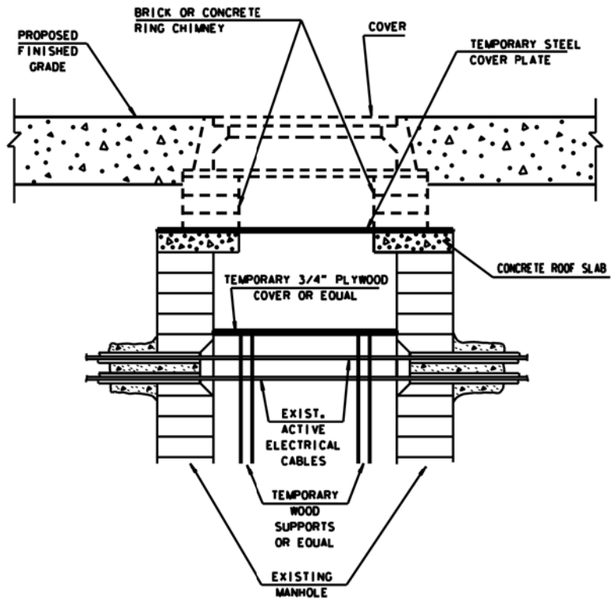
THE ADJUSTING RING SHALL BE 2" OR 3" IN HEIGHT.

THE CIRCUMFERENTIAL STEEL SHALL BE CENTERED WITHIN THE RING.

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

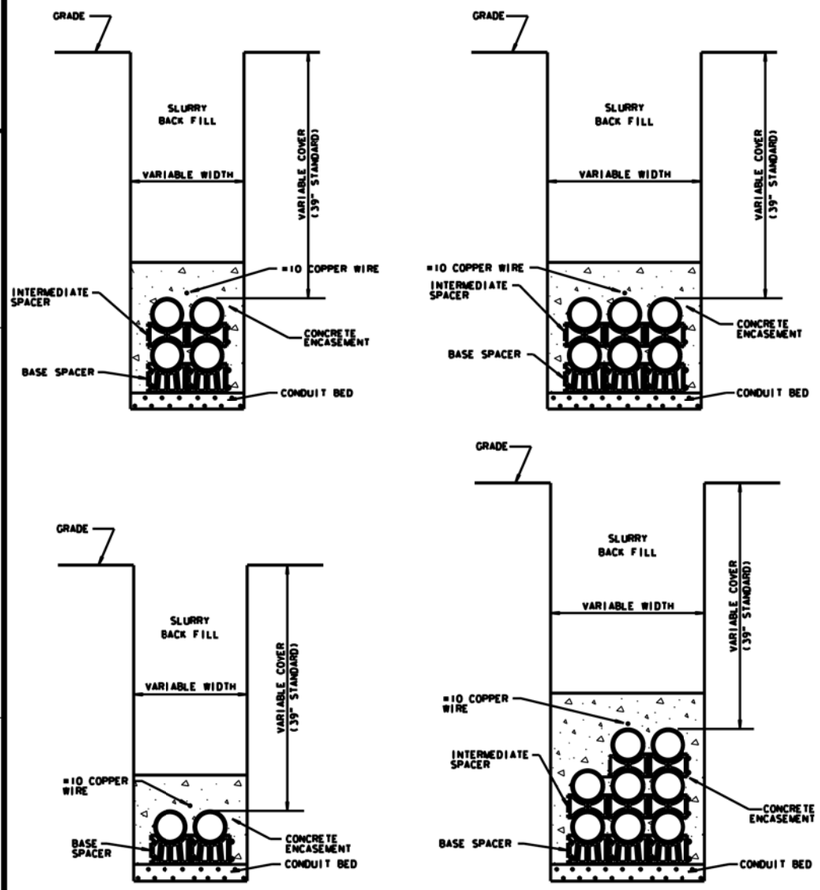
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE CORE SHALL BE 4000 P.S.I.

CONCRETE ADJUSTING RING

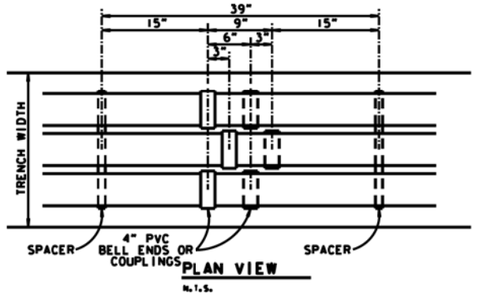


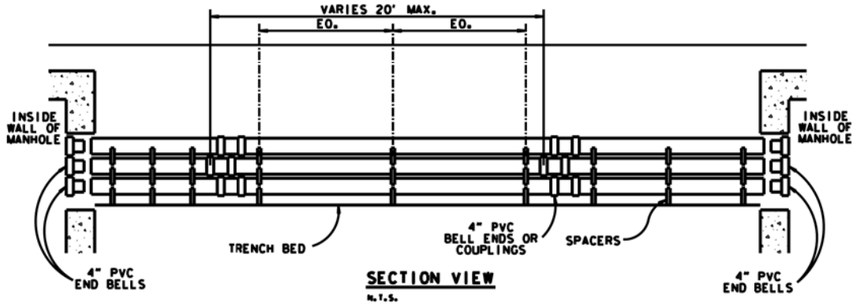
ADJUSTING CUC MANHOLES

SHEET 8 OF 9

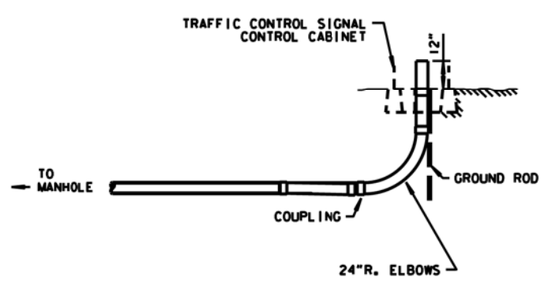


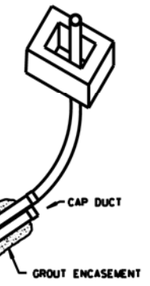
CROSS SECTION VIEW. TYP.
N.T.S.





DUCT INSTALLATION DETAIL
N.T.S.

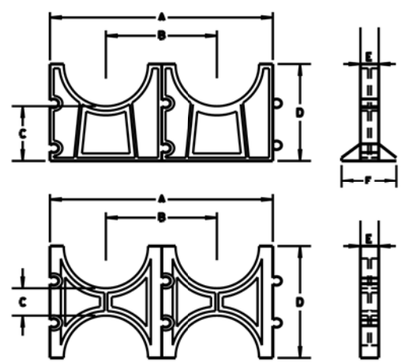




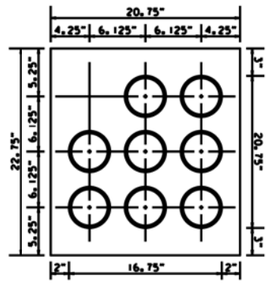
TRAFFIC CONTROL CABINET

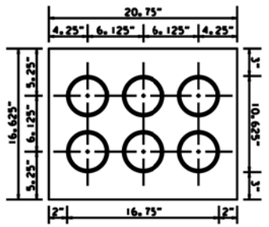
COND.	4"
A	12 ½"
B	6 ⅛"
C	3"
D	6 ⅛"
E	1"
F	3"

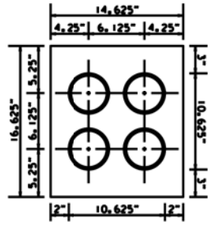
COND.	4"
A	12 ½"
B	6 ⅛"
C	1 ½"
D	6 ⅛"
E	1"

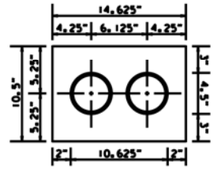


BASE AND INTERMEDIATE SPACE DETAIL
N.T.S.









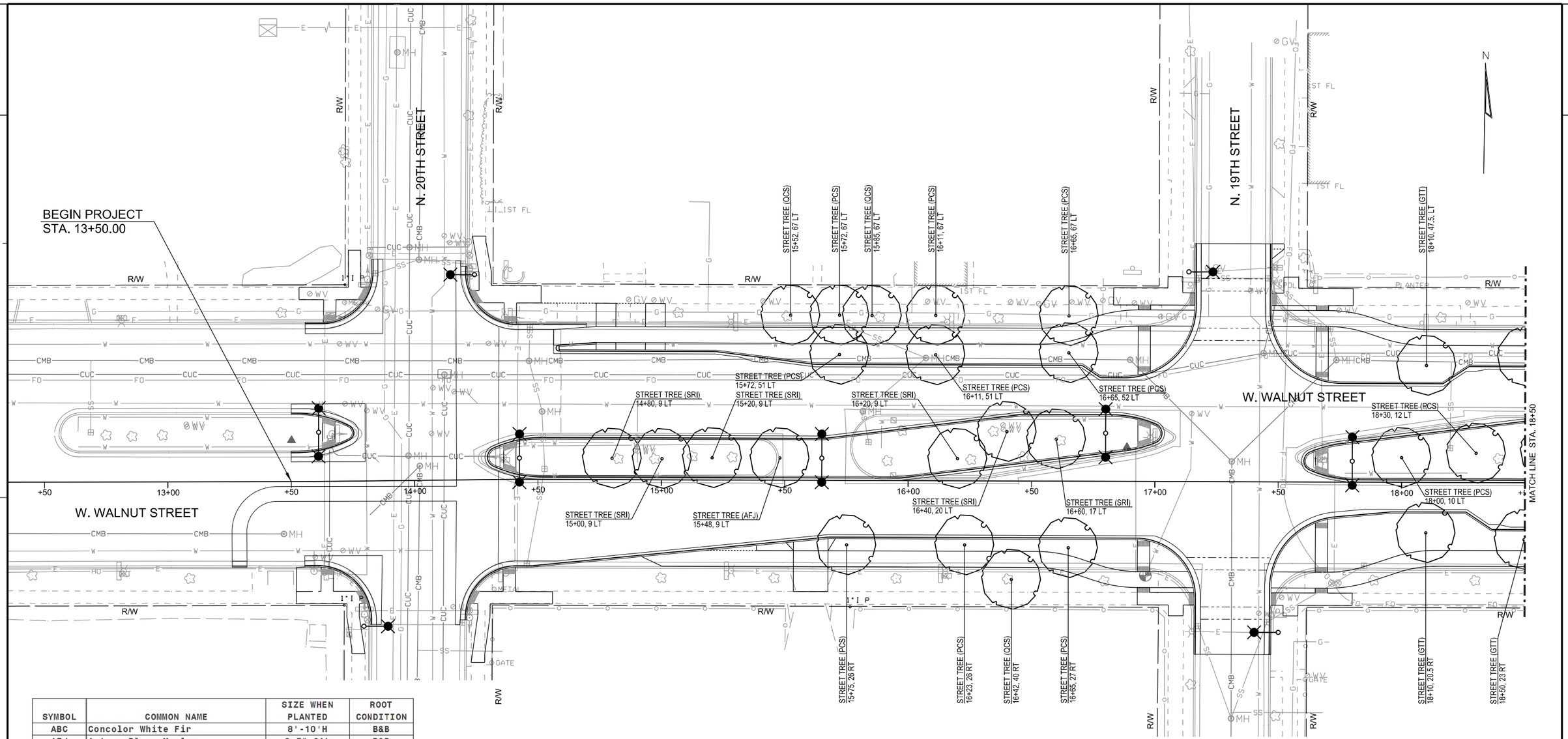
CROSS SECTION VIEW
N.T.S.

SHEET 9 OF 9

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT	SHEET	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42



SYMBOL	COMMON NAME	SIZE WHEN PLANTED	ROOT CONDITION
ABC	Concolor White Fir	8'-10'H	B&B
AFJ	Autumn Blaze Maple	2.5" CAL	B&B
AXC	Red Horsechestnut	3" CAL	B&B
BAL	Heritage River Birch	8'-10'H	B&B
CCL	Turkish Filbert	8'-10'H	B&B
GTT	Sunburst Honeylocust	3.5" CAL	B&B
GDE	Espresso Kentucky Coffeetree	2.5" CAL	B&B
LTE	Tuliptree	3" CAL	B&B
MGL	Dawn Redwood	2.5" CAL	B&B
QCS	Upright English Oak	3.5" CAL	B&B
ULA	Accolade Elm	3.5" CAL	B&B
AGA	Autumn Brilliance Serviceberry	8'-10'H	B&B
CPC	Ironwood	2.5" CAL	B&B
CCC	Eastern Redbud	2.5" CAL	B&B
PVC	Canada Red Chokecherry	8'-10'H	B&B
PCS	Callery Pear (Autumn Blaze)	3.5" CAL	B&B
SRI	Ivory Silk Japanese Tree Lilac	3" CAL	B&B

B&B: BALLED AND BURLAPED

SEE TREE PLANTING MISCELLANEOUS QUANTITY SHEET FOR SPECIFIC BOTANICAL AND COMMON NAME TREE SPECIES.

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LANDSCAPE PLAN	SHEET 89	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\023101_pl.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

N. 18TH STREET

W. WALNUT STREET

MATCH LINE STA. 18+50

MATCH LINE STA. 23+50

STREET TREE (GTT) 18+51, 50 LT

STREET TREE (GTT) 18+90, 51 LT

STREET TREE (GTT) 20+00, 53 LT

STREET TREE (GDE) 21+65, 67 LT

STREET TREE (ULA) 22+00, 51 LT

STREET TREE (ULA) 22+60, 51 LT

STREET TREE (ULA) 23+10, 53 LT

STREET TREE (PCS) 18+60, 13 LT

STREET TREE (AXC) 18+90, 13 LT

STREET TREE (PCS) 19+30, 13 LT

STREET TREE (PCS) 19+90, 17 LT

STREET TREE (PCS) 19+60, 15 LT

STREET TREE (AFJ) 21+60, 14 LT

STREET TREE (LTE) 22+20, 19 LT

STREET TREE (AFJ) 22+85, 19 LT

STREET TREE (AFJ) 21+30, 9 LT

STREET TREE (AFJ) 21+90, 18 LT

STREET TREE (AFJ) 22+55, 19 LT

STREET TREE (AFJ) 23+15, 19 LT

STREET TREE (GTT) 18+90, 23 RT

STREET TREE (SRI) 19+19, 39 RT

STREET TREE (GTT) 19+30, 23 RT

STREET TREE (GTT) 19+69, 20 RT

STREET TREE (ULA) 21+38, 24 RT

STREET TREE (ULA) 21+80, 24 RT

STREET TREE (GDE) 22+05, 40 RT

STREET TREE (ULA) 22+15, 24 RT

R/W

R BAR

GATE

SUMP

ABAND.

1ST FL

SEE TREE PLANTING MISCELLANEOUS QUANTITY SHEET FOR SPECIFIC BOTANICAL AND COMMON NAME TREE SPECIES.

SYMBOL	COMMON NAME	SIZE WHEN PLANTED	ROOT CONDITION
ABC	Concolor White Fir	8'-10'H	B&B
AFJ	Autumn Blaze Maple	2.5" CAL	B&B
AXC	Red Horsechestnut	3" CAL	B&B
BAL	Heritage River Birch	8'-10'H	B&B
CCL	Turkish Filbert	8'-10'H	B&B
GTT	Sunburst Honeylocust	3.5" CAL	B&B
GDE	Espresso Kentucky Coffeetree	2.5" CAL	B&B
LTE	Tuliptree	3" CAL	B&B
MGL	Dawn Redwood	2.5" CAL	B&B
QCS	Upright English Oak	3.5" CAL	B&B
ULA	Accolade Elm	3.5" CAL	B&B
AGA	Autumn Brilliance Serviceberry	8'-10'H	B&B
CPC	Ironwood	2.5" CAL	B&B
CCC	Eastern Redbud	2.5" CAL	B&B
PVC	Canada Red Chokecherry	8'-10'H	B&B
PCS	Callery Pear (Autumn Blaze)	3.5" CAL	B&B
SRI	Ivory Silk Japanese Tree Lilac	3" CAL	B&B

B&B: BALLED AND BURLAPED

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LANDSCAPE PLAN	SHEET 90	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\023102_pl.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

N. 17TH STREET

N. 16TH STREET

W. WALNUT STREET

R/W

MATCH LINE STA. 23+50

MATCH LINE STA. 29+50

STREET TREE (AFJ)
25+56, 53 LT

STREET TREE (AFJ)
26+35, 55 LT

STREET TREE (SRI)
28+01, 51 LT

STREET TREE (SRI)
28+50, 51 LT

STREET TREE (SRI)
29+40, 51 LT

STREET TREE (PVC)
25+40, 9 LT

STREET TREE (PVC)
26+10, 10 LT

STREET TREE (CCC)
27+95, 10 LT

STREET TREE (MGL)
28+25, 10 LT

STREET TREE (MGL)
29+10, 14 LT

STREET TREE (PVC)
25+65, 9 LT

STREET TREE (MGL)
28+55, 13 LT

STREET TREE (AFJ)
25+45, 25 RT

STREET TREE (AFJ)
25+91, 24 RT

STREET TREE (CCL)
26+16, 39 RT

STREET TREE (AFJ)
26+40, 24 RT

STREET TREE (SRI)
28+00, 24 RT

STREET TREE (SRI)
28+50, 24 RT

GUY POLE

SYMBOL	COMMON NAME	SIZE WHEN PLANTED	ROOT CONDITION
ABC	Concolor White Fir	8'-10'H	B&B
AFJ	Autumn Blaze Maple	2.5" CAL	B&B
AXC	Red Horsechestnut	3" CAL	B&B
BAL	Heritage River Birch	8'-10'H	B&B
CCL	Turkish Filbert	8'-10'H	B&B
GTT	Sunburst Honeylocust	3.5" CAL	B&B
GDE	Espresso Kentucky Coffeetree	2.5" CAL	B&B
LTE	Tuliptree	3" CAL	B&B
MGL	Dawn Redwood	2.5" CAL	B&B
QCS	Upright English Oak	3.5" CAL	B&B
ULA	Accolade Elm	3.5" CAL	B&B
AGA	Autumn Brilliance Serviceberry	8'-10'H	B&B
CPC	Ironwood	2.5" CAL	B&B
CCC	Eastern Redbud	2.5" CAL	B&B
PVC	Canada Red Chokecherry	8'-10'H	B&B
PCS	Callery Pear (Autumn Blaze)	3.5" CAL	B&B
SRI	Ivory Silk Japanese Tree Lilac	3" CAL	B&B

B&B: BALLED AND BURLAPED

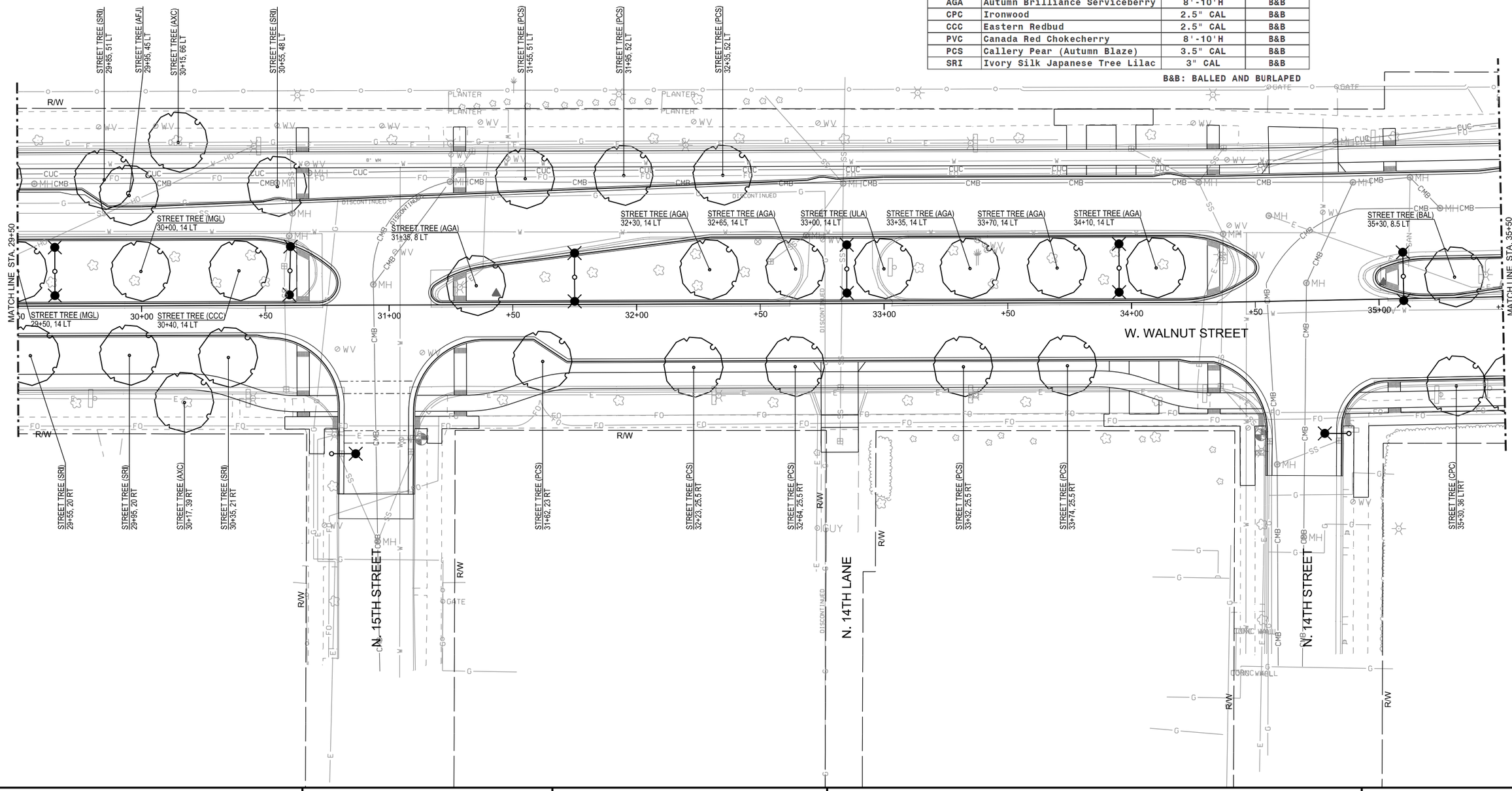
SEE TREE PLANTING MISCELLANEOUS QUANTITY SHEET FOR SPECIFIC BOTANICAL AND COMMON NAME TREE SPECIES.

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LANDSCAPE PLAN	SHEET 91	E

SEE TREE PLANTING MISCELLANEOUS QUANTITY SHEET FOR SPECIFIC BOTANICAL AND COMMON NAME TREE SPECIES.

SYMBOL	COMMON NAME	SIZE WHEN PLANTED	ROOT CONDITION
ABC	Concolor White Fir	8'-10'H	B&B
AFJ	Autumn Blaze Maple	2.5" CAL	B&B
AXC	Red Horsechestnut	3" CAL	B&B
BAL	Heritage River Birch	8'-10'H	B&B
CCL	Turkish Filbert	8'-10'H	B&B
GTT	Sunburst Honeylocust	3.5" CAL	B&B
GDE	Espresso Kentucky Coffeetree	2.5" CAL	B&B
LTE	Tuliptree	3" CAL	B&B
MGL	Dawn Redwood	2.5" CAL	B&B
QCS	Upright English Oak	3.5" CAL	B&B
ULA	Accolade Elm	3.5" CAL	B&B
AGA	Autumn Brilliance Serviceberry	8'-10'H	B&B
CPC	Ironwood	2.5" CAL	B&B
CCC	Eastern Redbud	2.5" CAL	B&B
PVC	Canada Red Chokecherry	8'-10'H	B&B
PCS	Callery Pear (Autumn Blaze)	3.5" CAL	B&B
SRI	Ivory Silk Japanese Tree Lilac	3" CAL	B&B

B&B: BALLED AND BURLAPED

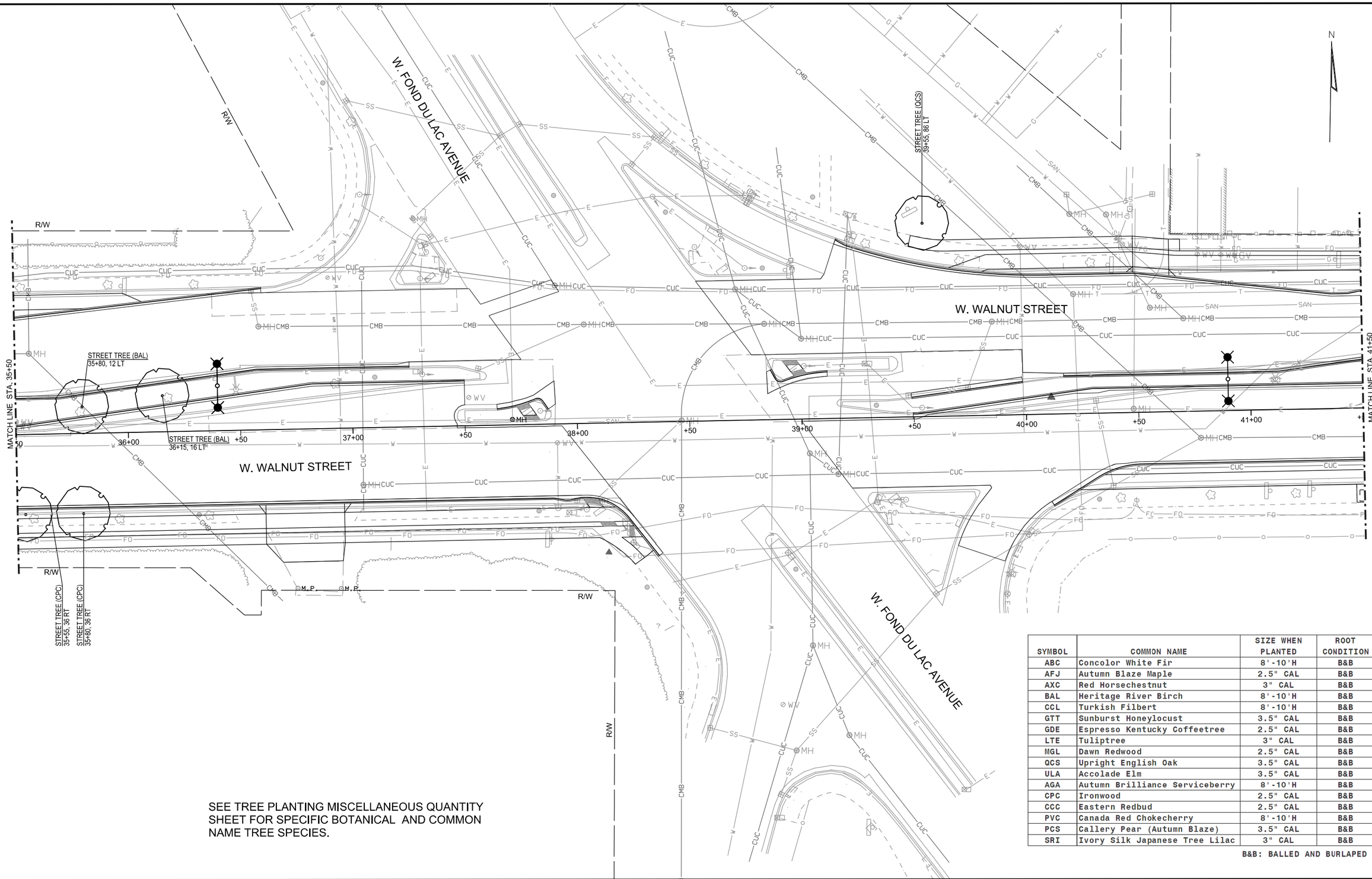


N

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LANDSCAPE PLAN	SHEET 92	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\023104_pl.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42



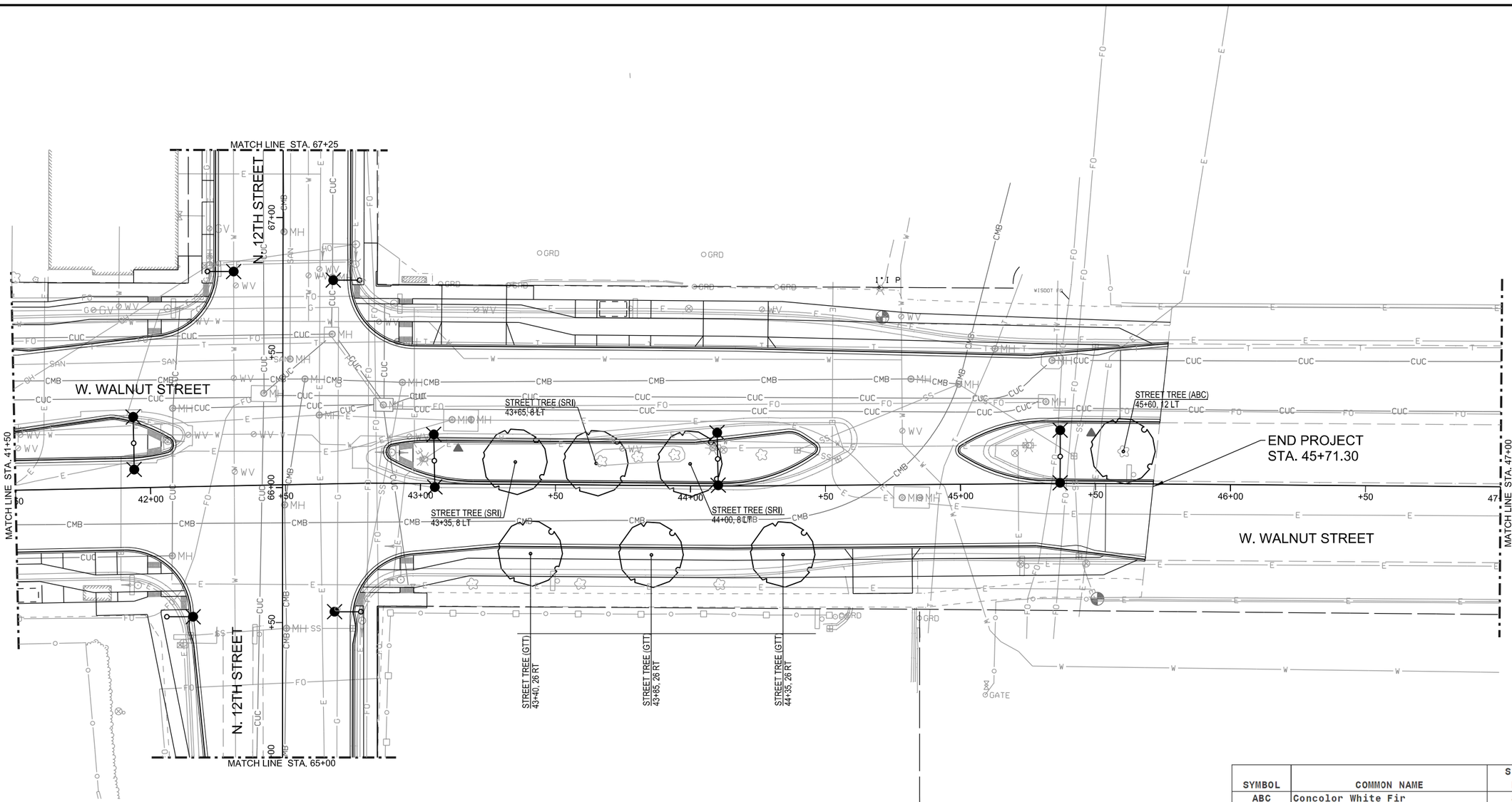
SEE TREE PLANTING MISCELLANEOUS QUANTITY SHEET FOR SPECIFIC BOTANICAL AND COMMON NAME TREE SPECIES.

SYMBOL	COMMON NAME	SIZE WHEN PLANTED	ROOT CONDITION
ABC	Concolor White Fir	8'-10'H	B&B
AFJ	Autumn Blaze Maple	2.5" CAL	B&B
AXC	Red Horsechestnut	3" CAL	B&B
BAL	Heritage River Birch	8'-10'H	B&B
CCL	Turkish Filbert	8'-10'H	B&B
GTT	Sunburst Honeylocust	3.5" CAL	B&B
GDE	Espresso Kentucky Coffeetree	2.5" CAL	B&B
LTE	Tuliptree	3" CAL	B&B
MGL	Dawn Redwood	2.5" CAL	B&B
QCS	Upright English Oak	3.5" CAL	B&B
ULA	Accolade Elm	3.5" CAL	B&B
AGA	Autumn Brilliance Serviceberry	8'-10'H	B&B
CPC	Ironwood	2.5" CAL	B&B
CCC	Eastern Redbud	2.5" CAL	B&B
PVC	Canada Red Chokecherry	8'-10'H	B&B
PCS	Callery Pear (Autumn Blaze)	3.5" CAL	B&B
SRI	Ivory Silk Japanese Tree Lilac	3" CAL	B&B

B&B: BALLED AND BURLAPED

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LANDSCAPE PLAN	SHEET 93	E

2



SYMBOL	COMMON NAME	SIZE WHEN PLANTED	ROOT CONDITION
ABC	Concolor White Fir	8'-10'H	B&B
AFJ	Autumn Blaze Maple	2.5" CAL	B&B
AXC	Red Horsechestnut	3" CAL	B&B
BAL	Heritage River Birch	8'-10'H	B&B
CCL	Turkish Filbert	8'-10'H	B&B
GTT	Sunburst Honeylocust	3.5" CAL	B&B
GDE	Espresso Kentucky Coffeetree	2.5" CAL	B&B
LTE	Tuliptree	3" CAL	B&B
MGL	Dawn Redwood	2.5" CAL	B&B
QCS	Upright English Oak	3.5" CAL	B&B
ULA	Accolade Elm	3.5" CAL	B&B
AGA	Autumn Brilliance Serviceberry	8'-10'H	B&B
CPC	Ironwood	2.5" CAL	B&B
CCC	Eastern Redbud	2.5" CAL	B&B
PVC	Canada Red Chokecherry	8'-10'H	B&B
PCS	Callery Pear (Autumn Blaze)	3.5" CAL	B&B
SRI	Ivory Silk Japanese Tree Lilac	3" CAL	B&B

B&B: BALLED AND BURLAPED

SEE TREE PLANTING MISCELLANEOUS QUANTITY SHEET FOR SPECIFIC BOTANICAL AND COMMON NAME TREE SPECIES.

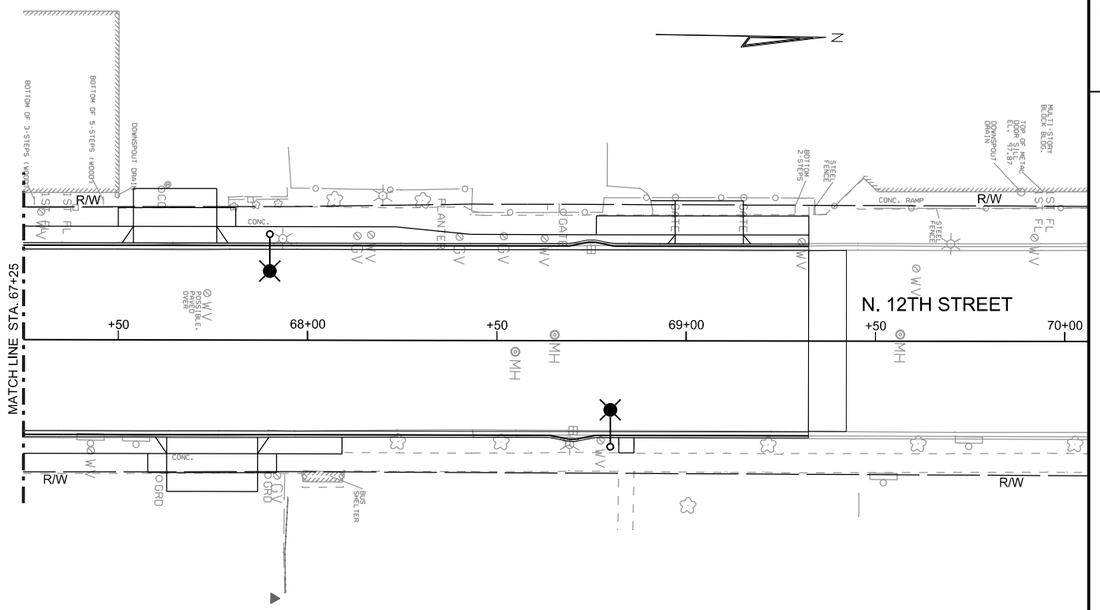
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LANDSCAPE PLAN	SHEET 94	E

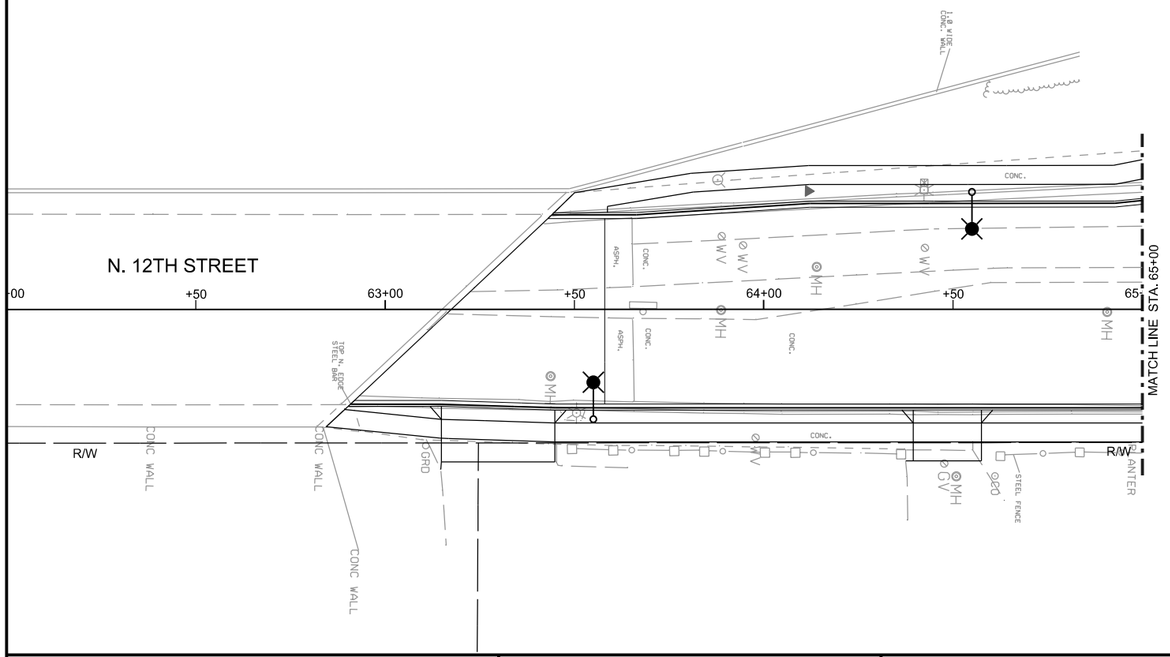
FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\023106_pl.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

SYMBOL	COMMON NAME	SIZE WHEN PLANTED	ROOT CONDITION
ABC	Concolor White Fir	8'-10'H	B&B
AFJ	Autumn Blaze Maple	2.5" CAL	B&B
AXC	Red Horsechestnut	3" CAL	B&B
BAL	Heritage River Birch	8'-10'H	B&B
CCL	Turkish Filbert	8'-10'H	B&B
GTT	Sunburst Honeylocust	3.5" CAL	B&B
GDE	Espresso Kentucky Coffeetree	2.5" CAL	B&B
LTE	Tuliptree	3" CAL	B&B
MGL	Dawn Redwood	2.5" CAL	B&B
QCS	Upright English Oak	3.5" CAL	B&B
ULA	Accolade Elm	3.5" CAL	B&B
AGA	Autumn Brilliance Serviceberry	8'-10'H	B&B
CPC	Ironwood	2.5" CAL	B&B
CCC	Eastern Redbud	2.5" CAL	B&B
PVC	Canada Red Chokecherry	8'-10'H	B&B
PCS	Callery Pear (Autumn Blaze)	3.5" CAL	B&B
SRI	Ivory Silk Japanese Tree Lilac	3" CAL	B&B

B&B: BALLED AND BURLAPED

SEE TREE PLANTING MISCELLANEOUS QUANTITY SHEET FOR SPECIFIC BOTANICAL AND COMMON NAME TREE SPECIES.





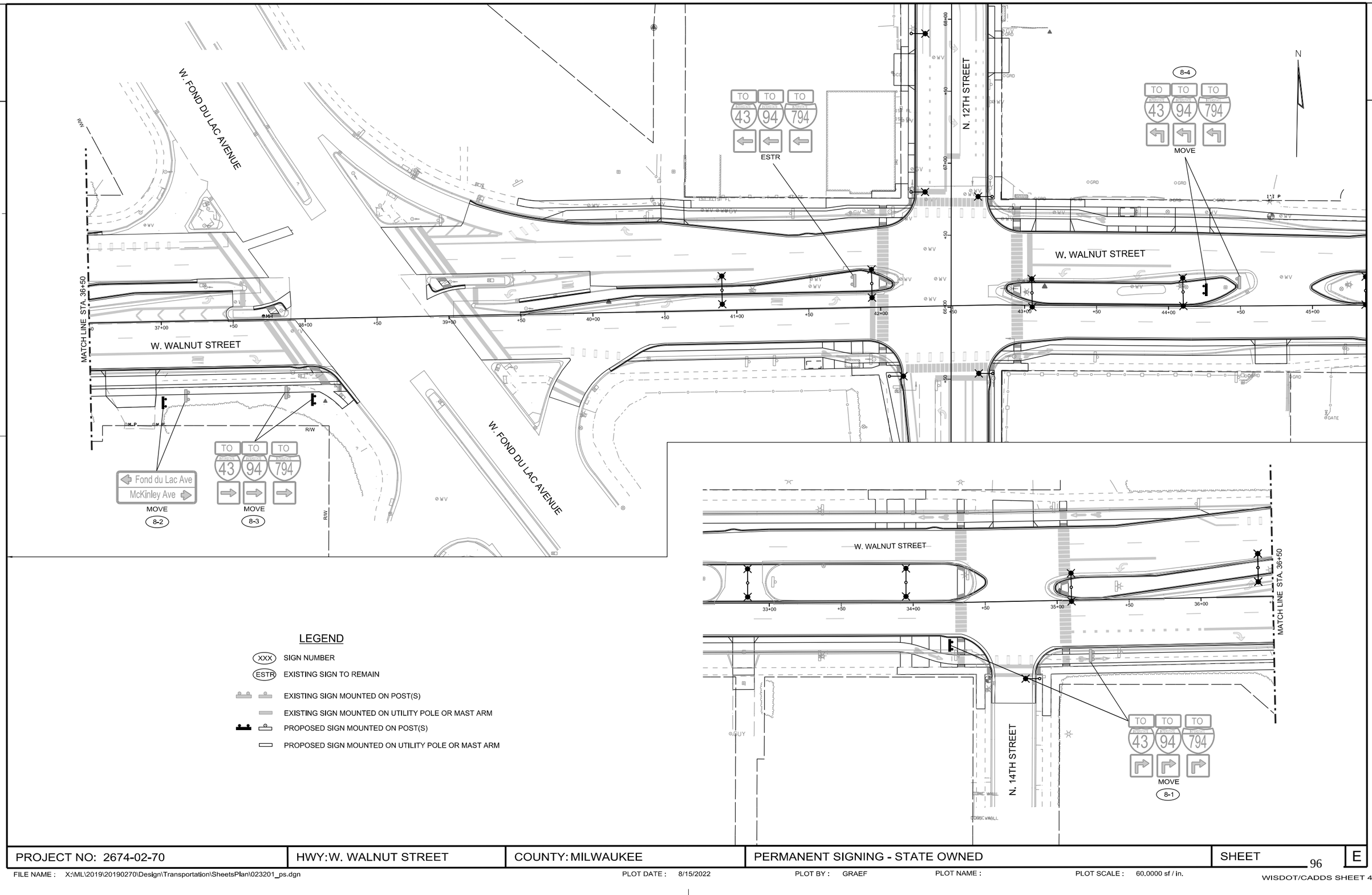
SYMBOL	COMMON NAME	SIZE WHEN PLANTED	ROOT CONDITION
ABC	Concolor White Fir	8'-10'H	B&B
AFJ	Autumn Blaze Maple	2.5" CAL	B&B
AXC	Red Horsechestnut	3" CAL	B&B
BAL	Heritage River Birch	8'-10'H	B&B
CCL	Turkish Filbert	8'-10'H	B&B
GTT	Sunburst Honeylocust	3.5" CAL	B&B
GDE	Espresso Kentucky Coffeetree	2.5" CAL	B&B
LTE	Tuliptree	3" CAL	B&B
MGL	Dawn Redwood	2.5" CAL	B&B
QCS	Upright English Oak	3.5" CAL	B&B
ULA	Accolade Elm	3.5" CAL	B&B
AGA	Autumn Brilliance Serviceberry	8'-10'H	B&B
CPC	Ironwood	2.5" CAL	B&B
CCC	Eastern Redbud	2.5" CAL	B&B
PVC	Canada Red Chokecherry	8'-10'H	B&B
PCS	Callery Pear (Autumn Blaze)	3.5" CAL	B&B
SRI	Ivory Silk Japanese Tree Lilac	3" CAL	B&B

B&B: BALLED AND BURLAPED

SEE TREE PLANTING MISCELLANEOUS QUANTITY SHEET FOR SPECIFIC BOTANICAL AND COMMON NAME TREE SPECIES.

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LANDSCAPE PLAN	SHEET 95	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\023107_pl.dgn PLOT DATE : 9/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

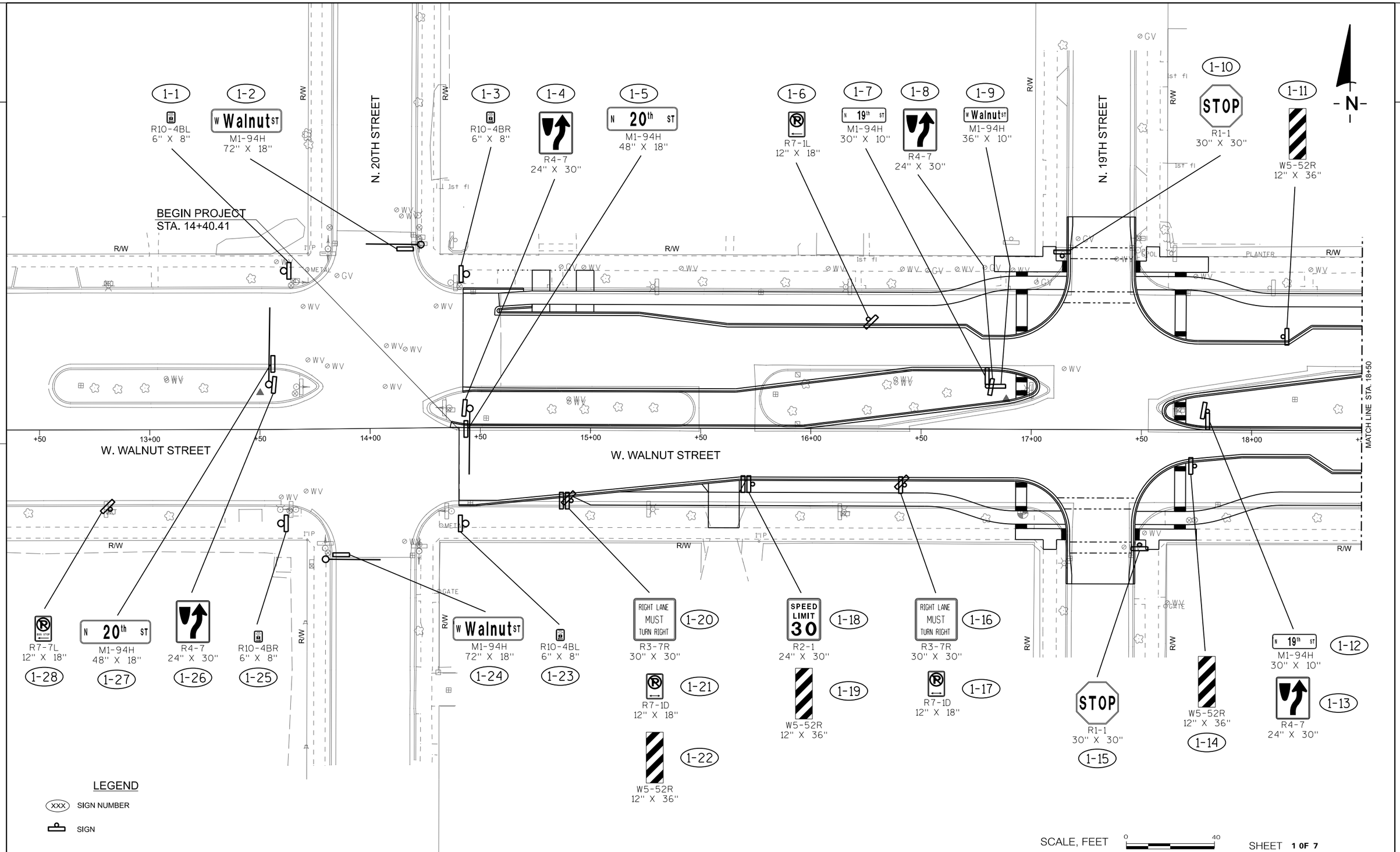


LEGEND

- (XXX) SIGN NUMBER
- (ESTR) EXISTING SIGN TO REMAIN
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON UTILITY POLE OR MAST ARM
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON UTILITY POLE OR MAST ARM

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PERMANENT SIGNING - STATE OWNED	SHEET 96	E

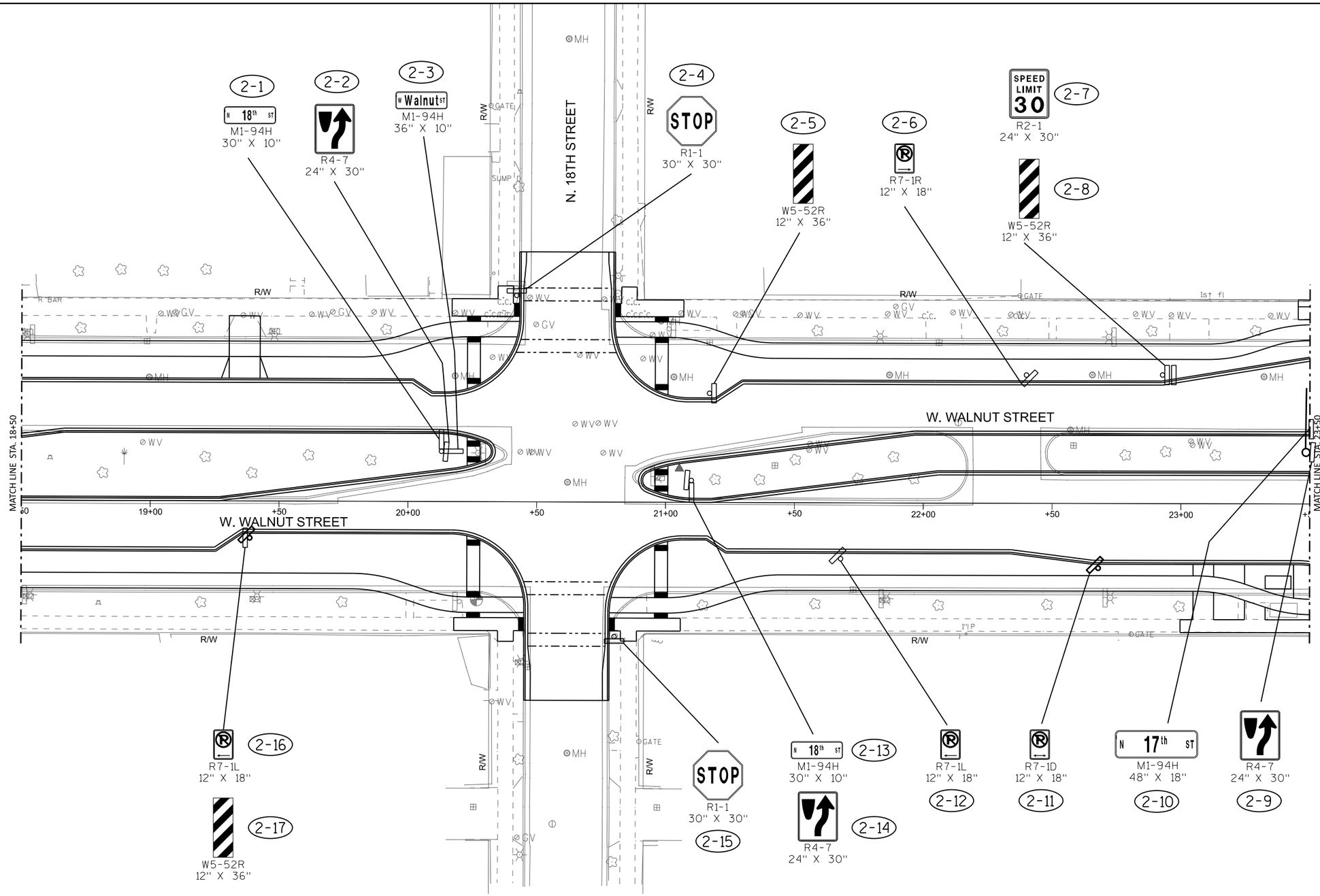
FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\023201_ps.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 60.0000 sf / in.



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 97	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42



LEGEND

(XXX) SIGN NUMBER

SIGN

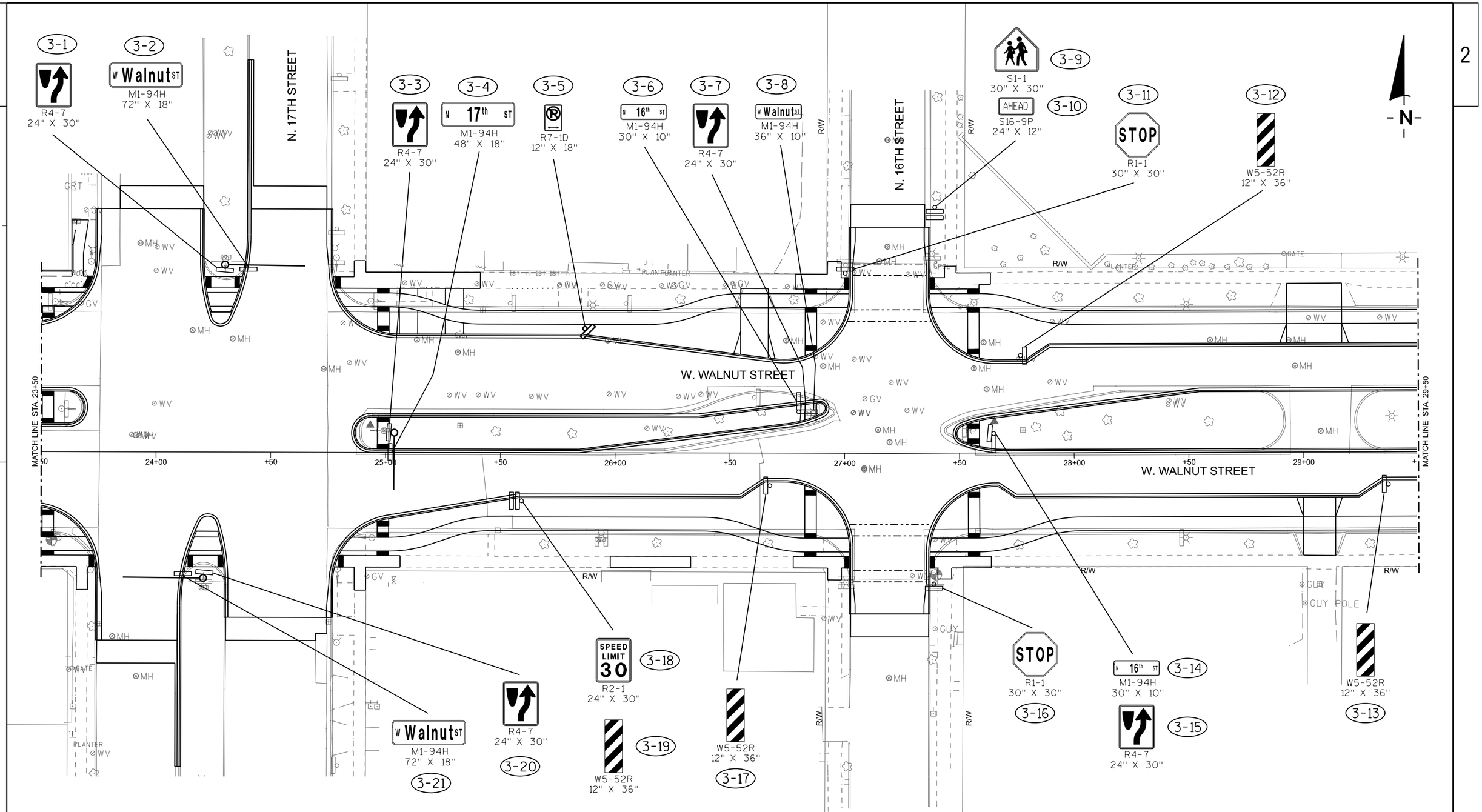
SCALE, FEET 0 40

SHEET 2 OF 7

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 98	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42



SHEET 3 0F 7

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 99	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

4-1
R7-1R
12" X 18"

4-2
W5-52R
12" X 36"

4-3
M1-94H
30" X 10"

4-4
R4-7
24" X 30"

4-5
M1-94H
36" X 10"

4-6
W5-52R
12" X 36"

4-7
W4-2R
30" X 30"

4-8
R7-1D
12" X 18"

4-9
W5-52R
12" X 36"

4-10
R4-7
24" X 30"

4-11
R2-1
24" X 30"

4-12
R7-1D
12" X 18"

- N -

R/W
PLANTER
WV
MH
GATE
W. WALNUT STREET
MATCH LINE STA. 29+50
MATCH LINE STA. 35+50
30+00
+50
31+00
+50
32+00
+50
33+00
+50
34+00
+50
35+00

4-19
S1-1
30" X 30"

4-20
AHEAD
S16-9P
24" X 12"

N. 15TH STREET

4-18
STOP
R1-1
30" X 30"

4-17
R7-1D
12" X 18"

GUY
N. 14TH LANE

4-16
R7-1D
12" X 18"

4-15
STOP
R1-1
30" X 30"

CONC WALL
N. 14TH STREET

4-14
W Walnut ST
M1-94H
36" X 10"

4-13
N 14th ST
M1-94H
30" X 10"

LEGEND

XXX SIGN NUMBER

SIGN

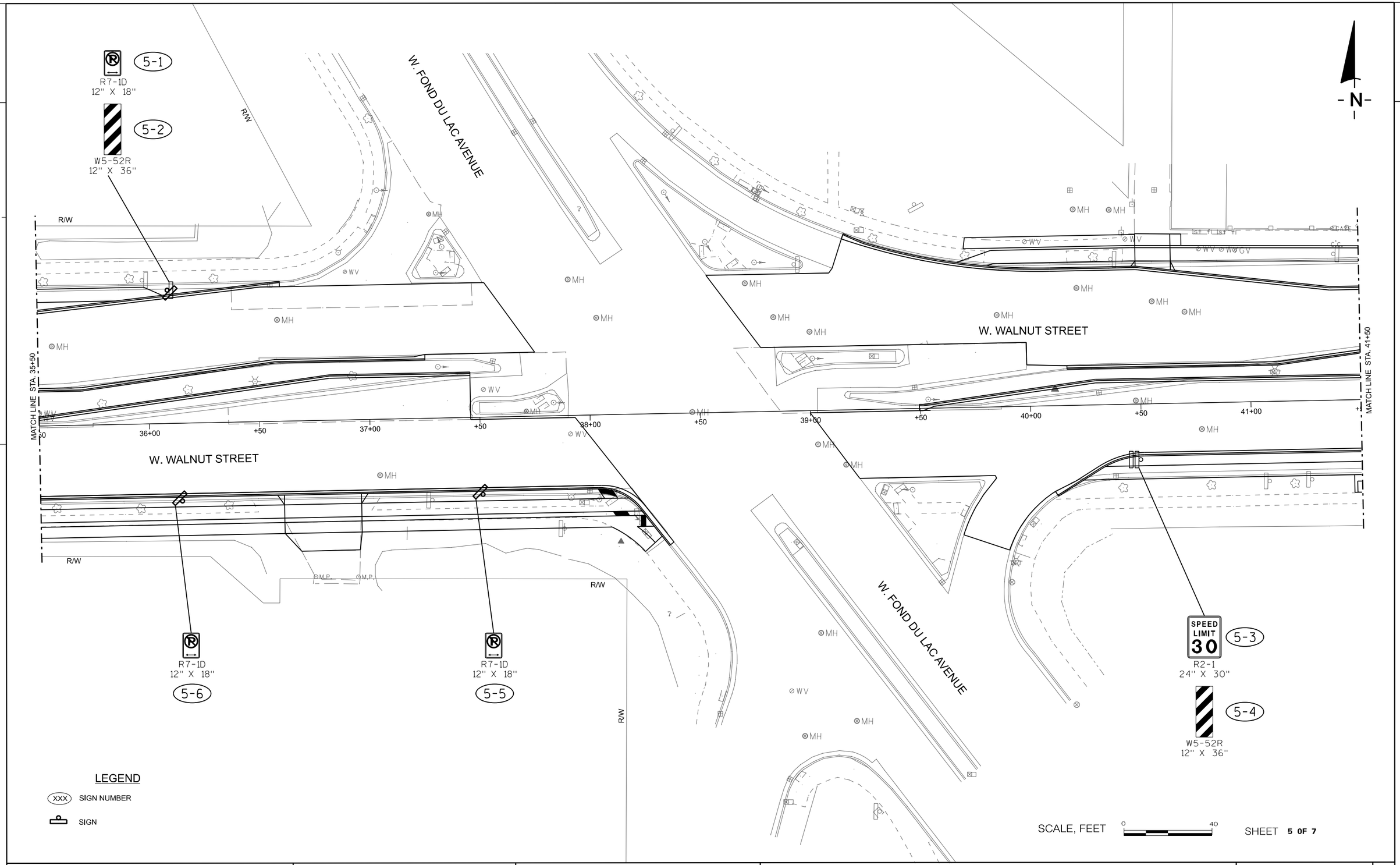
SCALE, FEET 0 40

SHEET 4 OF 7

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 100	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

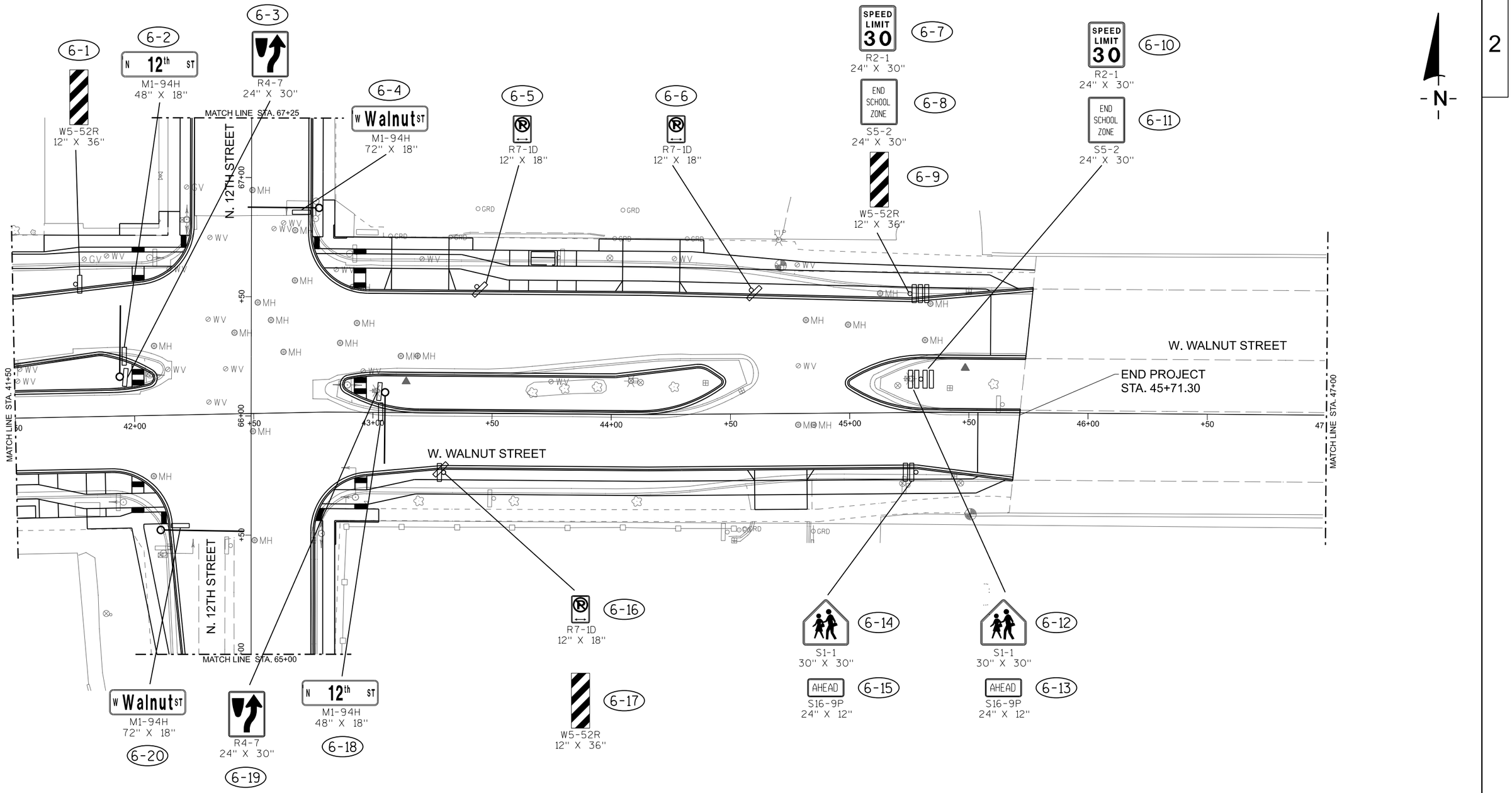
2



SHEET 5 0F 7

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 101	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 40

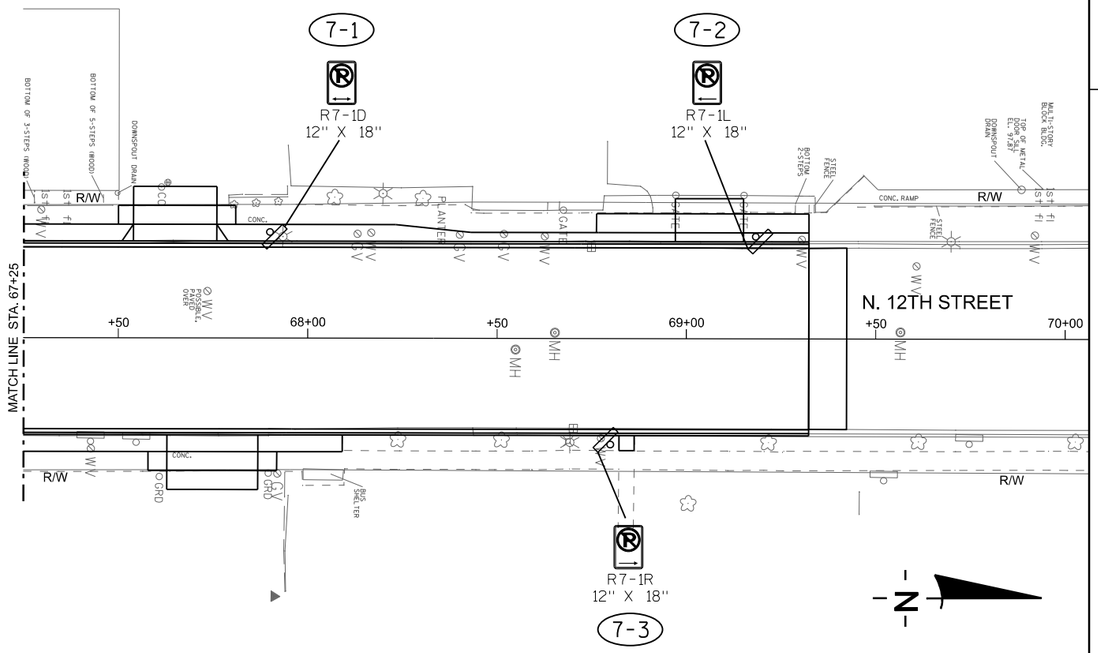
SHEET 6 OF 7

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 102	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

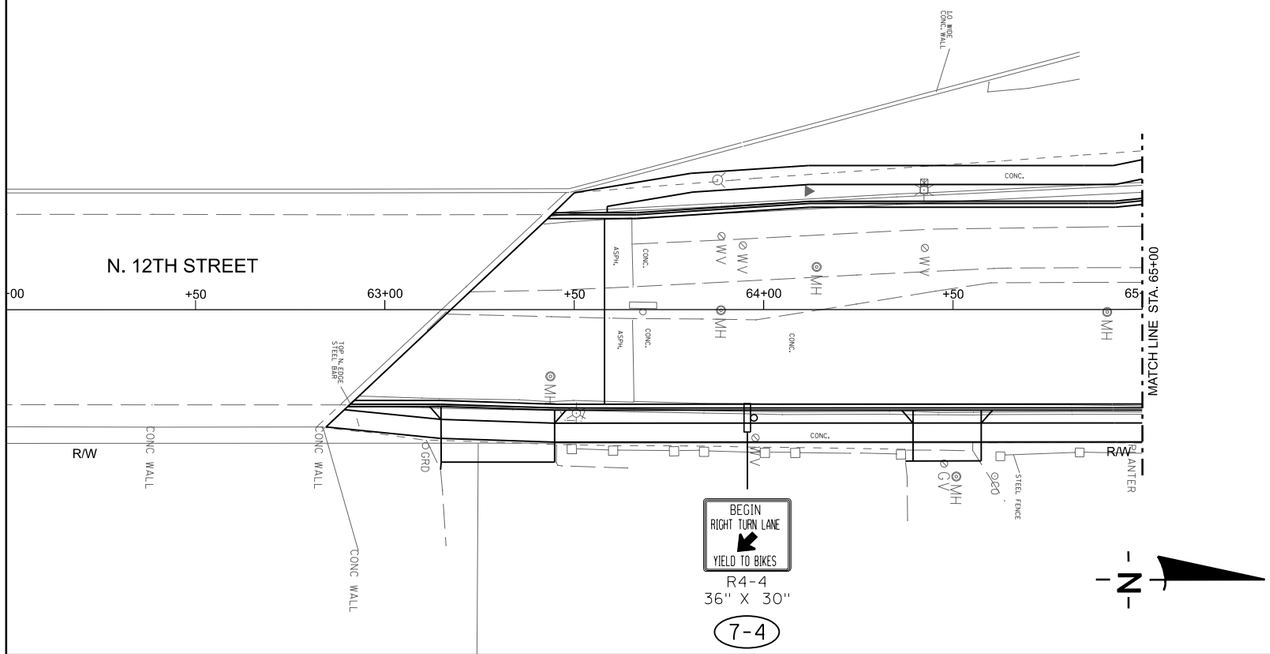
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LEGEND

XXX SIGN NUMBER

SIGN



SCALE, FEET 0 40

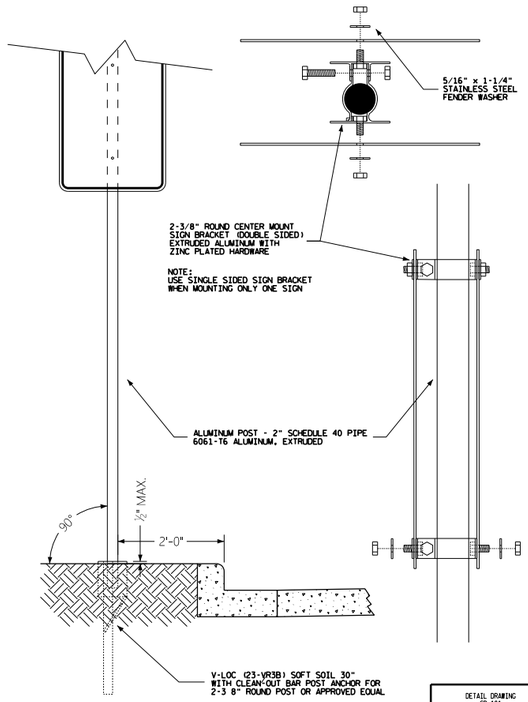
SHEET 7 OF 7

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 103	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

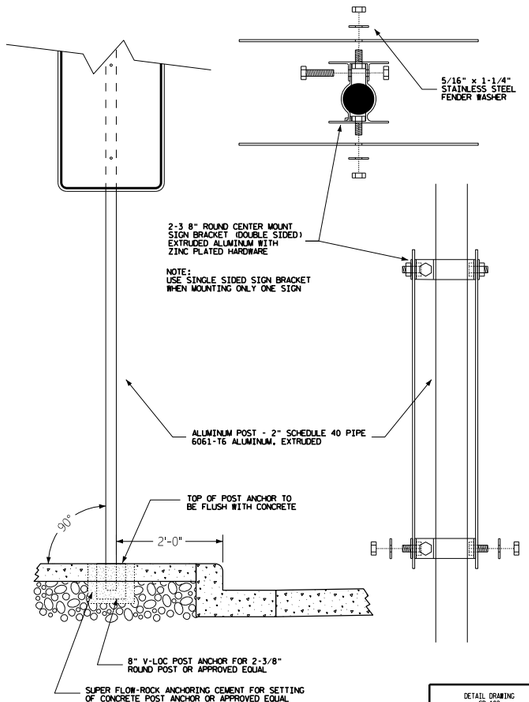
ROUND ALUMINUM SIGN POST SYSTEM FOR SOFT SURFACE INSTALLATION



DETAIL DRAWING
SD-101

CITY OF MILWAUKEE
DPW-INFRASTRUCTURE SERVICES
TRANSPORTATION OPERATIONS

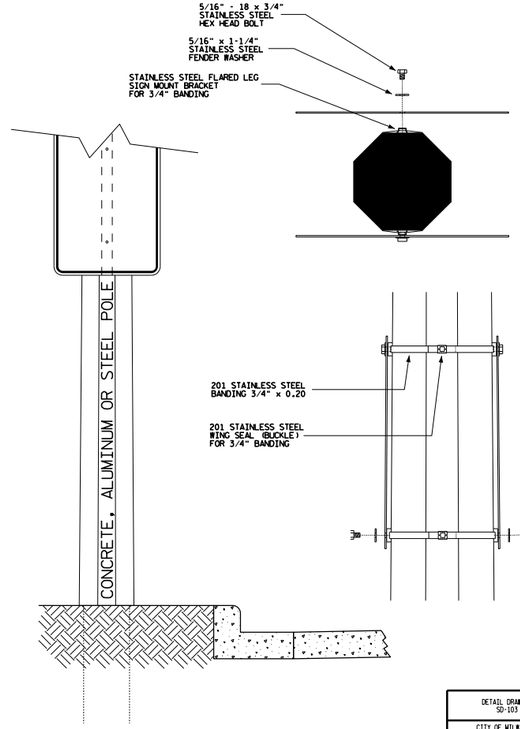
ROUND ALUMINUM SIGN POST SYSTEM FOR CONCRETE INSTALLATION



DETAIL DRAWING
SD-102

CITY OF MILWAUKEE
DPW-INFRASTRUCTURE SERVICES
TRANSPORTATION OPERATIONS

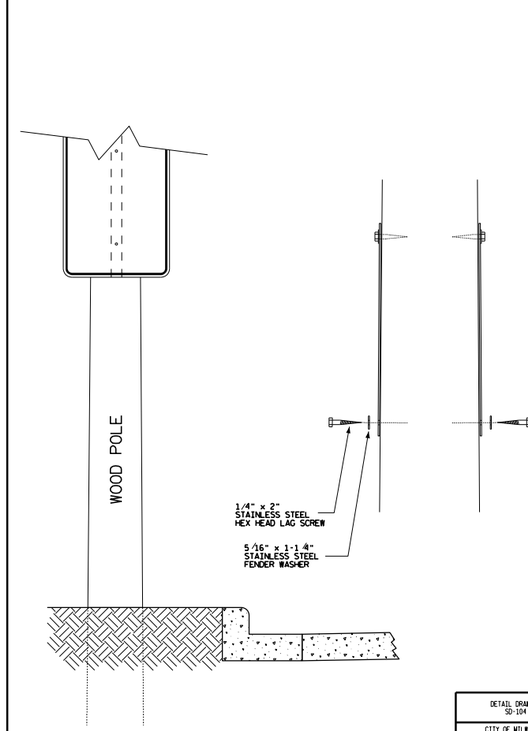
EXISTING CONCRETE, ALUMINUM OR STEEL POLE SIGN SYSTEM INSTALLATION



DETAIL DRAWING
SD-103

CITY OF MILWAUKEE
DPW-INFRASTRUCTURE SERVICES
TRANSPORTATION OPERATIONS

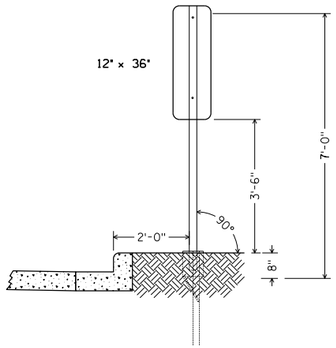
EXISTING WOOD POLE SIGN SYSTEM INSTALLATION

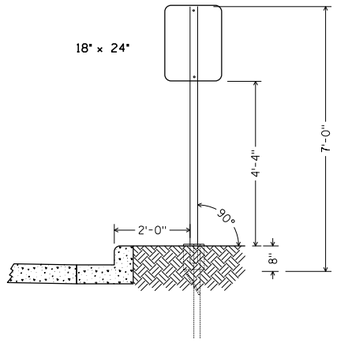


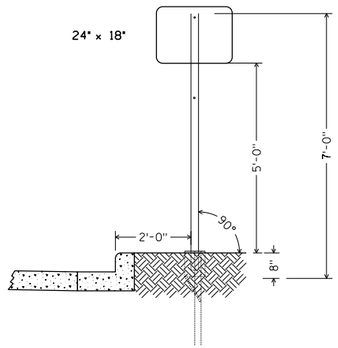
DETAIL DRAWING
SD-104

CITY OF MILWAUKEE
DPW-INFRASTRUCTURE SERVICES
TRANSPORTATION OPERATIONS

2



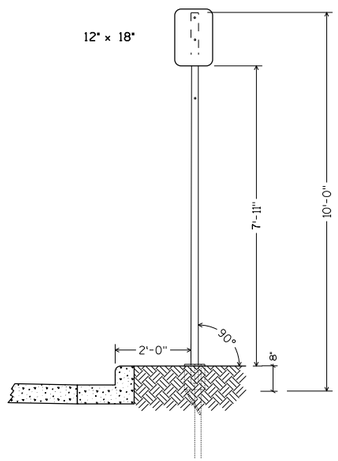




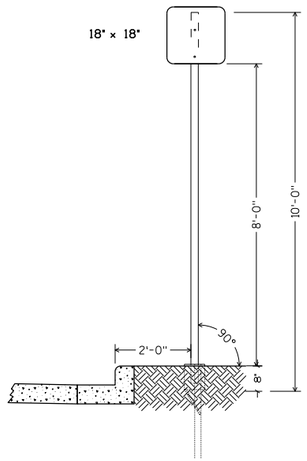
PROJECT NO: 2674–02–70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	7'–0" PIPE ASSEMBLIES	SHEET 105	E

2

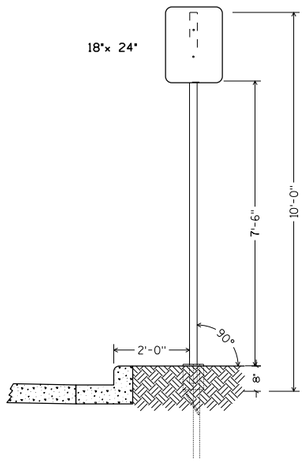
12" × 18"



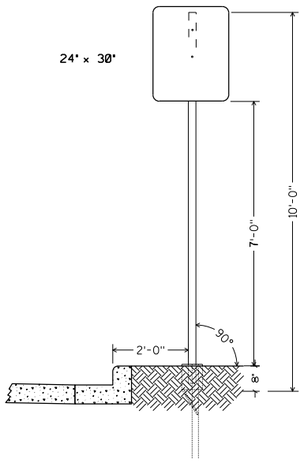
18" × 18"



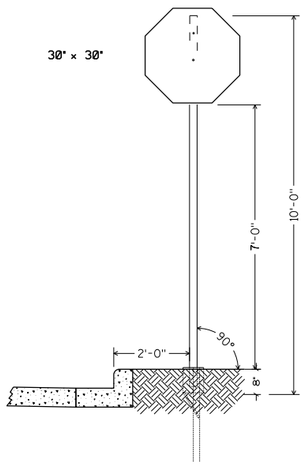
18"× 24"



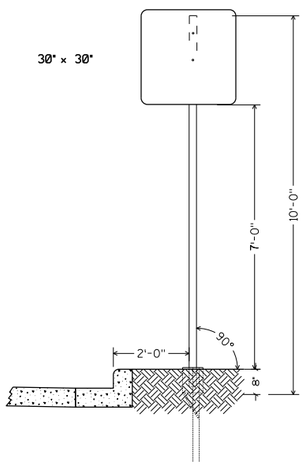
24" × 30"



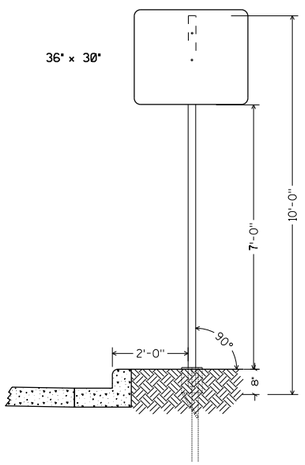
30" × 30"



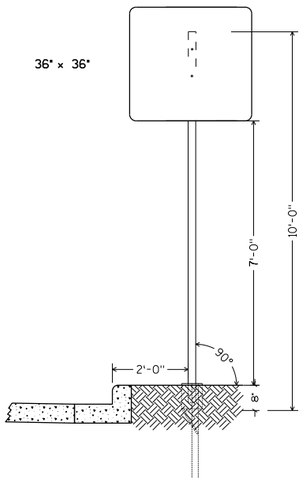
30" × 30"



36" × 30"

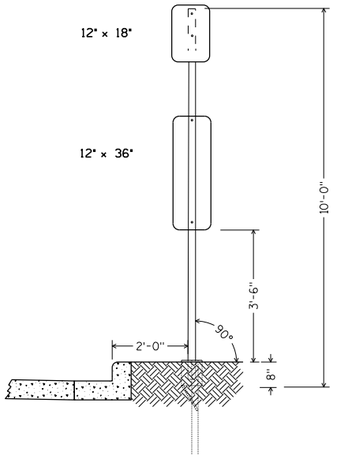


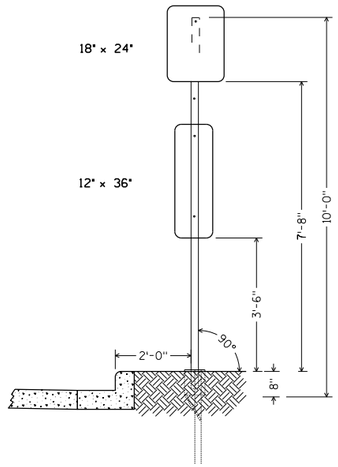
36" × 36"

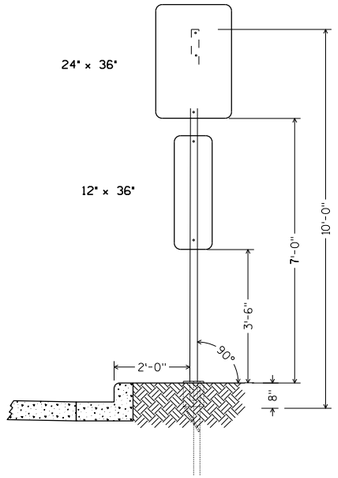


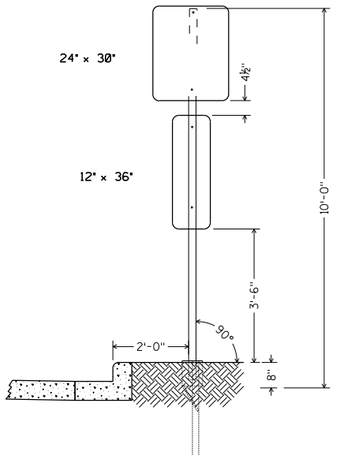
PROJECT NO: 2674–02–70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	10'–0" PIPE ASSEMBLIES	SHEET 106	E

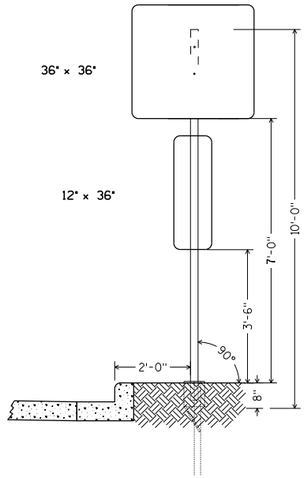
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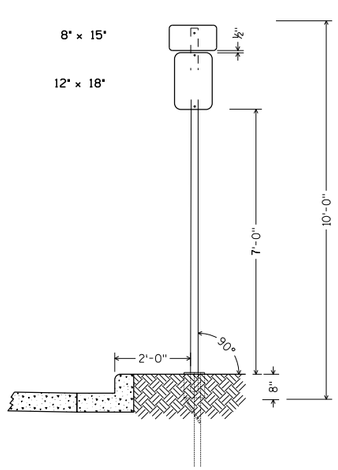


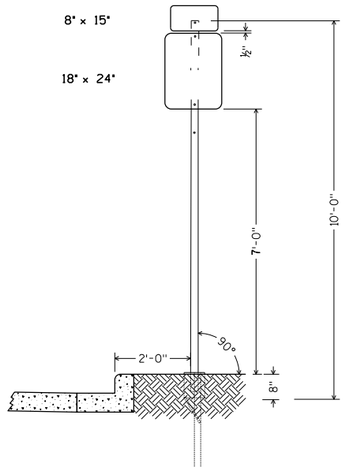


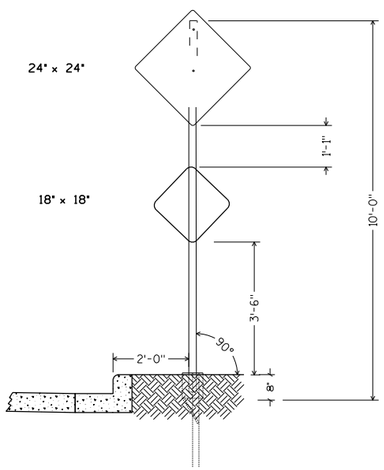


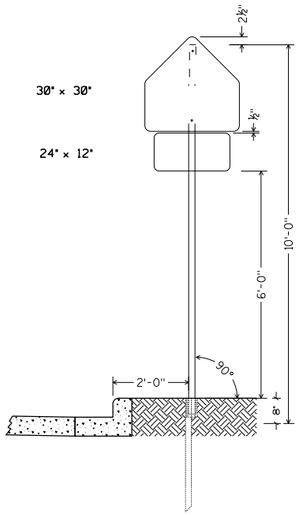






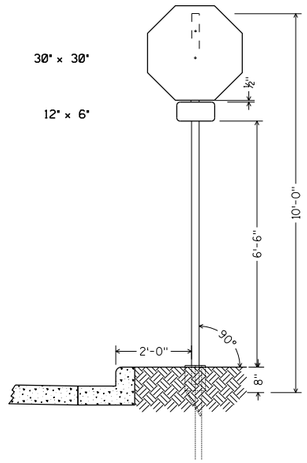


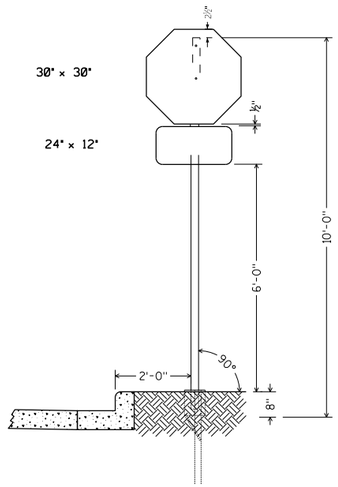


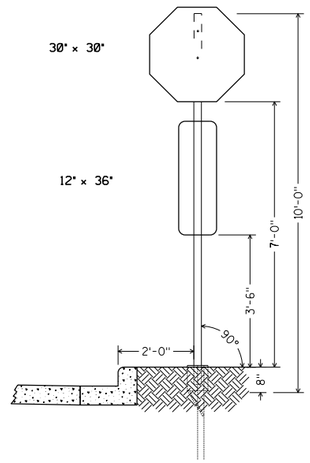


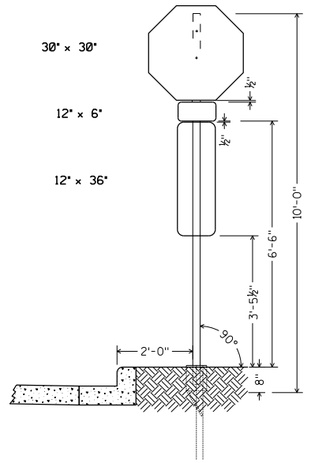
PROJECT NO: 2674–02–70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	10'–0" PIPE ASSEMBLIES	SHEET 107	E

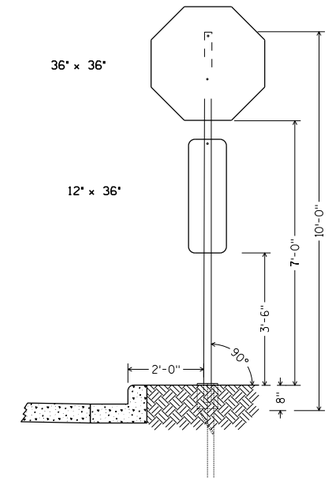
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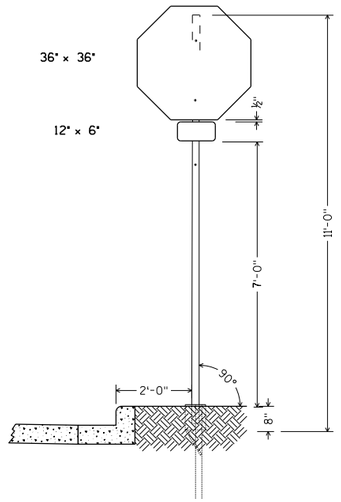


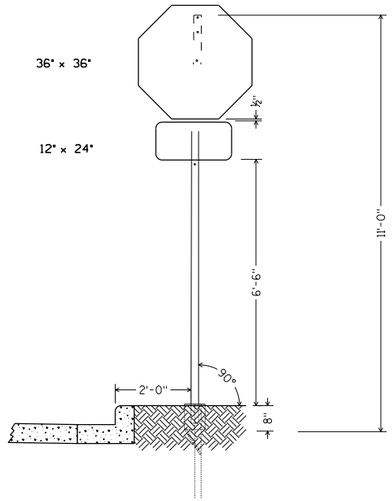


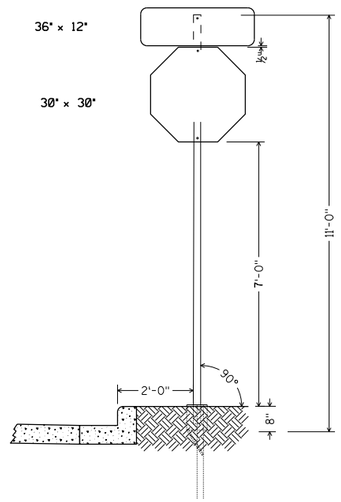


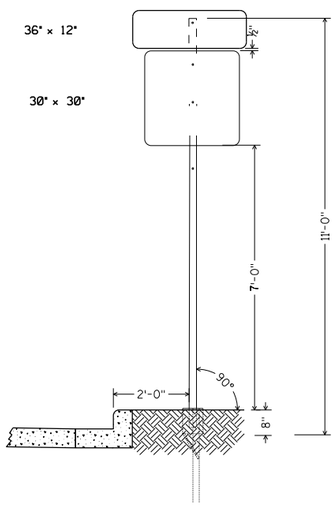
PROJECT NO: 2674–02–70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	10'–0" PIPE ASSEMBLIES	SHEET 108	E

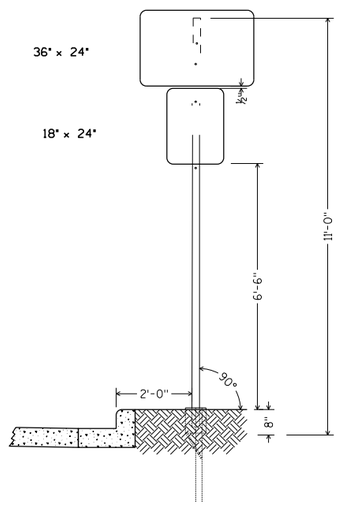
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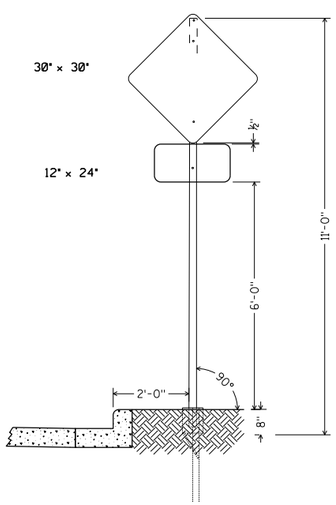


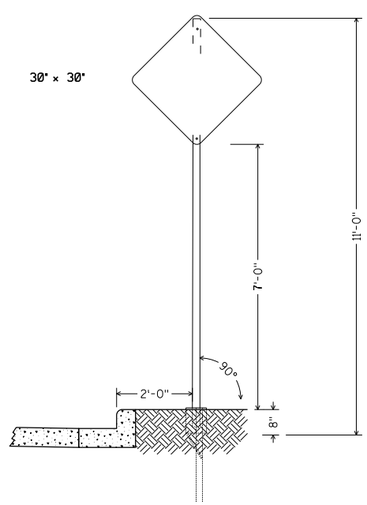


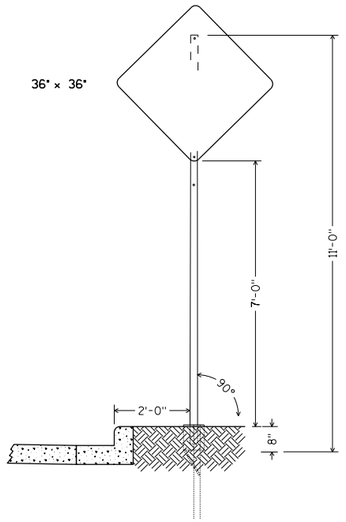






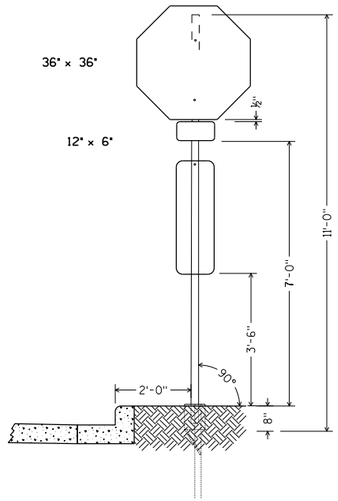


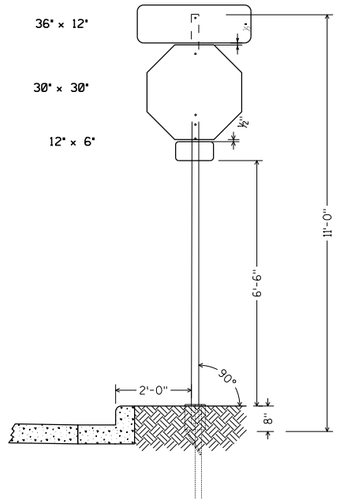


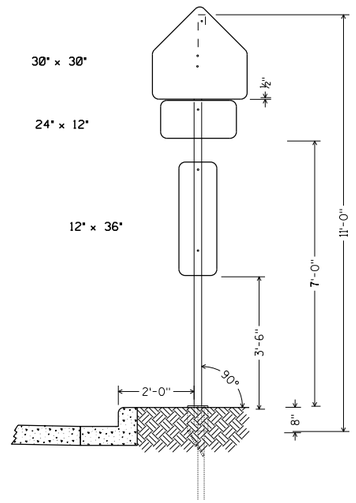


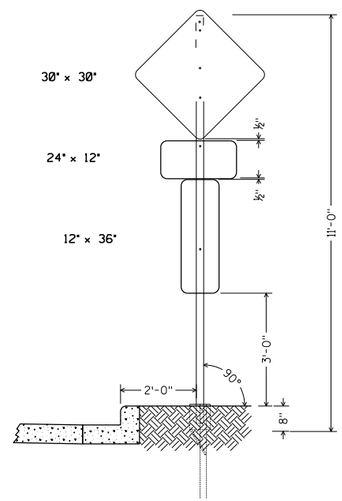
PROJECT NO: 2674–02–70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	11'–0" PIPE ASSEMBLIES	SHEET 109	E

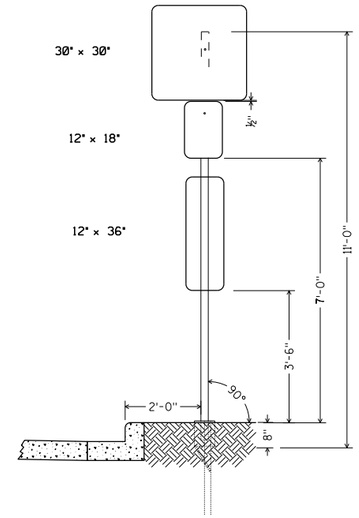
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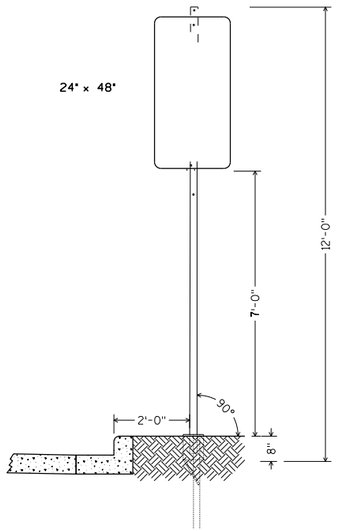


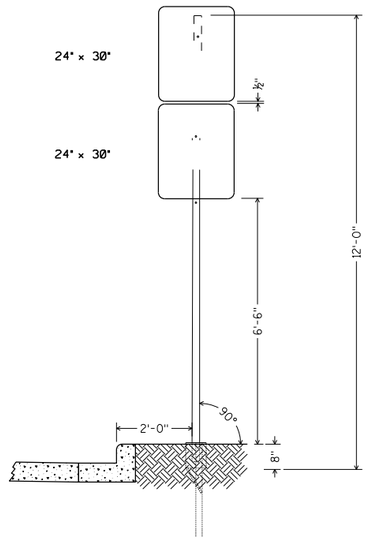


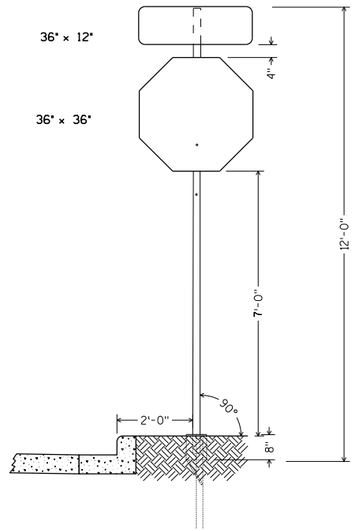


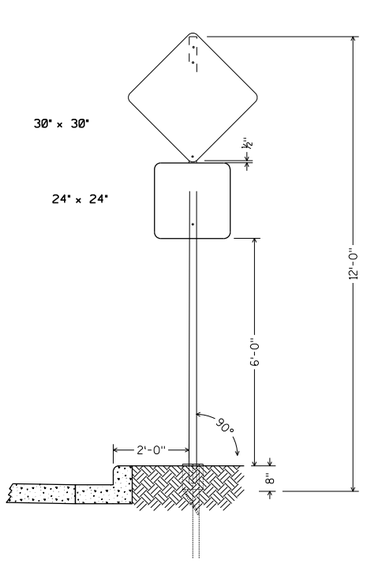


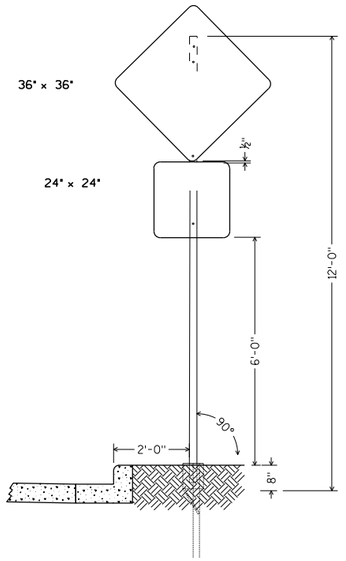
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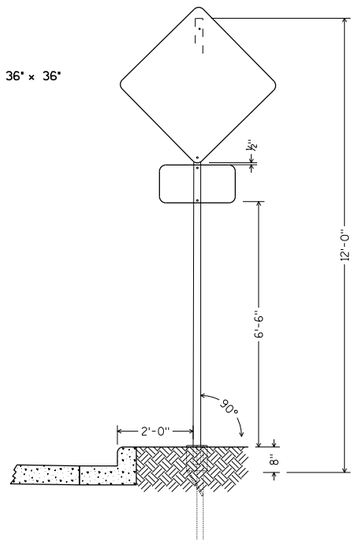

24" x 48"
12'-0"
7'-0"
90°
2'-0"
8"


24" x 30"
½"
24" x 30"
12'-0"
6'-6"
90°
2'-0"
8"

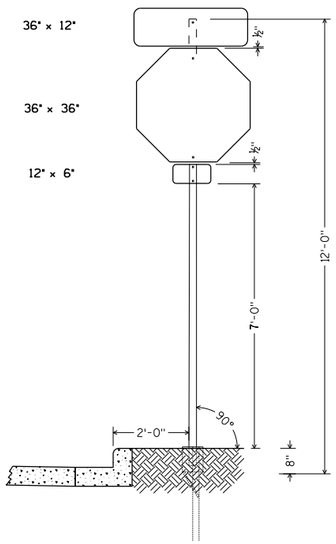

36" x 12"
4"
36" x 36"
12'-0"
7'-0"
90°
2'-0"
8"

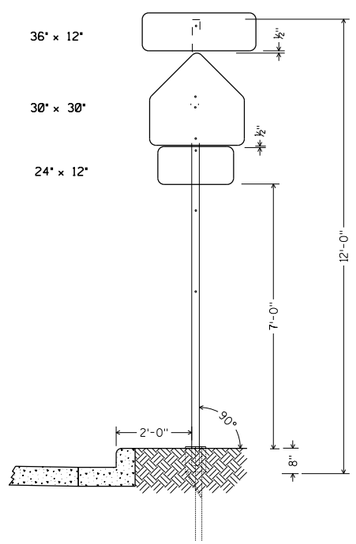

30" x 30"
½"
24" x 24"
12'-0"
6'-0"
90°
2'-0"
8"

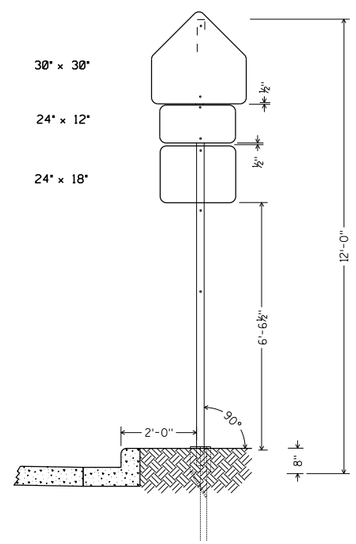

36" x 36"
½"
24" x 24"
12'-0"
6'-0"
90°
2'-0"
8"

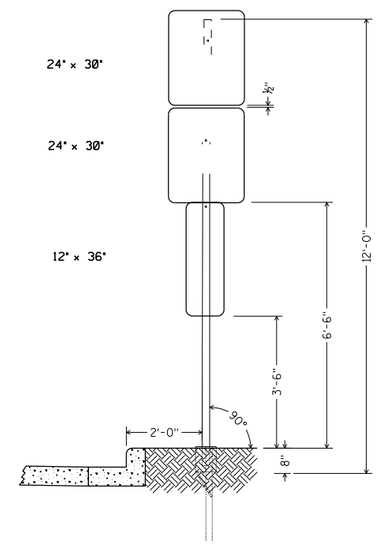

36" x 36"
½"
12'-0"
9'-6"
90°
2'-0"
8"

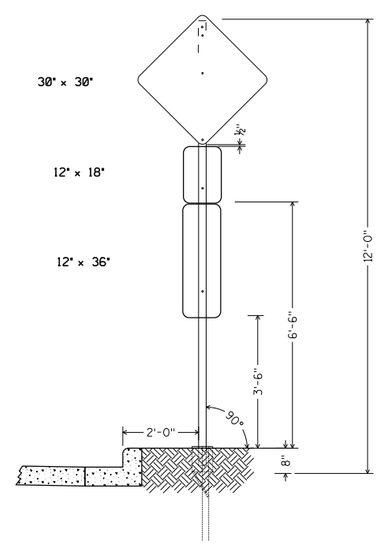
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PROJECT NO: 2674–02–70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	12'–0" PIPE ASSEMBLIES	SHEET 112	E

2

TRAFFIC & STREET LIGHTING GENERAL NOTES:

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

STREET LIGHTING & TRAFFIC SIGNALS SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 652 EXCEPT:

THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING REPAIRS, REPLACEMENT OR RELOCATION ETC. OF STREET LIGHTING OR TRAFFIC SIGNAL FACILITIES IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING OR TRAFFIC SIGNAL DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED PERMISSION.

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

2 LOCATIONS OF THE PVC CONDUITS WHERE THEY ARE REQUIRED ARE IDENTIFIED IN THE PRINTS. HOWEVER, INSTALLATION MAY REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. ANY RELOCATIONS MUST BE APPROVED BY THE ENGINEER. FIELD MARK EACH CONDUIT LOCATION BY STAMPING AND PAINTING WITH RED PAINT ON TOP AND BACKSIDE OF CURB.

3 TYPICAL CONDUIT INSTALLED UP TO DIRECT BURIED STREET LIGHT POLES IS AS FOLLOWS 3-INCH OR 2.5-INCH (AS NOTED) SCHEDULE 40 RIGID PVC TO STREET LIGHTING METAL HOUSING (PEDESTAL), THE 1.5-INCH SCHEDULE 40 RIGID PVC TO STREET LIGHT POLE CABLE SLOT, AND THE 2-INCH SCHEDULE 40 RIGID PVC TO SIGNAL STANDARD BASE AND RISER FOR TRAFFIC SIGNAL ON STREET LIGHT POLE.

4 DEPTH OF CONDUIT INSTALLED BELOW THE STREETS, HIGHWAYS, ROADS, AND ALLEYS SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM. (MEASURED FROM FINISHED FLANGE LINE)

5 CONDUIT INSTALLED BEHIND CURB, AND UNDER DRIVEWAYS SHALL BE INSTALLED AT 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

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 CONRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP SUPERVISORS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK.
STREET LIGHTING - 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 EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

27 Provide three sets 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 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

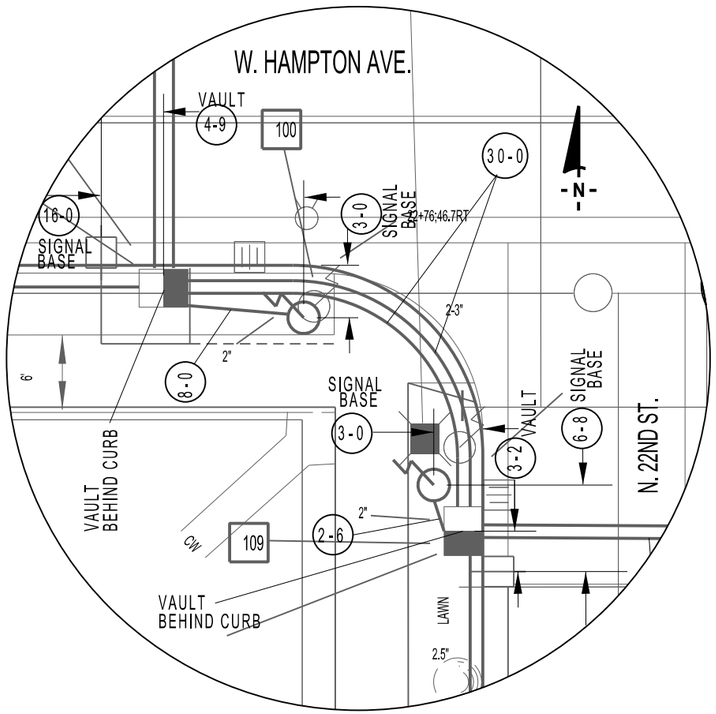
UTILITY LINE CODE

SAN	SANITARY SEWER
STO	STORM SEWER
W	WATER
G	GAS
G	PROPOSED GAS
E	ELECTRIC
TE&ES	TRAFFIC & STREET LIGHTING
	OLD CITY UNDERGROUND CONDUIT
CUC	PROPOSED CITY UNDERGROUND CONDUIT
T	TELEPHONE
TV	CABLE

RECORD RETENTION REQUIREMENTS:

- 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 ORGINAL 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 LOCATION 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.

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



FIELD RECORD EXAMPLE DETAIL NOT TO SCALE

TYPICAL DIMENSIONING OF CONDUIT, VAULTS, 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 EXTENED TO MEASURE OFF WHEN LOCATING CONDUIT, VAULTS AND CONCRETE BASES.

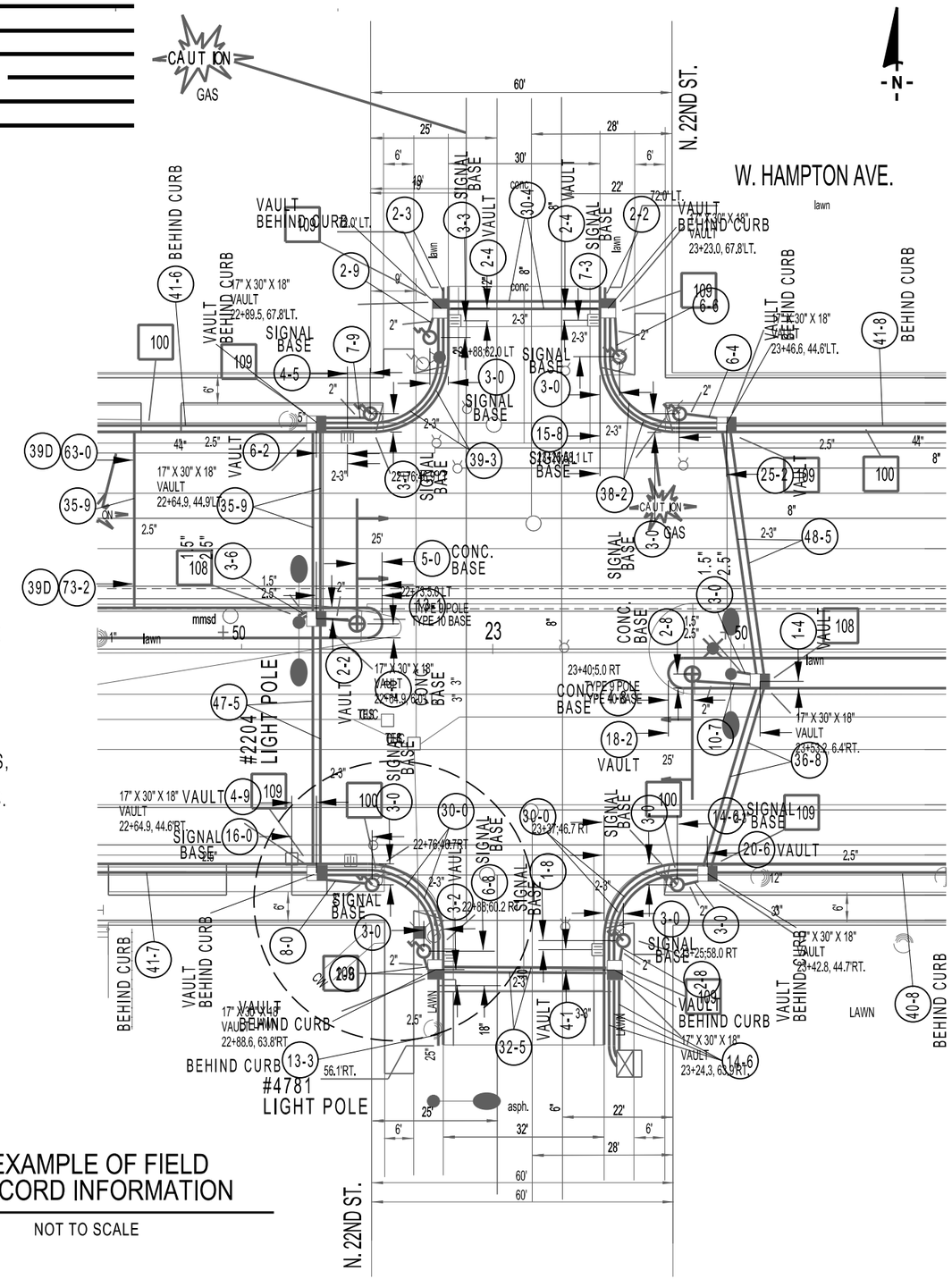
MEASURE TO OR FROM THE CENTERS OF OBJECTS FOR DISTANCE TAKING.

(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 OR CURB FACE TO CONDUIT, VAULT, AND CONCRETE BASE (MEASURED TO NEAREST TENTH OF A FOOT)



EXAMPLE OF FIELD RECORD INFORMATION

NOT TO SCALE

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	STREET LIGHTING DETAILS	SHEET 114	E

2

TRAFFIC & STREET LIGHTING GENERAL NOTES:

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.

It is critical that the Contractor work on the As-Built drawings while the job is progressing, so changes are documented while they are still fresh in your mind.

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.

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 info:

AS-BUILT DRAWING
SUPERVISER:
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 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 additions may-be shown on supplemental non-drawing sheets.

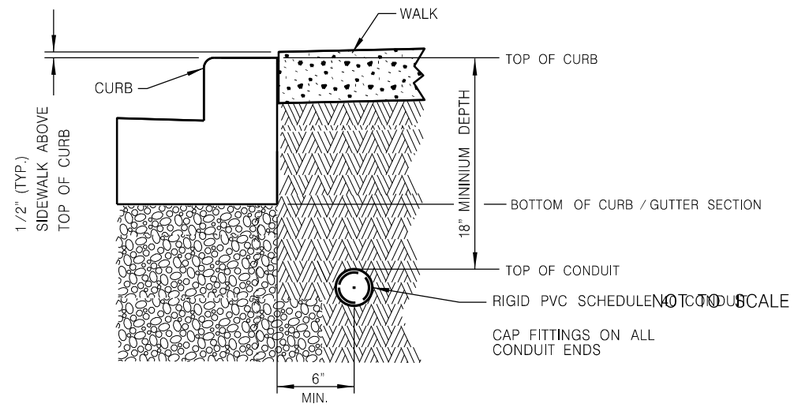
< Locate and clearly label all conduit runs, fittings, splice vaults, pull boxes, meter pedestals, concrete bases, transformers, poles and other appurtenances in two directions. Swing ties should be made from objects that are permanent in nature and visible on the finished surface.
< Street names shall 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 location and elevations on pipes 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 other required As-Built information.

Send to:
City of Milwaukee
Infrastructure Services Division
Transportation Section
Street Lighting & CUC Engineering Manager
841 N. Broadway (Room 920)
Milwaukee, WI. 53202

2

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.



100 DETAIL "A" — NOT TO SCALE

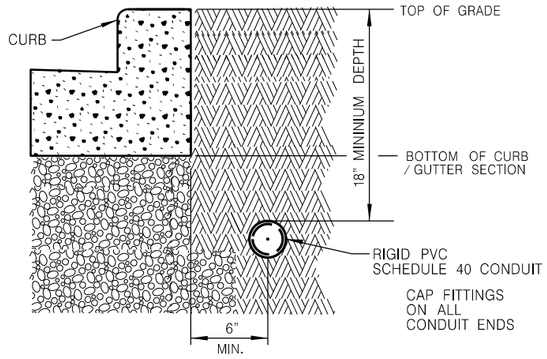
TYPICAL CONDUIT INSTALLATION BEHIND CURB

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

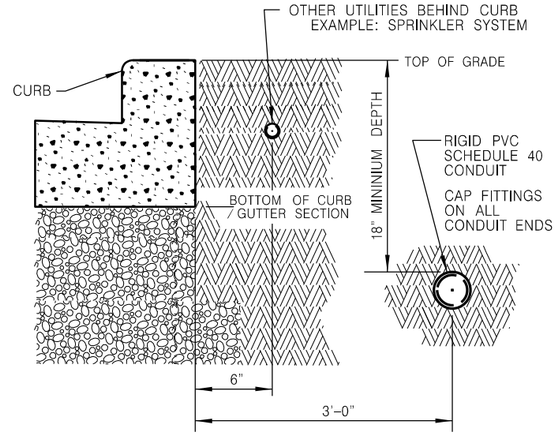
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

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



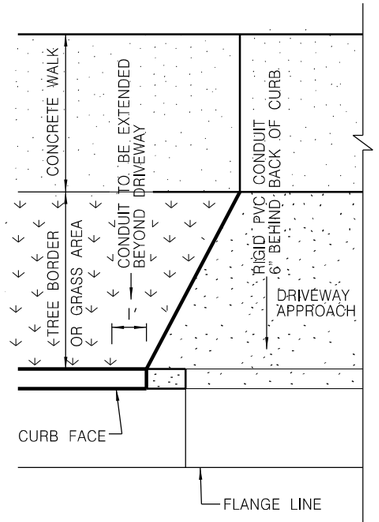
DETAIL "C"



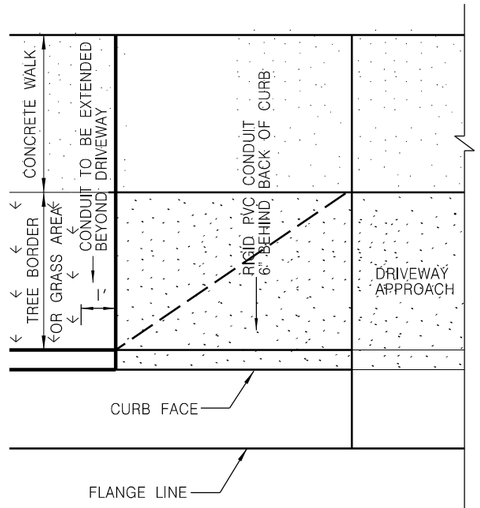
100 DETAIL "B" & "C" — NOT TO SCALE

TYPICAL CONDUIT INSTALLATION BEHIND CURB

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

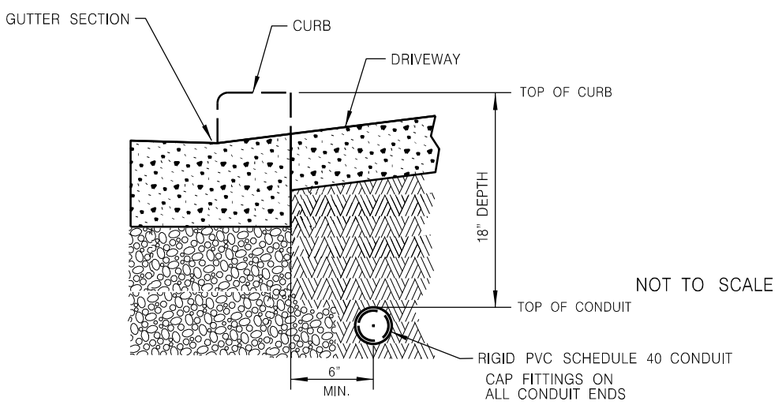


TYPICAL PLAN VIEW FOR
FLARED DRIVEWAY



TYPICAL PLAN VIEW FOR
DEPRESSED DRIVEWAY

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.



NOT TO SCALE

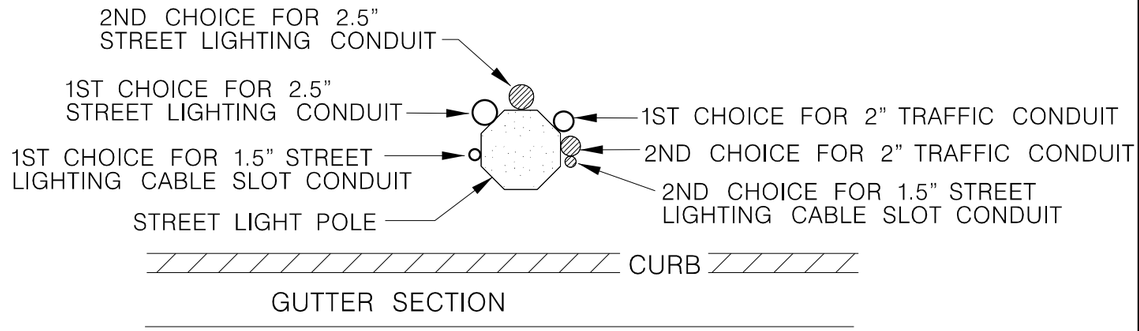
101 DETAIL

TYPICAL CONDUIT INSTALLATION
UNDER DRIVEWAYS OR PEDESTRIAN RAMPS

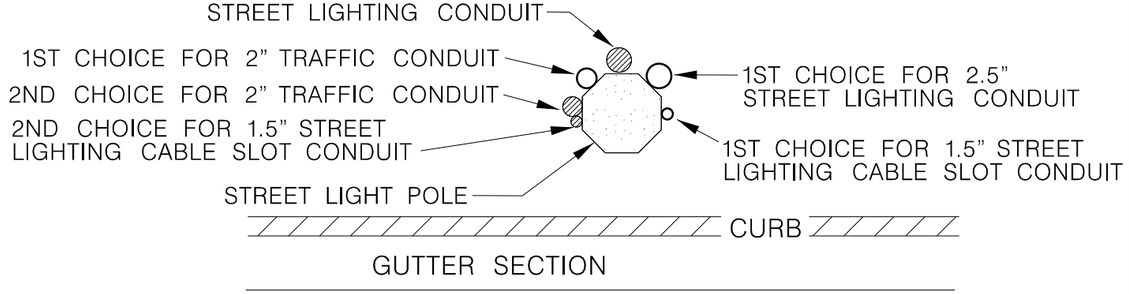
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

2

NOTE: CAP FITTINGS ON
CONDUIT ENDS



DIRECTION OF TRAFFIC AT CURB



DIRECTION OF TRAFFIC AT CURB

104 DETAIL

TYPICAL TRAFFIC SIGNAL RISER AND
STREET LIGHTING CONDUIT LOCATIONS
ON LIGHT POLES DEPENDING ON DIRECTION OF
TRAFFIC AT CURB

NOT TO SCALE

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

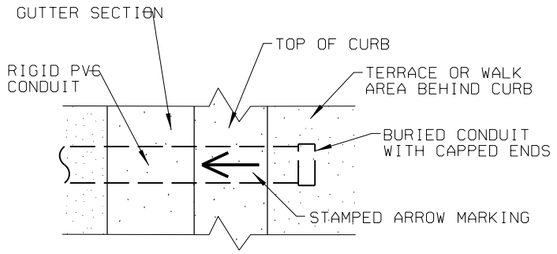
2

NOTE:

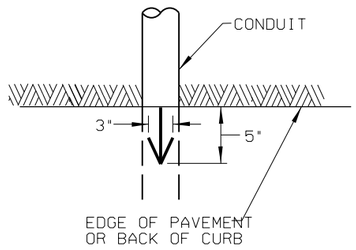
1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

2.) CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.

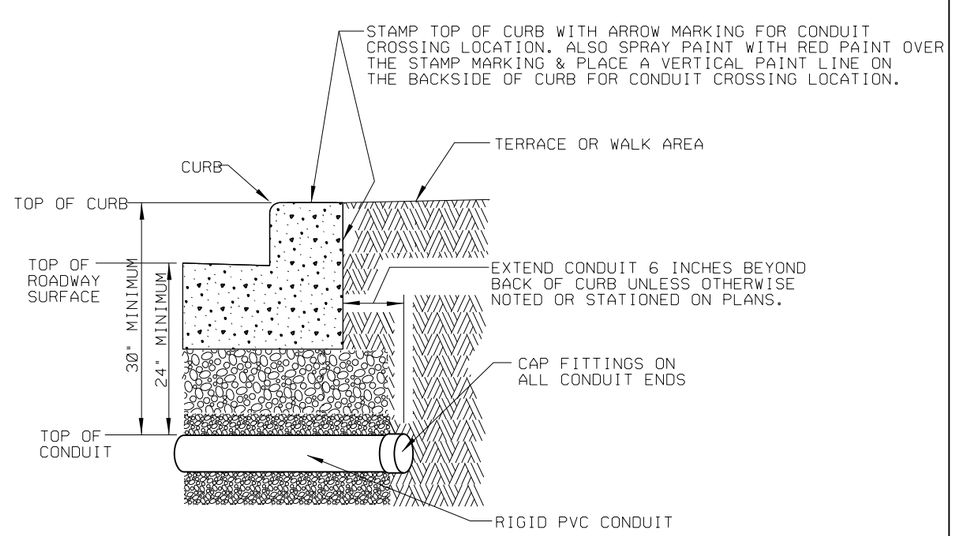
3.) ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



TOP VIEW OF CURB STAMPING



ARROW MARK



102 DETAIL

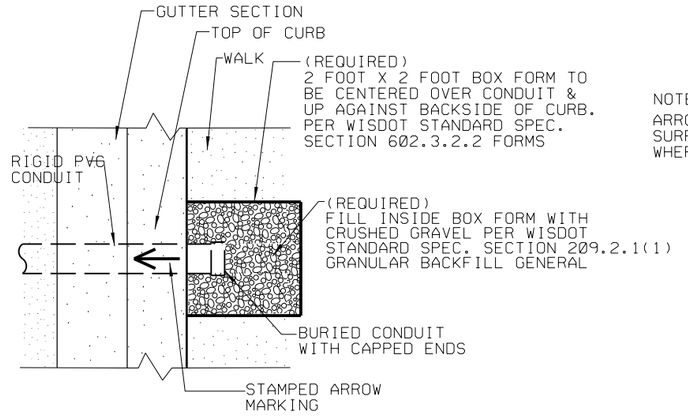
TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS

NOT TO SCALE

2

NOTE:

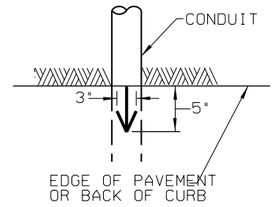
1.) ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



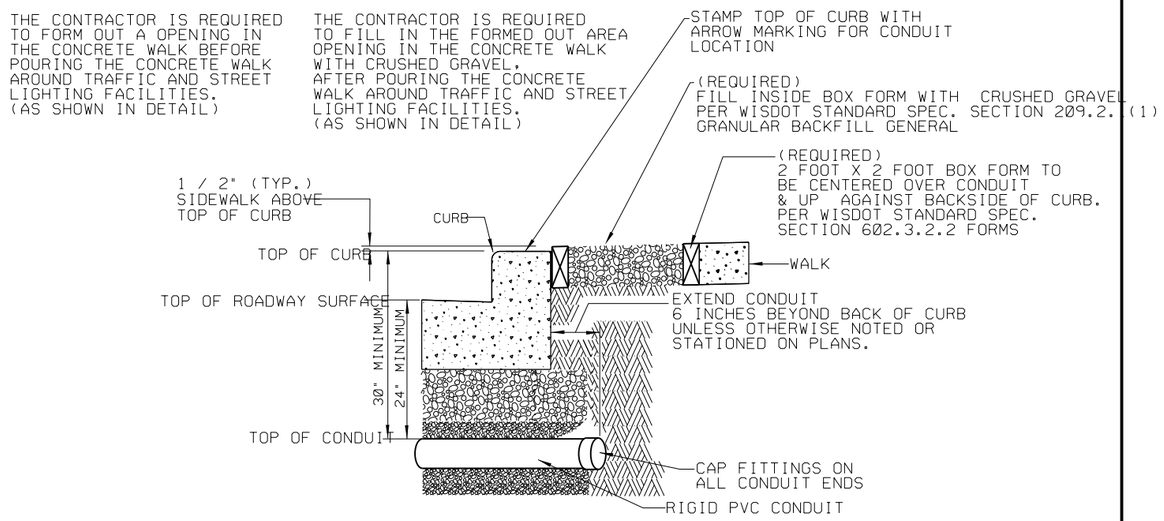
TOP VIEW OF CURB STAMPING

NOTE:

ARROW MARK SHALL BE INSCRIBED IN PAVEMENT SURFACE 1/4-INCH TO 3/8-INCH DEEP AT EACH LOCATION WHERE CONDUITS ARE PLACED UNDER THE PAVEMENT



ARROW MARK



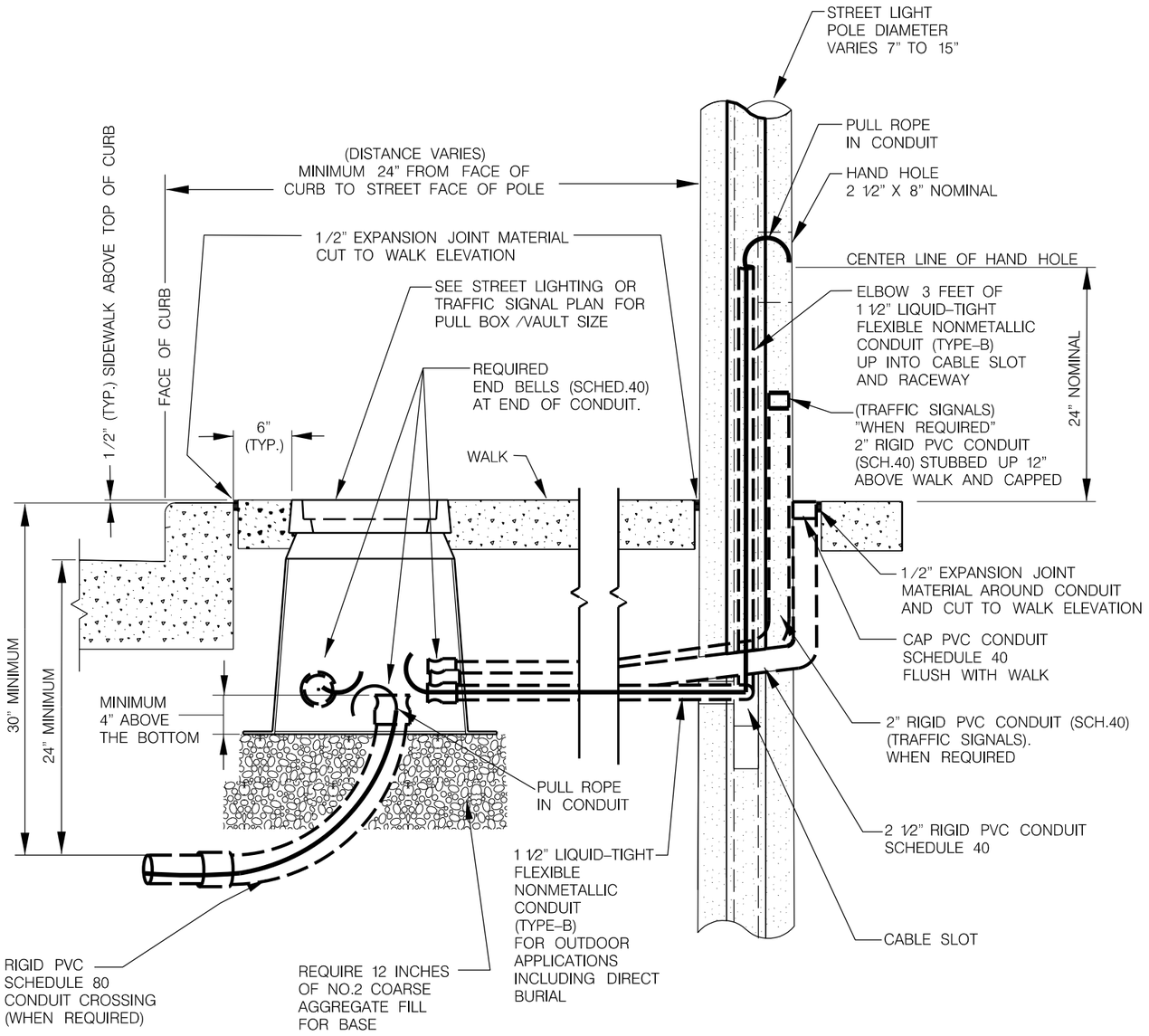
103 DETAIL

TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS FROM FULL WALK AREAS

NOT TO SCALE

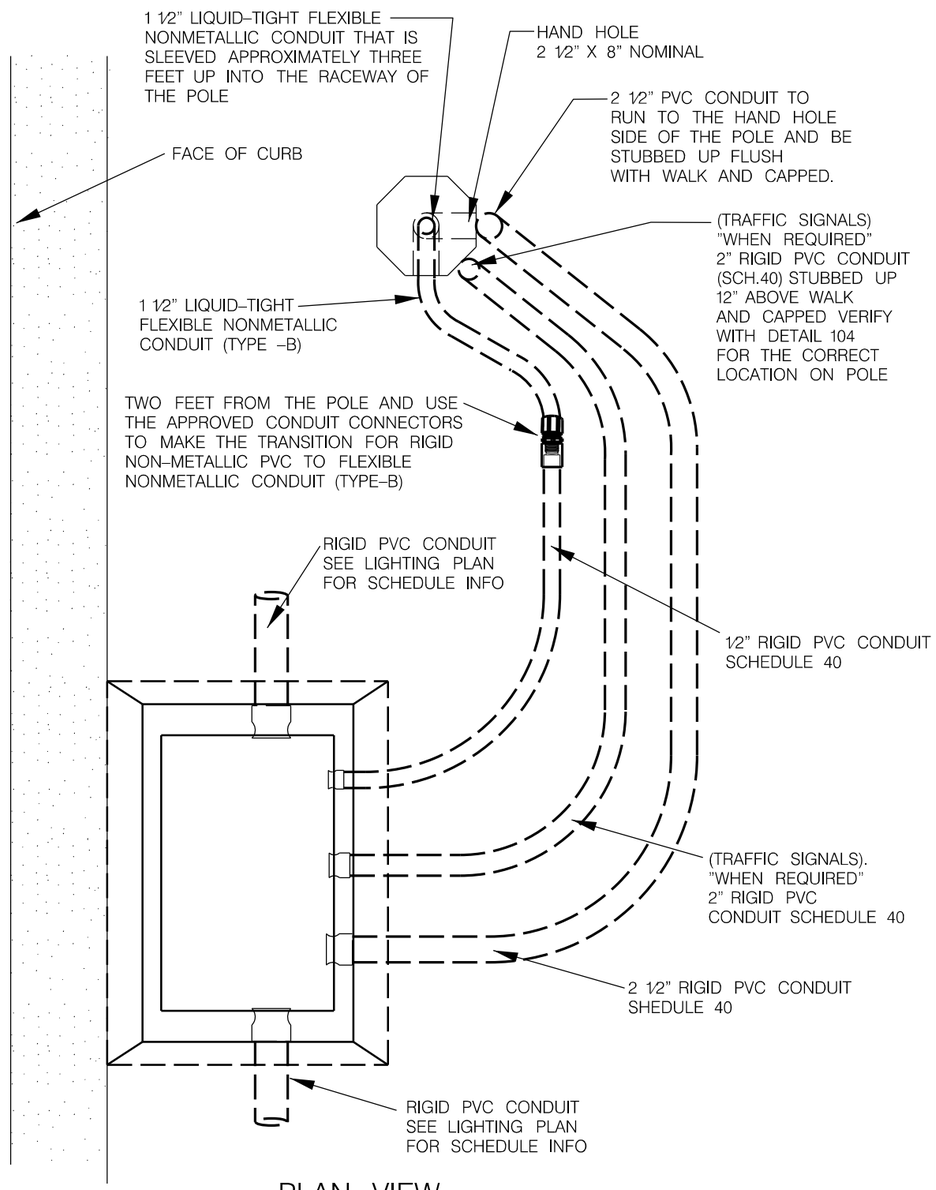
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	STREET LIGHTING DETAILS	SHEET 117	E

2



SECTION VIEW

NOT TO SCALE



PLAN VIEW

NOT TO SCALE

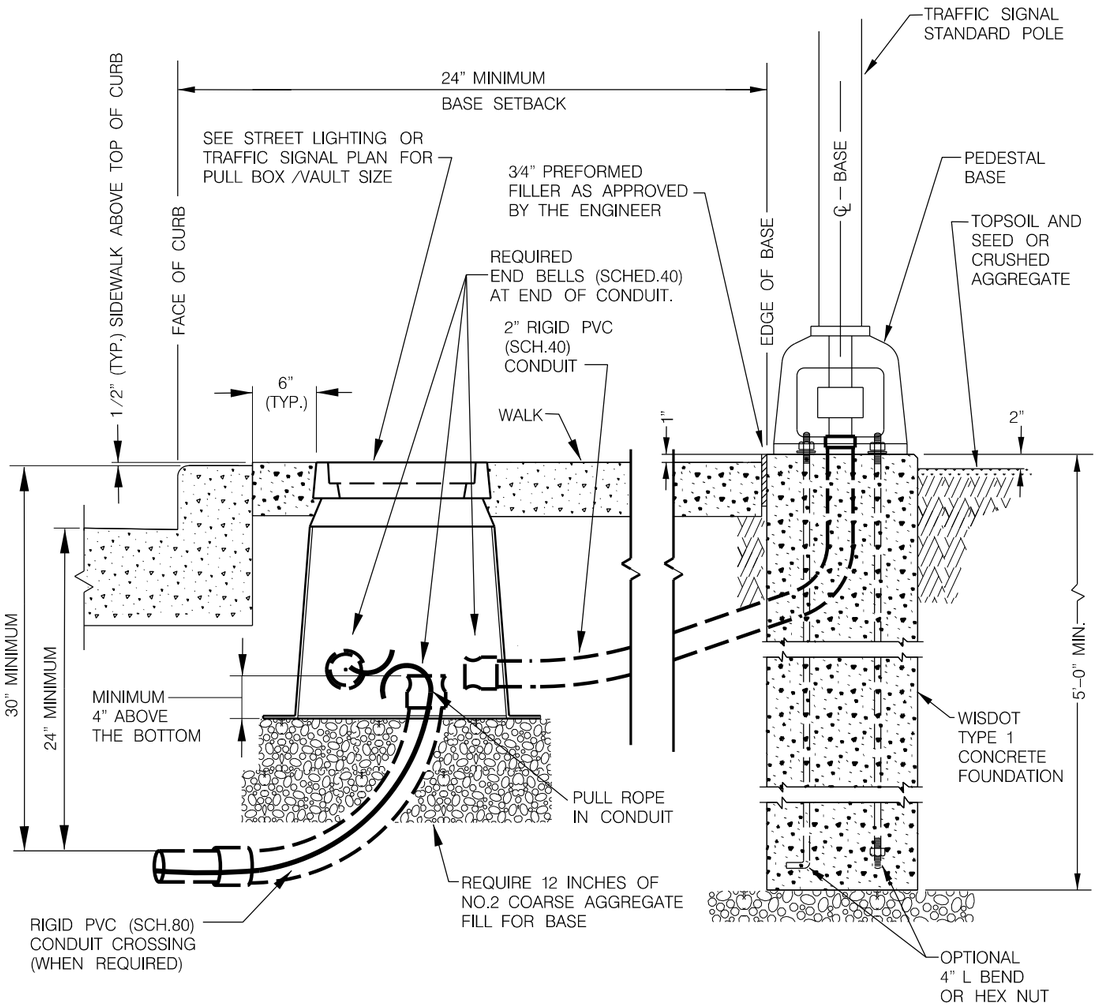
2

108A DETAIL VERSION

TYPICAL CONDUIT INSTALLATION FROM PULL BOX / VAULT TO POLE

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

NOT TO SCALE

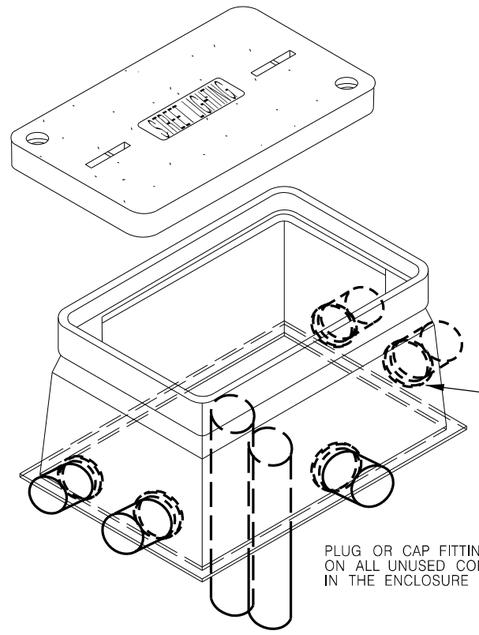


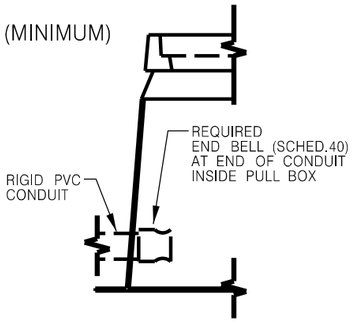
109 DETAIL

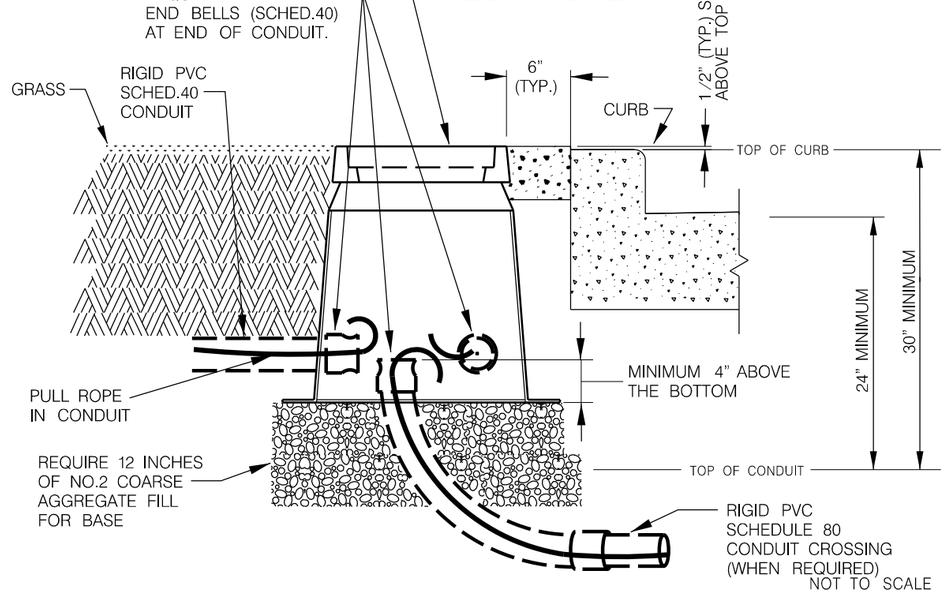
TYPICAL CONDUIT INSTALLATION FROM PULL BOX /VAULT TO SIGNAL STANDARD AND TYPICAL BASE INSTALLATION

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

NOT TO SCALE







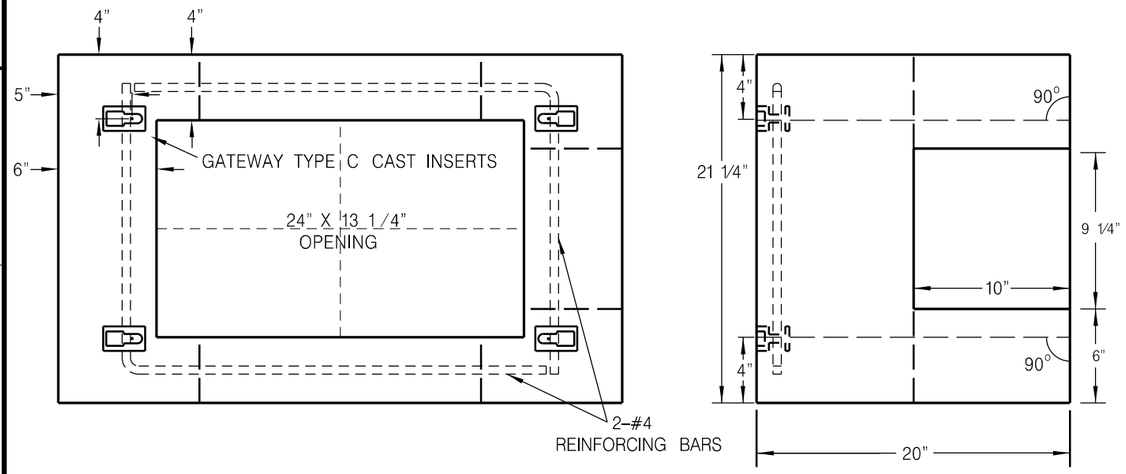
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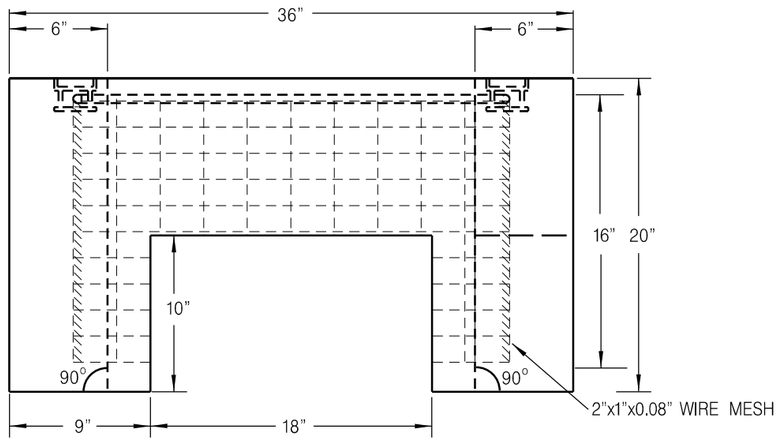
112 DETAIL

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

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

NOT TO SCALE





NOT TO SCALE

6 BAG MIX #1 STONE

COMM. CODE XXXX-XXX				
PRE-CAST CONCRETE FOUNDATION				
TRAFFIC SIGNAL CABINETS P1 AND P2				
TRAFFIC ENGINEERING AND ELECTRICAL SERVICES D.P.W. CITY OF MILWAUKEE				
TRAFFIC CONTROL MATERIAL				
DATE 8-30-16	SCALE N.T.S.	DRAWN JAR/JO	CHECKED SCB	APPROVED JCB
SUPERSEDES	REVISED DATE	DRG.		
SUPERSEDED BY	NEW DRG.	C-16-500-T		

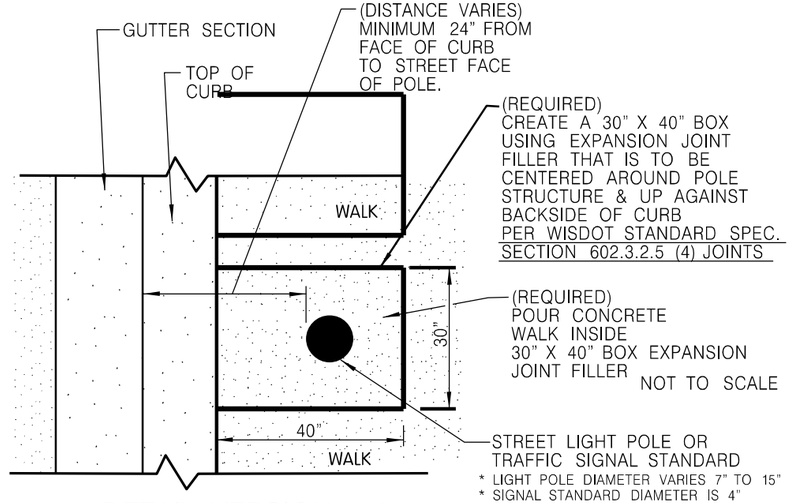
125 DETAIL

TYPICAL TRAFFIC CONTROL CABINET CONCRETE FOUNDATION

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM TRAFFIC SIGNAL FORCES.
CONTACT DISPATCHER AT (414) 286-3687 FOR SHOP SUPERVISOR.

THE CONTRACTOR IS REQUIRED TO INSTALL EXPANSION JOINT FILLER INTO THE CONCRETE WALK, WHICH SHALL BE 1/2" WIDE MINIMUM TO BE USED TO CREATE A SEPARATION BETWEEN A SMALL CONCRETE AREA AROUND THE TRAFFIC & STREET LIGHTING FACILITIES AND THE REST OF THE CONCRETE WALK.

THE BOX SIZE OF THE AREA CREATED USING THE EXPANSION JOINT FILLER IS STANDARD AROUND LIGHT POLES AND TRAFFIC SIGNALS, BUT WILL VARY WHEN PLACED AROUND TRAFFIC & LIGHTING CONTROL CABINETS.



122 DETAIL VERSION #1

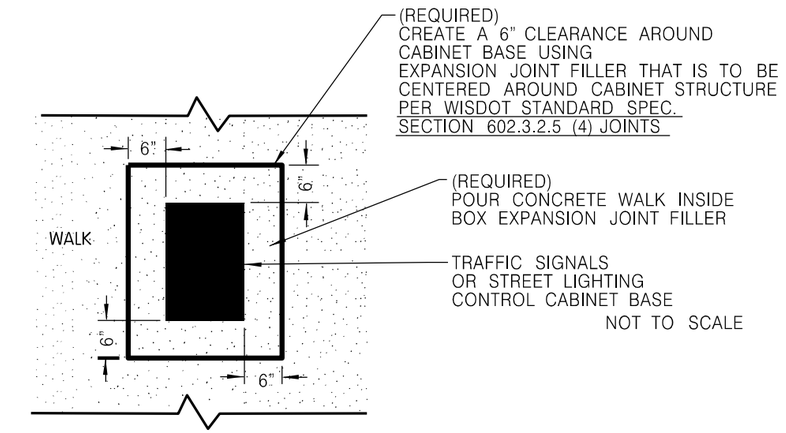
NOT TO SCALE

TYPICAL 30" X 40" BOX EXPANSION JOINT FILLER AROUND STREET LIGHTING AND TRAFFIC SIGNAL FACILITIES

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

THE CONTRACTOR IS REQUIRED TO INSTALL EXPANSION JOINT FILLER INTO THE CONCRETE WALK, WHICH SHALL BE 1/2" WIDE MINIMUM TO BE USED TO CREATE A SEPARATION BETWEEN A SMALL CONCRETE AREA AROUND THE TRAFFIC & STREET LIGHTING FACILITIES AND THE REST OF THE CONCRETE WALK.

THE BOX SIZE OF THE AREA CREATED USING THE EXPANSION JOINT FILLER IS STANDARD AROUND LIGHT POLES AND TRAFFIC SIGNALS, BUT WILL VARY WHEN PLACED AROUND TRAFFIC & LIGHTING CONTROL CABINETS.

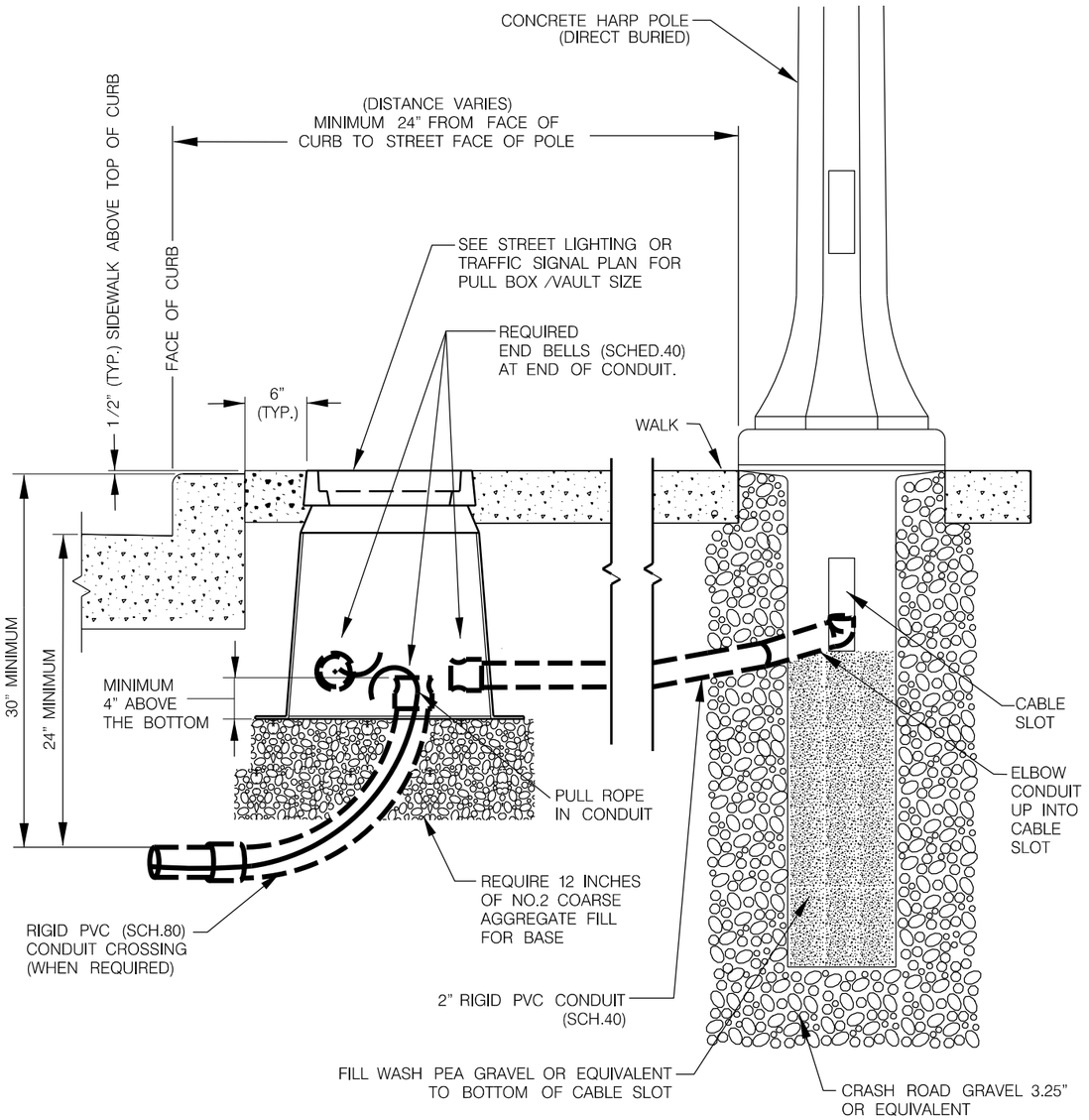


122 DETAIL VERSION #2

NOT TO SCALE

TYPICAL BOX EXPANSION JOINT FILLER AROUND TRAFFIC SIGNAL OR STREET LIGHTING CONTROL CABINET

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



123 DETAIL

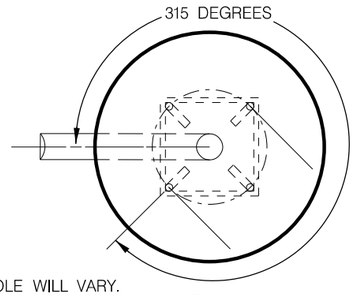
TYPICAL CONDUIT INSTALLATION
FROM PULL BOX TO CONCRETE HARP POLE

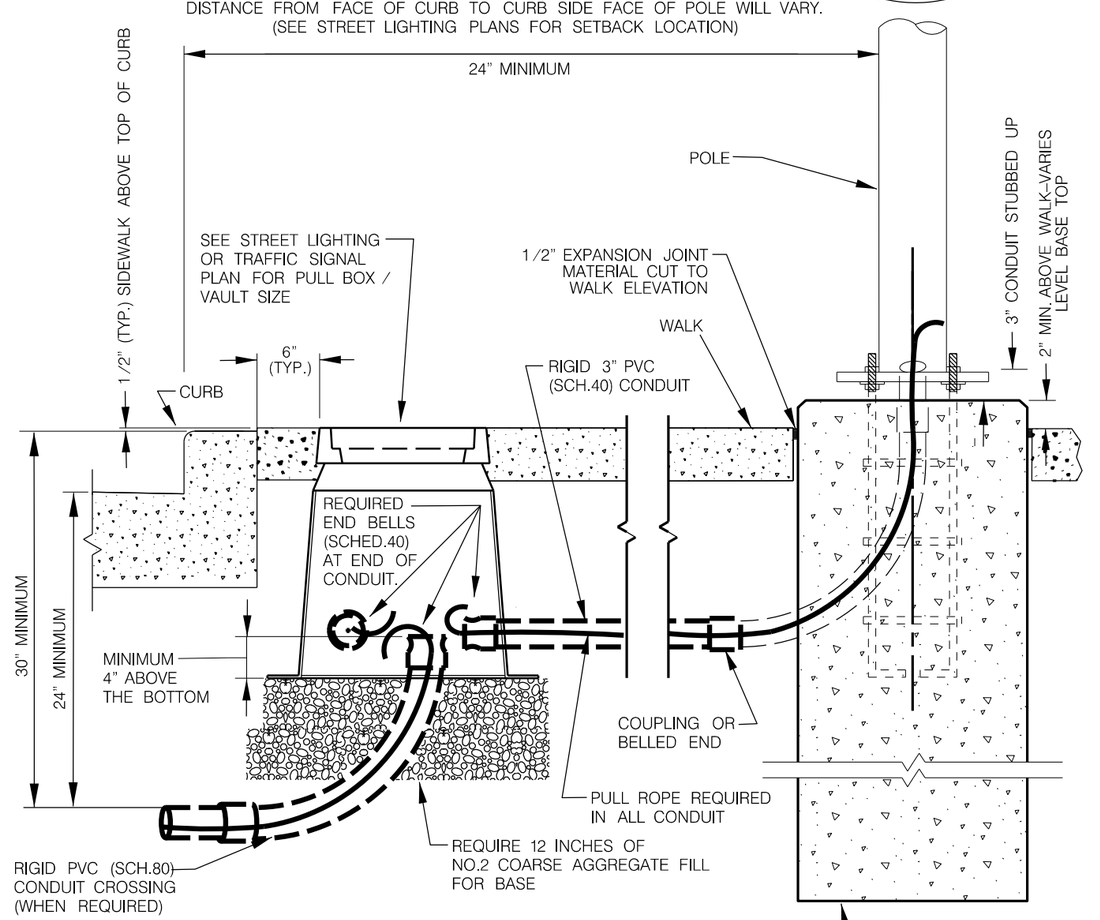
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

NOT TO SCALE

2

BOLT CIRCLE
TOP VIEW



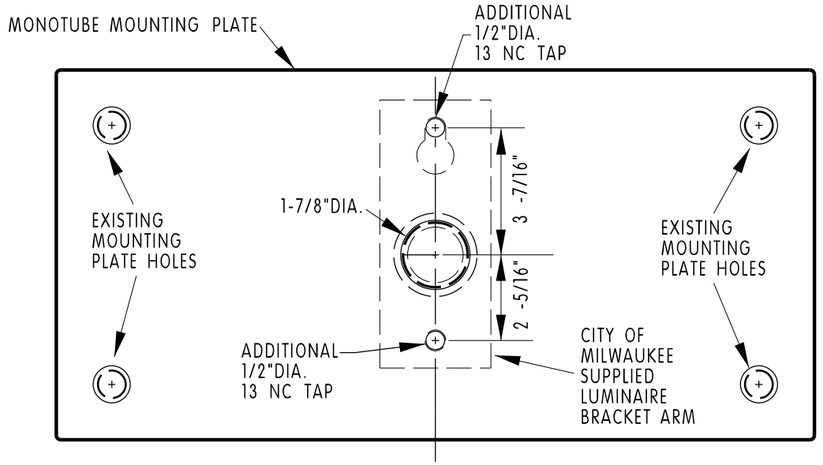


124 DETAIL

TYPICAL CONDUIT INSTALLATION
FROM PULL BOX / VAULT
TO CONCRETE BASE

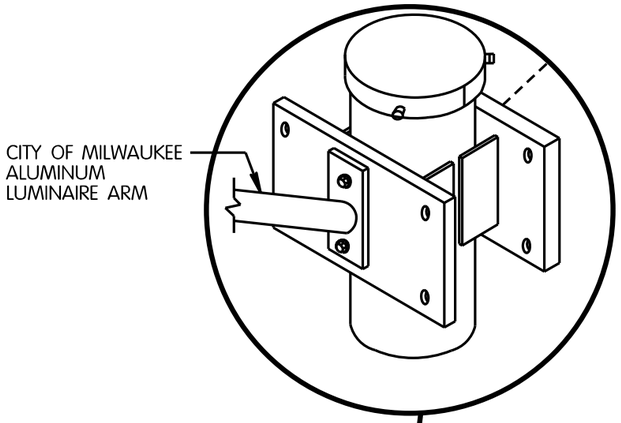
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

NOT TO SCALE

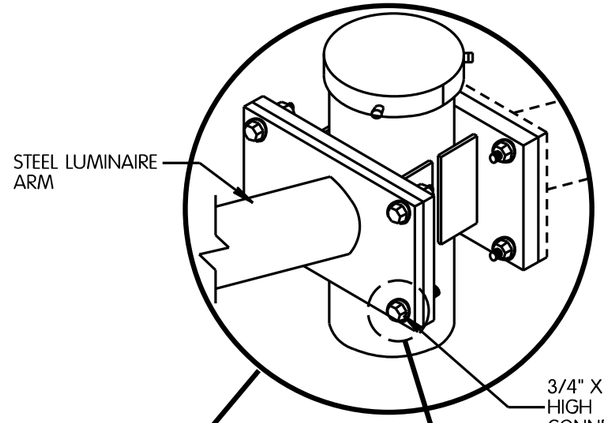


ADDITIONAL MOUNTING HOLES IN LUMINAIRE MOUNTING PLATE

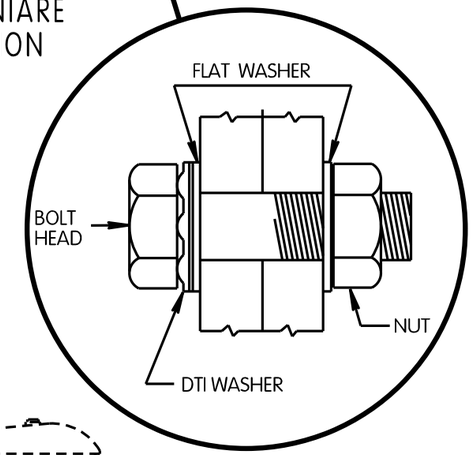
NOT TO SCALE



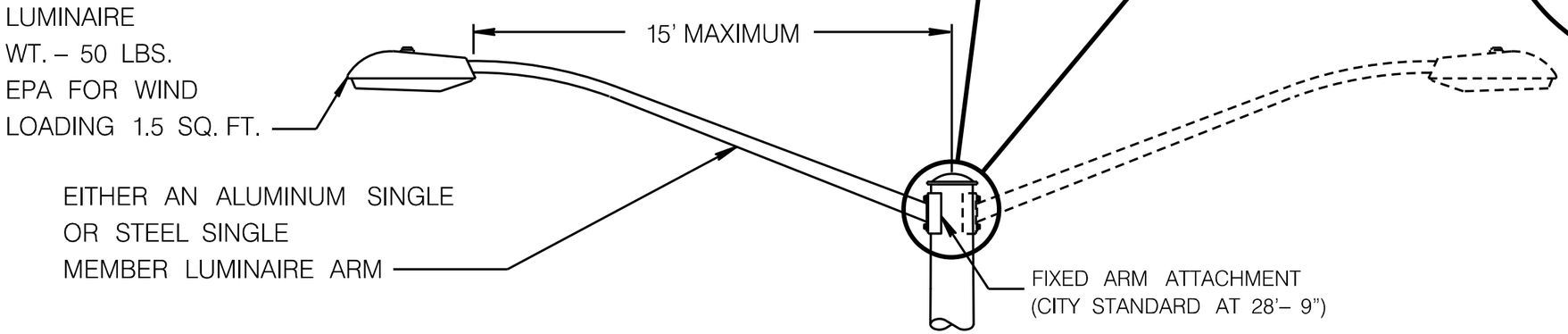
ALUMINUM LUMINIARE ARM OPTION



STEEL LUMINIARE ARM OPTION



RECOMMENDED BOLT ASSEMBLY DETAIL

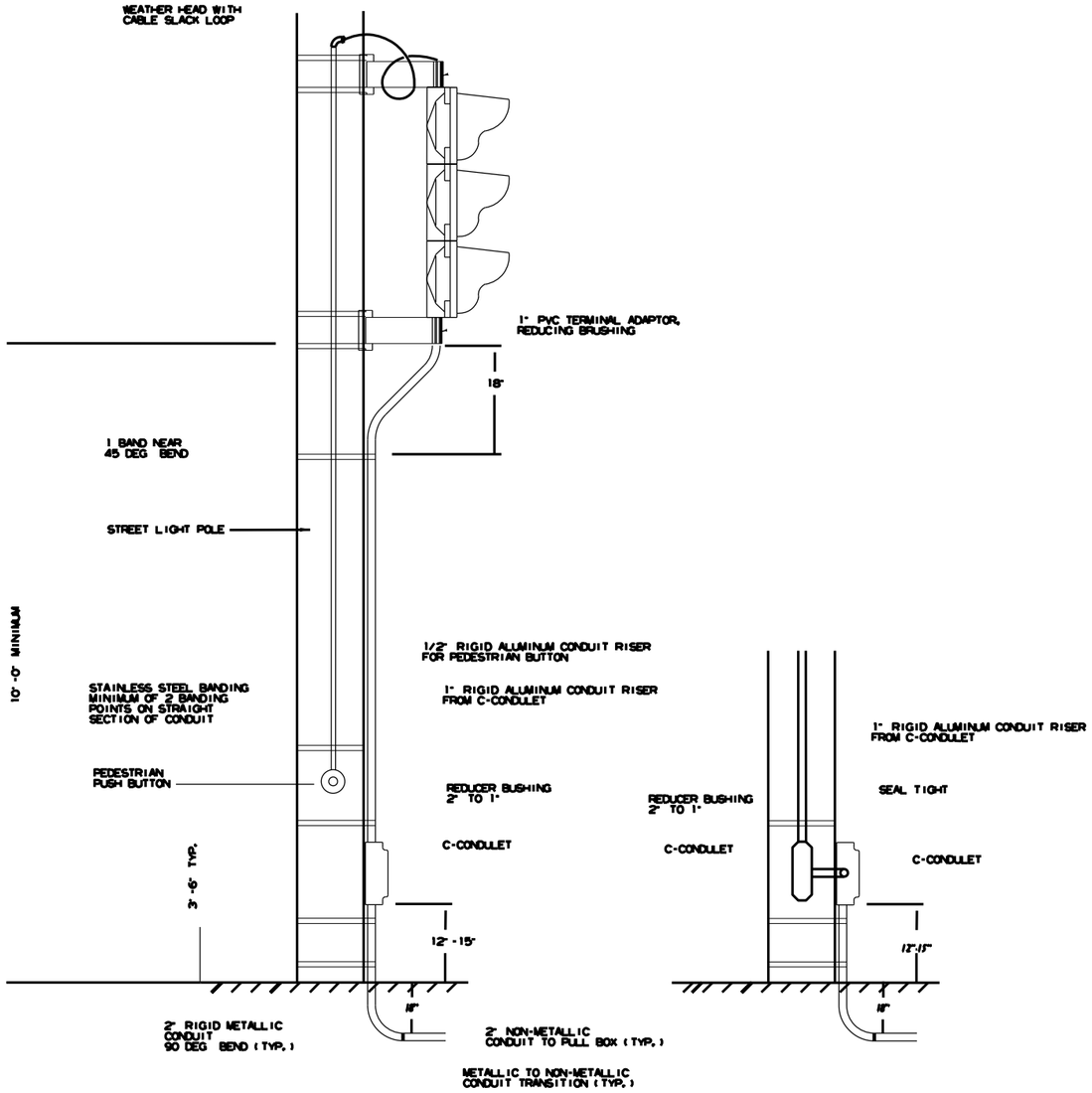


ADDITIONAL MOUNTING HOLES IN LUMINAIRE MOUNTING PLATE FOR

POLES: TYPE 10
TYPE 10 SPECIAL
TYPE 13

NOT TO SCALE

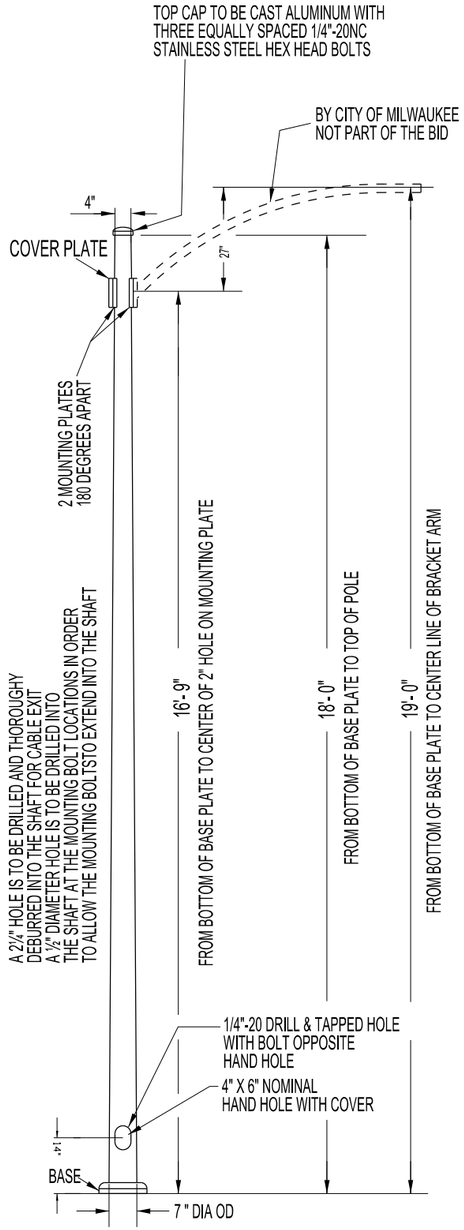
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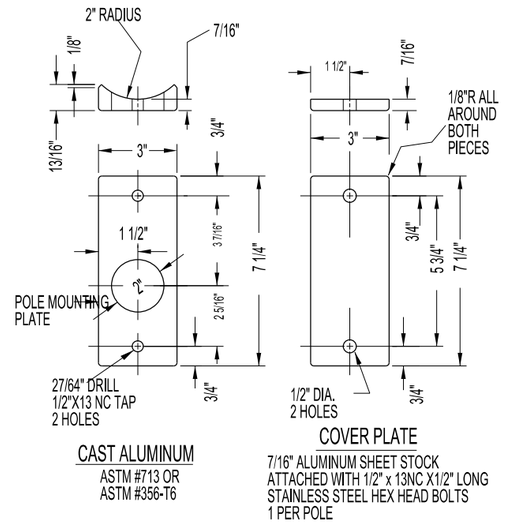


OPTION 1

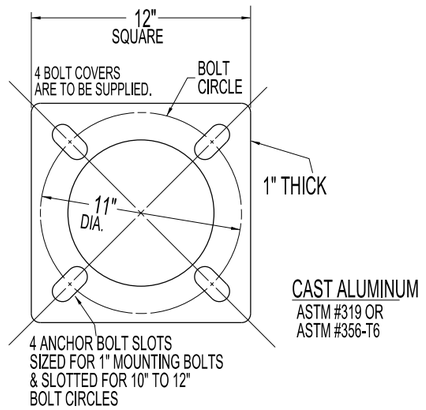
OPTION 2

ELECTRICAL RISER





BASE PLATE CASTING



REVISED DATE:	REVISED BY:
SPEC.NO. 12c-C-1	

BOLT DOWN ALUMINUM POLE
19 FOOT MOUNTING HEIGHT

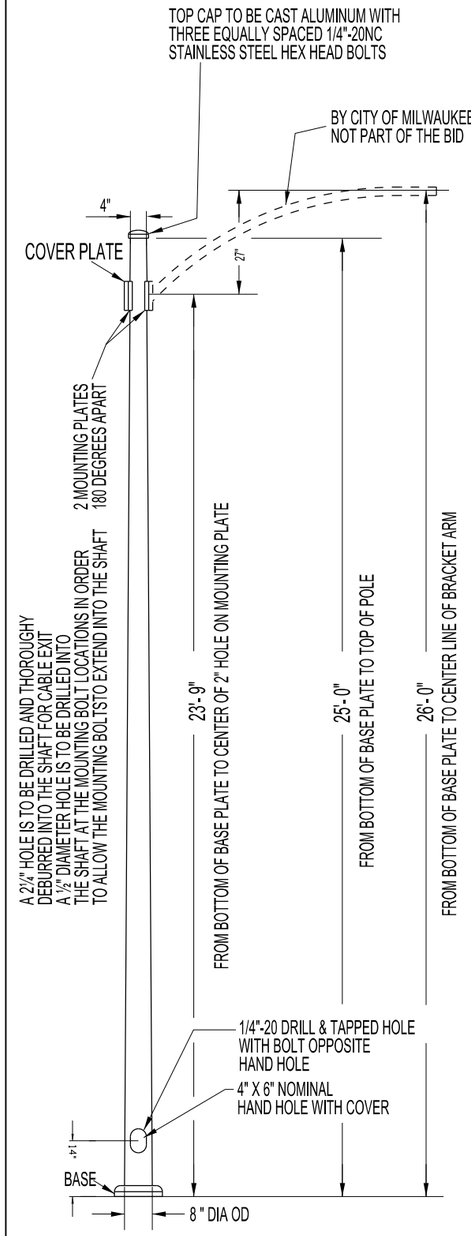
CITY OF MILWAUKEE D.P.W.
TRANSPORTATION SECTION
INFRASTRUCTURE SERVICES DIVISION
STREET LIGHTING DIVISION

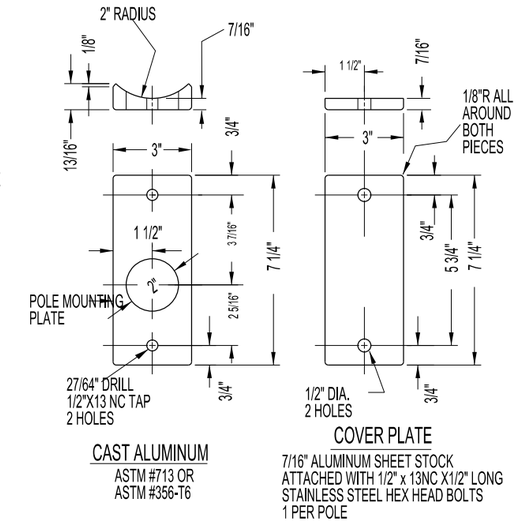
DATE	SCALE:	DRAWN	DESIGN	CHECKED	APPROVED
11-14-14	NONE	DK	BES		

SUPERSEDES
SUPERSEDED BY

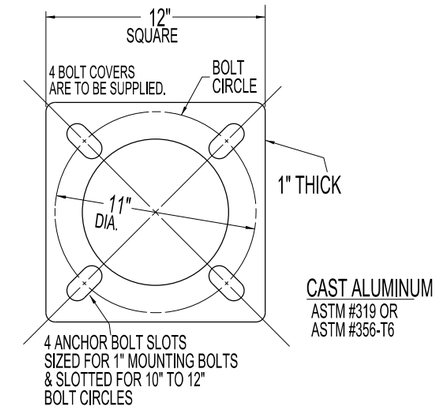
DRG.# **B-14-11**

(19 FT. ALUMINUM, BOLT DOWN) SPV.0060.319





BASE PLATE CASTING



REVISED DATE:	REVISED BY:
SPEC.NO. 12c-C-1	

BOLT DOWN ALUMINUM POLE
26 FOOT MOUNTING HEIGHT

CITY OF MILWAUKEE D.P.W.
TRANSPORTATION SECTION
INFRASTRUCTURE SERVICES DIVISION
STREET LIGHTING DIVISION

DATE	SCALE:	DRAWN	DESIGN	CHECKED	APPROVED
11-14-14	NONE	DK	BES		

SUPERSEDES
SUPERSEDED BY

DRG.# **B-14-13**

(25 FT. ALUMINUM, BOLT DOWN) SPV.0060.320

EXISTING LIGHTING CONTROL CABINET T7C

EXISTING POLE #1722

PROTECT AND ADJUST EXISTING CONDUCTORS BETWEEN POLES #1702 AND #1722. CONDUIT TO REMAIN.

PROTECT AND ADJUST CABLE TO EXISTING POLE #1722.

N. 20TH STREET

REMOVE POLE #2002
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

PROTECT AND ADJUST EXISTING CONDUIT AND CONDUCTORS FOR TEMPORARY LIGHTING. NEW CONDUIT AND CONDUCTORS TO BE PROVIDED FOR PROPOSED LIGHTING PLAN.

REMOVE POLE #1702
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

REMOVE POLE #1926
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

REMOVE POLE #1912
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

EXISTING POLE #1721

PROTECT AND ADJUST DIRECT BURIED CABLE BETWEEN POLES #1702 AND #1721.

PROPOSED ROADWAY PAVEMENT LIMIT

N. 19TH STREET

REMOVE POLE #1702
26' ALUMINUM POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

DISCONTINUE

DISCONTINUE

DISCONTINUE

DISCONTINUE

BEGIN PROJECT
STA. 13+50.00

REMOVE POLE # 1950
30' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
TWIN LED HEAD WITH 6' ARMS

W. WALNUT STREET

REMOVE POLE #1902
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
TWIN LED HEAD WITH 6' ARMS

REMOVE POLE #1836
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
TWIN LED HEAD WITH 6' ARMS

MATCH LINE STA. 18+50

PROTECT AND ADJUST EXISTING CONDUIT AND CONDUCTORS FOR TEMPORARY LIGHTING. NEW CONDUIT AND CONDUCTORS TO BE PROVIDED FOR PROPOSED LIGHTING PLAN.

PROPOSED ROADWAY PAVEMENT LIMIT

DISCONTINUE

DISCONTINUE

DISCONTINUE

REMOVE POLE #1927
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

REMOVE POLE #1911
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

REMOVE POLE #1649
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

REMOVE POLE #2003
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

REMOVE POLE # 1647
26' ALUMINUM POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

PROTECT AND ADJUST EXISTING CONDUCTORS BETWEEN POLE #1647 AND #1632. CONDUIT TO REMAIN.

EXISTING POLE #1632

EXISTING POLE #1619

PROPOSED ROADWAY PAVEMENT LIMIT

LEGEND

- EXISTING MUNICIPAL POLE, ARM, LUMINAIRE, AND BASE TO BE REMOVED.
- EXISTING MUNICIPAL POLE, ARM, AND LUMINAIRE TO REMAIN.
- EXISTING DIRECT BURIED CABLE AND/OR CONDUCTORS IN CONDUIT TO BE DISCONTINUED (UNLESS OTHERWISE NOTED).
- EXISTING OVERHEAD CABLE/CONDUCTORS TO BE REMOVED.
- EXISTING PULL BOX TO REMAIN.

KEYED NOTES

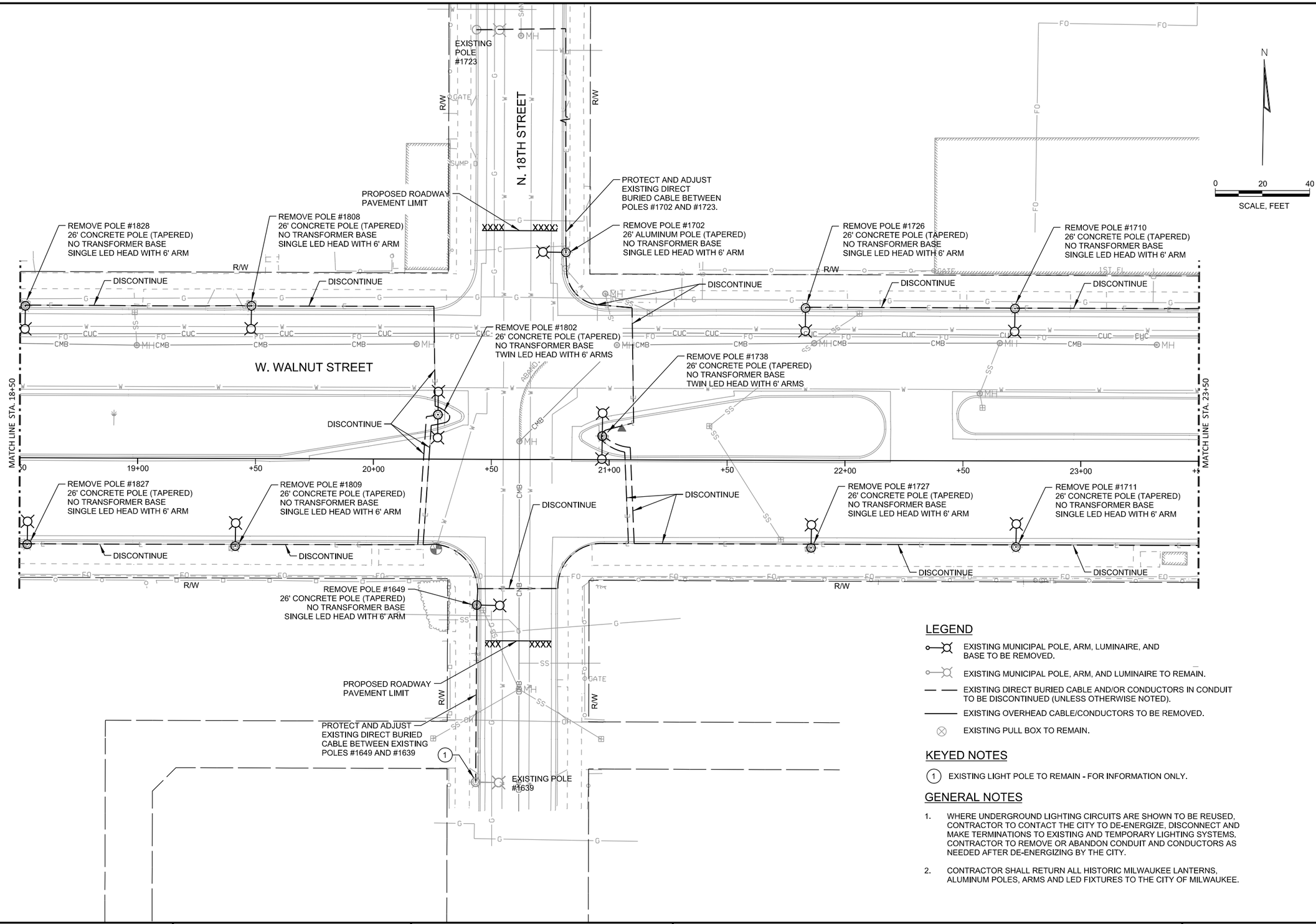
(1) EXISTING LIGHT POLE TO REMAIN - FOR INFORMATION ONLY.

GENERAL NOTES

1. WHERE UNDERGROUND LIGHTING CIRCUITS ARE SHOWN TO BE REUSED, CONTRACTOR TO CONTACT THE CITY TO DE-ENERGIZE, DISCONNECT AND MAKE TERMINATIONS TO EXISTING AND TEMPORARY LIGHTING SYSTEMS. CONTRACTOR TO REMOVE OR ABANDON CONDUIT AND CONDUCTORS AS NEEDED AFTER DE-ENERGIZING BY THE CITY.
2. CONTRACTOR SHALL RETURN ALL HISTORIC MILWAUKEE LANTERNS, ALUMINUM POLES, ARMS AND LED FIXTURES TO THE CITY OF MILWAUKEE.

0 20 40
SCALE, FEET

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN	SHEET 125	E



LEGEND

- EXISTING MUNICIPAL POLE, ARM, LUMINAIRE, AND BASE TO BE REMOVED.
- EXISTING MUNICIPAL POLE, ARM, AND LUMINAIRE TO REMAIN.
- EXISTING DIRECT BURIED CABLE AND/OR CONDUCTORS IN CONDUIT TO BE DISCONTINUED (UNLESS OTHERWISE NOTED).
- EXISTING OVERHEAD CABLE/CONDUCTORS TO BE REMOVED.
- EXISTING PULL BOX TO REMAIN.

KEYED NOTES

(1) EXISTING LIGHT POLE TO REMAIN - FOR INFORMATION ONLY.

GENERAL NOTES

1. WHERE UNDERGROUND LIGHTING CIRCUITS ARE SHOWN TO BE REUSED, CONTRACTOR TO CONTACT THE CITY TO DE-ENERGIZE, DISCONNECT AND MAKE TERMINATIONS TO EXISTING AND TEMPORARY LIGHTING SYSTEMS. CONTRACTOR TO REMOVE OR ABANDON CONDUIT AND CONDUCTORS AS NEEDED AFTER DE-ENERGIZING BY THE CITY.
2. CONTRACTOR SHALL RETURN ALL HISTORIC MILWAUKEE LANTERNS, ALUMINUM POLES, ARMS AND LED FIXTURES TO THE CITY OF MILWAUKEE.

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN	SHEET 126	E

2

N. 17TH STREET

N. 16TH STREET

W. WALNUT STREET

EXISTING POLE #1715

EXISTING POLE #1710

EXISTING POLE #1718

DISCONTINUE EXISTING DIRECT BURIED CABLE BETWEEN POLES #1702 AND #1715.

PROPOSED ROADWAY PAVEMENT LIMIT

DISCONTINUE EXISTING DIRECT BURIED CABLE BETWEEN POLES #1702 AND #1710.

PROTECT AND ADUST DIRECT BURIED CABLE BETWEEN POLES #1702 AND #1718 FOR TEMPORARY LIGHTING.

PROTECT AND ADUST DURING CURB REMOVALS.

EXISTING WE ENERGIES WOOD POLE TO REMAIN
REMOVE LIGHT #1702
SINGLE LED HEAD WITH 6' ARM

N

0 20 40
SCALE, FEET

DISCONTINUE

REMOVE POLE #1702
30' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
TWIN LED HEAD WITH 6' ARMS

REMOVE POLE #1612
26' ALUMINUM POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

REMOVE POLE #1602
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
TWIN LED HEAD WITH 6' ARMS

REMOVE POLE #1530
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

REMOVE POLE #1520
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
TWIN LED HEAD WITH 6' ARMS

REMOVE POLE #1700
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
TWIN LED HEAD WITH 6' ARMS

MATCH LINE STA. 23+50

MATCH LINE STA. 29+50

24+00 +50 25+00 +50 26+00 +50 27+00 +50 28+00 +50 29+00

REMOVE POLE #1624
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
TWIN LED HEAD WITH 6' ARMS

REMOVE POLE #1611
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

REMOVE POLE #1532
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
TWIN LED HEAD WITH 6' ARMS

REMOVE POLE #1525
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

REMOVE POLE #1648
30' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
TWIN LED HEAD WITH 6' ARMS

REMOVE EXISTING CONDUCTORS BETWEEN POLES #1624 AND #1612. CONDUIT TO REMAIN.

REMOVE POLE #1655
26' ALUMINUM POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

PROTECT AND ADJUST EXISTING DIRECT BURIED CABLE BETWEEN POLES #1648 AND #1611.

PROPOSED ROADWAY PAVEMENT LIMIT

DISCONTINUE EXISTING DIRECT BURIED CABLE BETWEEN POLES #1648 AND #1636.

DISCONTINUE EXISTING DIRECT BURIED CABLE BETWEEN POLES #1655 AND #1630.

EXISTING POLE #1611

EXISTING POLE #1612

EXISTING LIGHTING CONTROL CABINET T10C

EXISTING POLE #1630

LEGEND

- EXISTING MUNICIPAL POLE, ARM, LUMINAIRE, AND BASE TO BE REMOVED.
- EXISTING MUNICIPAL POLE, ARM, AND LUMINAIRE TO REMAIN.
- EXISTING DIRECT BURIED CABLE AND/OR CONDUCTORS IN CONDUIT TO BE DISCONTINUED (UNLESS OTHERWISE NOTED).
- EXISTING OVERHEAD CABLE/CONDUCTORS TO BE REMOVED.
- EXISTING PULL BOX TO REMAIN.

KEYED NOTES

(1) EXISTING LIGHT POLE TO REMAIN - FOR INFORMATION ONLY.

GENERAL NOTES

1. WHERE UNDERGROUND LIGHTING CIRCUITS ARE SHOWN TO BE REUSED, CONTRACTOR TO CONTACT THE CITY TO DE-ENERGIZE, DISCONNECT AND MAKE TERMINATIONS TO EXISTING AND TEMPORARY LIGHTING SYSTEMS. CONTRACTOR TO REMOVE OR ABANDON CONDUIT AND CONDUCTORS AS NEEDED AFTER DE-ENERGIZING BY THE CITY.
2. CONTRACTOR SHALL RETURN ALL HISTORIC MILWAUKEE LANTERNS, ALUMINUM POLES, ARMS AND LED FIXTURES TO THE CITY OF MILWAUKEE.

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN	SHEET 127	E

2

N

0 20 40

SCALE, FEET

REMOVE POLE #1502
26' ALUMINUM POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

DISCONTINUE

REMOVE POLE #1430
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

#1412
REMOVE EXISTING POLE BASE.
NO POLE NO REMOVE.

REMOVE POLE #1402
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
TWIN LED HEAD WITH 6' ARMS

W. WALNUT STREET

MATCH LINE STA. 29+50

MATCH LINE STA. 35+50

REMOVE POLE #1503
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

REMOVE POLE #1649
26' ALUMINUM POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

DISCONTINUE DIRECT BURIED
CABLE BETWEEN POLES
#1649 AND #1629.

PROPOSED ROADWAY
PAVEMENT LIMIT

N. 15TH STREET

EXISTING
POLE
#1629

REMOVE POLE #1442
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
TWIN LED HEAD WITH 6' ARMS

REMOVE POLE #1427
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

DISCONTINUE DIRECT BURIED
CABLE BETWEEN POLES
#1629 AND #1641.

N. 14TH LANE

EXISTING
POLE
#1641

REMOVE POLE #1413
26' CONCRETE POLE (TAPERED)
NO TRANSFORMER BASE
SINGLE LED HEAD WITH 6' ARM

REMOVE POLE #1645
26' DIRECT BURY
ALUMINUM PEDESTAL
SINGLE LED HEAD WITH 6' ARM

PROTECT AND ADJUST
EXISTING DIRECT
BURIED CABLE BETWEEN
POLES #1645 AND #1633.

PROPOSED ROADWAY
PAVEMENT LIMIT

N. 14TH STREET

EXISTING
POLE
#1633

REMOVE POLE #1330
31' ALUMINUM POLE (TAPERED)
NO TRANSFORMER BASE
TWIN LED HEAD WITH 6' ARMS

LEGEND

- EXISTING MUNICIPAL POLE, ARM, LUMINAIRE, AND BASE TO BE REMOVED.
- EXISTING MUNICIPAL POLE, ARM, AND LUMINAIRE TO REMAIN.
- EXISTING DIRECT BURIED CABLE AND/OR CONDUCTORS IN CONDUIT TO BE DISCONTINUED (UNLESS OTHERWISE NOTED).
- EXISTING OVERHEAD CABLE/CONDUCTORS TO BE REMOVED.
- EXISTING PULL BOX TO REMAIN.

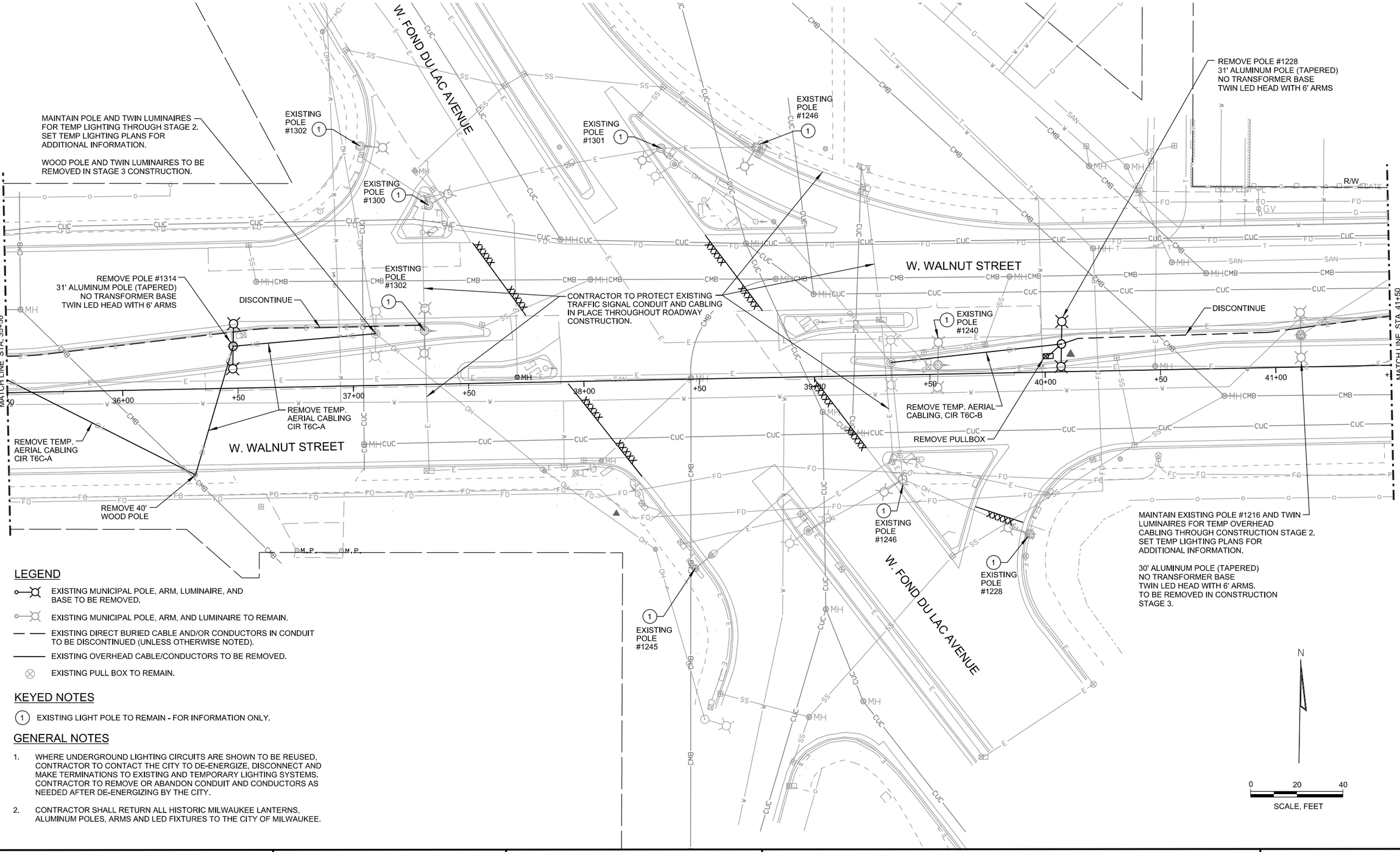
KEYED NOTES

(1) EXISTING LIGHT POLE TO REMAIN - FOR INFORMATION ONLY.

GENERAL NOTES

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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN	SHEET 128	E



LEGEND

- EXISTING MUNICIPAL POLE, ARM, LUMINAIRE, AND BASE TO BE REMOVED.
- EXISTING MUNICIPAL POLE, ARM, AND LUMINAIRE TO REMAIN.
- EXISTING DIRECT BURIED CABLE AND/OR CONDUCTORS IN CONDUIT TO BE DISCONTINUED (UNLESS OTHERWISE NOTED).
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- EXISTING PULL BOX TO REMAIN.

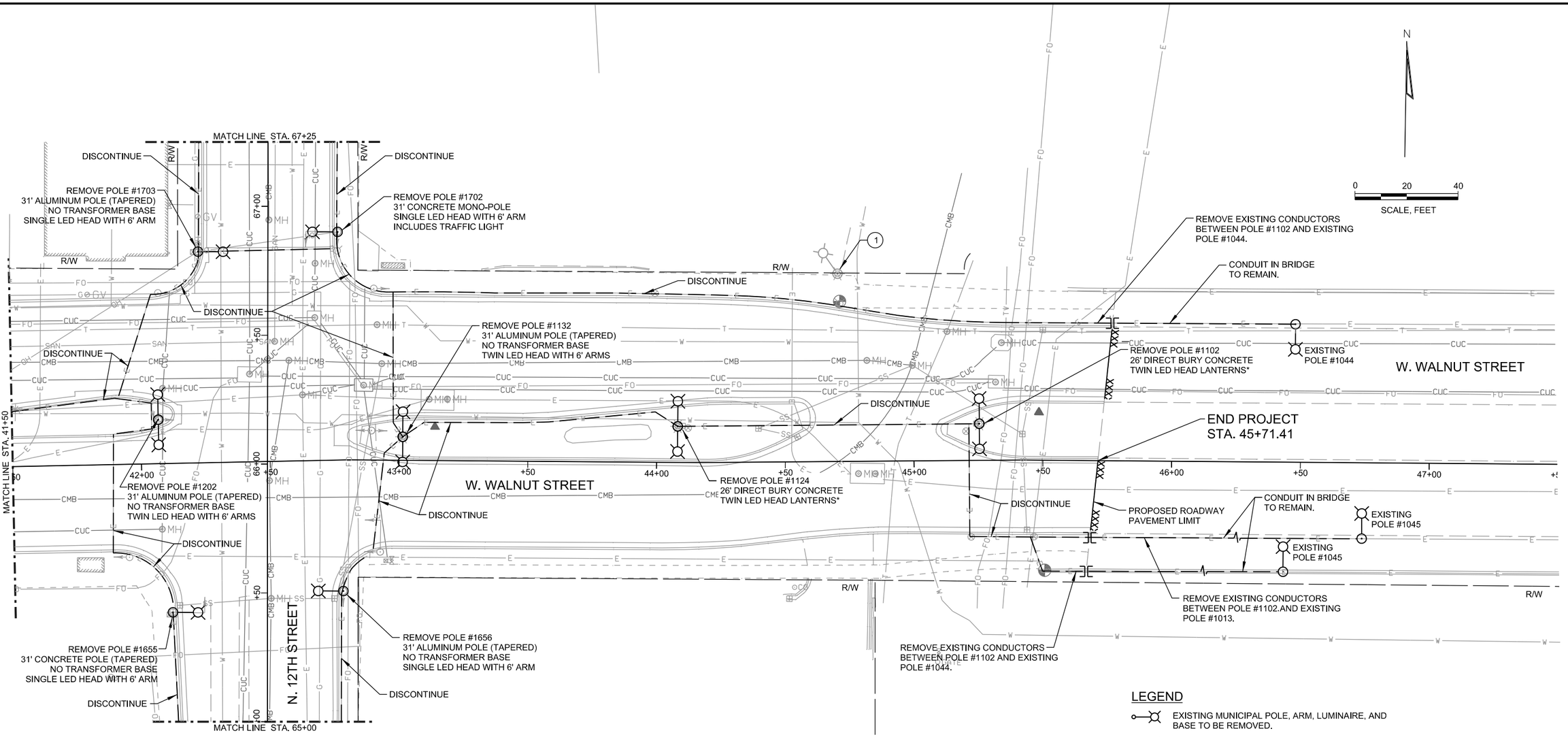
KEYED NOTES

(1) EXISTING LIGHT POLE TO REMAIN - FOR INFORMATION ONLY.

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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN	SHEET 129	E



LEGEND

- EXISTING MUNICIPAL POLE, ARM, LUMINAIRE, AND BASE TO BE REMOVED.
- EXISTING MUNICIPAL POLE, ARM, AND LUMINAIRE TO REMAIN.
- EXISTING DIRECT BURIED CABLE AND/OR CONDUCTORS IN CONDUIT TO BE DISCONTINUED (UNLESS OTHERWISE NOTED).
- EXISTING OVERHEAD CABLE/CONDUCTORS TO BE REMOVED.
- EXISTING PULL BOX TO REMAIN.

KEYED NOTES

(1) EXISTING LIGHT POLE TO REMAIN - FOR INFORMATION ONLY.

GENERAL NOTES

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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN	SHEET 130	E

LEGEND

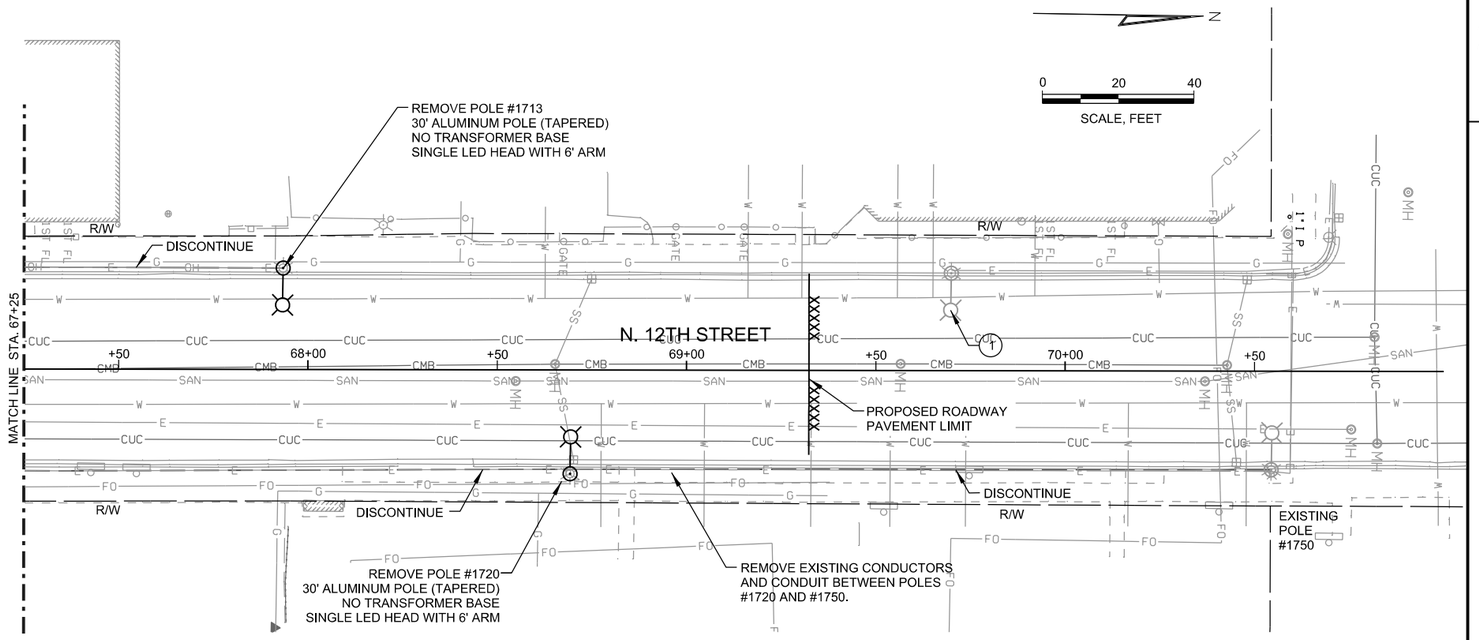
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- EXISTING MUNICIPAL POLE, ARM, AND LUMINAIRE TO REMAIN.
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- EXISTING OVERHEAD CABLE/CONDUCTORS TO BE REMOVED.
- EXISTING PULL BOX TO REMAIN.

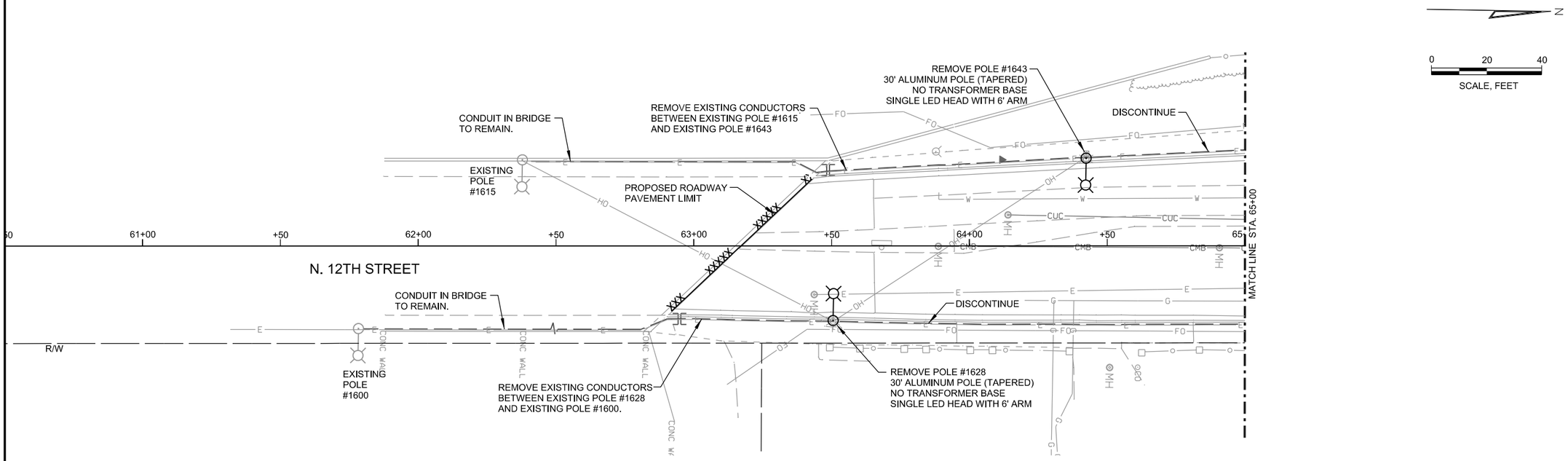
KEYED NOTES

(1) EXISTING LIGHT POLE TO REMAIN - FOR INFORMATION ONLY.

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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN	SHEET 131	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\023507_lp.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

N

W. FOND DU LAC AVENUE

W. WALNUT STREET

MATCH LINE STA. 35+50

MATCH LINE STA. 41+50

REMOVE 40' WOOD POLE

EXISTING POLE #1302 (1)

REMOVE TEMP. AERIAL CABLING CIR T6C-A

EXISTING POLE #1300 (1)

REMOVE 40' WOOD POLE

EXISTING POLE #1301 (1)

40' WOOD POLE WITH SINGLE LUMINAIRE TO BE REMOVED

EXISTING POLE #1246 (1)

REMOVE 40' WOOD POLE

REMOVE TEMP. AERIAL CABLING CIR T6C-B

EXISTING POLE #1302 (1)

40' WOOD POLE WITH TWIN LUMINAIRES TO BE REMOVED

REMOVE TEMP. AERIAL CABLING CIR T6C-B

EXISTING POLE #1240 (1)

REMOVE TEMP. AERIAL CABLING CIR T6C-A

40' WOOD POLE WITH TWIN LUMINAIRES TO BE REMOVED

REMOVE TEMP. AERIAL CABLING CIR T6C-B

EXISTING POLE #1246 (1)

REMOVE 40' WOOD POLE

REMOVE 40' WOOD POLE

EXISTING POLE #1228 (1)

REMOVE TEMP. AERIAL CABLING CIR T6C-A

40' WOOD POLE WITH TWIN LUMINAIRES TO BE REMOVED

EXISTING POLE #1643 (1)

W. FOND DU LAC AVENUE

LEGEND

- EXISTING MUNICIPAL POLE, ARM, LUMINAIRE, AND BASE TO BE REMOVED.
- EXISTING MUNICIPAL POLE, ARM, AND LUMINAIRE TO REMAIN.
- EXISTING DIRECT BURIED CABLE AND/OR CONDUCTORS IN CONDUIT TO BE DISCONTINUED (UNLESS OTHERWISE NOTED).
- EXISTING OVERHEAD CABLE/CONDUCTORS TO BE REMOVED.
- EXISTING PULL BOX TO REMAIN.

KEYED NOTES

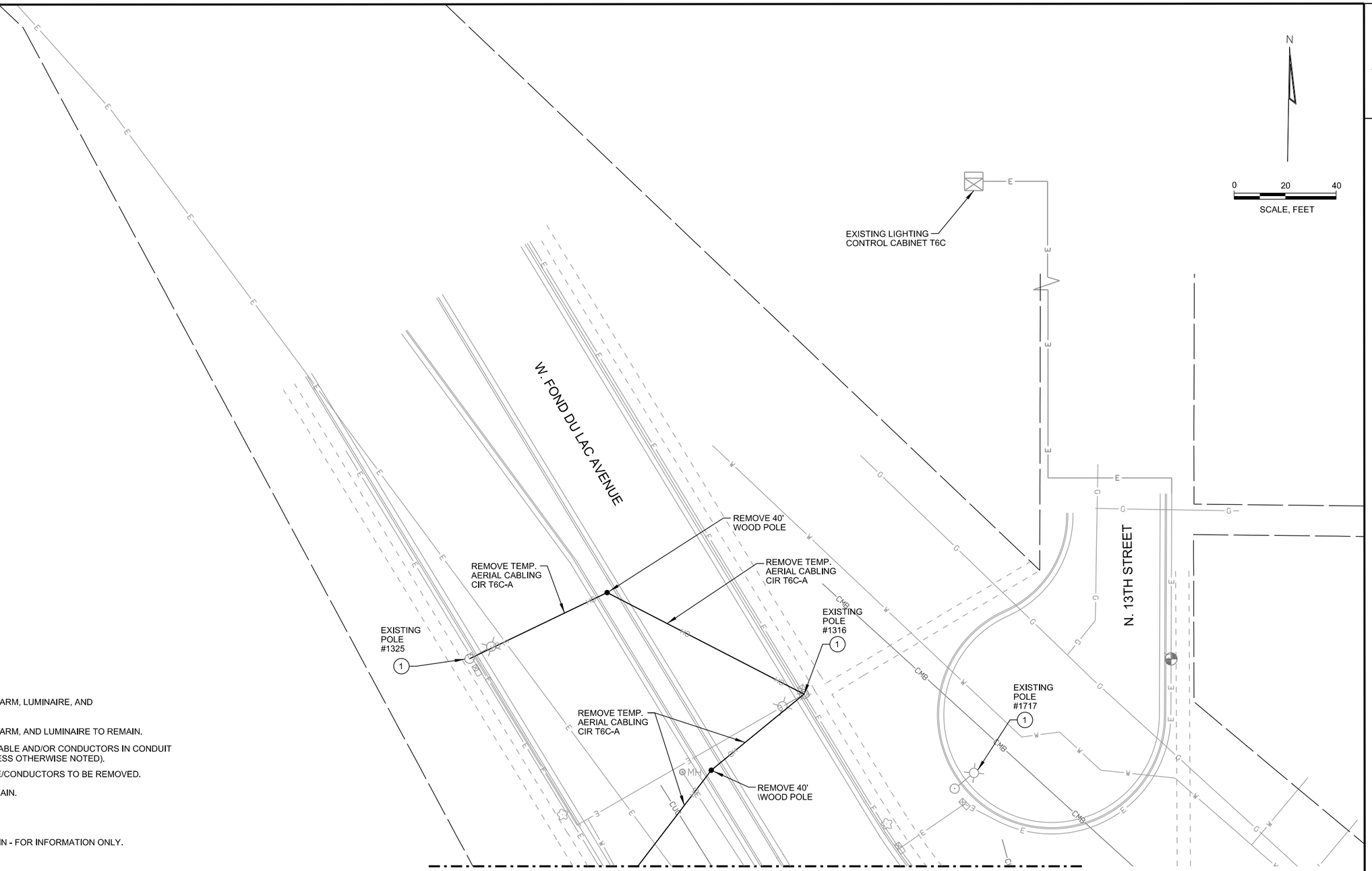
(1) EXISTING LIGHT POLE TO REMAIN - FOR INFORMATION ONLY.

GENERAL NOTES

1. WHERE UNDERGROUND LIGHTING CIRCUITS ARE SHOWN TO BE REUSED, CONTRACTOR TO CONTACT THE CITY TO DE-ENERGIZE, DISCONNECT AND MAKE TERMINATIONS TO EXISTING AND TEMPORARY LIGHTING SYSTEMS. CONTRACTOR TO REMOVE OR ABANDON CONDUIT AND CONDUCTORS AS NEEDED AFTER DE-ENERGIZING BY THE CITY.
2. CONTRACTOR SHALL RETURN ALL HISTORIC MILWAUKEE LANTERNS, ALUMINUM POLES, ARMS AND LED FIXTURES TO THE CITY OF MILWAUKEE.

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN - (DURING STAGE 3 ROADWAY CONSTRUCTION)	SHEET 132	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\023508a_lp.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.



LEGEND

- EXISTING MUNICIPAL POLE, ARM, LUMINAIRE, AND BASE TO BE REMOVED.
- EXISTING MUNICIPAL POLE, ARM, AND LUMINAIRE TO REMAIN.
- EXISTING DIRECT BURIED CABLE AND/OR CONDUCTORS IN CONDUIT TO BE DISCONTINUED (UNLESS OTHERWISE NOTED).
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- EXISTING PULL BOX TO REMAIN.

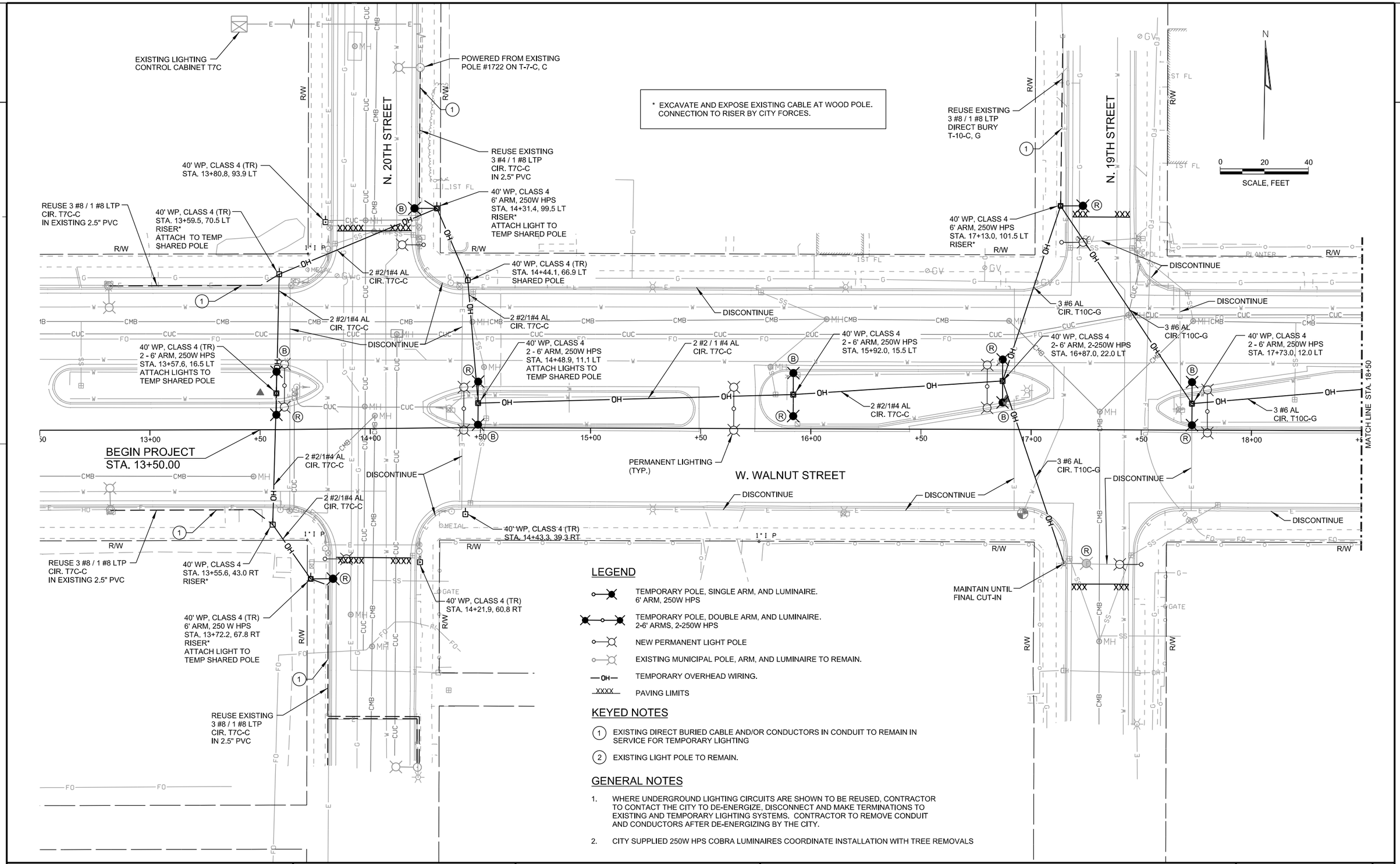
KEYED NOTES

(1) EXISTING LIGHT POLE TO REMAIN - FOR INFORMATION ONLY.

GENERAL NOTES

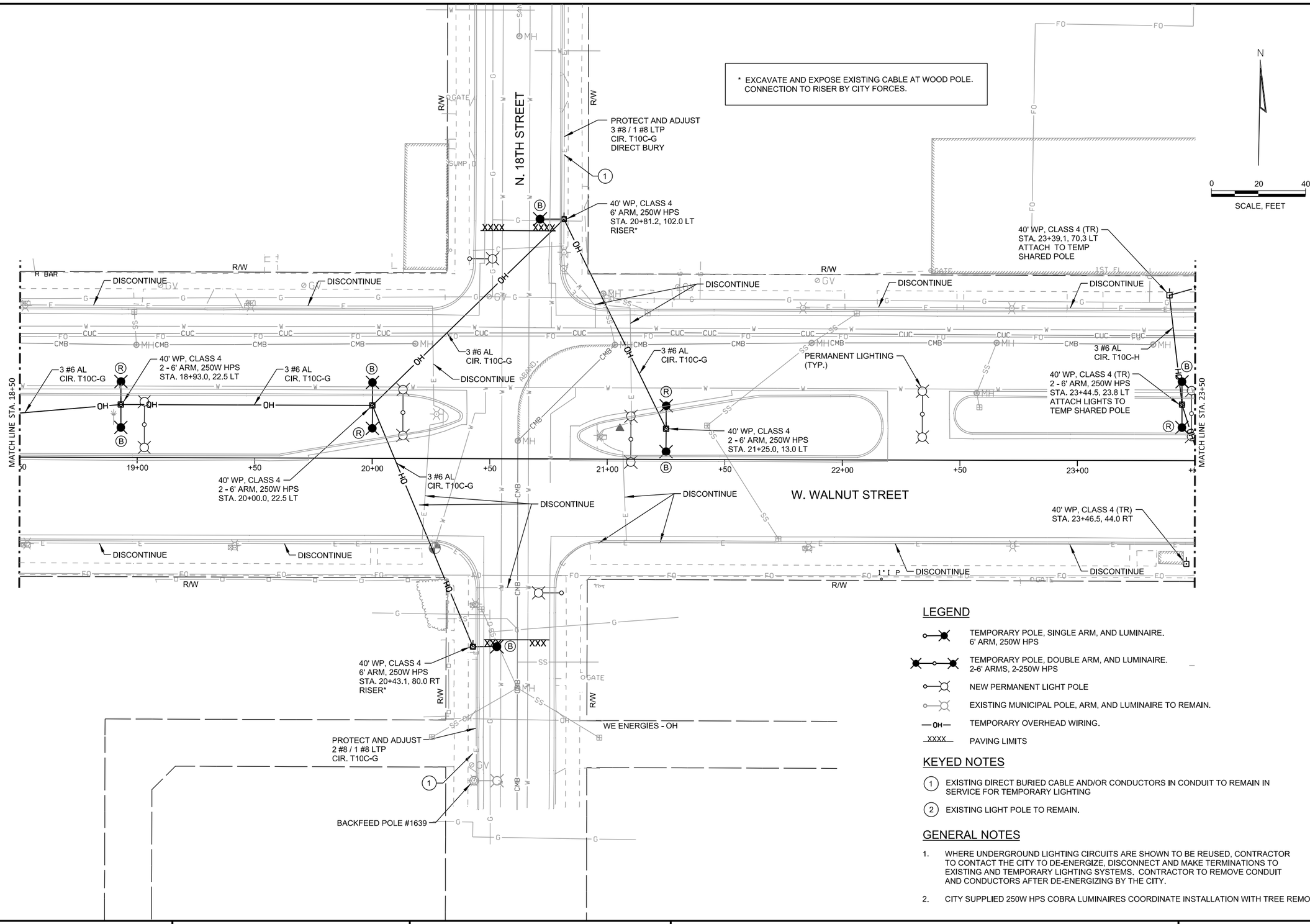
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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN - (DURING STAGE 3 ROADWAY CONSTRUCTION)	SHEET 133	E



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TEMPORARY LIGHTING PLAN	SHEET 134	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\023511_lp.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.



LEGEND

- TEMPORARY POLE, SINGLE ARM, AND LUMINAIRE. 6' ARM, 250W HPS
- TEMPORARY POLE, DOUBLE ARM, AND LUMINAIRE. 2-6' ARMS, 2-250W HPS
- NEW PERMANENT LIGHT POLE
- EXISTING MUNICIPAL POLE, ARM, AND LUMINAIRE TO REMAIN.
- —OH— TEMPORARY OVERHEAD WIRING.
- XXXX PAVING LIMITS

KEYED NOTES

(1) EXISTING DIRECT BURIED CABLE AND/OR CONDUCTORS IN CONDUIT TO REMAIN IN SERVICE FOR TEMPORARY LIGHTING

(2) EXISTING LIGHT POLE TO REMAIN.

GENERAL NOTES

1. WHERE UNDERGROUND LIGHTING CIRCUITS ARE SHOWN TO BE REUSED, CONTRACTOR TO CONTACT THE CITY TO DE-ENERGIZE, DISCONNECT AND MAKE TERMINATIONS TO EXISTING AND TEMPORARY LIGHTING SYSTEMS. CONTRACTOR TO REMOVE CONDUIT AND CONDUCTORS AFTER DE-ENERGIZING BY THE CITY.
2. CITY SUPPLIED 250W HPS COBRA LUMINAIRES COORDINATE INSTALLATION WITH TREE REMOVALS

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TEMPORARY LIGHTING PLAN	SHEET 135	E

2

#1715
A-26-6
RISER

3 #6 AL
CIR. T10C-H

DISCONTINUE EXISTING
DIRECT BURIED CABLE
BETWEEN POLES #1702
AND #1715.

N. 17TH STREET

#1710
A-26-6
RISER

3 #6 AL
CIR. T10C-H

DISCONTINUE EXISTING DIRECT BURIED
CABLE BETWEEN POLES #1702 AND #1710.

40' WP, CLASS 4 (TR)
STA. 24+84.6, 91.2 LT
SHARED POLE

40' WP, CLASS 4 (TR)
STA. 23+71.1, 96.0 LT

40' WP, CLASS 4 (TR)
STA. 25+12.4, 70.1 LT

3 #6 AL
CIR. T10C-H

40' WP, CLASS 4 (TR)
2 - 6' ARM, 250W HPS
STA. 24+30.4, 95.4 LT
ATTACH LIGHTS TO
TEMP SHARED POLE

DISCONTINUE

* EXCAVATE AND EXPOSE EXISTING CABLE AT WOOD POLE.
CONNECTION TO RISER BY CITY FORCES.

DISCONTINUE

N. 16TH STREET

BACKFEED POLE #1718
CIR. T10C-H

ATTACH TO EXISTING
WE ENERGIES POLE
RISER

DISCONTINUE

DISCONTINUE

3 #6 AL
CIR. T10C-H

DISCONTINUE

40' WP, CLASS 4
2 - 6' ARM, 250W HPS
STA. 25+08.5, 4.7 LT
ATTACH LIGHTS TO
TEMP SHARED POLE

3 #6 AL
CIR. T10C-H

PERMANENT LIGHTING
(TYP.)

40' WP, CLASS 4
2 - 6' ARM, 250W HPS
STA. 28+05.0, 6.0 LT

2 #2/1#4 AL
CIR. T10C-A

150' SPAN

2 #2/1#4 AL
CIR. T10C-A

MATCH LINE STA. 23+50

MATCH LINE STA. 29+50

3 #6 AL
CIR. T10C-H

DISCONTINUE

40' WP, CLASS 4 (TR)
STA. 23+71.5, 61.0 RT
RISER*
SHARED POLE

W. WALNUT STREET

40' WP, CLASS 4
2 - 6' ARM, 250W HPS
STA. 26+68.0, 16.0 LT

3 #6 AL
CIR. T10C-H

DISCONTINUE

DISCONTINUE

DISCONTINUE

DISCONTINUE

DISCONTINUE

40' WP, CLASS 4
2 - 6' ARM, 250W HPS
STA. 24+20.6, 64.4 RT
ATTACH LIGHTS TO
TEMP SHARED POLE

3 #6 AL
CIR. T10C-H

3 #6 AL
CIR. T10C-H

40' WP, CLASS 4 (TR)
STA. 24+85.4, 58.4 RT
SHARED POLE

3 #6 AL
CIR. T10C-H

PROTECT AND ADJUST EXISTING DIRECT BURIED
CABLE BETWEEN POLES #1648 AND #1611.

ATTACH TO EXISTING
WE ENERGIES POLE

WE ENERGIES - OH

3 #6 AL
CIR. T10C-H

DISCONTINUE EXISTING DIRECT
BURIED CABLE BETWEEN
POLES #1648 AND #1636.

#1636
26' DIRECT BURY ALUMINUM
2-6' ARMS
2-250W HPS
PEDESTAL

DISCONTINUE EXISTING DIRECT
BURIED CABLE BETWEEN
POLES #1655 AND #1630.

EXISTING
OVERHEAD

EXISTING
OVERHEAD

3 #6 AL
CIR. T10C-H

40' WP, CLASS 4
STA. 24+78.1, 203.2 RT
RISER*

3 #4 / 1 #8 LTP
CIR. T-10-C, H

EXISTING LIGHTING
CONTROL CABINET T10C

N

0 20 40
SCALE, FEET

LEGEND

- TEMPORARY POLE, SINGLE ARM, AND LUMINAIRE. 6' ARM, 250W HPS
- TEMPORARY POLE, DOUBLE ARM, AND LUMINAIRE. 2-6' ARMS, 2-250W HPS
- NEW PERMANENT LIGHT POLE
- EXISTING MUNICIPAL POLE, ARM, AND LUMINAIRE TO REMAIN.
- —OH— TEMPORARY OVERHEAD WIRING.
- XXXX PAVING LIMITS

KEYED NOTES

(1) EXISTING DIRECT BURIED CABLE AND/OR CONDUCTORS IN CONDUIT TO REMAIN IN SERVICE FOR TEMPORARY LIGHTING

(2) EXISTING LIGHT POLE TO REMAIN.

GENERAL NOTES

1. WHERE UNDERGROUND LIGHTING CIRCUITS ARE SHOWN TO BE REUSED, CONTRACTOR TO CONTACT THE CITY TO DE-ENERGIZE, DISCONNECT AND MAKE TERMINATIONS TO EXISTING AND TEMPORARY LIGHTING SYSTEMS. CONTRACTOR TO REMOVE CONDUIT AND CONDUCTORS AFTER DE-ENERGIZING BY THE CITY.
2. CITY SUPPLIED 250W HPS COBRA LUMINAIRES COORDINATE INSTALLATION WITH TREE REMOVALS

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TEMPORARY LIGHTING PLAN	SHEET 136	E

2

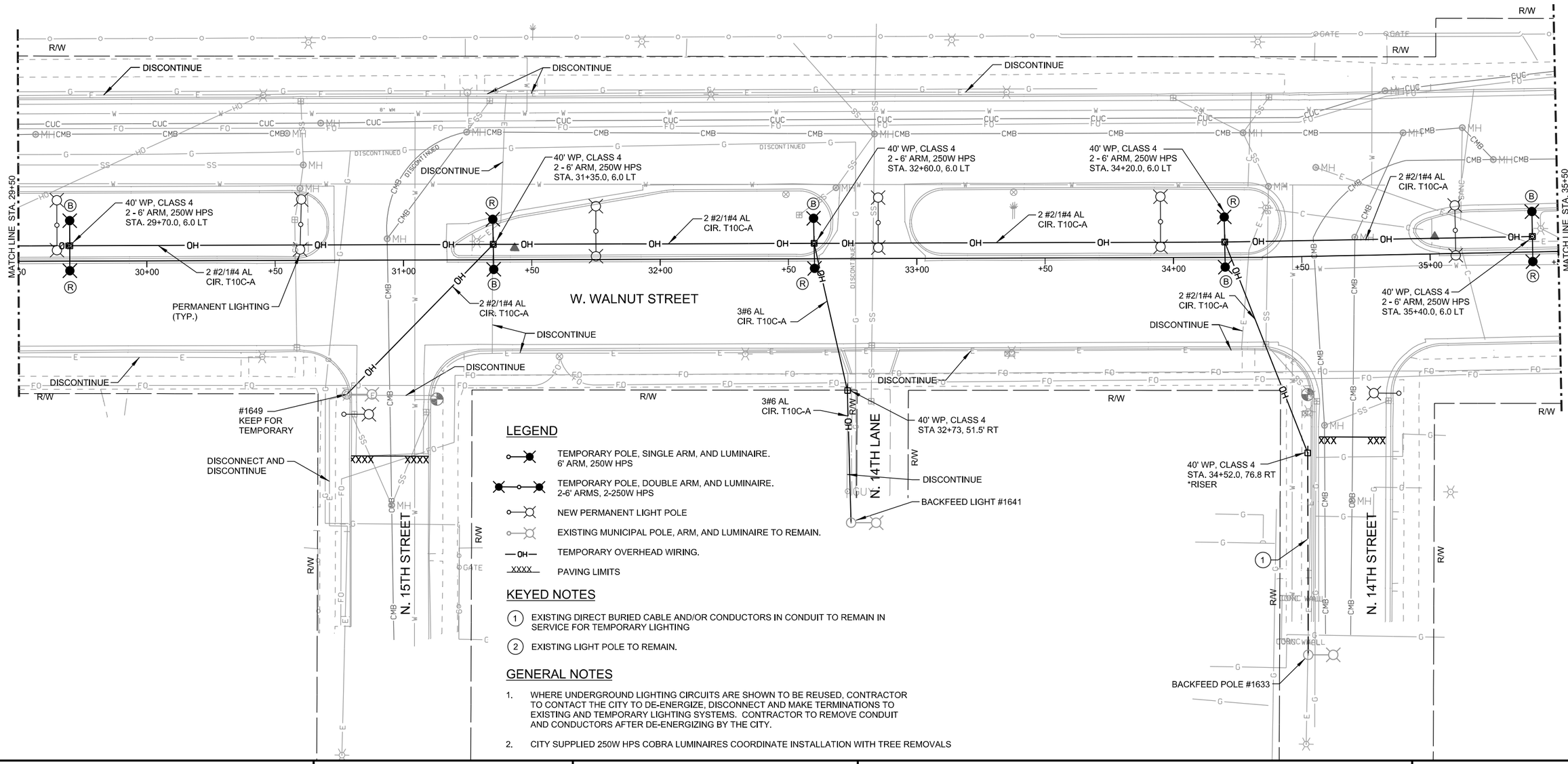
2

* EXCAVATE AND EXPOSE EXISTING CABLE AT WOOD POLE. CONNECTION TO RISER BY CITY FORCES.

N

0 20 40

SCALE, FEET



LEGEND

- TEMPORARY POLE, SINGLE ARM, AND LUMINAIRE. 6' ARM, 250W HPS
- TEMPORARY POLE, DOUBLE ARM, AND LUMINAIRE. 2-6' ARMS, 2-250W HPS
- NEW PERMANENT LIGHT POLE
- EXISTING MUNICIPAL POLE, ARM, AND LUMINAIRE TO REMAIN.
- OH — TEMPORARY OVERHEAD WIRING.
- XXXX — PAVING LIMITS

KEYED NOTES

(1) EXISTING DIRECT BURIED CABLE AND/OR CONDUCTORS IN CONDUIT TO REMAIN IN SERVICE FOR TEMPORARY LIGHTING

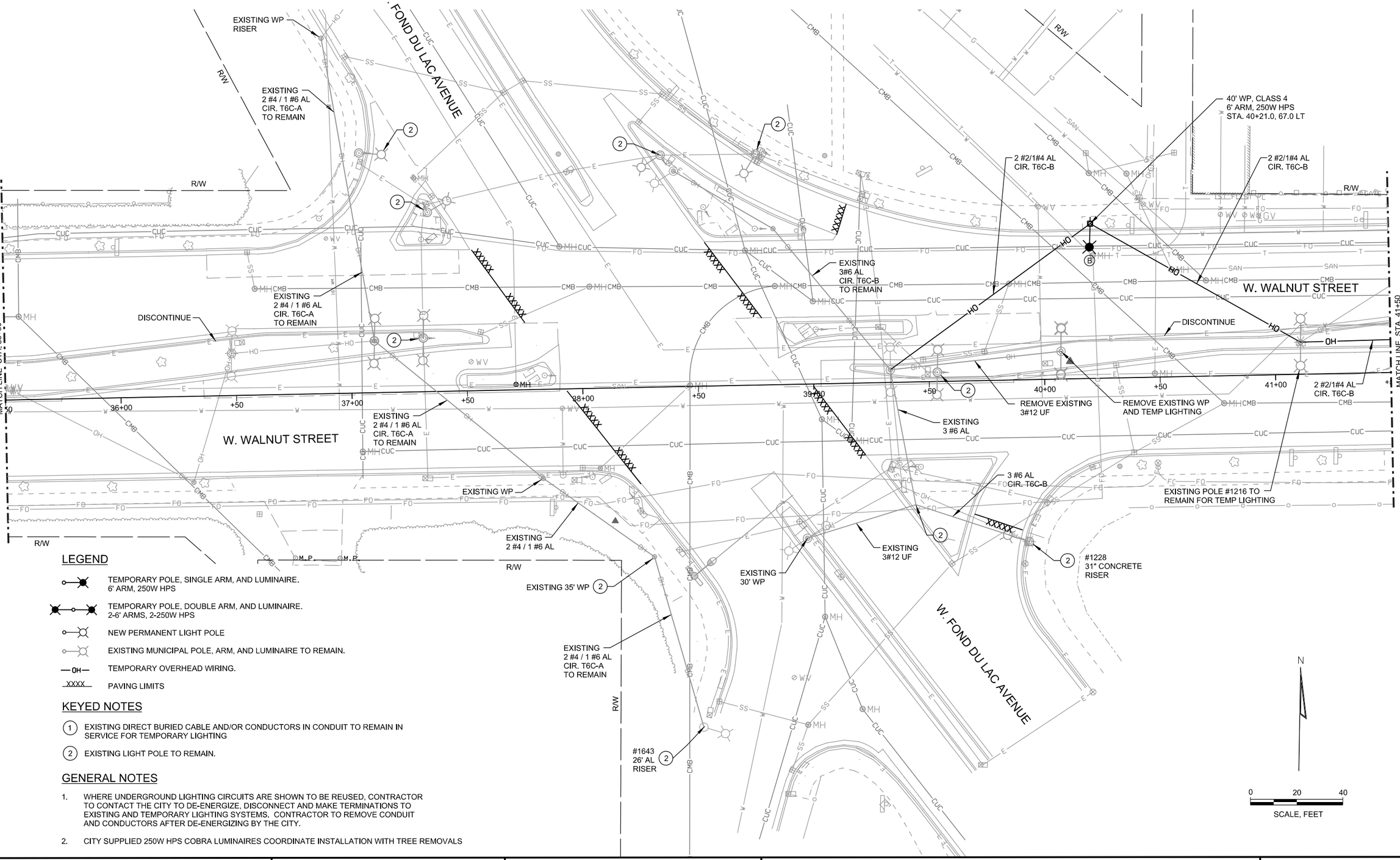
(2) EXISTING LIGHT POLE TO REMAIN.

GENERAL NOTES

1. WHERE UNDERGROUND LIGHTING CIRCUITS ARE SHOWN TO BE REUSED, CONTRACTOR TO CONTACT THE CITY TO DE-ENERGIZE, DISCONNECT AND MAKE TERMINATIONS TO EXISTING AND TEMPORARY LIGHTING SYSTEMS. CONTRACTOR TO REMOVE CONDUIT AND CONDUCTORS AFTER DE-ENERGIZING BY THE CITY.
2. CITY SUPPLIED 250W HPS COBRA LUMINAIRES COORDINATE INSTALLATION WITH TREE REMOVALS

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TEMPORARY LIGHTING PLAN	SHEET 137	E

2



LEGEND

- TEMPORARY POLE, SINGLE ARM, AND LUMINAIRE. 6' ARM, 250W HPS
- TEMPORARY POLE, DOUBLE ARM, AND LUMINAIRE. 2-6' ARMS, 2-250W HPS
- NEW PERMANENT LIGHT POLE
- EXISTING MUNICIPAL POLE, ARM, AND LUMINAIRE TO REMAIN.
- —OH— TEMPORARY OVERHEAD WIRING.
- XXXX PAVING LIMITS

KEYED NOTES

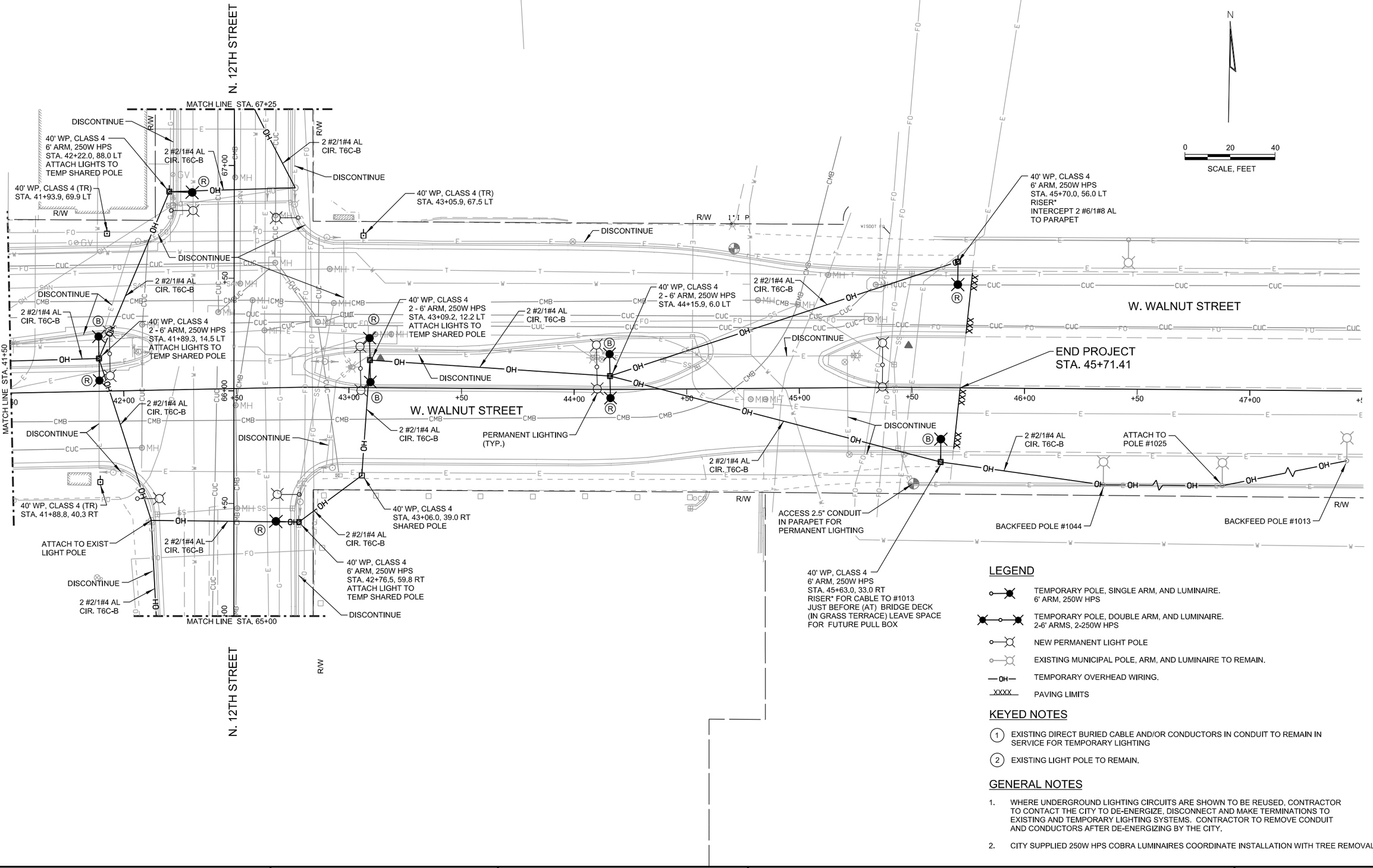
(1) EXISTING DIRECT BURIED CABLE AND/OR CONDUCTORS IN CONDUIT TO REMAIN IN SERVICE FOR TEMPORARY LIGHTING

(2) EXISTING LIGHT POLE TO REMAIN.

GENERAL NOTES

1. WHERE UNDERGROUND LIGHTING CIRCUITS ARE SHOWN TO BE REUSED, CONTRACTOR TO CONTACT THE CITY TO DE-ENERGIZE, DISCONNECT AND MAKE TERMINATIONS TO EXISTING AND TEMPORARY LIGHTING SYSTEMS. CONTRACTOR TO REMOVE CONDUIT AND CONDUCTORS AFTER DE-ENERGIZING BY THE CITY.
2. CITY SUPPLIED 250W HPS COBRA LUMINAIRES COORDINATE INSTALLATION WITH TREE REMOVALS

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TEMPORARY LIGHTING PLAN	SHEET 138	E



LEGEND

- TEMPORARY POLE, SINGLE ARM, AND LUMINAIRE. 6' ARM, 250W HPS
- TEMPORARY POLE, DOUBLE ARM, AND LUMINAIRE. 2-6' ARMS, 2-250W HPS
- NEW PERMANENT LIGHT POLE
- EXISTING MUNICIPAL POLE, ARM, AND LUMINAIRE TO REMAIN.
- —OH— TEMPORARY OVERHEAD WIRING.
- XXXX PAVING LIMITS

KEYED NOTES

(1) EXISTING DIRECT BURIED CABLE AND/OR CONDUCTORS IN CONDUIT TO REMAIN IN SERVICE FOR TEMPORARY LIGHTING

(2) EXISTING LIGHT POLE TO REMAIN.

GENERAL NOTES

1. WHERE UNDERGROUND LIGHTING CIRCUITS ARE SHOWN TO BE REUSED, CONTRACTOR TO CONTACT THE CITY TO DE-ENERGIZE, DISCONNECT AND MAKE TERMINATIONS TO EXISTING AND TEMPORARY LIGHTING SYSTEMS. CONTRACTOR TO REMOVE CONDUIT AND CONDUCTORS AFTER DE-ENERGIZING BY THE CITY.
2. CITY SUPPLIED 250W HPS COBRA LUMINAIRES COORDINATE INSTALLATION WITH TREE REMOVALS

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TEMPORARY LIGHTING PLAN	SHEET 139	E

LEGEND

- TEMPORARY POLE, SINGLE ARM, AND LUMINAIRE. 6' ARM, 250W HPS
- TEMPORARY POLE, DOUBLE ARM, AND LUMINAIRE. 2-6' ARMS, 2-250W HPS
- NEW PERMANENT LIGHT POLE
- EXISTING MUNICIPAL POLE, ARM, AND LUMINAIRE TO REMAIN.
- —OH— TEMPORARY OVERHEAD WIRING.
- XXXX PAVING LIMITS

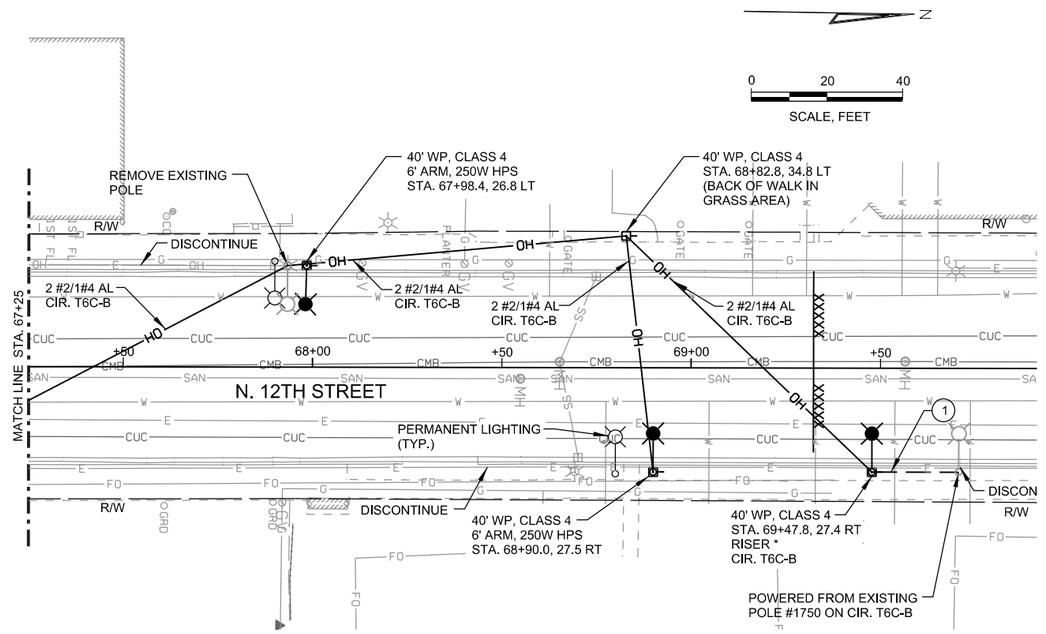
KEYED NOTES

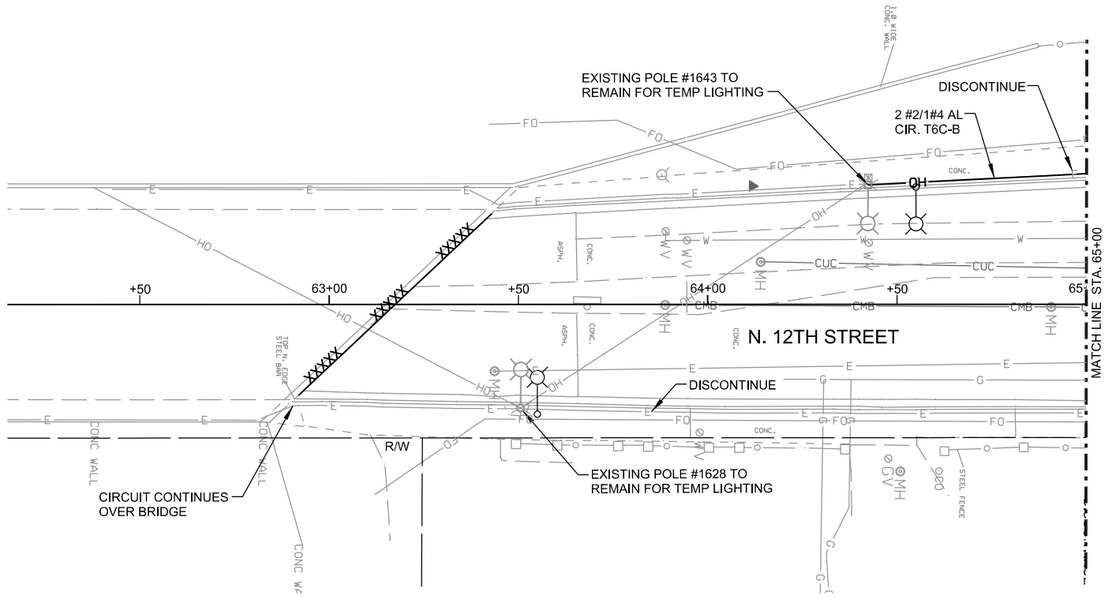
(1) EXISTING DIRECT BURIED CABLE AND/OR CONDUCTORS IN CONDUIT TO REMAIN IN SERVICE FOR TEMPORARY LIGHTING

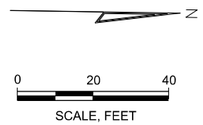
(2) EXISTING LIGHT POLE TO REMAIN.

GENERAL NOTES

1. WHERE UNDERGROUND LIGHTING CIRCUITS ARE SHOWN TO BE REUSED, CONTRACTOR TO CONTACT THE CITY TO DE-ENERGIZE, DISCONNECT AND MAKE TERMINATIONS TO EXISTING AND TEMPORARY LIGHTING SYSTEMS. CONTRACTOR TO REMOVE CONDUIT AND CONDUCTORS AFTER DE-ENERGIZING BY THE CITY.
2. CITY SUPPLIED 250W HPS COBRA LUMINAIRES COORDINATE INSTALLATION WITH TREE REMOVALS







PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TEMPORARY LIGHTING PLAN	SHEET 140	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\023517_lp.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

EXISTING LIGHTING CONTROL CABINET T7C

EXISTING POLE #1722

2 1/2" EXISTING CONDUIT TO REMAIN.

3#4/1#8 XLP CIR. T7C-C

N. 20TH STREET

3#4/1#8 XLP CIR. T7C-C

PROVIDE NEW CONDUIT BETWEEN PULL BOX AND EXISTING CONDUIT. COUPLE NEW CONDUIT TO EXISTING.

3#4/1#8 XLP CIR. T7C-C

3#4/1#8 XLP CIR. T7C-C

#1702
MOUNT TO MONOTUBE S-40-2113-02
2#12UF WITH GRD. INT. RISER
6 FT LUMINAIRE ARM
2LED3

3#4/1#8 XLP CIR. T7C-C

#1902
POLE TYPE 25-AL-BD W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3
STA 16+80.00, 19.5 LT

EXISTING POLE #2020

100 3" PVC SCHED 40

3#4/1#8 XLP CIR. T7C-C

3#4/1#8 XLP CIR. T7C-C

3#4/1#8 XLP CIR. T7C-C

#1950
MOUNT TO MONOTUBE S-40-2113-03
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3

#2002
MOUNT TO MONOTUBE S-40-2113-01
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3

3#2/1#8 XLP CIR. T10C-G

DETAIL B
100
3" PVC
2' BACK OF CURB

W. WALNUT STREET

DETAIL B
100
3" PVC
2' BACK OF CURB

EXISTING POLE #1721

PROTECT AND ADJUST EXISTING 3#8/1#8 LTP, CIR. T10C-G FOR REUSE.

30' - 3#8/1#8 XLP, CIR. T10C-G COILED & TAGGED AT PULLBOX. EXTENDED TO POLE #1701 BY CITY.

#1701
POLE TYPE 19-AL-BD W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2#12UF WITH GRD. INT. RISER
6 FT LUMINAIRE ARM
1LED3
STA 17+13.54, 85.00 LT

3#4/1#8 XLP CIR. T10C-G

PB100
17+14.00, 105.5 LT
13"X24"X24" PULLBOX
OVER EXISTING ITEM (CABLE)

N. 19TH STREET

#1836
POLE TYPE 25-AL-BD
W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3
STA 17+80.00, 8.5 LT

PB101
16+85.00
44.8 LT

100 3" PVC SCHED 40

3#2/1#8 XLP CIR. T10C-G

102 3" PVC SCHED 80

3#2/1#8 XLP CIR. T10C-G

PB103
17+77.00
3.3 LT

3#2/1#8 XLP CIR. T10C-G

PB102
16+85.00
14.1 LT

102 3" PVC SCHED 80

3" PVC SCHED 80 102

PB104
17+76.73
16.5 RT

3" PVC SCHED 40 100

3#2/1#8 XLP CIR. T10C-G

DETAIL B
100
3" PVC
2' BACK OF CURB

#1650
POLE TYPE 19-AL-BD W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2#12UF WITH GRD. INT. RISER
6 FT LUMINAIRE ARM
1LED3
STA 17+50.19, 61.0 RT

PB105
17+50.21
66.8 RT

MATCH LINE STA. 18+50

EXISTING POLE #2021

100 3" PVC SCHED 40

3#4/1#8 XLP CIR. T7C-C

3#4/1#8 XLP CIR. T7C-C

3#4/1#8 XLP CIR. T7C-C

PROVIDE NEW CONDUIT BETWEEN PULL BOX AND EXISTING CONDUIT. COUPLE NEW CONDUIT TO EXISTING.

3#4/1#8 XLP CIR. T7C-C

#1647
MOUNT TO MONOTUBE S-40-2113-04
2#12UF WITH GRD. INT. RISER
6 FT LUMINAIRE ARM
2LED3

3#4/1#8 XLP CIR. T7C-C

2 1/2" EXISTING CONDUIT TO REMAIN.

3#4/1#8 XLP CIR. T7C-C

EXISTING POLE #1632

EXISTING POLE #1619

CONTRACTOR TO PROVIDE EMPTY CONDUIT BETWEEN SIGNAL PULLBOX AND EXISTING CONDUIT SERVING EXISTING POLE #1632. COUPLE NEW CONDUIT TO EXISTING. CONDUCTORS TO BE FURNISHED BY LIGHTING CONTRACTOR AS CALLED FOR ELSEWHERE IN PLAN.

#1920
POLE TYPE 25-AL-BD
W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3
STA 15+65.00, 9.0 LT

NOTES

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUITS.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATON AND REQUIREMENTS.

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.

LIGHTING PULL BOXES SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN NOT POSSIBLE A 5-FT TO 6-FT OFFSET FROM THE STREET LIGHT POLES, SIGNAL STANDARDS, OR FIRE HYDRANTS SHOULD BE USED.

CONTACT CITY OF MILWAUKEE TO MAKE CONNECTIONS AND TERMINATIONS OF PROPOSED LIGHTING SYSTEMS TO EXISTING LIGHTING CIRCUITS.

ALL PURPOSE ANTISIEZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY LIGHT POLE HANDHOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTIONS AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

LIGHTING PLAN LEGEND

- LIGHT POLE WITH SINGLE ARM AND LUMINAIRE AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED.
- LIGHT POLE WITH DUAL ARMS AND LUMINAIRES AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED
- PULL BOX 13-INCH x 24-INCH x 24-INCH
- PVC CONDUIT (SIZE & SCHEDULE NOTED ON PLAN)
- STREET LIGHTING (XLP) CABLE
- STREET LIGHTING CONDUIT AND OR CABLING BY CITY
- (R) (B) RED/BLACK STREET LIGHT TERMINATION

KEYED NOTES

(1) MOUNT LUMINAIRE AND LUMINAIRE ARMS ON TRAFFIC SIGNAL POLE. SEE TRAFFIC SIGNAL PLAN FOR LOCATION OF MONOTUBE POLE.

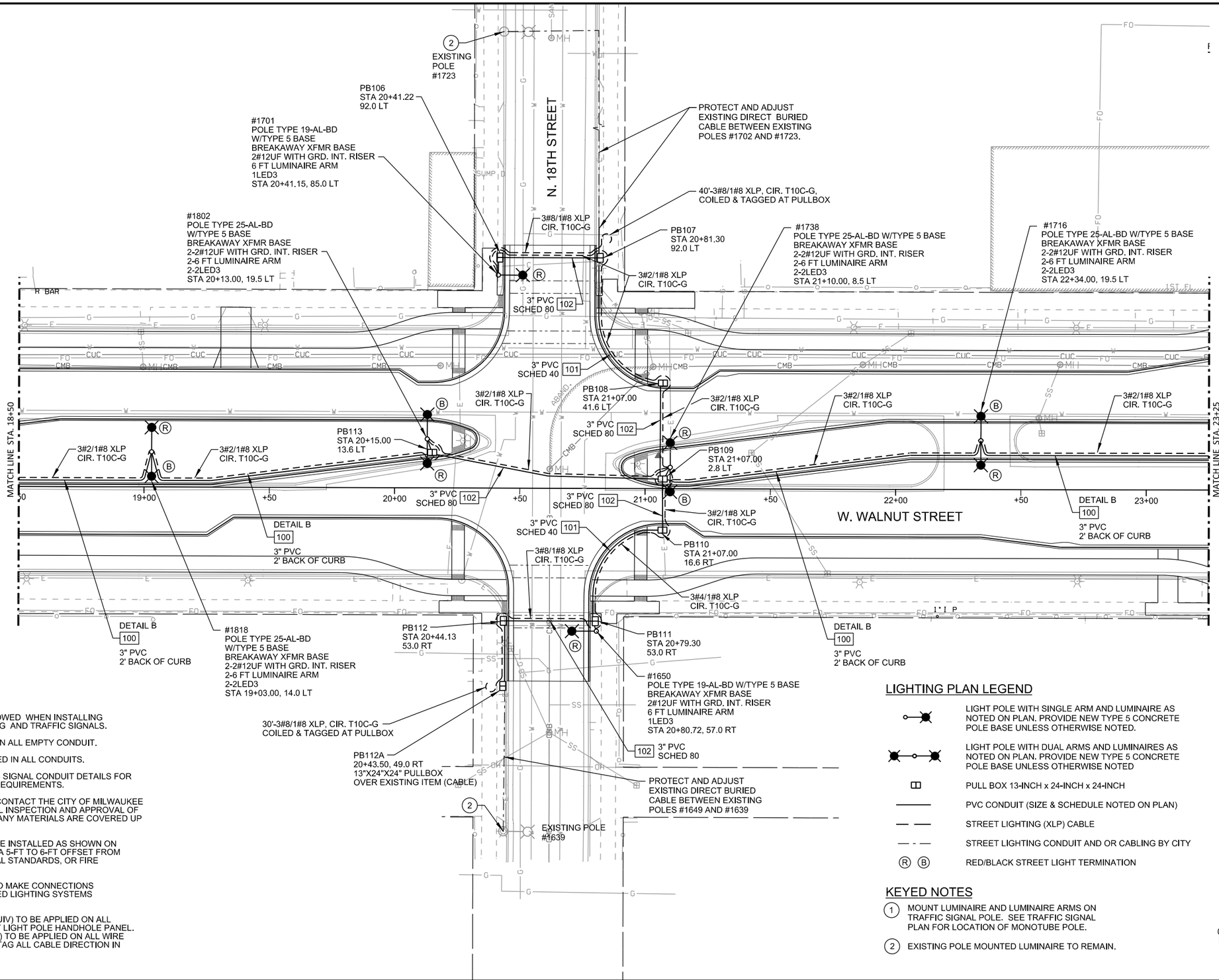
(2) EXISTING POLE MOUNTED LUMINAIRE TO REMAIN.

N

0 20 40
SCALE, FEET

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 141	E

2



NOTES

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUITS.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATON AND REQUIREMENTS.

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.

LIGHTING PULL BOXES SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN NOT POSSIBLE A 5-FT TO 6-FT OFFSET FROM THE STREET LIGHT POLES, SIGNAL STANDARDS, OR FIRE HYDRANTS SHOULD BE USED.

CONTACT CITY OF MILWAUKEE TO MAKE CONNECTIONS AND TERMINATIONS OF PROPOSED LIGHTING SYSTEMS TO EXISTING LIGHTING CIRCUITS.

ALL PURPOSE ANTISIEZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY LIGHT POLE HANDHOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTIONS AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

LIGHTING PLAN LEGEND

- LIGHT POLE WITH SINGLE ARM AND LUMINAIRE AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED.
- LIGHT POLE WITH DUAL ARMS AND LUMINAIRES AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED
- PULL BOX 13-INCH x 24-INCH x 24-INCH
- PVC CONDUIT (SIZE & SCHEDULE NOTED ON PLAN)
- STREET LIGHTING (XLP) CABLE
- STREET LIGHTING CONDUIT AND OR CABLING BY CITY
- (R) (B) RED/BLACK STREET LIGHT TERMINATION

KEYED NOTES

(1) MOUNT LUMINAIRE AND LUMINAIRE ARMS ON TRAFFIC SIGNAL POLE. SEE TRAFFIC SIGNAL PLAN FOR LOCATION OF MONOTUBE POLE.

(2) EXISTING POLE MOUNTED LUMINAIRE TO REMAIN.

N

0 20 40

SCALE, FEET

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 142	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\023522_lp.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

NOTES

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUITS.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATON AND REQUIREMENTS.

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.

NOTES (CONT'D)

LIGHTING PULL BOXES SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN NOT POSSIBLE A 5-FT TO 6-FT OFFSET FROM THE STREET LIGHT POLES, SIGNAL STANDARDS, OR FIRE HYDRANTS SHOULD BE USED.

CONTACT CITY OF MILWAUKEE TO MAKE CONNECTIONS AND TERMINATIONS OF PROPOSED LIGHTING SYSTEMS TO EXISTING LIGHTING CIRCUITS.

ALL PURPOSE ANTISIEZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY LIGHT POLE HANDHOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTIONS AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

N

0 20 40
SCALE, FEET

N. 17TH STREET

N. 16TH STREET

W. WALNUT STREET

MATCH LINE STA. 23+25

MATCH LINE STA. 29+25

EXISTING POLE #1715

EXISTING POLE #1710

EXISTING POLE #1718

PROVIDE COIL TO CONNECT

COIL TO CONNECT

100 3" PVC SCHED 40

3#2/1#8 XLP CIR. T10C-H

3#4/1#8 XLP CIR. T10C-H

3#2/1#8 XLP CIR. T10C-G

#1700 (T10C-G)
MOUNT TO MONOTUBE S-40-2114-04
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3

#1701
POLE TYPE 19-AL-BD W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2#12UF WITH GRD. INT. RISER
6 FT LUMINAIRE ARM
1LED3
STA 26+99.37, 80.0 LT

PB120
STA 27+00.34
93.0 LT

PB119
STA 26+75.0
42.6 LT

#1532
POLE TYPE 25-AL-BD W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3
STA 27+65.00, 8.5 LT

PB121
STA 27+38.97
93.0 LT

101 3" PVC SCHED 40

102 3" PVC SCHED 80

#1702
MOUNT TO MONOTUBE S-40-2114-03
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3

#1612
POLE TYPE 25-AL-BD W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3
STA 25+95.00, 8.5 LT

#1602
POLE TYPE 25-AL-BD
W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3
STA 26+80.00, 18.0 LT

PB118
STA 27+66.00
3.7 LT

PB117
STA 27+66.00
16.6 RT

PB114
STA 26+75.00
14.9 LT

PB115
STA 27+00.63
63.0 RT

PB116
STA 27+38.47
63.0 RT

#1648
MOUNT TO MONOTUBE S-40-2114-02
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3

#1624
MOUNT TO MONOTUBE S-40-2114-01
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3

#1653
POLE TYPE 19-AL-BD
W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2#12UF WITH GRD. INT. RISER
6 FT LUMINAIRE ARM
1LED3
STA 27+00.00, 58.0 RT

#1520
POLE TYPE 25-AL-BD W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3
STA 28+75.00, 14.0 LT

DETAIL B
100 3" PVC
2' BACK OF CURB

STUB OUT 10' OF CONDUIT RIGID NON-METALLIC SCHEDULE 40 3-INCH FROM SIGNAL PULLBOX TO THE SOUTH.

3#8/1#8 XLP, CIR. T10C-G 30' COIL FOR SPLICE.

PROTECT AND ADJUST EXISTING DIRECT BURIED CABLE BETWEEN EXISTING POLES #1648 AND #1611.

EXISTING POLE #1636

EXISTING POLE #1611

EXISTING POLE #1612

EXISTING POLE #1630

CONTRACTOR TO PROVIDE 3" PVC SCHEDULE 40 CONDUIT BETWEEN SIGNAL PULL BOX AND EXISTING CONDUIT SERVING EXISTING POLE #1612. COUPLE NEW CONDUIT TO EXISTING. PLACE CONDUCTORS TO EXISTING POLE #1612 AS CALLED FOR ELSEWHERE IN PLAN.

2 1/2" EXISTING CONDUIT TO REMAIN.

PROVIDE COIL TO CONNECT

EXISTING LIGHTING CONTROL CABINET T10C

DISCONTINUE EXISTING DIRECT BURIED CABLE BETWEEN POLES #1655 AND #1630.

LIGHTING PLAN LEGEND

- LIGHT POLE WITH SINGLE ARM AND LUMINAIRE AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED.
- LIGHT POLE WITH DUAL ARMS AND LUMINAIRES AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED
- PULL BOX 13-INCH x 24-INCH x 24-INCH
- PVC CONDUIT (SIZE & SCHEDULE NOTED ON PLAN)
- STREET LIGHTING (XLP) CABLE
- STREET LIGHTING CONDUIT AND OR CABLING BY CITY
- (R) (B) RED/BLACK STREET LIGHT TERMINATION

KEYED NOTES

(1) MOUNT LUMINAIRE AND LUMINAIRE ARMS ON TRAFFIC SIGNAL POLE. SEE TRAFFIC SIGNAL PLAN FOR LOCATION OF MONOTUBE POLE.

(2) EXISTING POLE MOUNTED LUMINAIRE TO REMAIN.

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 143	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\023523_lp.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

LIGHTING PLAN LEGEND

- LIGHT POLE WITH SINGLE ARM AND LUMINAIRE AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED.
- LIGHT POLE WITH DUAL ARMS AND LUMINAIRES AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED
- PULL BOX 13-INCH x 24-INCH x 24-INCH
- PVC CONDUIT (SIZE & SCHEDULE NOTED ON PLAN)
- STREET LIGHTING (XLP) CABLE
- STREET LIGHTING CONDUIT AND OR CABLING BY CITY
- (R) (B) RED/BLACK STREET LIGHT TERMINATION

KEYED NOTES

(1) MOUNT LUMINAIRE AND LUMINAIRE ARMS ON TRAFFIC SIGNAL POLE. SEE TRAFFIC SIGNAL PLAN FOR LOCATION OF MONOTUBE POLE.

(2) EXISTING POLE MOUNTED LUMINAIRE TO REMAIN.

N

0 20 40
SCALE, FEET

#1510
POLE TYPE 25-AL-BD
W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3
STA 29+65.00, 14.0 LT

#1500
POLE TYPE 25-AL-BD
W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3
STA 30+60.00, 14.0 LT

#1440
POLE TYPE 25-AL-BD
W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3
STA 31+75.00, 11.0 LT

#1410
POLE TYPE 25-AL-BD
W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3
STA 33+95.00, 14.0 LT

#1420
POLE TYPE 25-AL-BD
W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3
STA 32+85.00, 14.0 LT

#1350
POLE TYPE 25-AL-BD
W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3
STA 35+10.00, 9.0 LT

MATCH LINE STA. 29+25

MATCH LINE STA. 35+25

W. WALNUT STREET

N. 15TH STREET

N. 14TH LANE

N. 14TH STREET

PB122
STA 30+72.00
3.6 LT

PB123
STA 30+70.50
23.3 RT

PB124
STA 30+77.50
52.5 RT

PB125
STA 31+23.00
3.6 LT

PB126
STA 33+92.00
3.6 LT

PB127
STA 32+69.00
25.6 RT

PB128
STA 32+69.00
3.6 LT

PB129
STA 34+51.47
63.0 RT

PB130
STA 34+85.64
63.0 RT

PB131
STA 35+19.00
35.8 RT

PB132
STA 35+19.00
3.6 LT

DETAIL B
100
3" PVC
2' BACK OF CURB

3#2/1#8 XLP
CIR. T10C-H

102
3" PVC
SCHED 80

101
3" PVC
SCHED 80

100
3" PVC
SCHED 40

STUB OUT 25' OF CONDUIT
SCHEDULE 40 3-INCH
FROM PB124 TO PAVING LIMIT.
CAP END.

#1649
POLE TYPE 19-AL-BD
W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
6 FT LUMINAIRE ARM
1LED3
STA 30+76.58, 60.0 RT

ABANDON

EXISTING
POLE
#1629

FED FROM CIR. T10C-A
OFF OF GALENA

EXISTING
POLE
#1641

#1646
POLE TYPE 19-AL-BD
W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2#12UF W/GRD. INT. RISER
6 FT LUMINAIRE ARM
1LED3
STA 34+86.78, 54.0 RT

STUB OUT 10' OF CONDUIT
SCHEDULE 40 3-INCH
FROM PB129 TO THE SOUTH.
CAP END.

PROTECT AND ADJUST EXISTING 3#8/1/#8 LTD.
TO BE REVISED AS CIR. T10C-H.

EXISTING
POLE
#1633

NOTES

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUITS.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATON AND REQUIREMENTS.

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.

LIGHTING PULL BOXES SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN NOT POSSIBLE A 5-FT TO 6-FT OFFSET FROM THE STREET LIGHT POLES, SIGNAL STANDARDS, OR FIRE HYDRANTS SHOULD BE USED.

CONTACT CITY OF MILWAUKEE TO MAKE CONNECTIONS AND TERMINATIONS OF PROPOSED LIGHTING SYSTEMS TO EXISTING LIGHTING CIRCUITS.

ALL PURPOSE ANTISIEZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY LIGHT POLE HANDHOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTIONS AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 144	E

2

MATCH LINE "A"

N

0 20 40
SCALE, FEET

EXISTING 3#4/1#8 XLP, CIR. T6C-A COILED AND TAGGED IN PULLBOX. UNCOIL AND EXTEND TO NEW POLE #1314

#1314
POLE TYPE 25-AL-BD
W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3
STA 36+40.00, 20.0 LT

DISCONNECT AND REMOVE CABLE TO POLE #1302

EXISTING POLE #1302

EXISTING POLE #1300

EXISTING POLE #1301

EXISTING POLE #1246

W. FOND DU LAC AVENUE

W. WALNUT STREET

100 3" PVC SCHED 40

REMOVE EXISTING 3#2/1#8 XLP CIR. T6C-A

EXISTING PULLBOX TO REMAIN.

3#2/1#8 XLP CIR. T6C-H

3#2/1#8 XLP CIR. T6C-B

EXISTING POLE #1240

EXISTING POLE #1302

2-3" EXISTING CONDUIT TO REMAIN

PLACE NEW 3#4/1#8 XLP BETWEEN POLES #1302 AND #1245.

DETAIL B
100
3" PVC
2' BACK OF CURB

MATCH LINE STA. 35+25

MATCH LINE STA. 41+25

36+00 +50 37+00 +50 38+00 +50 39+00 +50 40+00 +50 41+00

EXISTING POLE #1246

EXISTING POLE #1228A

#1218
POLE TYPE 25-AL-BD
W/TYPE 5 BASE
BREAKAWAY XFMR BASE
2-2#12UF WITH GRD. INT. RISER
2-6 FT LUMINAIRE ARM
2-2LED3
STA 40+90.00, 14.0 LT

EXISTING 3#2/1#8 XLP TAGGED AND COILED IN PULLBOX. UNCOIL AND EXTEND TO EXISTING POLE #1228A

EXISTING PULLBOX TO REMAIN

EXISTING POLE #1245

EXISTING PULLBOX TO REMAIN

EXISTING 3#6/1#8 XLP TAGGED AND COILED IN PULLBOX. UNCOIL AND EXTEND TO EXISTING POLE #1643

EXISTING POLE #1643

M.P. M.P.

LIGHTING PLAN LEGEND

- LIGHT POLE WITH SINGLE ARM AND LUMINAIRE AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED.
- LIGHT POLE WITH DUAL ARMS AND LUMINAIRES AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED
- PULL BOX 13-INCH x 24-INCH x 24-INCH
- PVC CONDUIT (SIZE & SCHEDULE NOTED ON PLAN)
- STREET LIGHTING (XLP) CABLE
- STREET LIGHTING CONDUIT AND OR CABLING BY CITY
- Ⓡ Ⓑ RED/BLACK STREET LIGHT TERMINATION

KEYED NOTES

(1) MOUNT LUMINAIRE AND LUMINAIRE ARMS ON TRAFFIC SIGNAL POLE. SEE TRAFFIC SIGNAL PLAN FOR LOCATION OF MONOTUBE POLE.

(2) EXISTING POLE MOUNTED LUMINAIRE TO REMAIN.

NOTES

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUITS.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATON AND REQUIREMENTS.

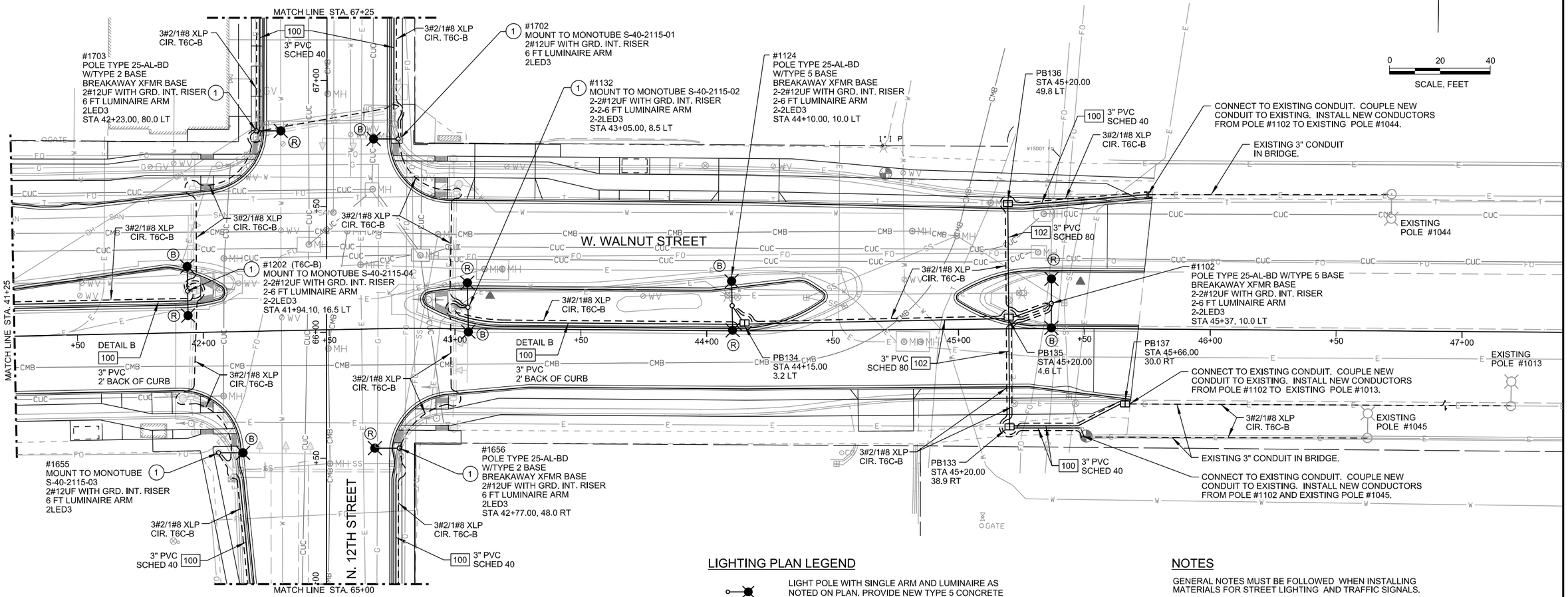
CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

LIGHTING PULL BOXES SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN NOT POSSIBLE A 5-FT TO 6-FT OFFSET FROM THE STREET LIGHT POLES, SIGNAL STANDARDS, OR FIRE HYDRANTS SHOULD BE USED.

CONTACT CITY OF MILWAUKEE TO MAKE CONNECTIONS AND TERMINATIONS OF PROPOSED LIGHTING SYSTEMS TO EXISTING LIGHTING CIRCUITS.

ALL PURPOSE ANTISIEZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY LIGHT POLE HANDHOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTIONS AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 145	E



LIGHTING PLAN LEGEND

- LIGHT POLE WITH SINGLE ARM AND LUMINAIRE AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED.
- LIGHT POLE WITH DUAL ARMS AND LUMINAIRES AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED
- PULL BOX 13-INCH x 24-INCH x 24-INCH
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- STREET LIGHTING (XLP) CABLE
- STREET LIGHTING CONDUIT AND OR CABLING BY CITY
- (R) (B) RED/BLACK STREET LIGHT TERMINATION

KEYED NOTES

(1) MOUNT LUMINAIRE AND LUMINAIRE ARMS ON TRAFFIC SIGNAL POLE. SEE TRAFFIC SIGNAL PLAN FOR LOCATION OF MONOTUBE POLE.

(2) EXISTING POLE MOUNTED LUMINAIRE TO REMAIN.

NOTES

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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CONTACT CITY OF MILWAUKEE TO MAKE CONNECTIONS AND TERMINATIONS OF PROPOSED LIGHTING SYSTEMS TO EXISTING LIGHTING CIRCUITS.

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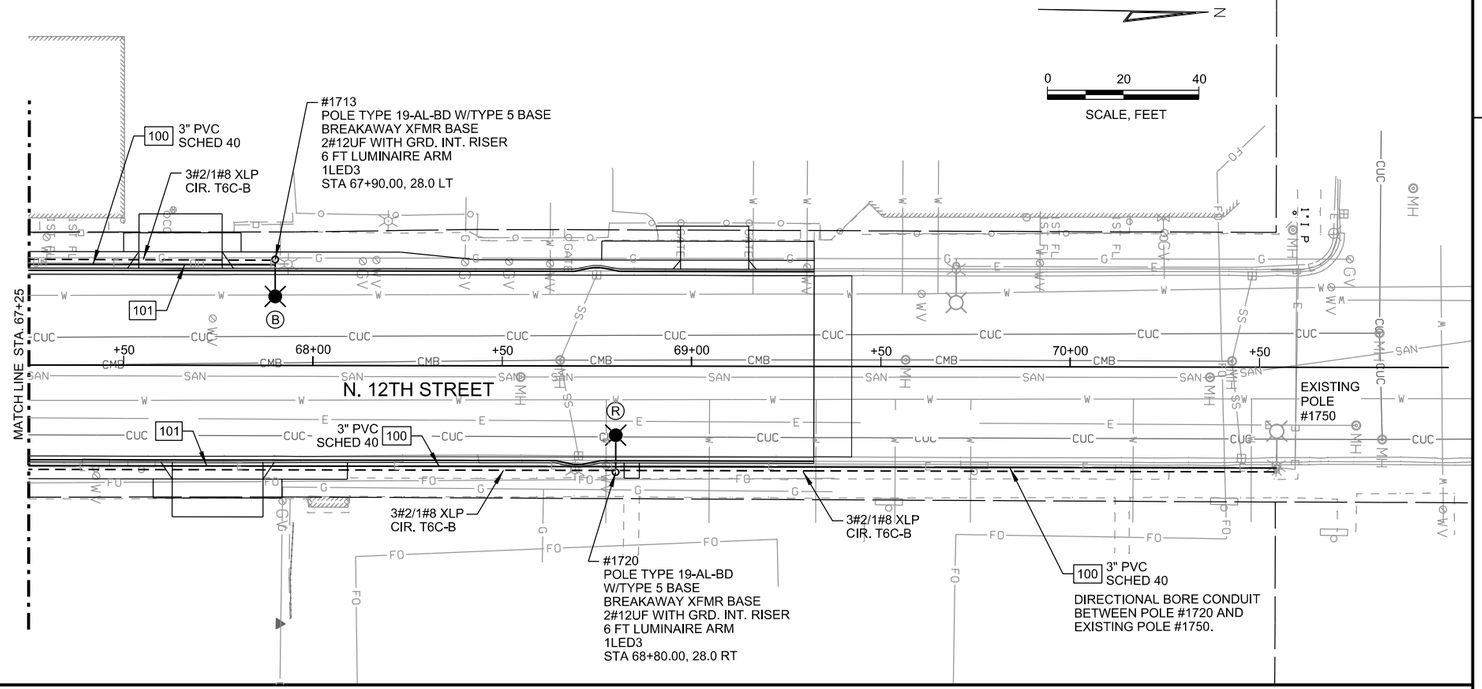
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 146	E

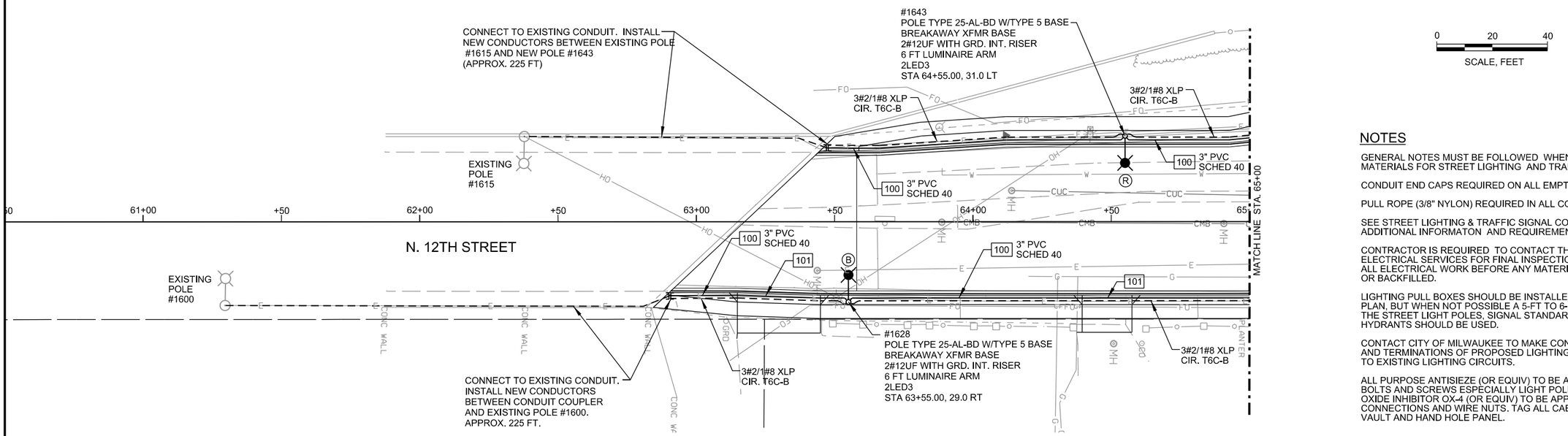
LIGHTING PLAN LEGEND

- LIGHT POLE WITH SINGLE ARM AND LUMINAIRE AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED.
- LIGHT POLE WITH DUAL ARMS AND LUMINAIRES AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED
- PULL BOX 13-INCH x 24-INCH x 24-INCH
- PVC CONDUIT (SIZE & SCHEDULE NOTED ON PLAN)
- STREET LIGHTING (XLP) CABLE
- STREET LIGHTING CONDUIT AND OR CABLING BY CITY
- (R) (B) RED/BLACK STREET LIGHT TERMINATION

KEYED NOTES

1. MOUNT LUMINAIRE AND LUMINAIRE ARMS ON TRAFFIC SIGNAL POLE. SEE TRAFFIC SIGNAL PLAN FOR LOCATION OF MONOTUBE POLE.
2. EXISTING POLE MOUNTED LUMINAIRE TO REMAIN.





NOTES

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUITS.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATON AND REQUIREMENTS.

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.

LIGHTING PULL BOXES SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN NOT POSSIBLE A 5-FT TO 6-FT OFFSET FROM THE STREET LIGHT POLES, SIGNAL STANDARDS, OR FIRE HYDRANTS SHOULD BE USED.

CONTACT CITY OF MILWAUKEE TO MAKE CONNECTIONS AND TERMINATIONS OF PROPOSED LIGHTING SYSTEMS TO EXISTING LIGHTING CIRCUITS.

ALL PURPOSE ANTISIEZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY LIGHT POLE HANDHOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTIONS AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 147	E

LIGHTING PLAN LEGEND

- LIGHT POLE WITH SINGLE ARM AND LUMINAIRE AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED.
- LIGHT POLE WITH DUAL ARMS AND LUMINAIRES AS NOTED ON PLAN. PROVIDE NEW TYPE 5 CONCRETE POLE BASE UNLESS OTHERWISE NOTED
- PULL BOX 13-INCH x 24-INCH x 24-INCH
- PVC CONDUIT (SIZE & SCHEDULE NOTED ON PLAN)
- STREET LIGHTING (XLP) CABLE
- STREET LIGHTING CONDUIT AND OR CABLING BY CITY
- Ⓡ Ⓑ RED/BLACK STREET LIGHT TERMINATION

KEYED NOTES

1. MOUNT LUMINAIRE AND LUMINAIRE ARMS ON TRAFFIC SIGNAL POLE. SEE TRAFFIC SIGNAL PLAN FOR LOCATION OF MONOTUBE POLE.
2. EXISTING POLE MOUNTED LUMINAIRE TO REMAIN.

NOTES

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUITS.

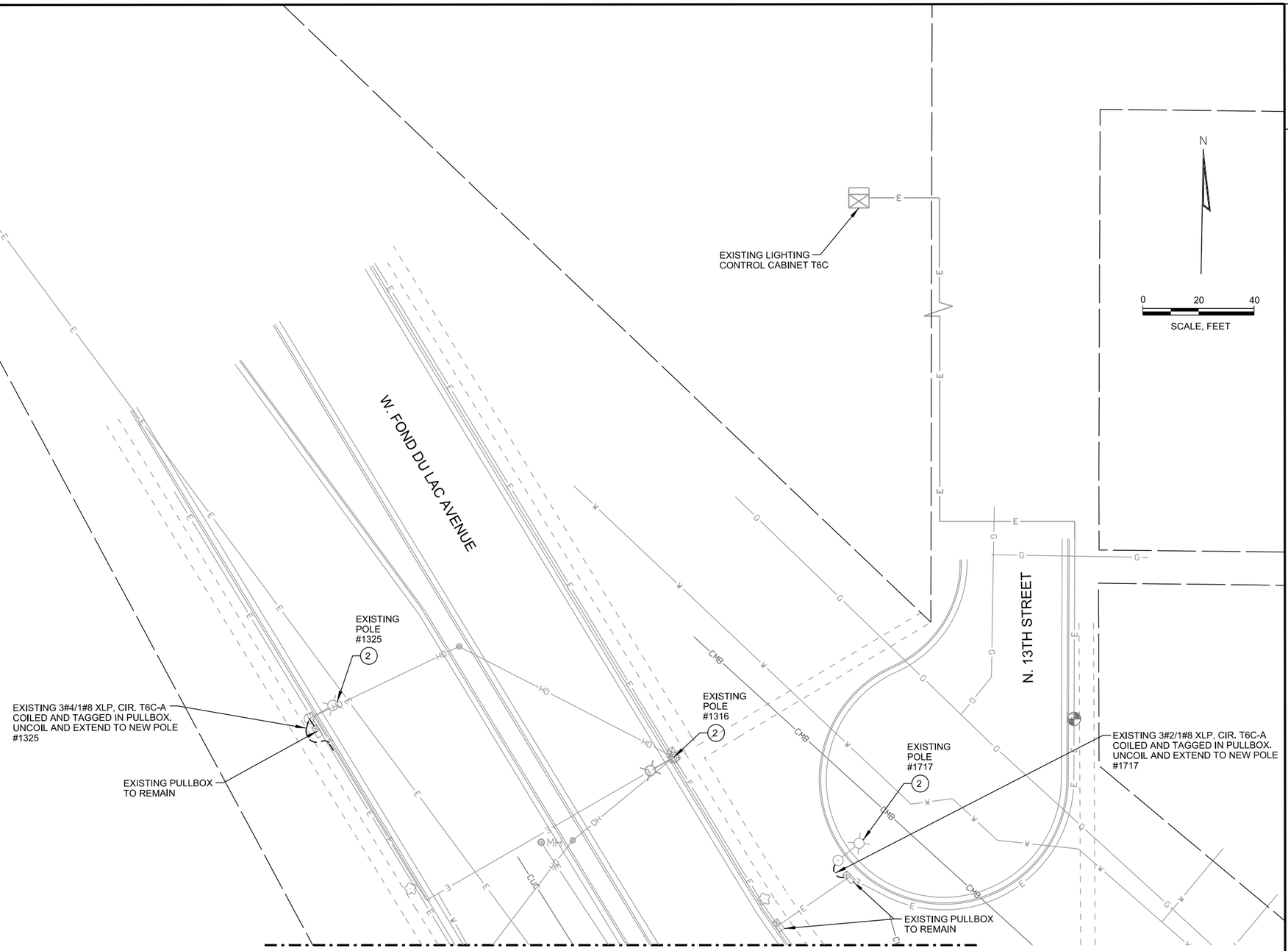
SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATON AND REQUIREMENTS.

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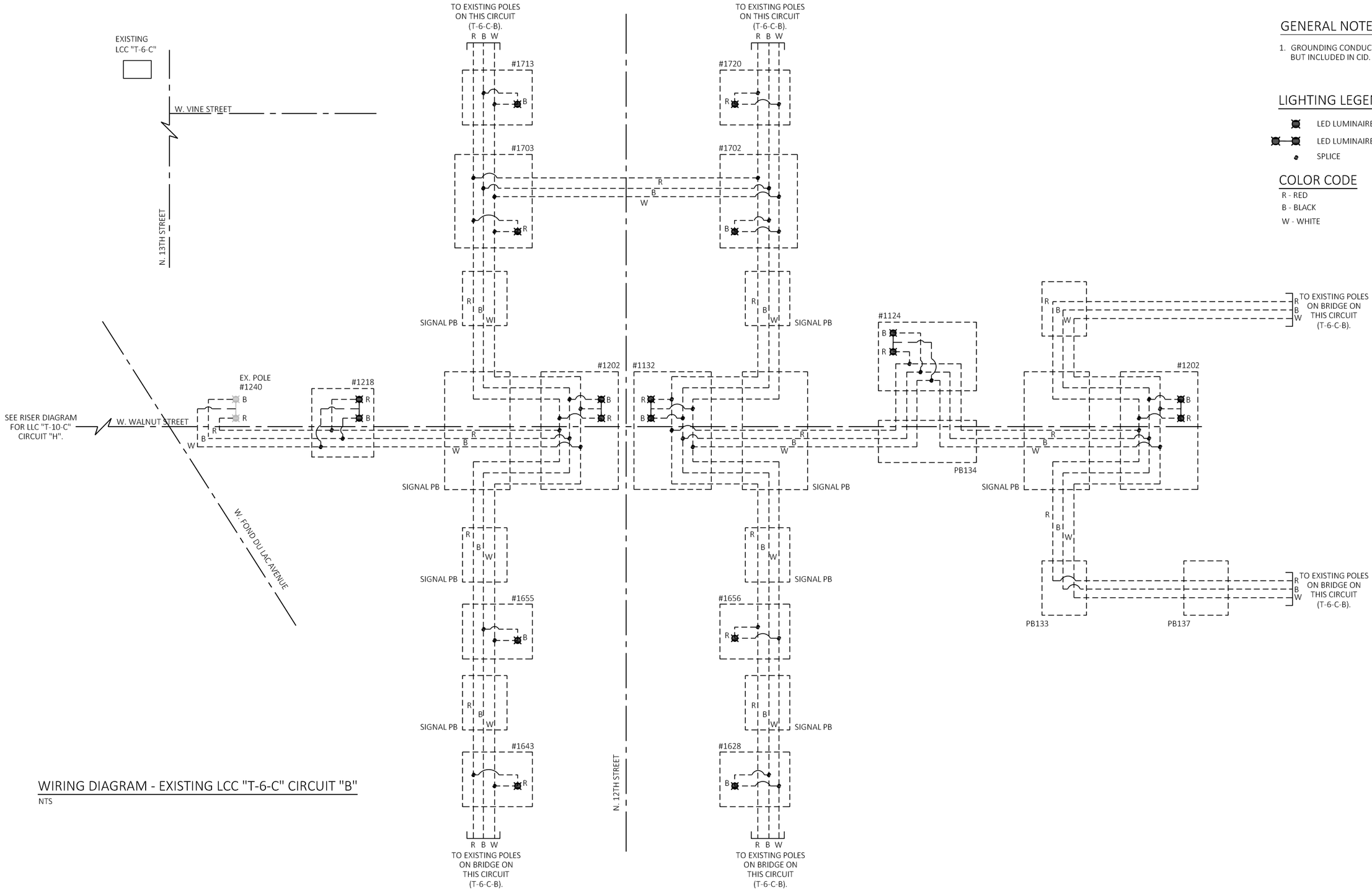
CONTACT CITY OF MILWAUKEE TO MAKE CONNECTIONS AND TERMINATIONS OF PROPOSED LIGHTING SYSTEMS TO EXISTING LIGHTING CIRCUITS.

ALL PURPOSE ANTISIEZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY LIGHT POLE HANDHOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTIONS AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 148	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\023528_lp.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.



GENERAL NOTE

1. GROUNDING CONDUCTOR NOT SHOWN, BUT INCLUDED IN CID.

LIGHTING LEGEND

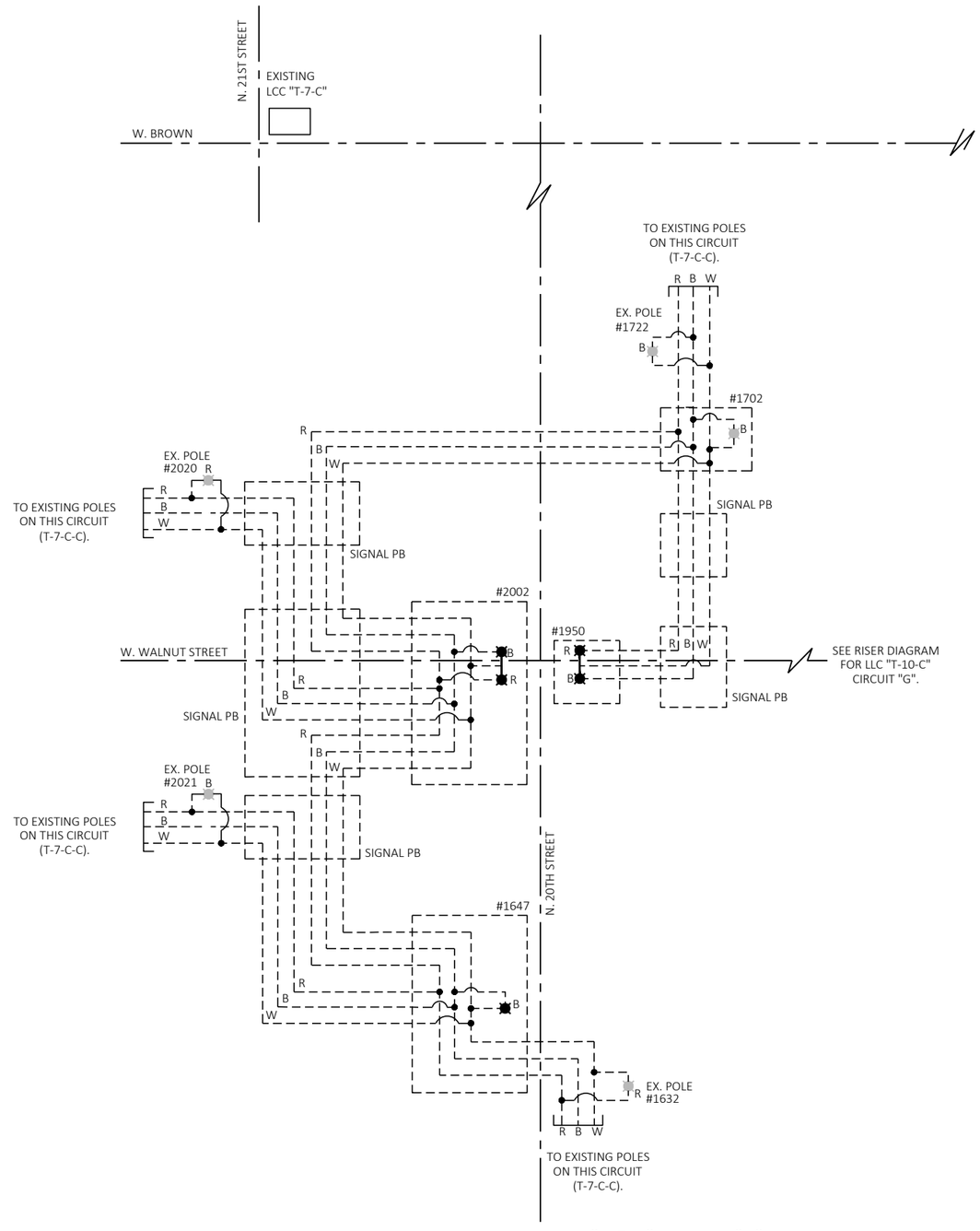
- LED LUMINAIRE - SINGLE HEAD
- LED LUMINAIRE - DOUBLE HEAD
- SPLICE

COLOR CODE

R - RED
B - BLACK
W - WHITE

WIRING DIAGRAM - EXISTING LCC "T-6-C" CIRCUIT "B"

NTS



WIRING DIAGRAM - EXISTING LCC "T-7-C" CIRCUIT "C"

NTS

GENERAL NOTE

1. GROUNDING CONDUCTOR NOT SHOWN, BUT INCLUDED IN CID.

LIGHTING LEGEND

- LED LUMINAIRE - SINGLE HEAD
- LED LUMINAIRE - DOUBLE HEAD
- SPLICE

COLOR CODE

R - RED
B - BLACK
W - WHITE

2

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	WIRING DIAGRAM	SHEET 150	E

2

GENERAL NOTE

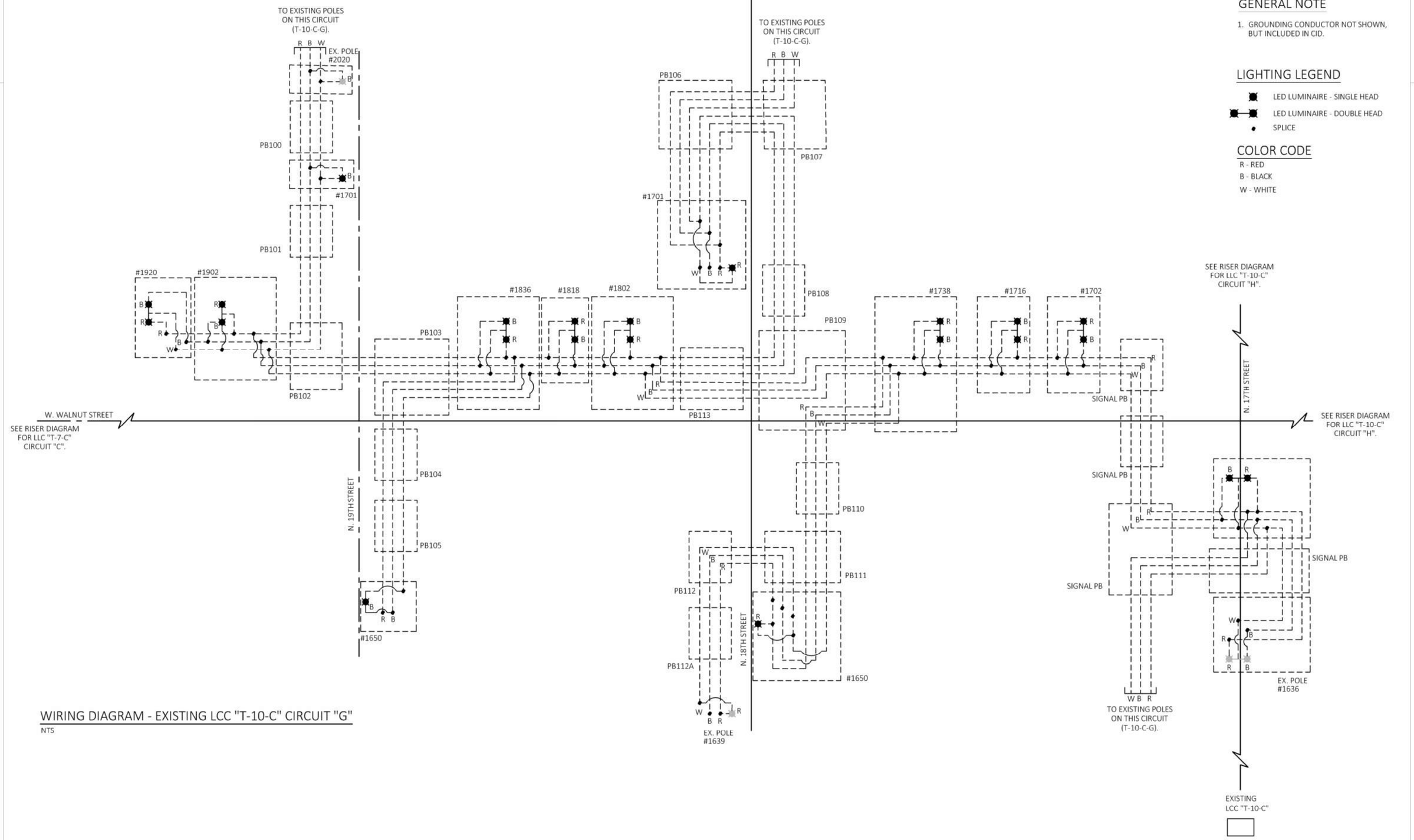
1. GROUNDING CONDUCTOR NOT SHOWN, BUT INCLUDED IN CID.

LIGHTING LEGEND

- LED LUMINAIRE - SINGLE HEAD
- LED LUMINAIRE - DOUBLE HEAD
- SPLICE

COLOR CODE

R - RED
B - BLACK
W - WHITE



WIRING DIAGRAM - EXISTING LCC "T-10-C" CIRCUIT "G"

NTS

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	WIRING DIAGRAM	SHEET 151 E

FILE NAME : X:\ML\2019\20190270\DESIGN\ELECTRICAL\WIRING DIAGRAM-LLC T10-C-G.DWG PLOT DATE : 8/4/2022 7:06 PM PLOT BY : OBERT, JORDAN PLOT NAME :

WISDOT/CADDS SHEET 42

2

GENERAL NOTE

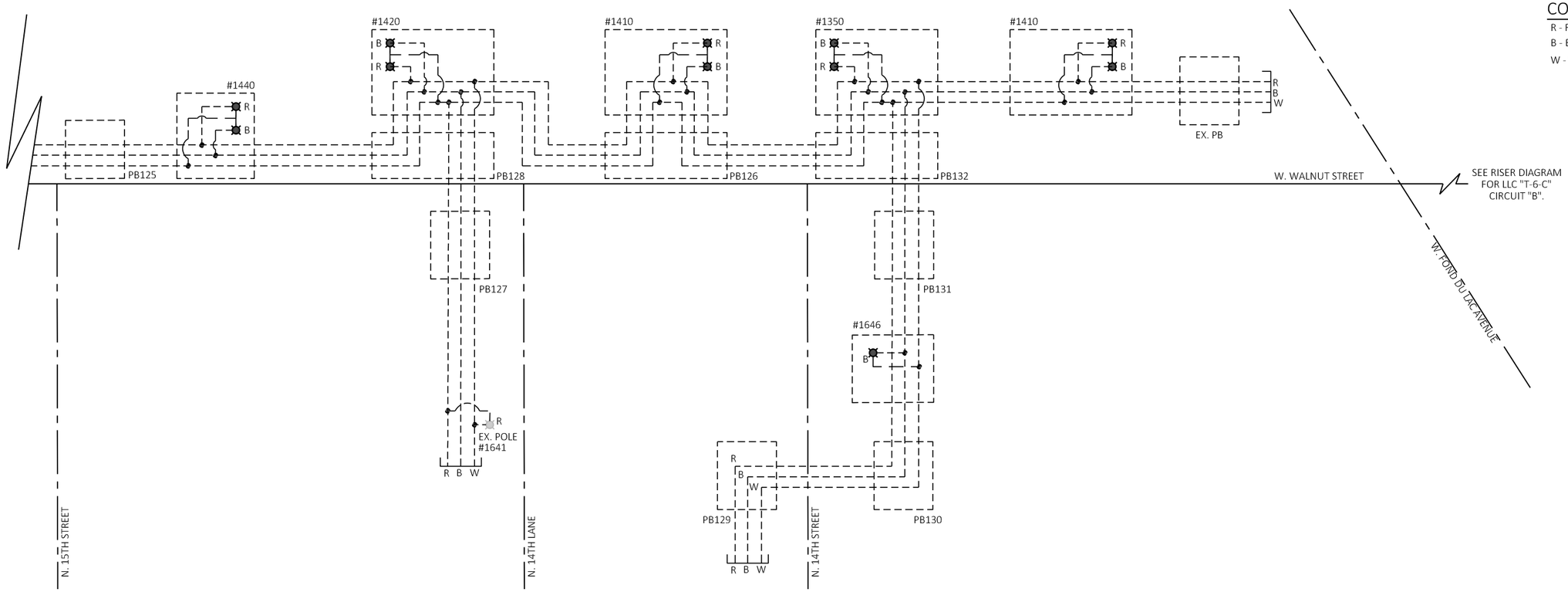
1. GROUNDING CONDUCTOR NOT SHOWN, BUT INCLUDED IN CID.

LIGHTING LEGEND

- LED LUMINAIRE - SINGLE HEAD
- LED LUMINAIRE - DOUBLE HEAD
- SPLICE

COLOR CODE

R - RED
B - BLACK
W - WHITE



WIRING DIAGRAM - EXISTING LCC "T-10-C" CIRCUIT "H" - CONTINUE

NTS

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	WIRING DIAGRAM	SHEET 152	E

FILE NAME : X:\ML\2019\20190270\DESIGN\ELECTRICAL\WIRING DIAGRAM-LCC T10-C-H-2.DWG PLOT DATE : 8/2/2022 3:14 PM PLOT BY : OBERT, JORDAN PLOT NAME :

2

GENERAL NOTE

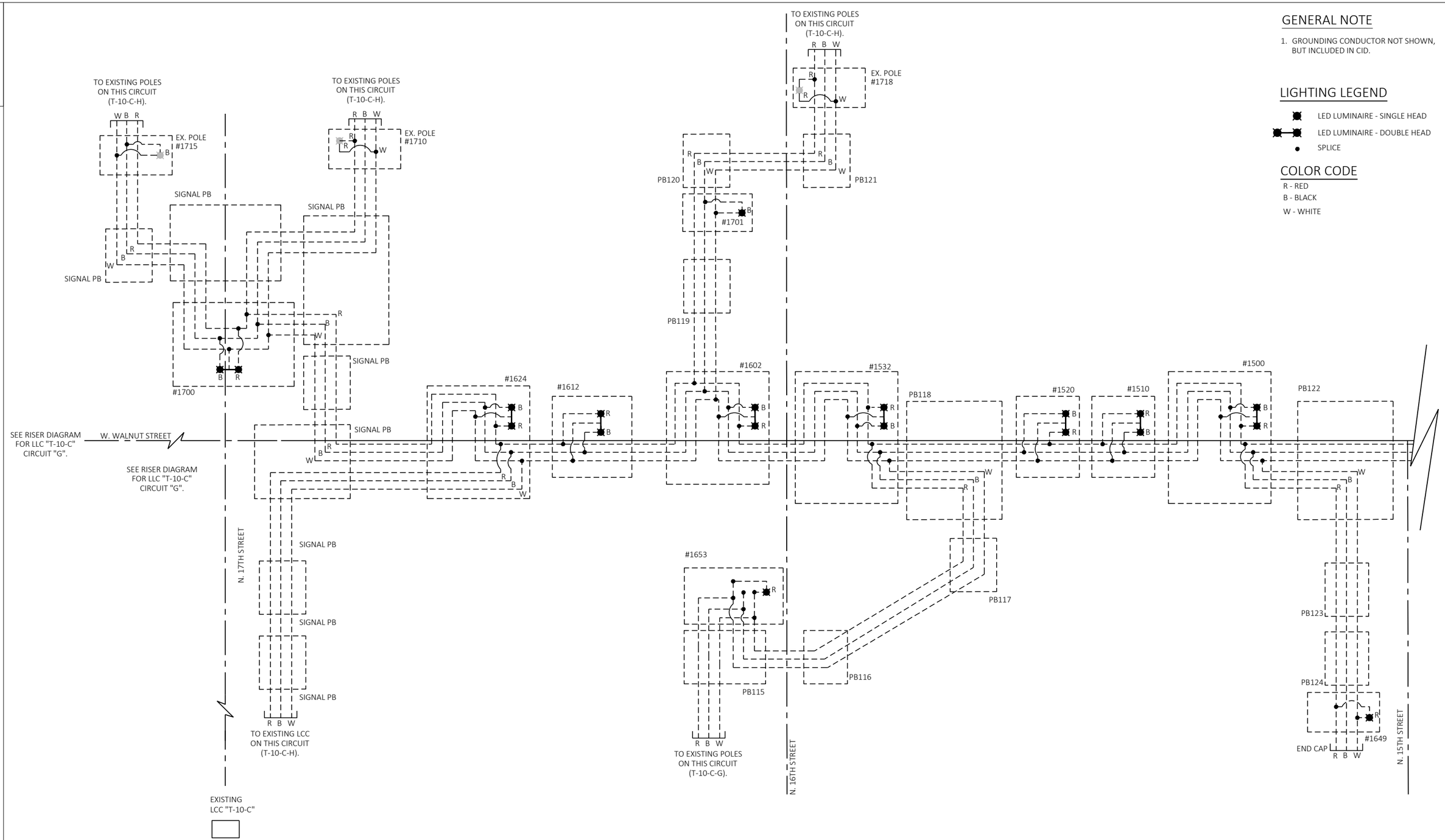
1. GROUNDING CONDUCTOR NOT SHOWN, BUT INCLUDED IN CID.

LIGHTING LEGEND

- LED LUMINAIRE - SINGLE HEAD
- LED LUMINAIRE - DOUBLE HEAD
- SPLICE

COLOR CODE

R - RED
B - BLACK
W - WHITE



WIRING DIAGRAM - EXISTING LCC "T-10-C" CIRCUIT "H"

NTS

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	WIRING DIAGRAM	SHEET 153	E

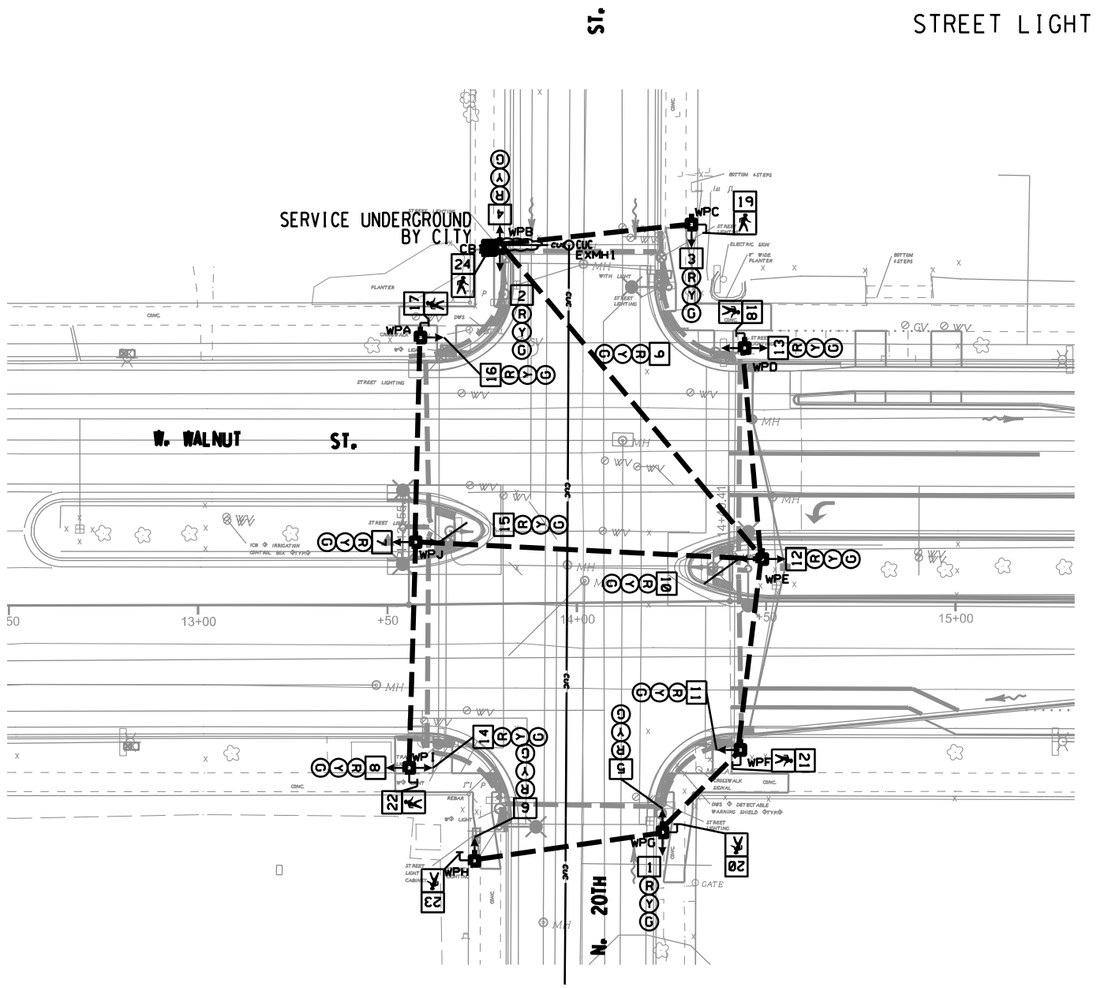
GENERAL NOTES:

ALL SERVICE TERMINATIONS BY CITY OF MILWAUKEE DPW

ALL VEHICLE HOUSINGS 12"

STREET LIGHTING ON SEPERATE CIRCUITRY

N



LEGEND

- CONTROL CABINET
- EXISTING SIGNAL POLE
- 35' CLASS 4 WOOD POLE
- MOVEABLE SIGNAL STANDARD
- UNDERGROUND CABLE IN SERVICE
- OVERHEAD TRAFFIC CABLE
- DON'T WALK/WALK INDICATOR & COUNTDOWN TIMER INDICATOR 16"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD

TRAFFIC CONTROL SIGNAL
WEST WALNUT STREET
& NORTH 20TH STREET
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1 OF 1

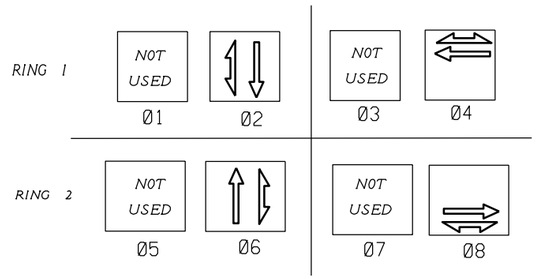
STATE PROJECT NUMBER 2674-02-70	HWY: W. WALNUT ST.	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN	SCALE FEET 0 40	SHEET 154	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2674-02-70 Walnut 12th to 20th\Temporary\Walnut Temp Signals Revised.dgn PLOT DATE : 25-FEB-2022 11:53 PLOT BY : Kpfeif PLOT NAME : PLOT SCALE : 1:39.9999

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
02	4.5.6	R
04	12.13.14.15.16	R
06	1.2.3	R
08	7.8.9.10.11	R
02P	23.24	
04P	17.18	
06P	19.20	
08P	21.22	

SEQUENCE OF OPERATION



DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR								
CALLED PHASE								
CALL OPTION								
DELAY TIME								
EXTENTION OPTION								
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR								
CALLED PHASE								
CALL OPTION								
DELAY TIME								
EXTENTION OPTION								
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

N

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
FIBER OPTIC	
RADIO	
*LOCATION OF MASTER CONTROLLER NO: S.	
SIGNAL SYSTEM *: SS. .	

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

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY Y / N	PHASE RECALL	PHASE ACTIVE
1				
2		6	PED	X
3				
4		8	COORD.	X
5				
6		2	PED	X
7				
8		4	COORD.	X

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

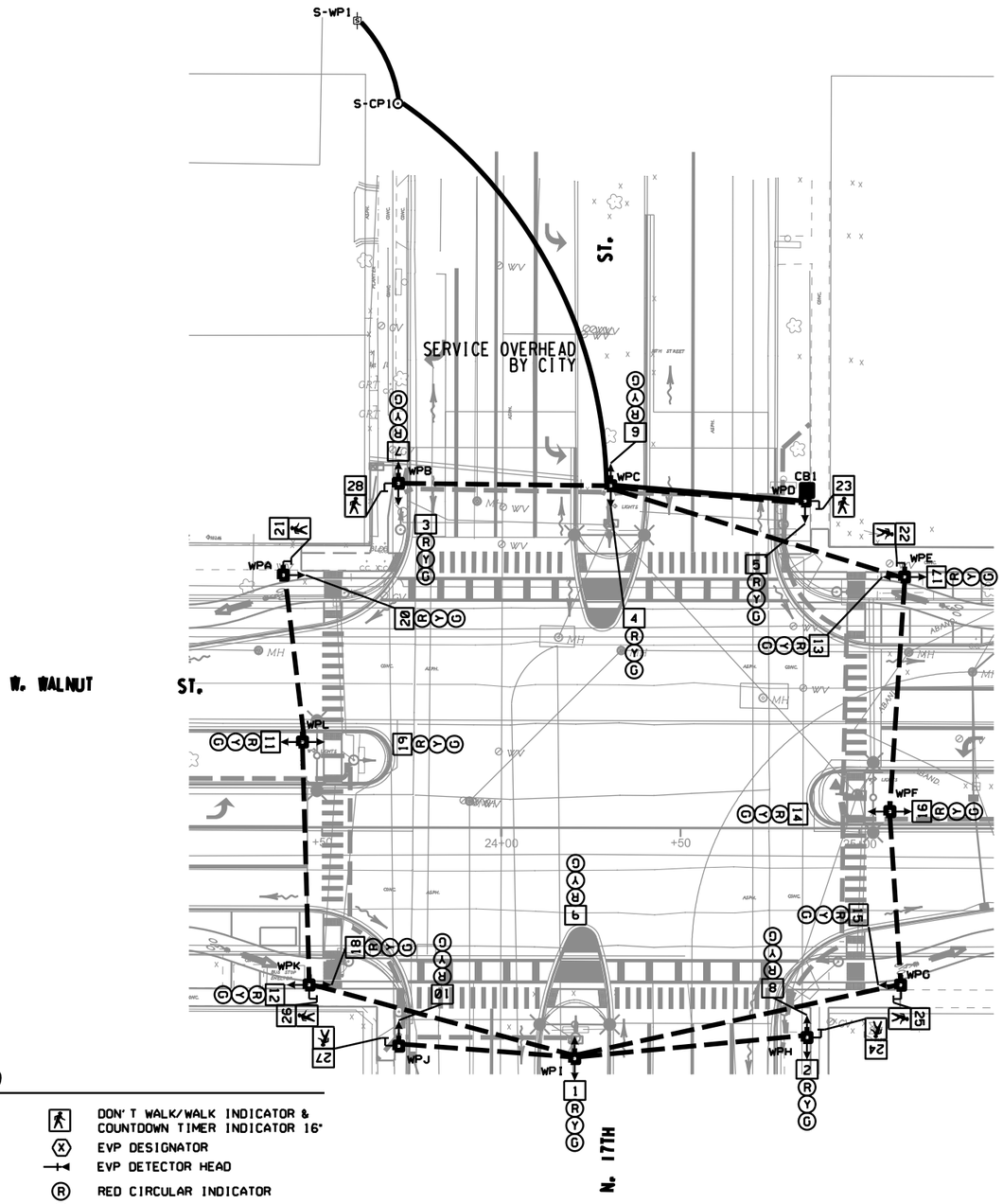
TRAFFIC CONTROL SIGNAL
N. 20TH ST. & W. WALNUT ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE: ECONOLITE COBALT

DATE PAGE NO. OF

STATE PROJECT NUMBER 2674-02-70	HWY: W. WALNUT ST.	COUNTY: MILWAUKEE	TEMPORARY SEQUENCE OF OPERATIONS	SHEET 155	E



GENERAL NOTES:

ALL SERVICE TERMINATIONS BY CITY OF MILWAUKEE DPW

ALL VEHICLE HOUSINGS 12"

STREET LIGHTING ON SEPERATE CIRCUITRY

N

LEGEND

- CONTROL CABINET
- EXISTING SIGNAL POLE
- 35' CLASS 4 WOOD POLE
- MOVEABLE SIGNAL STANDARD
- UNDERGROUND CABLE IN SERVICE
- OVERHEAD TRAFFIC CABLE
- DON'T WALK/WALK INDICATOR & COUNTDOWN TIMER INDICATOR 16"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD

TRAFFIC CONTROL SIGNAL
WEST WALNUT STREET
& NORTH 17TH STREET
LOCAL STREET

CITY OF MILWAUKEE, MILWAUKEE COUNTY

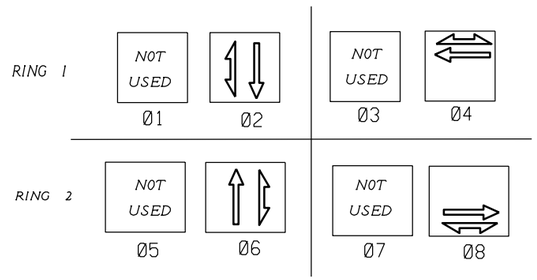
MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1 OF 1

STATE PROJECT NUMBER 2674-02-70	HWY: W. WALNUT ST.	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN	SCALE FEET 0 40	SHEET 156	E

	HEAD NUMBERS	FLASH
02	6,7,8,9,10	R
04	16,17,18,19,20	R
06	1,2,3,4,5	R
08	11,12,13,14,15	R
02P	27,28	
04P	21,22	
06P	23,24	
08P	25,26	

SEQUENCE OF OPERATION



N

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
FIBER OPTIC	
RADIO	
*LOCATION OF MASTER CONTROLLER NO: S.	
SIGNAL SYSTEM *: SS. .	

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

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY Y / Ø	PHASE RECALL	PHASE ACTIVE
1				
2		6	PED	X
3				
4		8	COORD.	X
5				
6		2	PED	X
7				
8		4	COORD.	X

OVERLAPS

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR								
CALLED PHASE								
CALL OPTION								
DELAY TIME								
EXTENTION OPTION								
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR								
CALLED PHASE								
CALL OPTION								
DELAY TIME								
EXTENTION OPTION								
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

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

TRAFFIC CONTROL SIGNAL
N. 17TH ST. & W. WALNUT ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE: ECONOLITE COBALT

DATE PAGE NO. OF

STATE PROJECT NUMBER 2674-02-70	HWY: W. WALNUT ST.	COUNTY: MILWAUKEE	TEMPORARY SEQUENCE OF OPERATIONS	SHEET 157	E

2

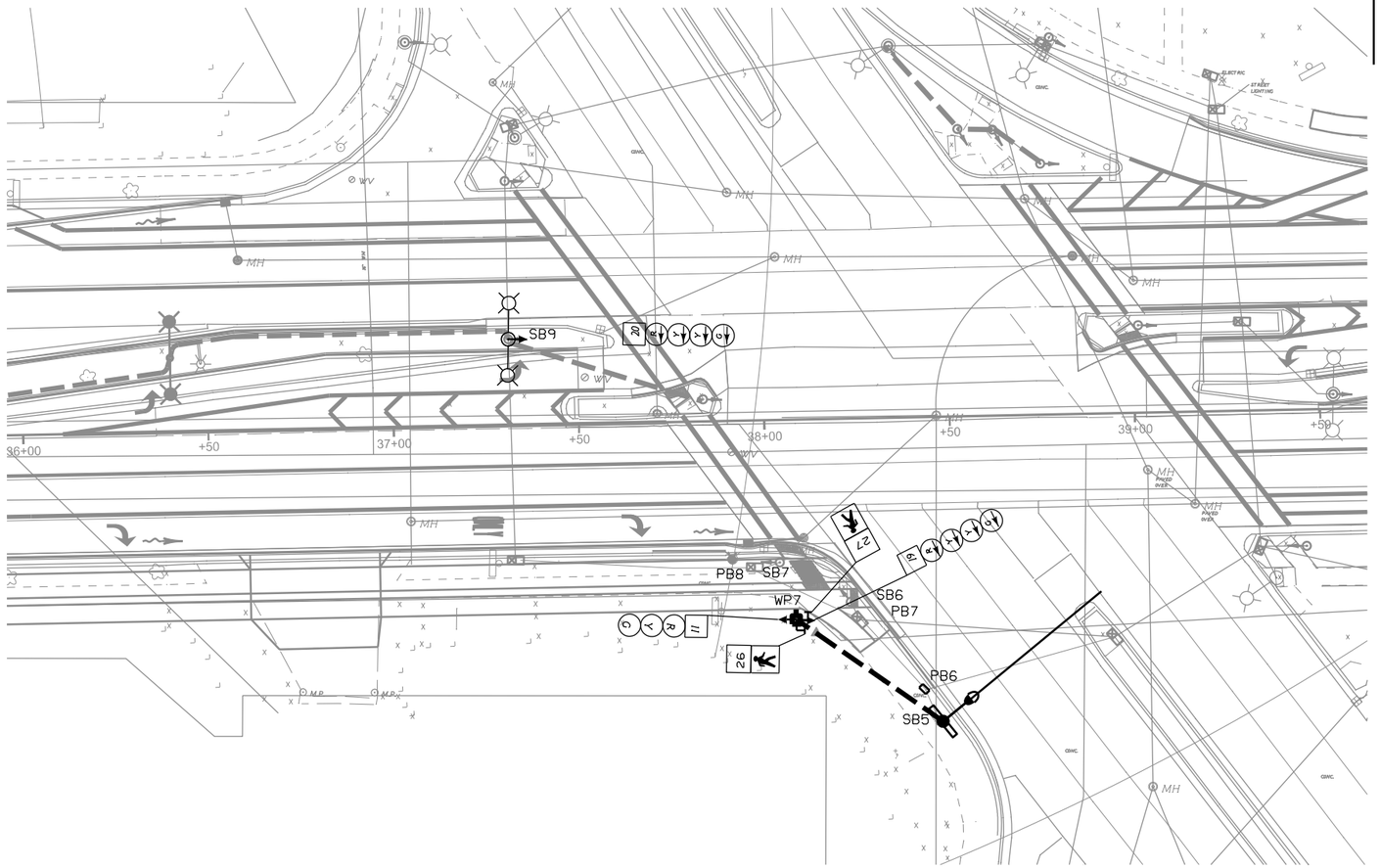
GENERAL NOTES:

ALL SERVICE TERMINATIONS BY CITY OF MILWAUKEE DPW

ALL VEHICLE HOUSINGS 12"

STREET LIGHTING ON SEPERATE CIRCUITRY

OTHER EXISTING SIGNALS TO REMAIN



LEGEND

- CONTROL CABINET
- EXISTING SIGNAL POLE
- 35' CLASS 4 WOOD POLE
- MOVEABLE SIGNAL STANDARD
- UNDERGROUND CABLE IN SERVICE
- OVERHEAD TRAFFIC CABLE
- DON'T WALK/WALK INDICATOR & COUNTDOWN TIMER INDICATOR 16"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD

TRAFFIC CONTROL SIGNAL
WEST WALNUT STREET
& WEST FOND DU LAC AVENUE
LOCAL STREET

CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

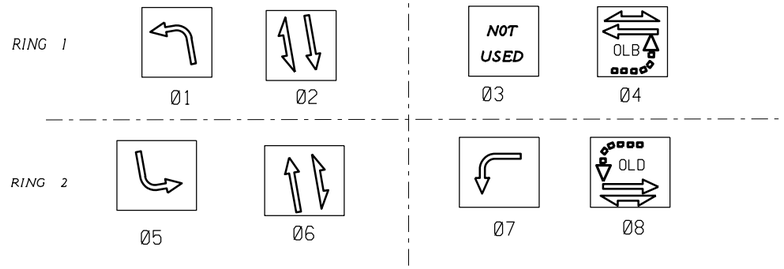
PAGE 1 OF 1

STATE PROJECT NUMBER 2674-02-70	HWY: W. WALNUT ST.	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN	SCALE FEET 0 40	SHEET 158	E

2

SEQUENCE OF OPERATION

	HEAD NUMBERS	FLASH
Ø1	4,5	R
Ø2	6,7,8	R
Ø4	16,17,18	R
Ø5	9,10	R
Ø6	1,2,3	R
Ø7	19,20	.
OLD	19,20	R
Ø8	11,12,13	R
Ø2P	27,28	
Ø4P	21,22	
Ø6P	23,24	
Ø8P	25,26	
OLB	14,15	R



CONTROLLER LOGIC

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

OVERLAPS

O.L. "B" - EB FYA

O.L. "D" - WB FYA

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

N

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
FIBER OPTIC	
RADIO	
*LOCATION OF MASTER CONTROLLER NO: S.	
SIGNAL SYSTEM #: SS. .	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR		11,12	7,1,72	51,52,53, 54,55,56				
CALLED PHASE		11	7	5				
CALL OPTION		X	X	X				
DELAY TIME								
EXTENTION OPTION		X	X	X				
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR								
CALLED PHASE								
CALL OPTION								
DELAY TIME								
EXTENTION OPTION								
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	CHANNEL A	CHANNEL B
MOVEMENT	↓ ↑	← →
PHASE	2-6	4-8

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

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. SEE CHART 1

TRAFFIC CONTROL SIGNAL
W. FOND DU LAC AVE. & W. WALNUT ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE

DATE PAGE NO. OF

PROJECT NO: 1360-00-76 | HWY: STH 145 | COUNTY: MILWAUKEE | TEMPORARY SEQUENCE OF OPERATIONS | SHEET 159 E

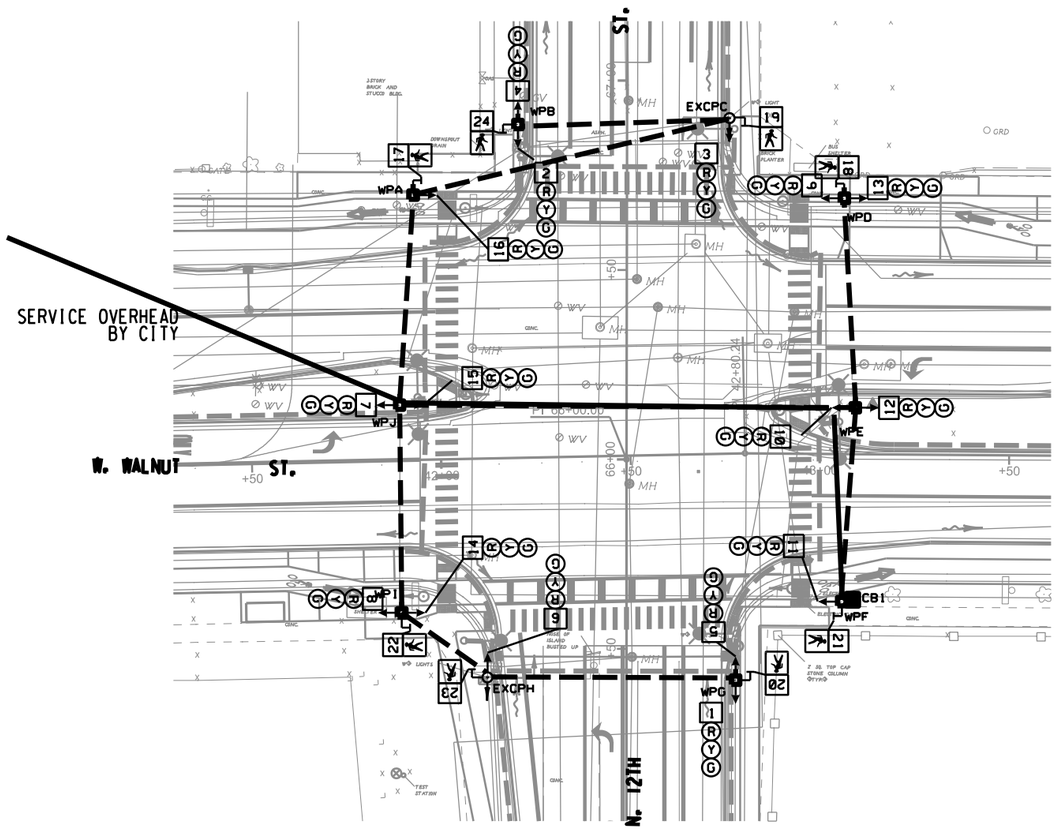
GENERAL NOTES:

ALL SERVICE TERMINATIONS BY CITY OF MILWAUKEE DPW

ALL VEHICLE HOUSINGS 12"

STREET LIGHTING ON SEPERATE CIRCUITRY

N



LEGEND

- CONTROL CABINET
- EXISTING SIGNAL POLE
- 35' CLASS 4 WOOD POLE
- MOVEABLE SIGNAL STANDARD
- UNDERGROUND CABLE IN SERVICE
- OVERHEAD TRAFFIC CABLE
- DON'T WALK/WALK INDICATOR & COUNTDOWN TIMER INDICATOR 16"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD

TRAFFIC CONTROL SIGNAL
WEST WALNUT STREET
& NORTH 12TH STREET
LOCAL STREET

CITY OF MILWAUKEE,MILWAUKEE COUNTY

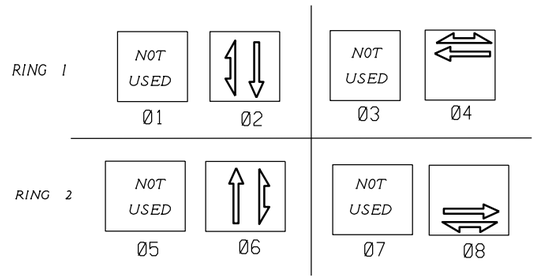
MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1 OF 1

STATE PROJECT NUMBER 2674-02-70	HWY: W. WALNUT ST.	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN	SCALE FEET 0 40	SHEET 160	E

	HEAD NUMBERS	FLASH
02	4.5.6	R
04	12.13.14.15.16	R
06	1.2.3	R
08	7.8.9.10.11	R
02P	23.24	
04P	17.18	
06P	19.20	
08P	21.22	

SEQUENCE OF OPERATION



DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR								
CALLED PHASE								
CALL OPTION								
DELAY TIME								
EXTENTION OPTION								
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR								
CALLED PHASE								
CALL OPTION								
DELAY TIME								
EXTENTION OPTION								
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

N

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
FIBER OPTIC	
RADIO	
*LOCATION OF MASTER CONTROLLER NO: S.	
SIGNAL SYSTEM *: SS. .	

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

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY Y / N	PHASE RECALL	PHASE ACTIVE
1				
2		6	PED	X
3				
4		8	COORD.	X
5				
6		2	PED	X
7				
8		4	COORD.	X

OVERLAPS

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

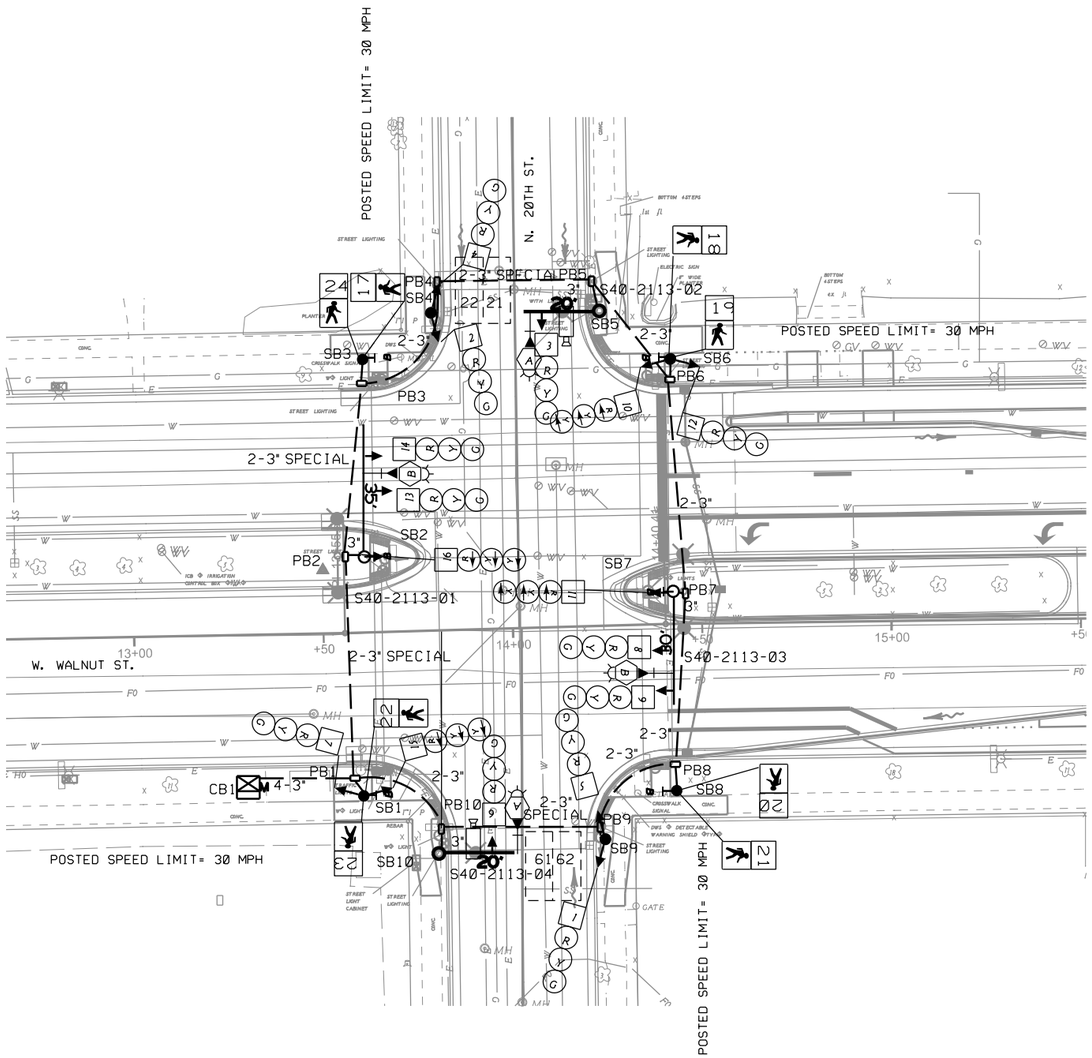
TRAFFIC CONTROL SIGNAL
N. 12TH ST. & W. WALNUT ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE: ECONOLITE COBALT

DATE PAGE NO. OF

STATE PROJECT NUMBER 2674-02-70	HWY: W. WALNUT ST.	COUNTY: MILWAUKEE	TEMPORARY SEQUENCE OF OPERATIONS	SHEET 161	E



N

LEGEND

- M — METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2". UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) — MONOTUBE BASE, POLE, 15'-40' ARM
- APS — PUSH BUTTON
- LUMINAIRE
- CONFIRMATION LIGHT
- POLYMER CONCRETE PULL BOX. 17"X30"X24"
- SIGNAL HEAD NUMBER
- R — RED CIRCULAR INDICATOR
- Y — YELLOW CIRCULAR INDICATOR
- G — GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WALK-DON'T WALK INDICATOR 12" COUNTDOWN TIMER 12"
- CAMERA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
N. 20TH ST. & W. WALNUT ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

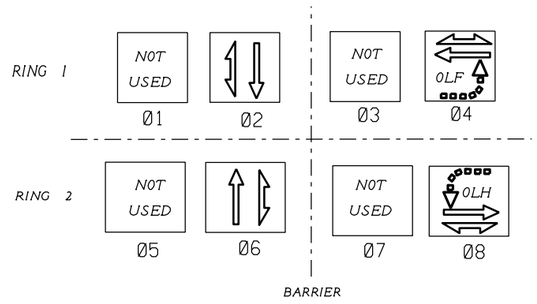
REGION CONTACT: SCOTT REINBACHER
DESIGNED BY: KAP PAGE OF
REVISED BY:

STATE PROJECT NUMBER 2674-02-70	HWY: W. WALNUT ST.	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE FEET 0 40	SHEET 162	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

	HEAD NUMBERS	FLASH
Ø2	4.5.6	R
OLF	10.11	R
Ø4	12.13.14	R
Ø6	1.2.3	R
OLH	15.16	R
Ø8	7.8.9	R
Ø2P	23.24	
Ø4P	17.18	
Ø6P	19.20	
Ø8P	21.22	

SEQUENCE OF OPERATION



DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR								
CALLED PHASE								
CALL OPTION								
DELAY TIME								
EXTENTION OPTION								
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR		21.22		61.62				
CALLED PHASE		2		6				
CALL OPTION		X		X				
DELAY TIME								
EXTENTION OPTION		X		X				
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

N

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
FIBER OPTIC	X
RADIO	
*LOCATION OF MASTER CONTROLLER NO: S.	
SIGNAL SYSTEM *: SS. .	

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	CHANNEL A	CHANNEL B
MOVEMENT	↓↑	⇄
PHASE	2-6	4-8

CONTROLLER LOGIC

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

OVERLAPS

O.L. "F" - EB FYA

O.L. "H" - WB FYA

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

TRAFFIC CONTROL SIGNAL
N. 20TH ST. & W. WALNUT ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE: ECONOLITE COBALT

DATE PAGE NO. OF

STATE PROJECT NUMBER 2674-02-70	HWY: W. WALNUT ST.	COUNTY: MILWAUKEE	SEQUENCE OF OPERATIONS	SHEET 163	E

PROJECT ID:	2674-02-70
INTERSECTION:	N. 20TH ST. & W. WALNUT ST.

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

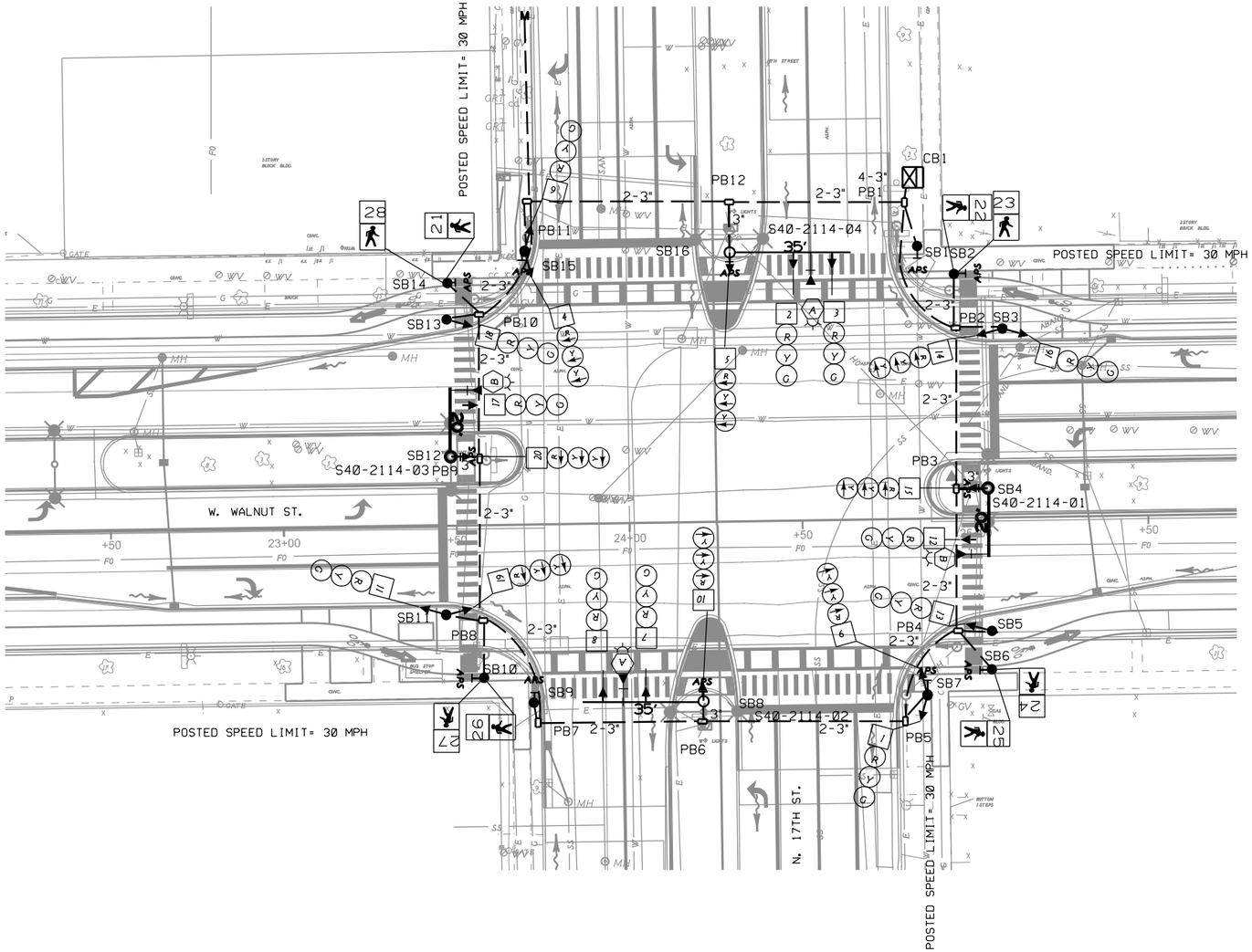
DATE: 2/17/2022

CB TO	JUMPER	# OF COND.	HEAD NO.	PHASE	SIGNAL INDICATION WIRE COLOR								PED BUTTON	OTHER
					RED	YELLOW	GREEN	<RED	<YELLOW>	<FLASH YELLOW>	D/WALK	WALK		
SB1		19	7	8	RED	ORG	GRN							
			15	OLH				RED/BLK	ORG/BLK	GRN/BLK				
			22	8							BLU	BLK		
			23	2							BLU/BLK	BLK/WHT		
			PUSHBUTTON	2									WHT/BLK	
SB2		19	13	4	RED	ORG	GRN							
			14	4	RED/BLK	ORG/BLK	GRN/BLK							
			16	OLH				RED/WHT	BLU/WHT	GRN/WHT				
			PUSHBUTTON	2									WHT/BLK	
SB3		12	17	4							BLU	BLK		
			24	2							BLU/BLK	BLK/WHT		
			PUSHBUTTON	2									WHT/BLK	
SB4		12	2	6	RED	ORG	GRN							
			4	2	RED/BLK	ORG/BLK	GRN/BLK							
SB5		12	3	6	RED	ORG	GRN							
SB6		19	10	OLF				RED/BLK	ORG/BLK	GRN/BLK				
			12	4	RED	ORG	GRN							
			18	4							BLU	BLK		
			19	6							BLU/BLK	BLK/WHT		
			PUSHBUTTON	6									WHT/BLK	
SB7		19	8	8	RED	ORG	GRN							
			9	8	RED/BLK	ORG/BLK	GRN/BLK							
			11	OLF				RED/WHT	BLU/WHT	GRN/WHT				
			PUSHBUTTON	6									WHT/BLK	
SB8		12	20	6							BLU	BLK		
			21	8							BLU/BLK	BLK/WHT		
			PUSHBUTTON	6									WHT/BLK	
SB9		12	1	6	RED	ORG	GRN							
			5	2	RED/BLK	ORG/BLK	GRN/BLK							
SB10		12	6	2	RED	ORG	GRN							

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	CB1

EMERGENCY VEHICLE PREEMPTION AND UF 2-12 CONFIRMATION	
FROM	TO
CB1	SB2
SB2	HEAD B
CB1	SB5
SB5	HEAD A
CB1	SB7
SB7	HEAD B
CB1	SB10
SB10	HEAD A

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.
4. "OTHER" COLUMN MAY INCLUDE SHADOW BOX (BLANK OUT) SIGN.



N

LEGEND

- M — METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2". UNLESS OTHERWISE NOTED
- SIGNAL HEAD. TRAFFIC SIGNAL STANDARD. PEDESTAL BASE
- (XX) MONOTUBE BASE. POLE. 15'-40' ARM
- APS PUSH BUTTON
- LUMINAIRE
- CONFIRMATION LIGHT
- POLYMER CONCRETE PULL BOX. 17"X30"X24"
- SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WALK-DON'T WALK INDICATOR 12"
  COUNTDOWN TIMER 12"
- CAMERA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
N. 17TH ST. & W. WALNUT ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

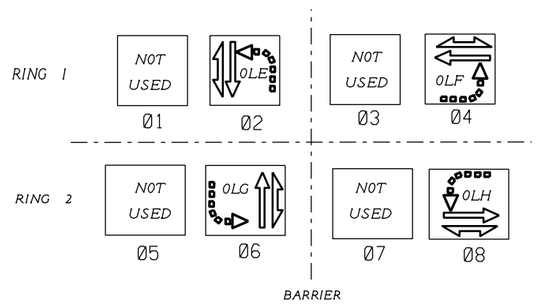
REGION CONTACT: SCOTT REINBACHER
DESIGNED BY: KAP
REVISED BY:

PAGE OF

STATE PROJECT NUMBER 2674-02-70	HWY: W. WALNUT ST.	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE FEET 0 40	SHEET 165	E

	HEAD NUMBERS	FLASH
OLE	4,5	R
Ø2	6,7,8	R
OLF	14,15	R
Ø4	16,17,18	R
OLG	9,10	R
Ø6	1,2,3	R
OLH	19,20	R
Ø8	11,12,13	R
Ø2P	27,28	
Ø4P	21,22	
Ø6P	23,24	
Ø8P	25,26	

SEQUENCE OF OPERATION



DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR								
CALLED PHASE								
CALL OPTION								
DELAY TIME								
EXTENTION OPTION								
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR								
CALLED PHASE								
CALL OPTION								
DELAY TIME								
EXTENTION OPTION								
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

N

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
FIBER OPTIC	X
RADIO	
*LOCATION OF MASTER CONTROLLER NO: S.	
SIGNAL SYSTEM *: SS. .	

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	CHANNEL A	CHANNEL B
MOVEMENT	↓↑	⇄
PHASE	2-6	4-8

CONTROLLER LOGIC

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

OVERLAPS

O.L. "E" - NB FYA

O.L. "F" - EB FYA
O.L. "G" - SB FYA
O.L. "H" - WB FYA

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

TRAFFIC CONTROL SIGNAL
N. 17TH ST. & W. WALNUT ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE: ECONOLITE COBALT

DATE PAGE NO. OF

STATE PROJECT NUMBER 2674-02-70	HWY: W. WALNUT ST.	COUNTY: MILWAUKEE	SEQUENCE OF OPERATIONS	SHEET E

FILE NAME : W:\BTE\SIGNALS\PAVING AND DESIGN\STATE PROJECTS-LFA\PRELIMINARY ENGINEERING\2674-02-70 WALNUT 12TH TO 20TH\26740270 SIGNALS.DGN PLOT DATE : 25-FEB-2022 09:57 PLOT BY : KPFEIF PLOT NAME : PLOT SCALE : 1:40.0003 WISDOT/CADDS SHEET 42

PROJECT ID:	2674-02-70
INTERSECTION:	N. 17TH ST. & W. WALNUT ST.

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED
	WHT-WHITE	BLU-BLUE

GRN-GREEN	
ORG-ORANGE	

DATE: 2/7/2022

CB TO	JUMPER	# OF COND.	HEAD NO.	PHASE	SIGNAL INDICATION WIRE COLOR RED	YELLOW	GREEN	<RED	<YELLOW>	<FLASH YELLOW>	D/WALK	WALK	PED BUTTON	OTHER
SB1		5	PUSHBUTTON	4									GRN	
			APS	4									ORG	
SB2		19	22	4							BLU	BLK		
			23	6							BLU/BLK	BLK/WHT		
			PUSHBUTTON	6									WHT/BLK	
			APS	6									BLU/WHT	
	SB3	12	14	OLF				RED/BLK	ORG/BLK	GRN/BLK				
			16	4	RED	ORG	GRN							
SB4		12	12	8	RED	ORG	GRN							
			15	OLF				RED/BLK	ORG/BLK	GRN/BLK				
			PUSHBUTTON	6									WHT/BLK	
			APS	6									BLK/WHT	
SB6		12	24	6							BLU	BLK		
			25	8							BLU/BLK	BLK/WHT		
			PUSHBUTTON	6									WHT/BLK	
			APS	6									ORG/BLK	
	SB5	5	13	8	RED	ORG	GRN							
SB7		12	1	6	RED	ORG	GRN							
			9	OLG				RED/BLK	ORG/BLK	GRN/BLK				
			PUSHBUTTON	8									WHT/BLK	
			APS	8									BLK/WHT	
SB8		19	7	2	RED	ORG	GRN							
			8	2	RED/BLK	ORG/BLK	GRN/BLK							
			10	OLG				RED/WHT	BLU/WHT	GRN/WHT				
			PUSHBUTTON	8									WHT/BLK	
			APS	8									BLK/WHT	
SB11		19	11	8	RED/BLK	ORG/BLK	GRN/BLK							
			19	OLH				RED/WHT	BLU/WHT	GRN/WHT				
	SB10	12	26	8							BLU	BLK		
			27	2							BLU/BLK	BLK/WHT		
			PUSHBUTTON	2									WHT/BLK	
			APS	2									RED	
	SB9	5	PUSHBUTTON	8									GRN	
			APS	8									ORG	
SB12		19	17	4	RED	ORG	GRN							
			20	OLH				RED/BLK	ORG/BLK	GRN/BLK				
			PUSHBUTTON	2									WHT/BLK	
			APS	2									BLK/WHT	
SB14		19	21	4							BLU	BLK		
			28	2							BLU/BLK	BLK/WHT		
			PUSHBUTTON	2									WHT/BLK	
			APS	2									ORG/BLK	
	SB13	5	18	4	RED	ORG	GRN							
SB15		12	4	OLE				RED/BLK	ORG/BLK	GRN/BLK				
			6	2	RED	ORG	GRN							
			PUSHBUTTON	4									WHT/BLK	
			APS	4									BLK/WHT	
SB16		19	2	6	RED	ORG	GRN							
			3	6	RED/BLK	ORG/BLK	GRN/BLK							
			5	OLE				RED/WHT	BLU/WHT	GRN/WHT				
			PUSHBUTTON	4									WHT/BLK	
			APS	4									BLK/WHT	

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	SB14
SB14	SB15
SB15	SB16
SB16	CB1

EMERGENCY VEHICLE PREEMPTION AND UF 2-12 CONFIRMATION	
FROM	TO
CB1	SB4
SB4	HEAD B
CB1	SB8
SB8	HEAD A
CB1	SB12
SB12	HEAD B
CB1	SB16
SB16	HEAD A

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.
4. "OTHER" COLUMN MAY INCLUDE SHADOW BOX (BLANK OUT) SIGN.

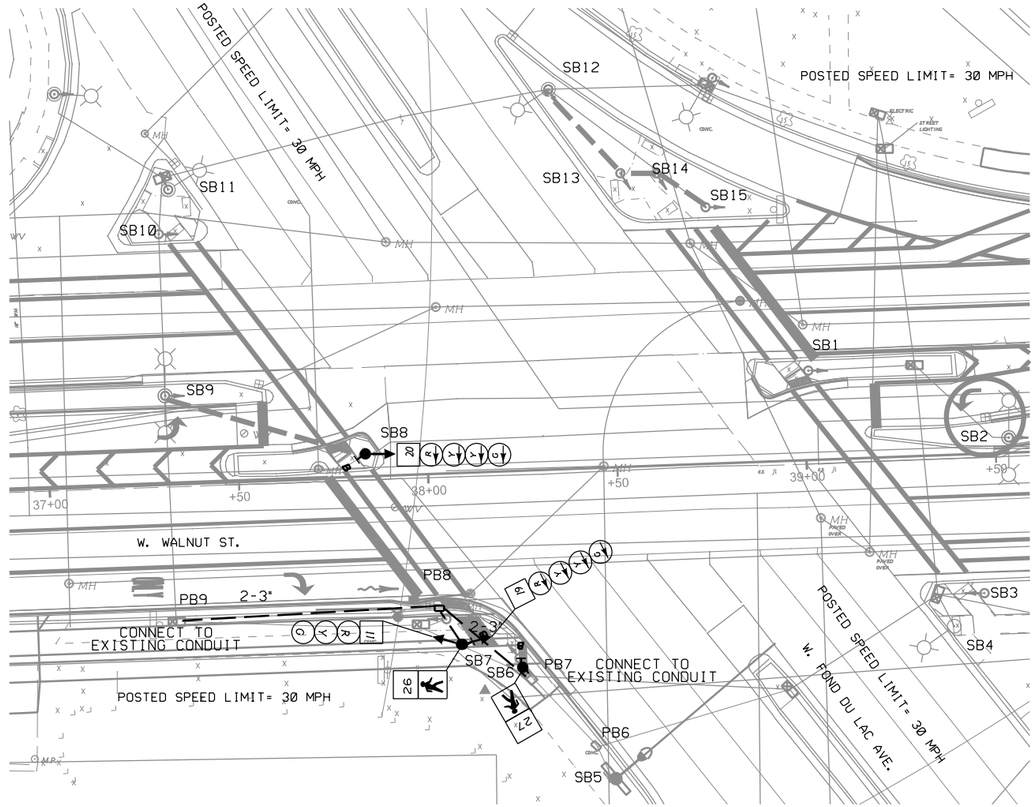
2

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2". UNLESS OTHERWISE NOTED
- SIGNAL HEAD. TRAFFIC SIGNAL STANDARD. PEDESTAL BASE
- (XX) MONOTUBE BASE. POLE. 15-40' ARM
- PUSH BUTTON (APS)
- LUMINAIRE
- CONFIRMATION LIGHT
- POLYMER CONCRETE PULL BOX. 17"X30"X24"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) (R) RED ARROW
- (Y) (Y) YELLOW ARROW
- (G) (G) GREEN ARROW
- WALK-DON'T WALK INDICATOR 12"
  COUNTDOWN TIMER 12"
- CAMERA
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

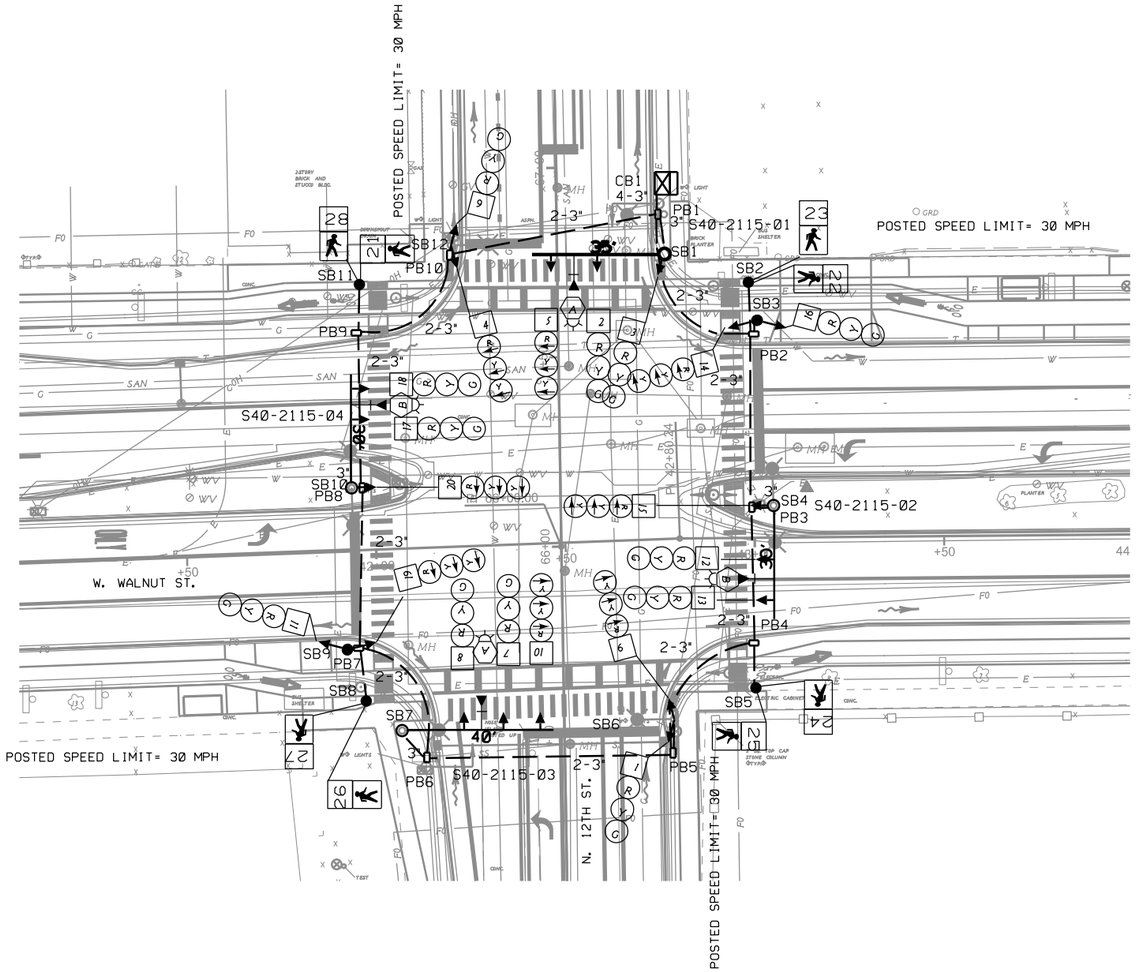


TRAFFIC CONTROL SIGNAL
W. FOND DU LAC AVE. & W. WALNUT ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

REGION CONTACT: SCOTT REINBACHER
DESIGNED BY: KAP PAGE OF
REVISED BY:

STATE PROJECT NUMBER 2674-02-70	HWY: W. WALNUT ST.	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE FEET 0 40	SHEET 168	E



LEGEND

M	METER PEDESTAL
⊠	CONTROL CABINET
— — — —	NONMETALLIC CONDUIT 2". UNLESS OTHERWISE NOTED
←●	SIGNAL HEAD. TRAFFIC SIGNAL STANDARD. PEDESTAL BASE
(XX) ●	MONOTUBE BASE. POLE. 15'-40' ARM
APS	PUSH BUTTON
✕●	LUMINAIRE
☆	CONFIRMATION LIGHT
▭	POLYMER CONCRETE PULL BOX. 17"X30"X24"
□	SIGNAL HEAD NUMBER
Ⓡ	RED CIRCULAR INDICATOR
Ⓨ	YELLOW CIRCULAR INDICATOR
Ⓖ	GREEN CIRCULAR INDICATOR
Ⓡ Ⓡ	RED ARROW
Ⓨ Ⓨ	YELLOW ARROW
Ⓖ Ⓖ	GREEN ARROW
	WALK-DON'T WALK INDICATOR 12" COUNTDOWN TIMER 12"
▭	CAMERA
⬡ X	EVP DESIGNATOR
⊢◀	EVP DETECTOR HEAD
	LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
N. 12TH ST. & W. WALNUT ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

REGION CONTACT: SCOTT REINBACHER
DESIGNED BY: KAP
REVISED BY:

PAGE OF

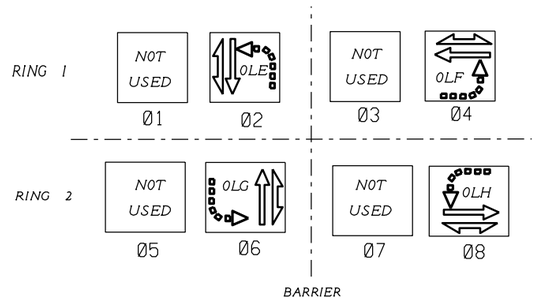
STATE PROJECT NUMBER 2674-02-70	HWY: W. WALNUT ST.	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE FEET 0 40	SHEET 169	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
OLE	4,5	R
Ø2	6,7,8	R
OLF	14,15	R
Ø4	16,17,18	R
OLG	9,10	R
Ø6	1,2,3	R
OLH	19,20	R
Ø8	11,12,13	R
Ø2P	27,28	
Ø4P	21,22	
Ø6P	23,24	
Ø8P	25,26	

SEQUENCE OF OPERATION



DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR								
CALLED PHASE								
CALL OPTION								
DELAY TIME								
EXTENTION OPTION								
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR								
CALLED PHASE								
CALL OPTION								
DELAY TIME								
EXTENTION OPTION								
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

N

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
FIBER OPTIC	X
RADIO	
*LOCATION OF MASTER CONTROLLER NO: S.	
SIGNAL SYSTEM *: SS. .	

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	CHANNEL A	CHANNEL B
MOVEMENT	↓↑	⇄
PHASE	2-6	4-8

CONTROLLER LOGIC

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

OVERLAPS

O.L. "E" - NB FYA

O.L. "F" - EB FYA
O.L. "G" - SB FYA
O.L. "H" - WB FYA

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

TRAFFIC CONTROL SIGNAL
N. 12TH ST. & W. WALNUT ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE: ECONOLITE COBALT

DATE PAGE NO. OF

STATE PROJECT NUMBER 2674-02-70	HWY: W. WALNUT ST.	COUNTY: MILWAUKEE	SEQUENCE OF OPERATIONS	SHEET 170	E

PROJECT ID:	2674-02-70
INTERSECTION:	N. 12TH ST. & W. WALNUT ST.

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: 2/7/2022

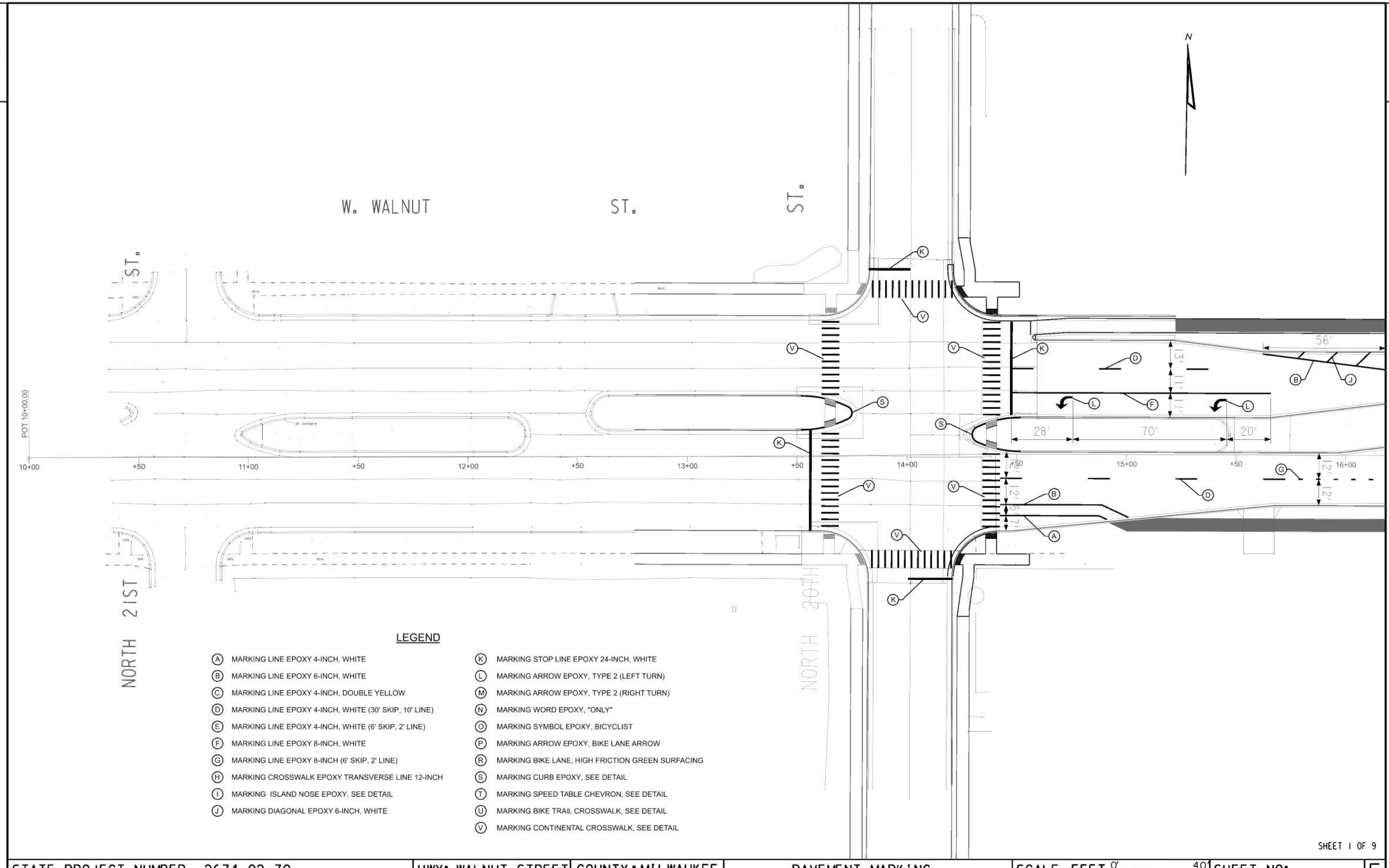
CB TO	JUMPER	# OF COND.	HEAD NO.	PHASE	SIGNAL INDICATION WIRE COLOR								PED BUTTON	OTHER
					RED	YELLOW	GREEN	<RED	<YELLOW>	<FLASH YELLOW>	D/WALK	WALK		
SB1		19	2	6	RED	ORG	GRN							
			3	6	RED/BLK	ORG/BLK	GRN/BLK							
			5	OLE				RED/WHT	BLU/WHT	GRN/WHT				
SB2		19	22	4							BLU	BLK		
			23	6							BLU/BLK	BLK/WHT		
	SB3	12	14	OLF				RED/BLK	ORG/BLK	GRN/BLK				
			16	4	RED	ORG	GRN							
SB4		19	12	8	RED	ORG	GRN							
			13	8	RED/BLK	ORG/BLK	GRN/BLK							
			15	OLF				RED/WHT	BLU/WHT	GRN/WHT				
SB5		19	24	6							BLU	BLK		
			25	8							BLU/BLK	BLK/WHT		
	SB6	12	1	6	RED	ORG	GRN							
			9	OLG				RED/BLK	ORG/BLK	GRN/BLK				
SB7		19	7	2	RED	ORG	GRN							
			8	2	RED/BLK	ORG/BLK	GRN/BLK							
			10	OLG				RED/WHT	BLU/WHT	GRN/WHT				
SB8		19	26	8							BLU	BLK		
			27	2							BLU/BLK	BLK/WHT		
	SB9	12	11	8	RED	ORG	GRN							
			19	OLH				RED/BLK	ORG/BLK	GRN/BLK				
SB10		19	17	4	RED	ORG	GRN							
			18	4	RED/BLK	ORG/BLK	GRN/BLK							
			20	OLH				RED/WHT	BLU/WHT	GRN/WHT				
SB12		19	4	OLE				RED/BLK	ORG/BLK	GRN/BLK				
			6	2	RED	ORG	GRN							
	SB11	12	21	4							BLU	BLK		
			28	2							BLU/BLK	BLK/WHT		

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	CB1

EMERGENCY VEHICLE PREEMPTION AND UF 2-12 CONFIRMATION	
FROM	TO
CB1	SB1
SB1	HEAD A
CB1	SB4
SB4	HEAD B
CB1	SB7
SB7	HEAD A
CB1	SB10
SB	HEAD B

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.
4. "OTHER" COLUMN MAY INCLUDE SHADOW BOX (BLANK OUT) SIGN.

2



LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30' SKIP, 10' LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6' SKIP, 2' LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH (6' SKIP, 2' LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING DIAGONAL EPOXY 6-INCH, WHITE
- (K) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (L) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (M) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (N) MARKING WORD EPOXY, "ONLY"
- (O) MARKING SYMBOL EPOXY, BICYCLIST
- (P) MARKING ARROW EPOXY, BIKE LANE ARROW
- (R) MARKING BIKE LANE, HIGH FRICTION GREEN SURFACING
- (S) MARKING CURB EPOXY, SEE DETAIL
- (T) MARKING SPEED TABLE CHEVRON, SEE DETAIL
- (U) MARKING BIKE TRAIL CROSSWALK, SEE DETAIL
- (V) MARKING CONTINENTAL CROSSWALK, SEE DETAIL

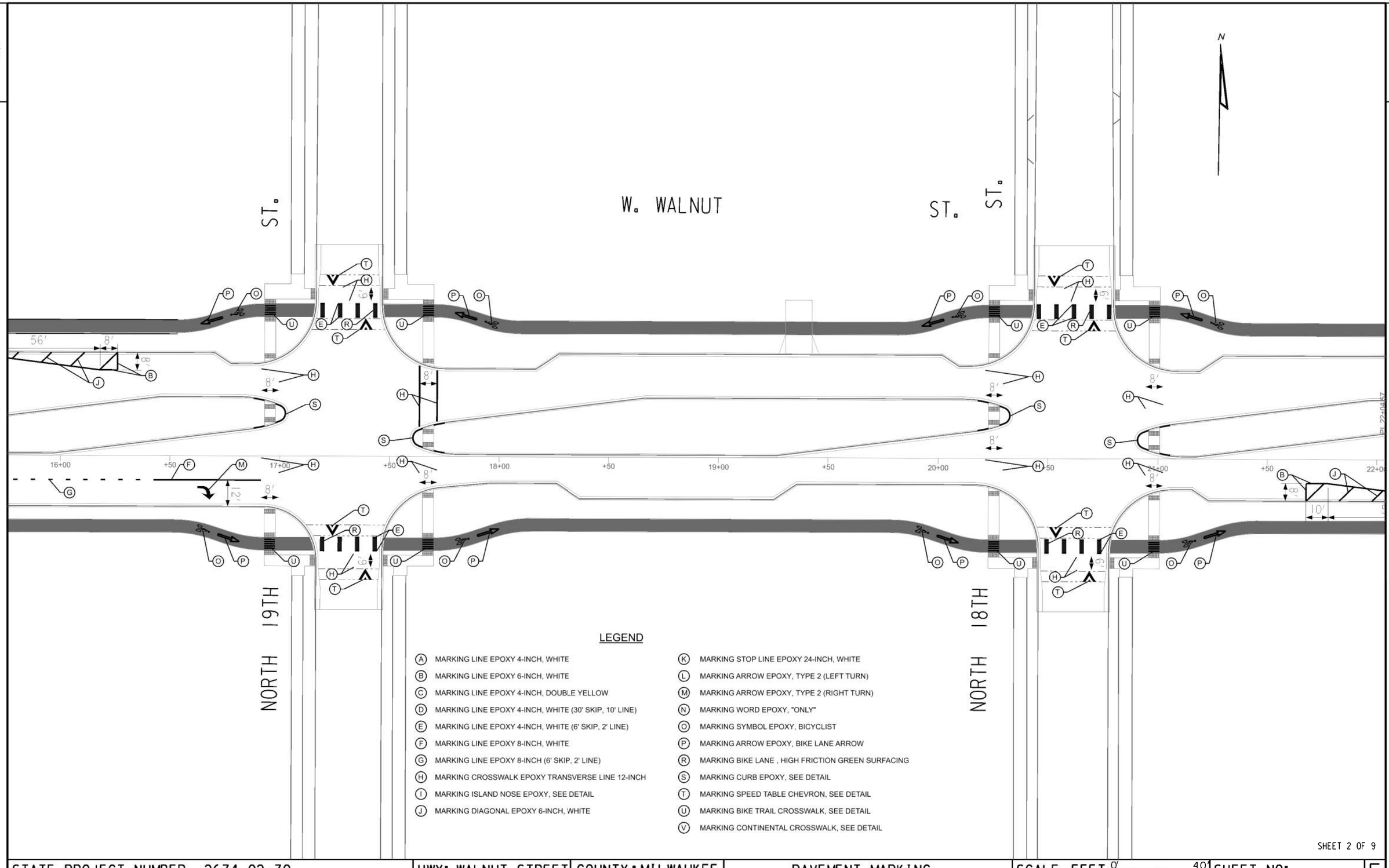
SHEET 1 OF 9

STATE PROJECT NUMBER 2674-02-70	HWY: WALNUT STREET	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 40'	SHEET NO: 172	E

FILENAME: I:\1 TRAFFIC OPERATIONS_2021 PAVEMENT MARKING PLANS\WALNUT - 2674-02-00\2674-02-00 - WALNUT PAVEMARK - SHEET 1.DGN

REVISED DATE: 04-29-2022 BY CP

2



LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30' SKIP, 10' LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6' SKIP, 2' LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH (6' SKIP, 2' LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING DIAGONAL EPOXY 6-INCH, WHITE
- (K) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (L) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (M) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (N) MARKING WORD EPOXY, "ONLY"
- (O) MARKING SYMBOL EPOXY, BICYCLIST
- (P) MARKING ARROW EPOXY, BIKE LANE ARROW
- (R) MARKING BIKE LANE , HIGH FRICTION GREEN SURFACING
- (S) MARKING CURB EPOXY, SEE DETAIL
- (T) MARKING SPEED TABLE CHEVRON, SEE DETAIL
- (U) MARKING BIKE TRAIL CROSSWALK, SEE DETAIL
- (V) MARKING CONTINENTAL CROSSWALK, SEE DETAIL

SHEET 2 OF 9

STATE PROJECT NUMBER 2674-02-70	HWY: WALNUT STREET	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 40'	SHEET NO: 173	E

FILENAME: I:\I TRAFFIC OPERATIONS_2021 PAVEMENT MARKING PLANS\WALNUT - 2674-02-00\2674-02-00 - WALNUT PAVEMARK - SHEET 2.DGN

REVISED DATE: 04-29-2022 BY CP

2

W. WALNUT ST.

W. WALNUT ST.

ST.

ST.

N

NORTH 17TH

NORTH 16TH

PI 22+04.57

PI 27+19.73

22+00 +50 23+00 +50 24+00 +50 25+00 +50 26+00 +50 27+00 +50

LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30' SKIP, 10' LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6' SKIP, 2' LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH (6' SKIP, 2' LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING DIAGONAL EPOXY 6-INCH, WHITE
- (K) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (L) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (M) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (N) MARKING WORD EPOXY, "ONLY"
- (O) MARKING SYMBOL EPOXY, BICYCLIST
- (P) MARKING ARROW EPOXY, BIKE LANE ARROW
- (R) MARKING BIKE LANE, HIGH FRICTION GREEN SURFACING
- (S) MARKING CURB EPOXY, SEE DETAIL
- (T) MARKING SPEED TABLE CHEVRON, SEE DETAIL
- (U) MARKING BIKE TRAIL CROSSWALK, SEE DETAIL
- (V) MARKING CONTINENTAL CROSSWALK, SEE DETAIL

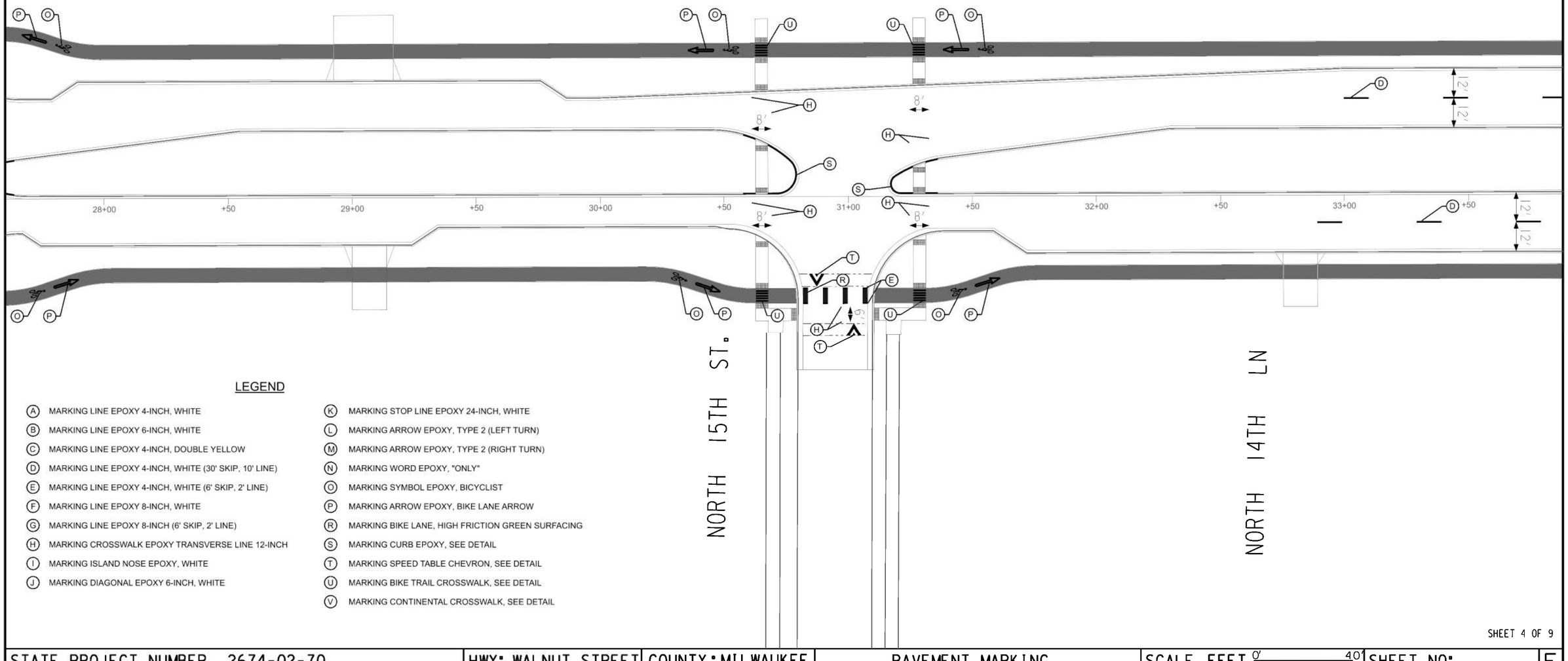
SHEET 3 OF 9

STATE PROJECT NUMBER 2674-02-70	HWY: WALNUT STREET	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 40'	SHEET NO: 174	E

2

N

W. WALNUT ST.



NORTH 15TH ST.

NORTH 14TH LN

LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30' SKIP, 10' LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6' SKIP, 2' LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH (6' SKIP, 2' LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, WHITE
- (J) MARKING DIAGONAL EPOXY 6-INCH, WHITE
- (K) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (L) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (M) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (N) MARKING WORD EPOXY, "ONLY"
- (O) MARKING SYMBOL EPOXY, BICYCLIST
- (P) MARKING ARROW EPOXY, BIKE LANE ARROW
- (R) MARKING BIKE LANE, HIGH FRICTION GREEN SURFACING
- (S) MARKING CURB EPOXY, SEE DETAIL
- (T) MARKING SPEED TABLE CHEVRON, SEE DETAIL
- (U) MARKING BIKE TRAIL CROSSWALK, SEE DETAIL
- (V) MARKING CONTINENTAL CROSSWALK, SEE DETAIL

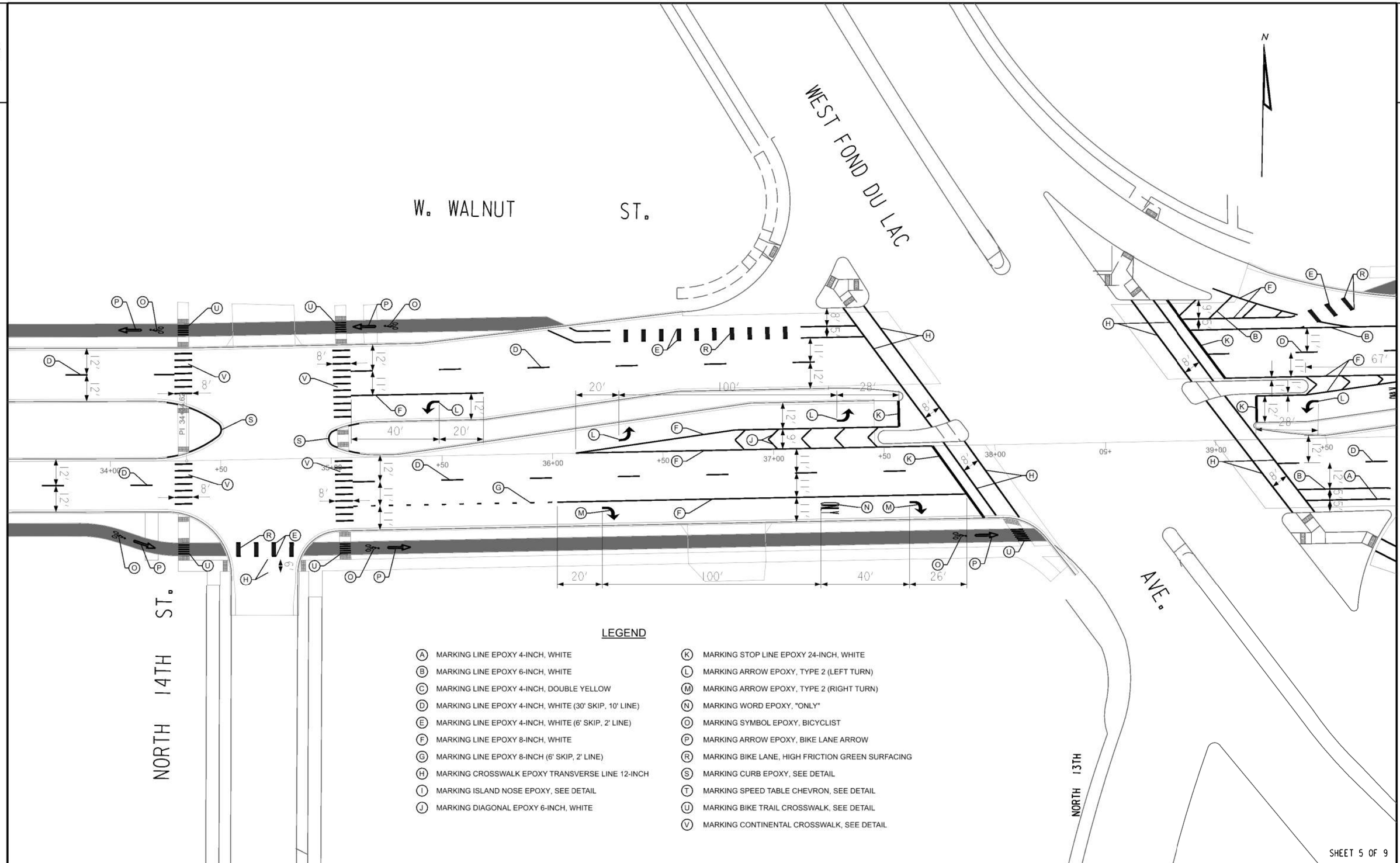
SHEET 4 OF 9

STATE PROJECT NUMBER 2674-02-70	HWY: WALNUT STREET	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 40'	SHEET NO: 175	E

FILENAME: I:\1 TRAFFIC OPERATIONS_2021 PAVEMENT MARKING PLANS\WALNUT - 2674-02-00\2674-02-00 - WALNUT PAVEMARK - SHEET 4.DGN

REVISED DATE: 04-29-2022 BY CP

2

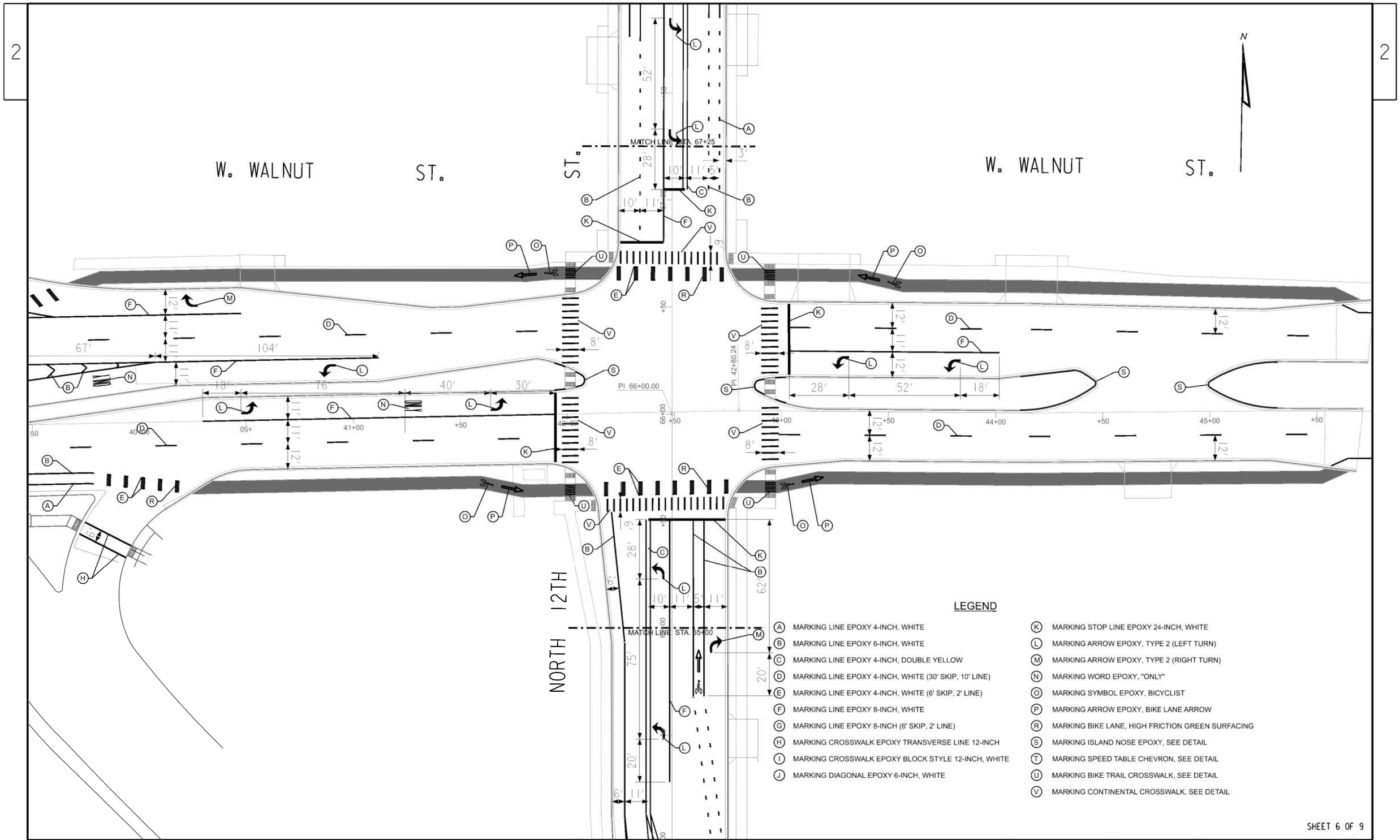


SHEET 5 OF 9

STATE PROJECT NUMBER 2674-02-70	HWY: WALNUT STREET	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 40'	SHEET NO: 176	E

FILENAME: I:\I TRAFFIC OPERATIONS_2021 PAVEMENT MARKING PLANS\WALNUT - 2674-02-00\2674-02-00 - WALNUT PAVEMARK - SHEET 5.DGN

REVISED DATE: 04-29-2022 BY CP



SHEET 6 OF 9

STATE PROJECT NUMBER 2674-02-70	HWY: WALNUT STREET	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 40'	SHEET NO: 177	E

FILENAME: I:\I TRAFFIC OPERATIONS_2021 PAVEMENT MARKING PLANS\WALNUT - 2674-02-00\2674-02-00 - WALNUT PAVEMARK - SHEET 6.DGN

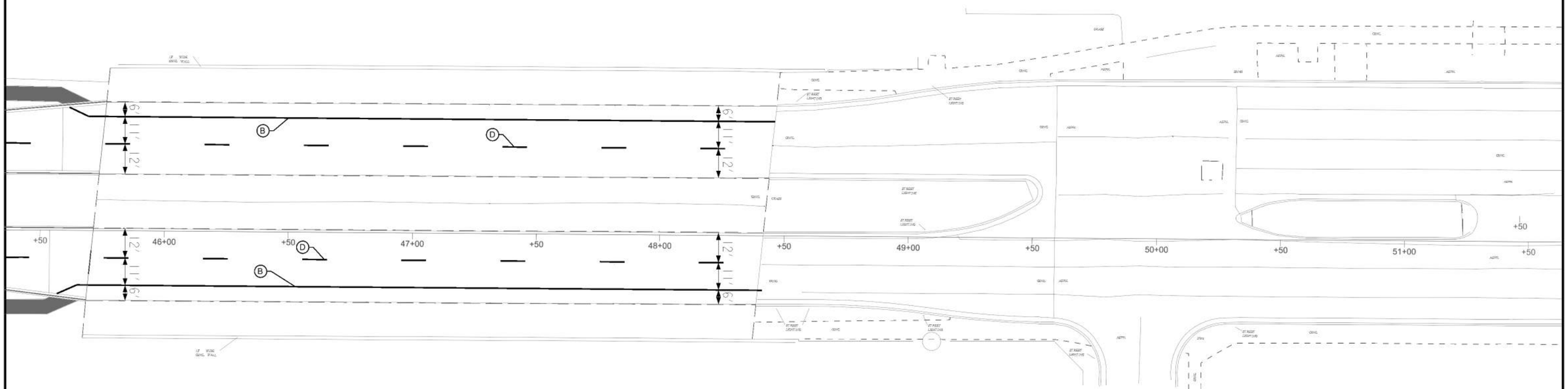
REVISED DATE: 04-29-2022 BY CP

2

2

N

W. WALNUT ST.



N. 10TH ST.

LEGEND

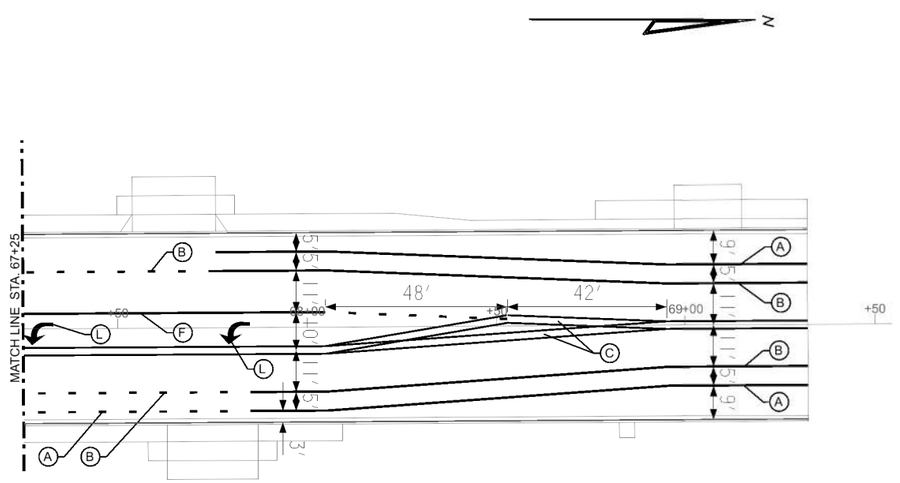
- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30' SKIP, 10' LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6' SKIP, 2' LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH (6' SKIP, 2' LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING DIAGONAL EPOXY 6-INCH, WHITE
- (K) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (L) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (M) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (N) MARKING WORD EPOXY, "ONLY"
- (O) MARKING SYMBOL EPOXY, BICYCLIST
- (P) MARKING ARROW EPOXY, BIKE LANE ARROW
- (R) MARKING BIKE LANE, HIGH FRICTION GREEN SURFACING
- (S) MARKING CURB EPOXY, SEE DETAIL
- (T) MARKING SPEED TABLE CHEVRON, SEE DETAIL
- (U) MARKING BIKE TRAIL CROSSWALK, SEE DETAIL
- (V) MARKING CONTINENTAL CROSSWALK, SEE DETAIL

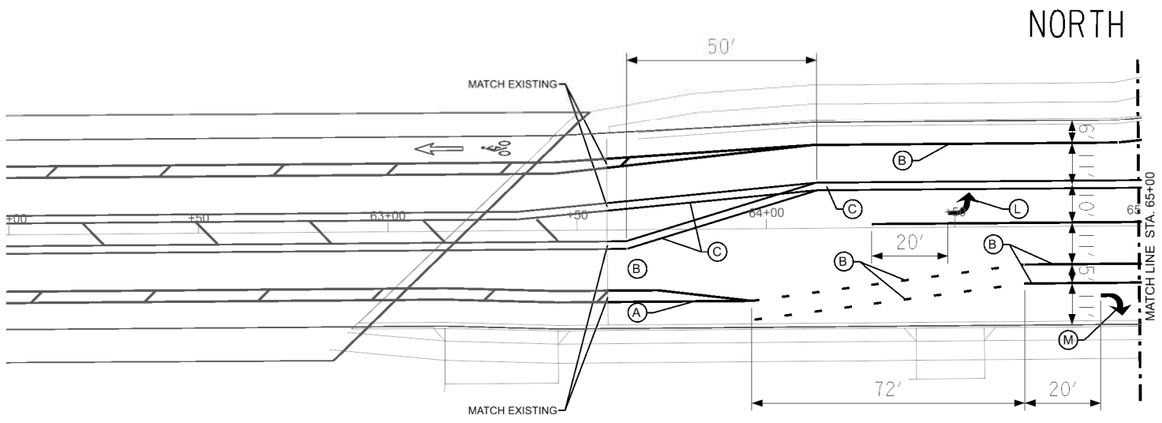
STATE PROJECT NUMBER 2674-02-70	HWY: WALNUT STREET	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 40'	SHEET NO: 178	E

2

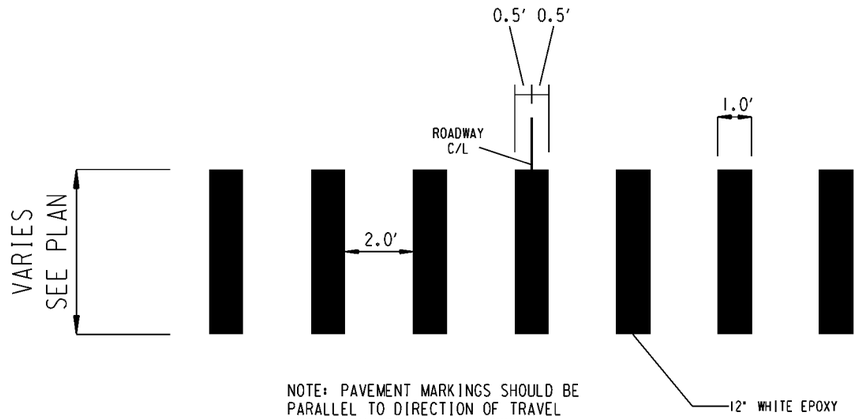
LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30' SKIP, 10' LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6' SKIP, 2' LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH (6' SKIP, 2' LINE)
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- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING DIAGONAL EPOXY 6-INCH, WHITE
- (K) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (L) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (M) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (N) MARKING WORD EPOXY, "ONLY"
- (O) MARKING SYMBOL EPOXY, BICYCLIST
- (P) MARKING ARROW EPOXY, BIKE LANE ARROW
- (R) MARKING BIKE LANE, HIGH FRICTION GREEN SURFACING
- (S) MARKING CURB EPOXY, SEE DETAIL
- (T) MARKING SPEED TABLE CHEVRON, SEE DETAIL
- (U) MARKING BIKE TRAIL CROSSWALK, SEE DETAIL
- (V) MARKING CONTINENTAL CROSSWALK, SEE DETAIL



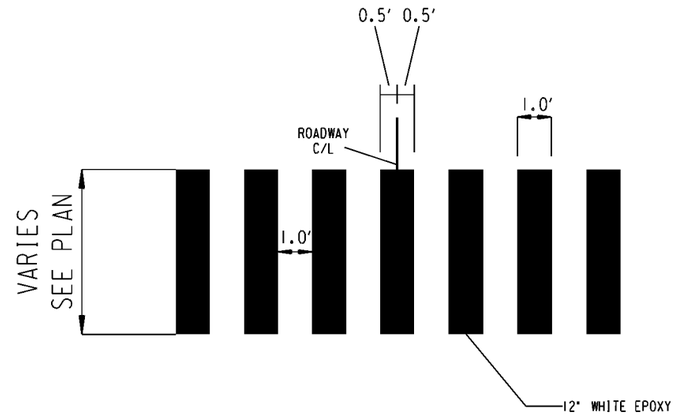


CONTINENTAL CROSSWALK DETAIL

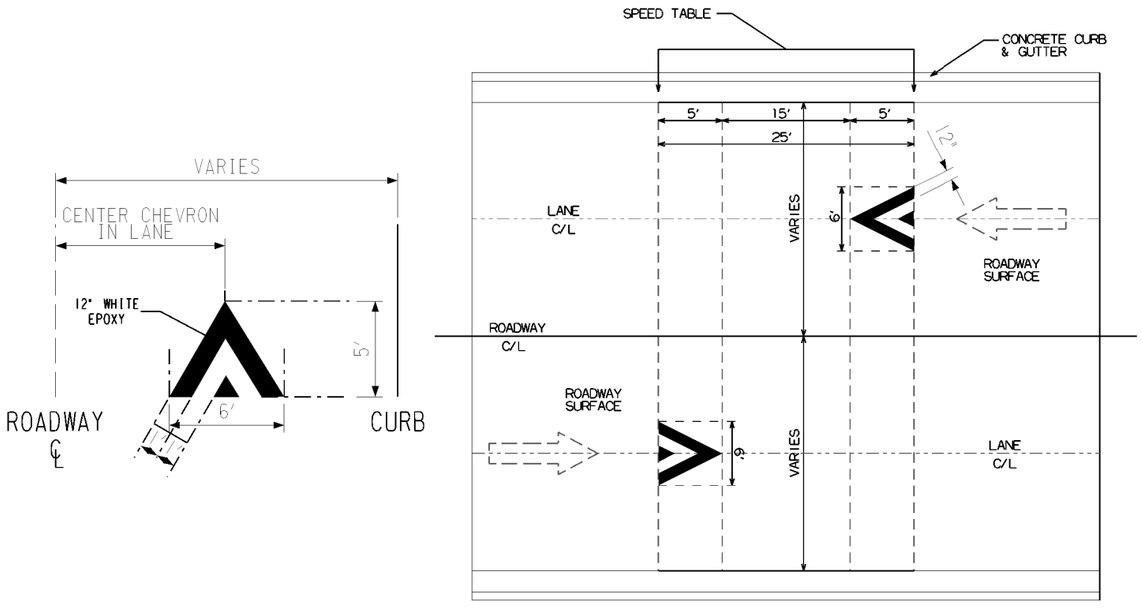


NOTE: PAVEMENT MARKINGS SHOULD BE PARALLEL TO DIRECTION OF TRAVEL EVEN WHEN CROSSWALK IS SKEWED

BIKE TRAIL CROSSWALK DETAIL

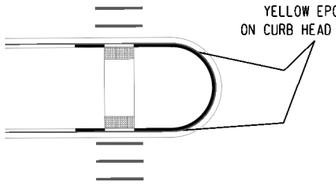


SPEED TABLE CHEVRON DETAIL (TYP.)



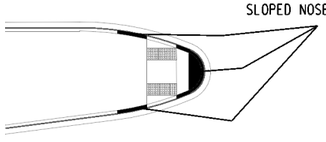
ISLAND NOSE DETAIL (TYP.)

TYPICAL I



CONTRACTOR TO PAINT CURB HEAD AND FACE OF CURB YELLOW FOR THE RADIUS OF THE NOSE PLUS CURB HEAD & FACE OF CURB EXTENDED 15' UNLESS OTHERWISE STATED ON PLANS. DO NOT PAINT MEDIAN ISLAND REFUGE OPENING.

TYPICAL II



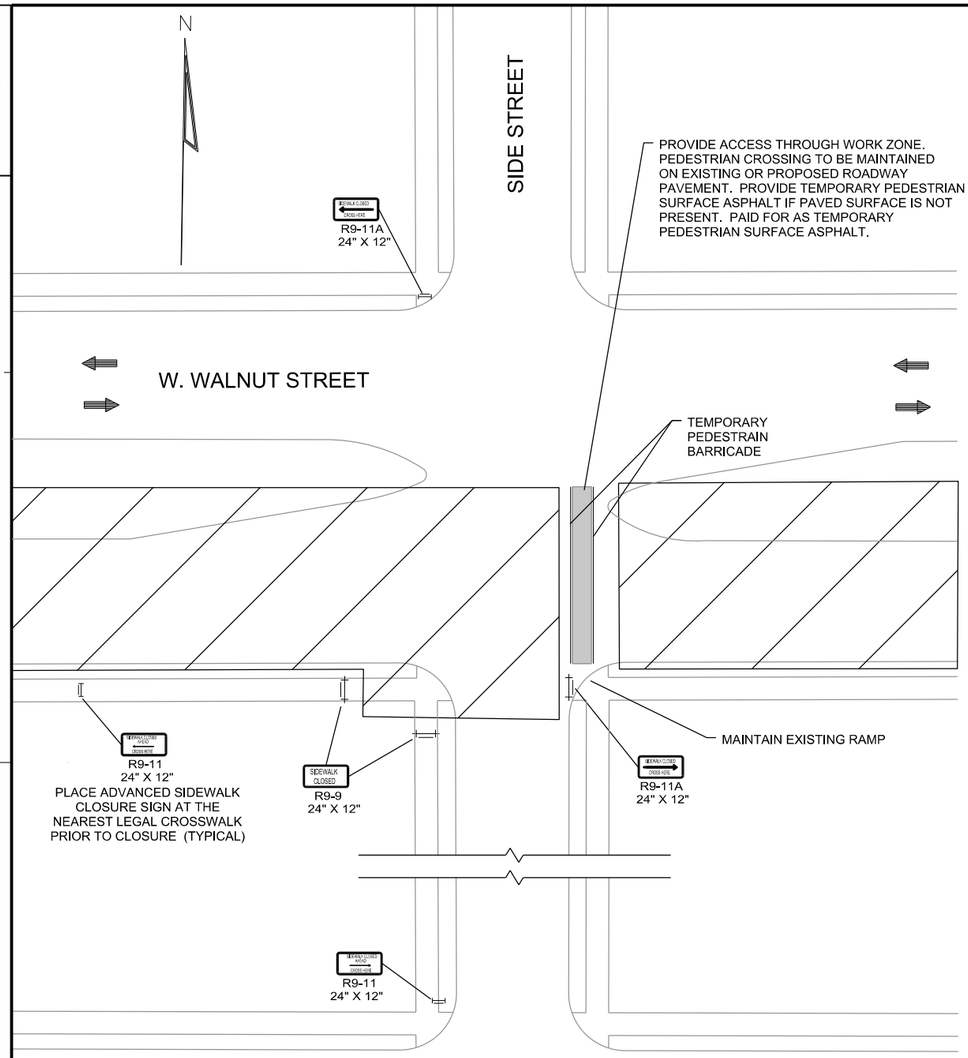
CONTRACTOR TO PAINT PLOWABLE ISLAND NOSE YELLOW FOR THE RADIUS OF THE NOSE PLUS CURB & FACE OF CURB EXTENDED 15' UNLESS OTHERWISE STATED ON PLANS. DO NOT PAINT MEDIAN ISLAND REFUGE OPENING.

SHEET 9 OF 9

STATE PROJECT NUMBER 2674-02-70	HWY: WALNUT STREET	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 40'	SHEET NO: 180	E

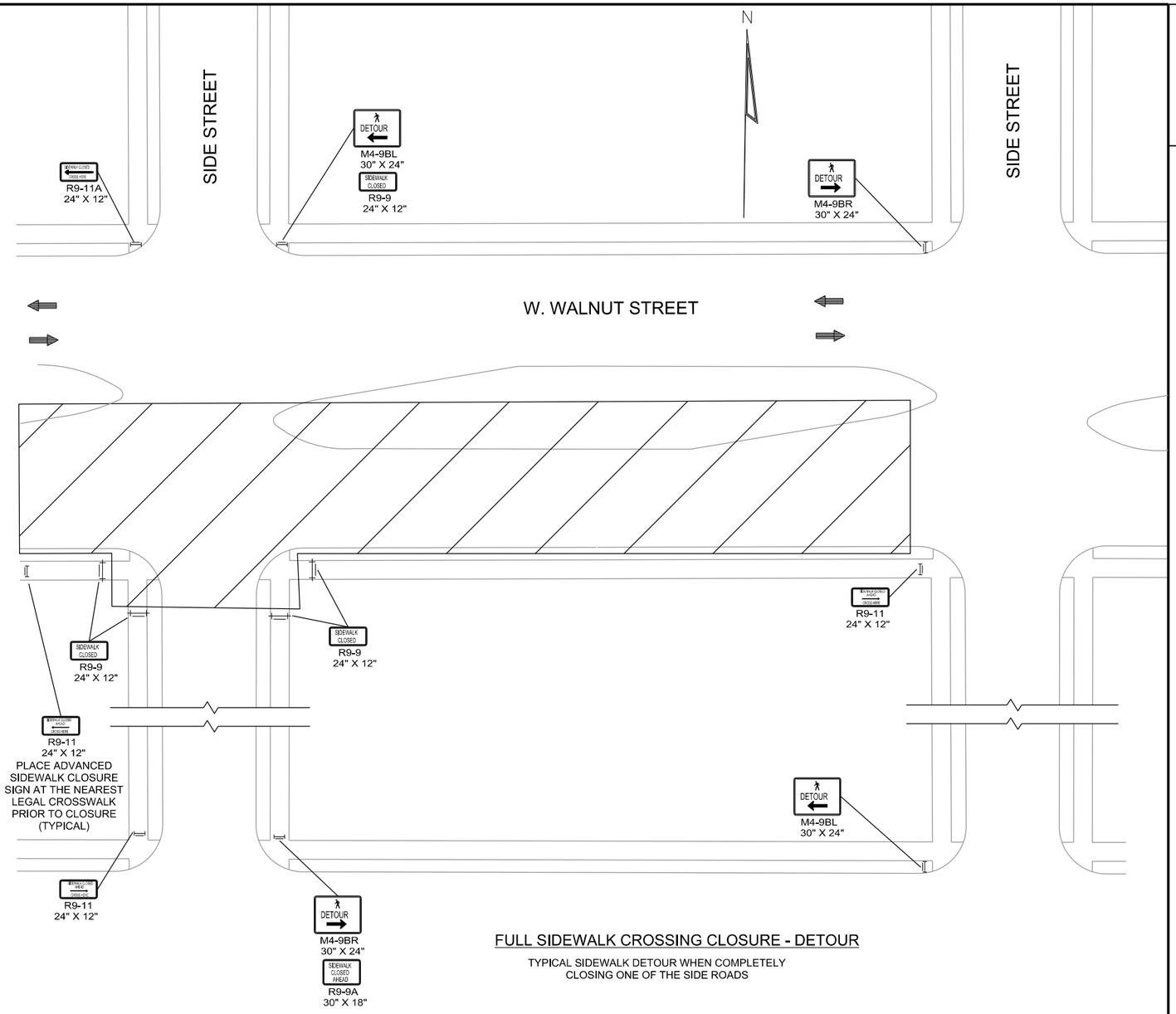
FILENAME: I:\1 TRAFFIC OPERATIONS_2021 PAVEMENT MARKING PLANS\WALNUT - 2674-02-00\WALNUT DETAILS.DGN

REVISED DATE: 04-29-2022 BY CP



PARTIAL SIDEWALK CROSSING CLOSURE - NO DETOUR

TYPICAL PEDESTRIAN CROSSING CLOSURE WHEN ONLY CLOSING ONE SIDE OF THE INTERSECTION



FULL SIDEWALK CROSSING CLOSURE - DETOUR

TYPICAL SIDEWALK DETOUR WHEN COMPLETELY CLOSING ONE OF THE SIDE ROADS

PEDESTRIAN ACCOMMODATION NOTES

1. USE THIS DETAIL FOR ALL INTERSECTIONS EXCEPT FOR 17TH, 12TH AND FOND DU LAC AVENUE WHICH HAVE PEDESTRIAN ACCOMMODATIONS SHOWN ON THE TRAFFIC CONTROL SHEETS.
2. DETAIL SHOWS CONSTRUCTION OF RAMPS FOR THE SOUTH SIDE OF THE ROADWAY IN STAGE 1. USE THE SAME CONCEPT BY FLIPPING THE DETAIL TO CONSTRUCT THE RAMPS ON THE NORTH SIDE OF THE ROADWAY IN STAGE 2
3. MAINTAIN PEDESTRIAN ACCESS AT ALL TIMES BY ONLY CLOSING ONE SIDE OF THE INTERSECTION AT A TIME OR BY DETOURING PEDESTRIANS TO NEXT SIDE STREET. DO NOT CLOSE TWO ADJACENT SIDE ROADS AT THE SAME TIME.
4. SEE STANARD DETAIL DRAWING "TRAFFIC CONTROL PEDESTRIAN ACCOMMODATION" FOR ADDITIONAL INFORMATION.

LEGEND

- WORK ZONE
- TEMPORARY PEDESTRAIN SURFACE ASPHALT
- TRAFFIC FLOW
- TYPE II BARRICADE WITH/ WITHOUT ATTACED SIGN AND ONE TYPE A LIGHT
- TYPE III BARRICADE WITH/ WITHOUT ATTACHED SIGN AND TWO TYPE A LIGHTS

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PEDESTRIAN ACCOMMODATIONS - CURB RAMP CONSTRUCTION	SHEET 181	E

PLACE PCMS SIGNS
7 DAYS IN ADVANCE OF
CONSTRUCTION START

FRAME 1	FRAME 2
ROAD WORK TO BEGIN	XXXDAY XX XX XX

N

END ROAD WORK
G20-2A
48" X 24"

R/W
PLANTER
GATE
STA 35+23.6, 16.2' LT
BEGIN TAPER
WO1-6
48" X 24"
PLACE DRUMS AT 7' SPACING
TO CLOSE MEDIAN
30+00
31+00
32+00
33+00
34+00
35+00
+50
25'
W. WALNUT STREET
TEMPORARY MARKING LINE
PAINT 4-INCH YELLOW
MATCH LINE STA. 35+50
PCMS
200'
180' LANE DROP
ROAD WORK AHEAD
W20-1
LEFT LANE CLOSED AHEAD
W20-55A
WO4-2L
N. 15TH STREET
N. 14TH LANE
GUY
CONC WALL
ONLY
R3-8
36" X 30"

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE STAGE	SHEET 182	E

2

ROAD WORK AHEAD
W20-1

RIGHT LANE CLOSED AHEAD
W20-5A

W04-2R

BEGIN RIGHT TURN LANE
R3-20R
24" X 36"

200'
200'
200'
180' TAPER
50'
50'
100'

PCMS

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE

R/W

W. FOND DU LAC AVENUE

END ROAD WORK
G20-2A
48" X 24"

500'

PLACE PCMS SIGNS
7 DAYS IN ADVANCE OF
CONSTRUCTION START

* FRAME 1	FRAME 2
ROAD WORK TO BEGIN	XXXDAY XX XX XX

LANE CLOSED
R11-2L
48" X 30"

N

ROAD WORK AHEAD
W20-1

500'

ONLY ONLY
R3-8L
54" X 30"

R/W

LANE CLOSED
R11-2L
48" X 30"

STA 39+11.5, 21.5' LT

ASPHALTIC CURB

STA 39+98.6, 14.6' LT

STA 39+49.2, 8.7' LT

STA 38+84.6, 21.5' LT

25'

PCMS

STA 36+12.9, 20.0' LT

STA 37+45.8, 20.0' LT

ASPHALTIC CURB

MATCH LINE STA. 35+50

STA 37+86.8, 7.3' LT

STA 40+10.1, 13.0' LT

CONSTRUCT ASPHALTIC SUFACE TEMPORARY FOR STAGE 1 TRAFFIC

CONSTRUCT ASPHALTIC SUFACE TEMPORARY FOR STAGE 2 TRAFFIC

STA 39+62.3, 7.3' LT

STA 36+01.8, 5.7' LT
END TAPER

STA 37+64.4, 7.3' LT

25'

W. WALNUT STREET

W. WALNUT STREET

ASPHALTIC CURB

R/W

M.P.

M.P.

R/W

ONLY
R3-8
36" X 30"

R/W

W. FOND DU LAC AVENUE

LANE CLOSED
R11-2L
48" X 30"

25'

180' TAPER

500'

ROAD CLOSED
R11-2
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

TRUCKS NO RIGHT TURN
R4-5R (MOD)
24" X 30"

ONLY
R3-8LF
36" X 30"

300'

180' TAPER

W04-2R

RIGHT TWO LANES CLOSED AHEAD
W20-5A

200'
200'
200'
200'

ROAD WORK AHEAD
W20-1

N. 13TH STREET

W04-2R

PCMS

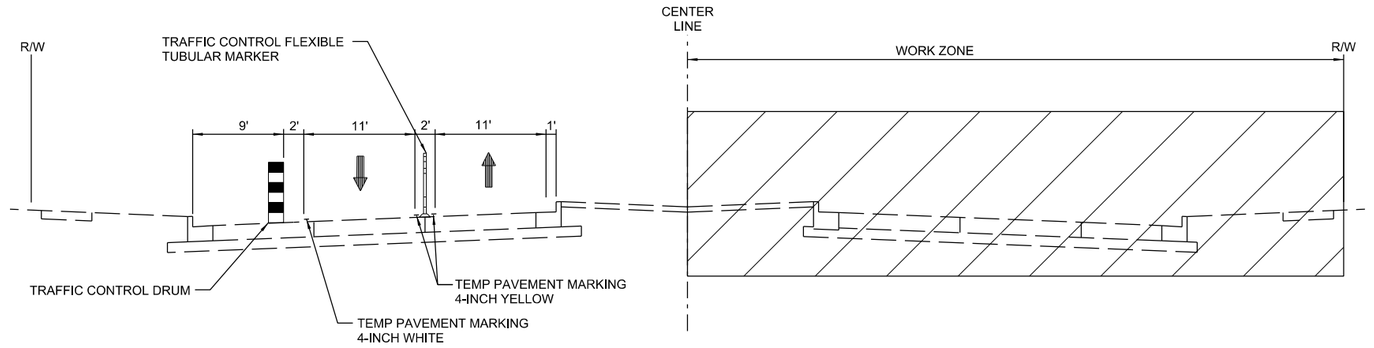
END ROAD WORK
G20-2A
48" X 24"

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PRE STAGE	SHEET 183	E

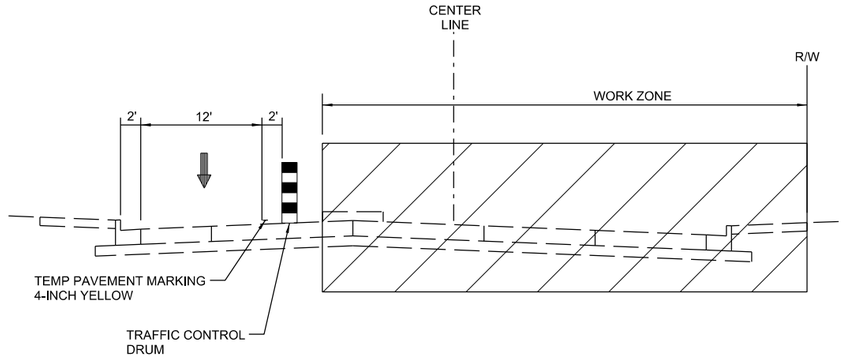


STAGE 1

W. WALNUT STREET

STA. 14+40.41 - STA. 45+71.30

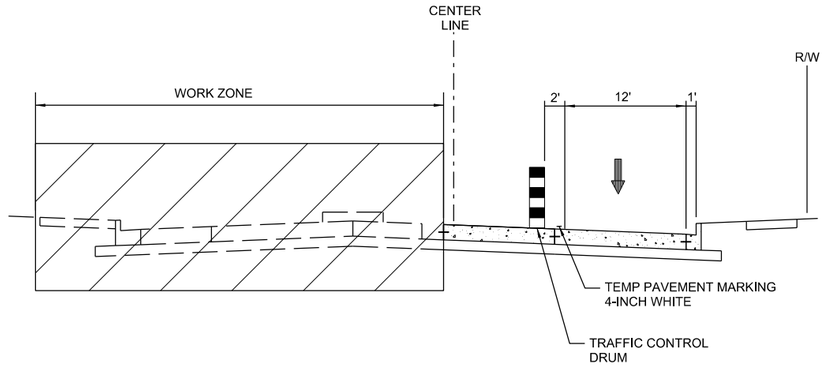
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL TYPICAL SECTIONS - STAGE 1	SHEET 184	E



STAGE 1A

N. 12TH STREET

STA. 62+90 - STA. 66+00



STAGE 1B

N. 12TH STREET

STA. 62+90 - STA. 66+00

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL TYPICAL SECTIONS - STAGE 1	SHEET 185	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026000_s1.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 15.0000 sf / in.

2

2

N

N. 23RD STREET

N. 22ND STREET

R/W

W. WALNUT STREET

MATCH LINE A-A

WO1-6
48" X 24"

TEMPORARY MARKING
LINE REMOVABLE TAPE
4-INCH WHITE

LANE
CLOSED
R11-2L
48" X 30"

11'

21' 4.759"

11' 0.689"

PCMS

200'

200'

200'

180' TAPER

50'

50'

BEGIN
RIGHT
TURN
LANE
R3-20R
24" X 36"

ROAD
WORK
AHEAD
W20-1

RIGHT LANE
CLOSED
AHEAD
W20-5A

WO4-2R

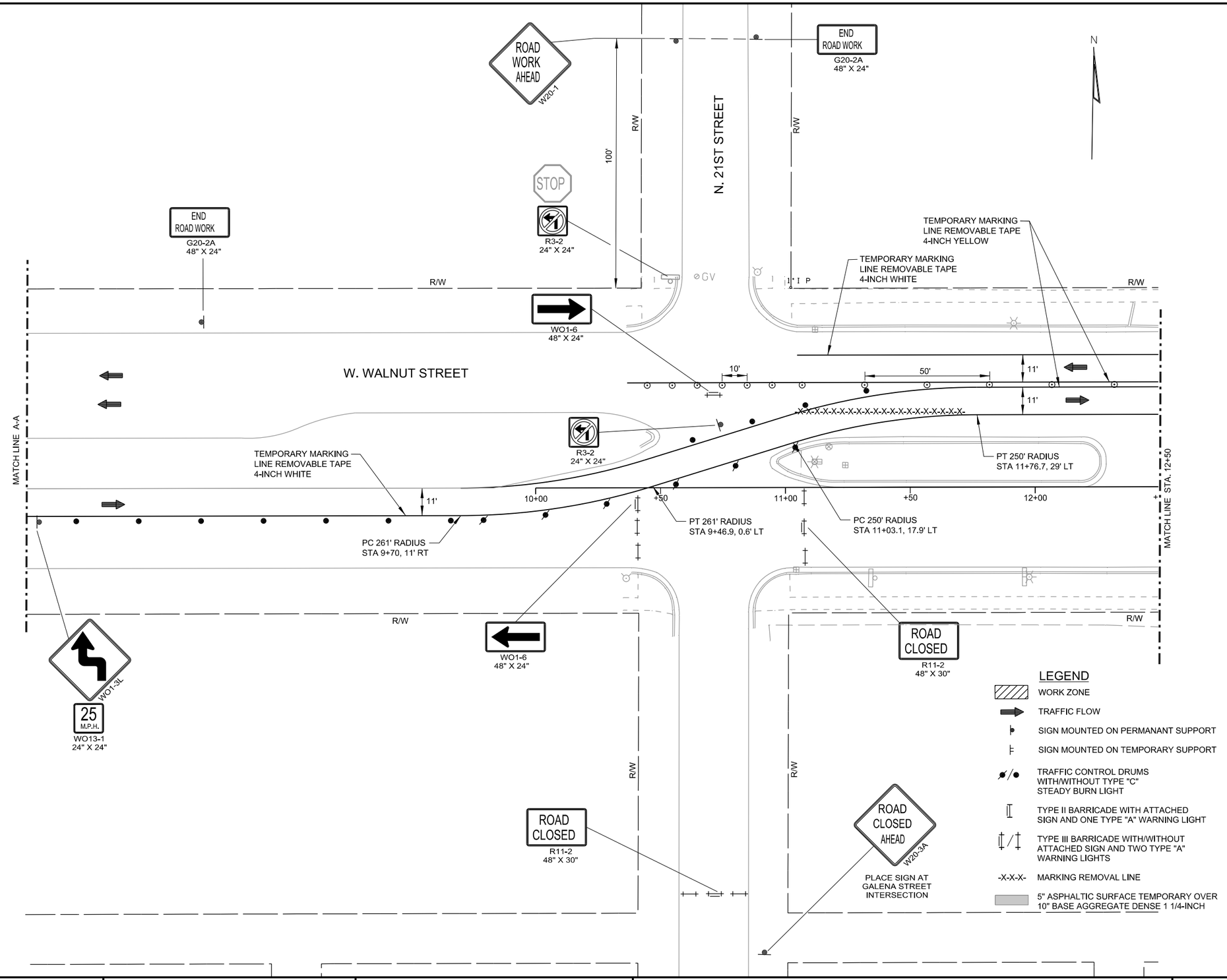
LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SHEET	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026001_s1.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SHEET 187	E

2

ROAD WORK AHEAD
W20-1

SHOULDER WORK
W21-5

200'

200'

30' TAPER

85'

R/W

END ROAD WORK
G20-2A
48" X 24"

N. 20TH STREET

TEMPORARY MARKING
STOP LINE REMOVABLE
TAPE 18-INCH

LANE CLOSED
R11-2L
48" X 30"

TEMPORARY MARKING
LINE REMOVABLE TAPE
4-INCH WHITE

TEMPORARY MARKING
STOP LINE PAINT 18-INCH

TEMPORARY MARKING
LINE PAINT 8-INCH

TEMPORARY MARKING
LINE PAINT 4-INCH WHITE

TEMPORARY MARKING
LINE PAINT 4-INCH YELLOW

WO6-3

75' TURN LANE

60' TAPER

ROAD WORK AHEAD
W20-1

LANE CLOSED
R11-2L
48" X 30"

STOP
R3-2
24" X 24"

500'

N. 19TH STREET

END ROAD WORK
G20-2A
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

TEMPORARY MARKING
LINE PAINT 4-INCH WHITE

W. WALNUT STREET

50'

11'

10'

11'

11'

11'

12'

25'

MATCH LINE STA. 12+50

13+00

+50

14+00

+50

15+00

+50

16+00

+50

17+00

+50

18+00

+50

MATCH LINE STA. 18+50

TEMPORARY MARKING
LINE REMOVABLE TAPE
4-INCH YELLOW

12'

12'

FOR CUC INSTALLATION ACROSS 20TH STREET FOLLOW SDD 15C12 "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" TO ALLOW ONE WAY TRAFFIC THROUGH INTERSECTION. USE PLATES AS NEEDED TO COVER TRENCH UNTIL PAVEMENT IS RESTORED.

SEE PEDESTRIAN ACCOMMODATION DETAIL FOR MAINTAINING PEDESTRIAN ACCESS AT INTERSECTION

ROAD CLOSED
R11-2
48" X 30"

85'

30' TAPER

200'

200'

END ROAD WORK
G20-2A
48" X 24"

SHOULDER WORK
W21-5

ROAD WORK AHEAD
W20-1

ROAD CLOSED
R11-2
48" X 30"

SEE PEDESTRIAN ACCOMMODATION DETAIL FOR MAINTAINING PEDESTRIAN ACCESS AT INTERSECTION

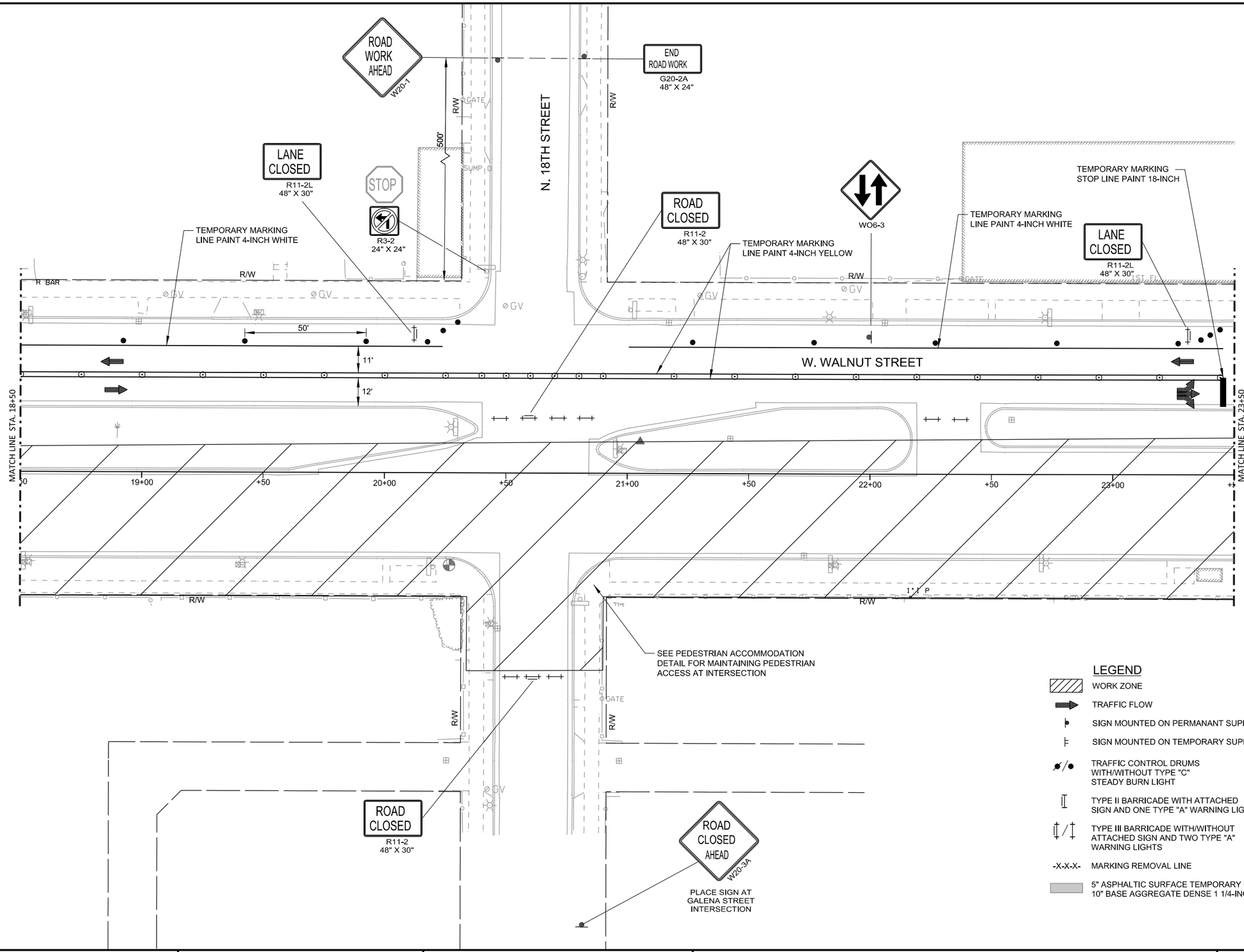
ROAD CLOSED AHEAD
W20-3A

PLACE SIGN AT GALENA STREET INTERSECTION

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SHEET 188	E



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SHEET 189	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026004_s1.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

2

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

STOP
R3-2
24" X 24"

LANE CLOSED
R11-2L
48" X 30"

WO6-3

ROAD CLOSED
R11-2
48" X 30"

N. 17TH STREET

N. 16TH STREET

W. WALNUT STREET

TEMPORARY MARKING
STOP LINE PAINT 18-INCH

TEMPORARY MARKING
LINE PAINT 8-INCH

TEMPORARY MARKING
LINE PAINT 4-INCH WHITE

TEMPORARY MARKING
LINE PAINT 4-INCH YELLOW

50' TURN LANE

60' TAPER

11'

11'

50'

11'

12'

25'

MATCH LINE STA. 23+50

MATCH LINE STA. 29+50

24+00 +50 25+00 +50 26+00 +50 27+00 +50 28+00 +50 29+00

R/W

BLDG

1ST FL

2 STY

GATE

PLANTER

GUY POLE

GUY

SEE PEDESTRIAN ACCOMMODATION DETAIL FOR MAINTAINING PEDESTRIAN ACCESS AT INTERSECTION

ROAD CLOSED AHEAD
W20-3A

PLACE SIGN AT GALENA STREET INTERSECTION

N

LEGEND

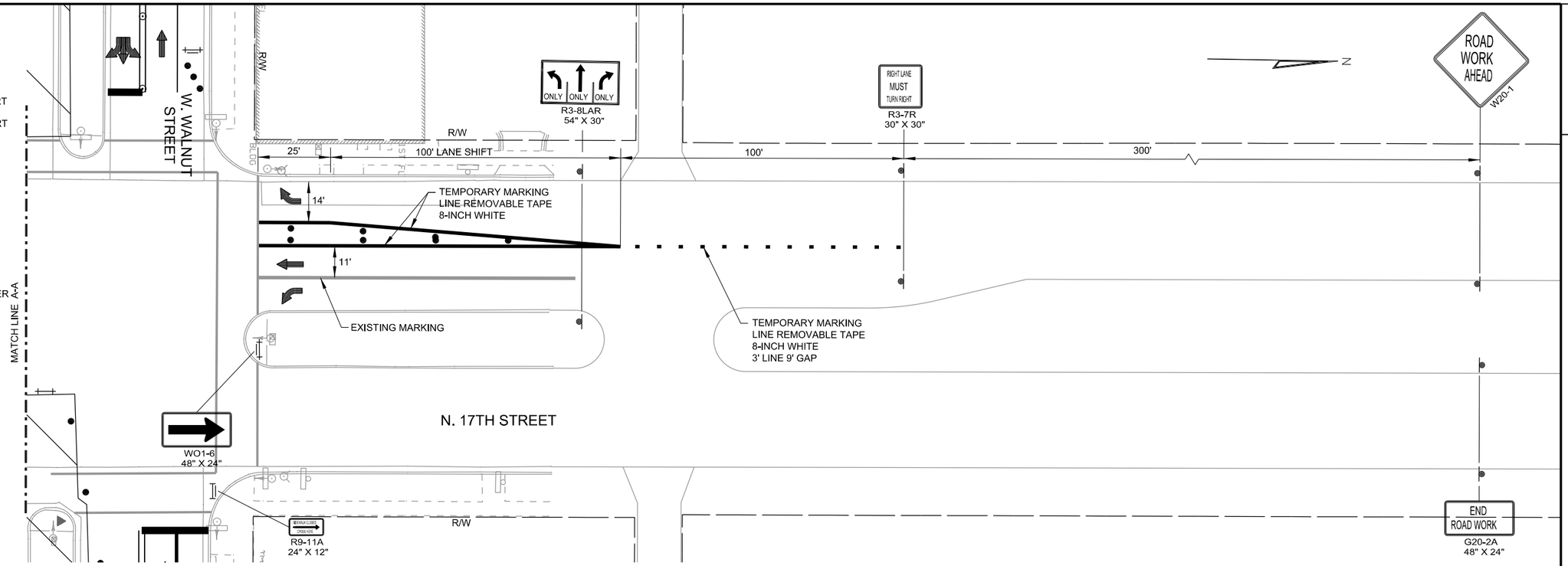
- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

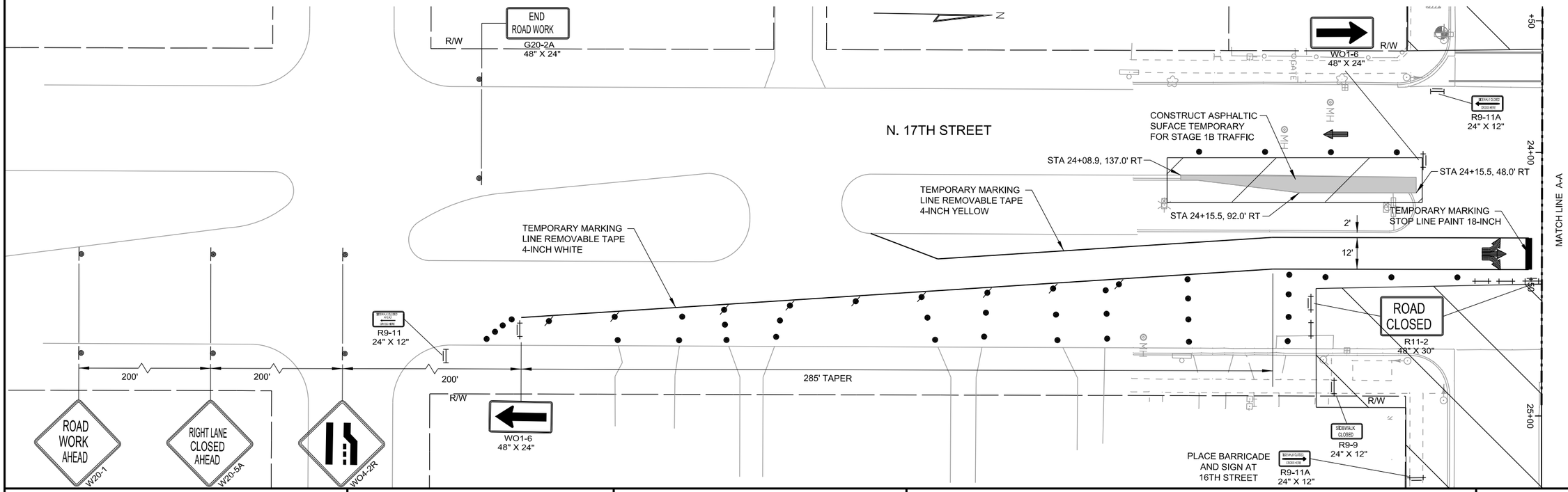
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SHEET 190	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026005_s1.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

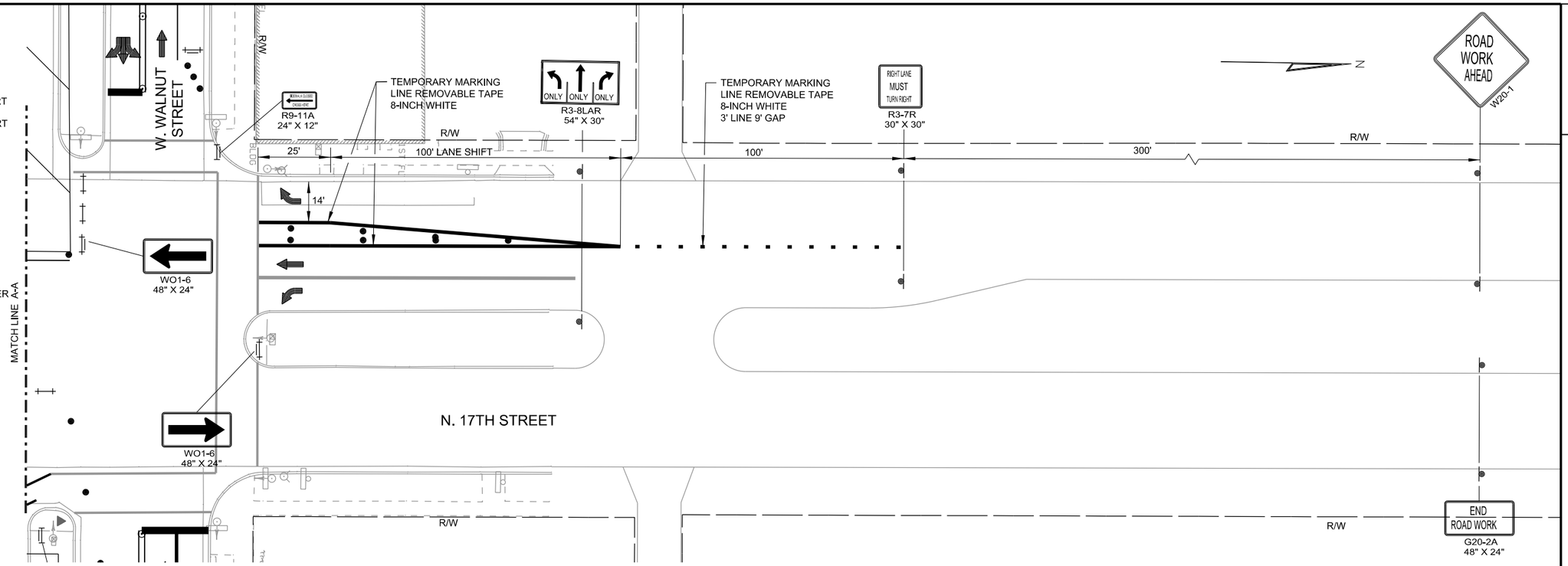


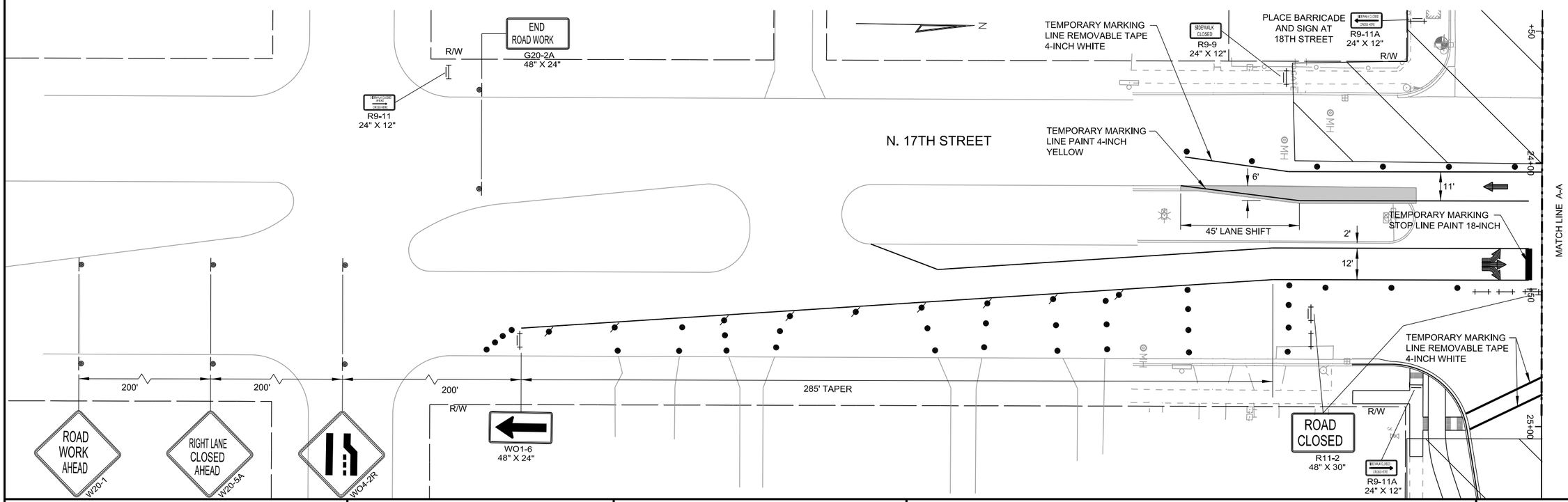


PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 191	E

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

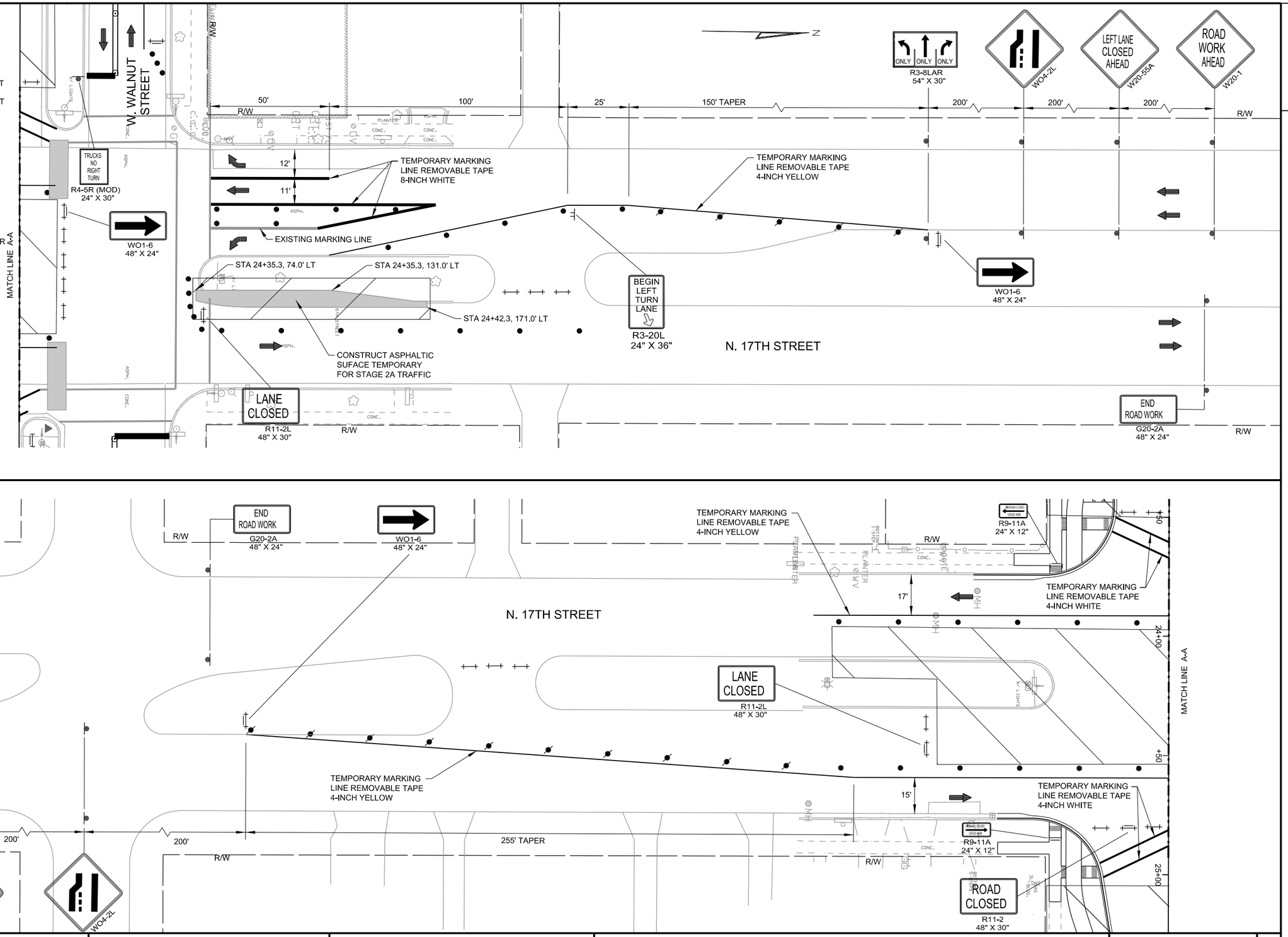




PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 192	E

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1C	SHEET 193	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026005_s1c.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

N

TEMPORARY MARKING
LINE PAINT 4-INCH WHITE

ROAD
CLOSED
R11-2
48" X 30"

WO1-4R

TEMPORARY MARKING
LINE PAINT 4-INCH YELLOW

ONLY
R3-8LF
36" X 30"

WO6-3

ROAD
CLOSED
R11-2
48" X 30"

TEMPORARY MARKING
LINE PAINT 8-INCH
9' SKIP, 3' LINE

R/W

PLANTER

GGATE

50'

W. WALNUT STREET

11'

12'

MATCH LINE STA. 29+50

MATCH LINE STA. 35+50

30+00 +50 31+00 +50 32+00 +50 33+00 +50 34+00 +50 35+00 +50

150' LANE SHIFT

SEE PEDESTRIAN ACCOMMODATION
DETAIL FOR MAINTAINING PEDESTRIAN
ACCESS AT INTERSECTION

ROAD
CLOSED
R11-2
48" X 30"

N. 15TH STREET

GATE

ROAD
CLOSED
AHEAD
W20-3A

PLACE SIGN AT
GALENA STREET
INTERSECTION

ROAD
CLOSED
R11-2
48" X 30"

N. 14TH LANE

GUY

ROAD
CLOSED
AHEAD
W20-3A

PLACE SIGN AT
GALENA STREET
INTERSECTION

SEE PEDESTRIAN ACCOMMODATION
DETAIL FOR MAINTAINING PEDESTRIAN
ACCESS AT INTERSECTION

CONC WALL

N. 14TH STREET

ROAD
CLOSED
R11-2
48" X 30"

ROAD
CLOSED
AHEAD
W20-3A

PLACE SIGN AT
GALENA STREET
INTERSECTION

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SHEET 194	E

2

ROAD WORK AHEAD W20-1

RIGHT LANE CLOSED AHEAD W20-5A

W04-2R

BEGIN RIGHT TURN LANE

R3-20R 24" X 36"

200' 200' 200' 180' TAPER 50' 50'

100'

W. FOND DU LAC AVENUE

R/W

TEMPORARY MARKING LINE PAINT 4-INCH WHITE

TEMPORARY MARKING LINE PAINT 4-INCH WHITE

TEMPORARY MARKING LINE PAINT 4-INCH YELLOW

R9-11A 24" X 12"

LANE CLOSED R11-2L 48" X 30"

W. WALNUT STREET

TEMPORARY MARKING STOP LINE PAINT 18-INCH

W01-4L

WO1-6 48" X 24"

11' 11' 11'

MATCH LINE STA. 35+50

36+00 +50 37+00 +50 38+00 +50 39+00 +50 40+00 +50 41+00

MATCH LINE STA. 41+50

ROAD CLOSED R11-2 48" X 30"

LANE CLOSED R11-2L 48" X 30"

TEMPORARY MARKING LINE PAINT 8-INCH

TEMPORARY PEDESTRIAN RAMP

R/W

M.P. M.P.

LANE CLOSED R11-2L 48" X 30"

R9-11A 24" X 12"

PEDESTRIAN ACCOMMODATIONS SHOWN FOR DETOURING PEDESTRIANS TO EAST SIDE OF INTERSECITON. WHEN PAVEMENT ON WEST SIDE OF INTERSECTION IS COMPLETE, DETOUR PEDESTIANS TO WEST SIDE OF INTERSECTION AND MOVE DETOUR SIGNS TO EAST SIDE OF INTERSECTION.

END ROAD WORK G20-2A 48" X 24"

500'

TEMPORARY MARKING LINE PAINT 8-INCH

TEMPORARY MARKING LINE PAINT 4-INCH YELLOW

TEMPORARY MARKING LINE PAINT 8-INCH 9' SKIP, 3' LINE

WO6-3

90' LANE SHIFT

N

25' 180' TAPER

ROAD CLOSED R11-2 48" X 30"

300' 180' TAPER 200' 200' 200'

W04-2R

RIGHT TWO LANES CLOSED AHEAD W20-5A

ROAD WORK AHEAD W20-1

TRUCKS NO RIGHT TURN R4-5R (MOD) 24" X 30"

ONLY R3-8LF 36" X 30"

500'

W. FOND DU LAC AVENUE

N. 13TH STREET

W04-2R

END ROAD WORK G20-2A 48" X 24"

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SHEET	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026007_s1.dgn PLOT DATE : 9/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

N. 12TH STREET

R/W

TEMPORARY MARKING
LINE PAINT 8-INCH

TEMPORARY MARKING
LINE PAINT 8-INCH
9' SKIP, 3' LINE

TEMPORARY MARKING
LINE REMOVABLE TAPE
4-INCH YELLOW

100' TURN LANE

100' LANE SHIFT

11'

11'

11'

14'

13'

W. WALNUT STREET

TEMPORARY MARKING
LINE PAINT 4-INCH YELLOW

MATCH LINE STA. 41+50

MATCH LINE STA. 47+50

42+00

43+00

44+00

45+00

46+00

47+00

+50

SIDEWALK
CLOSED
R9-9
24" X 12"

GATE

WO1-3R

20
M.P.H.
WO13-1
24" X 24"

N

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

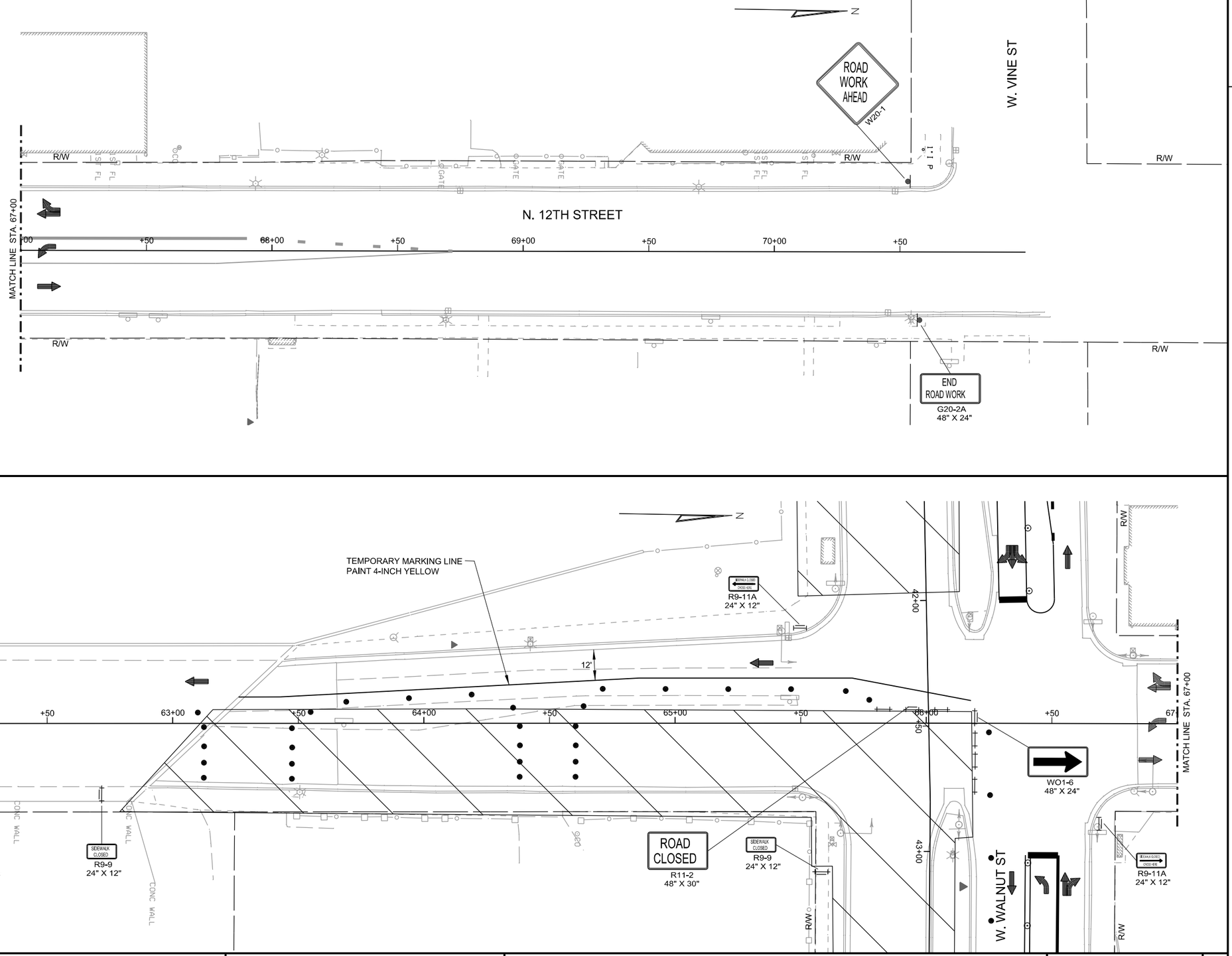
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SHEET	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026008_s1.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 197	E

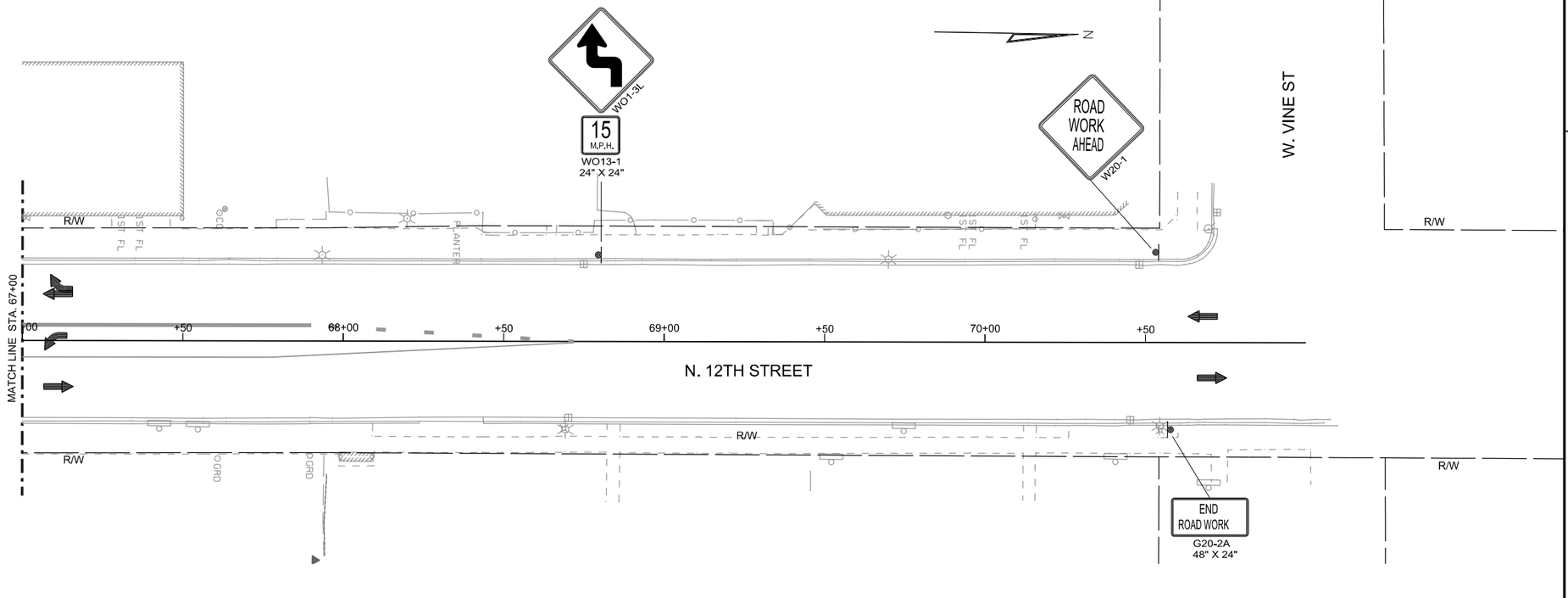
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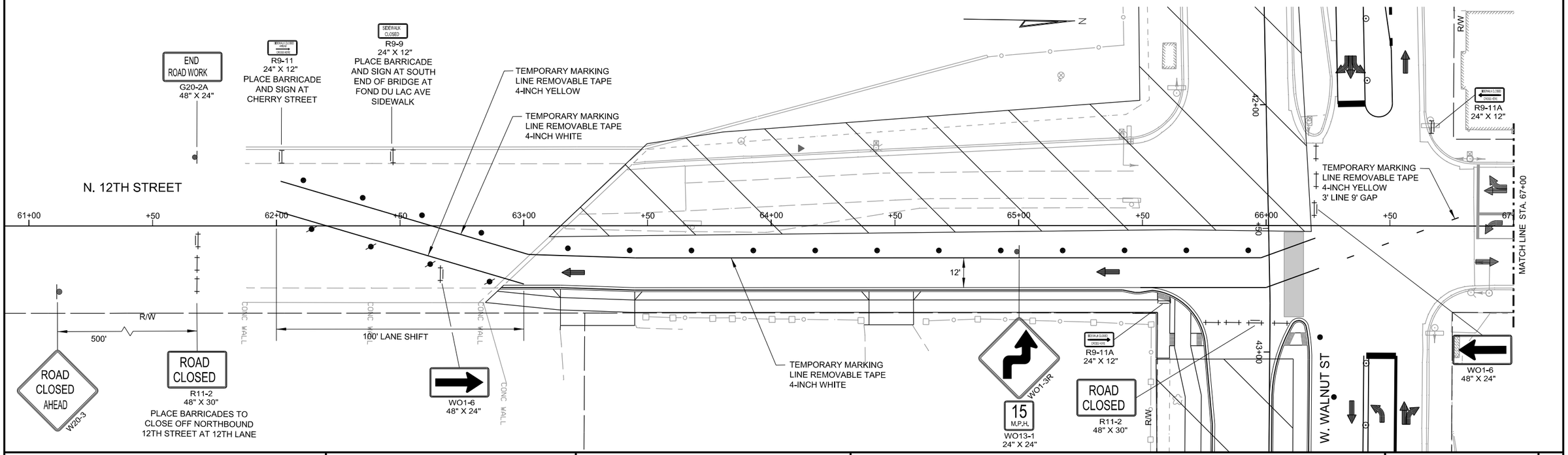
WISDOT/CADDS SHEET 42

2

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

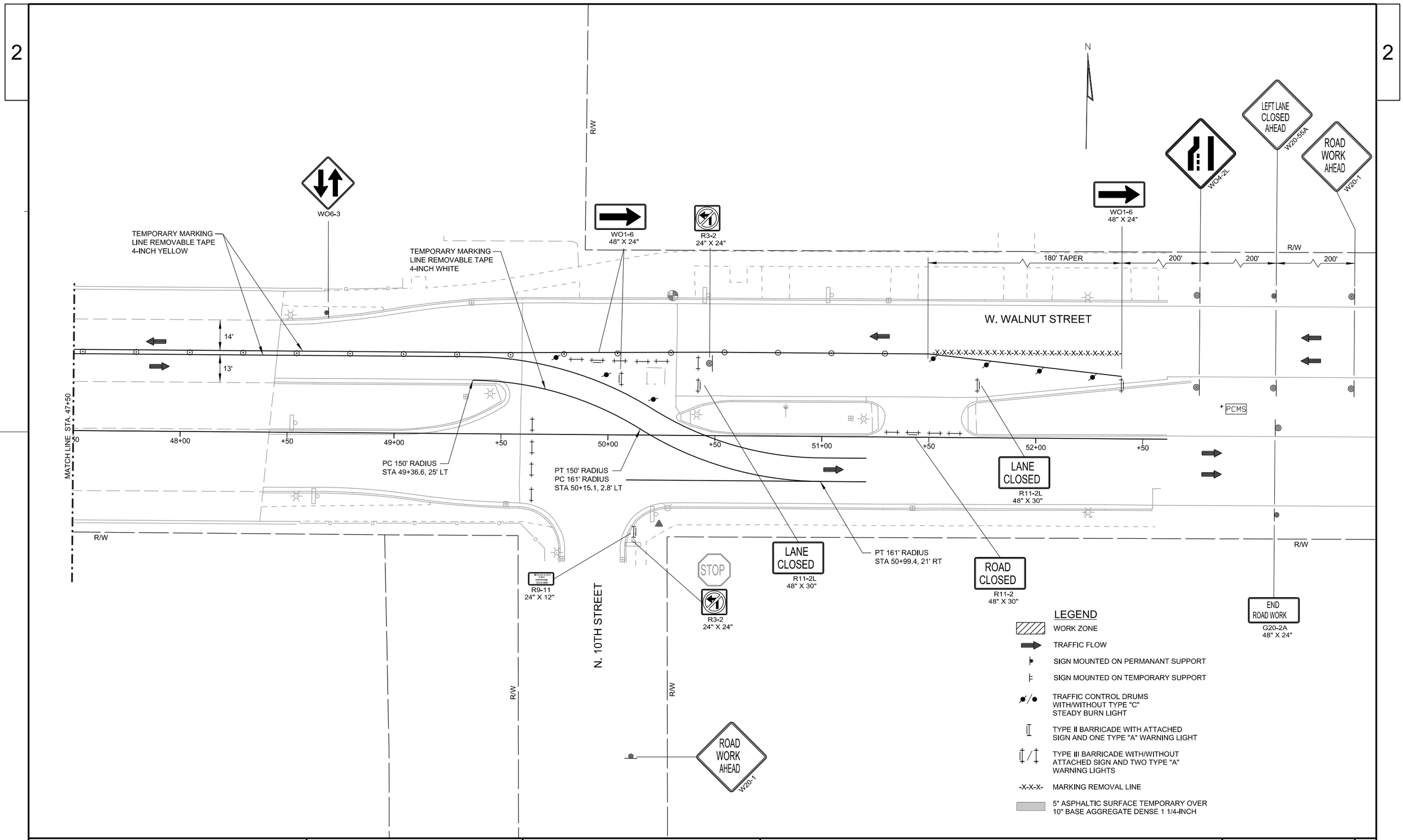




PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 198	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026008_s1b.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

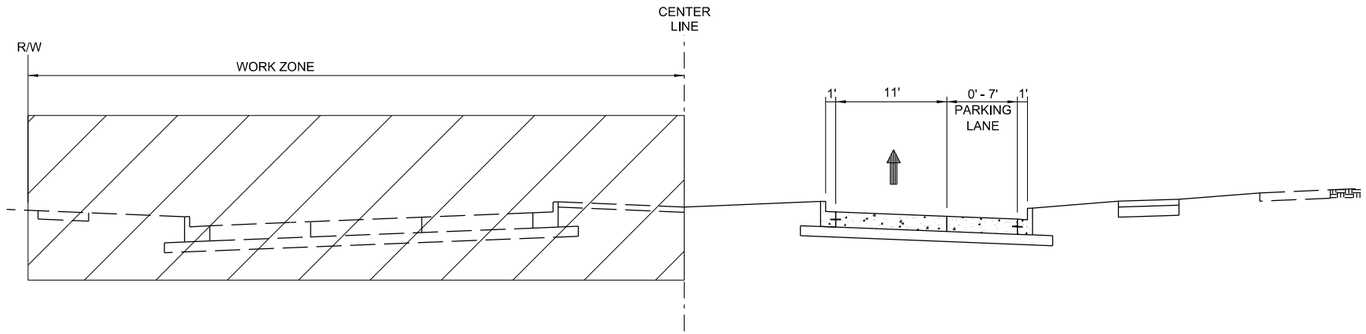
WISDOT/CADDS SHEET 42



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SHEET 199	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026009_s1.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

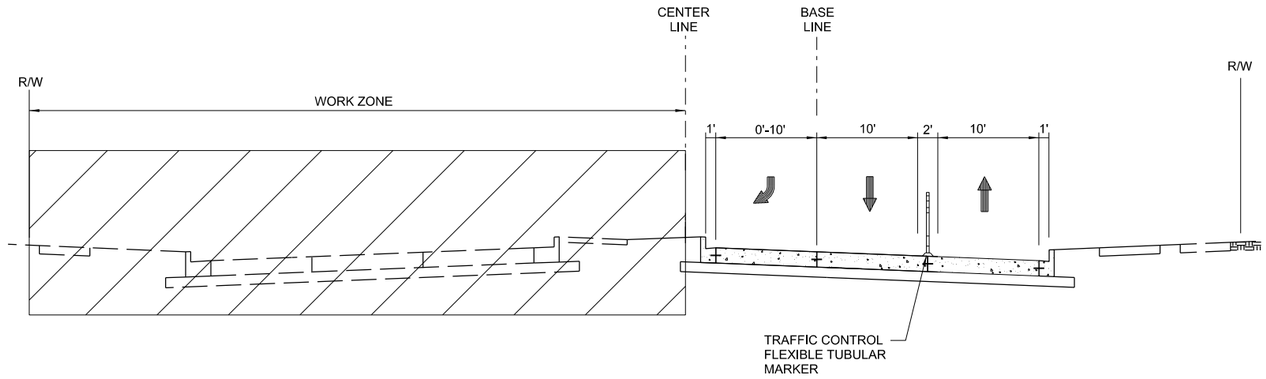
2



STAGE 2

W. WALNUT STREET

STA. 14+40.41 - STA. 38+50



STAGE 2

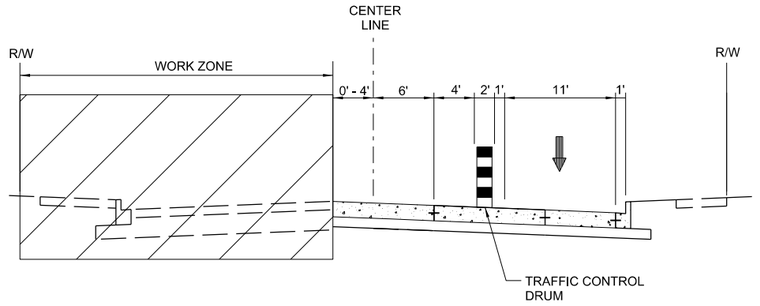
W. WALNUT STREET

STA. 38+50 - STA. 52+00

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL TYPICAL SECTIONS - STAGE 2	SHEET 200	E

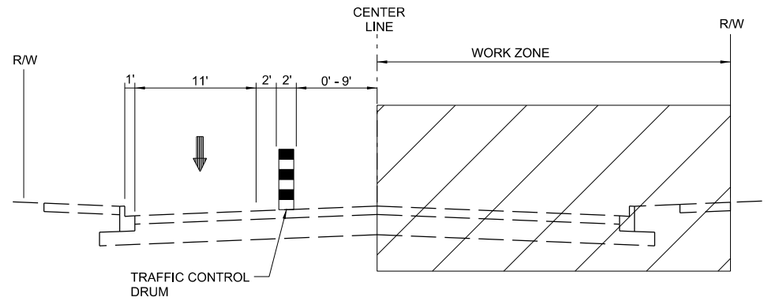
FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026100_s2.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 15.0000 sf / in.

2



STAGE 2A
N. 12TH STREET

STA. 66+00 - STA. 69+32



STAGE 2B
N. 12TH STREET

STA. 66+00 - STA. 69+32

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL TYPICAL SECTIONS - STAGE 2	SHEET 201	E

2

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

LANE CLOSED
R11-2L
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

500'

N. 20TH STREET

R/W

SEE PEDESTRIAN ACCOMMODATION DETAIL FOR MAINTAINING PEDESTRIAN ACCESS AT INTERSECTION

REMOVE DRUMS AND OPEN UP LANES TO TRAFFIC WHEN WORK IN MEDIAN IS COMPLETE.

12'

ROAD CLOSED AHEAD
W20-3A

N. 19TH STREET

END ROAD WORK
G20-2A
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

N

MATCH LINE STA. 18+50

13+00 +50 14+00 +50 15+00 +50 16+00 +50 17+00 +50 18+00

W. WALNUT STREET

FINAL MARKING LINE

CMS

300' 200'

ROAD WORK AHEAD
W20-1

R3-8EAR
54" X 30"
REMOVE SIGN AFTER LEFT TURN LANE IS REOPENED.

ONLY ONLY

350'

LANE CLOSED
R11-2L
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

STOP
R3-2
24" X 24"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

PLACE SIGNS AT GALENA STREET INTERSECTION

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SHEET 202	E

2

ROAD CLOSED AHEAD
W20-3A

END ROAD WORK
G20-2A
48" X 24"

R/W

R/W

N. 18TH STREET

SUMP

ROAD CLOSED
R11-2
48" X 30"

SEE PEDESTRIAN ACCOMMODATION DETAIL FOR MAINTAINING PEDESTRIAN ACCESS AT INTERSECTION

R/W

R BAR

1ST FL

R/W

MATCH LINE STA. 18+50

19+00

+50

20+00

+50

21+00

+50

22+00

+50

23+00

MATCH LINE STA. 23+50

W. WALNUT STREET

FINAL MARKING LINE

R/W

1" I P

R/W

LANE CLOSED
R11-2L
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

R/W

R/W

STOP

R3-2
24" X 24"

ROAD WORK AHEAD
W20-1

PLACE SIGNS AT GALENA STREET INTERSECTION

END ROAD WORK
G20-2A
48" X 24"

N

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SHEET 203	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026104_s2.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

2

ROAD CLOSED AHEAD
W20-3A

END ROAD WORK
G20-2A
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

N. 17TH STREET

N. 16TH STREET

SEE PEDESTRIAN ACCOMMODATION DETAIL FOR MAINTAINING PEDESTRIAN ACCESS AT INTERSECTION

R/W

MATCH LINE STA. 23+50

MATCH LINE STA. 29+50

24+00 +50 25+00 +50 26+00 +50 27+00 +50 28+00 +50 29+00

W. WALNUT STREET

FINAL MARKING LINES (TYP)

LANE CLOSED
R11-2L
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

STOP
R3-2
24" X 24"

ROAD WORK AHEAD
W20-1

PLACE SIGNS AT GALENA STREET INTERSECTION

END ROAD WORK
G20-2A
48" X 24"

ONLY

GATE

GUY POLE

GUY

LEGEND

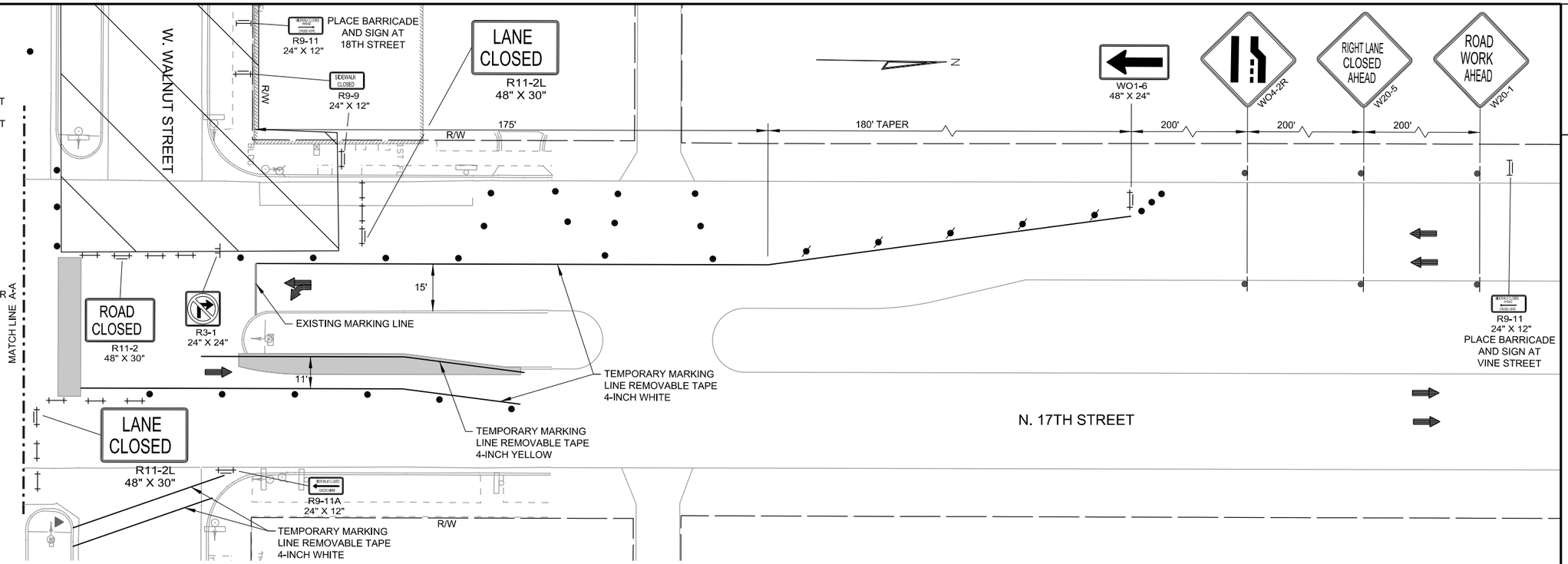
- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

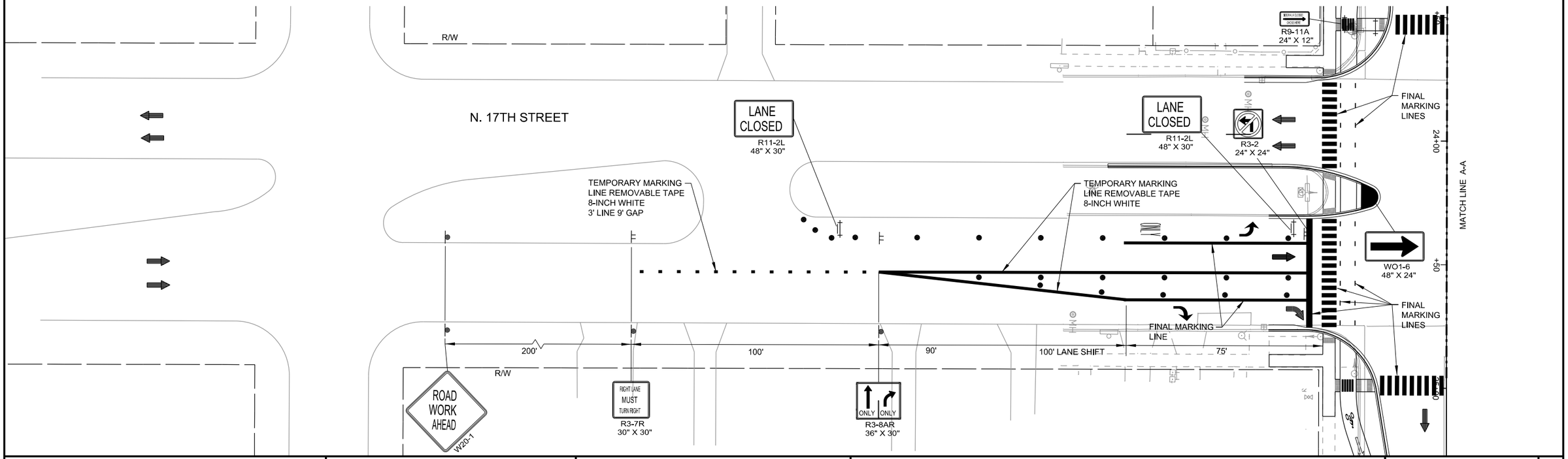
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SHEET 204	E

2

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH





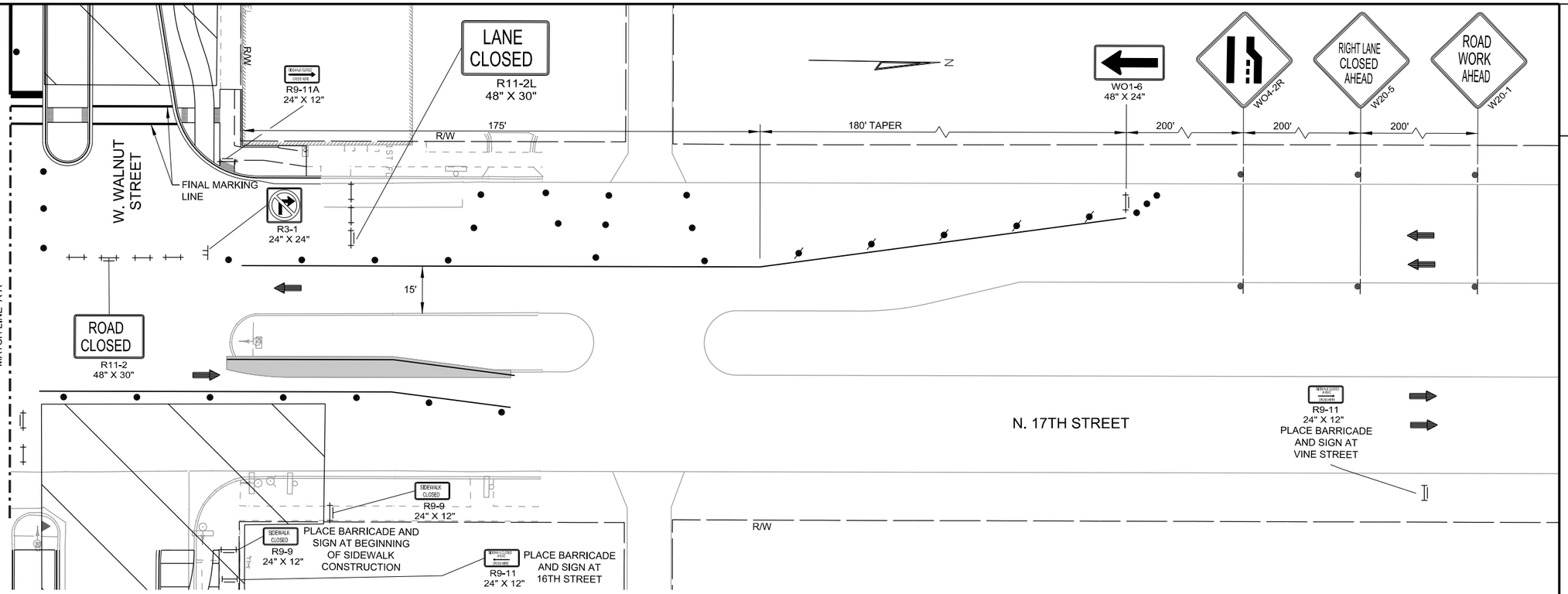
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET 205	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026105_s2a.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH



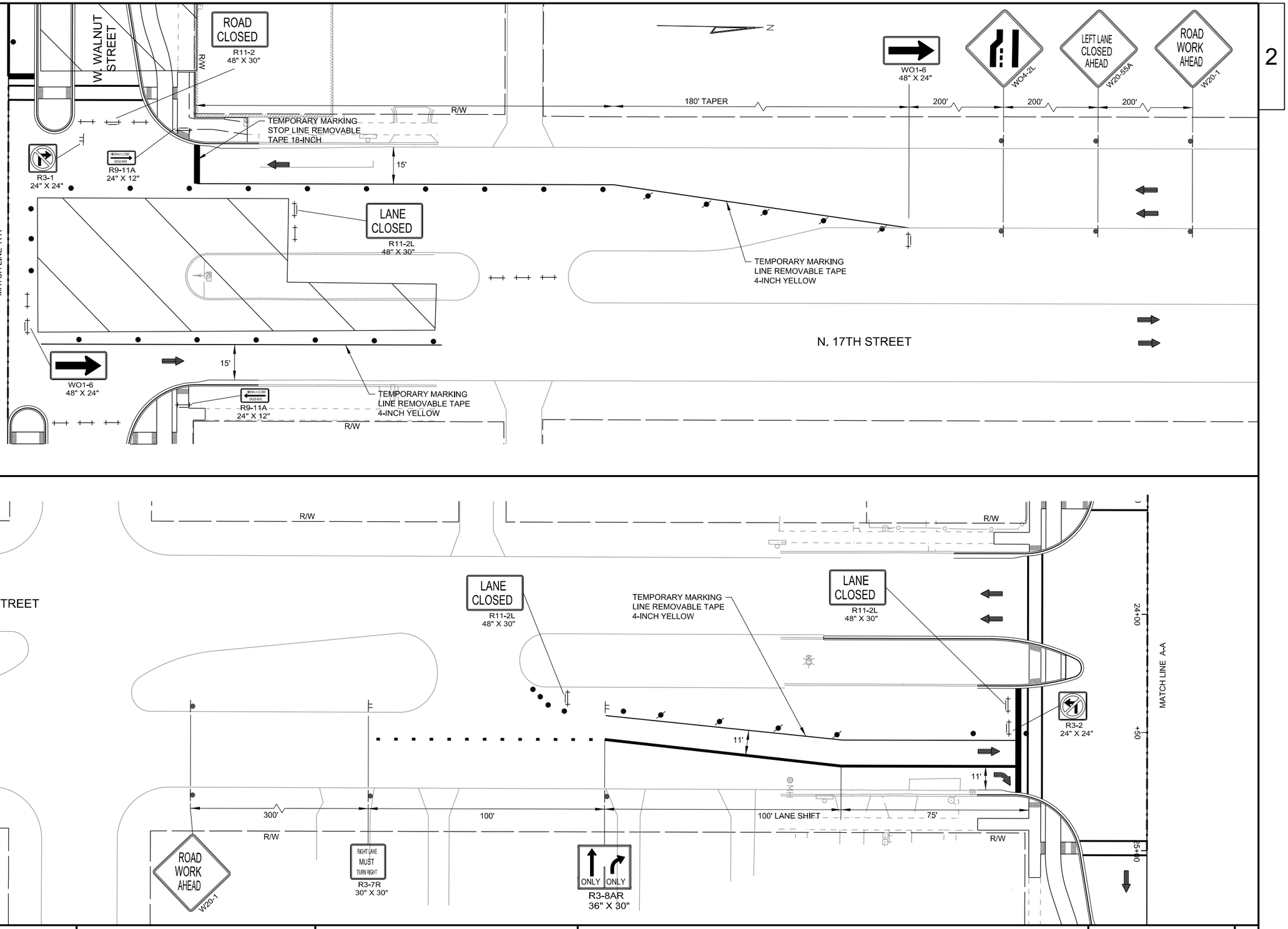
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B	SHEET 206 E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026105_s2b.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C	SHEET 207	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026105_s2c.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

N

R/W

R/W

R/W

MATCH LINE STA. 29+50

MATCH LINE STA. 35+50

30+00 +50 31+00 +50 32+00 +50 33+00 +50 34+00 +50 35+00

W. WALNUT STREET

TEMPORARY MARKING
LINE REMOVABLE TAPE
4-INCH WHITE

100' LANE SHIFT

TEMPORARY MARKING
LINE REMOVABLE TAPE
4-INCH YELLOW

ROAD CLOSED
R11-2
48" X 30"

STOP
R3-2
24" X 24"

W01-4R

N. 15TH STREET

N. 14TH LANE

N. 14TH STREET

GUY

CONC WALL

ROAD WORK AHEAD
W20-1

PLACE SIGNS AT
GALENA STREET
INTERSECTION

END
ROAD WORK
G20-2A
48" X 24"

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SHEET 208	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026106_s2.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

ROAD WORK AHEAD
W20-1

RIGHT LANE CLOSED AHEAD
W20-5A

WO4-2R

200'
200'
200'
180' TAPER
50'
R/W

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE

END ROAD WORK
G20-2A
48" X 24"

W. FOND DU LAC AVENUE

500'

FOR CUC INSTALLATION FOLLOW SDD 15D22 "TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY" AND SHIFT TRAFFIC TO LEFT TURN LANE. USE PLATES AS NEEDED TO COVER TRENCH UNTIL PAVEMENT IS RESTORED.

PEDESTRIAN ACCOMMODATIONS SHOWN FOR DETOURING PEDESTRIANS TO EAST SIDE OF INTERSECITON. WHEN PAVEMENT ON WEST SIDE OF INTERSECTION IS COMPLETE, DETOUR PEDESTIANS TO WEST SIDE OF INTERSECTION AND MOVE DETOUR SIGNS TO EAST SIDE OF INTERSECTION.

N

R/W

ROAD CLOSED
R11-2
48" X 30"

R9-11A
24" X 12"

R3-1
24" X 24"

ROAD CLOSED
R11-2
48" X 30"

DO NOT ENTER
R5-1
36" X 36"

LANE CLOSED
R11-2L
48" X 30"

70' LANE SHIFT

10'

MATCH LINE STA. 35+50

MATCH LINE STA. 41+50

36+00 +50 37+00 +50 38+00 +50 39+00 40+00 +50 41+00

W. WALNUT STREET

WO1-7
48" X 24"

FINAL MARKING LINE

TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH

TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW

R9-11A
24" X 12"

O.M.P.

R3-2
24" X 24"

LANE CLOSED
R11-2L
48" X 30"

W. FOND DU LAC AVENUE

BEGIN RIGHT TURN LANE
R3-20R
24" X 36"

WO4-2R

300'
50'
50'
180' TAPER

RIGHT LANE CLOSED AHEAD
W20-5A

ROAD WORK AHEAD
W20-1

200'
200'

N. 13TH STREET

END ROAD WORK
G20-2A
48" X 24"

LANE CLOSED
R11-2L
48" X 30"

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SHEET 209	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026107_s2.dgn PLOT DATE : 9/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

2

N

R/W

R/W

R/W

R/W

1' I P

MATCH LINE STA. 41+50

MATCH LINE STA. 47+50

10'

10'

10'

10'

13'

14'

42+00

43+00

44+00

45+00

46+00

47+00

66+00

67+00

65+00

64+00

+50

+30

ONLY ONLY

R3-8LR
36" X 30"

W. WALNUT STREET

N. 12TH STREET

R3-2
24" X 24"

R3-1
24" X 24"

TEMPORARY MARKING
STOP LINE REMOVABLE
TAPE 18-INCH

TEMPORARY MARKING
STOP LINE REMOVABLE
TAPE 18-INCH

TEMPORARY MARKING
LINE REMOVABLE TAPE
4-INCH YELLOW

GATE

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

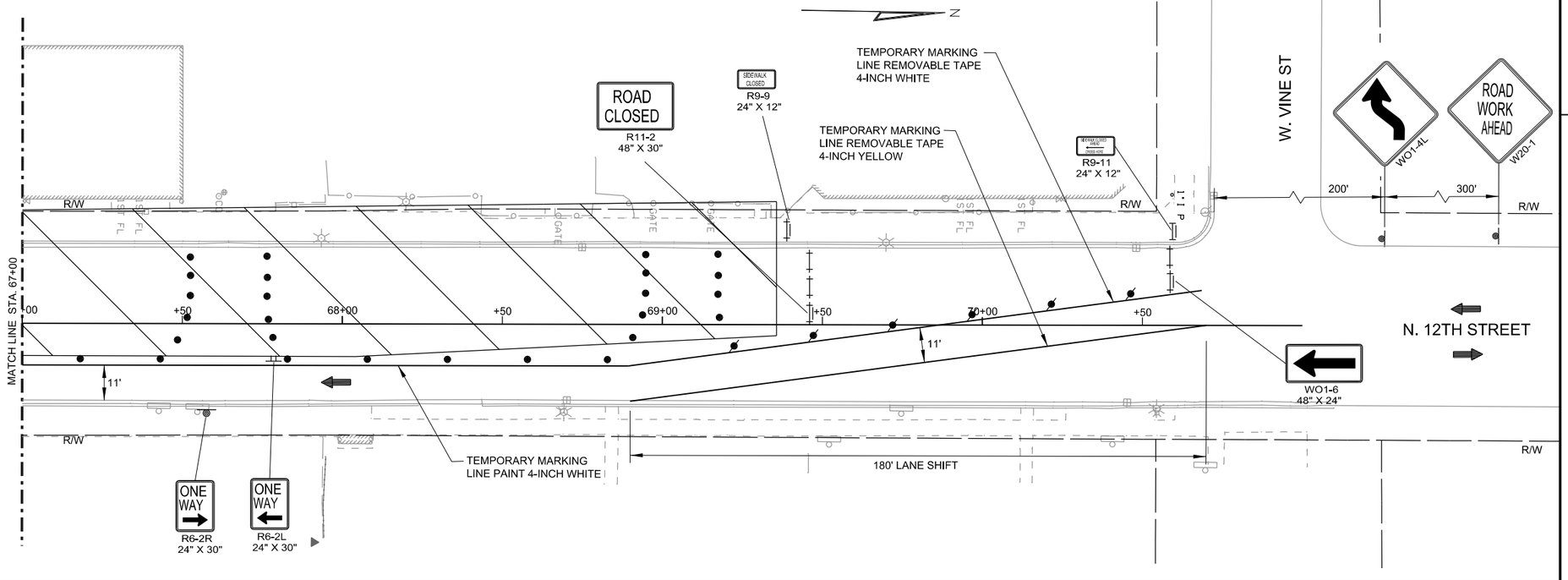
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SHEET 210	E

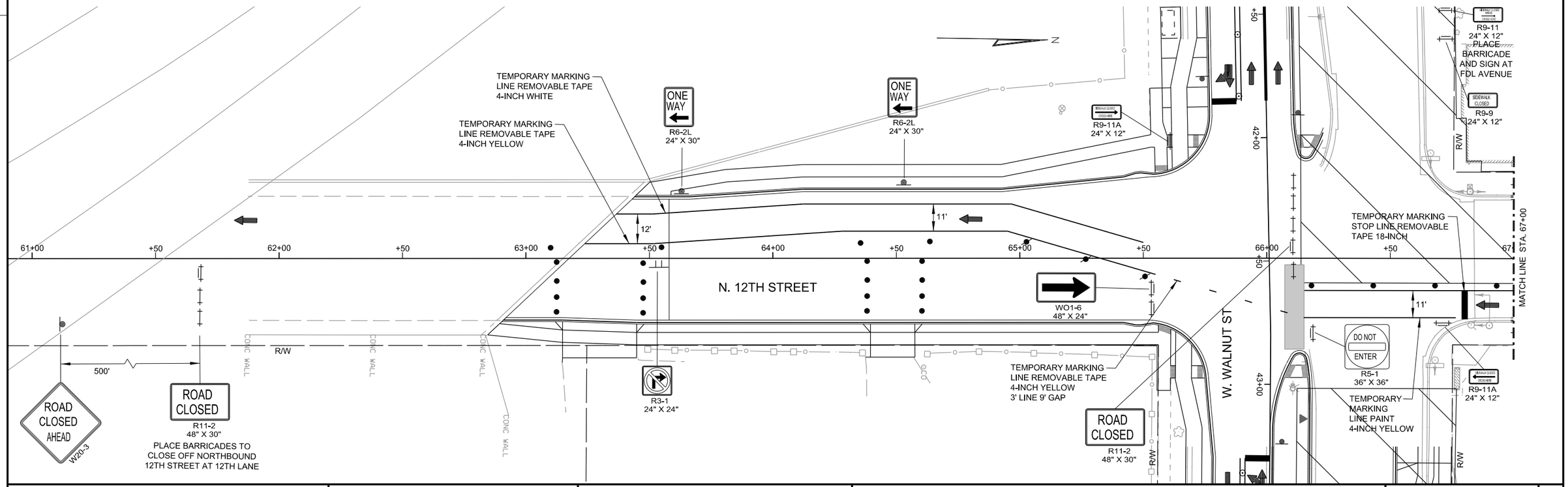
FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026108_s2.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH





PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET 211	E

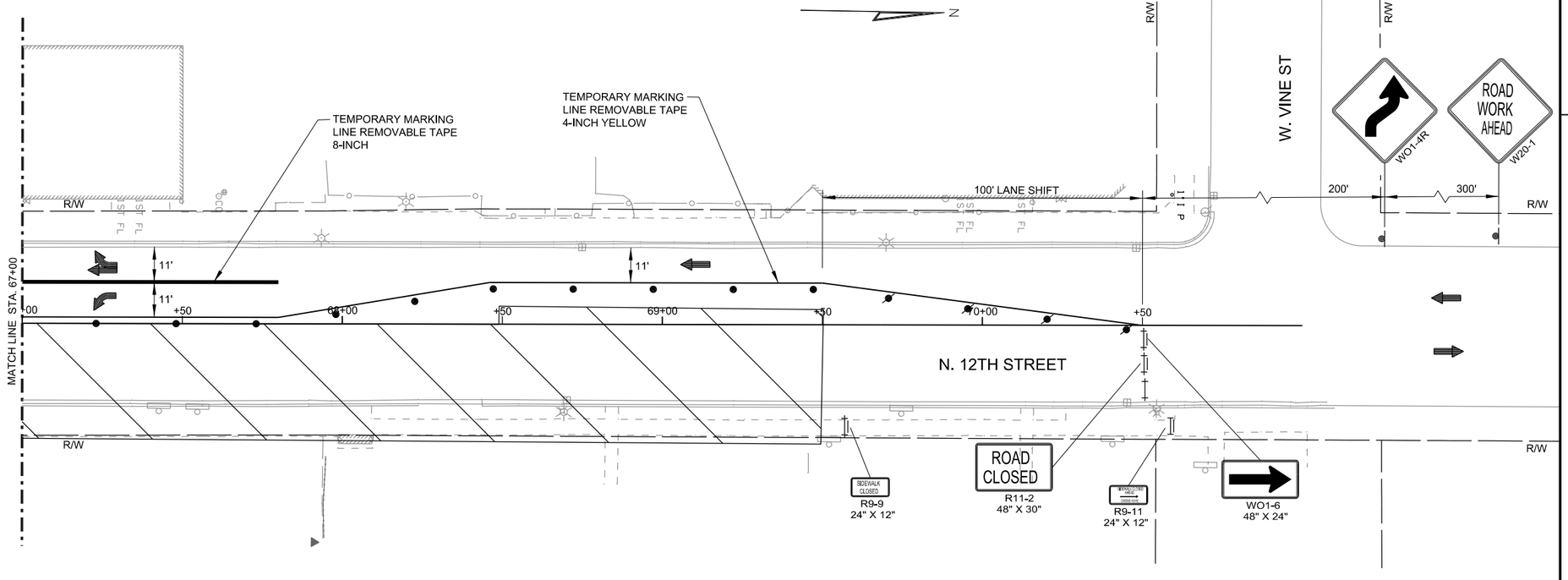
FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026108_s2a.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

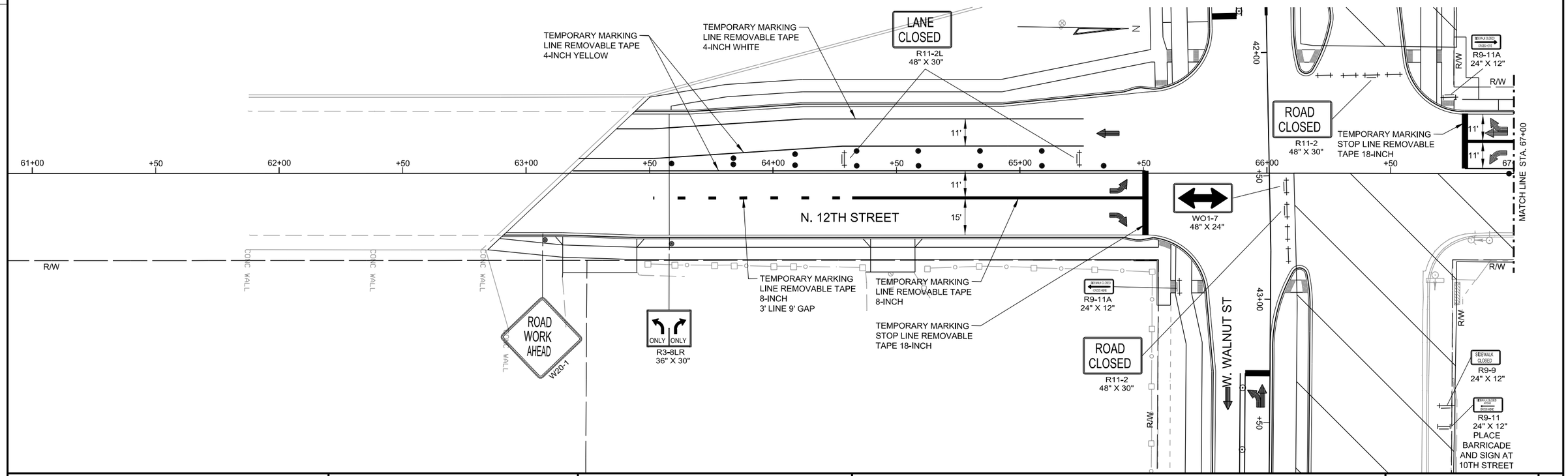
WISDOT/CADDS SHEET 42

2

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH



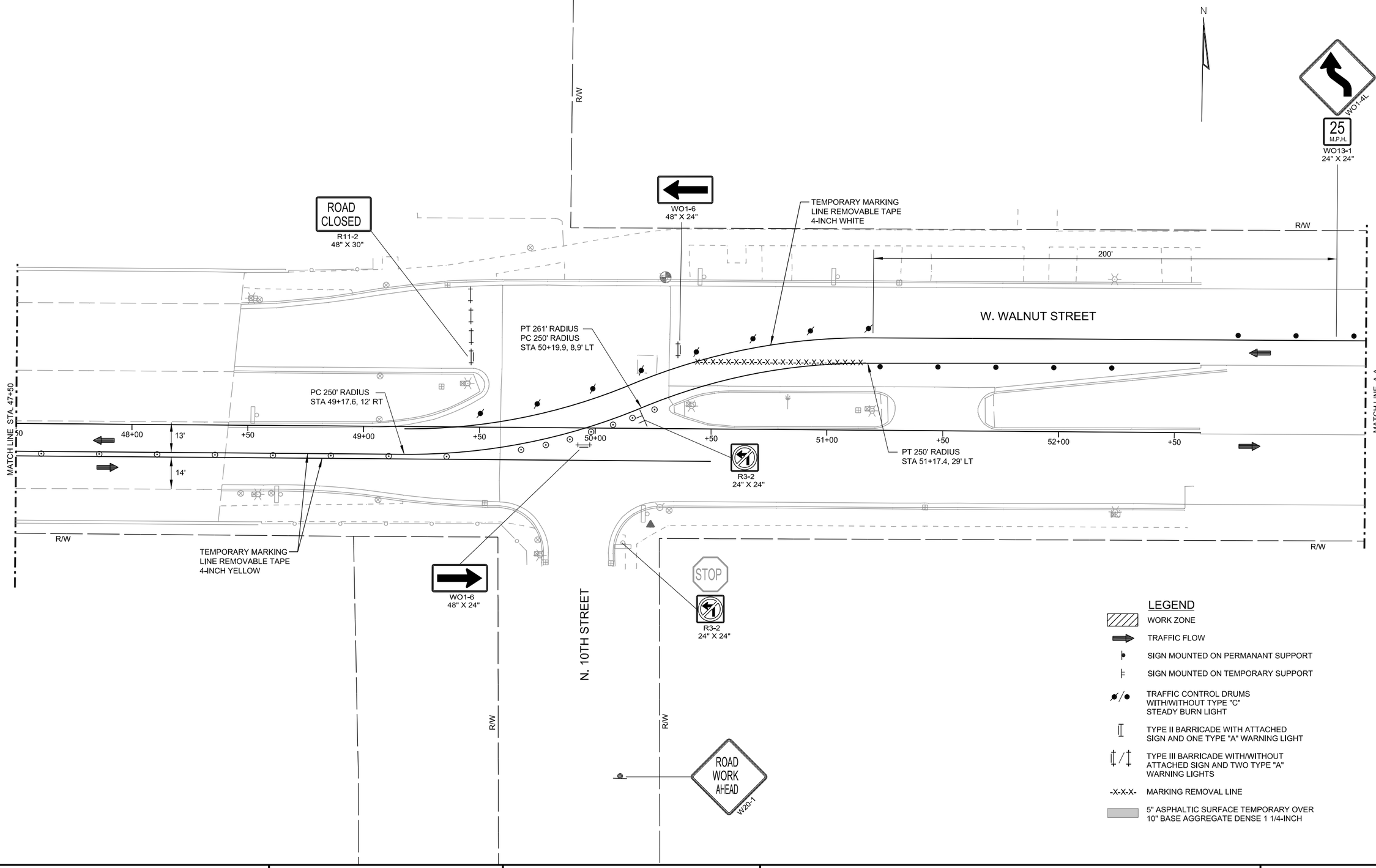


PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B	SHEET 212	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026108_s2b.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SHEET 213	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026109_s2.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

N

TEMPORARY MARKING
LINE REMOVABLE TAPE
4-INCH WHITE

WO1-6
48" X 24"

WO4-2R

RIGHT LANE
CLOSED
AHEAD
W20-5

ROAD
WORK
AHEAD
W20-1

R/W

R/W

25'

180' TAPER

200'

200'

200'

MATCH LINE A-A

PCMS

W. WALNUT STREET

R/W

R/W

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SHEET 214	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\026110_s2.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

N

W01-4R

END
ROAD WORK
G20-2A
48" X 24"

R/W

W. WALNUT STREET

FINAL MARKING LINE

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

TEMPORARY MARKING
LINE REMOVABLE TAPE
4-INCH WHITE

30+00 +50 31+00 +50 32+00 +50 33+00 +50 34+00 +50 35+00 +50

MATCH LINE STA. 35+50

TEMPORARY MARKING
LINE REMOVABLE TAPE
4-INCH YELLOW

500'

100' LANE SHIFT

ROAD
WORK
AHEAD
W20-1

N. 15TH STREET

N. 14TH LANE

N. 14TH STREET

GUY

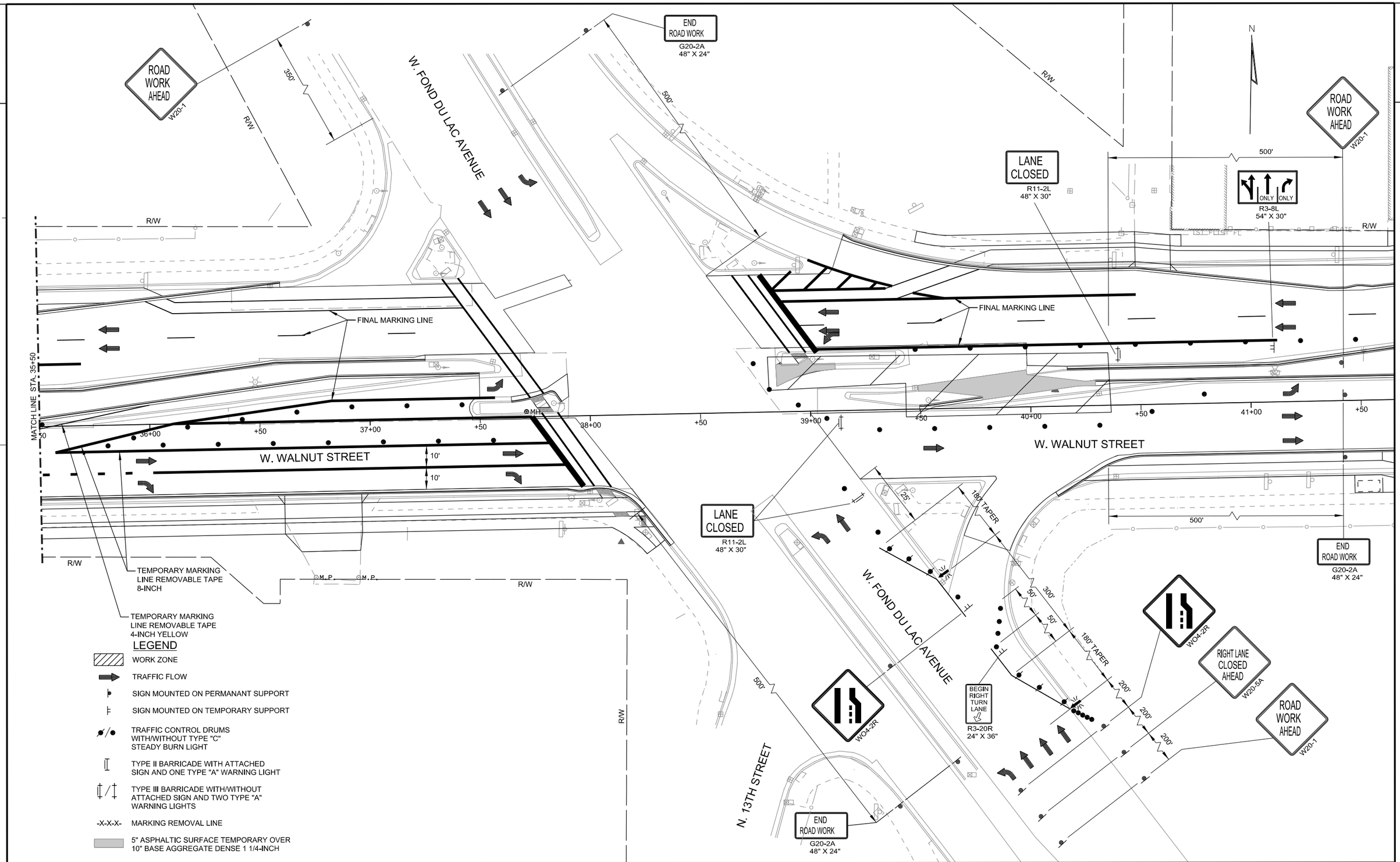
CONC WALL

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- SIGN MOUNTED ON PERMANANT SUPPORT
- SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TYPE II BARRICADE WITH ATTACHED SIGN AND ONE TYPE "A" WARNING LIGHT
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- -X-X-X- MARKING REMOVAL LINE
- 5" ASPHALTIC SURFACE TEMPORARY OVER 10" BASE AGGREGATE DENSE 1 1/4-INCH

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET 215	E

2



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET 216	E

2

LEGEND

- DETOUR ROUTE
- WORK ZONE
- TEMPORARY TRAFFIC CONTROL SIGN POST
- TYPE III BARRICADE WITH ATTACHED SIGN

NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES.

THE SPACING BETWEEN THE TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200' 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 AND PAID FOR UNDER THE ITEM TRAFFIC CONTROL COVERING SIGNS.

FOLLOW SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" FOR MAINLINE ROAD CLOSED SIGNAGE.

① 12TH ST M1-94 / DETOUR AHEAD W20-2

② DETOUR NORTH M4-8 24" X 12" / M3-1 24" X 12" / 12TH ST M1-94 / MO5-1L 21" X 21"

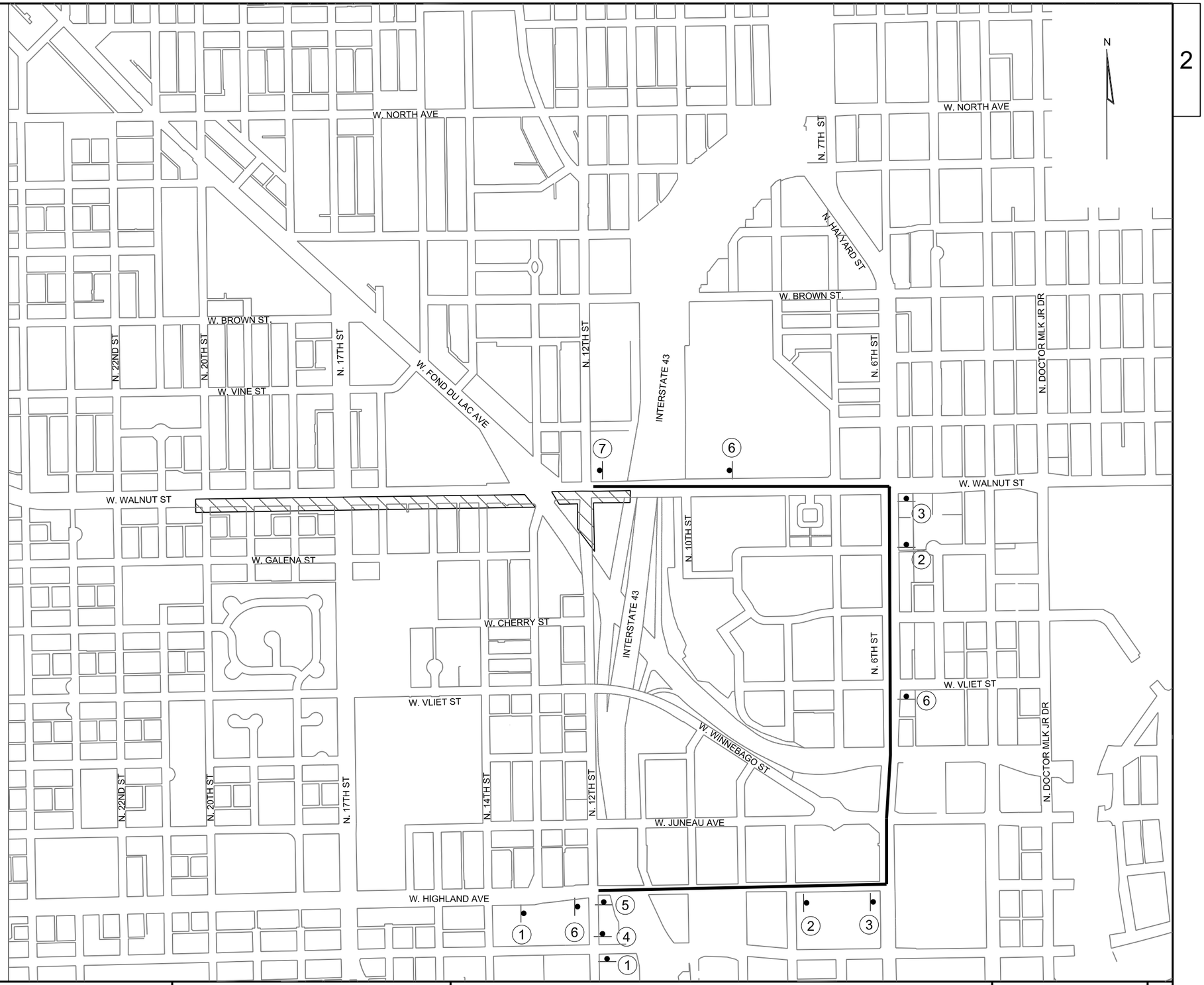
③ DETOUR NORTH M4-8 24" X 12" / M3-1 24" X 12" / 12TH ST M1-94 / MO6-1 21" X 21"

④ DETOUR NORTH M4-8 24" X 12" / M3-1 24" X 12" / 12TH ST M1-94 / MO5-1R 21" X 21"

⑤ DETOUR NORTH M4-8 24" X 12" / M3-1 24" X 12" / 12TH ST M1-94 / MO6-1 21" X 21"

⑥ DETOUR NORTH M4-8 24" X 12" / M3-1 24" X 12" / 12TH ST M1-94 / MO6-1 21" X 21"

⑦ END DETOUR M4-8A 24" X 18" / 12TH ST M1-94



PROJECT NO: 2674-02-70	HWY: N. 12TH STREET	COUNTY: MILWAUKEE	DETOUR PLAN - N. 12TH STREET (NORTHBOUND) - STAGE 1	SHEET 217	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\027001_dt.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 750.0000 sf / in.

WISDOT/CADDS SHEET 42

2

LEGEND

- DETOUR ROUTE
- WORK ZONE
- TEMPORARY TRAFFIC CONTROL SIGN POST
- TYPE III BARRICADE WITH ATTACHED SIGN

NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES.

THE SPACING BETWEEN THE TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200' 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 AND PAID FOR UNDER THE ITEM TRAFFIC CONTROL COVERING SIGNS.

FOLLOW SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" FOR MAINLINE ROAD CLOSED SIGNAGE.

1 — WALNUT ST — M1-94 — DETOUR AHEAD — W20-2

2 — DETOUR / WEST — M4-8 24" X 12" — M3-4 24" X 12" — WALNUT ST — M1-94 — MO5-1L 21" X 21"

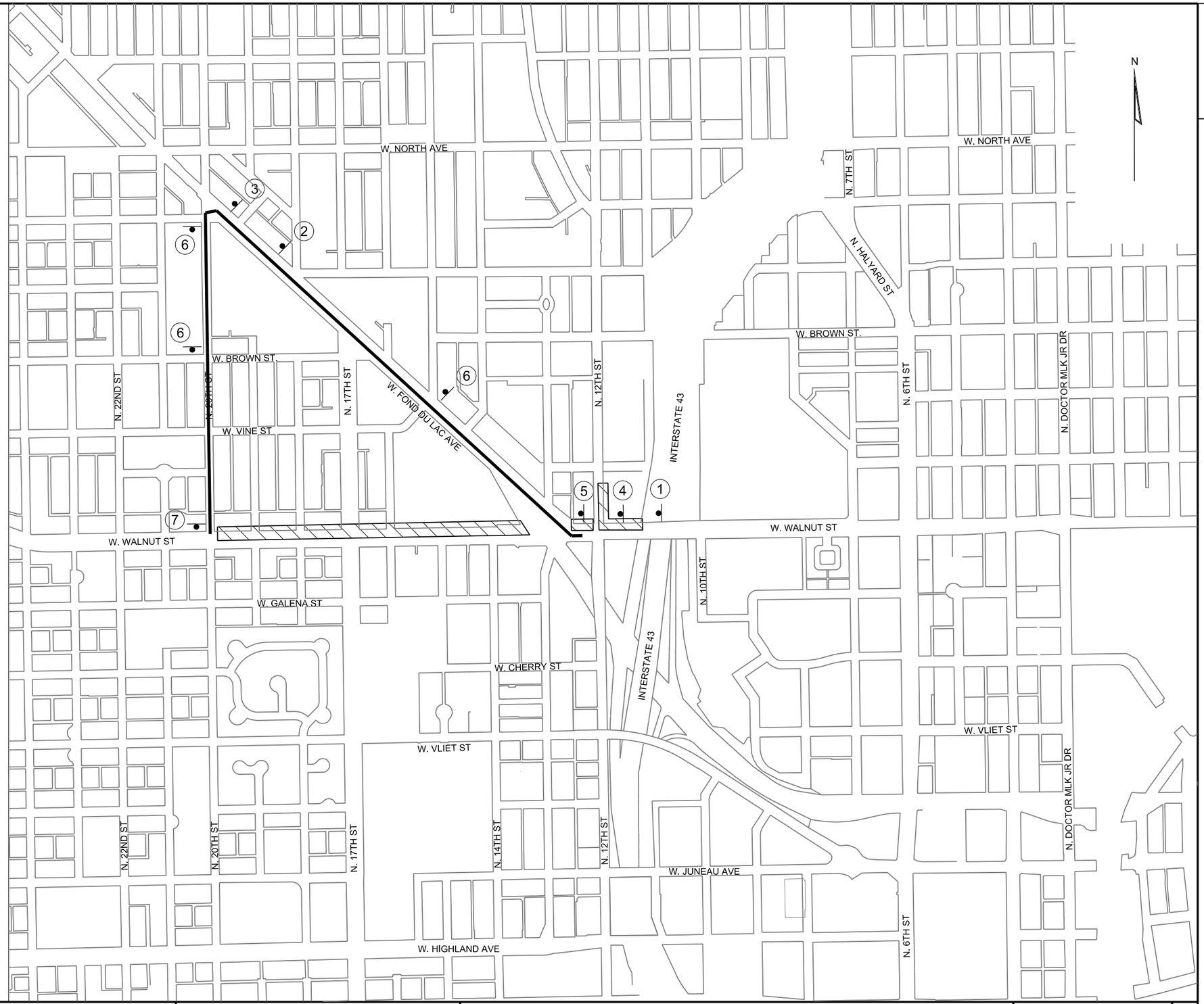
3 — DETOUR / WEST — M4-8 24" X 12" — M3-4 24" X 12" — WALNUT ST — M1-94 — MO6-1 21" X 21"

4 — DETOUR / WEST — M4-8 24" X 12" — M3-4 24" X 12" — WALNUT ST — M1-94 — MO5-2R 21" X 21"

5 — DETOUR / WEST — M4-8 24" X 12" — M3-4 24" X 12" — WALNUT ST — M1-94 — MO6-1 21" X 21"

6 — DETOUR / WEST — M4-8 24" X 12" — M3-4 24" X 12" — WALNUT ST — M1-94 — MO6-1 21" X 21"

7 — END DETOUR — M4-8A 24" X 18" — WALNUT ST — M1-94



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	DETOUR PLAN - W. WALNUT STREET (WESTBOUND) - STAGE 2	SHEET 218 E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\027002_dt.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 750.0000 sf / in.

WISDOT/CADDS SHEET 42

2

LEGEND

- DETOUR ROUTE
- WORK ZONE
- TEMPORARY TRAFFIC CONTROL SIGN POST
- TYPE III BARRICADE WITH ATTACHED SIGN

NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES.

THE SPACING BETWEEN THE TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200' 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 AND PAID FOR UNDER THE ITEM TRAFFIC CONTROL COVERING SIGNS.

FOLLOW SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" FOR MAINLINE ROAD CLOSED SIGNAGE.

① 12TH ST — M1-94
DETOUR AHEAD — W20-2

② DETOUR / NORTH — M4-8 24" X 12", M3-1 24" X 12"
12TH ST — M1-94
MO5-1L 21" X 21"

③ DETOUR / NORTH — M4-8 24" X 12", M3-1 24" X 12"
12TH ST — M1-94
MO6-1 21" X 21"

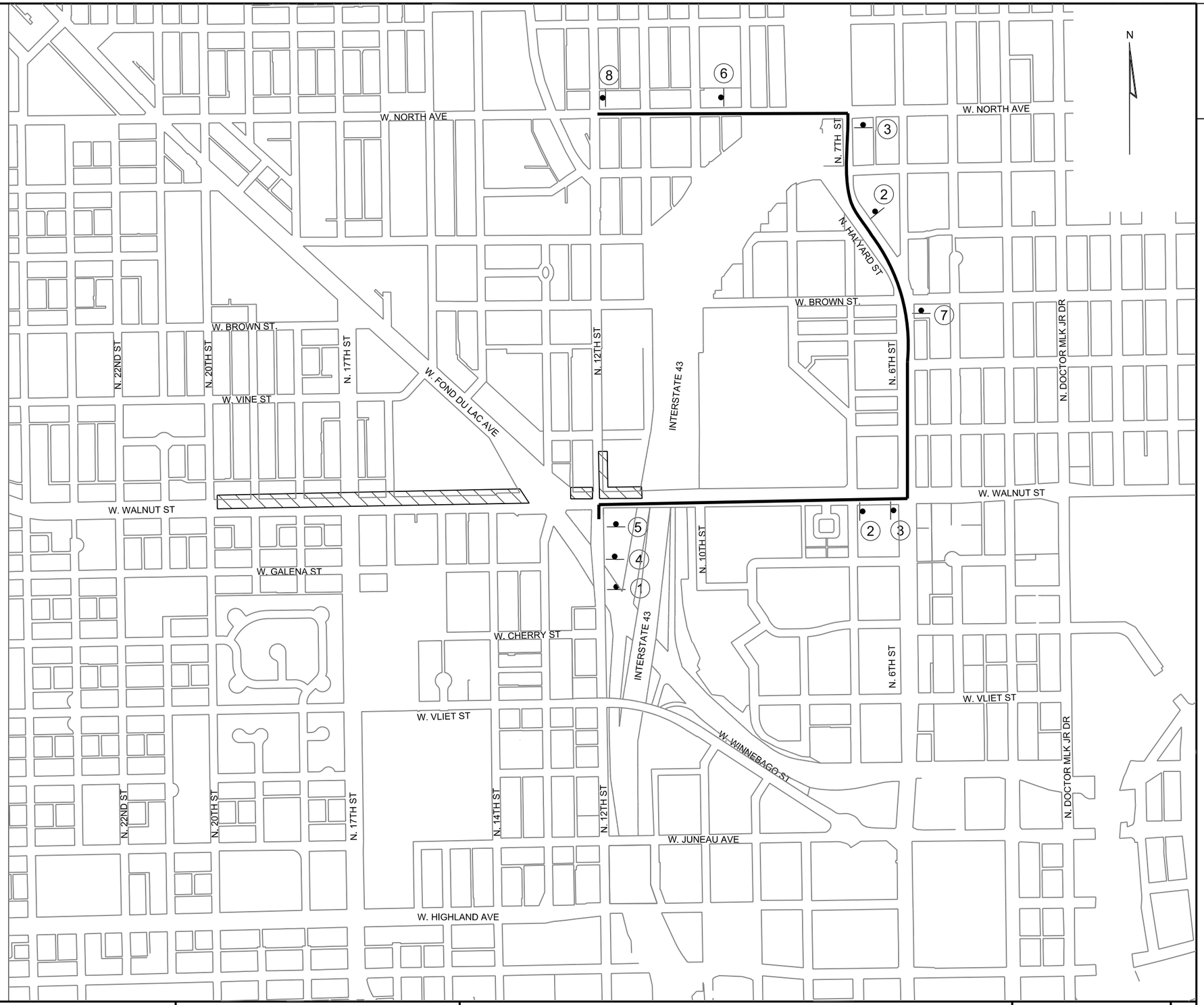
④ DETOUR / NORTH — M4-8 24" X 12", M3-1 24" X 12"
12TH ST — M1-94
MO5-1R 21" X 21"

⑤ DETOUR / NORTH — M4-8 24" X 12", M3-1 24" X 12"
12TH ST — M1-94
MO6-1 21" X 21"

⑥ DETOUR / NORTH — M4-8 24" X 12", M3-1 24" X 12"
12TH ST — M1-94
MO6-1 21" X 21"

⑦ DETOUR / NORTH — M4-8 24" X 12", M3-1 24" X 12"
12TH ST — M1-94
MO5-2L 21" X 21"

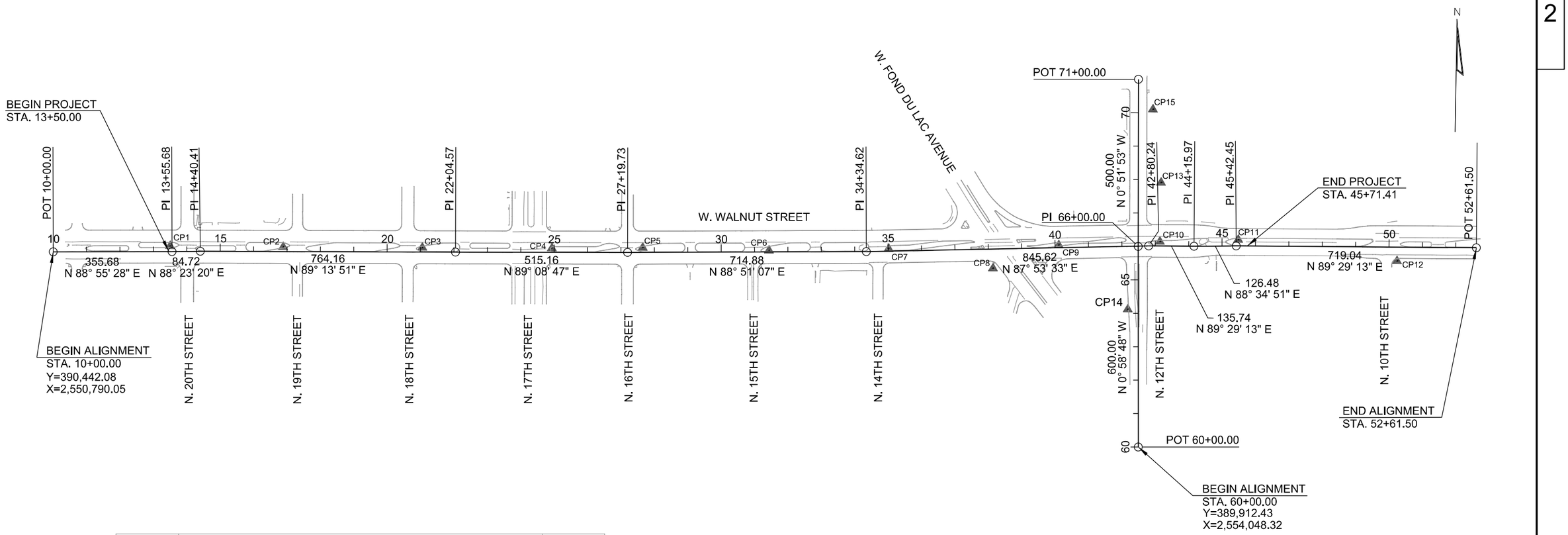
⑧ END DETOUR — M4-8A 24" X 18"
12TH ST — M1-94



PROJECT NO: 2674-02-70	HWY: N. 12TH STREET	COUNTY: MILWAUKEE	DETOUR PLAN - N. 12TH STREET (NORTHBOUND) - STAGE 2	SHEET 219	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\027003_dt.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 750.0000 sf / in.

WISDOT/CADDS SHEET 42



BENCHMARK	DESCRIPTION	ELEVATION
RBM01	REFERENCE BENCH MARK FOR WEST 1/4 CORNER OF SECTION 20-7-22, CHISELED CROSS TOP SOUTH SIDE OF HYDRANT FLANGE IN N. 13TH ST. CUL-DU-SAC.	102.08
BM02	CHISELED CROSS TOP NORTHWEST FLANGE BOLT OF HYDRANT ON NORTH SIDE OF W. WALNUT ST. EAST OF N. 12TH ST. IN FRONT OF "SPEED QUEEN."	99.16
BM03	CHISELED CROSS TOP NORTHWEST FLANGE BOLT OF HYDRANT ON NORTH SIDE OF THE INTERSECTION OF W. WALNUT ST. AND N. 10TH ST.	93.94
BM04	WISDOT ALUMINUM CAP TOP SOUTH PARAPET WALL, WEST ABUTMENT BRIDGE OVER I-43. BRIDGE PLATE B-40-692.	99.31
BM05	CHISELED CROSS TOP NORTHWEST FLANGE BOLT OF HYDRANT AT THE SOUTHWEST CORNER OF N. 14TH ST. AND W. WALNUT ST.	104.40
BM06	CHISELED CROSS BOTTOM NORTHEAST FLANGE BOLT OF HYDRANT AT THE SOUTHEAST CORNER OF N. 15TH ST. AND W. WALNUT ST.	104.49
BM07	CHISELED CROSS BOTTOM NORTHEAST FLANGE BOLT OF HYDRANT AT THE SOUTHEAST CORNER OF N. 16TH ST. AND W. WALNUT ST.	104.09
BM08	CHISELED CROSS BOTTOM SOUTH FLANGE BOLT OF HYDRANT AT THE SOUTHWEST CORNER OF N. 17TH ST. AND W. WALNUT ST.	102.96
BM09	CHISELED CROSS BOTTOM SOUTH FLANGE BOLT OF HYDRANT AT THE SOUTHWEST CORNER OF N. 18TH ST. AND W. WALNUT ST.	102.17
BM10	CHISELED CROSS TOP NORTHWEST FLANGE BOLT OF HYDRANT AT THE SOUTHWEST CORNER OF N. 19TH ST. AND W. WALNUT ST.	102.80
RBM11	REFERENCE BENCH MARK FOR THE CENTER OF SECTION 19-7-22, RR SPIKE IN SOUTH FACE OF PP #75-3711 ON THE NORTH SIDE OF THE ALLEY EAST OF N. 20TH ST.	101.00
RBM12	REFERENCE BENCH MARK FOR THE CENTER OF SECTION 19-7-22, RR SPIKE IN SOUTH FACE OF PP #07-05130 ON THE NORTH SIDE OF THE ALLEY WEST OF N. 20TH ST.	101.82

CONTROL POINTS					
NUMBER	DESCRIPTION	STATION	OFFSET	X	Y
1	5/8" REBAR W/PINK CAP	13+50.08	16.82 LT	2,551,139.75	390,465.47
2	5/8" REBAR W/PINK CAP	16+88.64	13.67 LT	2,551,478.38	390,468.14
3	5/8" REBAR W/PINK CAP	21+05.30	13.09 LT	2,551,895.02	390,473.16
4	MAG NAIL	24+93.31	11.86 LT	2,552,282.98	390,477.56
5	5/8" REBAR W/PINK CAP	27+65.30	13.74 LT	2,552,554.84	390,483.72
6	5/8" REBAR W/PINK CAP	31+43.40	4.43 LT	2,552,933.05	390,482.00
7	5/8" REBAR W/PINK CAP	35+01.91	6.77 LT	2,553,291.30	390,492.64
8	5/8" REBAR W/PINK CAP	38+12.90	57.64 RT	2,553,604.45	390,439.71
9	5/8" REBAR W/PINK CAP	40+11.16	7.50 LT	2,553,800.18	390,512.10
10	5/8" REBAR W/PINK CAP	43+13.85	13.07 LT	2,554,102.84	390,527.86
11	5/8" REBAR W/PINK CAP	45+48.44	18.53 LT	2,554,337.34	390,537.43
12	MAG NAIL	50+24.28	41.53 RT	2,554,813.70	390,481.63
13	MAG NAIL	43+15.95	189.76 LT	2,554,103.36	390,704.57
14	MAG NAIL	42+13.94	188.54 RT	2,554,010.03	390,323.64
15	5/8" REBAR W/PINK CAP	42+90.20	408.47 LT	2,554,075.65	390,923.04

2674-02-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	16.000	16.000
0004	201.0120	Clearing	ID	149.000	149.000
0006	201.0205	Grubbing	STA	16.000	16.000
0008	201.0220	Grubbing	ID	149.000	149.000
0010	204.0100	Removing Concrete Pavement	SY	34,507.000	34,507.000
0014	204.0120	Removing Asphaltic Surface Milling	SY	321.000	321.000
0016	204.0150	Removing Curb & Gutter	LF	625.000	625.000
0018	204.0155	Removing Concrete Sidewalk	SY	2,335.000	2,335.000
0020	204.0195	Removing Concrete Bases	EACH	22.000	22.000
0022	204.0210	Removing Manholes	EACH	10.000	10.000
0024	204.0215	Removing Catch Basins	EACH	51.000	51.000
0026	204.0245	Removing Storm Sewer (size) 001. 8-Inch	LF	936.000	936.000
0028	204.0245	Removing Storm Sewer (size) 002. 12-Inch	LF	842.000	842.000
0030	204.0250	Abandoning Manholes	EACH	6.000	6.000
0032	204.0291.S	Abandoning Sewer	CY	4.000	4.000
0034	205.0100	Excavation Common	CY	19,543.000	19,543.000
0036	205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON	138.000	138.000
0040	213.0100	Finishing Roadway (project) 002. 2674-02-70	EACH	1.000	1.000
0042	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	11,688.000	11,688.000
0044	305.0130	Base Aggregate Dense 3-Inch	TON	3,668.000	3,668.000
0046	320.0145	Concrete Base 8-Inch	SY	277.000	277.000
0050	415.0080	Concrete Pavement 8-Inch	SY	23,891.000	23,891.000
0054	415.0410	Concrete Pavement Approach Slab	SY	314.000	314.000
0056	415.4100	Concrete Pavement Joint Filling	SY	23,891.000	23,891.000
0058	416.0170	Concrete Driveway 7-Inch	SY	443.000	443.000
0060	416.0270	Concrete Driveway HES 7-Inch	SY	342.000	342.000
0062	416.0610	Drilled Tie Bars	EACH	355.000	355.000
0064	416.0620	Drilled Dowel Bars	EACH	981.000	981.000
0066	450.4000	HMA Cold Weather Paving	TON	200.000	200.000
0068	455.0605	Tack Coat	GAL	31.000	31.000
0070	460.2000	Incentive Density HMA Pavement	DOL	50.000	50.000
0072	460.5224	HMA Pavement 4 LT 58-28 S	TON	73.000	73.000
0074	465.0105	Asphaltic Surface	TON	722.000	722.000
0076	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	10.000	10.000
0078	465.0125	Asphaltic Surface Temporary	TON	151.000	151.000
0080	465.0310	Asphaltic Curb	LF	167.000	167.000
0082	520.8000	Concrete Collars for Pipe	EACH	4.000	4.000
0084	601.0319	Concrete Curb & Gutter 19-Inch	LF	11,108.000	11,108.000
0088	601.0331	Concrete Curb & Gutter 31-Inch	LF	1,681.000	1,681.000
0092	602.0410	Concrete Sidewalk 5-Inch	SF	17,651.000	17,651.000
0094	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	1,112.000	1,112.000
0096	602.0615	Curb Ramp Detectable Warning Field Radial Natural Patina	SF	397.000	397.000
0098	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	1,872.000	1,872.000
0100	608.0421	Storm Sewer Pipe Reinforced Concrete Class IV 21-Inch	LF	8.000	8.000
0102	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	8.000	8.000
0104	608.0430	Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	LF	8.000	8.000
0106	611.2004	Manholes 4-FT Diameter	EACH	6.000	6.000
0108	611.2005	Manholes 5-FT Diameter	EACH	2.000	2.000
0110	611.8105	Adjusting Catch Basin Covers	EACH	3.000	3.000

2674-02-70

Line	Item	Item Description	Unit	Total	Qty
0112	611.8110	Adjusting Manhole Covers	EACH	58.000	58.000
0116	619.1000	Mobilization	EACH	0.100	0.100
0118	620.0300	Concrete Median Sloped Nose	SF	122.000	122.000
0120	624.0100	Water	MGAL	114.000	114.000
0122	625.0100	Topsoil	SY	12,638.000	12,638.000
0124	627.0200	Mulching	SY	50.000	50.000
0126	628.1104	Erosion Bales	EACH	50.000	50.000
0128	628.1504	Silt Fence	LF	200.000	200.000
0130	628.1520	Silt Fence Maintenance	LF	200.000	200.000
0132	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0134	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0136	628.7005	Inlet Protection Type A	EACH	46.000	46.000
0138	628.7010	Inlet Protection Type B	EACH	53.000	53.000
0140	628.7015	Inlet Protection Type C	EACH	10.000	10.000
0142	628.7020	Inlet Protection Type D	EACH	62.000	62.000
0144	628.7560	Tracking Pads	EACH	4.000	4.000
0146	629.0210	Fertilizer Type B	CWT	8.000	8.000
0148	630.0200	Seeding Temporary	LB	2.000	2.000
0150	631.0300	Sod Water	MGAL	566.000	566.000
0152	631.1000	Sod Lawn	SY	12,638.000	12,638.000
0154	632.0101	Trees (species) (size) (root) 001. Concolor White Fir, 8' - 10' H, B&B	EACH	1.000	1.000
0156	632.0101	Trees (species) (size) (root) 002. Autumn Blaze Maple, 2.5" CAL, B&B	EACH	13.000	13.000
0158	632.0101	Trees (species) (size) (root) 003. Red Horsechestnut, 3" CAL, B&B	EACH	3.000	3.000
0160	632.0101	Trees (species) (size) (root) 004. Heritage River Birch, 8' - 10' H, B&B	EACH	3.000	3.000
0162	632.0101	Trees (species) (size) (root) 005. Turkish Filbert, 8' - 10' H, B&B	EACH	1.000	1.000
0164	632.0101	Trees (species) (size) (root) 006. Sunburst Honeylocust, 3.5" CAL, B&B	EACH	12.000	12.000
0166	632.0101	Trees (species) (size) (root) 007. Espresso Kentucky Coffeetree, 2.5" CAL, B&B	EACH	2.000	2.000
0168	632.0101	Trees (species) (size) (root) 008. Tuliptree, 3" CAL, B&B	EACH	1.000	1.000
0170	632.0101	Trees (species) (size) (root) 009. Dawn Redwood, 2.5" CAL, B&B	EACH	5.000	5.000
0172	632.0101	Trees (species) (size) (root) 010. Crimson Spire Upright English Oak, 3.5" CAL, B&B	EACH	4.000	4.000
0174	632.0101	Trees (species) (size) (root) 011. Accolade Elm, 3.5" CAL, B&B	EACH	7.000	7.000
0176	632.0101	Trees (species) (size) (root) 012. Autumn Brilliance Serviceberry, 8' - 10' H, B&B	EACH	6.000	6.000
0178	632.0101	Trees (species) (size) (root) 013. Ironwood, 2.5" CAL, B&B	EACH	3.000	3.000
0180	632.0101	Trees (species) (size) (root) 014. Eastern Redbud, 2.5" CAL, B&B	EACH	2.000	2.000
0182	632.0101	Trees (species) (size) (root) 015. Canada Red Chokecherry, 8' - 10' H, B&B	EACH	3.000	3.000
0184	632.0101	Trees (species) (size) (root) 016. Autumn Blaze Callery Pear, 3.5" CAL, B&B	EACH	23.000	23.000
0186	632.0101	Trees (species) (size) (root) 017. Ivory Silk Japanese Tree Lilac, 3" CAL, B&B	EACH	20.000	20.000
0188	632.9101	Landscape Planting Surveillance and Care Cycles	EACH	15.000	15.000
0190	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
0192	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	4.000	4.000
0196	637.2220	Signs Type II Reflective SH	SF	418.300	418.300
0198	637.2230	Signs Type II Reflective F	SF	33.200	33.200
0200	638.2102	Moving Signs Type II	EACH	4.000	4.000
0202	638.3000	Removing Small Sign Supports	EACH	9.000	9.000
0204	643.0300	Traffic Control Drums	DAY	54,178.000	54,178.000
0206	643.0410	Traffic Control Barricades Type II	DAY	2,832.000	2,832.000
0208	643.0420	Traffic Control Barricades Type III	DAY	26,393.000	26,393.000
0210	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	205.000	205.000
0212	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	205.000	205.000

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Line	Item	Item Description	Unit	Total	Qty
0214	643.0705	Traffic Control Warning Lights Type A	DAY	55,574.000	55,574.000
0216	643.0715	Traffic Control Warning Lights Type C	DAY	10,503.000	10,503.000
0218	643.0900	Traffic Control Signs	DAY	43,854.000	43,854.000
0220	643.0920	Traffic Control Covering Signs Type II	EACH	10.000	10.000
0222	643.1050	Traffic Control Signs PCMS	DAY	150.000	150.000
0224	643.3105	Temporary Marking Line Paint 4-Inch	LF	8,318.000	8,318.000
0226	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	12,579.000	12,579.000
0228	643.3205	Temporary Marking Line Paint 8-Inch	LF	1,269.000	1,269.000
0230	643.3250	Temporary Marking Line Removable Tape 8-Inch	LF	1,332.000	1,332.000
0232	643.3805	Temporary Marking Stop Line Paint 18-Inch	LF	140.000	140.000
0234	643.3850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	163.000	163.000
0238	643.5000	Traffic Control	EACH	0.100	0.100
0240	644.1410	Temporary Pedestrian Surface Asphalt	SF	2,000.000	2,000.000
0246	644.1601	Temporary Pedestrian Curb Ramp	DAY	300.000	300.000
0250	644.1810	Temporary Pedestrian Barricade	LF	8,000.000	8,000.000
0252	645.0120	Geotextile Type HR	SY	150.000	150.000
0254	646.1020	Marking Line Epoxy 4-Inch	LF	2,690.000	2,690.000
0256	646.3020	Marking Line Epoxy 8-Inch	LF	2,439.000	2,439.000
0258	646.5020	Marking Arrow Epoxy	EACH	59.000	59.000
0260	646.5120	Marking Word Epoxy	EACH	4.000	4.000
0262	646.5220	Marking Symbol Epoxy	EACH	28.000	28.000
0264	646.7020	Marking Diagonal Epoxy 6-Inch	LF	226.000	226.000
0266	646.8120	Marking Curb Epoxy	LF	679.000	679.000
0268	646.8220	Marking Island Nose Epoxy	EACH	2.000	2.000
0270	646.9000	Marking Removal Line 4-Inch	LF	875.000	875.000
0274	650.4000	Construction Staking Storm Sewer	EACH	66.000	66.000
0276	650.4500	Construction Staking Subgrade	LF	3,221.000	3,221.000
0280	650.7000	Construction Staking Concrete Pavement	LF	3,221.000	3,221.000
0284	650.8501	Construction Staking Electrical Installations (project) 002. 2674-02-70	EACH	1.000	1.000
0286	650.9000	Construction Staking Curb Ramps	EACH	148.000	148.000
0290	650.9500	Construction Staking Sidewalk (project) 002. 2674-02-70	EACH	1.000	1.000
0294	650.9911	Construction Staking Supplemental Control (project) 002. 2674-02-70	EACH	1.000	1.000
0296	650.9920	Construction Staking Slope Stakes	LF	3,221.000	3,221.000
0298	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	325.000	325.000
0300	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	6,217.000	6,217.000
0302	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	2,626.000	2,626.000
0304	652.0615	Conduit Special 3-Inch	LF	550.000	550.000
0306	653.0905	Removing Pull Boxes	EACH	9.000	9.000
0308	654.0101	Concrete Bases Type 1	EACH	27.000	27.000
0310	654.0102	Concrete Bases Type 2	EACH	2.000	2.000
0312	654.0105	Concrete Bases Type 5	EACH	33.000	33.000
0314	654.0110	Concrete Bases Type 10	EACH	7.000	7.000
0316	654.0120	Concrete Bases Type 10-Special	EACH	5.000	5.000
0318	655.0230	Cable Traffic Signal 5-14 AWG	LF	2,780.000	2,780.000
0320	655.0260	Cable Traffic Signal 12-14 AWG	LF	1,820.000	1,820.000
0324	655.0280	Cable Traffic Signal 19-14 AWG	LF	2,830.000	2,830.000
0326	655.0305	Cable Type UF 2-12 AWG Grounded	LF	2,515.000	2,515.000
0328	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	2,630.000	2,630.000
0330	655.0900	Traffic Signal EVP Detector Cable	LF	2,515.000	2,515.000

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Line	Item	Item Description	Unit	Total	Qty
0332	657.0100	Pedestal Bases	EACH	27.000	27.000
0334	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	35.000	35.000
0336	657.0350	Poles Type 10	EACH	7.000	7.000
0338	657.0352	Poles Type 10-Special	EACH	5.000	5.000
0340	657.0405	Traffic Signal Standards Aluminum 3.5-FT	EACH	2.000	2.000
0342	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	12.000	12.000
0344	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	2.000	2.000
0346	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	11.000	11.000
0348	657.0520	Monotube Arms 20-FT	EACH	4.000	4.000
0352	657.0530	Monotube Arms 30-FT	EACH	3.000	3.000
0354	657.0536	Monotube Arms 35-FT-Special	EACH	4.000	4.000
0356	657.0541	Monotube Arms 40-FT-Special	EACH	1.000	1.000
0358	658.0173	Traffic Signal Face 3S 12-Inch	EACH	56.000	56.000
0360	658.0412	Pedestrian Signal Face 12-Inch	EACH	24.000	24.000
0362	658.0500	Pedestrian Push Buttons	EACH	6.000	6.000
0366	658.5070	Signal Mounting Hardware (location) 001. 20th Street	EACH	1.000	1.000
0368	658.5070	Signal Mounting Hardware (location) 002. 17th Street	EACH	1.000	1.000
0370	658.5070	Signal Mounting Hardware (location) 003. 12th St.	EACH	1.000	1.000
0378	661.0201	Temporary Traffic Signals for Intersections (location) 001. 20th Street	EACH	1.000	1.000
0380	661.0201	Temporary Traffic Signals for Intersections (location) 002. 17th Street	EACH	1.000	1.000
0382	661.0201	Temporary Traffic Signals for Intersections (location) 003. Fond du Lac Ave	EACH	1.000	1.000
0384	661.0201	Temporary Traffic Signals for Intersections (location) 004. 12th St.	EACH	1.000	1.000
0394	690.0150	Sawing Asphalt	LF	261.000	261.000
0396	690.0250	Sawing Concrete	LF	1,485.000	1,485.000
0398	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	7,170.000	7,170.000
0400	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	3,000.000	3,000.000
0402	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	9,000.000	9,000.000
0404	SPV.0060	Special 001. Utility Line Opening	EACH	12.000	12.000
0406	SPV.0060	Special 002. Field Facilities Office Space	EACH	1.000	1.000
0408	SPV.0060	Special 003. Adjusting Water Valve Boxes	EACH	33.000	33.000
0410	SPV.0060	Special 101. Inlet Covers Type MS55	EACH	13.000	13.000
0412	SPV.0060	Special 102. Inlet Covers Type MS57	EACH	45.000	45.000
0414	SPV.0060	Special 103. Manhole Covers Type MS58-A	EACH	8.000	8.000
0416	SPV.0060	Special 104. Internal Sanitary Manhole Seals	EACH	58.000	58.000
0418	SPV.0060	Special 110. Catch Basin Type 44A	EACH	42.000	42.000
0420	SPV.0060	Special 111. Catch Basin Type 44B	EACH	16.000	16.000
0422	SPV.0060	Special 201. Install City Precast Controller Base	EACH	3.000	3.000
0424	SPV.0060	Special 205. ATC Controller and Cabinet Installed	EACH	3.000	3.000
0426	SPV.0060	Special 212. Fiber Optic Patch Panel	EACH	4.000	4.000
0428	SPV.0060	Special 213. Ethernet Switch	EACH	4.000	4.000
0430	SPV.0060	Special 215. Electrical Service Pedestal	EACH	2.000	2.000
0432	SPV.0060	Special 218. EVP 1 Direction Detector	EACH	12.000	12.000
0434	SPV.0060	Special 221. EVP Phase Selector Card 4 Channel	EACH	3.000	3.000
0436	SPV.0060	Special 223. EVP Confirmation Light	EACH	12.000	12.000
0438	SPV.0060	Special 225. Vehicular Video Detection System-2 Cameras	EACH	1.000	1.000
0440	SPV.0060	Special 228. Electrical Riser	EACH	2.000	2.000
0442	SPV.0060	Special 267. Pedestrian Countdown Signal Face 12-Inch	EACH	24.000	24.000
0444	SPV.0060	Special 268. Voice Instruction Audible Pushbutton	EACH	12.000	12.000
0446	SPV.0060	Special 269. Voice Instruction Audible Control Unit	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0448	SPV.0060	Special 280. Round Aluminum Sign Post System in Soft Surface 7-Foot	EACH	8.000	8.000
0450	SPV.0060	Special 281. Round Aluminum Sign Post System in Soft Surface 10-Foot	EACH	27.000	27.000
0452	SPV.0060	Special 283. Round Aluminum Sign Post System in Soft Surface 12-Foot	EACH	7.000	7.000
0454	SPV.0060	Special 285. Round Aluminum Sign Post System in Concrete Surface 10-Foot	EACH	2.000	2.000
0456	SPV.0060	Special 302. Pull Boxes 13-Inch X 24-Inch X 24-Inch	EACH	38.000	38.000
0458	SPV.0060	Special 303. Pull Boxes 17-Inch X 30-Inch X 24-Inch	EACH	33.000	33.000
0460	SPV.0060	Special 310. Remove Poles	EACH	119.000	119.000
0462	SPV.0060	Special 319. Poles Type 19-AL-BD	EACH	10.000	10.000
0464	SPV.0060	Special 320. Poles Type 25-AL-BD	EACH	25.000	25.000
0468	SPV.0060	Special 324. 40 FT. Wood Poles	EACH	56.000	56.000
0470	SPV.0060	Special 339. Secondary Riser	EACH	15.000	15.000
0472	SPV.0060	Special 345. Luminaire Arm Single Member 6-FT.	EACH	76.000	76.000
0474	SPV.0060	Special 346. Luminaire Arm Single Member 6-FT. WP Mount	EACH	56.000	56.000
0476	SPV.0060	Special 366. City Furnished Luminaire Utility High Pressure Sodium	EACH	56.000	56.000
0480	SPV.0060	Special 400. Adjusting CUC Manhole Cover	EACH	13.000	13.000
0482	SPV.0060	Special 401. 4’ Diameter Manhole Type CUC	EACH	2.000	2.000
0484	SPV.0060	Special 411. 4’ Diameter “Doghouse” Manhole Type CUC Installed over Conduit	EACH	1.000	1.000
0486	SPV.0060	Special 413. 5’ Diameter “Doghouse” Manhole Type CUC Installed over Conduit	EACH	3.000	3.000
0488	SPV.0060	Special 425. Installing Conduit Into Existing Manhole	EACH	5.000	5.000
0490	SPV.0060	Special 701. Marking Speed Table Chevron	EACH	14.000	14.000
0492	SPV.0060	Special 860. Luminaire Architectural LED 1	EACH	16.000	16.000
0494	SPV.0060	Special 861. Luminaire Architectural LED 2	EACH	60.000	60.000
0502	SPV.0090	Special 201. Install Fiber Optic Cable Outdoor Plant 72-CT Contractor Supplied	LF	5,050.000	5,050.000
0504	SPV.0090	Special 302. Electrical Cable Type 3#6 AL Triplex	LF	2,146.000	2,146.000
0506	SPV.0090	Special 304. Electrical Cable Type 2#2/1#4 AL Triplex	LF	3,509.000	3,509.000
0508	SPV.0090	Special 311. Electrical Cable Type 2#12 UF with Ground	LF	2,808.000	2,808.000
0510	SPV.0090	Special 314. Remove Aerial Cable	LF	6,521.000	6,521.000
0514	SPV.0090	Special 321. Electrical Cable Type 3#8/1#8 XLPE Type USE-2	LF	306.000	306.000
0518	SPV.0090	Special 323. Electrical Cable Type 3#4/1#8 XLPE Type USE-2	LF	1,090.000	1,090.000
0520	SPV.0090	Special 324. Electrical Cable Type 3#2/1#8 XLPE Type USE-2	LF	8,075.000	8,075.000
0524	SPV.0090	Special 402. 2-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	217.000	217.000
0526	SPV.0090	Special 404. 4-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	66.000	66.000
0528	SPV.0090	Special 406. 6-Duct Conduit, Cement Encased, 4-inch Rigid Nonmetallic Conduit DB-60	LF	2,355.000	2,355.000
0530	SPV.0090	Special 408. 8-Duct Conduit, Cement Encased, 4-inch Rigid Nonmetallic Conduit DB-60	LF	66.000	66.000
0532	SPV.0090	Special 702. Marking Line Epoxy 6-Inch	LF	1,969.000	1,969.000
0534	SPV.0090	Special 703. Marking Crosswalk Epoxy 12-Inch	LF	1,569.000	1,569.000
0536	SPV.0090	Special 704. Marking Stop Line Epoxy 24-Inch	LF	519.000	519.000
0538	SPV.0090	Special 705. Marking Line Epoxy Block Style 12-Inch	LF	2,838.000	2,838.000
0540	SPV.0165	Special 701. Marking Bike Lane, High Friction Green Surfacing	SF	1,024.000	1,024.000
0544	SPV.0195	Special 002. Excavation, Hauling, and Disposal of Lead Contaminated Soil	TON	813.000	813.000

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CLEARING AND GRUBBING

STREET	STATION	TO	STATION	OFFSET	201.0105 CLEARING STATION	201.0120 CLEARING I.D.	201.0205 GRUBBING STATION	201.0220 GRUBBING I.D.
W. WALNUT STREET	14+00	-	17+00		3	-	3	-
W. WALNUT STREET	17+89	-		RT	-	12	-	12
W. WALNUT STREET	18+82	-		LT	-	15	-	15
W. WALNUT STREET	19+00	-	20+00		1	-	1	-
W. WALNUT STREET	21+00	-	23+00		2	-	2	-
W. WALNUT STREET	23+13	-		LT	-	5	-	5
W. WALNUT STREET	23+29	-		LT	-	15	-	15
W. WALNUT STREET	25+00	-	27+00		2	-	2	-
W. WALNUT STREET	27+76	-		RT	-	12	-	12
W. WALNUT STREET	28+00	-	29+00		1	-	1	-
W. WALNUT STREET	29+80	-		LT	-	12	-	12
W. WALNUT STREET	29+97	-		LT	-	5	-	5
W. WALNUT STREET	30+00	-	37+00		7	-	7	-
W. WALNUT STREET	39+30	-		LT	-	15	-	15
W. WALNUT STREET	39+71	-		LT	-	7	-	7
W. WALNUT STREET	40+30	-		LT	-	9	-	9
W. WALNUT STREET	40+41	-		RT	-	14	-	14
W. WALNUT STREET	43+67	-		LT	-	6	-	6
W. WALNUT STREET	43+80	-		LT	-	5	-	5
W. WALNUT STREET	43+94	-		LT	-	7	-	7
W. WALNUT STREET	44+26	-		LT	-	6	-	6
W. WALNUT STREET	45+60	-		LT	-	4	-	4
PROJECT TOTAL					16	149	16	149

REMOVING ASPHALTIC SURFACE MILLING

STREET	FROM	TO	204.0120 SY
W. WALNUT STREET	13+50	22+00	0
W. WALNUT STREET	22+00	29+50	235
W. WALNUT STREET	29+50	38+50	34
W. WALNUT STREET	38+50	46+00	53
		PROJECT TOTAL	321

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REMOVING CURB & GUTTER

STREET	STATION	TO	STATION	204.0150 LF
W. WALNUT STREET	13+50		22+00	206
W. WALNUT STREET	22+00		29+50	120
W. WALNUT STREET	29+50		38+50	249
W. WALNUT STREET	38+50		46+00	50
			PROJECT TOTAL	625

REMOVING CONCRETE PAVEMENT

STREET	FROM	TO	204.0100 SY
W. WALNUT STREET	13+50	22+00	7,988
W. WALNUT STREET	22+00	29+50	8,575
W. WALNUT STREET	29+50	38+50	8,110
W. WALNUT STREET	38+50	46+00	9,835
		PROJECT TOTALS	34,507

REMOVING CONCRETE SIDEWALK

STREET	FROM STATION		TO STATION	204.0155 SY
W. WALNUT STREET	13+50	-	22+00	498
W. WALNUT STREET	22+00	-	29+50	467
W. WALNUT STREET	29+50	-	38+50	399
W. WALNUT STREET	38+50	-	46+00	972
			PROJECT TOTAL	2,335

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

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REMOVING CATCH BASINS

STREET	STATION	OFFSET	204.0215 EACH
W. WALNUT ST	14+47	62' LT	1
W. WALNUT ST	14+53	4' LT	1
W. WALNUT ST	14+46	34' RT	1
W. WALNUT ST	15+77	62' LT	1
W. WALNUT ST	15+84	16' LT	1
W. WALNUT ST	17+18	83' LT	1
W. WALNUT ST	17+46	82' LT	1
W. WALNUT ST	17+71	62' LT	1
W. WALNUT ST	18+20	14' LT	1
W. WALNUT ST	17+18	59' RT	1
W. WALNUT ST	17+46	57' RT	1
W. WALNUT ST	17+85	34' RT	1
W. WALNUT ST	18+99	62' LT	1
W. WALNUT ST	20+47	64' RT	1
W. WALNUT ST	21+17	62' LT	1
W. WALNUT ST	22+06	62' LT	1
W. WALNUT ST	21+42	14' LT	1
W. WALNUT ST	21+73	34' RT	1
W. WALNUT ST	22+58	22' LT	1
W. WALNUT ST	23+75	75' RT	1
W. WALNUT ST	25+42	62' LT	1
W. WALNUT ST	25+33	12' LT	1
W. WALNUT ST	25+49	34' RT	1
W. WALNUT ST	27+58	62' LT	1
W. WALNUT ST	27+78	10' LT	1
W. WALNUT ST	27+58	34' RT	1
W. WALNUT ST	30+60	62' LT	1
W. WALNUT ST	30+58	16' LT	1
W. WALNUT ST	30+58	34' RT	1
W. WALNUT ST	30+81	60' RT	1
W. WALNUT ST	31+09	59' RT	1
W. WALNUT ST	31+34	62' LT	1
W. WALNUT ST	32+54	17' LT	1
W. WALNUT ST	32+82	34' RT	1
W. WALNUT ST	34+00	62' LT	1
W. WALNUT ST	34+38	62' LT	1
W. WALNUT ST	34+35	34' RT	1
W. WALNUT ST	34+55	57' RT	1
W. WALNUT ST	34+83	57' RT	1
W. WALNUT ST	37+99	34' RT	1
W. WALNUT ST	40+31	5' LT	1
W. WALNUT ST	40+38	32' RT	1
W. WALNUT ST	42+14	55' RT	1
W. WALNUT ST	42+74	54' RT	1
W. WALNUT ST	44+40	13' LT	1
W. WALNUT ST	44+55	10' LT	1
W. WALNUT ST	45+50	51' LT	1
W. WALNUT ST	45+42	10' LT	1
W. WALNUT ST	45+44	27' RT	1
W. WALNUT ST	68+75	24' LT	1
W. WALNUT ST	68+70	24' RT	1
PROJECT TOTAL			51

REMOVING MANHOLES

STREET	STATION	OFFSET	REMOVING MANHOLES 204.0210 EACH
W. WALNUT ST	14+52	28' LT	1
W. WALNUT ST	15+82	28' LT	1
W. WALNUT ST	20+98	70' LT	1
W. WALNUT ST	22+57	29' LT	1
W. WALNUT ST	27+62	28' LT	1
W. WALNUT ST	29+07	9' LT	1
W. WALNUT ST	30+60	28' LT	1
W. WALNUT ST	32+69	28' LT	1
W. WALNUT ST	34+38	28' LT	1
W. WALNUT ST	38+07	35' RT	1
PROJECT TOTAL			10

REMOVING STORM SEWER

STREET	STATION	-	STATION	LOCATION	204.0245.001 8-INCH LF	204.0245.002 12-INCH LF
W. WALNUT STREET	13+00	-	22+00	LT & RT	332	184
W. WALNUT STREET	22+00	-	29+50	LT & RT	235	80
W. WALNUT STREET	29+50	-	38+50	LT & RT	276	164
W. WALNUT STREET	38+50	-	46+00	LT & RT	93	414
			PROJECT TOTAL		936	842

ABANDONING SEWER

STREET	STATION	TO	STATION	LOCATION	204.0291.S CY
W. WALNUT ST	13+00	-	22+00	LT & RT	3
W. WALNUT ST	22+00	-	29+50	LT & RT	0
W. WALNUT ST	29+50	-	38+50	LT & RT	1
W. WALNUT ST	38+50	-	46+00	LT & RT	0
				PROJECT TOTAL	4

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

WALNUT STREET	FROM/TO STATION	LOCATION	205.0100 EXCAVATION COMMON CY (1) CUT (2)	205.0100 EXCAVATION COMMON CY (1) EBS EXCAVATION (3)	SALVAGED/UN-USABLE PAVEMENT MATERIAL CY (4)	AVAILABLE MATERIAL CY (5)	UNEXPANDED FILL CY	EXPANDED FILL CY (6) FACTOR 1.20	305.0130 BASE AGGREGATE DENSE 3-INCH TON	MASS ORDINATE +/- CY (7)	WASTE CY (8)	COMMENT
	1450 to 45+50	WALNUT STREET	16,347	1,101	6,716	9,631	620	744	2,421	8,887	8,887	
	UNDISTRIBUTED	WALNUT STREET		490					1,079			ASSUMED 3% OF CUT
GRAND TOTAL			16,347	1,591	6,716	9,631	620	744	3,500	8,887		
TOTAL COMMON EXC			17,938									

12TH STREET	FROM/TO STATION	LOCATION	205.0100 EXCAVATION COMMON CY (1) CUT (2)	205.0100 EXCAVATION COMMON CY (1) EBS EXCAVATION (3)	SALVAGED/UN-USABLE PAVEMENT MATERIAL CY (4)	AVAILABLE MATERIAL CY (5)	UNEXPANDED FILL CY	EXPANDED FILL CY (6) FACTOR 1.20	305.0130 BASE AGGREGATE DENSE 3-INCH TON	MASS ORDINATE +/- CY (7)	WASTE CY	COMMENT
	5+70 to 14+75	12TH STREET	1,528	0	656	872	0	0	0	872	872	
	UNDISTRIBUTED	12TH STREET		76					168			ASSUMED 5% OF CUT
GRAND TOTAL			1,528	76	656	872	0	0	168	872		
TOTAL COMMON EXC			1,605									

PROJECT TOTAL	19,543		3,668	

NOTES:

(1) EXCAVATION COMMON IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(3) EBS EXCAVATION TO BE BACKFILLED WITH BASE AGGREGATE DENSE 3-INCH.

(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL

5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL

(6) EXPANDED FILL FACTOR = 1.25

(7) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

(8) TOTAL WASTE = WASTE + SALVAGED UNUSABLE PAVEMENT MATERIAL

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

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EXCAVATION, HAULING, AND DISPOSAL OF PETROLIUM CONTAMINATED SOIL

STREET	STATION	TO	STATION	OFFSET	205.0501.S TON
W. WALNUT STREET	39+50	-	40+80	LT	121
W. WALNUT STREET	43+40	-	44+50	LT	17
PROJECT TOTAL					138

FINISHING ROADWAY (2674-02-70)

LOCATION	213.0100 EACH
W. WLANUT STREET	1
PROJECT TOTAL	1

BASE AGGREGATE DENSE 1 1/4-INCH

STREET	STATION	TO	STATION	305.0120 TON
TEMPORARY PAVEMENT	-	-	-	292
W. WALNUT STREET	13+00	-	22+00	2,590
W. WALNUT STREET	22+00	-	29+50	2,754
W. WALNUT STREET	29+50	-	38+50	2,692
W. WALNUT STREET	38+50	-	46+00	3,360
			PROJECT TOTAL	11,688

CONCRETE BASE 8-INCH

STREET	STATION	TO	STATION	320.0145 SY
W. WALNUT STREET	13+50	-	22+00	277
W. WALNUT STREET	22+00	-	29+50	0
W. WALNUT STREET	29+50	-	38+50	0
W. WALNUT STREET	38+50	-	46+00	0
PROJECT TOTAL				277

CONCRETE PAVEMENT

STREET	STATION	TO	STATION	415.0080 CONCRETE PAVEMENT 8-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	415.4100 CONCRETE PAVEMENT JOINT FILLING SY
W. WALNUT STREET	13+00	-	22+00	4,811	0	4,811
W. WALNUT STREET	22+00	-	29+50	5,836	0	5,836
W. WALNUT STREET	29+50	-	38+50	5,464	0	5,464
W. WALNUT STREET	38+50	-	46+00	7,781	314	7,781
			PROJECT TOTAL	23,891	314	23,891

3

CONCRETE DRIVEWAY 7-INCH

STREET	STATION	TO	STATION	416.0170 CONCRETE DRIVEWAY 7-INCH SY	416.0270 CONCRETE DRIVEWAY HES 7-INCH SY
W. WALNUT STREET	13+50	-	22+00	71	0
W. WALNUT STREET	22+00	-	29+50	155	0
W. WALNUT STREET	29+50	-	38+50	218	0
W. WALNUT STREET	38+50	-	46+00	0	342
			PROJECT TOTAL	443	342

DRILLED TIE BARS

STREET	STATION	TO	STATION	416.0610 EACH
W. WALNUT STREET	13+50	-	22+00	75
W. WALNUT STREET	22+00	-	29+50	76
W. WALNUT STREET	29+50	-	37+00	7
W. WALNUT STREET	37+00	-	46+00	197
PROJECT TOTAL				355

DRILLED DOWEL BARS

STREET	STATION	TO	STATION	416.0620 EACH
W. WALNUT STREET	13+50	-	22+00	305
W. WALNUT STREET	22+00	-	29+50	341
W. WALNUT STREET	29+50	-	37+00	66
W. WALNUT STREET	37+00	-	46+00	269
PROJECT TOTAL				981

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

3

ASPHALT

STREET	STATION	TO	STATION	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	455.0605 TACK COAT GAL	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
PRESTAGE	35+00	-	40+10	-	-	-	-	89	167
STAGE 1	24+00	-	25+00	-	-	-	-	33	-
STAGE 1	39+50	-	40+25	-	-	-	-	9	-
W. WALNUT STREET	13+00	-	22+00	33	14	196	-	-	-
W. WALNUT STREET	22+00	-	29+50	30	12	180	-	-	-
W. WALNUT STREET	29+50	-	38+50	4	2	208	-	-	-
W. WALNUT STREET	38+50	-	46+00	6	3	138	10	-	-
UNDISTRIBUTED				-	-	-	-	20	-
PROJECT TOTAL				73	31	722	10	151	167

STORM SEWER SUMMARY

ITEM NUMBER	ITEM	PROJECT TOTAL	UNIT
520.8000	Concrete Collars for Pipe	4	EACH
608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	1872	LF
608.0421	Storm Sewer Pipe Reinforced Concrete Class IV 21-Inch	8	LF
608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	8	LF
608.0430	Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	8	LF
611.2004	Manholes 4-FT Diameter	6	EACH
611.2005	Manholes 5-FT Diameter	2	EACH
SPV.0060.101	Inlet Covers Type MS 55	13	EACH
SPV.0060.102	Inlet Covers Type MS 57	45	EACH
SPV.0060.103	Manhole Covers Type MS 58-A	8	EACH
SPV.0060.110	Catch Basin Type 44A	42	EACH
SPV.0060.111	Catch Basin Type 44B	16	EACH

(REFER TO STORM SEWER PLAN DRAINAGE TABLE FOR ADDITIONAL INFORMATION)

CONCRETE CURB & GUTTER

STREET	STATION	TO	STATION	601.0319 CONCRETE CURB AND GUTTER 19-INCH LF	601.0331 CONCRETE CURB AND GUTTER 31-INCH LF
W. WALNUT STREET	13+00	-	22+00	2496	849
W. WALNUT STREET	22+00	-	29+50	2704	389
W. WALNUT STREET	29+50	-	38+50	2863	319
W. WALNUT STREET	38+50	-	46+00	3045	124
PROJECT TOTAL				11108	1681

3

CONCRETE SIDEWALK 5-INCH

STREET	STATION	TO	STATION	602.0410 SF
W. WALNUT STREET	13+50	-	22+00	4,382
W. WALNUT STREET	22+00	-	29+50	3,943
W. WALNUT STREET	29+50	-	38+50	4,312
W. WALNUT STREET	38+50	-	46+00	5,014
PROJECT TOTAL				17,651

CURB RAMP DETECTABLE WARNING FIELD

STREET	STATION	TO	STATION	NATURAL PATINA 602.0515 SF	RADIAL NATURAL PATINA 602.0615 SF
W. WALNUT STREET	13+00	-	22+00	360	172
W. WALNUT STREET	22+00	-	29+50	340	73
W. WALNUT STREET	29+50	-	38+50	292	88
W. WALNUT STREET	38+50	-	46+00	120	64
PROJECT TOTAL				1,112	397

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

3

ADJUSTING CATCH BASIN COVERS

611.8105

STREET	STATION	OFFSET	EACH
W. WALNUT ST	13+85	84' LT	1
W. WALNUT ST	36+56	62' LT	1
W. WALNUT ST	36+58	52' RT	1
PROJECT TOTAL			3

CONCRETE MEDIAN SLOPED NOSE

620.0300

STREET	STATION		SF
W. WALNUT STREET	20+23	RT	70
W. WALNUT STREET	20+28	LT	52
PROJECT TOTAL			122

3

ADJUSTING MANHOLE COVERS

STREET	STATION	OFFSET	611.8110 EACH	SPV.0060.104 INTERNAL SANITARY MANHOLE SEALS EACH
W. WALNUT ST	14+46	48' LT	1	1
W. WALNUT ST	16+07	50' LT	1	1
W. WALNUT ST	16+90	49' LT	1	1
W. WALNUT ST	17+73	49' LT	1	1
W. WALNUT ST	17+31	8' LT	1	1
W. WALNUT ST	19+00	48' LT	1	1
W. WALNUT ST	20+18	49' LT	1	1
W. WALNUT ST	20+62	8' LT	1	1
W. WALNUT ST	21+03	49' LT	1	1
W. WALNUT ST	21+87	50' LT	1	1
W. WALNUT ST	22+66	50' LT	1	1
W. WALNUT ST	23+32	49' LT	1	1
W. WALNUT ST	23+93	91' LT	1	1
W. WALNUT ST	24+33	49' LT	1	1
W. WALNUT ST	23+91	7' LT	1	1
W. WALNUT ST	23+81	80' RT	1	1
W. WALNUT ST	25+14	49' LT	1	1
W. WALNUT ST	25+31	44' LT	1	1
W. WALNUT ST	26+74	49' LT	1	1
W. WALNUT ST	27+18	90' LT	1	1
W. WALNUT ST	27+61	48' LT	1	1
W. WALNUT ST	27+56	37' LT	1	1
W. WALNUT ST	26+91	38' LT	1	1
W. WALNUT ST	27+20	5' LT	1	1
W. WALNUT ST	27+09	7' RT	1	1
W. WALNUT ST	28+59	49' LT	1	1
W. WALNUT ST	28+96	38' LT	1	1
W. WALNUT ST	29+57	49' LT	1	1
W. WALNUT ST	30+55	49' LT	1	1
W. WALNUT ST	30+61	37' LT	1	1

ADJUSTING MANHOLE COVERS

STREET	STATION	OFFSET	611.8110 EACH	SPV.0060.104 INTERNAL SANITARY MANHOLE SEALS EACH
W. WALNUT ST	31+25	50' LT	1	1
W. WALNUT ST	30+94	8' LT	1	1
W. WALNUT ST	32+84	49' LT	1	1
W. WALNUT ST	34+27	49' LT	1	1
W. WALNUT ST	34+90	47' LT	1	1
W. WALNUT ST	35+14	49' LT	1	1
W. WALNUT ST	35+25	36' LT	1	1
W. WALNUT ST	34+71	7' LT	1	1
W. WALNUT ST	34+58	66' RT	1	1
W. WALNUT ST	35+56	36' LT	1	1
W. WALNUT ST	36+59	46' LT	1	1
W. WALNUT ST	38+84	43' LT	1	1
W. WALNUT ST	39+85	42' LT	1	1
W. WALNUT ST	40+56	46' LT	1	1
W. WALNUT ST	40+71	41' LT	1	1
W. WALNUT ST	40+77	12' RT	1	1
W. WALNUT ST	42+51	94' LT	1	1
W. WALNUT ST	42+53	47' LT	1	1
W. WALNUT ST	42+93	37' LT	1	1
W. WALNUT ST	42+58	39' LT	1	1
W. WALNUT ST	42+50	7' RT	1	1
W. WALNUT ST	42+49	53' RT	1	1
W. WALNUT ST	44+82	39' LT	1	1
W. WALNUT ST	45+00	37' LT	1	1
N. 12TH ST	68+65	2' LT	1	1
N. 12TH ST	68+55	3' RT	1	1
N. 12TH ST	63+89	0' RT	1	1
N. 12TH ST	64+91	1' RT	1	1
PROJECT TOTAL			58	58

WATER

STREET	LOCATION	TO	STATTION	624.0100 MGAL
W. WALNUT STREET	13+00	-	22+00	26
W. WALNUT STREET	22+00	-	29+50	28
W. WALNUT STREET	29+50	-	38+50	27
W. WALNUT STREET	38+50	-	46+00	34
			PROJECT TOTAL	114

TOPSOIL

STREET	STATION	TO	STATION	625.0100 SY
W. WALNUT STREET	13+00	-	22+00	3927
W. WALNUT STREET	22+00	-	29+50	3288
W. WALNUT STREET	29+50	-	38+50	3690
W. WALNUT STREET	38+50	-	46+00	1733
			PROJECT TOTAL	12,638

TEMPORARY SEEDING AND MULCH

STREET	627.0200 MULCHING SY	630.0200 SEEDING TEMPORARY LB
UNDISTRIBUTED	50	2
	50	2

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

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SILT FENCE

STREET	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
UNDISTRIBUTED	200	200
PROJECT TOTAL	200	200

TRACKING PADS

STREET	LOCATION	628.7560 EACH
W. WALNUT STREET	UNDISTRIBUTED	4
	PROJECT TOTAL	4

TEMPORARY SETTLING BASINS

STREET	628.1104 EROSION BALES EACH	645.0120 GEOTEXTILE TYPE HR SY
UNDISTRIBUTED	50	150
PROJECT TOTAL	50	150

EROSION CONTROL MOBILIZATIONS

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
UNDISTRIBUTED	2	4
PROJECT TOTAL	2	4

INLET PROTECTION

STREET	STATION	TO	STATION	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
W. WALNUT STREET	13+00	-	22+00	16	11	3	26
W. WALNUT STREET	22+00	-	29+50	8	14	1	14
W. WALNUT STREET	29+50	-	38+50	13	17	1	14
W. WALNUT STREET	38+50	-	46+00	9	11	5	8
			PROJECT TOTAL	46	53	10	62

SOD QUANTITIES

STREET	STATION	TO	STATTION	629.0210 FERTILIZER TYPE B CWT	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
W. WALNUT STREET	13+00	-	22+00	2.5	176	3927
W. WALNUT STREET	22+00	-	29+50	2.1	147	3288
W. WALNUT STREET	29+50	-	38+50	2.3	165	3690
W. WALNUT STREET	38+50	-	46+00	1.1	78	1733
			PROJECT TOTAL	8.0	566	12,638

LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES

LOCATION	632.9101 EACH
PROJECT ID 2674-02-70	15
PROJECT TOTAL:	15

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

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TREE QUANTITIES

BID NUMBER	SYMBOL	DESCRIPTION	COMMON NAME	SIZE WHEN PLANTED	ROOT CONDITION	UNIT	TOTALS
		EVERGREEN TREES					
632.0101.001	ABC	ABIES CONCOLOR	CONCOLOR WHITE FIR	8'-10'H	B&B	EA	1
		LARGE DECIDUOUS TREES					
632.0101.002	AFJ	ACER FREEMANI	AUTUMN BLAZE MAPLE	2.5" CAL	B&B	EA	13
632.0101.003	AXC	AESCULUIS X CARNEA	RED HORSECHESTNUT	3" CAL	B&B	EA	3
632.0101.004	BAL	BETULA NIGRA	HERITAGE RIVER BIRCH	8'-10'H	B&B	EA	3
632.0101.005	CCL	CORYLUS COLURNA	TURKISH FILBERT	8'-10'H	B&B	EA	1
632.0101.006	GTT	GLEDITSIA TRIACANTHOS 'INERMIS'	SUNBURST HONEYLOCUST	3.5" CAL	B&B	EA	12
632.0101.007	GDE	GYMNOCLADUS DIOICUS	KENTUCKY COFFEETREE	2.5" CAL	B&B	EA	2
632.0101.008	LTE	LIRIODENDRON TULIPIFERA	TULIPTREE	3" CAL	B&B	EA	1
632.0101.009	MGL	METASEQUOIA GLYPTOSTROBOIDES	DAWN REDWOOD	2.5" CAL	B&B	EA	5
632.0101.010	QCS	QUERCUS ROBUR "CRIMSON SPIRE"	UPRIGHT ENGLISH OAK	3.5" CAL	B&B	EA	4
632.0101.011	ULA	ULMUS CARPINIFOLIA "ACCOLADE"	ACCOLADE ELM	3.5" CAL	B&B	EA	7
		ORNAMENTAL TREES					
632.0101.012	AGA	AMELANCHIER	AUTUMN BRILLIANCE SERVICEBERRY	8'-10'H	B&B	EA	6
632.0101.013	CPC	CARPINUS CAROLINIANA	IRONWOOD	2.5" CAL	B&B	EA	3
632.0101.014	CCC	CERCIS CANADENSIS	EASTERN REDBUD	2.5" CAL	B&B	EA	2
632.0101.015	PVC	PRUNUS VIRGINIANA "CANADA RED"	CANADA RED CHOKECHERRY	8'-10'H	B&B	EA	3
632.0101.016	PCS	PYRUS CALLERYANA "AUTUMN BLAZE"	CALLERY PEAR	3.5" CAL	B&B	EA	23
632.0101.017	SRI	SYRINGA RETICULATA "IVORY SILK"	JAPANESE TREE LILAC	3" CAL	B&B	EA	20

B&B: BALLED AND BURLAPED

TYPE II SIGNS

SIGN NO.	LOCATION	STATION		SIGN CODE	SIZE		634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0814 POSTS TUBULAR STEEL 2X2-INCH X 14-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
8-1	W. WALNUT STREET	34+25	RT	J2-3(2)	60	X 60	-	2	1	2
8-2	W. WALNUT STREET	37+00	RT	J3-3(2)	60	X 60	2	-	1	2
8-3	W. WALNUT STREET	38+02	RT	D1-60	60	X 60	-	2	1	3
8-4	W. WALNUT STREET	44+26	LT	J2-3(2)	60	X 60	2	-	1	2
					TOTAL		4	4	4	9

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

SIGN INSTALLATION

SIGN NO.	SIGN CODE	MESSAGE	SIZE INCHES	X	SIZE INCHES	SPV . 0060. 280 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 7-FOOT EACH	SPV . 0060. 281 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 10-FOOT EACH	SPV . 0060. 283 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 12-FOOT EACH	SPV . 0060. 285 ROUND ALUMINUM SIGN POST SYSTEM IN CONCRETE SURFACE 10-FOOT EACH	637. 2220 SIGNS TYPE II REFLECTIVE SH SF	637. 2230 SIGNS TYPE II REFLECTIVE F SF	REMARKS
1-1	R10-4BL	PUSH BUTTON FOR (PED SYMBOL) ←	6	X	8	-	-	-	-	0. 3	-	ATTACH TO SIGNAL POLE
1-2	M1-94H	W WALNUT ST	72	X	18	-	-	-	-	9. 0	-	ATTACH TO MAST ARM
1-3	R10-4BR	PUSH BUTTON FOR (PED SYMBOL) →	6	X	8	-	-	-	-	0. 3	-	ATTACH TO SIGNAL POLE
1-4	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5. 0	-	ATTACH TO MAST ARM POLE
1-5	M1-94H	N 20TH ST	48	X	18	-	-	-	-	6. 0	-	ATTACH TO MAST ARM
1-6	R7-1L	(NO PARKING SYMBOL) ←	12	X	18	-	1	-	-	1. 5	-	
1-7	M1-94H	N 19TH ST	30	X	10	-	-	-	-	2. 1	-	ATTACH TO LIGHT POLE
1-8	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5. 0	-	ON POLE WITH 1-7
1-9	M1-94H	W WALNUT ST	36	X	10	-	-	-	-	2. 5	-	ON POLE WITH 1-7
1-10	R1-1	STOP	30	X	30	-	1	-	-	6. 3	-	
1-11	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	1	-	-	-	3. 0	-	
1-12	M1-94H	N 19TH ST	30	X	10	-	-	-	-	2. 1	-	ATTACH TO LIGHT POLE
1-13	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5. 0	-	ON POLE WITH 1-12
1-14	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	1	-	-	-	3. 0	-	
1-15	R1-1	STOP	30	X	30	-	1	-	-	6. 3	-	
1-16	R3-7R	RIGHT LANE MUST TURN RIGHT	30	X	30	-	-	1	-	6. 3	-	
1-17	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	-	-	-	1. 5	-	ON POST WITH 1-16
1-18	R2-1	SPEED LIMIT 30	24	X	30	-	1	-	-	5. 0	-	
1-19	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	-	-	-	-	3. 0	-	ON POST WITH 1-18
1-20	R3-7R	RIGHT LANE MUST TURN RIGHT	30	X	30	-	-	1	-	6. 3	-	
1-21	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	-	-	-	1. 5	-	ON POST WITH 1-20
1-22	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	-	-	-	-	3. 0	-	ON POST WITH 1-20
1-23	R10-4BL	PUSH BUTTON FOR (PED SYMBOL) ←	6	X	8	-	-	-	-	0. 3	-	ATTACH TO SIGNAL POLE
1-24	M1-94H	W WALNUT ST	72	X	18	-	-	-	-	9. 0	-	ATTACH TO MAST ARM
1-25	R10-4BR	PUSH BUTTON FOR (PED SYMBOL) →	6	X	8	-	-	-	-	0. 3	-	ATTACH TO SIGNAL POLE
1-26	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5. 0	-	ATTACH TO MAST ARM POLE
1-27	M1-94H	N 20TH ST	48	X	18	-	-	-	-	6. 0	-	ATTACH TO MAST ARM
1-28	R7-7L	(NO PARKING SYMBOL) BUS STOP ←	12	X	18	-	-	-	-	1. 5	-	ATTACH TO LIGHT POLE
2-1	M1-94H	N 18TH ST	30	X	10	-	-	-	-	2. 1	-	ATTACH TO LIGHT POLE
2-2	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5. 0	-	ON POLE WITH 2-1
2-3	M1-94H	W WALNUT ST	36	X	10	-	-	-	-	2. 5	-	ON POLE WITH 2-1
2-4	R1-1	STOP	30	X	30	-	1	-	-	6. 3	-	
2-5	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	1	-	-	-	3. 0	-	
2-6	R7-1R	(NO PARKING SYMBOL) →	12	X	18	-	1	-	-	1. 5	-	
2-7	R2-1	SPEED LIMIT 30	24	X	30	-	1	-	-	5. 0	-	
2-8	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	-	-	-	-	3. 0	-	ON POST WITH 2-7
2-9	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5. 0	-	ATTACH TO MAST ARM POLE
2-10	M1-94H	N 17TH ST	48	X	18	-	-	-	-	6. 0	-	ATTACH TO MAST ARM
2-11	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	1	-	-	1. 5	-	
2-12	R7-1L	(NO PARKING SYMBOL) ←	12	X	18	-	1	-	-	1. 5	-	
2-13	M1-94H	N 18TH ST	30	X	10	-	-	-	-	2. 1	-	ATTACH TO LIGHT POLE
2-14	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5. 0	-	ON POLE WITH 2-15
2-15	R1-1	STOP	30	X	30	-	1	-	-	6. 3	-	
2-16	R7-1L	(NO PARKING SYMBOL) ←	12	X	18	-	1	-	-	1. 5	-	
2-17	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	-	-	-	-	3. 0	-	ON POST WITH 2-17

SIGN INSTALLATION

SIGN NO.	SIGN CODE	MESSAGE	SIZE INCHES	X	SIZE INCHES	SPV . 0060. 280 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 7-FOOT EACH	SPV . 0060. 281 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 10-FOOT EACH	SPV . 0060. 283 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 12-FOOT EACH	SPV . 0060. 285 ROUND ALUMINUM SIGN POST SYSTEM IN CONCRETE SURFACE 10-FOOT EACH	637. 2220 SIGNS TYPE II REFLECTIVE SH SF	637. 2230 SIGNS TYPE II REFLECTIVE F SF	REMARKS
3-1	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5. 0	-	ATTACH TO MAST ARM POLE
3-2	M1-94H	W WALNUT ST	72	X	18	-	-	-	-	9. 0	-	ATTACH TO MAST ARM
3-3	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5. 0	-	ATTACH TO MAST ARM POLE
3-4	M1-94H	N 17TH ST	48	X	18	-	-	-	-	6. 0	-	ATTACH TO MAST ARM
3-5	R7-1D	(NO PARKING SYMBOL) ↔	48	X	18	-	1	-	-	6. 0	-	
3-6	M1-94H	N 16TH ST	30	X	10	-	-	-	-	2. 1	-	ATTACH TO LIGHT POLE
3-7	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5. 0	-	ON POLE WITH 3-6
3-8	M1-94H	W WALNUT ST	36	X	10	-	-	-	-	2. 5	-	ON POLE WITH 3-6
3-9	S1-1	SCHOOL ZONE	30	X	30	-	-	1	-	-	6. 3	
3-10	S16-9P	AHEAD	24	X	12	-	-	-	-	-	2. 0	ON POLE WITH 3-10
3-11	R1-1	STOP	30	X	30	-	1	-	-	6. 3	-	
3-12	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	1	-	-	-	3. 0	-	
3-13	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	1	-	-	-	3. 0	-	
3-14	M1-94H	N 16TH ST	30	X	10	-	-	-	-	2. 1	-	ATTACH TO LIGHT POLE
3-15	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5. 0	-	ON POLE WITH 3-14
3-16	R1-1	STOP	30	X	30	-	1	-	-	6. 3	-	
3-17	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	1	-	-	-	3. 0	-	
3-18	R2-1	SPEED LIMIT 30	24	X	30	-	1	-	-	5. 0	-	
3-19	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	-	-	-	-	3. 0	-	ON POST WITH 3-18
3-20	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5. 0	-	ATTACH TO MAST ARM POLE
3-21	M1-94H	W WALNUT ST	72	X	18	-	-	-	-	9. 0	-	ATTACH TO MAST ARM
4-1	R7-1R	(NO PARKING SYMBOL) →	12	X	18	-	1	-	-	1. 5	-	
4-2	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	-	-	-	-	3. 0	-	ON POST WITH 4-1
4-3	M1-94H	N 15TH ST	30	X	10	-	-	-	-	2. 1	-	ATTACH TO LIGHT POLE
4-4	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5. 0	-	ON POLE WITH 4-3
4-5	M1-94H	W WALNUT ST	36	X	10	-	-	-	-	2. 5	-	ON POLE WITH 4-3
4-6	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	1	-	-	-	3. 0	-	
4-7	W4-2R	(RIGHT LANE ENDS SYMBOL)	30	X	30	-	-	1	-	6. 3	-	
4-8	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	-	-	-	1. 5	-	ON POST WITH 4-7
4-9	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	-	-	-	-	3. 0	-	ON POST WITH 4-7
4-10	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5. 0	-	ATTACH TO LIGHT POLE
4-11	R2-1	SPEED LIMIT 30	24	X	30	-	-	1	-	5. 0	-	
4-12	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	-	-	-	1. 5	-	ON POST WITH 4-11
4-13	M1-94H	N 14TH ST	30	X	10	-	-	-	-	2. 1	-	ATTACH TO LIGHT POLE
4-14	M1-94H	W WALNUT ST	36	X	10	-	-	-	-	2. 5	-	ON POLE WITH 4-13
4-15	R1-1	STOP	30	X	30	-	1	-	-	6. 3	-	
4-16	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	1	-	-	1. 5	-	
4-17	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	1	-	-	1. 5	-	
4-18	R1-1	STOP	30	X	30	-	1	-	-	6. 3	-	
4-19	S1-1	SCHOOL ZONE	30	X	30	-	-	-	-	-	6. 3	ATTACH TO LIGHT POLE
4-20	S16-9P	AHEAD	24	X	12	-	-	-	-	-	2. 0	ON POLE WITH 4-19

SIGN INSTALLATION

SIGN NO.	SIGN CODE	MESSAGE	SIZE INCHES	X	INCHES	SPV .0060.280 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 7-FOOT EACH	SPV .0060.281 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 10-FOOT EACH	SPV .0060.283 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 12-FOOT EACH	SPV .0060.285 ROUND ALUMINUM SIGN POST SYSTEM IN CONCRETE SURFACE 10-FOOT EACH	637.2220 SIGNS TYPE II REFLECTIVE SH SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	REMARKS
5-1	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	1	-	-	1.5	-	
5-2	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	-	-	-	-	3.0	-	ON POST WITH 5-1
5-3	R2-1	SPEED LIMIT 30	24	X	30	-	1	-	-	5.0	-	
5-4	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	-	-	-	-	3.0	-	ON POST WITH 5-3
5-5	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	1	-	-	1.5	-	
5-6	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	1	-	-	1.5	-	
6-1	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	1	-	-	-	3.0	-	
6-2	M1-94H	N 12TH ST	48	X	18	-	-	-	-	6.0	-	ATTACH TO MAST ARM
6-3	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5.0	-	ATTACH TO MAST ARM POLE
6-4	M1-94H	W WALNUT ST	72	X	18	-	-	-	-	9.0	-	ATTACH TO MAST ARM
6-5	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	1	-	-	1.5	-	
6-6	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	1	-	-	1.5	-	
6-7	R2-1	SPEED LIMIT 30	24	X	30	-	-	1	-	5.0	-	
6-8	S5-2	END SCHOOL ZONE	24	X	30	-	-	-	-	5.0	-	ON POST WITH 6-7
6-9	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	-	-	-	-	3.0	-	ON POST WITH 6-7
6-10	R2-1	SPEED LIMIT 30	24	X	30	-	-	-	-	5.0	-	ATTACH TO LIGHT POLE
6-11	S5-2	END SCHOOL ZONE	24	X	30	-	-	-	-	5.0	-	ON POLE WITH 6-10
6-12	S1-1	SCHOOL ZONE	30	X	30	-	-	-	-	-	6.3	ON POLE WITH 6-10
6-13	S16-9P	AHEAD	24	X	12	-	-	-	-	-	2.0	ON POLE WITH 6-10
6-14	S1-1	SCHOOL ZONE	30	X	30	-	-	1	-	-	6.3	
6-15	S16-9P	AHEAD	24	X	12	-	-	-	-	-	2.0	ON POST WITH 6-12
6-16	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	1	-	-	1.5	-	
6-17	W5-52R	OBJECT MARKER - RIGHT MOUNT	12	X	36	-	-	-	-	3.0	-	ON POST WITH 6-16
6-18	M1-94H	N 12TH ST	48	X	18	-	-	-	-	6.0	-	ATTACH TO MAST ARM
6-19	R4-7	(KEEP RIGHT SYMBOL)	24	X	30	-	-	-	-	5.0	-	ATTACH TO MAST ARM POLE
6-20	M1-94H	W WALNUT ST	72	X	18	-	-	-	-	9.0	-	ATTACH TO MAST ARM
7-1	R7-1D	(NO PARKING SYMBOL) ↔	12	X	18	-	-	-	-	1.5	-	ATTACH TO LIGHT POLE
7-2	R7-1L	(NO PARKING SYMBOL) ←	12	X	18	-	-	-	1	1.5	-	
7-3	R7-1R	(NO PARKING SYMBOL) →	12	X	18	-	-	-	-	1.5	-	ATTACH TO LIGHT POLE
7-4	R4-4	BEGIN RT. TURN LANE ↙ YIELD TO BIKES	36	X	30	-	-	-	1	7.5	-	
		PROJECT TOTALS				8	27	7	2	418.3	33.2	

TRAFFIC CONTROL

LOCATION	DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0410 TRAFFIC CONTROL BARRICADES TYPE II EACH	643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAYS	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II NO.	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II CYCLES	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY
PRESTAGE	11	82	902			6	66			8	88	17	187	38	418				28
STAGE 1	99	268	26,532	16	1,584	149	14,751	157	157	314	31,086	52	5,148	212	20,988	5	1	5	61
STAGE 2	104	253	26,312	12	1,248	111	11,544	48	48	234	24,336	49	5,096	214	22,256	5	1	5	61
STAGE 3	8	54	432			4	32			8	64	9	72	24	192				
PROJECT TOTALS			54,178		2,832		26,393	205	205		55,574		10,503		43,854			10	150

TRAFFIC CONTROL

LOCATION	643.3105 TEMPORARY MARKING LINE PAINT 4-INCH (WHITE) LF	643.3105 TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW) LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) LF	643.3205 TEMPORARY MARKING LINE PAINT 8-INCH LF	643.3250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH LF	643.3805 TEMPORARY MARKING STOP LINE PAINT 18-INCH LF	643.3850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH LF	646.9000 MARKING REMOVAL LINE 4-INCH LF
PRESTAGE		181	136						
STAGE 1	2,345	5,792	2,469	3,045	1,124	276	140	12	760
STAGE 2			2,318	4,509		1,056		151	115
STAGE 3				102	145				
PROJECT TOTALS	2,345	5,973	4,923	7,656	1,269	1,332	140	163	875
	8,318		12,579						

TRAFFIC CONTROL

LOCATION	643.5000 EACH
W. WALNUT STREET	0.1
PROJECT TOTAL	0.1

TEMPORARY PEDESTRIAN ACCOMMODATIONS

STREET	644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT SF	644.1601 TEMPORARY PEDESTRIAN CURB RAMP DAY	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF
WALNUT - STAGE 1	1000	100	4000
WALNUT - STAGE 2	1000	-	4000
UNDISTRIBUTED	-	200	-
PROJECT TOTAL	2000	300	8000

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

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PAVEMENT MARKING

STREET	FROM	TO	646.1020 MARKING LINE EPOXY 4-INCH SOLID WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH SKIP-DASH (30'SKIP,10' LINE) WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH SKIP-DASH (6' SKIP, 2'LINE) WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH SOLID WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH SKIP-DASH (6' SKIP, 2'LINE) WHITE LF	646.5020 MARKING ARROW EPOXY WHITE EACH	646.5120 MARKING WORD EPOXY WHITE EACH	646.5220 MARKING SYMBOL EPOXY WHITE EACH	646.7020 MARKING DIAGONAL EPOXY 6-INCH YELLOW LF	646.8120 MARKING CURB EPOXY YELLOW LF	646.8220 MARKING ISLAND NOSE EPOXY YELLOW EACH
W. WALNUT STREET	13+00 -	22+00	49	0	55	61	167	18	11	0	8	52	181	0
W. WALNUT STREET	22+00	29+50	0	0	94	116	754	0	19	1	8	39	144	2
W. WALNUT STREET	29+50	38+50	41	0	195	74	553	23	13	1	8	63	149	0
W. WALNUT STREET	38+50 -	48+50	338	1138	414	115	912	12	16	2	4	72	205	0
	SUB TOTALS		428	1138	758	366	2386	53	59	4	28	226	679	2
	PROJECT TOTALS		2690				2439		59	4	28	226	679	2

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PAVEMENT MARKING

STREET	FROM	TO	SPV.0060.701 MARKING SPEED TABLE CHEVRON WHITE EACH	SPV.0090.702 MARKING LINE EPOXY 6-INCH SOLID WHITE LF	SPV.0090.702 MARKING LINE EPOXY 6-INCH SKIP-DASH (6' SKIP, 2'LINE) WHITE LF	SPV.0090.703 MARKING CROSSWALK EPOXY 12-INCH WHITE LF	SPV.0090.704 MARKING STOP LINE EPOXY 24 INCH WHITE LF	SPV.0090.705 MARKING LINE EPOXY BLOCK STYLE 12-INCH WHITE LF	SPV.0165.701 MARKING BIKE LANE, HIGH FRICTION GREEN SURFACING GREEN SF
W. WALNUT STREET	13+00 -	22+00	8	173	0	574	128	840	204
W. WALNUT STREET	22+00	29+50	4	96	0	290	155	830	360
W. WALNUT STREET	29+50	38+50	2	55	0	458	50	522	196
W. WALNUT STREET	38+50 -	48+50	0	1565	80	247	186	646	264
	SUB TOTALS		14	1889	80	1569	519	2838	1024
	PROJECT TOTALS		14	1969		1569	519	2838	1024

NOTE: MARKING BIKE LANE CROSSWALK & MARKING CONTINENTIAL CROSSWALK ITEMS ARE PAID AS "MARKING LINE EPOXY BLOCK STYLE 12-INCH WHITE"

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

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CONSTRUCTION STAKING MAINLINE ITEMS

ITEM	QUANTITY	UNIT	DESCRIPTION
650.4000	66	EACH	CONSTRUCTION STAKING STORM SEWER
650.4500	3,221	LF	CONSTRUCTION STAKING SUBGRADE
650.7000	3,221	LF	CONSTRUCTION STAKING CONCRETE PAVEMENT
650.8501	1	EACH	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (2674-02-70)
650.9000	148	EACH	CONSTRUCTION STAKING CURB RAMPS
650.9500	1	EACH	CONSTRUCTION STAKING SIDEWALK (2674-02-70)
650.9911	1	EACH	CONSTRUCTION STAKING SUPLEMENTAL CONTROL (2674-02-70)
650.9920	3,221	LF	CONSTRUCTION STAKING SLOPE STAKES

SAWCUTTING

STREET	STATION	TO	STATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF
W. WALNUT STREET	13+50	-	22+00	0	600
W. WALNUT STREET	22+00	-	29+50	183	302
W. WALNUT STREET	29+50	-	38+50	30	286
W. WALNUT STREET	38+50	-	46+00	48	297
PROJECT TOTAL				261	1,485

ADJUSTING WATER VALVE BOXES

CATEGORY 0020
SPV.0060.002

LOCATION	STATION	OFFSET	EACH
W. WALNUT STREET	14+32	34' LT	1
W. WALNUT STREET	17+37	90' LT	3
W. WALNUT STREET	17+42	54' RT	1
W. WALNUT STREET	20+70	34' LT	2
W. WALNUT STREET	20+74	94' LT	1
W. WALNUT STREET	23+83	90' LT	3
W. WALNUT STREET	27+30	50' RT	1
W. WALNUT STREET	27+30	80' LT	1
W. WALNUT STREET	27+33	64' LT	1
W. WALNUT STREET	27+34	96' LT	1
W. WALNUT STREET	29+31	73' LT	1
W. WALNUT STREET	31+05	50' RT	1
W. WALNUT STREET	31+50	72' LT	1
W. WALNUT STREET	34+34	66' LT	1
W. WALNUT STREET	34+46	23' LT	1
W. WALNUT STREET	42+30	18' LT	4
W. WALNUT STREET	42+15	60' LT	1
W. WALNUT STREET	42+90	60' LT	1
W. WALNUT STREET	42+60	80' LT	3
W. WALNUT STREET	44+80	20' LT	1
N. 12TH STREET	64+25	17' LT	3
		TOTAL	33

UTILITY LINE OPENING

SPV.0060.001

STREET	LOCATION	UTILITY LINE OPENING EACH
N 20TH STREET	TRAFFIC SIGNALS	4
N 17TH STREET	TRAFFIC SIGNALS	4
N 12TH STREET	TRAFFIC SIGNALS	4
	PROJECT TOTAL	12

FIELD FACILITIES OFFICE SPACE

LOCATION	SPV.0060.002 EACH
W. WALNUT STREET	1
PROJECT TOTAL	1

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

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EXCAVATION, HAULING, AND DISPOSAL OF LEAD CONTAMINATED SOIL

SPV.0195.002

STREET	STATION	TO	STATION	OFFSET	TON
W. WALNUT STREET	24+38	-	26+25	LT	437
W. WALNUT STREET	30+00	-	31+70	LT	26
W. WALNUT STREET	33+40	-	34+85	LT	265
N. 12TH STREET	68+00	-	69+50	RT	85
PROJECT TOTAL					813

LIGHTING REMOVAL

SPV 0060.310

REMOVE POLES

STATION	OFFSET	EACH
13+62.00	LT	1
13+62.00	RT	1
13+77.00	RT	1
14+35.00	LT	1
14+45.00	LT	1
15+27.00	LT	1
15+27.00	RT	1
16+18.00	LT	1
16+18.00	RT	1
16+98.00	LT	1
17+21.00	RT	1
17+49.00	LT	1
17+65.00	LT	1
18+50.00	LT	1
18+50.00	RT	1
19+42.00	RT	1
19+45.00	LT	1
20+26.00	LT	1
20+45.00	RT	1
20+80.00	LT	1
20+91.00	LT	1
21+80.00	LT	1
21+85.00	RT	1
22+70.00	LT	1
22+70.00	RT	1
23+60.00	LT	1
24+20.00	RT	1
24+30.00	LT	1
25+00.00	LT	1
25+87.00	LT	1
25+90.00	RT	1
26+84.00	LT	1
27+00.00	RT	1
27+37.00	LT	1
27+53.00	LT	1

LIGHTING REMOVAL

SPV 0060.310

REMOVE POLES

STATION	OFFSET	EACH
28+46.00	RT	1
28+50.00	LT	1
29+38.00	LT	1
30+45.00	LT	1
30+45.00	RT	1
30+75.00	RT	1
31+27.00	LT	1
32+16.00	LT	1
32+37.00	RT	1
33+38.00	RT	1
34+35.00	LT	1
34+52.00	RT	1
35+42.00	LT	1
36+48.00	LT	1
40+09.00	LT	1
41+10.00	LT	1
42+05.00	LT	1
42+11.00	RT	1
42+23.00	LT	1
42+75.00	LT	1
42+75.00	RT	1
43+02.00	LT	1
44+08.00	LT	1
45+25.00	LT	1
63+50.00	RT	1
64+40.00	LT	1
67+95.00	LT	1
68+67.00	RT	1
TEMPORARY POLES	-	56
	TOTALS	119

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ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

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STREET LIGHTING WIRING AND CONDUIT

FROM	TO	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0335* CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	652.0615* CONDUIT SPECIAL 3-INCH	SPV 0090.321 ELECTRICAL CABLE 3#8/1#8 XLPE USE-2 LF	SPV 0090.323* ELECTRICAL CABLE 3#4/1#8 XLPE USE-2 LF	SPV 0090.324 ELECTRICAL CABLE 3#2/1#8 XLPE USE-2 LF
Signal Pull Box	Existing Pole #1722	0	0	0	0	166	0
Signal Pull Box	Existing Pole #2020	0	0	0	0	81	0
Signal Pull Box	Exitsting Pole 2021	0	0	0	0	81	0
Signal Pole #1647	Signal Pole #2002	0	0	0	0	88	0
Signal Pole #2002	Signal Pole #1702	0	0	0	0	137	0
Signal Pole 1702	Signal Pole #1950	0	0	0	0	96	0
Signal Pole #1950	Pole #1920	123	0	0	0	0	0
Pole #1920	PB102	130	0	0	0	0	137
Pole #1902	PB102	15	0	0	0	0	22
PB105	Pole #1650	16	0	0	0	0	23
Pole #1650	PB104	68	0	0	0	0	75
PB104	PB103	0	28	0	0	0	35
PB103	Pole #1836	15	0	0	0	0	22
PB100	Pole #1701	28	0	0	0	34	0
Pole #1701	PB101	68	0	0	68	0	75
PB101	PB102	0	39	0	0	0	46
Pole #1836	Pole #1818	144	0	0	0	0	151
Pole #1818	Pole #1802	135	0	0	0	0	142
PB112	PB112A	33	0	0	93	0	0
PB112	PB111	0	50	0	57	0	0
PB111	Pole #1650	12	0	0	0	0	19
PB111	PB110	62	0	0	0	68	0
PB110	PB109	29	0	0	0	0	36
PB113	PB109	0	50	0	0	0	57
PB109	Pole #1738	15	0	0	0	0	22
PB109	PB108	0	50	0	0	0	57
PB108	PB107	72	0	0	0	0	79
PB107	PB106	0	48	0	88	0	55
PB106	Pole #1701	15	0	0	0	0	22
PB109	Pole #1716	132	0	0	0	0	139

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE**

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

STREET LIGHTING WIRING AND CONDUIT

FROM	TO	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0335* CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	652.0615* CONDUIT SPECIAL 3-INCH	SPV 0090.321 ELECTRICAL CABLE 3#8/1#8 XLPE USE-2 LF	SPV 0090.323* ELECTRICAL CABLE 3#4/1#8 XLPE USE-2 LF	SPV 0090.324 ELECTRICAL CABLE 3#2/1#8 XLPE USE-2 LF
Pole #1716	Signal Pole #1702	150	0	0	0	0	157
Signal Pole #1702	Signal Pole #1648	0	0	0	0	0	139
Signal Pole #1648	Signal Pull Box	0	0	0	0	0	82
Signal Pull Box	Stub Out	10	0	0	0	0	0
Signal Pole # 1648	Existing Pole #1636	110	0	0	0	0	117
Existing Pole #1612	Signal Pull Box	127	0	0	0	0	134
Signal Pull Box	Signal Pull Box	0	0	0	0	0	38
Signal Pull Box	Signal Pull Box	0	0	0	0	0	48
Signal Pull Box	Signal Pole #1624	0	0	0	0	0	17
Signal Pull Box	Signal Pull Box	0	0	0	0	0	55
Signal Pull Box	Signal Pull Box	0	0	0	0	0	50
Signal Pull Box	Exisiting Pole #1710	121	0	0	0	0	128
Signal Pull Box	Signal Pole #1700	0	0	0	0	0	72
Signal Pole #1700	Signal Pull Box	0	0	0	0	0	82
Signal Pull Box	Existing Pole #1715	120	0	0	0	0	127
Signal Pole #1624	Pole #1612	120	0	0	0	0	127
Pole #1612	Pole #1602	94	0	0	0	0	101
PB114	PB119	0	36	0	0	0	43
PB119	PB120	81	0	0	0	0	88
PB120	PB121	0	46	0	0	0	53
PB121	Existing Pole #1718	141	0	0	0	0	148
PB114	PB118	0	97	0	0	0	104
PB118	PB117	0	27	0	0	0	34
PB117	PB116	71	0	0	0	71	0
PB116	PB115	0	46	0	0	46	0
PB115	Pole 1653	12	0	0	0	12	0
PB115	Stub Out	10	0	0	0	0	10
Pole #1532	Pole #1520	125	0	0	0	0	132
Pole #1520	Pole #1510	0	117	0	0	0	124
Pole #1510	Pole #1500	138	0	0	0	0	145
PB122	PB123	0	33	0	0	0	40
PB123	Pole #1649	42	0	0	0	0	49

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE**

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

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STREET LIGHTING WIRING AND CONDUIT

FROM	TO	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0335* CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	652.0615* CONDUIT SPECIAL 3-INCH	SPV 0090.321 ELECTRICAL CABLE 3#8/1#8 XLPE USE-2 LF	SPV 0090.323* ELECTRICAL CABLE 3#4/1#8 XLPE USE-2 LF	SPV 0090.324 ELECTRICAL CABLE 3#2/1#8 XLPE USE-2 LF
Pole #1649	Stub Out	25	0	0	0	0	25
PB122	PB125	0	58	0	0	0	65
PB125	Pole #1440	67	0	0	0	0	74
Pole #1440	Pole #1420	135	0	0	0	0	142
Pole #1420	Pole #1410	134	0	0	0	0	141
PB126	PB128	0	38	0	0	0	45
PB128	PB127	143	0	0	0	0	150
PB128	PB129	94	0	0	0	0	101
PB129	PB130	0	42	0	0	0	49
PB129	Stub Out	10	0	0	0	0	10
PB130	Pole #1646	17	0	0	0	0	24
Pole #1646	PB131	51	0	0	0	0	58
PB131	PB132	0	48	0	0	0	55
PB132	Existing Pole #1350	0	21	0	0	0	28
Pole #1350	Pole #1314	229	0	0	0	0	236
Pole #1314	Existing Pole #1302	108	0	0	0	0	115
Existing Pole #1240	Pole #1218	146	0	0	0	0	153
Pole #1218	Signal Pole #1202	127	0	0	0	0	134
Signal Pole #1202	Signal Pole #1703	0	0	0	0	0	81
Signal Pole #1703	Signal Pole #1702	0	0	0	0	0	63
Signal Pole #1702	Signal Pole #1132	0	0	0	0	0	87
Signal Pole #1132	Signal Pole #1656	0	0	0	0	0	87
Signal Pole #1655	Signal Pole #1202	0	0	0	0	0	87
Signal Pole #17020	Pole #1720	210	0	0	0	0	217
Pole #1720	Existing Pole #1750	0	0	185	0	0	192
Signal Pole #1703	Pole #1713	121	0	0	0	0	128
Signal Pole #1655	Pole #1643	100	0	0	0	0	107
Pole #1643	Couple at Bridge	117	0	0	0	0	124
Couple at Bridge	Existing Pole #1615	0	0	0	0	0	118
Signal Pole #1656	Pole #1628-B	144	0	0	0	0	151
Pole #1628	Couple at Bridge	75	0	0	0	0	82
Couple at Bridge	Existing Pole #1600	0	0	0	0	0	169
Signal Pole #1132	Pole #1124	136	0	0	0	0	143

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE**

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

STREET LIGHTING WIRING AND CONDUIT

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

FROM	TO	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0335* CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	652.0615* CONDUIT SPECIAL 3-INCH	SPV 0090.321 ELECTRICAL CABLE 3#8/1#8 XLPE USE-2 LF	SPV 0090.323* ELECTRICAL CABLE 3#4/1#8 XLPE USE-2 LF	SPV 0090.324 ELECTRICAL CABLE 3#2/1#8 XLPE USE-2 LF
Pole #1124	PB134	17	0	0	0	0	24
PB134	PB135	0	112	0	0	0	119
PB135	PB133	0	52	0	0	0	59
PB135	PB139	0	53	0	0	0	60
PB135	Pole #1102	22	0	0	0	0	29
PB139	Conduit Coupler at Bridge	65	0	0	0	0	72
Conduit Coupler at Bridge	Existing Pole #1044	0	0	0	0	0	117
PB133	PB137	55	0	0	0	0	62
PB137	Existing Pole 1013	0	0	0	0	0	307
PB133	Existing Pole 1045	0	0	0	0	0	127
	TOTALS	4,932	1,091	185	306	880	8,075

LUMINAIRE AND POLE MOUNTINGS

DESCRIPTION	STATION	OFFSET	654.0102 CONCRETE BASES TYPE 2 EACH	654.0105 CONCRETE BASES TYPE 5 EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	SPV 0060.319 POLES TYPE 19-AL-BD EACH	SPV 0060.320 POLES TYPE 25-AL-BD EACH	SPV 0060.345 LUMINAIRE ARM SINGLE MEMBER 6-FT. EACH	SPV 0060.860 LUMINAIRE ARCHITECTURAL LED 1 EACH	SPV 0060.861 LUMINAIRE ARCHITECTURAL LED 2 EACH
Signal Pole #2002	13+61.00	20.0 LT	0	0	0	0	0	2	0	2
Signal Pole #1647	13+80.00	59.0 RT	0	0	0	0	0	1	1	0
Signal Pole #1950	14+42.00	9.0 LT	0	0	0	0	0	2	0	2
Signal Pole #1702	14+23.00	83.0 LT	0	0	0	0	0	1	1	0
Pole #1920	15+65.00	9.0 LT	0	1	1	0	1	2	0	2
Pole #1902	16+80.00	19.5 LT	0	1	1	0	1	2	0	2
Pole #1836	17+80.00	8.5 LT	0	1	1	0	1	2	0	2
Pole #1650	17+50.19	61.0 RT	0	1	1	1	0	1	1	0
Pole #1701	17+13.54	85.00 LT	0	1	1	1	0	1	1	0
Pole #1818	19+03.00	14.0 LT	0	1	1	0	1	2	0	2
Pole #1802	20+13.00	19.5 LT	0	1	1	0	1	2	0	2
Pole #1738	21+10.00	8.5 LT	0	1	1	0	1	2	0	2
Pole #1701	20+41.15	85.0 LT	0	1	1	1	0	1	1	0
Pole #1650	20+80.72	57.0 RT	0	1	1	1	0	1	1	0
Pole #1716	22+34.00	19.5 LT	0	1	1	0	1	2	0	2

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

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LUMINAIRE AND POLE MOUNTINGS

DESCRIPTION	STATION	OFFSET	654.0102 CONCRETE BASES TYPE 2 EACH	654.0105 CONCRETE BASES TYPE 5 EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	SPV 0060.319 POLES TYPE 19-AL-BD EACH	SPV 0060.320 POLES TYPE 25-AL-BD EACH	SPV 0060.345 LUMINAIRE ARM SINGLE MEMBER 6-FT. EACH	SPV 0060.860 LUMINAIRE ARCHITECTURAL LED 1 EACH	SPV 0060.861 LUMINAIRE ARCHITECTURAL LED 2 EACH
Signal Pole #1700	24+29.00	78.0 LT	0	0	0	0	0	2	0	2
Signal Pole #1648	24+21.00	52.0 RT	0	0	0	0	0	2	0	2
Signal Pole #1624	25+04.00	9.0 LT	0	0	0	0	0	2	0	2
Signal Pole #1702	23+48.00	20.0 LT	0	0	0	0	0	2	0	2
Pole #1612	25+95.00	8.5 LT	0	1	1	0	1	2	0	2
Pole #1602	26+80.00	18.0 LT	0	1	1	0	1	2	0	2
Pole #1701	26+99.37	80.0 LT	0	1	1	1	0	1	1	0
Pole #1532	27+65.00	8.5 LT	0	1	1	0	1	2	0	2
Pole #1653	27+00.00	58.0 RT	0	1	1	1	0	1	1	0
Pole #1520	28+75.00	14.0 LT	0	1	1	0	1	2	0	2
Pole #1510	29+65.00	14.0 LT	0	1	1	0	1	2	0	2
Pole #1500	30+60.00	14.0 LT	0	1	1	0	1	2	0	2
Pole #1649	30+76.58	60.0 RT	0	1	1	1	0	1	1	0
Pole #1440	31+75.00	11.0 LT	0	1	1	0	1	2	0	2
Pole #1420	32+85.00	14.0 LT	0	1	1	0	1	2	0	2
Pole #1410	33+95.00	14.0 LT	0	1	1	0	1	2	0	2
Pole #1350	35+10.00	9.0 LT	0	1	1	0	1	2	0	2
Pole #1646	34+86.78	54.0 RT	0	1	1	1	0	1	1	0
Pole #1314	36+40.00	20.00 LT	0	1	1	0	1	2	0	2
Pole #1218	40+90.00	14.0 LT	0	1	1	0	1	2	0	2
Signal Pole #1202	41+94.00	17.0 LT	0	0	0	0	0	2	0	2
Signal Pole #1132	43+05.00	8.0 LT	0	0	0	0	0	2	0	2
Signal Pole #1655	42+07.00	48.0 RT	0	0	0	0	0	1	1	0
Signal Pole #1656	42+77.00	48.0 RT	1	0	1	0	1	1	1	0
Signal Pole #1703	42+23.00	80.0 LT	1	0	1	0	1	1	1	0
Signal Pole #1702	42+76.00	75.0 LT	0	0	0	0	0	1	1	0
Pole #1124	44+10.00	10.0 LT	0	1	1	0	1	2	0	2
Pole #1102	45+37.00	10.0 LT	0	1	1	0	1	2	0	2
Pole #1643	64+55.00	31.0 LT	0	1	1	0	1	1	0	1
Pole #1628	63+55.00	29.0 RT	0	1	1	0	1	1	0	1
Pole #1713	67+90.00	28.0 LT	0	1	1	1	0	1	1	0
Pole #1720	68+80.00	28.0 RT	0	1	1	1	0	1	1	0
		TOTALS	2	33	35	10	25	76	16	60

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ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

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PULL BOXES

DESCRIPTION	STATION	OFFSET	SPV.0060.302 PULL BOXES 13-INCH X 24-INCH X 24-INCH EACH
PB100	17+14.96	86.5 LT	1
PB101	16+85.00	44.8 LT	1
PB102	16+85.00	14.1 LT	1
PB103	17+77.00	3.3 LT	1
PB104	17+76.73	16.5 RT	1
PB105	17+50.20	66.8 RT	1
PB106	20+41.22	92.0 LT	1
PB107	20+81.30	92.0 LT	1
PB108	21+07.00	41.6 LT	1
PB109	21+07.00	2.8 LT	1
PB110	21+07.00	16.6 RT	1
PB111	20+79.30	53.0 RT	1
PB112	20+44.13	53.0RT	1
PB113	20+15.00	13.6 LT	1
PB114	26+75.00	14.9 LT	1
PB115	27+00.63	63.0 RT	1
PB116	27+38.47	63.0 RT	1
PB117	27+66.00	16.6 RT	1
PB118	27+66.00	3.7 LT	1
PB119	26+75.0	42.6 LT	1
PB120	27+00.34	93.0 LT	1
PB121	27+38.97	93.0 LT	1
PB122	30+72.00	3.6 LT	1
PB123	30+70.50	23.3 RT	1
PB124	30+77.50	52.5 RT	1
PB125	31+23.00	3.6 LT	1
PB126	33_92.00	3.6 LT	1
PB127	32+73.00	43.0 RT	1
PB128	33+92.00	25.8 RT	1
PB129	34+51.47	63.0 RT	1
PB130	34+85.64	63.0 RT	1
PB131	35+19.00	35.8 RT	1
PB132	35+19.00	3.6 LT	1
PB133	45+20.00	39.9 RT	1
PB134	44.15.00	2.7 LT	1
PB135	45+20.00	4.2 LT	1
PB136	45+20.00	49.3 LT	1
PB137	45+66.00	29.0 RT	1
		TOTAL	38

WOOD POLE & TEMPORARY LUMINAIRE

SPV 0060.324 SPV 0060.346 SPV 0060.366

STATION	OFFSET	40 FT. WOOD POLE EACH	LUMINAIRE ARMS SINGLE MEMBER 6-FT. WP MOUNT EACH	CITY FURNISHED LUMINAIRE UTILITY HIGH PRESSURE SODIUM 2 EACH
13+59.5	70.5 LT	1	0	0
13+57.6	16.5 LT	1	2	2
13+55.6	43.0 RT	1	0	0
13+72.2	67.8 RT	1	1	1
13+80.8	93.9 LT	1	0	0
14+31.4	99.5 LT	1	1	1
14+44.1	66.9 LT	1	0	0
14+48.9	11.1 LT	1	2	2
14+43.3	39.3 RT	1	0	0
14+21.9	60.8 RT	1	0	0
15+92.0	15.5 LT	1	2	2
16+87.0	22.0 LT	1	2	2
17+13.0	101.5 LT	1	1	1
17+73.0	12.0 LT	1	2	2
18+93.0	22.5 LT	1	2	2
20+00.0	22.5 LT	1	2	2
20+43.1	80.0 RT	1	1	1
20+81.2	102.0 LT	1	1	1
21+25.0	13.0 LT	1	2	2
23+39.1	70.3 LT	1	0	0
23+44.5	23.8 LT	1	2	2
23+46.5	44.0 RT	1	0	0
23+71.1	96.0 LT	1	0	0
23+71.5	61.0 RT	1	0	0
24+30.4	95.4 LT	1	2	2
24+20.6	64.4 RT	1	2	2
24+78.1	203.1 RT	1	0	0
24+85.4	58.4 RT	1	0	0
25+08.5	4.7 LT	1	2	2
25+12.4	70.1 LT	1	0	0

WOOD POLE & TEMPORARY LUMINAIRE

SPV 0060.324 SPV 0060.346 SPV 0060.366

STATION	OFFSET	40 FT. WOOD POLE EACH	LUMINAIRE ARMS SINGLE MEMBER 6-FT. WP MOUNT EACH	CITY FURNISHED LUMINAIRE UTILITY HIGH PRESSURE SODIUM 2 EACH
24+84.6	91.2 LT	1	0	0
26+68.0	16.0 LT	1	2	2
28+05.0	6.0 LT	1	2	2
29+70.0	6.0 LT	1	1	1
31+35.0	6.0 LT	1	2	2
32+60.0	6.0 LT	1	2	2
32+73.0	51.5 RT	1	0	0
34+20.0	6.0 LT	1	2	2
34+52.0	76.8 RT	1	0	0
35+40.0	6.0 LT	1	2	2
40+21.0	67.0 LT	1	1	1
41+88.8	40.3 RT	1	0	0
41+89.3	14.5 LT	1	2	2
41+93.9	63.9 LT	1	0	0
42+22.0	88.0 LT	1	1	1
42+76.5	59.8 RT	1	1	1
43+06.0	39.0 RT	1	0	0
43+09.2	12.2 LT	1	2	2
43+05.9	67.5 LT	1	0	0
44+15.9	6.0 LT	1	2	2
45+63.0	33.0 RT	1	1	1
45+70.0	56.0 LT	1	1	1
67+98.4	26.8 LT	1	1	1
68+90.0	27.5 RT	1	1	1
68+82.8	34.8 LT	1	0	0
69+47.8	27.4 RT	1	1	1
	TOTAL	56	56	56

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ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

TEMPORARY OVERHEAD WIRING

FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	SPV 0060.339 SECONDARY RISER EA	SPV 0090.302 ELECTRICAL CABLE TYPE 3#6 AL TRIPLEX LF	SPV 0090.304 ELECTRICAL CABLE TYPE 2#2/1#4 AL TRIPLEX LF	SPV 0090.314 REMOVE AERIAL CABLE LF
13+59.50	70.5 LT	13+57.6	16.5 LT	1	0	56	56
13+59.50	70.5 LT	14+31.4	99.5 LT	1	0	80	80
13+57.6	16.5 LT	13+55.6	43.0 RT	1	0	62	62
13+55.6	43.0 RT	13+72.2	67.8 RT	1	0	32	32
14+31.4	99.5 LT	14+44.1	66.9 LT	0	0	40	40
14+44.1	66.9 LT	14+48.9	11.1 LT	0	0	60	60
14+48.9	11.1 LT	15+92.0	15.5 LT	0	0	146	146
15+92.0	15.5 LT	16+87.0	22.0 LT	0	0	100	100
16+87.0	22.0 LT	17+13.0	101.5 LT	1	86	0	86
17+13.0	101.5 LT	17+73.0	12.0 LT	0	110	0	110
16+87.0	22.0 LT	Existing Pole		0	90	0	90
17+73.0	12.0 LT	18+93.0	22.5 LT	0	125	0	125
18+93.0	22.5 LT	20+00.0	22.5 LT	0	110	0	110
20+00.0	22.5 LT	20+43.1	80.0 RT	1	115	0	115
20+00.0	22.5 LT	20+81.2	102.0 LT	1	116	0	116
20+81.2	102.0 LT	21+25.0	13.0 LT	0	105	0	105
23+44.5	23.8 LT	23+39.1	70.3 LT	0	50	0	50
23+39.1	70.3 LT	24+30.4	95.4 LT	0	100	0	100
24+30.4	95.4 LT	Existing Pole #1715		0	128	0	128
24+30.4	95.4 LT	Existing Pole #1710		0	128	0	128
23+44.5	23.8 LT	23+71.5	61.0 RT	1	95	0	95
23+71.5	61.0 RT	24+20.6	64.4 RT	0	55	0	55
24+20.6	64.4 RT	24+85.4	58.4 RT	0	70	0	70
24+85.4	58.4 RT	25+08.5	4.7 LT	0	67	0	67
24+20.6	64.4 RT	Existing Wood Pole		1	76	0	76
Existing Wood Pole		24+78.1	203.1 RT	1	141	0	141
25+08.5	4.7 LT	26+68.0	16.0 LT	0	162	0	162
26+68.0	16.0 LT	Existing Wood Pole		1	102	0	102
Existing Pole		28+05.0	6.0 LT	0	0	122	122
28+05.0	6.0 LT	29+70.0	6.0 LT	0	0	152	152
29+70.0	6.0 LT	31+35.0	6.0 LT	0	0	182	182
31+35.0	6.0 LT	Existing Pole #1649		0	0	85	85
31+35.0	6.0 LT	32+60.0	6.0 LT	0	0	127	127
32+60.0	6.0 LT	34+20.0	6.0 LT	0	0	162	162
32+60.0	6.0 LT	32+73.0	51.5 RT	0	61	0	61
32+73.0	51.5 RT	Existing Pole #1641		0	54	0	54
34+20.0	6.0 LT	34+52.0	76.8 RT	1	0	92	92
34+20.0	6.0 LT	35+40.0	6.0 LT	0	0	122	122
Existing Pole #1216		41+89.3	14.5 LT	0	0	81	81
Existing Pole #1216		40+21.0	67.0 LT	0	0	105	105
40+21.0	67.0 LT	39+33.4	5.0 LT	0	0	107	107
41+89.3	14.5 LT	42+22.0	88.0 LT	0	0	83	83
42+22.0	88.0 LT	Existing Pole		0	0	60	60
41+89.3	14.5 LT	Existing Pole		0	0	80	80
Existing Pole		42+76.5	59.8 RT	0	0	70	70
42+76.5	59.8 RT	43+06.0	39.0 RT	0	0	37	37
43+06.0	39.0 RT	43+09.2	12.2 LT	0	0	55	55
43+09.2	12.2 LT	44+15.9	6.0 LT	0	0	110	110
44+15.9	6.0 LT	45+70.0	56.0 LT	1	0	165	165
44+15.9	6.0 LT	45+63.0	33.0 RT	1	0	155	155
45+63.0	33.0 RT	Existing Pole #1044		0	0	105	310
Existing Pole #1044		Existing Pole #1025		0	0	102	0
Existing Pole #1025		Existing Pole #1013		0	0	103	0
Existing Pole		67+98.4	26.8 LT	0	0	120	120
67+98.4	26.8 LT	68+82.8	34.8 LT	0	0	92	92
68+82.8	34.8 LT	68+90.0	27.5 RT	0	0	65	65
68+82.8	34.8 LT	69+47.8	27.4 RT	1	0	92	92
Existing Pole		Existing Pole #1643		0	0	102	102
Stage Three Roadway Construction				0	0	0	866
			TOTALS	15	2,146	3,509	6,521

POLE WIRING

SPV.0090.311

ELECTRICAL CABLE TYPE UF 2#12 AWG WITH GROUND

DESCRIPTION	LF
Signal Pole #2002	74
Signal Pole #1647	30
Signal Pole #1950	74
Signal Pole #1702	30
Pole #1920	78
Pole #1902	78
Pole #1836	78
Pole #1650	32
Pole #1701	32
Pole #1818	78
Pole #1802	78
Pole #1738	78
Pole #1701	32
Pole #1650	32
Pole #1716	78
Signal Pole #1700	74
Signal Pole #1648	74
Signal Pole #1624	74
Signal Pole #1702	74
Pole #1612	78
Pole #1602	78
Pole #1701	32
Pole #1532	78
Pole #1653	32
Pole #1520	78
Pole #1510	78
Pole #1500	78
Pole #1649	32
Pole #1440	78
Pole #1420	78
Pole #1410	78
Pole #1350	78
Pole #1646	32
Pole #1314	78
Pole #1218	78
Signal Pole #1202	74
Signal Pole #1132	74
Signal Pole #1655	30
Signal Pole #1656	30
Signal Pole #1703	30
Signal Pole #1702	30
Pole #1124	78
Pole #1102	78
Pole #1643-B	39
Pole #1628-B	39
Pole #1713-B	32
Pole #1720-B	32
TOTAL	2,808

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

TRAFFIC SIGNALS W. WALNUT ST. & N. 20TH ST.

SIGNAL BASE NUMBER	657.0100 PEDESTAL BASES EACH	657.0350 POLES TYPE 10 EACH	657.0352 POLES TYPE 10-SPECIAL EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0520 MONOTUBE ARMS 20-FT EACH	657.0530 MONOTUBE ARMS 30-FT EACH	657.0536 MONOTUBE ARMS 35-FT SPECIAL EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.218 EVP 1 DIRECTION DETECTOR EACH	SPV.0060.223 EVP CONFIRMATION LIGHT EACH
SB1	1			1					1		
SB2			1					1	1	1	1
SB3	1				1				1		
SB4	1			1							
SB5		1				1				1	1
SB6	1			1					1		
SB7		1					1		1	1	1
SB8	1				1				1		
SB9	1			1							
SB10		1				1				1	1
SUBTOTAL	6	3	1	4	2	2	1	1	6	4	4

SIGNAL BASE NO.	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0120 CONCRETE BASES TYPE 10 SPECIAL EACH
SB1	13+60', 43' R	1		
SB2	13+61', 20' L			1
SB3	13+60', 72' L	1		
SB4	13+78', 84' L	1		
SB5	14+23', 83' L		1	
SB6	14+42', 70' L	1		
SB7	14+42', 9' L		1	
SB8	14+43', 44' R	1		
SB9	14+24', 56' R	1		
SB10	13+80', 59' R		1	
	SUBTOTAL	6	3	1

LOCATION	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE EACH	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED EACH	SPV.0060.212 FIBER OPTIC PATCH PANEL EACH	SPV.0060.213 ETHERNET SWITCH EACH	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL EACH
13+30', 39' R	1	1	1	1	1
SUBTOTAL	1	1	1	1	1

SIGNAL HEAD NUMBER	SIGNAL BASE NUMBER	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	SB9	1		
2	SB4	1		
3	SB5	1		
4	SB4	1		
5	SB9	1		
6	SB10	1		
7	SB1	1		
8	SB7	1		
9	SB7	1		
10	SB6	1		
11	SB7	1		
12	SB6	1		
13	SB2	1		
14	SB2	1		
15	SB1	1		
16	SB2	1		
17	SB3		1	1
18	SB6		1	1
19	SB6		1	1
20	SB8		1	1
21	SB8		1	1
22	SB1		1	1
23	SB1		1	1
24	SB3		1	1
	SUBTOTAL	16	8	8

All Items on this page are Category 0010

TRAFFIC SIGNALS W. WALNUT ST. & N. 20TH ST.

LOC.	TO	LOC.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
CB1	TO	PB1		100		
PB1	TO	SB1	5			
PB1	TO	PB2				115
PB2	TO	SB2		5		
PB2	TO	PB3				90
PB3	TO	SB3	5			
PB3	TO	PB4		80		
PB4	TO	SB4	5			
PB4	TO	PB5				80
PB5	TO	SB5		10		
PB5	TO	PB6		60		
PB6	TO	SB6	5			
PB6	TO	PB7			110	
PB7	TO	SB7		5		
PB7	TO	PB8			90	
PB8	TO	SB8	5			
PB8	TO	PB9		60		
PB9	TO	SB9	5			
PB9	TO	PB10				80
PB10	TO	SB10		5		
PB10	TO	PB1		50		
		SUBTOTAL	30	375	200	365

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

	DESCRIPITON	L.F
655.0230	CABLE TRAFFIC SIGNAL 5-14 AWG	710
655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	920
655.0280	CABLE TRAFFIC SIGNAL 19-14-AWG	595
655.0305	CABLE TYPE UF 2-12 AWG GROUNDED	820
655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	710
655.0900	TRAFFIC SIGNAL EVP DETECTOR CABLE	820
SPV.0090.323	ELECTRICAL CABLE 3#4/1#8 XLP TYPE USE-2	15

	658.5070.001 SIGNAL MOUNTING HARDWARE (20TH STREET) EACH	661.0201.001 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (20TH STREET) EACH
SUBTOTAL	1	1

LOCATION	SPV.0060.215 ELECTRICAL SERVICE PEDESTAL EACH
13+34', 40' R	1
SUBTOTAL	1

PULL BOX NO.	LOCATION	SPV.0060.303 PULLBOXES 17-INCHX30-INCHX24-INCH EACH
PB1	13+58', 38' R	1
PB2	13+56', 20' L	1
PB3	13+60', 66' L	1
PB4	13+80', 92' L	1
PB5	14+21', 91' L	1
PB6	14+41', 65' L	1
PB7	14+46', 8' L	1
PB8	14+43', 37' R	1
PB9	14+23', 53' R	1
PB10	13+81', 53' R	1
	SUBTOTAL	10

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
SB2	13+66', 19' L	1
SB3	13+70', 73' L	1
SB4	13+80', 82' L	1
SB6	14+35', 66' L	1
SB8A	14+38', 38' R	1
SB8B	14+33', 44' R	1
SB9	14+23', 56' R	1
	SUBTOTAL	7

PULL BOX NO.	LOCATION	653.0905 REMOVING PULLBOXES EACH
PB1	13+64', 37' R	1
PB2	13+66', 16' L	1
PB3	13+63', 65' L	1
PB4	13+80', 92' L	1
PB5	14+21', 91' L	1
PB6	14+39', 64' L	1
PB9	14+23', 53' R	1
PB10	13+82', 56' R	1
	SUBTOTAL	8

	SPV.0060.225 VEHICULAR VIDEO DETECTION SYSTEM-2 CAMERAS EACH
	1
SUBTOTAL	1

All Items on this page are Category 0010

TRAFFIC SIGNALS W. WALNUT ST. & N. 17TH ST.

SIGNAL BASE NUMBER	657.0100 PEDESTAL BASES EACH	657.0350 POLES TYPE 10 EACH	657.0352 POLES TYPE 10-SPECIAL EACH	657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0520 MONOTUBE ARMS 20-FT EACH	657.0536 MONOTUBE ARMS 35-FT SPECIAL EACH	SPV.0060.218 EVP 1 DIRECTION DETECTOR EACH	SPV.0060.223 EVP CONFIRMATION LIGHT EACH	SPV.0060.268 VOICE INSTRUCTION AUDIBLE PUSHBUTTON EACH
SB1	1			1							1
SB2	1					1					1
SB3	1				1						
SB4		1					1		1	1	1
SB5	1				1						
SB6	1					1					1
SB7	1				1						1
SB8			1					1	1	1	1
SB9	1			1							1
SB10	1					1					1
SB11	1				1						
SB12		1					1		1	1	1
SB13	1				1						
SB14	1					1					1
SB15	1				1						1
SB16			1					1	1	1	1
SUBTOTAL	12	2	2	2	6	4	2	2	4	4	12

SIGNAL BASE NO.	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0120 CONCRETE BASES TYPE 10 SPECIAL EACH
SB1	24+83', 79' L	1		
SB2	24+94', 71' L	1		
SB3	25+08', 55' L	1		
SB4	25+04', 9' L		1	
SB5	25+05', 33' R	1		
SB6	25+05', 44' R	1		
SB7	24+86', 51' R	1		
SB8	24+21', 52' R			1
SB9	23+72', 52' R	1		
SB10	23+58', 44' R	1		
SB11	23+47', 26' R	1		
SB12	23+48', 20' L		1	
SB13	23+47', 60' L	1		
SB14	23+47', 70' L	1		
SB15	23+70', 79' L	1		
SB16	24+29', 78' L			1
	SUBTOTAL	12	2	2

LOCATION	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE EACH	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED EACH	SPV.0060.212 FIBER OPTIC PATCH PANEL EACH	SPV.0060.213 ETHERNET SWITCH EACH	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL EACH	SPV.0060.269 VOICE INSTRUCTION AUDIBLE CONTROL UNIT EACH
24+81', 99' L	1	1	1	1	1	1
SUBTOTAL	1	1	1	1	1	1

SIGNAL HEAD NUMBER	SIGNAL BASE NUMBER	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	SB7	1		
2	SB16	1		
3	SB16	1		
4	SB15	1		
5	SB16	1		
6	SB15	1		
7	SB8	1		
8	SB8	1		
9	SB7	1		
10	SB8	1		
11	SB11	1		
12	SB4	1		
13	SB5	1		
14	SB3	1		
15	SB4	1		
16	SB3	1		
17	SB12	1		
18	SB13	1		
19	SB11	1		
20	SB12	1		
21	SB14		1	1
22	SB2		1	1
23	SB2		1	1
24	SB6		1	1
25	SB6		1	1
26	SB10		1	1
27	SB10		1	1
28	SB14		1	1
	SUBTOTAL	20	8	8

All Items on this page are Category 0010

TRAFFIC SIGNALS W. WALNUT ST. & N. 17TH ST.

LOC.	TO	LOC.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF
CB1	TO	PB1		15	
PB1	TO	SB1	15		
PB1	TO	PB2		90	
PB2	TO	SB2	15		
PB2	TO	SB3	15		
PB2	TO	PB3			90
PB3	TO	SB4		10	
PB3	TO	PB4			80
PB4	TO	SB5	10		
PB4	TO	SB6	15		
PB4	TO	PB5		60	
PB5	TO	SB7	10		
PB5	TO	PB6			120
PB6	TO	SB8		5	
PB6	TO	PB7			100
PB7	TO	SB9	5		
PB7	TO	PB8		70	
PB8	TO	SB10	15		
PB8	TO	SB11	10		
PB8	TO	PB9			90
PB9	TO	SB12		5	
PB9	TO	PB10			80
PB10	TO	SB13	10		
PB10	TO	SB14	15		
PB10	TO	PB11		80	
PB11	TO	SB15	15		
PB11	TO	METER	55		
PB11	TO	PB12			115
PB12	TO	SB16		15	
PB12	TO	PB1			100
		SUBTOTAL	205	350	775

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

	DESCRIPITON	L.F
655.0230	CABLE TRAFFIC SIGNAL 5-14 AWG	1085
655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	680
655.0280	CABLE TRAFFIC SIGNAL 19-14-AWG	1125
655.0305	CABLE TYPE UF 2-12 AWG GROUNDED	895
655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	1105
655.0900	TRAFFIC SIGNAL EVP DETECTOR CABLE	895
SPV.0090.323	ELECTRICAL CABLE 3#4/1#8 XLP TYPE USE-2	180

PULL BOX NO.	LOCATION	SPV.0060.303 PULLBOXES 17-INCHX30-INCHX24-INCH EACH
PB1	24+79', 92' L	1
PB2	24+94', 55' L	1
PB3	24+94', 9' L	1
PB4	24+95', 32' R	1
PB5	24+80', 59' R	1
PB6	24+21', 58' R	1
PB7	23+74', 57' R	1
PB8	23+58', 27' R	1
PB9	23+57', 20' L	1
PB10	23+57', 61' L	1
PB11	23+70', 93' L	1
PB12	24+29', 92' L	1
	SUBTOTAL	12

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
SB1	24+77', 85' L	1
SB2	24+92', 66' L	1
SB6	24+95', 37' R	1
SB7	24+80', 51' R	1
SB9	23+72', 51' R	1
SB10	23+58', 37' R	1
SB14	23+55', 65' L	1
SB15	23+71', 83' L	1
	SUBTOTAL	8

LOCATION	SPV.0060.215 ELECTRICAL SERVICE PEDESTAL EACH
23+70', 147' L	1
SUBTOTAL	1

	658.5070.002 SIGNAL MOUNTING HARDWARE (17TH STREET) EACH	661.0201.002 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (17TH STREET) EACH
SUBTOTAL	1	1

All Items on this page are Category 0010

SIGNAL BASE NUMBER	657.0100 PEDESTAL BASES EACH	657.0425 TRAFFIC SIGNAL STANDARDS 15-FT EACH	657.0430 TRAFFIC STANDARDS 10- FT EACH
SB6	1		1
SB7	1	1	
SB8	1	1	
SUBTOTAL	3	2	1

SIGNAL BASE NO.	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH
SB6	38+25', 52' R	1
SB7	38+09', 45' R	1
SB8	37+83', 6' L	1
	SUBTOTAL	3

LOC.	TO	LOC.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF
PB7	TO	SB6	5	
PB7	TO	PB8		60
PB8	TO	SB7	10	
PB8	TO	PB9		140
		SUBTOTAL	15	200

PULL BOX NO.	LOCATION	SPV.0060.303 PULLBOXES 17-INCHX30-INCHX24-INCH EACH
PB8	38+03', 35' R	1
	SUBTOTAL	1

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
SB6	38+24', 49' R	1
SB7	38+05', 38' R	1
SB8	37+83', 6' L	1
	SUBTOTAL	3

LOCATION	SPV.0060.212 FIBER OPTIC PATCH PANEL EACH	SPV.0060.213 ETHERNET SWITCH EACH
39+18', 91' L	1	1
SUBTOTAL	1	1

PULL BOX NO.	LOCATION	653.0905 REMOVING PULLBOXES EACH
PB8	38+07', 40' R	1
	SUBTOTAL	1

	661.0201.003 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (FOND DU LAC AVE) EACH
SUBTOTAL	1

All Items on this page are Category 0010

TRAFFIC SIGNALS W. WALNUT ST. & N. 12TH ST.

SIGNAL BASE NUMBER	657.0100 PEDESTAL BASES EACH	657.0350 POLES TYPE 10 EACH	657.0352 POLES TYPE 10-SPECIAL EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0530 MONOTUBE ARMS 30-FT EACH	657.0536 MONOTUBE ARMS 35-FT SPECIAL EACH	657.0541 MONOTUBE ARMS 40-FT SPECIAL EACH	SPV.0060.218 EVP 1 DIRECTION DETECTOR EACH	SPV.0060.223 EVP CONFIRMATION LIGHT EACH	SPV.0060.228 ELECTRICAL RISER EACH
SB1			1				1		1	1	
SB2	1				1						
SB3	1			1							
SB4		1				1			1	1	
SB5	1				1						
SB6											1
SB7			1					1	1	1	
SB8	1				1						
SB9	1			1							
SB10		1				1			1	1	
SB11	1				1						
SB12											1
SUBTOTAL	6	2	2	2	4	2	1	1	4	4	2

SIGNAL BASE NO.	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0120 CONCRETE BASES TYPE 10 SPECIAL EACH
SB1	42+76', 75' L			1
SB2	42+98', 67' L	1		
SB3	43+01', 57' L	1		
SB4	43+05', 8' L		1	
SB5	43+00', 40' R	1		
SB7	42+07', 48' R			1
SB8	41+97', 40' R	1		
SB9	41+92', 26' R	1		
SB10	41+94', 17' L		1	
SB11	41+96', 70' L	1		
	SUBTOTAL	6	2	2

LOCATION	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE EACH	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED EACH	SPV.0060.212 FIBER OPTIC PATCH PANEL EACH	SPV.0060.213 ETHERNET SWITCH EACH	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL EACH
42+76', 94' L	1	1	1	1	1
SUBTOTAL	1	1	1	1	1

SIGNAL HEAD NUMBER	SIGNAL BASE NUMBER	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	SB6	1		
2	SB1	1		
3	SB1	1		
4	SB12	1		
5	SB1	1		
6	SB12	1		
7	SB7	1		
8	SB7	1		
9	SB6	1		
10	SB7	1		
11	SB9	1		
12	SB4	1		
13	SB4	1		
14	SB3	1		
15	SB4	1		
16	SB3	1		
17	SB10	1		
18	SB10	1		
19	SB9	1		
20	SB10	1		
21	SB11		1	1
22	SB2		1	1
23	SB2		1	1
24	SB5		1	1
25	SB5		1	1
26	SB8		1	1
27	SB8		1	1
28	SB11		1	1
	SUBTOTAL	20	8	8

All Items on this page are Category 0010

LOC.	TO	LOC.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF
CB1	TO	PB1		20	
PB1	TO	SB1		10	
PB1	TO	PB2		90	
PB2	TO	SB2	15		
PB2	TO	SB3	5		
PB2	TO	PB3			90
PB3	TO	SB4		5	
PB3	TO	PB4			70
PB4	TO	SB5	10		
PB4	TO	PB5		80	
PB5	TO	SB6	10		
PB5	TO	PB6			130
PB6	TO	SB7		10	
PB6	TO	PB7		70	
PB7	TO	SB8	15		
PB7	TO	SB9	5		
PB7	TO	PB8			80
PB8	TO	SB10		5	
PB8	TO	PB9			80
PB9	TO	SB11	10		
PB9	TO	PB10		70	
PB10	TO	SB12	5		
PB10	TO	PB1			110
		SUBTOTAL	75	360	560

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

	DESCRIPITON	L.F
655.0230	CABLE TRAFFIC SIGNAL 5-14 AWG	985
655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	220
655.0280	CABLE TRAFFIC SIGNAL 19-14-AWG	1110
655.0305	CABLE TYPE UF 2-12 AWG GROUNDED	800
655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	815
655.0900	TRAFFIC SIGNAL EVP DETECTOR CABLE	800
SPV.0090.323	ELECTRICAL CABLE 3#4/1#8 XLP TYPE USE-2	15

PULL BOX NO.	LOCATION	SPV.0060.303 PULLBOXES 17-INCHX30-INCHX24-INCH EACH
PB1	42+74', 85' L	1
PB2	43+00', 54' L	1
PB3	43+00', 8' L	1
PB4	43+00', 28' R	1
PB5	42+78', 56' R	1
PB6	42+14', 55' R	1
PB7	41+95', 26' R	1
PB8	41+96', 17' L	1
PB9	41+95', 57' L	1
PB10	42+19', 77' L	1
	SUBTOTAL	10

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
SB2	42+89', 66' L	1
SB4	42+89', 12' L	1
SB8	41+96', 36' R	1
SB11	42+05', 66' L	1
	SUBTOTAL	4

	658.5070.003 SIGNAL MOUNTING HARDWARE (12TH ST.) EACH	661.0201.004 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (12TH ST.) EACH
SUBTOTAL	1	1

All Items on this page are Category 0010

TRAFFIC SIGNALS TOTALS

204.0195 REMOVING CONCRETE BASES	653.0905 REMOVING PULLBOXES	654.0101 CONCRETE BASES TYPE 1	654.0110 CONCRETE BASES TYPE 10	654.0120 CONCRETE BASES TYPE 10 SPECIAL	657.0100 PEDESTAL BASES	657.0350 POLES TYPE 10	657.0352 POLES TYPE 10 SPECIAL	657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT	657.0520 MONOTUBE ARMS 20-FT	657.0530 MONOTUBE ARMS 30-FT
EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
22	9	27	7	5	27	7	5	2	12	2	11	4	3

657.0536 MONOTUBE ARMS 35-FT SPECIAL	657.0541 MONOTUBE ARMS 40-FT SPECIAL	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH	658.0500 PEDESTRIAN PUSH BUTTONS	658.5070.001 SIGNAL MOUNTING HARDWARE (20TH ST.)	658.5070.002 SIGNAL MOUNTING HARDWARE (17TH ST.)	658.5070.003 SIGNAL MOUNTING HARDWARE (12TH ST.)	661.0201.001 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (20TH ST.)	661.0201.002 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (17TH ST.)	661.0201.003 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (FOND DU LAC AVE)	661.0201.004 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (12TH ST.)
EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
4	1	56	24	6	1	1	1	1	1	1	1

SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED	SPV.0060.212 FIBER OPTIC PATCH PANEL	SPV.0060.213 ETHERNET SWITCH	SPV.0060.215 ELECTRICAL SERVICE PEDESTAL	SPV.0060.218 EVP 1 DIRECTION DETECTOR	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL	SPV.0060.223 EVP CONFIRMATION LIGHT	SPV.0060.225 VEHICULAR VIDEO DETECTION SYSTEM- 2 CAMERAS	SPV.0060.228 ELECTRICAL RISER	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH	SPV.0060.268 VOICE INSTRUCTION AUDIBLE PUSH BUTTON	SPV.0060.269 VOICE INSTRUCTION AUDIBLE CONTROL UNIT	SPV.0060.303 PULLBOXES 17"X30"X24"
EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
3	3	4	4	2	12	3	12	1	2	24	12	1	33

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	652.0335* CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH	652.0615* CONDUIT SPECIAL 3-INCH	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG	655.0280 CABLE TRAFFIC SIGNAL 19-14 AWG	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE	SPV.0090.201 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT CONTRACTOR SUPPLIED	SPV.0090.323* ELECTRICAL CABLE 3 #4/1#8 XLP TYPE USE-2
LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF
325	1285	1535	365	2780	1820	2830	2515	2630	2515	5050	210

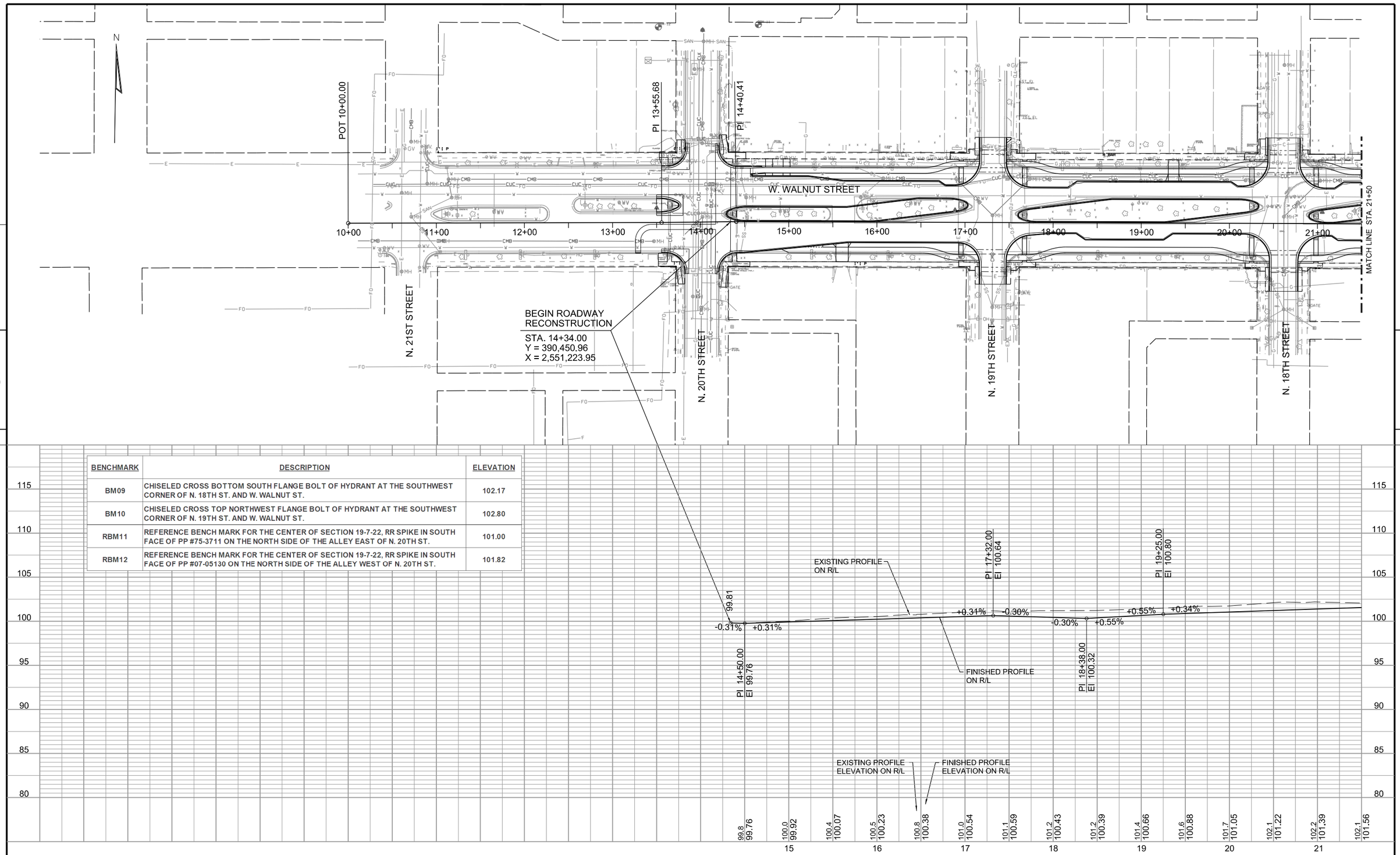
*NOTE: ADDITIONAL QUANTITIES SHOWN ELSEWHERE

All Items on this page are Category 0010

CITY UNDERGROUND CONDUIT

LOCATION			CATEGORY									
			204.0250 ABANDONING MANHOLES	SPV.0060.400 ADJUSTING CUC MANHOLE COVERS	SPV.0060.401 4' DIAMETER MANHOLE TYPE CUC	SPV.0060.411 4' DIAMETER "DOGHOUSE" MANHOLE TYPE CUC INSTALLED OVER CONDUIT	SPV.0060.413 5' DIAMETER "DOGHOUSE" MANHOLE TYPE CUC INSTALLED OVER CONDUIT	SPV.0060.425 INSTALLING CONDUIT INTO EXISTING MANHOLE	SPV0090.402 2-DUCT CONDUIT, CEMENT ENCASED, 4-INCH RIGID NONMETALLIC CONDUIT DB-60	SPV0090.404 4-DUCT CONDUIT, CEMENT ENCASED, 4-INCH RIGID NONMETALLIC CONDUIT DB-60	SPV.0090.406 6-DUCT CONDUIT, CEMENT ENCASED, 4-INCH RIGID NONMETALLIC CONDUIT DB-60	SPV.0090.408 8-DUCT CONDUIT, CEMENT ENCASED, 4-INCH RIGID NONMETALLIC CONDUIT DB-60
			EACH	EACH	EACH	EACH	EACH	EACH	LF	LF	LF	LF
PROPOSED TRAFFIC CONTROL CABINET	TO	STA 13 + 42.0, 3.8 RT							42			
STA 13 + 42.0, 3.8 RT	TO	MANHOLE 604										66
MANHOLE 604	-	STA 14 + 10.9, 5.0 RT					1					
MANHOLE 604	TO	MANHOLE 606									435	
MANHOLE 605A	-	STA 17 + 44.5, 52.7 RT	1									
MANHOLE 606	-	STA 18 + 92.0, 5.0 RT			1							
MANHOLE 606	TO	MANHOLE 608									518	
MANHOLE 607	-	STA 24 + 13.5, 53.5 LT		1 NEW COVER				2				
MANHOLE 607	TO	STA 24 + 12.7, 85.9 LT									30	
STA 24 + 12.7, 85.9 LT	TO	NORTH PAVING LIMITS								20		
STA 24 + 12.7, 85.9 LT	TO	PROPOSED TRAFFIC CONTROL CABINET							77			
MANHOLE 607	TO	MANHOLE 608								46		
MANHOLE 608	-	STA 24 + 15.0, 2.7 LT					1					
MANHOLE 608	TO	MANHOLE 609									302	
MANHOLE 609	-	STA 27 + 14.4, 1.0 RT					1					
MANHOLE 610A	-	STA 27 + 14.6, 10.2 LT	1									
MANHOLE 611A	-	STA 27 + 16.0, 53.5 LT	1									
MANHOLE 612A	-	STA 27 + 15.9, 82.5 LT	1									
MANHOLE 609	TO	MANHOLE 614									602	
MANHOLE 613A	-	STA 30 + 65.7, 53.5 RT	1									
MANHOLE 614	-	STA 33 + 19.3, 5.0 RT			1							
MANHOLE 614	TO	MANHOLE 616									383	
MANHOLE 615A	-	STA 34 + 85.2, 64.5 LT	1									
MANHOLE 616	-	STA 37 + 01.1, 34.7 LT				1						
MANHOLE 616	TO	MANHOLE 618									85	
MANHOLE 617	-	STA 37 + 03.9,24.7 RT		1 NEW COVER								
MANHOLE 618	-	STA 37 +91.6, 61.7 LT						1				
MANHOLE 619	-	STA 38 + 59.2, 58.5 LT		1 NEW COVER				1				
MANHOLE 619	TO	PROPOSED TRAFFIC CONTROL CABINET							75			
MANHOLE 622	-	STA 39 + 16.1, 24.7 RT		1 NEW COVER								
MANHOLE 625	-	STA 42 + 08.5, 25.5 RT		1 NEW COVER								
MANHOLE 626	-	STA 42 + 09.6, 27.1 LT		1 NEW COVER								
MANHOLE 627	-	STA 42 + 42.6, 32.8 LT		1 NEW COVER								
MANHOLE 628	-	STA 42 + 85.4, 28.5 LT		1 NEW COVER								
MANHOLE 629	-	STA 42 + 68.2, 54.1 LT		1 NEW COVER								
MANHOLE 630	-	STA 42 + 68.6, 75.7 LT		1 NEW COVER				1				
MANHOLE 630	TO	PROPOSED TRAFFIC CONTROL CABINET							23			
MANHOLE 631	-	STA 45 + 32.1, 31.7 LT		1 NEW COVER								
MANHOLE 632	-	STA 45 + 34.3, 46.3 LT		1 NEW COVER								
MANHOLE 633	-	STA 64 + 16.1, 9.0 LT		1 NEW COVER								
TOTALS			6	13	2	1	3	5	217	66	2355	66

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

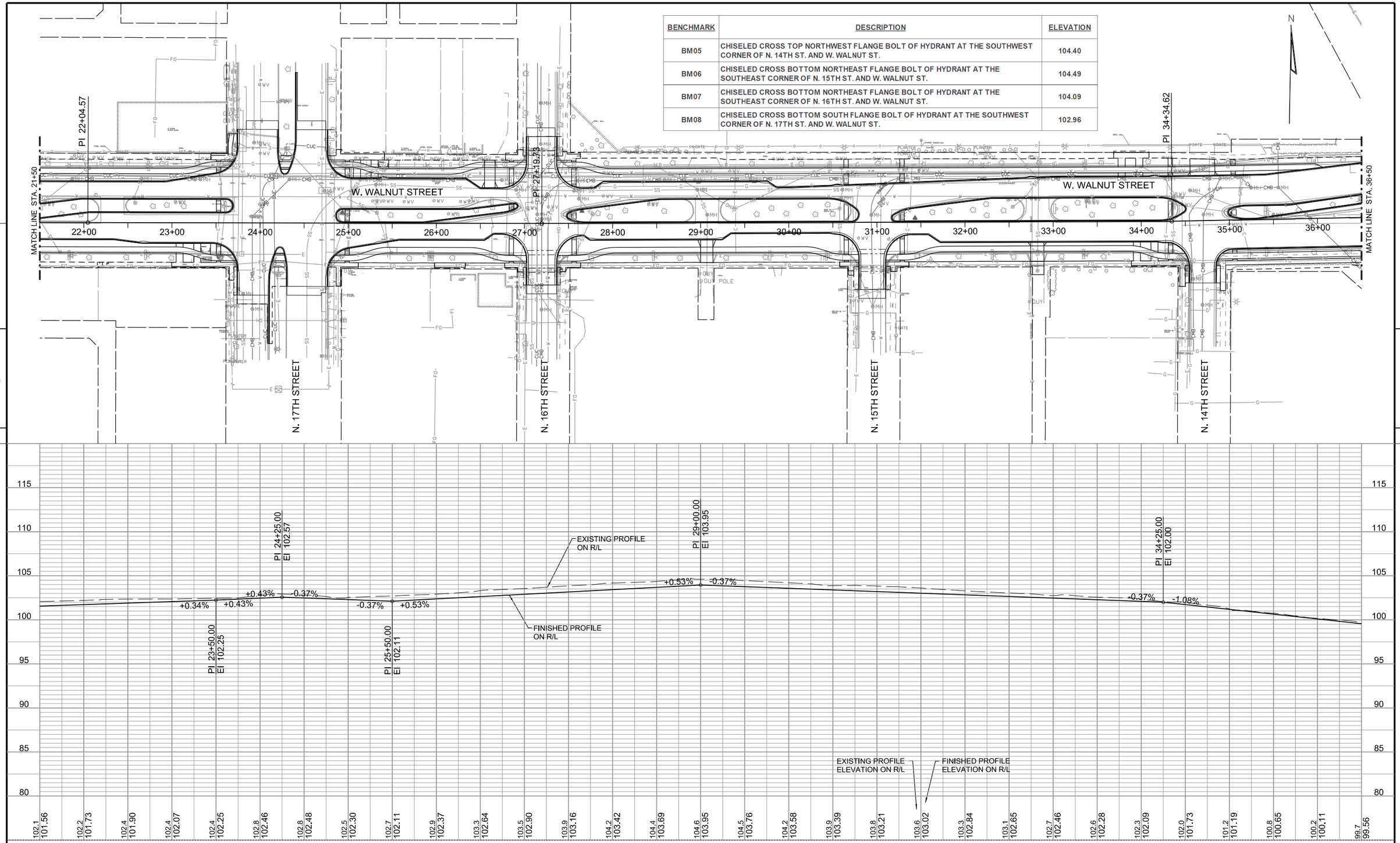


BENCHMARK	DESCRIPTION	ELEVATION
BM09	CHISELED CROSS BOTTOM SOUTH FLANGE BOLT OF HYDRANT AT THE SOUTHWEST CORNER OF N. 18TH ST. AND W. WALNUT ST.	102.17
BM10	CHISELED CROSS TOP NORTHWEST FLANGE BOLT OF HYDRANT AT THE SOUTHWEST CORNER OF N. 19TH ST. AND W. WALNUT ST.	102.80
RBM11	REFERENCE BENCH MARK FOR THE CENTER OF SECTION 19-7-22, RR SPIKE IN SOUTH FACE OF PP #75-3711 ON THE NORTH SIDE OF THE ALLEY EAST OF N. 20TH ST.	101.00
RBM12	REFERENCE BENCH MARK FOR THE CENTER OF SECTION 19-7-22, RR SPIKE IN SOUTH FACE OF PP #07-05130 ON THE NORTH SIDE OF THE ALLEY WEST OF N. 20TH ST.	101.82

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PLAN & PROFILE	SHEET 257	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\050101_pp.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 100.0000 sf / in.

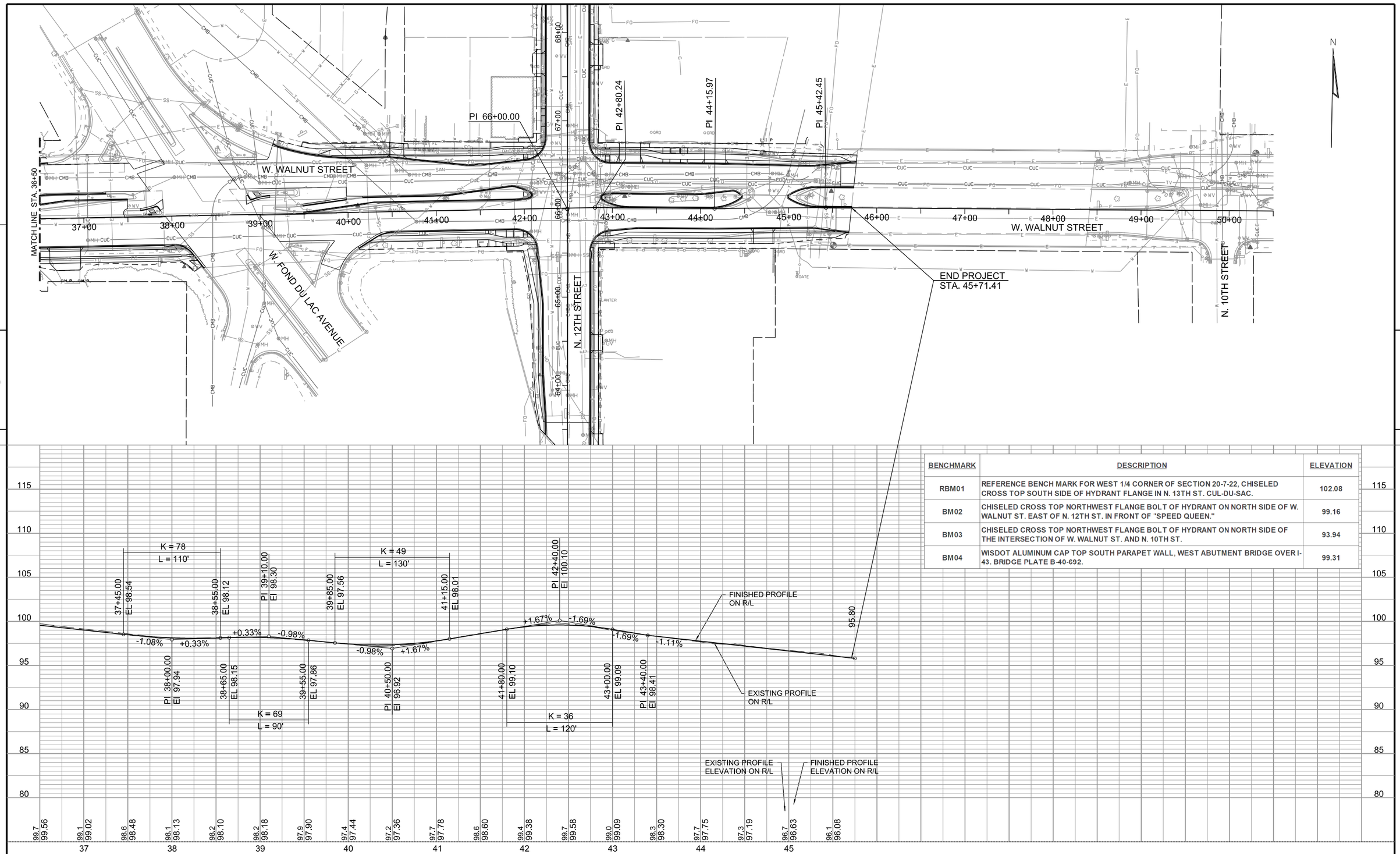
BENCHMARK	DESCRIPTION	ELEVATION
BM05	CHISELED CROSS TOP NORTHWEST FLANGE BOLT OF HYDRANT AT THE SOUTHWEST CORNER OF N. 14TH ST. AND W. WALNUT ST.	104.40
BM06	CHISELED CROSS BOTTOM NORTHEAST FLANGE BOLT OF HYDRANT AT THE SOUTHEAST CORNER OF N. 15TH ST. AND W. WALNUT ST.	104.49
BM07	CHISELED CROSS BOTTOM NORTHEAST FLANGE BOLT OF HYDRANT AT THE SOUTHEAST CORNER OF N. 16TH ST. AND W. WALNUT ST.	104.09
BM08	CHISELED CROSS BOTTOM SOUTH FLANGE BOLT OF HYDRANT AT THE SOUTHWEST CORNER OF N. 17TH ST. AND W. WALNUT ST.	102.96



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PLAN & PROFILE	SHEET 258	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\050102_pp.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 100.0000 sf / in.

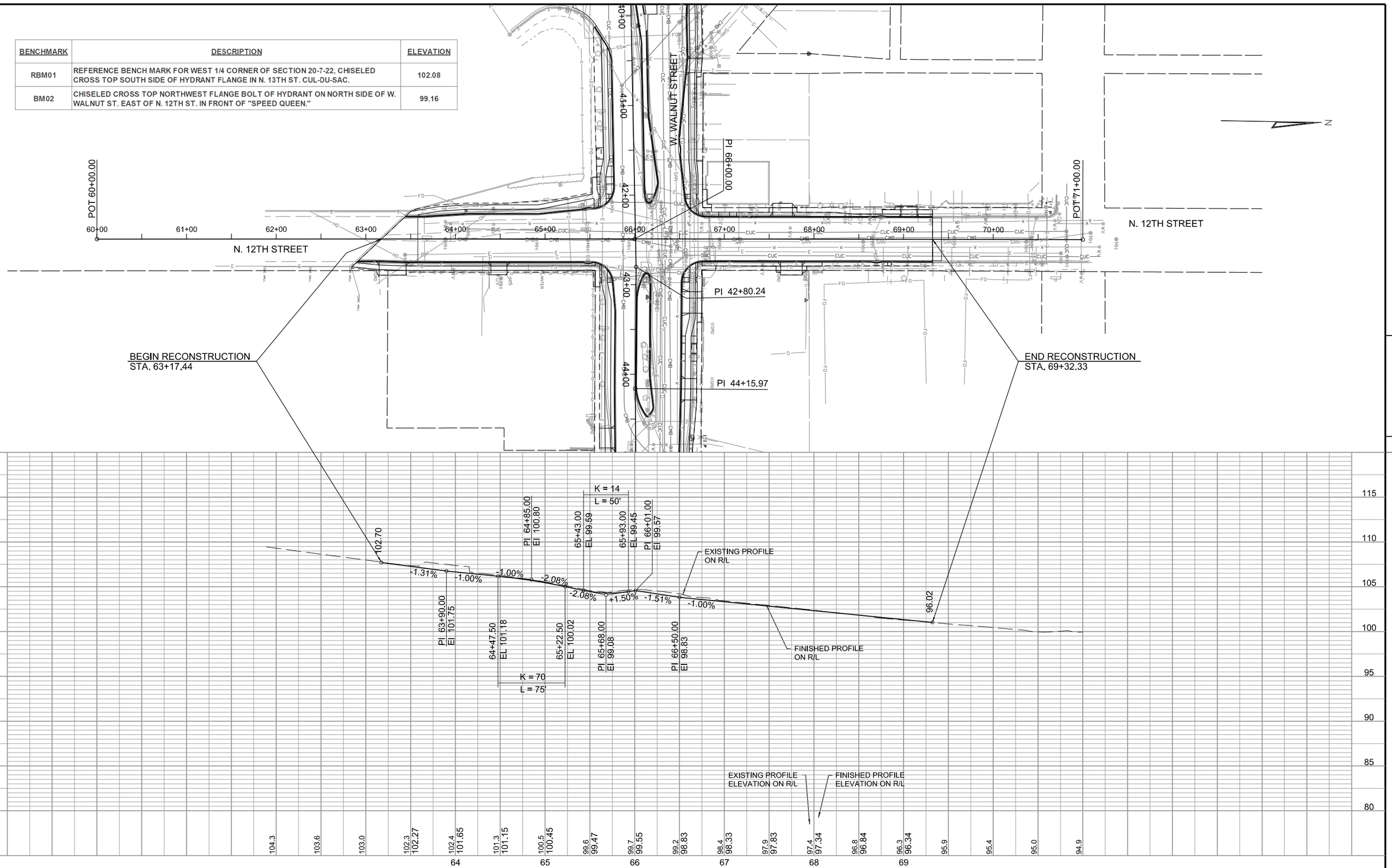
WISDOT/CADDS SHEET 40



BENCHMARK	DESCRIPTION	ELEVATION
RBM01	REFERENCE BENCH MARK FOR WEST 1/4 CORNER OF SECTION 20-7-22, CHISELED CROSS TOP SOUTH SIDE OF HYDRANT FLANGE IN N. 13TH ST. CUL-DU-SAC.	102.08
BM02	CHISELED CROSS TOP NORTHWEST FLANGE BOLT OF HYDRANT ON NORTH SIDE OF W. WALNUT ST. EAST OF N. 12TH ST. IN FRONT OF "SPEED QUEEN."	99.16
BM03	CHISELED CROSS TOP NORTHWEST FLANGE BOLT OF HYDRANT ON NORTH SIDE OF THE INTERSECTION OF W. WALNUT ST. AND N. 10TH ST.	93.94
BM04	WISDOT ALUMINUM CAP TOP SOUTH PARAPET WALL, WEST ABUTMENT BRIDGE OVER I-43. BRIDGE PLATE B-40-692.	99.31

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PLAN & PROFILE	SHEET 259	E

BENCHMARK	DESCRIPTION	ELEVATION
RBM01	REFERENCE BENCH MARK FOR WEST 1/4 CORNER OF SECTION 20-7-22, CHISELED CROSS TOP SOUTH SIDE OF HYDRANT FLANGE IN N. 13TH ST. CUL-DU-SAC.	102.08
BM02	CHISELED CROSS TOP NORTHWEST FLANGE BOLT OF HYDRANT ON NORTH SIDE OF W. WALNUT ST. EAST OF N. 12TH ST. IN FRONT OF "SPEED QUEEN."	99.16



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	PLAN & PROFILE	SHEET 260	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\050104_pp.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 100.0000 sf / in.

WISDOT/CADDS SHEET 40

Standard Detail Drawing List

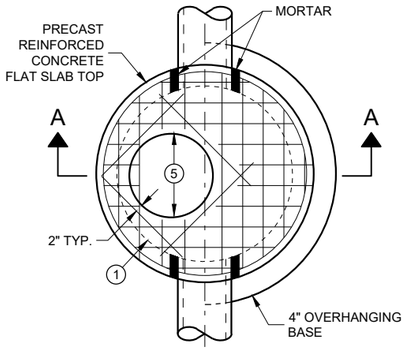
08B09-03	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D16-11	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B04-12	PULL BOX
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C11-10	CONCRETE BASE TYPE 10
09C15-01	CONCRETE BASE TYPE 10 SPECIAL
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
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.
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E08-09E	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-09F	TYPE 10 SPECIAL POLE 35' MONOTUBE ARM
09E08-09G	TYPE 10 SPECIAL POLE 40' MONOTUBE ARM
09E08-09K	GENERAL NOTES,HARDWARE DETAILS FOR TYPE 9/10,9/10 SPECIAL,12 & 13 POLES W/MONOTUBE ARMS
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11B02-02	CONCRETE MEDIAN NOSE
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-10	URBAN DOWELED CONCRETE PAVEMENT
13C15-06A	CONCRETE BASE
13C15-06B	CONCRETE BASE
13C18-07A	CONCRETE PAVEMENT JOINTING
13C18-07B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
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
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15A	PAVEMENT MARKING SYMBOLS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C07-15E	PAVEMENT MARKING FOR BIKE LANES
15C08-21A	LONGITUDINAL MARKING (MAINLINE)
15C08-21C	PAVEMENT MARKING (TURN LANES)
15C11-09A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-06B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C18-06C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C29-07A	BICYCLE LANE MARKING
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING

6

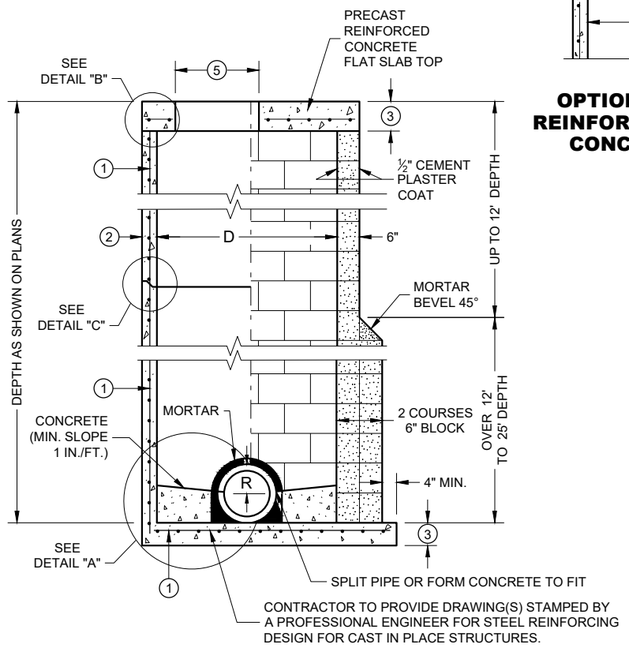
Standard Detail Drawing List

15D20-06B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D22-05	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D30-07A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-07B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-07C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-07D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-07F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-07H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-07I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-07J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D50-02B	TRAFFIC CONTROL, ADDED LANE CLOSURE WITH LANE SHIFT

6



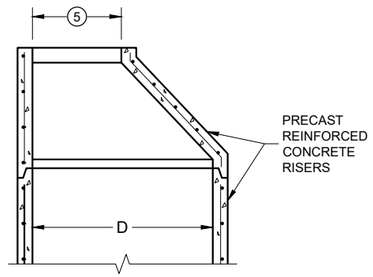
PLAN VIEW
CIRCULAR OPENING



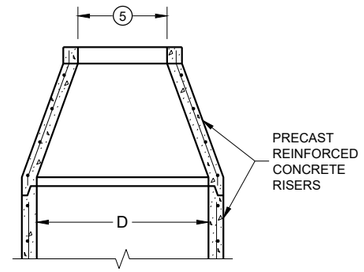
SECTION A - A

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

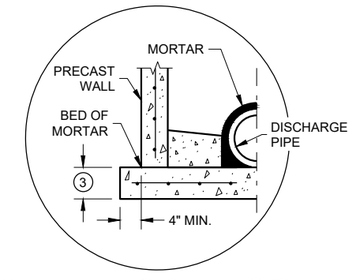
MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

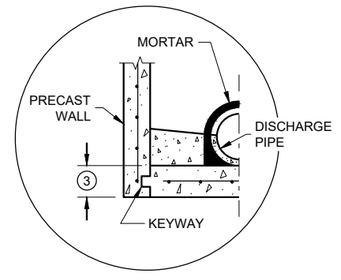
PIPE MATRIX

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.

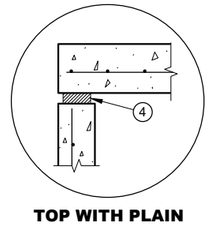


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

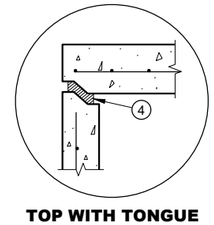


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

DETAIL "A"

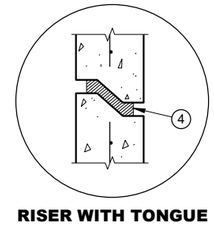


TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT

DETAIL "B"



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "C"

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL 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".

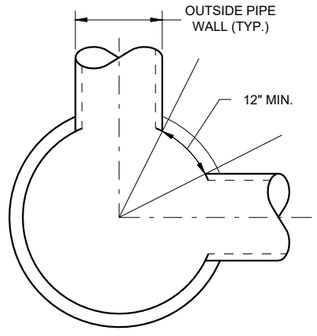
(1) FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(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

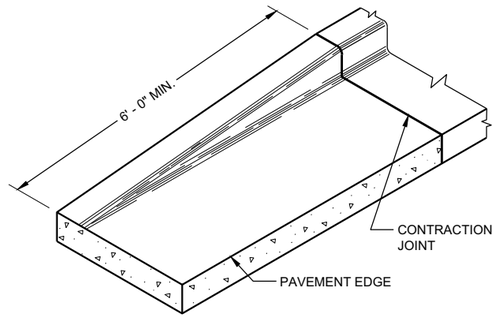
APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
263

FHWA

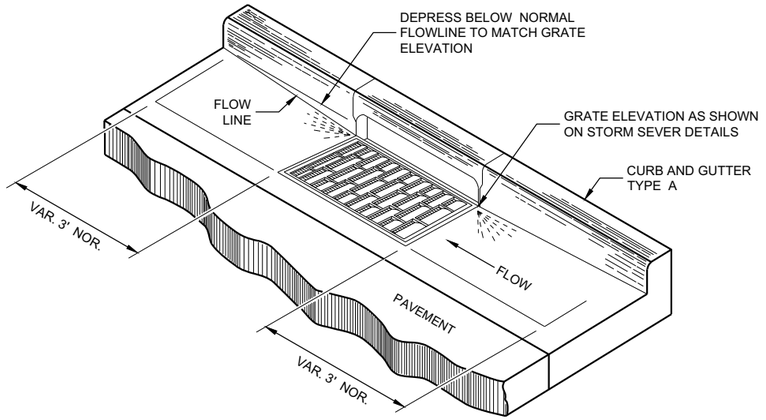
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

6

SDD 08B09 - 03



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.

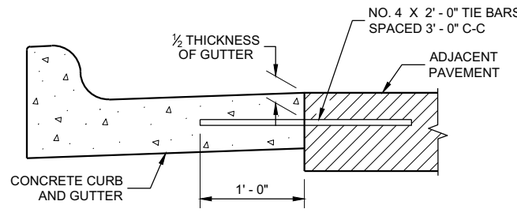
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

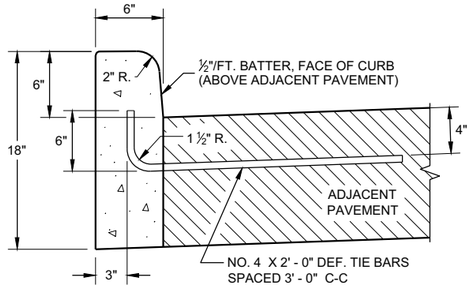
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(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.

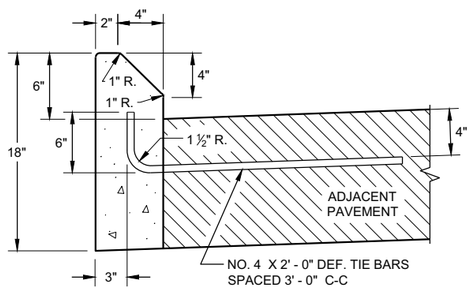
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

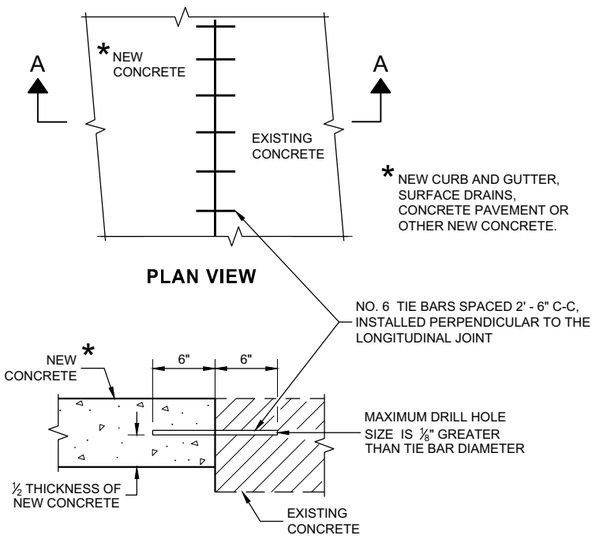


TYPES A (1) & D



TYPES G (1) & J

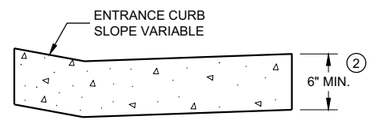
CONCRETE CURB



PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

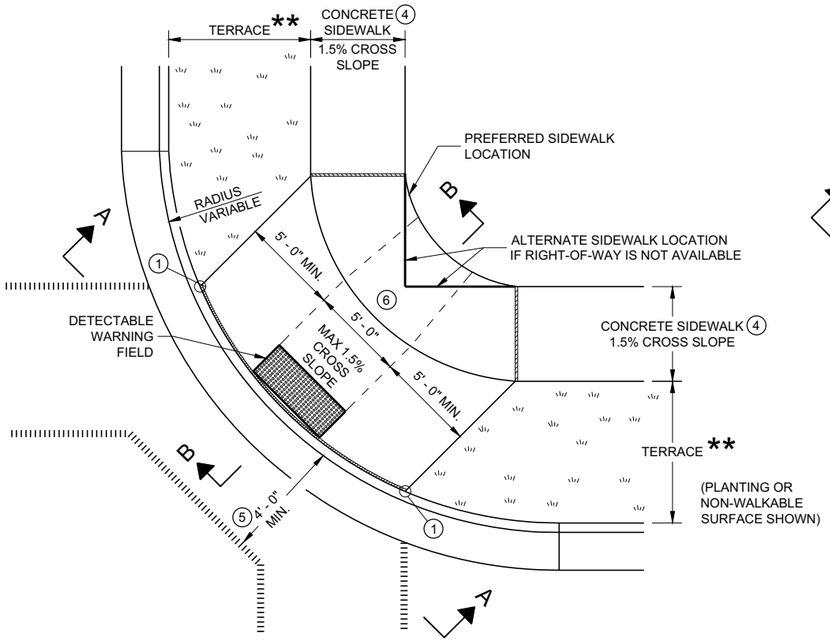
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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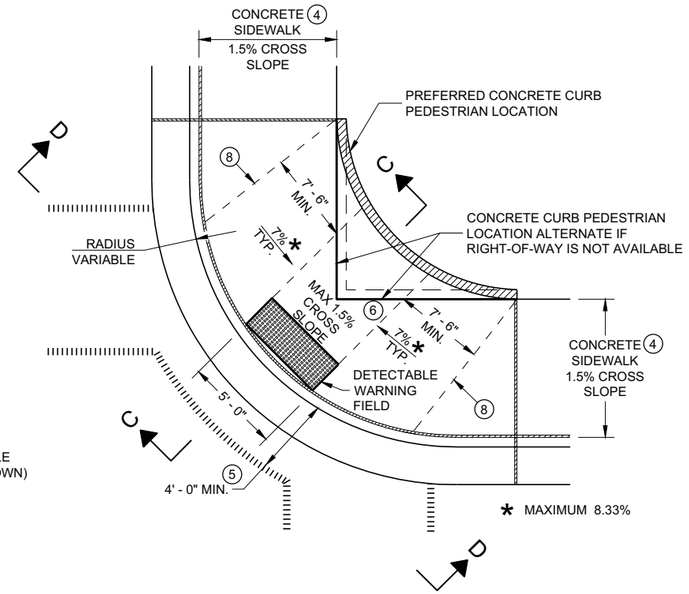
SDD08D01 - 22b



PLAN VIEW

CURB RAMP TYPE 1

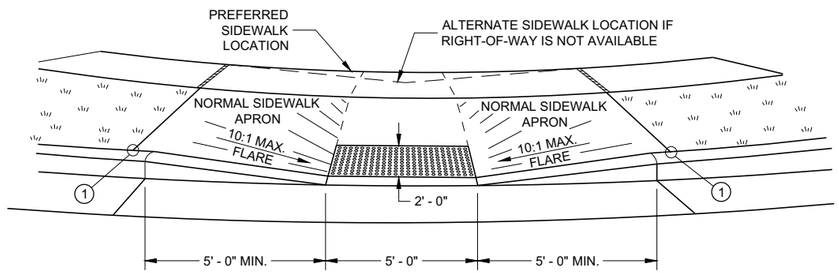
(CENTER OF CORNER RADIUS)



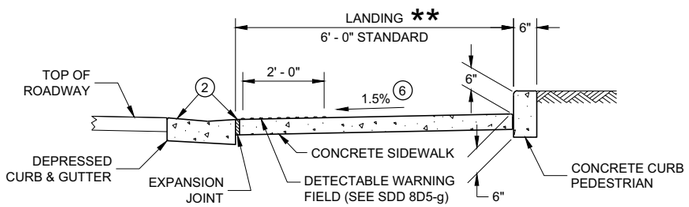
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

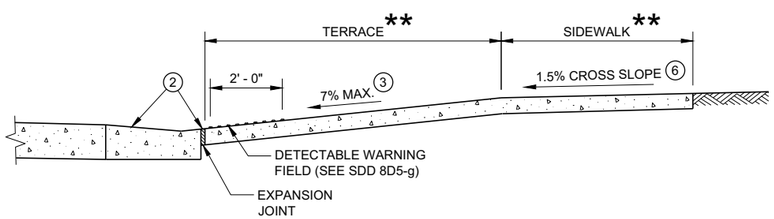


VIEW A - A FOR TYPE 1

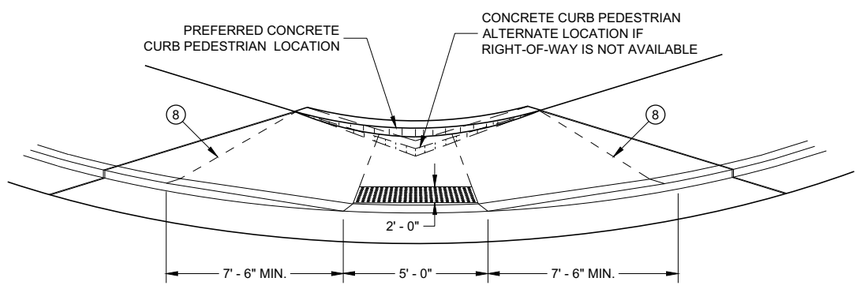


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

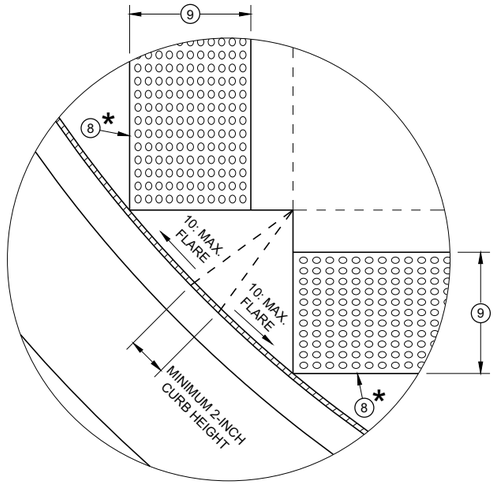
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

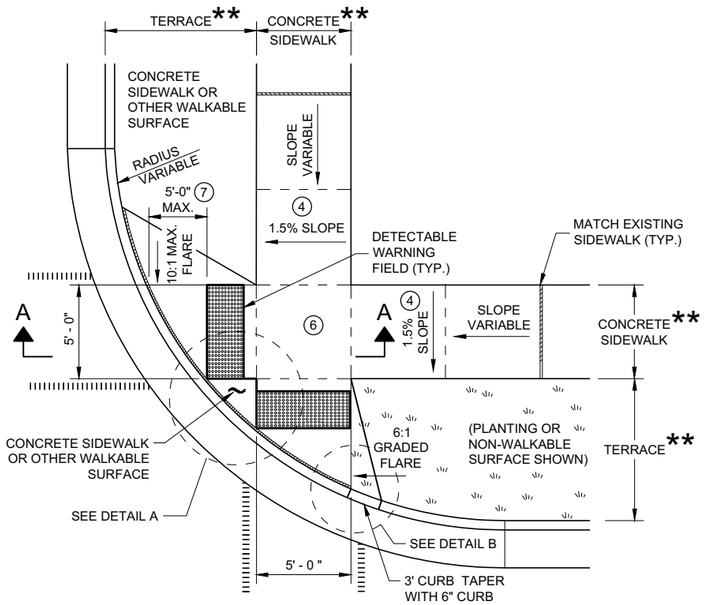
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 08D05 - 20a



DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

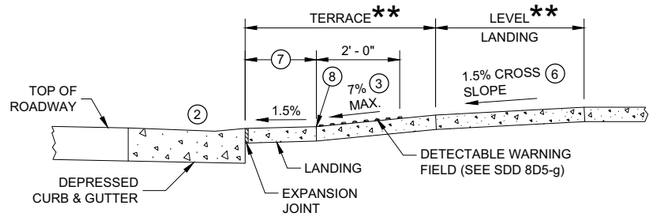
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

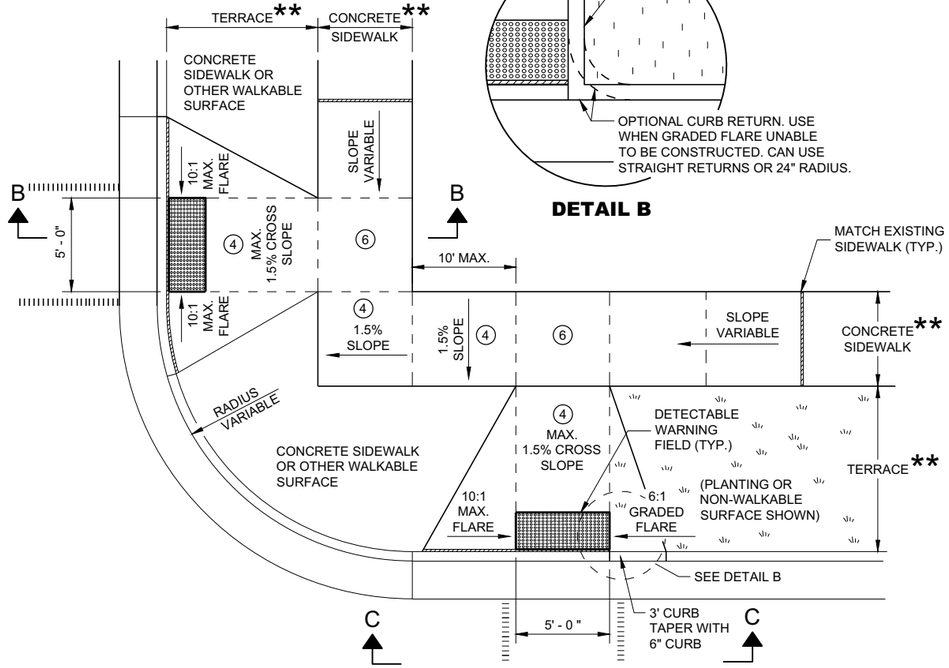
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2

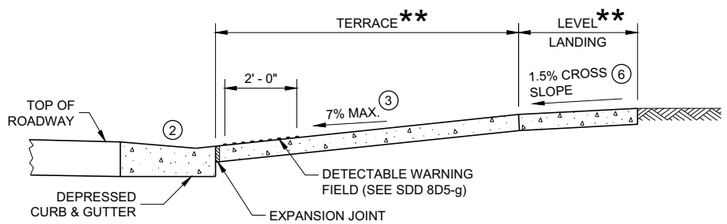
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS



DETAIL B

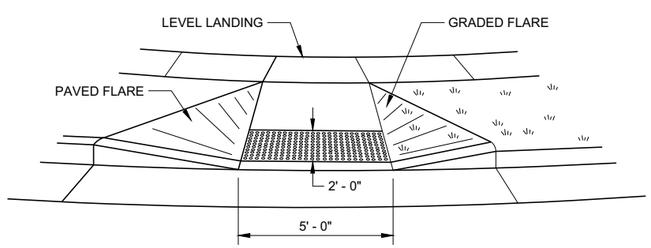
PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



SECTION B - B FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



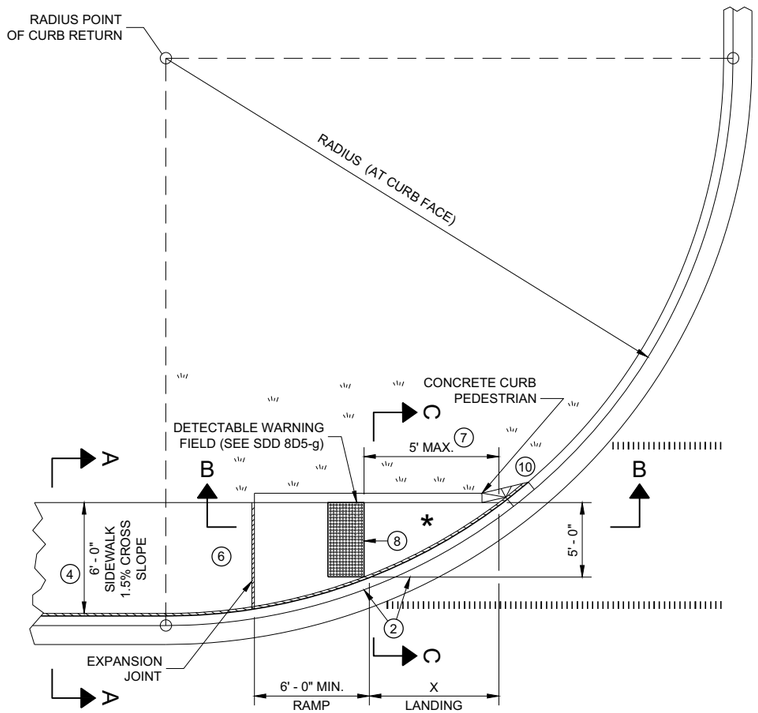
VIEW C - C FOR TYPE 3

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 08D05 - 20b

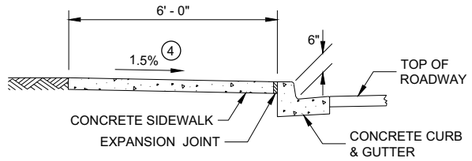


PLAN VIEW

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.

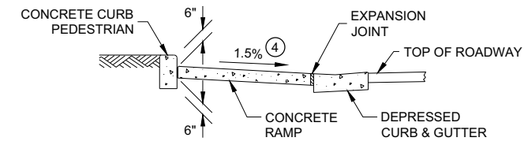
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

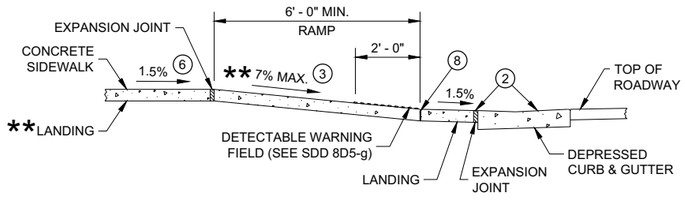
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



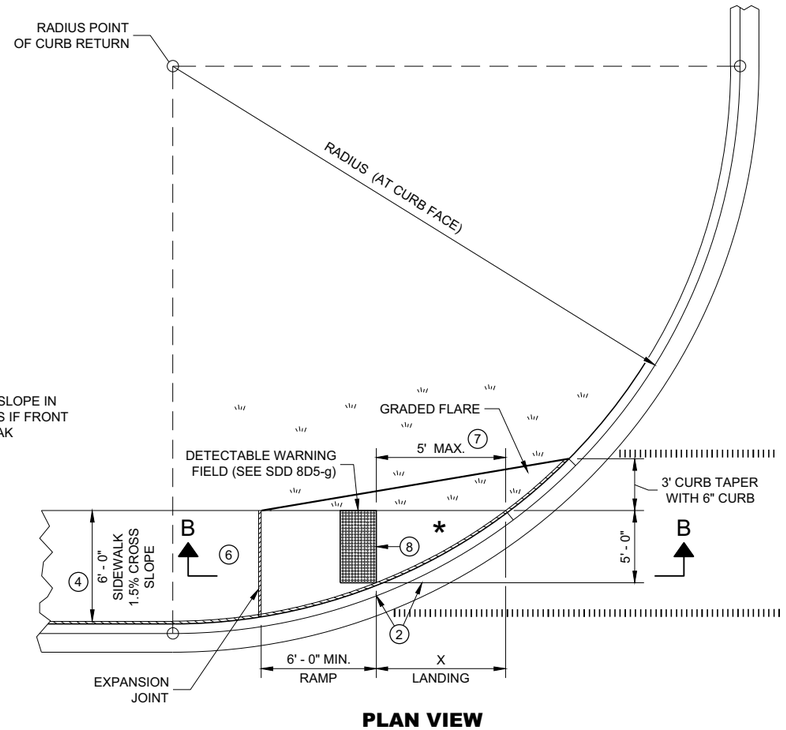
SECTION C - C FOR TYPE 4A



SECTION B - B FOR TYPE 4A AND TYPE 4A1

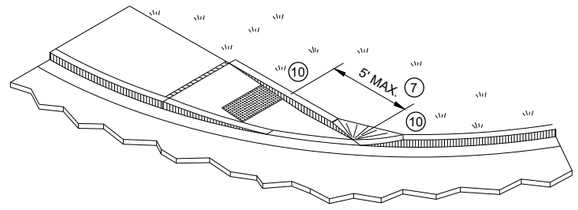
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

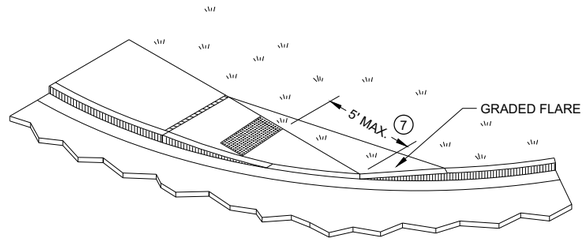


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



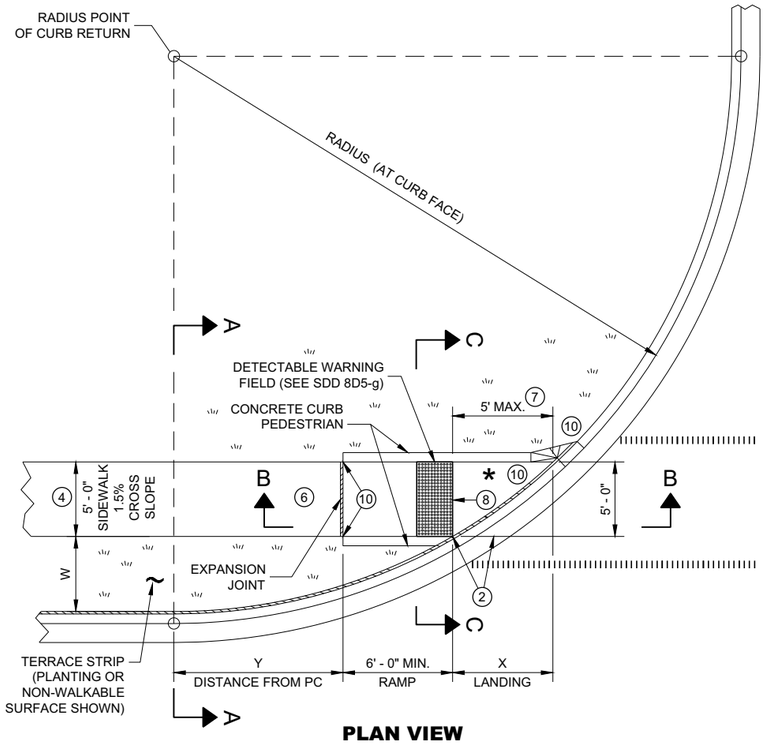
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20c

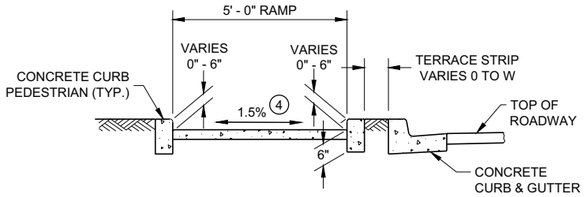


PLAN VIEW

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.

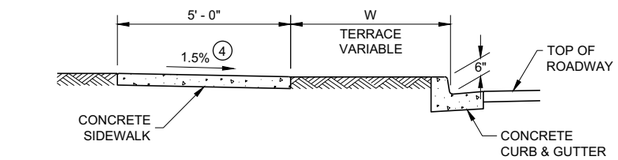
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

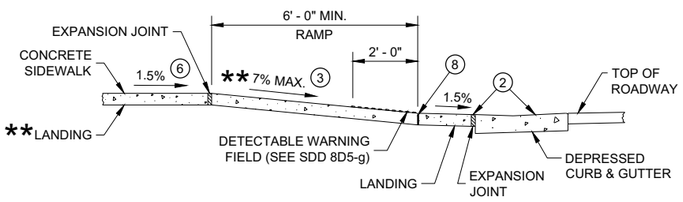
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



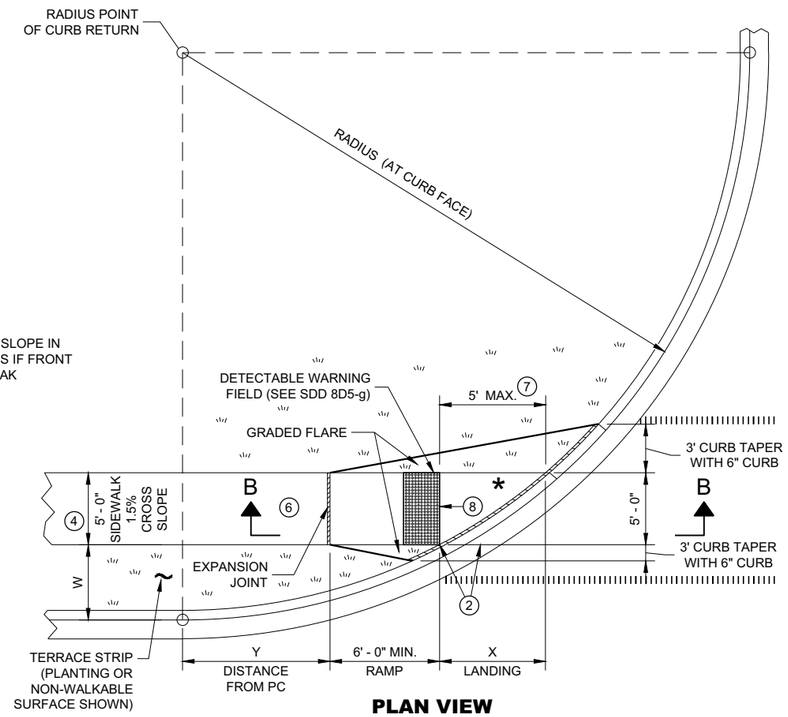
SECTION A - A FOR TYPE 4B



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

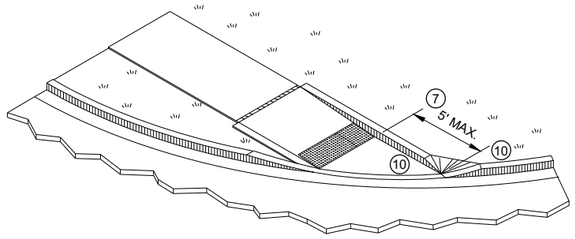
SECTION B - B FOR TYPE 4B AND TYPE 4B1

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

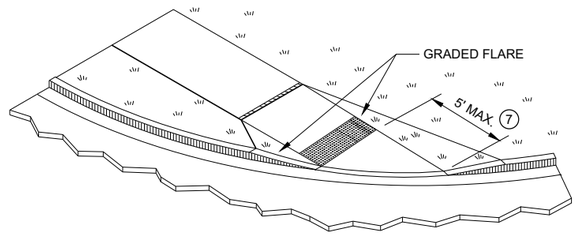


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



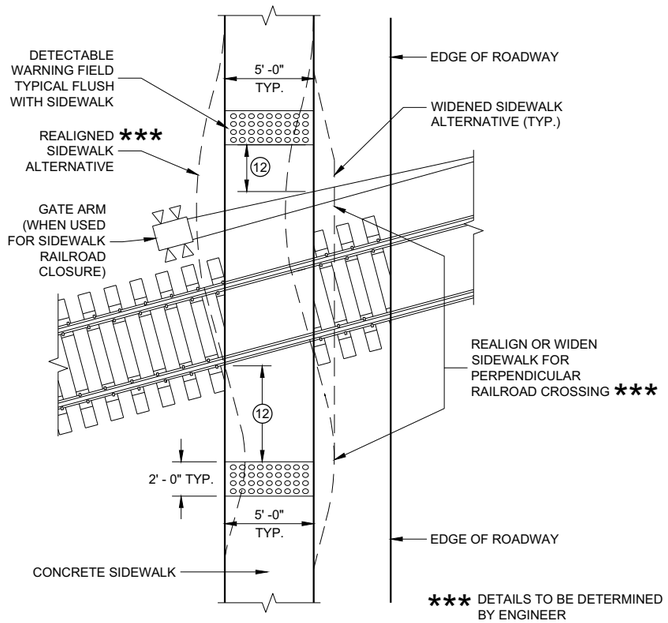
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

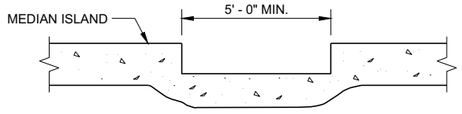
6

SDD 08D05 - 20d

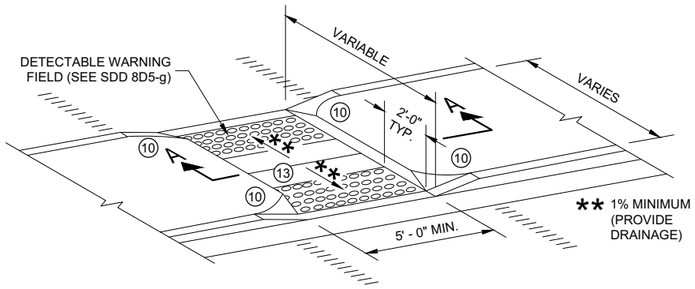


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 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.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

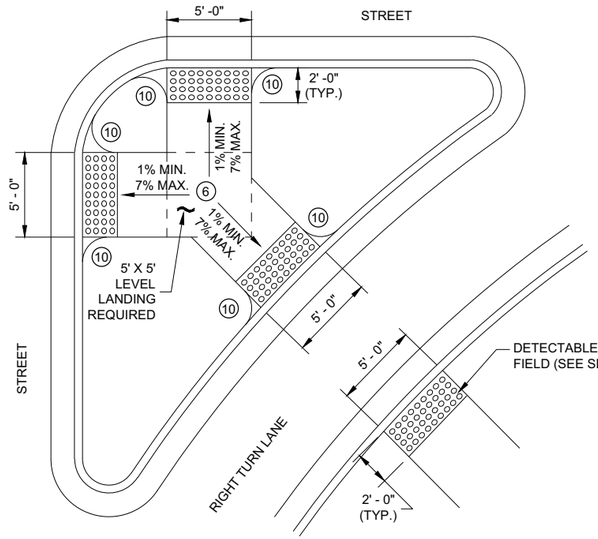
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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

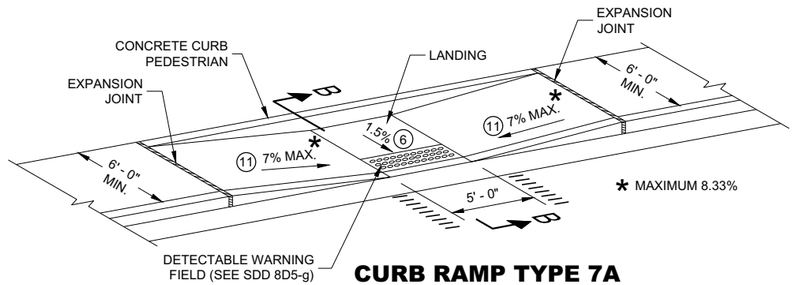
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

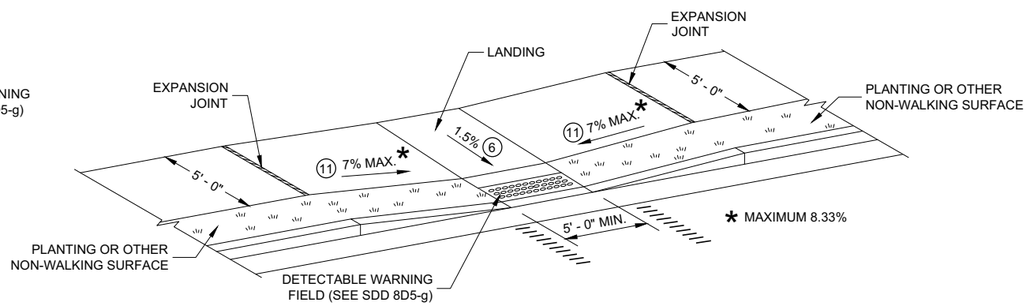
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 7A

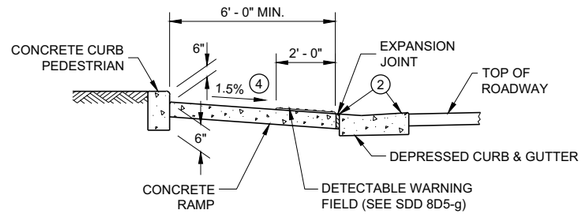
MID BLOCK CROSSING



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

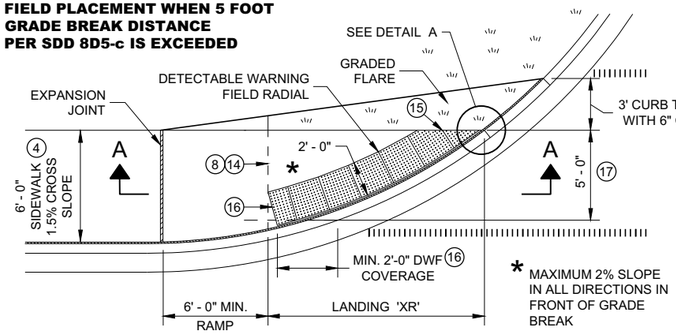
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20e

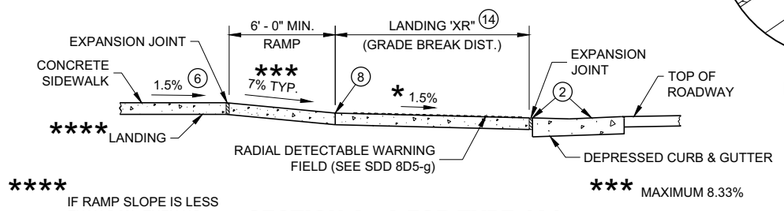
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

CURB RAMP TYPE 4A1

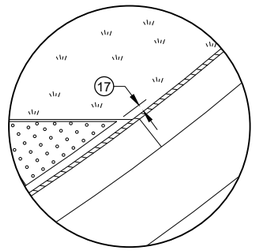
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

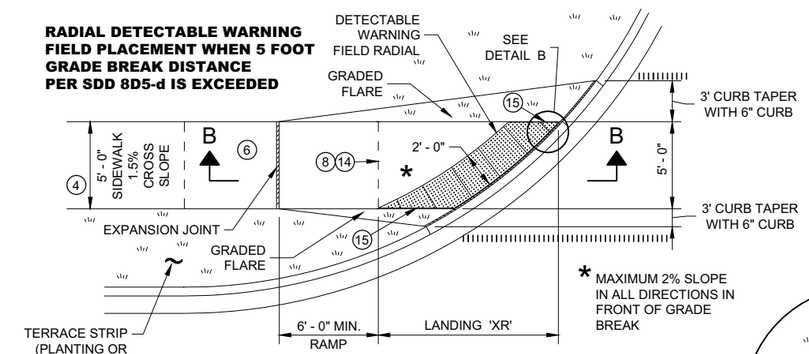
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

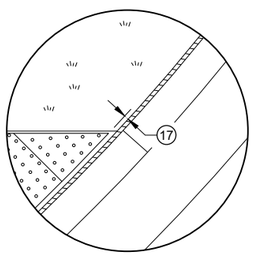
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



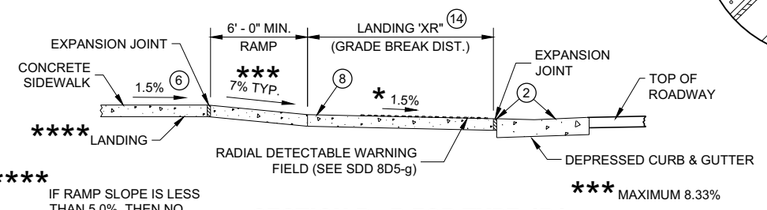
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

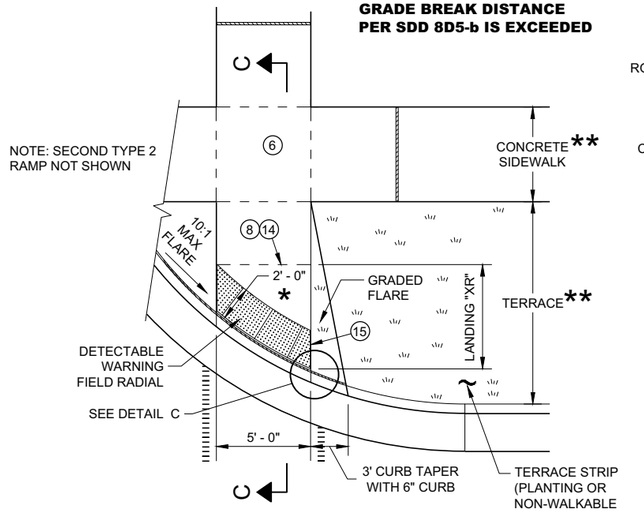


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

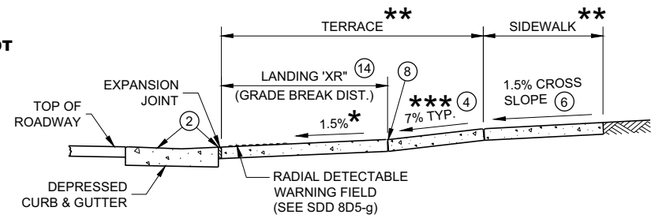


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

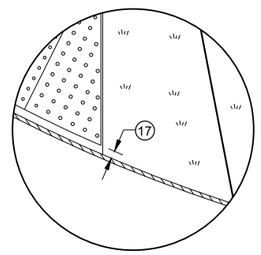


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



DETAIL C

CURB RAMPS
RADIAL DETECTABLE WARNING FIELD APPLICATIONS

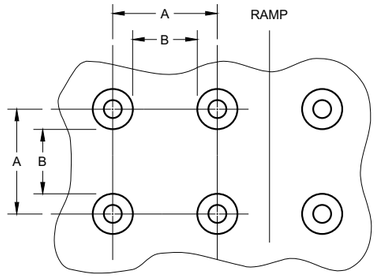
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

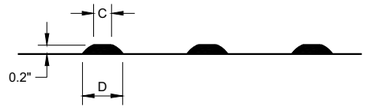
SDD 08D05 - 20f

	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.

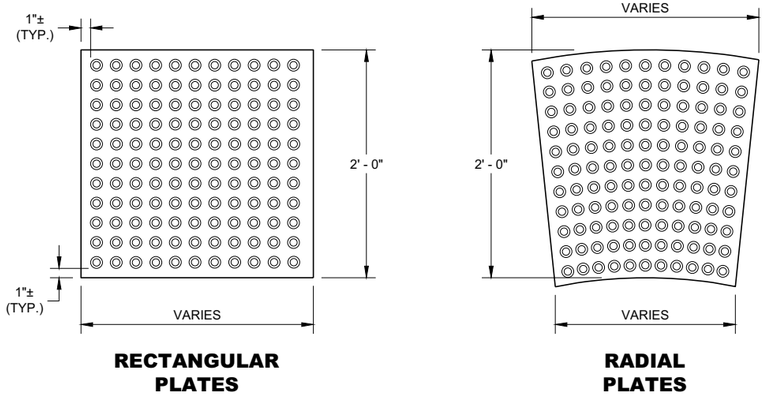


PLAN VIEW



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.

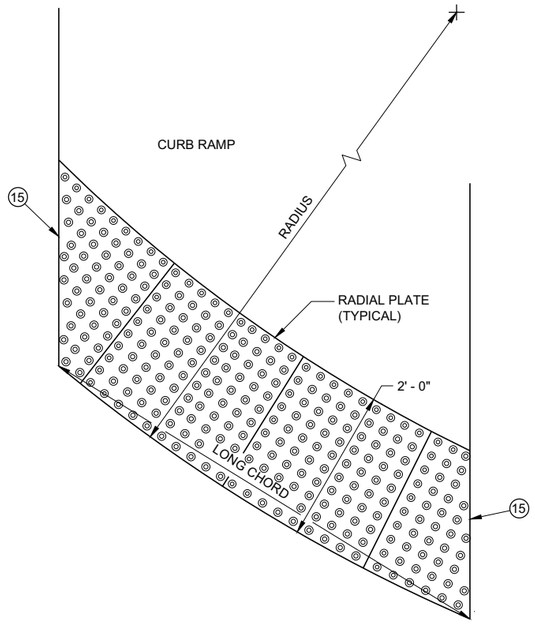
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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.

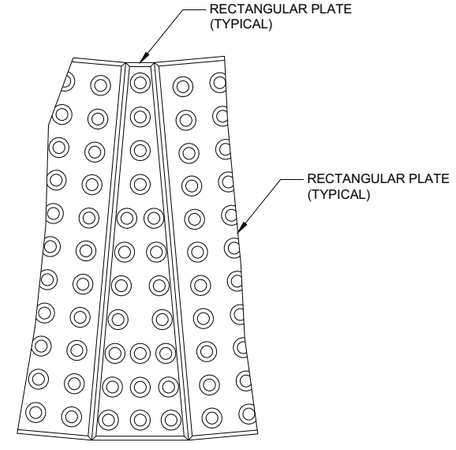
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

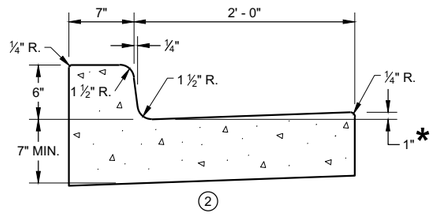
CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

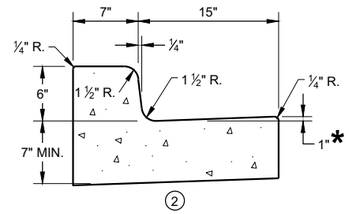
FHWA

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SDD 08D05 - 20g

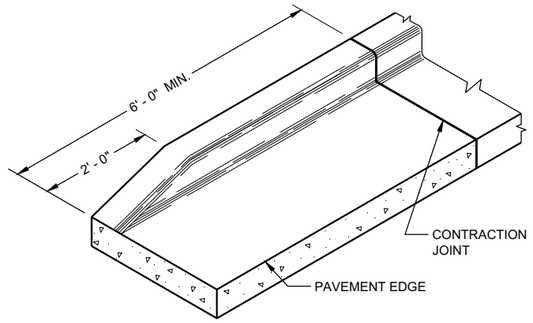


CONCRETE CURB AND GUTTER 31" ①

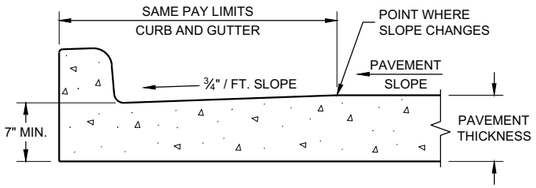
*TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



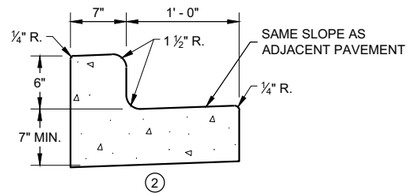
CONCRETE CURB AND GUTTER 22" ①



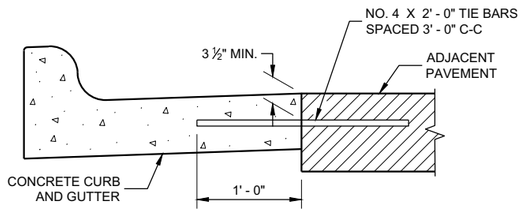
END SECTIONCURB AND GUTTER



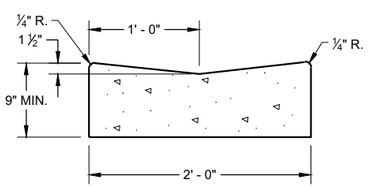
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER



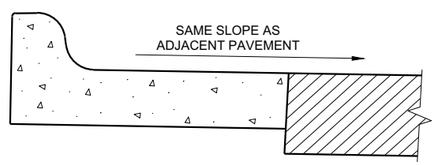
CONCRETE CURB AND GUTTER 19" ①



TYPICAL TIE BAR LOCATION ①



CONCRETE GUTTER 24" ①



HIGH SIDE SECTION ③

(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

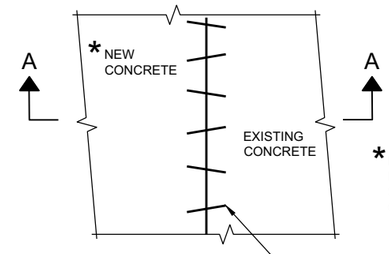
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUITED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

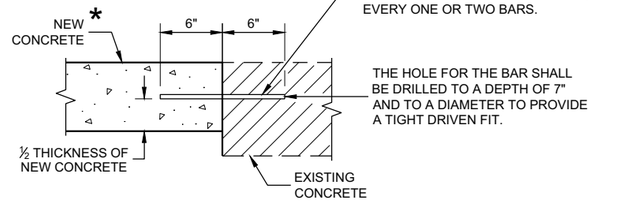
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLANS



PLAN VIEW

* EXISTING AND NEW CONCRETE MAY BE CURB AND GUTTER, SURFACE DRAINS, PAVEMENT OR OTHER CONCRETE STRUCTURE.



SECTION A - A

PAVEMENT TIES

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

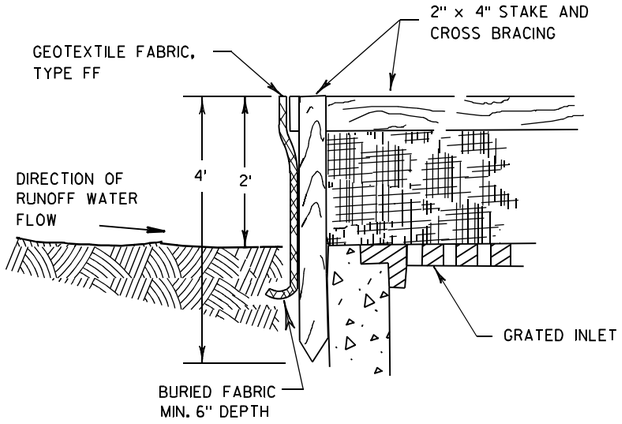
(For Optional use in Milwaukee Co. Only)

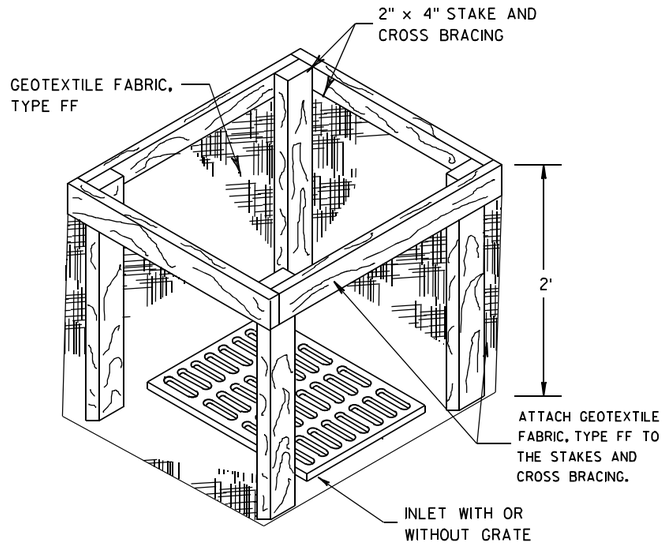
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

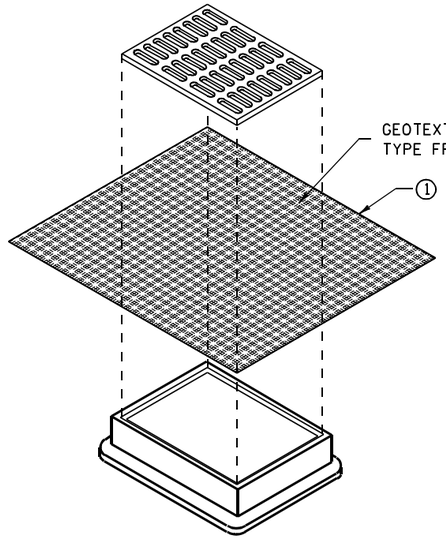
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SDD 08D16 - 11



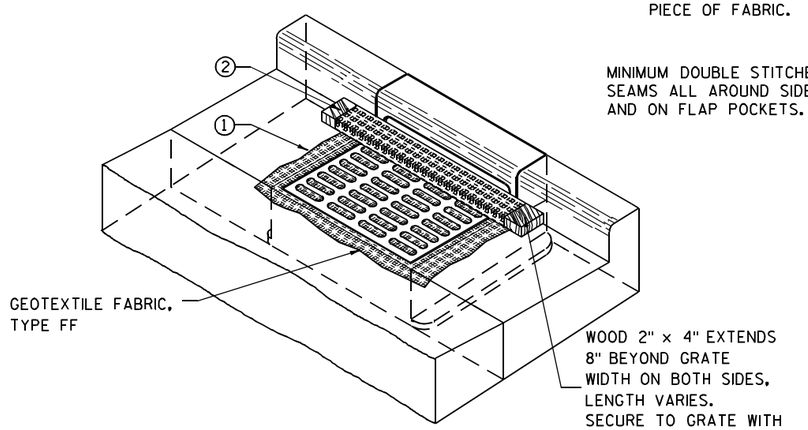


INLET PROTECTION, TYPE A

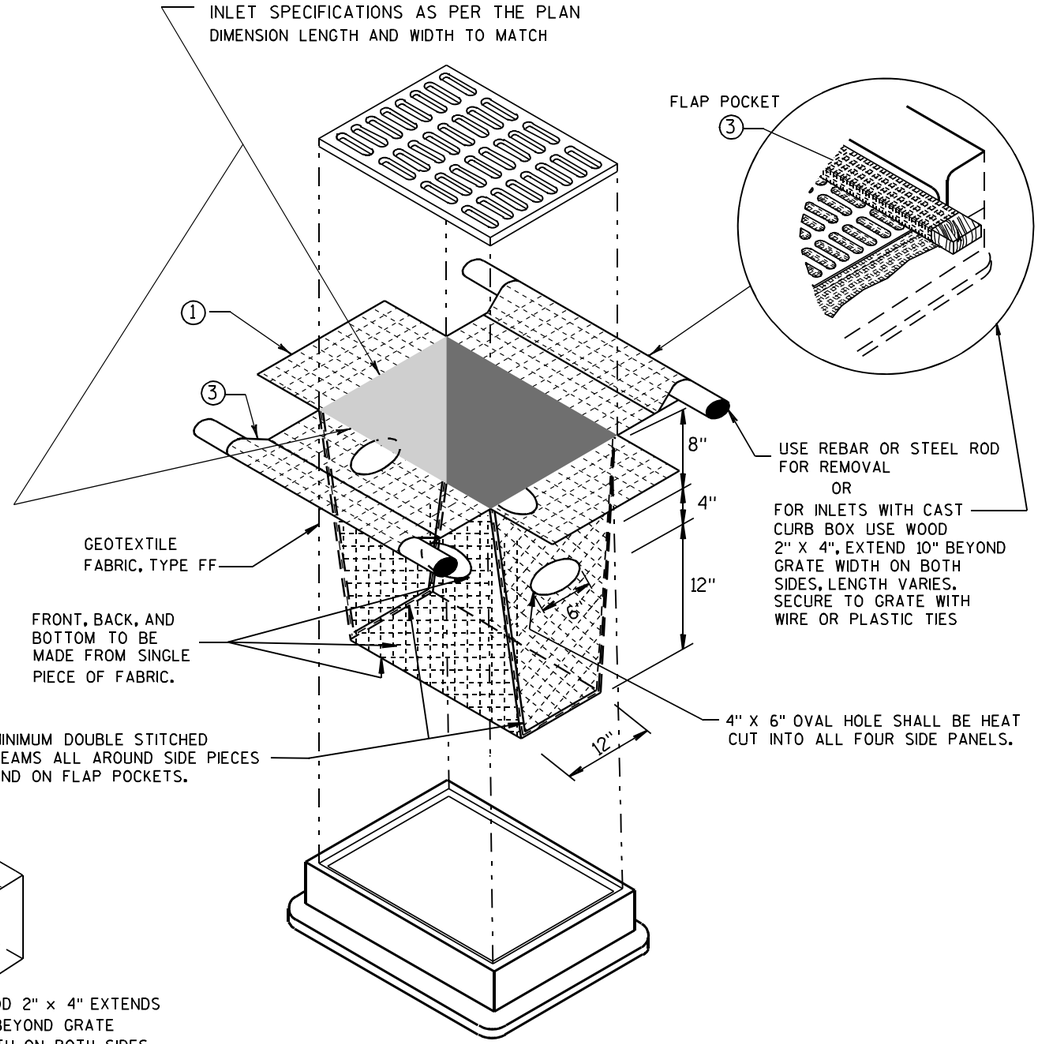


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

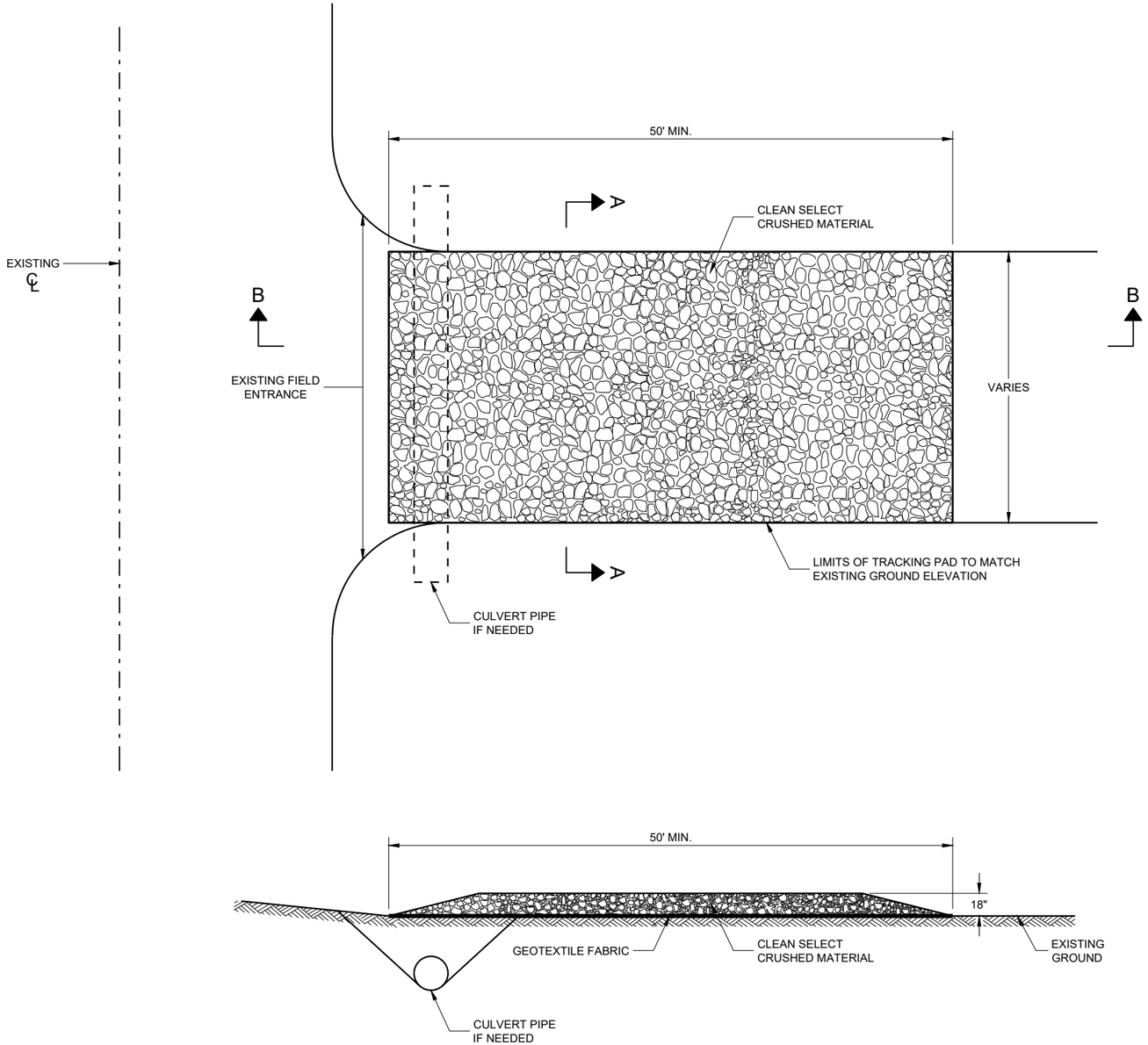
APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



SECTION B - B

GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

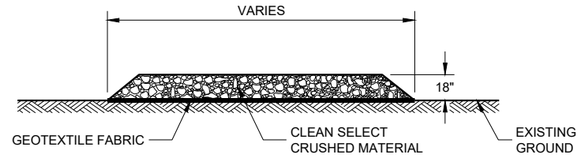
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A

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SDD 08E14 - 01

TRACKING PAD

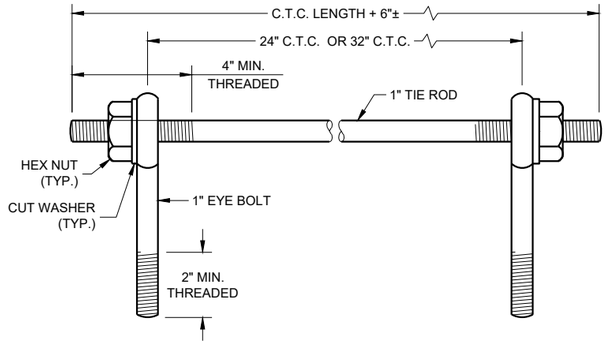
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER

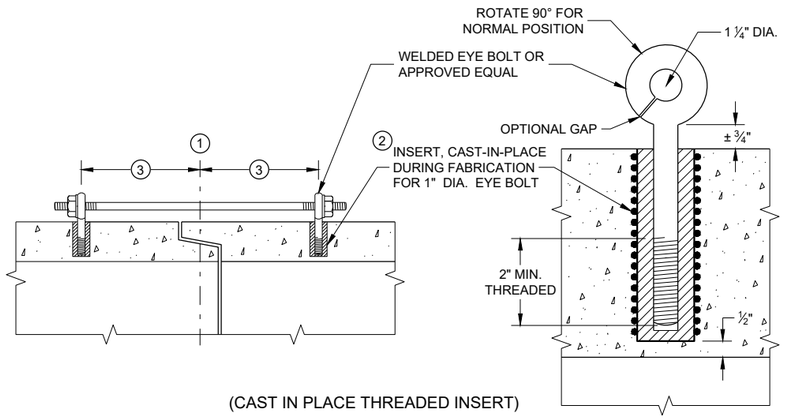
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SDD 08E14 - 01



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.

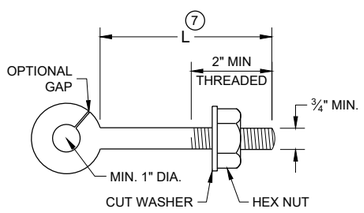
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

(4) BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

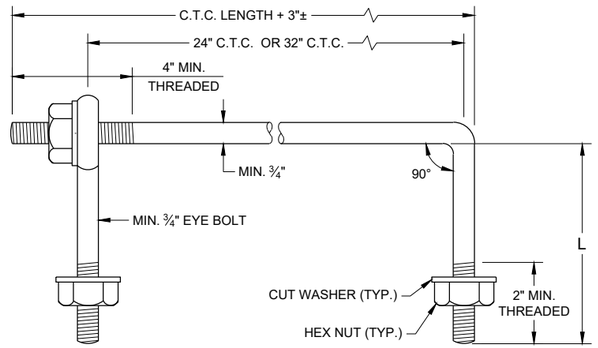
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

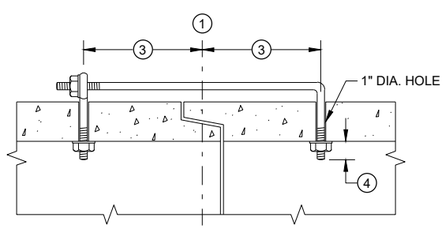


EYE BOLT (7)

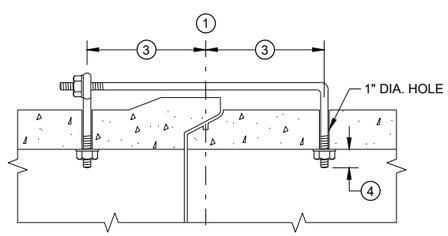
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

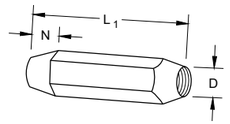
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

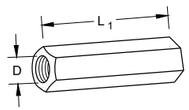
ADJUSTABLE TIE ROD TABLE

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



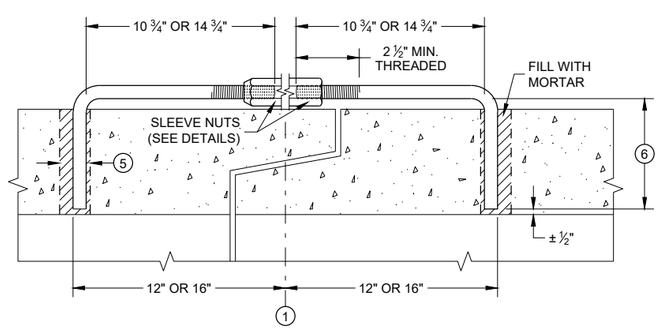
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PLAIN

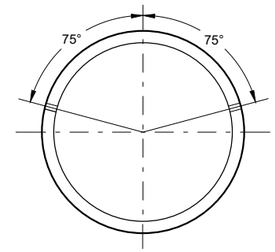
RIGHT AND LEFT THREADS

SLEEVE NUTS



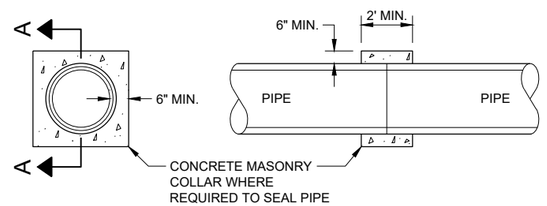
LONGITUDINAL SECTION

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

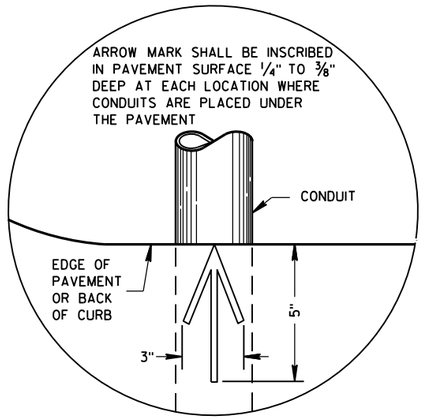
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

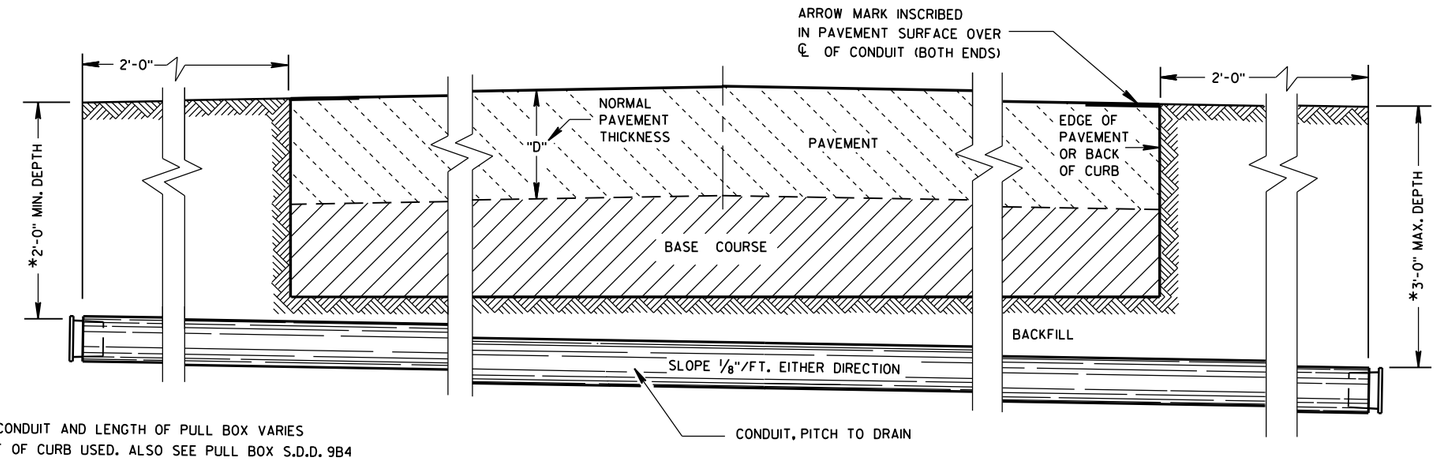
SDD 08F04 - 08

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.

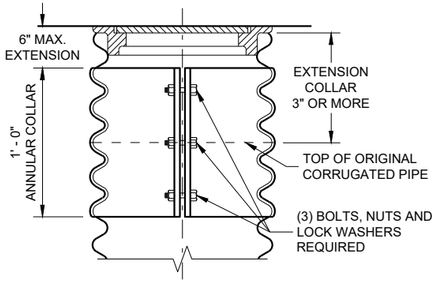
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

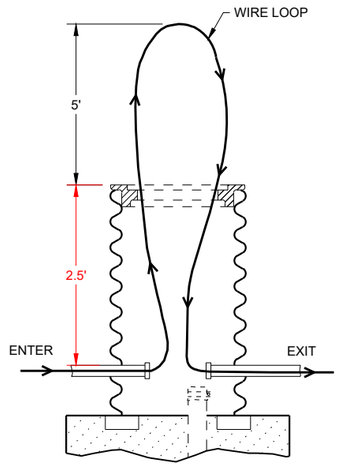
APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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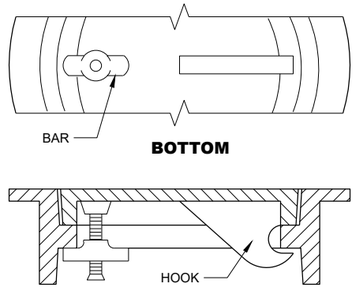
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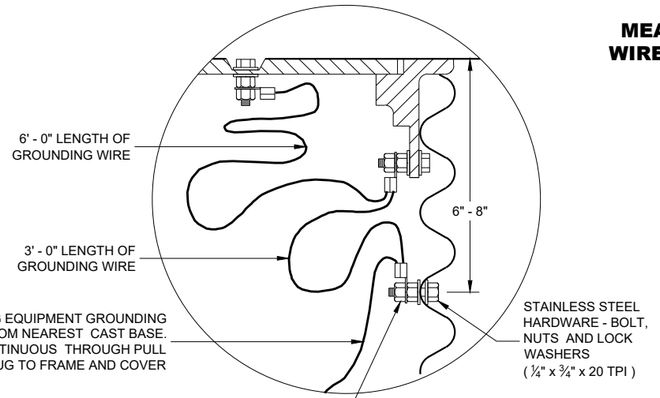
CORRUGATED PIPE EXTENDER



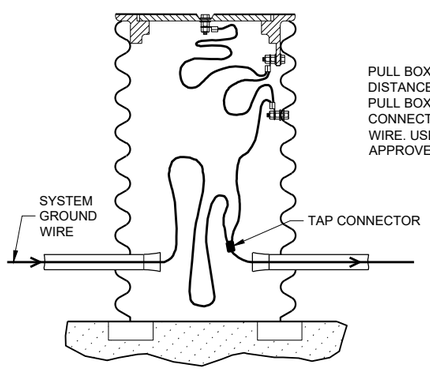
MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



ALTERNATE COVER (LOCKING)
TIGHTENING BAR TYPE

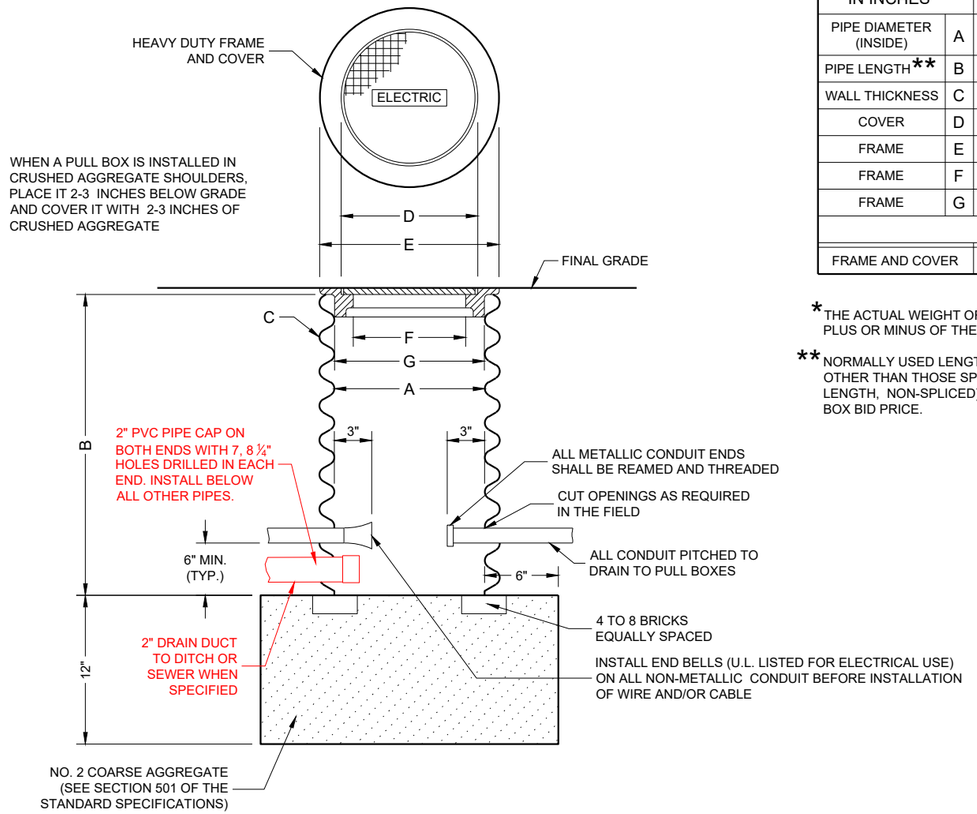


EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN ¼".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH**	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 ¼	10 ¼	10 ¼	16 ¼	16 ¼	16 ¼	22 ¼	22 ¼	22 ¼
FRAME	E	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½	26 ½	26 ½	26 ½
FRAME	F	8 ½	8 ½	8 ½	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½
FRAME	G	11 ½	11 ½	11 ½	17 ½	17 ½	17 ½	23 ½	23 ½	23 ½
WEIGHT IN POUNDS*										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

*THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

**NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

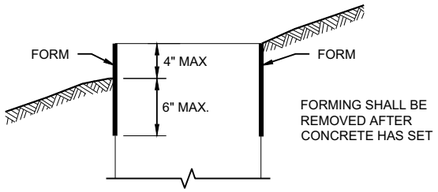
APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 277

FHWA

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SDD 09B04-12

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

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

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

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

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

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

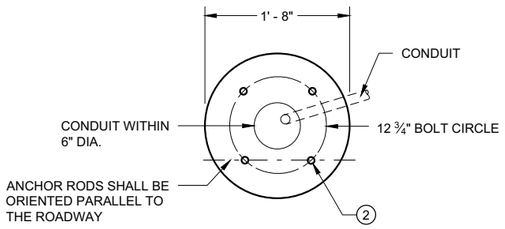
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

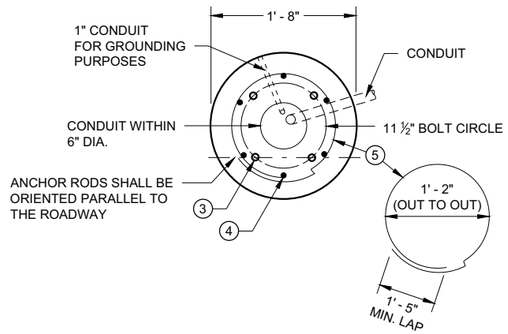
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

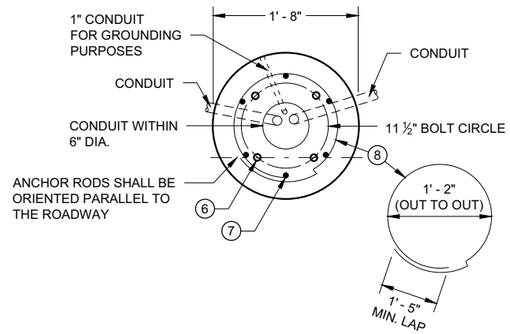
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

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







1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

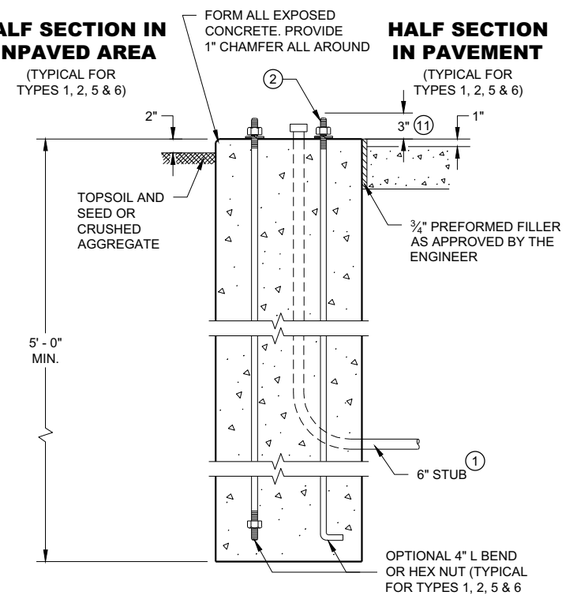
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

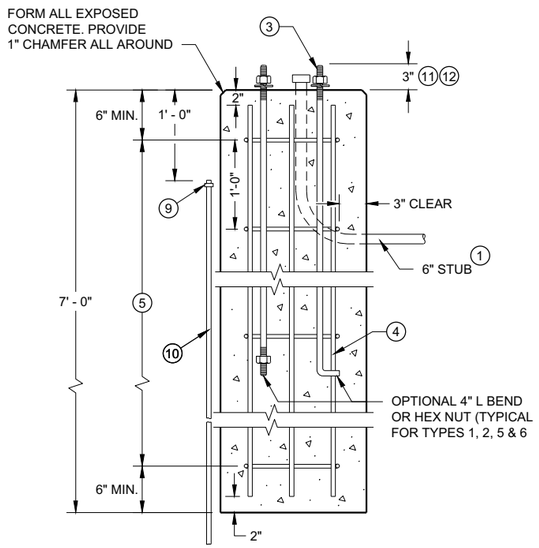
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

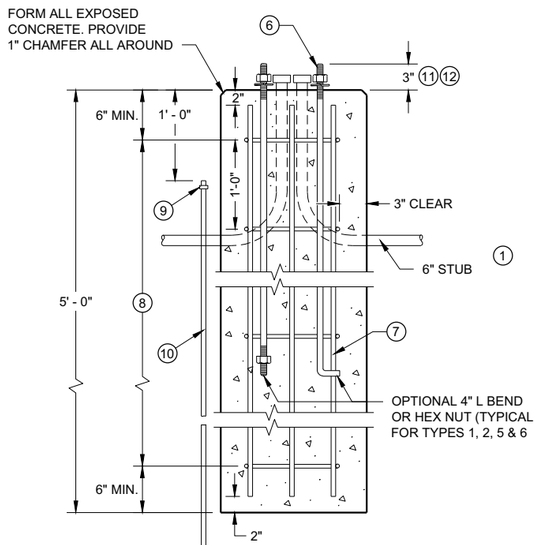
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 278
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.

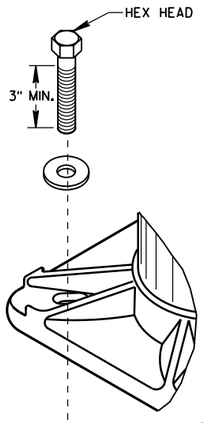
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

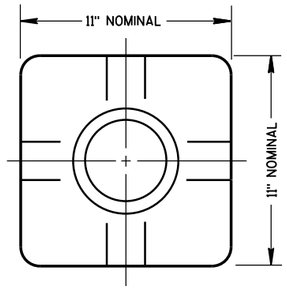
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

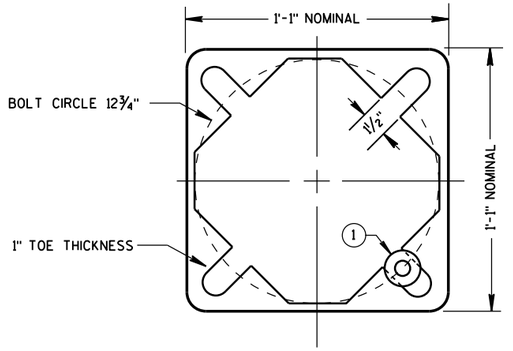
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

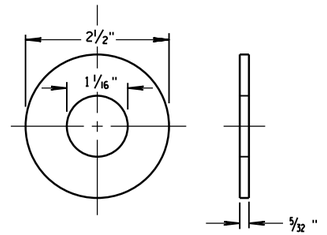




TOP VIEW
(PEDESTAL BASE)

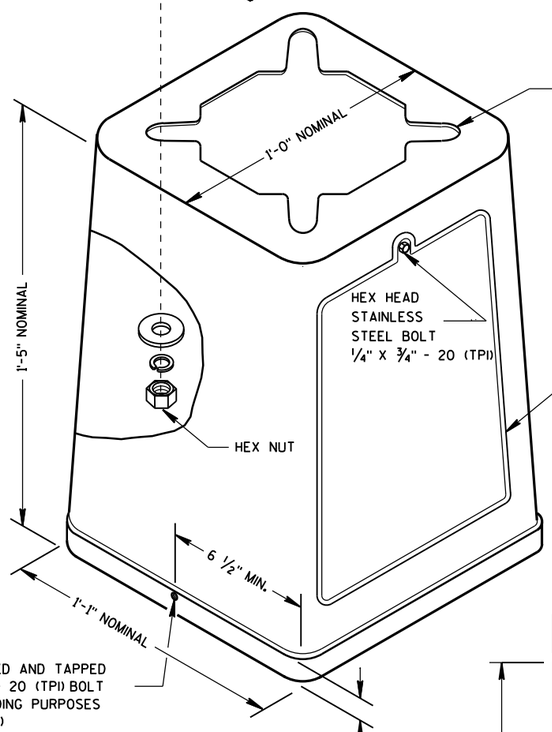


BOTTOM VIEW
(PEDESTAL BASE)

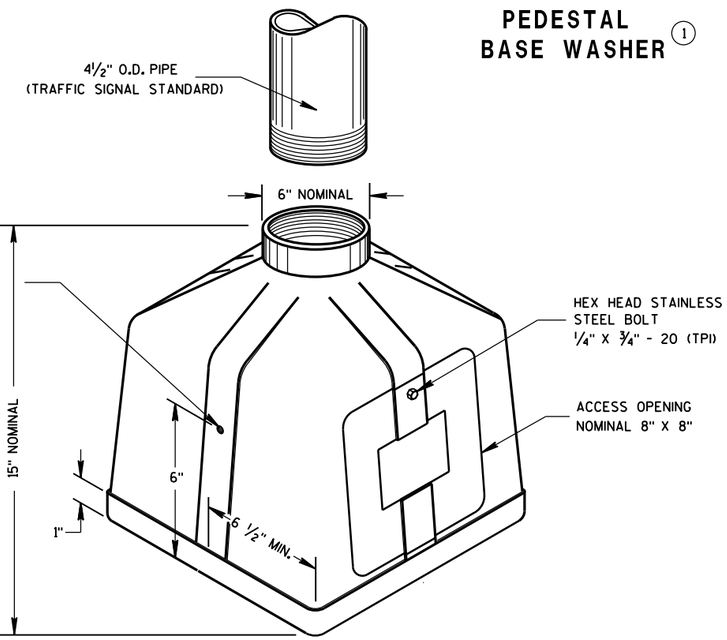


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

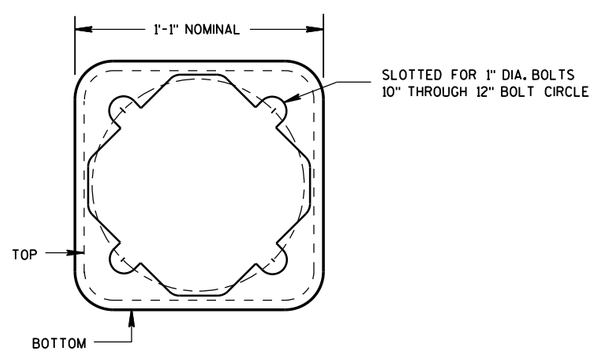


ISOMETRIC VIEW

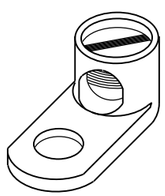


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

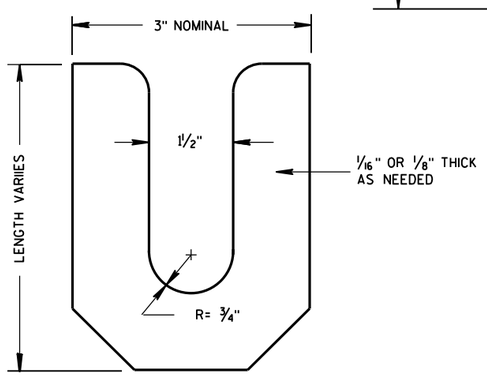


TYPICAL MECHANICAL CONNECTOR LUG

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

279

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S.D.D. 9 C 3-4

GENERAL NOTES

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

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

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

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

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

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

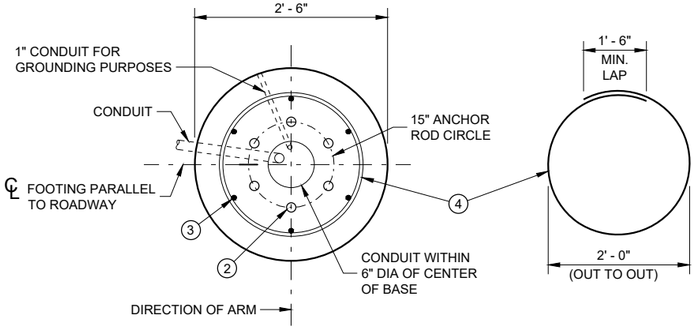
(2) (6) 1 ½ DIA. X 4' - 4" ANCHOR RODS

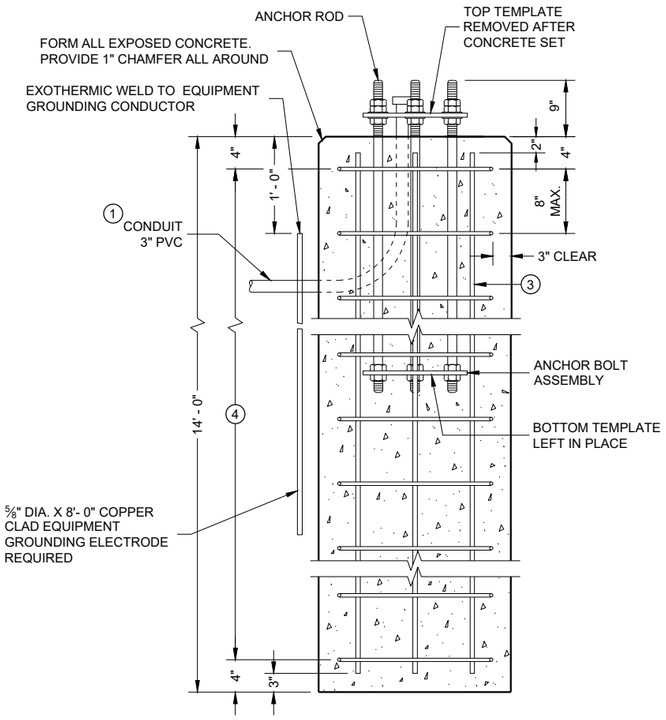
(3) (6) NO. 6 X 13' - 7" BAR STEEL REINFORCEMENT.

(4) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE .....fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.

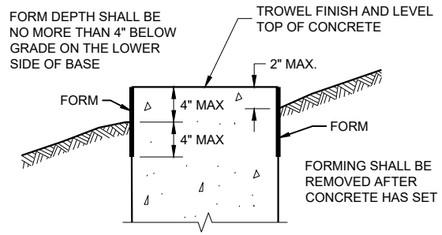
QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	172
LBS. OF VERTICAL BAR STEEL	122



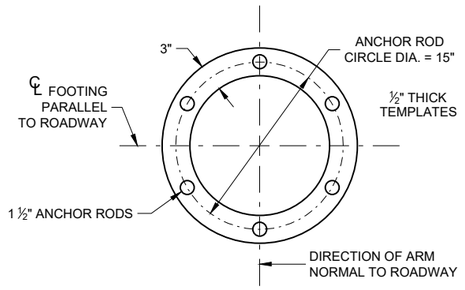


CONCRETE BASE, TYPE 10
(FOR TYPE 9, TYPE 10 AND OVER HEIGHT (OH) POLES)

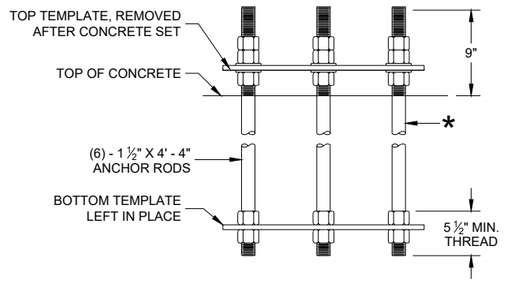
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE SDD 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demerbilek — WIND LOADED STRUCTU PROGRAM LEADER
FHWA

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SDD 09C11 - 10

GENERAL NOTES

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

THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

ORIENT ANCHOR RODS IN FOUNDATION AND PROVIDE ANCHOR RODS STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

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

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

FORM ALL EXPOSED CONCRETE CORNERS WITH 1" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 ½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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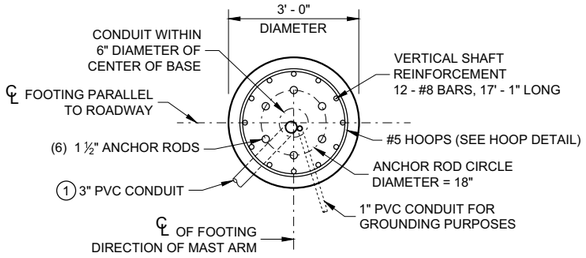
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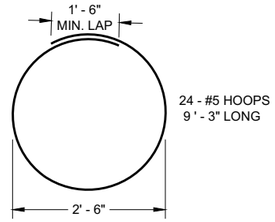
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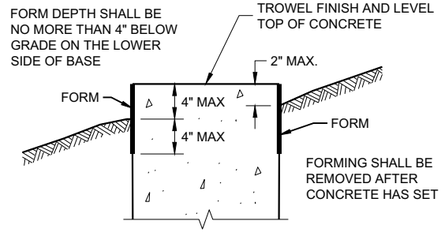
CONCRETE MASONRY.....fc = 3,500 p.s.i
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TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.



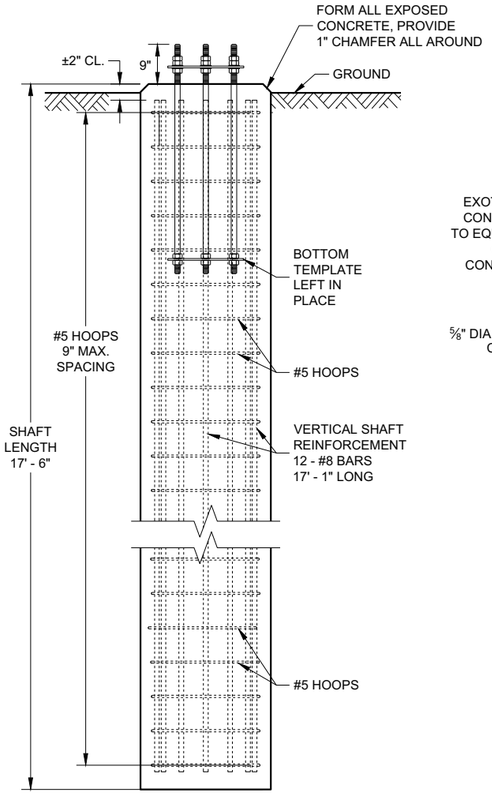
PLAN VIEW



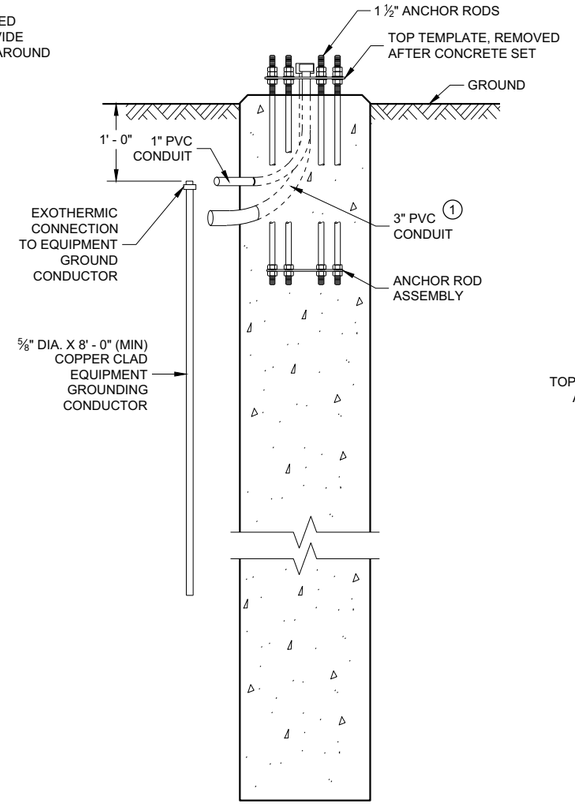
HOOP DETAIL



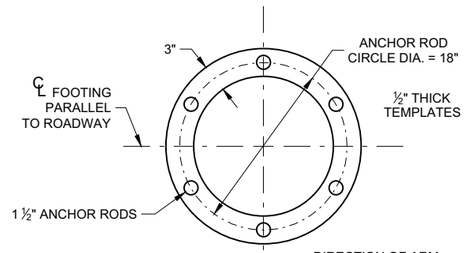
FORMING DETAIL



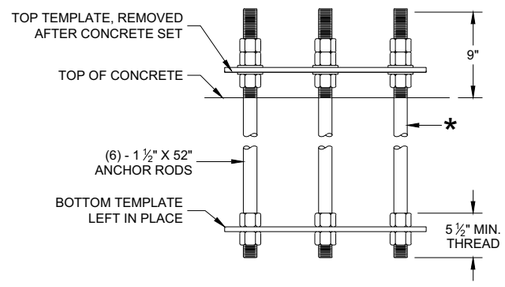
ELEVATION VIEW
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)



SIDE VIEW
(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

CONCRETE BASE, TYPE 10 SPECIAL
(FOR TYPE 9 SPECIAL AND TYPE 10 SPECIAL POLES)

CONCRETE = 4.6 CUBIC YARD
H.S. REINFORCEMENT = 779 LBS.

FOR USE WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 10 SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

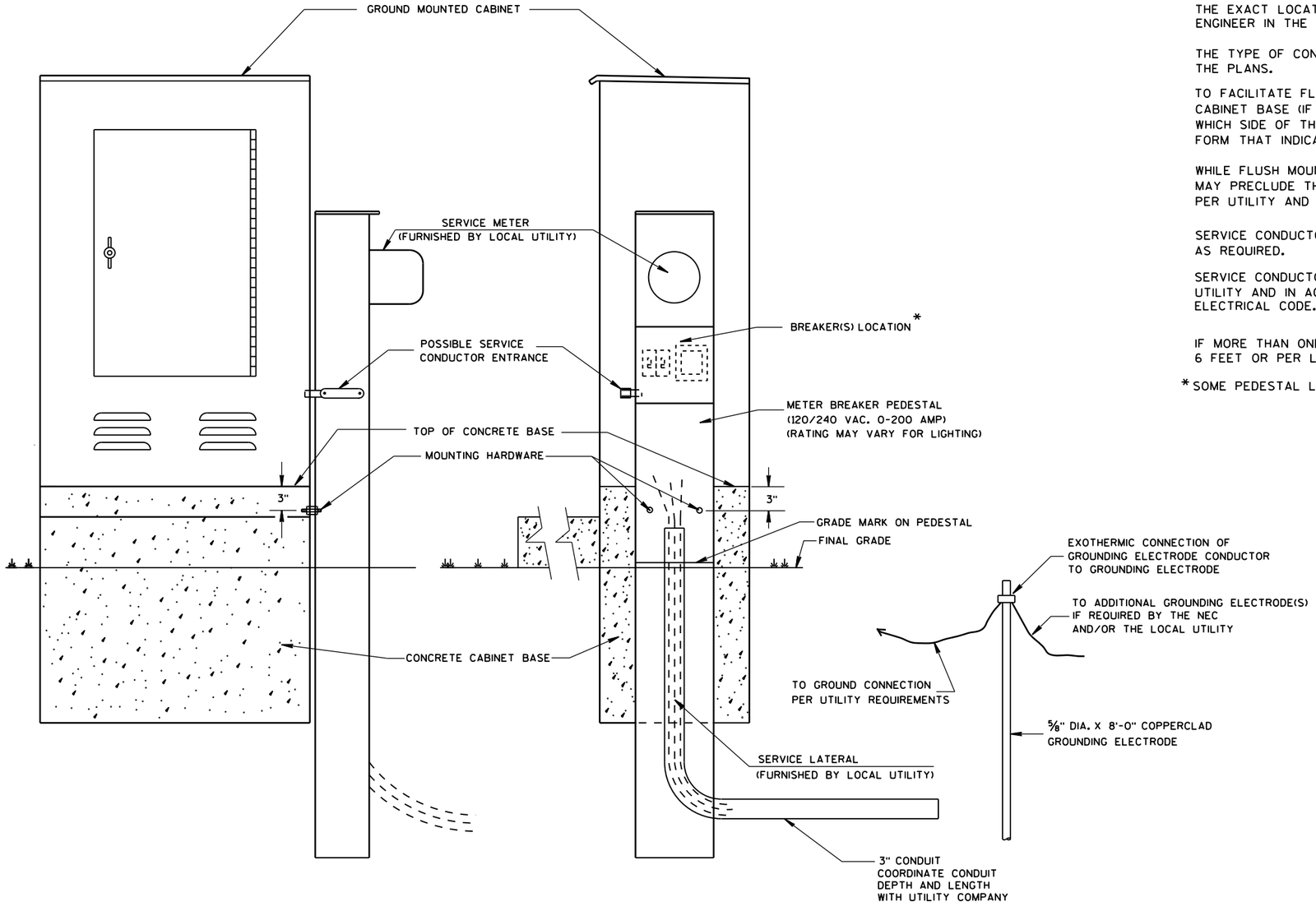
APPROVED
August 2020 — DATE
/S/ Alex Crabtree — WIND LOADED STRUCTU PROGRAM LEADER
FHWA

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SDD 09C15 - 01

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SDD 09C15 - 01



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

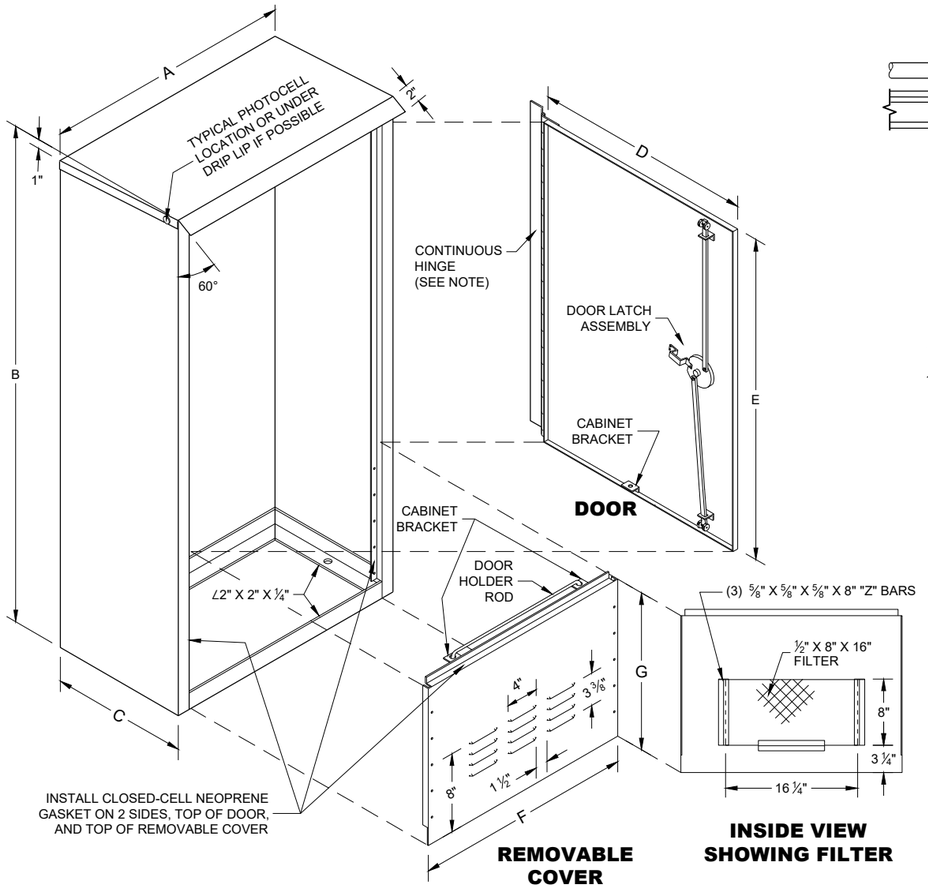
CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

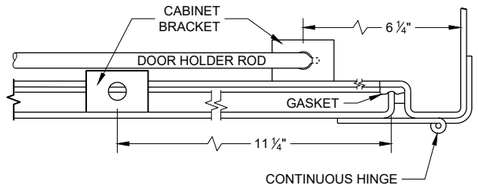
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

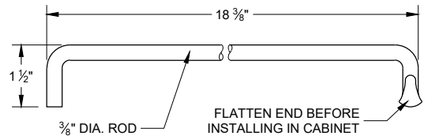
/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

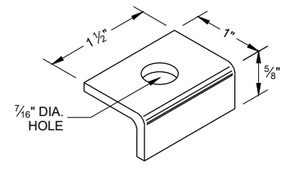




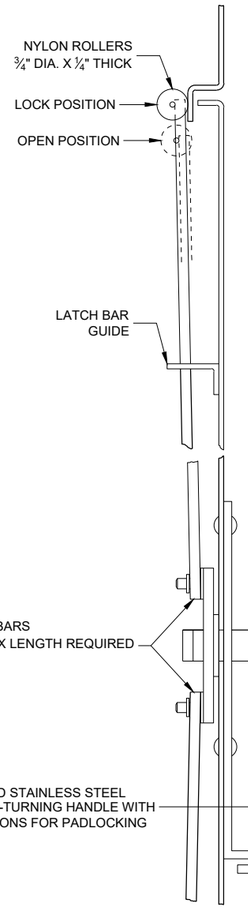
HINGE AND DOOR HOLDER

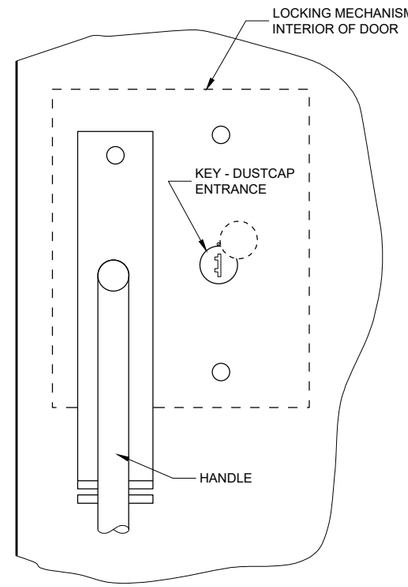


HOLDER ROD



CABINET BRACKET





SIDE VIEW **FRONT VIEW**

LATCH ASSEMBLY

GENERAL NOTES

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

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

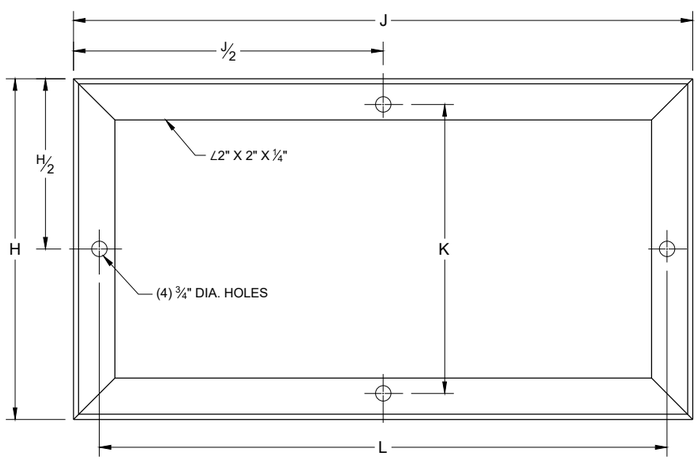
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH ¼" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH ¼" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH - NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

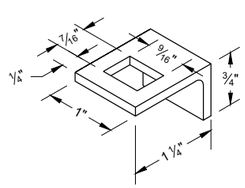
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 ½	16 ½	24
D	26 ½	34 ¾	33 ¾
E	38 ¾	38 ¾	38 ¾
F	26 ½	34 ¾	33 ¾
G	19	19	25
H	16 ½	16 ½	24
H/2	8 ¼	8 ¼	12
J	30	38	38
J/2	15	19	19
K	13 ¾	13 ¾	21 ¼
L	27 ½	35 ½	35 ½



LATCH BAR GUIDE

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE

/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI

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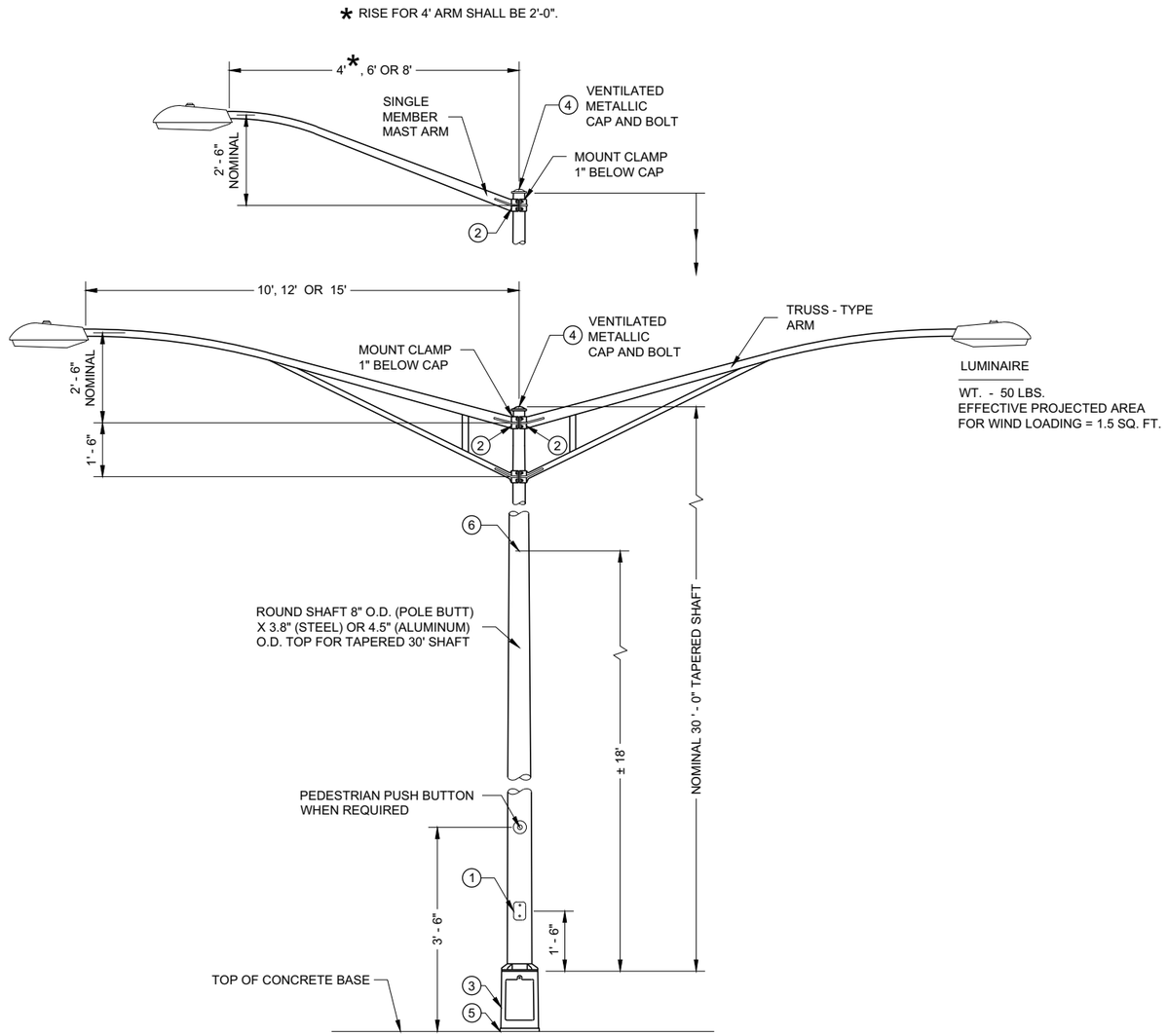
FHWA

SDD 09D02 - 03

SDD 09D02 - 03

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TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY

GENERAL NOTES

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

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

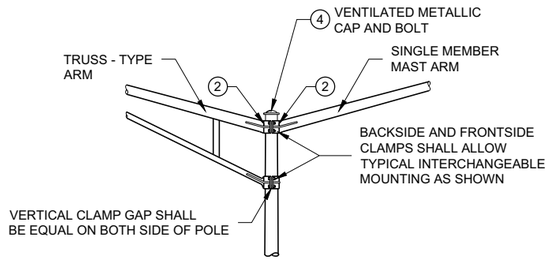
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(6) INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.

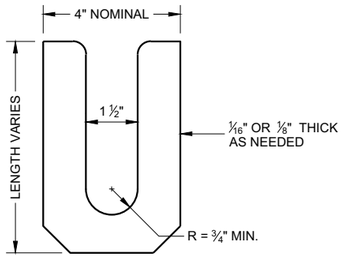


INTERCHANGEABLE MOUNTING DETAIL

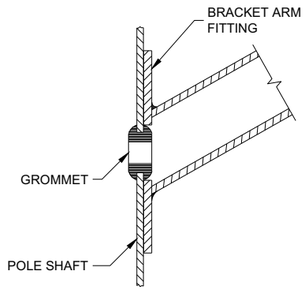
POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)

6

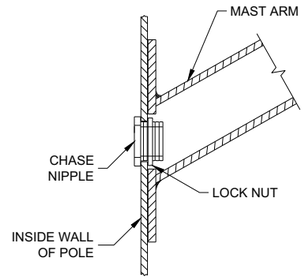
SDD 09E01 - 15d



LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

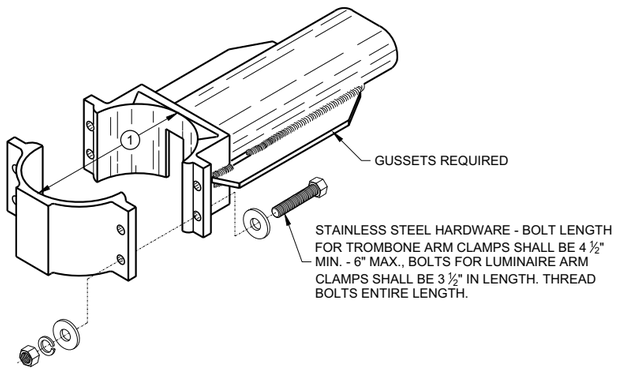
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

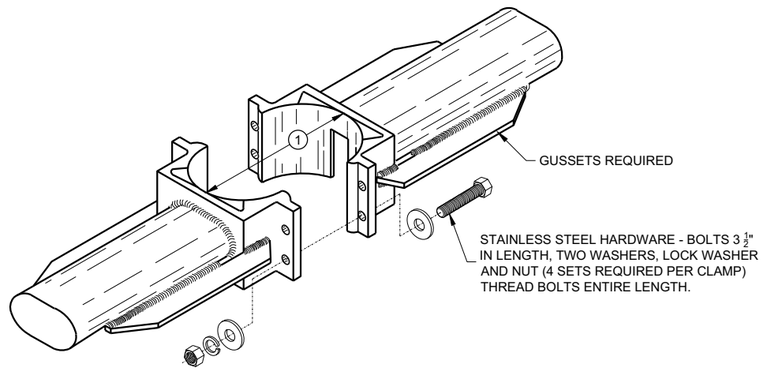
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

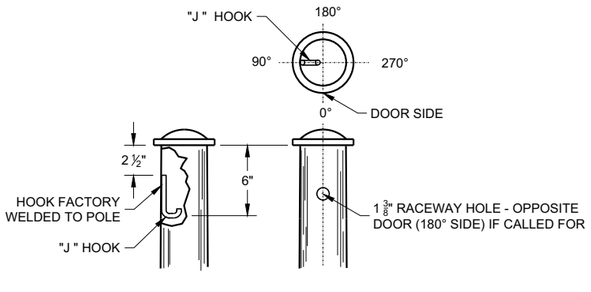
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



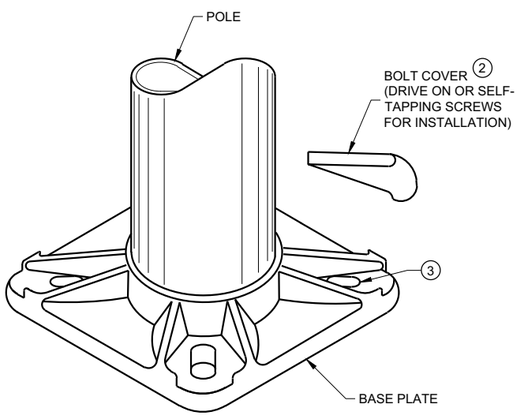
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



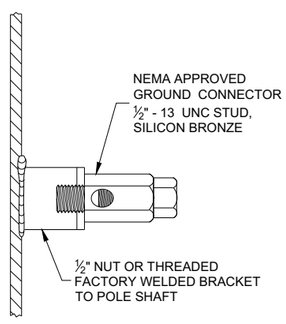
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

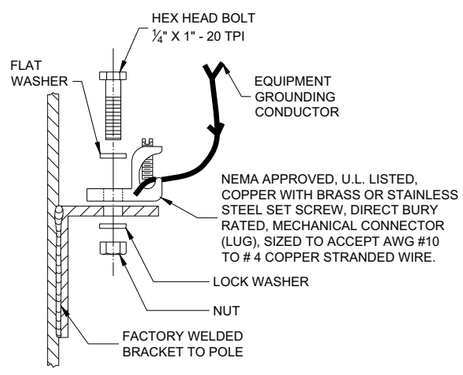


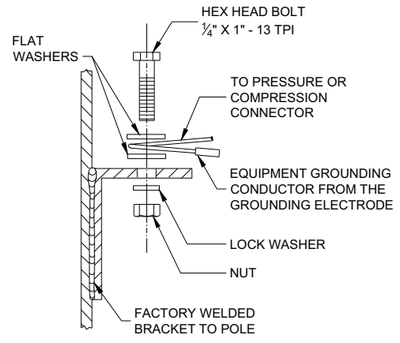
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 285

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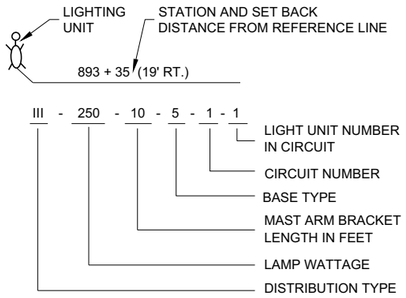
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SDD 09E01 - 15g

GENERAL NOTES

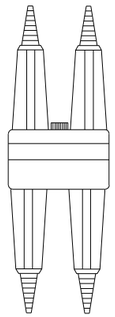
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

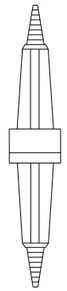
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



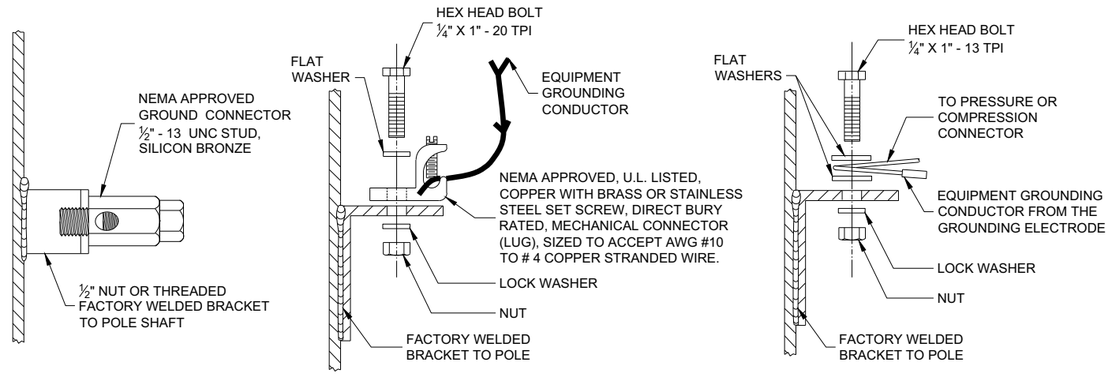
LIGHTING UNIT CODE
(TYPICAL)



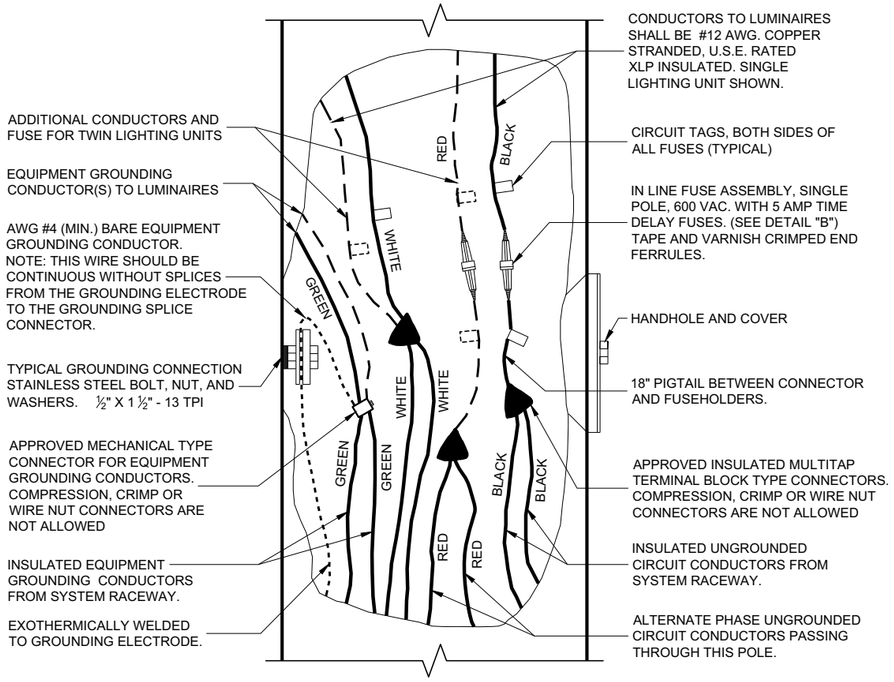
DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



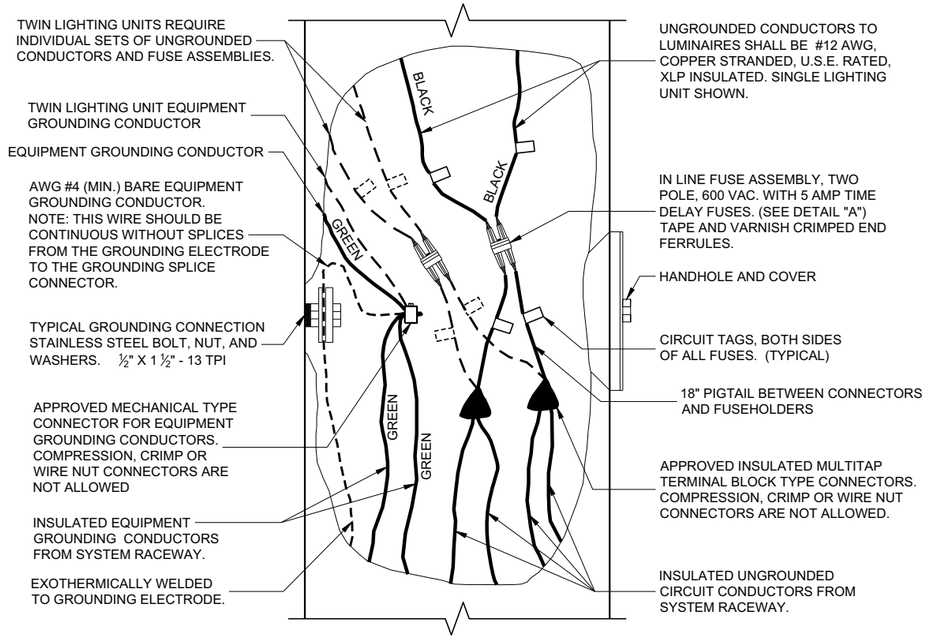
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



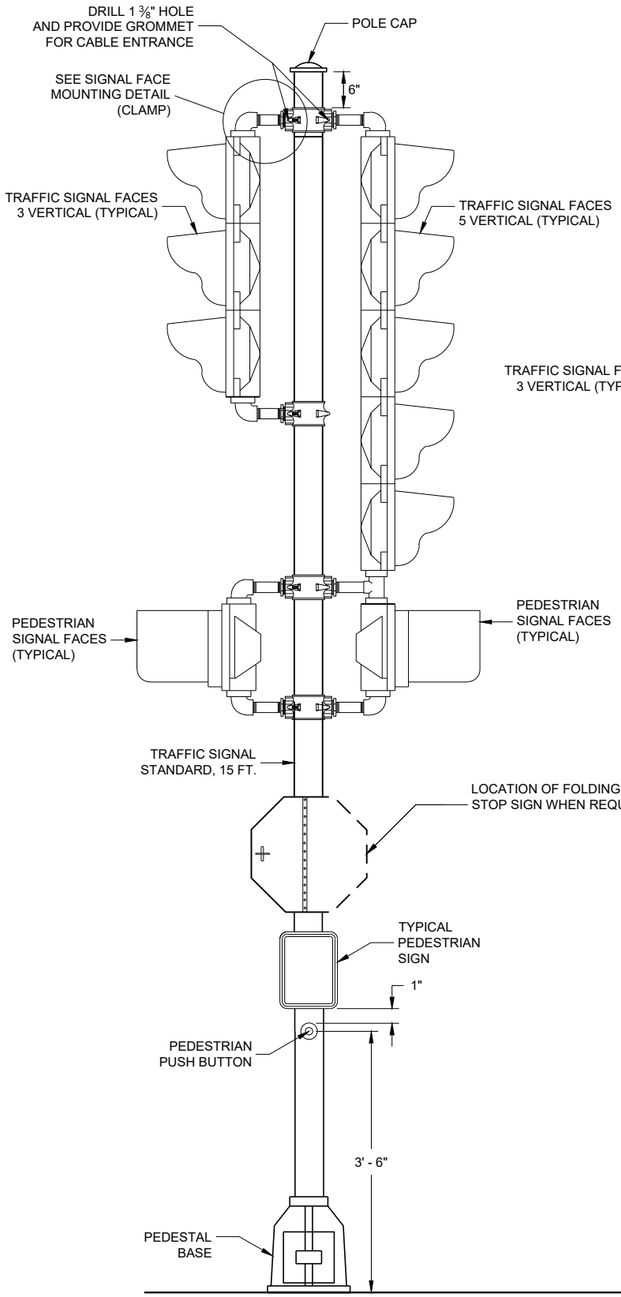
2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT POLE WIRING

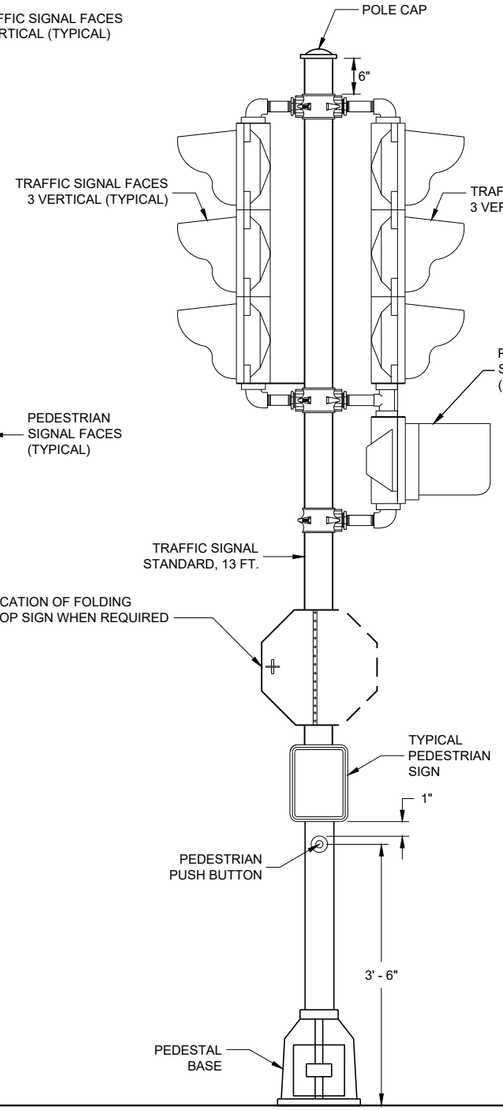
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 286

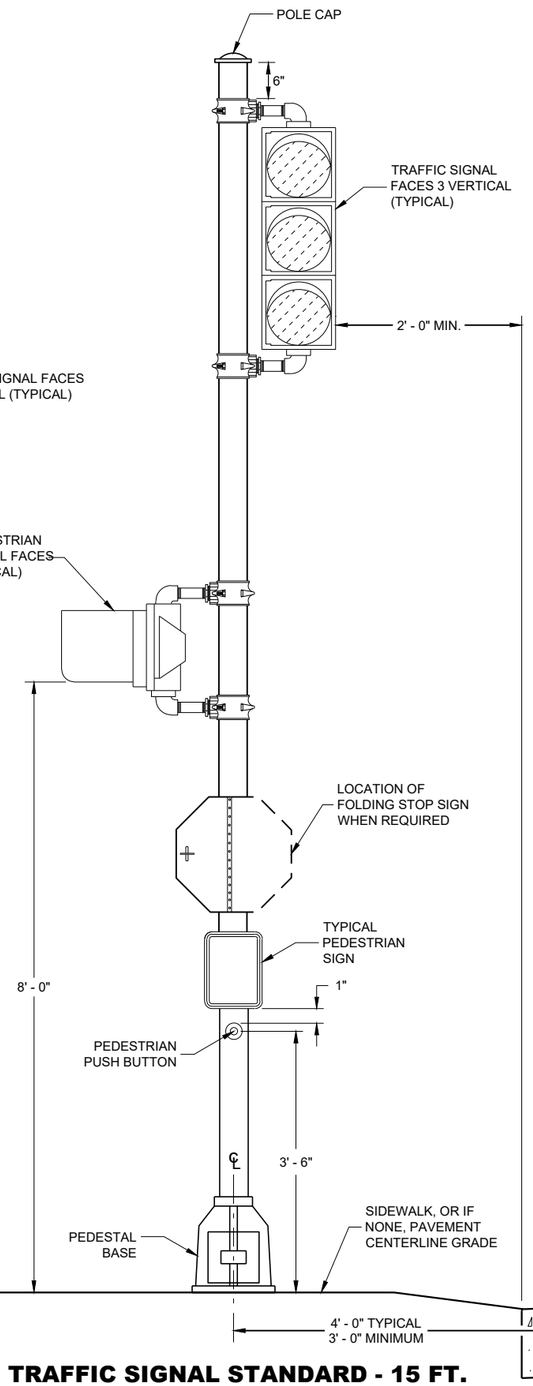
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TRAFFIC SIGNAL STANDARD - 15 FT.



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.

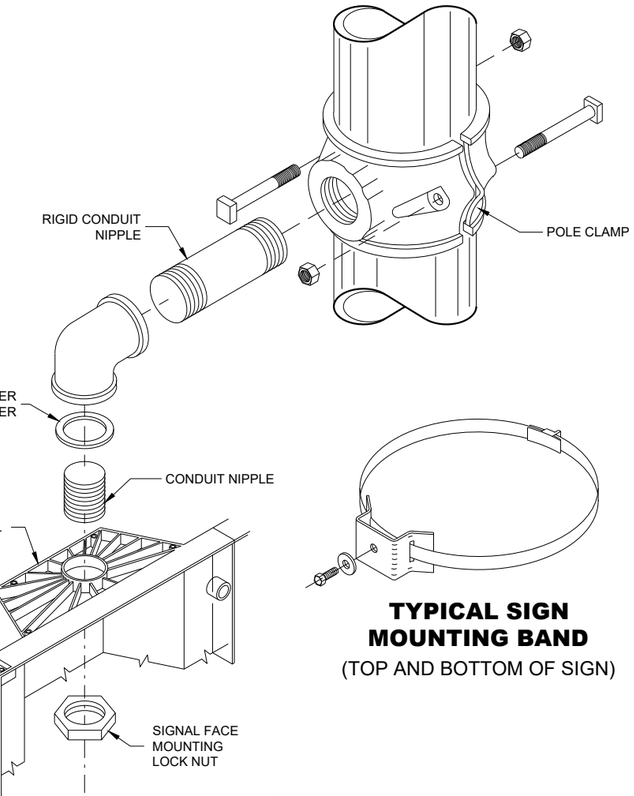
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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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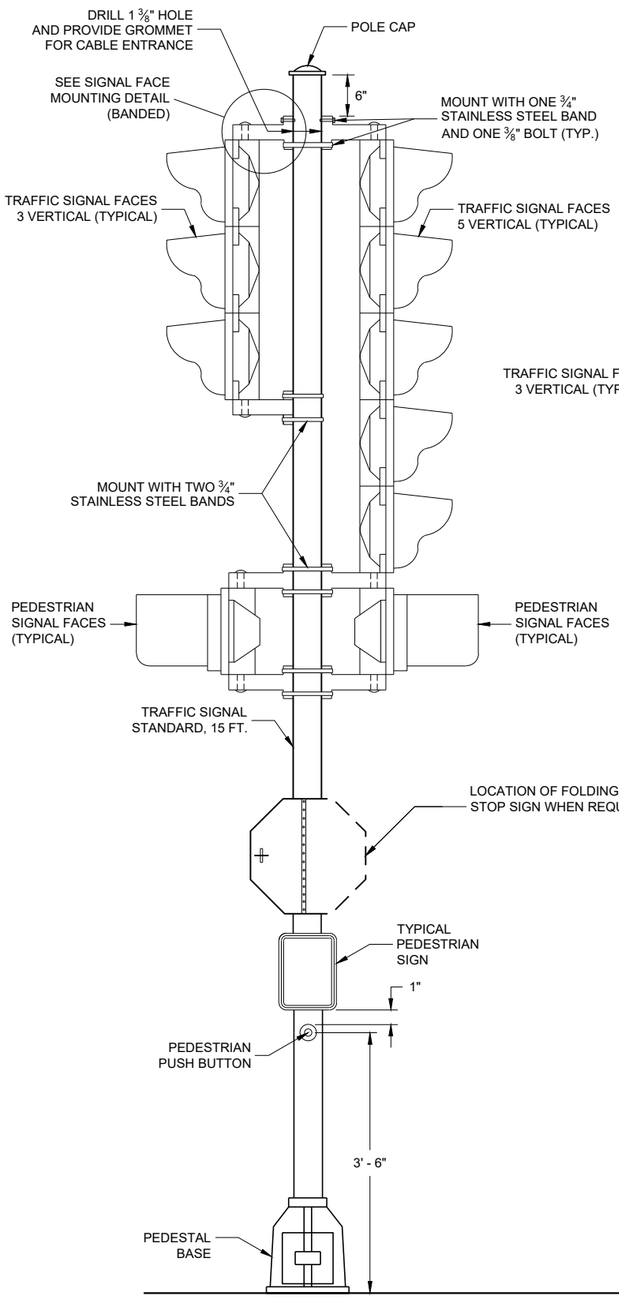
APPROVED
2/28/2013
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

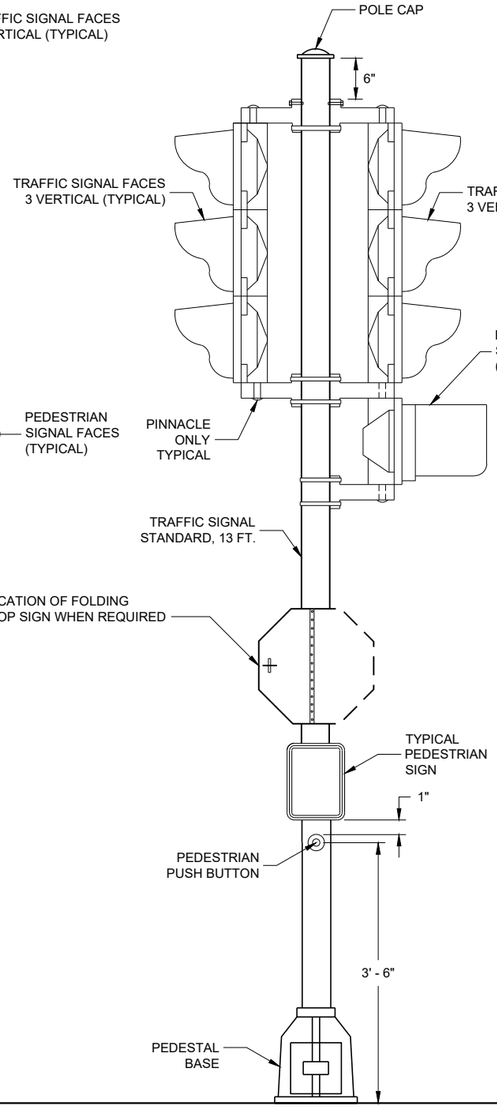
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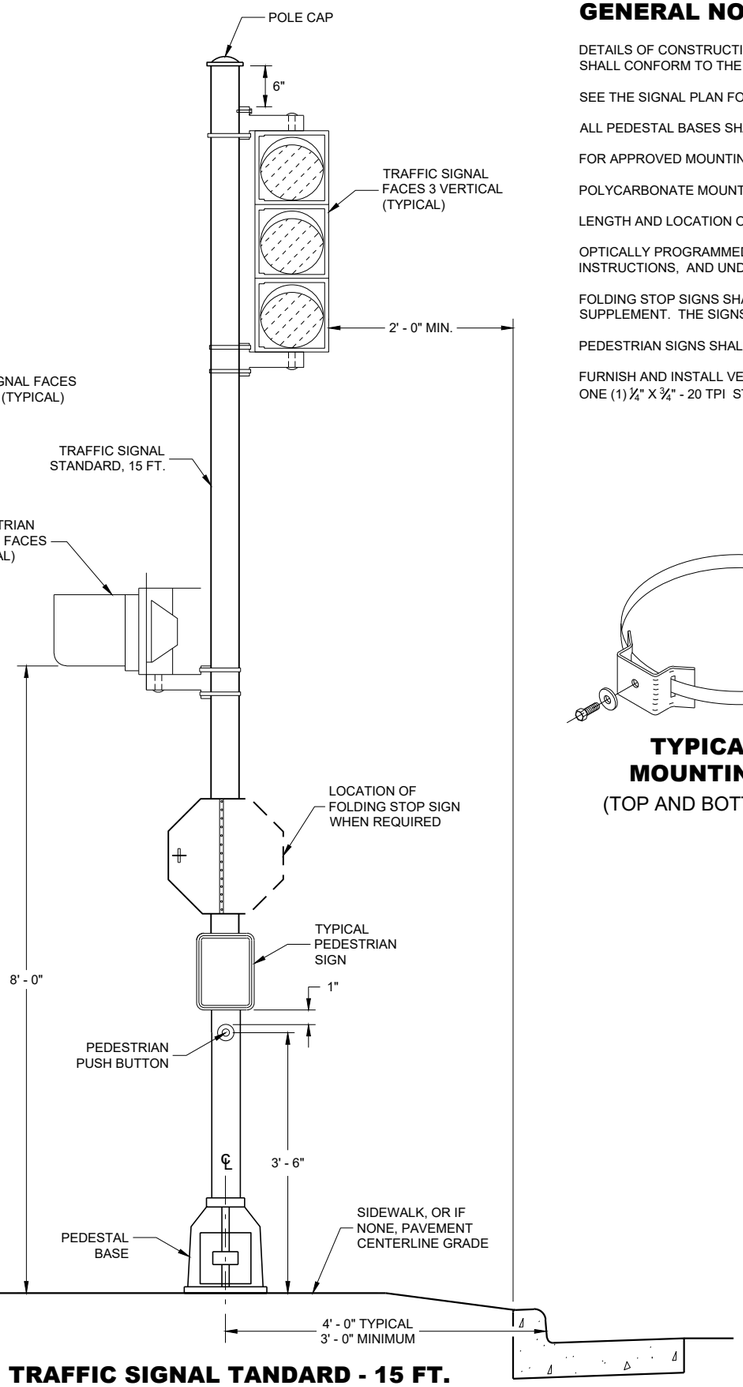
SDD 09E05 - 06



TRAFFIC SIGNAL STANDARD - 15 FT.



TRAFFIC SIGNAL STANDARD - 13 FT.



TRAFFIC SIGNAL TANDARD - 15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

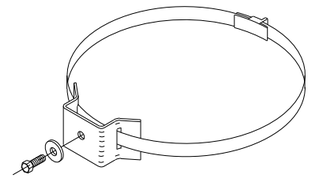
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

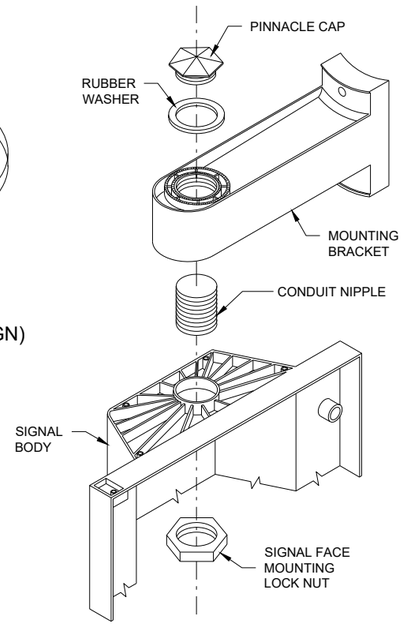
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



SIGNAL FACE MOUNTING DETAIL (BANDED)

TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

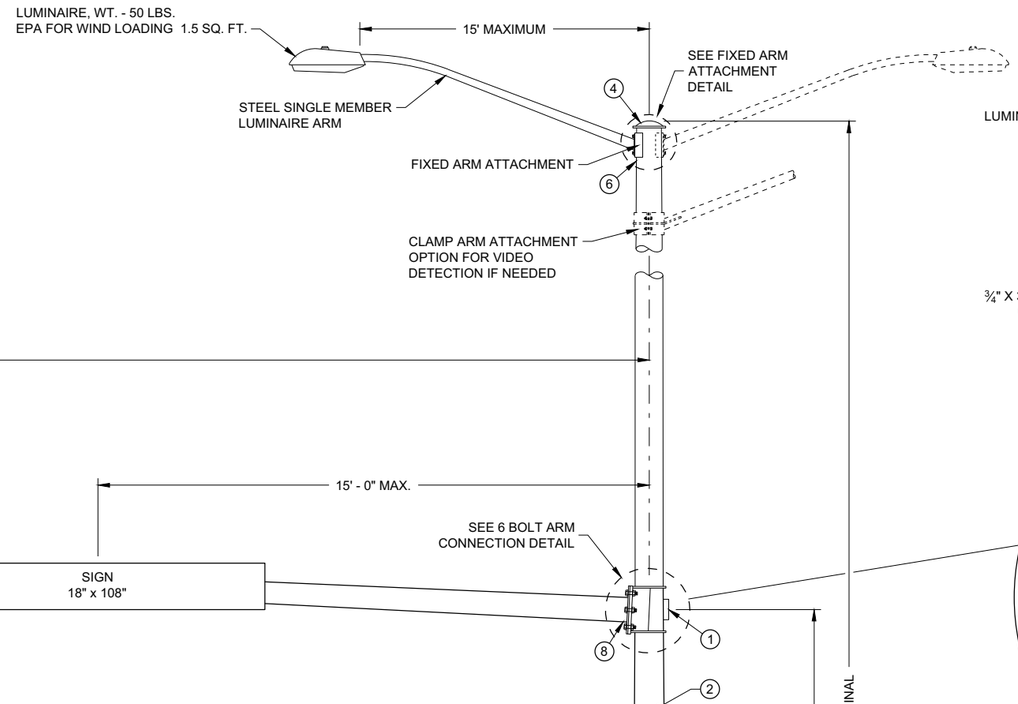
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 288

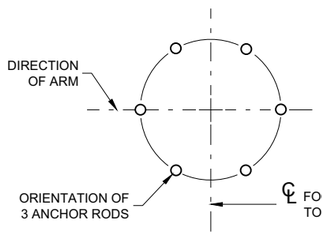
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SDD 09E06 - 05

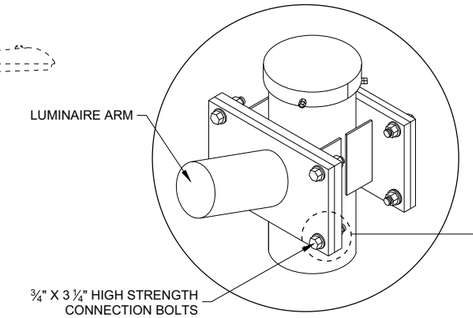


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

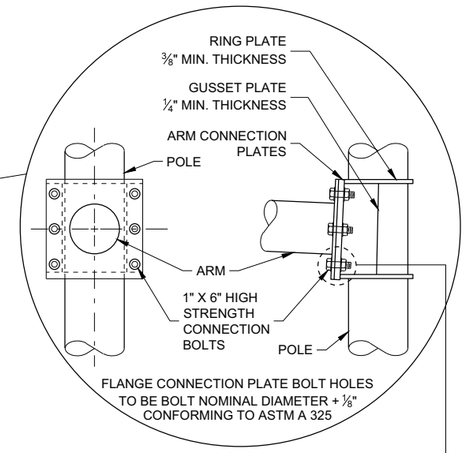
** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE



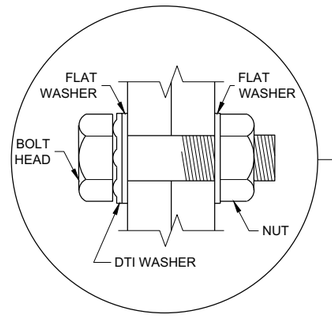
ANCHOR ROD LOCATION



FIXED ARM ATTACHMENT DETAIL



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 10 POLE
15' - 30' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
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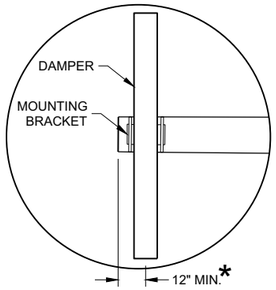
APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

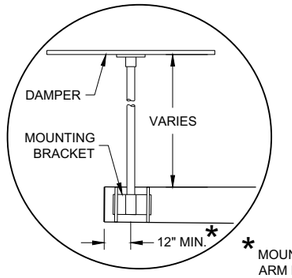
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SDD 09E08 - 09e

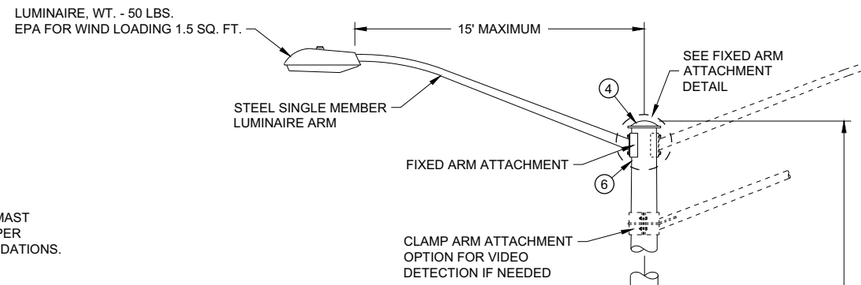


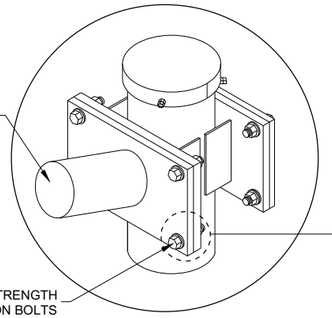
DUMBBELL VIBRATION DAMPER



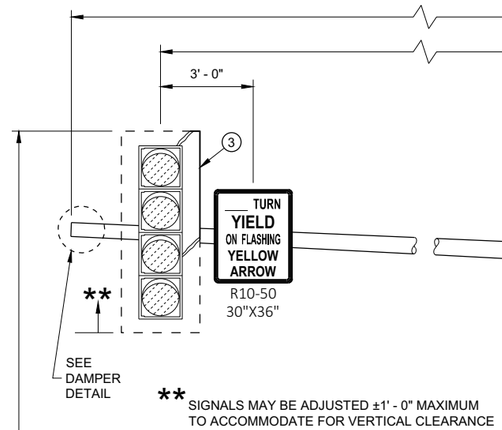
FLAT VIBRATION DAMPER

* MOUNT AS CLOSE TO END OF MAST ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.

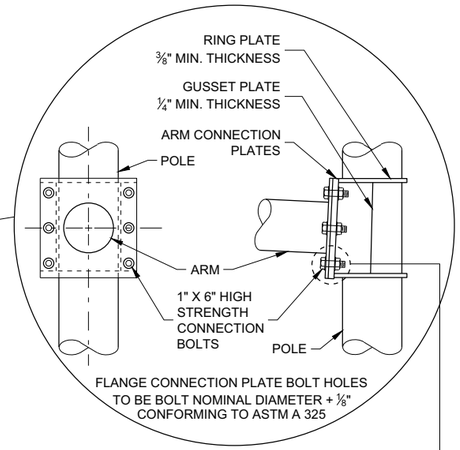




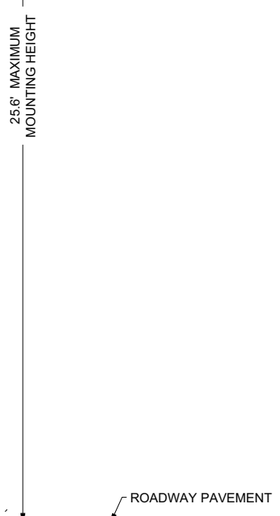
FIXED ARM ATTACHMENT DETAIL

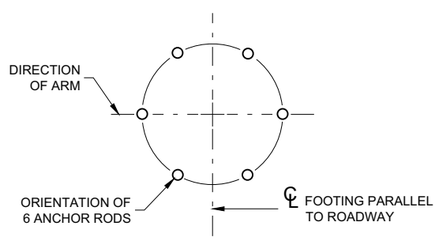


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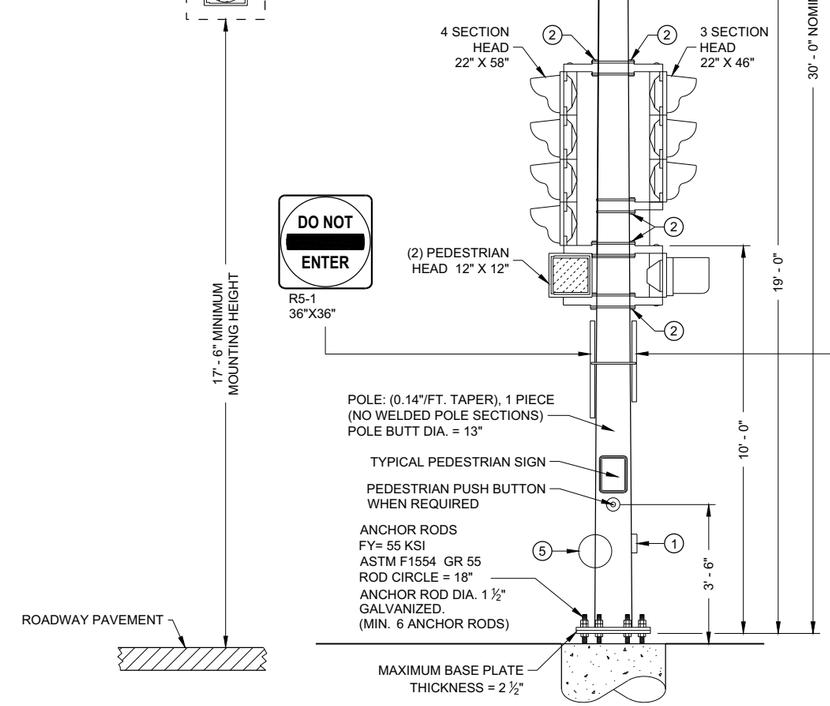


6 BOLT ARM CONNECTION DETAIL

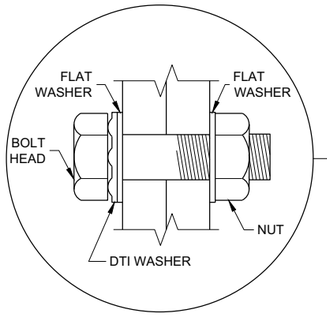




ANCHOR ROD LOCATION



TYPE 10 SPECIAL POLE
35' MONOTUBE ARM
(MAXIMUM LOAD)



RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 10 SPECIAL POLE
35' MONOTUBE ARM

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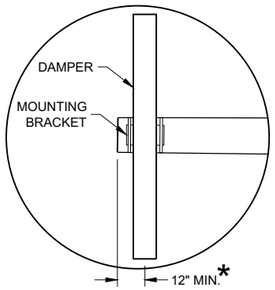
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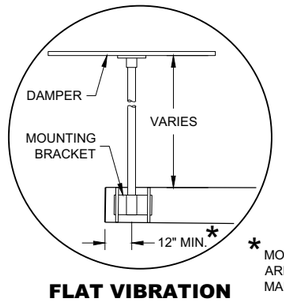
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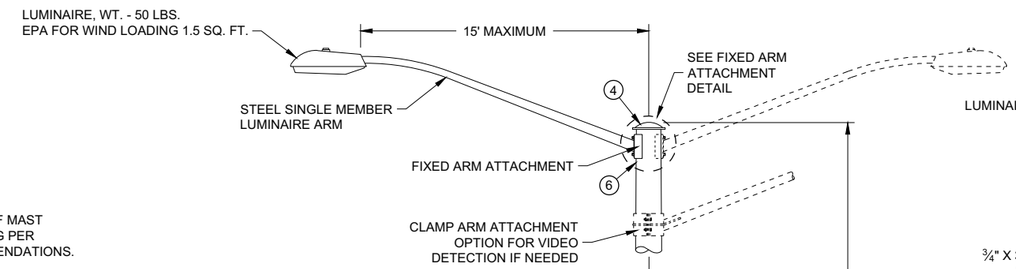


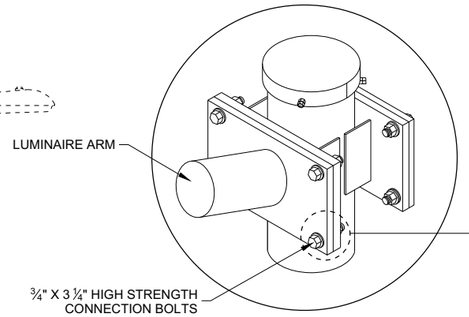
DUMBBELL VIBRATION DAMPER



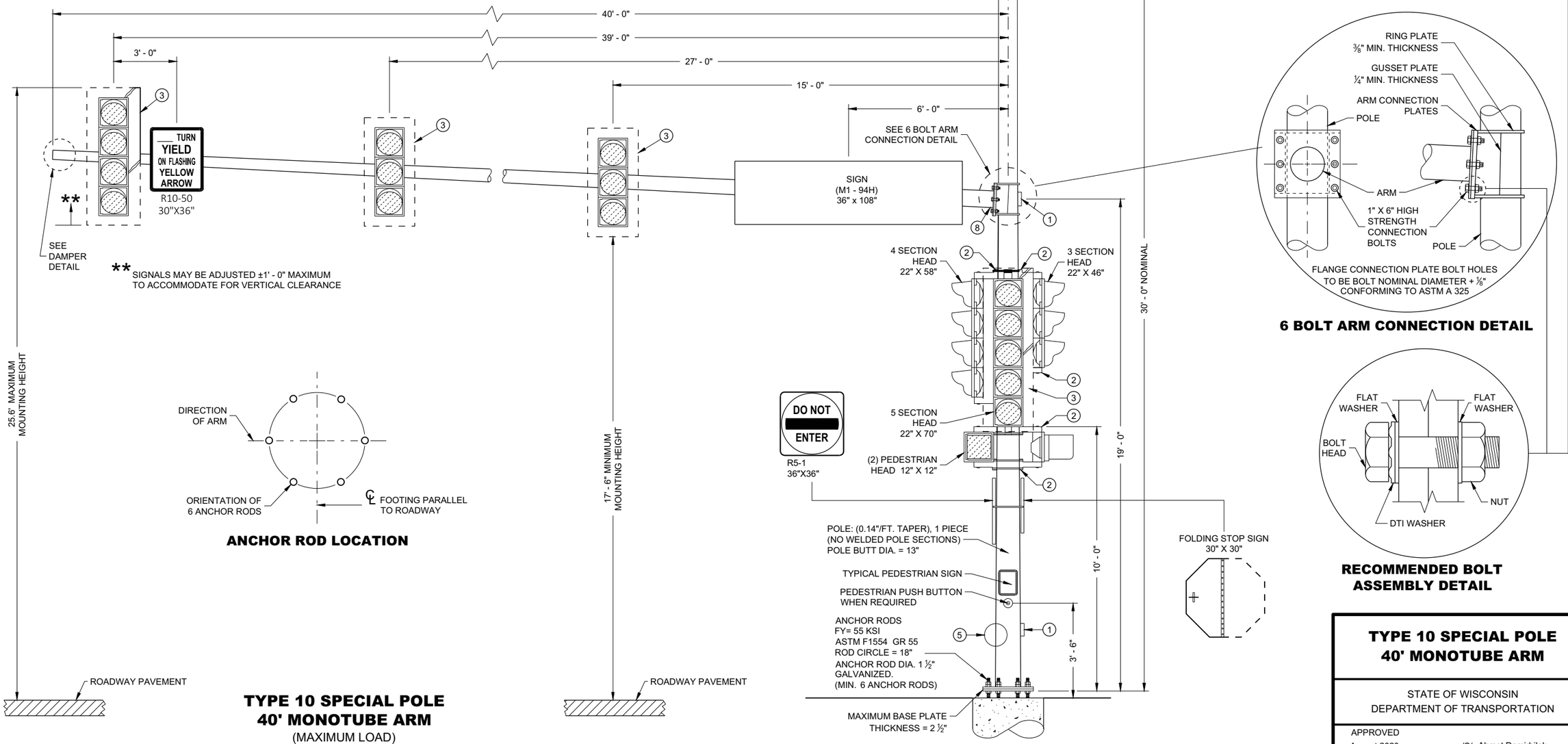
FLAT VIBRATION DAMPER

* MOUNT AS CLOSE TO END OF MAST ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.





FIXED ARM ATTACHMENT DETAIL



** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE

ANCHOR ROD LOCATION

6 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 10 SPECIAL POLE
40' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 10 SPECIAL POLE
40' MONOTUBE ARM

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GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15 FOOT TO 30 FOOT.

POLE TYPES 9 SPECIAL AND 10 SPECIAL ARE FOR ARM LENGTHS 35 FOOT, 40 FOOT, AND 45 FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35 FOOT TO 55 FOOT.

MONOTUBE POLES AND ARMS SHALL BE GALVANIZED STEEL.

RING STIFFENED BUILT UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3% ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATION SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING INTERIM REVISIONS)" AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR THE LIGHTING STRUCTURES AS FOLLOWS:

CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.

CATEGORY II FATIGUE LOADS OF TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 SPECIAL AND TYPE 10 SPECIAL STRUCTURES. IN LIEU OF DESIGNING FOR GALLOPING, A VIBRATION DAMPER MITIGATION DEVICE IS REQUIRED TO BE SUPPLIED AND INSTALLED AT THE END OF THE MAST ARM.

CATEGORY II FATIGUE FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE12 AND TYPE 13 STRUCTURES.

115 MPH (700 YEAR MRI BASIC WIND SPEED).

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" STAINLESS STEEL BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR A S DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEAD AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HAND HOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING (SEE SPECIFICATION SECTION 658).

(3) SECURELY MOUNT BACK PLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HAND HOLD, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

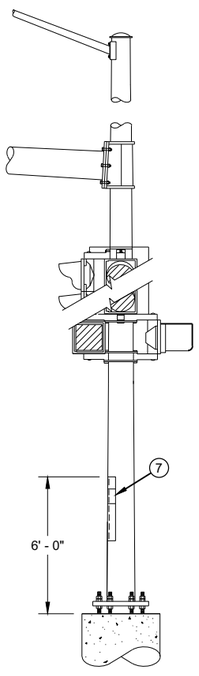
(6) FACTORY WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

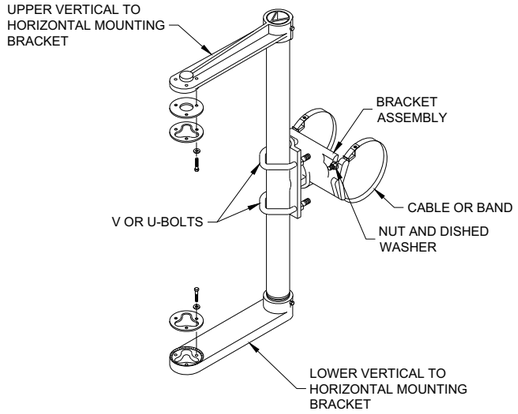
STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 6' - 0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

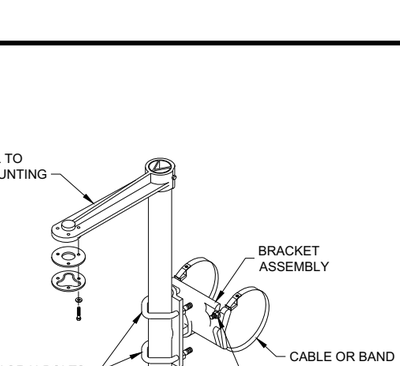


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



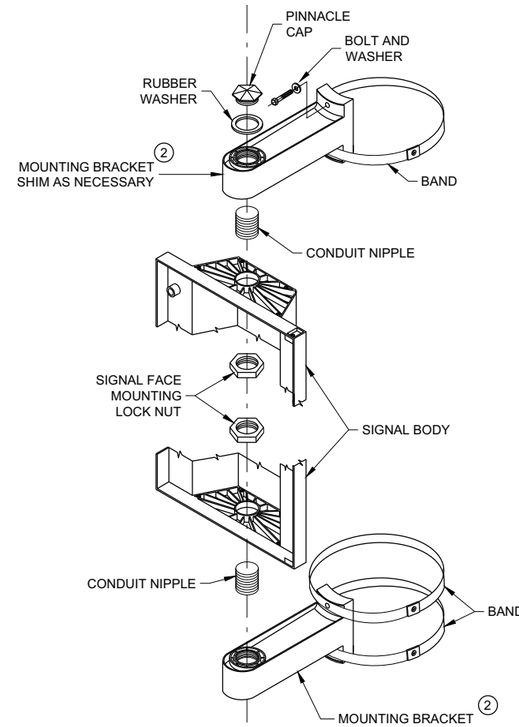
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANFACTURER'S RECOMMENDATION)

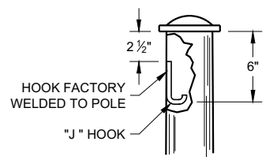


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



TYPICAL "J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE FOR TYPES 9,10, 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS

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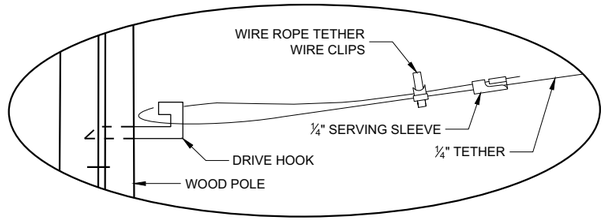
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MINIMUM POLE LENGTHS	POLE BURIAL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

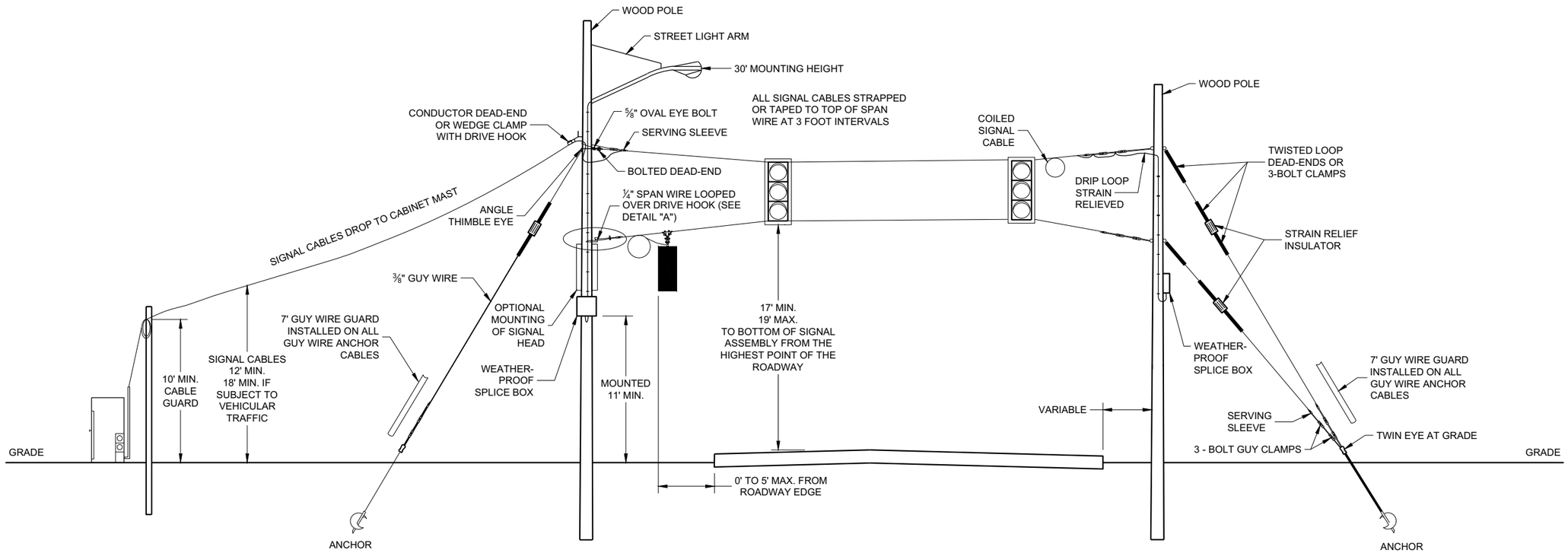


DETAIL "A"

GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

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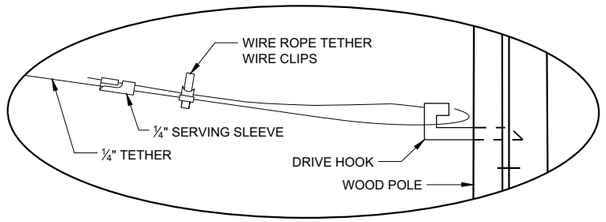
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MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'



DETAIL "A"

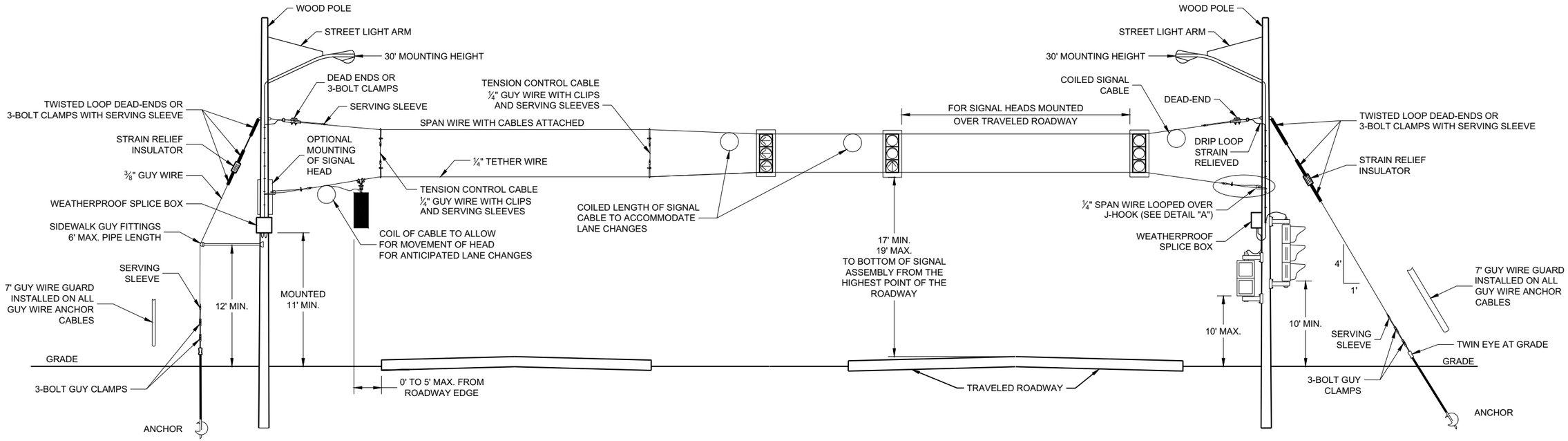
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   - E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.

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SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

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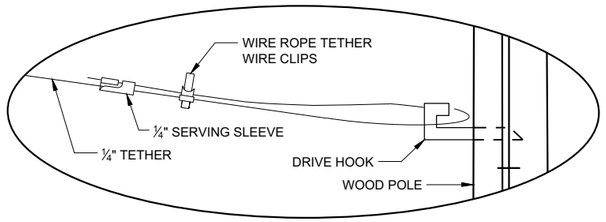
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MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

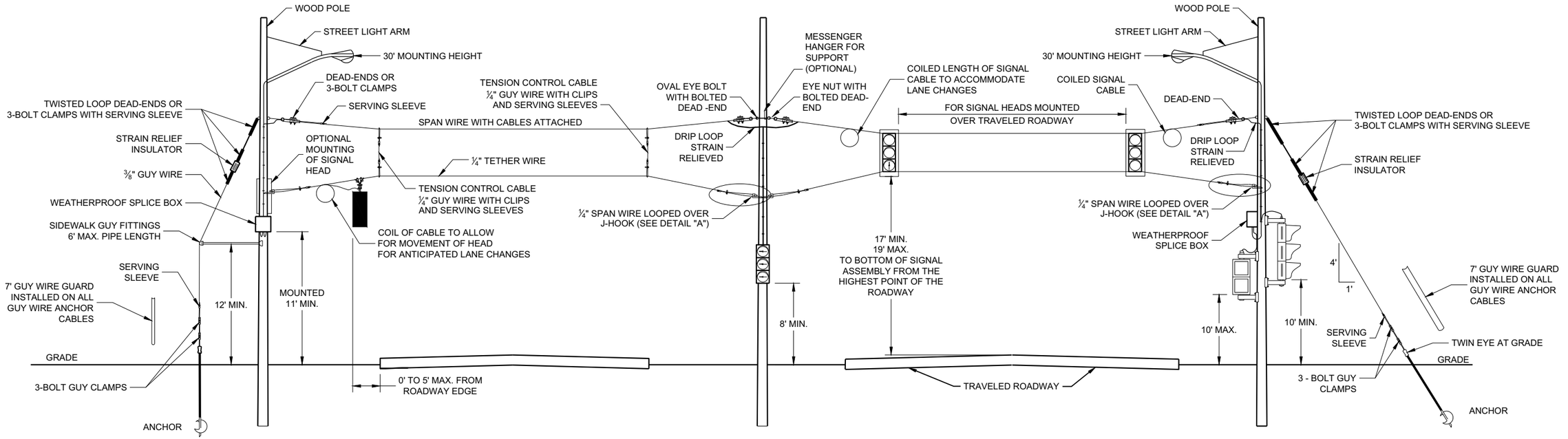


DETAIL "A"

GENERAL NOTES

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   - E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
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SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
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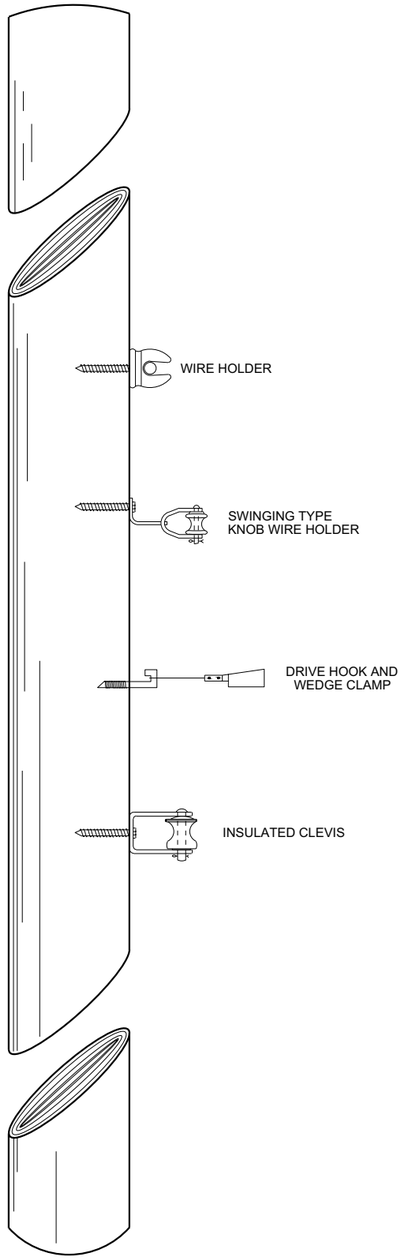
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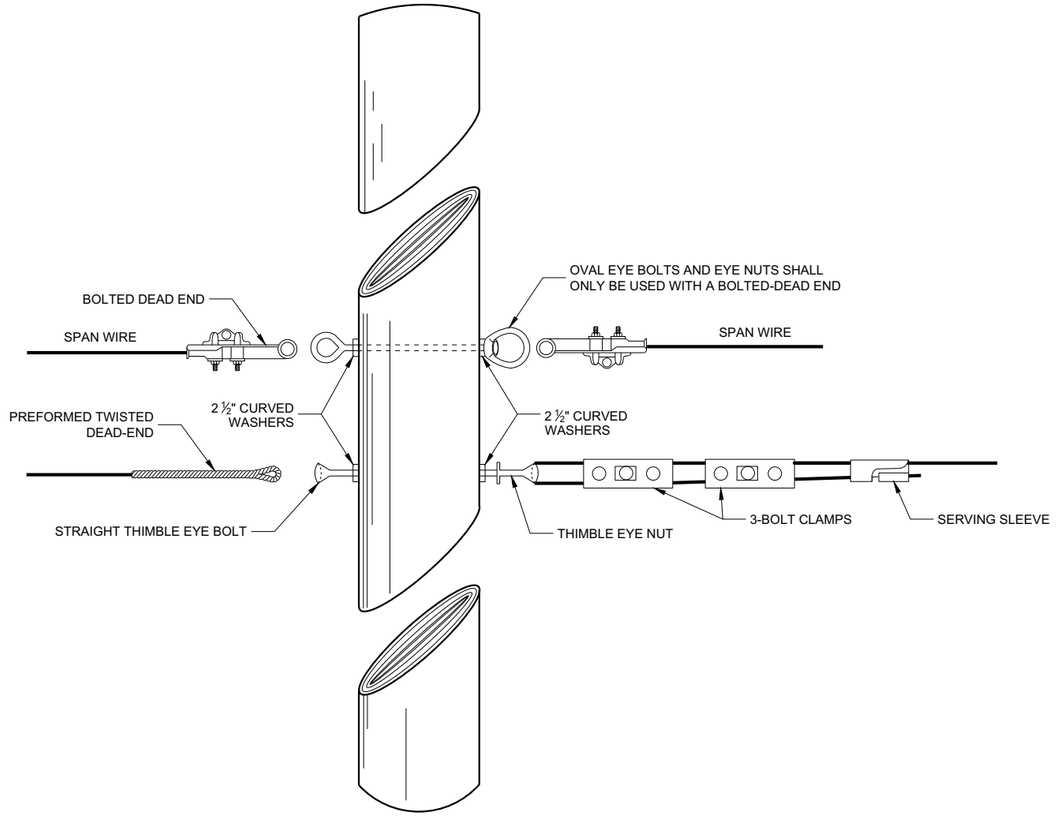
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SPAN WIRE TEMPORARY TRAFFIC SIGNAL

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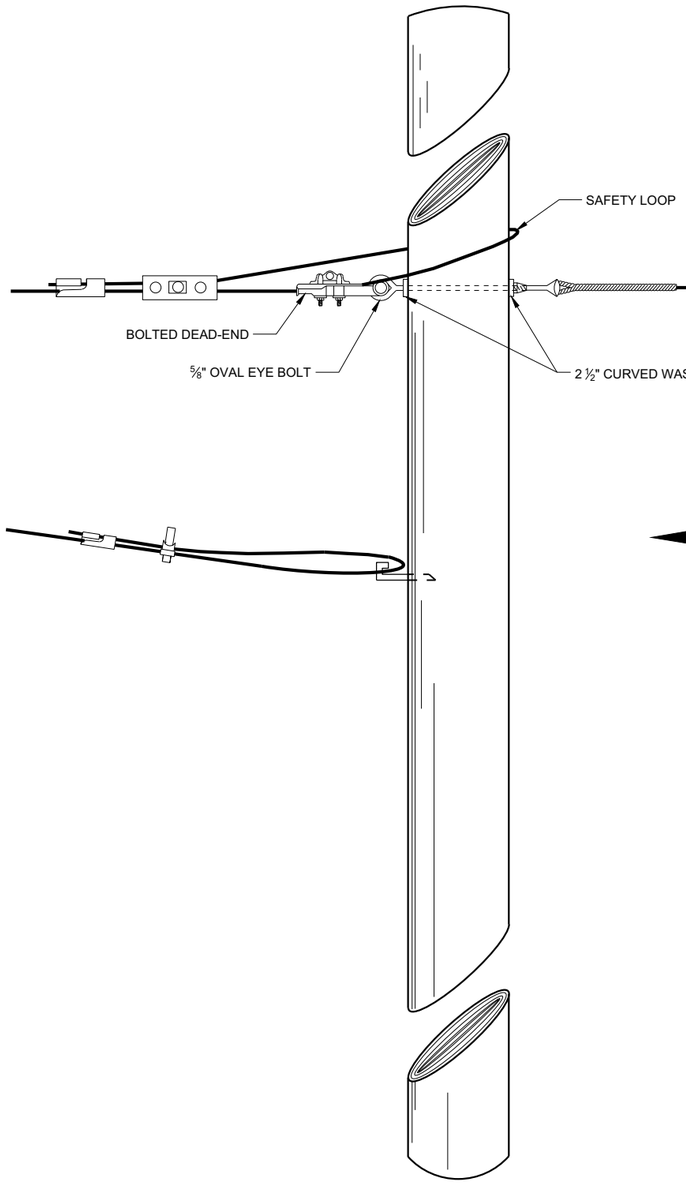
June 2015
DATE

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ROADWAY STANDARDS DEVE ENGINEER

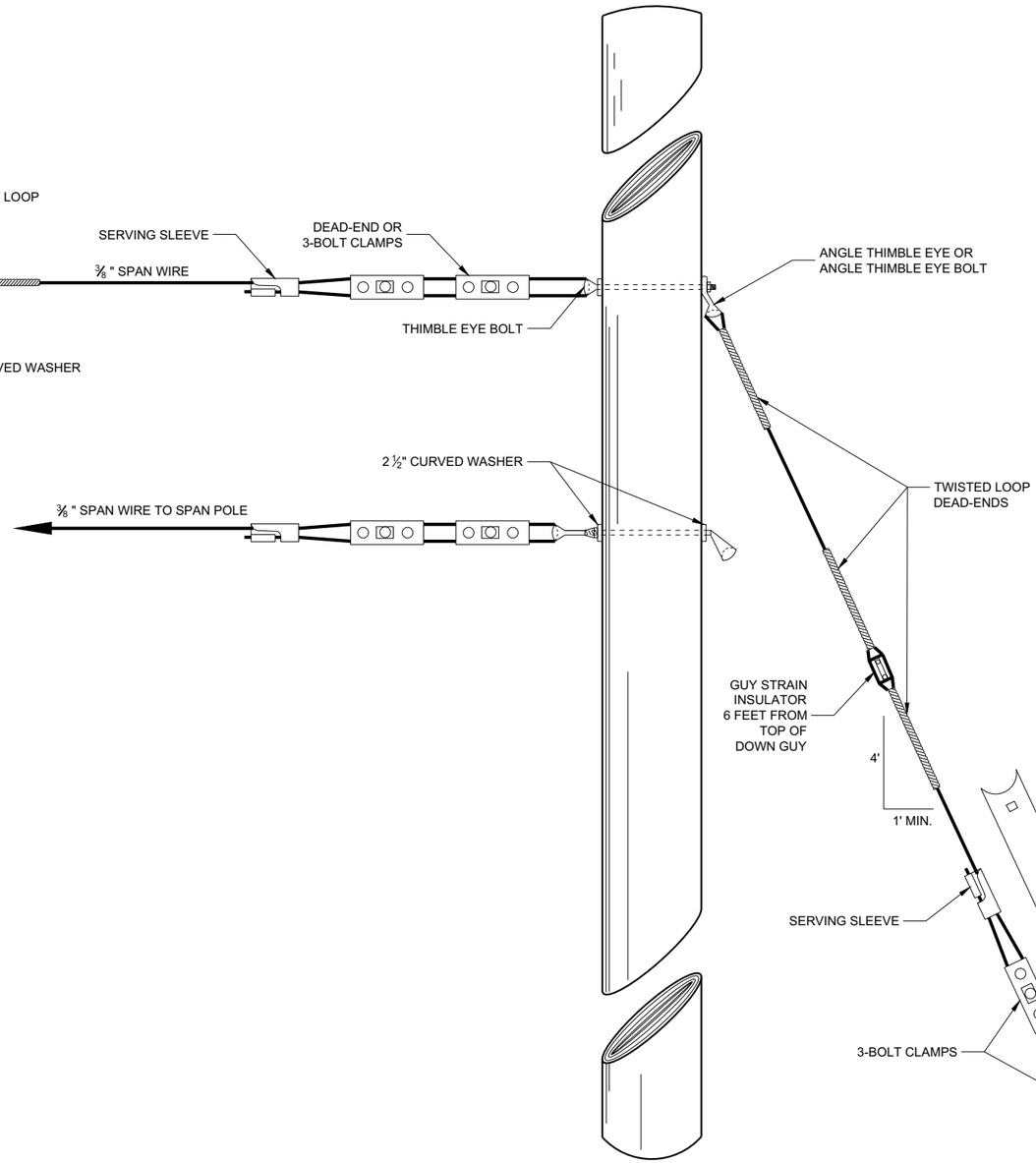
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GENERAL NOTES

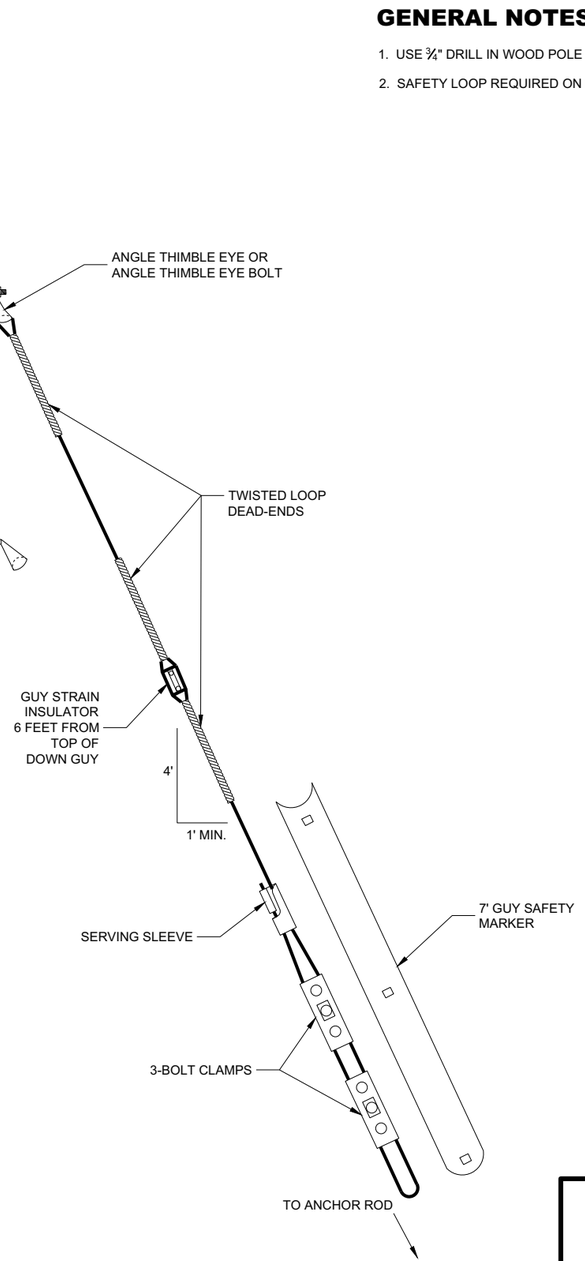
1. USE ¾" DRILL IN WOOD POLE TO PROVIDE FOR ⅝" BOLTS.
2. SAFETY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE



TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

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DEPARTMENT OF TRANSPORTATION

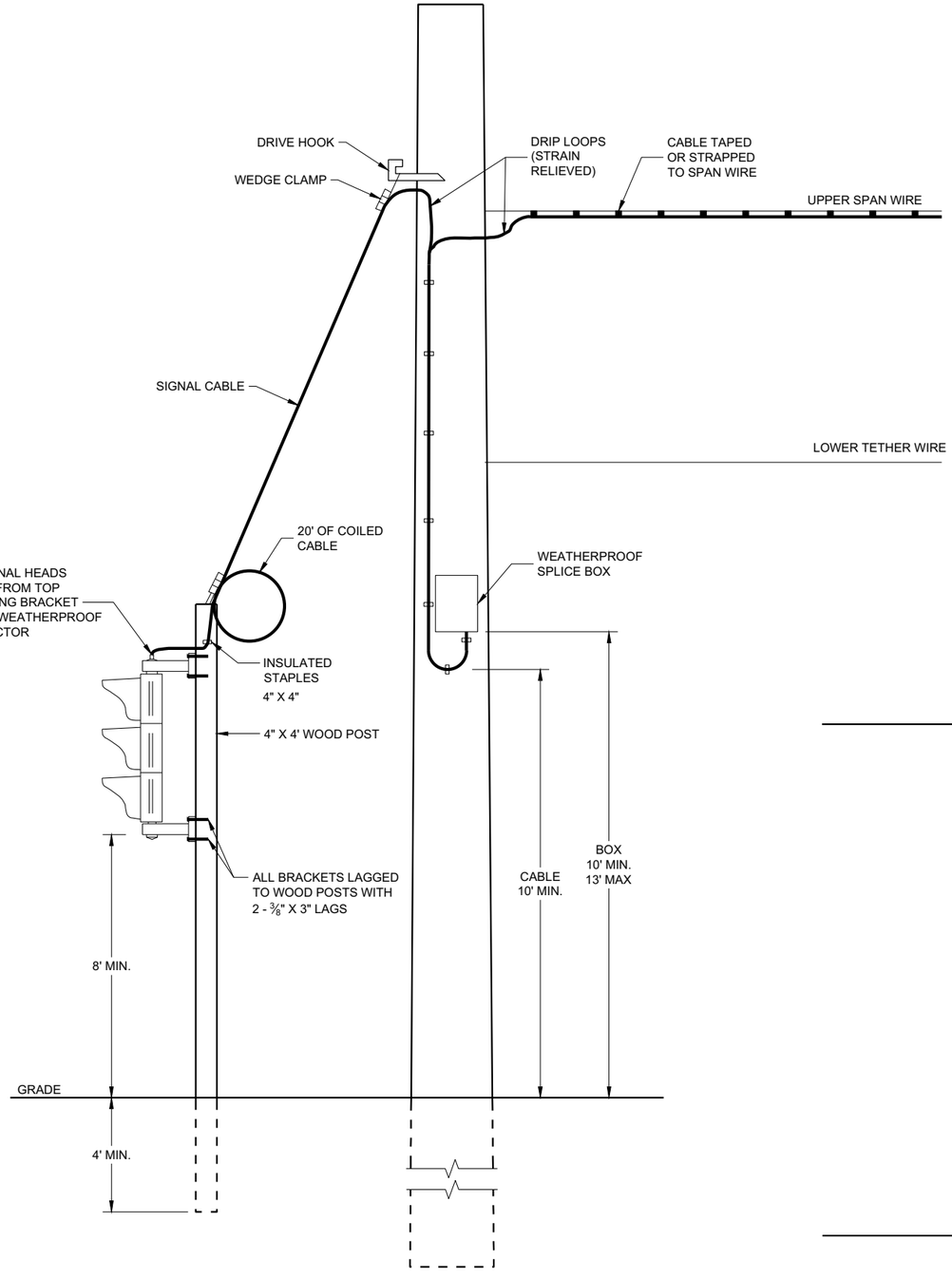
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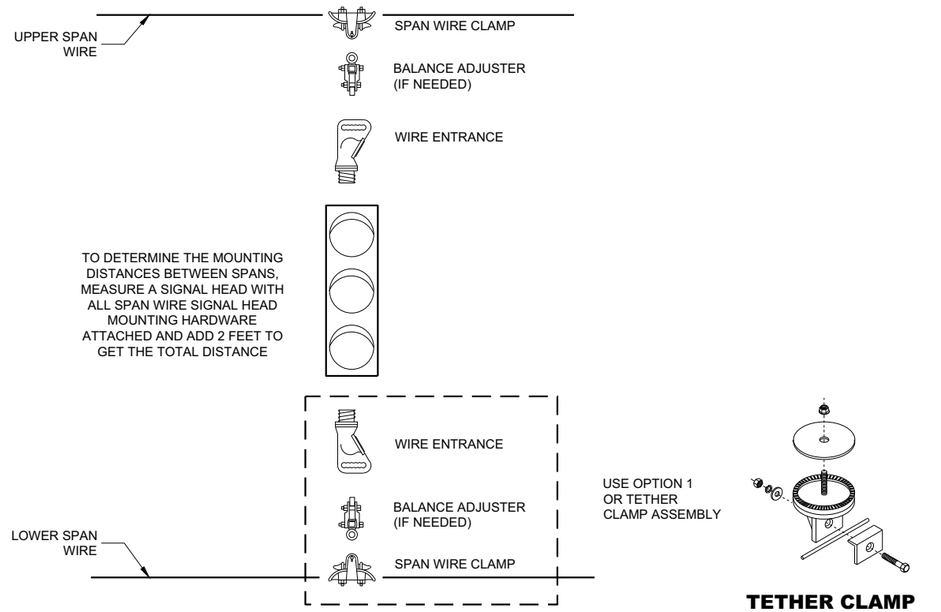
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TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL

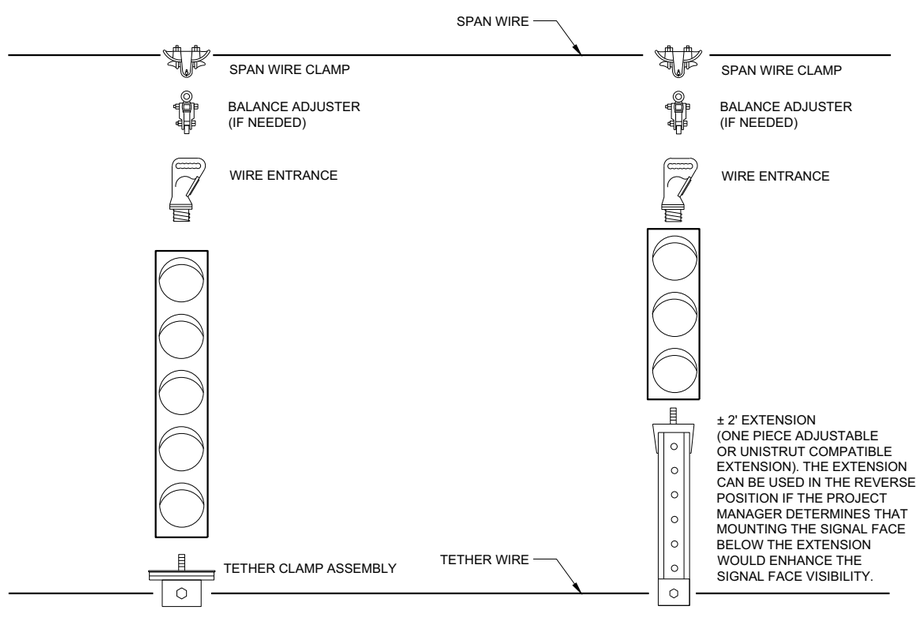


OPTION 1

USE OPTION 1 OR TETHER CLAMP ASSEMBLY

TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

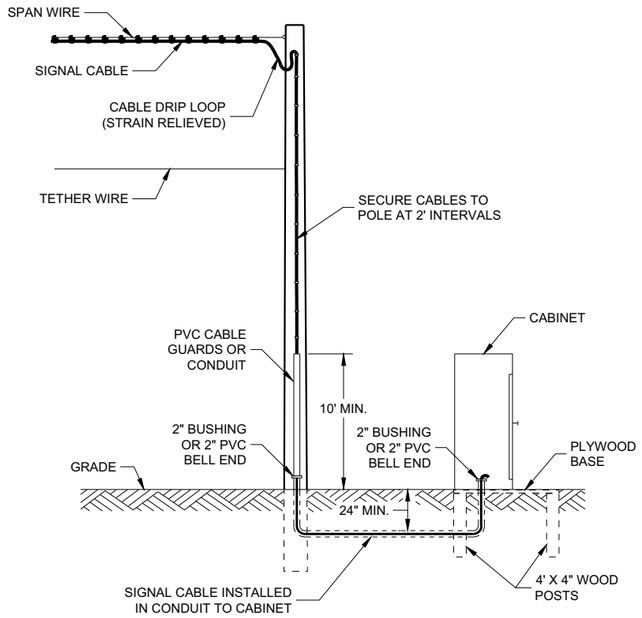
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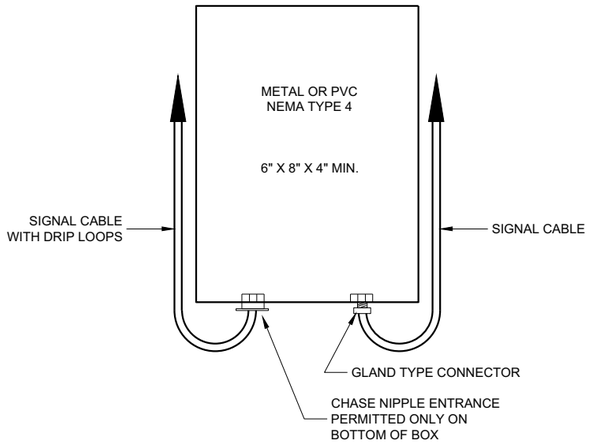
/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

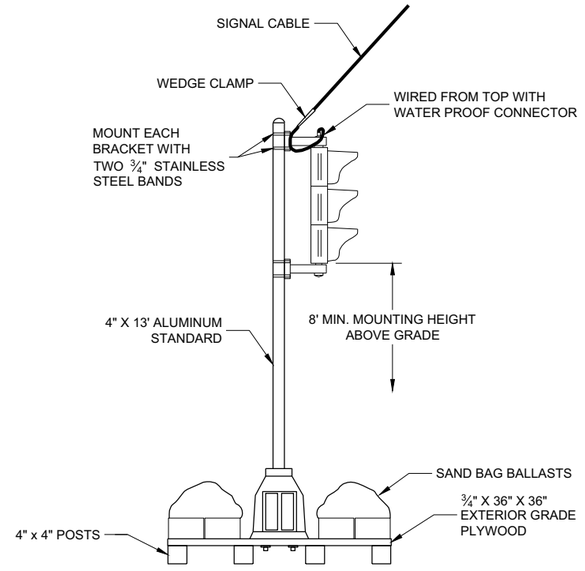
6

SDD 09G01 - 4f

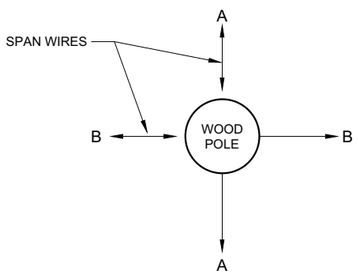




SPLICE BOX

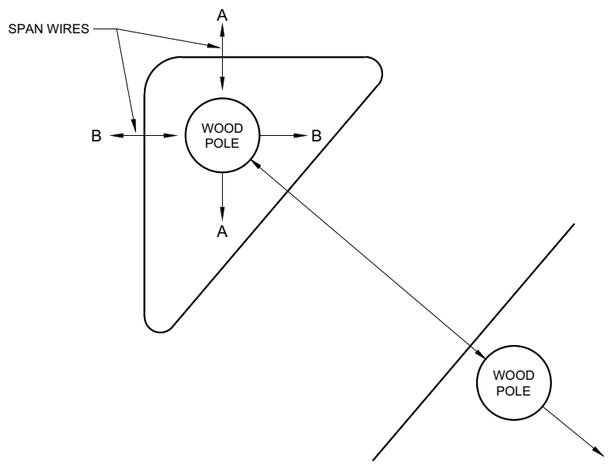


TYPICAL SKID TYPE TEMPORARY

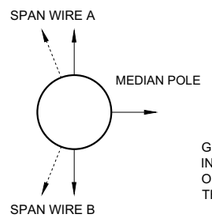


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF
THE SPAN LOADING

MEDIAN POLES

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

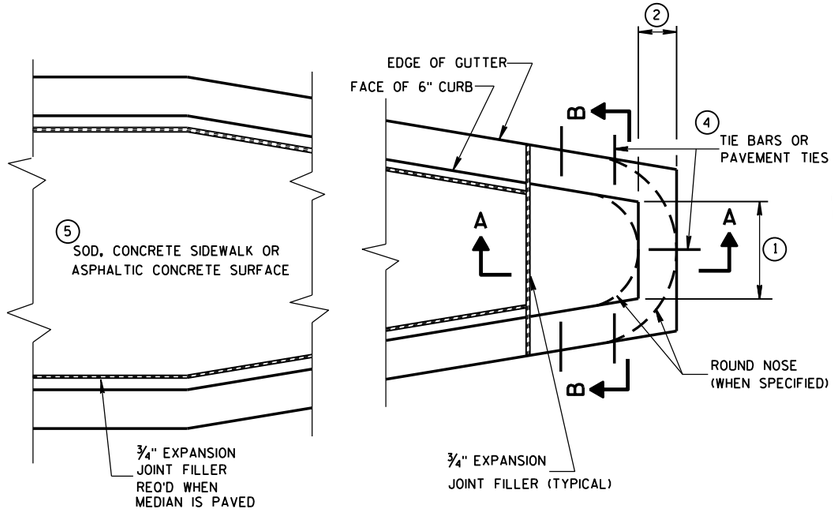
June 2015
DATE

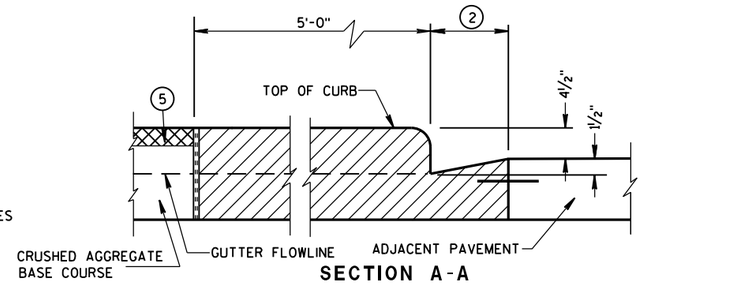
/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

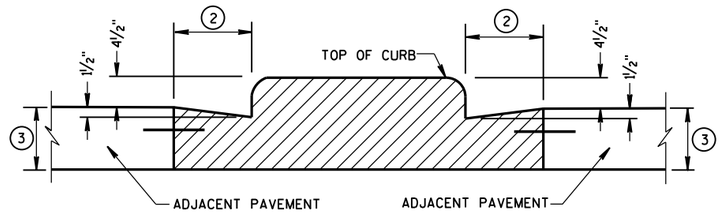
SDD 09G01 - 4g

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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.

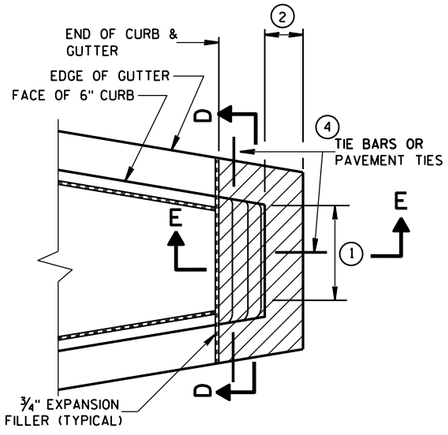
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

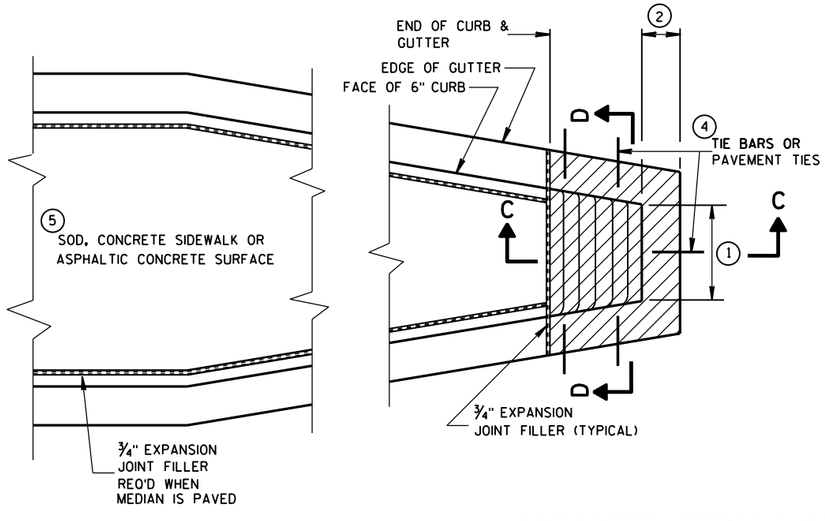
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(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.

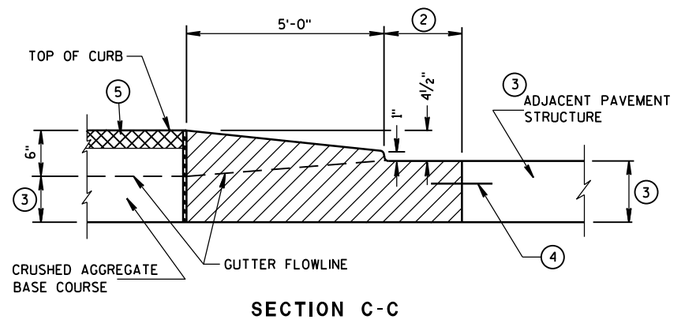
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

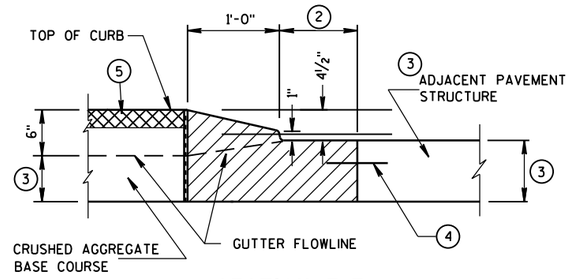




CONCRETE MEDIAN SLOPED NOSE TYPE 1

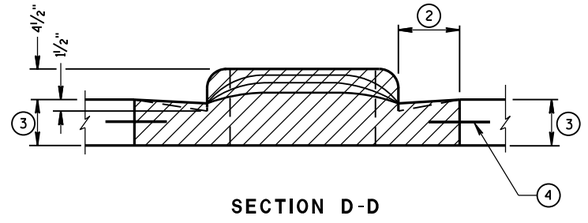


SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2



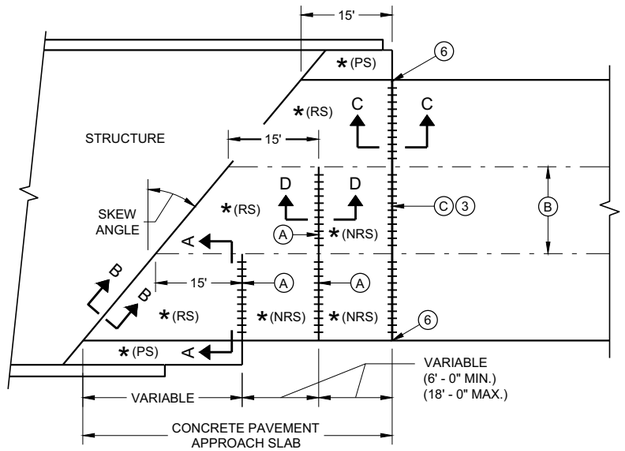
SECTION D-D

CONCRETE MEDIAN NOSE

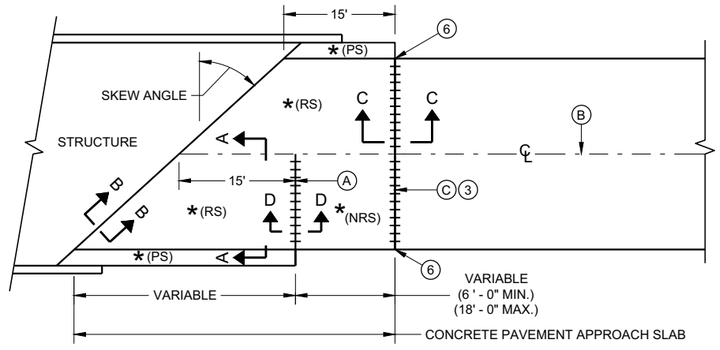
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

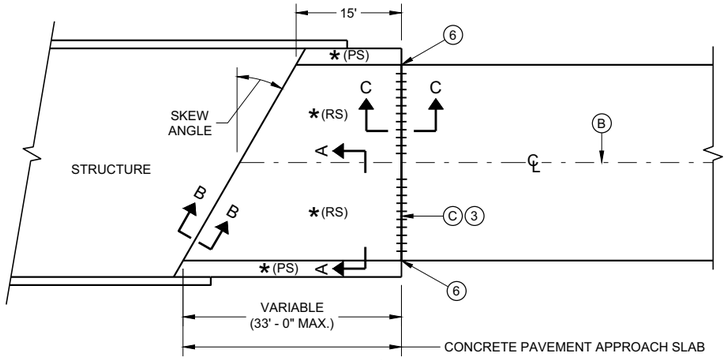
6
S.D.D. 11 B 2-2



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

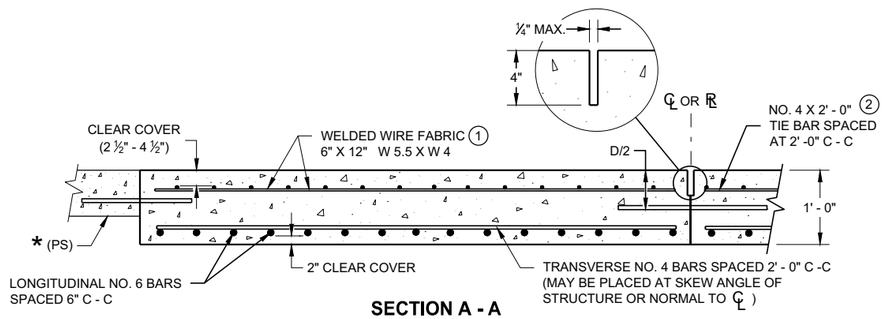
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

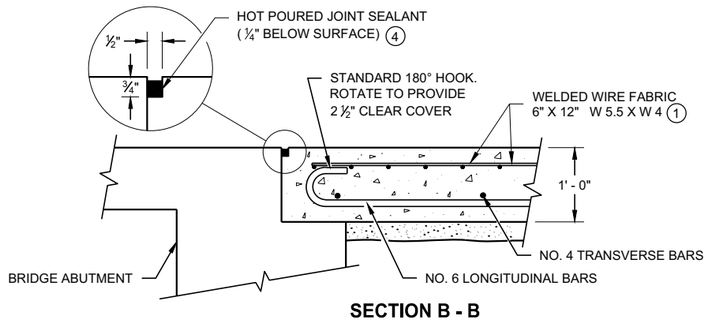
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

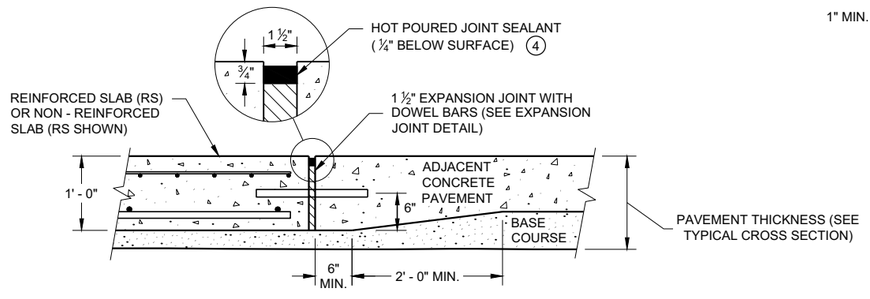
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

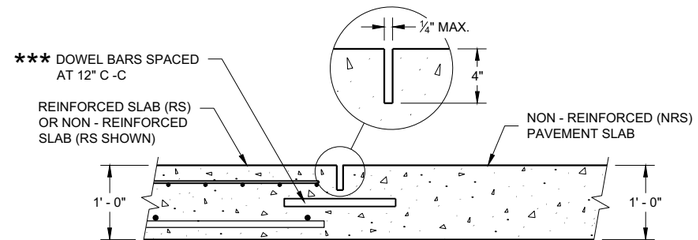
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

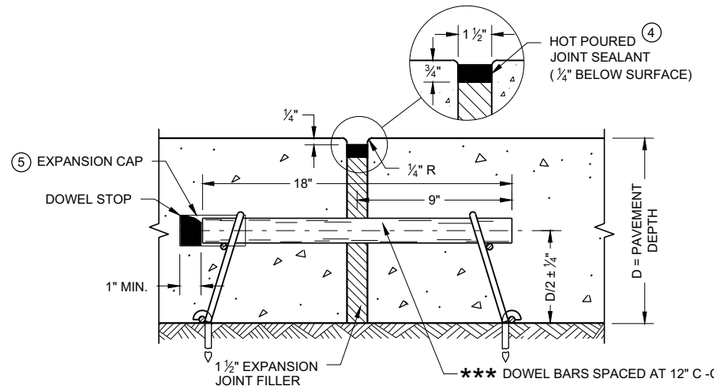
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞ .



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

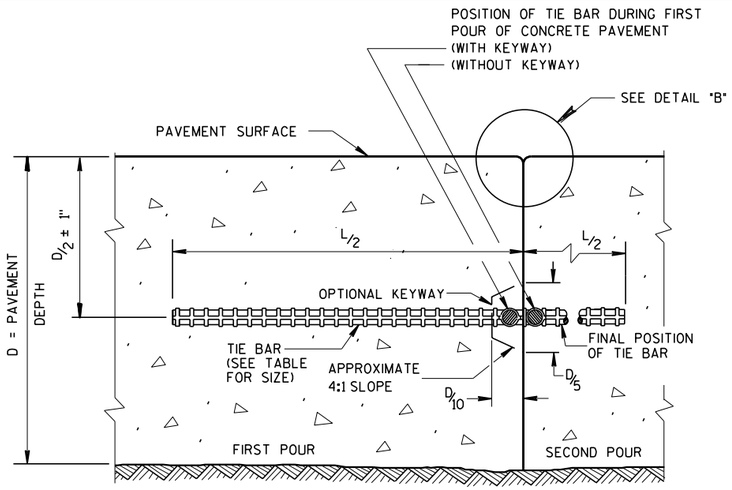
APPROVED
November 2018
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVIS

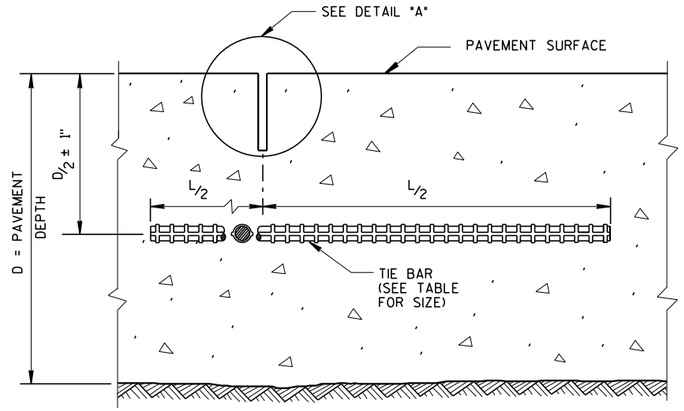
FHWA

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SDD 13B02 - 09a



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

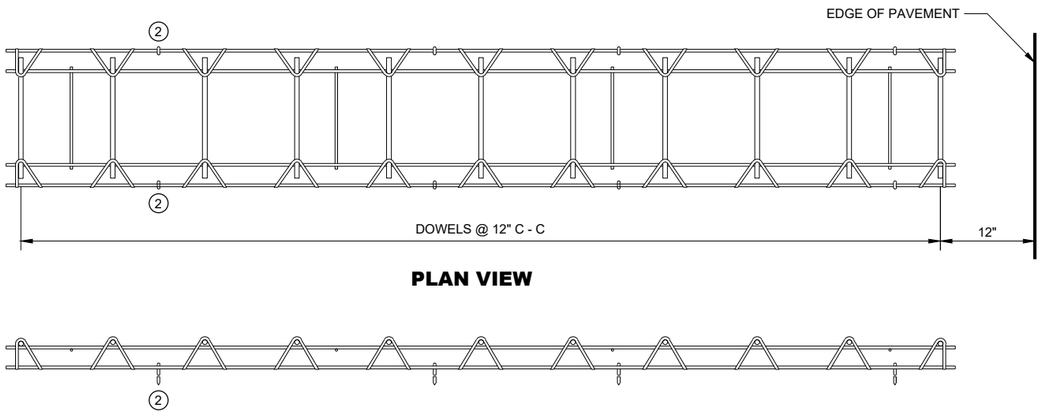
APPROVED
March 2018
DATE
/S/ Peter Kemp PE
PAVEMENT SUPE
FHWA

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S.D.D. 13 C 1-19

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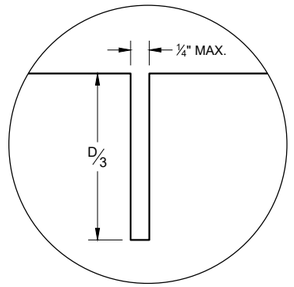
S.D.D. 13 C 1-19



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.

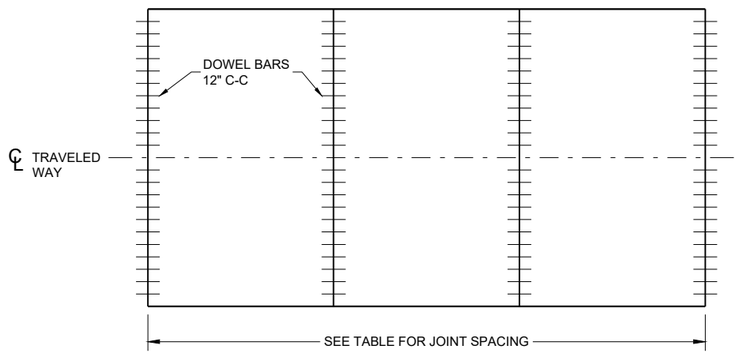
(3) FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼" RADIUS AT FORMED JOINTS.

(4) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

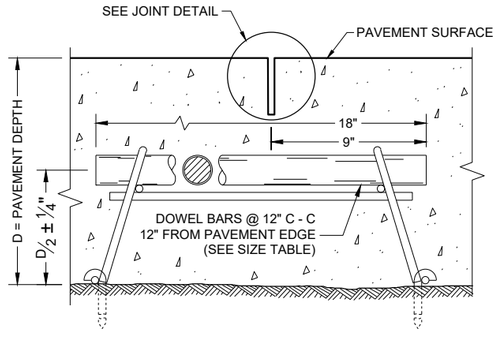
(5) INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED 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.



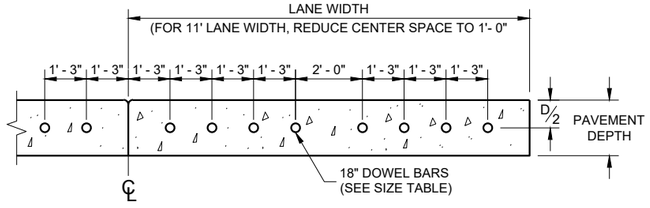
CONTRACTION JOINT LOCATIONS



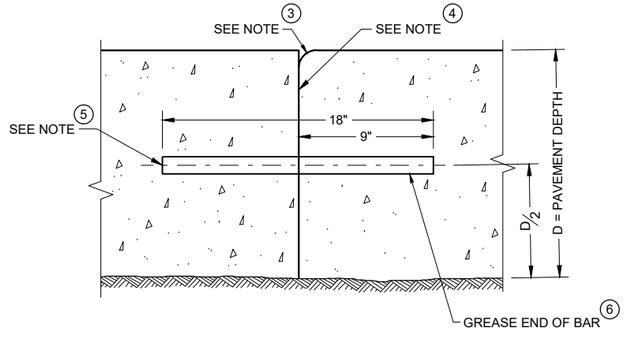
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9" & ABOVE	1 ¼"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT (7)



TRANSVERSE CONSTRUCTION JOINT

URBAN DOWELED CONCRETE PAVEMENT

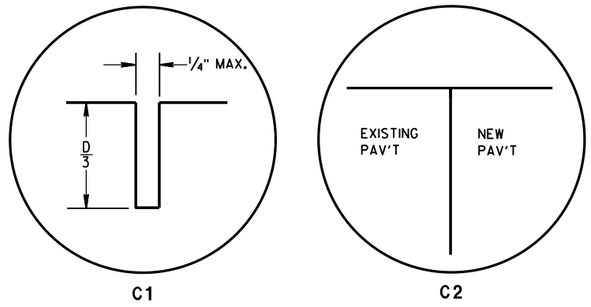
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

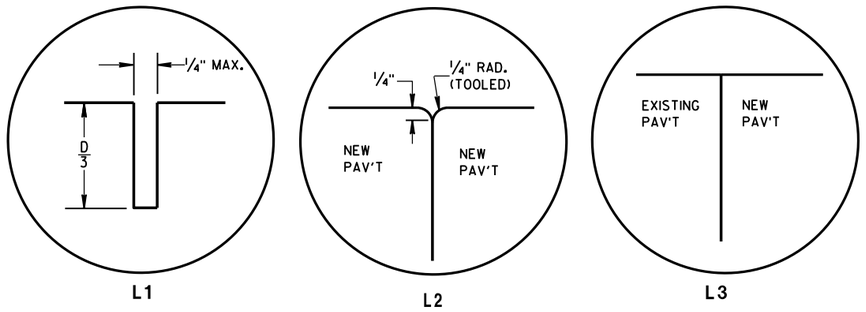
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

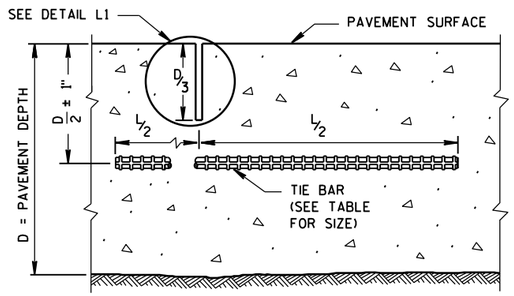
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SDD 13C13 - 10



TRANSVERSE JOINTS

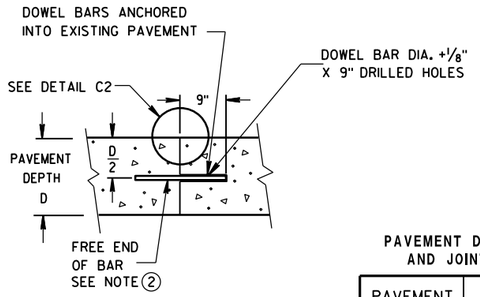


LONGITUDINAL JOINTS



SECTION C-C

SAWED JOINT



SECTION D-D

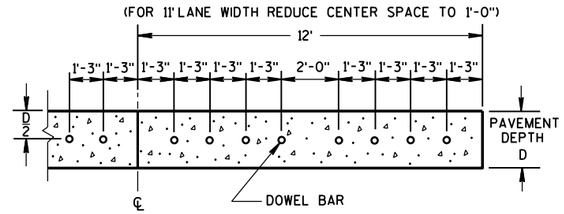
GENERAL NOTES

ANCHOR TIE BARS AND DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

(2) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

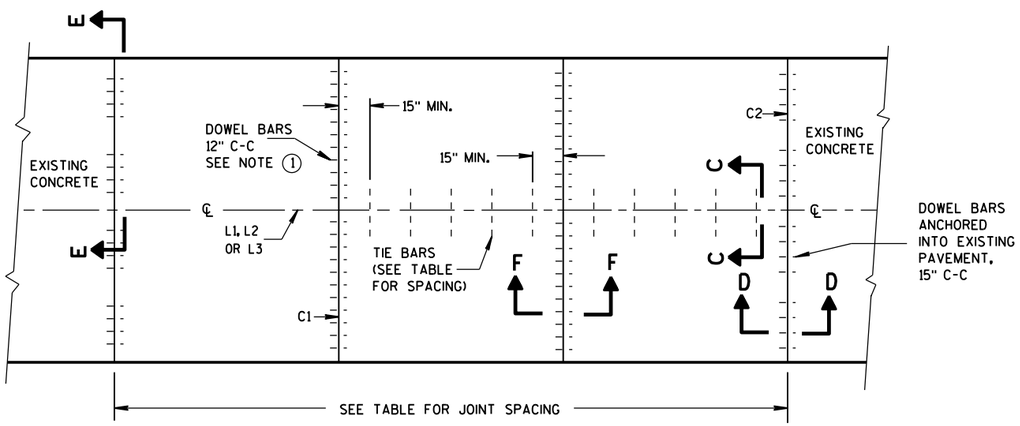
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5½", 6, 6 ½"	NONE	12'
7, 7 ½"	1"	14'
8, 8 ½"	1 ¼"	15'
9, 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

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" **

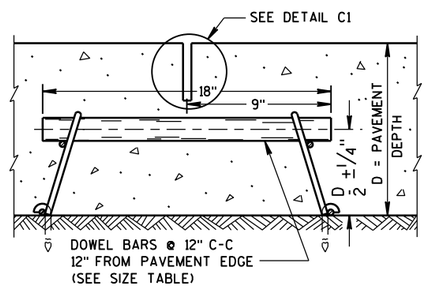
* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW

CONCRETE BASE CONTRACTION JOINT LOCATIONS



SECTION F-F

CONTRACTION JOINT

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

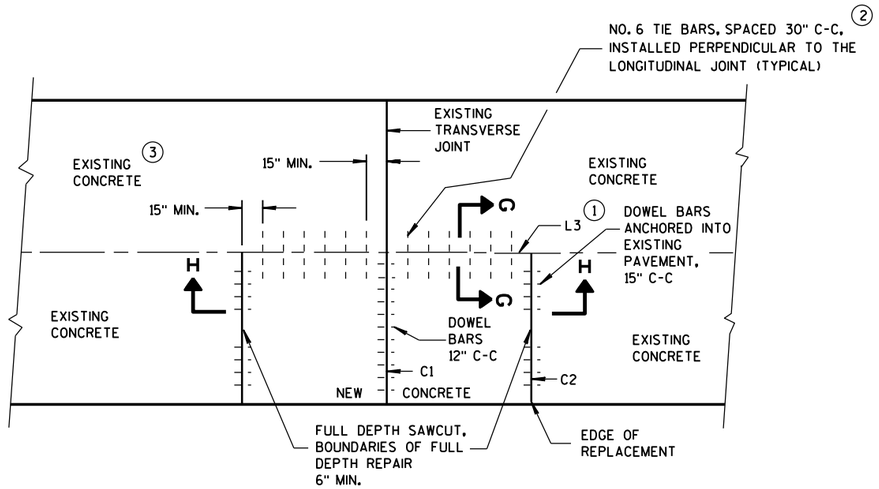
6
S.D.D. 13 C 15-6a

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.

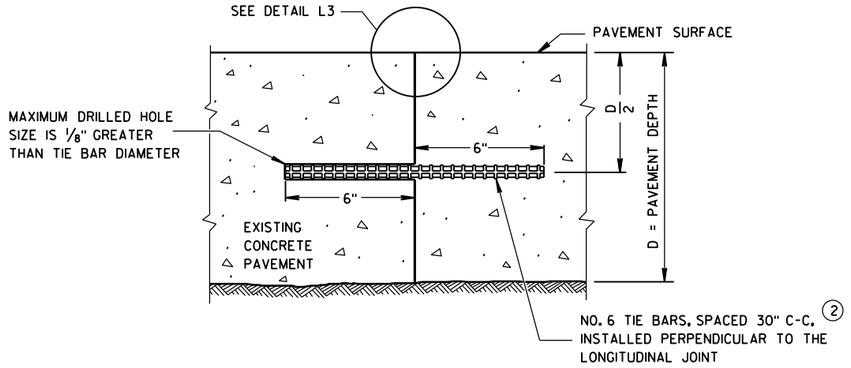
(2) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(3) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



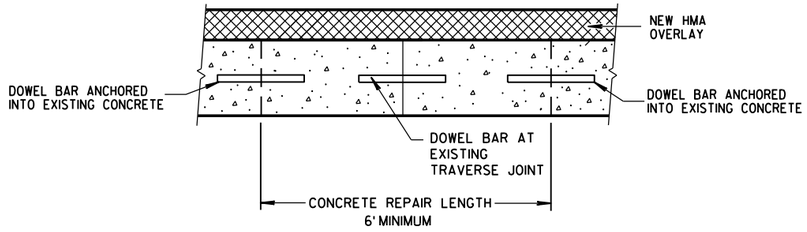
PLAN VIEW

SINGLE LANE CONCRETE BASE REPAIR



SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



SECTION H-H

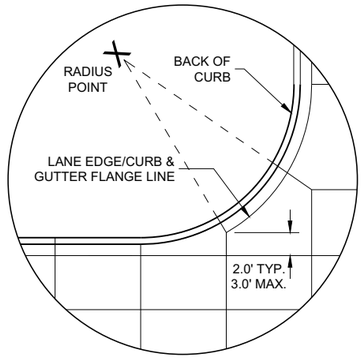
CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

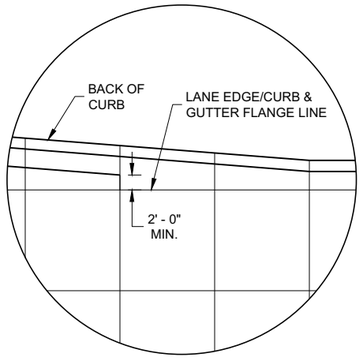
APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPEI
FHWA

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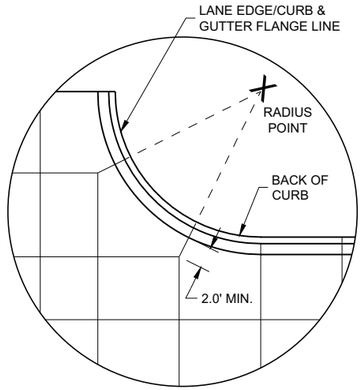
S.D.D. 13 C 15-6b



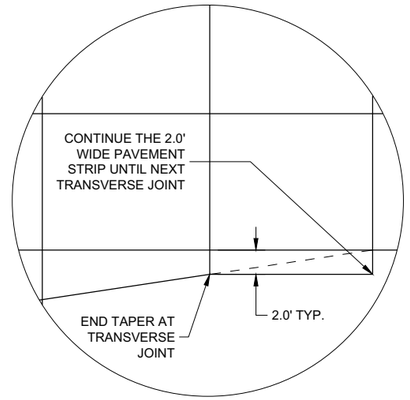
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

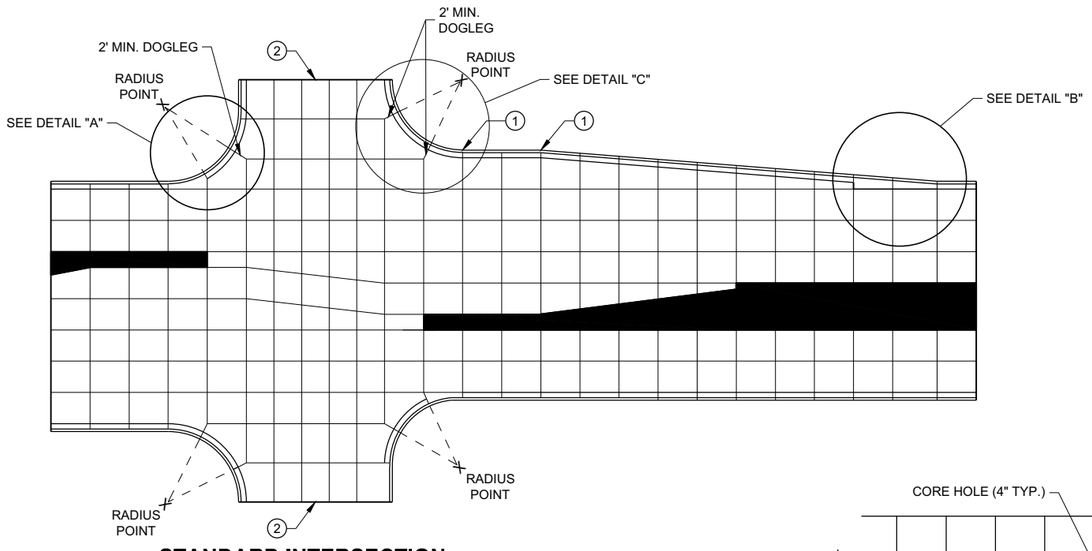
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

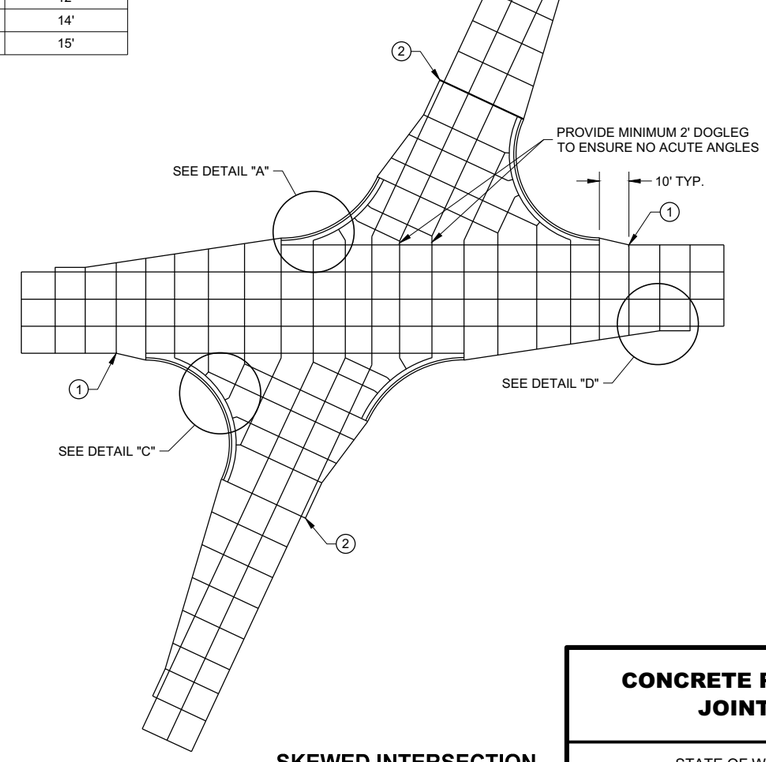
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITHEDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



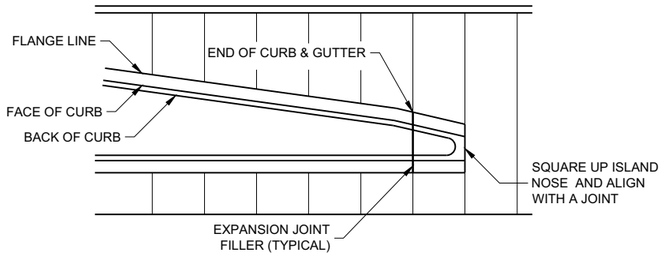
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

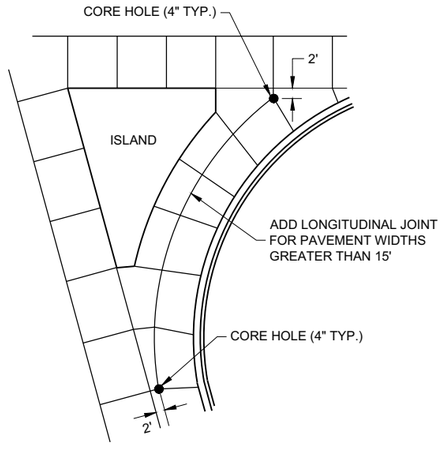
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 07a

6

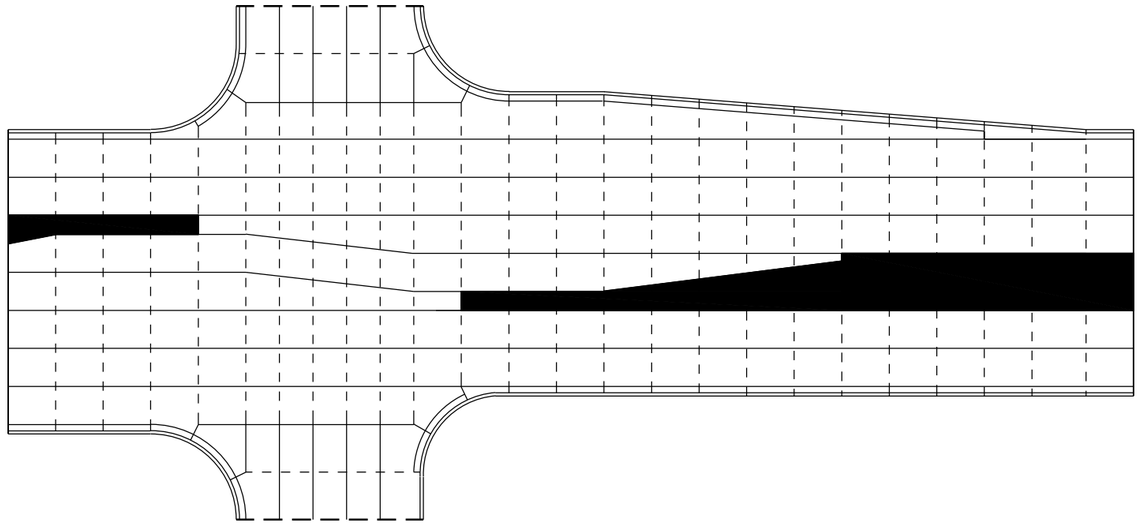
SDD 13C18 - 07a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

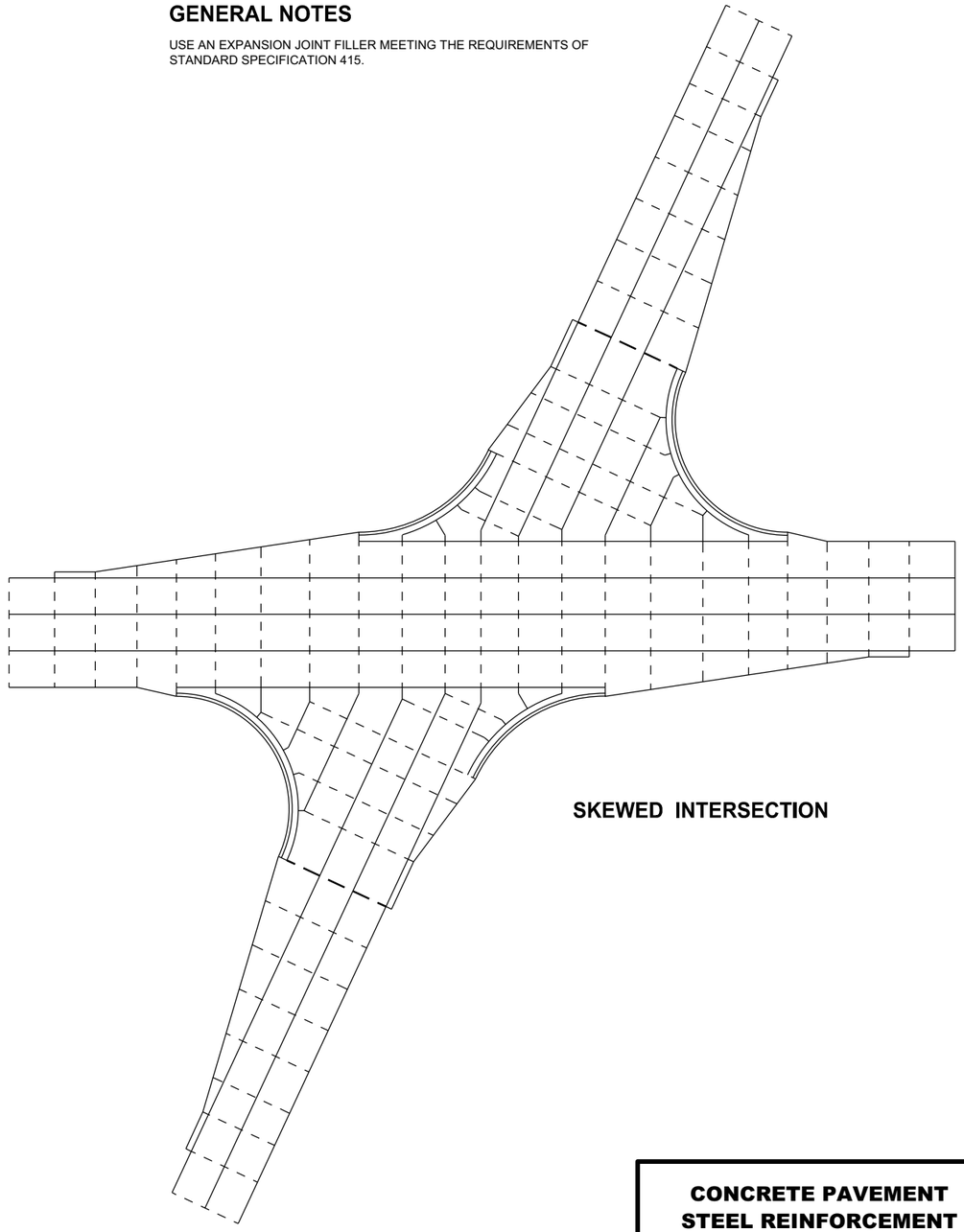
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

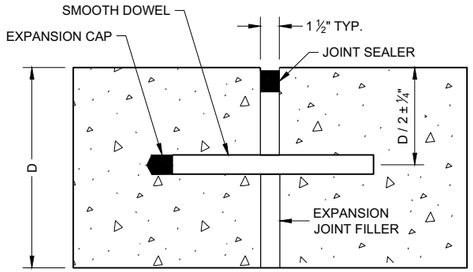
SDD 13C18 - 07b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

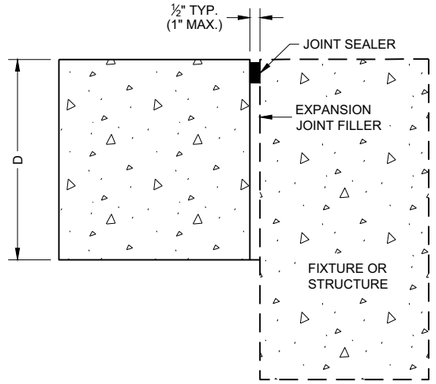
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 07b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

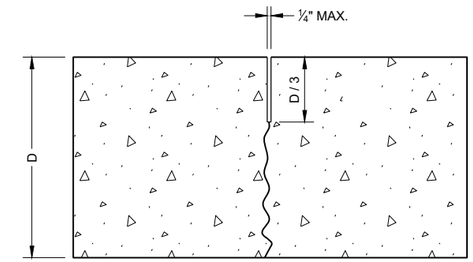
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

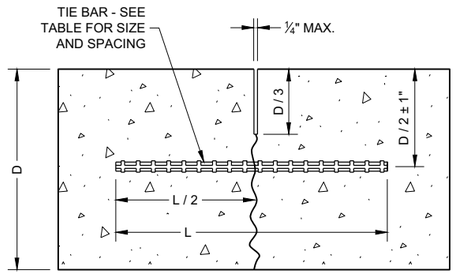
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

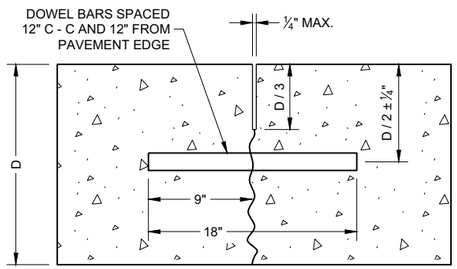
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

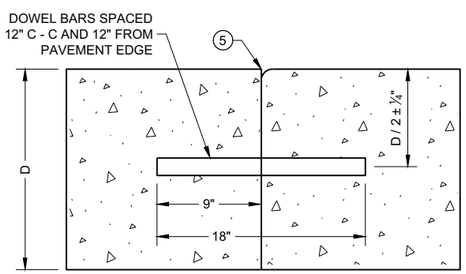


TIED LONGITUDINAL

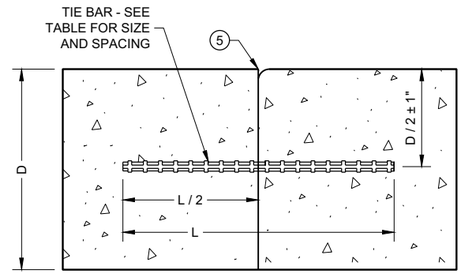


DOWELED TRANSVERSE

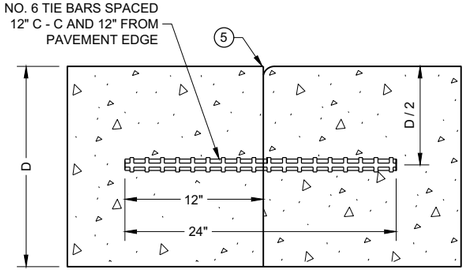
CONTRACTION JOINTS (2)



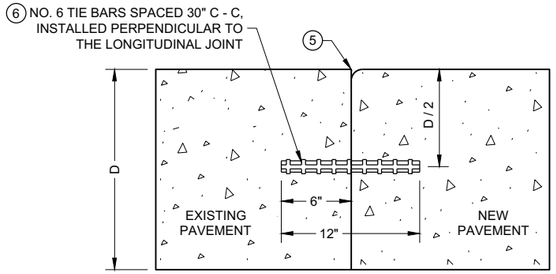
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

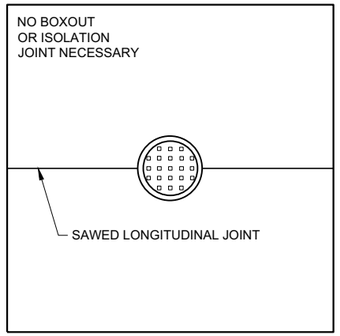
CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

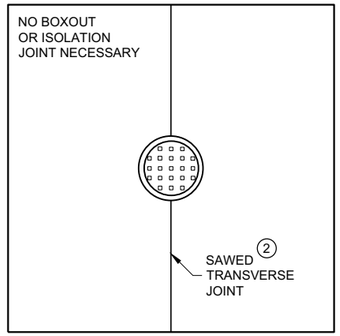
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

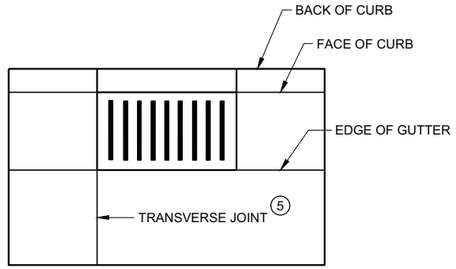
SDD 13C18 - 07c



MANHOLE WITH LONGITUDINAL JOINT



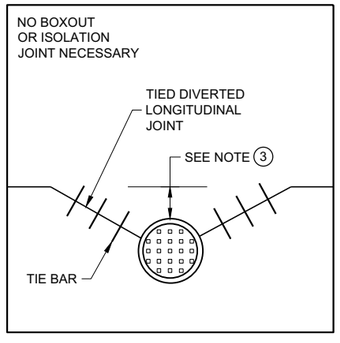
MANHOLE WITH TRANSVERSE JOINT



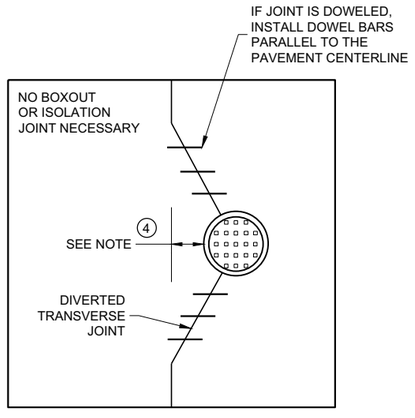
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

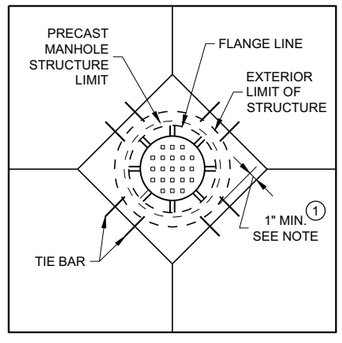
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

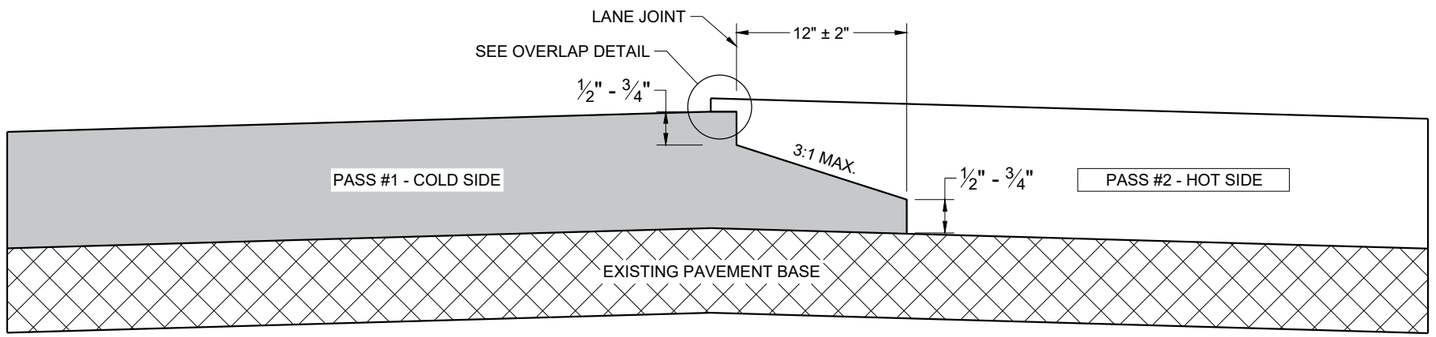
APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

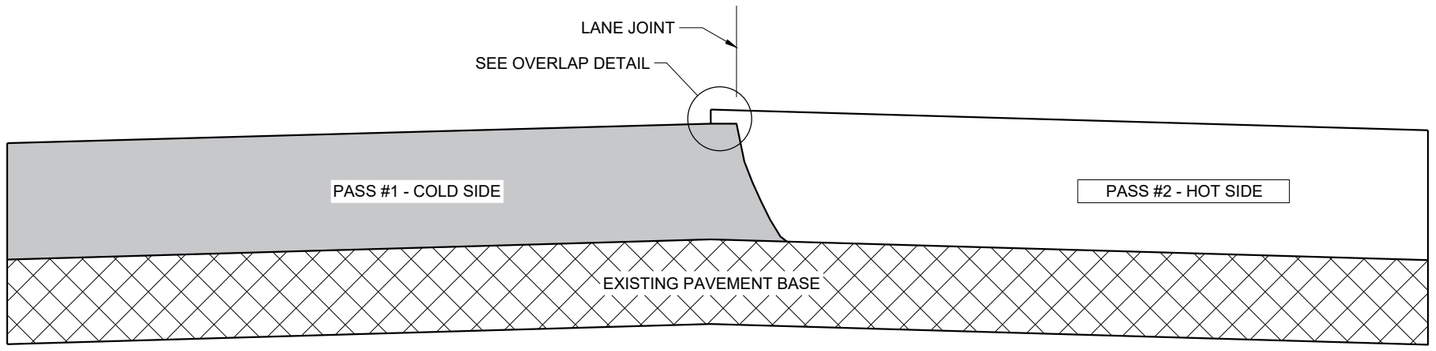
FHWA

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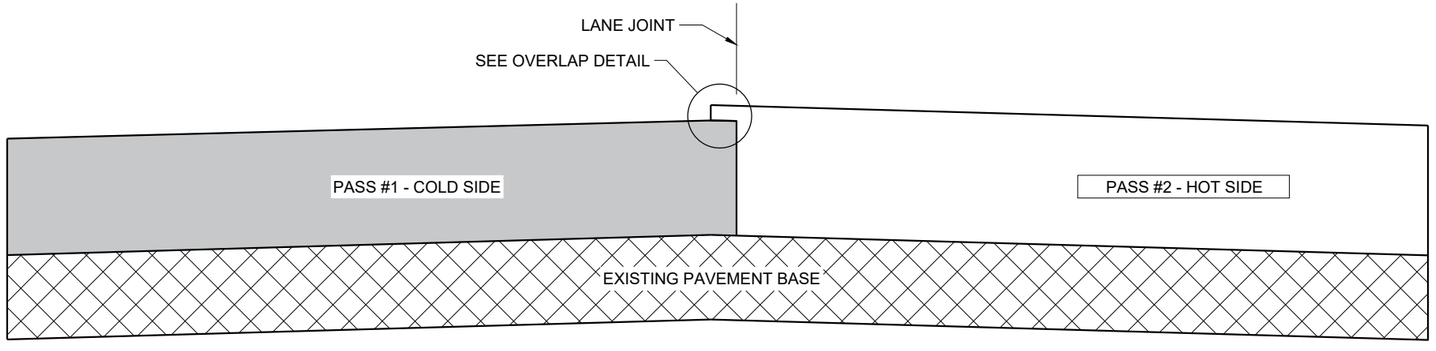
SDD 13C18 - 07d
SDD 13C18 - 07d



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

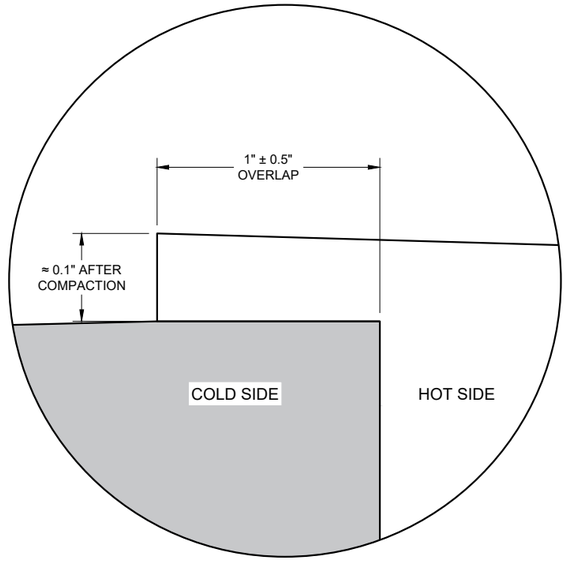
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

6

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SDD 13C19 - 03

SDD 13C19 - 03

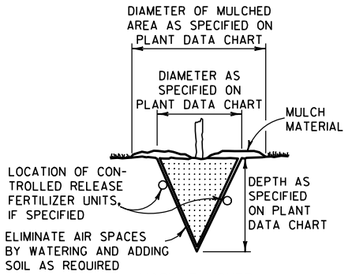
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

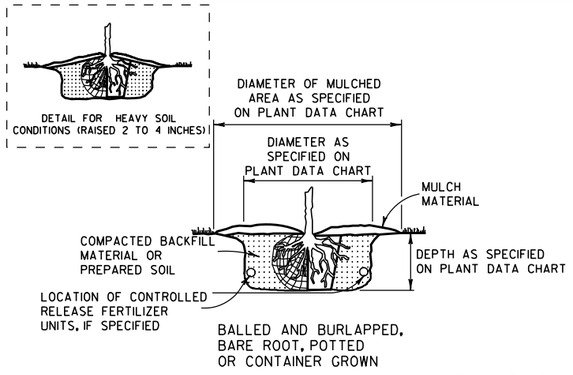
APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

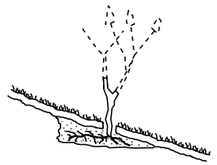
FHWA



MACHINE MOVED

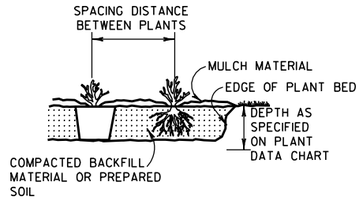


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



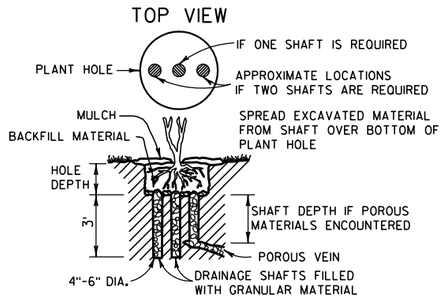
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

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



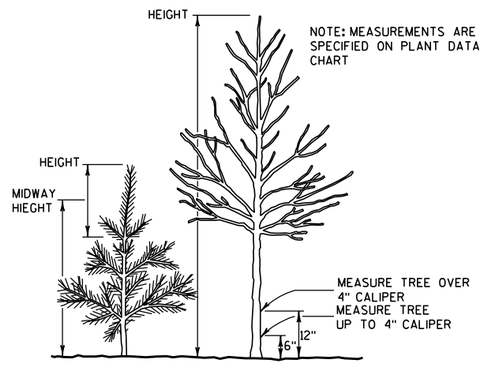
PREPARED BED (BARE ROOT AND POTTED)

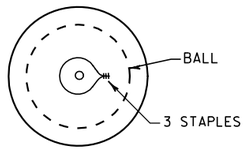
PLANTING



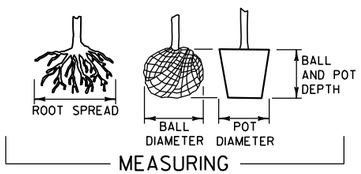
NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

DRAINING

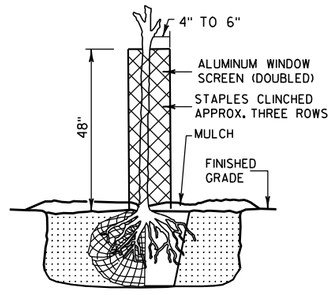




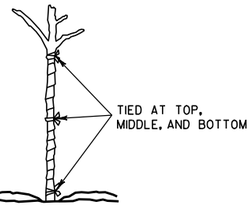
TOP VIEW



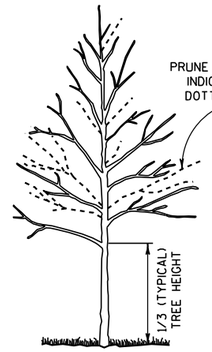
MEASURING



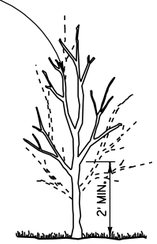
RODENT PROTECTION



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)

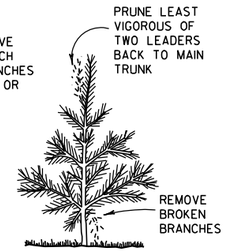
NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES



SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

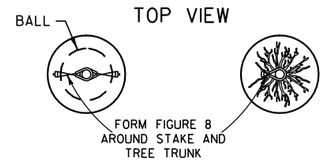


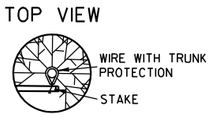
SUMAC

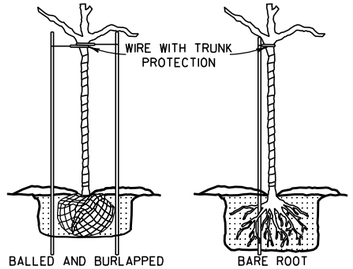


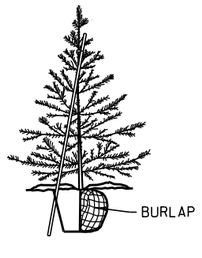
TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

PRUNING



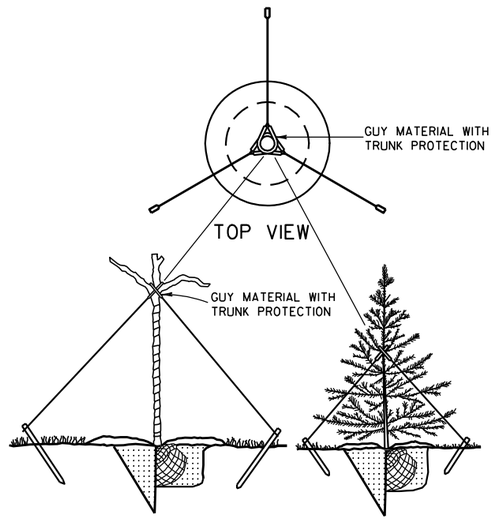






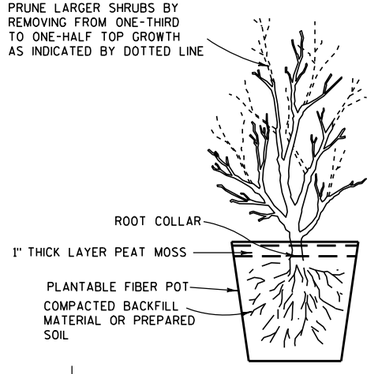
NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE 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.

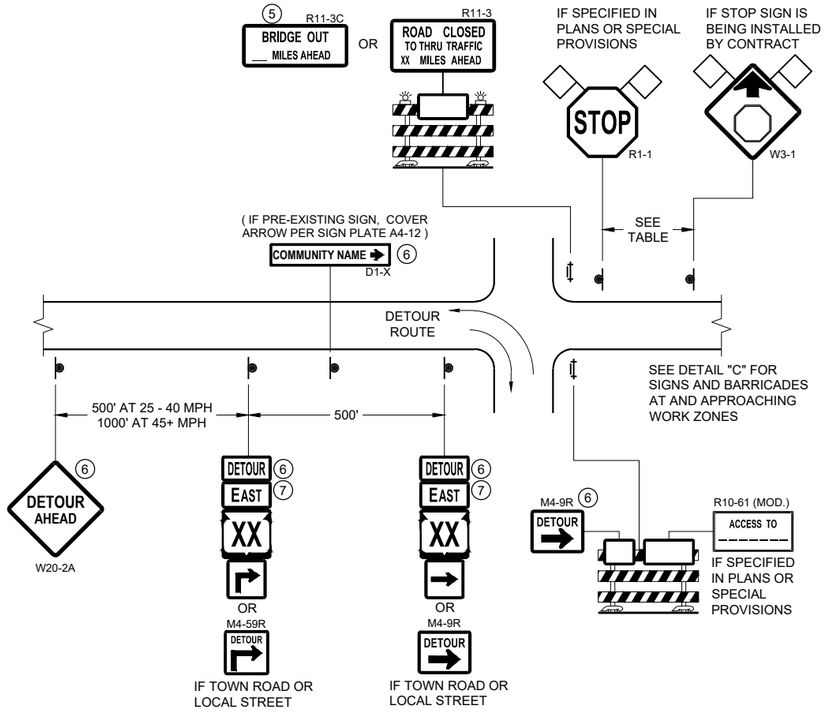
TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/11/94 DATE
/S/ Rory L. Rhinesmith
CHIEF METHODS DEVELOPMENT ENGINEER
FHWA

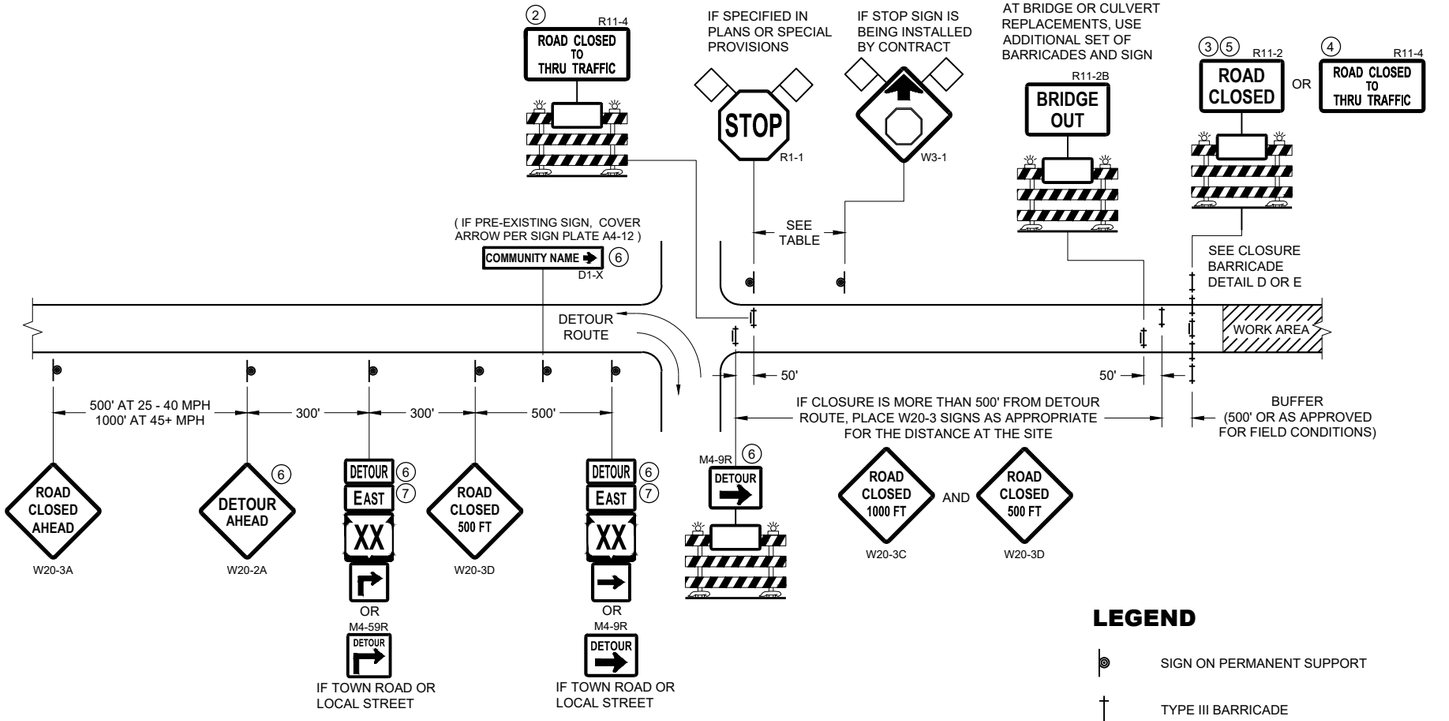
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S.D.D. 14 A 2-1



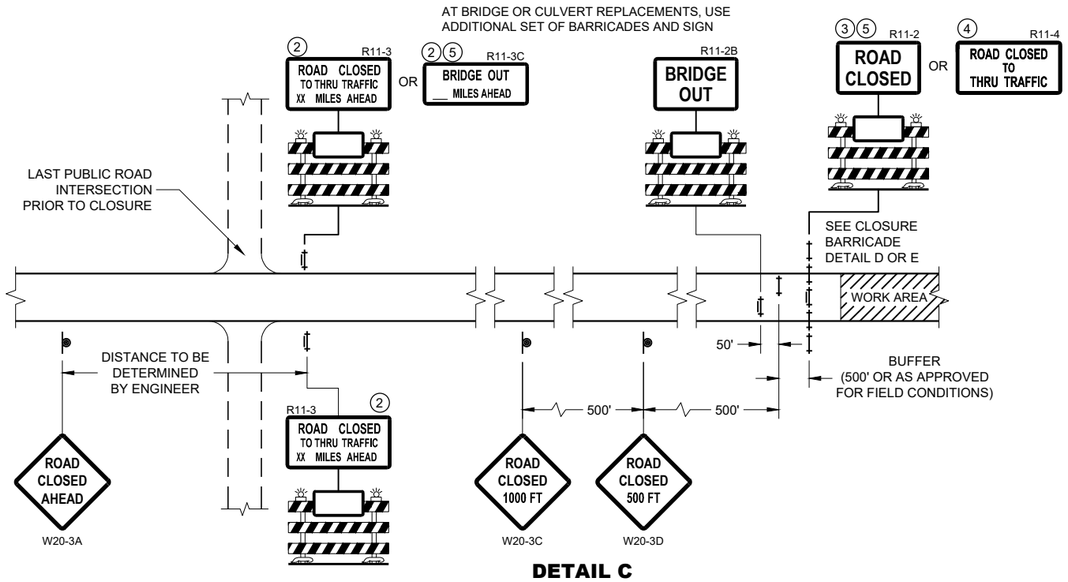
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

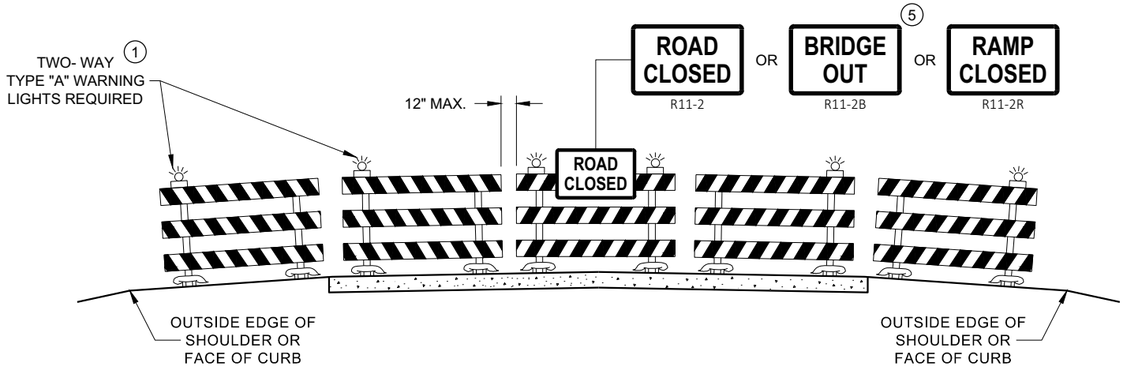
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

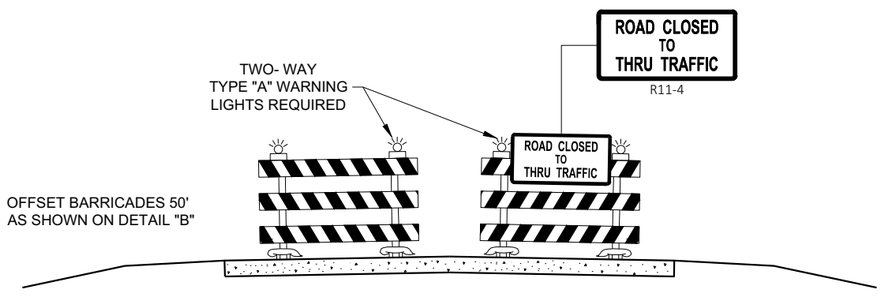
6

SDD 15C02 - 08a

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
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 / EAST — M4 - 8, M3 - X
- XX — M1 - 4; XX — M1 - 6; COUNTY X — M1 - 5A
- M05 - 1; M06 - 1; 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.

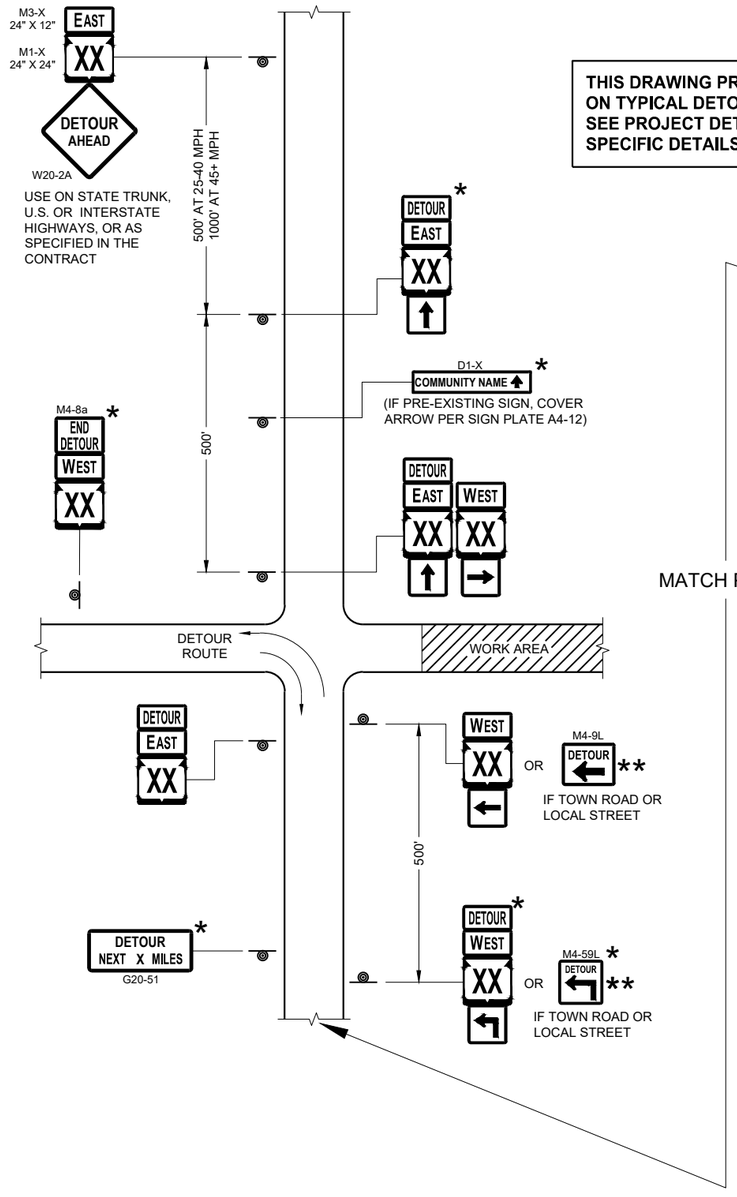
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

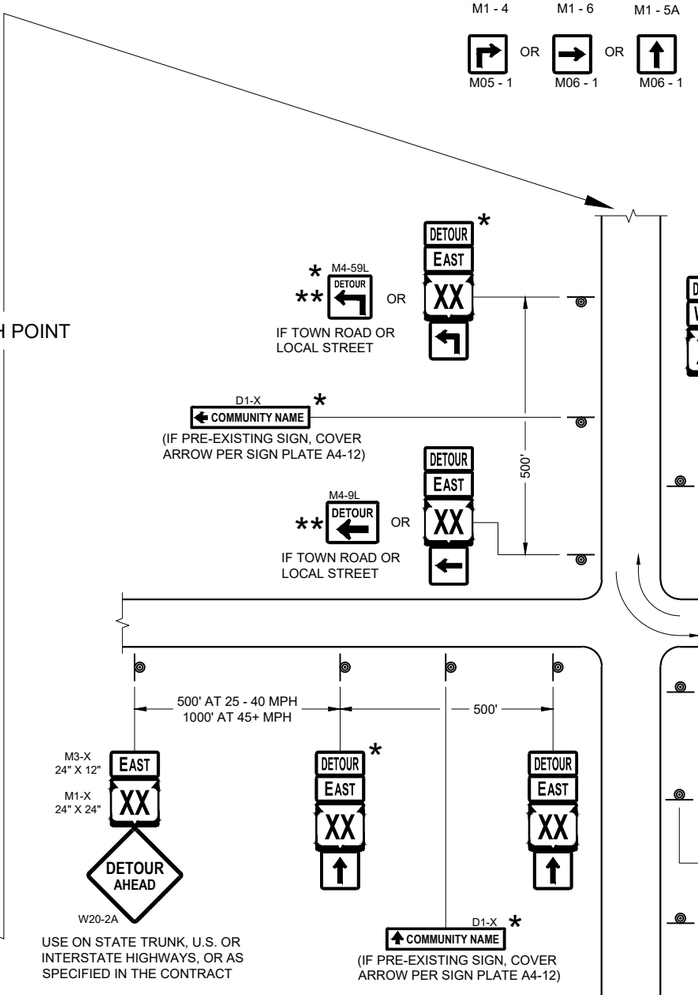
SIGN SIZES SHALL BE AS FOLLOWS:

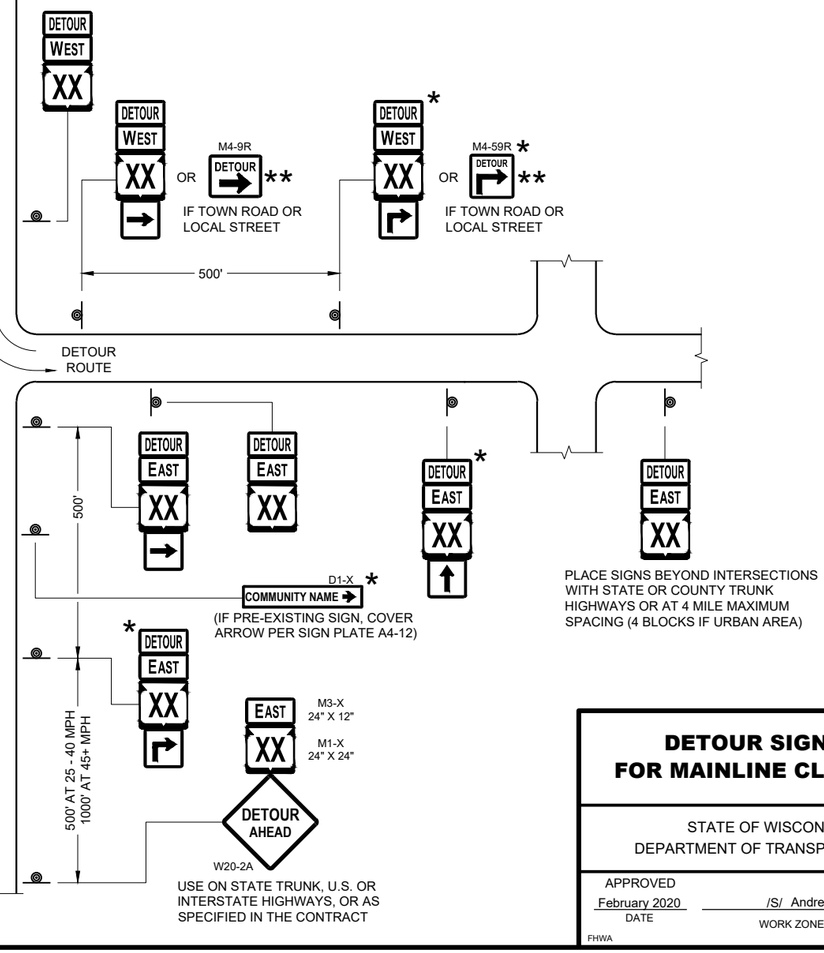
M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
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

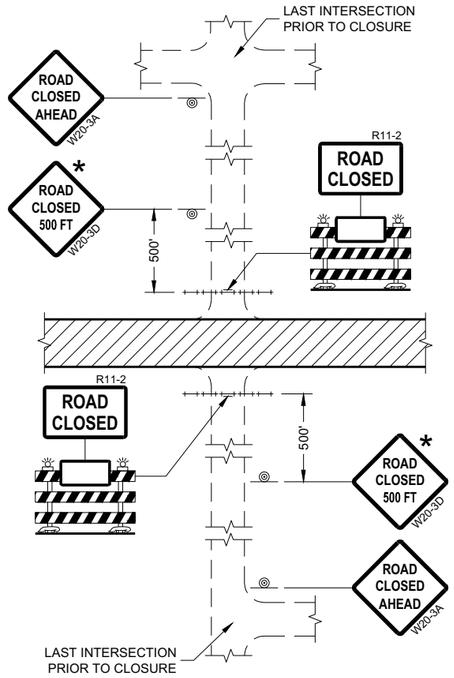
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

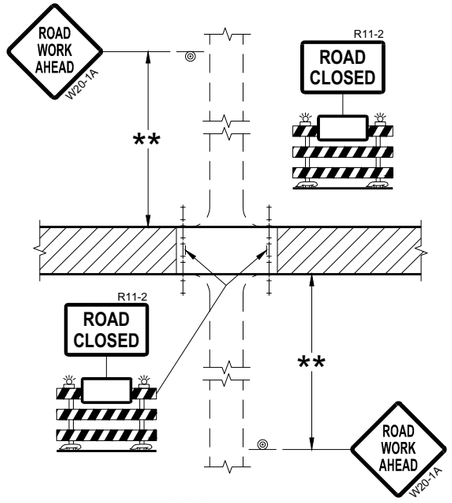
SDD 15C02 - 08c

SDD 15C02 - 08c

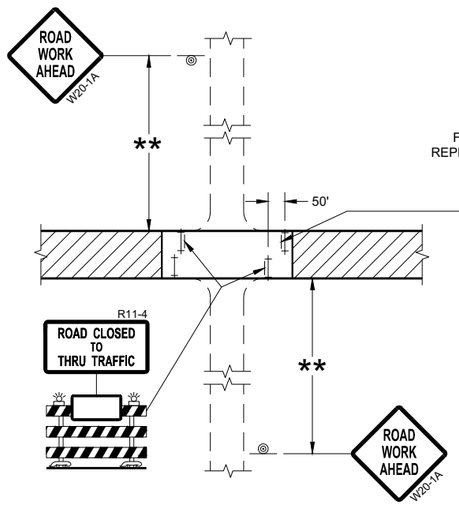
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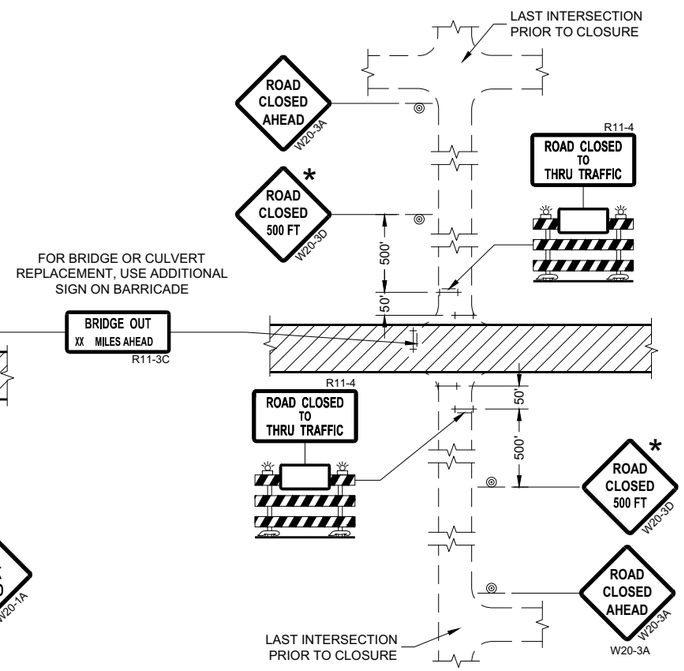
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C03 - 05

6

SDD 15C03 - 05

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

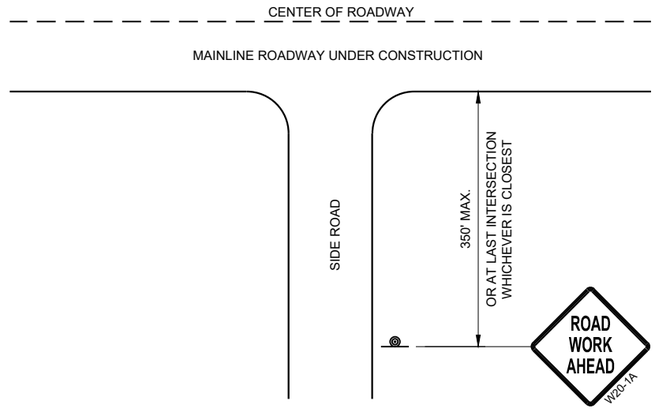
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

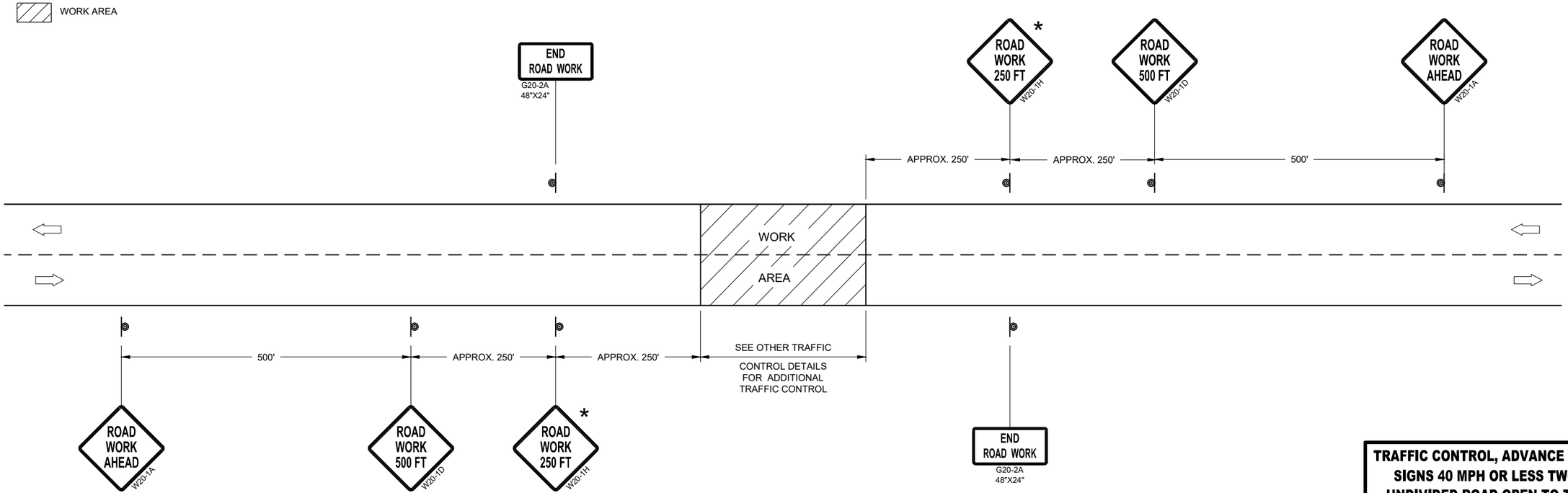
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

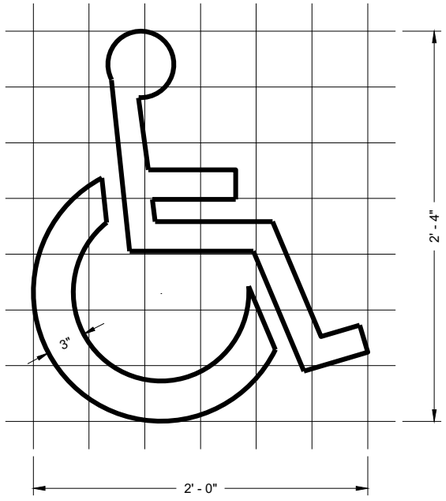
SDD 15C05 - 05

6

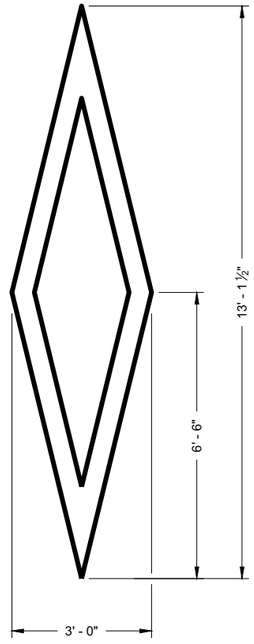
SDD 15C05 - 05

GENERAL NOTES

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



HANDICAP SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

SDD 15C07 - 15a

SDD 15C07 - 15a

PAVEMENT MARKING SYMBOLS

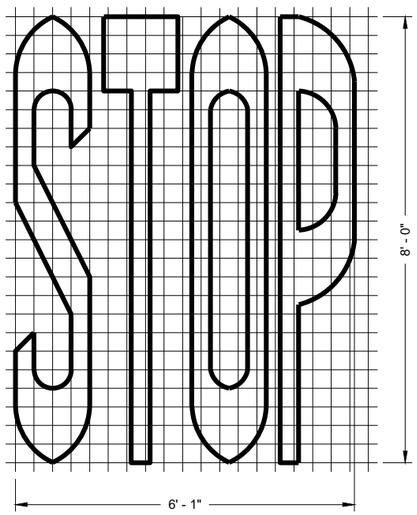
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

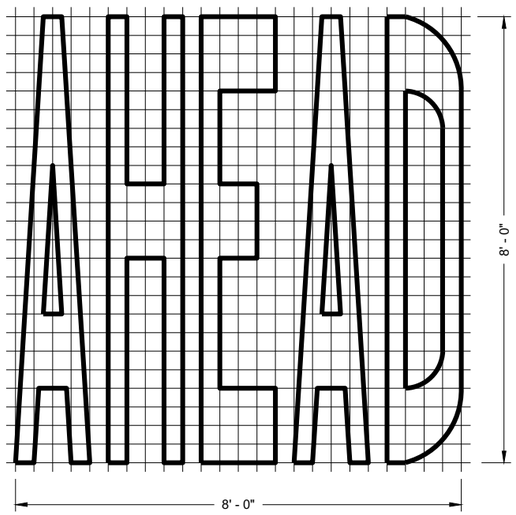
APPROVED

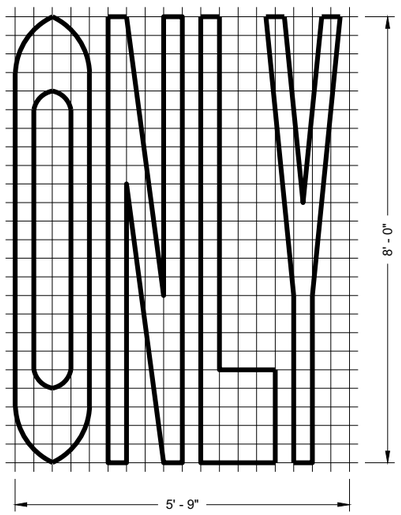
November 2019
DATE

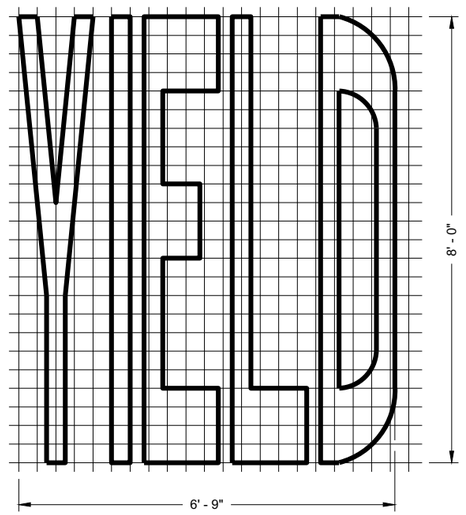
/S/ Matthew Rauch
STATE SIGNING AND MAR ENGINEER

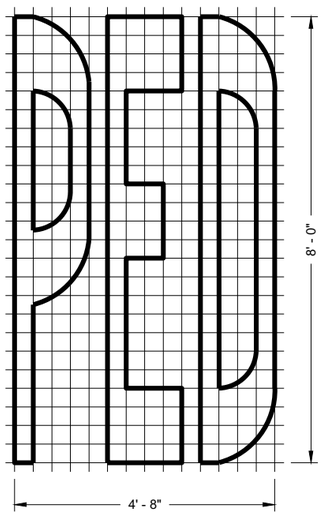
FHWA

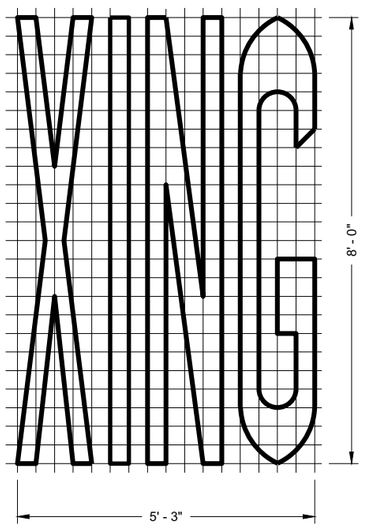


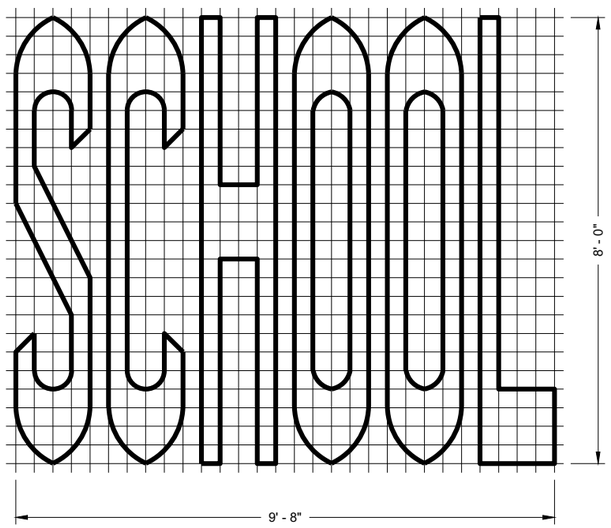




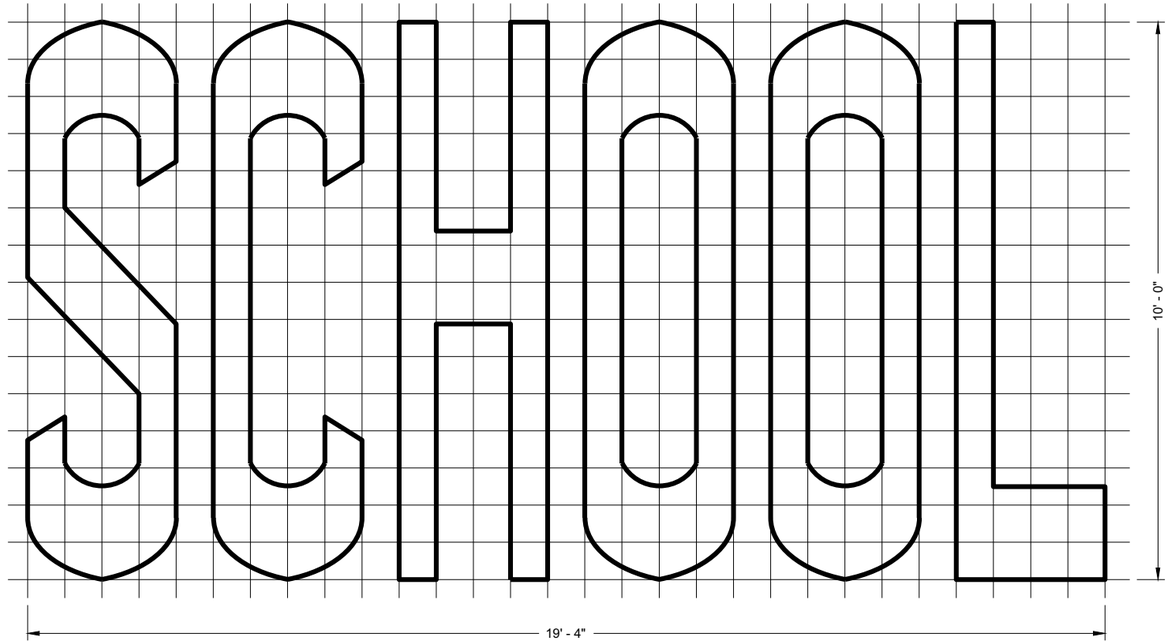








SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

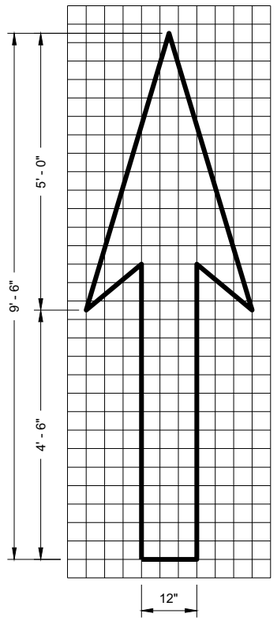
/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

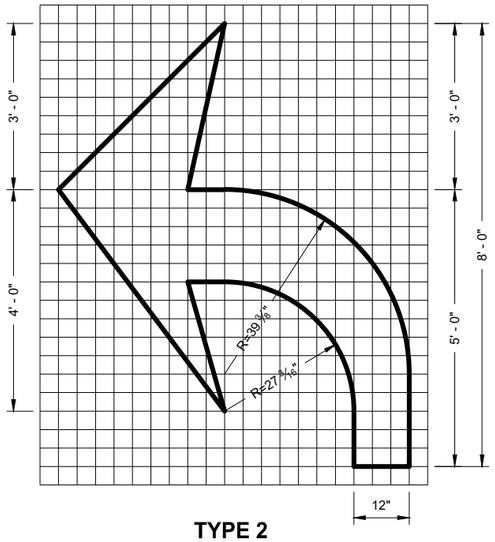
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SDD 15C07 - 15b

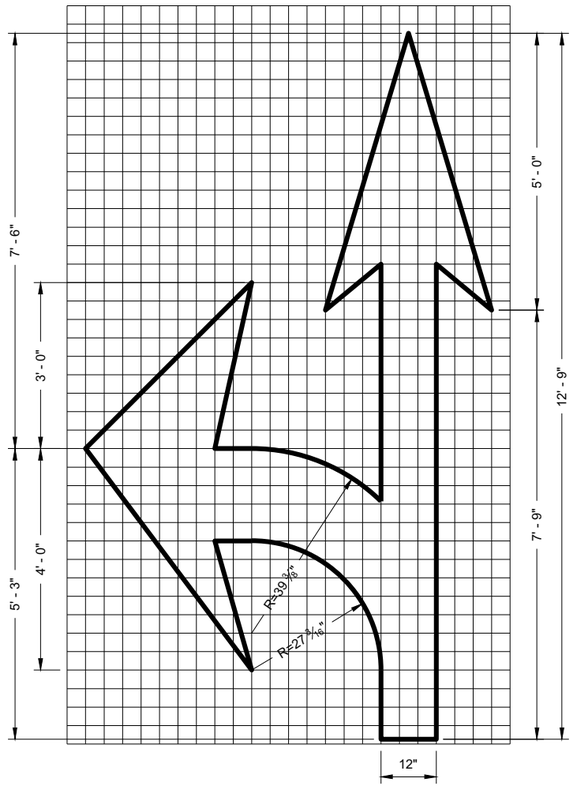
SDD 15C07 - 15b



TYPE 1



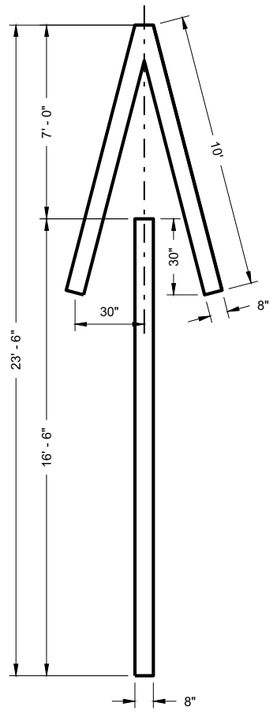
TYPE 2



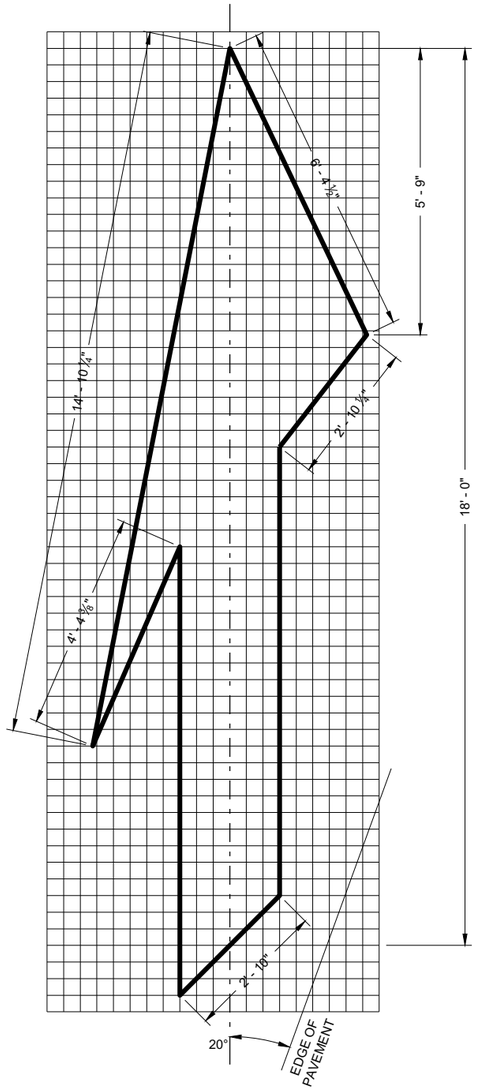
TYPE 3

GENERAL NOTES

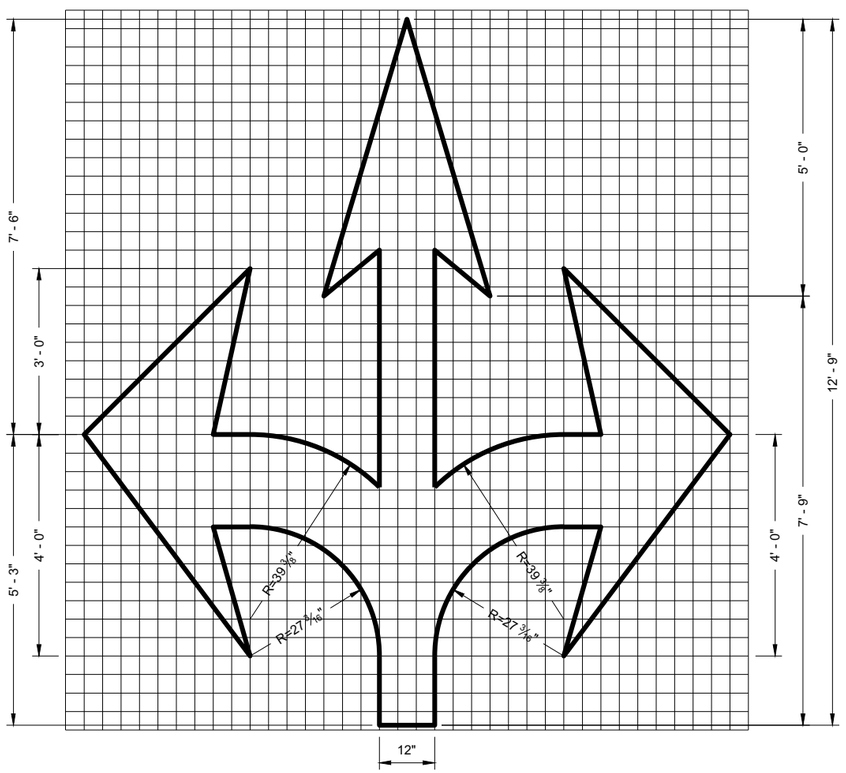
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



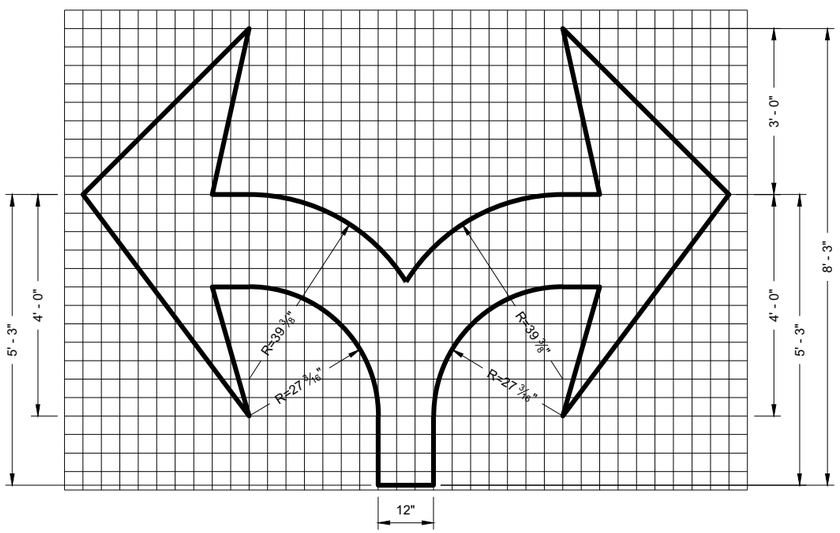
TYPE 4



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 MARKING ENGINEER

FHWA

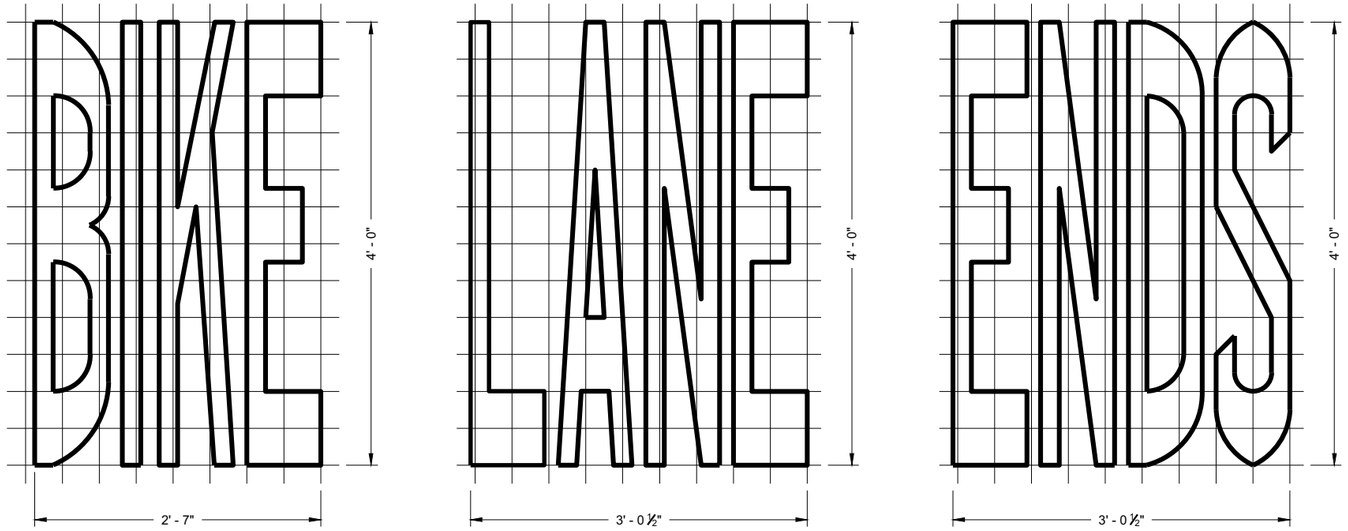
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SDD 15C07 - 15c

6

SDD 15C07 - 15c

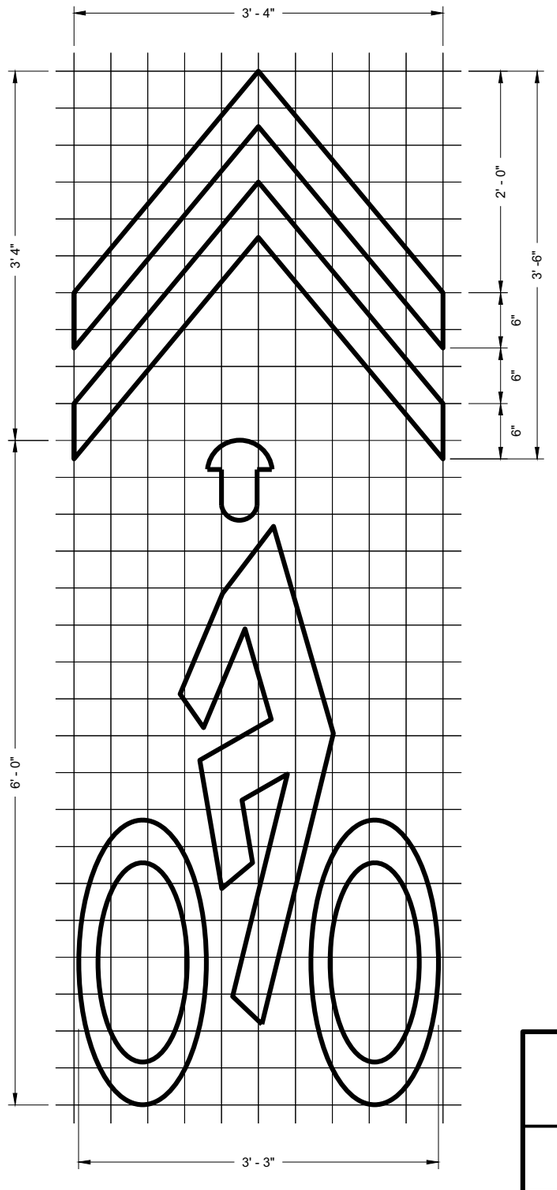
SDD 15C7-e Pavement Marking For Bike Lanes

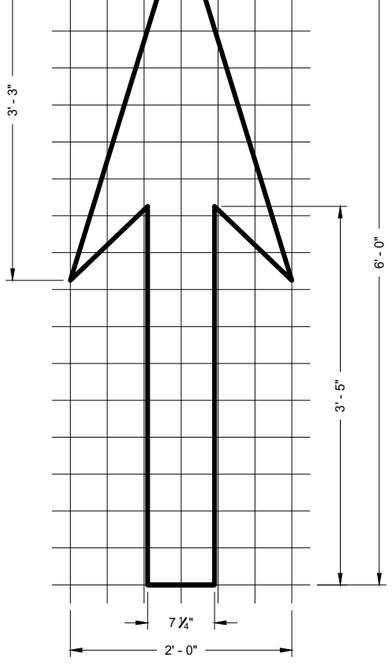


BIKE LANE WORDS

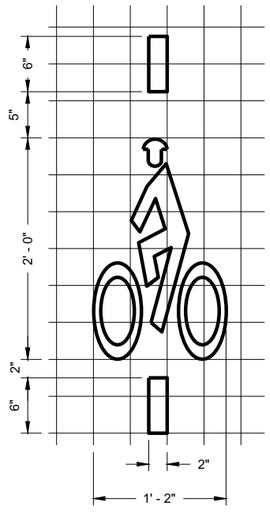
GENERAL NOTES

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

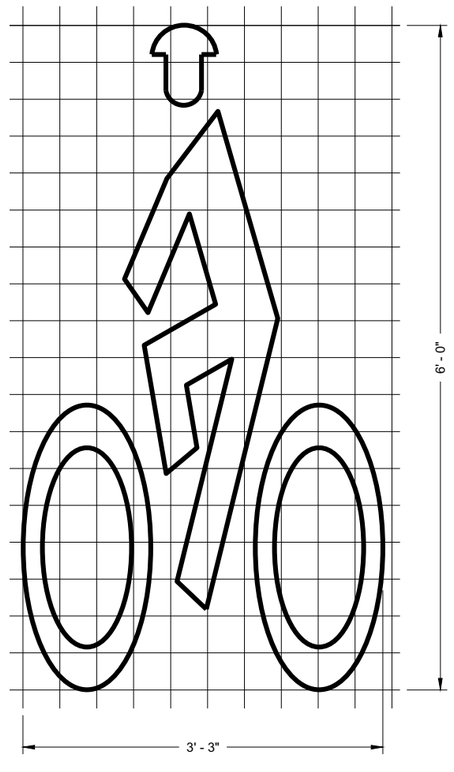




BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE SYMBOL

BIKE LANE SYMBOL FOR SHARED LANE

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

6

SDD 15C07 - 15e

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

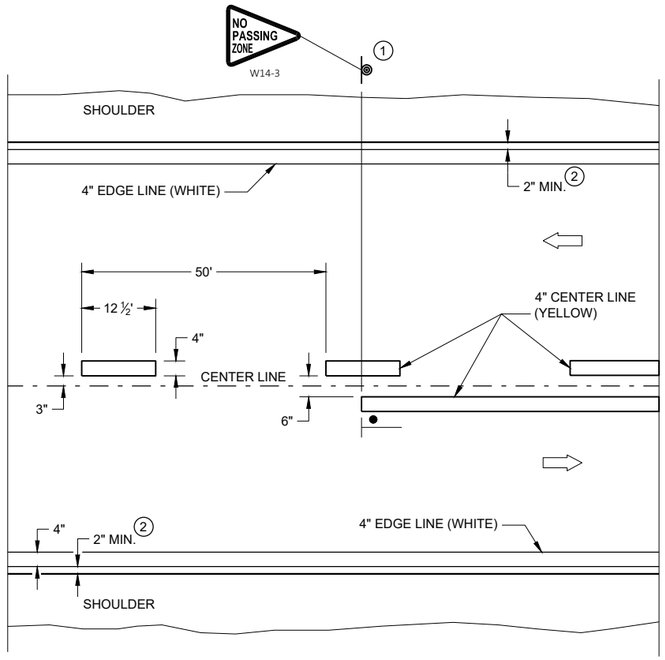
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

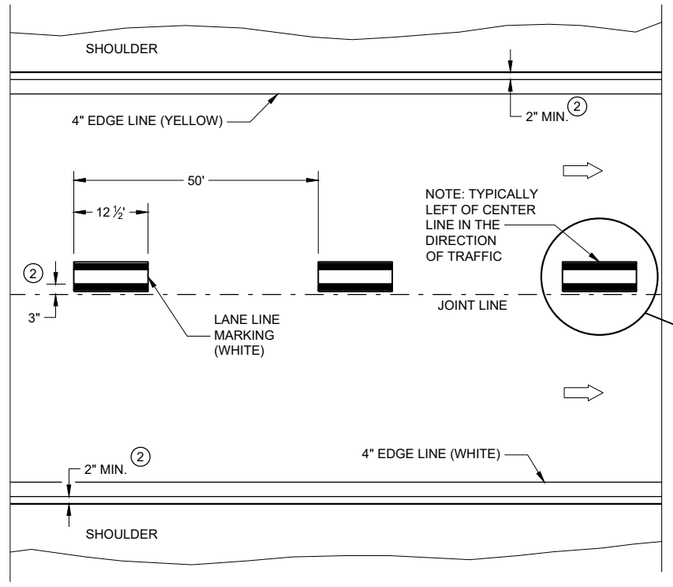
"T" MARKING

SIGN ON PERMANENT SUPPORT

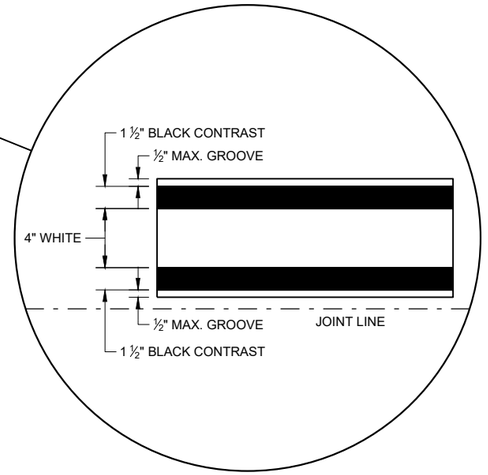
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

FHWA

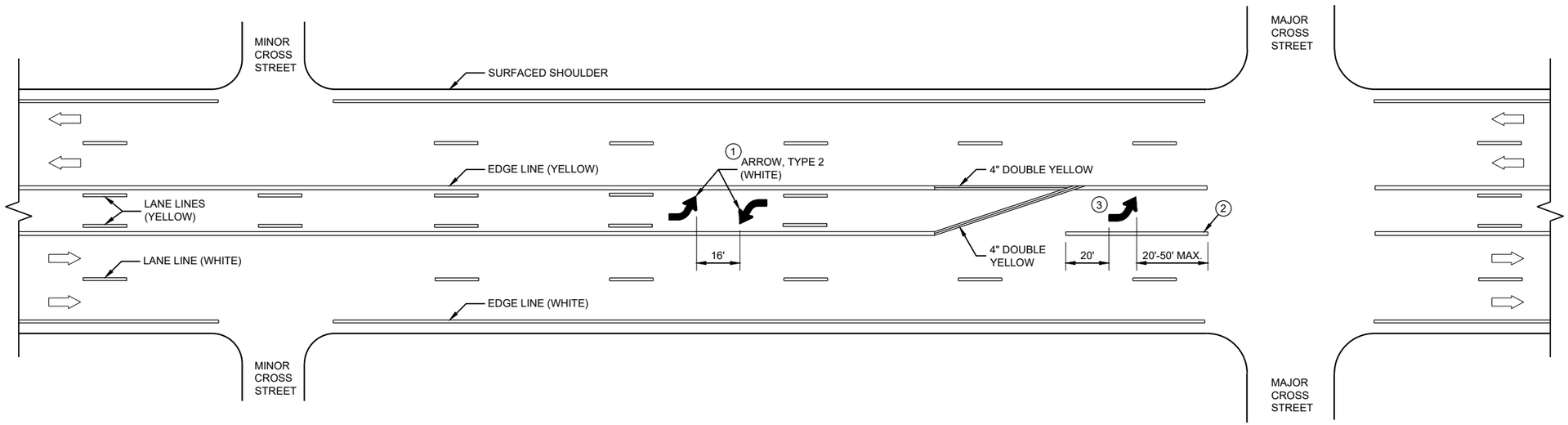
SDD 15C08 - 21a

SDD 15C08 - 21a

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

6

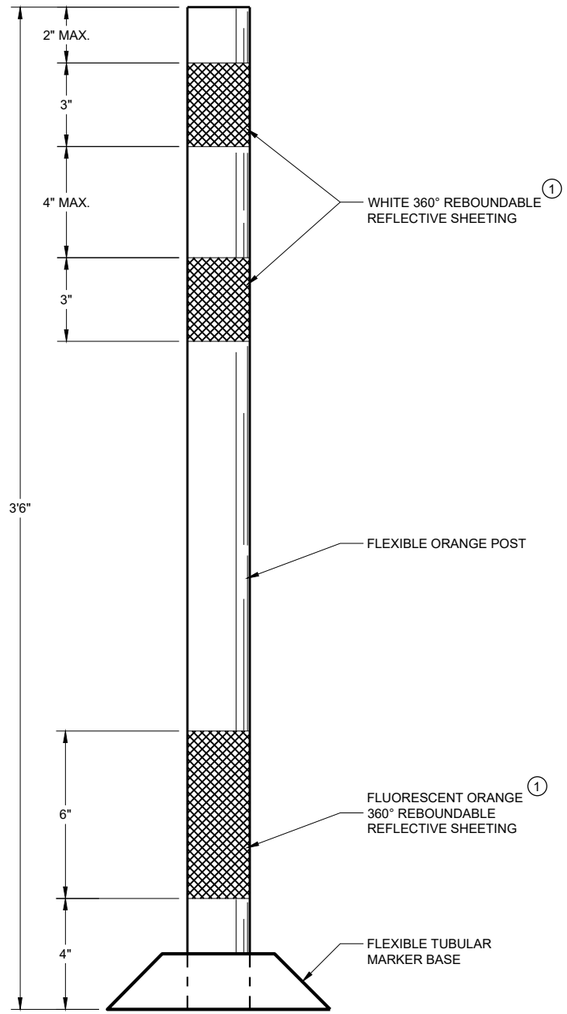
SDD 15C08 - 21c

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08 - 21c



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

6

SDD 15C11 - 09a

CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

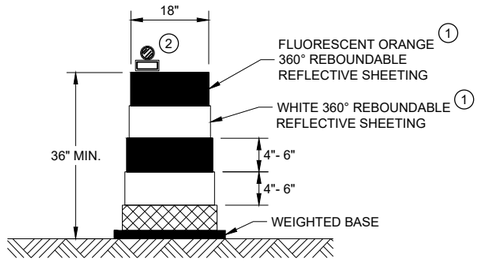
FHWA

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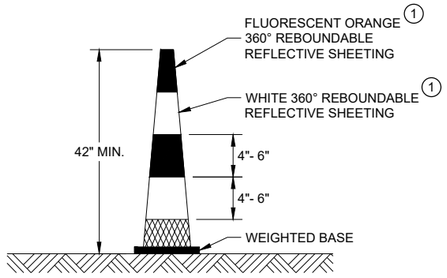
SDD 15C11 - 09a

GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

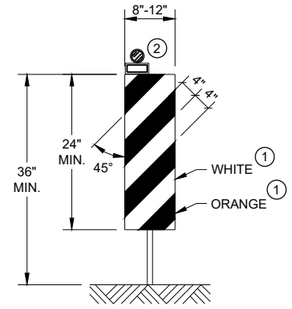


DRUM



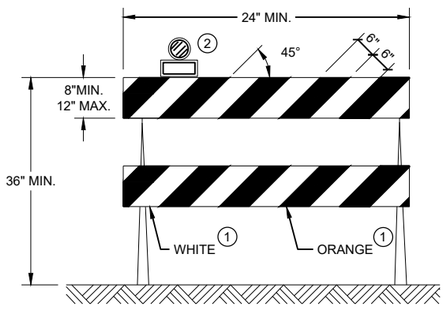
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



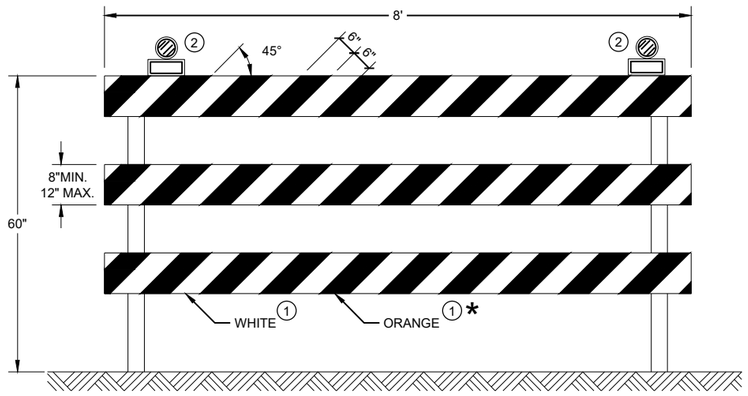
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD15C11 - 09b

6

SDD15C11 - 09b

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.

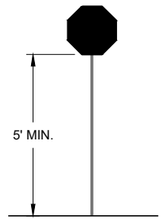
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

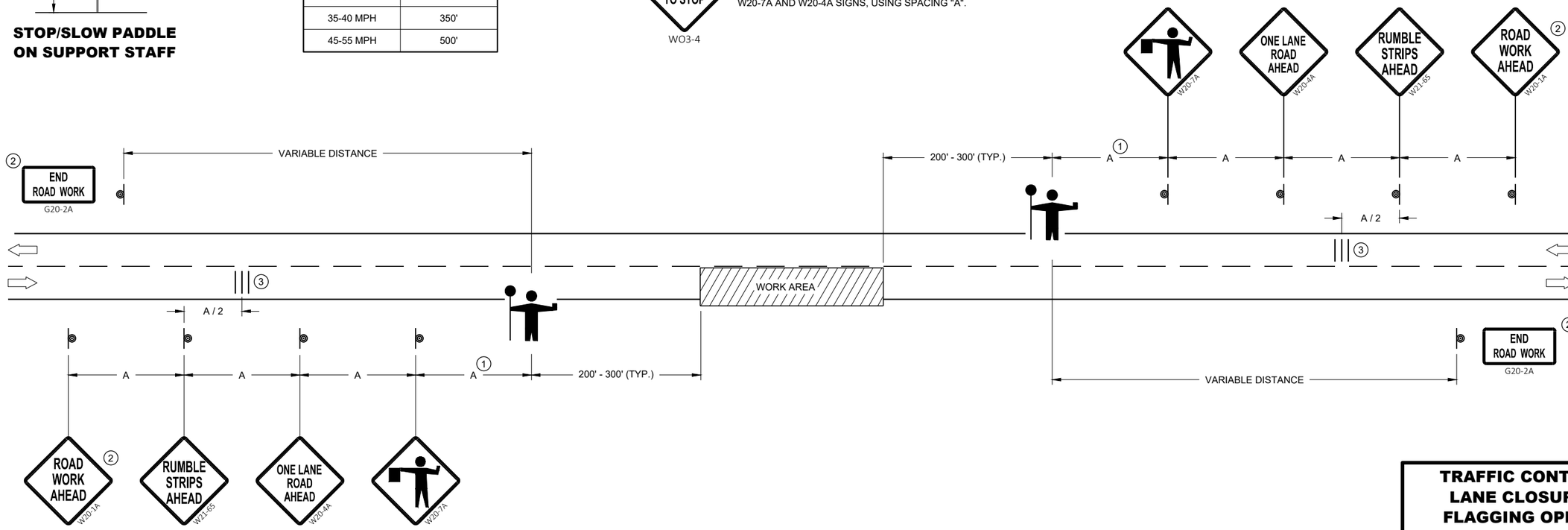
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

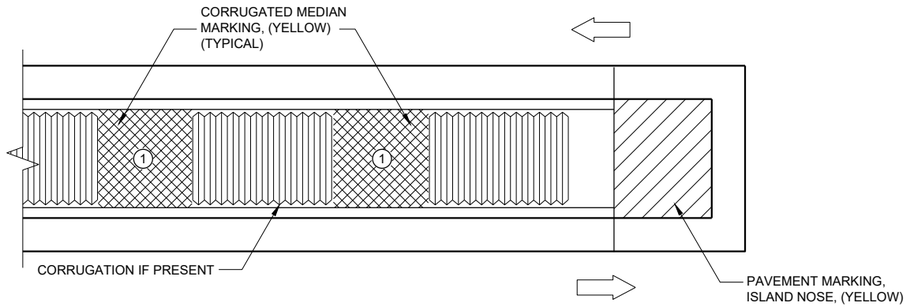
APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

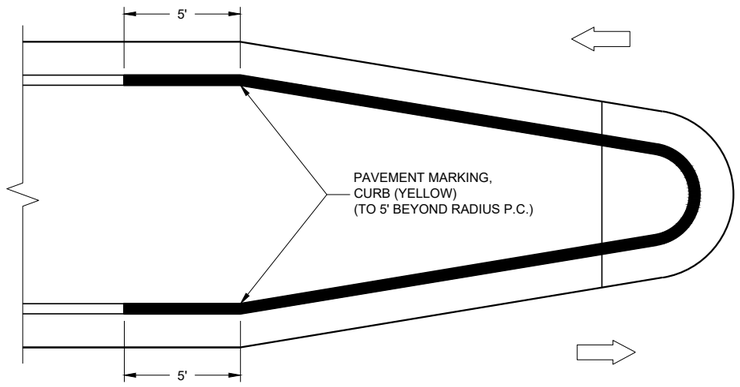
FHWA

SDD 15C12 - 09a

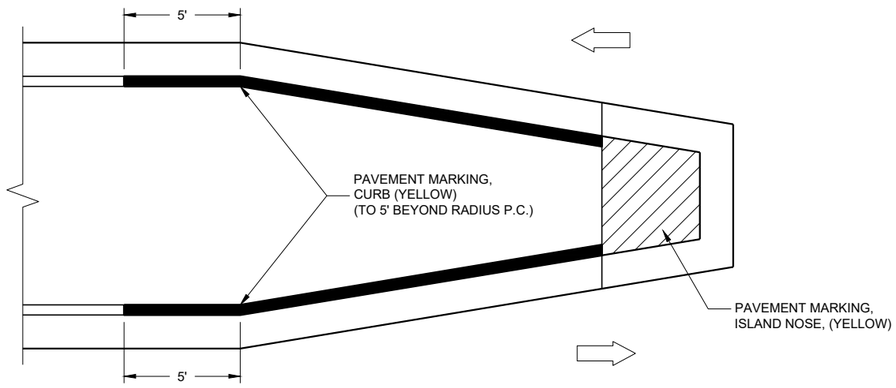
SDD 15C12 - 09a



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

6

6

SDD 15C18 - 06b

SDD15C18 - 06b

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

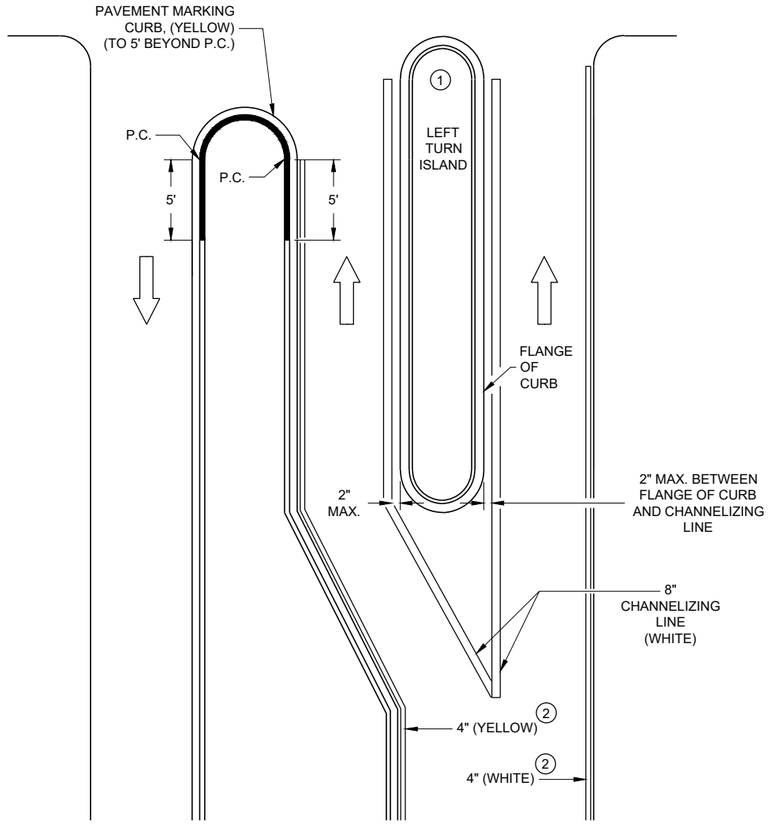
APPROVED

May 2022
DATE

/S/ Jeannie Silver
STATE SIGNING AND MAR ENGINEER

FHWA

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

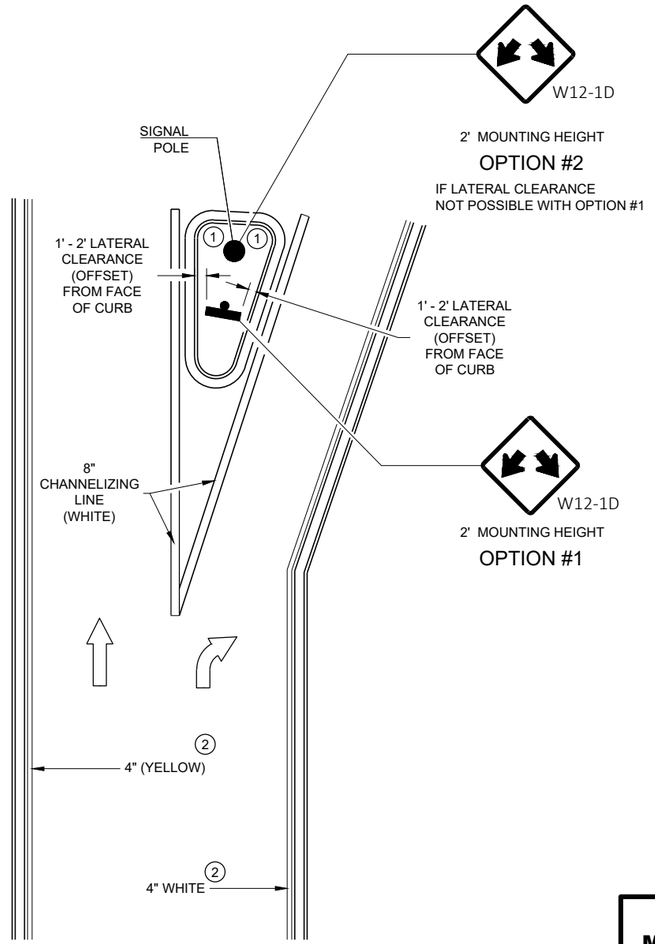
APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

(1) MARK CURB NOSES YELLOW.

(2) MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022 — DATE

/S/ Jeannie Silver — STATE SIGNING AND MAF ENGINEER

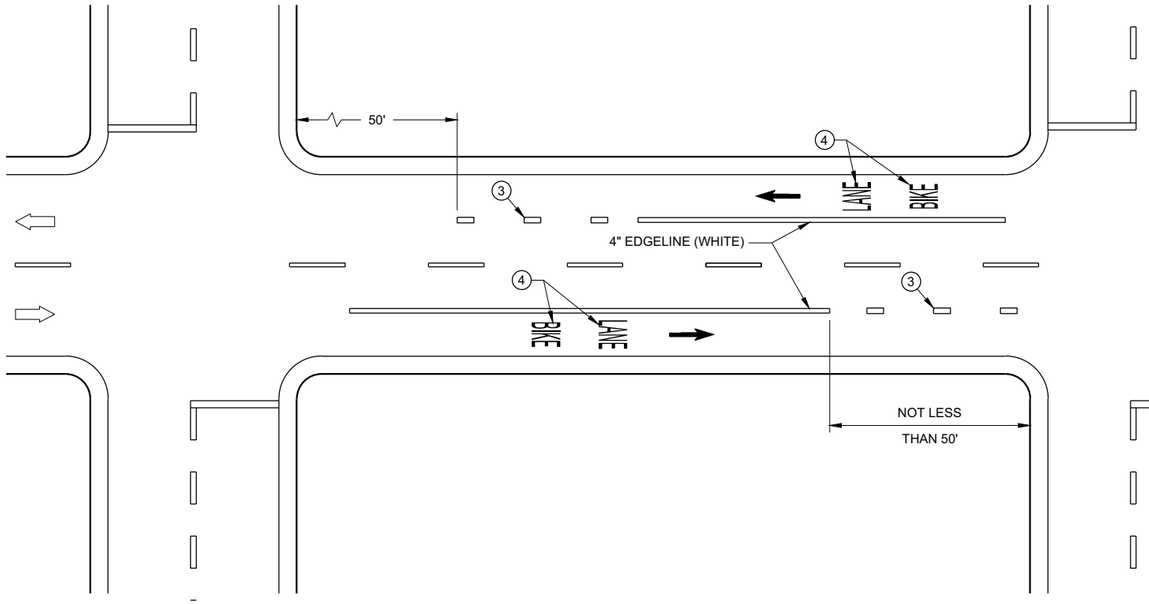
FHWA

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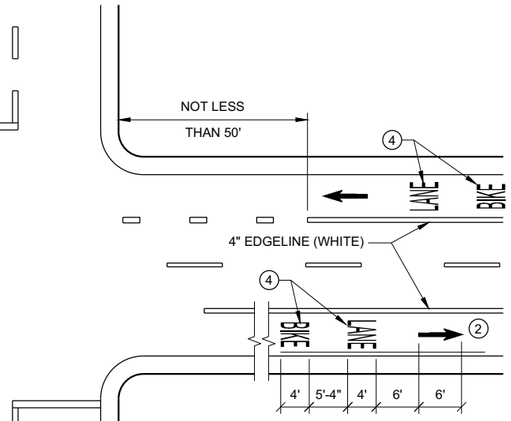
SDD 15C18 - 06c

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SDD15C18 - 06c



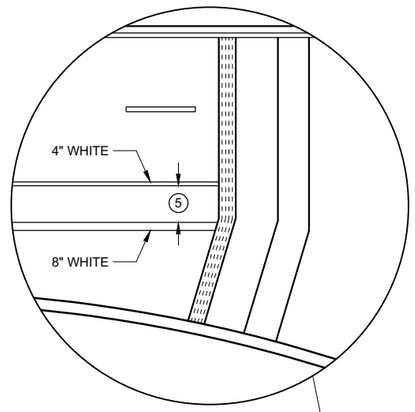
DESIGNATED BIKE LANE - NO PARKING



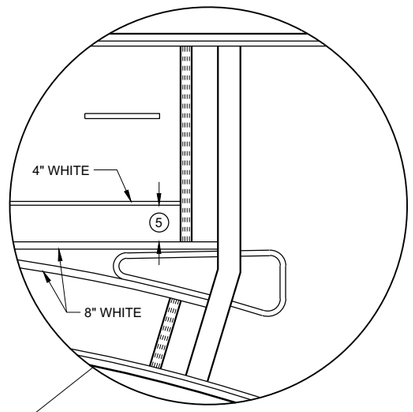
GENERAL NOTES

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.

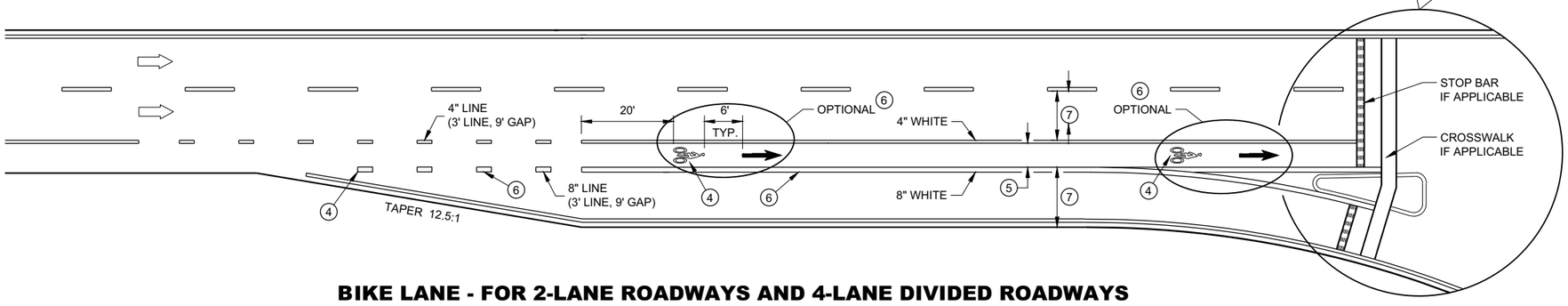
DIRECTION OF TRAFFIC



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 2020 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

FHWA

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SDD 15C29 - 07a

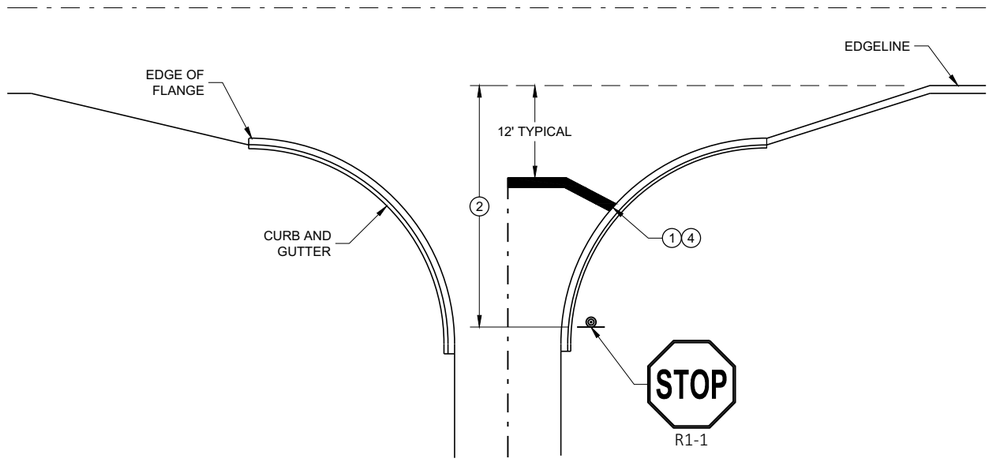
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SDD 15C29 - 07a

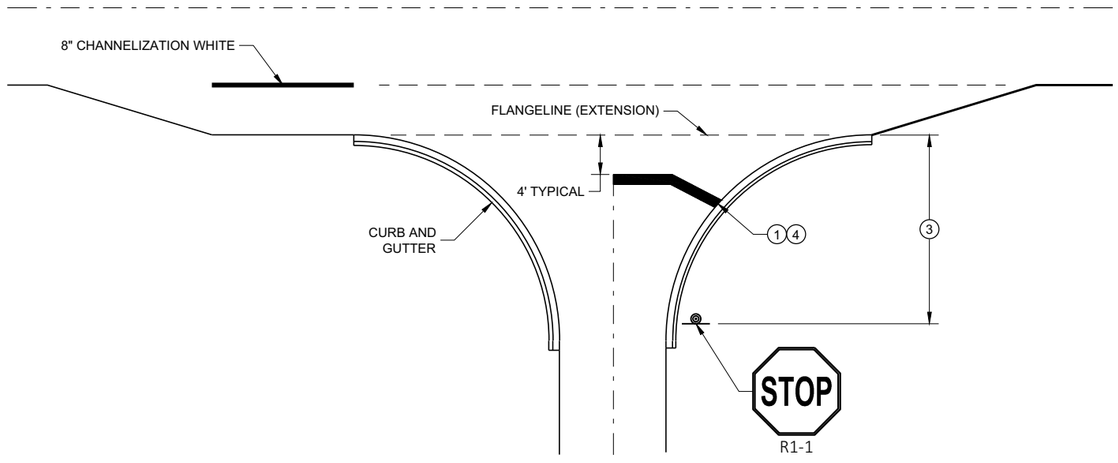
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

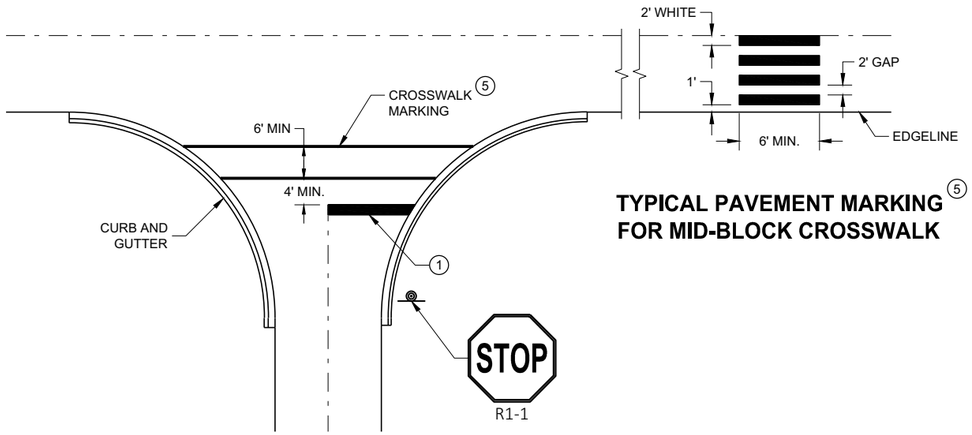
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE 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

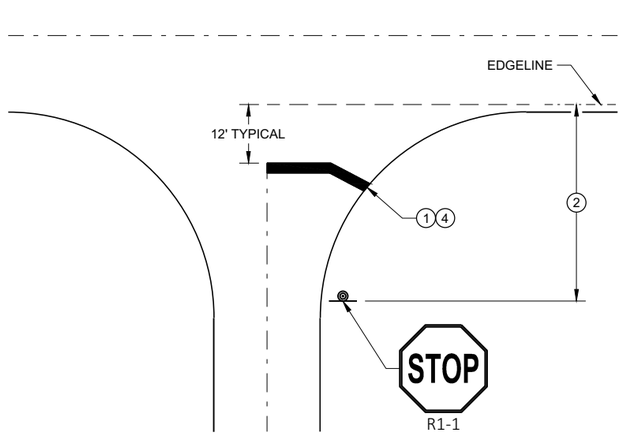


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5



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.

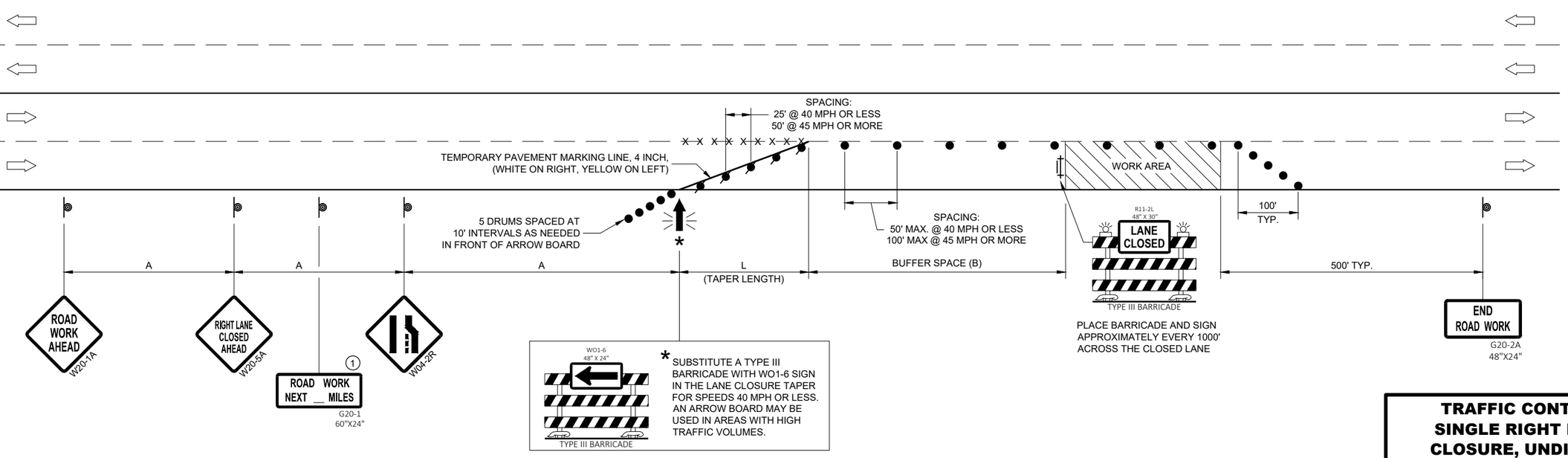
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

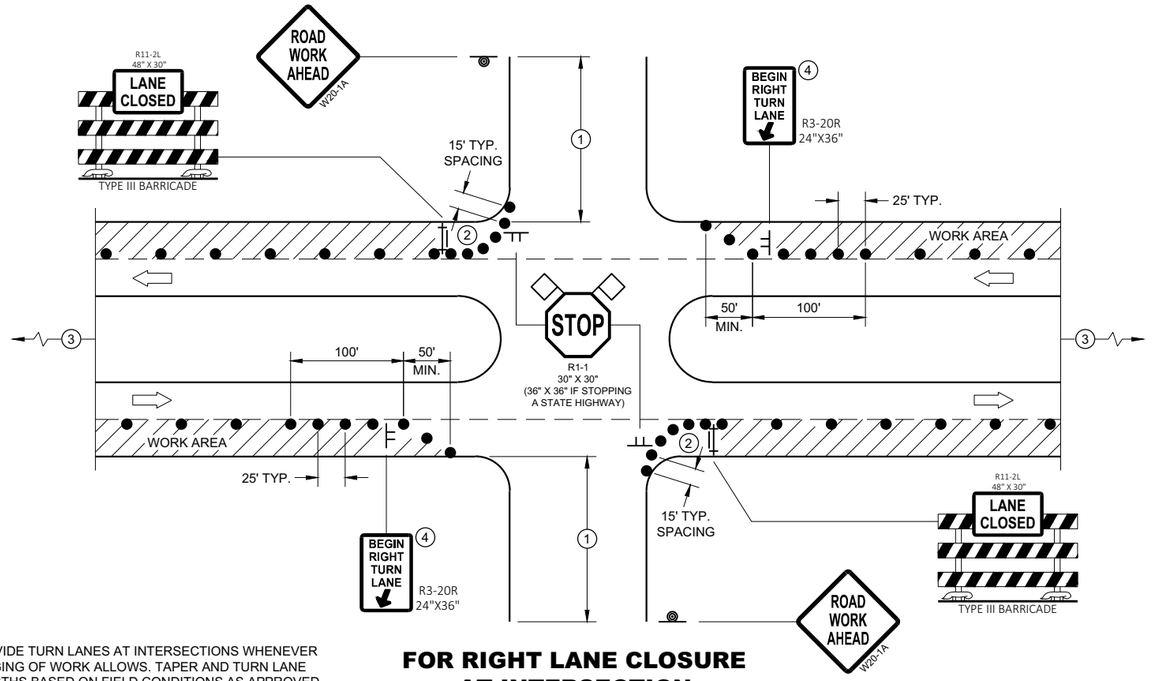
APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

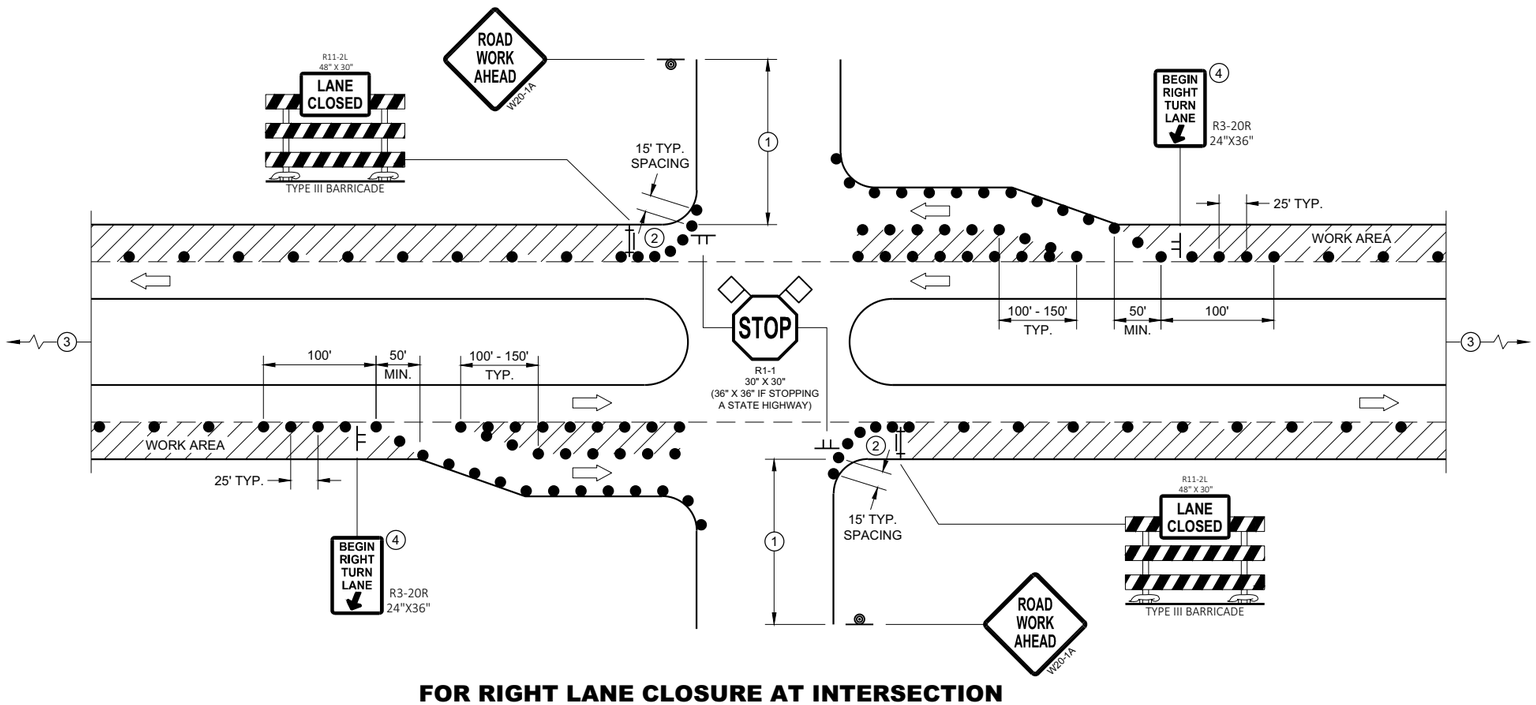
SDD 15D20 - 06b

SDD 15D20 - 06b



FOR RIGHT LANE CLOSURE AT INTERSECTION

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

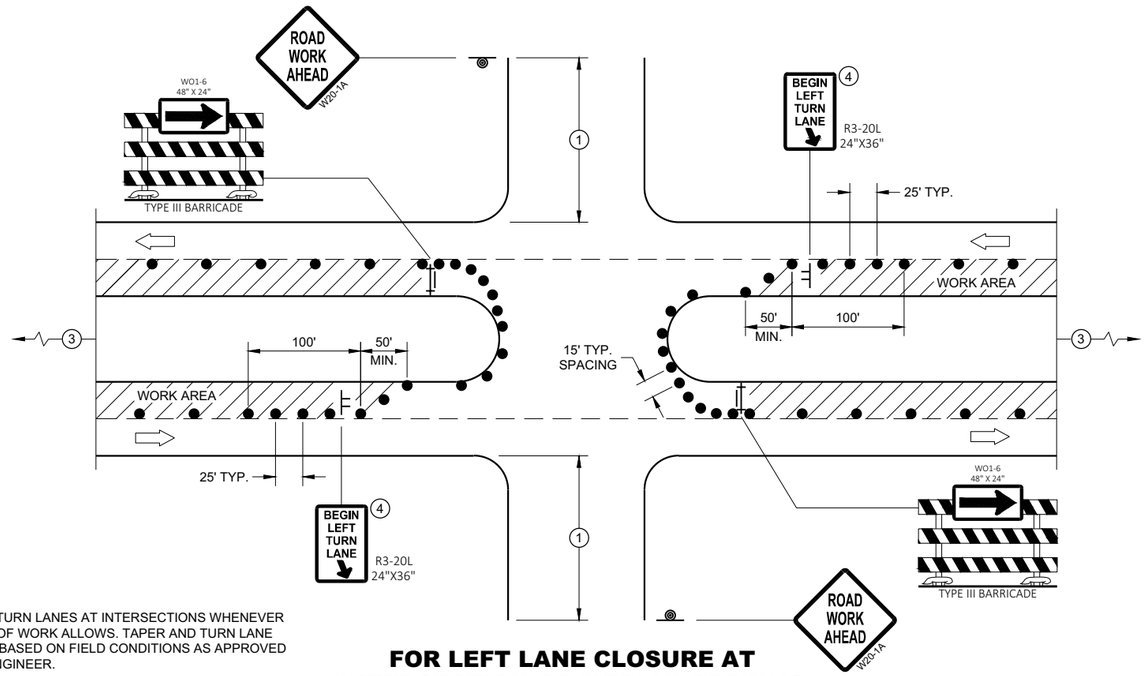
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D21 - 07a

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SDD 15D21 - 07a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

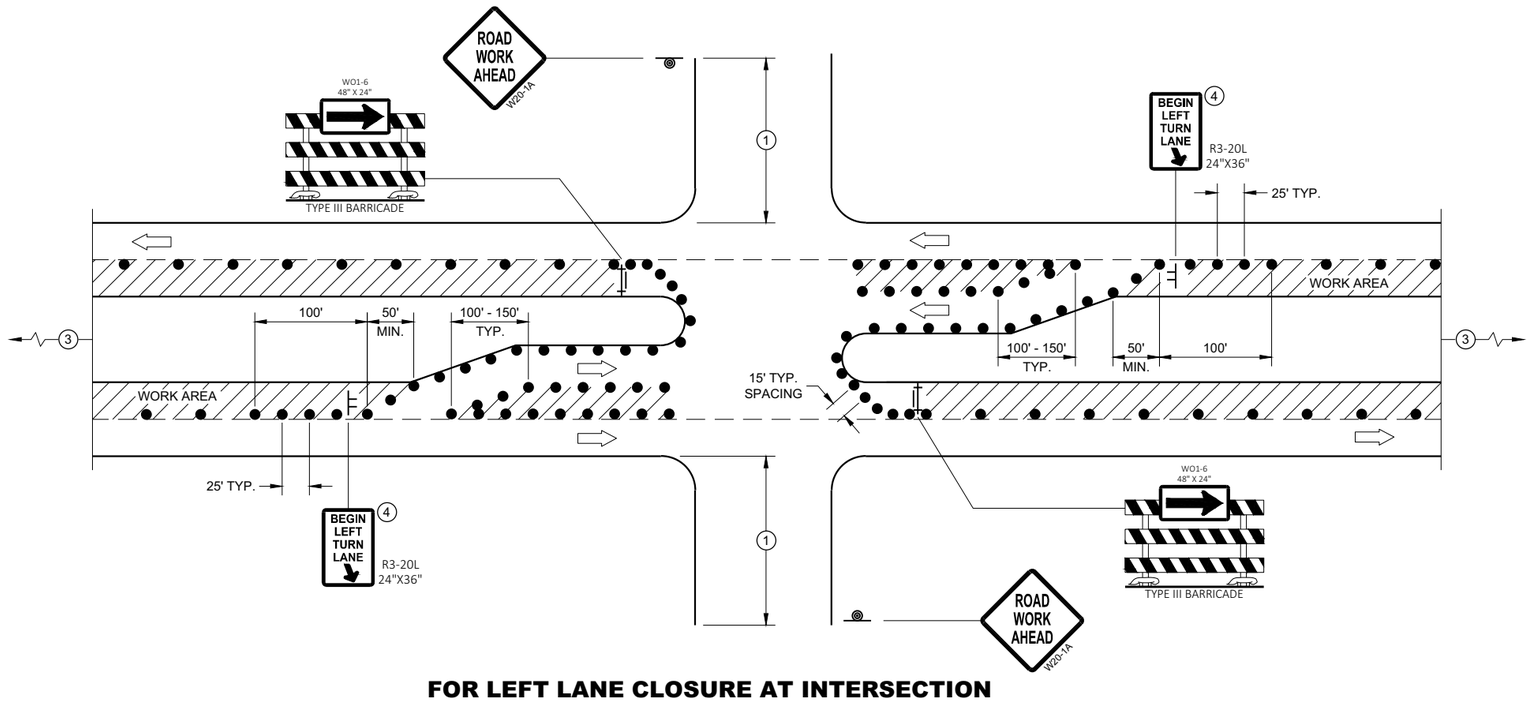
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45 MPH, USE SDD 15D14.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES.
FOR CLOSING LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

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 LINES 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.

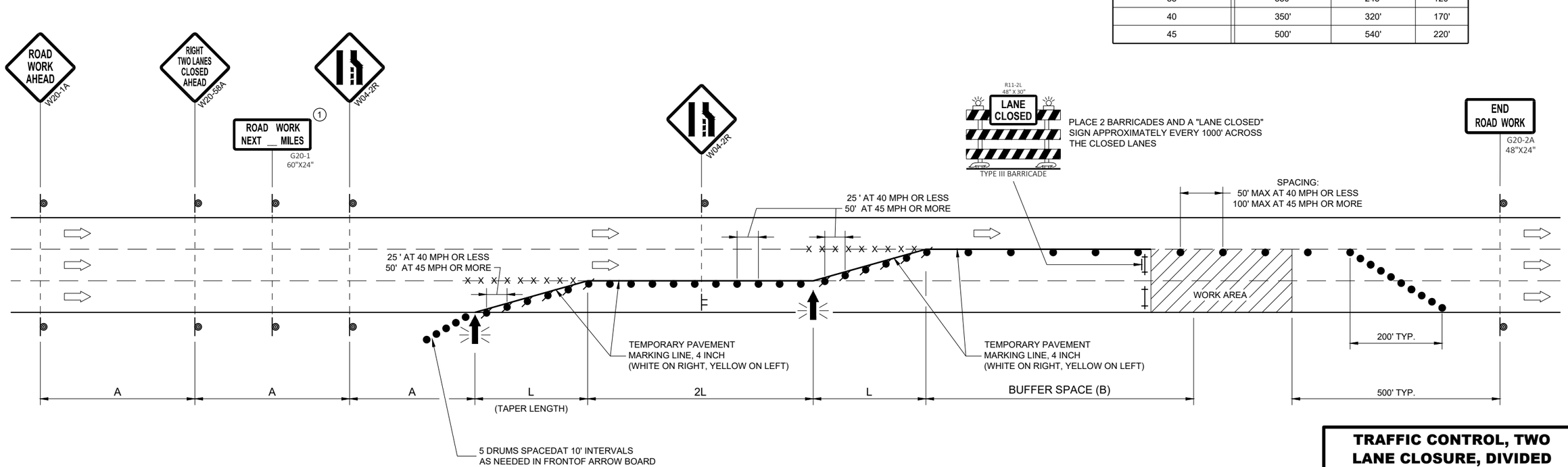
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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'



TRAFFIC CONTROL, TWO LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D22 - 05

GENERAL NOTES

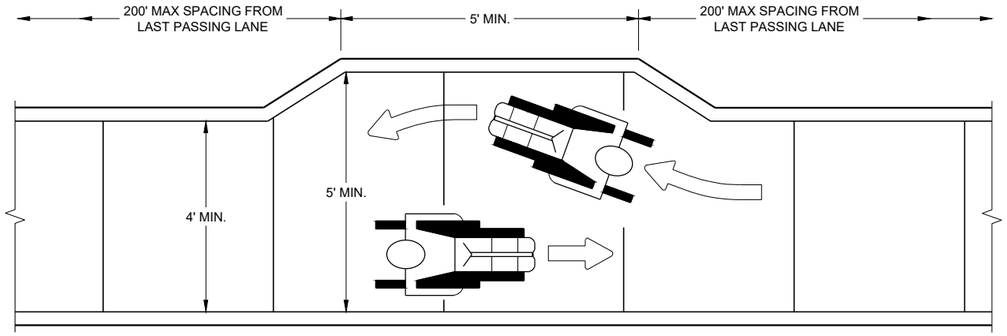
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

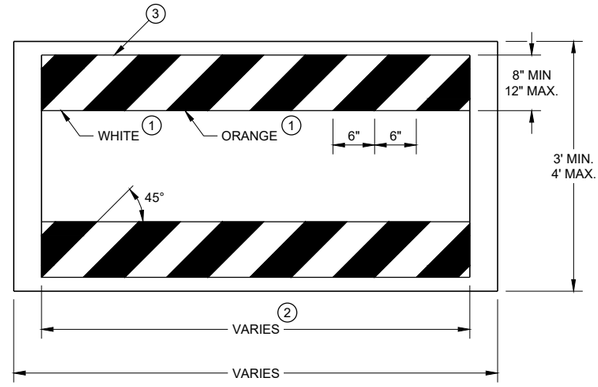
(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

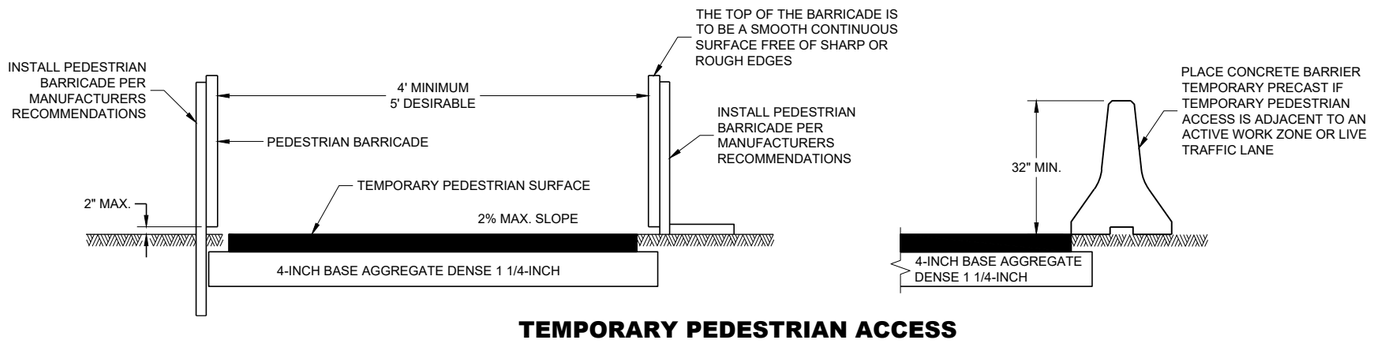
* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



NARROW SIDEWALK PASSING DETAIL



TEMPORARY PEDESTRIAN BARRICADE*

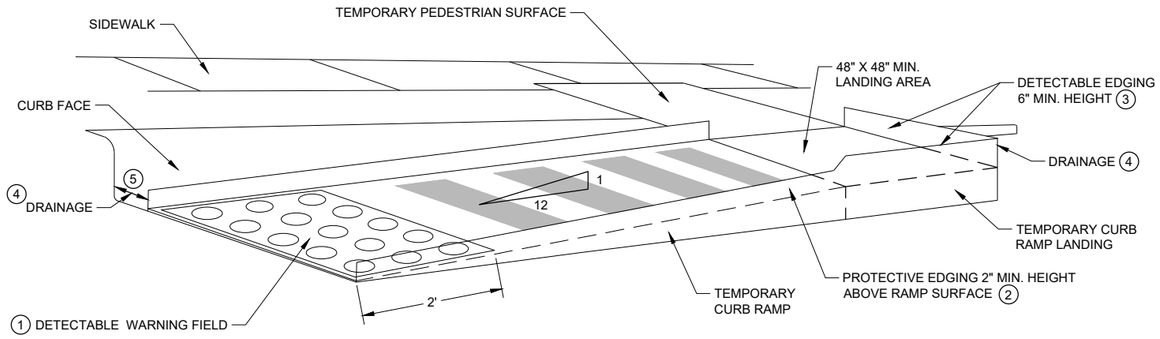


TEMPORARY PEDESTRIAN ACCESS

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6

SDD 15D30 - 07a



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.

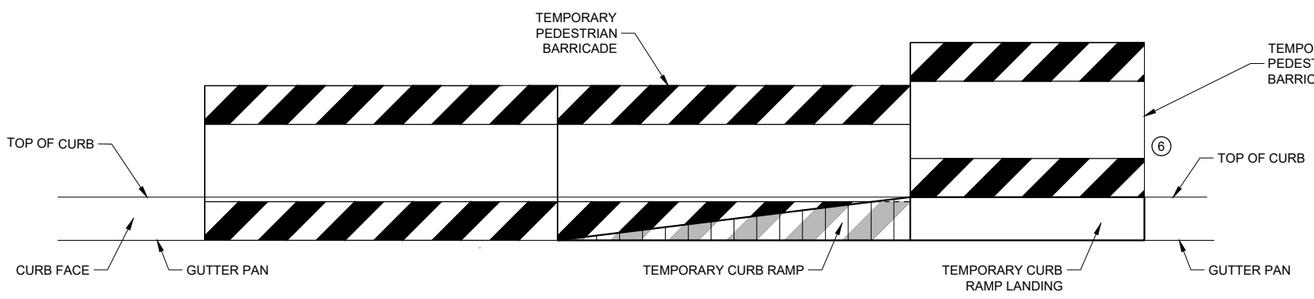
(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

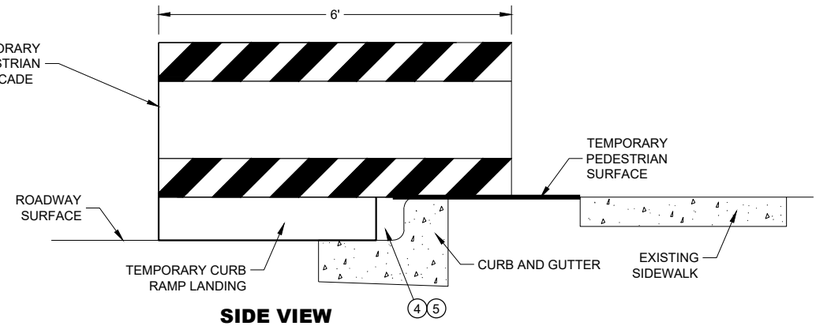
(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) 6" MINIMUM BETWEEN CURB FACE AND EDGE OF RAMP

(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

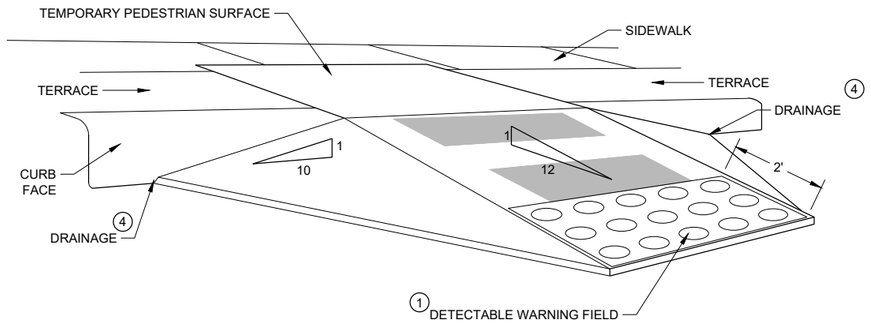
TEMPORARY CURB RAMP PARALLEL TO CURB

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

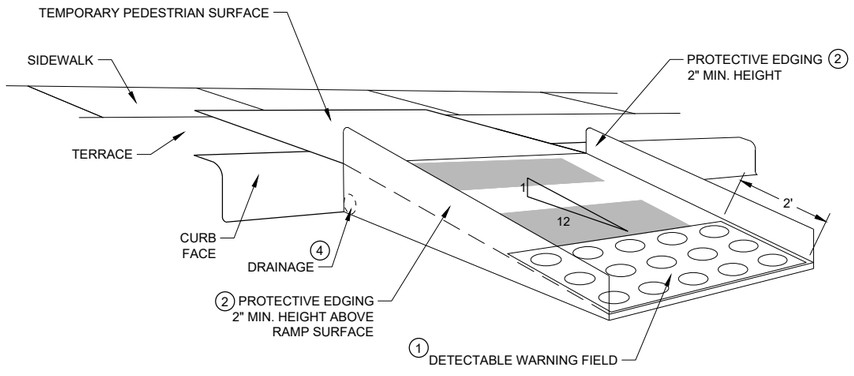
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30 - 07b



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.

6

SDD 15D30 - 07c

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

GENERAL NOTES

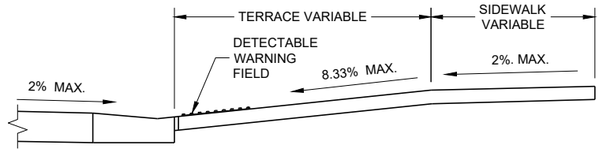
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

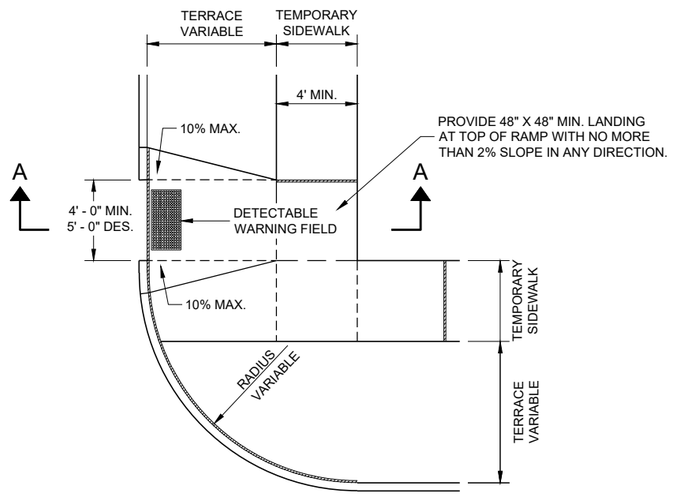
(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



SECTION A - A



PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

6

6

SDD 15D30 - 07d

SDD 15D30 - 07d

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

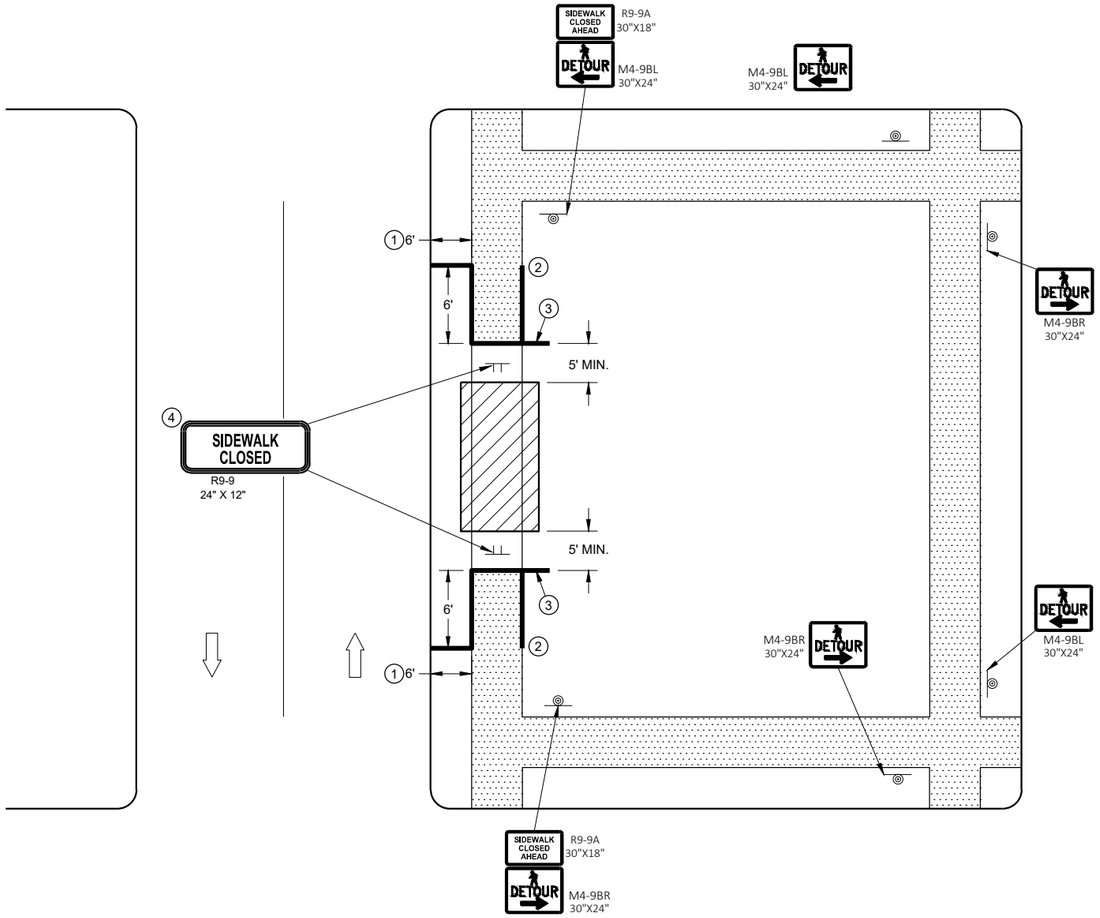
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC



SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

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.

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.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

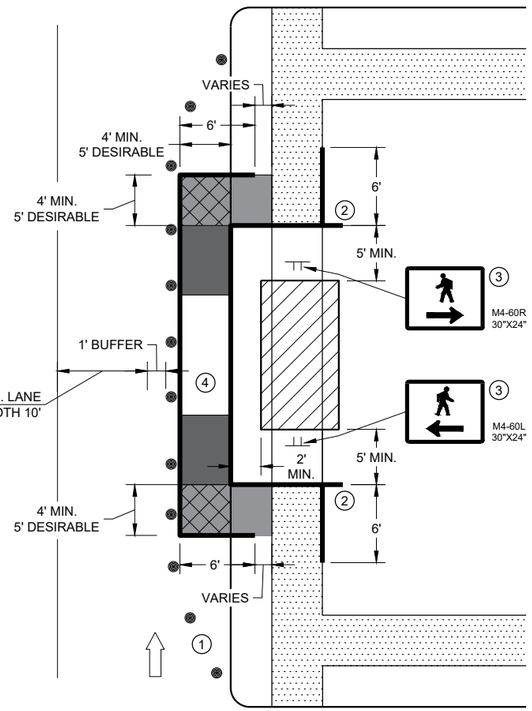
GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

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.

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.
2. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.
3. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.
4. USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE.



SIDEWALK DIVERSION, SINGLE SIDE

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

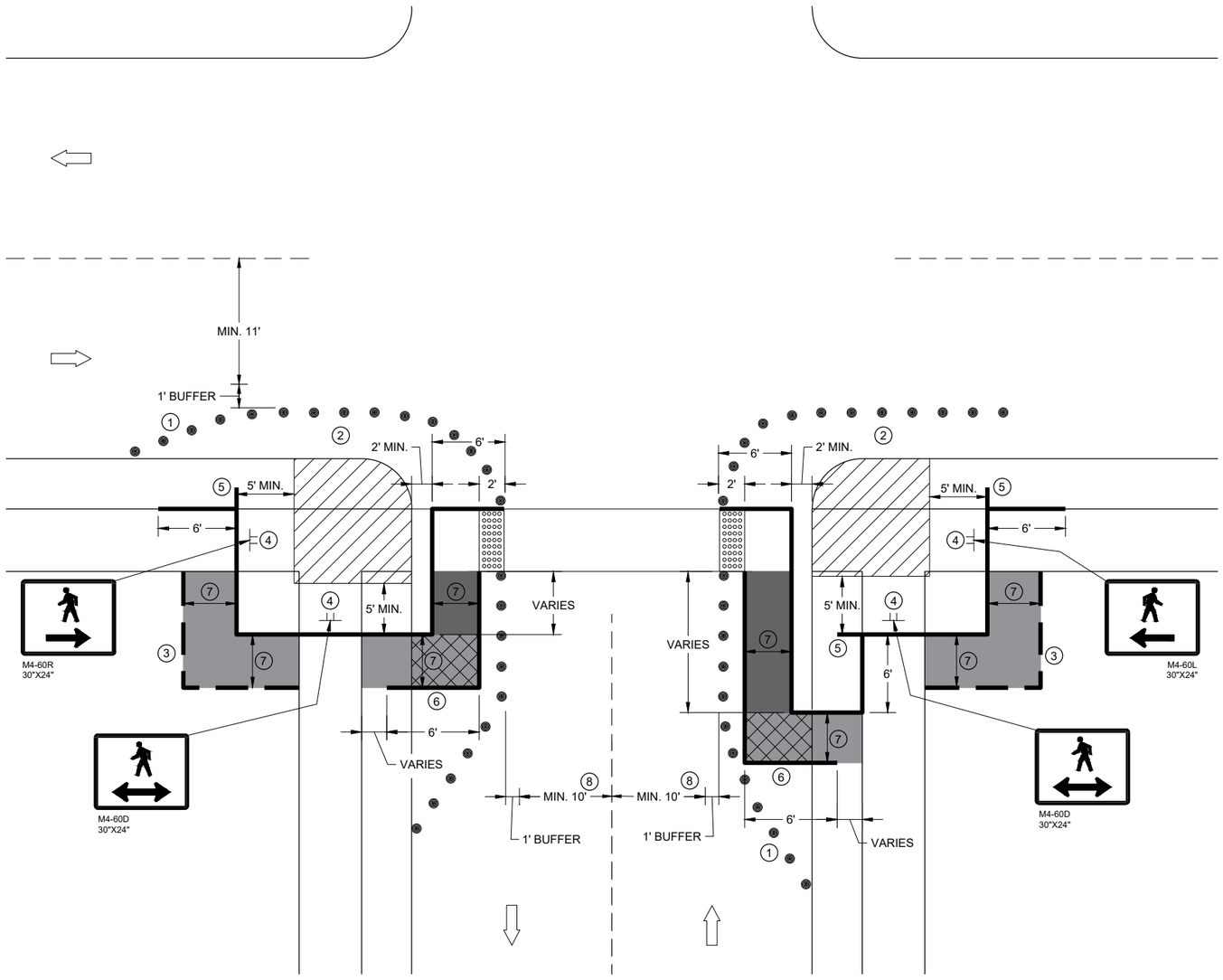
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30 - 07h

6

SDD 15D30 - 07h



CURB RAMP PEDESTRIAN TRAFFIC CONTROL
SIDEWALK ON SINGLE SIDE

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

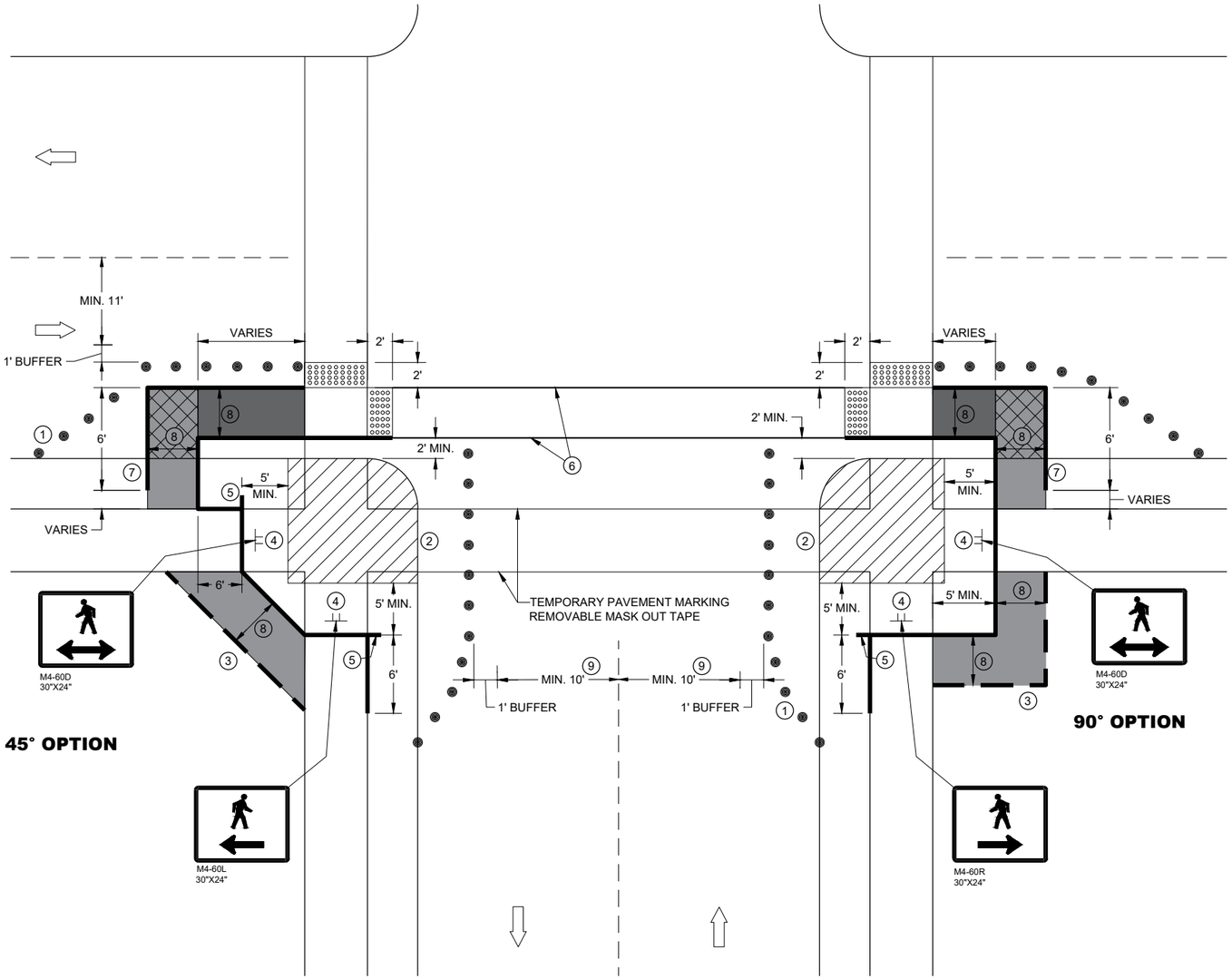
WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
2. PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
3. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
4. MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
5. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
6. IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
7. 4 FEET MINIMUM, 5 FEET DESIRABLE
8. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION



CURB RAMP PEDESTRIAN TRAFFIC CONTROL

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
2. PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
3. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
4. MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
5. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
6. WHITE 6" TEMPORARY PAVEMENT MARKING
7. IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
8. 4 FEET MINIMUM, 5 FEET DESIRABLE
9. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

SDD 15D30 - 07j

6

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER (L/2) FEET
25	200	60
30	200	90
35	350	120
40	350	160
45	500	270
50	500	300
55	500	330

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"x36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

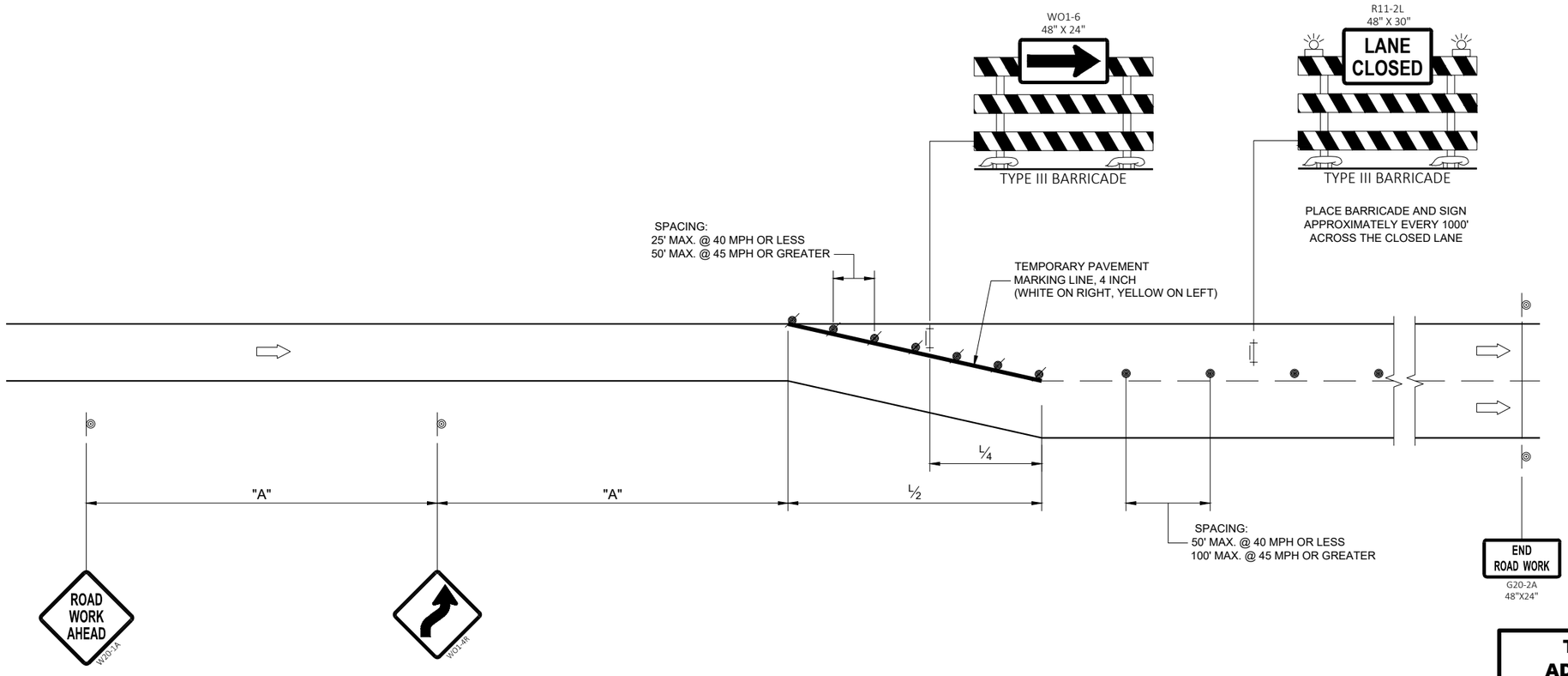
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION WORK IS LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS.

PLACE TEMPORARY PAVEMENT MARKING AND PLACE TEMPORARY PAVEMENT LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.



TRAFFIC CONTROL, ADDED LANE CLOSURE WITH LANE SHIFT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

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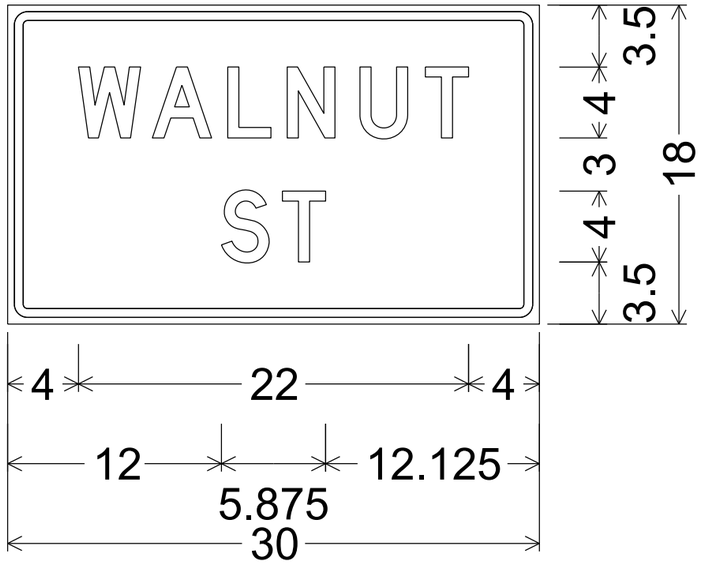
SDD 15D50 - 02b

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SDD 15D50 - 02b

NOTES

1. Fixed Message signs are Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D



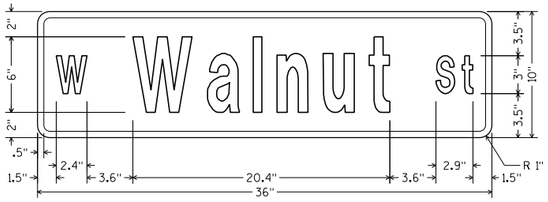
1.125" Radius, 0.500" Border, 0.375" Indent

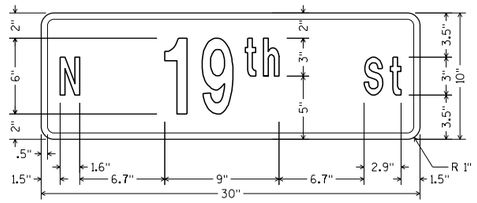
1.125" Radius, 0.500" Border, 0.375" Indent

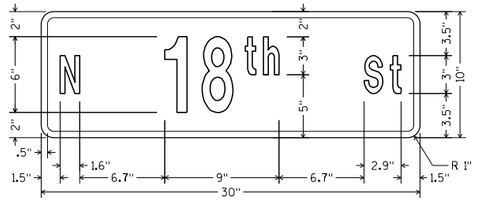
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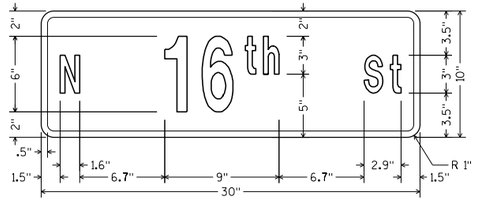
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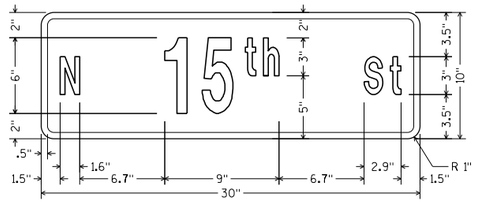
PROJECT NO: 2674-02-70	HWY: 12TH STREET	COUNTY: MILWAUKEE	TEMPORARY SIGNING	SHEET NO: 343	E

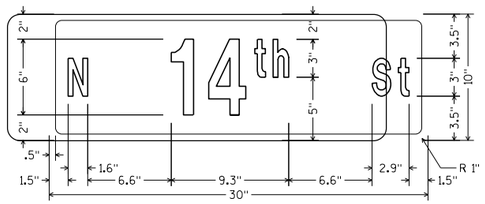








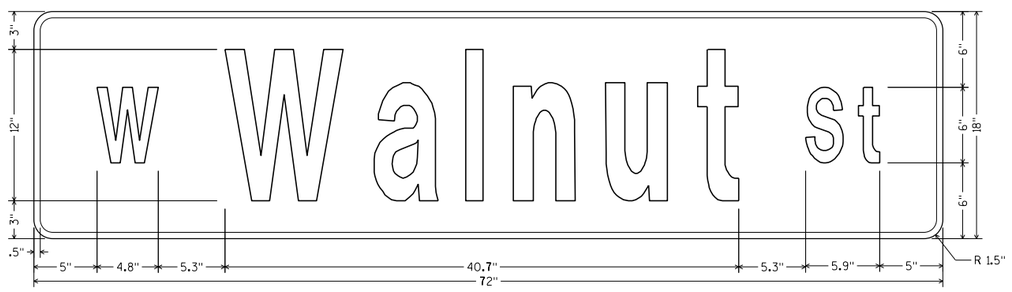


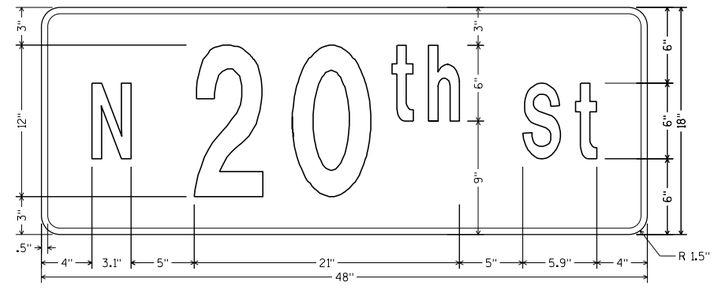


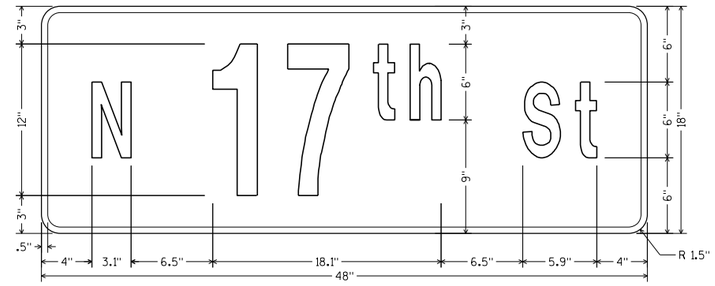
Message Series - B

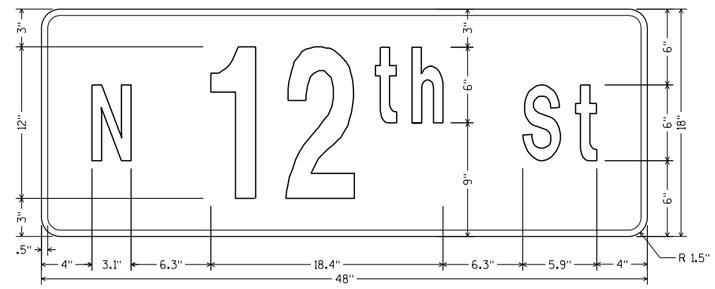
NOTES

1. All Signs Type II
   - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. All Signs 1/2 Inch White Border
4. All Signs 1 Inch Radius



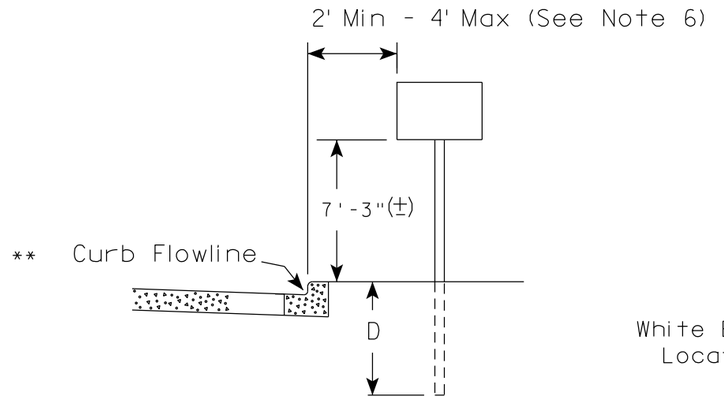




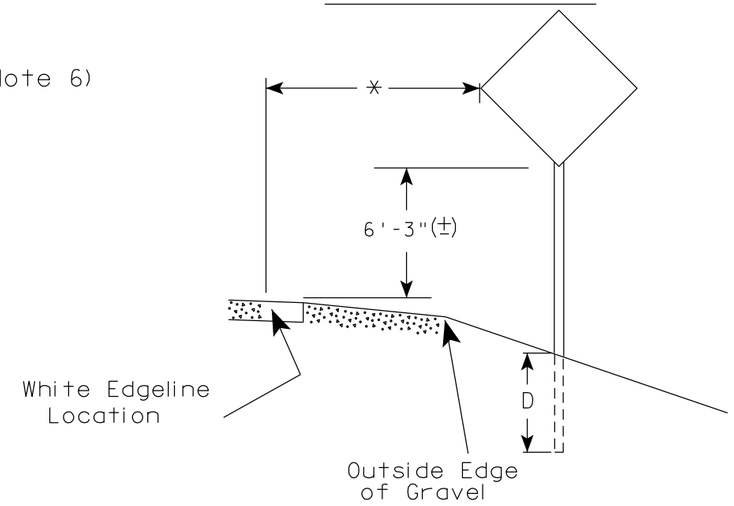


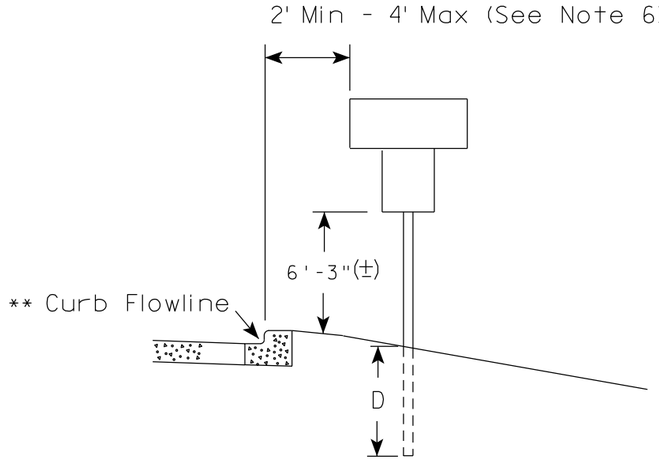
Message Series - C

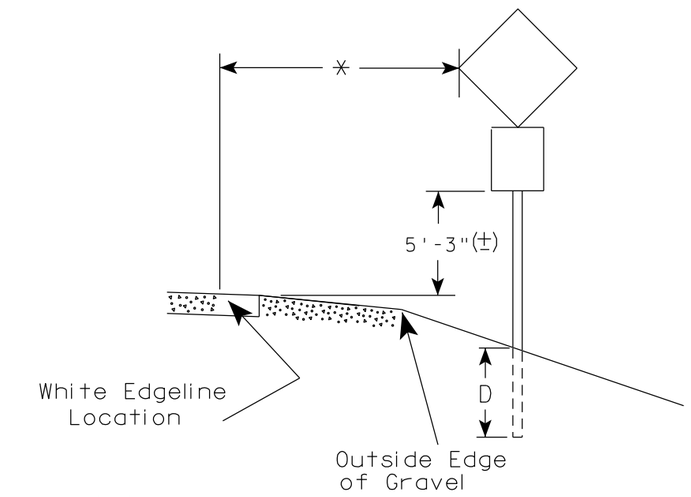
URBAN AREA



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.

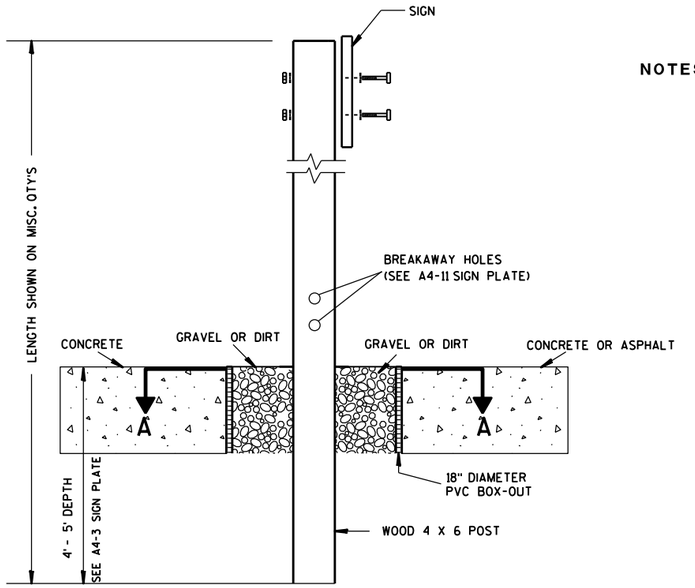
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

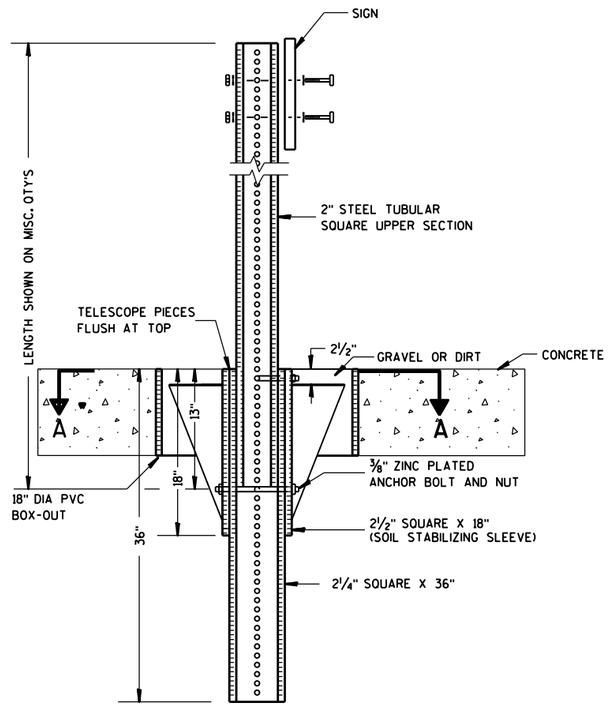
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 345	E



ELEVATION VIEW

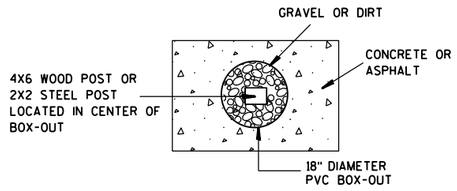
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

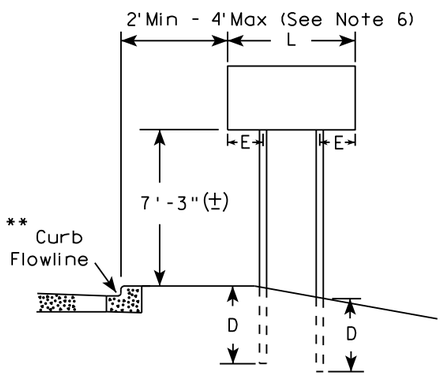
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

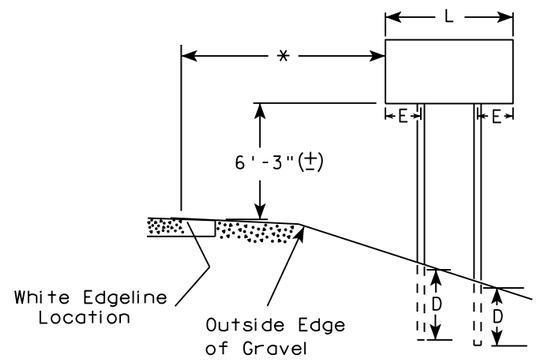
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

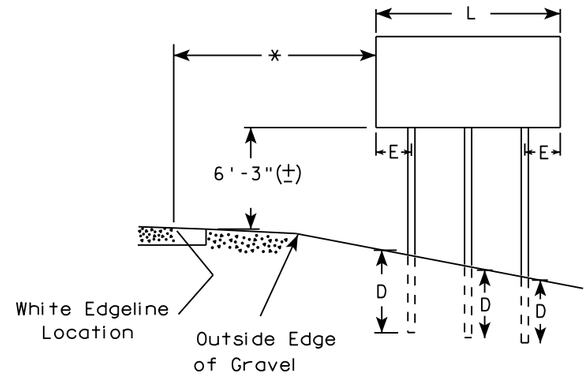
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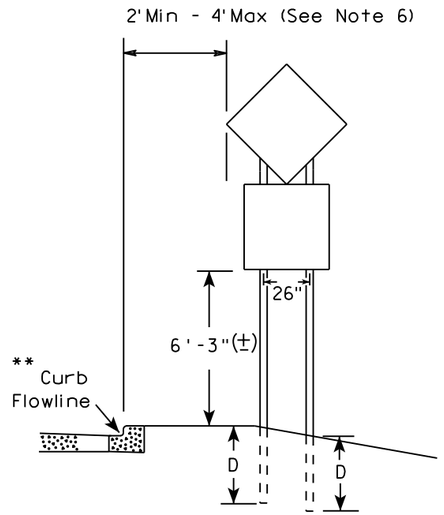
URBAN AREA



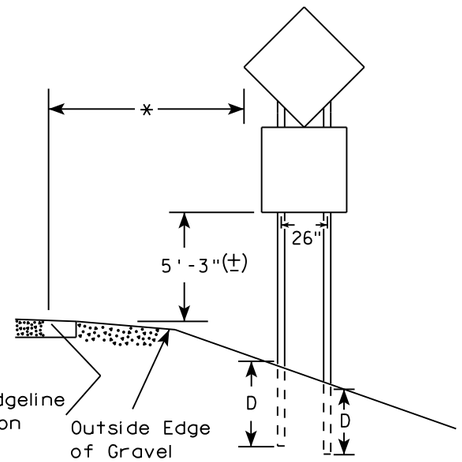
RURAL AREA (See Note 3)







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'

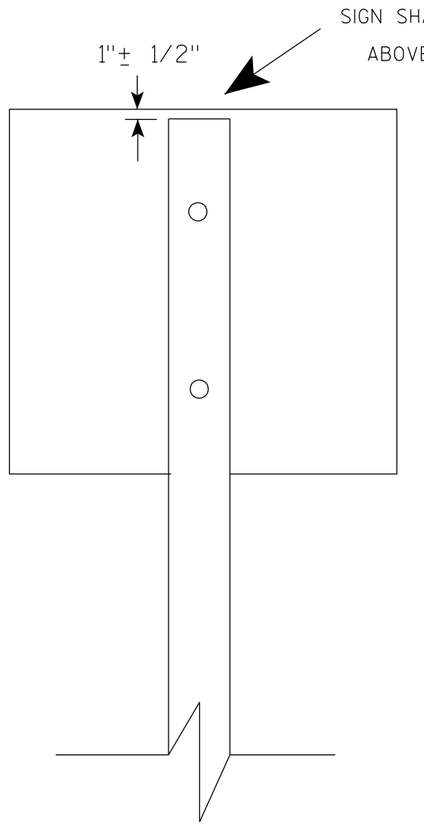
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

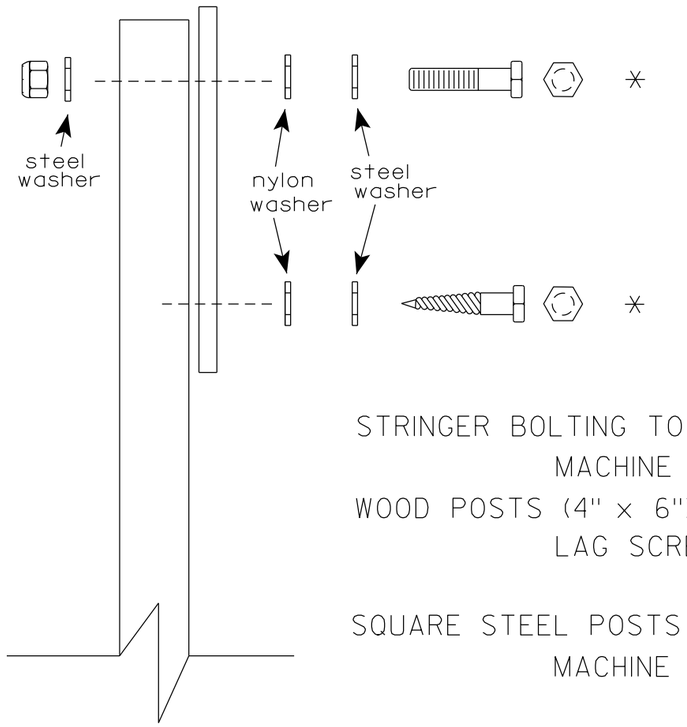
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 347	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

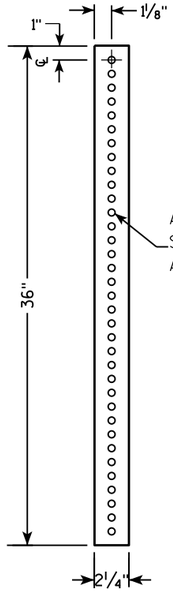
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

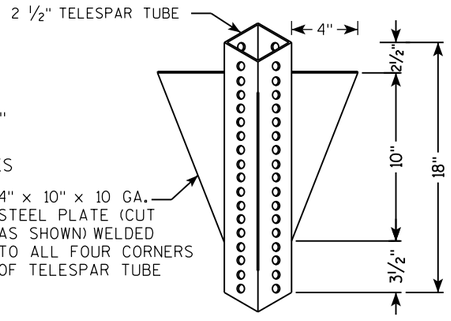
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

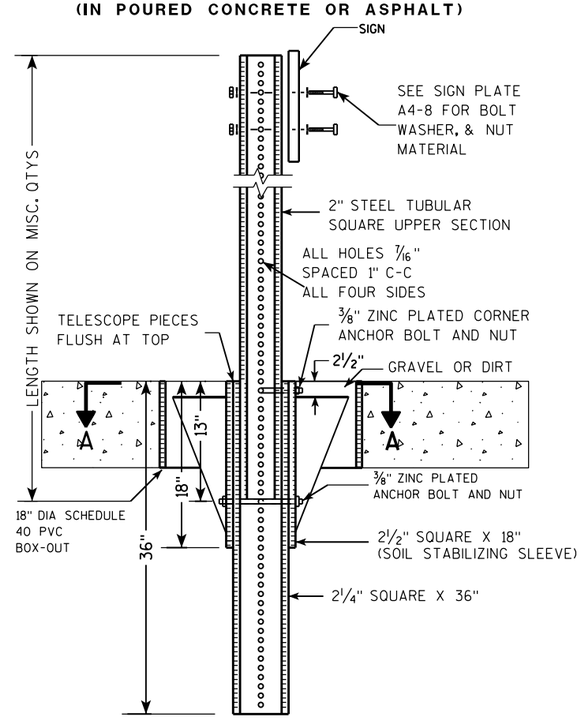
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



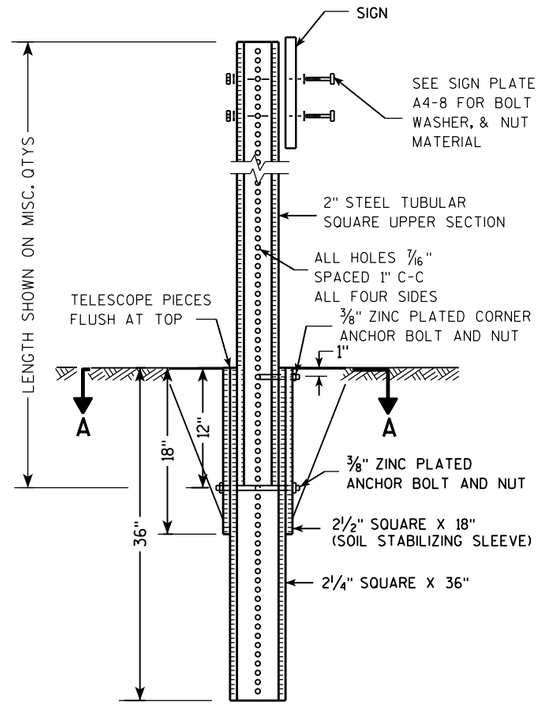
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

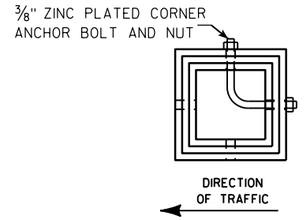


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

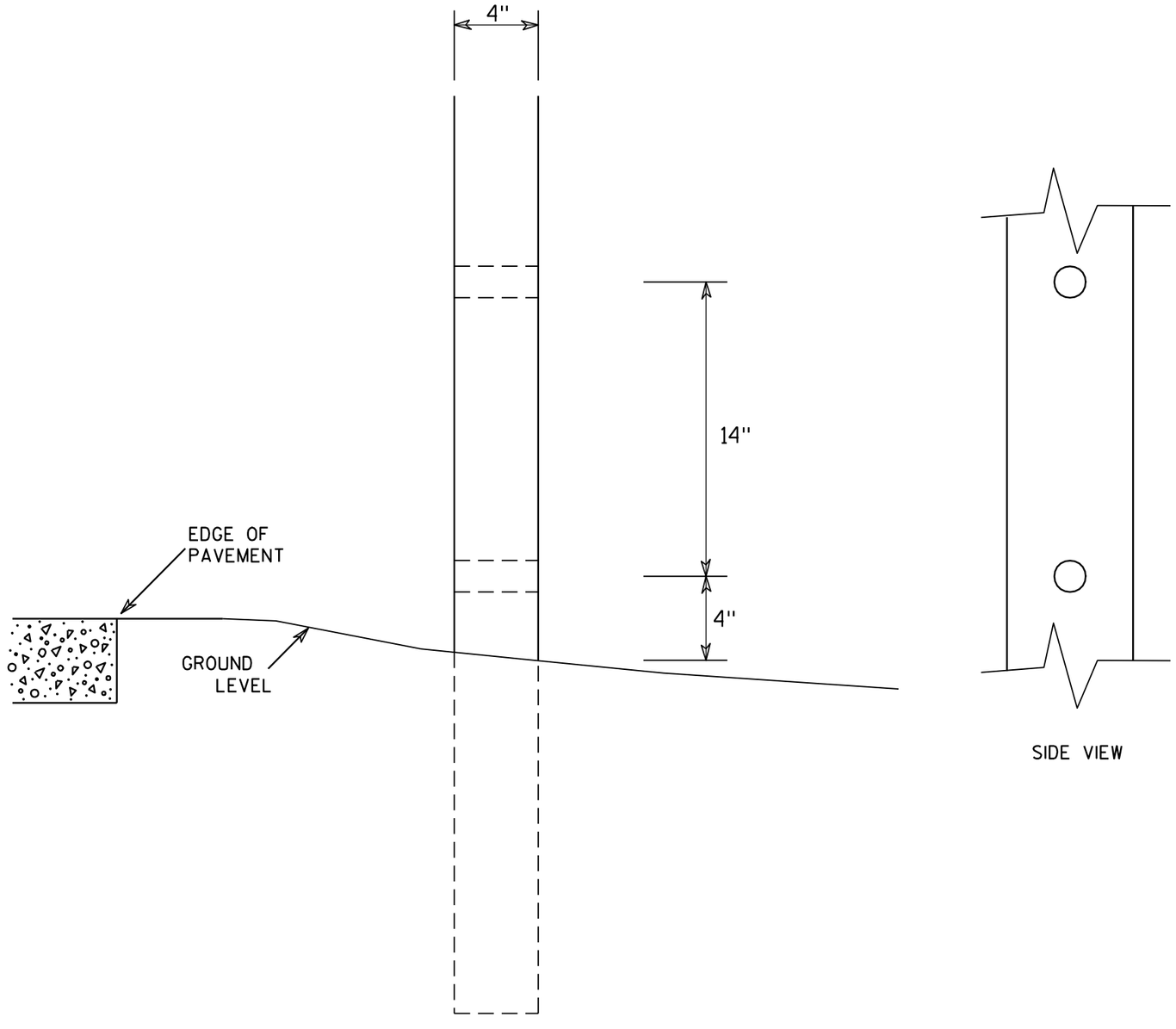
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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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

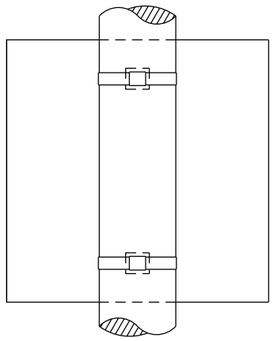
APPROVED Chester J Spang
for State Traffic Engineer

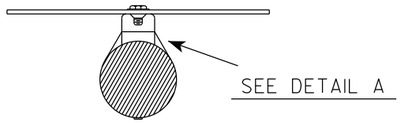
DATE 3/27/97 PLATE NO. A4-11.2

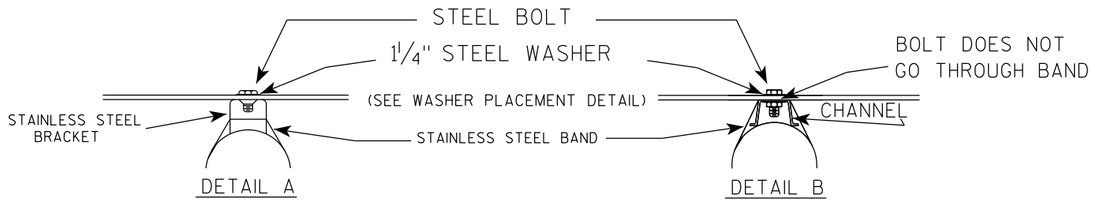
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BANDING

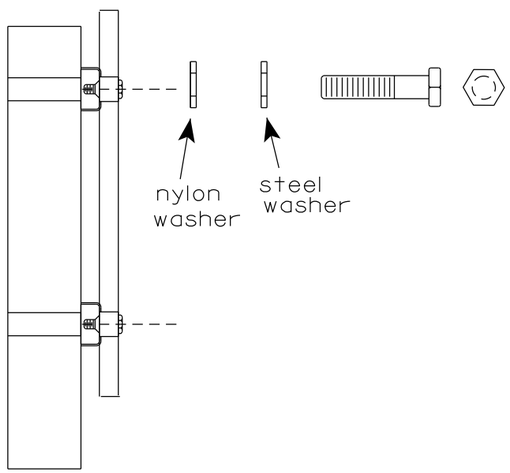
SINGLE SIGN







WASHER PLACEMENT

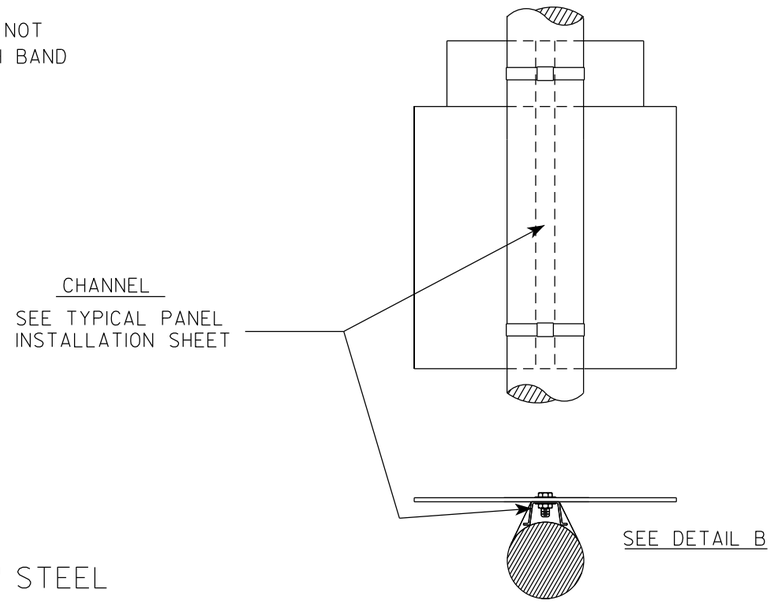


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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

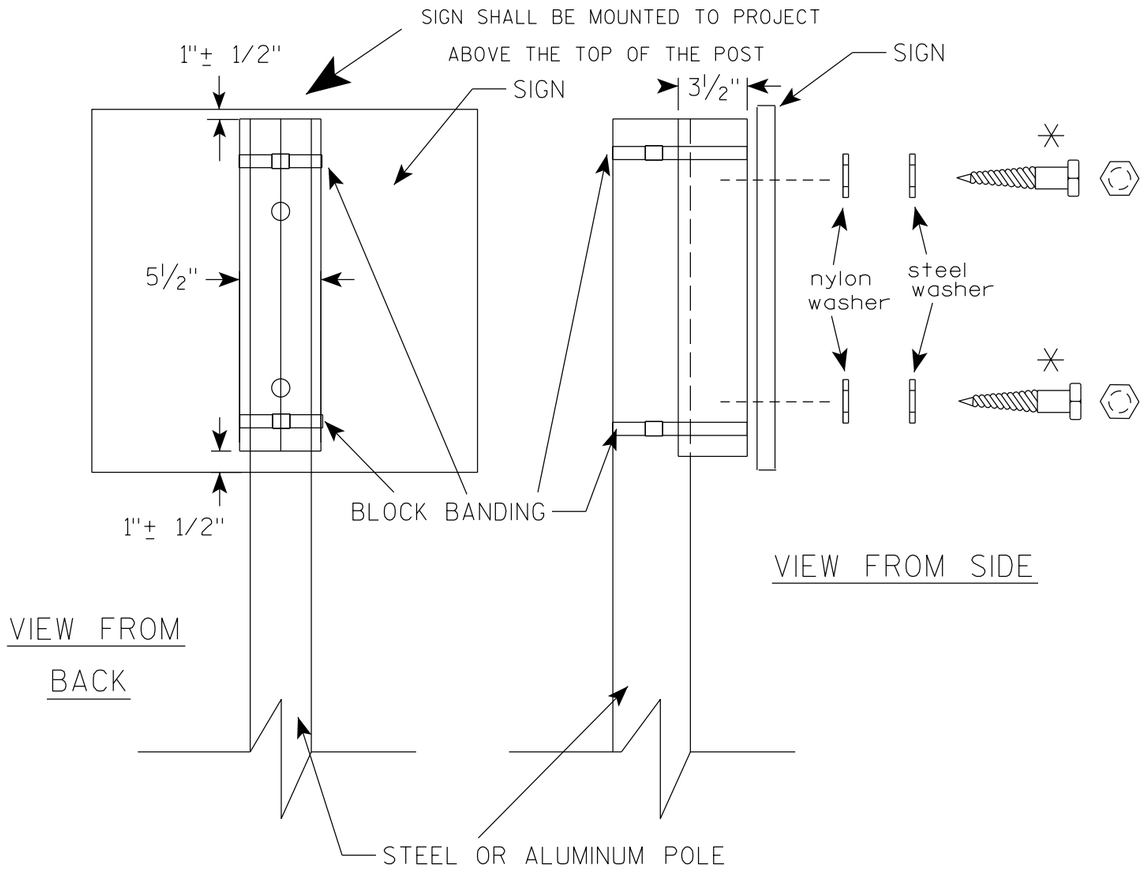
DATE 6/10/19 PLATE NO. A5-9.4

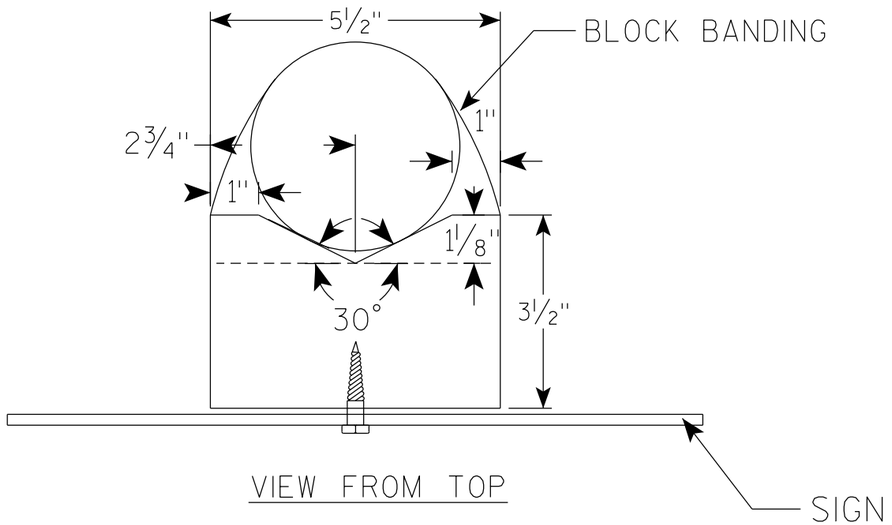
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 351	E

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)

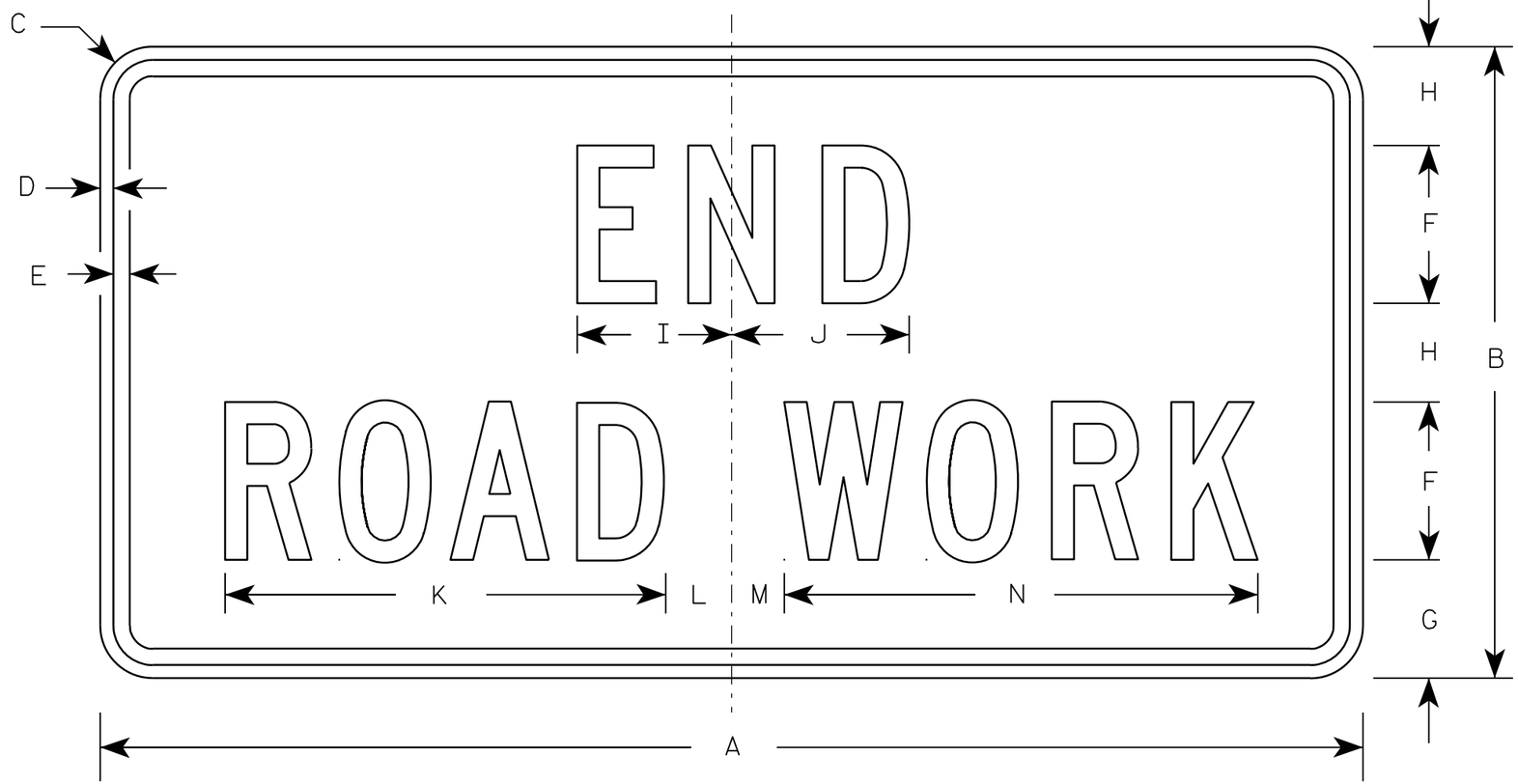
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 352 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

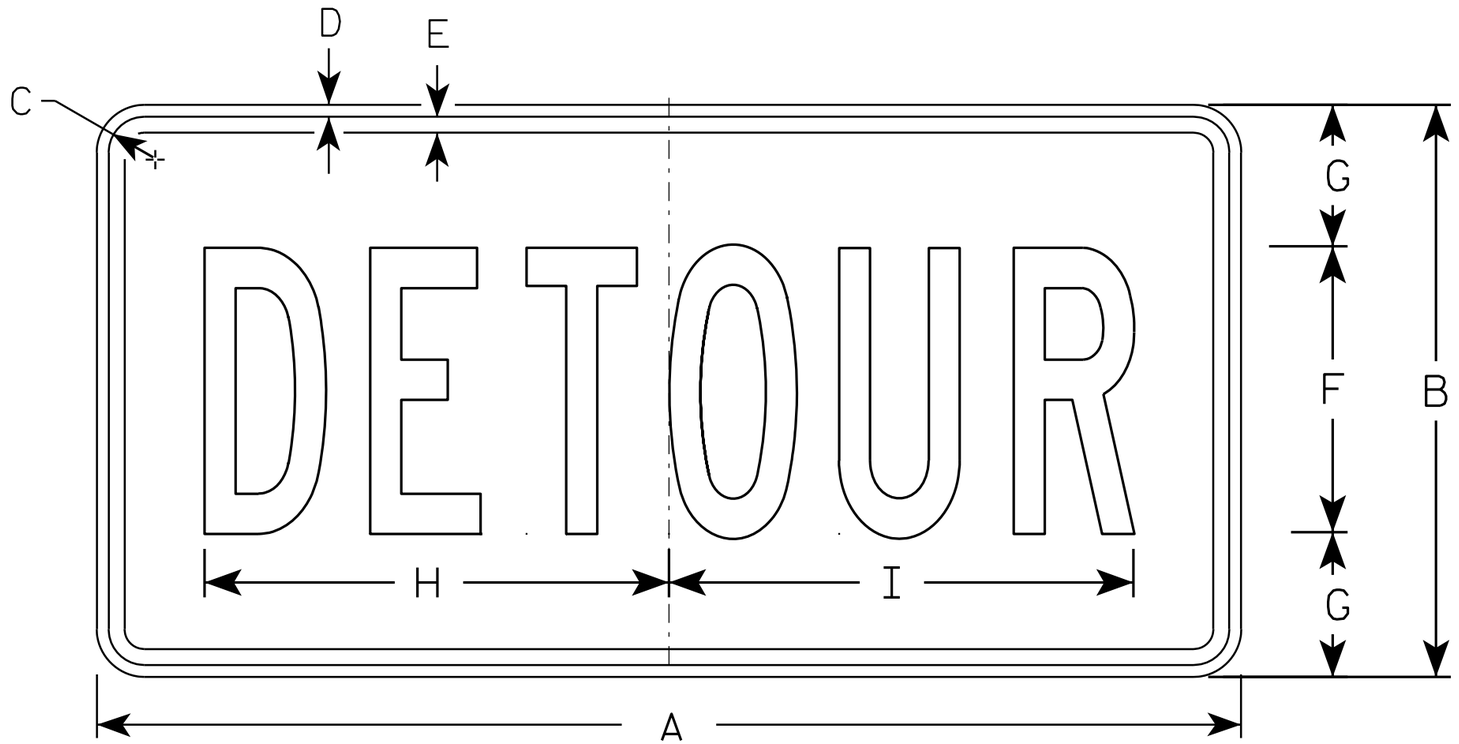
STANDARD SIGN
G20-2A

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: 353	E



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

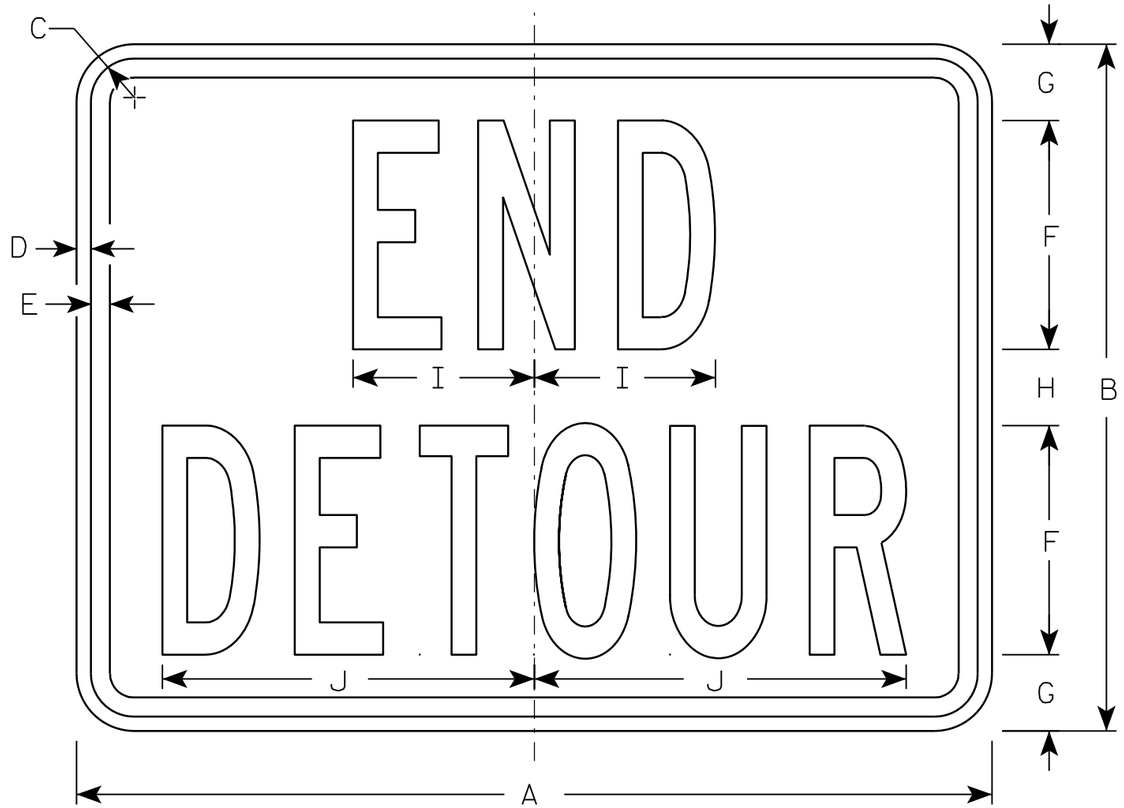
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 354	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

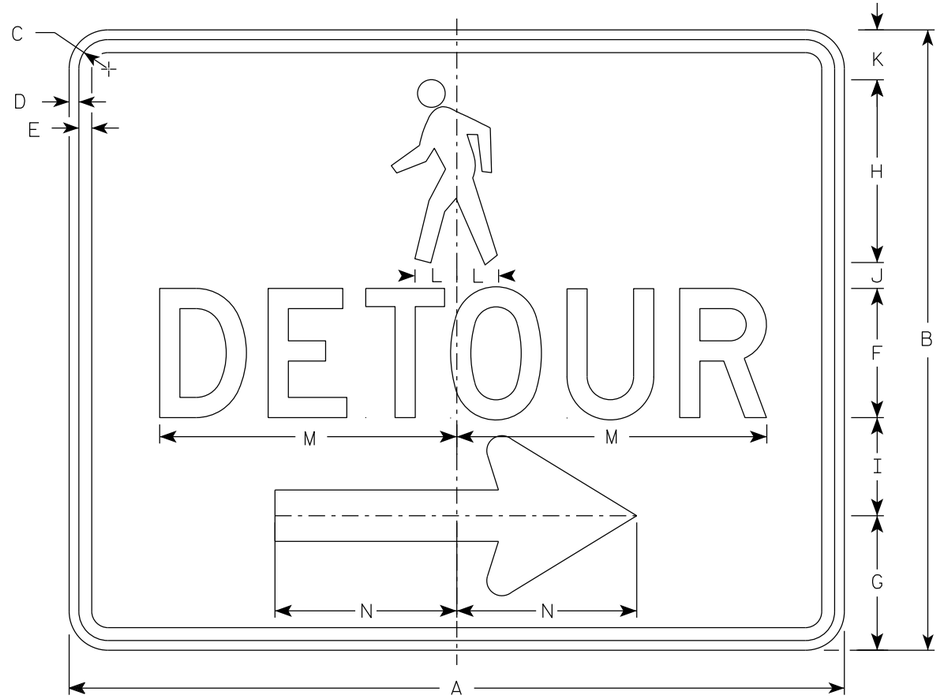
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

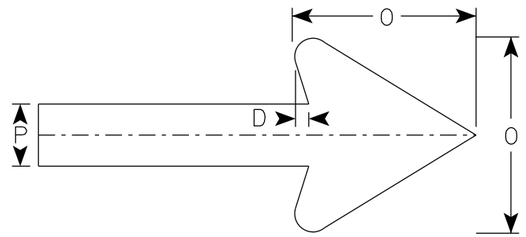
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 355	E



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																											

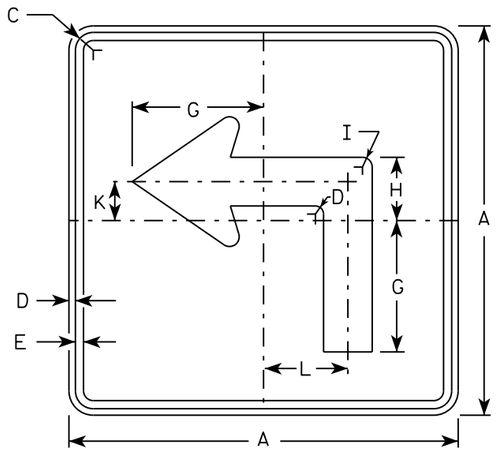
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

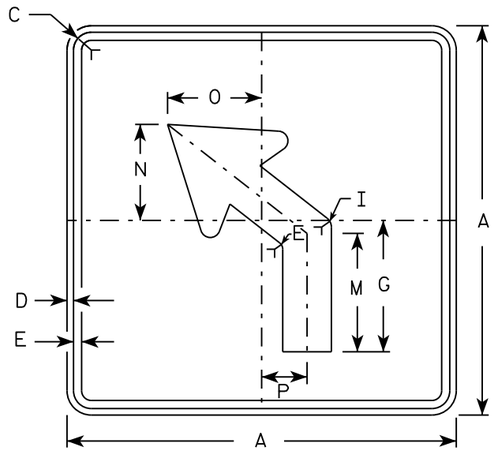
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 7/1/19 PLATE NO. M4-9B.2

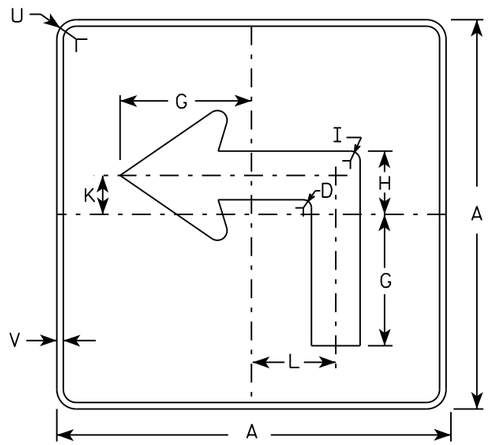
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 356 | E



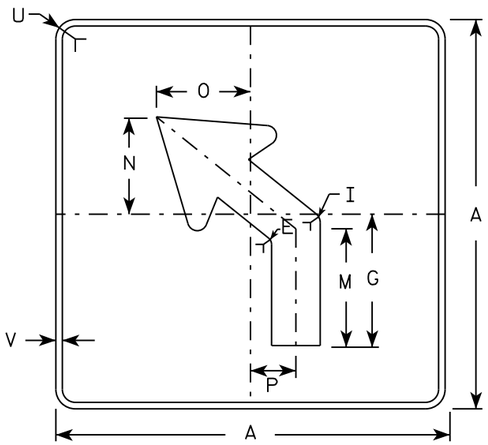
M5-1L
MM5-1L
MO5-1L
MP5-1L



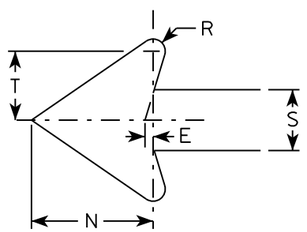
M5-2L
MM5-2L
MO5-2L
MP5-2L



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

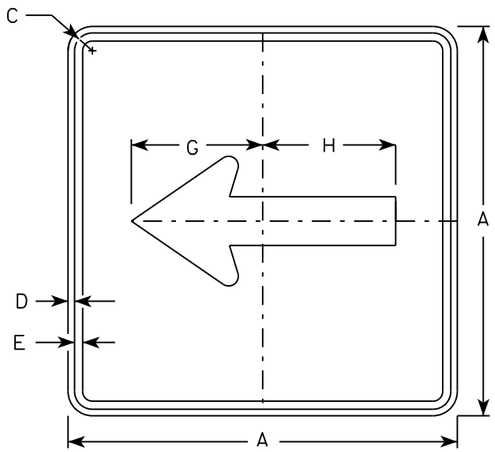
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

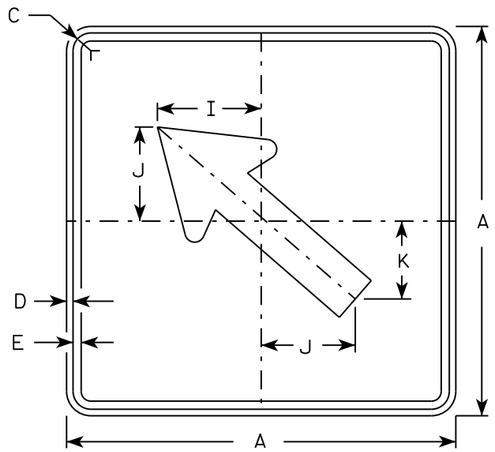
DATE 10/15/15 PLATE NO. M5-1.13

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



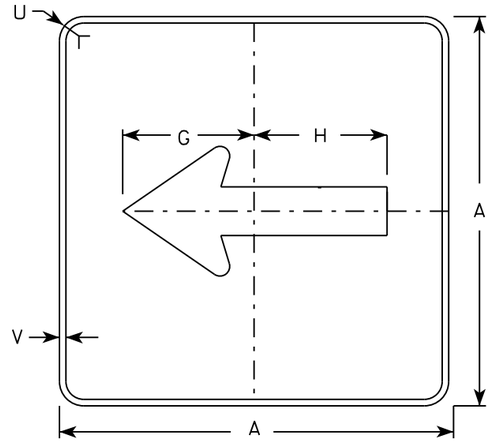
M6-1
MM6-1
MO6-1
MP6-1



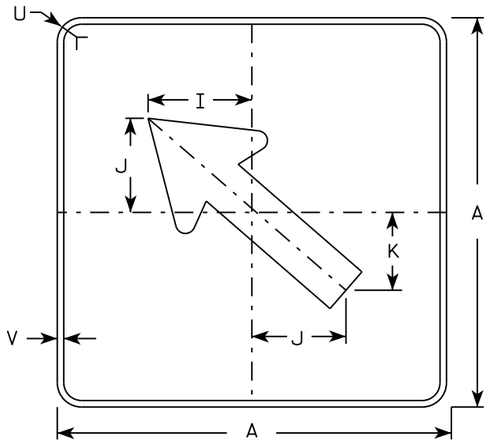
M6-2
MM6-2
MO6-2
MP6-2

NOTES

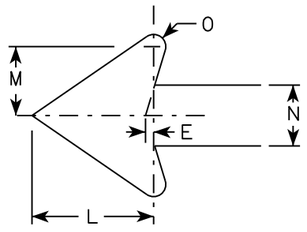
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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

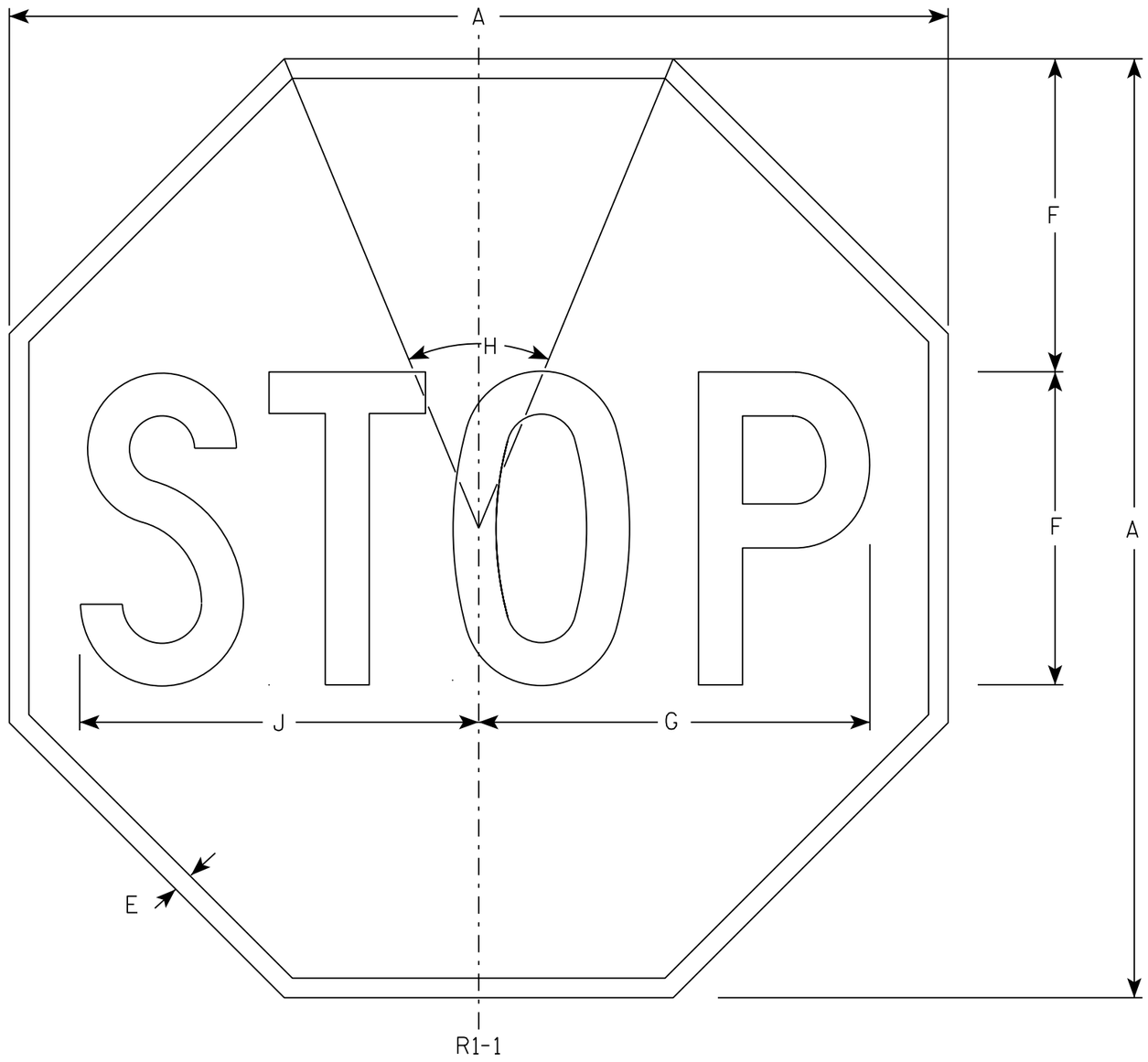
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 358 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

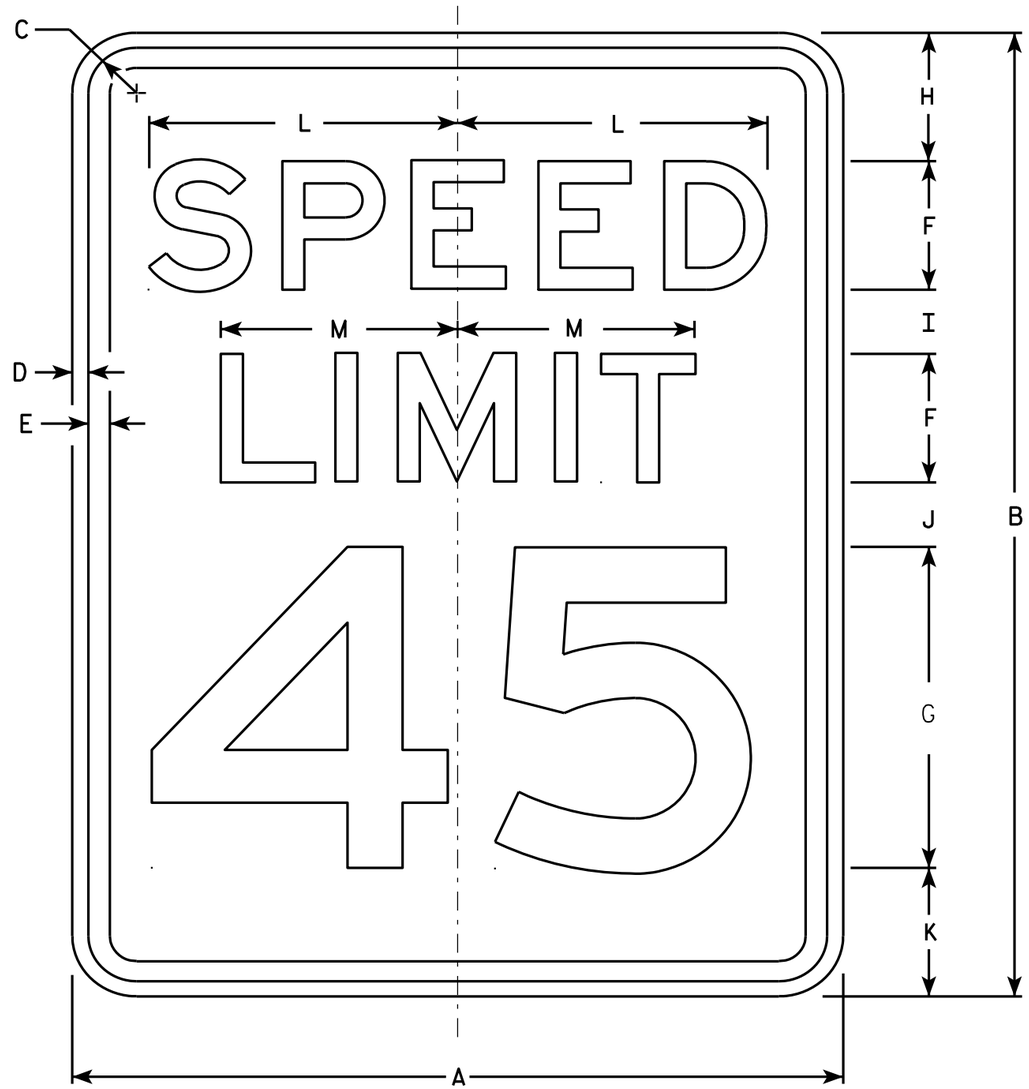
R1-1

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: 359	E



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

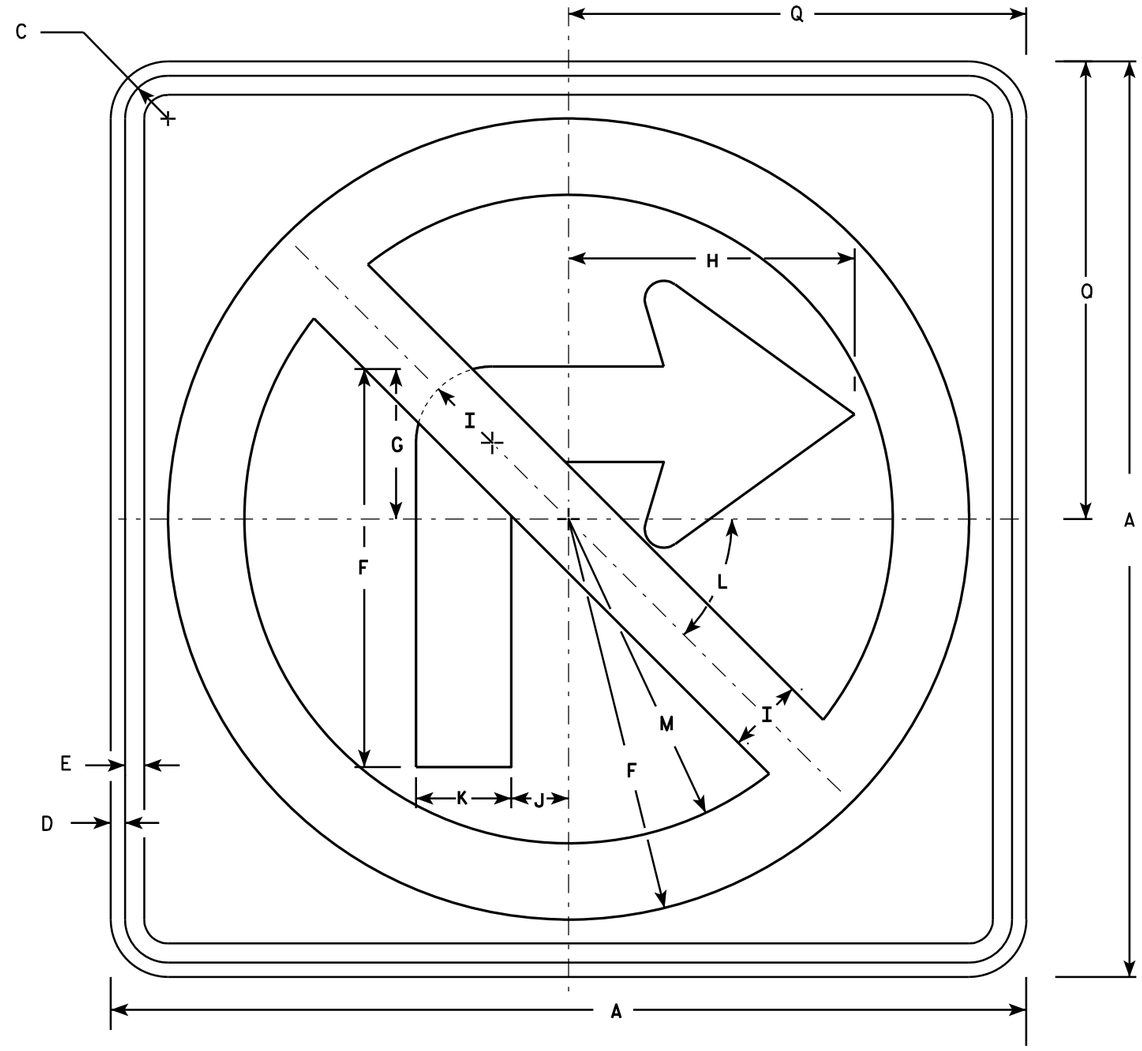
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

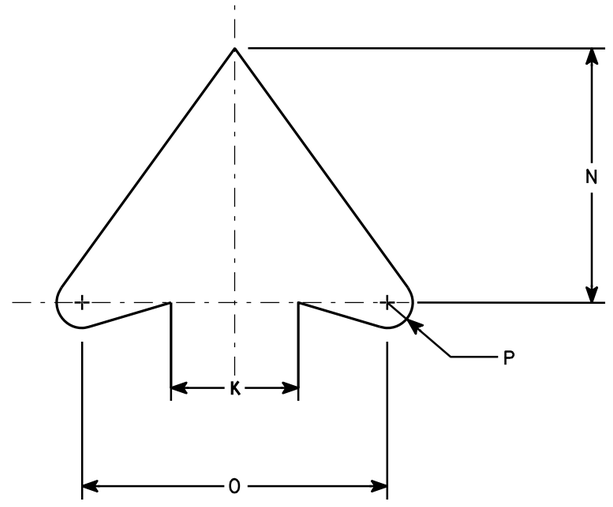
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 360	E



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

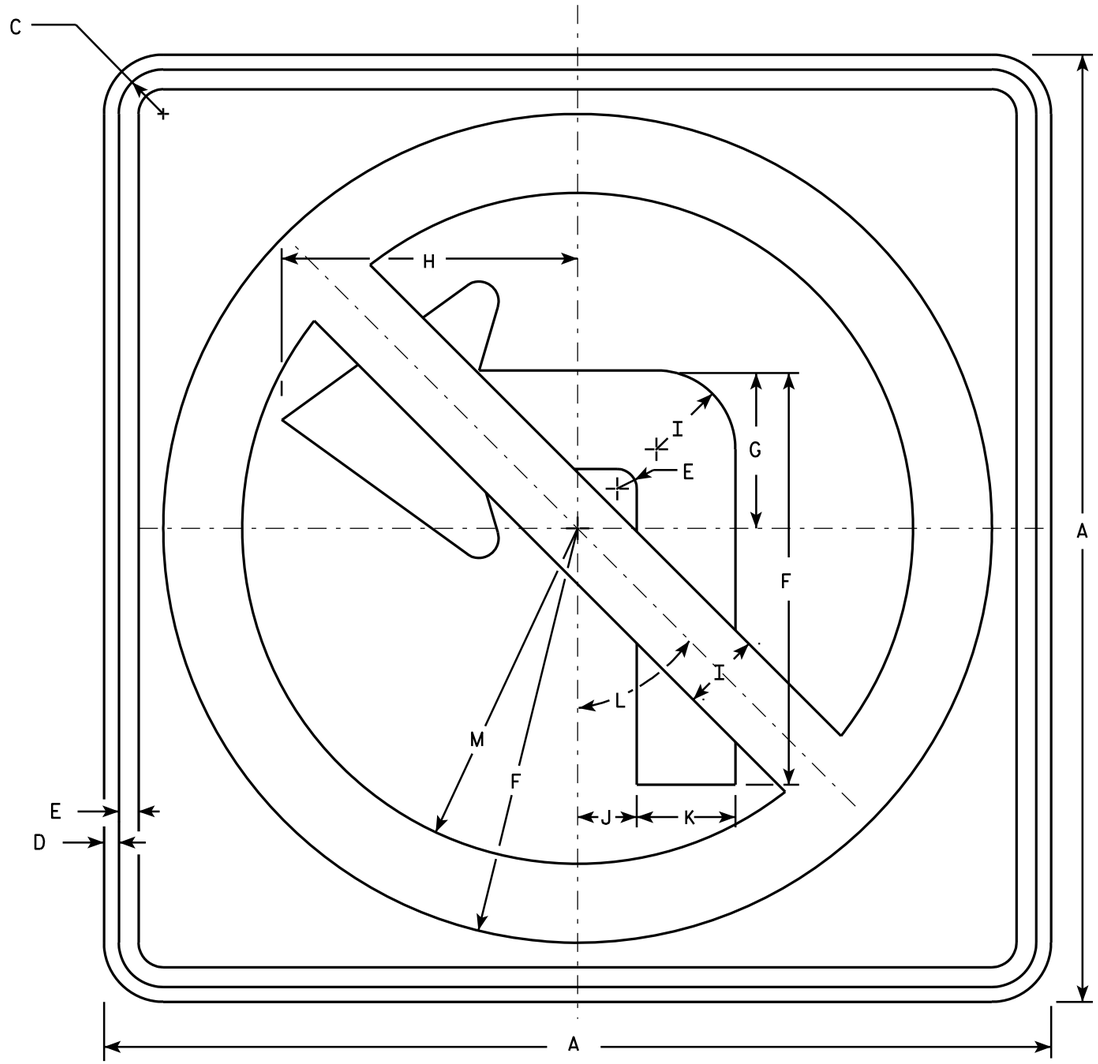
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

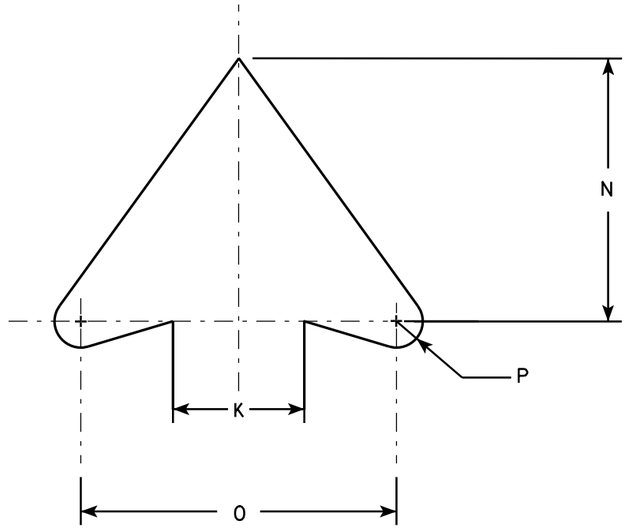
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 361	E



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

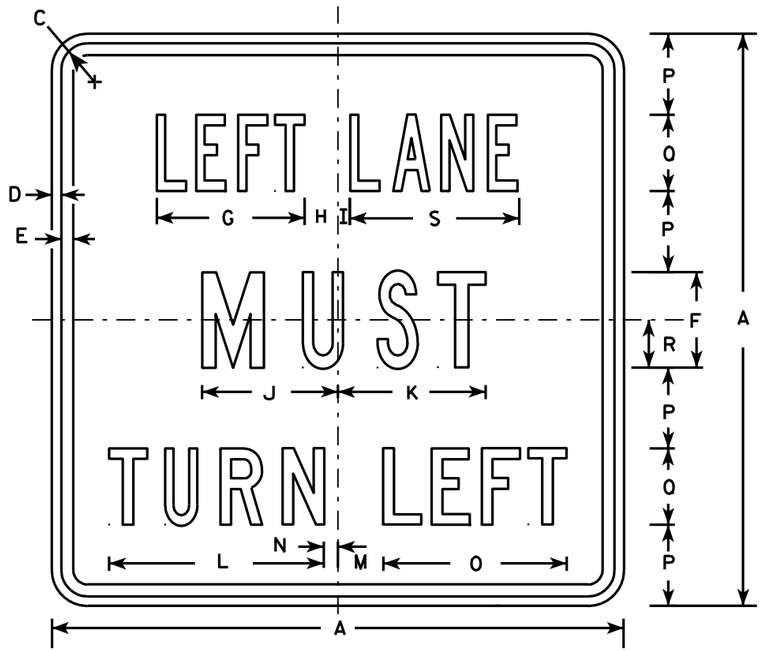
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

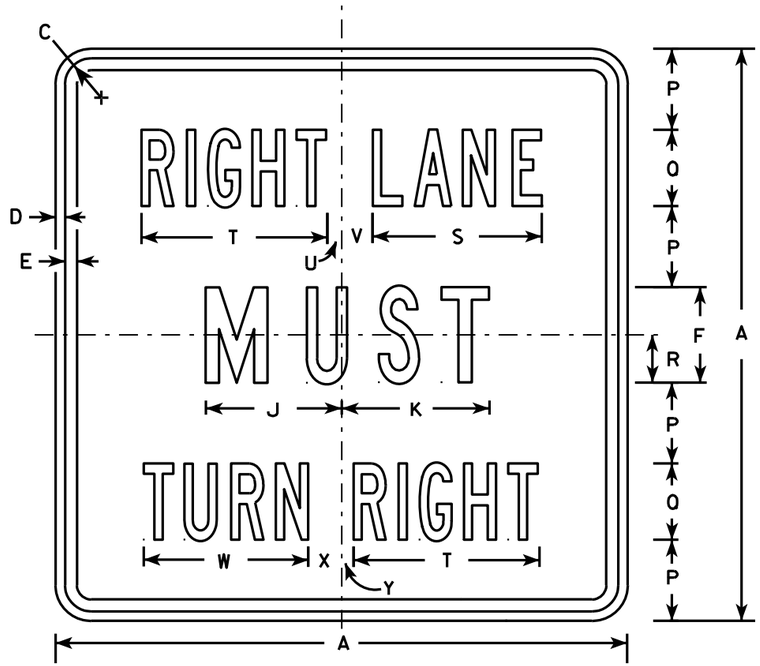
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 362	E



R3-7L



R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

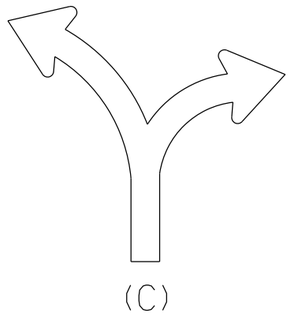
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 363 | E

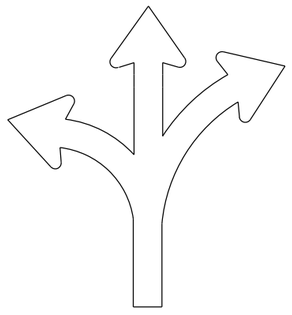


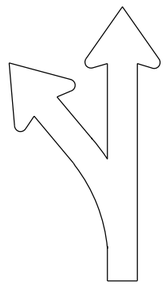
(A)

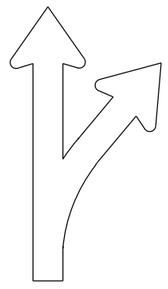


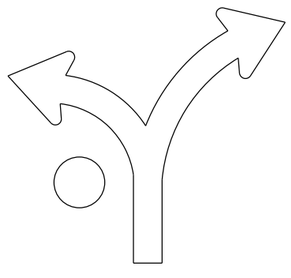
(B)

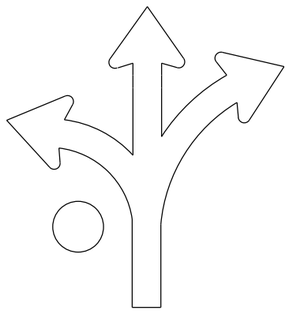

(C)

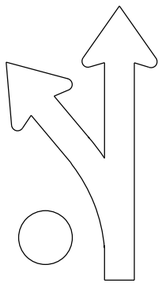

(D)


(E)


(F)

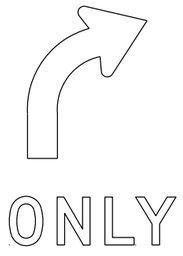

(G)


(H)

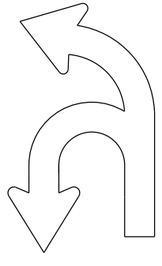

(I)



(L)



(R)


(U)

NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
   Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

1 Letter =	3.75 sq ft	for Size 2
	6.0 sq ft	for Size 3
	10.0 sq ft	for Size 4 or 5
2 Letters =	7.5 sq ft	for Size 2
	12.0 sq ft	for Size 3
	20.0 sq ft	for Size 4 or 5
3 Letters =	11.25 sq ft	for Size 2
	18.0 sq ft	for Size 3
	30.0 sq ft	for Size 4 or 5
4 Letters =	15.0 sq ft	for Size 2
	24.0 sq ft	for Size 3
	40.0 sq ft	for Size 4 or 5
5 Letters =	18.75 sq ft	for Size 2
	30.0 sq ft	for Size 3
	50.0 sq ft	for Size 4 or 5
6 Letters =	22.5 sq ft	for Size 2
	36.0 sq ft	for Size 3
	60.0 sq ft	for Size 4 or 5

6. When letters C,D,G,H are used on the Left or Right end of the sign the Sq. Ft. changes.
   Add the amounts when these letters are used:
   1.25 sq ft for Size 2
   1.5 sq ft for Size 3
   2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

7

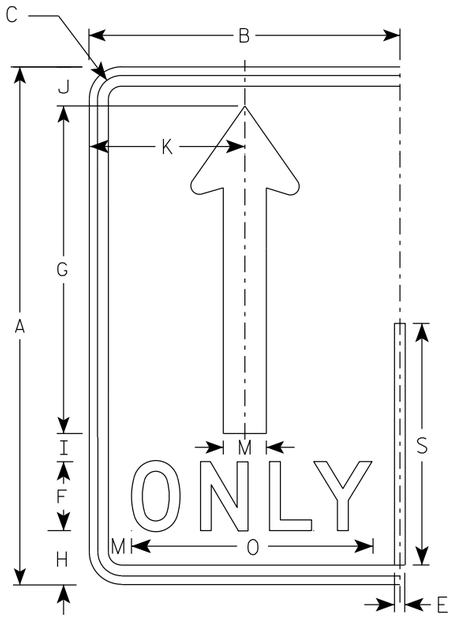
7

PROJECT NO:

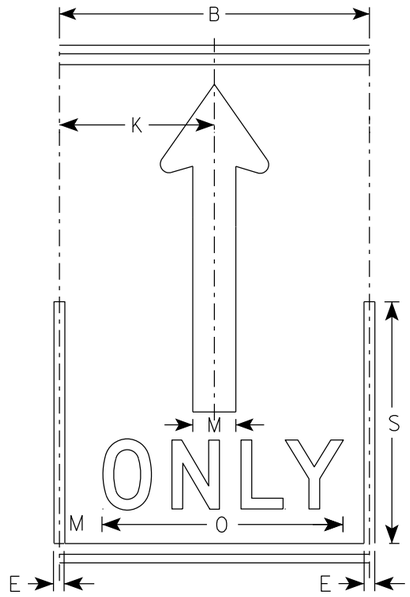
SHEET NO: 364 E

NOTES

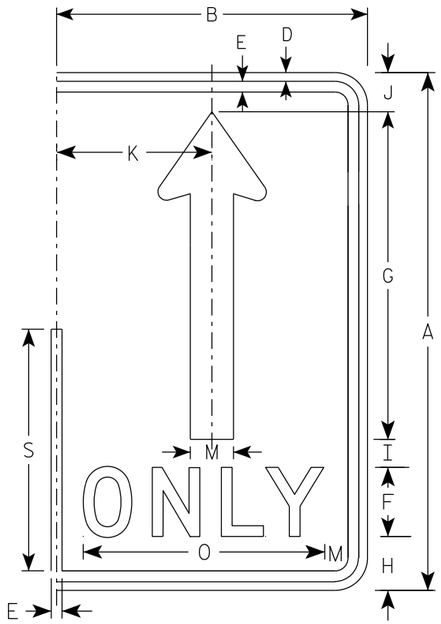
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



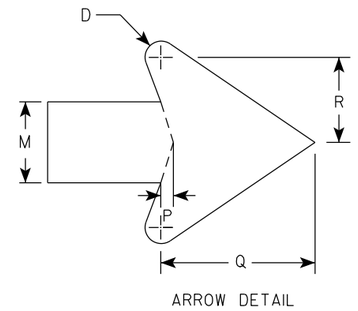
(A)



(A)



(A)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

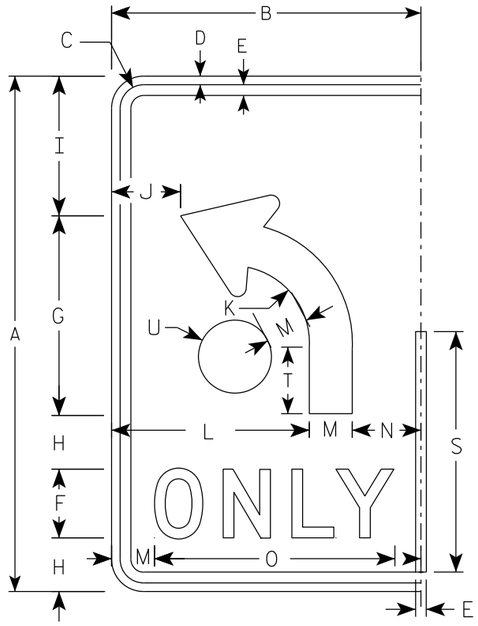
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

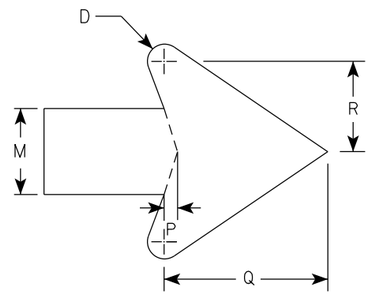
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 365 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
   Message Series - D



(B)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8	2 1/2						6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0

STANDARD SIGN

R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

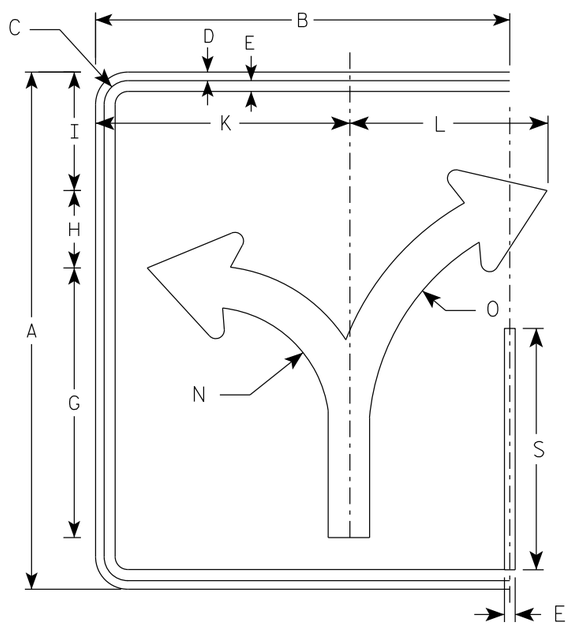
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

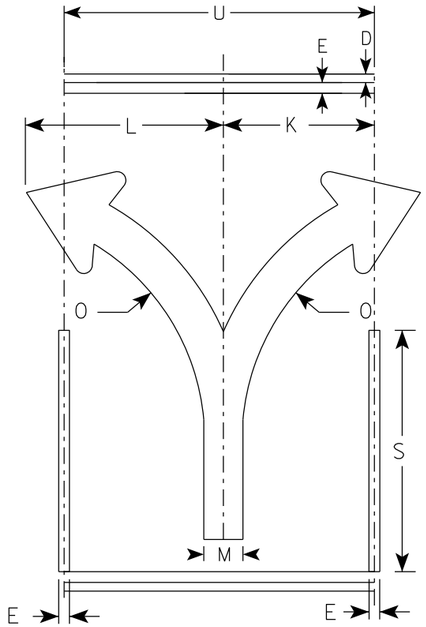
SHEET NO: 366 E

NOTES

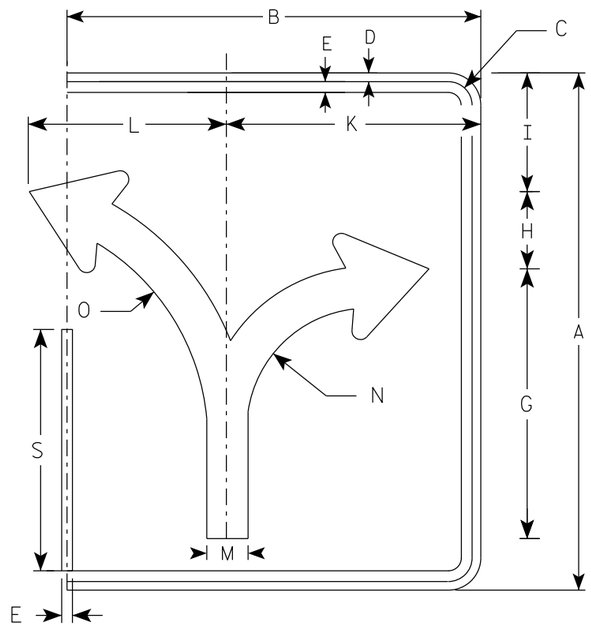
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



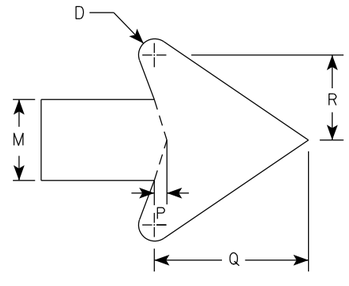
(C)



(C)



(C)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (C) Arrow

WISCONSIN DEPT OF TRANSPORTATION

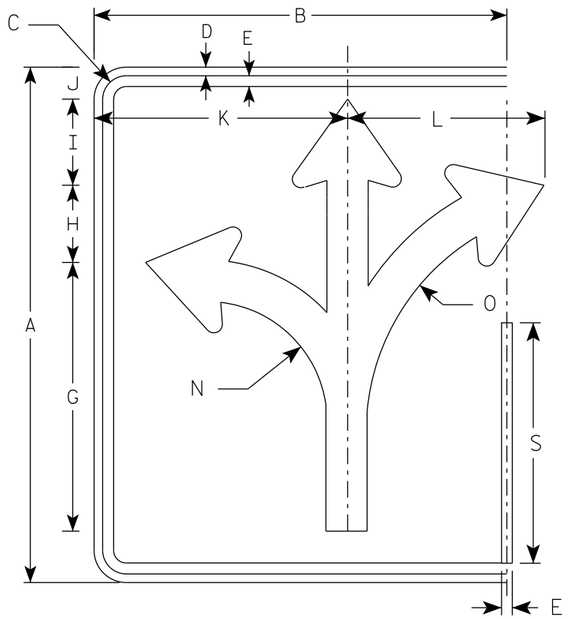
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

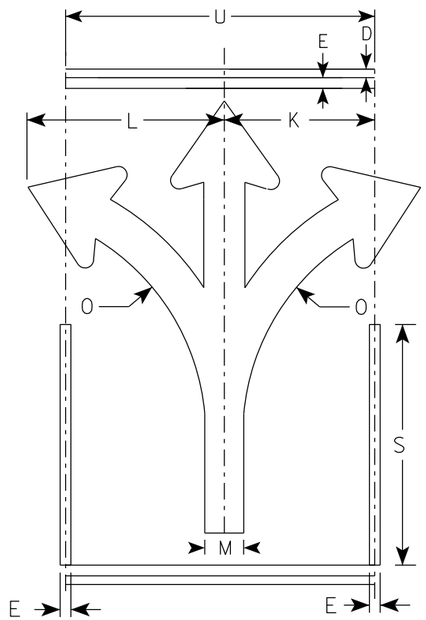
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 367 | E

NOTES

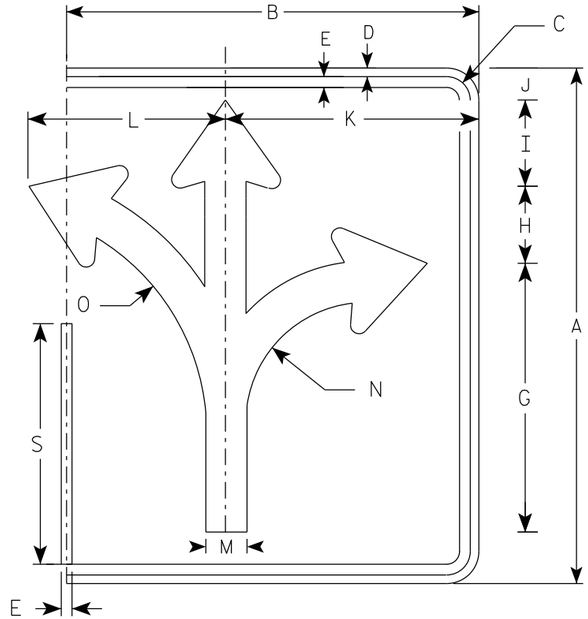
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



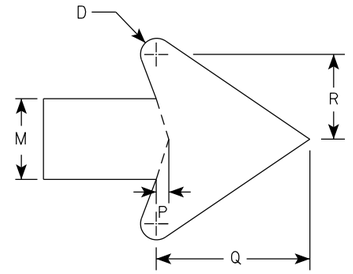
(D)



(D)



(D)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	2 1/4	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (D) Arrow

WISCONSIN DEPT OF TRANSPORTATION

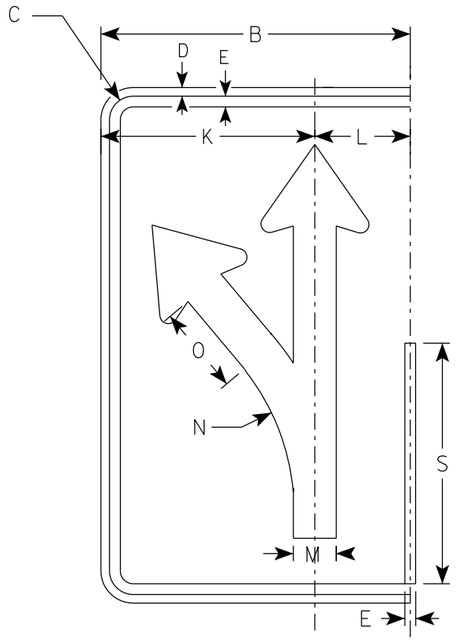
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

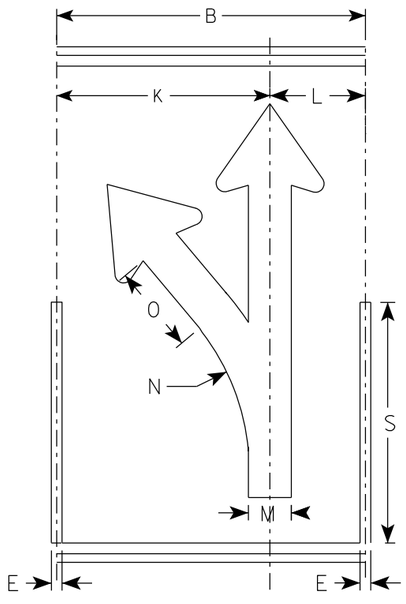
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 368 | E

NOTES

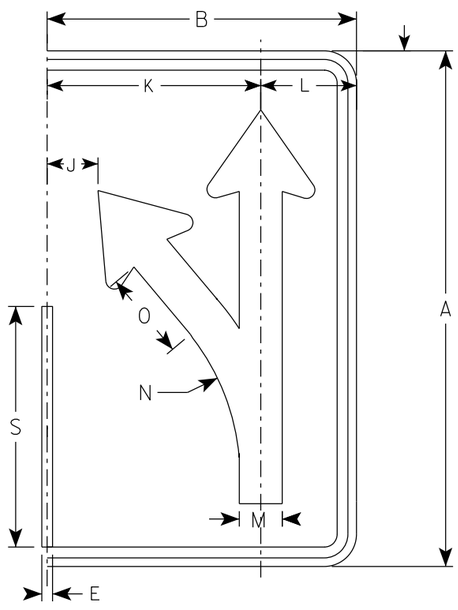
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



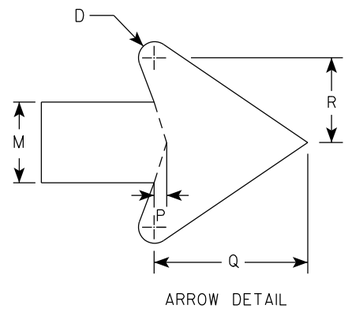
(E)



(E)



(E)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

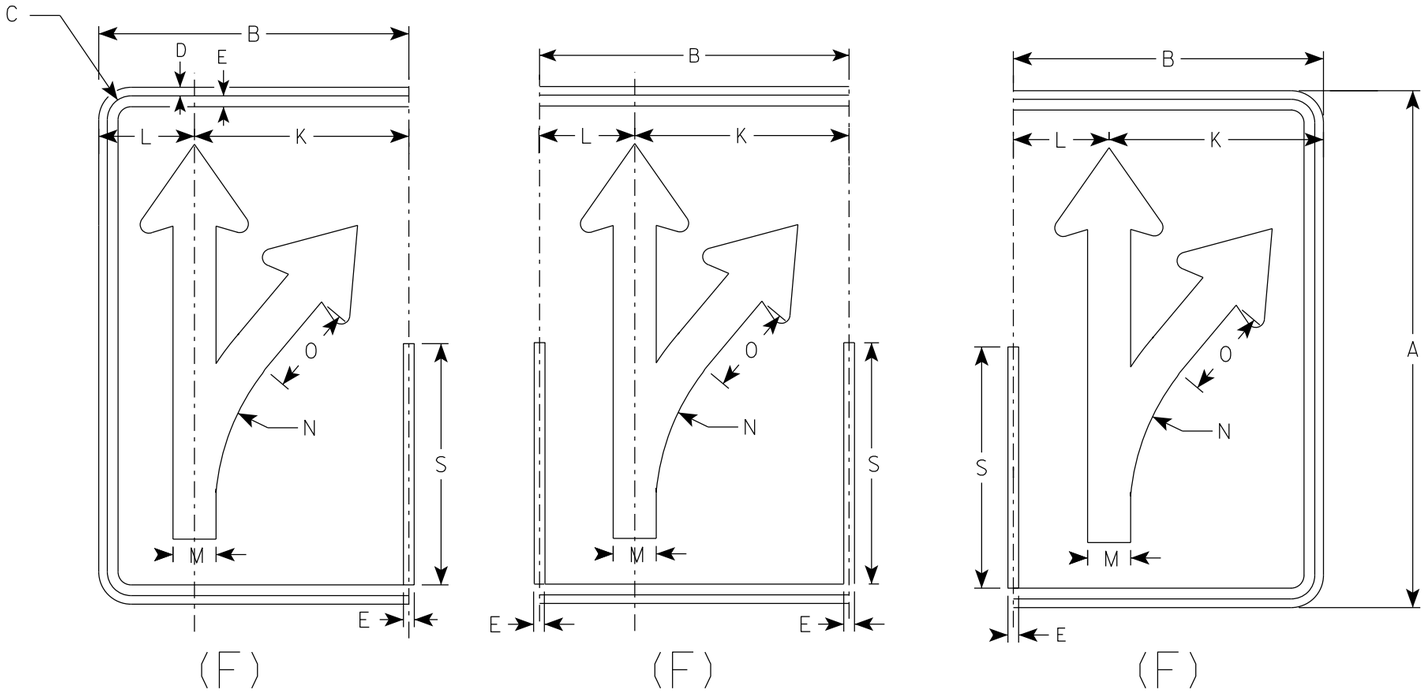
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

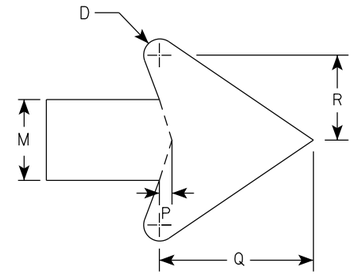
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 369 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(F) (F) (F)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

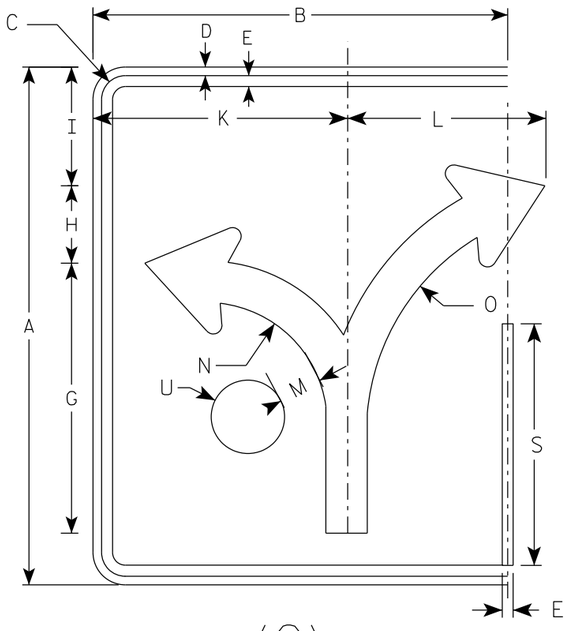
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

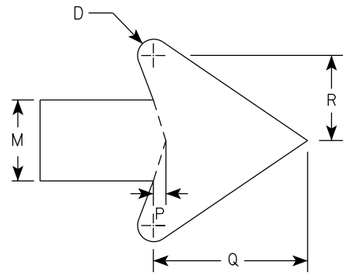
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 370 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(G)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

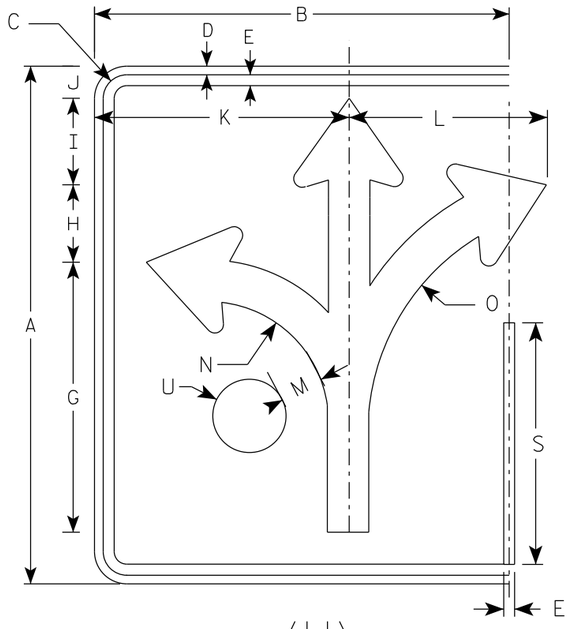
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 371 | E

7

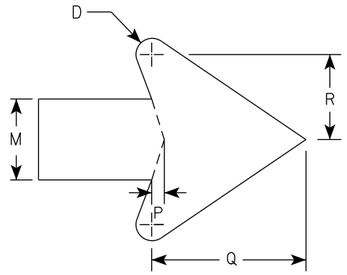
FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn PLOT DATE : 21-MAY 2019 4:38 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(H)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	3 1/8	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

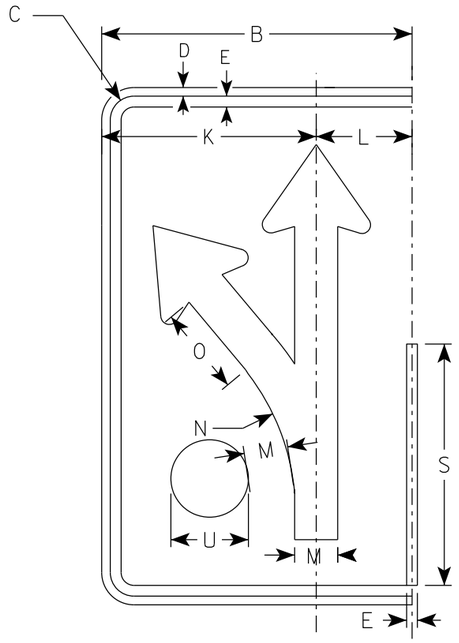
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

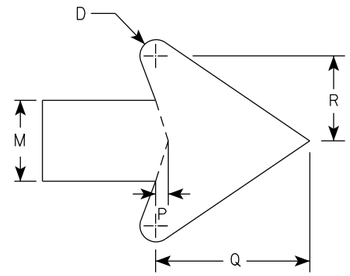
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 372	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(I)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4		2 1/2						6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0

STANDARD SIGN
R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

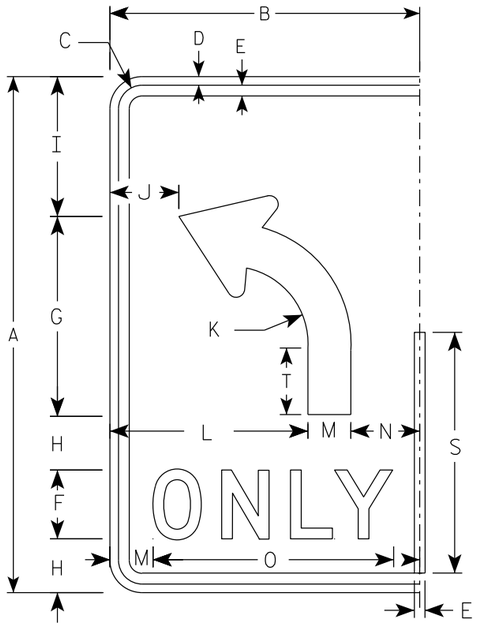
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

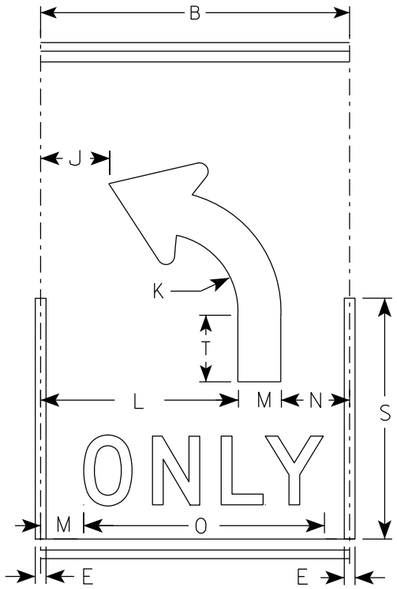
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 373 | E

NOTES

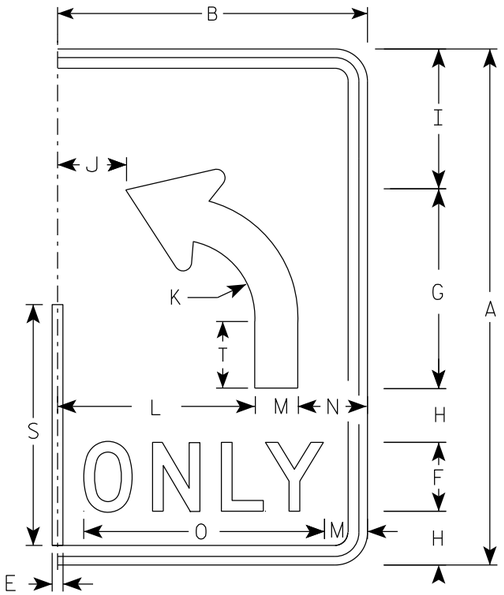
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



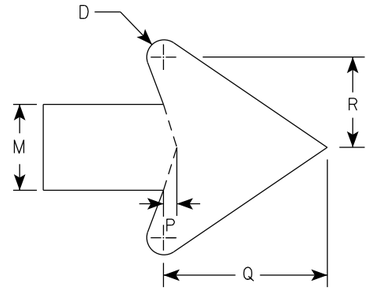
(L)



(L)



(L)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4		5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

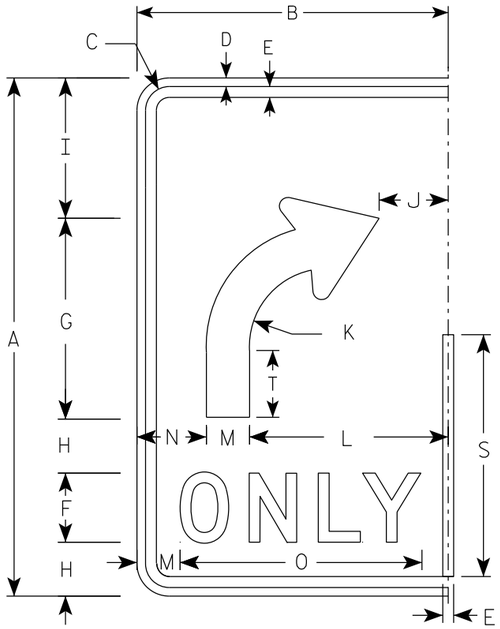
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

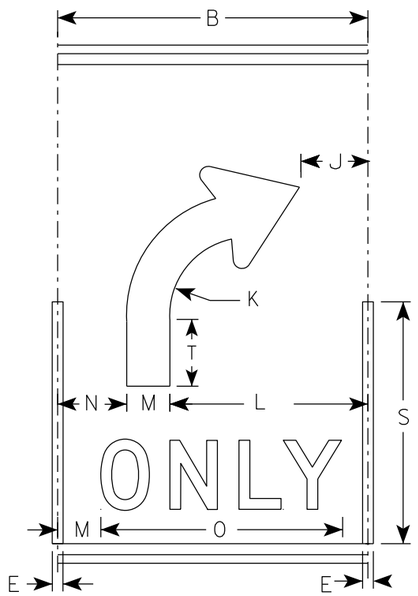
SHEET NO: 374 E

NOTES

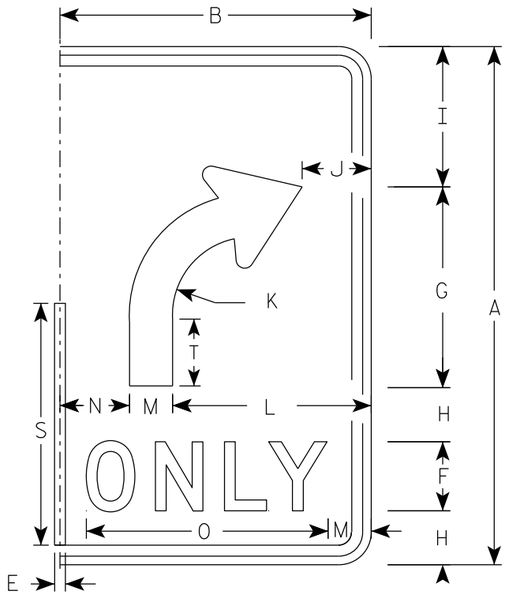
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



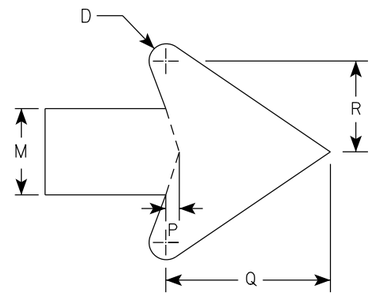
(R)



(R)



(R)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN
R3-8 (R) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

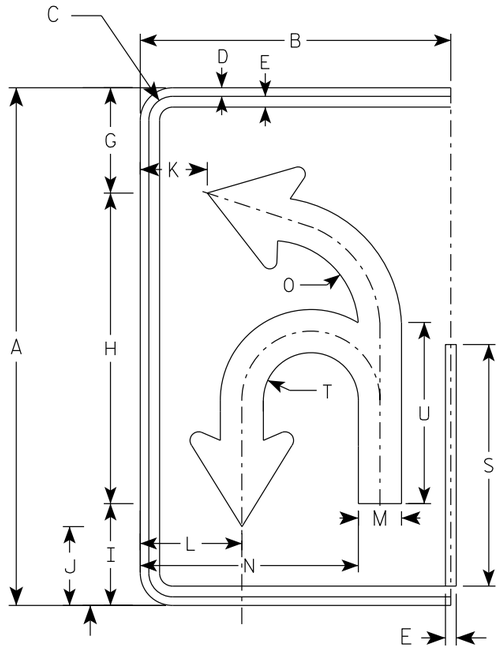
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

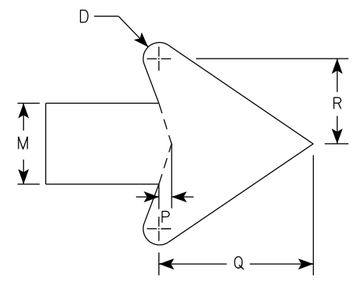
SHEET NO: 375 **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(U)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
2M	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	21 5/8	7 1/8	5 1/2	5 7/8	8 1/4	3	16 3/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4	3 1/4	12 5/8						6.0
4	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0
5	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0

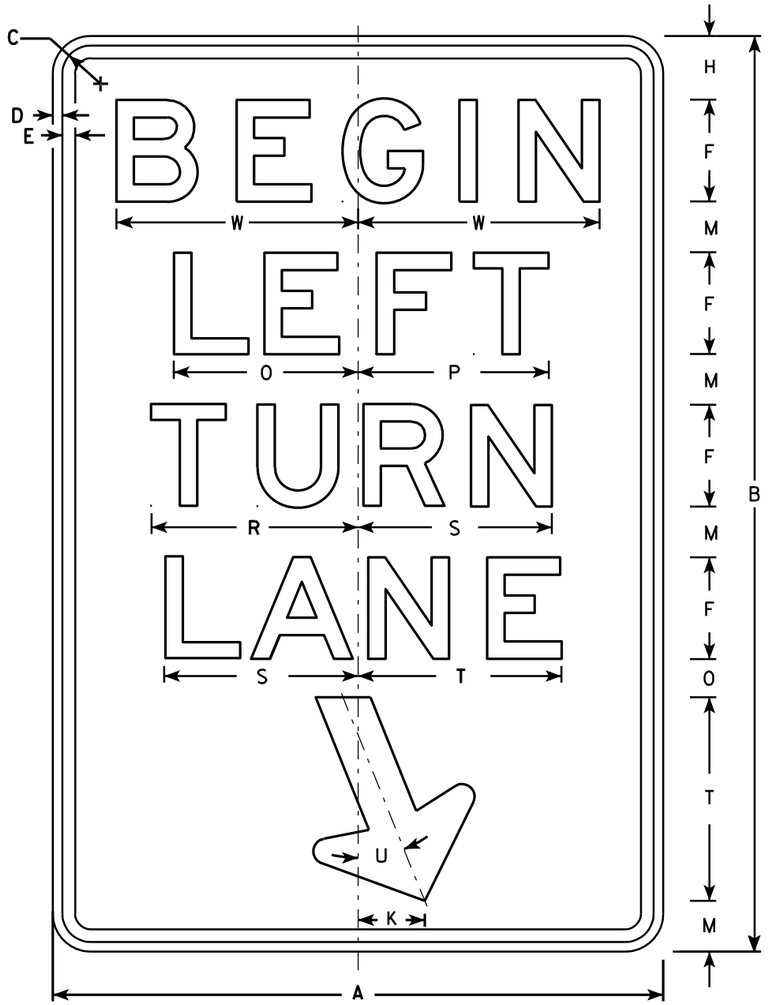
STANDARD SIGN
R3-8 (U) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

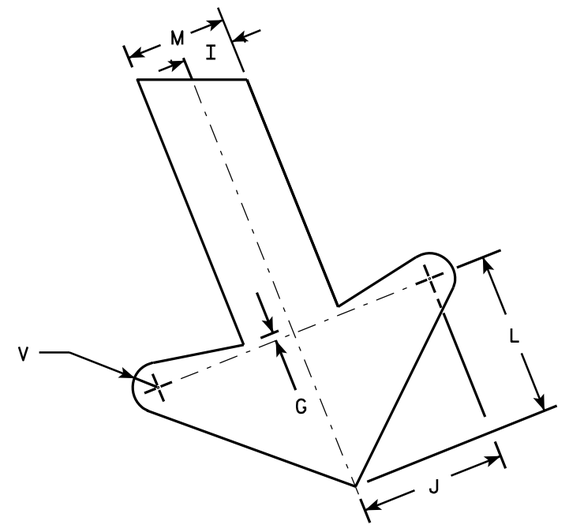
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 376 | E



R3-20L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

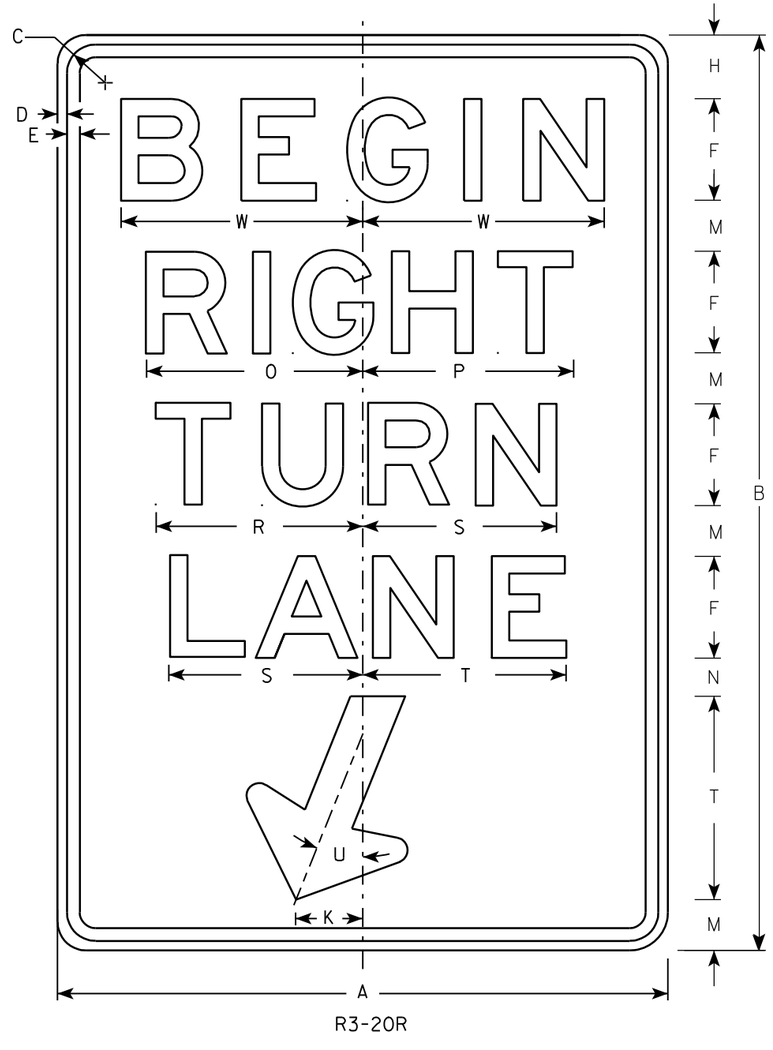
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

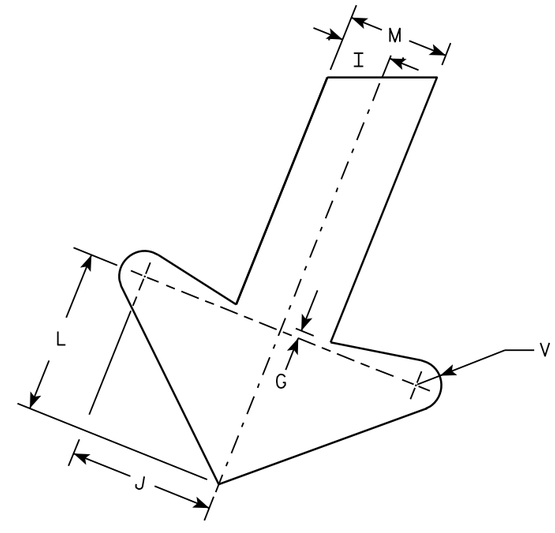
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 377 | E



R3-20R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

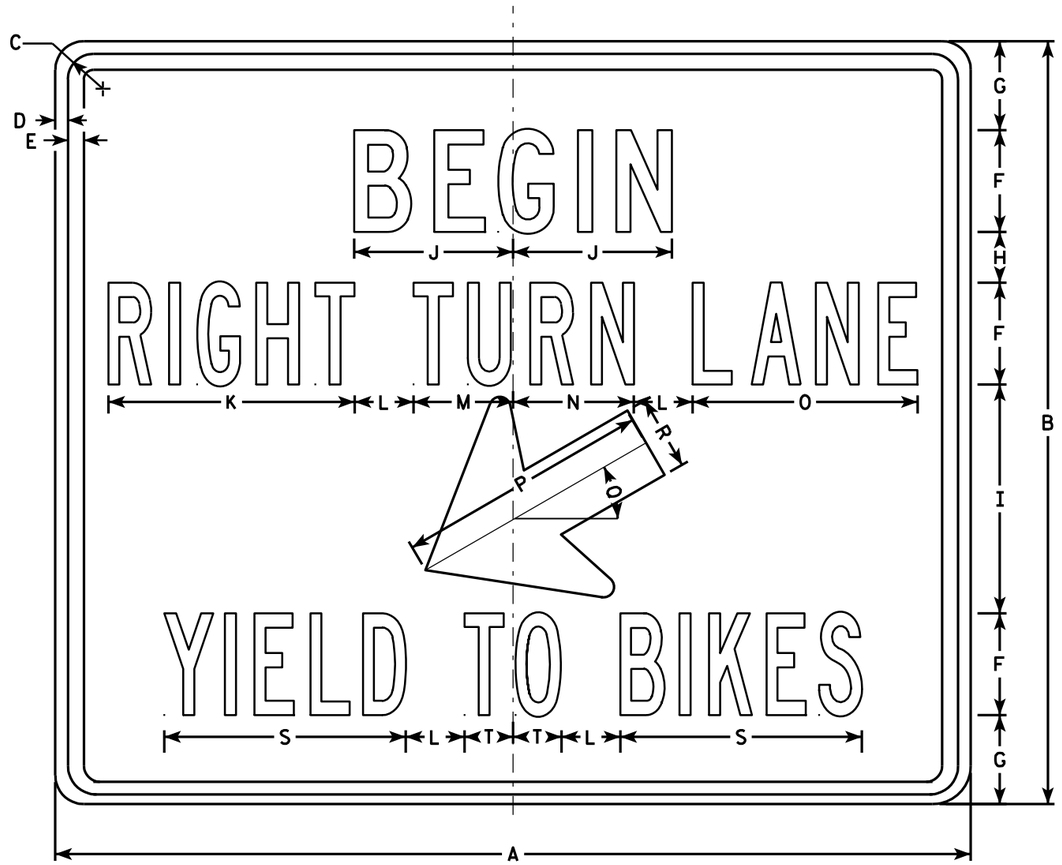
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 378 | E



R4-4

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 - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C
   Lines 2 & 3 are Series B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	30	1 3/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
2M	36	30	1 3/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
3																											
4																											
5																											

STANDARD SIGN
R4-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-4.2

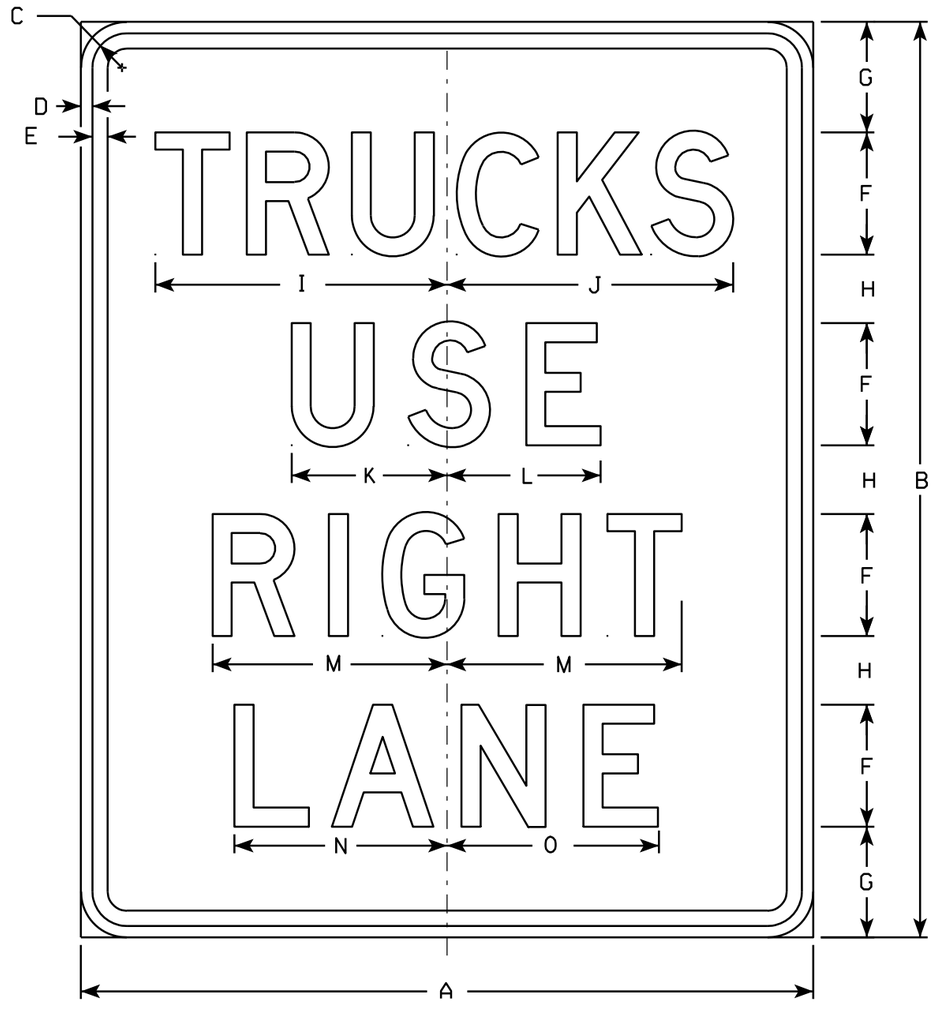
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 379 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R44.DGN PLOT DATE : 25-MAR-2011 13:45 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

7

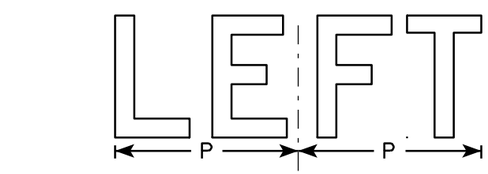


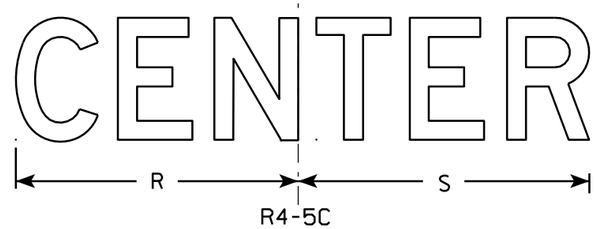
R4-5

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R4-5L & R4-5C are the same as R4-5 except LEFT or CENTER replaces RIGHT as order by code.

R4-5L





R4-5C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
3																											
4	36	48	2 1/4	5/8	3/4	6	6	4	14 3/8	14 1/8	7 7/8	7 7/8	12 1/4	10 3/4	10 1/2	9 5/8		13 7/8	14 1/4								12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/8	18 3/4	10 1/4	10 1/8	15 3/8	14	13 7/8	12		18 1/2	19 1/8								20.0

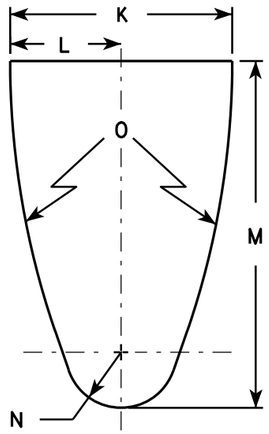
STANDARD SIGN
R4-5

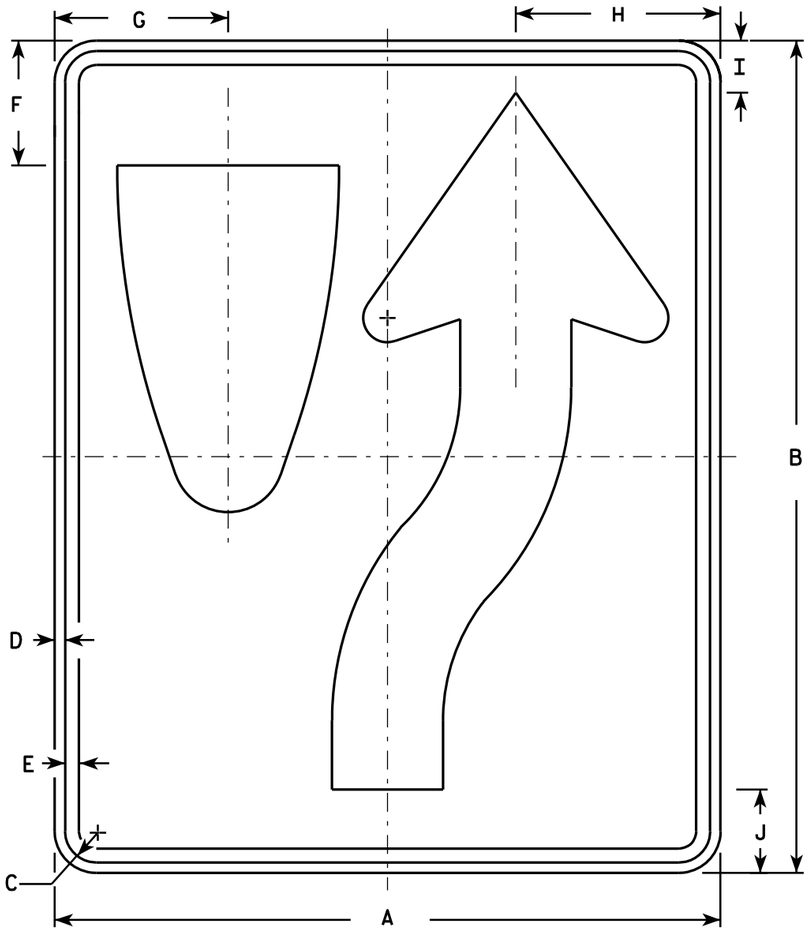
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-5.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 380 | E

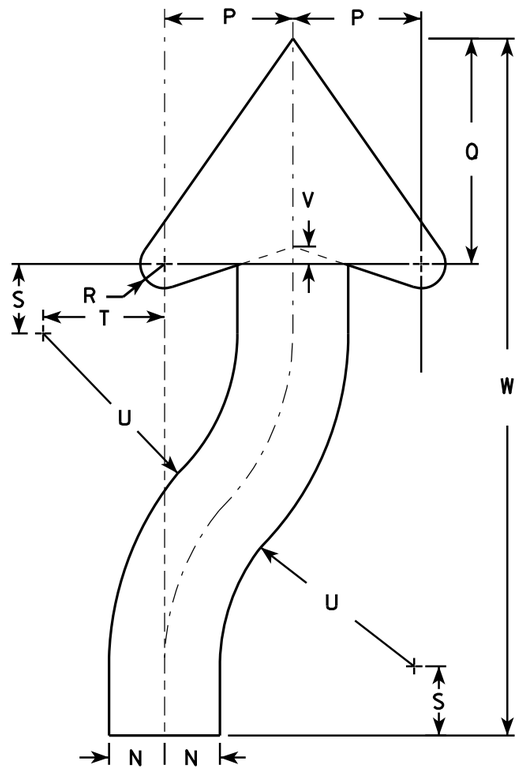




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

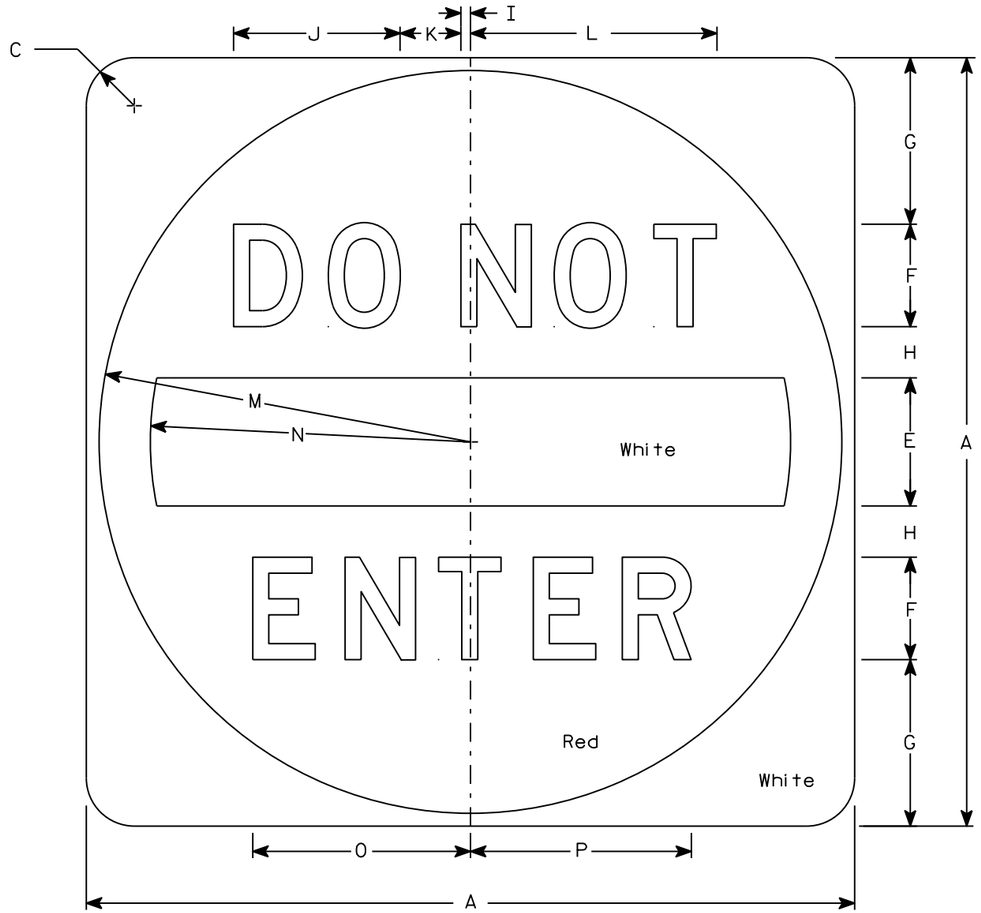
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 381	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

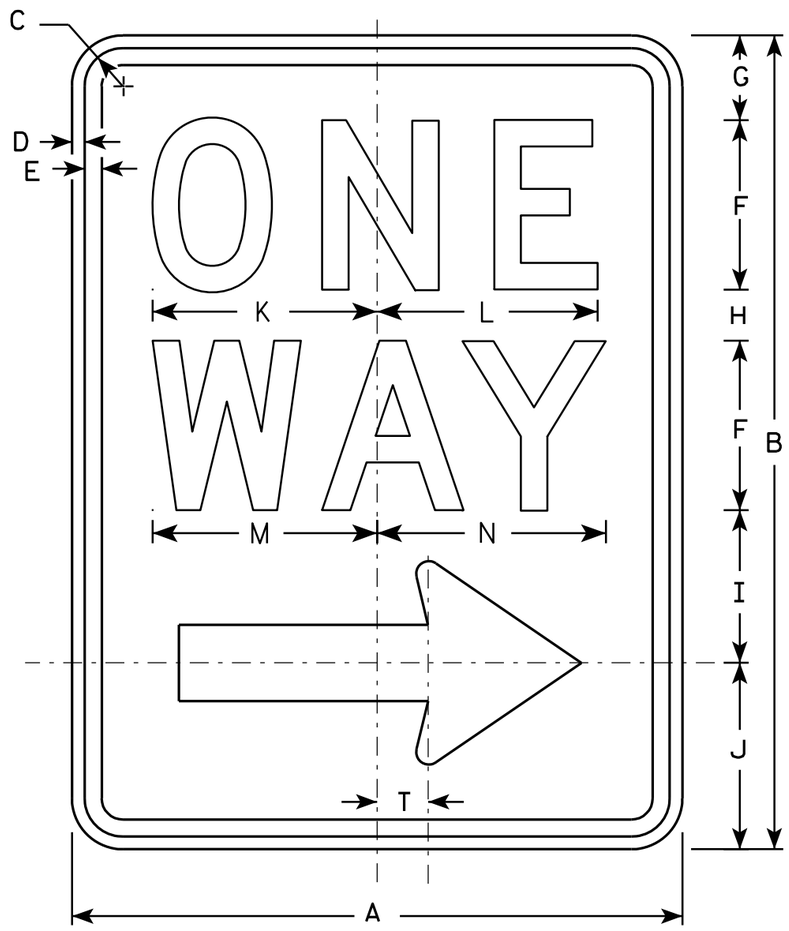
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

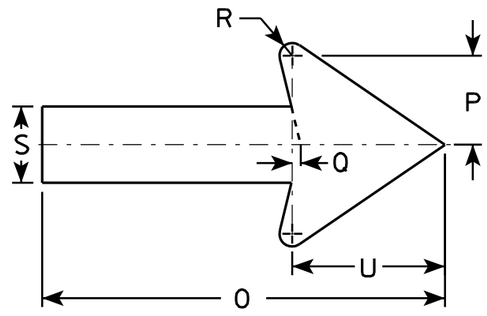
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 382 | E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

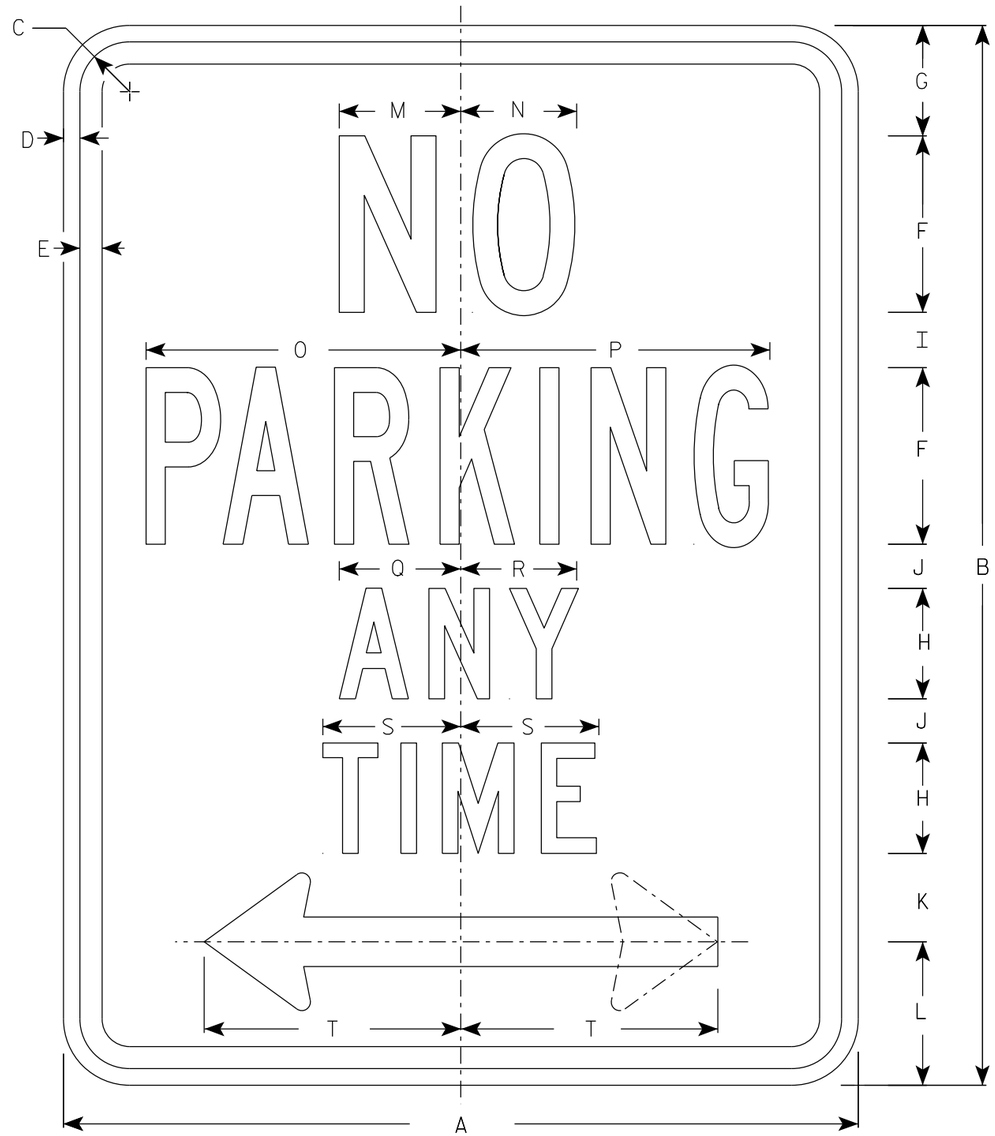
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

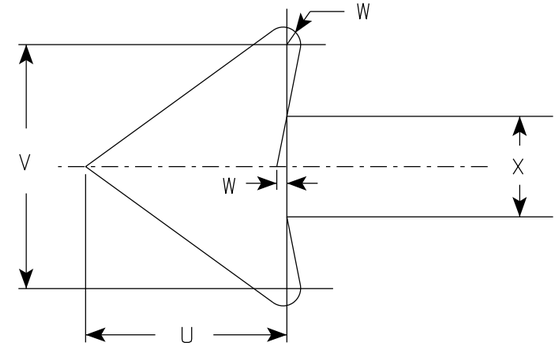
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 383	E



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

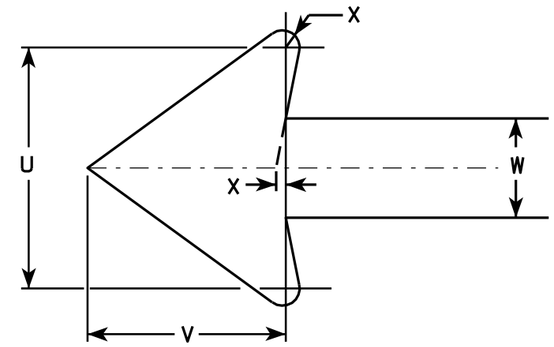
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 384 E



R7-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R7-7D (double arrow)
   R7-7R (right arrow)
   R7-7L (left arrow)
6. Lines 1, 3 and 4 are Series C.
   Line 2 is Series B.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	2	1 7/8	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2	2 3/4	2 5/8	3 7/8	1 3/4	1 1/2	3/4	1/8			1.50
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 1/2	3 3/8	3 3/8	5 7/8	2 5/8	2 1/4	1 1/8	1/4			3.00
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	4 1/8	4	7 3/4	3 1/2	3	1 1/2	1/4			5.00
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	4 1/8	4	7 3/4	3 1/2	3	1 1/2	1/4			5.00
4																											
5																											

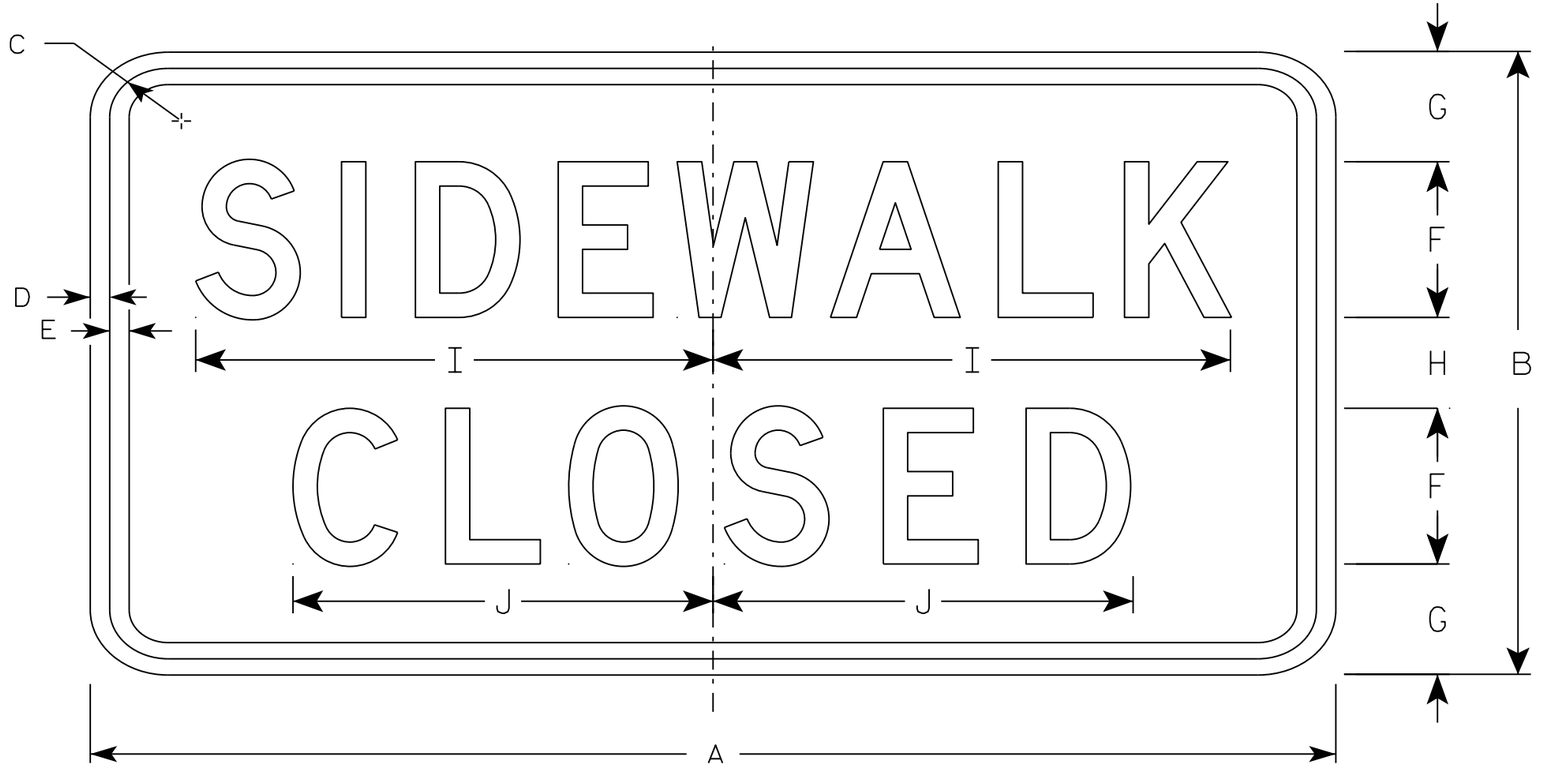
STANDARD SIGN
R7-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-7.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 385 | 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

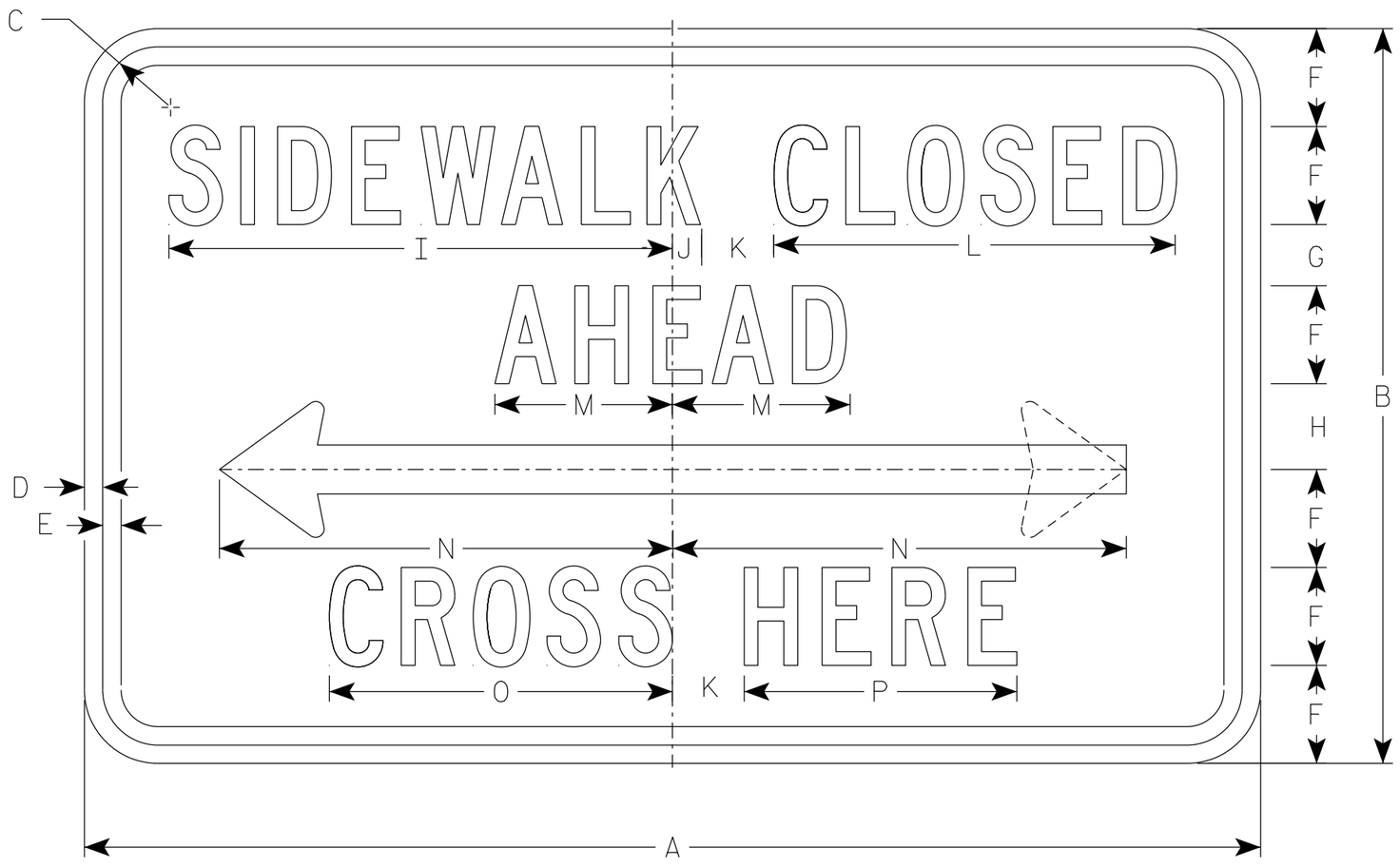
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

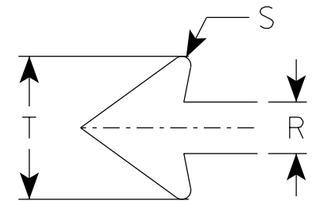
DATE 8/11/16 PLATE 386 R9-9.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R9-11



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C except Size 1 is Series D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.
6. R9-11 D (double arrow)
   R9-11 L (left arrow)
   R9-11 R (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																											
2S	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

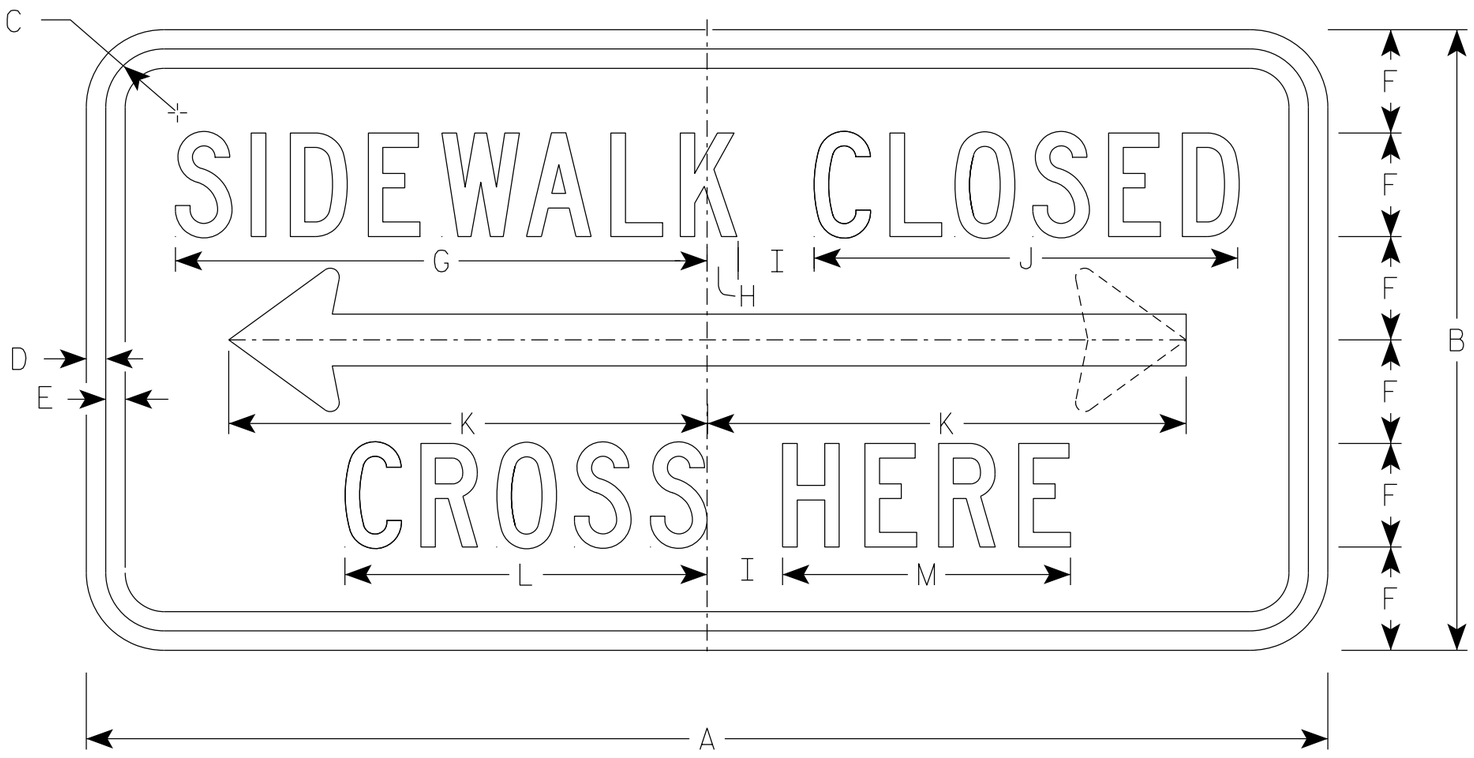
STANDARD SIGN
R9-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 3/30/2021 PLATE NO. R9-11.4

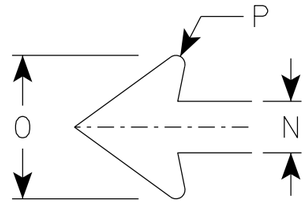
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 387 | E



R9-11A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for paths and Trails.
6. R9-11AD (double arrow)
   R9-11AL (left arrow)
   R9-11AR (right arrow)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
3	30	15	1 1/8	3/8	1/2	2 1/2	12 3/4	1/2	2	10 1/4	12 3/8	8 5/8	6 3/4	1 1/4	3 5/8	1/4											3.125
4																											
5																											

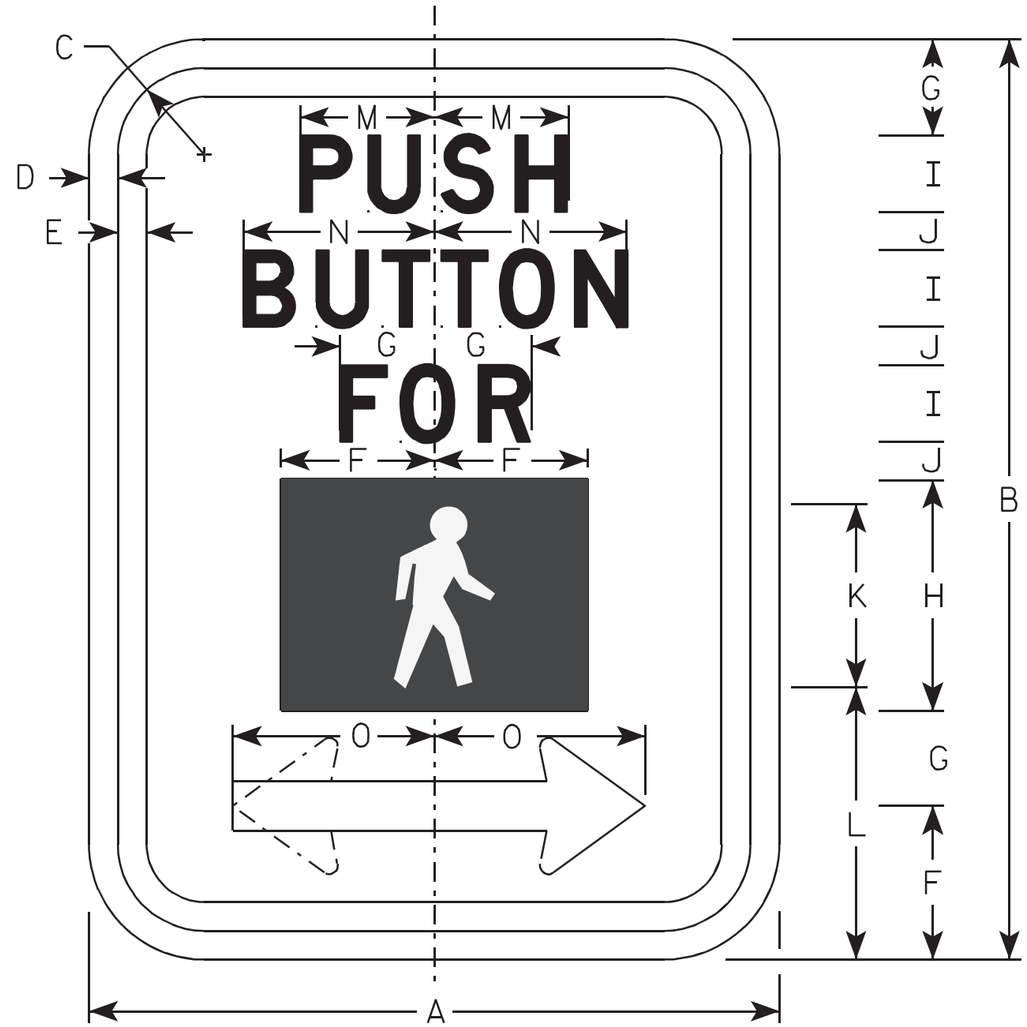
STANDARD SIGN
R9-11A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. R9-11A.5

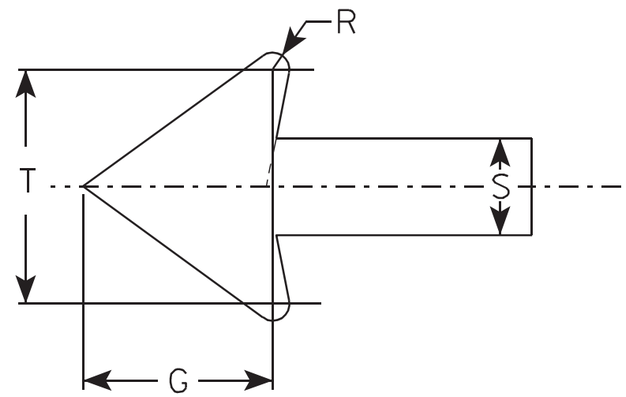
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 388 | E



R10-4BR

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
   Symbol - White on 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. R10-4BD (DOUBLE)
   R10-4BL (LEFT)
   R10-4BR (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	6	9	1/2	1/8	1/8	1 1/2	7/8	2 1/4	3/4	3/8	1 3/4	2 5/8	1 1/8	1 5/8	1 3/4			1/8	1/2	1 1/8							0.38
2S	9	12	1 1/8	3/8	3/8	2	1 1/4	3	1	1/2	2 3/8	3 1/2	1 3/4	2 1/2	2 5/8			1/8	5/8	1 1/2							0.75
2M	9	12	1 1/8	3/8	3/8	2	1 1/4	3	1	1/2	2 3/8	3 1/2	1 3/4	2 1/2	2 5/8			1/8	5/8	1 1/2							0.75
3																											
4																											
5																											

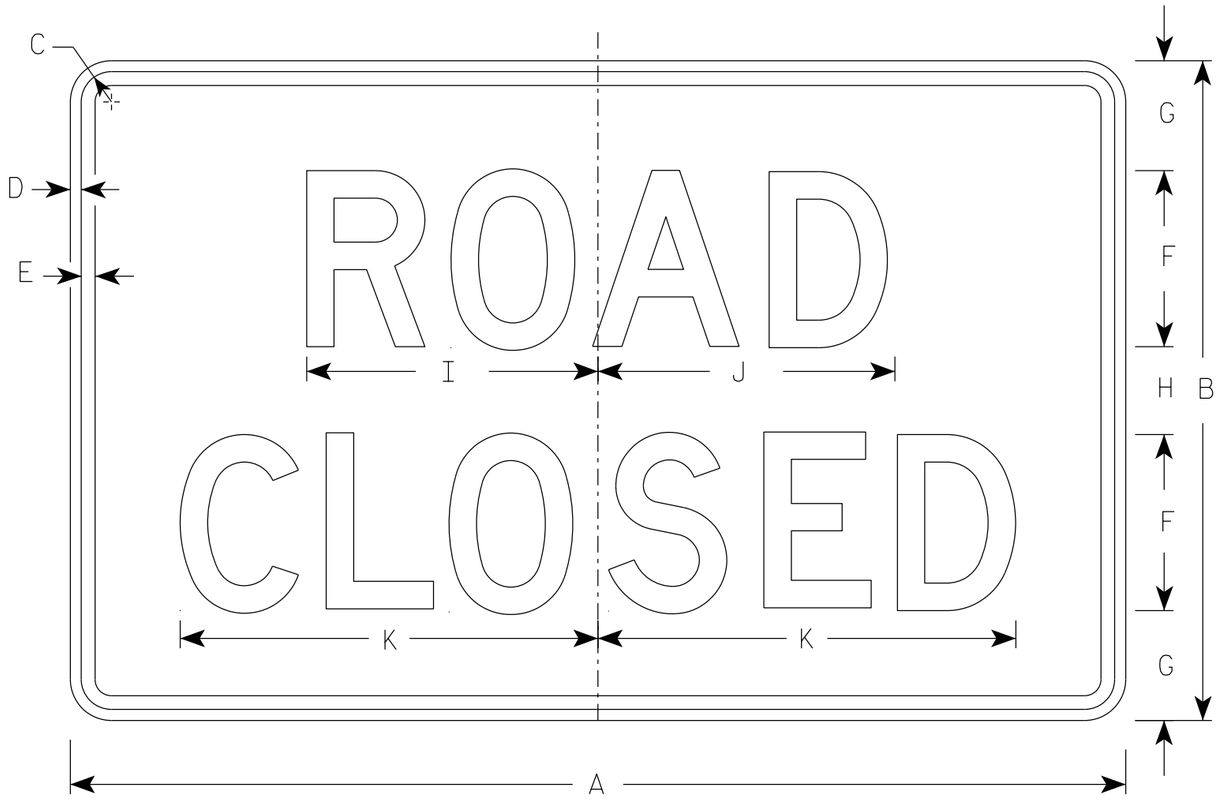
STANDARD SIGN
R10-4BD, L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-4B.2

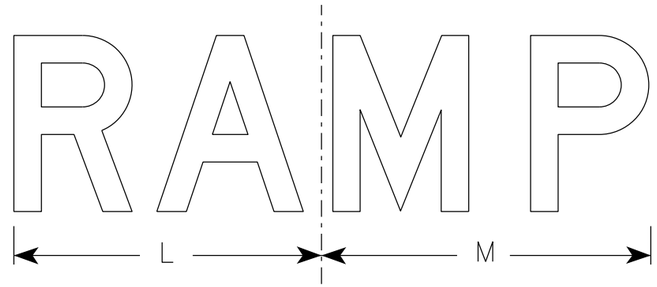
PROJECT NO: | SHEET NO: E



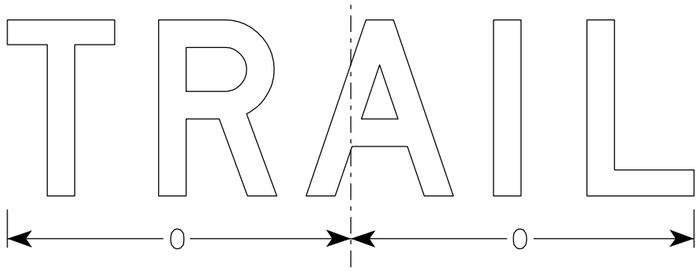
R11-2

NOTES

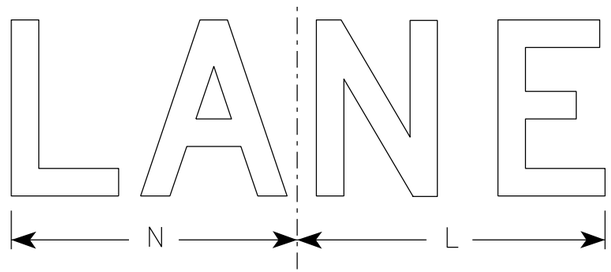
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the 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

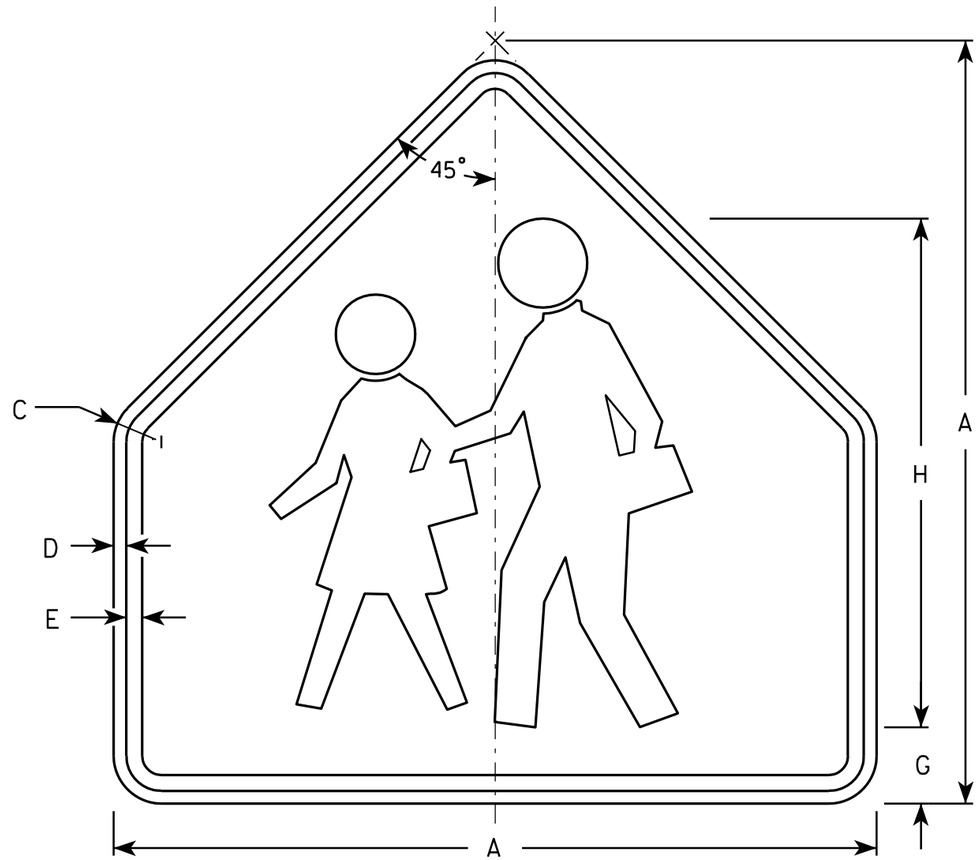
STANDARD SIGN
R11-2

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: 390	E



S1-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

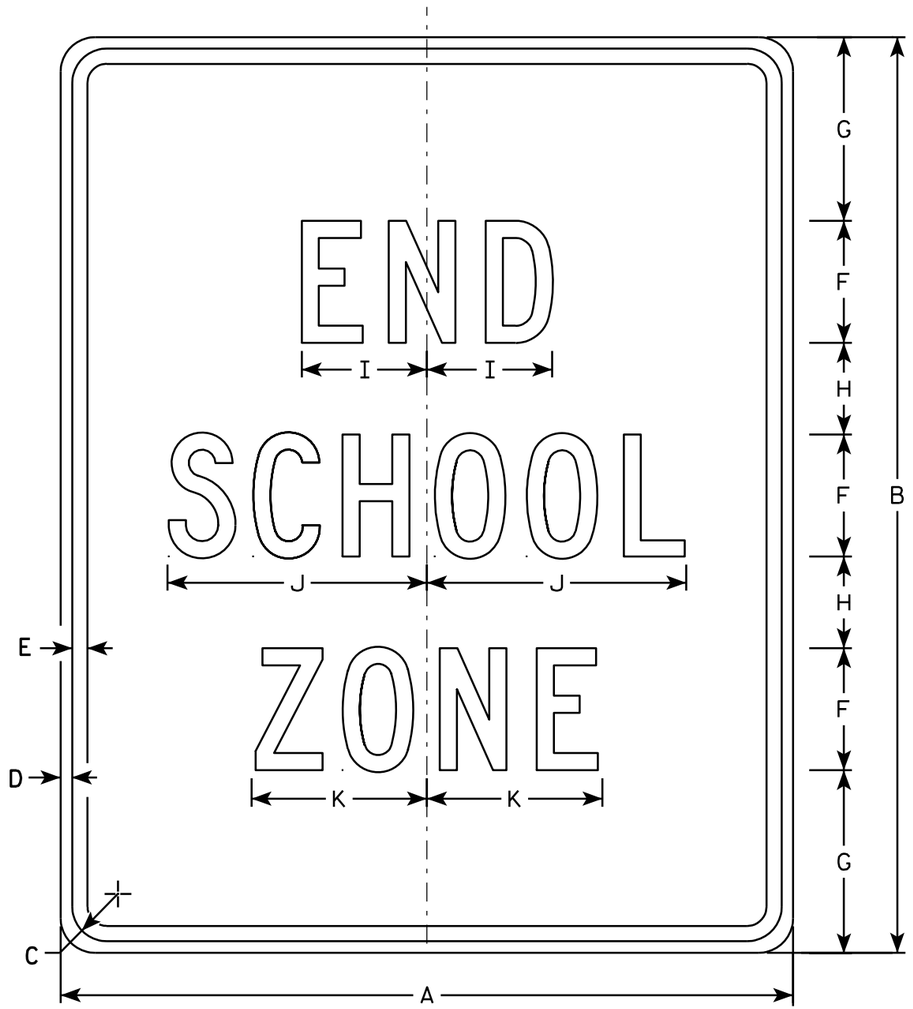
STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 391	E



S5-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - 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																											
2	24	30	1 1/8	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 5/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

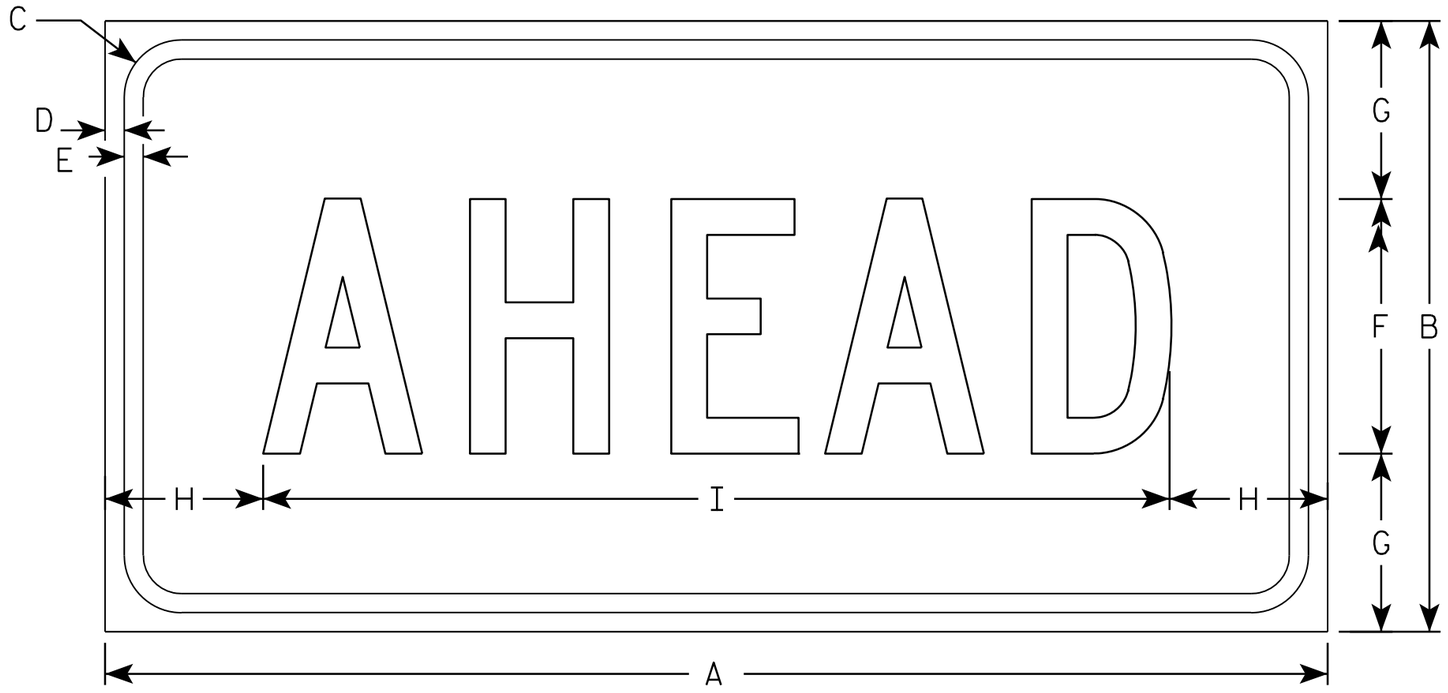
STANDARD SIGN
S5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/8/11 PLATE NO. S5-2.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 392 | E



S16-9P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2S	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
S16-9P

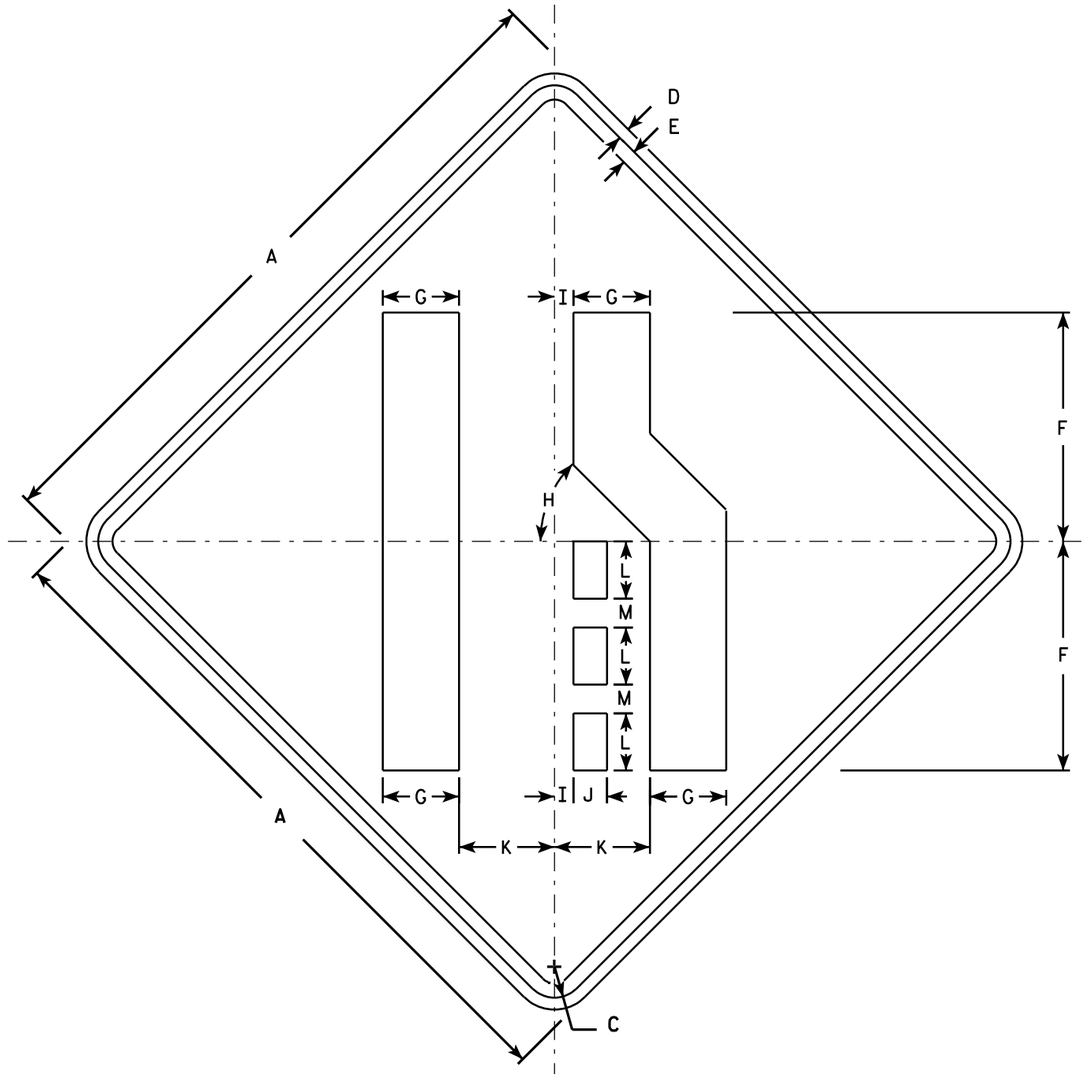
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-9P.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 393 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\S169P.dgn PLOT DATE : 22-JUL-2013 10:32 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 2.977140:1.000000



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

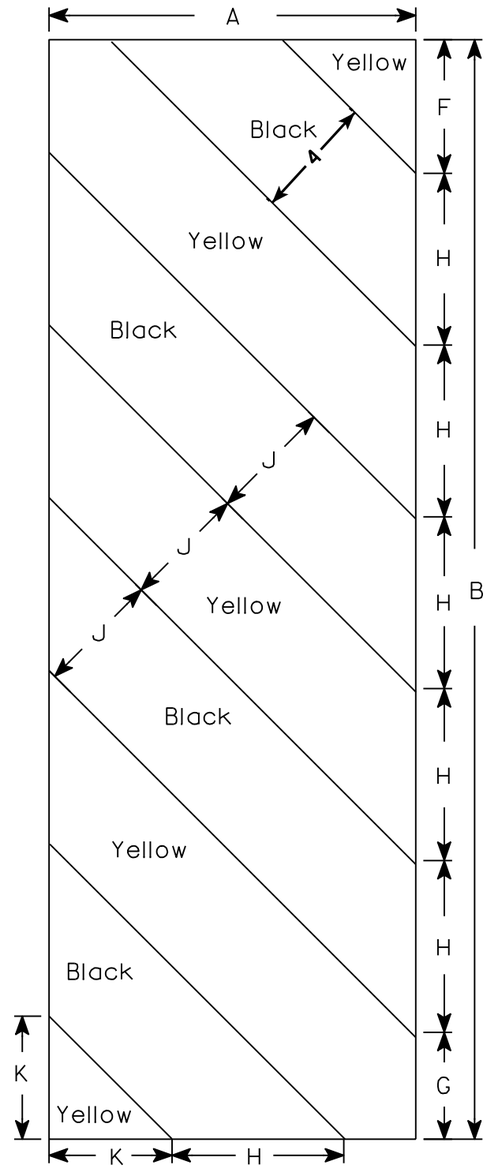
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

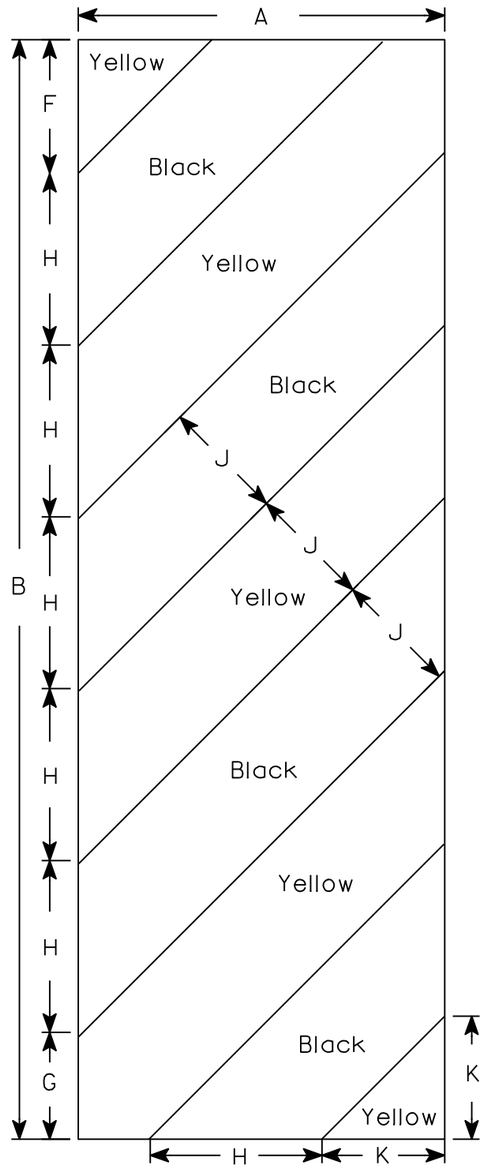
DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 394 E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

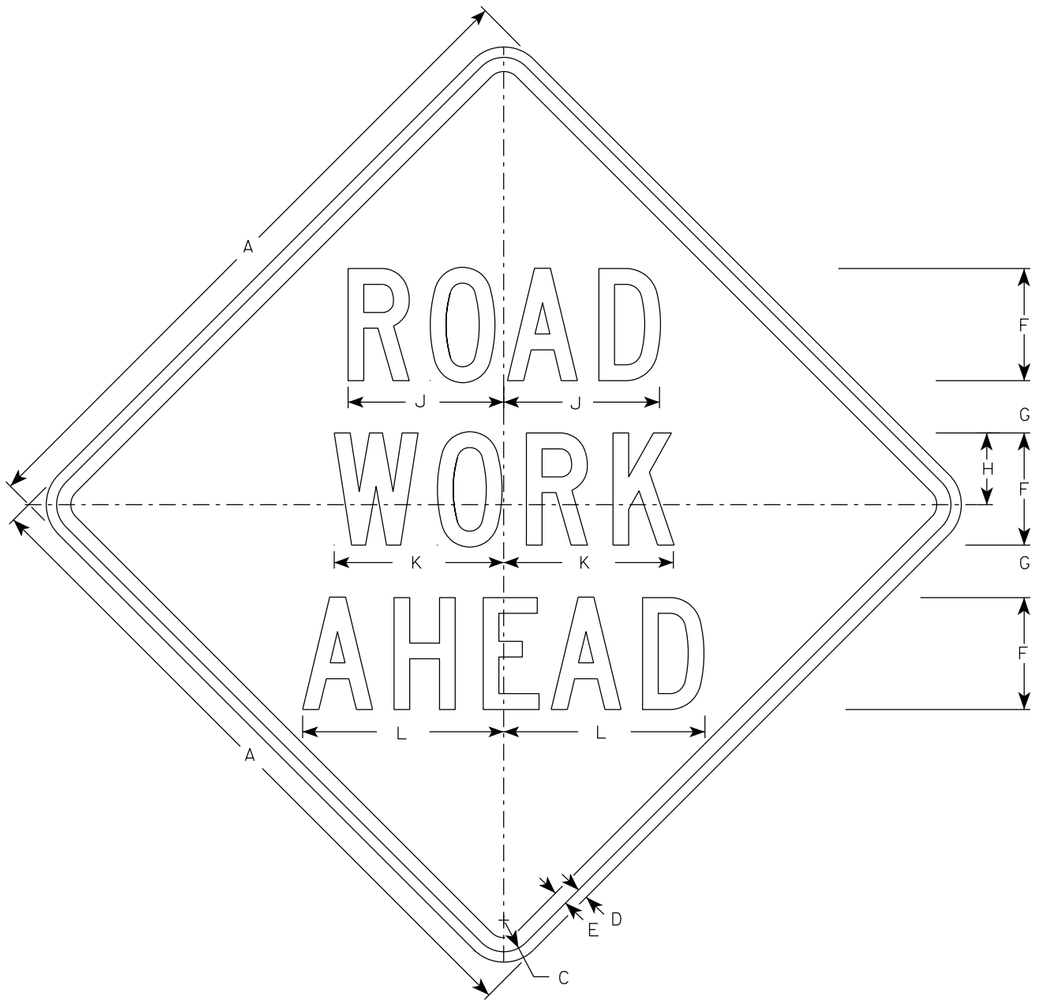
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

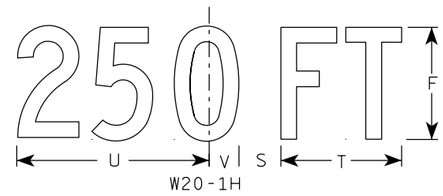
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 395 | E

NOTES

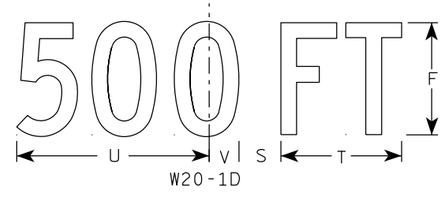
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1A



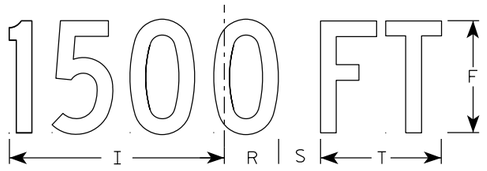
W20-1H



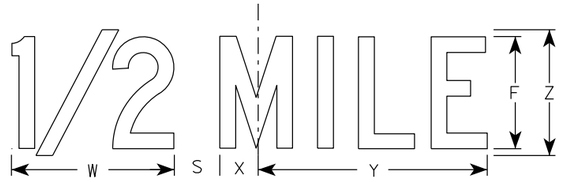
W20-1D



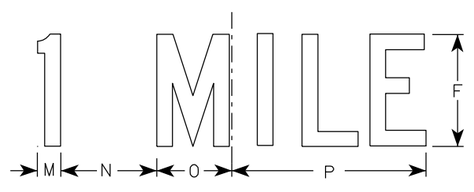
W20-1C



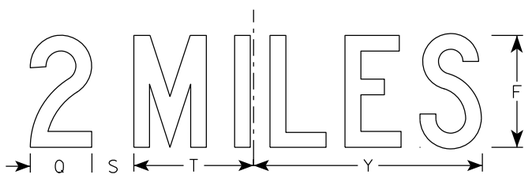
W20-1B



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:

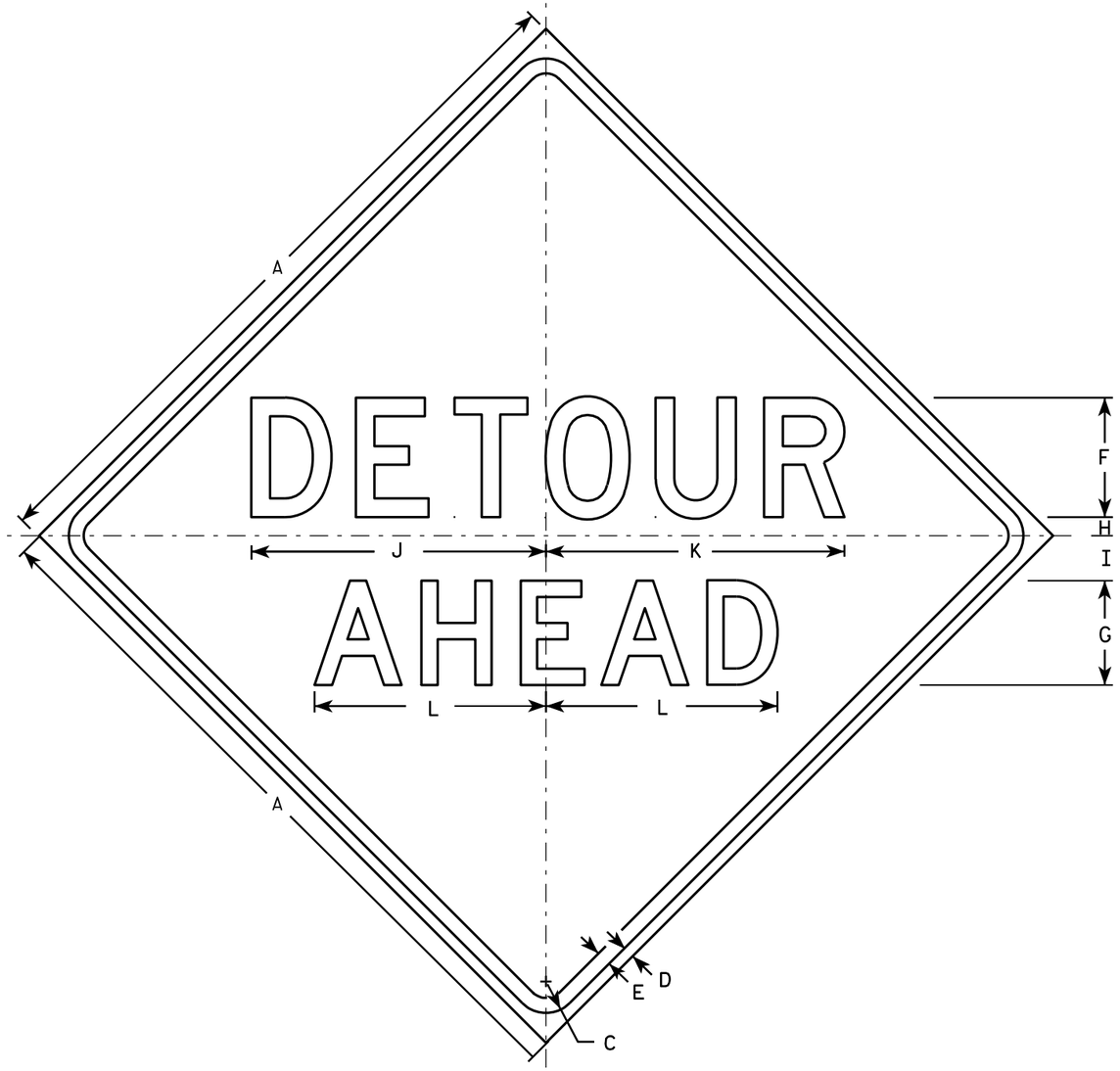
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

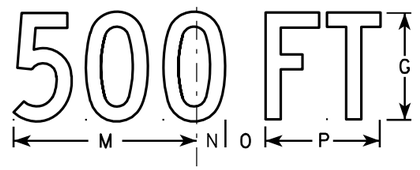
WISDOT/CADDS SHEET 42

7

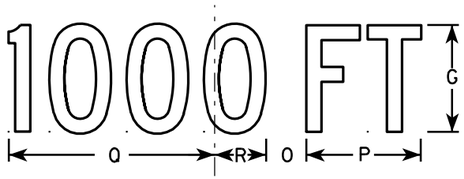
7



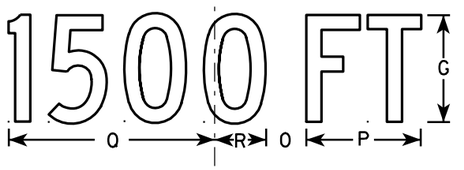
W20-2A



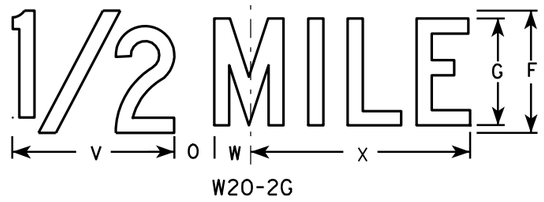
W20-2D



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

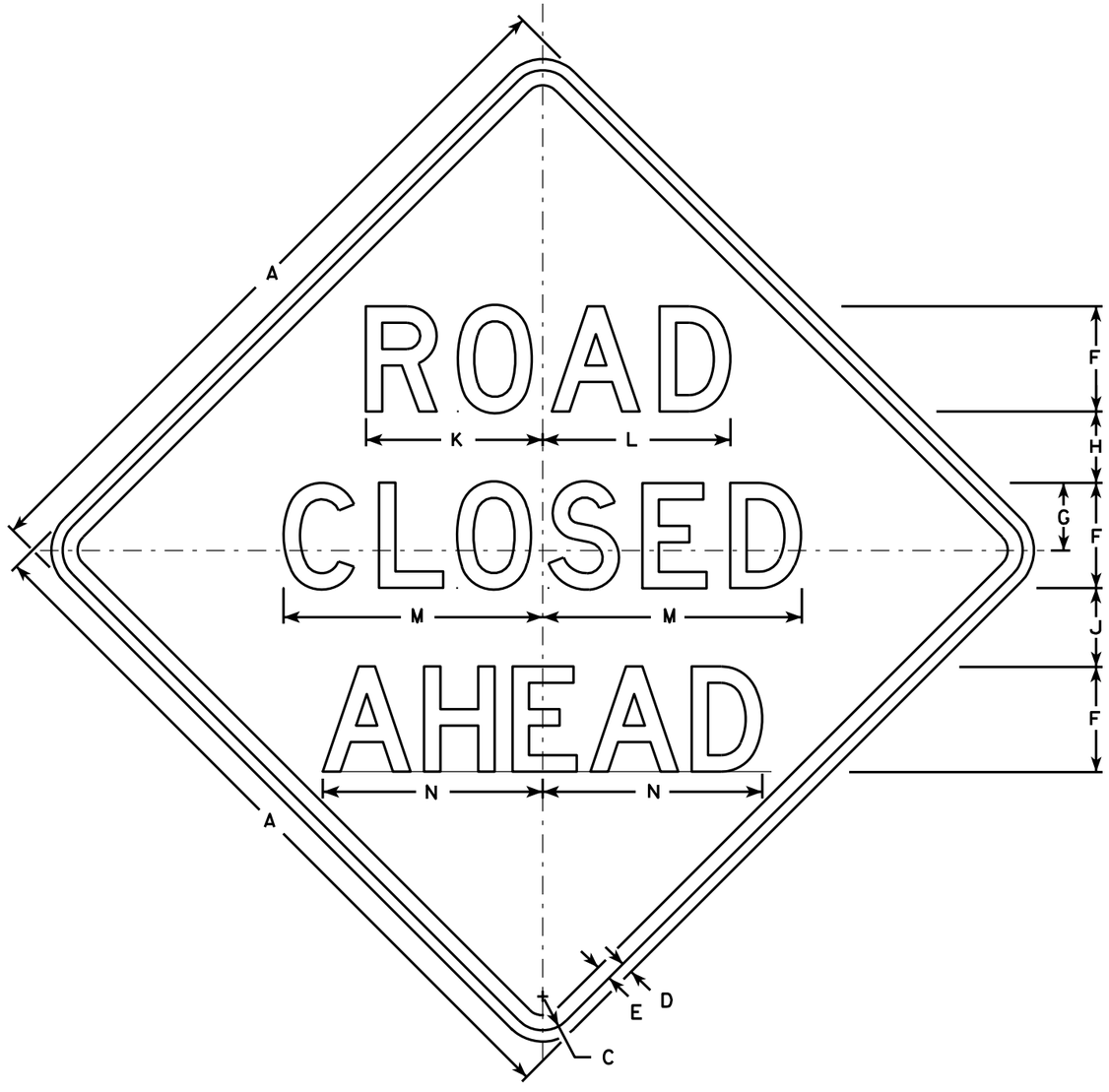
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

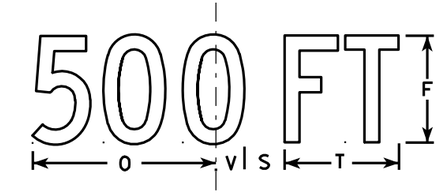
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

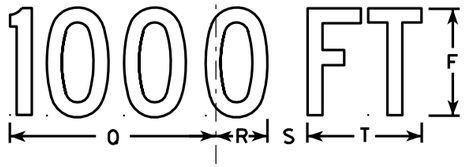
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 397	E



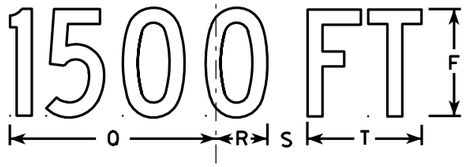
W20-3A



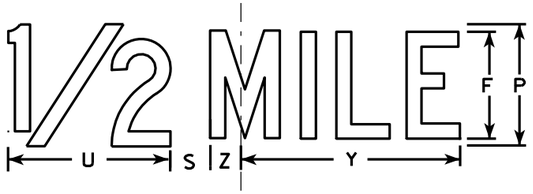
W20-3D



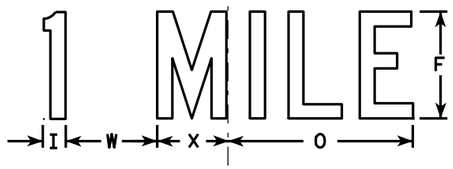
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

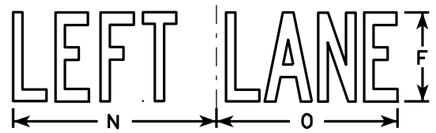
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 398 | E

7

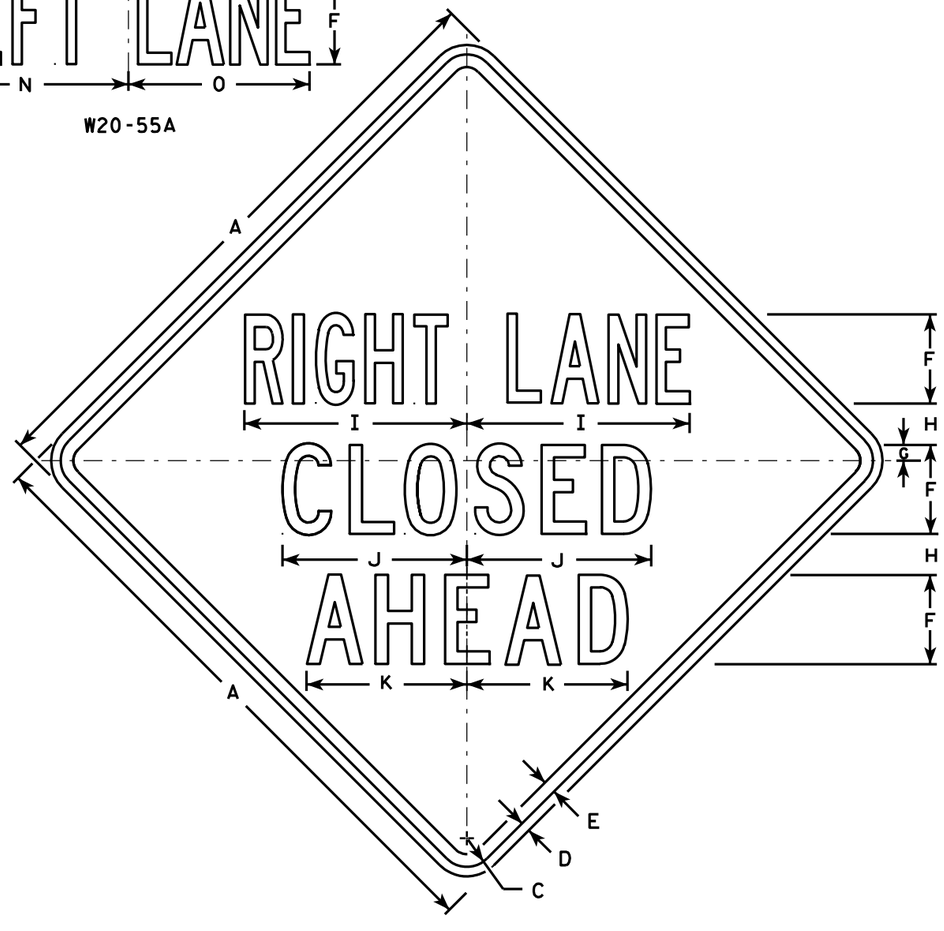
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN PLOT DATE : 18-MAR-2011 12:08 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



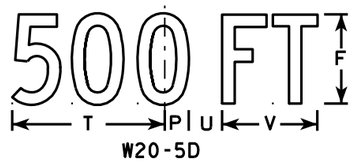
W20-56A



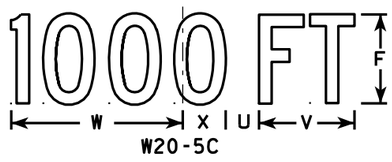
W20-55A



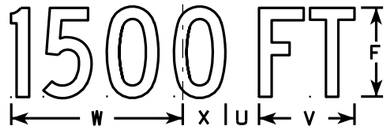
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

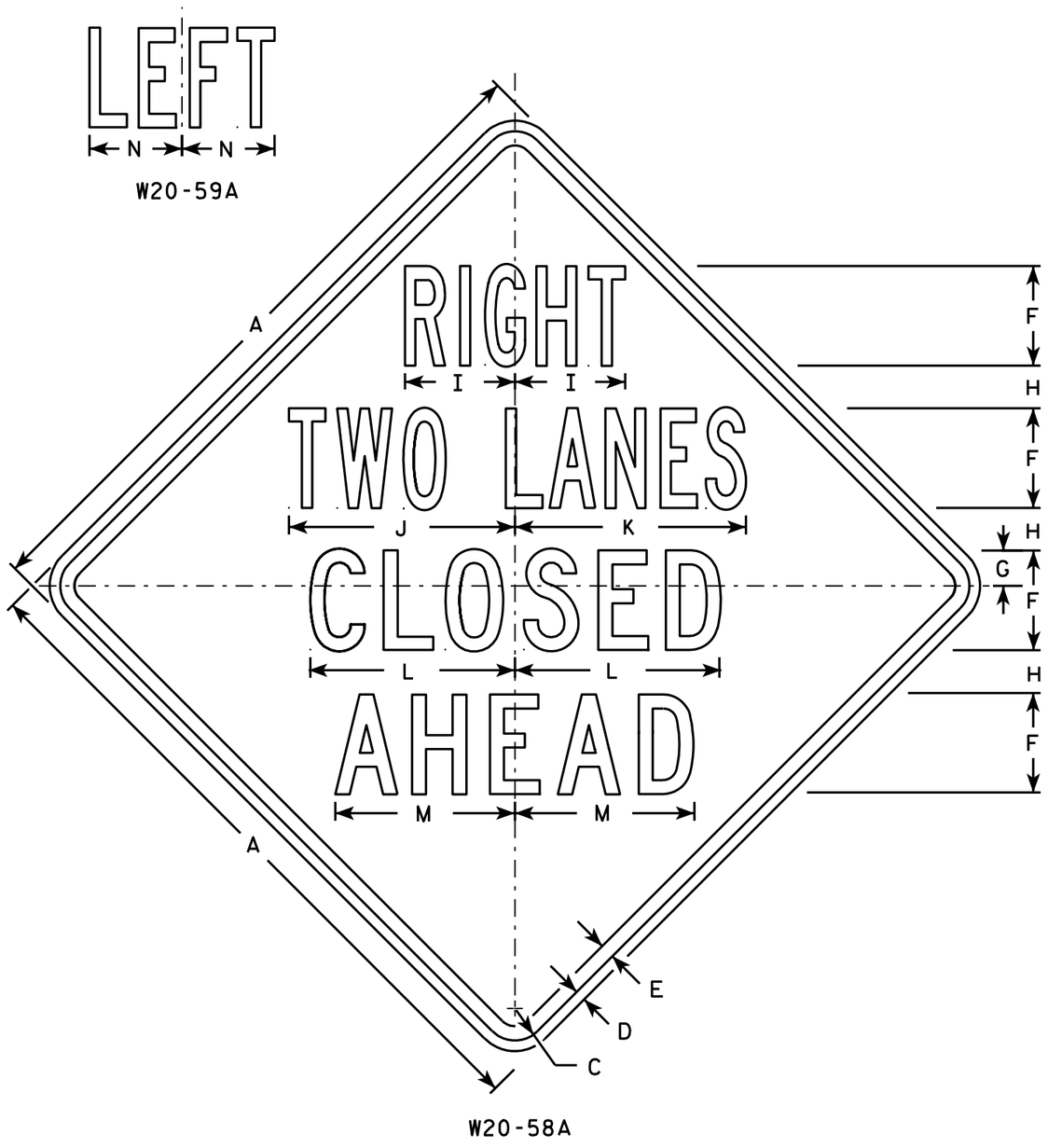
DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 399	E

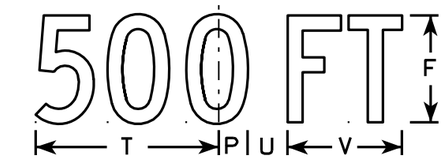
7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000

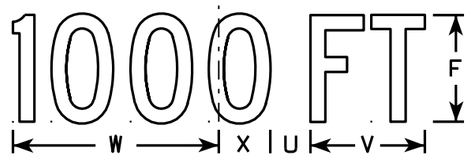
WISDOT/CADDS SHEET 42



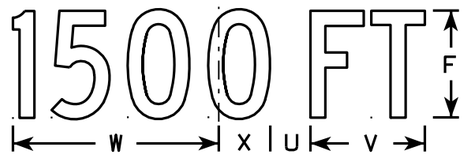
W20-58A



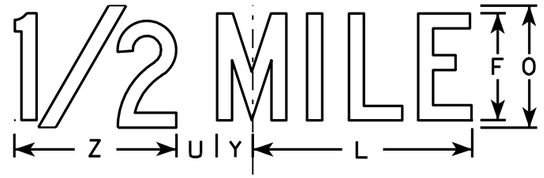
W20-58D



W20-58C



W20-58B



W20-58G



W20-58F

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 & 2 Series B.
   Lines 3 & 4 Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	1 7/8	2 1/4	5 7/8	11 7/8	12 1/8	10 3/4	9 1/2	4 7/8	6	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48		2 1/4	3/4	1	7	2 1/2	3	7 3/4	15 7/8	16 1/4	14 3/8	12 5/8	6 1/2	8	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48		2 1/4	3/4	1	7	2 1/2	3	7 3/4	15 7/8	16 1/4	14 3/8	12 5/8	6 1/2	8	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48		2 1/4	3/4	1	7	2 1/2	3	7 3/4	15 7/8	16 1/4	14 3/8	12 5/8	6 1/2	8	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48		2 1/4	3/4	1	7	2 1/2	3	7 3/4	15 7/8	16 1/4	14 3/8	12 5/8	6 1/2	8	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48		2 1/4	3/4	1	7	2 1/2	3	7 3/4	15 7/8	16 1/4	14 3/8	12 5/8	6 1/2	8	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

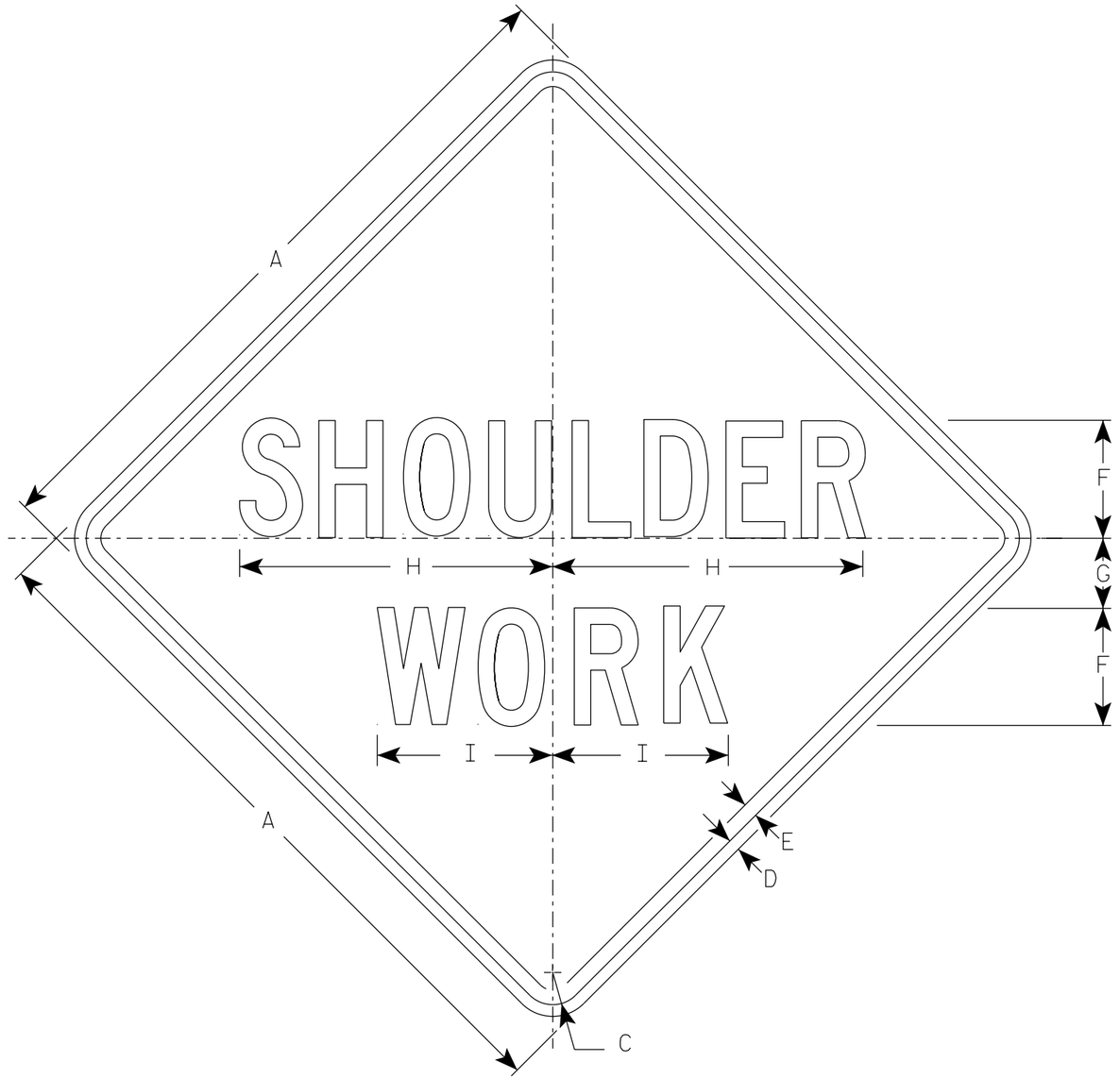
STANDARD SIGN
W20-58A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-58.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 400	E



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

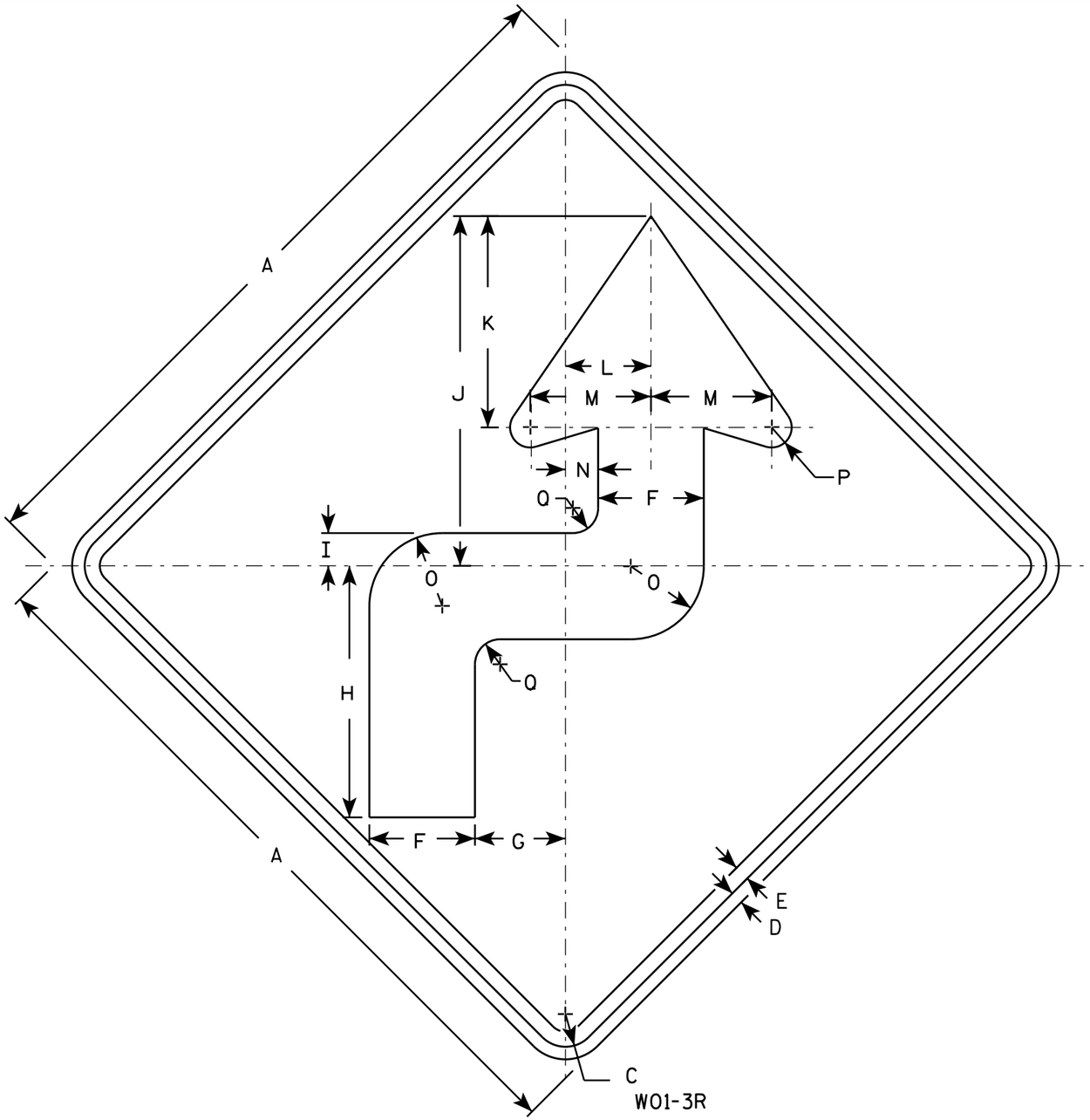
STANDARD SIGN
W21-5

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: 401	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-3L is the same as W01-3R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4 1/2	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
2S	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
2M	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
3	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
4	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
5	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0

STANDARD SIGN
W01-3

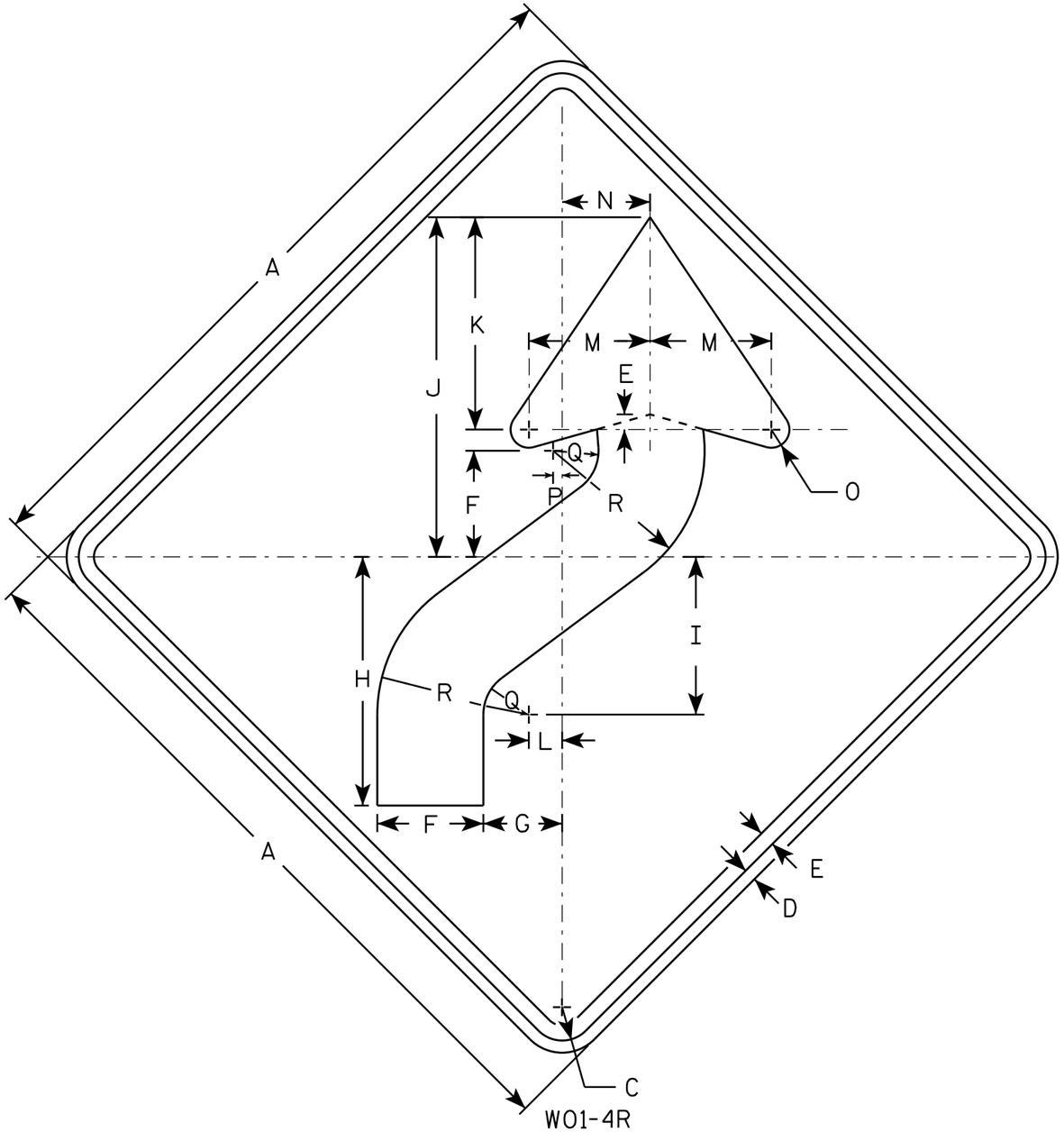
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-3.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W013.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.567217:1.000000
WISDOT/CADDS SHEET 42



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

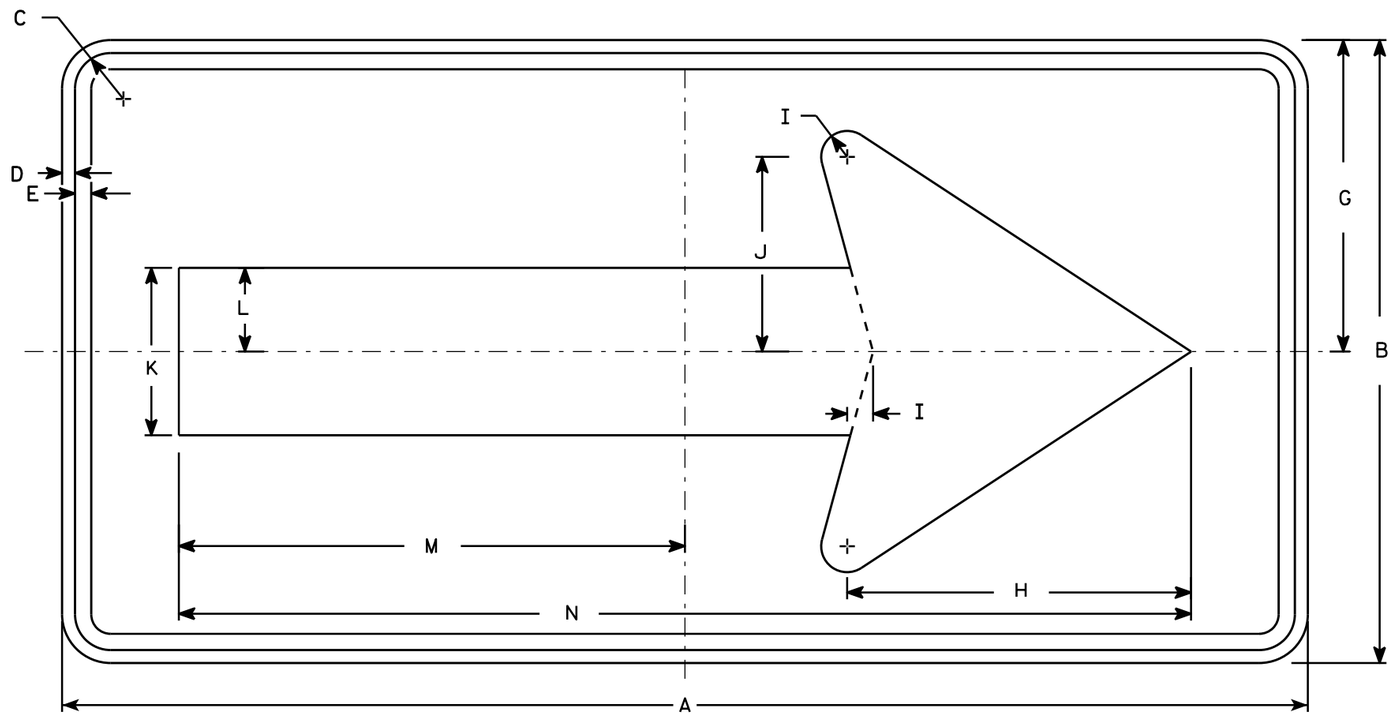
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



WO1-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
WO1-6

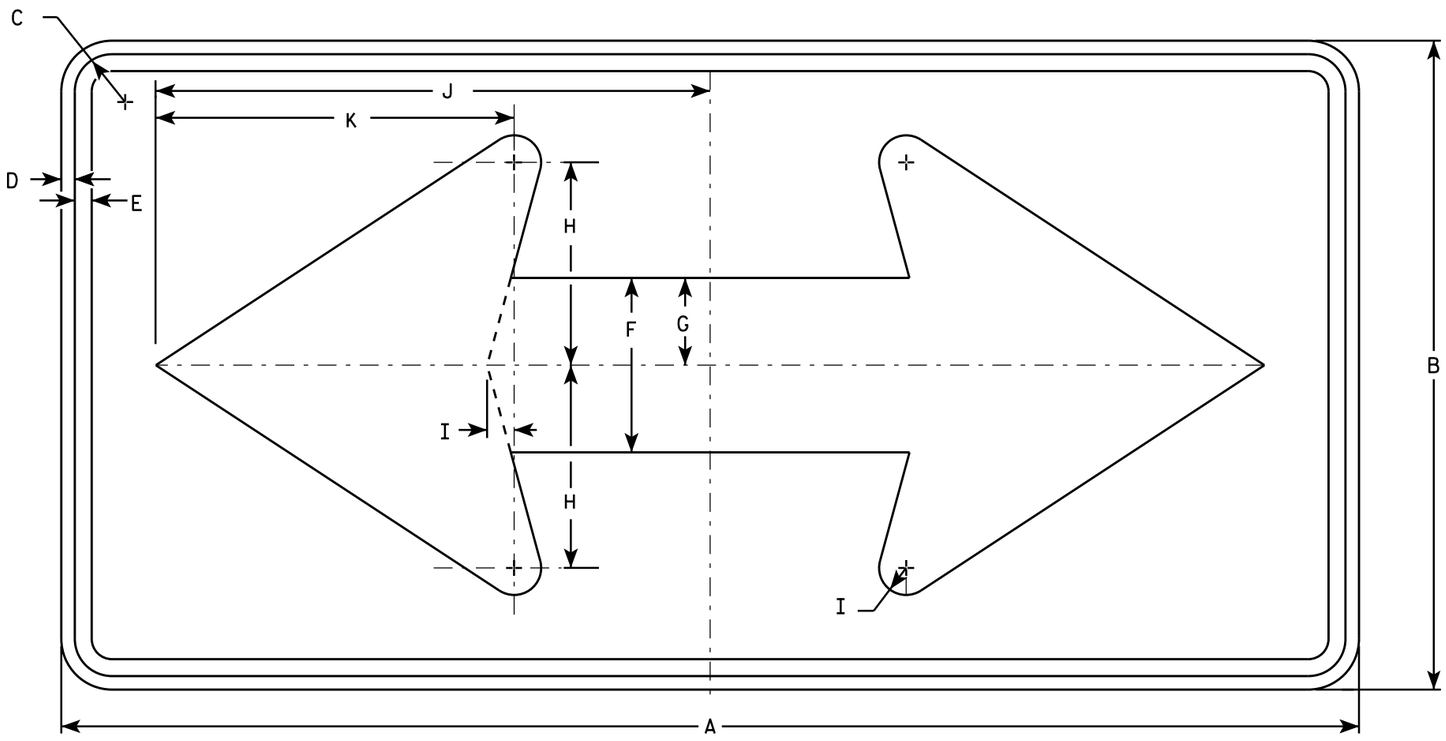
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE WO1-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\WO16.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W01-7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5

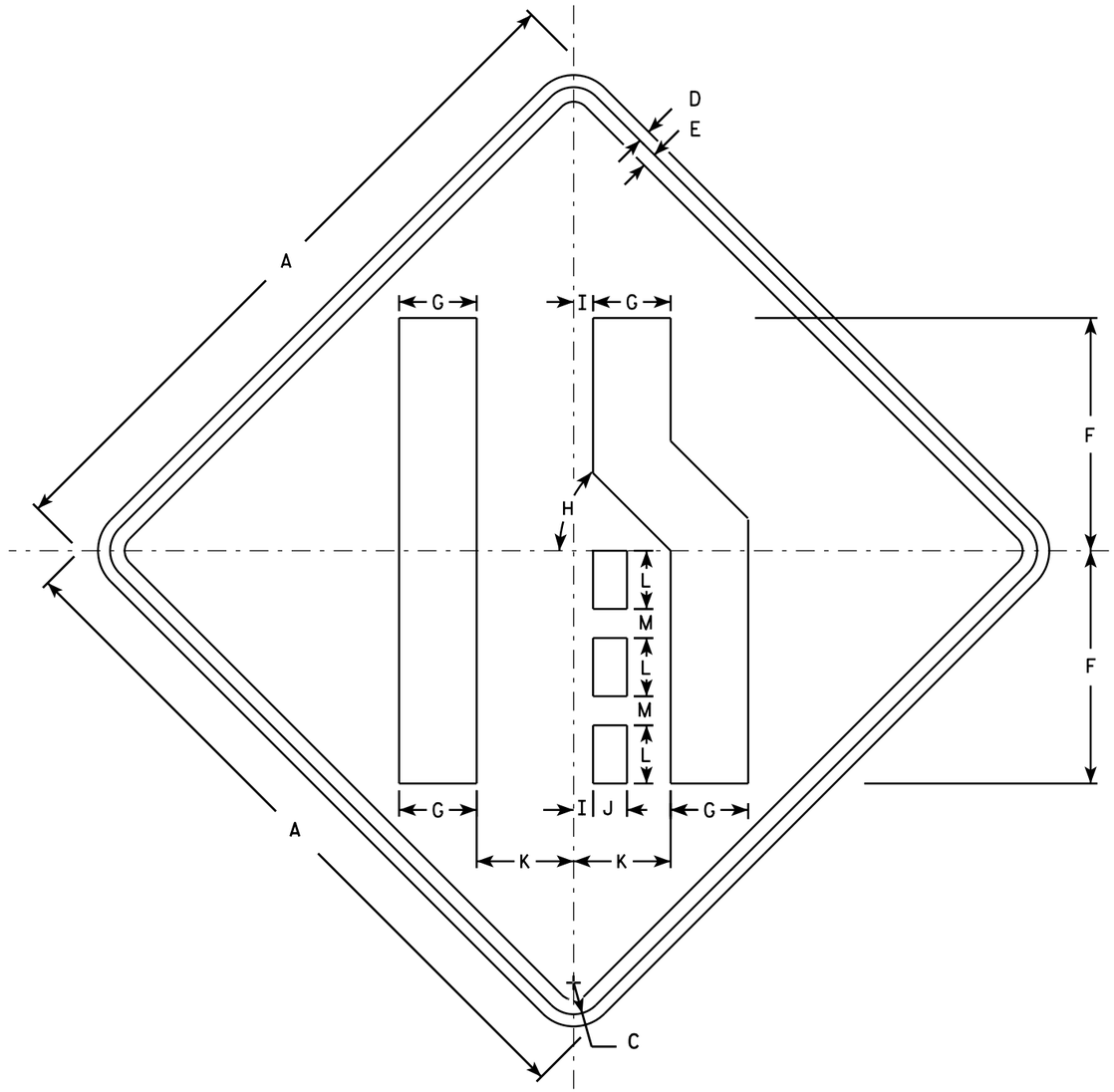
STANDARD SIGN
W01-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE 1405 W01-7.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

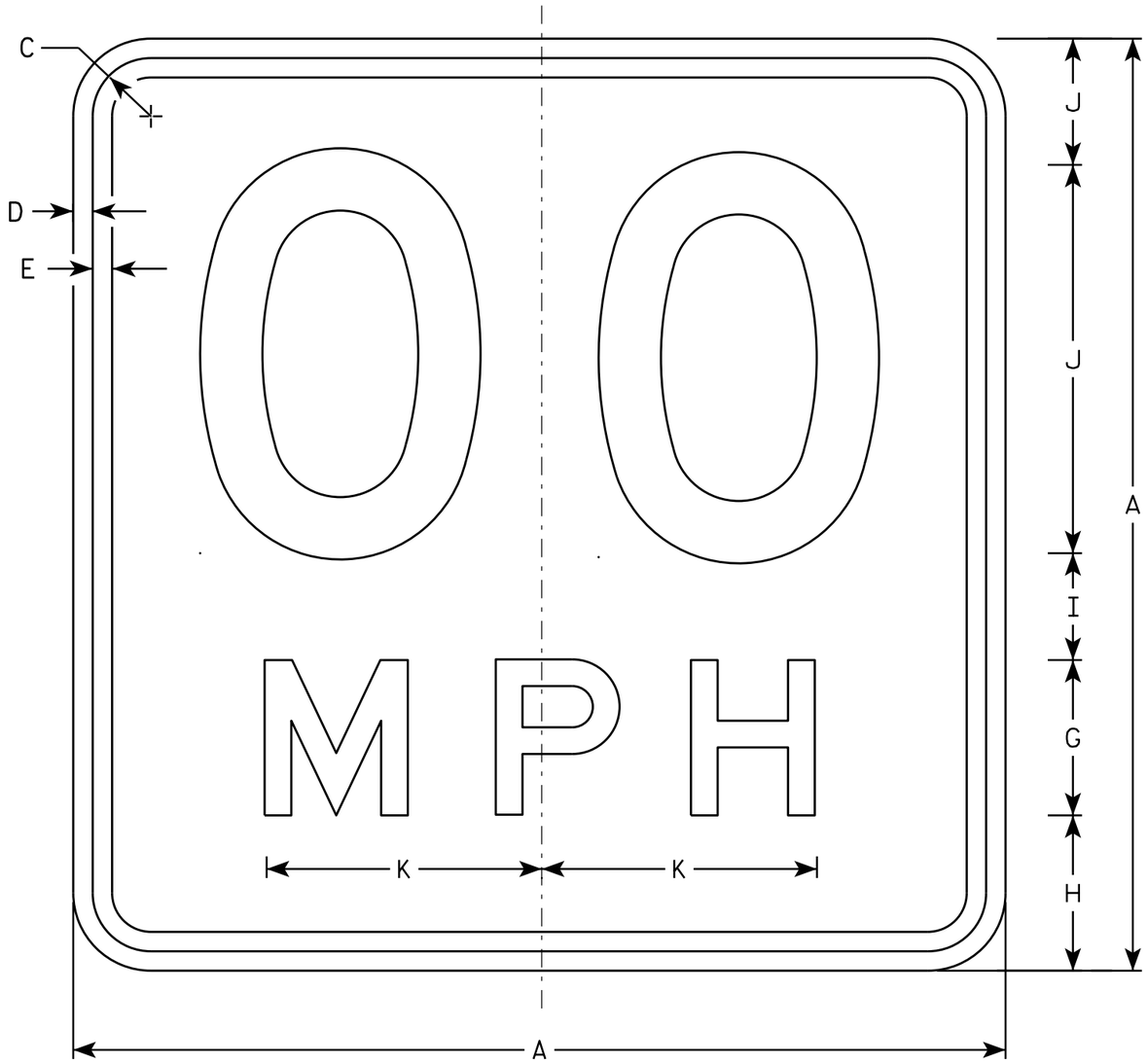
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 406 W04-2.1

PROJECT NO:

SHEET NO: E



W013-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W013-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/13 PLATE 407 W013-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

W. WALNUT STREET

STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT 1.00	EXPANDED FILL 1.20	MASS ORDINATE
14+50.00		122	56	0	0	0	0	0	0	0	0	0
14+75.00	25	120	56	5	0	112	52	3	0	112	3	57
15+00.00	25	126	56	5	154	114	52	5	71	226	9	113
15+25.00	25	142	56	4	148	124	52	4	140	350	14	179
15+50.00	25	137	66	7	135	129	57	5	131	479	20	246
15+61.00	11	145	66	6	130	57	27	3	54	536	23	273
15+75.00	14	131	66	10	126	72	34	4	67	608	28	305
16+00.00	25	136	50	8	121	124	54	8	115	731	39	365
16+25.00	25	141	50	8	121	128	46	7	112	859	47	439
16+50.00	25	139	52	6	122	130	47	6	113	989	54	514
16+75.00	25	138	55	11	122	129	49	8	113	1118	64	584
17+00.00	25	152	60	14	140	134	53	12	121	1252	78	651
17+25.00	25	230	111	0	0	177	79	6	65	1429	86	741
17+50.00	25	170	79	6	0	185	88	3	0	1615	89	835
17+75.00	25	114	56	27	0	131	62	15	0	1746	107	886
18+00.00	25	117	54	18	0	107	51	21	0	1853	133	917
18+25.00	25	145	51	7	0	121	48	11	0	1974	147	976
18+50.00	25	167	50	1	0	145	46	4	0	2119	151	1070
18+75.00	25	169	50	1	0	156	46	1	0	2275	152	1179
19+00.00	25	158	49	2	0	151	46	2	0	2426	154	1282
19+25.00	25	157	49	2	0	146	46	2	0	2572	156	1380
19+37.00	12	153	50	5	0	69	22	2	0	2641	158	1425
19+50.00	13	140	49	6	0	71	24	3	0	2712	161	1469
19+75.00	25	148	51	6	0	133	47	6	0	2845	169	1548
20+00.00	25	148	54	8	0	137	49	6	0	2982	176	1629
20+25.00	25	186	58	0	0	155	52	4	0	3136	181	1728
20+50.00	25	257	116	0	0	205	80	0	0	3342	181	1852
20+75.00	25	257	116	0	0	238	107	0	0	3580	181	1983
21+00.00	25	145	58	15	0	186	80	7	0	3766	189	2080
21+25.00	25	143	54	9	0	133	52	11	0	3899	203	2148
21+50.00	25	141	51	7	0	131	49	8	0	4030	212	2222
21+75.00	25	137	50	10	0	129	47	8	0	4159	221	2295
22+00.00	25	137	49	10	0	127	46	9	0	4286	232	2365
22+25.00	25	128	66	11	0	122	54	10	0	4408	244	2422
22+50.00	25	134	59	9	0	121	58	9	0	4529	255	2474
22+75.00	25	141	56	6	0	127	53	7	0	4656	263	2539
23+00.00	25	144	56	6	0	132	52	6	0	4788	270	2613
23+25.00	25	149	56	5	0	135	52	5	0	4923	276	2690
23+50.00	25	156	56	7	0	141	52	6	0	5064	283	2772
23+75.00	25	201	125	37	0	165	84	20	0	5230	307	2829
24+00.00	25	279	125	0	0	222	116	17	0	5452	327	2915
24+25.00	25	150	85	27	0	198	97	13	0	5650	342	3001
24+50.00	25	265	119	0	0	192	94	13	0	5842	357	3084
24+75.00	25	219	119	15	0	224	110	7	0	6066	365	3190
25+00.00	25	161	56	6	0	176	81	9	0	6242	377	3273
25+25.00	25	173	56	3	0	155	52	4	0	6396	381	3371
25+50.00	25	165	56	4	0	156	52	3	0	6553	385	3472
25+75.00	25	163	56	4	0	151	52	4	0	6704	389	3567
26+00.00	25	167	56	3	0	153	52	3	0	6857	393	3663

W. WALNUT STREET

STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT 1.00	EXPANDED FILL 1.20	MASS ORDINATE
26+25.00	25	179	57	2	0	160	52	3	0	7017	396	3768
26+50.00	25	160	55	6	0	157	51	4	0	7173	401	3868
26+62.00	12	172	54	6	0	74	24	3	0	7247	404	3914
26+75.00	13	149	56	12	0	77	27	4	0	7324	409	3960
27+00.00	25	99	81	1	0	115	64	6	0	7439	417	4004
27+25.00	25	231	107	2	0	153	87	2	0	7592	419	4067
27+50.00	25	112	63	11	0	159	79	6	0	7751	426	4140
27+75.00	25	148	55	11	0	120	54	10	0	7871	439	4194
28+00.00	25	163	52	2	0	144	49	6	0	8015	446	4281
28+25.00	25	162	50	2	0	150	47	2	0	8165	448	4382
28+50.00	25	156	50	2	0	147	46	2	0	8313	451	4481
28+75.00	25	158	49	2	0	145	46	2	0	8458	453	4578
29+00.00	25	166	66	0	0	150	53	1	0	8608	455	4673
29+25.00	25	159	57	2	0	150	57	1	0	8759	456	4766
29+50.00	25	149	50	5	0	142	49	3	0	8901	460	4855
29+75.00	25	151	50	6	0	139	46	5	0	9040	466	4942
30+00.00	25	133	50	9	0	131	46	7	0	9171	473	5020
30+25.00	25	137	50	9	0	125	46	8	0	9296	483	5089
30+50.00	25	126	50	13	0	122	46	10	0	9418	495	5153
30+75.00	25	147	71	24	0	127	56	17	0	9544	516	5203
31+00.00	25	205	93	3	0	163	76	13	0	9707	531	5274
31+25.00	25	152	61	10	0	165	72	6	0	9873	538	5361
31+50.00	25	143	56	11	0	137	54	10	0	10009	550	5432
31+75.00	25	159	53	4	0	140	50	7	0	10149	558	5513
32+00.00	25	154	50	4	0	145	48	4	0	10294	562	5606
32+25.00	25	153	50	4	0	142	46	4	0	10436	567	5698
32+50.00	25	147	50	4	0	139	46	3	0	10575	571	5786
32+75.00	25	132	66	5	0	129	54	4	0	10704	576	5857
32+83.00	8	144	66	3	0	41	20	1	0	10745	577	5877
33+00.00	17	137	57	5	0	88	39	2	0	10833	580	5923
33+25.00	25	144	50	4	0	130	49	4	0	10963	585	5999
33+50.00	25	143	49	5	0	133	46	4	0	11096	590	6081
33+75.00	25	154	50	5	0	137	46	4	0	11233	595	6167
34+00.00	25	151	50	6	0	141	46	5	0	11374	601	6256
34+25.00	25	130	50	9	0	130	46	7	0	11504	610	6332
34+50.00	25	159	72	3	0	133	56	5	0	11638	616	6403
34+75.00	25	204	90	0	0	168	75	1	0	11805	617	6494
35+00.00	25	163	60	2	0	170	69	1	0	11975	618	6593
35+25.00	25	150	57	3	0	145	54	2	0	12120	621	6681
35+50.00	25	145	56	3	0	137	52	3	0	12257	624	6763
35+75.00	25	145	56	3	0	134	52	3	0	12391	628	6842
36+00.00	25	145	57	2	0	134	52	2	0	12525	630	6921
36+25.00	25	148	57	0	0	135	52	1	0	12660	631	7003
36+50.00	25	148	57	0	0	137	53	0	0	12797	631	7087
36+75.00	25	162	59	0	0	143	54	0	0	12940	631	7176
37+00.00	25	143	58	0	0	141	54	0	0	13082	632	7263
37+25.00	25	136	60	0	0	129	54	0	0	13210	632	7337
37+50.00	25	93	46	0	0	106	49	0	0	13316	632	7394

W. WALNUT STREET

STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT 1.00	EXPANDED FILL 1.20	MASS ORDINATE
37+75.00	25	55	25	0	0	68	33	0	0	13384	632	7429
38+00.00	25	52	24	0	0	49	23	0	0	13434	632	7455
38+25.00	25	0	0	0	0	24	11	0	0	13457	633	7468
38+50.00	25	0	0	0	0	0	0	0	0	13457	633	7468
38+75.00	25	38	23	0	0	18	11	0	0	13475	633	7475
39+00.00	25	38	23	0	0	35	21	0	0	13510	633	7489
39+25.00	25	94	54	0	0	61	36	0	0	13571	633	7514
39+50.00	25	88	49	0	0	84	48	0	0	13655	633	7551
39+75.00	25	98	47	0	0	86	45	0	0	13742	633	7593
40+00.00	25	128	59	0	0	105	49	0	0	13846	633	7648
40+25.00	25	137	61	1	0	123	55	0	0	13969	633	7715
40+50.00	25	131	61	4	0	124	56	2	0	14093	636	7780
40+75.00	25	122	63	5	0	117	57	4	0	14210	641	7835
41+00.00	25	115	62	8	0	110	58	6	0	14320	648	7880
41+25.00	25	118	61	9	0	108	57	8	0	14428	657	7922
41+50.00	25	119	59	7	0	109	55	7	0	14537	666	7967
41+75.00	25	126	57	9	0	113	54	8	0	14651	675	8018
42+00.00	25	149	59	9	0	127	54	8	0	14778	685	8082
42+25.00	25	112	64	1	0	121	57	5	0	14899	691	8140
42+50.00	25	104	48	0	0	100	52	1	0	14999	691	8187
42+75.00	25	110	63	1	0	99	51	1	0	15097	692	8234
43+00.00	25	120	57	9	0	106	55	5	0	15204	698	8279
43+25.00	25	127	56	4	0	114	52	6	0	15318	705	8334
43+50.00	25	118	56	6	0	113	52	5	0	15431	711	8391
43+75.00	25	116	55	7	0	108	51	6	0	15540	717	8441
44+00.00	25	121	53	7	0	110	50	6	0	15649	725	8494
44+25.00	25	139	51	4	0	120	48	5	0	15769	731	8560
44+50.00	25	134	53	3	0	127	48	3	0	15896	735	8635
44+75.00	25	137	58	1	0	126	52	2	0	16021	737	8706
45+00.00	25	123	55	3	0	120	53	2	0	16142	739	8771
45+25.00	25	107	44	3	0	106	46	3	0	16248	742	8828
45+50.00	25	107	40	0	0	99	39	1	0	16347	744	8887
							0					
					Column totals	16347	6716	620	1101			

9

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ALL CATEGORY 0010

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	EARTHWORK DATA	SHEET: 410	E

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ PLOT SCALE : 1:1

N 12TH STREET

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.20	MASS ORDINATE
63+25.00		54	22	0	0	0	0	0	0	0
63+50.00	25	76	35	0	60	26	0	60	0	34
63+75.00	25	87	32	0	75	31	0	135	0	78
64+00.00	25	92	33	0	83	30	0	218	0	131
64+25.00	25	101	35	0	90	31	0	308	0	189
64+50.00	25	107	37	0	96	34	0	404	0	252
64+75.00	25	97	39	0	95	35	0	499	0	311
65+00.00	25	99	38	0	91	36	0	590	0	366
65+25.00	25	105	41	0	94	37	0	684	0	424
65+50.00	25	106	43	0	98	39	0	782	0	483
66+50.00		83	38	0	0	0	0	0	0	0
66+75.00	25	83	38	0	76	35	0	76	0	41
67+00.00	25	75	35	0	73	34	0	149	0	81
67+25.00	25	71	35	0	68	32	0	217	0	116
67+50.00	25	70	35	0	65	32	0	283	0	149
67+65.00	15	90	34	0	44	19	0	327	0	174
67+75.00	10	76	35	0	31	13	0	358	0	192
68+00.00	25	64	35	0	65	32	0	422	0	225
68+25.00	25	70	35	0	62	32	0	485	0	255
68+50.00	25	67	34	0	63	32	0	548	0	287
68+75.00	25	66	35	0	61	32	0	609	0	316
69+00.00	25	78	35	0	66	32	0	676	0	351
69+25.00	25	75	35	0	71	32	0	746	0	389
			Column totals		1528	656	0			

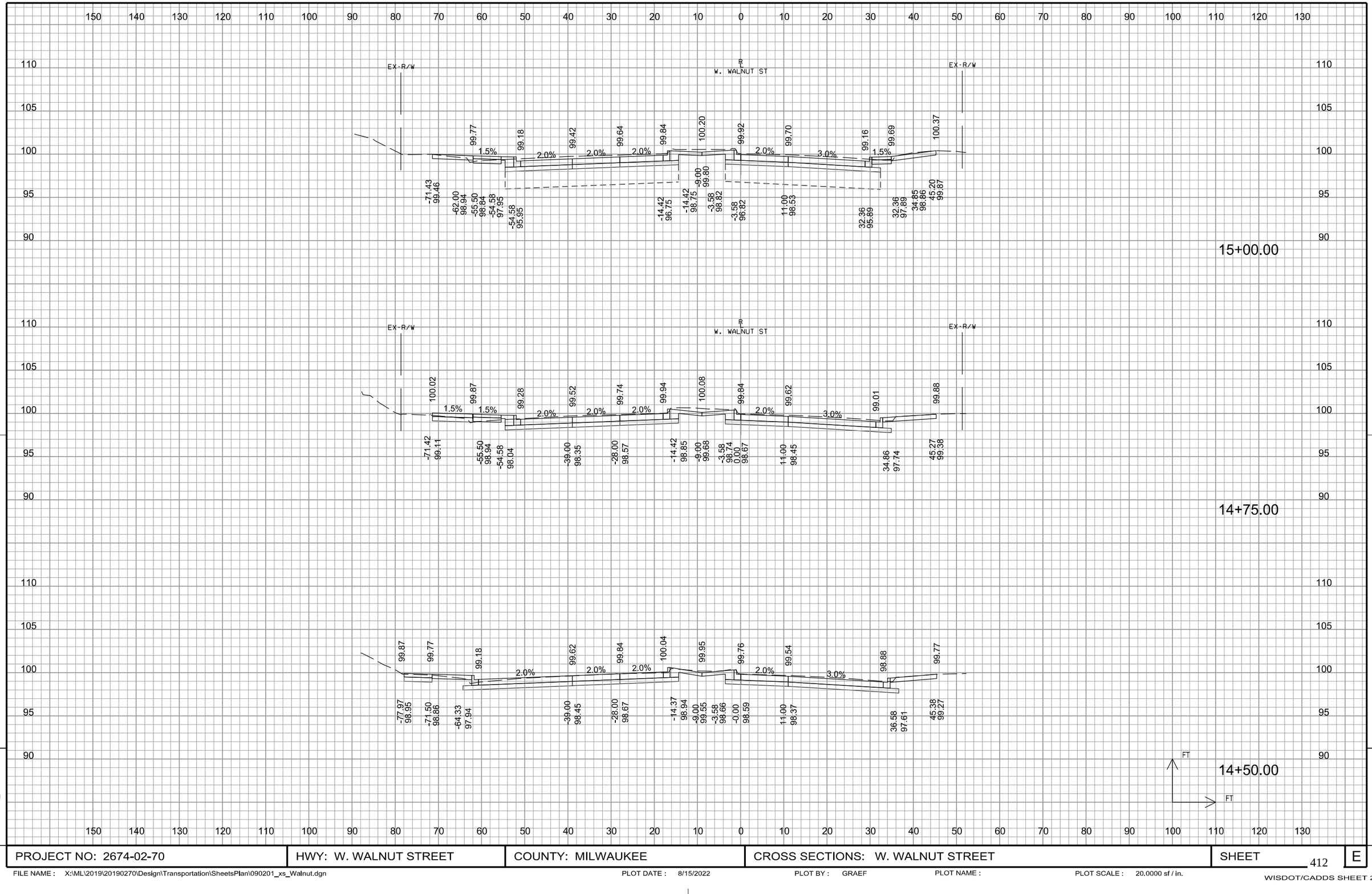
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ALL CATEGORY 0010

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	EARTHWORK DATA	SHEET: 411	E

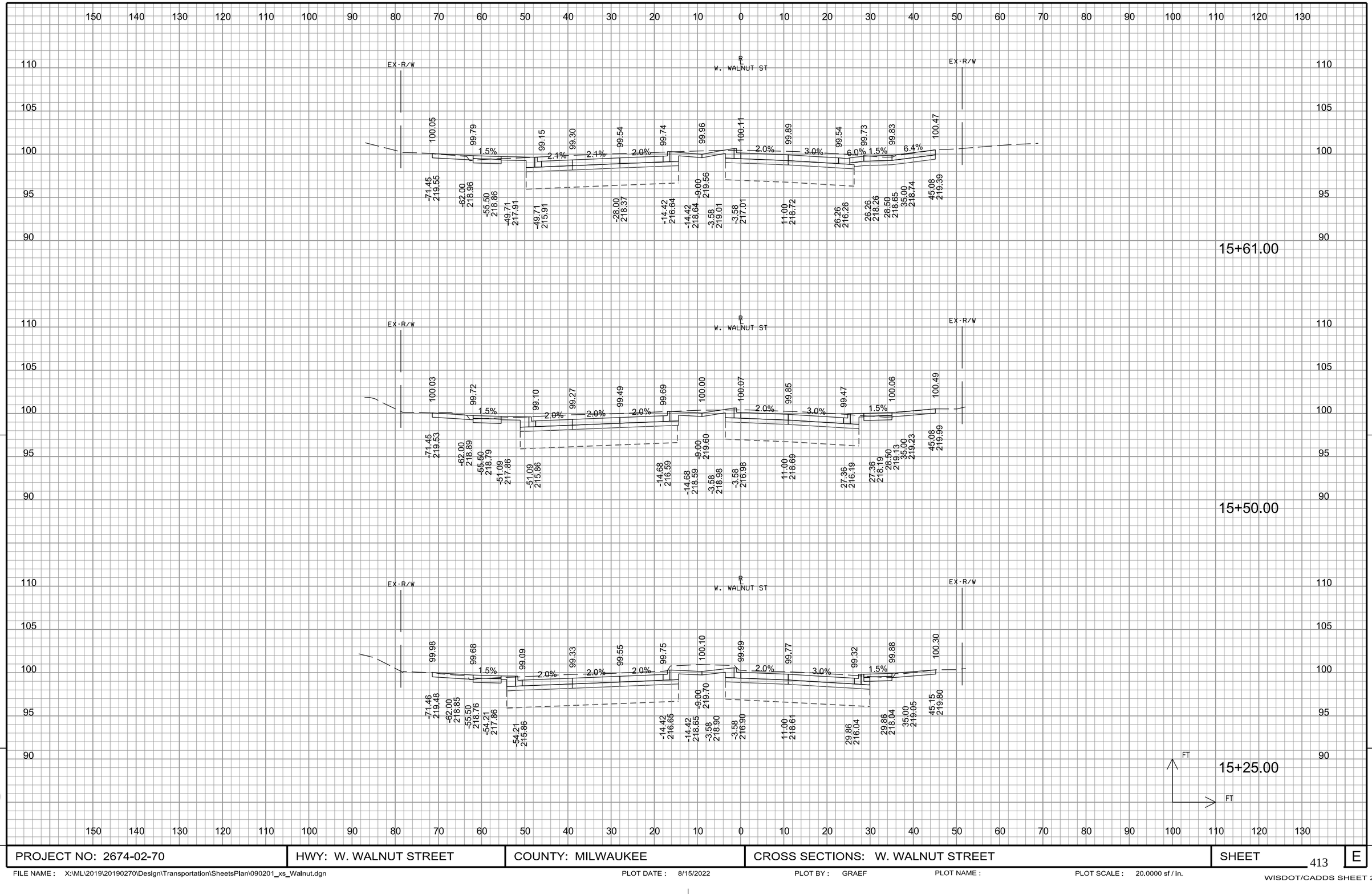
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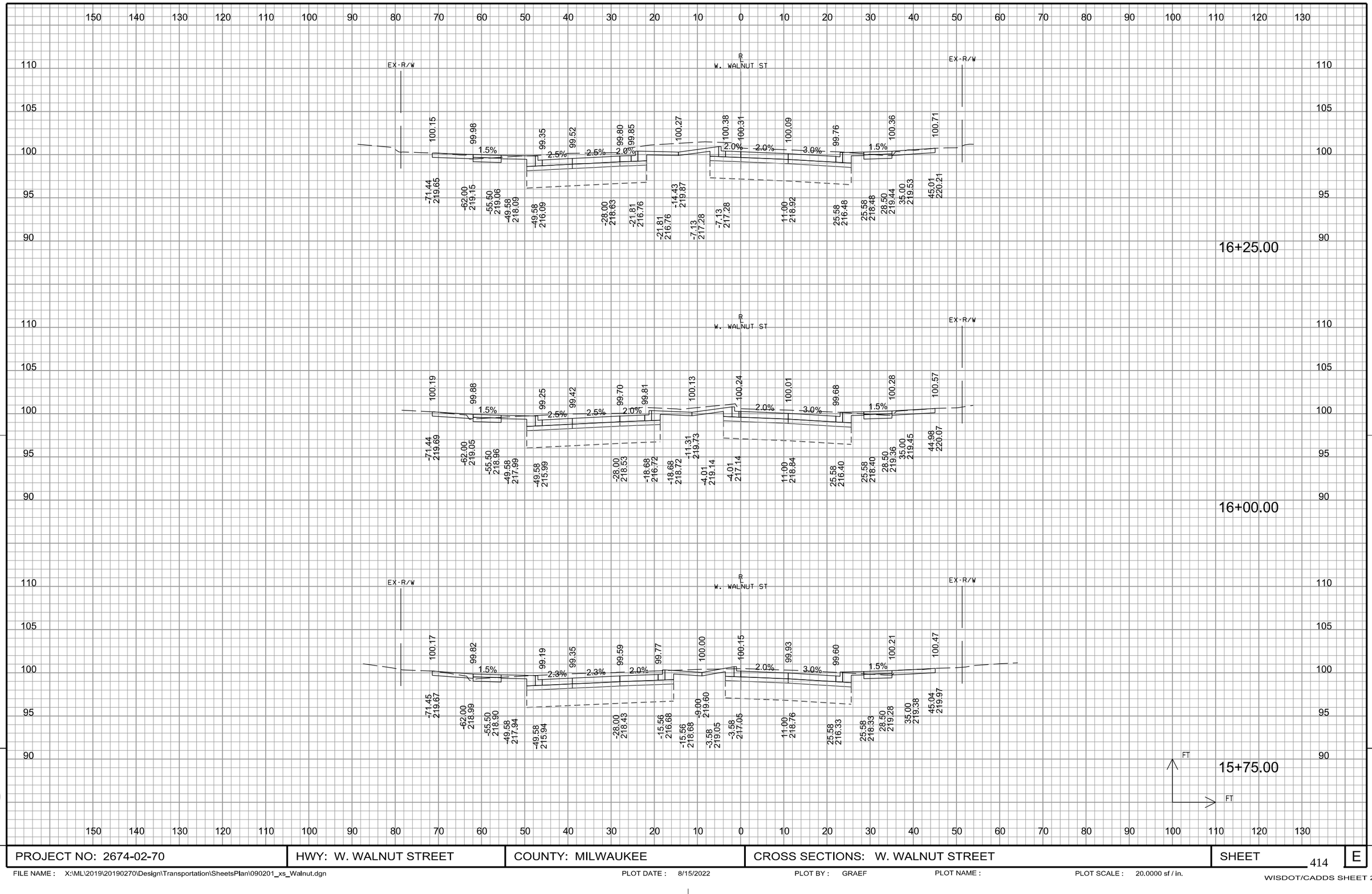
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FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090201_xs_Walnut.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 413	E



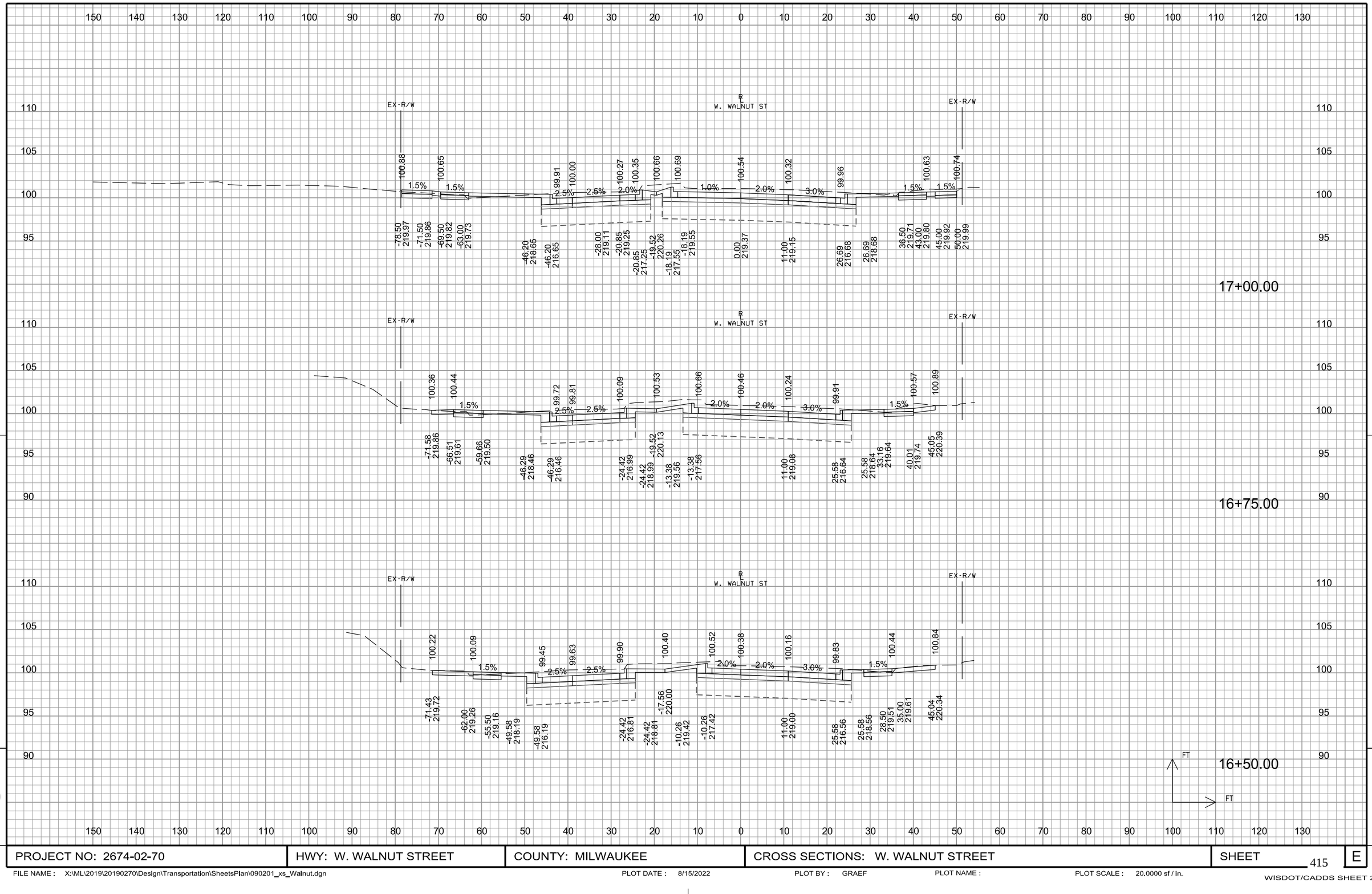
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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 414	E

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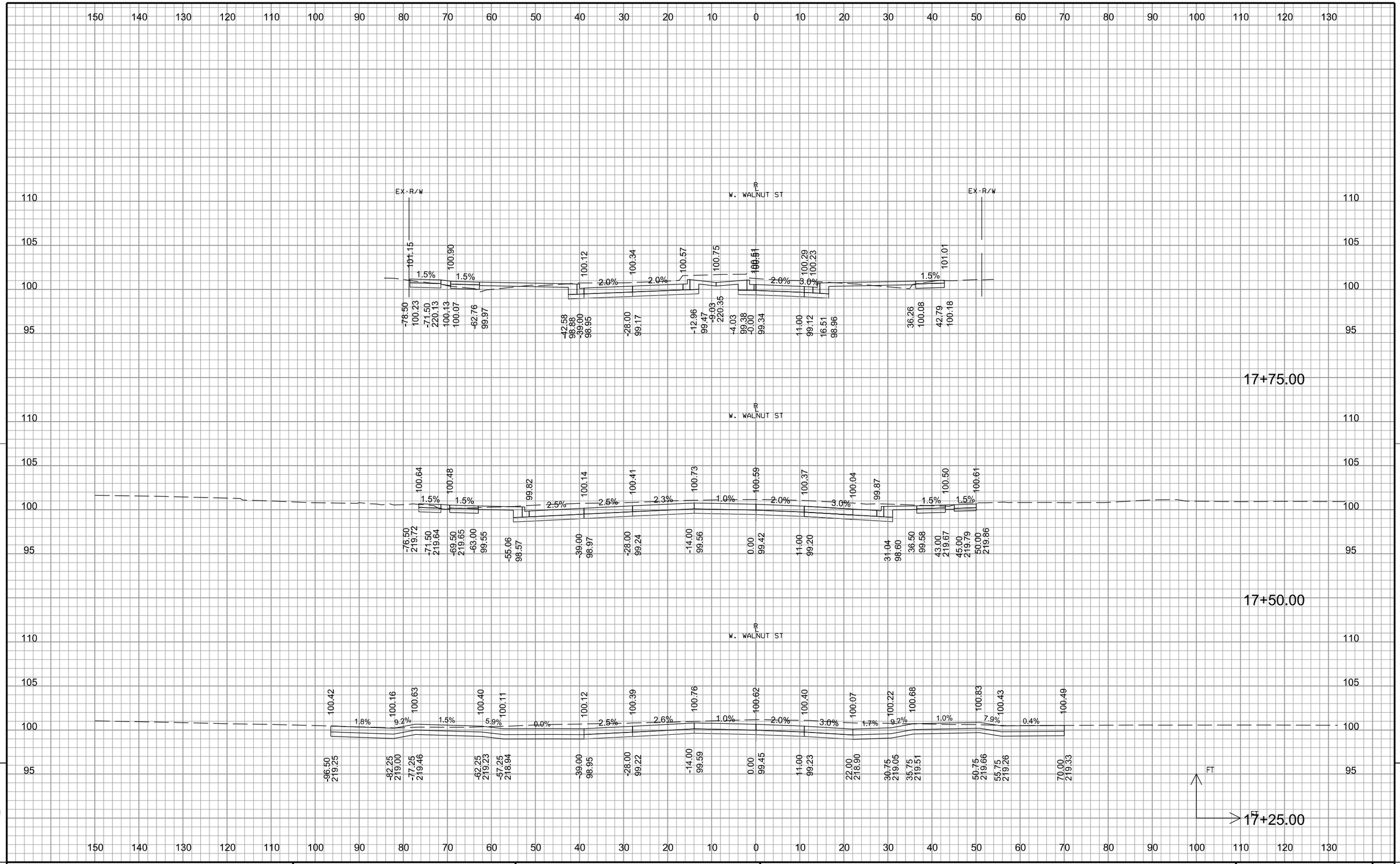
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 415	E

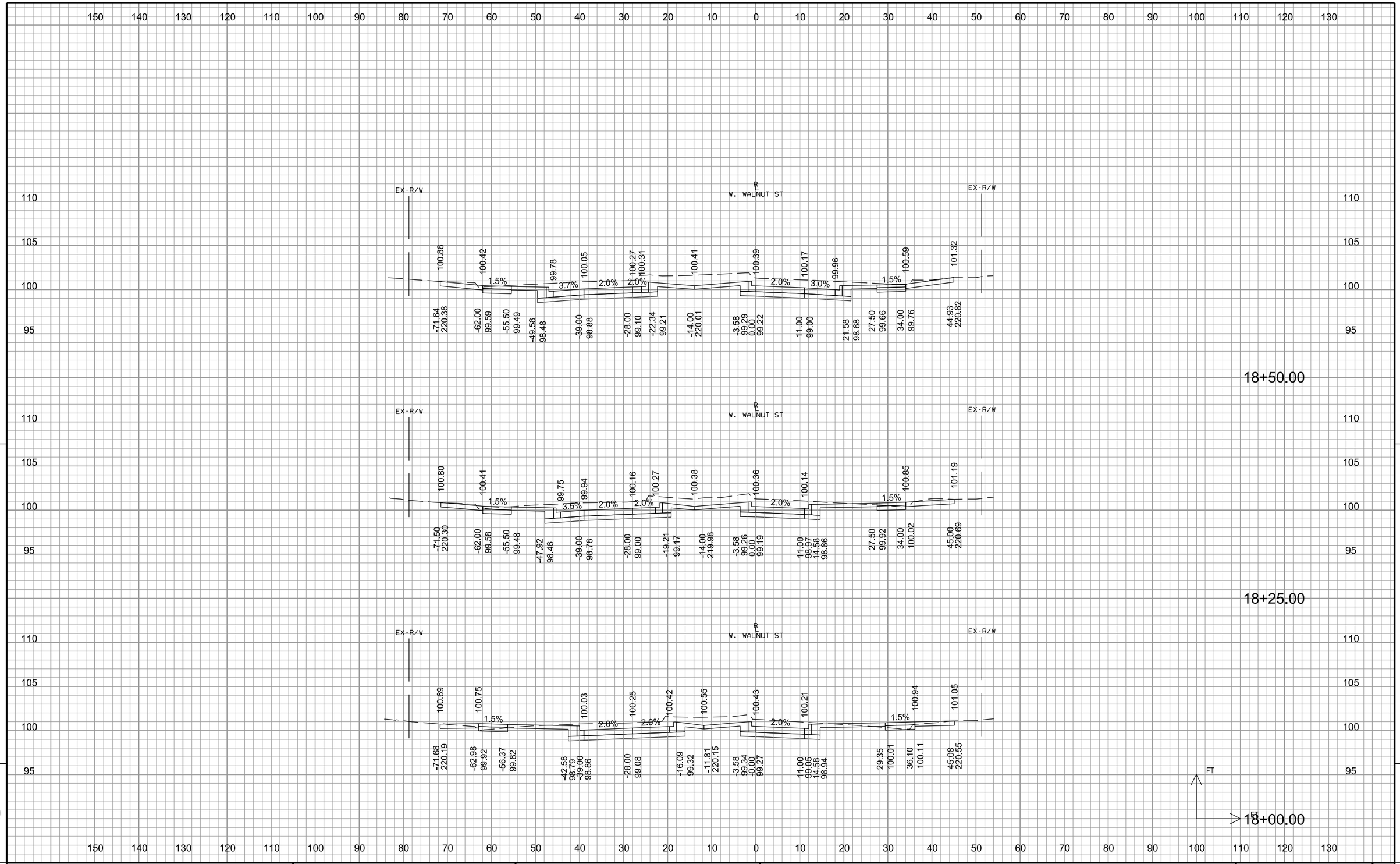
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WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 416	E

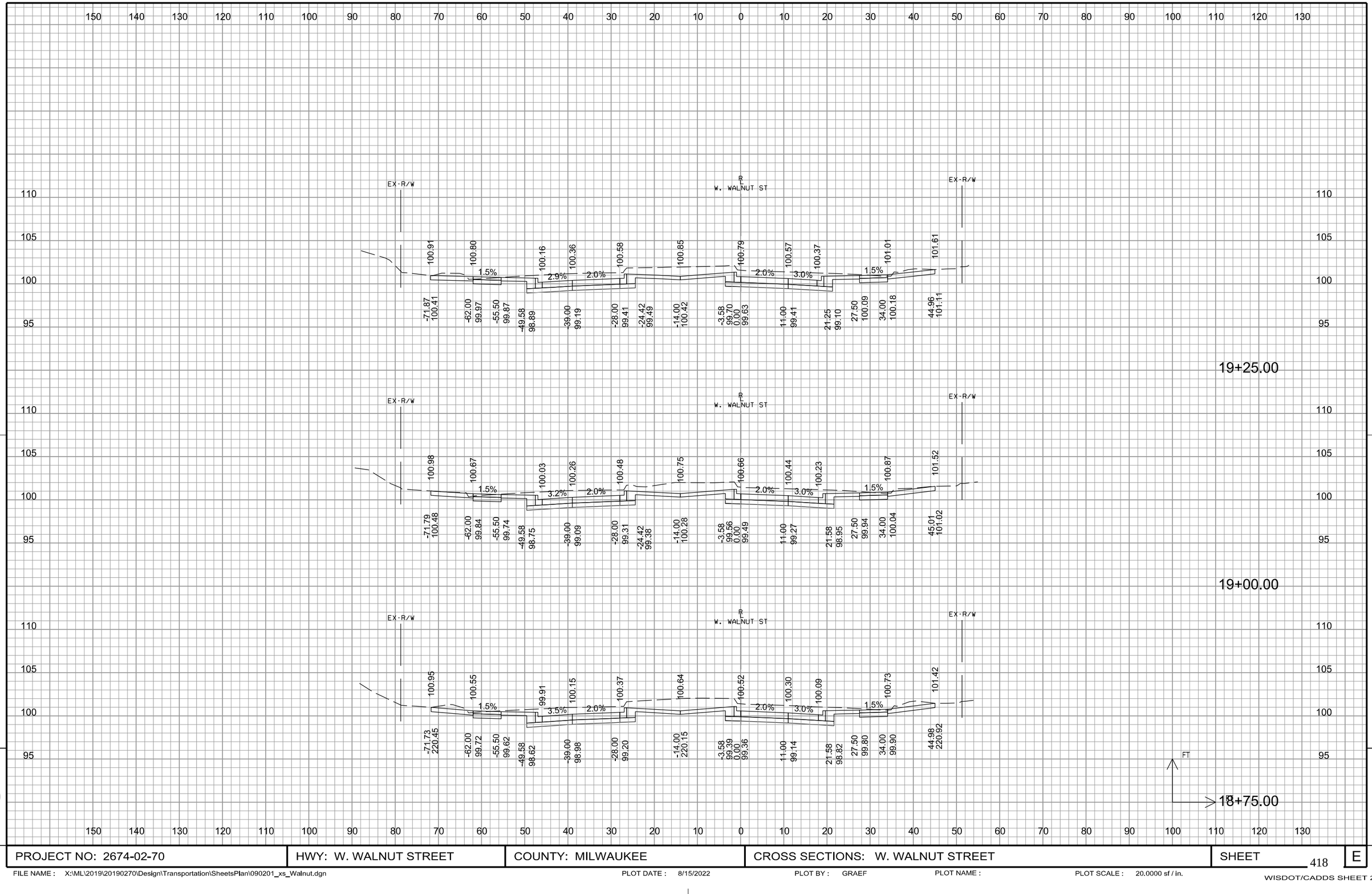
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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 417	E

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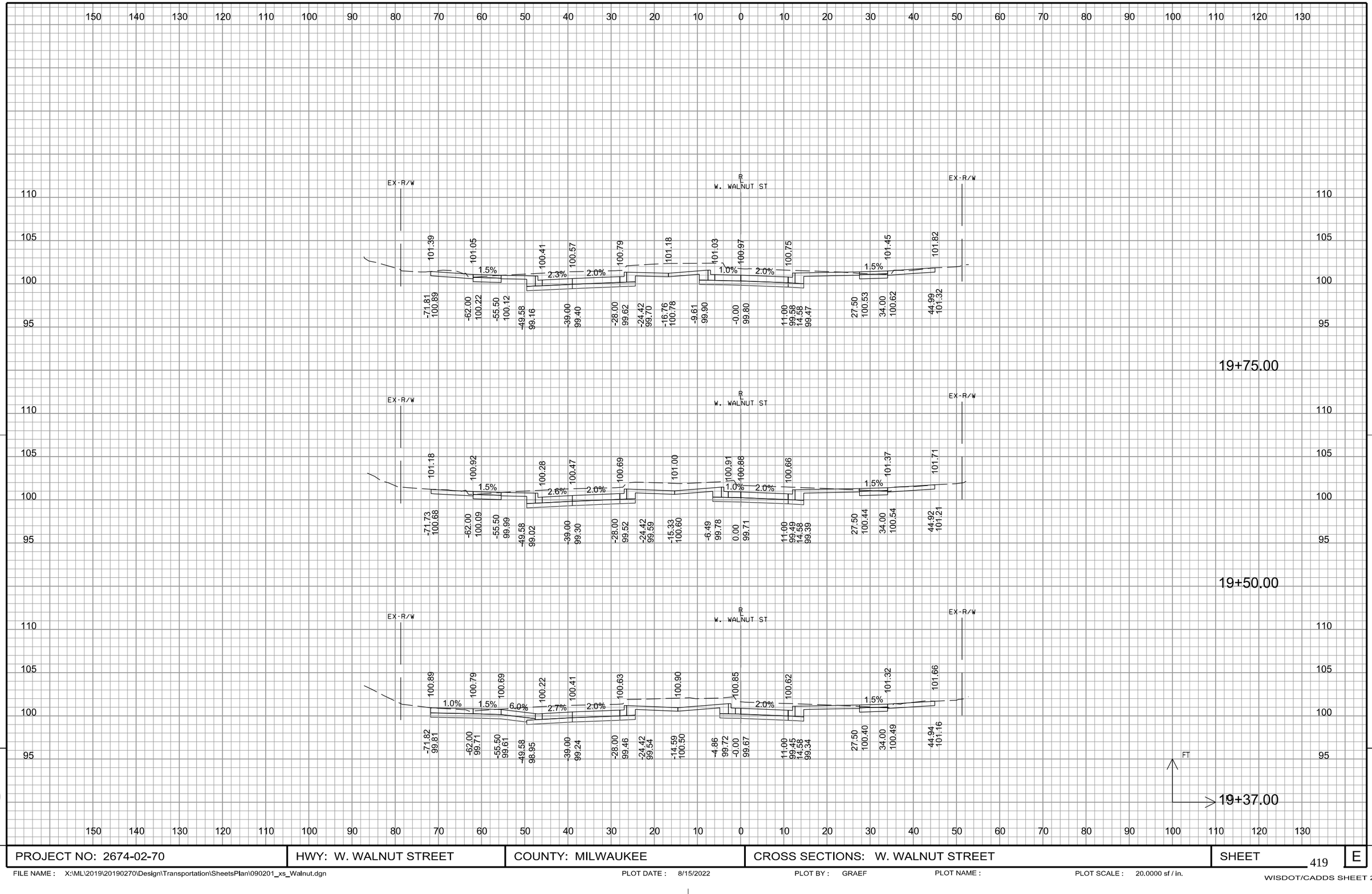
WISDOT/CADDS SHEET 21



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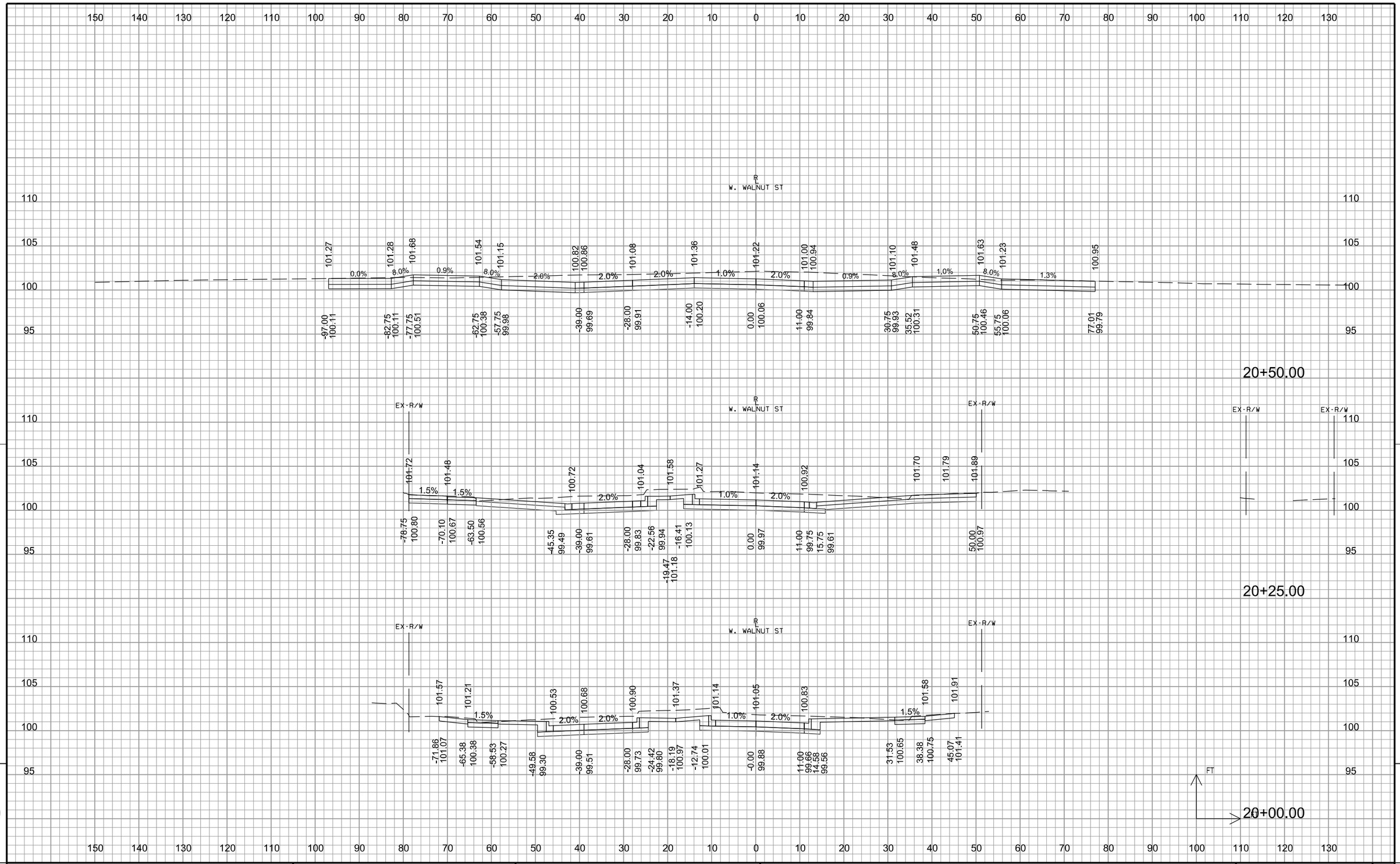
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WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 419	E

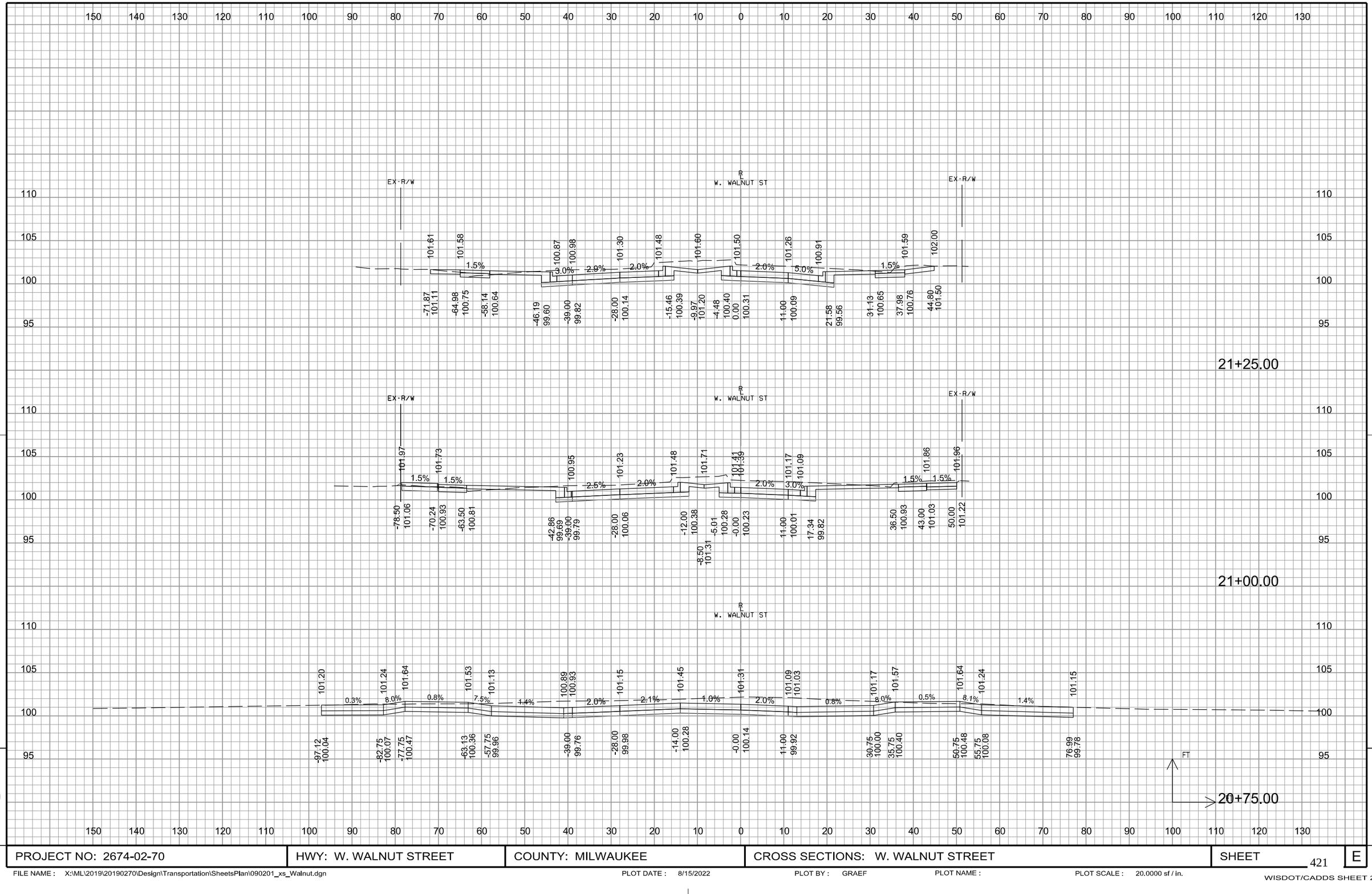
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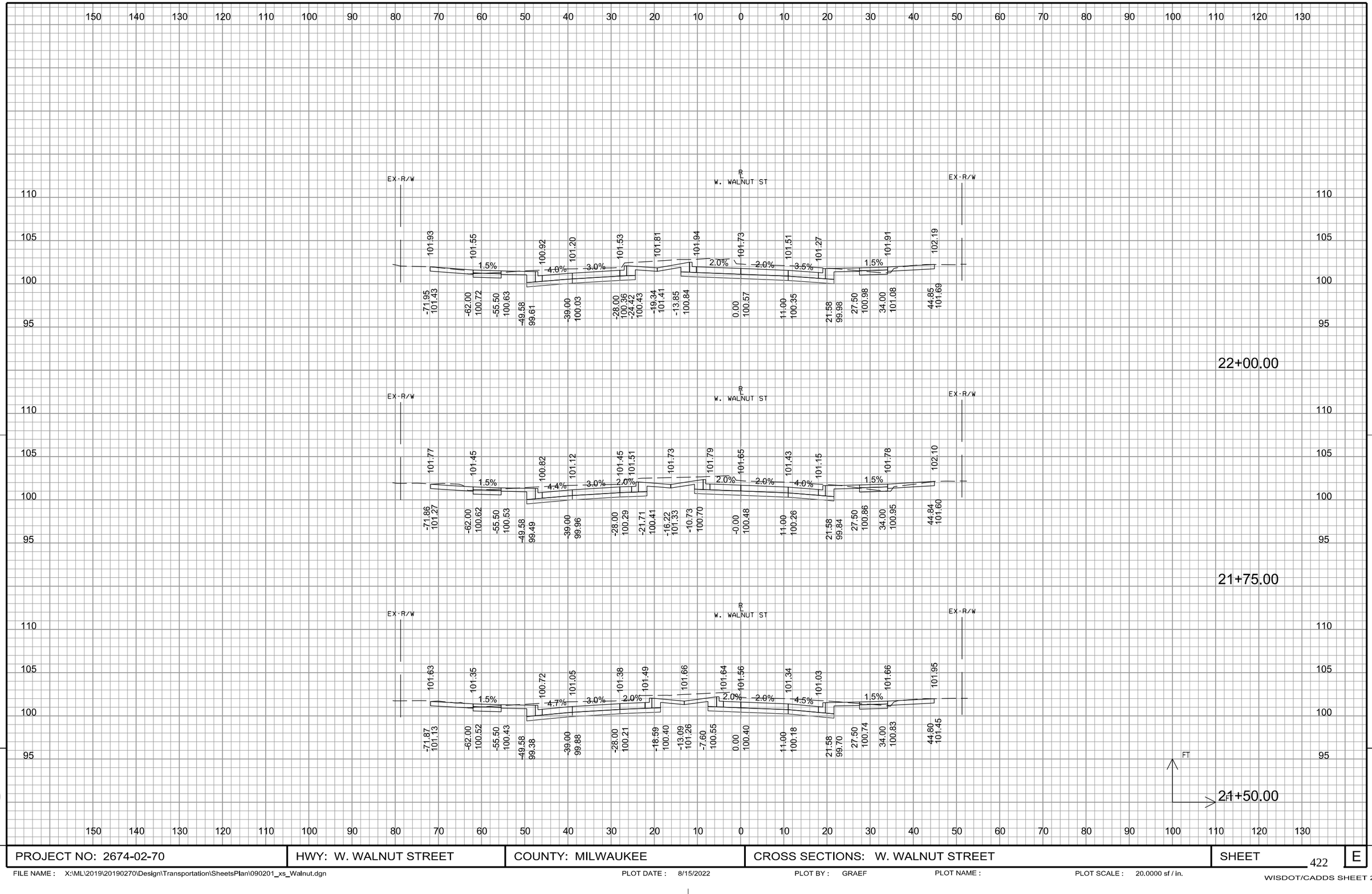
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WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 421	E

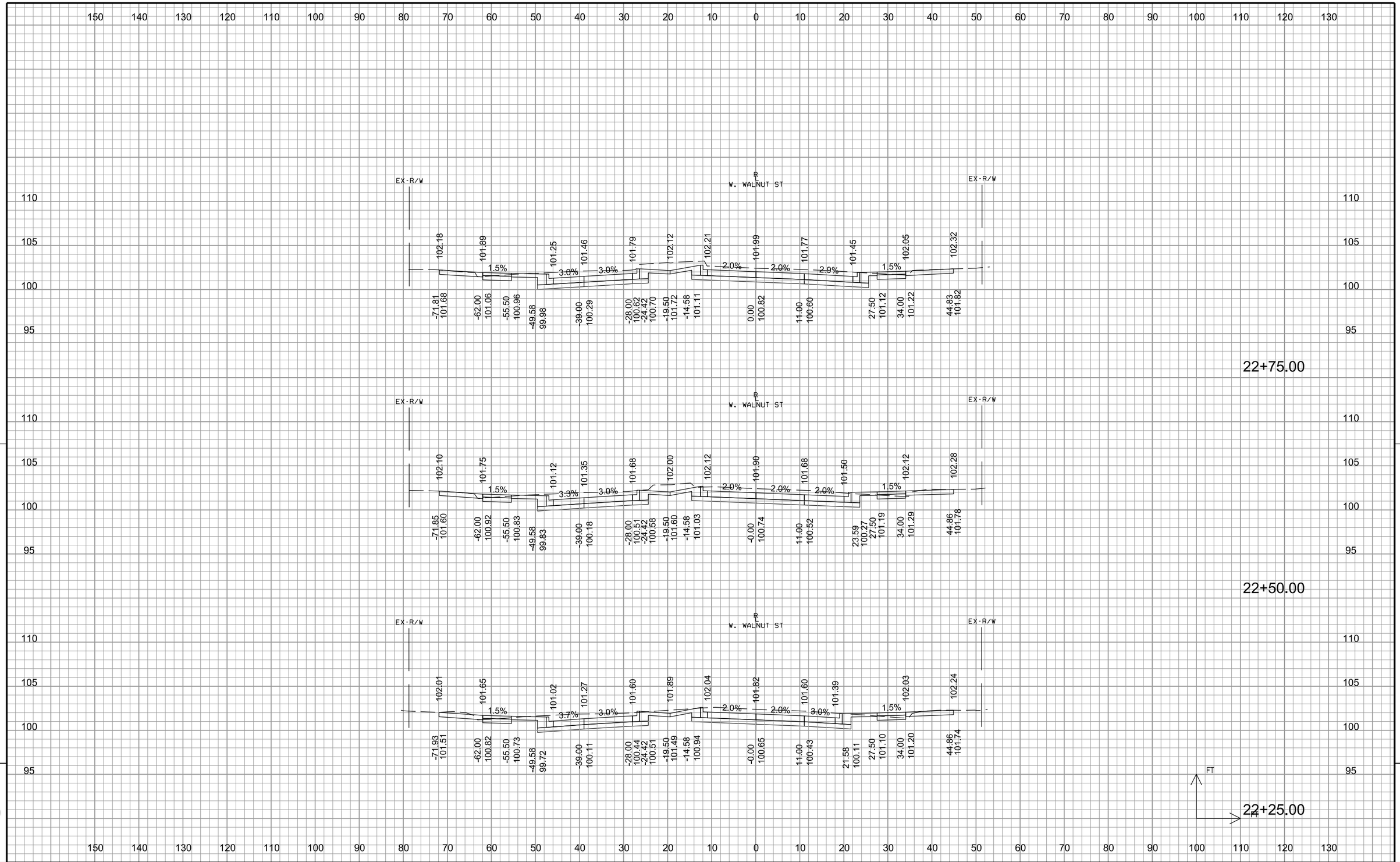
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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 422	E

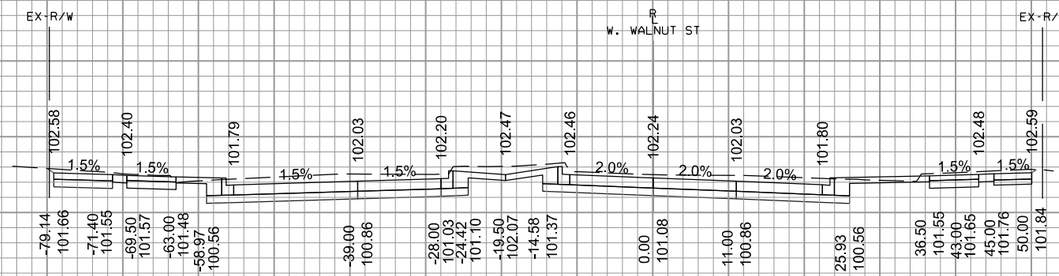
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WISDOT/CADDS SHEET 21

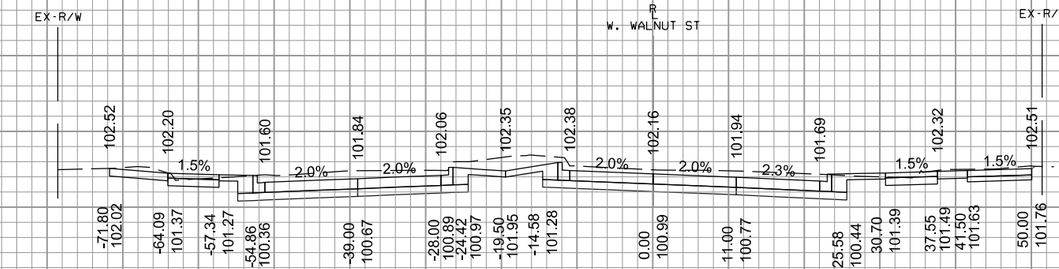


PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 423	E

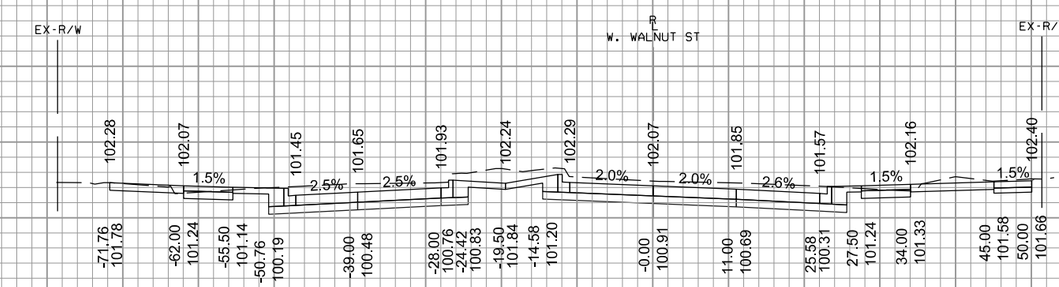
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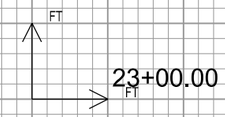


23+50.00



23+25.00





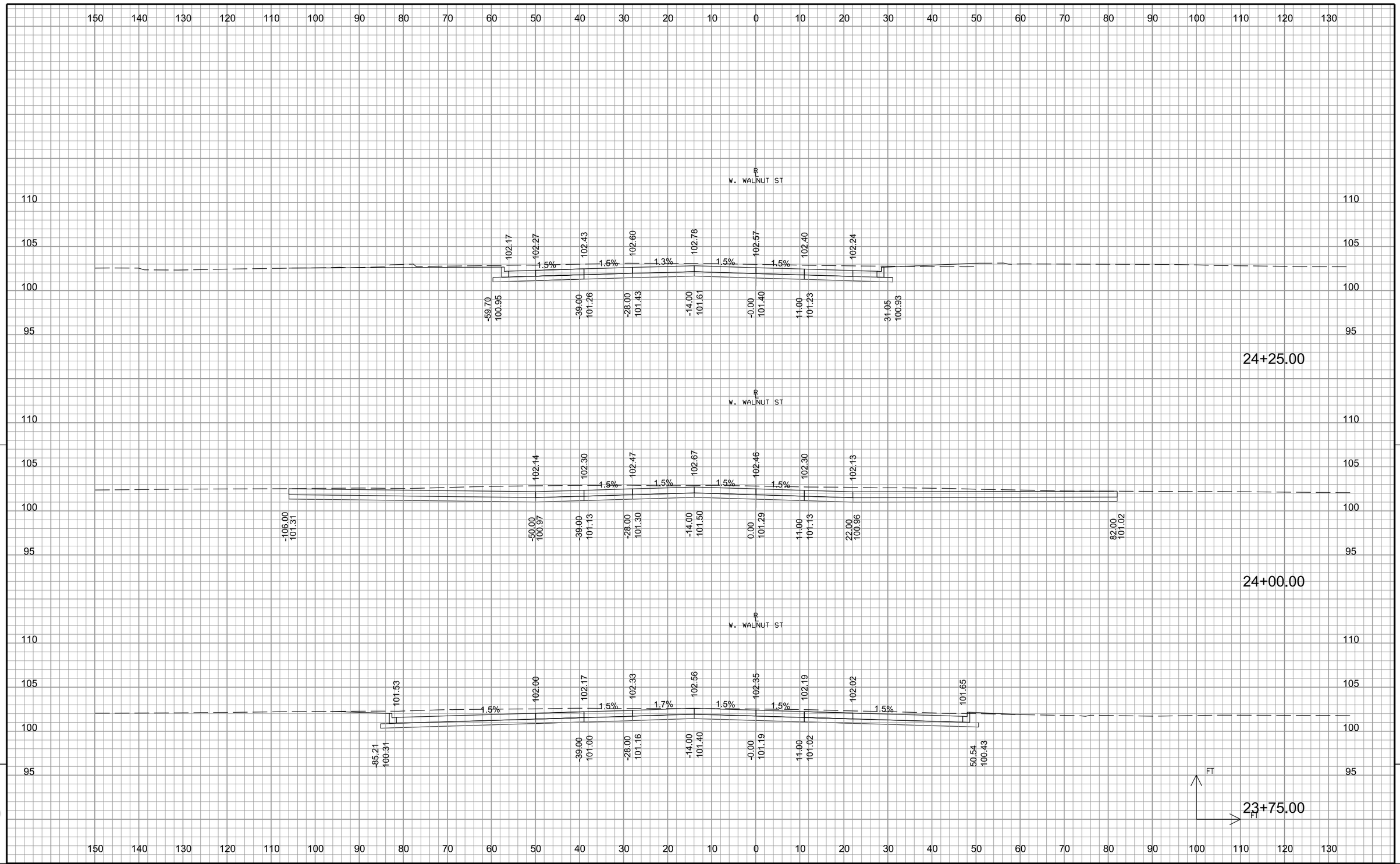
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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 424	E

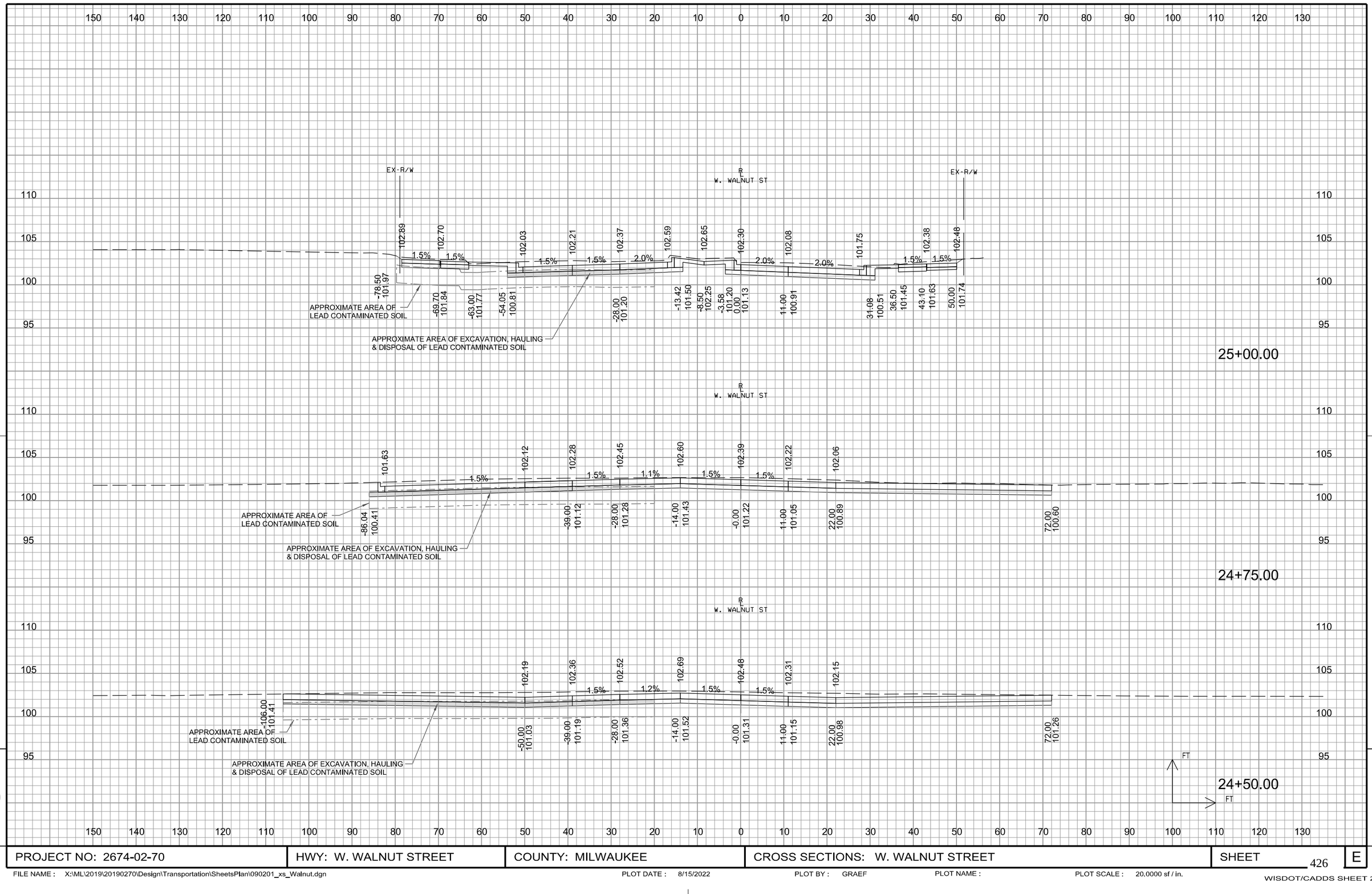
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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 425	E

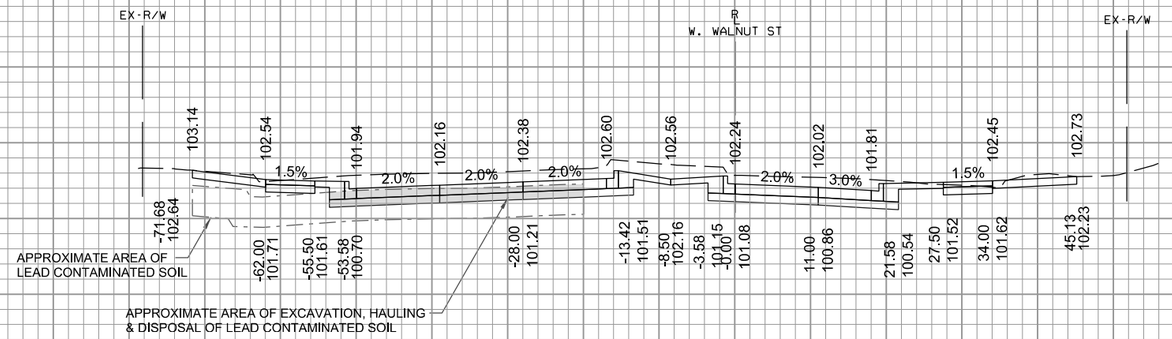
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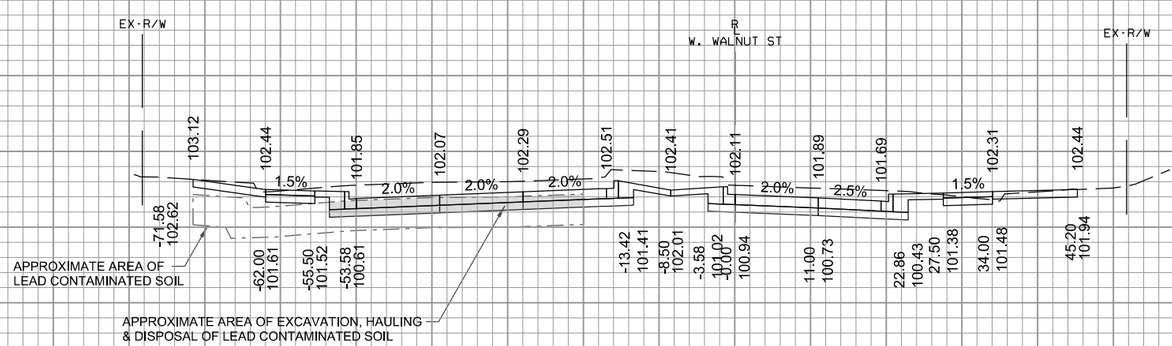
WISDOT/CADDS SHEET 21

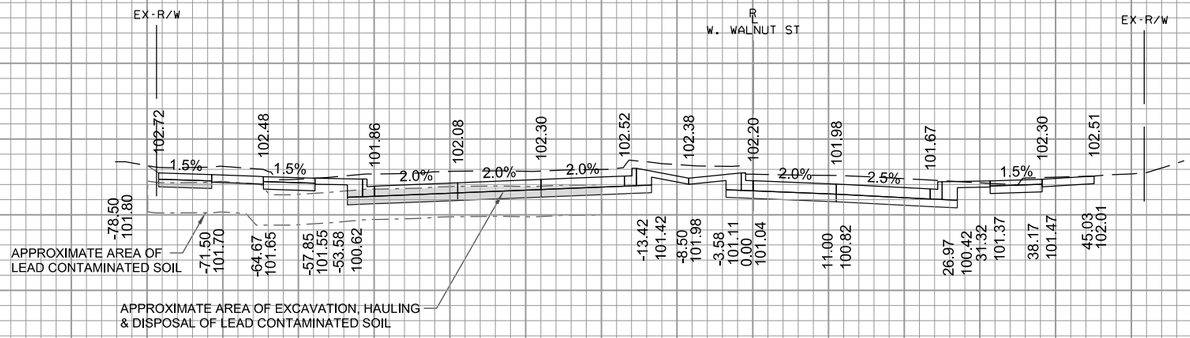


PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 426	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090201_xs_Walnut.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.



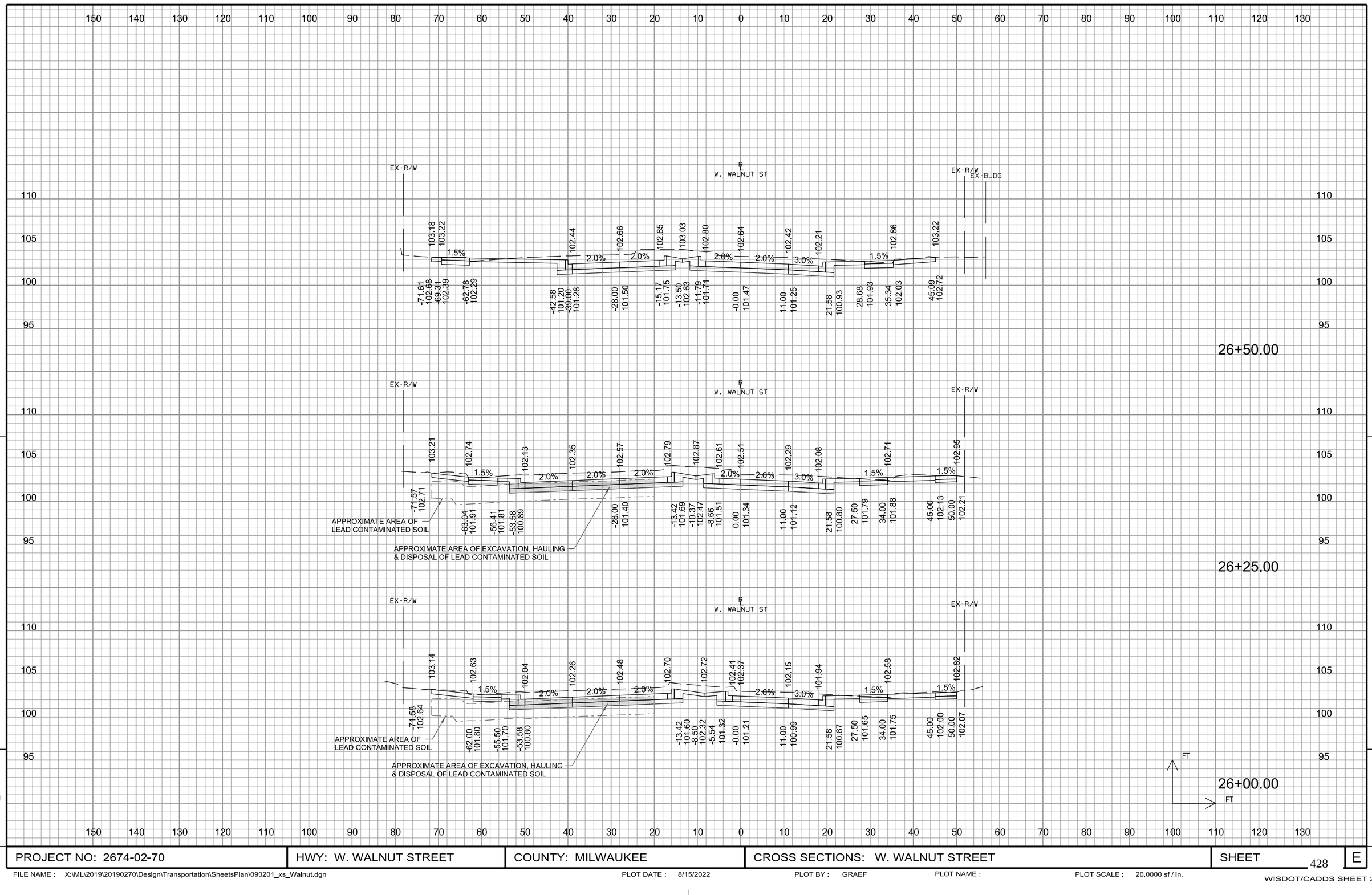




PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 427	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090201_xs_Walnut.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

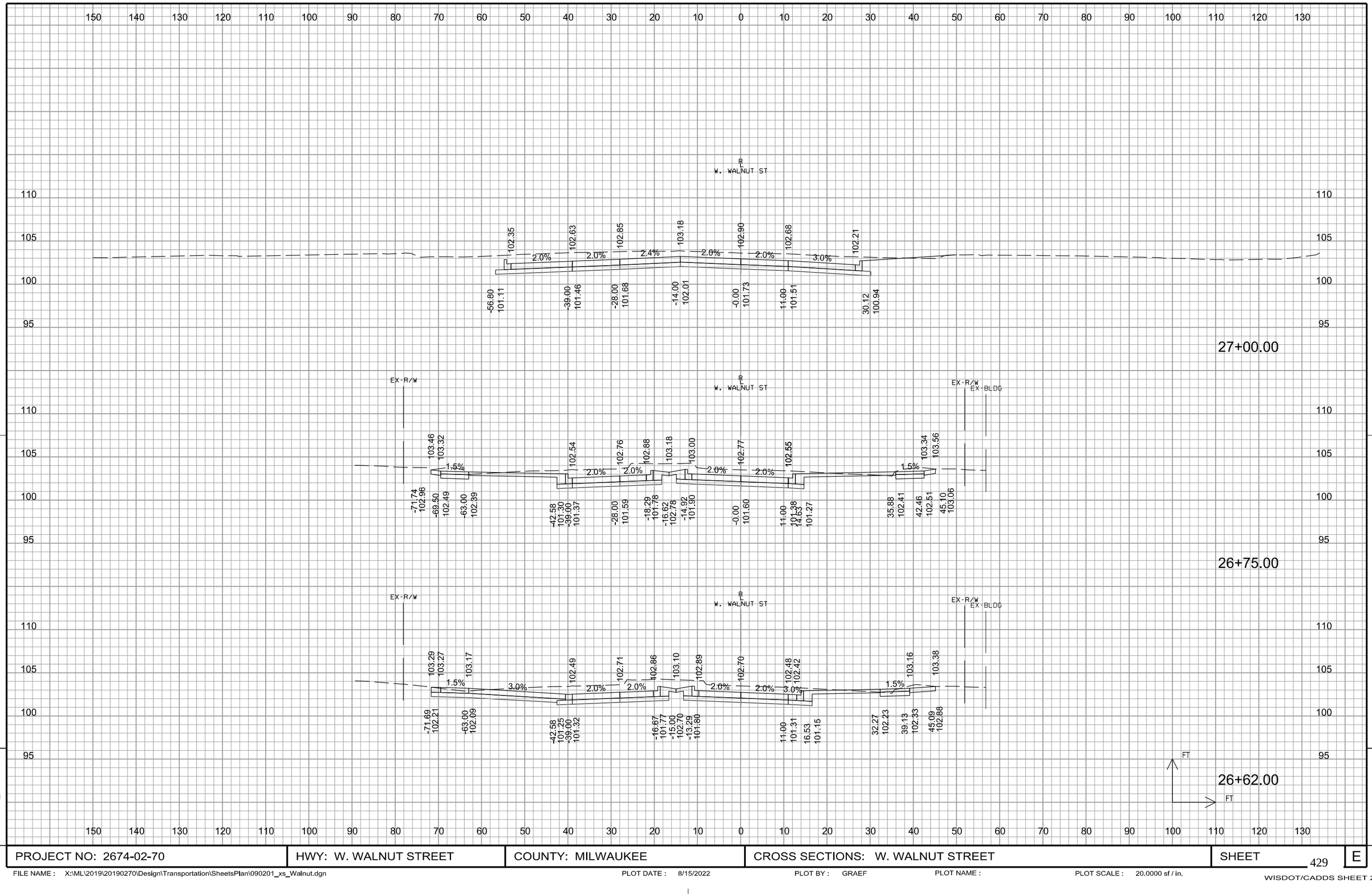
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 428	E

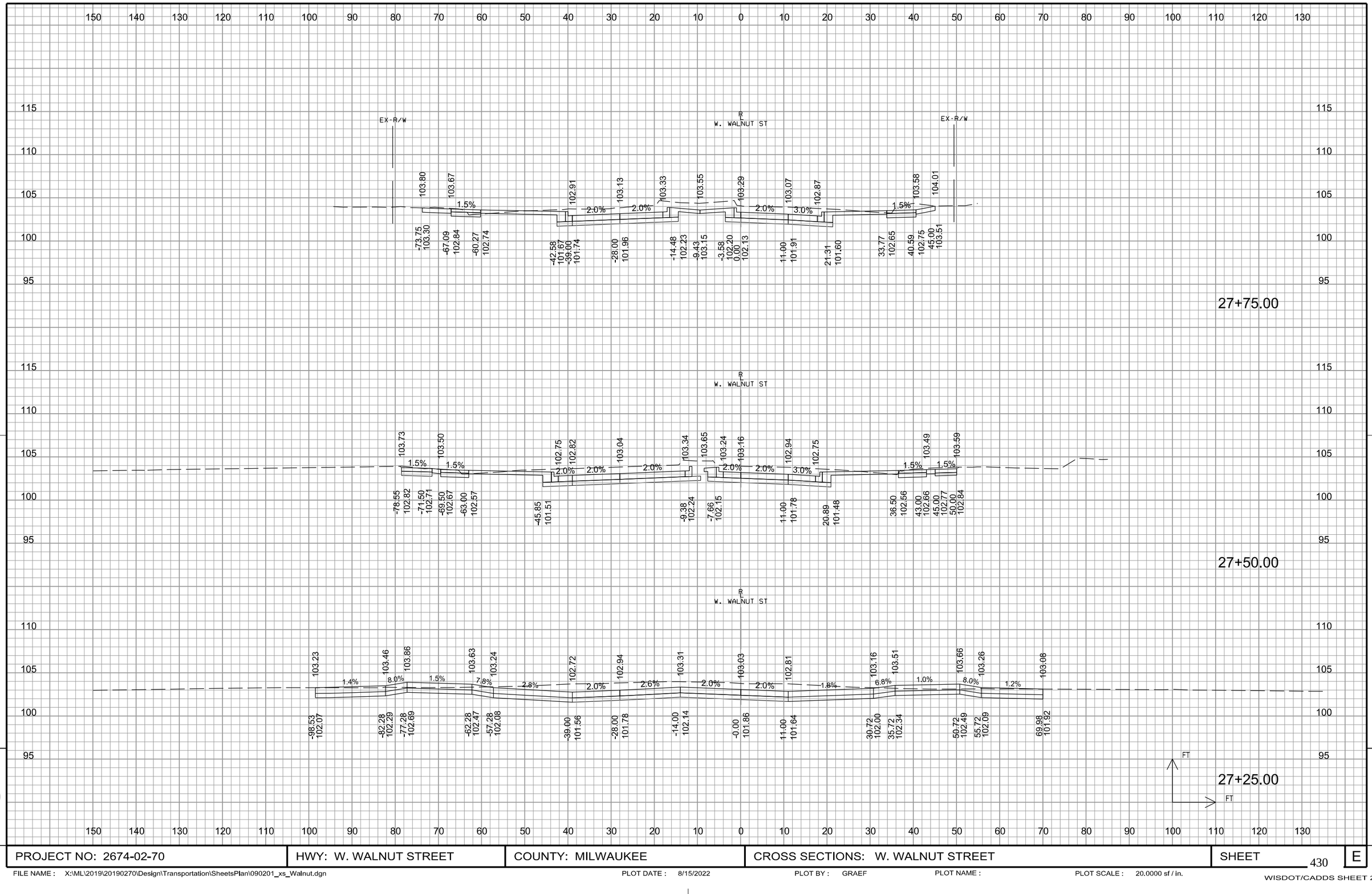
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WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 429	E

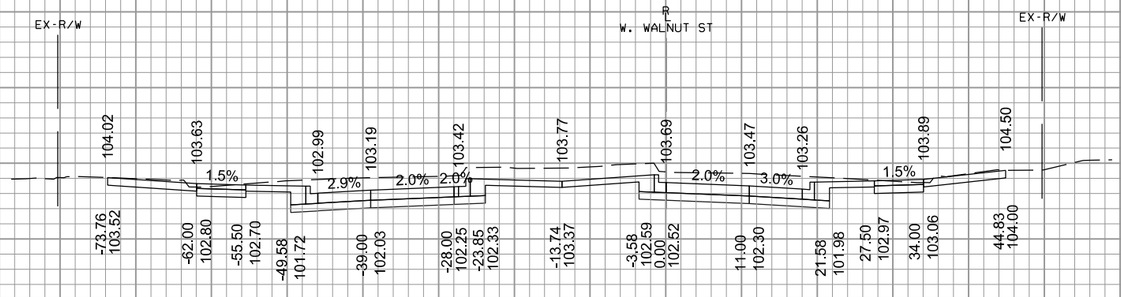
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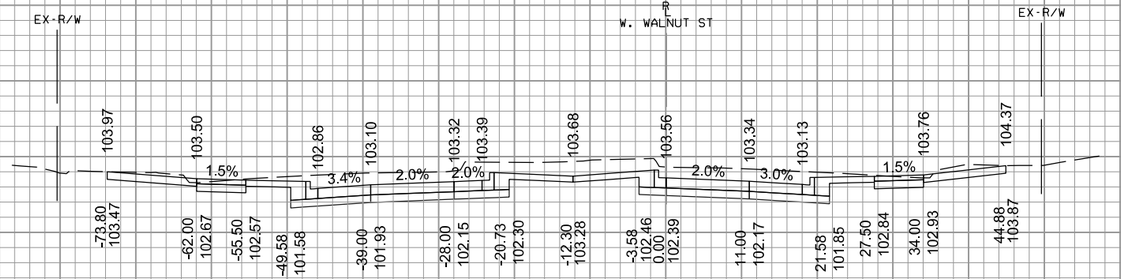
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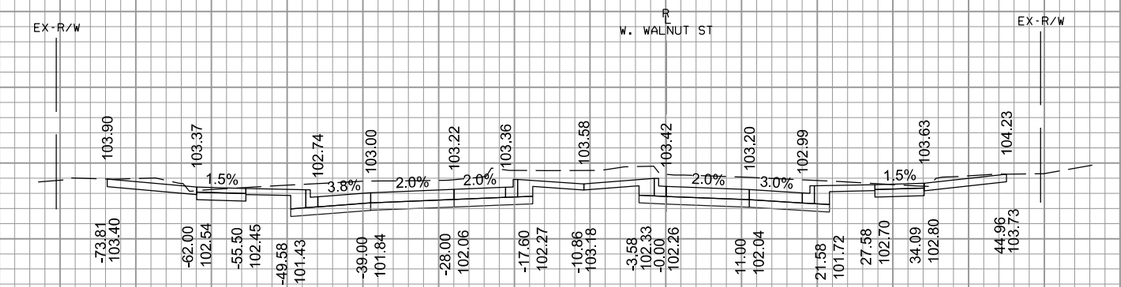
WISDOT/CADDS SHEET 21



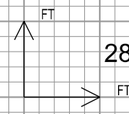
28+50.00



28+25.00

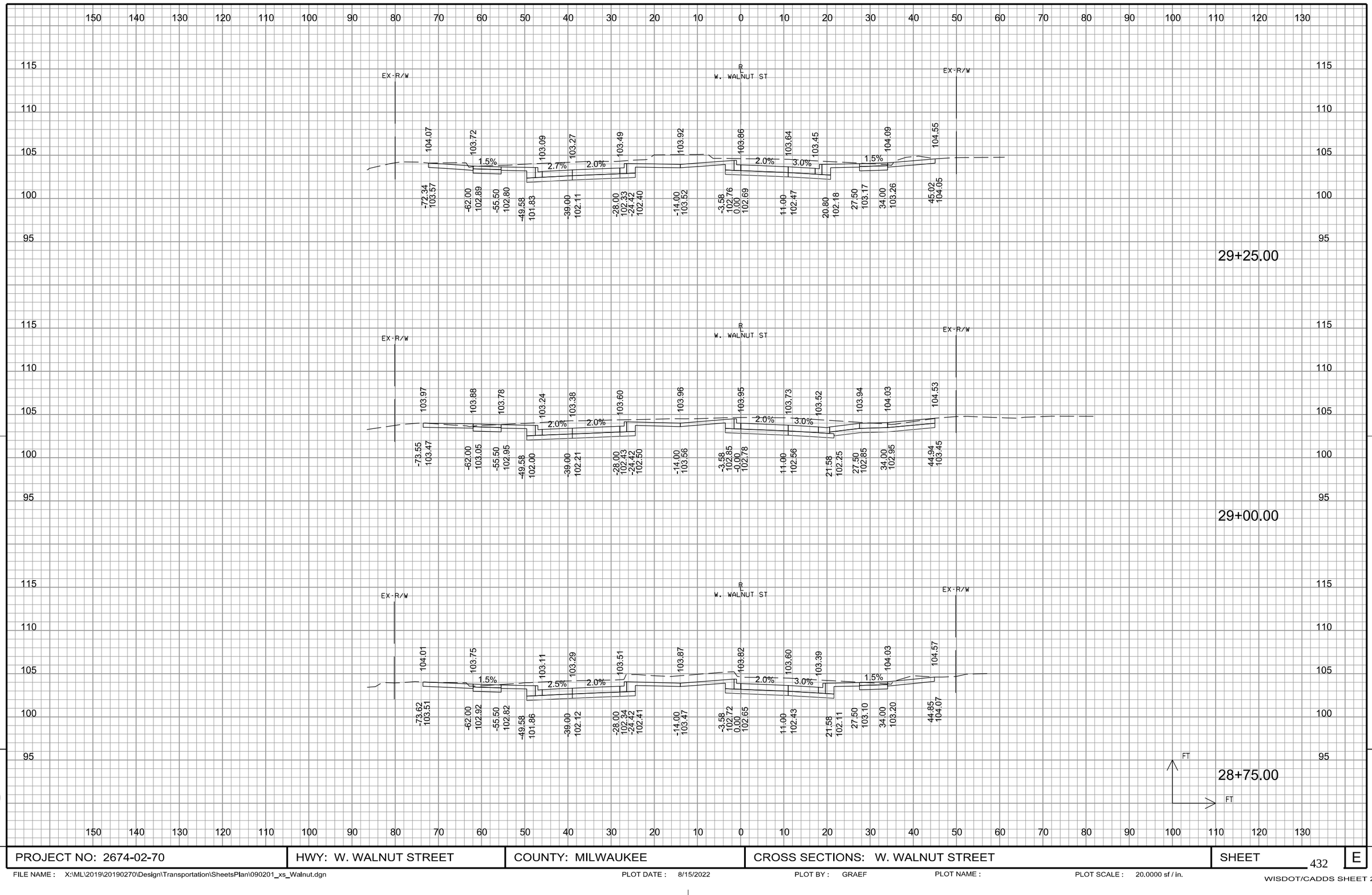


28+00.00



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 431	E

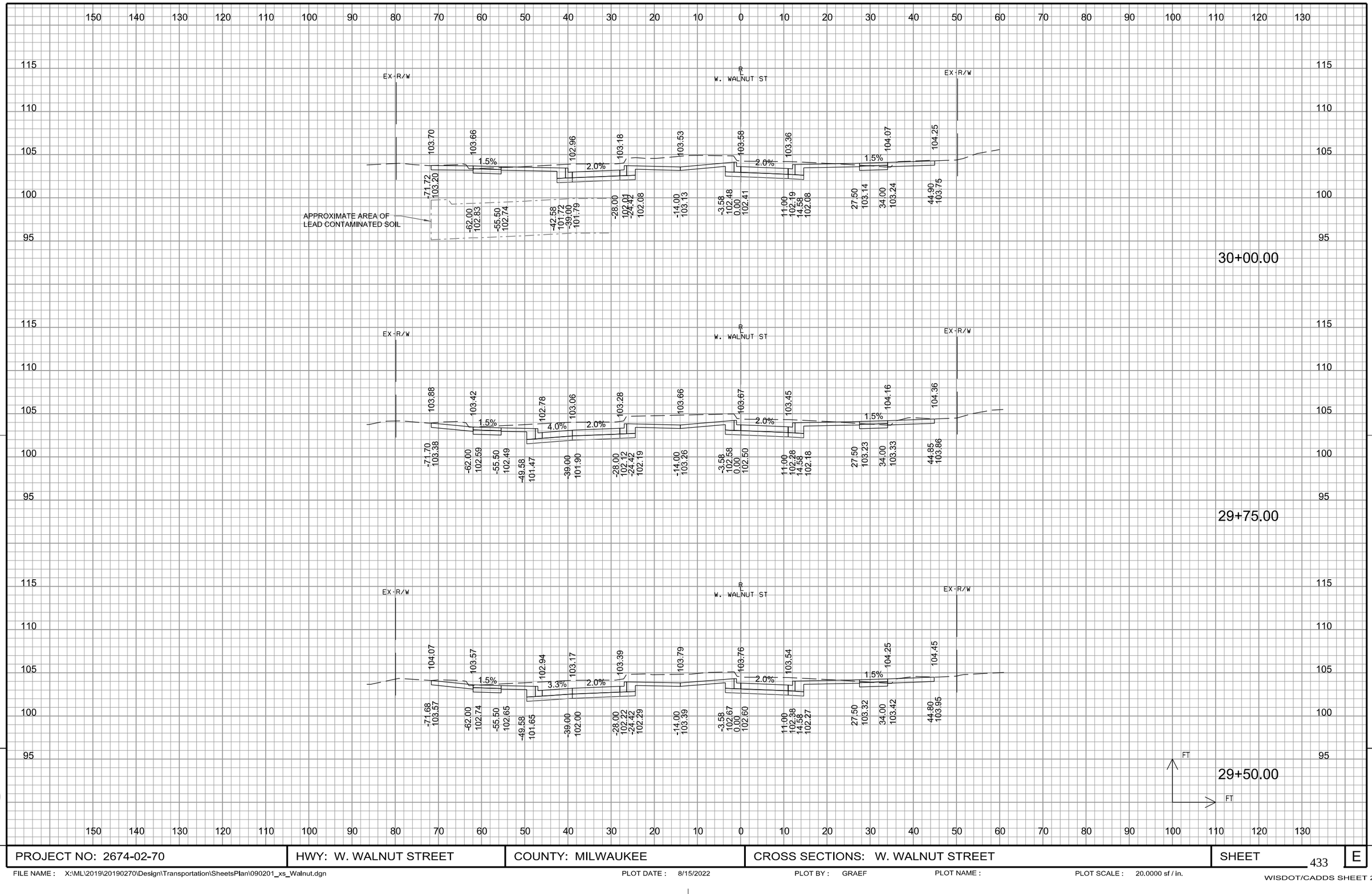
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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 432	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090201_xs_Walnut.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

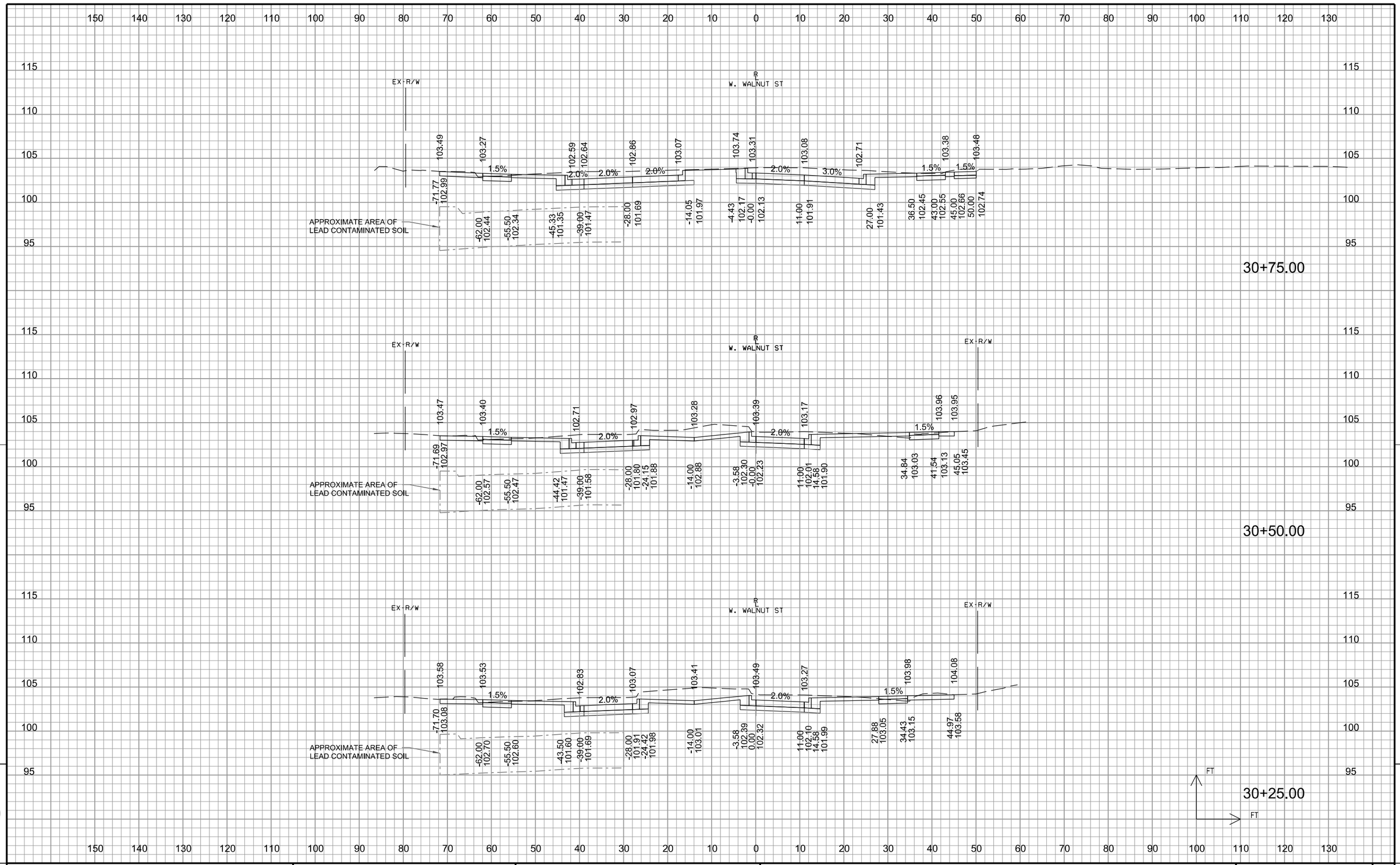
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 433	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090201_xs_Walnut.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

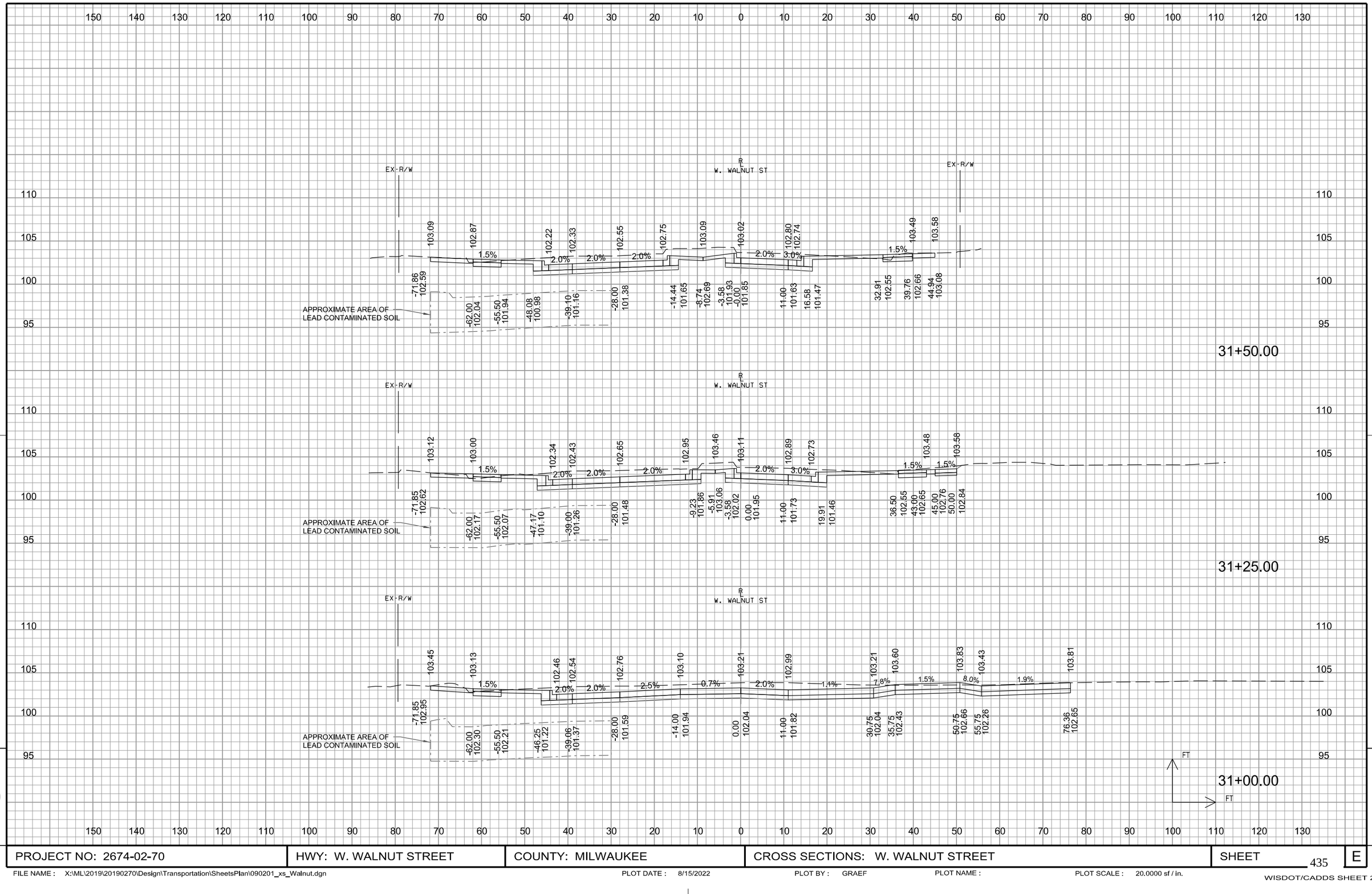
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 434	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090201_xs_Walnut.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



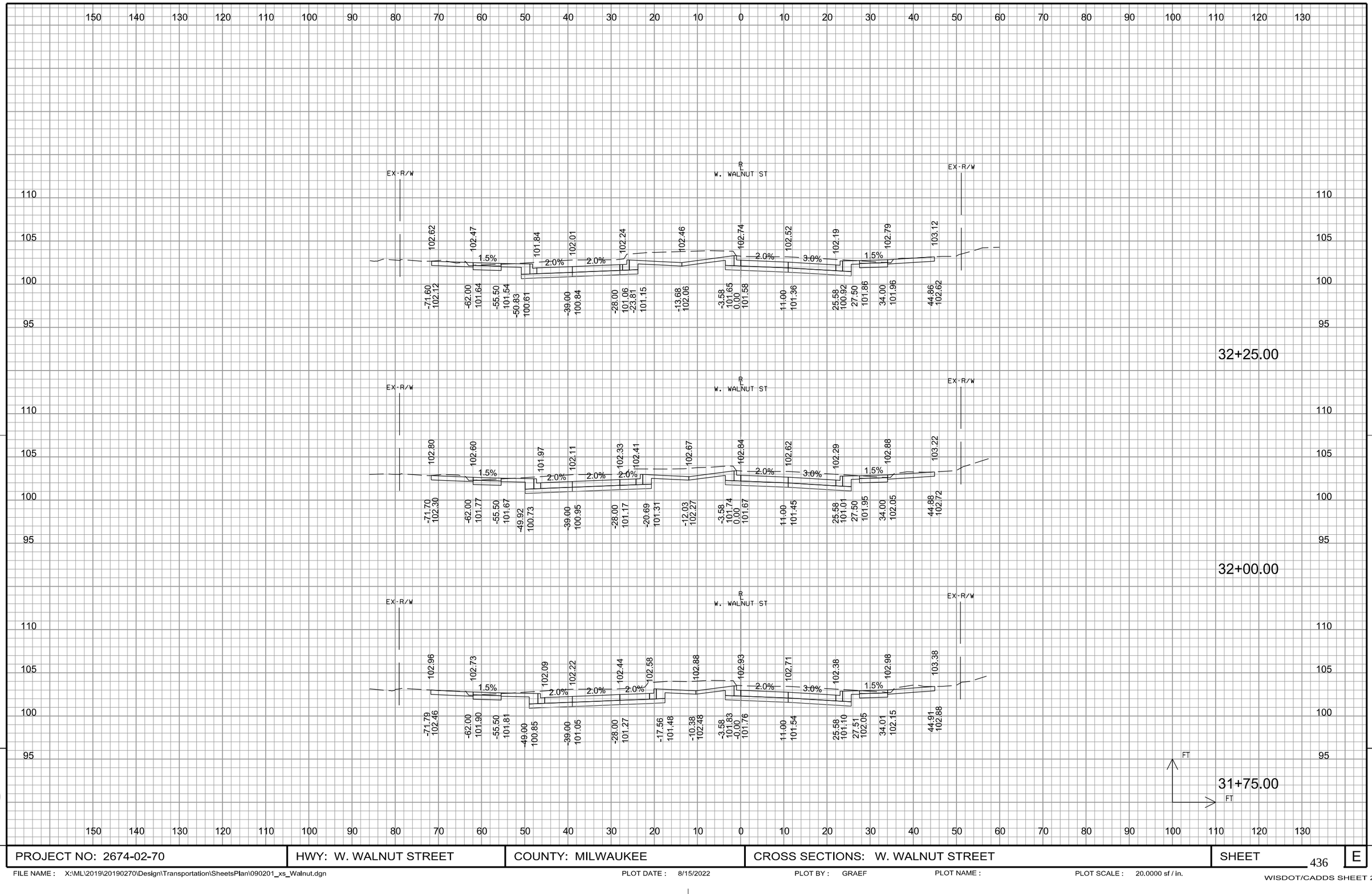
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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 435	E

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WISDOT/CADDS SHEET 21

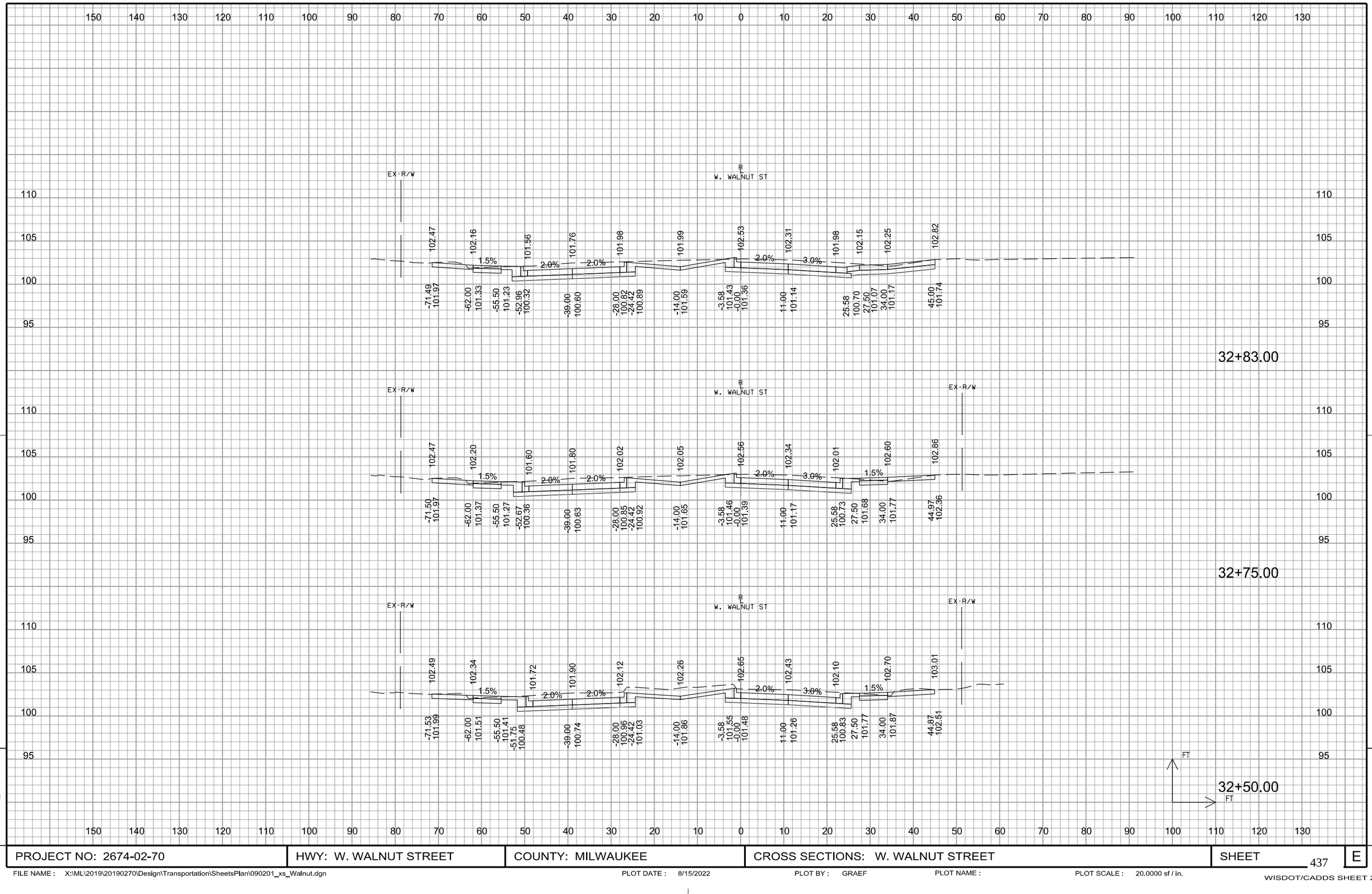


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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 436	E

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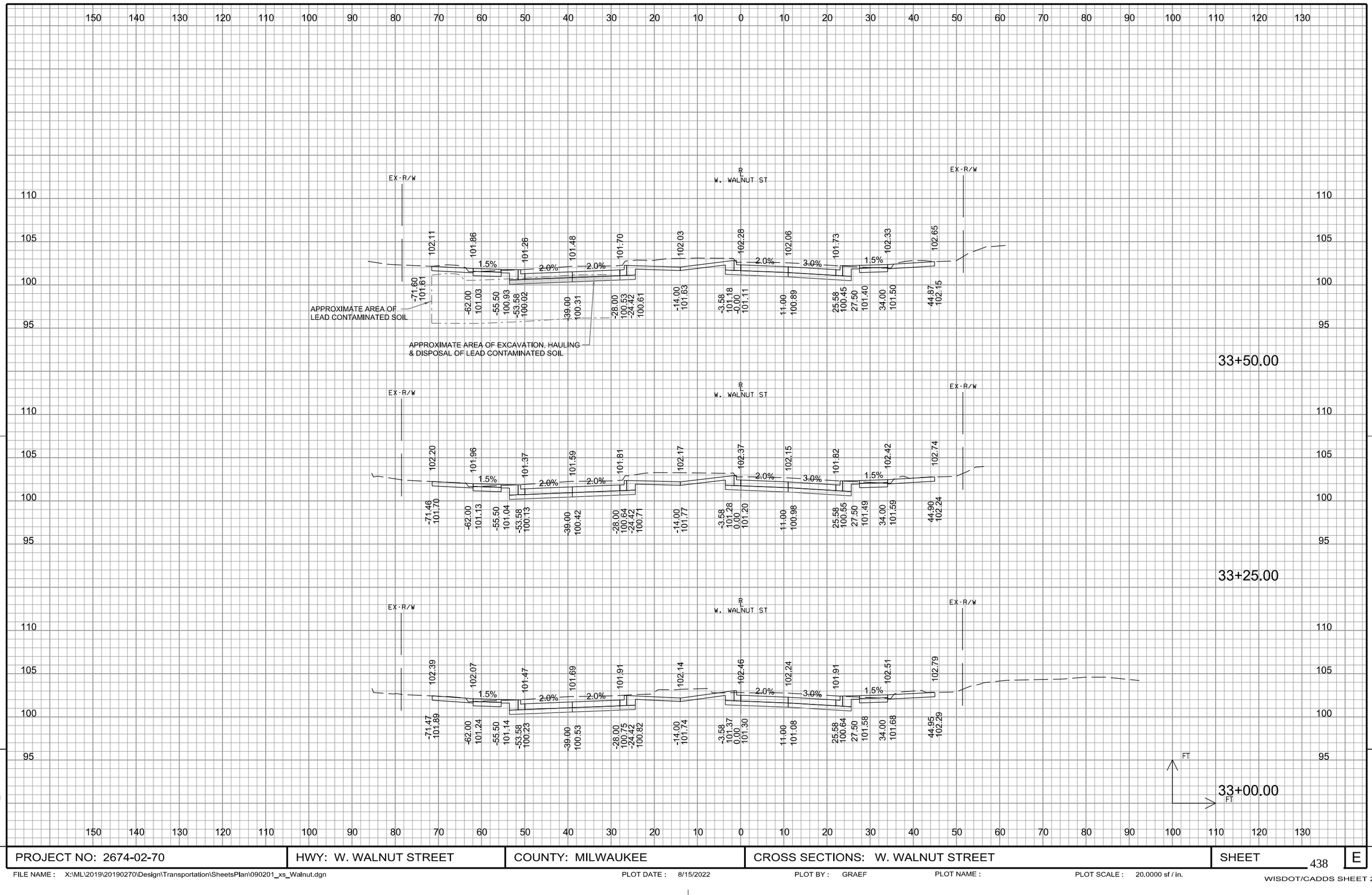
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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 437	E

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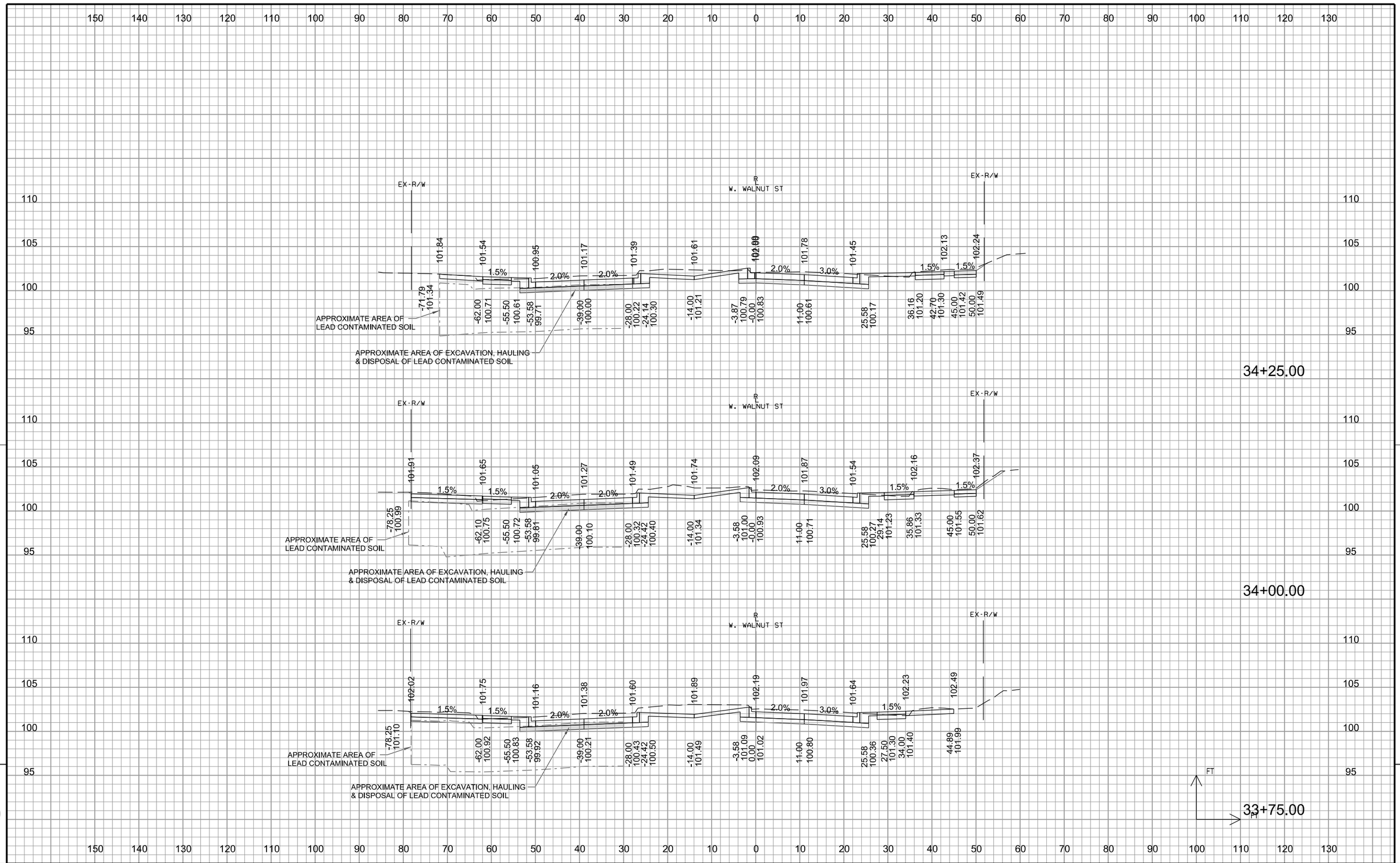
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 438	E

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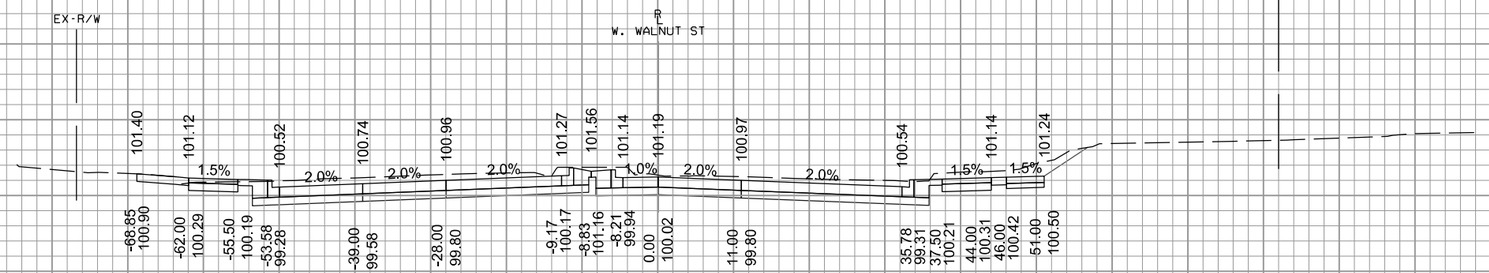
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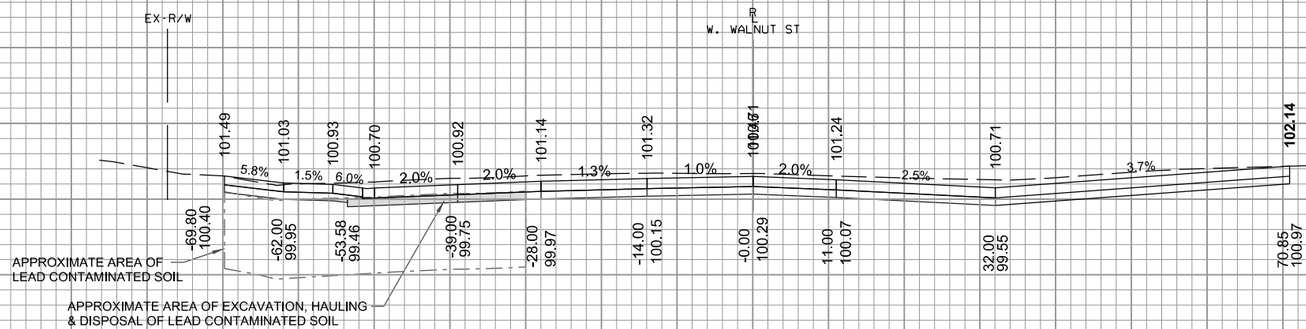
PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 439	E

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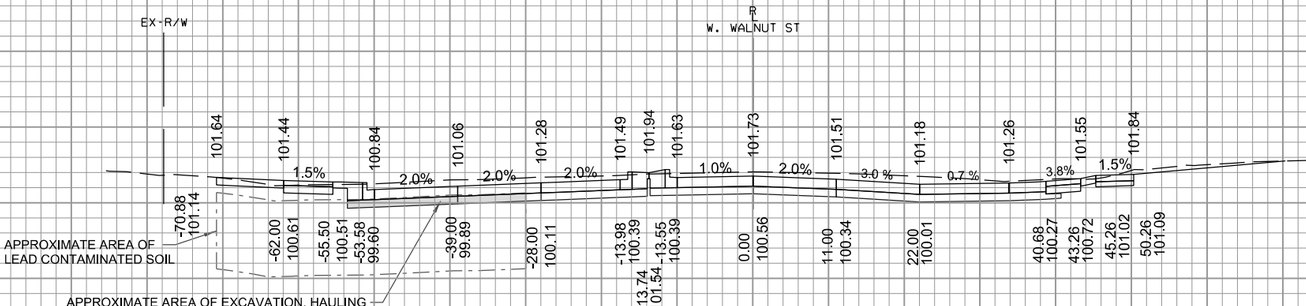
WISDOT/CADDS SHEET 21



35+00.00



34+75.00

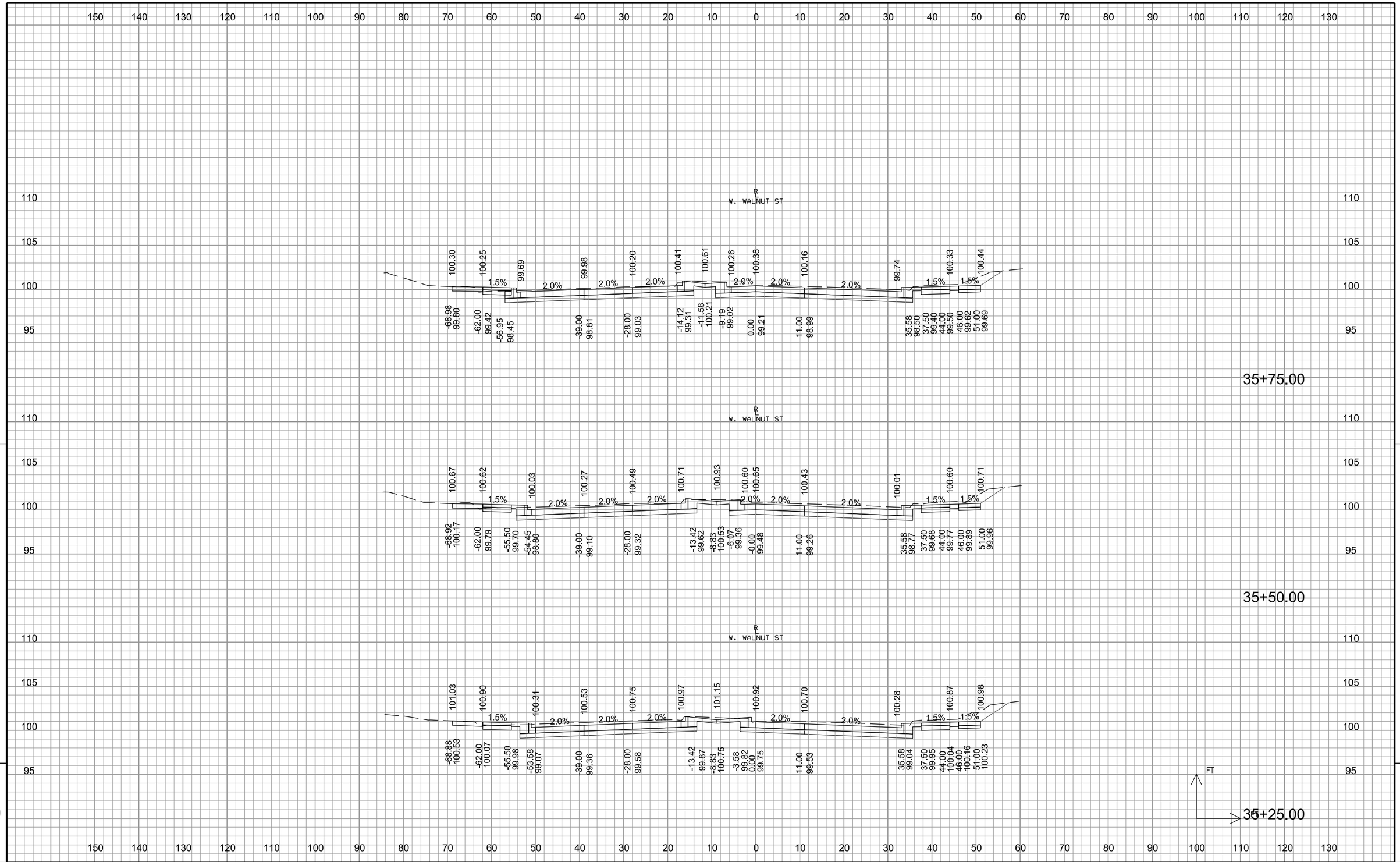


34+50.00

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 440	E

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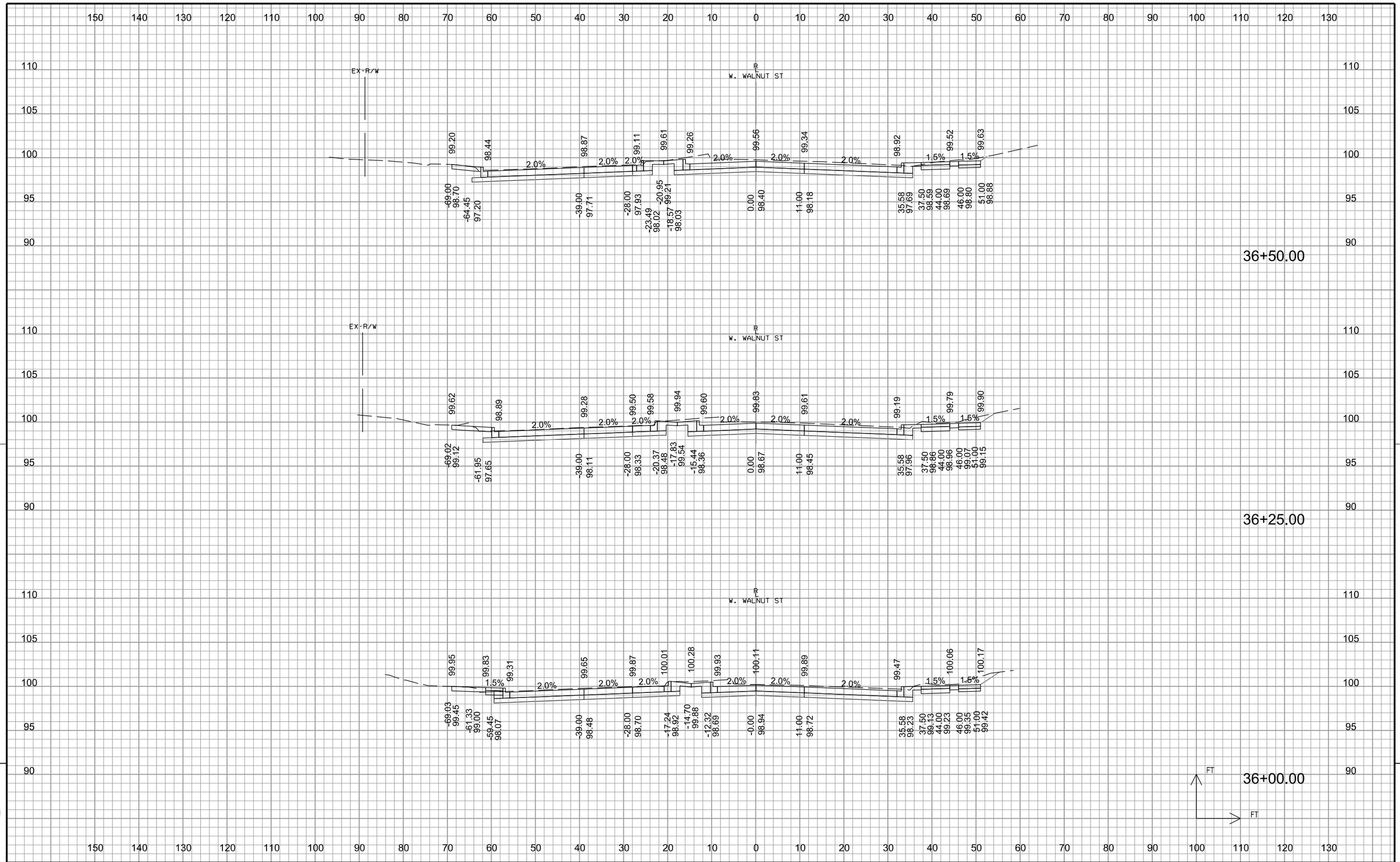
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 441	E

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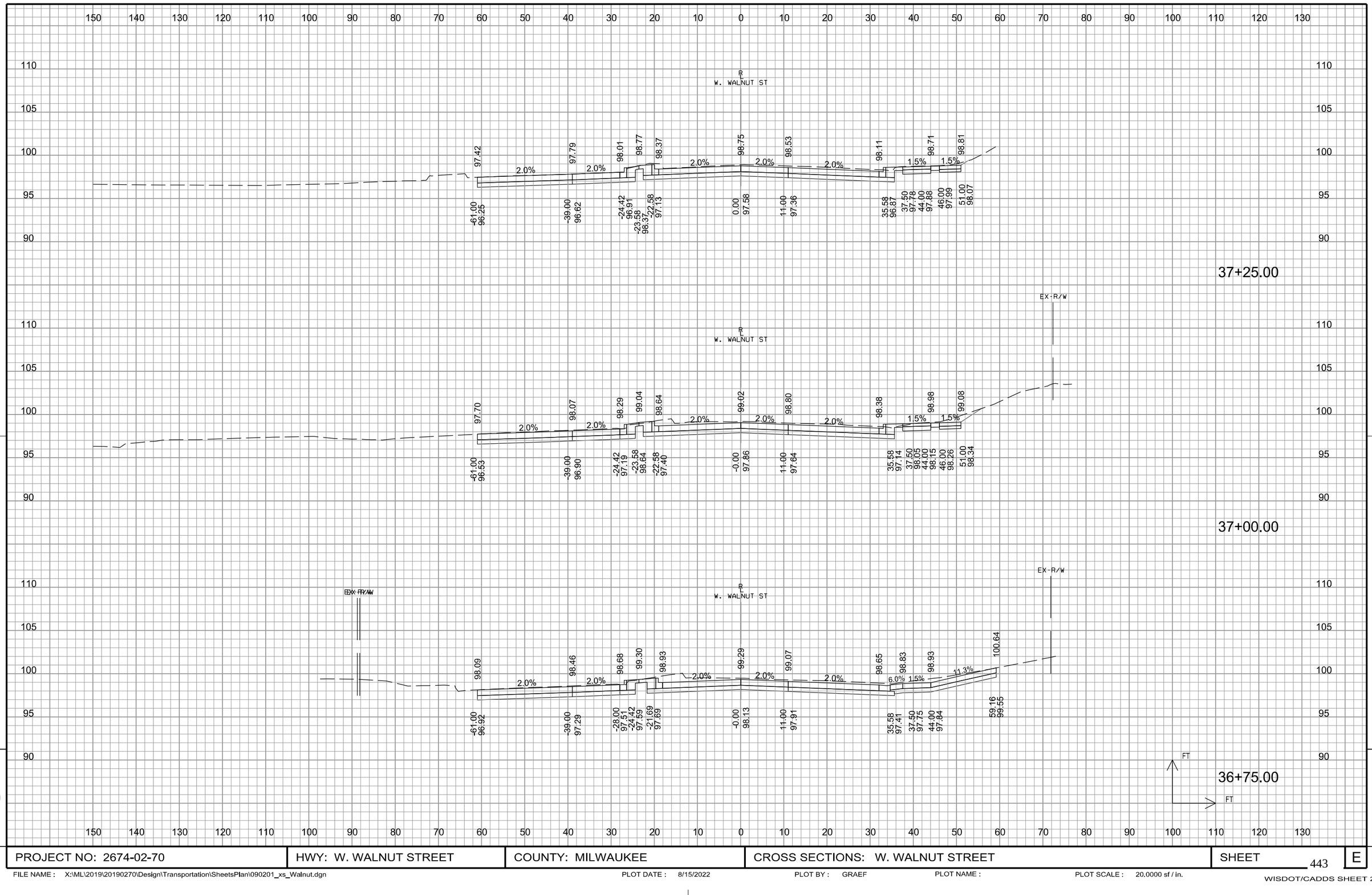
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 442	E

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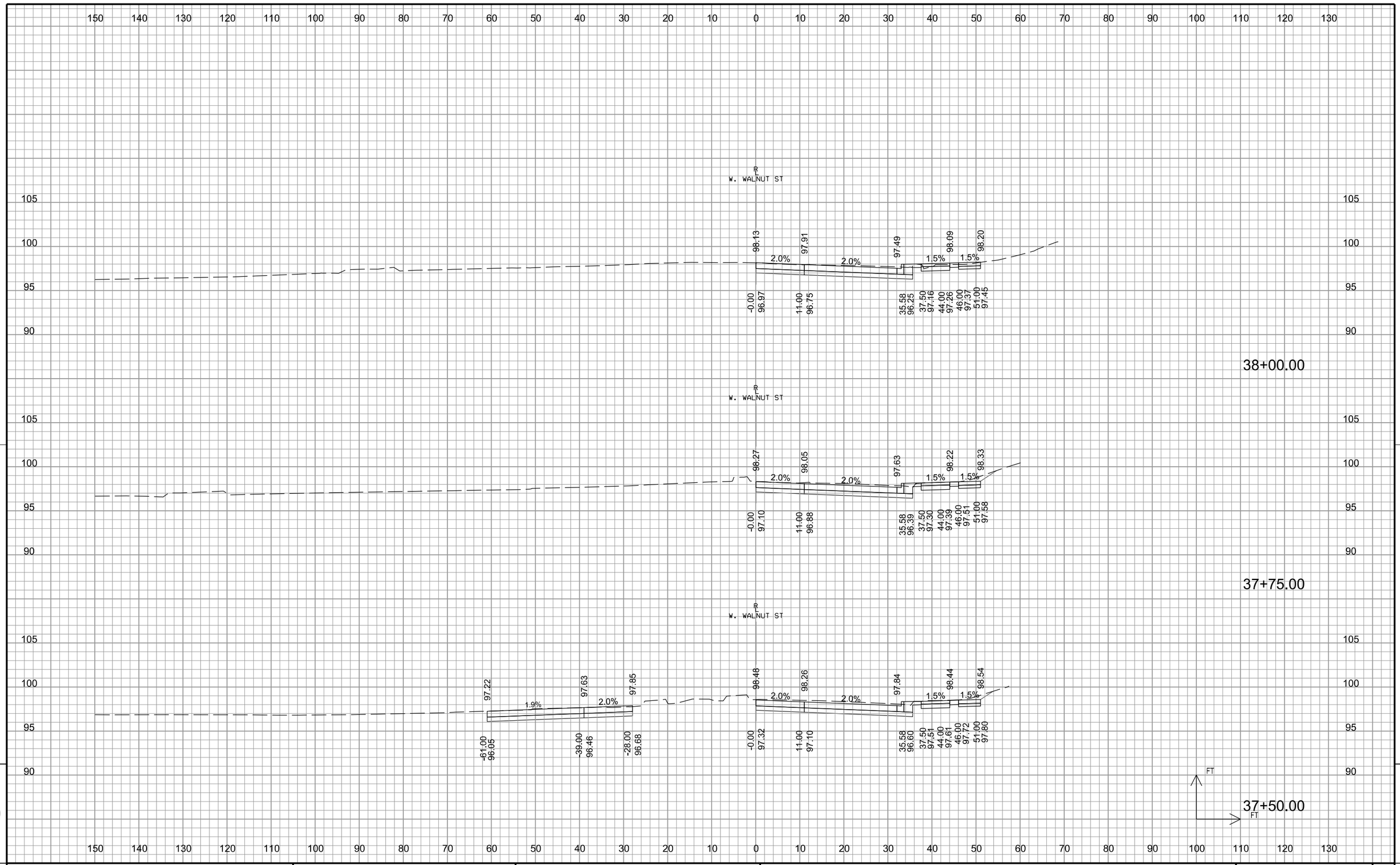
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 443	E

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WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 444	E

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WISDOT/CADDS SHEET 21

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

105
100
95
90

R
W. WALNUT ST

96.89
2.0%
97.47
2.0%
97.69

-62.26
95.72
-39.00
96.30
-28.00
96.52

38+75.00

R
W. WALNUT ST

105
100
95
90

38+50.00

R
W. WALNUT ST

105
100
95
90

FT
38+25.00
FT

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

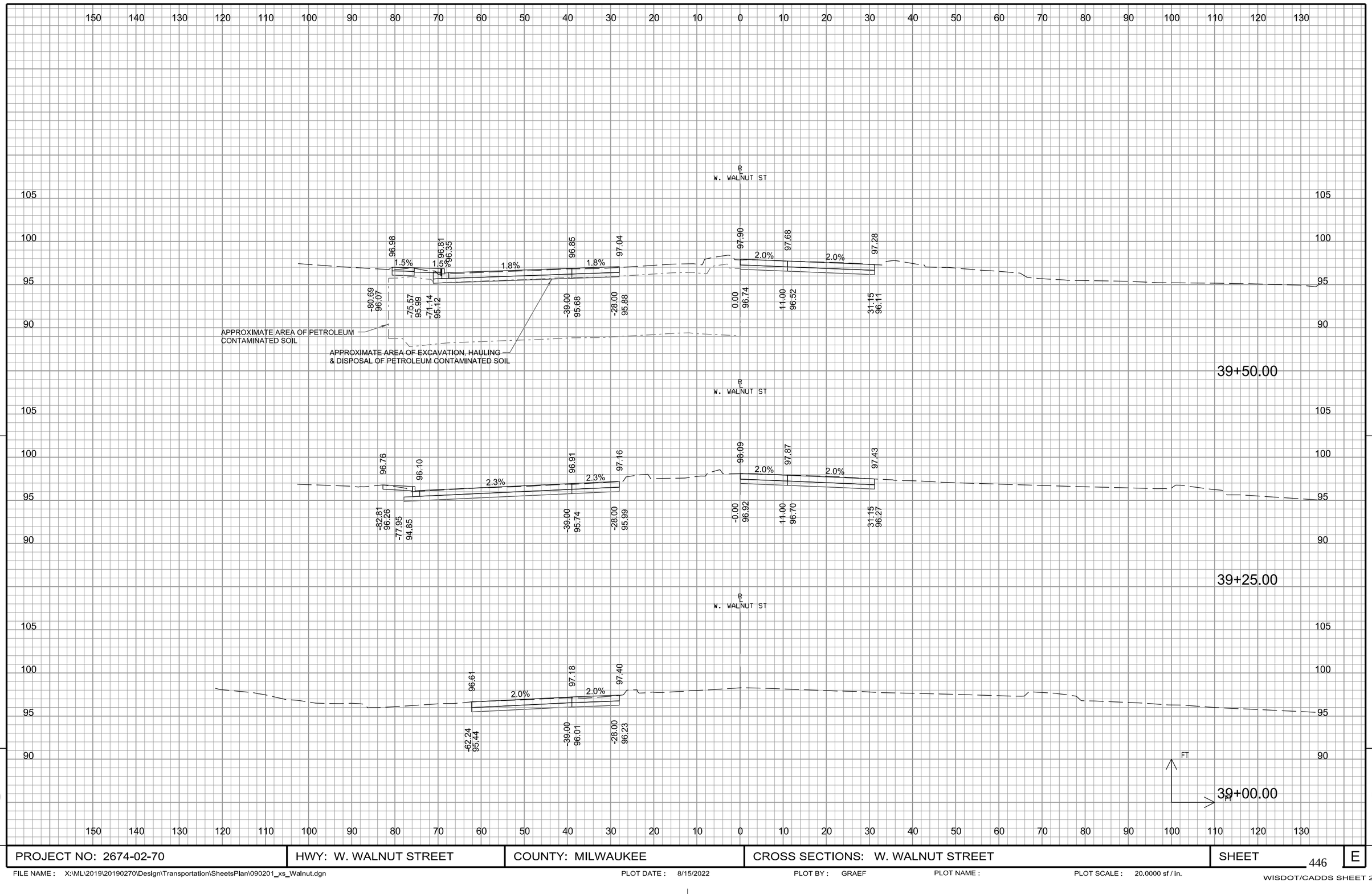
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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 445	E

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WISDOT/CADDS SHEET 21



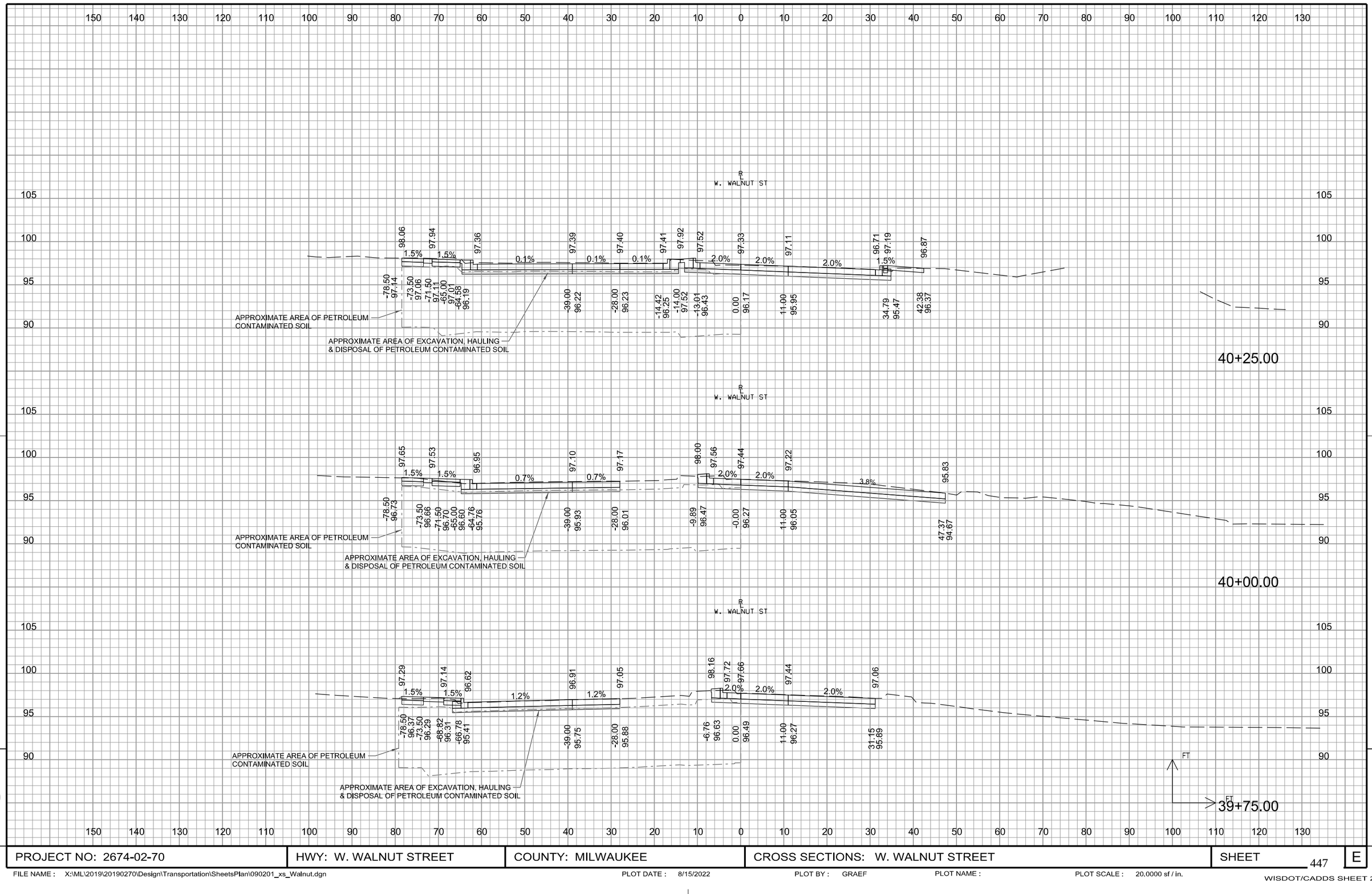
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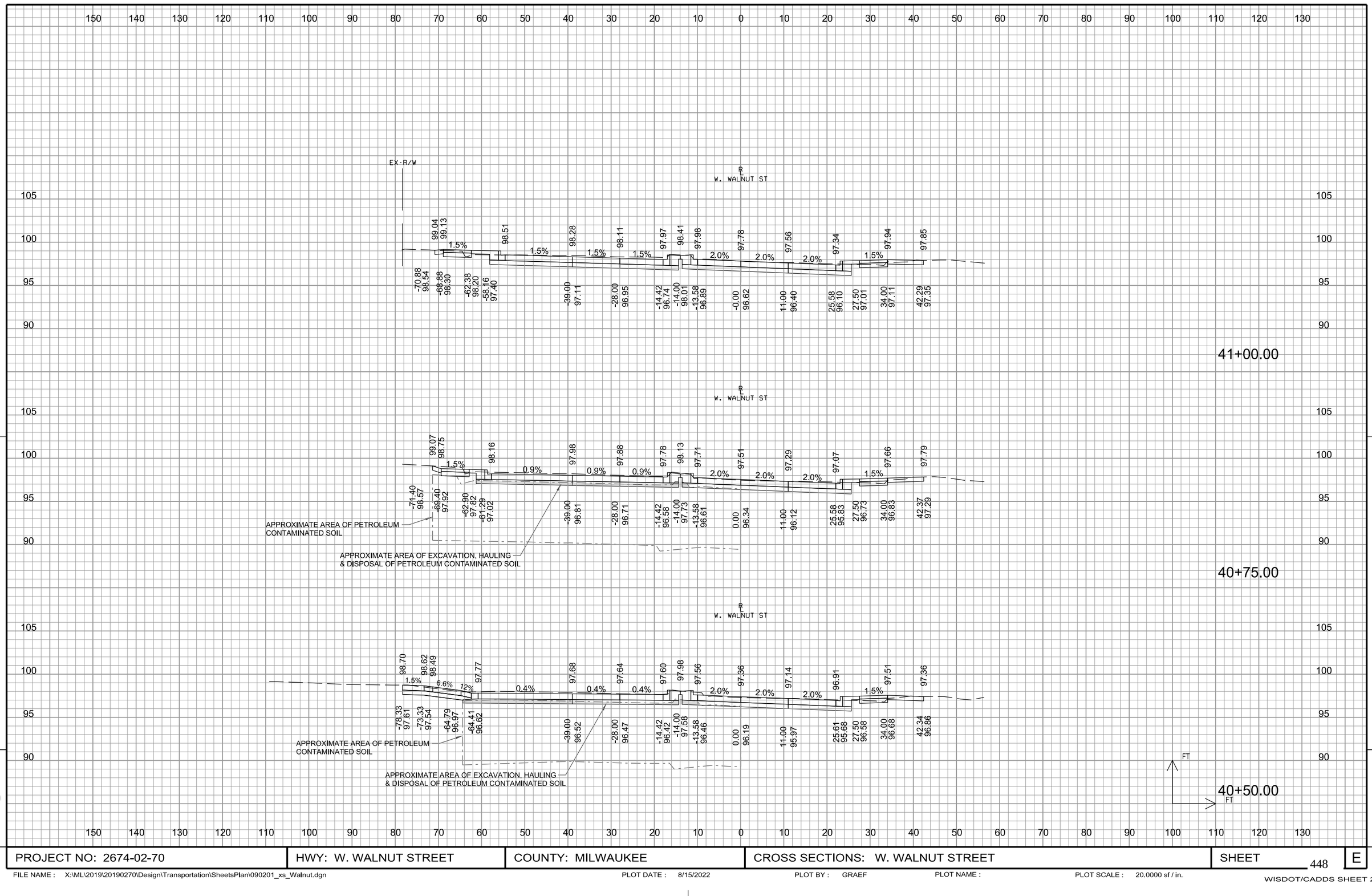
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WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 447	E



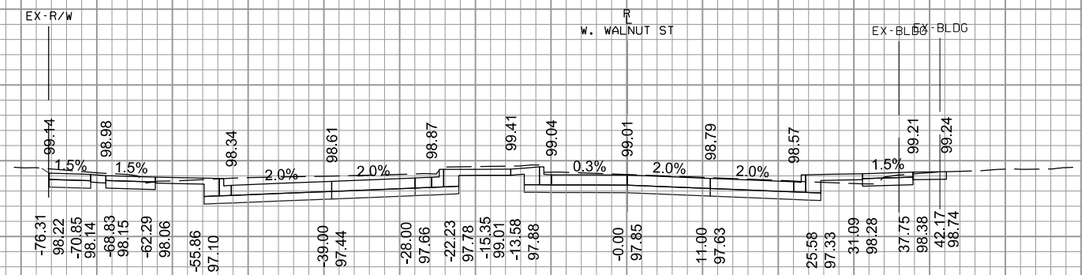
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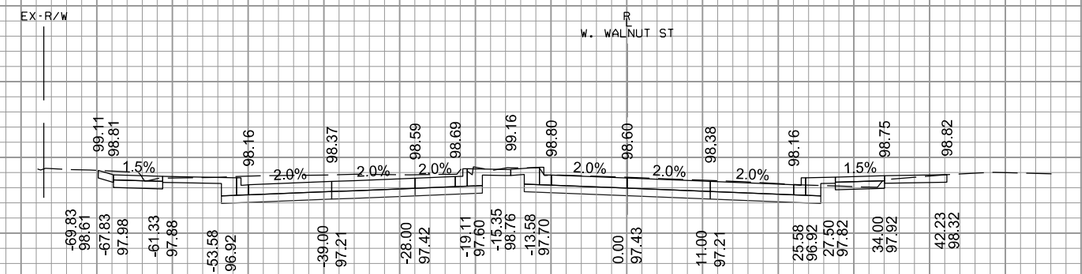
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FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090201_xs_Walnut.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

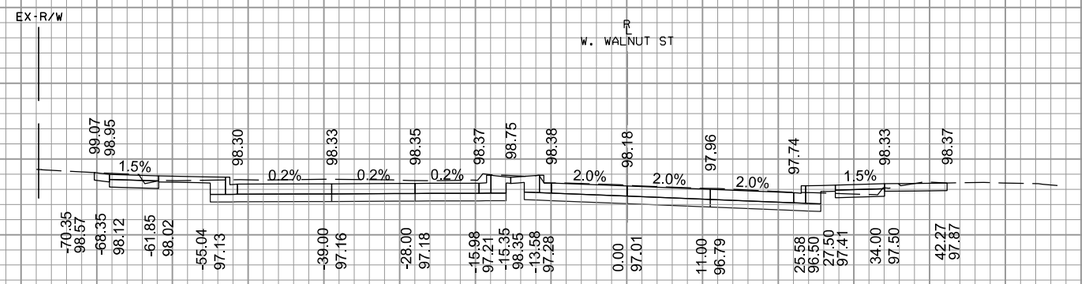
WISDOT/CADDS SHEET 21

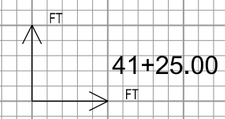


41+75.00



41+50.00



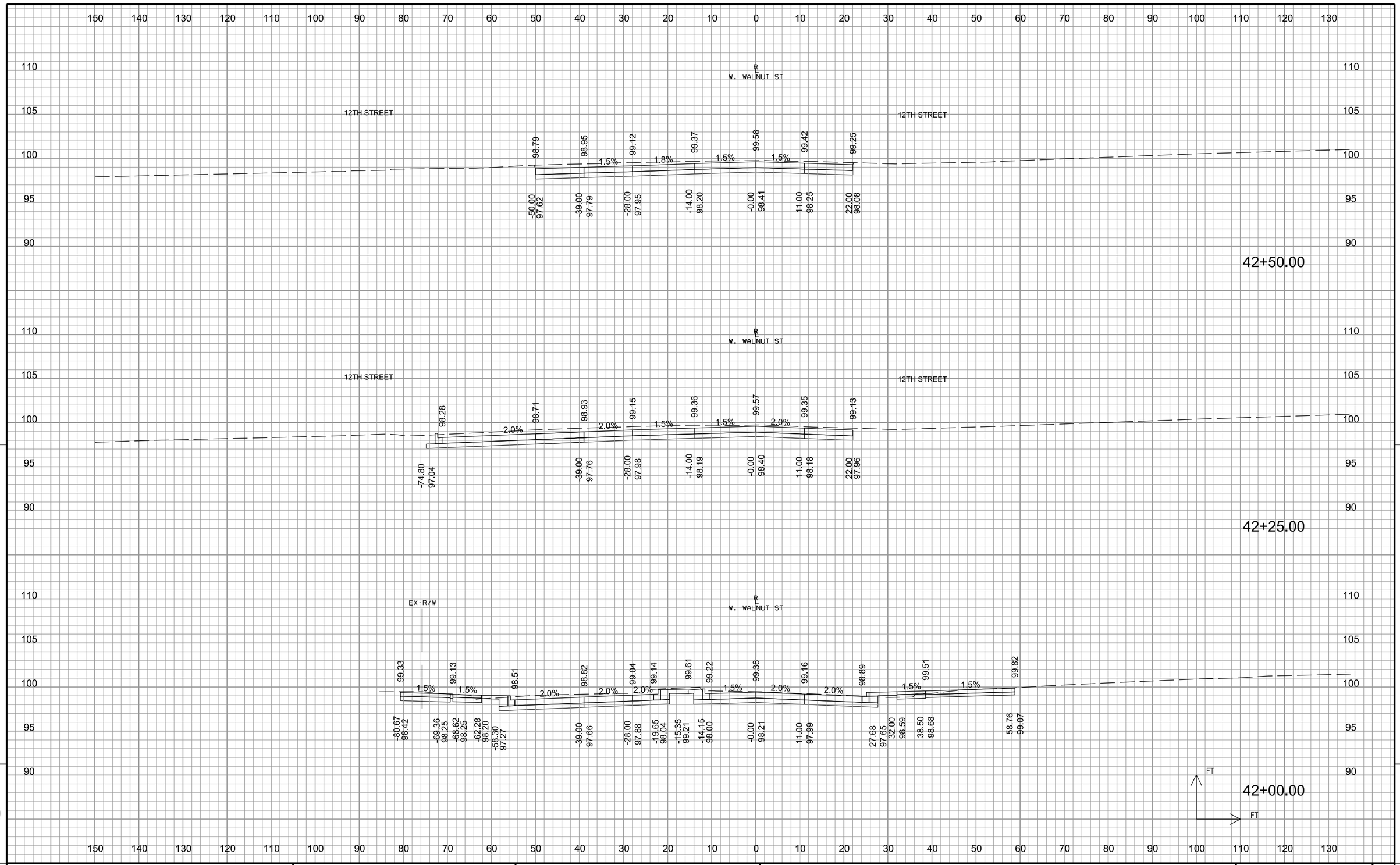


41+25.00

PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 449	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090201_xs_Walnut.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

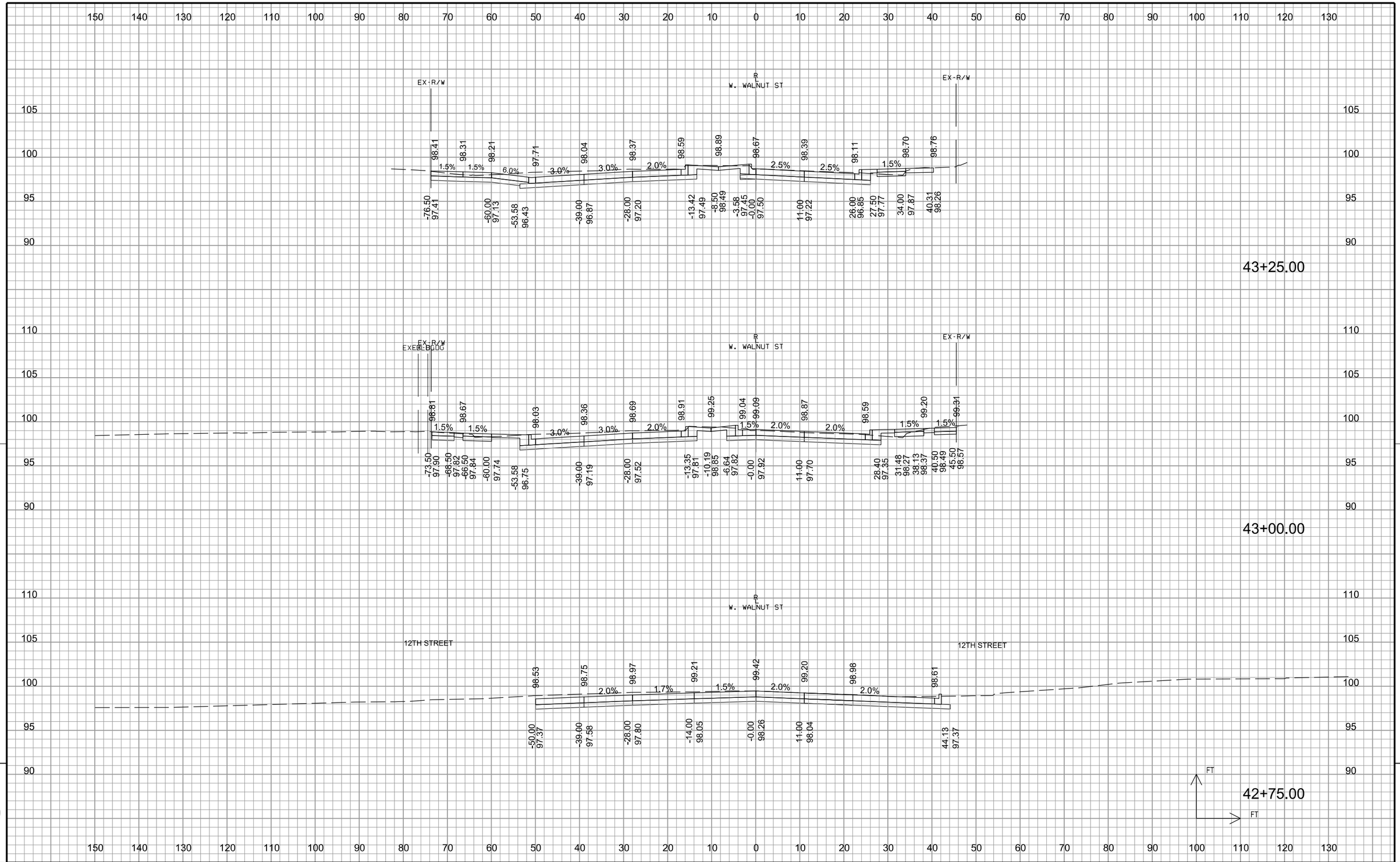
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 450	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090201_xs_Walnut.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

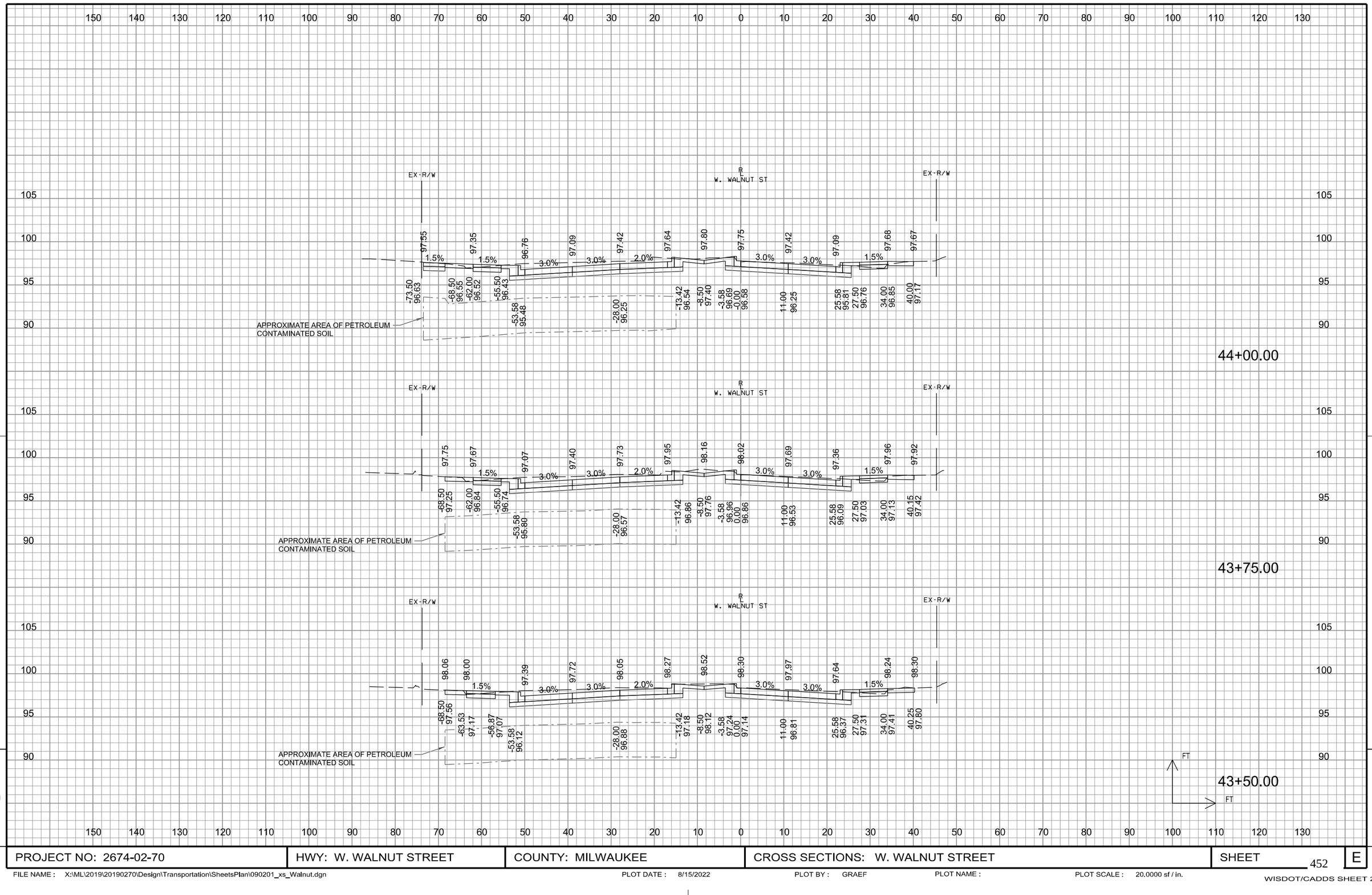
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 451	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090201_xs_Walnut.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

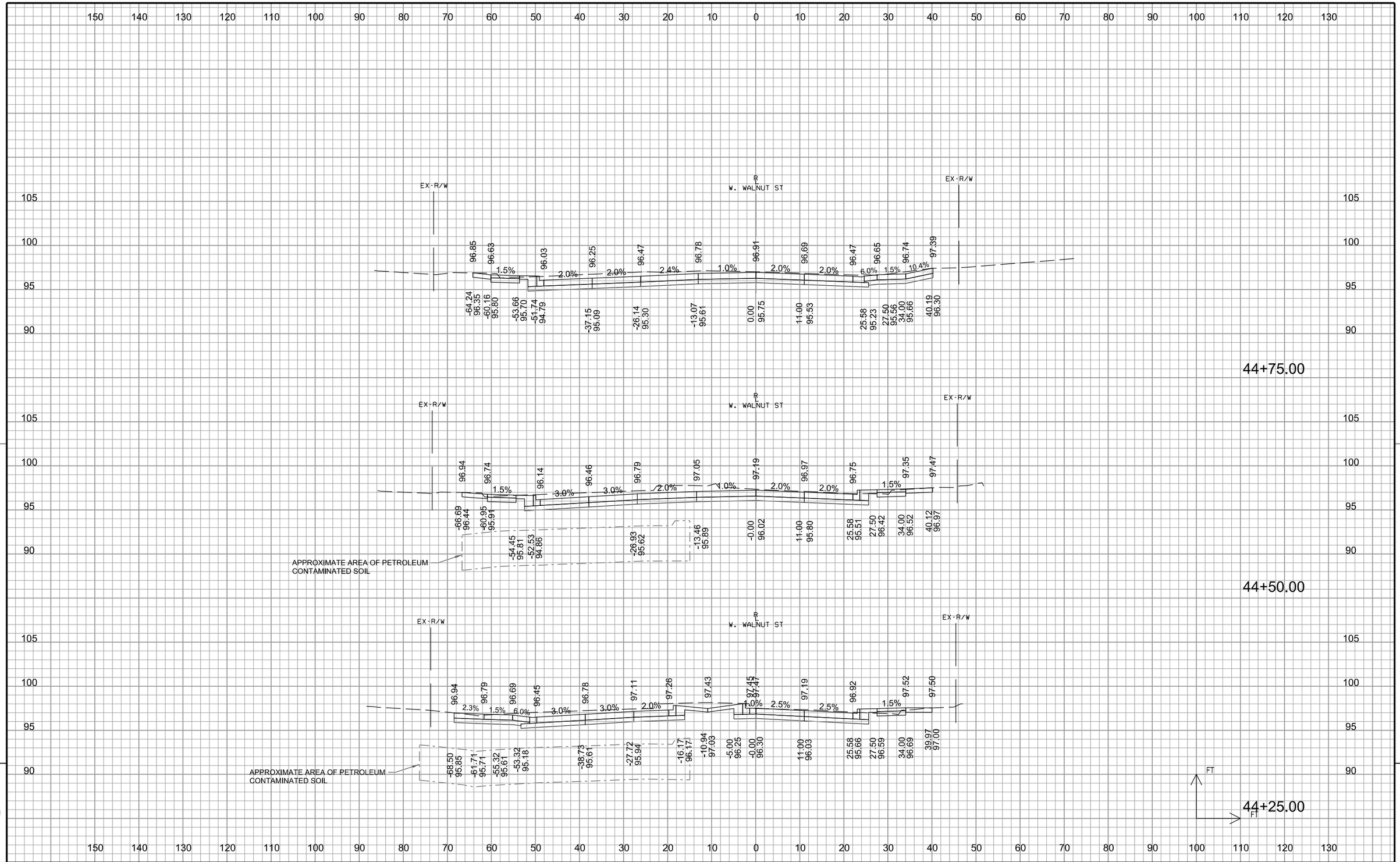
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 452	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090201_xs_Walnut.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

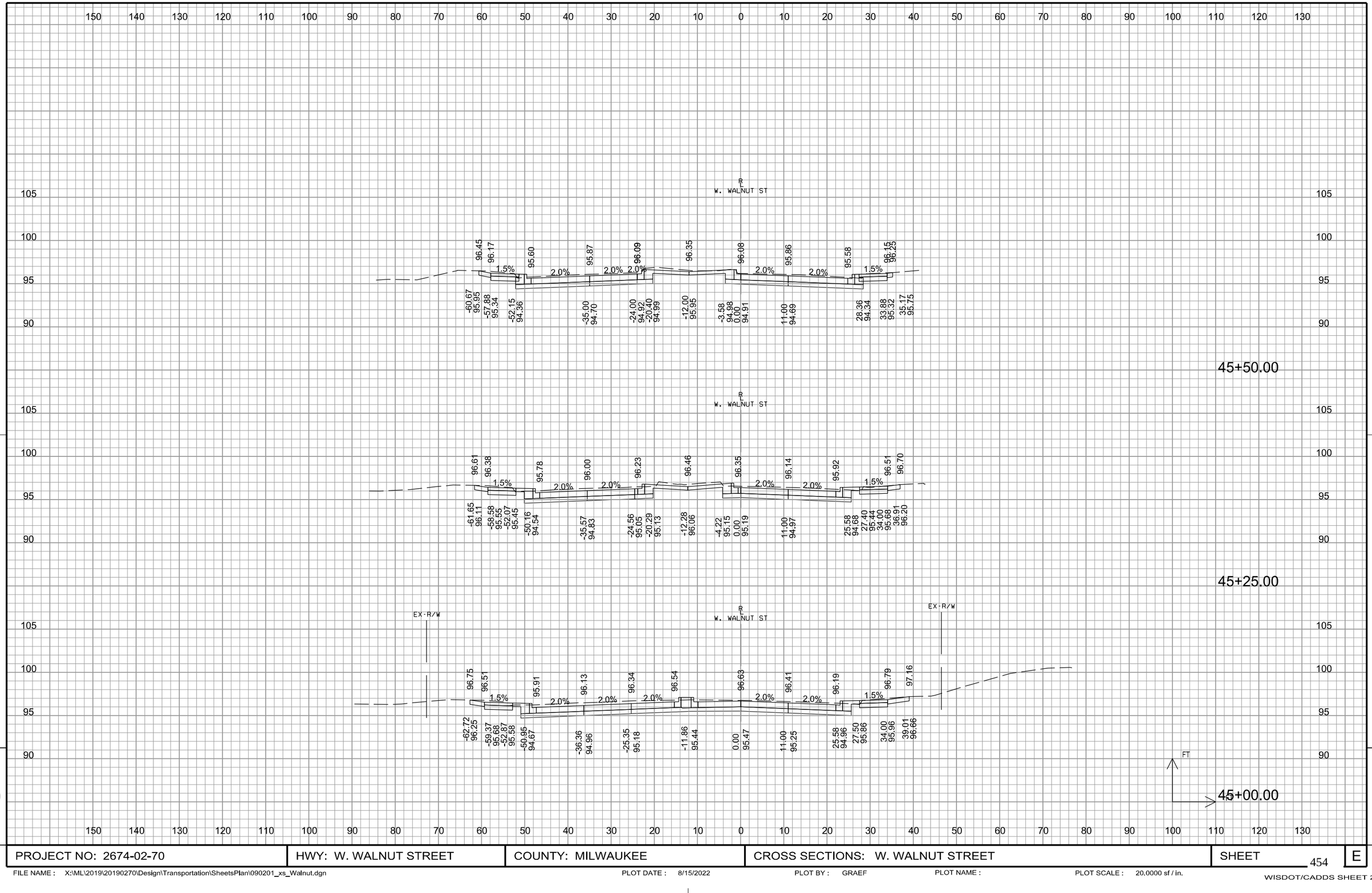
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 453	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090201_xs_Walnut.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

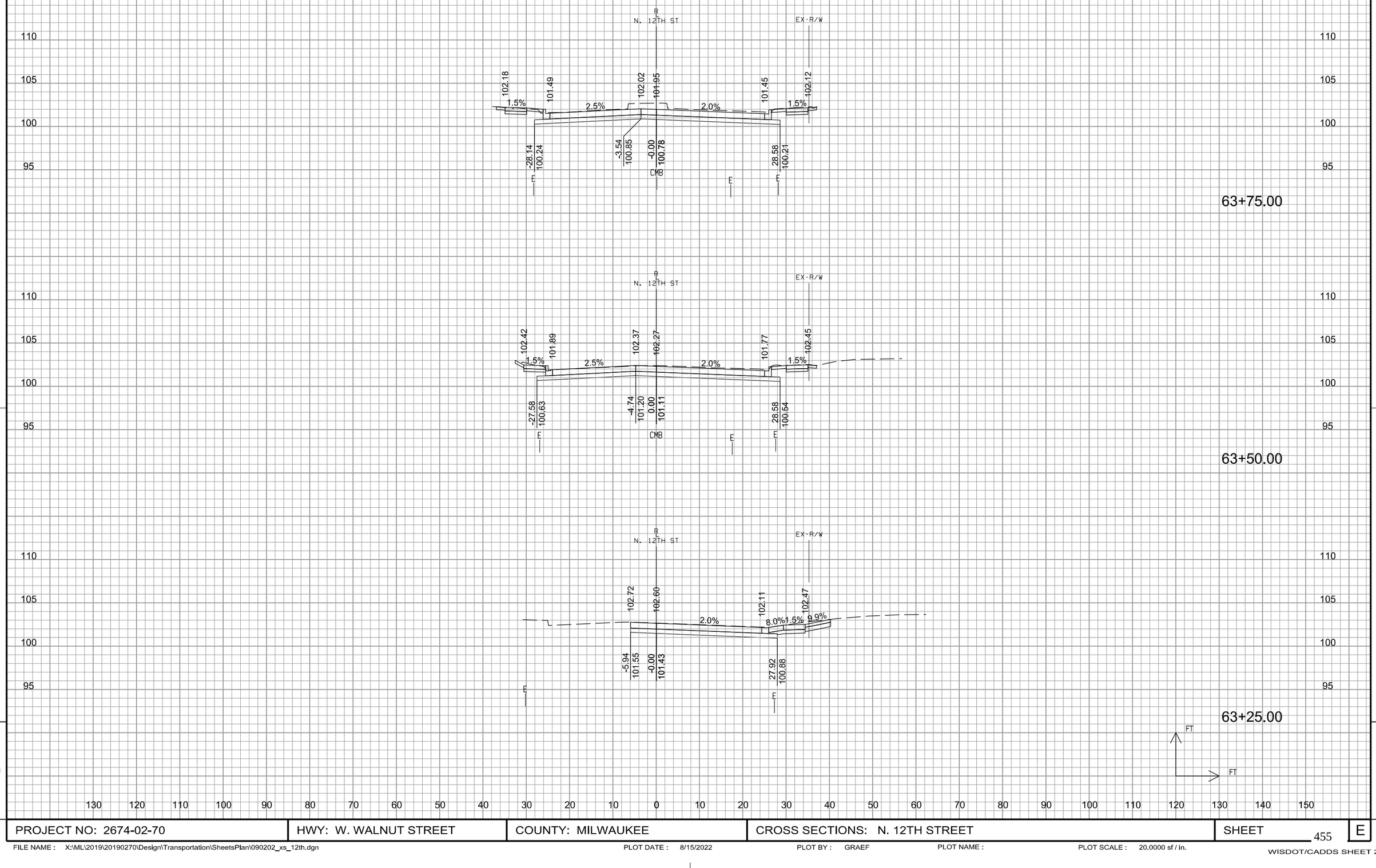
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WALNUT STREET	SHEET 454	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090201_xs_Walnut.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

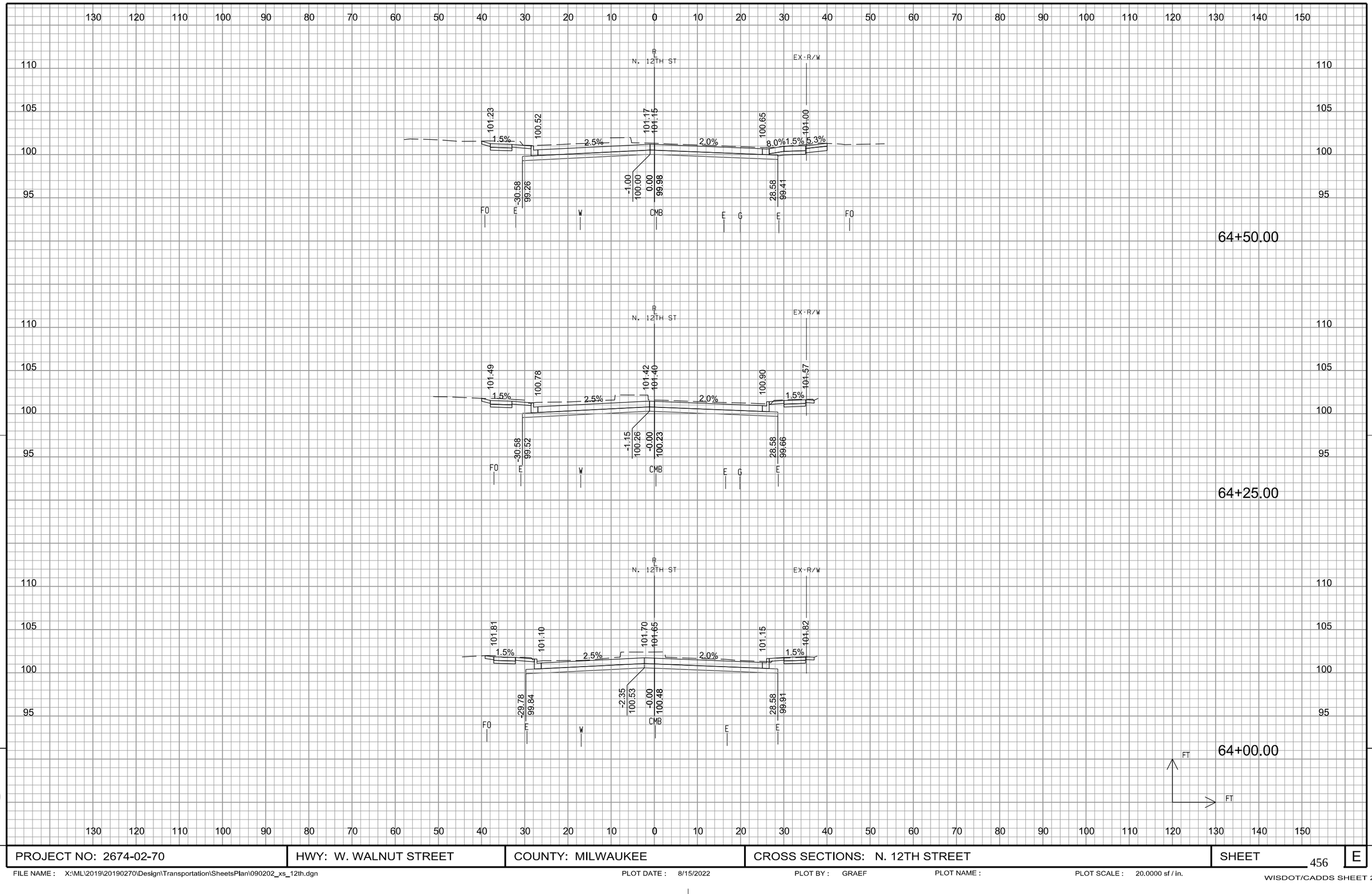
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 12TH STREET	SHEET 455	E

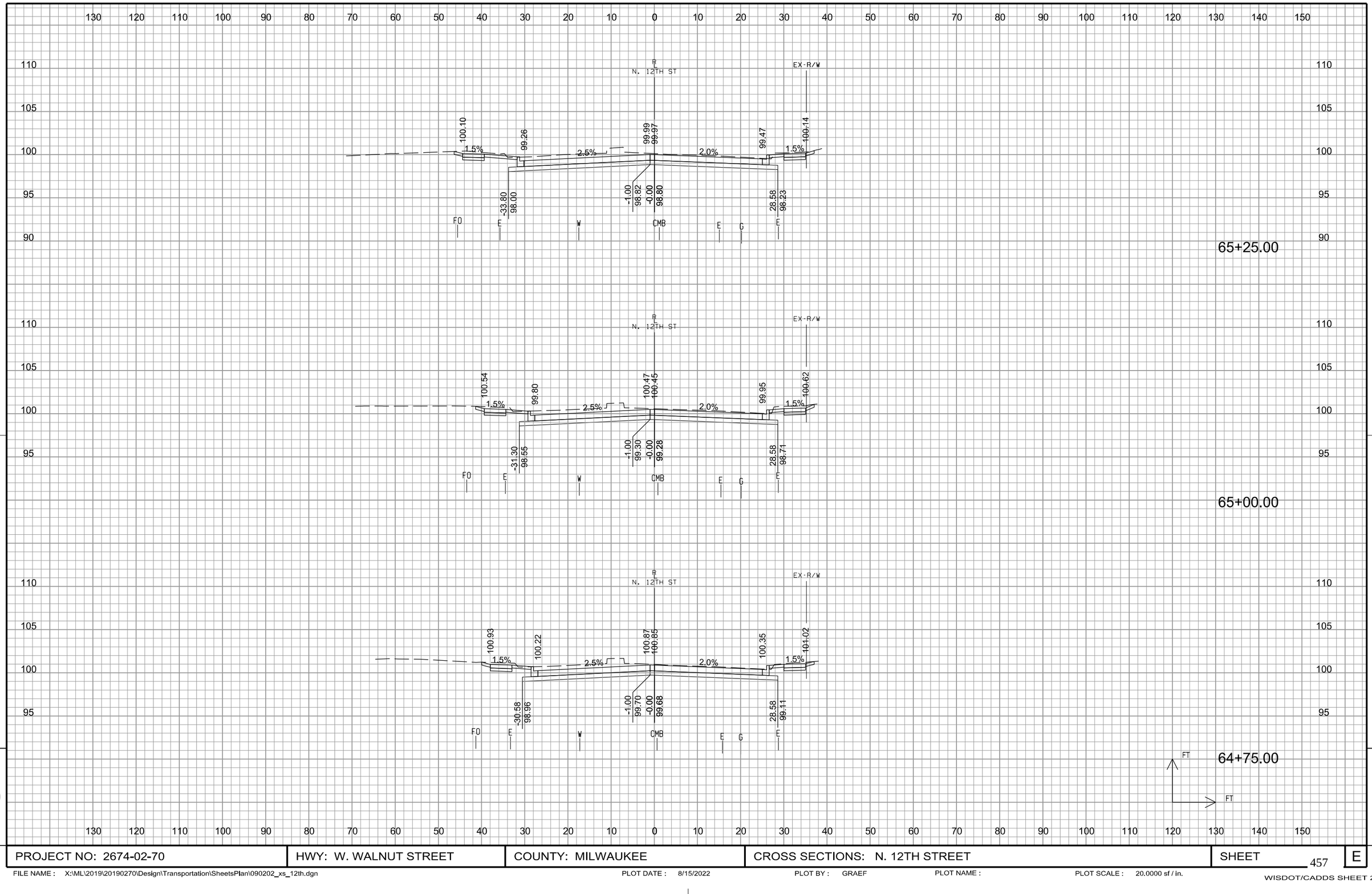
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WISDOT/CADDS SHEET 21

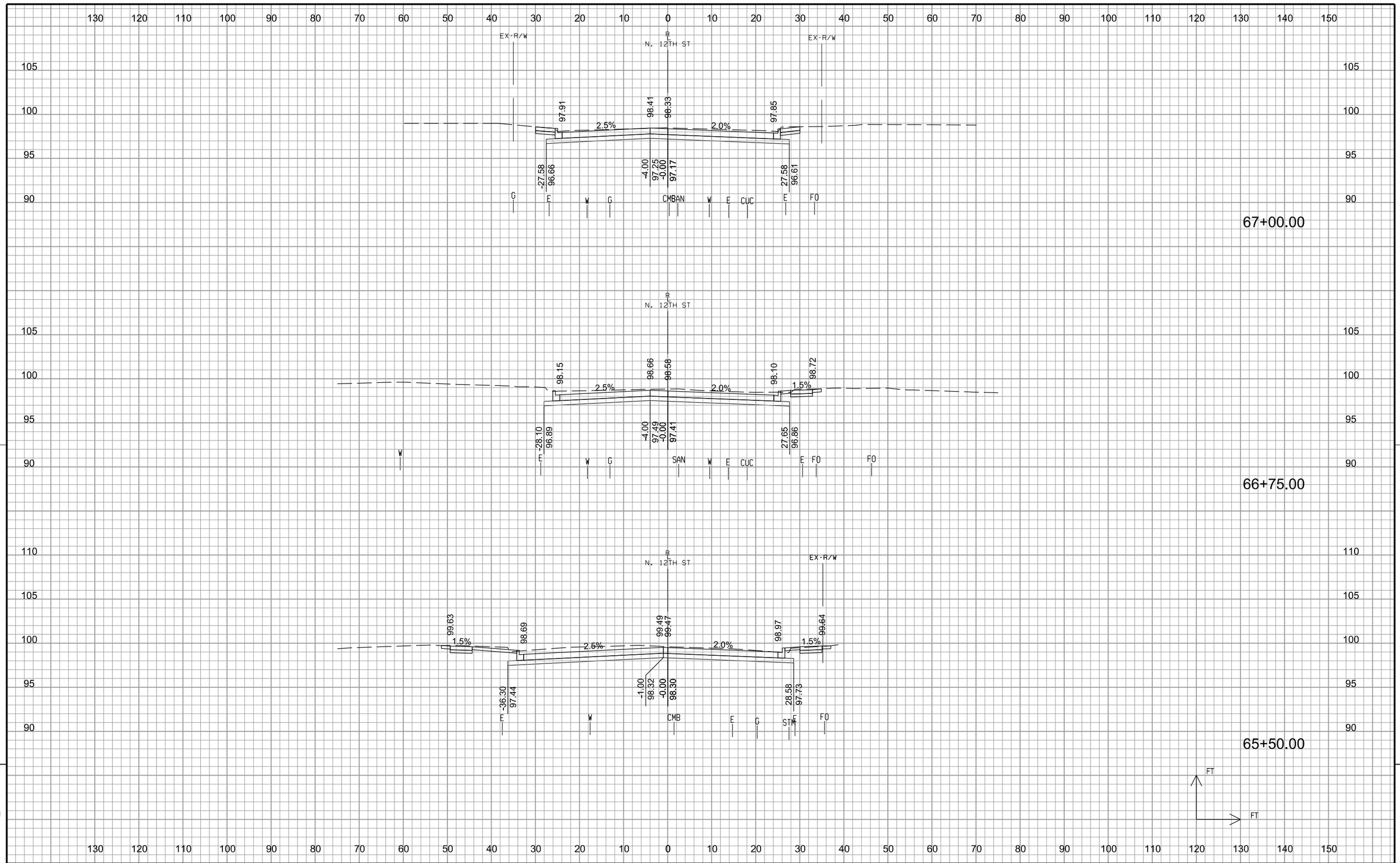


PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 12TH STREET	SHEET 456 E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090202_xs_12th.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

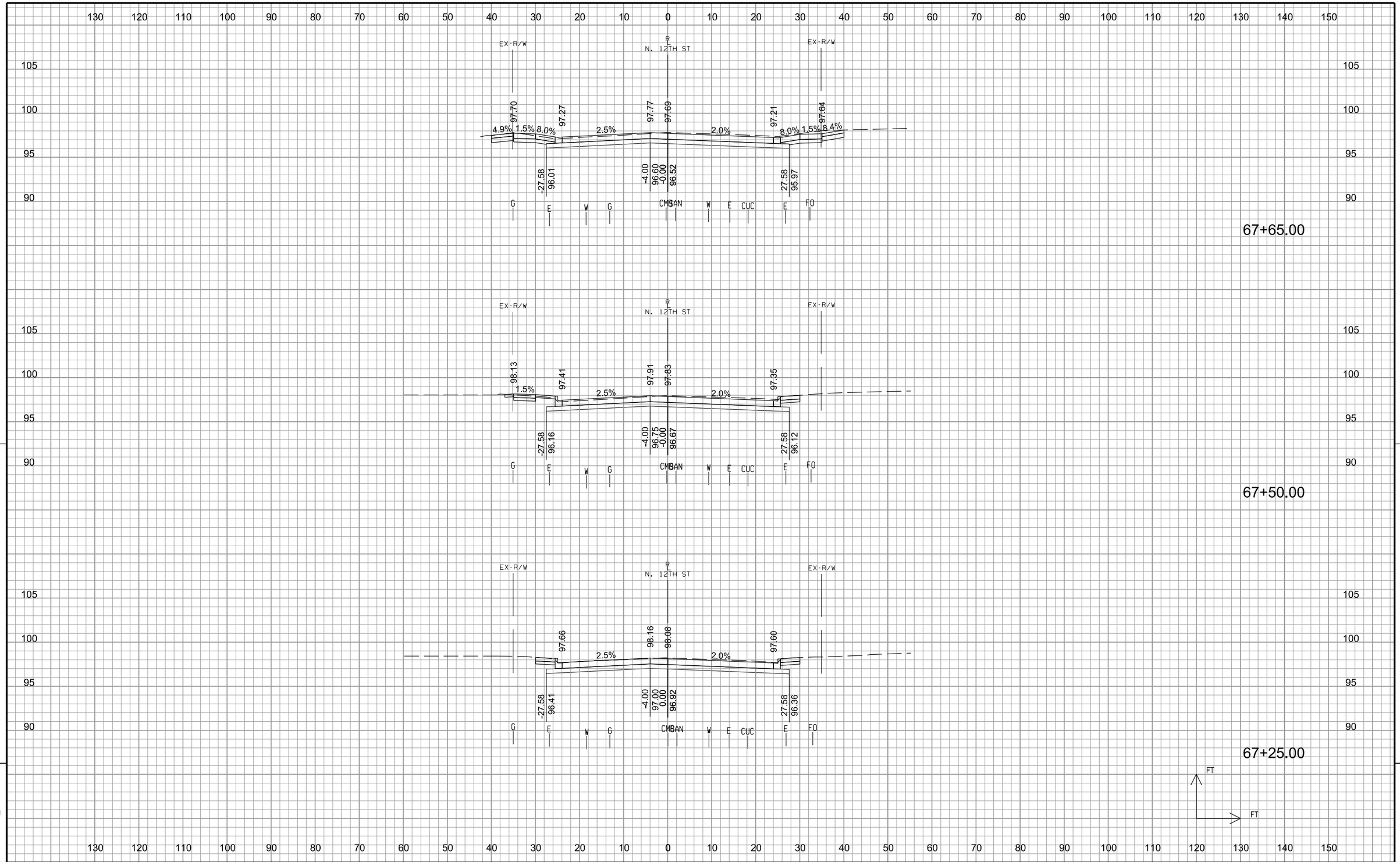


PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 12TH STREET	SHEET 457	E



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 12TH STREET	SHEET 458	E

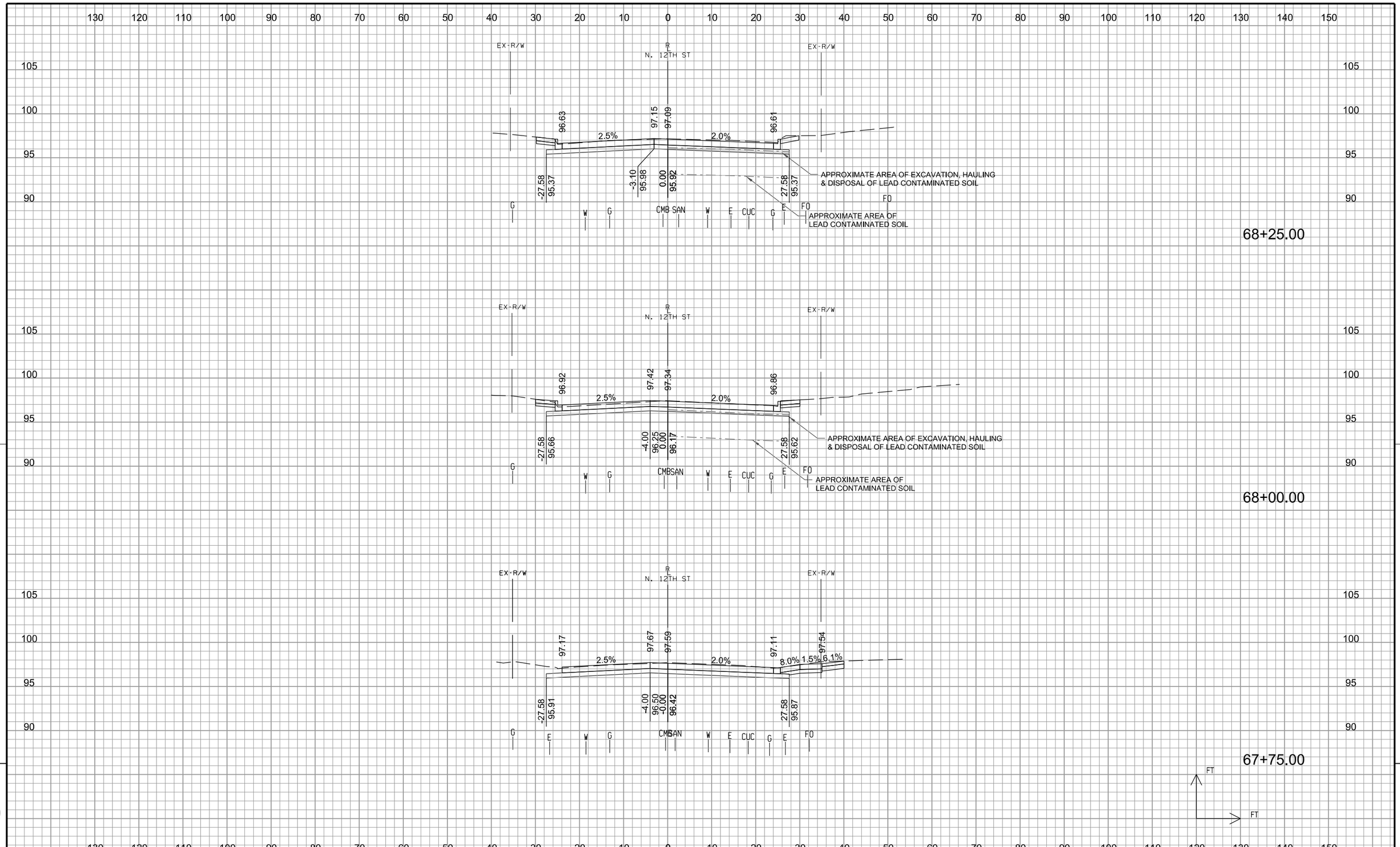
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PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 12TH STREET	SHEET 459	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090202_xs_12th.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

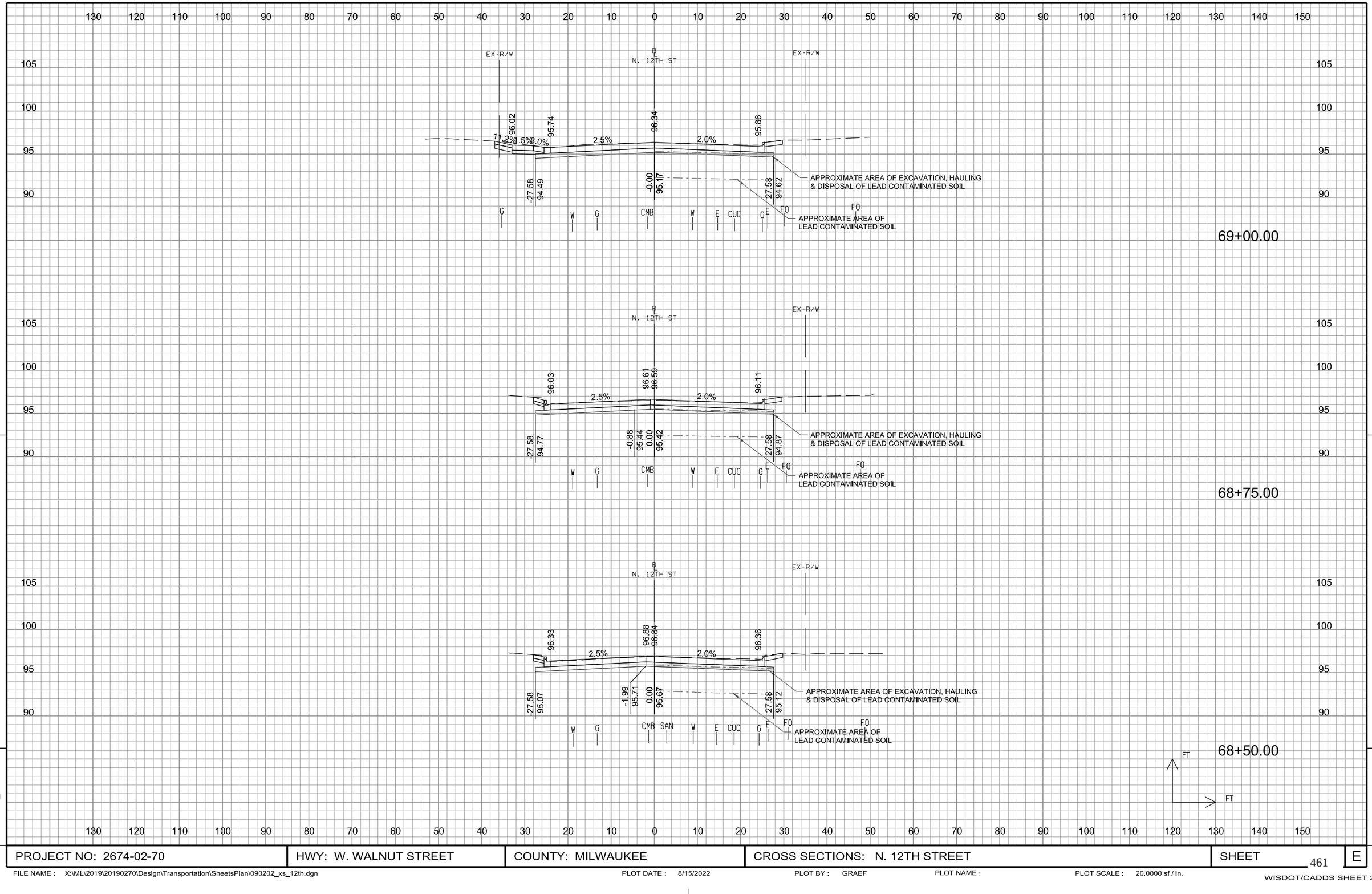
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 12TH STREET	SHEET 460	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090202_xs_12th.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

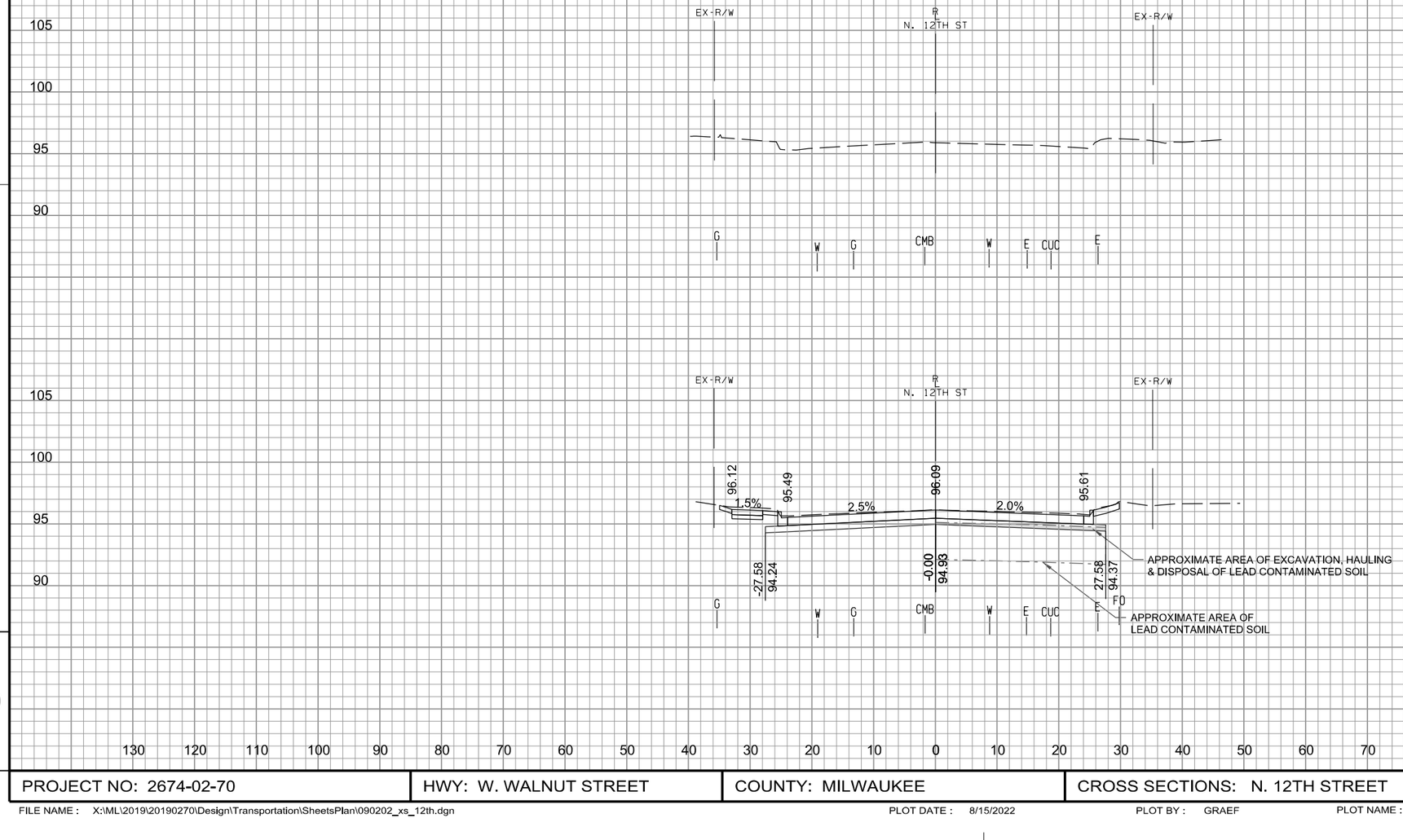
WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 12TH STREET	SHEET 461	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090202_xs_12th.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



PROJECT NO: 2674-02-70	HWY: W. WALNUT STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 12TH STREET	SHEET 462	E

FILE NAME : X:\ML\2019\20190270\Design\Transportation\SheetsPlan\090202_xs_12th.dgn PLOT DATE : 8/15/2022 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 20.0000 sf / in.

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
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