WKE

PROJECT ID 1360-00-76

WI TH: 2984-00-73

JUNE 2019

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 PAGES = 174

N

080

COUNTY MILWAUKEE

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

W FOND DU LAC AVENUE

6 HIGHWAY INTERSECTIONS

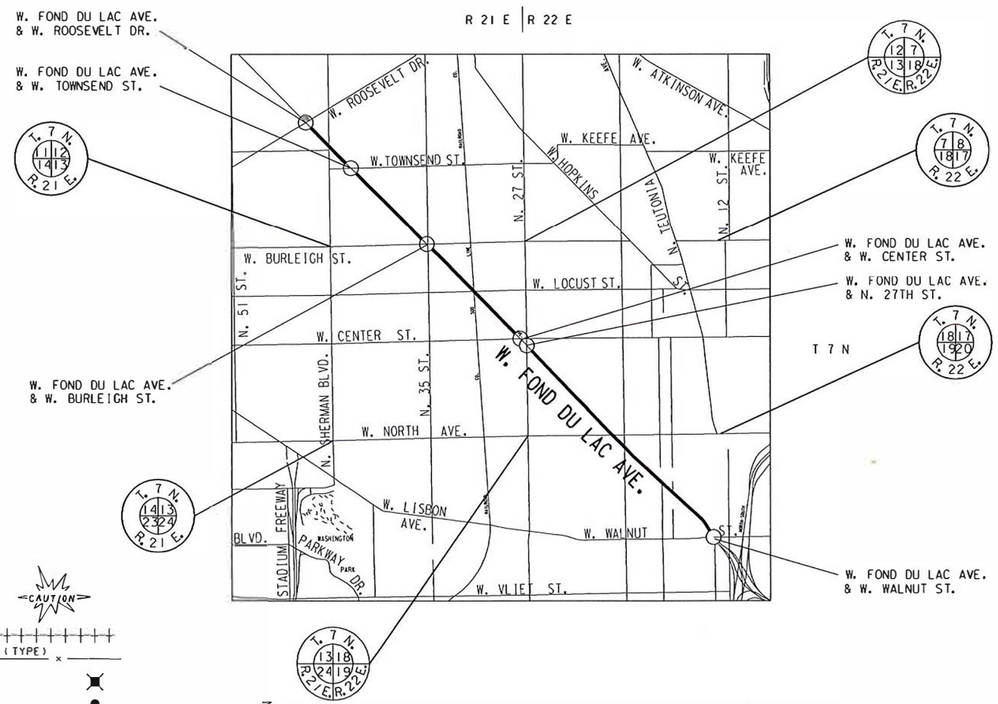
STH 145
MILWAUKEE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1360-00-76	———	———

STATE PROJECT NUMBER

1360-00-76

R 21 E | R 22 E



LAYOUT

SCALE 1/2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.00 MILES

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.

DESIGN DESIGNATION

A.D.T. (CURRENT)	= 17,600-42,400
A.D.T.	= N/A
D.H.V.	= N/A
D.	= N/A
T.	= N/A
DESIGN SPEED	= 35 MPH
ESALS	= N/A

CONVENTIONAL SIGNS

- 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
- 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
- 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

Accepted For
City of Milwaukee

10/8/18 (Date)

For Commissioner of Public Works

Original Plans Prepared By

WISCONSIN JEFFREY S. POLENSKE E-33528 MILWAUKEE WIS. PROFESSIONAL ENGINEER

10/8/18 (Date)

City Engineer

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor City of Milwaukee

Designer City of Milwaukee

Management Consultant

C.O. Examiner

APPROVED FOR THE DEPARTMENT

DATE: 10/16/2018 Christine Hanna (Signature)

E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\TITLE.DGN

PLOT DATE:

GENERAL NOTES

1. ALL OPENINGS BELOW SUBGRADE, RESULTING FROM REMOVALS OR ABANDONMENTS, SHALL BE BACKFILLED WITH BASE AGGREGATE DENSE 1-1/4". BACKFILL MATERIAL SHALL BE INCIDENTAL TO THE ASSOCIATED REMOVAL OR ABANDON PAY ITEM.
2. ALL DISTURBED AREAS, NOT SURFACED, ARE TO BE COVERED WITH 4-INCHES OF TOPSOIL, SODDED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. TOPSOILED AREAS SHALL BE SODDED WITHIN 5 CALENDAR DAYS.
3. TRANSVERSE JOINTS IN THE CONCRETE WALK SHALL BE CONSTRUCTED AT INTERVALS EQUAL TO THE WIDTH OF THE CONCRETE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
4. ALL LONGITUDINAL AND TRANSVERSE JOINTS REQUIRING SEALING SHALL BE SEALED IN ACCORDANCE WITH THE DETAIL.
5. EXPANSION JOINTS SHALL BE CONSTRUCTED AT ALL RADIUS POINTS IN CURB AND GUTTER.
6. ALL CURB AND GUTTER SHALL HAVE A FLANGE THICKNESS OF 8-INCH.
7. ALL STATION AND OFFSET OF CURB REFERENCED IN THE PLANS ARE TO THE FACE OF THE CURB.
8. IMMEDIATELY AFTER CONSTRUCTION OF ANY INLET, CONTRACTOR SHALL INSTALL THE INLET PROTECTION TO MINIMIZE SEDIMENTATION IN THE INLET AND STORM SEWER.
9. PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.
10. ANY MESH OR REINFORCEMENT FOUND DURING REMOVAL OF THE PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE ITEM “REMOVING PAVEMENT”
11. THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS 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.
17. STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED AND MULCH.
19. EROSION CONTROL BMP’S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND BY THE ENGINEER. EROSION CONTROL BMP’S SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

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
Curb Ramp Detail
Removal Plans
Erosion Control Plan
Utilities
Storm Sewer Plan
Sign Plan
Street Lighting and Traffic Signal Details
Lighting Details and Plan
Traffic Signals Plan
Pavement Marking Plan
Traffic Control Plan
Alignment Plan

UTILITY CONTACTS

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COMMUNICATIONS DISPATCH
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MILWAUKEE, WI 53233
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CITY OF MILWAUKEE, CUC
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MILWAUKEE, WI 53202
PHONE: 414-286-3243

CITY OF MILWAUKEE, FORESTRY
JAMES KRINGER
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MILWAUKEE, WI 53202
PHONE: 414-708-2428

CITY OF MILWAUKEE, SEWERS
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MILWAUKEE, WI 53202
PHONE: 414-286-2467

CITY OF MILWAUKEE, STREET LIGHTING
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CELL: 414-708-4251

CITY OF MILWAUKEE, TRAFFIC SIGNALS
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CELL: 414-708-5148

CITY OF MILWAUKEE, WATER WORKS
DAVE GOLDAPP
841 N. BROADWAY, ROOM 409
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PHONE: 414-286-6301
CELL: 414-708-2695

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
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260 W. SEEBOTH AVE.
MILWAUKEE, WI 53204-1446
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CELL: 414-617-1429

SPECTRUM
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1320 N. DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212
PHONE: 414-277-4045

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WE ENERGIES - GAS
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500 S. 116TH ST.
WEST ALLIS, WI 53214
PHONE: 920-621-6903
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WINDSTREAM
MARY BETH FISHER
13935 BISHOPS DRIVE
BROOKFIELD, WI 53005
PHONE: 262-792-7938
CELL: 414-313-9032

OTHER CONTACTS

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2300 N. DR. MARTIN LUTHER KING, JR. DR.
MILWAUKEE, WI 53212
PHONE: 414-263-8517
EMAIL: kristina.betzold@wisconsin.gov

MILWAUKEE COUNTY TRANSIT SYSTEM
MELANIE FLYNN
1942 N. 17TH ST.
MILWAUKEE, WI 53205
PHONE: 414-343-1764
EMAIL: mflynn@mcts.org

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
JOHN WASHBURN
W239 N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
PHONE: 262-547-6721

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

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MONOTUBE MASTARM INTERSECTION ON W. FOND DU LAC AVE. (STH 145)

W. ROOSEVELT DR.

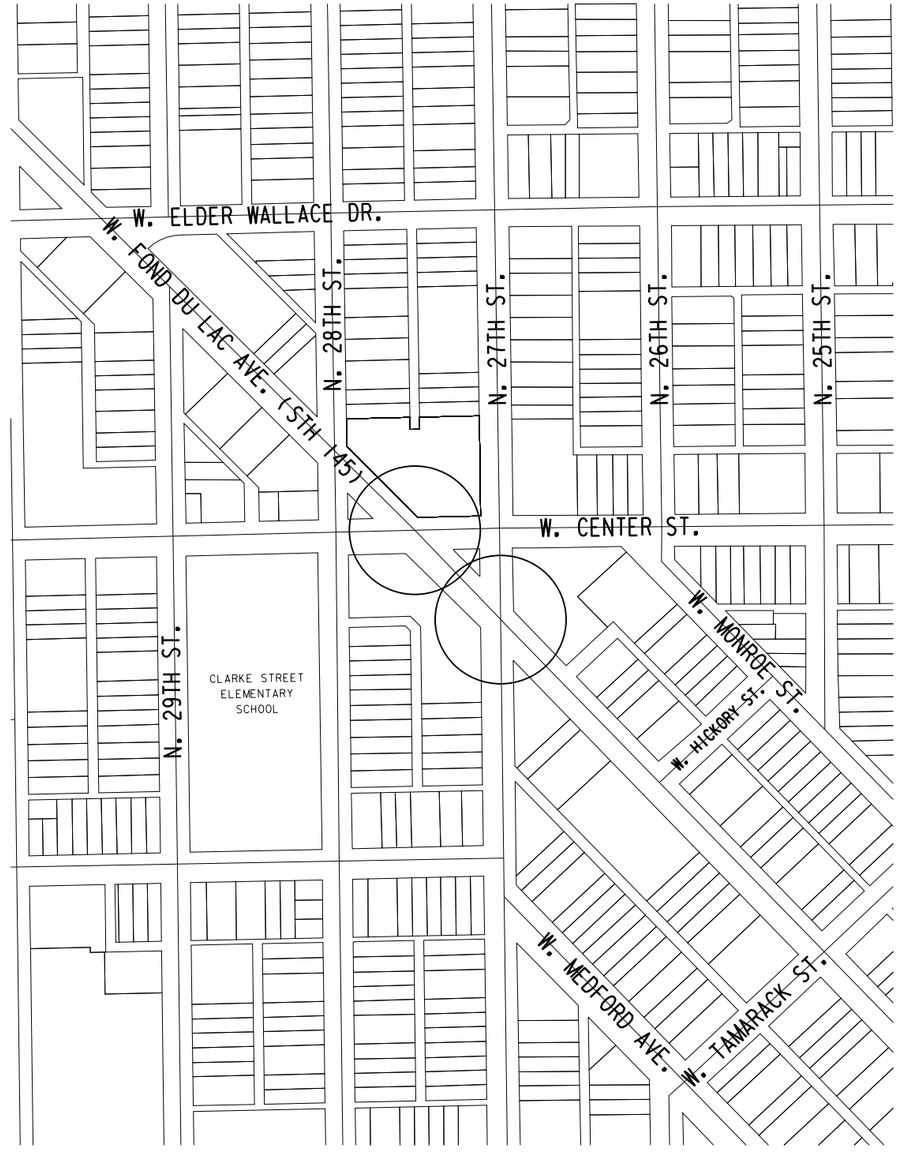
W. TOWNSEND ST.

SHEET 1 OF 3

PROJECT NO: 1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0' 300'	SHEET	E

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

MONOTUBE MASTARM INTERSECTION ON W. FOND DU LAC AVE. (STH 145)
W. BURLEIGH ST./N. 35TH ST.



MONOTUBE MASTARM INTERSECTION ON W. FOND DU LAC AVE. (STH 145)
W. CENTER ST.
N. 27TH ST.

2

SHEET 2 OF 3

PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0' 300'	SHEET	E

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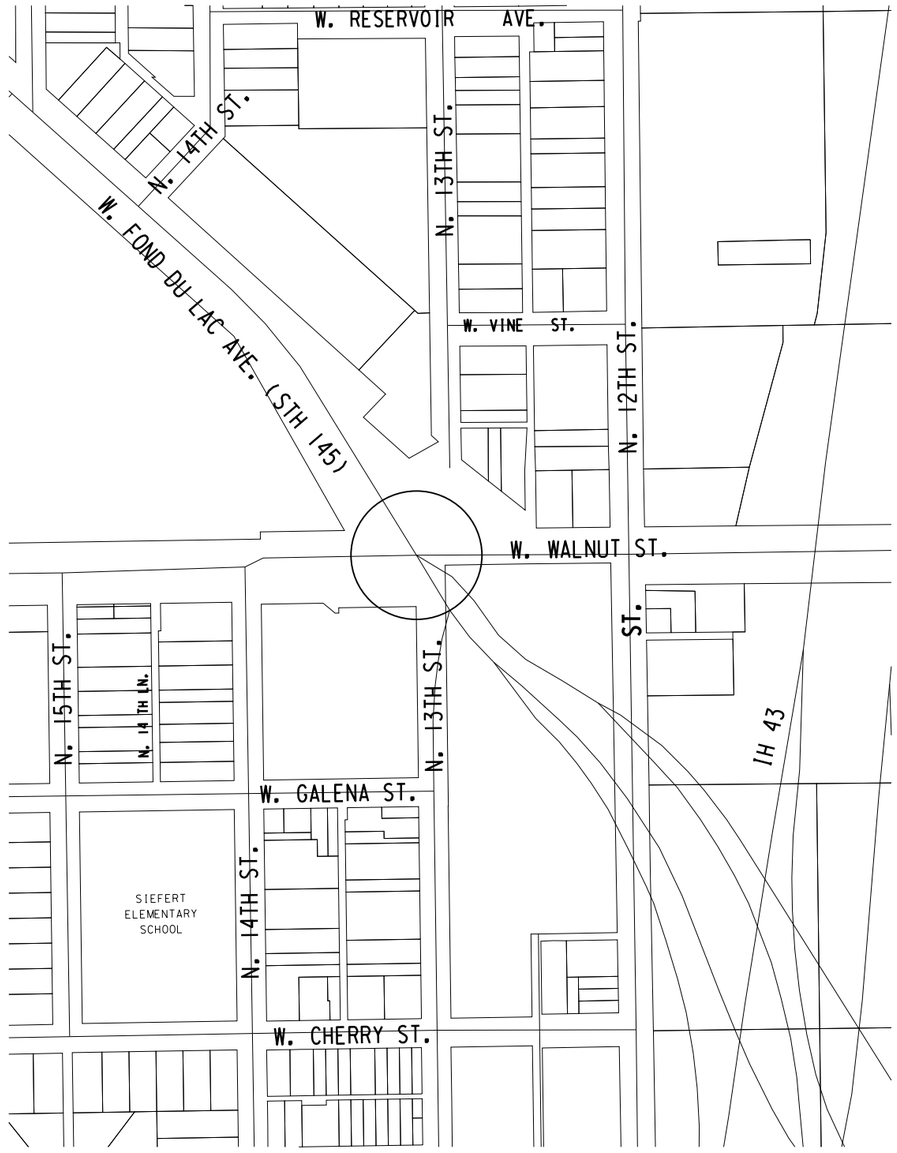
2

N



MONOTUBE MASTARM INTERSECTION ON W. FOND DU LAC AVE. (STH 145)

W. WALNUT AVE.

SHEET 3 OF 3

PROJECT NO: 1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0' 300'	SHEET	E

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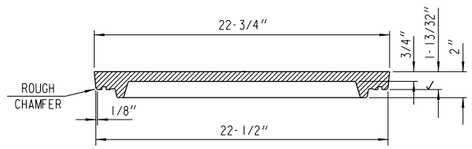
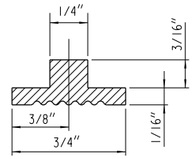
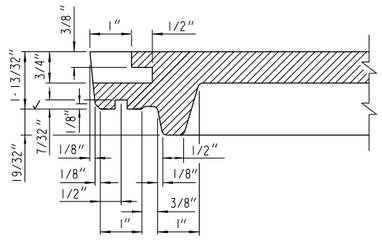
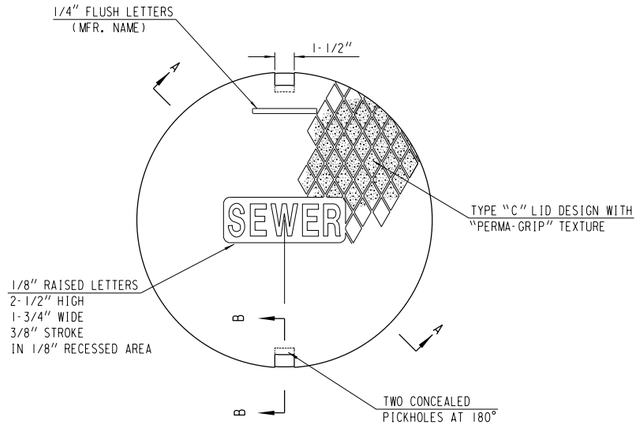


SECTION A-A

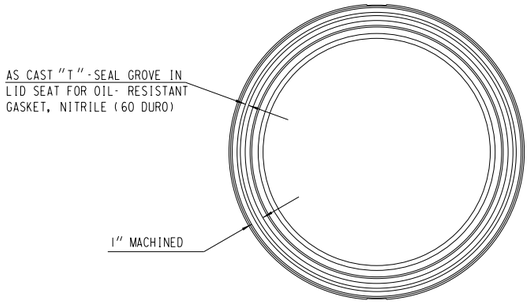




SECTION B-B



TOP VIEW



BOTTOM VIEW

MANHOLE COVER - TYPE MS 58-A

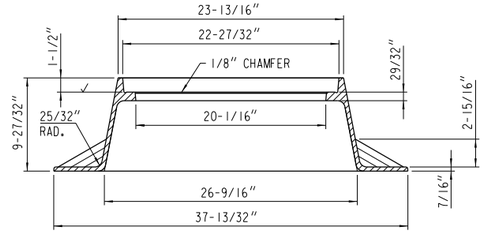
LID - 107 LBS.

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.

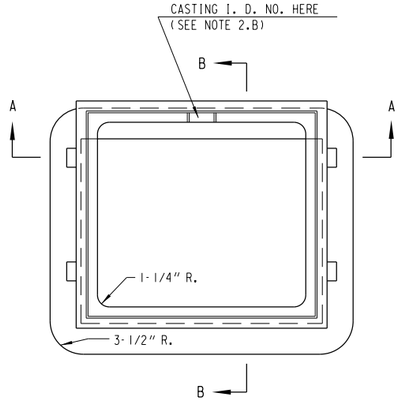


MANHOLE FRAME - TYPE MS 21

FRAME - 182 LBS.

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 40'	SHEET NO: 7	E

2



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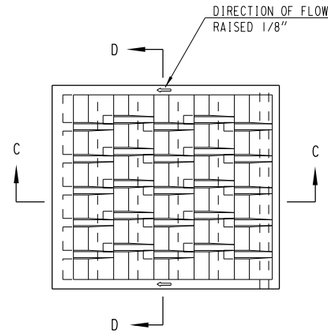

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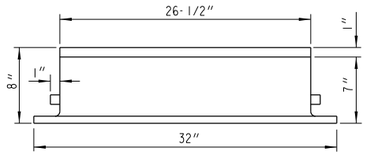
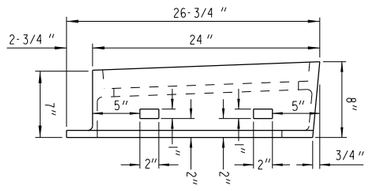
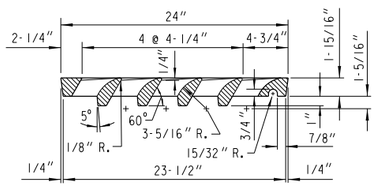
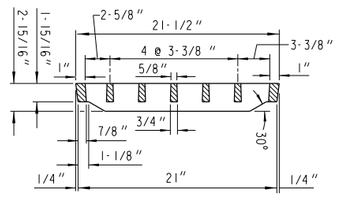


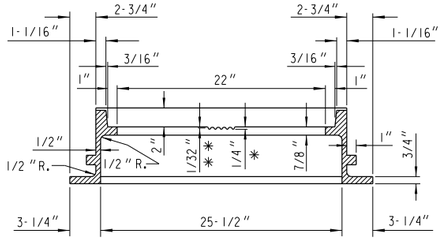




SECTION C-C



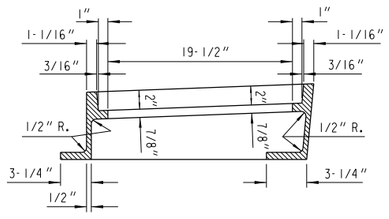
SECTION D-D



SECTION A-A

* DEPRESSION FOR LETTERS

* * CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT



SECTION B-B

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-INCH

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.

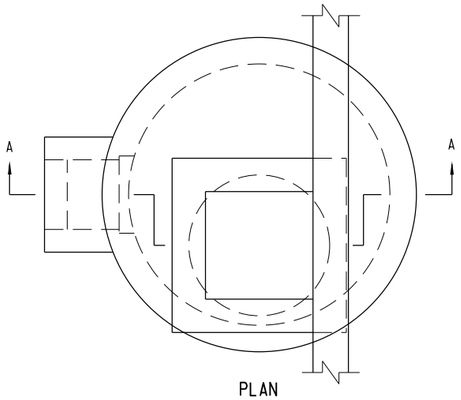
B) ON THE SEAT OF THE FRAME IN 1-INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (51).

ON THE GRATE

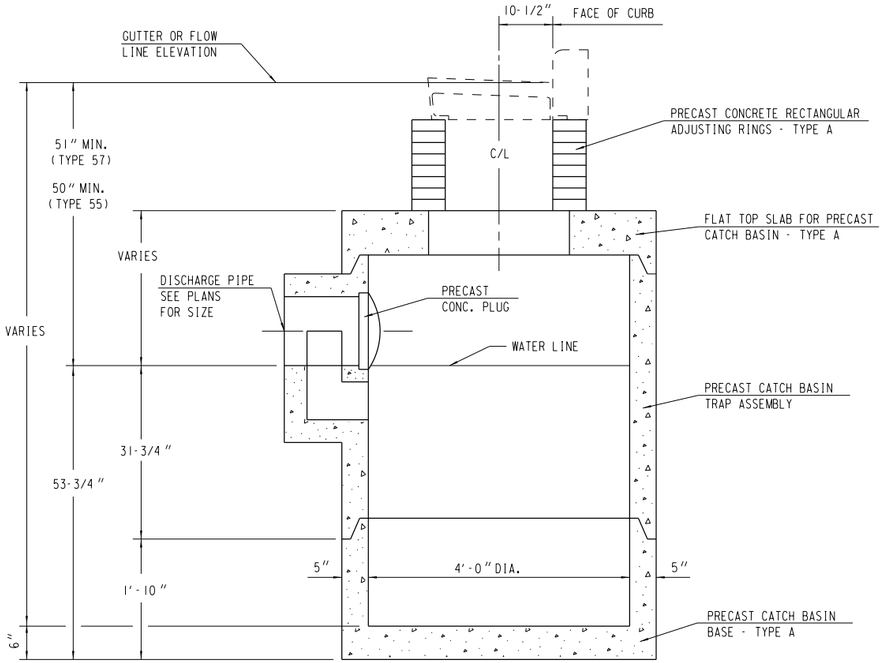
C) ON THE UPPER SIDE OF THE GRATE IN 1-INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (57) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

INLET COVER - TYPE MS 57

LID-145 LBS., FRAME-204 LBS.



PLAN

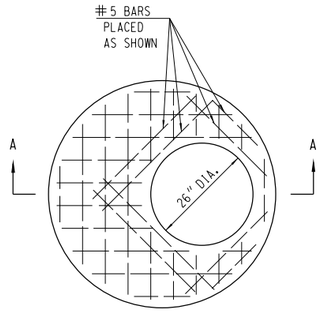


SECTION A-A

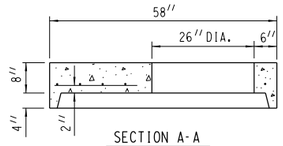
CATCH BASIN - TYPE 44A

GENERAL NOTES

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



PLAN



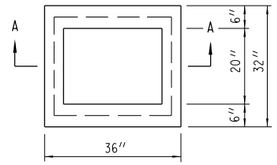
SECTION A-A

TOP SLAB - TYPE A

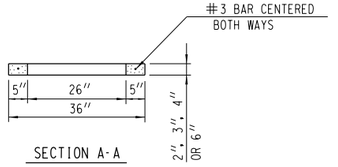
FLAT TOP SLAB SHALL BE 8" THICK REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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



PLAN

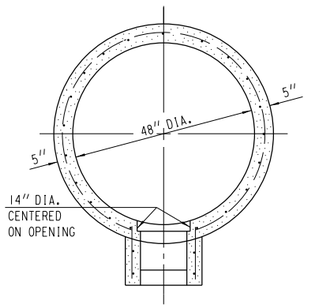


SECTION A-A

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

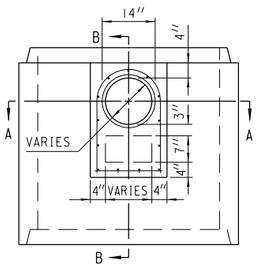
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

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

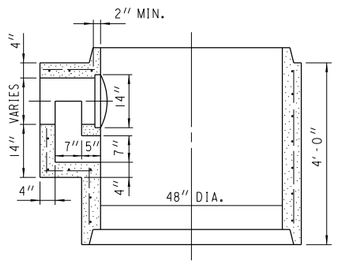
CIRCUMFERENTIAL AND TRAP ASSEMBLY REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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

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

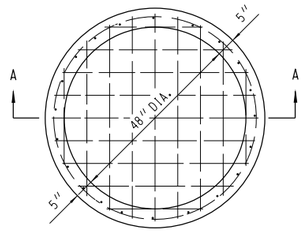


PLAN

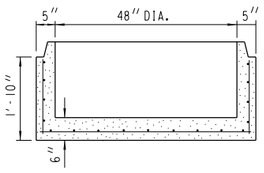


SECTION B-B

TRAP ASSEMBLY



PLAN



SECTION A-A

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

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

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

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

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

BASE ASSEMBLY

2

INTERSECTION OF W. FOND DU LAC AVE. & W. TOWNSEND AVE.

N

APPROXIMATE EXTENT OF PETROLEUM-CONTAMINATED SOIL

TYPE 10 BASE
TYPE 9 POLE

TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE

WEST TOWNSEND STREET

W. FOND DU LAC

N. 41ST STREET

AVENUE

35' ARM

20' ARM

20' ARM

35' ARM

N. 42ND

AVENUE

TYPE 10 BASE
TYPE 9 POLE

TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE

CAUTION

#4201-4205 W. FOND DU LAC AVE.

#4102

#3402 N. 41ST ST.

#4137 W. FOND DU LAC AVE.

#4040 W. FOND DU LAC AVE.

+50 13 +50 14 +50 15 +50 16 +50 17 +50 18

LEGEND

- ⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- □ VAULT TO BE INSTALLED
- —— PVC CONDUIT

PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	CONTAMINATED SOIL LIMITS	SCALE FEET 0 40	SHEET 10	E

REVISED DATE: 1-25-2018 BY ML

2

INTERSECTION OF W. FOND DU LAC AVE. & W. CENTER ST.

N

APPROXIMATE EXTENT OF PETROLEUM-CONTAMINATED SOIL

TYPE 10 BASE
TYPE 9 POLE
25FT MAST ARM

TYPE 10 BASE
TYPE 9 POLE
25FT MAST ARM

W. FOND DU LAC

APPROXIMATE EXTENT OF SOLID WASTE

W. CENTER ST.

CAUTION

25' ARM

25' ARM

25' ARM

TYPE 10 BASE
TYPE 9 POLE
25FT MAST ARM

TYPE 10 BASE
TYPE 10 POLE
25FT MAST ARM

N. 27TH ST.

N. 28TH

AVE.

07 08 09

+50

LEGEND

- ⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM MAST ARM
- VAULT TO BE INSTALLED
- PVC CONDUIT

PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	CONTAMINATED SOIL LIMITS	SCALE FEET 0 40	SHEET 11	E

REVISED DATE: 1-25-2018 BY ML

INTERSECTION OF W. FOND DU LAC AVE. & N. 27TH ST.

N

NORTH 27TH STREET

W. FOND DU LAC AVE.

W. CENTER ST.

APPROXIMATE EXTENT OF SOLID WASTE

TYPE 10 BASE
TYPE 9 POLE
25FT MAST ARM

TYPE 10 BASE
TYPE 10 POLE
25FT MAST ARM

TYPE 10 BASE
TYPE 9 POLE
25FT MAST ARM

TYPE 10 BASE
TYPE 10 POLE
25FT MAST ARM

25' ARM

25' ARM

25' ARM

25' ARM

96 +50 97 +50 98 +50 99 +50 100

325-0032-111
152.62

325-1001-110
220.63

325-1383-110
137.12

326-9999-100

#2647-2649 W. FOND DU LAC AVE.

#2721 W. FOND DU LAC AVE.

#2701 W. CENTER ST.

LEGEND

- ⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- □ VAULT TO BE INSTALLED
- —— PVC CONDUIT

PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	CONTAMINATED SOIL LIMITS	SCALE FEET 0 40	SHEET 12	E

REVISED DATE: 01-23-2017 BY ML

INTERSECTION OF W. FOND DU LAC AVE. & W. WALNUT AVE.

W. FOND DU LAC AVE.

W. WALNUT

R/W

TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE

APPROXIMATE EXTENT OF PETROLEUM-CONTAMINATED SOIL

TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE

40' ARM

25' ARM

TYPE 10 BASE
TYPE 10 POLE

55' ARM

55' ARM

TYPE 13 BASE
TYPE 12 POLE

BM - HYDRANT AT THE SOUTHWEST CORNER OF N. 14TH ST. AND W. WALNUT ST. ELEV. = 102.57

CAUTION

SECTION LINE

N

AVE.

PLOT SCALE :

LEGEND

- ⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM MAST ARM
- VAULT TO BE INSTALLED
- PVC CONDUIT

PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	CONTAMINATED SOIL LIMITS	SCALE FEET 0 40	SHEET 13 E

REVISED DATE: 1-25-2018 BY ML

2

BM - HYDRANT AT NORTHWEST CORNER OF W. WALNUT ST. AND W. FOND DU LAC AVE. ELEV = 101.38

N

W. WALNUT AVE.

R/W

SECTION LINE

TRANSIT LINE IS 203.97 FEET SOUTH OF SECTION LINE.

05 +50 06 +50 07 +50 08 +50 09 +50 10

6+30.2 133.3'LT
6+33.7 138.7'LT
6+25.9 130.6'LT
CTR. 3.0'R= +66-82.3'LT
44.0'R
CTR. 50.0'R= +92.3-110.6'LT
39.0'R
5+91.2 71.5'LT
5+71.3 60.1'LT
5+91.2 66.5'LT
5+71.7 48.4'LT
5+93.6 60.7'LT
6+85.8 61'LT
CTR. 3.0'R= +57-65.3'LT
6+58.7 50.3'LT
6+58.4 60.3'LT
CTR. 5.0'R= +72.9-67.7'LT
7+22.6 96.9'LT
7+38.6 68.4'LT
7+49.1 75.6'LT
7+31.3 98.1'LT
CTR. 2.9'R= +35.8-83.2'LT
CTR. 2.0'R= +56.2-114.6'LT
8+8.1 101.8'LT
8+3.3 117.3'LT
8+20.1 107.5'LT
7+97.5 108.2'LT
CTR. 10.0'R= +93.2-76.6'LT
CTR. 2.0'R= +29.1-69.5'LT
252.2'R
6+59.8 25.8'LT
CTR. 2.0'R= +91.2-22.3'LT
7+25 29'LT
P.C. 58.7'R. +96.0-7.0'LT
5+71.3 5.9'LT
∠PT.+82.2 20.1'LT
CTR. 3.0'R= +85.0-4.0'LT
CTR. 3.0'R= +17.1-8.9'LT
CTR. 3.0'R= +19.9-5.1'LT
5+71.3 4.2'RT
5+96.2 9'LT
8+7.8 31.5'LT
CTR. 3.0'R= +22.4-26.8'LT
CTR. 3.0'R= +25.5-22.8'LT
CTR. 1.3'R= +53.2-10.1'LT
CTR. 3.0'R= +73.5-27.9'LT
∠PT.+76.5 12.0'LT
9+33.1 34.2'LT
9+33.1 24.2'LT
9+57 22.8'LT
8+8.7 1.9'LT
8+17.2 34.1'RT
200'R
8+93.3 5.6'LT
∠PT.+50.0 22.6'LT
P.C. 25.0'R. +40.3-34.4'RT
7+54.5 31.8'RT
P.T. 25.0'R. +60.4-43.8'RT
7+68.3 53.8'RT
7+25 34.8'RT
7+31.5 40.5'RT
7+31.5 45.9'RT
CTR. 25.0'R= +40.6-59.4'RT
8+7.6 41.7'RT
CTR. 03.9'R= +23-51.7'RT
CTR. 3.0'R= +67.6-32.4'RT
8+93.1 28.7'RT
9+11.9 28.2'RT
CTR. 2.0'R= +12.2-30.0'RT
79.7'R
8+93.1 56.2'RT
8+87.2 62.5'RT
8+32.8 58.1'RT
9+2.6 52.8'RT
9+1 56'RT
9+27.5 60.5'RT
8+93.1 63.7'RT
8+90.5 65.8'RT
38.8'R
9+37 64.2'RT
9+47 35'RT
9+61.2 36.4'RT
9+61.2 41.2'RT
9+56.1 41.3'RT
CTR. 48.6'R= +73.8-75.6'RT
7+60.1 62.4'RT
8+26.8 62.9'RT
BM - HYDRANT AT THE SOUTHWEST CORNER OF N. 14TH ST. AND W. WALNUT ST. ELEV = 102.57
7+89.1 107.3'RT
7+99.9 106.5'RT
40'R
10.58'
CTR. 47.0'R= +53-109.9'RT
7+84.6 130.5'RT
P.C. 47.0'R. +97.8-124.3'RT
8+54.1 153.8'RT
8+57 155.5'RT
P.C.C.+47.8 153.1'RT
8+53.3 164.2'RT
7+92.6 140.4'RT
CTR. 20.0'R= +48.8-173.0'RT
7+82.4 153.4'RT
7+87.3 154.7'RT
8+23.3 175.1'RT
8+33.2 176.6'RT
CTR. 26.0'R= +49-179.1'RT

WEST FOND DU LAC AVE.

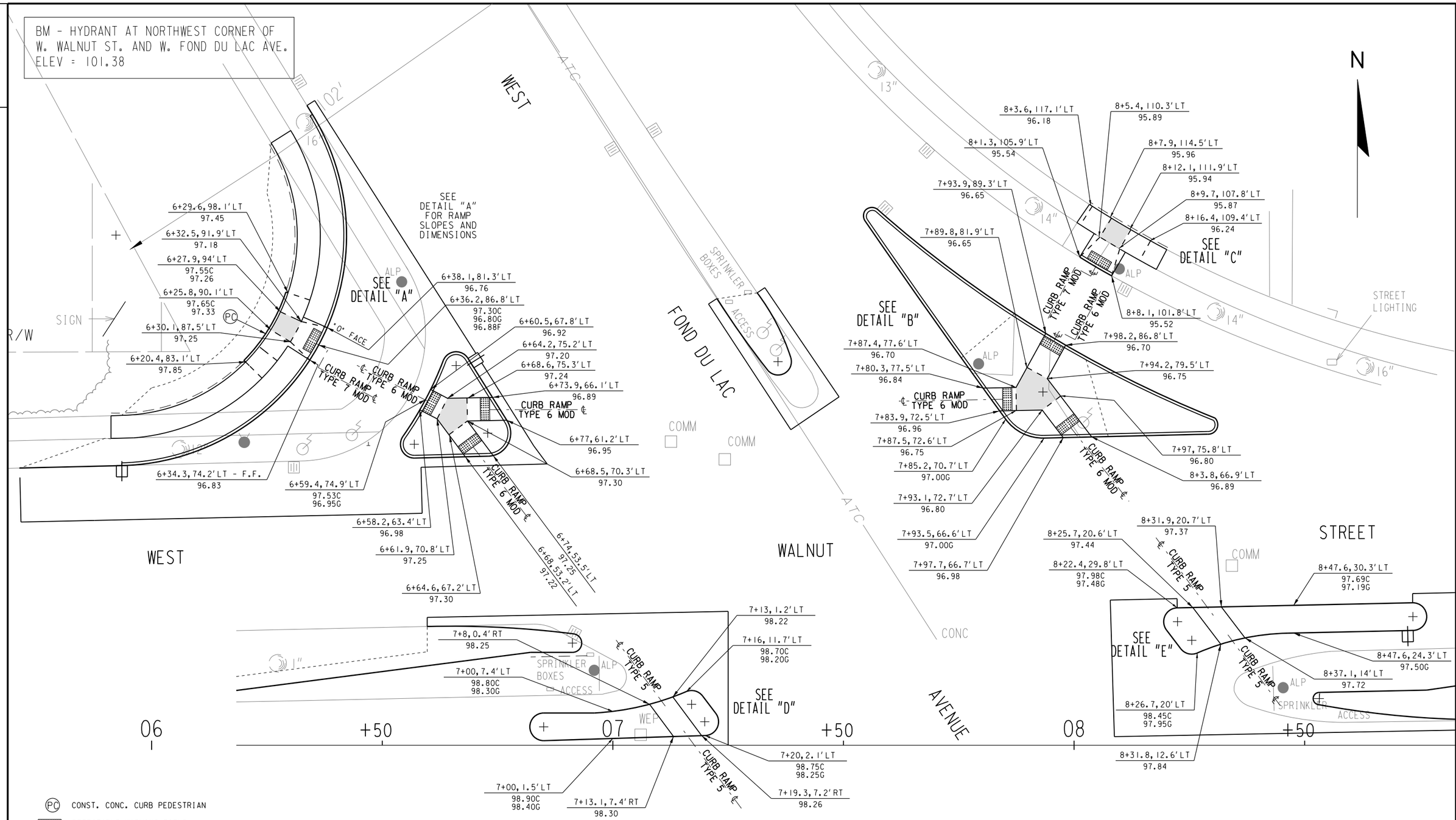
INTERSECTION OF
W. FOND DU LAC AVE. & W. WALNUT ST.

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 14	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\WALNUT 06-10 PLAN DETAIL.DGN

REVISED DATE: 8-21-2018 BY SB

BM - HYDRANT AT NORTHWEST CORNER OF
W. WALNUT ST. AND W. FOND DU LAC AVE.
ELEV = 101.38



(PC) CONST. CONC. CURB PEDESTRIAN

DETECTABLE WARNING FIELD

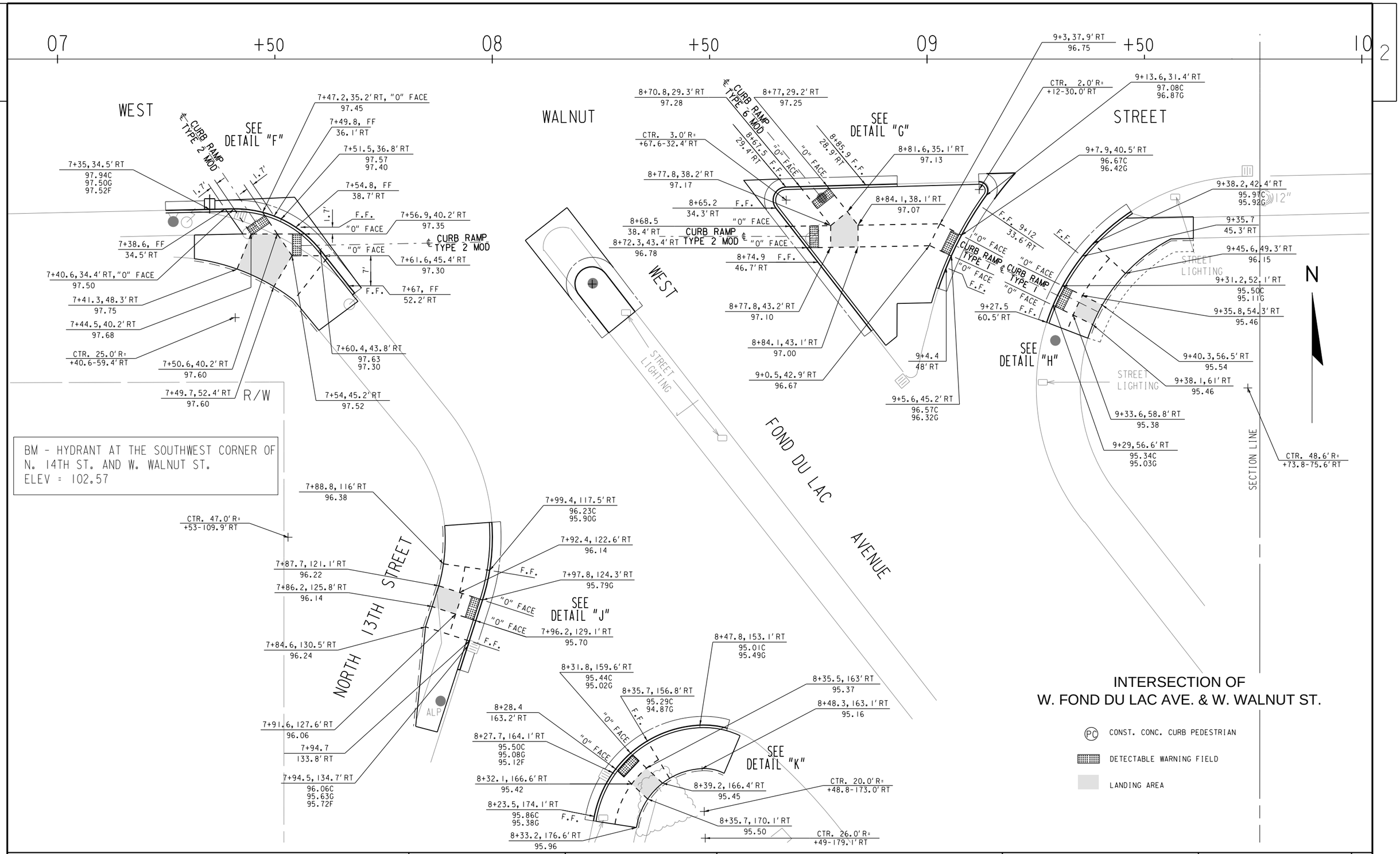
LANDING AREA

INTERSECTION OF
W. FOND DU LAC AVE. & W. WALNUT ST.

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 20'	SHEET NO: 15	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\RAMP DETAILS\RD WALNUT NORTH.DGN

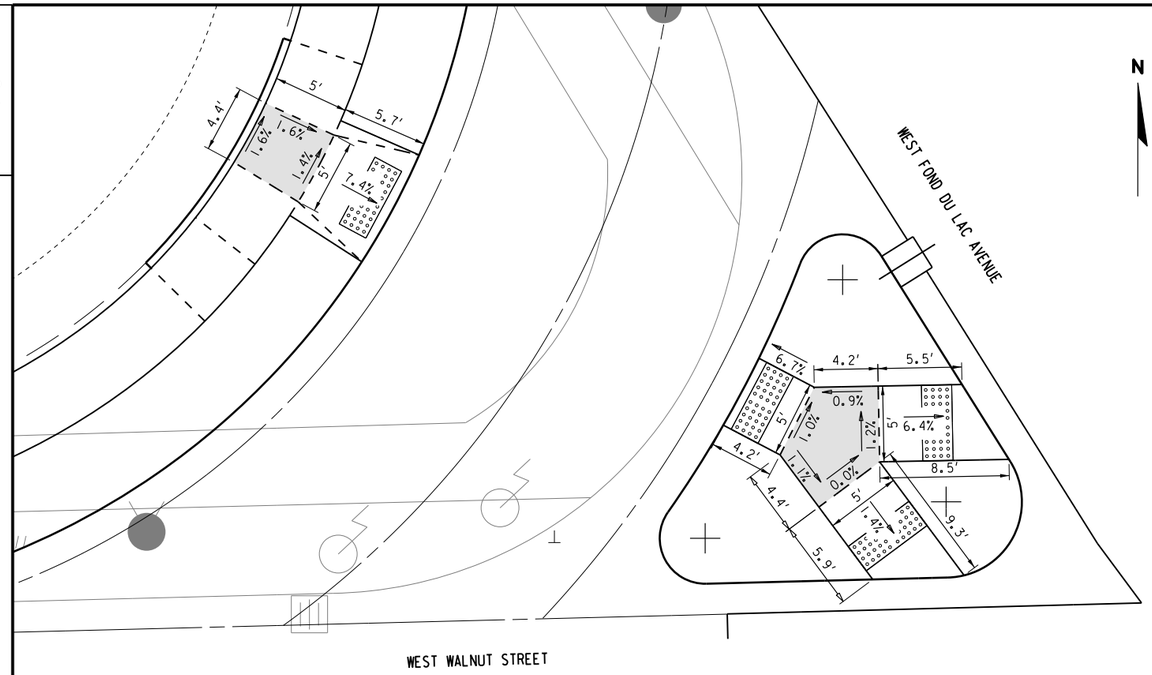
REVISED DATE: 9-21-2018 BY SB



STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 20'	SHEET NO: 16	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\RAMP DETAILS\RD WALNUT SOUTH.DGN

REVISED DATE: 09-24-2018 BY JH



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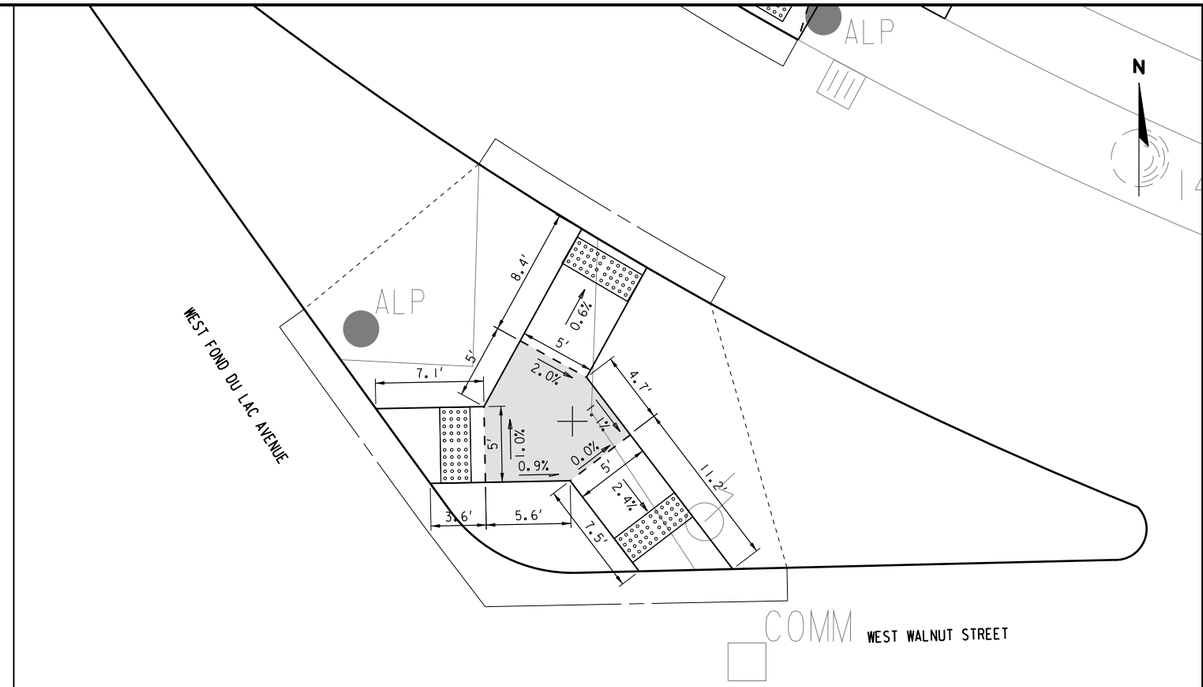

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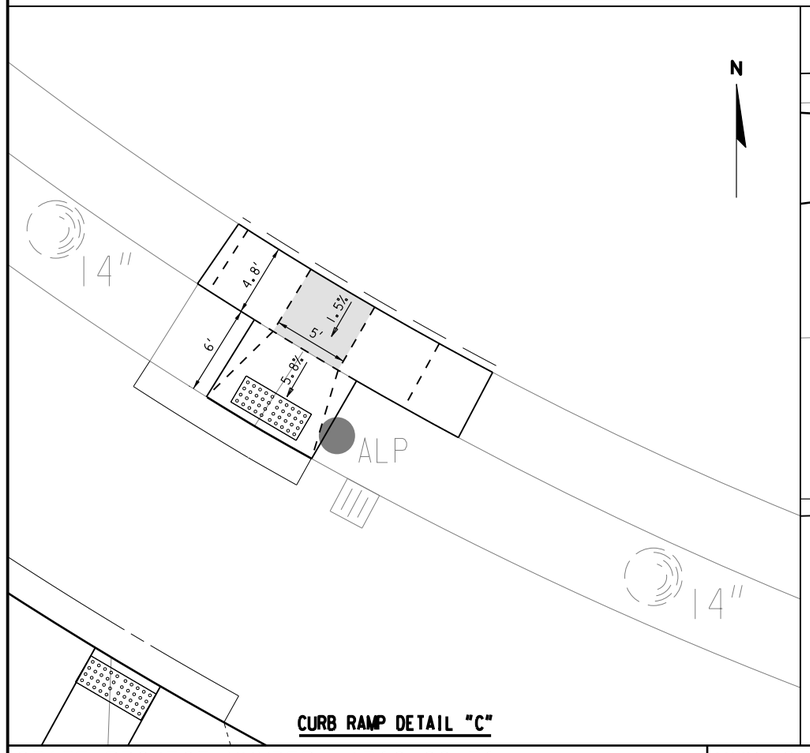

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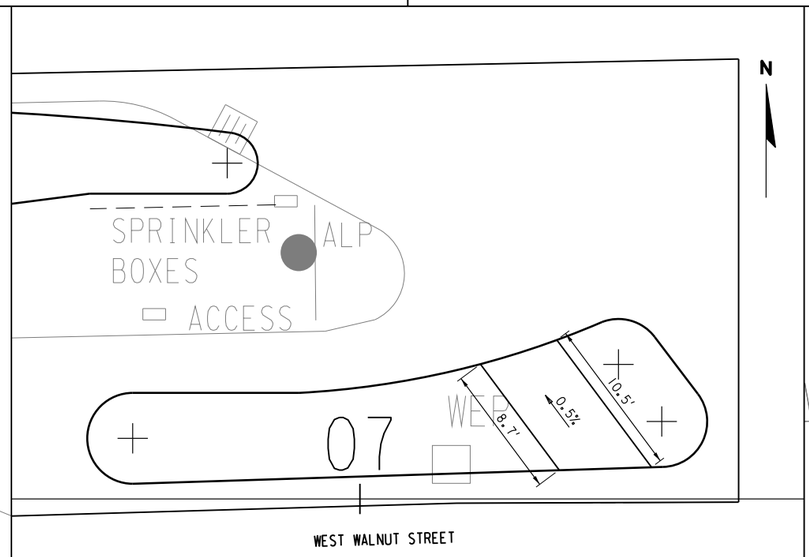
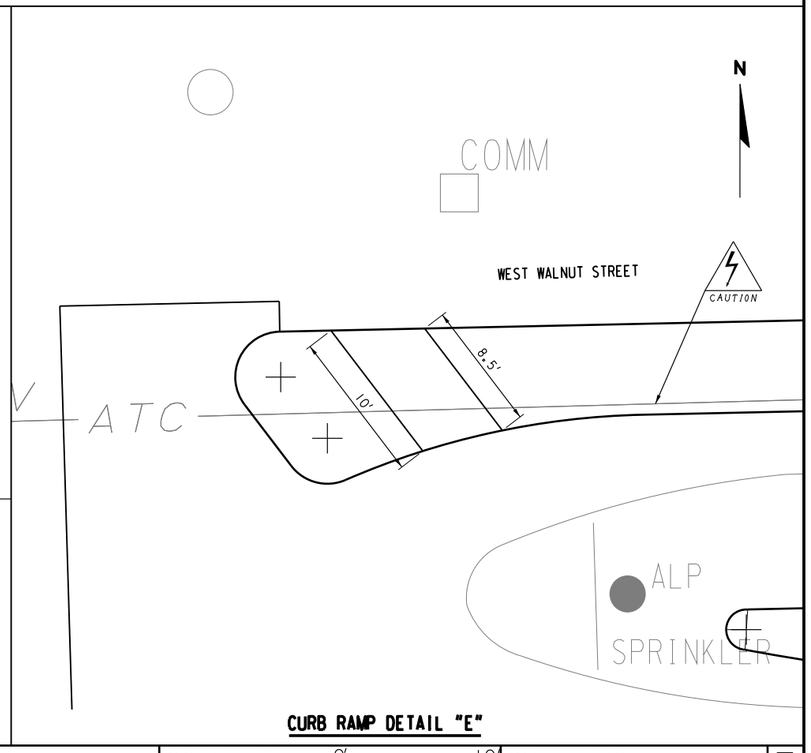


CURB RAMP DETAIL "D"

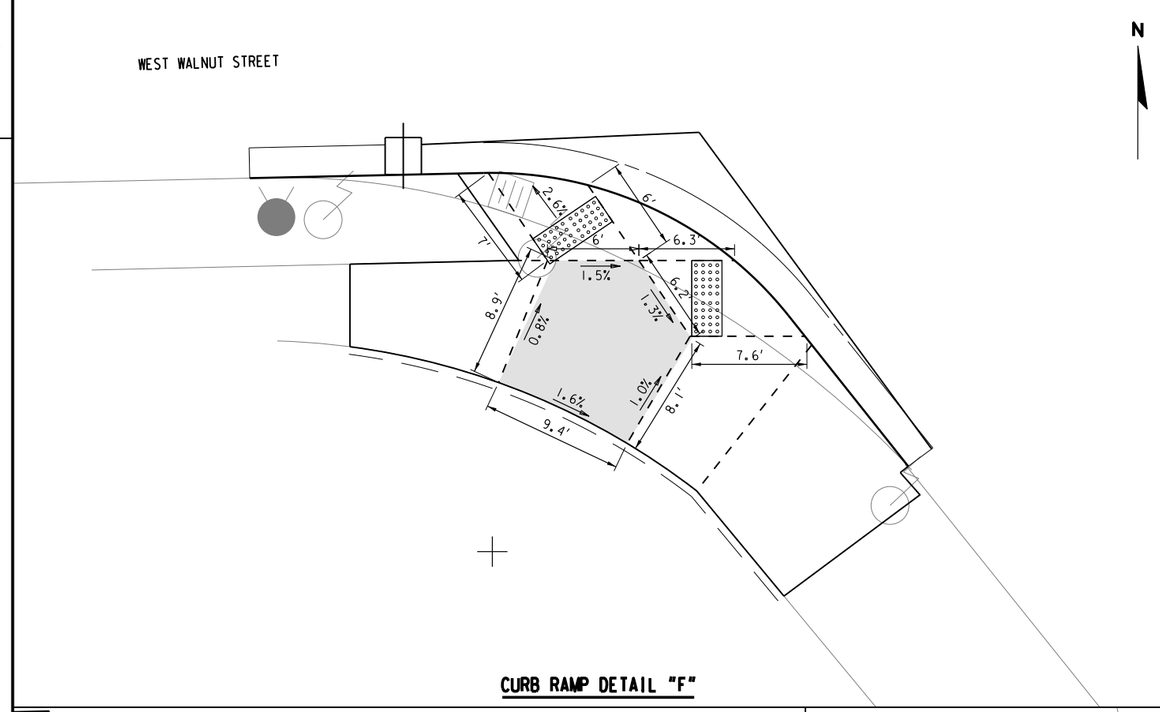


CURB RAMP DETAIL "E"

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 17	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\RAMP DETAILS\RDSL 1 WALNUT NORTH.DGN

REVISED DATE: 09-21-2018 BY JH



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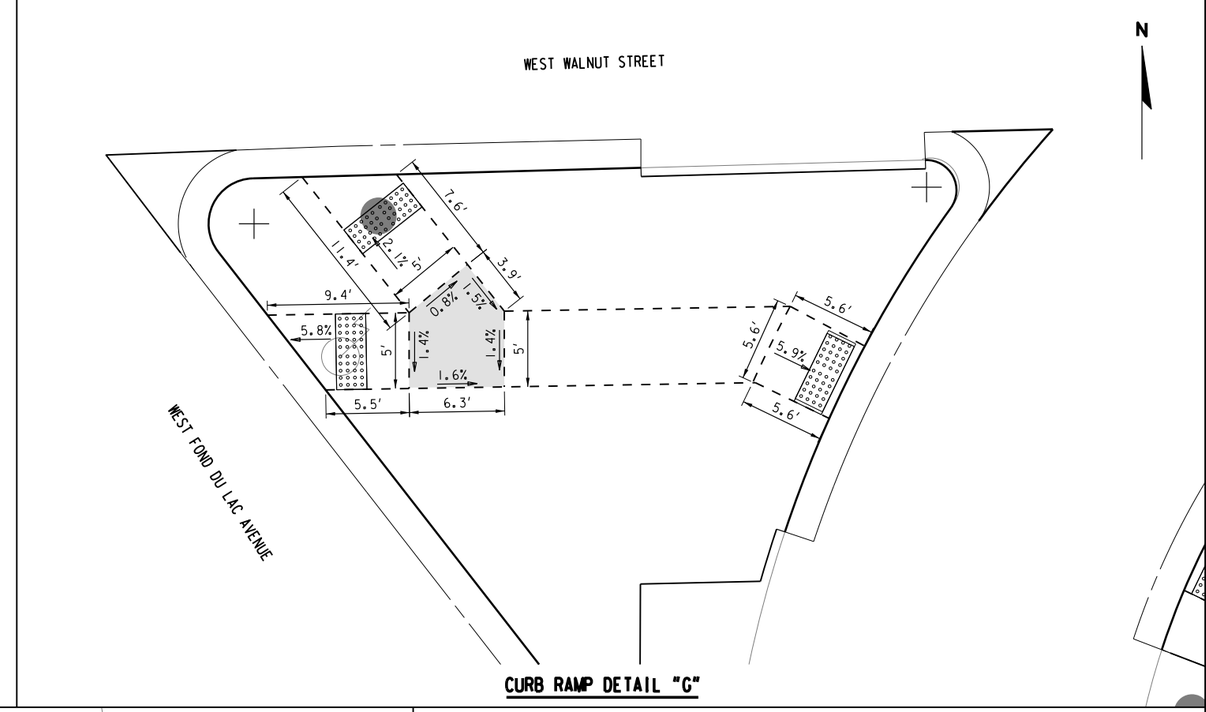

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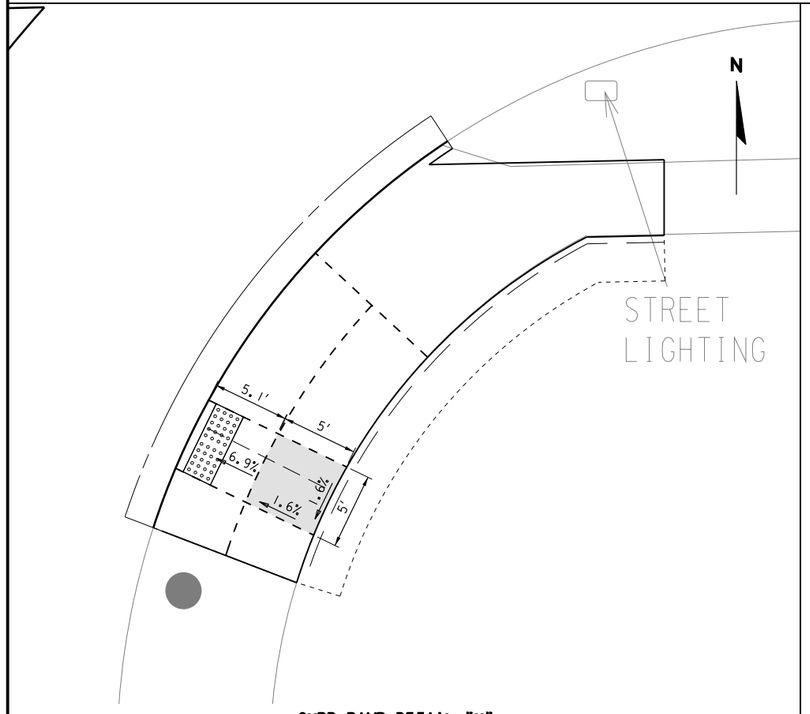

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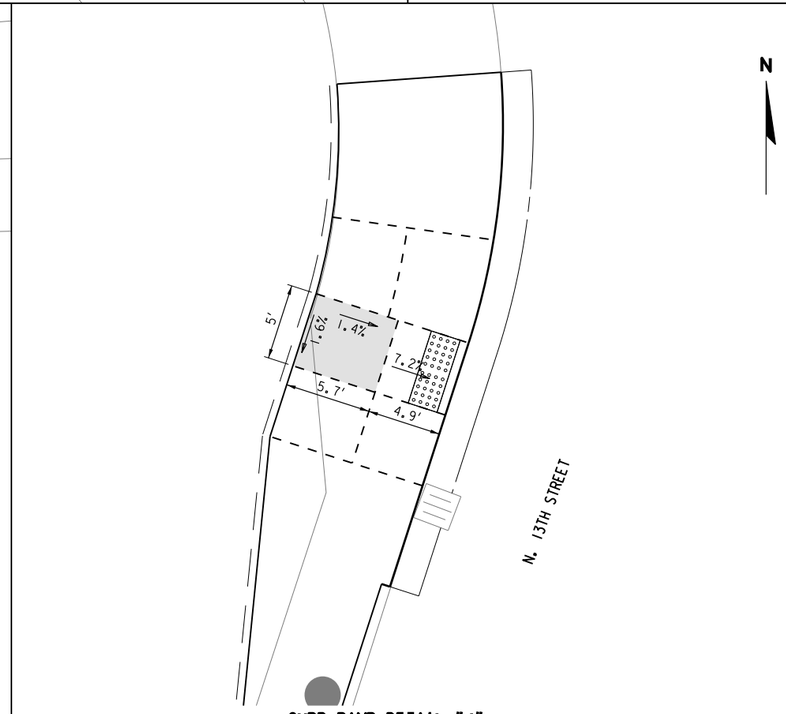

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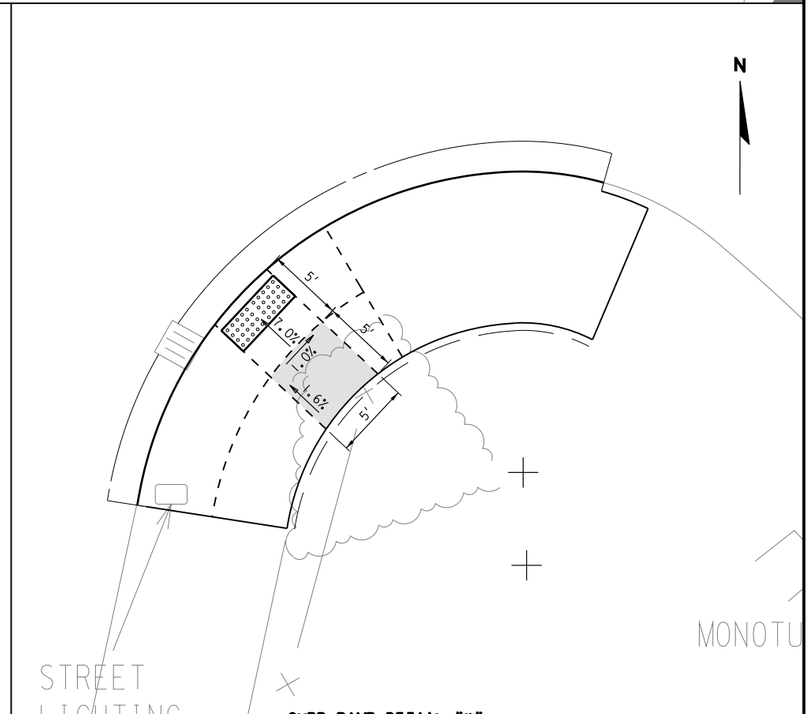


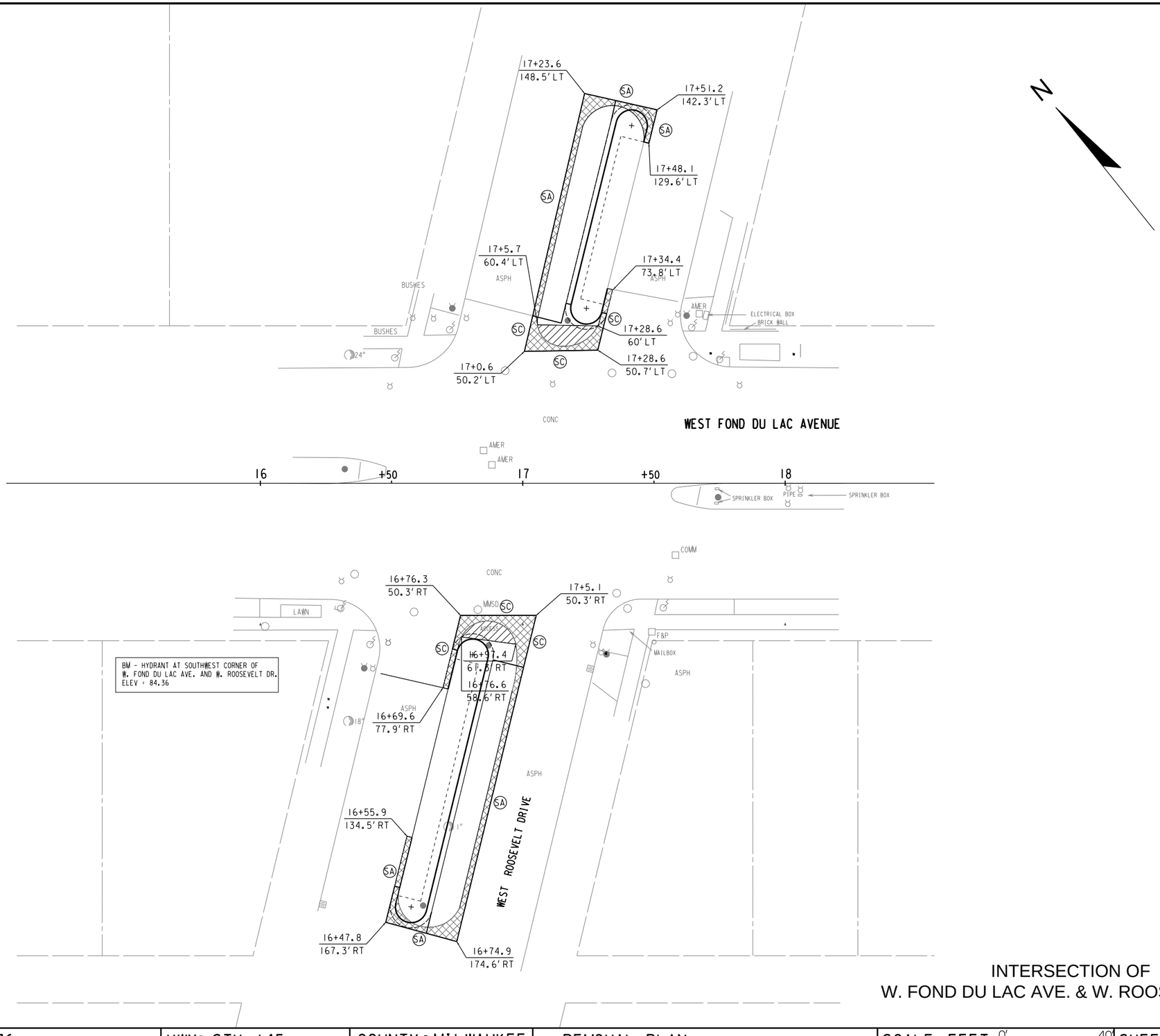
CURB RAMP DETAIL "K"

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 18	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\RAMP DETAILS\RDSL I WALNUT SOUTH.DGN

REVISED DATE: 09-24-2018 BY JH

2



INTERSECTION OF
W. FOND DU LAC AVE. & W. ROOSEVELT DR.

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 19	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\ROOSEVELT REMOVAL 16-18 FULL.DGN

REVISED DATE: 01-30-2018 BY TK

INTERSECTION OF
W. FOND DU LAC AVE. & W. WALNUT ST.

BM - HYDRANT AT NORTHWEST CORNER OF W. WALNUT ST. AND W. FOND DU LAC AVE. ELEV = 101.38

N

WEST FOND DU LAC

W. WALNUT

STREET

6+36.1 139.4'LT
6+30.2 133.3'LT
6+26 130.7'LT
6+50.5 90.3'LT
6+41.1 72.9'LT
5+91.2 71.5'LT
5+91.2 66.5'LT
5+89.1 58.5'LT
6+85.8 61'LT
7+33.5 98.4'LT
7+39.4 86.2'LT
7+49.1 75.7'LT
7+21.1 95.1'LT
7+33 81.4'LT
7+39.8 68.2'LT
7+96.4 106.5'LT
7+88.2 95.3'LT
7+86.7 80.2'LT
7+75.5 84'LT
7+94.5 77.2'LT
7+87.5 64.4'LT
8+3.3 117.3'LT
8+20 107.5'LT
8+7.2 100'LT
8+3.6 86'LT
8+7.4 64.8'LT
6+59.7 25.8'LT
7+24.7 29.2'LT
5+96.2 9'LT
6+97.1 11.1'LT
6+97 20.1'LT
7+24.7 0'RT
8+7.9 30.8'LT
8+43 17.9'LT
9+32.5 34.2'LT
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8+93.3 3.5'LT
8+43.4 6.9'LT
8+8.7 1.9'LT
5+71.3 5.8'LT
5+71.6 4.2'RT
7+54.5 31.8'RT
7+24.8 34.8'RT
7+39.9 36.5'RT
7+31.5 40.5'RT
7+31.5 45.9'RT
7+42.6 40.2'RT
7+60.4 62.7'RT
7+54.4 55.4'RT
7+69.8 52.4'RT
7+8.8 41.3'RT
8+17.2 34.7'RT
8+93.1 56.2'RT
8+34.5 56.6'RT
8+25.2 64'RT
8+88.5 67.4'RT
8+93.1 63.7'RT
8+57.8 27.9'RT
8+93.1 26.8'RT
9+11.8 26.4'RT
9+20.3 26.2'RT
9+4.5 53.5'RT
9+0.9 56'RT
9+27.6 60.5'RT
9+46.6 35.3'RT
9+51.1 36.7'RT
9+61.2 36.4'RT
9+61.2 41.2'RT
9+56.1 41.3'RT
9+37.0 64.2'RT
8+54.1 153.8'RT
8+57 155.5'RT
8+53.3 164.2'RT
8+23.3 174.9'RT
8+33.1 177.4'RT

CTR. 3.0'R= +67.6-32.4'RT
CTR. 2.0'R= +12-30.0'RT
CTR. 25.0'R= +40.6-59.4'RT
CTR. 47.0'R= +53-109.9'RT
CTR. 48.6'R= +73.8-75.6'RT
CTR. 26.0'R= +49-179.1'RT
38.8'R

05 +50 06 +50 07 +50 08 +50 09 +50 10

TRANSIT LINE IS 203.97 FEET SOUTH OF SECTION LINE.

BM - HYDRANT AT THE SOUTHWEST CORNER OF N. 14TH ST. AND W. WALNUT ST. ELEV = 102.57

NORTH 13TH STREET

AVENUE

SECTION LINE

SIGN
BUSHES
TEES
SPRINKLER BOXES
ACCESS
SPRINKLER
STREET LIGHTING
MONOTUBE
CONC
COMM
AMER
WEP
ALP

LEGEND

- REMOVING CONCRETE SIDEWALK
- REMOVING CURB AND GUTTER
- REMOVING PAVEMENT
- (SC) SAWING CONCRETE

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 20	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\WALNUT REMOVAL 06-10 FULL.DGN

REVISED DATE: 09-04-2018 BY SB

INTERSECTION OF
W. FOND DU LAC AVE. & W. WALNUT ST.

BM - HYDRANT AT NORTHWEST CORNER OF W. WALNUT ST. AND W. FOND DU LAC AVE. ELEV = 101.38

05 06+62.1, 92.6' LT 4' DIA. MANHOLE

04 06+69.2, 82.8' LT 44A INLET

ABANDON STORM SEWER

REMOVE CATCH BASIN

01 05+93.6, 60.7' LT 44A INLET

SIGN

BUSHES

R/W

TE&ES

COMM

CMB

STO

SAN

AMER

CONC

SPRINKLER BOXES 10 ACCESS

ALP

STREET LIGHTING

CAUTION

N

02 03 06 06+90.9, 24.2' LT 44A INLET 07 08+72.4, 24.9' LT 44A INLET 13 09+53, 22.7' LT 44A INLET 16

05 +50 06 +50 07 +50 08 +50 09 +50 10

TRANSIT LINE IS 203.97 FEET SOUTH OF SECTION LINE.

REMOVE CATCH BASIN

ABANDON STORM SEWER

09 08 07+35, 34.5' RT 44A INLET

REMOVE CATCH BASIN

TEES

MONOTUBE

SECTION LINE

BM - HYDRANT AT THE SOUTHWEST CORNER OF N. 14TH ST. AND W. WALNUT ST. ELEV = 102.57

LEGEND

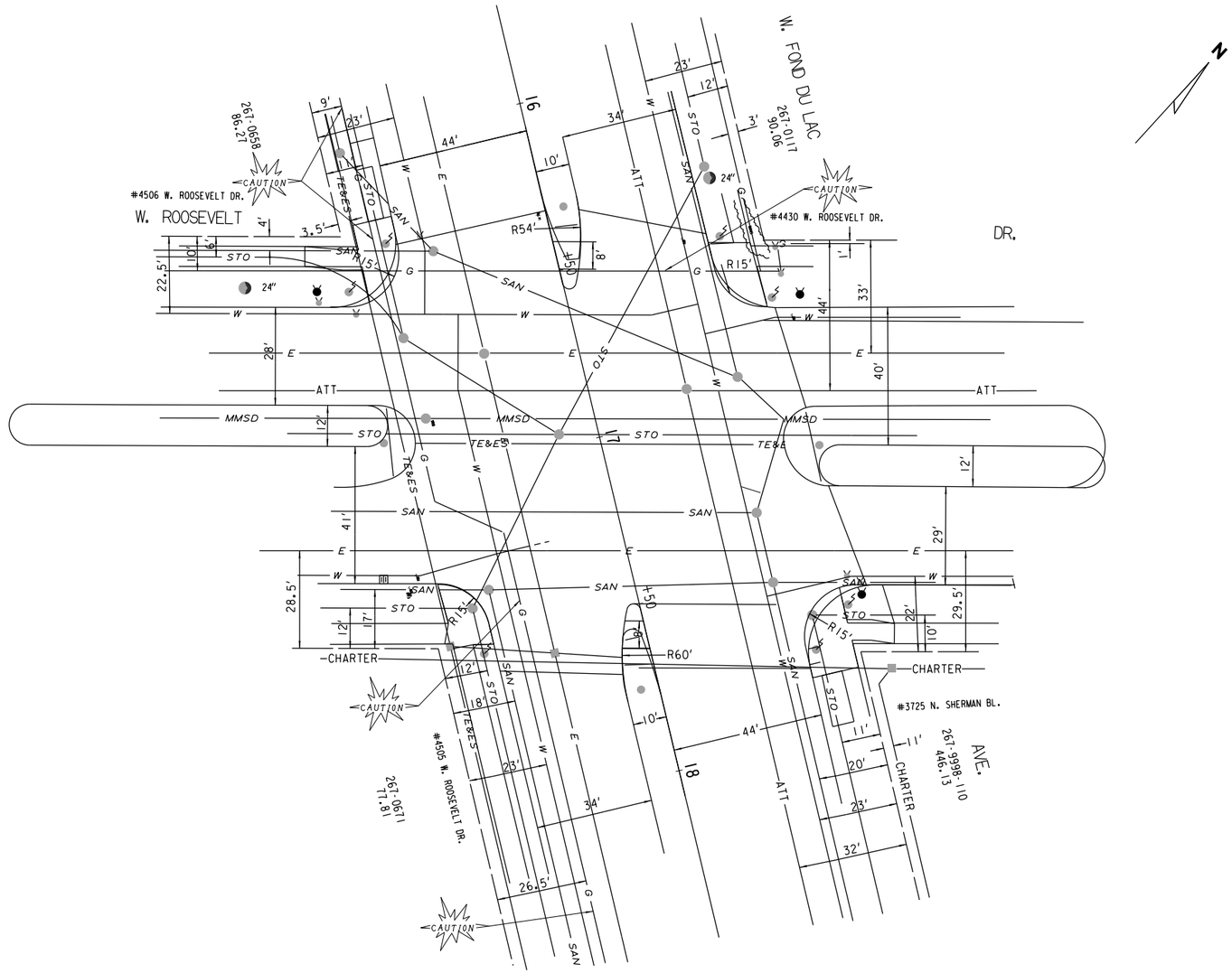
- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40	SHEET NO: 21	E

FILE NAME = W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\EROSION CONTROL WALNUT 06-10.DGN

REVISED DATE: 7-26-2018 BY PRM

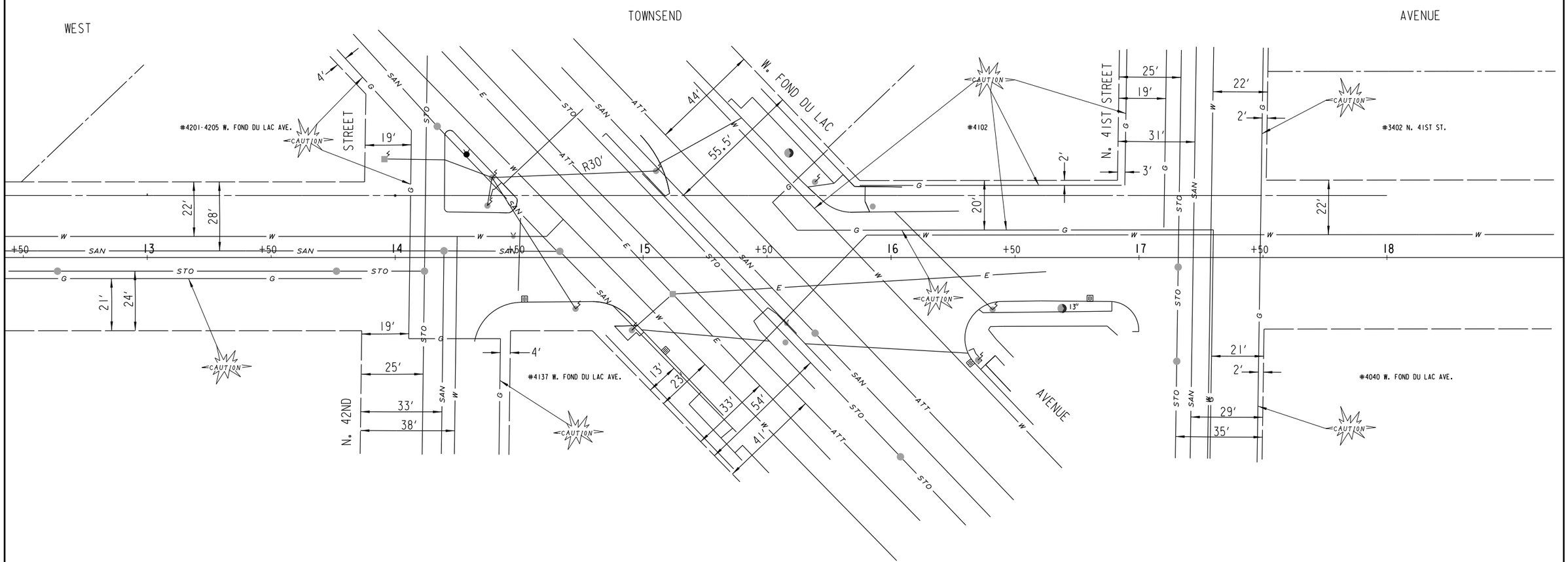
INTERSECTION OF
W. FOND DU LAC AVE. & W. ROOSEVELT DRIVE



2

INTERSECTION OF
W. FOND DU LAC AVE. & W. TOWNSEND AVE.

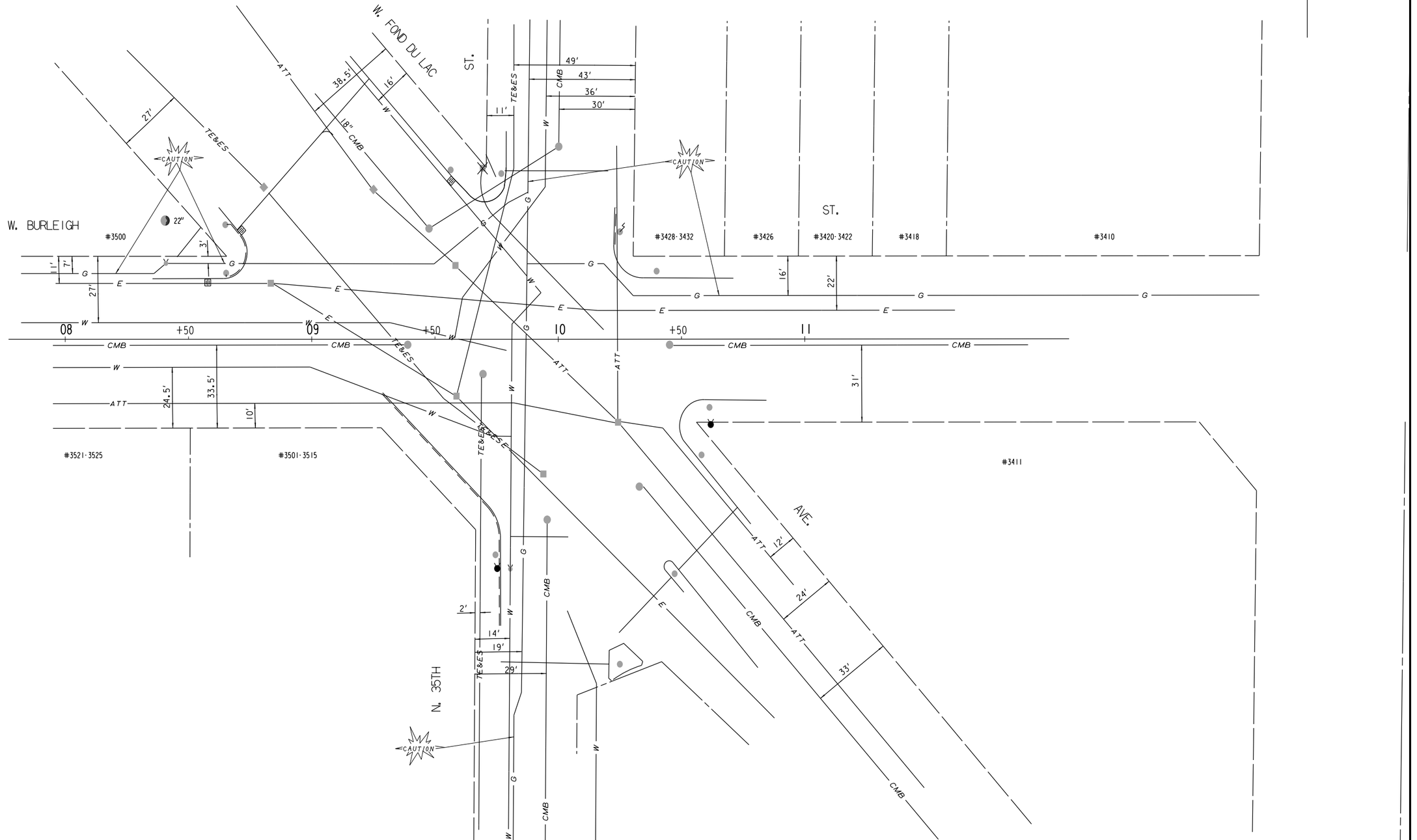
N



PROJECT NO: 1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	UTILITIES	SCALE FEET 0 40	SHEET 23	E

REVISED DATE: 12-5-2018 BY TK

INTERSECTION OF
W. FOND DU LAC AVE. & W. BURLEIGH ST.



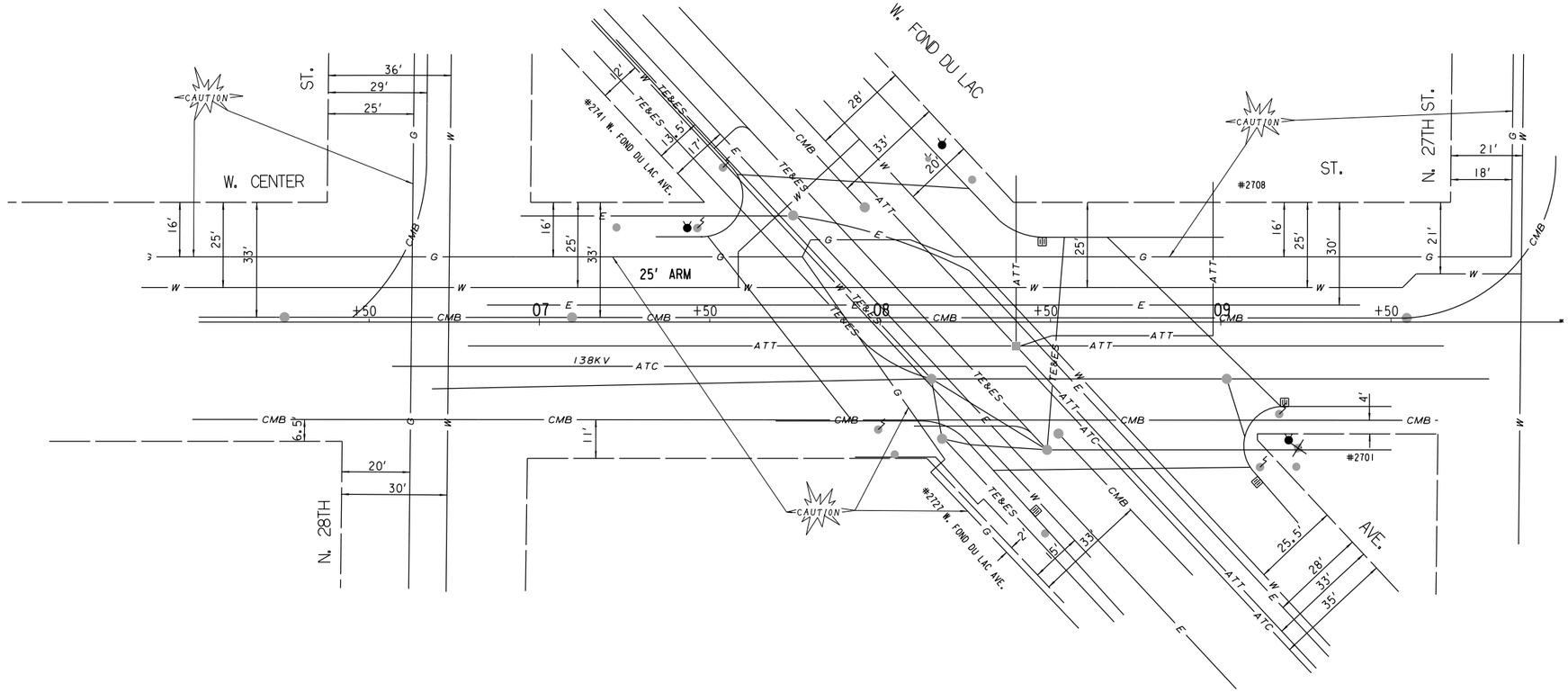
PROJECT NO: 1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	UTILITIES	SCALE FEET 0 40	SHEET 24	E

REVISED DATE: 1-31-2018 BY ML

2

INTERSECTION OF
W. FOND DU LAC AVE. & W. CENTER ST.

N

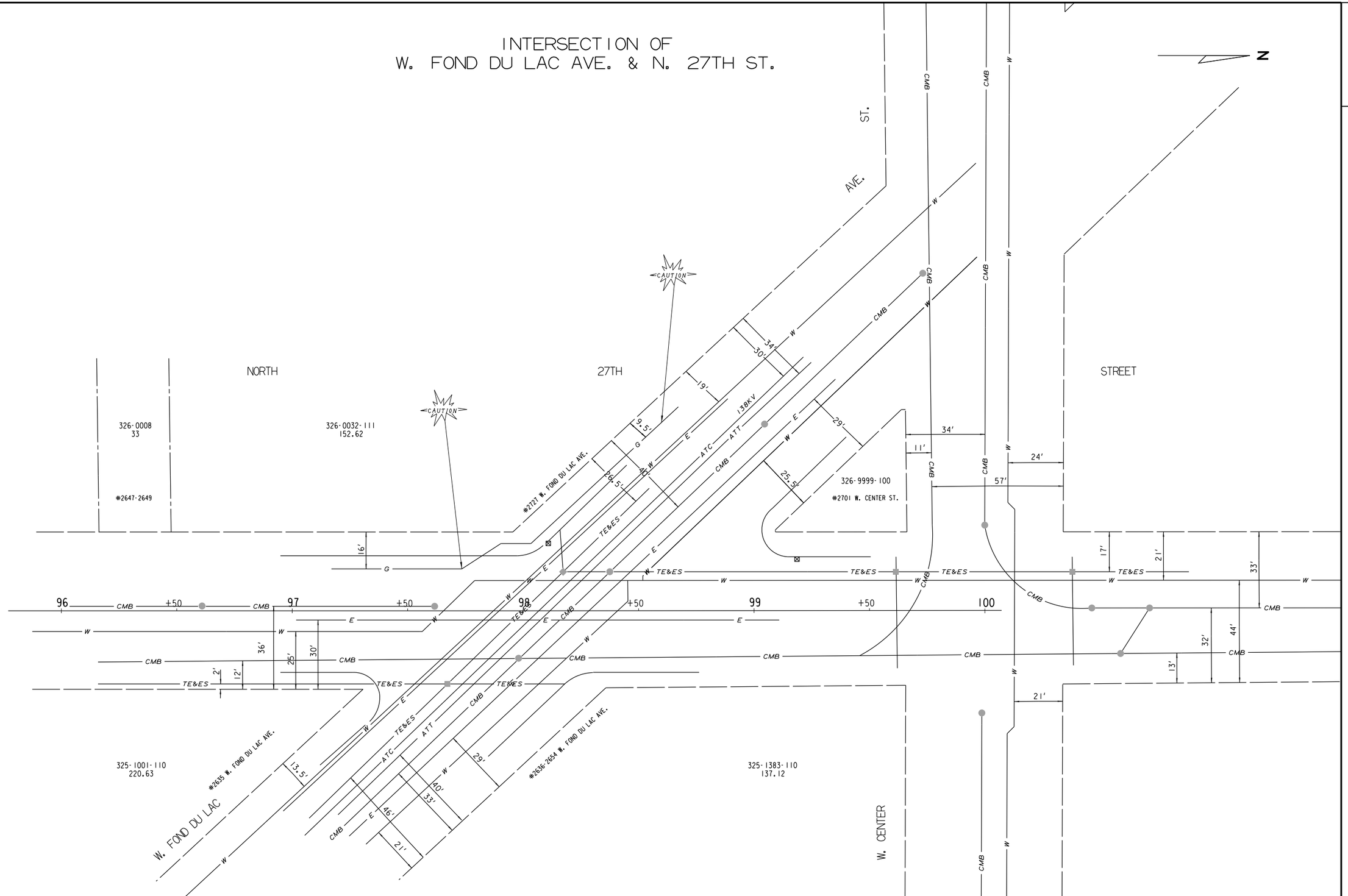


PROJECT NO: 1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	UTILITIES	SCALE FEET 0 40	SHEET 25	E

REVISED DATE: 2-5-2018 BY ML

2

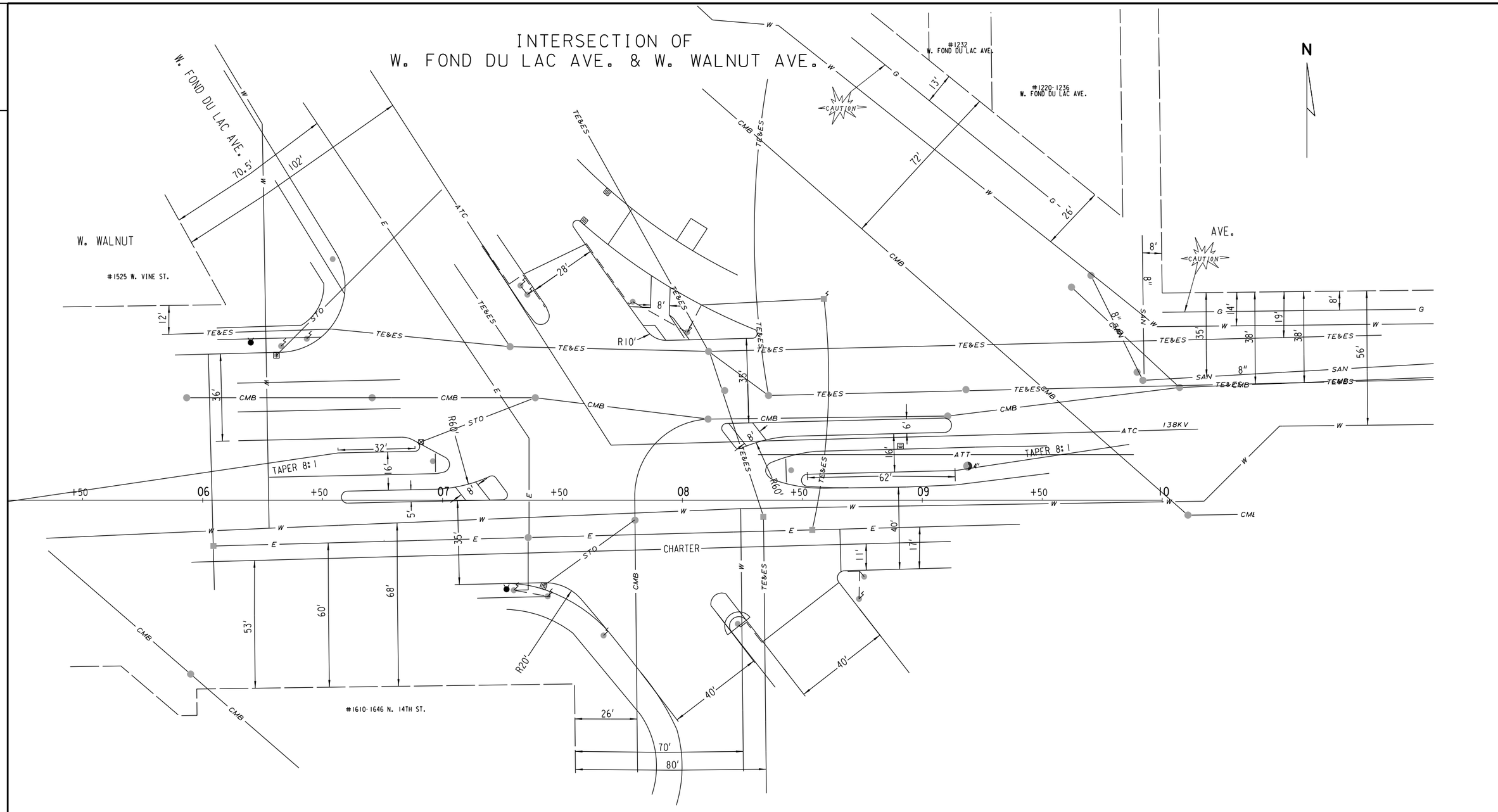
INTERSECTION OF W. FOND DU LAC AVE. & N. 27TH ST.



PROJECT NO: 1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	UTILITIES	SCALE FEET 0 40	SHEET 26	E

REVISED DATE: 2-5-2018 BY ML

INTERSECTION OF
W. FOND DU LAC AVE. & W. WALNUT AVE.



PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	UTILITIES	SCALE FEET 0 40	SHEET 27	E

REVISED DATE: 2-5-2018 BY ML

INTERSECTION OF
W. FOND DU LAC AVE. & W. WALNUT ST.

BM - HYDRANT AT NORTHWEST CORNER OF W. WALNUT ST. AND W. FOND DU LAC AVE. ELEV = 101.38

ABANDON STORM SEWER

05 06+62.1, 92.6' LT
4' DIA. MANHOLE

04 06+69.2, 82.8' LT
44A INLET

REMOVE CATCH BASIN

R/W

W. WALNUT AVE.

01 05+93.6, 60.7' LT
44A INLET

02

03

06 06+90.9, 24.2' LT
44A INLET

07

REMOVE CATCH BASIN

12

08+72.4, 24.9' LT
13 44A INLET

15

14

09+53, 22.7' LT
16 44A INLET

17

ABANDON STORM SEWER

REMOVE CATCH BASIN

10

ABANDON STORM SEWER

09

08 07+35, 34.5' RT
44A INLET

REMOVE CATCH BASIN

05 +50 06 +50 07 +50 08 +50 09 +50 10

TRANSIT LINE IS 203.97 FEET SOUTH OF SECTION LINE.

BM - HYDRANT AT THE SOUTHWEST CORNER OF N. 14TH ST. AND W. WALNUT ST. ELEV = 102.57

R/W

WEST FOND DU LAC AVE.

SECTION LINE

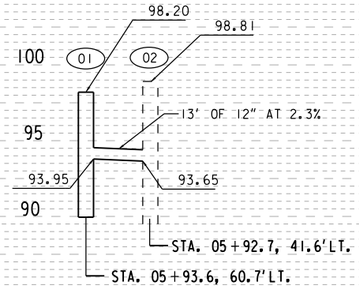
N

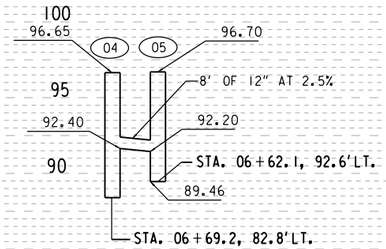
STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	STORM SEWER PLAN	SCALE FEET 0' 40'	SHEET NO: 28	E

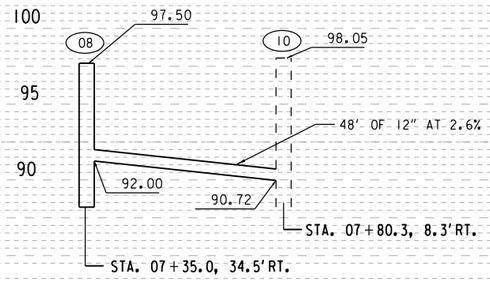
FILE NAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\WALNUT 06-10 STORM SEWER.DGN

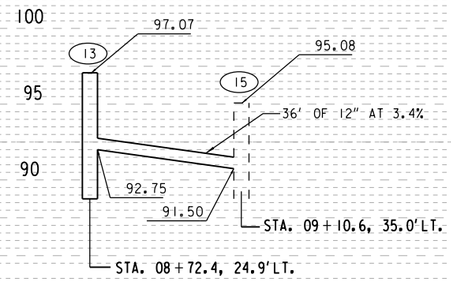
REVISED DATE: 2-5-2018 BY ML

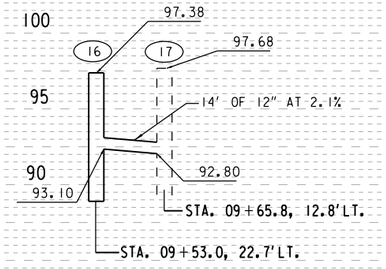
2











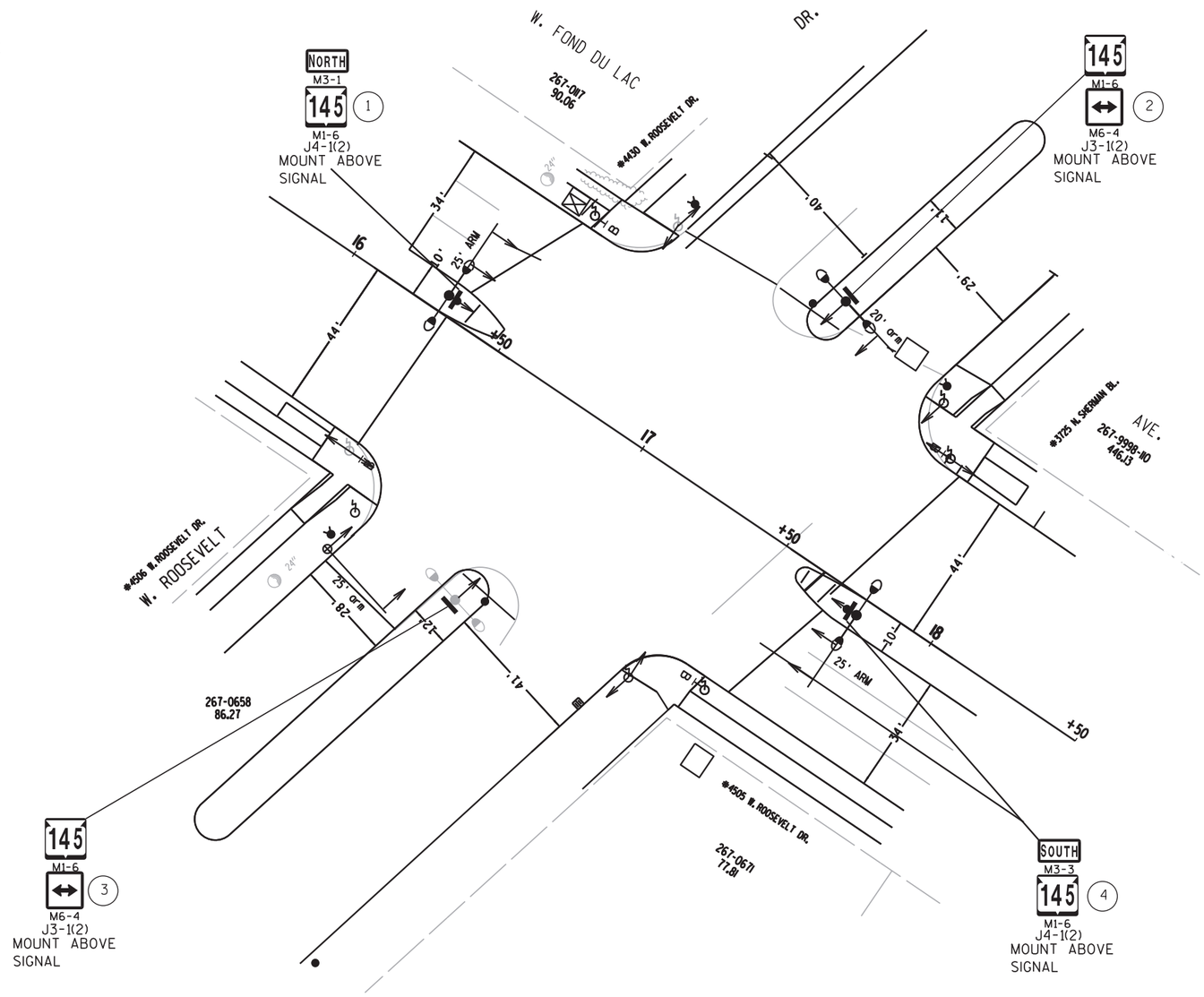
STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	STORM SEWER PLAN	SCALE FEET	SHEET NO: 29	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\WALNUT 06-10 STORM SEWER.DGN

REVISED DATE: 2-5-2018 BY ML

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DELINEATOR - 60' SPACING
  WHITE/RIGHT YELLOW/LEFT
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE



STH 145 (W. FOND DU LAC AVE.) & W. ROOSEVELT DR.

SHEET 1 OF 6

30

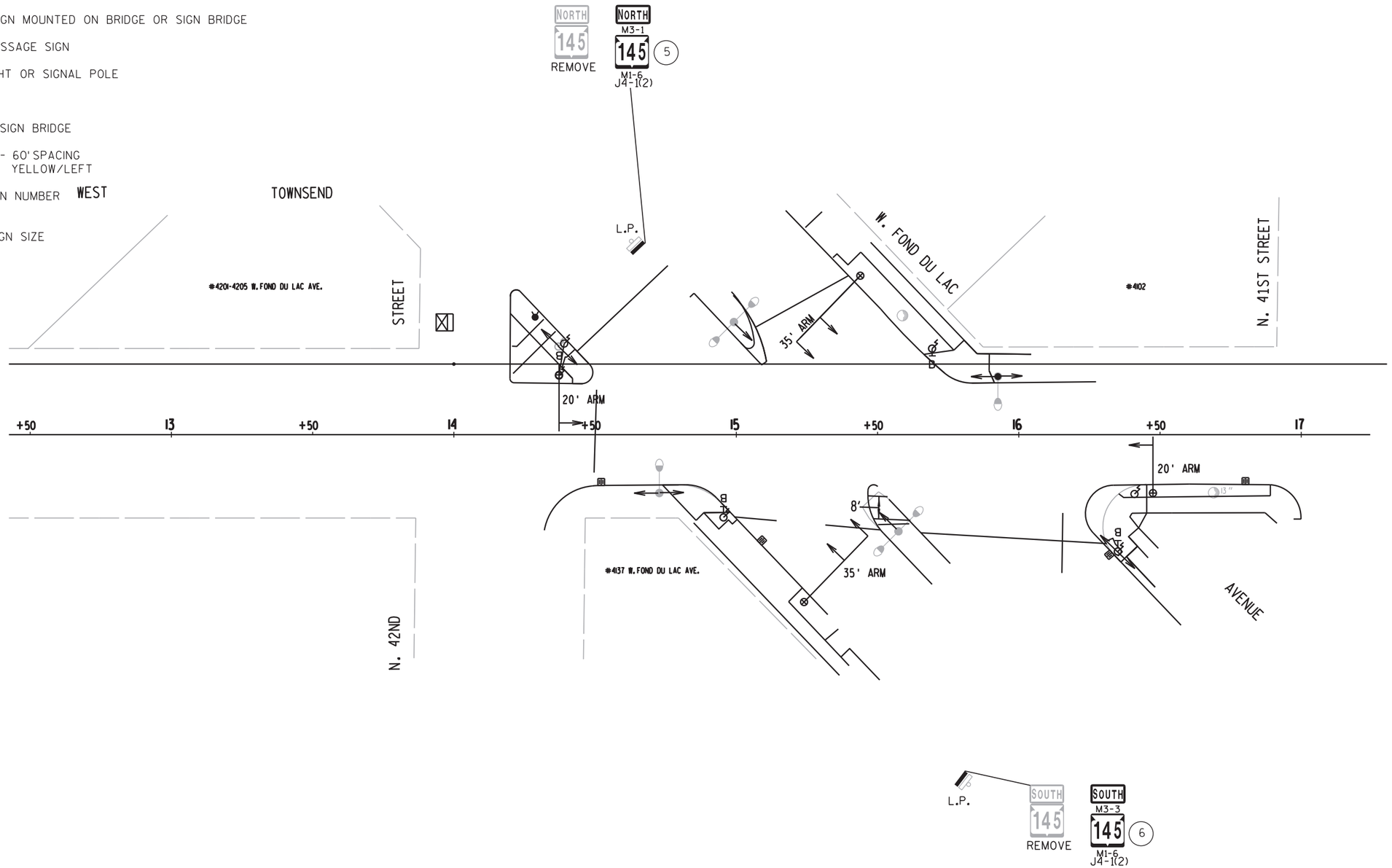
PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET E

FILE NAME : J:\projects\d2_136000145\76\SIGN\023201_ps.dgn PLOT DATE : 13-FEB-2018 10:23 PLOT BY : dotw3m PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DELINEATOR - 60' SPACING
  WHITE/RIGHT YELLOW/LEFT
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE



STH 145 (W. FOND DU LAC AVE.) & W. TOWNSEND AVE.

SHEET 2 OF 6

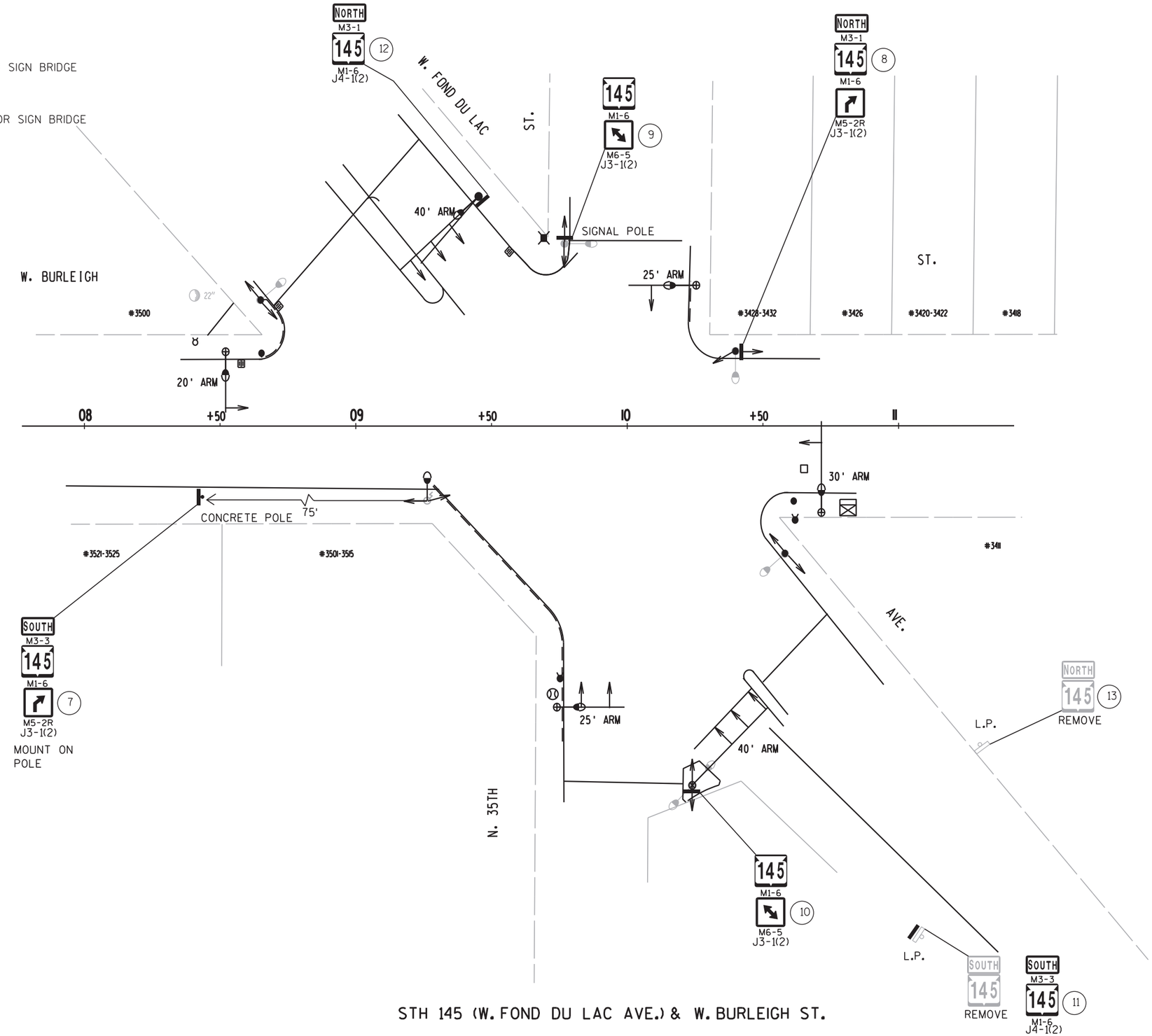
PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET

FILE NAME : J:\projects\d2_136000145\76\SIGN\023201_ps.dgn PLOT DATE : 13-FEB-2018 10:23 PLOT BY : dotw3m PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DELINEATOR - 60' SPACING WHITE/RIGHT YELLOW/LEFT
- XXX — DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE



STH 145 (W. FOND DU LAC AVE.) & W. BURLEIGH ST.

SHEET 3 OF 6

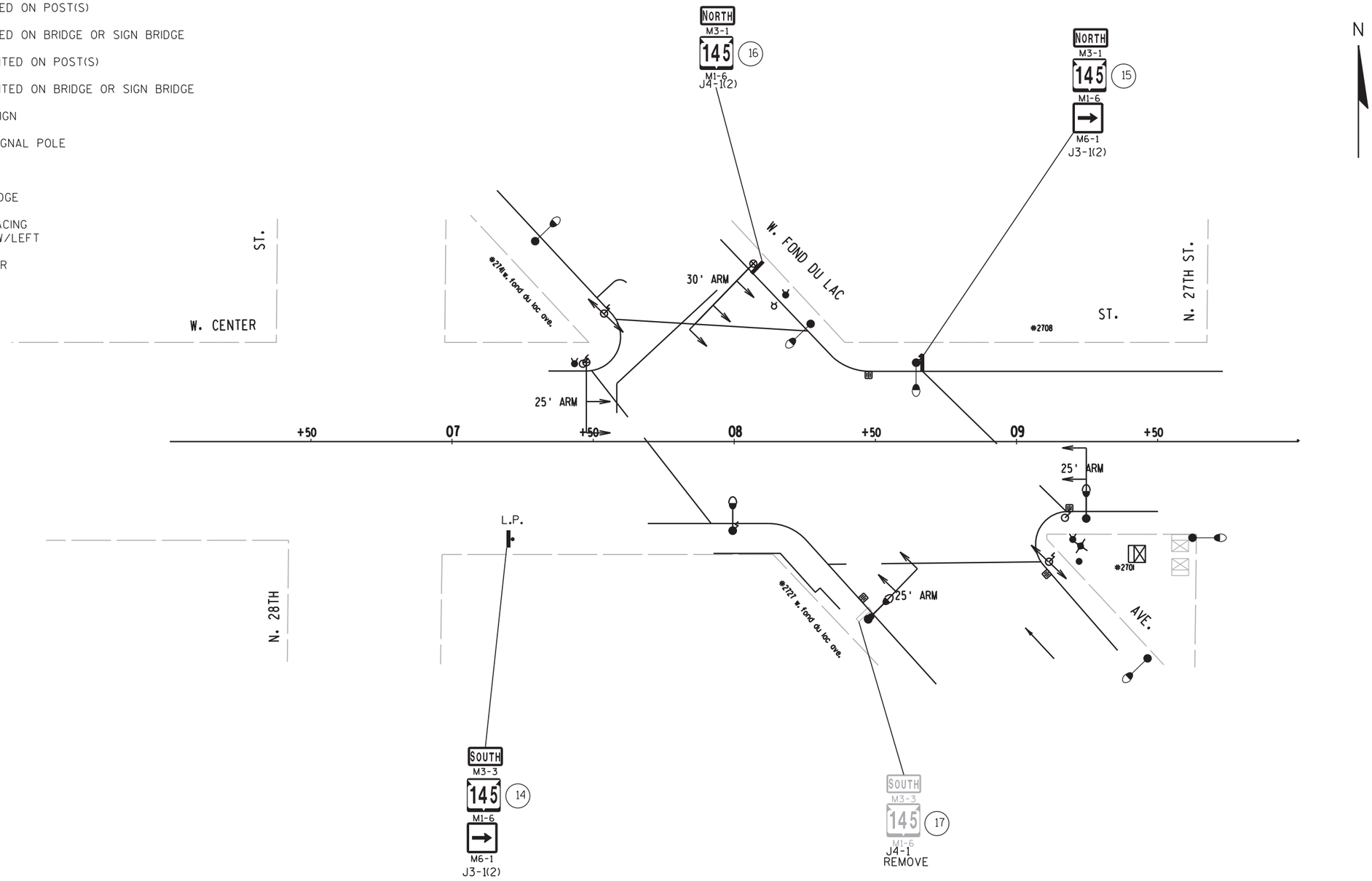
PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 32 E

FILE NAME : J:\projects\d2_136000145\76\SIGN\023201_ps.dgn PLOT DATE : 13-FEB-2018 10:23 PLOT BY : dotw3m PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DELINEATOR - 60' SPACING
  WHITE/RIGHT YELLOW/LEFT
- XXX — DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE



STH 145 (W. FOND DU LAC AVE.) & W. CENTER ST.

SHEET 4 OF 6

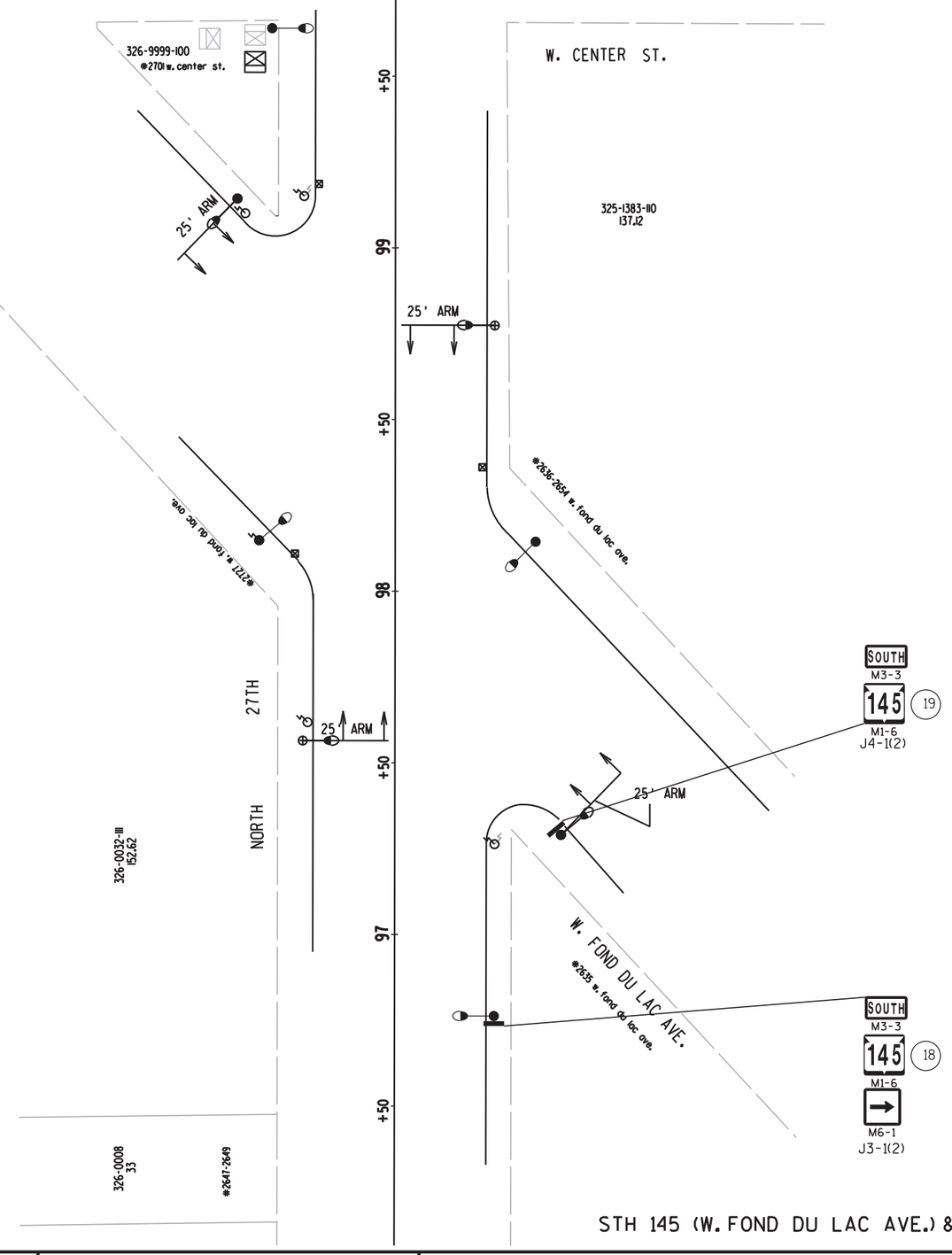
PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 33 E

FILE NAME : J:\projects\d2_136000145\76\SIGN\023201_ps.dgn PLOT DATE : 13-FEB-2018 10:23 PLOT BY : dotw3m PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DELINEATOR - 60' SPACING
  WHITE/RIGHT YELLOW/LEFT
- XXX — DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE



STH 145 (W. FOND DU LAC AVE.) & N. 27TH ST.

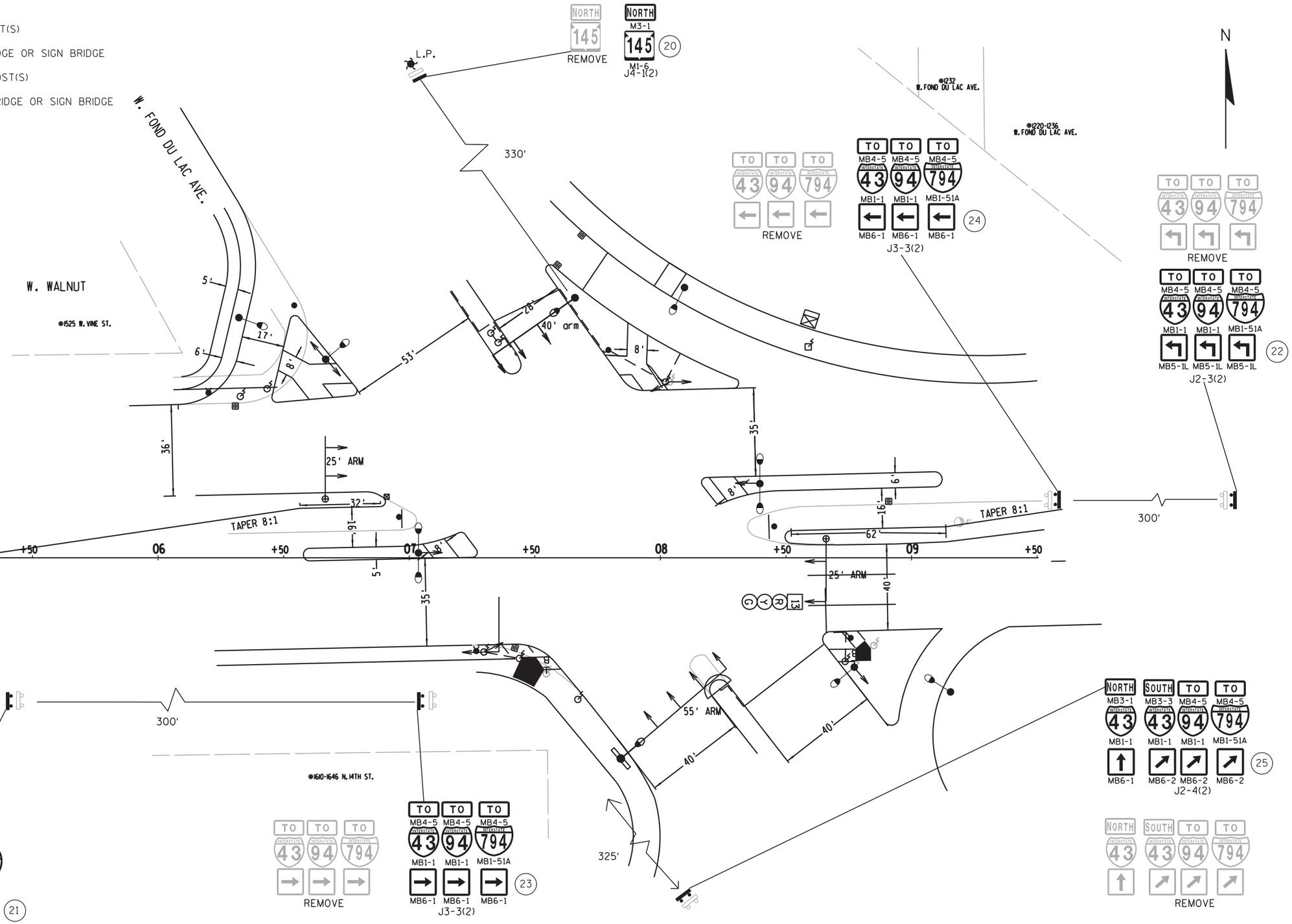
SHEET 5 OF 6

PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET E

FILE NAME : J:\projects\d2_136000145\76\SIGN\023201_ps.dgn PLOT DATE : 13-FEB-2018 10:23 PLOT BY : dotw3m PLOT NAME : PLOT SCALE : 40:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DELINEATOR - 60' SPACING — WHITE/RIGHT YELLOW/LEFT
- (XXX) — DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE



STH 145 (W. FOND DU LAC AVE.) & W. WALNUT ST.

SHEET 6 OF 6

PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 35 E

FILE NAME : J:\projects\d2_136000145\76\SIGN\023201_ps.dgn PLOT DATE : 13-FEB-2018 10:23 PLOT BY : dotw3m PLOT NAME : PLOT SCALE : 40:1

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 - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251 OR DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (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 - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251
STREET LIGHTING - NEAL KARWEIK (OFFICE) 414-286-5943 (CELL) 414-708-4245
STREET LIGHTING - THOMAS HUGHES (OFFICE) 414-286-3457 (CELL) 414-708-3175
STREET LIGHTING - DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (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

SHEET 1 OF 11

PROJECT NO: 1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL DETAILS	SHEET OF 36	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:

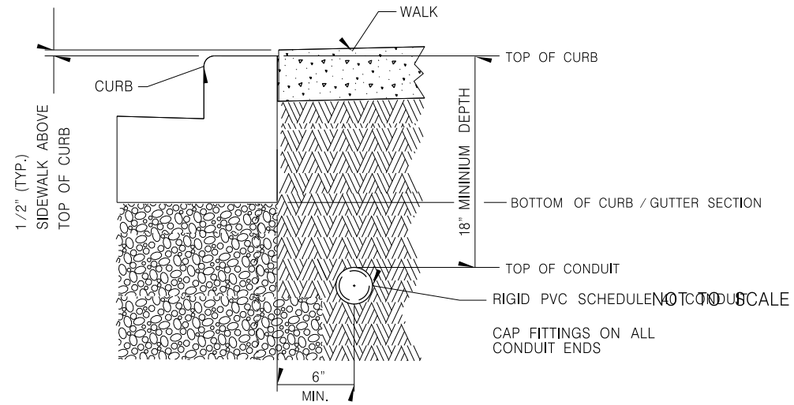
Line out or cross out all changed information and write-in the corrected information above the original or close to it where ever possible. Use blank spaces on the drawing so notes are not superimposed. Drawings with excessive detail may require an alternate approach. Numbered changes or additions may-be 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

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

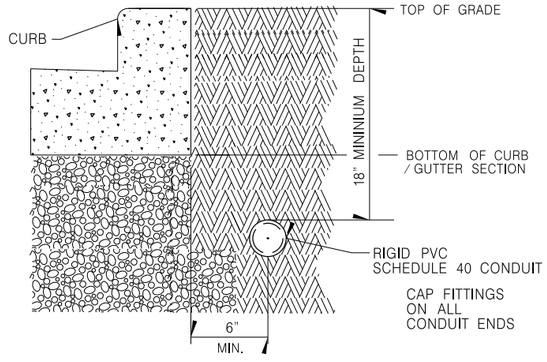
TYPICAL CONDUIT INSTALLATION BEHIND CURB

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

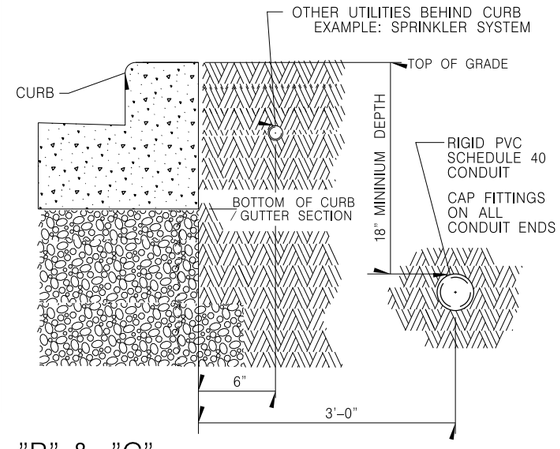
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

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

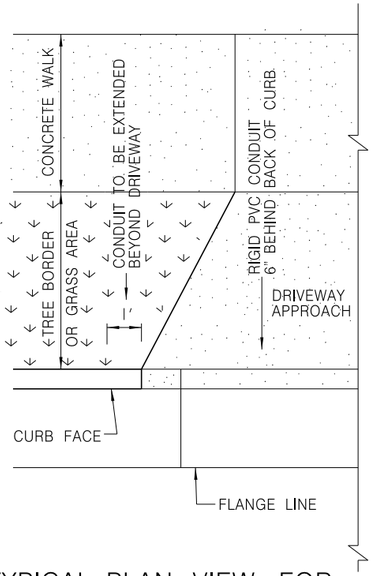
TYPICAL CONDUIT INSTALLATION BEHIND CURB

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

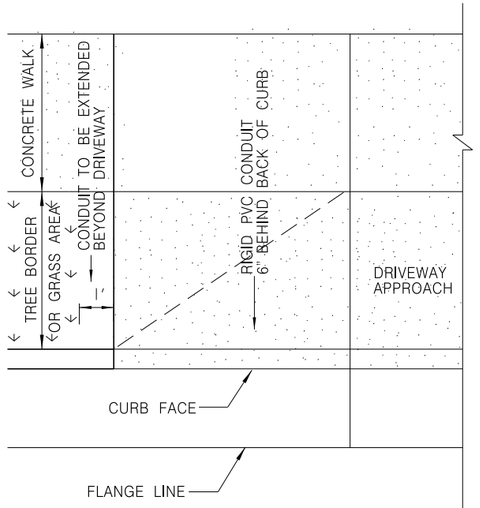
SHEET 2 OF 11

PROJECT NO: 1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL DETAILS	SHEET 37	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects–LFA\Preliminary Engineering\1360–00–76 Fond du Lac 6 Int Monotubes\1360–00–06 FOND DU LAC 6 SIGNALS.dgn PLOT DATE : 11–APR–2018 07:15 PLOT BY : kpfeif PLOT NAME : PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

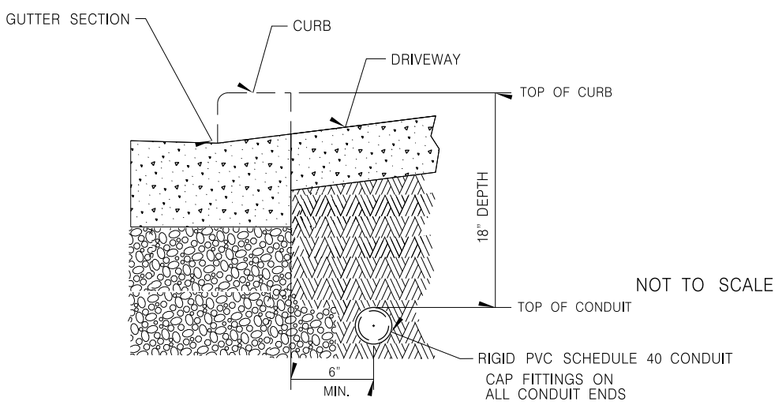


TYPICAL PLAN VIEW FOR FLARED DRIVEWAY



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

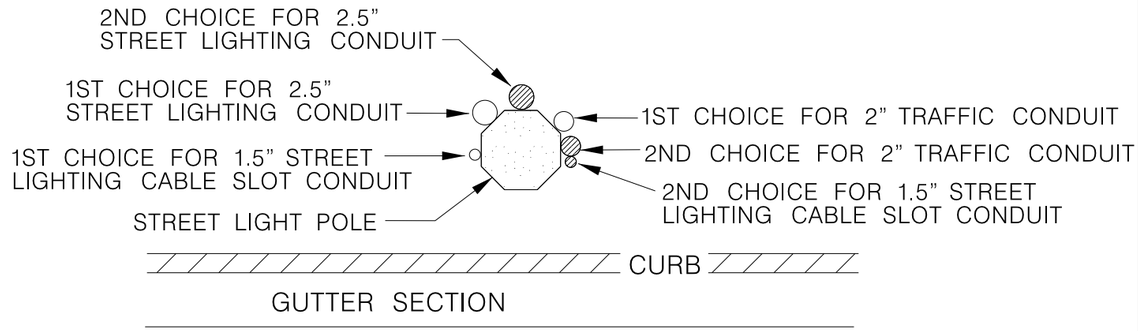
TYPICAL CONDUIT INSTALLATION UNDER DRIVEWAYS OR PEDESTRIAN RAMPS

NOT TO SCALE

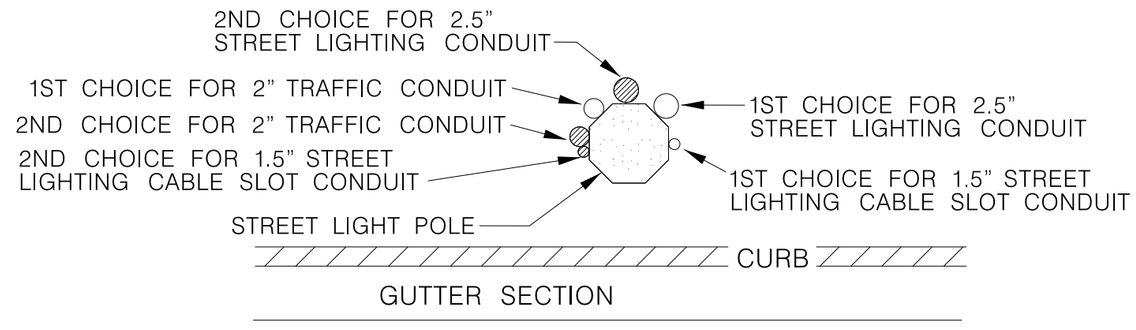
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

2

NOTE: CAP FITTINGS ON CONDUIT ENDS



DIRECTION OF TRAFFIC AT CURB



DIRECTION OF TRAFFIC AT CURB

104 DETAIL

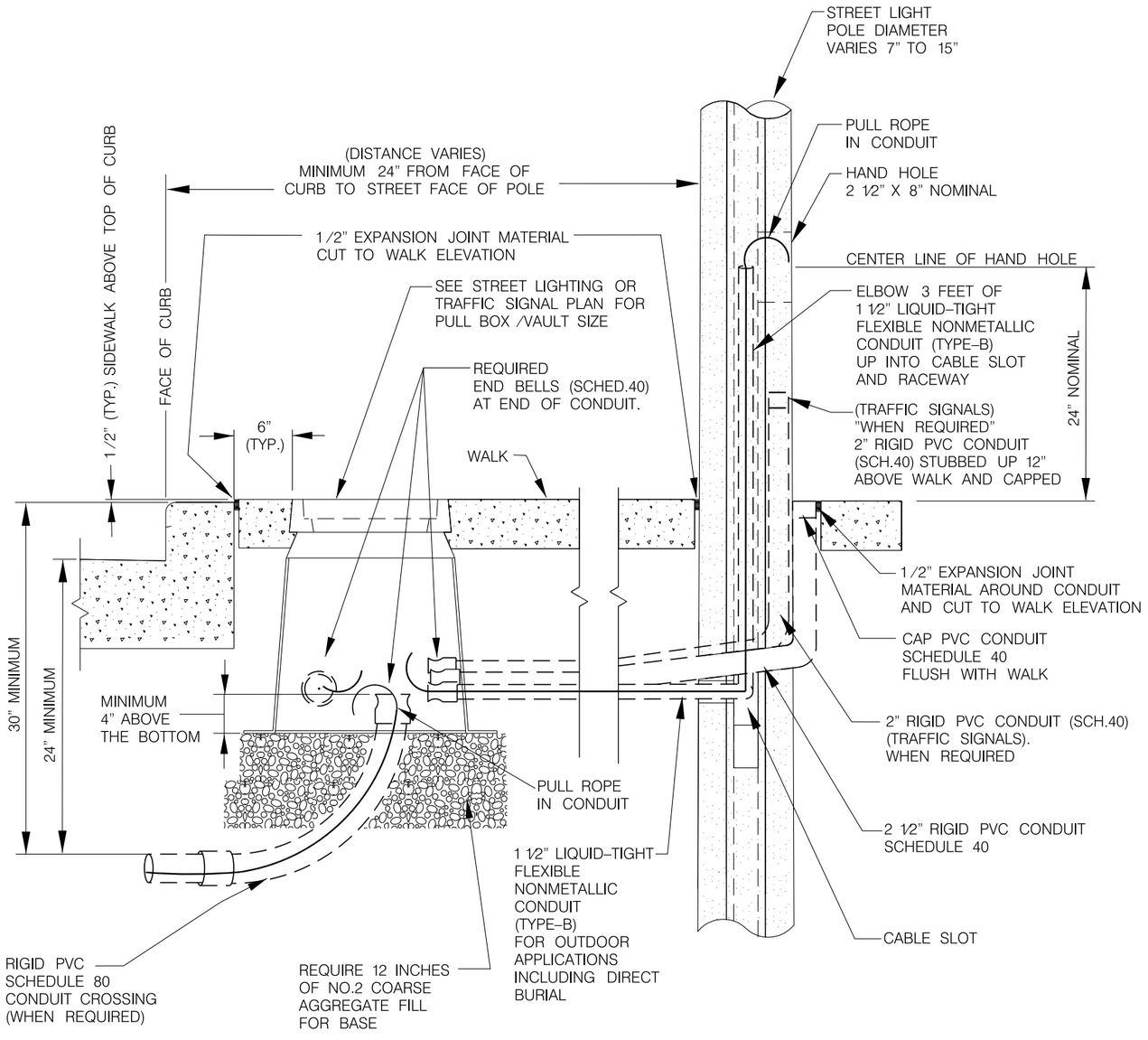
TYPICAL TRAFFIC SIGNAL RISER AND STREET LIGHTING CONDUIT LOCATIONS ON LIGHT POLES DEPENDING ON DIRECTION OF TRAFFIC AT CURB

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.

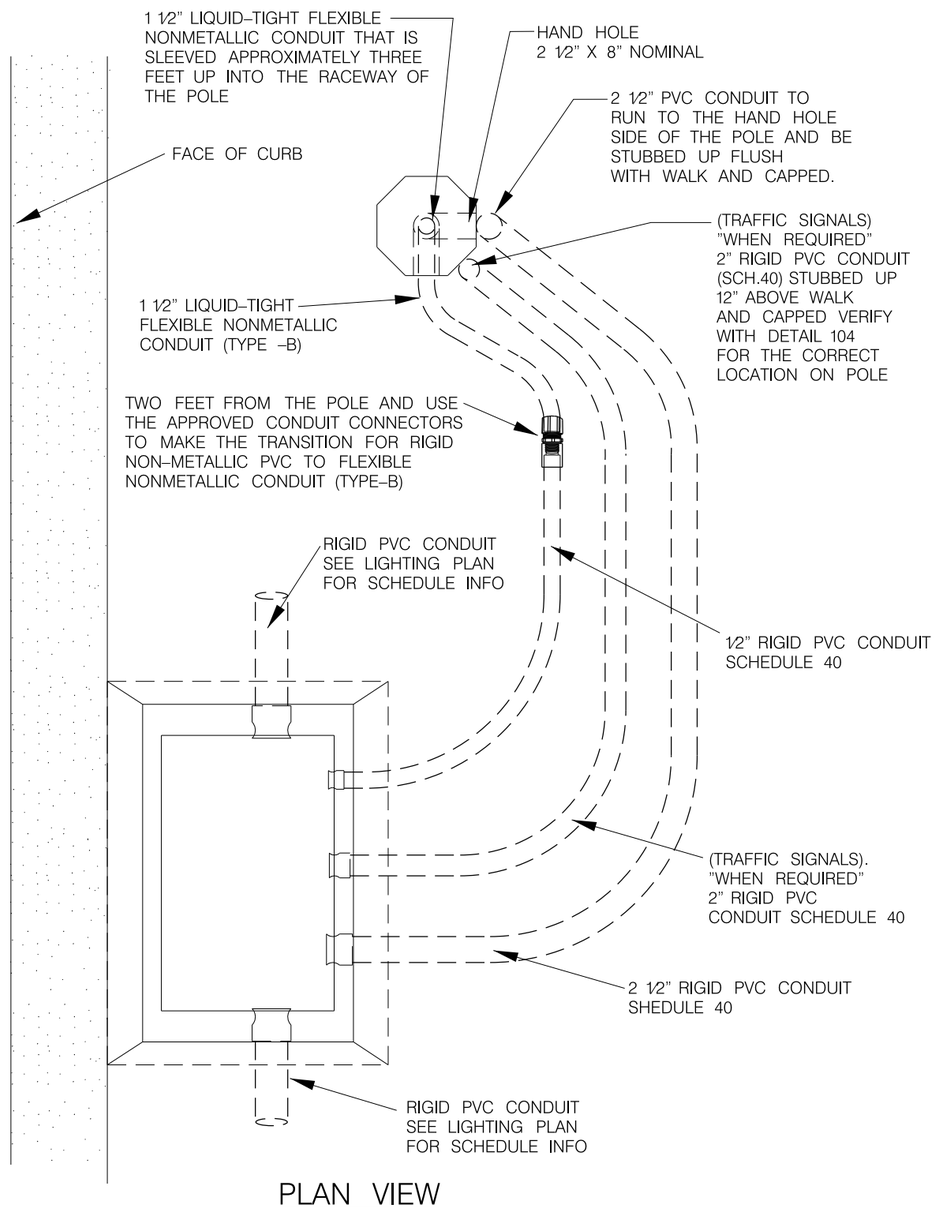
SHEET 3 OF 11

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\1360-00-76 Fond du Lac 6 Int Monotubes\1360-00-06 FOND DU LAC 6 SIGNALS.dgn PLOT DATE : 11-APR-2018 07:16 PLOT BY : kpfeif PLOT NAME : PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42



SECTION VIEW

NOT TO SCALE



PLAN VIEW

NOT TO SCALE

108A

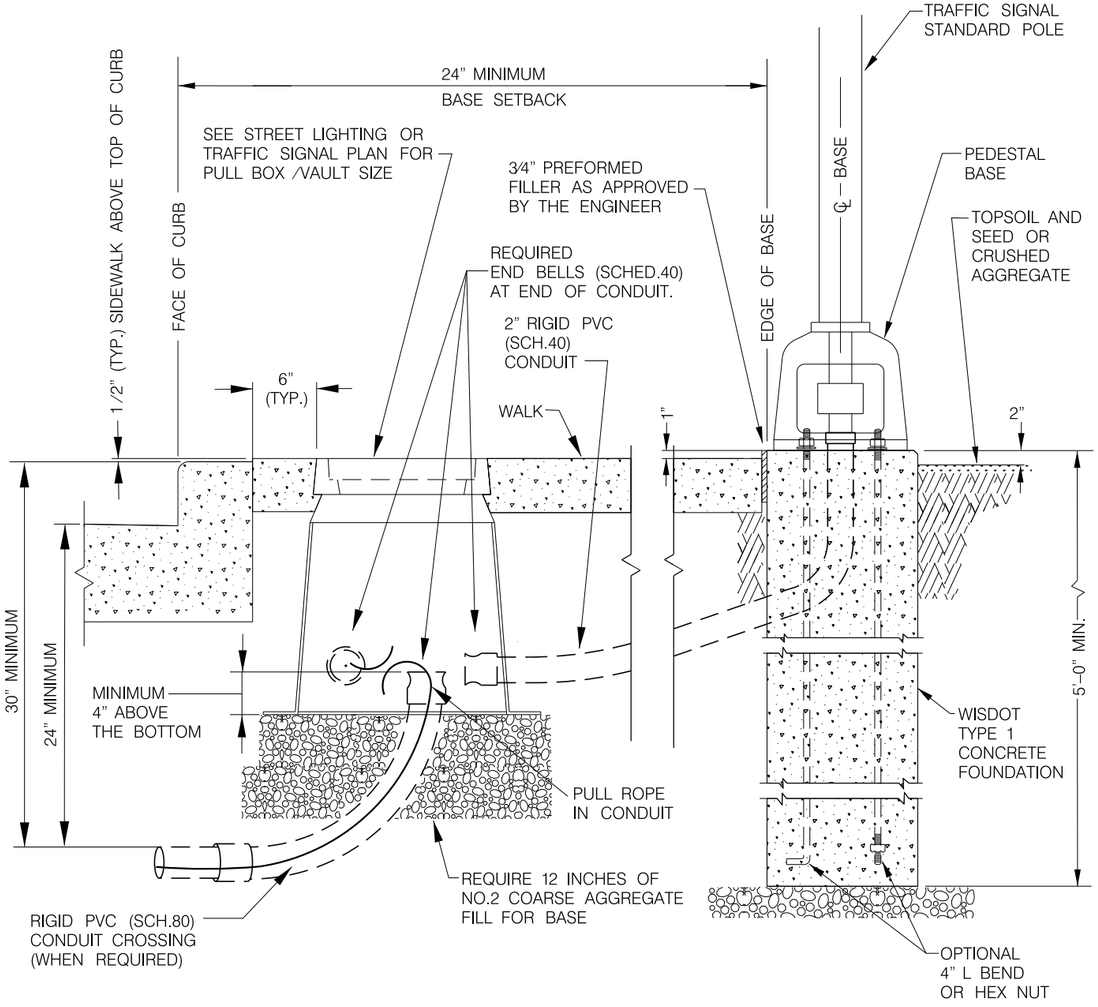
DETAIL VERSION

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.

SHEET 4 OF 11

NOT TO SCALE

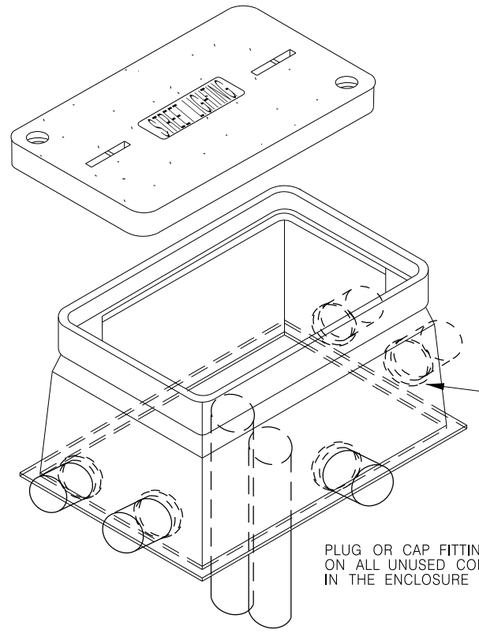


109 DETAIL

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

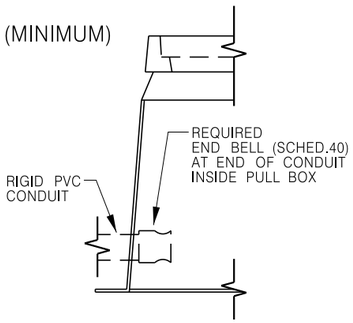
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

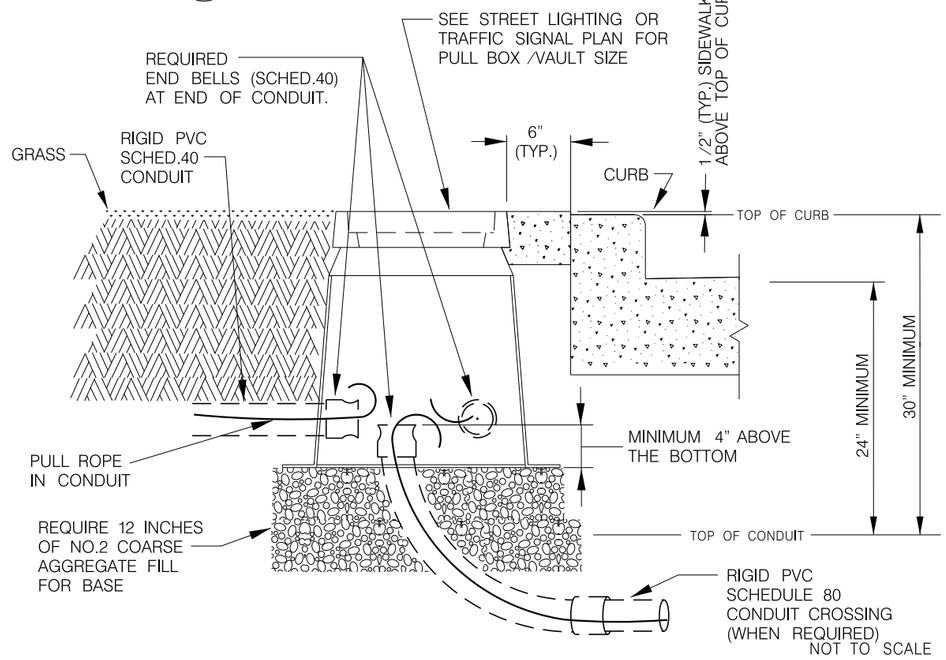
NOT TO SCALE



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

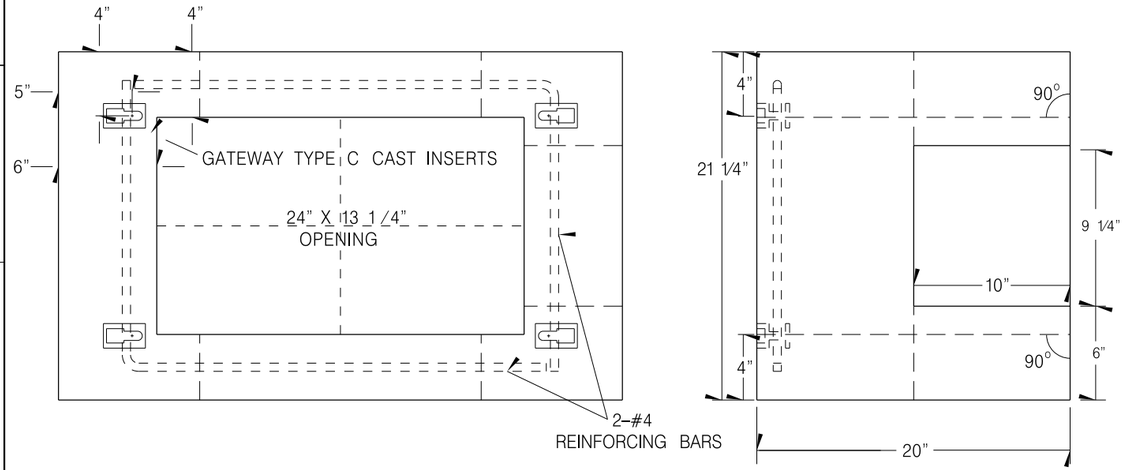
112 DETAIL

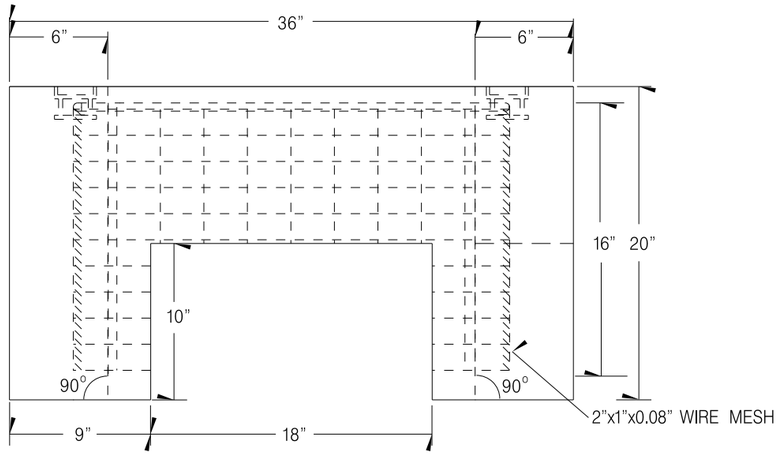
TYPICAL PULL BOX /VAULT INSTALLATION IN EITHER PAVEMENT OR GRASS AREAS

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

SHEET 5 OF 11

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		

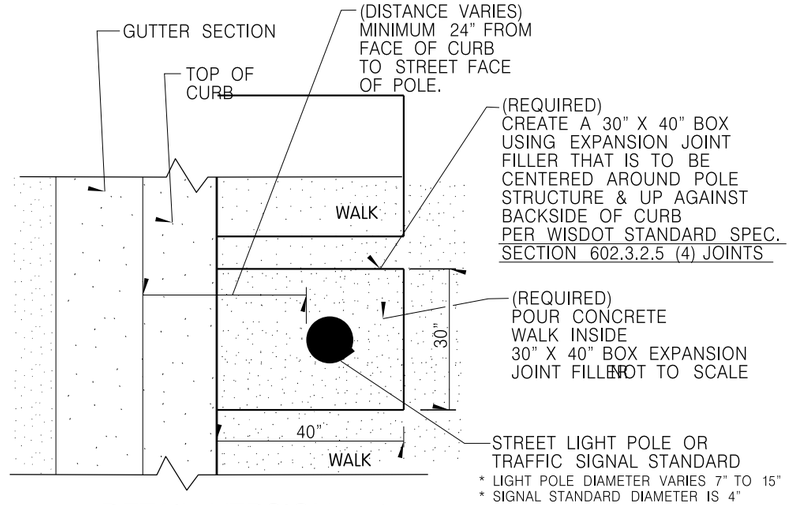
125 DETAIL

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.



122 DETAIL VERSION #1

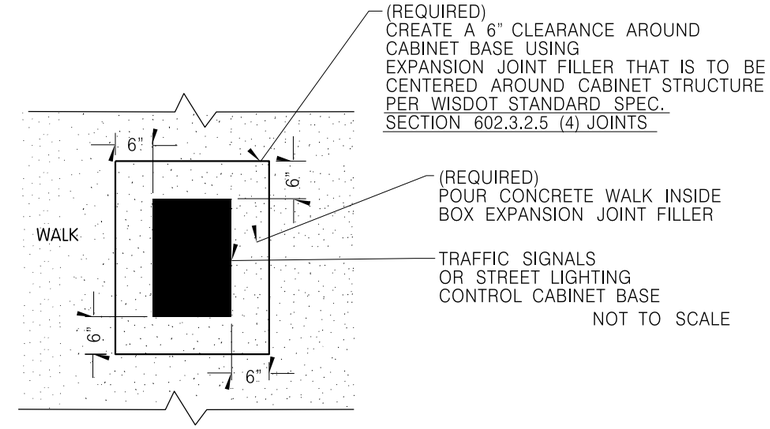
NOT TO SCALE

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.



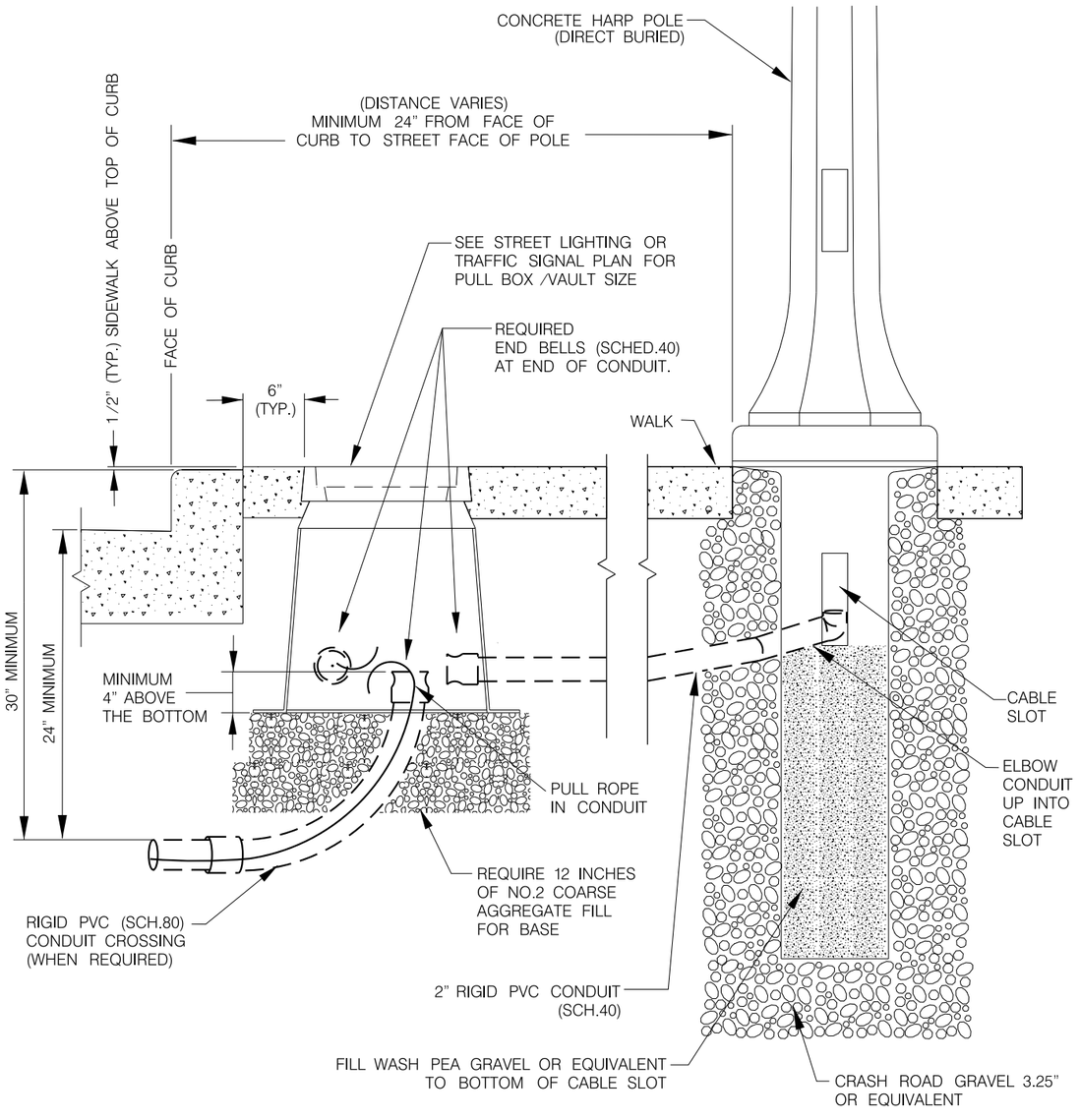
122 DETAIL VERSION #2

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.

SHEET 6 OF 11



123 DETAIL

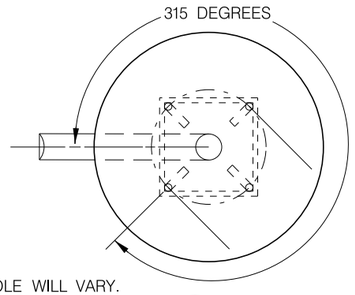
TYPICAL CONDUIT INSTALLATION
FROM PULL BOX TO CONCRETE HARP POLE

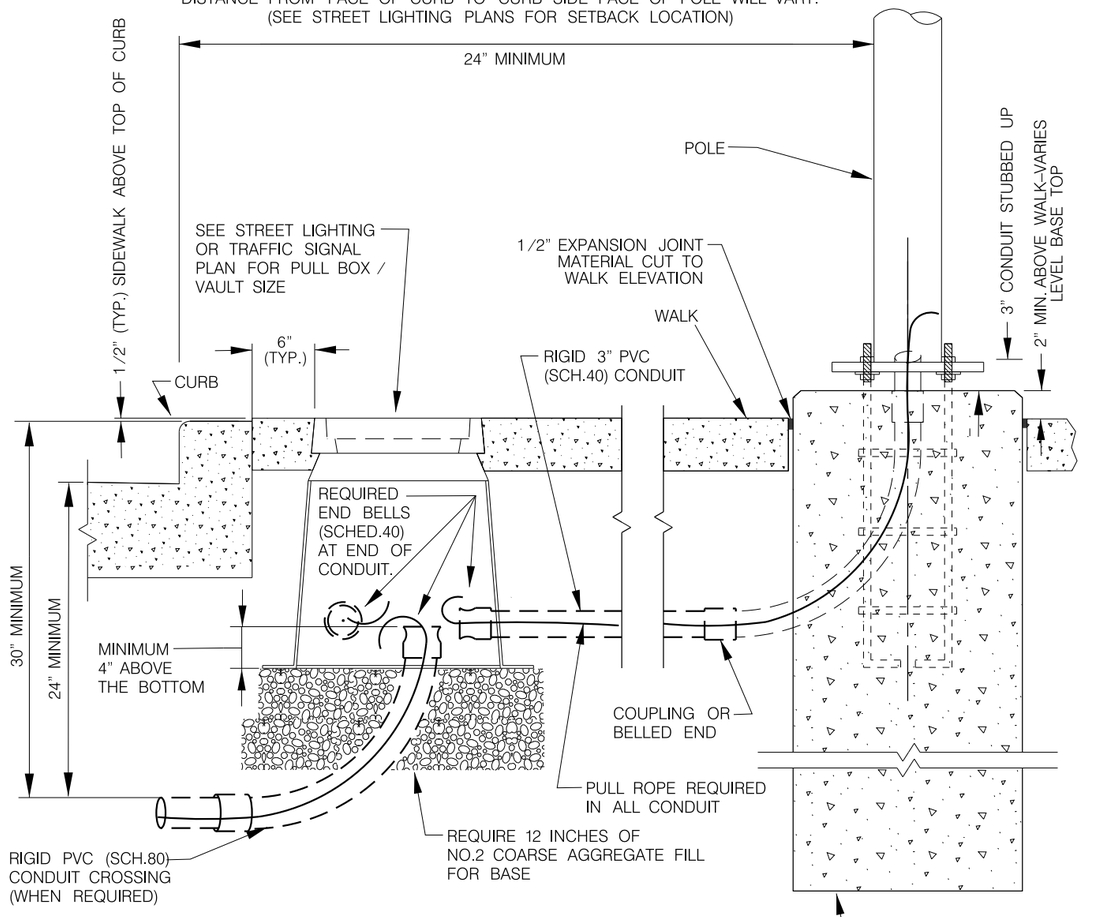
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

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.

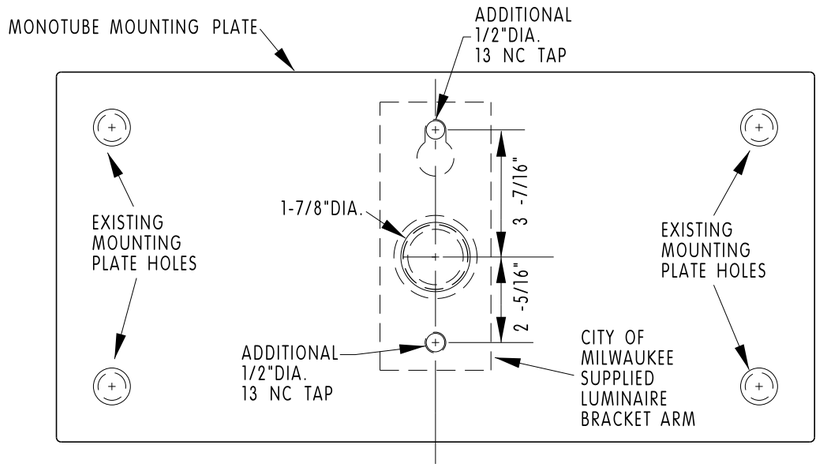
NOT TO SCALE

SHEET 7 OF 11

PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	STREET LIGHTING AND TRAFFIC SIGNAL DETAILS	SHEET OF 42	E

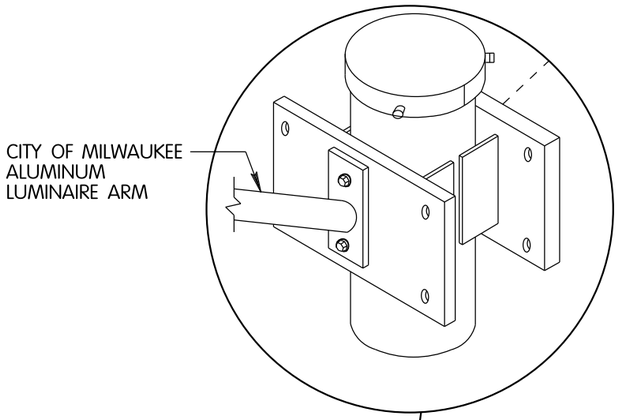
FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\1360-00-76 Fond du Lac 6 Int Monotubes\1360-00-06 FOND DU LAC 6 SIGNALS.dgn PLOT DATE : 11-APR-2018 07:22 PLOT BY : kpfeif PLOT NAME : PLOT SCALE : 30.000000:1.000000
WISDOT/CADDS SHEET 42

2

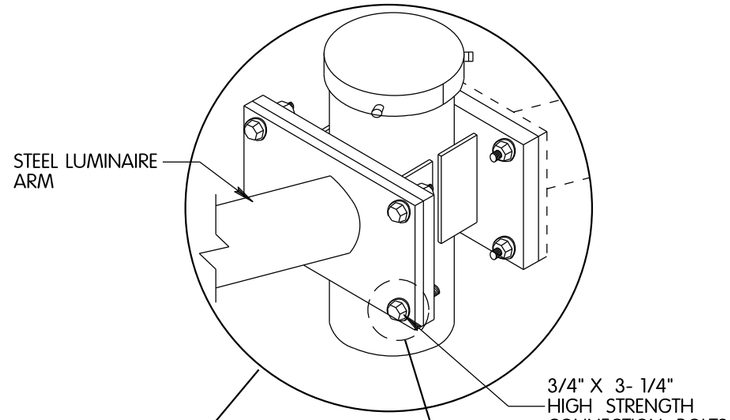


ADDITIONAL MOUNTING HOLES IN LUMINAIRE MOUNTING PLATE

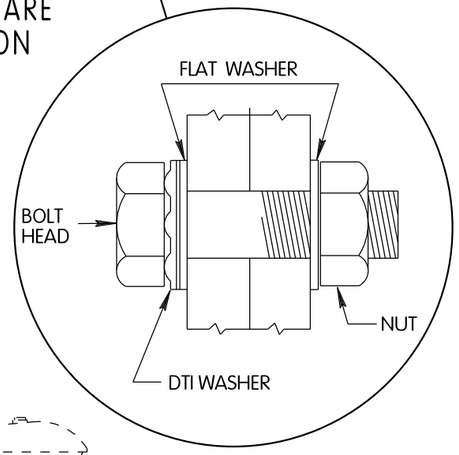
NOT TO SCALE



ALUMINUM LUMINIARE ARM OPTION



STEEL LUMINIARE ARM OPTION



RECOMMENDED BOLT ASSEMBLY DETAIL

LUMINAIRE
WT. – 50 LBS.
EPA FOR WIND
LOADING 1.5 SQ. FT.

15' MAXIMUM

EITHER AN ALUMINUM SINGLE
OR STEEL SINGLE
MEMBER LUMINAIRE ARM

FIXED ARM ATTACHMENT
(CITY STANDARD AT 28'– 9")

ADDITIONAL MOUNTING HOLES IN LUMINAIRE MOUNTING PLATE FOR

POLES: TYPE 10
TYPE 13 SPECIAL
TYPE 13

NOT TO SCALE

SHEET 8 OF 11

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER. CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

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

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

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

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

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

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

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

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

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

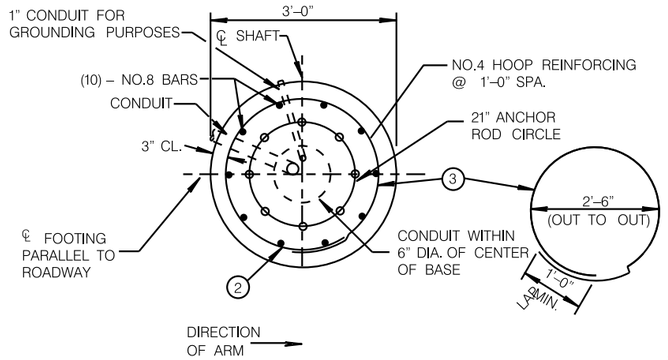
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

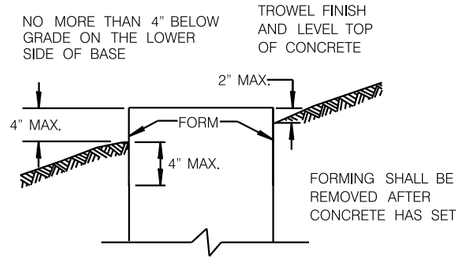
(2) (10) NO. 8 X 15'–7" BAR STEEL REINFORCEMENT.

(3) (17) NO. 4 X 9'–0" BAR STEEL REINFORCEMENT @ 1'–0" C–C.

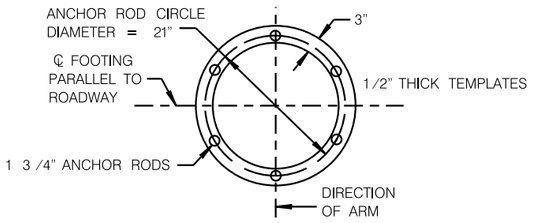
CONCRETE MASONRY	fc = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy = 55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy = 36,000 p.s.i.



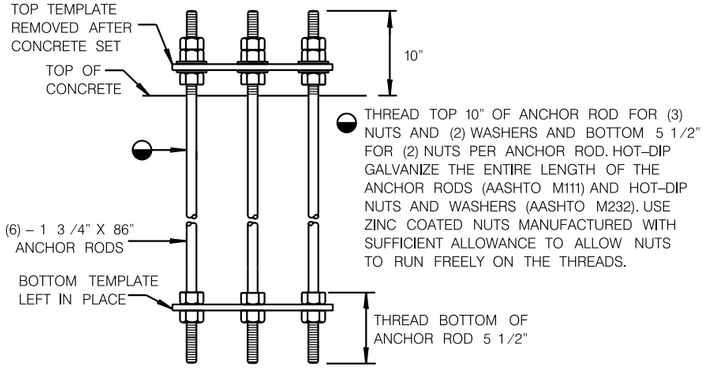
CONCRETE BASE TYPE 10 SPECIAL



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 SPECIAL

ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	4.19
LBS. OF HOOP BAR STEEL	103
LBS. OF VERTICAL BAR STEEL	417

SHEET 9 OF 11

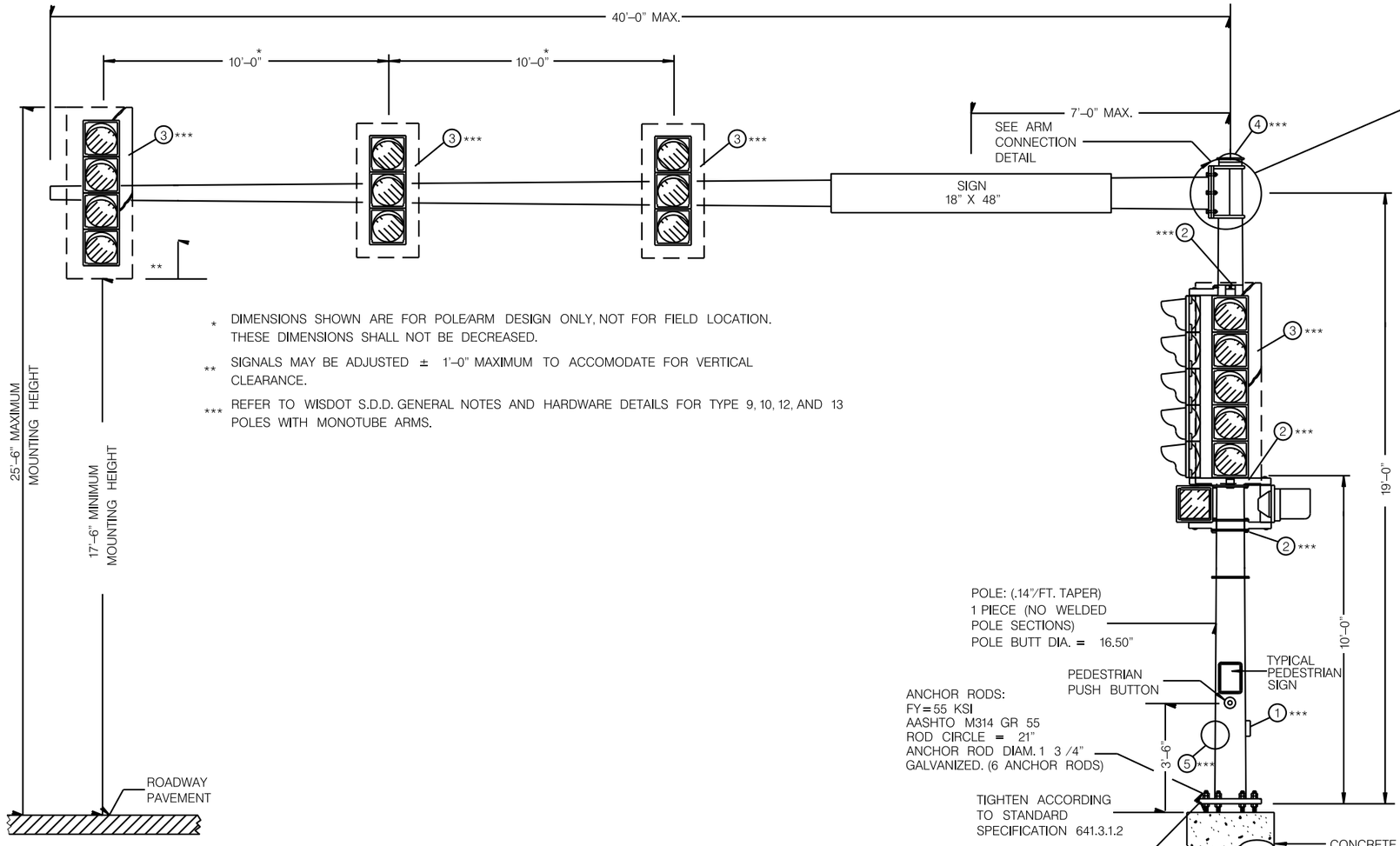
CONCRETE BASE TYPE 10 SPECIAL

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

REVISED:	DECEMBER 2014 (DATE)	2013 AASHTO (REVISION)
REVISED:	JULY 2015 (DATE)	2015 DESIGN UPDATE (REVISION)
REVISED:	NOVEMBER 2015 (DATE)	ANCHOR ROD PROJECTION UPDATE (REVISION)

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects–LFA\Preliminary Engineering\1360–00–76 Fond du Lac 6 Int Monotubes\1360–00–06 FOND DU LAC 6 SIGNALS.dgn PLOT DATE : 11–APR–2018 07:23 PLOT BY : kpfeif PLOT NAME : PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

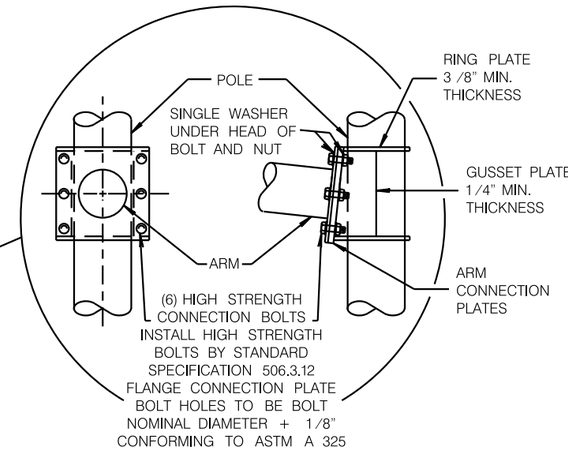
2



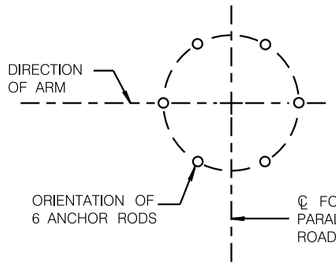
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'–0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

*** REFER TO WISDOT S.D.D. GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12, AND 13 POLES WITH MONOTUBE ARMS.



6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

SHEET 10 OF 11

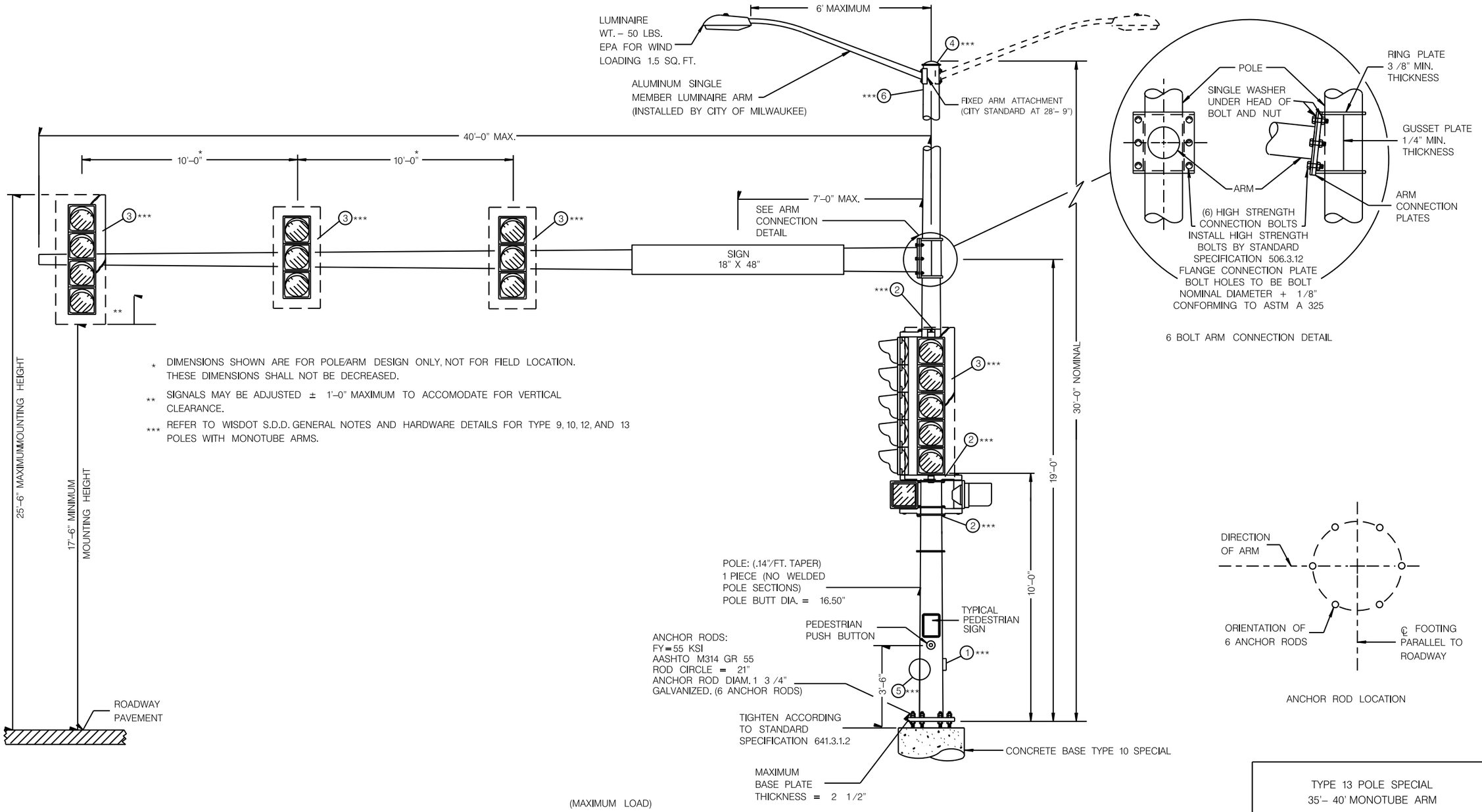
TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

REVISED: DECEMBER 2014 (DATE) — 2013 AASHTO (REVISION)
REVISED: JULY 2015 (DATE) — 2015 DESIGN UPDATE (REVISION)

PROJECT NO:1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	STREET LIGHTING AND TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 45	E

2



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

** SIGNALS MAY BE ADJUSTED ± 1'–0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

*** REFER TO WISDOT S.D.D. GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12, AND 13 POLES WITH MONOTUBE ARMS.

6 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

SHEET 11 OF 11

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

REVISED: DECEMBER 2014 (DATE) 2013 AASHTO (REVISION)
REVISED: JULY 2015 (DATE) 2015 DESIGN UPDATE (REVISION)

PROJECT NO:1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	STREET LIGHTING AND TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 46	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 2 LIGHT DISTRIBUTION UNLESS OTHERWISE SPECIFIED.

LEGEND

- EXISTING LIGHT POLE
- NEW LIGHT POLE
  95 WATT AE ATBM-D-R3 OR APPROVED EQUAL
  2#12UF W/GND RISER CABLE
- NEW LIGHT POLE
  2 - 2#12UF W/G RISERS
  2 - LUMINAIRE ARMS
  2 - 95 WATT AE ATBM-D-R3 OR APPROVED EQUIV.
- NEW LIGHT POLE
  164 WATT AE ATBM-D-R3 OR APPROVED EQUAL
  2#12UF W/GND RISER CABLE
- NEW LIGHT POLE
  2 - 2#12UF W/G RISERS
  2 - LUMINAIRE ARMS
  2 - 164 WATT AE ATBM-H-R3 OR APPROVED EQUIV.
- DOUBLE LUMINAIRE & ARMS (BY CONTRACTOR) MOUNTED ON MONOTUBE
- NEW LIGHT POLE
  MK1153JASB4G LED LANTERN
  2#12UF W/GND RISER CABLE
- NEW LIGHT POLE
  2 - 2#12UF W/G RISERS
  2 - ML1153KASB4G LED LANTERN
- 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
- (K) (B) - RED/BLACK WIRE TERMINATION
- LED - LED HARP MHL383KAS2B4AGS LUNIMAIRE UPGRADE

POLE ADDRESS · ADDRESS LOCATION · TRAFFIC · CURB

N

#4512
EXIST. CONC. LIGHT
TO REMAIN IN SERVICE
112 13"X24"X24"
PULL BOX
15+12;7.0'LT

108A
1.5",2.5" PVC
PULL BOX
TO PEDESTAL

SECURE 20' TAGGED,
COILED IN PULL BOX
(FINAL TERMINATION
BY CITY)

DETAIL C
100
3" SCH. 40 SPECIAL
2' BACK OF CURB

16+63;200.0'RT

3#2/1#8LTP
CIR. T6N-C
IN CONDUIT

W. FOND DU LAC AVE.

EXIST. CONC. POLE
REMOVED BY CITY

#4502
SP (S40-1913) (TYPE 2 DISTRIBUTION)
TYPE 10 BASE
TYPE 10 POLE
2-2#12UF W/G INTERNAL RISER
2-8' SINGLE MEMBER ARMS
2-164W LED ATBM-H-R2
(TYPE 2 DISTRIBUTION)

3#2/1#8LTP
CIR. T6N-D
IN CONDUIT

3#2/1#8LTP
CIR. T6N-C
IN CONDUIT

SP (S40-1912)
TYPE 10 BASE
TYPE 9 POLE

108A
1.5",2.5" PVC
PULL BOX
TO PEDESTAL

#4502
31' CONC. DIRECT BURY
4"X4" WIRING PEDESTAL
2-2#12UF W/G INTERNAL RISER
2-8' SINGLE MEMBER ARMS
2-164W LED ATBM-H-R2
(TYPE 2 DISTRIBUTION)
17+50;0.0'RT

EXIST. POLE
REMOVED
BY CITY

#4516
31' CONC. DIRECT BURY
4"X4" WIRING PEDESTAL
2-2#12UF W/G INTERNAL RISER
2-8' AL SINGLE MEMBER ARMS
2-164W LED ATBM-H-R2
(TYPE 2 DISTRIBUTION)
16+58;155.0'RT

3-3#2/1#8LTP
CIR. T6N-A,C,D
TAGGED (WEATHER RESIST)
IN THIS PULL BOX

EXIST. CONC. POLE
REMOVED BY CITY

2-3" SCH. 40
2' BACK OF CURB

3#2/1#8LTP
CIR. T6N-A
IN CONDUIT

100

108A
1.5",2.5" PVC
PULL BOX
TO PEDESTAL
16+63;200.0'RT

17"X30"X24"
PULL BOX 112

3-3#2/1#8LTP
CIR. T6N-A,C,D
DISTRIBUTED IN
CONDUITS

102
2-3" SCH. 80
SPECIAL

17"X30"X24"
PULL BOX 112
16+55;200.0'RT

SECURE 30' EACH BRANCH
CIRCUIT TAGGED, COILED
IN PULL BOX
(FINAL TERMINATION
BY CITY)

T6N
75KVA

W. ROOSEVELT DR.

SECURE 20' TAGGED,
COILED IN PULL BOX
(FINAL TERMINATION
BY CITY)

108A
#4434
EXIST. CONC. POLE
TO REMAIN IN SERVICE
1.5",2.5" PVC
PULL BOX
TO PEDESTAL

102
3" SCH. 80
SPECIAL

112
13"X24"X24"
PULL BOX
17+45;173.0'LT

3#2/1#8LTP
CIR. T6N-D
IN CONDUIT

112
13"X24"X24"
PULL BOX
17+32;137.0'LT

DETAIL B
100
3" SCH. 40
2' BACK OF CURB

3#2/1#8LTP
CIR. T6N-D
IN CONDUIT

#4434
SP (S40-1910)
TYPE 10 BASE
TYPE 10 POLE
2-2#12UF W/G INTERNAL RISER
2-8' SINGLE MEMBER ARMS
2-164W LED ATBM-H-R2
(TYPE 2 DISTRIBUTION)
17+25;68.0'LT

CAUTION
SIGNAL SERVICE

#4448
SP (S40-1911)
TYPE 10 BASE
TYPE 10 POLE
2-2#12UF W/G INTERNAL RISER
2-8' SINGLE MEMBER ARMS
2-164W LED ATBM-H-R2
(TYPE 2 DISTRIBUTION)
17+78;6.0'RT

DETAIL C
100
3" SCH. 40 SPECIAL
2' BACK OF CURB

3" SCH. 80
SPECIAL 102

3#2/1#8LTP
CIR. T6N-A
IN CONDUIT

112
13"X24"X24"
PULL BOX
18+69;3.0'RT

108A
1.5",2.5" PVC
PULL BOX
TO PEDESTAL

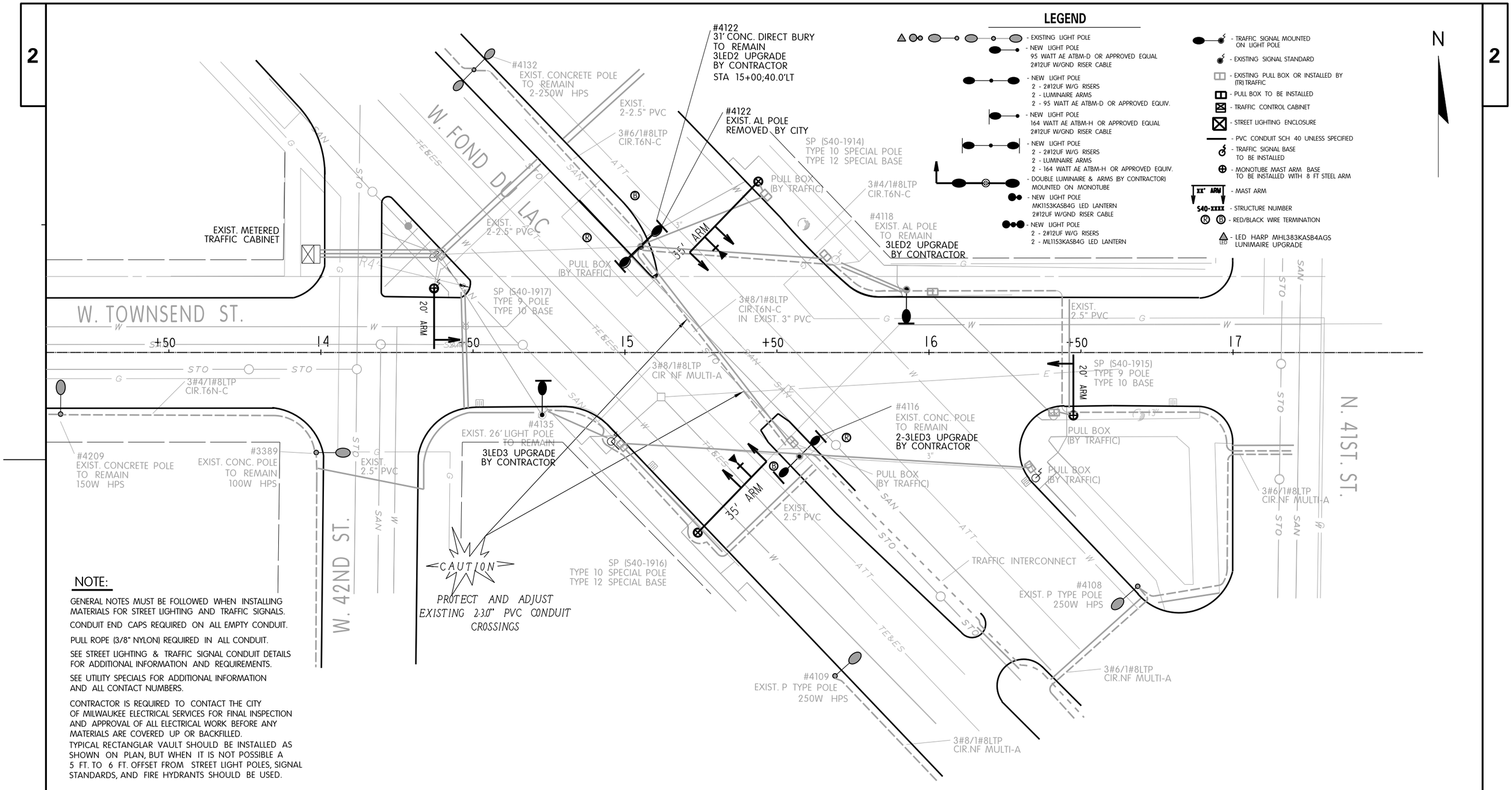
3" SCH. 80
SPECIAL 102

112
13"X24"X24"
PULL BOX
19+3;3.0'RT
SECURE 20' TAGGED,
COILED IN PULL BOX
(FINAL TERMINATION
BY CITY)

CAUTION
SIGNAL SERVICE

SCALE, FEET 0 30

PROJECT NO: 1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 47	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 2 LIGHT DISTRIBUTION THIS INTERSECTION UNLESS OTHERWISE SPECIFIED.

SCALE, FEET 0 30

PROJECT NO: 1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 48	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.

LEGEND

- EXISTING LIGHT POLE
- NEW LIGHT POLE 95 WATT AE ATBM-D OR APPROVED EQUAL 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - LUMINAIRE ARMS 2 - 95 WATT AE ATBM-D OR APPROVED EQUIV.
- NEW LIGHT POLE 164 WATT AE ATBM-H OR APPROVED EQUAL 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - LUMINAIRE ARMS 2 - 164 WATT AE ATBM-H OR APPROVED EQUIV.
- DOUBLE LUMINAIRE & ARMS (BY CONTRACTOR) MOUNTED ON MONOTUBE
- NEW LIGHT POLE MK1153KASB4G LED LANTERN 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - ML1153KASB4G LED LANTERN
- 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
- LED - LED HARP MHL383KASB4AGS LUNIMAIRE UPGRADE

POLE ADDRESS
ADDRESS LOCATION
TRAFFIC
CURB

#3519 EXIST. CONC. POLE TO REMAIN
#3521 15' PEDESTRIAN TO REMAIN
EXIST. 3#2/1#8LTP CIR. NF-C IN CONDUIT
#3528 EXIST. CONC. POLE TO REMAIN IN SERVICE
#3504 SP (S40-1920) TYPE 10 POLE TYPE 10 BASE 2#12UF W/G INTERNAL RISER LED LANTERN MHL1153KASB4G
#3514 EXIST. CONC. POLE TO REMAIN IN SERVICE
#3503 EXIST. 15' HARP UNIT LED MHL383KASB4AGS UPGRADE BY CONTRACTOR 8+50;27.5'RT
3#6/1#8LTP CIR. NF-C IN CONDUIT
3#2/1#8LTP CIR. NF-C IN CONDUIT
123 LED
2.0" PVC PULL BOX TO HARP UNIT
#3502 CONC. A.T. UNIT REMOVED BY CITY
#3507 EXIST. CONC. POLE TO REMAIN LED LANTERN MHL1153KA5B4G UPGRADE BY CONTRACTOR 8+65;50'LT
#3528 EXIST. CONC. POLE TO REMAIN IN SERVICE
W. BURLEIGH
108
1.5",2.5" PVC PULL BOX TO PEDESTAL
EXIST. 3#2/1#8LTP CIR. NF-B IN CONDUIT
#3508 NEW 15' HARP UNIT (H-17) LED MHL383KASB4AGS 2#12UF INTERNAL RISER BY CONTRACTOR 9+20;108'LT
#3501 31' CONC. POLE 4"X4" WIRING PEDESTAL 2#12UF W/G INTERNAL RISER LED LANTERN MHL1153KASB4G 9+26;27.5'RT
13"X24"X24" PULL BOX 108 112
1.5",2.0",2.5" PVC PULL BOX TO PEDESTAL 9+22;25'RT
#3502 CONC. A.T. UNIT REMOVED BY CITY CIR.NF-B SPLICE BY CITY
3#2/1#8LTP CIR. NF-C IN EXIST. CUC BY CITY FORCES
3#6/1#8LTP CIR. NF-B
123 2.0" PVC TO 13"X24"X24" PULL BOX TO HARP UNIT #3508
100 3.0"PVC TO SPECIAL FULL WALK
SP (S40-1921) TYPE 12 SPECIAL POLE TYPE 10 SPECIAL BASE
3#2/1#8LTP CIR. NF-C REMAIN IN SERVICE
3#4/1#8LTP CIR. NF-C REMAIN IN SERVICE
#3102 SP (S40-1919) TYPE 10 POLE TYPE 10 BASE 2#12UF W/G INTERNAL RISER LED LANTERN MHL1153KASB4G
3#2/1#8LTP CIR. NF-C IN CONDUIT
#3059 EXIST. CONC. POLE TO REMAIN IN SERVICE
PULL BOX (BY TRAFFIC)
#3504 NEW 15' HARP UNIT (H-17) LED MHL383KASB4AGS 2#12UF INTERNAL RISER BY CONTRACTOR 9+55;68'LT
#3504 CONC. A.T. UNIT REMOVED BY CITY
3#6/1#8LTP CIR. NF-B IN EXIST. DUCT
108 1.5",2.5" PVC PULL BOX TO PEDESTAL
#3103 31' ALUM. POLE REMOVED BY CITY
#3103 31' CONC. POLE 4"X4" WIRING PEDESTAL 2#12UF W/G INTERNAL RISER LED LANTERN MHL1153KASB4G 9+75;67'LT
N.35TH
#3079 RED CONC. 'S' UNIT W/ HPS LANTERN REMOVED BY CITY
25' ARM
EXIST. 2-2.5"
#3078 SP (S40-1918) TYPE 13 SPECIAL POLE TYPE 10 SPECIAL BASE 2-2#12UF W/G INTERNAL RISER 2-LED LANTERN MHL1153KASB4G
#3078 RED CONC. 'S' UNIT REMOVED BY CITY
3#2/1#8LTP CIR. NF-B IN EXIST. CUC BY CITY FORCES
3#4/1#8LTP CIR. NF-B IN CONDUIT
3#4/1#8LTP CIR. NF-B IN CONDUIT
3#4/1#8LTP CIR. NF-B REMAIN IN SERVICE
#3120 EXIST. CONC. POLE TO REMAIN IN SERVICE
#3046 EXIST. CONC. POLE TO REMAIN IN SERVICE
#3064 15' HARP UNIT TO REMAIN
3#6/1#8LTP CIR. NF-B IN CONDUIT
#3102 CONC. A.T. UNIT REMOVED BY CITY
#3102 SP (S40-1922) TYPE 10 POLE TYPE 10 BASE 2#12UF W/G INTERNAL RISER LED LANTERN MHL1153KASB4G
3" SCH. 40 SPECIAL
PULL BOX (TR)
#3438 EXIST. CONC. POLE TO REMAIN MLI153KASB4G LED LANTERN UPGRADE BY CONTRACTOR 10+60;47.4'LT
40' ARM
#3432 EXIST. CONC. POLE TO REMAIN
3#4/1#8LTP CIR. NF-B REMAIN IN SERVICE
3#4/1#8LTP CIR. NF-B IN CONDUIT
3#6/1#8LTP CIR. NF-B IN CONDUIT
30' ARM
3.0" PVC SPECIAL PULL BOX TO EXIST. 31' CONC. POLE
PULL BOX (BY TRAFFIC)
112 108 13"X24"X24" PULL BOX 10+25;152.0'LT
#3432 EXIST. CONC. POLE TO REMAIN LED LANTERN MHL1153KASB4G UPGRADE BY CONTRACTOR 10+40;27.5LT
3#8/1#8LTP CIR. NF-B REMAIN IN SERVICE
#3428 H17 HARP UNIT TO REMAIN IN SERVICE
W. FOND DU LAC
#3428 H17 HARP UNIT TO REMAIN IN SERVICE
#3102 SP (S40-1923) TYPE 10 POLE TYPE 10 BASE 2#12UF W/G INTERNAL RISER LED LANTERN MHL1153KASB4G
ST.
#3416 EXIST. CONC. POLE TO REMAIN IN SERVICE
#3421 EXIST. CONC. POLE TO REMAIN
N
SCALE, FEET 0 40

PROJECT NO: 1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 49	E

2

N

W. CENTER

W. FOND DU LAC

N. 27TH ST.

N. 28TH ST.

+50 07 +50 08 +50 09 +50

#2735 EXIST. CONC POLE TO REMAIN

PROTECT AND ADJUST EXISTING CABLE TO WEST

CAUTION

SP (S40-1926) TYPE 9 POLE TYPE 10 BASE PROTECT AND ADJUST EXISTING STREET LIGHT CABLE & CONDUIT IN VICINITY

#2702 EXIST. HARP TO REMAIN LED HARP MHL383KASB4AGS LUMINAIRE UPGRADE BY CONTRACTOR STA 9+25;27.0'LT

#2700 EXIST. CONC. POLE TO REMAIN 3LED3 UPGRADE BY CONTRACTOR STA 9+65;27.0'LT

3#6/1#8LTP CIR. WK-G IN CONDUIT

PULL BOX (BY TRAFFIC)

#2728 EXIST. CONC. POLE TO REMAIN LED LANTERN ML1153KASB4G UPGRADE BY CONTRACTOR

#2716 EXIST. CONC. POLE TO REMAIN IN SERVICE 3LED3 UPGRADE BY CONTRACTOR STA 8+65;24.0'LT

PULL BOX BY TRAFFIC

#2702 EXIST. AL POLE TO REMAIN

#2735 EXIST. HARP UNIT TO REMAIN

PROTECT AND ADJUST EXISTING STREET LIGHT CABLE & CONDUIT IN VICINITY

#2802 EXIST. CONC. POLE TO REMAIN IN SERVICE

SP (S40-1925) TYPE 9 POLE TYPE 10 BASE

2-3#8/1#8LTP CIR. WK-I IN CONDUIT

PULL BOX (BY TRAFFIC)

EXIST. LIGHT UNIT REMOVED BY CITY

3#2/1#8LTP CIR. WK-G REMAIN IN SERVICE

3#2X1#8LTP CIR. WK-G REMAIN IN SERVICE

SP (S40-1927) TYPE 9 POLE TYPE 10 BASE

CIR. WK-G,H,I CIR.WK-7 IN DUCT

#2697 EXISTING 31' CONC. AT-ROUND 3LEDE3 UPGRADE BY CONTRACTOR STA 9+72,35.0'RT

PULL BOX (BY TRAFFIC)

#2739 EXIST. AL POLE TO REMAIN

#2725 EXIST. AL POLE TO REMAIN 3LED3 UPGRADE BY CONTRACTOR STA 7+99;40.0'RT

CAUTION

WEPCO OVERHEAD

PULL BOX (BY TRAFFIC)

3#6/1#8LTP CIR. WK-G IN CONDUIT PULL BACK TO NEW UNIT STA 8+40;62.0'RT

EXIST. CONC. POLE REMOVED BY CITY

#2719 SP (S40-1924) TYPE 10 POLE TYPE 10 BASE 2#12UF W/G INTERNAL RISER LED LANTERN ML1153KASB4G

3#2/1#8LTP CIR. WK-E IN EXISTING CONDUIT

#2728 SP (S40-1931) TYPE 10 POLE TYPE 10 BASE

SEE SHEET 5 OF 6 CIR. WK-E IN EXISTING CONDUIT 2-3" SPECIAL PVC STUB EXISTING CONDUIT AT RADIUS TO UNIT #2210

25' ARM

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 UNLESS OTHERWISE SPECIFIED.

LEGEND

- EXISTING LIGHT POLE
- NEW LIGHT POLE 95 WATT AE ATBM-D OR APPROVED EQUAL 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - LUMINAIRE ARMS 2 - 95 WATT AE ATBM-D OR APPROVED EQUIV.
- NEW LIGHT POLE 164 WATT AE ATBM-H OR APPROVED EQUAL 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - LUMINAIRE ARMS 2 - 164 WATT AE ATBM-H OR APPROVED EQUIV.
- DOUBLE LUMINAIRE & ARMS (BY CONTRACTOR) MOUNTED ON MONOTUBE
- NEW LIGHT POLE MK1153KASB4G LED LANTERN 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - ML1153KASB4G LED LANTERN

- 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
- LED - LED HARP MHL383KASB4AGS LUNIMAIRE UPGRADE

SCALE, FEET 0 30

PROJECT NO: 1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 50	E

FILE NAME : W:\bes\special\2018–Project\wFond Du Lac STH 145 – Intersections (1360–00–06)\1360–00–06 FOND DU LAC–6 90% SL.dgn PLOT DATE : 11–DEC–2018 07:52 PLOT BY : lhickm PLOT NAME : PLOT SCALE : 30.000000:1.000000 WISDOT/CADDS SHEET 42

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.

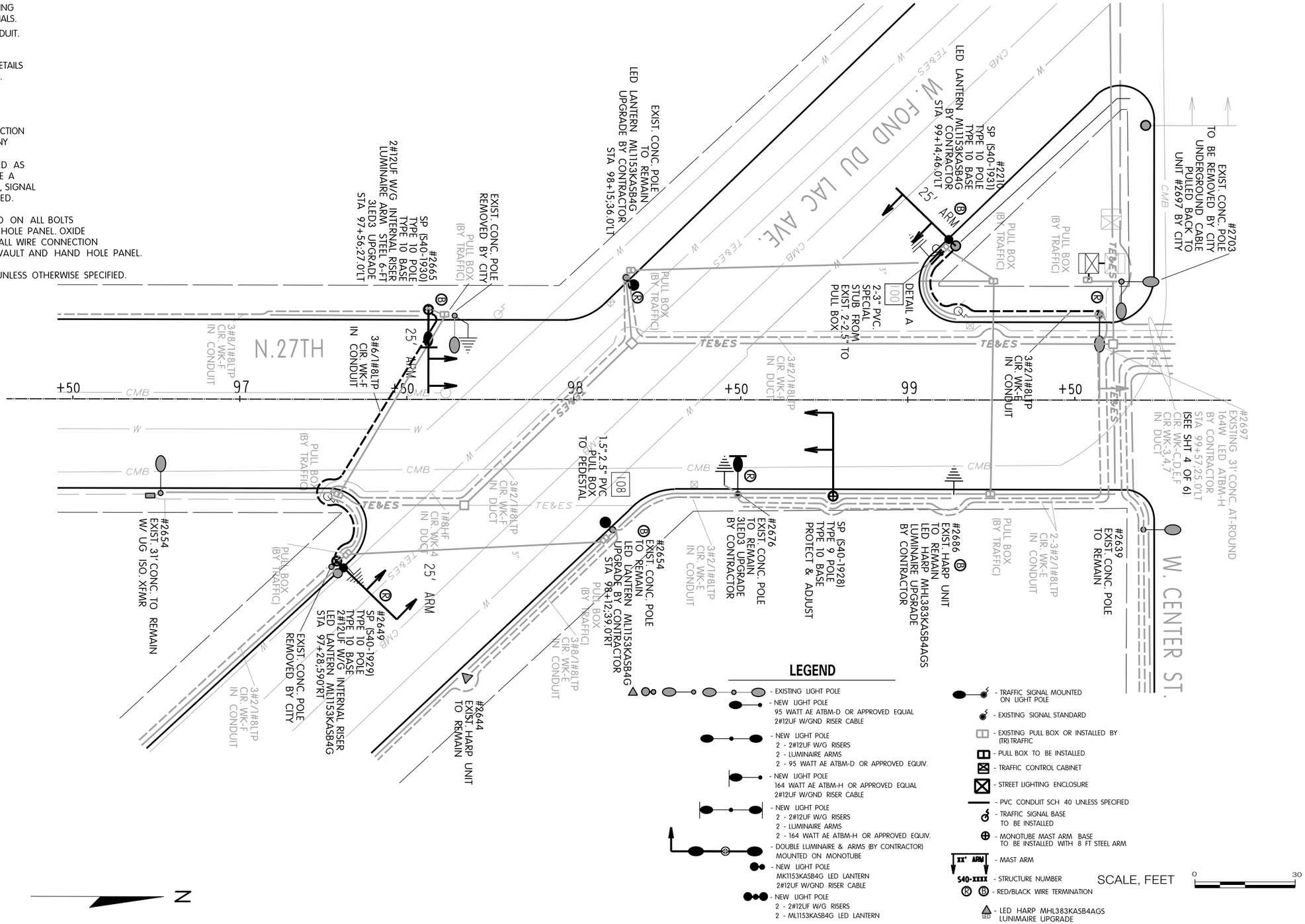
SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

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.



LEGEND

- EXISTING LIGHT POLE
- NEW LIGHT POLE 95 WATT AE ATBM-D OR APPROVED EQUAL 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - LUMINAIRE ARMS 2 - 95 WATT AE ATBM-D OR APPROVED EQUIV.
- NEW LIGHT POLE 164 WATT AE ATBM-H OR APPROVED EQUAL 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - LUMINAIRE ARMS 2 - 164 WATT AE ATBM-H OR APPROVED EQUIV.
- DOUBLE LUMINAIRE & ARMS (BY CONTRACTOR) MOUNTED ON MONOTUBE
- NEW LIGHT POLE MK1153KASB4G LED LANTERN 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - ML1153KASB4G LED LANTERN
- 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
- MAST ARM
- STRUCTURE NUMBER
- RED/BLACK WIRE TERMINATION
- LED HARP MHL383KASB4AGS LUNIMAIRE UPGRADE

PROJECT NO: 1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 51	E

2

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.

N

POLE ADDRESS
ADDRESS LOCATION
TRAFFIC

#1316
EXIST. AL POLE
TO REMAIN IN SERVICE
112 108
3#4/1#8LTP
CIR. T6C-A
IN CONDUIT
13"X24"X24"
PULL BOX
15'-3#4/1#8LTP
COILED AND TAGGED
5+90;250.0'LT

#1316
EXIST. AL POLE
TO REMAIN IN SERVICE

3#6/1#8LTP
CIR. T6C-A
IN CONDUIT

#1717
EXIST. AL POLE
TO REMAIN IN SERVICE
13"X24"X24"
PULL BOX
108 112
15'-3#2/1#8LTP
COILED, TAGGED
3" PVC.
SPECIAL
7+60;170'LT

EXIST.
3#2/1#8LTP
CIR. T6C-A
IN CONDUIT

3#2/1#8LTP
CIR. T6C-A
IN CONDUIT

108
13"X24"X24"
PULL BOX
7+45;127.0'LT

DETAIL C
100
3" PVC.
SCH. 40
SPECIAL

#1302
TYPE 5 BASE
30' ALUM POLE W/XFMR BASE
12UF W/G INTERNAL RISER
6' SINGLE MEMBER ARMS
3LED3
6+40;98.0'LT

#1301
SP (S40-1935)
TYPE 13 SPECIAL POLE
TYPE 10 SPECIAL BASE
2#12UF W/G INTERNAL RISER
LUMINAIRE ARM STEEL 6-FT
3LED3

DETAIL C
100
3" PVC.
SPECIAL

EXIST. AL POLE
REMOVED BY CITY

3#2/1#8LTP
CIR. T6C-A
IN CONDUIT

PULL BOX
(BY TRAFFIC)

#1246
TYPE 5 BASE
30' AL POLE W/XFMR BASE
12UF W/G INTERNAL RISER
6' SINGLE MEMBER ARMS
3LED3
8+05;104'LT

#1228
EXIST. AL POLE
TO REMAIN

EXIST. AL POLE
TO REMAIN

#1302
SP (S40-1934)
TYPE 13 SPECIAL POLE
TYPE 10 SPECIAL BASE
2-2#12UF W/G INTERNAL RISER
2-LUMINAIRE ARMS STEEL 6-FT
2-3LED3
6+74;60.24LT

#1300
TYPE 5 BASE
30' AL POLE
XFMR BASE
12UF W/G RISER
6' SINGLE MEMBER ARM
3LED3
6+54;25.0'LT

3#2/1#8LTP
CIR. T6C-A
IN CONDUIT

EXIST. AL POLE
REMOVED BY CITY

EXIST. AL POLE
REMOVED BY CITY

#1240
SP (S40-1932)
TYPE 13 SPECIAL POLE
TYPE 10 SPECIAL BASE
2-2#12UF W/G INTERNAL RISER
2-LUMINAIRE ARMS STEEL 6-FT
2-3LED3

PULL BOX
(BY TRAFFIC)

108 112
13"X24"X24"
PULL BOX
9+45;12.0'LT
15'-3#6/1#8LTP
COILED AND TAGGED
(FINAL TERMINATION BY CITY)

#1216
EXIST. AL POLE W/PEDESTAL
TO REMAIN IN SERVICE

3#4/1#8LTP
CIR. T6C-A
IN CONDUIT

3" SCH. 40
DETAIL B
100

#1314
EXIST. AL POLE
TO REMAIN

108 112
13"X24"X24"
PULL BOX
15'-3#4/1#8LTP
COILED AND TAGGED
(FINAL TERMINATION BY CITY)
9+45;12.0'LT

EXIST. AL POLE
REMOVED BY CITY

EXIST. CONC. POLE W/LANTERNS
REMOVED BY CITY

EXIST. PULL BOX
REMOVED BY
CONTRACTOR

PULL BOX
(BY TRAFFIC)

DETAIL B
100

3#6/1#8LTP
CIR. T6C-B
IN CONDUIT

PULL BOX
(BY TRAFFIC)

3" PVC. SPECIAL

PULL BOX
(BY TRAFFIC)

EXIST. PULL BOX

DETAIL C
100

RESTORE 2-3" PVC SPECIAL
BETWEEN PULL BOXES

#1246
31' CONC. DIRECT BURY
4"X4" WIRING PEDESTAL
2#12UF W/G INTERNAL
RISER
MK1153KASB4G
LED LANTERN
8+77;44.0'RT

13"X24"X24"
PULL BOX (TRAFFIC)

3#4/1#8LTP
CIR. T6C-A
IN CONDUIT

3#4/1#8LTP
CIR. T6C-A
IN CONDUIT

EXIST. 2-3" PVC
END CAP IN
NEW PULL BOX (TR)
BY CONTRACTOR

EXIST. PULL BOX

3#2/1#8LTP
CIR. T55C-A
IN CONDUIT
SECURE 20' TAGGED,
COILED IN PULL BOX
(FINAL TERMINATION
TO #1228 BY CITY)

101
3" PVC. SCH.40

3#6/1#8LTP
SECURE 20' TAGGED,
COILED IN PULL BOX
(FINAL TERMINATION
BY CITY)

#1245
SP (S40-1933)
TYPE 13 POLE
TYPE 13 BASE
2#12UF W/G INTERNAL RISER
MK1153KASB4G LED LANTERN

#1228
EXIST. CONC. POLE W/LANTERN
TO REMAIN IN SERVICE

112 108
13"X24"X24"
PULL BOX
7+90;132.0'RT

#1643
EXIST. AL POLE
TO REMAIN IN SERVICE

#1232
EXIST. CONC. POLE
TO REMAIN IN SERVICE

3#2/1#8LTP
CIR. T55C-A
IN CONDUIT

3#6/1#8LTP
CIR. T55C-A
IN CONDUIT

#1220
15' PEDESTRIAN
TO REMAIN

#1237
15' PEDESTRIAN
TO REMAIN

#1231
15' PEDESTRIAN
TO REMAIN

3#6/1#8LTP
CIR. T6C-A
IN CONDUIT

#1214
EXIST. CONC. POLE W/LANTERN
TO REMAIN IN SERVICE

W. WALNUT

W. FOND DU LAC AVE.

N. 13TH ST.

ST.

LEGEND

- EXISTING LIGHT POLE
- NEW LIGHT POLE
  95 WATT AE ATBM-D OR APPROVED EQUAL
  2#12UF W/GND RISER CABLE
- NEW LIGHT POLE
  2 - 2#12UF W/G RISERS
  2 - LUMINAIRE ARMS
  2 - 95 WATT AE ATBM-D OR APPROVED EQUIV.
- NEW LIGHT POLE
  164 WATT AE ATBM-H OR APPROVED EQUAL
  2#12UF W/GND RISER CABLE
- NEW LIGHT POLE
  2 - 2#12UF W/G RISERS
  2 - LUMINAIRE ARMS
  2 - 164 WATT AE ATBM-H OR APPROVED EQUIV.
- DOUBLE LUMINAIRE & ARMS (BY CONTRACTOR) MOUNTED ON MONOTUBE
- NEW LIGHT POLE
  MK1153KASB4G LED LANTERN
  2#12UF W/GND RISER CABLE
- NEW LIGHT POLE
  2 - 2#12UF W/G RISERS
  2 - ML1153KASB4G LED LANTERN

- 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
- K B - RED/BLACK WIRE TERMINATION
- LED - LED HARP MHL383KASB4AGS LUNIMAIRE UPGRADE

SCALE, FEET 0 50

PROJECT NO: 1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 52	E

NOTE:

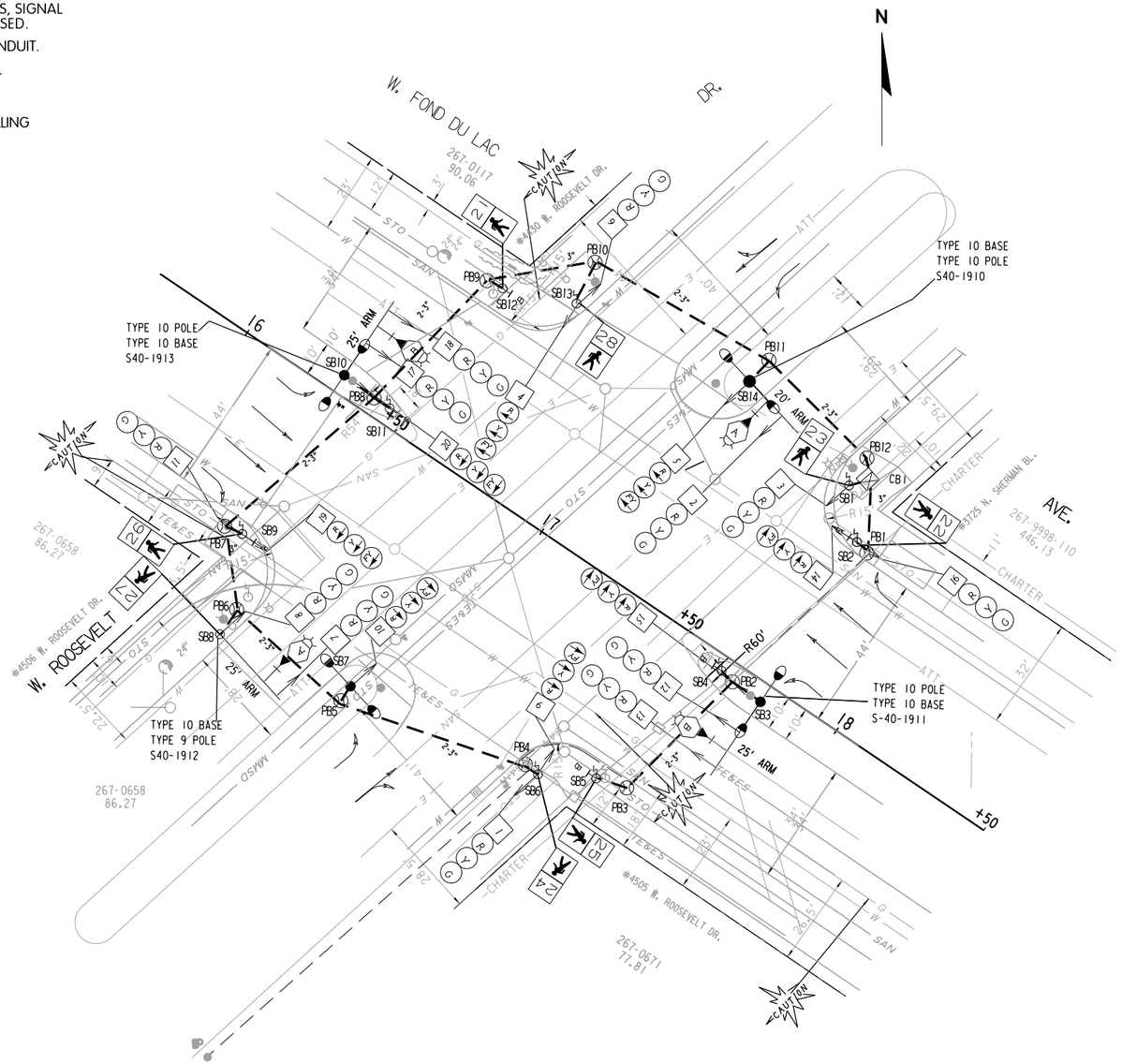
TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.



LEGEND

- SERVICE POLE
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- OH — CABLE-OVERHEAD
- DB — CABLE-DIRECT BURIED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- ◇XX◇ MONOTUBE BASE, POLE, 45'-55' ARM
- ◇XX◇ MONOTUBE BASE, POLE, 15'-40' ARM
- PB PUSH BUTTON
- LUMINAIRE
- CONFIRMATION LIGHT
- TEMPORARY BASE
- POLYMER CONCRETE PULL BOX, 13"X24"X24"
- 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
- OPTICALLY PROGRAMMED HEAD
- WALK-DON'T WALK INDICATOR 12"
  COUNTDOWN TIMER 12"
- 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. ROOSEVELT DR.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

REGION CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: KAP
REVISED BY:

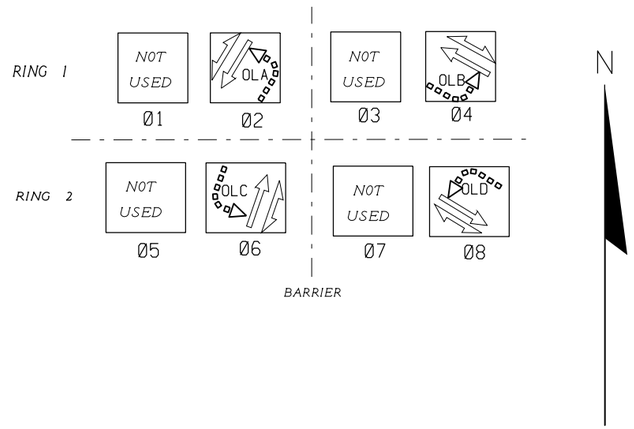
PAGE OF

PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE FEET 0 40	SHEET 53	E

REVISED DATE: 2-21-2017 BY ML

	HEAD NUMBERS	FLASH
OLA	4,5	R
Ø2	6,7,8	R
OLB	19,20	R
Ø4	16,17,18	R
OLC	9,10	R
Ø6	1,2,3	R
OLD	14,15	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								

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	
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

AFTER PREEMPTION SEQUENCE 4-8
CONTROLLER SHALL RETURN TO PHASES 2-6

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" = NB FYA
O.L. "B" = EB FYA
O.L. "C" = SB FYA
O.L. "D" = WB FYA

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

TRAFFIC CONTROL SIGNAL
W. FOND DU LAC AVE. & W. ROOSEVELT DR.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE: ECONOLITE COBALT

DATE PAGE NO. OF

PROJECT NO: 1360-00-76 | HWY: STH 145 | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS | SHEET 54 E

PROJECT ID:	1360-00-76
INTERSECTION:	W. FOND DU LAC AVE. & W. ROOSEVELT DR.

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: 7/18/2018

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		9	3	6	RED	ORG	GRN							
			23	6							BLK	BLU		
SB2		12	14	OLD				RED/BLK	ORG/BLK	GRN/BLK				
			16	4	RED	ORG	GRN							
			22	4							BLK	BLU		
			PB	6									WHT/BLK	
SB3		19	12	8	RED	ORG	GRN							
			13	8	RED/BLK	ORG/BLK	GRN/BLK							
			15	OLD				RED/WHT	BLU/WHT	GRN/WHT				
			CONF. LIGHT	8										WHT/RED
	SB4	9	PB	6									WHT/BLK	
SB5		9	25	8							BLK	BLU		
			PB	6									WHT/BLK	
SB6		12	1	6	RED	ORG	GRN							
			9	OLC				RED/BLK	ORG/BLK	GRN/BLK				
			24	6							BLK	BLU		
SB7		9	10	OLC				RED	ORG	GRN				
SB8		19	7	2	RED	ORG	GRN							
			8	2	RED/BLK	ORG/BLK	GRN/BLK							
			27	2							BLK	BLU		
			CONF. LIGHT	2										WHT/RED
SB9		12	11	8	RED	ORG	GRN							
			19	OLB				RED/BLK	ORG/BLK	GRN/BLK				
			26	8							BLK	BLU		
			PB	2									WHT/BLK	
SB10		19	17	4	RED	ORG	GRN							
			18	4	RED/BLK	ORG/BLK	GRN/BLK							
			20	OLB				RED/WHT	BLU/WHT	GRN/WHT				
			CONF. LIGHT	4										WHT/RED
	SB11	9	PB	2									WHT/BLK	
SB12		9	21	4							BLK	BLU		
			PB	2									WHT/BLK	
SB13		12	4	OLA				RED/BLK	ORG/BLK	GRN/BLK				
			6	2	RED	ORG	GRN							
			28	2							BLK	BLU		
SB14		19	2	6	RED	ORG	GRN							
			5	OLA				RED/BLK	ORG/BLK	GRN/BLK				
			CONF. LIGHT	6										WHT/RED

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
SB1	CB1
CB1	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	CB1

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB3
SB3	HEAD 'B'
CB1	SB8
SB8	HEAD 'A'
CB1	SB10
SB10	HEAD 'B'
CB1	SB14
SB14	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.

NOTE:

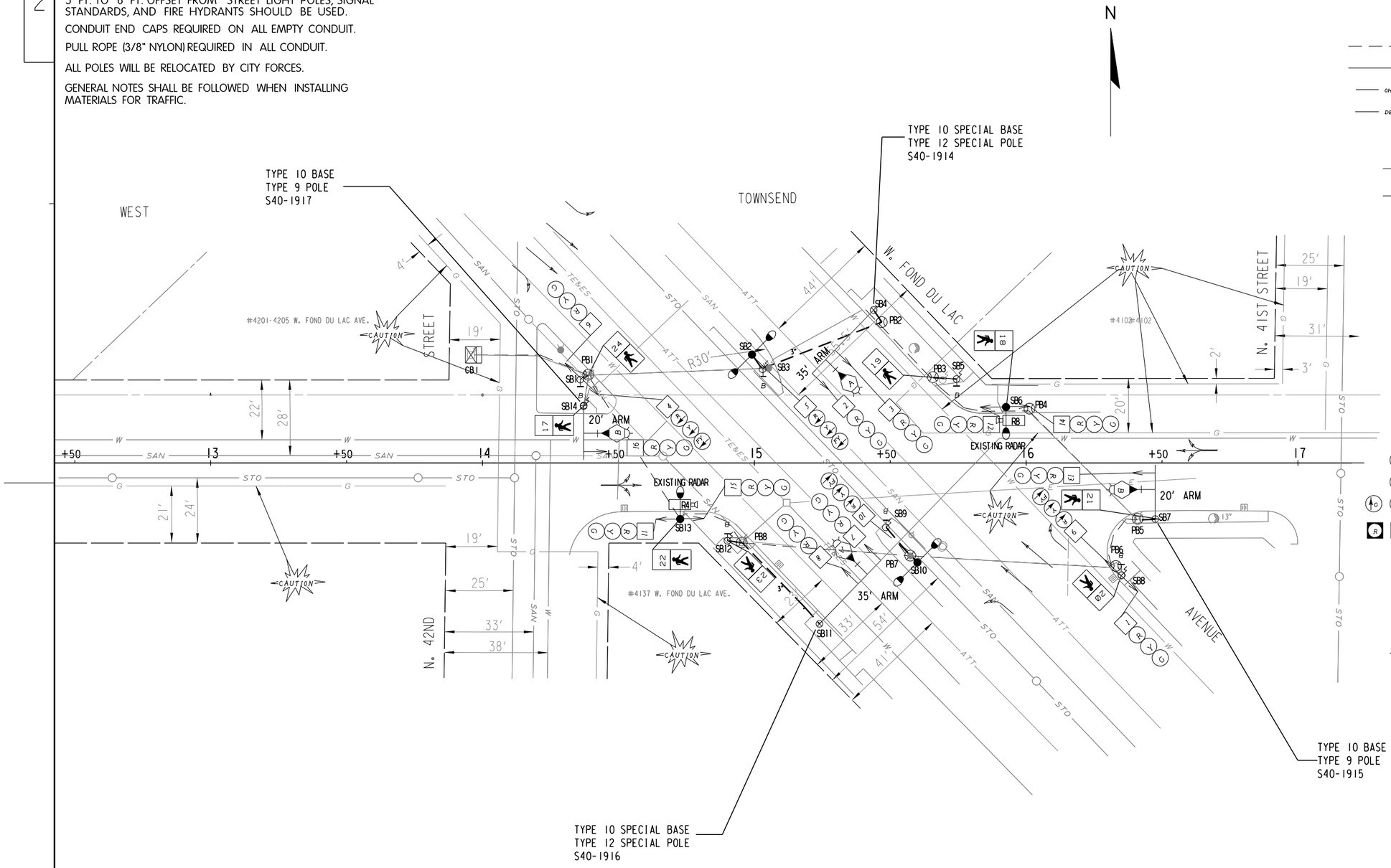
TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.



LEGEND

- SERVICE POLE
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- CABLE-OVERHEAD
- CABLE-DIRECT BURIED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- MONOTUBE BASE, POLE, 45'-55' ARM
- MONOTUBE BASE, POLE, 15'-40' ARM
- PUSH BUTTON
- LUMINAIRE
- CONFIRMATION LIGHT
- TEMPORARY BASE
- POLYMER CONCRETE PULL BOX, 13"X24"X24"
- 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
- OPTICALLY PROGRAMMED HEAD
- WALK-DON'T WALK INDICATOR 12" COUNTDOWN TIMER 12"
- 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. TOWNSEND AVE.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

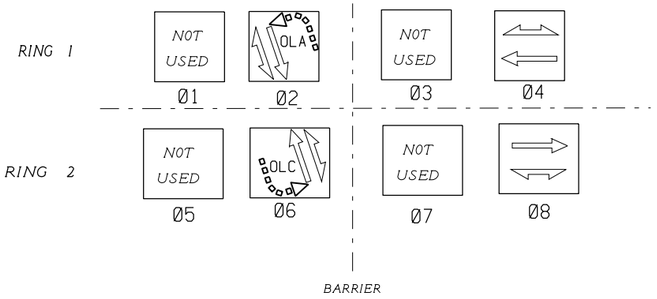
REGION CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: KAP
REVISED BY:

PAGE OF

PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE FEET 0 40	SHEET 56	E

REVISED DATE: 2-21-2017 BY ML

SEQUENCE OF OPERATION



	HEAD NUMBERS	FLASH
OLA	4,5	R
Ø2	6,7,8	Y
Ø3		
Ø4	14,15,16	R
OLC	9,10	R
Ø6	1,2,3	Y
Ø7		
Ø8	11,12,13	R
Ø2P	23,24	
Ø4P	17,18	
Ø6P	19,20	
Ø8P	21,22	

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	
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	COORD	
3				
4		8	PED	
5				
6		2	COORD	
7				
8		4	PED	

OVERLAPS

O.L. "A" = NB FYA

O.L. "C" = SB FYA

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	41		81					
CALLED PHASE	4		8					
CALL OPTION	X		X					
DELAY TIME								
EXTENTION OPTION	X		X					
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

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

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

TRAFFIC CONTROL SIGNAL
W. FOND DU LAC AVE. & W. TOWNSEND AVE.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE:

DATE PAGE NO. OF

PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	SEQUENCE OF OPERATIONS	SHEET 57	E

PROJECT ID:	1360-00-76
INTERSECTION:	W. FOND DU LAC AVE & W. TOWNSEND AVE

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: 7/18/2018

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		12	4	OL A				RED/BLK	ORG/BLK	GRN/BLK				
			6	2	RED	ORG	GRN							
			24	2							BLK	BLU		
			PB	4									WHT/BLK	
SB3		9	PB	4									WHT/BLK	
	SB2	9	5	OL A				RED/BLK	ORG/BLK	GRN/BLK				
SB4		19	2	6	RED	ORG	GRN							
			3	6	RED/BLK	ORG/BLK	GRN/BLK							
			CONF. LIGHT	2,6										WHT/RED
SB6		19	12	8	RED	ORG	GRN							
			14	4	RED/BLK	ORG/BLK	GRN/BLK							
			18	4							BLK/WHT	BLU/BLK		
	SB5	9	19	6							BLK	BLU		
			PB	4									WHT/BLK	
SB7		19	13	8	RED	ORG	GRN							
			21	8							BLK	BLU		
			CONF. LIGHT	4,8										WHT/RED
SB8		12	1	6	RED	ORG	GRN							
			9	OL C				RED/BLK	ORG/BLK	GRN/BLK				
			20	6							BLK	BLU		
			PB	8									WHT/BLK	
SB10		9	10	OL C				RED	ORG	GRN				
	SB9	9	PB	8									WHT/BLK	
SB11		19	7	2	RED	ORG	GRN							
			8	2	RED/BLK	ORG/BLK	GRN/BLK							
			CONF. LIGHT	2,6										WHT/RED
SB13		19	11	8	RED	ORG	GRN							
			15	4	RED/BLK	ORG/BLK	GRN/BLK							
			22	8							BLK/WHT	BLU/BLK		
	SB12	9	23	2							BLK	BLU		
			PB	8									WHT/BLK	
SB14		19	16	4	RED	ORG	GRN							
			17	4							BLK	BLU		
			CONF. LIGHT	4,8										WHT/RED

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	SB12
SB12	SB11
SB11	SB13
SB13	SB14
SB14	CB1

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB4
SB4	HEAD 'A'
CB1	SB7
SB7	HEAD 'B'
CB1	SB11
SB11	HEAD 'A'
CB1	SB14
SB14	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.

NOTE:

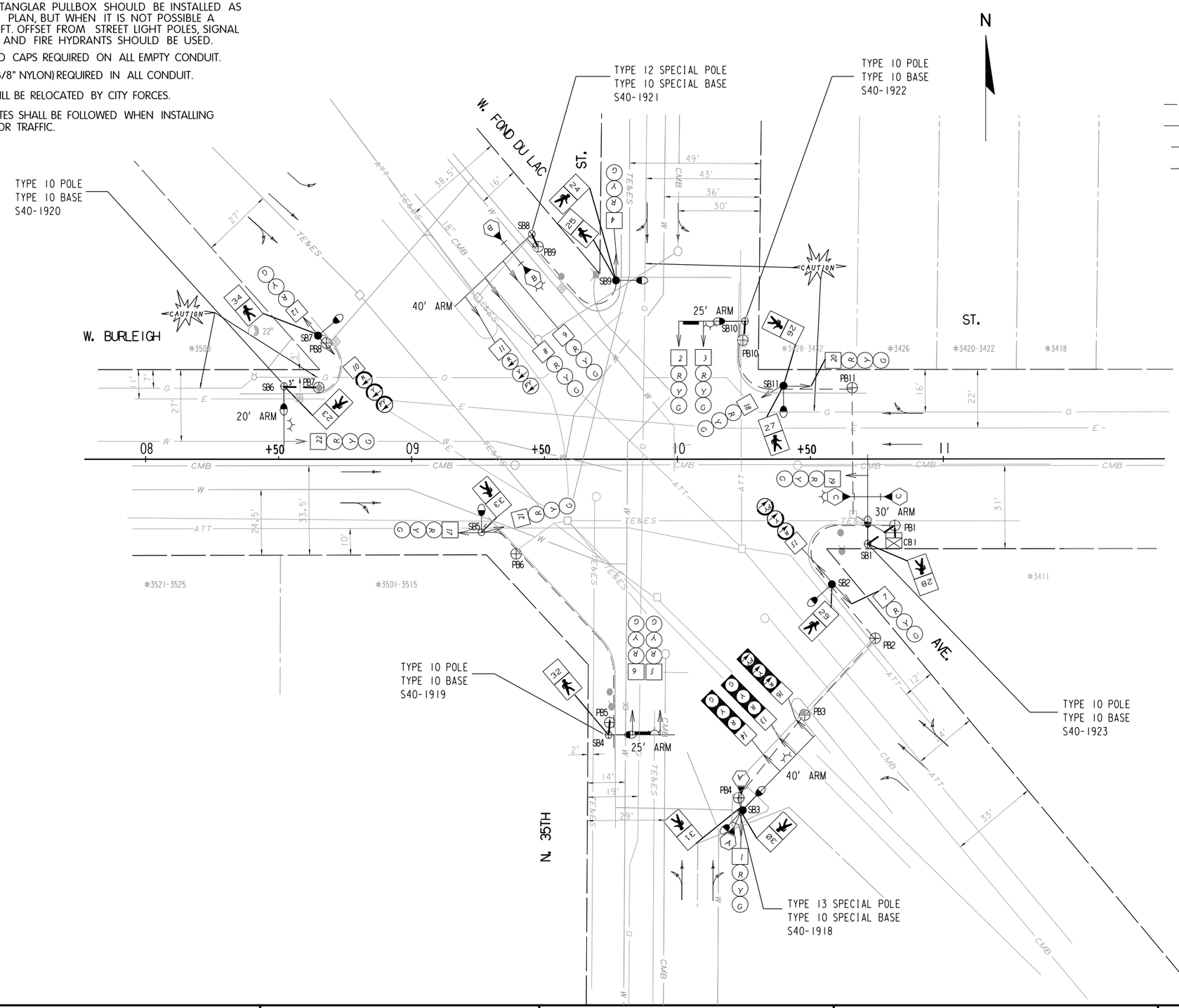
TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.



LEGEND

- SERVICE POLE
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- OH — CABLE-OVERHEAD
- DB — CABLE-DIRECT BURIED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- MONOTUBE BASE, POLE, 15'-40' ARM
- PUSH BUTTON
- LUMINAIRE
- CONFIRMATION LIGHT
- TEMPORARY BASE
- POLYMER CONCRETE PULL BOX, 13"X24"X24"
- SIGNAL HEAD NUMBER
- R — RED CIRCULAR INDICATOR
- Y — YELLOW CIRCULAR INDICATOR
- G — GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- CIRCULAR INDICATOR WITH TUNNEL VISOR
- OPTICALLY PROGRAMMED HEAD
- WALK-DON'T WALK INDICATOR 12" COUNTDOWN TIMER 12"
- X — EVP DESIGNATOR
- EVP DETECTOR HEAD
- LED NO LEFT TURN 24" X24"
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
W. BURLEIGH ST. & W. FOND DU LAC AVE.
& N. 35TH ST
CITY OF MILWAUKEE
MILWUAKEE COUNTY

SIGNAL NO.

REGION CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: KAP
REVISED BY:

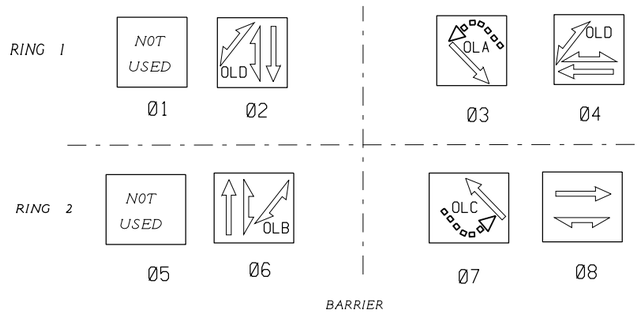
PAGE OF

PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE FEET 0 40	SHEET 59	E

REVISED DATE: 2-21-2017 BY ML

	HEAD NUMBERS	FLASH
OLA	10,11	R
Ø2	4,5,6	R
Ø3	12,13,14	R
Ø4	20,21,22	R
OLC	15,16	R
Ø6	1,2,3	R
Ø7	7,8,9	R
Ø8	17,18,19	R
Ø2P	33,34	
Ø4P	26,26	
Ø6P	27,28	
Ø8P	31,32	
OLB	29,30	
OLD	23,24	

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								

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. .	

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C
MOVEMENT	↓↑	↙↗	←→
PHASE	2-6	3-7	4-8

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" - NWB FYA
O.L. "B" - SE CROSSWALK
O.L. "C" - SEB FYA
O.L. "D" - NW CROSSWALK

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

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

TRAFFIC CONTROL SIGNAL
W. BURLEIGH ST. & W. FOND DU LAC AVE.
CITY OF MILWAUKEE
MILWUAKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE: ECONOLITE COBALT

DATE PAGE NO. OF

PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	SEQUENCE OF OPERATIONS	SHEET 60	E

PROJECT ID:	1360-00-76
INTERSECTION:	W. BURLEIGH ST., N. 35TH ST., & W. FOND DU LAC AVE.

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: 7/18/2018

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	19	8	RED	ORG	GRN							
			28	6							BLK	BLU		
			CONF. LIGHT	4,8										WHT/RED
SB2		19	7	7	RED	ORG	GRN							
			15	OLC				RED/BLK	ORG/BLK	GRN/BLK				
			29	OLB							BLK	BLU		
SB3	USE EXISTING	20	1	6	RED	ORG	GRN							
			13	3	RED/BLK	ORG/BLK	GRN/BLK							
			14	3	RED/WHT	BLU/WHT	GRN/WHT							
			16	7				BLK/RED	ORG/RED	BLU/RED				
			30	OLB							BLK	BLU		
			31	8							BLK/WHT	BLU/BLK		
			CONF. LIGHT	3,7										WHT/RED
SB4		19	5	2	RED	ORG	GRN							
			6	2	RED/BLK	ORG/BLK	GRN/BLK							
			32	8							BLK	BLU		
			CONF. LIGHT	2,6										WHT/RED
			SIGN											WHT/BLK
SB5	USE EXISTING	17	17	8	RED	ORG	GRN							
			21	4	RED/BLK	ORG/BLK	GRN/BLK							
			33	2							BLK	BLU		
SB7	USE EXISTING	20	10	OLA				RED/WHT	BLU/BHT	GRN/WHT				
			12	3	RED	ORG	GRN							
			34	2							BLK	BLU		
	SB6	19	22	4	RED/BLK	ORG/BLK	GRN/BLK							
			23	OLI							BLK/WHT	BLU/BLK		
			CONF. LIGHT	4,8										WHT/RED
SB8	USE EXISTING	20	8	7	RED	ORG	GRN							
			9	7	RED/BLK	ORG/BLK	GRN/BLK							
			11	OLA				RED/WHT	BLU/BHT	GRN/WHT				
			CONF. LIGHT	3,7										WHT/RED
	SB9	19	4	2	BLK/RED	ORG/RED	BLU/RED							
			24	OLI							BLK	BLU		
			25	4							BLK/WHT	BLU/BLK		
SB10		19	2	6	RED	ORG	GRN							
			3	6	RED/BLK	ORG/BLK	GRN/BLK							
			CONF. LIGHT	2,6										WHT/RED
			SIGN											WHT/BLK
SB11	USE EXISTING	20	18	8	RED	ORG	GRN							
			20	4	RED/BLK	ORG/BLK	GRN/BLK							
			26	4							BLK	BLU		
			27	6							BLK/WHT	BLU/BLK		

EQUIPMENT GROUNDING	
FROM	TO
SB1	CB1
CB1	SB2
SB2	SB3
SB3	CB1
CB1	SB5
SB5	SB4
SB4	CB1
CB1	SB11
SB11	SB10
SB10	SB8
SB8	SB9
SB9	SB7
SB7	SB6
SB6	CB1

EMERGENCY VEHICLE	
FROM	TO
USE EXISTING	
CB1	SB3
SB3	HEAD 'A'
USE EXISTING	
CB1	SB8
SB8	HEAD 'B'
CB1	SB1
SB1	HEAD 'C'

LIGHTING UF 12 AWG	
FROM	TO
CB1	SB1

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 CONDUCTORS.
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.

NOTE:

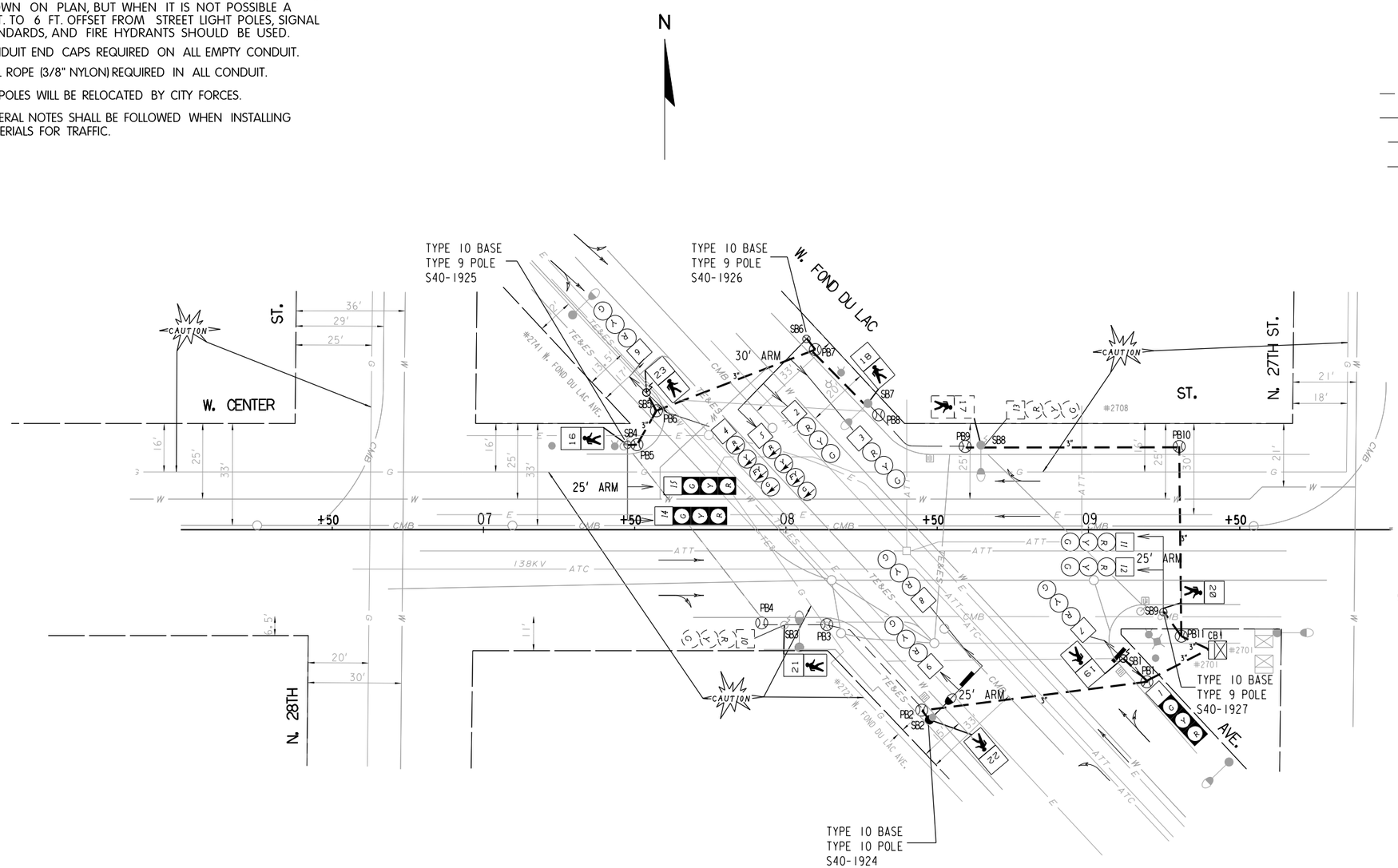
TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.



LEGEND

- SERVICE POLE
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- OH — CABLE-OVERHEAD
- DB — CABLE-DIRECT BURIED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- XX — MONOTUBE BASE, POLE, 45'-55' ARM
- XX — MONOTUBE BASE, POLE, 15'-40' ARM
- PB — PUSH BUTTON
- LUMINAIRE
- CONFIRMATION LIGHT
- TEMPORARY BASE
- POLYMER CONCRETE PULL BOX, 13"X24"X24"
- 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
- OPTICALLY PROGRAMMED HEAD
- WALK-DON'T WALK INDICATOR 12"
  COUNTDOWN TIMER 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
W. CENTER ST. & W. FOND DU LAC AVE.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

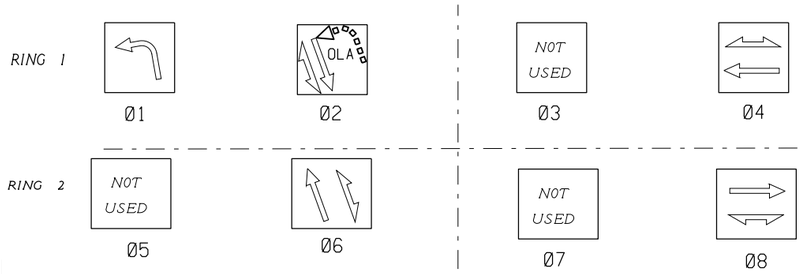
REGION CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: KAP
REVISED BY:

PAGE OF

PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE FEET 0 40	SHEET 62 E

REVISED DATE: 2-21-2017 BY ML

SEQUENCE OF OPERATION



	HEAD NUMBERS	FLASH
Ø1	4,5	·
ØLA	4,5	R
Ø2	6,7,8,9	R
Ø4	13,14,15	R
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8	10,11,12	R
Ø2P	22,23	
Ø4P	16,17	
Ø6P	18,19	
Ø8P	20,21	

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 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	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

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

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" - NB FYA

N

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

TRAFFIC CONTROL SIGNAL

W. CENTER ST. & W. FOND DU LAC AVE.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE:

DATE PAGE NO. OF

PROJECT ID:	1360-00-76
INTERSECTION:	W. CENTER ST. & W. FOND DU LAC AVE.

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: 7/18/2018

CB TO	JUMPER	# OF COND.	HEAD NO.	PHASE	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
					RED	YELLOW	GREEN	<RED	<YELLOW>	<GREEN>	<FLASH YELLOW>	D/WALK	WALK		
SB1		12	1	6	RED	ORG	GRN								
			7	2	RED/BLK	ORG/BLK	GRN/BLK								
			19	6								BLK	BLU		
			SIGN	2											WHT/BLK
SB2		19	8	2	RED	ORG	GRN								
			9	2	RED/BLK	ORG/BLK	GRN/BLK								
			22	2								BLK	BLU		
			SIGN	2											WHT/BLK
SB3		9	10	8	RED	ORG	GRN								
			21	8								BLK	BLU		
SB4		19	14	4	RED	ORG	GRN								
			15	4	RED/BLK	ORG/BLK	GRN/BLK								
			16	4								BLK	BLU		
SB5		12	4	OL A				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
			6	2	RED	ORG	GRN								
			23	2								BLK	BLU		
SB6		19	2	6	RED	ORG	GRN								
			3	6	RED/BLK	ORG/BLK	GRN/BLK								
			5	OL A				RED/WHT	BLU/WHT	GRN/WHT	BLK/WHT				
SB7		9	18	6								BLK	BLU		
SB8		9	13	4	RED	ORG	GRN								
			17	4								BLK	BLU		
SB9		19	11	8	RED	ORG	GRN								
			12	8	RED/BLK	ORG/BLK	GRN/BLK								
			20	8								BLK	BLU		

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	CB1

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.

NOTE:

TYPICAL RECTANGLAR PULLBOX 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.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

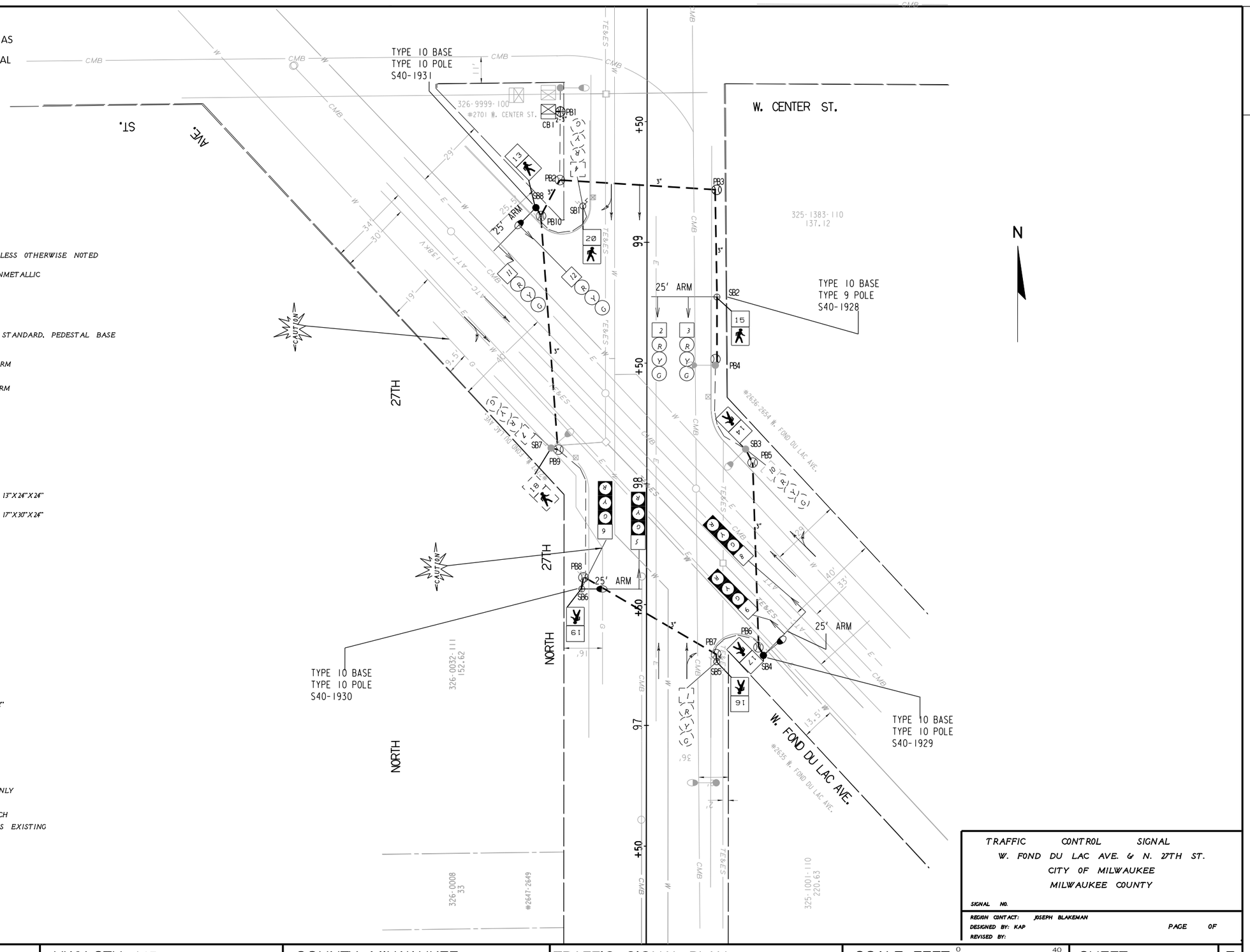
ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

LEGEND

- SERVICE POLE
- CONTROL CABINET
- NONMETALLIC CONDUIT 2". UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- OH — CABLE-OVERHEAD
- DB — CABLE-DIRECT BURIED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- MONOTUBE BASE, POLE, 45'-55' ARM
- MONOTUBE BASE, POLE, 15'-40' ARM
- PB — PUSH BUTTON
- LUMINAIRE
- CONFIRMATION LIGHT
- TEMPORARY BASE
- POLYMER CONCRETE PULL BOX, 13"X24"X24"
- 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
- OPTICALLY PROGRAMMED HEAD
- WALK-DON'T WALK INDICATOR 12" COUNTDOWN TIMER 12"
- 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. & N. 27TH ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

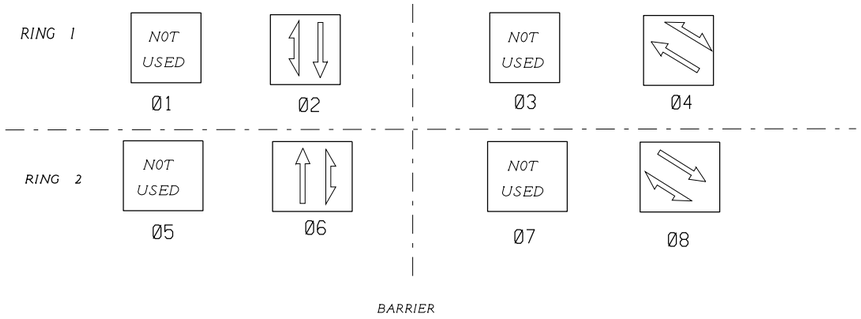
REGION CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: KAP
REVISED BY:

PAGE OF

PROJECT NO: 1360–00–76	HWY: STH 145	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE FEET 0 40	SHEET 65 E

REVISED DATE: 2-21-2017 BY ML

SEQUENCE OF OPERATION



	HEAD NUMBERS	FLASH
Ø1		
Ø2	4.5.6	R
Ø3		
Ø4	10.11.12	R
Ø5		
Ø6	1.2.3	R
Ø7		
Ø8	7.8.9	R
Ø2P	19.20	
Ø4P	13.14	
Ø6P	15.16	
Ø8P	17.18	

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. .	

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" = NB FYA
O.L. "B" = EB FYA
O.L. "C" = SB FYA
O.L. "D" = WB FYA

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

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

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								

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

TRAFFIC CONTROL SIGNAL
W. FOND DU LAC AVE. & N. 27TH ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE:

DATE PAGE NO. OF

PROJECT NO: 1360-00-76 | HWY: STH 145 | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS | SHEET 66 E

PROJECT ID: 1360-00-76

INTERSECTION: W. FOND DU LAC AVE. & N. 27TH ST.

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: 7/19/2018

CB TO	JUMPER	# OF COND.	HEAD NO.	PHASE	SIGNAL INDICATION WIRE COLOR								PED BUTTON	OTHER
					RED	YELLOW	GREEN	<RED	<YELLOW>	<GREEN>	D/WALK	WALK		
SB1		9	4	2	RED	ORG	GRN							
			20	2							BLK	BLU		
SB2		19	2	6	RED	ORG	GRN							
			3	6	RED/BLK	ORG/BLK	GRN/BLK							
			15	6							BLK	BLU		
SB3		9	10	4	RED	ORG	GRN							
			14	4							BLK	BLU		
SB4		19	8	8	RED	ORG	GRN							
			9	8	RED/BLK	ORG/BLK	GRN/BLK							
			17	8							BLK	BLU		
SB5		9	1	6	RED	ORG	GRN							
			16	6							BLK	BLU		
SB6		19	5	2	RED	ORG	GRN							
			6	2	RED/BLK	ORG/BLK	GRN/BLK							
			19	2							BLK	BLU		
SB7		9	7	8	RED	ORG	GRN							
			18	8							BLK	BLU		
SB8		19	11	4	RED	ORG	GRN							
			12	4	RED/BLK	ORG/BLK	GRN/BLK							
			13	4							BLK	BLU		

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	CB1

LIGHTING UF 12 AWG	
FROM	TO
CB1	SB2

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.

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\1360-00-76 Fond du Lac 6 Int Monotubes\1360-00-06 FOND DU LAC 6 SIGNALS.dgn PLOT DATE : 19-JUL-2018 11:05 PLOT BY : kefeif PLOT NAME : PLOT SCALE : 40.000373:1.000000
WISDOT/CADDS SHEET 42

NOTE:

TYPICAL RECTANGLAR PULLBOX 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.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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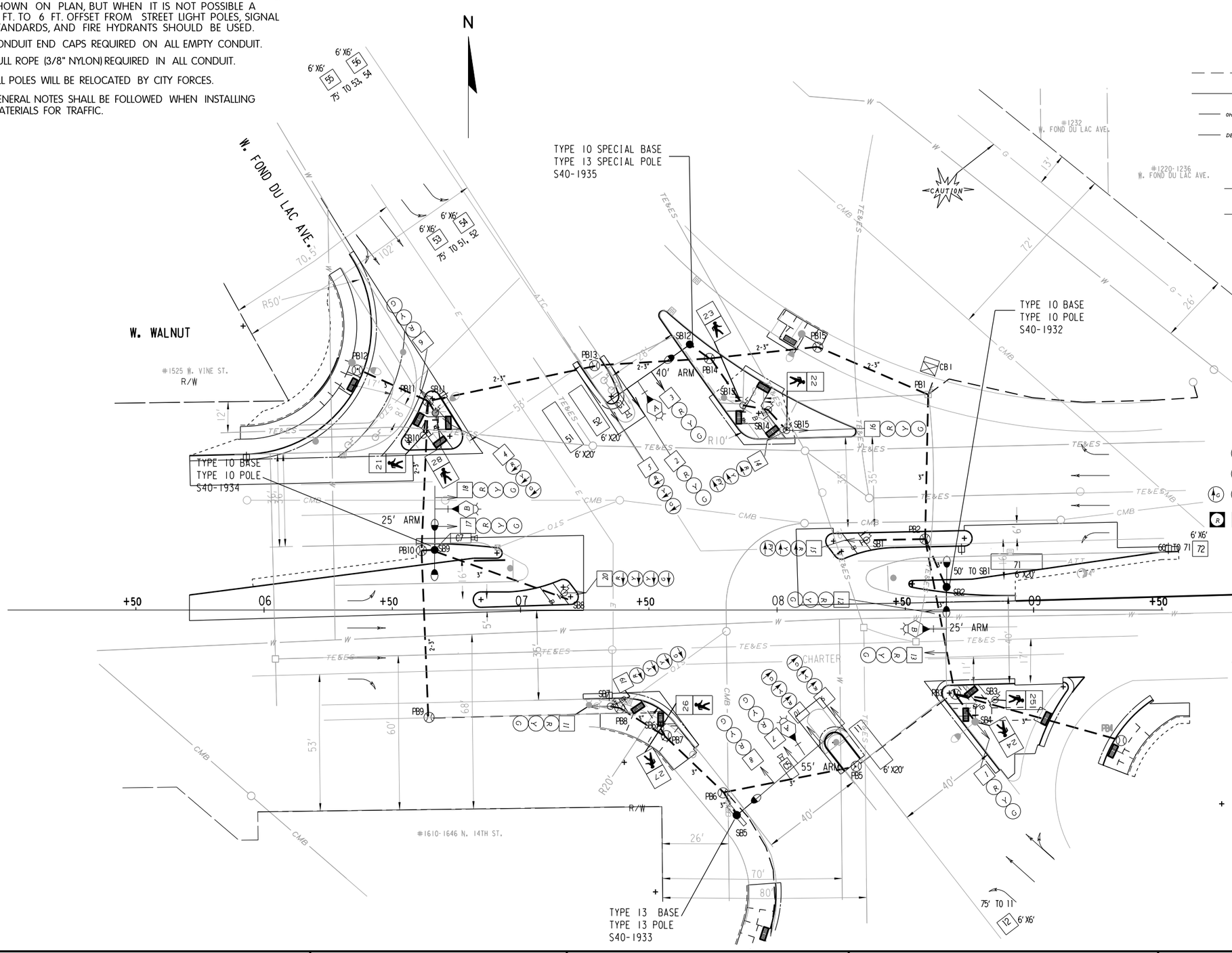
GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.



LEGEND

- SERVICE POLE
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- OH — CABLE-OVERHEAD
- DB — CABLE-DIRECT BURIED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- XX — MONOTUBE BASE, POLE, 45'-55' ARM
- XX — MONOTUBE BASE, POLE, 15'-40' ARM
- PB — PUSH BUTTON
- LUMINAIRE
- CONFIRMATION LIGHT
- TEMPORARY BASE
- POLYMER CONCRETE PULL BOX, 13"X24"X24"
- 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 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.

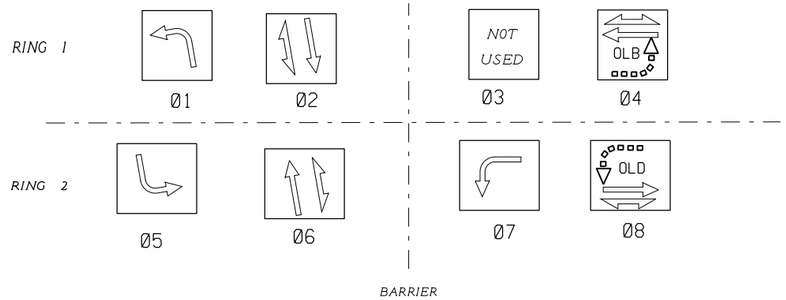
REGION CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: KAP PAGE OF
REVISED BY:

PROJECT NO: 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE FEET 0 40	SHEET E

REVISED DATE: 2-21-2017 BY ML

	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

SEQUENCE OF OPERATION



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- .	

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

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR		11,12	71,72	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 | SEQUENCE OF OPERATIONS | SHEET 69 E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\1360-00-76 Fond du Lac 6 Int Monotubes\1360-00-06 FOND DU LAC 6 SIGNALS.PLOT DATE : 02-JUL-2018 11:33 PLOT BY : kefeif PLOT NAME : PLOT SCALE : 40.000373:1.000000
WISDOT/CADDS SHEET 42

PROJECT ID:	1360-00-76
INTERSECTION:	W. FOND DU LAC AVE. & W. WALNUT AVE.

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: 7/19/2018

CB TO	JUMPER	# OF COND.	HEAD NO.	PHASE	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
					RED	YELLOW	GREEN	<RED	<YELLOW>	<GREEN>	<FLASH YELLOW>	D/WALK	WALK		
SB1		9	15	OL B				RED	ORG	GRN					
SB2		19	12	8	RED	ORG	GRN								
			13	8	RED/BLK	ORG/BLK	GRN/BLK								
			CONF. LIGHT	8											WHT/RED
SB3		9	25	8								BLK	BLU		
			PB	6										WHT/BLK	
SB4		9	1	6	RED	ORG	GRN								
			24	6								BLK	BLU		
			PB	8										WHT/BLK	
SB5		19	7	2	RED	ORG	GRN								
			8	2	RED/BLK	ORG/BLK	GRN/BLK								
			9	5				RED/WHT	BLU/WHT	GRN/WHT					
			10	5				RED/GRN	ORG/RED	WHT/GRN					
			CONF. LIGHT	2											WHT/RED
SB6		12	26	8								BLK	BLU		
			27	2								BLK/WHT	BLU/BLK		
			PB	8										WHT/BLK	
SB7		12	11	8	RED	ORG	GRN								
			19	OL D				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
			PB	2										WHT/BLK	
SB9		19	17	4	RED/WHT	BLU/WHT	GRN/WHT								
			18	4	RED/BLK	ORG/BLK	GRN/BLK								
			CONF. LIGHT	4											WHT/RED
	SB8	9	20	OL D				RED	ORG	GRN	BLK/WHT				
			PB	2										WHT/BLK	
SB11		19	4	1				RED/BLK	ORG/BLK	GRN/BLK					
			6	2	RED	ORG	GRN								
			28	2								BLK/WHT	BLU/BLK		
			PB	4										WHT/BLK	
	SB10	9	21	4								BLK	BLU		
			PB	2										WHT/RED	
SB12		19	2	6	RED	ORG	GRN								
			3	6	RED/BLK	ORG/BLK	GRN/BLK								
			5	1				RED/WHT	BLU/WHT	GRN/WHT					
			CONF. LIGHT	6											WHT/RED
SB13		19	23	6								BLK	BLU		
			PB	4										WHT/BLK	
	SB14	9	PB	6										WHT/RED	
	SB15	12	14	OL B				RED/BLK	ORG/BLK	GRN/BLK					
			16	4	RED	ORG	GRN								
			22	4								BLK/WHT	BLU/BLK		

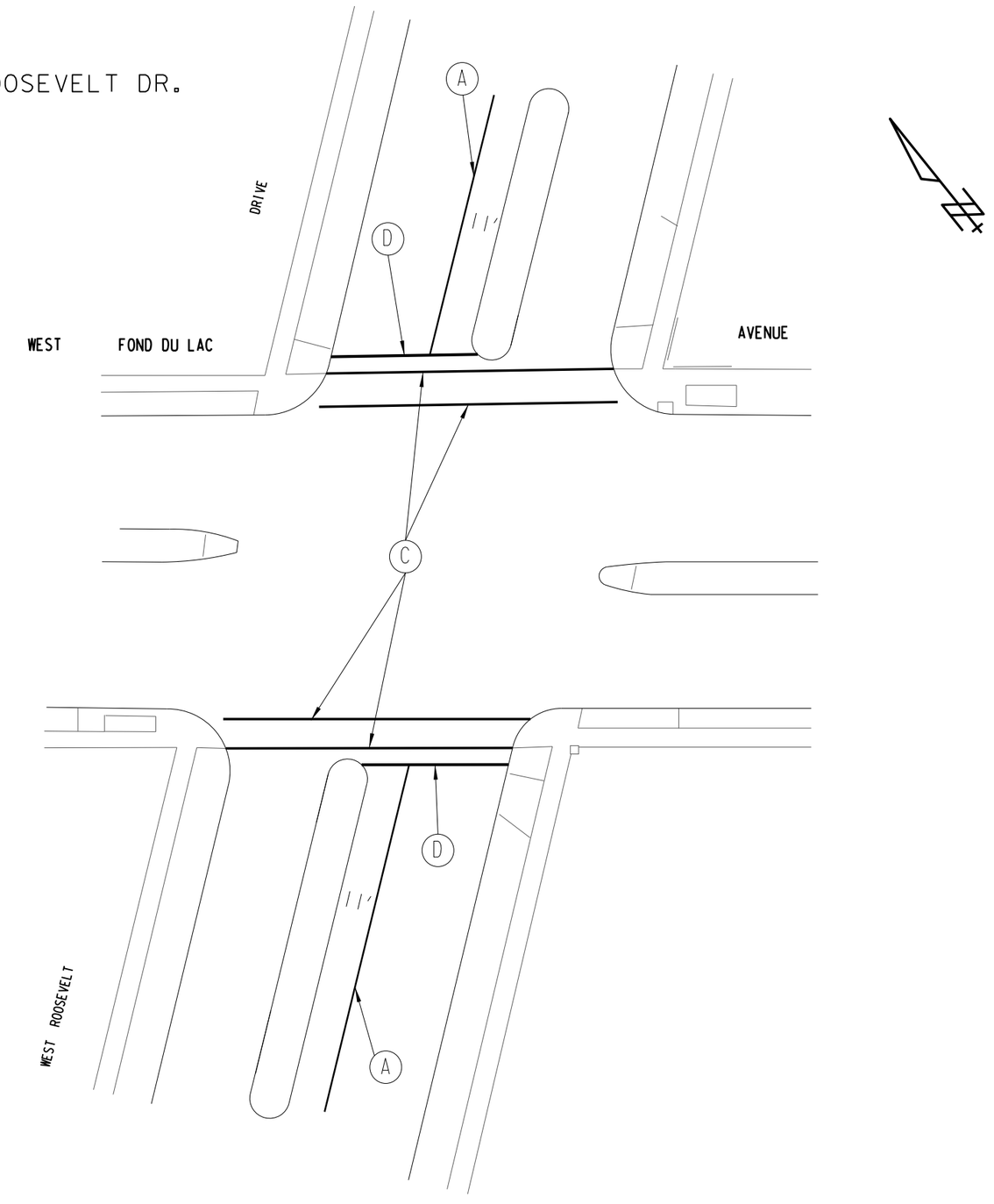
EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	SB14
SB14	SB15
SB15	CB1

VEHICLE PREEMPTION	
FROM	TO
CB1	SB2
SB2	HEAD 'B'
CB1	SB5
SB5	HEAD'A'
CB1	SB9
SB9	HEAD 'B'
CB1	SB12
SB12	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

INTERSECTION OF
W. FOND DU LAC AVE. & W. ROOSEVELT DR.



(A) PAVEMENT MARKING EPOXY, 4-INCH WHITE

(B) PAVEMENT MARKING EPOXY, 6-INCH WHITE

(C) PAVEMENT MARKING EPOXY, 12-INCH WHITE

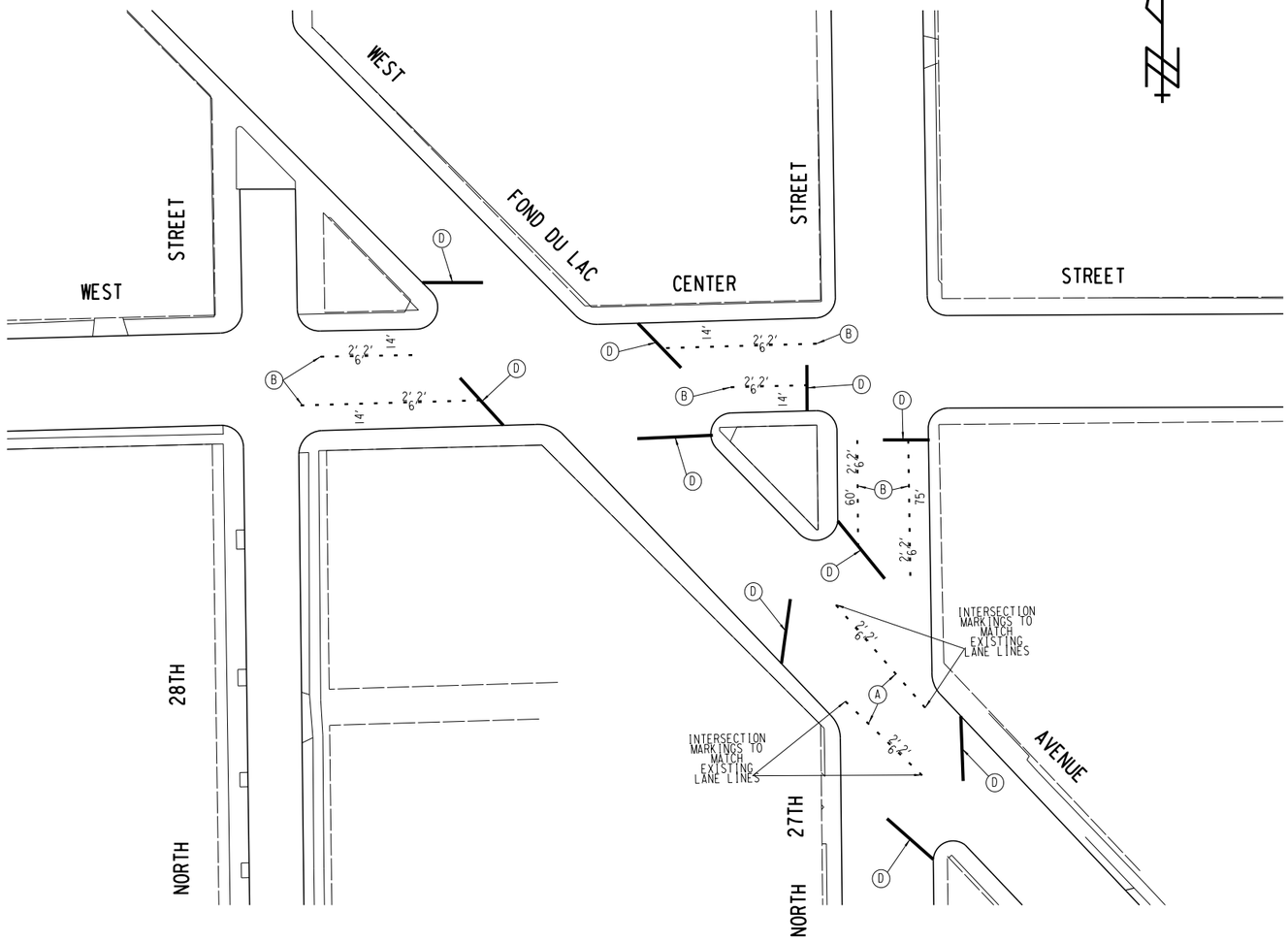
(D) PAVEMENT MARKING EPOXY STOPLINE, 24-INCH WHITE

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SCALE FEET 0' 40'	SHEET NO: 71	E

FILE NAME=

2

INTERSECTIONS OF
W. FOND DU LAC AVE. & N. 27TH ST.
&
W. FOND DU LAC AVE. & W. CENTER ST.



(A) PAVEMENT MARKING EPOXY, 4-INCH WHITE

(B) PAVEMENT MARKING EPOXY, 6-INCH WHITE

(C) PAVEMENT MARKING EPOXY, 12-INCH WHITE

(D) PAVEMENT MARKING EPOXY STOPLINE, 24-INCH WHITE

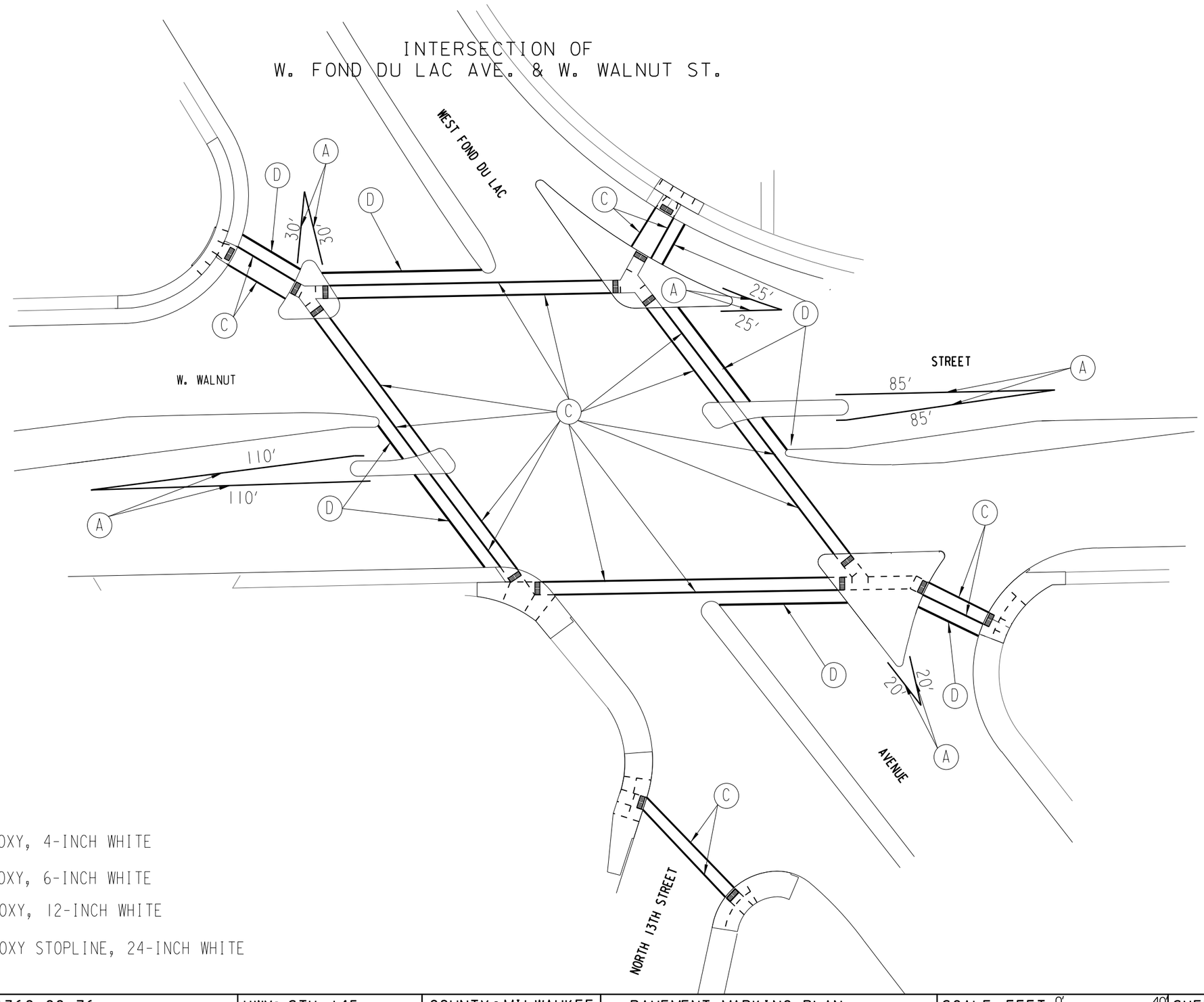
STATE PROJECT NUMBER 1360-00-76 - -	HWY: S.T.H. 145	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SCALE FEET 0' 80'	SHEET NO: 72	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\PAVEMENT MARKING CENTER-27TH.DGN

REVISED DATE: - - BY

2

INTERSECTION OF
W. FOND DU LAC AVE. & W. WALNUT ST.



(A) PAVEMENT MARKING EPOXY, 4-INCH WHITE

(B) PAVEMENT MARKING EPOXY, 6-INCH WHITE

(C) PAVEMENT MARKING EPOXY, 12-INCH WHITE

(D) PAVEMENT MARKING EPOXY STOPLINE, 24-INCH WHITE

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SCALE FEET 0' 40'	SHEET NO: 73	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\PAVEMENT MARKING WALNUT.DGN

REVISED DATE: 7-26-2018 BY PRM

PEDESTRIAN TRAFFIC CONTROL NOTES

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

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

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

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

A SIGNED PEDESTRIAN DETOUR TO ROUTE PEDESTRIAN TRAFFIC AROUND THE WORK ZONE IS SHOWN ON THE FOLLOWING CONSTRUCTION STAGING PEDESTRIAN RAMPS SHEETS. FOR PEDESTRIANS WITH TRIPS STARTING OR ENDING INSIDE THE WORK ZONE, NO SIGNED DETOUR IS PLANNED.

LOCATIONS

W. ROOSEVELT DR. NORTH CORNER
W. ROOSEVELT DR. EAST CORNER
W. ROOSEVELT DR. SOUTH CORNER
W. ROOSEVELT DR. WEST CORNER

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

W. BURLEIGH ST. NORTH CORNER
W. BURLEIGH ST. NORTHEAST CORNER
W. BURLEIGH ST. SOUTHEAST CORNER
W. BURLEIGH ST. SOUTH CORNER
W. BURLEIGH ST. SOUTHWEST CORNER
W. BURLEIGH ST. NORTHWEST CORNER

LOCATIONS (CONT'D)

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

N. 27TH ST. NORTHEAST CORNER
N. 27TH ST. SOUTHEAST CORNER
N. 27TH ST. SOUTHWEST CORNER
N. 27TH ST. NORTHWEST CORNER

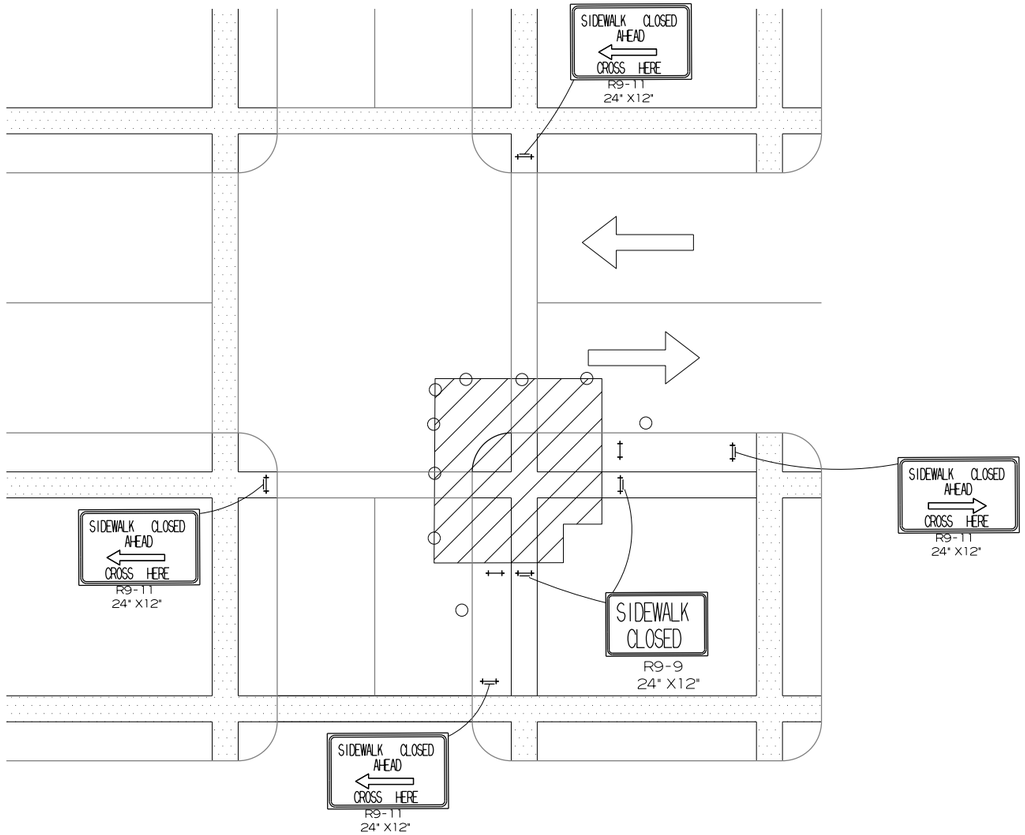
W. WALNUT AVE. NORTHEAST CORNER
W. WALNUT AVE. SOUTHEAST CORNER
W. WALNUT AVE. SOUTHWEST CORNER
W. WALNUT AVE. NORTHWEST CORNER

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 COVER ANY SIGN CONFLICTING WITH THE TRAFFIC CONTROL IN OPERATION AS NEEDED OR AS DIRECTED BY THE ENGINEER. COVERING OF SIGNS IS INCLUDED IN 'TRAFFIC CONTROL' ITEM.
5) 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.
6) 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.
7) 'WO' SIGNS ARE THE SAME AS 'W' SIGNS EXCEPT THE BACKGROUND IS ORANGE.
8) ALL SIGNS ARE 48" X 48" EXCEPT OTHERWISE NOTED.
9) ANY 'STOP' SIGNS THAT ARE REMOVED FOR A CONSTRUCTION OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED.
10) 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.
11) BOTH STEADY BURN LIGHTS AND FLASHING LIGHTS SHALL BE ONE WAY WITH THE LIGHT SOURCE SHOWING TOWARDS ADJACENT APPROACHING TRAFFIC.
12) CHANNELIZING DEVICES SHALL BE DRUMS WITH ATTACHED TYPE 'C' STEADY BURN LIGHT.
13) 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 STAGE TRANSITION.

W. FOND DU LAC AVENUE
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)

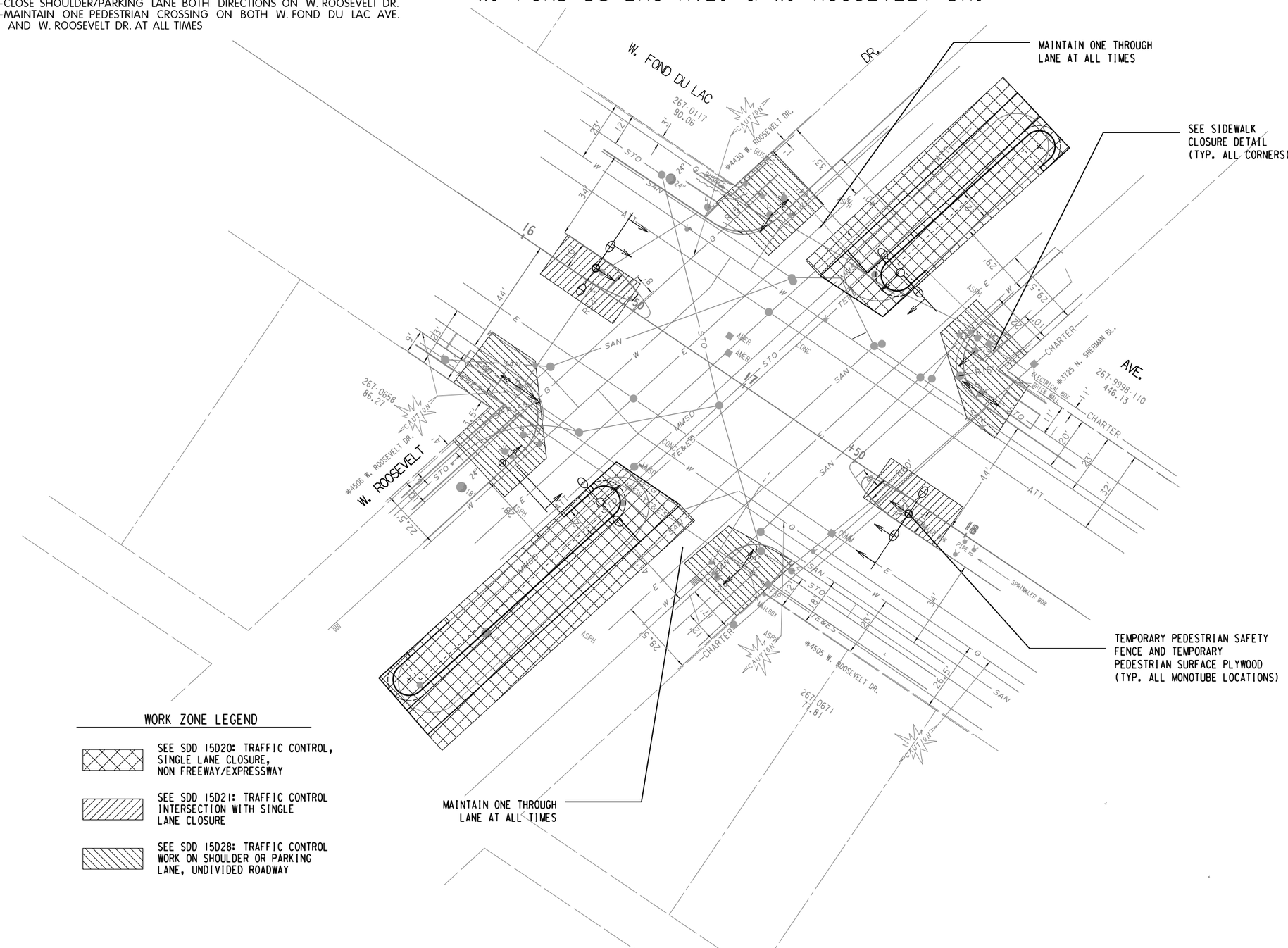
DIRECTION OF TRAFFIC

TRAFFIC CONTROL DRUM

NOTES:

-CLOSE MEDIAN LANE BOTH DIRECTIONS ON W. ROOSEVELT DR., MAINTAIN LEFT TURNING MOVEMENT
-CLOSE SHOULDER/PARKING LANE BOTH DIRECTIONS ON W. FOND DU LAC AVE.
-CLOSE SHOULDER/PARKING LANE BOTH DIRECTIONS ON W. ROOSEVELT DR.
-MAINTAIN ONE PEDESTRIAN CROSSING ON BOTH W. FOND DU LAC AVE. AND W. ROOSEVELT DR. AT ALL TIMES

INTERSECTION OF W. FOND DU LAC AVE. & W. ROOSEVELT DR.



STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	TRAFFIC CONTROL PLAN	SCALE FEET 0' 40	SHEET NO: 75	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\TC1-ROOSEVELT.DGN

REVISED DATE: 4-10-2018 BY TK

2

NOTES:

-CLOSE LEFT TURN LANE BOTH DIRECTIONS ON W. FOND DU LAC AVE., MAINTAIN LEFT TURNING MOVEMENT
-CLOSE SHOULDER/PARKING LANE BOTH DIRECTIONS ON W. FOND DU LAC AVE.
-CLOSE SHOULDER/PARKING LANE BOTH DIRECTIONS ON W. TOWNSEND ST.
-MAINTAIN ONE PEDESTRIAN CROSSING ON BOTH W. FOND DU LAC AVE. AND W. TOWNSEND ST. AT ALL TIMES

INTERSECTION OF W. FOND DU LAC AVE. & W. TOWNSEND ST.

N

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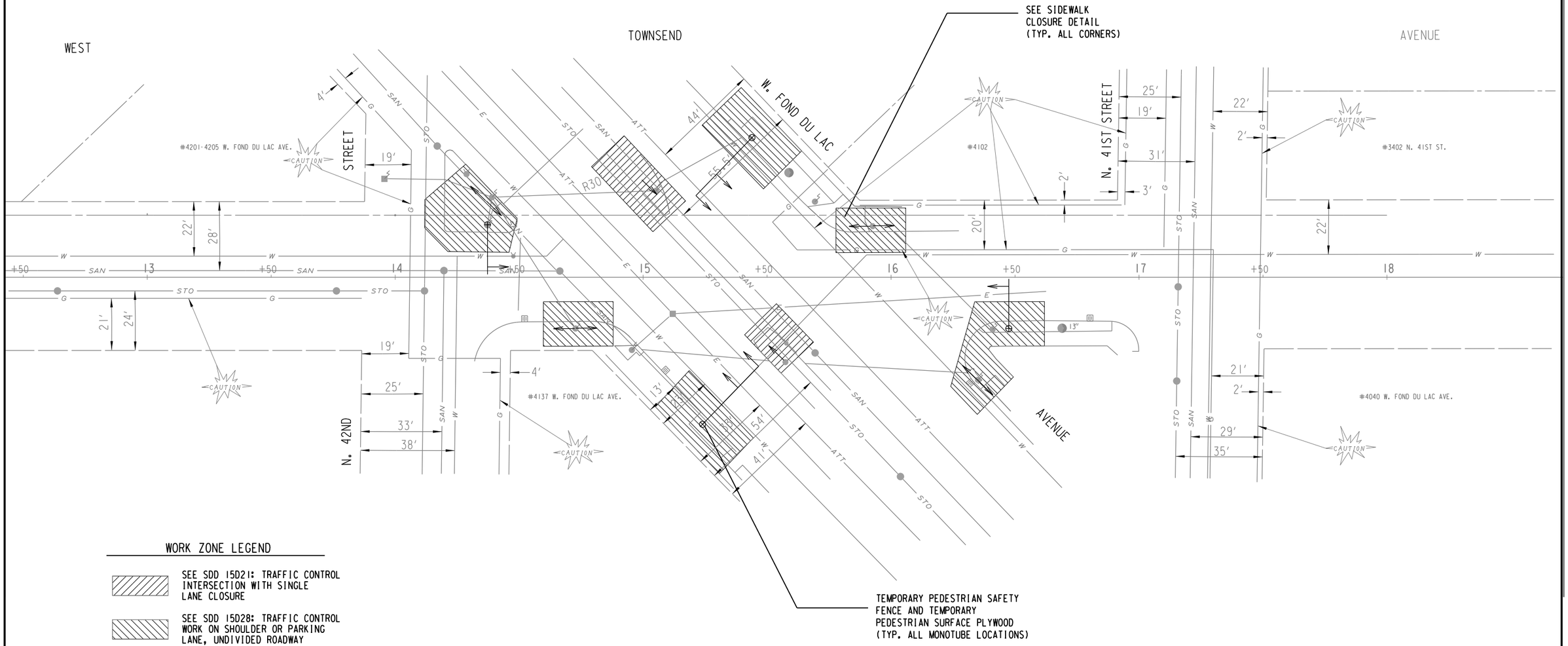


WORK ZONE LEGEND

SEE SDD 15D21: TRAFFIC CONTROL INTERSECTION WITH SINGLE LANE CLOSURE

SEE SDD 15D28: TRAFFIC CONTROL WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

TEMPORARY PEDESTRIAN SAFETY FENCE AND TEMPORARY PEDESTRIAN SURFACE PLYWOOD (TYP. ALL MONOTUBE LOCATIONS)

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	TRAFFIC CONTROL PLAN	SCALE FEET 0' 40	SHEET NO: 76	E

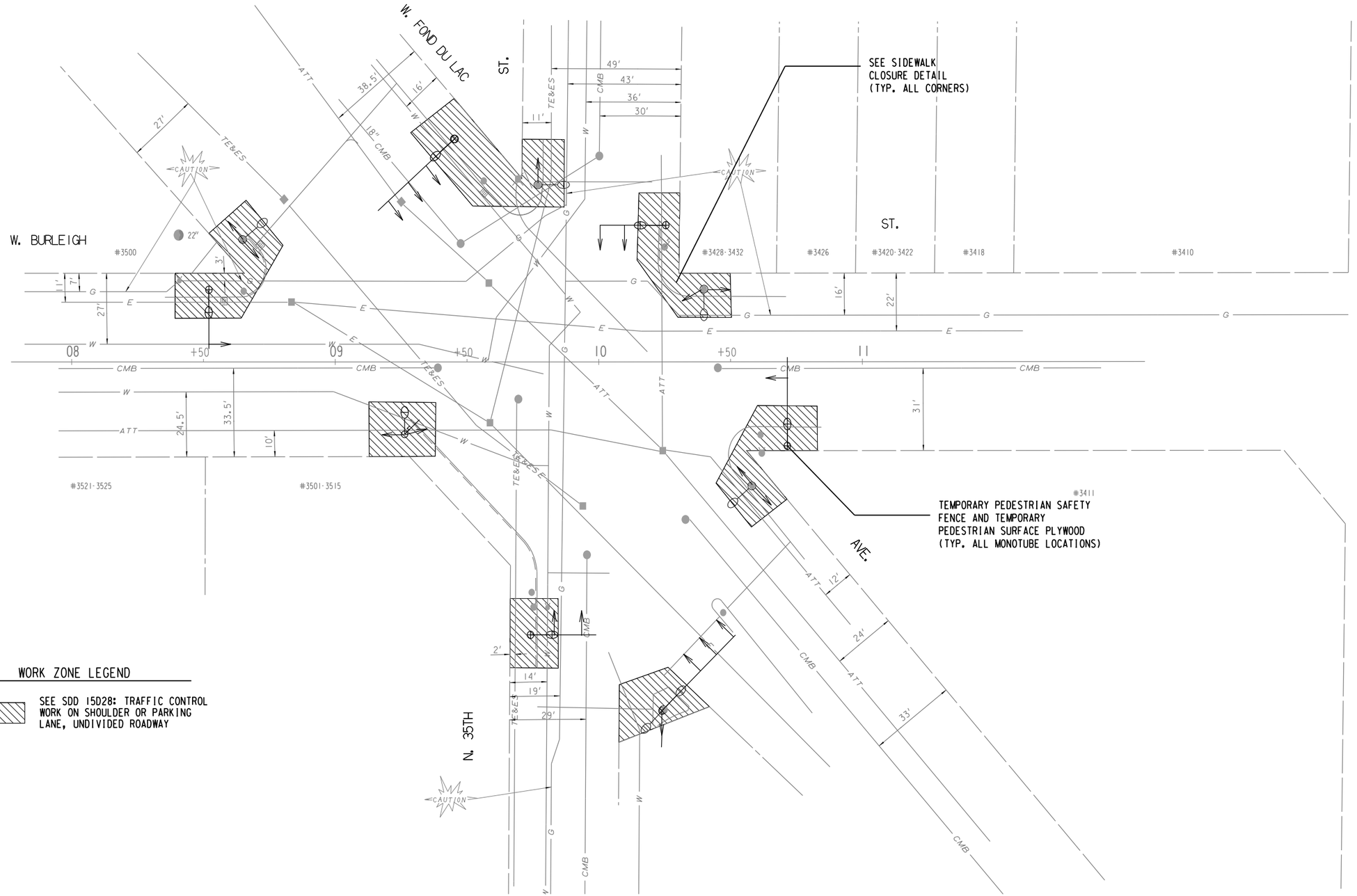
FILE NAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\TC2-TOWNSEND.DGN

REVISED DATE: 4-10-2018 BY TK

NOTES:

-CLOSE SHOULDER/PARKING LANE BOTH DIRECTIONS ON W. FOND DU LAC AVE.
-CLOSE SHOULDER/PARKING LANE BOTH DIRECTIONS ON W. BURLEIGH ST.
-MAINTAIN ONE PEDESTRIAN CROSSING ON BOTH W. FOND DU LAC AVE. AND W. BURLEIGH ST. AT ALL TIMES

INTERSECTION OF W. FOND DU LAC AVE. & W. BURLEIGH ST.



WORK ZONE LEGEND

SEE SDD 15D28: TRAFFIC CONTROL WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	TRAFFIC CONTROL PLAN	SCALE FEET 0' 40	SHEET NO: 77	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\TC3-BURLEIGH.DGN

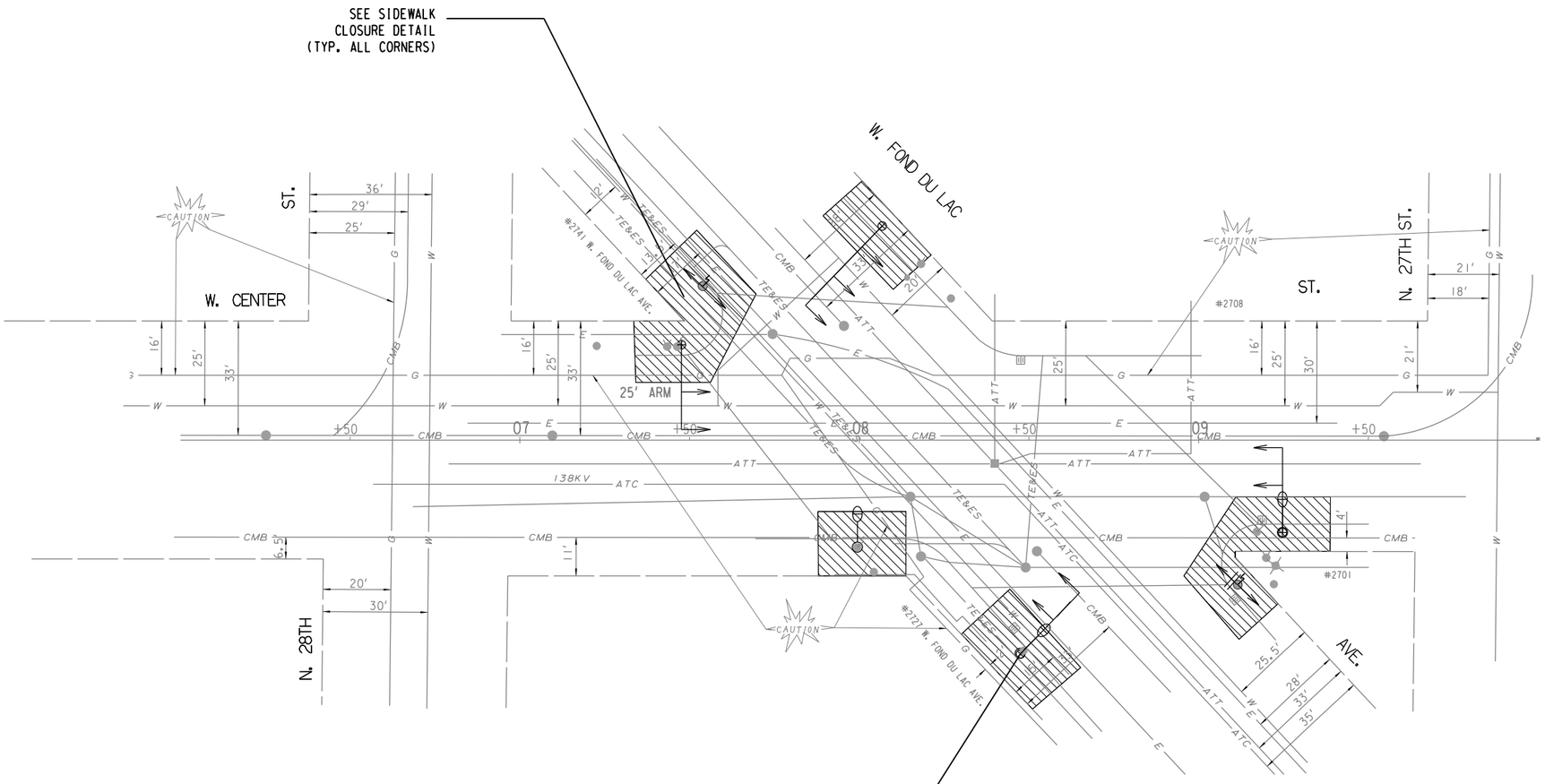
REVISED DATE: 4-10-2018 BY TK

NOTES:

-CLOSE SHOULDER/PARKING LANE BOTH DIRECTIONS ON W. FOND DU LAC AVE.
-CLOSE SHOULDER/PARKING LANE BOTH DIRECTIONS ON W. CENTER ST.
-MAINTAIN ONE PEDESTRIAN CROSSING ON BOTH W. FOND DU LAC AVE. AND W. CENTER ST. AT ALL TIMES

INTERSECTION OF W. FOND DU LAC AVE. & W. CENTER AVE.

2



WORK ZONE LEGEND

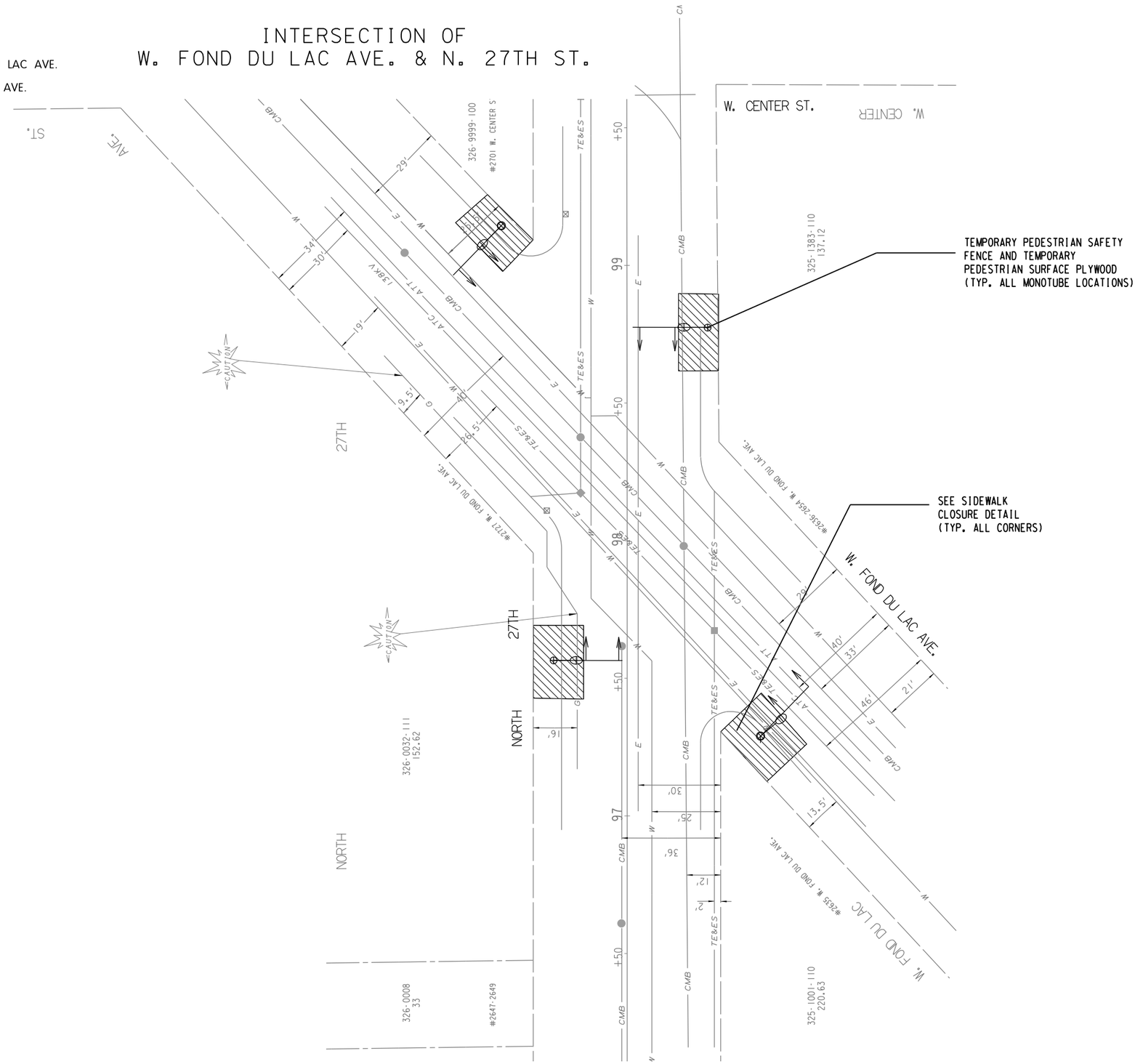
SEE SDD 15D28: TRAFFIC CONTROL WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	TRAFFIC CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 78	E

NOTES:

-CLOSE SHOULDER/PARKING LANE BOTH DIRECTIONS ON W. FOND DU LAC AVE.
-CLOSE SHOULDER/PARKING LANE BOTH DIRECTIONS ON N. 27TH ST.
-MAINTAIN ONE PEDESTRIAN CROSSING ON BOTH W. FOND DU LAC AVE. AND N. 27TH ST. AT ALL TIMES

INTERSECTION OF W. FOND DU LAC AVE. & N. 27TH ST.



WORK ZONE LEGEND

SEE SDD 15D28: TRAFFIC CONTROL WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	TRAFFIC CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 79	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\TC5-27TH.DGN

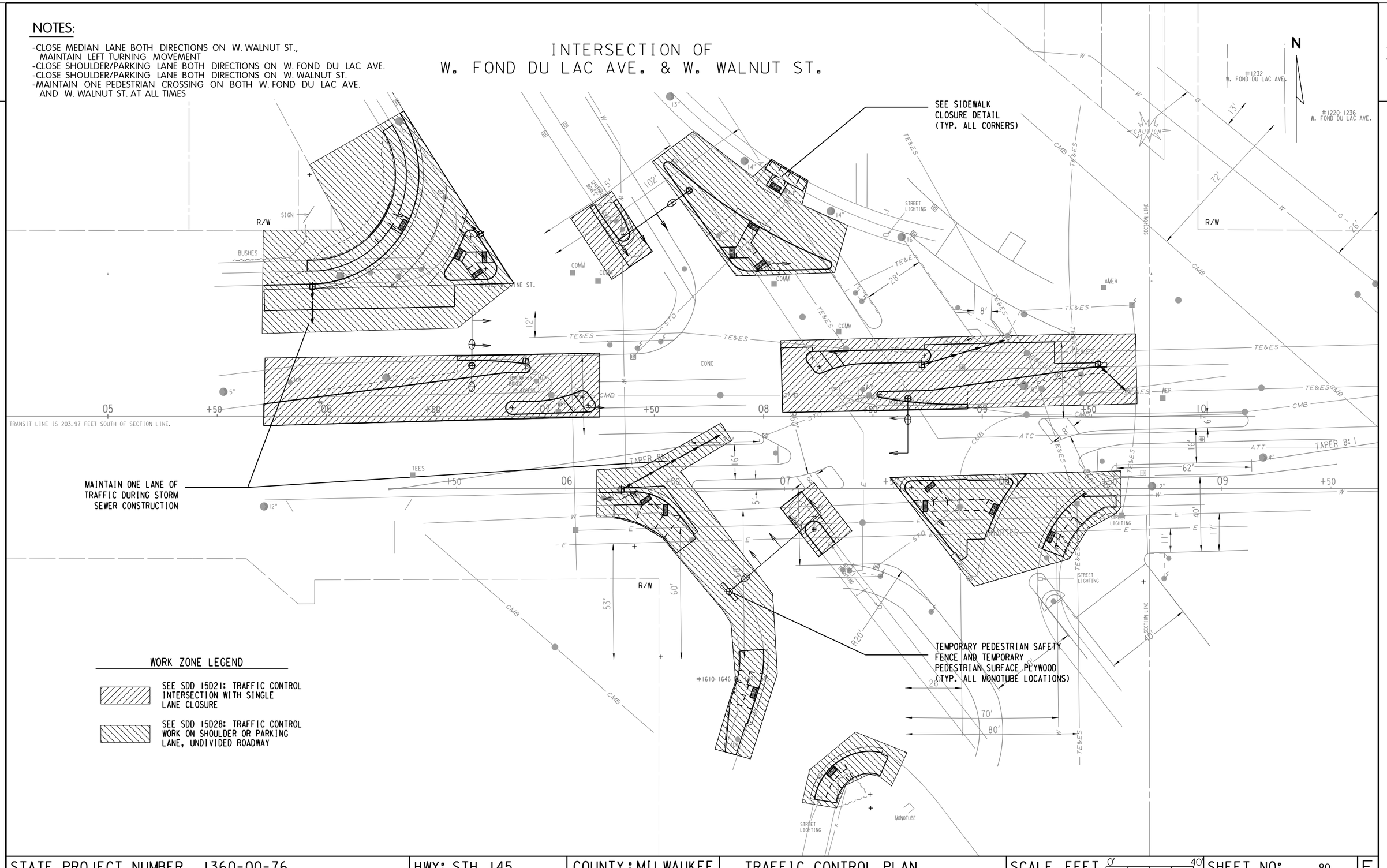
REVISED DATE: 4-10-2018 BY TK

2

NOTES:

-CLOSE MEDIAN LANE BOTH DIRECTIONS ON W. WALNUT ST., MAINTAIN LEFT TURNING MOVEMENT
-CLOSE SHOULDER/PARKING LANE BOTH DIRECTIONS ON W. FOND DU LAC AVE.
-CLOSE SHOULDER/PARKING LANE BOTH DIRECTIONS ON W. WALNUT ST.
-MAINTAIN ONE PEDESTRIAN CROSSING ON BOTH W. FOND DU LAC AVE. AND W. WALNUT ST. AT ALL TIMES

INTERSECTION OF W. FOND DU LAC AVE. & W. WALNUT ST.



WORK ZONE LEGEND

SEE SDD 15D21: TRAFFIC CONTROL INTERSECTION WITH SINGLE LANE CLOSURE

SEE SDD 15D28: TRAFFIC CONTROL WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	TRAFFIC CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 80	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\TC6-WALNUT.DGN

REVISED DATE: 7-26-2018 BY PRM

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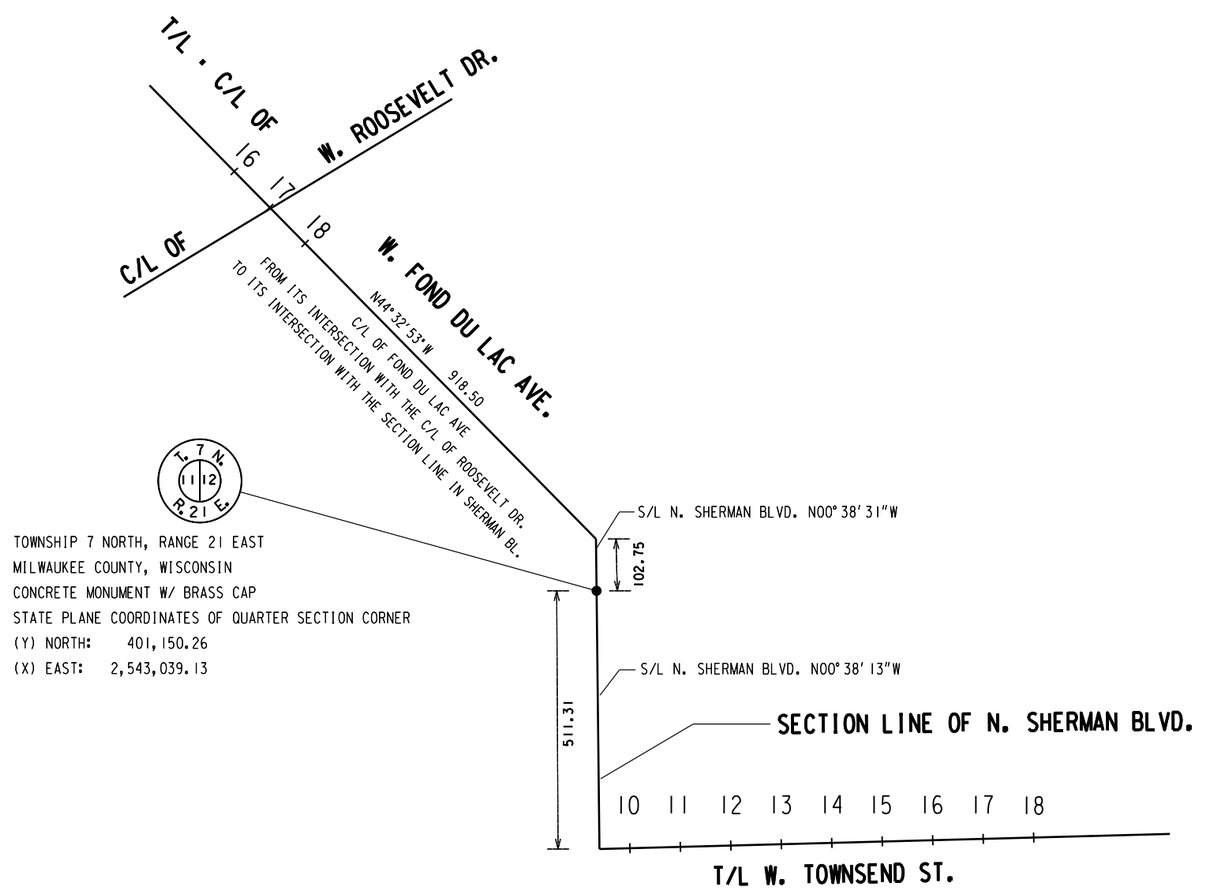

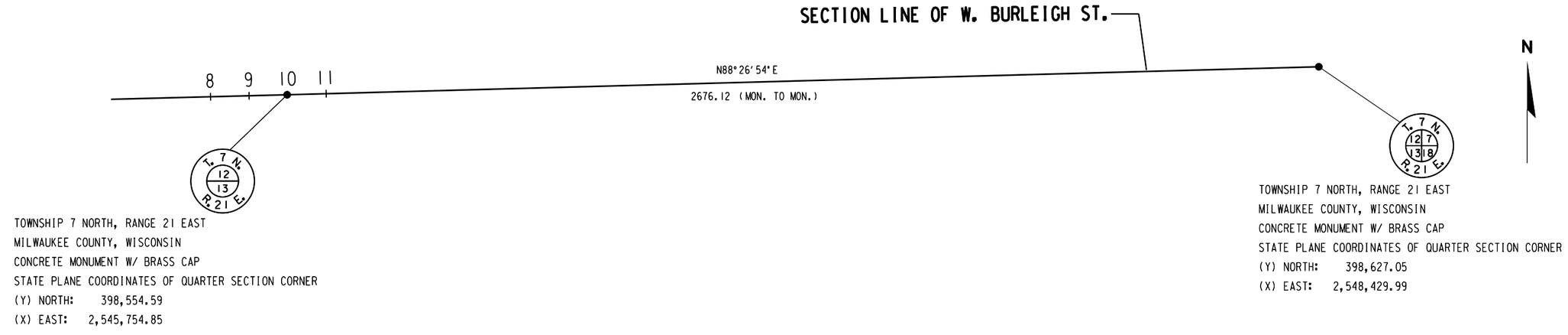

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SCALE FEET 0' 300'	SHEET NO: 81	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\ALIGNMENT.DGN

REVISED DATE: 9-12-2018 BY PRM

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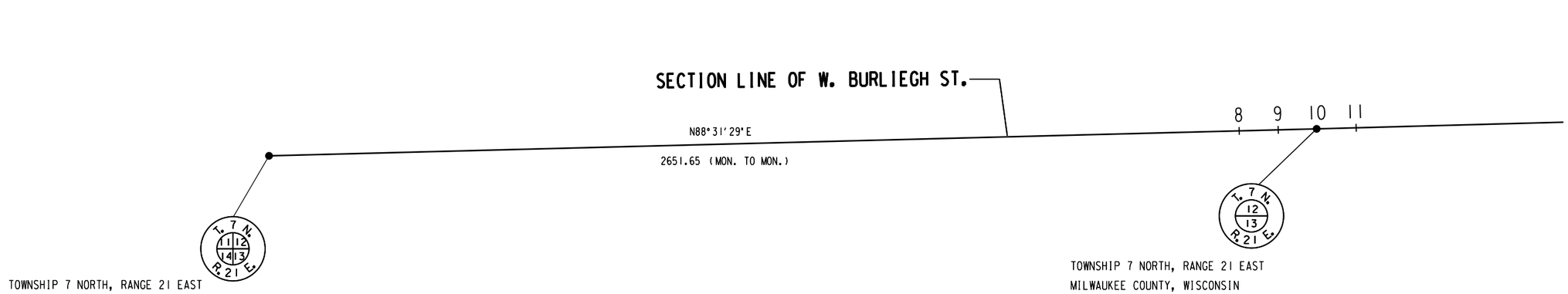
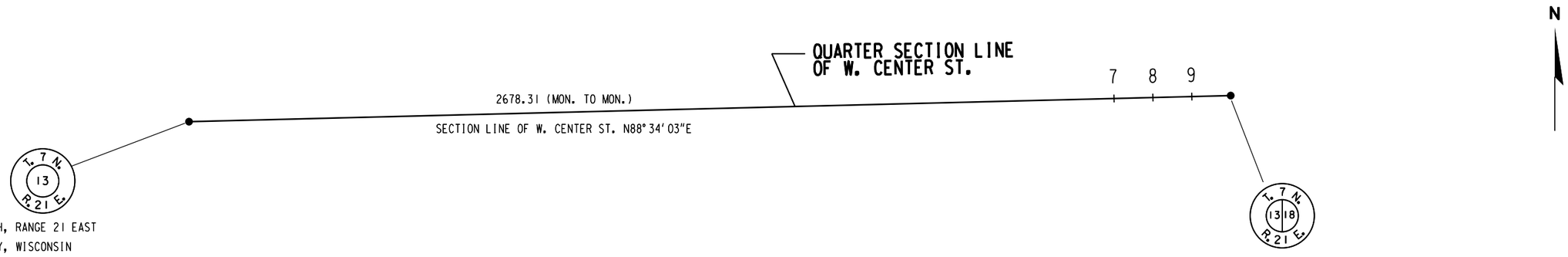


TOWNSHIP 7 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 398,554.59
(X) EAST: 2,545,754.85

TOWNSHIP 7 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 398,554.59
(X) EAST: 2,545,754.85



TOWNSHIP 7 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 395,894.44
(X) EAST: 2,545,792.16

TOWNSHIP 7 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 395,961.40
(X) EAST: 2,548,469.63

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SCALE FEET 0' 300'	SHEET NO: 82	E

FILENAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\ALIGNMENT.DGN

REVISED DATE: 9-14-2017 BY DLF

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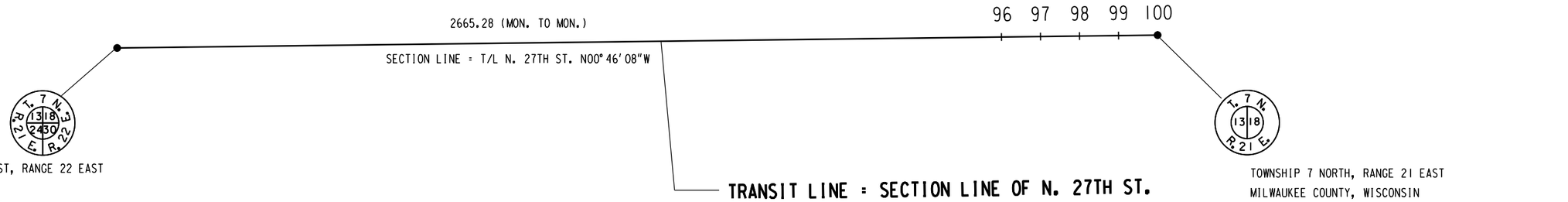
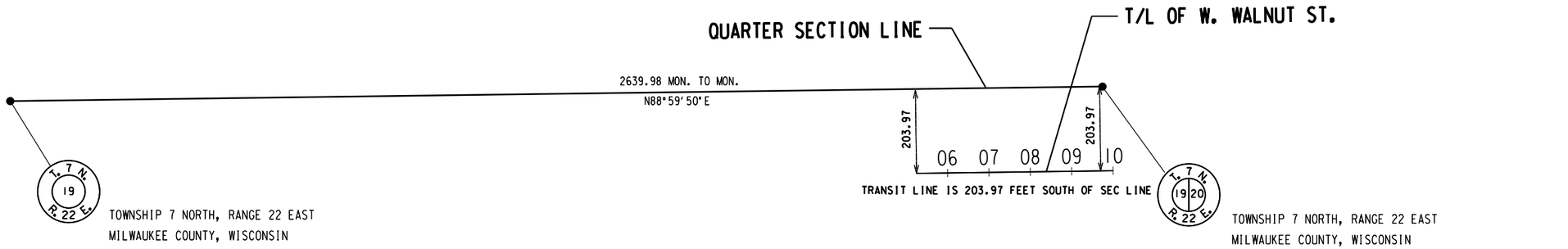


TOWNSHIP 7 NORTH, RANGE 21 EAST, RANGE 22 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 393,296.32
(X) EAST: 2,548,502.59

TOWNSHIP 7 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 395,961.40
(X) EAST: 2,548,469.63

N



TOWNSHIP 7 NORTH, RANGE 22 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 390,667.90
(X) EAST: 2,551,188.53

TOWNSHIP 7 NORTH, RANGE 22 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 390,703.15
(X) EAST: 2,553,828.28

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SCALE FEET 0' 300'	SHEET NO: 83	E

1360-00-76

Line	Item	Item Description	Unit	Total	Qty
0002	204.0100	Removing Pavement	SY	586.000	586.000
0006	204.0150	Removing Curb & Gutter	LF	1,271.000	1,271.000
0008	204.0155	Removing Concrete Sidewalk	SY	452.000	452.000
0010	204.0195	Removing Concrete Bases	EACH	34.000	34.000
0016	204.0215	Removing Catch Basins	EACH	4.000	4.000
0022	204.0280	Sealing Pipes	EACH	6.000	6.000
0024	204.0291.S	Abandoning Sewer	CY	4.000	4.000
0026	205.0100	Excavation Common	CY	540.000	540.000
0028	205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON	319.000	319.000
0030	213.0100	Finishing Roadway (project) 001. 1360-00-76	EACH	1.000	1.000
0034	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,005.000	1,005.000
0036	320.0125	Concrete Base 6-Inch	SY	157.000	157.000
0040	415.0080	Concrete Pavement 8-Inch	SY	999.000	999.000
0050	416.0610	Drilled Tie Bars	EACH	821.000	821.000
0052	416.0620	Drilled Dowel Bars	EACH	209.000	209.000
0054	465.0105	Asphaltic Surface	TON	26.000	26.000
0060	601.0331	Concrete Curb & Gutter 31-Inch	LF	804.000	804.000
0062	601.0600	Concrete Curb Pedestrian	LF	18.000	18.000
0064	602.0410	Concrete Sidewalk 5-Inch	SF	4,434.000	4,434.000
0066	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	200.000	200.000
0072	608.0512	Storm Sewer Pipe Reinforced Concrete Class V 12-Inch	LF	139.000	139.000
0074	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0082	619.1000	Mobilization	EACH	0.100	0.100
0084	620.0300	Concrete Median Sloped Nose	SF	1,112.000	1,112.000
0086	623.0200	Dust Control Surface Treatment	SY	2,209.000	2,209.000
0088	625.0100	Topsoil	SY	327.000	327.000
0090	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0092	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0094	628.7005	Inlet Protection Type A	EACH	6.000	6.000
0098	628.7015	Inlet Protection Type C	EACH	83.000	83.000
0100	631.1000	Sod Lawn	SY	327.000	327.000
0136	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	10.000	10.000
0138	637.2210	Signs Type II Reflective H	SF	283.500	283.500
0140	638.2602	Removing Signs Type II	EACH	11.000	11.000
0142	638.3000	Removing Small Sign Supports	EACH	10.000	10.000
0144	642.5201	Field Office Type C	EACH	0.100	0.100
0146	643.0300	Traffic Control Drums	DAY	11,980.000	11,980.000
0148	643.0410	Traffic Control Barricades Type II	DAY	2,240.000	2,240.000
0150	643.0420	Traffic Control Barricades Type III	DAY	360.000	360.000

1360-00-76

Line	Item	Item Description	Unit	Total	Qty
0152	643.0705	Traffic Control Warning Lights Type A	DAY	11,980.000	11,980.000
0154	643.0715	Traffic Control Warning Lights Type C	DAY	2,960.000	2,960.000
0158	643.0900	Traffic Control Signs	DAY	4,640.000	4,640.000
0164	643.5000	Traffic Control	EACH	0.100	0.100
0168	644.1420.S	Temporary Pedestrian Surface Plywood	SF	624.000	624.000
0172	644.1616.S	Temporary Pedestrian Safety Fence	LF	1,040.000	1,040.000
0174	646.1020	Marking Line Epoxy 4-Inch	LF	797.000	797.000
0176	646.6020	Marking Stop Line Epoxy 12-Inch	LF	1,448.000	1,448.000
0178	646.9000	Marking Removal Line 4-Inch	LF	596.000	596.000
0182	646.9200	Marking Removal Line Wide	LF	1,736.000	1,736.000
0192	650.4000	Construction Staking Storm Sewer	EACH	6.000	6.000
0196	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	879.000	879.000
0200	650.8500	Construction Staking Electrical Installations (project) 001. 1360-00-76	LS	1.000	1.000
0204	650.9000	Construction Staking Curb Ramps	EACH	22.000	22.000
0206	650.9910	Construction Staking Supplemental Control (project) 001. 1360-00-76	LS	1.000	1.000
0210	652.0220	Conduit Rigid Nonmetallic Schedule 40 1 1/2-Inch	LF	390.000	390.000
0212	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	260.000	260.000
0214	652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	390.000	390.000
0216	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	790.000	790.000
0220	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	150.000	150.000
0224	652.0615	Conduit Special 3-Inch	LF	2,785.000	2,785.000
0226	654.0101	Concrete Bases Type 1	EACH	29.000	29.000
0228	654.0105	Concrete Bases Type 5	EACH	3.000	3.000
0230	654.0110	Concrete Bases Type 10	EACH	20.000	20.000
0232	654.0113	Concrete Bases Type 13	EACH	1.000	1.000
0234	655.0250	Cable Traffic Signal 9-14 AWG	LF	3,100.000	3,100.000
0236	655.0260	Cable Traffic Signal 12-14 AWG	LF	2,070.000	2,070.000
0240	655.0280	Cable Traffic Signal 19-14 AWG	LF	5,535.000	5,535.000
0242	655.0305	Cable Type UF 2-12 AWG Grounded	LF	1,710.000	1,710.000
0244	655.0320	Cable Type UF 2-10 AWG Grounded	LF	230.000	230.000
0248	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	5,885.000	5,885.000
0250	655.0900	Traffic Signal EVP Detector Cable	LF	2,845.000	2,845.000
0252	657.0100	Pedestal Bases	EACH	29.000	29.000
0254	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	6.000	6.000
0256	657.0345	Poles Type 9	EACH	7.000	7.000
0258	657.0350	Poles Type 10	EACH	13.000	13.000
0260	657.0360	Poles Type 13	EACH	1.000	1.000
0262	657.0405	Traffic Signal Standards Aluminum 3.5-FT	EACH	5.000	5.000

1360-00-76

Line	Item	Item Description	Unit	Total	Qty
0264	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	13.000	13.000
0266	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	4.000	4.000
0268	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	7.000	7.000
0270	657.0520	Monotube Arms 20-FT	EACH	4.000	4.000
0272	657.0525	Monotube Arms 25-FT	EACH	14.000	14.000
0274	657.0530	Monotube Arms 30-FT	EACH	2.000	2.000
0276	657.0535	Monotube Arms 35-FT	EACH	2.000	2.000
0278	657.0540	Monotube Arms 40-FT	EACH	3.000	3.000
0280	657.0555	Monotube Arms 55-FT	EACH	1.000	1.000
0282	657.0806	Luminaire Arms Steel 6-FT	EACH	7.000	7.000
0284	657.0808	Luminaire Arms Steel 8-FT	EACH	6.000	6.000
0286	658.0173	Traffic Signal Face 3S 12-Inch	EACH	86.000	86.000
0288	658.0174	Traffic Signal Face 4S 12-Inch	EACH	4.000	4.000
0290	658.0412	Pedestrian Signal Face 12-Inch	EACH	50.000	50.000
0292	658.0500	Pedestrian Push Buttons	EACH	22.000	22.000
0294	658.1133	Programmable Traffic Signal Face 3S 12-Inch	EACH	10.000	10.000
0304	658.5069	Signal Mounting Hardware (location) 005. STH 145 & Roosevelt	LS	1.000	1.000
0306	658.5069	Signal Mounting Hardware (location) 006. STH 145 & Townsend	LS	1.000	1.000
0308	658.5069	Signal Mounting Hardware (location) 007. STH 145 & Burleigh	LS	1.000	1.000
0310	658.5069	Signal Mounting Hardware (location) 008. STH 145 & Center	LS	1.000	1.000
0312	658.5069	Signal Mounting Hardware (location) 009. STH 145 & 27th	LS	1.000	1.000
0314	658.5069	Signal Mounting Hardware (location) 010. STH 145 & Walnut	LS	1.000	1.000
0318	690.0150	Sawing Asphalt	LF	329.000	329.000
0320	690.0250	Sawing Concrete	LF	1,657.000	1,657.000
0330	SPV.0060	Special 002. Adjusting Water Box	EACH	2.000	2.000
0336	SPV.0060	Special 007. Utility Line Opening (ULO)	EACH	26.000	26.000
0346	SPV.0060	Special 102. Inlet Cover Type MS 57	EACH	7.000	7.000
0348	SPV.0060	Special 103. Manhole Cover Type MS 58-A	EACH	4.000	4.000
0350	SPV.0060	Special 110. Catch Basin Type 44A	EACH	6.000	6.000
0354	SPV.0060	Special 201. Install Precast Control Cabinet Base	EACH	6.000	6.000
0356	SPV.0060	Special 203. Concrete Base Type 10 Special	EACH	5.000	5.000
0358	SPV.0060	Special 204. Remove Controller Cabinet	EACH	6.000	6.000
0360	SPV.0060	Special 205. ATC Controller and Cabinet Installed	EACH	6.000	6.000
0366	SPV.0060	Special 218. EVP 1 Channel 1 Direction Infrared Detector	EACH	12.000	12.000

1360-00-76

Line	Item	Item Description	Unit	Total	Qty
0368	SPV.0060	Special 219. EVP 1 Channel 2 Direction Infrared Detector	EACH	3.000	3.000
0370	SPV.0060	Special 221. EVP Phase Selector Card 4 Channel	EACH	4.000	4.000
0372	SPV.0060	Special 223. EVP Confirmation Light Assembly	EACH	18.000	18.000
0374	SPV.0060	Special 224. Vehicular Video Detection System	EACH	3.000	3.000
0378	SPV.0060	Special 247. Poles Type 12 Special	EACH	3.000	3.000
0380	SPV.0060	Special 249. Poles Type 13 Special	EACH	2.000	2.000
0382	SPV.0060	Special 267. Pedestrian Countdown Signal Face 12-Inch	EACH	50.000	50.000
0386	SPV.0060	Special 277. Signal Housing Relocated	EACH	2.000	2.000
0388	SPV.0060	Special 280. Tunnel Visor	EACH	6.000	6.000
0390	SPV.0060	Special 291. 24"x24" Blankout Sign No Turn	EACH	4.000	4.000
0392	SPV.0060	Special 302. Fiberglass/Polymer Concrete Pull Box 13-Inch x 24-Inch x 24-Inch	EACH	25.000	25.000
0394	SPV.0060	Special 303. Fiberglass/Polymer Concrete Pull Box 17-Inch x 30-Inch x 24-Inch	EACH	57.000	57.000
0398	SPV.0060	Special 313. Pole Type 3 Direct Bury	EACH	7.000	7.000
0402	SPV.0060	Special 321. Pole 30-FT Aluminum Bolt Down	EACH	3.000	3.000
0404	SPV.0060	Special 332. Metal Pedestal Cabinet (4-Inch x 4-Inch x 36-Inch)	EACH	7.000	7.000
0412	SPV.0060	Special 376. Luminaire Utility LED 3	EACH	30.000	30.000
0414	SPV.0060	Special 387. Remove Luminaire	EACH	8.000	8.000
0426	SPV.0060	Special 800. Pole Type 5 Concrete H17	EACH	2.000	2.000
0428	SPV.0060	Special 838. Luminaire Arm Single Member 6-Ft City Furnished	EACH	3.000	3.000
0430	SPV.0060	Special 839. Luminaire Arm Single Member 8-Ft City Furnished	EACH	4.000	4.000
0432	SPV.0060	Special 864. Luminaire Historic Milwaukee Harp LED 0	EACH	4.000	4.000
0434	SPV.0060	Special 866. Luminaire Historic Milwaukee Lantern LED 2	EACH	21.000	21.000
0438	SPV.0090	Special 002. Marking Line Epoxy 6-Inch	LF	205.000	205.000
0440	SPV.0090	Special 003. Concrete Curb & Gutter Integral 19-Inch	LF	298.000	298.000
0448	SPV.0090	Special 055. Marking Line Epoxy 24-Inch	LF	732.000	732.000
0454	SPV.0090	Special 306. Cable Type 3#6/1#8 LTP	LF	880.000	880.000
0456	SPV.0090	Special 307. Cable Type 3#4/1#8 LTP	LF	700.000	700.000
0458	SPV.0090	Special 308. Cable Type 3#2/1#8 LTP	LF	2,450.000	2,450.000
0460	SPV.0090	Special 310. Cable Type 3#10AWG With Ground	LF	150.000	150.000
0482	SPV.0195	Special 001. Management of Solid Waste	TON	33.000	33.000

ROADWAY REMOVAL ITEMS

CATEGORY 0010

LOCATION	204.0100 REMOVING PAVEMENT SY	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
W ROOSEVELT DR	--	365	28	329	127
W WALNUT ST	586	906	424	--	1530
PROJECT TOTAL	586	1,271	452	329	1,657

CONTAMINATED SOILS ITEMS

CATEGORY 0010

STREET	LOCATION	205.0501.S EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL TON	SPV.0195.001 MANAGEMENT OF SOLID WASTE TON
W TOWNSEND ST	14+20 TO 14+70; 80' LT TO R/L	11	--
W TOWNSEND ST	14+70 TO 15+20; 80' LT TO R/L	11	--
W CENTER ST	7+30 TO 7+75; 65' LT TO R/L	11	--
W CENTER ST	7+75 TO 8+25; 65' LT TO R/L	--	11
W CENTER ST	8+25 TO 8+75; 85' RT TO R/L	--	11
N 27TH ST	97+30 TO 97+90; 35' LT TO R/L	--	11
W WALNUT ST	7+15 TO 8+20; 115' LT TO R/L	104	--
W WALNUT ST	8+20 TO 9+00; 50' LT TO 80' RT	182	--
	PROJECT TOTAL	319	33

EXCAVATION COMMON

CATEGORY 0010

LOCATION	205.0100 EXCAVATION COMMON CY
W ROOSEVELT DR	84
W WALNUT ST	456
PROJECT TOTAL	540

FINISHING ROADWAY

CATEGORY 0010

LOCATION	213.0100 FINISHING ROADWAY PROJECT 1360-00-76 EACH
W FOND DU LAC AVENUE	1
TOTAL	1

ROADWAY CONSTRUCTION ITEMS

CATEGORY 0010

LOCATION	305.0120 BASE AGGREGATE DENSE 1-1/4 INCH TON	320.0125 CONCRETE BASE 6-INCH SY	415.0080 CONCRETE PAVEMENT 8-INCH SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	465.0105 ASPHALTIC SURFACE TON	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	SPV.0090.003 CONCRETE CURB & GUTTER INTEGRAL 19-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 ROOSEVELT DR	169	157	82	221	109	26	226	--	--	--	--	399
W WALNUT ST	837	--	917	600	100	--	578	298	18	4434	200	713
PROJECT TOTAL	1,005	157	999	821	209	26	804	298	18	4,434	200	1,112

EROSION CONTROL ITEMS

CATEGORY 0010

LOCATION	623.0200 DUST CONTROL SURFACE TREATMENT SY	625.0100 TOPSOIL SY	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	631.1000 SOD LAWN SY
W ROOSEVELT DR	540	71	--	6	71
W TOWNSEND ST	--	--	--	15	--
W BURLEIGH ST	--	--	--	18	--
W CENTER ST	--	--	--	13	--
N 27TH ST	--	--	--	11	--
W WALNUT ST	1669	256	6	20	256
PROJECT TOTAL	2,209	327	6	83	327

MOBILIZATIONS EROSION CONTROL

CATEGORY 0010

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT 1360-00-76	3	1
PROJECT TOTAL	3	1

3

TRAFFIC CONTROL

CATEGORY 0010

LOCATION	DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0410 TRAFFIC CONTROL BARRICADES TYPE II EACH	643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAY	643.0420 CONTROL BARRICADES TYPE III EACH	643.0420 CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAY
W ROOSEVELT DR	10	244	2440	32	320	12	120	244	2440	56	560	104	1040
W TOWNSEND ST	10	194	1940	32	320	8	80	194	1940	48	480	80	800
W BURLEIGH ST	10	186	1860	48	480	0	0	186	1860	48	480	60	600
W CENTER ST	10	124	1240	32	320	0	0	124	1240	32	320	40	400
N 27TH ST	10	124	1240	32	320	0	0	124	1240	32	320	40	400
W WALNUT ST	10	326	3260	48	480	16	160	326	3260	80	800	140	1400
PROJECT TOTAL			11,980		2,240		360		11,980		2,960		4,640

(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

PEDESTRIAN ACCOMODATION

CATEGORY 0010

LOCATION	644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1616.S TEMPORARY PEDESTRIAN SAFETY FENCE LF
W ROOSEVELT DR	96	160
W TOWNSEND ST	96	160
W BURLEIGH ST	144	240
W CENTER ST	96	160
N 27TH ST	96	160
W WALNUT ST	96	160
PROJECT TOTAL	624	1,040

3

PAVEMENT MARKING

CATEGORY 0010

LOCATION	646.1020 MARKING LINE EPOXY 4-INCH (WHITE) LF	646.6020 MARKING STOP LINE EPOXY 12-INCH LF	646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9200 MARKING REMOVAL LINE WIDE LF	SPV.0090.002 MARKING LINE EPOXY 6-INCH LF	SPV.0090.055 MARKING LINE EPOXY 24-INCH LF
W ROOSEVELT DR	188	355	187	355	--	88
W CENTER ST/ N 27TH ST	69	--	94	--	205	338
W WALNUT ST	540	1093	315	1381	--	306
PROJECT TOTAL	797	1,448	596	1,736	205	732

TRAFFIC CONTROL

LOCATION	CAT 0010 TRAFFIC CONTROL 643.5000 EACH
W FOND DU LAC AVENUE	0.1
TOTAL	0.1

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

MOBILIZATION

LOCATION	CAT 0010 619.1000 MOBILIZATION EACH
PROJECT 1360-00-76	0.1
TOTAL	0.1

FIELD OFFICE

LOCATION	CAT 0010 642.5201 FIELD OFFICE TYPE C EACH
PROJECT 1360-00-76	0.1
TOTAL	0.1

UTILITY LINE OPENING

LOCATION	CAT 0010 SPV.0060.007 UTILITY LINE OPENING EACH
W ROOSEVELT DR	4
W TOWNSEND ST	4
W BURLEIGH ST	6
W CENTER ST	4
N 27TH ST	4
W WALNUT ST	4
PROJECT TOTAL	26

3

ADJUSTING WATER BOX

LOCATION	CAT 0020 SPV.0060.002 ADJUSTING WATER BOX EACH
W FOND DU LAC AVENUE	2
TOTAL	2

CONSTRUCTION STAKING

CATEGORY 0010

LOCATION	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	650.5500 CONSTRUCTION STAKING CURB & GUTTER LF	650.9000 CONSTRUCTION STAKING CURB RAMP EACH
W ROOSEVELT DR	--	301	--
W WALNUT ST	6	578	22
PROJECT TOTAL	6	879	22

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

LOCATION	CAT 0010 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL PROJECT 1360-00-76 650.9910 LS
W FOND DU LAC AVENUE	1
TOTAL	1

3

CATCH BASIN REMOVALS

STRUCTURE NUMBER	STATION	OFFSET	204.0215 REMOVING CATCH BASINS EACH
3	6+31	62'LT	1
7	6+91	23'LT	1
9	7+42	37'RT	1
14	8+91	21'LT	1
TOTAL			4

ABANDONING SEWER

STATION	TO	STATION	OFFSET	PIPE ID (INCH)^	LF	204.0291.S ABANDONING SEWER CY
6+31		6+61	LT	15	37	2
7+41		7+80	RT	12	47	1
8+90		9+10	LT	12	24	1
TOTAL						4

^ FOR INFORMATION ONLY

SEALING PIPES

STATION	OFFSET	204.0280 SEALING PIPES EACH
6+31	62'LT	1
6+61	90'LT	1
7+40	37'RT	1
7+80	8'RT	1
8+90	21'LT	1
9+10	35'LT	1
TOTAL		6

3

SEWER STRUCTURES / SEWER PIPES

STRUCTURE NUMBER	STRUCTURE TYPE	STATION	CENTERLINE OFFSET	COVER ELEV.	DEPTH$_A$ (FT)	FRAME & LID	STRUCTURE REMARKS	FROM STRUCTURE	TO STRUCTURE	INVERTS INLET	INVERTS OUTLET	SLOPE$_B$ (FT/FT)	PIPE LENGTH$_C$ (FT)	PLAN LENGTH$_D$ (FT)	PIPE SIZE (IN)	PIPE REMARKS
1	CATCH BASIN-44A	5+93.6	60.7'LT	98.20	8.25	MS 57	PROPOSED	1	2	93.95	93.65	0.02308	13	17	12	PROTECT & SUPPORT 16" WATER MAIN
2	MANHOLE	5+92.7	41.6'LT	98.81	---	MS 58-A	EXISTING, LOCATION ESTIMATED	---	---	91.10	---	---	---	---	24	
4	CATCH BASIN-44A	6+69.2	82.8'LT	96.65	8.25	MS 57	PROPOSED	4	5	92.40	92.20	0.02500	8	12	12	---
5	4 FT MANHOLE	6+62.1	92.6'LT	96.70	7.24	MS 58-A	PROPOSED	---	---	89.46	---	---	---	---	15	CONNECT TO EXISTING PIPE
6	CATCH BASIN-44A	6+90.9	24.2'LT	97.81	8.76	MS 57	PROPOSED	---	---	93.05	---	---	---	---	---	CONNECT TO EXISTING PIPE
8	CATCH BASIN-44A	7+35	34.5'RT	97.50	9.50	MS 57	PROPOSED	8	10	92.00	90.72	0.02667	48	52	12	---
10	MANHOLE	7+80.3	8.3'RT	98.05	---	MS 58-A	EXISTING, LOCATION ESTIMATED	---	---	89.72	---	---	---	---	24	
12	CATCH BASIN	8+11.7	99.9'LT	96.03	---	MS 57	FRAME AND GRATE ONLY	---	---	---	---	---	---	---	---	---
13	CATCH BASIN-44A	8+72.4	24.9'LT	97.07	8.32	MS 57	PROPOSED	13	15	92.75	91.50	0.03472	36	40	12	PROTECT & SUPPORT 12" WATER MAIN AND 6" GAS MAIN
15	MANHOLE	9+10.6	35'LT	95.08	---	MS 58-A	FRAME AND GRATE ONLY	---	---	89.13	---	---	---	---	24	---
16	CATCH BASIN-44A	9+53	22.7'LT	97.38	8.28	MS 57	PROPOSED	16	17	93.10	92.80	0.02143	14	18	12	PROTECT & SUPPORT 12" WATER MAIN AND 6" GAS MAIN
17	CATCH BASIN	9+65.8	12.8'LT	97.68	---	---	EXISTING	---	---	92.57	---	---	---	---	---	---

SPV.0060.110 CATCH BASIN TYPE 44A	SPV.0060.103 MANHOLE COVER TYPE MS 58-A	SPV.0060.102 INLET COVER TYPE MS 57	611.2004 MANHOLES 4-FT DIAMETER	608.0512 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH
EACH	EACH	EACH	EACH	LF
6	4	7	1	139

[A] DEPTH = COVER ELEVATION - LOWEST PIPE INVERT ELEVATION + SUMP(FOR CATCH BASIN)

[B] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE.

[C] PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT TO BE USED FOR PAY QUNATITY.

[D] PLAN LENGTH OF PIPE SHOWN FOR PAY QUANTITY.

TYPE II PERMANENT SIGNING - 1360-00-76 STH 145

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	REMARKS / NEW SIGN LOCATION
1	J4-1 (2)	--	24 x 36	6.000	--	--	--	MOUNT ABOVE SIGNAL
--	-- M3-1	--	24 x 12	--	--	--	--	--
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
2	J4-1 (2)	--	24 x 45	7.500	--	--	--	MOUNT ABOVE SIGNAL
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
--	-- M6-4	--	21 x 21	--	--	--	--	--
3	J4-1 (2)	--	24 x 45	7.500	--	--	--	MOUNT ABOVE SIGNAL
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
--	-- M6-4	--	21 x 21	--	--	--	--	--
4	J4-1 (2)	--	24 x 36	6.000	--	--	--	MOUNT ABOVE SIGNAL
--	-- M3-3	--	24 x 12	--	--	--	--	--
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
5	J4-1 (2)	--	24 x 36	6.000	1	--	--	MOUNT ON LIGHT POLE
--	-- M3-1	--	24 x 12	--	--	--	--	--
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
6	J4-1 (2)	--	24 x 36	6.000	1	--	--	MOUNT LIGHT POLE
--	-- M3-3	--	24 x 12	--	--	--	--	--
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
7	J3-1(2)	--	24 x 57	9.500	--	--	--	MOUNT ON CONC. POLE
--	-- M3-3	--	24 x 12	--	--	--	--	--
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
--	-- M5-2R	--	21 x 21	--	--	--	--	--
8	J3-1(2)	--	24 x 57	9.500	--	--	--	MOUNT ON SIGNAL POST
--	-- M3-1	--	24 x 12	--	--	--	--	--
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
--	-- M5-2R	--	21 x 21	--	--	--	--	--
9	J4-1 (2)	--	24 x 45	7.500	--	--	--	MOUNT ON SIGNAL
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
--	-- M6-5	--	21 x 21	--	--	--	--	--
10	J4-1 (2)	--	24 x 45	7.500	--	--	--	MOUNT ON SIGNAL POLE
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
--	-- M6-5	--	21 x 21	--	--	--	--	--
11	J4-1 (2)	--	24 x 36	6.000	1		--	MOUNT ON LIGHT POLE
--	-- M3-3	--	24 x 12	--	--	--	--	--
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
12	J4-1 (2)	--	24 x 36	6.000	--	--	--	MOUNT ON SIGNAL POLE
--	-- M3-1	--	24 x 12	--	--	--	--	--
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
13	J3-1(2)	(NORTH/ STH 145)	-- x --	--	1		--	--
14	J3-1(2)	--	24 x 57	9.500	--	--	--	MOUNT ON CONC. POLE
--	-- M3-3	--	24 x 12	--	--	--	--	--
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
--	-- M6-1	--	21 x 21	--	--	--	--	--
15	J3-1(2)	--	24 x 57	9.500	--	--	--	MOUNT ON SIGNAL POLE
--	-- M3-1	--	24 x 12	--	--	--	--	--
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
--	-- M6-1	--	21 x 21	--	--	--	--	--
16	J4-1 (2)	--	24 x 36	6.000	--	--	--	MOUNT ON SIGNAL POLE
--	-- M3-1	--	24 x 12	--	--	--	--	--
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
17	J4-1(2)	(SOUTH / STH 145)	-- x --	--	1		--	--
18	J3-1(2)	--	24 x 57	9.500	--	--	--	MOUNT ON LIGHT POLE
--	-- M3-3	--	24 x 12	--	--	--	--	--
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
--	-- M6-1	--	21 x 21	--	--	--	--	--
19	J4-1 (2)	--	24 x 36	6.000	--	--	--	MOUNT ON SIGNAL POLE
--	-- M3-3	--	24 x 12	--	--	--	--	--
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--
20	J4-1 (2)	--	24 x 36	6.000	1	--		MOUNT ON LIGHT POLE
--	-- M3-1	--	24 x 12	--	--	--	--	--
--	-- M1-6	STH 145	24 x 24	--	--	--	--	--

TYPE II PERMANENT SIGNING - 1360-00-76 STH 145

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	REMARKS / NEW SIGN LOCATION
21	J2-3(2)	--	24 x 171	28.500	1	2	2	--
--	-- MB4-5	--	24 x 12	--	--	--	--	--
--	-- MB1-1	IH 43	24 x 24	--	--	--	--	--
--	-- MB5-1R	--	21 x 21	--	--	--	--	--
--	-- MB4-5	--	24 x 12	--	--	--	--	--
--	-- MB1-1	IH 94	24 x 24	--	--	--	--	--
--	-- MB5-1R	--	21 x 21	--	--	--	--	--
--	-- MB4-5	--	24 x 12	--	--	--	--	--
--	-- MB1-51A	IH 794	24 x 24	--	--	--	--	--
--	-- MB5-1R	--	21 x 21	--	--	--	--	--
22	J2-3(2)	--	24 x 171	28.500	1	2	2	--
--	-- MB4-5	--	24 x 12	--	--	--	--	--
--	-- MB1-1	IH 43	24 x 24	--	--	--	--	--
--	-- MB5-1L	--	21 x 21	--	--	--	--	--
--	-- MB4-5	--	24 x 12	--	--	--	--	--
--	-- MB1-1	IH 94	24 x 24	--	--	--	--	--
--	-- MB5-1L	--	21 x 21	--	--	--	--	--
--	-- MB4-5	--	24 x 12	--	--	--	--	--
--	-- MB1-51A	IH 794	24 x 24	--	--	--	--	--
--	-- MB5-1L	--	21 x 21	--	--	--	--	--
23	J2-3(2)	--	24 x 171	28.500	1	2	2	--
--	-- MB4-5	--	24 x 12	--	--	--	--	--
--	-- MB1-1	IH 43	24 x 24	--	--	--	--	--
--	-- MB6-1	--	21 x 21	--	--	--	--	--
--	-- MB4-5	--	24 x 12	--	--	--	--	--
--	-- MB1-1	IH 94	24 x 24	--	--	--	--	--
--	-- MB6-1	--	21 x 21	--	--	--	--	--
--	-- MB4-5	--	24 x 12	--	--	--	--	--
--	-- MB1-51A	IH 794	24 x 24	--	--	--	--	--
--	-- MB6-1	--	21 x 21	--	--	--	--	--
24	J2-3(2)	--	24 x 171	28.500	1	2	2	--
--	-- MB4-5	--	24 x 12	--	--	--	--	--
--	-- MB1-1	IH 43	24 x 24	--	--	--	--	--
--	-- MB6-1	--	21 x 21	--	--	--	--	--
--	-- MB4-5	--	24 x 12	--	--	--	--	--
--	-- MB1-1	IH 94	24 x 24	--	--	--	--	--
--	-- MB6-1	--	21 x 21	--	--	--	--	--
--	-- MB4-5	--	24 x 12	--	--	--	--	--
--	-- MB1-51A	IH 794	24 x 24	--	--	--	--	--
--	-- MB6-1	--	21 x 21	--	--	--	--	--
25	J2-4(2)	--	24 x 228	38.000	1	2	2	--
--	-- MB3-1	--	24 x 12	--	--	--	--	--
--	-- MB1-1	IH 43	24 x 24	--	--	--	--	--
--	-- MB6-1	--	21 x 21	--	--	--	--	--
--	-- MB3-3	--	24 x 12	--	--	--	--	--
--	-- MB1-1	IH 43	24 x 24	--	--	--	--	--
--	-- MB6-2	--	21 x 21	--	--	--	--	--
--	-- MB4-5	--	24 x 12	--	--	--	--	--
--	-- MB1-1	IH 94	24 x 24	--	--	--	--	--
--	-- MB6-2	--	21 x 21	--	--	--	--	--
--	-- MB4-5	--	24 x 12	--	--	--	--	--
--	-- MB1-51A	IH 794	24 x 24	--	--	--	--	--
--	-- MB6-2	--	21 x 21	--	--	--	--	--
TOTALS				283.500	11	10	10	

STREET LIGHTING ITEMS

CATEGORY 0010
* QUANTITIES SHOWN ELSEWHERE

LOCATION	650.8500.001 CONSTRUCTION STAKING ELECTRICAL (1360-00-76) LS	652.0220 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1.5 INCH LF	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 INCH LF *	652.0230 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2.5 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 *	654.0105 CONCRETE BASE TYPE 5 EACH	655.0305 CABLE TYPE UF 2#12 AWG GROUNDED LF
ROOSEVELT	--	100	--	100	300	150	240	--	450
BURLEIGH	--	100	50	100	--	--	200	--	200
WALNUT	--	50	--	50	380	--	600	3	600
CENTER	--	--	--	--	--	--	60	--	200
27th STREET	--	90	--	90	--	--	100	--	100
TOWNSEND	--	50	--	50	--	--	--	--	160
PROJECT TOTAL	1	390	50	390	680	150	1,200	3	1,710

LOCATION	657.0255 TRANSFORMER BASE BREAKAWAY 11.5 INCH BOLT CIRCLE EACH	657.0806 LUMINAIRE ARM STEEL 6-FOOT EACH	657.0808 LUMINAIRE ARM STEEL 8-FOOT EACH	SPV.0060.302 FIBERGLASS/POLYMER CONCRETE PULL BOX 13" x 24" x 24" EACH *	SPV.0060.303 FIBERGLASS/POLYMER CONCRETE PULL BOX 17" x 30" x 24" EACH *	SPV.0060.313 POLE TYPE 3 DIRECT BURY EACH	SPV.0060.321 POLE TYPE-13 30FT ALUMINUM BOLT DOWN EACH	SPV.0060.332 METAL PEDESTAL CABINET 4-INCH x 4-INCH x 36-INCH EACH	SPV.0060.376 LUMINAIRE UTILITY LED 3 EACH
ROOSEVELT	--	--	6	6	2	2	--	2	10
BURLEIGH	--	--	--	3	--	2	--	2	--
WALNUT	6	5	--	5	--	1	3	1	8
CENTER	--	1	--	--	--	--	--	--	4
27th STREET	--	1	--	--	--	--	--	--	2
TOWNSEND	--	--	--	--	--	2	--	2	6
PROJECT TOTAL	6	7	6	14	2	7	3	7	30

LOCATION	SPV.0060.387 REMOVE LUMINAIRE EACH	SPV.0060.800 POLE TYPE 5 CONCRETE H17 EACH	SPV.0060.838 LUMINAIRE ARM SINGLE MEMBER 6-FT CITY FURNISHED EACH	SPV.0060.839 LUMINAIRE ARM SINGLE MEMBER 8-FT CITY FURNISHED EACH	SPV.0060.864 LUMINAIRE HISTORIC MILWAUKEE HARP LED 0 EACH	SPV.0060.866 LUMINAIRE HISTORIC MILWAUKEE LANTERN LED 2 EACH	SPV.0090.306 CABLE TYPE 3#6/1#8 LTP LF	SPV.0090.307 CABLE TYPE 3#4/1#8 LTP LF	SPV.0090.308 CABLE TYPE 3#2/1#8 LTP LF	SPV.0090.310 CABLE TYPE 3#10AWG WITH GROUND LF
ROOSEVELT	--	--	--	4	--	--	--	--	1100	--
BURLEIGH	4	2	--	--	3	12	200	--	400	--
WALNUT	--	--	3	--	--	2	380	200	600	--
CENTER	4	--	--	--	--	2	100	500	150	--
27th STREET	--	--	--	--	1	5	100	--	200	150
TOWNSEND	--	--	--	--	--	--	100	--	--	--
PROJECT TOTAL	8	2	3	4	4	21	880	700	2,450	150

TRAFFIC SIGNALS W. FOND DU LAC AVE. (STH 145) & W. ROOSEVELT DR.

QUANT. EACH	DESCRIPTION
1	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE
1	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED [CONTRACTOR SUPPLIED]
4	SPV.0060.218 EVP 1 CHANNEL 1 DIRECTION INFRARED DETECTOR
1	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL
4	SPV.0060.223 EVP CONFIRMATION LIGHT ASSEMBLY
8	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH
12	SPV.0060.303 FIBERGLASS/POLYMER CONCRETE PULLBOX 17"x30"x24"
9	654.0101 CONCRETE BASES TYPE 1
4	654.0110 CONCRETE BASES TYPE 10
1	657.0345 POLES TYPE 9
3	657.0350 POLES TYPE 10
1	657.0520 MONOTUBE ARM 20-FT
3	657.0525 MONOTUBE ARM 25-FT
9	657.0100 PEDESTAL BASES
2	657.0405 TRAFFIC SIGNAL STAND. ALUMINUM 3.5'
5	657.0420 TRAFFIC SIGNAL STAND. ALUMINUM 13'
2	657.0430 TRAFFIC SIGNAL STAND. ALUMINUM 10'
20	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH
8	658.0412 PEDESTRIAN SIGNAL FACE, 12-INCH
6	658.0500 PEDESTRIAN PUSH BUTTONS
1	658.5069.001 TRAFFIC SIGNAL MOUNTING HARDWARE (STH 145 & W. ROOSEVELT DR.)

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	SB6	1		
2	SB14	1		
3	SB1	1		
4	SB13	1		
5	SB14	1		
6	SB13	1		
7	SB8	1		
8	SB8	1		
9	SB6	1		
10	SB7	1		
11	SB9	1		
12	SB3	1		
13	SB3	1		
14	SB2	1		
15	SB3	1		
16	SB2	1		
17	SB10	1		
18	SB10	1		
19	SB9	1		
20	SB10	1		
21	SB12		1	1
22	SB2		1	1
23	SB1		1	1
24	SB6		1	1
25	SB5		1	1
26	SB9		1	1
27	SB8		1	1
28	SB13		1	1
	TOTAL	20	8	8

SIGNAL BASE NO.	657.0100 PEDESTAL BASES EACH	657.0405 TRAFFIC SIGNAL STANDARD ALUMINUM 3.5' EACH	657.0430 TRAFFIC SIGNAL STANDARD ALUMINUM 10' EACH	657.0420 TRAFFIC SIGNAL STANDARD ALUMINUM 13' EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	657.0345 POLES TYPE 9 EACH	657.0350 POLES TYPE 10 EACH	SPV.0060.218 EVP1 CHANNEL 1 DIRECTION INFRARED DETECTOR EACH	SPV.0060.223 EVP CONFIRMATION LIGHT ASSEMBLY EACH	657.0520 MONOTUBE ARM 20-FOOT EACH	657.0525 MONOTUBE ARM 25-FOOT EACH
SB1	1			1							
SB2	1			1	1						
SB3							1	1	1		1
SB4	1	1			1						
SB5	1		1		1						
SB6	1			1							
SB8						1		1	1		1
SB9	1			1	1						
SB10							1	1	1		1
SB11	1	1			1						
SB12	1		1		1						
SB13	1			1							
SB14							1	1	1	1	
TOTAL	9	2	2	5	6	1	3	4	4	1	3

LOCATION	-	LOCATION	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF*
CB1	TO	SB1	5	
CB1	TO	PB1		20
PB1	TO	SB2	5	
PB2	TO	SB3	10	
PB2	TO	SB4	5	
PB2	TO	PB3		80
PB3	TO	SB5	10	
PB4	TO	SB6	5	
PB4	TO	PB5		110
PB5	TO	SB7	5	
PB5	TO	PB6		80
PB6	TO	SB8	10	
PB6	TO	PB7		25
PB7	TO	SB9	5	
PB7	TO	PB8		110
PB8	TO	SB10	10	
PB8	TO	SB11	5	
PB8	TO	PB9		95
PB9	TO	SB12	5	
PB9	TO	PB10		30
PB10	TO	SB13	15	
PB10	TO	PB11		110
PB11	TO	SB14	10	
PB11	TO	PB12		80
PB12	TO	CB1	5	
		TOTAL	110	740

PULL BOX NO.	LOCATION	SPV.0060.303 FIBERGLASS/POLYMER CONCRETE PULLBOX 17"x30"x24" EACH*
1	17+79.3', 46.3' LT	1
2	17+68.2', 5.1' RT	1
3	17+60.5',46.4' RT	1
4	17+33.0', 57.0' RT	1
5	16+80.0', 71.2' RT	1
6	16+41.2', 66.3'RT	1
7	16+25.3', 48.7' RT	1
8	16+40.0', 4.8' LT	1
9	16+47.8', 50.0' LT	1
10	16+70.2', 71.4' LT	1
11	17+26.1', 76.0' LT	1
12	17+64.3', 68.5' LT	1
	TOTAL	12

SIGNAL BASE NO.	LOCATION	654.0101 CONCRETE BASES TYPE1 EACH	654.0110 CONCRETE BASES TYPE 10 EACH
1	17+64.5', 59.3' LT	1	
2	17+75.3',47.3' LT	1	
3	17+77.9', 5.3' RT		1
4	17+63.9', 4.1' RT	1	
5	17+51.7', 49.0' RT	1	
6	17+37.5', 57.3' RT	1	
8	16+41.2', 74.7' RT		1
9	16+30.7', 47.8' LT	1	
10	16+29.4', 5.4' LT		1
11	16+45.2', 4.9' LT	1	
12	16+52.7', 50.7' LT	1	
13	16+72.3', 58.9' LT	1	
14	17+24.9', 68.0' LT		1
	TOTAL	9	4

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
1	17+64.5', 59.3' LT	1
2	17+75.3',47.3' LT	1
4	17+63.9', 4.1' RT	1
5	17+53.7', 47.6' RT	1
6	17+33.0', 57.0' RT	1
8	16+41.9', 61.6' RT	1
9	16+30.7', 47.8' LT	1
11	16+45.2', 4.9' LT	1
12	16+51.3', 47.9' LT	1
13	16+72.3', 58.9' LT	1
	TOTAL	10

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

ITEM	DESCRIPITON	L.F
655.0250	CABLE TRAFFIC SIGNAL 9-14 AWG	805
655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	670
655.0280	CABLE TRAFFIC SIGNAL 19-14-AWG	840
655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	750
655.0900	TRAFFIC SIGNAL EVP DETECTOR CABLE	840

LOCATION	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE EACH	SPV.0060.204 REMOVE CONTROLLER CABINET EACH	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED EACH	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL EACH
17+68', 63' LT	1	1	1	1
TOTAL	1	1	1	1

QUANT. EACH	DESCRIPTION
1	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE
2	SPV.0060.203 CONCRETE BASES TYPE 10 SPECIAL
1	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED [CONTRACTOR SUPPLIED]
4	SPV.0060.218 EVP 1 CHANNEL 1 DIRECTION INFRARED DETECTOR
1	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL
4	SPV.0060.223 EVP CONFIRMATION LIGHT ASSEMBLY
2	SPV.0060.247 POLES, TYPE 12 SPECIAL[CONTRACTOR SUPPLIED]
8	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH
8	SPV.0060.303 FIBERGLASS/POLYMER CONCRETE PULLBOX 17"x30"x24"
6	654.0101 CONCRETE BASES TYPE 1
2	654.0110 CONCRETE BASES TYPE 10
6	657.0100 PEDESTAL BASES
2	657.0345 POLES TYPE 9
2	657.0405 TRAFFIC SIGNAL STAND. ALUMINUM 3.5'
2	657.0420 TRAFFIC SIGNAL STAND. ALUMINUM 13'
2	657.0430 TRAFFIC SIGNAL STAND. ALUMINUM 10'
2	657.0520 MONOTUBE ARM 20-FT
2	657.0535 MONOTUBE ARM 35-FT
16	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH
8	658.0412 PEDESTRIAN SIGNAL FACE, 12-INCH
6	658.0500 PEDESTRIAN PUSH BUTTONS
1	658.5069.002 TRAFFIC SIGNAL MOUNTING HARDWARE (STH 145 & W. TOWNSEND AVE.)

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	SB8	1		
2	SB4	1		
3	SB4	1		
4	SB1	1		
5	SB2	1		
6	SB1	1		
7	SB11	1		
8	SB11	1		
9	SB8	1		
10	SB10	1		
11	SB13	1		
12	SB6	1		
13	SB7	1		
14	SB6	1		
15	SB13	1		
16	SB14	1		
17	SB14		1	1
18	SB6		1	1
19	SB5		1	1
20	SB8		1	1
21	SB7		1	1
22	SB13		1	1
23	SB12		1	1
24	SB1		1	1
TOTAL		16	8	8

SIGNAL BASE NO.	657.0100 PEDESTAL BASES EACH	657.0405 TRAFFIC SIGNAL STANDARD ALUMINUM 3.5' EACH	657.0430 TRAFFIC SIGNAL STANDARD ALUMINUM 10' EACH	657.0420 TRAFFIC SIGNAL STANDARD ALUMINUM 13' EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	657.0345 POLES TYPE 9 EACH	SPV.0060.247 POLES TYPE 12 SPECIAL CONTRACTOR SUPPLIED EACH	SPV.0060.218 EVP1 CHANNEL 1 DIRECTION INFRARED DETECTOR EACH	SPV.0060.223 EVP CONFIRMATION LIGHT ASSEMBLY EACH	657.0520 MONOTUBE ARM 20-FOOT EACH	657.0535 MONOTUBE ARM 35-FOOT EACH
SB1	1			1	1						
SB3	1	1			1						
SB4							1	1	1		1
SB5	1		1		1						
SB7						1		1	1	1	
SB8	1			1	1						
SB9	1	1			1						
SB11							1	1	1		1
SB12	1		1		1						
SB14						1		1	1	1	
TOTAL	6	2	2	2	6	2	2	4	4	2	2

3

LOCATION	-	LOCATION	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF*	652.0615 CONDUIT SPECIAL 3-INCH LF*
SB2	TO	SB3	5		
SB3	TO	PB2			50
PB2	TO	SB4		5	
PB3	TO	SB5	10		
PB5	TO	SB7		10	
PB7	TO	SB9	20		
PB7	TO	SB10	5		
PB8	TO	SB11			45
PB8	TO	SB12	5		
		TOTAL	45	15	95

PULL BOX NO.	LOCATION	SPV.0060.303 FIBERGLASS/POLYMER CONCRETE PULLBOX 17"x30"x24" EACH*
1	14+39', 32' LT	1
2	15+57', 52' LT	1
3	15+66', 31' LT	1
4	16+01', 20' LT	1
5	16+41', 21' RT	1
6	16+33', 38' RT	1
7	15+57', 34' RT	1
8	14+95', 30' RT	1
	TOTAL	8

SIGNAL BASE NO.	LOCATION	654.0101 CONCRETE BASES TYPE1 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	SPV.0060.203 CONCRETE BASES TYPE 10 SPECIAL EACH
1	14+36', 30' LT	1		
3	15+03', 35' LT	1		
4	15+44', 56' LT			1
5	15+74', 31' LT	1		
7	16+47', 21' RT		1	
8	16+35', 41' RT	1		
9	15+49', 20' RT	1		
11	15+24', 59' RT			1
12	14+90', 29' RT	1		
14	14+37', 20' LT		1	
	TOTAL	6	2	2

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
1	14+39.1', 32.3' LT	1
5	15+69.3', 30.4' LT	1
7	16+47.5', 20.7' RT	1
8	16+33.0', 37.8' RT	1
12	14+95.5', 29.3' RT	1
14	14+32.3', 21.2' LT	1
	TOTAL	6

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

ITEM	DESCRIPITON	L.F
655.0250	CABLE TRAFFIC SIGNAL 9-14 AWG	550
655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	390
655.0280	CABLE TRAFFIC SIGNAL 19-14-AWG	1320
655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	740
655.0900	TRAFFIC SIGNAL EVP DETECTOR CABLE	940

LOCATION	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE EACH	SPV.0060.204 REMOVE CONTROLLER CABINET EACH	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED EACH	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL EACH
13+96', 40' LT	1	1	1	1
TOTAL	1	1	1	1

QUANT. EACH	DESCRIPTION
1	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE
2	SPV.0060.203 CONCRETE BASES TYPE 10 SPECIAL
1	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED [CONTRACTOR SUPPLIED]
3	SPV.0060.219 EVP 1 CHANNEL 2 DIRECTION INFRARED DETECTOR
1	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL
6	SPV.0060.223 EVP CONFIRMATION LIGHT ASSEMBLY
1	SPV.0060.247 POLES, TYPE 12 SPECIAL [CONTRACTOR SUPPLIED]
1	SPV.0060.249 POLES, TYPE 13 SPECIAL [CONTRACTOR SUPPLIED]
12	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH
6	SPV.0060.280 TUNNEL VISOR
2	SPV.0060.291 24"X24" BLANKOUT SIGN NO TURN
11	SPV.0060.302 FIBERGLASS/POLYMER CONCRETE PULLBOX 13"x24"x24"
4	654.0110 CONCRETE BASES TYPE 10
4	657.0350 POLES TYPE 10
1	657.0520 MONOTUBE ARM 20-FT
2	657.0525 MONOTUBE ARM 25-FT
1	657.0530 MONOTUBE ARM 30-FT
2	657.0540 MONOTUBE ARM 40-FT
19	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH
12	658.0412 PEDESTRIAN SIGNAL FACE, 12-INCH
3	658.1133 PROGRAMMABLE TRAFFIC SIGNAL FACE 3S 12-INCH
1	658.5069.003 TRAFFIC SIGNAL MOUNTING HARDWARE (STH 145 & W. BURLEIGH ST.)

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.1133 PROGAMMABLE TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	SPV.0060.280 TUNNEL VISOR EACH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	SB3		1			
2	SB10		1			
3	SB10		1			
4	SB9		1			
5	SB4		1			
6	SB4		1			
7	SB2		1			
8	SB8		1			
9	SB8		1			
10	SB7		1	3		
11	SB8		1			
12	SB7		1			
13	SB3	1				
14	SB3	1				
15	SB2		1	3		
16	SB3	1				
17	SB5		1			
18	SB11		1			
19	SB1		1			
20	SB11		1			
21	SB5		1			
22	SB6		1			
23	SB4				1	1
24	SB9				1	1
25	SB8				1	1
26	SB11				1	1
27	SB11				1	1
28	SB1				1	1
29	SB2				1	1
30	SB3				1	1
31	SB3				1	1
32	SB4				1	1
33	SB5				1	1
34	SB7				1	1
	TOTAL	3	19	6	12	12

SIGNAL BASE NO.	657.0350 POLES TYPE 10 EACH	SPV.0060.247 POLES TYPE 12 SPECIAL CONTRACTOR SUPPLIED EACH	SPV.0060.249 POLES TYPE 13 SPECIAL CONTRACTOR SUPPLIED EACH	SPV.0060.219 EVP1 CHANNEL 2 DIRECTION INFRARED DETECTOR EACH	SPV.0060.223 EVP CONFIRMATION LIGHT ASSEMBLY EACH	657.0520 MONOTUBE ARM 20-FOOT EACH	657.0525 MONOTUBE ARM 25-FOOT EACH	657.0530 MONOTUBE ARM 30-FOOT EACH	657.0540 MONOTUBE ARM 40-FOOT EACH	SPV.0060.291 24" x 24" BLANKOUT SIGN NO TURN EACH
SB1	1			1	1			1		
SB3			1	1	1				1	
SB4	1				1		1			1
SB6	1				1	1				
SB8		1		1	1				1	
SB10	1				1		1			1
TOTAL	4	1	1	3	6	1	2	1	2	2

PULL BOX NO.	LOCATION	SPV.0060.302 FIBERGLASS/ POLYMER CONCRETE PULLBOX 13"x24"x24" EACH*
1	10+82', 25' RT	1
2	10+74.4', 67.4' RT	1
3	10+47.9', 96.2' RT	1
4	10+23.2', 127.3' RT	1
5	9+75', 99' RT	1
6	9+39', 36' RT	1
7	8+65', 27' LT	1
8	8+68', 44' LT	1
9	9+48', 80' LT	1
10	10+25', 45' LT	1
11	10+66', 27' LT	1
	TOTAL	11

LOCATION	-	LOCATION	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF*	652.0615 CONDUIT SPECIAL 3-INCH LF*
CB1	TO	PB1	5	
PB1	TO	SB1	15	
PB5	TO	SB4	5	
PB7	TO	SB6		15
PB9	TO	SB8	5	
PB10	TO	SB10	5	
		TOTAL	35	15

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
5	9+26.3', 27.5' RT	1
	TOTAL	1

SIGNAL BASE NO.	LOCATION	654.0110 CONCRETE BASES TYPE 10 EACH	SPV.0060.203 CONCRETE BASES TYPE 10 SPECIAL EACH
1	10+71.5', 32.0' RT	1	
3	10+24.0', 132.4' RT		1
4	9+74.1', 103.6' RT	1	
6	8+52.0', 27.4' LT	1	
8	9+45.2', 84.6' LT		1
10	10+25.5', 51.9' LT	1	
	TOTAL	4	2

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

ITEM	DESCRIPITON	L.F
655.0280	CABLE TRAFFIC SIGNAL 19-14 AWG	750
655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	2000
655.0900	TRAFFIC SIGNAL EVP DETECTOR CABLE	80
655.0320	CABLE TYPE UF 2-10 AWG GROUNDED	60

LOCATION	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE EACH	SPV.0060.204 REMOVE CONTROLLER CABINET EACH	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED EACH	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL EACH
10+81', 32' RT	1	1	1	1
TOTAL	1	1	1	1

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

3

QUANT. EACH	DESCRIPTION
1	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE
1	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED [CONTRACTOR SUPPLIED]
7	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH
2	SPV.0060.291 24"X24" BLANKOUT SIGN NO TURN
11	SPV.0060.303 FIBERGLASS/POLYMER CONCRETE PULLBOX 17"x30"x24"
3	654.0101 CONCRETE BASES TYPE 1
4	654.0110 CONCRETE BASES TYPE 10
3	657.0100 PEDESTAL BASES
3	657.0345 POLES TYPE 9
1	657.0350 POLES TYPE 10
1	657.0420 TRAFFIC SIGNAL STAND. ALUMINUM 13'
2	657.0425 TRAFFIC SIGNAL STAND. ALUMINUM 15'
3	657.0525 MONOTUBE ARM 25-FT
1	657.0530 MONOTUBE ARM 30-FT
9	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH
2	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH
7	658.0412 PEDESTRIAN SIGNAL FACE, 12-INCH
3	658.1133 PROGRAMMABLE TRAFFIC SIGNAL FACE 3S 12-INCH
1	658.5069.004 TRAFFIC SIGNAL MOUNTING HARDWARE (STH 145 & W. CENTER ST.)

3

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.1133 PROGAMMABLE TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	SB1	1				
2	SB6		1			
3	SB6		1			
4	SB5			1		
5	SB6			1		
6	SB5		1			
7	SB1		1			
8	SB2		1			
9	SB2		1			
10	SB3		1			
11	SB9		1			
12	SB9		1			
14	SB4	1				
15	SB4	1				
16	SB4				1	1
18	SB7				1	1
19	SB1				1	1
20	SB9				1	1
21	SB3				1	1
22	SB2				1	1
23	SB5				1	1
	TOTAL	3	9	2	7	7

SIGNAL BASE NO.	657.0100 PEDESTAL BASES EACH	657.0420 TRAFFIC SIGNAL STANDARD ALUMINUM 13' EACH	657.0425 TRAFFIC SIGNAL STANDARD ALUMINUM 15' EACH	657.0345 POLES TYPE 9 EACH	657.0350 POLES TYPE 10 EACH	657.0525 MONOTUBE ARM 25-FOOT EACH	657.0530 MONOTUBE ARM 30-FOOT EACH	SPV.0060.291 24" x 24" BLANKOUT SIGN NO TURN EACH
SB1	1	1						1
SB2					1	1		1
SB3	1		1					
SB4				1		1		
SB5	1		1					
SB6				1			1	
SB9				1		1		
TOTAL	3	1	2	3	1	3	1	2

LOCATION	-	LOCATION	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF*	652.0615 CONDUIT SPECIAL 3-INCH LF*
CB1	TO	PB1			25
PB1	TO	SB1	15		
PB1	TO	PB2			80
PB2	TO	SB2		5	
PB5	TO	SB4		5	
PB5	TO	PB6			15
PB6	TO	SB5	10		
PB6	TO	PB7			55
PB7	TO	SB6		5	
PB7	TO	SB7			25
PB9	TO	SB8	5		
PB9	TO	PB10			70
PB10	TO	PB11			65
PB11	TO	SB9		10	
PB11	TO	CB1			10
		TOTAL	30	25	345

PULL BOX NO.	LOCATION	SPV.0060.303 FIBERGLASS/POLYMER CONCRETE PULLBOX 17"x30"x24" EACH*
1	9+19.3', 50.3' RT	1
2	8+45.0', 59.8' RT	1
3	8+13.5', 31.3' RT	1
4	7+92.0', 31.0' RT	1
5	7+50.8', 28.1' LT	1
6	7+57.2', 39.3' LT	1
7	8+09.7', 59.5' LT	1
8	8+30.6', 38.2' LT	1
9	8+59.1', 27.6' LT	1
10	9+29.9', 27.6' LT	1
11	9+30.7', 35.2' RT	1
	TOTAL	11

SIGNAL BASE NO.	LOCATION	654.0101 CONCRETE BASES TYPE1 EACH	654.0110 CONCRETE BASES TYPE 10 EACH
1	9+11.3', 42.6' RT	1	
2	8+47.4', 62.9' RT		1
3	7+99.5', 31.5' RT	1	
4	7+47.5', 28.0' LT		1
5	7+53.9', 45.3' LT	1	
6	8+06.8', 63.0' LT		1
9	9+24.7', 27.2' RT		1
	TOTAL	3	4

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

ITEM	DESCRIPITON	L.F
655.0250	CABLE TRAFFIC SIGNAL 9-14 AWG	365
655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	365
655.0280	CABLE TRAFFIC SIGNAL 19-14-AWG	335
655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	600

LOCATION	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE EACH	SPV.0060.204 REMOVE CONTROLLER CABINET EACH	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED EACH
9+43', 40' RT	1	1	1
TOTAL	1	1	1

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
1	9+11.3', 42.6' RT	1
3	7+99.5', 31.5' RT	1
4	7+46.4', 27.6' LT	1
5	7+53.9', 45.3' LT	1
9	9+17.2', 27.0' RT	1
	TOTAL	5

3

QUANT. EACH	DESCRIPTION
1	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE
1	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED [CONTRACTOR SUPPLIED]
7	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH
2	SPV.0060.277 SIGNAL HOUSING RELOCATED
10	SPV.0060.303 FIBERGLASS/POLYMER CONCRETE PULLBOX 17"x30"x24"
2	654.0101 CONCRETE BASES TYPE 1
3	654.0110 CONCRETE BASES TYPE 10
3	657.0350 POLES TYPE 10
2	657.0100 PEDESTAL BASES
2	657.0420 TRAFFIC SIGNAL STAND. ALUMINUM 13'
4	657.0525 MONOTUBE ARM 25-FT
4	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH
7	658.0412 PEDESTRIAN SIGNAL FACE, 12-INCH
4	658.1133 PROGRAMMABLE TRAFFIC SIGNAL FACE 3S 12-INCH
1	658.5069.005 TRAFFIC SIGNAL MOUNTING HARDWARE (STH 145 & N 27TH ST.)

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.1133 PROGAMMABLE TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	SPV.0060.277 SIGNAL HOUSING RELOCATED 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	SB6	1				
6	SB6	1				
8	SB4	1				
9	SB4	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
19	SB6				1	1
20	SB1				1	1
	TOTAL	4	4	2	7	7

SIGNAL BASE NO.	657.0100 PEDESTAL BASES EACH	657.0420 TRAFFIC SIGNAL STANDARD ALUMINUM 13' EACH	657.0345 POLES TYPE 9 EACH	657.0350 POLES TYPE 10 EACH	657.0525 MONOTUBE ARM 25-FOOT EACH
SB1	1	1			
SB2			1		1
SB4				1	1
SB5	1	1			
SB6				1	1
SB8				1	1
TOTAL	2	2	1	3	4

LOCATION	-	LOCATION	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF*	652.0615 CONDUIT SPECIAL 3-INCH LF*
CB1	TO	PB1		5	
PB2	TO	PB10		15	
PB10	TO	SB8		5	
PB2	TO	PB3			70
PB3	TO	SB2			45
SB2	TO	PB4			30
SB3	TO	PB5	10		
PB5	TO	PB6			80
PB6	TO	SB4		5	
PB7	TO	SB5	5		
PB7	TO	PB8			65
PB8	TO	SB6		5	
PB9	TO	SB7	10		
PB9	TO	PB10			100
		TOTAL	25	35	390

PULL BOX NO.	LOCATION	SPV.0060.303 FIBERGLASS/POLYMER CONCRETE PULLBOX 17"x30"x24" EACH*
1	99+54.2', 36.2' LT	1
2	99+25.8', 36.1' LT	1
3	99+21.8', 28.8' RT	1
4	98+48.9', 28.5' RT	1
5	98+08.8', 43.9' RT	1
6	97+32.3', 46.4' RT	1
7	97+29.5', 28.8'RT	1
8	97+61.3', 26.2' LT	1
9	98+14.3', 36.9' LT	1
10	99+11.0', 44.0' LT	1
	TOTAL	10

SIGNAL BASE NO.	LOCATION	654.0101 CONCRETE BASES TYPE1 EACH	654.0110 CONCRETE BASES TYPE 10 EACH
1	99+15.1', 26.6' LT	1	
2	98+77.3', 29.0' RT		1
4	97+29.0', 48.4' RT		1
5	97+26.3', 29.0' RT	1	
6	97+56.5', 26.9' LT		1
8	99+14.3', 46.1' LT		1
	TOTAL	2	4

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

ITEM	DESCRIPITON	L.F
655.0250	CABLE TRAFFIC SIGNAL 9-14 AWG	800
655.0280	CABLE TRAFFIC SIGNAL 19-14-AWG	915
655.0320	CABLE TYPE UF 2-10 AWG GROUNDED	170
655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	635

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
1	99+15.1', 26.6' LT	1
5	97+26.3', 29.0' RT	1
6	97+61.3', 26.2' LT	1
	TOTAL	3

LOCATION	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE EACH	SPV.0060.204 REMOVE CONTROLLER CABINET EACH	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED EACH
99+55', 41' LT	1	1	1
TOTAL	1	1	1

3

QUANT. EACH	DESCRIPTION
1	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE
1	SPV.0060.203 CONCRETE BASES TYPE 10 SPECIAL
1	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED [CONTRACTOR SUPPLIED]
4	SPV.0060.218 EVP 1 CHANNEL 1 DIRECTION INFRARED DETECTOR
1	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL
4	SPV.0060.223 EVP CONFIRMATION LIGHT ASSEMBLY
3	SPV.0060.224 VEHICULAR VIDEO DETECTION SYSTEM
1	SPV.0060.249 POLES, TYPE 13 SPECIAL[CONTRACTOR SUPPLIED]
8	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH
14	SPV.0060.303 FIBERGLASS/POLYMER CONCRETE PULLBOX 17"x30"x24"
9	654.0101 CONCRETE BASES TYPE 1
2	654.0110 CONCRETE BASES TYPE 10
1	654.0113 CONCRETE BASES TYPE 13
9	657.0100 PEDESTAL BASES
2	657.0350 POLES TYPE 10
1	657.0360 POLES TYPE 13
1	657.0405 TRAFFIC SIGNAL STAND. ALUMINUM 3.5'
3	657.0420 TRAFFIC SIGNAL STAND. ALUMINUM 13'
2	657.0425 TRAFFIC SIGNAL STAND. ALUMINUM 15'
3	657.0430 TRAFFIC SIGNAL STAND. ALUMINUM 10'
2	657.0525 MONOTUBE ARM 25-FT
1	657.0540 MONOTUBE ARM 40-FT
1	657.0555 MONOTUBE ARM 55-FT
18	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH
2	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH
8	658.0412 PEDESTRIAN SIGNAL FACE, 12-INCH
10	658.0500 PEDESTRIAN PUSH BUTTONS
1	658.5069.006 TRAFFIC SIGNAL MOUNTING HARDWARE (STH 145 & W. WALNUT ST.)

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	SB4	1			
2	SB12	1			
3	SB12	1			
4	SB11	1			
5	SB12	1			
6	SB11	1			
7	SB5	1			
8	SB5	1			
9	SB5	1			
10	SB5	1			
11	SB7	1			
12	SB2	1			
13	SB2	1			
14	SB15	1			
15	SB1	1			
16	SB15	1			
17	SB9	1			
18	SB9	1			
19	SB7		1		
20	SB8		1		
21	SB10			1	1
22	SB15			1	1
23	SB13			1	1
24	SB4			1	1
25	SB3			1	1
26	SB6			1	1
27	SB6			1	1
28	SB11			1	1
	TOTAL	18	2	8	8

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

ITEM	DESCRIPITON	L.F
655.0250	CABLE TRAFFIC SIGNAL 9-14 AWG	580
655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	645
655.0280	CABLE TRAFFIC SIGNAL 19-14-AWG	1375
655.0900	TRAFFIC SIGNAL EVP DETECTOR CABLE	985
655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	1160

LOCATION	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE EACH	SPV.0060.204 REMOVE CONTROLLER CABINET EACH	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED EACH	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL EACH
8+59', 94' LT	1	1	1	1
TOTAL	1	1	1	1

TRAFFIC SIGNALS W. FOND DU LAC AVE. (STH 145) & W. WALNUT ST.

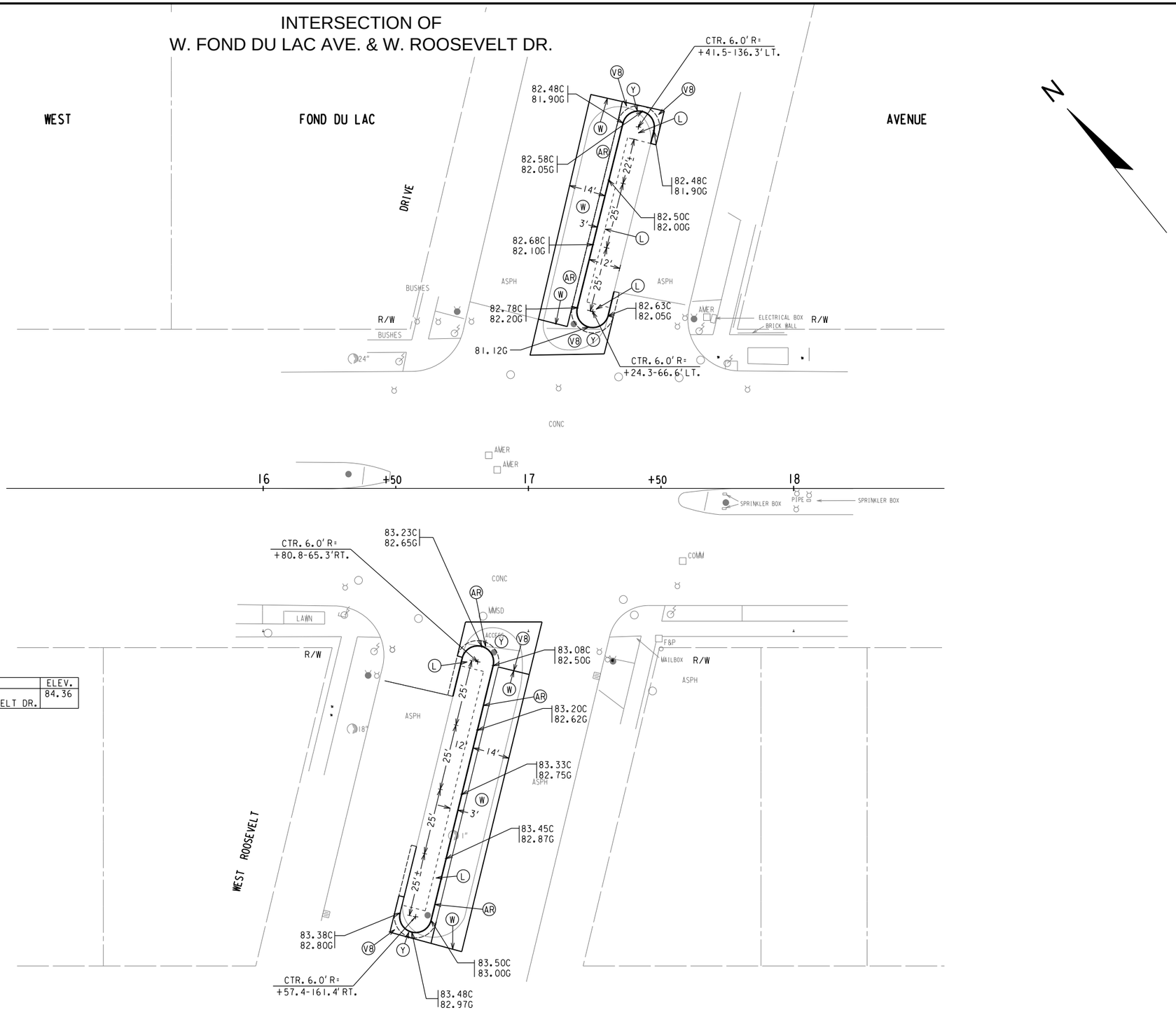
SIGNAL BASE NO.	657.0100 PEDESTAL BASES EACH	657.0405 TRAFFIC SIGNAL STANDARD ALUMINUM 3.5' EACH	657.0430 TRAFFIC SIGNAL STANDARD ALUMINUM 10' EACH	657.0420 TRAFFIC SIGNAL STANDARD ALUMINUM 13' EACH	657.0425 TRAFFIC SIGNAL STANDARD ALUMINUM 15' EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	657.0350 POLES TYPE 10 EACH	SPV.0060.249 POLES TYPE 13 SPECIAL CONTRACTOR SUPPLIED EACH	657.0360 POLES TYPE 13 EACH	SPV.0060.218 EVP1 CHANNEL 1 DIRECTION INFRARED DETECTOR EACH	SPV.0060.223 EVP CONFIRMATION LIGHT ASSEMBLY EACH	657.0525 MONOTUBE ARM 25-FOOT EACH	657.0540 MONOTUBE ARM 40-FOOT EACH	657.0555 MONOTUBE ARM 55-FOOT EACH	SPV.0060.224 VEHICULAR VIDEO DETECTION SYSTEM EACH
SB1	1			1		1									
SB2							1			1	1	1			
SB3	1		1			1									
SB4						1									
SB5								1		1	1			1	1
SB6	1			1		1									
SB7	1				1	1									
SB8	1				1	1									
SB9							1			1	1	1			1
SB10	1		1			1									
SB11						1									
SB12									1	1	1		1		1
SB13	1		1			1									
SB14	1	1				1									
SB15	1			1											
TOTAL	9	1	3	3	2	10	2	1	1	4	4	2	1	1	3

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
4	8+73.6', 41.2' RT	1
6	7+67.2', 56.4' RT	1
7	7+43.9', 40.0' RT	1
7	7+29.8', 37.6' RT	1
10	6+32.8', 64.3' LT	1
10	6+43.4', 67.5' LT	1
11	7+32.5', 89.7' LT	1
11	7+35.4', 85.7' LT	1
12	8+02.0', 70.0' LT	1
	TOTAL	9

PULL BOX NO.	LOCATION	SPV.0060.303 FIBERGLASS/POLYMER CONCRETE PULLBOX 17"x30"x24" EACH*
2	8+56.8', 30.4' LT	1
3	8+69.5', 32.8' RT	1
4	9+18.6', 49.3' RT	1
5	8+30.9', 60.9' RT	1
6	7+78.9', 71.2' RT	1
7	7+55.3', 50.2' RT	1
8	7+37.8', 39.5' RT	1
9	6+64.3', 41.9' RT	1
10	6+61.4', 23.2' LT	1
11	6+60.6', 82.8' LT	1
12	6+31.2', 90.8' LT	1
13	7+28.9', 95.3' LT	1
14	7+73.6', 98.0' LT	1
15	8+15.8', 102.5' LT	1
	TOTAL	14

SIGNAL BASE NO.	LOCATION	654.0101 CONCRETE BASES TYPE1 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	SPV.0060.203 CONCRETE BASES TYPE 10 SPECIAL EACH
1	8+33.4', 29.3' LT	1			
2	8+66.0', 8.4' LT		1		
3	8+85.0', 35.0' RT	1			
5	7+84.2', 80.0' RT			1	
6	7+54.6', 46.2' RT	1			
7	7+35.0', 37.5' RT	1			
8	7+18.6', 4.2' LT	1			
9	6+66.6', 23.4' LT		1		
10	6+53.0', 69.9' LT	1			
12	7+66.0', 103.5' LT				1
13	7+85.7', 81.5' LT	1			
14	7+95.7', 77.8' RT	1			
15	8+03.7', 70.0' LT	1			
	TOTAL	9	2	1	1

INTERSECTION OF
W. FOND DU LAC AVE. & W. ROOSEVELT DR.



BENCH MARK		
STA.	DESCRIPTION	ELEV.
16+39, 70' RT	HYDRANT AT SOUTHWEST CORNER OF W. FOND DU LAC AVE. AND W. ROOSEVELT DR.	84.36

(AR) CONST. CONC. CURB & GUTTER 31-INCH REINF.
(L) GRADE & PLACE 4" TOPSOIL, SOD
(N) CONST. CONC. SIDEWALK - 5-INCH
(V) CONST. CONC. PAVEMENT
(V8) CONST. 8" CONC. PAVEMENT
(W) CONST. 3" ASPH. ON 6" CONCRETE BASE
(Y) CONSTRUCT SNOWPLOWABLE MEDIAN ISLAND NOSE

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 107	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\ROOSEVELT 16-18.DGN

REVISED DATE: 09-24-2018 BY SB

INTERSECTION OF W. FOND DU LAC AVE. & W. WALNUT ST.

BENCH MARK		
STA.	DESCRIPTION	ELEV.
06+20, 66'LT	HYDRANT AT NORTHWEST CORNER OF W. WALNUT ST. AND W. FOND DU LAC AVE.	101.38

SEE CURB RAMP DETAILS FOR ADDITIONAL RAMP GRADES AND INFORMATION

W. FOND DU LAC

DETAIL "A"

N

R/W

SECTION LINE

TRANSIT LINE IS 203.97 FEET SOUTH OF SECTION LINE.

NOTE: RADIUS INFORMATION FOR W. WALNUT ST. INTERSECTION SHOWN ON PLAN DETAIL

W. WALNUT

STREET

AVE.

NORTH 13TH STREET

SEE DETAIL "A"

SEE DETAIL "B"

SEE DETAIL "C"

SLOPE INTERCEPT (TYP.)

SEE CURB RAMP DETAILS FOR ADDITIONAL RAMP GRADES AND INFORMATION

BENCH MARK		
STA.	DESCRIPTION	ELEV.
07+26, 37'RT	HYDRANT AT THE SOUTHWEST CORNER OF N. 14TH ST. AND W. WALNUT ST.	102.57

DETAIL "B"

DETAIL "C"

- (1) CONST. CURB RAMP TYPE 1
- (2) CONST. CURB RAMP TYPE 2
- (3) CONST. CURB RAMP TYPE 3
- (2M) CONST. CURB RAMP TYPE 2 MOD
- (5) CONST. CURB RAMP TYPE 5
- (6M) CONST. CURB RAMP TYPE 6 MOD
- (7M) CONST. CURB RAMP TYPE 7 MOD
- (AH) CONST. CONC. CURB & GUTTER 31-INCH (HIGH SIDE)
- (AR) CONST. CONC. CURB & GUTTER 31-INCH REINF.
- (L) GRADE & PLACE 4" TOPSOIL, SOD
- (N) CONST. CONC. SIDEWALK - 5-INCH
- (PC) CONST. PEDESTRIAN CURB
- (SC) SAW CONCRETE
- (Y) CONSTRUCT SNOWPLOWABLE MEDIAN ISLAND NOSE
- (V) CONST. CONC. PAVEMENT WITH INTEGRAL CURB
- (V8) CONST. 8" CONC. PAVEMENT
- DETECTABLE WARNING FIELD

STATE PROJECT NUMBER 1360-00-76	HWY: STH 145	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 108 E

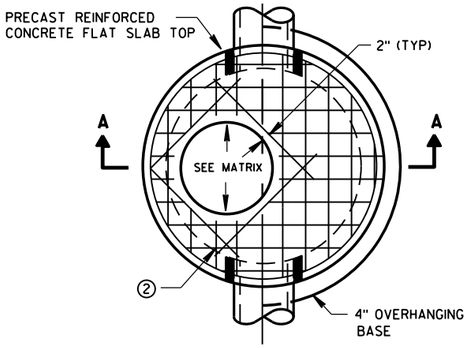
FILE NAME: W:\SPR\MONOTUBE PROJECTS\FOND DU LAC-6_1360-00-06\WALNUT 06-10.DGN

REVISED DATE: 9-24-2018 SB

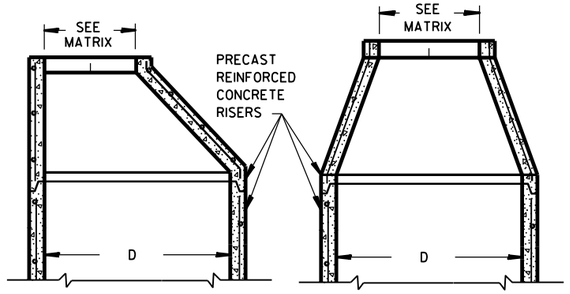
Standard Detail Drawing List

08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-19A	CURB RAMPS TYPES 1 AND 1-A
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19C	CURB RAMPS TYPES 4A AND 4A1
08D05-19D	CURB RAMPS TYPE 4B AND 4B1
08D05-19E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-19F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-19G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08D18-02	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-02	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C11-10	CONCRETE BASE TYPE 10
09E08-08A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-08B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-08D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
11B02-02	CONCRETE MEDIAN NOSE
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C04-17	URBAN NON-DOWELED CONCRETE PAVEMENT
13C18-06A	CONCRETE PAVEMENT JOINTING
13C18-06B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-06C	CONCRETE PAVEMENT JOINT TYPES
13C18-06D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-14C	PAVEMENT MARKING ARROWS
15C07-14E	PAVEMENT MARKING FOR BIKE LANES
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C20-02	YIELD MARKING
15C29-06A	BICYCLE LANE MARKING
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-06A	TRAFFIC CONTROL, LANE CLOSURE
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-06	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-04A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-04B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-04C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

6

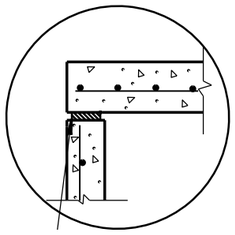


PLAN VIEW CIRCULAR OPENING

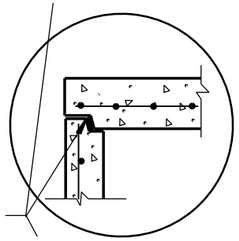


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

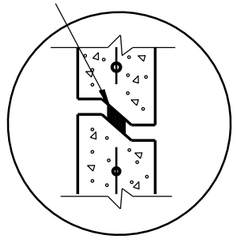


TOP WITH PLAIN END JOINT



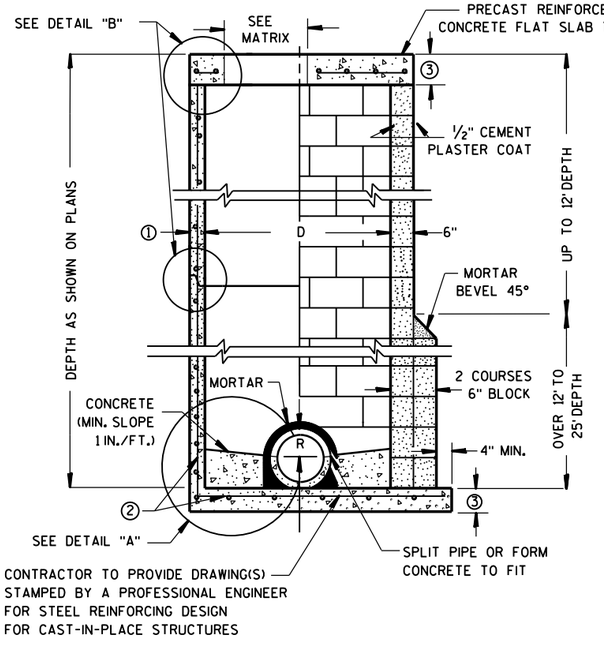
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



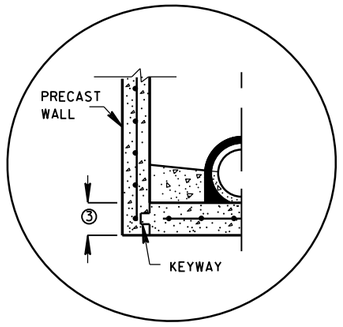
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

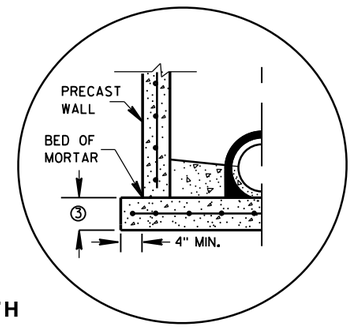


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

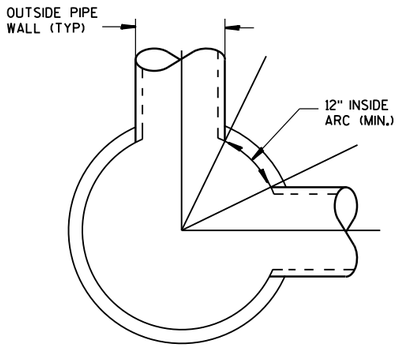


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

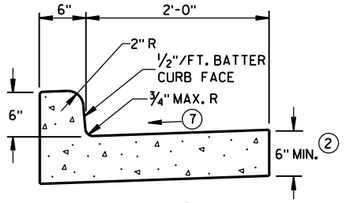
APPROVED

Sept., 2016
DATE

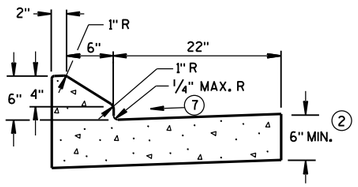
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV

FHWA

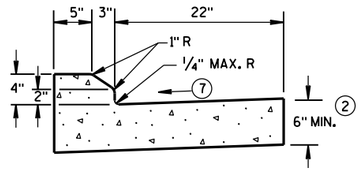
6
S.D.D. 8 B 9-2



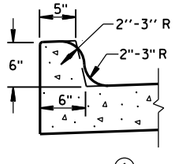
TYPES A (1) & D



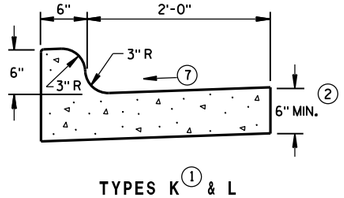
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

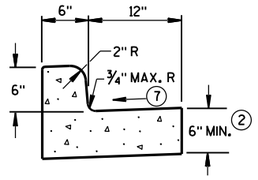


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



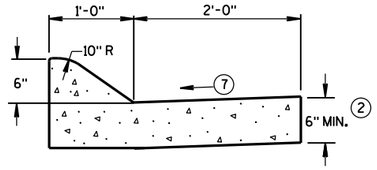
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

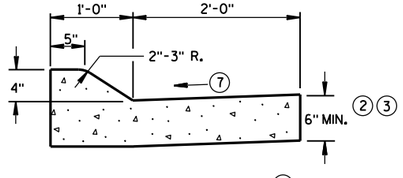


TYPES A (1) & D

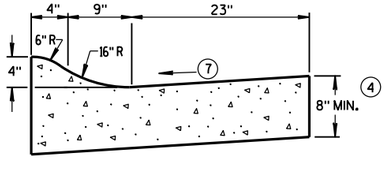
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

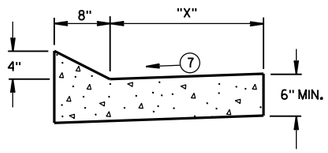


4" SLOPED CURB TYPES A (1) & D



4" SLOPED CURB TYPES R (1) & T (5)

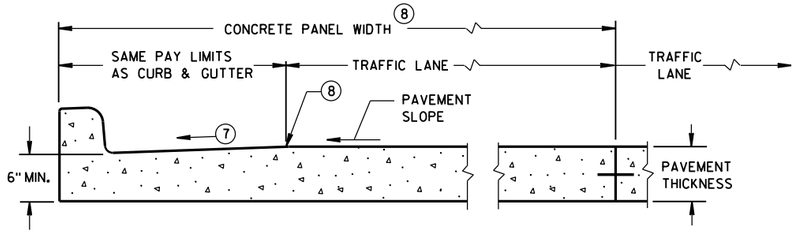
CONCRETE CURB & GUTTER 36"



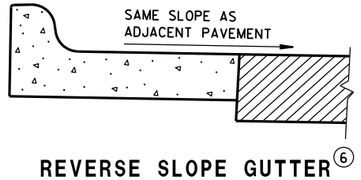
TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB & GUTTER



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

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

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'

* BIKE LANE IS NOT SHOWN.

CONCRETE CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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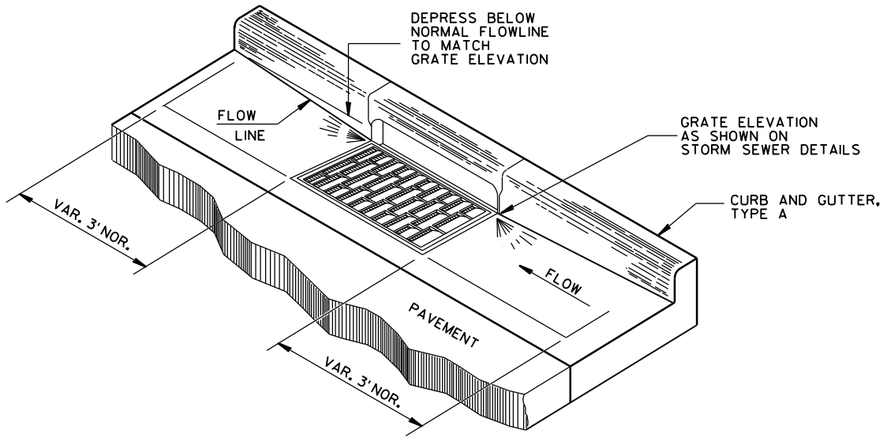
S.D.D. 8 D 1-20a



DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

GENERAL NOTES

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

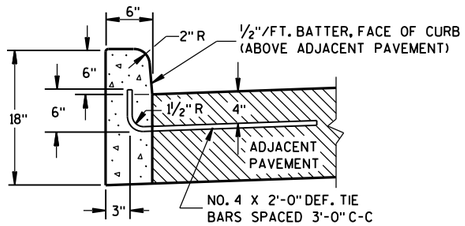
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

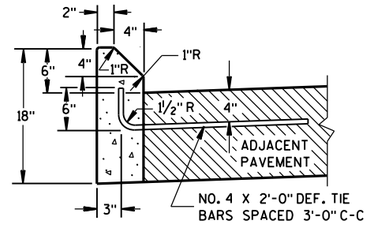
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(9) REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

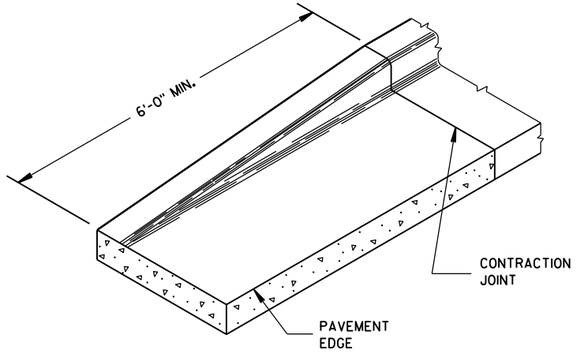


TYPES A(1) & D

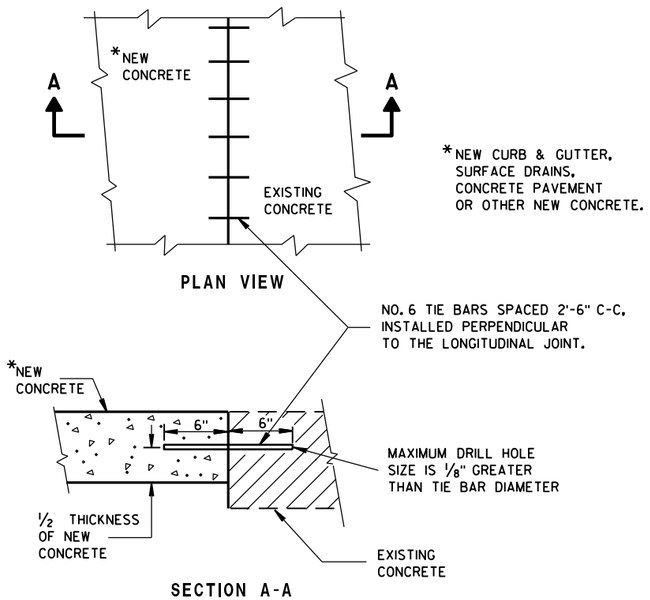


TYPES G(1) & J

CONCRETE CURB



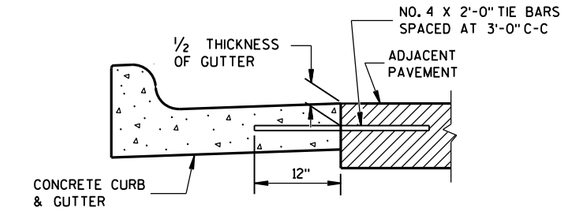
END SECTION CURB & GUTTER



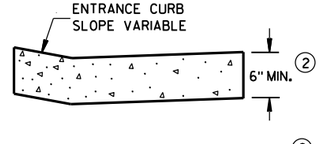
PLAN VIEW

SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

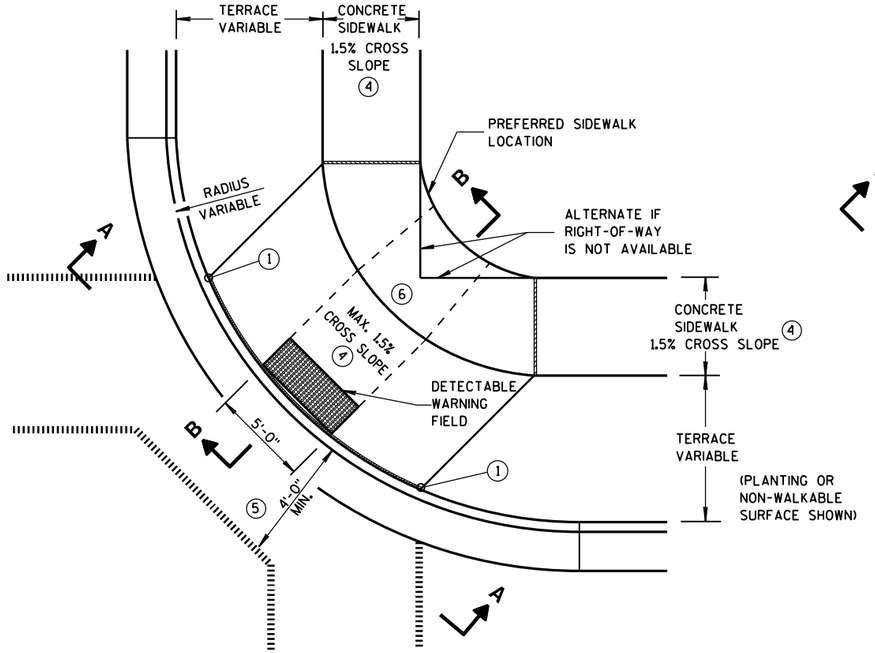
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2017 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6

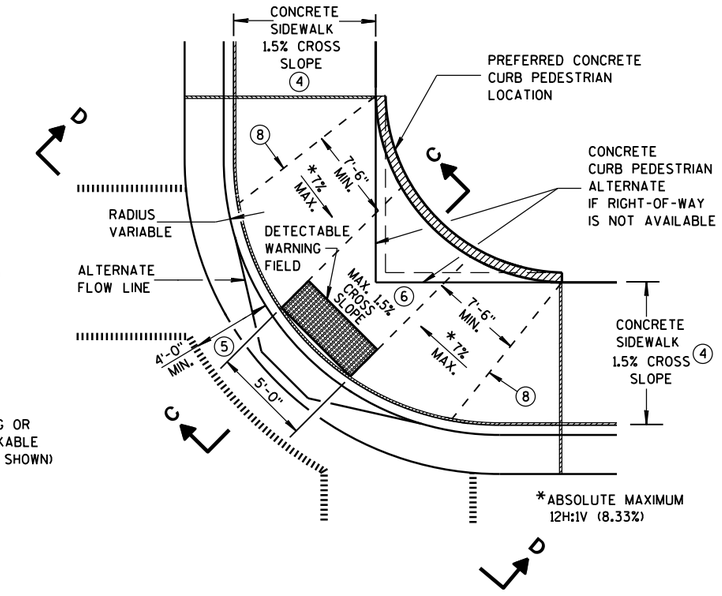
S.D.D. 8 D 1-20b



PLAN VIEW

TYPE 1 RAMP

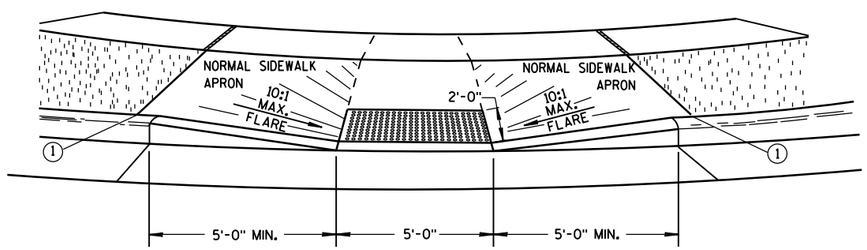
(CENTER OF CORNER RADIUS)



PLAN VIEW

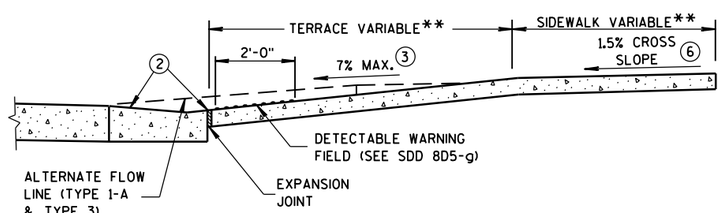
TYPE 1-A RAMP

(NO TERRACE)

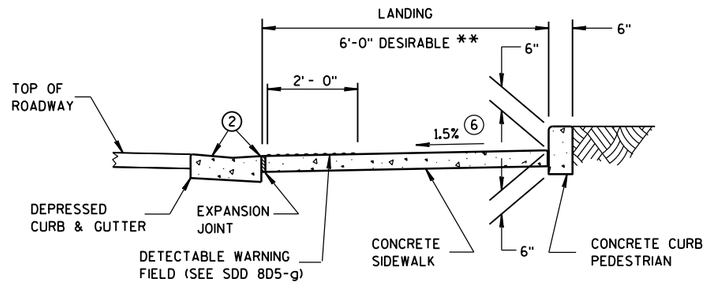


VIEW A-A

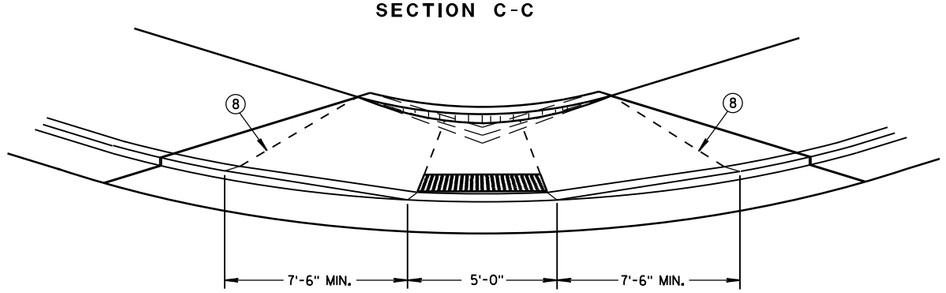
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

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 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD 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 LINEAL 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 1/4-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) ABSOLUTE MAXIMUM 12H:1V (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 LANDING SIZE IS 5 FEET X 5 FEET.

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

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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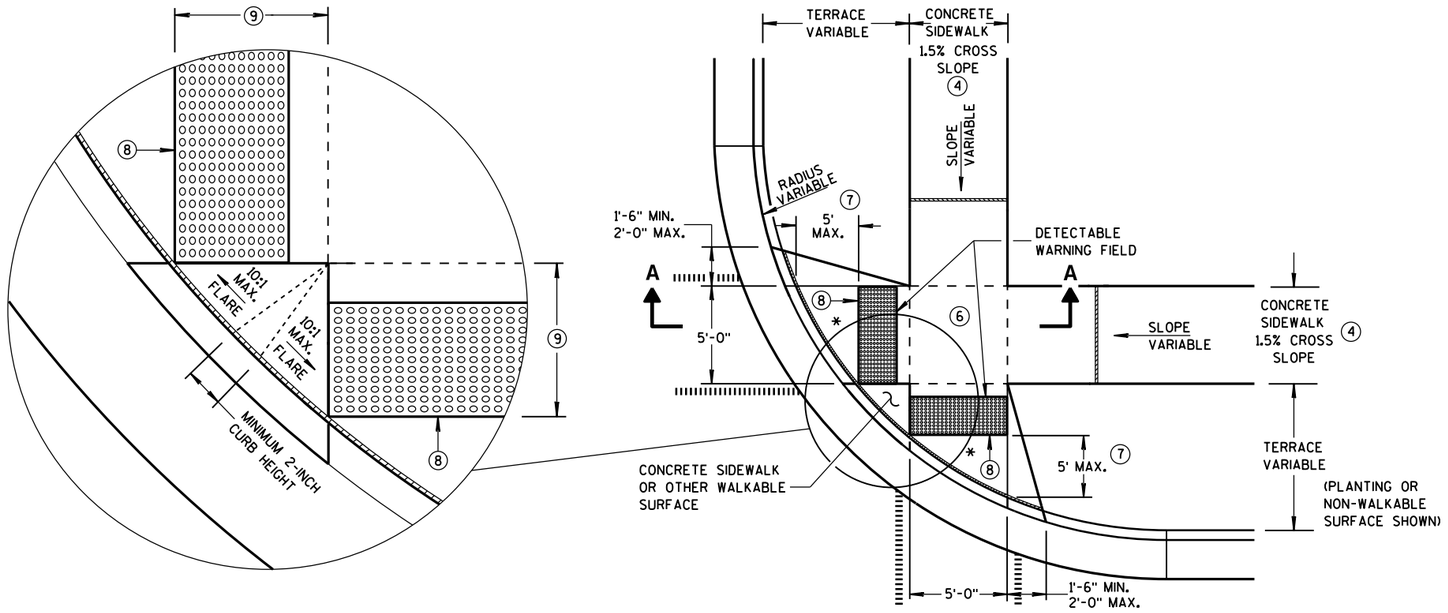
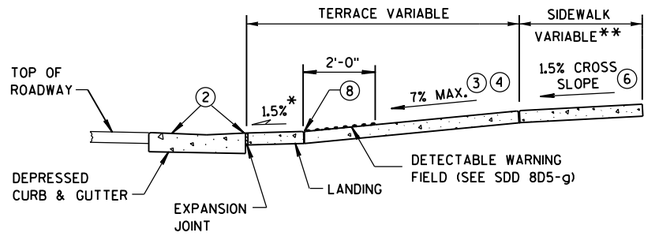


PLAN VIEW

TYPE 2 RAMP

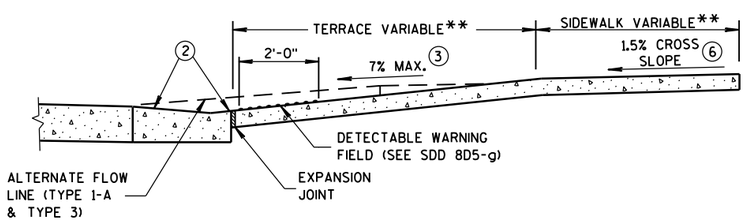
(ON LINE WITH SIDEWALK)

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

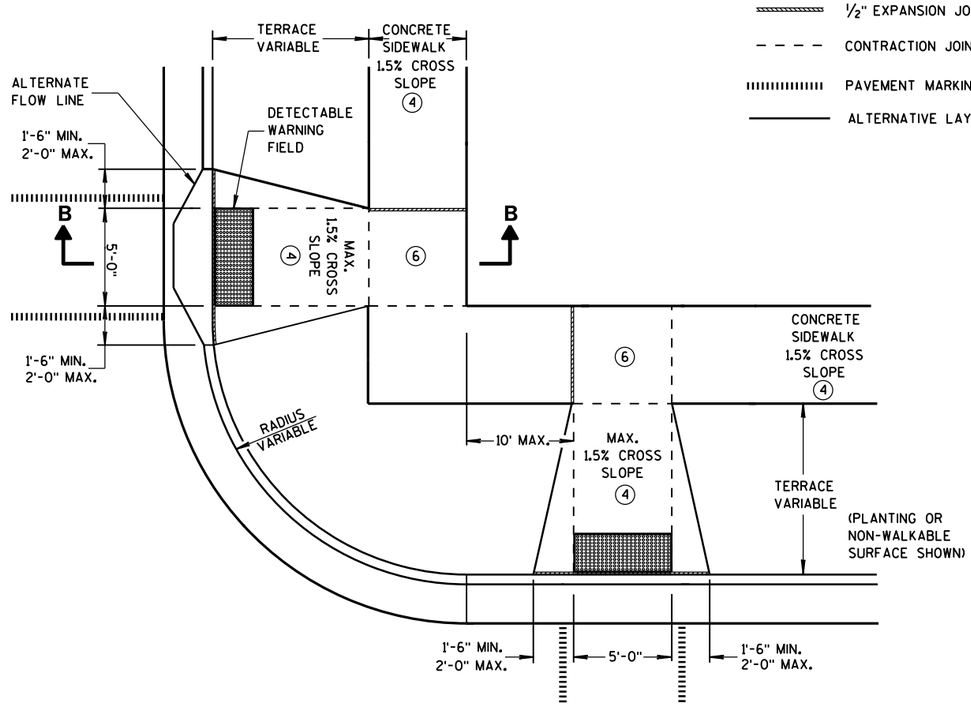


SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



PLAN VIEW

TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

GENERAL NOTES

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

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 1/4-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) ABSOLUTE MAXIMUM 12H:1V (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 X 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.

(9) WHEN THIS 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.

LEGEND

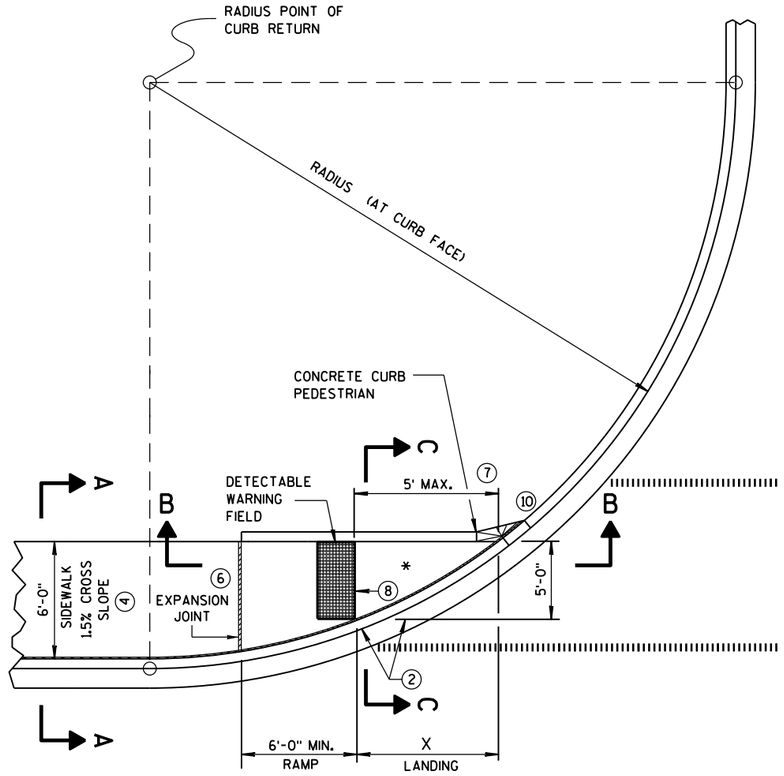
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

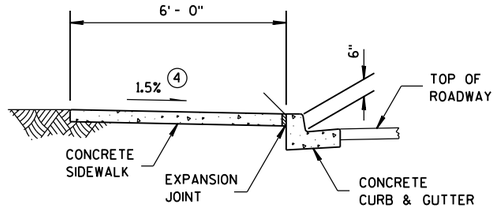
S.D.D. 8 D 5-19b



CURB RAMP TYPE 4A
PLAN VIEW

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.

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) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

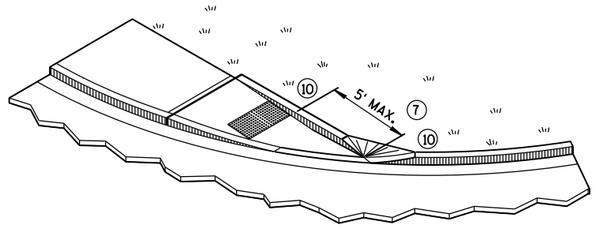
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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

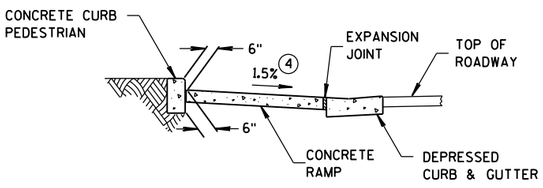
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

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

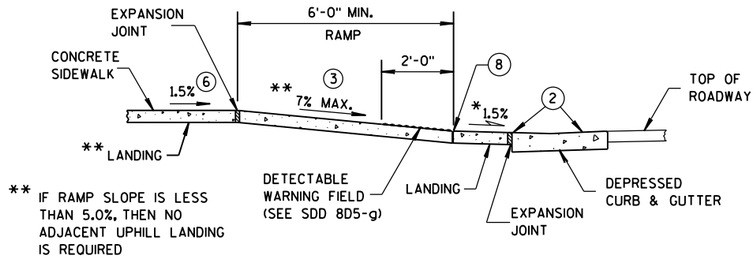
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



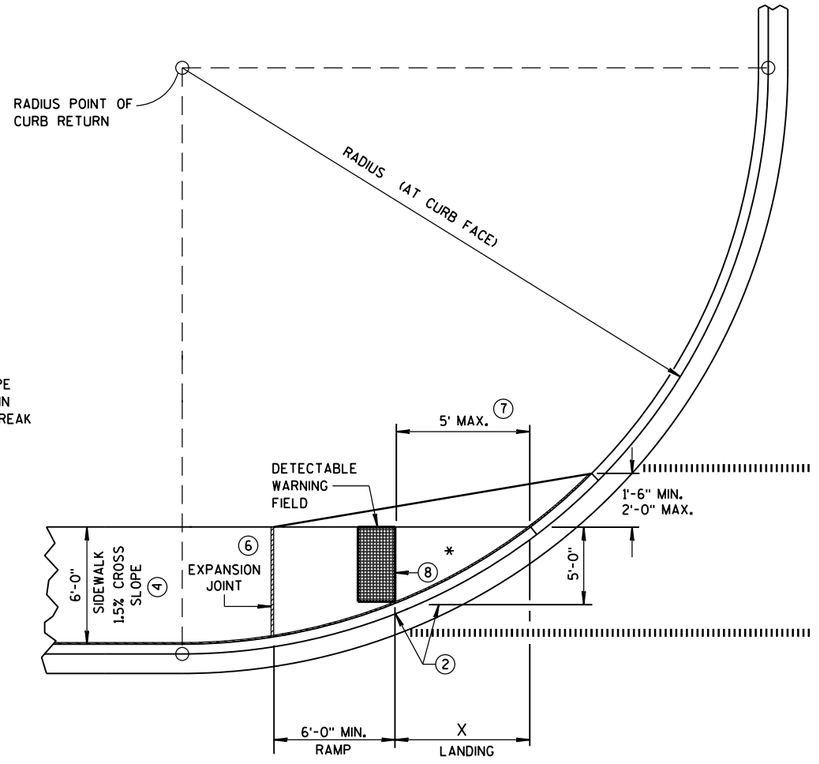
SECTION C-C FOR TYPE 4A



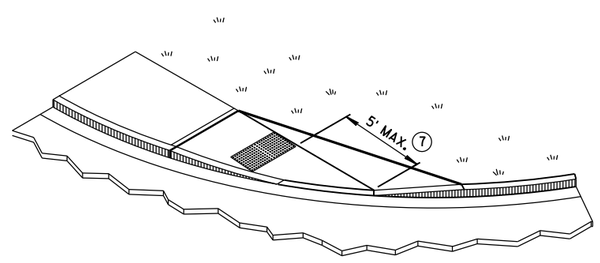
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4A

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



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

½" EXPANSION JOINT-SIDEWALK

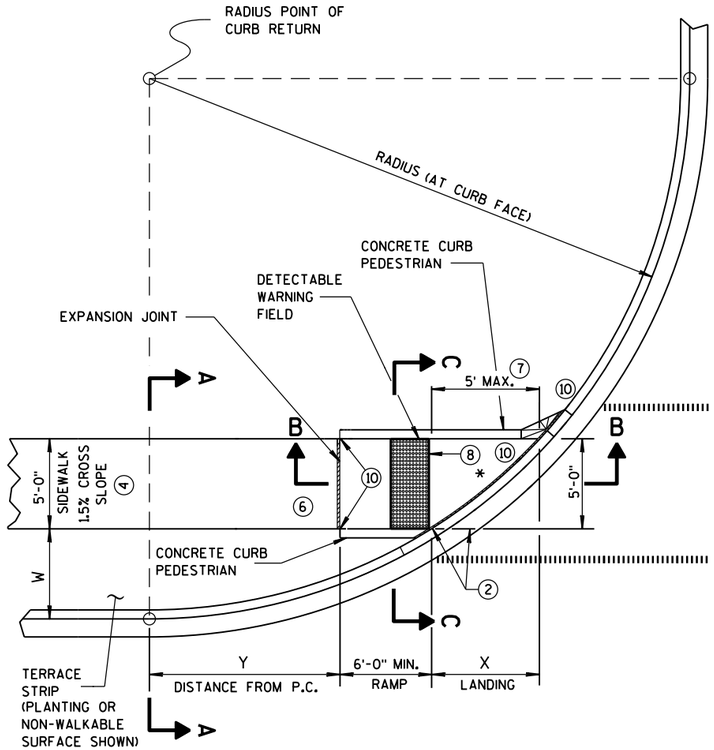
CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

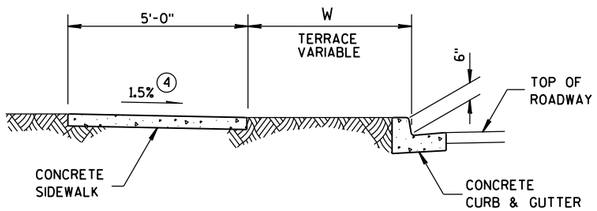
CURB RAMPS
TYPES 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

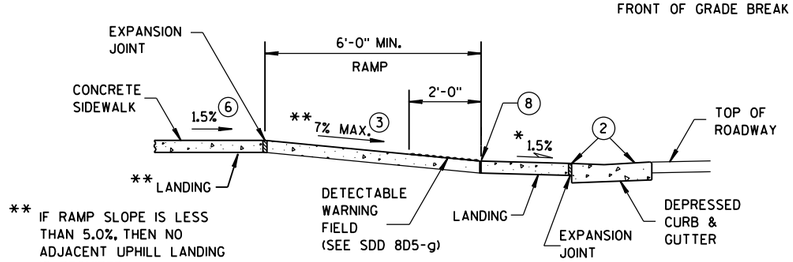
6
S.D.D. 8 D 5-19c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



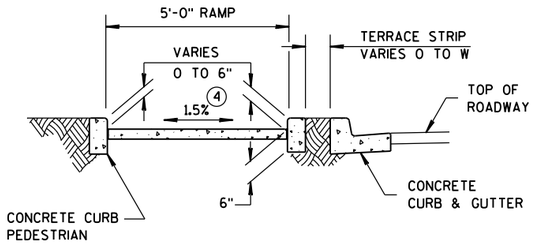
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

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

SECTION B-B FOR 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'-10¼"	0'-5"	2'-1"	1'-4½"	1'-5"	2'-1"	0'-10"	2'-7½"	0'-3¼"	3'-0¼"						
15 FEET	4'-6¾"	2'-1¾"	3'-9"	3'-5¼"	3'-1¼"	4'-6"	2'-6¾"	5'-4½"	2'-1"	6'-1"	1'-8"	6'-8½"	1'-3¼"	7'-2½"	0'-10¾"	7'-7¼"
20 FEET	5'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-7"	3'-3"	8'-6½"	2'-10"	9'-4½"	2'-5½"	10'-1¼"	2'-1¼"	10'-9"
30 FEET			6'-9¼"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"	4'-5½"	13'-7¾"	4'-0¾"	14'-8½"	3'-8½"	15'-8¼"
40 FEET									6'-1¾"	15'-8½"	5'-8"	17'-2"	5'-3"	18'-5¾"	4'-10¾"	19'-8¼"
50 FEET															5'-10¼"	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

GENERAL NOTES

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

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) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

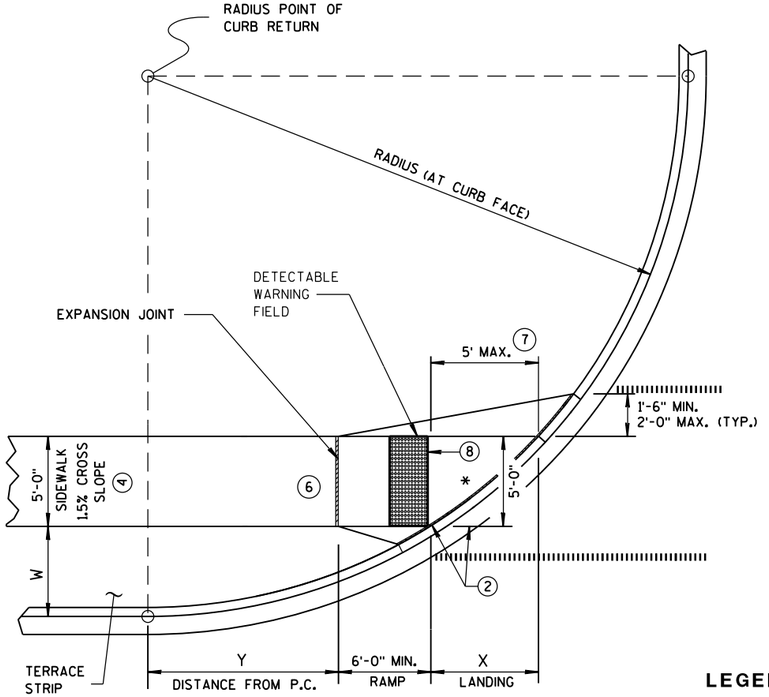
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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

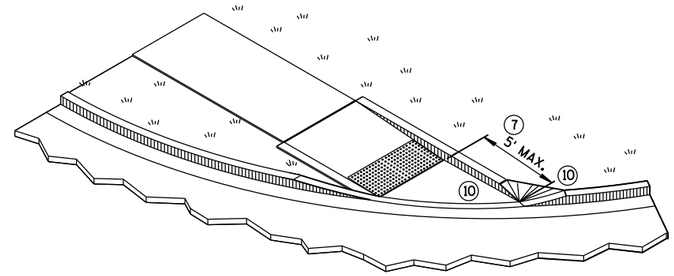
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

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

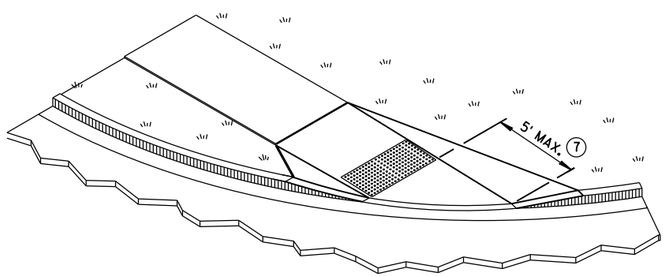
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

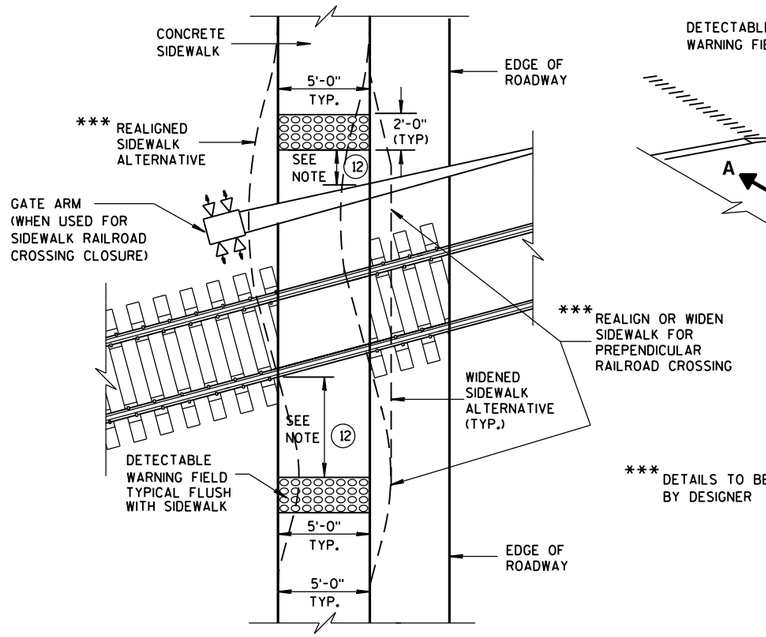
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

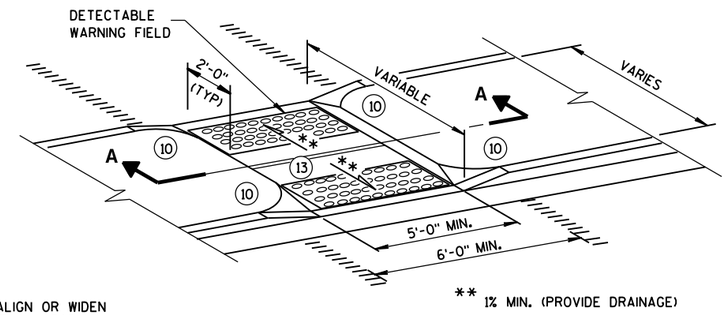
6

S.D.D. 8 D 5-19d



*** DETAILS TO BE DETERMINED BY DESIGNER

TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING
TYPE 5

GENERAL NOTES

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

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 1/4-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) ABSOLUTE MAXIMUM 12H:1V (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.

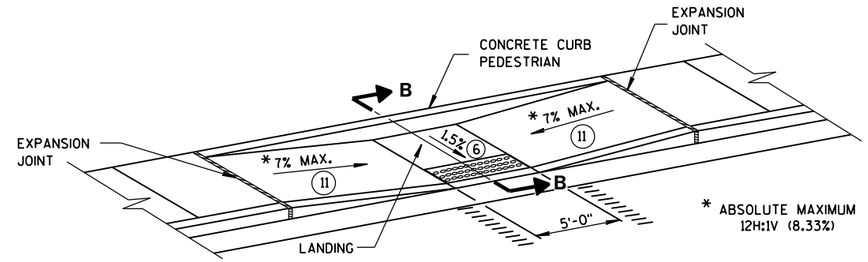
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

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

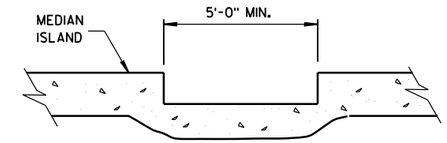
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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.

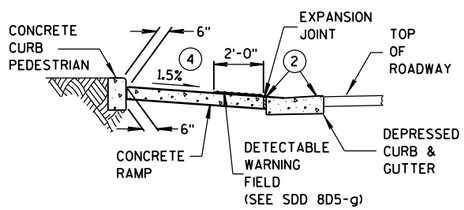
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.



MID-BLOCK CROSSING
TYPE 7A

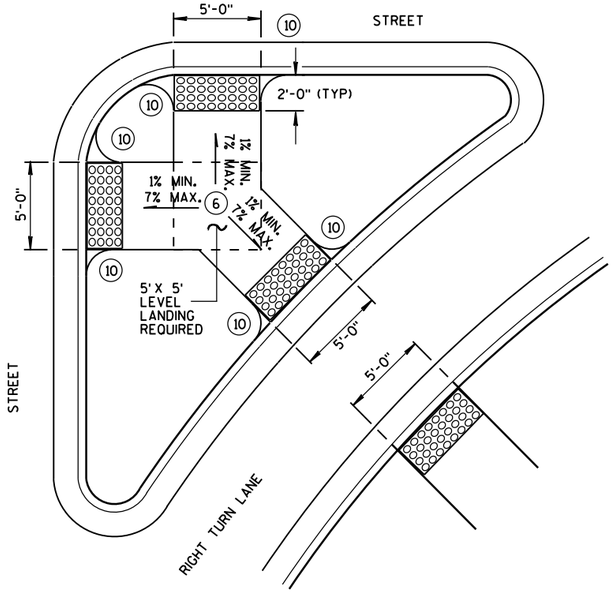


SECTION A-A

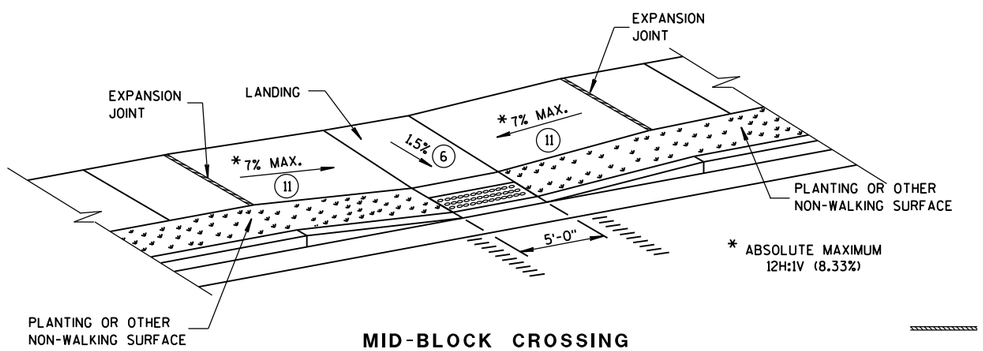


SECTION B-B

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



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

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

LEGEND

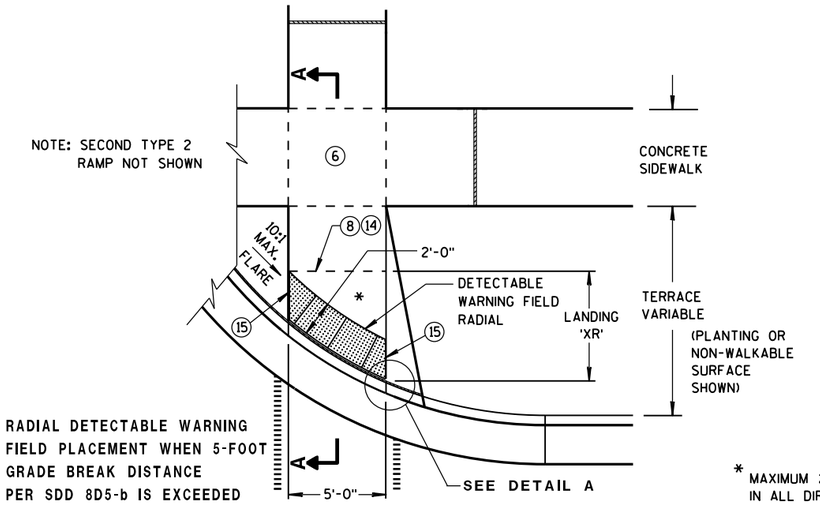
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

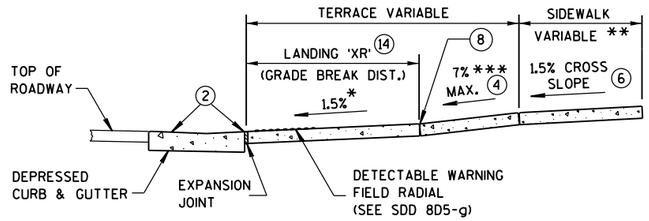
S.D.D. 8 D 5-19e



TYPE 2 RAMP
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

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



** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION A-A

LEGEND

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

GENERAL NOTES

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

DETECTABLE WARNING FIELDS (DWFs) 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 FIELD 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.

(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) ABSOLUTE MAXIMUM 12H:1V (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 X 5 FEET.

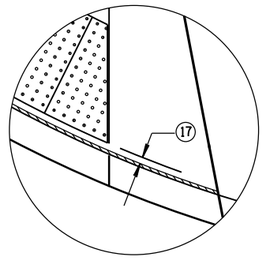
(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

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

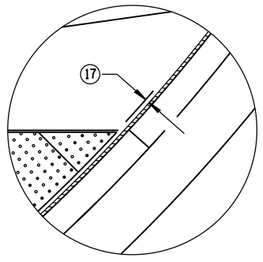
(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(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.

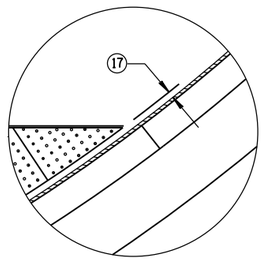
(17) A MAXIMUM 3-INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.



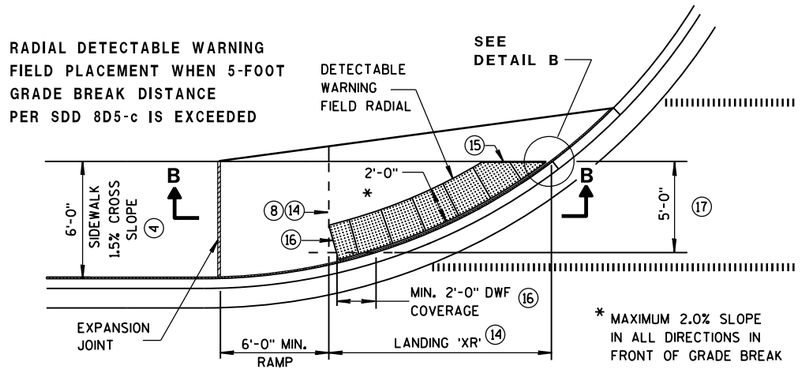
DETAIL A



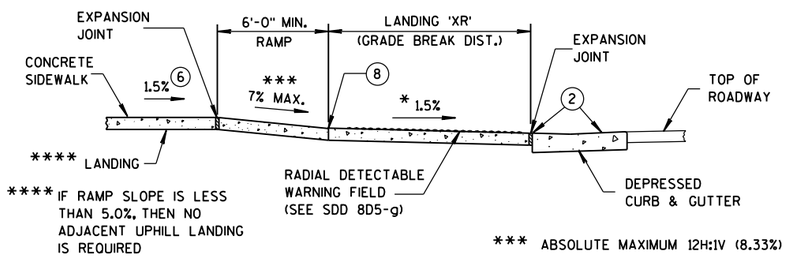
DETAIL C



DETAIL B



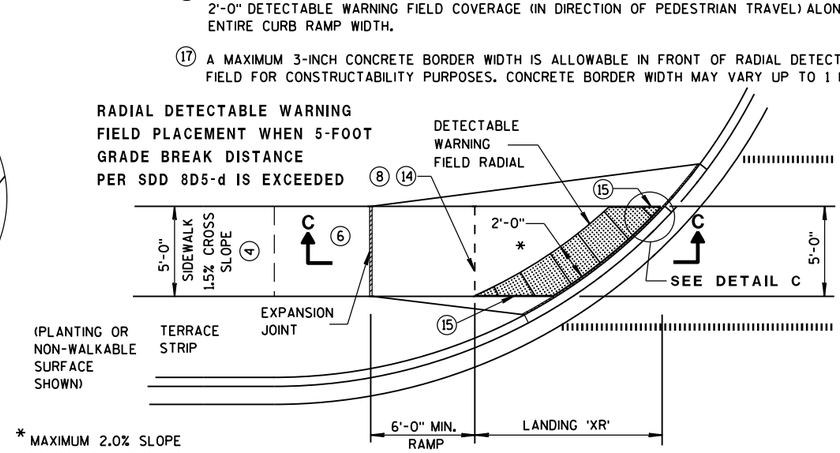
CURB RAMP TYPE 4A1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



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

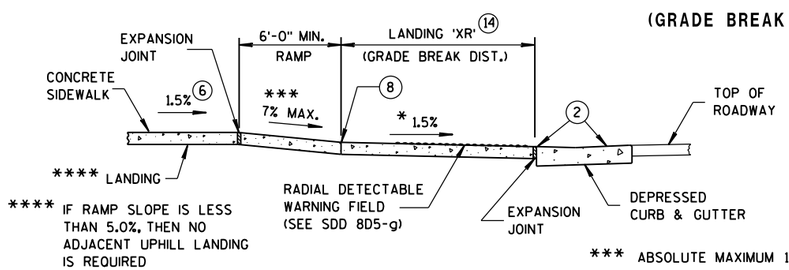
*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION B-B FOR TYPE 4A1



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

CURB RAMP TYPE 4B1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



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

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION C-C FOR TYPE 4B1

CURB RAMPS
RADIAL DETECTABLE WARNING FIELD APPLICATIONS

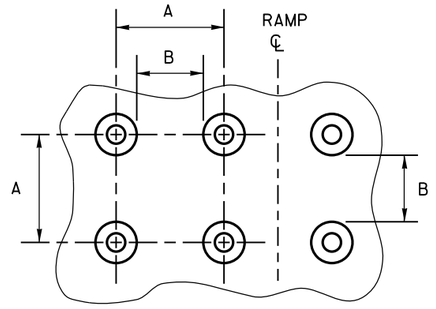
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

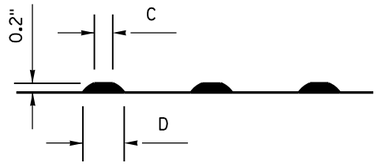
S.D.D. 8 D 5-19f

	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

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, 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 FIELD ARE PROHIBITED.

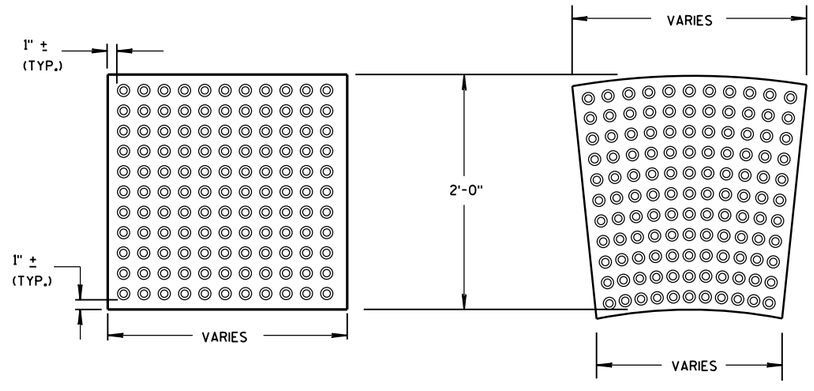
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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 WEDGES IN COMBINATION WITH SQUARE PANELS 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 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

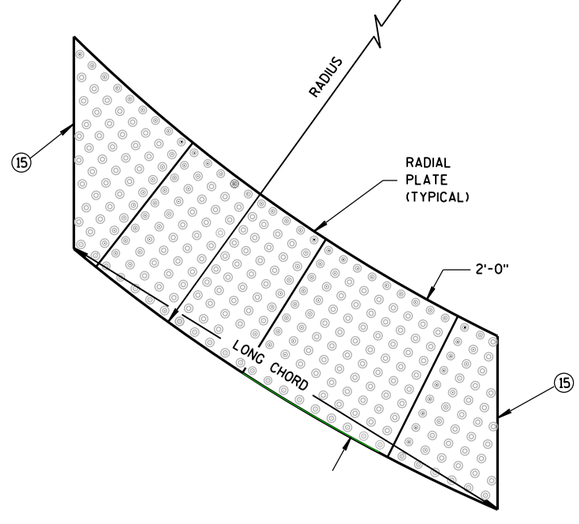


RECTANGULAR PLATES

RADIAL PLATES

DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW



RADIAL DETECTABLE WARNING FIELD ATTRIBUTES

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
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FHWA

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S.D.D. 8 D 5-19g

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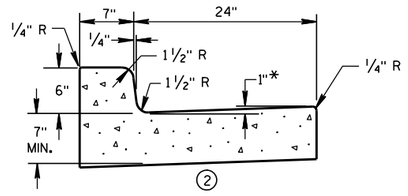
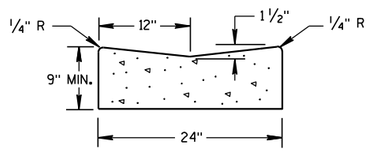
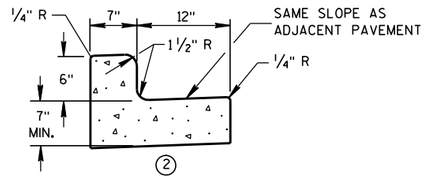


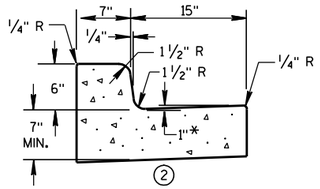
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

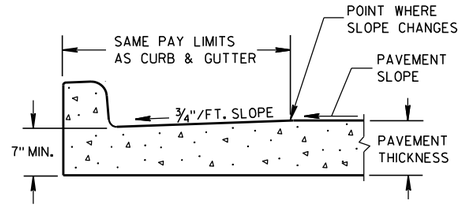


① CONCRETE CURB & GUTTER 19"



① CONCRETE CURB & GUTTER 22"

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



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER

GENERAL NOTES

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

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

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

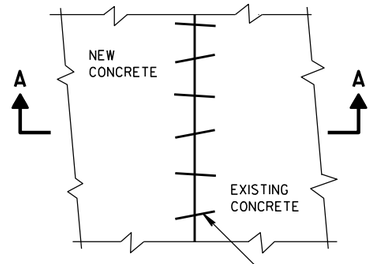
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

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

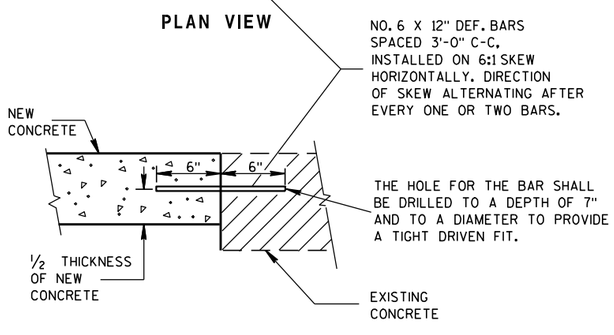
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MIMIMUM GUTTER THICKNESS IS MAINTAINED.

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



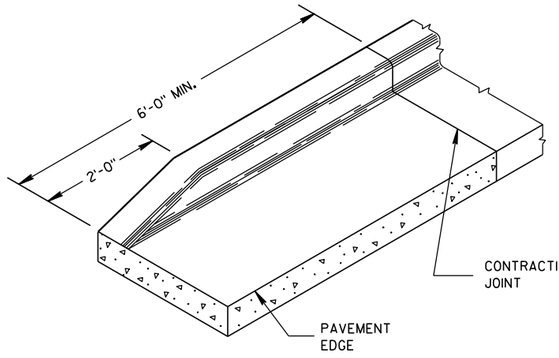
PLAN VIEW

EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

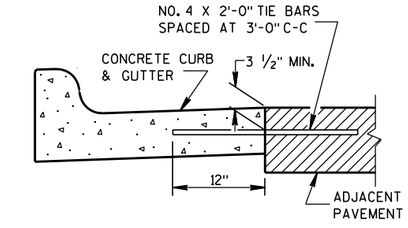


SECTION A-A

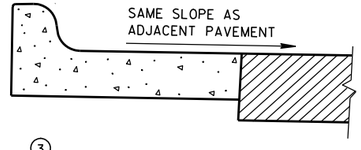
PAVEMENT TIES



END SECTION CURB & GUTTER



① TYPICAL TIE BAR LOCATION



③ HIGH SIDE SECTION

(TYPICAL FOR ALL CURB & GUTTER)

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

(For Optional Use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/2/2010 — DATE

/S/ Jerry Zogg — ROADWAY STANDARDS ENGINEER

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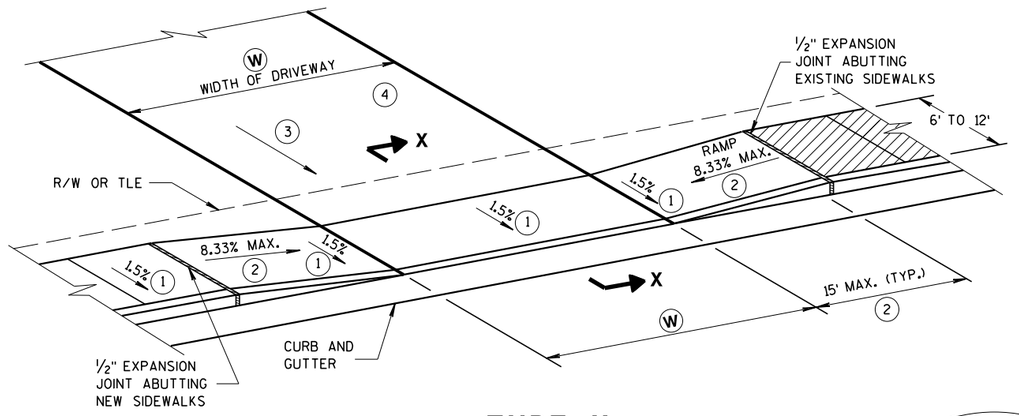
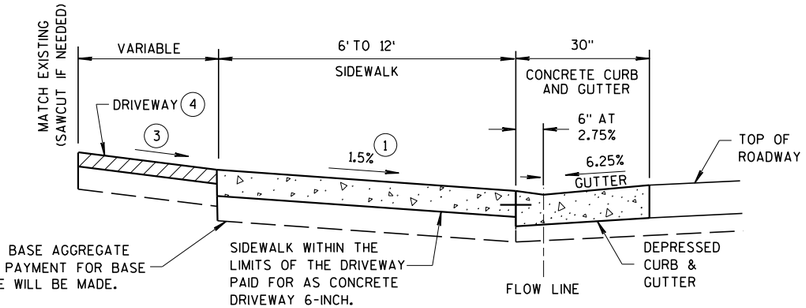
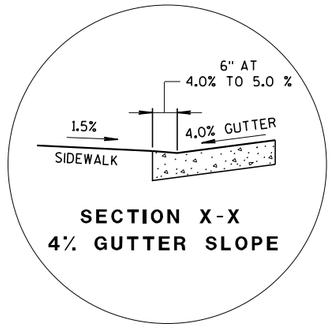
S.D.D. 8 D 16-10



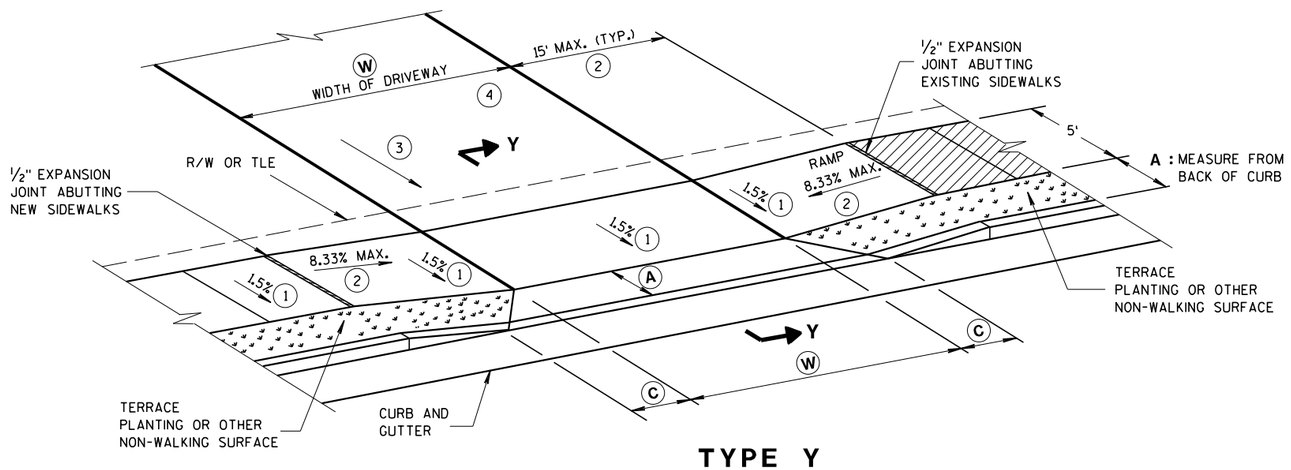
TYPE X
SIDEWALK ABUTS CURB & GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X-X



SECTION X-X
4% GUTTER SLOPE



TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

W
12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

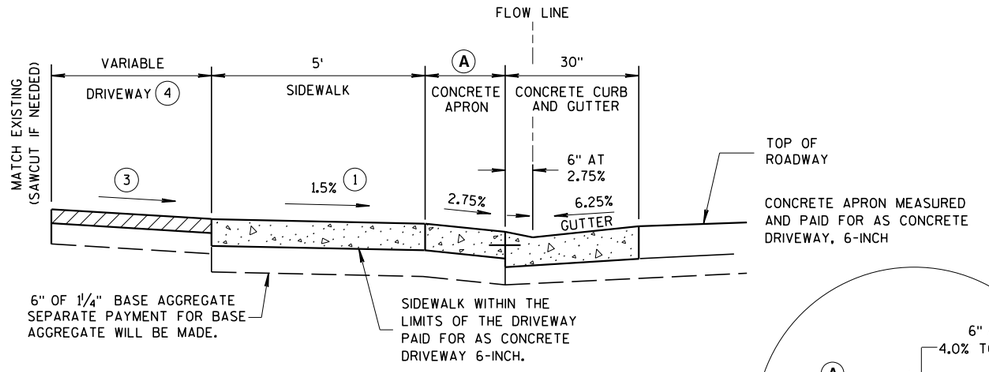
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

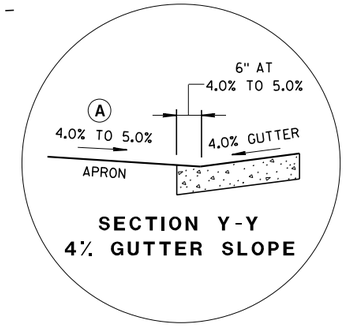
(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y-Y

DRIVEWAY DETAIL
WITH CONCRETE CURB & GUTTER
(URBAN AND SUBURBAN)



SECTION Y-Y
4% GUTTER SLOPE

TABLE Y

A FEET	C FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

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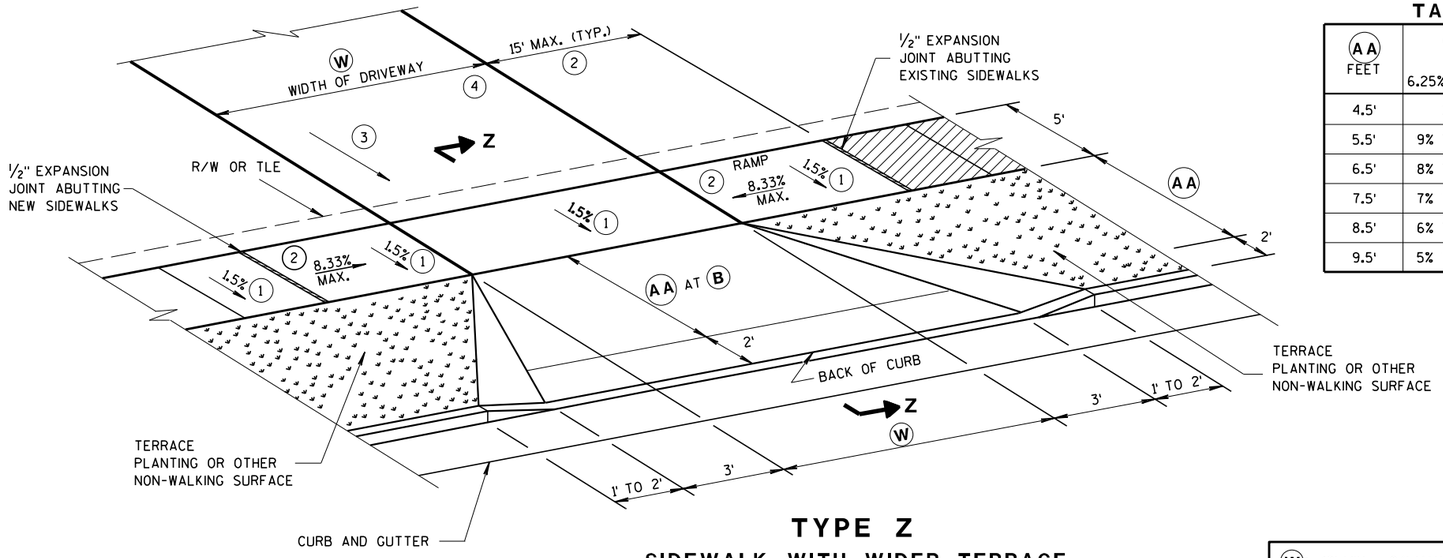
S.D.D. 8 D 18-2



TYPE Z

SIDEWALK WITH WIDER TERRACE

TERRACE VARIES 7 TO 12 FEET

TABLE Z

(AA) FEET	(B) % 6.25% GUTTER	(B) % 4% GUTTER
4.5'	11.5%	9% TO 11.5%
5.5'	9% TO 11.5%	8% TO 11.5%
6.5'	8% TO 11.5%	6% TO 11.5%
7.5'	7% TO 11.5%	6% TO 11.5%
8.5'	6% TO 11.5%	5% TO 11.5%
9.5'	5% TO 11.5%	4% TO 11.5%

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM

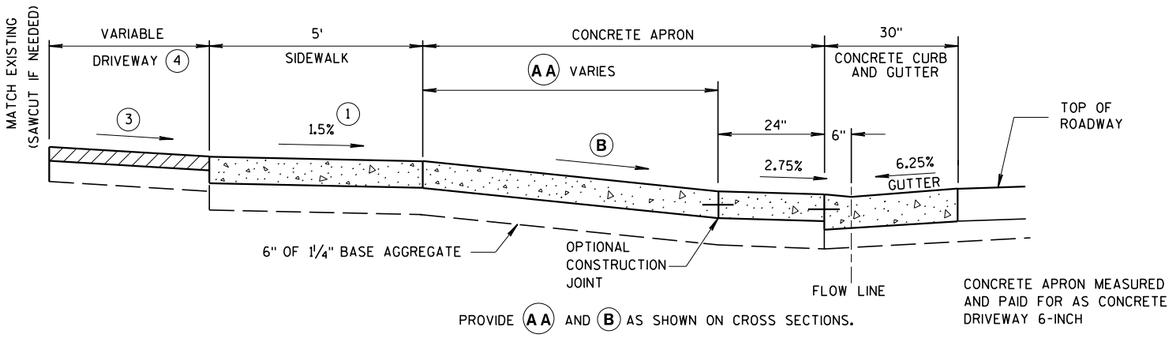
10.5% UP AWAY FROM SIDEWALK (SAG)

8.5% DOWN AWAY FROM SIDEWALK (CREST)

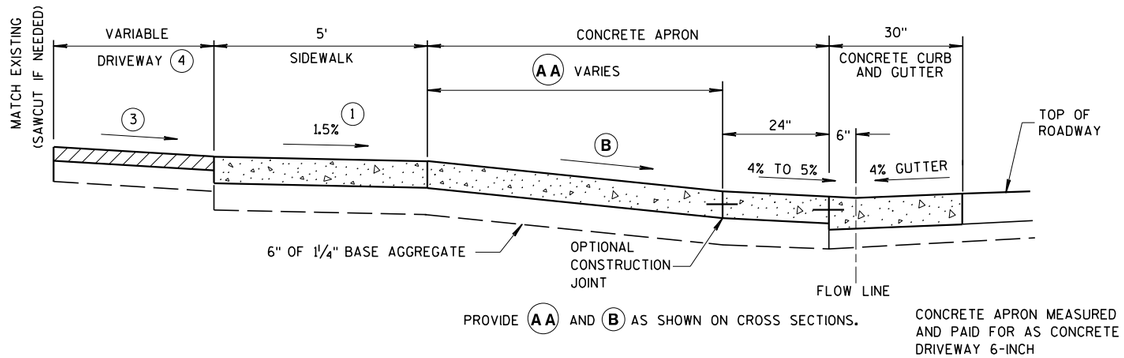
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES

- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)



6.25% GUTTER SLOPE



4% GUTTER SLOPE

NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS FOR **B** VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.

SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

SECTION Z-Z

DRIVEWAY DETAIL WITH CONCRETE CURB & GUTTER

(URBAN AND SUBURBAN)

NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS TYPE Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

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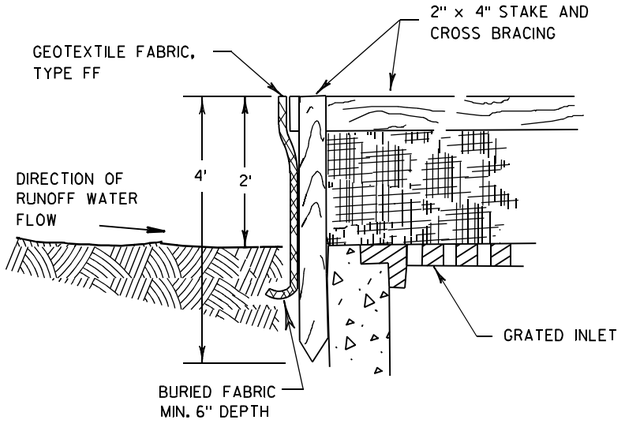
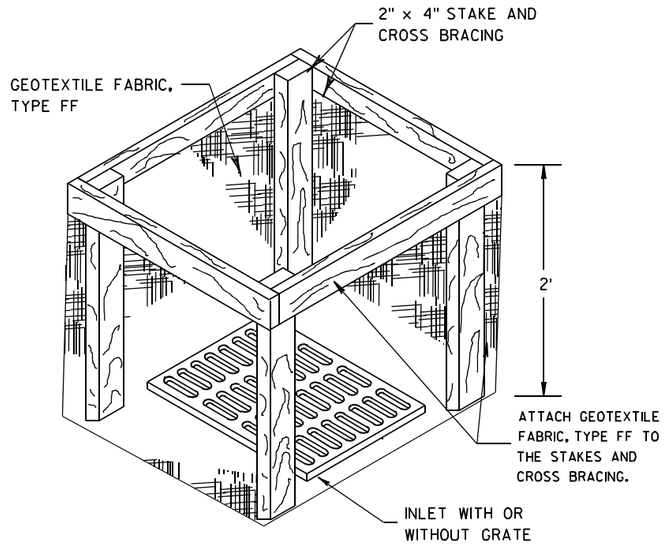
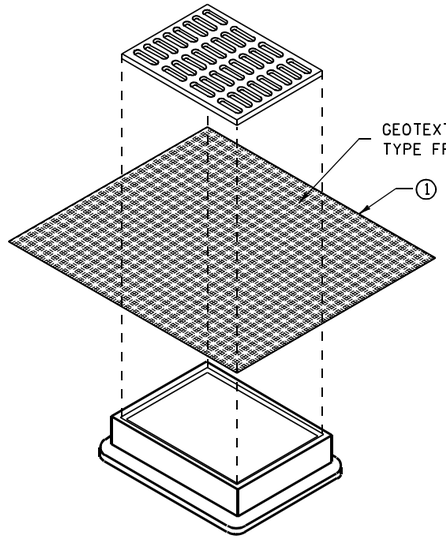
S.D.D. 8 D 19-2



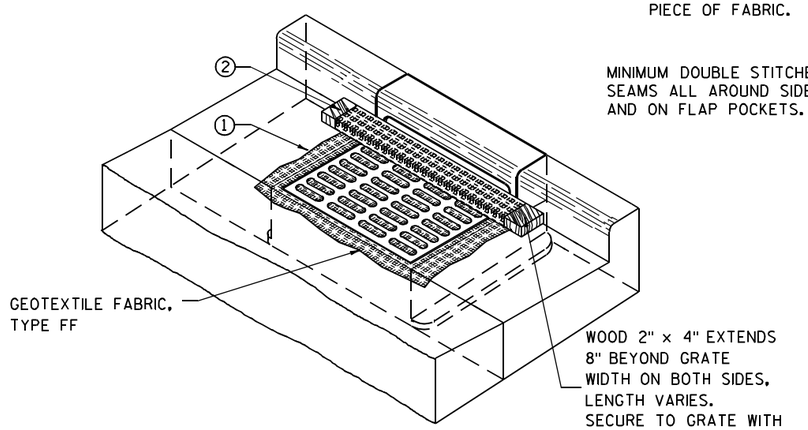


INLET PROTECTION, TYPE A

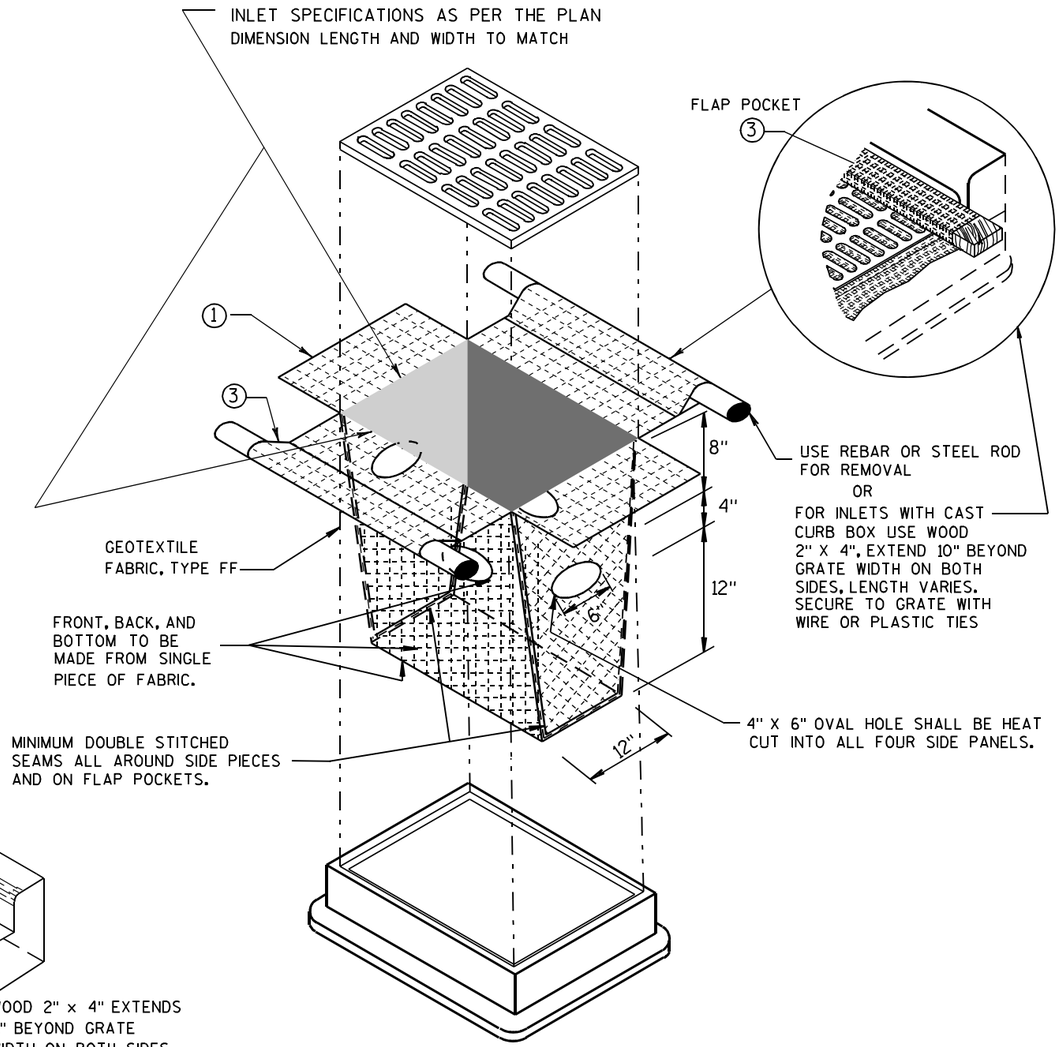


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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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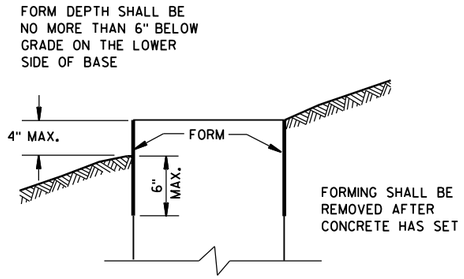


FORMING DETAIL

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 DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

GENERAL NOTES (CONTINUED)

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

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

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

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

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES 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" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END 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 BY THE ENGINEER.

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

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

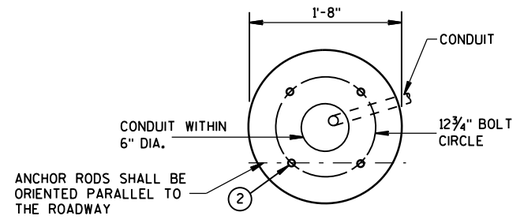
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

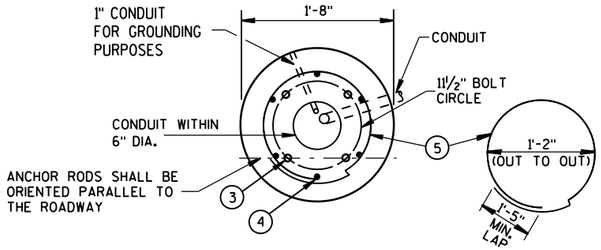
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

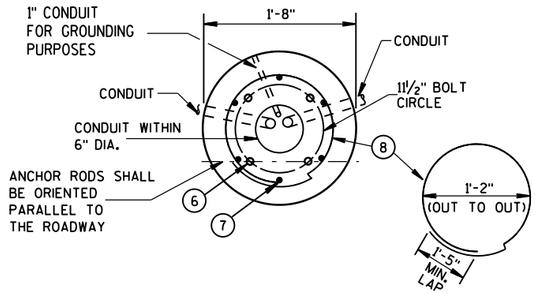
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

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

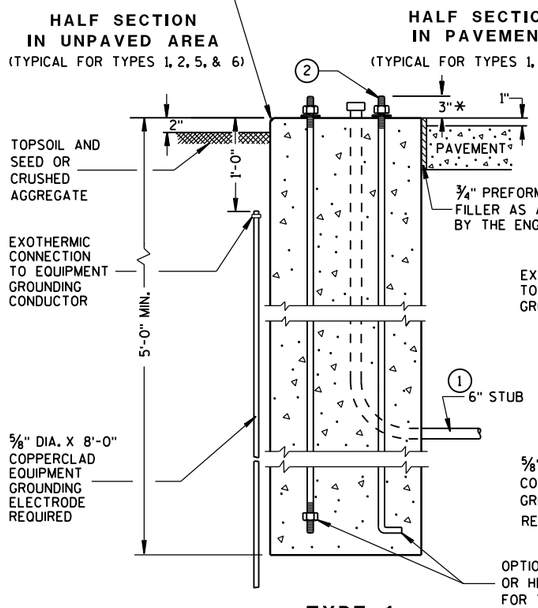
(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.





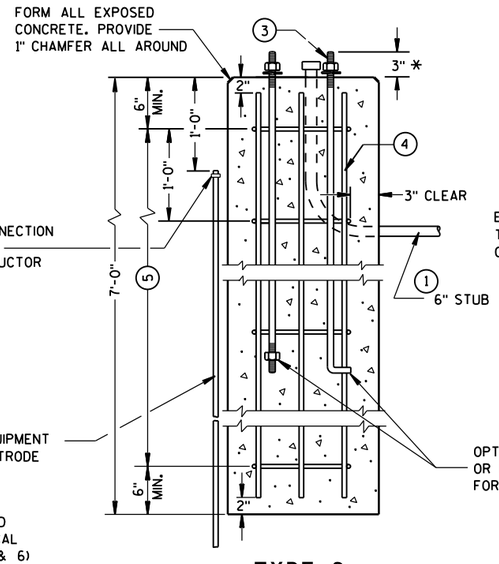


HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)

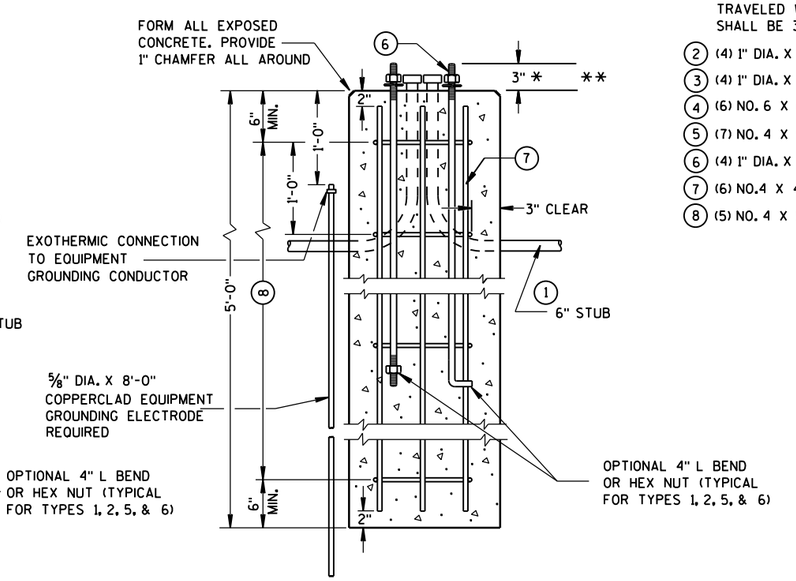


TYPE 1

HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL

FHWA

6

S.D.D. 9 C 2-7

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

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

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

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

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

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

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

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

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

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

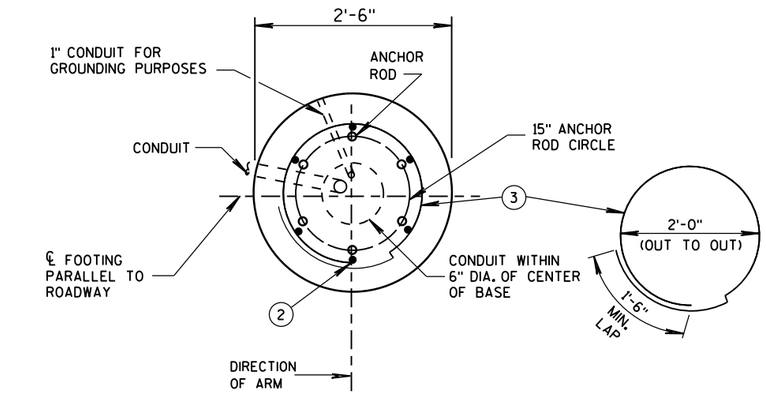
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

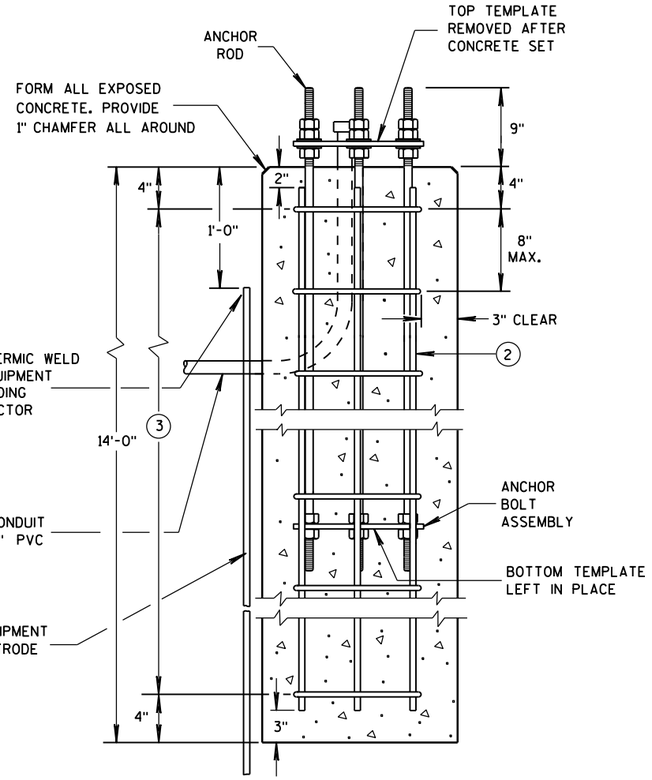
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES. (GREATER THAN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

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

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

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.

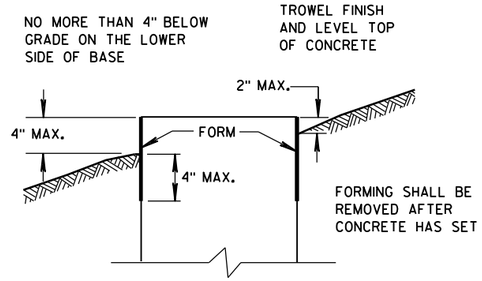




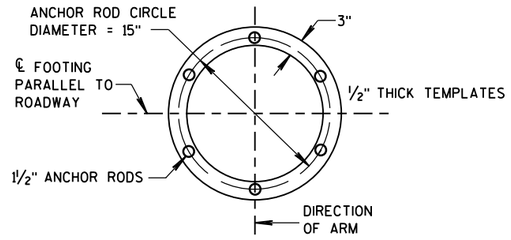
CONCRETE BASE TYPE 10

(FOR TYPE 9 & 10 & OVER HEIGHT (OH) POLES)

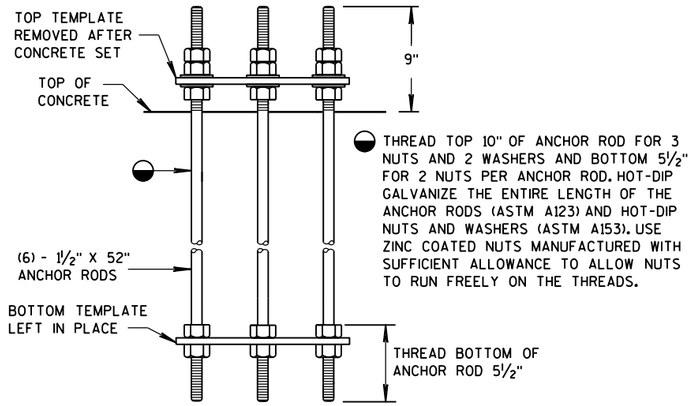
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

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

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2017 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

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6

S.D.D. 9 C 11-10

6

S.D.D. 9 C 11-10

30'-0" MAX.

8'-0" *

15'-0" MAX.

SEE ARM CONNECTION DETAIL

SIGN 18" X 108"

**

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

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

25'-6" MAXIMUM MOUNTING HEIGHT

17'-6" MINIMUM MOUNTING HEIGHT

ROADWAY PAVEMENT

R4-7
24" x 30"

19'-0"

10'-0"

FOLDING STOP SIGN
30" x 30"

POLE: (.14"/FT. TAPER)
1 PIECE (NO WELDED POLE SECTIONS)
POLE BUTT DIA. = 11.50"

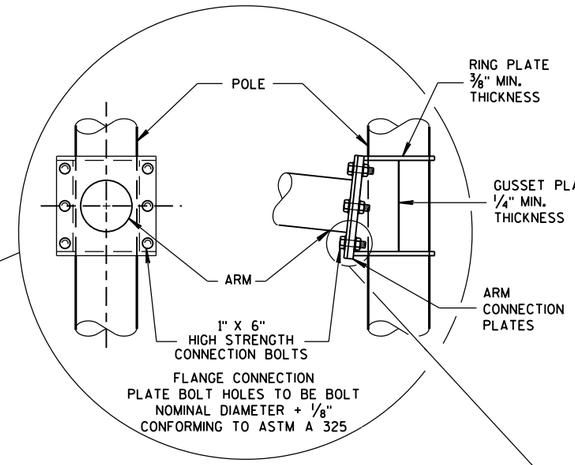
PEDESTRIAN PUSH BUTTON

TYPICAL PEDESTRIAN SIGN

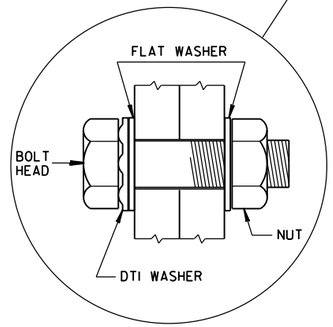
ANCHOR RODS:
FY=55 KSI
ASTM F1554 GR 55
ROD CIRCLE = 15"
ANCHOR ROD DIAM. 1½"
GALVANIZED. (6 ANCHOR RODS)

3'-6"

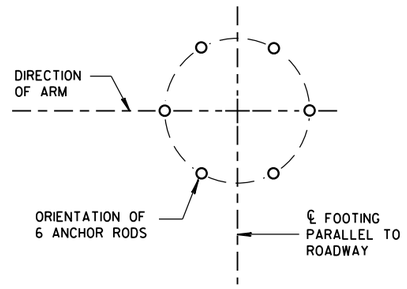
MAXIMUM BASE PLATE THICKNESS = 2½"



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

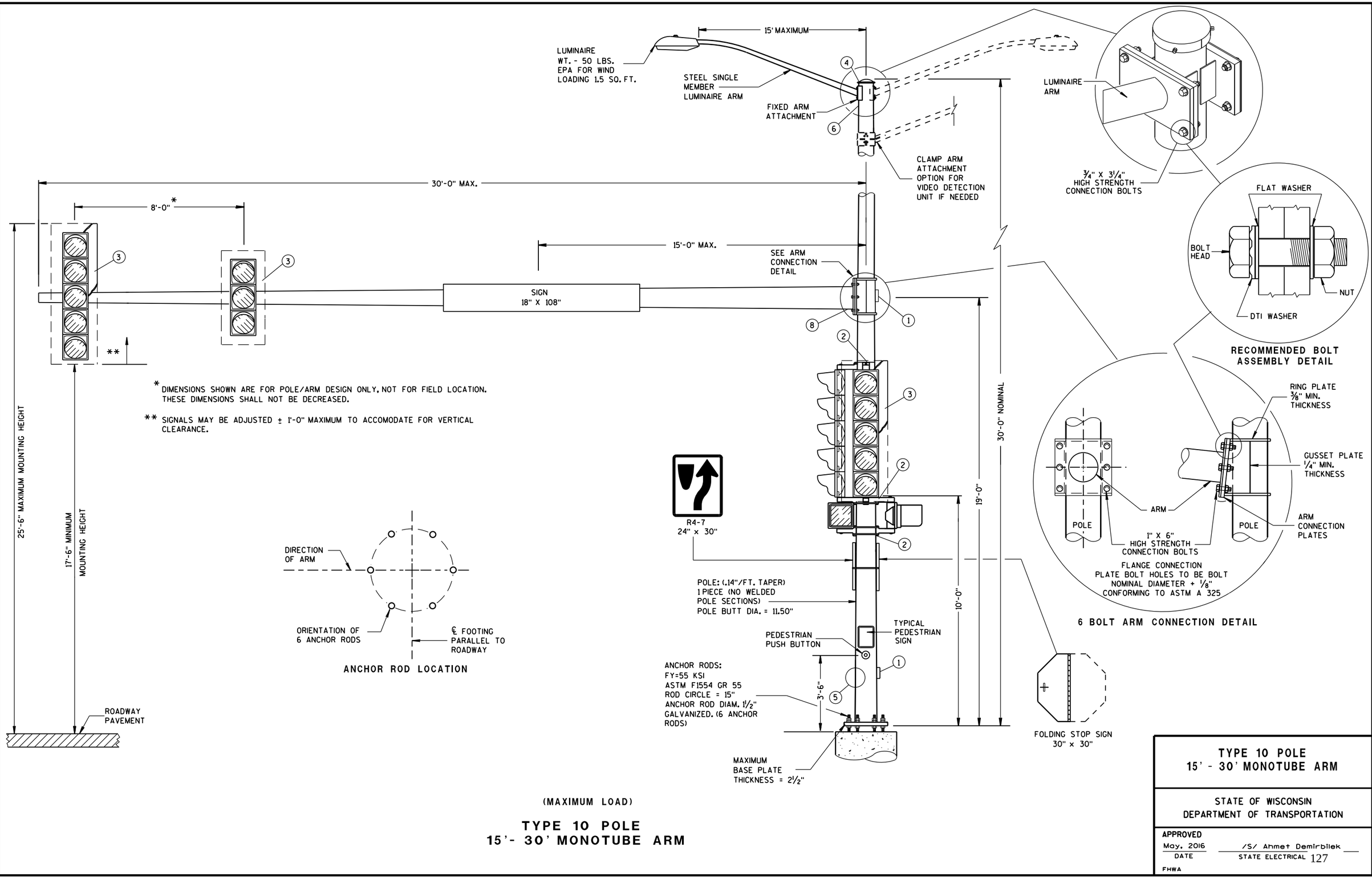
(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

TYPE 9 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
May, 2016	/S/ Ahmet Demirbilek
DATE	STATE ELECTRICAL
FHWA	

6

S.D.D. 9 E 8-8a



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

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

(MAXIMUM LOAD)

TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May, 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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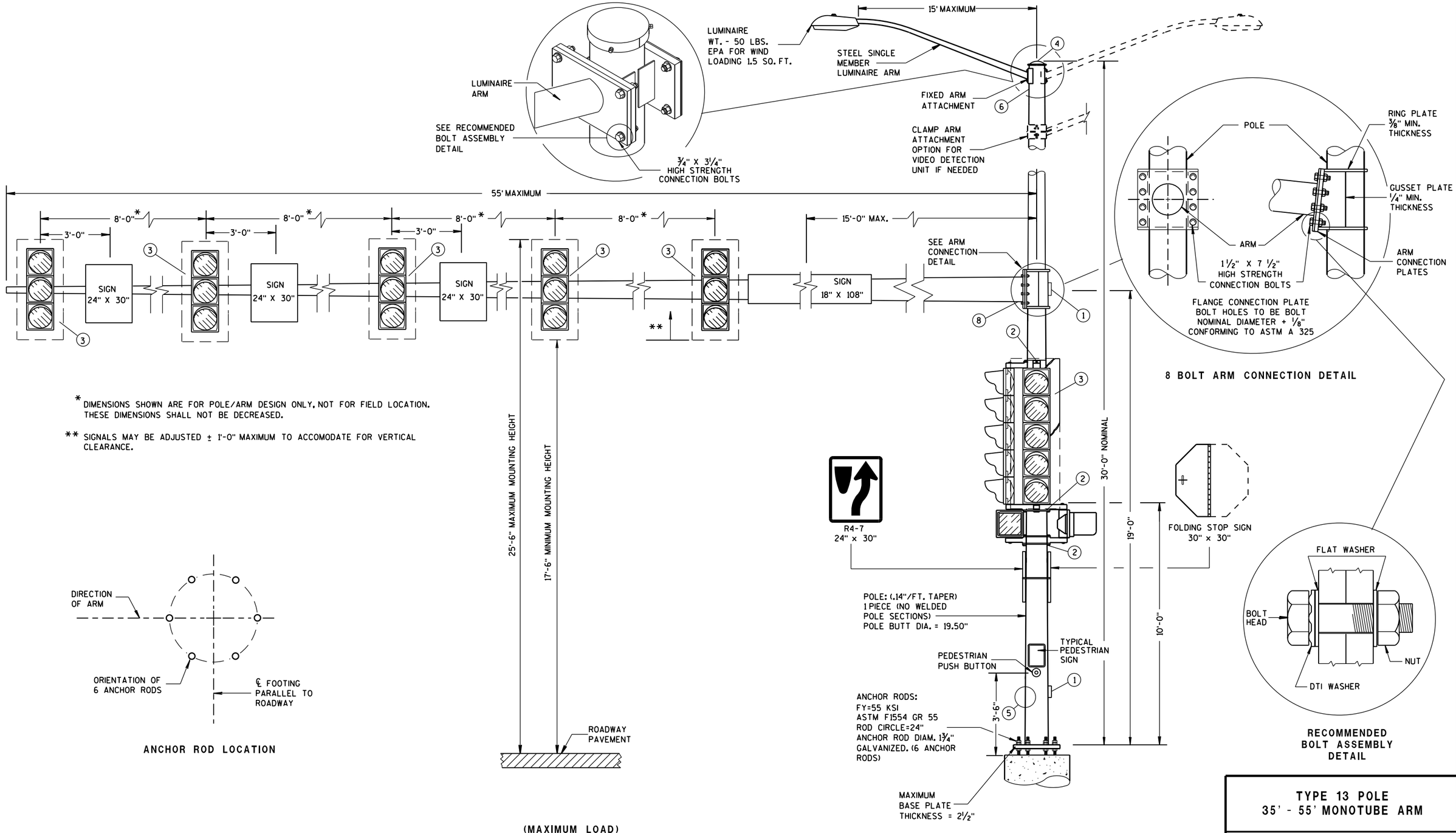
S.D.D. 9 E 8-8b



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

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

8 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

S.D.D. 9 E 8-8d

6

GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

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

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO 2013 6TH EDITION AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

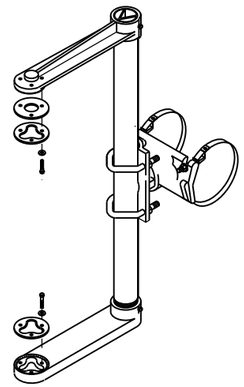
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

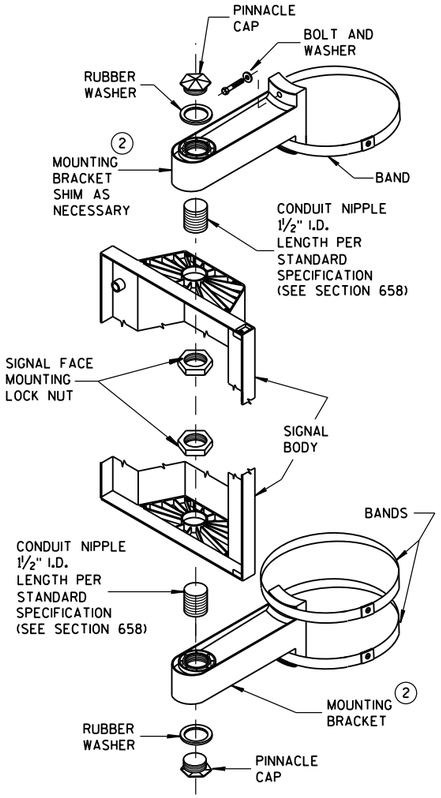
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

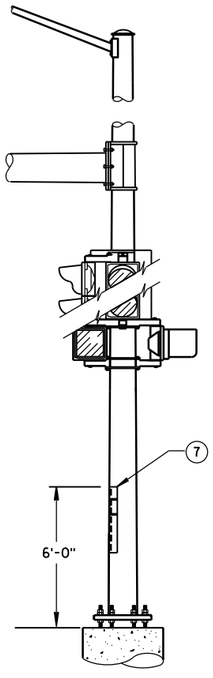


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

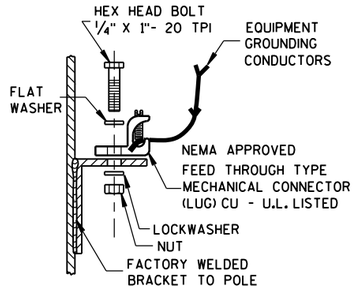
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

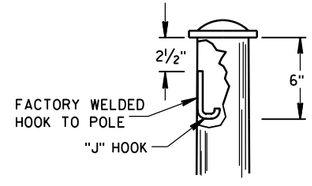


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL
BE STAINLESS STEEL



"J" HOOK WIRE SUPPORT (6)

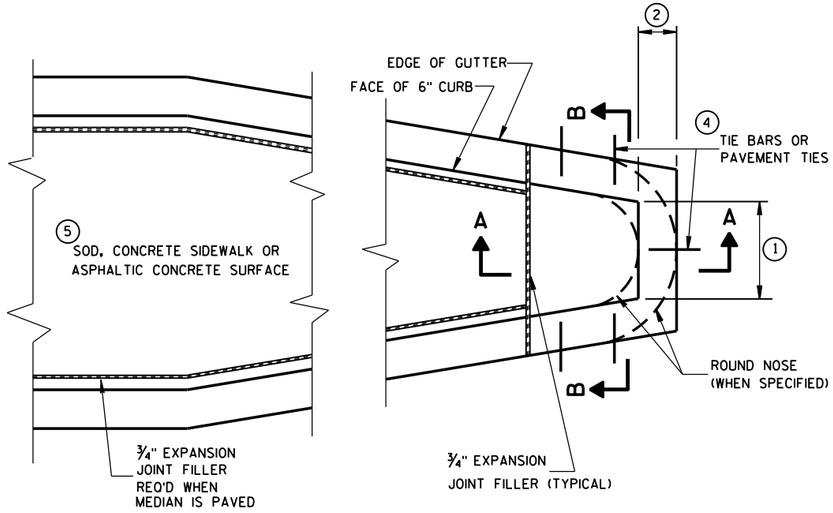
GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

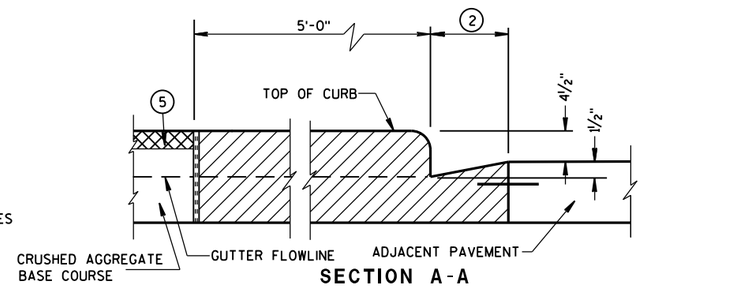
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

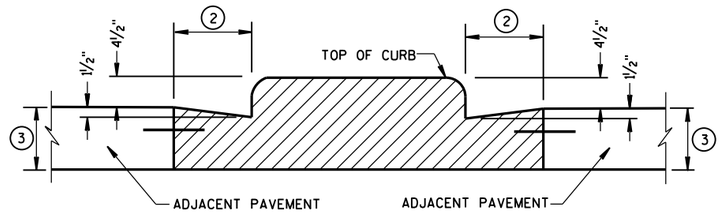
APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 E 8-8e







CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

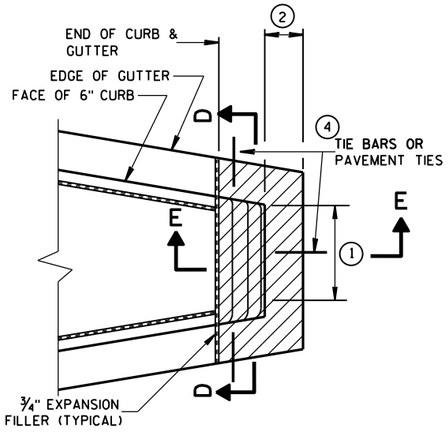
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

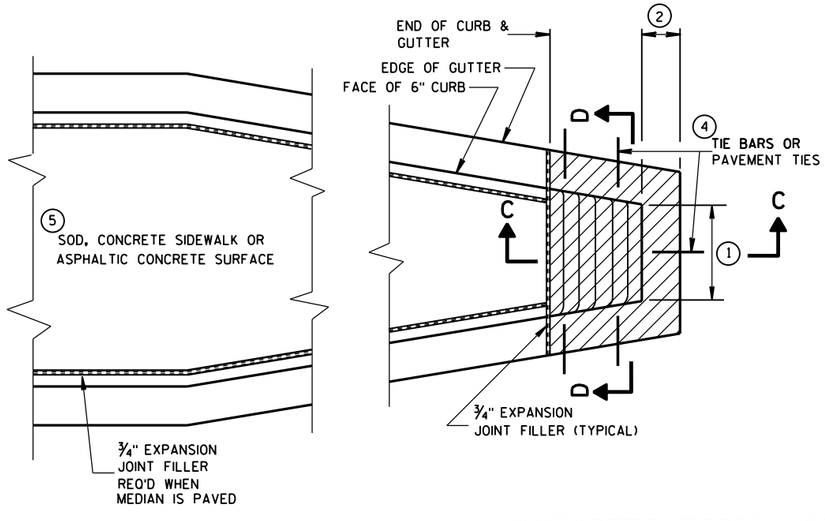
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

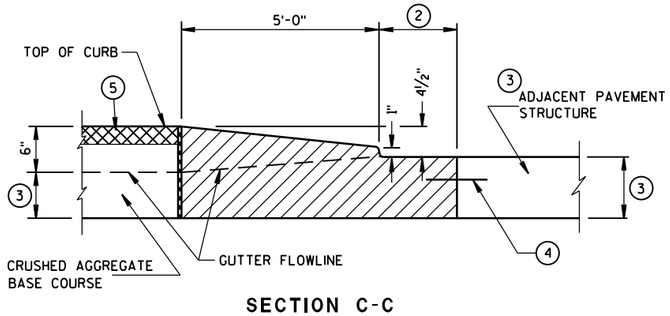
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

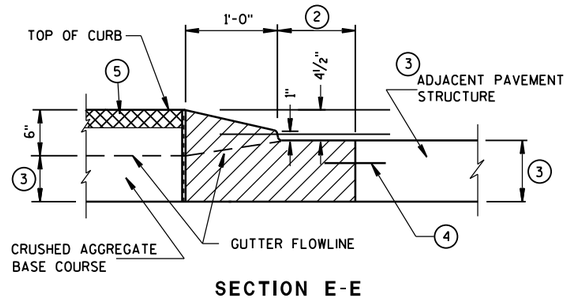
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

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



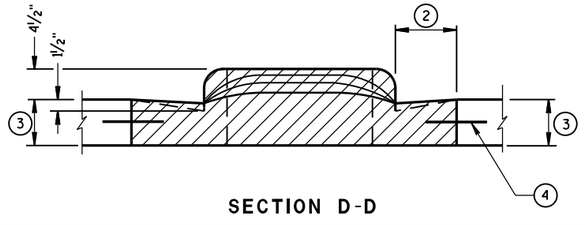






CONCRETE MEDIAN SLOPED NOSE TYPE 1

CONCRETE MEDIAN SLOPED NOSE TYPE 2



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

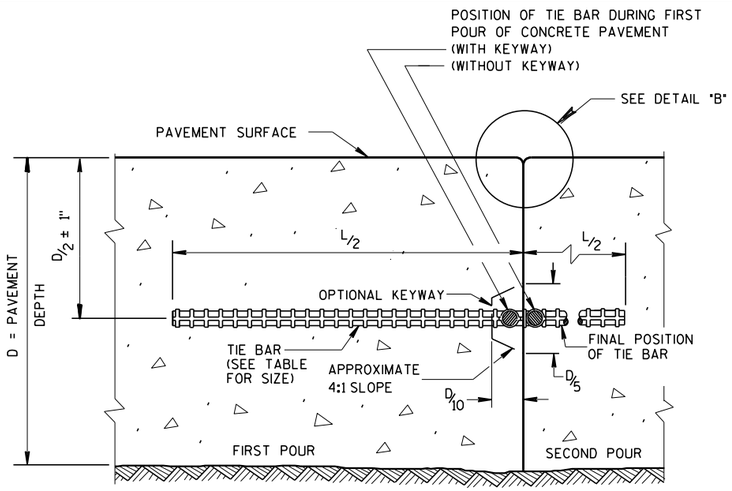
APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

6

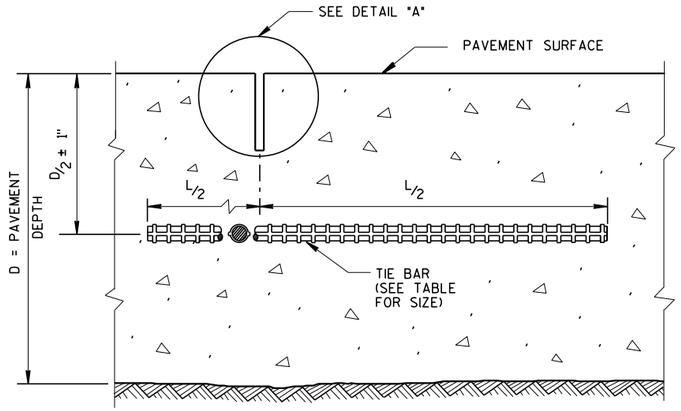
S.D.D. 11 B 2-2

6

S.D.D. 11 B 2-2



CONSTRUCTION JOINT



SAWED JOINT

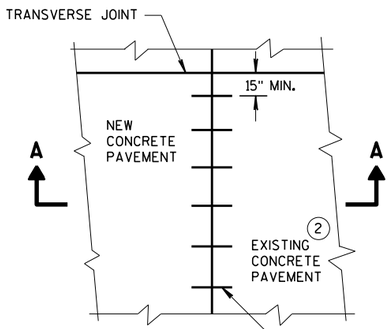
GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

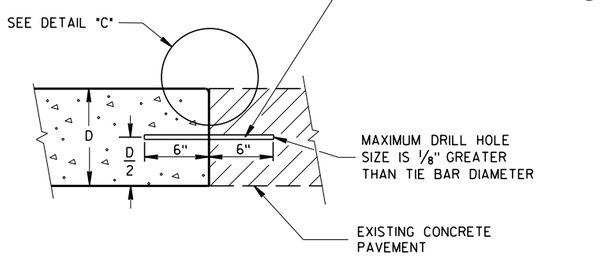
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

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

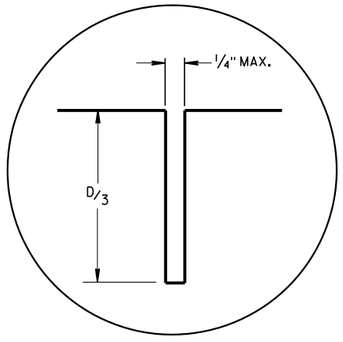


PLAN VIEW

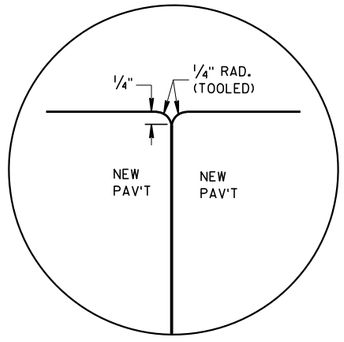


SECTION A-A

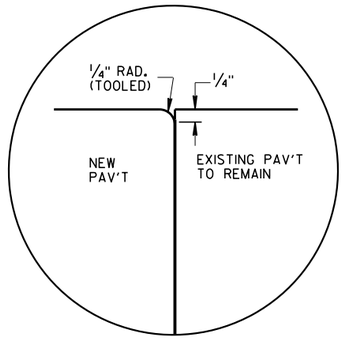
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



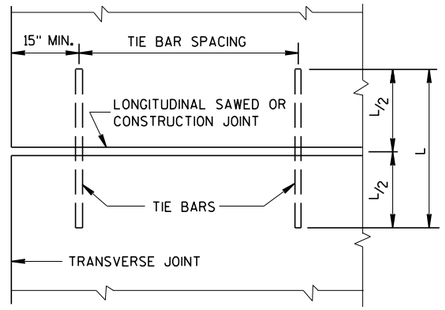
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

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

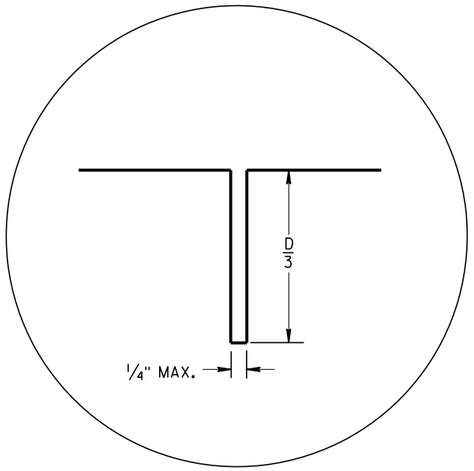


PLAN VIEW
SHOWING LOCATION OF TIE BARS

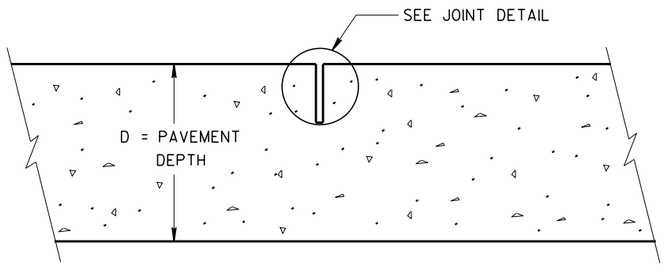
CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



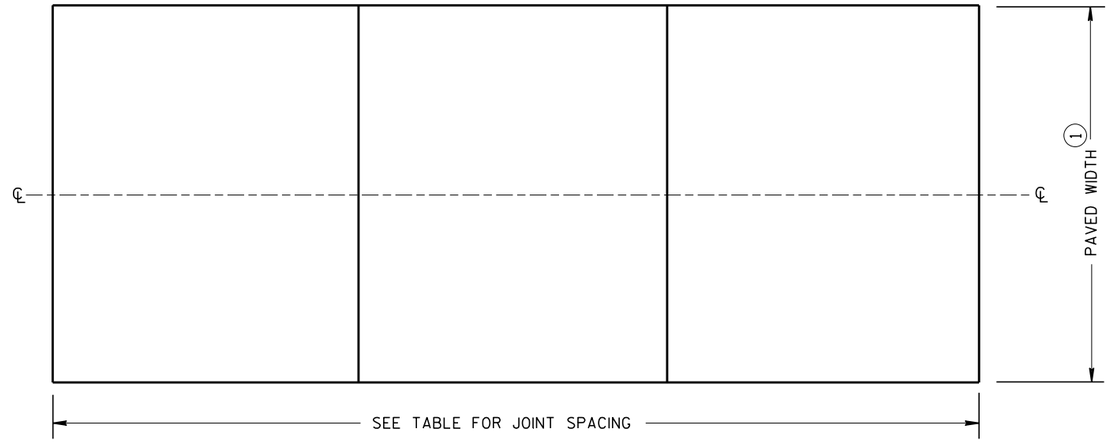
JOINT DETAIL



CONTRACTION JOINT

PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE.

LOCATE AND ORIENT CONTRACTION JOINTS THROUGH INTERSECTIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

CONSTRUCTION JOINTS

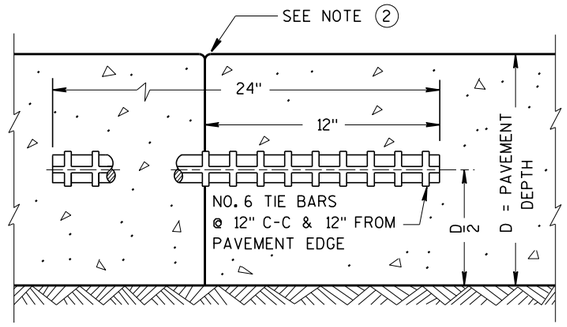
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

FORM OR SAW CONSTRUCTION JOINTS.

THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

(1) REFER TO TYPICAL CROSS SECTIONS FOR PAVED WIDTH AND LOCATION OF LONGITUDINAL JOINTS.

(2) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.



TIED TRANSVERSE CONSTRUCTION JOINT

URBAN
NON-DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

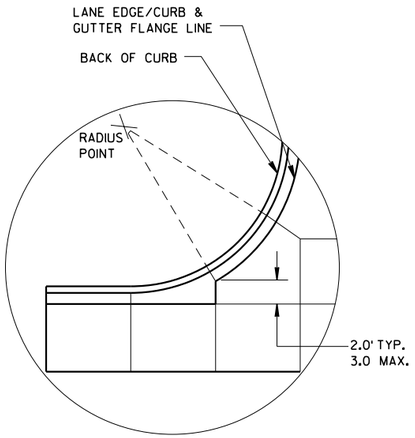
APPROVED
March 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPI

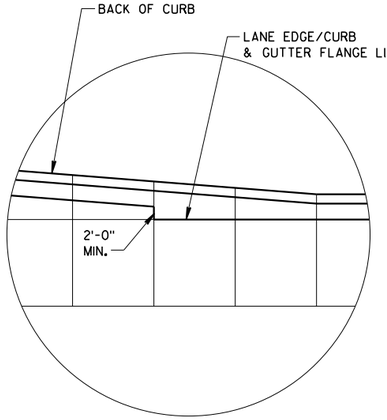
FHWA

6

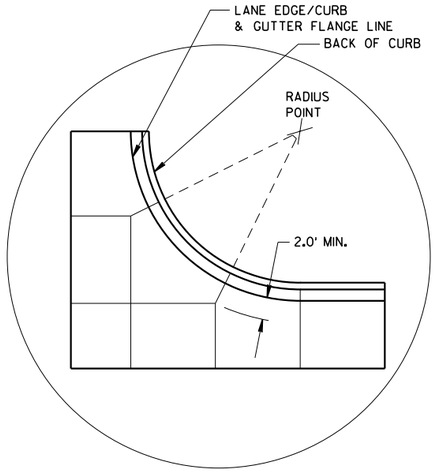
S.D.D. 13 C 4-17



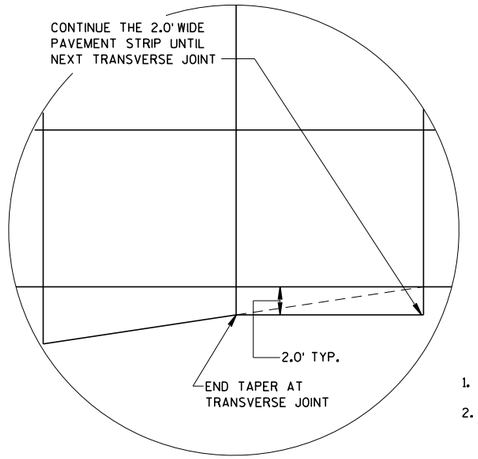
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

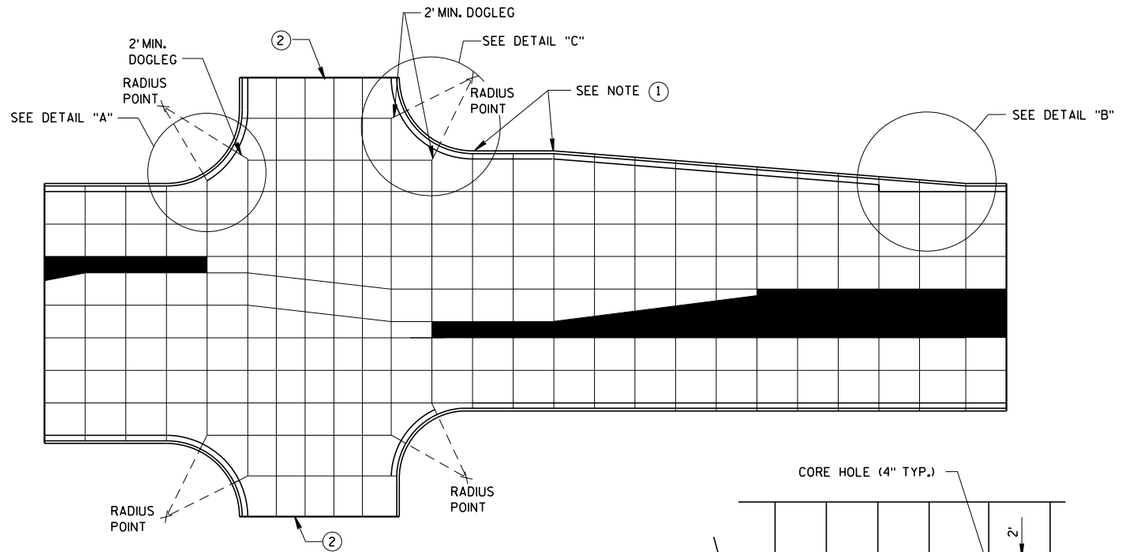
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

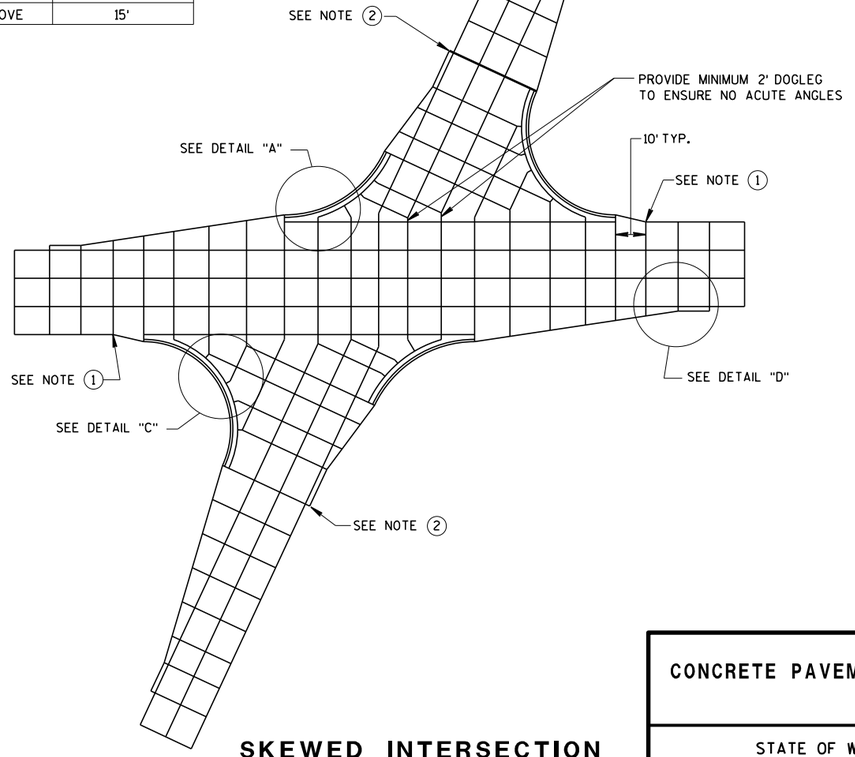
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



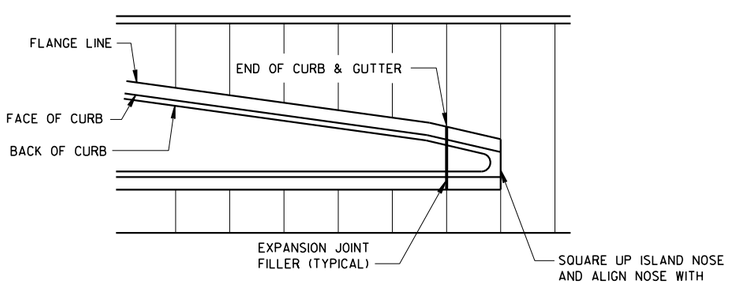
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

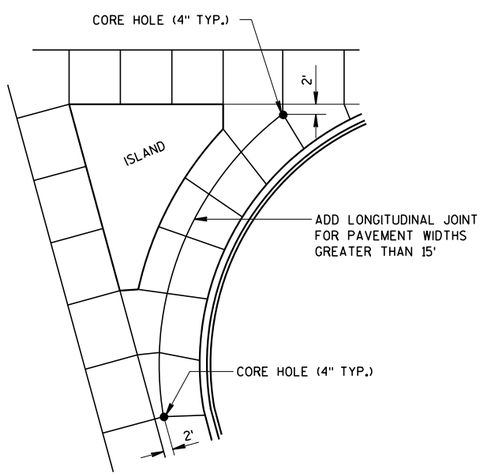
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 18-6a

6

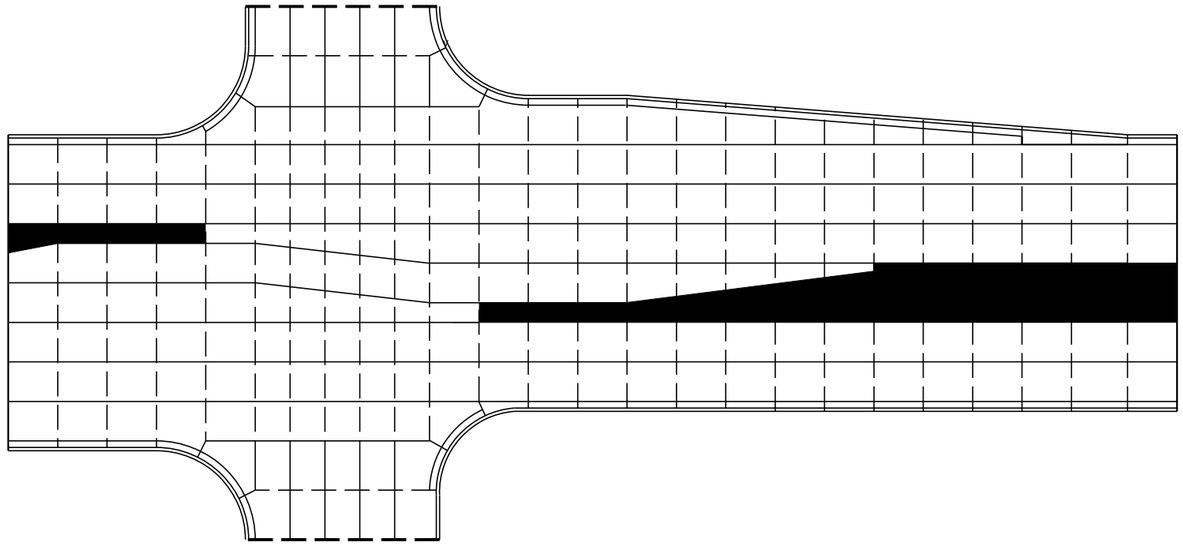
S.D.D. 13 C 18-6a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

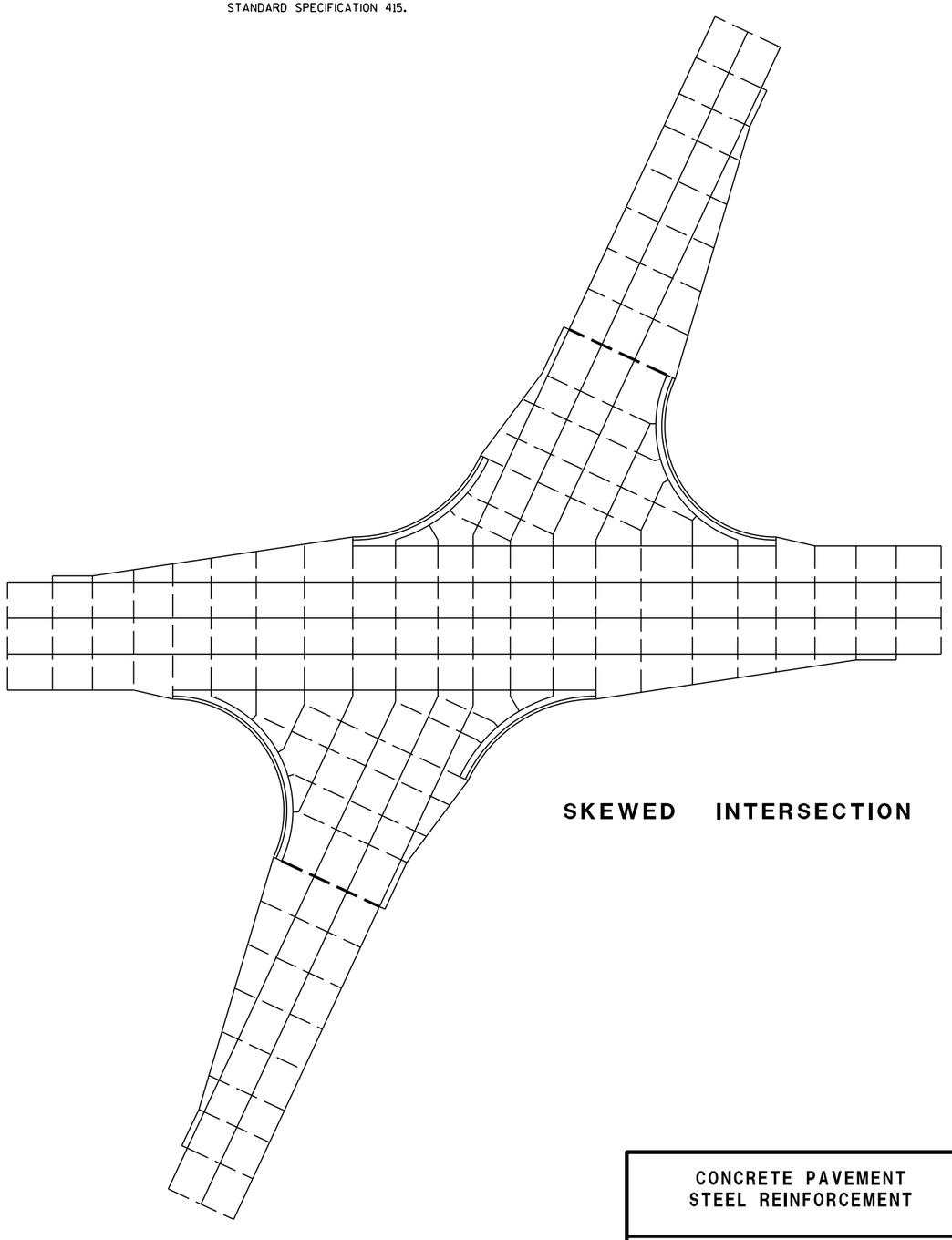
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

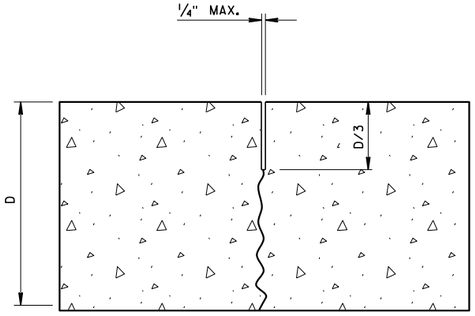
S.D.D. 13 C 18-6b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

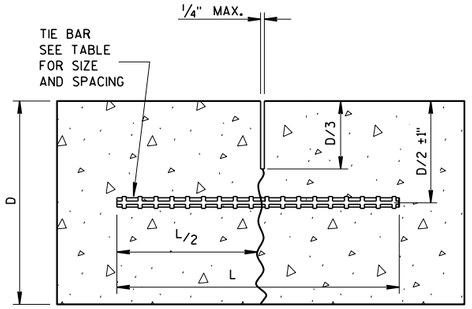
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 18-6b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

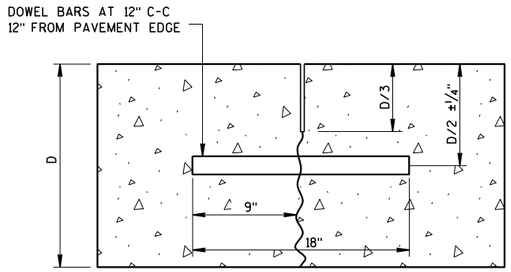
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* 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.

GENERAL NOTES

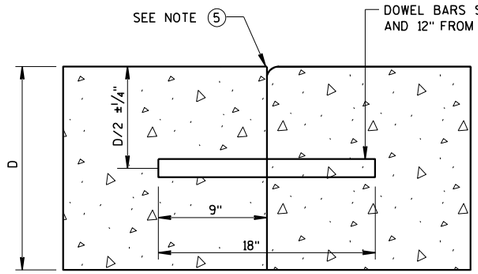
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 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 1/4-INCH RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



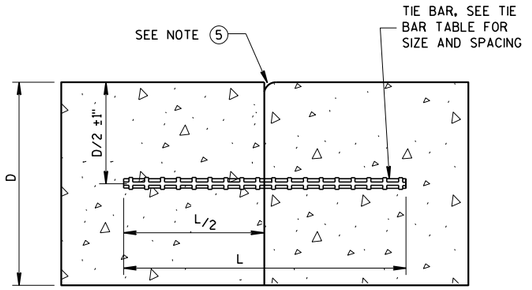
DOWELED-TRANSVERSE

CONTRACTION JOINTS

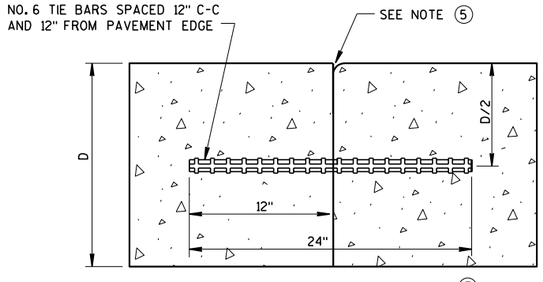
SEE NOTE (2)



DOWELED TRANSVERSE (3)

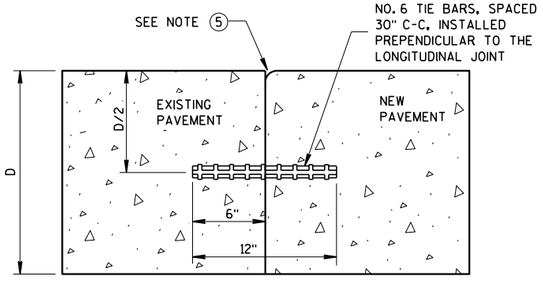


TIED LONGITUDINAL



TIED TRANSVERSE (3)

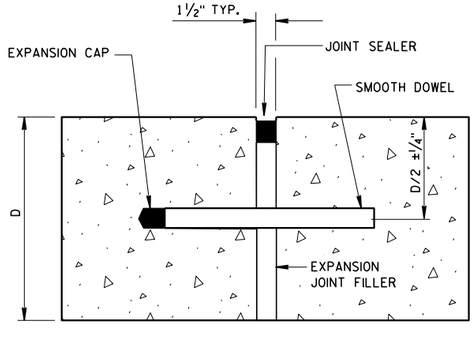
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

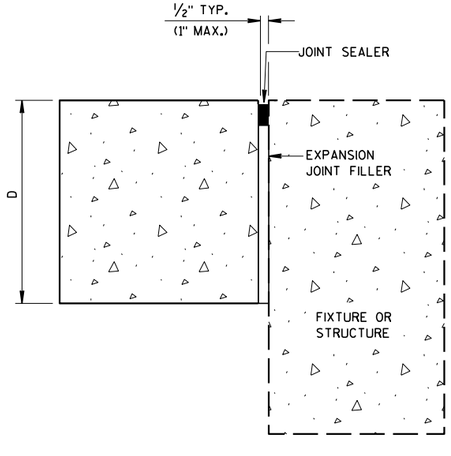
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

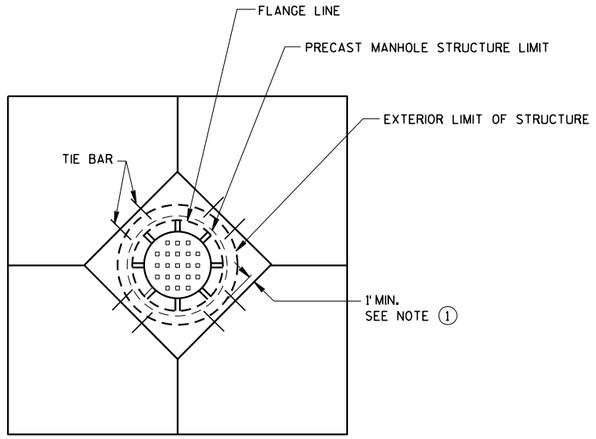
EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

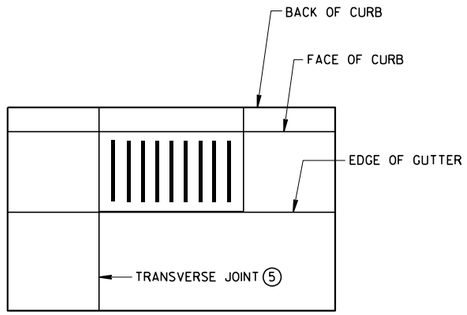
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

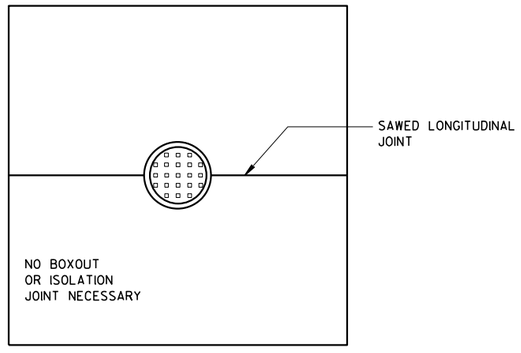
S.D.D. 13 C 18-6c



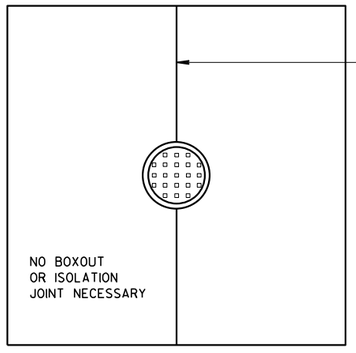
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



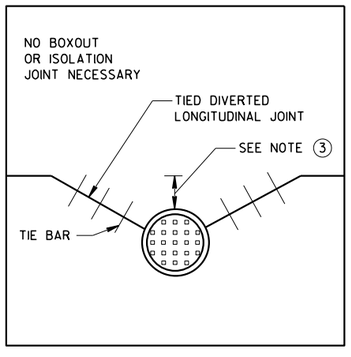
INLET WITH TRANSVERSE JOINT



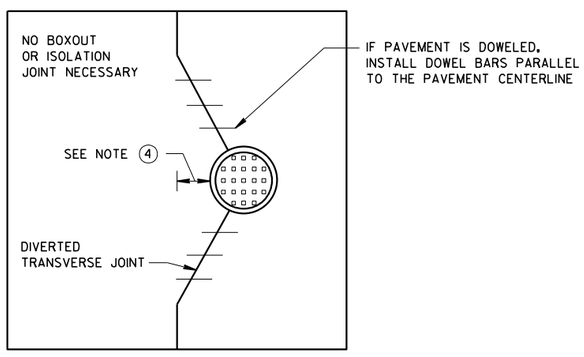
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION 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 LONGITUDIAL 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 REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 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 REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter K... P.E. — PAVEMENT SUPT
FHWA

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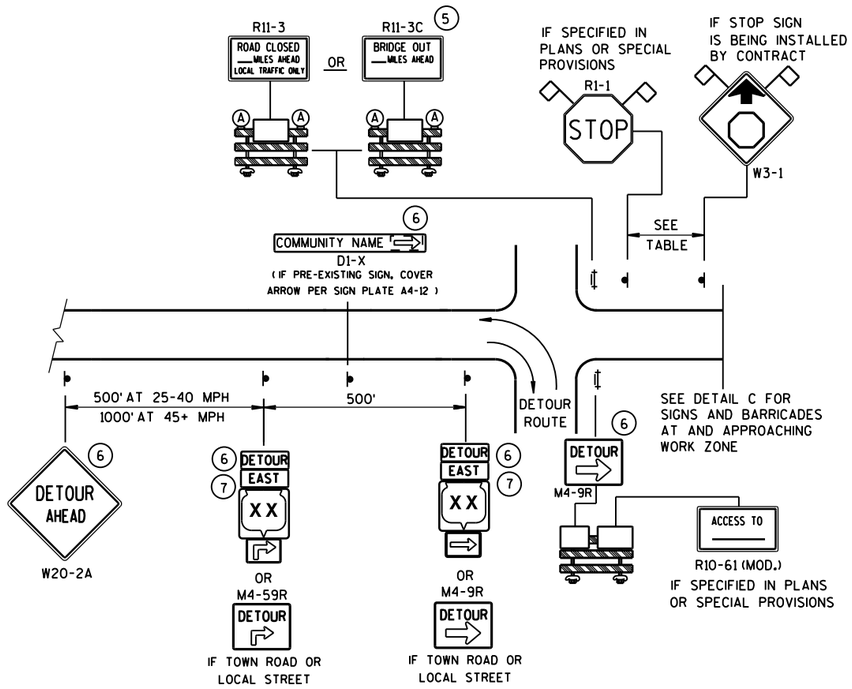
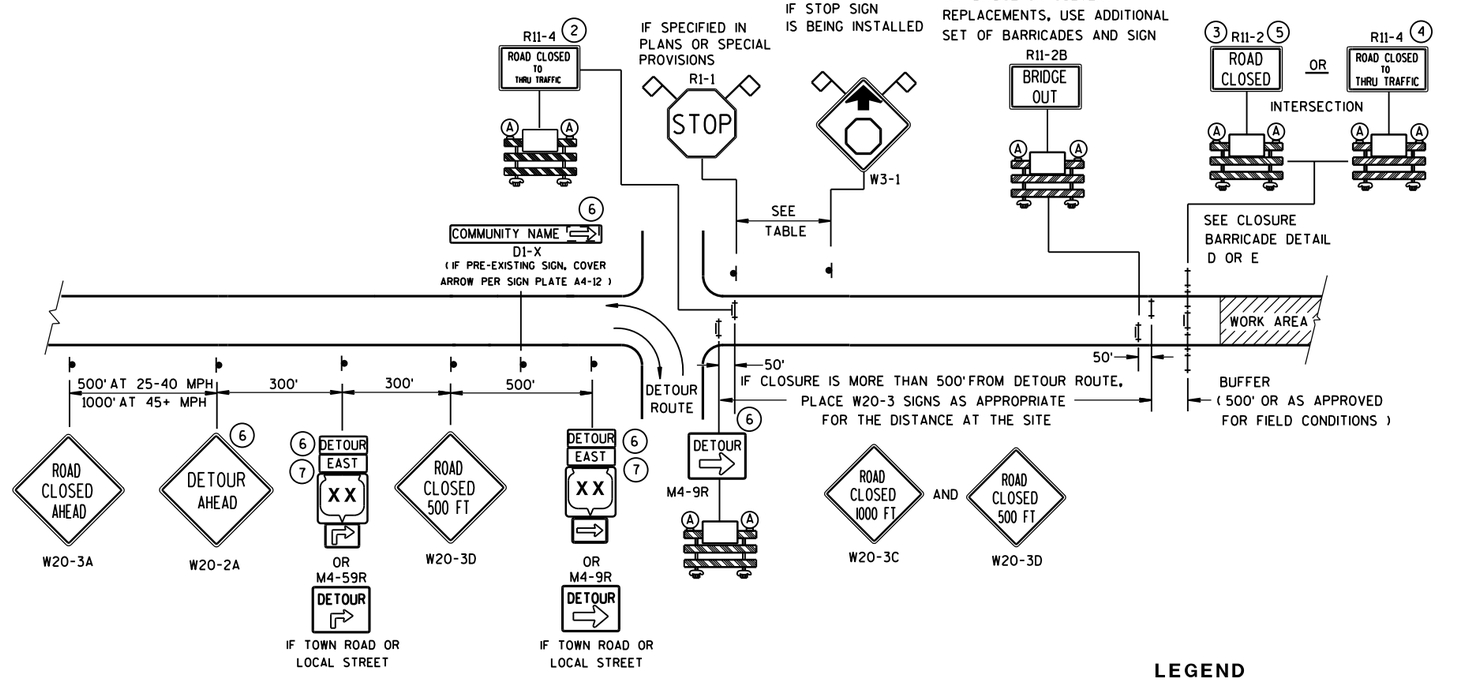
S.D.D. 13 C 18-6d



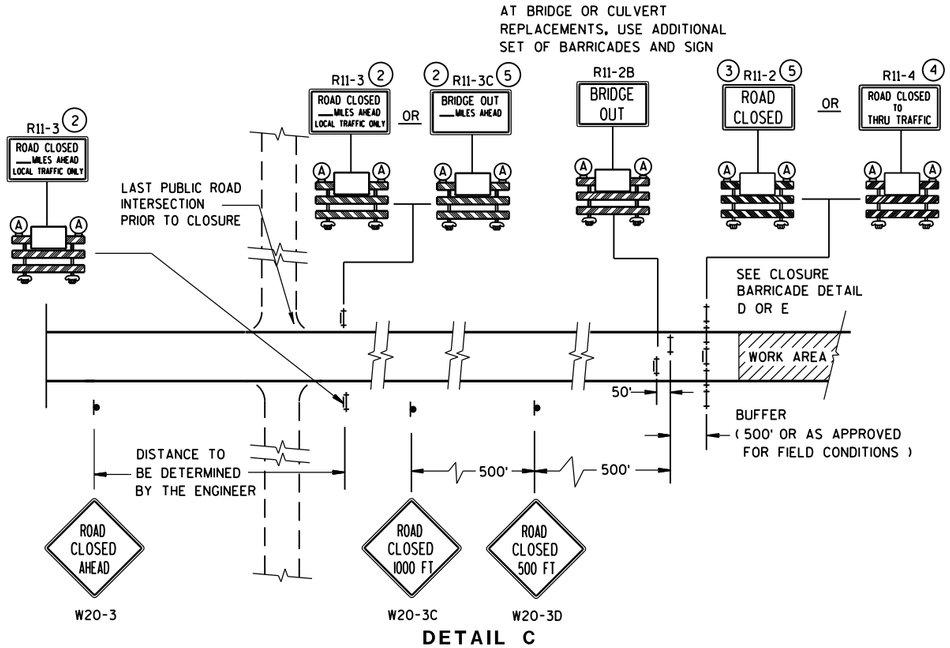
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN 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
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

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S.D.D. 15 C 2-6a

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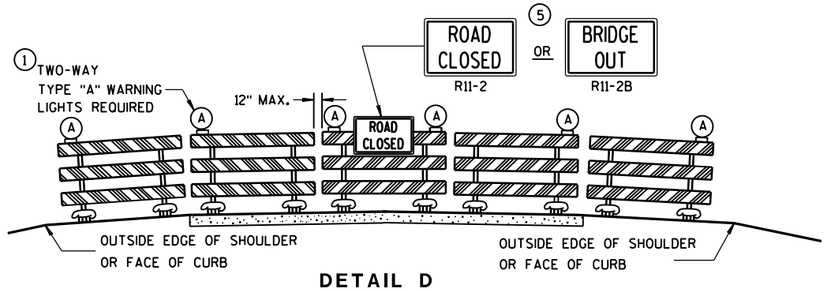
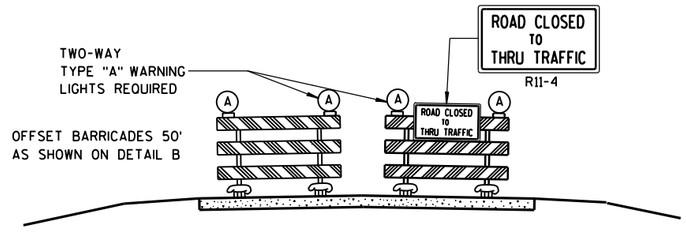
S.D.D. 15 C 2-6a



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 BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE 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, 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". (30" X 15" 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.)
- 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 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 LANE 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 MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI — FIC

FHWA

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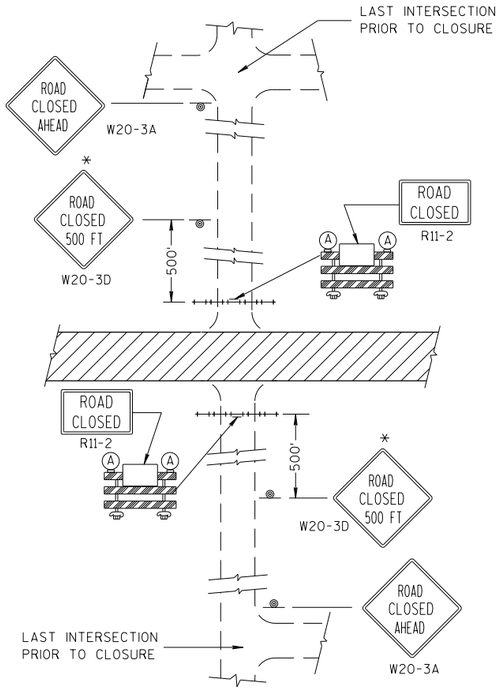
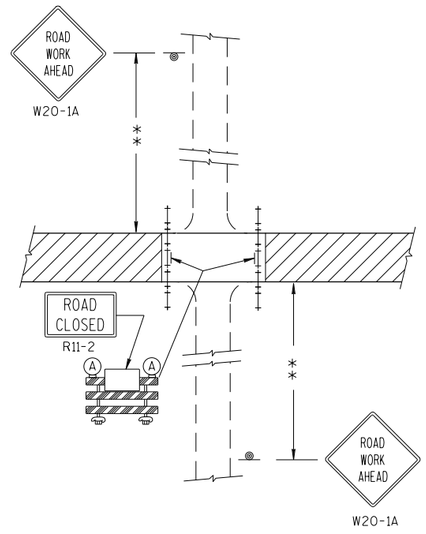


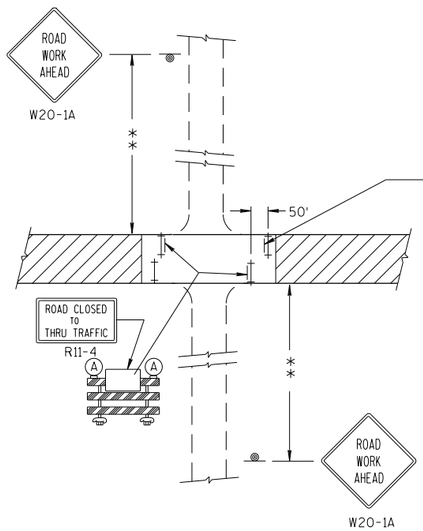
DETAIL 1

(NO ACCESS TO PROJECT)



DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR,
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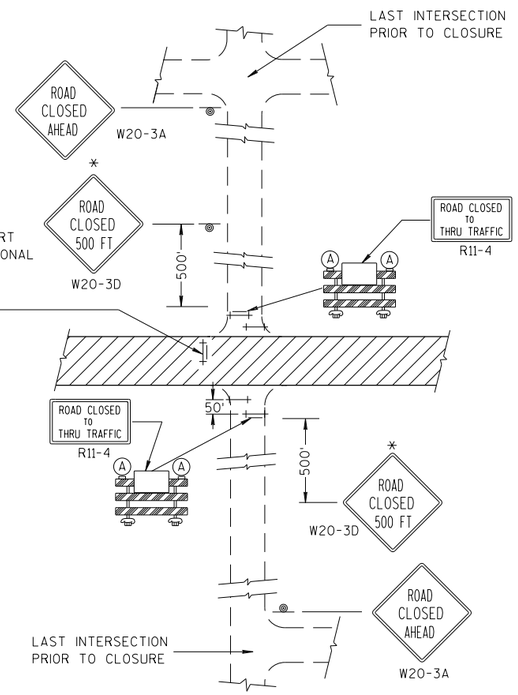

DETAIL 4

(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 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 RE-ESTABLISHED.

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 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 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGI

FHWA

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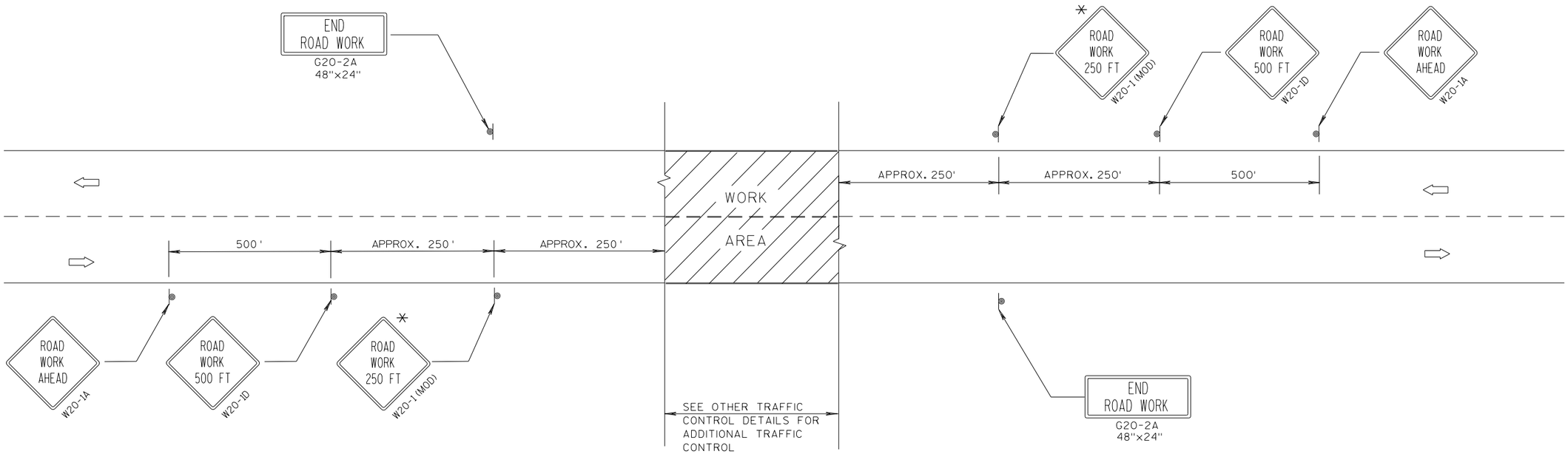
S.D.D. 15 C 3-5

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

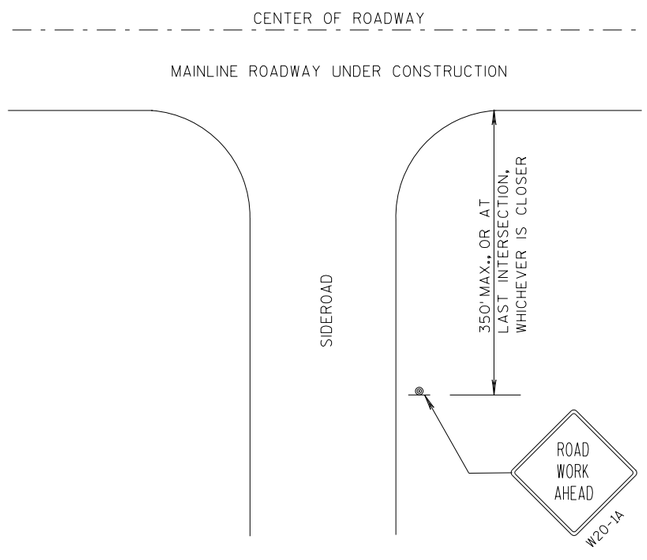
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 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 RE-ESTABLISHED.

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



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGI
FHWA

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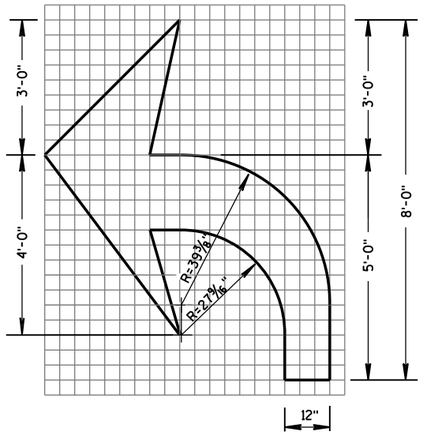
S.D.D. 15 C 5-5

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.



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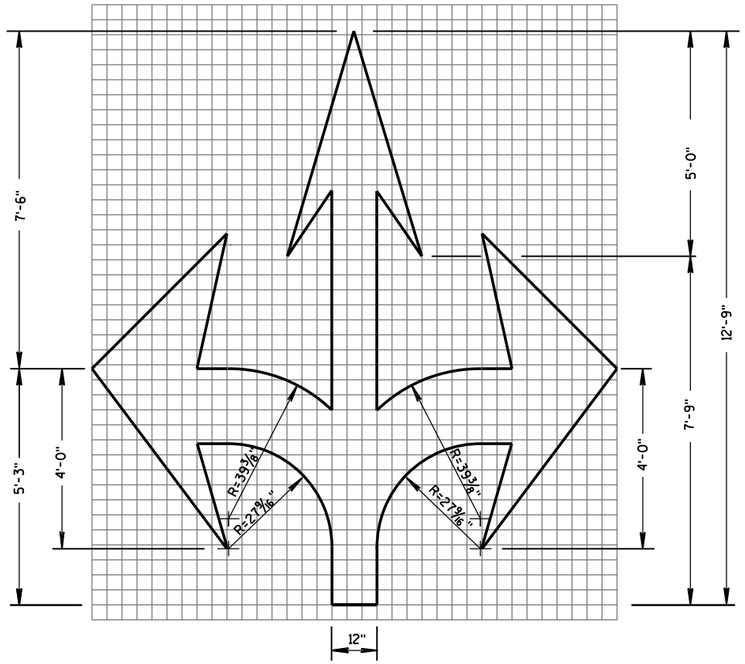
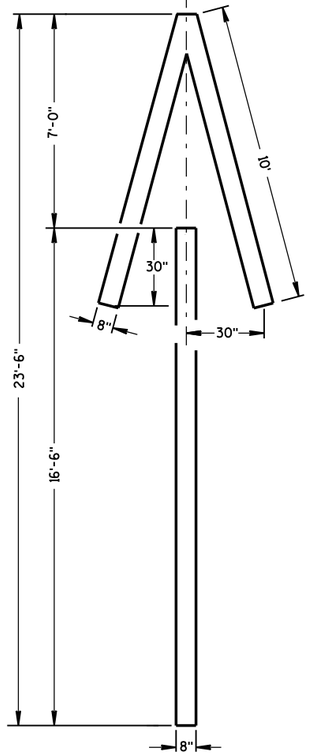


TYPE 6



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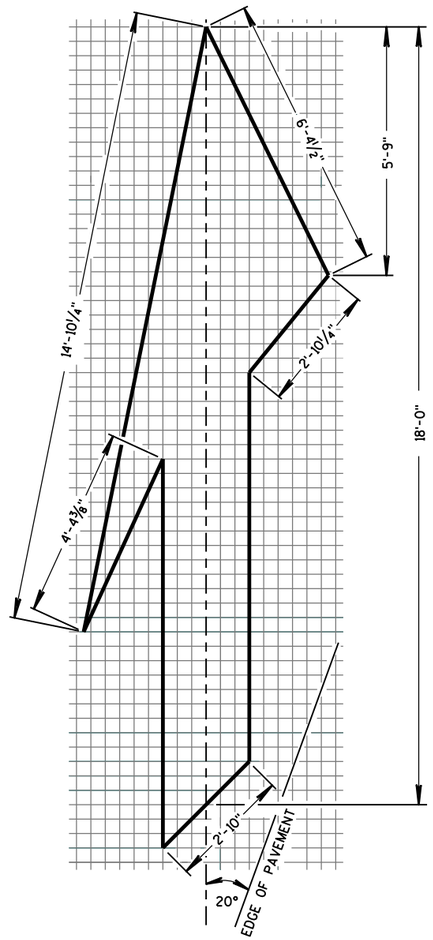
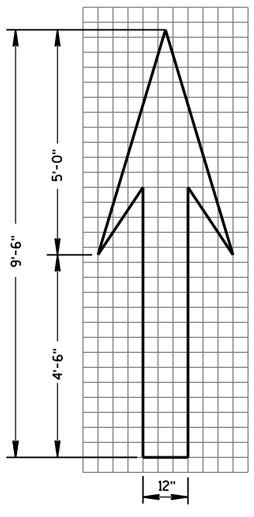
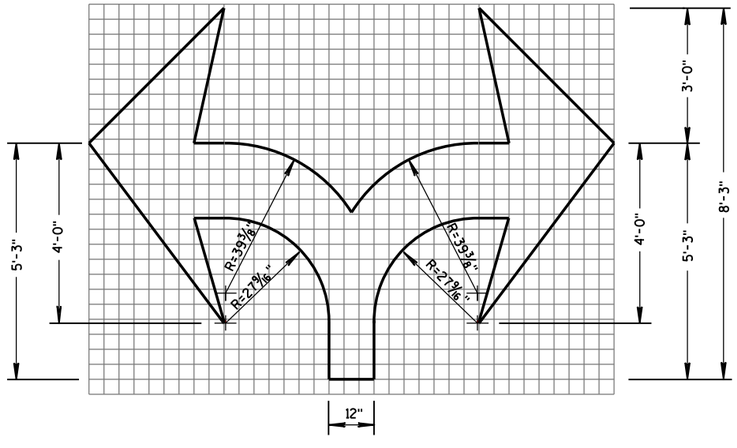


TYPE 5 LANE DROP ARROW



TYPE 1



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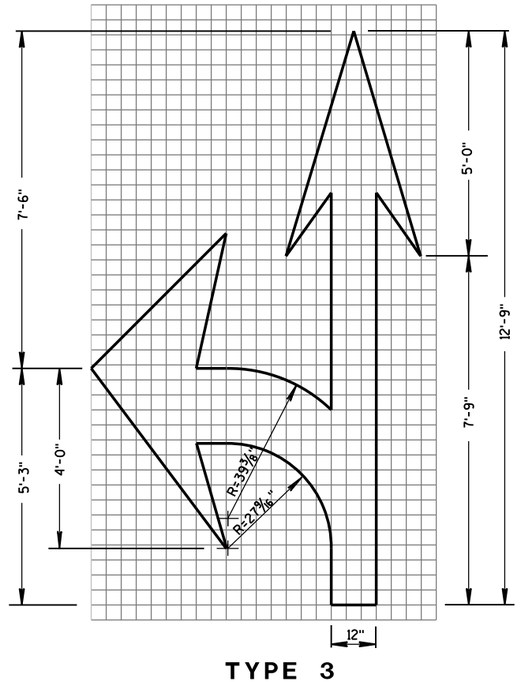

TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]NEER
FHWA

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S.D.D. 15 C 7-14c

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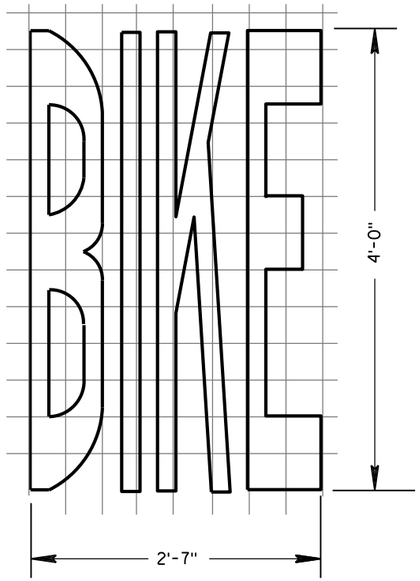
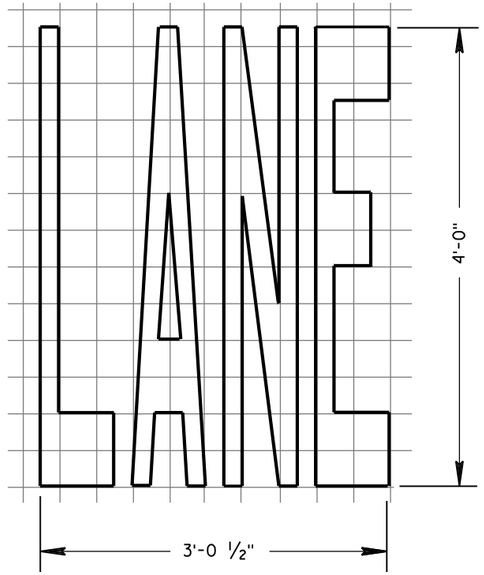
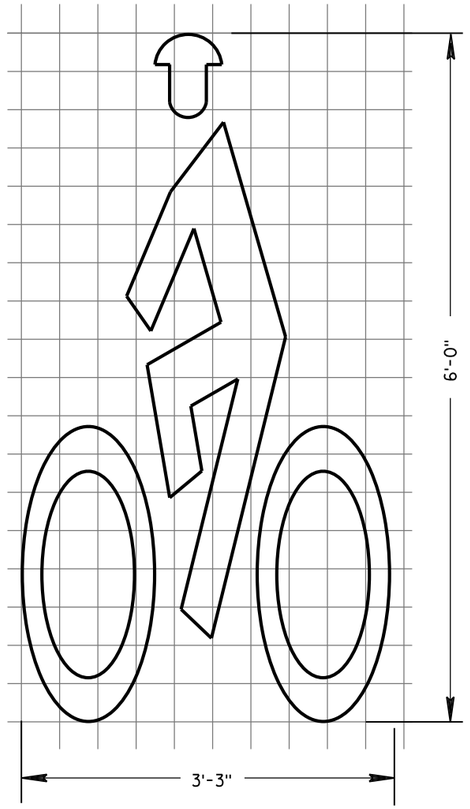
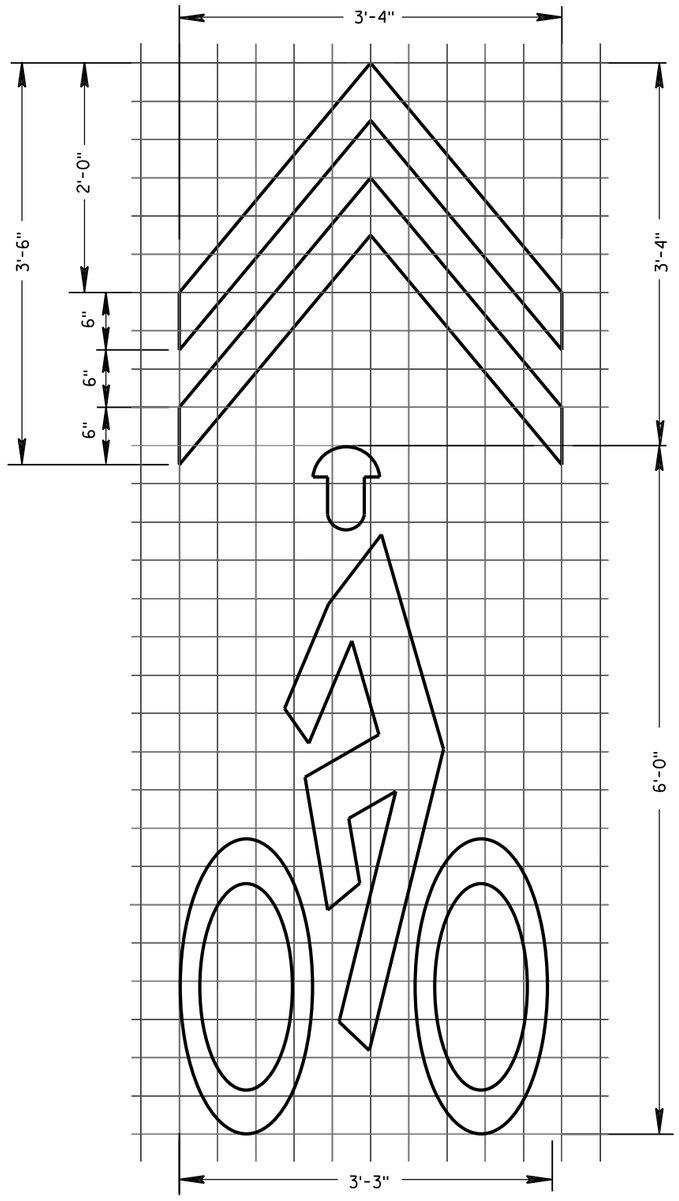




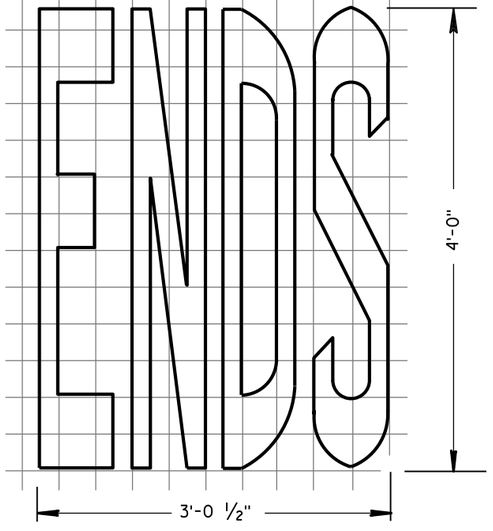
BIKE LANE WORDS



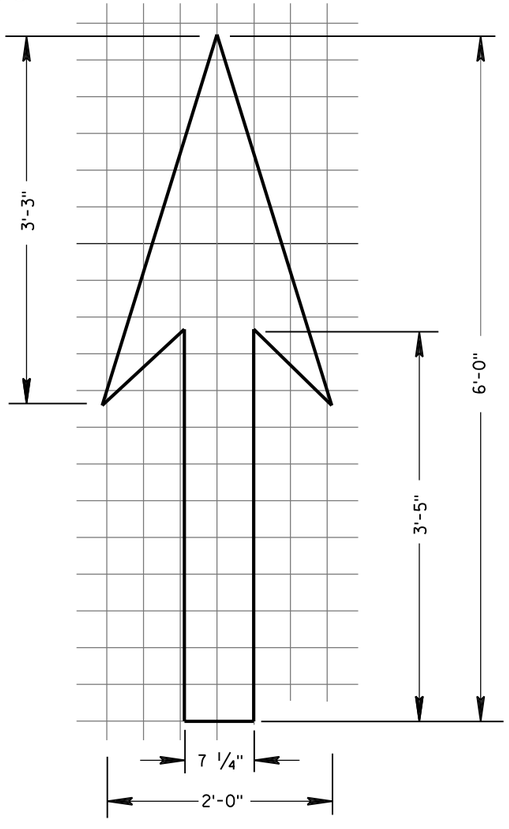
BIKE LANE SYMBOL



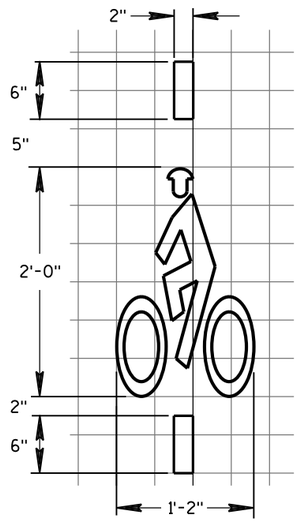
BIKE SYMBOL FOR SHARED LANE



BIKE LANE WORDS



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

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 FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

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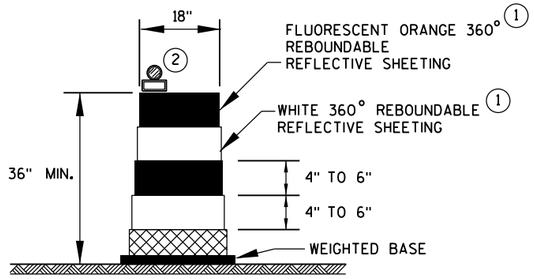
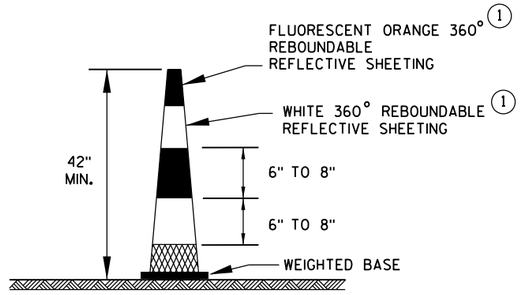
S.D.D. 15 C 7-14e



DRUM

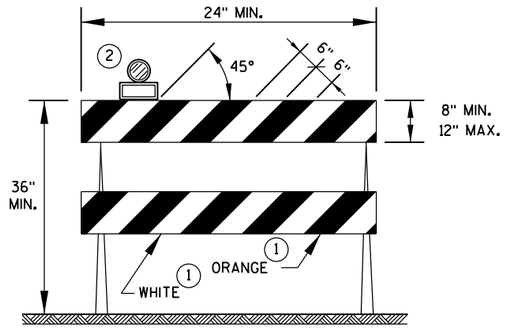


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

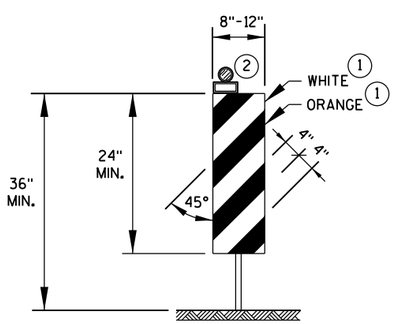
GENERAL NOTES

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.



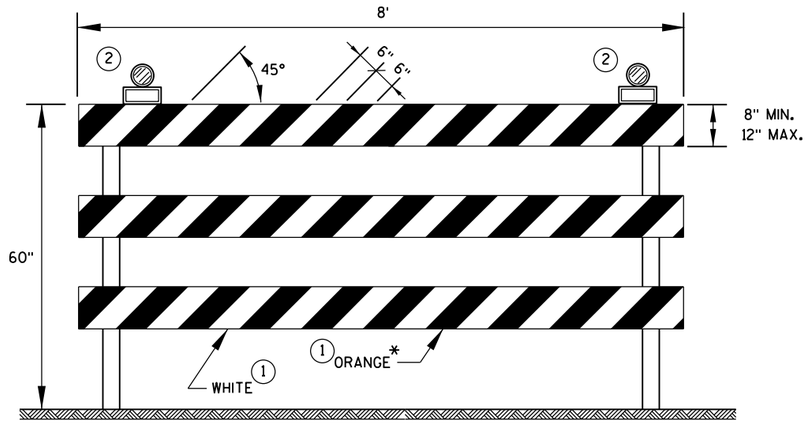
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 3 BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017 — DATE

/S/ Andrew Heidtke — WORK ZONE ENG

FHWA

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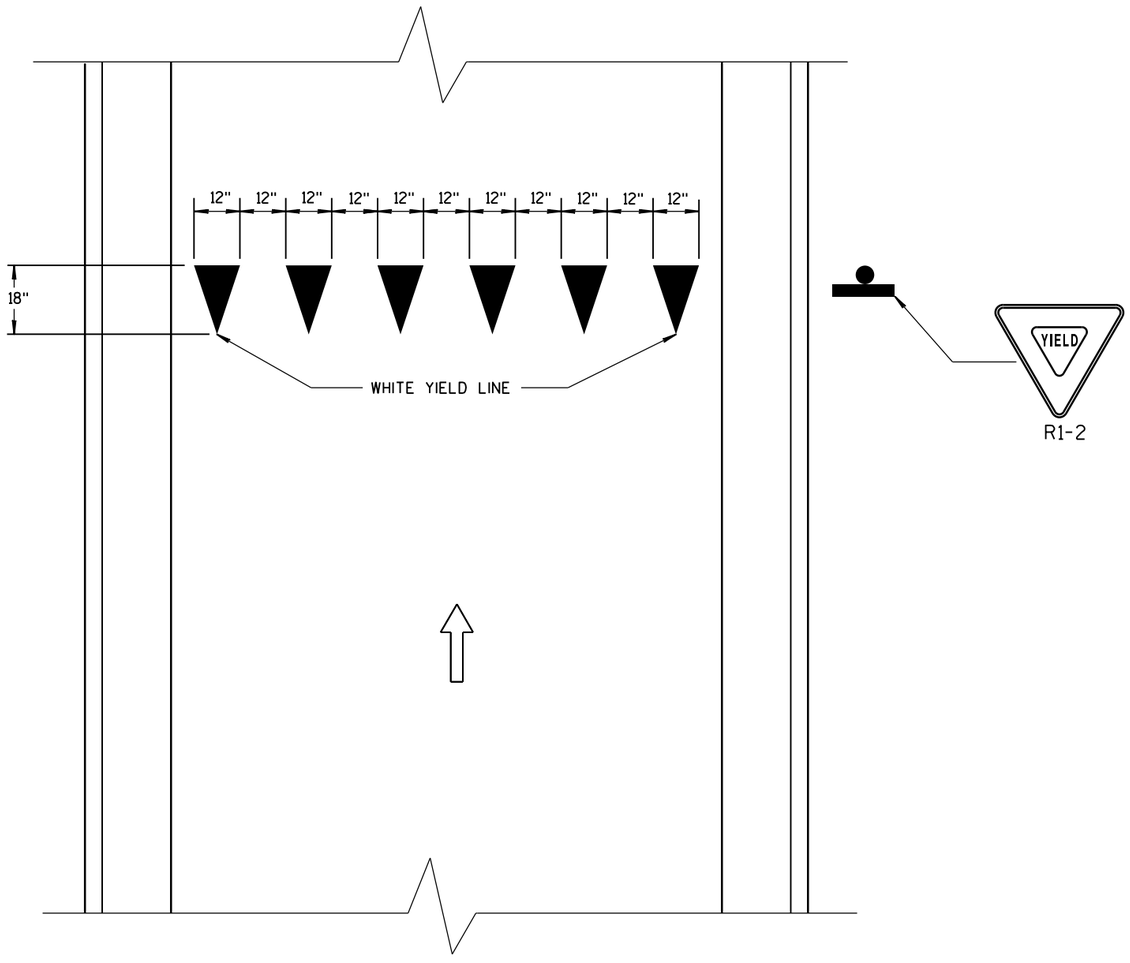
S.D.D. 15 C 11-7b



R1-2

DIRECTION OF TRAVEL

YIELD LINE

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S.D.D. 15 C 20-2

S.D.D. 15 C 20-2

YIELD MARKINGS

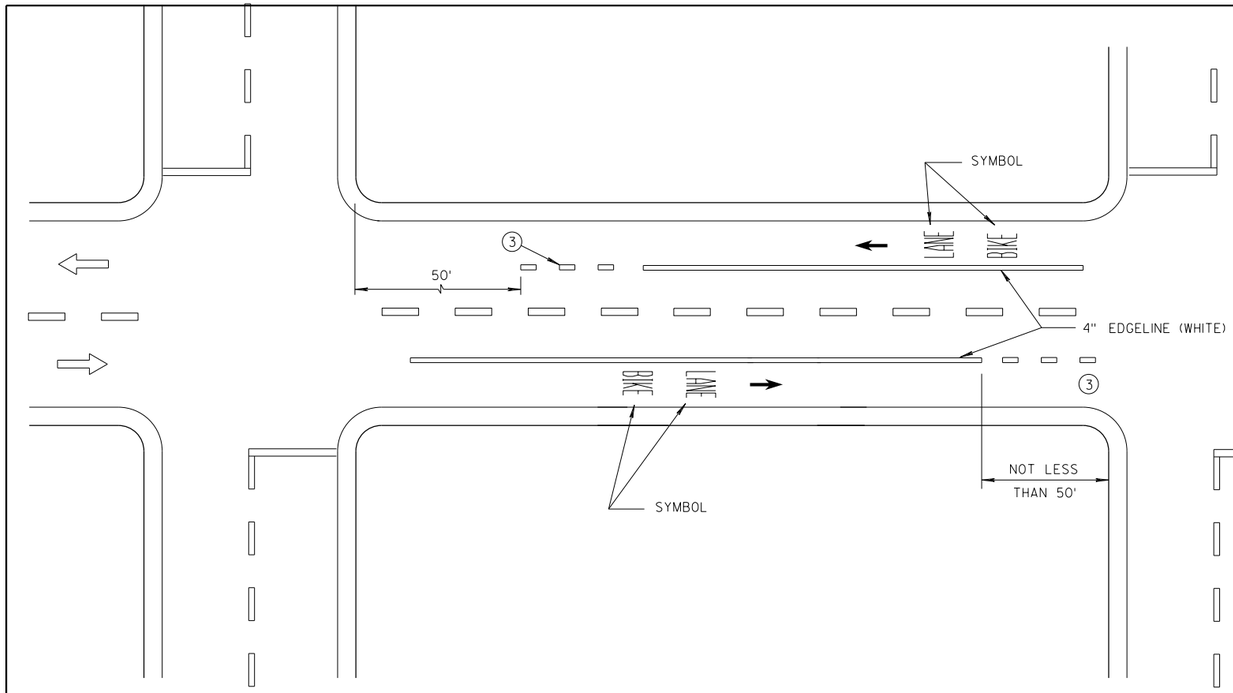
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

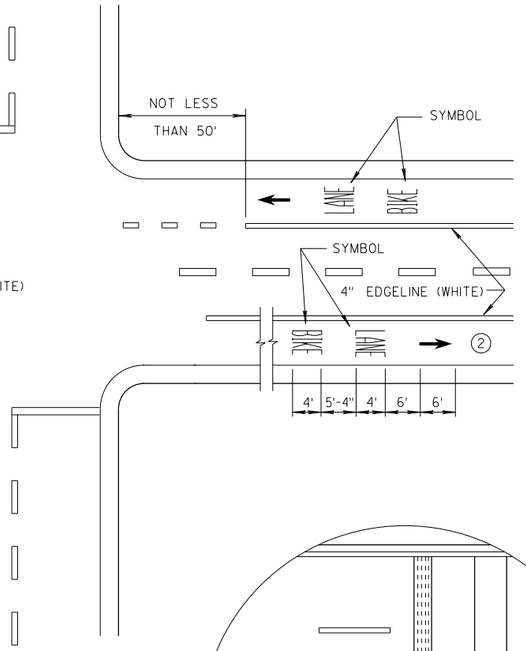
APPROVED

4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARI 144 IEER

FHWA



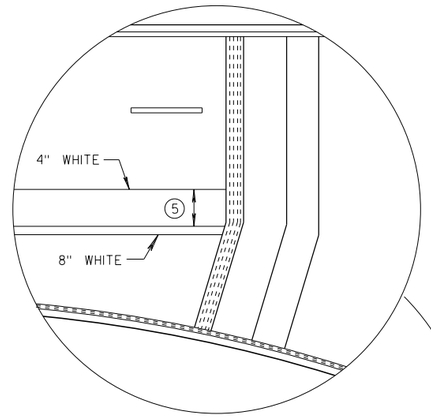


DESIGNATED BICYCLE LANE
NO PARKING

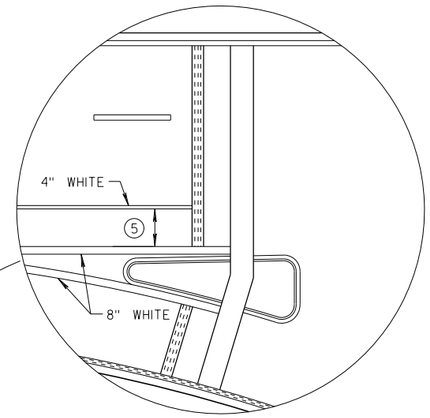
GENERAL NOTES

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. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMODATION IS TYPICALLY 5 FEET WIDE AND A 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 FEET WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

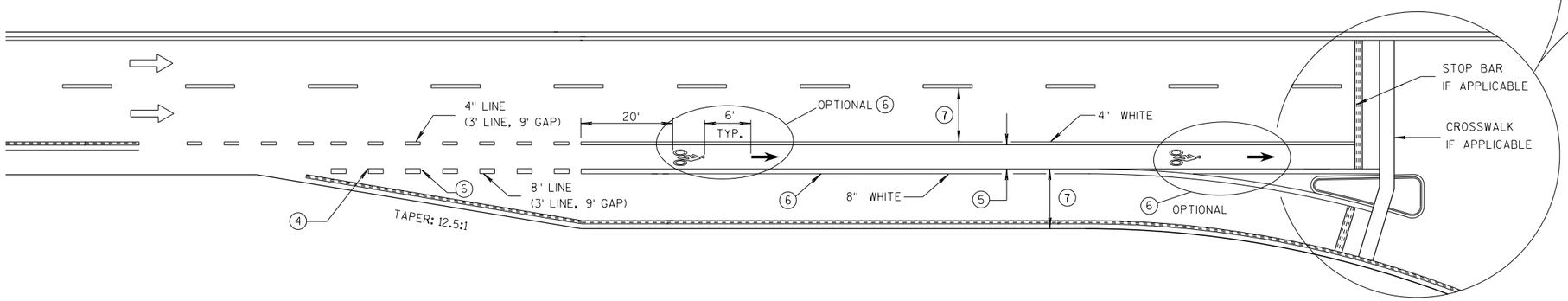
DIRECTION OF TRAVEL



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)

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR[illegible]

FHWA

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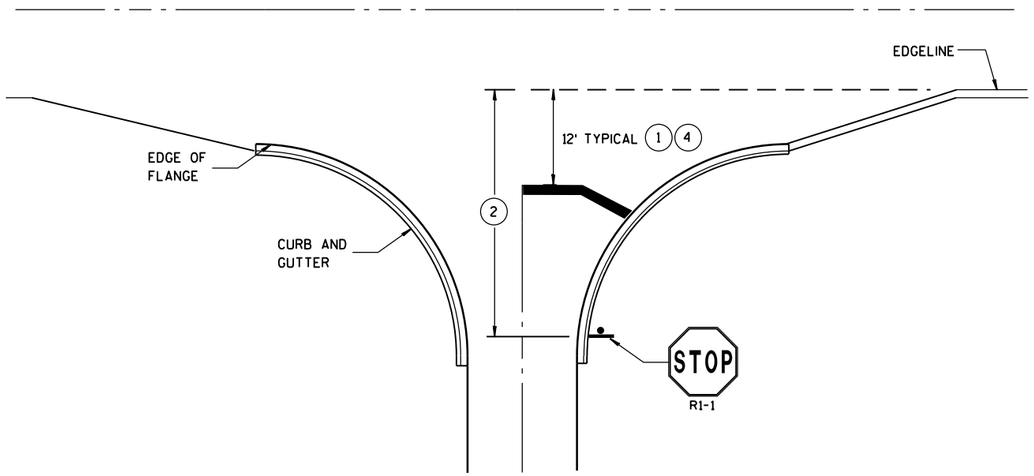
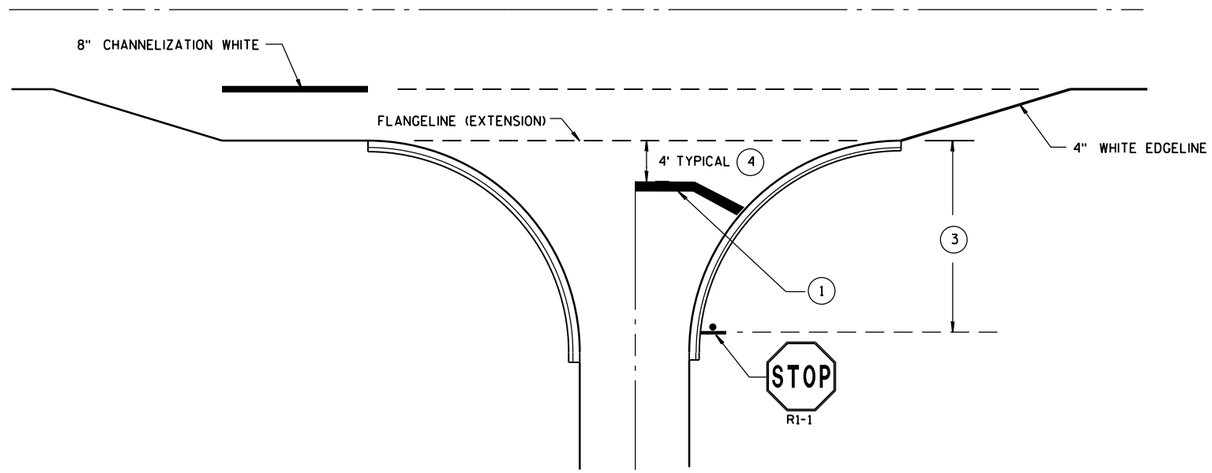
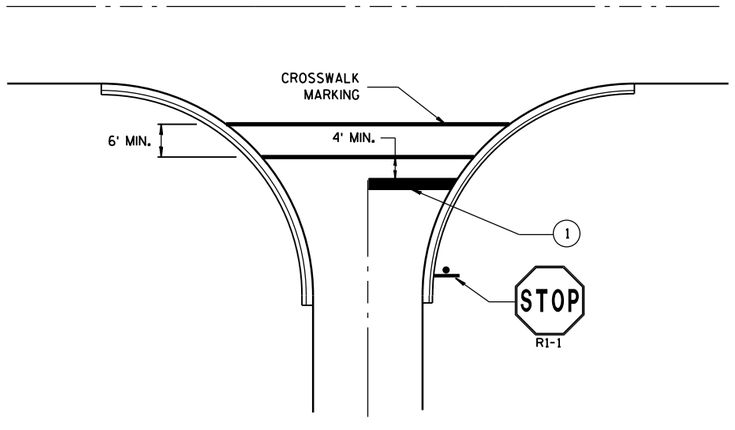
S.D.D. 15 C 29-6a



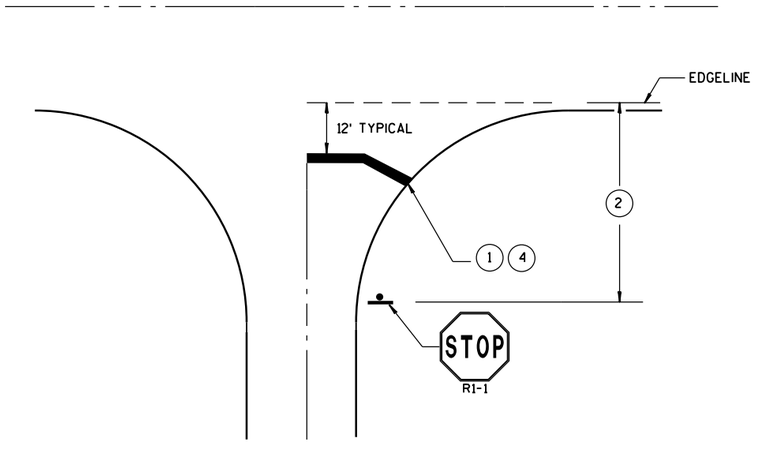
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

(1) 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

(2) IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.

(3) IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.

(4) MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]NEER

FHWA

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S.D.D. 15 C 33-3

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

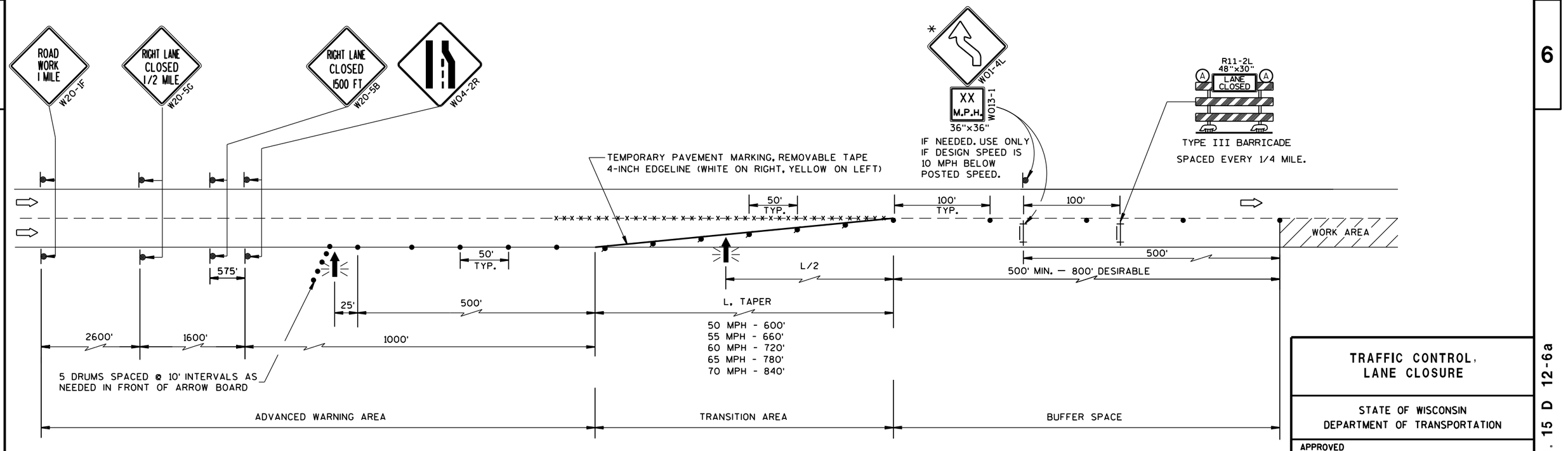
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



TRAFFIC CONTROL, LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGIN IC
FHWA

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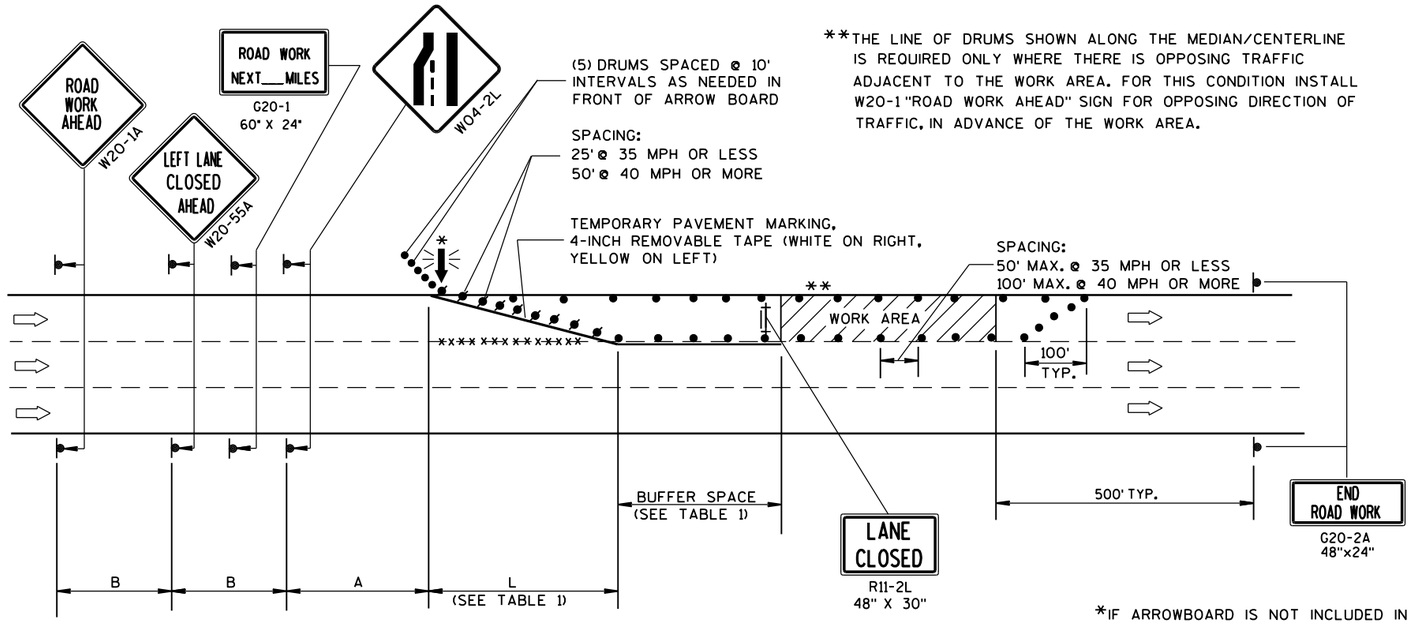
S.D.D. 15 D 12-6a



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

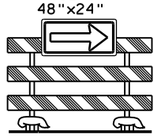


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER

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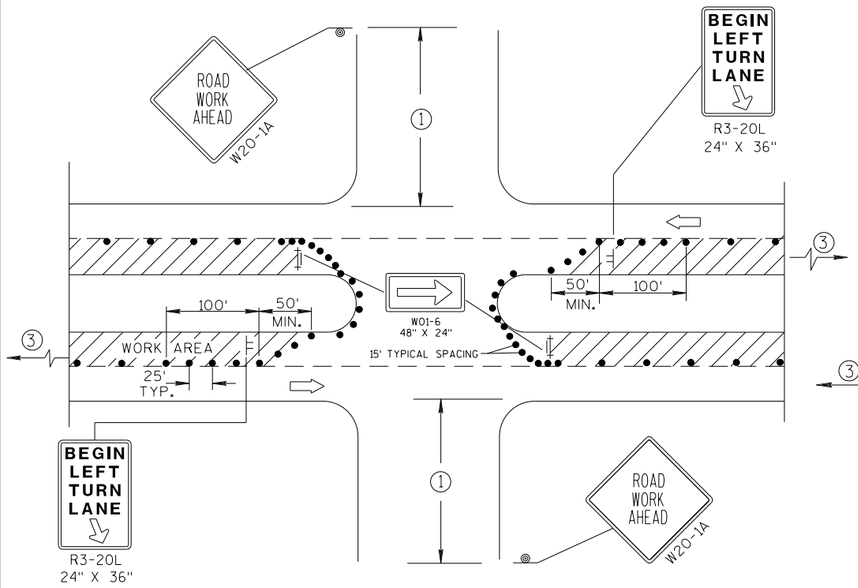
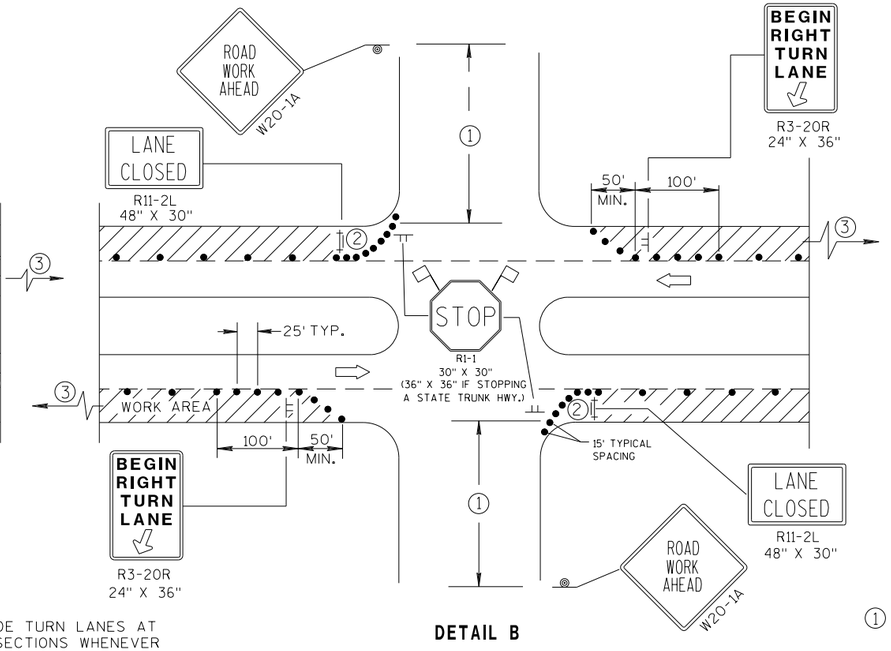
S.D.D. 15 D 20-4



DETAIL A

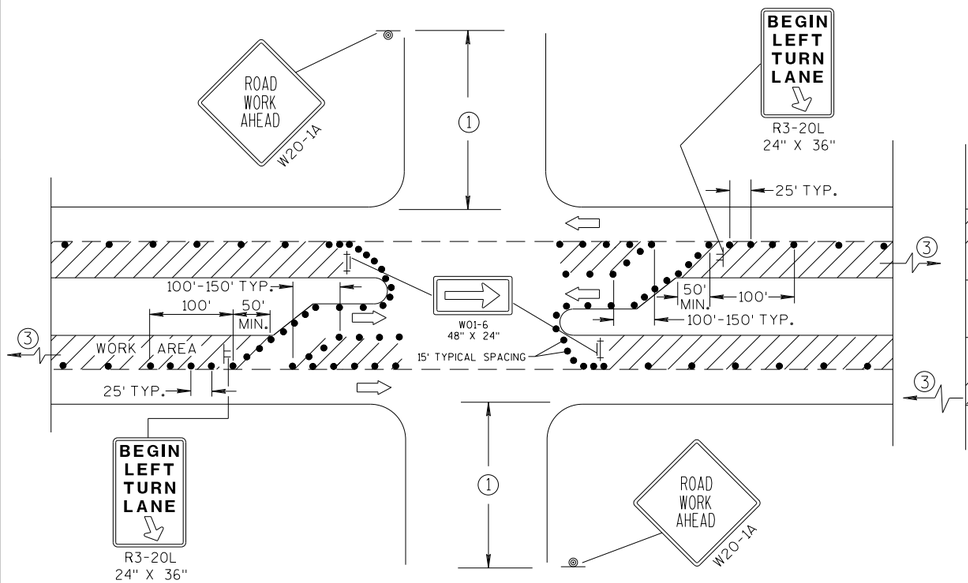
FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



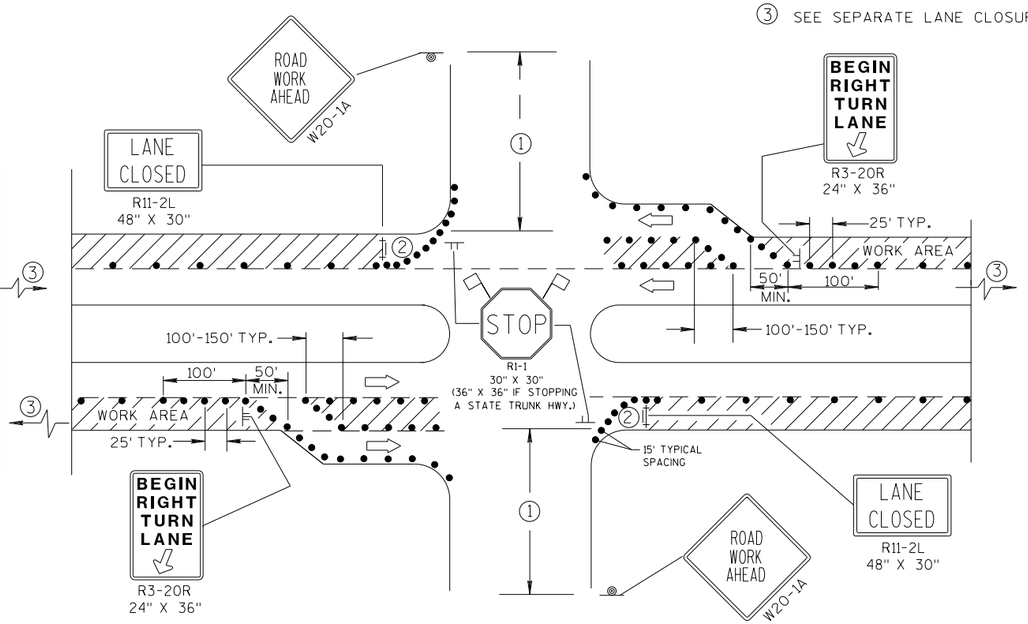
DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

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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" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

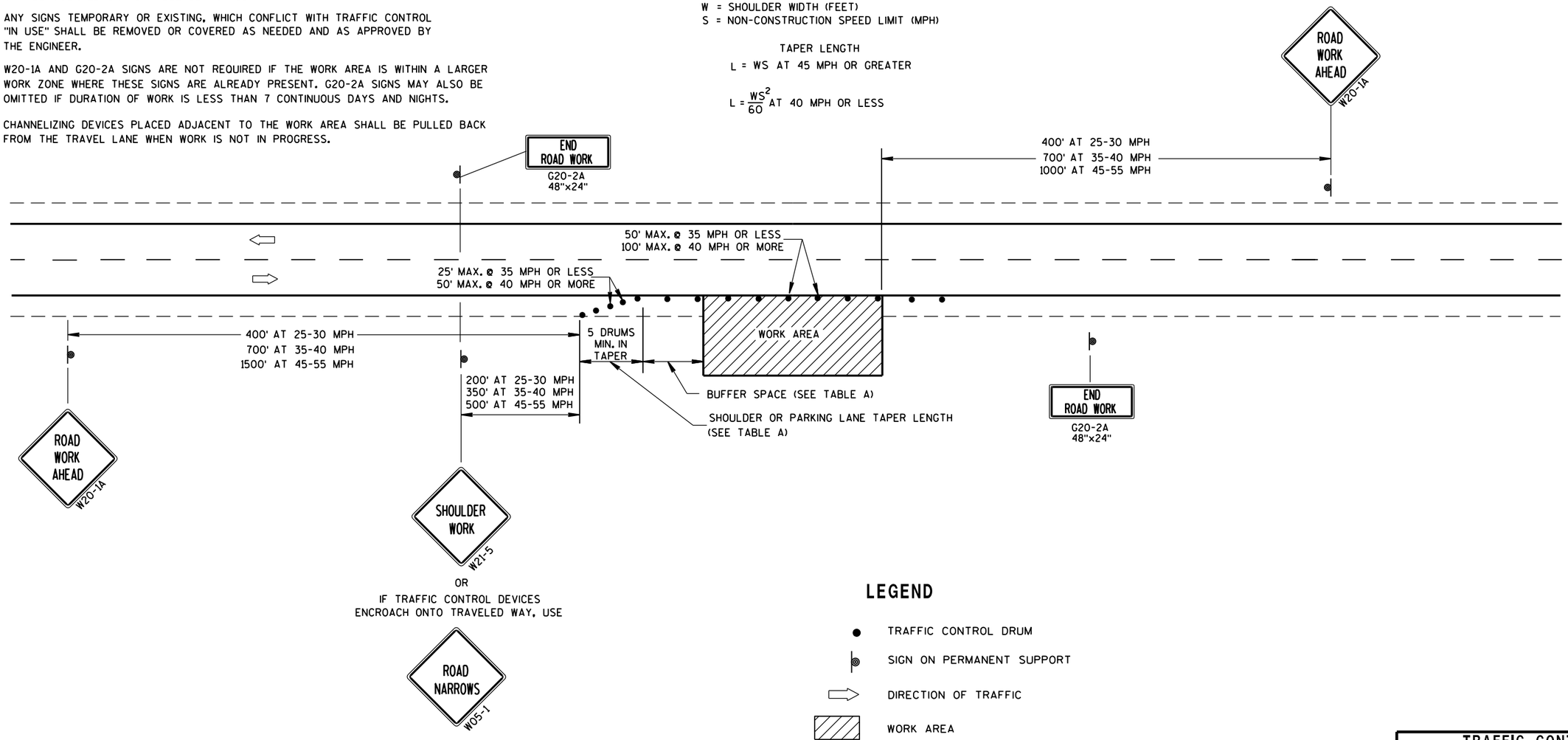
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

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

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible] FIC

FHWA

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S.D.D. 15 D 28-3

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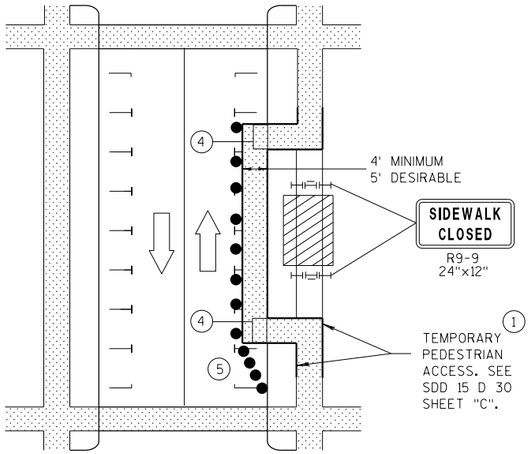
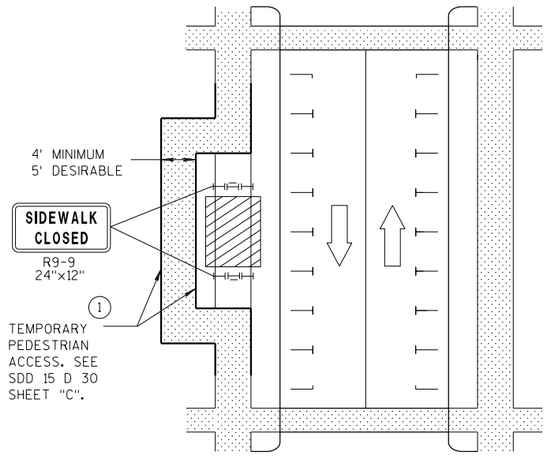
S.D.D. 15 D 28-3

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

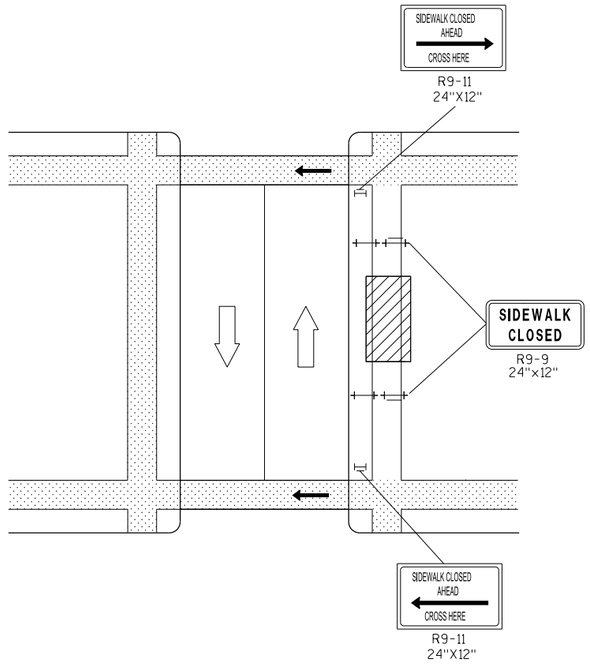


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

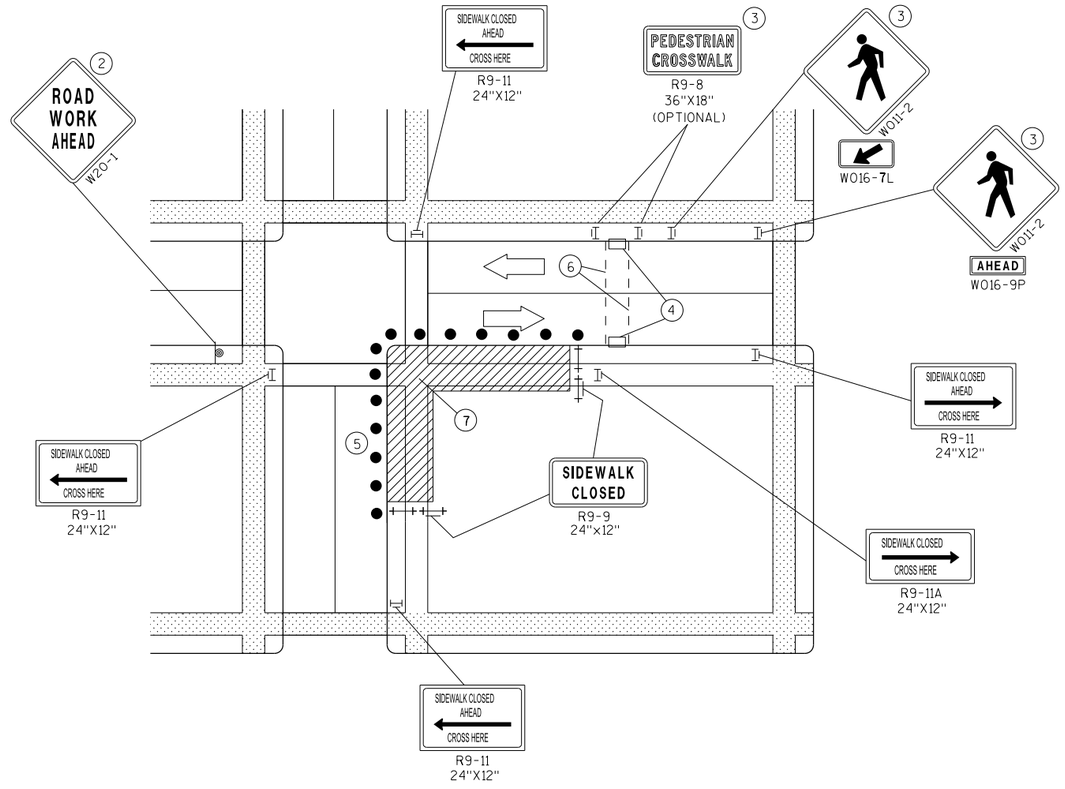
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

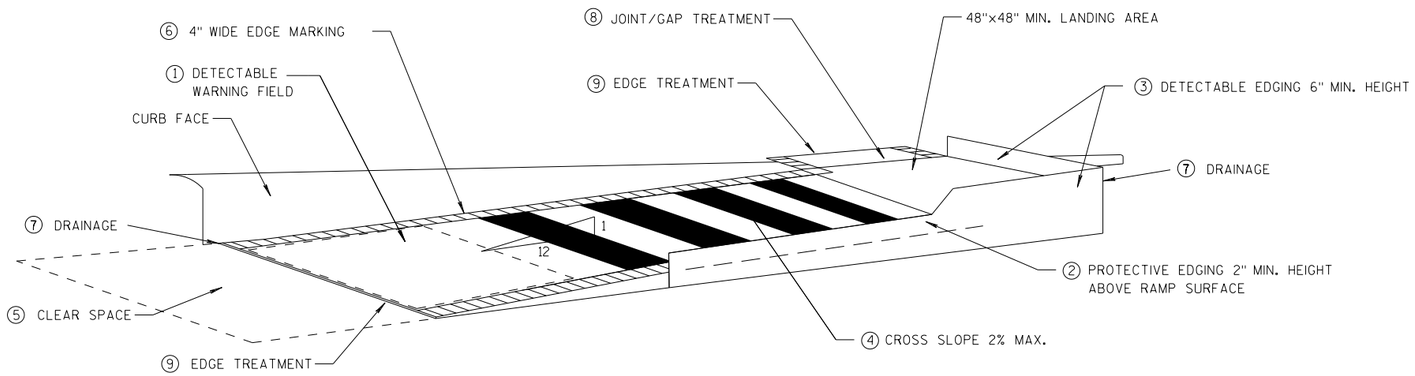
LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6

S.D.D. 15 D 30-4a



TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".

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 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

⑤ CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

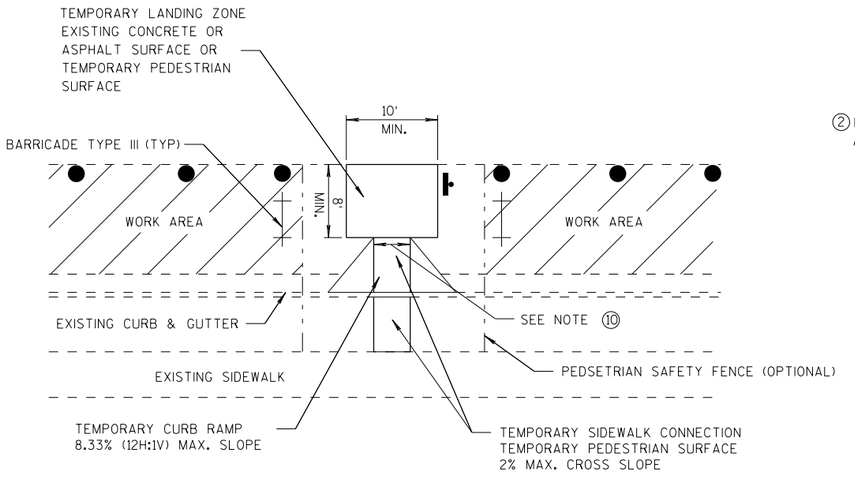
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

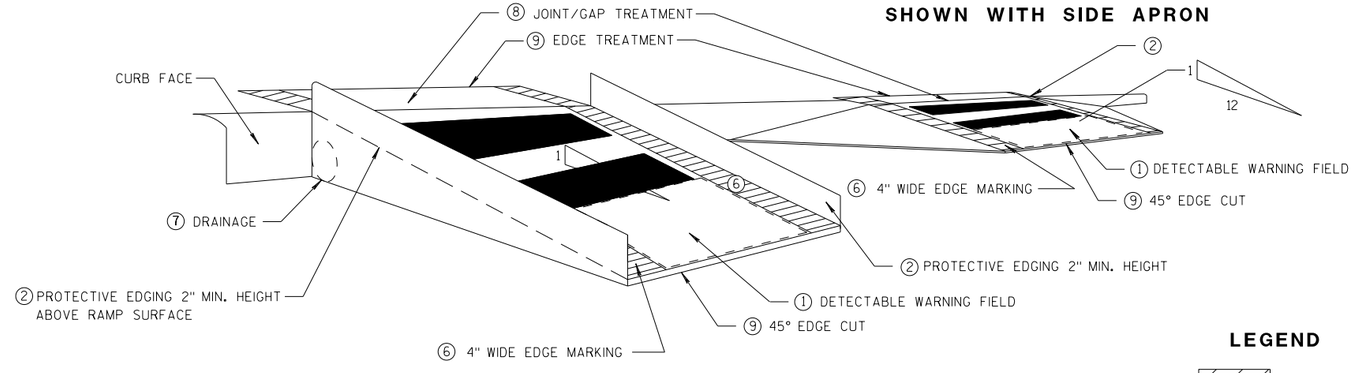
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

⑩ 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 DATE

/S/ Andrew Heidtke
WORK ZONE ENG

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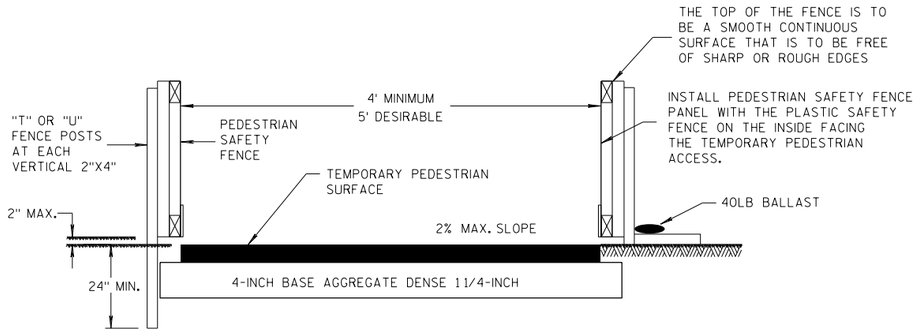
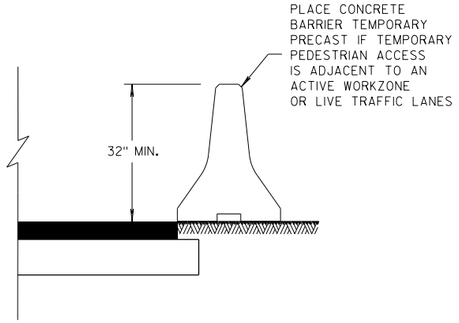
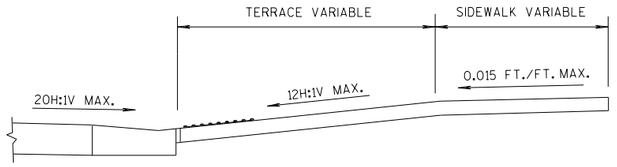




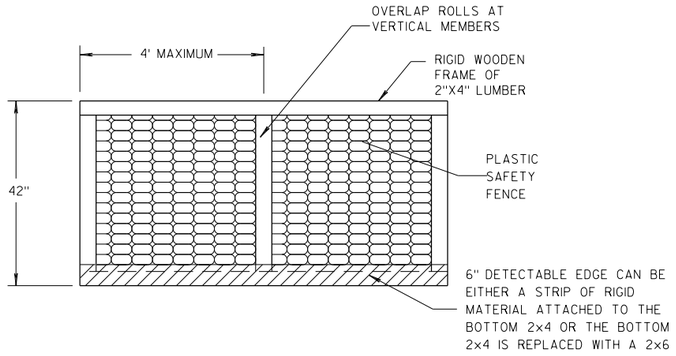
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

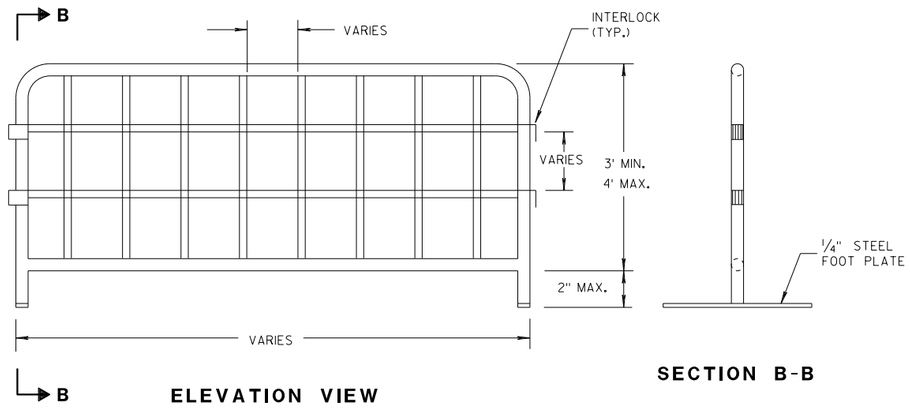
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



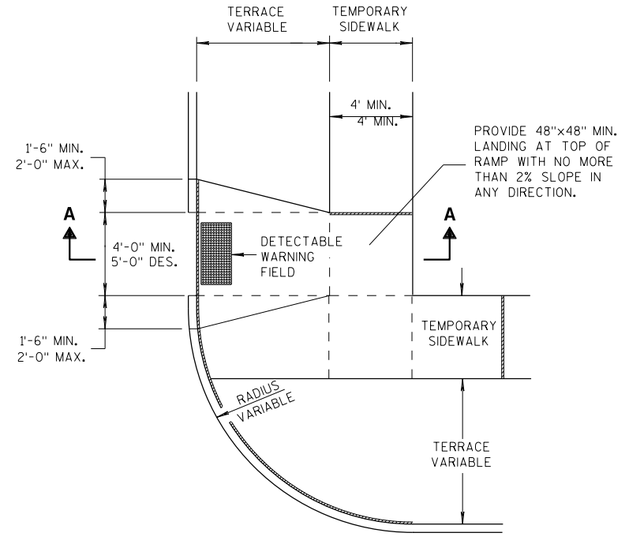
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

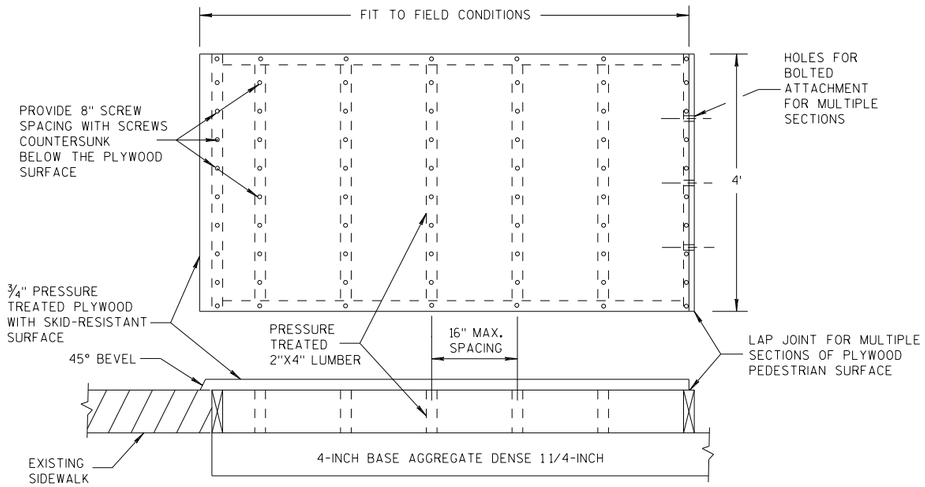
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



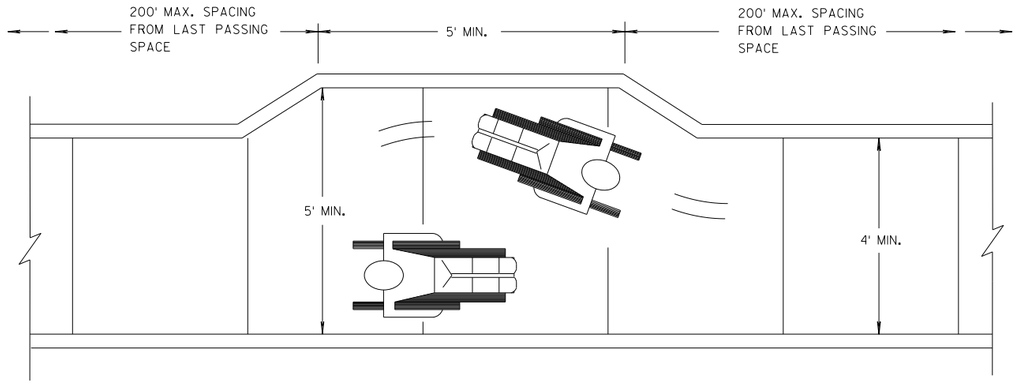
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heidtke
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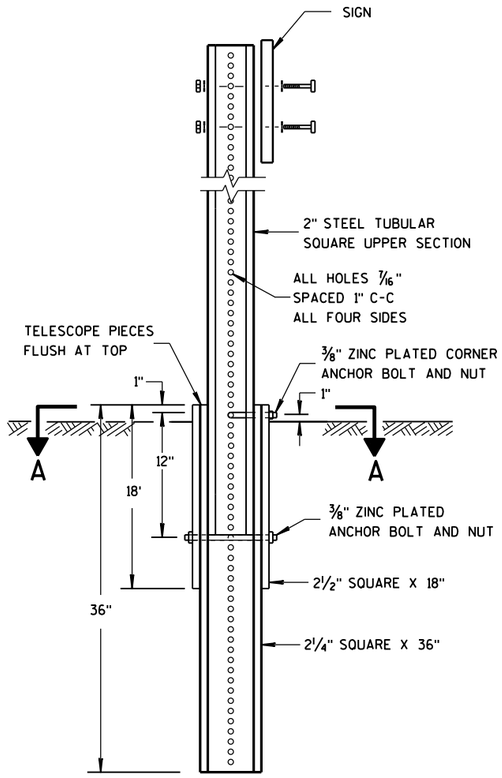
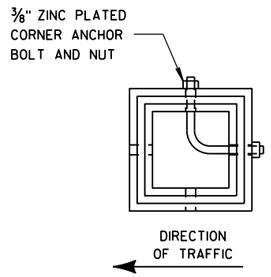
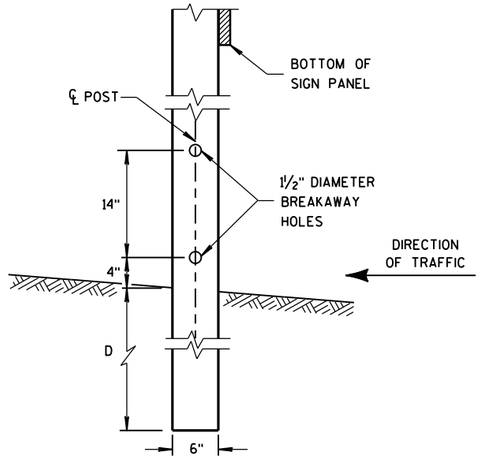


DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



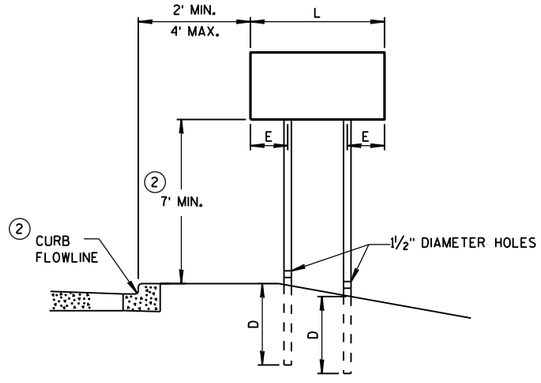
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

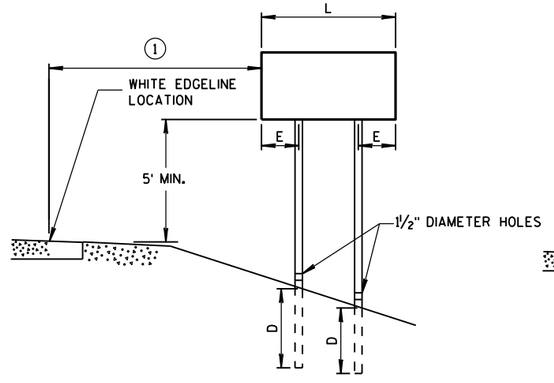
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

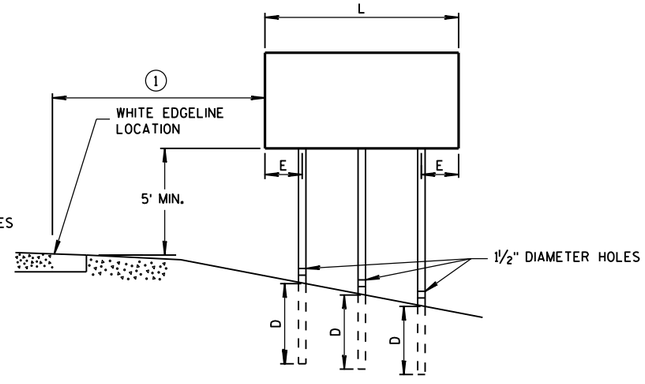
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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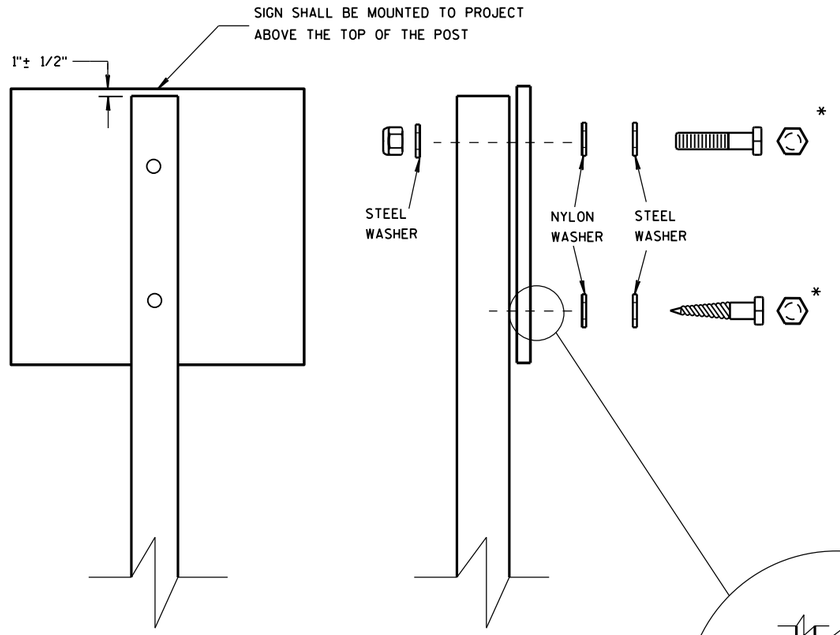
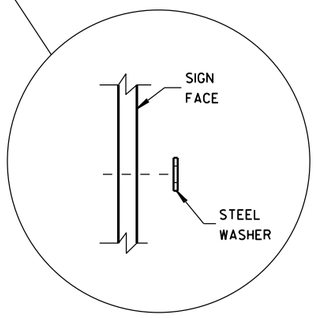
S.D.D. 15 D 38-2a





WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

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

WASHERS (ALL POSTS) -

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

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

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S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

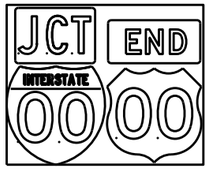
June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

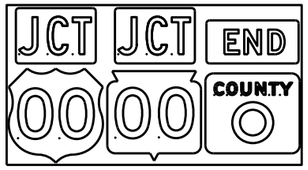
FHWA

TYPICAL ASSEMBLIES

J1-1

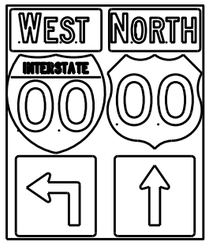


J1-2

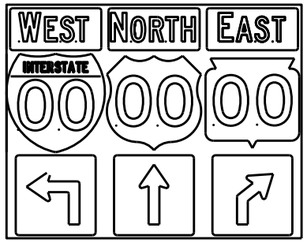


J1-3

J2-1



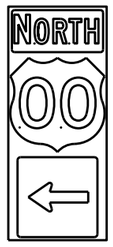
J2-2



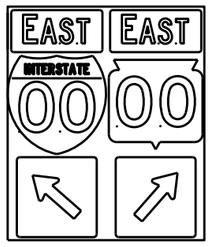
J2-3

JV

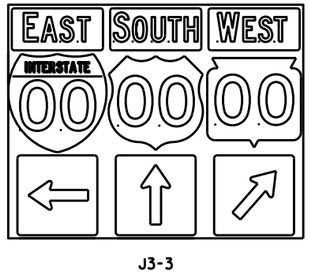
(Typical Vertical J-Assembly
See Note 10 and 11)



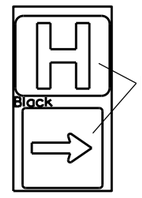
J3-1



J3-2

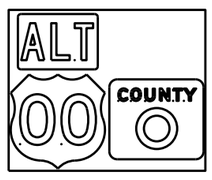


J3-3

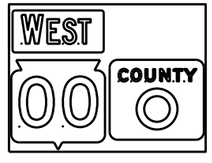


JH-1

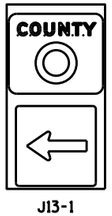
J4-1



J4-2



J4-2



J13-1

J12-1

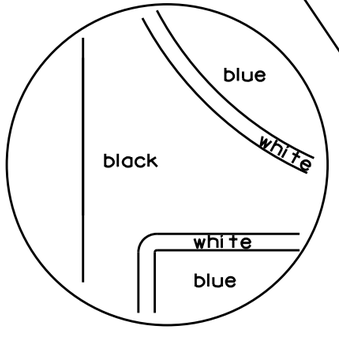
J32-1

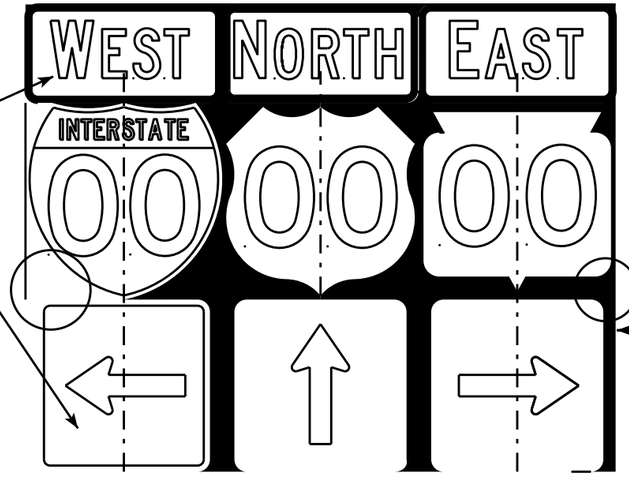
J33-1

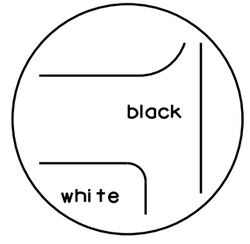
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

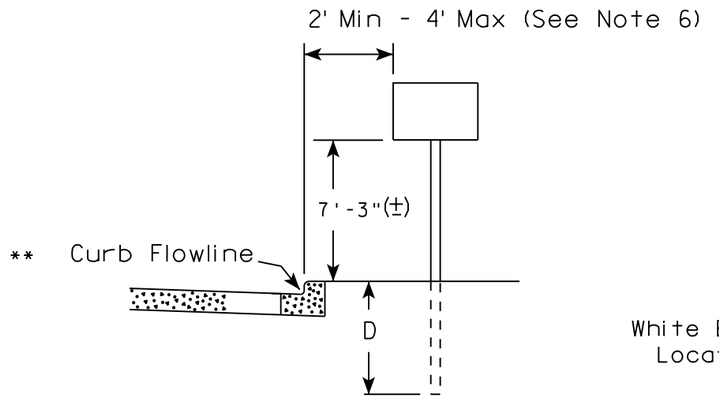
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PL... A2-1S.8

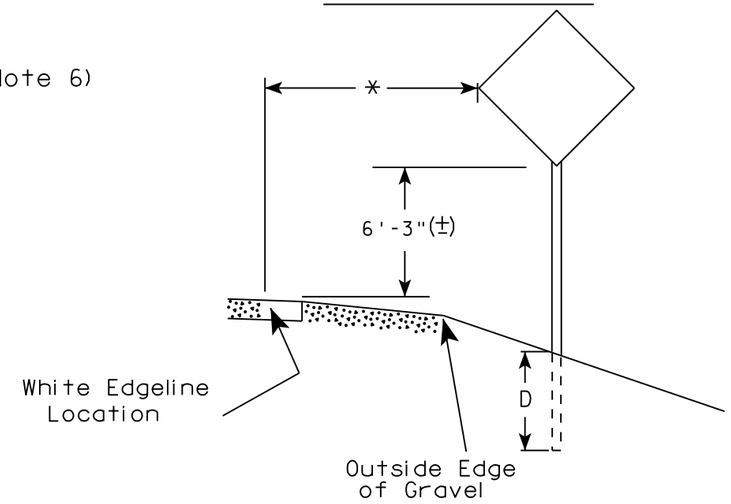
PROJECT NO: | SHEET NO: E

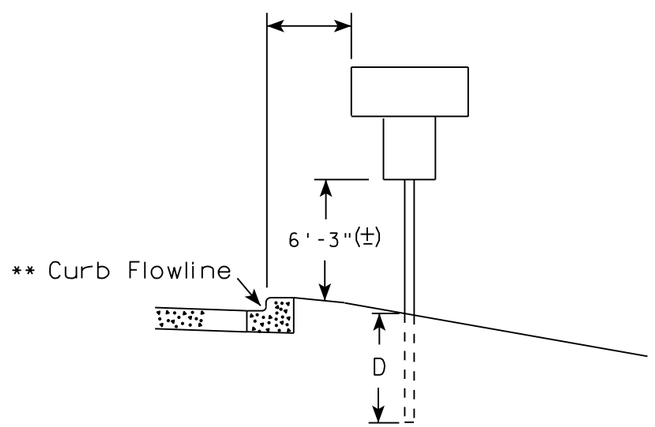
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :
WISDOT/CADDS SHEET 42

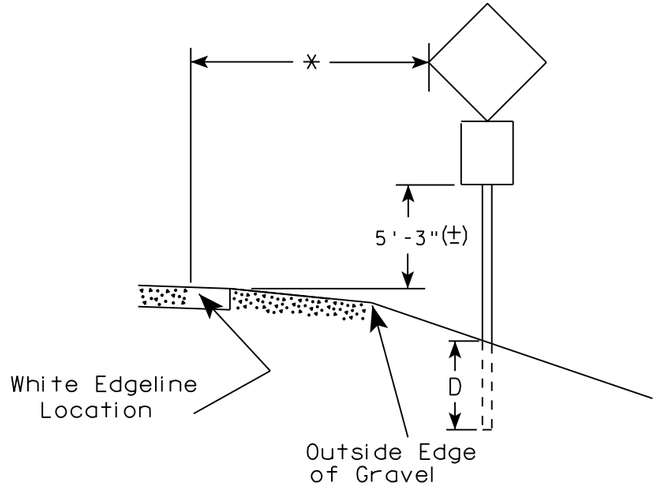
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

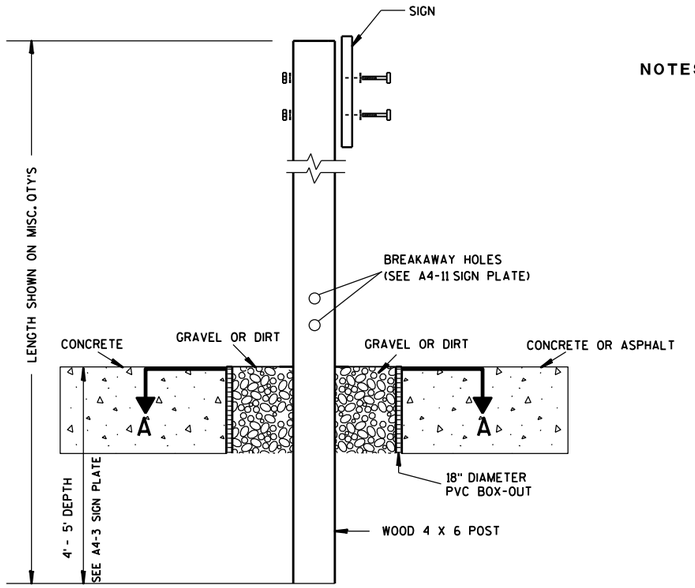
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

7

7

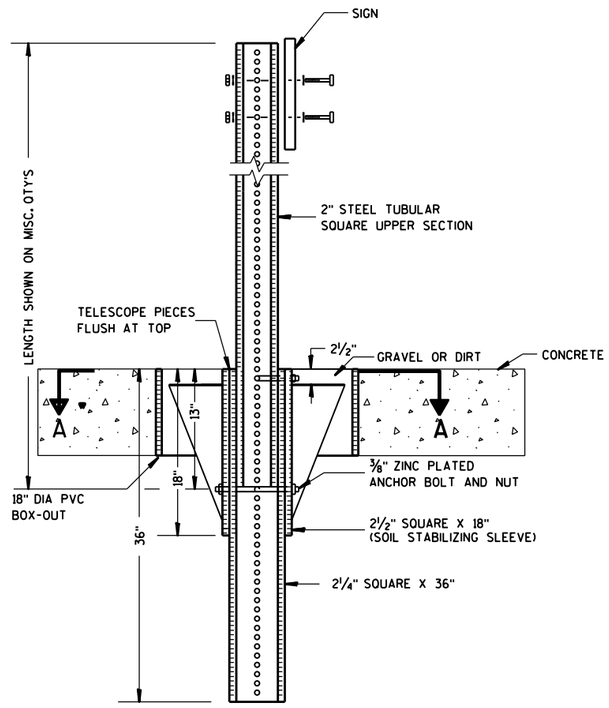
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 157	E



ELEVATION VIEW

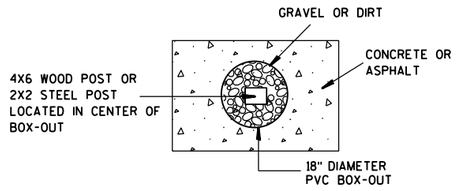
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

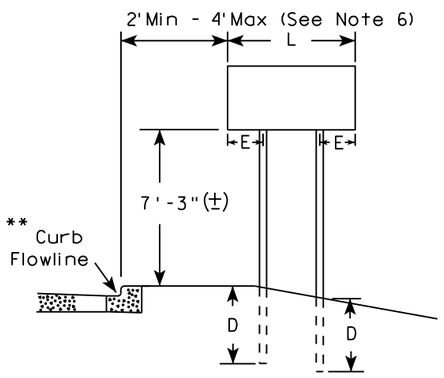
APPROVED Matthew R Rauch
for State Traffic Engineer

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

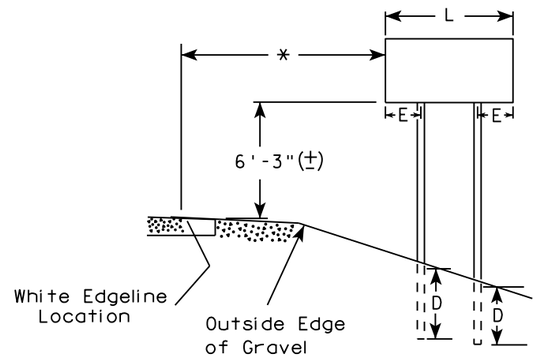
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

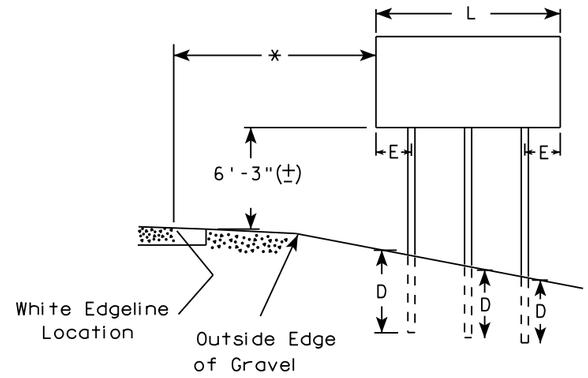
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

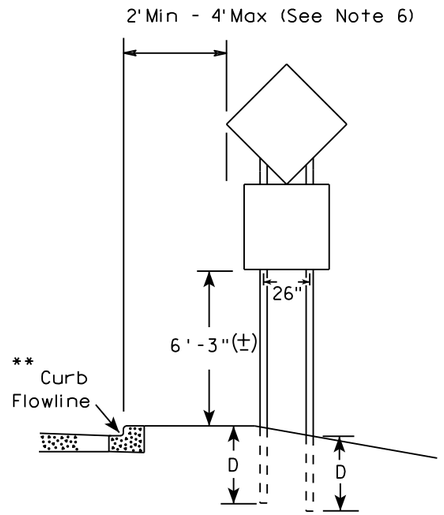
URBAN AREA



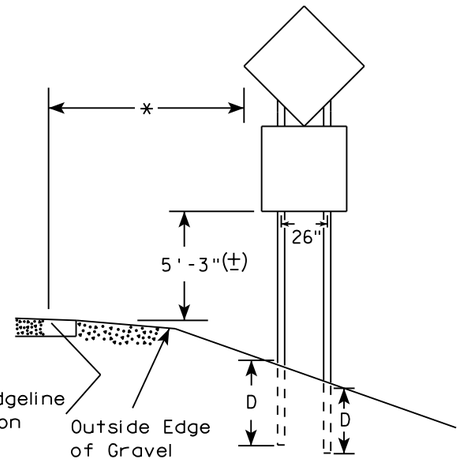
RURAL AREA (See Note 3)







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'

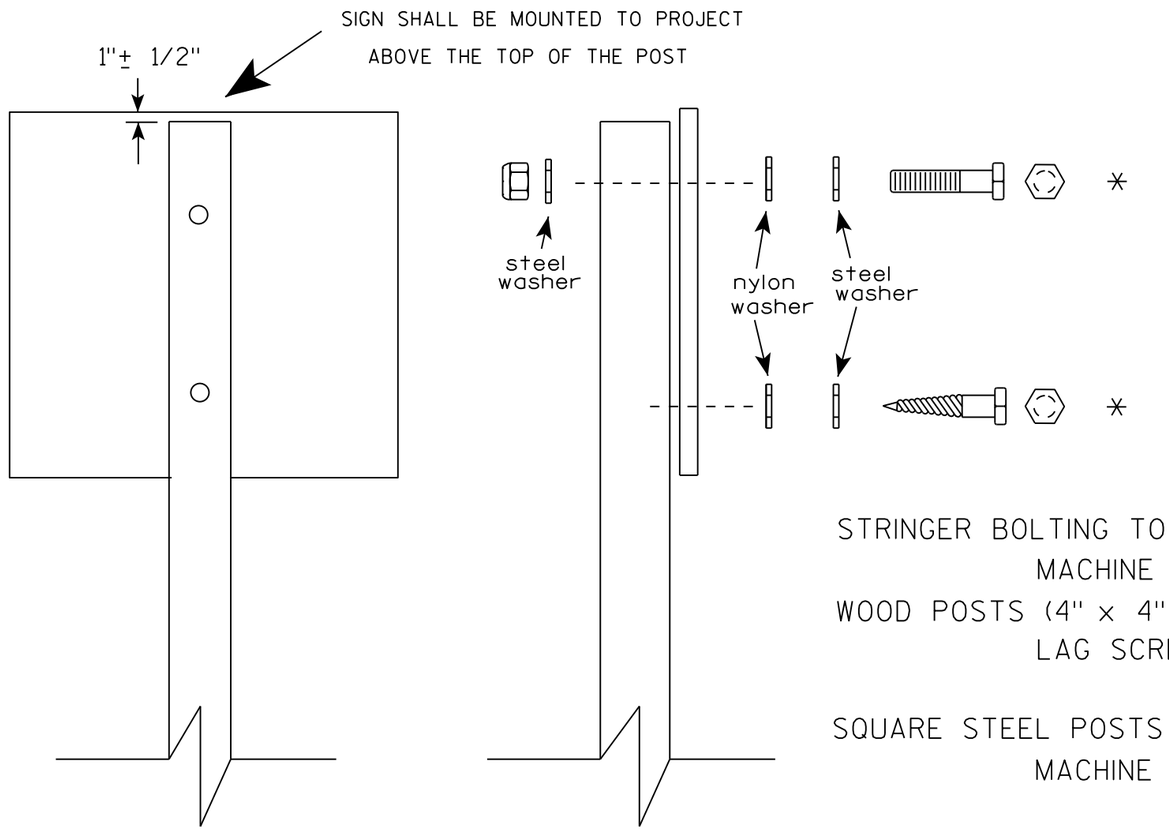
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 159	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 4" or 4" x 6")

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

3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

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

3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

WASHERS (ALL POSTS) -

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

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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

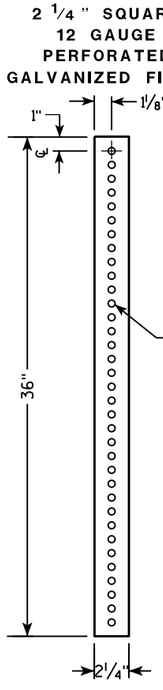
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

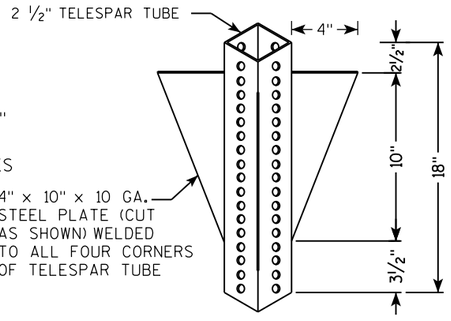
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

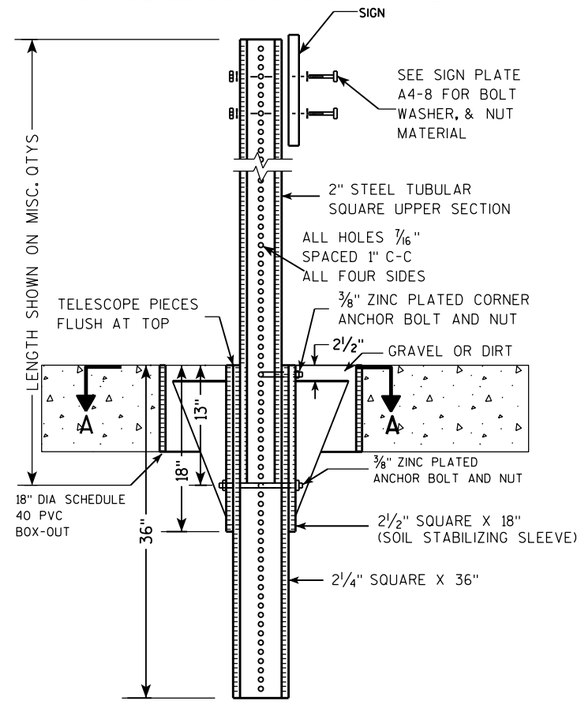
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



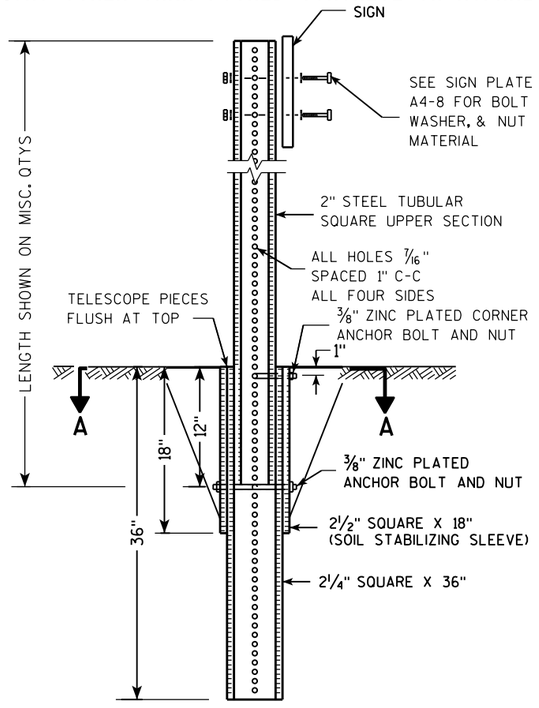
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

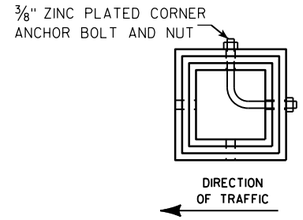


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

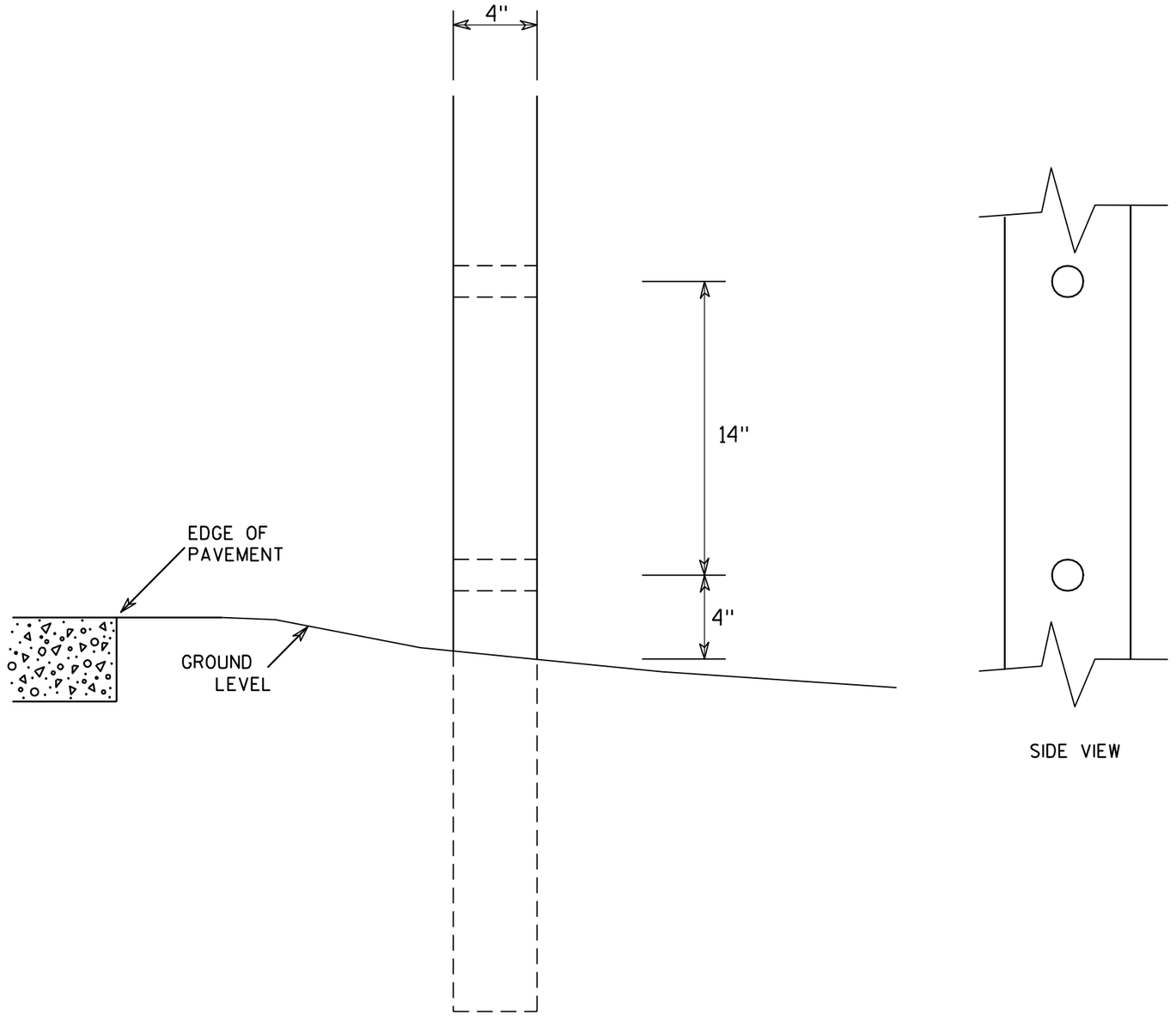
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 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

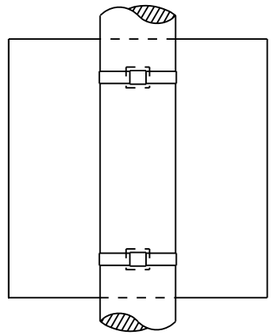
APPROVED Chester J Spang
for State Traffic Engineer

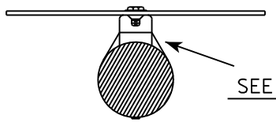
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 162	E

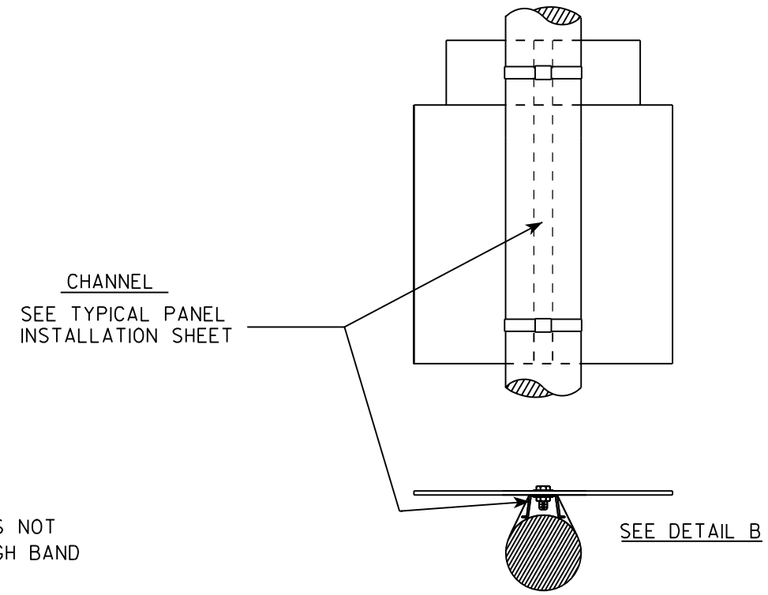
BANDING

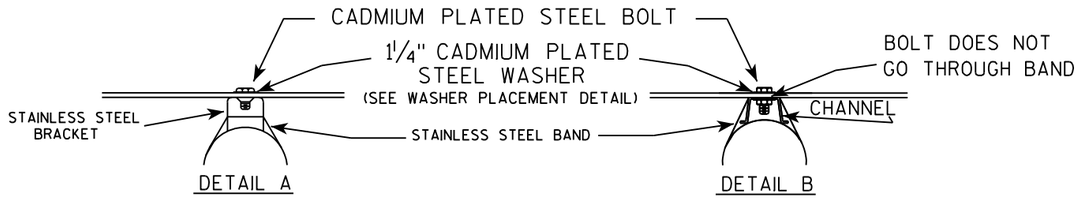
SINGLE SIGN



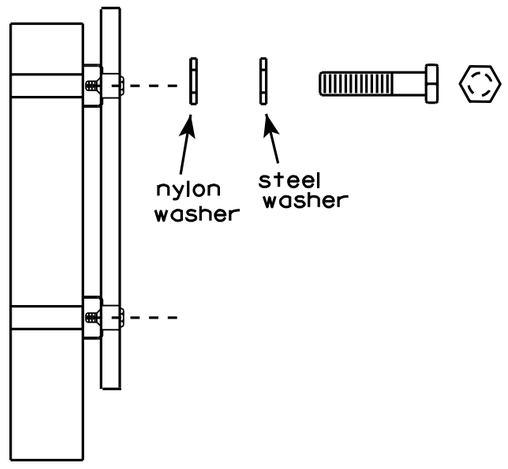


"J" ASSEMBLY





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

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 3/4" in width and 0.025" thickness.

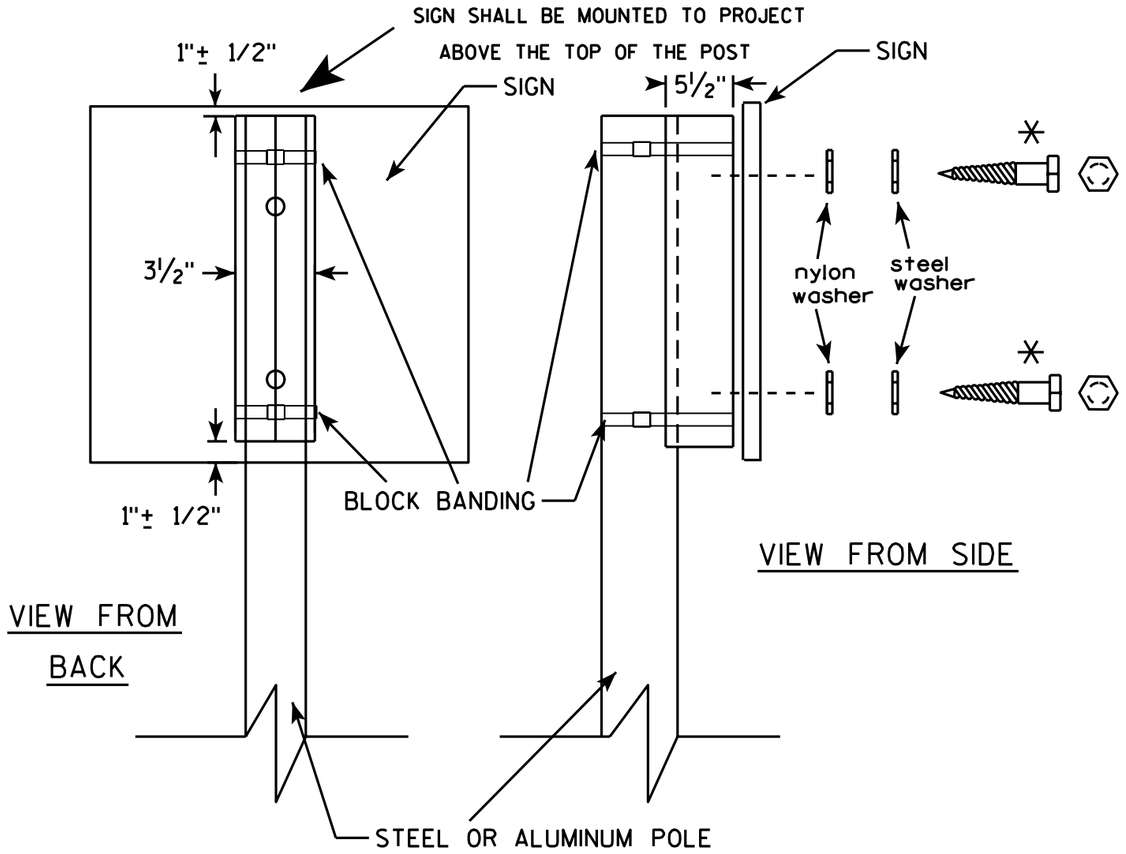
STANDARD SIGN
SIGN BANDING DETAILS

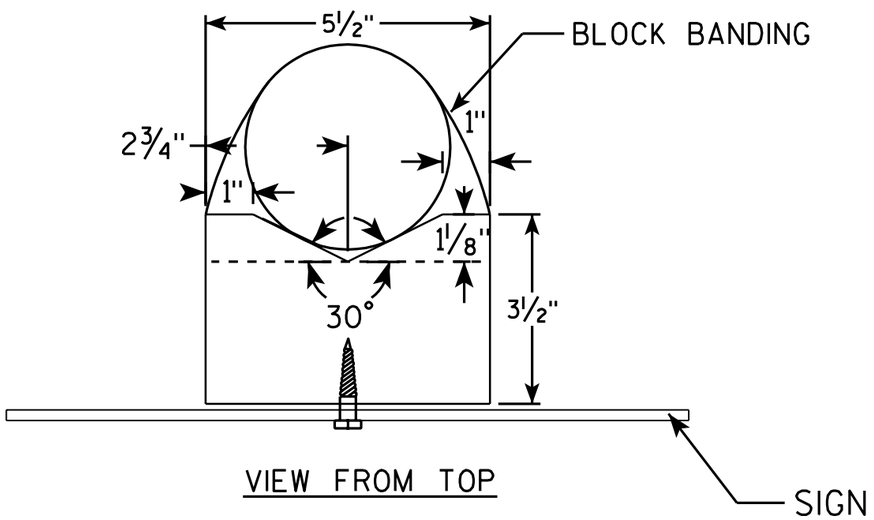
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 163	E





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, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. 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

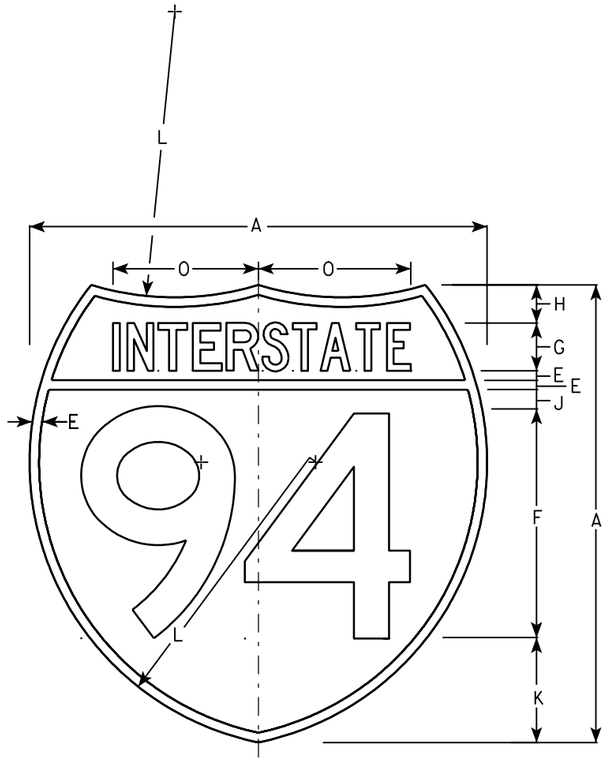
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

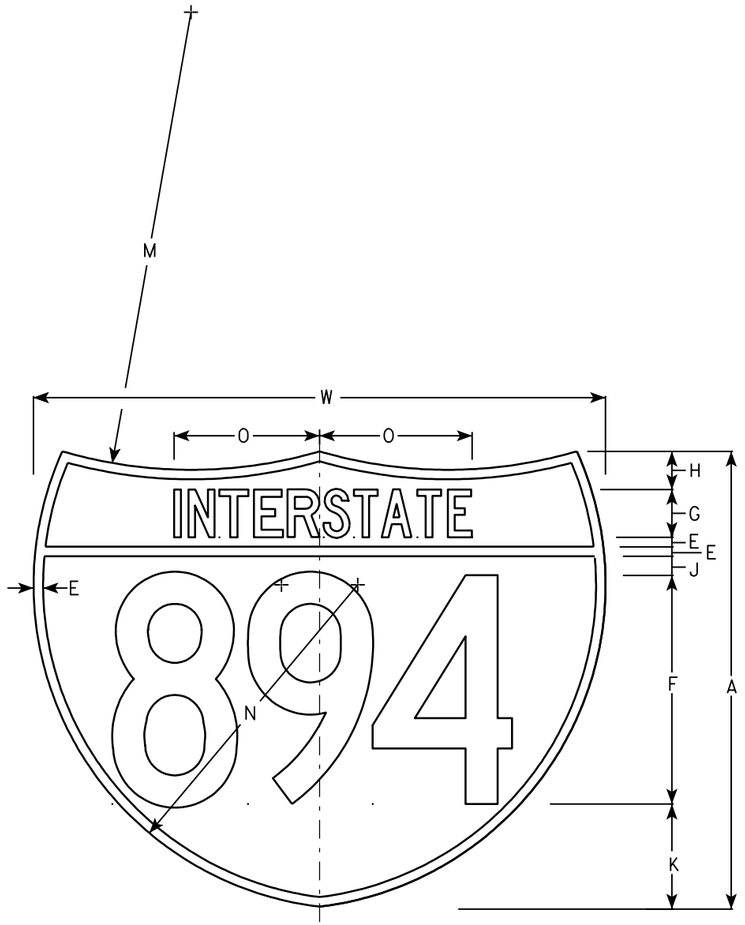
SHEET NO: 164 E

FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

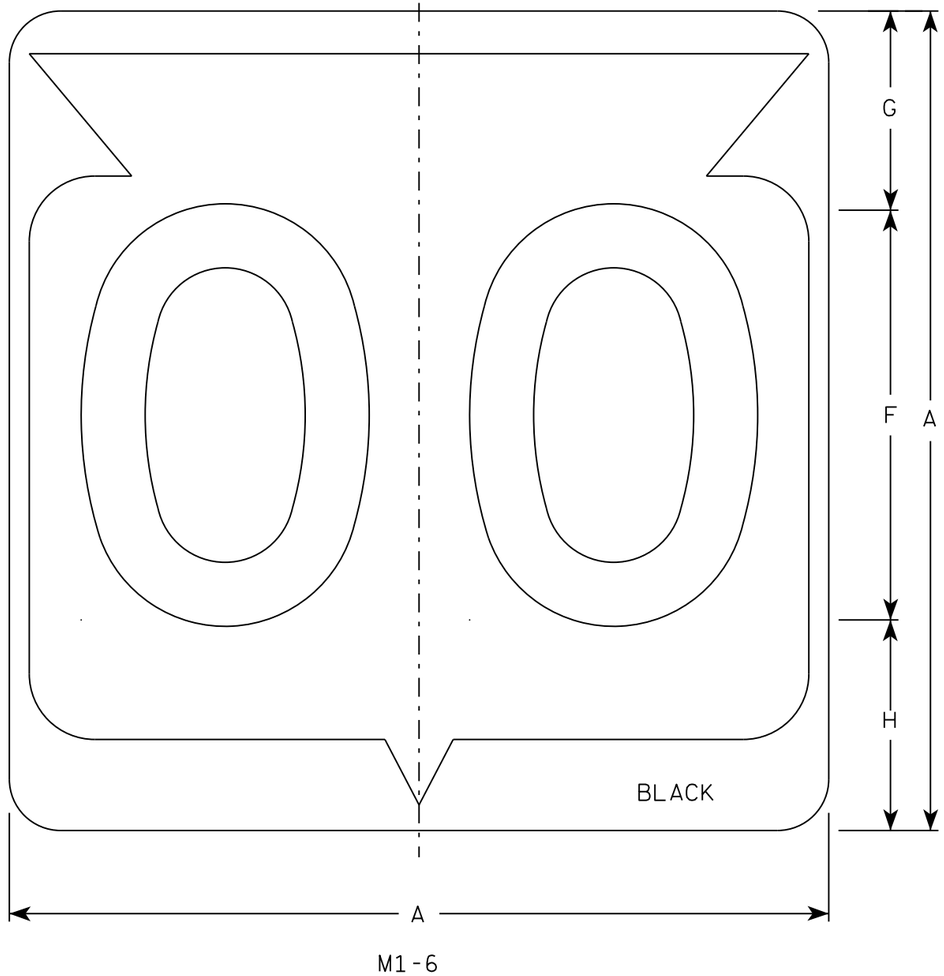
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

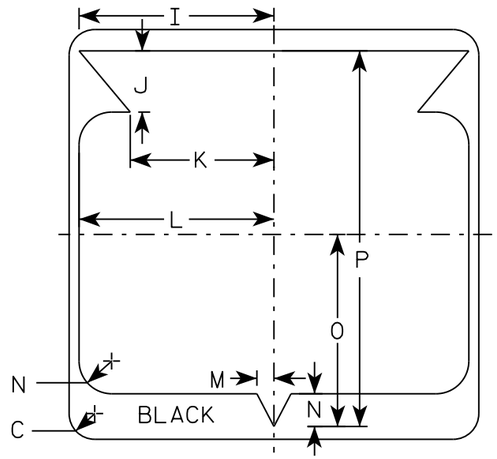
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 165	E



M1-6

NOTES

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



SIZE	A	B	C	D	E	F	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		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

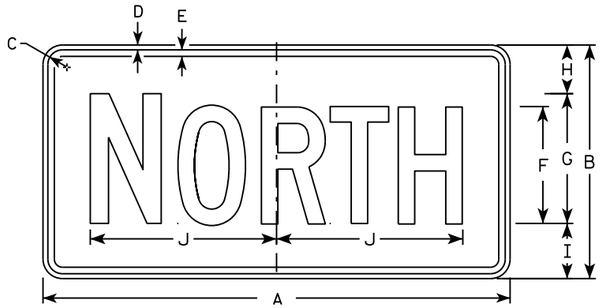
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

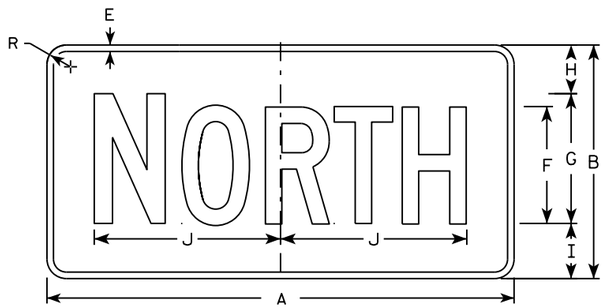
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 166 | E



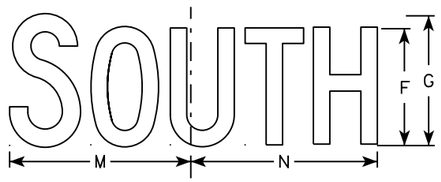
M3-1
MM3-1
MP3-1



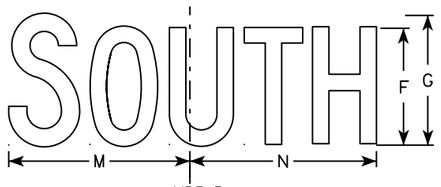
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

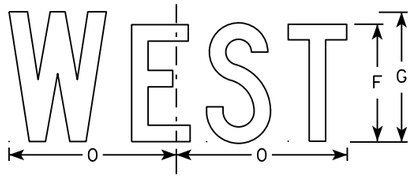
MB3-2
MK3-2
MN3-2



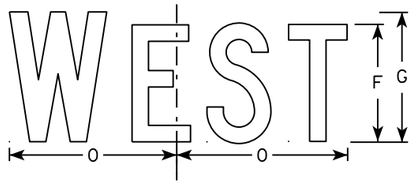
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

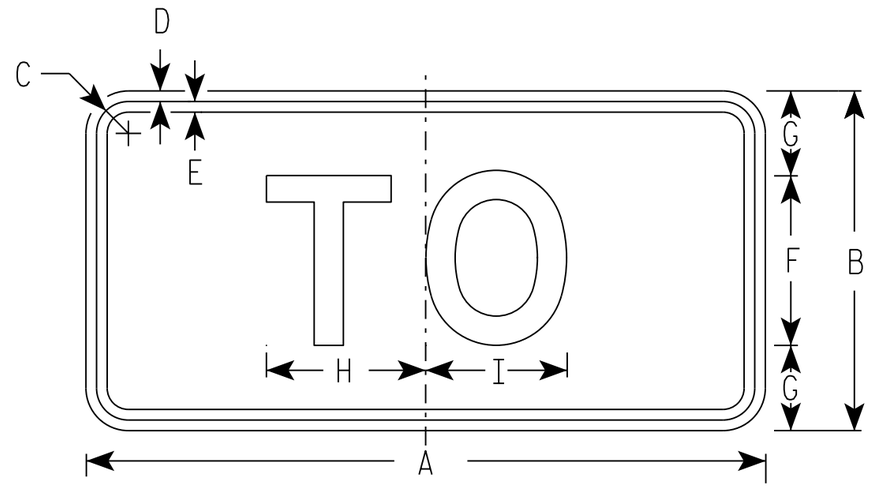
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

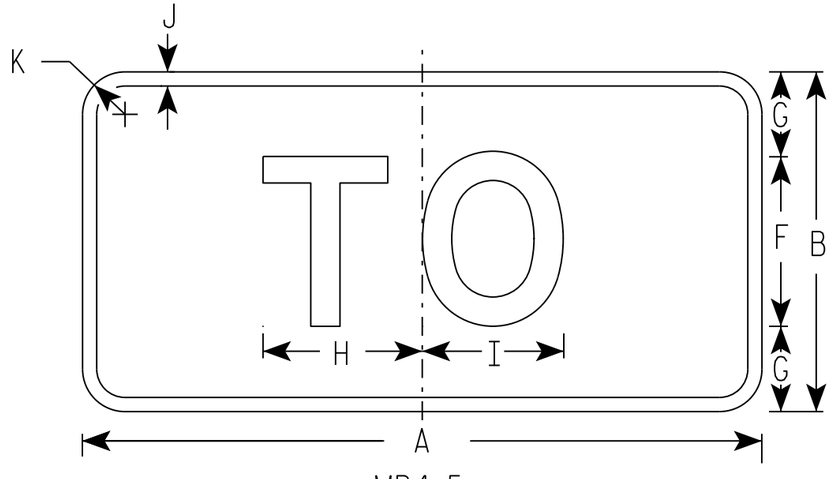
DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-5
MM4-5
MP4-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-5

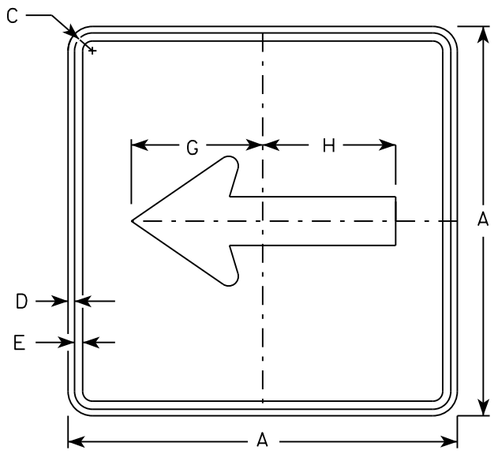
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

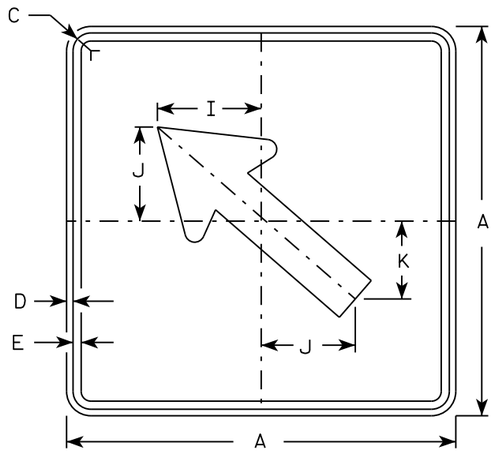
DATE 10/15/15 PLATE 168 M4-5.8

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M45.DGN PLOT DATE : 01-DEC-2015 17:55 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.351066:1.000000



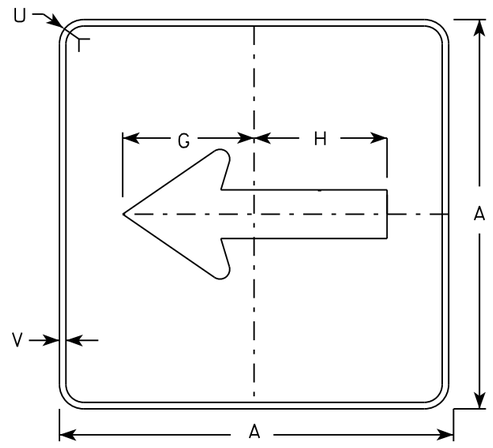
M6-1
MM6-1
MO6-1
MP6-1



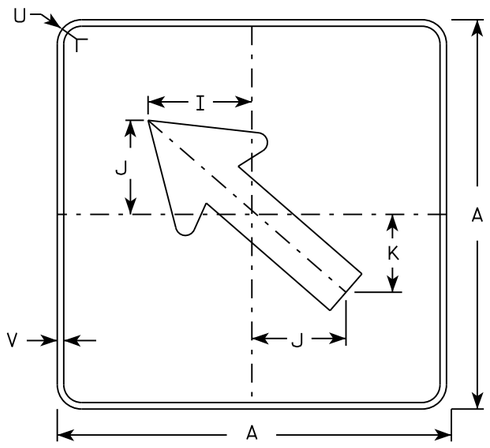
M6-2
MM6-2
MO6-2
MP6-2

NOTES

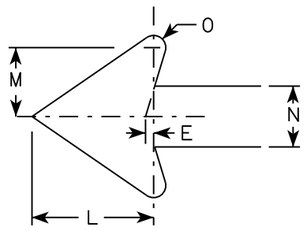
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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

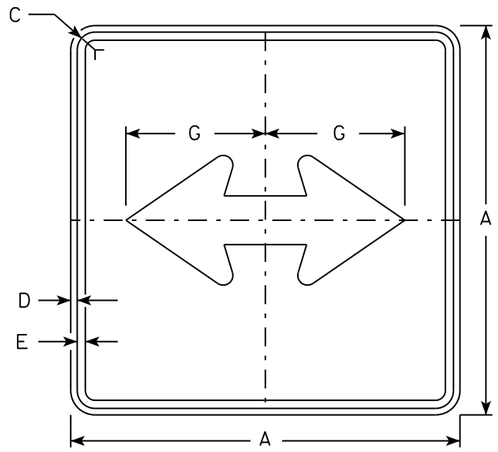
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

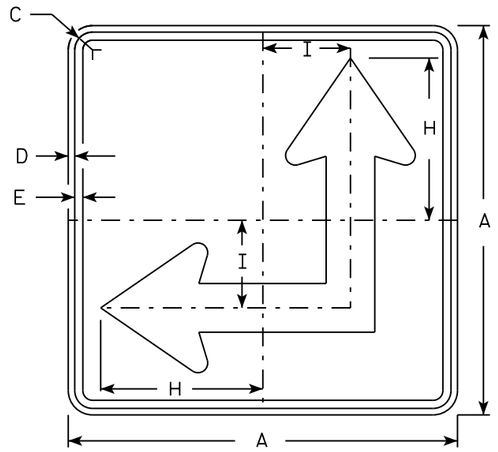
DATE 10/15/15 PLATE 169 M6-1.15

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



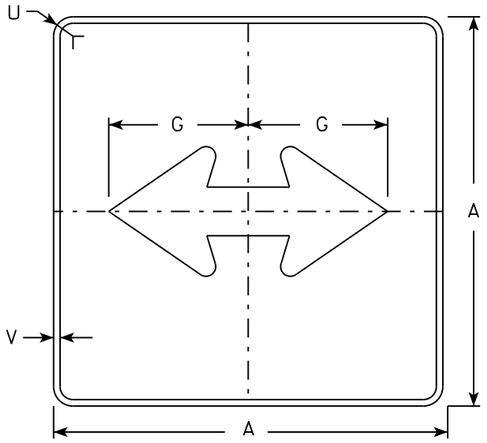
M6-4
MM6-4
MO6-4
MP6-4



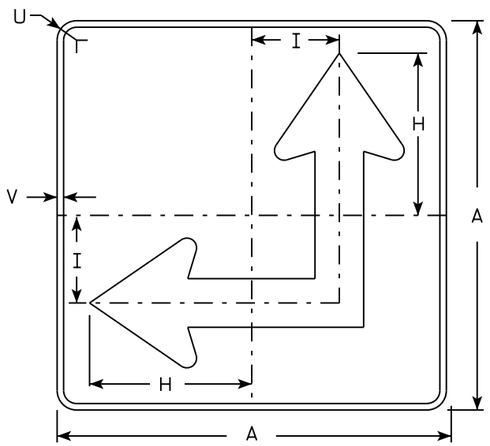
M6-6
MM6-6
MO6-6
MP6-6

NOTES

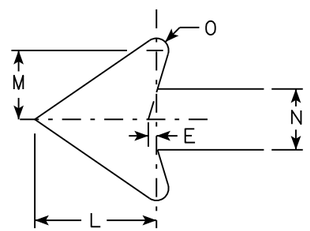
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6



SIZE	A	B	C	D	E	F	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	8 3/4	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	12 1/2	6 3/4			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	12 1/2	6 3/4			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	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN
M6-4 & M6-6
SERIES

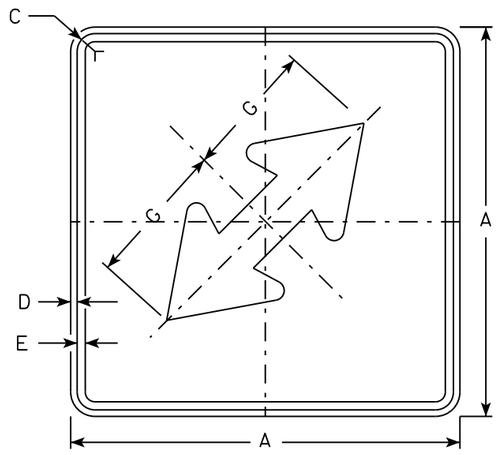
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

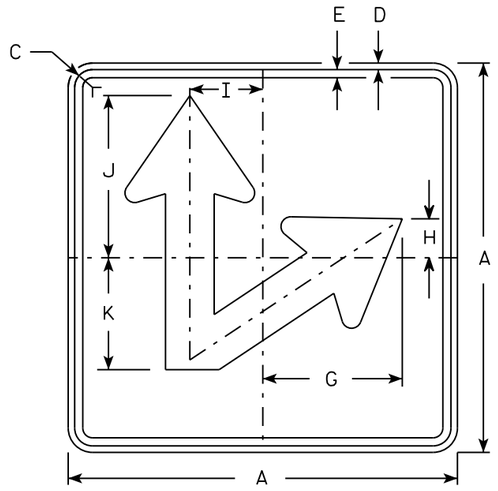
DATE 10/15/15 PLATE 170 M6-4.10

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 01-DEC-2015 17:58 PLOT BY : $$ platuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



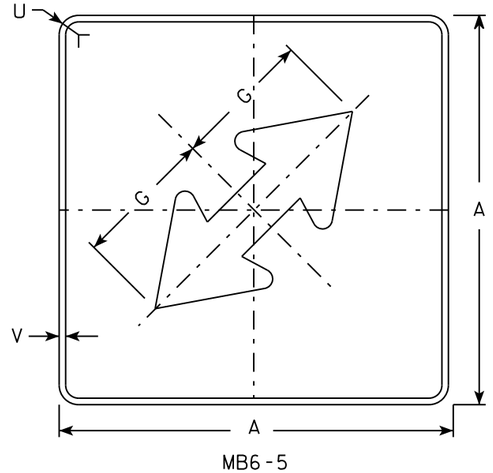
M6-5
MM6-5
MO6-5
MP6-5



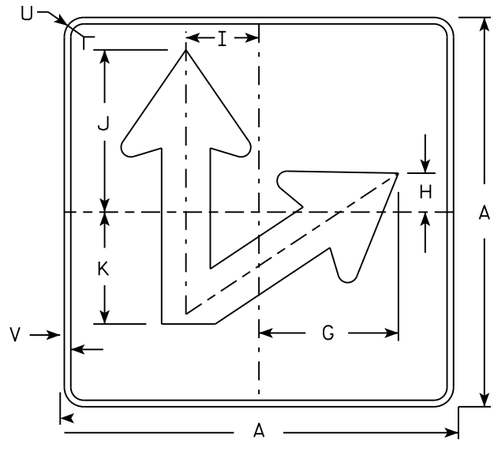
M6-7R
MM6-7R
MO6-7R
MP6-7R

NOTES

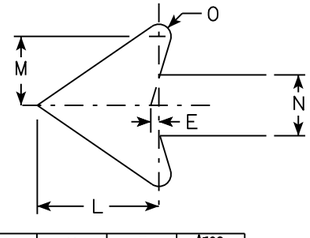
1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-5 and M6-7 Background - White
   Message - Black
   MB6-5 and MB6-7 Background - Blue
   Message - White
   MK6-5 and MK6-7 Background - Green
   Message - White
   MM6-5 and MM6-7 Background - White
   Message - Green
   MN6-5 and MN6-7 Background - Brown
   Message - White
   MO6-5 and MO6-7 Background - Orange - Type F Reflective
   Message - Black
   MP6-5 and MP6-7 Background - White
   Message - Blue
   MR6-5 and MR6-7 Background - Brown
   Message - Yellow
5. M6-7L same as M6-7R except arrow points ahead and left.



MB6-5
MK6-5
MN6-5
MR6-5



MB6-7R
MK6-7R
MN6-7R
MR6-7R



SIZE	A	B	C	D	E	F	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	2 1/8	4 1/4	8 3/4	6	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	3	6 3/4	12 1/2	8 5/8	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	3	6 3/4	12 1/2	8 5/8	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	3	6 3/4	12 1/2	8 5/8	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-5 & M6-7
SERIES

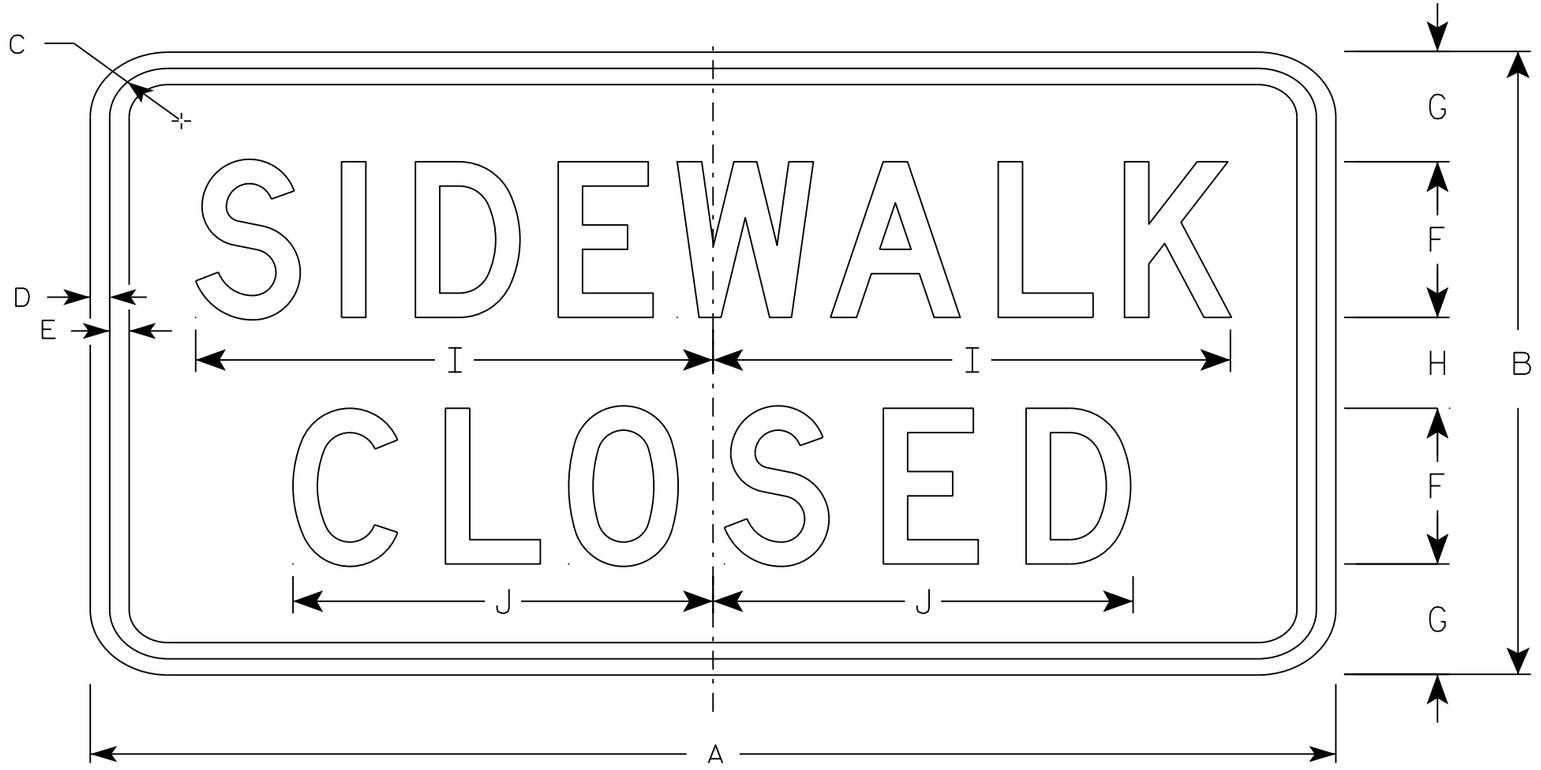
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 10/15/15 PLATE 171 M6-7.9

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M67.DGN PLOT DATE : 01-DEC-2015 17:59 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



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

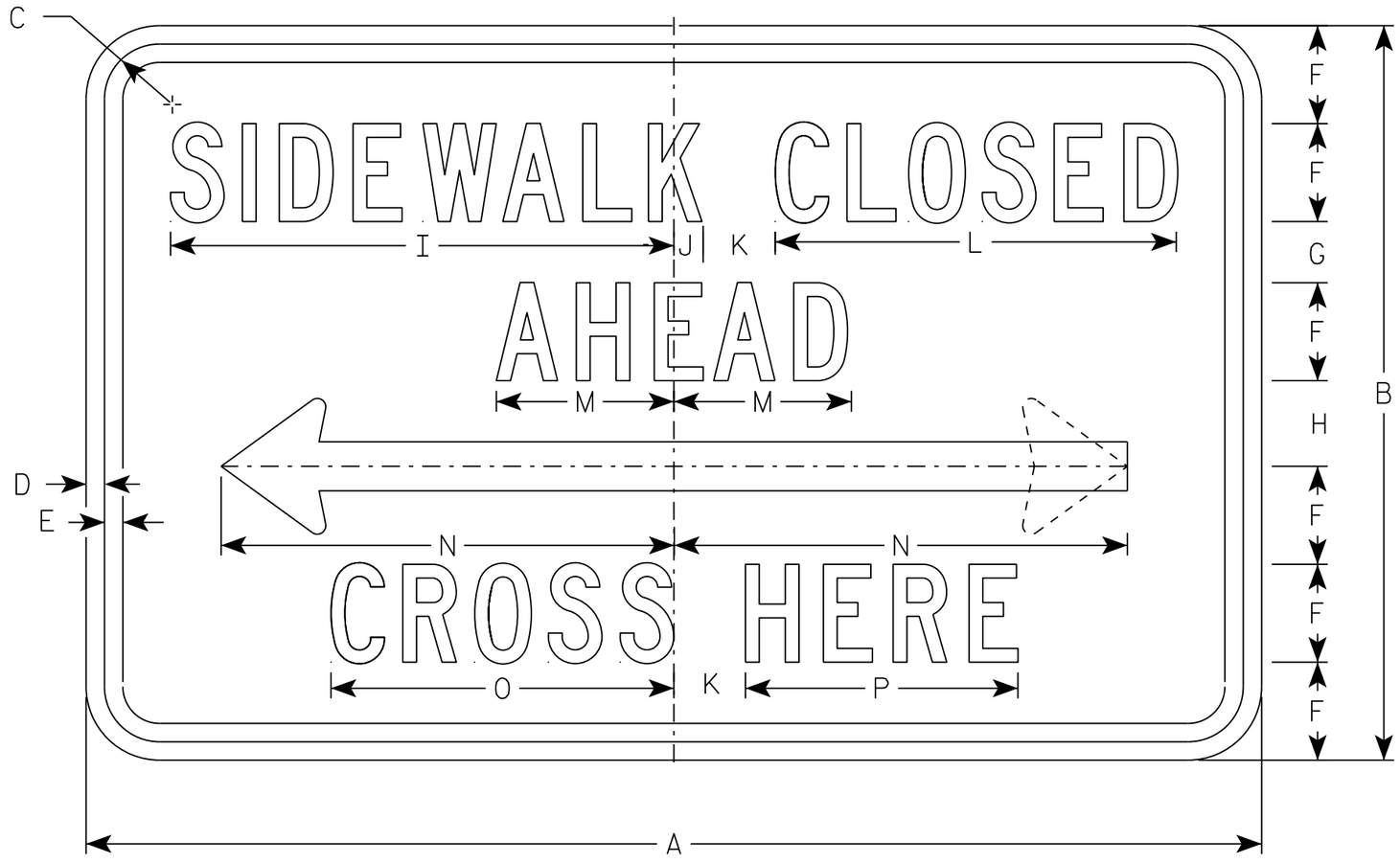
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

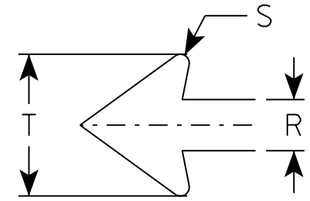
DATE 8/11/16 PLATE 172 R9-9.6

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

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



R9-11



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

STANDARD SIGN
R9-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R9-11.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 173	E

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

WKE JUNE 2019

PROJECT ID: 2984-00-73
WITH: 1360-00-76

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 = 506

08

DESIGN DESIGNATION VLIET STREET

A.A.D.T. (2012)	=	8,100
A.A.D.T. (2039)	=	9,000
D.H.V.	=	900
D.D.	=	55%
T.	=	5.5%
DESIGN SPEED	=	35 M.P.H
ESALS	=	2,455,132

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

ELECTRIC	E	COMBINED SEWER	SSS
FIBER OPTIC	FO	CONDUIT	C
GAS	G	TRAFFIC & LIGHTING CONDUIT	TES
SANITARY SEWER	SAN	AT&T	AT&T
STORM SEWER	SS	ATC UNDERGROUND	138 KV
TELEPHONE	T	MIDWEST FIBER NETWORKS	MFN
WATER	W		
UTILITY PEDESTAL			
POWER POLE			
TELEPHONE POLE			

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

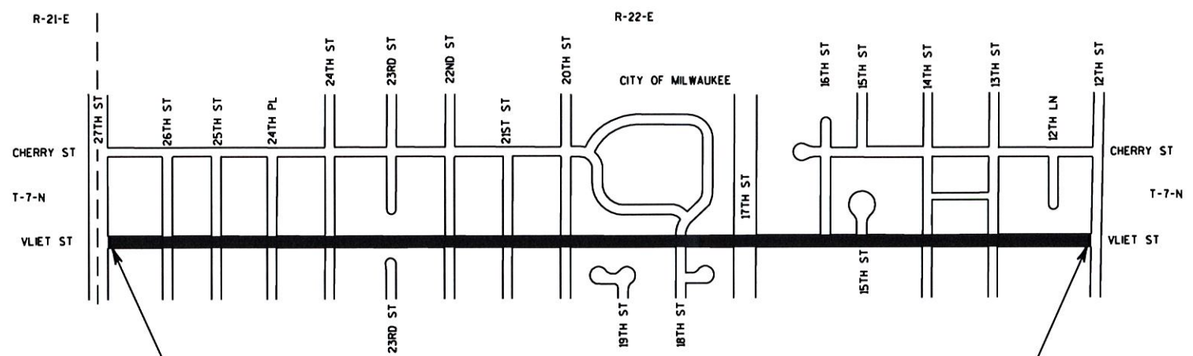
WEST VLIET STREET

N 27TH STREET TO N 12TH STREET

LOCAL STREET

MILWAUKEE COUNTY

STATE PROJECT NUMBER
2984-00-73



BEGIN PROJECT 2984-00-73
STA. 10VL+69.11
X = 2548603.206
Y = 388941.413

END PROJECT 2984-00-73
STA. 64VL+74.79

LAYOUT
SCALE 0 1/4 MI

TOTAL NET LENGTH OF CENTERLINE = 1.023 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (WSPCS), 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
2984-00-73	WISC 2019194	1

ACCEPTED FOR
CITY of MILWAUKEE
City Engineer
10/12/18 (Date) (Signature & Title of Official)

ORIGINAL PLANS PREPARED BY
HNTB 11414 WEST PARK PLACE MILWAUKEE, WI 53224 (414) 359-2300
WISCONSIN DARIUS A. WRIGHT JR. E-33351-006 MILWAUKEE, WI PROFESSIONAL ENGINEER
10/11/18 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	TERRA ENGINEERING LTD.
Designer	HNTB CORP.
Project Manager	JOAN BONACK
Regional Examiner	WISDOT SE REGION LOCAL PROGRAM
Regional Supervisor	ADETOYE ADENIYI
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 10/16/18 Joan T. Bonack (Signature)

E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Sheets\01010001_title.dgn LAST SAVED BY : dbaumann PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 10

UTILITY CONTACTS

AMERICAN TRANSMISSION COMPANY
RON LATUS
W234 N2000 RIDGEVIEW PARKWAY COURT
WAUKESHA, WI 53188
PHONE (CELL): (262) 832-8688
rlatus@atcllc.com

AT&T WISCONSIN
JAY BULANEK
2005 PEWAUKEE ROAD
WAUKESHA, WI 53188
PHONE: (262) 896-7669
CELL: (414) 491-2855
jb5175@att.com

CHARTER COMMUNICATIONS
PETE KRUZELA
1320 N. MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212
PHONE: (414) 908-1339
CELL: (414) 688-5376
pete.kruzela@charter.com
wis.engineering@charter.com

MIDWEST FIBER NETWORKS
NATHAN WRIGHT
6070 N. FLINT ROAD
GLENDALE, WI 53209
PHONE: (414) 459-3546
nwright@midwestfibernetworks.com

MILWAUKEE, CITY OF - CABLE
DAVID HENKE
841 N. BROADWAY
MILWAUKEE, WI 53202
PHONE: (414) 286-3248
david.henke@milwaukee.gov

MILWAUKEE, CITY OF -
CITY UNDERGROUND CONDUIT
MRS. KAREN ROGNEY
841 N. BROADWAY
MILWAUKEE, WI 53202
PHONE: (414) 286-3243
karen.rogney@milwaukee.gov

MILWAUKEE, CITY OF - SEWERS
zafar yousef
841 N. BROADWAY, ROOM 821
MILWAUKEE, WI 53202
PHONE: (414) 286-3267
zafar.yousuf@milwaukee.gov

MILWAUKEE, CITY OF - STREET LIGHTING
MARK MACRAE
1540 W. CANAL STREET
MILWAUKEE, WI 53233
PHONE: (414) 286-5928
CELL: (414) 708-0434
mark.mwrae@milwaukee.gov

MILWAUKEE, CITY OF - TRAFFIC SIGNALS
ALFONZO NICHOLS
1540 W. CANAL STREET
MILWAUKEE, WI 53233
PHONE: (414) 286-5941
CELL: (414) 708-5148
anicho@milwaukee.gov

MILWAUKEE, CITY OF - WATER WORKS
DAVE GOLDAPP
841 N. BROADWAY, ROOM 409
MILWAUKEE, WI 53202
PHONE: (414) 286-6301
CELL: (414) 708-2695
dave.m.goldapp@milwaukee.gov

WE ENERGIES - GAS
SEND ALL CORRESPONDENCE TO:
NICOLE SMULLEN
333 W. EVERETT STREET - A299
MILWAUKEE, WI 53203
PHONE: 414-221-5617
CELL: 414-460-7190
nicole.smullen@we-energies.com

CONSTRUCTION FIELD CONTACT:
ALEX DANTINNE
500 S. 116TH STREET
WEST ALLIS, WI 53214
PHONE: (920) 621-6903
alex.dantinne@we-energies.com

WE ENERGIES - ELECTRIC
SEND ALL CORRESPONDENCE TO:
NICOLE SMULLEN
333 W. EVERETT STREET - A299
MILWAUKEE, WI 53203
PHONE: 414-221-5617
CELL: 414-460-7190
Nicole.smullen@we-energies.com

CONSTRUCTION FIELD CONTACT:
ken franecki
500 S. 116TH STREET
WEST ALLIS, WI 53214
PHONE: (414) 944-5531
kenneth.franecki@we-energies.com

STATE AGENCIES

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
KRISTINA BETZOLD
DNR SERVICE CENTER
2300 N. MARTIN LUTHER KING JR.
MILWAUKEE WI 53212
PHONE: (414) 507-4946
kristina.betzold@wisconsin.gov

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

OTHER AGENCIES

MILWAUKEE COUNTY TRANSIT SYSTEM
MELANIE FLYNN
1942 N. 17TH STREET
MILWAUKEE, WI 53205
PHONE: (414) 343-1764
mflynn@mcts.org

MILWAUKEE COUNTY TRANSIT SYSTEM – BUS STOPS
ANDY TILLMAN
1942 N. 17TH STREET
MILWAUKEE, WI 53205
PHONE: (414) 343-1728
atillman@mcts.org

MILWAUKEE, CITY OF
JEFF POLENSKE, CITY ENGINEER
841 N. BROADWAY, ROOM 701
MILWAUKEE, WI 53202
PHONE: (414) 286-3701
jpolen@milwaukee.gov

MILWAUKEE COUNTY - DPW
GREG HEISEL, HIGHWAY MAINTENANCE.
MANAGER
10190 W. WATERTOWN PLANK ROAD
MILWAUKEE, WI 53226
PHONE: (414) 257-6566
gheisel@milwcnty.com

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

DESIGN CONTACTS

HNTB
DARIUS WRIGHT
11414 WEST PARK PLACE
MILWAUKEE, WI 53224
414-359-2300
DWRIGHT@HNTB.COM

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
CURB RAMP DETAILS
REMOVAL PLAN
EXISTING TRACK ZONE
PLAN DETAILS
PAVING GRADES
EROSION CONTROL
STORM SEWER
LANDSCAPING PLAN
LIGHTING PLAN
TRAFFIC SIGNAL PLAN
TRAFFIC SIGNAL INTERCONNECT
CITY UNDERGROUND CONDUIT (CUC) PLAN
PAVEMENT MARKING PLAN
TRAFFIC CONTROL
ALIGNMENT PLAN

GENERAL NOTES

1 THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL, MUNICIPAL OR OTHER UTILITY THAT IS NOT A MEMBER OF DIGGERS HOTLINE SHALL BE CONTACTED SEPERATELY.

2 A SAWED JOINT IS REQUIRED WHERE NEW HMA OR CONCRETE PAVEMENT SURFACE MEETS EXISTING HMA OR CONCRETE PAVEMENT SURFACE.

3 EXISTING DRIVEWAYS SHALL BE RESTORED IN KIND AS DIRECTED BY THE ENGINEER IN THE FIELD AND AT THE LOCATION DETERMINED BY THE ENGINEER.

4 LOCATION OF SIDEWALK BASEMENT VAULTS (HOLLOW WALKS) HAVE BEEN DETERMINED FROM CITY OF MILWAUKEE RECORDS AND FIELD INSPECTION. CONTRACTOR TO FIELD VERIFY LOCATION OF VAULTS PRIOR TO CONSTRUCTION OF WORK.

5 LOCATION OF EXISTING STREET CAR RAILS (TRACK ZONE) HAVE BEEN APPROXIMATED BASED ON CITY OF MILWAUKEE RECORDS.

6 WHEN THE QUANTITY OF BASE OR SURFACE COURSE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

7 CONTRACTOR MUST CONTACT THE PROJECT ENGINEER AND SEWRPC AT LEAST TWO (2) WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

8 RIGHT OF WAY LINES SHOWN ARE APPROXIMATE.

9 CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE. STATION/OFFSETS AND CURB AND GUTTER RADII ARE MEASURED TO THE FACE OF CURB.

10 ALL MANHOLE AND INLET STATIONS AND OFFSETS ARE GIVEN TO THE CENTER OF THE STRUCTURE

11 PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL FIELD VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN.

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

13 INLET PROTECTION IS REQUIRED AT ALL INLETS AS PER DETAIL OR AS DIRECTED BY THE ENGINEER AND MUST BE INSTALLED PRIOR TO ANY REMOVALS.

14 REMOVAL OF EROSION CONTROL DEVICES IS INCLUDED IN THE COST OF THEIR RESPECTIVE BID ITEMS.

15 EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER

16 EROSION CONTROL DEVICES SHOWN ON THE PLAN SHEETS AND ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

17 THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY ANY OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AT THE CONTRACTOR'S EXPENSE.

ALIGNMENT IDENTIFIERS	
NSA	26TH STREET
NSB	25TH STREET
NSC	24TH PLACE
NSD	24TH STREET
NSE	22ND STREET
NSF	21ST STREET
NSG	20TH STREET
NSH	18TH STREET
NSI	17TH STREET SB
NSJ	17TH STREET NB
NSK	15TH STREET
NSL	14TH STREET
NSM	13TH STREET
NSN	12TH LANE
VL	VLIET STREET

HMA PAVEMENT TYPE	TOTAL PAVEMENT LAYER THICKNESS	LAYERS	NOMINAL MAXIMUM SIZE GRADATION
ASPHALTIC SURFACE TEMPORARY	2"	2" UPPER LAYER	N/A

ABBREVIATIONS

BAD	BASE AGGREGATE DENSE
BM	BENCHMARK
BMP	BEST MANAGEMENT PRACTICES
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTUCTION LINE
CONC	CONCRETE
CONST.	CONSTRUCTION
CP	CONTROL POINT
CWT	HUNDRED WEIGHT
CY	CUBIC-YARD
D	DEGREE OF CURVE
DIA.	DIAMETER
Δ	DELTA
EB	EASTBOUND
HMA	HOT MIX ASPHALT
INL	INLET
L	LENGTH OF CURVE
LF	LINEAR FOOT
LS	LUMP SUM
LT	LEFT
LTG	LIGHTING
MH	MANHOLE
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
O.C.	ON CENTER
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENT
R	RADIUS OF CURVE
REQD	REQUIRED
R/L	REFERENCE LINE
RT	RIGHT
R/W	RIGHT OF WAY
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SF	SQUARE FOOT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TYP.	TYPICAL
VL	W. VLIET STREET
WB	WESTBOUND

2

2

CITY OF MILWAUKEE

N

W. GALENA STREET

W. CHERRY STREET

W. CHERRY STREET

W. CHERRY STREET

W. FOND DU LAC AVENUE

N. 15TH STREET

BEGIN PROJECT 2984-00-73
STA. 10VL+69.11

END PROJECT 2984-00-73
STA. 64VL+74.79

R/L W. VLIET STREET

B 15VL B 20VL B 25VL 30VL B 35VL B 40VL B 45VL B 50VL B 55VL 60VL B 65VL

W. VLIET STREET

W. VLIET STREET

R/L W. VLIET STREET

N. 27TH STREET
N. 26TH STREET
N. 25TH STREET
N. 24TH PLACE
N. 24TH STREET
N. 23RD STREET
N. 22ND STREET
N. 21ST STREET
N. 20TH STREET
N. 18TH STREET
N. 17TH STREET
N. 14TH STREET
N. 13TH STREET
N. 12TH LANE
N. 12TH STREET

MCKINLEY AVE

KING PARK

IH-43

W. JUNEAU AVENUE

BUS STOP LOCATIONS
27TH ST
25TH ST
24TH ST
22ND ST
20TH ST
18TH ST
17TH ST
15TH ST
12TH ST

CULTURAL RESOURCES LEGEND
ARCHAEOLOGICAL SITE
HISTORIC PROPERTY

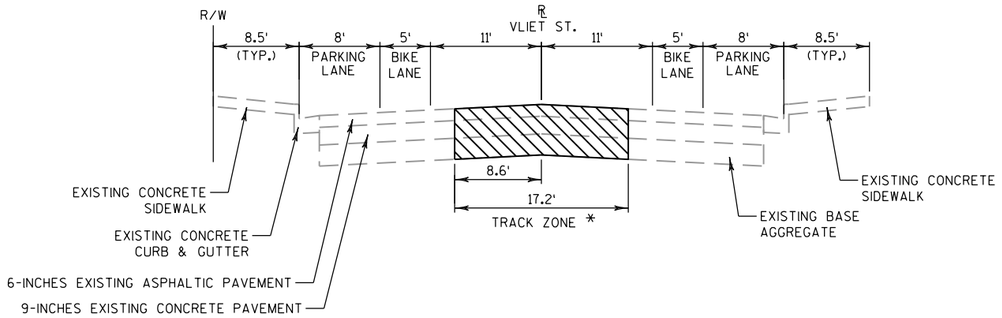
LEGEND
B BUS STOP LOCATION
ONE-WAY TRAFFIC DIRECTION

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 4	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data\Project Overview 20181206.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 400:1

WISDOT/CADDS SHEET 42

2



TYPICAL EXISTING SECTION

W. VLIET STREET

STA 10VL+69.11 TO STA 64VL+74.79

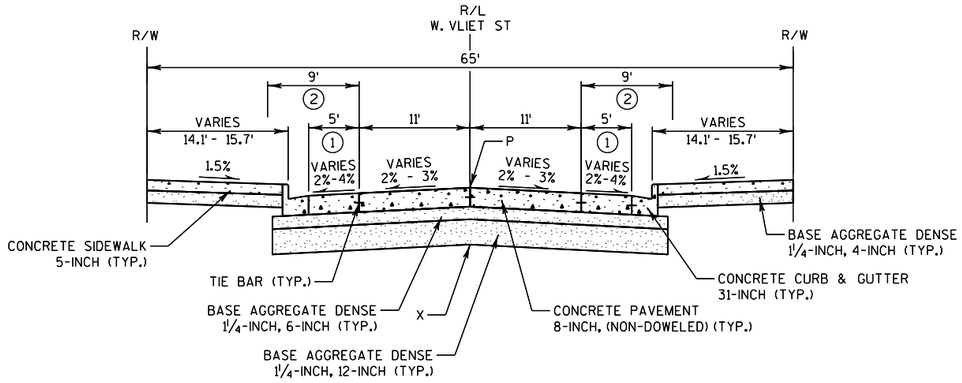
NOTES:
THE EXISTING PAVEMENT STRUCTURE IS BASED ON THE AVERAGE THICKNESS OF MATERIALS OBTAINED FROM THE BORING LOGS.

* TRACK ZONE APPROXIMATE LOCATIONS

1) STA. 10VL+65 - STA. 27VL+67
2) STA. 30VL+10 - STA. 36VL+00

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TYPICAL SECTIONS: EXISTING	SHEET 5	E

2



(1) BIKE LANE

(2) LATERAL CLEARANCE

TYPICAL FINISHED SECTION
W. VLIET STREET

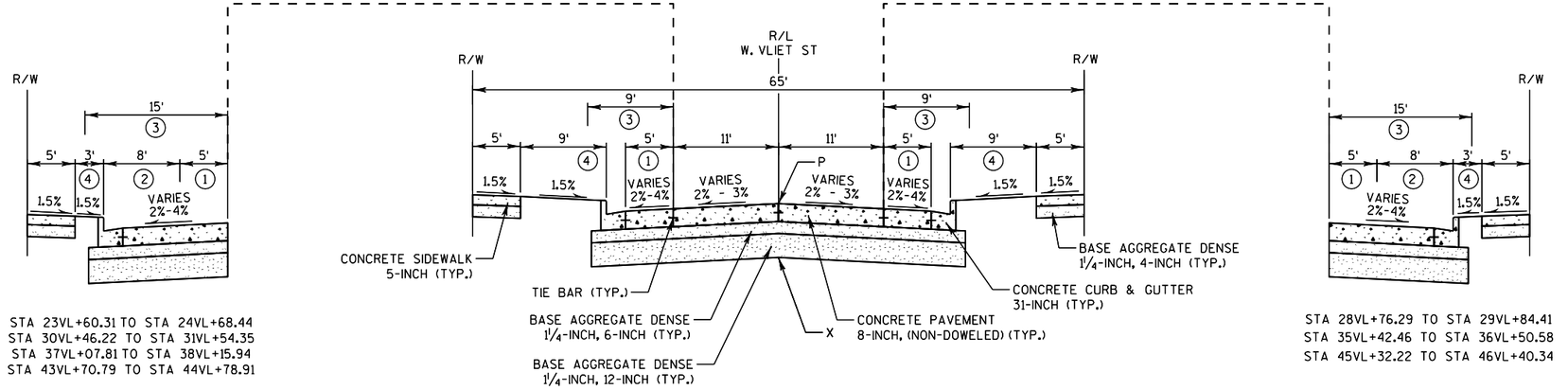
AT PEDESTRIAN BUMP OUTS

P - POINT REFERRED TO ON PROFILE

X - POINT REFERRED TO ON CROSS SECTIONS

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TYPICAL SECTIONS: PROPOSED	SHEET 6	E

2



STA 23VL+60.31 TO STA 24VL+68.44
STA 30VL+46.22 TO STA 31VL+54.35
STA 37VL+07.81 TO STA 38VL+15.94
STA 43VL+70.79 TO STA 44VL+78.91

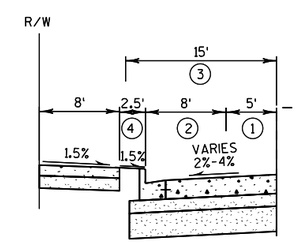
STA 28VL+76.29 TO STA 29VL+84.41
STA 35VL+42.46 TO STA 36VL+50.58
STA 45VL+32.22 TO STA 46VL+40.34

TYPICAL FINISHED SECTION
W. VLIET STREET

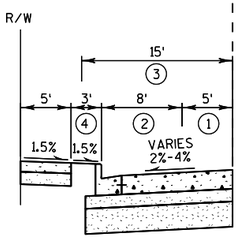
STA 23VL+64.78 TO STA 46VL+30.69

* SIDEWALK WIDTH VARIES - SEE PLAN DETAILS FOR LIMITS

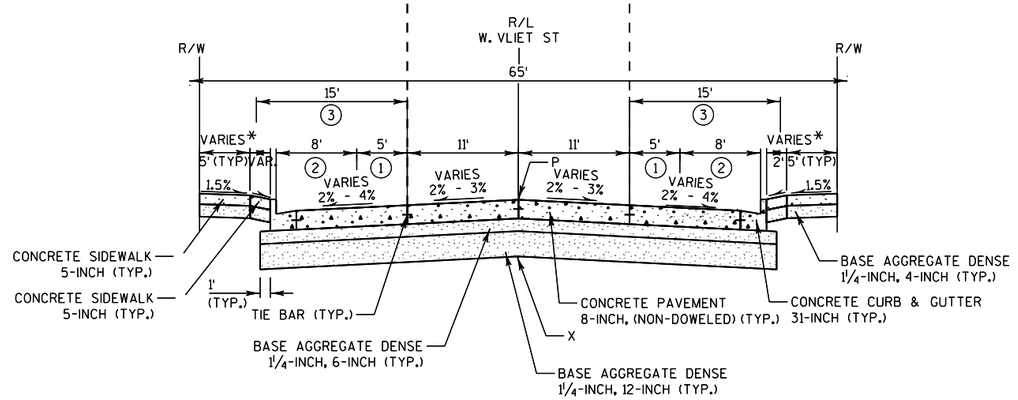
① BIKE LANE
② PARKING LANE (6' PAVEMENT WITH 2' GUTTER PAN)
③ LATERAL CLEARANCE
④ TOPSOIL AND SOD



STA 63VL+30.17 TO STA 64VL+74.79

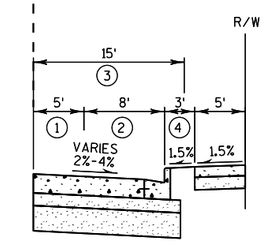


STA 14VL+07.10 TO STA 23VL+32.14
STA 46VL+73.52TO STA 63VL+30.17



TYPICAL FINISHED SECTION
W. VLIET STREET

STA 10VL+69.11 TO STA 23VL+64.78
STA 46VL+30.69 TO STA 64VL+74.79



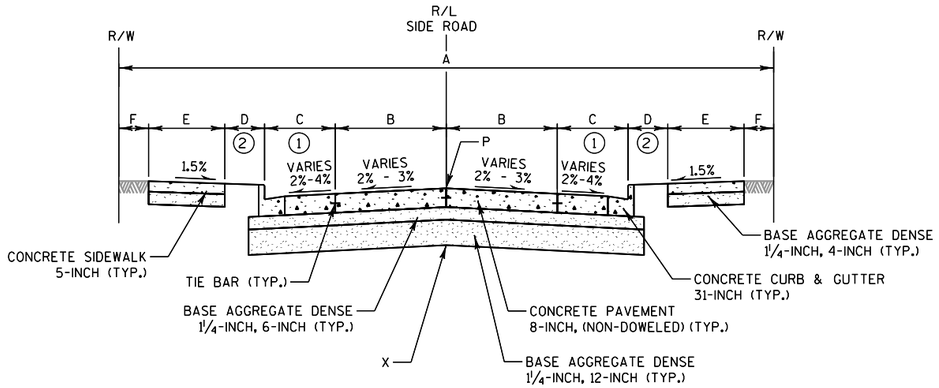
STA 46VL+73.52TO STA 63VL+30.17

P - POINT REFERRED TO ON PROFILE

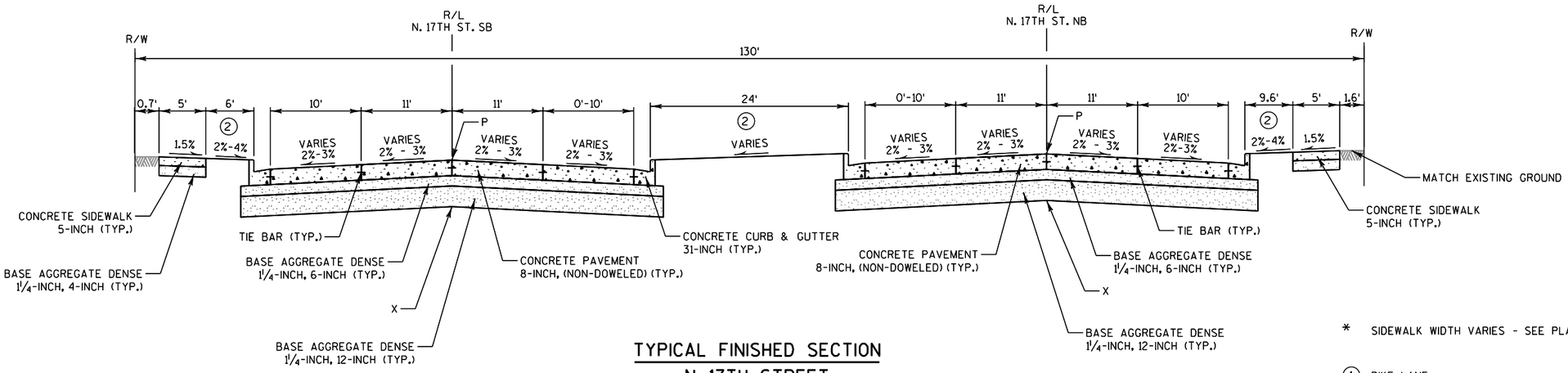
X - POINT REFERRED TO ON CROSS SECTIONS

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TYPICAL SECTIONS: PROPOSED	SHEET 7	E

				A	B		C		D		E		F	
		BEGIN STATION	END STATION	R/W	LANE		PARKING		TERRACE (FRONT SW)		SIDEWALK		TERRACE (BEHIND SW)	
					LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT
N. 26TH STREET	NORTH SIDE	10+16.00	10+51.42	66.0'	15.0'	15.0'	-	-	-	5.0'	11.5'	6.5'	4.5'	4.5'
	SOUTH SIDE	9+53.00	9+84.00	69.0'	14.0'	14.0'	-	-	6.0'	-	6.0'	17.0'	8.0'	-
N. 25TH STREET	NORTH SIDE	10+22.00	10+48.00	60.0'	14.0'	14.0'	-	-	-	5.0'	15.0'	6.0'	-	2.0'
	SOUTH SIDE	9+53.00	9+78.00	60.0'	11.0'	11.0'	7.0'	7.0'	-	-	13.0'	11.0'	-	-
N. 24TH PLACE	NORTH SIDE	10+16.00	10+44.00	40.0'	11.0'	11.0'	-	-	-	-	6.0'	6.0'	2.0'	-
	SOUTH SIDE	9+50.00	9+84.00	60.0'	13.0'	13.0'	-	-	7.0'	7.0'	5.0'	7.0'	4.0'	-
N. 24TH STREET	NORTH SIDE	10+22.00	10+59.00	60.0'	11.0'	11.0'	7.0'	7.0'	2.6'	2.8'	6.0'	6.0'	4.0'	2.6'
	SOUTH SIDE	9+41.00	9+84.00	60.0'	11.0'	11.0'	7.0'	7.0'	-	3.7'	8.3'	5.0'	4.8'	2.2'
N. 22ND STREET	NORTH SIDE	10+16.00	10+49.00	60.0'	14.0'	14.0'	-	-	3.6'	5.6'	6.0'	6.0'	4.5'	2.3'
	SOUTH SIDE	9+49.00	9+84.00	60.0'	14.0'	14.0'	-	-	6.8'	6.8'	5.0'	5.0'	2.9'	1.5'
N. 21ST STREET	NORTH SIDE	10+16.00	10+49.00	60.0'	14.0'	14.0'	-	-	4.6'	4.6'	6.0'	6.0'	3.8'	3.0'
	SOUTH SIDE	9+49.00	9+84.00	60.0'	14.0'	14.0'	-	-	4.6'	3.9'	6.0'	5.0'	4.9'	3.6'
N. 20TH STREET	NORTH SIDE	10+16.00	10+64.00	60.0'	11.0'	11.0'	8.0'	8.0'	2.5'	5.6'	5.0'	5.0'	3.4'	0.5'
	SOUTH SIDE	9+40.00	9+84.00	60.0'	11.0'	11.0'	8.0'	8.0'	2.6'	5.6'	5.2'	5.0'	3.2'	0.4'
N. 18TH STREET	NORTH SIDE	10+16.02	10+51.99	60.0'	15.0'	15.0'	-	-	6.5'	6.5'	5.0'	5.0'	2.0'	1.0'
	SOUTH SIDE	9+49.00	9+84.00	60.0'	15.0'	15.0'	-	-	6.6'	7.1'	5.0'	5.0'	1.0'	1.3'
N. 15TH STREET	NORTH SIDE	10+16.00	10+48.00	60.0'	15.0'	15.0'	-	-	6.6'	7.1'	5.0'	5.0'	1.6'	0.7'
	SOUTH SIDE	-	-	-	-	-	-	-	-	-	-	-	-	-
N. 14TH STREET	NORTH SIDE	10+16.00	10+48.00	60.0'	13.0'	13.0'	-	-	-	-	15.4'	14.6'	-	-
	SOUTH SIDE	9+47.00	9+84.00	60.0'	14.0'	14.0'	-	-	6.7'	5.1'	5.0'	6.0'	1.7'	3.5'
N. 13TH STREET	NORTH SIDE	10+16.00	10+65.00	60.0'	12.0'	12.0'	8.0'	8.0'	-	-	10.2'	9.8'	-	-
	SOUTH SIDE	9+32.00	9+84.00	60.0'	12.0'	12.0'	8.0'	8.0'	-	-	10.2'	9.8'	-	-
N. 12TH LANE	NORTH SIDE	-	-	-	-	-	-	-	-	-	-	-	-	-
	SOUTH SIDE	9+58.04	9+78.00	30.0'	10.0'	10.0'	-	-	-	-	3.7'	3.0'	-	-



TYPICAL FINISHED SECTION
SIDE ROADS



TYPICAL FINISHED SECTION
N. 17TH STREET

9NSI+25.00 TO 9NSI+84.00
10NSI+16.00 TO 10NSI+74.00

9NSJ+25.00 TO 9NSJ+84.00
10NSJ+16.00 TO 10NSJ+74.00

* SIDEWALK WIDTH VARIES - SEE PLAN DETAILS FOR LIMITS

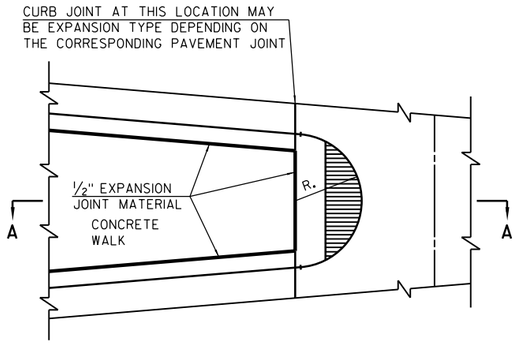
① BIKE LANE

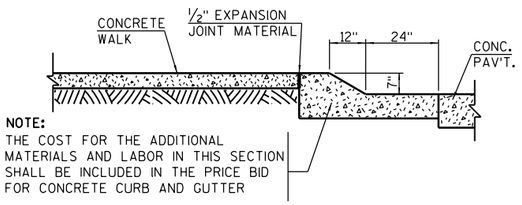
② TOPSOIL AND SOD

P - POINT REFERRED TO ON PROFILE

X - POINT REFERRED TO ON CROSS SECTIONS

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TYPICAL SECTIONS: PROPOSED	SHEET 8	E

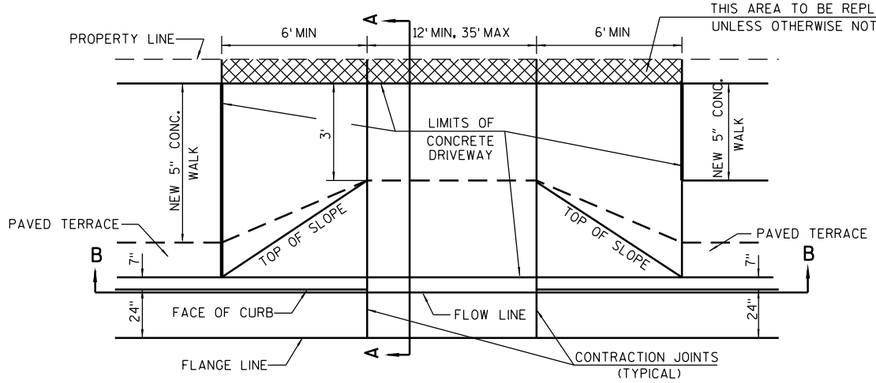


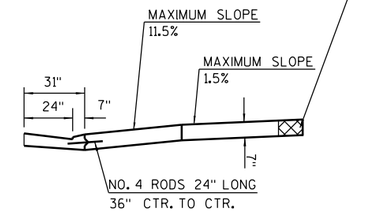


SECTION A-A

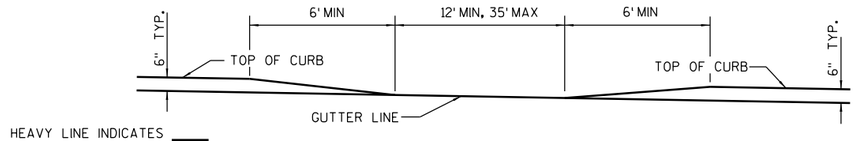
SNOWPLOWABLE MEDIAN ISLAND NOSE

(TYPICAL SECTION OF CONCRETE CURB & GUTTER
TO BE CONSTRUCTED AT END OF MEDIAN ISLAND)





SECTION A-A



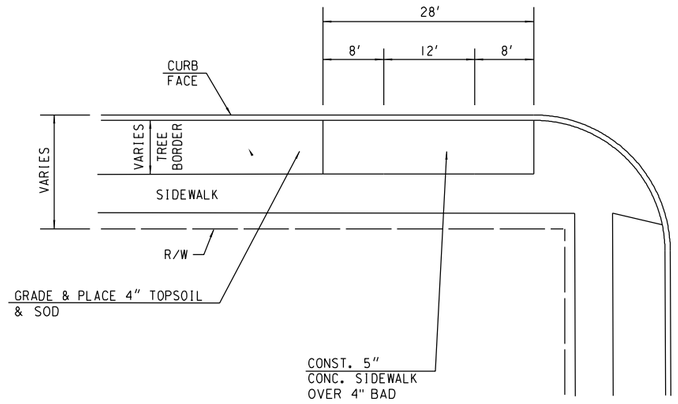
HEAVY LINE INDICATES
1/2" EXPANSION JOINT
MATERIAL

SECTION B-B

DRIVEWAY CONSTRUCTION NOTES

CONSTRUCT DRIVEWAY TO PROPERTY LINE ONLY WHEN MATCHING EXISTING DRIVEWAY
AND INSTALL ½" EXPANSION JOINT MATERIAL BETWEEN NEW AND OLD DRIVEWAY.
PLACE DUMMY JOINT AT CENTER LINE OF DRIVEWAY AND / OR AT ALL JOINTS IN THE GUTTER

DEPRESSED CONCRETE DRIVEWAY (MODIFIED)



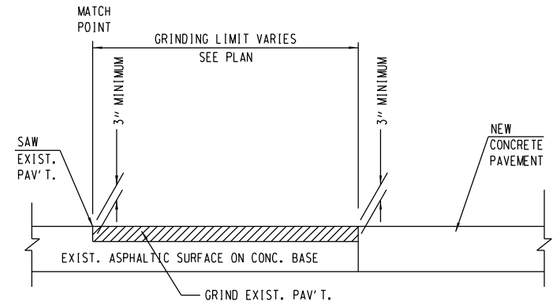
BUS STOP LOCATIONS

27TH ST
25TH ST
24TH ST
22ND ST
20TH ST
18TH ST
17TH ST
15TH ST
12TH ST

BUS STOP WALK DETAIL

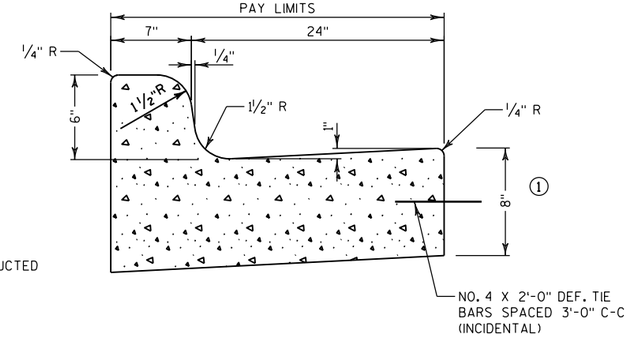
GENERAL NOTES

THE SLOPE OF PASSENGER BOARDING AREA MAY NOT EXCEED 2%.



REMOVING ASPHALTIC SURFACE BUTT JOINTS

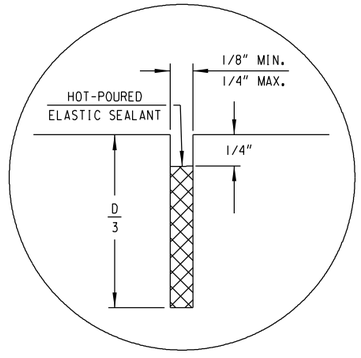
IN ROADWAY AT INTERSECTIONS AND ABUTTING PAVEMENT



NOTE

(1) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE.

CONCRETE CURB & GUTTER 31-INCH

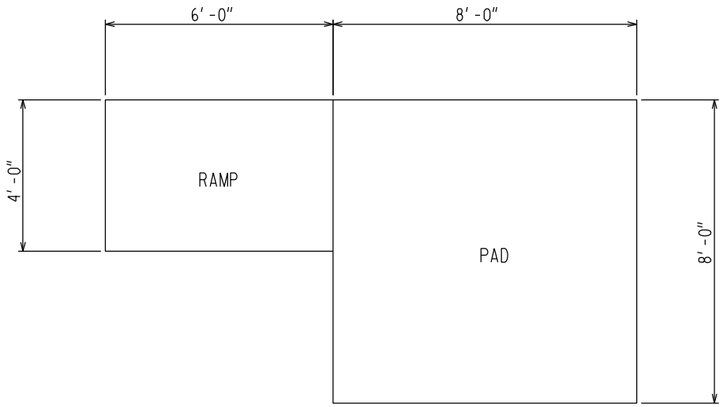


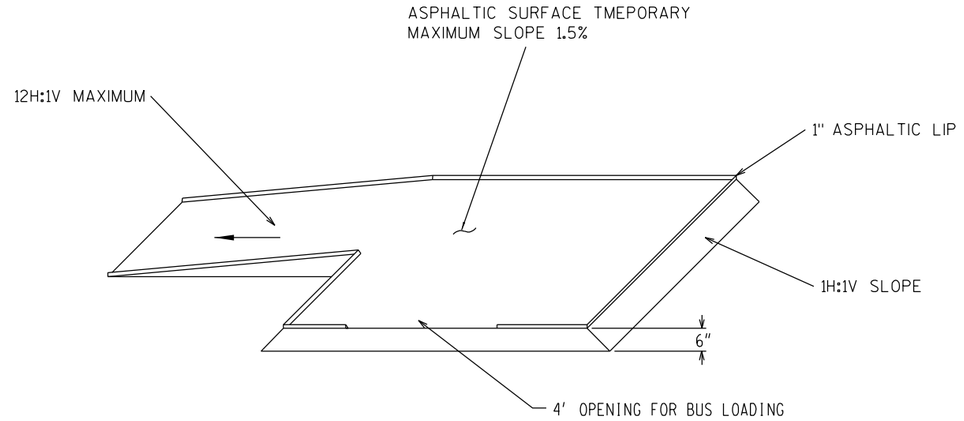
JOINT SEALING DETAIL

PAVEMENT DEPTH AND JOINT SPACING TABLE	
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6"	12'
7"	14'
8"	15'
9"	15'
10" & ABOVE	18'

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SHEET 10	E

2





NOTE:
RAMP SHALL BE PLACED TO FACE
TOWARDS PEDESTRIAN CROSSING

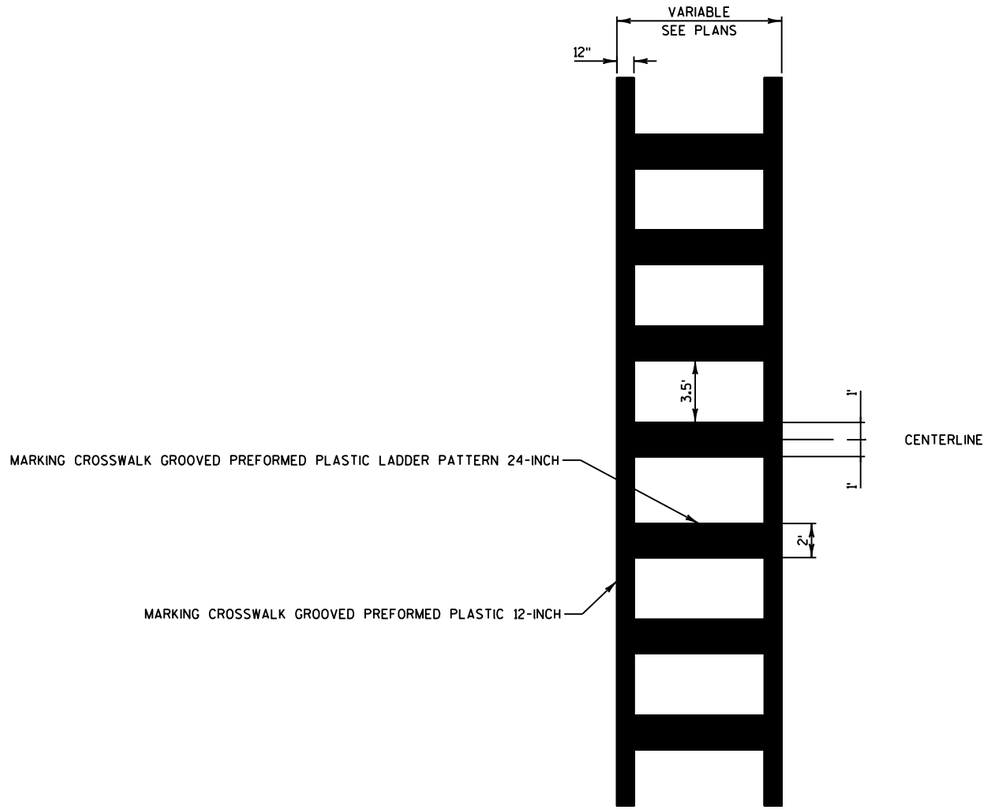
NOTE

RAMP LENGTH MIGHT BE LONGER
TO ACHIEVE MAXIMUM 12H:1V

TEMPORARY BUS LOADING ZONE

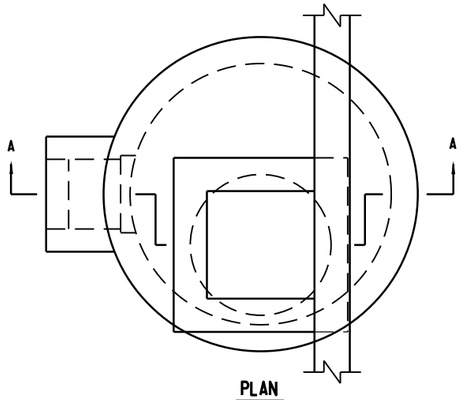
TEMPORARY
BUS LOADING ZONE LOCATIONS
11NSI+00
9NSJ+15

2

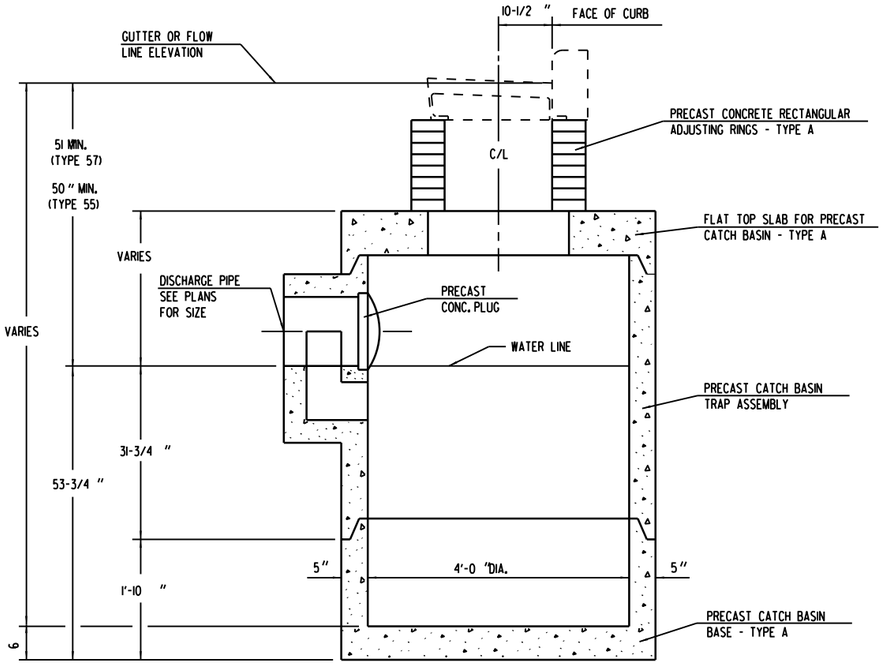


LADDER CROSSWALK DETAIL

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SHEET 12	E



PLAN

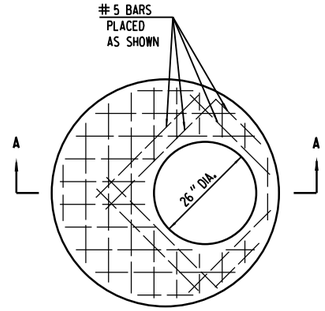


SECTION A-A

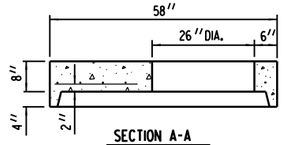
CATCH BASIN - TYPE 44A

GENERAL NOTES

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



PLAN



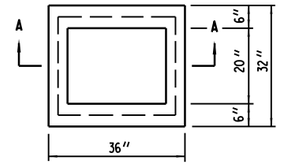
SECTION A-A

TOP SLAB - TYPE A

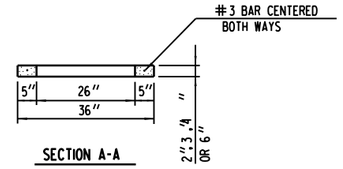
FLAT TOP SLAB SHALL BE 8 "THICK REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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



PLAN

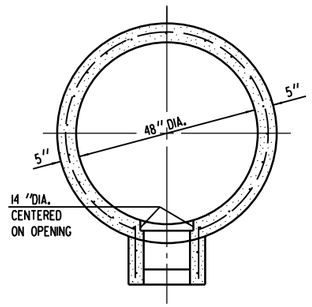


SECTION A-A

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

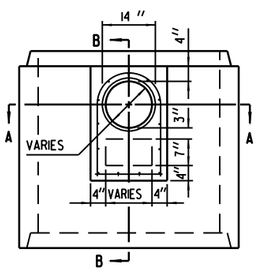
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

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

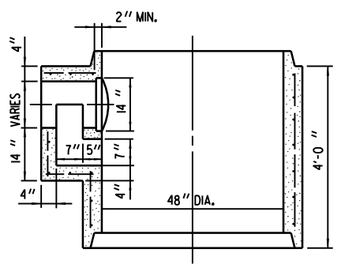
CIRCUMFERENTIAL AND TRAP ASSEMBLY REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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

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

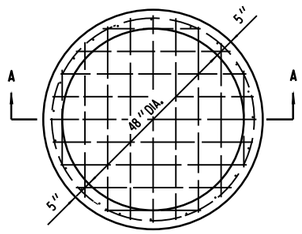


PLAN

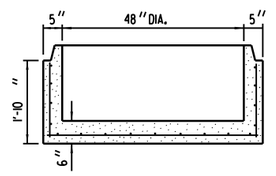


SECTION B-B

TRAP ASSEMBLY



PLAN



SECTION A-A

BASE ASSEMBLY

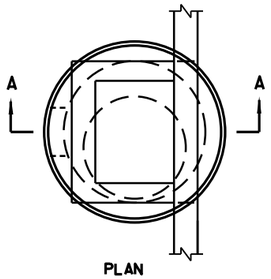
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

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.

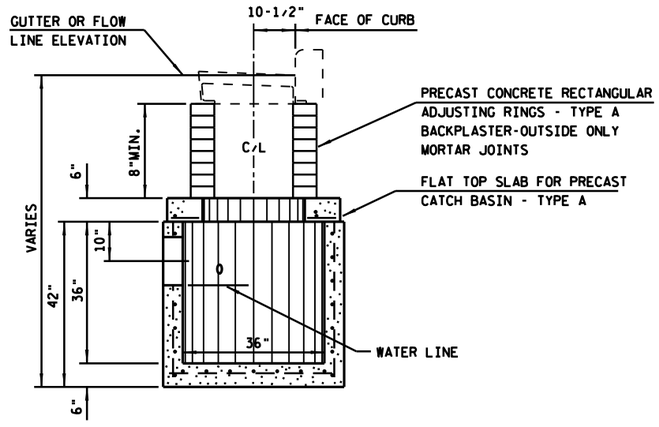
CIRCUMFERENTIAL AND BOTTOM SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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

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



PLAN



SECTION A-A

CATCH BASIN - TYPE 45A

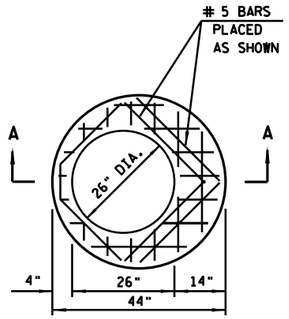
GENERAL NOTES

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

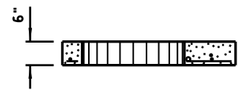
2. ALL REINFORCEMENT STEEL SHALL BE GRADE 60 OR GREATER AND EMBEDDED AT LEAST 1" CLEAR.

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

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



PLAN



SECTION A-A

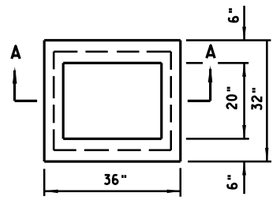
TOP SLAB - TYPE A

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

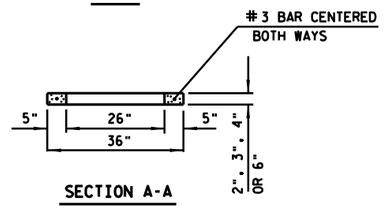
ADDITIONALLY, NO. 5 BARS SHALL BE PLACED AROUND TOP SLAB OPENING AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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



PLAN

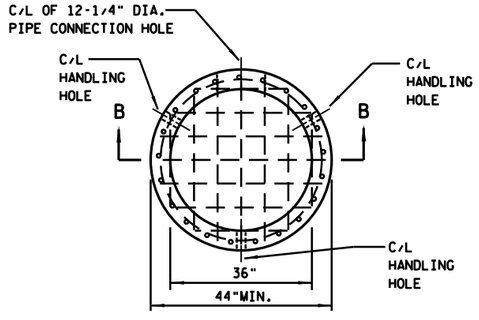


SECTION A-A

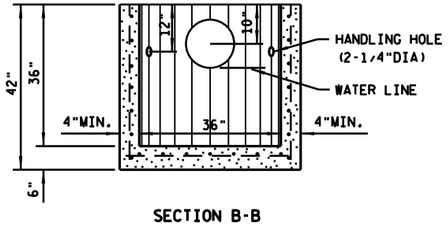
RECTANGULAR ADJUSTING RING - TYPE A

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

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



RISER SECTION WITH INTEGRAL BASE PLAN



SECTION B-B

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

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

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

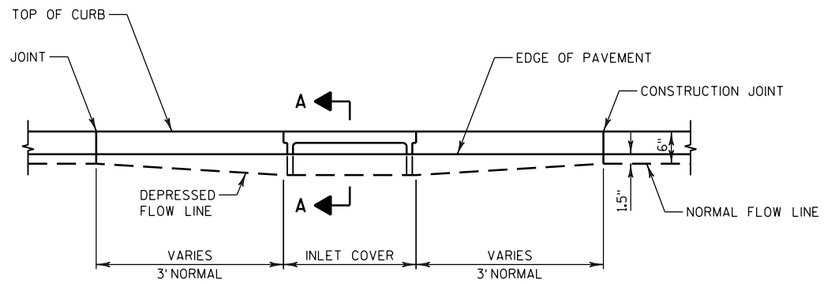
TWO TO THREE HANDLING HOLES 2-1/4" IN DIAMETER AND A PIPE CONNECTION HOLE 12-1/4" IN DIAMETER SHALL BE CAST OR CORED IN THE RISER SECTION AT THE LOCATIONS SHOWN. LIFTING DEVICES MAY BE SUBSTITUTED FOR HANDLING HOLES.

NO JOINTS OR HOLES SHALL BE BELOW THE WATERLINE.

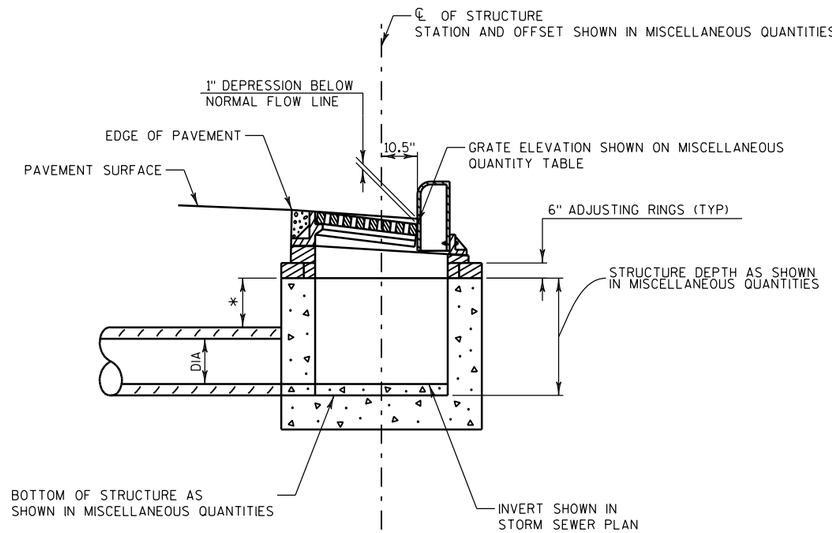
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 4000 P.S.I.

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

2



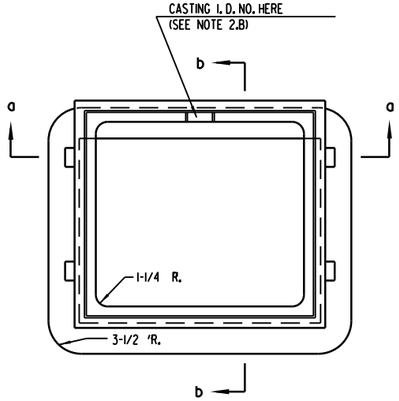
ELEVATION



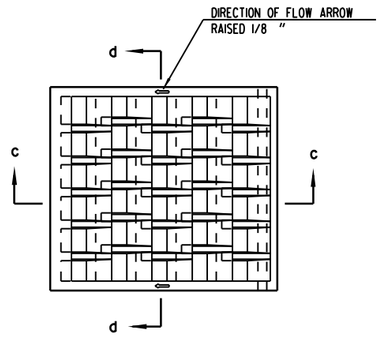
SECTION A-A

DETAIL OF CURB AND GUTTER AT INLETS

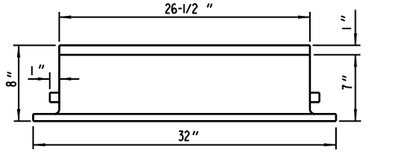
* IF LESS THAN 4-INCHES, INLET OR MANHOLE TO BE CAST IN PLACE

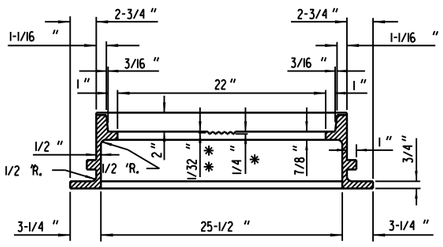


FRAME



GRATE

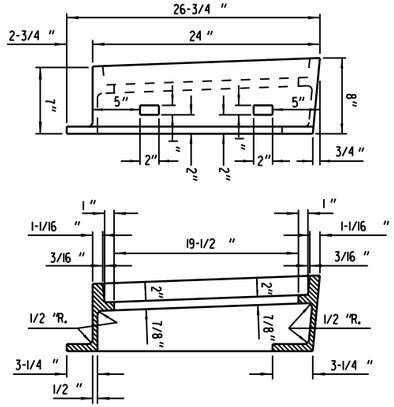




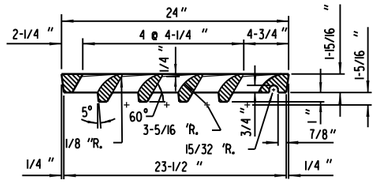
SECTION a-a

* DEPRESSION FOR LETTERS

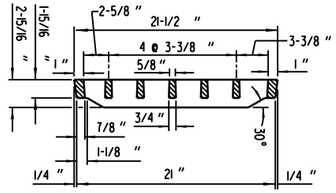
** CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT



SECTION b-b



SECTION c-c



SECTION d-d

GENERAL NOTES

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

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).

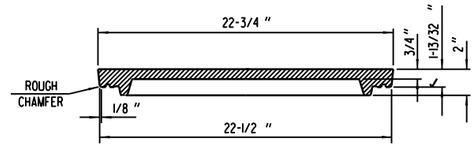
ON THE GRATE

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.

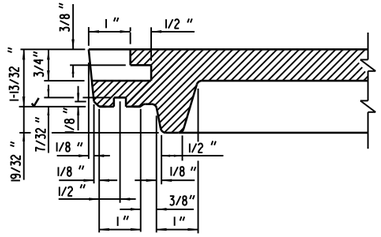
INLET COVER - TYPE MS 57

LID-145 LBS., FRAME-204 LBS.

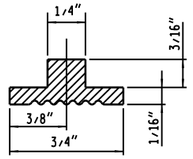
2

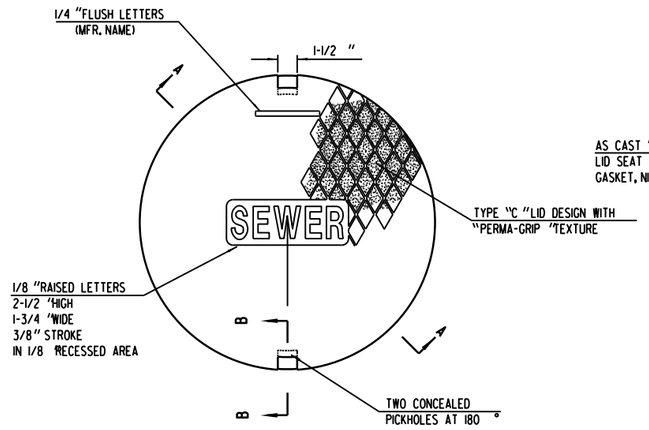


SECTION A-A

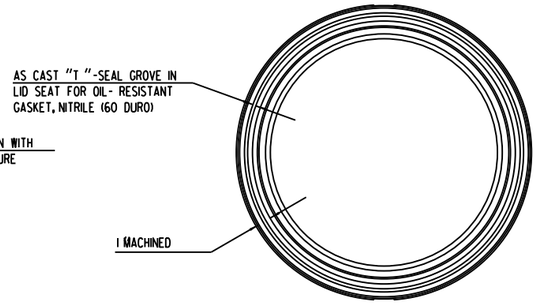


SECTION B-B





TOP VIEW



BOTTOM VIEW

MANHOLE COVER - TYPE ms 58-A

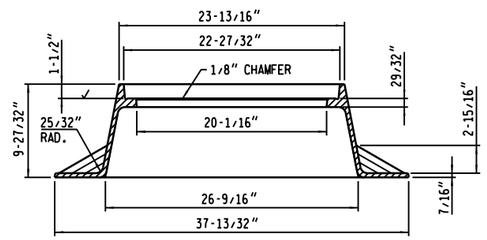
LID - 107 LBS.

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.

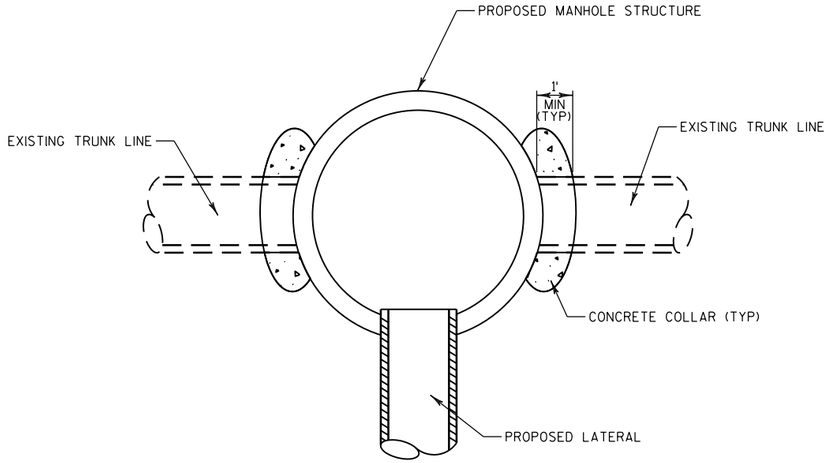
NOTE: ALL EXTERIOR EDGES SHALL BE GROUND.



MANHOLE FRAME - TYPE MS 21

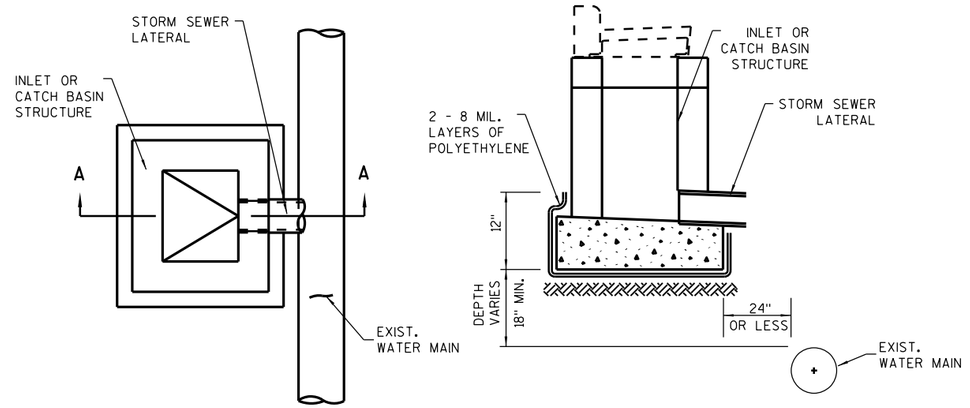
FRAME - 182 LBS.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SHEET 17	E



PROPOSED MANHOLE CONNECTION TO EXISTING TRUNK LINE

ALL COSTS OF REMOVING PIPE, MATERIAL, LABOR, TOOLS, AND EQUIPMENT NECESSARY TO MAKE THE CONNECTION SHALL BE INCIDENTAL TO THE BID ITEM OF MANHOLE TYPE 4 OR MANHOLE TYPE 5

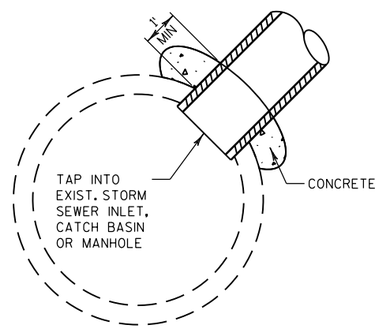


PLAN VIEW

SECTION A-A

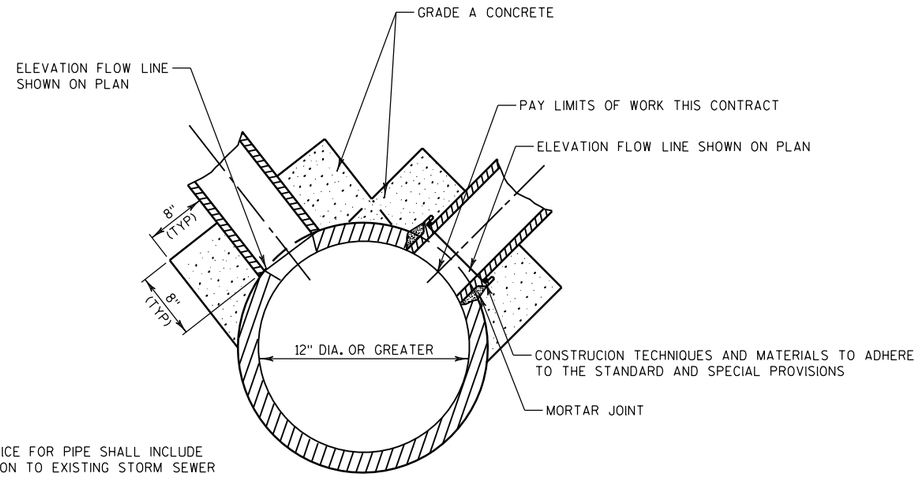
WATER MAIN PROTECTION

INSTALL ON ALL CATCH BASINS OR INLETS WITH LESS THAN 24" HORIZONTAL OUT-TO-OUT CLEARANCE FROM STRUCTURE TO WATER MAIN



PROPOSED STORM SEWER CONNECTION TO EXISTING STRUCTURE DETAIL

ALL COSTS OF MATERIAL, LABOR, TOOLS, AND EQUIPMENT NECESSARY TO MAKE THE CONNECTION SHALL BE INCIDENTAL TO THE BID ITEM OF STORM SEWER PIPE

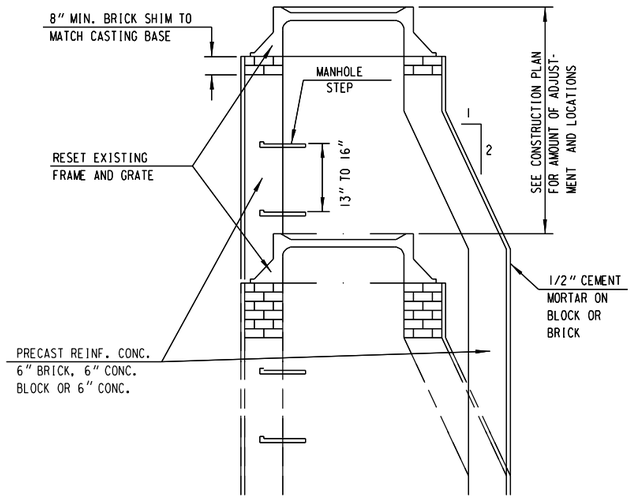


NOTE:

CONTRACT UNIT PRICE FOR PIPE SHALL INCLUDE COST OF CONNECTION TO EXISTING STORM SEWER OR MANHOLE

DETAIL OF CONNECTION TO EXISTING STORM SEWER

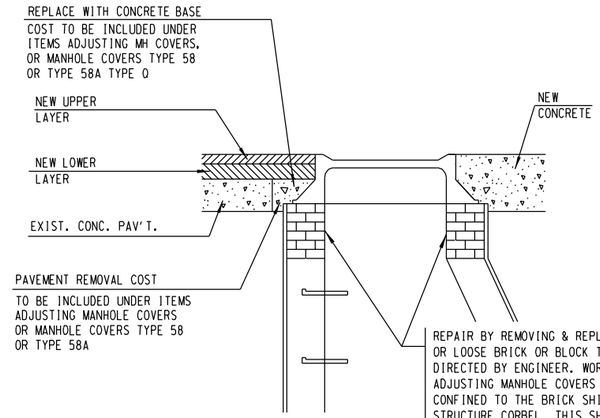
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SHEET 18	E



CORBEL MAY BE REVERSED
STRAIGHT SIDE LEANED
SLIGHTLY TO CLEAR CURB HEAD.

REPAIR BY REMOVING AND REPLACING DAMAGED OR LOOSE BRICK OR BLOCK TO THE DEPTH AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER. DEPTHS AS INDICATED ON PLAN ARE ESTIMATES ONLY AND MAY VARY AT TIME OF CONSTRUCTION.

RECONSTRUCTING MANHOLES

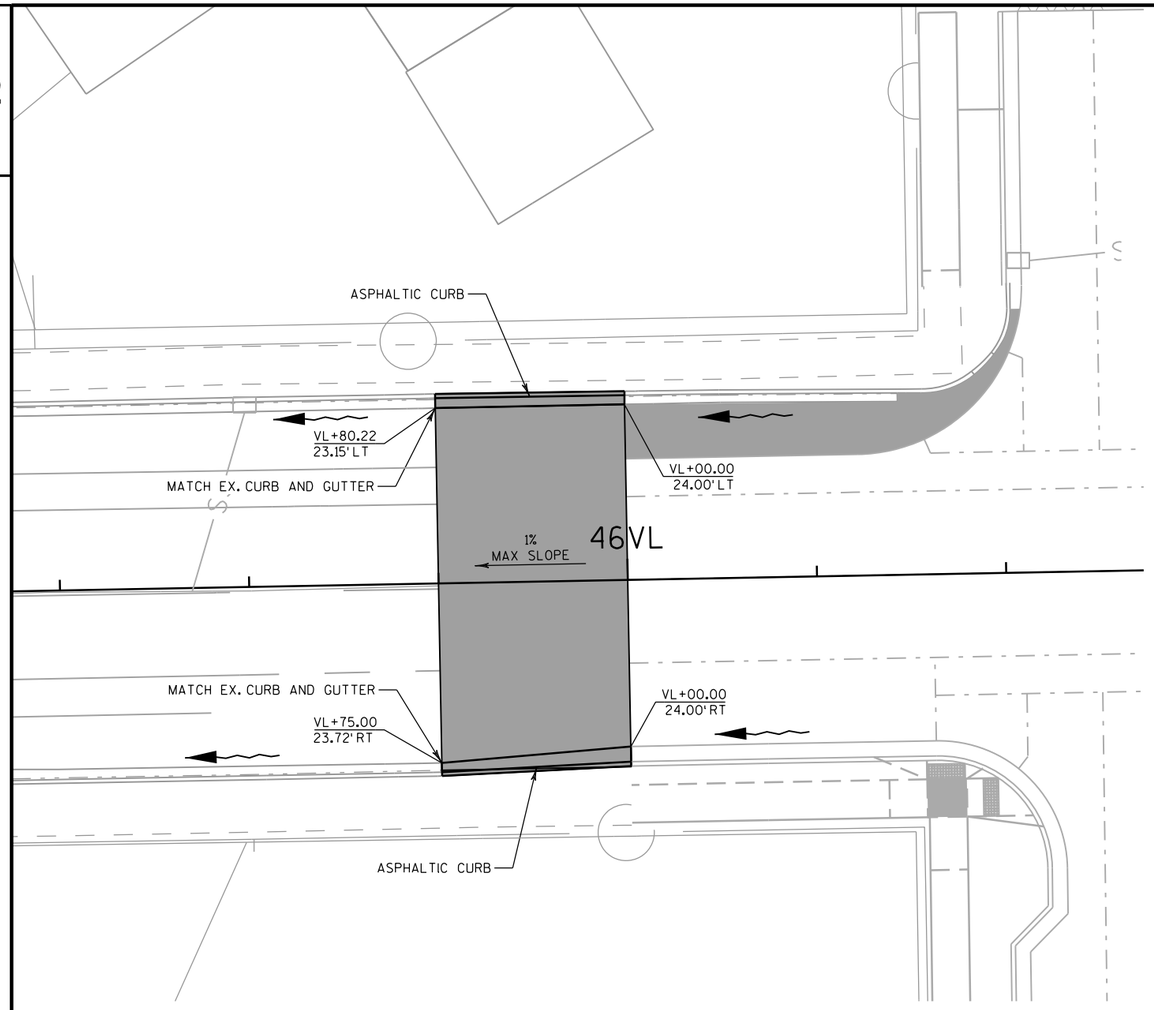


REPAIR BY REMOVING & REPLACING DAMAGED OR LOOSE BRICK OR BLOCK TO DEPTH AS DIRECTED BY ENGINEER. WORK UNDER ADJUSTING MANHOLE COVERS SHALL BE CONFINED TO THE BRICK SHIMMING ABOVE THE STRUCTURE CORBEL. THIS SHIMMING SHALL NOT EXCEED 1 FOOT BETWEEN THE TOP OF THE CORBEL AND THE FRAME BOTTOM. ANY WORK MORE EXTENSIVE THAN DESCRIBED IMMEDIATELY ABOVE SHALL BE CONSTRUED AS WORK UNDER RECONSTRUCTING MANHOLES. DEPTHS OF BRICK-WORK TO BE REPAIRED, AS INDICATED ON THE PLAN, ARE ESTIMATES ONLY AND MAY VARY AT TIME OF CONSTRUCTION.

ADJUSTING MANHOLE COVERS
OR MANHOLE COVERS TYPE 58A

CONSTRUCTION NOTES

1. LOCATIONS OF STRUCTURES IN CURB & GUTTER SECTIONS REFER TO FACE OF CURB.
2. LOCATIONS OF STRUCTURES NOT IN CURB AND GUTTER SECTIONS REFER TO CENTERLINE OF STRUCTURE.
3. PIPE LENGTHS GIVEN ARE APPROXIMATE OUT TO OUT OF STRUCTURE.
4. GRATE & RIM ELEVATIONS ARE GIVEN AT FLOW LINE OF INLET COVER OR AT CENTER-LINE OF MANHOLE COVER.
5. WHEN NEW COVERS ARE PLACED, THE FIRST 12" OF ADJUSTMENT OR REPAIRING SHALL BE INCLUDED IN THE COST OF THE NEW COVER. ANY ADJUSTMENT OR REPAIR OF BRICKWORK 12" OR LESS WILL BE PAID AS ADJUSTING COVERS WHEN RESETTING EXISTING COVERS, ANY ADJUSTMENT OR REPAIR OF BRICKWORK MORE THAN 12" WILL BE PAID AS A RECONSTRUCT.
6. MANHOLE ADJUSTMENTS IN ASPHALTIC PAVEMENT WILL BE MADE AFTER THE LOWER LAYER IS PLACED.
7. WHEN CONSTRUCTING CONCRETE CURB ADJACENT TO INLET COVER TYPE 57, TWO (2) DEFORMED TIE BARS SHALL BE PLACED LONGITUDINALLY THROUGH THE CURB SECTION AND EXTENDED ONE (1) FOOT BEYOND EACH SIDE OF THE FRAME. A DUMMY JOINT SHALL BE CUT IN THE CURB AT EACH SIDE OF THE FRAME.



VLIET STREET TEMPORARY CONNECTION

WINTER 2019 SHUTDOWN
STA 46VL+00

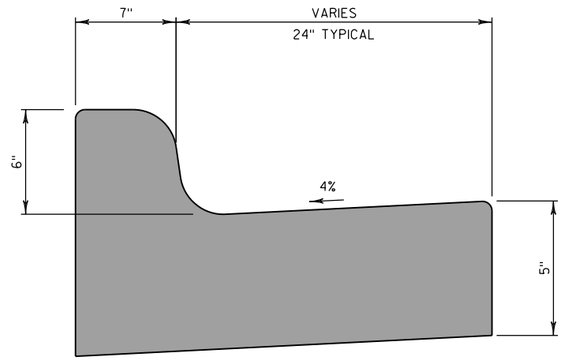
NOTE

1) CONSTRUCT TEMPORARY CONNECTION TO MAINTAIN TRAFFIC THROUGH WINTER SHUTDOWN

2) MAINTAIN POSITIVE DRAINAGE AT GUTTER LINE.

3) REMOVE EXISTING PAVEMENT (PAID FOR AS 204.0100 REMOVING PAVEMENT), REPLACE WITH 5-INCHES ASPHALTIC SURFACE TEMPORARY ON TOP OF 12-INCHES BASE AGGREGATE DENSE 1-1/4-INCH

4) ASPHLATIC CURB GUTTER WIDTH MAY VARY THROUGH TRANSITION FROM EXISTING CURB TO PROPOSED CURB.



ASPHALTIC CURB

NOTE

1) GUTTER WIDTH MAY VARY TO MATCH EXISTING CURB

2) THE BOTTOM OF THE CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE.

2

LEGEND

(EX) EXISTING ELEVATION
(F) FLANGE ELEVATION
(G) GUTTER ELEVATION
(TC) TOP OF CURB ELEVATION
(W) SIDEWALK ELEVATION AT PEDESTRIAN CURB
— — JOINT IN SIDEWALK
BUS STOP/CURB RAMP LANDING

N

2

N. 27TH STREET

VL+90.00, 32.28'LT
92.67

VL+18.00, 32.28'LT
93.08

0.4%

BUS STOP

1.5%

5.7'

2'

0.4%

1.5%

VL+90.00, 26.58'LT
92.65

VL+18.00, 26.58'LT
92.99

VL+90.00, 24.00'LT
92.64 (TC)

VL+18.00, 24.00'LT
92.96 (TC)

R/L VLIET STREET

11VL

W. VLIET STREET

NOTE:

* UNMARKED SIDEWALK SLOPES ARE 1.5% TOWARDS THE STREET

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMPS DETAILS	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Technical Proposal\2018.10.26\2018.10.26_CURB RAMPS.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 10:1

2

LEGEND

(EX) EXISTING ELEVATION
(F) FLANGE ELEVATION
(G) GUTTER ELEVATION
(TC) TOP OF CURB ELEVATION
(W) SIDEWALK ELEVATION AT PEDESTRIAN CURB
— — JOINT IN SIDEWALK
BUS STOP/CURB RAMP LANDING

N. 26TH STREET

VL+61.68, 33.44' LT
97.03

VL+78.65, 39.49' LT
97.50

VL+78.66, 33.49' LT
97.20

VL+74.34, 33.47' LT
97.24

97.24 EX

VL+83.65, 39.50' LT
97.42

VL+83.66, 33.50' LT
97.12

VL+90.00, 39.58' LT
96.74 (G), 97.24 (TC)

VL+83.67, 32.08' LT
97.11

VL+88.16, 32.08' LT
96.89

VL+89.99, 32.08' LT
96.86 (G)

VL+91.99, 32.08' LT
96.94 (F)

CURB RAMP
TYPE 2

VL+90.95, 27.08' LT
96.92 (F)

VL+88.80, 27.08' LT
96.84 (G)

VL+88.16, 27.08' LT
96.85

VL+83.68, 27.08' LT
97.06

VL+87.05, 20.99' LT
96.88 (F)

VL+61.66, 24.58' LT
96.94

VL+74.32, 24.59' LT
97.11

VL+74.30, 18.00' LT
96.63 (G), 97.13 (TC)

VL+74.30, 19.24' LT
96.75

VL+74.30, 18.00' LT
96.73 (G)

VL+74.30, 16.00' LT
96.81 (F)

CURB RAMP
TYPE 3 MODIFIED

VL+86.10, 22.90' LT
96.80 (G), 97.05 (TC)

VL+83.77, 20.82' LT
96.79 (G), 97.04 (TC)

VL+79.32, 24.60' LT
97.06

VL+79.30, 19.24' LT
96.79

VL+79.31, 18.63' LT
96.77 (G)

VL+79.31, 16.55' LT
96.85 (F)

14VL

10NS

W. VLIET STREET

VL+29.10, 32.08' LT
97.40

VL+25.86, 32.08' LT
97.21

VL+24.01, 33.58' LT
97.17 (G), 97.67 (TC)

VL+24.04, 32.08' LT
97.18 (G)

VL+22.04, 32.08' LT
97.26 (F)

VL+29.08, 39.08' LT
97.81

VL+35.58, 39.08' LT
97.91

PEDESTRIAN CURB

VL+35.60, 32.08' LT
97.99 (TC)
97.49 (W)

97.99 EX

VL+41.53, 32.08' LT
97.98 (TC)
97.59 (W)

VL+46.53, 32.08' LT
98.01 (TC)
97.67 (W)

CURB RAMP
TYPE 2

VL+54.53, 32.08' LT
98.02

VL+23.08, 27.08' LT
97.30 (F)

VL+25.23, 27.08' LT
97.22 (G)

VL+25.87, 27.08' LT
97.23

VL+26.68, 24.46' LT
97.27 (G), 97.52 (TC)

VL+29.11, 27.08' LT
97.34

VL+27.01, 20.96' LT
97.38 (F)

VL+36.52, 27.08' LT
97.45

VL+31.79, 19.85' LT
97.34 (G), 97.59 (TC)

VL+36.49, 18.81' LT
97.40

VL+36.49, 18.21' LT
97.39 (G)

VL+36.54, 16.18' LT
97.47 (F)

VL+54.52, 27.08' LT
97.94

VL+46.52, 27.08' LT
97.61

VL+41.52, 27.08' LT
97.53

VL+50.49, 18.00' LT
97.43 (G), 97.99 (TC)

VL+41.49, 18.81' LT
97.44

VL+41.49, 18.00' LT
97.43 (G)

VL+41.46, 16.00' LT
97.51 (F)

CURB RAMP
TYPE 3 MODIFIED

VL+74.20, 16.20' RT
96.80 (F)

VL+74.20, 18.22' RT
96.72 (G)

VL+74.19, 20.29' RT
96.75

VL+79.19, 17.49' RT
96.86 (F)

VL+79.19, 19.65' RT
96.78 (G)

VL+79.19, 20.29' RT
96.79

VL+79.19, 19.65' RT
96.79 (G), 97.04 (TC)

CURB RAMP
TYPE 3 MODIFIED

VL+65.81, 18.00' RT
96.59 (G), 97.09 (TC)

VL+74.18, 24.58' RT
96.93

VL+60.05, 24.58' RT
96.93

VL+60.05, 32.08' RT
97.04

VL+79.18, 24.58' RT
96.91

VL+86.81, 22.46' RT
96.94 (F)

VL+85.46, 23.95' RT
96.81 (G), 97.06 (TC)

VL+84.36, 25.83' RT
96.99

VL+87.10, 25.83' RT
96.88 (G)

VL+89.56, 25.83' RT
96.96 (F)

CURB RAMP
TYPE 2

VL+92.03, 30.83' RT
96.97 (F)

VL+89.90, 30.83' RT
96.89 (G)

97.28 EX

VL+74.16, 32.08' RT
97.04

VL+79.16, 31.47' RT
97.01

VL+79.15, 37.07' RT
97.20

VL+79.14, 42.08' RT
97.37

VL+86.36, 30.83' RT
96.93

VL+84.36, 30.83' RT
96.99

VL+85.14, 42.08' RT
97.28

NOTE:
* UNMARKED SIDEWALK SLOPES ARE 1.5% TOWARDS THE STREET

R/L 26TH STREET

R/L VLIET STREET

VL+36.39, 17.09' RT
97.47 (F)

VL+36.39, 19.83' RT
97.39 (G)

VL+32.79, 20.94' RT
97.31 (G), 97.64 (TC)

VL+36.37, 25.83' RT
97.75

VL+34.85, 25.83' RT
97.73

VL+30.09, 22.92' RT
97.29 (G), 97.50 (TC)

VL+27.69, 22.42' RT
97.40 (F)

VL+28.10, 25.83' RT
97.31

VL+27.36, 25.83' RT
97.30 (G)

VL+24.90, 25.83' RT
97.38 (F)

CURB RAMP
TYPE 2

VL+22.43, 30.84' RT
97.34 (F)

VL+24.56, 30.83' RT
97.24 (G)

VL+23.23, 37.95' RT
97.17 (G)
97.67 (TC)

VL+28.10, 30.83' RT
97.29

VL+41.39, 16.08' RT
97.54 (F)

VL+41.39, 18.08' RT
97.46 (G)

VL+41.39, 19.83' RT
97.49

CURB RAMP
TYPE 2 MODIFIED

VL+50.39, 18.00' RT
97.56 (G), 98.06 (TC)

VL+41.37, 25.83' RT
97.83

VL+54.23, 27.42' RT
98.16

98.12 EX

VL+54.23, 32.46' RT
98.23

VL+41.36, 30.83' RT
97.86

VL+34.83, 30.83' RT
97.76

VL+34.81, 39.33' RT
98.07

VL+39.83, 30.83' RT
97.84

VL+39.81, 39.33' RT
98.14

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMPS DETAILS	SHEET 22	E

2

LEGEND

(EX) EXISTING ELEVATION
(F) FLANGE ELEVATION
(G) GUTTER ELEVATION
(TC) TOP OF CURB ELEVATION
(W) SIDEWALK ELEVATION AT PEDESTRIAN CURB
— — JOINT IN SIDEWALK
BUS STOP/CURB RAMP LANDING

VL+58.75, 42.50' LT 99.60
VL+55.36, 42.50' LT 99.65
VL+58.75, 37.50' LT 99.52
VL+55.37, 37.50' LT 99.67
VL+58.75, 32.50' LT 99.61
VL+54.45, 32.08' LT 99.67
VL+49.45, 32.08' LT 99.63
VL+44.45, 32.05' LT 99.60
99.68 EX
VL+63.75, 42.50' LT 99.52
VL+69.20, 42.50' LT 98.98 (G), 99.48 (TC)
VL+63.75, 37.50' LT 99.44
VL+67.07, 37.50' LT 99.21
VL+69.13, 37.50' LT 99.18 (G)
VL+71.14, 37.50' LT 99.26 (F)
CURB RAMP TYPE 3 MODIFIED
VL+69.91, 32.50' LT 99.40 (F)
VL+67.72, 32.50' LT 99.32 (G)
VL+67.07, 32.50' LT 99.33
VL+63.75, 32.50' LT 99.49
VL+44.45, 27.08' LT 99.52
VL+43.45, 24.00' LT 99.39 (G), 99.89 (TC)
VL+49.45, 27.08' LT 99.55
VL+49.45, 24.59' LT 99.52
VL+49.45, 24.00' LT 99.51 (G)
VL+49.45, 22.00' LT 99.59 (F)
CURB RAMP TYPE 3
VL+54.45, 27.09' LT 99.59
VL+54.45, 24.59' LT 99.56
VL+54.45, 24.00' LT 99.55 (G)
VL+54.45, 22.00' LT 99.63 (F)
VL+66.23, 26.98' LT 99.57 (F)
N. 25TH STREET
W. VLIET STREET
10NSB
VL+49.47, 22.00' RT 99.59 (F)
VL+49.47, 24.00' RT 99.51 (G)
VL+49.47, 24.76' RT 99.52
VL+49.47, 27.42' RT 99.65
VL+54.47, 22.15' RT 99.63 (F)
VL+54.47, 24.17' RT 99.55 (G)
VL+54.46, 24.76' RT 99.56
VL+54.47, 27.42' RT 99.71
CURB RAMP TYPE 3 MODIFIED
VL+59.93, 27.42' RT 99.68 (W), 100.06 (TC)
VL+61.40, 28.55' RT 99.67 (W), 100.06 (TC)
VL+64.25, 26.99' RT 99.63 (F)
VL+61.39, 32.50' RT 99.65
VL+65.08, 32.50' RT 99.39
VL+65.73, 32.50' RT 99.38 (G)
VL+67.92, 32.50' RT 99.42 (F)
VL+18.47, 24.00' RT 99.39 (TC)
VL+43.47, 24.00' RT 99.39 (G), 99.89 (TC)
VL+15.47, 27.42' RT 99.40
VL+43.47, 27.42' RT 99.92
BUS STOP
VL+43.47, 32.42' RT 99.97
VL+15.47, 32.42' RT 99.48
VL+49.47, 32.50' RT 99.73
99.73 EX
VL+54.47, 32.42' RT 99.73
VL+55.39, 32.42' RT 99.72
VL+55.38, 37.50' RT 99.72
VL+55.37, 42.50' RT 99.75
VL+61.37, 42.50' RT 99.66
CURB RAMP TYPE 3 MODIFIED
VL+69.15, 37.50' RT 99.35 (F)
VL+67.14, 37.51' RT 99.31 (G)
VL+65.11, 37.50' RT 99.34
VL+61.38, 37.50' RT 99.60
VL+67.21, 42.50' RT 99.08 (G), 99.58 (TC)

NOTE:
* UNMARKED SIDEWALK SLOPES ARE 1.5% TOWARDS THE STREET

VL+06.35, 42.50' LT 99.79
VL+12.28, 42.50' LT 99.87
VL+06.36, 37.50' LT 99.56
VL+03.33, 37.50' LT 99.39
VL+01.30, 37.50' LT 99.36 (G)
VL+99.27, 37.50' LT 99.44 (F)
VL+11.79, 37.50' LT 99.63 (W), 100.00 (TC)
VL+11.79, 32.50' LT 99.63 (W), 100.08 (TC)
VL+11.79, 31.58' LT 99.63 (W), 100.08 (TC)
VL+14.56, 31.58' LT 99.79 (W), 100.09 (TC)
100.10 EX
CURB RAMP TYPE 3 MODIFIED
VL+19.56, 32.08' LT 99.88 (W), 100.13 (TC)
VL+27.56, 32.08' LT 100.35
VL+55.54, 32.08' LT 100.52
VL+00.50, 32.50' LT 99.54 (F)
VL+02.68, 32.50' LT 99.46 (G)
VL+03.33, 32.50' LT 99.47
VL+06.36, 32.50' LT 99.56
VL+04.19, 26.98' LT 99.70 (F)
VL+06.36, 29.16' LT 99.59 (W), 100.13 (TC)
VL+09.02, 27.08' LT 99.62 (W), 100.21 (TC)
VL+11.79, 27.08' LT 99.65
VL+14.54, 27.08' LT 99.77
VL+14.53, 24.68' LT 99.74
VL+14.53, 24.09' LT 99.73 (G)
VL+14.53, 22.08' LT 99.81 (F)
BUS STOP
VL+27.54, 27.07' LT 100.30
CURB RAMP TYPE 3 MODIFIED
VL+27.53, 24.00' LT 99.78 (G), 100.28 (TC)
VL+19.54, 27.08' LT 99.81
VL+19.53, 24.68' LT 99.75
VL+19.53, 24.00' LT 99.74 (G)
VL+19.53, 22.00' LT 99.82 (F)
VL+55.54, 24.00' LT 100.41 (TC)
VL+55.54, 27.08' LT 100.44
R/L VLIET STREET
VL+14.36, 22.43' RT 99.80 (F)
VL+14.36, 24.49' RT 99.72 (G)
VL+14.36, 25.10' RT 99.73
VL+14.35, 27.10' RT 99.76
R/L 25TH STREET
VL+10.98, 27.09' RT 99.74 (W), 100.16 (TC)
VL+06.57, 26.58' RT 99.71 (F)
VL+07.82, 29.71' RT 99.71 (W), 100.12 (TC)
VL+07.81, 32.50' RT 99.68
VL+05.31, 32.50' RT 99.58
VL+04.66, 32.50' RT 99.57 (G)
VL+02.47, 32.50' RT 99.65 (F)
CURB RAMP TYPE 3 MODIFIED
VL+19.36, 22.00' RT 99.83 (F)
VL+19.36, 24.00' RT 99.75 (G)
VL+19.36, 25.12' RT 99.77
VL+19.35, 27.08' RT 99.78
VL+29.35, 24.00' RT 99.79 (G), 100.29 (TC)
VL+29.35, 27.08' RT 100.27
VL+29.35, 32.08' RT 100.34
VL+19.33, 32.08' RT 100.24 (TC), 99.86 (W)
VL+13.31, 32.08' RT 100.14 (TC), 99.77 (W)
VL+14.33, 32.14' RT 100.16 (TC), 99.79 (W)
CURB RAMP TYPE 3 MODIFIED
VL+01.24, 37.50' RT 99.60 (F)
VL+03.25, 37.50' RT 99.52 (G)
VL+05.31, 37.50' RT 99.55
VL+07.80, 37.50' RT 99.68
VL+03.20, 44.50' RT 99.45 (G), 99.95 (TC)
VL+12.81, 32.50' RT 100.14 (TC), 99.76 (W)
VL+12.80, 37.50' RT 100.16 (TC), 99.76 (W)
VL+07.78, 47.06' RT 100.22
VL+12.78, 47.06' RT 100.24

N

2

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMPS DETAILS	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Electronic Data\Roadway\2018\Sheets\271402_crRD01.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 10:1
WISDOT/CADDS SHEET 42

LEGEND

(EX) EXISTING ELEVATION
(F) FLANGE ELEVATION
(G) GUTTER ELEVATION
(TC) TOP OF CURB ELEVATION
(W) SIDEWALK ELEVATION AT PEDESTRIAN CURB
— — JOINT IN SIDEWALK
BUS STOP/CURB RAMP LANDING

VL+76.59, 44.02'LT
102.09

VL+81.59, 44.01'LT
102.09

VL+82.17, 44.01'LT
101.59 (G), 102.09 (TC)

VL+82.16, 36.58'LT
101.75 (G)

VL+08.76, 43.98'LT
102.36

VL+08.17, 43.98'LT
101.86 (G), 101.36 (TC)

VL+13.83, 43.98'LT
102.47

VL+13.83, 36.58'LT
102.03 (W), 102.53 (TC)

VL+76.57, 31.58'LT
101.89 (W), 102.39 (TC)

VL+76.08, 36.58'LT
101.82 (W), 102.28 (TC)

VL+71.08, 32.08'LT
101.97 (W), 102.40 (TC)

VL+66.08, 32.08'LT
102.19 (W), 102.37 (TC)

VL+61.08, 32.08'LT
102.32

PEDESTRIAN CURB

VL+84.16, 36.57'LT
101.83 (F)

VL+08.16, 36.58'LT
101.95 (G)

VL+13.83, 31.58'LT
102.09 (W), 102.59 (TC)

VL+22.52, 32.08'LT
102.52 (W), 102.78 (TC)

PEDESTRIAN CURB

VL+27.52, 32.08'LT
102.60 (W), 102.81 (TC)

VL+32.52, 32.08'LT
102.84

CURB RAMP TYPE 7A MODIFIED

CURB RAMP TYPE 7A MODIFIED

VL+06.16, 36.58'LT
102.03 (F)

VL+06.22, 31.58'LT
102.09 (F)

VL+84.10, 31.57'LT
101.90 (F)

VL+82.09, 31.58'LT
101.82 (G)

VL+08.23, 31.58'LT
102.01 (G)

VL+80.30, 27.08'LT
101.85 (G), 101.90 (TC)

VL+10.02, 27.08'LT
102.08 (G), 102.10 (TC)

VL+79.49, 24.46'LT
101.86 (G), 102.11 (TC)

VL+10.83, 24.46'LT
102.12 (G), 102.37 (TC)

VL+76.58, 27.08'LT
101.96

VL+11.13, 20.99'LT
102.23 (F)

VL+61.07, 27.08'LT
102.25

VL+66.07, 27.08'LT
102.12

VL+66.06, 18.00'LT
101.85 (G), 102.35 (TC)

VL+79.17, 20.97'LT
101.96 (F)

VL+71.07, 27.08'LT
102.04

VL+13.83, 27.08'LT
102.16

VL+32.56, 27.08'LT
102.77

VL+27.56, 27.08'LT
102.53

VL+75.58, 20.59'LT
101.90 (G), 102.15 (TC)

VL+17.74, 19.01'LT
102.24 (G), 102.49 (TC)

VL+35.61, 18.00'LT
102.35 (G), 102.85 (TC)

VL+71.06, 18.52'LT
101.95 (G)

VL+66.06, 19.12'LT
101.94

VL+22.56, 27.08'LT
102.45

CURB RAMP TYPE 3 MODIFIED

CURB RAMP TYPE 3

VL+71.05, 16.45'LT
102.03 (F)

VL+66.06, 18.00'LT
101.93 (G)

VL+22.61, 18.59'LT
102.32

VL+27.61, 18.58'LT
102.35

VL+66.05, 16.00'LT
102.01 (F)

VL+22.61, 18.01'LT
102.31 (G)

VL+27.61, 18.00'LT
102.34 (G)

VL+22.61, 16.01'LT
102.39 (F)

VL+27.61, 16.00'LT
102.42 (F)

W. VLIET STREET

N. 24TH PLACE

R/L 24TH PLACE

R/L VLIET STREET

VL+71.01, 16.00'RT
102.13 (F)

VL+71.01, 18.00'RT
102.05 (G)

VL+76.28, 18.83'RT
102.09 (G), 102.34 (TC)

VL+66.01, 16.00'RT
102.10 (F)

VL+71.00, 27.08'RT
102.45

VL+74.50, 27.08'RT
102.45

VL+83.35, 20.94'RT
102.23 (F)

VL+66.01, 18.00'RT
102.02 (G)

VL+82.46, 22.90'RT
102.12 (G), 102.37 (TC)

VL+66.01, 18.00'RT
101.95 (G), 102.45 (TC)

VL+79.50, 27.08'RT
102.38

VL+66.00, 27.08'RT
102.45

VL+85.15, 27.08'RT
102.20 (G)

VL+53.51, 27.08'RT
102.40

VL+86.91, 25.61'RT
102.20

VL+87.31, 27.08'RT
102.28 (F)

CURB RAMP TYPE 2

VL+88.34, 32.08'RT
102.32 (F)

VL+86.34, 32.08'RT
102.24 (G)

VL+84.50, 32.08'RT
102.26

VL+86.37, 33.58'RT
102.25 (G), 102.75 (TC)

VL+53.51, 32.08'RT
102.47

VL+65.99, 32.08'RT
102.52

VL+70.99, 32.08'RT
102.52

VL+74.53, 32.08'RT
102.52

VL+74.57, 37.08'RT
102.72

VL+79.53, 32.08'RT
102.45

VL+79.56, 37.08'RT
102.65

VL+22.85, 18.29'RT
102.51 (F)

VL+22.87, 20.64'RT
102.43 (G)

VL+21.66, 19.04'RT
102.51

VL+27.84, 16.37'RT
102.52 (F)

VL+27.85, 18.42'RT
102.44 (G)

VL+27.87, 21.32'RT
102.48

VL+20.58, 22.58'RT
102.43 (G), 102.68 (TC)

VL+27.91, 27.08'RT
102.67

VL+22.91, 27.08'RT
102.60

VL+35.82, 18.00'RT
102.46 (G), 102.96 (TC)

VL+19.04, 24.46'RT
102.42 (G), 102.67 (TC)

VL+32.92, 27.08'RT
102.92

VL+17.59, 27.08'RT
102.41 (G)

VL+32.95, 32.08'RT
103.05

VL+15.43, 27.08'RT
102.49 (F)

CURB RAMP TYPE 2

VL+14.40, 32.08'RT
102.49 (F)

VL+16.40, 32.08'RT
102.41 (G)

VL+18.22, 32.08'RT
102.43

VL+16.96, 33.58'RT
102.40 (G), 102.90 (TC)

VL+22.95, 32.08'RT
102.67

103.05 EX

VL+28.45, 32.08'RT
102.75 (W), 103.02 (TC)

PEDESTRIAN CURB

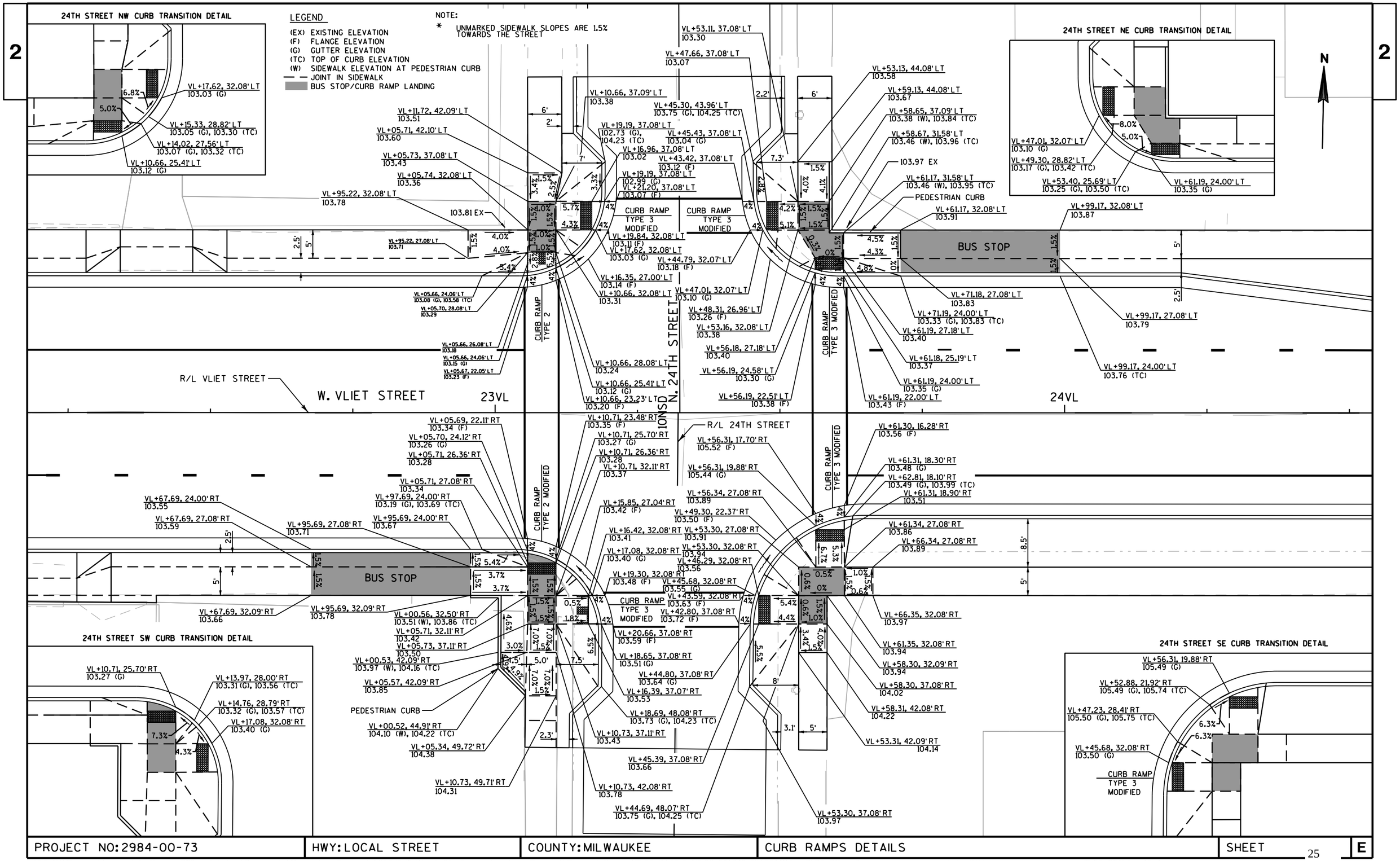
VL+23.00, 40.08'RT
103.08

VL+28.00, 40.08'RT
103.15

NOTE:
* UNMARKED SIDEWALK SLOPES ARE 1.5% TOWARDS THE STREET

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMPS DETAILS	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Set Production\cad\D21403_cr.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 10:1
WISDOT/CADDS SHEET 42



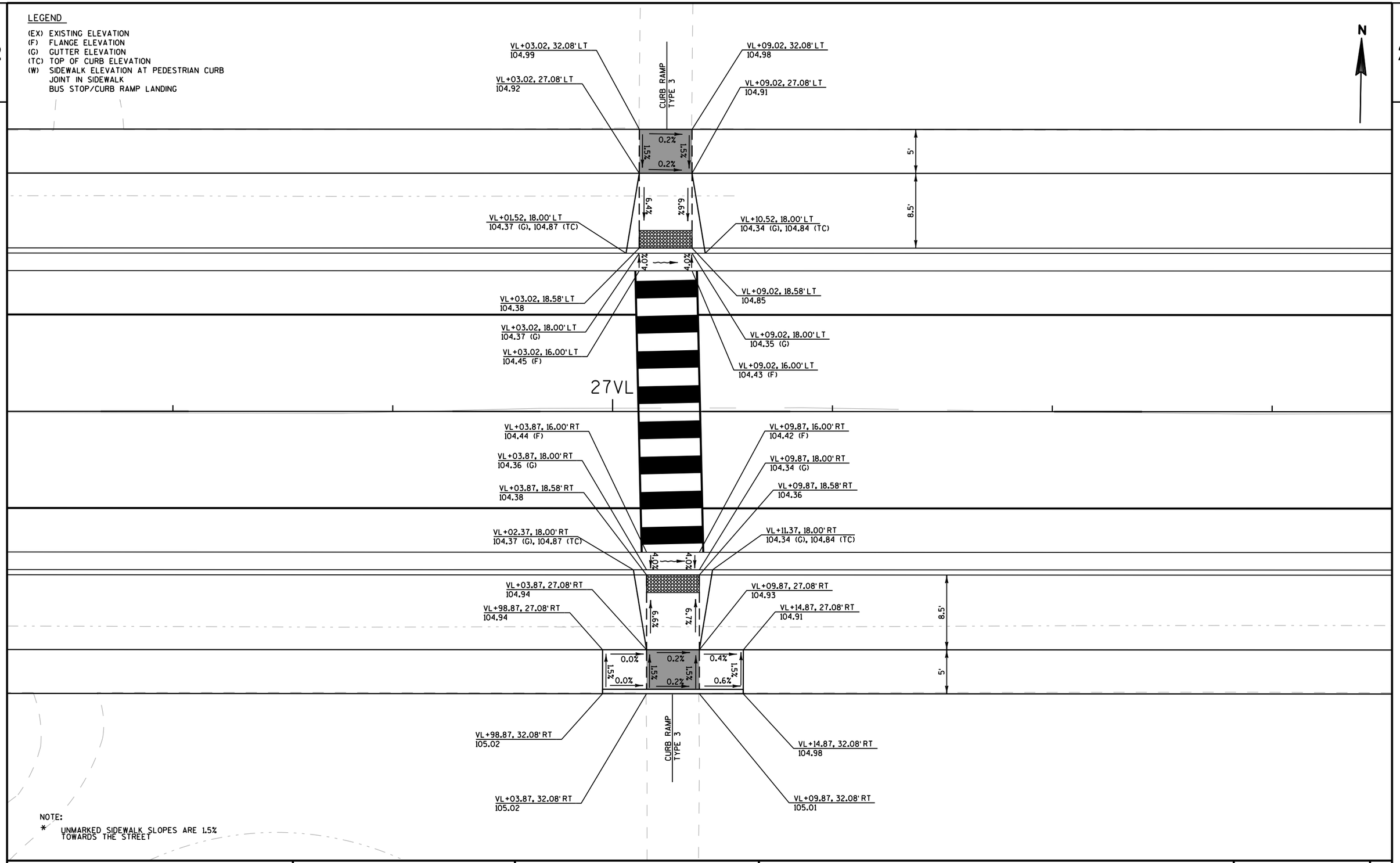
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMPS DETAILS	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Production\2018.19 CMS\SD21A04_cr01.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 15:1

WISDOT/CADDS SHEET 42

LEGEND

(EX) EXISTING ELEVATION
(F) FLANGE ELEVATION
(G) GUTTER ELEVATION
(TC) TOP OF CURB ELEVATION
(W) SIDEWALK ELEVATION AT PEDESTRIAN CURB
JOINT IN SIDEWALK
BUS STOP/CURB RAMP LANDING



NOTE:
* UNMARKED SIDEWALK SLOPES ARE 1.5% TOWARDS THE STREET

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMPS DETAILS	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Preparation\cad\DGN\14104a_cPLT.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 10:1

LEGEND

(EX) EXISTING ELEVATION
(F) FLANGE ELEVATION
(G) GUTTER ELEVATION
(TC) TOP OF CURB ELEVATION
(W) SIDEWALK ELEVATION AT PEDESTRIAN CURB
— — JOINT IN SIDEWALK
BUS STOP/CURB RAMP LANDING

N

W. VLIET STREET

R/L VLIET STREET

N. 22ND STREET

R/L 22ND STREET

30VL

10NSE

CURB RAMP TYPE 3

CURB RAMP TYPE 3 MODIFIED

CURB RAMP TYPE 2 MODIFIED

BUS STOP

PEDESTRIAN CURB

105.65 EX

105.63 EX

105.89 EX

106.15 EX

NOTE:

* UNMARKED SIDEWALK SLOPES ARE 1.5% TOWARDS THE STREET

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMPS DETAILS	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Production\2984-00-73_crRD.dgn PLOTTED : 10/29/2018 3:54 PM BY : dbaumann PLOT NAME : PLOT SCALE : 10:1

WISDOT/CADDS SHEET 42

2

LEGEND

(EX) EXISTING ELEVATION
(F) FLANGE ELEVATION
(G) GUTTER ELEVATION
(TC) TOP OF CURB ELEVATION
(W) SIDEWALK ELEVATION AT PEDESTRIAN CURB
— — JOINT IN SIDEWALK
BUS STOP/CURB RAMP LANDING

N

N. 21ST STREET

W. VLIET STREET

33VL

34VL

10NSF

R/L 21ST STREET

R/L VLIET STREET

CURB RAMP TYPE 2 MODIFIED

CURB RAMP TYPE 2

VL+00.52, 32.08' LT 106.85
VL+00.52, 27.08' LT 106.78
VL+20.52, 32.08' LT 105.99 (W), 106.49 (TC)
106.75 EX
VL+22.53, 32.08' LT 105.95 (W), 106.45 (TC)
VL+22.54, 47.58' LT 106.48
VL+22.53, 34.58' LT 105.97 (W), 106.47 (TC)
VL+20.52, 27.08' LT 105.93
VL+22.61, 27.08' LT 105.92
VL+22.61, 27.08' LT 105.89
VL+21.27, 19.74' LT 105.82 (G), 106.32 (TC)
VL+22.62, 20.40' LT 105.82 (G)
VL+22.62, 18.16' LT 105.90 (F)
VL+28.54, 47.58' LT 106.40
VL+28.53, 34.58' LT 105.89
VL+30.61, 34.58' LT 105.80
VL+33.02, 36.08' LT 105.76 (G), 106.26 (TC)
VL+32.82, 34.58' LT 105.77 (G)
VL+34.84, 34.58' LT 105.85 (F)
VL+33.44, 29.58' LT 105.85 (F)
VL+31.26, 29.58' LT 105.77 (G)
VL+28.53, 29.58' LT 105.89
VL+29.80, 26.97' LT 105.77 (G), 106.02 (TC)
VL+29.80, 26.97' LT 105.77 (G), 106.02 (TC)
VL+27.61, 27.08' LT 105.89
VL+28.67, 22.44' LT 105.85 (F)
VL+27.62, 24.22' LT 105.78 (G)
VL+27.62, 21.45' LT 105.85 (F)
VL+69.70, 46.58' LT 106.45
VL+69.70, 34.58' LT 105.86
VL+67.362, 34.58' LT 105.79
VL+65.41, 34.58' LT 105.77 (G), 106.27 (TC)
VL+65.41, 34.58' LT 105.76 (G)
VL+63.38, 34.58' LT 105.84 (F)
VL+64.79, 29.58' LT 105.78 (F)
VL+66.97, 29.58' LT 105.70 (G)
VL+69.62, 29.58' LT 105.82
VL+68.44, 26.97' LT 105.64 (G), 105.89 (TC)
VL+68.73, 26.54' LT 105.63 (G), 105.88 (TC)
VL+70.63, 27.08' LT 105.76
VL+69.56, 22.45' LT 105.70 (F)
VL+70.62, 24.22' LT 105.62 (G)
VL+70.63, 21.45' LT 105.70 (F)
VL+75.70, 46.58' LT 106.54
VL+75.70, 34.58' LT 106.44 (TC) 105.94 (W)
VL+75.80, 32.08' LT 105.90 (W), 106.40 (TC)
VL+77.20, 32.08' LT 105.88 (W), 106.38 (TC)
VL+92.20, 32.08' LT 106.50
106.65 EX
VL+92.19, 27.08' LT 106.42
VL+77.19, 27.08' LT 105.80
VL+75.62, 27.08' LT 105.80
VL+75.62, 25.08' LT 105.69
VL+77.00, 19.72' LT 105.60 (G), 106.10 (TC)
VL+75.63, 20.40' LT 105.62 (G)
VL+75.63, 18.15' LT 105.70 (F)
VL+23.17, 16.58' RT 106.04 (F)
VL+23.17, 18.66' RT 105.96 (G)
VL+21.67, 18.28' RT 105.96 (G), 106.46 (TC)
VL+11.18, 27.08' RT 106.55
VL+23.18, 25.58' RT 106.03
VL+23.18, 27.08' RT 106.11
VL+11.18, 32.08' RT 106.63
106.72 EX
VL+23.19, 32.09' RT 106.19
VL+29.22, 47.08' RT 106.81
VL+23.22, 47.09' RT 106.89
VL+29.18, 19.55' RT 106.06 (F)
VL+29.18, 22.19' RT 105.98 (G)
VL+30.79, 20.97' RT 106.08 (F)
VL+30.83, 24.07' RT 106.00 (G), 106.25 (TC)
VL+31.39, 24.88' RT 106.01 (G), 106.26 (TC)
VL+29.19, 27.08' RT 106.08
VL+31.92, 27.08' RT 106.04
VL+32.56, 27.08' RT 106.01 (G)
VL+34.71, 27.08' RT 106.09 (F)
VL+35.75, 32.08' RT 106.11 (F)
VL+33.75, 32.08' RT 106.03 (G)
VL+33.75, 32.08' RT 106.04 (G), 106.54 (TC)
VL+31.93, 32.08' RT 106.06
VL+29.19, 32.08' RT 106.11
VL+69.62, 20.18' RT 105.85 (F)
VL+68.75, 20.99' RT 105.87 (F)
VL+69.62, 22.98' RT 105.77 (G)
VL+69.62, 23.87' RT 105.78
VL+68.14, 24.92' RT 105.83 (G), 106.08 (TC)
VL+69.62, 27.08' RT 105.99
VL+66.99, 27.08' RT 105.94 (G)
VL+64.84, 27.08' RT 106.02 (F)
VL+63.80, 32.08' RT 106.09 (F)
VL+65.81, 32.08' RT 106.01 (G)
VL+65.78, 33.58' RT 106.02 (G), 106.52 (TC)
VL+69.63, 32.08' RT 106.07
VL+69.66, 47.09' RT 106.71
VL+74.60, 17.16' RT 105.82 (F)
VL+74.61, 19.33' RT 105.74 (G)
VL+76.11, 18.74' RT 105.74 (G), 106.24 (TC)
VL+74.62, 23.87' RT 105.82
VL+74.63, 27.08' RT 106.01
VL+84.63, 27.08' RT 106.51
106.71 EX
VL+84.63, 32.08' RT 106.59
VL+74.63, 32.08' RT 106.09
VL+74.66, 47.08' RT 106.79

NOTE:
* UNMARKED SIDEWALK SLOPES ARE 1.5% TOWARDS THE STREET

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMPS DETAILS	SHEET 28	E

2

LEGEND

(EX) EXISTING ELEVATION
(F) FLANGE ELEVATION
(G) GUTTER ELEVATION
(TC) TOP OF CURB ELEVATION
(W) SIDEWALK ELEVATION AT PEDESTRIAN CURB
JOINT IN SIDEWALK
BUS STOP/CURB RAMP LANDING

N

VL+50.45, 45.08' LT
103.47

VL+49.63, 32.08' LT
103.67 (TC)
103.42 (W)

VL+49.63, 37.11' LT
103.59 (TC)
103.34 (W)

VL+46.37, 32.08' LT
103.73 (TC)
103.48 (W)

VL+38.37, 32.08' LT
103.87

VL+33.37, 32.08' LT
103.94

VL+55.45, 45.08' LT
103.39
VL+54.63, 37.08' LT
103.28
VL+56.63, 37.08' LT
103.15
VL+59.40, 38.58' LT
103.05 (G), 103.55 (TC)
VL+59.08, 37.08' LT
103.11 (G)
VL+61.14, 37.08' LT
103.15 (F)

CURB RAMP
TYPE 3 MODIFIED

VL+59.49, 32.08' LT
103.25 (F)
VL+57.28, 32.08' LT
103.21 (G)
VL+54.63, 32.08' LT
103.35
VL+54.64, 29.65' LT
103.39
VL+52.65, 27.08' LT
103.44
VL+51.37, 27.08' LT
103.46

VL+33.37, 27.08' LT
103.87
VL+38.37, 27.08' LT
103.80
VL+46.37, 27.08' LT
103.53
VL+44.87, 20.12' LT
103.53 (G), 104.03 (TC)
VL+46.37, 21.50' LT
103.52
VL+46.37, 20.84' LT
103.51 (G)
VL+46.37, 18.61' LT
103.59 (F)

CURB RAMP
TYPE 3

VL+51.37, 24.29' LT
103.41 (G)
VL+51.37, 21.69' LT
103.49 (F)

N. 20TH STREET

VL+03.38, 37.06' LT
102.92
VL+95.18, 37.07' LT
102.84
VL+92.82, 38.57' LT
102.75 (G), 103.25 (TC)
VL+92.94, 37.07' LT
102.80 (G)
VL+90.92, 37.07' LT
102.84 (F)

CURB RAMP
TYPE 3 MODIFIED

VL+92.29, 32.07' LT
102.91 (F)
VL+94.51, 32.07' LT
102.87 (G)
VL+95.17, 32.07' LT
102.88
VL+95.75, 27.02' LT
102.96 (F)
VL+97.51, 28.10' LT
102.89 (G), 103.22 (TC)
VL+98.91, 26.92' LT
102.91 (G), 103.24 (TC)
VL+03.35, 32.08' LT
102.92
VL+03.35, 29.55' LT
102.88
VL+04.31, 27.08' LT
102.84
VL+04.32, 24.41' LT
102.79 (G)

R/L 20TH STREET

VL+04.32, 22.36' LT
102.83 (F)

CURB RAMP
TYPE 2 MODIFIED

VL+03.45, 47.06' LT
103.11
VL+08.45, 47.05' LT
103.19
VL+08.38, 37.05' LT
103.29 (TC)
102.99 (W)
VL+08.35, 32.08' LT
103.32 (TC)
102.95 (W)
103.33 EX

VL+09.35, 32.08' LT
103.33 (TC)
102.86 (W)
VL+19.41, 32.08' LT
103.02
VL+19.41, 27.08' LT
102.94

BUS STOP

VL+19.41, 24.00' LT
102.91
VL+16.32, 24.00' LT
102.58 (G), 103.08 (TC)
VL+09.32, 27.08' LT
102.79
VL+09.32, 24.00' LT
102.68 (G)
VL+09.32, 22.00' LT
102.72 (F)

VL+47.41, 32.08' LT
102.49
VL+47.41, 27.08' LT
102.41
VL+47.41, 24.00' LT
102.38

VL

37VL

W. VLIET STREET

R/L VLIET STREET

VL+46.37, 22.00' RT
103.75 (F)
VL+46.38, 24.00' RT
103.67 (G)
VL+46.37, 27.08' RT
103.70
VL+46.38, 24.00' RT
103.76 (G), 104.26 (TC)
VL+36.57, 24.00' RT
103.78 (TC)
VL+35.37, 27.08' RT
104.25
VL+30.37, 27.07' RT
104.31
VL+07.37,
24.00' RT
104.44

CURB RAMP
TYPE 3 MODIFIED

VL+51.37, 22.02' RT
103.59 (F)
VL+51.37, 24.02' RT
103.51 (G)
VL+51.37, 27.07' RT
103.58
VL+56.23, 25.10' RT
103.44 (G), 103.69 (TC)
VL+57.00, 27.07' RT
103.52
VL+61.13, 28.33' RT
103.40 (G), 103.65 (TC)
VL+57.00, 29.58' RT
103.50
VL+62.61, 26.98' RT
103.42 (F)
VL+61.50, 29.58' RT
103.30
VL+62.26, 29.58' RT
103.32 (G)
VL+64.73, 29.58' RT
103.40 (F)

BUS STOP

VL+30.37, 32.08' RT
104.38
VL+35.37, 32.08' RT
104.33
VL+07.37,
27.08' RT
104.46
VL+07.37,
32.08' RT
104.53
VL+46.38, 32.08' RT
104.15 (TC)
103.65 (W)
104.19 EX
VL+49.38, 32.08' RT
104.10 (TC)
103.60 (W)
VL+51.75, 34.58' RT
104.11 (TC)
103.54 (W)
VL+51.75, 41.58' RT
103.95
VL+57.00, 41.58' RT
103.88
VL+51.72, 46.60' RT
104.02

CURB RAMP
TYPE 2 MODIFIED

VL+67.00, 34.58' RT
103.39 (F)
VL+64.92, 34.58' RT
103.31 (G)
VL+65.29, 36.08' RT
103.31 (G), 103.81 (TC)
VL+61.50, 34.58' RT
103.36
VL+57.00, 34.58' RT
103.46
VL+56.99, 46.58' RT
103.95

VL+04.15, 20.55' RT
103.00 (F)
VL+04.15, 23.15' RT
102.92 (G)
VL+04.15, 23.94' RT
102.93
VL+02.00, 22.43' RT
103.05 (F)
VL+04.14, 27.08' RT
102.98
VL+02.08, 25.32' RT
102.96 (G), 103.21 (TC)
VL+00.86, 26.97' RT
102.98 (G), 103.27 (TC)
VL+03.14, 29.58' RT
102.99
VL+00.05, 29.58' RT
102.95
VL+99.40, 29.58' RT
102.94 (G)
VL+97.22, 29.58' RT
103.02 (F)

CURB RAMP
TYPE 2 MODIFIED

VL+95.81, 34.58' RT
103.00 (F)
VL+97.85, 34.58' RT
102.92 (G)
VL+97.64, 36.08' RT
102.92 (G), 103.42 (TC)
VL+00.04, 34.58' RT
102.95
VL+03.13, 34.58' RT
103.01
VL+03.12, 44.58' RT
103.41

CURB RAMP
TYPE 2 MODIFIED

VL+09.16, 17.66' RT
102.91 (F)
VL+09.16, 19.84' RT
102.83 (G)
VL+10.66, 19.22' RT
102.82 (G), 103.32 (TC)
VL+09.15, 23.95' RT
102.88
VL+09.14, 27.08' RT
102.92
VL+19.14, 27.08' RT
103.12
103.40 EX
VL+19.14, 32.10' RT
103.20
VL+09.14, 32.08' RT
103.00
VL+08.14, 32.08' RT
103.03
VL+08.13, 34.58' RT
103.04
VL+08.12, 44.58' RT
103.49

NOTE:
* UNMARKED SIDEWALK SLOPES ARE 1.5% TOWARDS THE STREET

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMPS DETAILS	SHEET 29 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Preparation\Cadd\02_Curb Ramps\02_CURB RAMPS.dgn
PLOT DATE : 10/28/2019 8:56:02 AM
USER NAME : dbaumann
PLOT NAME :
PLOT SCALE : 10:1

WISDOT/CADDS SHEET 42

2

LEGEND

(EX) EXISTING ELEVATION
(F) FLANGE ELEVATION
(G) GUTTER ELEVATION
(TC) TOP OF CURB ELEVATION
(W) SIDEWALK ELEVATION AT PEDESTRIAN CURB JOINT IN SIDEWALK
BUS STOP/CURB RAMP LANDING

N

N. 18TH STREET

W. VLIET STREET

CURB RAMP TYPE 3 MODIFIED

CURB RAMP TYPE 2

CURB RAMP TYPE 3

BUS STOP

98.70 EX

98.79 EX

98.41 EX

98.75 EX

R/L 18TH STREET

R/L VLIET STREET

43VL

44VL

VL+10.54, 47.07'LT 98.86
VL+09.93, 34.85'LT 98.75 (TC) 98.36 (W)
VL+09.80, 32.08'LT 98.72 (TC) 98.32 (W)
VL+01.55, 32.08'LT 98.72
VL+01.55, 27.08'LT 98.64
VL+09.56, 27.08'LT 98.24
VL+09.57, 21.11'LT 97.87
VL+08.08, 18.09'LT 97.82 (G), 98.32 (TC)
VL+09.58, 18.34'LT 97.83 (G)
VL+09.57, 16.29'LT 97.91 (F)
VL+15.53, 46.83'LT 98.78
VL+14.93, 34.61'LT 98.28
VL+20.44, 34.61'LT 97.92
VL+21.52, 34.61'LT 97.90 (G)
VL+23.52, 34.61'LT 97.98 (F)
VL+23.08, 29.61'LT 97.95 (F)
VL+21.03, 29.61'LT 97.87 (G)
VL+20.43, 29.61'LT 97.88
VL+19.62, 25.88'LT 97.86 (G), 98.11 (TC)
VL+14.68, 29.61'LT 98.26
VL+14.56, 27.08'LT 98.25
VL+17.60, 23.00'LT 97.85 (G), 98.10 (TC)
VL+18.15, 20.69'LT 97.93 (F)
VL+14.57, 21.11'LT 97.85
VL+14.57, 20.41'LT 97.84 (G)
VL+14.57, 18.08'LT 97.92 (F)
VL+62.96, 49.06'LT 98.73
VL+62.00, 34.58'LT 98.03
VL+59.88, 34.58'LT 97.98
VL+56.08, 36.09'LT 97.93 (G), 98.47 (TC)
VL+56.45, 34.59'LT 97.93 (G)
VL+54.37, 34.59'LT 98.01 (F)
VL+56.63, 29.59'LT 98.02 (F)
VL+59.11, 29.58'LT 97.94 (G)
VL+58.30, 27.47'LT 98.03 (F)
VL+62.00, 29.58'LT 97.99
VL+61.61, 27.14'LT 97.98 (G), 98.23 (TC)
VL+63.74, 25.76'LT 98.01 (G), 98.26 (TC)
VL+67.00, 27.09'LT 98.07
VL+67.00, 24.49'LT 98.05 (G)
VL+66.99, 22.43'LT 98.13 (F)
VL+67.94, 48.64'LT 98.81
VL+67.00, 34.58'LT 98.60 (TC) 98.10 (W)
VL+67.00, 32.08'LT 98.64 (TC) 98.14 (W)
VL+72.00, 32.08'LT 98.70 (TC) 98.20 (W)
VL+87.00, 32.08'LT 98.78
VL+15.00, 32.08'LT 98.86
VL+87.00, 27.08'LT 98.70
VL+87.00, 24.00'LT 98.67 (TC)
VL+81.00, 24.00'LT 98.15 (G), 98.65 (TC)
VL+15.00, 27.08'LT 98.78
VL+72.00, 27.06'LT 98.12
VL+15.00, 24.00'LT 98.75 (TC)
VL+72.00, 24.00'LT 98.10 (G)
VL+71.99, 22.00'LT 98.18 (F)
VL+09.65, 16.35'RT 97.90 (F)
VL+09.65, 18.39'RT 97.82 (G)
VL+08.14, 18.12'RT 97.82 (G), 98.32 (TC)
VL+09.65, 21.31'RT 97.86
VL+01.65, 18.00'RT 98.28 (TC)
VL+09.65, 27.08'RT 98.02
VL+73.65, 18.00'RT 98.22 (TC)
VL+73.65, 27.08'RT 98.34
VL+73.65, 32.08'RT 98.42
VL+01.65, 27.08'RT 98.40
VL+01.65, 32.08'RT 98.48
VL+09.65, 32.08'RT 98.10
VL+09.65, 39.08'RT 98.35
VL+14.65, 18.23'RT 97.86 (F)
VL+14.65, 20.58'RT 97.78 (G)
VL+14.65, 21.29'RT 97.79
VL+14.65, 27.09'RT 97.94
VL+17.29, 22.87'RT 97.74 (G), 97.99 (TC)
VL+18.25, 20.98'RT 97.82 (F)
VL+18.27, 24.06'RT 97.73 (G), 98.98 (TC)
VL+19.38, 27.08'RT 97.70
VL+20.01, 27.08'RT 97.69 (G)
VL+22.17, 27.09'RT 97.77 (F)
VL+23.21, 32.08'RT 97.74 (F)
VL+21.20, 32.08'RT 97.66 (G)
VL+21.23, 33.58'RT 97.65 (G), 98.15 (TC)
VL+19.37, 32.14'RT 97.69
VL+14.65, 32.08'RT 98.02
VL+14.65, 39.08'RT 98.27
VL+66.97, 16.32'RT 98.20 (F)
VL+66.97, 18.36'RT 98.12 (G)
VL+66.97, 18.96'RT 98.13
VL+63.23, 19.73'RT 98.04 (G), 98.29 (TC)
VL+66.97, 27.08'RT 98.27
VL+58.21, 20.98'RT 98.04 (F)
VL+62.31, 27.08'RT 98.20
VL+58.49, 23.66'RT 97.93 (G), 98.18 (TC)
VL+57.08, 27.08'RT 97.87
VL+56.45, 27.08'RT 97.86 (G)
VL+54.29, 27.08'RT 97.94 (F)
VL+53.25, 32.08'RT 97.88 (F)
VL+55.26, 32.08'RT 97.80 (G)
VL+57.08, 32.08'RT 97.83
VL+62.31, 32.08'RT 98.20
VL+62.31, 42.08'RT 98.62
VL+71.97, 16.00'RT 98.24 (F)
VL+71.97, 18.00'RT 98.16 (G)
VL+71.97, 18.99'RT 98.18
VL+73.47, 18.00'RT 98.17 (G), 98.17 (TC)
VL+71.97, 27.08'RT 98.34
VL+79.97, 27.08'RT 98.64
VL+79.96, 32.08'RT 98.72
VL+71.97, 32.08'RT 98.72 (TC) 98.36 (W)
VL+67.81, 32.08'RT 98.72 (TC) 98.28 (W)
VL+67.31, 42.08'RT 98.70

NOTE:
* UNMARKED SIDEWALK SLOPES ARE 1.5% TOWARDS THE STREET

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMPS DETAILS	SHEET 30 E

LEGEND

(EX) EXISTING ELEVATION
(F) FLANGE ELEVATION
(G) GUTTER ELEVATION
(TC) TOP OF CURB ELEVATION
(W) SIDEWALK ELEVATION AT PEDESTRIAN CURB
— — JOINT IN SIDEWALK
BUS STOP/CURB RAMP LANDING

NOTE:
* UNMARKED SIDEWALK SLOPES ARE 1.5% TOWARDS THE STREET

N

N. 17TH STREET NB

R/L 17TH STREET SB

W. VLIET STREET

R/L VLIET STREET

R/L 17TH STREET NB

N. 17TH STREET SB

46VL

47VL

48VL

10NSI

10NSJ

CURB RAMP TYPE 2

CURB RAMP TYPE 5

BUS STOP

99.47 EX

99.62 EX

99.11 EX

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMPS DETAILS	SHEET 31 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Sheets\DS21409_crRamp.dgn PLOT DATE : 10/29/2018 3:56:52 PM PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 15:1

WISDOT/CADDS SHEET 42

2

LEGEND

(EX) EXISTING ELEVATION
(F) FLANGE ELEVATION
(G) GUTTER ELEVATION
(TC) TOP OF CURB ELEVATION
(W) SIDEWALK ELEVATION AT PEDESTRIAN CURB
JOINT IN SIDEWALK
BUS STOP/CURB RAMP LANDING

N

VL+48.44, 42.08' LT
100.66

VL+43.44, 42.08' LT
100.74

VL+48.39, 32.08' LT
100.25

VL+53.15, 32.08' LT
100.23

VL+54.95, 32.08' LT
100.20 (G)

VL+56.95, 32.08' LT
100.28 (F)

VL+28.98, 32.08' LT
100.36

VL+43.39, 32.08' LT
100.26

100.42 EX

CURB RAMP
TYPE 2

VL+55.91, 27.08' LT
100.26 (F)

VL+53.76, 27.08' LT
100.18 (G)

VL+53.12, 27.08' LT
100.19

VL+52.31, 24.46' LT
100.16 (G), 100.41 (TC)

VL+48.36, 27.08' LT
100.22

VL+51.96, 20.95' LT
100.23 (F)

VL+50.64, 22.45' LT
100.15 (G), 100.40 (TC)

VL+48.33, 21.25' LT
100.14

VL+48.33, 20.54' LT
100.13 (G)

VL+48.33, 18.19' LT
100.21 (F)

VL+28.97, 27.08' LT
100.28

VL+43.36, 27.08' LT
100.18

VL+43.33, 21.25' LT
100.15

VL+43.32, 18.38' LT
100.11 (G)

VL+43.32, 18.38' LT
100.11 (G)

VL+43.31, 16.33' LT
100.19 (F)

CURB RAMP
TYPE 2

R/L 15TH STREET

10NSK

N. 15TH STREET

VL+96.11, 42.08' LT
100.84

VL+96.05, 32.08' LT
100.49

VL+92.95, 32.08' LT
100.28

VL+89.90, 32.08' LT
100.23 (G)

VL+87.81, 32.08' LT
100.31 (F)

VL+01.11, 42.08' LT
100.92

VL+01.05, 32.08' LT
100.57

100.59 EX

VL+48.00, 32.08' LT
101.09

VL+20.00, 32.08' LT
100.84

BUS STOP

CURB RAMP
TYPE 2

VL+89.90, 27.09' LT
100.34 (F)

VL+92.25, 27.08' LT
100.26 (G)

VL+92.95, 27.08' LT
100.27

VL+93.74, 25.08' LT
100.27 (G), 100.52 (TC)

VL+96.03, 27.08' LT
100.46

VL+94.21, 24.54' LT
100.27 (G), 100.52 (TC)

VL+93.41, 22.49' LT
100.36 (F)

VL+96.01, 23.57' LT
100.32

VL+96.01, 22.80' LT
100.31 (G)

VL+96.01, 20.25' LT
100.39 (F)

VL+20.00, 27.08' LT
100.81

VL+48.00, 27.08' LT
101.01

VL+20.00, 24.00' LT
100.80 (TC)

VL+48.00, 24.00' LT
100.98 (TC)

VL+01.03, 27.08' LT
100.54

VL+01.01, 23.57' LT
100.40

VL+00.99, 19.68' LT
100.35 (G)

VL+00.99, 17.51' LT
100.43 (F)

53VL

54VL

W. VLIET STREET

R/L VLIET STREET

CURB RAMP
TYPE 3

VL+42.92, 16.00' RT
99.97 (F)

VL+42.92, 18.00' RT
99.89 (G)

VL+41.41, 18.00' RT
99.88 (G), 100.38 (TC)

VL+47.92, 16.00' RT
99.99 (F)

VL+47.92, 18.00' RT
99.91 (G)

VL+49.41, 18.00' RT
99.92 (G), 100.42 (TC)

VL+95.68, 24.00' RT
100.21

VL+23.68, 22.00' RT
100.13 (TC)

VL+95.68, 27.08' RT
100.24

VL+23.68, 27.08' RT
100.16

VL+42.91, 27.10' RT
100.33

VL+47.91, 27.08' RT
100.34

BUS STOP

VL+95.68, 32.08' RT
100.32

VL+23.68, 32.08' RT
100.24

VL+42.91, 32.08' RT
100.40

VL+47.91, 32.08' RT
100.42

VL+96.21, 16.00' RT
100.21 (F)

VL+96.21, 18.00' RT
101.13 (G)

VL+94.71, 18.00' RT
100.12 (G), 100.62 (TC)

VL+96.21, 27.08' RT
100.52

VL+01.21, 16.00' RT
100.23 (F)

VL+01.21, 18.00' RT
100.15 (G)

VL+02.71, 18.00' RT
100.16 (G), 100.66 (TC)

VL+01.21, 27.08' RT
100.53

VL+96.21, 32.08' RT
100.59

VL+01.21, 32.08' RT
100.60

NOTE:
* UNMARKED SIDEWALK SLOPES ARE 1.5% TOWARDS THE STREET

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMPS DETAILS	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Preparation\CSM\82140_crRamp.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 10:1
WISDOT/CADDS SHEET 42

2

LEGEND

(EX) EXISTING ELEVATION
(F) FLANGE ELEVATION
(G) GUTTER ELEVATION
(TC) TOP OF CURB ELEVATION
(W) SIDEWALK ELEVATION AT PEDESTRIAN CURB
— — JOINT IN SIDEWALK
BUS STOP/CURB RAMP LANDING

N

W. VLIET STREET

57VL

R/L VLIET STREET

10NSL

N. 14TH STREET

58VL

R/L 14TH STREET

CURB RAMP TYPE 2

CURB RAMP TYPE 2 MODIFIED

CURB RAMP TYPE 3 MODIFIED

102.00 EX

101.66 EX

102.17 EX

NOTE:
* UNMARKED SIDEWALK SLOPES ARE 1.5% TOWARDS THE STREET

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMPS DETAILS	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Sheets\02_Typical Sections\02_TS_Typ1_cr.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 10:1
WISDOT/CADDS SHEET 42

LEGEND

(EX) EXISTING ELEVATION
(F) FLANGE ELEVATION
(G) GUTTER ELEVATION
(TC) TOP OF CURB ELEVATION
(W) SIDEWALK ELEVATION AT PEDESTRIAN CURB
— — JOINT IN SIDEWALK
BUS STOP/CURB RAMP LANDING

VL+46.16, 61.10' LT
103.49
VL+41.61, 64.14' LT
102.86 (G), 103.36 (TC)
VL+46.12, 56.10' LT
103.15
VL+41.54, 56.14' LT
102.80 (G)
VL+39.54, 56.16' LT
102.88
VL+41.50, 51.14' LT
102.76 (G)
VL+39.50, 51.16' LT
102.84
VL+46.04, 46.10' LT
103.10
VL+35.44, 44.36' LT
102.74 (G), 103.24 (TC)
VL+45.93, 31.58' LT
102.82
VL+35.40, 39.25' LT
102.68 (G), 103.18 (TC)
VL+43.08, 31.58' LT
102.73
VL+37.36, 31.59' LT
102.64 (G)
VL+35.10, 31.59' LT
102.72 (F)
VL+97.02, 32.08' LT
102.71
VL+03.47, 32.08' LT
102.64
VL+07.43, 43.08' LT
102.62 (G), 103.12 (TC)
VL+96.87, 37.06' LT
102.76
VL+91.87, 37.08' LT
102.83
VL+91.85, 32.07' LT
102.72
VL+86.11, 32.08' LT
102.73
VL+76.38, 32.08' LT
102.75
VL+06.50, 32.08' LT
102.59 (G)
VL+08.58, 32.08' LT
102.67 (F)
VL+06.49, 27.08' LT
102.65 (F)
VL+04.15, 27.08' LT
102.57 (G)
VL+00.18, 22.62' LT
102.56 (G), 102.82 (TC)
VL+96.81, 27.08' LT
102.65
VL+96.65, 20.27' LT
102.55 (G), 102.80 (TC)
VL+91.07, 27.08' LT
102.65
VL+91.00, 18.33' LT
102.54 (G)
VL+90.98, 16.29' LT
102.62 (F)
VL+76.38, 27.08' LT
102.68
VL+86.07, 27.08' LT
102.66
VL+85.99, 18.00' LT
102.51 (G), 103.01 (TC)
VL+86.00, 18.96' LT
102.54
VL+85.99, 18.00' LT
102.52 (G)
VL+85.98, 16.00' LT
102.60 (F)
VL+38.33, 27.03' LT
102.69 (F)
VL+38.79, 26.59' LT
102.68 (F)
VL+41.99, 26.58' LT
102.60 (G)
VL+45.89, 26.58' LT
102.74
VL+45.55, 24.80' LT
102.68 (G), 102.93 (TC)
VL+46.85, 24.43' LT
102.70 (G), 102.95 (TC)
VL+50.81, 26.58' LT
102.82
VL+50.81, 24.00' LT
102.79 (G)
VL+46.19, 64.81' LT
103.55
VL+51.19, 64.77' LT
103.62
VL+51.16, 61.06' LT
103.56
VL+50.62, 56.10' LT
103.22 (W), 103.44 (TC)
VL+50.58, 51.07' LT
103.17 (W), 103.30 (TC)
VL+51.04, 46.07' LT
103.17
VL+45.97, 36.58' LT
103.02
VL+50.97, 36.58' LT
103.10
VL+50.93, 31.58' LT
102.90
VL+55.82, 31.58' LT
102.82
VL+60.82, 31.58' LT
103.00
102.95 EX
VL+60.82, 26.58' LT
102.92
VL+63.81, 24.00' LT
102.73 (G), 102.98 (TC)
VL+55.81, 26.60' LT
102.80
VL+55.81, 24.00' LT
102.77 (G)
VL+55.81, 22.00' LT
102.85 (F)
VL+50.81, 22.00' LT
102.87 (F)
CURB RAMP TYPE 2
CURB RAMP TYPE 2
CURB RAMP TYPE 3
CURB RAMP TYPE 3 MODIFIED
CURB RAMP TYPE 3 MODIFIED
CURB RAMP TYPE 2 MODIFIED
CURB RAMP TYPE 2
R/L VLIET STREET
W. VLIET STREET
62VL
61VL
R/L 13TH STREET
N. 13TH STREET
VL+85.64, 22.00' RT
102.09 (F)
VL+85.64, 24.00' RT
102.01 (G)
VL+85.64, 24.00' RT
102.00 (G), 102.50 (TC)
VL+85.62, 27.08' RT
102.05
VL+75.62, 27.08' RT
102.49
VL+90.64, 22.29' RT
102.08 (F)
VL+90.64, 24.32' RT
102.00 (G)
VL+90.62, 27.08' RT
102.02
VL+93.54, 25.08' RT
101.98 (G), 102.23 (TC)
VL+96.59, 26.41' RT
101.97 (G), 102.22 (TC)
VL+96.14, 28.03' RT
101.98
VL+99.11, 28.03' RT
101.94 (G)
VL+02.69, 28.51' RT
102.02 (F)
VL+75.58, 32.08' RT
102.57
VL+85.58, 32.08' RT
102.13
VL+90.58, 32.08' RT
102.05
102.53 EX
VL+91.08, 32.08' RT
102.04
VL+91.07, 33.03' RT
102.02
VL+91.01, 41.03' RT
102.32
VL+96.01, 41.03' RT
102.24
VL+06.14, 33.03' RT
101.90 (F)
VL+03.79, 33.03' RT
101.82 (G)
VL+06.74, 40.41' RT
101.68 (G), 102.18 (TC)
VL+96.07, 33.03' RT
101.94
VL+50.88, 16.41' RT
102.44 (F)
VL+50.86, 18.46' RT
102.36 (G)
VL+45.28, 20.59' RT
102.27 (G), 102.52 (TC)
VL+50.79, 27.08' RT
102.50
VL+42.33, 22.62' RT
102.20 (G), 102.45 (TC)
VL+45.73, 27.04' RT
102.42
VL+38.36, 27.08' RT
102.07 (G)
VL+36.02, 27.08' RT
102.15 (F)
VL+33.93, 32.08' RT
102.05 (F)
VL+36.01, 32.08' RT
101.97 (G)
VL+39.05, 32.08' RT
102.02
VL+35.10, 39.99' RT
101.91 (G), 102.41 (TC)
VL+45.75, 32.08' RT
102.49
VL+55.89, 16.00' RT
102.47 (F)
VL+55.88, 18.00' RT
102.39 (G)
VL+55.87, 19.06' RT
102.41
VL+64.36, 18.00' RT
102.42 (G), 102.92 (TC)
VL+55.80, 27.08' RT
102.55
VL+68.37, 27.08' RT
102.68
VL+55.76, 32.08' RT
102.73 (TC), 102.62 (W)
VL+50.75, 32.08' RT
102.57 (W), 102.72 (TC)
VL+68.37, 32.08' RT
102.76
102.72 EX
VL+50.70, 38.13' RT
102.70
VL+45.70, 38.09' RT
102.62

NOTE:
* UNMARKED SIDEWALK SLOPES ARE 1.5% TOWARDS THE STREET

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMPS DETAILS	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Preparation\Sheets\02 1442_cr.dgn
PLOT DATE : 10/29/2018 9:55:02 AM
PLOT BY : dbaumann
PLOT NAME :
PLOT SCALE : 15:1
WISDOT/CADDS SHEET 42

LEGEND

(EX) EXISTING ELEVATION
(F) FLANGE ELEVATION
(G) GUTTER ELEVATION
(TC) TOP OF CURB ELEVATION
(W) SIDEWALK ELEVATION AT PEDESTRIAN CURB
— — JOINT IN SIDEWALK
BUS STOP/CURB RAMP LANDING

N

VL+74.25, 34.58' LT
103.85

VL+74.25, 34.58' LT
103.90

5'

8'

1.5%

BUS STOP

0.9%

4.8'

2'

1.5%

0.9%

VL+46.25, 26.58' LT
103.73

VL+74.25, 26.58' LT
103.83

VL+46.25, 24.00' LT
103.70 (TC)

VL+74.25, 24.00' LT
103.81 (TC)

63VL

64VL

W. VLIET STREET

10N9N

R/L VLIET STREET

R/L 12TH LANE

VL+19.90, 27.08' RT
103.09 (F)

VL+18.53, 27.08' RT
103.01 (G)

VL+12.81, 24.00' RT
103.00 (G), 103.50 (TC)

VL+10.90, 27.09' RT
103.30

VL+05.90, 27.09' RT
103.32

VL+20.17, 32.08' RT
103.00 (F)

VL+40.43, 27.08' RT
103.14 (F)

VL+42.55, 27.08' RT
103.06 (G)

VL+49.28, 24.00' RT
103.12 (G), 103.62 (TC)

VL+50.19, 27.08' RT
103.40

VL+55.19, 27.08' RT
103.48

2.5'

5'

7%

0.4%

1.5%

0.4%

4.1%

1.5%

6.3%

CURB RAMP
TYPE 2 MODIFIED

CURB RAMP
TYPE 2 MODIFIED

4.9%

1.5%

1.5%

1.5%

6.3%

1.5%

1.5%

7.5'

N. 12TH LANE

EXISTING R/W AND SI

VL+05.90, 32.08' RT
103.39

VL+10.90, 32.08' RT
103.37

VL+17.90, 32.08' RT
102.93

VL+18.92, 32.08' RT
102.92 (G)

VL+40.17, 32.08' RT
103.01 (F)

VL+42.17, 32.08' RT
102.93 (G)

VL+43.21, 32.08' RT
102.94

VL+50.19, 32.08' RT
103.48

VL+55.19, 32.08' RT
103.56

VL+55.20, 34.60' RT
103.60

VL+50.19, 34.57' RT
103.52

NOTE:
* UNMARKED SIDEWALK SLOPES ARE 1.5% TOWARDS THE STREET

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMPS DETAILS	SHEET 35 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Set Preparation\csx021403_cr1.dgn PLOTTED : 10/29/2018 13:55:02 BY : dbaumann PLOT NAME : PLOT SCALE : 10:1

WISDOT/CADDS SHEET 42

2

2

N

N. 27TH STREET

N. 26TH STREET

N. 25TH STREET

N. 24TH PLACE

N. 24TH STREET

W. VLIET STREET

R/L W. VLIET STREET

15VL

20VL

MATCHLINE 24VL+00

REMOVING CATCH BASIN

REMOVING STORM SEWER

REMOVING CATCH BASIN

REMOVING STORM SEWER

REMOVING CATCH BASIN

REMOVING STORM SEWER

REMOVING CATCH BASIN

REMOVING CATCH BASIN

REMOVING STORM SEWER

REMOVING CATCH BASIN

REMOVING CATCH BASIN

REMOVING STORM SEWER

REMOVING STORM SEWER

REMOVING CATCH BASIN

REMOVING CATCH BASIN

REMOVING STORM SEWER

REMOVING STORM SEWER

REMOVAL LEGEND

- REMOVING SIDEWALK
- REMOVING CONCRETE PAVEMENT
- REMOVING STORM SEWER
- REMOVING CATCH BASIN
- XXXXX SAWCUT

NOTE:

REMOVE ENCOUNTERED BURIED TRACK. SEE TRACK ZONE LOCATION SHEETS FOR POSSIBLE LOCATIONS.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plans\Draft Project\12x21_20181112_63342001_rmPlan.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

N. 23RD STREET

N. 22ND STREET

N. 21ST STREET

N. 20TH STREET

W. KNEELAND

REMOVING CATCH BASIN

REMOVING STORM SEWER

REMOVING STORM SEWER

REMOVING STORM SEWER

REMOVING STORM SEWER

REMOVING CATCH BASIN

25VL

30VL

35VL

MATCHLINE 24VL+00

MATCHLINE 39VL+00

W. VLIET STREET

REMOVING CATCH BASIN

REMOVING STORM SEWER

REMOVING CATCH BASIN

REMOVING CATCH BASIN

REMOVING STORM SEWER

REMOVING STORM SEWER

REMOVING CATCH BASIN

R/L W. VLIET STREET

REMOVING STORM SEWER

REMOVING CATCH BASIN

REMOVING STORM SEWER

REMOVING CATCH BASIN

W 19TH

N 21ST

REMOVAL LEGEND

- REMOVING SIDEWALK
- REMOVING CONCRETE PAVEMENT
- REMOVING STORM SEWER
- REMOVING CATCH BASIN
- XXXXX SAWCUT

NOTE:

REMOVE ENCOUNTERED BURIED TRACK. SEE TRACK ZONE LOCATION SHEETS FOR POSSIBLE LOCATIONS.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 37	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Files\Layout\63342_rmPLOT DATE : 12/11/2018 11:54:02 AM BY : dbaumann PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

N. 18TH STREET

N. 17TH STREET

N. 15TH STREET

W. VLIET STREET

R/L W. VLIET STREET

MATCHLINE 39VL+00

MATCHLINE 54VL+00

40VL

45VL

50VL

REMOVING STORM SEWER

REMOVING CATCH BASIN

REMOVING CONCRETE PAVEMENT

REMOVING SIDEWALK

centerline shots

West side of Bus Stop shelter

N 18TH COURT

W 18TH COURT

N 17TH

REMOVAL LEGEND

NOTE:

REMOVE ENCOUNTERED BURIED TRACK. SEE TRACK ZONE LOCATION SHEETS FOR POSSIBLE LOCATIONS.

SAWCUT

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 38 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prod\Layout\63342_Removal_Plan.dgn PLOT DATE : 12/21/2018 11:05:40 AM PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

N. 14TH STREET

N. 13TH STREET

N. 12TH STREET

N. 12TH LANE

W KNEELAND STREET

W. VLIET STREET

R/L W. VLIET STREET

IH-43

IH-43

MATCHLINE 54VL+00

55VL

60VL

55VL

REMOVING CATCH BASIN

REMOVING STORM SEWER

EXISTING SIDEWALK TO REMAIN

EXISTING TREE TO REMAIN

REMOVING CATCH BASIN

REMOVING STORM SEWER

REMOVING CATCH BASIN

REMOVING STORM SEWER

REMOVING CATCH BASIN

REMOVING STORM SEWER

REMOVING CATCH BASIN

REMOVING STORM SEWER

REMOVING CATCH BASIN

REMOVING STORM SEWER

Fence end and gate

Need more building shots

Need more building shots

REMOVAL LEGEND

- REMOVING SIDEWALK
- REMOVING CONCRETE PAVEMENT
- REMOVING STORM SEWER
- REMOVING CATCH BASIN
- SAWCUT

NOTE:

REMOVE ENCOUNTERED BURIED TRACK. SEE TRACK ZONE LOCATION SHEETS FOR POSSIBLE LOCATIONS.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 39	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Sheets\Removal\63342_rm2.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

OLD C/L OF N. 27TH STREET

97'

33'

8.6'

8.6'

TRACK ZONE STILL IN PLACE

TRACK ZONE REMOVED (1976)
REPLACED WITH 9" CONCRETE

12VL

14VL

16VL

18VL

20VL

22VL

24

MATCHLINE 24VL+00

N. 27TH STREET

N. 26TH STREET

N. 25TH STREET

N. 24TH PLACE

N. 24TH STREET

W. VLIET STREET

R/L W. VLIET STREET

SHOOT BLDG CORNERS (NOT PORCH)

GET BUILDING/MISC SHOTS

GET BUILDING/MISC SHOTS

FENCE SHOTS???

PICTURES?????

centerline shots

centerline shots

N 27TH

BUILDING DIMENSIONS WITH OVERHANG???

BLDG. #

SIDEWALK???

WALL/BLDG DIMENSIONS??

BLDG. #

BLDG SHOTS???

LANE MARKING SHOTS???

TRACK ZONE REMOVED

TRACK ZONE STILL IN PLACE

PROJECT NO: 2984-00-03	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	TRACK ZONE LOCATIONS	SHEET 40	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Production\Track Zone\000001_xx.dgn

PLOT NAME :

PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

N. 23RD STREET

N. 22ND STREET

N. 21ST STREET

N. 20TH STREET

W KNEELAND STREET

W 19TH

MATCHLINE 24VL+00

MATCHLINE 39VL+00

TRACK ZONE STILL IN PLACE

243'

8.6'

8.6'

R/L W. VLIET STREET

70'

30'

24VL

26VL

28VL

30VL

32VL

34VL

36VL

38VL

TRACK ZONE REMOVED (1957)
REPLACED 3" SHEET ASPHALT
ON 8" CONCRETE BASE

EX. C/L OF N. 22ND STREET

TRACK ZONE REMOVED (1957)
REPLACED 3" SHEET ASPHALT
ON 8" CONCRETE BASE

EX. C/L OF N. 20TH STREET

EOP in street??

EOP in street??

nent marking shots

W MCKINLEY AVENUE

TRACK ZONE REMOVED

TRACK ZONE STILL IN PLACE

PROJECT NO: 2984-00-03	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	TRACK ZONE LOCATIONS	SHEET 41 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Sheets\000002_xx.dgn

PLOT DATE : 10/29/2018 7:34:42 AM

PLOT BY : rbaumann

PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 39VL+00

40VL

42VL

44VL

46VL

48VL

50VL

52VL

54

MATCHLINE 54VL+00

8.5'

8.5'

W VLIET STREET

R/L W. VLIET STREET

N. 15TH STREET

N. 17TH STREET

N. 18TH STREET

N. 19TH STREET

N 18TH STREET

N 18TH COURT

W 18TH COURT

N. 17TH STREET

N 17TH

TRACK ZONE REMOVED (1957)
REPLACED 3" SHEET ASPHALT
ON 8" CONCRETE BASE

centerline shots

centerline shots

west side of bus stop shelter

TRACK ZONE REMOVED

TRACK ZONE STILL IN PLACE

PROJECT NO: 2984-00-03	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	TRACK ZONE LOCATIONS	SHEET 42	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\2018_Track Zone\000003_xx.dgn PLOT NAME : PLOT SCALE : 100:1

2

N

W KNEELAND STREET

STREET

IH-43

IH-43

N. 14TH STREET

N. 13TH STREET

N. 12TH LANE

N. 12TH STREET

EX. C/L OF N. 12TH STREET

R/L W. VLIET STREET

MATCHLINE 54VL+00

56VL

58VL

60VL

62VL

64VL

64'

8.6'

8.6'

TRACK ZONE REMOVED (1957)
REPLACED 3" SHEET ASPHALT
ON 8" CONCRETE BASE

Fence end and gate

Need more building shots

Need more building shots

IH 43

IH 43

TRACK ZONE REMOVED

TRACK ZONE STILL IN PLACE

PROJECT NO: 2984-00-03	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	TRACK ZONE LOCATIONS	SHEET 43	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Set Production\63342_20181214_150920_ER_Utility Tracking\000004_xx.dgn

PLOT NAME :

PLOT SCALE : 100:1

2

N

N. 27TH STREET

2 STORY BRICK & CONC. BLOCK BUILDING #2634

1 STORY BRICK & CONC. BLOCK BUILDING

2 STORY BRICK & CONC. BLOCK BUILDING

VOID BENEATH SIDEWALK. TO BE ABANDONED BY OWNER PRIOR TO CONST.

REMOVE SIDEWALK TO NEAREST JOINT

VL+01.70
32.27' LT

VL+16.66
32.31' LT

VL+69.11
23.00' LT

VL+59.11
23.00' LT

HW01

CM05

DR01

3'

BEGIN PROJECT
10VL+69.11
X = 2548603.21
Y = 388941.41

VL+72.95
22.00' LT

2.6'

5.7'

CG09

CM05

10'

11'

CP15

VL+04.92
24.58' LT

VL+10.92
24.58' LT

VL+30.92
24.58' LT

VL+36.92
24.58' LT

11VL

W. VLIET STREET

12VL

MATCHLINE 12VL+50

AP02

R/L VLIET STREET

VL+75.85
22.00' RT

VL+59.11
22.85' RT

3.1'

5.1'

CG09

VL+69.11
22.85' RT

REMOVE SIDEWALK TO NEAREST JOINT

VL+70.77
32.50' RT

VL+73.16
32.50' RT

HW01

CM05

CM05

VL+85.94
32.08' RT

VL+75.94
32.08' RT

VOID BENEATH SIDEWALK. TO BE ABANDONED BY OWNER PRIOR TO CONST.

2 STORY BRICK & CONC. BLOCK BUILDING

2 STORY BRICK/STUCCO BUILDING #2637

1 STORY CONC. BLOCK BUILDING #2631

P 85

P 82

LEGEND

- (AP02) ASPHALTIC SURFACE BUTT JOINTS
- (CP15) CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- (CG09) CONCRETE CURB AND GUTTER 31-INCH
- (CM05) CONCRETE SIDEWALK 5-INCH
- (DR01) CONCRETE DRIVEWAY 7-INCH
- (HW01) EXISTING HOLLOW WALK
- P XX CONSTRUCTION PERMIT - PRIVATE
- G XX CONSTRUCTION PERMIT - GOVERNMENT

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 44	E

2

2

N

INSTALL CITY FURNISHED BIKE RACK

REMOVE SIDEWALK TO NEAREST JOINT

REMOVE SIDEWALK TO NEAREST JOINT

1 STORY BRICK/CONC. BUILDING #2608

1 STORY STUCCO BUILDING #2604

1 STORY BRICK BUILDING

1 STORY BRICK BUILDING #2526

1 STORY BRICK BUILDING #2527

2 1/2 STORY BRICK BUILDING #2515

1 STORY CONC. BLOCK BUILDING #2605

N. 26TH STREET

W. VLIET STREET

13VL

14VL

15VL

MATCHLINE 12VL+50

MATCHLINE 15VL+50

R/L 26TH STREET

R/L VLIET STREET

APO2

CP15

CG09

CG23

CM05

DR01

LS01

VL+46.76 32.50' LT

VL+49.56 32.71' LT

VL+74.10 33.47' LT

NSA+33.08 17.00' LT

VL+61.66 24.00' LT

VL+67.66 18.00' LT

VL+75.01 18.00' LT

NSA+32.92 17.00' RT

VL+40.10 33.08' LT

VL+46.53 33.08' LT

VL+39.01 18.00' LT

VL+47.99 18.00' LT

VL+53.99 24.00' LT

VL+65.81 18.00' RT

VL+71.23 18.00' RT

VL+59.81 24.00' RT

VL+74.16 32.08' RT

VL+79.15 37.07' RT

NSA+61.90 16.00' LT

VL+43.23 18.00' RT

VL+48.23 18.00' RT

VL+56.39 24.00' RT

NSA+62.10 16.00' RT

VL+40.29 33.74' RT

VL+18.93 24.58' RT

VL+34.93 24.58' RT

VL+96.65 33.75' RT

VL+48.09 33.76' RT

VL+49.13 32.50' RT

LEGEND

- APO2 ASPHALTIC SURFACE BUTT JOINTS
- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CG23 CONCRETE CURB PEDESTRIAN
- CM05 CONCRETE SIDEWALK 5-INCH
- DR01 CONCRETE DRIVEWAY 7-INCH
- LS01 LAWN SOD
- P XX CONSTRUCTION PERMIT - PRIVATE
- G XX CONSTRUCTION PERMIT - GOVERNMENT

RADIUS TABLE

POINT	X	Y	STATION	OFFSET	RADIUS
1	2548908.48	388979.82	13VL+75.01	33.00' LT	15.00'
2	2548905.95	388905.95	13VL+71.23	38.00' RT	20.00'
3	2548972.47	388980.95	14VL+39.01	33.00' LT	15.00'
4	2548977.94	388910.03	14VL+43.23	38.00' RT	20.00'

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 45	E

2

2

N

P 66

P 63

2 1/2 STORY BRICK BUILDING #2506

2 1/2 STORY BRICK/STUCCO BUILDING #2500

G 31

G 16

REMOVE SIDEWALK TO NEAREST JOINT

CG09

CM05

AP02

15'

14.2'

14'

14'

10.5'

CP15

CP15

5

7

NSB+39.02
16.00' LT

NSB+38.98
16.00' RT

CG23

3'

3.4'

5'

DR01

CM05

CM05

5'

VL+67.81
24.58' LT

VL+79.81
24.58' LT

CM05

CG09

VL+54.20
24.00' LT

N. 25TH STREET

VL+16.20
24.00' LT

CG09

CM05

CM05

CP15

11'

CP15

CP15

11'

CP15

MATCHLINE 15VL+50

16VL

W. VLIET STREET

17VL

18VL

MATCHLINE 18VL+50

10NSB

R/L VLIET STREET

R/L 25TH STREET

CP15

3.4'

11'

CP15

CG09

CM05

VL+52.21
24.00' RT

VL+18.18
24.00' RT

CG09

CM05

CM05

5'

CM05

5'

3'

NSB+62.19
16.00' RT

NSB+60.93
18.00' LT

6

8

CG23

#2513

#2511

#2

#2505

INSTALL CITY FURNISHED BIKE RACK

CP15

CP15

NSB+58.66
29.83' LT

11'

5'

11'

11'

5'

9'

CM05

CM05

CONCRETE

G 30

GRASS

G 15

G 17

3 STORY BRICK BUILDING

REMOVE SIDEWALK TO NEAREST JOINT

VOID BENEATH SIDEWALK. TO BE ABANDONED BY OWNER PRIOR TO CONST.

HW01

CG09

15'

AP02

GRASS

REMOVE SIDEWALK TO NEAREST JOINT

NSB+40.66
29.86' LT

INSTALL CITY FURNISHED BIKE RACK

LEGEND

- (AP02) ASPHALTIC SURFACE BUTT JOINTS
- (CP15) CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- (CG09) CONCRETE CURB AND GUTTER 31-INCH
- (CG23) CONCRETE CURB PEDESTRIAN
- (CM05) CONCRETE SIDEWALK 5-INCH
- (DR01) CONCRETE DRIVEWAY 7-INCH
- (HW01) EXISTING HOLLOW WALK
- (LS01) LAWN SOD

P XX CONSTRUCTION PERMIT - PRIVATE

G XX CONSTRUCTION PERMIT - GOVERNMENT

RADIUS TABLE

POINT	X	Y	STATION	OFFSET	RADIUS
5	2549187.52	388990.75	16VL+54.20	39.00' LT	15.00'
6	2549186.91	388912.73	16VL+52.21	39.00' RT	15.00'
7	2549249.50	388991.84	17VL+16.20	39.00' LT	15.00'
8	2549252.86	388913.90	17VL+18.18	39.00' RT	15.00'

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 46	E

2

2

N

REMOVE SIDEWALK TO NEAREST JOINT

REMOVE SIDEWALK TO NEAREST JOINT

G 13

G 11

CG09

AP02

15'

5'

11'

11'

5.1'

CG23

CP15

CP15

NSC+33.04
13.00' RT

NSC+32.96
13.00' LT

9

11

CM05

CG09

5'

13.5'

VL+53.56
24.00' LT

VL+59.56
18.00' LT

VL+67.16
18.00' LT

VL+23.16
18.00' LT

VL+35.61
18.00' LT

VL+41.61
24.00' LT

CP15

11'

MATCHLINE 18VL+50

19VL

W. VLIET STREET

N. 24TH PLACE

20VL

21VL

MATCHLINE 21VL+50

R/L 24TH PLACE

R/L VLIET STREET

10

NSC

VL+31.37
18.00' RT

VL+35.82
18.00' RT

VL+59.51
18.00' RT

VL+71.37
18.00' RT

VL+53.51
24.00' RT

VL+41.82
24.00' RT

3.1'

3.4'

3.3'

NSC+67.19
15.00' LT

NSC+66.81
15.00' RT

12

G 14

G 12

G 10

2 STORY BRICK BUILDING #2463-65

GRASS

13'

CG23

VL+65.13
35.16' RT

VL+90.91
35.05' RT

VL+22.36
33.97' RT

VL+30.18
46.64' RT

2 STORY BRICK/STONE UILDING

1 STORY STUCCO/BRICK BUILDING

REMOVE SIDEWALK TO NEAREST JOINT

P 61

P 60

P 58

LEGEND

- AP02 ASPHALTIC SURFACE BUTT JOINTS
- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CG23 CONCRETE CURB PEDESTRIAN
- CM05 CONCRETE SIDEWALK 5-INCH
- LS01 LAWN SOD

P XX CONSTRUCTION PERMIT - PRIVATE

G XX CONSTRUCTION PERMIT - GOVERNMENT

RADIUS TABLE

POINT	X	Y	STATION	OFFSET	RADIUS
9	2549500.53	388990.29	19VL+67.16	33.00' LT	15.00'
10	2549505.91	388924.23	19VL+71.37	33.00' RT	15.00'
11	2549556.52	388991.28	20VL+23.16	33.00' LT	15.00'
12	2549565.90	388925.43	20VL+31.37	33.00' RT	15.00'

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 47	E

2

2

N

REMOVE SIDEWALK TO NEAREST JOINT

CG09

AP02

15'

CM05

CP15

NSD+49.32
18.00' LT

NSD+44.32
13.00' LT

NSD+39.08
13.00' LT

NSD+49.16
18.00' RT

NSD+44.16
13.00' RT

NSD+38.92
13.00' RT

5' 11' 11' 5'

6'

13

15

CG23

GRASS

ASPHALT

VL+20.44
24.00' LT

VL+34.14
24.58' LT

VL+46.88
24.58' LT

VL+04.31
24.00' LT

VL+60.31
24.00' LT

LS01

DR01

3"

5'

N. 24TH STREET

W. VLIET STREET

22VL

23VL

24VL

MATCHLINE 21VL+50

MATCHLINE 24VL+50

R/L VLIET STREET

R/L 24TH STREET

IONSD

11'

CP15

VL+89.57
24.58' RT

VL+02.57
24.58' RT

VL+14.57
24.58' RT

VL+26.57
24.58' RT

VL+03.77
24.00' RT

VL+64.78
18.00' RT

9.1'

CONC.

VL+54.67
34.01' RT

VL+11.35
33.02' RT

VL+12.36
33.18' RT

VL+40.50
33.39' RT

STORY CONC. BLOCK BUILDING #2499

NSD+60.73
13.58' LT

NSD+62.31
13.00' RT

NSD+55.73
13.58' LT

NSD+50.49
18.00' LT

NSD+55.49
13.00' RT

NSD+50.49
18.00' RT

14

16

17'

7.8'

G 9

G 8

P 54

P 51

LEGEND

- APO2 ASPHALTIC SURFACE BUTT JOINTS
- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CG23 CONCRETE CURB PEDESTRIAN
- CM05 CONCRETE SIDEWALK 5-INCH
- DR01 CONCRETE DRIVEWAY 7-INCH
- LS01 LAWN SOD
- P XX CONSTRUCTION PERMIT - PRIVATE
- G XX CONSTRUCTION PERMIT - GOVERNMENT

RADIUS TABLE

POINT	X	Y	STATION	OFFSET	RADIUS
13	2549837.46	389002.25	23VL+04.31	39.00' LT	15.00'
14	2549838.36	388924.25	23VL+03.77	39.00' RT	15.00'
15	2549893.52	389003.23	23VL+60.31	39.00' LT	15.00'
16	2549899.35	388926.33	23VL+64.78	38.00' RT	20.00'

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 48	E

2

2

ASPHALT

GRASS

GRASS

GRASS

P 47

CM05

5'

9.1'

VL+68.44
18.00' LT

CG09

LS01

CP15

25VL

W. VLIET STREET

26VL

27VL

MATCHLINE 24VL+50

MATCHLINE 27VL+50

R/L VLIET STREET

VL+03.02
18.58' LT

VL+09.05
18.58' LT

6'

11'

VL+09.87
18.58' RT

VL+03.87
18.58' RT

P 48

GRASS

ASPHALT

LEGEND

- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CM05 CONCRETE SIDEWALK 5-INCH
- DR01 CONCRETE DRIVEWAY 7-INCH
- LS01 LAWN SOD
- P XX CONSTRUCTION PERMIT - PRIVATE
- C XX CONSTRUCTION PERMIT - GOVERNMENT

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 49	E

2

N

REMOVE SIDEWALK TO NEAREST JOINT

REMOVE SIDEWALK TO NEAREST JOINT

AP02

CG09

15'

GRASS

GRASS

GRASS

6'

14'

14'

6'

CP15

CP15

19

17

NSE+39.24
16.00' RT

N. 22ND STREET

NSE+32.76
16.00' LT

CG09

CG09

CG23

VL+46.22
24.00' LT

CM05

CM05

CG09

LS01

CG09

5'

9.1'

CP15

5'

11'

28VL

W. VLIET STREET 29VL

5'

11'

VL+84.17
18.00' LT

CP15

30VL

R/L 22ND STREET

MATCHLINE 27VL+50

CP15

11'

CP15

11'

R/L VLIET STREET

IONSE

MATCHLINE 30VL+50

CP15

5'

VL+76.29
18.00' RT

VL+24.29
24.00' RT

3.1'

11'

CG09

VL+84.41
24.00' RT

CG09

CG09

CG09

LS01

9.1'

CG23

CM05

5'

NSE+60.73
16.00' LT

NSE+62.31
16.00' RT

GRASS

GRASS

GRASS

18

CM05

CP15

CP15

5'

14'

14'

GRASS

CG09

CM05

REMOVE SIDEWALK TO NEAREST JOINT

15'

AP02

REMOVE SIDEWALK TO NEAREST JOINT

LEGEND

- AP02 ASPHALTIC SURFACE BUTT JOINTS
- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CG23 CONCRETE CURB PEDESTRIAN
- CM05 CONCRETE SIDEWALK 5-INCH
- LS01 LAWN SOD
- P XX CONSTRUCTION PERMIT - PRIVATE
- G XX CONSTRUCTION PERMIT - GOVERNMENT

RADIUS TABLE					
POINT	X	Y	STATION	OFFSET	RADIUS
17	2550517.39	389008.27	29VL+84.17	33.00' LT	15.00'
18	2550518.90	388936.29	29VL+75.41	39.00' RT	15.00'
19	2550579.32	389015.37	30VL+46.22	39.00' LT	15.00'
20	2550585.88	388938.47	30VL+51.42	38.00' RT	20.00'

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 50	E

2

2

N

P 44

GRASS

GRASS

GRASS

GRASS

GRASS

CG09

REMOVE SIDEWALK TO NEAREST JOINT

AP02

15'

CM05

14'

6'

CG23

CP15

21

NSF+37.98
16.00' LT

N. 21ST STREET

CG09

CM05

5'

5'

8'

LS01

CG09

CG09

CG09

VL+06.35
24.00' LT

VL+54.35
18.00' LT

CP15

VL+13.12
18.00' LT

CP15

11'

5'

MATCHLINE 30VL+50

31VL

W. VLIET STREET 32VL

33VL

CP15

CP15

11'

11'

CP15

R/L VLIET STREET

CP15

R/L 21ST STREET

MATCHLINE 33VL+50

10NSF

CP15

5'

5'

CP15

VL+18.78
18.00' RT

VL+51.42
18.00' RT

CG09

9.1'

LS01

CG09

NSF+67.05
16.00' LT

CM05

5'

CM05

22

20

GRASS

P 43

CM05

6'

CP15

14'

GRASS

REMOVE SIDEWALK TO NEAREST JOINT

CG09

GRASS

AP02

LEGEND

- AP02 ASPHALTIC SURFACE BUTT JOINTS
- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CG23 CONCRETE CURB PEDESTRIAN
- CM05 CONCRETE SIDEWALK 5-INCH
- LS01 LAWN SOD
- P XX CONSTRUCTION PERMIT - PRIVATE
- G XX CONSTRUCTION PERMIT - GOVERNMENT

RADIUS TABLE					
POINT	X	Y	STATION	OFFSET	RADIUS
21	2550845.93	389019.13	33VL+13.12	38.00' LT	20.00'
22	2550853.11	388948.20	33VL+18.78	36.00' RT	15.00'

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET	E

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2

N

REMOVE SIDEWALK TO NEAREST JOINT

AP02 CG09 CM05 CP15 CG23 LS01

GRASS GRASS GRASS GRASS

P 42

6' 5' 9.1' 5' 5' 11' 11' 11' 11' 5' 3.1' 5' 15'

NSF+38.02 16.00' RT

VL+85.12 18.00' LT

VL+34.79 18.00' LT

MATCHLINE 33VL+50

34VL

W. VLIET STREET

35VL

36VL

R/L VLIET STREET

MATCHLINE 36VL+50

VL+80.78 18.00' RT

NSF+66.95 16.00' RT

VL+42.46 18.00' RT

VL+90.46 24.00' RT

ASPHALT ASPHALT ASPHALT ASPHALT ASPHALT

G 7

REMOVE SIDEWALK TO NEAREST JOINT

ASPHALT TRANSITION SEE DETAIL

GRASS

LEGEND

- AP02 ASPHALTIC SURFACE BUTT JOINTS
- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CG23 CONCRETE CURB PEDESTRIAN
- CM05 CONCRETE SIDEWALK 5-INCH
- LS01 LAWN SOD
- P XX CONSTRUCTION PERMIT - PRIVATE
- G XX CONSTRUCTION PERMIT - GOVERNMENT

RADIUS TABLE

POINT	X	Y	STATION	OFFSET	RADIUS
23	2550918.18	389020.36	33VL+85.12	38.00' LT	20.00'
24	2550915.10	388949.29	33VL+80.78	33.00' RT	15.00'

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 52	E

2

2

N

REMOVE SIDEWALK TO NEAREST JOINT

CONRETE

GRASS

GRASS

GRASS

N. 20TH STREET

R/L 20TH STREET

37VL

W. VLIET STREET 38VL

39VL

R/L VLIET STREET

MATCHLINE 36VL+50

MATCHLINE 39VL+50

10NSG

ASPHALT

CONRETE

GRASS

NSG+44.43
14.00' RT

NSG+49.43
19.00' RT

NSG+42.77
19.00' LT

NSG+39.18
14.00' RT

VL+07.81
24.00' LT

VL+67.94
24.00' LT

VL+15.94
18.00' LT

VL+17.54
18.00' RT

VL+50.58
24.00' RT

NSG+60.98
13.00' LT

NSG+55.74
13.00' LT

NSG+49.74
19.00' LT

NSG+62.06
19.00' RT

REMOVE SIDEWALK TO NEAREST JOINT

REMOVE SIDEWALK TO NEAREST JOINT

P 34

P 25

P 26

27

28

26

RADIUS TABLE					
POINT	X	Y	STATION	OFFSET	RADIUS
25	2551167.66	389029.77	36VL+34.79	43.00' LT	25.00'
26	2551184.96	388948.07	36VL+50.58	39.00' RT	15.00'
27	2551240.77	389027.09	37VL+07.81	39.00' LT	15.00'
28	2551251.94	388950.29	37VL+17.54	38.00' RT	20.00'

LEGEND

- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CG23 CONCRETE CURB PEDESTRIAN
- CM05 CONCRETE SIDEWALK 5-INCH
- LS01 LAWN SOD
- P XX CONSTRUCTION PERMIT - PRIVATE
- G XX CONSTRUCTION PERMIT - GOVERNMENT

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 53	E

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WISDOT/CADDS SHEET 42

2

2

N

P 29

CM05

LS01

CG09

5'

9.1'

CP15

5'

11'

11'

5'

40VL

W. VLIET STREET

41VL

42VL

R/L VLIET STREET

MATCHLINE 39VL+50

MATCHLINE 42VL+50

GRASS

GRASS

P 24

P 2

LEGEND

- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CM05 CONCRETE SIDEWALK 5-INCH
- DR01 CONCRETE DRIVEWAY 7-INCH
- LS01 LAWN SOD

P XX CONSTRUCTION PERMIT - PRIVATE

G XX CONSTRUCTION PERMIT - GOVERNMENT

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 54	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Files\Plan Sheets\63342_PLAN_SHEET_42.dgn PLOT DATE : 12/11/2018 11:21:02 AM PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 42

2

N

REMOVE SIDEWALK TO NEAREST JOINT

CG09

ASPHALT

5'

CM05

GRASS

CG23

29

P 28

NSH+41.11
17.01' RT

15'

15'

CP15

N. 18TH STREET

NSH+31.48
17.00' LT

CG09

REMOVE SIDEWALK TO NEAREST JOINT

31

P 90

CM05

LS01

9.1'

VL+06.42
18.00' LT

VL+70.79
24.00' LT

VL+30.91
24.00' LT

VL+78.91
18.00' LT

43VL

W. VLIET STREET

44VL

45VL

MATCHLINE 42VL+50

MATCHLINE 45VL+50

11'

R/L 18TH STREET

R/L VLIET STREET

10%SH

VL+06.23
18.00' RT

VL+70.23
18.00' RT

VL+32.22
18.00' RT

NSH+67.00
17.00' LT

NSH+67.00
17.00' RT

30

32

6'

6.5'

CONCRETE

P 94

GRASS

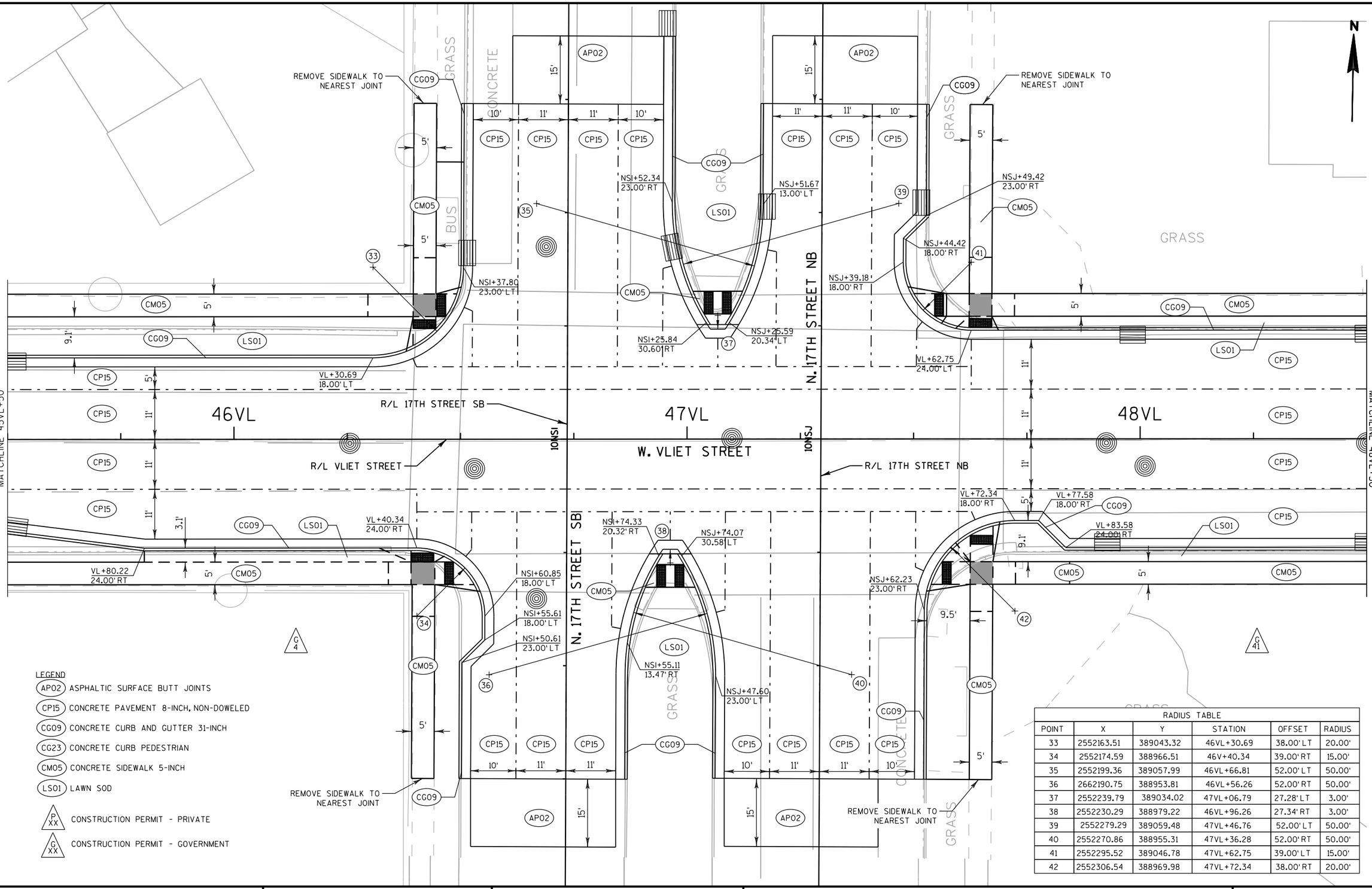
REMOVE SIDEWALK TO NEAREST JOINT

LEGEND

- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CG23 CONCRETE CURB PEDESTRIAN
- CM05 CONCRETE SIDEWALK 5-INCH
- LS01 LAWN SOD
- P XX CONSTRUCTION PERMIT - PRIVATE
- G XX CONSTRUCTION PERMIT - GOVERNMENT

RADIUS TABLE					
POINT	X	Y	STATION	OFFSET	RADIUS
29	2551937.39	389032.27	43VL+06.43	33.00' LT	15.00'
30	2551840.43	388966.28	43VL+06.23	33.00' RT	15.00'
31	2551903.63	389039.47	43VL+70.79	39.00' RT	15.00'
32	2551904.41	388967.47	43VL+70.23	33.00' RT	15.00'

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 55	E



LEGEND

- APO2 ASPHALTIC SURFACE BUTT JOINTS
- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CG23 CONCRETE CURB PEDESTRIAN
- CM05 CONCRETE SIDEWALK 5-INCH
- LS01 LAWN SOD
- P XX CONSTRUCTION PERMIT - PRIVATE
- G XX CONSTRUCTION PERMIT - GOVERNMENT

RADIUS TABLE

POINT	X	Y	STATION	OFFSET	RADIUS
33	2552163.51	389043.32	46VL+30.69	38.00' LT	20.00'
34	2552174.59	388966.51	46V+40.34	39.00' RT	15.00'
35	2552199.36	389057.99	46VL+66.81	52.00' LT	50.00'
36	2662190.75	388953.81	46VL+56.26	52.00' RT	50.00'
37	2552239.79	389034.02	47VL+06.79	27.28' LT	3.00'
38	2552230.29	388979.22	46VL+96.26	27.34' RT	3.00'
39	2552279.29	389059.48	47VL+46.76	52.00' LT	50.00'
40	2552270.86	388955.31	47VL+36.28	52.00' RT	50.00'
41	2552295.52	389046.78	47VL+62.75	39.00' LT	15.00'
42	2552306.54	388969.98	47VL+72.34	38.00' RT	20.00'

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET	E

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2

2

N

GRASS

GRASS

GRASS

GRASS

GRASS

GR

CG09

CM05

5'

LS01

CP15

11'

49VL

W. VLIET STREET

50VL

51VL

R/L VLIET STREET

MATCHLINE 48VL+50

MATCHLINE 51VL+50

VL+85.35
24.58' RT

VL+20.35
24.58' RT

DR01

3'

ASPHALT

GRASS

G
41

LEGEND

- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CM05 CONCRETE SIDEWALK 5-INCH
- DR01 CONCRETE DRIVEWAY 7-INCH
- LS01 LAWN SOD
- P XX CONSTRUCTION PERMIT - PRIVATE
- G XX CONSTRUCTION PERMIT - GOVERNMENT

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 57	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Package\Plan Sheets\E05_Details.dgn PLOT DATE : 12/21/2018 11:08:10 AM BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 42

2

2

N

ASS

GRASS

GRASS

CONCRETE

3'

DR01

CM05

CG09

5'

LS01

VL+72.10
24.58' LT

VL+92.10
24.58' LT

CP15

11'

52VL

53VL

54VL

W. VLIET STREET

R/L VLIET STREET

MATCHLINE 51VL+50

MATCHLINE 54VL+50

43

44

CG09

CM05

5'

CP15

15'

CP15

15'

CG09

5'

CM05

N. 15TH STREET

NSK+32.83
17.00' LT

NSK+38.20
17.00' RT

IONSK

R/L 15TH STREET

LS01

CM05

5'

CG09

VL+28.73
24.00' LT

VL+34.73
18.00' LT

5'

VL+39.98
18.00' LT

VL+09.00
18.00' LT

5'

VL+20.25
24.00' LT

VL+14.25
18.00' LT

CP15

11'

CP15

11'

CP15

11'

CP15

11'

CP15

11'

VL+30.51
18.00' RT

VL+24.51
24.00' RT

VL+09.58
18.00' RT

VL+15.58
24.00' RT

LS01

9.1'

5'

CG09

3.1'

CM05

CG09

DR01

CM05

LS01

VL+17.98
24.58' RT

VL+38.11
24.58' RT

3'

3'

GRASS

GRASS

GRASS

C
41

LEGEND

- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CM05 CONCRETE SIDEWALK 5-INCH
- DR01 CONCRETE DRIVEWAY 7-INCH
- LS01 LAWN SOD
- P XX CONSTRUCTION PERMIT - PRIVATE
- G XX CONSTRUCTION PERMIT - GOVERNMENT

RADIUS TABLE

POINT	X	Y	STATION	OFFSET	RADIUS
43	2552872.76	389051.56	VL53+39.98	33.00' LT	15.00'
44	2552941.68	389057.85	VL54+09.00	38.00' LT	20.00'

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 58	E

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WISDOT/CADDS SHEET 42

2

N

GRASS

1 STORY
BRICK
BUILDING

GRASS

GRASS

LS01 CM05 CG09 DR01 CP15

3.1" 5' 3' 11'

VL+51.76
24.58' LT

VL+69.76
24.58' LT

VL+00.87
24.00' LT

VL+06.87
18.00' LT

VL+12.11
18.00' LT

45

CG09 14.5' 13'

NSL+38.24
15.00' LT

N. 14TH STREET

R/L 14TH STREET

55VL 56VL 57VL

W. VLIET STREET

R/L VLIET STREET

MATCHLINE 54VL+50

MATCHLINE 57VL+50

IONSL

VL+63.07
18.00' RT

VL+57.07
24.00' RT

VL+09.65
18.00' RT

9.1'

NSL+59.34
16.15' LT

46

5' 14'

GC 41

LEGEND

- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CM05 CONCRETE SIDEWALK 5-INCH
- DR01 CONCRETE DRIVEWAY 7-INCH
- LS01 LAWN SOD
- P XX CONSTRUCTION PERMIT - PRIVATE
- G XX CONSTRUCTION PERMIT - GOVERNMENT

RADIUS TABLE

POINT	X	Y	STATION	OFFSET	RADIUS
45	2553244.73	389063.50	57VL+12.11	38.00' LT	20.00'
46	2553243.70	388987.47	57VL+09.65	38.00' RT	20.00'

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 59	E

2

N

INSTALL CITY FURNISHED BIKE RACK

CG09

13.5'

NSL+37.76
15.00'RT

48

CG23

VOID BENEATH SIDEWALK. TO BE ABANDONED BY OWNER PRIOR TO CONST.

1 STORY BRICK BUILDING

1 STORY BRICK/STONE /FRAME BUILDING

1 STORY BRICK BUILDING

2 STORY BRICK/FRAME BUILDING #1328

3 STORY BRICK/CONC. BUILDING #1322–1324

1 STORY METAL STRUCTURE

GRASS

1 STORY METAL BUILDING #1312

VL+68.75
32.08'LT

VL+92.80
32.08'LT

CP15 CG09 CM05 5' HW01 LS01 3.1' CG09 CM05 5'

VL+93.35
24.00'LT

VL+82.11
18.00'LT

VL+87.35
18.00'LT

CP15 11'

58VL 59VL 60VL

W. VLIET STREET

R/L VLIET STREET

MATCHLINE 57VL+50

MATCHLINE 60VL+50

VL+76.69
18.00'RT

VL+83.88
18.00'RT

VL+89.88
24.00'RT

VL+26.48
24.58'RT

VL+41.48
24.58'RT

DR01

47

NSL+67.21
16.00'RT

4.5'

6'

P 39

3 STORY STUCCO/BRICK BUILDING #1335

1 1/2 STORY STONE/BRICK/FRAME BUILDING #1327–1323

3'

G 6

G 5

GRASS

2 STORY STONE/BRICK BUILDING #1307–1311

GRASS

LEGEND

- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CG23 CONCRETE CURB PEDESTRIAN
- CM05 CONCRETE SIDEWALK 5-INCH
- DR01 CONCRETE DRIVEWAY 7-INCH
- HW01 EXISTING HOLLOW WALK
- LS01 LAWN SOD

P XX CONSTRUCTION PERMIT - PRIVATE

G XX CONSTRUCTION PERMIT - GOVERNMENT

RADIUS TABLE

POINT	X	Y	STATION	OFFSET	RADIUS
47	2553310.63	388993.72	57VL+76.69	33.00'RT	15.00'
48	255314.72	389064.81	57VL+82.11	38.00'LT	20.00'

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 60	E

2

N

3 STORY
BRICK
BUILDING
#1220

GRASS

EXISTING SIDEWALK TO REMAIN

EXISTING TREE AND PLANTER TO REMAIN

INSTALL CITY FURNISHED BIKE RACK

EXISTING TREE AND PLANTER TO REMAIN

NSM+48.97
20.00' LT

NSM+42.97
14.00' LT

NSM+44.47
14.00' RT

NSM+50.47
20.00' RT

NSM+37.73
14.00' LT

NSM+39.23
14.00' RT

VL+76.13
24.00' LT

VL+87.39
18.00' LT

VL+82.13
18.00' LT

VL+50.40
24.00' LT

VL+33.08
29.60' LT

VL+43.08
29.60' LT

VL+07.18
29.82' LT

VL+17.18
29.83' LT

VL+33.08
24.58' LT

VL+43.08
24.58' LT

VL+07.18
24.58' LT

VL+17.18
24.58' LT

R/L 13TH STREET

61VL

62VL

W. VLIET STREET

63VL

R/L VLIET STREET

R/L 12TH STREET

N. 12TH LANE

MATCHLINE 60VL+50

MATCHLINE 63VL+50

IONSM

IONSN

VL+87.06
24.00' RT

VL+55.12
18.00' RT

VL+64.36
18.00' RT

VL+70.36
24.00' RT

VL+13.92
24.00' RT

VL+47.17
24.00' RT

N. 13TH STREET

NSM+55.72
14.00' LT

NSM+62.28
14.00' RT

NSM+50.48
14.00' LT

NSM+50.48
14.00' RT

NSM+44.48
20.00' LT

NSM+44.48
20.00' RT

NSN+71.00
11.25' LT

NSN+71.00
12.00' RT

VL+17.31
32.08' RT

VL+32.18
32.08' RT

VL+50.11
32.08' RT

VL+80.11
32.08' RT

2 1/2 STORY
INSTALL CITY FURNISHED BIKE RACK
BUILDING
#1301

1 1/2 STORY
FRAME/BRICK
BUILDING

VOID BENEATH SIDEWALK. TO BE ABANDONED BY OWNER PRIOR TO CONST.

2 STORY
FRAME/BRICK
BUILDING
#1233

GRASS

VOID BENEATH SIDEWALK. TO BE ABANDONED BY OWNER PRIOR TO CONST.

P 38

P 36

RADIUS TABLE					
POINT	X	Y	STATION	OFFSET	RADIUS
49	2553619.95	389070.51	60VL+87.39	38.00' LT	20.00'
50	2553621.16	388988.52	60VL+87.06	44.00' RT	20.00'
51	2553689.08	388995.79	61VL+55.12	38.00' RT	20.00'
52	2553682.93	389072.68	61VL+50.40	39.00' LT	15.00'
53	2553847.66	389007.62	63VL+13.92	29.00' RT	5.00'
54	2553880.91	389008.21	63VL+47.17	29.00' RT	5.00'

LEGEND

- APO2 ASPHALTIC SURFACE BUTT JOINTS
- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CG23 CONCRETE CURB PEDESTRIAN
- CM05 CONCRETE SIDEWALK 5-INCH
- HW01 EXISTING HOLLOW WALK
- LS01 LAWN SOD
- P XX CONSTRUCTION PERMIT - PRIVATE
- G XX CONSTRUCTION PERMIT - GOVERNMENT

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 61	E

2

N

EXISTING TREE AND PLANTER TO REMAIN

EXISTING TREE AND PLANTER TO REMAIN

INSTALL CITY FURNISHED BIKE RACK

VL+77.27
29.76'LT

VL+87.27
29.76'LT

VL+49.77
30.01'LT

VL+59.77
30.01'LT

8'

2.6'

CM05

CP15

VL+77.27
24.58'LT

VL+87.27
24.58'LT

CM05

VL+24.99
24.00'LT

VL+49.77
25.39'LT

VL+59.77
25.71'LT

11'

END PROJECT

64VL+74.79
X = 2554008.00
Y = 389039.46

N. 12TH STREET

MATCHLINE 63VL+50

CP15

11'

64VL

W. VLIET STREET

AP02

65VL

CP15

11'

R/L VLIET STREET

15'

CP15

11'

CM05

CM05

7.5'

HW01

VL+20.49
34.58'RT

P
35

INSTALL CITY FURNISHED BIKE RACK

GRASS

2 STORY BRICK BUILDING #1215

2 STORY BRICK BUILDING #1211

2 STORY BRICK BUILDING #1207

2 STORY BRICK BUILDING #1201

VOID BENEATH SIDEWALK. TO BE ABANDONED BY OWNER PRIOR TO CONST.

LEGEND

- AP02 ASPHALTIC SURFACE BUTT JOINTS
- CP15 CONCRETE PAVEMENT 8-INCH, NON-DOWELED
- CG09 CONCRETE CURB AND GUTTER 31-INCH
- CM05 CONCRETE SIDEWALK 5-INCH
- HW01 EXISTING HOLLOW WALK
- LS01 LAWN SOD

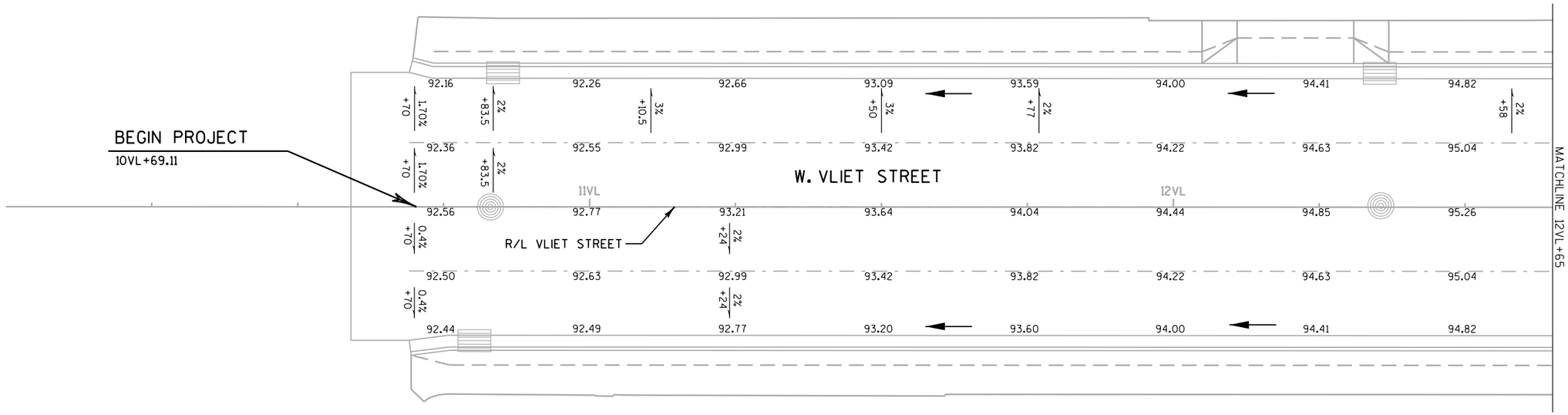
P XX CONSTRUCTION PERMIT - PRIVATE

G XX CONSTRUCTION PERMIT - GOVERNMENT

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 62	E

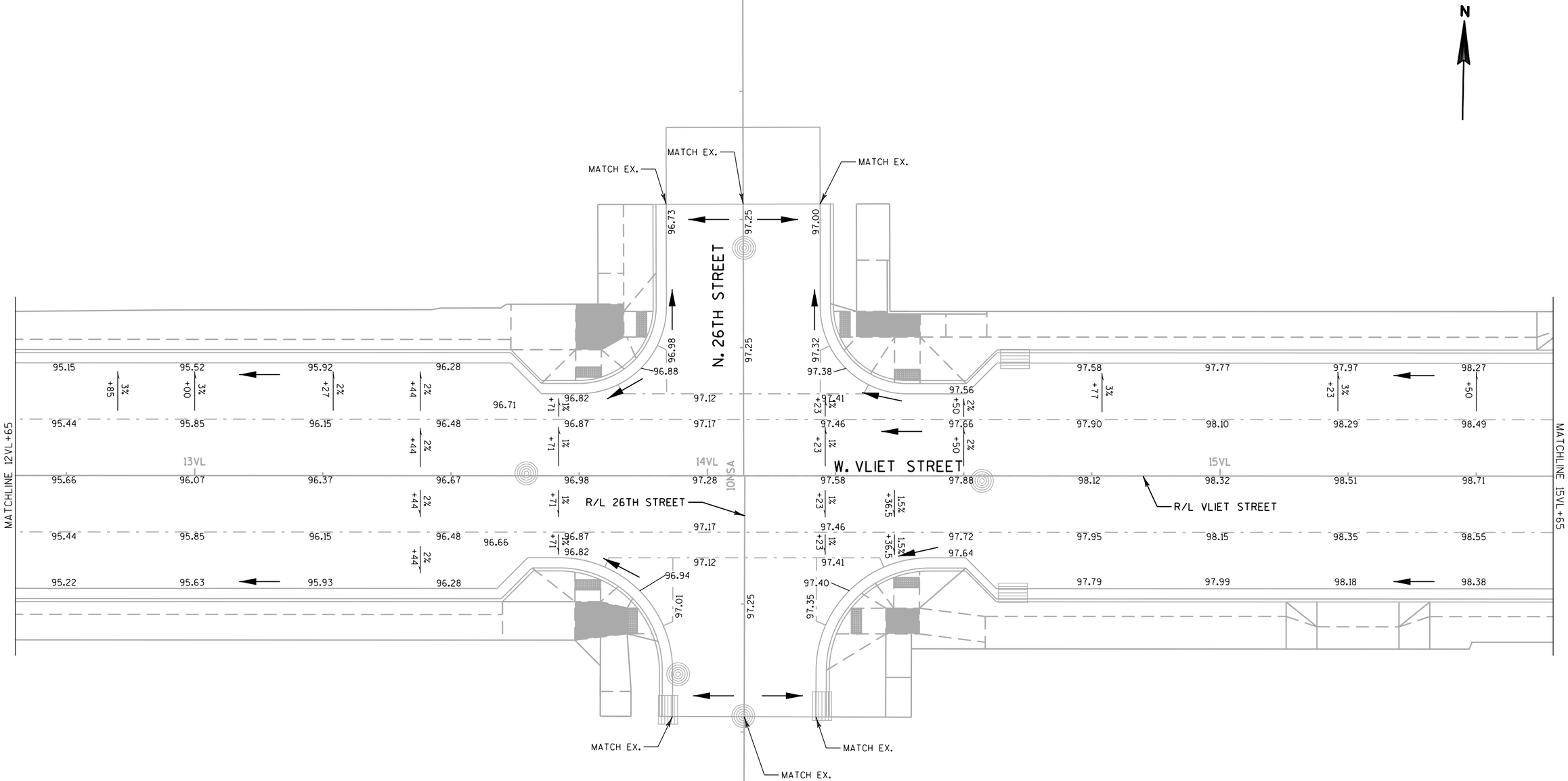
2

N



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 63	E

2



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 64	E

2

2

N

MATCH EX.

MATCH EX.

MATCH EX.

N. 25TH STREET

99.57

99.60

99.70

99.70

99.70

99.77

98.47 98.67 99.09 99.60 99.70 99.77 99.85 99.96 100.21 100.53 100.70 100.88

+11.5 2% +52 0.5% +19 0.5% +59.5 2%

98.69 98.89 99.25 99.67 99.75 99.83 99.92 100.14 100.43 100.75 100.92 101.10

+11.5 2% +52 0.5% +19 0.5% +59.5 2%

MATCHLINE 15VL+65

16VL

W. VLIET STREET

17VL

18VL

MATCHLINE 18VL+65

98.91 99.11 99.42 99.73 99.81 99.88 100.00 100.32 100.65 100.97 101.14 101.32

+25 2% +52 0.5% +19 0.5% +46 1.5% +60 1.5% +73.5 2%

98.74 98.94 99.25 99.67 99.75 99.82 99.92 100.16 100.43 100.75 100.92 101.10

+25 2% +52 0.5% +19 0.5% +46 1.5% +60 1.5% +73.5 2% +02 3%

R/L 25TH STREET

99.63

99.71

98.58 98.78 99.09 99.60 99.69 99.77 99.85 99.99 100.21 100.42 100.59 100.77

99.61

99.65

99.74

99.74

99.74

R/L VLIET STREET

MATCH EX.

MATCH EX.

MATCH EX.

MATCH EX.

MATCH EX.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Preliminary Engineering\Plans\Plan Sheets\DC1803_pg2.dgn PLOT DATE : 10/29/2018 14:15:56 PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

2

N

MATCH EX.

MATCH EX.

MATCH EX.

N. 24TH PLACE

W. VLIET STREET

19VL

20VL

21VL

R/L 24TH PLACE

R/L VLIET STREET

MATCHLINE 18VL+65

MATCHLINE 21VL+65

101.05 101.23 101.42 101.70 101.93 102.08 101.96 102.00 102.16 102.17 102.23 102.24 102.40 102.36 102.35 102.47 102.59 102.66

+40 2% +67 1% +32 1% +72.5 2.5% +36.5 2.5%

101.27 101.45 101.64 101.88 102.13 102.29 102.45 102.45 102.54 102.63 102.75 102.87 102.99

+40 2% +67 1% +32 1% +59 2%

101.49 101.67 101.86 102.06 102.24 102.40 102.56 102.72 102.85 102.97 103.09 103.21

+09.5 2% +50 0.5% +32 0.5% +65.75 1.75%

101.27 101.45 101.71 102.01 102.06 102.18 102.34 102.51 102.53 102.60 102.65 102.78 102.90 103.02

3% +00 2% +09.5 2% +50 0.5% +32 0.5% +65.75 1.75%

100.95 101.23 101.55 101.95 102.16 102.23 102.32 102.48 102.56 102.47 102.46 102.58 102.70 102.83

102.29 102.46 102.46

102.41 102.84 102.58

MATCH EX.

MATCH EX.

MATCH EX.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 66	E

2

N

MATCH EX.
MATCH EX.
MATCH EX.
MATCH EX.
MATCH EX.

102.77 102.90 102.96 103.25 103.30 103.14
103.15 102.92 102.80 102.99 103.31 103.32 103.26 103.39 103.40 103.34 103.44 103.59

N. 24TH STREET

102.78 102.90 103.03 103.03 +49 3% 103.04 103.19 +03 1%

W. VLIET STREET

103.65 103.74 MATCHLINE 24VL+65

MATCHLINE 21VL+65

103.11 103.23 103.36 103.35 103.27 +76 2% 103.31 +03 1% 103.41 103.50 103.55 103.56 +65 1% +92 2%

22VL 23VL 24VL

R/L 24TH STREET

103.33 103.45 103.58 103.57 103.49 103.43 103.52 103.61 103.70 103.78 103.87 103.96

R/L VLIET STREET

103.14 103.26 103.38 103.38 103.32 +69.25 1.75% 103.37 +03 0.5% 103.47 103.55 +65 0.5% 103.60 103.59 +05.5 2% 103.65 103.74

103.44 103.53 103.56 103.50 103.55 103.64

102.95 103.07 103.19 103.19 103.15 103.30 103.42 103.49 103.60 103.55 103.50

103.96 103.98 104.28 103.91 103.91

MATCH EX.
MATCH EX.
MATCH EX.
MATCH EX.
MATCH EX.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 67	E

2

N

MATCHLINE 24VL+65

103.73 103.81 103.90 103.99 104.08 104.15 104.23 104.30 104.38 104.45 104.38 104.30

103.83 103.92 104.00 104.09 104.18 104.25 104.33 104.40 104.48 104.55 104.48 104.40

W. VLIET STREET

25VL 26VL 27VL

104.05 104.13 104.22 104.31 104.40 104.47 104.55 104.62 104.70 104.77 104.70 104.62

R/L VLIET STREET

MATCHLINE 27VL+65

103.83 103.91 104.00 104.09 104.18 104.25 104.33 104.40 104.48 104.55 104.48 104.40

103.73 103.81 103.90 103.99 104.08 104.15 104.23 104.30 104.38 104.45 104.38 104.30

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 68	E

2

N

MATCH EX.

MATCH EX.

MATCH EX.

N. 22ND STREET

W. VLIET STREET

R/L 22ND STREET

R/L VLIET STREET

MATCHLINE 27VL+65

MATCHLINE 30VL+65

28VL

29VL

30VL

104.25 104.26 104.32 104.44 104.59 104.74 104.83 104.93 105.08 105.27 105.37 105.40

104.35 104.36 104.42 104.54 104.69 104.84 104.93 105.03 105.16 105.32 105.42 105.51

104.57 104.58 104.64 104.76 104.91 105.06 105.15 105.25 105.34 105.43 105.53 105.62

104.35 104.36 104.42 104.54 104.69 104.84 104.93 105.05 105.25 105.38 105.47 105.57

104.25 104.26 104.32 104.44 104.59 104.68 104.71 104.86 105.16 105.35 105.45 105.54

105.15 105.21 105.30 105.23 105.19 105.40

105.30 105.35 105.52 105.45 105.43 105.52

105.51 105.99 105.52

+65 2% +65 2% +43.5 2% +43.5 2%

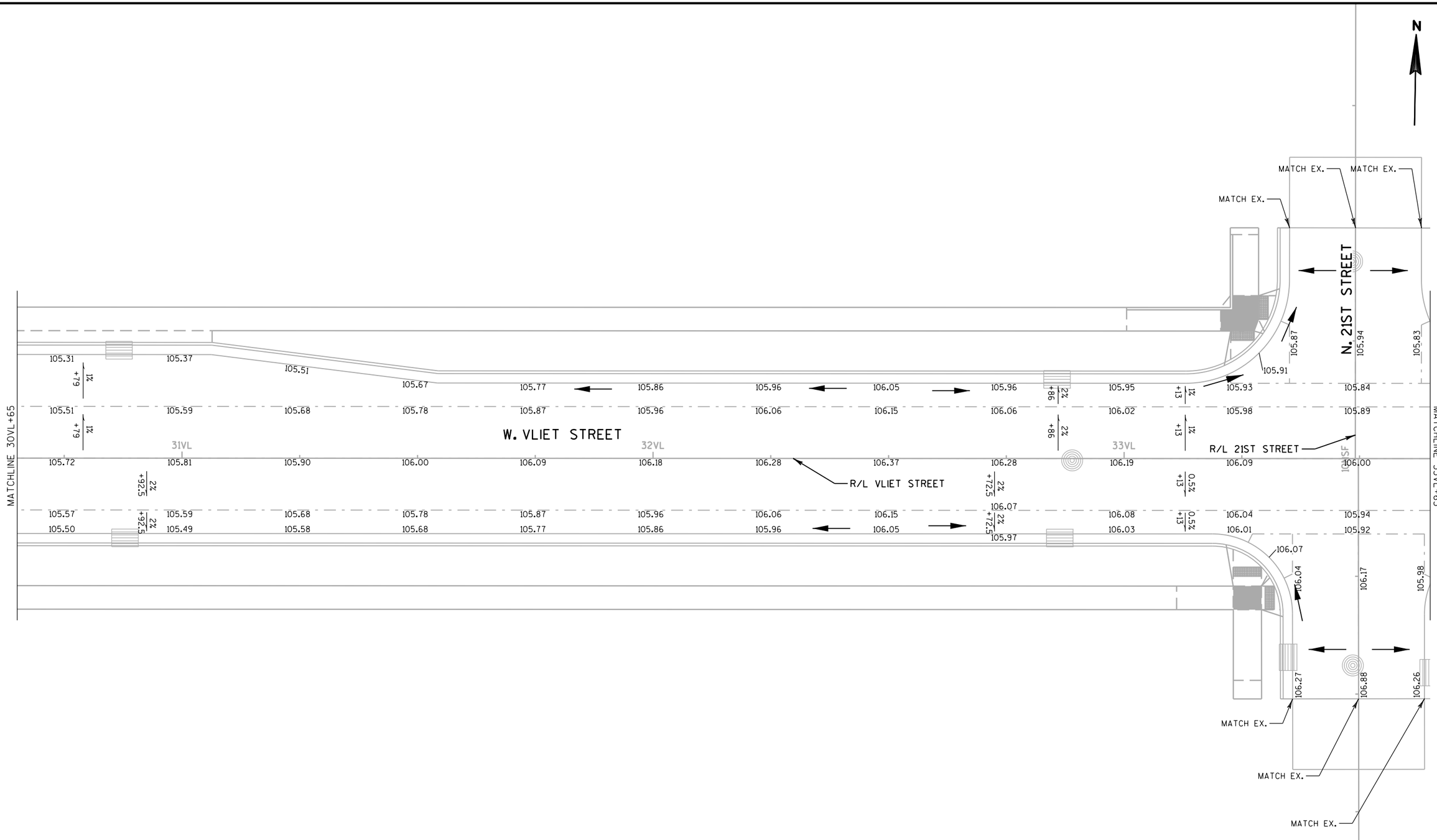
+62 1% +62 1% +84 0.5% +84 0.5%

+52 1% +52 1% +52 0.5% +52 0.5%

MATCH EX. MATCH EX. MATCH EX.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 69	E

2



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 70	E

2

N

MATCH
EXISTING

102.91

103.36

103.43

103.66

MATCHLINE 33VL+65

MATCHLINE 36VL+65

W. VLIET STREET

R/L VLIET STREET

34VL

35VL

36VL

105.75 +98 1% 105.57 +13 2% 105.40 105.19 104.98 104.78 104.57 104.36 104.15 +75 2% 104.02 103.90 +25 1%

105.80 +98 1% 105.65 +13 2% 105.50 105.29 105.08 104.88 104.67 104.46 104.25 +75 2% 104.10 103.95 +25 1% 103.71

105.91 +86 0.5% 105.81 105.72 +26.5 2% 105.51 105.30 105.10 104.89 104.68 +50 2% 104.47 104.26 104.06 +25 0.5% 103.82

105.85 +86 0.5% 105.70 105.29 105.08 104.88 104.67 104.46 104.31 104.15 104.00 103.76

105.83 +86 0.5% 105.65 +26.5 2% 105.41 105.19 104.98 104.78 104.57 104.34 +50 2% 104.17 104.04 103.95 +25 0.5% 103.71 103.42

103.34

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 71	E

2

N

MATCH
EXISTING

N. 20TH STREET

R/L 20TH STREET

W. VLIET STREET

R/L VLIET STREET

MATCHLINE 36VL+65

MATCHLINE 39VL+65

37VL

38VL

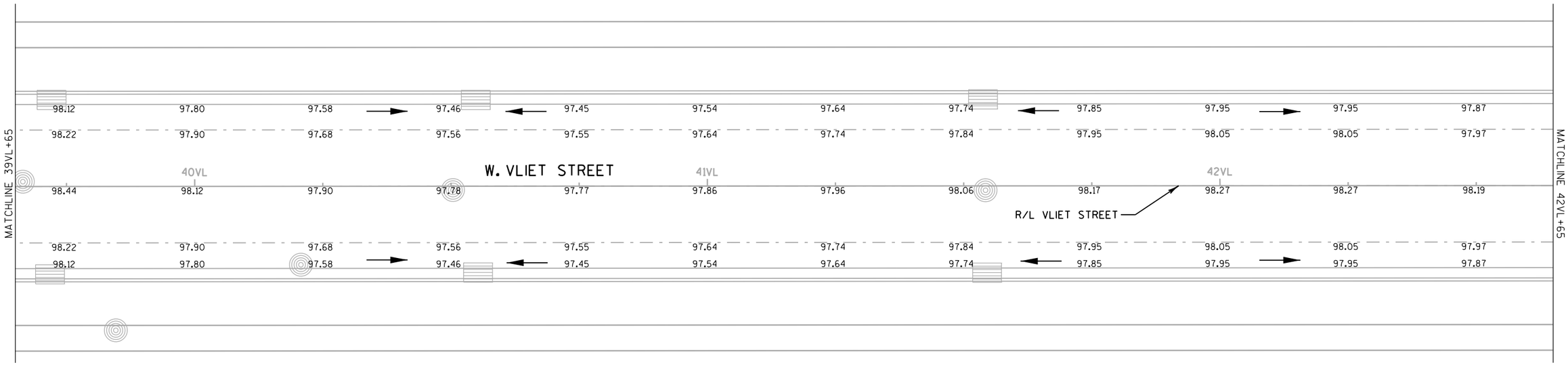
39VL

102.93	102.97	102.63	102.54									
103.31	103.22	103.03	102.96									
103.35		102.99		102.50 +25 1%	101.91	101.33 +75 2%	100.90	100.46	99.97	99.58	99.18	98.83	98.47
103.40		103.04		102.61 +25 1%	102.07	101.53 +75 2%	101.04	100.56	100.07	99.68	99.28	98.93	98.57
103.51		103.15		102.72 +25 0.5%	102.24	101.75	101.26 +00 2%	100.78	100.29	99.90	99.50	99.15	98.79
103.46		103.09		102.66 +25 0.5%	102.13	101.58	101.04 +00 2%	100.56	100.07	99.67	99.28	98.93	98.57
103.43		103.07		102.64	102.08	101.51	100.94	100.46	99.97	99.57	99.18	98.83	98.47
103.44	103.34	103.17	103.05	103.05									
103.38	103.39	103.18	102.98										

MATCH
EXISTING

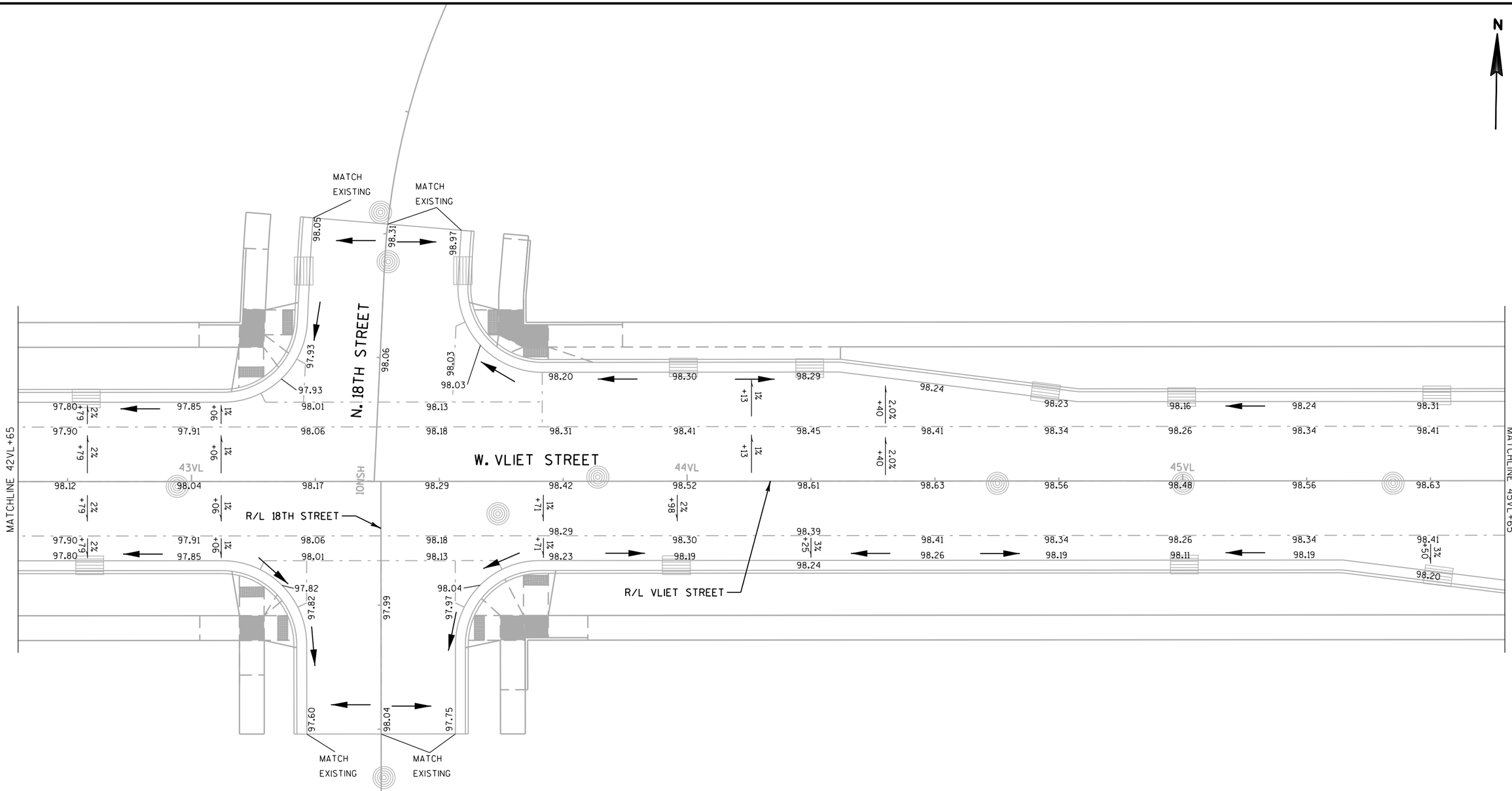
2

N



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 73	E

2



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 74	E

2

2

N

MATCH EXISTING

MATCH EXISTING

N. 17TH STREET NB

N. 17TH STREET SB

W. VLIET STREET

R/L 17TH STREET SB

R/L 17TH STREET NB

R/L VLIET STREET

MATCHLINE 45VL+65

MATCHLINE 48VL+65

46VL

47VL

48VL

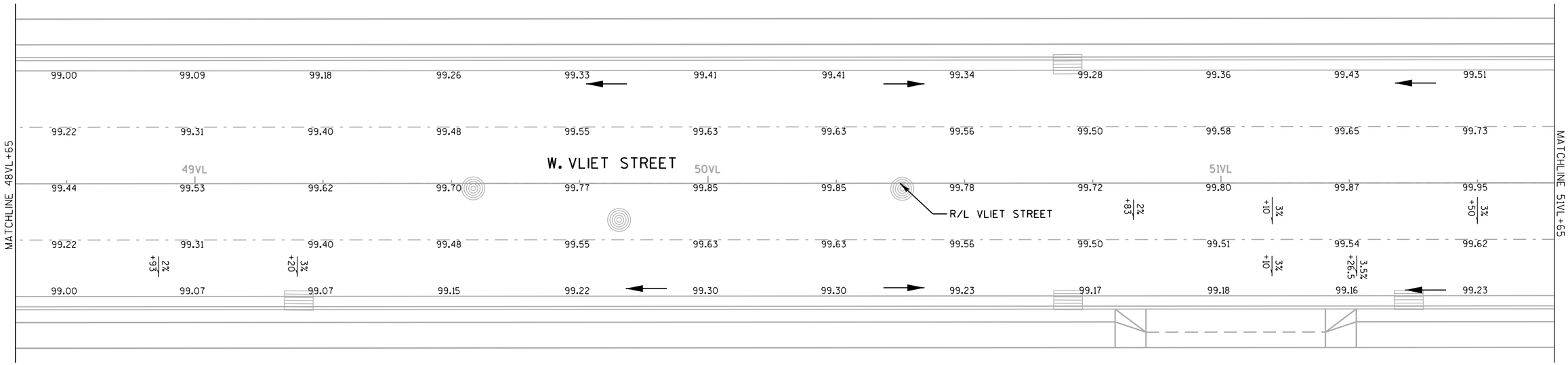
MATCH EXISTING

MATCH EXISTING

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 75	E

2

N



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Package\2018-11-26\18114_cds_02.dgn PLOT DATE : 29-NOV-2018 14:15:08 PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

2

N

MATCH EXISTING

MATCH EXISTING

N. 15TH STREET

W. VLIET STREET

R/L VLIET STREET

R/L 15TH STREET

MATCHLINE 51VL+65

MATCHLINE 54VL+65

52VL

53VL

54VL

99.43 99.45 99.52 99.60 99.70 99.81 99.93 100.12 100.29 100.33 100.23 100.20 100.79 100.20 100.43 100.36 100.47 100.40 100.46 100.57

99.65 99.67 99.74 99.82 99.92 100.03 100.15 100.35 100.43 100.48 100.50 100.55 100.61 100.79

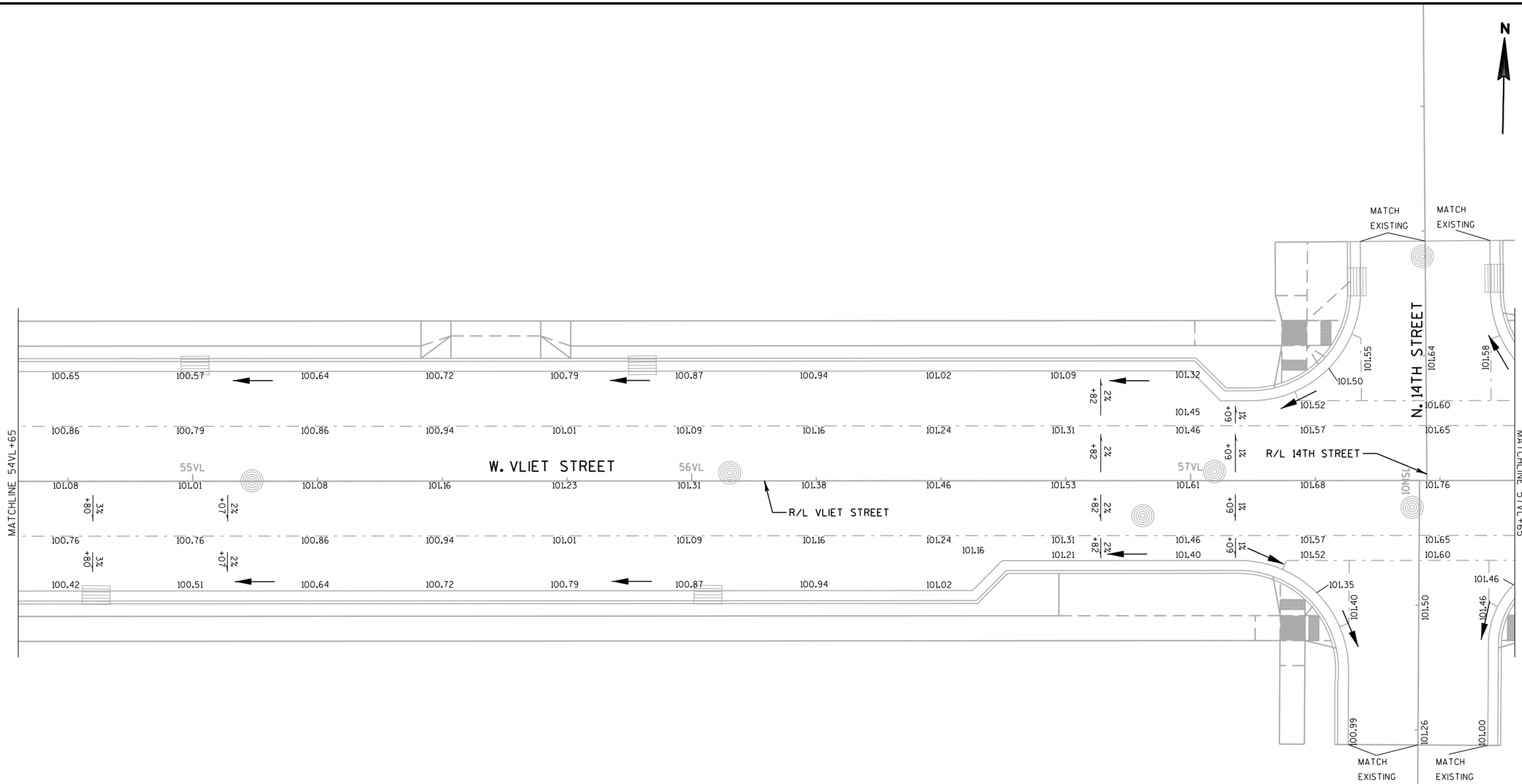
99.87 99.89 99.96 100.04 100.14 100.25 100.37 100.48 100.59 100.71 100.83 101.01

99.65 99.67 99.74 99.82 99.92 100.03 100.04 100.15 100.00 100.26 100.11 100.38 100.23 100.51 102.28 100.68

99.26 99.28 99.42 99.60 99.70 99.81 99.76 100.17 100.35

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 77	E

2

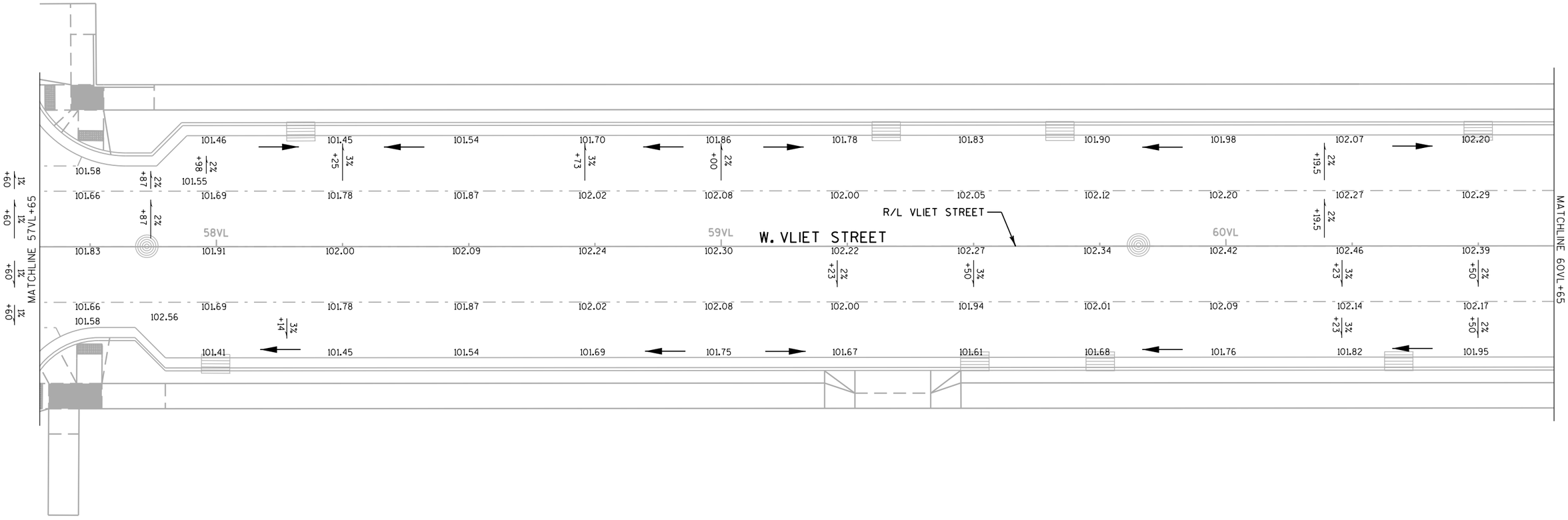


PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 78	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Package\2984-00-73_PAVE_GRADE_PLAN_pg105.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

2

N



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 79	E

2

N

MATCH EXISTING

MATCH EXISTING

102.77

102.86

103.04

102.72

102.82

102.69

102.78

102.78

102.69

102.64

102.66

102.50

102.55

102.49

102.63

102.75

102.85

102.73

102.82

102.77

102.70

102.72

102.81

102.91

103.00

103.20

103.30

102.81

102.84

102.94

103.03

103.13

103.22

103.31

103.41

+87 0.5%

+87 0.5%

+50 0.5%

+50 0.5%

+17.5 2%

+00 2%

+27 1%

+90.5 1%

MATCHLINE 60VL+65

R/L 13TH STREET

61VL

62VL

W. VLIET STREET

63VL

MATCHLINE 63VL+65

R/L VLIET STREET

102.48

102.58

102.67

102.77

102.86

102.95

103.05

103.14

103.24

103.33

103.43

103.52

+58 2%

+85 3%

+78 3%

+20 1%

+40 1%

+61 2%

102.26

102.36

102.45

102.55

102.57

102.62

102.72

102.81

102.91

103.11

103.31

103.35

102.26

102.35

102.45

102.46

102.04

102.02

102.09

102.25

102.20

102.18

102.28

102.29

102.39

102.48

102.58

102.90

103.20

103.19

103.21

N. 13TH STREET

101.62

101.84

101.79

102.86

103.09

102.82

MATCH EXISTING

101.42

101.69

MATCH EXISTING

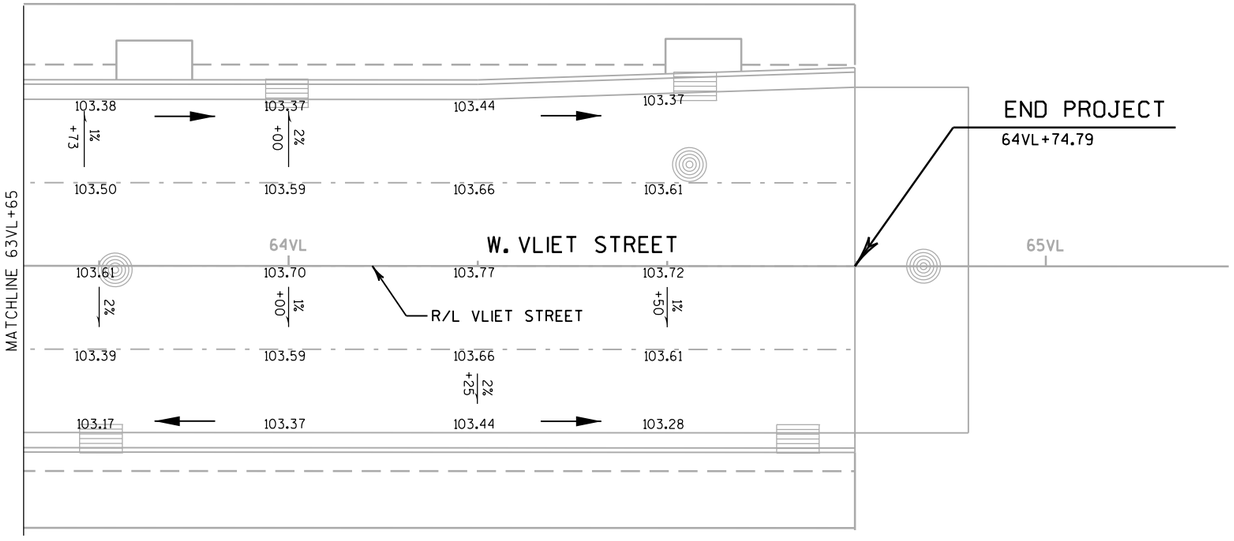
MATCH EXISTING

N. 12TH LANE

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 80	E

2

N



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 81	E

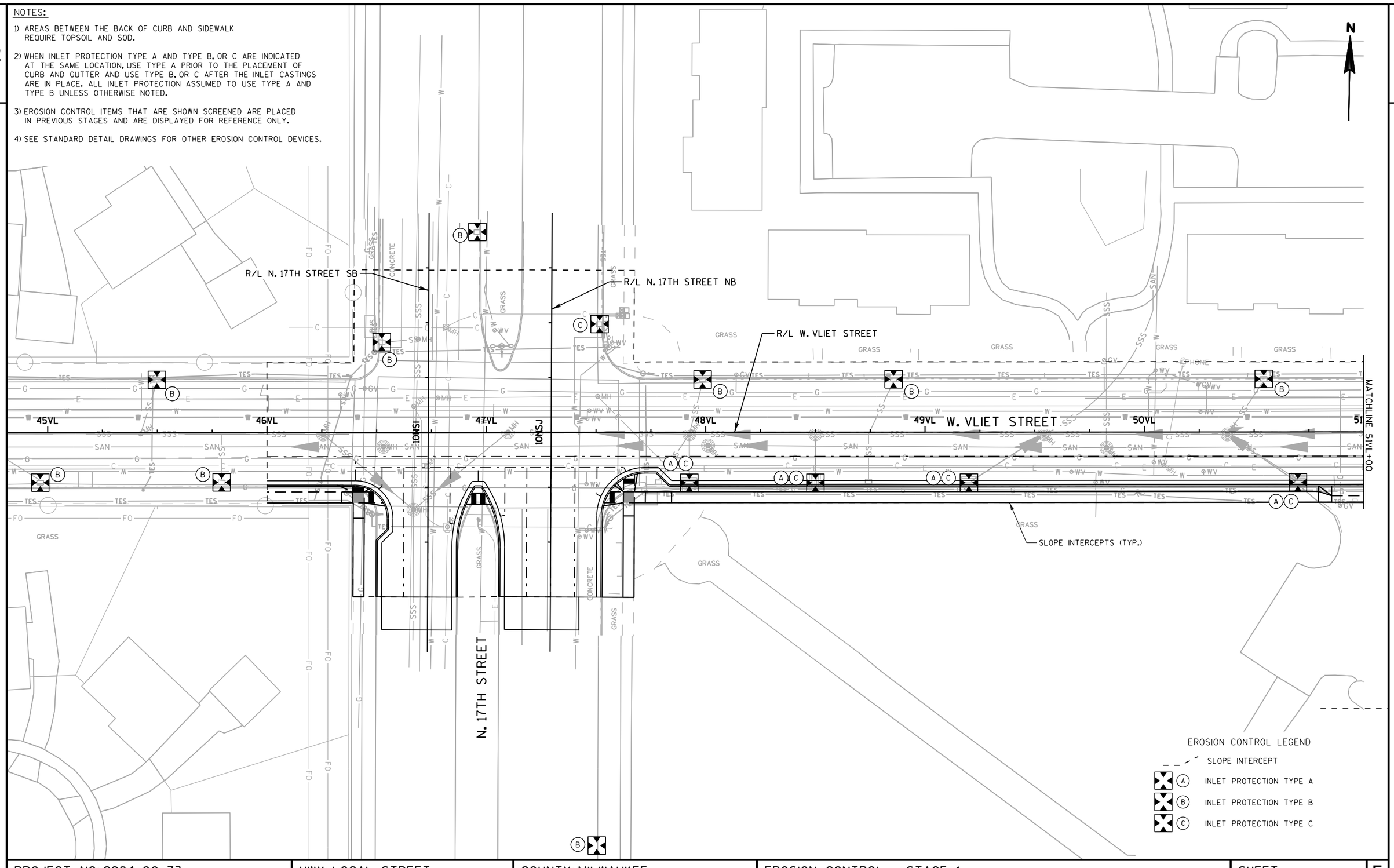
NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

2) WHEN INLET PROTECTION TYPE A AND TYPE B, OR C ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, OR C AFTER THE INLET CASTINGS ARE IN PLACE. ALL INLET PROTECTION ASSUMED TO USE TYPE A AND TYPE B UNLESS OTHERWISE NOTED.

3) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES AND ARE DISPLAYED FOR REFERENCE ONLY.

4) SEE STANDARD DETAIL DRAWINGS FOR OTHER EROSION CONTROL DEVICES.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Exchange\Erosion Control Sheets 082011_ec.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

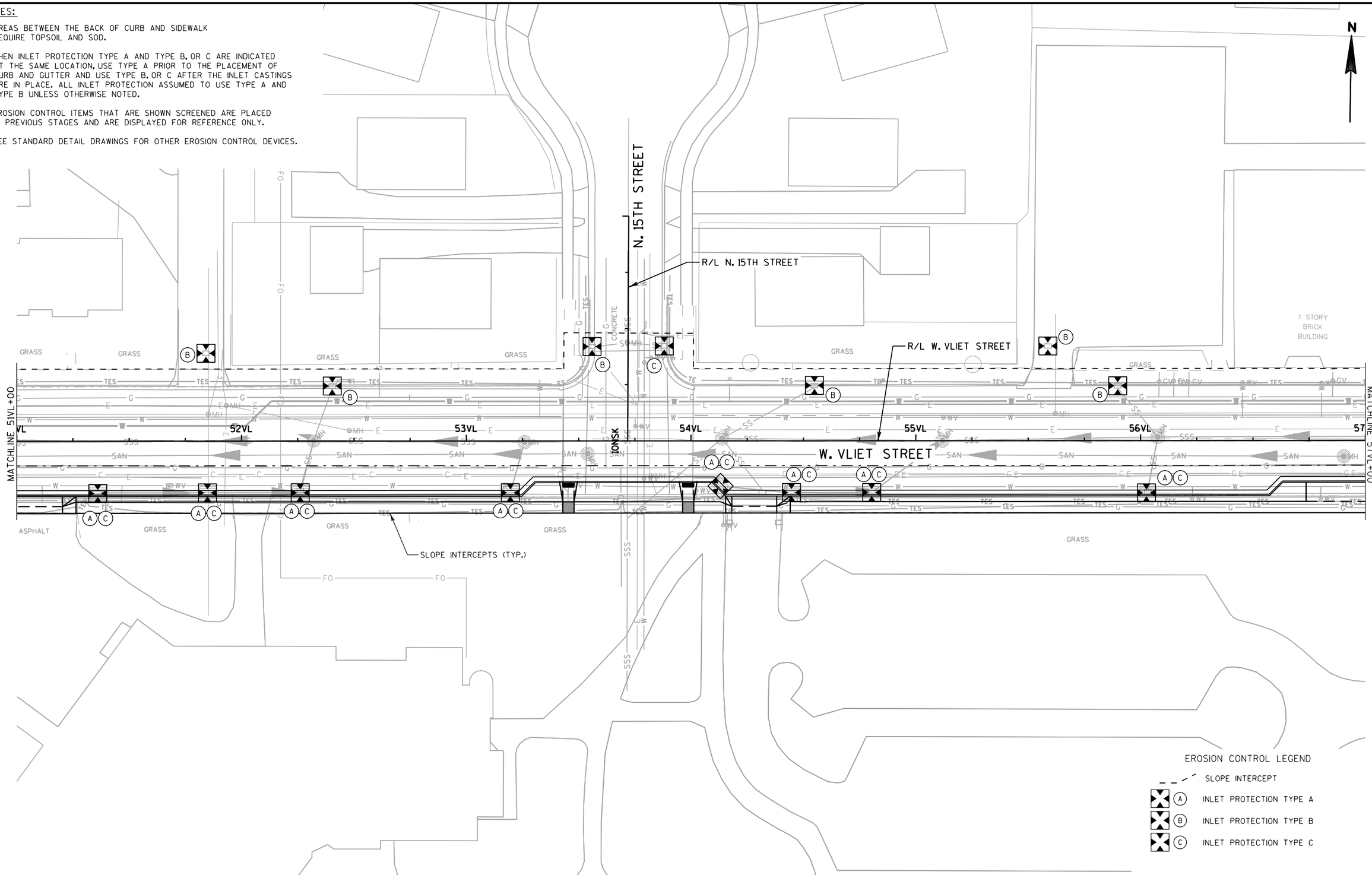
NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

2) WHEN INLET PROTECTION TYPE A AND TYPE B, OR C ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, OR C AFTER THE INLET CASTINGS ARE IN PLACE. ALL INLET PROTECTION ASSUMED TO USE TYPE A AND TYPE B UNLESS OTHERWISE NOTED.

3) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES AND ARE DISPLAYED FOR REFERENCE ONLY.

4) SEE STANDARD DETAIL DRAWINGS FOR OTHER EROSION CONTROL DEVICES.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 83	E

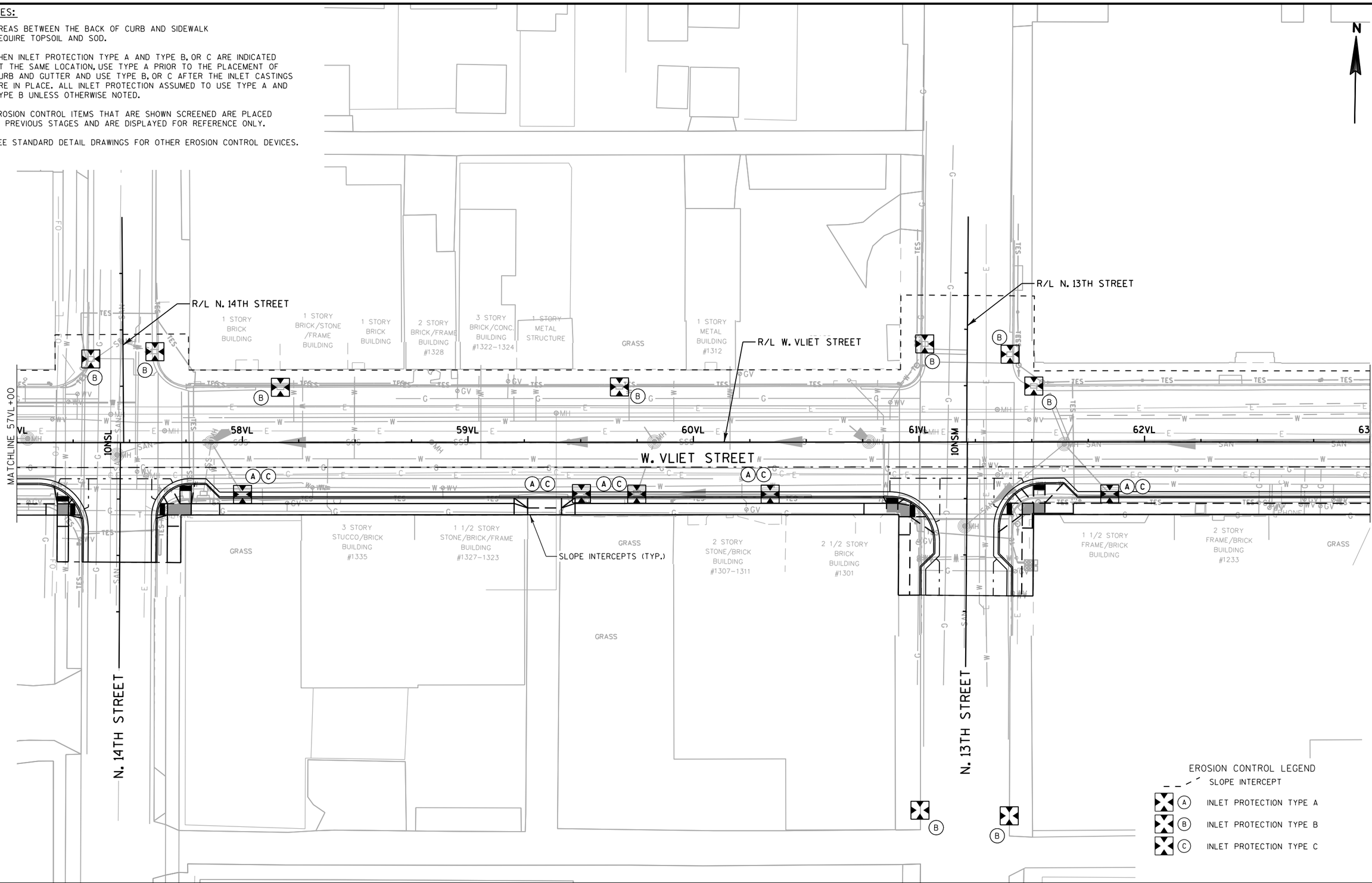
NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

2) WHEN INLET PROTECTION TYPE A AND TYPE B, OR C ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, OR C AFTER THE INLET CASTINGS ARE IN PLACE. ALL INLET PROTECTION ASSUMED TO USE TYPE A AND TYPE B UNLESS OTHERWISE NOTED.

3) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES AND ARE DISPLAYED FOR REFERENCE ONLY.

4) SEE STANDARD DETAIL DRAWINGS FOR OTHER EROSION CONTROL DEVICES.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 84	E

NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

2) WHEN INLET PROTECTION TYPE A AND TYPE B, OR C ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, OR C AFTER THE INLET CASTINGS ARE IN PLACE. ALL INLET PROTECTION ASSUMED TO USE TYPE A AND TYPE B UNLESS OTHERWISE NOTED.

3) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES AND ARE DISPLAYED FOR REFERENCE ONLY.

4) SEE STANDARD DETAIL DRAWINGS FOR OTHER EROSION CONTROL DEVICES.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 85 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design Team Data Exchange\113cc70220014_ec1.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

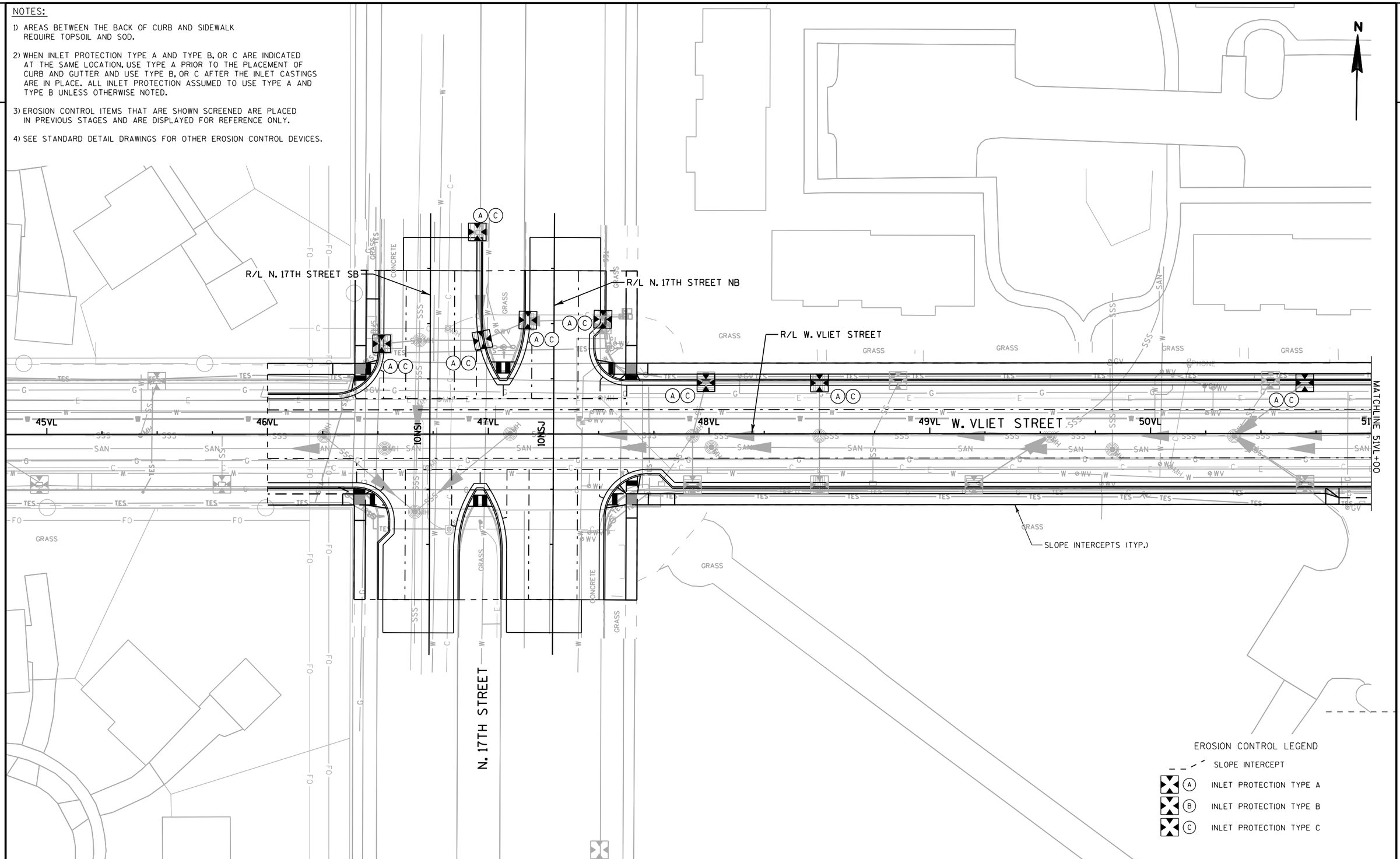
NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

2) WHEN INLET PROTECTION TYPE A AND TYPE B, OR C ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, OR C AFTER THE INLET CASTINGS ARE IN PLACE. ALL INLET PROTECTION ASSUMED TO USE TYPE A AND TYPE B UNLESS OTHERWISE NOTED.

3) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES AND ARE DISPLAYED FOR REFERENCE ONLY.

4) SEE STANDARD DETAIL DRAWINGS FOR OTHER EROSION CONTROL DEVICES.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 2	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Production\9138230021_ec2.dgn PLOTTED : 4/5/2019 9:13:23 AM BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

2) WHEN INLET PROTECTION TYPE A AND TYPE B, OR C ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, OR C AFTER THE INLET CASTINGS ARE IN PLACE. ALL INLET PROTECTION ASSUMED TO USE TYPE A AND TYPE B UNLESS OTHERWISE NOTED.

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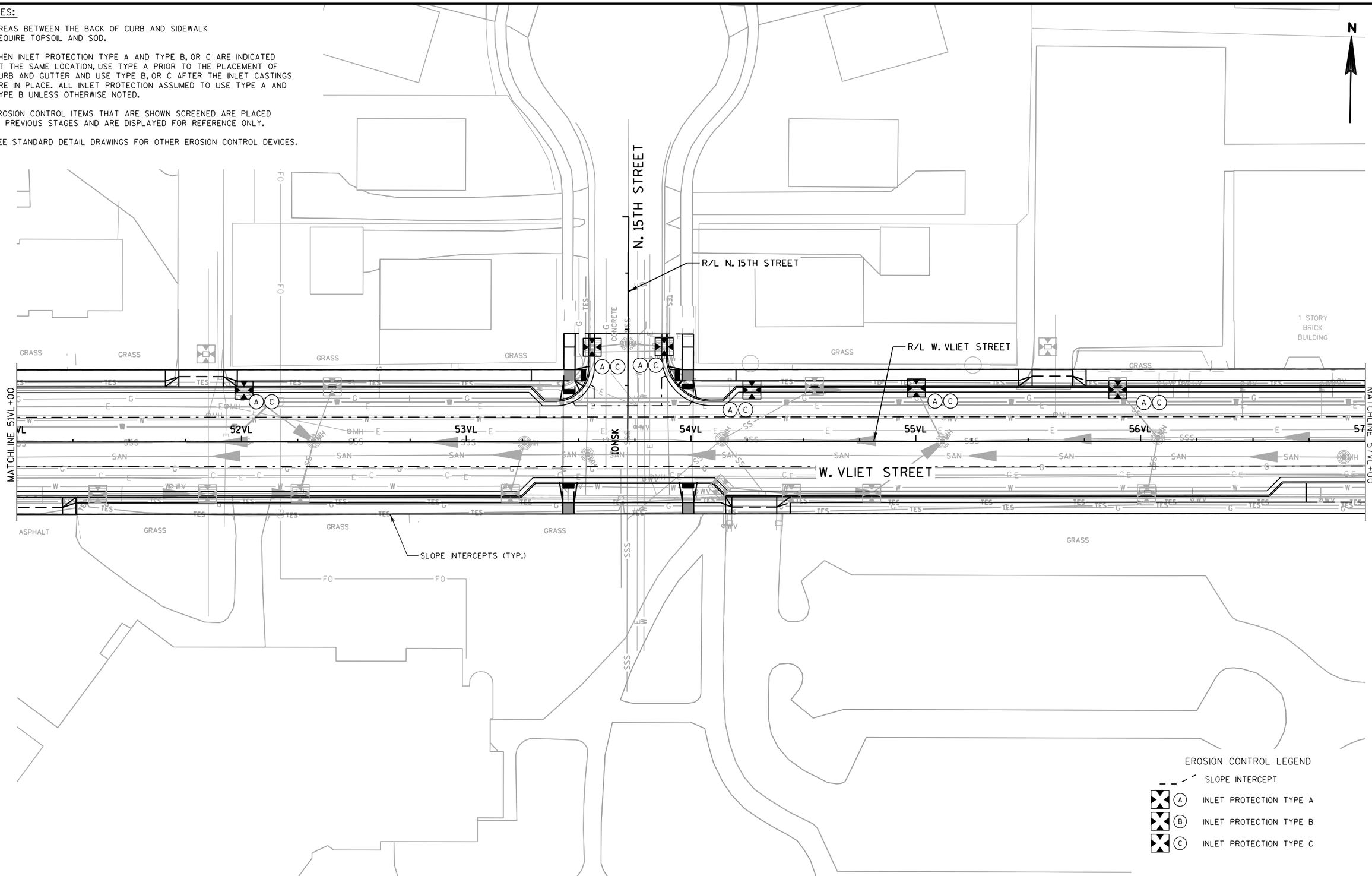
4) SEE STANDARD DETAIL DRAWINGS FOR OTHER EROSION CONTROL DEVICES.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 2	SHEET 87	E

NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

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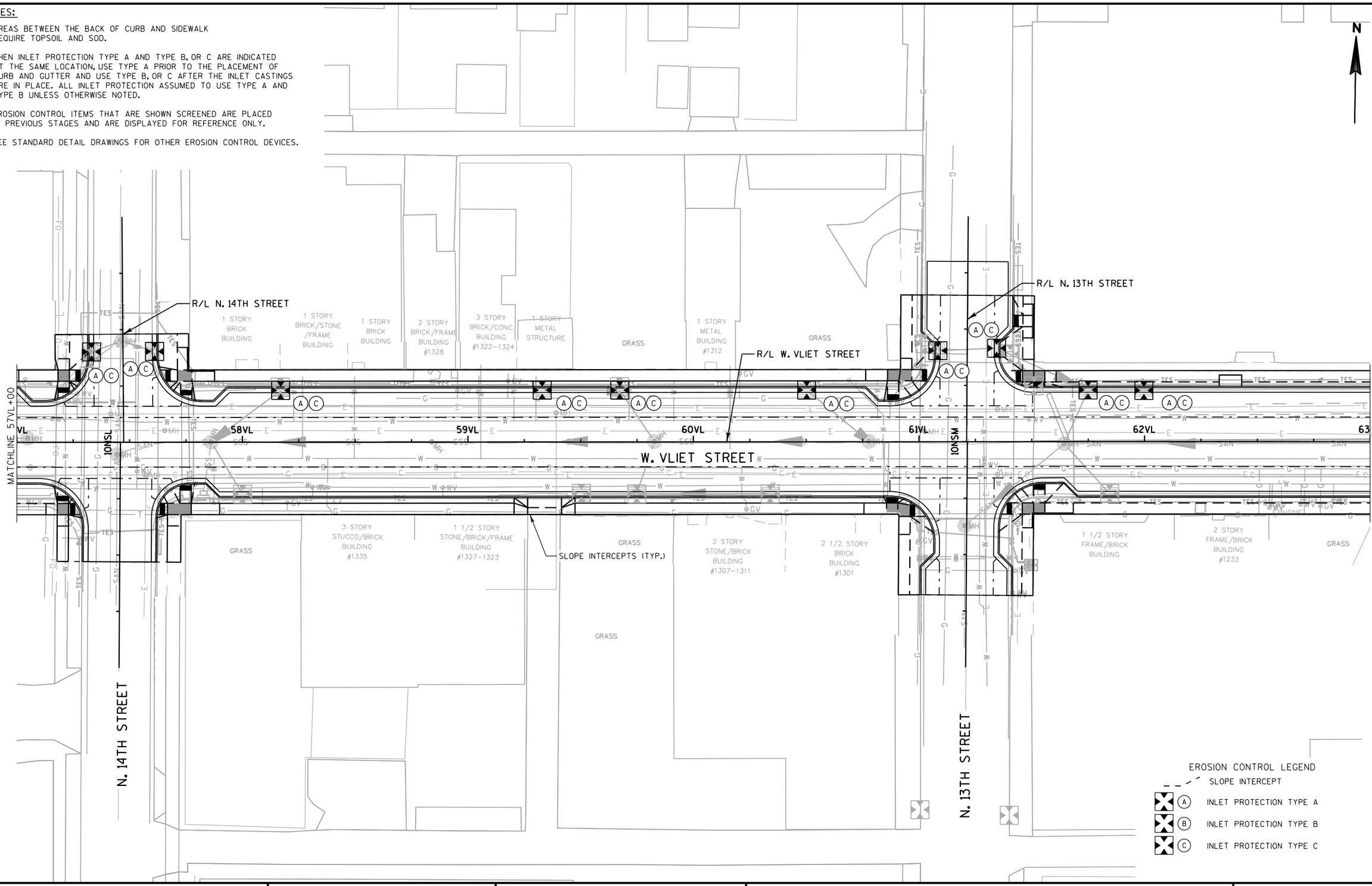

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 2	SHEET 88	E

NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

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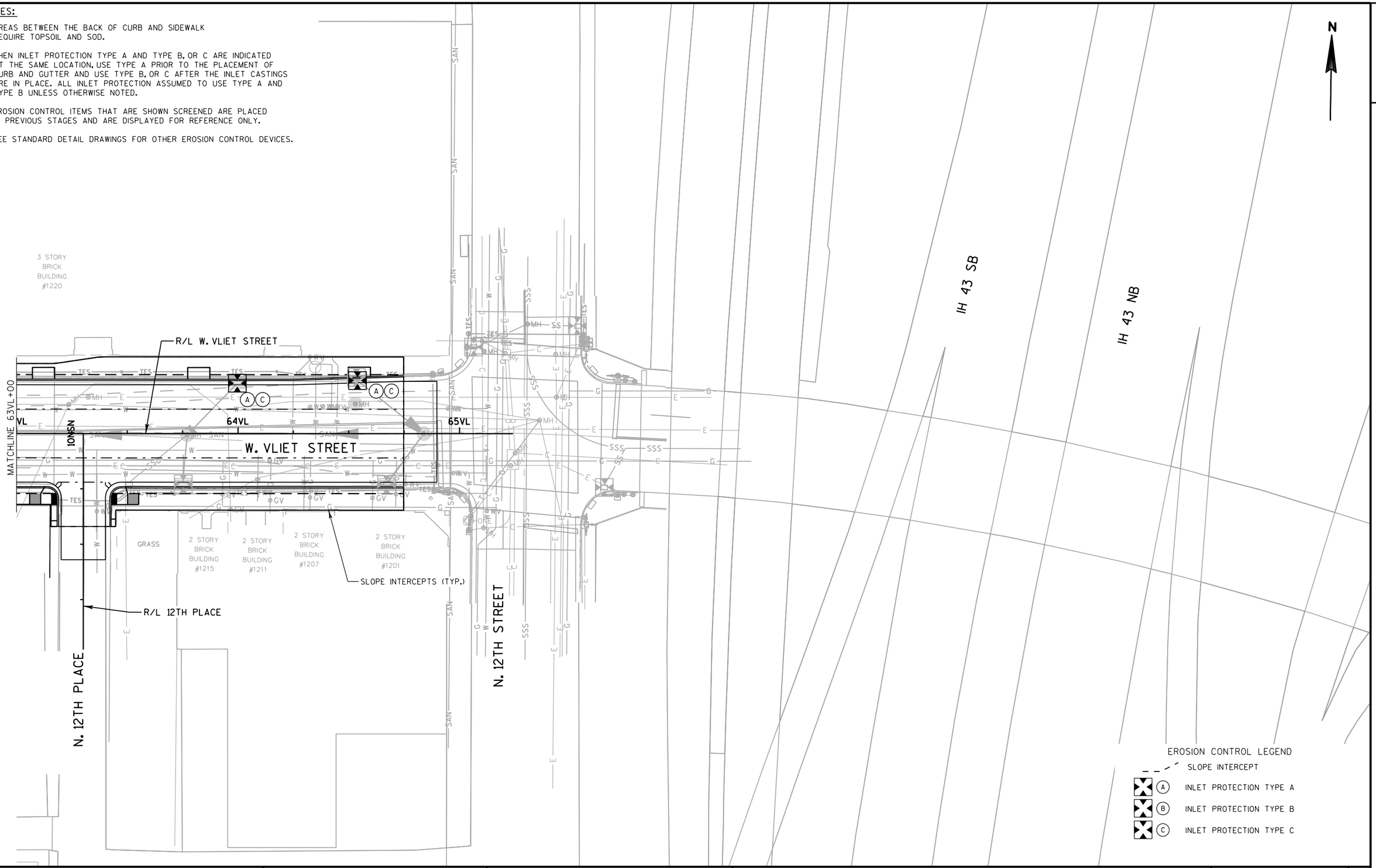

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 2	SHEET 89	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design Team Data Exchange\Roadway\Sheets\20240_ecr1.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

2) WHEN INLET PROTECTION TYPE A AND TYPE B, OR C ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, OR C AFTER THE INLET CASTINGS ARE IN PLACE. ALL INLET PROTECTION ASSUMED TO USE TYPE A AND TYPE B UNLESS OTHERWISE NOTED.

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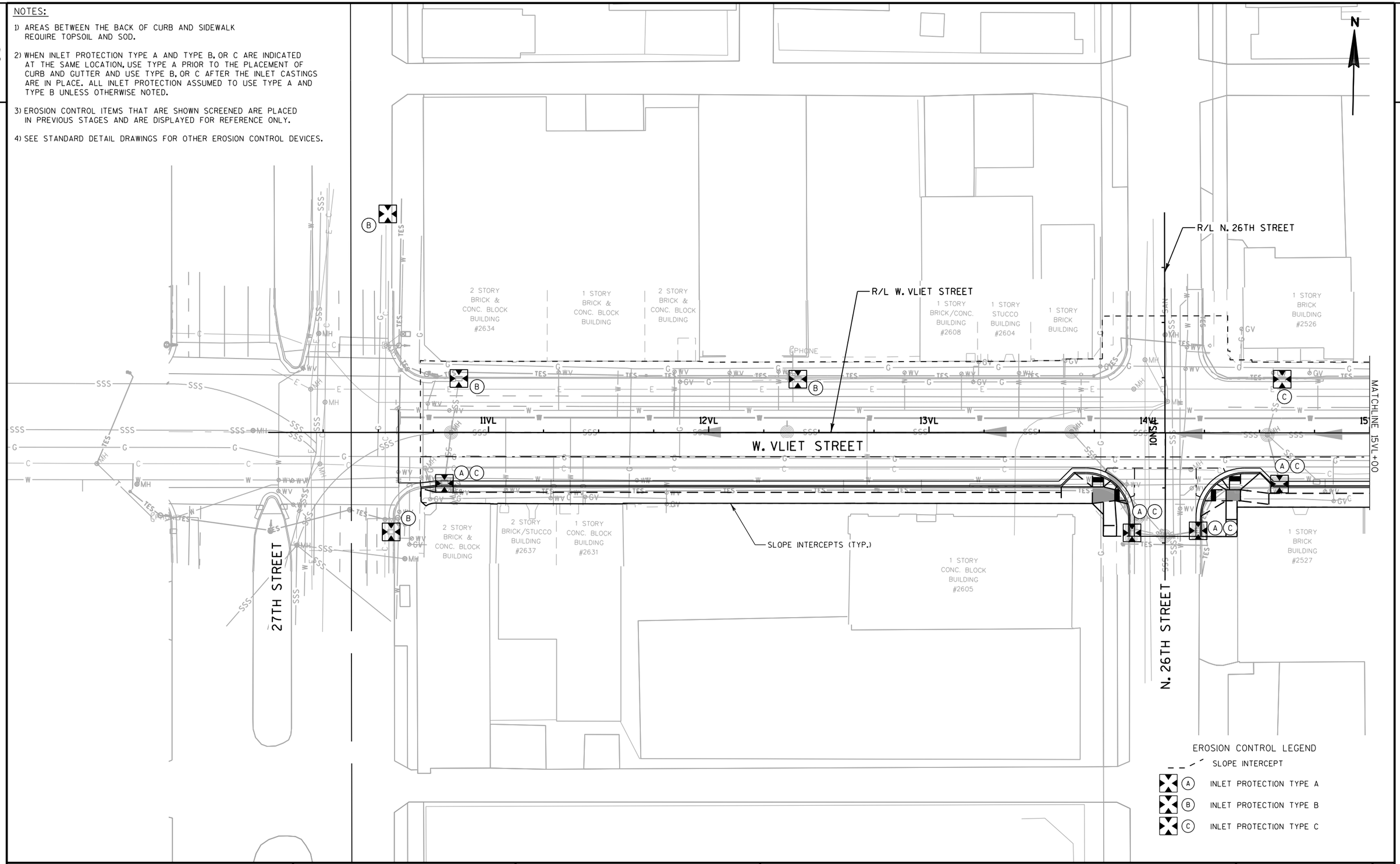

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 3	SHEET 90	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Production\9138e1002031_ec.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

2) WHEN INLET PROTECTION TYPE A AND TYPE B, OR C ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, OR C AFTER THE INLET CASTINGS ARE IN PLACE. ALL INLET PROTECTION ASSUMED TO USE TYPE A AND TYPE B UNLESS OTHERWISE NOTED.

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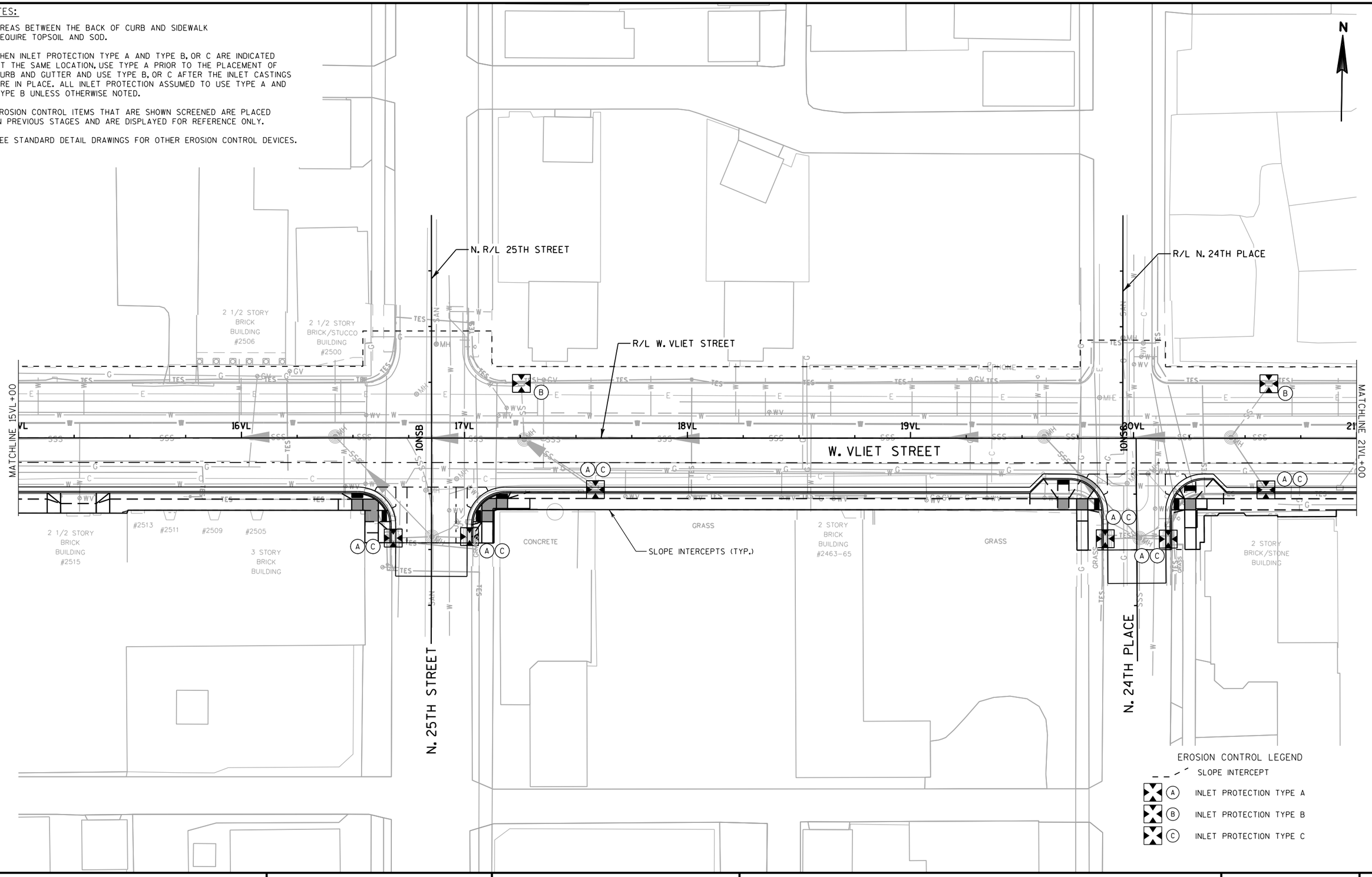

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 3	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Exchange\9136442032_ec.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

2) WHEN INLET PROTECTION TYPE A AND TYPE B, OR C ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, OR C AFTER THE INLET CASTINGS ARE IN PLACE. ALL INLET PROTECTION ASSUMED TO USE TYPE A AND TYPE B UNLESS OTHERWISE NOTED.

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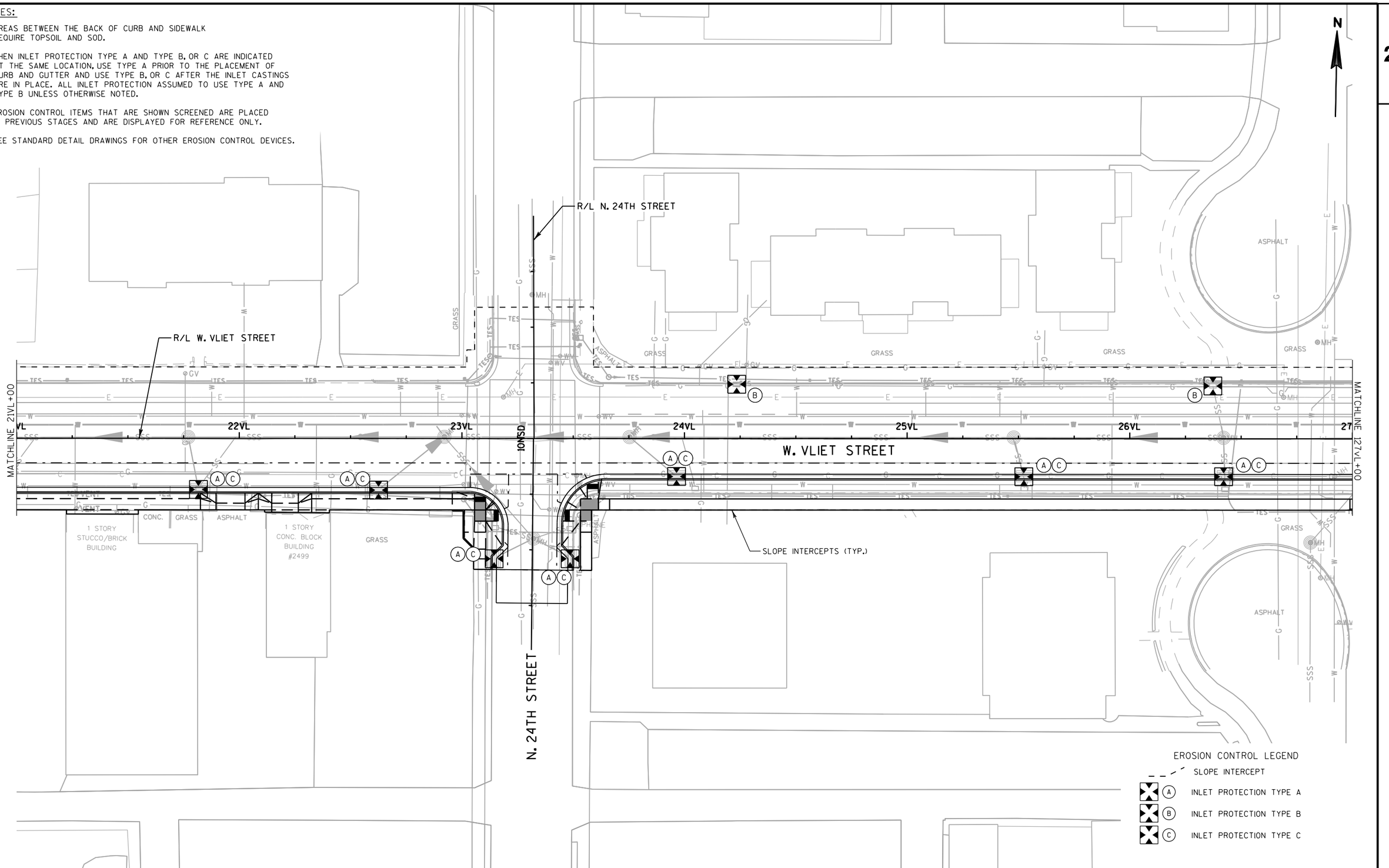
4) SEE STANDARD DETAIL DRAWINGS FOR OTHER EROSION CONTROL DEVICES.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 3	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Production\9138ST02033_ec2.dgn PLOT DATE : 4/5/2019 PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

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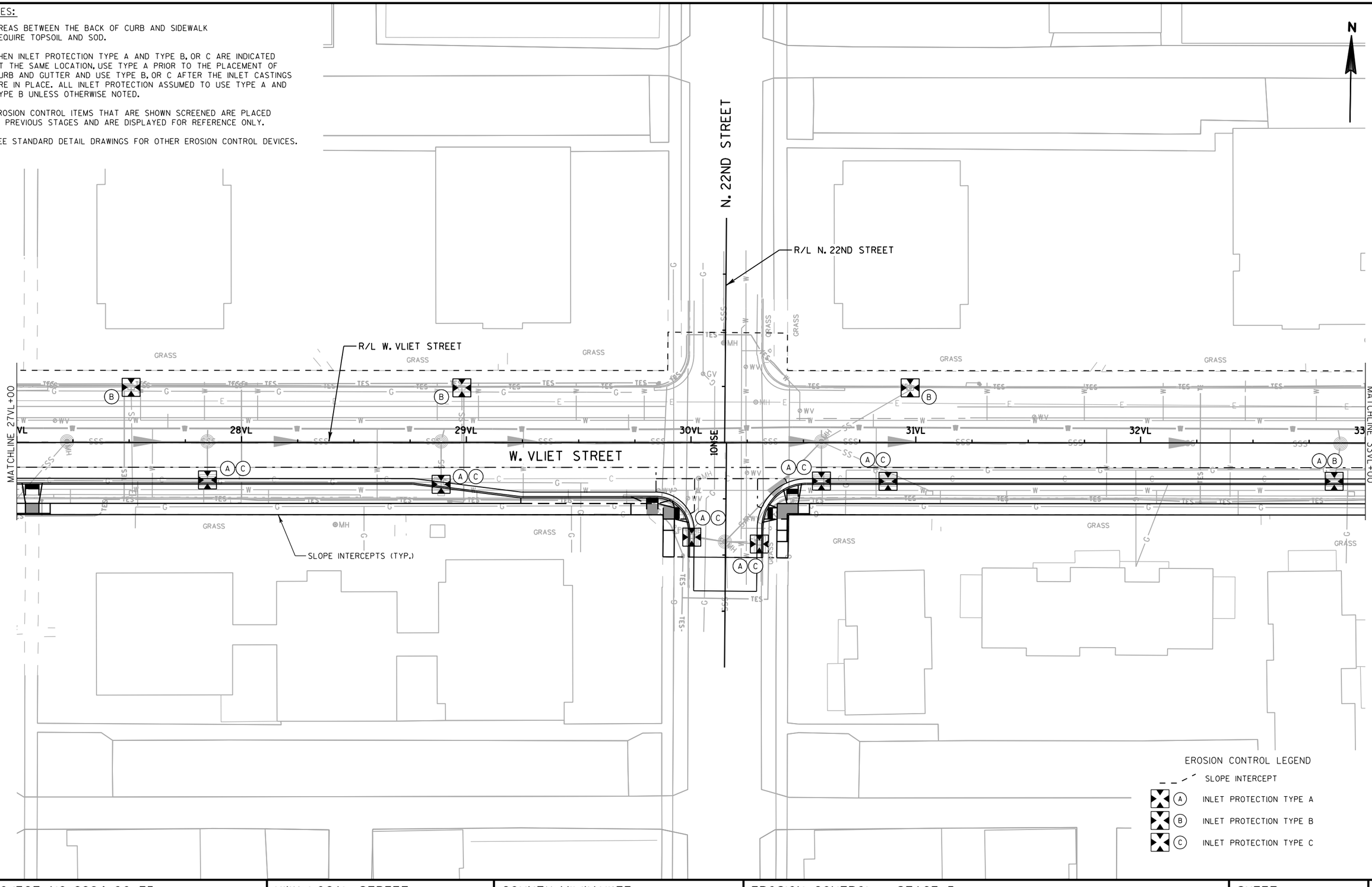

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 3	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design Team Data Exchange\Roadway\Sheets\20034_ec_plan.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

2) WHEN INLET PROTECTION TYPE A AND TYPE B, OR C ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, OR C AFTER THE INLET CASTINGS ARE IN PLACE. ALL INLET PROTECTION ASSUMED TO USE TYPE A AND TYPE B UNLESS OTHERWISE NOTED.

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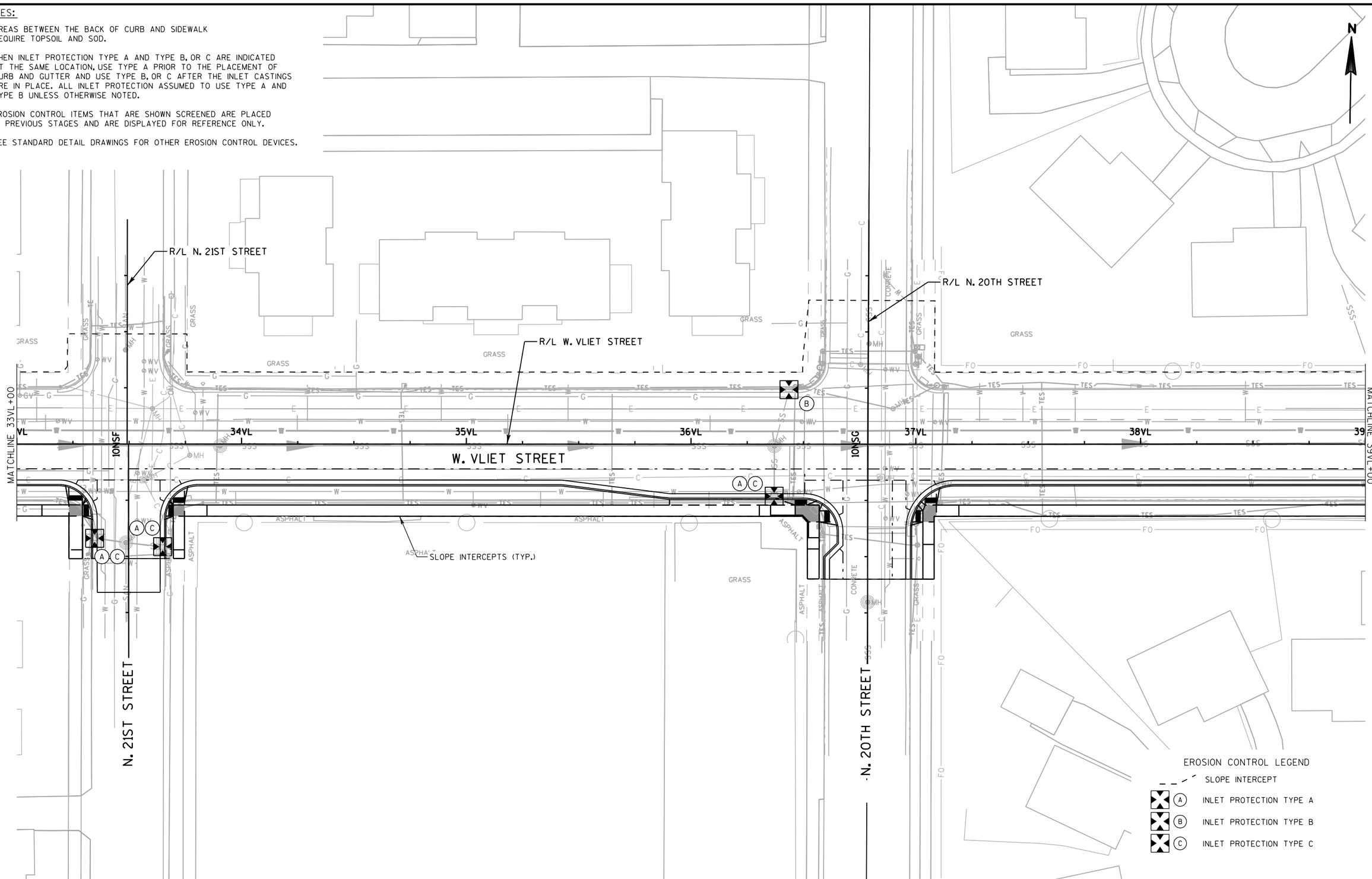

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 3	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design Team Data Exchange\Roadway\113cf51040035_ec1.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

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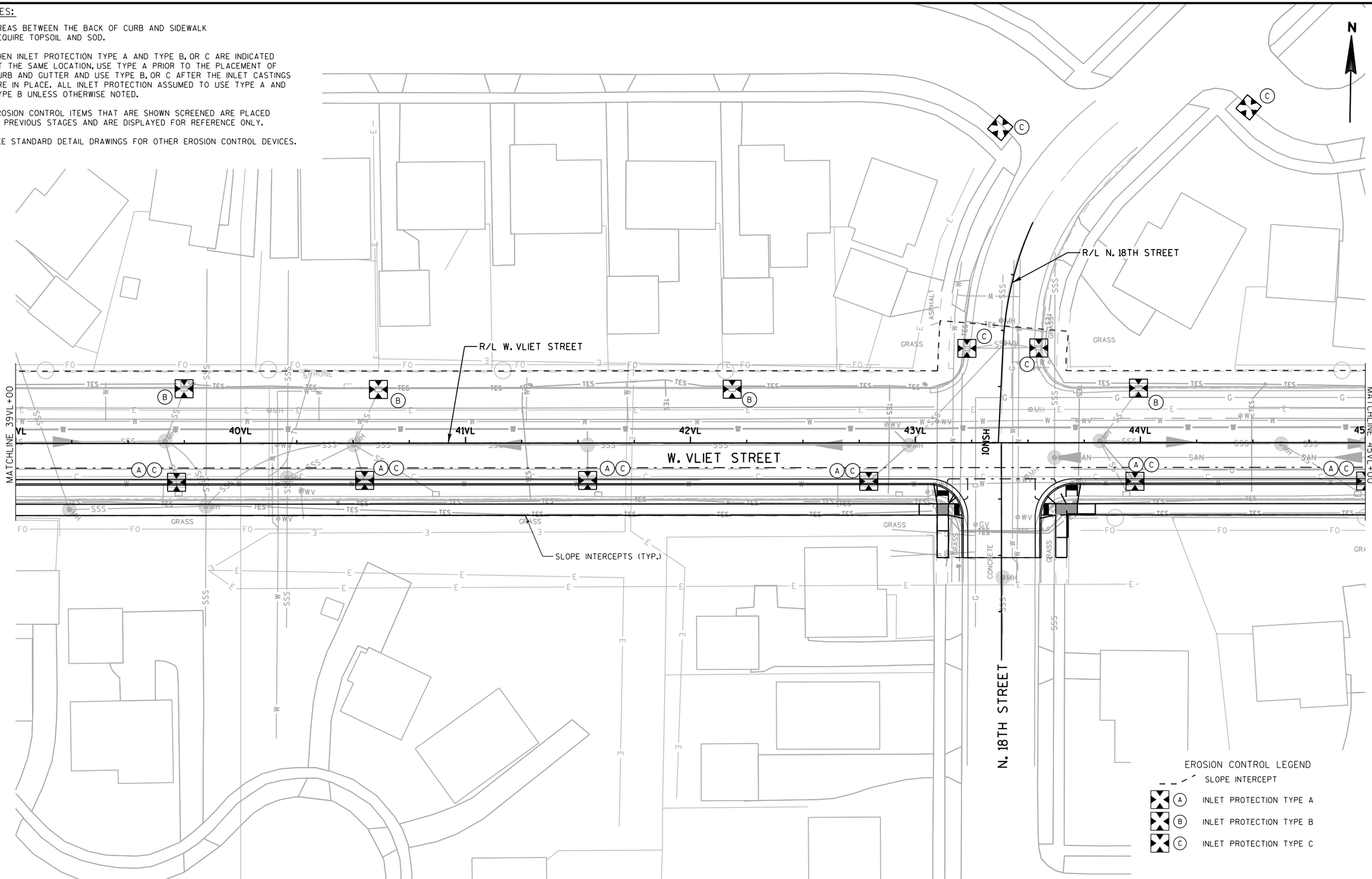

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 3	SHEET 95 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Exchange\9138cf5402d0036_ec2.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

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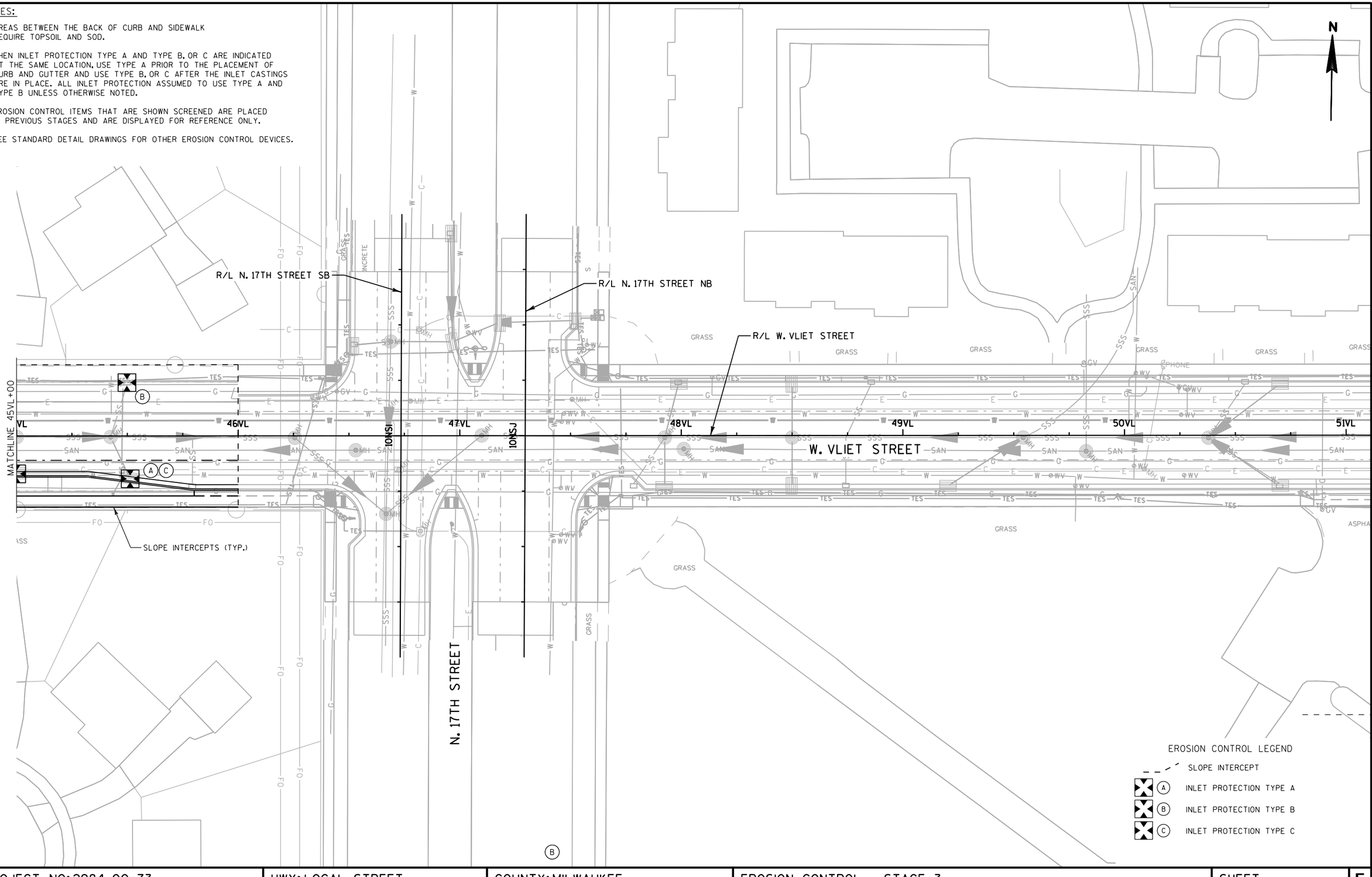

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 3	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Electrical Production\9138558\220037_ec2.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

NOTES:

1) AREAS BETWEEN THE BACK OF CURB AND SIDEWALK REQUIRE TOPSOIL AND SOD.

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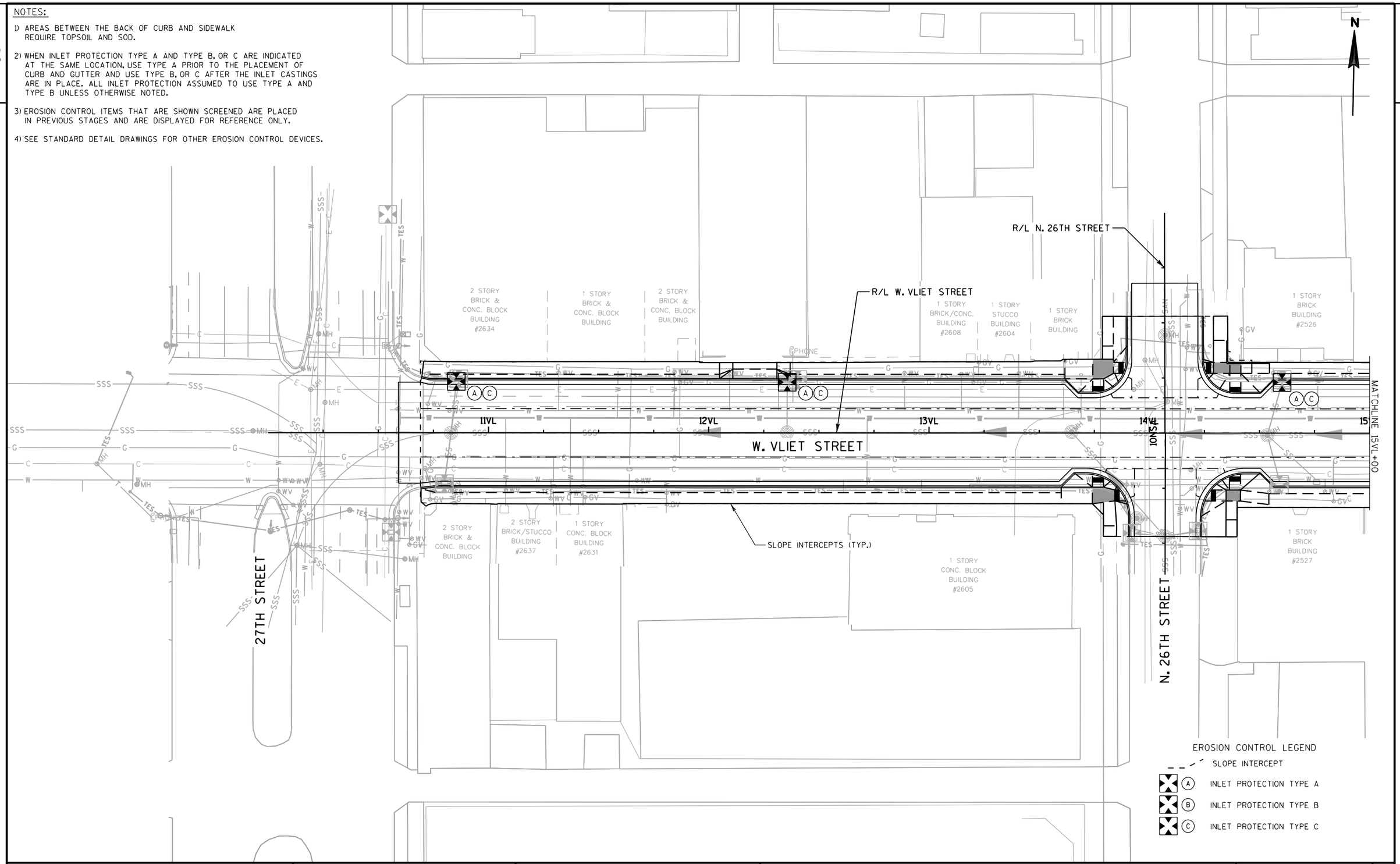

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 4	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Production\9132001041_ec.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

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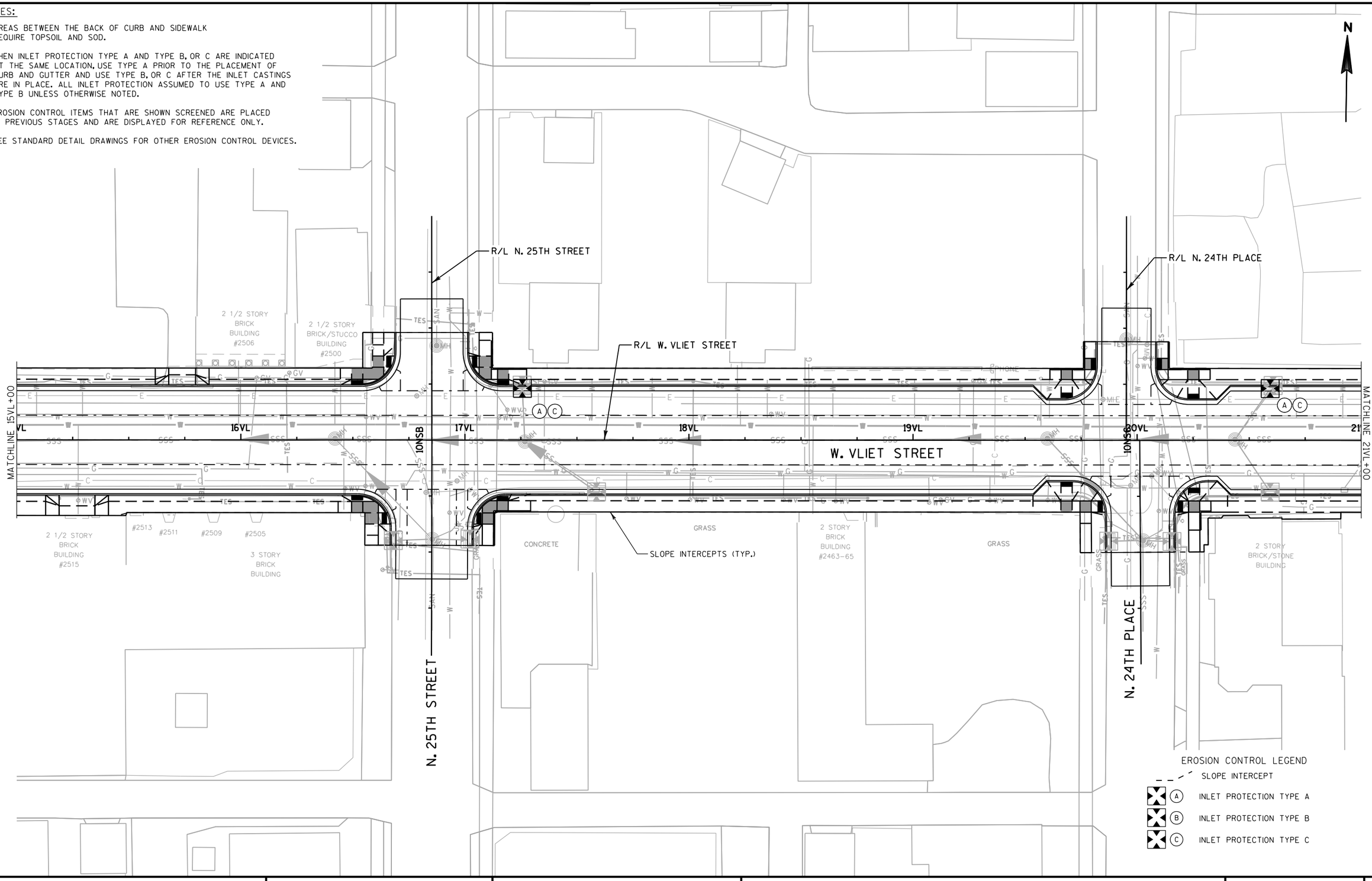

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 4	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Sheets\Erosion Control\ec_stage4_v2.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

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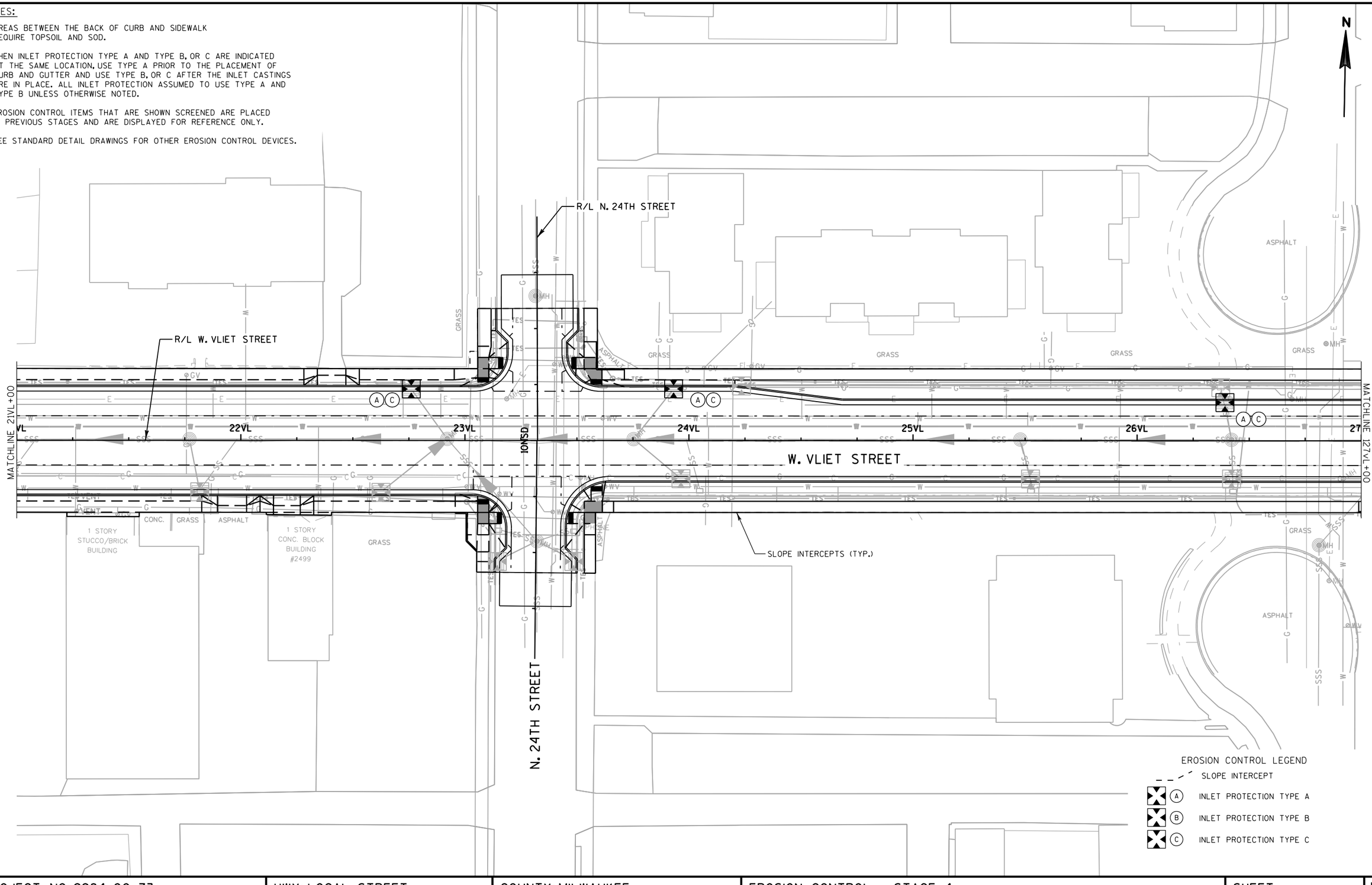

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 4	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Package 2019\Stage 4\S042043_ec_L01.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

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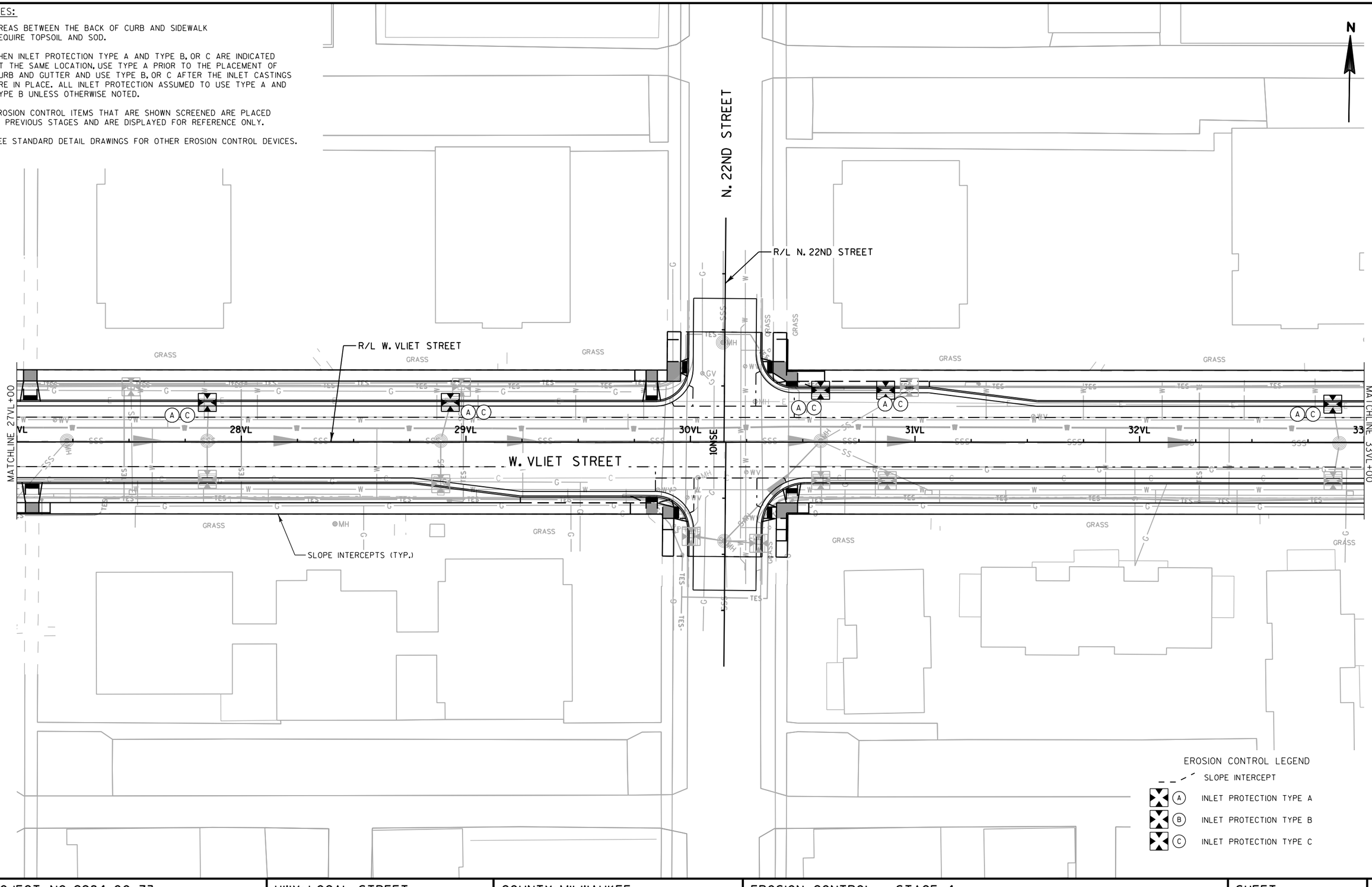

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 4	SHEET 100	E

NOTES:

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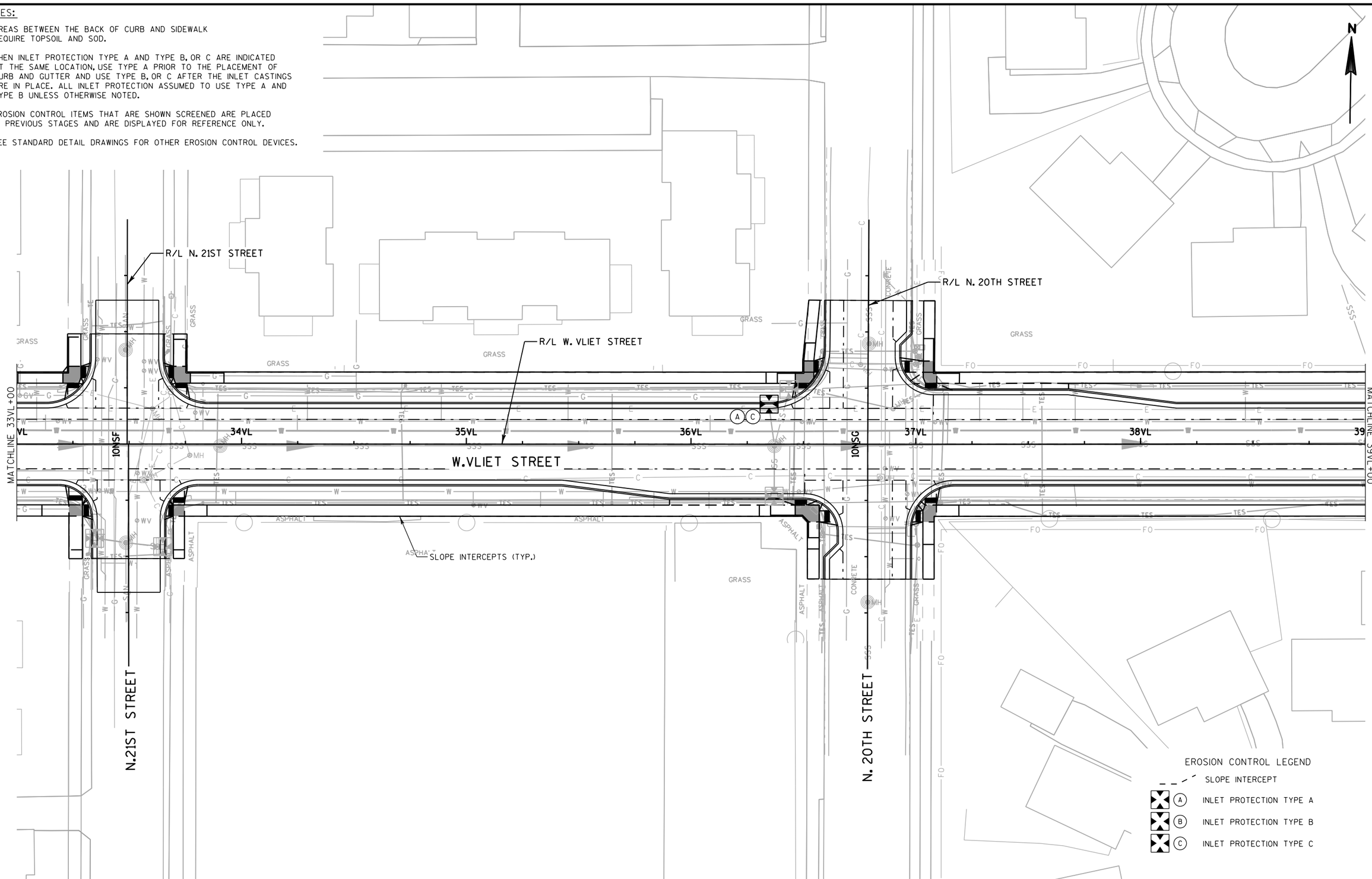

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 4	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design Team Data Exchange\Design\Sheets\02045_ec.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

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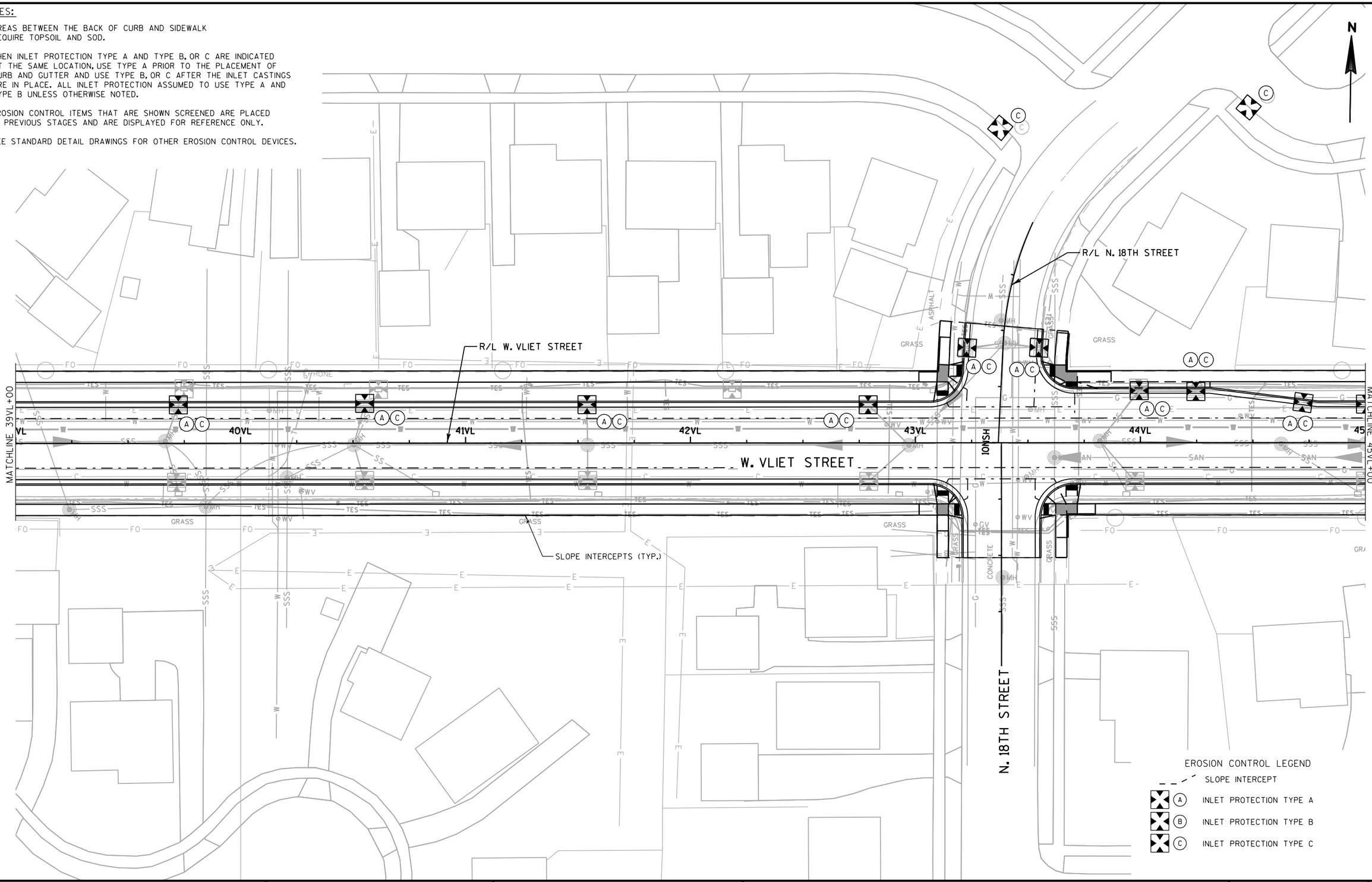

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 4	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Production\9130252046_ec1.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

NOTES:

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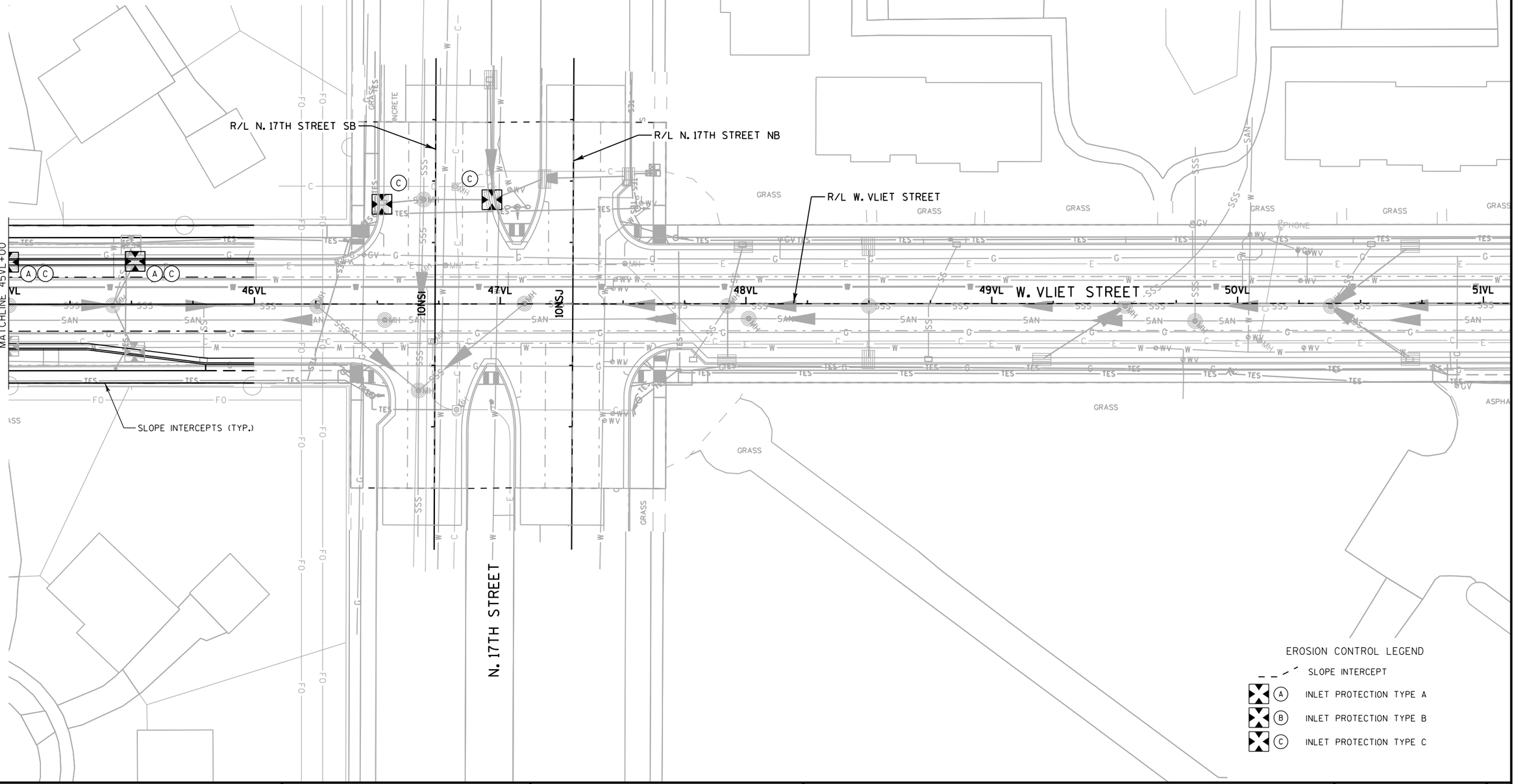
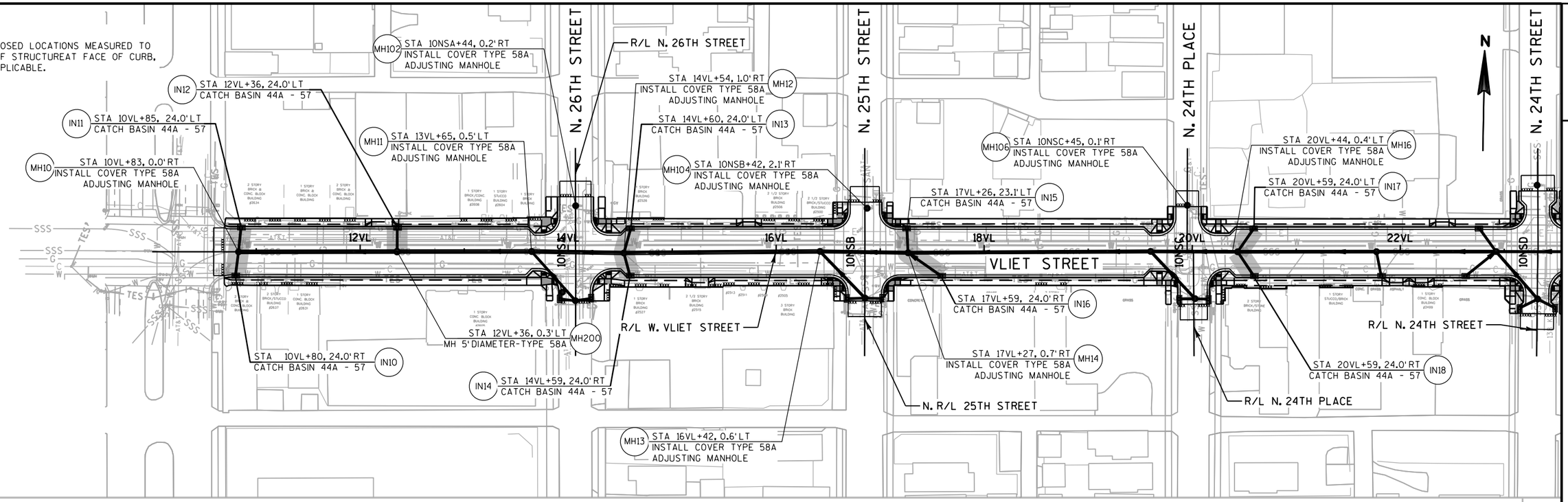


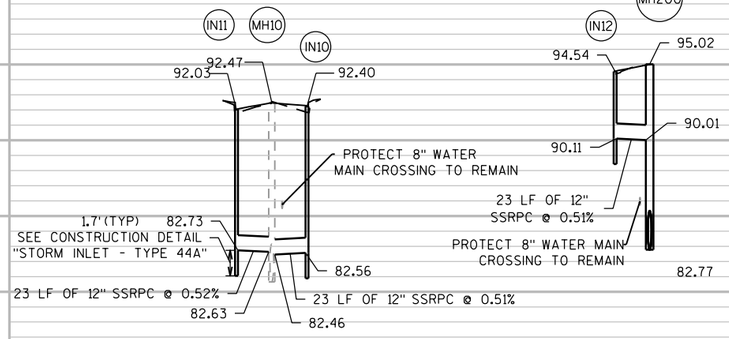
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 4	SHEET	E

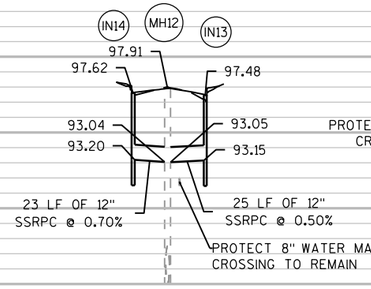
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Production\9132150220047_ec2.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

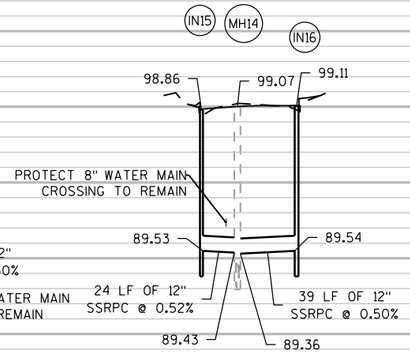
WISDOT/CADDS SHEET 42

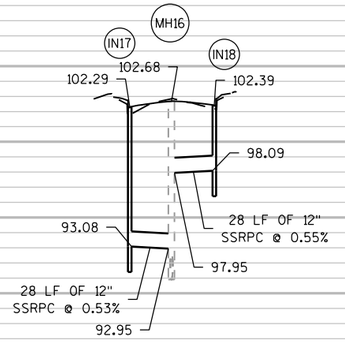
NOTE:
ALL PROPOSED LOCATIONS MEASURED TO CENTER OF STRUCTUREAT FACE OF CURB, WHERE APPLICABLE.











PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STORM SEWER	SHEET 104	E

2

N. 24TH PLACE

N. 24TH STREET

R/L N. 24TH PLACE

R/L W. VLIET STREET

W. VLIET STREET

N. R/L 24TH STREET

R/L N. 22ND STREET

R/L N. 21ST STREET

N. 22ND STREET

N. 21ST STREET

20VL 22VL 24VL 26VL 28VL 30VL 32VL 34VL

10NSD 10NSE

MH17 STA 22VL+92, 0.7'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE

IN01 STA 22VL+76, 24.0'LT
CATCH BASIN 44A - 57

MH202 STA 21VL+77, 0.6'LT
MH 4'DIAMETER-TYPE 58A

IN20 STA 23VL+93, 24.0'LT
CATCH BASIN 44A - 57

IN19 STA 21VL+82, 24.0'RT
CATCH BASIN 44A - 57

IN02 STA 21VL+63, 24.0'RT
CATCH BASIN 44A - 57

IN24 STA 26VL+39, 18.0'LT
CATCH BASIN 44A - 57

MH19 STA 26VL+42, 0.4'RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE

MH203 STA 25VL+48, 0.5'LT
MH 4'DIAMETER-TYPE 58A

STA 23VL+96, 18.0'RT
CATCH BASIN 44A - 57 IN21

STA 23VL+75, 0.6'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE MH18

STA 25VL+52, 18.0'RT
CATCH BASIN 44A - 57 IN22

STA 26VL+43, 18.0'RT
CATCH BASIN 44A - 57 IN23

STA 27VL+22, 0.5'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE MH20

STA 27VL+85, 18.0'RT
CATCH BASIN 44A - 57 IN26

STA 27VL+85, 18.0'LT
CATCH BASIN 44A - 57 IN25

STA 27VL+85, 0.5'LT
MH 4'DIAMETER-TYPE 58A MH204

STA 28VL+89, 19.6'RT
CATCH BASIN 44A - 57 IN27

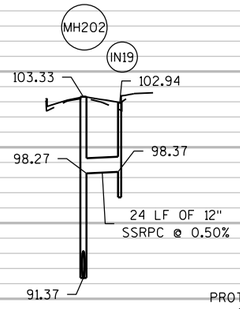
STA 28VL+93, 18.0'LT
CATCH BASIN 44A - 57 IN28

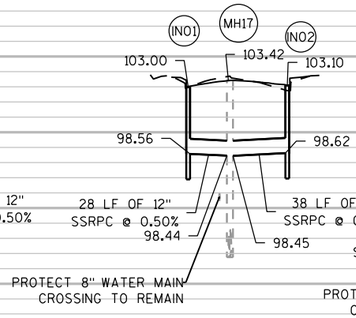
STA 28VL+89, 0.5'RT
MH 4'DIAMETER-TYPE 58A MH205

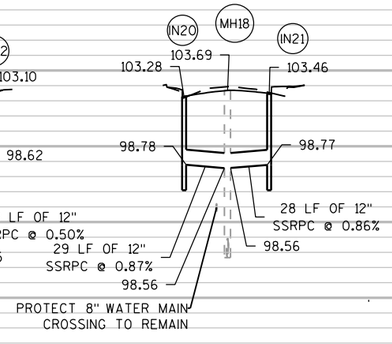
MH113 STA 10NSF+42, 0.7'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE

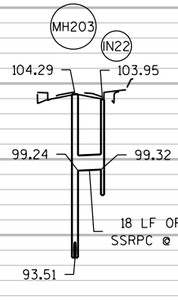
STA 10NSE+44, 0.8'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE MH111

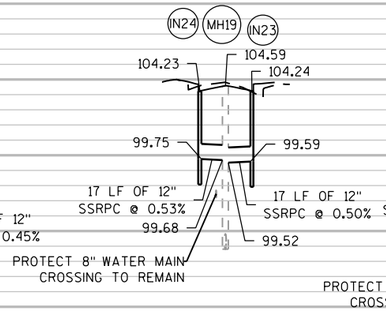
NOTE:
ALL PROPOSED LOCATIONS MEASURED TO CENTER OF STRUCTUREAT FACE OF CURB, WHERE APPLICABLE.

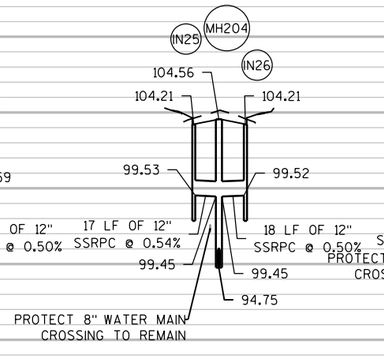


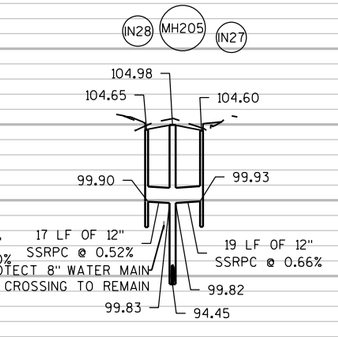












PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STORM SEWER	SHEET 105	E

2

NOTE:
ALL PROPOSED LOCATIONS MEASURED TO CENTER OF STRUCTUREAT FACE OF CURB, WHERE APPLICABLE.

N. 22ND STREET

R/L N. 22ND STREET

STA 30VL+58, 24.0'LT
CATCH BASIN 44A - 57
IN29

STA 30VL+58, 0.6'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH21

STA 30VL+87, 24.0'LT
CATCH BASIN 45A - 57
IN31

STA 30VL+58, 18.0'RT
CATCH BASIN 44A - 57
IN30

STA 30VL+88, 18.0'RT
CATCH BASIN 45A - 57
PROTECT 8" WATERMAIN
IN32

STA 32VL+86, 18.0'RT
CATCH BASIN 44A - 57
IN33

STA 32VL+86, 18.0'LT
CATCH BASIN 44A - 57
IN05

STA 32VL+89, 0.4'RT
MH 4'DIAMETER-TYPE 58A
MH207

STA 36VL+35, 18.0'LT
CATCH BASIN 44A - 57
IN35

STA 36VL+37, 0.1'RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH23

STA 36VL+37, 24.0'RT
CATCH BASIN 44A - 57
IN34

STA 33VL+91, 0.8'RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH22

N. 21ST STREET

R/L N. 21ST STREET

MH115 STA 10NSG+45, 0.4'RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE

N. 20TH STREET

R/L N. 20TH STREET

STA 39VL+72, 18.0'LT
CATCH BASIN 44A - 57
IN37

STA 39VL+67, 1.0'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH25

STA 39VL+24, 29.4'RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH24

STA 39VL+72, 18.0'RT
CATCH BASIN 44A - 57
IN36

STA 40VL+21, 15.3'RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH27

STA 40VL+50, 0.7'RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH28

STA 40VL+55, 18.0'LT
CATCH BASIN 44A - 57
IN38

STA 40VL+55, 18.0'RT
CATCH BASIN 44A - 57
IN39

STA 39VL+85, 28.1'RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH26

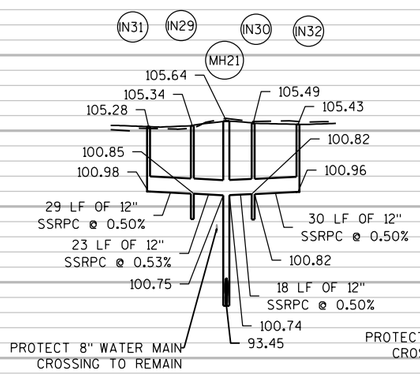
W. VLIET STREET

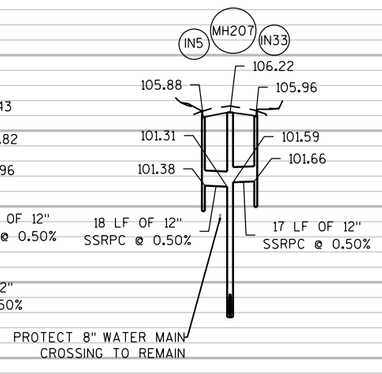
28VL 30VL 32VL 34VL 36VL 38VL 40VL 42VL

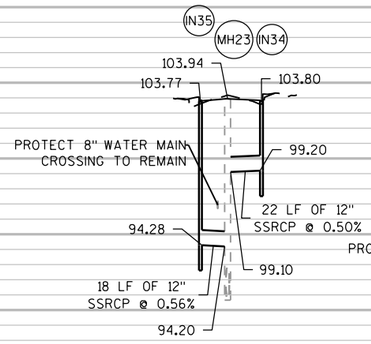
IONSF IONSF IONSG IONSH

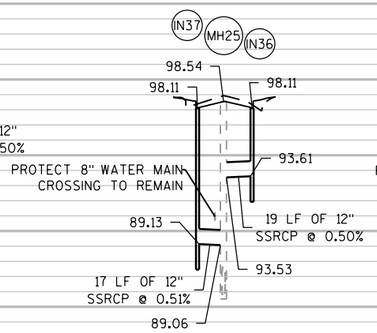
N

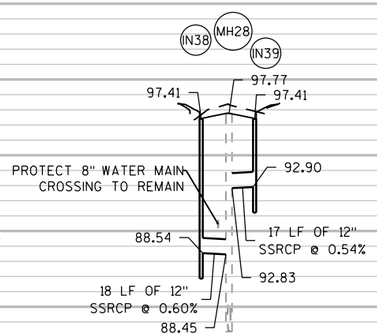
115 110 105 100 95 90 85 80 75





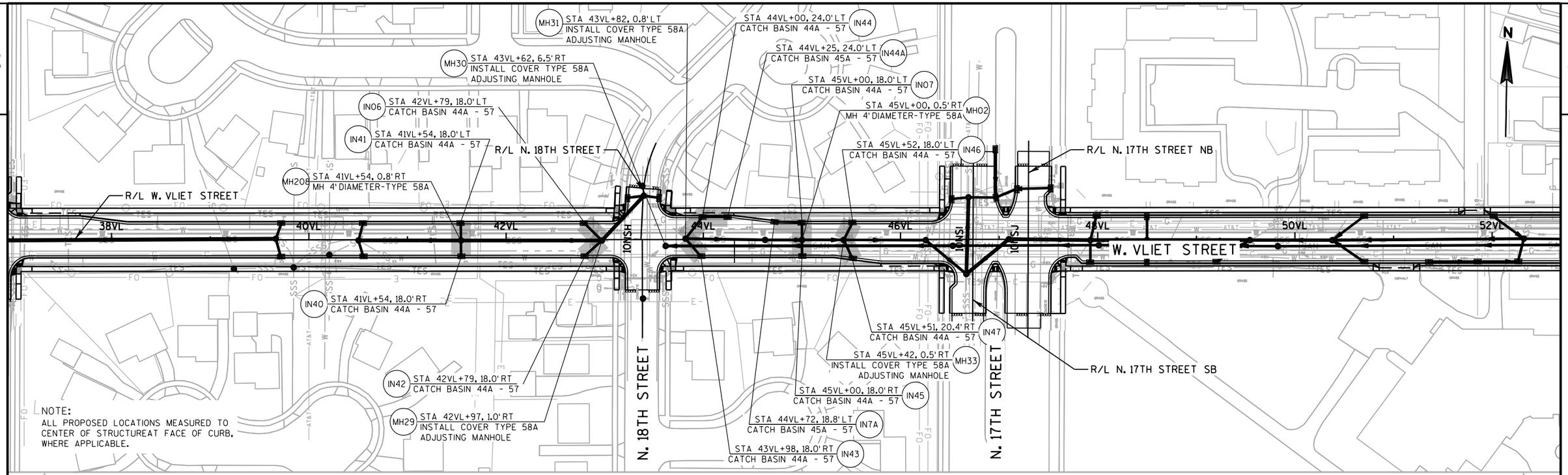


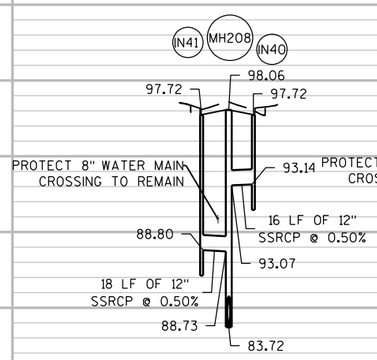


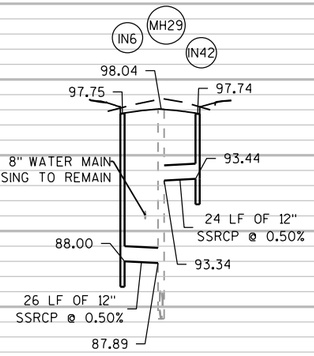


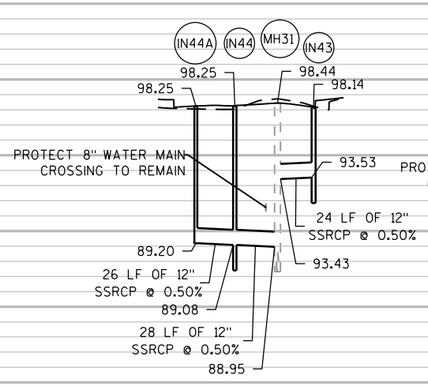
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STORM SEWER	SHEET 106	E

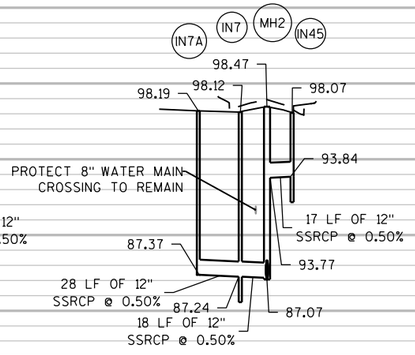
2

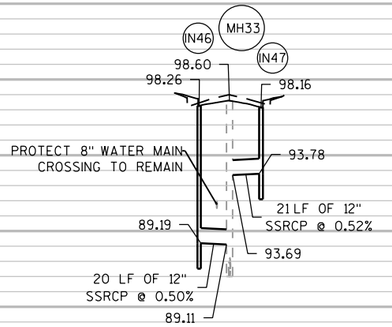












PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STORM SEWER	SHEET 107	E

NOTE:
ALL PROPOSED LOCATIONS MEASURED TO CENTER OF STRUCTUREAT FACE OF CURB, WHERE APPLICABLE.

IN63 STA 10NSI+42, 24.0' RT
CATCH BASIN 44A - 57

MH120 STA 10NSI+43, 4.8' LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE

IN62 STA 10NSI+41, 23.0' LT
CATCH BASIN 44A - 57

STA 10NSI+92, 23.0' RT
CATCH BASIN 45A - 57 IN66

STA 10NSJ+51, 13.0' LT
CATCH BASIN 45A - 57 IN64

STA 10NSJ+52, 23.0' RT
CATCH BASIN 45A - 57 IN65

STA 47VL+93, 0.9' RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE MH37

STA 47VL+99, 24.0' LT
CATCH BASIN 44A - 57 IN49

R/L N. 18TH STREET

R/L W. VLIET STREET

R/L N. 15TH STREET

N. 15TH STREET

40VL 42VL 44VL 46VL 48VL 50VL 52VL

10NSH 10NSI 10NSJ 10NSK

VLIET STREET

STA 48VL+01, 6.0' RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE MH38

MH32 STA 44VL+63, 0.5' RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE

STA 47VL+93, 24.0' RT
CATCH BASIN 44A - 57 IN48

STA 47VL+10, 0.1' LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE MH36

MH34 STA 46VL+26, 0.9' RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE

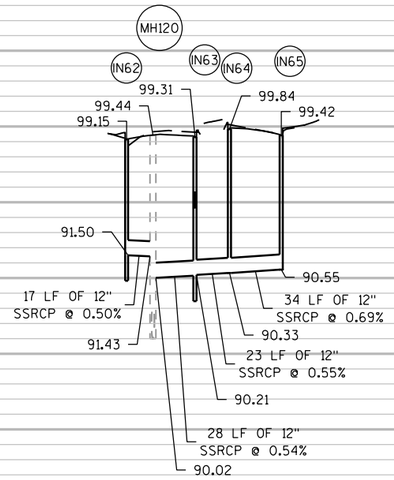
STA 9NSI+65, 6.6' LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE MH119

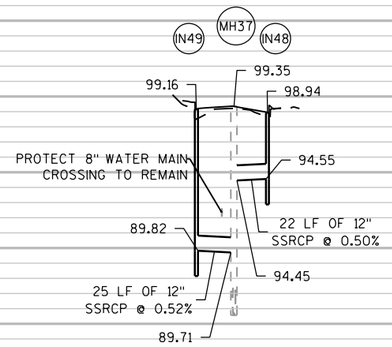
MH35 STA 46VL+53, 6.5' RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE

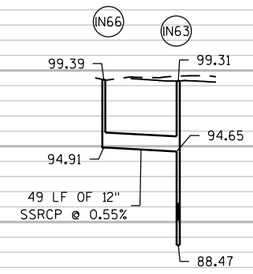
R/L N. 17TH STREET SB

N. 17TH STREET

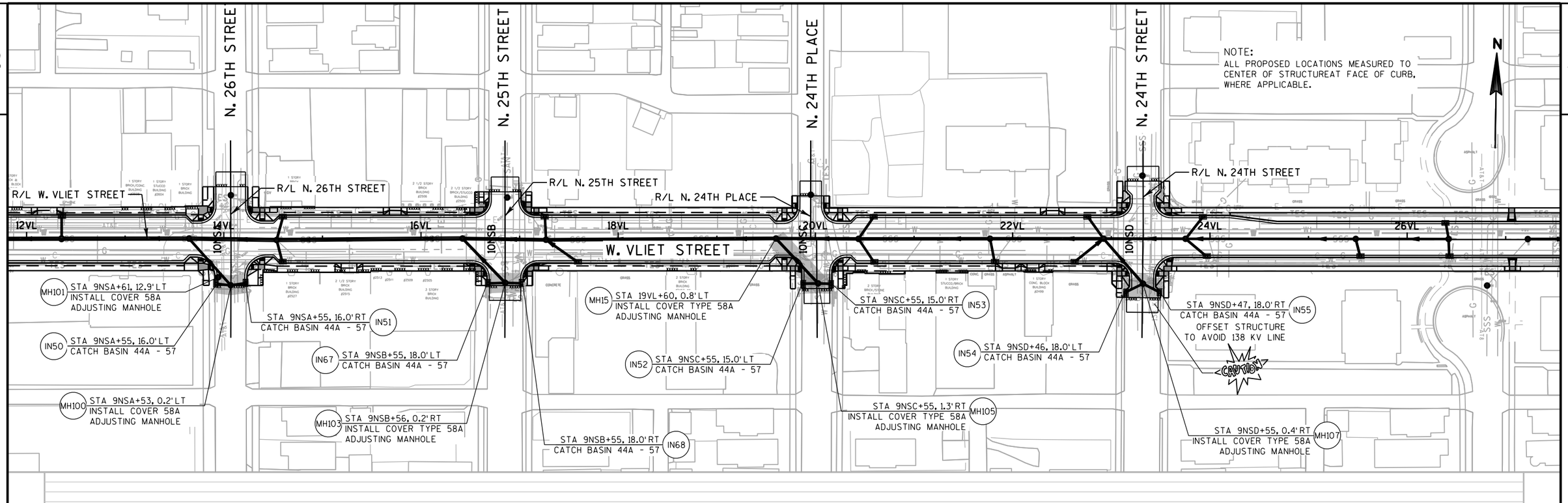
R/L 17TH STREET N. NB

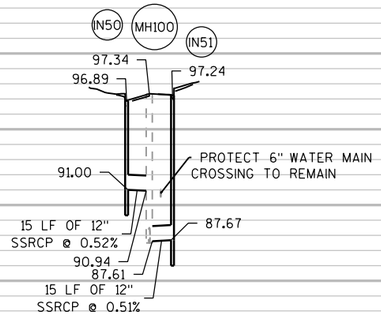


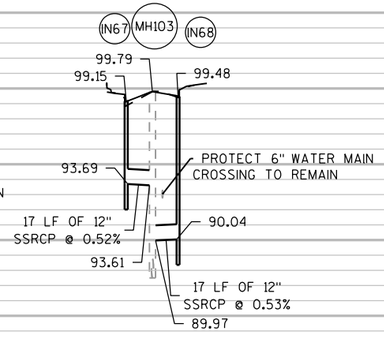


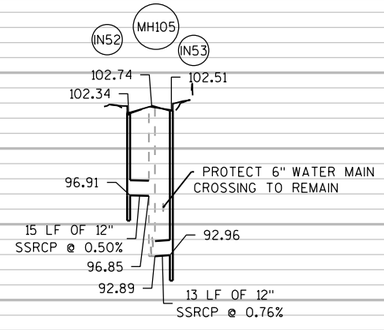


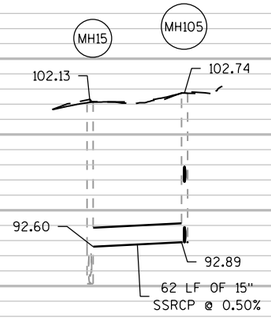
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STORM SEWER	SHEET 108	E

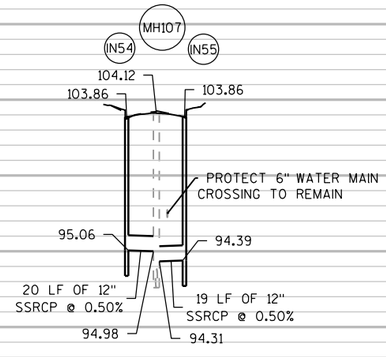




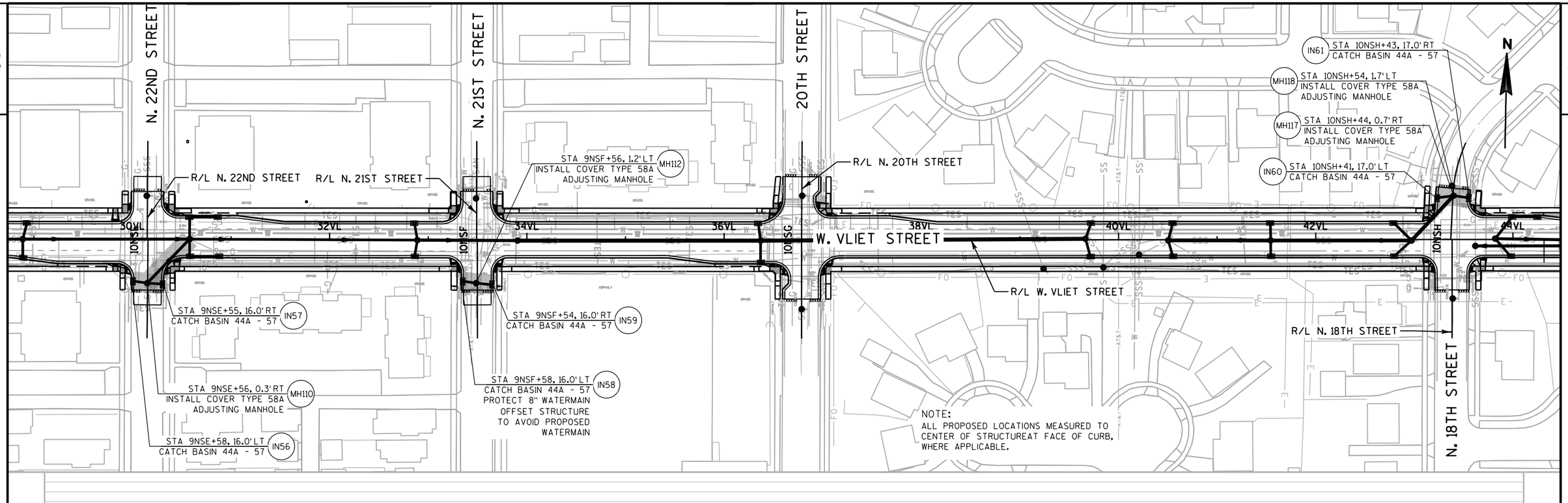


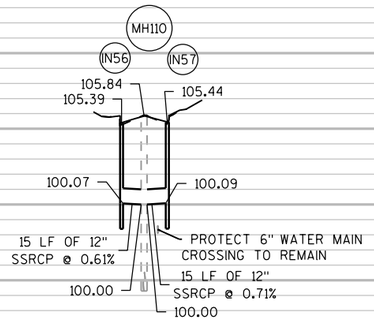


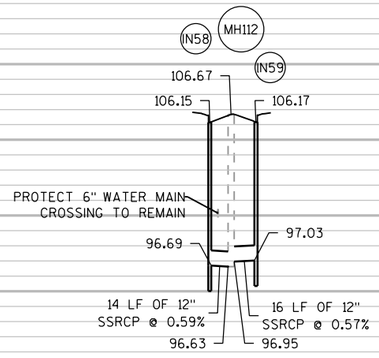


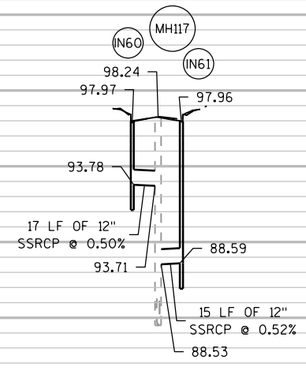


PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STORM SEWER	SHEET 109	E









IN60: PROVIDE MINIMUM 2' HORIZONTAL SEPARATION FROM 54" FEEDER MAIN UNDER SIDEWALK IN NORTHWEST QUADRANT

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STORM SEWER	SHEET 110	E

NOTE:
ALL PROPOSED LOCATIONS MEASURED TO CENTER OF STRUCTUREAT FACE OF CURB, WHERE APPLICABLE.

N. 17TH STREET

N. 15TH STREET

N. 14TH STREET

R/L N. 17TH STREET SB

R/L N. 17TH STREET NB

R/L N. 15TH STREET

R/L N. 14TH STREET

46VL 48VL 50VL 52VL 54VL 56VL 58VL

10+SJ 10+SK 10+SL

STA 48VL+50, 24.0'LT
CATCH BASIN 44A - 57
IN70

STA 48VL+50, 0.9'RT
MH 4' DIAMETER-TYPE 58A
MH218

STA 50VL+70, 24.0'LT
CATCH BASIN 44A - 57
IN74

MH42
STA 52VL+32, 0.3'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE

IN77
STA 52VL+01, 24.0'LT
CATCH BASIN 44A - 57

STA 54VL+14, 1.1'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH45

STA 54VL+27, 24.0'LT
CATCH BASIN 45A - 57
IN83

STA 55VL+00, 24.0'LT
CATCH BASIN 44A - 57
IN102

STA 55VL+12, 0.1'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH46

STA 54VL+80, 24.0'RT
CATCH BASIN 44A - 57
IN103

STA 54VL+45, 24.0'RT
CATCH BASIN 45A - 57
IN84

STA 54VL+13, 21.5'RT
CATCH BASIN 45A - 57
IN84A

STA 53VL+54, 5.7'RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH44

STA 53VL+26, 0.5'RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH43

STA 53VL+20, 24.0'RT
CATCH BASIN 44A - 57
IN80

STA 52VL+26, 24.0'RT
CATCH BASIN 44A - 57
IN78

STA 51VL+85, 24.0'RT
CATCH BASIN 45A - 57
IN75

STA 51VL+36, 24.0'RT
CATCH BASIN 45A - 57
IN75A

STA 49VL+83, 7.1'RT
INTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH40

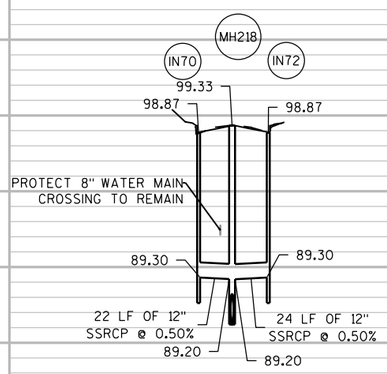
STA 50VL+38, 1.1'RT
INTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH41

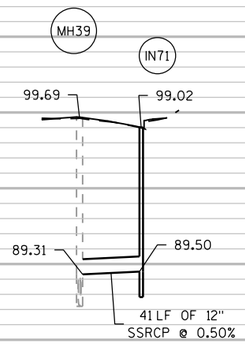
STA 50VL+70, 24.0'RT
CATCH BASIN 44A - 57
IN76

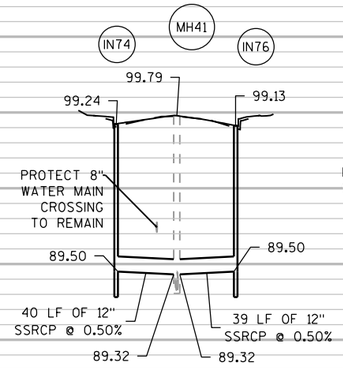
STA 48VL+50, 24.0'RT
CATCH BASIN 44A - 57
IN72

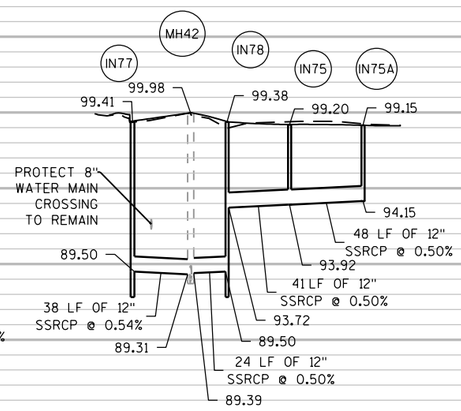
STA 49VL+20, 24.0'RT
CATCH BASIN 44A - 57
IN71

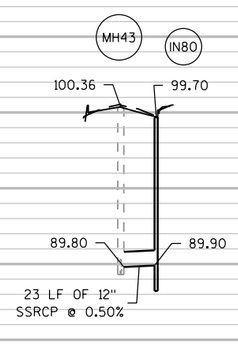
STA 49VL+54, 1.0'RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH39

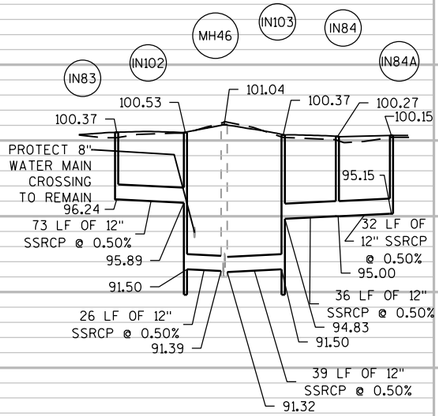












PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STORM SEWER	SHEET 111	E

NOTE:
ALL PROPOSED LOCATIONS MEASURED TO CENTER OF STRUCTUREAT FACE OF CURB, WHERE APPLICABLE.

STA 10NSK+42, 17.0' LT
CATCH BASIN 44A - 57
IN81

STA 10NSK+44, 0.3'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH121

STA 10NSK+42, 17.0' RT
CATCH BASIN 44A - 57
IN82

STA 56VL+08, 1.6'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH47

STA 55VL+90, 24.0' LT
CATCH BASIN 44A - 57
IN85

STA 56VL+03, 24.0' RT
CATCH BASIN 44A - 57
IN86

STA 56+90, 7.0' RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH48

STA 57+05, 1.8'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH49

STA 57VL+86, 0.1'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH51

STA 58VL+00, 24.0' RT
CATCH BASIN 44A - 57
IN91

STA 10NSL+40, 15.0' LT
CATCH BASIN 44A - 57
IN106

STA 10NSL+45, 0.6'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH122

STA 10NSL+40, 15.0' RT
CATCH BASIN 44A - 57
IN89

STA 57VL+44, 5.4'RT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH50

STA 58VL+17, 24.0' LT
CATCH BASIN 44A - 57
IN90

STA 59VL+33, 24.0' LT
CATCH BASIN 45A - 57
IN104

STA 59VL+67, 24.0' LT
CATCH BASIN 44A - 57
IN92

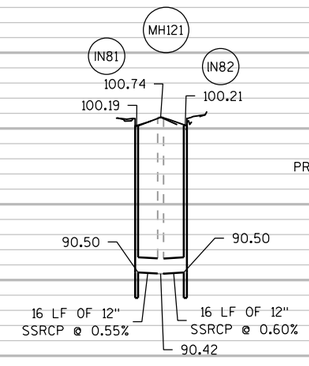
STA 60VL+34, 24.0' RT
CATCH BASIN 45A - 57
IN105

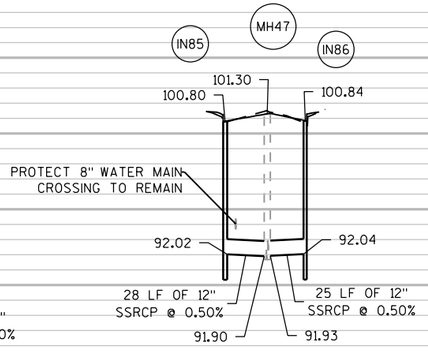
STA 59VL+83, 0.2'LT
INSTALL COVER TYPE 58A
ADJUSTING MANHOLE
MH53

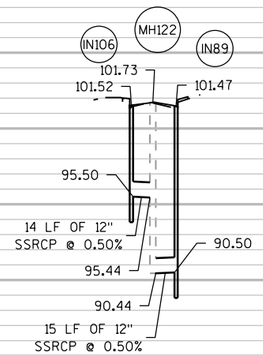
STA 59VL+75, 24.0' RT
CATCH BASIN 44A - 57
IN93

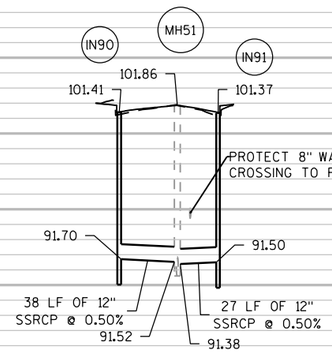
STA 59VL+50, 24.0' RT
CATCH BASIN 45A - 57
IN93A

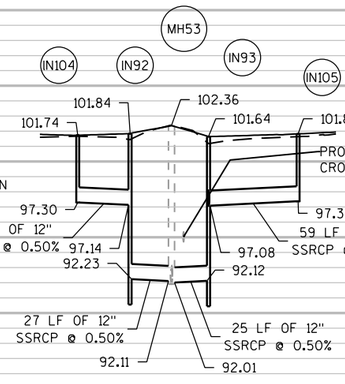
R/L N. 15TH STREET
N. 15TH STREET
R/L N. 14TH STREET
N. 14TH STREET
R/L N. 13TH STREET
N. 13TH STREET
R/L N. 12TH LANE
N. 12TH LANE
W. VLIET STREET
52VL
54VL
56VL
58VL
60VL
62VL
64VL
10NSK
10NSL
10NSM
N

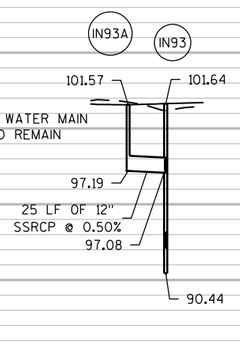












PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STORM SEWER	SHEET 112	E

NOTE:
ALL PROPOSED LOCATIONS MEASURED TO CENTER OF STRUCTUREAT FACE OF CURB, WHERE APPLICABLE.

MH54 STA 60VL+81, 0.2'LT INSTALL COVER TYPE 58A ADJUSTING MANHOLE

IN94 STA 60VL+50, 24.0'LT CATCH BASIN 44A - 57

R/L N. 14TH STREET

STA 10NSM+40, 14.0'LT CATCH BASIN 45A - 57 IN95

STA 10NSM+42, 14.0'RT CATCH BASIN 45A - 57 IN96

MH55 STA 61VL+64, 0.9'RT INSTALL COVER TYPE 58A ADJUSTING MANHOLE

STA 61VL+75, 24.0'LT CATCH BASIN 44A - 57 IN97

STA 61VL+85, 24.0'RT CATCH BASIN 44A - 57 IN98

STA 64VL+00, 24.0'LT CATCH BASIN 44A - 57 IN100A

STA 64VL+54, 24.9'LT CATCH BASIN 44A - 57 IN100

56VL 58VL 60VL 10NSL 10NSM 62VL 64VL

IN97A STA 62VL+00, 24.0'LT CATCH BASIN 45A - 57

R/L N. 13TH STREET

MH56 STA 63VL+77, 0.5'RT INSTALL COVER TYPE 58A ADJUSTING MANHOLE

MH123 STA 9NSM+62, 0.8'LT INSTALL COVER TYPE 58A ADJUSTING MANHOLE

IN99 STA 64VL+00, 24.0'RT CATCH BASIN 44A - 57

MH57 STA 64VL+53, 13.4'LT INSTALL COVER TYPE 58A ADJUSTING MANHOLE

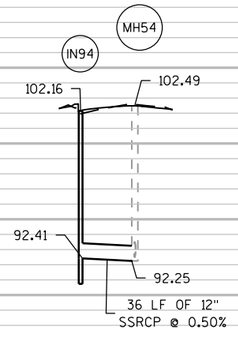
STA 64VL+84, 0.0'RT INSTALL COVER TYPE 58A ADJUSTING MANHOLE MH58

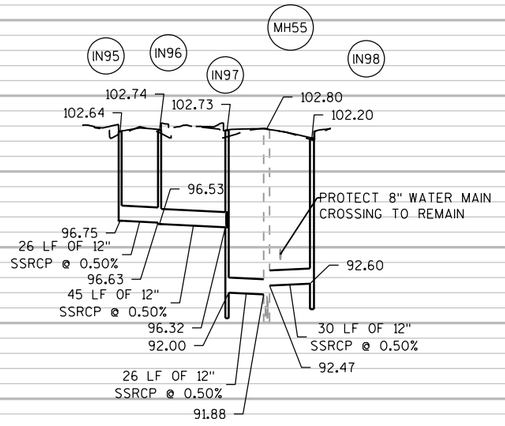
STA 64VL+67, 24.0'RT CATCH BASIN 44A - 57 IN101

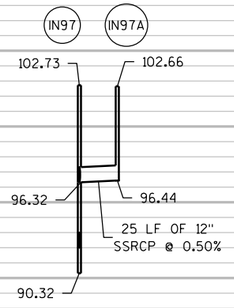
N. 14TH STREET

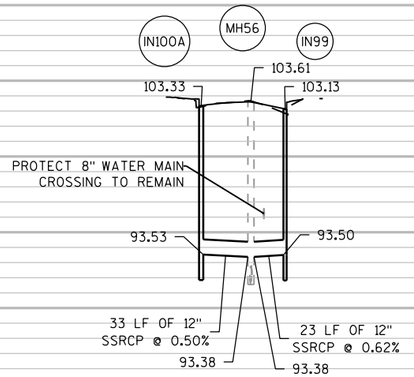
N. 13TH STREET

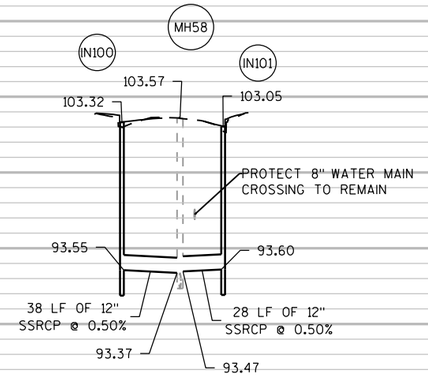
N











PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STORM SEWER	SHEET 113	E

2

2

N

ASPHALT

GRASS

GRASS

GRASS

MH

<CAUTION>

<CAUTION>

<CAUTION>

<CAUTION>

+22 SH

+72 SH

+19 SH

+65 AH

+22 AH

25VL

W. VLIET STREET

26VL

27VL

R/L VLIET STREET

MATCHLINE 27VL+50

+27 SMHL

+00 SMHL

+71 SMHL

+30 BN

MH

MH

MH

ASPHALT

GRASS

LEGEND

PLANT NEW TREE (TYPE) SEE KEY

PLANT KEY

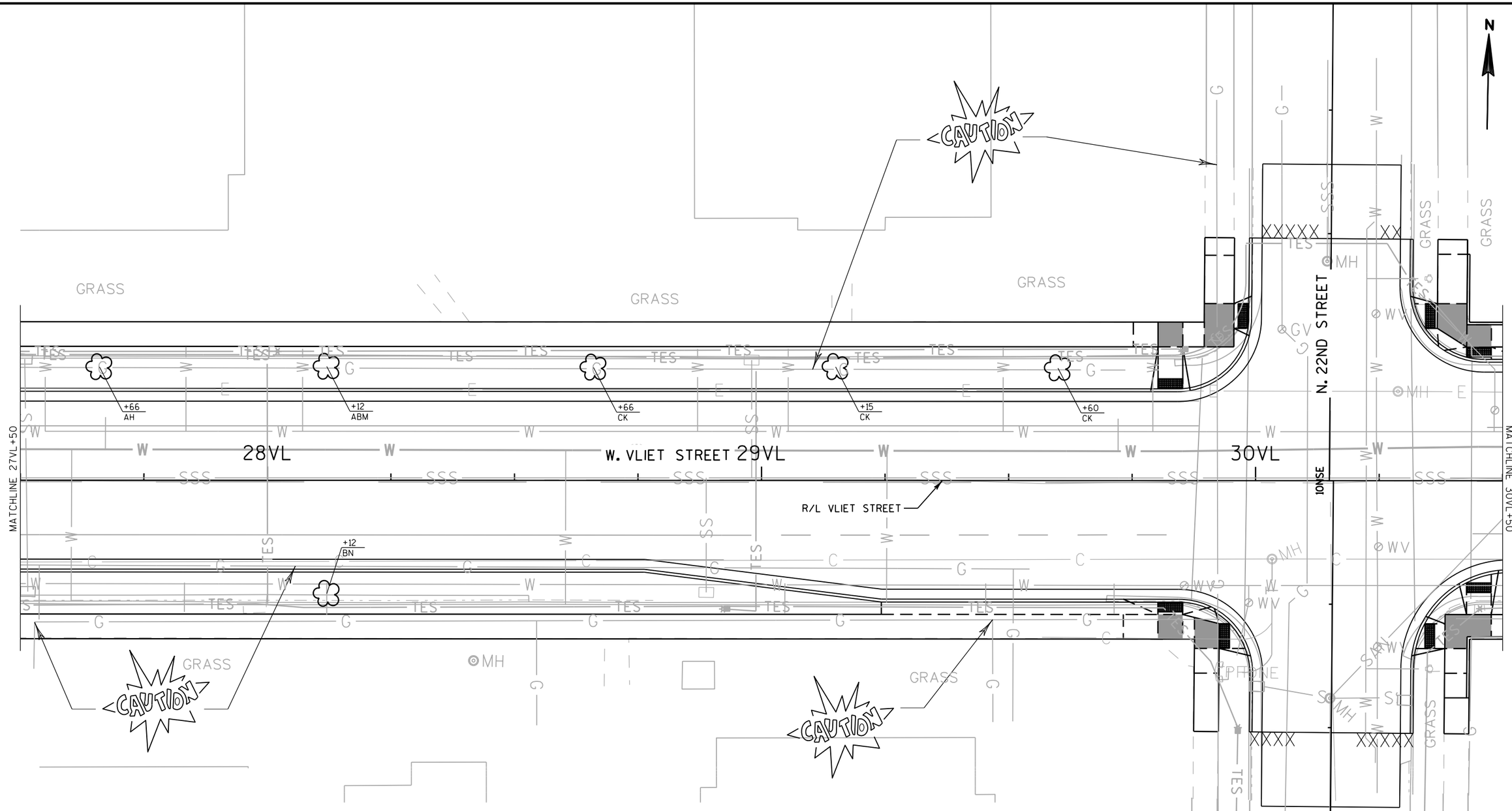
SHAGBARK HICKORY (SH)
COMMON BALDCYPRESS (CB)
SHADEMASTER HONEYLOCUST (SMHL)
CALLERY PEAR (CP)
AUTUMN BLAZE MAPLE (ABM)
SUNBURST HONEYLOCUST (SBHL)
ACCOLADE ELM (AE)
AMERICAN SWEETGUM 'CHEROKEE'(ASC)
AMERICAN SWEETGUM 'MORAINE'(ASM)
TULIP TREE (TT)
NORTHERN RED OAK (NRO)
CUMULUS SERVICEBERRY (CS)
KENTUCKY COFFEETREE (CK)
BUTTERNUT (BN)
IRONWOOD (IW)
AMERICAN HORNBEAM (AH)

NOTES

1. ADJUST PLANTING LOCATION MIN 2'LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
2. CONTRACTOR SHALL MARK TREE LOCATIONS. PLANTING SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE PLANTING	SHEET 114 E

2



2

LEGEND

PLANT NEW TREE (TYPE)
SEE KEY

PLANT KEY

SHAGBARK HICKORY (SH)	AMERICAN SWEETGUM 'MORAINE'(ASM)
COMMON BALDCYPRESS (CB)	TULIP TREE (TT)
SHADEMASTER HONEYLOCUST (SMHL)	NORTHERN RED OAK (NRO)
CALLERY PEAR (CP)	CUMULUS SERVICEBERRY (CS)
AUTUMN BLAZE MAPLE (ABM)	KENTUCKY COFFEETREE (CK)
SUNBURST HONEYLOCUST (SBHL)	BUTTERNUT (BN)
ACCOLADE ELM (AE)	IRONWOOD (IW)
AMERICAN SWEETGUM 'CHEROKEE'(ASC)	AMERICAN HORNBEAM (AH)

NOTES

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3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE PLANTING	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\20181115\d5023102_plt.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

2

2

N

N. 21ST STREET

W. VLIET STREET

31VL

32VL

33VL

MATCHLINE 30VL+50

MATCHLINE 33VL+50

R/L VLIET STREET

R/L 21ST STREET

10INSF

GRASS

<CAUTION>

+90 SBHL

+33 SBHL

+70 SBHL

+76 ABM

+22 TT

+74 TT

+20 TT

+64 ABM

LEGEND

PLANT NEW TREE (TYPE)
SEE KEY

PLANT KEY

SHAGBARK HICKORY (SH)
COMMON BALDCYPRESS (CB)
SHADEMASTER HONEYLOCUST (SMHL)
CALLERY PEAR (CP)
AUTUMN BLAZE MAPLE (ABM)
SUNBURST HONEYLOCUST (SBHL)
ACCOLADE ELM (AE)
AMERICAN SWEETGUM 'CHEROKEE'(ASC)
AMERICAN SWEETGUM 'MORAINE'(ASM)
TULIP TREE (TT)
NORTHERN RED OAK (NRO)
CUMULUS SERVICEBERRY (CS)
KENTUCKY COFFEETREE (CK)
BUTTERNUT (BN)
IRONWOOD (IW)
AMERICAN HORNBEAM (AH)

NOTES

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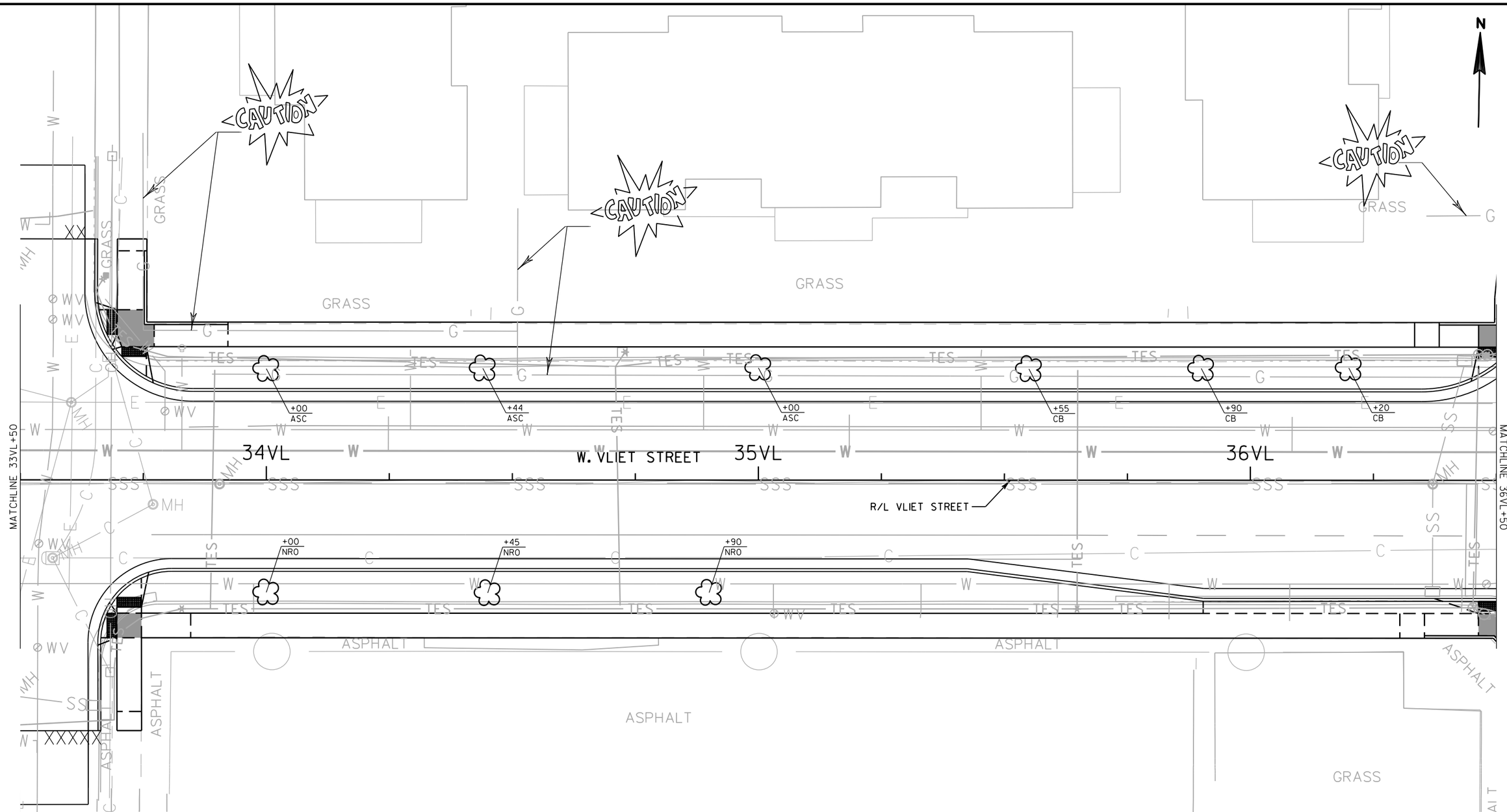
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE PLANTING	SHEET 116 E



2

LEGEND

PLANT NEW TREE (TYPE)
SEE KEY

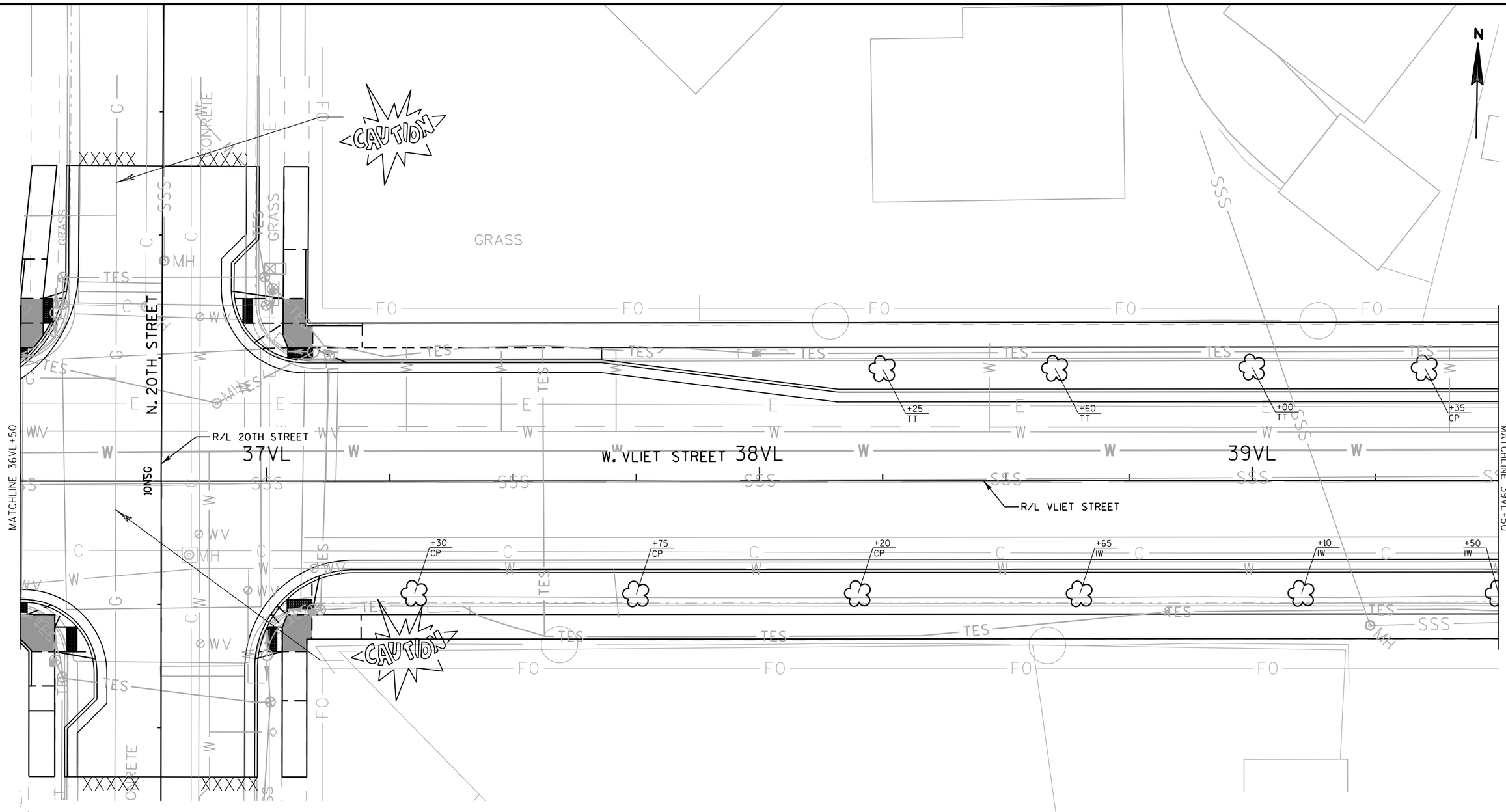
PLANT KEY

SHAGBARK HICKORY (SH)	AMERICAN SWEETGUM 'MORAINE'(ASM)
COMMON BALDCYPRESS (CB)	TULIP TREE (TT)
SHADEMASTER HONEYLOCUST (SMHL)	NORTHERN RED OAK (NRO)
CALLERY PEAR (CP)	CUMULUS SERVICEBERRY (CS)
AUTUMN BLAZE MAPLE (ABM)	KENTUCKY COFFEETREE (CK)
SUNBURST HONEYLOCUST (SBHL)	BUTTERNUT (BN)
ACCOLADE ELM (AE)	IRONWOOD (IW)
AMERICAN SWEETGUM 'CHEROKEE'(ASC)	AMERICAN HORNBEAM (AH)

NOTES

1. ADJUST PLANTING LOCATION MIN 2'LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
2. CONTRACTOR SHALL MARK TREE LOCATIONS. PLANTING SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE PLANTING	SHEET 117	E



LEGEND

PLANT NEW TREE (TYPE)
SEE KEY

PLANT KEY

SHAGBARK HICKORY (SH)	AMERICAN SWEETGUM 'MORAINE'(ASM)
COMMON BALDCYPRESS (CB)	TULIP TREE (TT)
SHADEMASTER HONEYLOCUST (SMHL)	NORTHERN RED OAK (NRO)
CALLERY PEAR (CP)	CUMULUS SERVICEBERRY (CS)
AUTUMN BLAZE MAPLE (ABM)	KENTUCKY COFFEETREE (CK)
SUNBURST HONEYLOCUST (SBHL)	BUTTERNUT (BN)
ACCOLADE ELM (AE)	IRONWOOD (IW)
AMERICAN SWEETGUM 'CHEROKEE'(ASC)	AMERICAN HORNBEAM (AH)

NOTES

1. ADJUST PLANTING LOCATION MIN 2'LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
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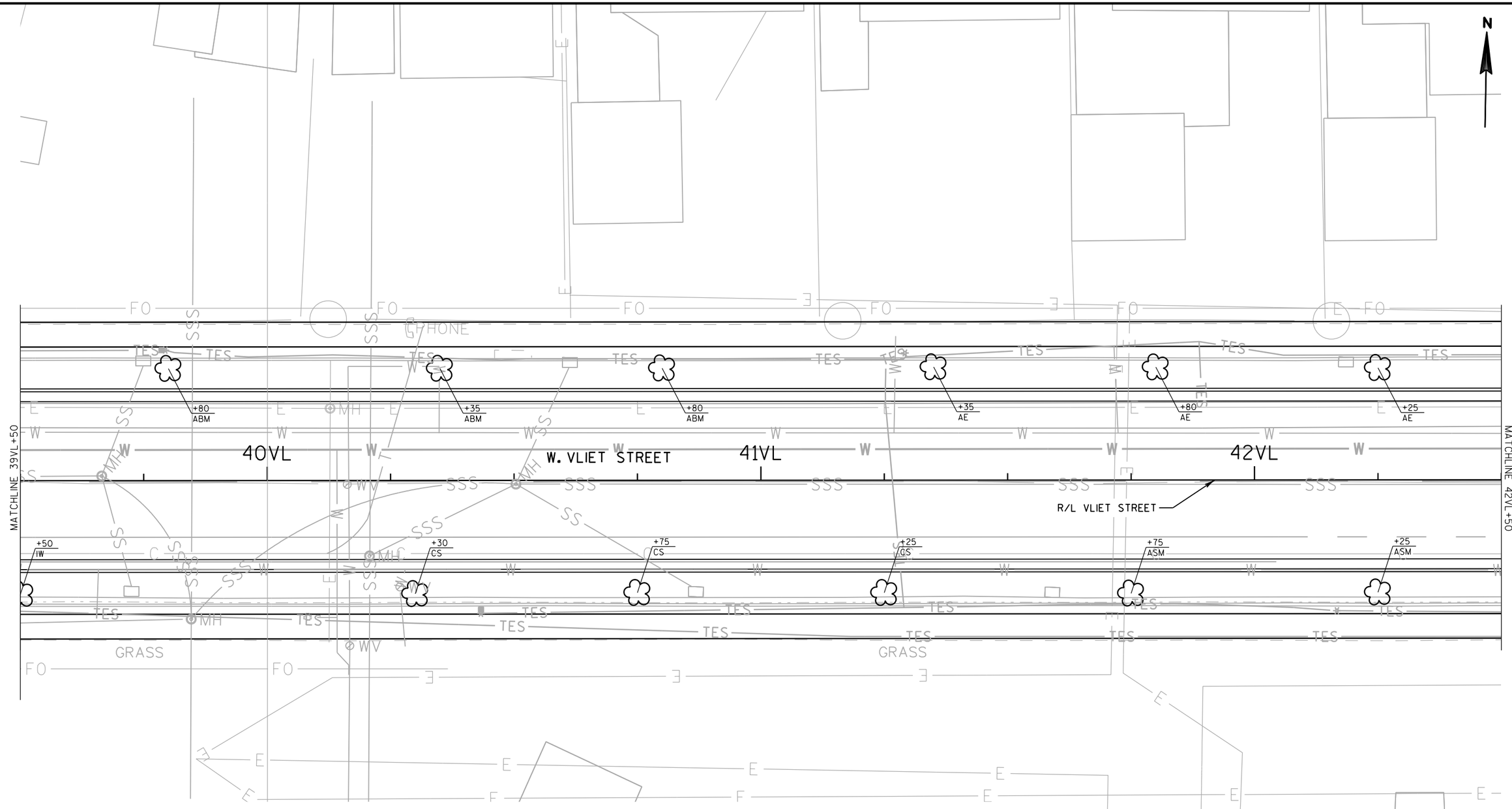
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE PLANTING	SHEET 118 E

2



LEGEND

PLANT NEW TREE (TYPE)
SEE KEY

PLANT KEY

SHAGBARK HICKORY (SH)
COMMON BALDCYPRESS (CB)
SHADEMASTER HONEYLOCUST (SMHL)
CALLERY PEAR (CP)
AUTUMN BLAZE MAPLE (ABM)
SUNBURST HONEYLOCUST (SBHL)
ACCOLADE ELM (AE)
AMERICAN SWEETGUM 'CHEROKEE'(ASC)
AMERICAN SWEETGUM 'MORAINE'(ASM)
TULIP TREE (TT)
NORTHERN RED OAK (NRO)
CUMULUS SERVICEBERRY (CS)
KENTUCKY COFFEETREE (CK)
BUTTERNUT (BN)
IRONWOOD (IW)
AMERICAN HORNBEAM (AH)

NOTES

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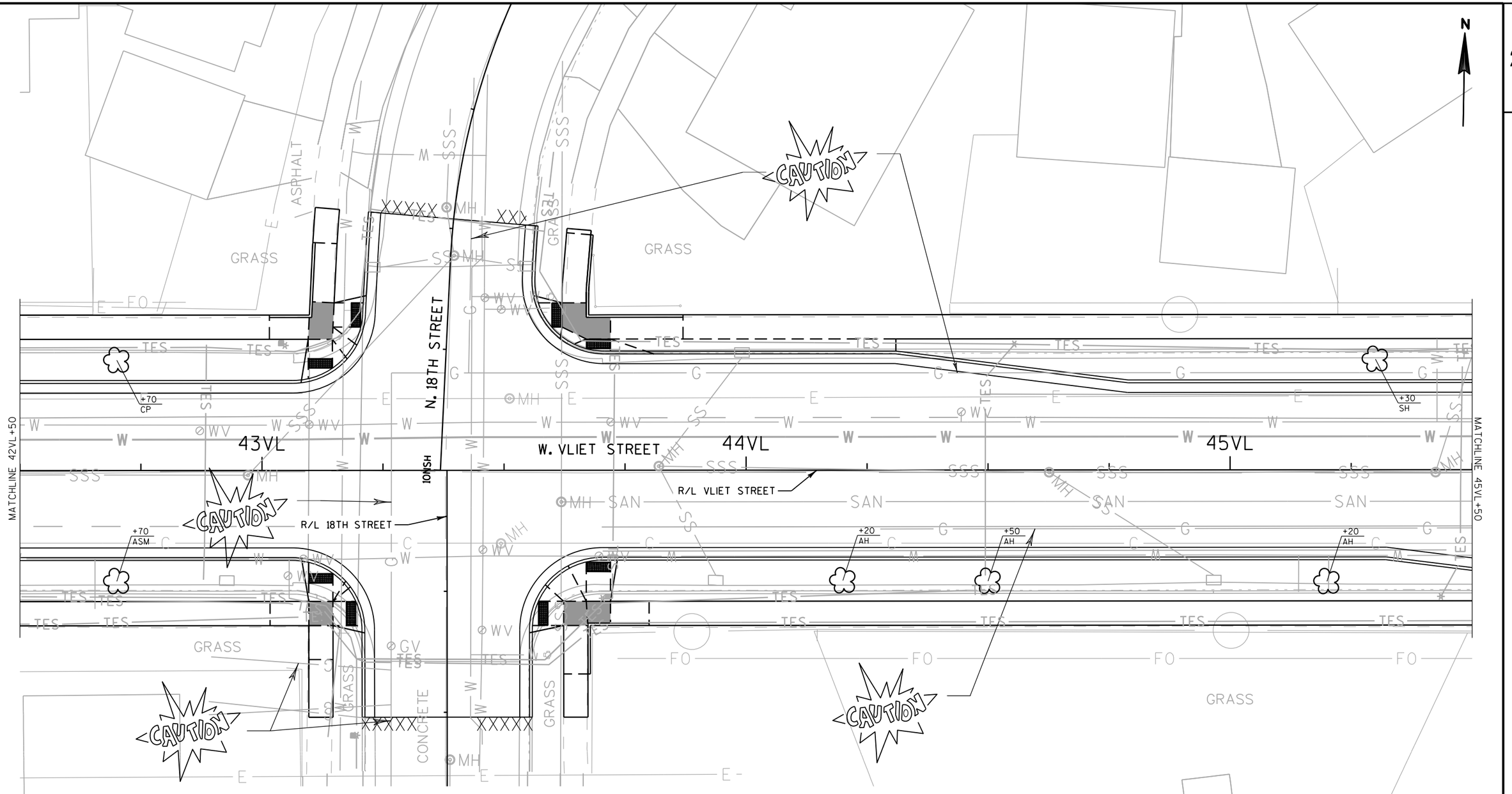
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE PLANTING	SHEET 119	E

2



LEGEND

PLANT NEW TREE (TYPE)
SEE KEY

PLANT KEY

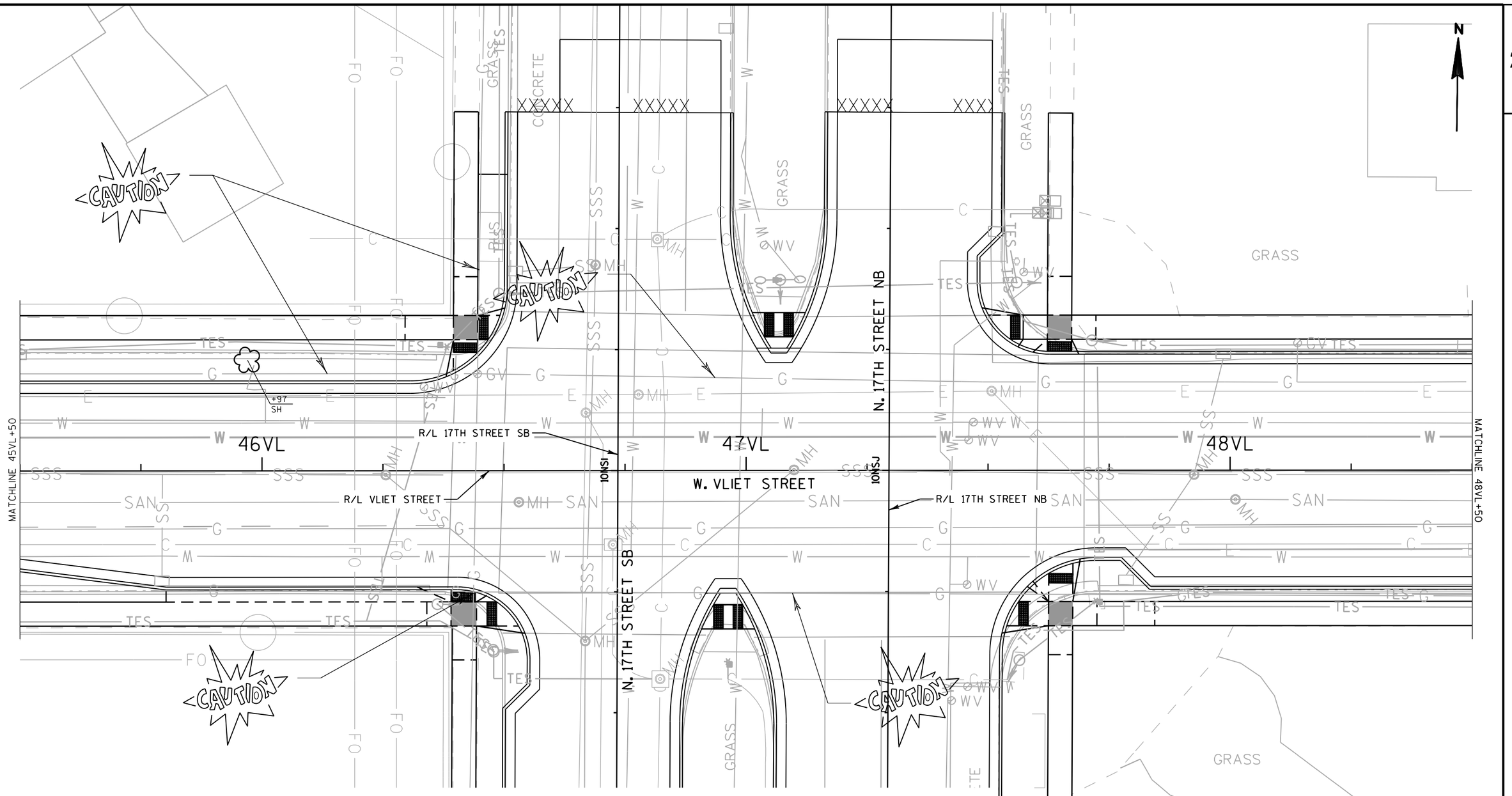
SHAGBARK HICKORY (SH)
COMMON BALDCYPRESS (CB)
SHADEMASTER HONEYLOCUST (SMHL)
CALLERY PEAR (CP)
AUTUMN BLAZE MAPLE (ABM)
SUNBURST HONEYLOCUST (SBHL)
ACCOLADE ELM (AE)
AMERICAN SWEETGUM 'CHEROKEE'(ASC)
AMERICAN SWEETGUM 'MORAINE'(ASM)
TULIP TREE (TT)
NORTHERN RED OAK (NRO)
CUMULUS SERVICEBERRY (CS)
KENTUCKY COFFEETREE (CK)
BUTTERNUT (BN)
IRONWOOD (IW)
AMERICAN HORNBEAM (AH)

NOTES

1. ADJUST PLANTING LOCATION MIN 2'LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
2. CONTRACTOR SHALL MARK TREE LOCATIONS. PLANTING SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE PLANTING	SHEET 120	E

2



LEGEND

PLANT NEW TREE (TYPE)
SEE KEY

PLANT KEY

SHAGBARK HICKORY (SH)	AMERICAN SWEETGUM 'MORAINE'(ASM)
COMMON BALDCYPRESS (CB)	TULIP TREE (TT)
SHADEMASTER HONEYLOCUST (SMHL)	NORTHERN RED OAK (NRO)
CALLERY PEAR (CP)	CUMULUS SERVICEBERRY (CS)
AUTUMN BLAZE MAPLE (ABM)	KENTUCKY COFFEETREE (CK)
SUNBURST HONEYLOCUST (SBHL)	BUTTERNUT (BN)
ACCOLADE ELM (AE)	IRONWOOD (IW)
AMERICAN SWEETGUM 'CHEROKEE'(ASC)	AMERICAN HORNBEAM (AH)

NOTES

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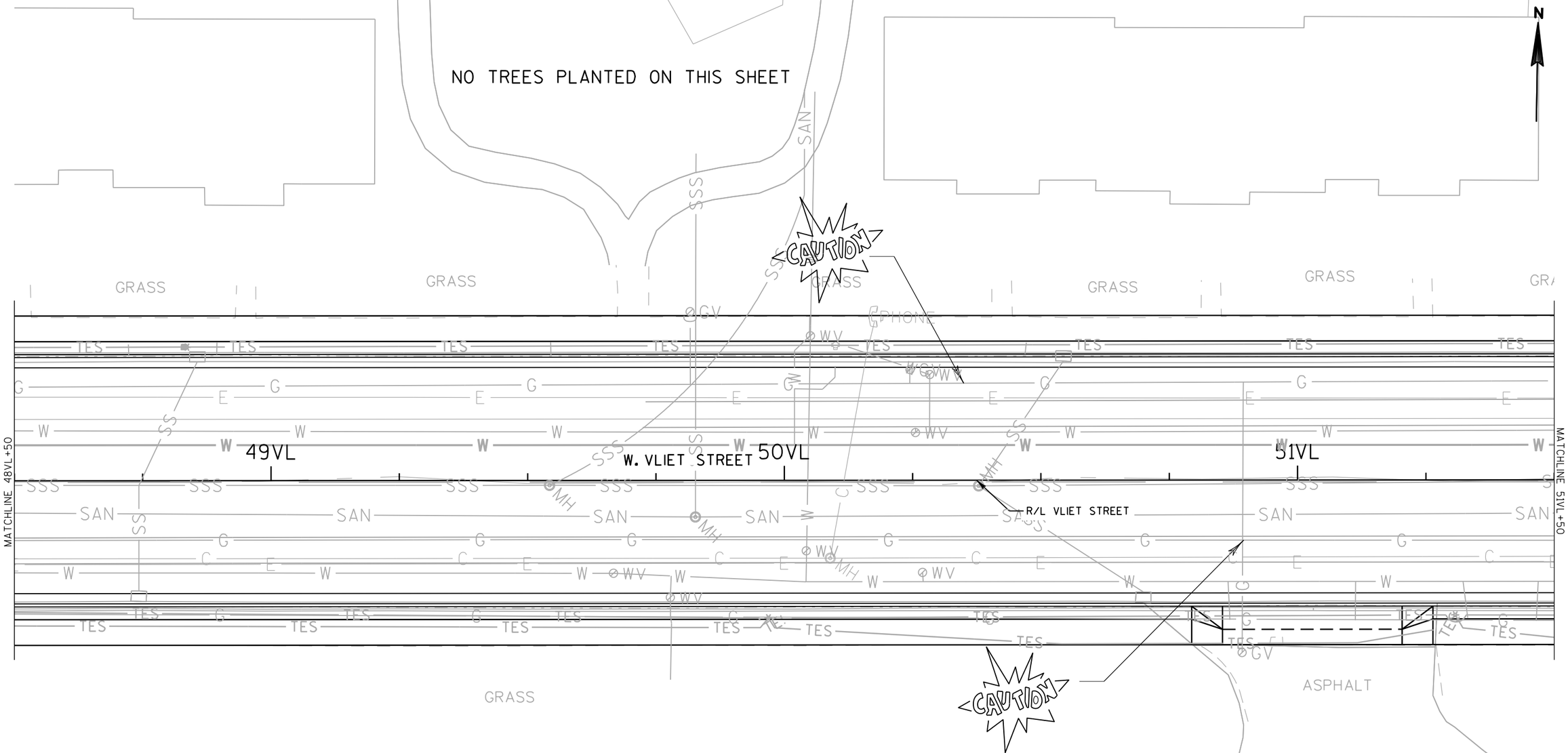
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE PLANTING	SHEET 121	E

2

NO TREES PLANTED ON THIS SHEET

N



LEGEND

PLANT NEW TREE (TYPE)
SEE KEY

PLANT KEY

SHAGBARK HICKORY (SH)
COMMON BALDCYPRESS (CB)
SHADEMASTER HONEYLOCUST (SMHL)
CALLERY PEAR (CP)
AUTUMN BLAZE MAPLE (ABM)
SUNBURST HONEYLOCUST (SBHL)
ACCOLADE ELM (AE)
AMERICAN SWEETGUM 'CHEROKEE'(ASC)
AMERICAN SWEETGUM 'MORAINE'(ASM)
TULIP TREE (TT)
NORTHERN RED OAK (NRO)
CUMULUS SERVICEBERRY (CS)
KENTUCKY COFFEETREE (CK)
BUTTERNUT (BN)
IRONWOOD (IW)
AMERICAN HORNBEAM (AH)

NOTES

1. ADJUST PLANTING LOCATION MIN 2'LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
2. CONTRACTOR SHALL MARK TREE LOCATIONS. PLANTING SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE PLANTING	SHEET 122	E

2

N

MATCHLINE 51VL+50

52VL

53VL

54VL

N. 15TH. STREET

W. VLIET STREET

R/L VLIET STREET

R/L 15TH STREET

IONSK

+65
AE

CONCRETE

GRASS

GRASS

GRASS

CAUTION

LEGEND

PLANT NEW TREE (TYPE)
SEE KEY

PLANT KEY

SHAGBARK HICKORY (SH)	AMERICAN SWEETGUM 'MORAINE'(ASM)
COMMON BALDCYPRESS (CB)	TULIP TREE (TT)
SHADEMASTER HONEYLOCUST (SMHL)	NORTHERN RED OAK (NRO)
CALLERY PEAR (CP)	CUMULUS SERVICEBERRY (CS)
AUTUMN BLAZE MAPLE (ABM)	KENTUCKY COFFEETREE (CK)
SUNBURST HONEYLOCUST (SBHL)	BUTTERNUT (BN)
ACCOLADE ELM (AE)	IRONWOOD (IW)
AMERICAN SWEETGUM 'CHEROKEE'(ASC)	AMERICAN HORNBEAM (AH)

NOTES

1. ADJUST PLANTING LOCATION MIN 2'LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
2. CONTRACTOR SHALL MARK TREE LOCATIONS. PLANTING SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE PLANTING	SHEET 123 E

GENERAL LEGEND
STREET LIGHTING AND TRAFFIC SIGNAL PLAN

TEMPORARY LIGHTING:

35' WOOD POLES WILL BE INSTALLED 2'– 4' BACK OF CURB WITH OVERHEAD CABLE ATTACHED AT TOP OF ALL STREET LIGHT POLES WITHIN THE LIMITS OF THIS PROJECT FOR PROVIDING LIGHTING.

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

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

- EXISTING TRAFFIC AND/OR STREET LIGHTING CONDUIT
- CONDUIT INSTALLED ON STREET LIGHTING PLAN
- CONDUIT INSTALLED ON TRAFFIC SIGNAL PLAN
- EXISTING STREET LIGHT POLE
- STREET LIGHT LUMINAIRE TO BE INSTALLED EXISTING STREET LIGHT POLE (ALL EXISTING LUMINARIES REMOVED BY CONTRACTORS TO BE RETURNED TO STREET LIGHTING SHOP)
- PROPOSED STREET LIGHT POLE WITH NEW BRACKET ARM & LUMINAIRE
- TRAFFIC SIGNAL MOUNTED ON STREET LIGHT POLE

XX' ARM

- STREET LIGHT BRACKET ARM & LUMINAIRE TO BE INSTALLED ON MONTUBE
- EXISTING TRAFFIC SIGNAL STANDARD
- TYPE I BASE TO BE INSTALLED ON TRAFFIC SIGNAL PLAN
- TRAFFIC CONTROL CABINET BASE TO BE INSTALLED ON TRAFFIC SIGNAL PLAN
- MONOTUBE MAST ARM BASED TO BE INSTALLED ON TRAFFIC SIGNAL PLAN
- EVP DETECTOR WITH CONFORMATION LIGHT TO BE INSTALLED ON TRAFFIC SIGNAL PLAN

XX' ARM

- MAST ARM TO BE INSTALLED ON TRAFFIC SIGNAL PLAN

SHEET 1 OF 22

PROJECT NO: 2984–00–73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 124	E

WEST ST.

VLIET STREET

N

PULL BOX

CONNECT TO EXISTING CONDUIT

2-3"PVC 100

13"X 24"X 24" PULL BOX STA.10+79.4' 25.7'LT. 112

1.5"PVC 2"PVC 2.5"PVC 108A

#2638 EXIST. LIGHT POLE LUM.UTIL. HPS "3" 108A

CONTRACTOR INSTALL 4"X 4"PED./ PED. SPLICE

3#8/1#8LTP / CIR.T9C-E IN PVC

UNIT #2626 REMOVAL BY CITY PRE-CONSTR.

#2626 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.11+75.6', 26.5'LT.

1.5"PVC 2.5"PVC 108A

13"X 24"X 24" PULL BOX STA.11+80.4' 25.7'LT. 112 139

3#8/1#8LTP / CIR.T9C-E IN PVC

2-3"PVC SCH.80 112

11VL

2.5"PVC 100

12VL

2.5"PVC 100

2.5"PVC 101

STA. 12+25

3#8/1#8LTP / CIR.T9C-E IN PVC

2.5"PVC 100

2-3"PVC

CONNECT TO EXISTING CONDUIT

2-3"PVC 100

13"X 24"X 24" PULL BOX STA.12+67' 25.7'RT. 139 112

3"PVC

#2637 EXISTING MONOTUBE 6 FT.ARM

PULL BOX

N.27TH

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 2 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 125	E

FILE NAME : W:\bes\pavings\2018work\wVliet St - 27th to 12th (2984-00-73)\Design\TEES 10+00 TO 12+25.dgn PLOT DATE : 10-OCT-2018 07:55 PLOT BY : cblack PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

WEST VLIET ST. STREET

N

STA. 12+25

STA. 15+25

2.5"PVC CAP END 53.0'LT.

112 13"X 24"X 24" PULL BOX STA.13+88.3' 48.9'LT.

#1404 26 FT. ALUM. POLE 2#12UF W/GRD. RISER 6 FT.ARM

CONTRACTOR INSTALL 4"X 4"PED./ PED. SPLICE

2.5"PVC SPECIAL CAP END 68.0'LT.

13"X 24"X 24" PB PULL BOX STA.14+25.7' 48.9'LT. 112

3#8/1#8LTP / CIR.T9C-E IN PVC

13"X 24"X 24" PULL BOX STA.12+67' 25.8'LT. 112

13"X 24"X 24" PULL BOX STA.13+58.4' 25.7'LT. 112 139

#2602 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.13+63.4',26.5'LT.

108A 1.5"PVC 2.5"PVC

2.5"PVC SCH.80 112

3#8/1#8LTP CIR.T9C-E IN PVC TO UNIT #1404

13"X 24"X 24" PULL BOX STA.14+46.8' 25.7'LT. 112

3#6/1#8LTP / CIR.T9C-E 3#8/1#8LTP / CIR.T9C-E IN PVC

#2522 EXISTING 26' POLE 6 FT.ARM

108A 1.5"PVC 2.5"PVC

LUM. 3LED3 - CONTRACTOR INSTALL 4"X 4"PED./ PED. SPLICE STA. 15+16.4', 26.5'LT.

13"X 24"X 24" PULL BOX STA.15+21.4' 25.7'LT. 112

2.5"PVC 100 101

UNIT #2602 REMOVAL BY CITY PRE-CONSTR.

2.5"PVC 100

2.5"PVC SCH.80 112

13VL 14VL 15VL

3#8/1#8LTP CIR.T9C-E IN PVC

2.5"PVC SCH.80 112

(2)-3#8/1#8LTP CIR.T10C-E IN PVC

3#6/1#8LTP CIR.T9C-E IN PVC

2.5"PVC 100 101

2.5"PVC 100

2.5"PVC 100

2.5"PVC 100

WEST VLIET ST. STREET

N

STA. 15+25

STA. 18+25

100 2.5"PVC SPECIAL CAP END 52.0'LT.

112 13"X 24"X 24" PULL BOX STA.16+67.4' 49.0'LT.

112 139 13"X 24"X 24" PULL BOX STA.16+38.9' 25.7'LT.

108A 1.5"PVC 2.5"PVC #2502 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.16+45.7',26.5'LT.

3#6/1#8LTP / CIR.T9C-E IN PVC

!! CAUTION !! STREET LIGHTING CABLE

2"PVC

3#6/1#8LTP / CIR.T9C-E IN PVC

#1402 26 FT. ALUM. POLE INSTALLED BY CITY FORCES PRE-CONSTR. AT WOOD POLE LOCTION STA.17+3.2',51.7'LT.
CONTRACTOR INSTALLL LUM. 3LED2

WOOD POLE UNIT #1402 REMOVAL BY CITY PRE-CONSTR.

13"X 24"X 24" PULL BOX STA.17+2.9' 49.0'LT. 108A 112 139
1.5"PVC 2.5"PVC

112 13"X 24"X 24" PULL BOX STA.17+30.4' 25.7'LT.

3#8/1#8LTP / CIR.T9C-E IN PVC

UNIT #2474 REMOVAL BY CITY PRE-CONSTR.

108A 1.5"PVC 2.5"PVC #2472 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA. 18+5.9',26.5'LT.

112 139 13"X 24"X 24" PULL BOX STA.18+10.7' 25.7'LT.

2.5"PVC 100

2.5"PVC 101

2.5"PVC 100

2.5"PVC 100 101

UNIT #2502 REMOVAL BY CITY PRE-CONSTR.

3#6/1#8LTP CIR.T9C-E IN PVC

3#6/1#8LTP & 3#8/1#8LTP CIR.T9C-E IN PVC

2.5"PVC SCH.80 112

3#6/1#8LTP CIR.T9C-E IN PVC

100 2.5"PVC

3#8/1#8LTP CIR.T9C-E IN PVC

2.5"PVC SCH.80 112

2.5"PVC 101

2.5"PVC 100

2.5"PVC 100

3#8/1#8LTP CIR.T9C-E IN PVC

UNIT #2483 REMOVAL BY CITY PRE-CONSTR.

2.5"PVC 100 101

2.5"PVC 100

2.5"PVC SCH.80 112

UNIT #2511 REMOVAL BY CITY PRE-CONSTR.

108A 1.5"PVC 2.5"PVC #2509 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA. 15+81.0',26.5'RT.

139 112 13"X 24"X 24" PULL BOX STA. 15+86.0' 25.7'RT.

3#8/1#8LTP CIR.T9C-E IN PVC

13"X 24"X 24" PULL BOX STA. 16+38.9' 25.7'RT. 112

1.5"PVC 2.5"PVC SPECIAL 112

13"X 24"X 24" PULL BOX STA.16+65.5' 51.7'RT.

#1353 EXISTING 26' POLE 6 FT. ARM CONTRACTOR INSTALL LUM. 3LED2 4"X 4"PED./PED. SPLICE STA.16+64.6', 60.3'RT. 108A

100 2.5"PVC CAP END 62.0'RT.

2.5"PVC SCH.80 SPECIAL 112

3#8/1#8LTP / CIR.T9C-E IN PVC

112 13"X 24"X 24" PULL BOX STA.17+4.9' 51.7'RT.

100 2.5"PVC CAP END 55.2'RT.

108A 1.5"PVC 2.5"PVC #2483 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA. 17+25.4',26.5'RT.

139 112 13"X 24"X 24" PULL BOX STA. +30.4' 25.7'RT.

3#8/1#8LTP CIR.T9C-E IN PVC

112 13"X 24"X 24" PULL BOX STA.18+10.7' 25.7'RT.

3#8/1#8LTP / CIR.T9C-E IN PVC

N.25TH

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 4 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 127 OF	E

WEST VLIET STREET

N

STA. 18+25

STA. 21+25

100 CAP END 44.0'LT.

2.5"PVC

#1414 CONTRACTOR INSTALL
26 FT. ALUM. POLE 4"X 4"PED./ PED. SPLICE

2"PVC
CONNECT TO EXISTING 2"PVC 100
AT PAVING LIMITS

EXTEND EXISTING
DUCT PACKAGE
INTO PULL BOX 112

13"X 24"X 24"
PULL BOX
STA.19+80.5'
40.5'LT.

2"PVC

3#2/1#8LTP / CIR.T9C-D
IN PVC TO UNIT #1414

PL.

112

2.5"PVC
SCH.80

13"X 24"X 24"
PULL BOX
STA.20+9.9' 112
40.5'LT.

13"X 24"X 24"
PULL BOX
STA.19+52.7'
25.7'LT. 112 139

#2442
POLES TYPE 2
2#12UF W/GRD. RISER
6' ALUM. ARM
LUM. 3LED3
STA.19+62.1',26.5'LT. 108A

1.5"PVC
2.5"PVC

3#2/1#8LTP
CIR.T9C-D
IN PVC

13"X 24"X 24"
PULL BOX
STA.20+32.4'
25.7'LT. 112

3#8/1#8LTP / CIR.T9C-D
IN PVC

#2426
POLES TYPE 2
CONTRACTOR INSTALL
2#12UF W/GRD. RISER
6' ALUM. ARM
LUM. 3LED3
STA.21+07.3',26.5'LT. 108A

1.5"PVC
2.5"PVC

13"X 24"X 24"
PULL BOX
STA.21+12.3'
25.7'LT. 112 139

UNIT #2424
REMOVAL BY CITY
PRE-CONSTR.

100 101

2.5"PVC

UNIT #2442
REMOVAL BY CITY
PRE-CONSTR.

100 2.5"PVC

19VL

2.5"PVC
SCH.80 112

20VL 112 2.5"PVC
SCH.80

2.5"PVC 100

21VL

3#6/1#8LTP / CIR.T9C-D
IN PVC

3#2/1#8LTP / CIR.T9C-D
3#8/1#8LTP / CIR.T9C-D
IN PVC

100 2.5"PVC

100 2.5"PVC

UNIT #2435
REMOVAL BY CITY
PRE-CONSTR.

100 2.5"PVC

3#8/1#8LTP / CIR.T9C-E
IN PVC

UNIT #2463
REMOVAL BY CITY
PRE-CONSTR.

13"X 24"X 24"
PULL BOX
STA.18+81.8'
25.7'RT. 112 139

#2461
POLES TYPE 2
2#12UF W/GRD. RISER
6' ALUM. ARM
LUM. 3LED3
STA.18+85.8',26.5'RT. 108A

1.5"PVC
2.5"PVC

112

13"X 24"X 24"
PULL BOX
STA.19+54.8'
25.7'RT.

139 112

13"X 24"X 24"
PULL BOX
STA.19+84.7'
40.6'RT.

UNIT #1353
(WOOD POLE)
REMOVAL BY CITY
PRE-CONSTR.

#1353
POLE TYPE 8
2#12UF W/GRD. RISER
6' ALUM. ARM
LUM. 3LED2
STA.19+84.0',46.6'RT. 108A

1.5"PVC
2.5"PVC

2.5"PVC
SCH.80 112

3#6/1#8LTP / CIR.T9C-D
IN PVC

3#6/1#8LTP
CIR.T9C-D
IN PVC

13"X 24"X 24"
PULL BOX
STA.20+32.4'
25.7'RT. 112

#2435
POLES TYPE 2
2#12UF W/GRD. RISER
6' ALUM. ARM
LUM. 3LED3
STA.20+37.4',26.8'RT. 139 108A

1.5"PVC
2.5"PVC

3#4/1#8LTP / CIR.T9C-D
IN PVC

3#6/1#8LTP / CIR.T9C-D
IN PVC TO UNIT #1353

3#2/1#8LTP / CIR.T9C-D
3#8/1#8LTP / CIR.T9C-D
IN PVC

13"X 24"X 24"
PULL BOX
STA.20+18.1' 112
40.6'RT.

2.5"PVC
CAP END 50.1'RT. 100

N.24TH

100 2"PVC
CONNECT TO EXISTING 2"PVC
49.9'RT.

ALL PVC IS SCH.40 (SCHEDULE 40)
EXCEPT WHEN NOTED AS SCH.80.
(SCHEDULE 80 PVC IS USED AT ALL
LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 5 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 128	E

2

WEST VLIET ST. STREET

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

N

2

STA. 21+25

STA. 24+25

13"X 24"X 24" PULL BOX STA.21+71.6' 25.9'LT.

2.5"PVC 100

112 2.5"PVC SCH.80

2.5"PVC 100

2.5"PVC 101

2.5"PVC 100

22VL

23VL

24VL

WATERTIGHT JUNCTION BOX SPLICNG INSIDE PULL BOX 139

UNIT #2402 6'ALUM ARM & LUM. 3LED3 ON MONOTUBE

UNIT #2402 REMOVAL BY CITY PRE-CONSTR.

CAP END AT PAVING LIMITS

13"X 24"X 24" PULL BOX STA.23+51.8' 47.6'LT. 112 139

108A 1.5"PVC 2"PVC 2.5"PVC

#1402 POLE TYPE 8 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED2 STA.23+53.4', 43.6'LT.

2.5"PVC 100

112 2-3"PVC SCH.80

2"PVC

3"PVC 100

UNIT #1402 REMOVAL BY CITY PRE-CONSTR.

(2)- 3#8/1#8LTP CIR.T9C-D IN PVC

3#8/1#8LTP / CIR.T9C-D IN PVC

3"PVC

INSTALLED ON TRAFFIC SIGNAL PLAN

2-3"PVC SCH.80 112

3#8/1#8LTP CIR.T9C-D IN PVC

25' ARM

3#8/1#8LTP CIR.T9C-D IN PVC

3#6/1#8LTP CIR.T9C-D IN PVC

2"PVC

2-3"PVC

2.5"PVC 100

2.5"PVC 101

2.5"PVC 101

2.5"PVC 100

3#4/1#8LTP / CIR.T9C-D IN PVC

13"X 24"X 24" PULL BOX STA.21+71.6' 25.7'RT. 112

#2413 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.21+77.6', 26.5'RT.

1.5"PVC 2.5"PVC 139 108A

UNIT #2411 REMOVAL BY CITY PRE-CONSTR.

3#4/1#8LTP / CIR.T9C-D IN PVC

3"PVC

3#4/1#8LTP & 3#6/1#8LTP CIR.T9C-D IN PVC

#1353 POLE TYPE 8 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 2LED3 STA.23+10.8', 41.0'RT.

1.5"PVC 2"PVC 2.5"PVC 108A

2.5" PVC 100

2.5" PVC 100

2.5"PVC SCH.80 112

3#4/1#8LTP CIR.T9C-D IN PVC

3"PVC

EXIST. UNIT #2339 REMOVAL BY CITY PRE-CONSTR.

UNIT #2339 6'ALUM ARM & LUM. UTIL. LED 3 ON MONOTUBE

3#4/1#8LTP / CIR.T9C-D IN PVC

112 13"X 24"X 24" PULL BOX STA.23+12.9', 46.0'RT. WATERTIGHT JUNCTION BOX SPLICING INSIDE PULL BOX

CAP ENDS AT PAVING LIMITS

N. 24TH

CAP ENDS AT PAVING LIMITS

13"X 24"X 24" PULL BOX STA.23+51.3' 50.5'RT. 112

SHEET 6 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 129	E

WEST VLIET STREET

ST.

N

3#8/1#8LTP / CIR.T9C-D IN PVC

#2320 EXISTING 26' POLE 6 FT.ARM CONTRACTOR INSTALL LUM. 3LED3 4"X 4"PED./ PED. SPLICE STA.24+56.3, 26.2'LT.

108A 1.5"PVC 2.5"PVC

13"X 24"X 24" PULL BOX STA.24+61.3' 25.7'LT. 112

100 2.5"PVC

25VL

26VL

27VL

#2302 EXISTING 26' POLE 6 FT.ARM CONTRACTOR INSTALL LUM. 3LED3 4"X 4"PED./ PED. SPLICE STA.26+50.1', 26.0'LT.

108A 1.5"PVC 2.5"PVC

13"X 24"X 24" PULL BOX STA.26+55.1' 25.7'LT. 112

3#8/1#8LTP / CIR.T9C-D IN PVC

112 2.5"PVC SCH.80

3#4/1#8LTP CIR.T9C-D IN PVC TO UNIT #2302

3#6/1#8LTP CIR.T9C-D IN PVC FROM UNIT #2302

STA.24+25

STA.27+25

3#4/1#8LTP / CIR.T9C-D IN PVC

#2313 EXISTING 26' POLE 6 FT.ARM CONTRACTOR INSTALL LUM. 3LED3 4"X 4"PED./ PED. SPLICE STA.25+45.2', 25.8'RT.

108A 1.5"PVC 2.5"PVC

13"X 24"X 24" PULL BOX STA.25+50.2' 25.7'RT. 112

3#4/1#8LTP / CIR.T9C-D IN PVC TO UNIT #2302

13"X 24"X 24" PULL BOX STA.26+55.2' 25.9'RT. 112

3#6/1#8LTP / CIR.T9C-D IN PVC FROM UNIT #2302

#2239 EXISTING 26' POLE 6 FT.ARM CONTRACTOR INSTALL LUM. 3LED3 4"X 4"PED./ PED. SPLICE STA.27+11.2', 25.7'RT.

108A 1.5"PVC 2.5"PVC

13"X 24"X 24" PULL BOX STA.27+16.2' 25.7'RT. 112

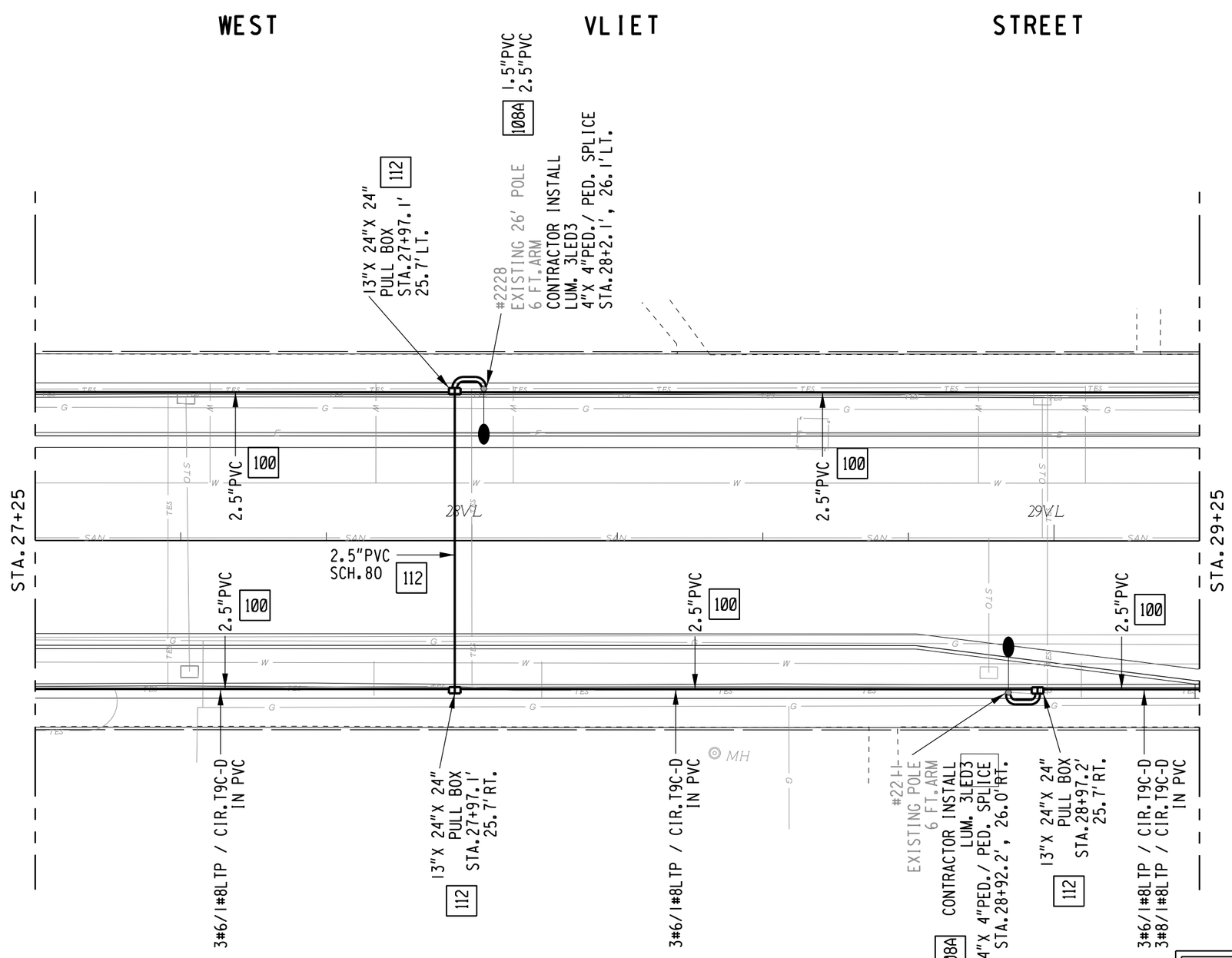
N.23RD

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 7 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 130 OF	E

WEST VLIET STREET



ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 8 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 131	E

2

WEST VLIET STREET

ST.

N

2

STA. 29+25

STA. 32+00

13"X 24"X 24" PULL BOX STA.29+97.6' 47.0'LT. 112

2.5"PVC CAP ENDS AT PAVING LIMITS 100

13"X 24"X 24" PULL BOX STA.30+33.0' 47.1'LT. 112

1.5"PVC 2.5"PVC 108A

#2202 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.29+74.2', 26.2'LT.

13"X 24"X 24" PULL BOX STA.29+67.7' 25.7'LT. 112 139

2.5"PVC SCH.80 112

#1404 26 FT. ALUM. POLE

13"X 24"X 24" PULL BOX STA.30+54.9' 25.7'LT. 112

3#8/1#8LTP / CIR.T9C-D IN PVC

UNIT #2128 TO BE REMOVED BY CITY AFTER CONSTRUTION

#2126 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.31+38.9', 25.9'LT. 1.5"PVC 2.5"PVC 108A

13"X 24"X 24" PULL BOX STA.31+43.9' 25.7'LT. 112 139

3#8/1#8LTP / CIR.T9C-D IN PVC TO UNIT #2111

2.5"PVC 100

2.5"PVC 100 101

UNIT #2202 REMOVAL BY CITY PRE-CONSTR.

3#8/1#8LTP CIR.T9C-D IN PVC

30VL 31VL 32V

2.5"PVC SCH.80 112

2.5"PVC 100

2.5"PVC 100

2.5"PVC SCH.80 112

UNIT #2137 REMOVAL BY CITY PRE-CONSTR.

3#8/1#8LTP CIR.T9C-D IN PVC TO UNIT #2137

3#4/1#8LTP CIR.T9C-D TO UNIT #1337 IN PVC

3#8/1#8LTP CIR.T9C-D IN PVC

2.5"PVC 100 101

2.5"PVC 100

3#6/1#8LTP / CIR.T9C-D 3#8/1#8LTP / CIR.T9C-D IN PVC

13"X 24"X 24" PULL BOX STA.29+67.7' 25.7'RT. 112

13"X 24"X 24" PULL BOX STA.29+97.7' 45.3'RT. 112

3#8/1#8LTP CIR.T9C-D IN PVC

2.5"PVC AT WALK

13"X 24"X 24" PULL BOX STA.30+50.9' 25.7'RT. 139 112

#2137 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.30+54.9', 26.2'RT.

1.5"PVC 2.5"PVC 108A

2.5"PVC SCH.80 112

1.5"PVC 2.5"PVC 108A

#1337 EXISTING 26' POLE 2#12UF W/GRD. RISER 6 FT.ARM CONTRACTOR INSTALL LUM. 2LED3 4"X 4"PED./ PED. SPLICE STA.29+96.4', 50.0'RT.

2.5"PVC CAP ENDS AT PAVING LIMITS 100

13"X 24"X 24" PULL BOX STA.30+37.2' 48.7'RT. 112

N.22ND

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 9 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 132	E

2

WEST VLIET ST. STREET

N

100 CAP ENDS AT PAVIING LIMITS

2.5"PVC CAP END AT PAVING LIMITS 100

13"X 24"X 24" PULL BOX STA.33+31.4' 49.3'LT. 139 112

13"X 24"X 24" PULL BOX STA.33+66.8' 49.3'LT. 112

#1401 POLE TYPE 8 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED2 STA.33+30.5' 39.8'LT. 1.5"PVC 2.5"PVC 108A

2.5"PVC SCH.80 112

(2)-3#8/1#8LTP / CIR.T9C-C IN PVC TO UNIT #1401

UNIT #1400 REMOVAL BY CITY AFTER CONSTR.

13"X 24"X 24" PULL BOX STA.32+17.9' 25.7'LT. 112

3#8/1#8LTP / CIR.T9C-D IN PVC TO UNIT #2104

#2104 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.33+6.9', 26.5'LT. 1.5"PVC 2.5"PVC 108A

13"X 24"X 24" PULL BOX STA.33+15.4' 25.7'LT. 112 139

2.5"PVC 100 101

(2)-3#8/1#8LTP CIR.T9C-C IN PVC

UNIT #2102 REMOVAL BY CITY PRE-CONSTR.

13"X 24"X 24" PULL BOX STA.33+93.8' 25.7'LT. 112

3#8/1#8LTP / CIR.T9C-C IN PVC

13"X 24"X 24" PULL BOX STA.34+67.9' 25.7'LT. 112

#2028 EXISTING 26' POLE 6 FT.ARM CONTRACTOR INSTALL LUM. 3LED3 4"X 4"PED./ PED. SPLICE STA.34+72.9', 26.0'LT. 1.5"PVC 2.5"PVC 108A

3#8/1#8LTP / CIR.T10C-E IN PVC

2.5"PVC 100

(2)- 3#8/1#8LTP CIR.T9C-D IN PVC TO UNIT #2111 & FROM UNIT #2111 TO UNIT #2104

3#8/1#8LTP CIR.T9C-C IN PVC

33VL 34VL 35V

STA. 32+00 STA. 35+00

2.5"PVC SCH.80 112

UNIT #2037 REMOVAL BY CITY PRE-CONSTR.

13"X 24"X 24" PULL BOX STA.32+17.9' 25.7'RT. 139 112

#2111 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.32+22.9',26.2'RT. 1.5"PVC 2.5"PVC 108A

UNIT #2111 REMOVAL BY CITY AFTER CONSTR.

13"X 24"X 24" PULL BOX STA.33+32.1' 45.5'RT. 112

#1361 EXISTING 26' POLE 6 FT.ARM

1.5"PVC 2.5"PVC 108A CONTRACTOR INSTALL LUM. 2LED3 4"X 4"PED./ PED. SPLICE STA.33+32.1', 48.8'RT.

#2037 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.33+88.8', 26.2'RT. 1.5"PVC 2.5"PVC 108A

13"X 24"X 24" PULL BOX STA.33+67.5' 49.7'RT. 112

2.5"PVC CAP END 51.0'RT. 100

2.5"PVC CAP END 53.0'RT. 100

N.21ST

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 10 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 133	E

FILE NAME : W:\bes\pavings\2018work\wVliet St - 27th to 12th (2984-00-73)\Design\TEES 32+00 TO 35+00.dgn PLOT DATE : 10-OCT-2018 07:55 PLOT BY : cblack PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

WEST VLIET STREET

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

N

STA. 35+00

STA. 37+75

3#8/I#8LTP / CIR.T9C-C IN PVC

13"X 24"X 24" PULL BOX STA.35+50.3' 25.7'LT.

UNIT #2002 6' ALUM ARM & LUM. 3LED3 ON MONOTUBE

WATERTIGHT JUNCTION BOX SPLICNG INSIDE PULL BOX

3#8/I#8LTP / CIR.T10C-F IN PVC TO UNIT #1402

ST.

CONNECT TO EXIST. 2.5"PVC END OF PAVING LIMITS

UNIT #1402 6' ALUM ARM & LUM. 3LED3 ON MONOTUBE

WATERTIGHT JUNCTION BOX SPLICNG INSIDE PULL BOX

3#6/I#8LTP CIR.T10C-F TO UNIT #1402 IN PVC

2.5"PVC 100

2.5"PVC SCH.80 112

UNIT #2002 REMOVAL BY CITY PRE-CONSTR.

INSTALLED ON TRAFFIC SIGNAL PLAN

3#8/I#8LTP CIR.T9C-C IN PVC

3#8/I#8LTP / CIR.T10C-D TO UNIT #1353 IN PVC

2-3"PVC SCH.80 112

2"PVC

3"PVC

2-3"PVC SCH.80

20' ARM

25' ARM

13"X 24"X 24" PULL BOX STA.35+50.3' 25.7'RT. 112 139

#2011 POLES TYPE 2 W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.35+55.3',26.5'RT. 108A

1.5"PVC 2.5"PVC

2#12UF

UNIT #2011 REMOVAL BY CITY AFTER CONSTR.

13"X 24"X 24" PULL BOX STA.36+31.0' 25.9'RT. 112

WATERTIGHT JUNCTION BOX SPLICNG INSIDE PULL BOX 139

UNIT #1353 6' ALUM ARM & LUM. 3LED3 ON MONOTUBE

N. 20TH

2-2.5" PVC

2-2.5"PVC CONNECT TO EXIST. 2.5"PVC END OF PAVING LIMITS 100

UNIT #2037 REMOVAL BY CITY PRE-CONSTR.

UNIT #1939 6' ALUM ARM & LUM. 3LED3 ON MONOTUBE

WATERTIGHT JUNCTION BOX SPLICNG INSIDE PULL BOX 139

3#6/I#8LTP / CIR.T10C-E IN PVC

SHEET 11 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 134	E

WEST VLIET STREET

N

STA. 37+75

STA. 39+75

#1926
EXISTING 26' POLE
6 FT. ARM
CONTRACTOR INSTALL
LUM. 3LED3
4"X 4"PED./ PED. SPLICE
STA.37+99.9', 25.8'LT.

108A 1.5"PVC
2.5"PVC

13"X 24"X 24"
PULL BOX
STA.38+4.9'
25.7'LT.
112

3#8/1#8LTP / CIR.T10C-E
IN PVC

13"X 24"X 24"
PULL BOX
STA.38+87.6'
25.7'LT.
112

2.5"PVC
100

38VL

39VL

3#8/1#8LTP
CIR.T10C-E
IN PVC

2.5"PVC
SCH.80
112

2.5"PVC
100

2.5"PVC
100

2.5"PVC
100

3#6/1#8LTP / CIR.T10C-E
IN PVC

3#6/1#8LTP / CIR.T10C-E
IN PVC

#1915
EXISTING 26' POLE
6 FT. ARM
CONTRACTOR INSTALL
LUM. 3LED3
4"X 4"PED./ PED. SPLICE
STA.38+82.6', 26.6'RT.

13"X 24"X 24"
PULL BOX
STA.38+87.6'
25.7'RT.
112

108A 1.5"PVC
2.5"PVC

ALL PVC IS SCH.40 (SCHEDULE 40)
EXCEPT WHEN NOTED AS SCH.80.
(SCHEDULE 80 PVC IS USED AT ALL
LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 12 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 135	E

WEST VLIET STREET

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

N

STA. 39+75

STA. 42+50

#1906 EXISTING 26' POLE 6 FT.ARM CONTRACTOR INSTALL LUM. 3LED3 4"X 4"PED./ PED. SPLICE STA.39+79.4', 26.4'LT.

108A 1.5"PVC 2.5"PVC

13"X 24"X 24" PULL BOX STA.39+84.4' 25.7'LT. 112

3#8/1#8LTP / CIR.T10C-E IN PVC

13"X 24"X 24" PULL BOX STA.40+39.3' 25.7'LT. 112

#1822 EXISTING 26' POLE 6 FT.ARM CONTRACTOR INSTALL LUM. 3LED3 4"X 4"PED./ PED. SPLICE STA.41+29.2', 25.8'LT.

108A 1.5"PVC 2.5"PVC

13"X 24"X 24" PULL BOX STA.41+34.2' 25.7'LT. 112

40VL 41VL 42VL

2.5"PVC 100

3#8/1#8LTP CIR.T10C-E IN PVC

3#8/1#8LTP / CIR.T10C-E IN PVC

2.5"PVC SCH.80 112

3#6/1#8LTP / CIR.T10C-E IN PVC

13"X 24"X 24" PULL BOX STA.40+39.3' 25.7'RT. 112

#1833 EXISTING 26' POLE 6 FT.ARM CONTRACTOR INSTALL LUM. 3LED3 4"X 4"PED./ PED. SPLICE STA.40+43.3', 26.9'RT.

108A 1.5"PVC 2.5"PVC

13"X 24"X 24" PULL BOX STA.41+34.2' 25.7'RT. 112

3#6/1#8LTP / CIR.T10C-E 3#8/1#8LTP / CIR.T10C-E IN PVC

13"X 24"X 24" PULL BOX STA.42+11.7' 25.7'RT. 112

#1811 EXISTING 26' POLE 6 FT.ARM CONTRACTOR INSTALL LUM. 3LED3 4"X 4"PED./ PED. SPLICE STA.42+16.7', 26.5'RT.

108A 1.5"PVC 2.5"PVC

3#4/1#8LTP / CIR.T10C-E IN PVC

SHEET 13 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 136 OF	E

2

WEST VLIET STREET

N

2

STA. 42+50

STA. 45+25

2.5"PVC CAP ENDS END OF PAVING LIMITS

13"X 24"X 24" PULL BOX STA.43+20.8' 49.9'LT.

13"X 24"X 24" PULL BOX STA.43+57.7' 47.3'LT.

13"X 24"X 24" PULL BOX STA.42+94.7' 25.7'LT.

#1802 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.42+99.7', 26.5'LT.

1.5"PVC 2.5"PVC

2.5"PVC SCH.80

3#8/1#8LTP CIR.T10C-E IN PVC BY CITY FORCES

13"X 24"X 24" PULL BOX STA.43#81.4' 25.7'LT.

13"X 24"X 24" PULL BOX STA.44+50.4' 25.7'LT.

#1730 EXISTING 26' POLE 6 FT.ARM CONTRACTOR INSTALL LUM. 3LED3 4"X 4"PED./ PED. SPLICE STA.44+55.4', 26.0'LT.

3#4/1#8LTP / CIR.T10C-E IN PVC

2.5"PVC

UNIT #1802 REMOVAL BY CITY AFTER CONSTR.

43VL 44VL 45VL

3#8/1#8LTP / CIR.T10C-E IN PVC

UNIT #1737 REMOVAL BY CITY PRE-CONSTR.

3#8/1#8LTP CIR.T10C-E IN PVC BY CITY FORCES

3#4/1#8LTP / CIR.T10C-E IN PVC FROM UNIT #1355

3#4/1#8LTP CIR.T10C-E TO UNIT #1355 IN PVC

3#4/1#8LTP CIR.T10C-E TO UNIT #1355

3#4/1#8LTP CIR.T10C-E FROM UNIT #1355 TO UNIT #1811

13"X 24"X 24" PULL BOX STA. 42+89.7' 25.7'RT.

13"X 24"X 24" PULL BOX STA.43+19.7', 44.7'RT.

13"X 24"X 24" PULL BOX STA.43+75.4' 25.7'RT.

13"X 24"X 24" PULL BOX STA.43+56.8' 44.7'RT.

#1735 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.43+80.4', 26.5'RT.

13"X 24"X 24" PULL BOX STA.44+50.4' 25.7'RT.

1.5"PVC 2.5"PVC

#1355 EXISTING 26' ALUM. POLE 6 FT.ARM CONTRACTOR INSTALL- LUM. 3LED2 CONTRACTOR INSTALL STA.43+19.5', 54.7'RT. 4"X 4" PEDESTAL

N. 18TH ST.

2.5"PVC CAP END AT PAVING LIMITS

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 14 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 137	E

WEST VLIET STREET

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

3#4/1#8LTP / CIR.T10C-E IN PVC

13"X 24"X 24" PULL BOX STA.45+38.6' 25.7'LT. 112

3#4/1#8LTP / CIR.T10C-E 3#8/1#8LTP / CIR.T10C-E IN PVC

UNIT #1704 6' ALUM ARM & LUM. 3LED3 ON MONOTUBE

UNIT #1704 REMOVAL BY CITY AFTER CONST.

CAP ENDS AT PAVING LIMITS

2.5"PVC 100

139 WATERTIGHT JUNCTION BOX SPLICING INSIDE PULL BOX

1.5"PVC 2.5"PVC

2.5"PVC 2' BACK OF CURB 100

#1402 EXISTING 26 FT.CONC.POLE CONTRACTOR INSTALL (2) LUM. 3LED3 40' ARM

2.5"PVC CAP END AT PAVING LIMITS

13"X 24"X 24" PULL BOX STA.47+61.3' 35.8'LT. 112

13"X 24"X 24" PULL BOX STA.48+70.9' 25.7'LT. 112

3#2/1#8LTP / CIR.T10C-C IN PVC

2"PVC 2-3"PVC 3"PVC SCH.80

INSTALLED ON TRAFFIC SIGNAL PLAN

WATERTIGHT JUNCTION BOX SPLICING INSIDE PULL BOX 139

3#2/1#8LTP CIR.T10C-D IN PVC

2.5"PVC SCH.80 112

2.5"PVC 100

46VL 47VL 48VL

25' ARM

STA. 45+25

STA. 48+25

3#8/1#8LTP / CIR.T10C-E IN PVC

13"X 24"X 24" PULL BOX STA.45+38.5' 25.7'RT. 112

#1717 EXISTING 26' POLE 6 FT.ARM CONTRACTOR INSTALL LUM. 3LED3 4"X 4"PED./ PED. SPLICE STA.45+43.5', 26.2'RT.

1.5"PVC 2.5"PVC 108A

35' ARM

#1378 EXISTING 26 FT.CONC.POLE CONTRACTOR INSTALL (2) LUM. 3LED3

1.5"PVC 2.5"PVC 108A 139 WATERTIGHT JUNCTION BOX SPLICING INSIDE PULL BOX

3#6/1#8LTP CIR.T10C-D IN PVC

139 WATERTIGHT JUNCTION BOX SPLICING INSIDE PULL BOX

UNIT #1635 REMOVAL BY CITY PER-CONSTR.

UNIT #1635 6' ALUM ARM & LUM. 3LED3 ON MONOTUBE

3#2/1#8LTP / CIR.T10C-D IN PVC

2.5"PVC 1' OFF WALK 100

CAP END AT PAVING LIMITS

CAP END AT PAVING LIMITS

CAP END AT PAVING LIMITS

N. 17TH

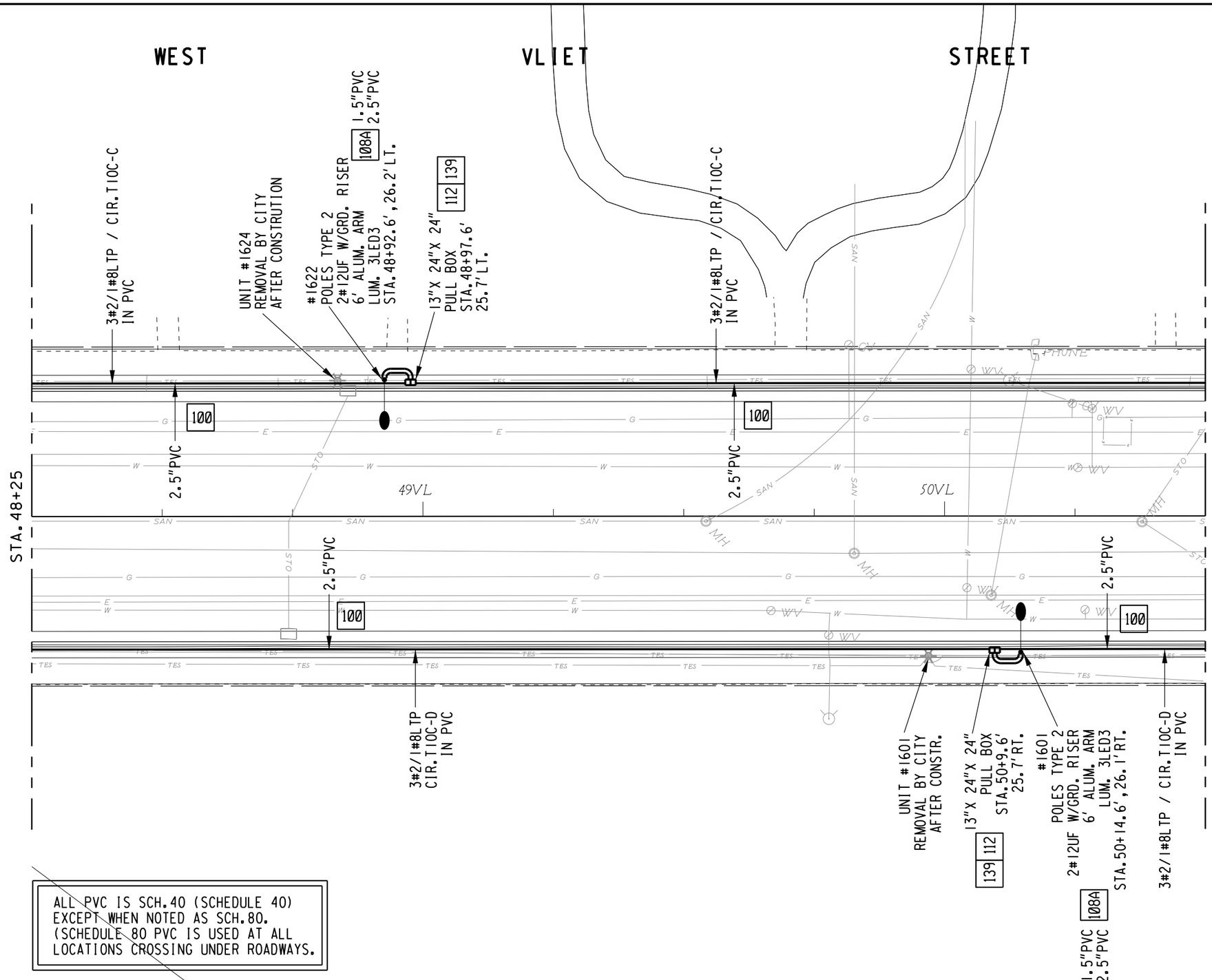
SHEET 15 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 138 OF	E

FILE NAME : W:\bes\pavings\2018work\wVliet St- 27th to 12th (2984-00-73)\Design\TEES 45+25 TO 48+25.dgn PLOT DATE : 10-OCT-2018 07:55 PLOT BY : cblack PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

WEST VLIET STREET



ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 16 OF 22

PROJECT NO: 2984–00–73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 139	E

WEST VLIET STREET

N

STA. 50+50

STA. 53+00

3#2/1#8LTP / CIR.T10C-C IN PVC

UNIT #1510 REMOVAL BY CIT PRECONSTRUTION

#1510 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.52+52.6', 26.2'LT.

108A 1.5"PVC 2.5"PVC

13"X 24"X 24" PULL BOX STA.52+57.6' 25.7'LT.

112 139

3#2/1#8LTP / CIR.T10C-C IN PVC

100 101 100 100

2.5"PVC 2.5"PVC 2.5"PVC 2.5"PVC

51VL 52VL 53V

2.5"PVC 2.5"PVC 2.5"PVC 2.5"PVC

100 101 100 101 100

3#2/1#8LTP/ CIR.T10C-D IN PVC

UNIT #1529 REMOVAL BY CITY AFTER CONSTR.

#1527 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.51+36.6', 26.3'RT.

13"X 24"X 24" PULL BOX STA.51+41.6' 25.7'RT.

108A 1.5"PVC 2.5"PVC

139 112

3#2/1#8LTP/ CIR.T10C-D IN PVC

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 17 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 140	E

FILE NAME : W:\bes\pavings\2018work\wVliet St - 27th to 12th (2984-00-73)\Design\TEES 50+50 TO 53+00.dgn PLOT DATE : 10-OCT-2018 07:55 PLOT BY : cblack PLOT NAME : PLOT SCALE : 20.000000:1.000000 WISDOT/CADDS SHEET 42

WEST VLIET STREET

N. 15TH ST.

STA. 53+00

STA. 55+75

#1404
26 FT. ALUM. POLE

112 13"X 24"X 24" PULL BOX STA.53+53.4', 51.0'LT.

3#2/1#8LTP CIR.T10C-C IN PVC

13"X 24"X 24" PULL BOX STA.53+36.6' 25.7'LT. 112

3#2/1#8LTP CIR.T10C-C

2.5"PVC SCH.80 SPECIAL 112

100 101 2.5"PVC

2.5"PVC CAP END 54.0'LT. 100

13"X 24"X 24" PULL BOX STA.53+90.7', 51.0'LT. 112

3#2/1#8LTP CIR.T10C-C FROM UNIT #1404 IN PVC

13"X 24"X 24" PULL BOX STA.54+9.0' 25.7'LT. 112

3#2/1#8LTP / CIR.T10C-C IN PVC

13"X 24"X 24" PULL BOX STA.54+75.7' 25.7'LT. 112 139

#1432 POLES TYPE 2 2#12UF W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.54+80.7', 26.4'LT. 108A 1.5"PVC 2.5"PVC

UNIT #1432 REMOVAL BY CITY AFTER CONSTRUTION

3#2/1#8LTP/ CIR.T10C-C IN PVC

2.5"PVC 100

2.5"PVC SCH.80 112

54VL

55VL

2.5"PVC 101

3#2/1#8LTP/ CIR.T10C-D IN PVC

13"X 24"X 24" PULL BOX STA.53+36.6' 25.7'RT. 112

13"X 24"X 24" PULL BOX STA.53+59.6' 25.7'RT. 139 112

#1501 POLES TYPE 2 W/GRD. RISER 2#12UF 6' ALUM. ARM LUM. 3LED3 STA.53+64.6', 26.2'RT. 108A 1.5"PVC 2.5"PVC

UNIT #1501 REMOVAL BY CITY AFTER CONSTR.

3#4/1#8LTP / CIR.T10C-D IN PVC

13"X 24"X 24" PULL BOX STA.54+9.0' 25.7'RT.

3#4/1#8LTP/ CIR.T10C-D IN PVC

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 18 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 141	E

FILE NAME : W:\bes\pavings\2018work\wVliet St - 27th to 12th (2984-00-73)\Design\TEES 53+00 TO 55+75.dgn PLOT DATE : 10-OCT-2018 07:55 PLOT BY : cblack PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

WEST VLIET ST. STREET

N

STA. 55+75

STA. 58+50

100 2.5"PVC CAP END AT PAVING LIMITS

1.5"PVC 2.5"PVC

13"X 24"X 24" PULL BOX STA.57+30.4' 41.4'LT. 112

108A #1402 EXISTING 26' POLE 6 FT.ARM CONTRACTOR INSTALL LUM. 3LED3 4"X 4"PED./ PED. SPLICE STA.57+15.1' 25.9'LT.

13"X 24"X 24" PULL BOX STA.57+10.1' 25.7'LT. 112

3#2/1#8LTP / CIR.T10C-C IN PVC

3#4/1#8LTP / CIR.T10C-C 3#8/1#8LTP / CIR.T10C-C IN PVC FROM UNIT #1402

2.5"PVC SCH.80 112

CONTRACTOR INSTALL 4"X 4" PEDESTAL #1404 26 FT. ALUM. POLE

3#8/1#8LTP / CIR.T10C-C IN PVC TO UNIT #1404

2" 2"PVC CONNECT TO EXIST. PVC 48.1'RT. PAVING LIMITS 100

13"X 24"X 24" PULL BOX STA.57+63.9' 35.6'LT. 112

13"X 24"X 24" PULL BOX STA.57+82.1' 25.7'LT. 112

3#4/1#8LTP/ CIR.T10C-C IN PVC

100 101 2.5"PVC

3#4/1#8LTP CIR.T10C-C FROM UNIT #1402 IN PVC

100 2.5"PVC

112 2.5"PVC SCH.80

2.5"PVC 112 SCH.80

3#4/1#8LTP CIR.T10C-D TO UNIT #1369 IN PVC

3#4/1#8LTP CIR.T10C-D TO UNIT #1369 IN PVC

2.5"PVC 100 101

3#4/1#8LTP / CIR.T10C-D IN PVC

13"X 24"X 24" PULL BOX STA.55+90.3' 25.7'RT. 139 112

#1417 POLES TYPE 2 W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 2#12UF STA.55+95.3',26.3'RT.

UNIT #1417 REMOVAL BY CITY AFTER CONSTR.

3#4/1#8LTP/ CIR.T10C-D IN PVC

13"X 24"X 24" PULL BOX STA.57+10.1' 25.7'RT. 112

#1369 1.5"PVC 2.5"PVC 108A EXISTING 26' POLE 6 FT.ARM CONTRACTOR INSTALL LUM. 3LED3 4"X 4"PED./ PED. SPLICE STA.57+27.2', 44.9'RT.

112 13"X 24"X 24" PULL BOX STA.57+27.9',49.9'RT.

3#4/1#8LTP CIR.T10C-D FROM UNIT #1369 IN PVC

N. 14TH

2.5"PVC SCH.80 112

100 2.5"PVC CAP ENDS AT PAVING LIMITS

UNIT #1339 REMOVAL BY CITY PRE-CONSTR.

#1339 POLES TYPE 2 W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 2#12UF STA.57+78.1',26.5'RT. 1.5"PVC 2.5"PVC 108A

13"X 24"X 24" PULL BOX STA.57+82.1' 25.7'RT. 139 112

3#4/1#8LTP / CIR.T10C-D IN PVC

13"X 24"X 24" PULL BOX STA.57+63.2' 50.0'RT. 112

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 19 OF 22

PROJECT NO: 2984-00-73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 142	E

FILE NAME : W:\bes\pavings\2018work\wVliet St - 27th to 12th (2984-00-73)\Design\TEES 55+75 TO 58+50.dgn PLOT DATE : 10-OCT-2018 07:55 PLOT BY : cblack PLOT NAME : PLOT SCALE : 20.000000:1.000000

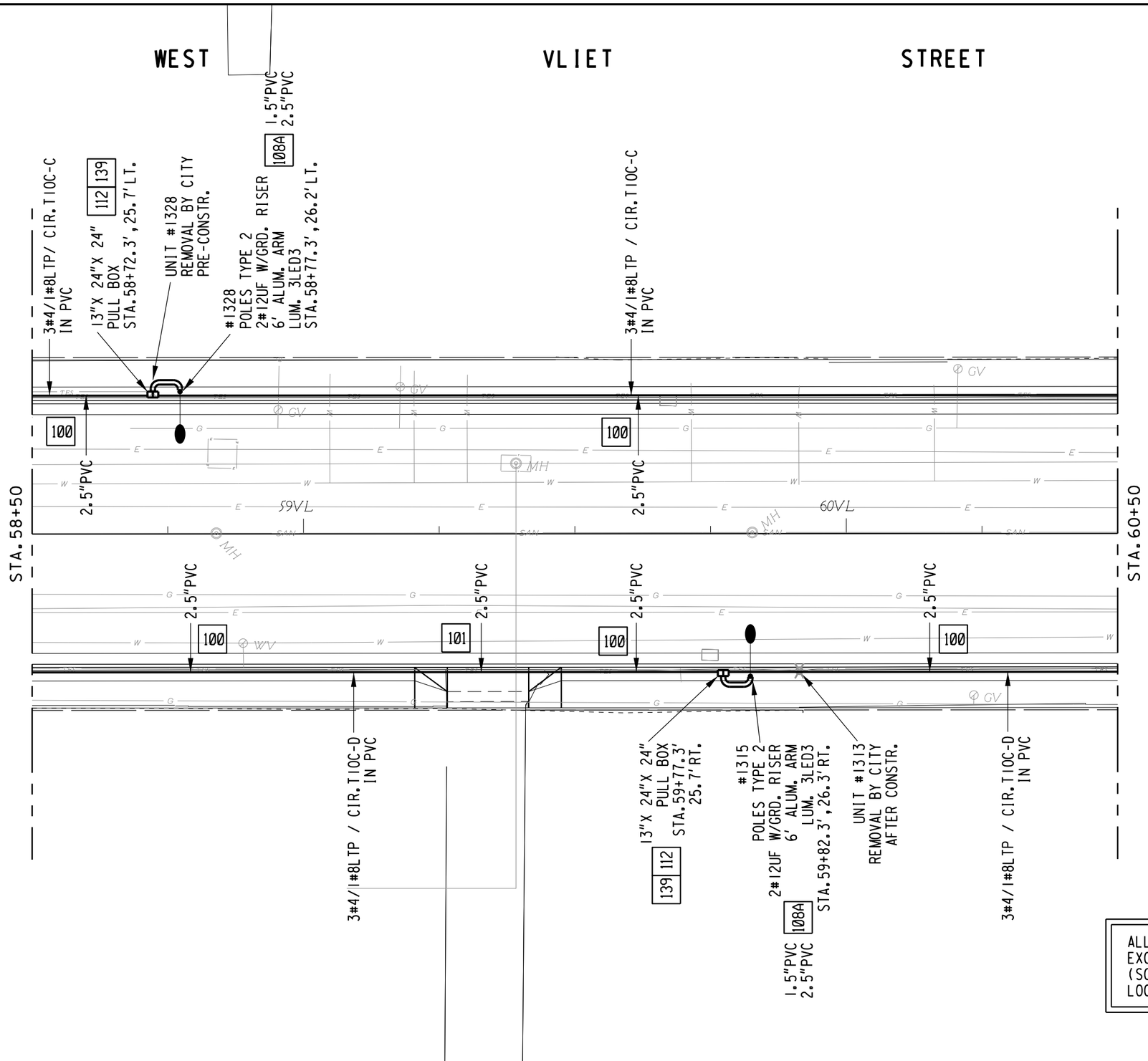
WISDOT/CADDS SHEET 42

2

WEST VLIET STREET

N

2



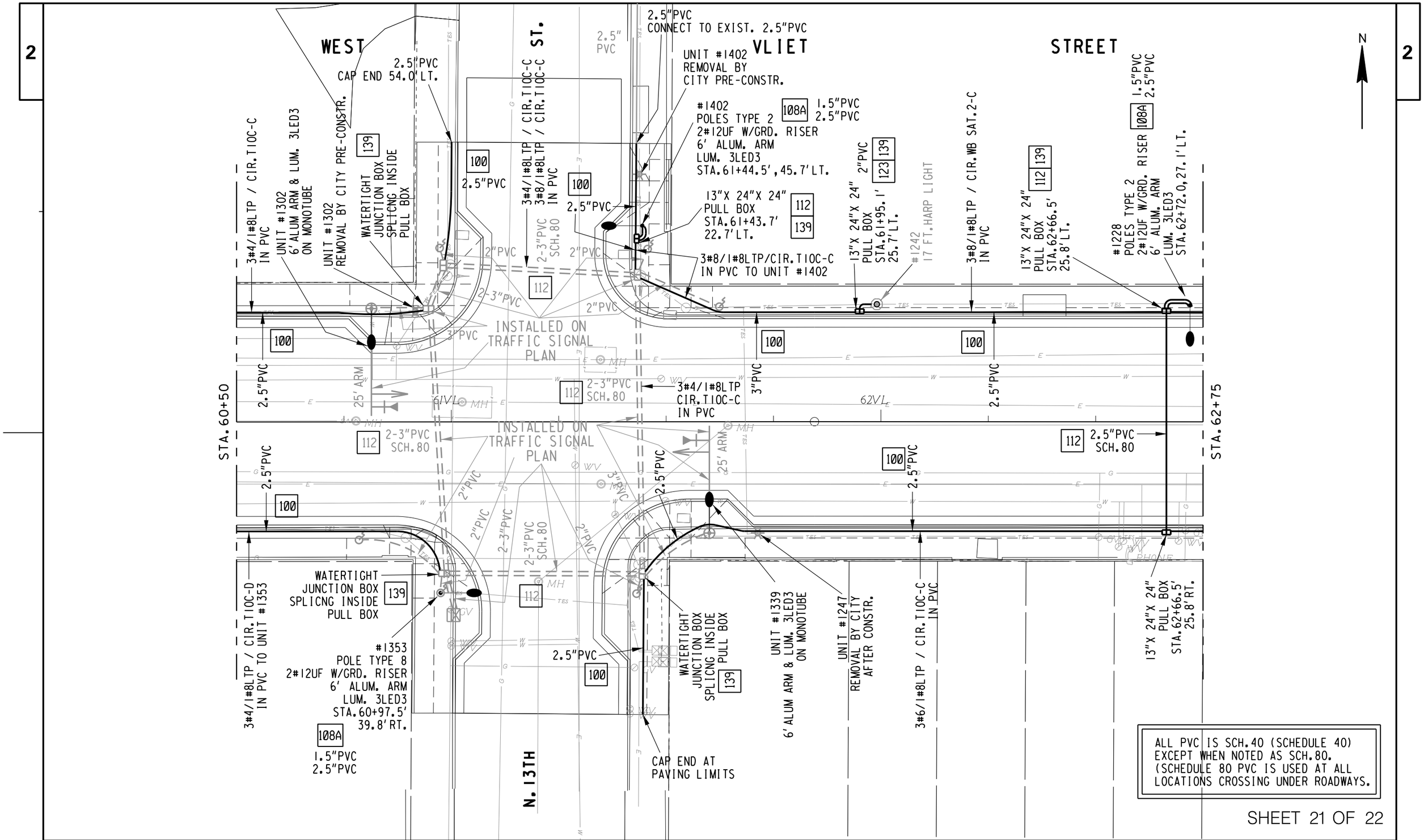
ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 20 OF 22

PROJECT NO: 2984–00–73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 143	E

FILE NAME : W:\bes\pavings\2018work\wVliet St – 27th to 12th (2984–00–73)\Design\TEES 58+50 TO 60+50.dgn PLOT DATE : 10–OCT–2018 07:55 PLOT BY : cblack PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42



SHEET 21 OF 22

PROJECT NO: 2984–00–73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 144	E

WEST VLIET STREET

ST.

N

UNIT #1228 REMOVAL BY CITY AFTER CONSTRUTION

3#8/1#8LTP / CIR.WB SAT.2-C IN PVC

2"PVC 123 139 13"X 24"X 24" PULL BOX STA.63+43.5' 25.8'LT.

#1218 17 FT.HARP LIGHT

3#8/1#8LTP / CIR.WB SAT.2-C IN PVC

2"PVC 123 139 13"X 24"X 24" PULL BOX STA.64+13.5' 25.8'LT.

#1210 17 FT.HARP LIGHT

3#8/1#8LTP / CIR.WB SAT.2-C IN PVC TOUNIT #1203

CONNECT TO EXISTING CONDUIT

2"PVC

#1203 EXISTING LIGHT POLE

STA. 62+75

63VL 64VL 65VL

2.5"PVC 100

2.5"PVC 100

2.5"PVC 100

2.5"PVC 100

2.5"PVC 100 101

2.5"PVC 101 100

2.5"PVC 100

2.5"PVC SPECIAL 100

3#6/1#8LTP / CIR.T10C-C IN PVC

3#6/1#8LTP / CIR.T10C-C IN PVC 2.5"PVC SCH.80 112

3#6/1#8LTP CIR.T10C-C IN PVC

UNIT #1219 REMOVAL BY CITY PRE-CONSTR.

13"X 24"X 24" PULL BOX STA.63+71.8' 25.8'RT.

#1215 POLES TYPE 2 W/GRD. RISER 6' ALUM. ARM LUM. 3LED3 STA.63+79.9, 26.5'RT.

3#6/1#8LTP / CIR.T10C-C IN PVC TO UNIT #1203

CONNECT TO PULL BOX

#1203 EXISTING LIGHT POLE

13"X 24"X 24" PULL BOX STA.62+17.3' 40.6'RT. 112

13"X 24"X 24" PULL BOX STA.62+43.8' 40.6'RT. 112

139 112

1.5"PVC 2.5"PVC 108A 2#12UF

N. 12TH LA.

N. 12TH

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 22 OF 22

PROJECT NO: 2984–00–73	HWY: LOCAL ROAD	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET OF 145	E

FILE NAME : W:\bes\pavings\2018work\wVliet St – 27th to 12th (2984–00–73)\Design\TEES 62+75 TO 65+25.dgn PLOT DATE : 10–OCT–2018 07:55 PLOT BY : cblack PLOT NAME : PLOT SCALE : 20.000000:1.000000

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.

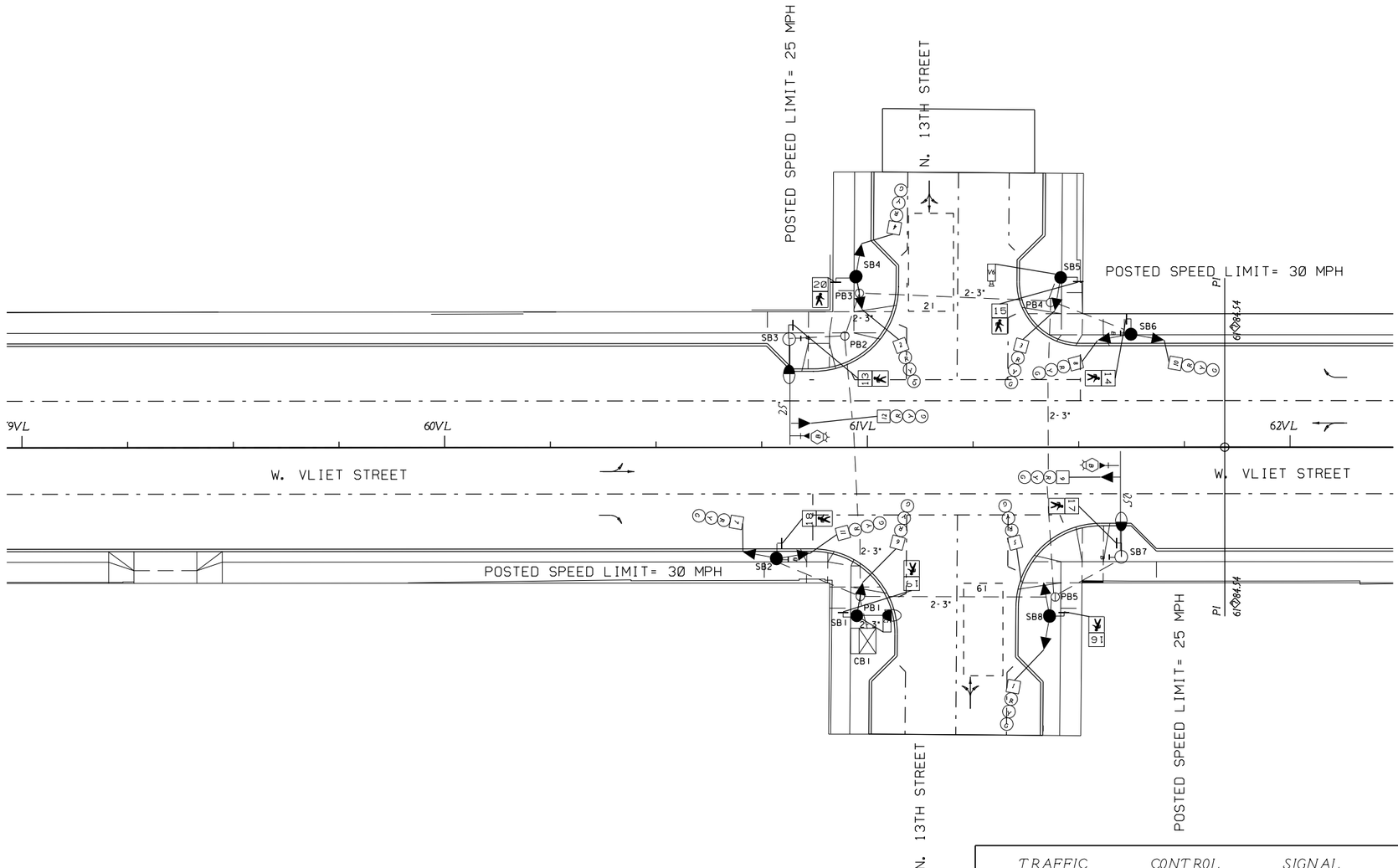
SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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

N



LEGEND

- SERVICE POLE
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- MONOTUBE BASE, POLE, 35'-55' ARM
- MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CITY OF MILWAUKEE LUMINAIRE
- CONFIRMATION LIGHT
- MICROWAVE VEHICLE DETECTOR
- VAULT (17" X30" X24")
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 12" WALK INDICATOR 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- YIELD SIGN
- STOP SIGN
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

SCALE, FEET 0 30

TRAFFIC CONTROL SIGNAL

W. VLIET ST. & N. 13TH ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

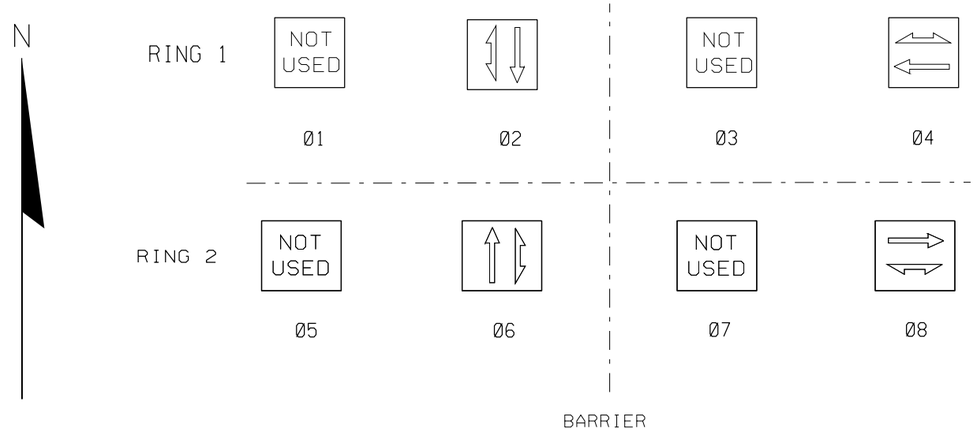
REGION CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: KAP
REVISED BY:

PAGE 1 OF 1

PROJECT NO:2984-00-73	HWY:WEST VLIET STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET OF 146	E

2

SEQUENCE OF OPERATION



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. .	

CONTROLLER LOGIC

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

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		4-8

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

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		61				
CALLED PHASE		2		6				
CALL OPTION		X		X				
DELAY TIME								
EXTENTION OPTION		X		X				
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE LIGHTING CABINET	x

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

W. VLIET ST. & N. 13TH ST.
MILWAUKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE: ECONOLITE

DATE

PAGE NO. OF

PROJECT NO: 2984-00-73 | HWY: WEST VLIET STREET | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS | SHEET 147 | E

PROJECT ID:	2984-00-73
INTERSECTION:	W. VLIET ST. & N. 13TH ST.

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: 4/12/2018

CB TO	JUMPER	# OF COND.	HEAD NO.	PHASE	SIGNAL INDICATION WIRE COLOR								PED BUTTON	OTHER
					RED	YELLOW	GREEN	<RED	<YELLOW>	<GREEN>	D/WALK	WALK		
SB1		12	6	2	RED	ORG	GRN							
			19	2							BLK	BLU		
SB2		15	7	8	RED	ORG	GRN							
			11	4	RED/BLK	ORG/BLK	GRN/BLK							
			18	8							BLK	BLU		
SB3		12	12	4	RED	ORG	GRN							
			13	4							BLK	BLU		
SB4		15	2	6	RED	ORG	GRN							
			4	2	RED/BLK	ORG/BLK	GRN/BLK							
			20	2							BLK	BLU		
SB5		12	3	6	RED	ORG	GRN							
			15	6							BLK	BLU		
SB6		15	8	8	RED	ORG	GRN							
			10	4	RED/BLK	ORG/BLK	GRN/BLK							
			14	4							BLK	BLU		
SB7		12	9	8	RED	ORG	GRN							
			17	8							BLK	BLU		
SB8		15	1	6	RED	ORG	GRN							
			5	2	RED/BLK	ORG/BLK	GRN/BLK							
			16	6							BLK	BLU		

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	CB1

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB3
SB3	HEAD 'B'
CB1	SB7
SB7	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.

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.

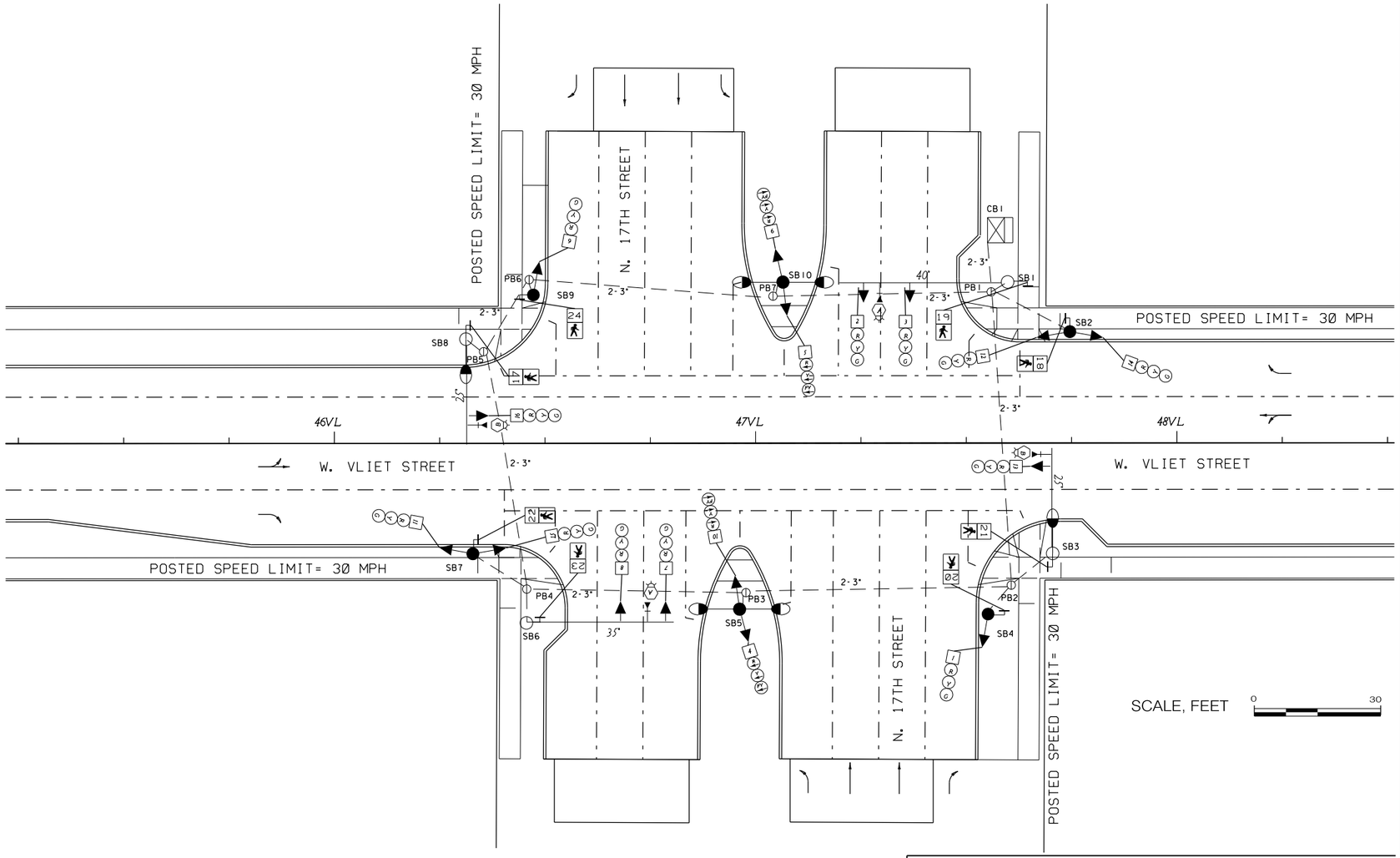
SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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

N



LEGEND

- SERVICE POLE
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- MONOTUBE BASE, POLE, 35'-55' ARM
- MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CITY OF MILWAUKEE LUMINAIRE
- CONFIRMATION LIGHT
- MICROWAVE VEHICLE DETECTOR
- VAULT (17"X30"X24")
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 12"
  WALK INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- YIELD SIGN
- STOP SIGN
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL

W. VLIET ST. & N. 17TH ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

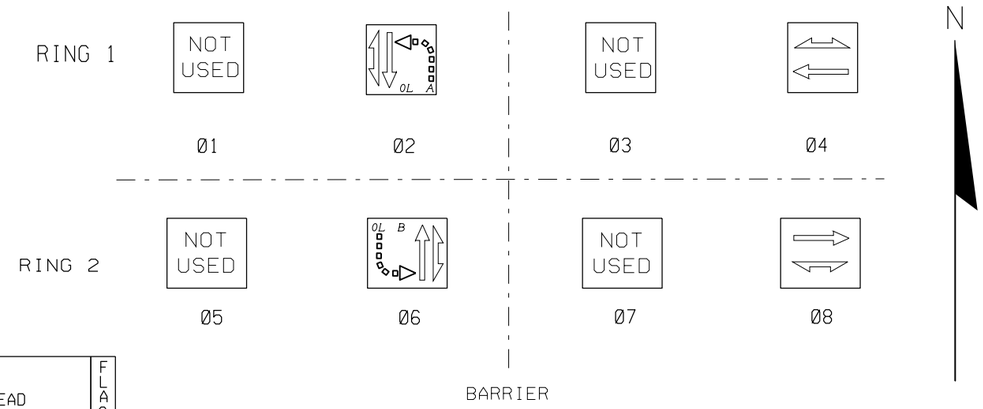
REGION CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: KAP
REVISED BY:

PAGE 1 OF 1

PROJECT NO:2984-00-73	HWY:WEST VLIET STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET OF 149	E

2

SEQUENCE OF OPERATION



	HEAD NUMBERS	FLASH
Ø1		
Ø2	4, 5, 6, 7, 8	R
Ø3		
Ø4	14, 15, 16	R
Ø5		
Ø6	1, 2, 3, 9, 10	R
Ø7		
Ø8	11, 12, 13	R
Ø2P	23, 24	
Ø4P	17, 18	
Ø6P	19, 20	
Ø8P	21, 22	

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	X	6	PED.	X
3				
4		8	PED.	X
5				
6	X	2	PED.	X
7				
8		4	PED.	X

OVERLAPS

O.L. "A" NORTHBOUND FYA
O.L. "B" SOUTHBOUND FYA

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 LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE LIGHTING CABINET	x

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								

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

W. VLIET ST. & N. 17TH ST.
MILWAUKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE: ECONOLITE

DATE

PAGE NO. OF

PROJECT ID:	2984-00-73
INTERSECTION:	W. VLIET ST. & N. 17TH ST.

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: 4/12/2018

CB__ TO	JUMPER	# OF COND.	HEAD NO.	PHASE	SIGNAL INDICATION WIRE COLOR								PED BUTTON	OTHER
					RED	YELLOW	GREEN	<RED	<YELLOW>	<GREEN>	D/WALK	WALK		
SB1		15	2	6	RED	ORG	GRN							
			3	6	RED/BLK	ORG/BLK	GRN/BLK							
			19	6							BLK	BLU		
SB2		15	12	8	RED	ORG	GRN							
			14	4	RED/BLK	ORG/BLK	GRN/BLK							
			18	4							BLK	BLU		
SB3		12	13	8	RED	ORG	GRN							
			21	8							BLK	BLU		
SB4		15	1	6	RED	ORG	GRN							
			9	2				RED/BLK	ORG/BLK	GRN/BLK				
			20	6							BLK	BLU		
SB5		12	10	2				RED	ORG	GRN				
SB6		15	7	2	RED	ORG	GRN							
			8	2	RED/BLK	ORG/BLK	GRN/BLK							
			23	2							BLK	BLU		
SB7		15	11	8	RED	ORG	GRN							
			15	4	RED/BLK	ORG/BLK	GRN/BLK							
			22	8							BLK	BLU		
SB8		12	16	4	RED	ORG	GRN							
			17	4							BLK	BLU		
SB9		15	4	6				RED	ORG	GRN				
			6	2	RED/BLK	ORG/BLK	GRN/BLK							
			24	2							BLK	BLU		
SB10		12	5	6				RED	ORG	GRN				

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
CB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	CB1

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB1
SB1	HEAD 'A'
CB1	SB6
SB6	HEAD'A'
CB1	SB3
SB3	HEAD 'B'
CB1	SB8
SB8	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 CONDUCTORS.
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.

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.

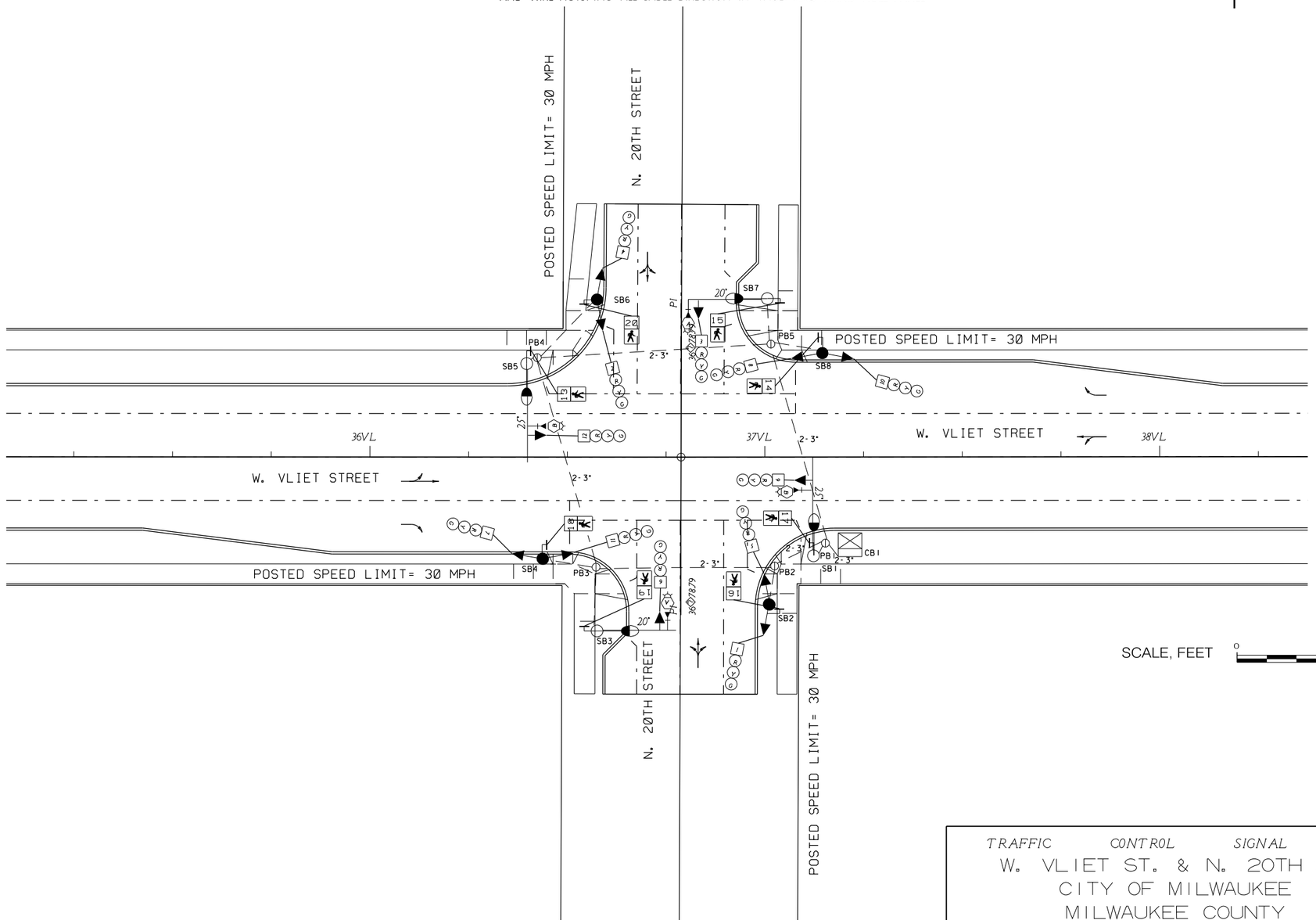
SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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

N



LEGEND

- SERVICE POLE
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- MONOTUBE BASE, POLE, 35'-55' ARM
- MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CITY OF MILWAUKEE LUMINAIRE
- CONFIRMATION LIGHT
- MICROWAVE VEHICLE DETECTOR
- VAULT (17" X30" X24")
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 12"
WALK INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- YIELD SIGN
- STOP SIGN
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL

W. VLIET ST. & N. 20TH ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

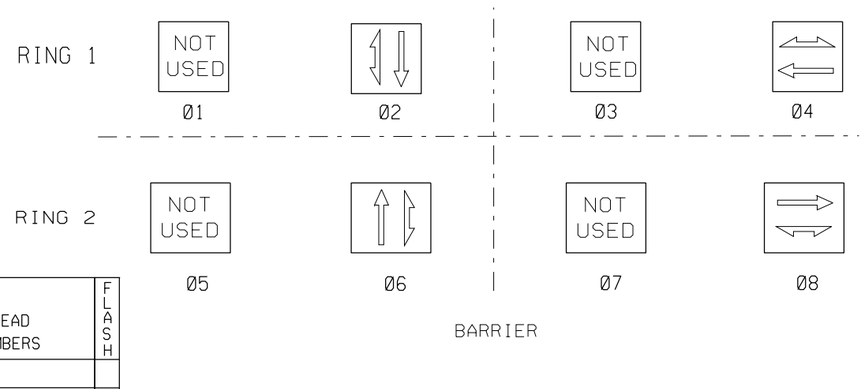
REGION CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: KAP
REVISED BY:

PAGE 1 OF 1

PROJECT NO:2984-00-73	HWY:WEST VLIET STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET 152 OF	E

2

SEQUENCE OF OPERATION



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

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

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	X	6	PED.	X
3				
4		8	PED.	X
5				
6	X	2	PED.	X
7				
8		4	PED.	X

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 LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE LIGHTING CABINET	x

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								

W. VLIET ST. & N. 20TH ST.
MILWAUKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE: ECONOLITE

DATE PAGE NO. OF

PROJECT NO: 2984-00-73 | HWY: WEST VLIET STREET | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS | SHEET 153 E

PROJECT ID:	2984-00-73
INTERSECTION:	W. VLIET ST. & N. 20TH ST.

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: 4/12/2018

CB TO	JUMPER	# OF COND.	HEAD NO.	PHASE	SIGNAL INDICATION WIRE COLOR								PED BUTTON	OTHER
					RED	YELLOW	GREEN	<RED	<YELLOW>	<GREEN>	D/WALK	WALK		
SB1		12	9	8	RED	ORG	GRN							
			17	8							BLK	BLU		
SB2		15	1	6	RED	ORG	GRN							
			5	2	RED/BLK	ORG/BLK	GRN/BLK							
			16	6							BLK	BLU		
SB3		12	6	2	RED	ORG	GRN							
			19	2							BLK	BLU		
SB4		15	7	8	RED	ORG	GRN							
			11	4	RED/BLK	ORG/BLK	GRN/BLK							
			18	8							BLK	BLU		
SB5		12	12	4	RED	ORG	GRN							
			13	4							BLK	BLU		
SB6		15	2	6	RED	ORG	GRN							
			4	2	RED/BLK	ORG/BLK	GRN/BLK							
			20	2							BLK	BLU		
SB7		12	3	6	RED	ORG	GRN							
			15	6							BLK	BLU		
SB8		15	8	8	RED	ORG	GRN							
			10	4	RED/BLK	ORG/BLK	GRN/BLK							
			14	4							BLK	BLU		

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	CB1

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB3
SB3	HEAD 'A'
CB1	SB7
SB7	HEAD 'A'
CB1	SB1
SB1	HEAD 'B'
CB1	SB5
SB5	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 CONDUCTORS.
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.

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.

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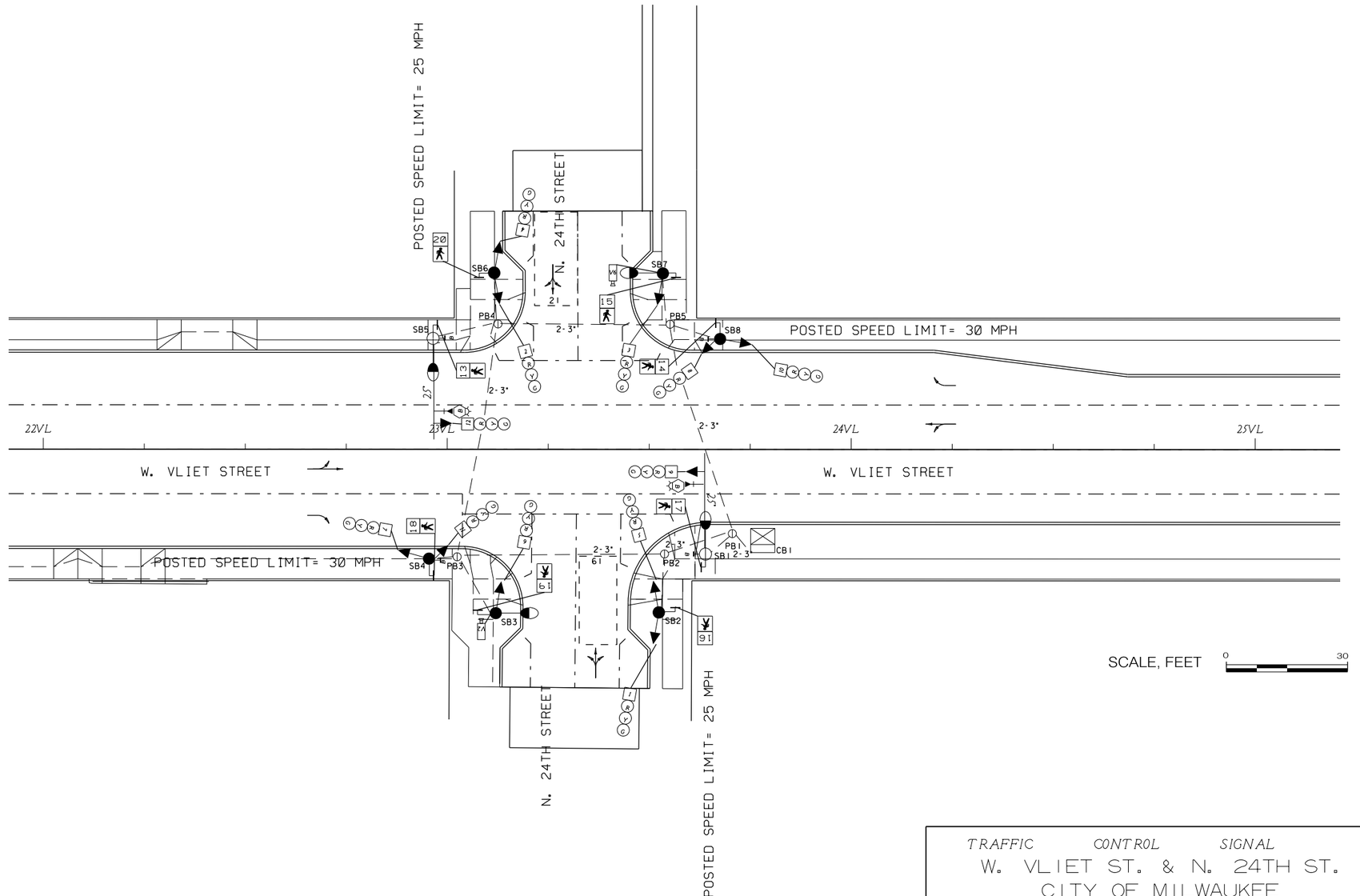
N

LEGEND

- SERVICE POLE
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- MONOTUBE BASE, POLE, 35'-55' ARM
- MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CITY OF MILWAUKEE LUMINAIRE
- CONFIRMATION LIGHT
- MICROWAVE VEHICLE DETECTOR
- VAULT (17" X30" X24")
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 12"
  WALK INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- YIELD SIGN
- STOP SIGN
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



SCALE, FEET 0 30

TRAFFIC CONTROL SIGNAL

W. VLIET ST. & N. 24TH ST.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

REGION CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: KAP
REVISED BY:

PAGE 1 OF 1

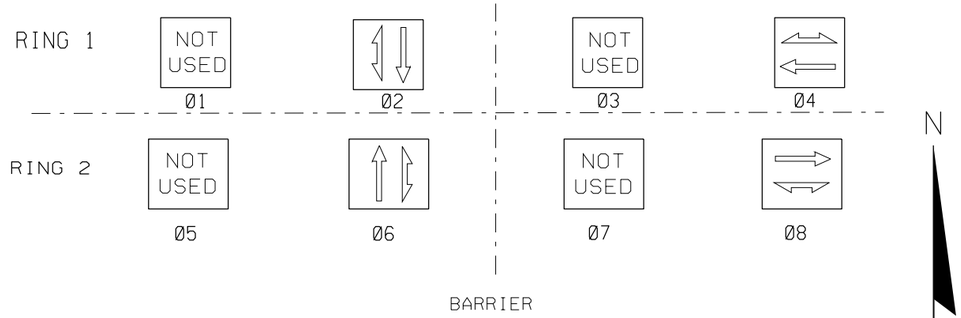
PROJECT NO:2984-00-73	HWY:WEST VLIET STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET OF 155	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\VLIET STREET.dgn PLOT DATE : 18-JUL-2018 08:09 PLOT BY : kpfeif PLOT NAME : PLOT SCALE : 30.000000:1.000000

WISDOT/CADDS SHEET 42

2

SEQUENCE OF OPERATION



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

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

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		4·8

CONTROLLER LOGIC

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

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		61				
CALLED PHASE		2		6				
CALL OPTION		X		X				
DELAY TIME								
EXTENTION OPTION		X		X				
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

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 LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE LIGHTING CABINET	x

W. VLIET ST. & N. 24TH ST.
MILWAUKEE COUNTY

SIGNAL NO.

CONTROLLER TYPE: ECONOLITE

DATE

PAGE NO. OF

PROJECT NO: 2984-00-73	HWY: WEST VLIET STREET	COUNTY: MILWAUKEE	SEQUENCE OF OPERATIONS	SHEET 156	E

PROJECT ID:	2984-00-73
INTERSECTION:	W. VLIET ST. & N. 24TH ST.

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: 4/12/2018

CB TO	JUMPER	# OF COND.	HEAD NO.	PHASE	SIGNAL INDICATION WIRE COLOR								PED BUTTON	OTHER
					RED	YELLOW	GREEN	<RED	<YELLOW>	<GREEN>	D/WALK	WALK		
SB1		15	9	8	RED	ORG	GRN							
			17	8							BLK	BLU		
			BUTTON	6									WHT/BLK	
SB2		15	1	6	RED	ORG	GRN							
			5	2	RED/BLK	ORG/BLK	GRN/BLK							
			16	6							BLK	BLU		
SB3		12	6	2	RED	ORG	GRN							
			19	2							BLK	BLU		
SB4		15	7	8	RED	ORG	GRN							
			11	4	RED/BLK	ORG/BLK	GRN/BLK							
			18	8							BLK	BLU		
			BUTTON	2									WHT/BLK	
SB5		15	12	4	RED	ORG	GRN							
			13	4							BLK	BLU		
			BUTTON	2									WHT/BLK	
SB6		15	2	6	RED	ORG	GRN							
			4	2	RED/BLK	ORG/BLK	GRN/BLK							
			20	2							BLK	BLU		
SB7		12	3	6	RED	ORG	GRN							
			15	6							BLK	BLU		
SB8		15	8	4	RED	ORG	GRN							
			10	8	RED/BLK	ORG/BLK	GRN/BLK							
			14	4							BLK	BLU		
			BUTTON										WHT/BLK	

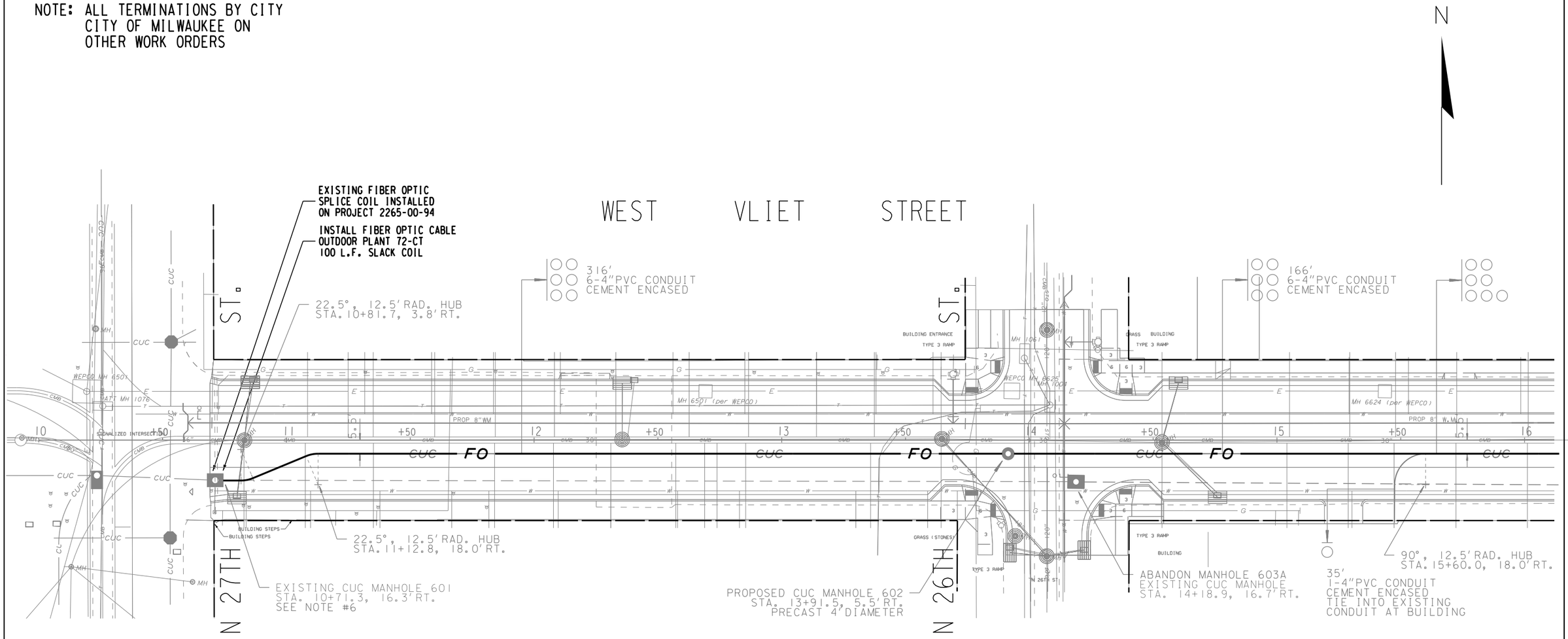
EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	CB1

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB1
SB1	HEAD 'B'
CB1	SB5
SB5	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 CONDUCTORS.
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.

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT ——— FO ———

NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
OTHER WORK ORDERS



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.
6) REMOVE ABANDONED CONDUIT FROM MANHOLE WALL AND INSTALL THE PROPOSED CONDUIT INTO THE MANHOLE AT THE SAME LOCATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
○	PROPOSED TES MANHOLE
■	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

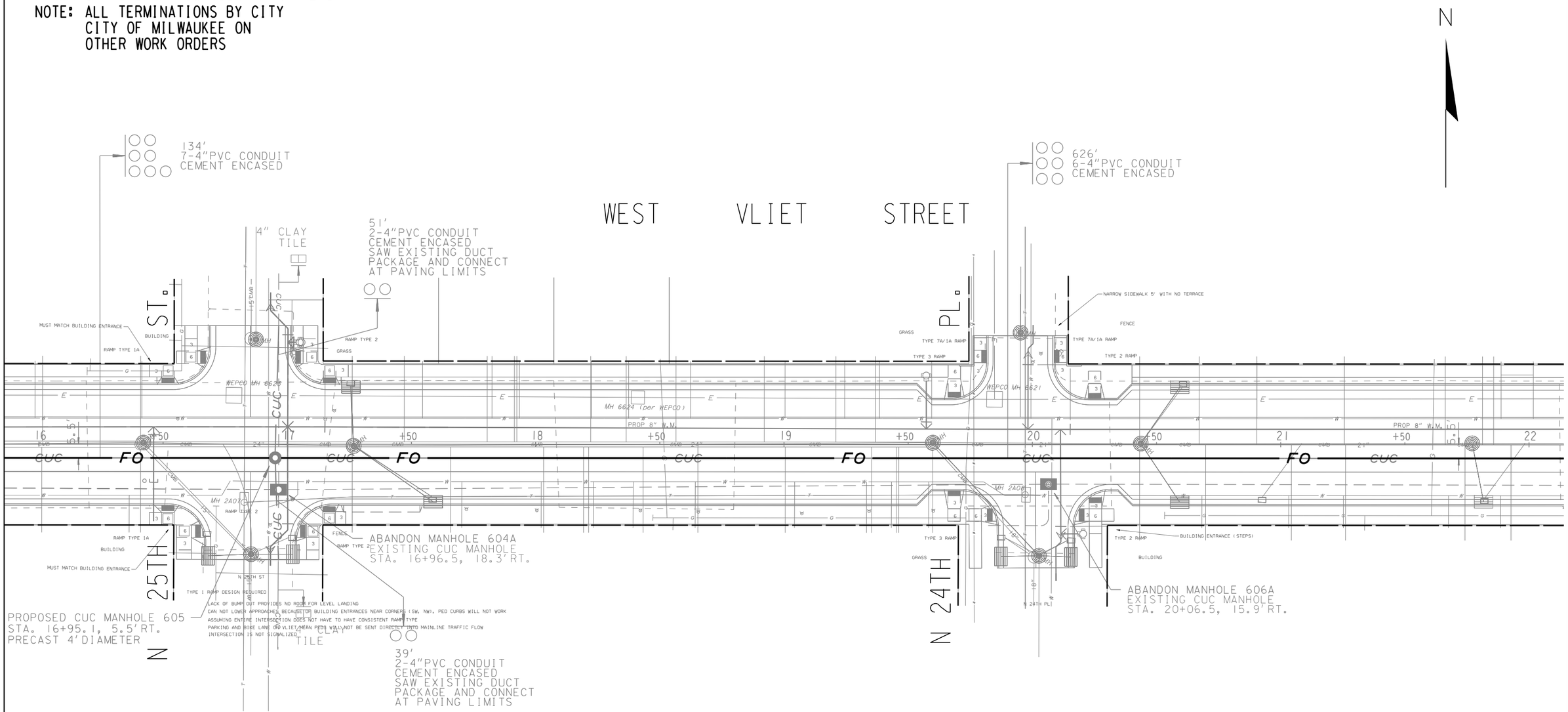
SHEET 1 OF 10

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 158	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2984-00-93 Vliet 27th to 12th\2984-00-93 LFA Plan.dgn PLOT DATE : 23-JUL-2018 16:22 PLOT BY : jaortiz PLOT NAME : PLOT SCALE : 40.000000:1.000000

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
OTHER WORK ORDERS



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.
6) REMOVE ABANDONED CONDUIT FROM MANHOLE WALL AND INSTALL THE PROPOSED CONDUIT INTO THE MANHOLE AT THE SAME LOCATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
○	PROPOSED TES MANHOLE
■	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 2 OF 10

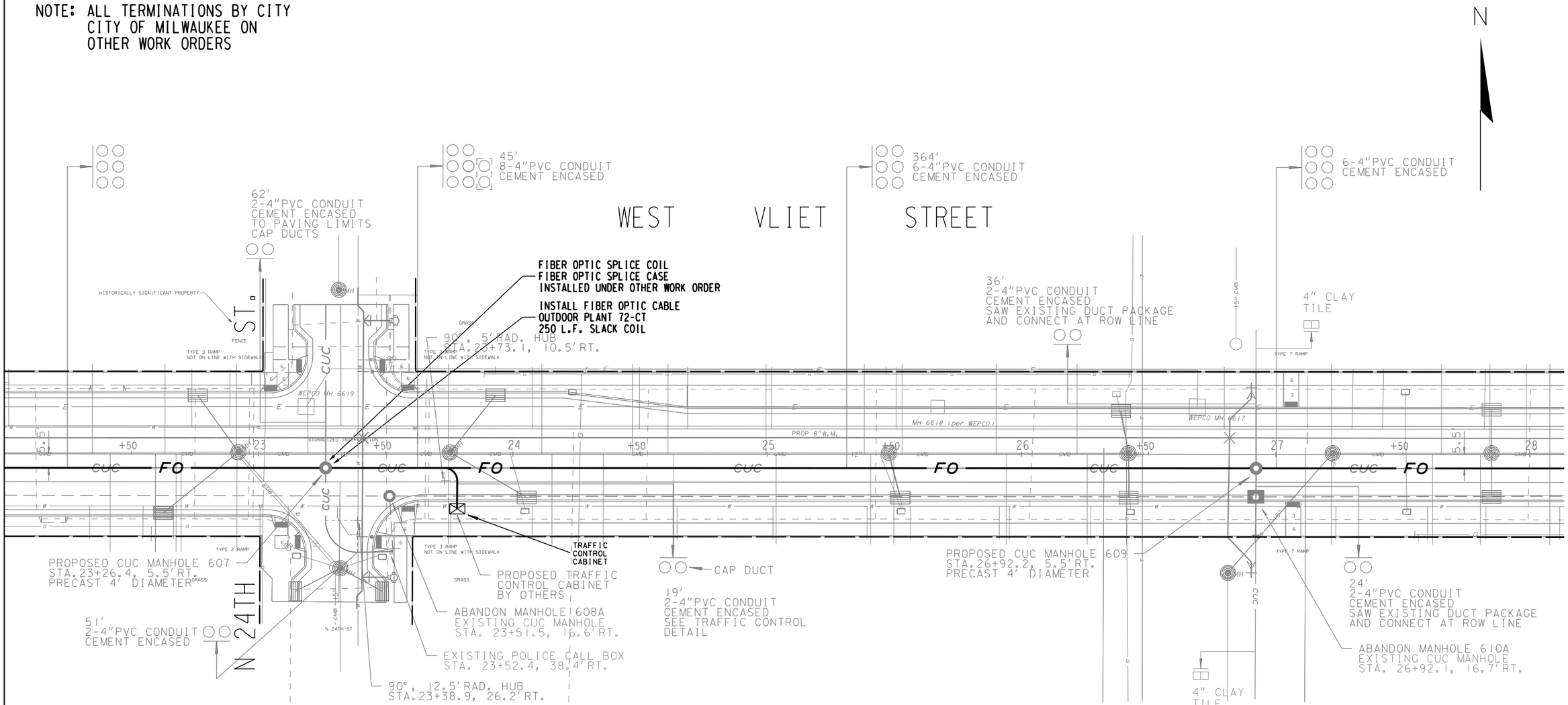
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 159	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2984-00-93 Vliet 27th to 12th\2984-00-93 LFA Plan.dgn PLOT DATE : 23-JUL-2018 16:28 PLOT BY : jaortiz PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
OTHER WORK ORDERS



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.
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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.
6) REMOVE ABANDONED CONDUIT FROM MANHOLE WALL AND INSTALL THE PROPOSED CONDUIT INTO THE MANHOLE AT THE SAME LOCATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
○	PROPOSED TES MANHOLE
◘	EXISTING TES MANHOLE
—— cuc ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

PROJECT NO: 2984–00–73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 160	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2984-00-93 Vliet 27th to 12th\2984-00-93 LFA Plan.dgn
PLOT DATE : 23-JUL-2018 16:31
PLOT BY : jaortiz
PLOT NAME :
PLOT SCALE : 40.000000:1.000000
WISDOT/CADDS SHEET 42

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

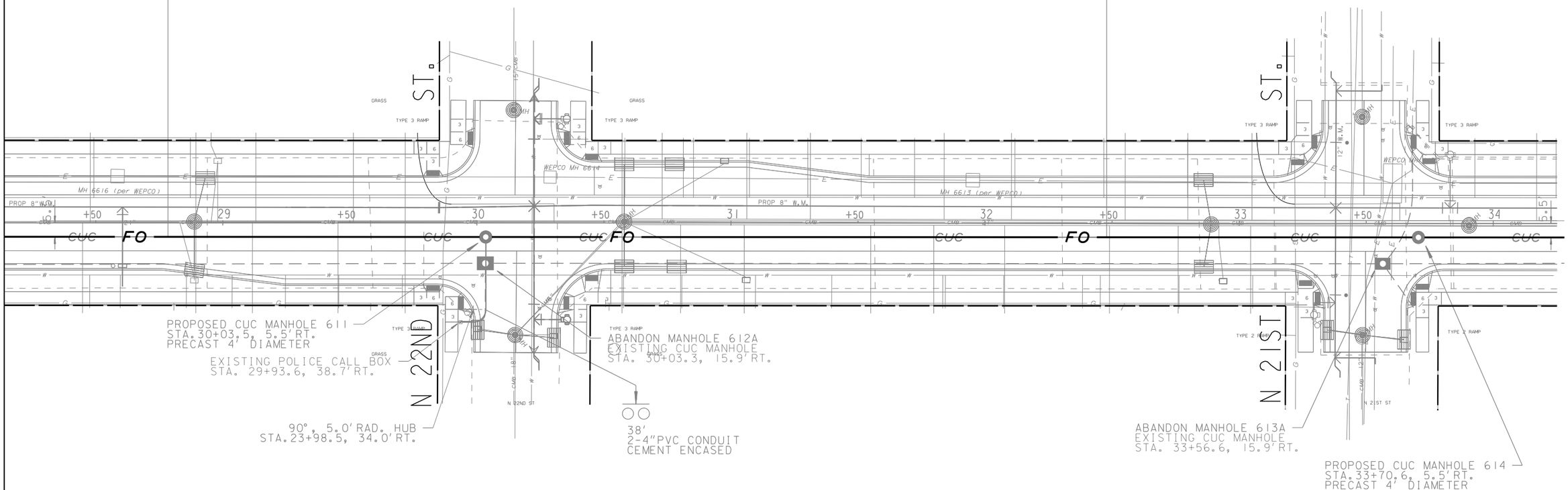
NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
OTHER WORK ORDERS

N

307'
6-4"PVC CONDUIT
CEMENT ENCASED

363'
6-4"PVC CONDUIT
CEMENT ENCASED

WEST VLIET STREET



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.
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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.
6) REMOVE ABANDONED CONDUIT FROM MANHOLE WALL AND INSTALL THE PROPOSED CONDUIT INTO THE MANHOLE AT THE SAME LOCATION.

LEGEND

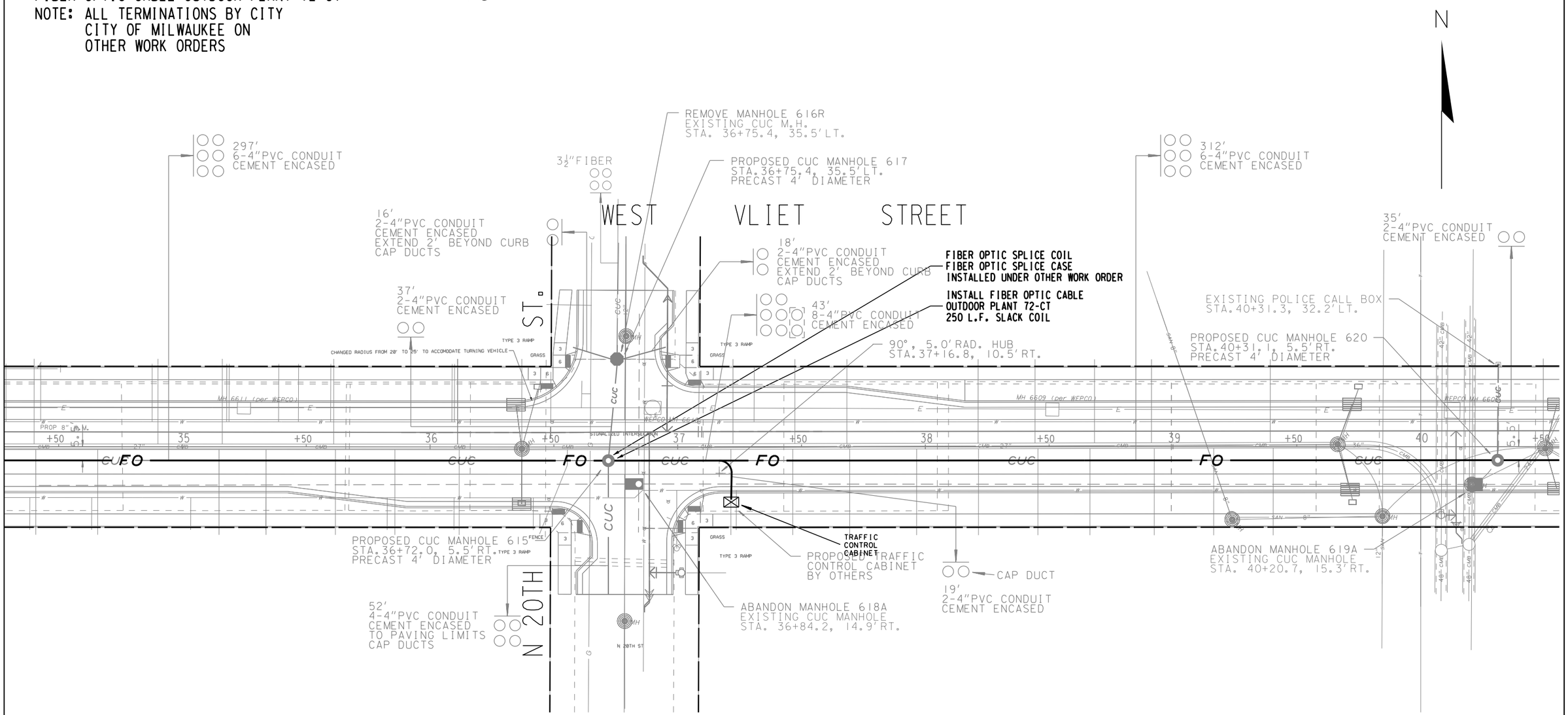
— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
○	PROPOSED TES MANHOLE
■	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 4 OF 10

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 161	E

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
OTHER WORK ORDERS



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LEGEND

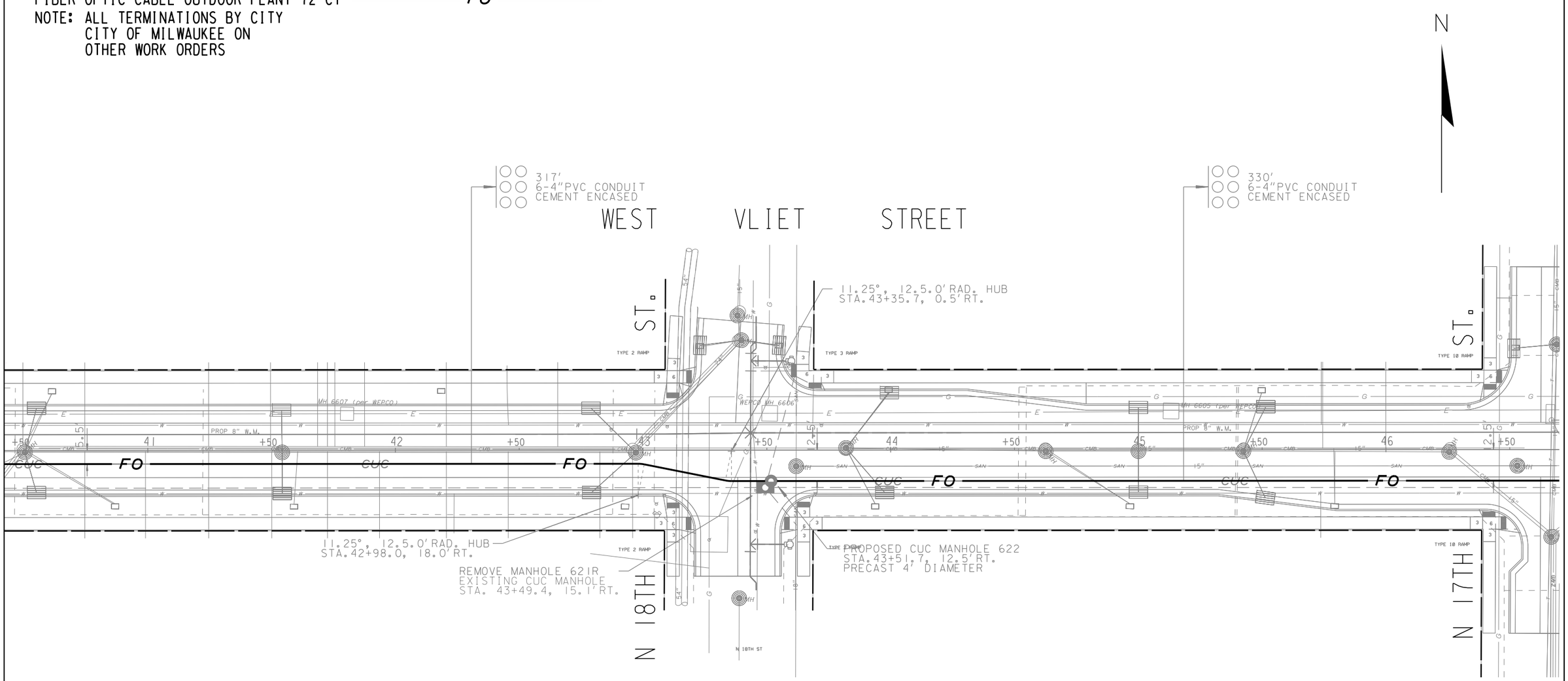
— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
	PROPOSED TES MANHOLE
	EXISTING TES MANHOLE
—— cuc ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 5 OF 10

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 162	E

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
OTHER WORK ORDERS



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LEGEND

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○	PROPOSED TES MANHOLE
■	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 6 OF 10

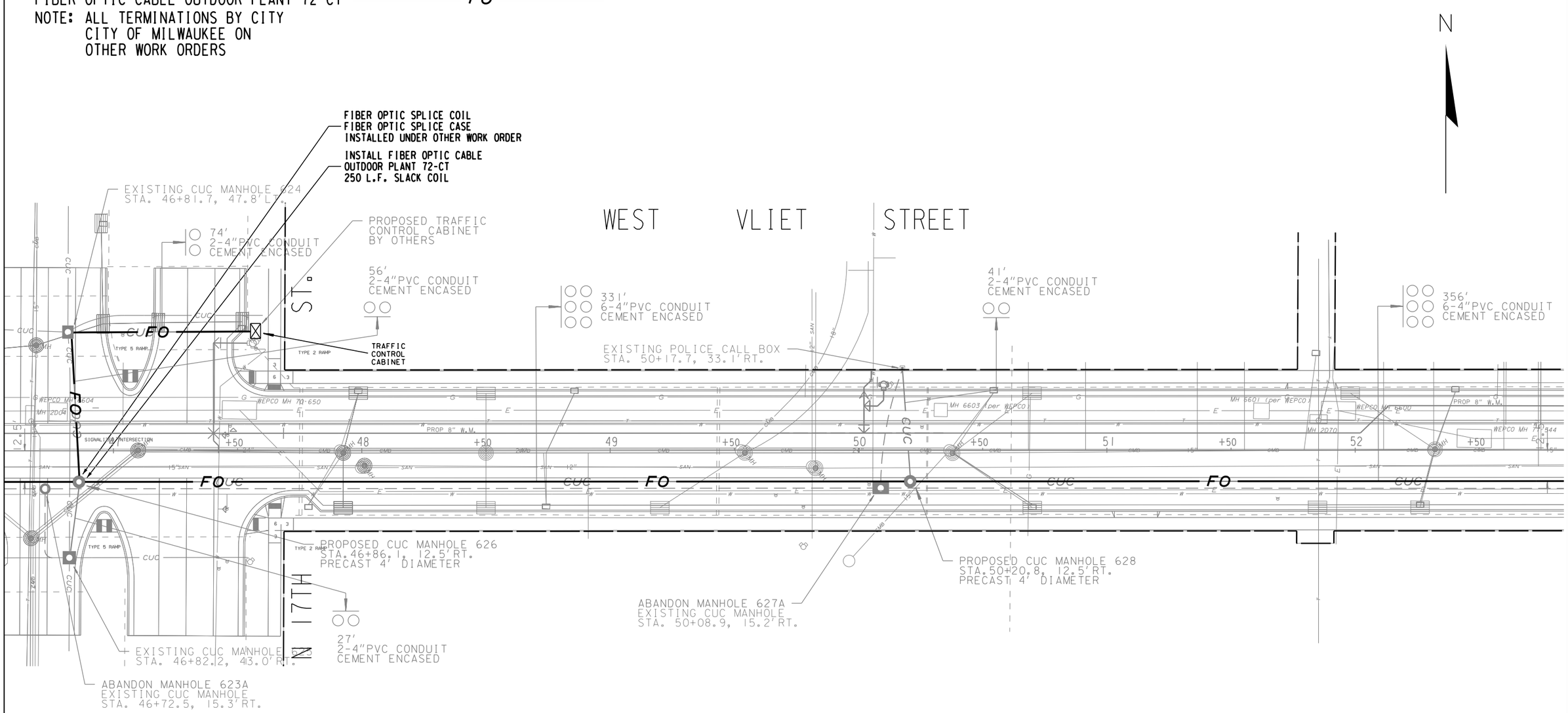
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 163	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2984-00-93 Vliet 27th to 12th\2984-00-93 LFA Plan.dgn PLOT DATE : 23-JUL-2018 16:49 PLOT BY : jaortiz PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT ——— FO ———

NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
OTHER WORK ORDERS



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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
◉	PROPOSED TES MANHOLE
■	EXISTING TES MANHOLE
—— cuc ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 7 OF 10

PROJECT NO: 2984–00–73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 164	E

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
OTHER WORK ORDERS

N

WEST VLIET STREET

N 15TH ST.

N 14TH ST.

PROPOSED CUC MANHOLE 630
STA. 53+89.0, 12.5'RT
PRECAST 4' DIAMETER

370'
6-4"PVC CONDUIT
CEMENT ENCASED

PROPOSED CUC MANHOLE 631
STA. 57+57.3, 12.5'RT.
PRECAST 4' DIAMETER

6-4"PVC CONDUIT
CEMENT ENCASED

ABANDON MANHOLE 629A
EXISTING CUC MANHOLE
STA. 53+82.3, 15.5'RT.

5'
2-4"PVC CONDUIT
CEMENT ENCASED
EXTEND 2' BEYOND
CURB AND CAP DUCTS

REMOVE MANHOLE 632R
EXISTING CUC MANHOLE
STA. 57+57.3, 14.5'RT.

4" CLAY
TILE

38'
4-4"PVC CONDUIT
CEMENT ENCASED
SAW EXISTING DUCT
PACKAGE AND CONNECT
AT PAVING LIMITS

NOTES:

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LEGEND

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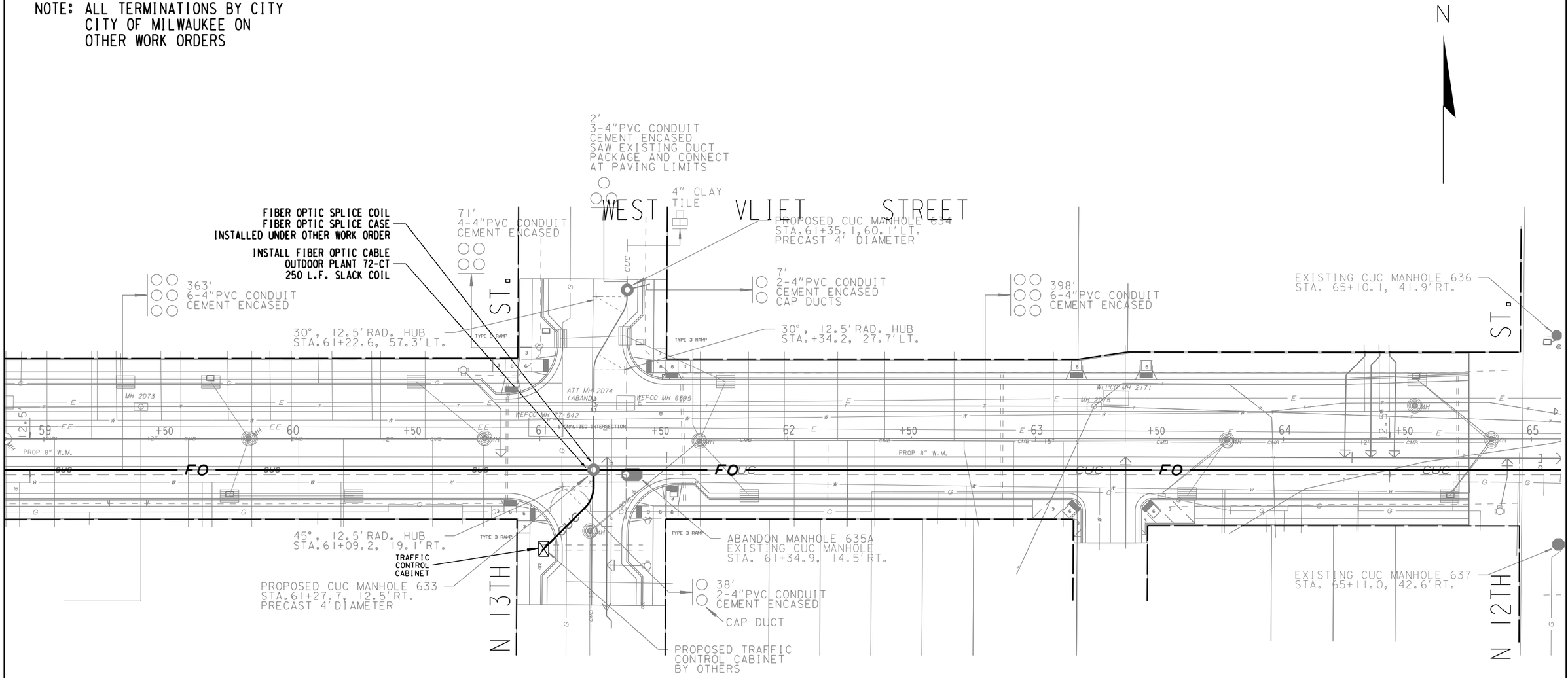
○	PROPOSED TES MANHOLE
■	EXISTING TES MANHOLE
—— cuc ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 8 OF 10

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 165	E

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
OTHER WORK ORDERS



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LEGEND

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	PROPOSED TES MANHOLE
	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

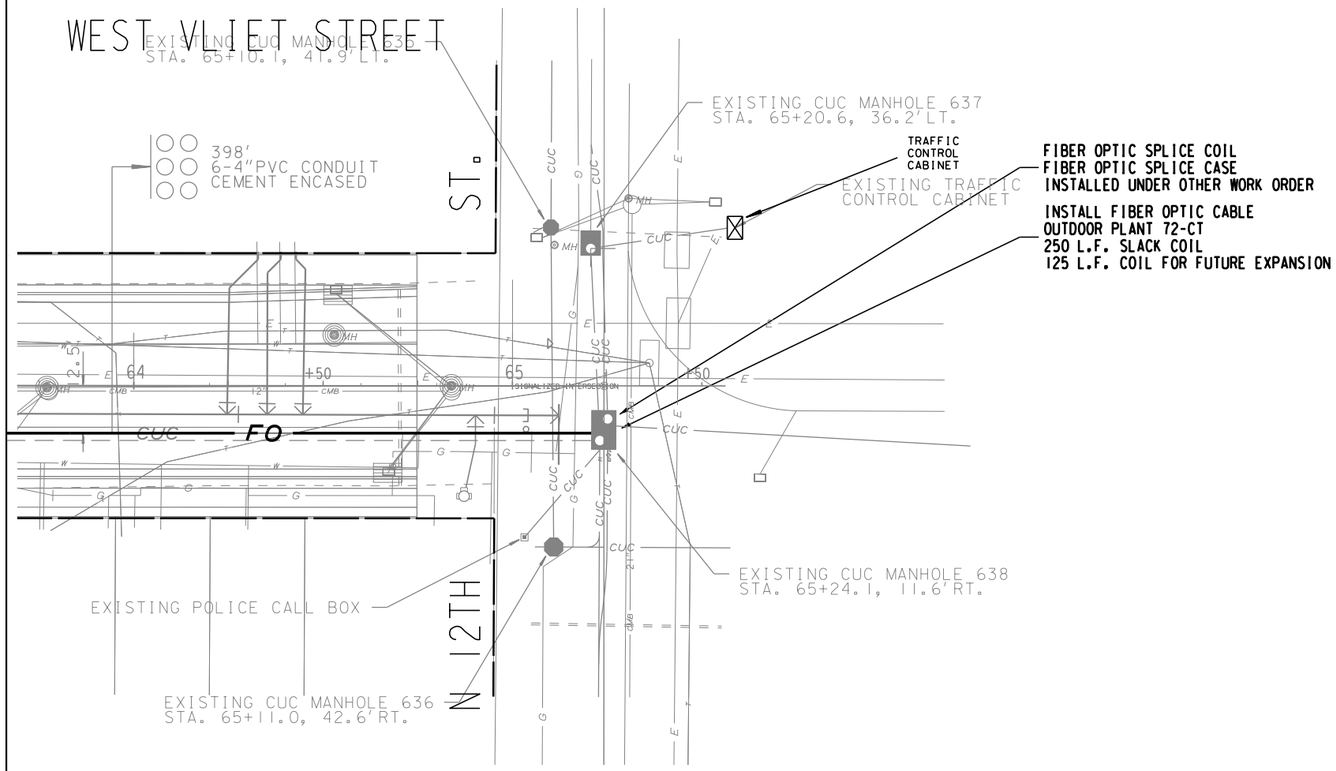
SHEET 9 OF 10

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 166	E

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
OTHER WORK ORDERS

N



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	PROPOSED TES MANHOLE
	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 10 OF 10

PROJECT NO: 2984–00–73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 167	E

2

WEST VLIET STREET

N

316'
6-4"PVC CONDUIT
CEMENT ENCASED

166'
6-4"PVC CONDUIT
CEMENT ENCASED

22.5°, 12.5' RAD. HUB
STA. 10+81.7, 3.8' RT.

22.5°, 12.5' RAD. HUB
STA. 11+12.8, 18.0' RT.

EXISTING CUC MANHOLE 601
STA. 10+71.3, 16.3' RT.
SEE NOTE #6

PROPOSED CUC MANHOLE 602
STA. 13+91.5, 5.5' RT.
PRECAST 4' DIAMETER

ABANDON MANHOLE 603A
EXISTING CUC MANHOLE
STA. 14+18.9, 16.7' RT.

35'
1-4"PVC CONDUIT
CEMENT ENCASED
TIE INTO EXISTING
CONDUIT AT BUILDING

90°, 12.5' RAD. HUB
STA. 15+60.0, 18.0' RT.

N 27TH ST.

N 26TH ST.

NOTES:

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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
⊡	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	ABANDONED CONDUIT

SHEET 1 OF 13

STATE PROJECT NUMBER 2984-00-03 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (CUC)	SCALE FEET	SHEET NO: 168	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\VLIET 12_27\DGN\STA 10-16.DGN

2

WEST VLIET STREET

N

134'
7-4"PVC CONDUIT
CEMENT ENCASED

4" CLAY TILE

51'
2-4"PVC CONDUIT
CEMENT ENCASED
SAW EXISTING DUCT
PACKAGE AND CONNECT
AT PAVING LIMITS

626'
6-4"PVC CONDUIT
CEMENT ENCASED

ST.

PL.

CUC

PROP 8" W.M.

16 17 18 19 20 21 22

5.5'

MH 2A07

MH 2A08

N 25TH

N 24TH

ABANDON MANHOLE 604A
EXISTING CUC MANHOLE
STA. 16+96.5, 18.3'RT.

PROPOSED CUC MANHOLE 605
STA. 16+95.1, 5.5'RT.
PRECAST 4'DIAMETER

4" CLAY TILE

39'
2-4"PVC CONDUIT
CEMENT ENCASED
SAW EXISTING DUCT
PACKAGE AND CONNECT
AT PAVING LIMITS

ABANDON MANHOLE 606A
EXISTING CUC MANHOLE
STA. 20+06.5, 15.9'RT.

NOTES:

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LEGEND

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●	PROPOSED TES MANHOLE
▣	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	ABANDONED CONDUIT

SHEET 2 OF 13

STATE PROJECT NUMBER 2984-00-03 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 169	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\VLIET 12_27\DGN\STA 16-22.DGN

2

WEST VLIET STREET

N

62'
2-4"PVC CONDUIT
CEMENT ENCASED
TO PAVING LIMITS
CAP DUCTS

45'
8-4"PVC CONDUIT
CEMENT ENCASED

364'
6-4"PVC CONDUIT
CEMENT ENCASED

6-4"PVC CONDUIT
CEMENT ENCASED

36'
2-4"PVC CONDUIT
CEMENT ENCASED
SAW EXISTING DUCT PACKAGE
AND CONNECT AT ROW LINE

4" CLAY
TILE

ST.

90°, 5' RAD. HUB
STA. 23+73.1, 10.5' RT.

PROPOSED CUC MANHOLE 607
STA. 23+26.4, 5.5' RT.
PRECAST 4' DIAMETER

N 24TH

51'
2-4"PVC CONDUIT
CEMENT ENCASED

PROPOSED TRAFFIC
CONTROL CABINET
BY OTHERS

ABANDON MANHOLE 608A
EXISTING CUC MANHOLE
STA. 23+51.5, 16.6' RT.

EXISTING POLICE CALL BOX
STA. 23+52.4, 38.4' RT.

90°, 12.5' RAD. HUB
STA. 23+38.9, 26.2' RT.

CAP DUCT

19'
2-4"PVC CONDUIT
CEMENT ENCASED
SEE TRAFFIC CONTROL
DETAIL

PROPOSED CUC MANHOLE 609
STA. 26+92.2, 5.5' RT.
PRECAST 4' DIAMETER

24'
2-4"PVC CONDUIT
CEMENT ENCASED
SAW EXISTING DUCT PACKAGE
AND CONNECT AT ROW LINE

ABANDON MANHOLE 610A
EXISTING CUC MANHOLE
STA. 26+92.1, 16.7' RT.

4" CLAY
TILE

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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
▣	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	ABANDONED CONDUIT

SHEET 3 OF 13

STATE PROJECT NUMBER 2984-00-03 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 170 E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\VLIET 12_27\DGN\STA 22-28.DGN

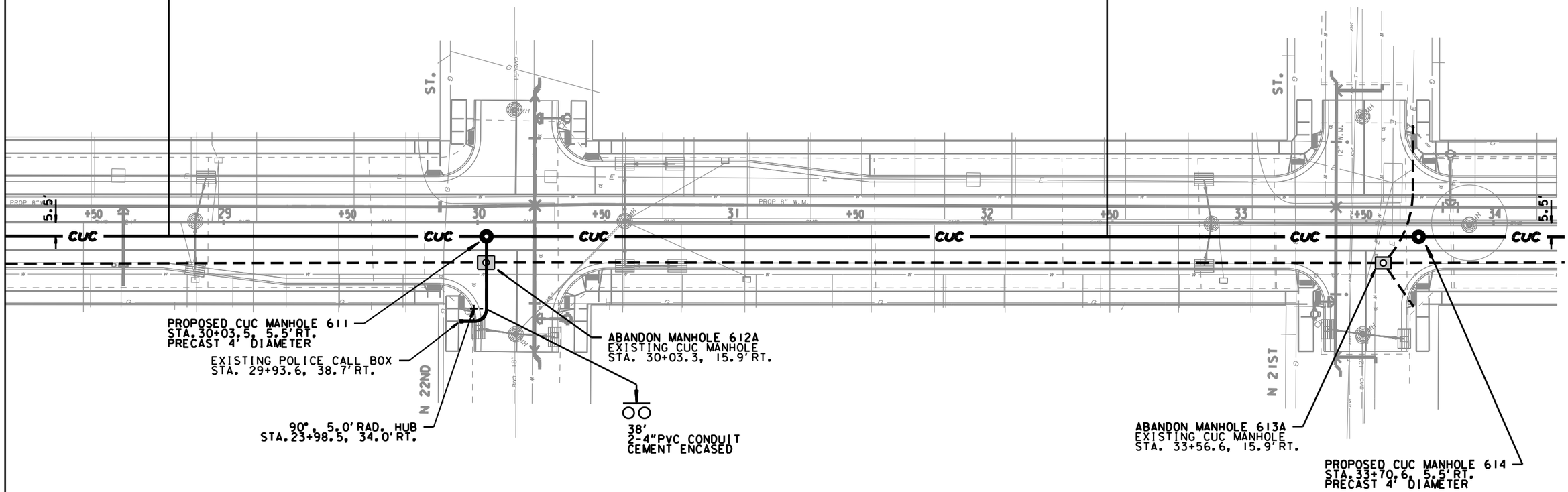
2

WEST VLIET STREET

N

307'
6-4"PVC CONDUIT
CEMENT ENCASED

363'
6-4"PVC CONDUIT
CEMENT ENCASED



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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
▣	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	ABANDONED CONDUIT

SHEET 4 OF 13

STATE PROJECT NUMBER 2984-00-03 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 171	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\VLIET 12_27\DGN\STA 28-34.DGN

2

WEST VLIET STREET

N

297'
6-4"PVC CONDUIT
CEMENT ENCASED

16'
2-4"PVC CONDUIT
CEMENT ENCASED
EXTEND 2' BEYOND CURB
CAP DUCTS

3½"FIBER

REMOVE MANHOLE 616R
EXISTING CUC M.H.
STA. 36+75.4, 35.5'LT.

PROPOSED CUC MANHOLE 617
STA.36+75.4, 35.5'LT.
PRECAST 4' DIAMETER

18'
2-4"PVC CONDUIT
CEMENT ENCASED
EXTEND 2' BEYOND CURB
CAP DUCTS

37'
2-4"PVC CONDUIT
CEMENT ENCASED

43'
8-4"PVC CONDUIT
CEMENT ENCASED

90°, 5.0'RAD. HUB
STA.37+16.8, 10.5'RT.

312'
6-4"PVC CONDUIT
CEMENT ENCASED

35'
2-4"PVC CONDUIT
CEMENT ENCASED

EXISTING POLICE CALL BOX
STA.40+31.3, 32.2'LT.

PROPOSED CUC MANHOLE 620
STA.40+31.1, 5.5'RT.
PRECAST 4' DIAMETER

ST.

N 20TH

PROPOSED CUC MANHOLE 615
STA.36+72.0, 5.5'RT.
PRECAST 4' DIAMETER

52'
4-4"PVC CONDUIT
CEMENT ENCASED
TO PAVING LIMITS
CAP DUCTS

PROPOSED TRAFFIC
CONTROL CABINET
BY OTHERS

ABANDON MANHOLE 618A
EXISTING CUC MANHOLE
STA. 36+84.2, 14.9'RT.

CAP DUCT

19'
2-4"PVC CONDUIT
CEMENT ENCASED

ABANDON MANHOLE 619A
EXISTING CUC MANHOLE
STA. 40+20.7, 15.3'RT.

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.
6) REMOVE ABANDONED CONDUIT FROM MANHOLE WALL AND INSTALL THE PROPOSED CONDUIT INTO THE MANHOLE AT THE SAME LOCATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
▣	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	ABANDONED CONDUIT

SHEET 5 OF 13

STATE PROJECT NUMBER 2984-00-03 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 172	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\VLIET 12_27\DGN\STA 34-40.DGN

WEST VLIET STREET

N

317'
6-4"PVC CONDUIT
CEMENT ENCASED

330'
6-4"PVC CONDUIT
CEMENT ENCASED

11.25°, 12.5.0' RAD. HUB
STA. 43+35.7, 0.5' RT.

11.25°, 12.5.0' RAD. HUB
STA. 42+98.0, 18.0' RT.

REMOVE MANHOLE 621R
EXISTING CUC MANHOLE
STA. 43+49.4, 15.1' RT.

PROPOSED CUC MANHOLE 622
STA. 43+51.7, 12.5' RT.
PRECAST 4' DIAMETER

ST.

N 18TH

N 17TH

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 FROM MANHOLE WALL AND INSTALL THE PROPOSED CONDUIT INTO THE MANHOLE AT THE SAME LOCATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
◻	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	ABANDONED CONDUIT

SHEET 6 OF 13

STATE PROJECT NUMBER 2984-00-03 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 173	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\VLIET 12_27\DGN\STA 40-46.DGN

WEST VLIET STREET

N

EXISTING CUC MANHOLE 624
STA. 46+81.7, 47.8'LT.

74'
2-4"PVC CONDUIT
CEMENT ENCASED

PROPOSED TRAFFIC
CONTROL CABINET
BY OTHERS

56'
2-4"PVC CONDUIT
CEMENT ENCASED

331'
6-4"PVC CONDUIT
CEMENT ENCASED

EXISTING POLICE CALL BOX
STA. 50+17.7, 33.1'RT.

41'
2-4"PVC CONDUIT
CEMENT ENCASED

356'
6-4"PVC CONDUIT
CEMENT ENCASED

PROPOSED CUC MANHOLE 626
STA. 46+86.1, 12.5'RT.
PRECAST 4' DIAMETER

N 17TH ST.

27'
2-4"PVC CONDUIT
CEMENT ENCASED

EXISTING CUC MANHOLE 625
STA. 46+82.2, 43.0'RT.

ABANDON MANHOLE 623A
EXISTING CUC MANHOLE
STA. 46+72.5, 15.3'RT.

ABANDON MANHOLE 627A
EXISTING CUC MANHOLE
STA. 50+08.9, 15.2'RT.

PROPOSED CUC MANHOLE 628
STA. 50+20.8, 12.5'RT.
PRECAST 4' DIAMETER

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 FROM MANHOLE WALL AND INSTALL THE PROPOSED CONDUIT INTO THE MANHOLE AT THE SAME LOCATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
▣	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	ABANDONED CONDUIT

SHEET 7 OF 13

STATE PROJECT NUMBER 2984-00-03 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 174	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\VLIET 12_27\DGN\STA 46-52.DGN

WEST VLIET STREET

N

PROPOSED CUC MANHOLE 630
STA. 53+89.0, 12.5' RT
PRECAST 4' DIAMETER

364'
6-4"PVC CONDUIT
CEMENT ENCASED

PROPOSED CUC MANHOLE 631
STA. 57+57.3, 12.5' RT.
PRECAST 4' DIAMETER

6-4"PVC CONDUIT
CEMENT ENCASED

ABANDON MANHOLE 629A
EXISTING CUC MANHOLE
STA. 53+82.3, 15.5' RT.

5'
2-4"PVC CONDUIT
CEMENT ENCASED
EXTEND 2' BEYOND
CURB AND CAP DUCTS

REMOVE MANHOLE 632R
EXISTING CUC MANHOLE
STA. 57+57.3, 14.5' RT.

4" CLAY
TILE

38'
4-4"PVC CONDUIT
CEMENT ENCASED
SAW EXISTING DUCT
PACKAGE AND CONNECT
AT PAVING LIMITS

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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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
◻	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	ABANDONED CONDUIT

SHEET 8 OF 13

STATE PROJECT NUMBER 2984-00-03 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 175	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\VLIET 12_27\DGN\STA 52-58.DGN

2

WEST VLIET STREET

N

376'
6-4"PVC CONDUIT
CEMENT ENCASED

2'
3-4"PVC CONDUIT
CEMENT ENCASED
SAW EXISTING DUCT
PACKAGE AND CONNECT
AT PAVING LIMITS

4" CLAY
TILE

7'
2-4"PVC CONDUIT
CEMENT ENCASED
CAP DUCTS

PROPOSED CUC MANHOLE 634
STA. 61+35.1, 60.1'LT.
PRECAST 4' DIAMETER

22.5°, 12.5' RAD. HUB
STA. 61+47.5, 54.1'LT.

70'
4-4"PVC CONDUIT
CEMENT ENCASED

22.5°, 12.5' RAD. HUB
STA. 61+27.8, 36.5'RT.

PROPOSED CUC MANHOLE 633
STA. 61+40.5, 12.5'RT.
PRECAST 4' DIAMETER

379'
6-4"PVC CONDUIT
CEMENT ENCASED

EXISTING CUC MANHOLE 636
STA. 65+10.1, 41.9'RT.

ST.

12.5'

59 60 61 62 63 64 65

+50

CUC

PROP 8" W.M.

REMOVE MANHOLE 635R
EXISTING CUC MANHOLE
STA. 61+34.9, 14.5'RT.

3'-8-4"PVC CONDUIT
CEMENT ENCASED

CAP DUCT

48'
2-4"PVC CONDUIT
CEMENT ENCASED

N 13TH

45°, 5.0' RAD. HUB
STA. 61+35.6, 17.5'RT.

PROPOSED TRAFFIC
CONTROL CABINET
BY OTHERS

EXISTING CUC MANHOLE 637
STA. 65+11.0, 42.6'RT.

N 12TH

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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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

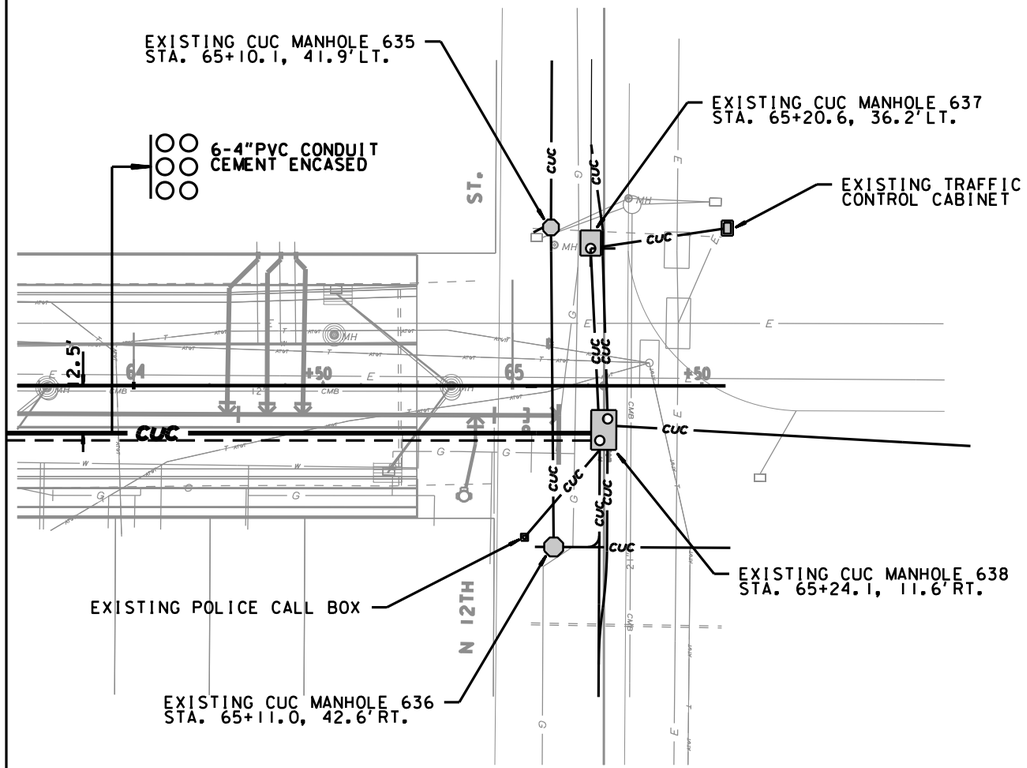
SHEET 9 OF 13

STATE PROJECT NUMBER 2984-00-03 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 176	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\VLIET 12_27\DGN\STA 58-64 REV.DGN

WEST VLIET STREET

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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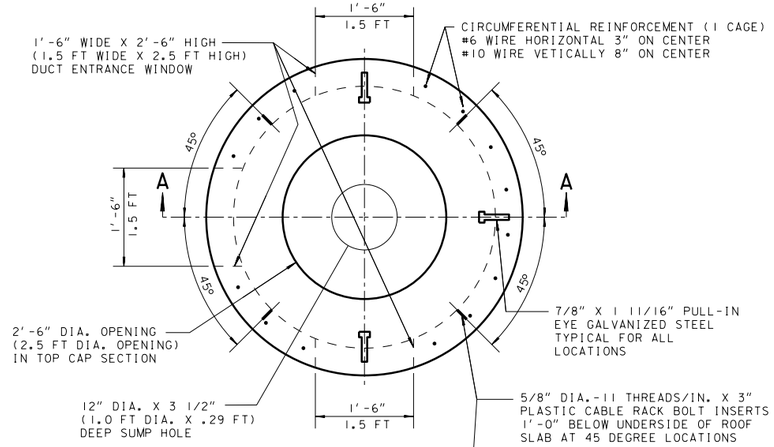
LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
▣	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	ABANDONED CONDUIT

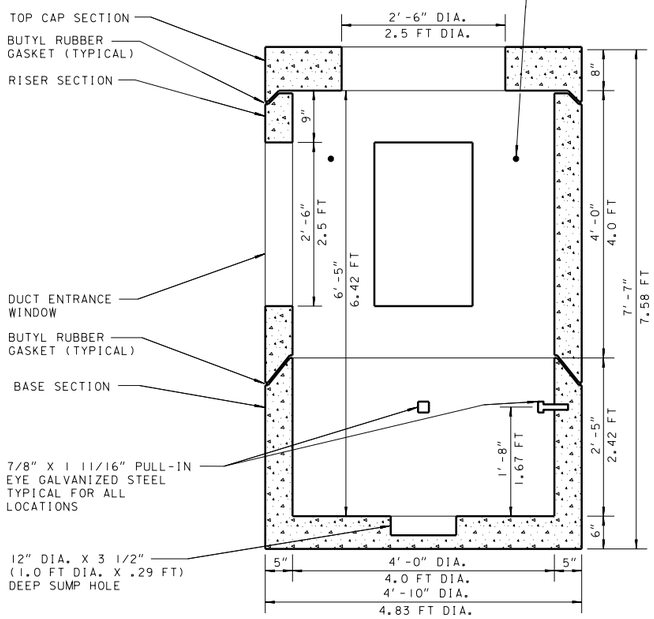
SHEET 10 OF 13

STATE PROJECT NUMBER 2984-00-03 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\VLIET 12-27\DGN\STA 64-65.DGN



TOP VIEW



NOTES:
THE JOINTS MAY BE EITHER "BELL UP" OR "SPIGOT UP". THE NUMBER OF PULL-IN IRONS AND CABLE RACK BOLT INSERTS MAY VARY BY ORDER.

REINFORCING IN THE FLOOR & TOP CAP SECTION SHALL CONFORM TO ASTM SPECIFICATION C-478.

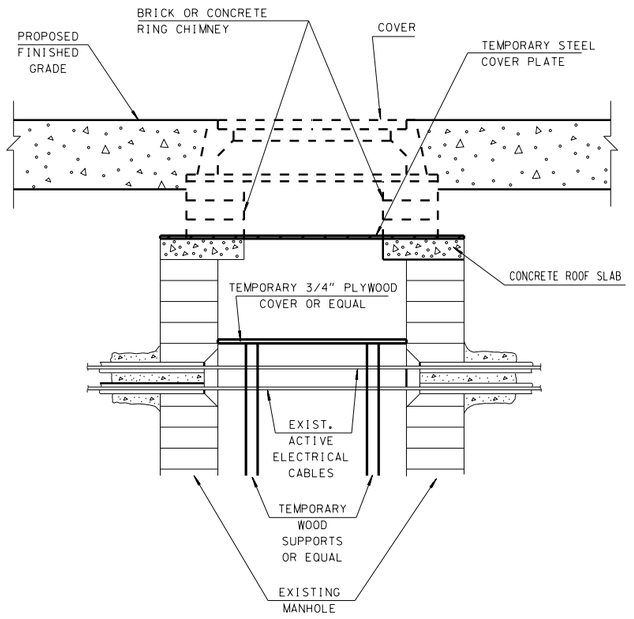
SIZE, LOCATION, SHAPE AND NUMBER OF KNOCK-OUT AREA AND THE SIZE, LOCATION, SHAPE AND NUMBER OF WINDOWS MAY VARY. (3 WINDOWS SHOWN). UNIT PRICE OF MANHOLE SHALL NOT VARY FOR NUMBER OF OPENINGS.

3 WINDOW OPENING
4' DIA. X 6'-5" HEADROOM
PRECAST CONCRETE MANHOLE

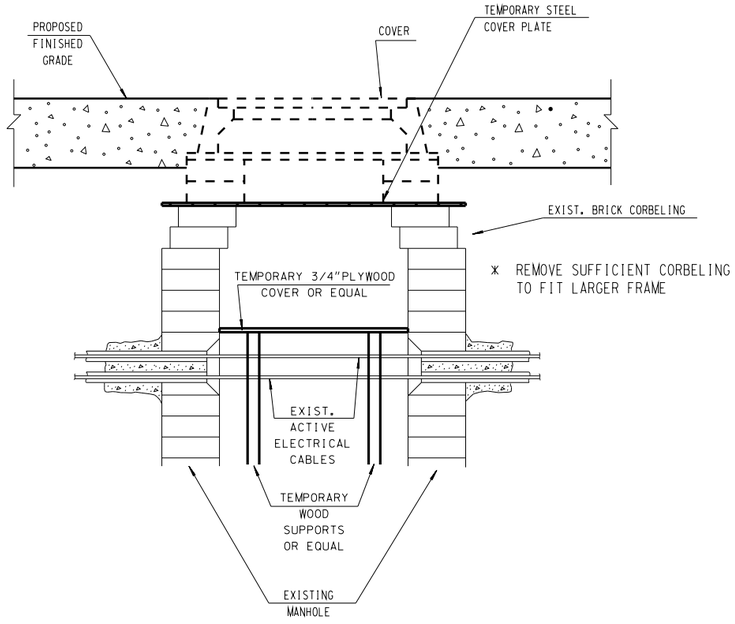
SECTION VIEW "A-A"

N.T.S.

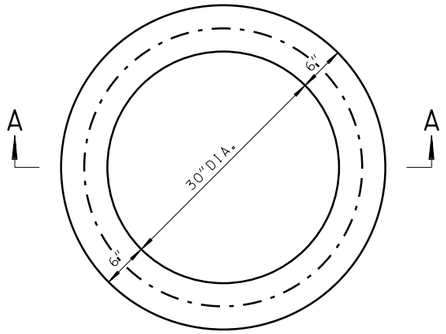
4' DIAMETER CUC MANHOLE



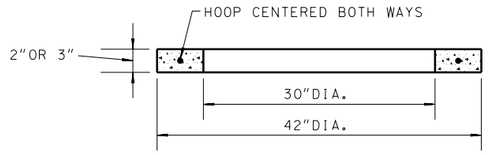
BLOCK OR PRECAST MANHOLE



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

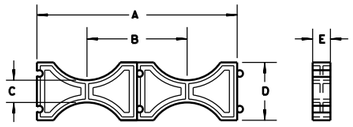
ADJUSTING CUC MANHOLES

STATE PROJECT NUMBER 2984-00-03 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT DETAILS (CUC)	SCALE FEET	SHEET NO:	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\VLIET 12_27\DGN\DETAILS A.DGN

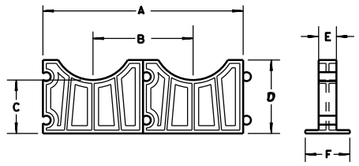
2

COND.	3″	4″
A	10″	11 ½″
B	5″	5 ⅝″
C	1 ½″	1 ¼″
D	3 ¼″	3 ¼″
E	1″	1″



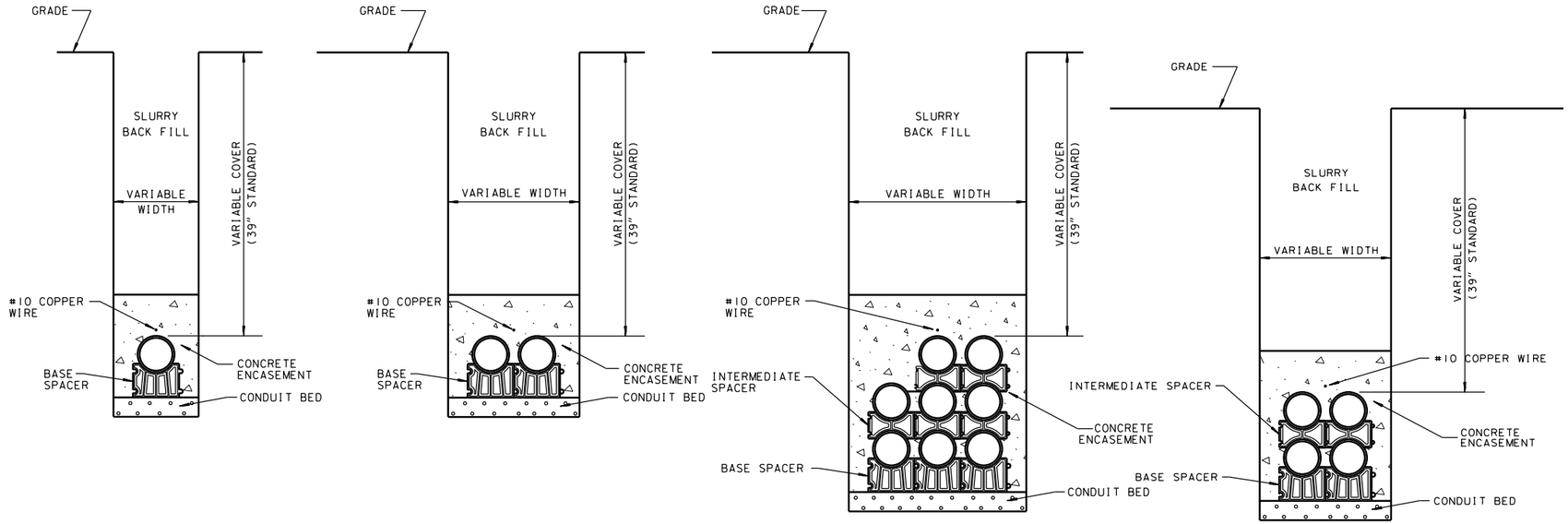
INTERMEDIATE SPACER

COND.	3″	4″
A	10″	11 ¼″
B	5″	5 ⅝″
C	3″	3″
D	3 ⅛″	4 ⅛″
E	1″	1″
F	2 ½″	2 ½″

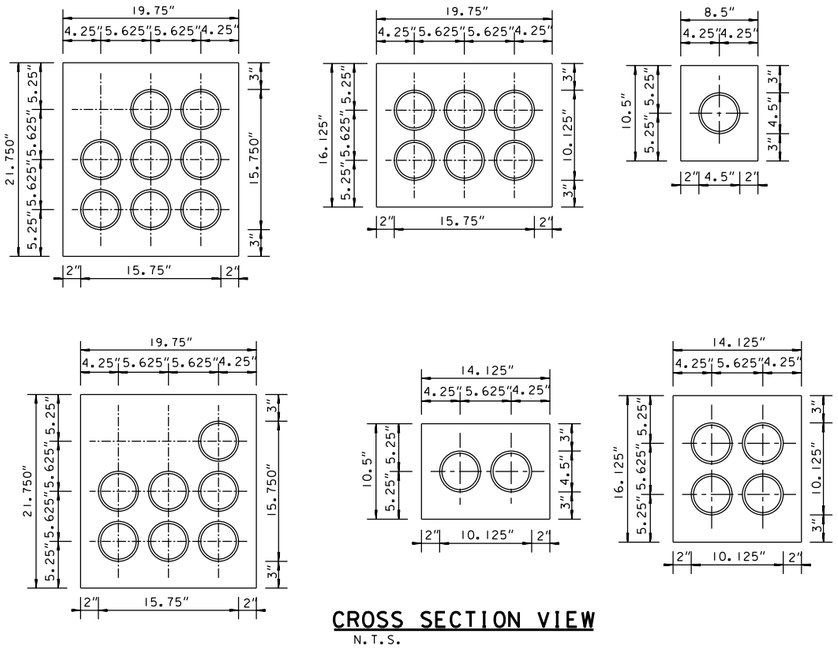


BASE SPACER

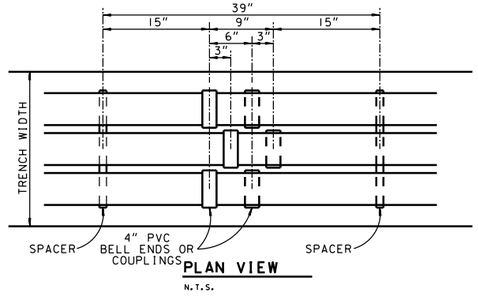
INTERMEDIATE AND BASE SPACER DETAIL

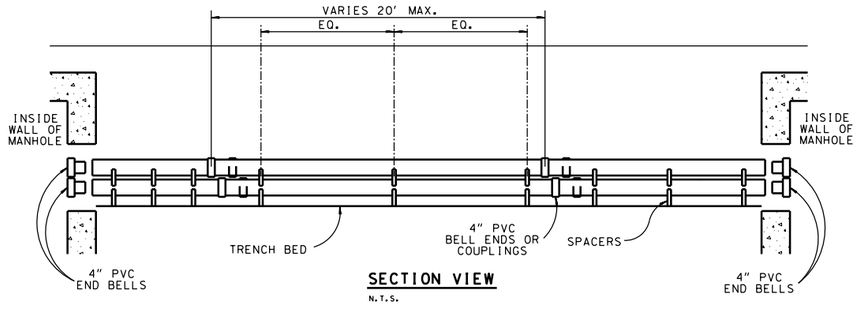


CROSS SECTION VIEW, TYP.
N.T.S.



CROSS SECTION VIEW
N.T.S.



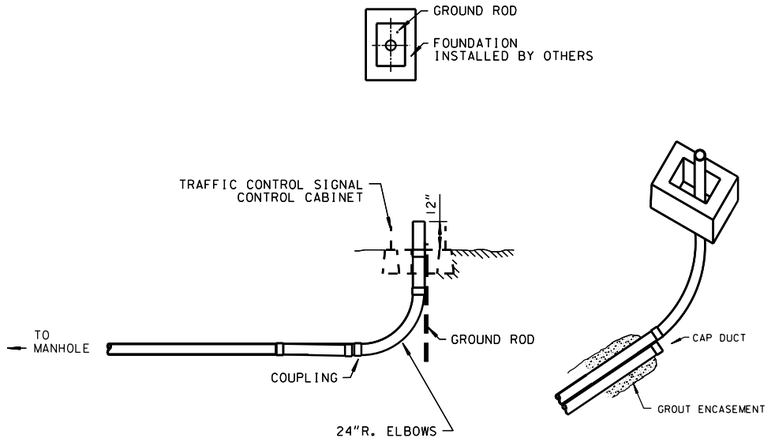


DUCT INSTALLATION DETAIL

SHEET 12 OF 13

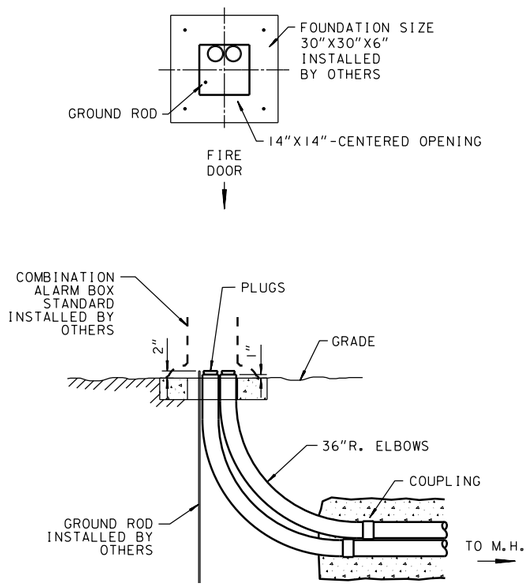
STATE PROJECT NUMBER 2984-00-03 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT DETAILS (CUC)	SCALE FEET	SHEET NO: 179	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\VLIET 12_27\DGN\DETAILS B.DGN



TRAFFIC CONTROL CABINET

FOR REFERENCE ONLY



POLICE CALL BOX DETAIL

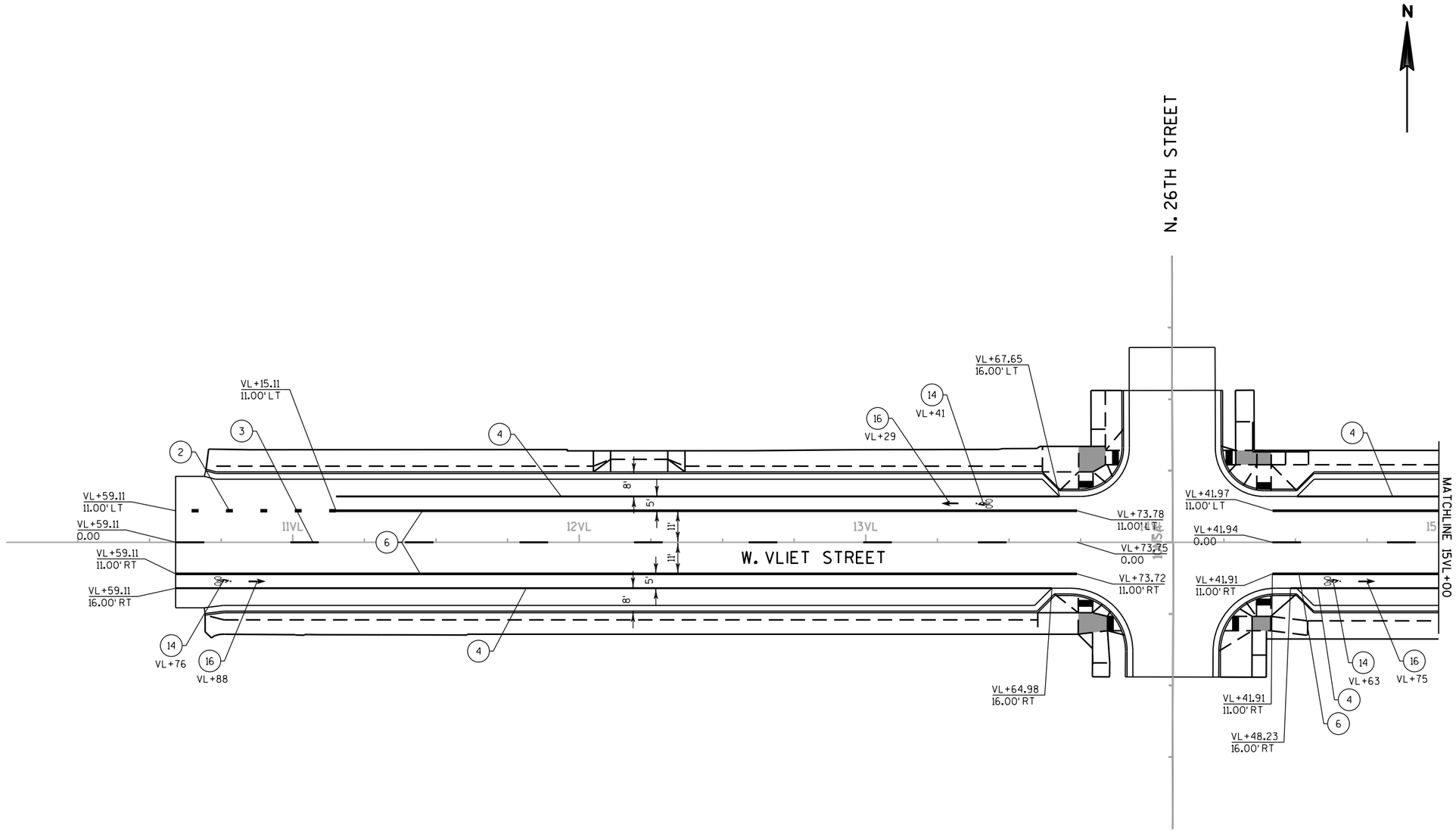
FOR REFERENCE ONLY

SHEET 13 OF 13

STATE PROJECT NUMBER 2984-00-03 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT DETAILS (CUC)	SCALE FEET	SHEET NO: 180	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\VLIET 12_27\DGN\DETAILS C.DGN

2



LEGEND

(2) MARKING LINE EPOXY 4-INCH (DASHED WHITE) (2 FT LINE 6 FT SKIP)

(3) MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (10 FT LINE 30 FT SKIP)

(4) MARKING LINE EPOXY 4-INCH (WHITE)

(6) MARKING LINE EPOXY 6-INCH (WHITE)

(7) MARKING STOP LINE GROOVED PREFORMED PLASTIC 24-INCH (WHITE)

(9) MARKING CROSSWALK GROOVED PREFORMED PLASTIC 12-INCH (WHITE)

(14) MARKING SYMBOL GROOVED PREFORMED PLASTIC

(16) MARKING ARROW GROOVED PREFORMED PLASTIC

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVEMENT MARKINGS: VLIET	SHEET 181	E

2

N

N. 25TH STREET

N. 24TH PLACE

W. VLIET STREET

MATCHLINE 15VL+00

MATCHLINE 21VL+00

VL+48.95
16.00' LT
VL+48.95
11.00' LT
VL+48.96
0.00
VL+48.96
11.00' RT
VL+68.96
11.00' RT
VL+68.96
16.00' RT
VL+19.98
11.00' LT
VL+19.95
0.00
VL+19.91
11.00' RT
VL+19.89
16.00' RT
VL+99.98
16.00' LT
VL+99.98
11.00' LT
VL+53
VL+65
VL+59.51
16.00' RT
VL+59.55
16.00' LT
VL+65.55
11.00' LT
VL+65.53
0.00
VL+65.52
11.00' RT
VL+35.62
16.00' LT
VL+28.16
11.00' LT
VL+28.23
0.00
VL+28.31
11.00' RT
VL+35.81
16.00' RT
VL+61
VL+73

LEGEND

(2) MARKING LINE EPOXY 4-INCH (DASHED WHITE)
(2 FT LINE 6 FT SKIP)

(3) MARKING LINE EPOXY 4-INCH (DASHED YELLOW)
(10 FT LINE 30 FT SKIP)

(4) MARKING LINE EPOXY 4-INCH (WHITE)

(6) MARKING LINE EPOXY 6-INCH (WHITE)

(7) MARKING STOP LINE GROOVED PREFORMED PLASTIC 24-INCH (WHITE)

(9) MARKING CROSSWALK GROOVED PREFORMED PLASTIC 12-INCH (WHITE)

(14) MARKING SYMBOL GROOVED PREFORMED PLASTIC

(16) MARKING ARROW GROOVED PREFORMED PLASTIC

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVEMENT MARKINGS: VLIET	SHEET 182	E

2

N

N. 24TH STREET

W. VLIET STREET

MATCHLINE 21VL+00

MATCHLINE 27VL+00

VL+26.80
41.58' LT

VL+72

VL+60

VL+45.73
11.00' LT

VL+05.15
16.00' LT

VL+05.16
11.00' LT

VL+65.73
11.00' LT

VL+61.76
0.00

VL+01.17
0.00

VL+61.79
11.00' RT

VL+01.18
11.00' RT

VL+21.16
16.00' RT

VL+21.16
11.00' RT

VL+95

VL+07

VL+37.25
41.58' RT

22VL

24VL

25VL

26VL

LEGEND

2 MARKING LINE EPOXY 4-INCH (DASHED WHITE)
(2 FT LINE 6 FT SKIP)

3 MARKING LINE EPOXY 4-INCH (DASHED YELLOW)
(10 FT LINE 30 FT SKIP)

4 MARKING LINE EPOXY 4-INCH (WHITE)

6 MARKING LINE EPOXY 6-INCH (WHITE)

7 MARKING STOP LINE GROOVED PREFORMED PLASTIC 24-INCH (WHITE)

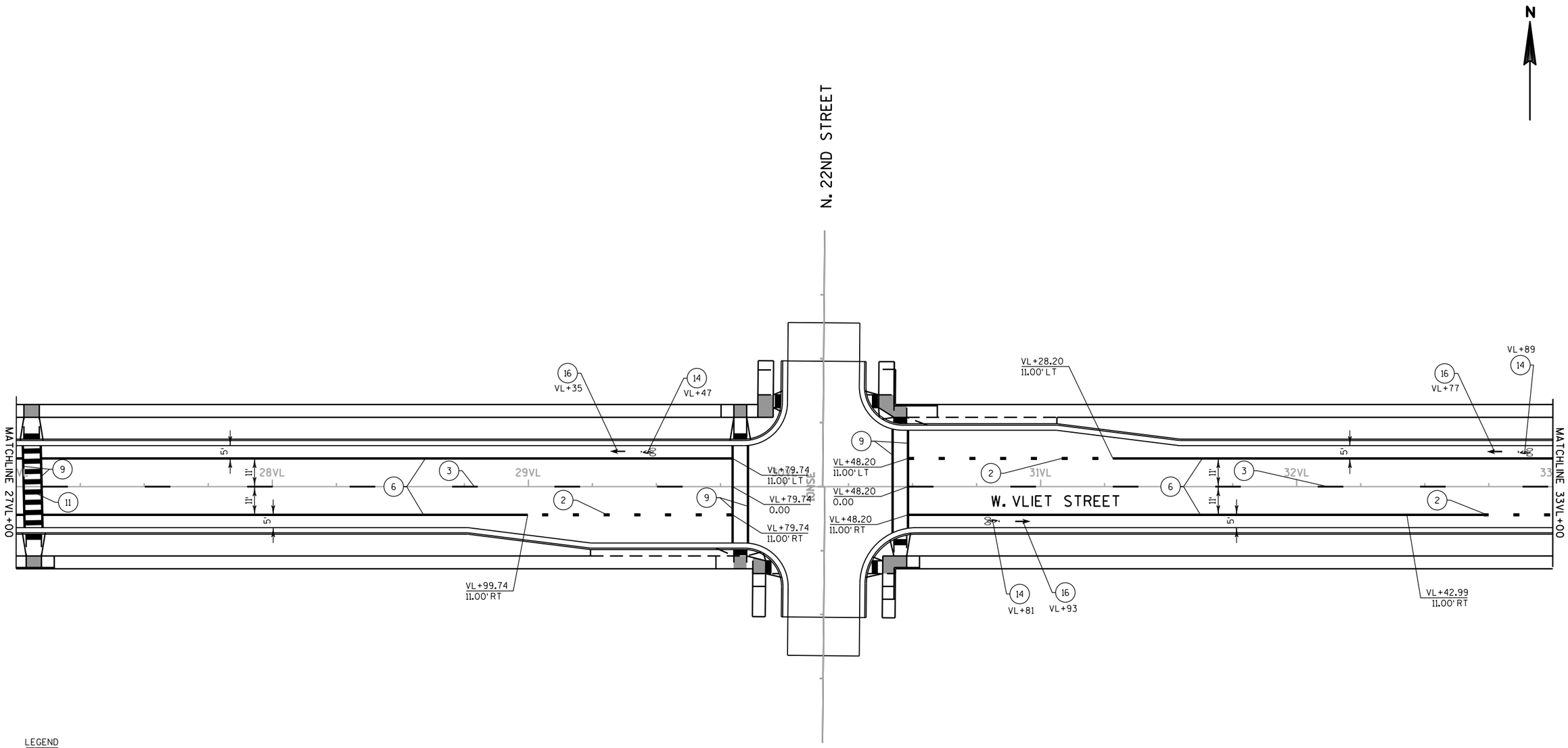
9 MARKING CROSSWALK GROOVED PREFORMED PLASTIC 12-INCH (WHITE)

14 MARKING SYMBOL GROOVED PREFORMED PLASTIC

16 MARKING ARROW GROOVED PREFORMED PLASTIC

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVEMENT MARKINGS: VLIET	SHEET 183	E

2

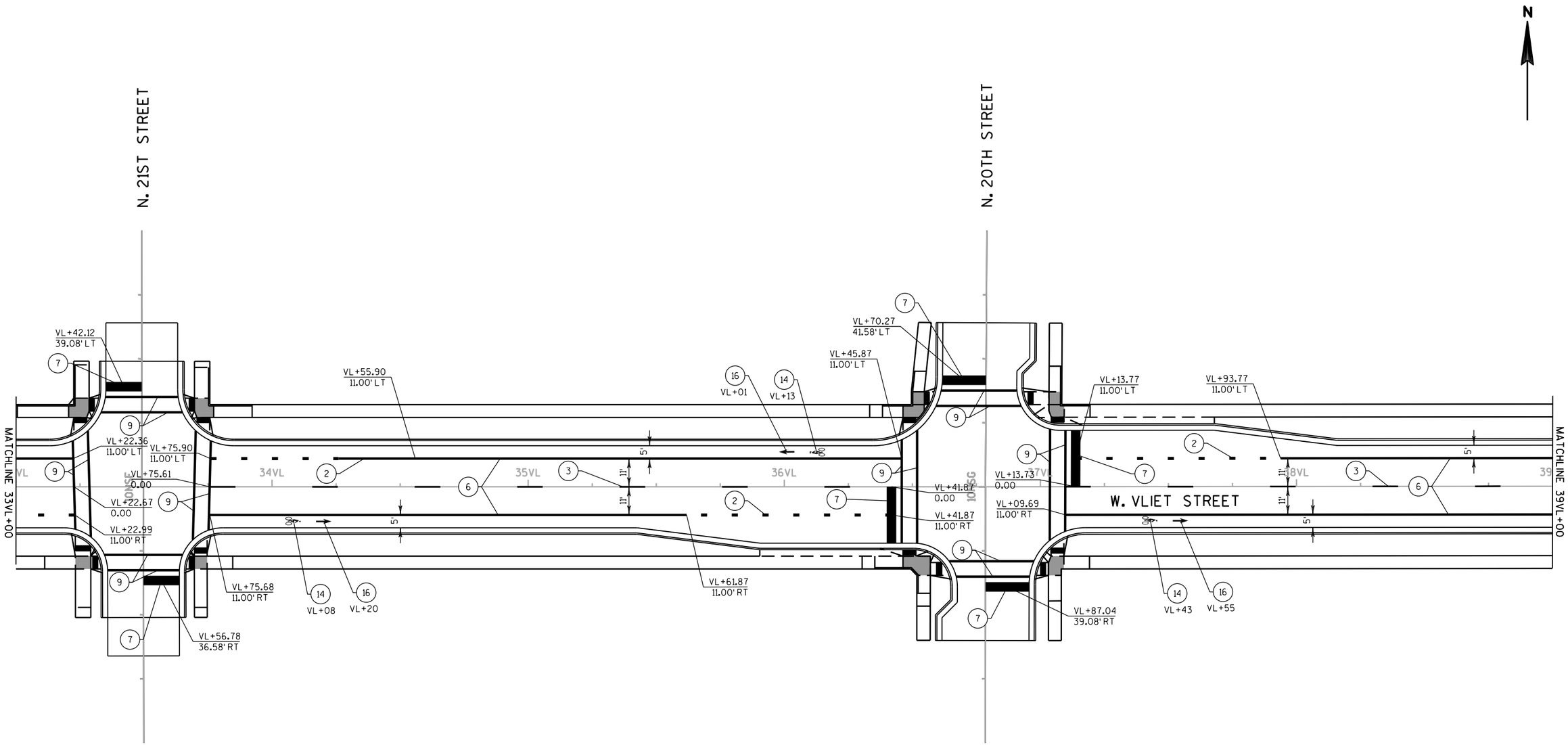


LEGEND

- (2) MARKING LINE EPOXY 4-INCH (DASHED WHITE) (2 FT LINE 6 FT SKIP)
- (3) MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (10 FT LINE 30 FT SKIP)
- (4) MARKING LINE EPOXY 4-INCH (WHITE)
- (6) MARKING LINE EPOXY 6-INCH (WHITE)
- (7) MARKING STOP LINE GROOVED PREFORMED PLASTIC 24-INCH (WHITE)
- (9) MARKING CROSSWALK GROOVED PREFORMED PLASTIC 12-INCH (WHITE)
- (11) MARKING CROSSWALK GROOVED PREFORMED PLASTIC LADDER PATTERN 24-INCH (WHITE)
- (14) MARKING SYMBOL GROOVED PREFORMED PLASTIC
- (16) MARKING ARROW GROOVED PREFORMED PLASTIC

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVEMENT MARKINGS: VLIET	SHEET 184	E

2



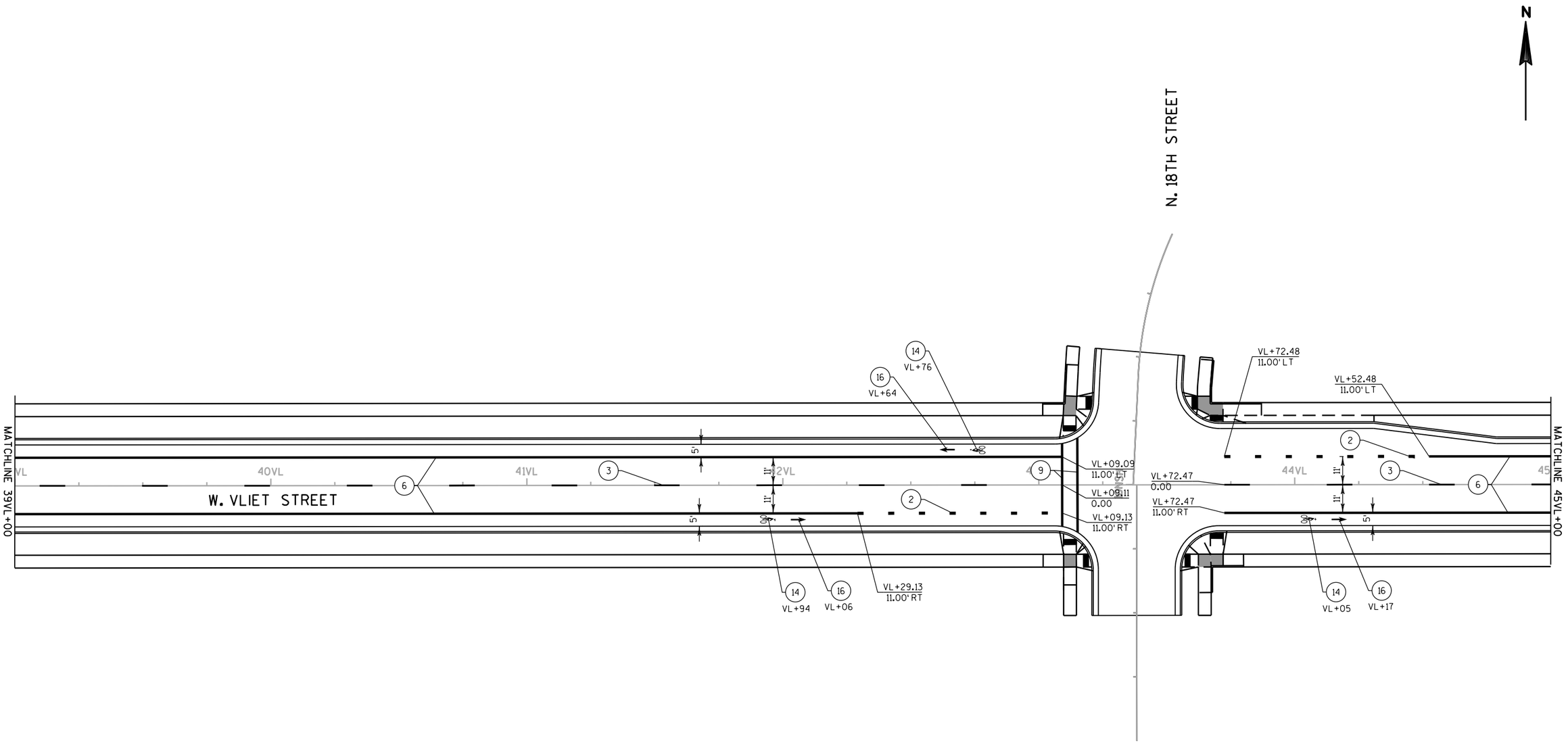
LEGEND

2	MARKING LINE EPOXY 4-INCH (DASHED WHITE) (2 FT LINE 6 FT SKIP)
3	MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (10 FT LINE 30 FT SKIP)
4	MARKING LINE EPOXY 4-INCH (WHITE)
6	MARKING LINE EPOXY 6-INCH (WHITE)
7	MARKING STOP LINE GROOVED PREFORMED PLASTIC 24-INCH (WHITE)
9	MARKING CROSSWALK GROOVED PREFORMED PLASTIC 12-INCH (WHITE)
14	MARKING SYMBOL GROOVED PREFORMED PLASTIC
16	MARKING ARROW GROOVED PREFORMED PLASTIC

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVEMENT MARKINGS: VLIET	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Preparation\Design\245MB_pmp.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

2



LEGEND

- (2) MARKING LINE EPOXY 4-INCH (DASHED WHITE) (2 FT LINE 6 FT SKIP)
- (3) MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (10 FT LINE 30 FT SKIP)
- (4) MARKING LINE EPOXY 4-INCH (WHITE)
- (6) MARKING LINE EPOXY 6-INCH (WHITE)
- (7) MARKING STOP LINE GROOVED PREFORMED PLASTIC 24-INCH (WHITE)
- (9) MARKING CROSSWALK GROOVED PREFORMED PLASTIC 12-INCH (WHITE)
- (14) MARKING SYMBOL GROOVED PREFORMED PLASTIC
- (16) MARKING ARROW GROOVED PREFORMED PLASTIC

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVEMENT MARKINGS: VLIET	SHEET 186	E

2

N

N. 17TH STREET

W. VLIET STREET

MATCHLINE 45VL+00

MATCHLINE 51VL+00

45VL

46VL

47VL

48VL

49VL

50VL

51VL

VL+82.93
88.96' LT

VL+31.01
89.00' LT

VL+70.93
89.02' LT

VL+74.85
36.35' LT

VL+70.69
36.31' LT

VL+06

VL+94

VL+82.69
36.43' LT

VL+71.83
11.14' LT

VL+51.83
11.12' LT

VL+34.81
0.00

VL+67.90
0.00

VL+78.41
16.00' RT

VL+34.70
11.00' RT

VL+67.97
11.00' RT

VL+20.34
36.98' RT

VL+54.70
11.00' RT

VL+72.37
32.90' RT

VL+01

VL+13

VL+32.34
36.84' RT

VL+72.11
90.00' RT

VL+32.06
90.00' RT

VL+20.06
90.00' RT

LEGEND

(2) MARKING LINE EPOXY 4-INCH (DASHED WHITE)
(2 FT LINE 6 FT SKIP)

(3) MARKING LINE EPOXY 4-INCH (DASHED YELLOW)
(10 FT LINE 30 FT SKIP)

(4) MARKING LINE EPOXY 4-INCH (WHITE)

(6) MARKING LINE EPOXY 6-INCH (WHITE)

(7) MARKING STOP LINE GROOVED PREFORMED PLASTIC 24-INCH (WHITE)

(8) MARKING LINE EPOXY 8-INCH (WHITE)

(9) MARKING CROSSWALK GROOVED PREFORMED PLASTIC 12-INCH (WHITE)

(14) MARKING SYMBOL GROOVED PREFORMED PLASTIC

(16) MARKING ARROW GROOVED PREFORMED PLASTIC

(20) MARKING LINE EPOXY 4-INCH (DASHED WHITE)
(10 FT LINE 30 FT SKIP)

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVEMENT MARKINGS: VLIET	SHEET 187	E

2

N

N. 15TH STREET

W. VLIET STREET

MATCHLINE 51VL+00

MATCHLINE 57VL+00

51VL

52VL

53VL

54VL

55VL

56VL

57

VL+33.91
16.00' LT

VL+15.07
16.00' LT

VL+81.55
11.00' LT

VL+42.77
11.00' LT

VL+42.65
11.00' RT

VL+42.71
0.00

VL+98

VL+10

VL+04

VL+16

VL+73

VL+85

VL+62.65
11.00' RT

VL+29.68
16.00' RT

VL+10.41
16.00' RT

VL+35

VL+47

VL+37.56
11.00' RT

VL+62.24
16.00' RT

LEGEND

(3) MARKING LINE EPOXY 4-INCH (DASHED YELLOW)
(10 FT LINE 30 FT SKIP)

(4) MARKING LINE EPOXY 4-INCH (WHITE)

(6) MARKING LINE EPOXY 6-INCH (WHITE)

(7) MARKING STOP LINE GROOVED PREFORMED PLASTIC 24-INCH (WHITE)

(9) MARKING CROSSWALK GROOVED PREFORMED PLASTIC 12-INCH (WHITE)

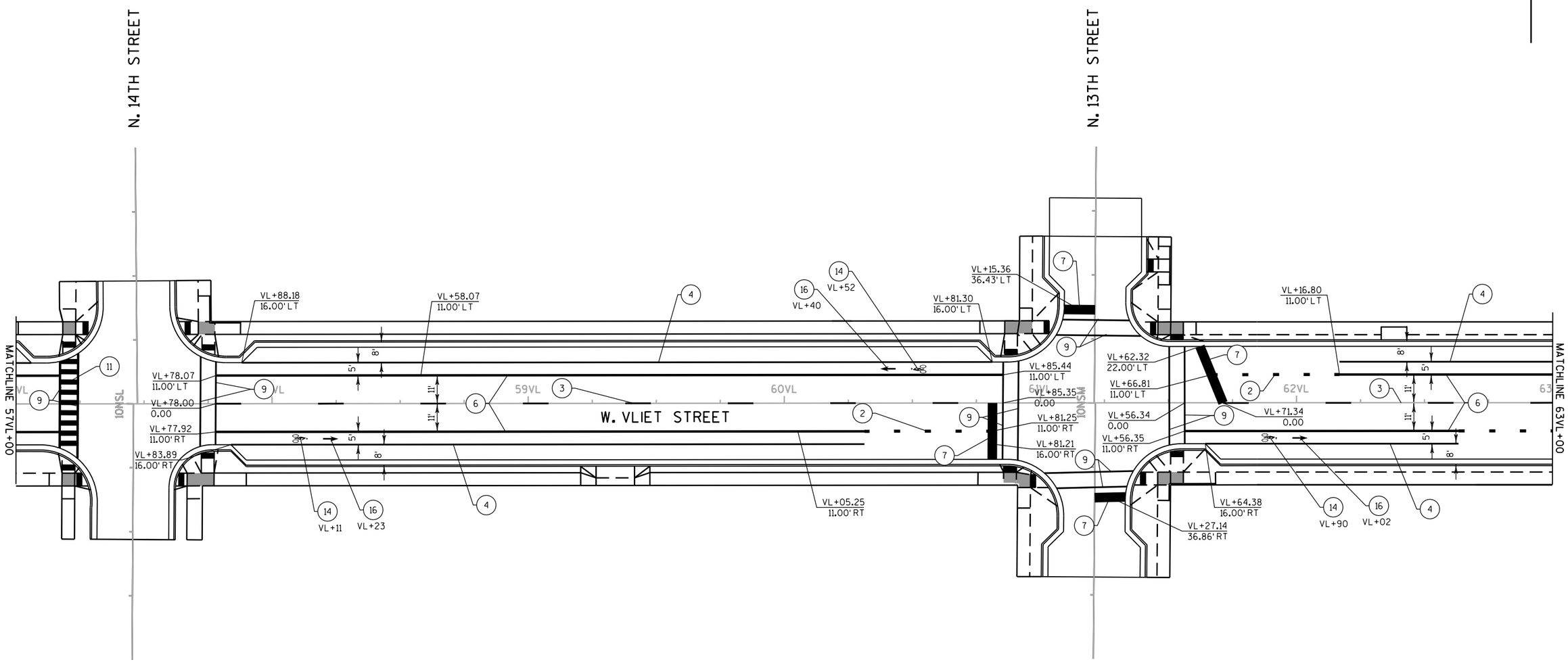
(11) MARKING CROSSWALK GROOVED PREFORMED PLASTIC LADDER PATTERN 24-INCH (WHITE)

(14) MARKING SYMBOL GROOVED PREFORMED PLASTIC

(16) MARKING ARROW GROOVED PREFORMED PLASTIC

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVEMENT MARKINGS: VLIET	SHEET 188	E

2



LEGEND

(2) MARKING LINE EPOXY 4-INCH (DASHED WHITE) (2 FT LINE 6 FT SKIP)

(3) MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (10 FT LINE 30 FT SKIP)

(4) MARKING LINE EPOXY 4-INCH (WHITE)

(6) MARKING LINE EPOXY 6-INCH (WHITE)

(7) MARKING STOP LINE GROOVED PREFORMED PLASTIC 24-INCH (WHITE)

(9) MARKING CROSSWALK GROOVED PREFORMED PLASTIC 12-INCH (WHITE)

(11) MARKING CROSSWALK GROOVED PREFORMED PLASTIC LADDER PATTERN 24-INCH (WHITE)

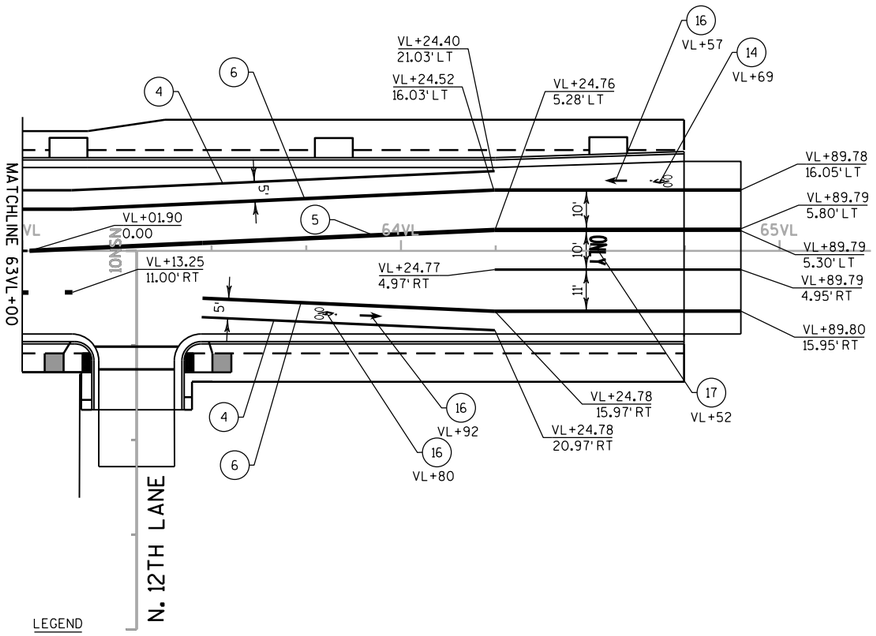
(14) MARKING SYMBOL GROOVED PREFORMED PLASTIC

(16) MARKING ARROW GROOVED PREFORMED PLASTIC

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVEMENT MARKINGS: VLIET	SHEET 189	E

2

N



LEGEND

(2) MARKING LINE EPOXY 4-INCH (DASHED WHITE) (2 FT LINE 6 FT SKIP)

(3) MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (10 FT LINE 30 FT SKIP)

(4) MARKING LINE EPOXY 4-INCH (WHITE)

(5) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)

(6) MARKING LINE EPOXY 6-INCH (WHITE)

(7) MARKING STOP LINE GROOVED PREFORMED PLASTIC 24-INCH (WHITE)

(9) MARKING CROSSWALK GROOVED PREFORMED PLASTIC 12-INCH (WHITE)

(14) MARKING SYMBOL GROOVED PREFORMED PLASTIC

(16) MARKING ARROW GROOVED PREFORMED PLASTIC TYPE 2

(17) MARKING WORD GROOVED PREFORMED PLASTIC (WHITE)

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PAVEMENT MARKINGS: VLIET	SHEET 190	E

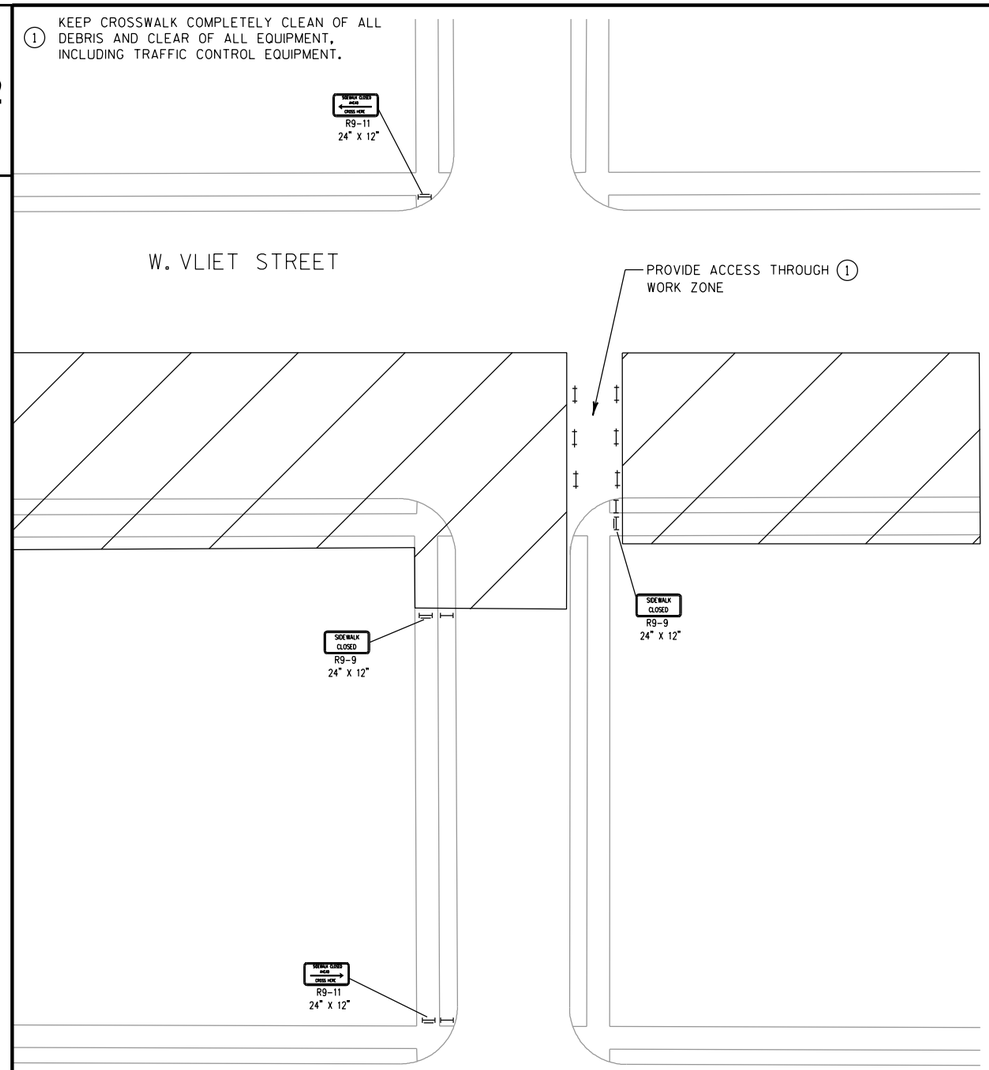
2

TRAFFIC CONTROL NOTES

1. MAINTAIN ONE 11-FOOT MINIMUM LANE AT ALL TIMES
2. TRAFFIC CONTROL DRUMS ARE SPACED AT 25'O.C. EXCEPT AT DRIVEWAYS AND INTERSECTIONS. WHERE THE SPACING IS 10'O.C.
3. THE CONTRACTOR SHALL REMOVE ALL EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THE TRAFFIC CONTROL.
4. THE CONTRACTOR SHALL COVER ANY SIGN CONFLICTING WITH THE TRAFFIC CONTROL IN OPERATION AS NEEDED OR AS DIRECTED BY THE ENGINEER. COVERING OF SIGNS IS PAID FOR AS "TRAFFIC CONTROL COVERING SIGNS TYPE II".
5. 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.
6. DRAWINGS SHOW TRAFFIC CONTROL FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON CONTRACTOR'S METHOD OR SEQUENCE OF OPERATION.
7. "WO SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
8. ALL SIGNS ARE 48" X 48" EXCEPT OTHERWISE NOTED.
9. ANY "STOP" SIGNS THAT ARE REMOVED FOR A CONSTRUCTION OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED.
10. 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.
11. BOTH STEADY BURN LIGHTS AND FLASHING LIGHTS SHALL BE ONE WAY WITH THE LIGHT SOURCE SHOWING TOWARDS ADJACENT APPROACHING TRAFFIC.
12. CHANNELIZING DEVICES SHALL BE DRUMS WITH ATTACHED TYPE "C" STEADY BURN LIGHT.
13. MAINTAIN ACCESS TO DRIVEWAYS DURING CONSTRUCTION. FOR PROPERTIES WITH MULTIPLE DRIVEWAYS, ONLY ONE DRIVEWAY CAN BE CLOSED/WORKED ON AT ANY TIME.
14. 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 STAGE TRANSITION. CONTACT MIKE CHANESKE AT 414-286-5695 TO COORDINATE TEMPORARY NO PARKING SIGN PLACEMENT.
15. WHEN A SEGMENT OF THE PROJECT IS NOT SHOWN ON THE STAGING PLANS, USE THE PREVIOUS STAGE FOR THAT SEGMENT OR AS DIRECTED BY THE ENGINEER.

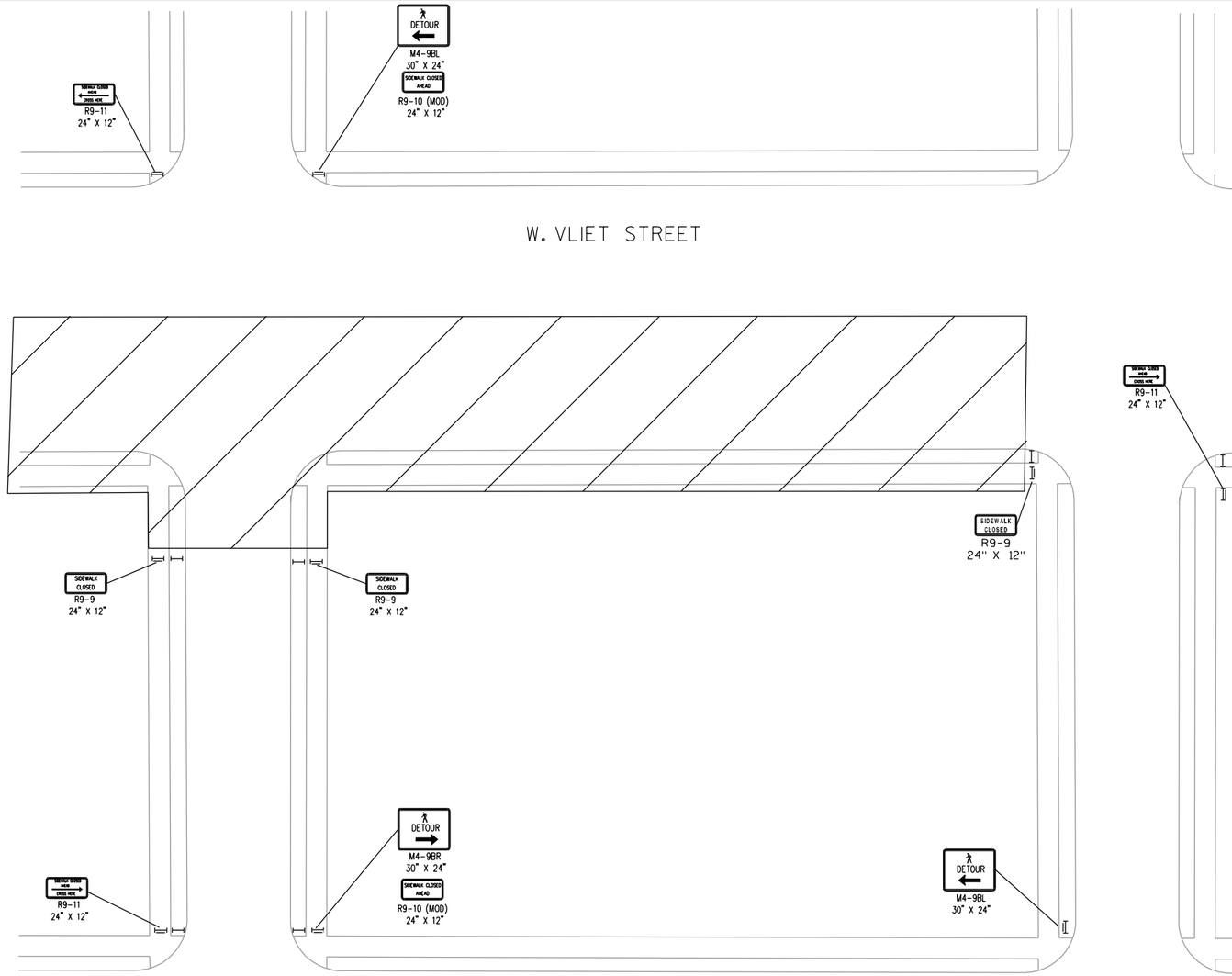
TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL BARRICADE TYPE II WITH LIGHTS TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL ARROW BOARD
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- PCMS — TRAFFIC CONTROL SIGNS PORTABLE CHANGABLE MESSAGE
- TRAFFIC FLOW ARROW
- WORK ZONE THIS STAGE
- ASPHALTIC SURFACE TEMPORARY, 5-INCHES



PARTIAL SIDEWALK CLOSURE - NO DETOUR

TYPICAL SIDEWALK CLOSURE WHEN ONLY CLOSING ONE SIDE OF THE INTERSECTION



FULL SIDEWALK CLOSURE - DETOUR

TYPICAL SIDEWALK DETOUR WHEN COMPLETELY CLOSING ONE OF THE SIDE ROADS

GENERAL NOTES

THE CONTRACTOR SHALL PROVIDE AND MAINTAIN FULLY ACCESSIBLE, SAFE, AND DIRECT PASSAGE FOR PEDESTRIANS THROUGH THE TEMPORARY WORK ZONE, WHICH MUST BE FULLY COMPLIANT WITH ACCESS REQUIREMENTS FOR PEOPLE WITH DISABILITIES, AS SPECIFIED IN THE AMERICANS WITH DISABILITIES ACT. ALL TRAFFIC CONTROL DEVICES USED TO PROVIDE AND MAINTAIN SAFE ACCESS MUST BE FULLY CONSISTENT WITH SPECIFICATIONS FOR TRAFFIC CONTROL DEVICES INCLUDED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. SPECIFIC LOCATIONS FOR PEDESTRIAN ACCESS ACCOMMODATIONS ARE TO BE MAINTAINED DURING CONSTRUCTION, PER DIRECTION OF THE CITY OF MILWAUKEE CONSTRUCTION SUPERVISOR AND THE FIELD INSPECTOR.

PEDESTRIAN ACCOMMODATION NOTES

1. 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.
2. SEE STANARD DETAIL DRAWING "TRAFFIC CONTROL PEDESTRIAN ACCOMMODATION" FOR ADDITIONAL INFORMATION.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL NOTES	SHEET 192	E

2

2

W. KNEELAND STREET

N. 15TH STREET

N. 12TH STREET

W. VLIET STREET

N. 17TH STREET

IH-43

DO NOT ENTER
COVER SIGN

ONE WAY
COVER SIGN

ONE WAY
COVER SIGN

W6-3
36" X 36"

ONE WAY
COVER SIGN

N. 14TH STREET

N. 13TH STREET

N. 12TH LANE

W6-3
36" X 36"

W. MCKINLEY AVENUE

ONE WAY
COVER SIGN

STOP
R1-1
30" X 30"

W6-3
36" X 36"

ONE WAY
COVER SIGN

ONE WAY
COVER SIGN

ONE WAY
COVER SIGN

ONE WAY
COVER SIGN

W. JUNEAU AVENUE

DO NOT ENTER
R5-1
30" X 30"

END ONE WAY
R6-7
24" X 30"

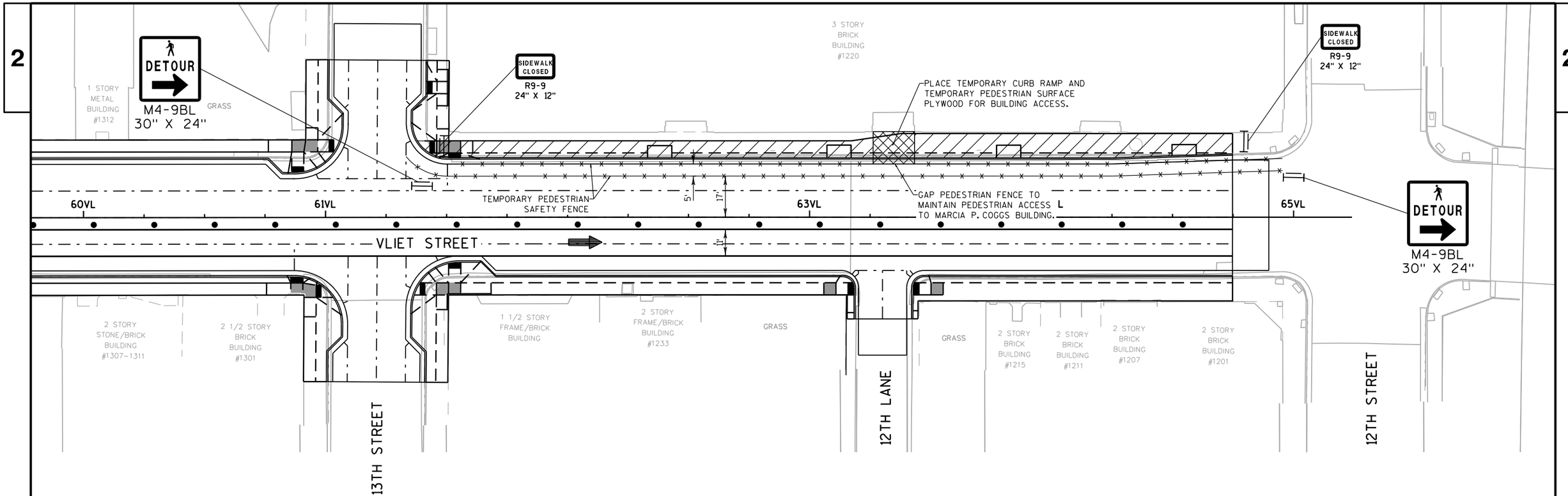
GENERAL NOTES

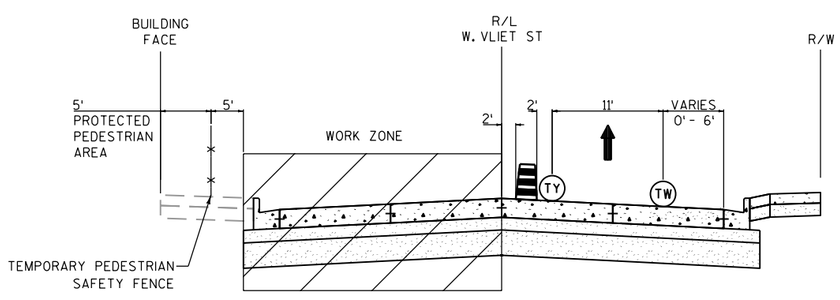
CONVERT N. 14TH STREET TO TWO-WAY TRAFFIC BETWEEN W. VLIET STREET AND W. JUNEAU AVENUE DURING CONSTRUCTION STAGE 2A & 2B.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGN AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

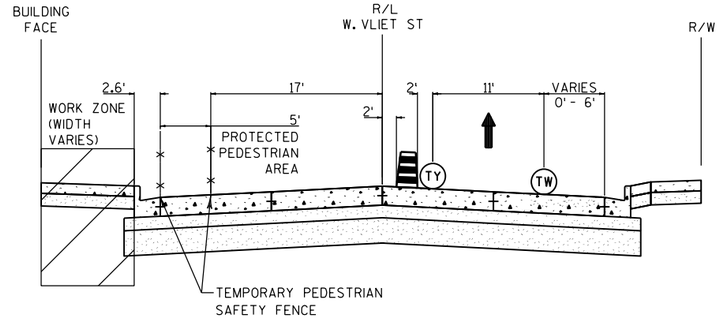
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL NOTES	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway Design\Sheets\Traffic Control Notes.dgn
PLOT DATE : 12/21/2018 11:08:30 AM
PLOTTED BY : dbaumann
PLOT NAME :
PLOT SCALE : 150:1
WISDOT/CADDS SHEET 42





STAGING TYPICAL SECTION - SIDEWALK
W. VLIET STREET
STAGE 2 (NOTE 1)
BETWEEN 13TH STREET AND 12TH STREET
(MARCIA P. COGGS HUMAN SERVICE CENTER)



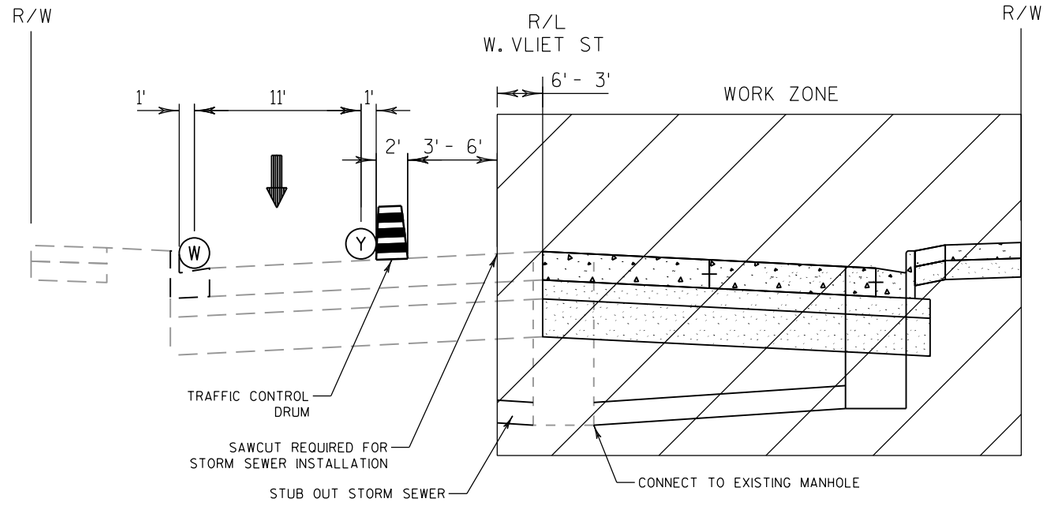
STAGING TYPICAL SECTION - SIDEWALK
W. VLIET STREET
STAGE 2 (NOTE 2)
BETWEEN 13TH STREET AND 12TH STREET
(MARCIA P. COGGS HUMAN SERVICE CENTER)

PEDESTRIAN ACCOMMODATION NOTES

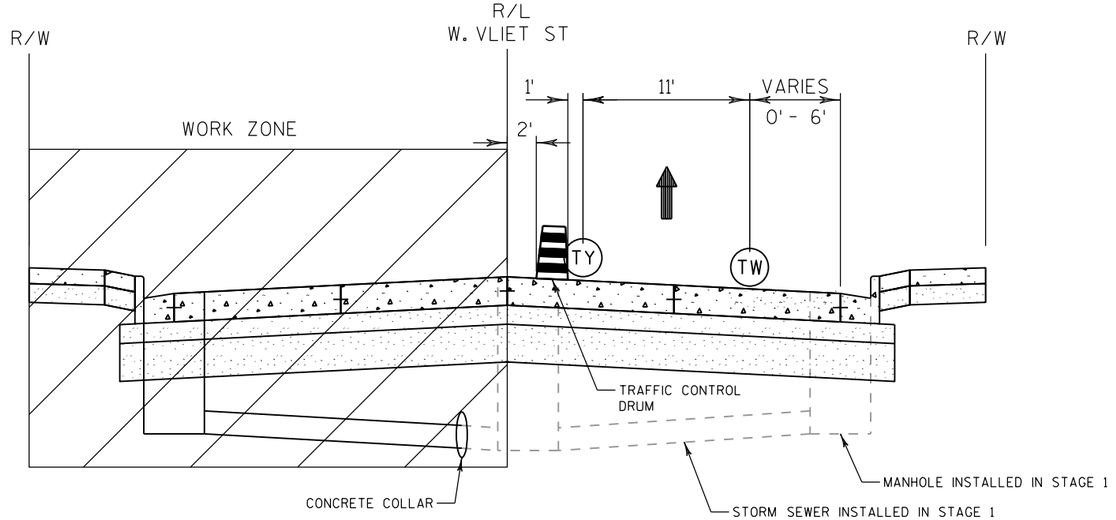
1. MAINTAIN EXISTING SIDEWALK ACCESS ALONG VLIET STREET, IN FRONT OF MARCIA P. COGGS HUMAN SERVICES CENTER, WHILE ROADWAY IS BEING RECONSTRUCTED, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. ONCE ROADWAY PAVEMENT IS COMPLETED, RECONSTRUCT SIDEWALK AND MAINTAIN PEDESTRIAN ACCESS TO MARCIA P. COGGS HUMAN SERVICES CENTER BY DETOURING PEDESTRIANS TO THE FINISHED ROADWAY PAVEMENT AS DETAILED IN PLANS. PROVIDE TEMPORARY CURB RAMPS AND TEMPORARY PEDESTRIAN SURFACE THROUGH THE WORK ZONE (WHERE NEEDED) TO MAINTAIN ACCESS TO BUILDING.
3. REFER TO STANDARD DETAIL DRAWING "TRAFFIC CONTROL PEDESTRIAN ACCOMMODATION" FOR ADDITIONAL INFORMATION.

(TW) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
(TY) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL NOTES	SHEET 194 E



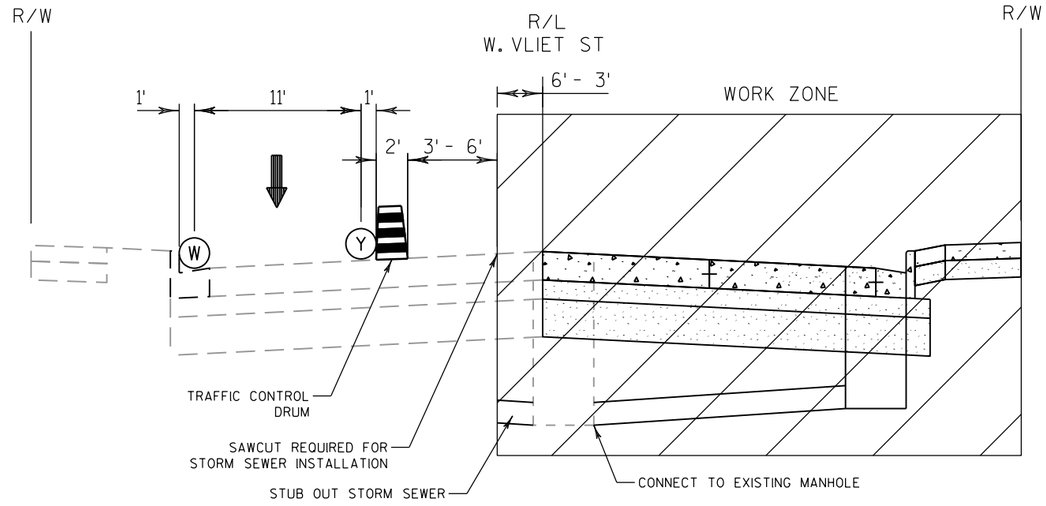
STAGE 1A/1B
W. VLIET STREET
STA 46VL+00 TO STA 64VL+75 (STAGE 1A/1B)



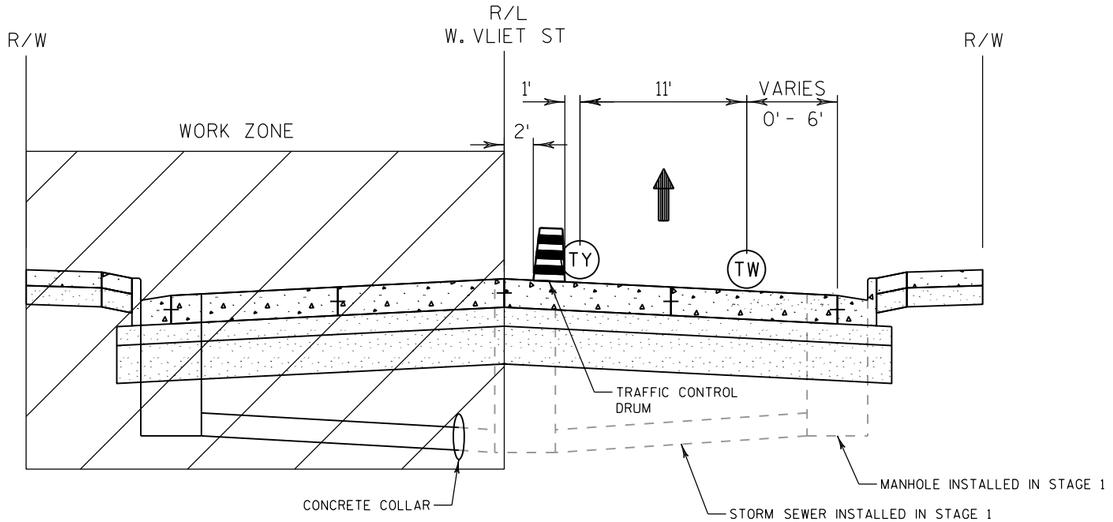
STAGE 2A/2B
W. VLIET STREET
STA 46VL+00 TO STA 64VL+75 (STAGE 2A/2B)

(W) TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
(Y) TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
(TW) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
(TY) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 195	E



STAGE 3
W. VLIET STREET
STA 10VL+69 TO STA 46VL+00 (STAGE 3)



STAGE 4
W. VLIET STREET
STA 10VL+69 TO STA 46VL+00 (STAGE 4)

(W) TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

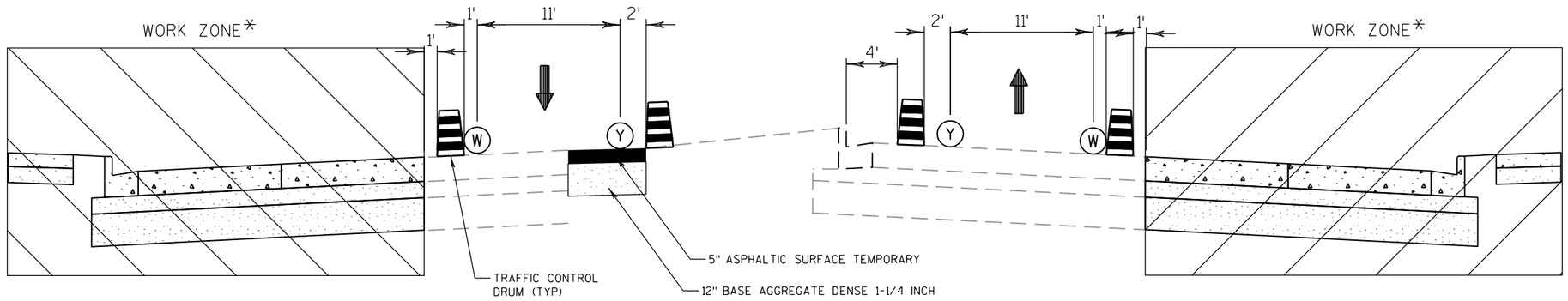
(Y) TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)

(TW) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

(TY) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

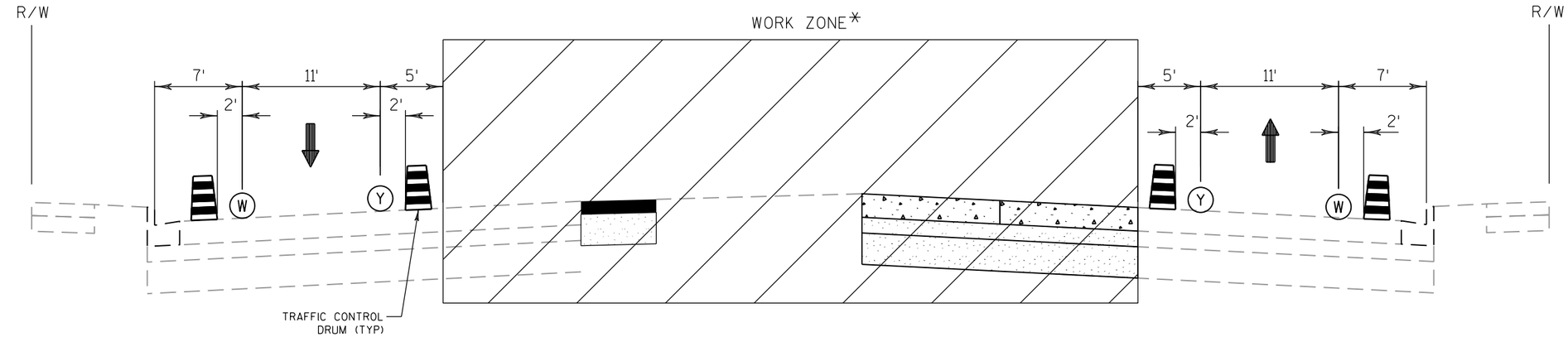
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 196	E

2



STAGE 1A
17TH STREET

* WORK ZONE ONLY PRESENT SOUTH OF VLIET STREET



STAGE 1B
17TH STREET

(W) TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

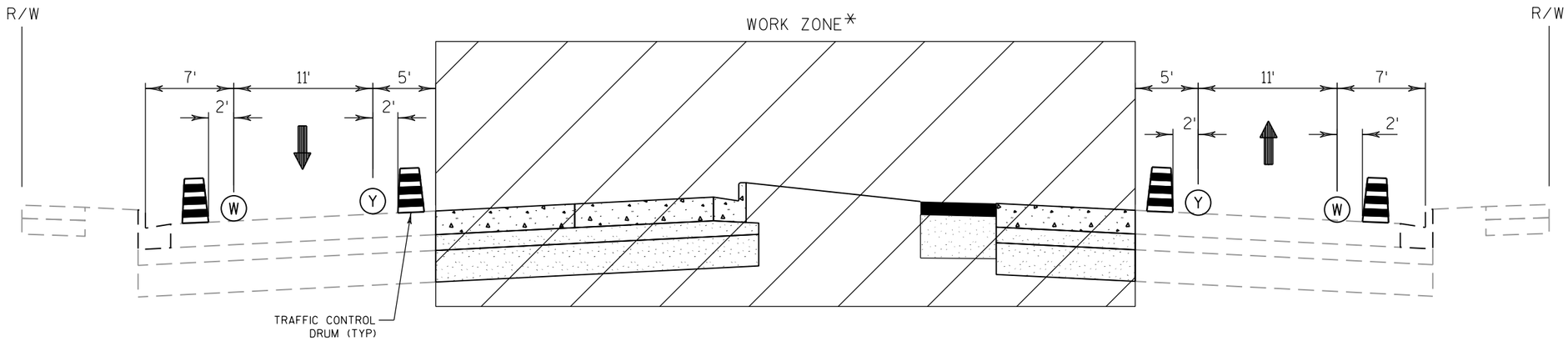
(Y) TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)

(TW) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

(TY) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

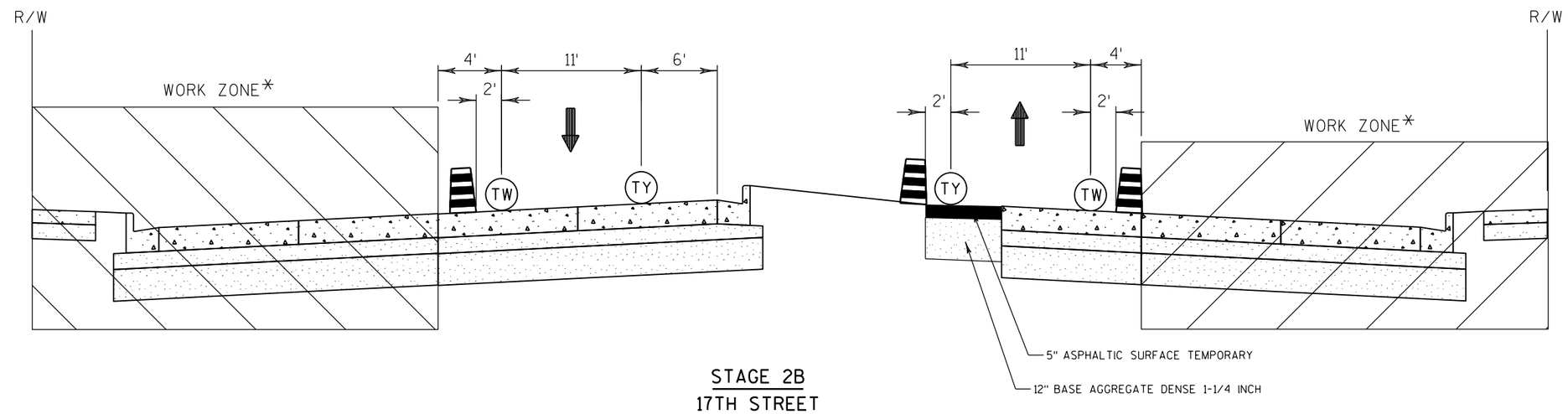
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 197	E

2



STAGE 2A
17TH STREET

* WORK ZONE ONLY PRESENT NORTH OF VLIET STREET



STAGE 2B
17TH STREET

(W) TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

(Y) TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)

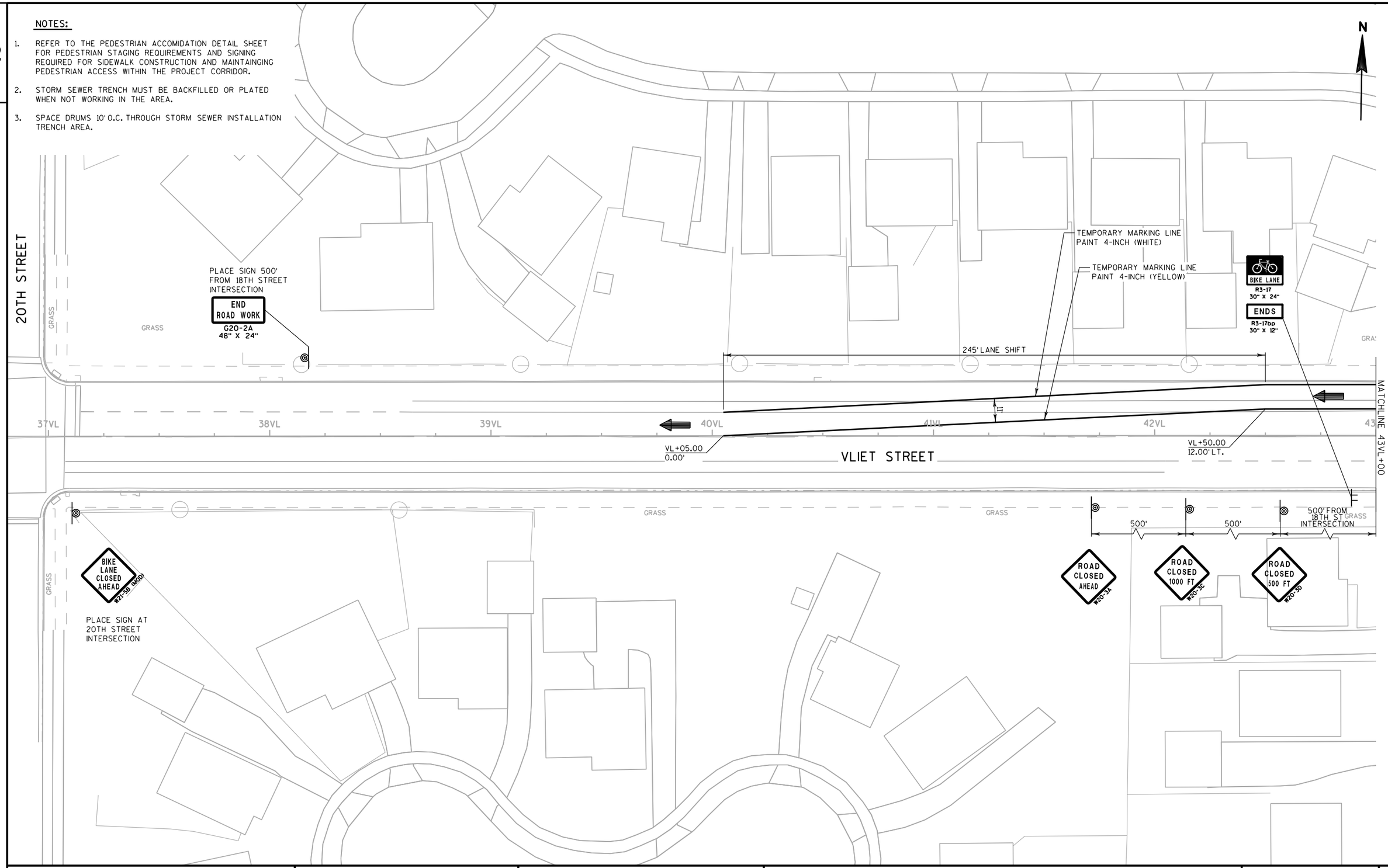
(TW) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

(TY) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 198	E

NOTES:

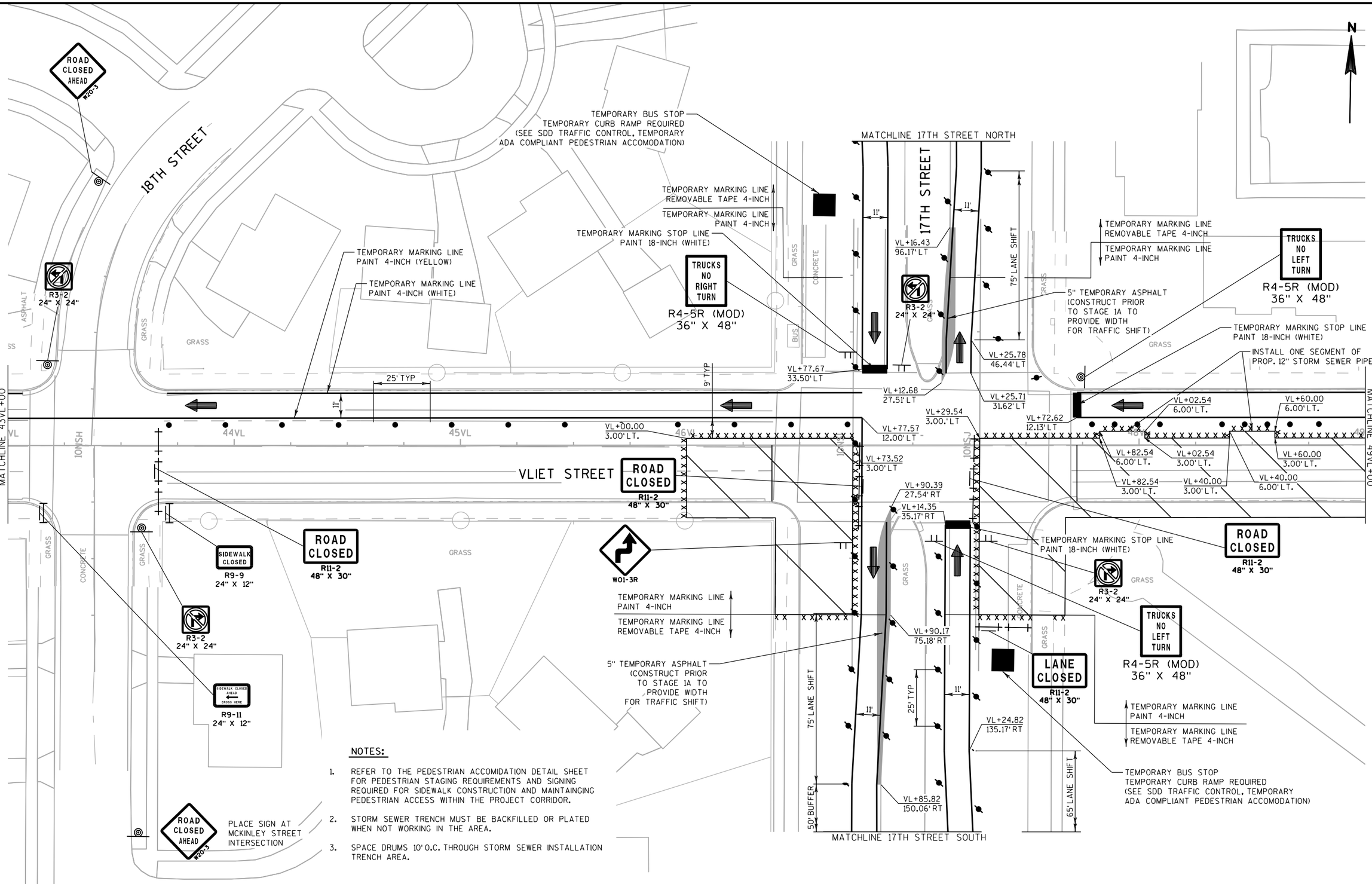
1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.
2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.
3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Production\Plan Sheets\040001_s1.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

2



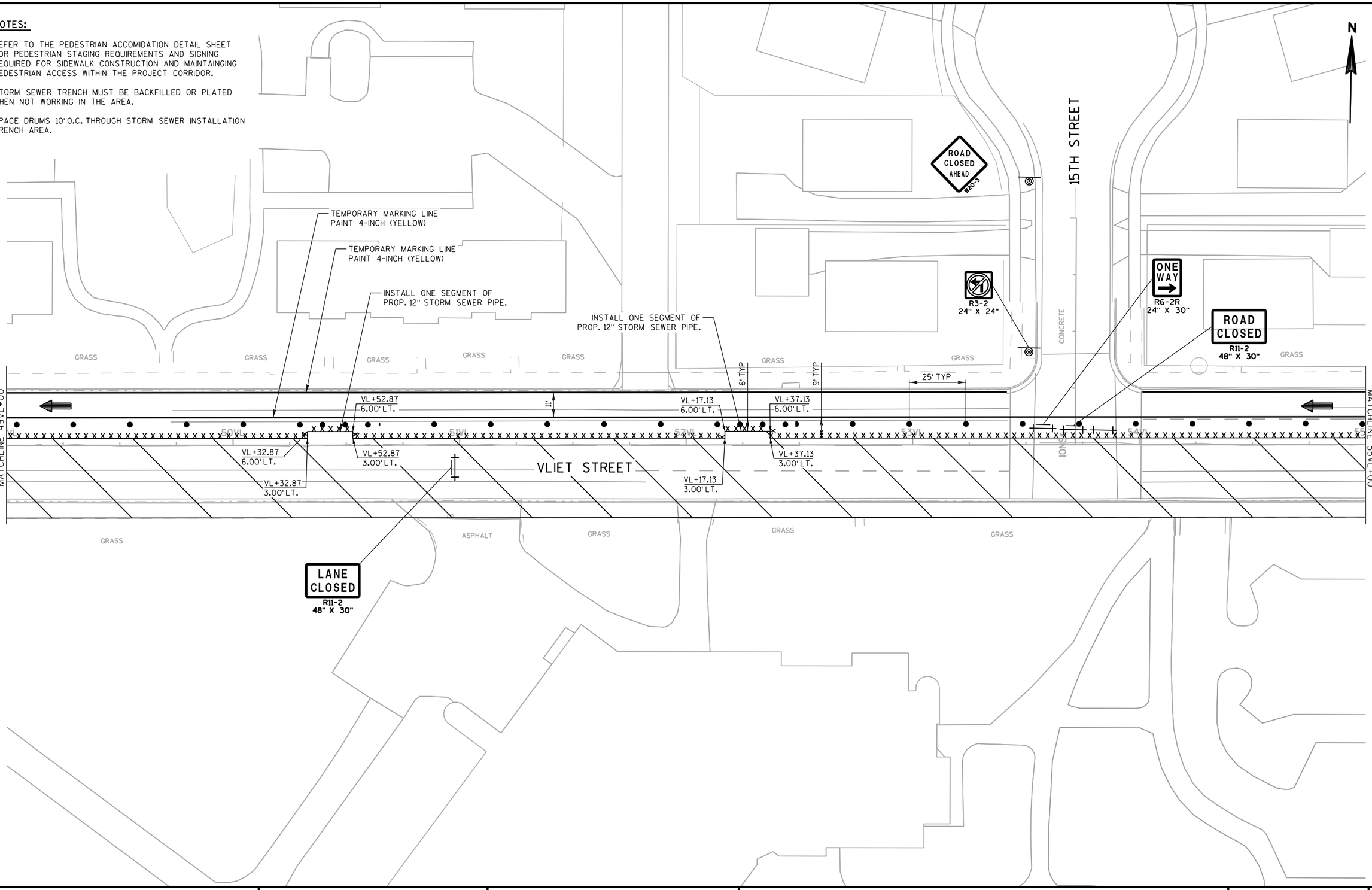
NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.
2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.
3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 200	E

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.
2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.
3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 201	E

2

N

PLACE SIGN AT CHERRY STREET INTERSECTION

ROAD CLOSED AHEAD W20-3

14TH STREET

INSTALL ONE SEGMENT OF PROP. 12" STORM SEWER PIPE.

ONE WAY R6-2R 24" X 30"

ROAD CLOSED R11-2 48" X 30"

R3-2 24" X 24"

TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)

TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

11'

25' TYP

9' TYP

6' TYP

1 STORY BRICK BUILDING

BRICK/FRAME BUILDING

1 STORY BRICK BUILDING

BRICK/FRAME BUILDING #1328

3 STORY BRICK/CONC. BUILDING #1322-1324

1 STORY METAL STRUCTURE

1 STORY METAL BUILDING #1312

GRASS

MATCHLINE 55VL+00

MATCHLINE 61VL+00

VL+01.86 6.00'LT.

VL+21.86 6.00'LT.

VL+97.63 6.00'LT.

VL+17.63 6.00'LT.

VL+81.23 6.00'LT.

VL+01.23 6.00'LT.

VL+72.68 6.00'LT.

VL+92.68 6.00'LT.

VL+67.80 6.00'LT.

VL+87.80 6.00'LT.

VL+01.86 3.00'LT.

VL+21.86 3.00'LT.

VL+97.63 3.00'LT.

VL+17.63 3.00'LT.

VL+81.23 3.00'LT.

VL+01.23 3.00'LT.

VL+72.68 3.00'LT.

VL+92.68 3.00'LT.

VL+67.80 3.00'LT.

VL+87.80 3.00'LT.

VLIET STREET

57VL

58VL

59VL

60VL

61VL

3 STORY STUCCO/BRICK BUILDING #1335

1 1/2 STORY STONE/BRICK/FRAME BUILDING #1327-1323

2 STORY STONE/BRICK BUILDING #1307-1311

2 1/2 STORY BRICK BUILDING #1301

CONCRETE PAVEMENT GAP

ROAD CLOSED R11-2 48" X 30"

ROAD WORK AHEAD W20-3

PLACE SIGN AT MCKINLEY STREET INTERSECTION

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.
2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.
3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 202	E

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.
2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.
3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.

ROAD CLOSED AHEAD W20-3
PLACE SIGN AT CHERRY STREET INTERSECTION

ROAD WORK AHEAD W20-3
PLACE SIGN AT CHERRY STREET INTERSECTION

13TH STREET

12TH STREET

ONE WAY
R6-2R
24" X 30"

ROAD CLOSED
R11-2
48" X 30"

3 STORY BRICK BUILDING #1220

TEMPORARY MARKING LINE
PAINT 4-INCH (YELLOW)

TEMPORARY MARKING LINE
PAINT 4-INCH (WHITE)

INSTALL ONE SEGMENT OF
PROP. 12" STORM SEWER PIPE.

R3-2
24" X 24"

25' TYP

6' TYP

9' TYP

11'

BIKE LANE
R3-17
30" X 24"

ENDS
R3-17DD
30" X 12"

180' LANE SHIFT

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (WHITE)

MATCHLINE A

MATCHLINE 61VL+00

VL+54.39
6.00' LT.

VL+54.39
3.00' LT.

VL+74.39
3.00' LT.

VL+74.39
6.00' LT.

62VL

63VL

64VL

65VL

VLIET STREET

1 1/2 STORY FRAME/BRICK BUILDING

2 STORY FRAME/BRICK BUILDING #1233

GRASS

CONCRETE PAVEMENT GAP

GRASS

2 STORY BRICK BUILDING #1215

2 STORY BRICK BUILDING #1211

2 STORY BRICK BUILDING #1207

2 STORY BRICK BUILDING #1201

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (YELLOW)

R3-2
24" X 24"

LANE CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

12TH LANE

ROAD CLOSED AHEAD W20-3
PLACE SIGN AT MCKINLEY STREET INTERSECTION

ROAD CLOSED AHEAD W20-3
PLACE SIGN AT MCKINLEY STREET INTERSECTION

ROAD WORK AHEAD W20-3
PLACE SIGN AT MCKINLEY STREET INTERSECTION

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 203 E

2

IH-43 SB

IH-43 NB

180' LANE SHIFT

50'

200'

200'

25' TYP

MATCHLINE A

VLIET STREET

W01-3R

PLACE SIGN 500' FROM
12TH STREET
INTERSECTION

ROAD
WORK
AHEAD
W20-1A

BIKE
LANE
CLOSED
AHEAD
W21-5B (MOD)

PLACE SIGN AT
10TH STREET
INTERSECTION

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (YELLOW)

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (WHITE)

MATCH EXISTING
PAVEMENT MARKINGS

W011-1

SHARE
THE
ROAD

W016-1
18" X 24"

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.

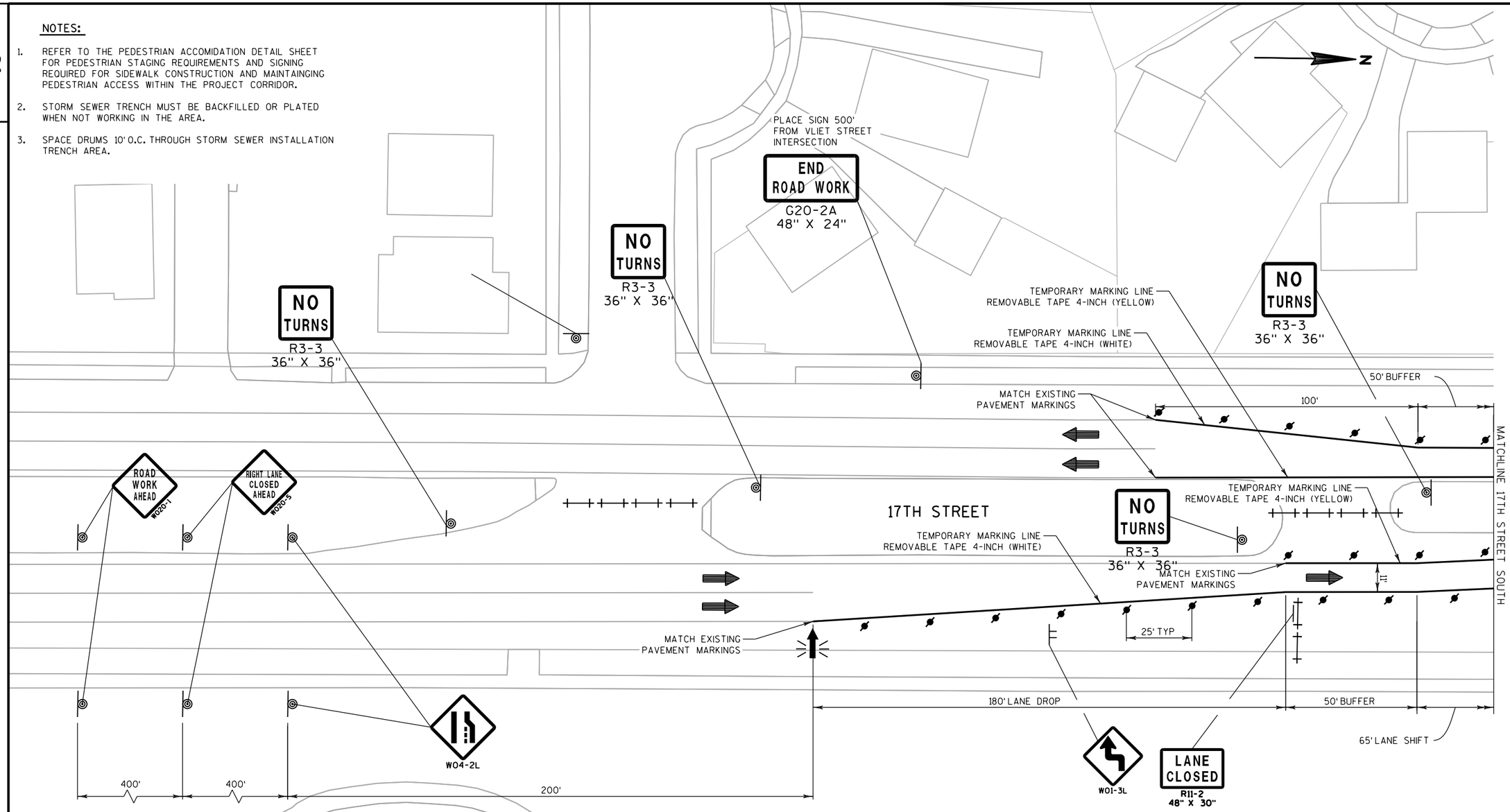
2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.

3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 204 E

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.
2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.
3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.

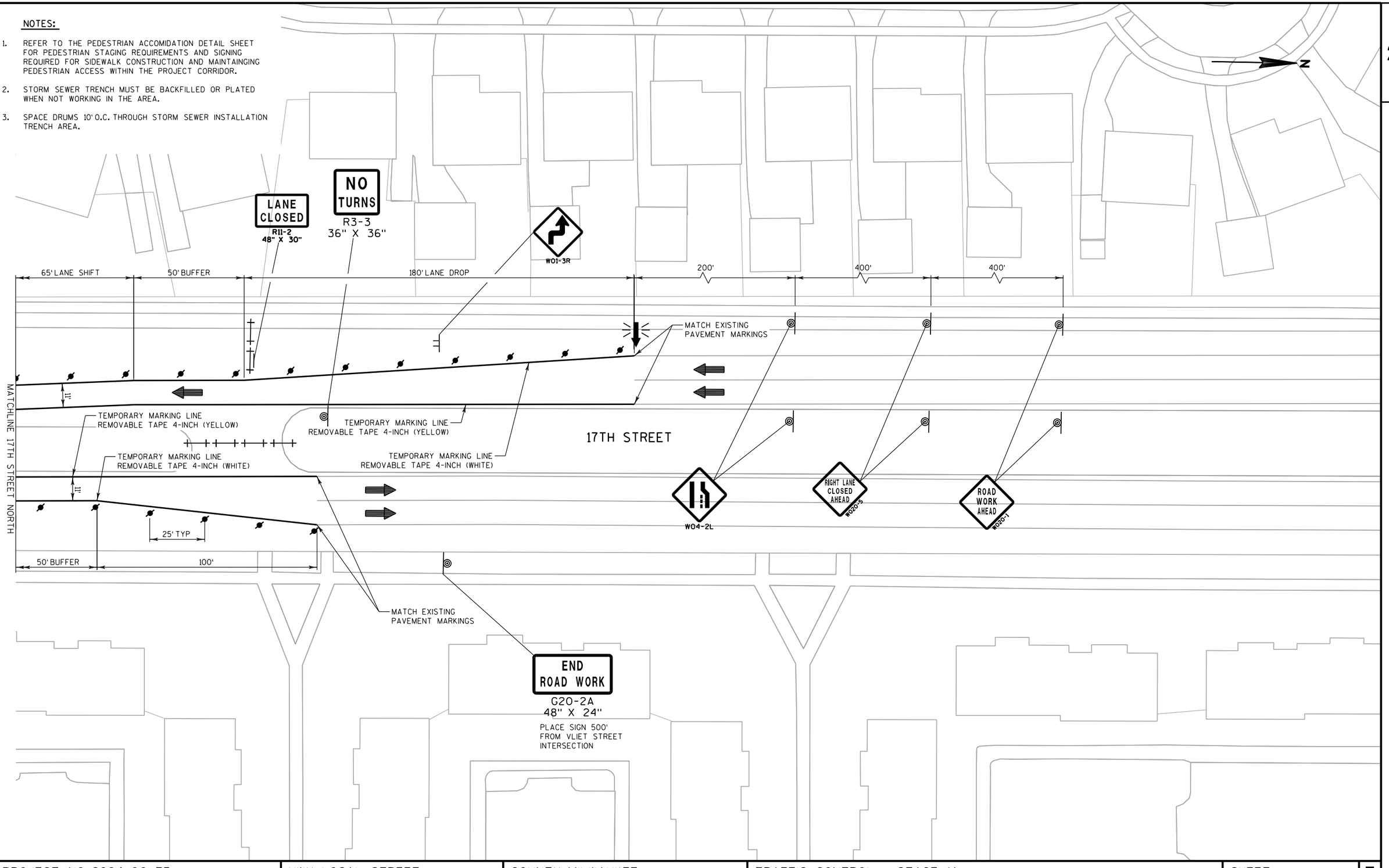


PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Products\TCP\63342007_s1.dgn PLOT DATE : 4/5/2019 9:15:50 AM PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.
2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.
3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.

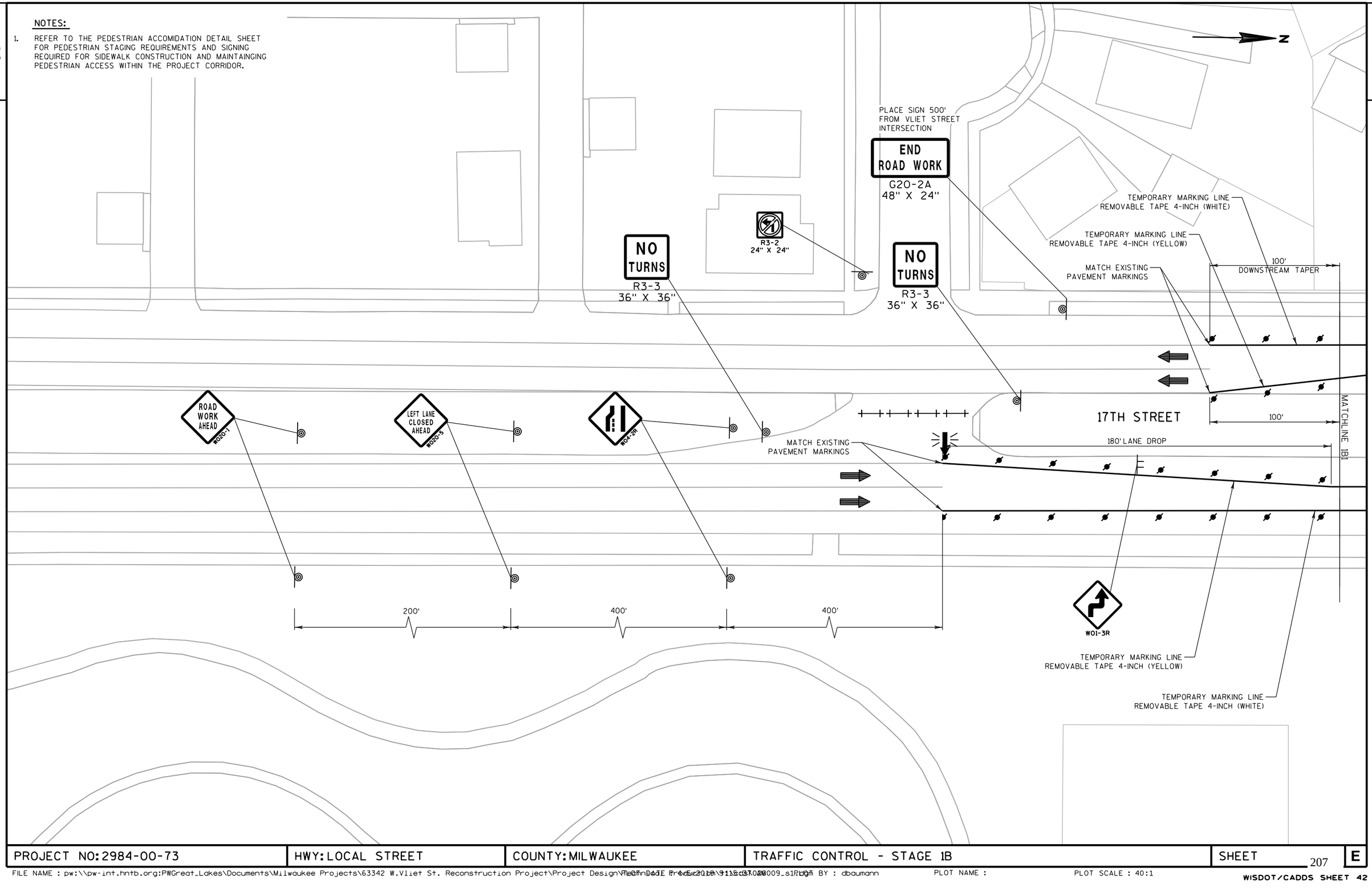


PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Products\2984008_s1.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Production\11567A0009_s1.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.

2

N

W01-3R

NO TURNS
R3-3
36" X 36"

TRUCKS NO RIGHT TURN
R4-5R (MOD)
36" X 48"

TEMPORARY MARKING STOP LINE
REMOVABLE TAPE 18-INCH (WHITE)

TEMPORARY BUS STOP
TEMPORARY CURB RAMP REQUIRED
(SEE SDD TRAFFIC CONTROL, TEMPORARY
ADA COMPLIANT PEDESTRIAN ACCOMODATION)

TEMPORARY MARKING LINE
PAINT 4-INCH

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH

46'

100'
DOWNSTREAM TAPER

50' BUFFER

123' LANE SHIFT

122' LANE SHIFT

50' BUFFER

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (WHITE)

VL+57.37
32.00' RT

VL+68.67
33.50' LT

11'

10'

NSI

BUS

CONCRETE

GRASS

KEEP TEMP ASPHALT
FOR STAGE 2B TRAFFIC

LANE CLOSED
R11-2L
48" X 30"

25' TYP

R3-2
24" X 24"

MATCHLINE 1B1

MATCHLINE 1B2

17TH STREET

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (YELLOW)

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (WHITE)

VL+45.68
23.12' LT

VL+34.33
35.17' RT

50'

122' LANE SHIFT

100'

123' LANE SHIFT

50' BUFFER

100'
DOWNSTREAM TAPER

R3-2
24" X 24"

R3-2
24" X 24"

W01-3L

TEMPORARY MARKING STOP LINE
REMOVABLE TAPE 18-INCH (WHITE)

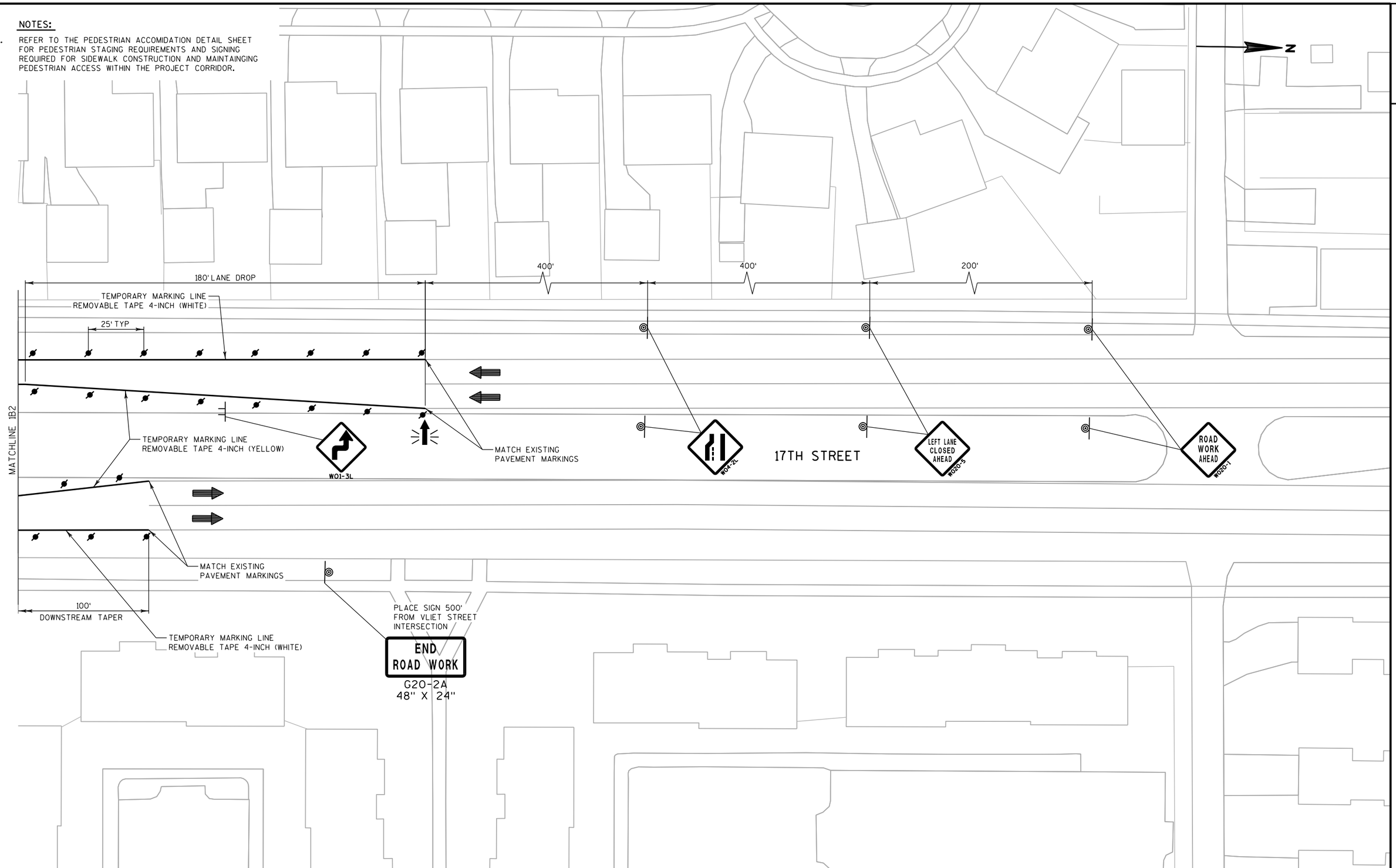
TRAFFIC CONTROL DEVICES ON
VLIET STREET ARE IN THE
SAME LOCATION AS STAGE 1A

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design Team Data Exchange\Traffic\Sheets\TC010_s1B.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.

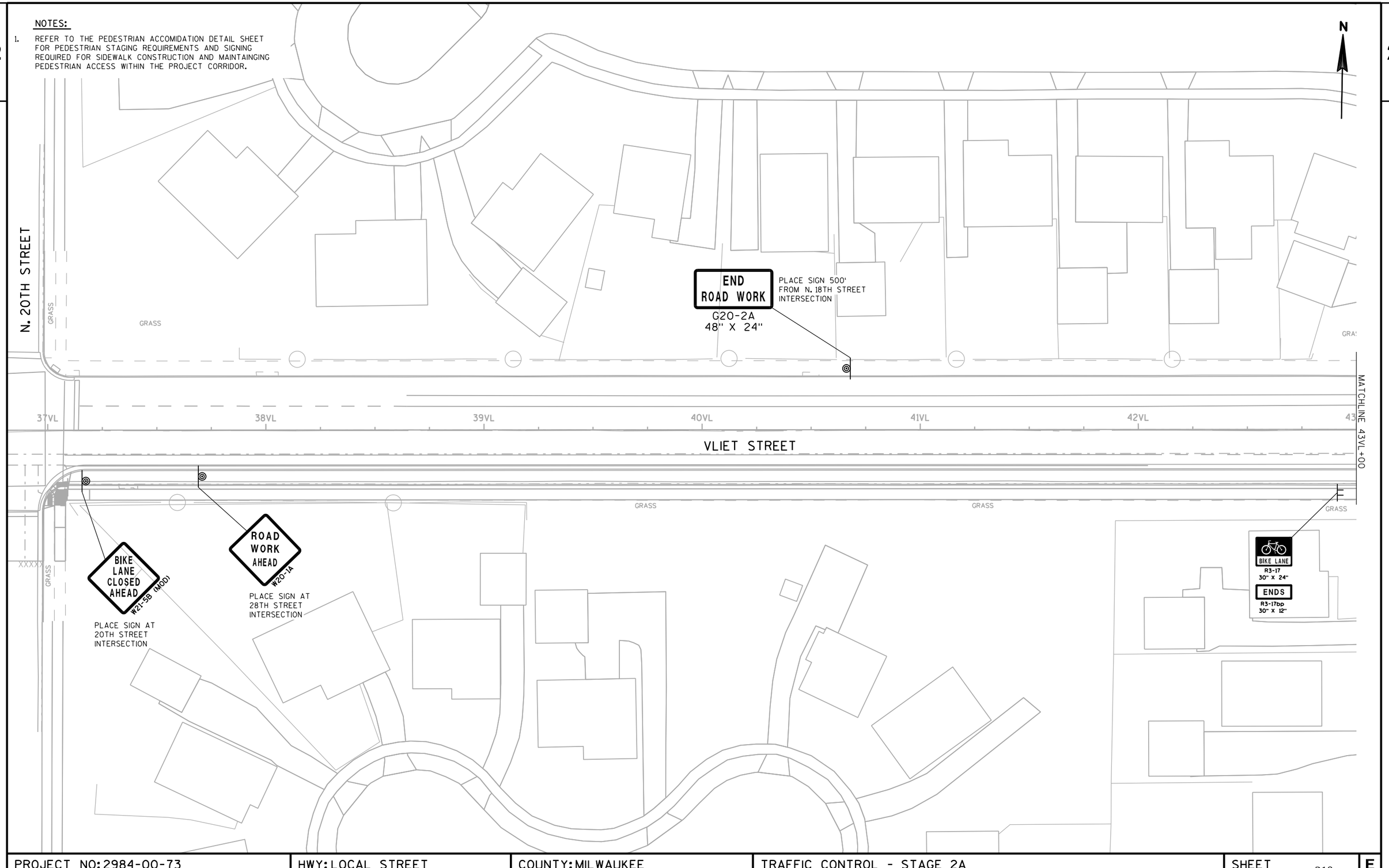


PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 209 E

2

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET	E

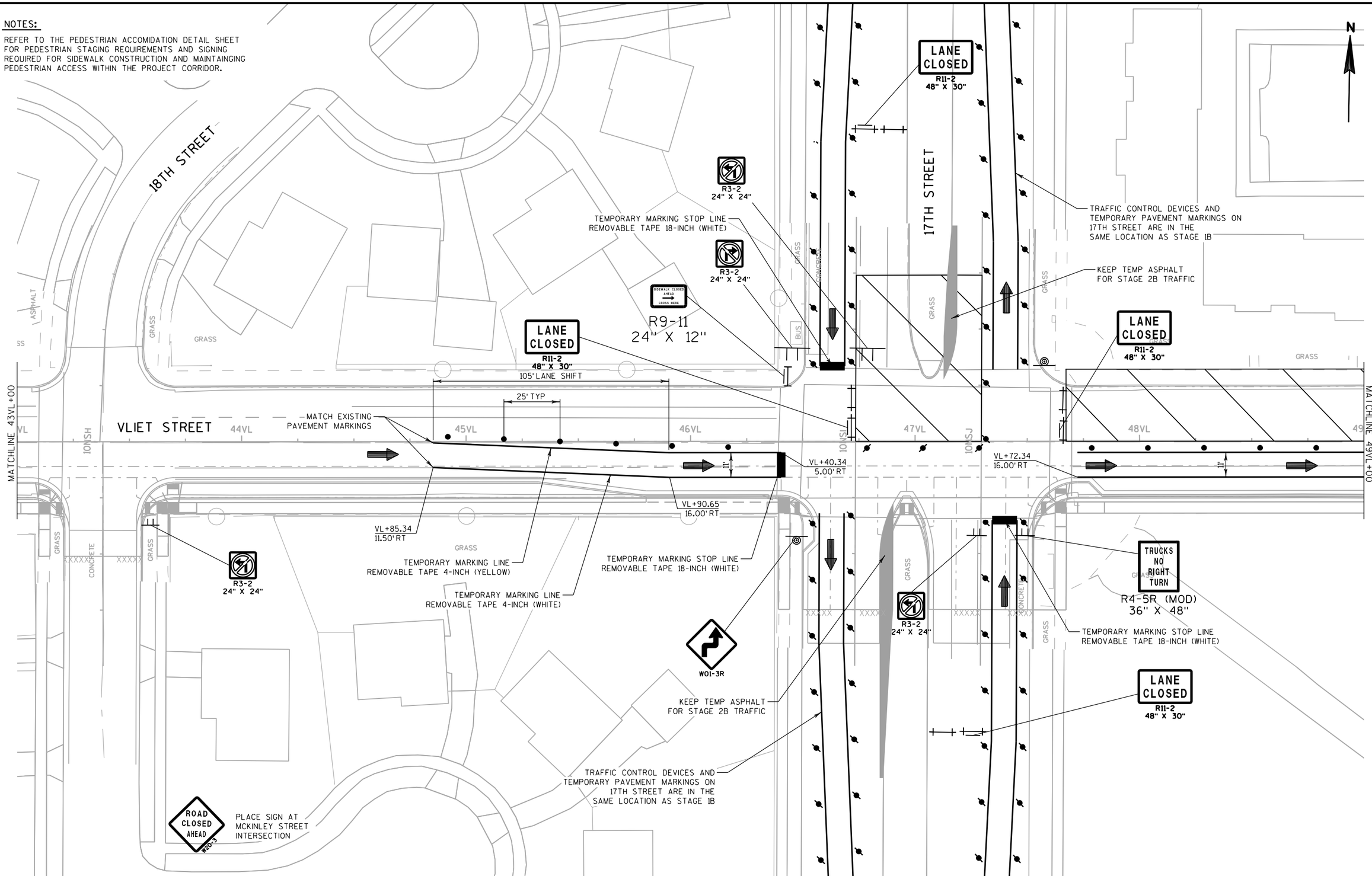
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Products\2019_11_15_63342012_s2.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET 211 E

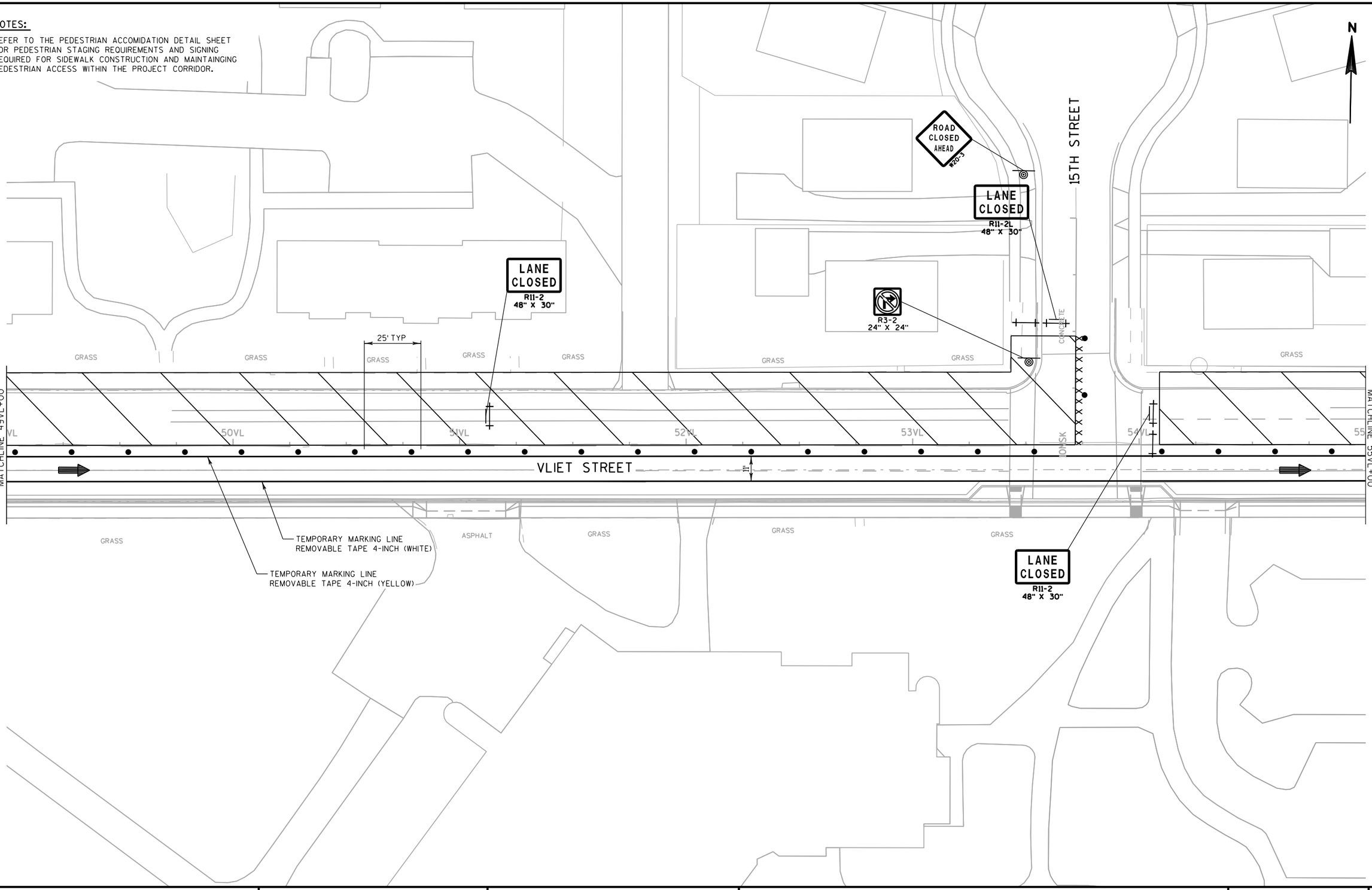
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Traffic\Traffic Control\Stage 2\634213_s2.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Sheets\Traffic Control\TC_Stage2A_20240014_s2.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.

PLACE SIGN AT CHERRY STREET INTERSECTION

ROAD WORK AHEAD W20-3

14TH STREET

ROAD CLOSED R11-2 48" X 30"

ROAD CLOSED R11-2 48" X 30"

ONE WAY R6-2R 24" X 30"

CONCRETE PAVMENT GAP

LANE CLOSED R11-2 48" X 30" GRASS

GRASS 25' TYP

1 STORY BRICK BUILDING

1 STORY BRICK BUILDING

1 STORY BRICK/STONE /FRAME BUILDING

1 STORY BRICK BUILDING

2 STORY BRICK/FRAME BUILDING #1328

3 STORY BRICK/CONC. BUILDING #1322-1324

1 STORY METAL STRUCTURE

1 STORY METAL BUILDING #1312

MATCHLINE 55VL+00

56VL

57VL

58VL

59VL

60VL

MATCHLINE 61VL+00

VLIET STREET

11'

11'

GRASS

R3-2 24" X 24"

GRASS

R3-2 24" X 24"

3 STORY STUCCO/BRICK BUILDING #1335

1 1/2 STORY STONE/BRICK/FRAME BUILDING #1327-1323

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

2 STORY STONE/BRICK BUILDING #1307-1311

2 1/2 STORY BRICK BUILDING #1301

R3-2 24" X 24"

GRASS

ROAD WORK AHEAD W20-3

PLACE SIGN AT MCKINLEY STREET INTERSECTION

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET 213 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Production\115553040015_s2.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.

ROAD CLOSED AHEAD W20-3
PLACE SIGN AT CHERRY STREET INTERSECTION

13TH STREET

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

ONE WAY
R6-2R
24" X 30"

MATCHLINE 61VL+00

62VL

63VL

64VL

65VL

VLIET STREET

11'

25' TYP

3 STORY BRICK BUILDING #1220

SIDEWALK CLOSED
R9-9
24" X 12"

R3-2
24" X 24"

ROAD WORK AHEAD W20-3
PLACE SIGN AT CHERRY STREET INTERSECTION

12TH STREET

ROAD CLOSED
R11-2
48" X 30"

BIKE LANE
R3-17
30" X 24"

ENDS
R3-17bp
30" X 12"

ROAD CLOSED 500 FT W20-3D

ROAD CLOSED 1000 FT W20-3C

ROAD CLOSED AHEAD W20-3A

500' 500' 500'

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
24" X 12"

1 1/2 STORY FRAME/BRICK BUILDING

2 STORY FRAME/BRICK BUILDING #1233

GRASS

R3-2
24" X 24"

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

GRASS

2 STORY BRICK BUILDING #1215

2 STORY BRICK BUILDING #1211

2 STORY BRICK BUILDING #1207

2 STORY BRICK BUILDING #1201

12TH LANE

R3-2
24" X 24"

END ROAD WORK
G20-2A
48" X 24"

BIKE LANE CLOSED AHEAD W21-5B (MOD)
PLACE SIGN AT 10TH STREET INTERSECTION

ROAD CLOSED AHEAD W20-3
PLACE SIGN AT MCKINLEY STREET INTERSECTION

ROAD WORK AHEAD W20-3
PLACE SIGN AT MCKINLEY STREET INTERSECTION

N

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET 214 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Technical Products\2019\11\cd530416_s2.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.

2

N

PLACE SIGN 500' FROM VLIET STREET INTERSECTION

END ROAD WORK
G20-2A
48" X 24"

NO TURNS
R3-3
36" X 36"

R3-2
24" X 24"

NO TURNS
R3-3
36" X 36"

W4-2R
36" X 36"

ROAD WORK AHEAD
W20-1

RIGHT LANE CLOSED AHEAD
W20-5

180' LANE DROP

17TH STREET

MATCHLINE 2B1

MATCH EXISTING PAVEMENT MARKINGS

25' TYP

W01-3R

200'

400'

400'

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (WHITE)

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B	SHEET 215	E

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.

N

VLIET STREET

17TH STREET

NO TURNS
R3-3
36" X 36"

CONSTRUCT TEMPORARY ASPHALT FOR STAGE 3 TRAFFIC

TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

100' | 50' BUFFER | 115' LANE SHIFT

MATCH EXISTING PAVEMENT MARKINGS

11'

180' LANE DROP

25' TYP

MATCHLINE 2B1

VL+79.42
34.84' RT

VL+14.34
36.81' RT

VL+73.52
0.00'

VL+88.69
36.29' LT

VL+14.71
31.68' LT

SIDEWALK CLOSED
R9-9
24" X 12"

R3-2
24" X 24"

LANE CLOSED
R11-2
48" X 30"

TEMPORARY BUS STOP
TEMPORARY CURB RAMP REQUIRED
(SEE SDD TRAFFIC CONTROL, TEMPORARY
ADA COMPLIANT PEDESTRIAN ACCOMODATION)

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

65' LANE SHIFT | 50' | 180' LANE DROP

MATCHLINE 2B2

MATCH EXISTING PAVEMENT MARKINGS

25' TYP

75' LANE SHIFT | 50' BUFFER | 100'

50' BUFFER | 65' LANE SHIFT

TRUCKS NO RIGHT TURN
R4-5R (MOD)
36" X 48"

TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

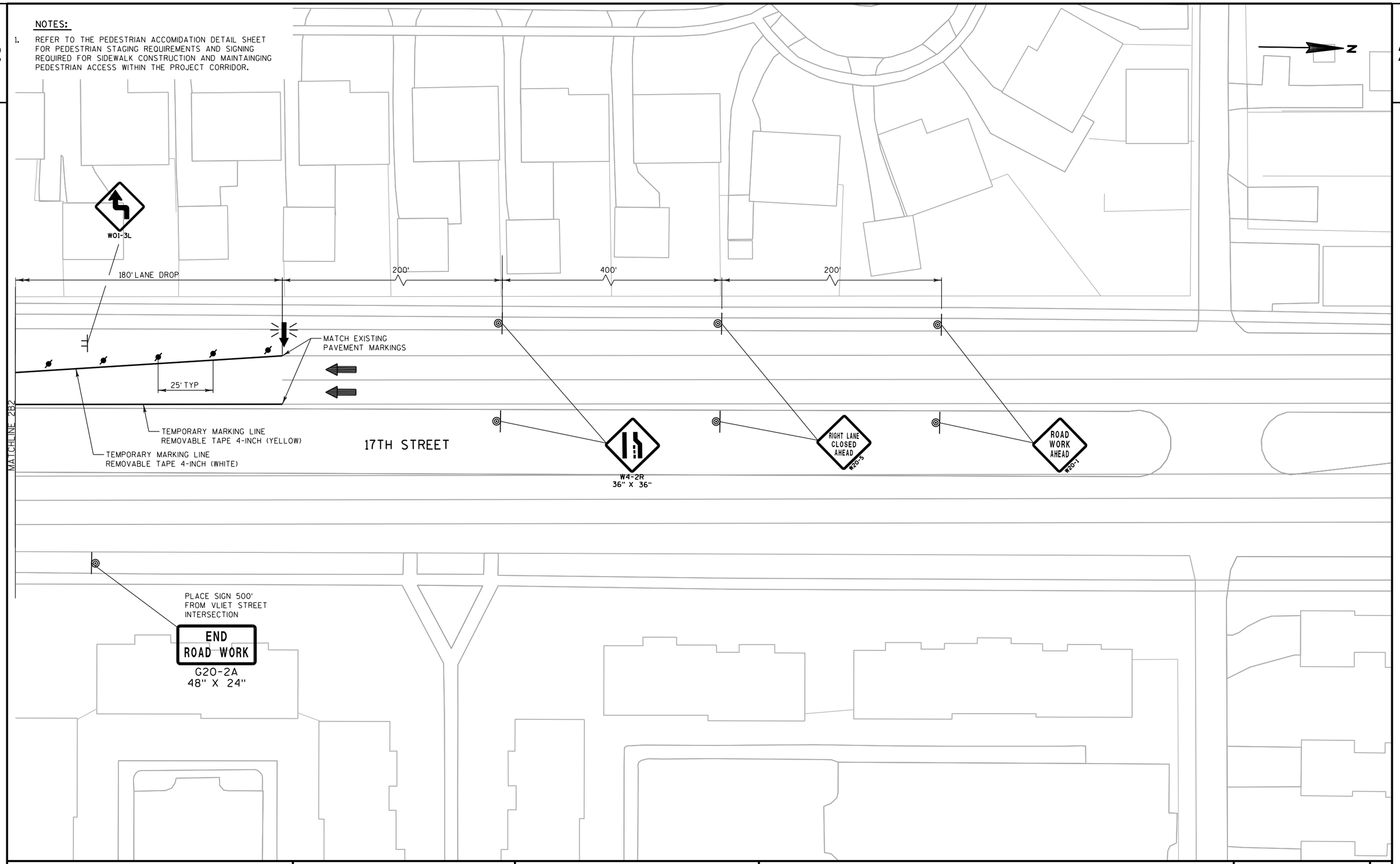
TRAFFIC CONTROL DEVICES ON VLIET STREET ARE IN THE SAME LOCATION AS STAGE 2A

GRASS | CONCRETE | BUS | 10NSJ | 47VL | 48VL

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B	SHEET 216 E

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.



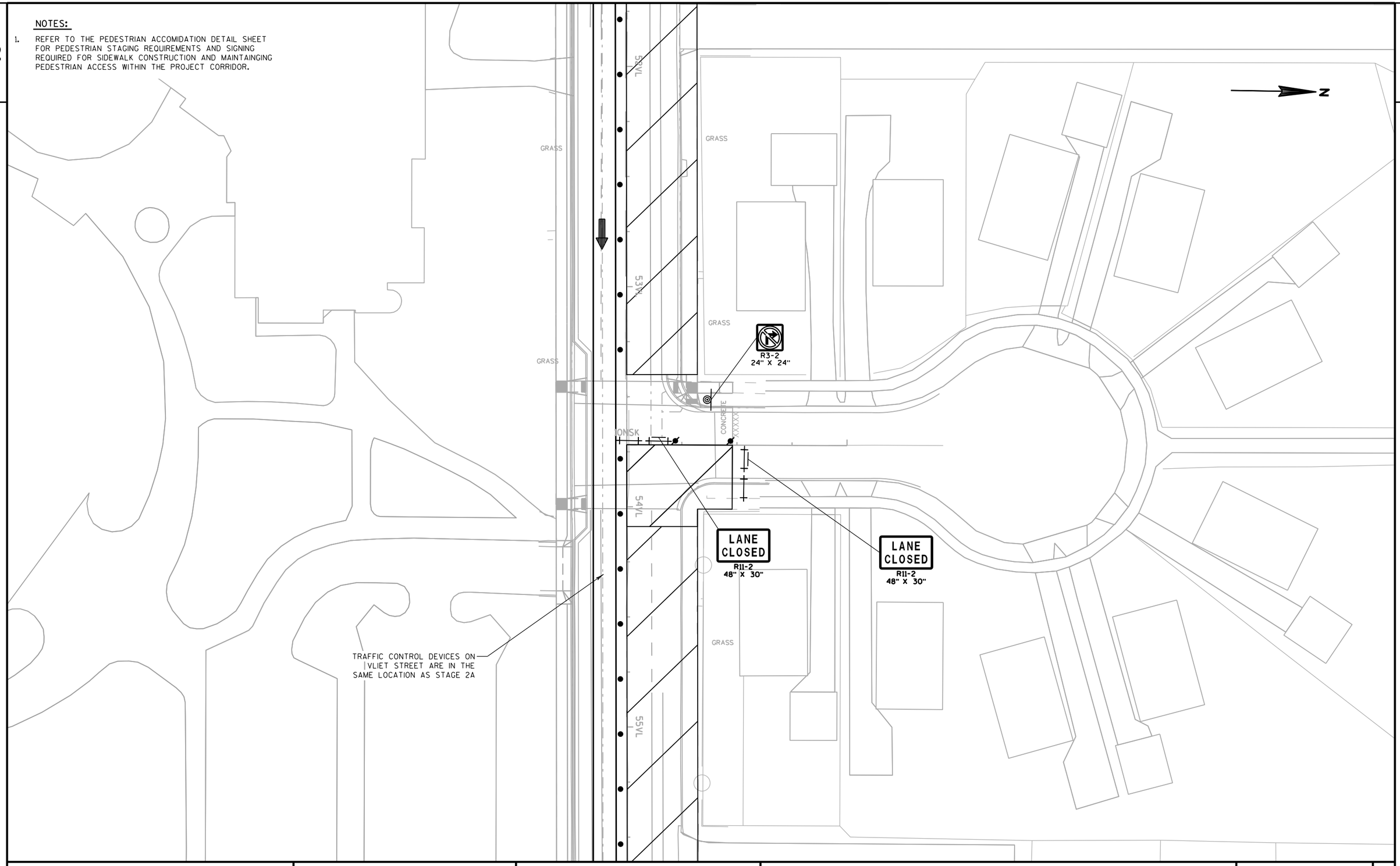
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Traffic\Sheets\20190319_s2R.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

2

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.



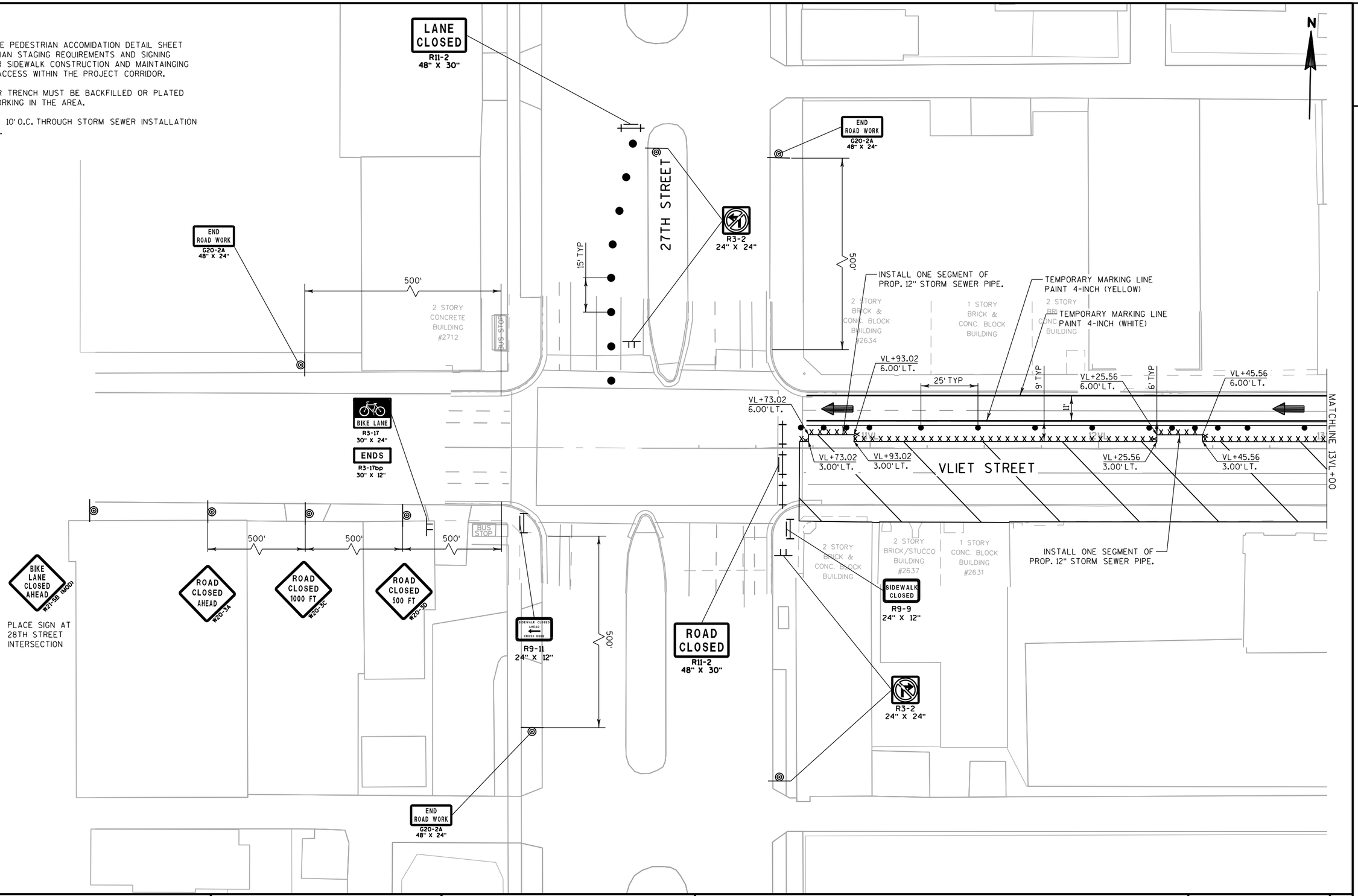
2

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Set Preparation\911cd18020_s2.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.
2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.
3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET 219	E

2

PLACE SIGN AT CHERRY STREET INTERSECTION

ROAD CLOSED AHEAD W20-3

PLACE SIGN AT CHERRY STREET INTERSECTION

ROAD CLOSED AHEAD W20-3

N

26TH STREET

25TH STREET

ROAD CLOSED R11-2 48" X 30"

R3-2 24" X 24"

INSTALL ONE SEGMENT OF PROP. 12" STORM SEWER PIPE.

TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)

TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

R3-2 24" X 24"

ONE WAY R6-2R 24" X 30"

ROAD CLOSED R11-2 48" X 30"

INSTALL ONE SEGMENT OF PROP. 12" STORM SEWER PIPE.

1 STORY BRICK/CONC. BUILDING #2608

1 STORY STUCCO BUILDING #2606

1 STORY BRICK BUILDING

1 STORY BRICK BUILDING #2526

1/2 STORY BRICK BUILDING #2506

2 1/2 STORY BRICK/STUCCO BUILDING #2500

ONE WAY R6-2R 24" X 30"

6' TYP

9' TYP

11'

25' TYP

MATCHLINE 13VL+00

VL+43.57 6.00'LT.

VL+43.57 3.00'LT.

VL+63.57 6.00'LT.

VL+63.57 3.00'LT.

VLIET STREET

VL+16.75 6.00'LT.

VL+16.75 3.00'LT.

VL+36.75 6.00'LT.

VL+36.75 3.00'LT.

MATCHLINE 19VL+00

R3-2 24" X 24"

1 STORY CONC. BLOCK BUILDING #2605

1 STORY BRICK BUILDING #2527

2 1/2 STORY BRICK BUILDING #2515

#2513 #2511 #2509 #2505

3 STORY BRICK BUILDING

R3-2 24" X 24"

GRASS

CONCRETE

GRASS

2 STORY BRICK BUILDING #2463-65

ROAD CLOSED R11-2 48" X 30"

ROAD CLOSED R11-2 48" X 30"

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.

2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.

3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.

ROAD CLOSED AHEAD W20-3

PLACE SIGN AT MCKINLEY STREET INTERSECTION

ROAD CLOSED AHEAD W20-3

PLACE SIGN AT MCKINLEY STREET INTERSECTION

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET 220	E

PLACE SIGN AT CHERRY STREET INTERSECTION

ROAD CLOSED AHEAD W20-3

24TH PLACE

24TH STREET

N

ONE WAY R6-2R 24" X 30"

R3-2 24" X 24"

ROAD CLOSED R11-2 48" X 30"

TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)

TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

INSTALL ONE SEGMENT OF PROP. 12" STORM SEWER PIPE.

VL+82.11 6.00'LT.

GRASS

ASPHALT

25' TYP

9' TYP

6' TYP

11'

VL+33.67 6.00'LT.

VL+53.67 6.00'LT.

VL+65.31 6.00'LT.

MATCHLINE 19VL+00

MATCHLINE 25VL+00

IONIA

VL+33.67 3.00'LT.

VL+53.67 3.00'LT.

VL+82.11 3.00'LT.

VL+02.11 6.00'LT.

VL+02.11 3.00'LT.

VL+65.31 3.00'LT.

VL+85.31 6.00'LT.

VL+85.31 3.00'LT.

VLIET STREET

21W

22W

23W

24W

25W

34W

2 STORY BRICK/STONE BUILDING

1 STORY STUCCO/BRICK BUILDING

CONC.

1 STORY CONC. BLOCK BUILDING #2499

LANE CLOSED R11-2 48" X 30"

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.
2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.
3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.

PLACE SIGN AT MCKINLEY STREET INTERSECTION

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Traffic\Traffic Control\63342_TC_Stage3_s3.dgn PLOTTED : 4/6/2023 9:16:44 AM BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

23RD STREET

22ND STREET

N

TEMPORARY MARKING LINE
PAINT 4-INCH (YELLOW)

TEMPORARY MARKING LINE
PAINT 4-INCH (WHITE)

ASPHALT

INSTALL ONE SEGMENT OF
PROP. 12" STORM SEWER PIPE.

INSTALL ONE SEGMENT OF
PROP. 12" STORM SEWER PIPE.

INSTALL ONE SEGMENT OF
PROP. 12" STORM SEWER PIPE.

INSTALL ONE SEGMENT
OF PROP. 12" STORM
SEWER PIPE.

ROAD
CLOSED
R11-2
48" X 30"

GRASS

25' TYP

11'

6' TYP

9' TYP

MATCHLINE 25VL+00

MATCHLINE 31VL+00

VL+32.11
6.00'LT.

VL+52.11
6.00'LT.

VL+74.80
6.00'LT.

VL+78.81
6.00'LT.

VL+48.00
6.00'LT.

VL+32.11
3.00'LT.

VL+52.11
3.00'LT.

VL+74.80
3.00'LT.

VL+94.80
3.00'LT.

VL+78.81
3.00'LT.

VL+98.81
3.00'LT.

VL+48.00
3.00'LT.

VL+68.00
3.00'LT.

VL+94.80
6.00'LT.

VL+98.81
6.00'LT.

VL+68.00
6.00'LT.

VLIET STREET

10'

R3-2
24" X 24"

CONCRETE PAVEMENT GAP

ROAD
CLOSED
R11-2
48" X 30"

ROAD
WORK
AHEAD
W20-3

PLACE SIGN AT
MCKINLEY STREET
INTERSECTION

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.
2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.
3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET 222 E

PLACE SIGN AT CHERRY STREET INTERSECTION

ROAD CLOSED AHEAD W20-3

21ST STREET

20TH STREET

N

TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)

TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

R3-2 24" X 24"

ONE WAY R6-2R 24" X 30"

INSTALL ONE SEGMENT OF PROP. 12" STORM SEWER PIPE.

ROAD CLOSED R11-2 48" X 30"

25' TYP

6' TYP

9' TYP

11'

MATCHLINE 31VL+00

MATCHLINE 37VL+00

VL+78.99 6.00'LT.

VL+78.99 3.00'LT.

VL+98.99 3.00'LT.

VL+98.99 6.00'LT.

VL+27.07 6.00'LT.

VL+27.07 3.00'LT.

VL+47.07 3.00'LT.

VL+47.07 6.00'LT.

VLIET STREET

GRASS

ASPHALT

CONCRETE

LANE CLOSED R11-2 48" X 30"

NOTES:

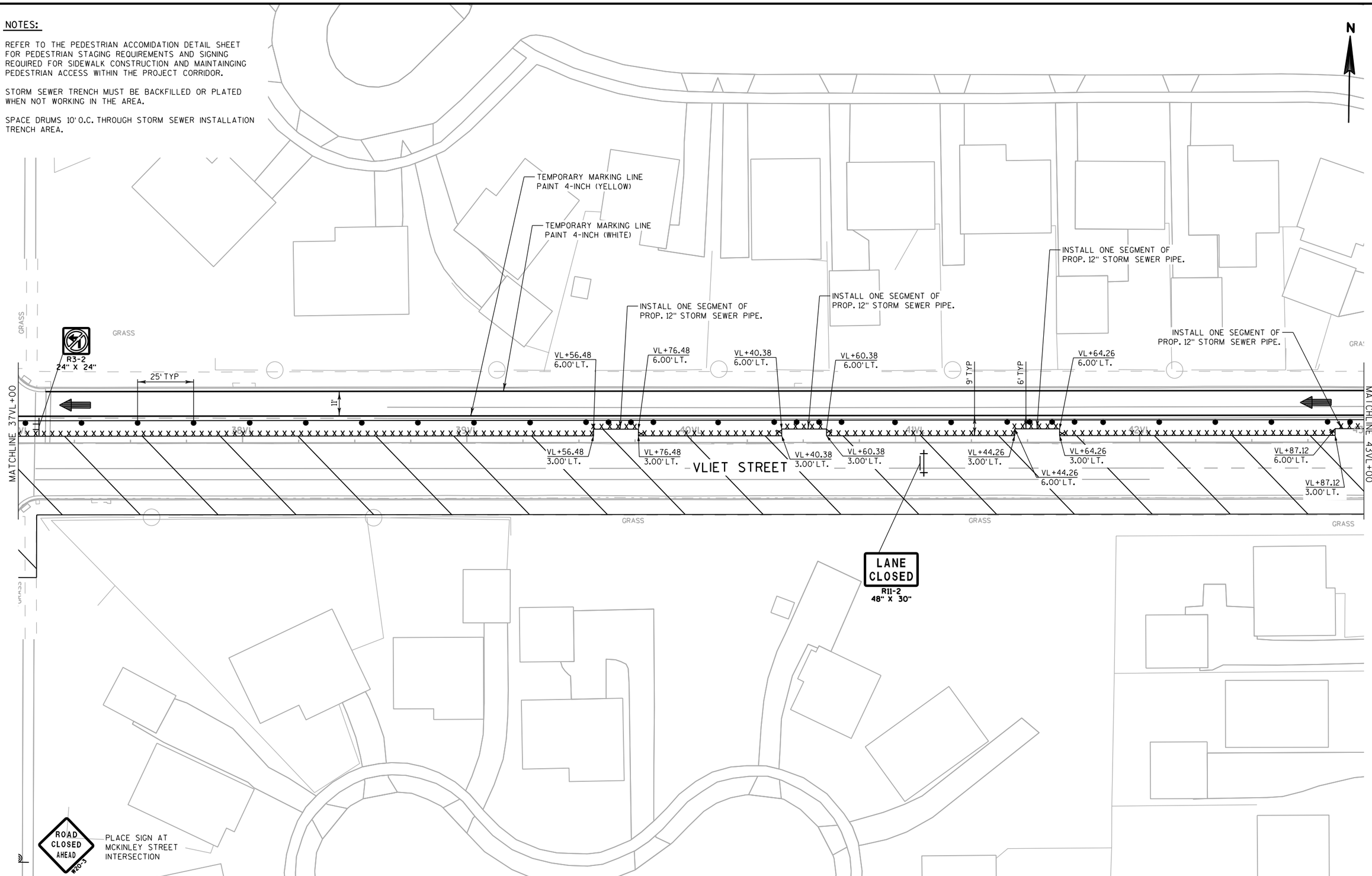
1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.
2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.
3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.

PLACE SIGN AT MCKINLEY STREET INTERSECTION

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET 223 E

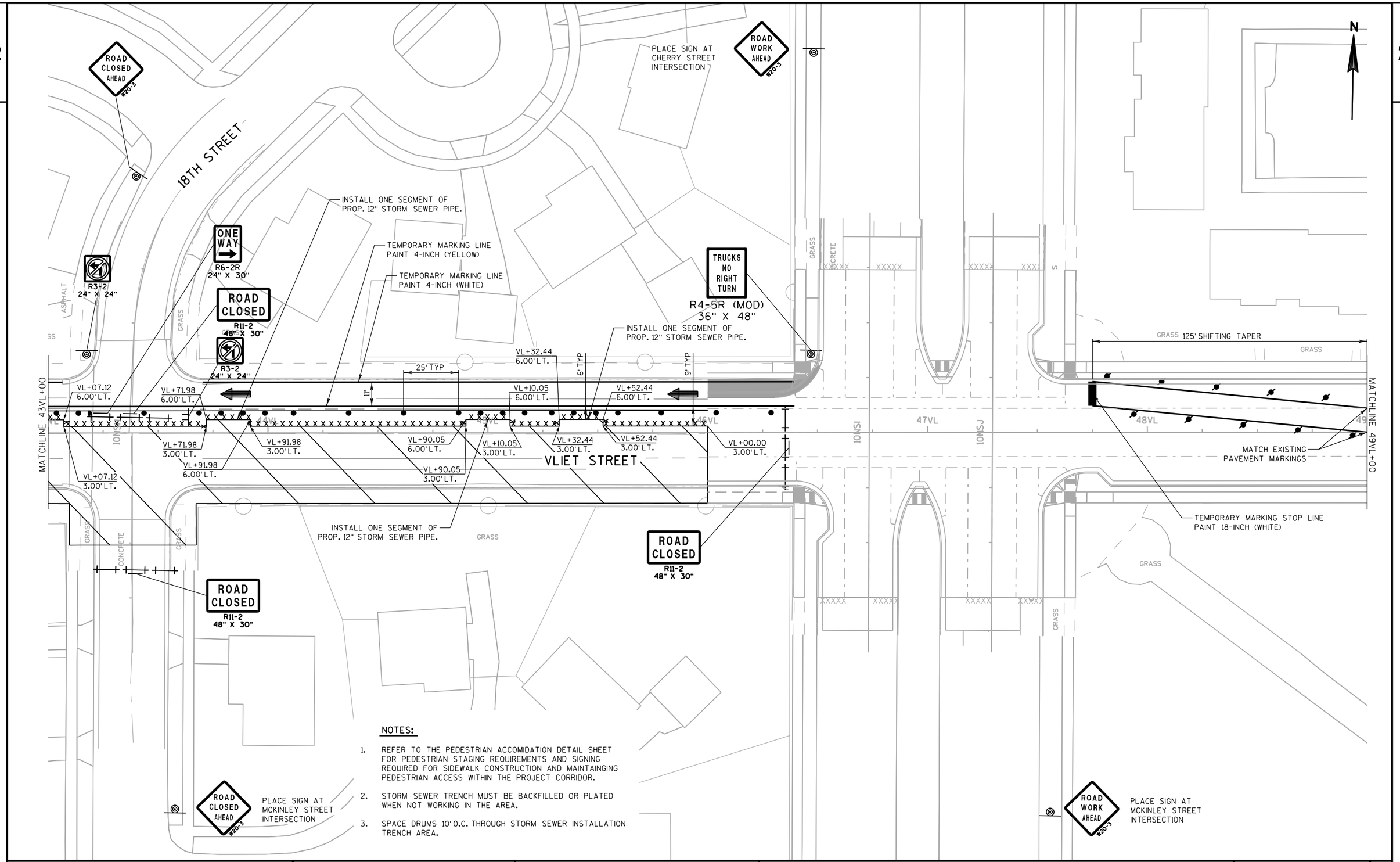
NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.
2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.
3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET 224 E

2



NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.
2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.
3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.

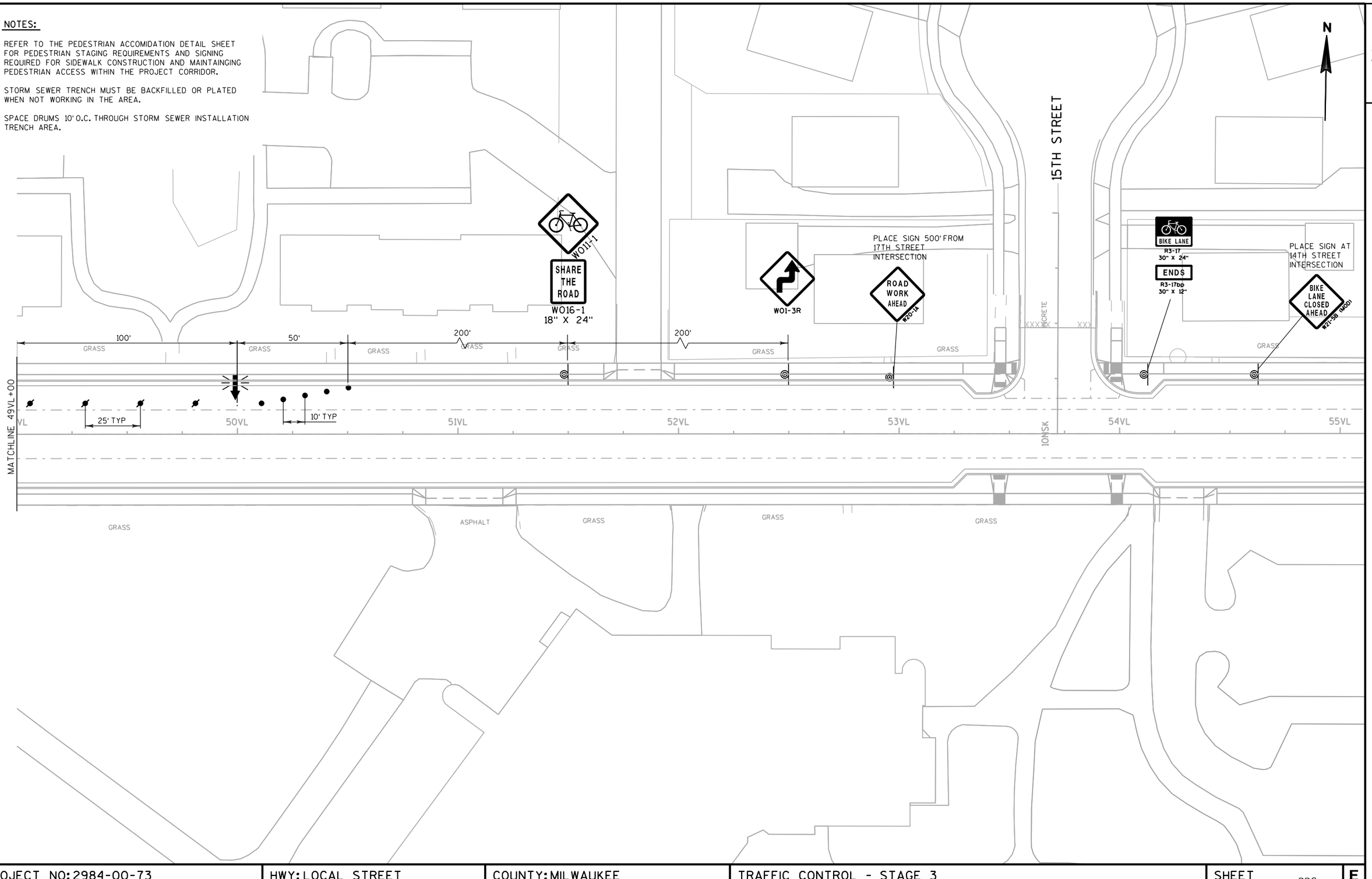
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Production\116358040027_s3.dgn PLOT DATE : 4/5/2019 PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1
WISDOT/CADDS SHEET 42

2

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.
2. STORM SEWER TRENCH MUST BE BACKFILLED OR PLATED WHEN NOT WORKING IN THE AREA.
3. SPACE DRUMS 10' O.C. THROUGH STORM SEWER INSTALLATION TRENCH AREA.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Production\911763342028_s3.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.

2

2

N

PLACE SIGN AT CHERRY STREET INTERSECTION

ROAD WORK AHEAD W20-3

END ROAD WORK
G20-2A
48" X 24"

PLACE SIGN 500' FROM VLIET STREET INTERSECTION

END ROAD WORK
G20-2A
48" X 24"

PLACE SIGN 500' FROM N. 17TH STREET INTERSECTION

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
24" X 12"

SIDEWALK CLOSED
R9-9
24" X 12"

27TH STREET

2 STORY CONCRETE BUILDING #2712

BUS STOP

2 STORY BRICK & CONC. BLOCK BUILDING #2634

1 STORY BRICK & CONC. BLOCK BUILDING

2 STORY BRICK & CONC. BLOCK BUILDING

25' TYP

MATCHLINE 13VL+00

11VL

12VL

13

ROAD CLOSED
R11-2
48" X 30"

VLIET STREET

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

2 STORY BRICK & CONC. BLOCK BUILDING

2 STORY BRICK/STUCCO BUILDING #2637

1 STORY CONC. BLOCK BUILDING #2631

BIKE LANE CLOSED AHEAD W21-5B (MOD)

PLACE SIGN AT 28TH STREET INTERSECTION

ROAD WORK AHEAD W20-1A

PLACE SIGN AT 28TH STREET INTERSECTION

BUS STOP

BIKE LANE
R3-17
30" x 24"

ENDS
R3-17bp
30" x 12"

END ROAD WORK
G20-2A
48" X 24"

PLACE SIGN 500' FROM VLIET STREET INTERSECTION

ROAD WORK AHEAD W20-3

PLACE SIGN AT MCKINLEY STREET INTERSECTION

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 227	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Package 2\TCP_Stage4_s4.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

PLACE SIGN AT CHERRY STREET INTERSECTION

ROAD CLOSED AHEAD W20-3

PLACE SIGN AT CHERRY STREET INTERSECTION

ROAD CLOSED AHEAD W20-3

N

26TH STREET

25TH STREET

ROAD CLOSED R11-2 48" X 30"

ROAD CLOSED R11-2 48" X 30"

ROAD CLOSED R11-2 48" X 30"

ROAD CLOSED R11-2 48" X 30"

ONE WAY R6-2R 24" X 30"

ONE WAY R6-2R 24" X 30"

1 STORY BRICK/CONC. BUILDING #2608

1 STORY STUCCO BUILDING #2604

1 STORY BRICK BUILDING

1 STORY BRICK BUILDING #2526

2 1/2 STORY BRICK BUILDING #2506

2 1/2 STORY BRICK/STUCCO BUILDING #2500

25' TYP

MATCHLINE 13VL+00

MATCHLINE 19VL+00

13VL

14VL

15VL

16VL

17VL

18VL

19

VLIET STREET

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

1 STORY CONC. BLOCK BUILDING #2605

R3-2 24" X 24"

ONE WAY R6-2R 24" X 30"

1 STORY BRICK BUILDING #2527

#2513

#2509

#2505

BUILDING

3 STORY BRICK BUILDING

R3-2 24" X 24"

R3-2 24" X 24"

CONCRETE

GRASS

GRASS

2 STORY BRICK BUILDING #2463-65

R3-2 24" X 24"

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.

ROAD CLOSED AHEAD W20-3

PLACE SIGN AT MCKINLEY STREET INTERSECTION

ROAD CLOSED AHEAD W20-3

PLACE SIGN AT MCKINLEY STREET INTERSECTION

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 228	E

2

PLACE SIGN AT CHERRY STREET INTERSECTION

ROAD CLOSED AHEAD W20-3

24TH PLACE

24TH STREET

N

ROAD CLOSED
R11-2
48" X 30"

LANE CLOSED
R11-2
48" X 30"

ONE WAY
R6-2R
24" X 30"

25' TYP

MATCHLINE 19VL+00

MATCHLINE 25VL+00

19VL 20VL 21VL 22VL 23VL 24VL

VLIET STREET

11'

GRASS

ASPHALT

CONC.

2 STORY BRICK/STONE BUILDING

1 STORY CONC. BLOCK BUILDING #2499

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

R3-2
24" X 24"

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.

PLACE SIGN AT MCKINLEY STREET INTERSECTION

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 229 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Production\911265040031_s4.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

23RD STREET

22ND STREET

PLACE SIGN AT CHERRY STREET INTERSECTION

ROAD CLOSED AHEAD W20-3

N

ROAD CLOSED R11-2 48" X 30"

CONCRETE PAVMENT GAP

ROAD CLOSED R11-2 48" X 30"

ONE WAY R6-2R 24" X 30"

ASPHALT

GRASS

25' TYP

MATCHLINE 25VL+00

25VL

26VL

27VL

28VL

29VL

30VL

31VL

MATCHLINE 31VL+00

VLIET STREET

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

R3-2 24" X 24"

R3-2 24" X 24"

ROAD CLOSED AHEAD W20-3

PLACE SIGN AT MCKINLEY STREET INTERSECTION

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 230	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Production\911-18-040032_s4.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

PLACE SIGN AT CHERRY STREET INTERSECTION

ROAD CLOSED AHEAD W20-3

21ST STREET

PLACE SIGN AT CHERRY STREET INTERSECTION

ROAD CLOSED AHEAD W20-3

N

ROAD CLOSED R11-2 48" X 30"

ROAD CLOSED R11-2 48" X 30"

ONE WAY R6-2R 24" X 30"

ROAD CLOSED R11-2 48" X 30"

ONE WAY R6-2R 24" X 30"

LANE CLOSED R11-2 48" X 30"

25' TYP

GRASS

MATCHLINE 31VL+00

32VL

33VL

34VL

35VL

36VL

MATCHLINE 37VL+00

VLIET STREET

11'

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

R3-2 24" X 24"

R3-2 24" X 24"

R3-2 24" X 24"

ASPHALT

CONCRETE

XXXXX

ROAD CLOSED AHEAD W20-3

PLACE SIGN AT MCKINLEY STREET INTERSECTION

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.

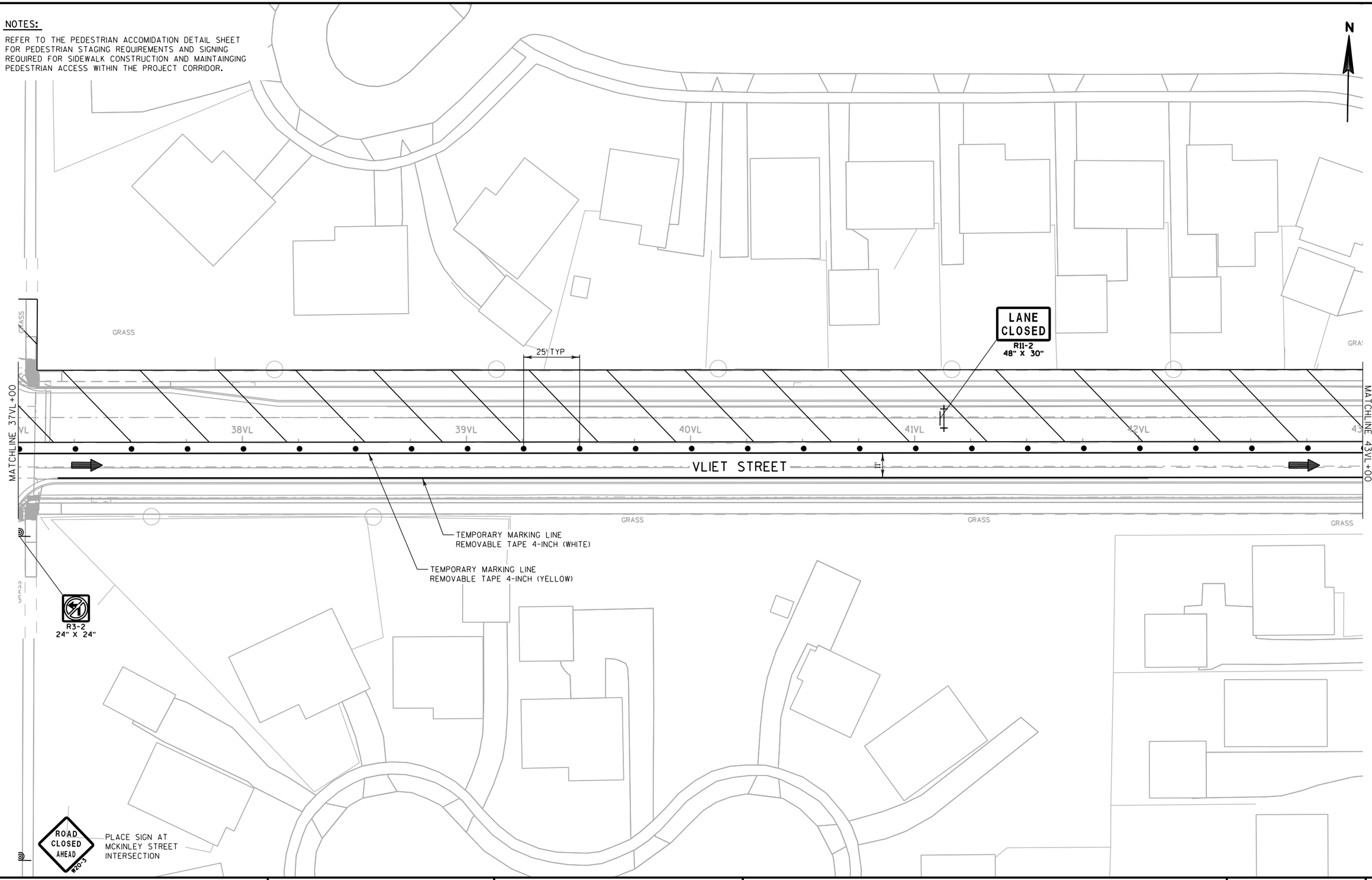
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 231	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Production\911261040033_s4.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 232 E

NOTES:

1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.

2

2

N

PLACE SIGN AT CHERRY STREET INTERSECTION

ROAD WORK AHEAD W20-3

ROAD CLOSED AHEAD W20-3

18TH STREET

17TH STREET

ROAD CLOSED R11-2 48" X 30"

ROAD CLOSED R11-2 48" X 30"

ONE WAY R6-2R 24" X 30"

25' TYP

R3-2 24" X 24"

SIDEWALK CLOSED R9-9 24" X 12"

SIDEWALK CLOSED AHEAD CROSS HERE R9-11 24" X 12"

BIKE LANE R3-17 30" X 24"

ENDS R3-17bp 30" X 12"

ASPHALT

GRASS

CONCRETE

MATCHLINE 43VL+00

44VL

45VL

46VL

VL+40.34 5.00' RT.

47VL

48VL

MATCHLINE 49VL+00

VLIET STREET

11'

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

LANE CLOSED R11-2 48" X 30"

R3-2 24" X 24"

R3-2 24" X 24"

R3-2 24" X 24"

25' TYP

ROAD CLOSED AHEAD W20-3

PLACE SIGN AT MCKINLEY STREET INTERSECTION

LANE CLOSED R11-2 48" X 30"

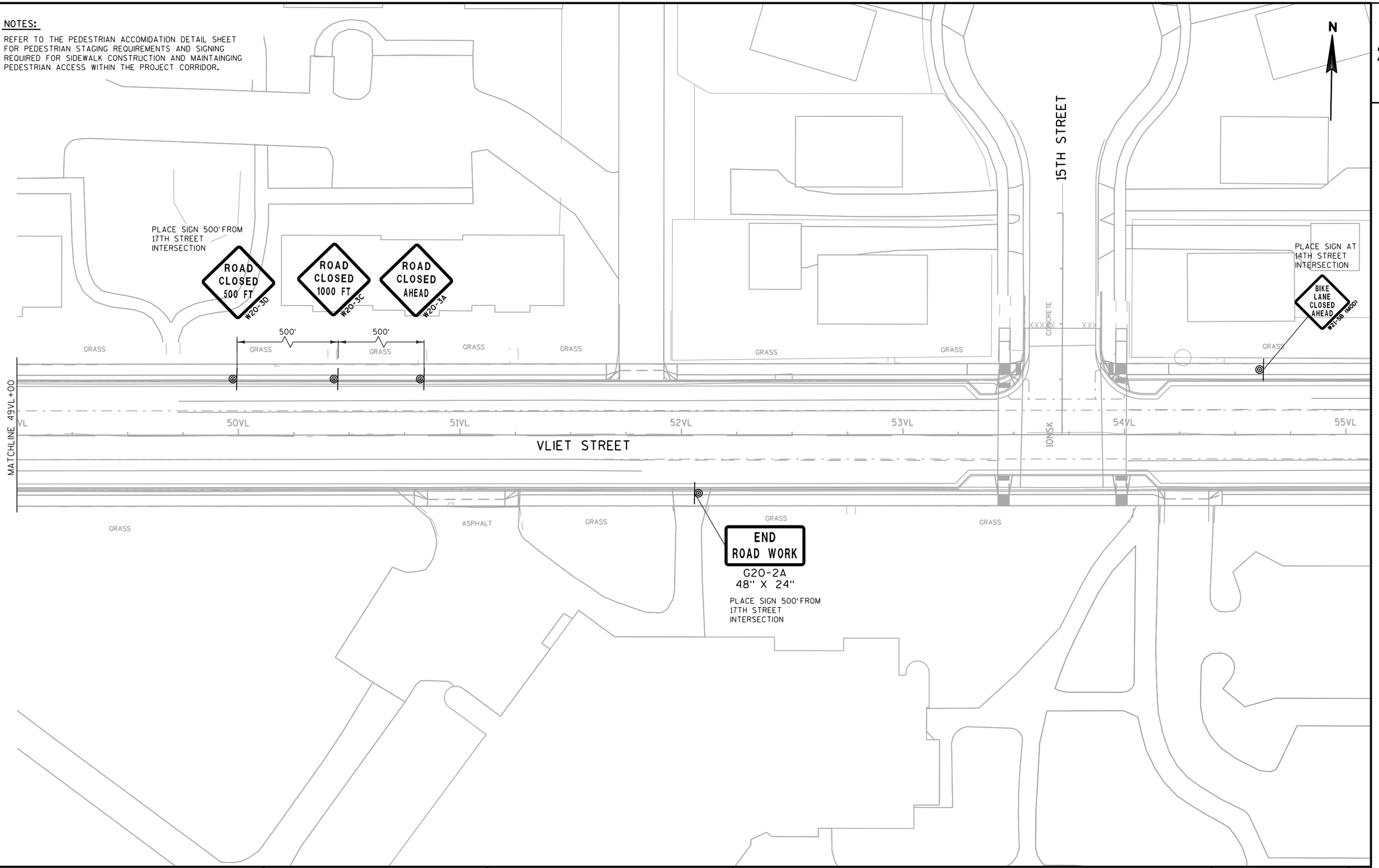
ROAD WORK AHEAD W20-3

PLACE SIGN AT MCKINLEY STREET INTERSECTION

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 233	E

NOTES:

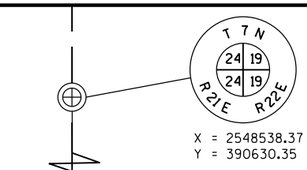
1. REFER TO THE PEDESTRIAN ACCOMIDATION DETAIL SHEET FOR PEDESTRIAN STAGING REQUIREMENTS AND SIGNING REQUIRED FOR SIDEWALK CONSTRUCTION AND MAINTAINGING PEDESTRIAN ACCESS WITHIN THE PROJECT CORRIDOR.



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 234 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Traffic Control\Stage 4\63342036_s4.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42



X = 2548538.37
Y = 390630.35

N

N. 27TH STREET

N. 26TH STREET

N. 25TH STREET

N. 24TH PLACE

N. 24TH STREET

W. VLIET STREET

N88°59'13"E

SECTION LINE

2665.49
N1°08'04"W

BEGIN ALIGNMENT
STA. 10VL+00.00
X = 2548534.1072
Y = 388940.1908

BM 1

CP 27

BEGIN PROJECT 2984-00-73
STA. 10VL+69.11
X = 2548603.206
Y = 388941.413

PI = STA 11NSA+00.00
X = 2548939.1225
Y = 389047.3690

VL = STA 14VL+07.10
NSA = STA 10NSA+00.00
X = 2548941.1387
Y = 388947.3900

CP 26

R/L W. VLIET STREET

VL = STA 14VL+07.33
NSA = STA 10NSA+00.00
X = 2548941.3746
Y = 388947.3935

PI = STA 9NSA+00.00
X = 2548942.8773
Y = 388847.4048

PI = STA 11NSB+00.00
X = 2549217.3939
Y = 389052.2906

VL = STA 16VL+85.23
NSB = STA 10NSB+00.00
X = 2549219.2292
Y = 388952.3074

CP 25

VL = STA 16VL+85.30
NSB = STA 10NSB+00.00
X = 2549219.2960
Y = 388952.3086

PI = STA 9NSB+00.00
X = 2549220.8511
Y = 388852.3207

PI = STA 11NSC+00.00
X = 2549527.4298
Y = 389057.7736

BM 2

VL = STA 19VL+95.12
NSC = STA 10NSC+00.00
X = 2549529.0684
Y = 388957.7871

VL = STA 20VL+01.16
NSC = STA 10NSC+00.00
X = 2549535.1087
Y = 388957.8939

PI = STA 9NSC+00.00
X = 2549537.5185
Y = 388857.9229

VL = STA 23VL+32.42
NSD = STA 10NSD+00.00
X = 2549861.058
Y = 388963.944

VL = STA 23VL+32.14
NSD = STA 10NSD+00.00
X = 2549866.0387
Y = 388963.7465

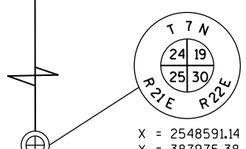
PI = STA 11NSD+00.00
X = 2549864.2668
Y = 389063.7304

CP 24

PI = STA 9NSD+00.00
X = 2549862.780
Y = 388833.953

12VL 14VL 16VL 18VL 20VL 22VL 24VL

10NSA 10NSB 10NSC 10NSD



X = 2548591.14
Y = 387975.38

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM 1	-	-	93.65	SE QUAD AT 27TH ST. NE BOLT ON THE TRAFFIC SIGNAL.
BM 2	-	-	103.55	SE QUAT AT 24TH STREET. "X" ON STEP FOR BUILDING 2435.
CP 24	388995.719	2549894.557	104.026	CUT CROSS AT NE CORNER OF VLIET/24TH ST. 0.58'S. OF BACK OF E/W SIDEWALK AND 2.08'E. OF BACK OF N/S SIDEWALK.
CP 25	388984.209	2549246.851	100.120	CUT CROSS AT NE CORNER OF VLIET/25TH ST. 0.70'S. OF BACK OF E/W SIDEWALK AND 1.16'E. OF BACK OF N/S SIDEWALK.
CP 26	388978.989	2548969.776	98.034	CUT CROSS AT NE CORNER OF VLIET/26TH ST. 0.82'S. OF BACK OF E/W SIDEWALK AND 0.72'E. OF BACK OF N/S SIDEWALK.
CP 27	388972.219	2548601.808	92.241	CUT CROSS AT NE CORNER OF VLIET/27TH ST. 3.22'SOUTHWESTERLY OF THE SW CORNER OF A 7.5'WOOD COLUMN CORNER AND 5.5'NORTHWESTERLY OF THE NW FACE OF A LIGHT/TRAFFIC POLE.

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	ALIGNMENT DETAILS	SHEET 235	E

2

N

T 7 N
19 19
19 19
R 22 E

X = 2551188.53
Y = 390667.90

N. 22ND STREET

N. 21ST STREET

N. 20TH STREET

PI = STA 11NSE+00.00
X = 2550547.7210
Y = 389075.8086

VL = STA 30VL+14.91
NSE = STA 10NSE+00.00
X = 2550548.7084
Y = 388975.8270

PI = STA 11NSF+00.00
X = 2550881.1196
Y = 389081.7142

VL = STA 33VL+49.10
NSF = STA 10NSF+00.00
X = 2550882.8376
Y = 388981.7289

PI = STA 11NSG+00.00
X = 2551211.0188
Y = 389087.5471

VL = STA 36VL+78.57
NSG = STA 10NSG+00.00
X = 2551212.2541
Y = 388987.5548

CP 23 CP 22 CP 21 CP 20 CP 19

26VL 28VL 30VL 32VL 34VL 36VL 38VL 40VL

10NSE 10NSF 10NSG

N88°59'13"E

W. VLIET STREET

R/L W. VLIET STREET

BM 3

PI = STA 9NSF+00.00
X = 2550885.3917
Y = 388881.7586

PI = STA 36VL+78.79
X = 2551212.48
Y = 388987.56

PI = STA 9NSG+0.00
X = 2551214.0014
Y = 388887.5700

PI = STA 9NSE+00.00
X = 2550550.4463
Y = 388875.8386

VL = STA 30VL+15.75
NSE = STA 10NSE+00.00
X = 2550549.5441
Y = 388975.8345

VL = STA 33VL+49.72
NSF = STA 10NSF+00.00
X = 2550883.4645
Y = 388981.7400

VL = STA 36VL+78.60
NSG = STA 10NSG+00.00
X = 2551212.2945
Y = 388987.5554

SECTION LINE

2653.27
N0°48'53"W

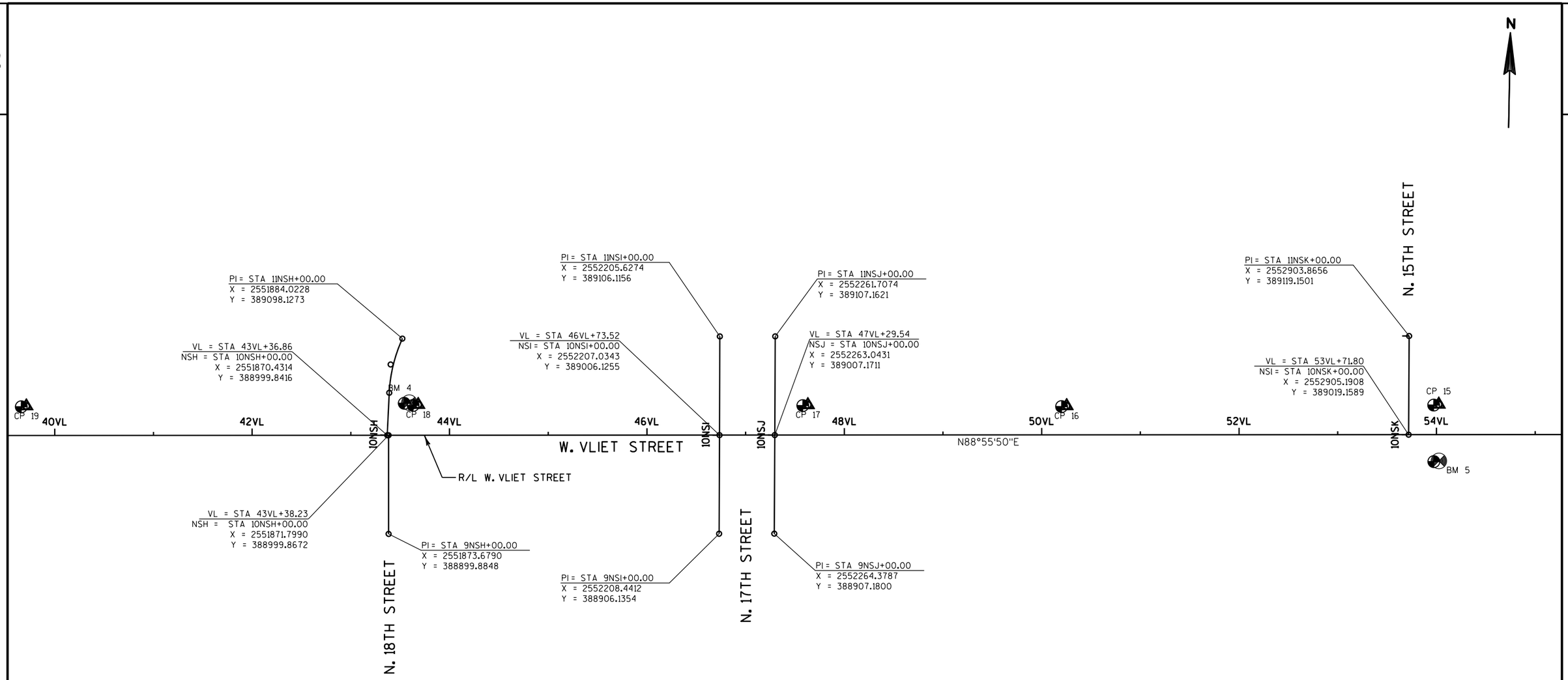
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM 3	-	-	106.82	NE QUAD AT 22ND STREET. "X" ON STEP FOR BUILDING 2125-29.
CP 19	389022.821	2551504.319	98.835	CUT CROSS ON N. SIDE OF VLIET ST. 1.88' S. OF BACK OF E/W SIDEWALK AND 8.08' NW. OF THE NW FACE OF A CONCRETE LIGHTPOLE.
CP 20	389018.058	2551178.014	103.817	CUT CROSS AT NW CORNER OF VLIET/20TH ST. 0.84' S. OF BACK OF E/W SIDEWALK AND 4.12' W. OF BACK OF THE SW CHAMFERED CORNER OF A WALL.
CP 21	389012.869	2550910.735	106.683	CUT CROSS AT NE CORNER OF VLIET/21ST ST. 1.21' S. OF BACK OF E/W SIDEWALK AND 1.63' E. OF BACK OF N/S SIDEWALK.
CP 22	389008.139	2550578.080	105.863	CUT CROSS AT NE CORNER OF VLIET/22ND ST. 0.24' S. OF BACK OF E/W SIDEWALK AND 1.13' E. OF EASTERLY CHAMFERED CORNER OF THE SIDEWALK.
CP 23	389002.091	2550233.385	105.118	CUT CROSS AT NW CORNER OF VLIET/23RD ST. 0.31' S. OF BACK OF E/W SIDEWALK AND 2.89' W. OF FACE OF SIDEWALK ON E. SIDE OF 23RD ST.

T 7 N
19 19
30 30
R 22 E

X = 2551226.26
Y = 388014.90

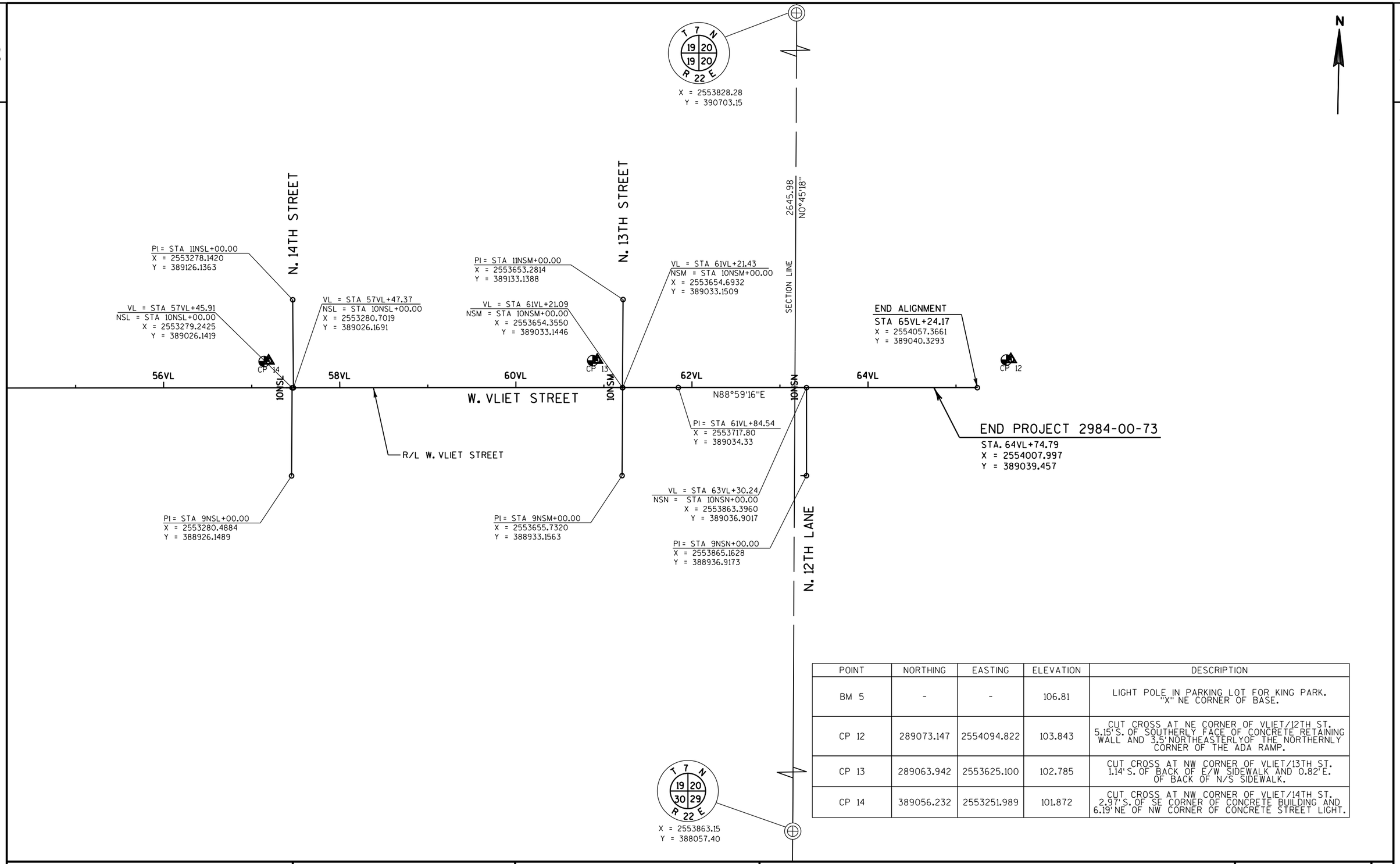
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	ALIGNMENT DETAILS	SHEET 236	E

2



POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM 4	-	-	100.26	NW QUAD AT 18TH ST. AND KNEELAND. NE FLANGE BOLT ON FIRE HYDRANT.
CP 15	389050.383	2552935.167	100.890	CUT CROSS AT NE CORNER OF VLIET/15TH ST. 1.27'S. OF BACK OF E/W SIDEWALK AND 1.11'E. OF FACE OF N/S SIDEWALK.
CP 16	389042.054	2552558.186	99.752	CUT CROSS ON N. SIDE OF VLIET ST IN FRONT OF 1540 VLIET ST. 2.5'S. OF BACK OF E/W SIDEWALK AND 3.6'E. OF THE W. LINE OF THE 2 STORY BUILDING AT 1540 VLIET ST.
CP 17	389038.325	2552296.036	99.483	CUT CROSS AT NE CORNER OF VLIET/17TH ST. 1.0'S. OF BACK OF E/W SIDEWALK AND 0.64'E. OF FACE OF N/S SIDEWALK.
CP 18	389031.371	2551901.263	98.810	CUT CROSS AT NE CORNER OF VLIET/18TH ST. 0.57'S. OF BACK OF E/W SIDEWALK AND 0.75'E. OF BACK OF N/S SIDEWALK.
CP 19	389022.821	2551504.319	98.835	CUT CROSS ON N. SIDE OF VLIET ST. 1.88'S. OF BACK OF E/W SIDEWALK AND 8.08'NW. OF THE NW FACE OF A CONCRETE LIGHTPOLE.

2



POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM 5	-	-	106.81	LIGHT POLE IN PARKING LOT FOR KING PARK. "X" NE CORNER OF BASE.
CP 12	289073.147	2554094.822	103.843	CUT CROSS AT NE CORNER OF VLIET/12TH ST. 5.15' S. OF SOUTHERLY FACE OF CONCRETE RETAINING WALL AND 3.5' NORTHEASTERLY OF THE NORTHERNLY CORNER OF THE ADA RAMP.
CP 13	289063.942	2553625.100	102.785	CUT CROSS AT NW CORNER OF VLIET/13TH ST. 1.14' S. OF BACK OF E/W SIDEWALK AND 0.82' E. OF BACK OF N/S SIDEWALK.
CP 14	389056.232	2553251.989	101.872	CUT CROSS AT NW CORNER OF VLIET/14TH ST. 2.97' S. OF SE CORNER OF CONCRETE BUILDING AND 6.19' NE OF NW CORNER OF CONCRETE STREET LIGHT.

2984-00-73

Line	Item	Item Description	Unit	Total	Qty
0002	204.0100	Removing Pavement	SY	33,725.000	33,725.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	976.000	976.000
0008	204.0155	Removing Concrete Sidewalk	SY	8,482.000	8,482.000
0010	204.0195	Removing Concrete Bases	EACH	24.000	24.000
0012	204.0200	Removing Railroad Track	LF	2,292.000	2,292.000
0014	204.0210	Removing Manholes	EACH	3.000	3.000
0016	204.0215	Removing Catch Basins	EACH	76.000	76.000
0018	204.0245	Removing Storm Sewer (size) 001. 6-Inch to 18-Inch	LF	1,556.000	1,556.000
0020	204.0250	Abandoning Manholes	EACH	12.000	12.000
0026	205.0100	Excavation Common	CY	25,550.000	25,550.000
0028	205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON	417.000	417.000
0032	213.0100	Finishing Roadway (project) 002. 2984-00-73	EACH	1.000	1.000
0034	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	37,291.000	37,291.000
0038	371.1000.S	QMP Base Aggregate Dense 1 1/4-Inch Compaction	TON	37,291.000	37,291.000
0040	415.0080	Concrete Pavement 8-Inch	SY	26,915.000	26,915.000
0042	415.0210	Concrete Pavement Gaps	EACH	5.000	5.000
0044	415.1080	Concrete Pavement HES 8-Inch	SY	250.000	250.000
0046	415.5110.S	Concrete Pavement Joint Layout	LS	1.000	1.000
0048	416.0170	Concrete Driveway 7-Inch	SY	200.000	200.000
0050	416.0610	Drilled Tie Bars	EACH	324.000	324.000
0052	416.0620	Drilled Dowel Bars	EACH	98.000	98.000
0054	465.0105	Asphaltic Surface	TON	183.000	183.000
0056	465.0125	Asphaltic Surface Temporary	TON	889.000	889.000
0058	465.0310	Asphaltic Curb	LF	50.000	50.000
0060	520.8000	Concrete Collars for Pipe	EACH	31.000	31.000
0062	601.0331	Concrete Curb & Gutter 31-Inch	LF	11,533.000	11,533.000
0064	601.0600	Concrete Curb Pedestrian	LF	563.000	563.000
0066	602.0410	Concrete Sidewalk 5-Inch	SF	68,314.000	68,314.000
0068	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	1,030.000	1,030.000
0070	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	2,618.000	2,618.000
0072	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	62.000	62.000
0076	611.2004	Manholes 4-FT Diameter	EACH	8.000	8.000
0078	611.2005	Manholes 5-FT Diameter	EACH	1.000	1.000
0080	611.8110	Adjusting Manhole Covers	EACH	68.000	68.000
0082	616.0700.S	Fence Safety	LF	1,500.000	1,500.000
0084	619.1000	Mobilization	EACH	0.900	0.900
0086	620.0300	Concrete Median Sloped Nose	SF	44.000	44.000

2984-00-73

Line	Item	Item Description	Unit	Total	Qty
0088	623.0200	Dust Control Surface Treatment	SY	39,094.000	39,094.000
0090	625.0100	Topsoil	SY	5,766.000	5,766.000
0092	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0094	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0096	628.7005	Inlet Protection Type A	EACH	114.000	114.000
0098	628.7010	Inlet Protection Type B	EACH	50.000	50.000
0100	628.7015	Inlet Protection Type C	EACH	121.000	121.000
0102	631.1000	Sod Lawn	SY	5,766.000	5,766.000
0104	632.0101	Trees (species) (size) (root) 001. SHAGBARK HICKORY, 3", B&B	EACH	3.000	3.000
0106	632.0101	Trees (species) (size) (root) 002. COMMON BALDCYPRESS, 3", B&B	EACH	3.000	3.000
0108	632.0101	Trees (species) (size) (root) 003. SHADEMASTER HONEYLOCUST, 3", B&B	EACH	5.000	5.000
0110	632.0101	Trees (species) (size) (root) 004. AMERICAN HORNBEAM, 3", B&B	EACH	6.000	6.000
0112	632.0101	Trees (species) (size) (root) 005. CALLERY PEAR, 3", B&B	EACH	5.000	5.000
0114	632.0101	Trees (species) (size) (root) 006. AUTUMN BLAZE MAPLE, 3.5", B&B	EACH	6.000	6.000
0116	632.0101	Trees (species) (size) (root) 007. SUNBURT HONEYLOCUST, 3", B&B	EACH	3.000	3.000
0118	632.0101	Trees (species) (size) (root) 008. ACCOLADE ELM, 3", B&B	EACH	4.000	4.000
0120	632.0101	Trees (species) (size) (root) 009. AMERICAN SWEETGUM CHEROKEE, 3", B&B	EACH	3.000	3.000
0122	632.0101	Trees (species) (size) (root) 010. AMERICAN SWEETGUM MORAINE, 3", B&B	EACH	3.000	3.000
0124	632.0101	Trees (species) (size) (root) 011. TULIP TREE, 3", B&B	EACH	6.000	6.000
0126	632.0101	Trees (species) (size) (root) 012. NORTHERN RED OAK, 3", B&B	EACH	3.000	3.000
0128	632.0101	Trees (species) (size) (root) 013. CUMULUS SERVICEBERRY, 3", B&B	EACH	3.000	3.000
0130	632.0101	Trees (species) (size) (root) 014. KENTUCKY COFFEETREE, 3", B&B	EACH	3.000	3.000
0132	632.0101	Trees (species) (size) (root) 015. BUTTERNUT, 3", B&B	EACH	2.000	2.000
0134	632.0101	Trees (species) (size) (root) 016. IRONWOOD, 3", B&B	EACH	3.000	3.000
0136	632.9101	Landscape Planting Surveillance and Care Cycles	EACH	10.000	10.000
0146	642.5201	Field Office Type C	EACH	0.900	0.900
0148	643.0300	Traffic Control Drums	DAY	64,200.000	64,200.000
0150	643.0410	Traffic Control Barricades Type II	DAY	33,700.000	33,700.000
0152	643.0420	Traffic Control Barricades Type III	DAY	42,000.000	42,000.000

2984-00-73

Line	Item	Item Description	Unit	Total	Qty
0154	643.0705	Traffic Control Warning Lights Type A	DAY	49,100.000	49,100.000
0156	643.0715	Traffic Control Warning Lights Type C	DAY	22,800.000	22,800.000
0158	643.0800	Traffic Control Arrow Boards	DAY	571.000	571.000
0160	643.0900	Traffic Control Signs	DAY	52,000.000	52,000.000
0162	643.0920	Traffic Control Covering Signs Type II	EACH	29.000	29.000
0164	643.1050	Traffic Control Signs PCMS	DAY	60.000	60.000
0166	643.5000	Traffic Control	EACH	0.900	0.900
0168	644.1410.S	Temporary Pedestrian Surface Asphalt	SF	5,750.000	5,750.000
0170	644.1420.S	Temporary Pedestrian Surface Plywood	SF	70.000	70.000
0172	644.1601.S	Temporary Curb Ramp	EACH	25.000	25.000
0174	644.1616.S	Temporary Pedestrian Safety Fence	LF	1,030.000	1,030.000
0176	646.1020	Marking Line Epoxy 4-Inch	LF	6,227.000	6,227.000
0180	646.9000	Marking Removal Line 4-Inch	LF	450.000	450.000
0182	646.9100	Marking Removal Line 8-Inch	LF	340.000	340.000
0186	649.0105	Temporary Marking Line Paint 4-Inch	LF	11,659.000	11,659.000
0188	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	18,445.000	18,445.000
0190	649.0805	Temporary Marking Stop Line Paint 18-Inch	LF	33.000	33.000
0192	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	77.000	77.000
0194	650.4000	Construction Staking Storm Sewer	EACH	113.000	113.000
0196	650.4500	Construction Staking Subgrade	LF	6,322.000	6,322.000
0200	650.7000	Construction Staking Concrete Pavement	LF	6,322.000	6,322.000
0204	650.8500	Construction Staking Electrical Installations (project) 002. 2984-00-73	LS	1.000	1.000
0206	650.9000	Construction Staking Curb Ramps	EACH	100.000	100.000
0210	650.9910	Construction Staking Supplemental Control (project) 002. 2984-00-73	LS	1.000	1.000
0212	652.0220	Conduit Rigid Nonmetallic Schedule 40 1 1/2-Inch	LF	526.000	526.000
0214	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	340.000	340.000
0216	652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	12,443.000	12,443.000
0218	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	468.000	468.000
0220	652.0330	Conduit Rigid Nonmetallic Schedule 80 2 1/2-Inch	LF	2,505.000	2,505.000
0222	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	2,124.000	2,124.000
0224	652.0610	Conduit Special 2 1/2-Inch	LF	216.000	216.000
0228	654.0101	Concrete Bases Type 1	EACH	17.000	17.000
0232	654.0110	Concrete Bases Type 10	EACH	10.000	10.000
0238	655.0260	Cable Traffic Signal 12-14 AWG	LF	1,766.000	1,766.000
0240	655.0270	Cable Traffic Signal 15-14 AWG	LF	2,322.000	2,322.000
0244	655.0305	Cable Type UF 2-12 AWG Grounded	LF	2,855.000	2,855.000
0248	655.0510	Electrical Wire Traffic Signals 12 AWG	LF	1,890.000	1,890.000
0252	655.0900	Traffic Signal EVP Detector Cable	LF	1,708.000	1,708.000

2984-00-73

Line	Item	Item Description	Unit	Total	Qty
0254	657.0100	Pedestal Bases	EACH	17.000	17.000
0266	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	17.000	17.000
0272	657.0520	Monotube Arms 20-FT	EACH	2.000	2.000
0274	657.0525	Monotube Arms 25-FT	EACH	8.000	8.000
0278	657.0535	Monotube Arms 35-FT	EACH	1.000	1.000
0280	657.0540	Monotube Arms 40-FT	EACH	1.000	1.000
0288	658.0173	Traffic Signal Face 3S 12-Inch	EACH	52.000	52.000
0292	658.0412	Pedestrian Signal Face 12-Inch	EACH	32.000	32.000
0294	658.0500	Pedestrian Push Buttons	EACH	8.000	8.000
0298	658.5069	Signal Mounting Hardware (location) 001. Vliet & 24th	LS	1.000	1.000
0300	658.5069	Signal Mounting Hardware (location) 002. Vliet & 20th	LS	1.000	1.000
0302	658.5069	Signal Mounting Hardware (location) 003. Vliet & 17th	LS	1.000	1.000
0304	658.5069	Signal Mounting Hardware (location) 004. Vliet & 13th	LS	1.000	1.000
0318	674.0200	Cable Microwave Detector	LF	224.000	224.000
0322	690.0250	Sawing Concrete	LF	8,922.000	8,922.000
0324	715.0415	Incentive Strength Concrete Pavement	DOL	8,074.000	8,074.000
0326	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,400.000	2,400.000
0328	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	4,800.000	4,800.000
0330	SPV.0060	Special 001. Internal Sanitary Manhole Seals	EACH	8.000	8.000
0332	SPV.0060	Special 002. Adjusting Water Box	EACH	1.000	1.000
0334	SPV.0060	Special 005. Temporary Bus Loading Zone	EACH	4.000	4.000
0336	SPV.0060	Special 006. Installing City-Furnished Bike Rack	EACH	10.000	10.000
0338	SPV.0060	Special 007. Utility Line Opening (ULO)	EACH	16.000	16.000
0340	SPV.0060	Special 008. Water Main Protection	EACH	1.000	1.000
0342	SPV.0060	Special 050. Marking Symbol Grooved Preformed Plastic	EACH	28.000	28.000
0344	SPV.0060	Special 051. Marking Arrow Grooved Preformed Plastic	EACH	28.000	28.000
0346	SPV.0060	Special 052. Marking Word Grooved Preformed Plastic	EACH	1.000	1.000
0348	SPV.0060	Special 102. Inlet Cover Type MS 57	EACH	104.000	104.000
0350	SPV.0060	Special 103. Manhole Cover Type MS 58-A	EACH	75.000	75.000
0352	SPV.0060	Special 110. Catch Basin Type 44A	EACH	86.000	86.000
0354	SPV.0060	Special 112. Storm Inlet Type 45A	EACH	18.000	18.000
0356	SPV.0060	Special 201. Install Precast Control Cabinet Base	EACH	4.000	4.000
0358	SPV.0060	Special 203. Concrete Base Type 10 Special	EACH	2.000	2.000
0362	SPV.0060	Special 205. ATC Controller and Cabinet Installed	EACH	4.000	4.000
0364	SPV.0060	Special 212. Fiber Optic Patch Panel	EACH	4.000	4.000
0366	SPV.0060	Special 213. Ethernet Switch	EACH	4.000	4.000
0368	SPV.0060	Special 218. EVP 1 Channel 1 Direction Infrared Detector	EACH	12.000	12.000
0372	SPV.0060	Special 221. EVP Phase Selector Card 4 Channel	EACH	4.000	4.000

2984-00-73

Line	Item	Item Description	Unit	Total	Qty
0374	SPV.0060	Special 223. EVP Confirmation Light Assembly	EACH	12.000	12.000
0378	SPV.0060	Special 226. Vehicular Microwave Detection System	EACH	2.000	2.000
0380	SPV.0060	Special 247. Poles Type 12 Special	EACH	2.000	2.000
0384	SPV.0060	Special 267. Pedestrian Countdown Signal Face 12-Inch	EACH	32.000	32.000
0386	SPV.0060	Special 274. Poles Type 10 Special 26 FT	EACH	10.000	10.000
0394	SPV.0060	Special 302. Fiberglass/Polymer Concrete Pull Box 13-Inch x 24-Inch x 24-Inch	EACH	126.000	126.000
0396	SPV.0060	Special 303. Fiberglass/Polymer Concrete Pull Box 17-Inch x 30-Inch x 24-Inch	EACH	23.000	23.000
0398	SPV.0060	Special 312. Poles Type 2	EACH	35.000	35.000
0402	SPV.0060	Special 316. Poles Type 8	EACH	5.000	5.000
0406	SPV.0060	Special 332. Metal Pedestal Cabinet (4-Inch x 4-Inch x 36-Inch)	EACH	27.000	27.000
0408	SPV.0060	Special 342. Water Tight Junction Box Splicing	EACH	56.000	56.000
0410	SPV.0060	Special 355. Luminaire Arms Mounting Clamps Pole Type 1 & 2 Single Bracket	EACH	35.000	35.000
0412	SPV.0060	Special 375. Luminaire Utility LED 2	EACH	3.000	3.000
0414	SPV.0060	Special 376. Luminaire Utility LED 3	EACH	74.000	74.000
0416	SPV.0060	Special 387. Remove Luminaire	EACH	27.000	27.000
0418	SPV.0060	Special 400. Adjusting CUC Manhole Covers	EACH	18.000	18.000
0420	SPV.0060	Special 401. 4' Diameter Manhole Type CUC	EACH	15.000	15.000
0422	SPV.0060	Special 425. Installing Conduit Into Existing Manhole	EACH	4.000	4.000
0424	SPV.0060	Special 426. Sawing Concrete Encased Duct Package	EACH	6.000	6.000
0428	SPV.0060	Special 838. Luminaire Arm Single Member 6-Ft City Furnished	EACH	50.000	50.000
0436	SPV.0090	Special 001. Construction Staking Concrete Sidewalk	LF	12,644.000	12,644.000
0438	SPV.0090	Special 002. Marking Line Epoxy 6-Inch	LF	7,575.000	7,575.000
0442	SPV.0090	Special 052. Marking Crosswalk Grooved Preformed Plastic 12-Inch	LF	2,596.000	2,596.000
0444	SPV.0090	Special 053. Marking Stop Line Grooved Preformed Plastic 24-Inch	LF	375.000	375.000
0446	SPV.0090	Special 054. Marking Crosswalk Grooved Preformed Plastic Ladder Pattern 24-Inch	LF	182.000	182.000
0450	SPV.0090	Special 201. Install Fiber Optic Cable Outdoor Plant 72-Ct Contractor Supplied	LF	12,130.000	12,130.000
0452	SPV.0090	Special 305. Electrical Cable Type 3#3/1#8 LTP	LF	4,904.000	4,904.000
0454	SPV.0090	Special 306. Cable Type 3#6/1#8 LTP	LF	2,810.000	2,810.000
0456	SPV.0090	Special 307. Cable Type 3#4/1#8 LTP	LF	5,117.000	5,117.000
0458	SPV.0090	Special 308. Cable Type 3#2/1#8 LTP	LF	2,360.000	2,360.000
0462	SPV.0090	Special 319. Liquid Tight Flexible Nonmetallic Conduit 1.5 Inch	LF	290.000	290.000

2984-00-73

Line	Item	Item Description	Unit	Total	Qty
0464	SPV.0090	Special 401. 1-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	35.000	35.000
0466	SPV.0090	Special 402. 2-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	656.000	656.000
0468	SPV.0090	Special 403. 3-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	2.000	2.000
0470	SPV.0090	Special 404. 4-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	198.000	198.000
0472	SPV.0090	Special 406. 6-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	5,208.000	5,208.000
0474	SPV.0090	Special 407. 7-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	134.000	134.000
0476	SPV.0090	Special 408. 8-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	88.000	88.000
0478	SPV.0170	Special 001. Test Rolling	STA	54.000	54.000
0480	SPV.0180	Special 001. Joint Sealing	SY	26,915.000	26,915.000
0482	SPV.0195	Special 001. Management of Solid Waste	TON	807.000	807.000

REMOVING PAVEMENT

ROADWAY	STATION-STATION	OFFSET	204.0100 REMOVING PAVEMENT SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY
CAT 0010				
STAGE 1				
VLIET ST	46VL+00 - 64VL+74	LT & RT	6,796	--
VLIET ST	64VL+74 - 64VL+89	RT	--	38
17TH STREET SB	9NSI+10 - 9NSI+25	RT	--	53
17TH STREET NB	9NSJ+10 - 9NSJ+25	RT	--	57
12TH LANE	9NSN+43 - 9NSN+58	RT	--	33
STAGE 1 SUBTOTAL			**6,796**	**181**
STAGE 2				
VLIET ST	10VL+71 - 64VL+74	LT & RT	5,430	--
VLIET ST	64VL+74 - 64VL+89	LT	--	39
17TH STREET SB	10NSI+74 - 10NSI+89	LT	--	55
17TH STREET NB	10NSJ+74 - 10NSJ+89	LT	--	53
13TH STREET	10NSM+65 - 10NSM+80	LT	--	60
STAGE 2 SUBTOTAL			**5,430**	**207**
STAGE 3				
VLIET ST	10VL+59 - 10VL+69	RT	--	25
VLIET ST	46VL+00 - 64VL+74	LT & RT	12,111	--
25TH STREET	9NSB+38 - 9NSB+53	RT	--	53
24TH PLACE	9NSC+35 - 9NSC+50	RT	--	43
24TH STREET	9NSD+26 - 9NSD+41	RT	--	53
22ND STREET	9NSE+34 - 9NSE+49	RT	--	47
21ST STREET	9NSF+34 - 9NSF+49	RT	--	47
STAGE 3 SUBTOTAL			**12,111**	**268**
STAGE 4				
VLIET ST	10VL+59 - 10VL+69	LT	--	39
VLIET ST	10VL+71 - 46VL+00	LT & RT	9,388	--
26TH STREET	10NSA+53 - 10NSA+68	LT	--	50
25TH STREET	10NSB+48 - 10NSB+63	LT	--	47
24TH PLACE	10NSC+44 - 10NSC+59	LT	--	37
24TH STREET	10NSD+59 - 10NSD+74	LT	--	53
22ND STREET	10NSE+49 - 10NSE+64	LT	--	47
21ST STREET	10NSF+49 - 10NSF+64	LT	--	47
STAGE 4 SUBTOTAL			**9,388**	**320**
PROJECT 2984-00-73 TOTAL			**33,725**	**976**

REMOVING CONCRETE SIDEWALK

ROADWAY	STATION-STATION	OFFSET	204.0155 SY
CAT 0010			
STAGE 1			
VLIET ST	46VL+00 - 46VL+48	RT	59
	47VL+53 - 57VL+29	RT	799
	57VL+63 - 61VL+00	RT	315
	61VL+42 - 63VL+19	RT	180
	63VL+43 - 64VL+75	RT	137
STAGE 1 SUBTOTAL			**1,490**
STAGE 2			
VLIET ST	46VL+00 - 46VL+51	LT	78
	47VL+62 - 53VL+54	LT	525
	53VL+90 - 57VL+31	LT	291
	57VL+63 - 61VL+00	LT	321
	61VL+41 - 64VL+75	LT	345
STAGE 2 SUBTOTAL			**1,560**
STAGE 3			
VLIET ST	10VL+70 - 13VL+19	RT	263
	14VL+24 - 16VL+67	RT	250
	17VL+04 - 19VL+86	RT	243
	20VL+17 - 23VL+13	RT	284
	23VL+50 - 29VL+98	RT	526
	30VL+32 - 33VL+33	RT	248
	33VL+66 - 36VL+59	RT	246
	36VL+99 - 43VL+21	RT	495
	43VL+58 - 46VL+00	RT	193
STAGE 3 SUBTOTAL			**2,748**
STAGE 4			
VLIET ST	10VL+71 - 13VL+90	LT	261
	14VL+24 - 16VL+69	LT	222
	17VL+02 - 19VL+82	LT	220
	20VL+08 - 23VL+13	LT	261
	23VL+52 - 29VL+98	LT	520
	30VL+32 - 33VL+32	LT	246
	33VL+66 - 36VL+69	LT	253
	37VL+99 - 43VL+22	LT	516
	43VL+58 - 46VL+00	LT	185
STAGE 4 SUBTOTAL			**2,684**
PROJECT 2984-00-73 TOTAL			**8,482**

REMOVING RAILROAD TRACK

ROADWAY	STATION-STATION	OFFSET	204.0200 LF
CAT 0010			
STAGE 1			
VLIET ST	10VL+69 - 27VL+67	8.6' RT	1,698
VLIET ST	30VL+10 - 36VL+04	8.6' RT	594
STAGE 1 SUBTOTAL			**2,292**
PROJECT 2984-00-73 TOTAL			**2,292**

Category	Division	From/To Station	Location	Excavation Common (CY) (1) 205.0100 Cut (CY) (2)	Fill (CY)	Expanded Fill (CY) 1.20 Expansion Factor	Mass Ordinate +/- (4)	Comment:
0010	1	46VL+00 - 64VL+75	VLIET STREET	3,865	23	28	3,838	
		9NSI+25 - 9NSI+84	17TH STREET SB	206	1	1	205	
		9NSJ+25 - 9NSJ+84	17TH STREET NB	281	1	1	280	
		9NSL+47 - 9NSL+84	14TH STREET	120	1	2	118	
		9NSM+32 - 9NSM+84	13TH STREET	182	0	0	182	
		9NSN+58 - 9NSN+78	12TH LANE	35	0	0	35	
	Project 2984-00-73 - Division 1 Subtotal			4,690	27	32	4,658	
0010	2	46VL+00 - 64VL+75	VLIET STREET	3,875	24	29	3,847	
		10NSI+16 - 10NSI+74	17TH STREET SB	287	1	2	286	
		10NSJ+16 - 10NSJ+74	17TH STREET NB	198	1	1	197	
		10NSK+16 - 10NSK+47	15TH STREET	103	2	2	101	
		10NSL+16 - 10NSL+48	14TH STREET	110	0	0	110	
		10NSM+16 - 10NSM+65	13TH STREET	177	0	0	177	
	Project 2984-00-73 - Division 2 Subtotal			4,750	28	33	4,717	
0010	3	10VL+69 - 46VL+00	VLIET STREET	6,919	179	215	6,704	
		9NSA+53 - 9NSA+84	26TH STREET	114	1	2	113	
		9NSB+53 - 9NSB+78	25TH STREET	101	0	0	101	
		9NSC+50 - 9NSC+84	24TH PLACE	104	1	2	102	
		9NSD+41 - 9NSD+84	24TH STREET	155	0	0	155	
		9NSE+49 - 9NSE+84	22ND STREET	120	1	1	119	
		9NSF+49 - 9NSF+84	21ST STREET	150	0	0	150	
		9NSG+40 - 9NSG+84	20TH STREET	172	0	0	172	
		9NSH+49 - 9NSH+84	18TH STREET	149	0	0	149	
	Project 2984-00-73 - Division 3 Subtotal			7,983	8,349	8,166	7,763	
0010	4	10VL+69- 46VL+00	VLIET STREET	7,053	149	179	6,875	
		10NSA+16 - 10NSA+53	26TH STREET	141	1	1	140	
		10NSB+22 - 10NSB+48	25TH STREET	98	3	4	95	
		10NSC+16 - 10NSC+44	24TH PLACE	98	0	0	98	
		10NSD+22 - 10NSD+59	24TH STREET	148	0	0	148	
		10NSE+16 - 10NSE+49	22ND STREET	113	1	1	112	
		10NSF+16 - 10NSF+49	21ST STREET	152	0	0	152	
		10NSG+16 - 10NSG+64	20TH STREET	199	0	1	198	
		10NSH+16 - 10NSH+52	18TH STREET	125	0	0	125	
	Project 2984-00-73 - Division 4 Subtotal			8,127	8,438	8,282	7,941	

Project 2984-00-73 Totals **25,550**

1) Excavation Common = Cut. Item number 205.0100.
2) Cut volume includes concrete and asphaltic surface material.
3) The Mass Ordinate is calculated by division. A positive quantity indicates an excess of material within the Division and a negative quantity indicates a shortage of material within the Division.

REMOVING CATCH BASINS

ROADWAY	STATION	OFFSET	204.0215 REMOVING CATCH BASINS EACH
CAT 0010			
STAGE 1			
VLIET ST	47VL+71.87	23.49' RT	1
	48VL+74.22	22.51' RT	1
	50VL+69.95	22.83' RT	1
	52VL+26.12	23.99' RT	1
	54VL+31.74	22.97' RT	1
	56VL+03.26	22.73' RT	1
	57VL+82.84	22.61' RT	1
	59VL+74.90	22.35' RT	1
	61VL+54.08	22.46' RT	1
	63VL+50.85	23.10' RT	1
	64VL+67.34	22.64' RT	1
STAGE 1 SUBTOTAL			**11**
STAGE 2			
VLIET ST	46VL+45.69	40.30' LT	1
	47VL+91.96	23.23' LT	1
	48VL+85.65	23.16' LT	1
	50VL+54.38	23.16' LT	1
	52VL+40.37	24.49' LT	1
	53VL+55.96	42.02' LT	1
	53VL+88.12	42.26' LT	1
	54VL+54.90	24.62' LT	1
	55VL+89.80	24.38' LT	1
	57VL+32.84	37.08' LT	1
	57VL+61.23	40.32' LT	1
	58VL+15.00	23.00' LT	1
	59VL+67.18	24.56' LT	1
	61VL+02.56	43.53' LT	1
	61VL+40.43	38.96' LT	1
	61VL+50.92	24.86' LT	1
	64VL+53.41	25.33' LT	1
STAGE 2 SUBTOTAL			**17**
STAGE 3			
VLIET ST	10VL+73.39	23.07' RT	1
	13VL+92.94	45.75' RT	1
	14VL+15.63	44.91' RT	1
	14VL+69.29	22.95' RT	1
	16VL+61.13	36.77' RT	1
	16VL+95.39	38.37' RT	1
	17VL+51.90	23.01' RT	1
	19VL+80.80	38.25' RT	1
	20VL+08.98	39.45' RT	1
	20VL+85.88	23.07' RT	1

REMOVING CATCH BASINS (CONT.)

ROADWAY	STATION	OFFSET	204.0215 REMOVING CATCH BASINS EACH
VLIET ST	21VL+75.40	23.54' RT	1
	23VL+08.30	40.99' RT	1
	23VL+42.04	41.43' RT	1
	25VL+46.04	23.51' RT	1
	26VL+36.17	23.78' RT	1
	27VL+44.88	23.67' RT	1
	28VL+82.20	23.85' RT	1
	29VL+93.60	42.89' RT	1
	30VL+99.40	23.66' RT	1
	32VL+87.08	24.08' RT	1
	33VL+29.06	43.19' RT	1
	33VL+58.25	47.18' RT	1
	36VL+30.38	24.06' RT	1
	39VL+65.87	23.73' RT	1
	40VL+80.20	23.82' RT	1
	41VL+52.42	23.92' RT	1
	42VL+86.13	23.89' RT	1
	43VL+87.12	23.83' RT	1
	44VL+89.99	23.76' RT	1
	45VL+72.70	23.65' RT	1
STAGE 3 SUBTOTAL			**30**
STAGE 4			
VLIET ST	10VL+76.96	24.00' LT	1
	12VL+33.84	23.67' LT	1
	14VL+53.67	23.68' LT	1
	17VL+18.91	23.78' LT	1
	20VL+54.05	23.60' LT	1
	24VL+16.80	23.37' LT	1
	26VL+30.69	22.61' LT	1
	27VL+44.27	23.38' LT	1
	28VL+91.38	23.18' LT	1
	30VL+90.86	23.16' LT	1
	36VL+36.94	22.86' LT	1
	39VL+68.27	22.95' LT	1
	40VL+54.67	22.62' LT	1
	42VL+11.90	22.73' LT	1
	43VL+16.25	40.87' LT	1
	43VL+48.20	41.07' LT	1
	43VL+92.54	23.24' LT	1
	45VL+43.20	23.08' LT	1
STAGE 4 SUBTOTAL			**18**
PROJECT 2984-00-73 TOTAL			**76**

REMOVING STORM SEWER

ROADWAY	STATION	OFFSET	204.0245.01 REMOVING STORM SEWER 6-INCH - 18-INCH LF
CAT 0010			
STAGE 1			
VLIET ST	47VL+93	20' LT	25
	48VL+74	22' RT	21
	50VL+38	22' RT	38
	52VL+32	23' LT	25
	54VL+14	22' RT	29
	56VL+08	22' RT	24
	57VL+86	22' RT	22
	63VL+77	22' RT	34
	64VL+84	22' RT	27
STAGE 1 SUBTOTAL			**245**
STAGE 2			
VLIET ST	47VL+93	23' LT	25
	48VL+74	23' LT	27
	50VL+38	23' LT	29
	52VL+32	21' RT	22
	54VL+14	24' LT	47
	56VL+08	23' LT	28
	64VL+84	24' LT	39
17TH ST	10NSH+42	20' LT	15
15TH ST	10NSK+44	15' LT	14
	10NSK+44	14' RT	15
14TH ST	10NSL+45	13' LT	15
	10NSL+45	13' RT	14
STAGE 2 SUBTOTAL			**290**
STAGE 3			
VLIET ST	10VL+83	22' RT	22
	14VL+54	21' RT	30
	17VL+28	21' RT	38
	21VL+08	21' RT	27
	21VL+98	22' RT	28
	23VL+99	21' RT	23
	25VL+48	21' RT	23
	26VL+42	22' RT	22
	27VL+51	24' LT	23
	28VL+89	23' RT	23

REMOVING STORM SEWER (CONT.)

ROADWAY	STATION	OFFSET	204.0245.01 REMOVING STORM SEWER 6-INCH - 18-INCH LF
VLIET ST	30VL+58	21' RT	53
	36VL+37	21' RT	21
	39VL+66	21' RT	23
	40VL+50	22' RT	41
	43VL+82	22' RT	25
	44VL+63	22' RT	40
	45VL+79	22' RT	21
26TH ST	9NSA+53	15' RT	15
	9NSA+53	15' RT	15
25TH ST	9NSB+56	15' RT	17
24TH PL	9NSC+55	12' LT	16
	9NSC+55	13' RT	13
24TH ST	9NSD+55	15' LT	16
	9NSD+55	15' RT	16
22ND ST	9NSE+56	14' LT	14
	9NSE+56	13' RT	14
21ST ST	56NSF+56	14' LT	13
	56NSF+56	14' RT	15
STAGE 3 SUBTOTAL			**645**
STAGE 4			
VLIET ST	10VL+83	23' LT	24
	14VL+54	23' RT	25
	17VL+27	24' LT	24
	20VL+44	23' LT	29
	26VL+42	24' LT	24
	27VL+51	23' RT	25
	28VL+98	24' LT	24
	30VL+58	21' LT	46
	36VL+37	23' LT	25
	39VL+66	23' LT	24
	40VL+50	23' LT	26
	43VL+82	23' LT	28
	45VL+42	23' LT	25
18TH ST	10NSH+44	14' LT	15
	10NSH+44	14' RT	14
STAGE 2 SUBTOTAL			**376**
PROJECT 2984-00-73 TOTAL			**1,556**

EXCAVATION, HAULING, AND DISPOSING OF PETROLEUM CONTAMINATED SOIL

ROADWAY	STATION-STATION	OFFSET	205.0501.S TON	COMMENTS
CAT 0010				
VLIET ST	14VL+05 - 14VL+50	15' RT - 60' RT	149	3' - 7' BELOW GRADE
	16VL+20 - 16VL+70	5' LT - 40' LT	76	1' - 6' BELOW GRADE
	27VL+55 - 28VL+15	5' RT - 27' LT	152	1' - 8' BELOW GRADE
	42VL+55 - 43VL+10	0' - 35' RT	40	2.5' - 8' BELOW GRADE
PROJECT 2984-00-73 TOTAL			**417**	

FINISHING ROADWAY

STATION-STATION	213.0100 2984-00-73 EACH
CAT 0010	
10VL+69 - 64VL+75	1
PROJECT 2984-00-73 TOTAL	**1**

SUBSTRUCTURE

ROADWAY	STATION-STATION	OFFSET	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	371.1000.S QMP BASE AGGREGATE DENSE 1 1/4-INCH COMPACTION TON	623.0200 DUST CONTROL SURFACE TREATMENT SY
CAT 0010					
STAGE 1					
VLIET STREET	46VL+00 - 67VL+75	RT	6,023	6,023	6,023
	46VL+00 - 46VL+54	RT	22	22	66
	47VL+53 - 57VL+29	RT	209	209	628
	57VL+62 - 61VL+06	RT	90	90	271
	61VL+36 - 63VL+18	RT	72	72	217
	63VL+43 - 64VL+75	RT	49	49	148
STAGE 1 SUBTOTAL			**6,465**	**6,465**	**7,353**
STAGE 2					
VLIET STREET	46VL+00 - 64VL+75	LT	5,898	5,898	5,898
	46VL+00 - 46VL+50	LT	24	24	71
	46VL+91 - 47VL+01	RT	2	2	5
	47VL+01 - 47VL+12	LT	2	2	5
	47VL+49 - 53VL+54	LT	129	129	386
	53VL+90 - 57VL+31	LT	80	80	240
	57VL+63 - 61VL+07	LT	92	92	275
	61VL+36 - 64VL+75	LT	116	116	347
STAGE 2 SUBTOTAL			**6,343**	**6,343**	**7,227**

SUBSTRUCTURE (CONT.)

ROADWAY	STATION-STATION	OFFSET	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	371.1000.S QMP BASE AGGREGATE DENSE 1 1/4-INCH COMPACTION TON	623.0200 DUST CONTROL SURFACE TREATMENT SY
STAGE 3					
VLIET STREET	10VL+69 - 46VL+00	RT	9,636	9,636	9,636
	10VL+69 - 13VL+90	RT	96	96	289
	14VL+24 - 16VL+67	RT	93	93	278
	17VL+04 - 19VL+86	RT	90	90	271
	20VL+17 - 23VL+18	RT	114	114	342
	23VL+45 - 29VL+98	RT	143	143	430
	30VL+32 - 33VL+33	RT	68	68	204
	33VL+66 - 36VL+65	RT	72	72	216
	36VL+98 - 43VL+21	RT	128	128	383
	43VL+56 - 46VL+00	RT	55	55	164
STAGE 3 SUBTOTAL			**10,495**	**10,495**	**12,213**
STAGE 4					
VLIET STREET	10VL+69 - 46VL+00	LT	9,747	9,747	9,747
	10VL+69 - 13VL+89	LT	103	103	310
	14VL+25 - 16VL+69	LT	84	84	253
	17VL+02 - 19VL+82	LT	87	87	261
	20VL+09 - 23VL+19	LT	102	102	305
	23VL+46 - 29VL+99	LT	147	147	442
	30VL+32 - 33VL+32	LT	71	71	212
	33VL+66 - 36VL+59	LT	66	66	198
	36VL+93 - 43VL+21	LT	136	136	409
	46VL+00 - 46VL+50	LT	55	55	164
STAGE 4 SUBTOTAL			**10,598**	**10,598**	**12,301**
UNDISTRIBUTED			**3,399**	**3,399**	
PROJECT 2984-00-73 TOTAL			**37,300**	**37,300**	**39,094**

CONCRETE PAVEMENT ITEMS

ROADWAY	STATION-STATION	OFFSET	415.0080 CONCRETE PAVEMENT 8-INCH SY	415.1080 CONCRETE PAVEMENT HES 8-INCH SY	416.0170 CONCRETE DRIVEWAY 7-INCH SY	620.0300 CONCRETE MEDIAN SLOPED NOSE SF
CAT 0010						
STAGE 1						
VLIET STREET	46VL+00 - 64VL+75	RT	5,203	--	--	--
	46VL+92 - 47VL+01	RT	--	--	--	22
	50VL+79 - 51VL+26	RT	--	--	32	--
	54VL+15 - 54VL+44	RT	--	--	19	--
	59VL+20 - 59VL+47	RT	--	--	16	--
STAGE 1 SUBTOTAL			**5,203**	**--**	**67**	**22**
STAGE 2						
VLIET STREET	46VL+00 - 64VL+75	LT	5,264	--	--	--
	47VL+02 - 47VL+11	LT	--	--	--	22
	51VL+73 - 51VL+92	LT	--	--	20	--
	55VL+50 - 55VL+70	LT	--	--	18	--
STAGE 2 SUBTOTAL			**5,264**	**--**	**38**	**22**
STAGE 3						
VLIET STREET	10VL+69 - 46VL+00	RT	8,170	--	--	--
	15VL+13 - 15VL+41	RT	--	--	20	--
	21VL+83 - 22VL+09	RT	--	--	14	--
	22VL+09 - 22VL+33	RT	--	--	15	--
STAGE 3 SUBTOTAL			**8,170**	**--**	**49**	**--**
STAGE 4						
VLIET STREET	10VL+69 - 46VL+00	LT	8,278	--	--	--
	12VL+11 - 12VL+31	LT	--	--	19	--
	15VL+68 - 15VL+80	LT	--	--	13	--
	22VL+34 - 22VL+47	LT	--	--	14	--
STAGE 4 SUBTOTAL			**8,278**	**--**	**46**	**--**
UNDISTRIBUTED			**--**	250	--	**--**
PROJECT 2984-00-73 TOTAL			**26,915**	**250**	**200**	**44**

CONCRETE PAVEMENT GAPS

ROADWAY	STATION-STATION	OFFSET	415.0210 CONCRETE PAVEMENT GAPS EACH
CAT 0010			
STAGE 1			
14TH STREET	9NSL+47 - 9NSL+84	RT/LT	1
12TH LANE	9NSN+58 - 9NSN+78	RT/LT	1
STAGE 1 SUBTOTAL			**2**
STAGE 2			
14TH STREET	10NSL+16 - 10NSL+48	RT/LT	1
STAGE 2 SUBTOTAL			**1**
STAGE 3			
22ND STREET	9NSE+49 - 9NSE+84	RT/LT	1
STAGE 3 SUBTOTAL			**1**
STAGE 4			
22ND STREET	10NSE+16 - 10NSE+49	RT/LT	1
STAGE 4 SUBTOTAL			**1**
PROJECT 2984-00-73 TOTAL			**5**

CONCRETE PAVEMENT JOINT LAYOUT

ROADWAY	415.5110.S CONCRETE PAVEMENT JOINT LAYOUT LS
PROJECT 2984-00-73	1
PROJECT 2984-00-73 TOTAL	1

DRILLED TIE BARS

ROADWAY	STATION	OFFSET	416.0620 DRILLED DOWEL BARS EACH	416.0610 DRILLED TIE BARS EACH
CAT 0010				
STAGE 1				
VLIET ST	64VL+75	RT	--	7
17TH STREET	9NSH+25	RT/LT	--	27
14TH STREET	9NSL+47	RT/LT	--	10
14TH STREET	9NSL+47 - 9NSL+84	RT/LT	23	--
13TH STREET	9NSM+32	RT/LT	--	13
12TH LANE	9NSN+58	RT/LT	--	7
12TH LANE	9NSN+58 - 9NSN+78	RT/LT	12	--
STAGE 1 SUBTOTAL			**35**	**64**
STAGE 2				
VLIET ST	64VL+75	LT	--	8
17TH STREET	10NSH+74	RT/LT	--	27
15TH STREET	10NSK+47	RT/LT	--	11
14TH STREET	10NSL+48	RT/LT	--	9
14TH STREET	10NSL+16 - 10NSL+48	RT/LT	20	--
13TH STREET	10NSM+65	RT/LT	--	13
STAGE 2 SUBTOTAL			**20**	**68**
STAGE 3				
VLIET ST	10VL+69	RT	--	7
VLIET ST	46VL+00	RT	--	6
26TH STREET	9NSA+53	RT/LT	--	10
25TH STREET	9NSB+53	RT/LT	--	11
24TH PLACE	9NSC+50	RT/LT	--	9
24TH STREET	9NSD+41	RT/LT	--	11
22ND STREET	9NSE+49	RT/LT	--	10
22ND STREET	9NSE+49 - 9NSE+84	RT/LT	22	--
21ST STREET	9NSF+49	RT/LT	--	10
20TH STREET	9NSG+40	RT/LT	--	12
18TH STREET	9NSH+49	RT/LT	--	11
STAGE 3 SUBTOTAL			**22**	**97**

DRILLED TIE BARS (CONT.)

ROADWAY	STATION	OFFSET	416.0620 DRILLED DOWEL BARS EACH	416.0610 DRILLED TIE BARS EACH
STAGE 4				
VLIET ST	10VL+69	LT	--	8
VLIET ST	46VL+00	LT	--	4
26TH STREET	10NSA+53	RT/LT	--	11
25TH STREET	10NSB+48	RT/LT	--	10
24TH PLACE	10NSC+44	RT/LT	--	8
24TH STREET	10NSD+59	RT/LT	--	11
22ND STREET	10NSE+49	RT/LT	--	10
22ND STREET	10NSE+16 - 10NSE+49	RT/LT	21	--
21ST STREET	10NSF+49	RT/LT	--	10
20TH STREET	10NSG+64	RT/LT	--	12
18TH STREET	10NSH+52	RT/LT	--	11
STAGE 4 SUBTOTAL			**21**	**95**
PROJECT 2984-00-73 TOTAL			**98**	**324**

ASPHALTIC SURFACE

ROADWAY	STATION-STATION	OFFSET	465.0105 ASPHALTIC SURFACE TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	465.0310 ASPHALTIC CURB LF
CAT 0010					
STAGE 1					
VLIET ST	64VL+74 - 64VL+89	RT	7	--	--
	63VL+75 - 64VL+00	RT	--	--	25
17TH STREET SB	9NSH+10 - 9NSH+25	RT	9	--	--
	8NSH+50-9NSH+73	LT	--	17	--
17TH STREET NB	9NSJ+10 - 9NSJ+25	RT	10	--	--
	10NSJ+27-10NSJ+96	RT	--	9	--
12TH LANE	9NSN+43 - 9NSN+58	RT	6	--	--
STAGE 1 SUBTOTAL			32	26	25
STAGE 2					
VLIET ST	64VL+74 - 64VL+89	RT	7	--	--
	63VL+75 - 64VL+00	LT	--	--	25
	46VL+00 - 46VL+52	LT	12	12	--
17TH STREET SB	10NSH+74 - 10NSH+89	LT	10	--	--
17TH STREET NB	10NSJ+74 - 10NSJ+89	LT	9	--	--
13TH STREET	10NSM+65 - 10NSM+80	LT	11	--	--
STAGE 2 SUBTOTAL			49	12	25
STAGE 3					
VLIET ST	10VL+59 - 10VL+69	RT	5	--	--
25TH STREET	9NSB+38 - 9NSB+53	RT	9	--	--
24TH PLACE	9NSC+35 - 9NSC+50	RT	8	--	--
24TH STREET	9NSD+26 - 9NSD+41	RT	9	--	--
22ND STREET	9NSE+34 - 9NSE+49	RT	8	--	--
21ST STREET	9NSF+34 - 9NSF+49	RT	8	--	--
STAGE 3 SUBTOTAL			47	--	--
STAGE 4					
VLIET ST	10VL+59 - 10VL+69	RT	7	--	--
26TH STREET	10NSA+53 - 10NSA+68	LT	9	--	--
25TH STREET	10NSB+48 - 10NSB+63	LT	8	--	--
24TH PLACE	10NSC+44 - 10NSC+59	LT	6	--	--
24TH STREET	10NSD+59 - 10NSD+74	LT	9	--	--
22ND STREET	10NSE+49 - 10NSE+64	LT	8	--	--
21ST STREET	10NSF+49 - 10NSF+64	LT	8	--	--
STAGE 4 SUBTOTAL			55	--	--
UNDISTRIBUTED				851	
PROJECT 2984-00-73 TOTAL			**183**	**889**	**50**

CURB & GUTTER ITEMS

ROADWAY	STATION-STATION	OFFSET	601.0331 CONCRETE CURB AND GUTTER 31-INCH LF	601.0600 CONCRETE CURB PEDESTRIAN LF
CAT 0010				
STAGE 1				
VLIET STREET	46VL+00 - 46VL+55	RT	102	--
	46VL+87 - 47VL+06	RT	107	--
	47VL+52 - 57VL+29	RT	1,062	--
	57VL+62 - 61VL+06	RT	414	--
	61VL+35 - 63VL+19	RT	246	--
	61VL+51 - 61VL+68	RT	--	24
	63VL+42 - 64VL+75	RT	148	--
STAGE 1 SUBTOTAL			**2,079**	**24**
STAGE 2				
VLIET STREET	46VL+00 - 46VL+51	LT	98	--
	46VL+97 - 47VL+17	LT	106	--
	47VL+53 - 53VL+55	LT	679	--
	57VL+76 - 57VL+88	LT	--	22
	53VL+89 - 57VL+32	LT	391	--
	57VL+62 - 61VL+07	LT	413	--
	61VL+35 - 64VL+75	LT	377	--
	61VL+51 - 61VL+51	LT	--	15
STAGE 2 SUBTOTAL			**2,064**	**37**
STAGE 3				
VLIET ST	10VL+69 - 13VL+91	RT	345	--
	14VL+23 - 16VL+67	RT	283	--
	17VL+04 - 19VL+86	RT	328	--
	17VL+13 - 17VL+29	RT	--	32
	20VL+16 - 23VL+19	RT	361	--
	20VL+28 - 20VL+33	RT	--	13
	22VL+88 - 23VL+05	RT	--	32
	23VL+45 - 29VL+99	RT	710	--
	26VL+99 - 27VL+15	RT	--	16
	30VL+31 - 33VL+33	RT	353	--
	30VL+43 - 30VL+53	RT	--	22
	33VL+66 - 36VL+66	RT	359	--
	36VL+35 - 36VL+52	RT	--	25
	36VL+98 - 43VL+21	RT	684	--
	43VL+56 - 46VL+00	RT	272	--
	43VL+67 - 43VL+80	RT	--	23
STAGE 3 SUBTOTAL			**3,695**	**162**

CURB & GUTTER ITEMS (CONT.)

ROADWAY	STATION-STATION	OFFSET	601.0331 CONCRETE CURB AND GUTTER 31-INCH LF	601.0600 CONCRETE CURB PEDESTRIAN LF
STAGE 4				
VLIET ST	10VL+70 - 13VL+90	LT	352	--
	14VL+24 - 16VL+69	LT	294	--
	14VL+35 - 14VL+55	LT	--	29
	17VL+01 - 19VL+82	LT	322	--
	17VL+12 - 17VL+28	LT	--	28
	19VL+61 - 19VL+76	LT	--	15
	20VL+08 - 23VL+13	LT	364	--
	20VL+14 - 20VL+33	LT	--	31
	23VL+50 - 29VL+99	LT	710	--
	23VL+59 - 23VL+79	LT	--	25
	30VL+31 - 33VL+33	LT	343	--
	30VL+43 - 30VL+60	LT	--	31
	33VL+01 - 33VL+23	LT	--	38
	33VL+65 - 36VL+60	LT	352	--
	33VL+75 - 33VL+92	LT	--	31
	36VL+38 - 36VL+50	LT	--	25
	36VL+98 - 43VL+33	LT	693	--
	37VL+08 - 37VL+19	LT	--	26
	43VL+02 - 43VL+11	LT	--	24
	43VL+56 - 46VL+00	LT	265	--
	43VL+67 - 43VL+87	LT	--	37
STAGE 4 SUBTOTAL			**3,695**	**340**
TOTAL			**11,533**	**563**

CONCRETE SIDEWALK

ROADWAY	STATION-STATION	OFFSET	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF
CAT 0010				
STAGE 1				
VLIET ST	46VL+00- 46VL+54	RT	590	20
VLIET ST	46VL+91 - 47VL+02	RT	43	20
VLIET ST	47VL+23 - 50VL+85	RT	1,937	20
VLIET ST	52VL+12 - 54VL+18	RT	1,599	20
VLIET ST	54VL+38 - 57VL+29	RT	1,956	20
VLIET ST	57VL+62 - 59VL+27	RT	1,038	20
VLIET ST	59VL+41 - 61VL+04	RT	1,259	20
VLIET ST	61VL+36 - 63VL+18	RT	1,937	30
VLIET ST	63VL+43 - 64VL+75	RT	1,332	10
STAGE 1 SUBTOTAL			**11,690**	**180**
STAGE 2				
VLIET ST	43VL+57 - 46VL+00	LT	641	20
VLIET ST	47VL+01 - 47VL+12	LT	43	20
VLIET ST	47VL+49 - 51VL+73	LT	2,341	20
VLIET ST	51VL+92 - 53VL+54	LT	952	20
VLIET ST	53VL+90 - 55VL+50	LT	922	20
VLIET ST	55VL+70 - 57VL+31	LT	1,074	20
VLIET ST	57VL+63 - 61VL+07	LT	2,458	40
VLIET ST	61VL+36 - 64VL+75	LT	3,121	30
STAGE 2 SUBTOTAL			**11,552**	**190**
STAGE 3				
VLIET ST	10VL+70 - 13VL+90	RT	2,603	20
VLIET ST	14VL+24 - 15VL+19	RT	1,166	20
VLIET ST	15VL+34 - 16VL+67	RT	1,155	20
VLIET ST	17VL+04 - 19VL+86	RT	2,424	40
VLIET ST	20VL+17 - 21VL+90	RT	1,732	20
VLIET ST	22VL+02 - 22VL+14	RT	67	--
VLIET ST	22VL+24 - 23VL+18	RT	1,009	20
VLIET ST	23VL+45 - 29VL+99	RT	3,854	50
VLIET ST	30VL+32 - 33VL+33	RT	1,830	40
VLIET ST	33VL+66 - 36VL+65	RT	1,928	40
VLIET ST	36VL+98 - 43VL+21	RT	3,445	40
VLIET ST	43VL+56 - 46VL+00	RT	1,462	20
STAGE 3 SUBTOTAL			**22,675**	**330**

CONCRETE SIDEWALK (CONT.)

ROADWAY	STATION-STATION	OFFSET	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
STAGE 4				
VLIET ST	10VL+70 - 12VL+11	LT	1,071	--
VLIET ST	12VL+31 - 13VL+90	LT	1,553	20
VLIET ST	14VL+24 - 15VL+68	LT	1,314	20
VLIET ST	15VL+80 - 16VL+69	LT	833	20
VLIET ST	17VL+02 - 19VL+82	LT	2,319	40
VLIET ST	20VL+09 - 22VL+34	LT	1,862	20
VLIET ST	22VL+47 - 23VL+19	LT	748	20
VLIET ST	23VL+46 - 29VL+99	LT	3,961	50
VLIET ST	30VL+32 - 33VL+32	LT	1,869	40
VLIET ST	33VL+66 - 36VL+59	LT	1,752	40
VLIET ST	36VL+93 - 43VL+21	LT	3,657	40
VLIET ST	43VL+57 - 46VL+50	LT	1,457	20
STAGE 4 SUBTOTAL			**22,397**	**330**
PROJECT 2984-00-73 TOTAL			**68,314**	**1,030**

STORM SEWER PIPES

PIPE ID	SLOPE	INVERT ELEVATION INLET	INVERT ELEVATION DISCHARGE	STRUCTURE FROM	STRUCTURE TO	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	REMARKS
CAT 0010									
STAGE 1									
P95	0.50%	93.92	93.72	IN75	IN78	41	--	--	
P96	0.50%	89.50	89.39	IN78	MH42	24	--	--	
P100	0.52%	89.75	89.71	STUB	MH37	7	--	--	STAGE 1 BREAK, 6.0' LT
P107	0.50%	91.42	91.39	STUB	MH46	7	--	--	STAGE 1 BREAK, 6.0' LT
P108	0.50%	95.00	94.83	IN84	IN103	36	--	--	
P109	0.50%	91.50	91.32	IN103	MH46	39	--	--	
P120	0.50%	94.55	94.45	IN48	MH37	22	--	--	
P125	0.50%	91.50	91.38	IN91	MH51	27	--	--	
P127	0.50%	92.14	92.11	STUB	MH53	7	--	--	STAGE 1 BREAK, 6.0' LT
P128	0.50%	97.37	97.08	IN105	IN93	59	--	--	
P129	0.50%	92.12	92.01	IN93	MH53	25	--	--	
P130	0.50%	92.30	92.25	STUB	MH54	9	--	--	STAGE 1 BREAK, 6.0' LT
P133	0.50%	91.92	91.88	STUB	MH55	8	--	--	STAGE 1 BREAK, 6.0' LT
P134	0.50%	92.60	92.47	IN98	MH55	30	--	--	
P135	0.62%	93.50	93.38	IN99	MH56	23	--	--	
P136	0.50%	93.60	93.47	IN101	MH58	29	--	--	
P137	0.50%	93.39	93.37	STUB	MH58	5	--	--	STAGE 1 BREAK, 6.0' LT
P142	0.50%	97.19	97.08	IN93A	IN93	25	--	--	
P143	0.50%	94.15	93.92	IN75A	IN75	48	--	--	
P146	0.50%	95.15	95	IN84A	IN84	32	--		
P171	0.50%	89.23	89.20	STUB	MH218	7	--	--	STAGE 1 BREAK, 6.0' LT
P172	0.50%	89.50	89.31	IN71	MH39	41	--	--	
P173	0.50%	89.30	89.20	IN70	MH218	22	--	--	
P175	0.50%	89.38	89.32	STUB	MH41	12	--	--	STAGE 1 BREAK, 6.0' LT
P177	0.50%	89.50	89.32	IN76	MH41	39	--	--	
P178	0.54%	89.36	89.31	STUB	MH42	10	--	--	STAGE 1 BREAK, 6.0' LT
P181	0.50%	89.90	89.80	IN80	MH43	23	--	--	
P186	0.50%	91.93	91.90	STUB	MH47	6	--	--	STAGE 1 BREAK, 6.0' LT
P187	0.50%	92.04	93.93	IN86	MH47	25	--	--	
P191	0.50%	91.57	91.52	STUB	MH51	10	--	--	STAGE 1 BREAK, 6.0' LT
STAGE 1 SUBTOTAL						**698**	**--**	**--**	
STAGE 2									
P98	0.55%	90.50	90.43	IN81	MH121	16	--	--	
P99	0.60%	90.50	90.42	IN82	MH121	16	--	--	
P100	0.52%	89.82	89.75	IN49	STUB	18	--	1	STAGE 1 BREAK, 6.0' LT
P106	0.50%	96.24	95.89	IN83	IN102	73	--	--	
P107	0.50%	91.50	91.42	IN102	STUB	19	--	1	STAGE 1 BREAK, 6.0' LT

STORM SEWER PIPES (CONT.)

PIPE ID	SLOPE	INVERT ELEVATION INLET	INVERT ELEVATION DISCHARGE	STRUCTURE FROM	STRUCTURE TO	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	REMARKS
P122	0.50%	90.50	90.44	IN89	MH122	15	--	--	
P126	0.50%	97.30	97.14	IN104	IN92	34	--	--	
P127	0.50%	92.23	92.14	IN92	STUB	20	--	1	STAGE 1 BREAK, 6.0' LT
P130	0.50%	92.41	92.30	IN94	STUB	27	--	1	STAGE 1 BREAK, 6.0' LT
P131	0.50%	96.75	96.63	IN95	IN96	26	--	--	
P132	0.50%	96.53	96.32	IN96	IN97	45	--	--	
P133	0.50%	92.00	91.92	IN97	STUB	19	--	1	STAGE 1 BREAK, 6.0' LT
P137	0.50%	93.55	93.39	IN100	STUB	34	--	1	STAGE 1 BREAK, 6.0' LT
P140	0.50%	95.50	95.44	IN106	MH122	14	--	--	
P144	0.50%	96.44	96.32	IN97A	IN97	25	--	--	
P145	0.50%	93.53	93.38	IN100A	MH56	33	--	--	
P162	0.50%	91.50	91.43	IN62	MH120	17	--	--	
P163	0.54%	90.15	90.02	IN63	MH120	28	--	--	
P164	0.55%	90.33	90.21	IN64	IN63	23	--	--	
P165	0.69%	90.55	90.33	IN65	IN64	34	--	--	
P167	0.55%	94.91	94.65	IN66	IN63	49	--	--	
P171	0.50%	89.3	89.23	IN72	STUB	17	--	1	STAGE 1 BREAK, 6.0' LT
P175	0.50%	89.50	89.38	IN74	STUB	28	--	1	STAGE 1 BREAK, 6.0' LT
P178	0.54%	89.50	89.36	IN77	STUB	29	--	1	STAGE 1 BREAK, 6.0' LT
P186	0.50%	92.02	91.93	IN85	STUB	22	--	1	STAGE 1 BREAK, 6.0' LT
P191	0.50%	91.70	91.57	IN90	STUB	28	--	1	STAGE 1 BREAK, 6.0' LT
STAGE 2 SUBTOTAL						**709**	**--**	**11**	
STAGE 3									
P56	0.51%	82.56	82.46	IN10	MH10	23	--	--	
P57	0.52%	82.66	82.63	STUB	MH10	6	--	--	STAGE 1 BREAK, 6.0' LT
P58	0.51%	90.02	90.01	STUB	MH200	6	--	--	STAGE 1 BREAK, 6.0' LT
P59	0.70%	93.20	93.06	IN14	MH12	23	--	--	
P60	0.50%	93.08	93.04	STUB	MH12	7	--	--	STAGE 1 BREAK, 6.0' LT
P61	0.52%	90.41	90.38	STUB	MH14	7	--	--	STAGE 1 BREAK, 6.0' LT
P62	0.50%	89.54	89.36	IN16	MH14	39	--	--	
P63	0.53%	92.99	92.95	STUB	MH16	7	--	--	STAGE 1 BREAK, 6.0' LT
P65	0.50%	98.37	98.27	IN19	MH202	24	--	--	
P66	0.86%	98.77	98.56	IN21	MH18	28	--	--	
P67	0.87%	98.62	98.56	STUB	MH18	7	--	--	STAGE 1 BREAK, 6.0' LT
P68	0.50%	99.32	99.24	IN22	MH203	18	--	--	
P69	0.52%	93.69	93.61	IN67	MH103	17	--	--	
P71	0.50%	92.89	92.60	MH105	MH15	--	62	--	
P73	0.53%	99.71	99.68	STUB	MH19	6	--	--	STAGE 1 BREAK, 6.0' LT
P75	0.50%	99.52	99.45	IN26	MH204	18	--	--	
P76	0.54%	99.48	99.45	STUB	MH204	6	--	--	STAGE 1 BREAK, 6.0' LT
P77	0.66%	99.93	99.82	IN27	MH205	19	--	--	
P78	0.52%	99.86	99.83	STUB	MH205	6	--	--	STAGE 1 BREAK, 6.0' LT
P79	0.50%	100.82	100.74	IN30	MH21	18	--	--	
P80	0.53%	100.78	100.75	STUB	MH21	5	--	--	STAGE 1 BREAK, 6.0' LT
P83	0.50%	101.66	101.59	IN33	MH207	17	--	--	
P84	0.50%	99.20	99.10	IN34	MH23	22	--	--	
P85	0.56%	94.24	94.20	STUB	MH23	7	--	--	STAGE 1 BREAK, 6.0' LT
P86	0.50%	93.61	93.53	IN36	MH25	19	--	--	

STORM SEWER PIPES (CONT.)

PIPE ID	SLOPE	INVERT ELEVATION INLET	INVERT ELEVATION DISCHARGE	STRUCTURE FROM	STRUCTURE TO	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	REMARKS
P87	0.51%	89.09	89.06	STUB	MH25	5	--	--	STAGE 1 BREAK, 6.0' LT
P88	0.54%	92.90	92.83	IN39	MH28	17	--	--	
P89	0.50%	96.91	96.85	IN52	MH105	15	--	--	
P90	0.50%	93.14	93.07	IN40	MH208	16	--	--	
P91	0.60%	88.49	88.45	STUB	MH28	7	--	--	STAGE 1 BREAK, 6.0' LT
P92	0.50%	88.76	88.73	STUB	MH208	7	--	--	STAGE 1 BREAK, 6.0' LT
P93	0.50%	93.44	93.34	IN42	MH29	24	--	--	
P94	0.50%	93.53	93.43	IN43	MH31	24	--	--	
P97	0.50%	89.15	89.11	STUB	MH33	7	--	--	STAGE 1 BREAK, 6.0' LT
P101	0.76%	92.96	92.89	IN53	MH105	13	--	--	
P102	0.55%	98.09	97.95	IN18	MH16	28	--	--	
P104	0.50%	98.47	98.44	STUB	MH17	7	--	--	STAGE 1 BREAK, 6.0' LT
P105	0.50%	98.62	98.45	IN2	MH17	38	--	--	
P110	0.71%	100.09	100.00	IN57	MH110	15	--	--	
P111	0.50%	100.96	100.82	IN32	IN30	30	--	--	
P112	0.50%	101.33	101.31	STUB	MH207	6	--	--	STAGE 1 BREAK, 6.0' LT
P113	0.50%	87.94	87.89	STUB	MH29	10	--	--	STAGE 1 BREAK, 6.0' LT
P114	0.50%	88.98	88.95	STUB	MH31	7	--	--	STAGE 1 BREAK, 6.0' LT
P117	0.50%	87.20	87.17	STUB	MH2	6	--	--	STAGE 1 BREAK, 6.0' LT
P118	0.50%	93.84	93.77	IN45	MH2	17	--	--	
P119	0.52%	93.78	93.69	IN47	MH33	21	--	--	
P141	0.50%	99.59	99.52	IN23	MH19	17	--	--	
P150	0.52%	91.00	90.94	IN50	MH100	15	--	--	
P151	0.51%	87.67	87.61	IN51	MH100	15	--	--	
P154	0.50%	95.06	94.98	IN54	MH107	20	--	--	
P155	0.50%	94.39	94.31	IN55	MH107	19	--	--	
P156	0.61%	100.07	100.00	IN56	MH110	15	--	--	
P158	0.59%	96.69	96.63	IN58	MH112	14	--	--	
P159	0.57%	97.03	96.95	IN59	MH112	16	--	--	
P169	0.53%	90.04	89.97	IN68	MH103	17	--	--	
STAGE 3 SUBTOTAL						**823**	**62**	**--**	
STAGE 4									
P57	0.52%	82.73	82.66	IN11	STUB	17	--	1	STAGE 1 BREAK, 6.0' LT
P58	0.51%	90.11	90.02	IN12	STUB	17	--	1	STAGE 1 BREAK, 6.0' LT
P60	0.50%	93.15	93.08	IN13	STUB	18	--	1	STAGE 1 BREAK, 6.0' LT
P61	0.52%	90.49	90.41	IN15	STUB	17	--	1	STAGE 1 BREAK, 6.0' LT
P63	0.53%	93.08	92.99	IN17	STUB	21	--	1	STAGE 1 BREAK, 6.0' LT
P67	0.87%	98.78	98.62	IN20	STUB	22	--	1	STAGE 1 BREAK, 6.0' LT
P73	0.53%	99.75	99.71	IN24	STUB	11	--	1	STAGE 1 BREAK, 6.0' LT
P76	0.54%	99.53	99.48	IN25	STUB	11	--	1	STAGE 1 BREAK, 6.0' LT
P78	0.52%	99.90	99.86	IN28	STUB	11	--	1	STAGE 1 BREAK, 6.0' LT
P80	0.53%	100.85	100.78	IN29	STUB	17	--	1	STAGE 1 BREAK, 6.0' LT
P81	0.50%	100.98	100.85	IN31	IN29	29	--	--	
P85	0.56%	94.28	94.24	IN35	STUB	11	--	1	STAGE 1 BREAK, 6.0' LT
P87	0.51%	89.13	89.09	IN37	STUB	12	--	1	STAGE 1 BREAK, 6.0' LT
P91	0.60%	88.54	88.49	IN38	STUB	11	--	1	STAGE 1 BREAK, 6.0' LT
P92	0.50%	88.80	88.76	IN41	STUB	11	--	1	STAGE 1 BREAK, 6.0' LT

STORM SEWER PIPES (CONT.)

PIPE ID	SLOPE	INVERT ELEVATION INLET	INVERT ELEVATION DISCHARGE	STRUCTURE FROM	STRUCTURE TO	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	REMARKS
P97	0.50%	89.19	89.15	IN46	STUB	13	--	1	STAGE 1 BREAK, 6.0' LT
P104	0.50%	98.56	98.47	IN1	STUB	21	--	1	STAGE 1 BREAK, 6.0' LT
P112	0.50%	101.38	101.33	IN5	STUB	11	--	1	STAGE 1 BREAK, 6.0' LT
P113	0.50%	88.00	87.94	IN6	STUB	16	--	1	STAGE 1 BREAK, 6.0' LT
P114	0.50%	89.08	88.98	IN44	STUB	22	--	1	STAGE 1 BREAK, 6.0' LT
P117	0.50%	87.24	87.20	IN7	STUB	11	--	1	STAGE 1 BREAK, 6.0' LT
P121	0.50%	89.20	89.08	IN44A	IN44	26	--		
P160	0.50%	93.78	93.71	IN60	MH117	17	--	--	
P161	0.52%	88.59	88.53	IN61	MH117	15	--	--	
STAGE 4 SUBTOTAL						**388**	**--**	**20**	
PROJECT 2984-00-73 TOTAL						**2,618**	**62**	**31**	

STORM SEWER ITEMS

STRUCTURE NUMBER	STATION	OFFSET	FLANGE OR RIM ELEV	INVERT OUT ELEV	611.2004 MANHOLE 4-FT DIAMETER EACH	611.2005 MANHOLE 5-FT DIAMETER EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	SPV.0060.102 INLET COVER TYPE MS 57 EACH	SPV.0060.103 MANHOLE COVER TYPE MS 58-A EACH	SPV.0060.110 CATCH BASIN TYPE 44A EACH	SPV.0060.112 STORM INLET TYPE 45A EACH	NOTES
CAT 0010												
STAGE 1												
MH34	46VL+26	.9' RT	98.85	-	--	--	1	--	1	--	--	
MH35	46VL+53	6.5' RT	98.88	-	--	--	1	--	1	--	--	
MH36	47VL+10	.1' LT	99.11	-	--	--	1	--	1	--	--	
MH37	47VL+93	.9' RT	99.35	-	--	--	1	--	1	--	--	
IN48	47VL+93	24.0' RT	98.94	94.55	--	--	--	1	--	1	--	
MH38	48VL+01	6.0' RT	99.27	-	--	--	1	--	1	--	--	
MH218	48VL+50	.9' RT	99.33	86.20	1	--	--	--	1	--	--	
IN70	48VL+50	24.0' RT	98.87	89.30	--	--	--	1	--	1	--	
IN71	49VL+20	24.0' RT	99.02	89.50	--	--	--	1	--	1	--	
MH39	49VL+54	1.0' RT	99.69	-	--	--	1	--	1	--	--	
MH40	49VL+83	7.1' RT	99.65	-	--	--	1	--	1	--	--	
MH41	50VL+38	1.1' RT	99.79	-	--	--	1	--	1	--	--	
IN76	50VL+70	24.0' RT	99.13	89.50	--	--	--	1	--	1	--	
IN75A	51VL+36	24.0' RT	99.15	94.15	--	--	--	1	--	--	1	
IN75	51VL+85	24.0' RT	99.20	93.92	--	--	--	1	--	--	1	
IN78	52VL+26	24.0' RT	99.38	89.50	--	--	--	1	--	1	--	
MH42	52VL+32	.3' LT	99.98	-	--	--	1	--	1	--	--	
IN80	53VL+20	24.0' RT	99.70	89.90	--	--	--	1	--	1	--	
MH43	53VL+26	.5' RT	100.36	-	--	--	1	--	1	--	--	
MH44	53VL+54	5.7' RT	100.33	-	--	--	1	--	1	--	--	

STORM SEWER ITEMS (CONT.)

STRUCTURE NUMBER	STATION	OFFSET	FLANGE OR RIM ELEV	INVERT OUT ELEV	611.2004 MANHOLE 4-FT DIAMETER EACH	611.2005 MANHOLE 5-FT DIAMETER EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	SPV.0060.102 INLET COVER TYPE MS 57 EACH	SPV.0060.103 MANHOLE COVER TYPE MS 58-A EACH	SPV.0060.110 CATCH BASIN TYPE 44A EACH	SPV.0060.112 STORM INLET TYPE 45A EACH	NOTES
IN84A	54VL+13	21.5' RT	100.15	95.15	--	--	--	1	--	--	1	
MH45	54VL+14	1.1' LT	100.75	-	--	--	1	--	1	--	--	
IN84	54VL+45	24.0' RT	100.27	95.00	--	--	--	1	--	--	1	
IN103	54VL+80	24.0' RT	100.37	91.50	--	--	--	1	--	1	--	
MH46	55VL+12	.1' LT	101.04	-	--	--	1	--	1	--	--	
IN86	56VL+03	24.0' RT	100.84	92.04	--	--	--	1	--	1	--	
MH47	56VL+08	1.6' LT	101.30	-	--	--	1	--	1	--	--	
MH48	56VL+90	7.0' RT	101.46	-	--	--	1	--	1	--	--	
MH49	57VL+05	1.8' LT	101.60	-	--	--	1	--	1	--	--	
MH50	57VL+44	5.4' RT	101.69	-	--	--	1	--	1	--	--	
MH51	57VL+86	.1' LT	101.86	-	--	--	1	--	1	--	--	
IN91	58VL+00	24.0' RT	101.37	91.50	--	--	--	1	--	1	--	
IN93A	59VL+50	24.0' RT	101.57	97.19	--	--	--	1	--	--	1	
IN93	59VL+75	24.0' RT	101.64	92.12	--	--	--	1	--	1	--	
MH53	59VL+83	.2' LT	102.36	-	--	--	1	--	1	--	--	
IN105	60VL+34	24.0' RT	101.83	97.37	--	--	--	1	--	--	1	
MH54	60VL+78	.2' LT	102.49	-	--	--	1	--	1	--	--	
MH55	61VL+64	.9' RT	102.80	-	--	--	1	--	1	--	--	
IN98	61VL+85	24.0' RT	102.20	92.60	--	--	--	1	--	1	--	
MH56	63VL+77	.5' RT	103.61	-	--	--	1	--	1	--	--	
IN99	64VL+00	24.0' RT	103.13	93.50	--	--	--	1	--	1	--	
IN101	64VL+67	24.0' RT	103.05	93.60	--	--	--	1	--	1	--	
MH58	64VL+84	0.0' RT	103.57	-	--	--	1	--	1	--	--	
MH119	9NSH+65	6.6' LT	98.55	-	--	--	1	--	1	--	--	
MH123	9NSM+65	.8' LT	101.96	-	--	--	1	--	1	--	--	
STAGE 1 SUBTOTAL					**1**	**--**	**25**	**19**	**26**	**13**	**6**	
STAGE 2												
IN49	47VL+99	24.0' LT	99.16	89.82	--	--	--	1	--	1	--	
IN72	48VL+50	24.0' RT	98.87	89.30	--	--	--	1	--	1	--	
IN74	50VL+70	24.0' LT	99.24	89.50	--	--	--	1	--	1	--	
IN77	52VL+01	24.0' RT	99.41	89.50	--	--	--	1	--	1	--	
IN83	54VL+27	24.0' LT	100.37	96.24	--	--	--	1	--	--	1	
IN102	55VL+00	24.0' LT	100.53	91.50	--	--	--	1	--	1	--	
IN85	55VL+90	24.0' LT	100.80	92.02	--	--	--	1	--	1	--	
IN90	58VL+17	24.0' LT	101.41	91.70	--	--	--	1	--	1	--	
IN104	59VL+33	24.0' LT	101.74	97.30	--	--	--	1	--	--	1	
IN92	59VL+67	24.0' LT	101.84	92.23	--	--	--	1	--	1	--	
IN94	60VL+50	24.0' LT	102.16	92.41	--	--	--	1	--	1	--	
IN97	61VL+75	24.0' LT	102.73	92.00	--	--	--	1	--	1	--	
IN97A	62VL+00	24.0' LT	102.66	96.44	--	--	--	1	--	--	1	
IN100A	64VL+00	24.0' LT	103.33	93.53	--	--	--	1	--	1	--	
MH57	64VL+53	13.4' LT	103.55	-	--	--	1	--	1	--	--	
IN100	64VL+54	24.9' LT	103.32	93.55	--	--	--	1	--	1	--	
IN62	10NSH+41	23.0' LT	99.15	91.50	--	--	--	1	--	1	--	
IN63	10NSH+42	24.0' RT	99.31	90.21	--	--	--	1	--	1	--	
MH120	10NSH+43	4.8' LT	99.44	-	--	--	1	--	1	--	--	
IN64	10NSJ+51	13.0' LT	99.84	90.33	--	--	--	1	--	--	1	

STORM SEWER ITEMS (CONT.)

STRUCTURE NUMBER	STATION	OFFSET	FLANGE OR RIM ELEV	INVERT OUT ELEV	611.2004 MANHOLE 4-FT DIAMETER EACH	611.2005 MANHOLE 5-FT DIAMETER EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	SPV.0060.102 INLET COVER TYPE MS 57 EACH	SPV.0060.103 MANHOLE COVER TYPE MS 58-A EACH	SPV.0060.110 CATCH BASIN TYPE 44A EACH	SPV.0060.112 STORM INLET TYPE 45A EACH	NOTES
IN65	10NSJ+52	23.0' RT	99.42	90.55	--	--	--	1	--	--	1	
IN66	10NSH+92	23.0' RT	99.39	94.91	--	--	--	1	--	--	1	
IN81	10NSK+42	17.0' LT	100.19	90.50	--	--	--	1	--	1	--	
MH121	10NSK+44	.3' LT	100.74	-	--	--	1	--	1	--	--	
IN82	10NSK+42	17.0' RT	100.21	90.50	--	--	--	1	--	1	--	
IN106	10NSL+40	15.0' LT	101.52	95.50	--	--	--	1	--	1	--	
MH122	10NSL+45	.6' LT	101.73	-	--	--	1	--	--	--	--	
IN89	10NSL+40	15.0' RT	101.47	90.50	--	--	--	1	--	1	--	
IN95	10NSM+40	14.0' LT	102.64	96.75	--	--	--	1	--	--	1	
IN96	10NSM+42	14.0' RT	102.74	96.53	--	--	--	1	--	--	1	
STAGE 2 SUBTOTAL					**--**	**--**	**4**	**26**	**3**	**18**	**8**	
STAGE 3												
IN10	10VL+80	24.0' RT	92.4	82.56	--	--	--	1	--	1	--	
MH10	10VL+83	0.0' RT	92.63	-	--	--	1	--	1	--	--	
MH200	12VL+36	.3' LT	95.02	82.77	--	1	--	--	1	--	--	
MH11	13VL+65	.5' LT	96.85	84.50	--	--	1	--	1	--	--	
MH12	14VL+54	1.0' RT	97.91	-	--	--	1	--	1	--	--	
IN14	14VL+59	24.0' RT	97.62	93.20	--	--	--	1	--	1	--	
MH13	16VL+42	.6' LT	99.63	-	--	--	1	--	1	--	--	
MH14	17VL+27	.7' RT	100.02	-	--	--	1	--	1	--	--	
IN16	17VL+59	24.0' RT	100.06	89.54	--	--	--	1	--	1	--	
MH15	19VL+60	.8' LT	102.13	-	--	--	1	--	1	--	--	
MH16	20VL+44	.4' LT	102.68	-	--	--	1	--	1	--	--	
IN18	20VL+59	24.0' RT	102.39	98.09	--	--	--	1	--	1	--	
MH202	21VL+77	.6' LT	103.33	91.37	1	--	--	--	1	--	--	
IN19	21VL+82	24.0' RT	102.94	98.37	--	--	--	1	--	1	--	
IN2	22VL+63	24.0' RT	103.10	98.62	--	--	--	1	--	1	--	
MH17	22VL+92	.7' LT	103.42	-	--	--	1	--	1	--	--	
MH18	23VL+75	.6' LT	103.69	-	--	--	1	--	1	--	--	
IN21	23VL+96	18.0' RT	103.46	98.77	--	--	--	1	--	1	--	
MH203	25VL+48	.5' LT	104.29	93.51	1	--	--	--	1	--	--	
IN22	25VL+52	18.0' RT	103.95	99.32	--	--	--	1	--	1	--	
MH19	26VL+42	.4' LT	104.59	-	--	--	1	--	1	--	--	
IN23	26VL+43	18.0' RT	104.24	99.59	--	--	--	1	--	1	--	
MH20	27VL+22	.5' LT	104.70	-	--	--	1	--	1	--	--	
MH204	27VL+85	.5' LT	104.56	94.75	1	--	--	--	1	--	--	
IN26	27VL+85	18.0' RT	104.21	99.52	--	--	--	1	--	1	--	
MH205	28VL+89	.5' LT	104.98	94.45	1	--	--	--	1	--	--	
IN27	28VL+89	19.6' RT	104.60	99.93	--	--	--	1	--	1	--	
MH21	30VL+58	.6' LT	105.64	-	--	--	1	--	1	--	--	
IN30	30VL+58	18.0' RT	105.49	100.82	--	--	--	1	--	1	--	
IN32	30VL+88	18.0' RT	105.43	100.96	--	--	--	1	--	--	1	
IN33	32VL+86	18.0' RT	105.96	101.66	--	--	--	1	--	1	--	
MH207	32VL+89	.4' RT	106.22	92.70	1	--	--	--	1	--	--	
MH22	33VL+91	.8' RT	105.84	-	--	--	1	--	1	--	--	
MH23	36VL+37	.1' RT	103.94	-	--	--	1	--	1	--	--	
IN34	36VL+37	24.0' RT	103.80	99.20	--	--	--	1	--	1	--	

STORM SEWER ITEMS (CONT.)

STRUCTURE NUMBER	STATION	OFFSET	FLANGE OR RIM ELEV	INVERT OUT ELEV	611.2004 MANHOLE 4-FT DIAMETER EACH	611.2005 MANHOLE 5-FT DIAMETER EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	SPV.0060.102 INLET COVER TYPE MS 57 EACH	SPV.0060.103 MANHOLE COVER TYPE MS 58-A EACH	SPV.0060.110 CATCH BASIN TYPE 44A EACH	SPV.0060.112 STORM INLET TYPE 45A EACH	NOTES
MH24	39VL+24	29.4' RT	99.38	-	--	--	1	--	1	--	--	
MH25	39VL+67	1.0' LT	98.54	-	--	--	1	--	1	--	--	
IN36	39VL+72	18.0' RT	98.11	93.61	--	--	--	1	--	1	--	
MH26	39VL+85	28.1' RT	98.74	-	--	--	1	--	1	--	--	
MH27	40VL+21	15.3' RT	97.62	-	--	--	1	--	1	--	--	
MH28	40VL+50	.7' RT	97.77	-	--	--	1	--	1	--	--	
IN39	40VL+55	18.0' RT	97.41	92.90	--	--	--	1	--	1	--	
MH208	41VL+54	.8' RT	98.06	83.72	1	--	--	--	1	--	--	
IN40	41VL+54	18.0' RT	97.72	93.14	--	--	--	1	--	1	--	
IN42	42VL+79	18.0' RT	97.74	93.44	--	--	--	1	--	1	--	
MH29	42VL+97	1.0' RT	98.04	-	--	--	1	--	1	--	--	
MH30	43VL+62	6.5' RT	98.29	-	--	--	1	--	1	--	--	
MH31	43VL+82	.8' LT	98.44	-	--	--	1	--	1	--	--	
IN43	43VL+98	18.0' RT	98.14	93.53	--	--	--	1	--	1	--	
MH32	44VL+63	.5' RT	98.58	-	--	--	1	--	1	--	--	
MH2	45VL+00	.5' RT	98.47	87.07	1	--	--	--	1	--	--	
IN45	45VL+00	18.0' RT	98.07	93.84	--	--	--	1	--	1	--	
MH33	45VL+42	.5' RT	98.60	-	--	--	1	--	1	--	--	
IN47	45VL+51	20.4' RT	98.16	93.78	--	--	--	1	--	1	--	
MH100	9NSA+53	.2' LT	97.34	-	--	--	1	--	1	--	--	
IN50	9NSA+55	16.0' LT	96.89	91.00	--	--	--	1	--	1	--	
MH101	9NSA+61	12.9' LT	96.98	-	--	--	1	--	1	--	--	
IN51	9NSA+55	16.0' RT	97.24	87.67	--	--	--	1	--	1	--	
IN67	9NSB+55	18.0' LT	99.15	93.69	--	--	--	1	--	1	--	
IN68	9NSB+55	18.0' RT	99.48	90.04	--	--	--	1	--	1	--	
MH103	9NSB+56	.0' RT	99.79	-	--	--	1	--	1	--	--	
IN52	9NSC+55	15.0' LT	102.34	96.91	--	--	--	1	--	1	--	
IN53	9NSC+55	15.0' RT	102.51	92.96	--	--	--	1	--	1	--	
MH105	9NSC+55	1.3' RT	102.74	-	--	--	1	--	1	--	--	
IN54	9NSD+46	18.0' LT	103.86	95.06	--	--	--	1	--	1	--	
IN55	9NSD+47	18.0' RT	103.86	94.39	--	--	--	1	--	1	--	OFFSET STRUCTURE TO AVOID 138 KV LINE.
MH107	9NSD+55	.4' RT	104.12	-	--	--	1	--	1	--	--	
IN57	9NSE+55	16.0' RT	105.44	100.09	--	--	--	1	--	1	--	
MH110	9NSE+56	.3' RT	105.84	-	--	--	1	--	1	--	--	
IN56	9NSE+58	16.0' LT	105.39	100.07	--	--	--	1	--	1	--	
IN59	9NSF+54	16.0' RT	106.17	97.03	--	--	--	1	--	1	--	
MH112	9NSF+56	1.2' LT	106.67	-	--	--	1	--	1	--	--	
IN58	9NSF+58	16.0' LT	106.15	96.69	--	--	--	1	--	1	--	OFFSET STRUCTURE TO AVOID PROPOSED WATERMAIN
STAGE 3 SUBTOTAL					**7**	**1**	**31**	**34**	**39**	**33**	**1**	
STAGE 4												
IN11	10VL+85	24.0' LT	92.15	82.73	--	--	--	1	--	1	--	
IN12	12VL+36	24.0' LT	94.54	90.11	--	--	--	1	--	1	--	
IN13	14VL+60	24.0' LT	97.48	93.15	--	--	--	1	--	1	--	
IN15	17VL+26	23.1' LT	99.81	90.49	--	--	--	1	--	1	--	
IN17	20VL+59	24.0' RT	102.29	93.08	--	--	--	1	--	1	--	

STORM SEWER ITEMS (CONT.)

STRUCTURE NUMBER	STATION	OFFSET	FLANGE OR RIM ELEV	INVERT OUT ELEV	611.2004 MANHOLE 4-FT DIAMETER EACH	611.2005 MANHOLE 5-FT DIAMETER EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	SPV.0060.102 INLET COVER TYPE MS 57 EACH	SPV.0060.103 MANHOLE COVER TYPE MS 58-A EACH	SPV.0060.110 CATCH BASIN TYPE 44A EACH	SPV.0060.112 STORM INLET TYPE 45A EACH	NOTES
IN1	22VL+76	24.0' LT	103.00	98.56	--	--	--	1	--	1	--	
IN20	23VL+93	24.0' LT	103.28	98.78	--	--	--	1	--	1	--	
IN24	26VL+39	18.0' LT	104.23	99.75	--	--	--	1	--	1	--	
IN25	27VL+85	18.0' LT	104.21	99.53	--	--	--	1	--	1	--	
IN28	28VL+93	18.0' LT	104.65	99.90	--	--	--	1	--	1	--	
IN29	30VL+58	24.0' LT	105.34	100.85	--	--	--	1	--	1	--	
IN31	30VL+87	24.0' LT	105.28	100.98	--	--	--	1	--	--	1	
IN5	32VL+86	18.0' LT	105.88	101.38	--	--	--	1	--	1	--	
IN35	36VL+35	18.0' LT	103.77	94.28	--	--	--	1	--	1	--	
IN37	39VL+72	18.0' LT	98.11	89.13	--	--	--	1	--	1	--	
IN38	40VL+55	18.0' LT	97.41	88.54	--	--	--	1	--	1	--	
IN41	41VL+54	18.0' LT	97.72	88.80	--	--	--	1	--	1	--	
IN6	42VL+79	18.0' LT	97.75	88.00	--	--	--	1	--	1	--	
IN44	44VL+00	24.0' LT	98.25	89.08	--	--	--	1	--	1	--	
IN44A	44VL+25	24.0' LT	98.25	89.20	--	--	--	1	--	--	1	
IN7A	44VL+72	18.8' LT	98.19	87.37	--	--	--	1	--	--	1	
IN7	45VL+00	18.0' LT	98.12	87.24	--	--	--	1	--	1	--	
IN46	45VL+52	18.0' LT	98.26	89.19	--	--	--	1	--	1	--	
MH102	10NSA+44	.2' RT	97.27	-	--	--	1	--	1	--	--	
MH104	10NSB+42	2.1' RT	99.44	-	--	--	1	--	1	--	--	
MH106	10NSC+45	.1' RT	102.11	-	--	--	1	--	1	--	--	
MH111	10NSE+44	.8' LT	105.22	-	--	--	1	--	1	--	--	
MH113	10NSF+42	.7' LT	106.11	-	--	--	1	--	1	--	--	
MH115	10NSG+45	.4' RT	103.01	-	--	--	1	--	1	--	--	
IN60	10NSH+41	17.0' LT	97.97	93.78	--	--	--	1	--	1	--	
IN61	10NSH+43	17.0' RT	97.96	88.59	--	--	--	1	--	1	--	
MH117	10NSH+44	.7' RT	98.24	-	--	--	1	--	1	--	--	
MH118	10NSH+54	1.7' LT	98.36	-	--	--	1	--	--	--	--	
STAGE 4 SUBTOTAL					**--**	**--**	**8**	**25**	**7**	**22**	**3**	
PROJECT 2984-00-73 TOTALS					**8**	**1**	**68**	**104**	**75**	**86**	**18**	

FENCE SAFETY

ROADWAY	616.0700.S FENCE SAFETY LF
CAT 0010	
PROJECT 2984-00-73	
UNDISTRIBUTED	1,500
PROJECT 2984-00-73 TOTAL	**1,500**

MOBILIZATION

ROADWAY	619.1000 MOBILIZATION EACH
PROJECT 2984-00-73	0.9
PROJECT 2984-00-73 TOTAL	**0.9**

FINISHING MATERIALS

ROADWAY	STATION	OFFSET	625.0100 TOPSOIL SY	631.1000 SOD LAWN SY
CAT 0010				
STAGE 1				
VLIET ST	46VL+44 - 46VL+55	32' RT	33	33
	46VL+87 - 47VL+06	32' RT	83	83
	47VL+53 - 47VL+62	32' RT	45	45
	47VL+67 - 50VL+79	19' RT	94	94
	51VL+26 - 50VL+90	19' RT	21	21
	52VL+48 - 53VL+43	19' RT	44	44
	53VL+48 - 53VL+96	19' RT	44	44
	54VL+01 - 54VL+15	19' RT	11	11
	54VL+44 - 56VL+74	19' RT	73	73
	57VL+23 - 57VL+29	32' RT	14	14
	57VL+62 - 57VL+67	32' RT	10	10
STAGE 1 SUBTOTAL			**472**	**472**
STAGE 2				
VLIET ST	46VL+00 - 46VL+40	19' LT	36	36
	46VL+45 - 46VL+47	61' LT	8	8
	46VL+97 - 47VL+16	33' LT	81	81
	47VL+48 - 47VL+62	32' LT	49	49
	47VL+67 - 51VL+66	25' LT	111	111
	51VL+98 - 53VL+43	19' LT	47	47
	53VL+48 - 53VL+54	32' LT	10	10
	53VL+89 - 53VL+96	32' LT	11	11
	54VL+01 - 55VL+46	19' LT	50	50
	55VL+76 - 57VL+18	19' LT	48	48
	57VL+78 - 60VL+85	19' LT	97	97
STAGE 2 SUBTOTAL			**548**	**548**
STAGE 3				
VLIET ST	13VL+84 - 13VL+90	31' RT	10	10
	23VL+61 - 27VL+04	19' RT	322	322
	27VL+10 - 29VL+75	19' RT	186	186
	29VL+39 - 29VL+99	40' RT	11	11
	30VL+32 - 30VL+38	39' RT	11	11
	30VL+53 - 33VL+23	19' RT	259	259
	33VL+29 - 33VL+33	32' RT	8	8
	33VL+66 - 33VL+70	32' RT	5	5
	33VL+75 - 36VL+46	19' RT	187	187
	36VL+57 - 36VL+65	35' RT	13	13

FINISHING MATERIALS (CONT.)

ROADWAY	STATION	OFFSET	625.0100 TOPSOIL SY	631.1000 SOD LAWN SY
VLIET ST	36VL+98 - 37VL+03	35' RT	14	14
	37VL+09 - 43VL+10	19' RT	565	565
	43VL+15 - 43VL+21	32' RT	12	12
	43VL+56 - 43VL+63	32' RT	13	13
	43VL+72 - 46VL+39	19' RT	180	180
STAGE 3 SUBTOTAL			**1,796**	**1,796**
STAGE 4				
VLIET ST	14VL+25 - 14VL+29	32' LT	10	10
	17VL+02 - 17VL+07	38' LT	5	5
	23VL+12 - 23VL+14	49' LT	2	2
	23VL+51 - 23VL+53	49' LT	3	3
	23VL+66 - 27VL+03	25' LT	250	250
	27VL+09 - 29VL+80	25' LT	255	255
	29VL+96 - 29VL+98	41' LT	4	4
	30VL+32 - 30VL+37	41' LT	7	7
	30VL+48 - 33VL+23	19' LT	187	187
	33VL+29 - 33VL+31	35' LT	6	6
	33VL+66 - 33VL+71	35' LT	6	6
	33VL+76 - 36VL+47	19' LT	253	253
	36VL+55 - 36VL+59	37' LT	9	9
	36VL+93 - 37VL+03	37' LT	19	19
	37VL+09 - 43VL+10	19' LT	495	495
	43VL+15 - 43VL+21	35' LT	12	12
	43VL+57 - 43VL+63	35' LT	10	10
	43VL+72 - 46VL+00	19' LT	144	144
STAGE 4 SUBTOTAL			**1,677**	**1,677**
UNDISTRIBUTED			**1,307**	**1,307**
PROJECT 2984-00-73 TOTAL			**5,800**	**5,800**

EROSION CONTROL

ROADWAY	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
CAT 0010		
UNDISTRIBUTED	8	5
PROJECT 2984-00-73 TOTAL	**8**	**5**

INLET PROTECTION

ROADWAY	STATION	OFFSET	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH
CAT 0010					
STAGE 1					
VLIET ST	43VL+94	RT	--	1	--
	43VL+99	LT	--	1	--
	44VL+97	RT	--	1	--
	45VL+50	LT	--	1	--
	45VL+79	RT	--	1	--
	47VL+93	RT	1	--	1
	47VL+99	LT	--	1	--
	48VL+50	RT	1	--	1
	48VL+86	LT	--	1	--
	49VL+20	RT	1	--	1
	50VL+54	LT	--	1	--
	50VL+70	RT	1	--	1
	51VL+36	RT	1	--	1
	51VL+84	RT	1	--	1
	51VL+84	LT	--	1	--
	52VL+26	RT	1	--	1
	52VL+40	LT	--	1	--
	53VL+20	RT	1	--	1
	54VL+13	RT	1	--	1
	54VL+45	RT	1	--	1
	54VL+55	LT	--	1	--
	54VL+80	RT	1	--	1
	55VL+59	LT	--	1	--
	55VL+90	LT	--	1	--
	56VL+07	RT	1	--	1
	58VL+00	RT	1	--	1
	58VL+17	LT	--	1	--
	59VL+50	RT	1	--	1
	59VL+67	LT	--	1	--
	59VL+75	RT	1	--	1
	60VL+25	RT	1	--	1
	61VL+51	LT	--	1	--
	61VL+89	RT	1	--	1
	63VL+61	RT	1	--	1
	64VL+53	LT	--	1	--
	64VL+67	RT	1	--	1
	65VL+06	LT	--	1	--
	65VL+65	RT	--	1	--
17TH STREET SB	10NSH+41	LT	--	1	--
	10NSH+91	RT	--	1	--

INLET PROTECTION (CONT.)

ROADWAY	STATION	OFFSET	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH
17TH STREET NB	10NSJ+49	RT	--	--	1
15TH STREET	10NSK+42	LT	--	1	--
	10NSK+42	RT	--	--	1
14TH STREET	10NSL+37	LT	--	1	--
	10NSL+40	RT	--	1	--
13TH STREET	10NSM+39	RT	--	1	--
	10NSM+43	LT	--	1	--
STAGE 1 SUBTOTAL			**19**	**26**	**21**
STAGE 2					
VLIET ST	47VL+99	LT	1	--	1
	48VL+50	LT	1	--	1
	50VL+70	LT	1	--	1
	52VL+01	LT	1	--	1
	54VL+27	LT	1	--	1
	55VL+00	LT	1	--	1
	55VL+90	LT	1	--	1
	58VL+17	LT	1	--	1
	59VL+33	LT	1	--	1
	59VL+57	LT	1	--	1
	60VL+50	LT	1	--	1
	61VL+75	LT	1	--	1
	62VL+00	LT	1	--	1
	64VL+00	LT	1	--	1
	64VL+54	LT	1	--	1
	65VL+06	LT	--	1	--
	65VL+54	LT	--	1	--
17TH STREET SB	10NSH+41	LT	1	--	1
	10NSH+51	RT	1	--	1
	10NSH+92	RT	1	--	1
17TH STREET NB	10NSJ+52	LT	1	--	1
	10NSJ+52	LT	1	--	1
15TH STREET	10NSK+42	RT	1	--	1
	10NSK+42	LT	1	--	1
14TH STREET	10NSL+40	RT	1	--	1
	10NSL+40	LT	1	--	1
13TH STREET	10NSM+40	LT	1	--	1
	10NSM+42	RT	1	--	1
STAGE 2 SUBTOTAL			**26**	**2**	**26**
STAGE 3 SUBTOTAL					
VLIET ST	10VL+56	RT	--	1	--
	10VL+80	RT	1	--	1
	10VL+87	LT	--	1	--
	12VL+40	LT	--	1	--
	14VL+60	LT	--	--	1

INLET PROTECTION (CONT.)

ROADWAY	STATION	OFFSET	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH
VLIET ST	14VL+59	RT	1	--	1
	17VL+26	LT	--	1	--
	17VL+59	RT	1	1	--
	20VL+59	RT	1	--	1
	20VL+61	LT	--	1	--
	21VL+82	RT	1	--	1
	22VL+63	RT	1	--	1
	23VL+96	RT	1	--	1
	24VL+23	LT	--	1	--
	25VL+52	RT	1	--	1
	26VL+37	LT	--	1	--
	26VL+42	RT	1	--	1
	27VL+51	LT	--	1	--
	27VL+84	RT	1	--	1
	28VL+89	RT	1	--	1
	28VL+98	LT	--	1	--
	30VL+59	RT	1	--	1
	30VL+79	RT	1	--	1
	30VL+97	LT	--	1	--
	32VL+86	RT	1	--	1
	36VL+37	RT	1	--	1
	36VL+44	LT	--	1	--
	39VL+72	RT	1	--	1
	39VL+75	LT	--	1	--
	40VL+55	RT	1	--	1
	40VL+61	LT	--	1	--
	41VL+54	RT	1	--	1
	42VL+19	LT	--	1	--
	42VL+79	RT	1	--	1
	43VL+99	RT	1	--	1
	43VL+99	LT	--	1	--
	45VL+00	RT	1	--	1
	45VL+50	LT	--	1	--
	45VL+51	RT	1	--	1
26TH STREET	9NSA+55	LT	1	--	1
	9NSA+56	RT	1	--	1
25TH STREET	9NSB+55	LT	1	--	1
	9NSB+56	RT	1	--	1
24TH PLACE	19VL+87	RT	1	--	1
	20VL+16	LT	1	--	1
24TH STREET	9NSD+46	RT	1	--	1
	9NSD+46	LT	1	--	1
22ND STREET	9NSE+55	RT	1	--	1
	9NSE+58	LT	1	--	1
21ST STREET	9NSF+54	RT	1	--	1

3

INLET PROTECTION (CONT.)

ROADWAY	STATION	OFFSET	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH
	9NSF+58	LT	1	--	1
18TH STREET	10NSH+41	LT	--	--	1
	10NSH+43	RT	--	--	1
STAGE 3 SUBTOTAL			**34**	**17**	**36**
STAGE 4					
VLIET ST	10VL+85	LT	1	--	1
	12VL+36	LT	1	--	1
	14VL+60	LT	1	--	1
	17VL+26	LT	1	--	1
	20VL+59	LT	1	--	1
	22VL+76	LT	1	--	1
	23VL+93	LT	1	--	1
	26VL+39	LT	1	--	1
	27VL+85	LT	1	--	1
	28VL+93	LT	1	--	1
	30VL+58	LT	1	--	1
	30VL+78	LT	1	--	1
	32VL+86	LT	1	--	1
	36VL+35	LT	1	--	1
	39VL+67	LT	1	--	1
	40VL+55	LT	1	--	1
	41VL+54	LT	1	--	1
	42VL+79	LT	1	--	1
	43VL+99	LT	1	--	1
	44VL+25	LT	1	--	1
	44VL+72	LT	1	--	1
	45VL+00	LT	1	--	1
	45VL+51	LT	1	--	1
18TH STREET	10NSH+42	LT	1	--	1
	10NSH+43	LT	1	--	1
17TH STREET	10NSH+40	LT	--	--	1
	10NSH+42	RT	--	--	1
STAGE 4 SUBTOTAL			**25**	**--**	**27**
UNDISTRIBUTED			10	5	11
PROJECT 2984-00-73 TOTAL			**114**	**50**	**121**

TRAFFIC CONTROL ITEMS

ROADWAY	STAGE DURATION 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	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH*	643.0800 TRAFFIC CONTROL ARROW BOARDS DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH*	643.0900 TRAFFIC CONTROL SIGNS DAYS	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II CYCLES*	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II SIGNS*	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY
CAT 0010																				
STAGE 1																				
VLIET ST	44	158	6,952	66	2,904	56	2,464	45	1,980	20	880	1	44	91	4,004	5	1	5	12
17TH ST		203	8,932	4	176	34	1,496	38	1,672	203	8,932	4	176	59	2,596	--	--	--	6
STAGE 1 SUBTOTAL			**15,884**				**3,960**		**3,652**		**9,812**		**220**		**6,600**	**5**			**18**
STAGE 2																				
VLIET ST	49	76	--	67	3,283	48	2,352	37	1,813	--	--	--	--	94	4,606	14	1	14	12
17TH ST		199	9,751	1	49	37	1,813	41	2,009	199	9,751	4	196	58	2,842	--	--	--	--
STAGE 2 SUBTOTAL			**9,751**		**3,332**		**4,165**		**3,822**		**9,751**		**196**		**7,448**	**14**			**12**
STAGE 3																				
VLIET ST	73	277	20,221	122	8,906	105	7,665	79	5,767	15	1,095	1	73	169	12,337	5	1	5	18
STAGE 3 SUBTOTAL			**20,221**		**8,906**		**7,665**		**5,767**		**1,095**		**73**		**12,337**	**5**			**18**
STAGE 4																				
VLIET ST	82	151	12,382	124	10,168	104	8,528	78	6,396	--	--	1	82	168	13,776	5	1	5	12
STAGE 4 SUBTOTAL			**12,382**		**10,168**		**8,528**		**6,396**		**--**		**82**		**13,776**	**5**			**12**
UNDISTRIBUTED			**5,962**		**11,294**		**17,682**		**29,463**		**2,142**		--		**11,839**				
PROJECT 2984-00-73 TOTAL			**64,200**		**33,700**		**42,000**		**49,100**		**22,800**		**571**		**52,000**	**29**			**60**

* FOR INFORMATION ONLY

FIELD OFFICE

ROADWAY	642.5201 FIELD OFFICE TYPE C EACH
PROJECT 2984-00-73	0.9
PROJECT 2984-00-73 TOTAL	**0.9**

TRAFFIC CONTROL

ROADWAY	643.5000 TRAFFIC CONTROL EACH
PROJECT 2984-00-73	0.9
PROJECT 2984-00-73 TOTAL	**0.9**

PEDESTRIAN ACCOMODATIONS

ROADWAY	644.1410.S TEMPORARY PEDESTRIAN SURFACE ASPHALT SF	644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1601.S TEMPORARY CURB RAMP EACH	644.1616.S TEMPORARY PEDESTRIAN SAFETY FENCE LF
CAT 0010				
UNDISTRIBUTED	5,750	70	25	1,030
PROJECT 2984-00-73 TOTAL	**5,750**	**70**	**25**	**1,030**

PAVEMENT MARKING (CATEGORY 0010)

ROADWAY	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH 10 FT LINE YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH 2 FT LINE WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH 10 FT LINE WHITE LF	SPV.0090.002 MARKING LINE EPOXY 6-INCH WHITE LF
CAT 0010						
STAGE 2						
VLIET STREET	346	341	2,566	111	--	2,610
17TH STREET	--	--	76	--	43	--
13TH STREET	--	--	--	--	--	--
12TH LANE	--	--	--	--	--	--
STAGE 2 SUBTOTAL	**346**	**341**	**2,642**	**111**	**43**	**2,610**
STAGE 4						
VLIET STREET	--	757	1,722	265	--	4,965
24TH STREET	--	--	--	--	--	--
21ST STREET	--	--	--	--	--	--
20TH STREET	--	--	--	--	--	--
STAGE 4 SUBTOTAL	**--**	**757**	**1,722**	**265**	**--**	**4,965**
PROJECT 2984-00-73 TOTAL			**6,227**			**7,575**

PAVEMENT MARKING (CATEGORY 0020)

ROADWAY	SPV.0060.050 MARKING SYMBOL GROOVED PREFORMED PLASTIC EACH	SPV.0060.051 MARKING ARROW GROOVED PREFORMED PLASTIC EACH	SPV.0060.052 MARKING WORD GROOVED PREFORMED PLASTIC EACH	SPV.0090.052 MARKING CROSSWALK GROOVED PREFORMED PLASTIC 12-INCH WHITE LF	SPV.0090.053 MARKING STOP LINE GROOVED PREFORMED PLASTIC 24-INCH LF	SPV.0090.054 MARKING CROSSWALK GROOVED PREFORMED PLASTIC LADDER PATTERN 24-INCH WHITE LF
CAT 0020						
STAGE 2						
VLIET STREET	10	9	1	595	90	126
17TH STREET	--	--	--	336	89	--
13TH STREET	--	--	--	121	24	--
12TH LANE	--	--	--	42	--	--
STAGE 2 SUBTOTAL	**10**	**9**	**1**	**1,094**	**203**	**126**
STAGE 4						
VLIET STREET	18	19	--	1,164	88	56
24TH STREET	--	--	--	94	22	--
21ST STREET	--	--	--	119	28	--
20TH STREET	--	--	--	125	34	--
STAGE 4 SUBTOTAL	**18**	**19**	**--**	**1,502**	**172**	**56**
PROJECT 2984-00-73 TOTAL	**28**	**28**	**1**	**2,596**	**375**	**182**

PAVEMENT MARKING REMOVAL

ROADWAY	646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9100 MARKING REMOVAL LINE 8-INCH LF
CAT 0010		
STAGE 1A		
17TH STREET	450	340
STAGE 1A SUBTOTAL	**450**	**340**
PROJECT 2984-00-73 TOTAL	**450**	**340**

3

TEMPORARY PAVEMENT MARKING

ROADWAY	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH WHITE LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH YELLOW LF	649.0805 TEMPORARY MARKING STOP LINE PAINT 18-INCH WHITE LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE LF	649.0850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH WHITE LF
CAT 0010						
STAGE 1A						
VLIET ST	2,130	2,375	11	280	282	--
17TH ST NB	271	224	22	878	1,060	--
STAGE 1A SUBTOTAL	**2,401**	**2,599**	**33**	**1,158**	**1,342**	**--**
STAGE 1B						
17TH ST NB	--	--	--	1,575	1,573	22
STAGE 1B SUBTOTAL	**--**	**--**	**--**	**1,575**	**1,573**	**22**
STAGE 2A						
VLIET ST	--	--	--	1,858	1,688	11
STAGE 2A SUBTOTAL	**--**	**--**	**--**	**1,858**	**1,688**	**11**
STAGE 2B						
17TH ST SB	--	--	--	1,097	1,279	22
STAGE 2B SUBTOTAL	**--**	**--**	**--**	**1,097**	**1,279**	**22**
STAGE 3						
VLIET STREET	3,092	3,567	--	126	126	11
STAGE 3 SUBTOTAL	**3,092**	**3,567**	**--**	**126**	**126**	**11**
STAGE 4						
VLIET STREET	--	--	--	3,571	3,052	11
STAGE 4 SUBTOTAL	**--**	**--**	**--**	**3,571**	**3,052**	**11**
TOTALS	**5,493**	**6,166**	**33**	**9,385**	**9,060**	**77**
PROJECT 2984-00-73 TOTALS	**11,659**		**33**	**18,445**		**77**

FILE NAME: I:\56537\1517-75-76\t1\cds\030201_mq.ppt PLOT DATE : 4/5/2019 9:31:38 AM PLOT BY : HNTB CORP. PLOT NAME : PLOT SCALE : 1:1

3

CONSTRUCTION STAKING

ROADWAY	STATION	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	650.9910 CONSTUCTION STAKING SUPPLEMENTAL CONTROL LS	SPV.0090.001 CONSTRUCTION STAKING CONCRETE SIDEWALK LF
CAT 0010							
VLIET STREET	11VL+69 - 64VL+75	87	5,306	5,306	50	1	10,612
26TH STREET	9NSA+53 - 10NSA+53	2	68	68	4	--	136
25TH STREET	9NSB+53 - 10NSB+48	2	51	51	4	--	102
24TH PLACE	9NSC+50 - 10NSC+44	2	62	62	4	--	124
24TH STREET	9NSD+41 - 10NSD+59	2	80	80	4	--	160
22ND STREET	9NSE+49 - 10NSE+49	2	68	68	4	--	136
21ST STREET	9NSF+49 - 10NSF+49	2	68	68	4	--	136
20TH STREET	9NSG+40 - 10NSG+64	--	92	92	4	--	184
18TH STREET	9NSH+49 - 10NSH+52	2	71	71	4	--	142
17TH STREET SB	9NSI+25 - 10NSI+74	3	117	117	3	--	234
17TH STREET NB	9NSJ+25 - 10NSJ+74	2	118	118	3	--	236
15TH STREET	10NSK+16 - 10NSK+47	2	31	31	2	--	62
14TH STREET	9NSL+47 - 10NSL+48	3	69	69	4	--	138
13TH STREET	9NSM+32 - 10NSM+65	2	101	101	4	--	202
12TH LANE	9NSN+58 - 9NSN+78	--	20	20	2	--	40
PROJECT 2984-00-73 TOTAL		**113**	**6,322**	**6,322**	**100**	**1**	**12,644**

SAWING ITEMS

STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	690.0250 SAWING CONCRETE LF
CAT 0010						
STAGE 1						
	VLIET ST	46VL+00	3' LT	46VL+00	32' RT	35
		46VL+00	3' LT	64VL+75	3' LT	1,935
		57VL+32	53' RT	57VL+60	53' RT	28
		58VL+26	53' RT	58VL+26	53' RT	100
		59VL+91	32' RT	60VL+91	68' RT	137
		61VL+00	68' RT	61VL+41	68' RT	41
		61VL+51	68' RT	62VL+55	68' RT	106
		63VL+20	42' RT	63VL+40	42' RT	20
		63VL+73	35' RT	64VL+75	34' RT	109
		64VL+75	3' LT	64VL+75	35' RT	38
	17TH ST SB	9NSH+25	14' RT	9NSH+25	24' LT	37
		9NSH+25	0' LT	10NSH+03	0' LT	78
	17TH ST NB	9NSJ+25	24' RT	9NSJ+26	25' LT	47
		9NSJ+25	0' LT	10NSJ+03	0' LT	78
STAGE 1 SUBTOTAL						**2,789**
STAGE 2						
	VLIET ST	56VL+42	32' LT	57VL+17	48' LT	91
		57VL+34	48' LT	57VL+60	48' LT	26
		57VL+76	48' LT	59VL+46	32' LT	187
		59VL+97	32' LT	60VL+19	32' LT	22
		61VL+04	65' LT	61VL+40	65' LT	36
		61VL+50	65' LT	64VL+75	35' LT	358
		64VL+75	3' LT	34VL+75	35' LT	35
	17TH ST SB	10NSH+03	0' LT	10NSH+74	0' LT	71
		10NSH+74	21' LT	10NSH+74	21' RT	42
	17TH ST NB	10NSJ+00	38' RT	10NSJ+32	38' RT	32
		10NSJ+03	0' LT	10NSJ+74	0' LT	71
		10NSJ+74	11' LT	10NSJ+74	21' RT	32
	15TH ST	10NSK+00	0' LT	10NSK+48	0' LT	48
		10NSK+03	37' RT	10NSK+32	37' RT	29
		10NSK+48	15' LT	10NSK+48	15' RT	30
STAGE 2 SUBTOTAL						**1,110**
STAGE 3						
	VLIET ST	10VL+70	3' LT	10VL+70	23' RT	37
		10VL+70	3' LT	46VL+00	3' LT	3,651
		10VL+76	32' RT	11VL+61	32' RT	85
		14VL+40	47' RT	16VL+55	47' RT	246
		16VL+69	47' RT	17VL+01	47' RT	32

SAWING ITEMS (CONT.)

STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	690.0250 SAWING CONCRETE LF
	VLIET ST	18VL+49	32' RT	18VL+79	32' RT	30
		19VL+86	50' RT	20VL+17	50' RT	31
		20VL+29	50' RT	20VL+91	35' RT	79
		21VL+22	34' RT	21VL+55	34' RT	33
		22VL+12	33' RT	22VL+41	33' RT	29
		23VL+16	59' RT	23VL+48	59' RT	37
		29VL+99	51' RT	30VL+32	51' RT	33
		33VL+33	51' RT	33VL+66	51' RT	33
		36VL+59	60' RT	36VL+98	60' RT	39
		43VL+21	51' RT	43VL+56	51' RT	35
STAGE 3 SUBTOTAL						**4,430**
STAGE 4						
	VLIET ST	10VL+70	0' LT	10VL+70	26' LT	23
		10VL+79	32' LT	11VL+96	32' LT	117
		12VL+96	32' LT	13VL+74	33' LT	79
		13VL+92	53' LT	14VL+22	53' LT	30
		14VL+47	33' LT	14VL+93	33' LT	46
		15VL+80	32' LT	16VL+55	48' LT	91
		16VL+69	48' LT	17VL+02	48' LT	33
		19VL+84	44' LT	20VL+06	44' LT	22
		23VL+16	59' LT	23VL+48	59' LT	32
		30VL+01	49' LT	30VL+29	49' LT	28
		33VL+35	49' LT	33VL+63	49' LT	28
		36VL+62	49' LT	36VL+96	49' LT	34
		43VL+25	53' LT	43VL+54	51' LT	30
STAGE 4 SUBTOTAL						**593**
PROJECT 2984-00-73 TOTAL						**8,922**

WATER MAIN PROTECTION

ROADWAY	SPV.0060.008 WATER MAIN PROTECTION EACH	NOTES
CAT 0010		
STAGE 3 SUBTOTAL		
21ST STREET	1	SW QUADRANT
STAGE 3 SUBTOTAL	**1**	
PROJECT 2984-00-73 TOTAL	**1**	

TEMPORARY BUS LOADING ZONE

ROADWAY	SPV.0060.005 TEMPORARY BUS LOADING ZONE EACH
CAT 0010	
STAGE 1	
17TH STREET	2
STAGE 1 SUBTOTAL	**2**
STAGE 2	
17TH STREET	2
STAGE 2 SUBTOTAL	**2**
PROJECT 2984-00-73 TOTAL	**4**

UTILITY LINE OPENING (ULO)

ROADWAY	SPV.0060.007 UTILITY LINE OPENING (ULO) EACH
CAT 0010	
13TH STREET	4
17TH STREET	4
20TH STREET	4
24TH STREET	4
PROJECT 2984-00-73 TOTAL	**16**

FIBER OPTIC CABLE

ROADWAY	SPV.0090.201* INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT CONTRACTOR SUPPLIED LF
CAT 0010	
VLIET STREET	6,220
PROJECT 2984-00-73 TOTAL	**6,220**

* ADDITIONAL QUANTITES SHOWN ELSEWHERE

MANAGEMENT OF SOLID WASTE

ROADWAY	STATION-STATION	OFFSET	SPV.0195.001 TON	COMMENT
CAT 0010				
VLIET ST	16VL+50 - 18VL+00	5' LT - 65' RT	807	1' - 12' BELOW GRADE
PROJECT 2984-00-73 TOTAL			**807**	

3

TEST ROLLING

ROADWAY	SPV.0170.001 TEST ROLLING STA
CAT 0010	
VLIET STREET	54
PROJECT 2984-00-73 TOTAL	**54**

NON-PARTICIPATING ITEMS

ROADWAY	SPV.0060.001 INTERNAL SANITARY MANHOLE SEALS EACH	SPV.0060.002 ADJUSTING WATER BOX EACH	SPV.0060.006 INSTALLING CITY-FURNISHED BIKE RACK EACH	SPV.0180.001 JOINT SEALING SY
CAT 0020				
VLIET STREET	8	1	10	26,915
PROJECT 2984-00-73 TOTAL	**8**	**1**	**10**	**26,915**

TREES

STREET	CAT 10 632.0101.01 SHAGBARK HICKORY 3" B&B EACH	CAT 10 632.0101.02 COMMON BALD-CYPRESS 3" B&B EACH	CAT 10 632.0101.03 SHADEMASTER HONEY-LOCUST 3" B&B EACH	CAT 10 632.0101.04 AMERICAN HORNBEAM 3" B&B EACH	CAT 10 632.0101.05 CALLERY PEAR 3" B&B EACH	CAT 10 632.0101.06 AUTUMN BLAZE MAPLE 3.5" B&B EACH	CAT 10 632.0101.07 SUNBURST HONEY-LOCUST 3" B&B EACH	CAT 10 632.0101.08 ACCOLADE ELM 3" B&B EACH
VLIET STREET	3	3	5	6	5	6	3	4

STREET	CAT 10 632.0101.09 AMERICAN SWEETGUM CHEROKEE 3" B&B EACH	CAT 10 632.0101.10 AMERICAN SWEETGUM MORAINE 3" B&B EACH	CAT 10 632.0101.11 TULIP TREE 3" B&B EACH	CAT 10 632.0101.12 NORTHERN RED OAK 3" B&B EACH	CAT 10 632.0101.13 CUMULUS SERVICE-BERRY 3" B&B EACH	CAT 10 632.0101.14 KENTUCKY COFFEE TREE 3" B&B EACH	CAT 10 632.0101.15 BUTTERNUT 3" B&B EACH	CAT 10 632.0101.16 IRONWOOD 3" B&B EACH
VLIET STREET	3	3	6	3	3	3	2	3

SURVEILLANCE AND CARE CYCLES

LOCATION	CAT 10 632.9101 PLANTING SURVEILLANCE & CARE CYCLES EACH
VLIET STREET	10

3

TREE PLANTING CHART

COMMON NAME	SCIENTIFIC NAME	SIZE PLANTED	ROOT ZONE MODE	HEIGHT	BALL (MIN. SIZE) DIA.	BALL (MIN. SIZE) DEPTH	HOLE (MIN. SIZE) DIA.	HOLE (MIN. SIZE) DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECTION REQ'D	MULCH RING DIAMETER	REMARKS
SHAGBARK HICKORY	CARY OVATA	3" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
COMMON BALDCYPRESS	TAXODIUM DISTICHUM	3" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
SHADEMASTER HONEYLOCUST	GLEDITSIA TRIACANTHOS INERMIS	3" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
AMERICAN HORNBEAM	CARPINUS CAROLINIANA	3" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERANA CLEVELAND SELECT	3" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
AUTUMN BLAZE MAPLE	ACER FREEMANII AUTUMN BLAZE	3.5" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
SUNBURST HONEYLOCUST	GLEDITSIA TRIACANTHOS INERMIS	3" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
ACCOLADE ELM	ULMUS CARPINFOLIA ACCOLADE	3" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
AMERICAN SWEETGUM CHEROKEE	LIQUIDDAMBAR STYRACIFLUA	3" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
AMERICAN SWEETGUM MORAINE	LIQUIDDAMBAR STYRACIFLUA	3" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
TULIP TREE	LIRODENDRON TULIPFERA	3" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
NORTHERN RED OAK	QUERCUS RUBRA	3" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
CUMULUS SERVICE BERRY	AMELANCHIER ARBOREA	3" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
KENTUCKY COFFEETREE	GYMNOCLADUS DIOICUS	3" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
BUTTERNUT	JUGLANS CINERA	3" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
IRONWOOD	OSTRYA VIRGINIANA	3" CAL.	B&B	--	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY

STREET LIGHTING ITEMS

LOCATION	CAT 10 CONSTRUCTION STAKING ELECTRICAL 650.8500.01 LS	CAT 10 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1.5 INCH 652.0220 LF	CAT 10 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 INCH 652.0225 LF *	CAT 10 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2.5 INCH 652.0230 LF	CAT 10 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3 INCH 652.0235 LF *	CAT 10 CONDUIT RIGID NONMETALLIC SCHEDULE 80 2.5 INCH 652.0330 LF	CAT 10 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3 INCH 652.0335 LF *	CAT 10 CONDUIT SPECIAL 2.5 INCH 652.0610 LF	CAT 10 CABLE TYPE UF 2#12 AWG GROUNDED 655.0305 LF
VLIET STREET	1	526	77	12,443	150	2,505	130	216	2,855

*Quantities Shown Elsewhere

LOCATION	CAT 10 FIBERGLASS/POLYMER CONCRETE PULL BOX 13" x 24" x 24" SPV.0060.302 EACH	CAT 10 POLES TYPE 2 SPV.0060.312 EACH	CAT 10 POLES TYPE 8 SPV.0060.316 EACH	CAT 10 METAL PEDESTAL CABINET 4-INCH x 4-INCH x 36-INCH SPV.0060.332 EACH	CAT 10 WATER TIGHT JUNCTION BOX SPLICING SPV.0060.342 EACH	CAT 10 LUMINAIRE ARMS MOUNTING CLAMPS POLE TYPES 1 & 2 SINGLE BRACKET SPV.0060.355 EACH	CAT 10 LUMINAIRE UTILITY LED 2 TYPE III DISTRIBUTION (2LED3) SPV.0060.375 EACH	CAT 10 LUMINAIRE UTILITY LED 3 TYPE II DISTRIBUTION (3LED2) SPV.0060.376 EACH	CAT 10 LUMINAIRE UTILITY LED 3 TYPE III DISTRIBUTION (3LED3) SPV.0060.376 EACH
VLIET STREET	126	35	5	27	56	35	3	7	67
								PROJECT TOTAL	74

LOCATION	CAT 10 REMOVE LUMINAIRE SPV.0060.387 EACH	CAT 10 MONOTUBE ADAPTOR SPV.0060.388 EACH	CAT 10 LUMINAIRE ARMS SINGLE MEMBER 6 FOOT CITY FURNISHED SPV.0060.838 EACH	CAT 10 ELECTRICAL CABLE TYPE 3#8/1#8 LOW THERMAL PLASTIC SPV.0090.305 LF	CAT 10 ELECTRICAL CABLE TYPE 3#6/1#8 LOW THERMAL PLASTIC SPV.0090.306 LF	CAT 10 ELECTRICAL CABLE TYPE 3#4/1#8 LOW THERMAL PLASTIC SPV.0090.307 LF	CAT 10 ELECTRICAL CABLE TYPE 3#2/1#8 LOW THERMAL PLASTIC SPV.0090.308 LF	CAT 10 LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT 1.5 INCH SPV.0090.319 LF
VLIET STREET	27	10	50	4,904	2,810	5,117	2,360	290

TRAFFIC SIGNALS & INTERSECTION LIGHTING W. VLIET ST. & N. 13TH ST.

QUANT. EACH	DESCRIPTION
1	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE
1	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED [CONTRACTOR SUPPLIED]
1	SPV.0060.212 FIBER OPTIC PATCH PANEL
1	SPV.0060.213 ETHERNET SWITCH
2	SPV.0060.218 EVP 1 CHANNEL 1 DIRECTION INFRARED DETECTOR
1	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL
2	SPV.0060.223 EVP CONFIRMATION LIGHT ASSEMBLY
8	SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH
2	SPV.0060.274 POLES TYPE 10 SPECIAL 26 FT
5	657.0100 PEDESTAL BASES
5	657.0420 TRAFFIC SIGNAL STAND. ALUMINUM 13'
2	657.0525 MONOTUBE ARMS 25-FT
12	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH
8	658.0412 PEDESTRIAN SIGNAL FACE, 12-INCH
4	658.0500 PEDESTRIAN PUSH BUTTONS
1	658.5069.004 TRAFFIC SIGNAL MOUNTING HARDWARE(VLIET & 13TH)

657.0100 PEDESTAL BASES
657.0420 TRAFFIC SIGNAL STAND. ALUMINUM 13'
658.0500 PEDESTRIAN PUSH BUTTONS
SPV.0060.274 POLES TYPE 10 SPECIAL 26 FT
SPV.0060.218 EVP 1 CHANNEL 1 DIRECTION INFRARED DETECTOR
SPV.0060.223 EVP CONFIRMATION LIGHT ASSEMBLY
657.0525 MONOTUBE ARMS 25-FT

SIG. BASE NO.	PED. BASE EACH	PUSH BUTTON EACH	13 FOOT STAND. EACH	POLES TYPE 10 SPECIAL 26' EACH	EVP 1 DIRECTION DETECTOR EACH	EVP CONF. LIGHT EACH	25' ARM EACH
1							
2	1	1	1				
3		1		1	1	1	1
4	1		1				
5	1		1				
6	1	1	1				
7		1		1	1	1	1
8	1		1				
TOTAL	5	4	5	2	2	2	2

658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH
658.0412 PEDESTRIAN SIGNAL FACE, 12-INCH
SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH

SIG HEAD NO.	SIG BASE NO.	SIG. FACE 3S 12-INCH	PED. FACE EACH	COUNT-DOWN FACE EACH
1	SB8	1		
2	SB4	1		
3	SB5	1		
4	SB4	1		
5	SB8	1		
6	SB1	1		
7	SB2	1		
8	SB6	1		
9	SB7	1		
10	SB6	1		
11	SB2	1		
12	SB3	1		
13	SB3		1	1
14	SB6		1	1
15	SB5		1	1
16	SB8		1	1
17	SB7		1	1
18	SB2		1	1
19	SB1		1	1
20	SB4		1	1
TOTAL		12	8	8

FILE NAME : W:\bte\signals\PAVING AND DESIGN\VLIET STREET.dgn PLOT DATE : 18-JUL-2018 08:25 PLOT BY : kpfeif PLOT NAME : PLOT SCALE : 40.000373:1.000000 WISDOT/CADDS SHEET 42

TRAFFIC SIGNALS & INTERSECTION LIGHTING W. VLIET ST. & N. 13TH ST.

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 INCH ^
652.0235 CONDUIT RIGID NONMETALLIC SHCEDULE 40 3 INCH ^
652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3 INCH ^

LOC.	TO	LOC.	SCH. 40 2 INCH	SCH. 40 3 INCH	SCH. 80 3 INCH
CB1	TO	PB1		14	
PB1	TO	SB1	4		
PB1	TO	SB2	22		
PB1	TO	PB2			124
PB2	TO	SB3		14	
PB2	TO	PB3		20	
PB3	TO	SB4	4		
PB3	TO	PB4			90
PB4	TO	SB5	7		
PB4	TO	SB6	21		
PB4	TO	PB5			140
PB5	TO	SB7		20	
PB5	TO	SB8	6		
PB5	TO	PB1			90
		TOTAL	64	68	444

^ ADDITIONAL QUANTITES SHOWN ELSEWHERE

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

ITEM	DESCRIPITON	L.F
655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	442
655.0270	CABLE TRAFFIC SIGNAL 15-14-AWG	412
655.0510	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	450
655.0900	TRAFFIC SIGNAL EVP DETECTOR CABLE	260

SPV.0060.303 PULLBOXES
17-INCHX30-INCHX24-INCH

PULL BOX NO.	LOCATION	17"X30"X24" EACH
1	60+98',35' RT	1
2	60+94',26' LT	1
3	60+98',36' LT	1
4	61+43', 34' LT	1
5	61+44', 35' RT	1
	TOTAL	5

204.0195 REMOVING CONCRETE BASES

SIGNAL BASE NO.	LOCATION	EACH
SB2	60+88.5', 25.9' RT	1
SB4	60+99.1', 35.5' LT	1
SB5	61+43.4', 35.3' LT	1
SB6	61+51.4', 26.5' LT	1
SB7	61+51.4', 25.8' RT	1
SB8	61+44.2', 34.3' RT	1
	TOTAL	6

654.0101 CONCRETE BASES TYPE 1
654.0110 CONCRETE BASES TYPE 10

SIGNAL BASE NO.	LOCATION	TYPE1 EACH	TYPE 10 EACH
2	60+78', 26' RT	1	
3	60+81', 26' LT		1
4	60+97', 40' LT	1	
5	61+46', 40' LT	1	
6	61+62', 27' LT	1	
7	61+60', 26' RT		1
8	61+43', 40' RT	1	
	TOTAL	5	2

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.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL

LOCATION	BASE EACH	CABINET EACH	PANEL EACH	SWITCH EACH	EVP CARD EACH
61+01', 45' RT	1	1	1	1	1
TOTAL	1	1	1	1	1

* FINAL LOCATION TO BE DETERMINED BY ENGINEER IN FIELD

FILE NAME : W:\bte\signals\PAVING AND DESIGN\VLIET STREET.dgn PLOT DATE : 18-JUL-2018 08:27 PLOT BY : kpfeif PLOT NAME : PLOT SCALE : 40.000373:1.000000 WISDOT/CADDS SHEET 42

TRAFFIC SIGNALS & INTERSECTION LIGHTING W. VLIET ST. & N. 17TH ST.

QUANT. EACH	DESCRIPTION
1	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE
1	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED [CONTRACTOR SUPPLIED]
1	SPV.0060.212 FIBER OPTIC PATCH PANEL
1	SPV.0060.213 ETHERNET SWITCH
4	SPV.0060.218 EVP 1 CHANNEL 1 DIRECTION INFRARED DETECTOR
1	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL
4	SPV.0060.223 EVP CONFIMRATION LIGHT ASSEMBLY
2	SPV.0060.247 POLES TYPE 12 SPECIAL [CONTRACTOR SUPPLIED]
8	SPV.0060.267 LED MODULES COUNTDOWN TIMER, 12"
2	SPV.0060.274 POLES TYPE 10 SPECIAL 26 FT
4	657.0100 PEDESTAL BASES
4	657.0420 TRAFFIC SIGNAL STAND. ALUMINUM 13'
2	657.0525 MONOTUBE ARM 25' [CONTRACTOR SUPPLIED]
1	657.0535 MONOTUBE ARM 35' [CONTRACTOR SUPPLIED]
1	657.0540 MONOTUBE ARM 40' [CONTRACTOR SUPPLIED]
16	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH
8	658.0412 PEDESTRIAN SIGNAL FACE, 12-INCH
1	658.5069.003 TRAFFIC SIGNAL MOUNTING HARDWARE(VLIET & 17TH)

657.0100 PEDESTAL BASES
657.0420 TRAFFIC SIGNAL STAND. ALUMINUM 13'
SPV.0060.274 POLES TYPE 10 SPECIAL 26 FT
SPV.0060.247 POLES TYPE 12 SPECIAL [CONTRACTOR SUPPLIED]
SPV.0060.218 EVP 1 CHANNEL 1 DIRECTION INFRARED DETECTOR
SPV.0060.223 EVP CONFIMRATION LIGHT ASSEMBLY
657.0525 MONOTUBE ARM 25' [CONTRACTOR SUPPLIED]
657.0535 MONOTUBE ARM 35' [CONTRACTOR SUPPLIED]
657.0540 MONOTUBE ARM 40' [CONTRACTOR SUPPLIED]

SIG. BASE NO.	PED. BASE EACH	13 FOOT STAND. EACH	POLES TYPE 10 SPECIAL 26' EACH	POLES TYPE 12 SPECIAL EACH	EVP 1 DIRECTION DETECTOR EACH	EVP CONF. LIGHT EACH	25' ARM EACH	35' ARM EACH	40' ARM EACH
1				1	1	1			1
2	1	1							
3			1		1	1	1		
4	1	1							
5									
6				1	1	1		1	
7	1	1							
8			1		1	1	1		
9	1	1							
10									
TOTAL	4	4	2	2	4	4	2	1	1

658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH
658.0412 PEDESTRIAN SIGNAL FACE, 12-INCH
SPV.0060.267 COUNTDOWN SIGNAL FACE 12-INCH

SIG HEAD NO.	SIG BASE NO.	SIG. FACE 3S 12-INCH	PED FACE EACH	COUNT DOWN FACE EACH
1	SB4	1		
2	SB1	1		
3	SB1	1		
4	SB5	1		
5	SB10	1		
6	SB9	1		
7	SB6	1		
8	SB6	1		
9	SB10	1		
10	SB5	1		
11	SB7	1		
12	SB2	1		
13	SB3	1		
14	SB2	1		
15	SB7	1		
16	SB8	1		
17	SB8		1	1
18	SB2		1	1
19	SB1		1	1
20	SB4		1	1
21	SB3		1	1
22	SB7		1	1
23	SB6		1	1
24	SB9		1	1
TOTAL		16	8	8

FILE NAME : W:\bte\signals\PAVING AND DESIGN\VLIET STREET.dgn PLOT DATE : 18-JUL-2018 08:21 PLOT BY : kefeif PLOT NAME : PLOT SCALE : 40.000373:1.000000 WISDOT/CADDS SHEET 42

TRAFFIC SIGNALS & INTERSECTION LIGHTING W. VLIET ST. & N. 17TH ST.

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 INCH ^
652.0235 CONDUIT RIGID NONMETALLIC SHCEDULE 40 3 INCH ^
652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3 INCH ^

LOC.	TO	LOC.	SCH. 40 2 INCH	SCH. 40 3 INCH	SCH. 80 3 INCH
PB1	TO	SB1		5	
CB1	TO	PB1		24	
PB1	TO	SB2	22		
PB1	TO	PB2			140
PB2	TO	SB3		14	
PB2	TO	SB4	9		
PB2	TO	PB3			126
PB3	TO	SB5	4		
PB3	TO	PB4			104
PB4	TO	SB6		8	
PB4	TO	SB7	17		
PB4	TO	PB5			116
PB5	TO	SB8		6	
PB5	TO	PB6		42	
PB6	TO	SB9	4		
PB6	TO	PB7			116
PB7	TO	SB10	4		
PB7	TO	PB1			104
		TOTAL	60	99	706

^ ADDITIONAL QUANTITES SHOWN ELSEWHERE

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

ITEM	DESCRIPITON	L.F
655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	621
655.0270	CABLE TRAFFIC SIGNAL 15-14-AWG	893
655.0510	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	600
655.0900	TRAFFIC SIGNAL EVP DETECTOR CABLE	682

SPV.0060.303 PULLBOXES
17-INCHX30-INCHX24-INCH

PULL BOX NO.	LOCATION	17"X30"X24" EACH
1	47+56',36' LT	1
2	47+61', 34' RT	1
3	46+98', 35' RT	1
4	46+46',34' RT	1
5	46+35', 22' LT	1
6	46+46', 39' LT	1
7	47+04', 35' LT	1
	TOTAL	7

204.0195 REMOVING CONCRETE BASES

SIGNAL BASE NO.	LOCATION	EACH
1	47+59', 36' LT	1
2	47+72', 26' LT	1
4	47+55',25' RT	1
6	46+47', 36' RT	1
7	46+37', 26' RT	1
9	46+49', 38' LT	1
	TOTAL	6

654.0101 CONCRETE BASES TYPE 1
654.0110 CONCRETE BASES TYPE 10
SPV.0060.203 CONCRETE BASES TYPE 10 SPECIAL

SIGNAL BASE NO.	LOCATION	TYPE1 EACH	TYPE 10 EACH	TYPE 10 SPECIAL EACH
1	47+58', 42' LT			1
2	47+74',26' LT	1		
3	47+70', 26' RT		1	
4	47+55', 41' RT	1		
6	46+45', 43' RT			1
7	46+33', 27' RT	1		
8	46+31', 24' LT		1	
9	46+47', 35' LT	1		
	TOTAL	4	2	2

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.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL

LOCATION	BASE EACH	CABINET EACH	PANEL EACH	SWITCH EACH	EVP CARD EACH
47+57', 48' LT	1	1	1	1	1
TOTAL	1	1	1	1	1

* FINAL LOCATION TO BE DETERMINED BY ENGINEER IN FIELD

TRAFFIC SIGNALS & INTERSECTION LIGHTING W. VLIET ST. & N. 20TH ST.

QUANT. EACH	DESCRIPTION
1	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE
1	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED [CONTRACTOR SUPPLIED]
1	SPV.0060.212 FIBER OPTIC PATCH PANEL
1	SPV.0060.213 ETHERNET SWITCH
4	SPV.0060.218 EVP 1 CHANNEL 1 DIRECTION INFRARED DETECTOR
1	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL
4	SPV.0060.223 EVP CONFIRMATION LIGHT ASSEMBLY
8	SPV.0060.267 COUNTDOWN SIGNAL FACE 12-INCH
4	SPV.0060.274 POLES TYPE 10 SPECIAL 26 FT
4	657.0100 PEDESTAL BASES
4	657.0420 TRAFFIC SIGNAL STAND. ALUMINUM 13'
2	657.0520 MONOTUBE ARM 20-FT
2	657.0525 MONOTUBE ARM 25-FT
12	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH
8	658.0412 PEDESTRIAN SIGNAL FACE, 12-INCH
1	658.5069.002 TRAFFIC SIGNAL MOUNTING HARDWARE(VLIET & 20TH)

657.0100 PEDESTAL BASES
657.0420 TRAFFIC SIGNAL STAND. ALUMINUM 13'
658.0500 PEDESTRIAN PUSH BUTTONS
SPV.0060.274 POLES TYPE 10 SPECIAL 26 FT
SPV.0060.218 EVP 1 CHANNEL 1 DIRECTION INFRARED DETECTOR
SPV.0060.223 EVP CONFIRMATION LIGHT ASSEMBLY
657.0520 MONOTUBE ARM 20-FT
657.0525 MONOTUBE ARM 25-FT

SIG. BASE NO.	PED. BASE EACH	13 FOOT STAND. EACH	POLES TYPE 10 SPECIAL 26' EACH	EVP 1 DIRECTION DETECTOR EACH	EVP CONF. LIGHT EACH	20' ARM EACH	25' ARM EACH
1			1	1	1		1
2	1	1					
3			1	1	1	1	
4	1	1					
5			1	1	1		1
6	1	1					
7			1	1	1	1	
8	1	1					
TOTAL	4	4	4	4	4	2	2

658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH
658.0412 PEDESTRIAN SIGNAL FACE, 12-INCH
SPV.0060.267 COUNTDOWN SIGNAL FACE 12-INCH

SIG HEAD NO.	SIG BASE NO.	SIG. FACE 3S 12-INCH	PED FACE EACH	COUNT DOWN FACE EACH
1	SB2	1		
2	SB6	1		
3	SB7	1		
4	SB6	1		
5	SB2	1		
6	SB3	1		
7	SB4	1		
8	SB8	1		
9	SB1	1		
10	SB8	1		
11	SB4	1		
12	SB5	1		
13	SB5		1	1
14	SB8		1	1
15	SB7		1	1
16	SB2		1	1
17	SB1		1	1
18	SB4		1	1
19	SB3		1	1
20	SB6		1	1
TOTAL		12	8	8

FILE NAME : W:\bte\signals\PAVING AND DESIGN\VLIET STREET.dgn PLOT DATE : 18-JUL-2018 08:18 PLOT BY : kefeif PLOT NAME : PLOT SCALE : 40.000373:1.000000 WISDOT CADDS SHEET 42

TRAFFIC SIGNALS & INTERSECTION LIGHTING W. VLIET ST. & N. 20TH ST.

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 INCH^
652.0235 CONDUIT RIGID NONMETALLIC SHCEDULE 40 3 INCH^
652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3 INCH^

LOC.	TO	LOC.	SCH. 40 2 INCH	SCH. 40 3 INCH	SCH. 80 3 INCH
CB1	TO	PB1		10	
PB1	TO	SB1		5	
PB1	TO	PB2		30	
PB2	TO	SB2	13		
PB2	TO	PB3			92
PB3	TO	SB3		17	
PB3	TO	SB4	14		
PB3	TO	PB4			110
PB4	TO	SB5		4	
PB4	TO	SB6	22		
PB4	TO	PB5			120
PB5	TO	SB7		13	
PB5	TO	SB8	14		
PB5	TO	PB1			106
		TOTAL	63	79	428

^ ADDITIONAL QUANTITES SHOWN ELSEWHERE

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

ITEM	DESCRIPITON	L.F
655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	488
655.0270	CABLE TRAFFIC SIGNAL 15-14-AWG	406
655.0510	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	400
655.0900	TRAFFIC SIGNAL EVP DETECTOR CABLE	498

SPV.0060.303 PULLBOXES
17-INCHX30-INCHX24-INCH

PULL BOX NO.	LOCATION	17"X30"X24" EACH
1	37+15', 22' RT	1
2	37+02', 28' RT	1
3	36+57', 28' RT	1
4	36+42', 25' LT	1
5	37+01', 28' LT	1
	TOTAL	5

204.0195 REMOVING CONCRETE BASES

SIGNAL BASE NO.	LOCATION	EACH
SB2	37+00', 36' RT	1
SB4	36+47',27' RT	1
SB6	36+57', 34' LT	1
SB8	37+10', 26' LT	1
	TOTAL	4

654.0101 CONCRETE BASES TYPE 1
654.0110 CONCRETE BASES TYPE 10

SIGNAL BASE NO.	LOCATION	TYPE1 EACH	TYPE 10 EACH
1	37+12', 25' RT		1
2	37+01', 37' RT	1	
3	36+55', 44' RT		1
4	36+44', 26' RT	1	
5	36+40', 23' LT		1
6	36+57', 40' LT	1	
7	37+00', 40' LT		1
8	37+14', 27' LT	1	
	TOTAL	4	4

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.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL

LOCATION	BASE EACH	CABINET EACH	PANEL EACH	SWITCH EACH	EVP CARD EACH
37+22', 21' RT	1	1	1	1	1
TOTAL	1	1	1	1	1

* FINAL LOCATION TO BE DETERMINED BY ENGINEER IN FIELD

FILE NAME : W:\bte\signals\PAVING AND DESIGN\VLIET STREET.dgn PLOT DATE : 18-JUL-2018 08:19 PLOT BY : kefeif PLOT NAME : PLOT SCALE : 40.000373:1.000000
WISDOT/CADDS SHEET 42

TRAFFIC SIGNALS & INTERSECTION LIGHTING W. VLIET ST. & N. 24TH ST.

QUANT. EACH	DESCRIPTION
1	SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE
1	SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED [CONTRACTOR SUPPLIED]
1	SPV.0060.212 FIBER OPTIC PATCH PANEL
1	SPV.0060.213 ETHERNET SWITCH
2	SPV.0060.218 EVP 1 CHANNEL 1 DIRECTION INFRARED DETECTOR
1	SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL
2	SPV.0060.223 EVP CONFIRMATION LIGHT ASSEMBLY
2	SPV.0060.226 VEHICULAR MICROWAVE DETECTION SYSTEM
2	657.0525 MONOTUBE ARM 25-FT
8	SPV.0060.267 COUNTDOWN SIGNAL FACE 12-INCH
2	SPV.0060.274 POLES TYPE 10 SPECIAL 26 FT
4	657.0100 PEDESTAL BASES
4	657.0420 TRAFFIC SIGNAL STAND. ALUMINUM 13'
12	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH
8	658.0412 PEDESTRIAN SIGNAL FACE, 12-INCH
4	658.0500 PEDESTRIAN PUSH BUTTONS
1	658.5069.001 TRAFFIC SIGNAL MOUNTING HARDWARE(VLIET & 24TH)

657.0100 PEDESTAL BASES
657.0420 TRAFFIC SIGNAL STAND. ALUMINUM 13'
658.0500 PEDESTRIAN PUSH BUTTONS
SPV.0060.274 POLES TYPE 10 SPECIAL 26 FT
SPV.0060.226 VEHICULAR MICROWAVE DETECTOR
SPV.0060.218 EVP 1 CHANNEL 1 DIRECTION INFRARED DETECTOR
SPV.0060.223 EVP CONFIRMATION LIGHT ASSEMBLY
657.0525 MONOTUBE ARM 25-FT

SIG. BASE NO.	PED. BASE EACH	13 FOOT STAND. EACH	PUSH BUTTON EACH	POLES TYPE 10 SPECIAL 26' EACH	MICROWAVE DETECTOR EACH	EVP 1 DIRECTION DETECTOR EACH	EVP CONF. LIGHT EACH	25' ARM EACH
1			1	1		1	1	1
2	1	1						
3					1			
4	1	1	1					
5			1	1		1	1	1
6	1	1						
7					1			
8	1	1	1					
TOTAL	4	4	4	2	2	2	2	2

658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH
658.0412 PEDESTRIAN SIGNAL FACE, 12-INCH
SPV.0060.267 COUNTDOWN SIGNAL FACE 12-INCH

SIG HEAD NO.	SIG BASE NO.	SIG. FACE 3S 12-INCH	PED FACE EACH	COUNTD OWN FACE EACH
1	SB2	1		
2	SB6	1		
3	SB7	1		
4	SB6	1		
5	SB2	1		
6	SB3	1		
7	SB4	1		
8	SB8	1		
9	SB1	1		
10	SB8	1		
11	SB4	1		
12	SB5	1		
13	SB5		1	1
14	SB8		1	1
15	SB7		1	1
16	SB2		1	1
17	SB1		1	1
18	SB4		1	1
19	SB3		1	1
20	SB6		1	1
TOTAL		12	8	8

FILE NAME : W:\bte\signals\PAVING AND DESIGN\VLIET STREET.dgn PLOT DATE : 18-JUL-2018 08:15 PLOT BY : kefeif PLOT NAME : PLOT SCALE : 40.000373:1.000000 WISDOT/CADDS SHEET 42

TRAFFIC SIGNALS & INTERSECTION LIGHTING W. VLIET ST. & N. 24TH ST.

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 INCH ^
652.0235 CONDUIT RIGID NONMETALLIC SHCEDULE 40 3 INCH ^
652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3 INCH ^

LOC.	TO	LOC.	SCH. 40 2 INCH	SCH. 40 3 INCH	SCH. 80 3 INCH
CB1	TO	PB1			14
PB1	TO	SB1			7
PB1	TO	PB2			36
PB2	TO	SB2		14	
PB2	TO	PB3			104
PB3	TO	SB3		19	
PB3	TO	SB4		6	
PB3	TO	PB4			112
PB4	TO	SB5			15
PB4	TO	SB6		12	
PB4	TO	PB5			90
PB5	TO	SB7		12	
PB5	TO	SB8		13	
PB5	TO	PB1			110
		TOTAL		76	72	416

^ ADDITIONAL QUANTITES SHOWN ELSEWHERE

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

ITEM	DESCRIPITON	L.F
655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	215
655.0270	CABLE TRAFFIC SIGNAL 15-14-AWG	611
655.0510	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	440
655.0900	TRAFFIC SIGNAL EVP DETECTOR CABLE	268
674.0200	CABLE MICROWAVE DETECTOR	224
SPV.0090.201	Install Fiber Optic Cable Outdoor Plant 72-Ct Contractor Supplied ^	5910

^ ADDITIONAL QUANTITES SHOWN ELSEWHERE

SPV.0060.303 PULLBOXES
17-INCHX30-INCHX24-INCH

PULL BOX NO.	LOCATION	17"X30"X24" EACH
1	23+70', 21' RT	1
2	23+54',26' RT	1
3	23+02',27'RT	1
4	23+13', 31'LT	1
5	23+55', 31' LT	1
	TOTAL	6

204.0195 REMOVING CONCRETE BASES

SIGNAL BASE NO.	LOCATION	EACH
SB2	23+52', 36' RT	1
SB4	23+00', 26' RT	1
SB6	23+12', 36' LT	1
SB8	23+64', 26' LT	1
	TOTAL	8

654.0101 CONCRETE BASES TYPE 1
654.0110 CONCRETE BASES TYPE 10

SIGNAL BASE NO.	LOCATION	TYPE1 EACH	TYPE 10 EACH
1	23+64', 26' RT		1
2	23+53', 40' RT	1	
4	22+96', 27' RT	1	
5	22+96', 27' LT		1
6	23+12', 44' LT	1	
8	23+67', 27' LT	1	
	TOTAL	4	2

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.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL

LOCATION	BASE EACH	CABINET EACH	PANEL EACH	SWITCH EACH	EVP CARD EACH
23+78', 22' RT	1	1	1	1	1
TOTAL	1	1	1	1	1

* FINAL LOCATION TO BE DETERMINED BY ENGINEER IN FIELD

FILE NAME : W:\bte\signals\PAVING AND DESIGN\VLIET STREET.dgn PLOT DATE : 18-JUL-2018 08:16 PLOT BY : kefelf PLOT NAME : PLOT SCALE : 40.000373:1.000000 WISDOT/CADDS SHEET 42

CITY UNDERGROUND CONDUIT

LOCATION	CAT 10 REMOVING MANHOLES 204.0210 EACH	CAT 10 ABANDON MANHOLES 204.0250 EACH	CAT 10 ADJUSTING CUC MANHOLE COVERS SPV.0060.400 EACH	CAT 10 4' DIAMETER MANHOLE TYPE CUC SPV.0060.401 EACH	CAT 10 INSTALLING CONDUIT INTO EXISTING MANHOLE SPV.0060.425 EACH	CAT 10 SAWING CONCRETE ENCASED DUCT PACKAGE SPV.0060.426 EACH	CAT 10 1-DUCT CONDUIT CEMENT ENCASED DB-60 SPV.0090.401 LF	CAT 10 2-DUCT CONDUIT CEMENT ENCASED DB-60 SPV.0090.402 LF	CAT 10 3-DUCT CONDUIT CEMENT ENCASED DB-60 SPV.0090.403 LF	CAT 10 4-DUCT CONDUIT CEMENT ENCASED DB-60 SPV.0090.404 LF	CAT 10 6-DUCT CONDUIT CEMENT ENCASED DB-60 SPV.0090.406 LF	CAT 10 7-DUCT CONDUIT CEMENT ENCASED DB-60 SPV.0090.407 LF	CAT 10 8-DUCT CONDUIT CEMENT ENCASED DB-60 SPV.0090.408 LF
MANHOLE 601 @ STA 10 + 71.3, 16.3 RT			1 NEW COVER		1								
MANHOLE 601 TO MANHOLE 602											316		
MANHOLE 602 @ STA 13 + 91.5, 5.5 RT			1	1									
MANHOLE 602 TO MANHOLE 605											166		
MANHOLE 603A @ STA 14 + 18.9, 16.7 RT		1											
STA 15 + 16.0, 5.5 RT TO BUILDING							35						
STA 15 + 16.0, 5.5 RT TO MANHOLE 605												134	
MANHOLE 604A @ STA 16 + 96.5, 18.3 RT		1											
MANHOLE 605 @ STA 16 + 95.1, 5.5 RT			1	1									
MANHOLE 605 TO NORTH PAVING LIMITS						1		51					
MANHOLE 605 TO SOUTH PAVING LIMITS						1		39					
MANHOLE 605 TO MANHOLE 607											626		
MANHOLE 606A @ STA 20 + 06.5, 15.9 RT		1											
MANHOLE 607 @ STA 23 + 26.4, 5.5 RT			1	1									
MANHOLE 607 TO NORTH PAVING LIMITS								62					
MANHOLE 607 TO POLICE CALL BOX								51					
MANHOLE 607 TO STA 23 + 73.1, 5.5 RT													45
MANHOLE 608A @ STA 23 + 51.5, 16.6 RT		1											
STA 23 + 73.1, 5.5 RT TO TRAFFIC CABINET								19					
STA 23 + 73.1, 5.5 RT TO MANHOLE 609											364		
MANHOLE 609 @ STA 26 + 92.2, 5.5 RT			1	1									
MANHOLE 609 TO NORTH ROW LINE						1		36					
MANHOLE 609 TO SOUTH ROW LINE						1		24					
MANHOLE 610A @ STA 26 + 92.1, 16.7 RT		1											
MANHOLE 609 TO MANHOLE 611											307		
MANHOLE 611 @ STA 30 + 03.5, 5.5 RT			1	1									
MANHOLE 611 TO EXISTING CALL BOX								38					
MANHOLE 612A @ STA 30 + 03.3, 15.9 RT		1											
MANHOLE 611 TO MANHOLE 614											363		
MANHOLE 613A @ STA 33 + 56.6, 15.9 RT		1											
MANHOLE 614 @ STA 33 + 70.6, 5.5 RT			1	1									
MANHOLE 614 TO MANHOLE 615											297		
MANHOLE 615 @ STA 36 + 72.0, 5.5 RT			1	1									
MANHOLE 615 TO SOUTH PAVING LIMITS									52				
MANHOLE 615 TO MANHOLE 617									37				
MANHOLE 615 TO STA 37 + 16.8, 5.5 RT													43
MANHOLE 616R @ STA 36 + 75.4, 35.5 LT	1												
MANHOLE 617 @ STA 36 + 75.4, 35.5 LT			1	1									
MANHOLE 617 TO EAST CURB								18					
MANHOLE 617 TO WEST CURB								16					

CITY UNDERGROUND CONDUIT (CONT.)

LOCATION	CAT 10 REMOVING MANHOLES 204.0210 EACH	CAT 10 ABANDONDING MANHOLES 204.0250 EACH	CAT 10 ADJUSTING CUC MANHOLE COVERS SPV.0060.400 EACH	CAT 10 4' DIAMETER MANHOLE TYPE CUC SPV.0060.401 EACH	CAT 10 INSTALLING CONDUIT INTO EXISTING MANHOLE SPV.0060.425 EACH	CAT 10 SAWING CONCRETE ENCASED DUCT PACKAGE SPV.0060.426 EACH	CAT 10 1-DUCT CONDUIT CEMENT ENCASED DB-60 SPV.0090.401 LF	CAT 10 2-DUCT CONDUIT CEMENT ENCASED DB-60 SPV.0090.402 LF	CAT 10 3-DUCT CONDUIT CEMENT ENCASED DB-60 SPV.0090.403 LF	CAT 10 4-DUCT CONDUIT CEMENT ENCASED DB-60 SPV.0090.404 LF	CAT 10 6-DUCT CONDUIT CEMENT ENCASED DB-60 SPV.0090.406 LF	CAT 10 7-DUCT CONDUIT CEMENT ENCASED DB-60 SPV.0090.407 LF	CAT 10 8-DUCT CONDUIT CEMENT ENCASED DB-60 SPV.0090.408 LF
MANHOLE 618A @ STA 36 + 84.2, 14.9 RT		1											
STA 37 + 16.8, 5.5 RT TO TRAFFIC CABINET								19					
STA 37 + 16.8, 5.5 RT TO MANHOLE 620											312		
MANHOLE 619A @ STA 40 + 20.7, 15.3 RT		1											
MANHOLE 620 @ STA 40 + 31.1, 5.5 LT			1	1									
MANHOLE 620 TO POLICE CALL BOX								35					
MANHOLE 620 TO MANHOLE 621											317		
MANHOLE 621R @ STA 43 + 49.4, 15.1 RT	1												
MANHOLE 622 @ STA 43 + 51.7, 12.5 RT			1	1									
MANHOLE 622 TO MANHOLE 626											330		
MANHOLE 623A @ STA 46 + 72.5, 15.3 RT		1											
MANHOLE 624 @ STA 46 + 81.7, 47.8 LT			1 NEW COVER		1								
MANHOLE 624 TO MANHOLE 626								56					
MANHOLE 624 TO TRAFFIC CABINET								74					
MANHOLE 625 @ STA 46 + 82.2, 43.0 RT			1 NEW COVER		1								
MANHOLE 625 TO MANHOLE 626								27					
MANHOLE 626 @ STA 46 + 86.1, 12.5 RT			1	1									
MANHOLE 626 TO MANHOLE 628											331		
MANHOLE 627A @ STA 50 + 08.9, 15.2 RT		1											
MANHOLE 628 @ STA 50 + 20.8, 12.5 RT			1	1									
MANHOLE 628 TO POLICE CALL BOX								41					
MANHOLE 628 TO MANHOLE 630											356		
MANHOLE 629A @ STA 53 + 82.3, 15.5 RT		1											
MANHOLE 630 @ STA 53 + 89.0, 12.5 RT			1	1									
MANHOLE 630 TO SOUTH CURB								5					
MANHOLE 630 TO MANHOLE 631											364		
MANHOLE 631 @ STA 57 + 57.3, 12.5 RT			1	1									
MANHOLE 631 TO SOUTH PAVING LIMITS						1				38			
MANHOLE 631 TO MANHOLE 633											361		
MANHOLE 632R @ STA 57 + 57.3, 14.5 RT	1												
MANHOLE 633 @ STA 61 + 21.7, 12.5 RT			1	1									
MANHOLE 633 TO TRAFFIC CABINET								38					
MANHOLE 633 TO MANHOLE 634										71			
MANHOLE 634 @ STA 61 + 35.1, 60.1 RT													
MANHOLE 634 TO NORTH PAVING LIMITS						1			2				
MANHOLE 634 TO CURB								7					
MANHOLE 633 TO MANHOLE 638											398		
MANHOLE 638 @ STA 65 + 24.1, 11.6 RT					1								
PROJECT TOTAL	3	12	18	15	4	6	35	656	2	198	5208	134	88

BENCHMARKS				
BM #	STATION	OFFSET	DESCRIPTION	ELEVATION
TBM1	10VL+59	39' RT	SE QUAD 27TH STREET, NE BOLT TRAFFIC SIGNAL	93.66

N. 27TH STREET

N. 26TH STREET

BEGIN PROJECT 2984-00-73
STA. 10VL+69.11
X = 2548603.206
Y = 388941.413

R/L W. VLIET STREET

W. VLIET STREET

11VL

12VL

13VL

14VL

TBM1

CITY OF MILWAUKEE COMMUNICATIONS

EXISTING R/W

WE ENERGIES - ELECTRIC

SLOPE INTERCEPTS (TYP.)

CITY OF MILWAUKEE TRAFFIC & LIGHTING CONDUIT

PETROLEUM-CONTAMINATED SOIL
STA 13VL+80 - STA 14VL+15
3 - 7 FEET BELOW GRADE

R/L 26TH STREET

CITY OF MILWAUKEE SEWERS

CITY OF MILWAUKEE CONDUIT

WE ENERGIES - GAS

MILWAUKEE WATER WORKS

SLOPE INTERCEPTS (TYP.)

EXISTING R/W

PETROLEUM-CONTAMINATED SOIL
STA 14VL+05 - STA 14VL+50
1 - 10 FEET BELOW GRADE

MATCHLINE 15VL+00

BEGIN PROJECT 2984-00-73
STA 10VL+69.11

VPI STA 10+69.11
VPIEL 92.51

VPI STA 11+00.00
VPIEL 92.77

VPI STA 11+40.00
VPIEL 93.48

VPI STA 12+00.00
VPIEL 94.44

VPI STA 13+00.00
VPIEL 96.07

VPI STA 14+60.00
VPIEL 98.00

0.84%
1.78%
1.60%
1.63%
1.21%
0.79%

EXISTING PROFILE AT
R/L W. VLIET STREET

FINISHED PROFILE AT
R/L W. VLIET STREET

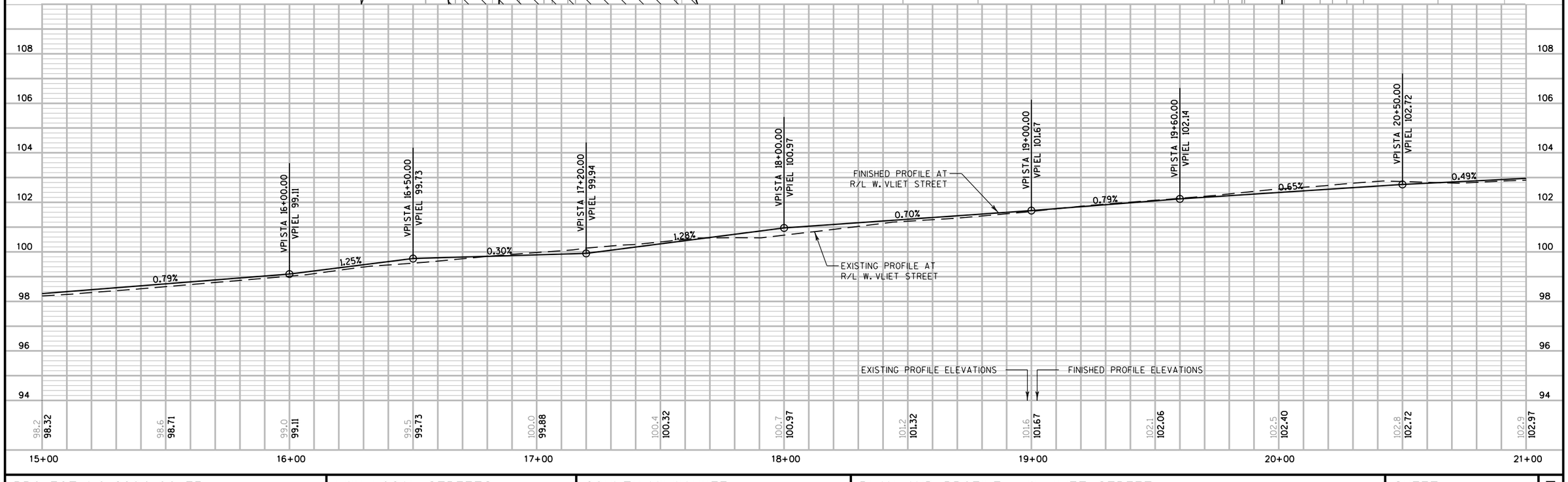
EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

| | | | |

BENCHMARKS				
BM #	STATION	OFFSET	DESCRIPTION	ELEVATION
TBM2	20VL+34	34' RT	SE QUAD 24TH STREET, "X" ON STEP FOR BUILDING 2435	103.58

HISTORICAL BOUNDARY
PAUL JUNG FUNERAL HOME 2506 W. VLIET ST
PETROLEUM-CONTAMINATED SOIL STA 16VL+20 - STA 16VL+70 1 - 6 FEET BELOW GRADE
EXISTING R/W
N. 25TH STREET
R/L 25TH STREET
SLOPE INTERCEPTS (TYP.)
CITY OF MILWAUKEE SEWERS
EXISTING R/W
WE ENERGIES - ELECTRIC
R/L W. VLIET STREET
W. VLIET STREET
MATCHLINE 15VL+00
MATCHLINE 21VL+00
16VL
17VL
18VL
19VL
20VL
CITY OF MILWAUKEE TRAFFIC & LIGHTING CONDUIT
GRASS
EXISTING R/W
SOLID WASTE STA 16VL+50 - STA 18VL+00 1 - 12+ FEET BELOW GRADE
APPROXIMATE EXTENT OF GROUNDWATER CONTAMINATION 5/10/2017
WE ENERGIES - GAS
SLOPE INTERCEPTS (TYP.)
MILWAUKEE WATER WORKS
CITY OF MILWAUKEE CONDUIT
N. 24TH PLACE
R/L 24TH STREET
HISTORICAL BOUNDARY
ST. MICHAEL'S ROMAN CATHOLIC CHURCH COMPLEX 1445 N. 24TH ST
EXISTING R/W
SLOPE INTERCEPTS (TYP.)
TBM2
CAUTION



PROJECT NO: 2984-00-73	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	PLAN AND PROFILE - W. VLIET STREET	SHEET 284 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data\Plan Profile Sheets\050100_pp.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40

ST. MICHAEL'S ROMAN CATHOLIC CHURCH COMPLEX
1445 N. 24TH ST

N. 24TH STREET

R/L 24TH STREET

ATC MANAGEMENT UNDERGROUND TRANSMISSION

EXISTING R/W

CITY OF MILWAUKEE TRAFFIC & LIGHTING CONDUIT

HISTORICAL BOUNDARY

SLOPE INTERCEPTS (TYP.)

WE ENERGIES - ELECTRIC

MILWAUKEE WATER WORKS

N. 23RD STREET

ASPHALT

GRASS

MATCHLINE 21VL+00

MATCHLINE 27VL+00

R/L W. VLIET STREET

W. VLIET STREET

21VL 22VL 23VL 24VL 25VL 26VL 27

10"SD

CONC. GRASS ASPHALT

CITY OF MILWAUKEE CONDUIT

CITY OF MILWAUKEE COMMUNICATION

WE ENERGIES - GAS

CITY OF MILWAUKEE SEWERS

CAUTION

VPI STA 22+35.00
VPI EL 103.62

VPI STA 22+95.00
VPI EL 103.42

VPI STA 24+10.00
VPI EL 103.82

VPI STA 25+80.00
VPI EL 104.41

VPI STA 27+00.00
VPI EL 104.77

EXISTING PROFILE AT R/L W. VLIET STREET

FINISHED PROFILE AT R/L W. VLIET STREET

0.49% +0.35% 0.35% 0.35% 0.30%

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

	21+00	22+00	23+00	24+00	25+00	26+00	27+00
EXISTING	102.97	103.21	103.45	103.57	103.43	103.61	103.78
FINISHED					103.96	104.13	104.31	104.47	104.62	104.77

PROJECT NO: 2984-00-73	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	PLAN AND PROFILE - W. VLIET STREET	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Files\22x34\050403_pp01.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40

BENCHMARKS				
BM #	STATION	OFFSET	DESCRIPTION	ELEVATION
TBM3	31VL+09	39' RT	SW QUAD 22ND STREET, "X" ON STEP FOR BUILDING 2125-29	106.82

N

R/L 22ND STREET

N. 22ND STREET

CITY OF MILWAUKEE TRAFFIC & LIGHTING CONDUIT

EXISTING R/W

PETROLEUM-CONTAMINATED SOIL STA 27VL+55 - STA 28VL+15 1 - 8 FEET BELOW GRADE

MILWAUKEE WATER WORKS

WE ENERGIES - ELECTRIC

MATCHLINE 27VL+00

27VL

28VL

W. VLIET STREET

29VL

30VL

31VL

32VL

33

MATCHLINE 33VL+00

R/L W. VLIET STREET

EXISTING R/W

CITY OF MILWAUKEE SEWERS

WE ENERGIES - GAS

CITY OF MILWAUKEE COMMUNICATIONS

SLOPE INTERCEPTS (TYP.)

TBM3

CITY OF MILWAUKEE CONDUIT

EXISTING R/W

EXISTING R/W

SLOPE INTERCEPTS (TYP.)

CAUTION

GRASS

MH

GV

WV

3.58'

6.3

6.2

5'

11'

9.1'

5'

5

5

114
112
110
108
106
104
102
100

VPI STA 27+00.00
VPI EL 104.77

VPC STA 27+47.50
VPC EL 104.63

EXISTING PROFILE AT R/L W. VLIET STREET

VPI STA 29+00.00
VPI EL 105.06

VPI STA 32+50.00
VPI EL 106.37

-0.31%

0.60%

0.37%

-0.37%

VCL = 105'
K = 115

VPI STA 28+00.00
VPI EL 104.46

VPT STA 28+52.50
VPT EL 104.77

FINISHED PROFILE AT R/L W. VLIET STREET

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

104.9	104.9	105.2	105.3	105.4	105.5	105.7	105.8	105.9	106.1	106.4	106.6	106.6
104.77	104.62	104.58	104.76	105.06	105.25	105.43	105.62	105.81	106.00	106.18	106.37	106.19

27+00 28+00 29+00 30+00 31+00 32+00 33+00

PROJECT NO: 2984-00-73	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	PLAN AND PROFILE - W. VLIET STREET	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\20181128_02_PP.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40

N

N. 21ST STREET

N. 20TH STREET

R/L 21ST STREET

R/L 20TH STREET

CAUTION

SLOPE INTERCEPTS (TYP.)

CITY OF MILWAUKEE TRAFFIC & LIGHTING CONDUIT

EXISTING R/W

WE ENERGIES - ELECTRIC

WE ENERGIES - GAS

MILWAUKEE WATER WORKS

GRASS

CONCRETE

ASPHALT

MATCHLINE 33VL+00

MATCHLINE 39VL+00

34VL

35VL

36VL

37VL

38VL

W. VLIET STREET

R/L W. VLIET STREET

10NSF

10NSG

TIME WARNER CABLE OVERHEAD LINE

CITY OF MILWAUKEE CONDUIT

CITY OF MILWAUKEE SEWERS

SLOPE INTERCEPTS (TYP.)

EXISTING R/W

5

5

VPI STA 34+25.00
VPI EL 105.72

EXISTING PROFILE AT R/L W. VLIET STREET

FINISHED PROFILE AT R/L W. VLIET STREET

-0.37%

-0.83%

VPC STA 36+25.00
VPC EL 104.06

VPI STA 36+80.00
VPI EL 103.60

VCL = 110'
K = 99

VPT STA 37+35.00
VPT EL 102.53

-1.95%

VPI STA 38+50.00
VPI EL 100.29

-1.58%

VPI STA 39+00.00
VPI EL 99.50

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

110 108 106 104 102 100 98 96

106.6 106.19 | 106.6 106.00 | 106.2 105.81 | 105.9 105.51 | 105.4 105.10 | 105.0 104.68 | 104.5 104.26 | 104.0 103.82 | 103.4 103.15 | 102.6 102.24 | 101.7 101.26 | 100.8 100.29 | 99.9 99.50

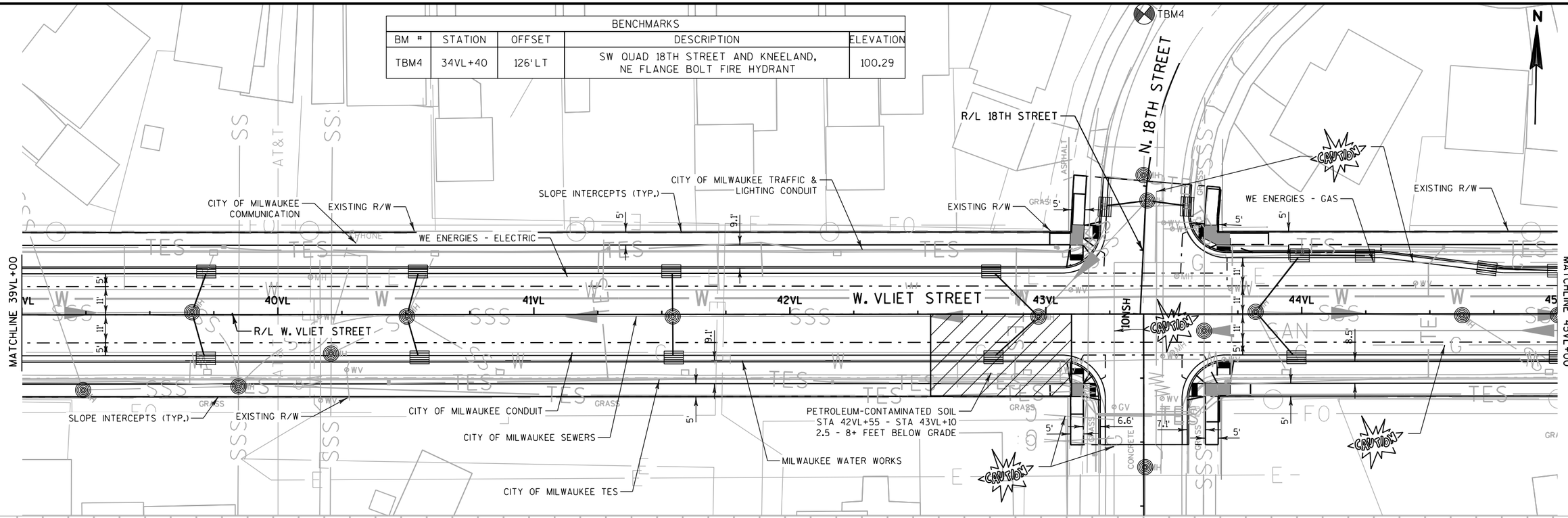
33+00 34+00 35+00 36+00 37+00 38+00 39+00

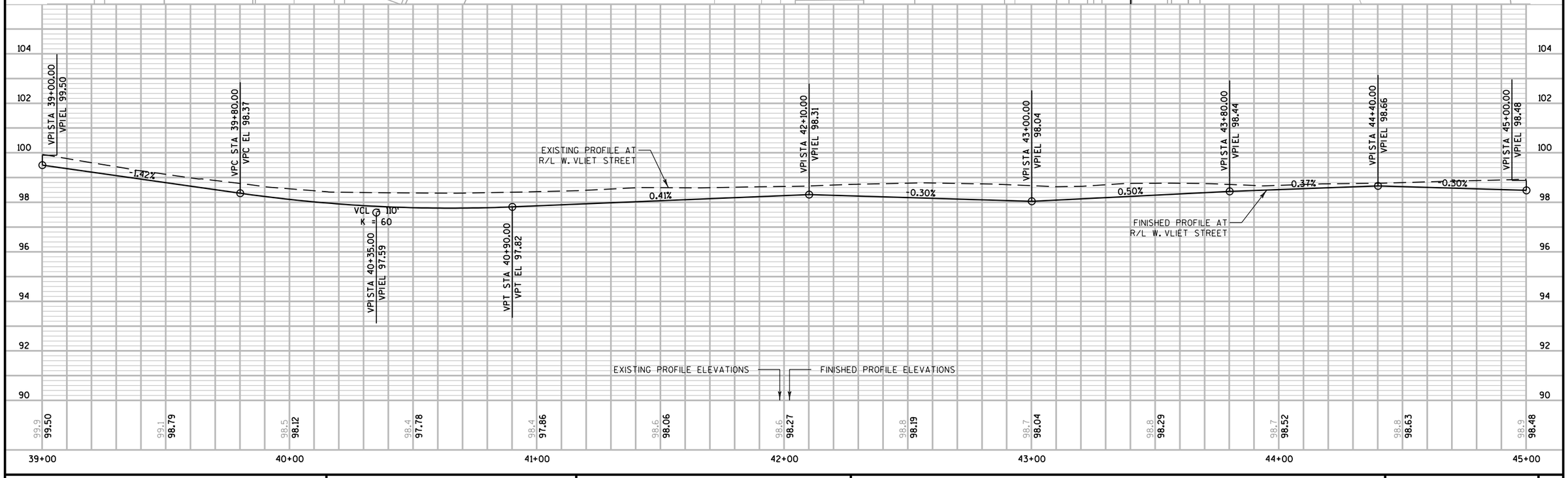
PROJECT NO: 2984-00-73	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	PLAN AND PROFILE - W. VLIET STREET	SHEET 287 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\20181128037106_ppPlot.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40

BENCHMARKS				
BM #	STATION	OFFSET	DESCRIPTION	ELEVATION
TBM4	34VL+40	126'LT	SW QUAD 18TH STREET AND KNEELAND, NE FLANGE BOLT FIRE HYDRANT	100.29

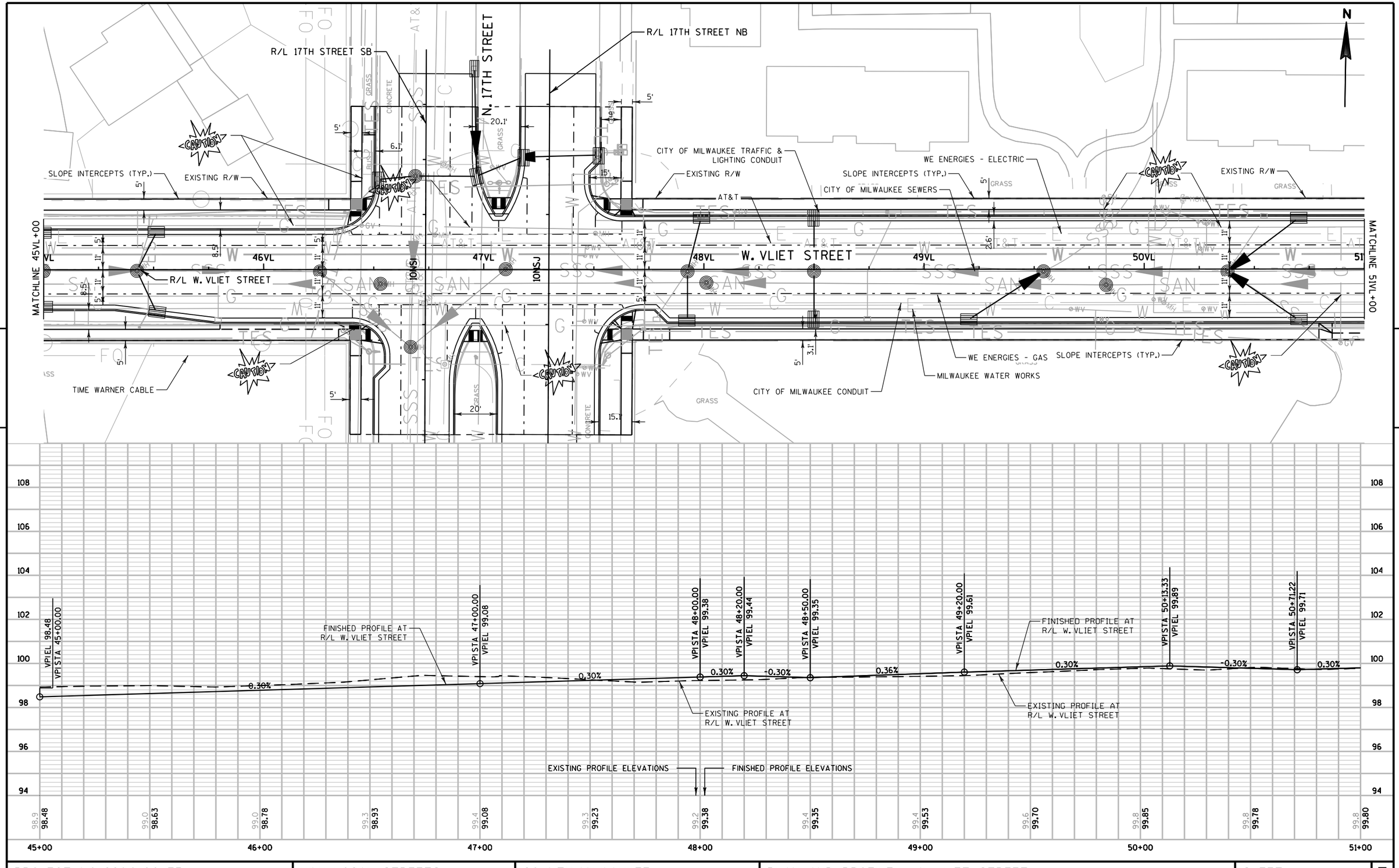




PROJECT NO: 2984-00-73	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	PLAN AND PROFILE - W. VLIET STREET	SHEET 288 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\20181128_031046_ppPlot.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

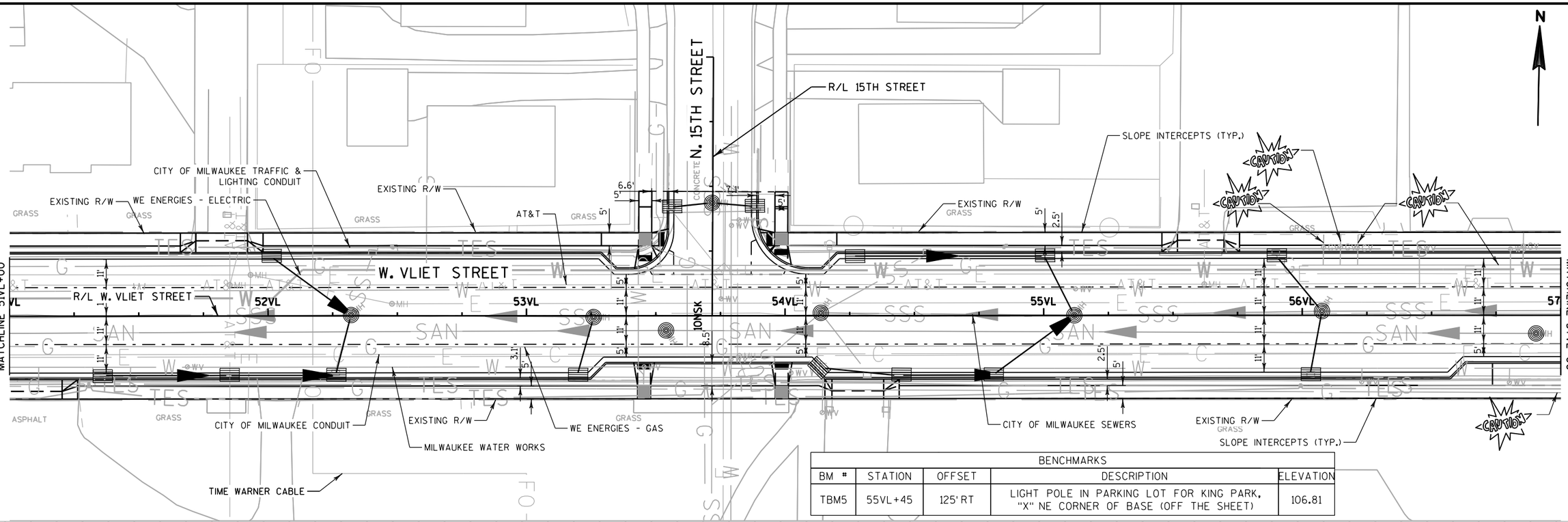
WISDOT/CADDS SHEET 40



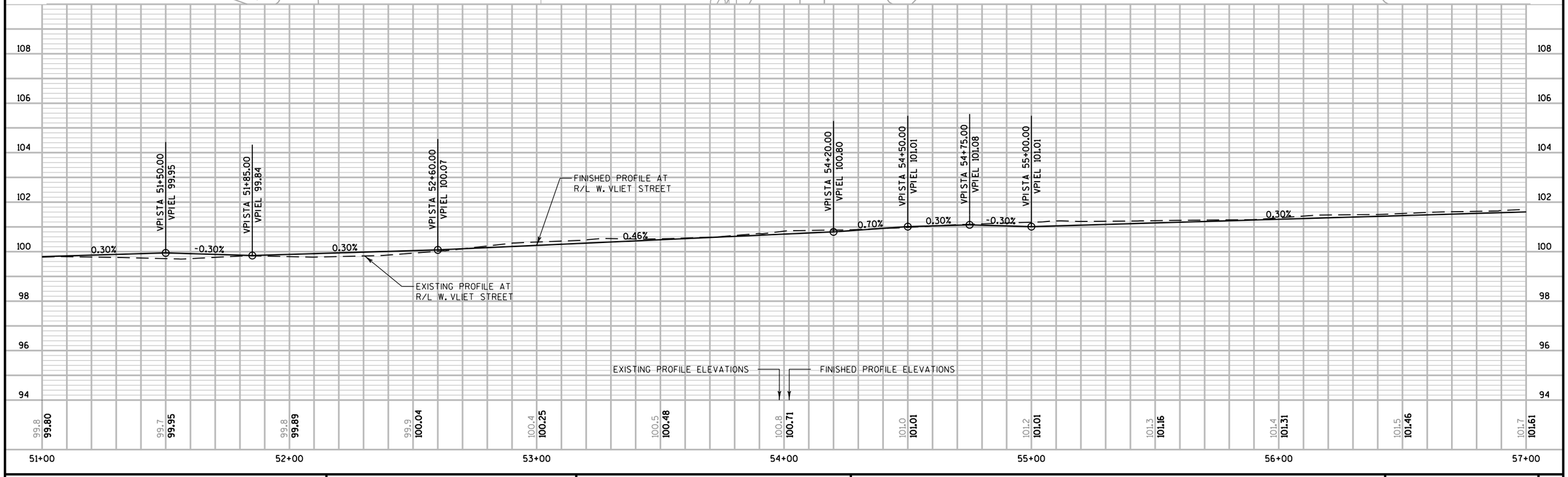
PROJECT NO: 2984-00-73	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	PLAN AND PROFILE - W. VLIET STREET	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Package\63342_PP_E05.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40



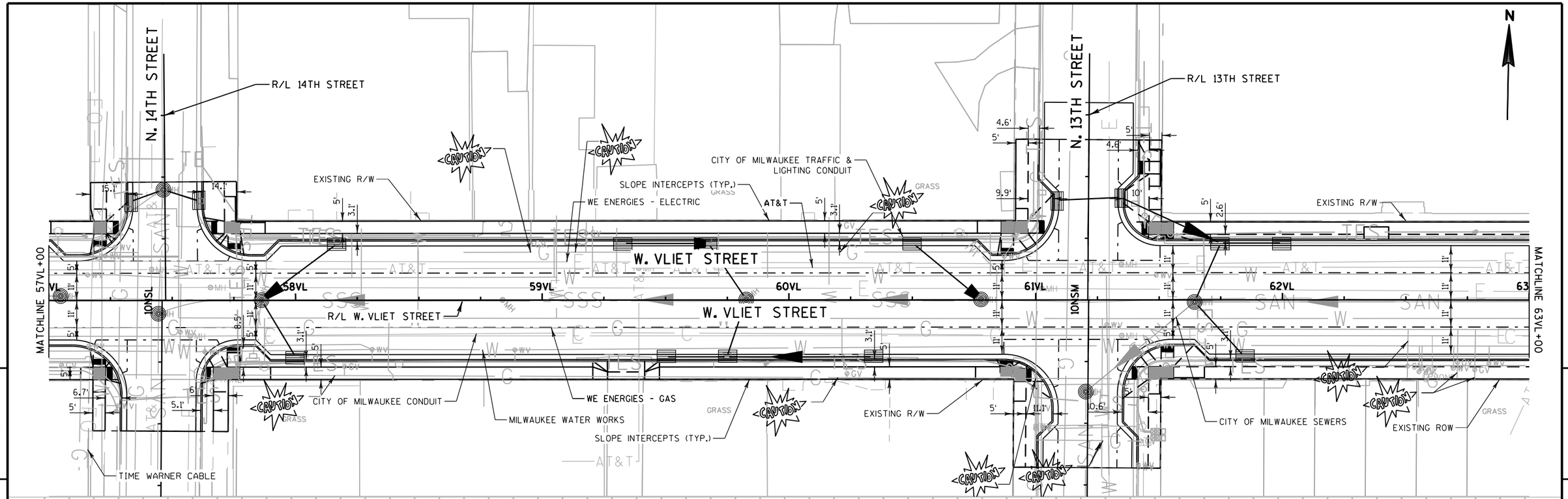
BENCHMARKS				
BM #	STATION	OFFSET	DESCRIPTION	ELEVATION
TBM5	55VL+45	125' RT	LIGHT POLE IN PARKING LOT FOR KING PARK, "X" NE CORNER OF BASE (OFF THE SHEET)	106.81



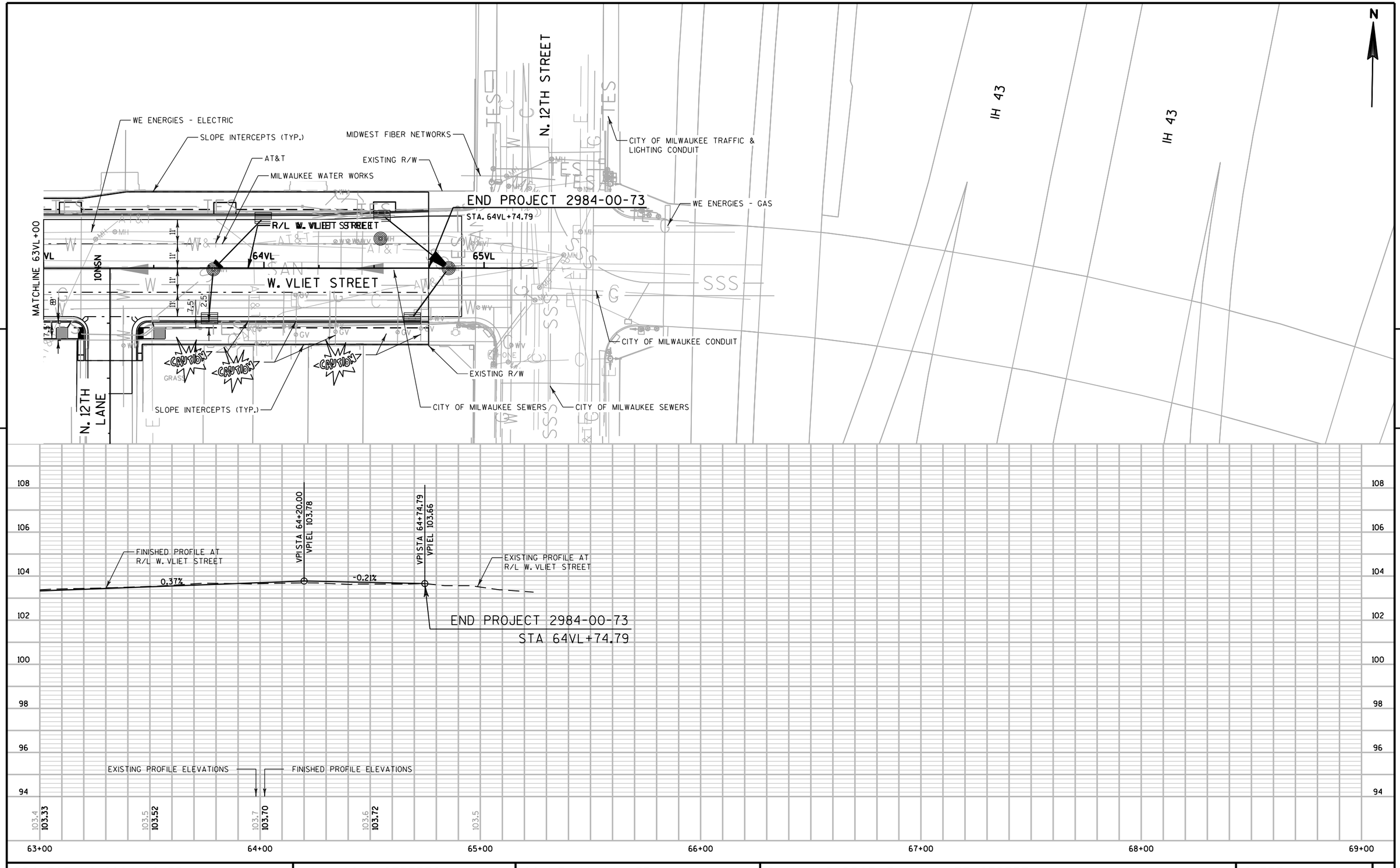
PROJECT NO: 2984-00-73	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	PLAN AND PROFILE - W. VLIET STREET	SHEET 290 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Package 2018\Sheets\5 of 8.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40



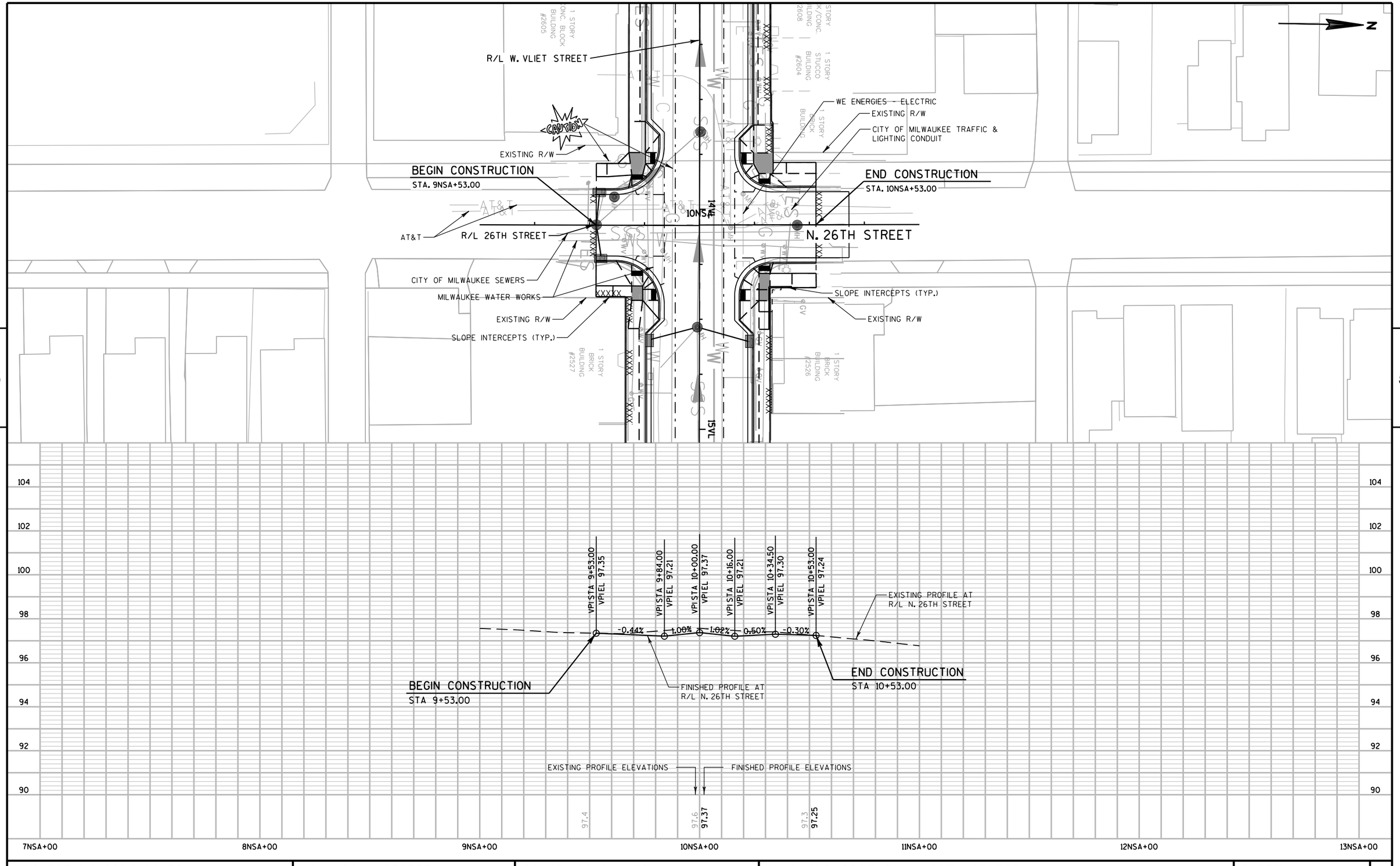
PROJECT NO: 2984-00-73	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	PLAN AND PROFILE - W. VLIET STREET	SHEET 291 E



PROJECT NO: 2984-00-73	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	PLAN AND PROFILE - W. VLIET STREET	SHEET 292	E

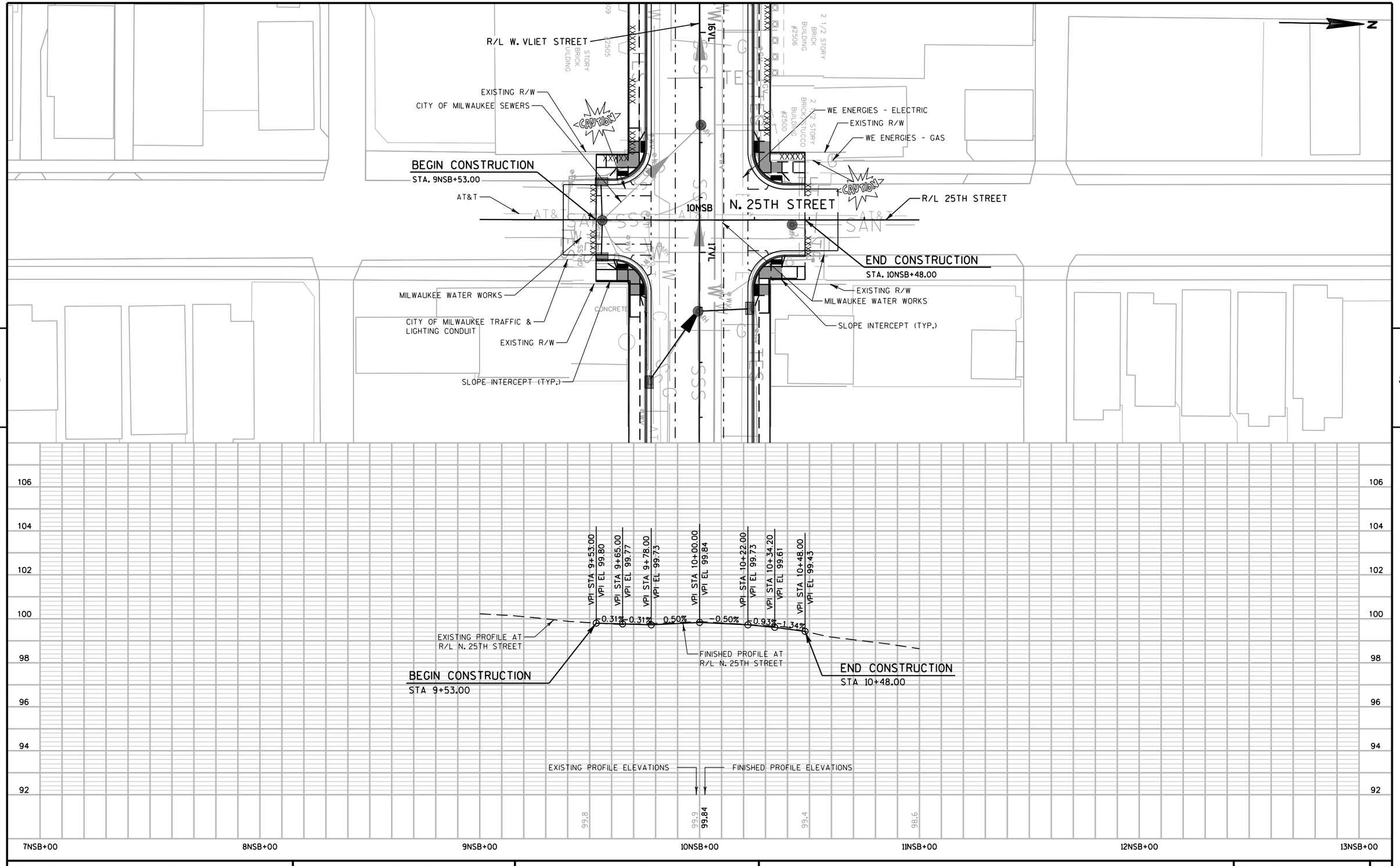
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\20181128057AM_pp.dgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN AND PROFILE - N 26TH STREET	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\2018 11 28 05 14 M_pp.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

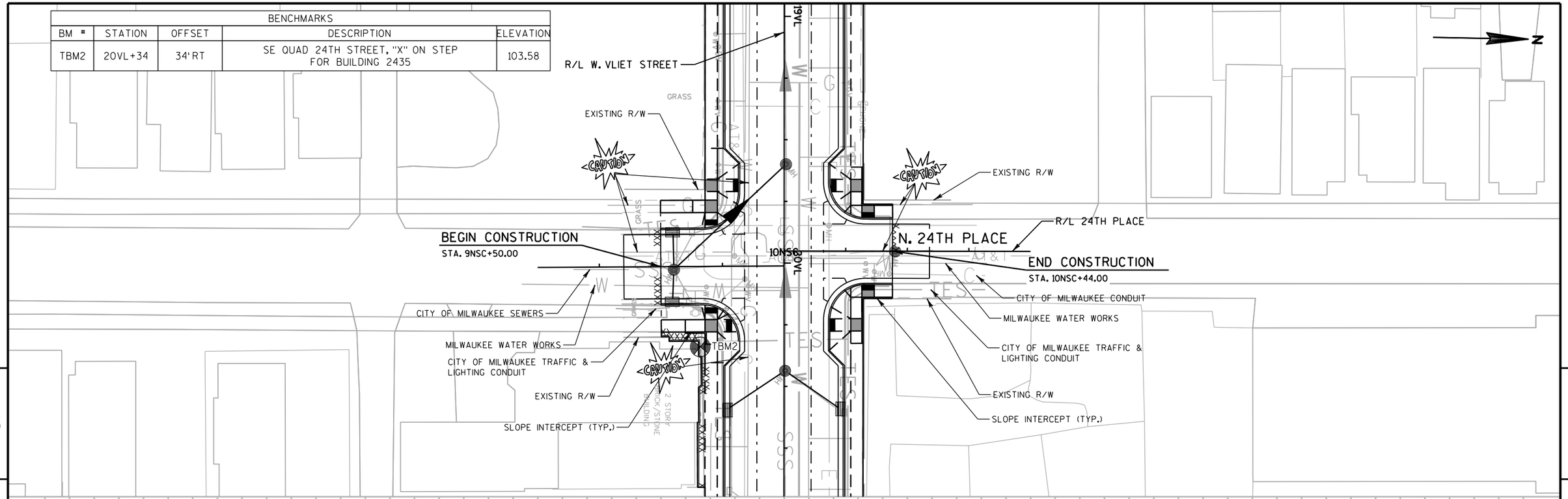


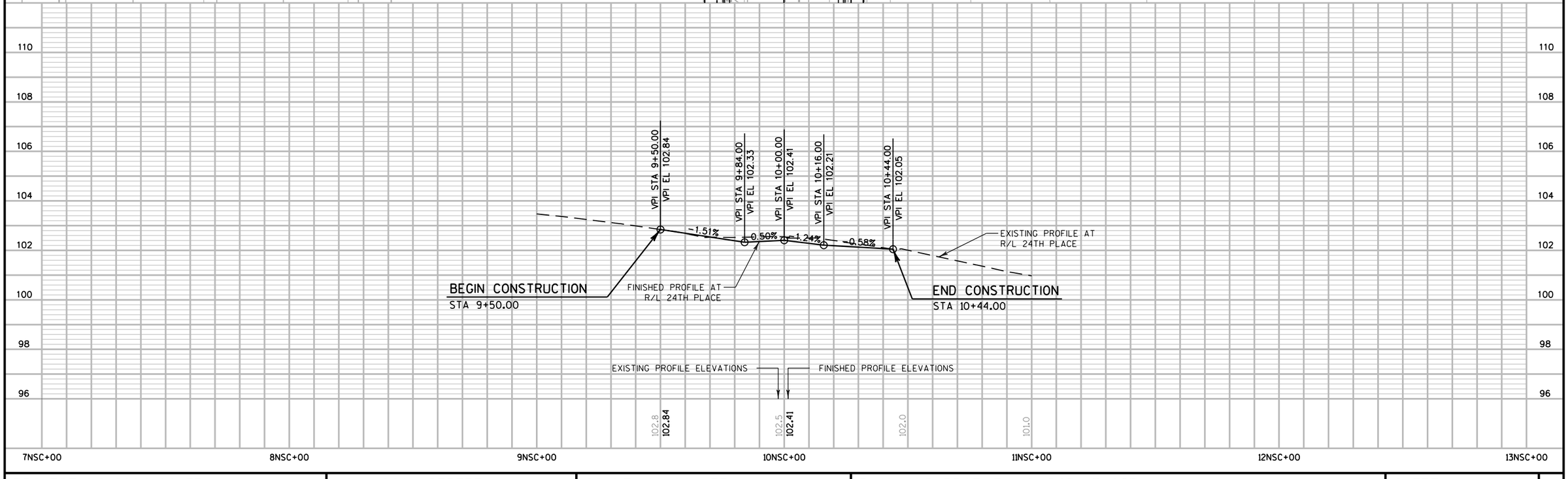
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN AND PROFILE - N 25TH STREET	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\2984-00-73_PLN_P&P_10.dgn PLOTTED : 10/29/2018 11:23:37 AM BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40

BENCHMARKS				
BM #	STATION	OFFSET	DESCRIPTION	ELEVATION
TBM2	20VL+34	34'RT	SE QUAD 24TH STREET, "X" ON STEP FOR BUILDING 2435	103.58

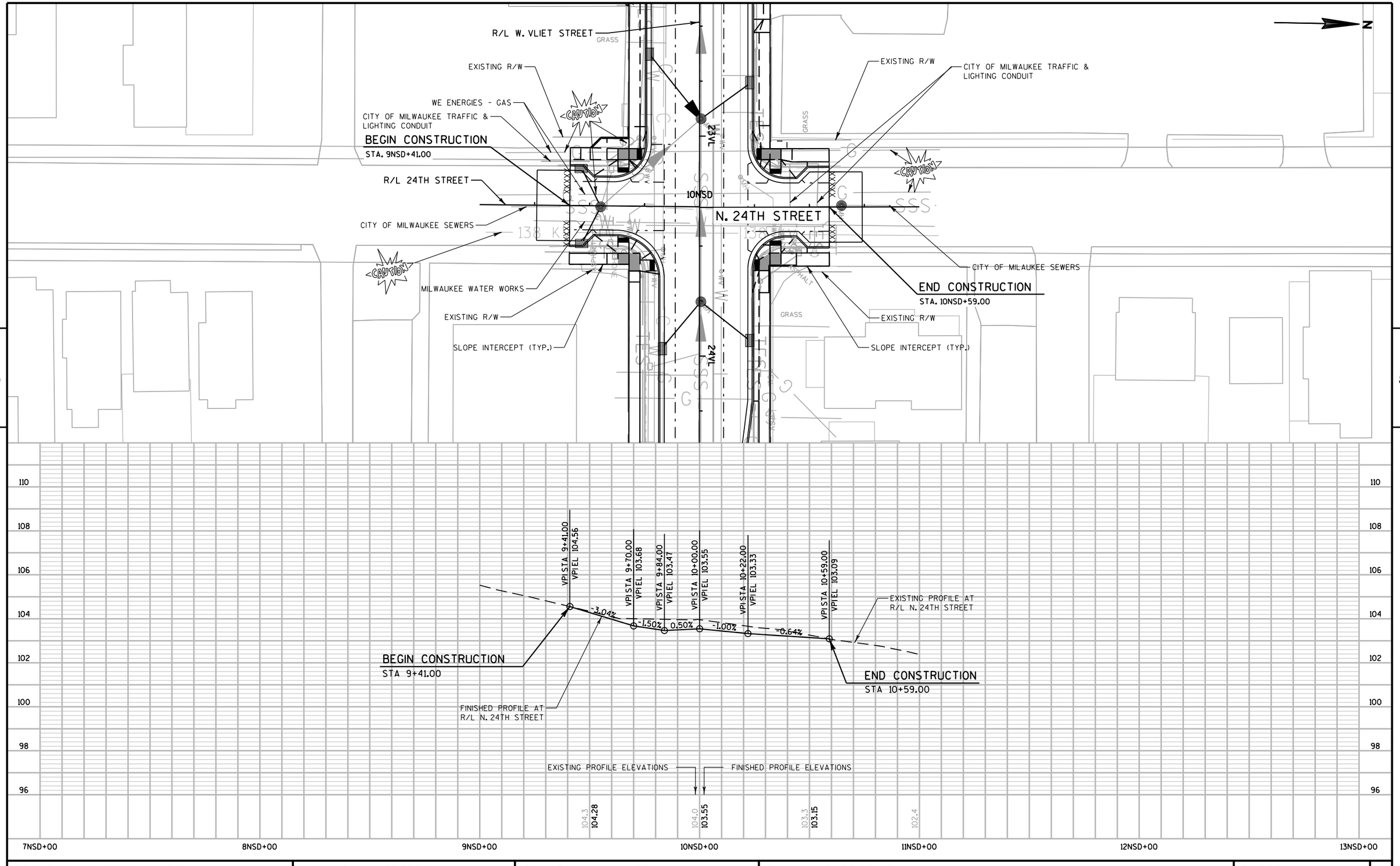




PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN AND PROFILE - N 24TH PLACE	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\20180111cd050140_pp.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40

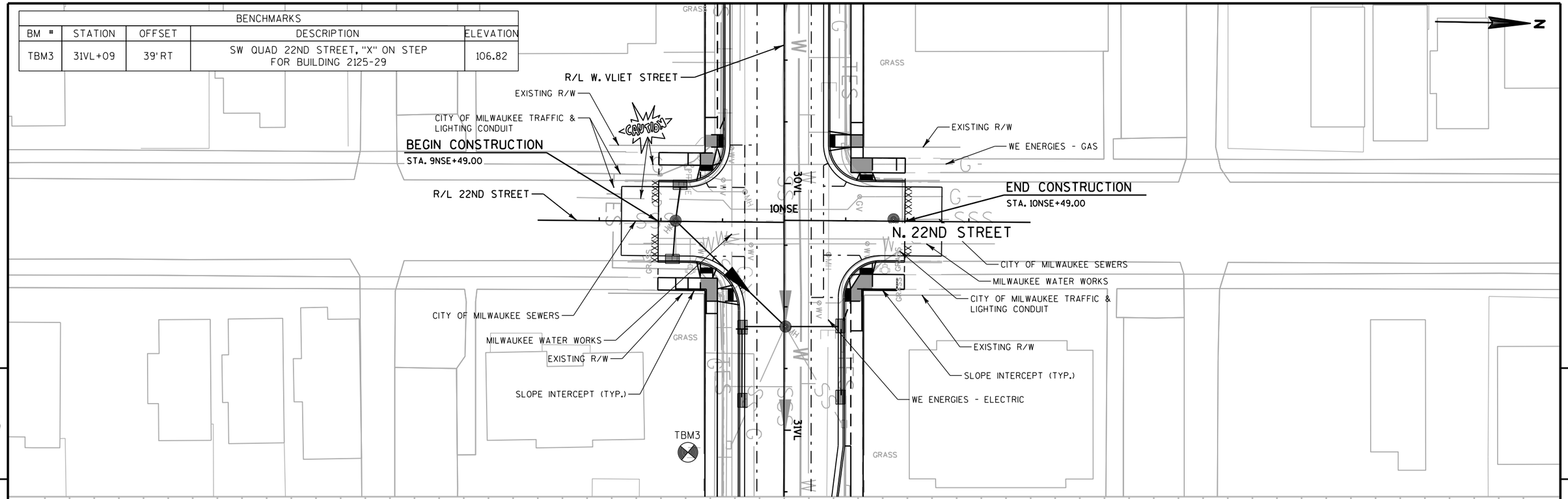


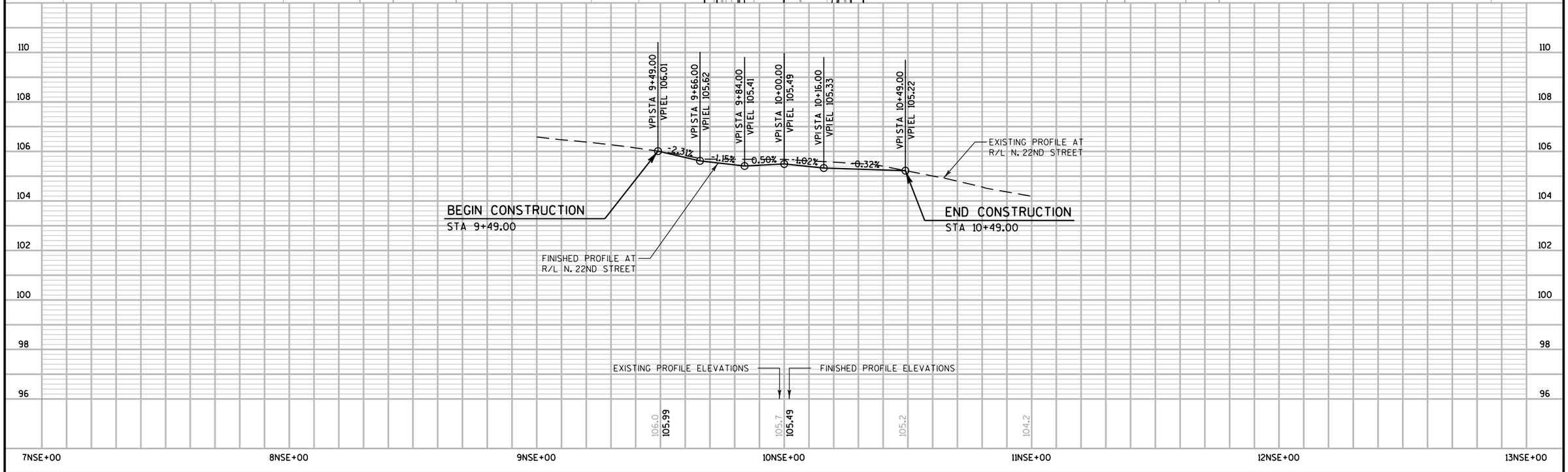
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN AND PROFILE - N 24TH STREET	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\2984-00-73_PLAN_PROF_10.dgn PLOT DATE : 10/29/2018 11:23:05 AM PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40

BENCHMARKS				
BM #	STATION	OFFSET	DESCRIPTION	ELEVATION
TBM3	31VL+09	39' RT	SW QUAD 22ND STREET, "X" ON STEP FOR BUILDING 2125-29	106.82

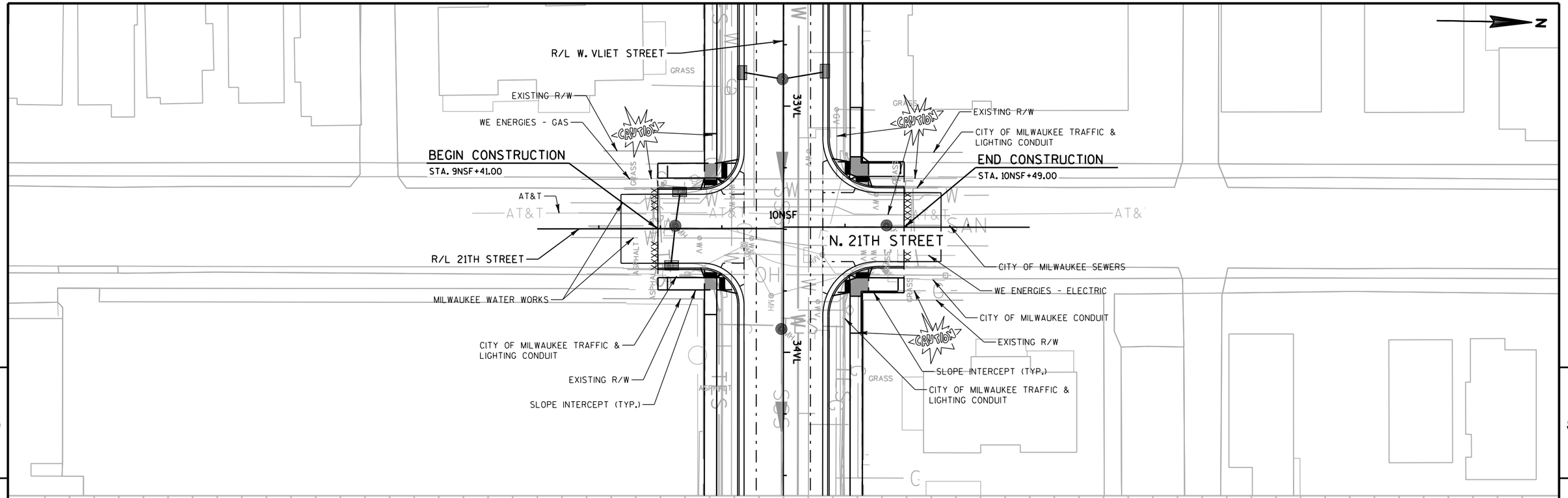


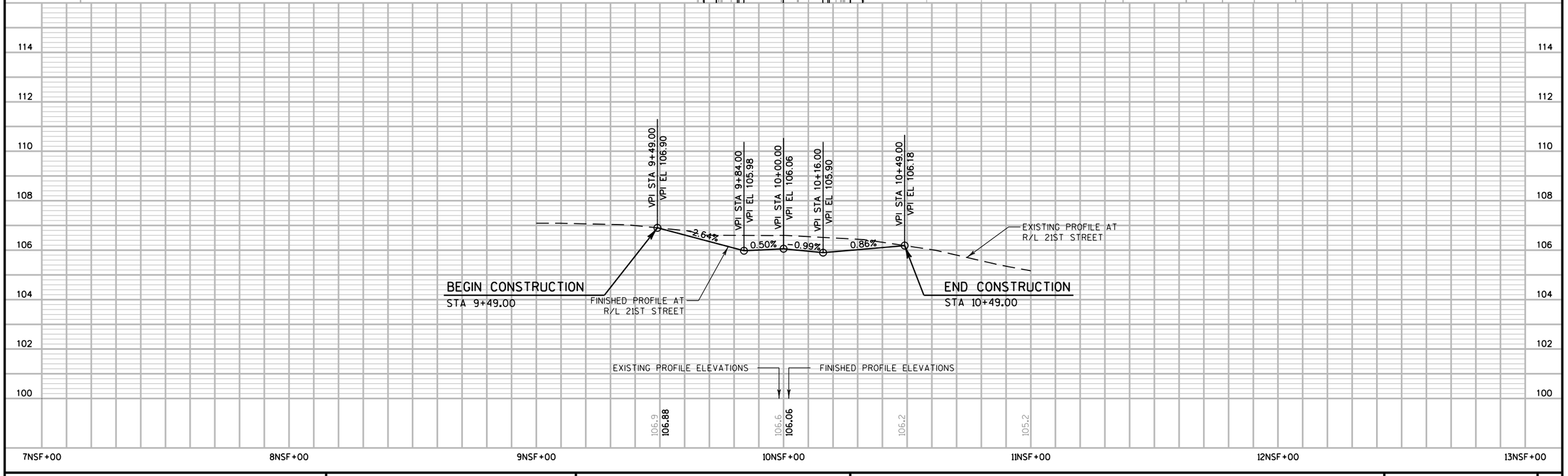


PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN AND PROFILE - N 22ND STREET	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Package\Plan Sheets\63342_pp_P100.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40

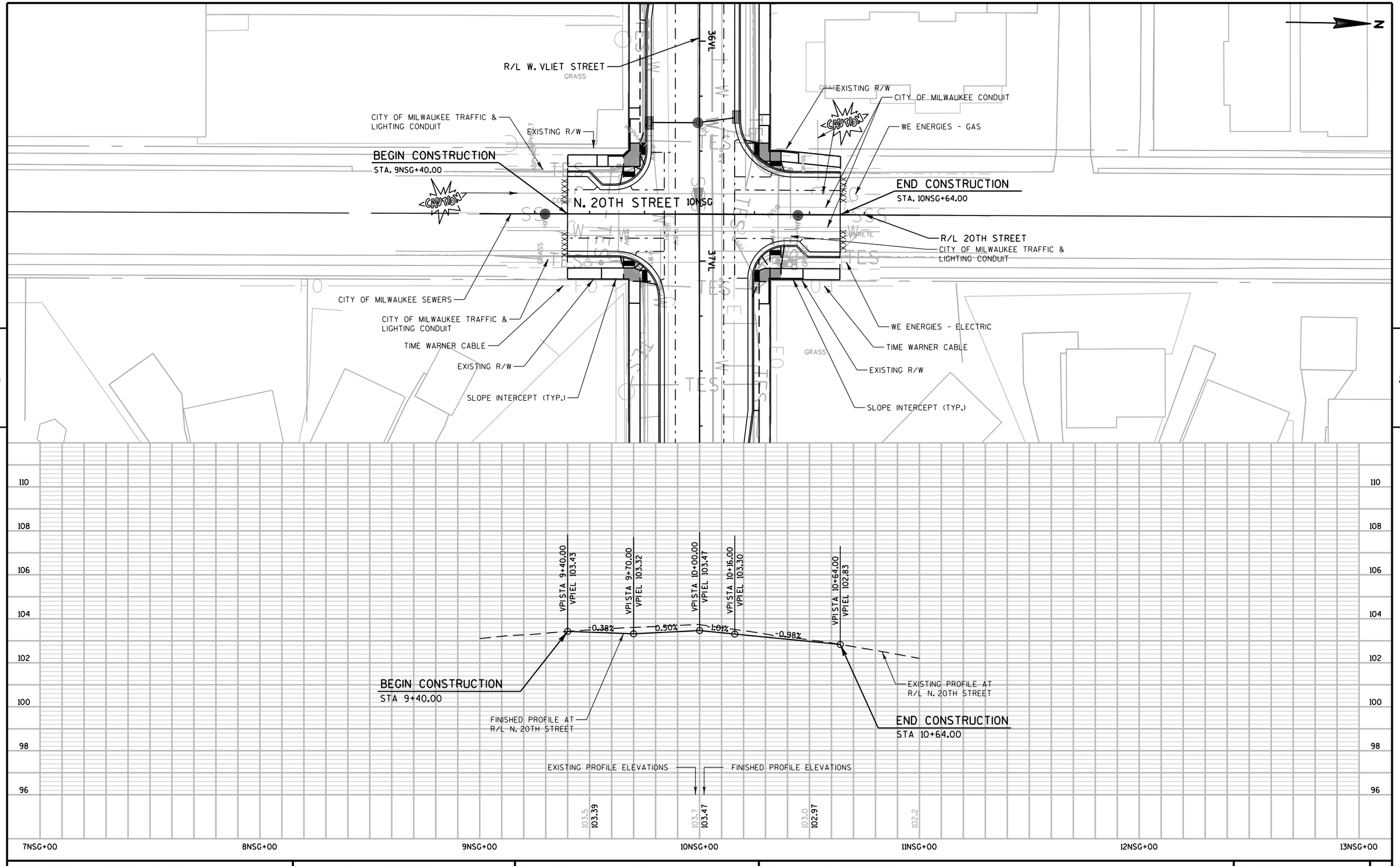




PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN AND PROFILE - N 21ST STREET	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\2984-00-73_PP_N21st.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40

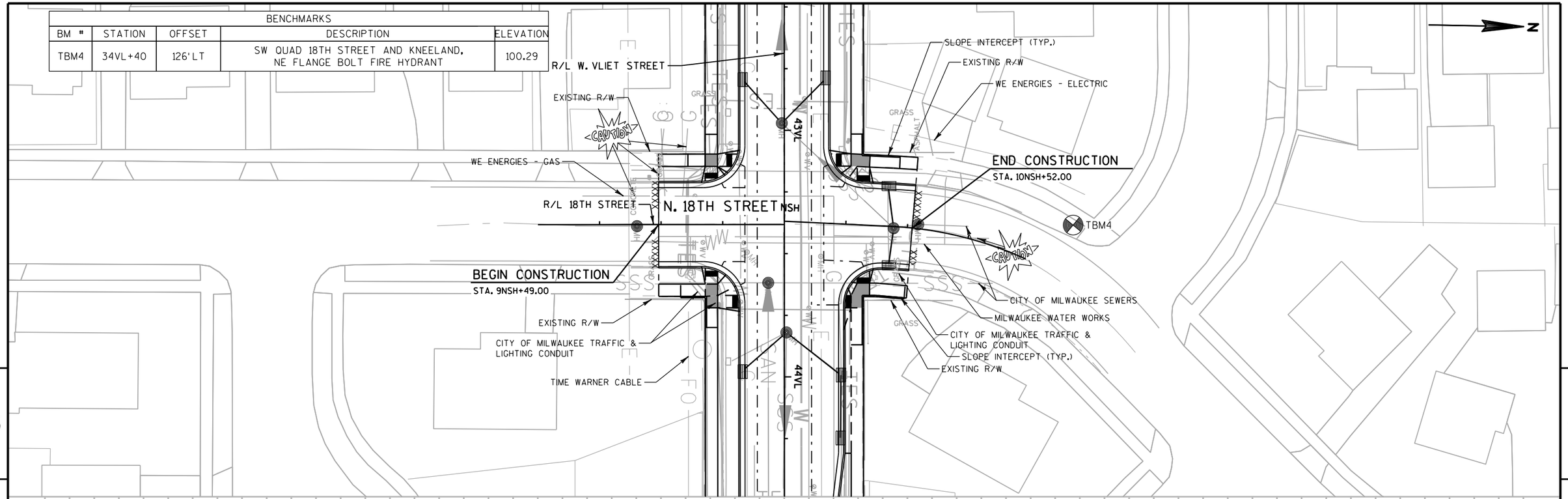


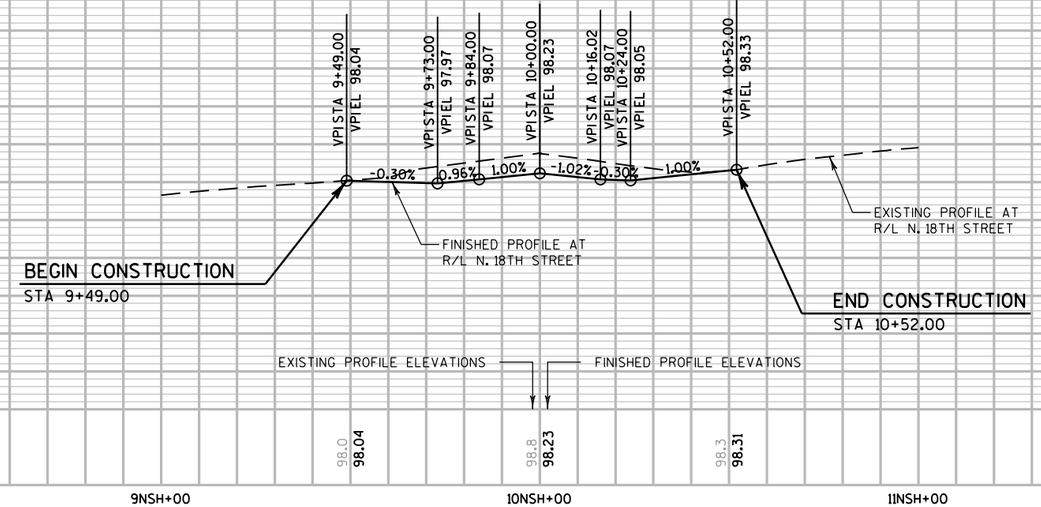
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN AND PROFILE - N 20TH STREET	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prod\2984-00-73_PP_P10.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40

BENCHMARKS				
BM #	STATION	OFFSET	DESCRIPTION	ELEVATION
TBM4	34VL+40	126'LT	SW QUAD 18TH STREET AND KNEELAND, NE FLANGE BOLT FIRE HYDRANT	100.29

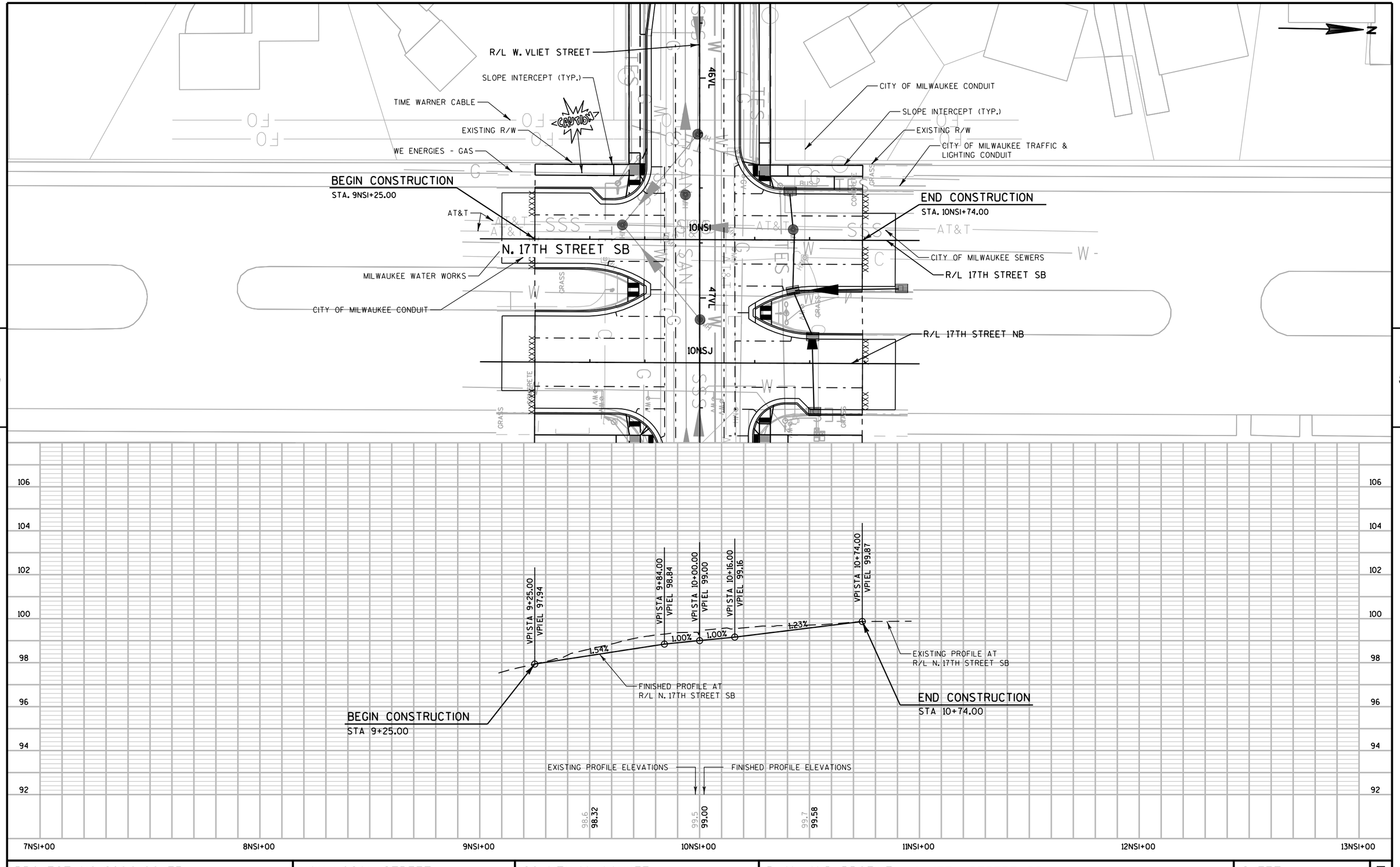




106 104 102 100 98 96 94 92

7NSH+00 8NSH+00 9NSH+00 10NSH+00 11NSH+00 12NSH+00 13NSH+00

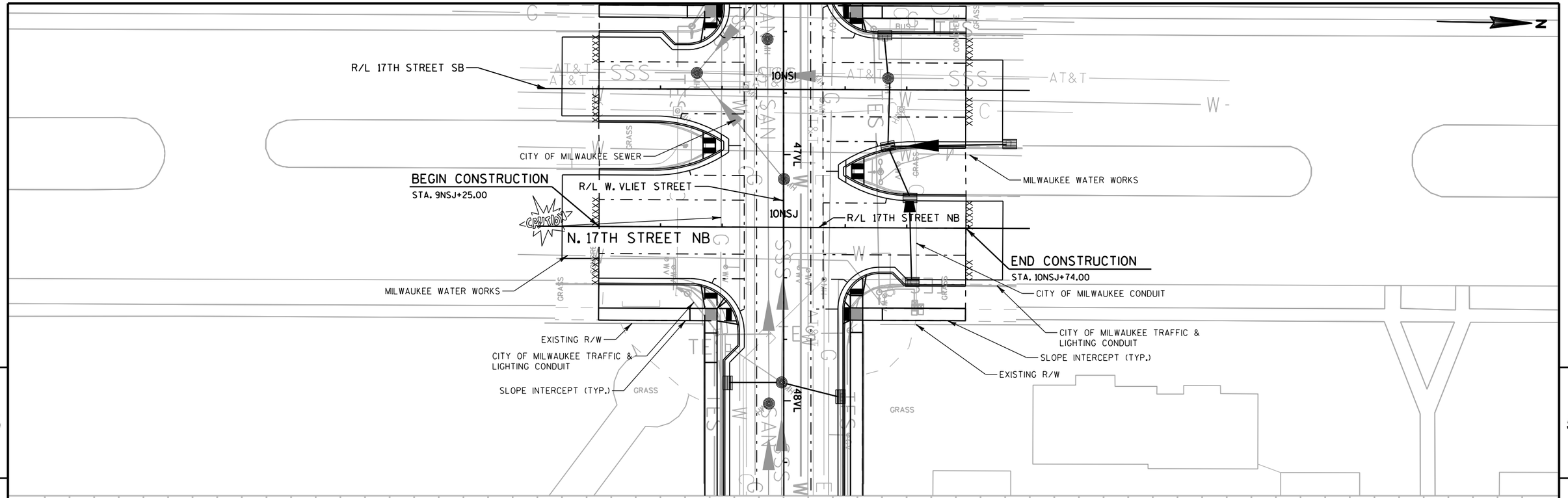
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN AND PROFILE - N 18TH STREET	SHEET 300 E

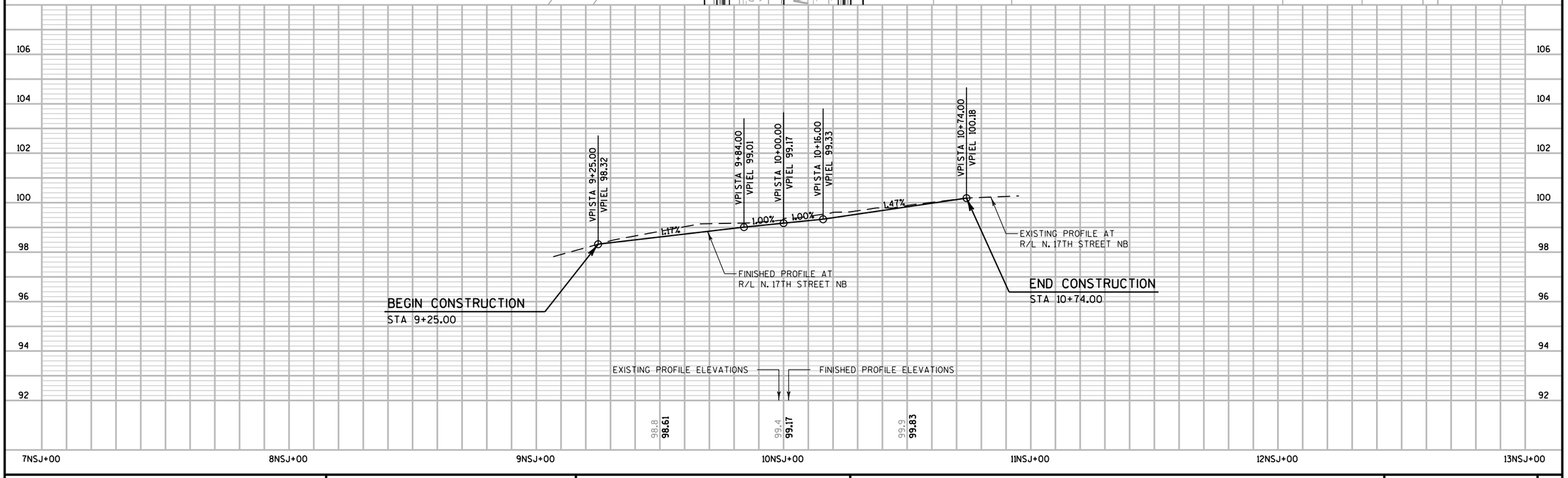


PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN AND PROFILE - N 17TH STREET SB	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\2984-00-73_PP_P10.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40

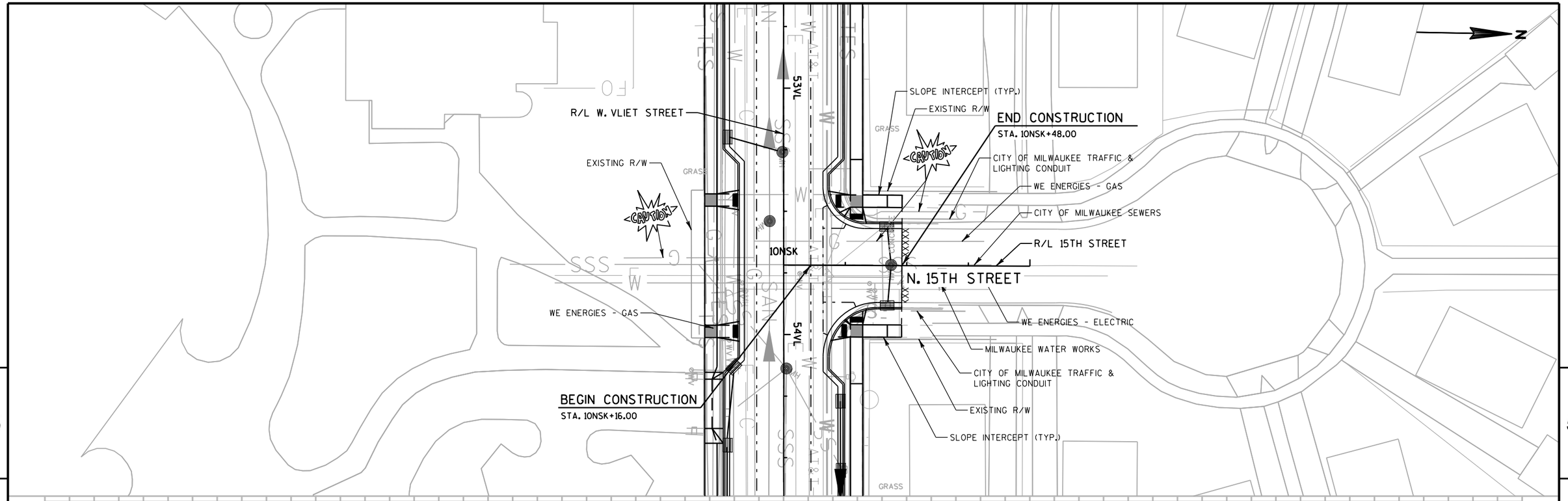


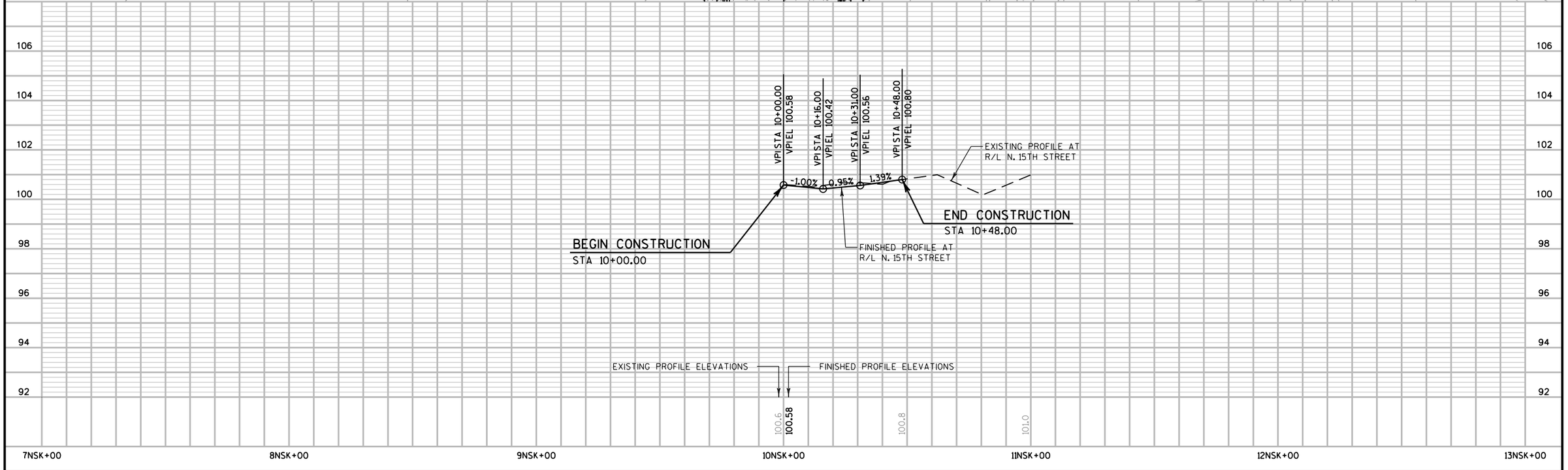


PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN AND PROFILE - N 17TH STREET NB	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Production\63342_PP_P10.dgn PLOT DATE : 30 Jan 2018 11:28:05 BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40

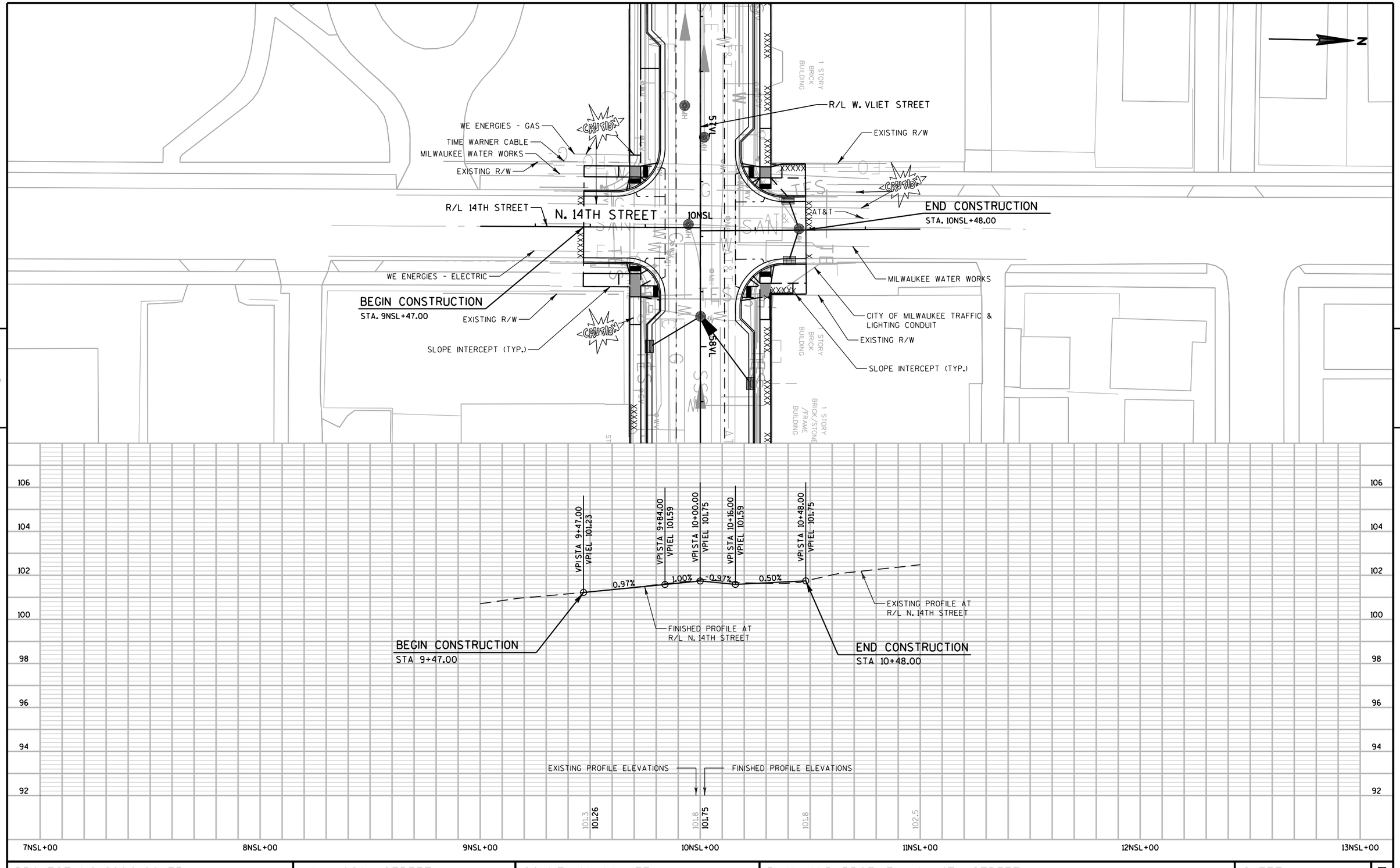




PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN AND PROFILE - N 15TH STREET	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\2984-00-73_PP10.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

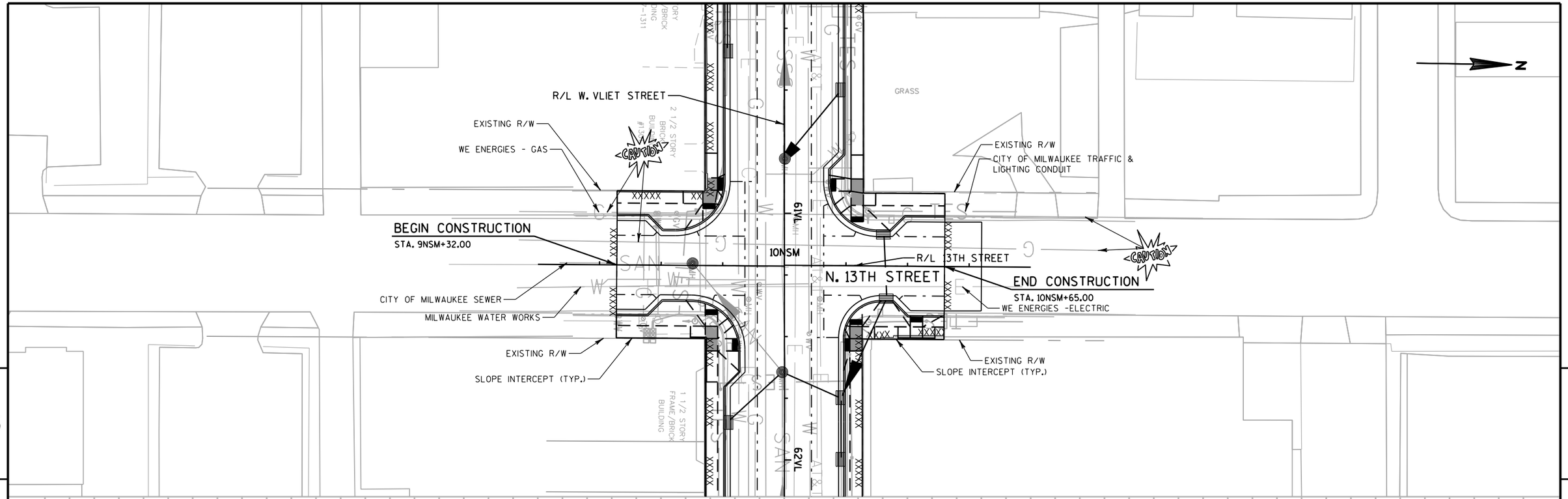
WISDOT/CADDS SHEET 40

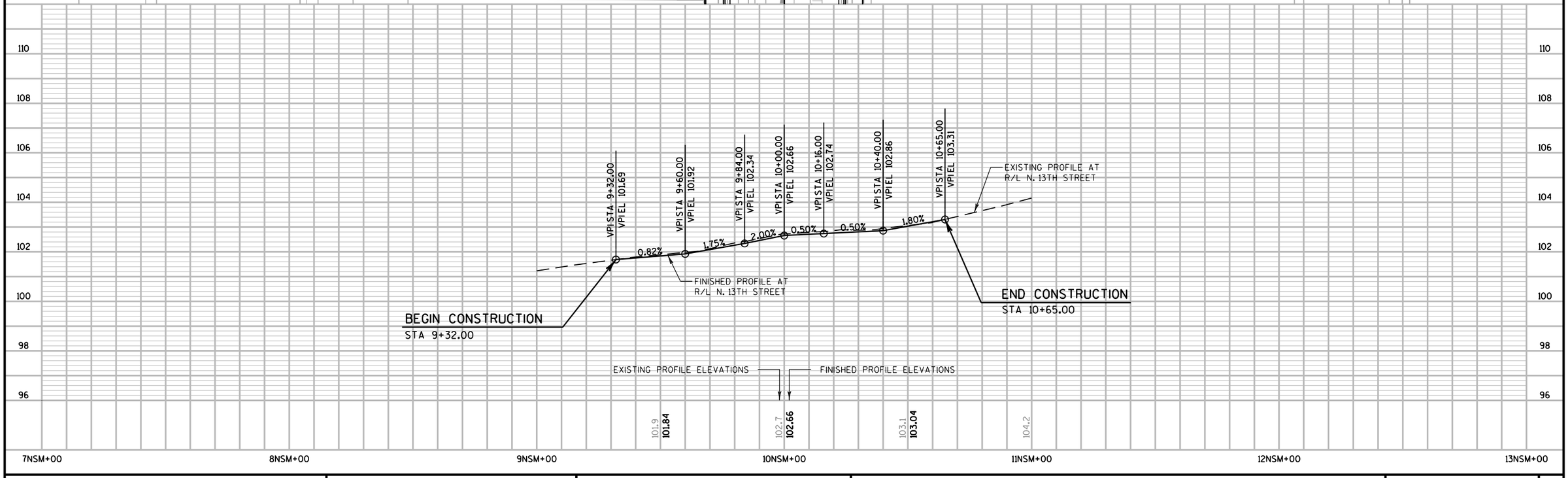


PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN AND PROFILE - N 14TH STREET	SHEET 304 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Set Preparation\63342_pp_P10.dgn PLOT DATE : 30 Jan 2018 11:28:05 PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40

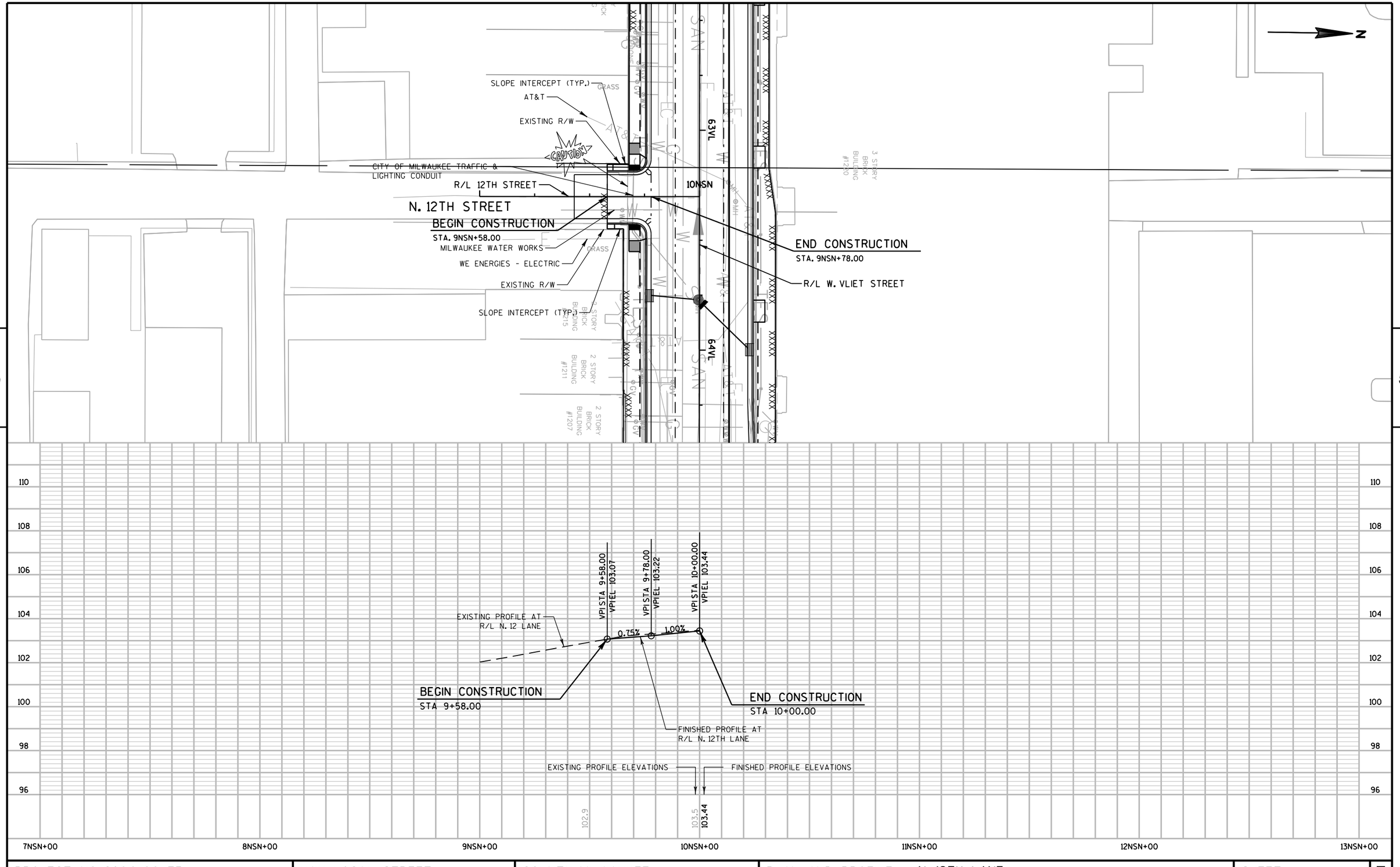




PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN AND PROFILE - N 13TH STREET	SHEET E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\20181122_pp_P10.dgn PLOT DATE : 10/29/2018 11:28:39 AM PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN AND PROFILE - N 12TH LANE	SHEET E

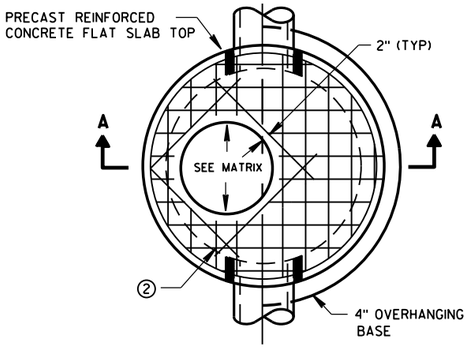
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Package\63342_PP_P10.dgn PLOTTED : 10/29/2018 11:28:03 AM BY : dbaumann PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 40

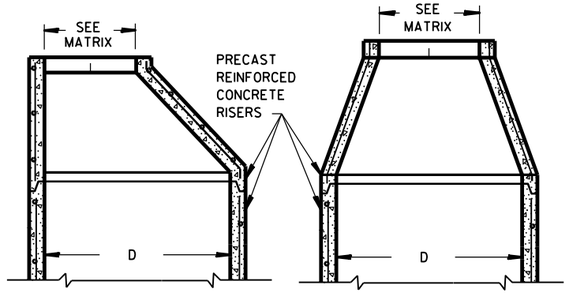
Standard Detail Drawing List

08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-19A	CURB RAMPS TYPES 1 AND 1-A
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19C	CURB RAMPS TYPES 4A AND 4A1
08D05-19D	CURB RAMPS TYPE 4B AND 4B1
08D05-19E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-19F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-19G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08D18-02	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-02	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C11-10	CONCRETE BASE TYPE 10
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C04-17	URBAN NON-DOWELED CONCRETE PAVEMENT
13C18-06A	CONCRETE PAVEMENT JOINTING
13C18-06B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-06C	CONCRETE PAVEMENT JOINT TYPES
13C18-06D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-14C	PAVEMENT MARKING ARROWS
15C07-14E	PAVEMENT MARKING FOR BIKE LANES
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C29-06A	BICYCLE LANE MARKING
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-06	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D30-04A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-04B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-04C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D40-01	TRAFFIC CONTROL, LANE SHIFT, MULTILANE DIVIDED OR ONE WAY ROAD

6

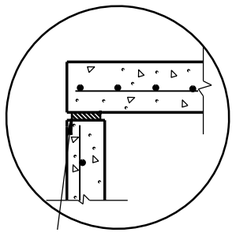


PLAN VIEW CIRCULAR OPENING

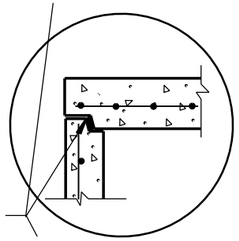


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

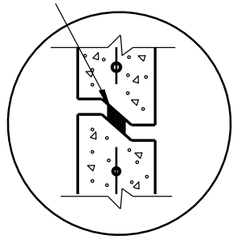


TOP WITH PLAIN END JOINT



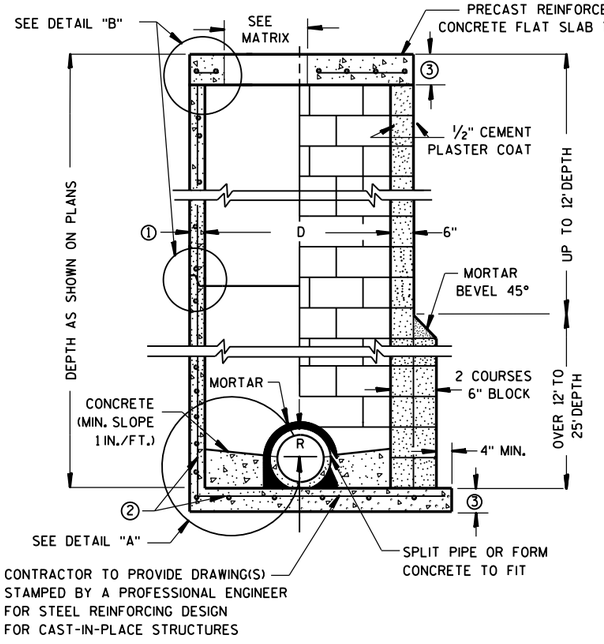
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



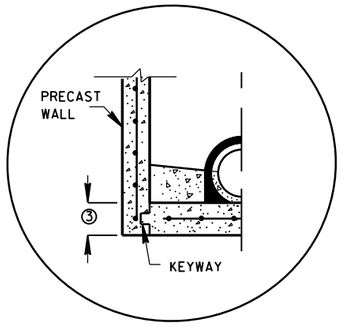
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

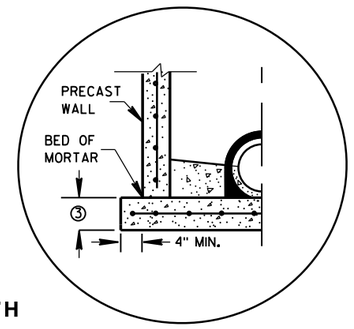


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

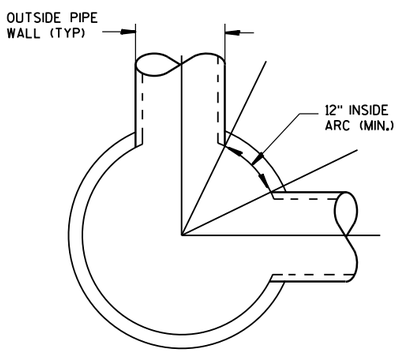


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

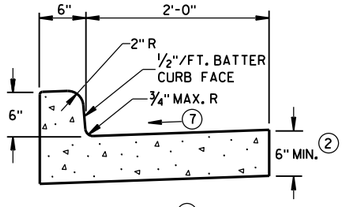
Sept., 2016
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV

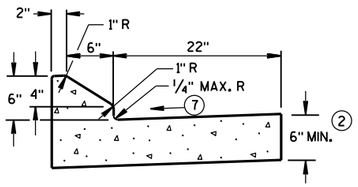
FHWA

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

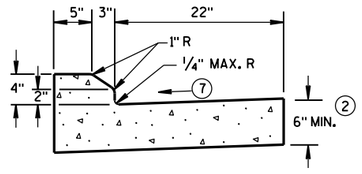
6
S.D.D. 8 B 9-2



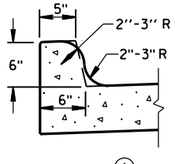
TYPES A (1) & D



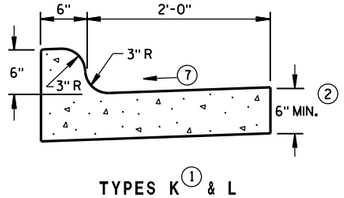
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

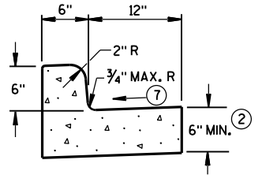


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



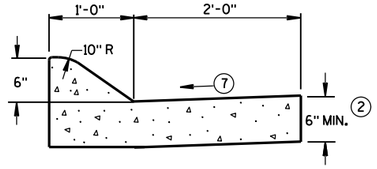
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

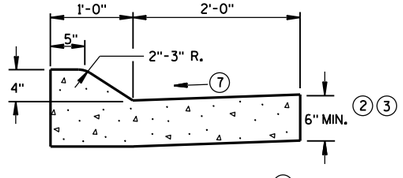


TYPES A (1) & D

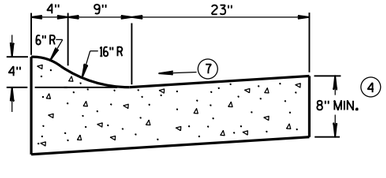
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

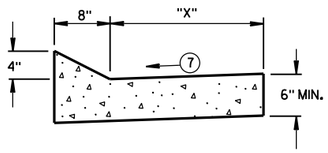


4" SLOPED CURB TYPES A (1) & D



4" SLOPED CURB TYPES R (1) & T (5)

CONCRETE CURB & GUTTER 36"



TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

GENERAL NOTES

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

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

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

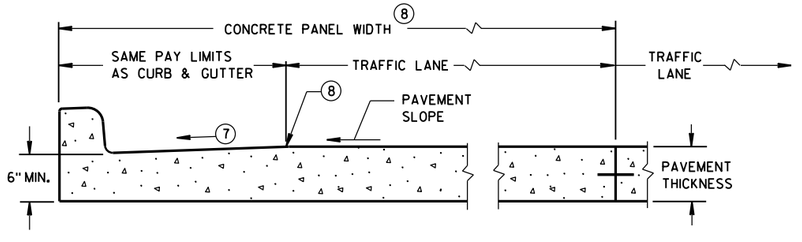
(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

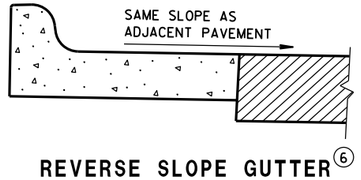
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB & GUTTER

* BIKE LANE IS NOT SHOWN.

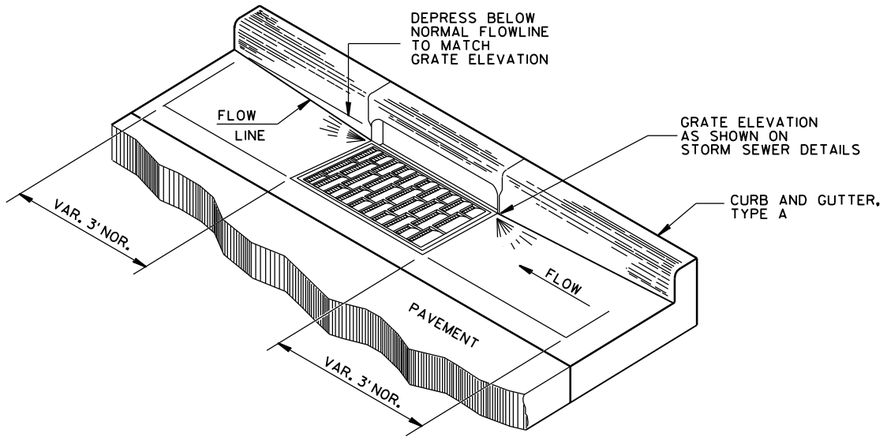


REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

CONCRETE CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 8 D 1-20a



DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

GENERAL NOTES

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

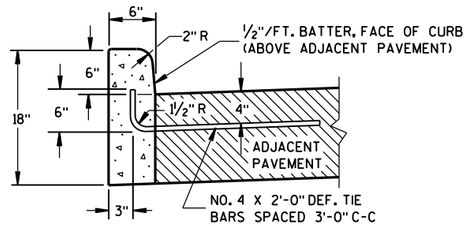
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

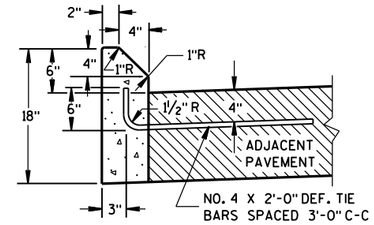
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(9) REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

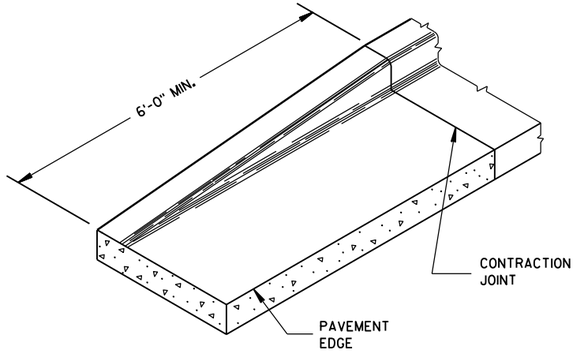


TYPES A(1) & D

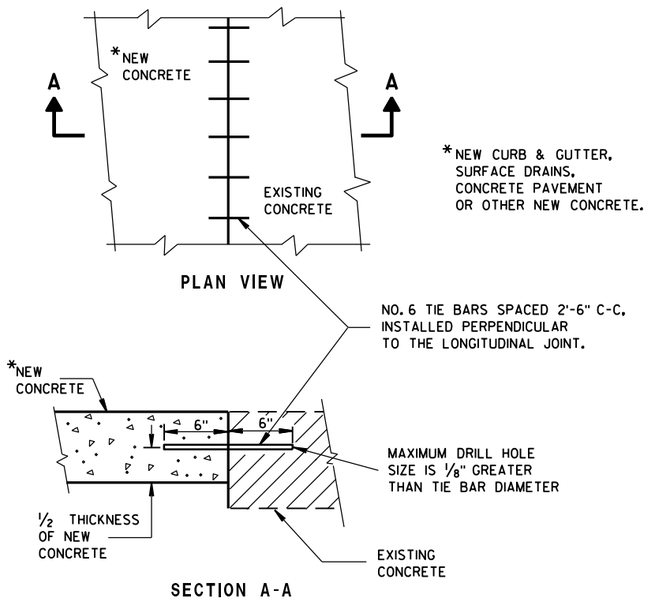


TYPES G(1) & J

CONCRETE CURB



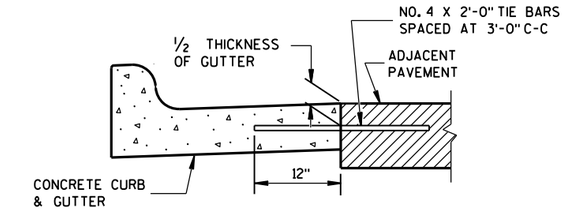
END SECTION CURB & GUTTER



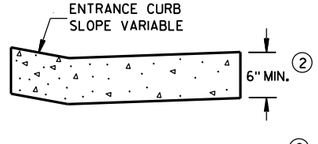
PLAN VIEW

SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

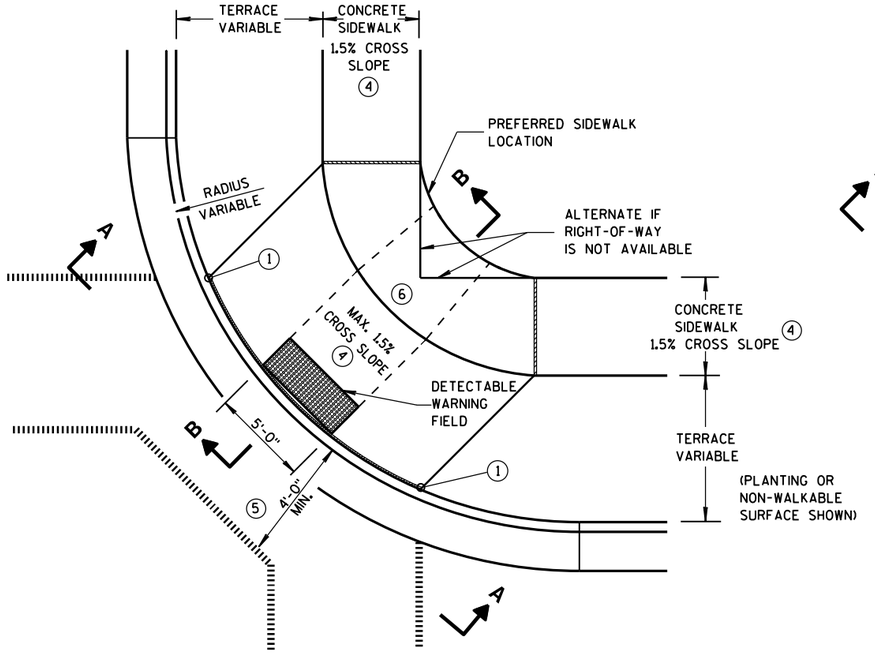
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
310 — ENT
FHWA

6

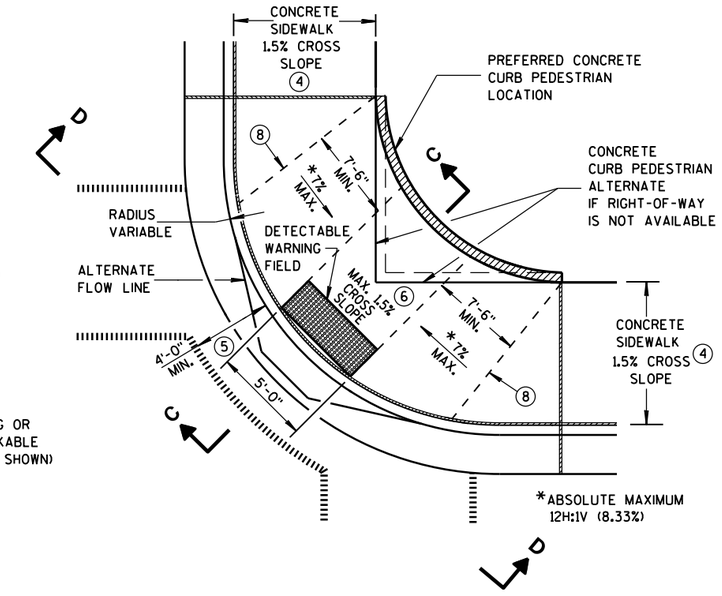
S.D.D. 8 D 1-20b



PLAN VIEW

TYPE 1 RAMP

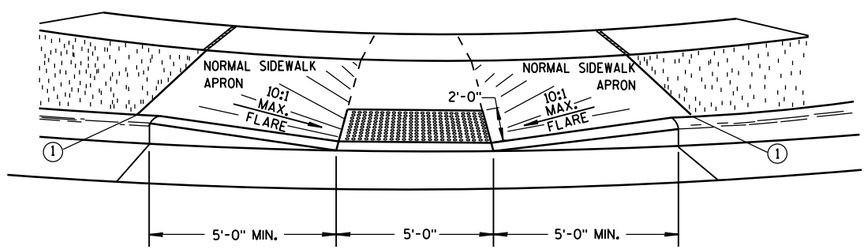
(CENTER OF CORNER RADIUS)



PLAN VIEW

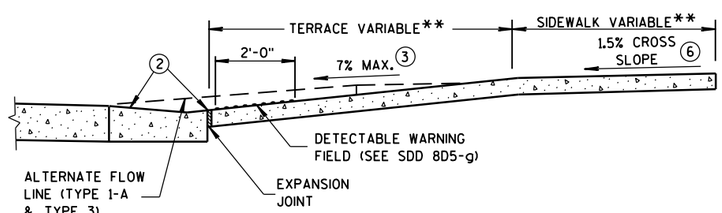
TYPE 1-A RAMP

(NO TERRACE)

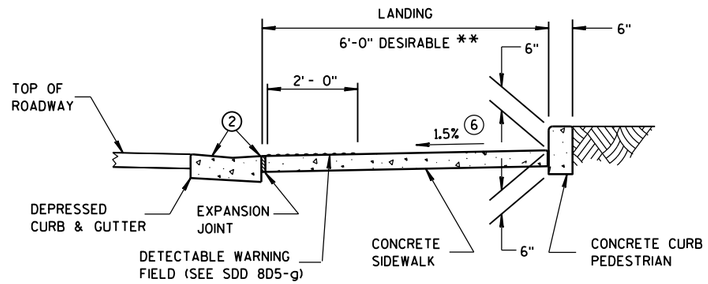


VIEW A-A

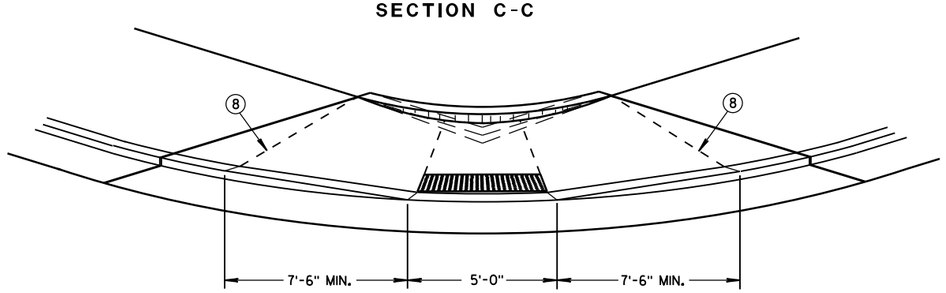
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

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 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD 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 LINEAL 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 1/4-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) ABSOLUTE MAXIMUM 12H:1V (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 LANDING SIZE IS 5 FEET X 5 FEET.

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

LEGEND

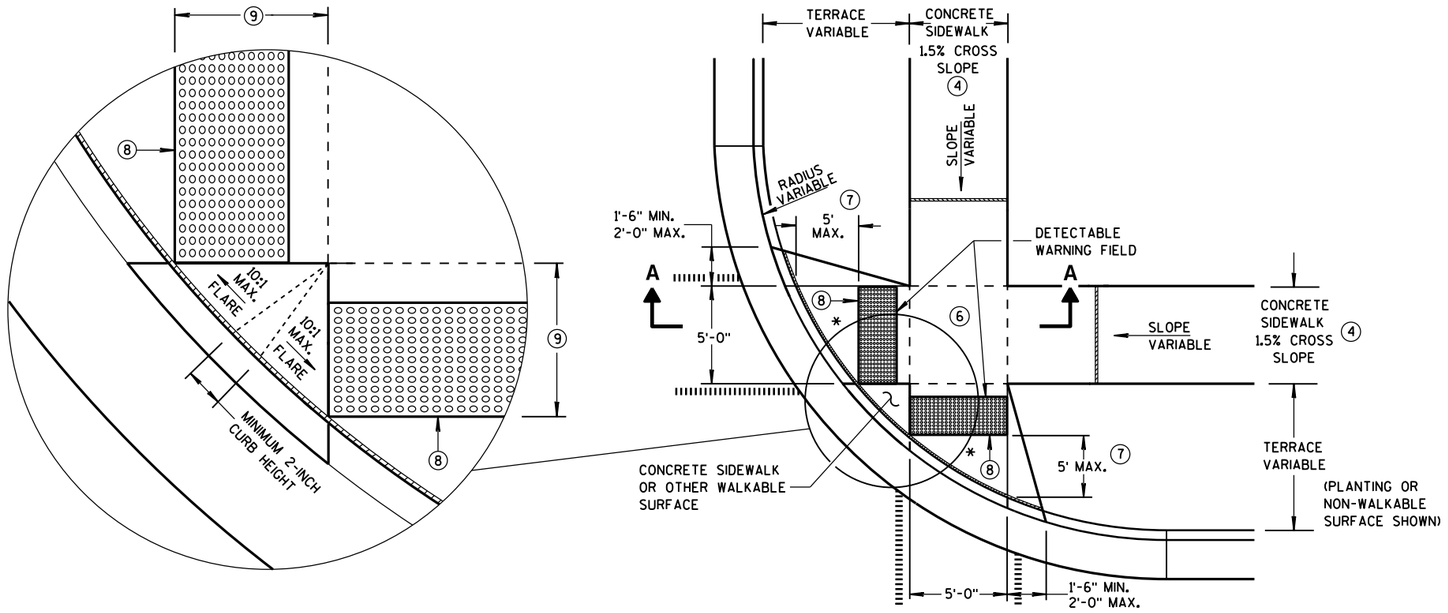
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

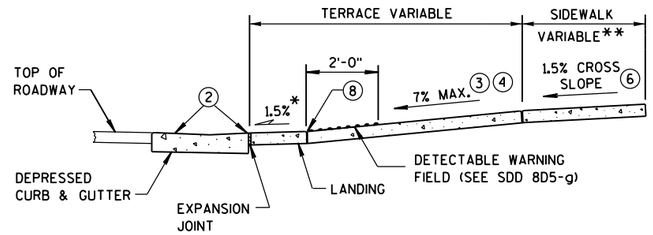
6

S.D.D. 8 D 5-19a



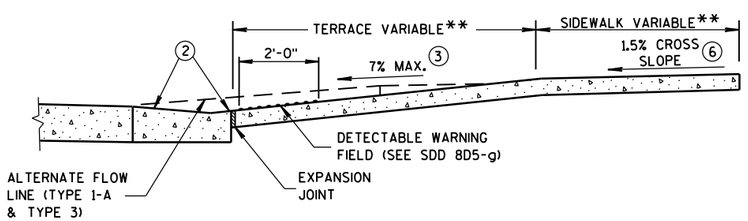
PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)

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

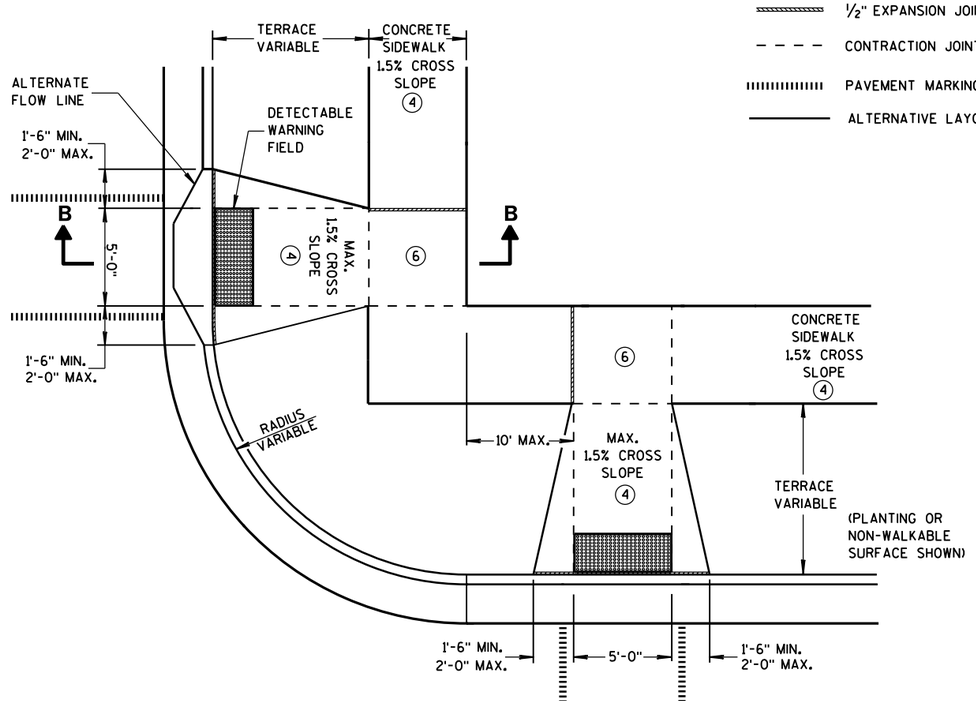


SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

GENERAL NOTES

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

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 1/4-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) ABSOLUTE MAXIMUM 12H:1V (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 X 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.

(9) WHEN THIS 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.

LEGEND

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

6

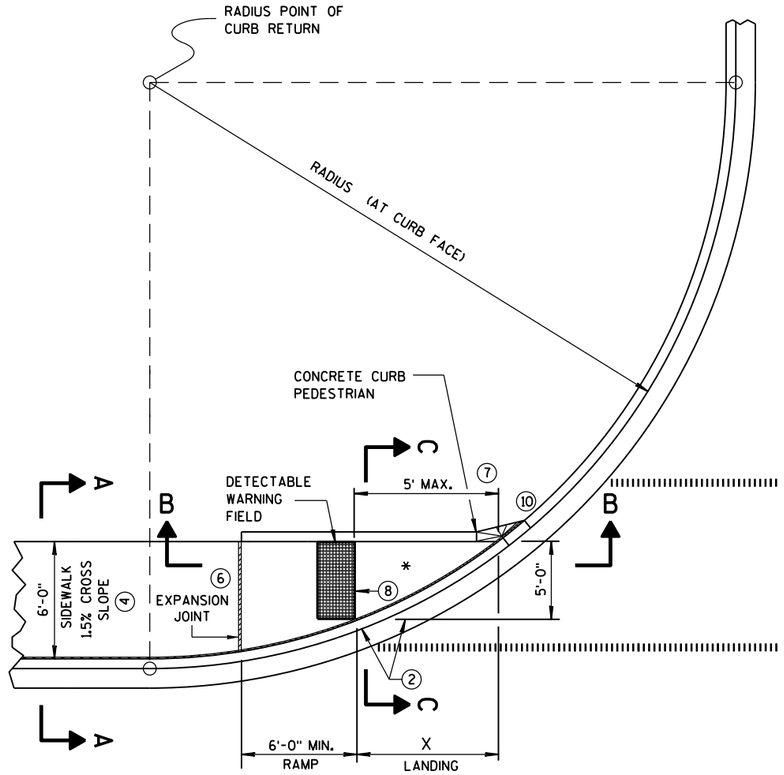
S.D.D. 8 D 5-19b

6

S.D.D. 8 D 5-19b

CURB RAMPS TYPES 2 AND 3

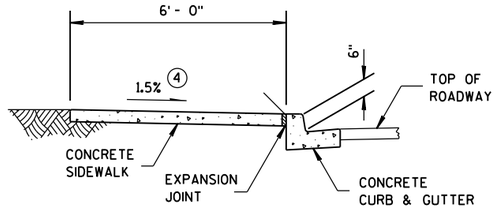
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO



CURB RAMP TYPE 4A
PLAN VIEW

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.

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) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

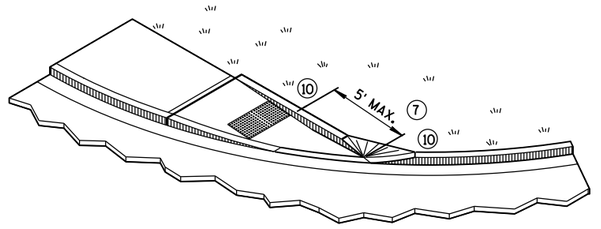
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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

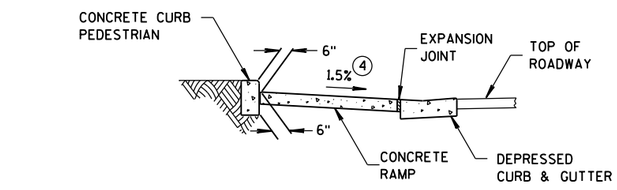
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

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

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

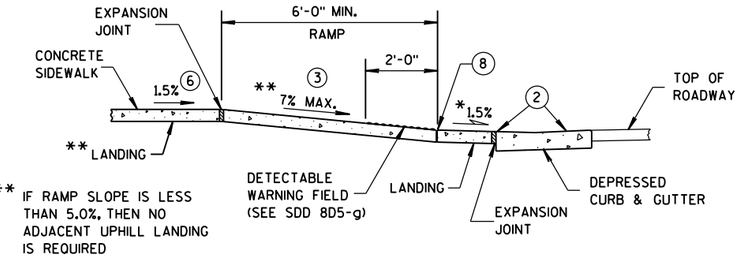


ISOMETRIC VIEW FOR TYPE 4A



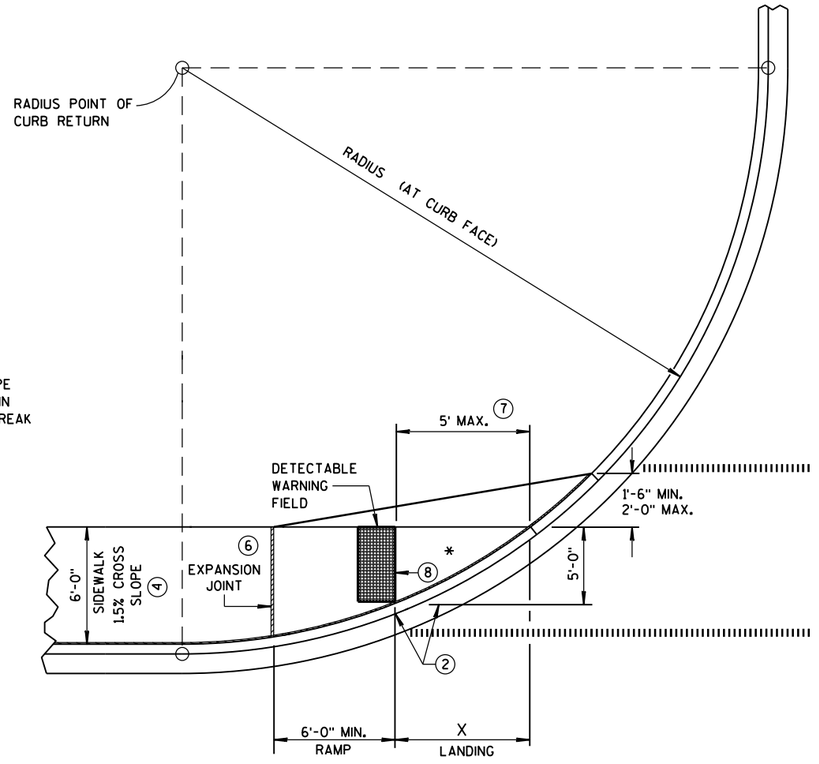
SECTION C-C FOR TYPE 4A

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

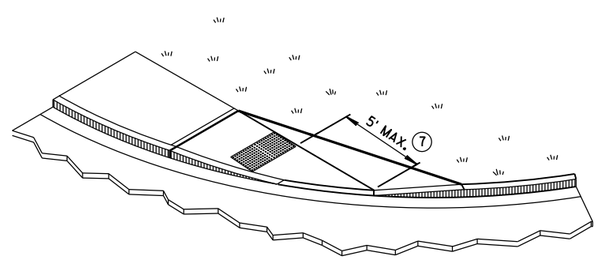


** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

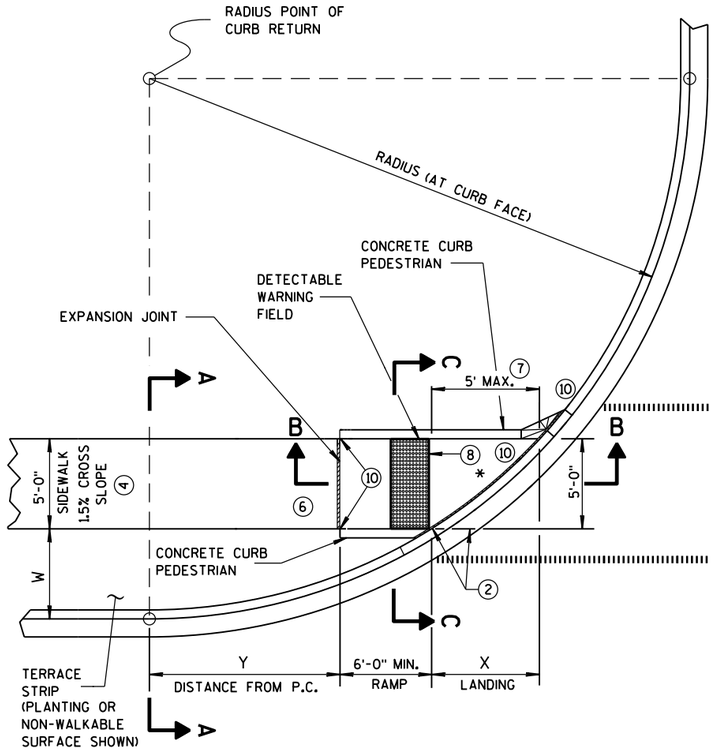
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

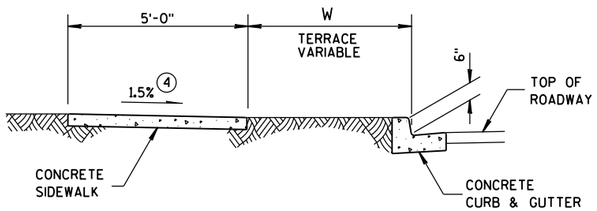
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

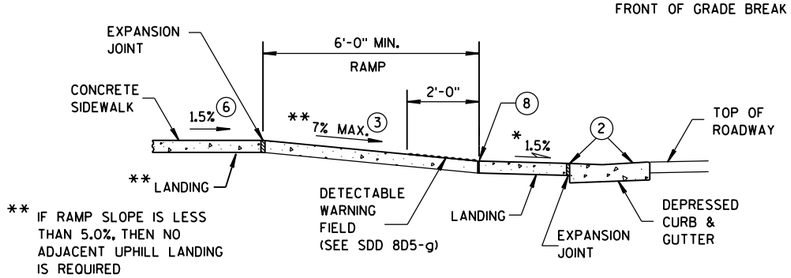
S.D.D. 8 D 5-19c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



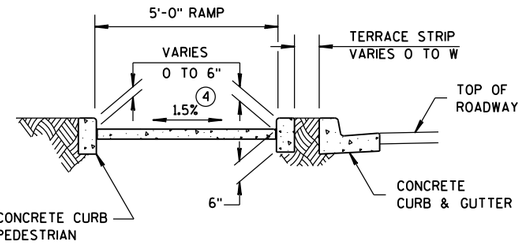
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

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

SECTION B-B FOR 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'-10¼"	0'-5"	2'-1"	1'-4½"	1'-5"	2'-1"	0'-10"	2'-7½"	0'-3¼"	3'-0¼"						
15 FEET	4'-6¾"	2'-1¾"	3'-9"	3'-5¼"	3'-1¼"	4'-6"	2'-6¾"	5'-4½"	2'-1"	6'-1"	1'-8"	6'-8½"	1'-3¼"	7'-2½"	0'-10¾"	7'-7¼"
20 FEET	5'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-7"	3'-3"	8'-6½"	2'-10"	9'-4½"	2'-5½"	10'-1¼"	2'-1¼"	10'-9"
30 FEET			6'-9¼"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"	4'-5½"	13'-7¾"	4'-0¾"	14'-8½"	3'-8½"	15'-8¼"
40 FEET									6'-1¾"	15'-8½"	5'-8"	17'-2"	5'-3"	18'-5¾"	4'-10¾"	19'-8¼"
50 FEET															5'-10¼"	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

GENERAL NOTES

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

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) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

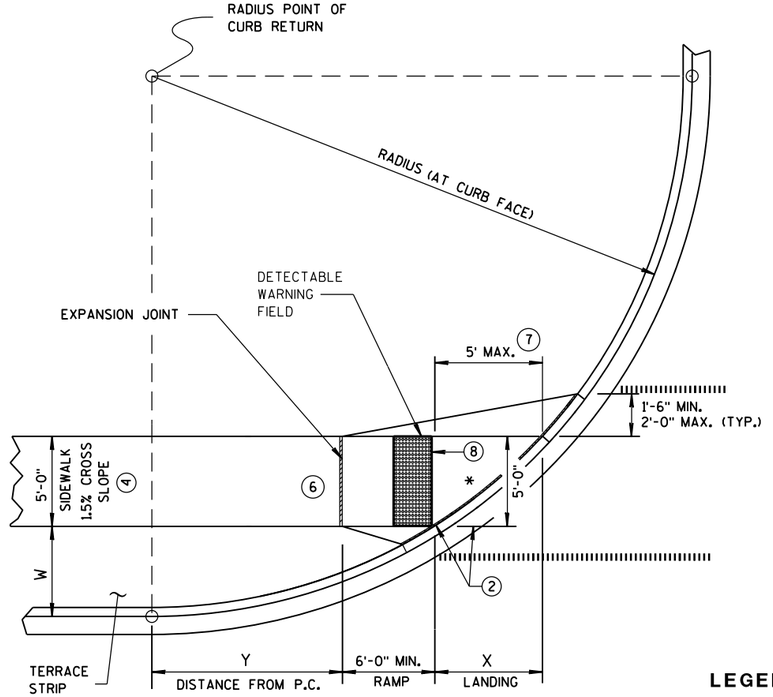
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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

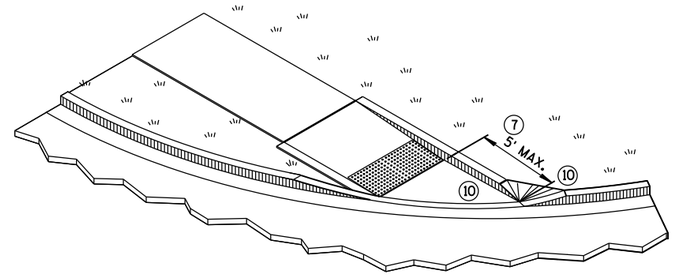
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

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

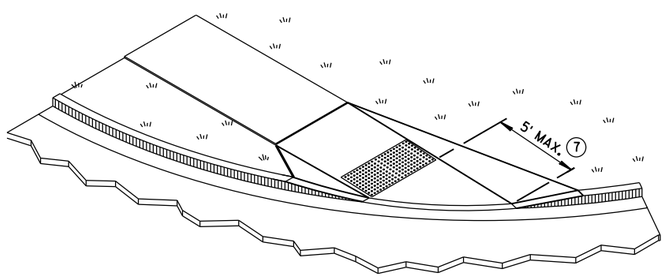
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

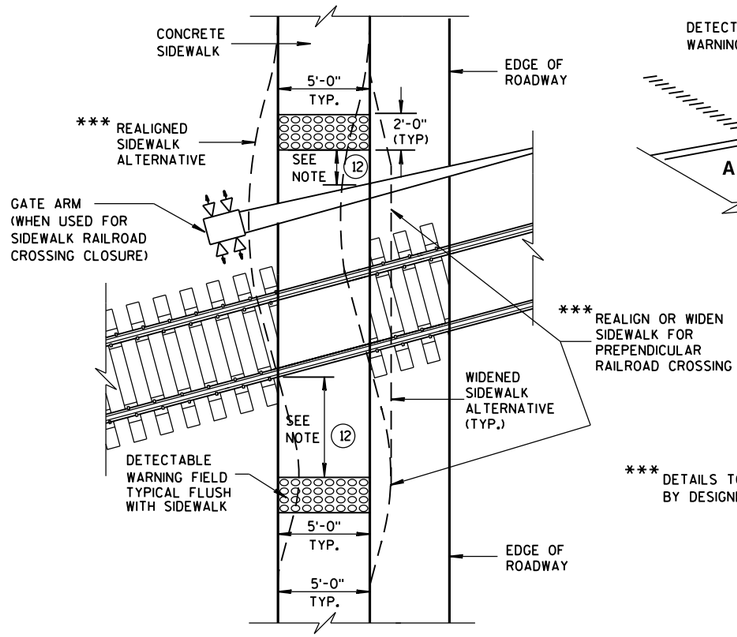
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

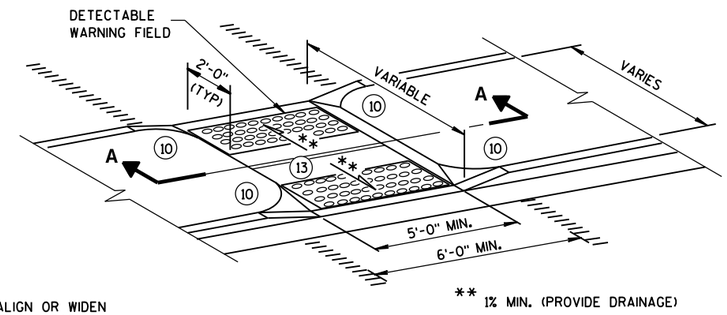
6

S.D.D. 8 D 5-19d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING
TYPE 5

GENERAL NOTES

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

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 1/4-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) ABSOLUTE MAXIMUM 12H:1V (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.

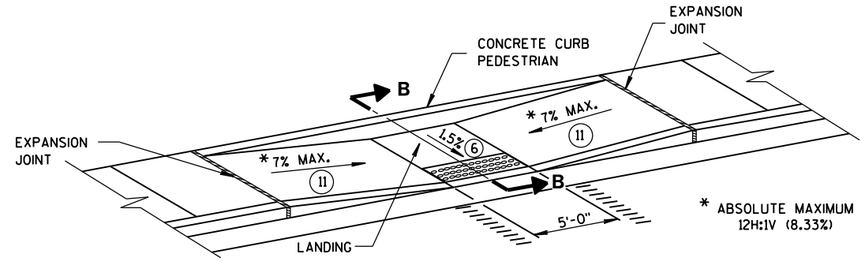
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

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

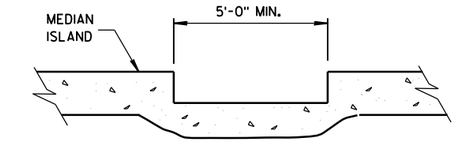
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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.

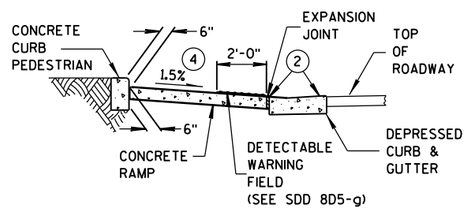
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.



MID-BLOCK CROSSING
TYPE 7A

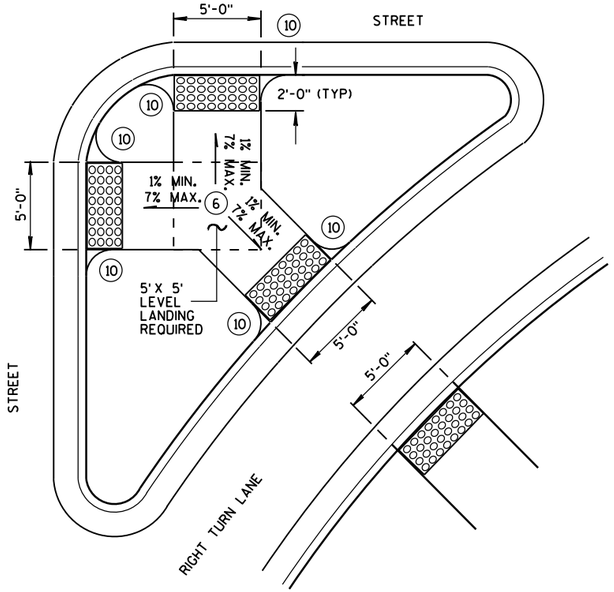


SECTION A-A

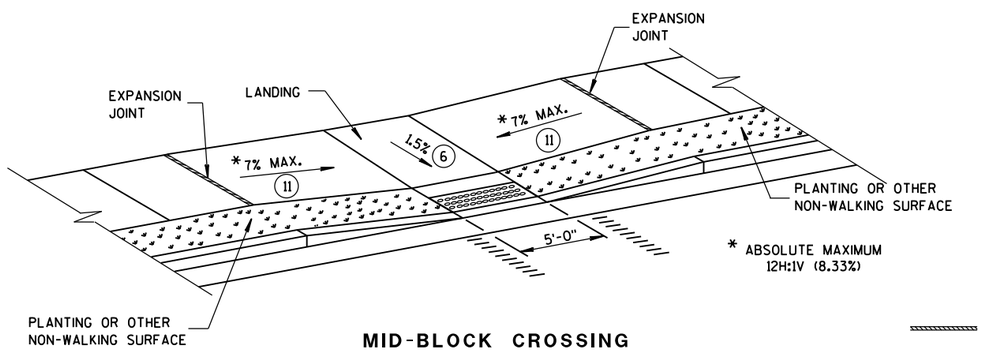


SECTION B-B

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



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

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

LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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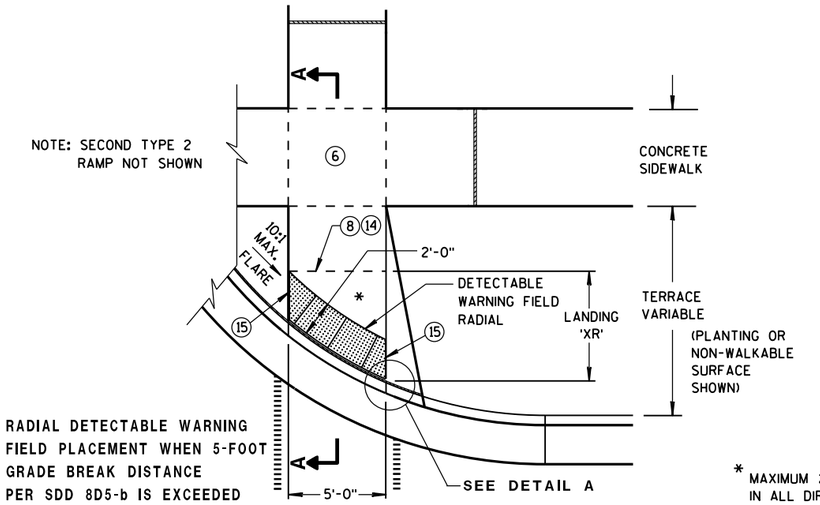
S.D.D. 8 D 5-19e
S.D.D. 8 D 5-19e

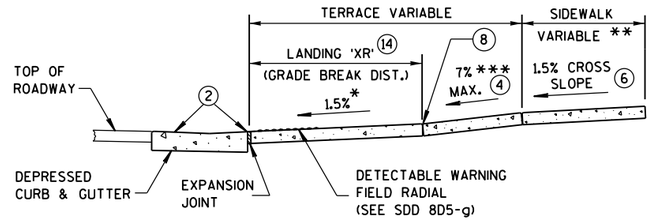


TYPE 2 RAMP
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)

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

LEGEND

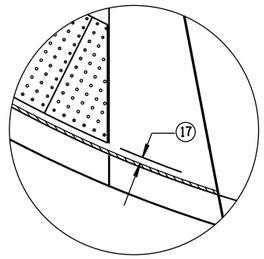
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



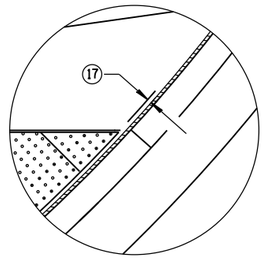
** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

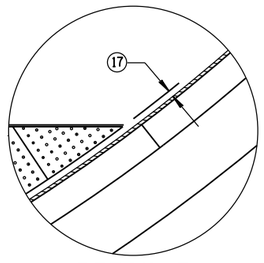
SECTION A-A



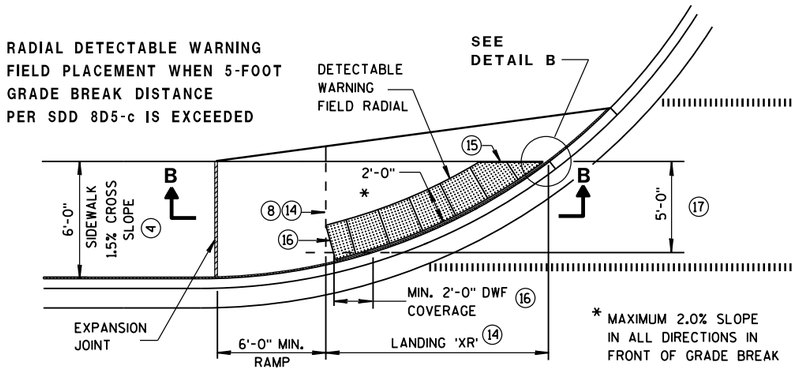
DETAIL A



DETAIL C

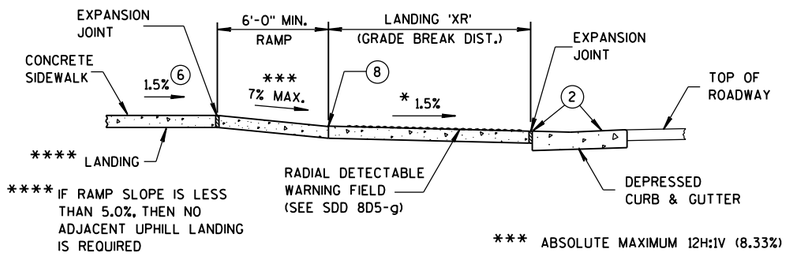


DETAIL B



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

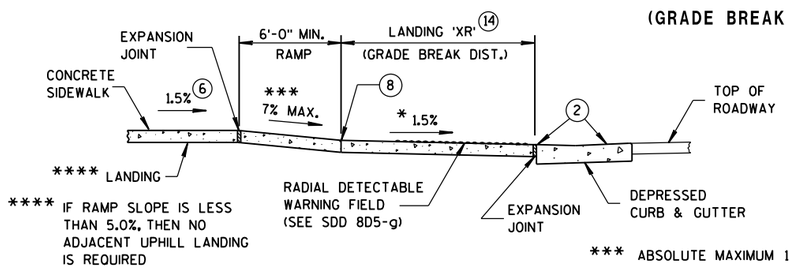
CURB RAMP TYPE 4A1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



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

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION B-B FOR TYPE 4A1



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

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION C-C FOR TYPE 4B1

GENERAL NOTES

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

DETECTABLE WARNING FIELDS (DWFs) 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 FIELD 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.

(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) ABSOLUTE MAXIMUM 12H:1V (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 X 5 FEET.

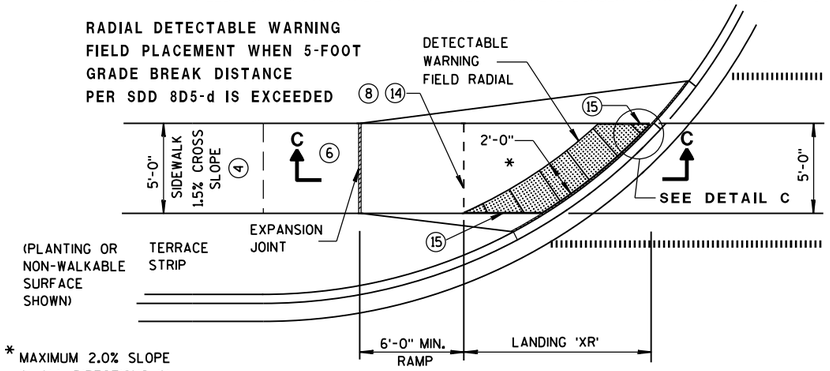
(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(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 1/8" 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 WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.



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

CURB RAMP TYPE 4B1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

CURB RAMPS
RADIAL DETECTABLE WARNING FIELD APPLICATIONS

STATE OF WISCONSIN
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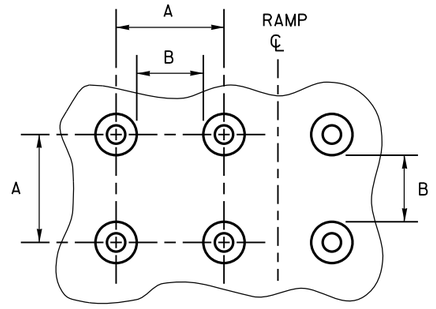
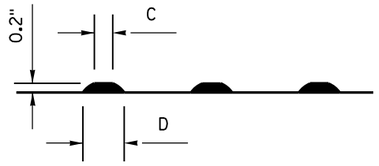
S.D.D. 8 D 5-19f

	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

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, 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 FIELD ARE PROHIBITED.

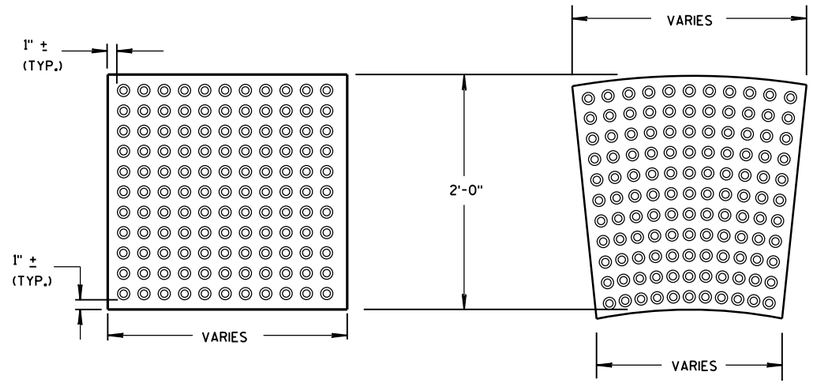
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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 WEDGES IN COMBINATION WITH SQUARE PANELS 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 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

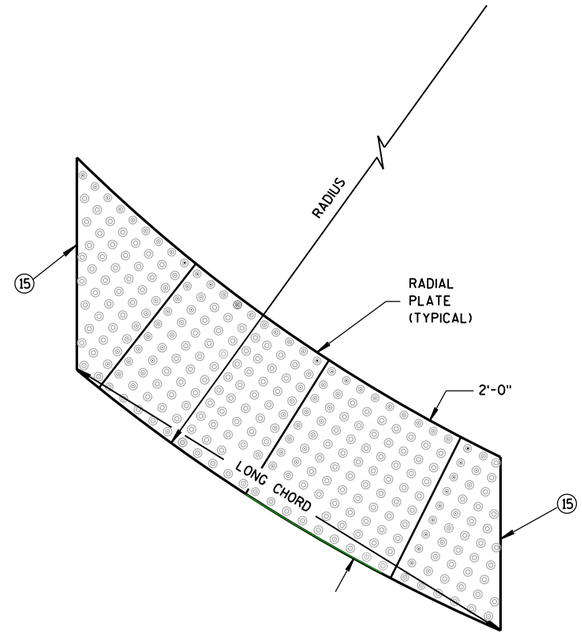


RECTANGULAR PLATES

RADIAL PLATES

DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW



RADIAL DETECTABLE WARNING FIELD ATTRIBUTES

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
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FHWA

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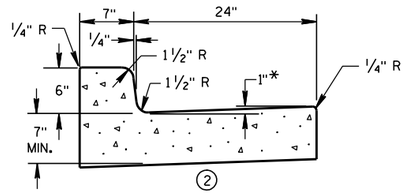
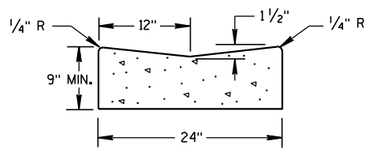
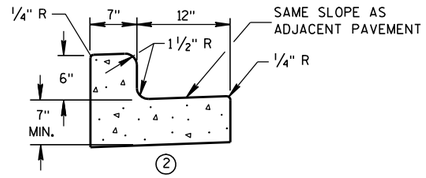


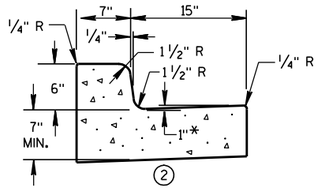
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

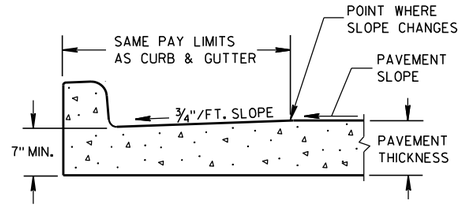


① CONCRETE CURB & GUTTER 19"



① CONCRETE CURB & GUTTER 22"

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



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER

GENERAL NOTES

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

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

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

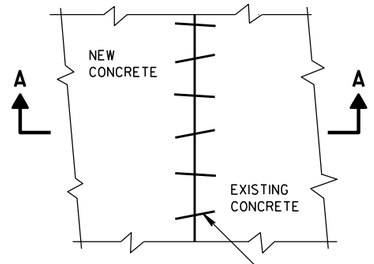
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

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

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

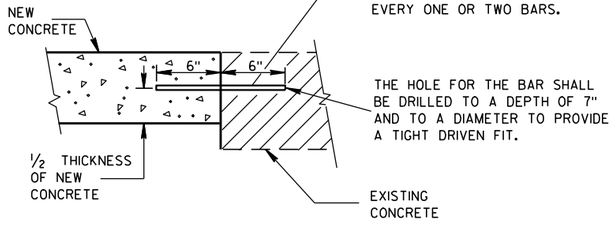
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

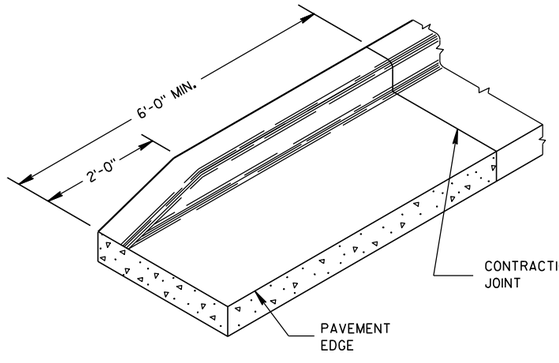
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



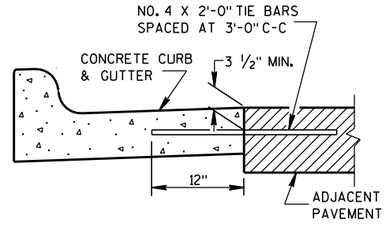
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

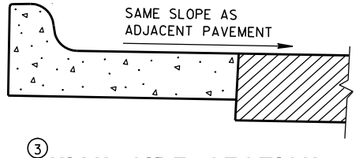
PAVEMENT TIES



END SECTION CURB & GUTTER



① TYPICAL TIE BAR LOCATION



③ HIGH SIDE SECTION

(TYPICAL FOR ALL CURB & GUTTER)

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

(For Optional Use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/2/2010 — DATE

/S/ Jerry Zogg — ROADWAY STANDARDS ENGINEER

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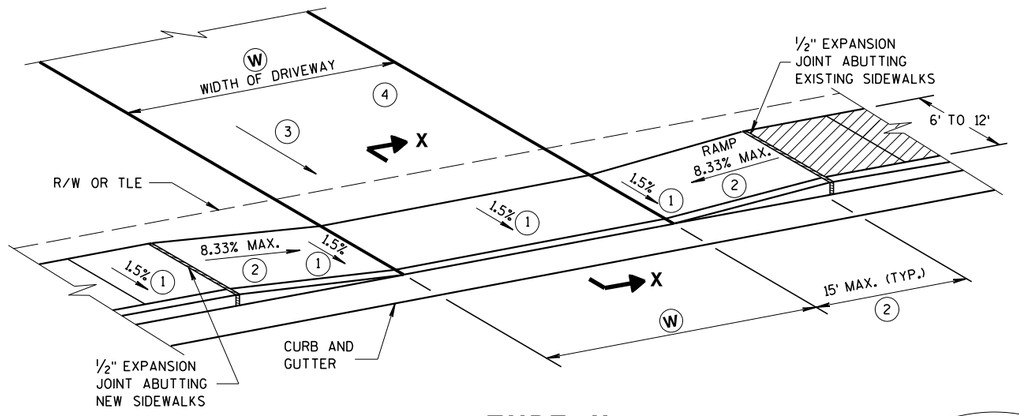
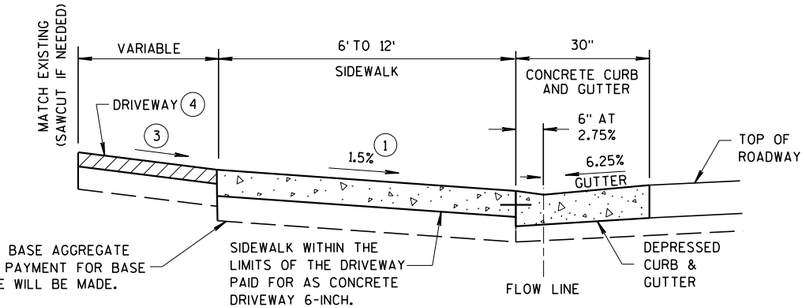
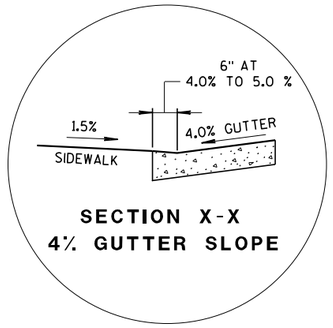


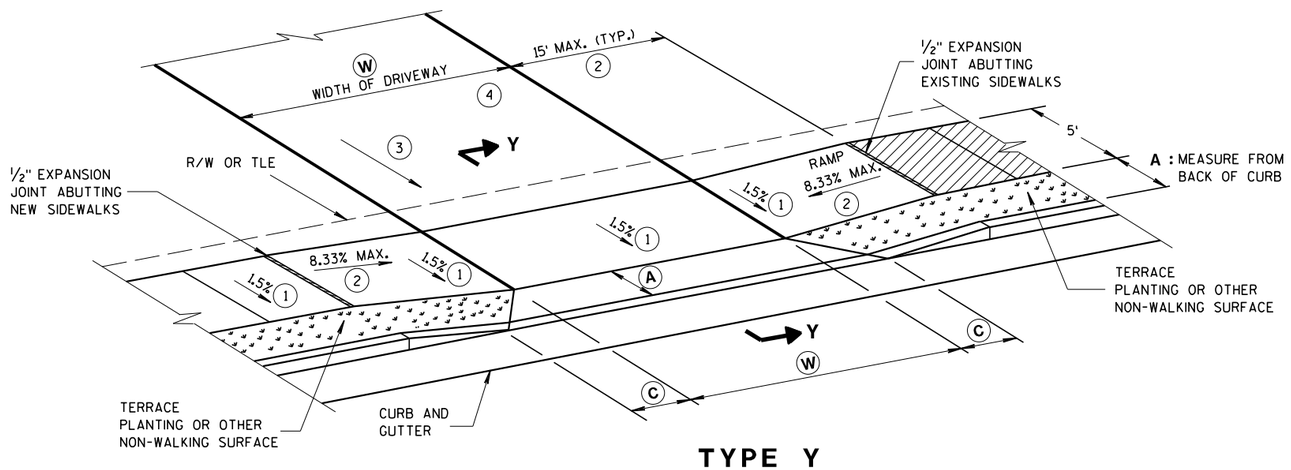
TYPE X
SIDEWALK ABUTS CURB & GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X-X



SECTION X-X
4% GUTTER SLOPE



TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

W: 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

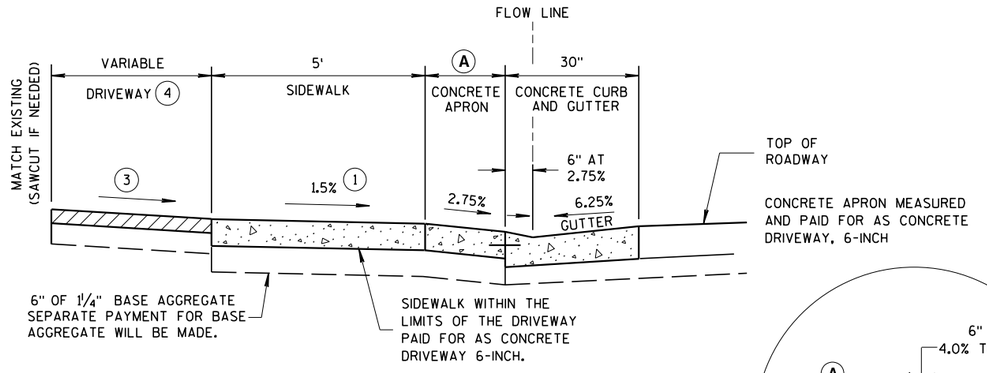
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

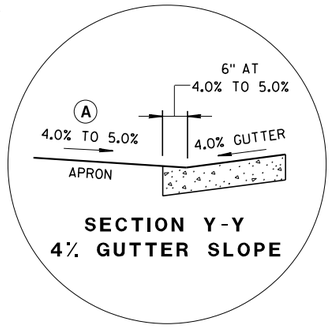
(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y-Y

DRIVEWAY DETAIL
WITH CONCRETE CURB & GUTTER
(URBAN AND SUBURBAN)



SECTION Y-Y
4% GUTTER SLOPE

TABLE Y

(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS
TYPES X & Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

S.D.D. 8 D 18-2

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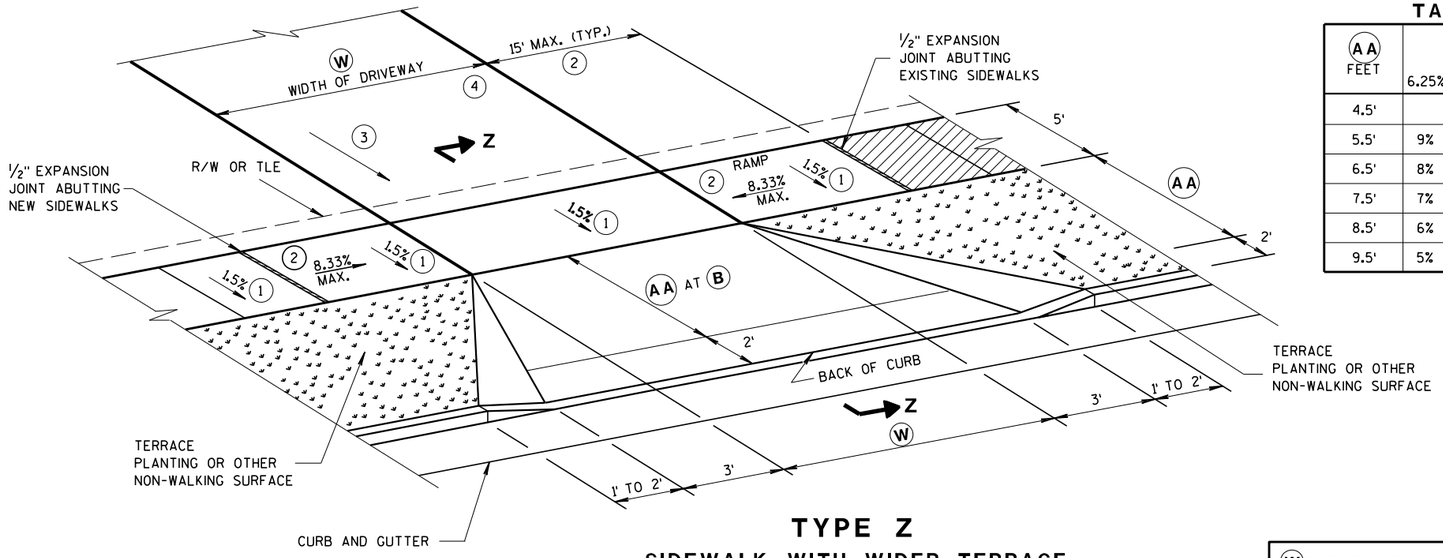


TYPE Z

SIDEWALK WITH WIDER TERRACE

TERRACE VARIES 7 TO 12 FEET

TABLE Z

(AA) FEET	(B) % 6.25% GUTTER	(B) % 4% GUTTER
4.5'	11.5%	9% TO 11.5%
5.5'	9% TO 11.5%	8% TO 11.5%
6.5'	8% TO 11.5%	6% TO 11.5%
7.5'	7% TO 11.5%	6% TO 11.5%
8.5'	6% TO 11.5%	5% TO 11.5%
9.5'	5% TO 11.5%	4% TO 11.5%

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM

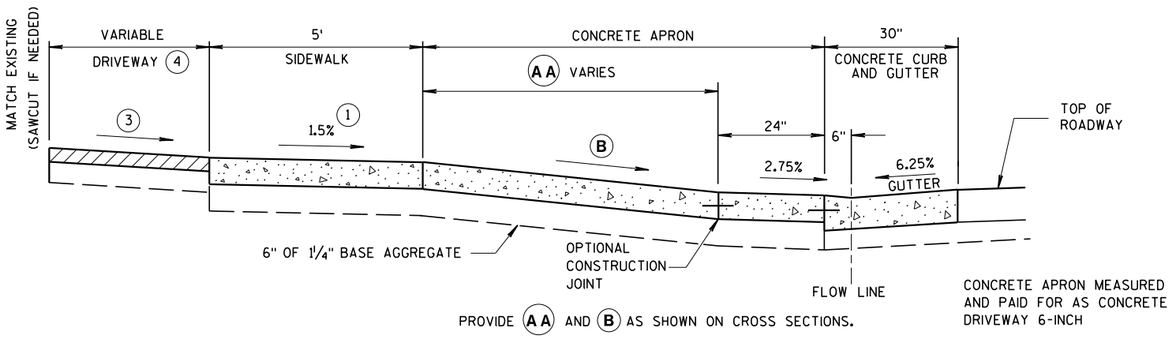
10.5% UP AWAY FROM SIDEWALK (SAG)

8.5% DOWN AWAY FROM SIDEWALK (CREST)

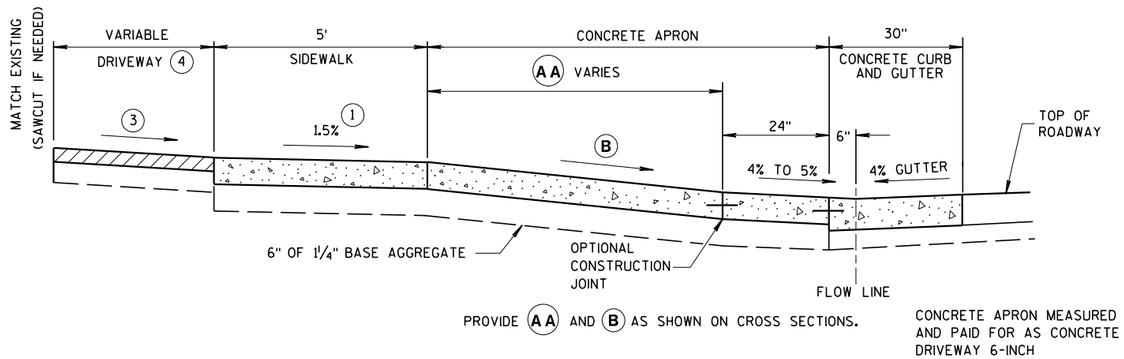
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES

- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)



6.25% GUTTER SLOPE



4% GUTTER SLOPE

NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS FOR **B** VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.

SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

SECTION Z-Z

DRIVEWAY DETAIL WITH CONCRETE CURB & GUTTER

(URBAN AND SUBURBAN)

NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS TYPE Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

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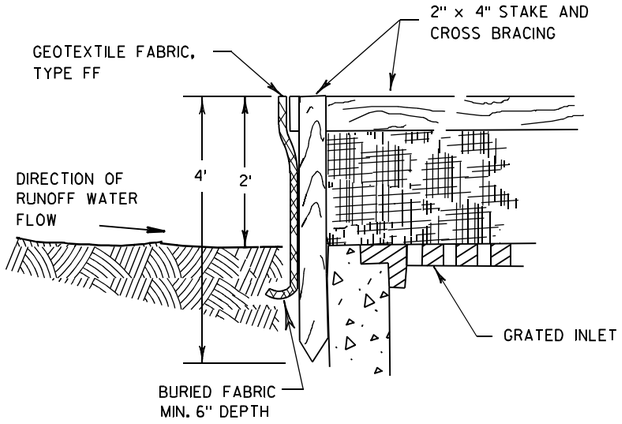
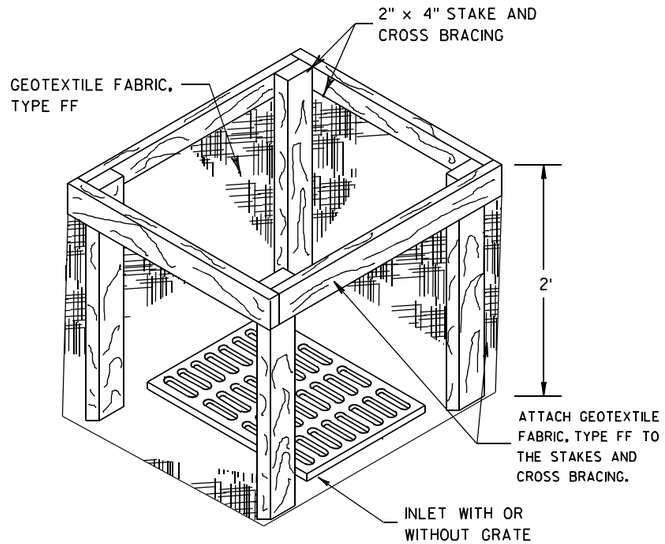
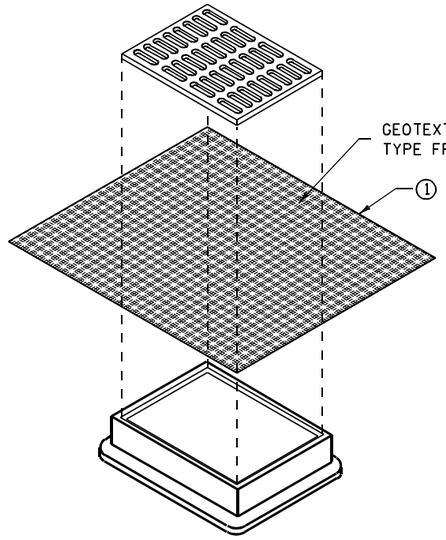


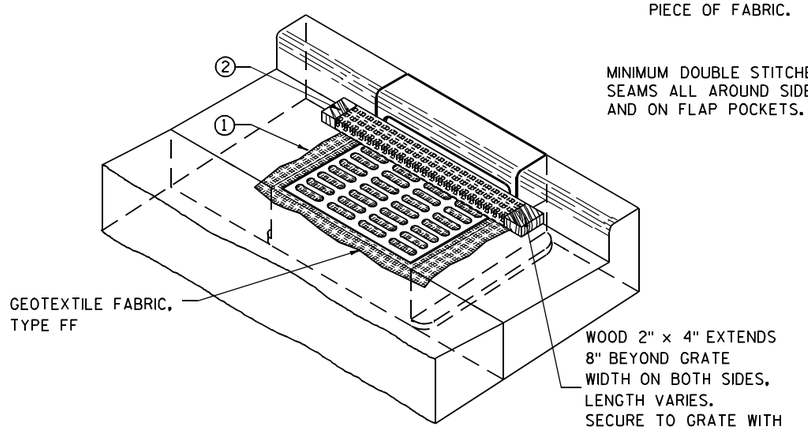


INLET PROTECTION, TYPE A

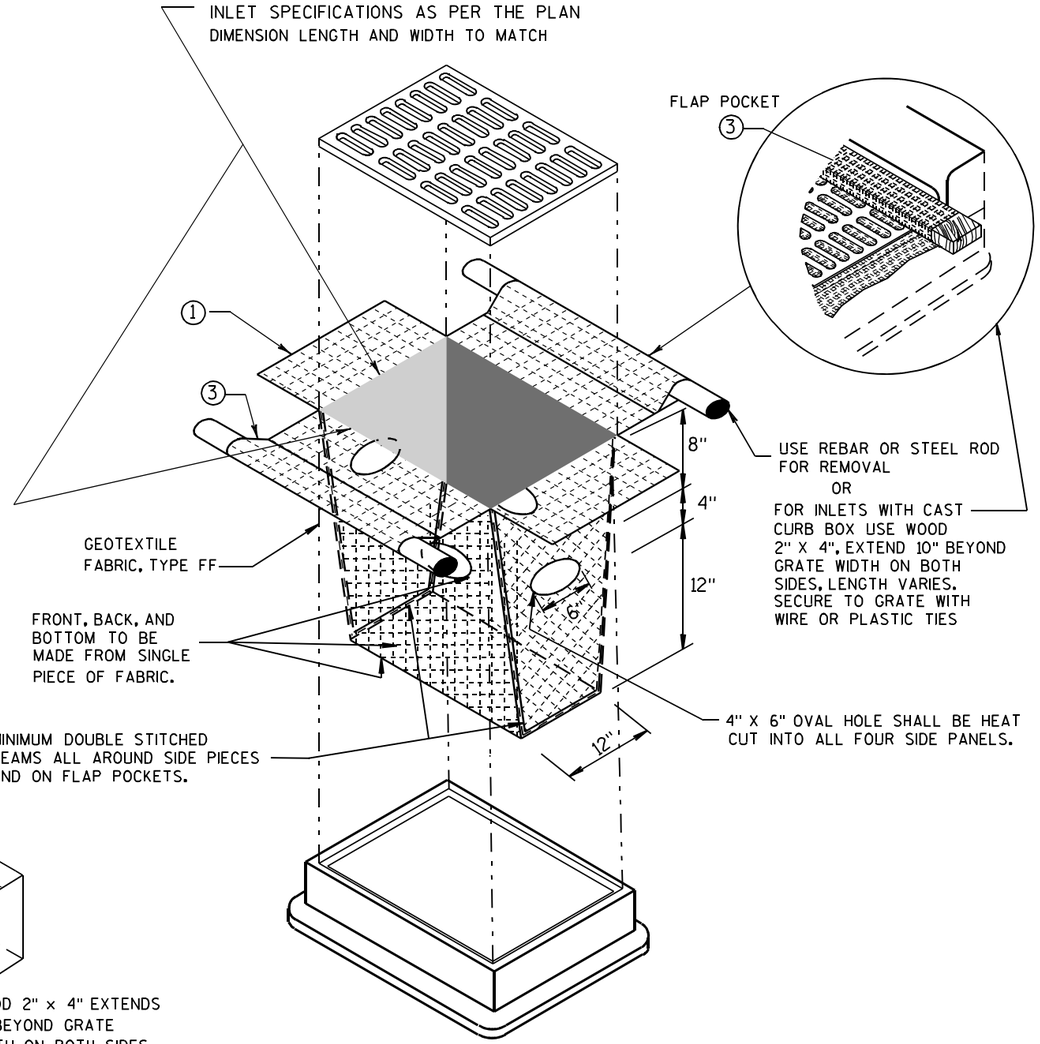


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

6

S.D.D. 8 E 10-2

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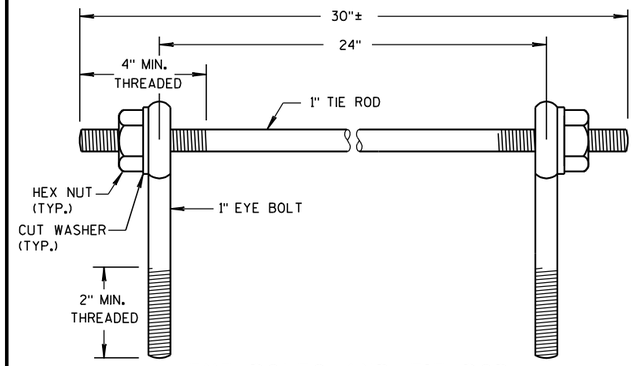
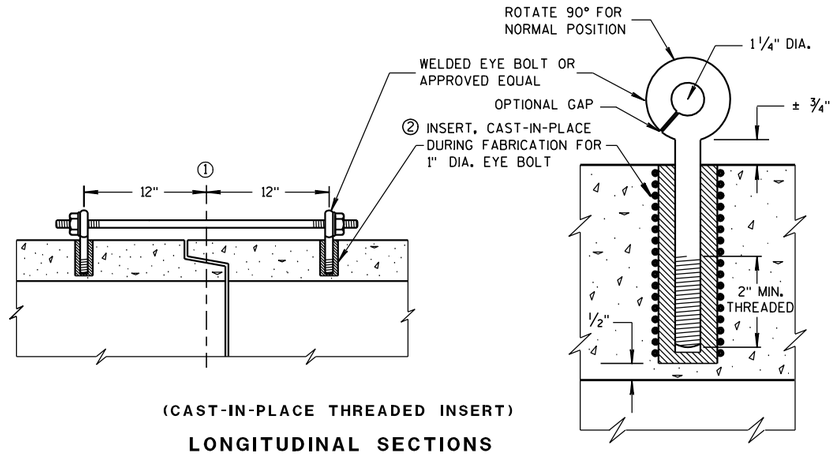
S.D.D. 8 E 10-2



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

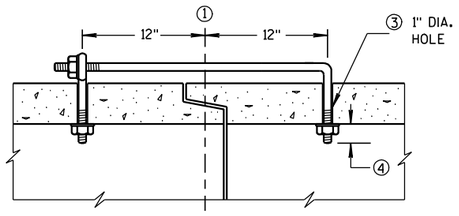
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

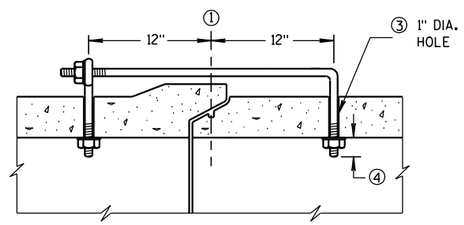
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

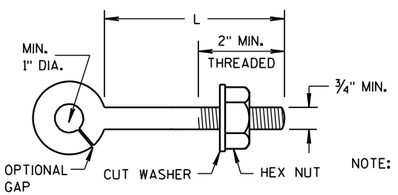


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

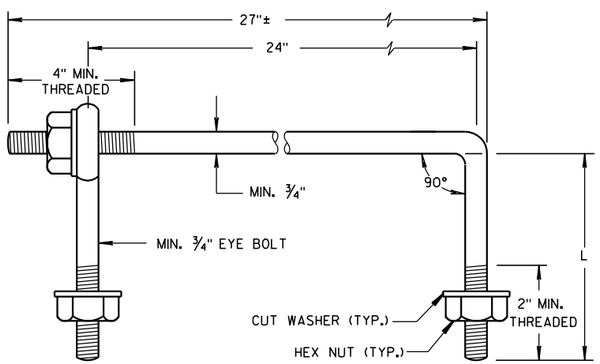
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

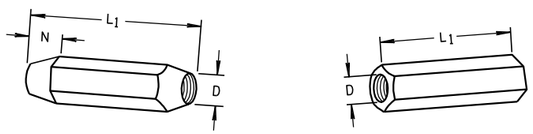
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

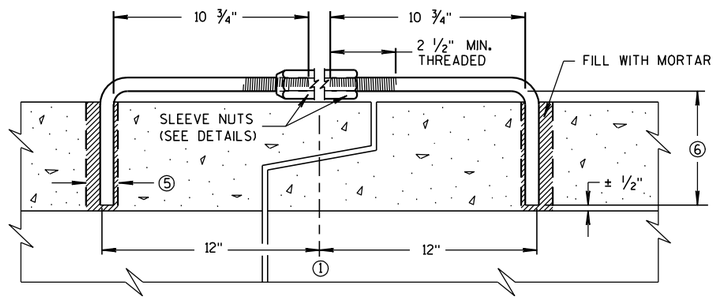
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

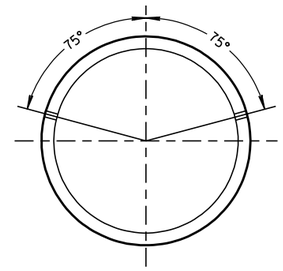
SLEEVE NUTS



LONGITUDINAL SECTION

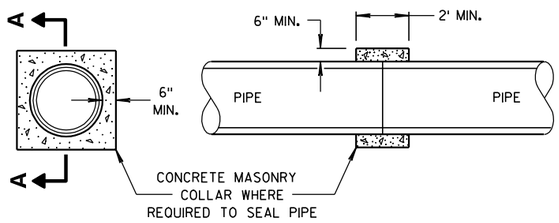
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
322
FHWA

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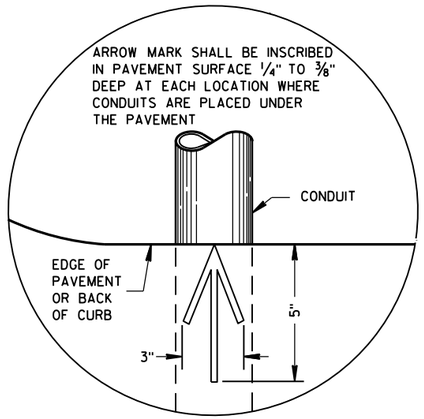
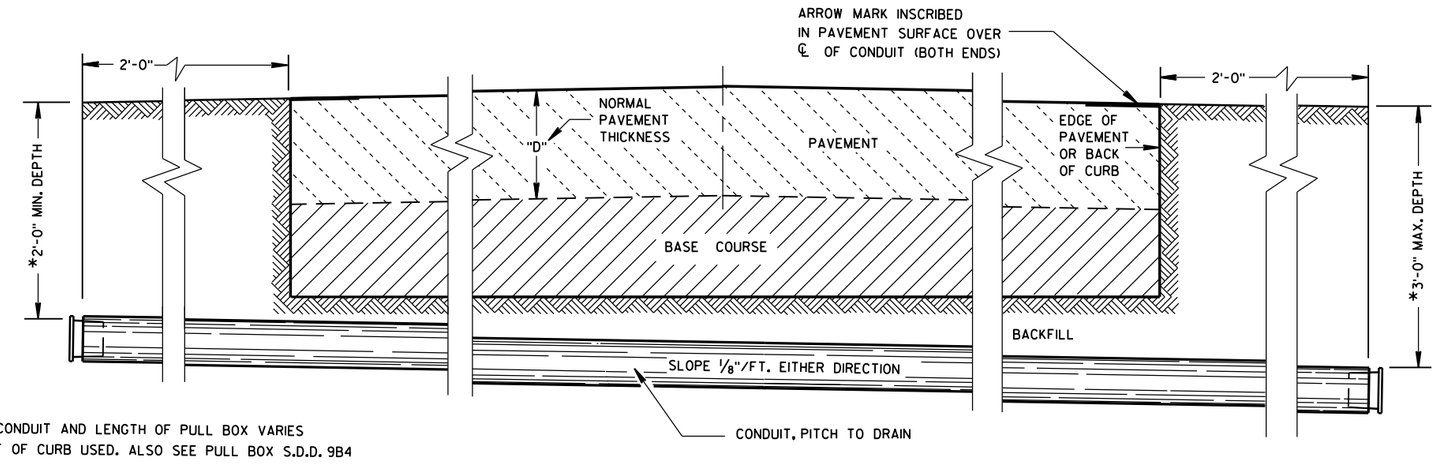
S.D.D. 8 F 4-7



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

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

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

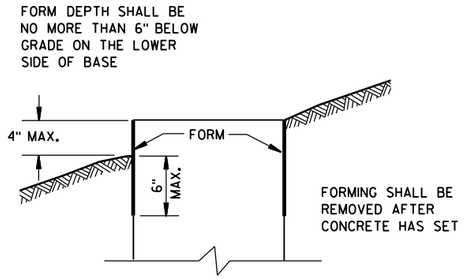
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 323
FHWA

6

S.D.D. 9 B 2-10



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 DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

GENERAL NOTES (CONTINUED)

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

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

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

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

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES 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" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END 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 BY THE ENGINEER.

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

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

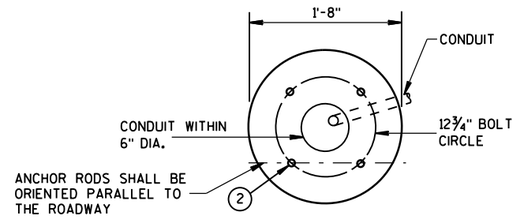
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

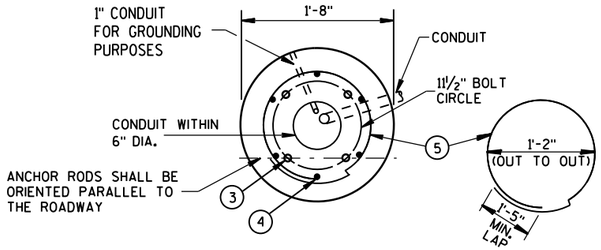
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

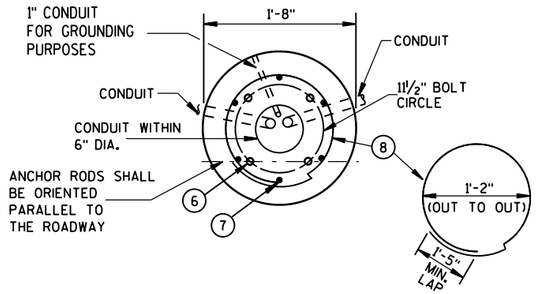
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

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

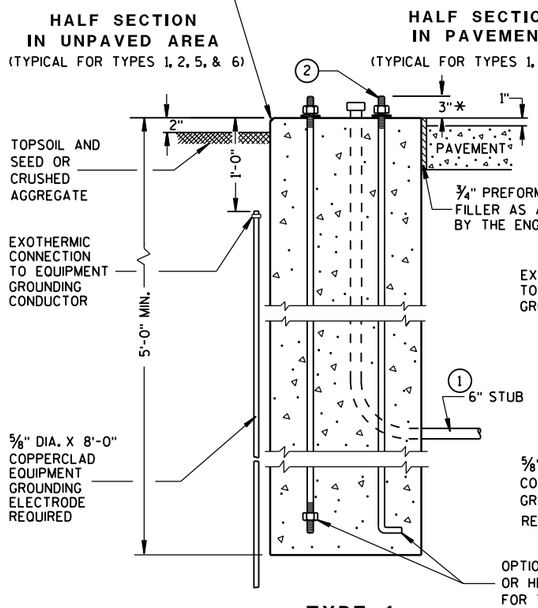
(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.





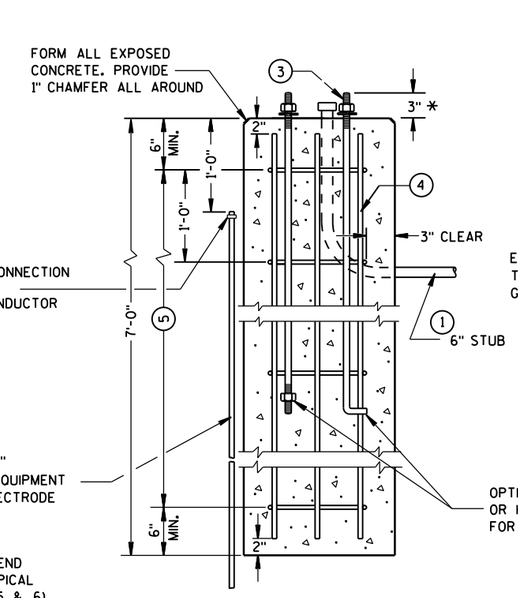


HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)

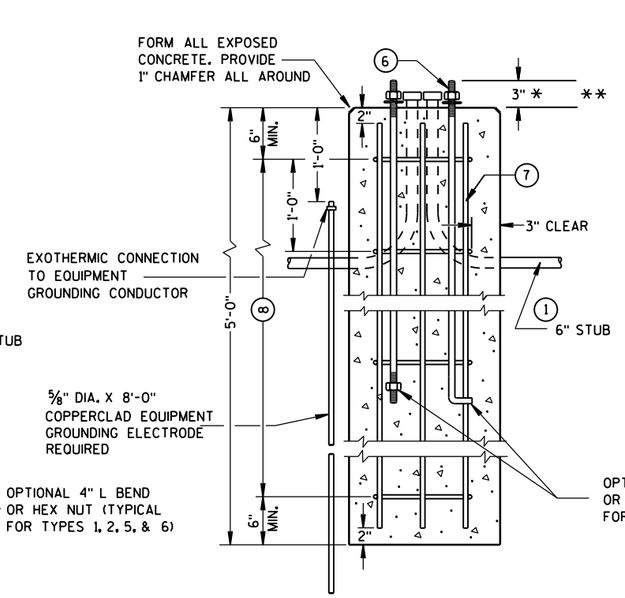


HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)

TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 324
FHWA

6
S.D.D. 9 C 2-7

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

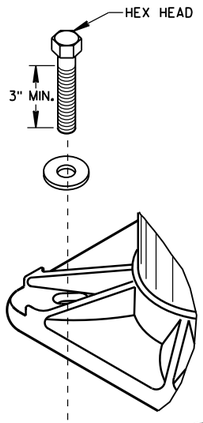
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

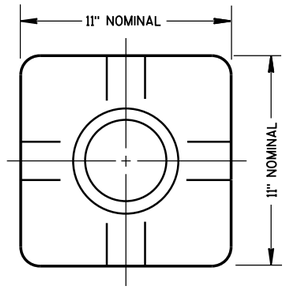
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

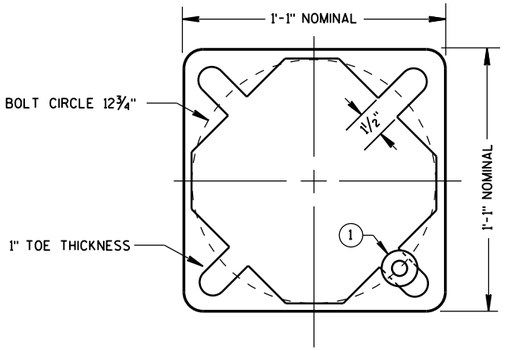
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

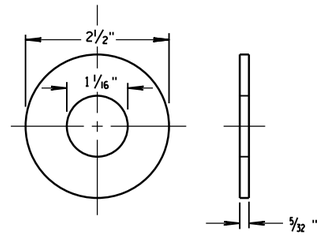




TOP VIEW
(PEDESTAL BASE)

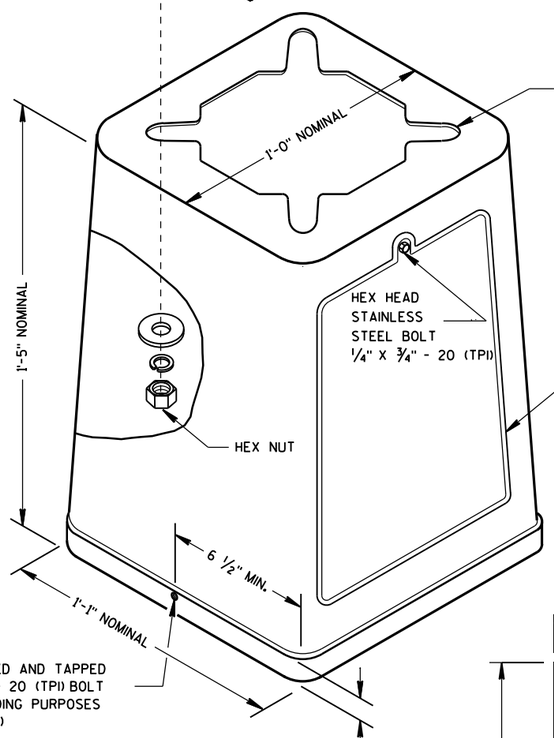


BOTTOM VIEW
(PEDESTAL BASE)

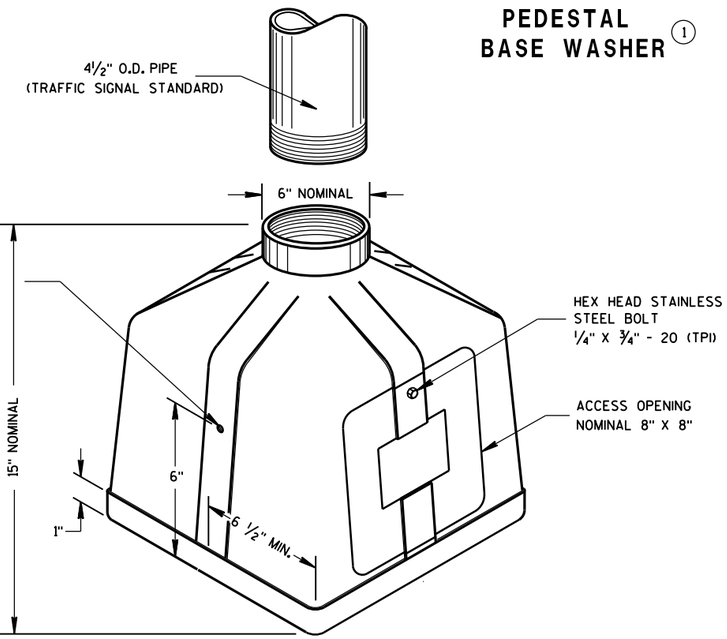


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

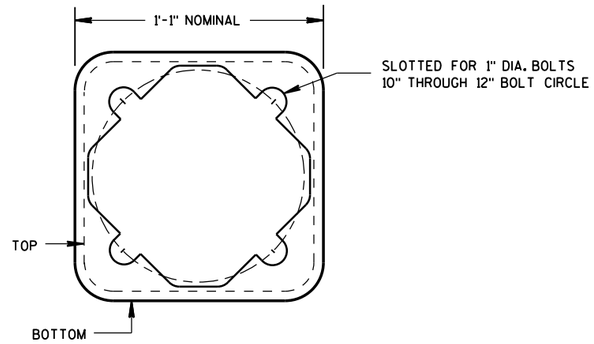


ISOMETRIC VIEW

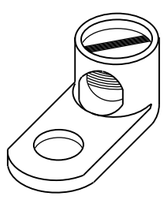


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

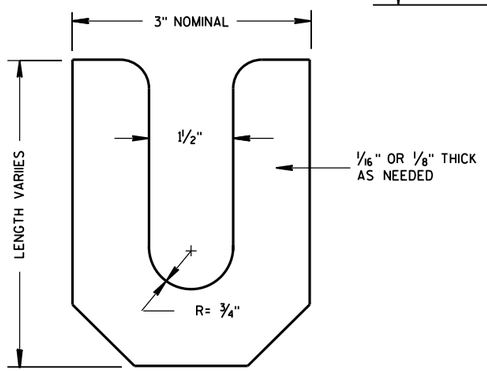


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
325
FHWA

6

S.D.D. 9 C 3-4

6

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 SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

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

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

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

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

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

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

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

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

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

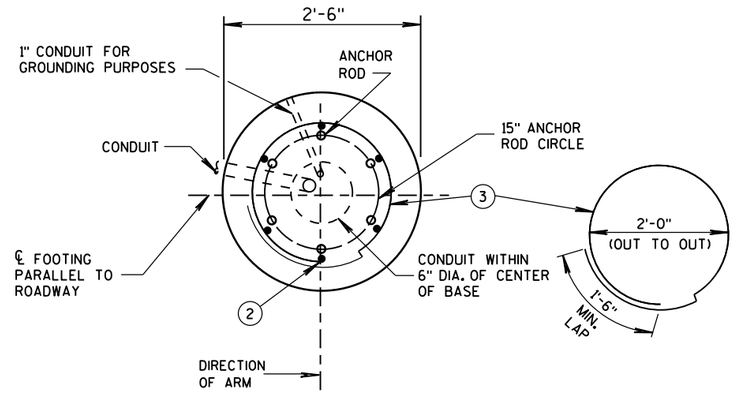
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

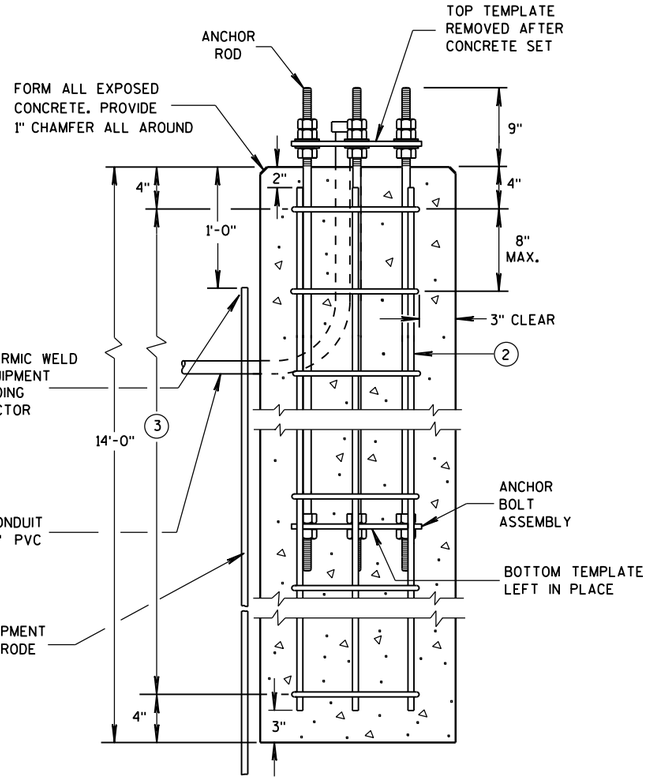
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES. (GREATER THAN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

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

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

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.

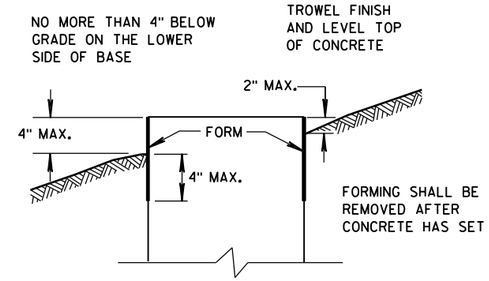




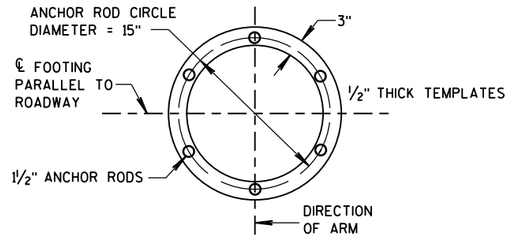
CONCRETE BASE TYPE 10

(FOR TYPE 9 & 10 & OVER HEIGHT (OH) POLES)

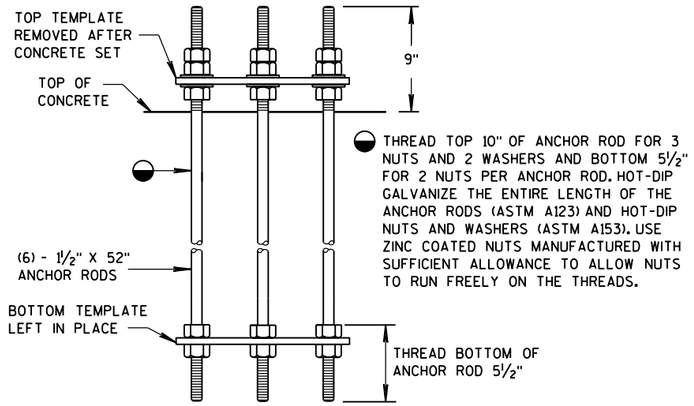
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

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

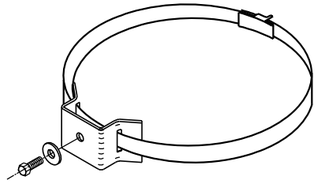
CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

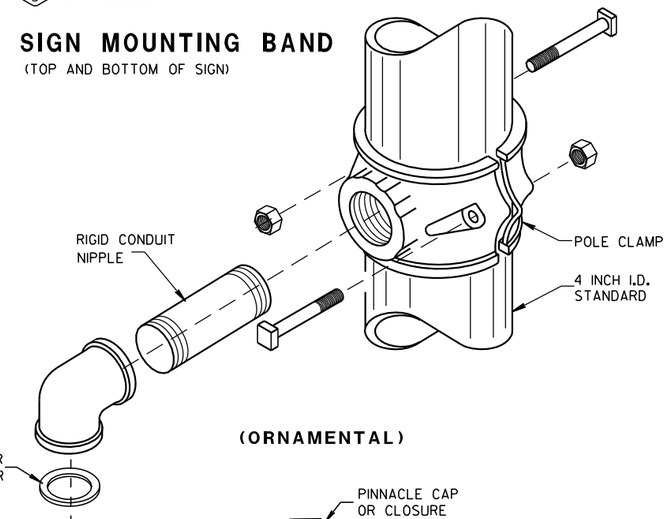
APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 C 11-10



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



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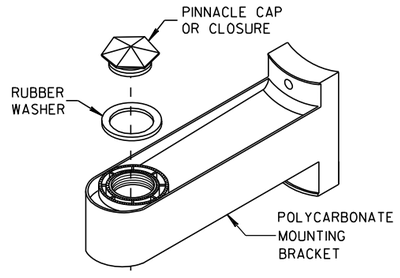

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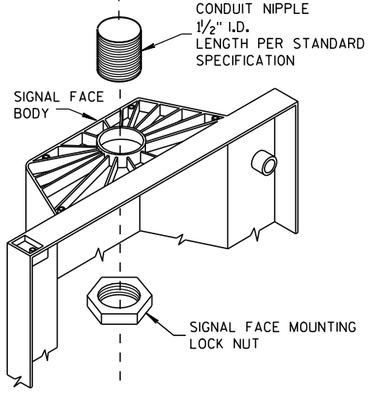
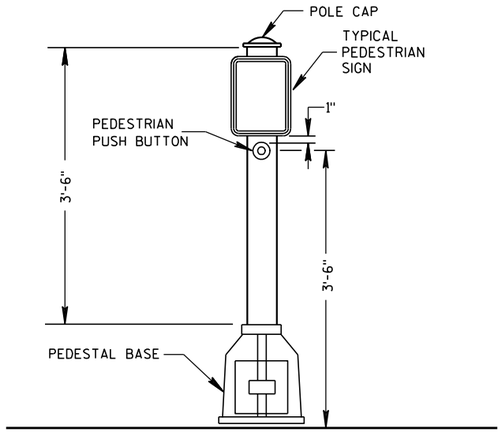


SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

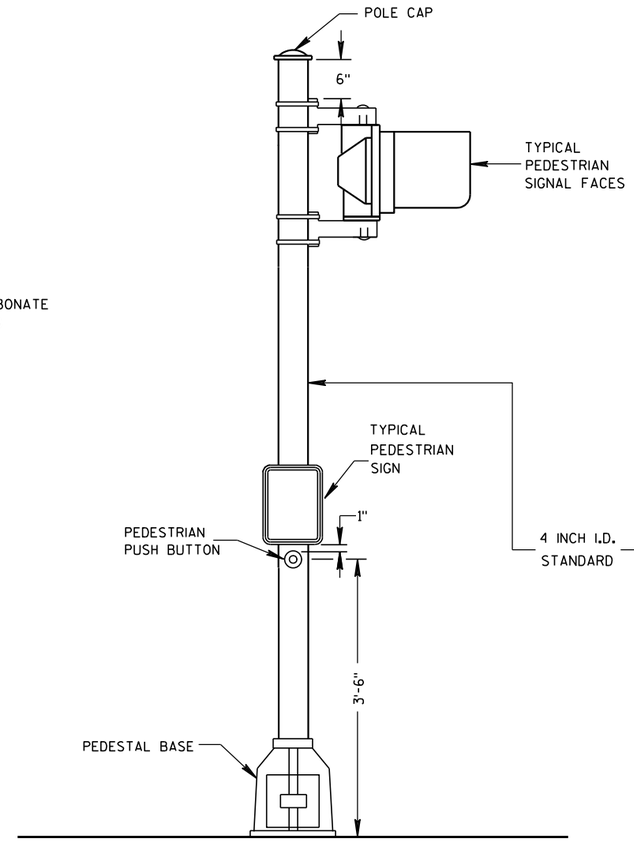
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

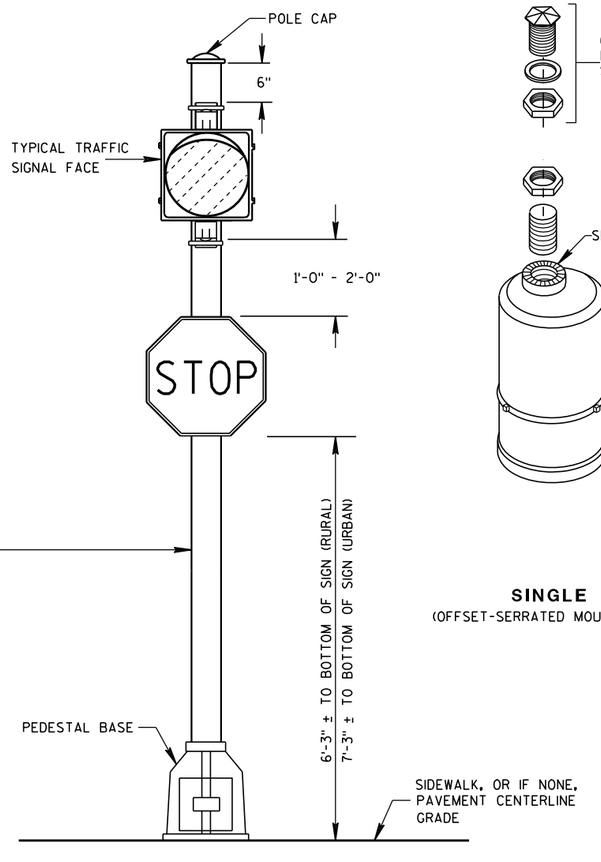
MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

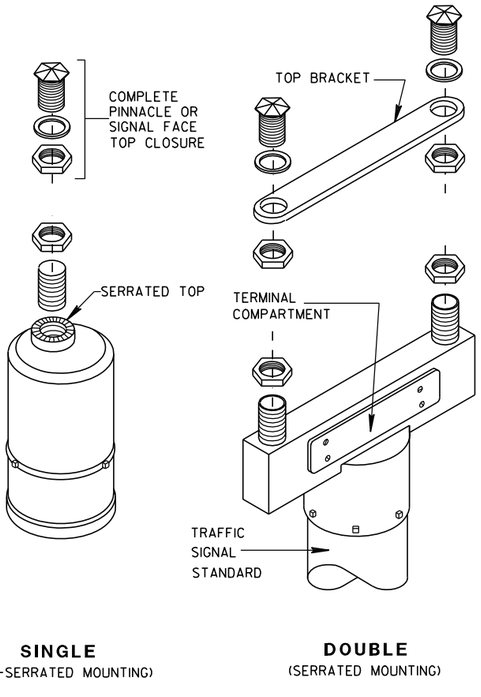
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)



STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET-SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/11/10
DATE

/S/ John Corbin
STATE ELECTRICAL ENGI 327

FHWA

HWYS

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S.D.D. 9 E 7-5

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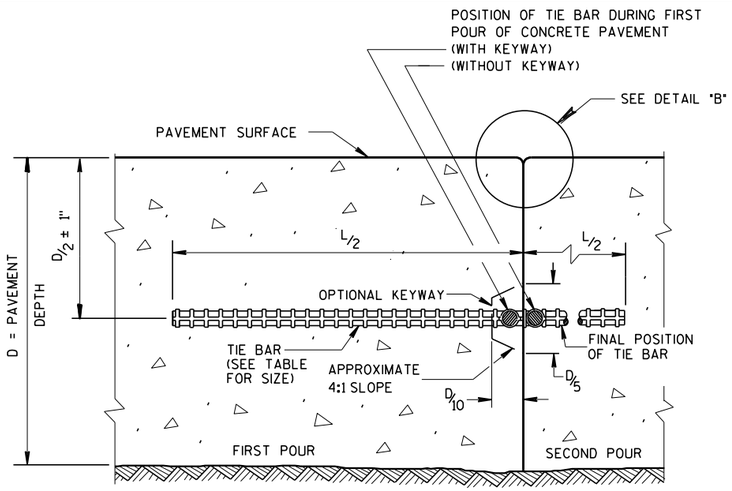
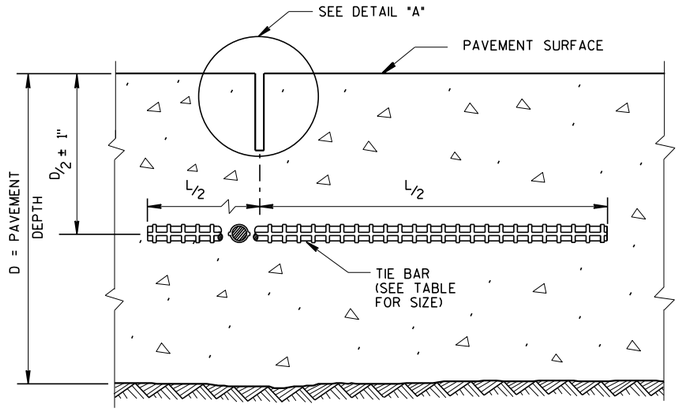


CONSTRUCTION JOINT



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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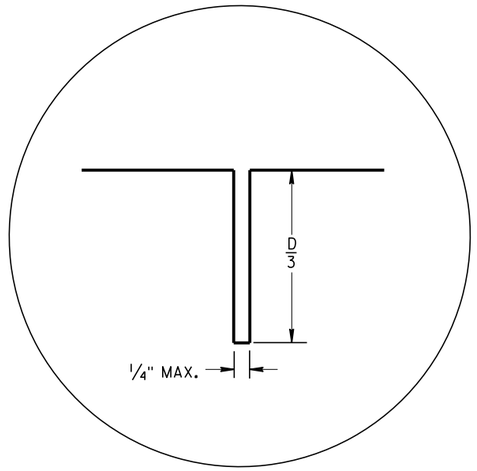
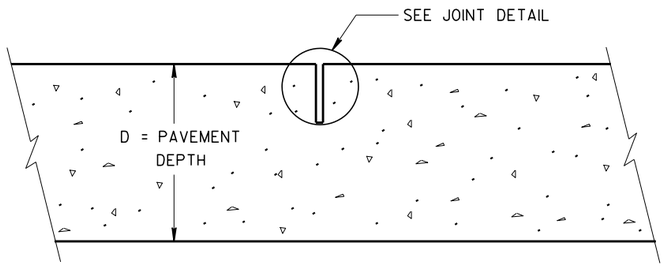
S.D.D. 13 C 1-19



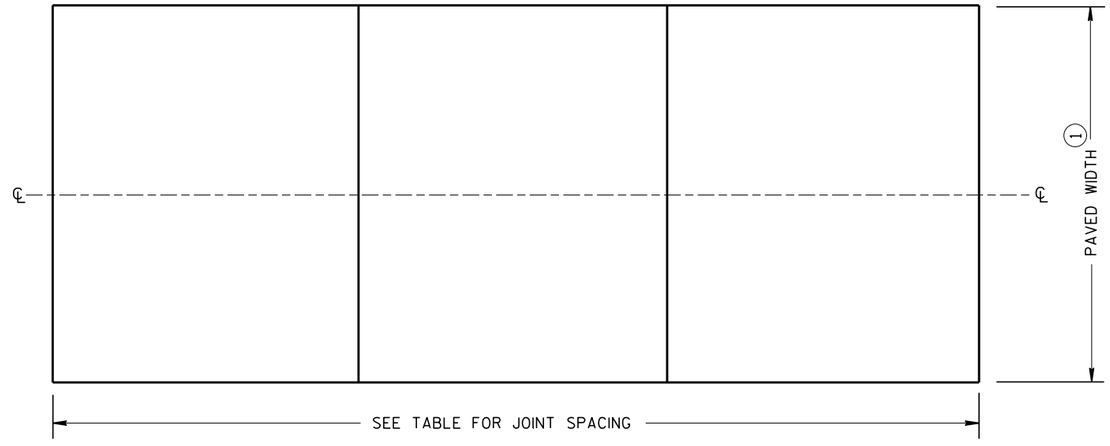
JOINT DETAIL



CONTRACTION JOINT

PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE.

LOCATE AND ORIENT CONTRACTION JOINTS THROUGH INTERSECTIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

CONSTRUCTION JOINTS

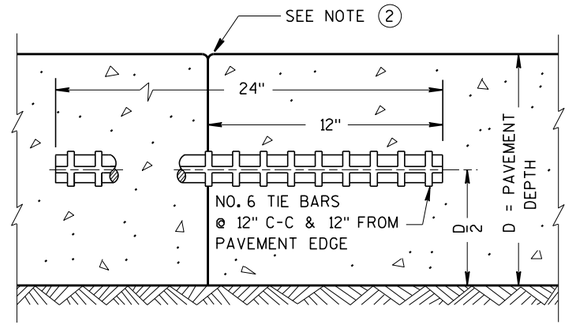
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

FORM OR SAW CONSTRUCTION JOINTS.

THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

(1) REFER TO TYPICAL CROSS SECTIONS FOR PAVED WIDTH AND LOCATION OF LONGITUDINAL JOINTS.

(2) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.



TIED TRANSVERSE CONSTRUCTION JOINT

URBAN
NON-DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPI

FHWA

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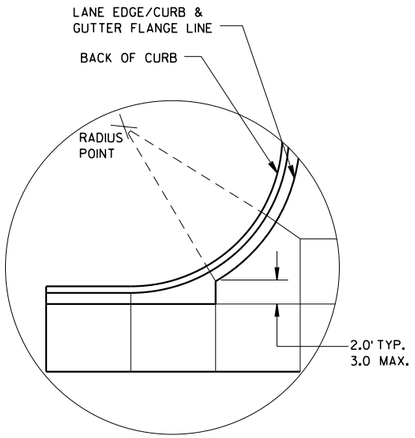
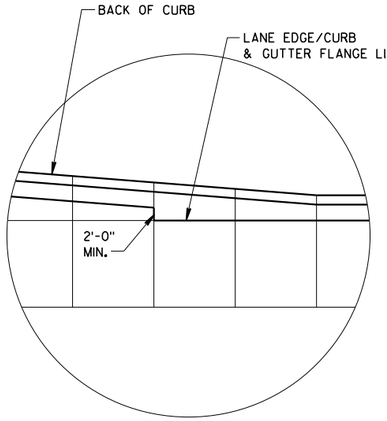
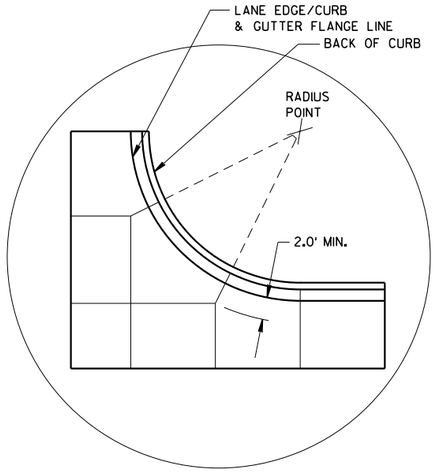
S.D.D. 13 C 4-17



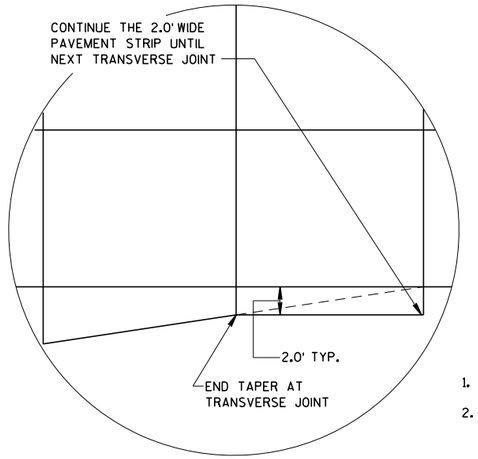
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

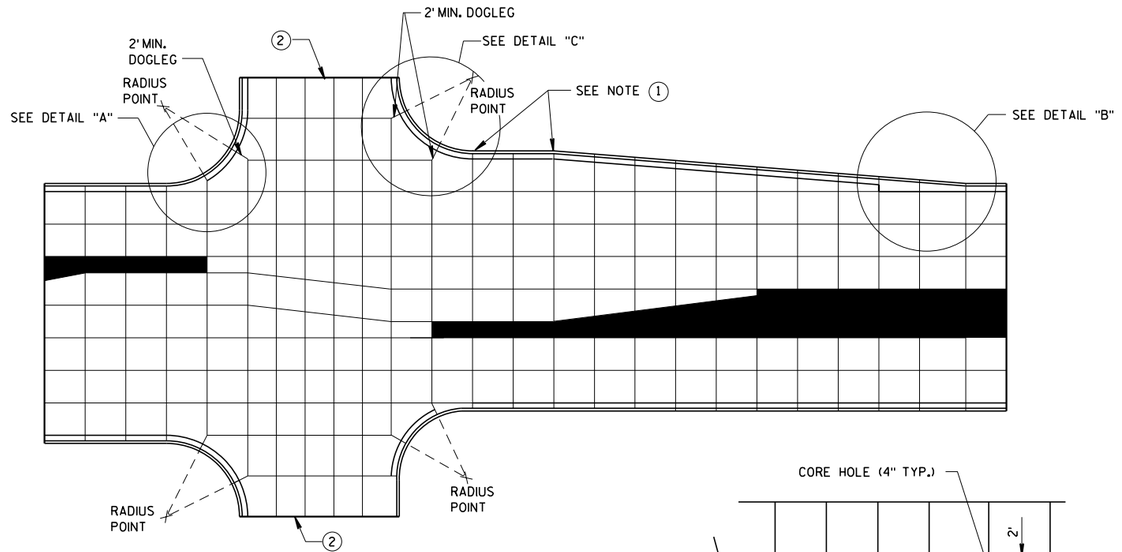
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.

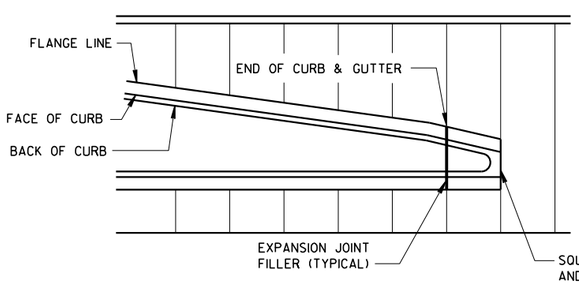


STANDARD INTERSECTION

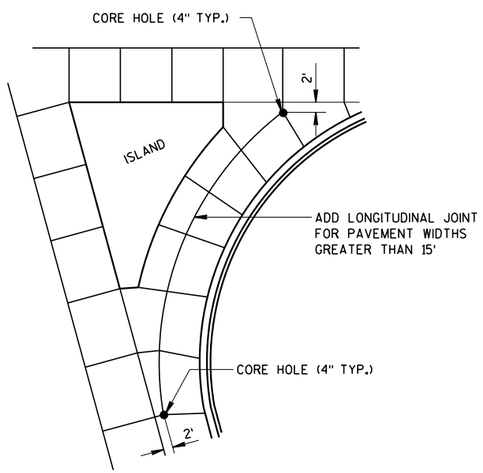
PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'

SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

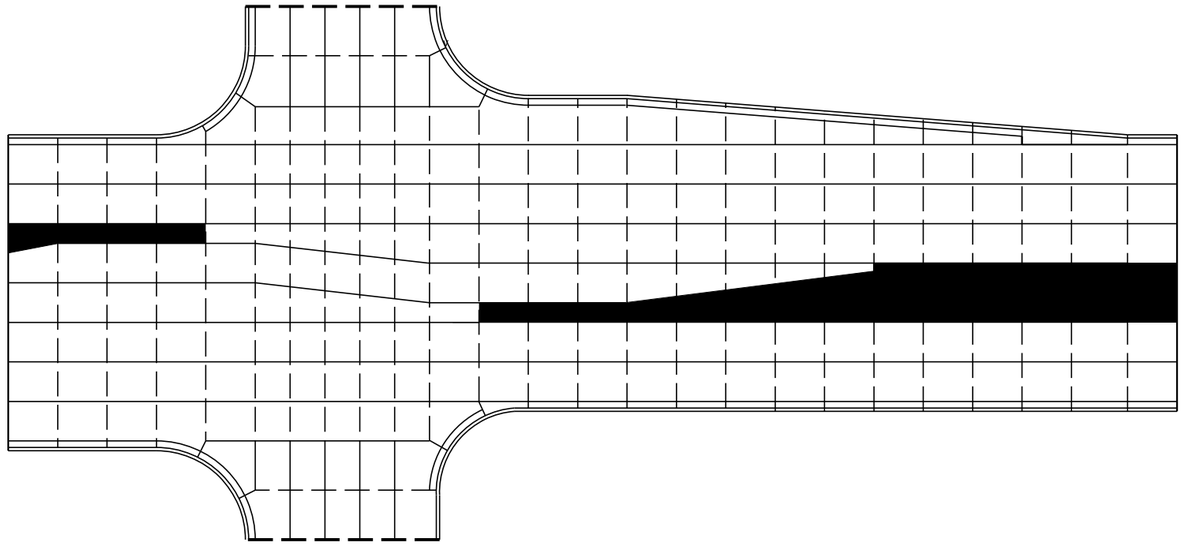
6
S.D.D. 13 C 18-6a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

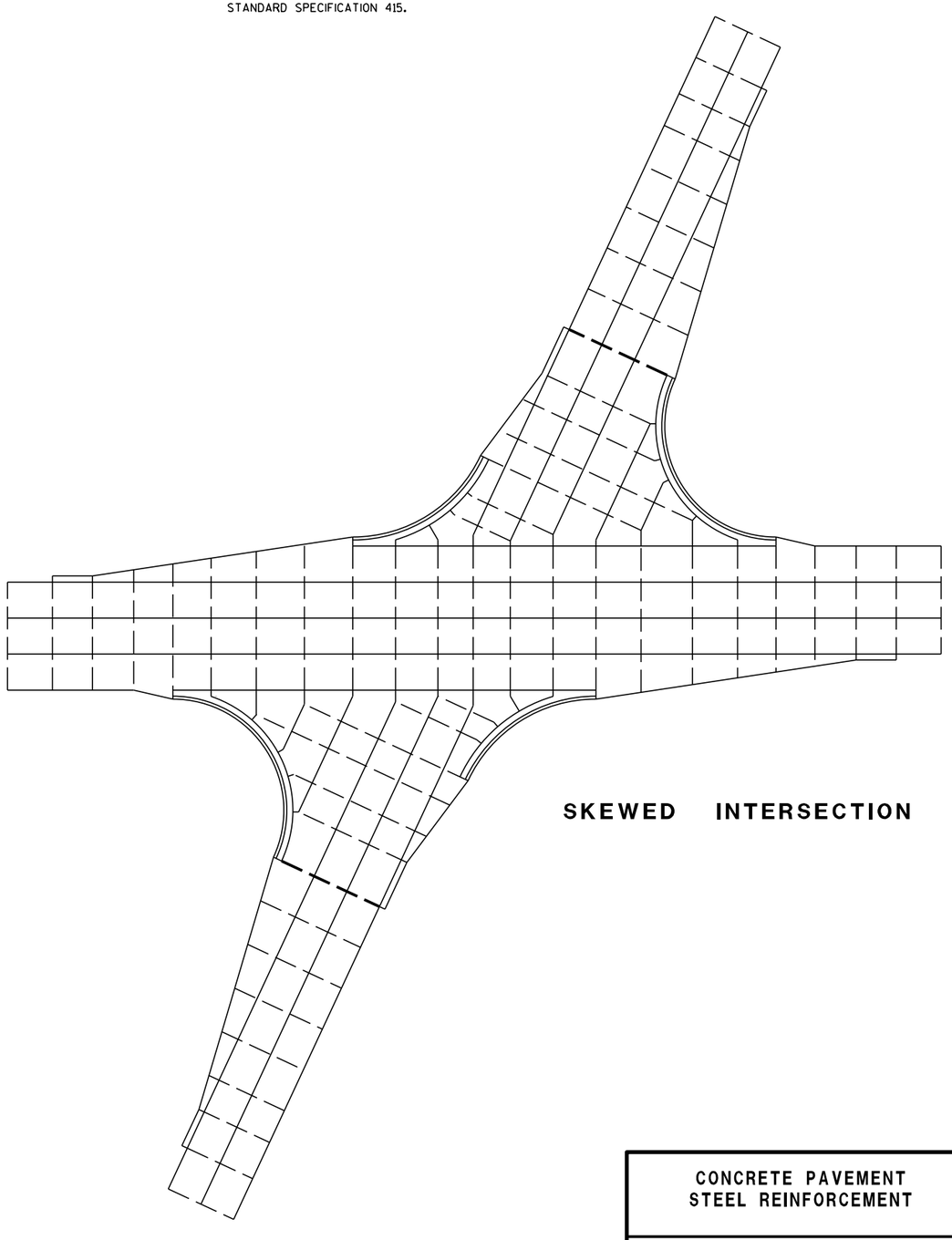
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

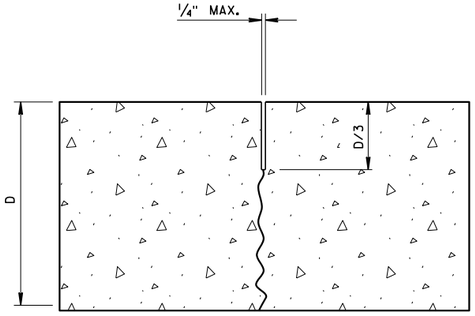
6

S.D.D. 13 C 18-6b

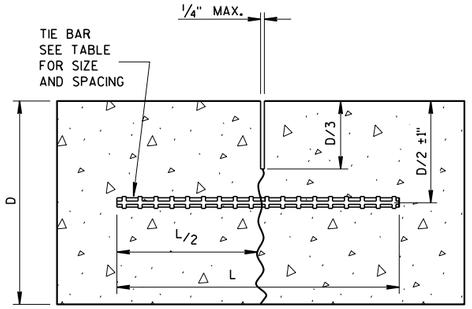
CONCRETE PAVEMENT
STEEL REINFORCEMENT

6

S.D.D. 13 C 18-6b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

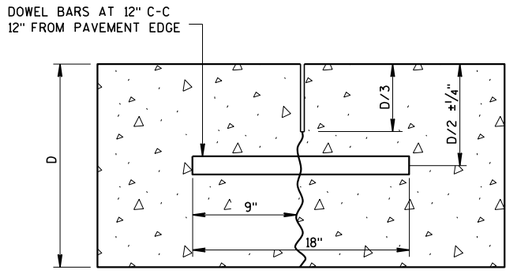
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* 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.

GENERAL NOTES

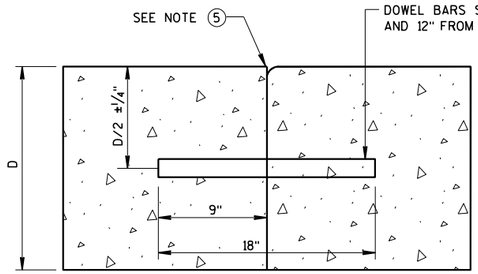
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 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 1/4-INCH RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



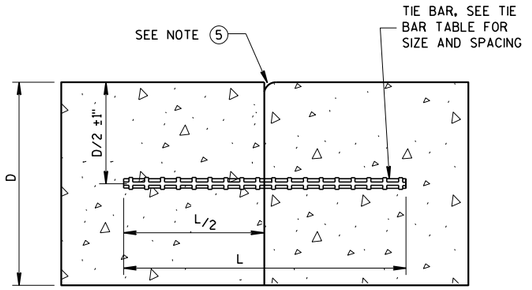
DOWELED-TRANSVERSE

CONTRACTION JOINTS

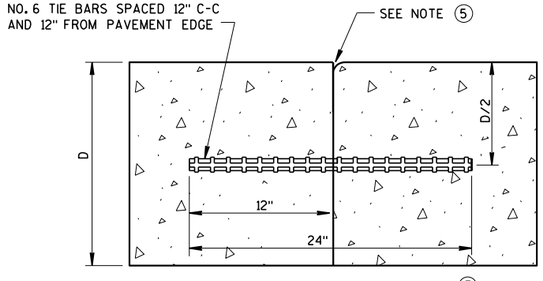
SEE NOTE (2)



DOWELED TRANSVERSE (3)

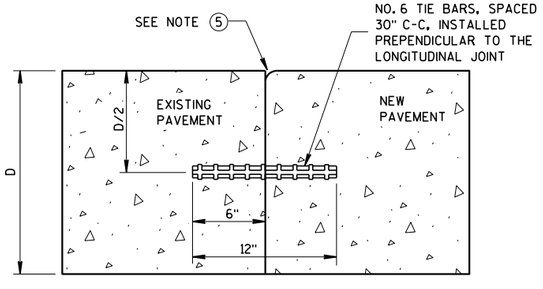


TIED LONGITUDINAL



TIED TRANSVERSE (3)

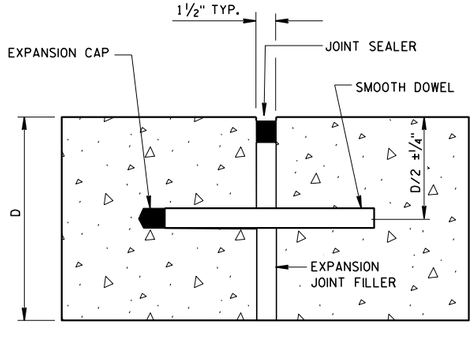
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

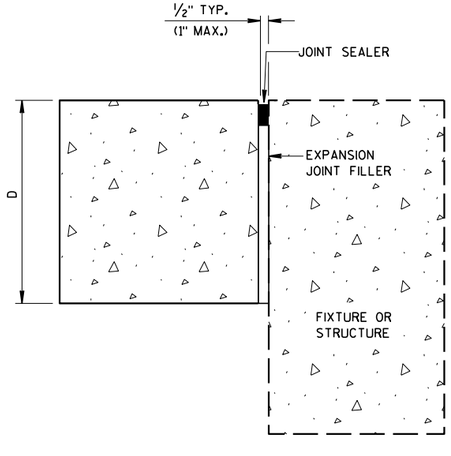
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

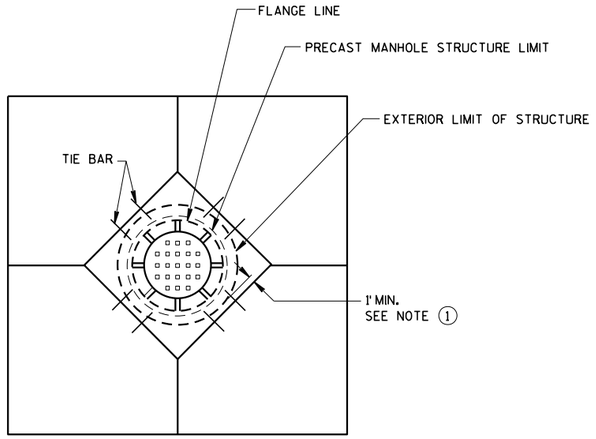
EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

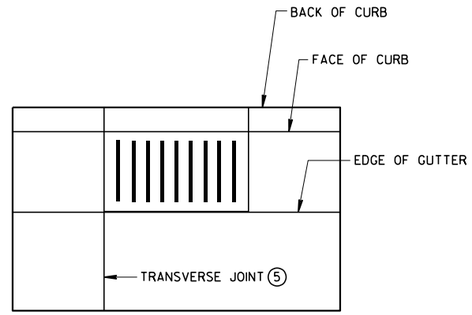
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

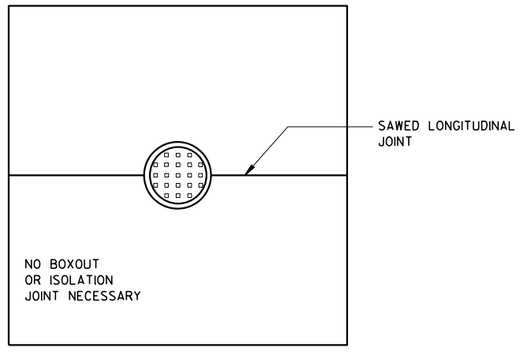
S.D.D. 13 C 18-6c



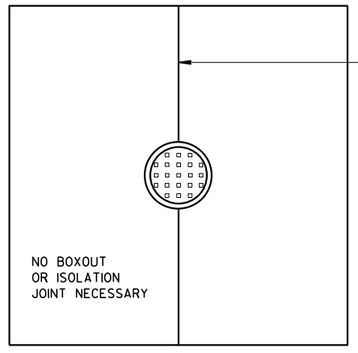
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



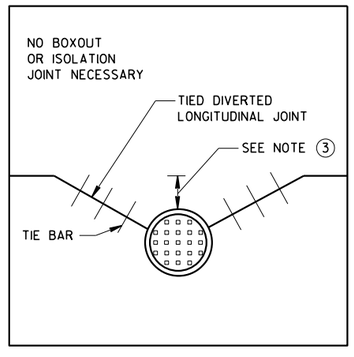
INLET WITH TRANSVERSE JOINT



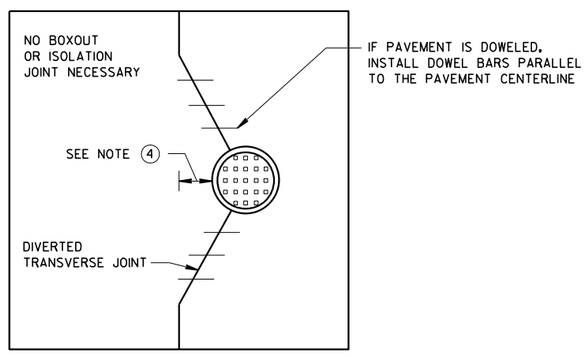
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION 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 LONGITUDIAL 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 REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 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 REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter K[illegible] P.E. — PAVEMENT SUPT
FHWA

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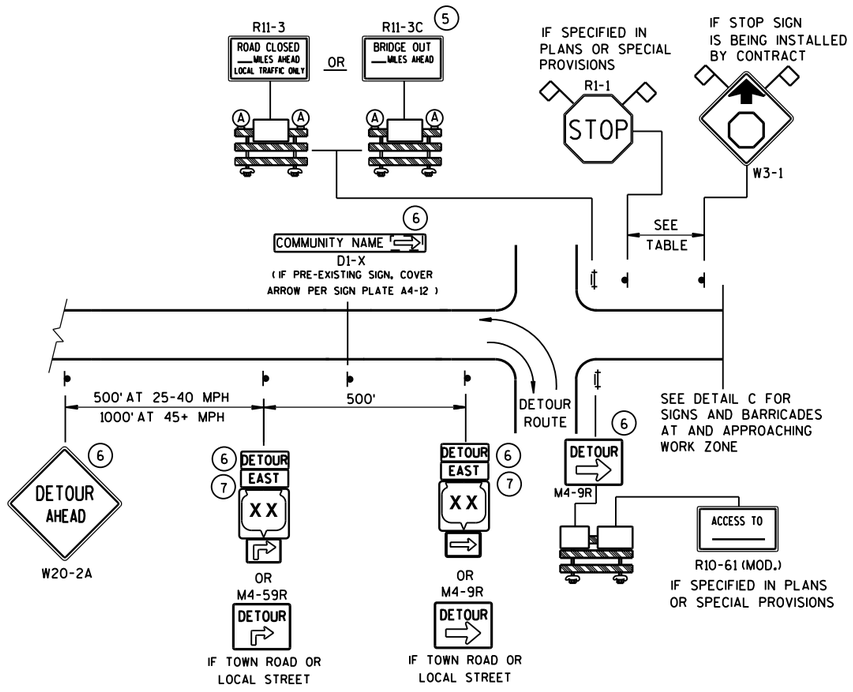
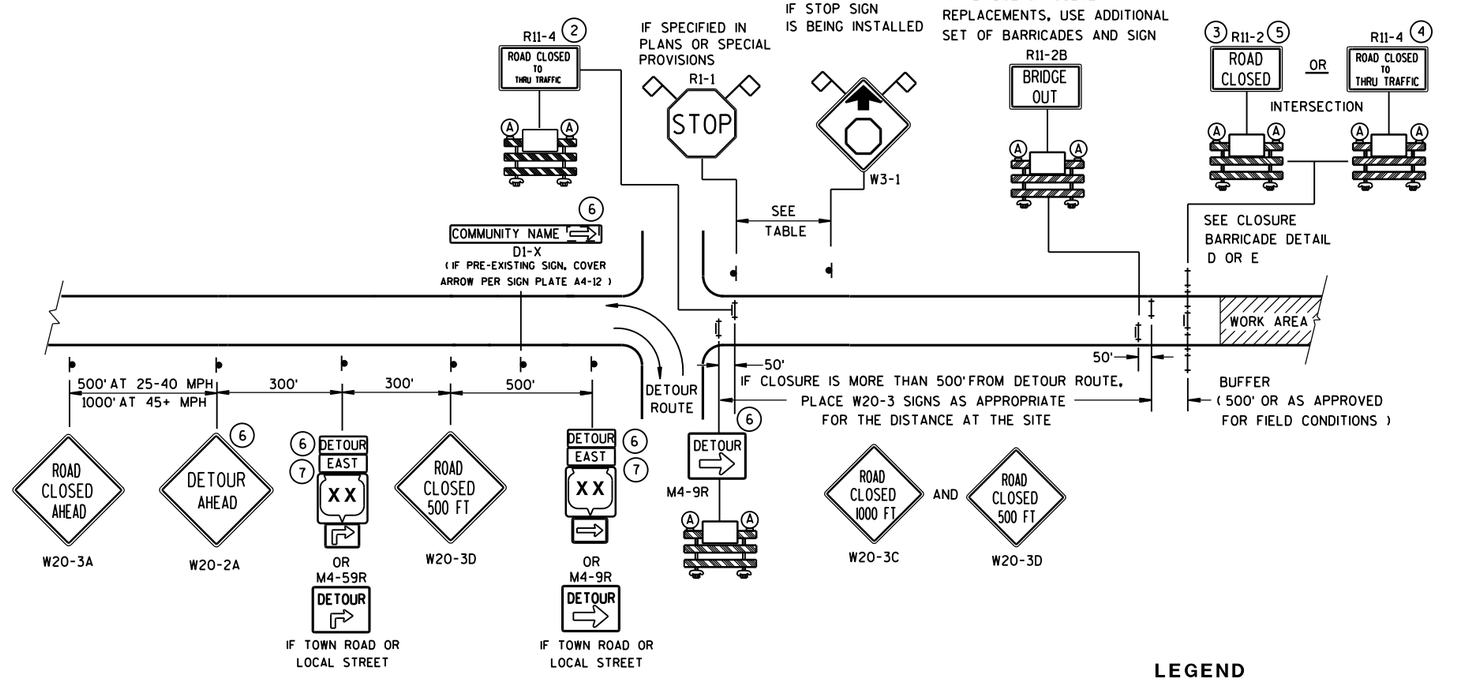
S.D.D. 13 C 18-6d



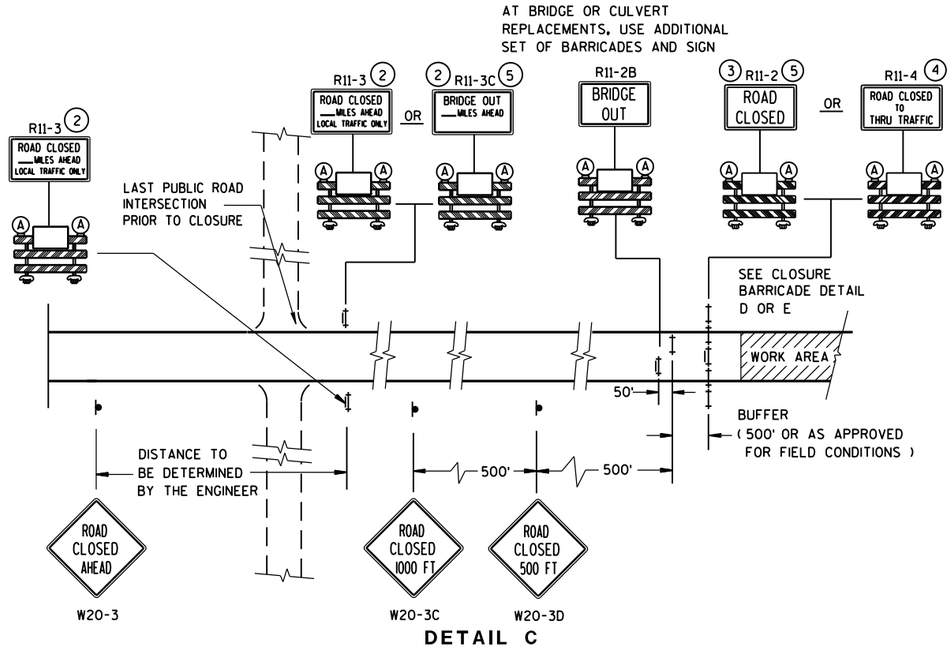
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN 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
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

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S.D.D. 15 C 2-6a

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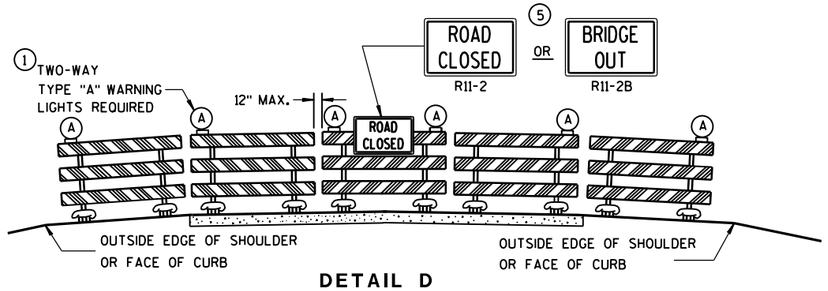
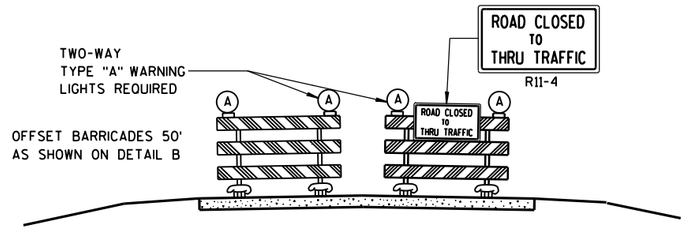
S.D.D. 15 C 2-6a



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 BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE 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, 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". (30" X 15" 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.)
- 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 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 LANE 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 MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGI
FHWA

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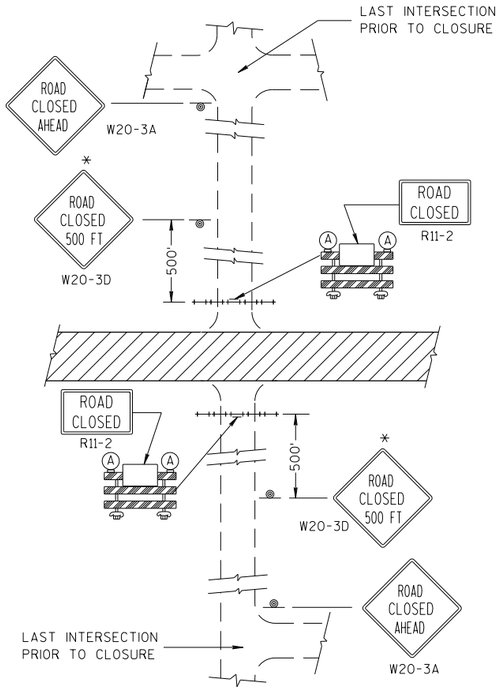
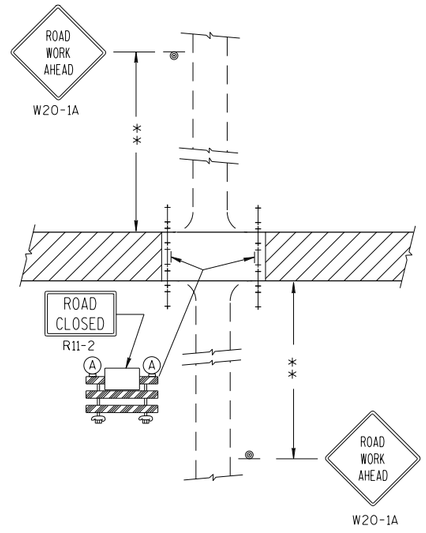
S.D.D. 15 C 2-6b



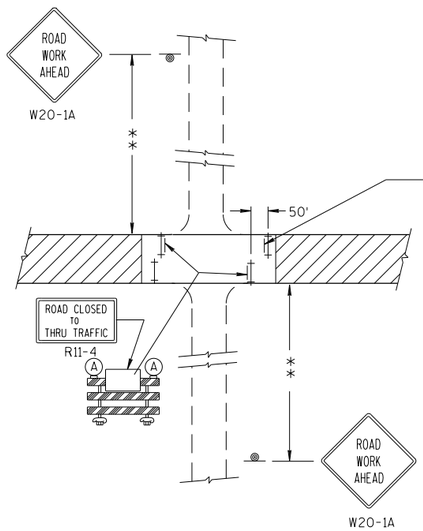
DETAIL 1

(NO ACCESS TO PROJECT)



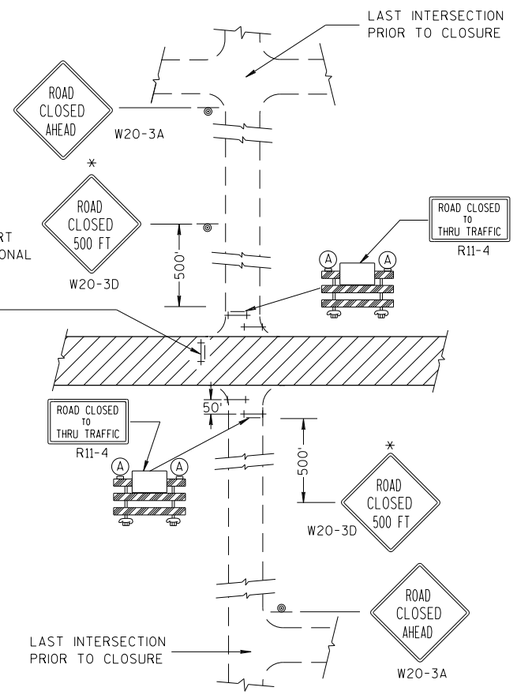
DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR,
LOCAL BUSINESS AND RESIDENT ACCESS).



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 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 RE-ESTABLISHED.

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 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 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGI

FHWA

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S.D.D. 15 C 3-5

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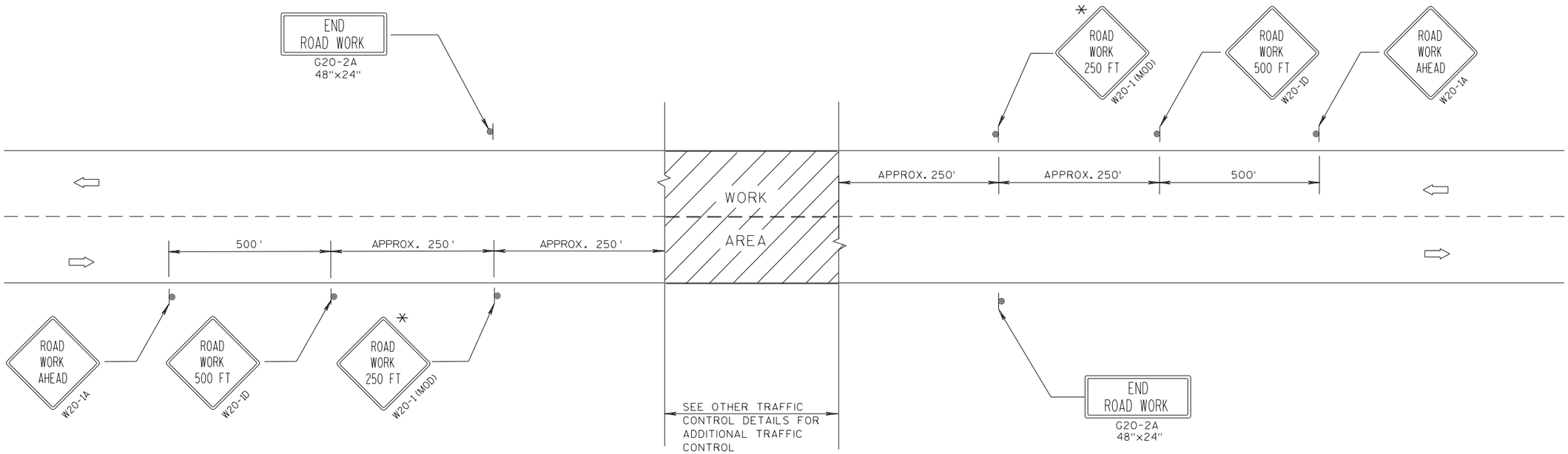
S.D.D. 15 C 3-5

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

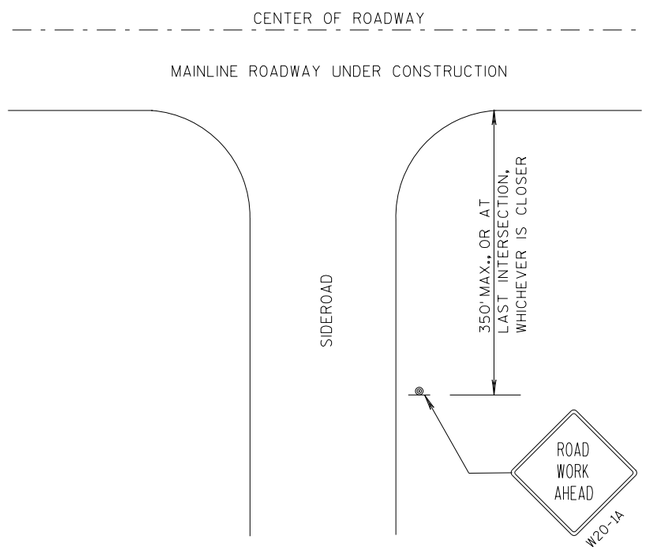
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 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 RE-ESTABLISHED.

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



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heldtke
WORK ZONE ENGI

FHWA

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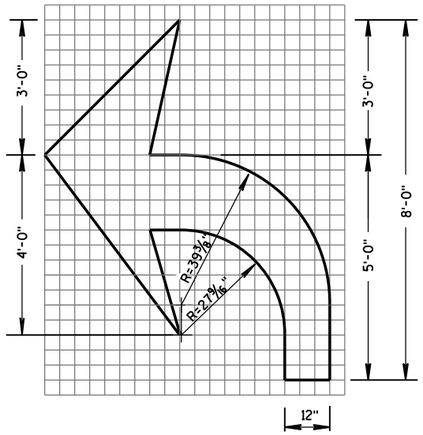
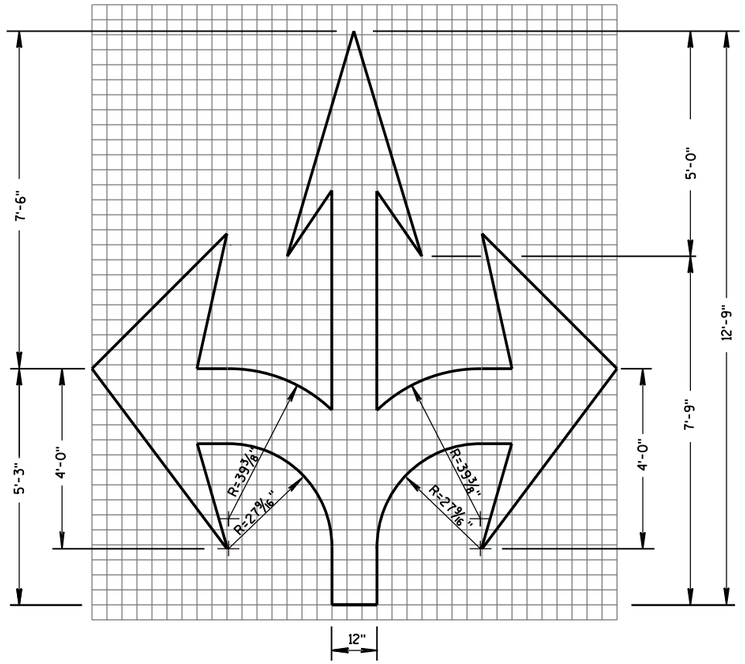
S.D.D. 15 C 5-5

GENERAL NOTES

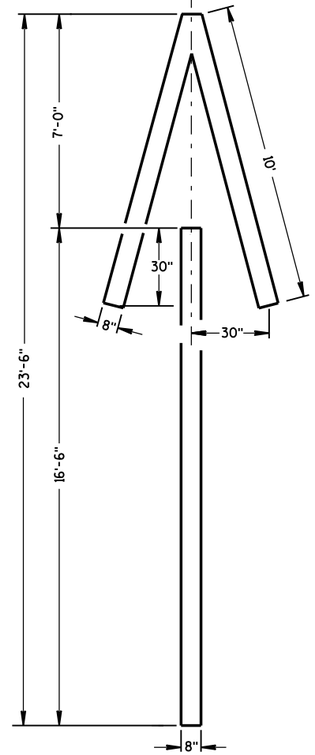
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



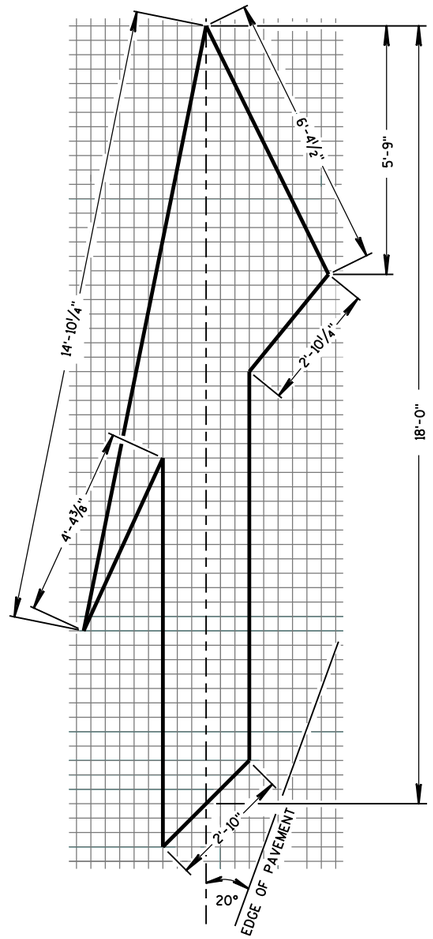
TYPE 2



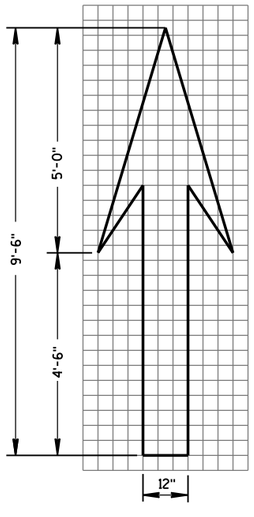
TYPE 6



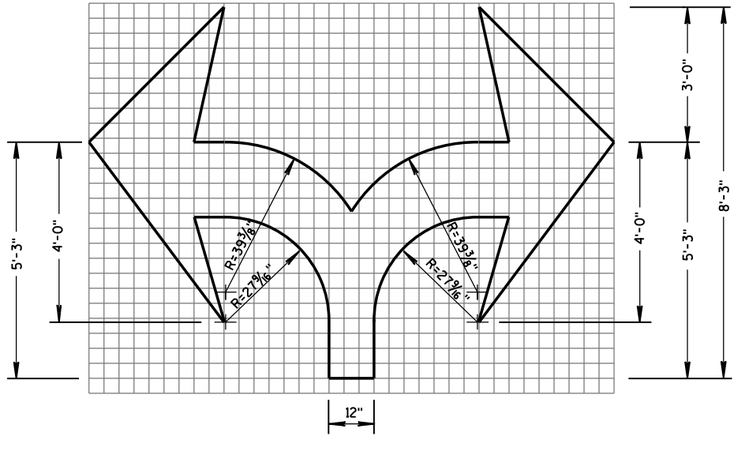
TYPE 4



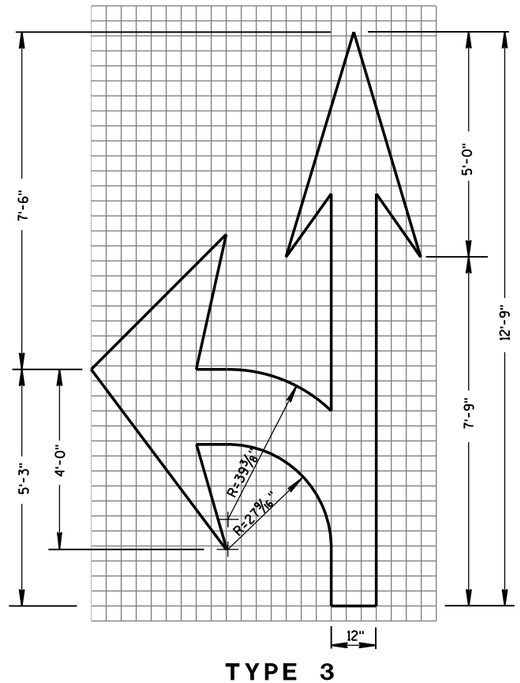
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

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S.D.D. 15 C 7-14c

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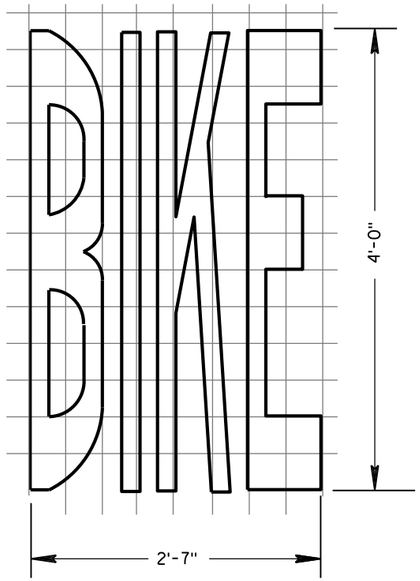
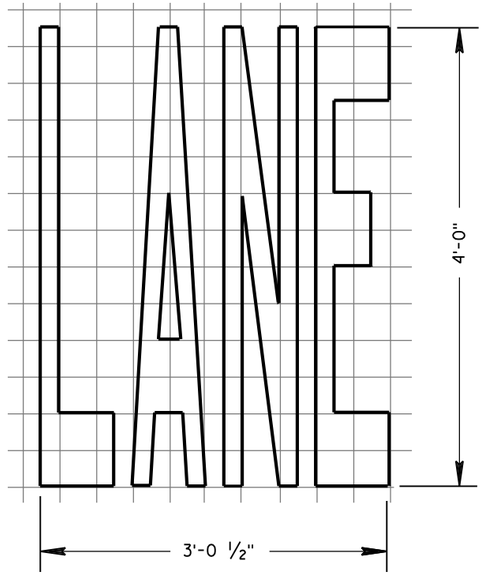
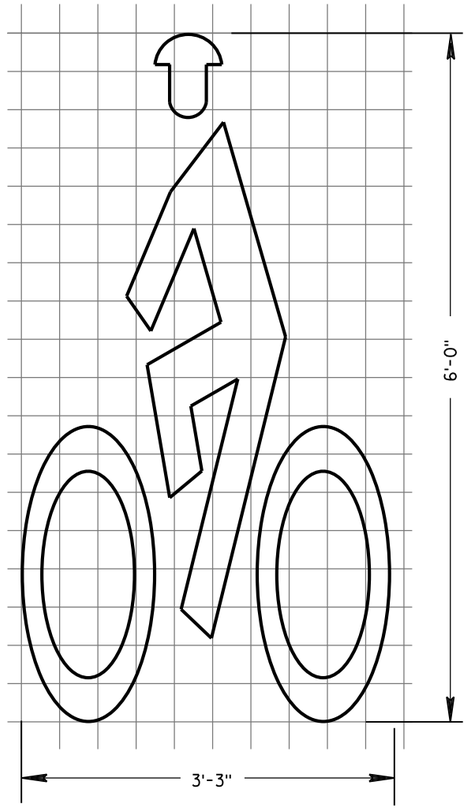
S.D.D. 15 C 7-14c

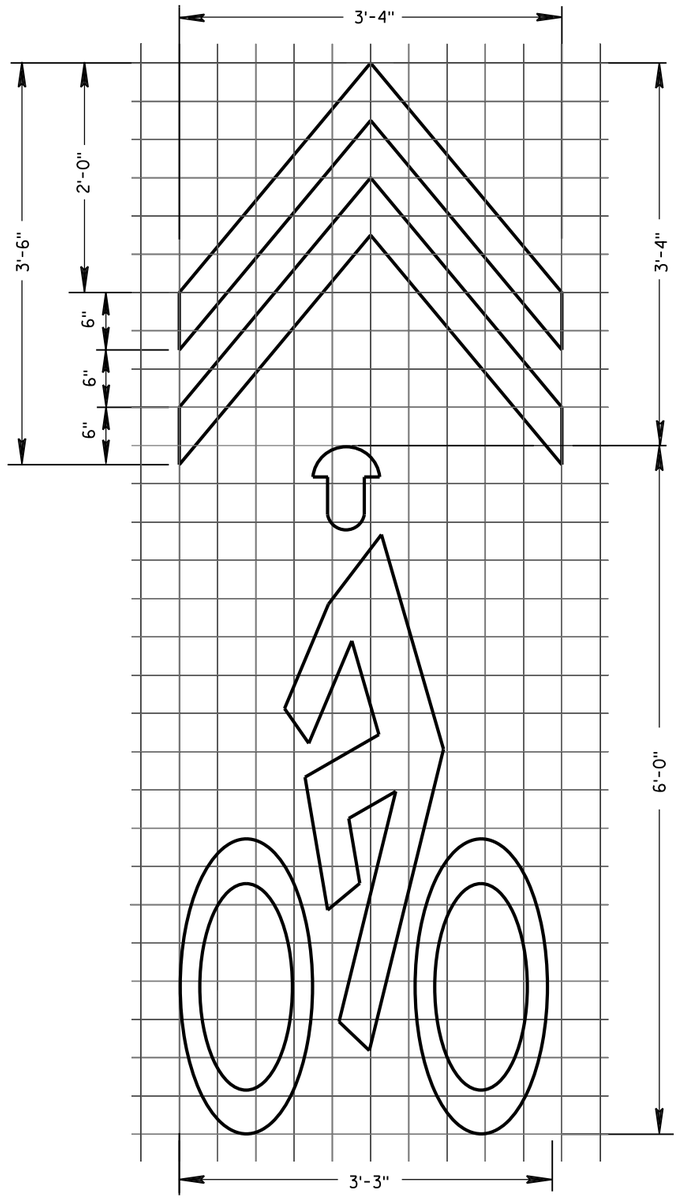




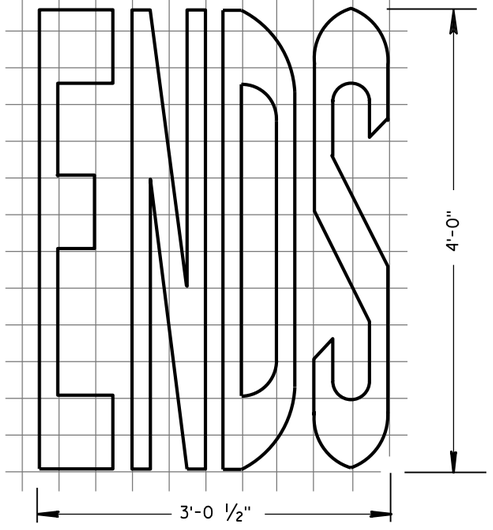
BIKE LANE WORDS



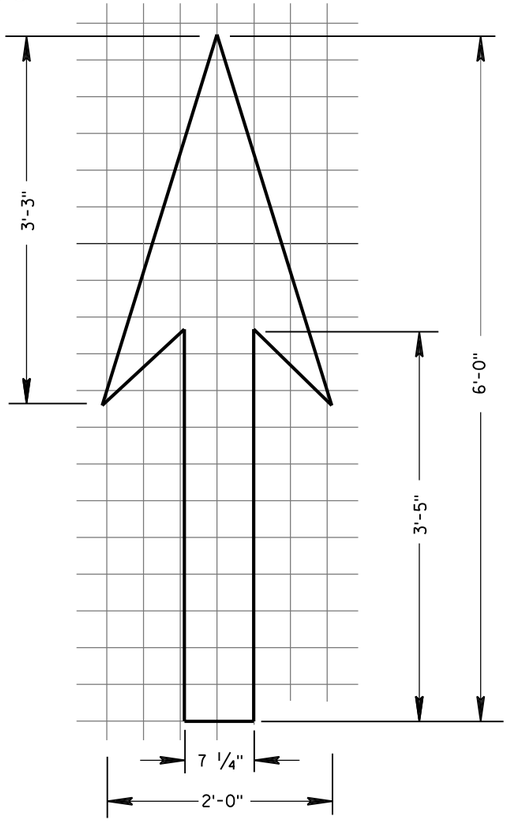
BIKE LANE SYMBOL



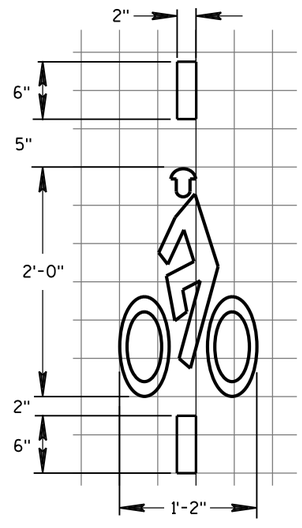
BIKE SYMBOL FOR SHARED LANE



BIKE LANE WORDS



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

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 FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

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S.D.D. 15 C 7-14e

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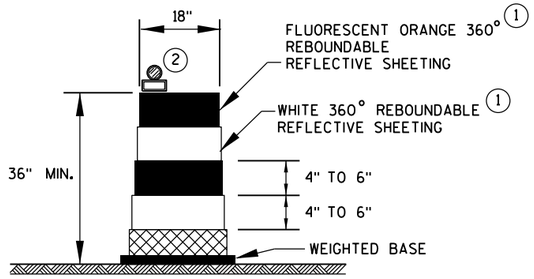
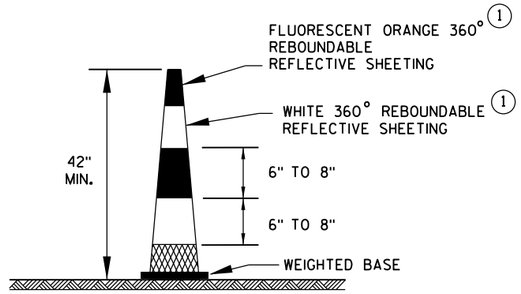
S.D.D. 15 C 7-14e



DRUM

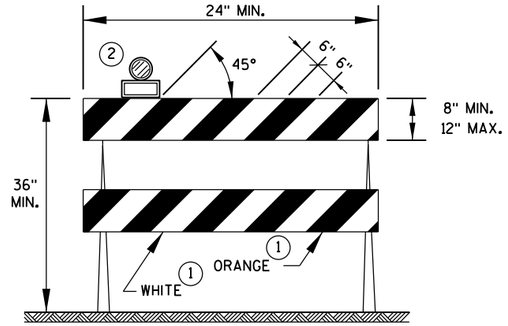


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

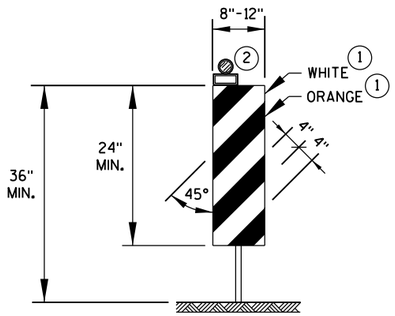
GENERAL NOTES

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.



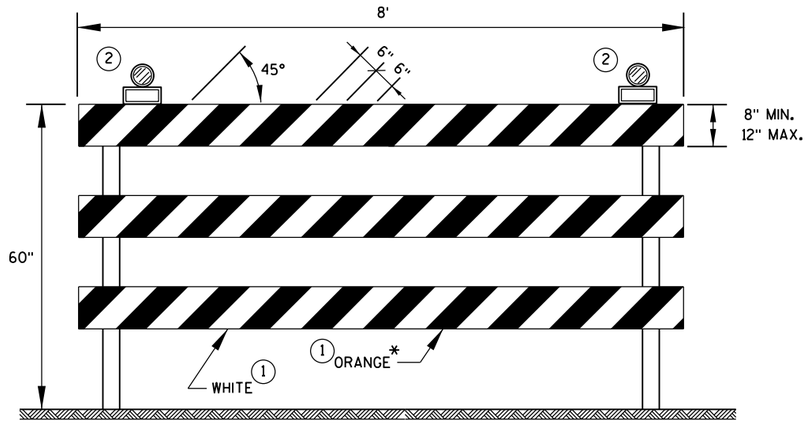
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 3 BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017 — DATE

/S/ Andrew Heidtke — WORK ZONE ENG

FHWA

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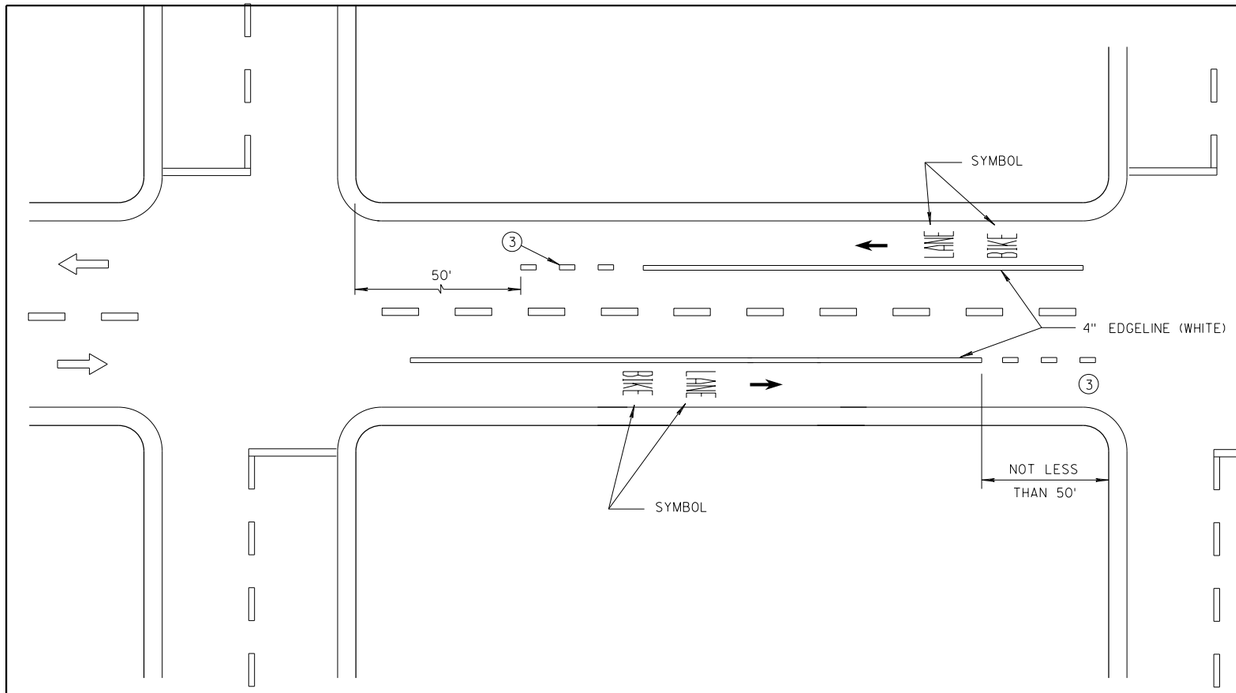
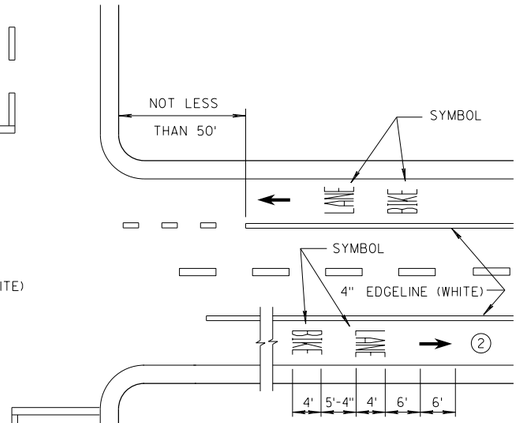
S.D.D. 15 C 11-7b



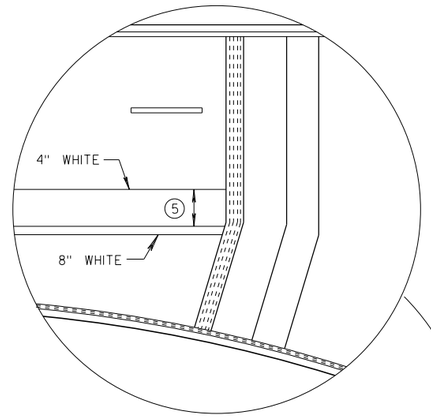


DESIGNATED BICYCLE LANE
NO PARKING

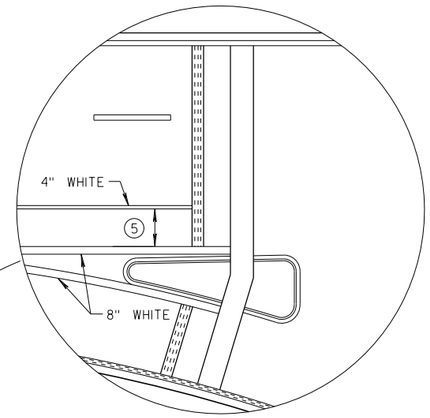
GENERAL NOTES

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. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMODATION IS TYPICALLY 5 FEET WIDE AND A 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 FEET WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

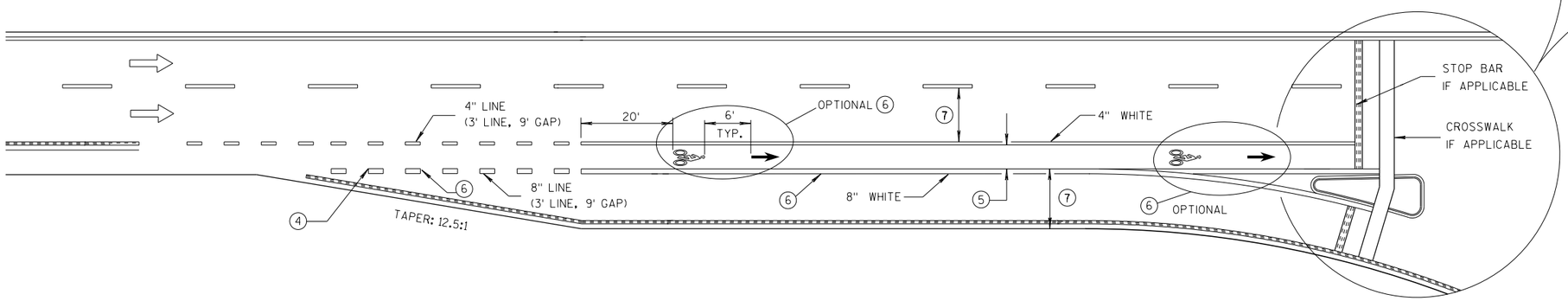
DIRECTION OF TRAVEL



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)

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR 341 NEER

FHWA

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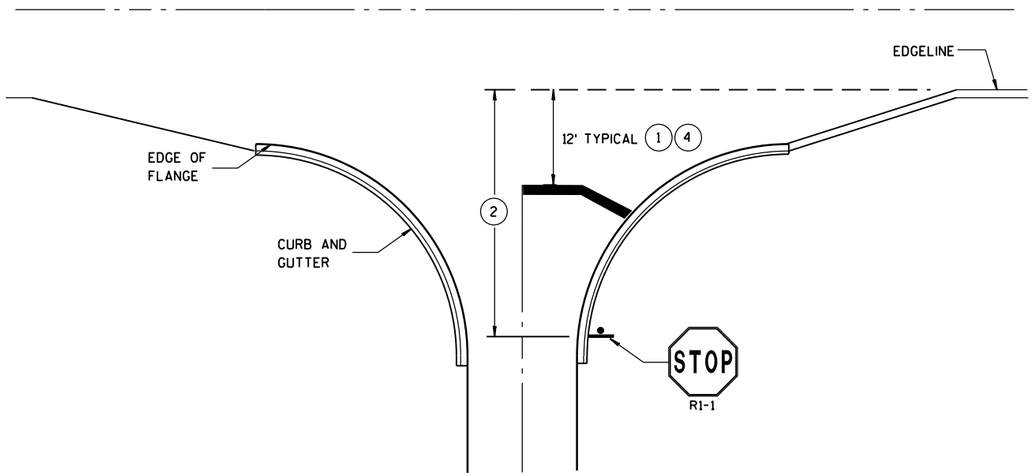
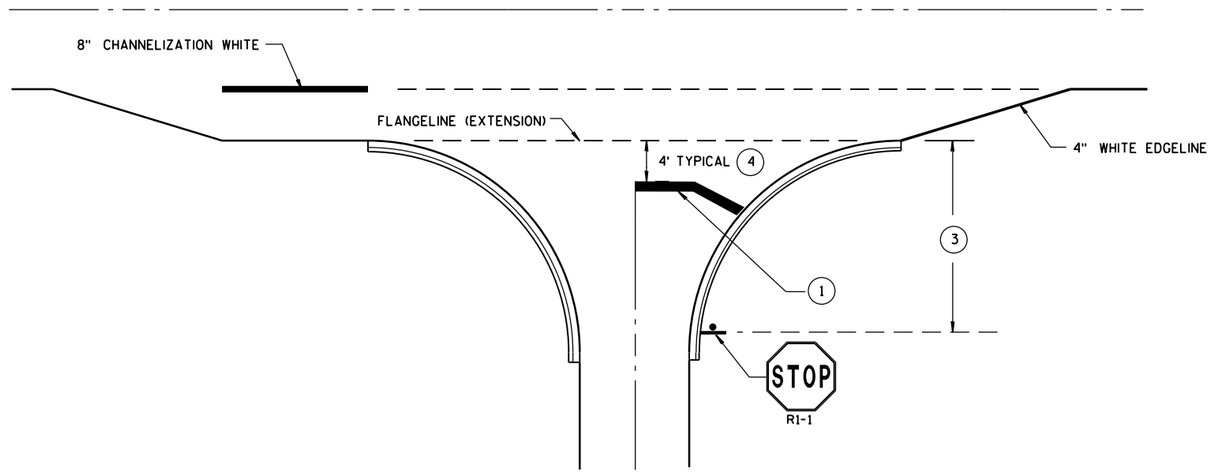
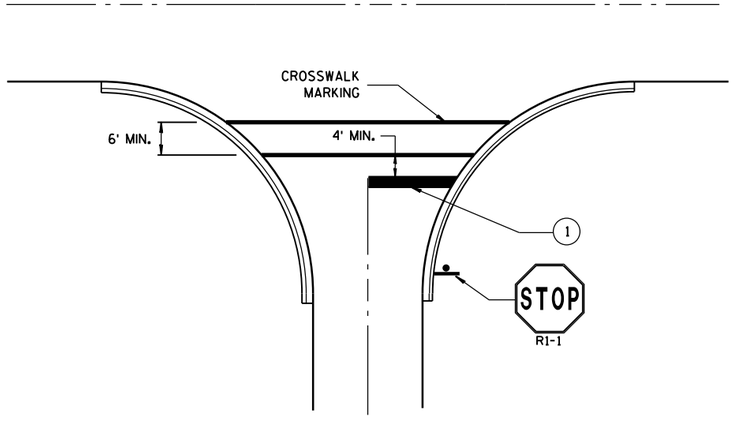


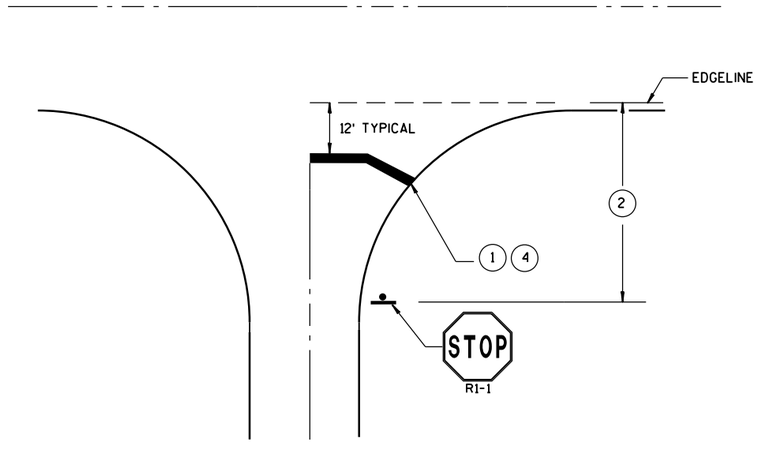
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

(1) 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

(2) IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.

(3) IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.

(4) MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]NEER

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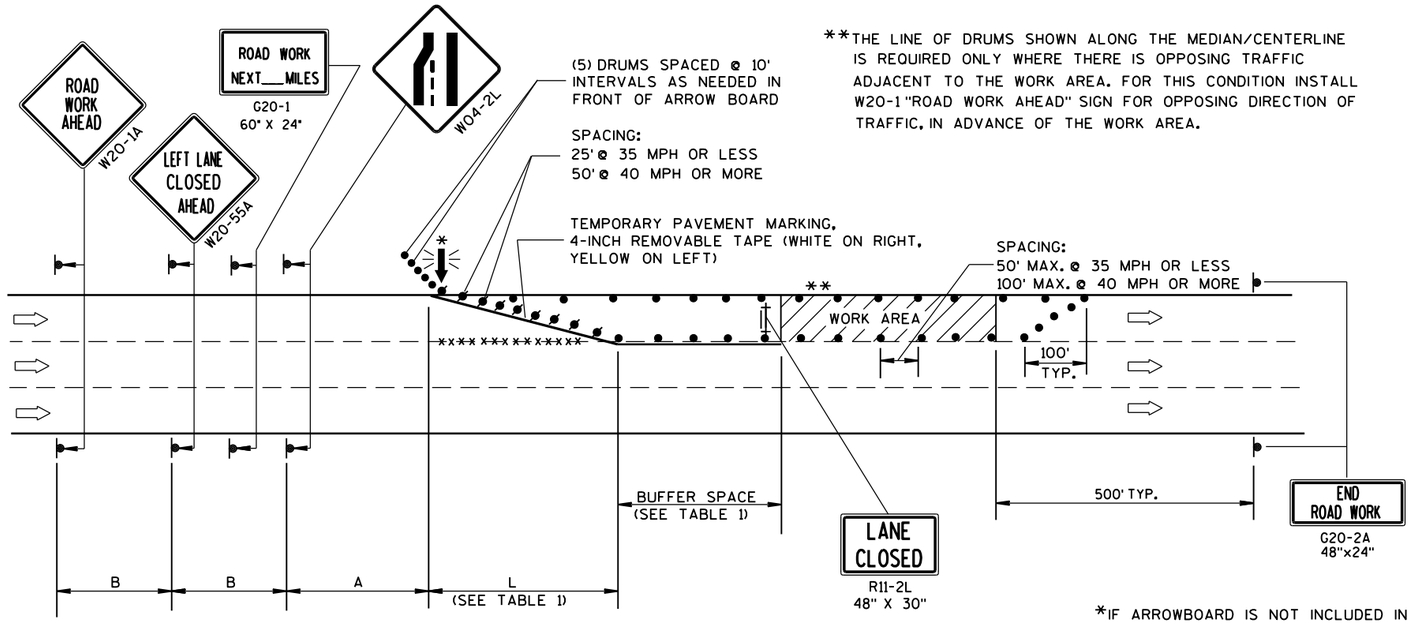

**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

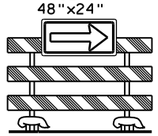

TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER

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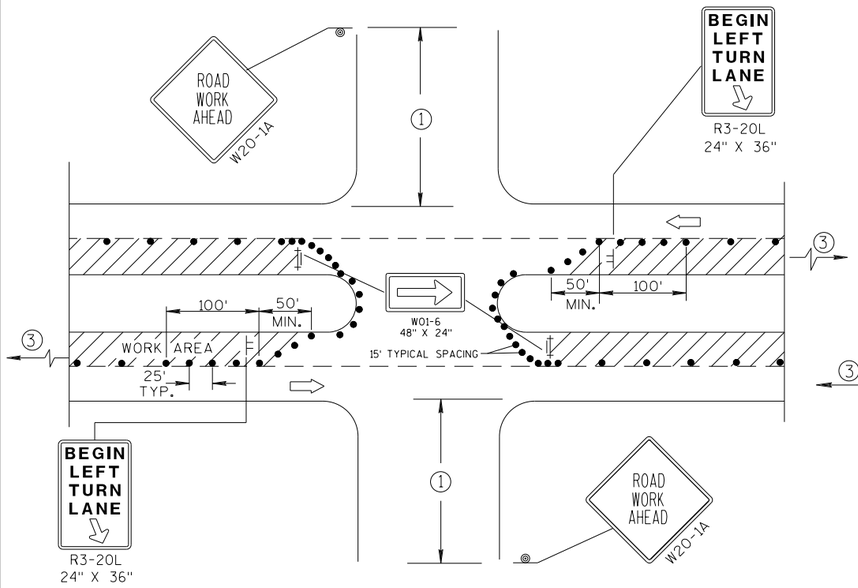
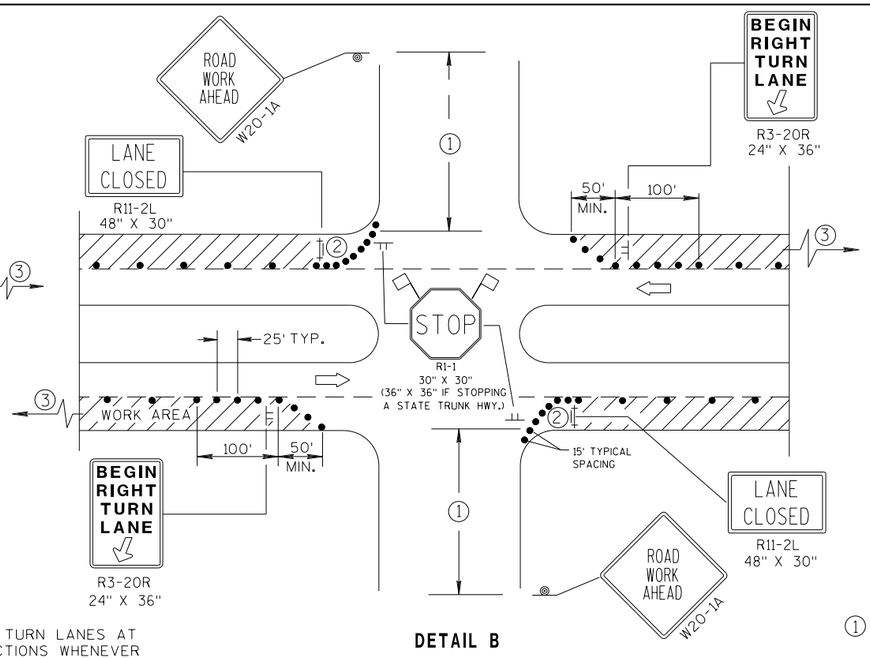


DETAIL A

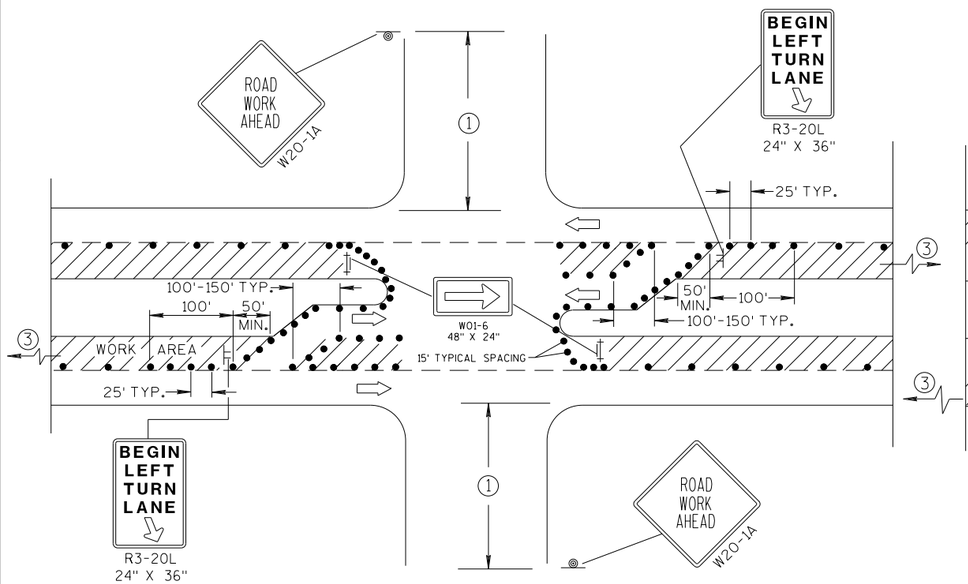
FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



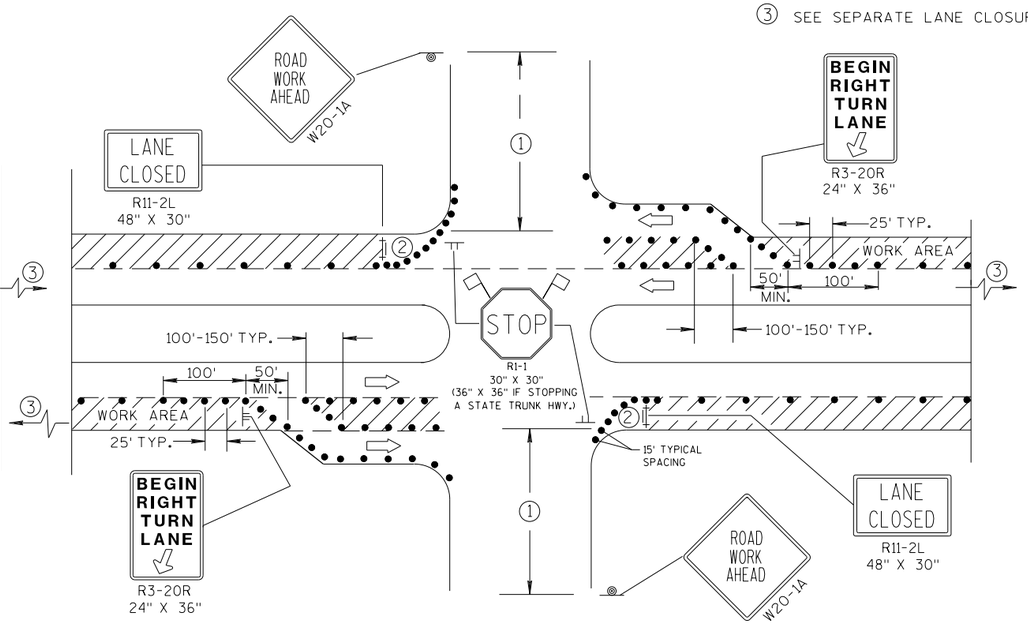
DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

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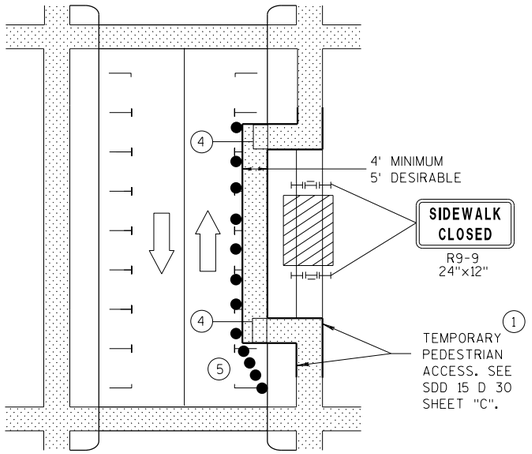
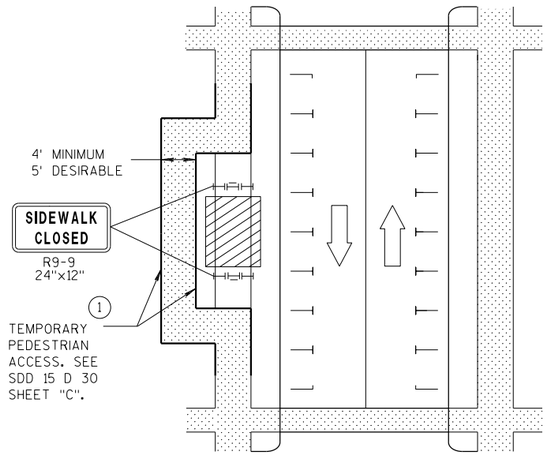
NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

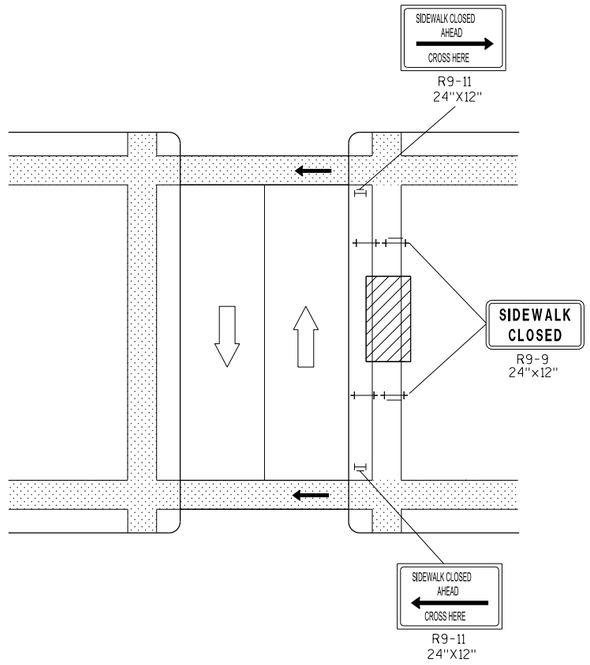


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

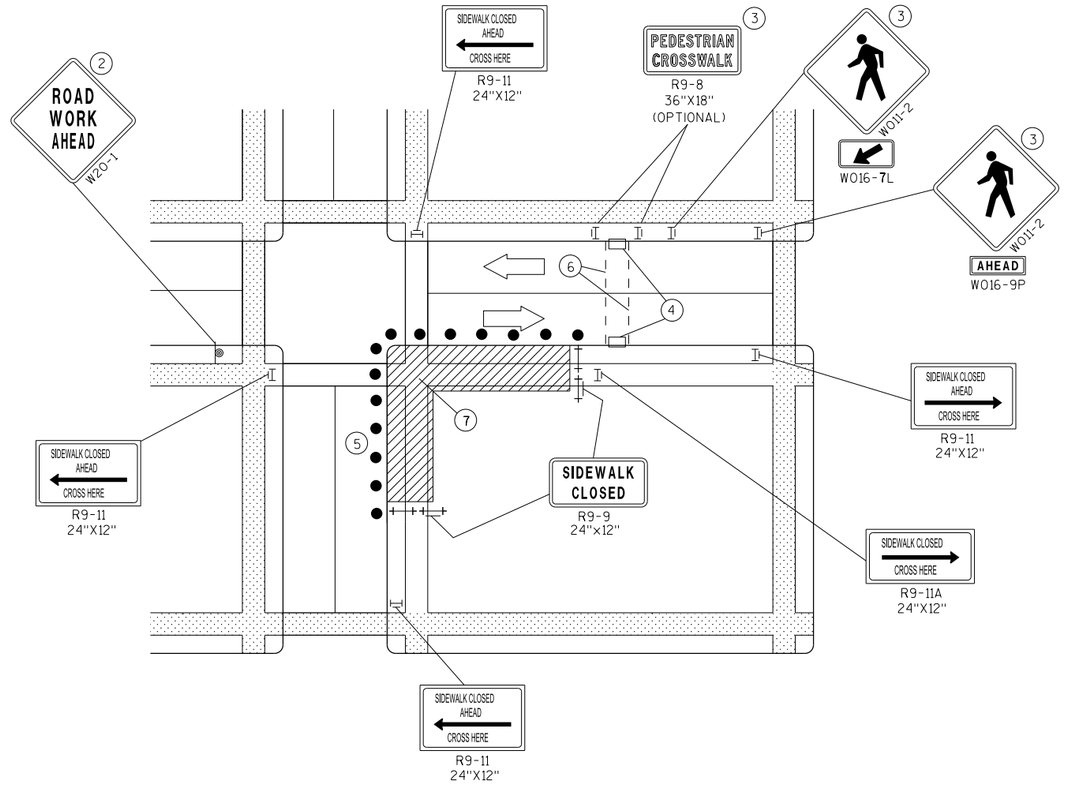
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

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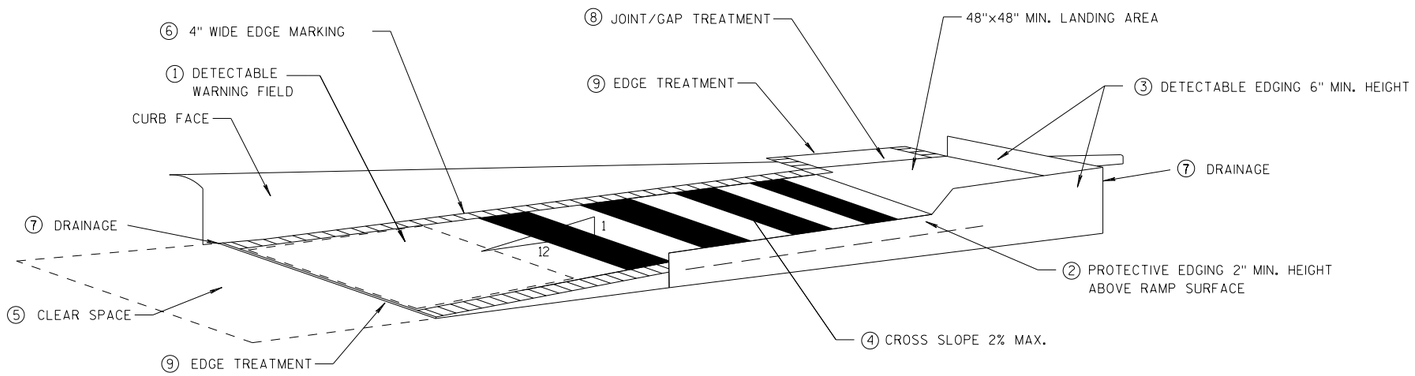


TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".

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 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

⑤ CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

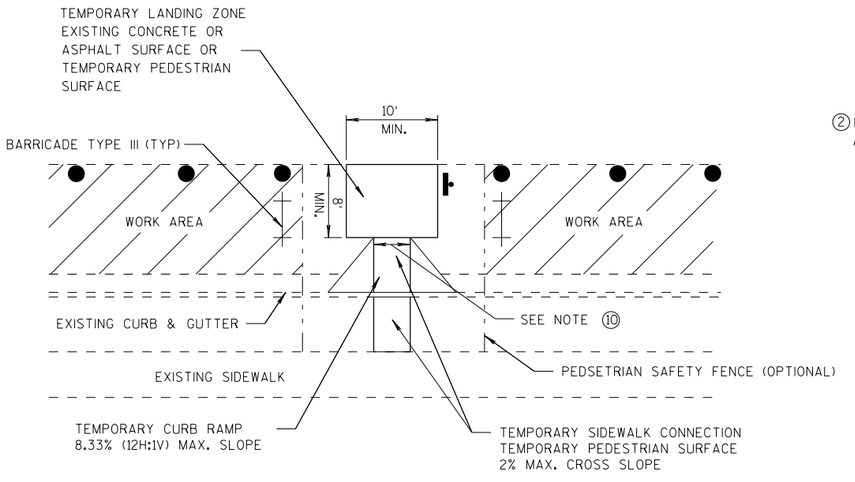
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

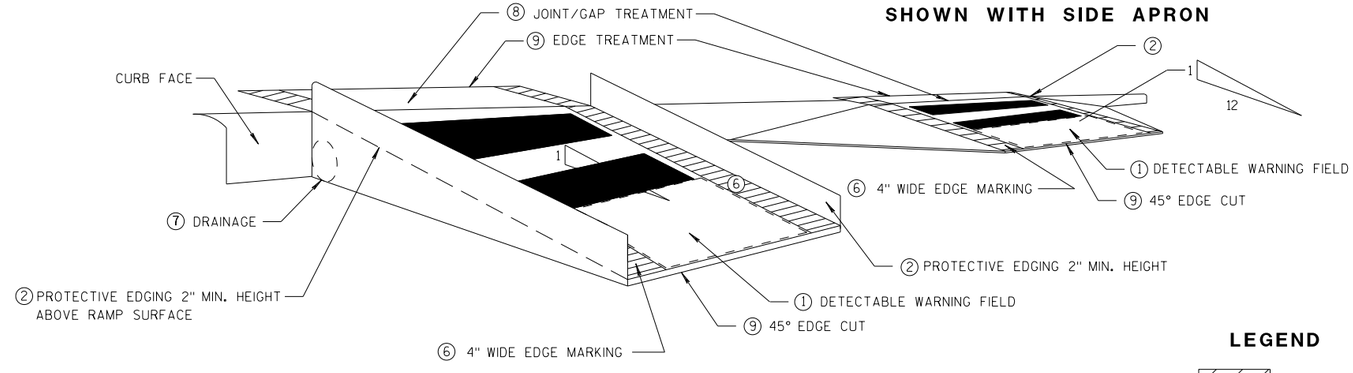
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

⑩ 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH SIDE APRON

SHOWN WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 DATE

/S/ Andrew Heidtke
WORK ZONE ENG

FHWA

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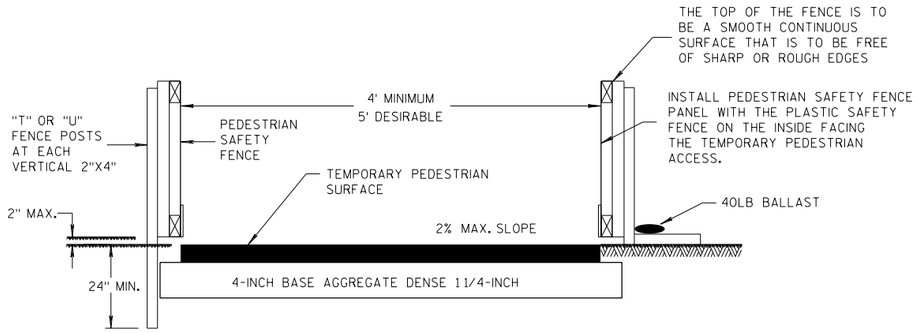
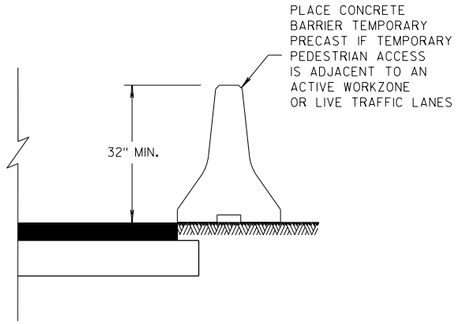
S.D.D. 15 D 30-4b

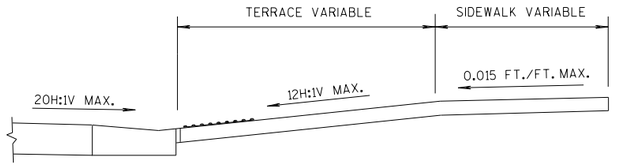




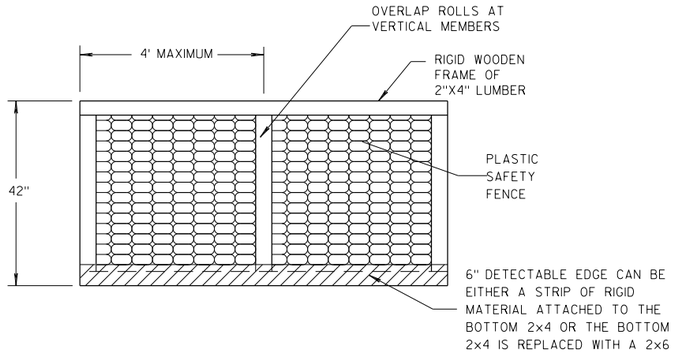
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

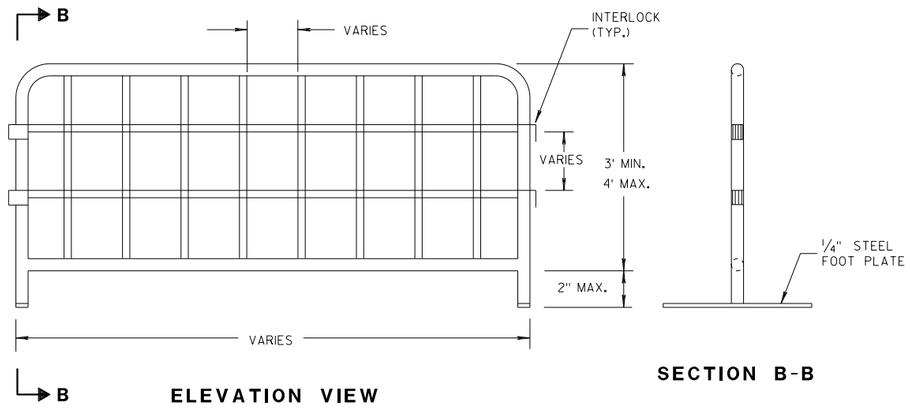
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



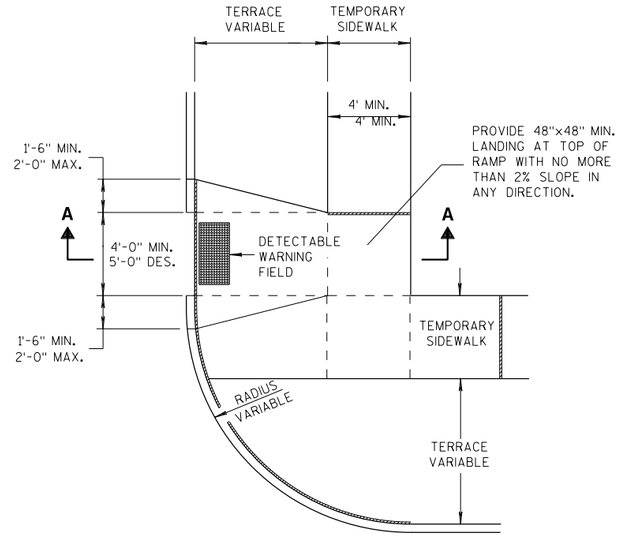
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

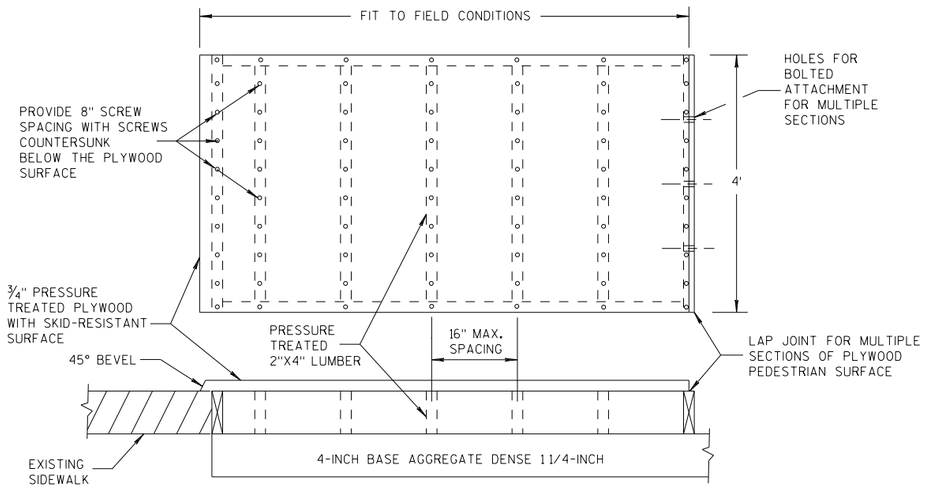
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



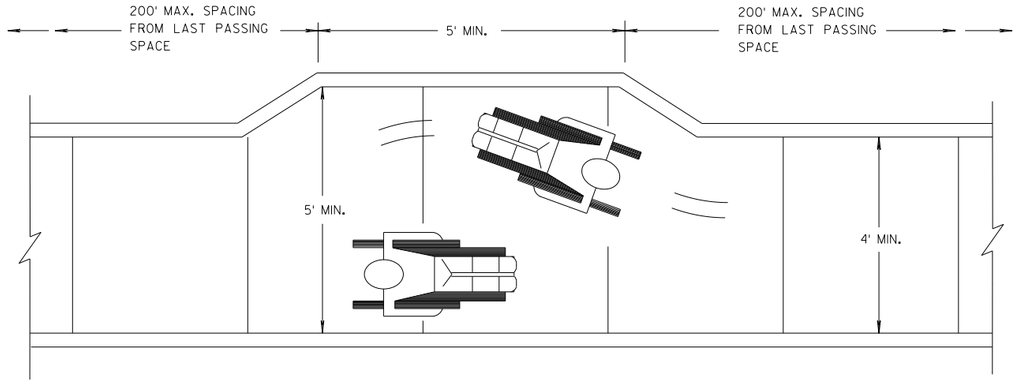
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

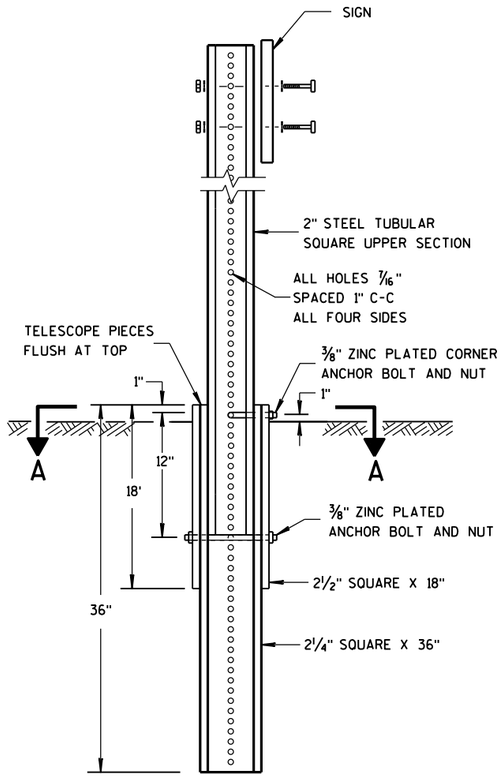
APPROVED

7/2018
DATE

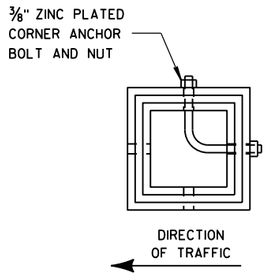
/S/ Andrew Heidtke
WORK ZONE ENG

FHWA

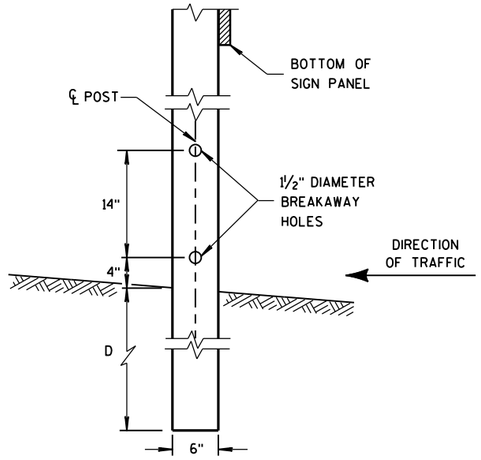
6
S.D.D. 15 D 30-4c



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



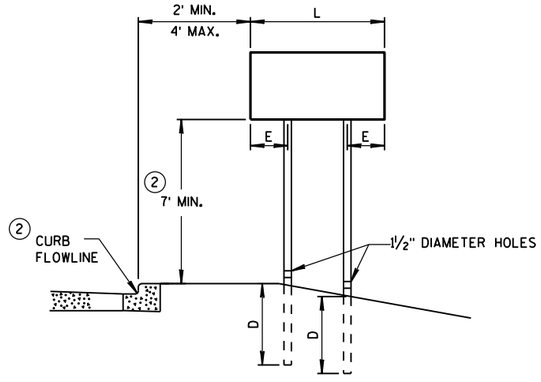
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

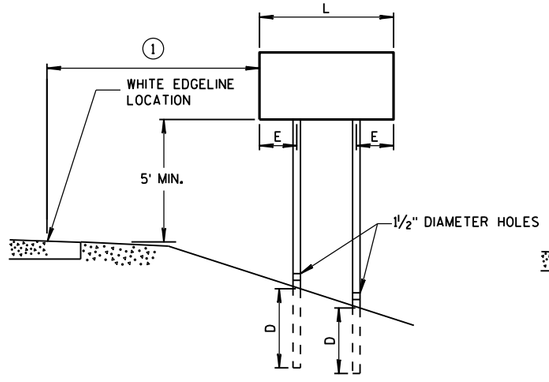
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

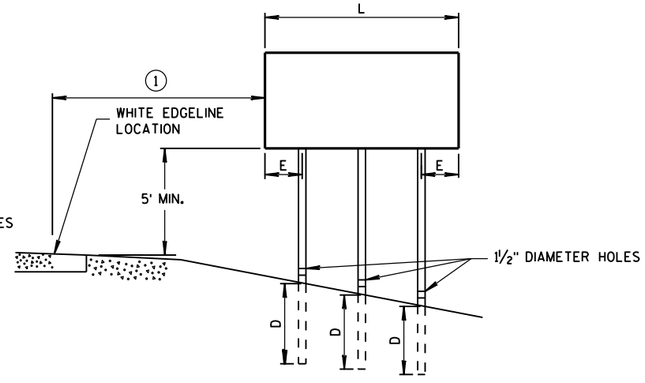
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

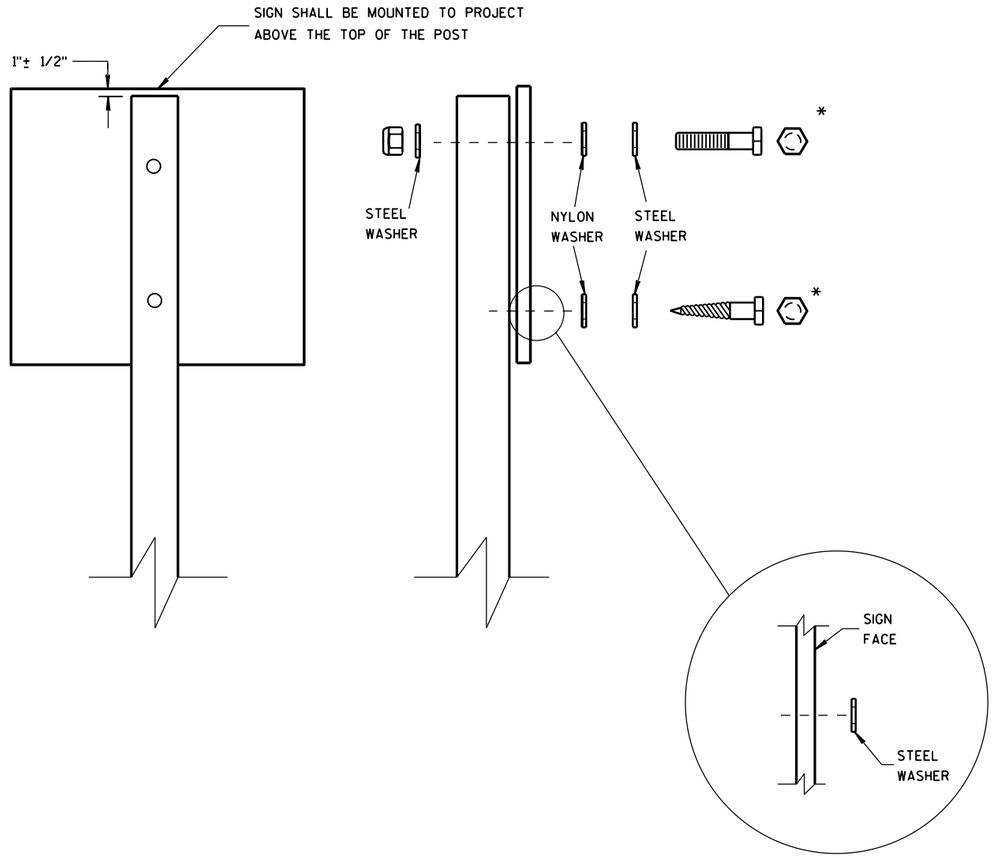
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

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

WASHERS (ALL POSTS) -

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

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR SHIFTING RIGHT LANE - REVERSE FOR SHIFTING LEFT LANE.

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

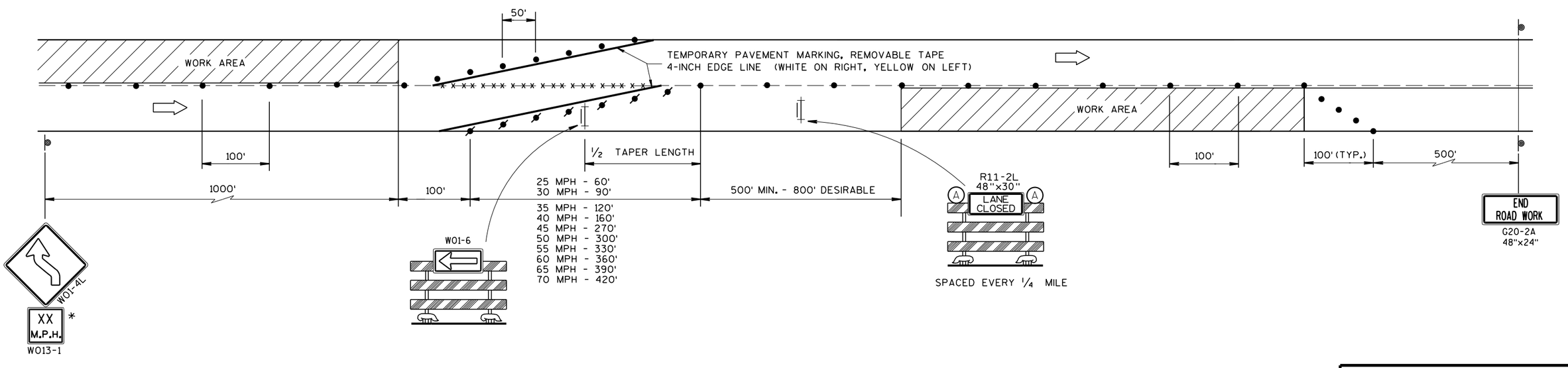
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.



* USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED

LANE SHIFT MULTI-LANE DIVIDED OR ONE WAY ROAD

TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE WAY ROAD

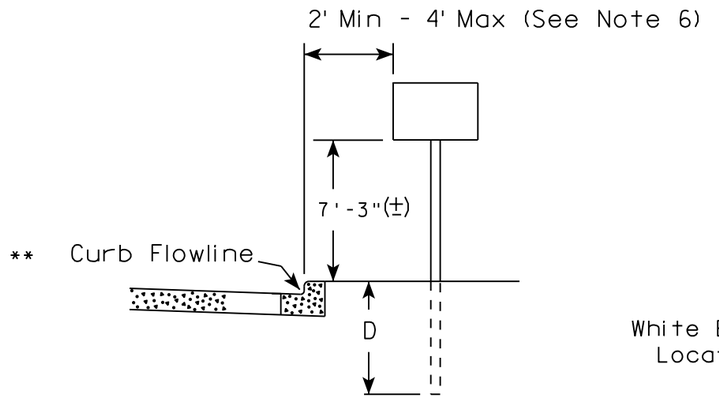
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

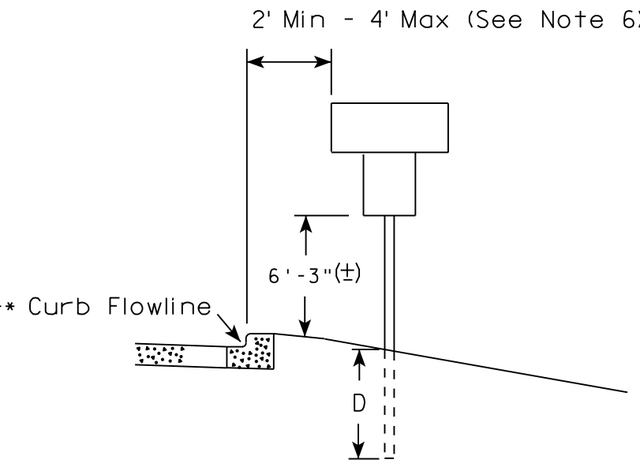
APPROVED
March 2018
DATE
/S/ Andrew I
WORK ZONE E
FHWA

6

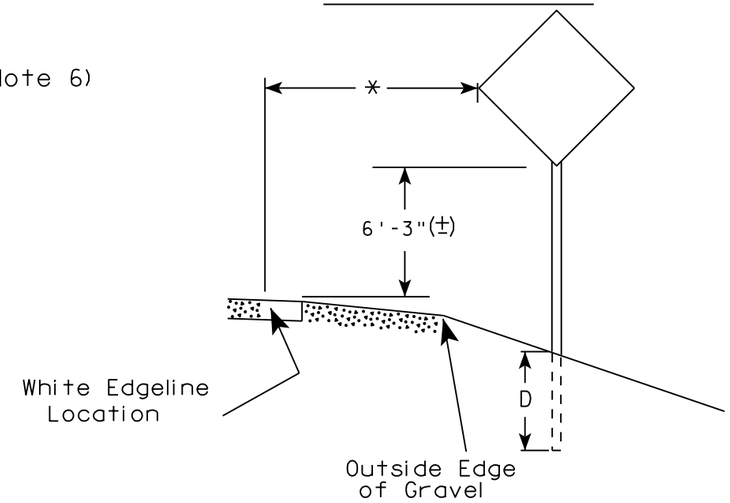
S.D.D. 15 D 40-1

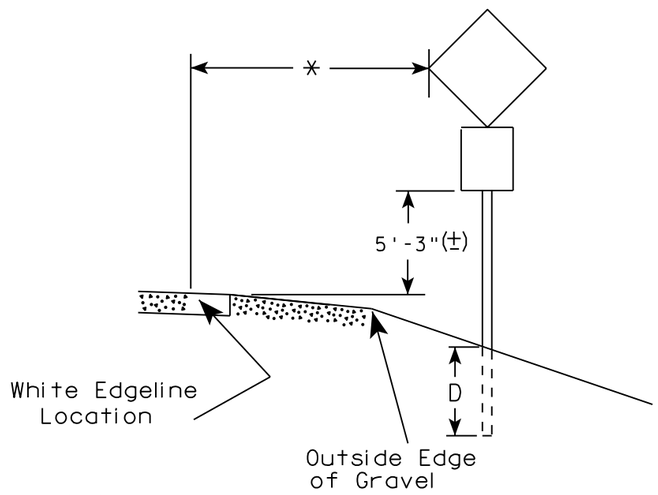
URBAN AREA





RURAL AREA (See Note 2)





GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

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

** 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.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

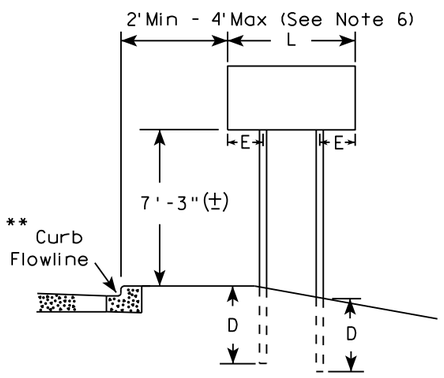
DATE 8/21/17 PLATE NO. A4-3.21

7

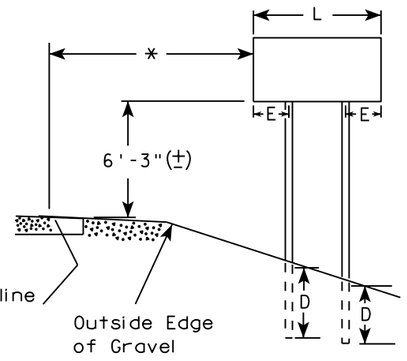
7

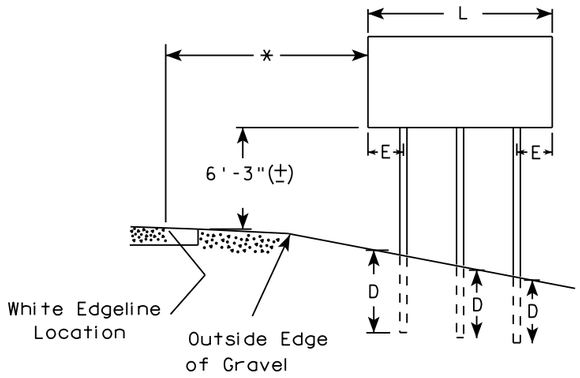
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 351	E

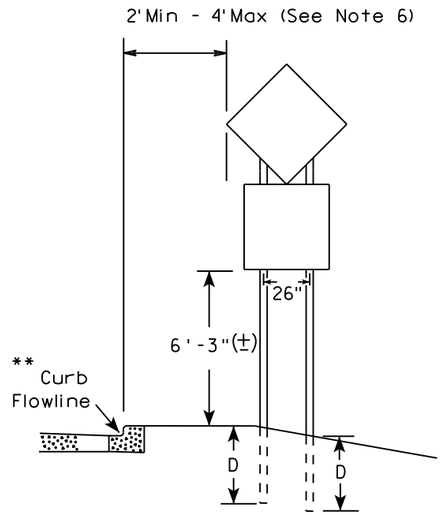
URBAN AREA



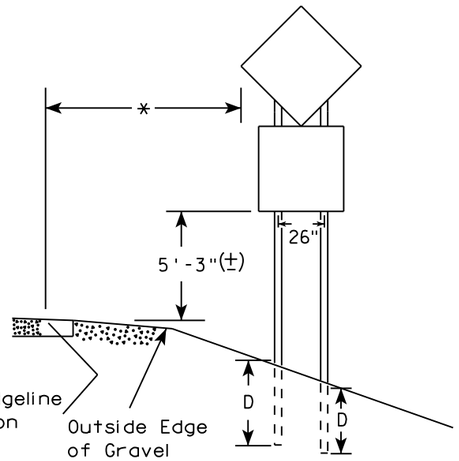
RURAL AREA (See Note 3)







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'

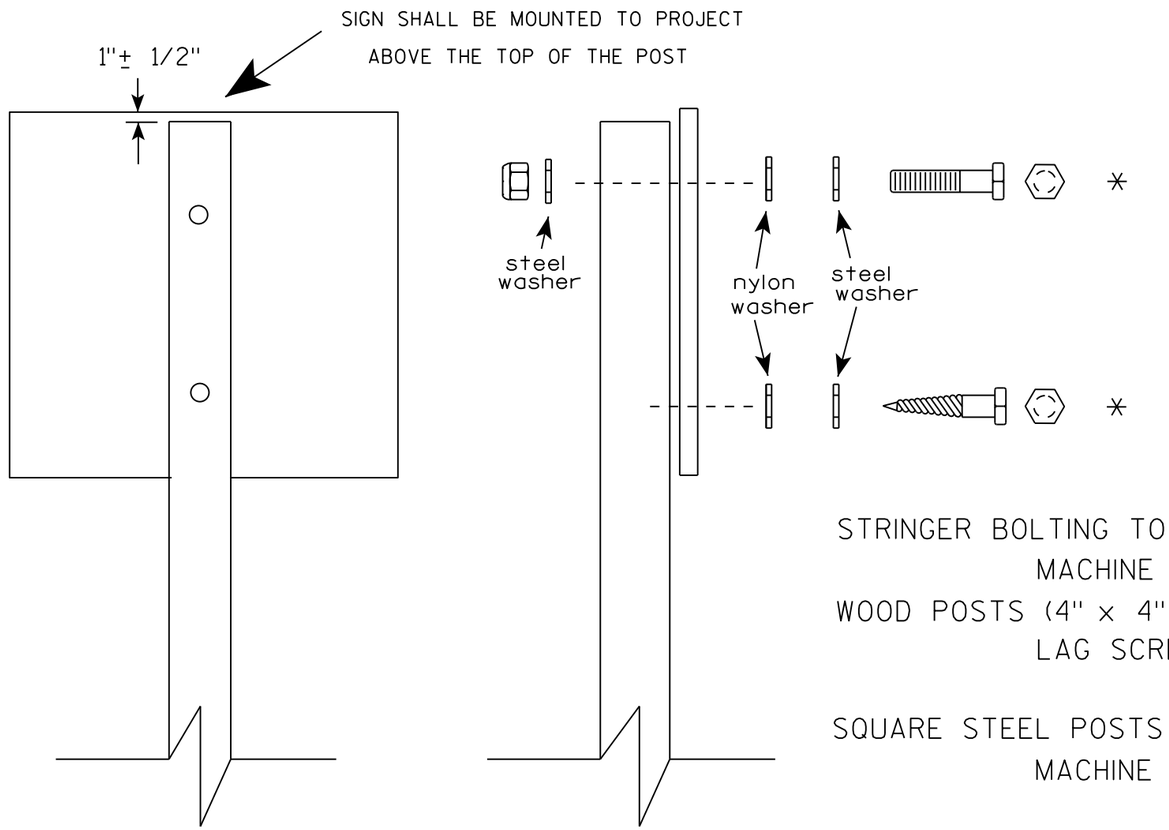
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 352	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 4" or 4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

ATTACHMENT OF SIGNS TO POSTS

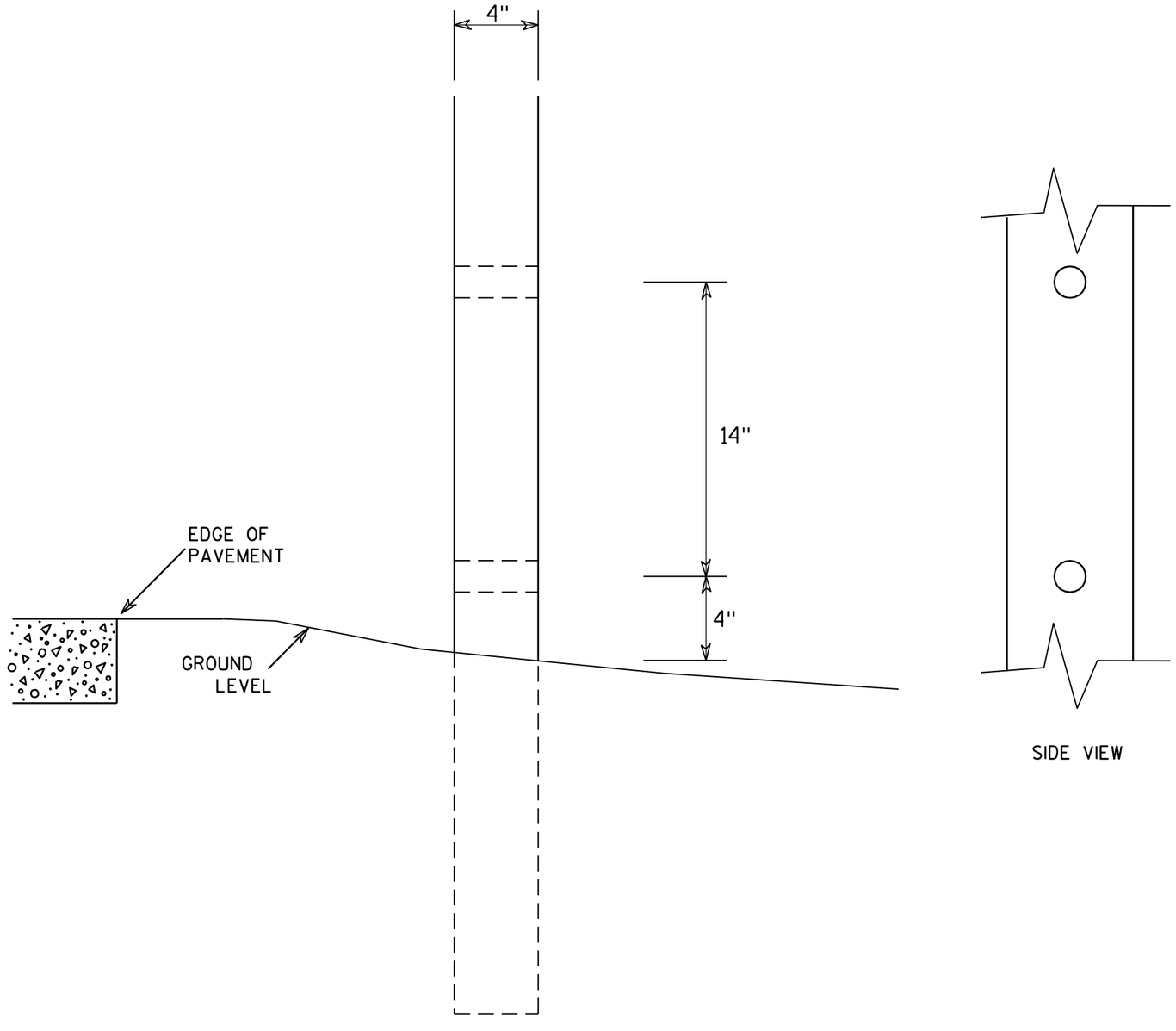
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$



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

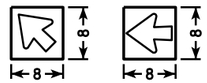
WISCONSIN DEPT OF TRANSPORTATION

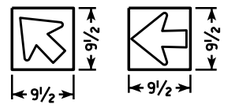
APPROVED Chester J Spang for State Traffic Engineer

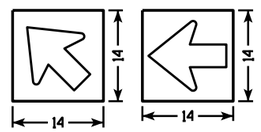
DATE 3/27/97 PLATE NO. A4-11.2

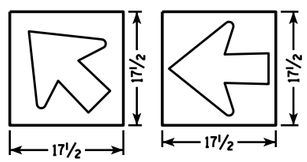
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 354	E

SIGN LAYOUT WITH VARIOUS SIZED MESSAGES







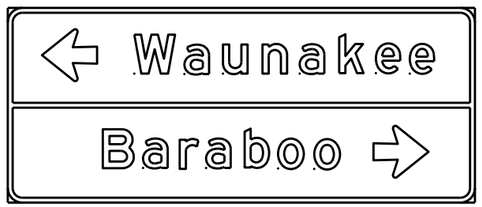


GENERAL NOTES

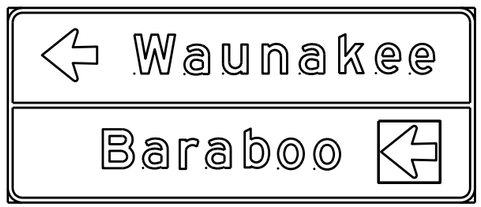
1. Materials shall conform to Standard Specification Section 637.
   Base - Sheet Aluminum 0.040" Thickness
   Sheeting - Orange Type F Reflective
   Arrow - Black Non-Reflective
2. Arrow signs shall be fastened to permanent sign by either aluminum rivets or aluminum self-tapping sheet metal screws. There shall be a minmum of 2 fasteners used per arrow sign.
3. There shall be a spacer consisting of a 0.08" nylon washer between the back of the arrow sign and the face of the permanent sign.
4. Arrows are per standard plate A1-2
5. Use separate arrow sign for each destination
6. Tilt arrow is always at 45 degrees
7. Arrow is centered on arrow sign

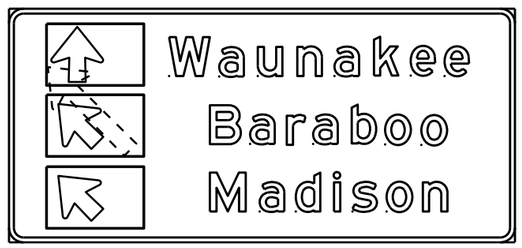
Lower Case Copy Size	Standard Width (Single Arrow)	2 Line Tilt Arrow Cover Width	3 Line Tilt Arrow Cover Width	Height
3¾" Series C	8	9 ½	14 ½	8
4½" Series D & E	9 ½	10	15	9 ½
6" Series D & E	14	16	20 ½	14
8" Series E	17 ½	20 ½	25	17 ½

BEFORE



AFTER





DESTINATION DIRECTIONAL ARROW FOR DETOUR SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/08/14

A4-12.2

PROJECT NO:

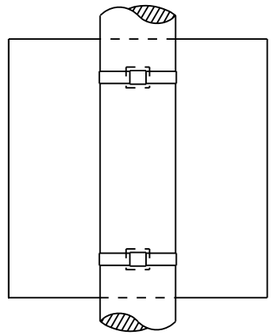
SHEET NO: E

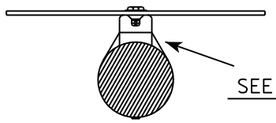
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A412.DGN PLOT DATE : 08-OCT-2014 11:50 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

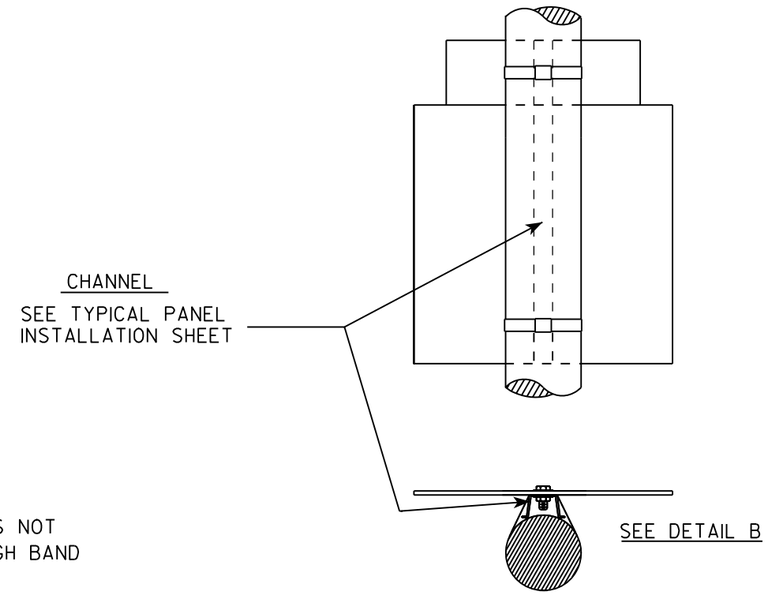
BANDING

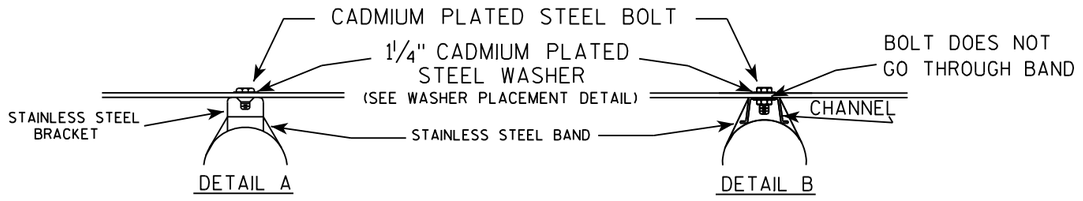
SINGLE SIGN



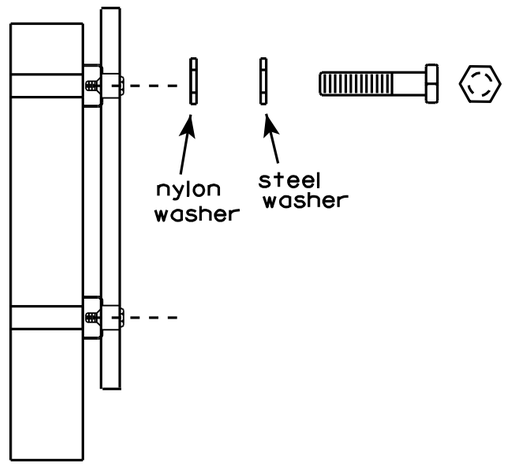


"J" ASSEMBLY





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

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.

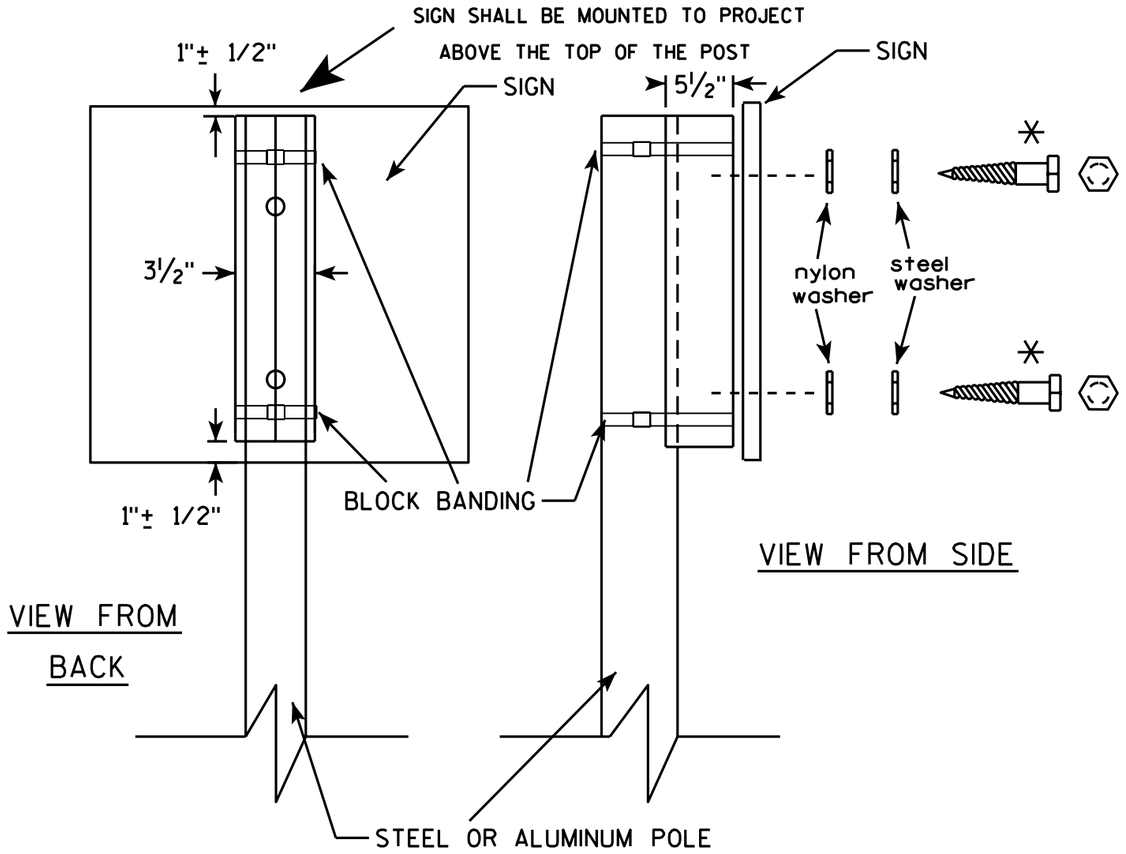
STANDARD SIGN
SIGN BANDING DETAILS

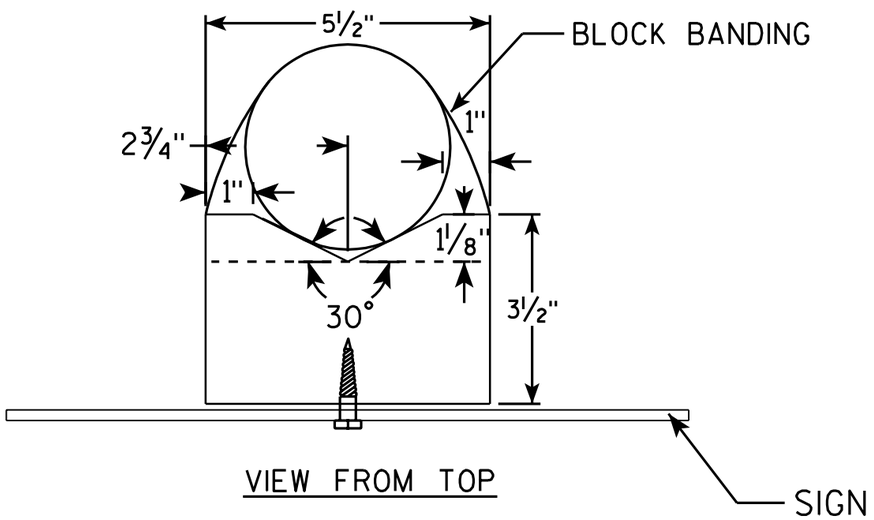
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 356	E





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, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. 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)

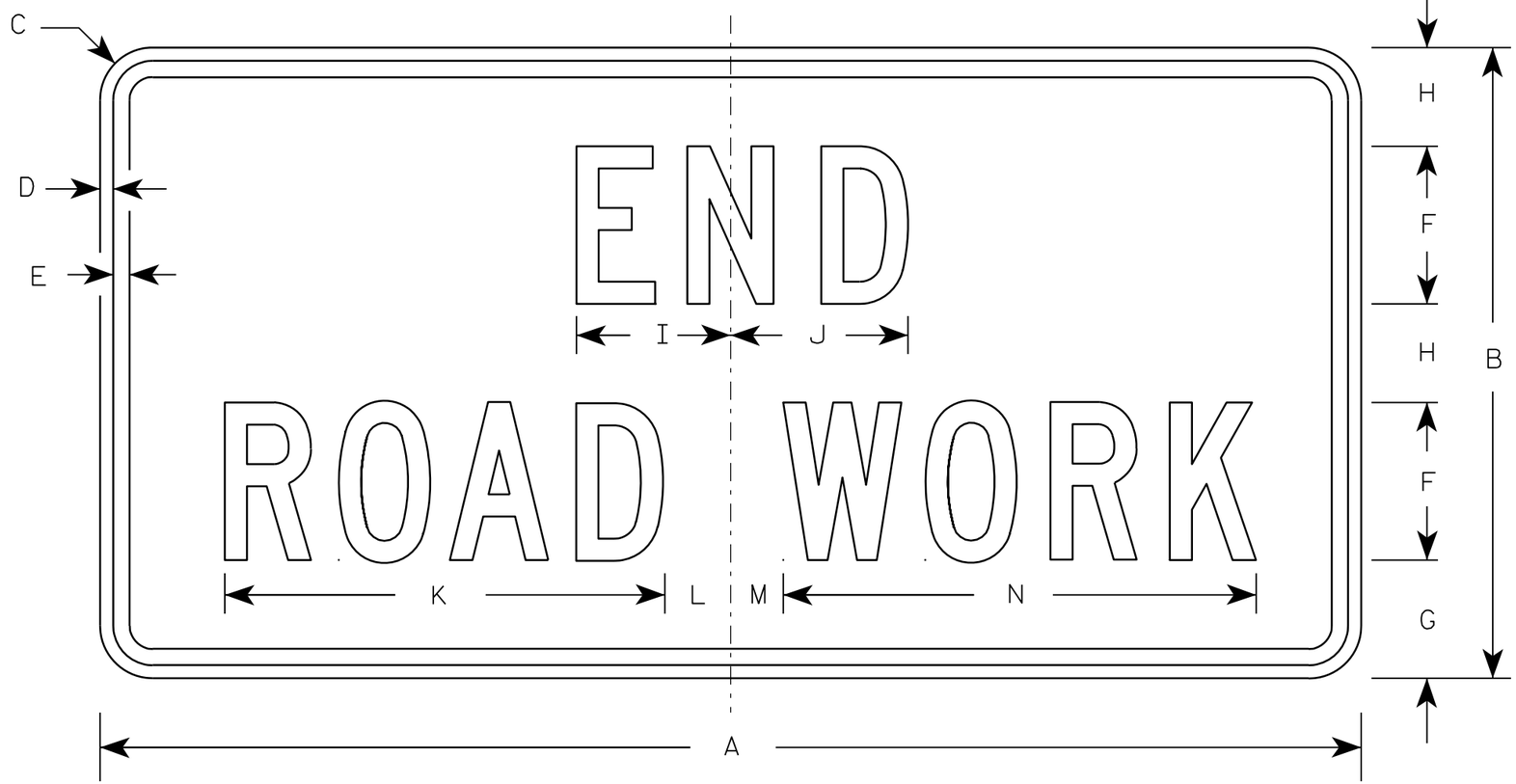
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 357 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

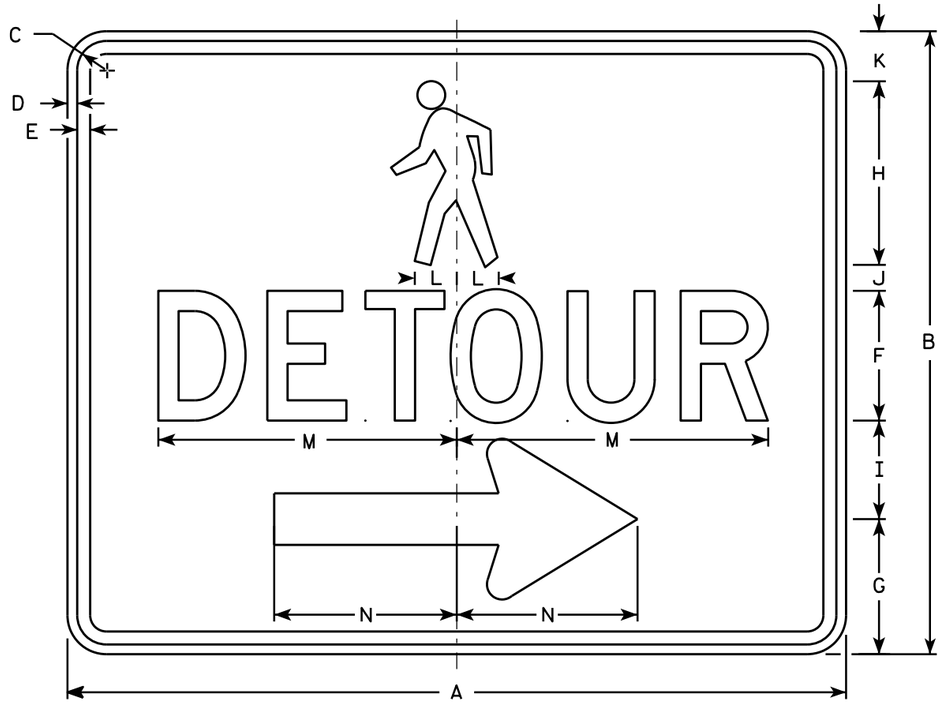
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

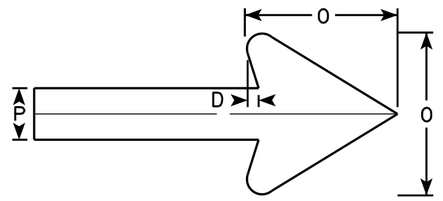
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 358	E



M4-9BR

NOTES

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

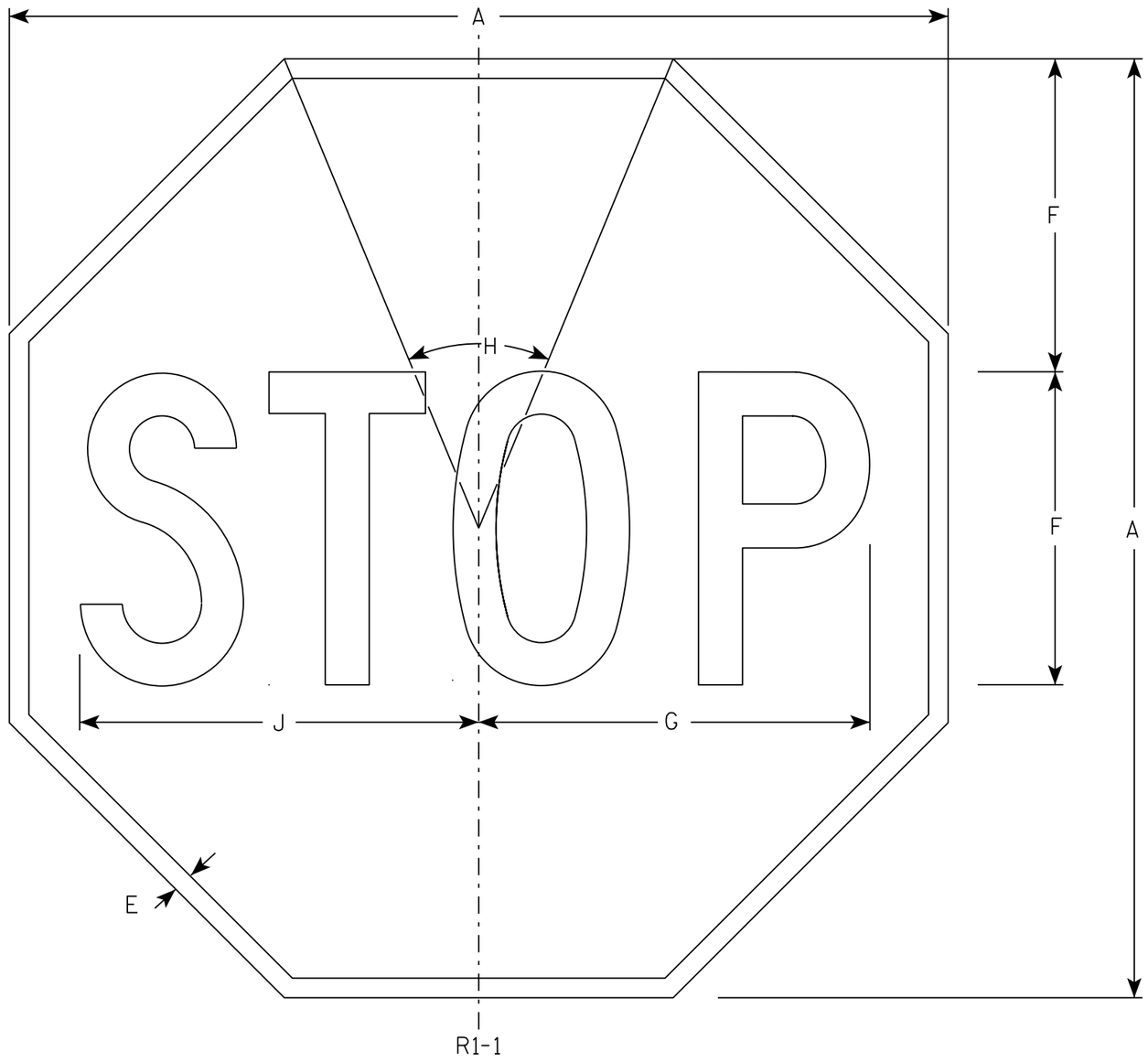
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. M4-9B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M49B.DGN PLOT DATE : 01-OCT-2013 13:44 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



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

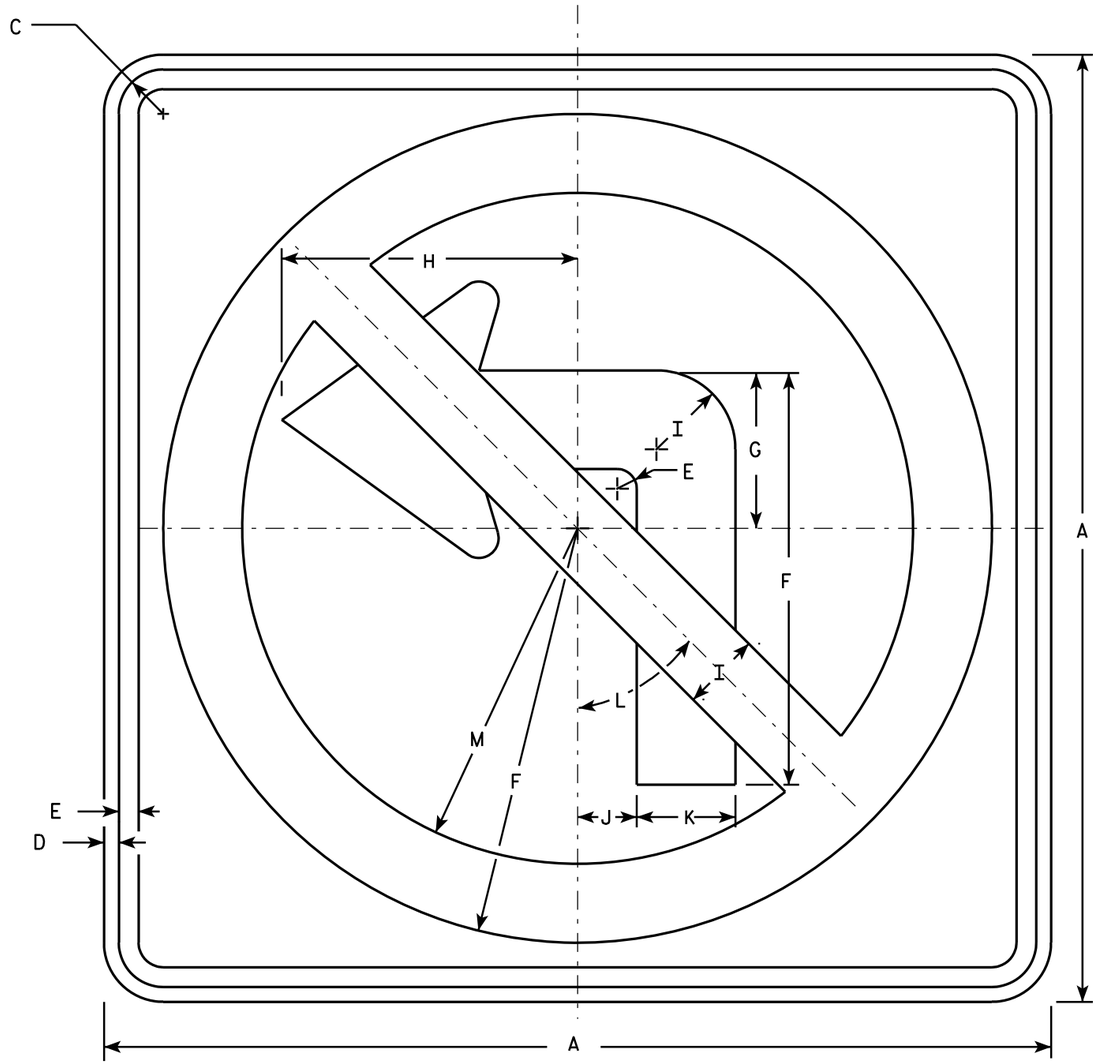
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

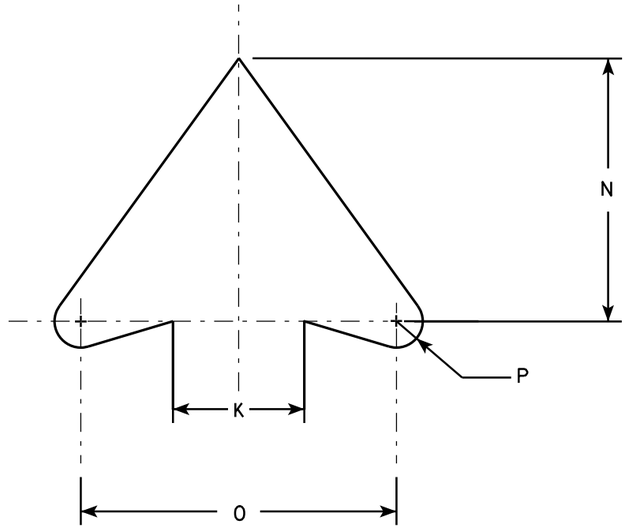
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 360	E



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

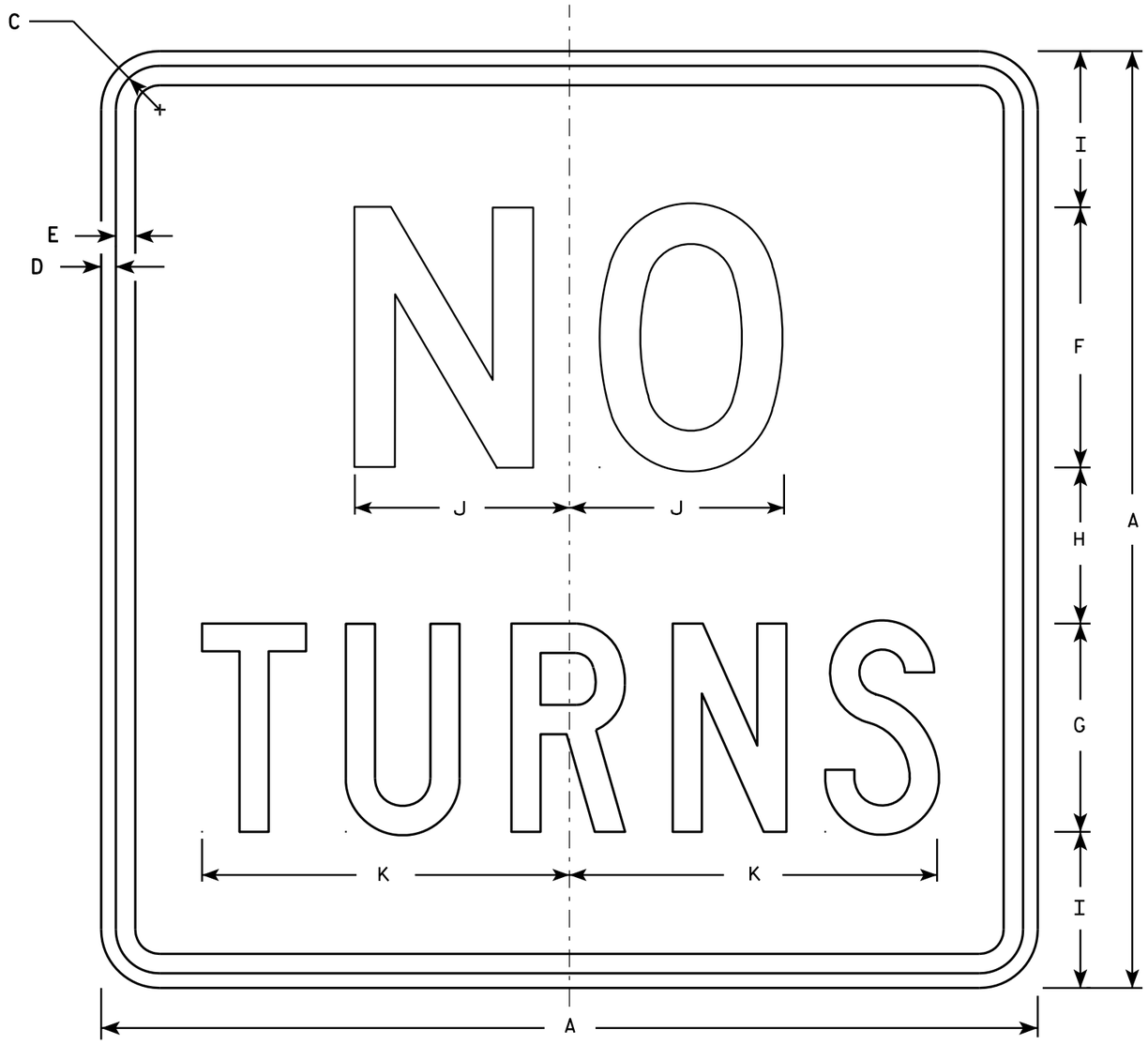
STANDARD SIGN
R3-2

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: 361	E



R3-3

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2	6	5	4	4 1/2	5 1/8	8 3/4																4.0
2M	36		1 5/8	5/8	3/4	10	8	6	6	8 1/4	14 1/8																9.0
3	36		1 5/8	5/8	3/4	10	8	6	6	8 1/4	14 1/8																9.0
4	36		1 5/8	5/8	3/4	10	8	6	6	8 1/4	14 1/8																9.0
5	48		2 1/4	3/4	1	12	10	8	9	10 1/4	17 5/8																16.0

STANDARD SIGN
R3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

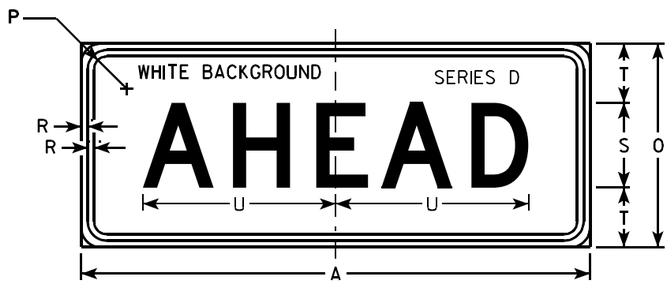
DATE 12/08/10 PLATE NO. R3-3.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 362 | E

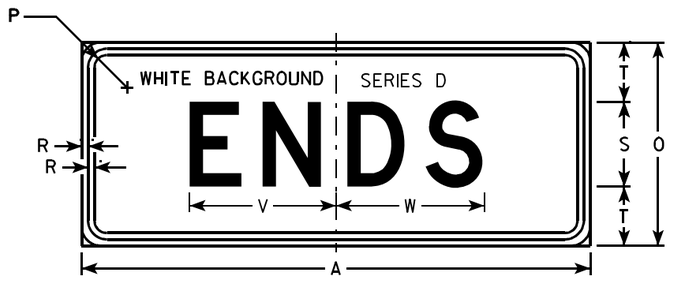
R3-17

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - AS SHOWN
   Message - BLACK
3. Message Series - C or as noted on the Signs.
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.



R3-17ap



R3-17bp

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	R3-17 Area sq. ft.	R3-17ap Area sq. ft.	R3-17bp Area sq. ft.
1																													
2S	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
2M	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
3																													
4																													
5																													

STANDARD SIGN
R3-17 & R3-17a&bp

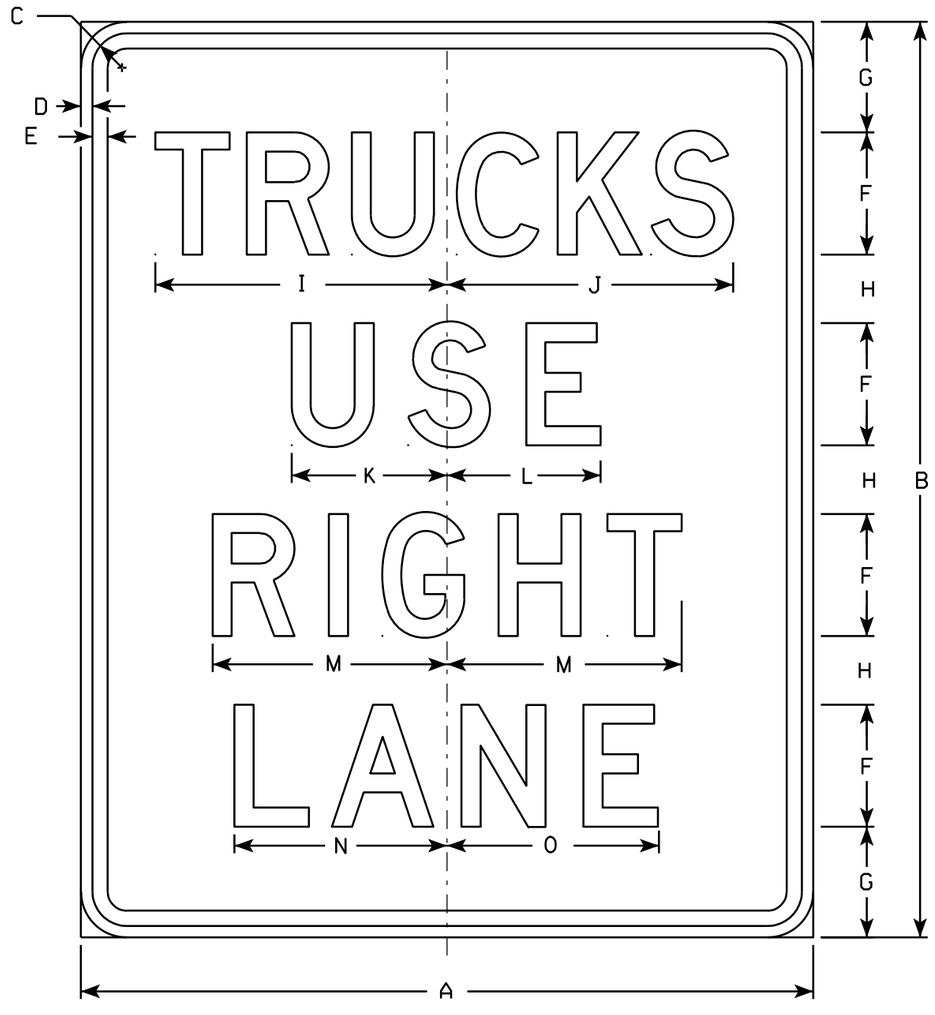
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/12/2011 PLATE NO. R3-17.2

PROJECT NO:

SHEET NO: 363 E

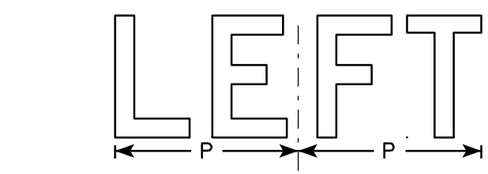


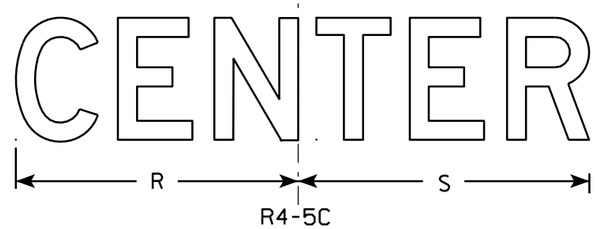
R4-5

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R4-5L & R4-5C are the same as R4-5 except LEFT or CENTER replaces RIGHT as order by code.

R4-5L





R4-5C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
3																											
4	36	48	2 1/4	5/8	3/4	6	6	4	14 3/8	14 1/8	7 7/8	7 7/8	12 1/4	10 3/4	10 1/2	9 5/8		13 7/8	14 1/4								12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/8	18 3/4	10 1/4	10 1/8	15 3/8	14	13 7/8	12		18 1/2	19 1/8								20.0

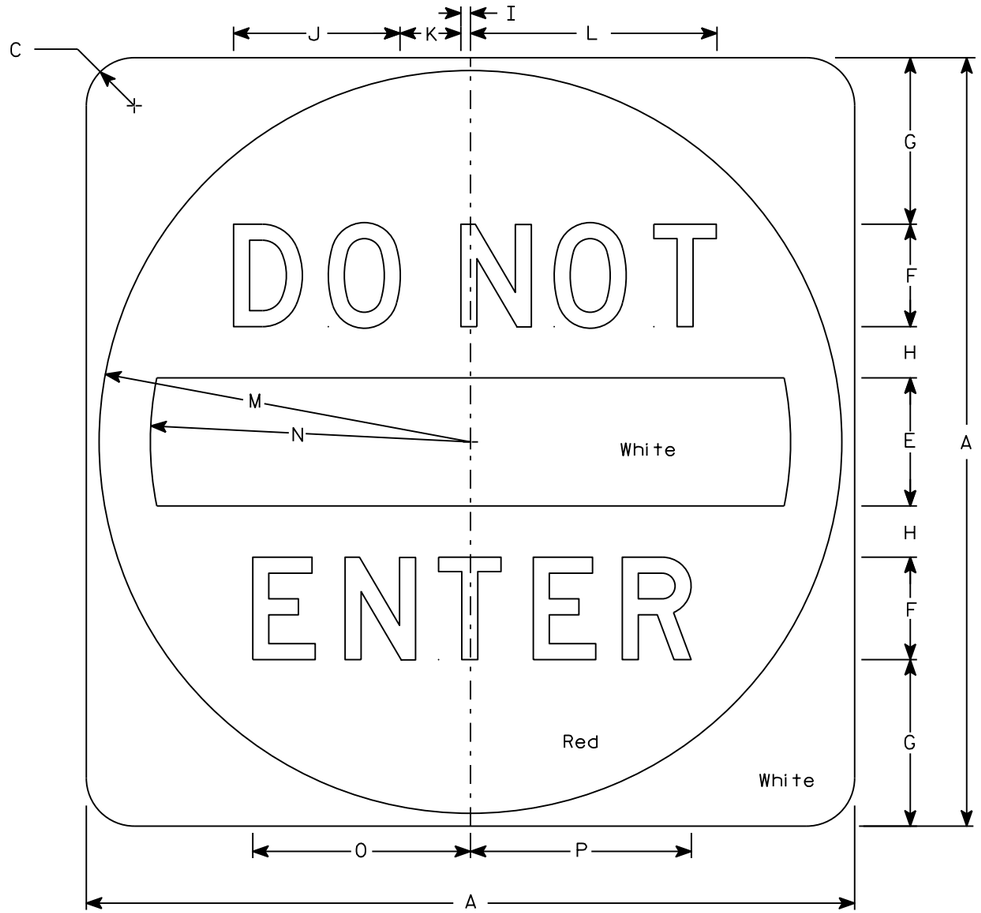
STANDARD SIGN
R4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-5.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 364	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

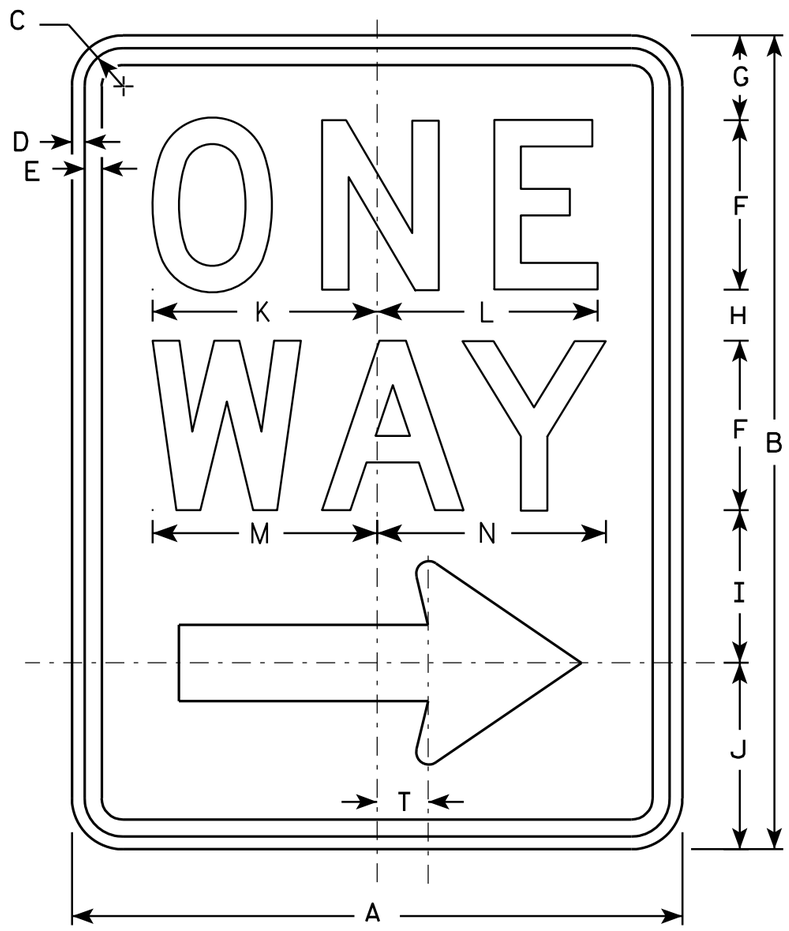
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

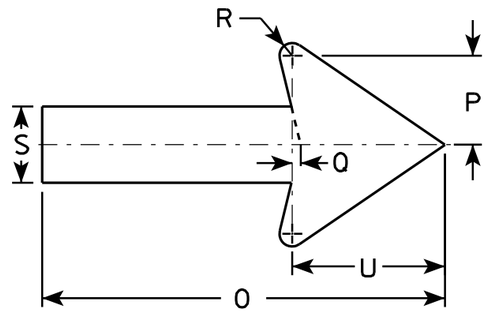
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 365 | E



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																										

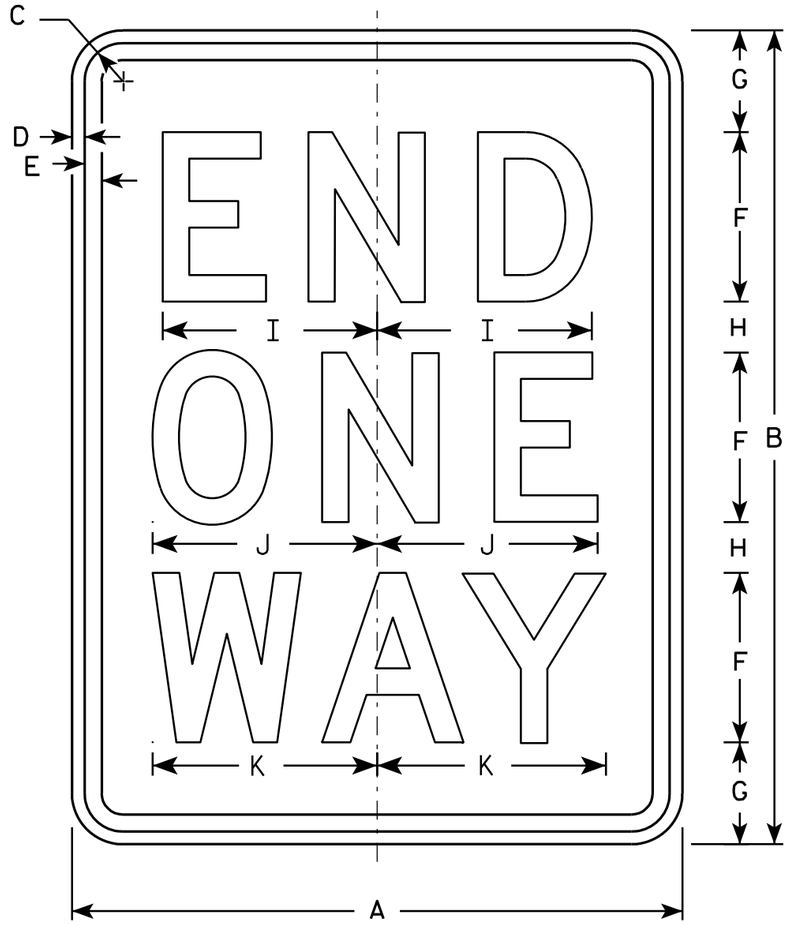
STANDARD SIGN
R6-2 R&L

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: 366	E



R6-7

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2S	24	30	1 1/8	3/8	1/2	6	3 1/2	2 1/2	8	8 1/8	8 1/2															
2M	30	36	1 3/8	1/2	5/8	8	3 1/4	2 3/4	10 1/8	10 1/2	11 1/2															
3	36	48	1 3/8	1/2	5/8	10	5 1/4	3 1/4	12 5/8	12 3/4	13 3/8															
4	36	48	1 3/8	1/2	5/8	10	5 1/4	3 1/4	12 5/8	12 3/4	13 3/8															
5																										

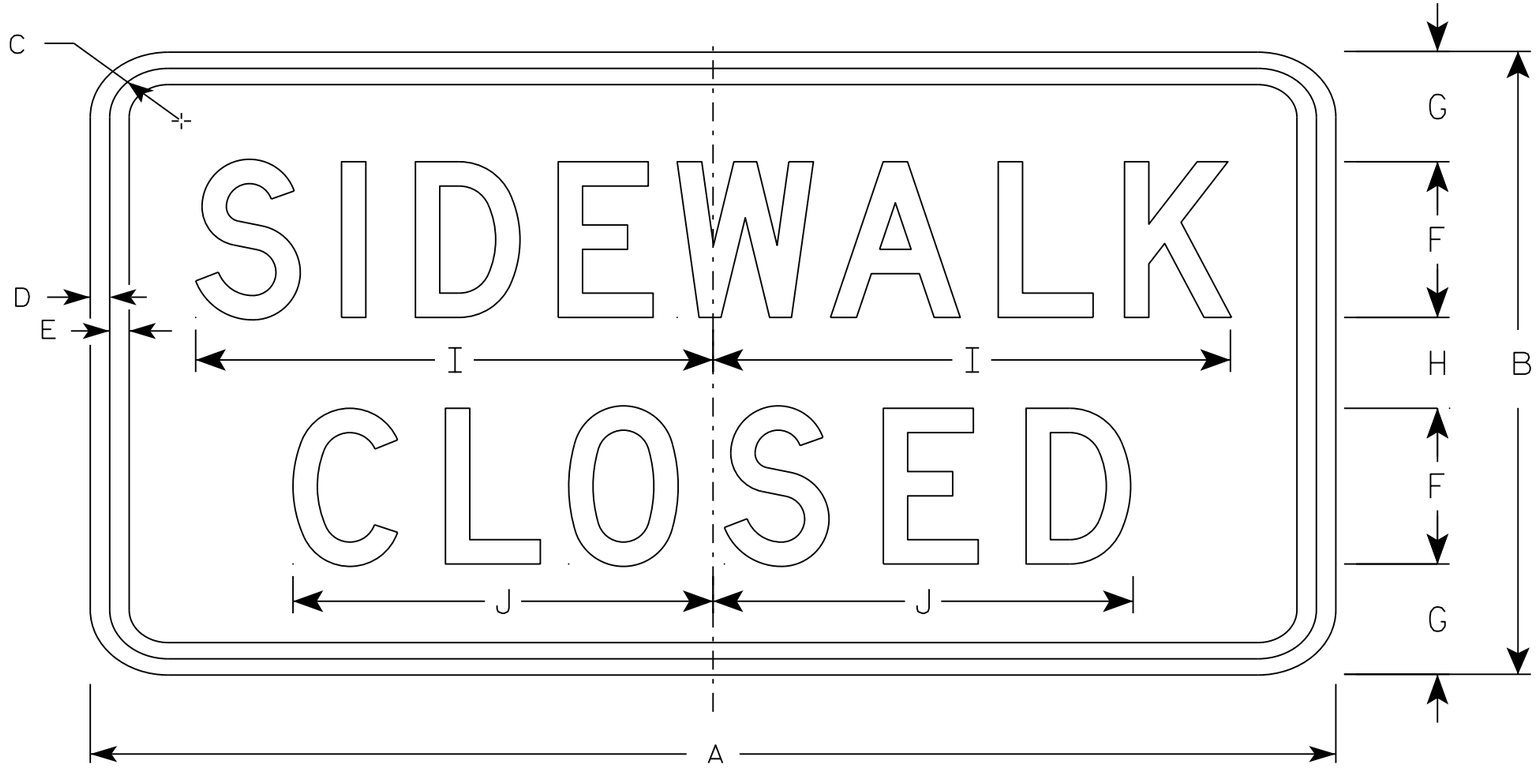
STANDARD SIGN
R6-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-7.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 367	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

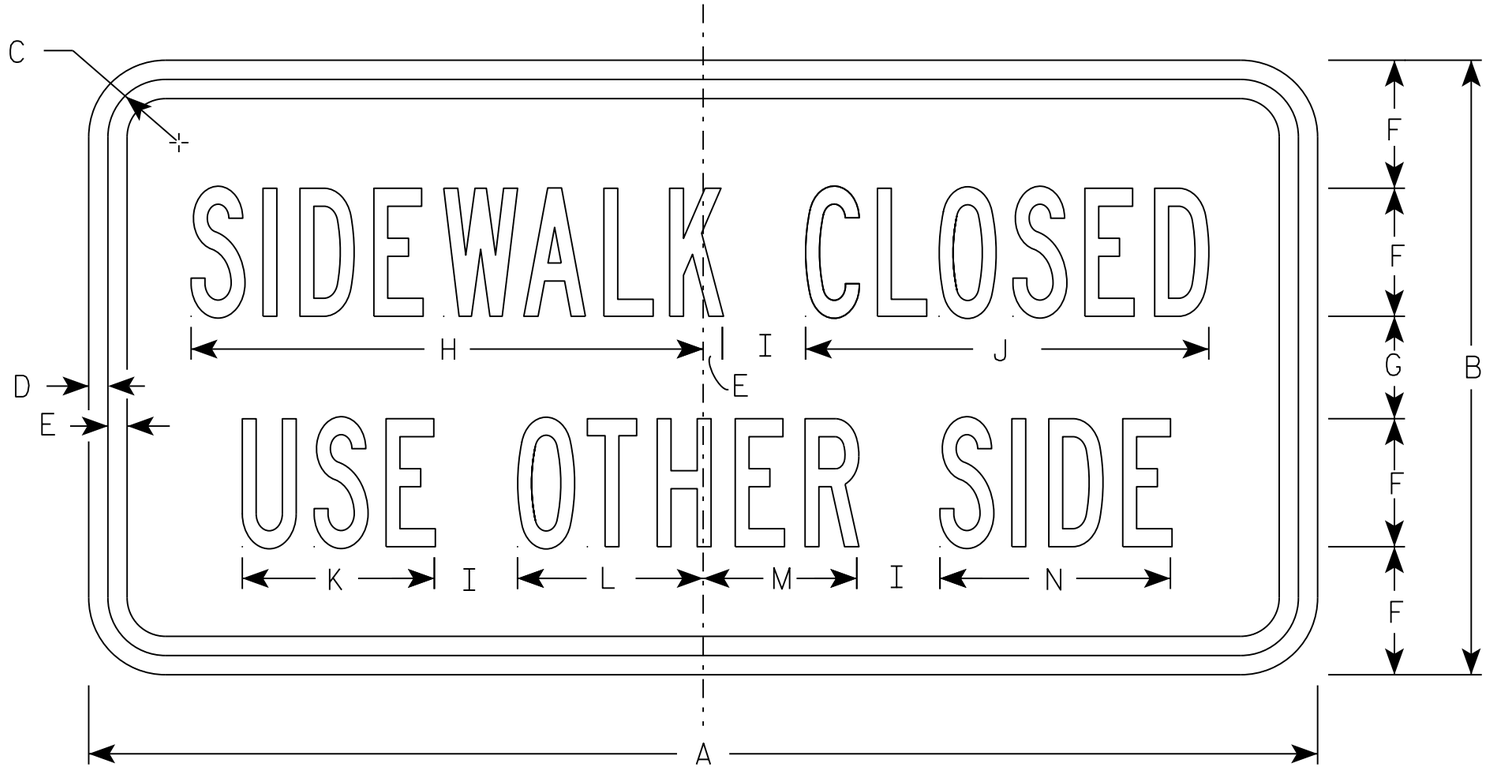
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 368 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



R9-10

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   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.
5. Use Size 2 for sidewalks. Use Size 3 for paths and trails.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	2 1/2	2	10	1 5/8	7 7/8	3 3/4	3 5/8	3	4 1/2													2.0
2M	24	12	1 1/8	3/8	3/8	2 1/2	2	10	1 5/8	7 7/8	3 3/4	3 5/8	3	4 1/2													2.0
3	30	15	1 1/8	3/8	1/2	3	2 3/4	12	2	9 1/2	4 1/2	4 3/8	3 5/8	5 3/8													3.125
4																											
5																											

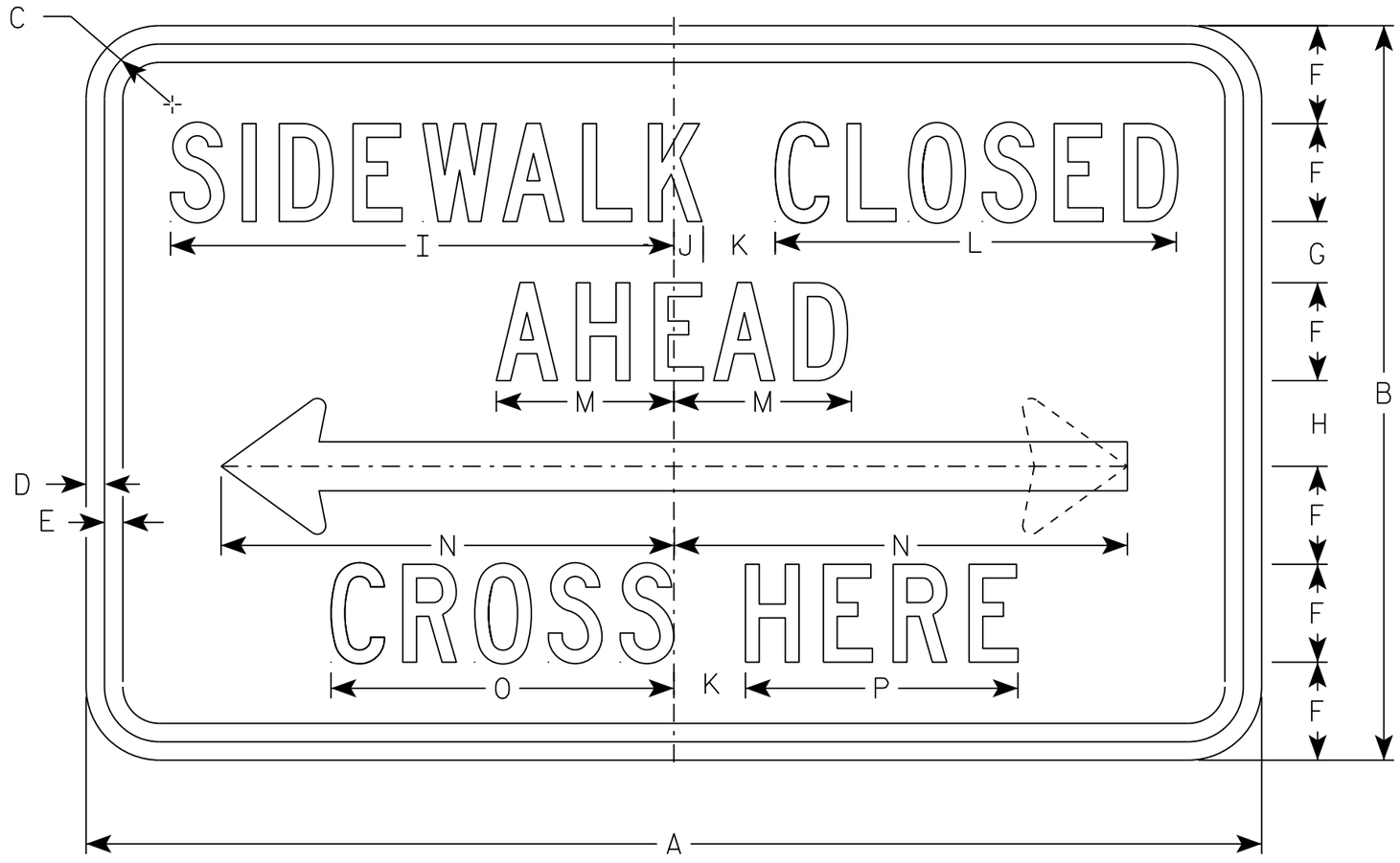
STANDARD SIGN
R9-10

WISCONSIN DEPT OF TRANSPORTATION

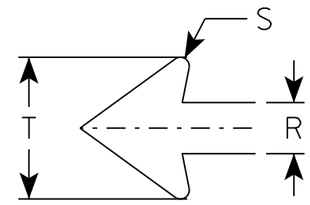
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R9-10.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 369 E



R9-11



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

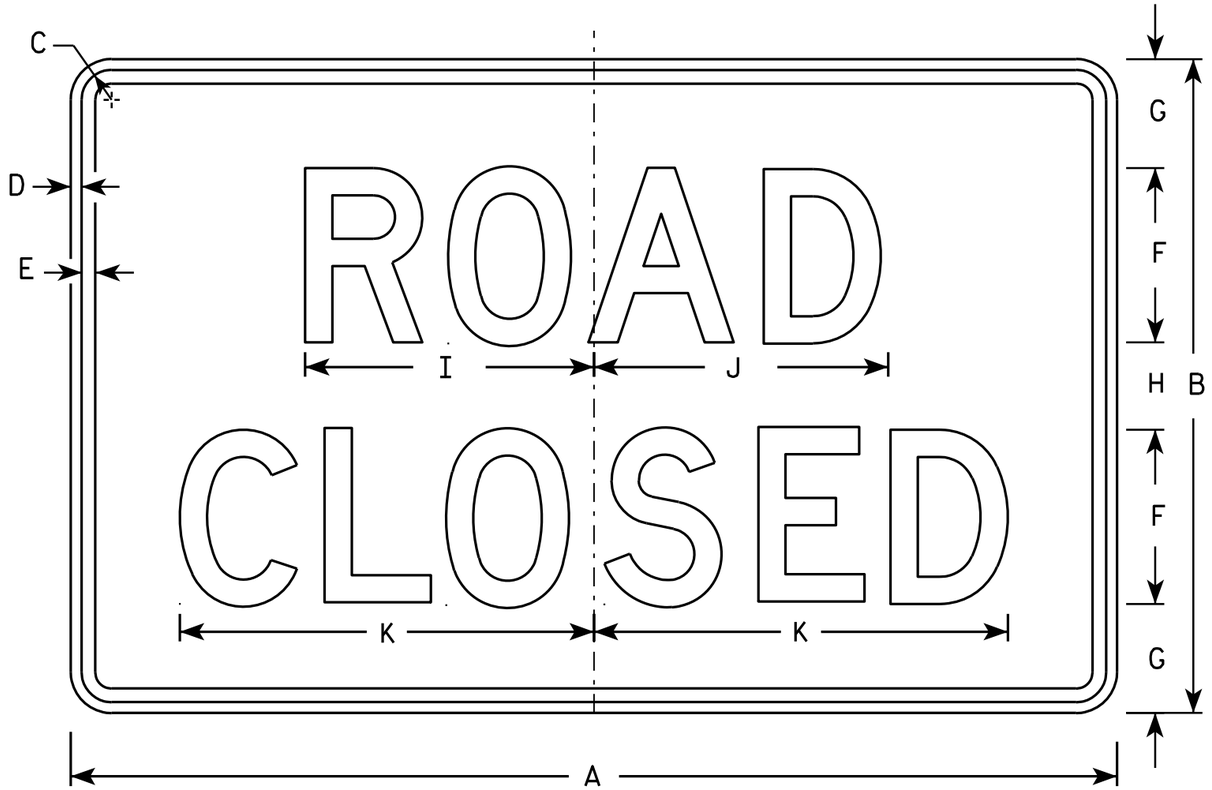
STANDARD SIGN
R9-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R9-11.3

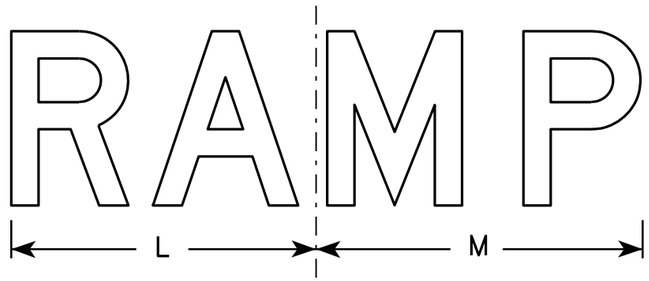
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 370	E



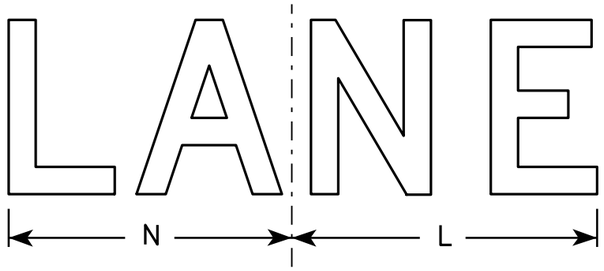
R11-2

NOTES

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



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

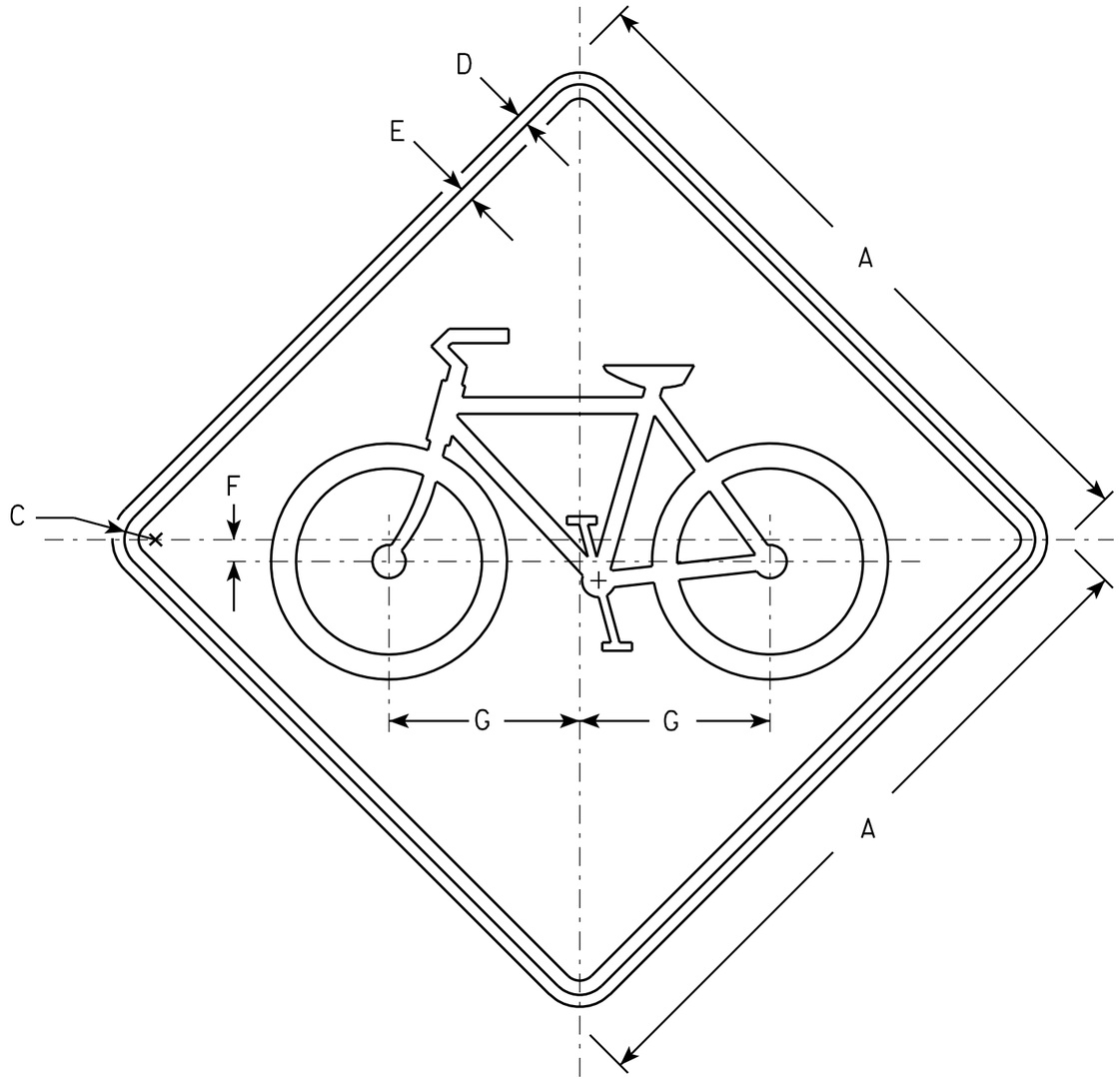
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 371 | E



W11-1

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
   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	24		1 1/8	3/4	1/2	3/4	6 5/8																				4.0
2S	30		1 3/8	1/2	5/8	1	8 1/2																				6.25
2M	36		1 5/8	5/8	3/4	1 1/4	10																				9.0
3	36		1 5/8	5/8	3/4	1 1/4	10																				9.0
4	48		2 1/4	3/4	1	1 5/8	13 3/8																				16.0
5																											16.0

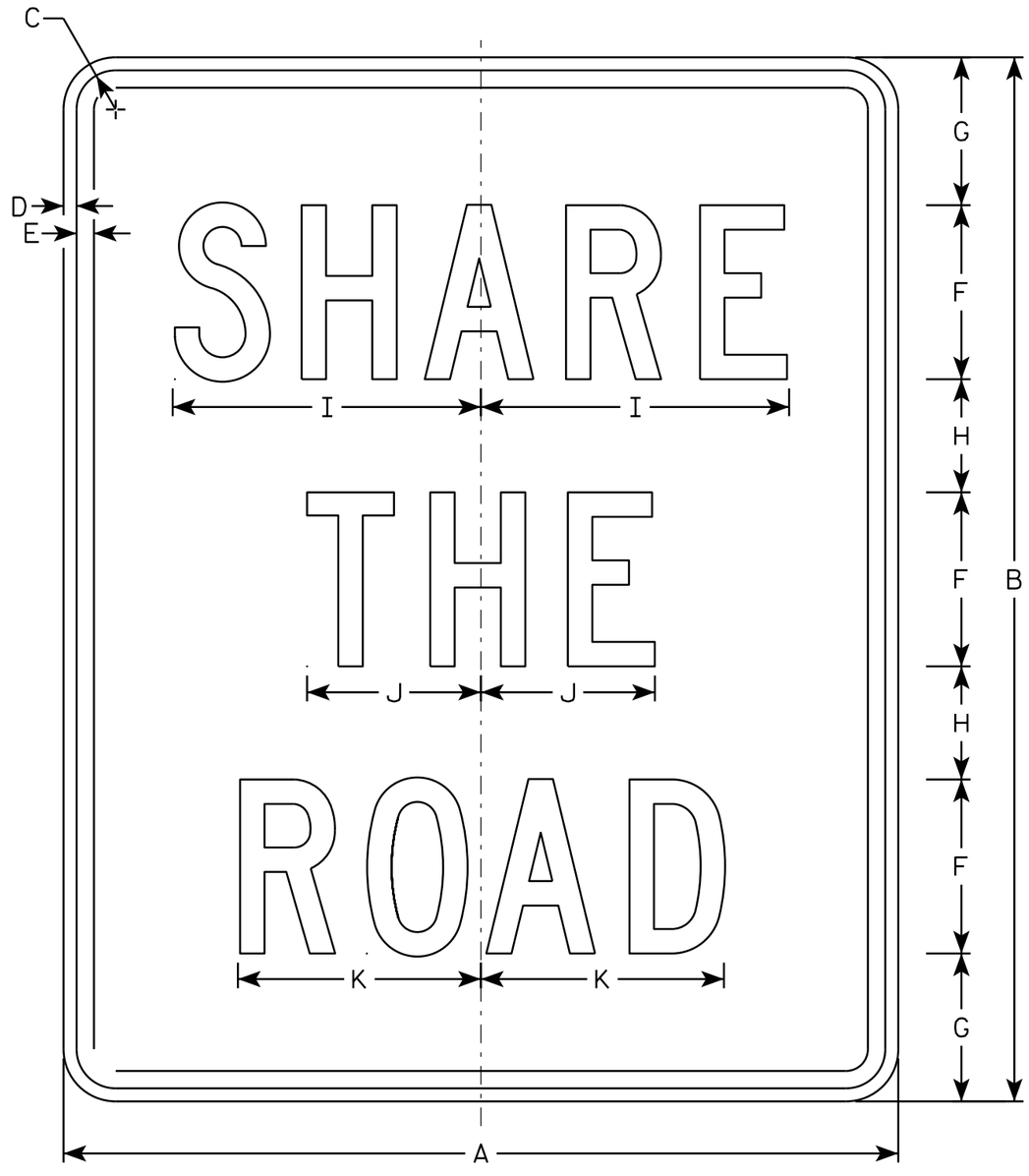
STANDARD SIGN
W11-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/21/10 PLATE NO. W11-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 372 | E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - 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.

W16-1P

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18	24	1 1/8	3/8	1/2	4	3 3/8	2 5/8	6 5/8	3 3/4	5 3/8																3.0
2M	18	24	1 1/8	3/8	1/2	4	3 3/8	2 5/8	6 5/8	3 3/4	5 3/8																3.0
3	24	30	1 1/8	3/8	1/2	5	4 1/4	3 1/4	8 7/8	5	7																5.0
4	24	30	1 1/8	3/8	1/2	5	4 1/4	3 1/4	8 7/8	5	7																5.0
5																											

STANDARD SIGN
W16-1P

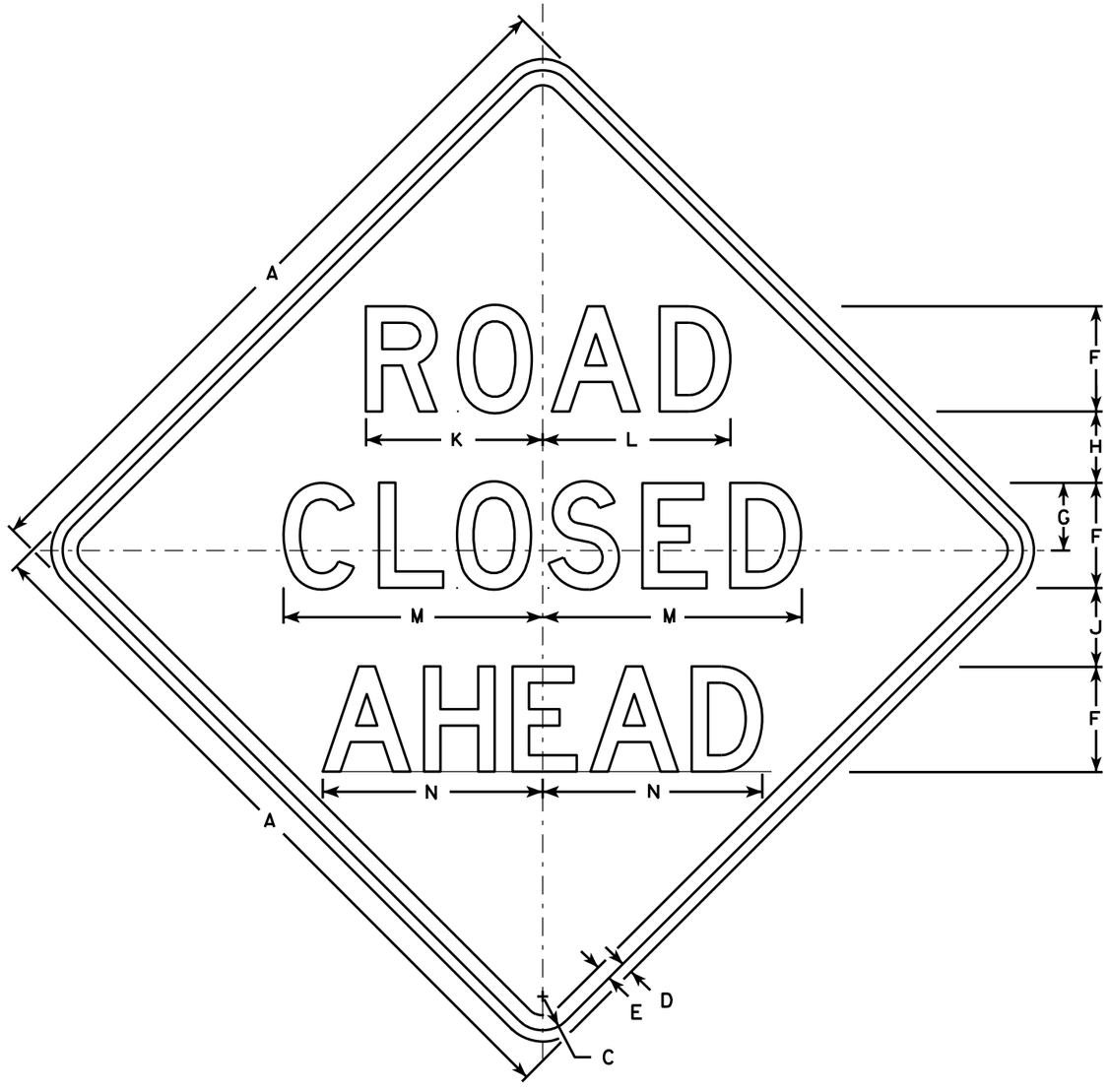
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

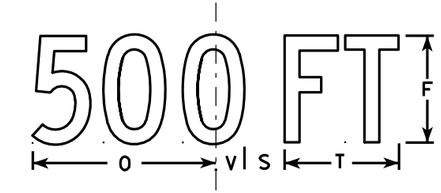
DATE 9/21/11 PLATE NO. W16-1P.2

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

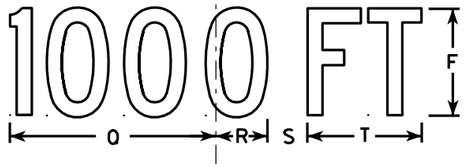
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W161P.DGN PLOT DATE : 27-JUL-2015 13:51 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.280853:1.000000
WISDOT/CADDS SHEET 42



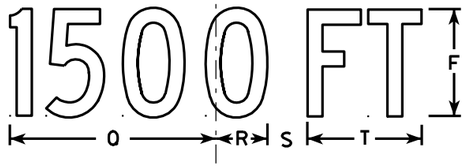
W20-3A



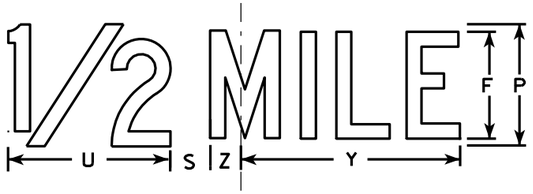
W20-3D



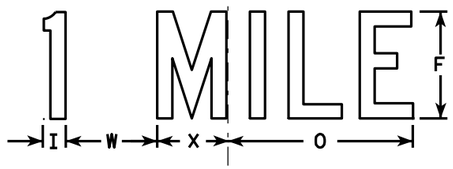
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - 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

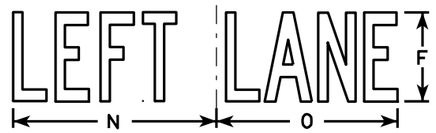
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

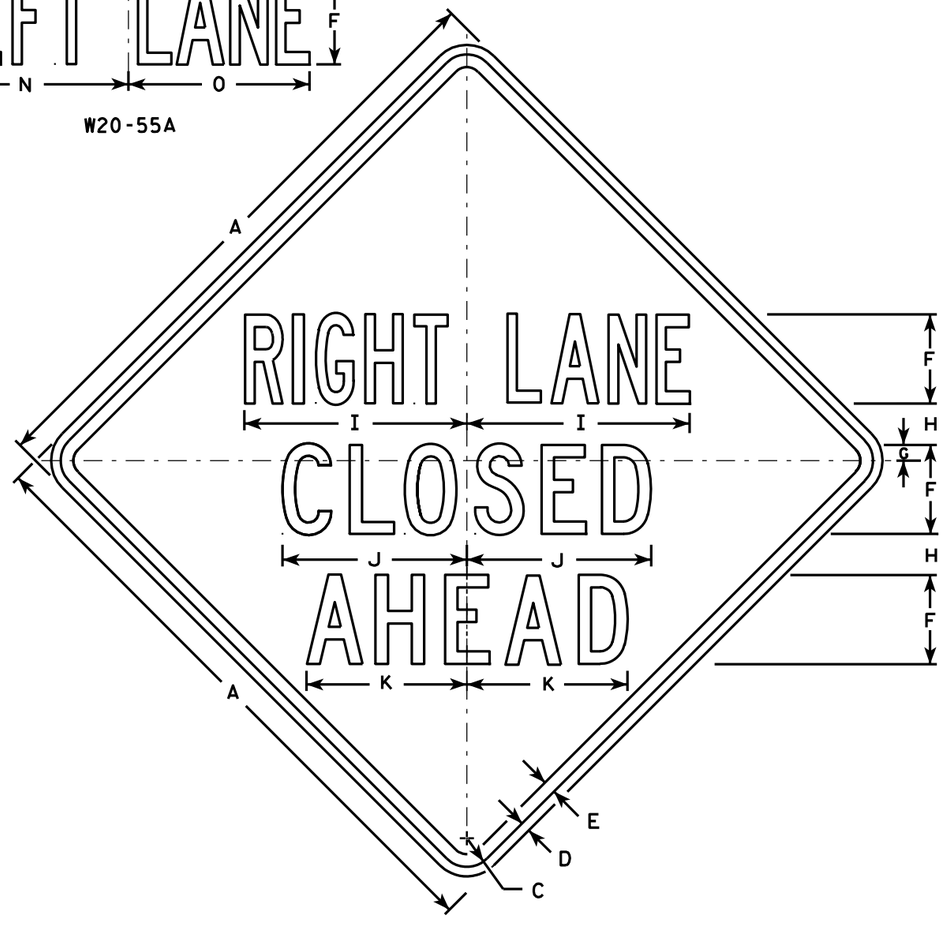
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 374 | E

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

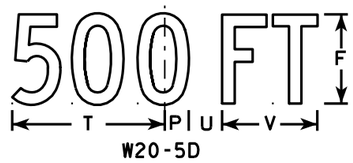
W20-56A



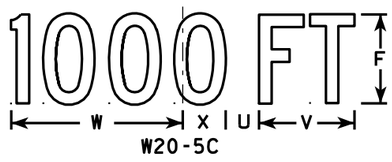
W20-55A



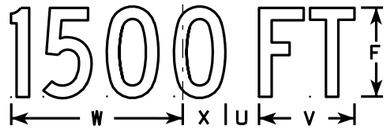
W20-5A



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

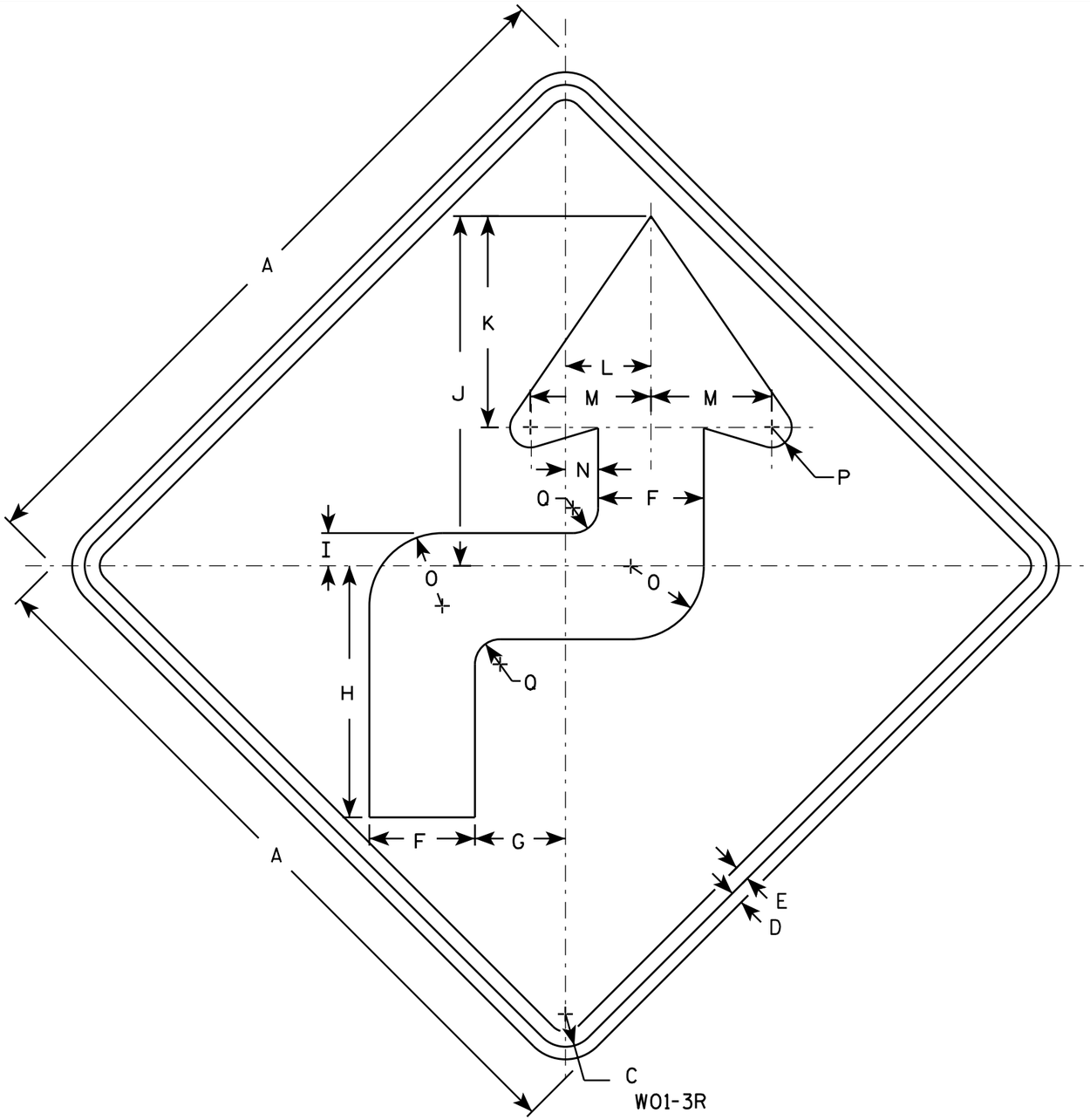
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 375 | 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



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

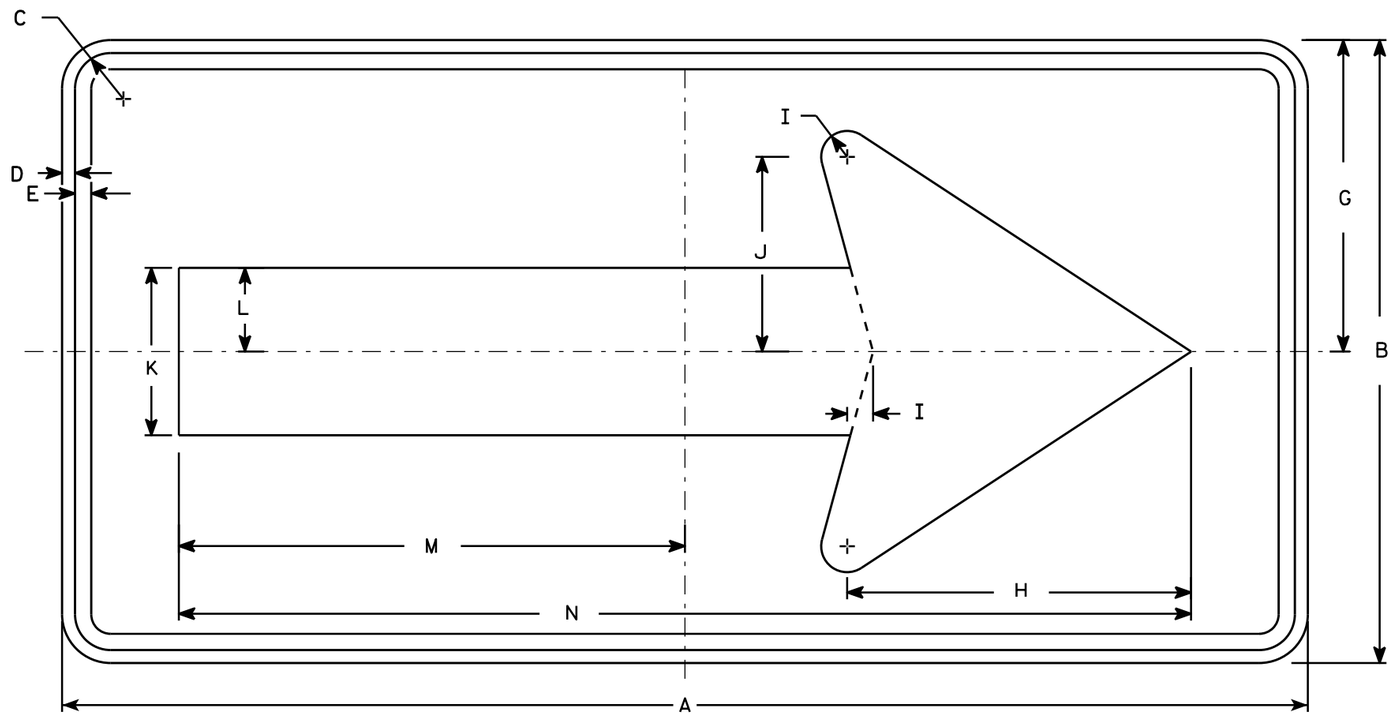
WISCONSIN DEPT OF TRANSPORTATION

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



W01-6

NOTES

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

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

STANDARD SIGN
W01-6

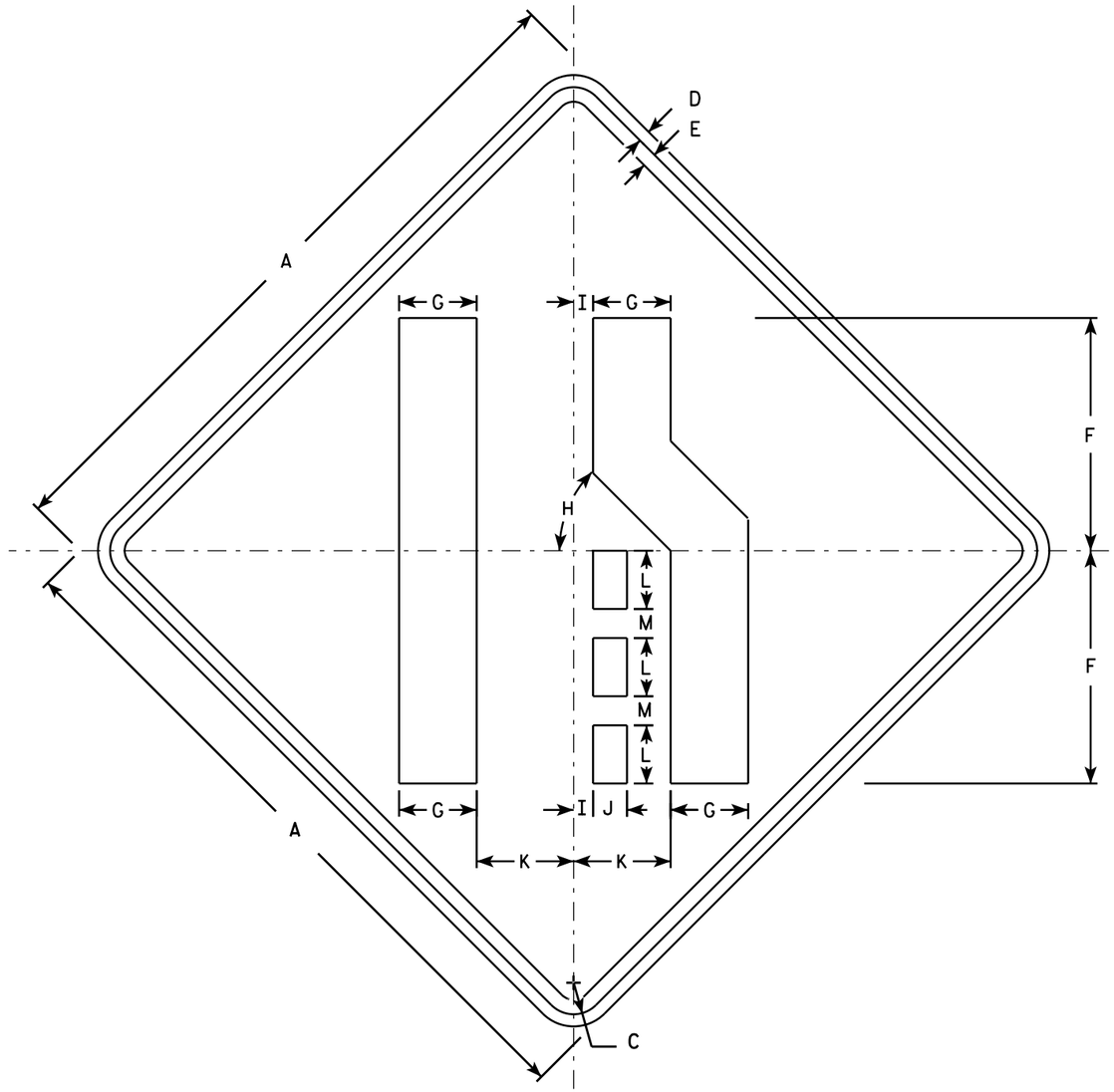
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



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

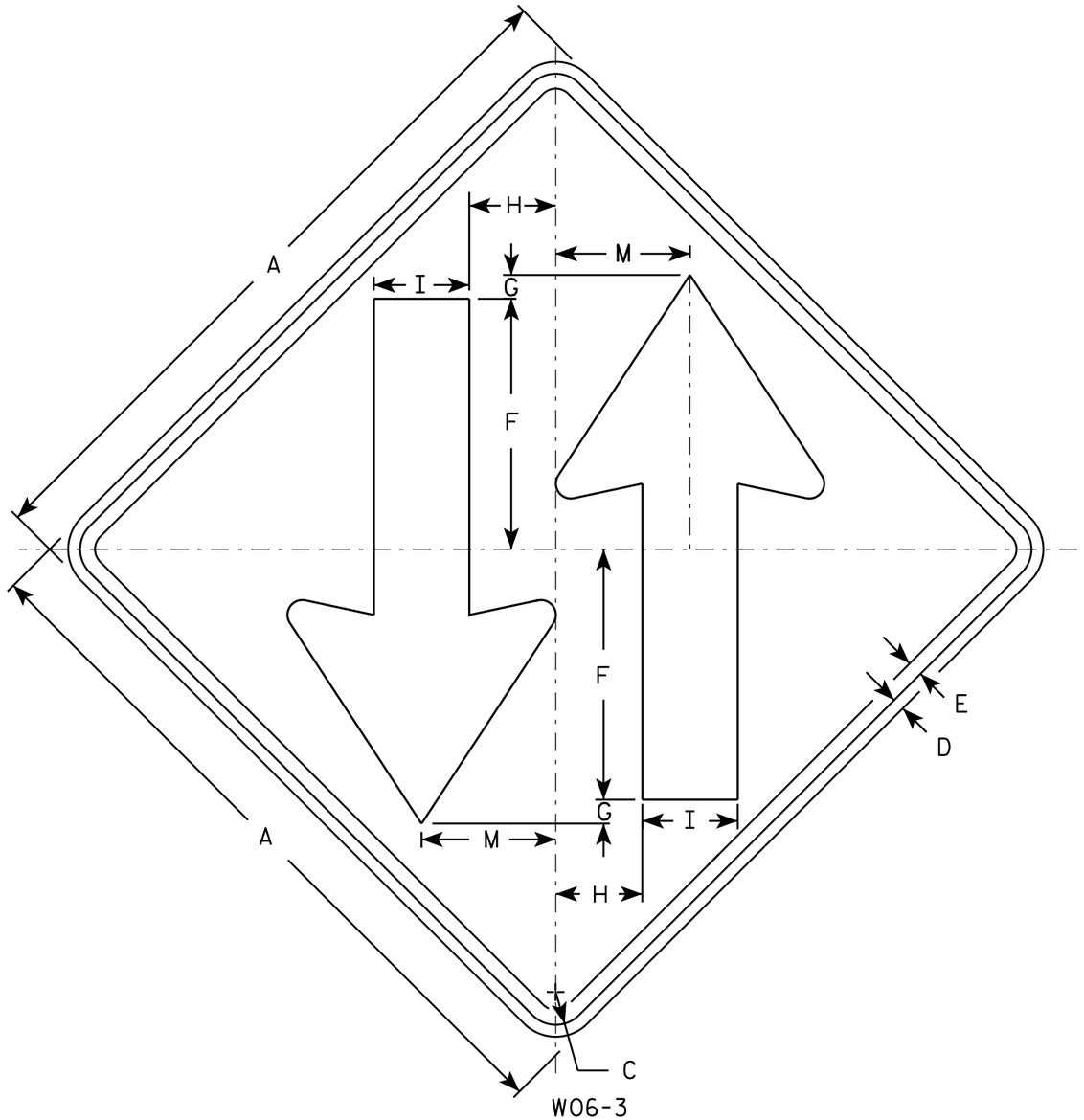
STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 378 W04-2.1

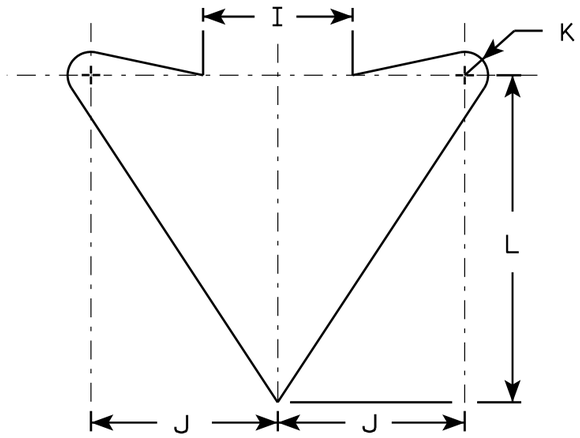
PROJECT NO: | SHEET NO: E



W06-3

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2S	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
2M	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
3	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
4	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

STANDARD SIGN
W06-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 379 W06-3.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

PROJECT ID 2984-00-73
DIVISION 1 - VLIET STREET (VL)

STATION	Distance	AREA (SF)		Incremental Vol (CY)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	Cut	Fill	Fill 1.2 Exp	Cut	Fill	Fill 1.2 Exp	
46+00	0.00	66.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46+50	50.00	39.02	0.00	97.31	0.00	0.00	97.31	0.00	0.00	97.31
47+00	50.00	39.94	0.00	73.11	0.00	0.00	170.43	0.00	0.00	170.43
47+50	50.00	34.74	0.00	69.15	0.00	0.00	239.57	0.00	0.00	239.57
48+00	50.00	58.76	0.10	86.57	0.09	0.11	326.15	0.09	0.11	326.06
48+50	50.00	62.06	0.09	111.87	0.18	0.21	438.02	0.27	0.32	437.75
49+00	50.00	58.68	0.08	111.80	0.16	0.19	549.81	0.43	0.51	549.39
49+50	50.00	60.78	0.03	110.61	0.10	0.12	660.43	0.53	0.63	659.90
50+00	50.00	62.51	0.00	114.16	0.03	0.03	774.58	0.56	0.67	774.03
50+50	50.00	60.73	0.08	114.11	0.07	0.09	888.69	0.63	0.76	888.06
51+00	50.00	61.66	0.16	113.32	0.22	0.27	1002.02	0.85	1.02	1001.17
51+12	11.59	62.67	0.00	26.68	0.03	0.04	1028.70	0.89	1.06	1027.82
51+50	38.41	62.01	0.00	88.68	0.00	0.00	1117.39	0.89	1.06	1116.50
51+83	32.77	61.45	0.04	74.92	0.02	0.03	1192.31	0.91	1.09	1191.40
52+00	17.23	60.53	0.01	38.92	0.02	0.02	1231.23	0.93	1.11	1230.30
52+50	50.00	58.18	0.06	109.92	0.06	0.08	1341.15	0.99	1.19	1340.16
53+00	50.00	62.48	0.07	111.72	0.12	0.14	1452.87	1.11	1.33	1451.76
53+50	50.00	48.79	3.74	103.03	3.53	4.23	1555.90	4.64	5.57	1551.26
54+00	50.00	47.86	4.09	89.49	7.25	8.70	1645.39	11.89	14.27	1633.50
54+28	28.45	59.26	0.00	56.44	2.15	2.59	1701.82	14.04	16.85	1687.78
54+50	21.55	57.97	0.21	46.78	0.08	0.10	1748.61	14.13	16.95	1734.48
55+00	50.00	61.97	0.13	111.06	0.31	0.38	1859.66	14.44	17.33	1845.22
55+50	50.00	62.44	0.07	115.19	0.19	0.22	1974.86	14.63	17.55	1960.23
55+60	10.13	62.97	0.06	23.53	0.02	0.03	1998.38	14.65	17.58	1983.73
56+00	39.87	60.33	0.10	91.04	0.12	0.14	2089.42	14.77	17.72	2074.65
56+50	50.00	62.46	0.04	113.69	0.13	0.16	2203.11	14.90	17.88	2188.21
57+00	50.00	47.01	3.81	101.36	3.56	4.28	2304.48	18.46	22.16	2286.01
57+50	50.00	34.92	0.00	75.86	3.53	4.23	2380.34	21.99	26.39	2358.34
58+00	50.00	58.04	0.13	86.07	0.12	0.14	2466.41	22.11	26.54	2444.30
58+50	50.00	58.30	0.05	107.72	0.17	0.20	2574.13	22.28	26.74	2551.85
59+00	50.00	58.05	0.06	107.73	0.10	0.12	2681.86	22.38	26.86	2659.48
59+34	34.43	65.28	0.00	78.63	0.04	0.05	2760.50	22.42	26.90	2738.08
59+50	15.57	64.37	0.07	37.38	0.02	0.02	2797.88	22.44	26.93	2775.44
60+00	50.00	59.70	0.17	114.88	0.22	0.27	2912.76	22.66	27.19	2890.10

PROJECT ID 2984-00-73
DIVISION 1 - VLIET STREET (VL) - CONT.

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
60+50		50.00	62.14	0.10	112.81	0.25	0.30	3025.58	22.91	27.49	3002.66
61+00		50.00	35.38	0.00	90.30	0.09	0.11	3115.87	23.00	27.61	3092.87
61+50		50.00	34.22	0.00	64.44	0.00	0.00	3180.32	23.00	27.61	3157.31
62+00		50.00	62.03	0.00	89.12	0.00	0.00	3269.44	23.00	27.61	3246.43
62+50		50.00	62.50	0.00	115.31	0.00	0.00	3384.74	23.00	27.61	3361.74
63+00		50.00	58.53	0.00	112.06	0.00	0.00	3496.81	23.00	27.61	3473.80
63+50		50.00	54.41	0.00	104.57	0.00	0.00	3601.38	23.00	27.61	3578.38
64+00		50.00	56.75	0.00	102.93	0.00	0.00	3704.31	23.00	27.61	3681.30
64+50		50.00	57.49	0.00	105.78	0.00	0.00	3810.09	23.00	27.61	3787.08
64+75	**BK**	24.60	63.40	0.00	55.07	0.00	0.00	3865.16	23.00	27.61	3842.15
					3865.16	23.00	27.61				

PROJECT ID 2984-00-73
DIVISION 1 - 17TH STREET SB (NSI)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
9+25	**AH**	0.00	89.69	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9+30		4.90	90.91	1.56	16.39	0.20	0.24	16.39	0.20	0.24	16.19
9+50		20.00	95.41	0.43	69.01	0.74	0.88	85.40	0.94	1.12	84.46
9+84	**BK**	33.90	96.92	0.00	120.74	0.27	0.32	206.14	1.21	1.45	204.93
					206.14	1.21	1.45				

PROJECT ID 2984-00-73
DIVISION 1 - 17TH STREET NB (NSJ)

STATION		Distance	AREA (SF)		Incremental Vol (CY)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	Cut	Fill	Fill 1.2 Exp	Cut	Fill	Fill 1.2 Exp	
9+25	**AH**	0.00	110.76	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9+50		24.90	121.83	0.07	107.25	0.77	0.92	107.25	0.77	0.92	106.48
9+70		20.00	136.09	0.13	95.53	0.07	0.09	202.78	0.84	1.01	201.93
9+84	**BK**	13.90	167.54	0.00	78.16	0.03	0.04	280.93	0.88	1.05	280.05
					280.93	0.88	1.05				

PROJECT ID 2984-00-73
DIVISION 1 - 14TH STREET (NSL)

STATION		Distance	AREA (SF)		Incremental Vol (CY)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	Cut	Fill	Fill 1.2 Exp	Cut	Fill	Fill 1.2 Exp	
9+47	**AH**	0.00	85.42	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9+50		2.90	84.57	1.95	9.13	0.18	0.21	9.13	0.18	0.21	8.95
9+84	**BK**	33.90	91.53	0.00	110.55	1.22	1.47	119.68	1.40	1.68	118.28
					119.68	1.40	1.68				

PROJECT ID 2984-00-73
DIVISION 1 - 13TH STREET (NSM)

STATION		Distance	AREA (SF)		Incremental Vol (CY)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	Cut	Fill	Fill 1.2 Exp	Cut	Fill	Fill 1.2 Exp	
9+32	**AH**	0.00	110.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9+40		7.90	111.07	0.00	32.47	0.00	0.00	32.47	0.00	0.00	32.47
9+50		10.00	85.27	0.16	36.36	0.03	0.04	68.83	0.03	0.04	68.80
9+84	**BK**	33.90	95.61	0.00	113.55	0.10	0.12	182.38	0.13	0.16	182.25
					182.38	0.13	0.16				

PROJECT ID 2984-00-73
DIVISION 1 - 12TH LANE (NSN)

STATION		Distance	AREA (SF)		Incremental Vol (CY)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	Cut	Fill	Fill 1.2 Exp	Cut	Fill	Fill 1.2 Exp	
9+58	**AH**	0.00	62.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9+70		11.90	42.51	0.00	23.16	0.00	0.00	23.16	0.00	0.00	23.16
9+78	**BK**	7.90	40.88	0.00	12.20	0.00	0.00	35.36	0.00	0.00	35.36
					35.36	0.00	0.00				

PROJECT ID 2984-00-73
DIVISION 2 - VLIET STREET (VL)

STATION	Distance	AREA (SF)		Incremental Vol (CY)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	Cut	Fill	Fill 1.2 Exp	Cut	Fill	Fill 1.2 Exp	
46+00	0.00	48.68	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46+50	50.00	37.57	0.00	79.86	3.52	4.22	79.86	3.52	4.22	76.34
47+00	50.00	39.77	0.00	71.61	0.00	0.00	151.47	3.52	4.22	147.95
47+50	50.00	34.68	0.00	68.94	0.00	0.00	220.41	3.52	4.22	216.89
48+00	50.00	72.19	9.10	98.95	8.43	10.11	319.36	11.94	14.33	307.42
48+50	50.00	62.86	0.05	125.05	8.47	10.17	444.41	20.42	24.50	423.99
49+00	50.00	57.28	0.09	111.24	0.13	0.16	555.65	20.55	24.66	535.10
49+50	50.00	60.61	0.07	109.16	0.15	0.18	664.81	20.69	24.83	644.11
50+00	50.00	63.46	0.04	114.88	0.10	0.12	779.69	20.80	24.96	758.89
50+50	50.00	58.84	0.13	113.24	0.16	0.19	892.93	20.95	25.14	871.97
51+00	50.00	60.13	0.12	110.16	0.23	0.28	1003.08	21.19	25.42	981.90
51+12	11.59	60.44	0.10	25.88	0.05	0.06	1028.96	21.23	25.48	1007.73
51+50	38.41	59.17	0.10	85.08	0.14	0.17	1114.04	21.37	25.65	1092.66
51+83	32.77	66.55	0.00	76.29	0.06	0.07	1190.33	21.44	25.72	1168.90
52+00	17.23	61.99	0.10	41.01	0.03	0.04	1231.35	21.47	25.76	1209.88
52+50	50.00	55.82	0.19	109.08	0.27	0.32	1340.43	21.74	26.08	1318.69
53+00	50.00	60.20	0.11	107.43	0.28	0.33	1447.86	22.01	26.42	1425.84
53+50	50.00	34.42	0.00	87.61	0.10	0.12	1535.47	22.12	26.54	1513.35
54+00	50.00	36.58	0.00	65.74	0.00	0.00	1601.21	22.12	26.54	1579.09
54+28	28.45	62.22	0.08	52.05	0.04	0.05	1653.26	22.16	26.59	1631.10
54+50	21.55	56.95	0.16	47.56	0.10	0.11	1700.82	22.25	26.70	1678.56
55+00	50.00	63.36	0.01	111.40	0.16	0.19	1812.22	22.41	26.89	1789.81
55+50	50.00	66.00	0.00	119.78	0.01	0.01	1931.99	22.42	26.90	1909.57
55+60	10.13	65.74	0.00	24.71	0.00	0.00	1956.71	22.42	26.90	1934.29
56+00	39.87	62.70	0.07	94.83	0.05	0.06	2051.54	22.47	26.97	2029.07
56+50	50.00	62.55	0.04	115.97	0.10	0.12	2167.51	22.57	27.09	2144.94
57+00	50.00	61.38	0.32	114.75	0.33	0.40	2282.26	22.91	27.49	2259.35
57+50	50.00	36.09	0.00	90.25	0.30	0.36	2372.51	23.20	27.84	2349.31
58+00	50.00	60.88	0.00	89.79	0.00	0.00	2462.30	23.20	27.84	2439.10
58+50	50.00	60.17	0.01	112.08	0.01	0.01	2574.38	23.21	27.85	2551.17
59+00	50.00	55.99	0.14	107.56	0.14	0.17	2681.94	23.35	28.02	2658.59
59+34	34.43	61.27	0.00	74.76	0.09	0.11	2756.70	23.44	28.13	2733.26
59+50	15.57	59.54	0.07	34.83	0.02	0.02	2791.54	23.46	28.15	2768.07
60+00	50.00	59.72	0.06	110.43	0.12	0.14	2901.96	23.58	28.30	2878.38

PROJECT ID 2984-00-73
DIVISION 2 - VLIET STREET (VL) - CONT.

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
60+50		50.00	59.55	0.09	110.44	0.14	0.17	3012.40	23.72	28.46	2988.68
61+00		50.00	34.03	0.00	86.65	0.08	0.10	3099.04	23.80	28.56	3075.24
61+50		50.00	32.15	0.00	61.28	0.00	0.00	3160.32	23.80	28.56	3136.52
62+00		50.00	59.16	0.00	84.55	0.00	0.00	3244.87	23.80	28.56	3221.07
62+50		50.00	60.96	0.00	111.22	0.00	0.00	3356.09	23.80	28.56	3332.29
63+00		50.00	61.76	0.00	113.63	0.00	0.00	3469.72	23.80	28.56	3445.92
63+50		50.00	64.47	0.00	116.88	0.00	0.00	3586.60	23.80	28.56	3562.80
64+00		50.00	61.98	0.00	117.08	0.00	0.00	3703.68	23.80	28.56	3679.88
64+50		50.00	61.22	0.00	114.07	0.00	0.00	3817.76	23.80	28.56	3793.95
64+75	**BK**	24.60	65.23	0.00	57.61	0.00	0.00	3875.36	23.80	28.56	3851.56
					3875.36	23.80	28.56				

PROJECT ID 2984-00-73
DIVISION 2 - 17TH STREET SB (NSI)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
10+16	**AH**	0.00	175.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+50		33.90	118.58	0.86	184.50	0.54	0.65	184.50	0.54	0.65	183.96
10+60		10.00	115.91	0.67	43.42	0.28	0.34	227.92	0.82	0.99	227.10
10+74	**BK**	13.90	114.00	1.03	59.18	0.44	0.53	287.10	1.26	1.51	285.84
					287.10	1.26	1.51				

PROJECT ID 2984-00-73
DIVISION 2 - 17TH STREET NB (NSJ)

STATION		Distance	AREA (SF)		Incremental Vol (CY)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	Cut	Fill	Fill 1.2 Exp	Cut	Fill	Fill 1.2 Exp	
10+16	**AH**	0.00	92.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+50		33.90	93.76	0.95	117.16	0.60	0.72	117.16	0.60	0.72	116.57
10+60		10.00	92.69	0.48	34.53	0.26	0.32	151.69	0.86	1.03	150.83
10+74	**BK**	13.90	88.83	0.51	46.72	0.25	0.31	198.41	1.12	1.34	197.30
					198.41	1.12	1.34				

PROJECT ID 2984-00-73
DIVISION 2 - 15TH STREET (NSK)

STATION		Distance	AREA (SF)		Incremental Vol (CY)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	Cut	Fill	Fill 1.2 Exp	Cut	Fill	Fill 1.2 Exp	
10+16	**AH**	0.00	94.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+40		23.90	85.71	2.38	79.64	1.05	1.26	79.64	1.05	1.26	78.59
10+47	**BK**	7.10	89.00	1.59	22.97	0.52	0.63	102.61	1.58	1.89	101.04
					102.61	1.58	1.89				

PROJECT ID 2984-00-73
DIVISION 2 - 14TH STREET (NSL)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
10+16	**AH**	0.00	98.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+40		23.90	90.21	0.00	83.31	0.01	0.01	83.31	0.01	0.01	83.30
10+48	**BK**	7.90	94.73	0.00	27.06	0.00	0.00	110.37	0.01	0.01	110.36
					110.37	0.01	0.01				

PROJECT ID 2984-00-73
DIVISION 2 - 13TH STREET (NSM)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
10+16	**AH**	0.00	88.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+50		33.90	100.91	0.00	118.90	0.00	0.00	118.90	0.00	0.00	118.90
10+60		10.00	105.78	0.00	38.28	0.00	0.00	157.18	0.00	0.00	157.18
10+65	**BK**	4.90	108.04	0.00	19.40	0.00	0.00	176.58	0.00	0.00	176.58
					176.58	0.00	0.00				

PROJECT ID 2984-00-73

DIVISION 3 - VLIET STREET (VL)

STATION		Distance	AREA (SF)		Incremental Vol (CY)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	Cut	Fill	Fill 1.2 Exp	Cut	Fill	Fill 1.2 Exp	
10+69	**AH**	0.00	58.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11+00		30.80	56.32	0.00	65.75	0.00	0.00	65.75	0.00	0.00	65.75
11+50		50.00	58.09	0.00	105.94	0.00	0.00	171.68	0.00	0.00	171.68
12+00		50.00	59.41	0.00	108.80	0.00	0.00	280.48	0.00	0.00	280.48
12+21		20.96	59.08	0.00	45.99	0.00	0.00	326.47	0.00	0.00	326.47
12+50		29.04	58.57	0.00	63.27	0.00	0.00	389.74	0.00	0.00	389.74
13+00		50.00	58.60	0.00	108.49	0.00	0.00	498.23	0.00	0.00	498.23
13+50		50.00	59.36	0.00	109.22	0.00	0.00	607.45	0.00	0.00	607.45
14+00		50.00	36.87	0.00	89.10	0.00	0.00	696.55	0.00	0.00	696.55
14+50		50.00	36.12	0.00	67.58	0.00	0.00	764.14	0.00	0.00	764.14
15+00		50.00	62.22	0.00	91.06	0.00	0.00	855.19	0.00	0.00	855.19
15+27		27.13	58.18	0.00	60.49	0.00	0.00	915.68	0.00	0.00	915.68
15+50		22.87	58.14	0.00	49.26	0.00	0.00	964.95	0.00	0.00	964.95
15+74		23.85	58.12	0.00	51.35	0.00	0.00	1016.29	0.00	0.00	1016.29
16+00		26.15	59.71	0.00	57.06	0.00	0.00	1073.35	0.00	0.00	1073.35
16+50		50.00	54.81	0.00	106.04	0.00	0.00	1179.39	0.00	0.00	1179.39
17+00		50.00	47.83	0.00	95.04	0.00	0.00	1274.43	0.00	0.00	1274.43
17+50		50.00	60.79	0.00	100.57	0.00	0.00	1375.00	0.00	0.00	1375.00
18+00		50.00	54.83	0.00	107.06	0.00	0.00	1482.06	0.00	0.00	1482.06
18+50		50.00	57.86	0.00	104.34	0.00	0.00	1586.40	0.00	0.00	1586.40
19+00		50.00	60.01	0.00	109.14	0.00	0.00	1695.54	0.00	0.00	1695.54
19+50		50.00	56.59	0.00	107.96	0.00	0.00	1803.50	0.00	0.00	1803.50
20+00		50.00	37.45	0.00	87.07	0.00	0.00	1890.58	0.00	0.00	1890.58
20+50		50.00	59.86	0.00	90.10	0.00	0.00	1980.68	0.00	0.00	1980.68
21+00		50.00	56.00	0.00	107.28	0.00	0.00	2087.96	0.00	0.00	2087.96
21+50		50.00	56.98	0.00	104.61	0.00	0.00	2192.57	0.00	0.00	2192.57
22+00		50.00	50.65	0.00	99.66	0.00	0.00	2292.23	0.00	0.00	2292.23
22+19		19.08	51.99	0.00	36.27	0.00	0.00	2328.49	0.00	0.00	2328.49
22+41		21.55	52.56	0.00	41.72	0.00	0.00	2370.21	0.00	0.00	2370.21
22+50		9.37	53.82	0.00	18.46	0.00	0.00	2388.67	0.00	0.00	2388.67
23+00		50.00	61.08	0.00	106.39	0.00	0.00	2495.06	0.00	0.00	2495.06
23+50		50.00	40.43	0.00	93.99	0.00	0.00	2589.05	0.00	0.00	2589.05
24+00		50.00	49.40	3.18	83.18	2.94	3.53	2672.23	2.94	3.53	2669.28
24+50		50.00	49.80	3.04	91.85	5.76	6.91	2764.08	8.70	10.44	2755.38
25+00		50.00	50.97	2.82	93.31	5.43	6.51	2857.39	14.13	16.96	2843.26
25+50		50.00	50.06	3.10	93.55	5.48	6.58	2950.93	19.61	23.53	2931.32
26+00		50.00	49.12	3.11	91.83	5.75	6.90	3042.77	25.36	30.43	3017.41
26+50		50.00	47.21	4.30	89.19	6.86	8.23	3131.96	32.22	38.67	3099.74
27+00		50.00	49.18	1.94	89.25	5.78	6.93	3221.21	38.00	45.60	3183.21
27+50		50.00	51.87	2.22	93.56	3.85	4.62	3314.78	41.85	50.22	3272.92
28+00		50.00	57.16	1.93	100.95	3.84	4.61	3415.73	45.69	54.83	3370.03
28+50		50.00	56.23	1.66	104.99	3.32	3.99	3520.72	49.02	58.82	3471.70
29+00		50.00	57.55	1.46	105.35	2.89	3.47	3626.07	51.91	62.29	3574.16

PROJECT ID 2984-00-73

DIVISION 3 - VLIET STREET (VL) - CONT.

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
29+50		50.00	65.03	0.00	113.50	1.35	1.62	3739.57	53.26	63.91	3686.31
30+00		50.00	38.00	0.00	95.40	0.00	0.00	3834.97	53.26	63.91	3781.71
30+50		50.00	36.29	0.00	68.79	0.00	0.00	3903.76	53.26	63.91	3850.50
31+00		50.00	49.29	3.62	79.24	3.35	4.02	3983.00	56.61	67.93	3926.39
31+50		50.00	48.70	3.98	90.73	7.04	8.44	4073.73	63.65	76.38	4010.08
32+00		50.00	49.97	2.85	91.36	6.32	7.59	4165.09	69.97	83.97	4095.12
32+50		50.00	49.91	3.13	92.48	5.54	6.64	4257.57	75.51	90.61	4182.06
33+00		50.00	54.12	2.23	96.32	4.96	5.96	4353.90	80.47	96.57	4273.42
33+50		50.00	44.71	0.00	91.51	2.06	2.48	4445.41	82.54	99.04	4362.87
34+00		50.00	53.72	2.83	91.14	2.62	3.14	4536.54	85.16	102.19	4451.39
34+50		50.00	53.00	2.67	98.81	5.09	6.11	4635.36	90.25	108.30	4545.11
35+00		50.00	52.44	2.63	97.63	4.91	5.89	4732.99	95.16	114.19	4637.83
35+50		50.00	53.54	2.48	98.13	4.73	5.68	4831.12	99.89	119.87	4731.23
36+00		50.00	62.07	0.00	107.05	2.30	2.76	4938.16	102.19	122.62	4835.98
36+50		50.00	62.83	0.00	115.65	0.00	0.00	5053.81	102.19	122.62	4951.63
37+00		50.00	37.42	0.00	92.82	0.00	0.00	5146.64	102.19	122.62	5044.45
37+50		50.00	49.73	4.48	80.69	4.15	4.98	5227.33	106.33	127.60	5121.00
38+00		50.00	53.71	2.76	95.78	6.70	8.04	5323.11	113.04	135.64	5210.07
38+50		50.00	54.48	2.93	100.18	5.27	6.32	5423.28	118.31	141.97	5304.98
39+00		50.00	53.52	2.88	100.00	5.38	6.46	5523.28	123.69	148.42	5399.60
39+50		50.00	52.04	3.16	97.74	5.59	6.71	5621.03	129.28	155.13	5491.75
40+00		50.00	55.89	1.71	99.94	4.51	5.41	5720.96	133.79	160.54	5587.17
40+50		50.00	56.74	1.83	104.29	3.28	3.93	5825.25	137.06	164.48	5688.18
41+00		50.00	56.04	1.44	104.43	3.03	3.63	5929.67	140.09	168.11	5789.58
41+50		50.00	54.31	2.59	102.18	3.73	4.48	6031.85	143.82	172.59	5888.03
42+00		50.00	52.31	2.51	98.72	4.72	5.67	6130.57	148.55	178.26	5982.03
42+50		50.00	57.77	1.46	101.93	3.68	4.41	6232.50	152.22	182.67	6080.28
43+00		50.00	56.12	2.44	105.45	3.61	4.33	6337.95	155.83	187.00	6182.12
43+50		50.00	41.22	0.00	90.13	2.26	2.71	6428.08	158.09	189.71	6269.99
44+00		50.00	49.55	3.61	84.05	3.34	4.01	6512.13	161.44	193.72	6350.69
44+50		50.00	49.69	3.07	91.89	6.19	7.42	6604.02	167.62	201.14	6436.40
45+00		50.00	53.55	3.16	95.59	5.77	6.92	6699.61	173.39	208.07	6526.22
45+50		50.00	58.52	1.41	103.77	4.23	5.08	6803.38	177.62	213.14	6625.76
46+00	**BK**	50.00	66.08	0.00	115.37	1.31	1.57	6918.75	178.93	214.71	6739.82
					6918.75	178.93	214.71				

PROJECT ID 2984-00-73
DIVISION 3 - 26TH STREET (NSA)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
9+53	**AH**	0.00	92.50	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9+60		6.90	91.43	0.98	23.50	0.20	0.24	23.50	0.20	0.24	23.30
9+84	**BK**	23.90	113.65	1.64	90.77	1.16	1.39	114.27	1.36	1.63	112.91
					114.27	1.36	1.63				

PROJECT ID 2984-00-73
DIVISION 3 - 25TH STREET (NSB)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
9+53	**AH**	0.00	104.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9+60		6.90	98.90	0.00	25.94	0.00	0.00	25.94	0.00	0.00	25.94
9+78	**BK**	17.90	126.76	0.09	74.80	0.03	0.04	100.74	0.03	0.04	100.72
					100.74	0.03	0.04				

PROJECT ID 2984-00-73
DIVISION 3 - 24TH PLACE (NSC)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
9+50	**AH**	0.00	81.08	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9+60		9.90	77.84	1.62	29.14	0.56	0.67	29.14	0.56	0.67	28.58
9+84	**BK**	23.90	90.40	0.00	74.46	0.72	0.86	103.60	1.27	1.53	102.32
					103.60	1.27	1.53				

PROJECT ID 2984-00-73
DIVISION 3 - 24TH STREET (NSD)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
9+41	**AH**	0.00	97.55	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9+50		8.90	97.26	0.00	32.11	0.01	0.01	32.11	0.01	0.01	32.10
9+84	**BK**	33.90	99.01	0.00	123.21	0.00	0.00	155.32	0.01	0.01	155.31
					155.32	0.01	0.01				

PROJECT ID 2984-00-73
DIVISION 3 - 22ND STREET (NSE)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
9+49	**AH**	0.00	84.84	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9+50		0.90	84.51	0.74	2.82	0.02	0.03	2.82	0.02	0.03	2.80
9+55		5.00	82.82	1.09	15.49	0.17	0.20	18.32	0.19	0.23	18.12
9+84	**BK**	28.90	106.43	0.00	101.28	0.58	0.70	119.60	0.78	0.93	118.82
					119.60	0.78	0.93				

PROJECT ID 2984-00-73
DIVISION 3 - 21ST STREET (NSF)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
9+49	**AH**	0.00	86.80	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9+50		0.90	86.94	0.18	2.90	0.01	0.01	2.90	0.01	0.01	2.89
9+55		5.00	87.74	0.22	16.17	0.04	0.04	19.07	0.04	0.05	19.03
9+84	**BK**	28.90	156.68	0.00	130.81	0.12	0.14	149.88	0.16	0.19	149.72
					149.88	0.16	0.19				

PROJECT ID 2984-00-73
DIVISION 3 - 20TH STREET (NSG)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
9+40	**AH**	0.00	97.14	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9+50		9.90	98.19	0.44	35.81	0.14	0.16	35.81	0.14	0.16	35.67
9+84	**BK**	33.90	119.13	0.00	136.43	0.28	0.33	172.24	0.41	0.49	171.83
					172.24	0.41	0.49				

PROJECT ID 2984-00-73
DIVISION 3 - 18TH STREET (NSH)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
9+49	**AH**	0.00	90.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9+50		0.90	90.68	0.00	3.02	0.00	0.00	3.02	0.00	0.00	3.02
9+60		10.00	92.98	0.04	34.01	0.01	0.01	37.03	0.01	0.01	37.02
9+84	**BK**	23.90	159.13	0.00	111.58	0.01	0.01	148.61	0.02	0.02	148.60
					148.61	0.02	0.02				

PROJECT ID 2984-00-73

DIVISION 4 - VLIET STREET (VL)

STATION		Distance	AREA (SF)		Incremental Vol (CY)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	Cut	Fill	Fill 1.2 Exp	Cut	Fill	Fill 1.2 Exp	
10+69	**AH**	0.00	64.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11+00		30.80	59.64	0.00	71.02	0.00	0.00	71.02	0.00	0.00	71.02
11+50		50.00	60.11	0.00	110.88	0.00	0.00	181.90	0.00	0.00	181.90
12+00		50.00	60.02	0.00	111.23	0.00	0.00	293.13	0.00	0.00	293.13
12+21		20.96	60.34	0.00	46.72	0.00	0.00	339.85	0.00	0.00	339.85
12+50		29.04	63.76	0.00	66.74	0.00	0.00	406.58	0.00	0.00	406.58
13+00		50.00	60.65	0.00	115.19	0.00	0.00	521.78	0.00	0.00	521.78
13+50		50.00	60.66	0.00	112.32	0.00	0.00	634.10	0.00	0.00	634.10
14+00		50.00	37.94	0.00	91.30	0.00	0.00	725.40	0.00	0.00	725.40
14+50		50.00	35.62	0.00	68.11	0.00	0.00	793.51	0.00	0.00	793.51
15+00		50.00	56.25	0.00	85.06	0.00	0.00	878.57	0.00	0.00	878.57
15+27		27.13	57.98	0.00	57.39	0.00	0.00	935.96	0.00	0.00	935.96
15+50		22.87	58.25	0.00	49.23	0.00	0.00	985.19	0.00	0.00	985.19
15+74		23.85	56.62	0.00	50.73	0.00	0.00	1035.92	0.00	0.00	1035.92
16+00		26.15	59.71	0.00	56.33	0.00	0.00	1092.26	0.00	0.00	1092.26
16+50		50.00	51.81	0.00	103.26	0.00	0.00	1195.52	0.00	0.00	1195.52
17+00		50.00	46.22	0.00	90.77	0.00	0.00	1286.29	0.00	0.00	1286.29
17+50		50.00	60.89	0.00	99.18	0.00	0.00	1385.46	0.00	0.00	1385.46
18+00		50.00	56.36	0.00	108.56	0.00	0.00	1494.03	0.00	0.00	1494.03
18+50		50.00	60.15	0.00	107.88	0.00	0.00	1601.91	0.00	0.00	1601.91
19+00		50.00	59.94	0.00	111.19	0.00	0.00	1713.10	0.00	0.00	1713.10
19+50		50.00	62.71	0.00	113.56	0.00	0.00	1826.67	0.00	0.00	1826.67
20+00		50.00	36.94	0.00	92.27	0.00	0.00	1918.93	0.00	0.00	1918.93
20+50		50.00	58.21	0.00	88.10	0.00	0.00	2007.04	0.00	0.00	2007.04
21+00		50.00	58.17	0.00	107.76	0.00	0.00	2114.80	0.00	0.00	2114.80
21+50		50.00	58.09	0.00	107.65	0.00	0.00	2222.44	0.00	0.00	2222.44
22+00		50.00	56.75	0.00	106.33	0.00	0.00	2328.78	0.00	0.00	2328.78
22+19		19.08	56.06	0.00	39.86	0.00	0.00	2368.64	0.00	0.00	2368.64
22+41		21.55	55.23	0.00	44.41	0.00	0.00	2413.05	0.00	0.00	2413.05
22+50		9.37	57.57	0.00	19.57	0.00	0.00	2432.62	0.00	0.00	2432.62
23+00		50.00	63.02	0.00	111.66	0.00	0.00	2544.28	0.00	0.00	2544.28
23+50		50.00	54.67	0.00	108.97	0.00	0.00	2653.25	0.00	0.00	2653.25
24+00		50.00	62.85	0.00	108.81	0.00	0.00	2762.07	0.00	0.00	2762.07
24+50		50.00	53.41	2.30	107.65	2.13	2.56	2869.71	2.13	2.56	2867.58
25+00		50.00	49.04	3.39	94.86	5.27	6.32	2964.58	7.40	8.88	2957.18
25+50		50.00	48.85	3.61	90.64	6.48	7.78	3055.21	13.88	16.66	3041.33
26+00		50.00	50.52	2.44	92.01	5.60	6.72	3147.22	19.48	23.38	3127.74
26+50		50.00	52.76	1.77	95.63	3.90	4.68	3242.85	23.38	28.06	3219.47
27+00		50.00	49.51	2.22	94.69	3.69	4.43	3337.55	27.07	32.49	3310.47
27+50		50.00	53.16	2.48	95.06	4.35	5.22	3432.61	31.43	37.71	3401.19
28+00		50.00	58.31	1.78	103.21	3.94	4.73	3535.83	35.37	42.44	3500.46
28+50		50.00	57.23	1.79	106.98	3.31	3.97	3642.81	38.68	46.41	3604.13
29+00		50.00	52.90	3.14	101.97	4.56	5.48	3744.78	43.24	51.89	3701.54

PROJECT ID 2984-00-73

DIVISION 4 - VLIET STREET (VL) - CONT.

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
29+50		50.00	51.91	2.74	97.05	5.44	6.53	3841.83	48.69	58.42	3793.14
30+00		50.00	38.38	0.00	83.60	2.54	3.04	3925.43	51.22	61.47	3874.21
30+50		50.00	62.12	0.00	93.06	0.00	0.00	4018.48	51.22	61.47	3967.26
31+00		50.00	62.19	0.00	115.10	0.00	0.00	4133.58	51.22	61.47	4082.36
31+50		50.00	48.04	3.86	102.06	3.57	4.29	4235.65	54.80	65.76	4180.85
32+00		50.00	49.62	3.13	90.43	6.47	7.77	4326.08	61.27	73.52	4264.81
32+50		50.00	49.76	2.99	92.02	5.67	6.80	4418.09	66.94	80.32	4351.16
33+00		50.00	55.45	1.92	97.42	4.55	5.46	4515.51	71.48	85.78	4444.03
33+50		50.00	44.87	0.00	92.89	1.78	2.13	4608.40	73.26	87.91	4535.14
34+00		50.00	54.94	1.97	92.42	1.82	2.19	4700.82	75.08	90.10	4625.73
34+50		50.00	53.51	2.20	100.42	3.86	4.63	4801.23	78.94	94.73	4722.29
35+00		50.00	52.71	2.24	98.35	4.11	4.93	4899.58	83.06	99.67	4816.53
35+50		50.00	51.63	2.00	96.61	3.93	4.71	4996.20	86.98	104.38	4909.21
36+00		50.00	49.22	2.68	93.38	4.33	5.20	5089.58	91.31	109.58	4998.26
36+50		50.00	35.41	0.00	78.36	2.48	2.98	5167.94	93.80	112.56	5074.14
37+00		50.00	38.65	0.00	68.57	0.00	0.00	5236.51	93.80	112.56	5142.71
37+50		50.00	64.34	0.00	95.36	0.00	0.00	5331.87	93.80	112.56	5238.08
38+00		50.00	57.25	2.04	112.58	1.89	2.27	5444.46	95.69	114.82	5348.77
38+50		50.00	54.77	1.86	103.72	3.61	4.33	5548.18	99.30	119.16	5448.88
39+00		50.00	54.55	1.58	101.22	3.19	3.82	5649.40	102.48	122.98	5546.92
39+50		50.00	52.24	2.10	98.88	3.41	4.09	5748.28	105.89	127.07	5642.39
40+00		50.00	56.45	1.30	100.64	3.15	3.78	5848.92	109.04	130.84	5739.88
40+50		50.00	55.46	3.23	103.62	4.19	5.03	5952.54	113.23	135.88	5839.31
41+00		50.00	56.04	1.97	103.24	4.81	5.78	6055.78	118.05	141.66	5937.73
41+50		50.00	54.96	1.55	102.78	3.26	3.91	6158.56	121.31	145.57	6037.25
42+00		50.00	51.67	2.11	98.73	3.39	4.07	6257.29	124.69	149.63	6132.59
42+50		50.00	54.99	2.10	98.76	3.90	4.68	6356.05	128.59	154.31	6227.46
43+00		50.00	56.35	1.49	103.09	3.32	3.99	6459.14	131.92	158.30	6327.22
43+50		50.00	41.84	0.00	90.92	1.38	1.66	6550.06	133.30	159.96	6416.76
44+00		50.00	62.38	0.00	96.50	0.00	0.00	6646.56	133.30	159.96	6513.26
44+50		50.00	57.46	1.22	110.96	1.13	1.36	6757.52	134.43	161.31	6623.09
45+00		50.00	54.78	2.30	103.93	3.26	3.91	6861.45	137.69	165.22	6723.76
45+50		50.00	51.93	3.03	98.81	4.94	5.92	6960.25	142.62	171.14	6817.63
46+00	**BK**	50.00	48.68	3.80	93.16	6.32	7.59	7053.41	148.94	178.73	6904.46
					7053.41	148.94	178.73				

PROJECT ID 2984-00-73
DIVISION 3 - 26TH STREET (NSA)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
10+16	**AH**	0.00	107.97	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+50		33.90	99.11	0.53	130.00	0.85	1.02	130.00	0.85	1.02	129.15
10+53	**BK**	2.90	99.14	0.46	10.65	0.05	0.06	140.65	0.90	1.08	139.75
					140.65	0.90	1.08				

PROJECT ID 2984-00-73
DIVISION 4 - 25TH STREET (NSB)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
10+22	**AH**	0.00	114.73	9.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+40		17.90	96.26	0.00	69.94	3.08	3.69	69.94	3.08	3.69	66.86
10+48	**BK**	7.90	97.10	0.00	28.29	0.00	0.00	98.23	3.08	3.69	95.15
					98.23	3.08	3.69				

PROJECT ID 2984-00-73
DIVISION 4 - 24TH PLACE (NSC)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
10+16	**AH**	0.00	121.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+40		23.90	74.74	0.00	86.74	0.00	0.00	86.74	0.00	0.00	86.74
10+44	**BK**	3.90	74.61	0.00	10.79	0.00	0.00	97.53	0.00	0.00	97.53
					97.53	0.00	0.00				

PROJECT ID 2984-00-73
DIVISION 3 - 24TH STREET (NSD)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
10+22	**AH**	0.00	127.56	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+50		27.90	97.31	0.47	116.18	0.26	0.31	116.18	0.26	0.31	115.92
10+59	**BK**	8.90	97.01	0.16	32.03	0.10	0.12	148.21	0.36	0.43	147.85
					148.21	0.36	0.43				

PROJECT ID 2984-00-73
DIVISION 4 - 22ND STREET (NSE)

STATION		Distance	AREA (SF)		Incremental Vol (CY)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	Cut	Fill	Fill 1.2 Exp	Cut	Fill	Fill 1.2 Exp	
10+16	**AH**	0.00	101.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+40		23.90	88.96	1.18	84.30	0.52	0.63	84.30	0.52	0.63	83.77
10+49	**BK**	8.90	87.15	0.84	29.03	0.33	0.40	113.32	0.86	1.03	112.47
					113.32	0.86	1.03				

PROJECT ID 2984-00-73
DIVISION 4 - 21ST STREET (NSF)

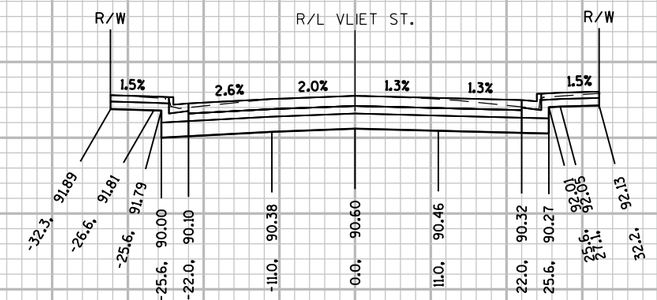
STATION		Distance	AREA (SF)		Incremental Vol (CY)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	Cut	Fill	Fill 1.2 Exp	Cut	Fill	Fill 1.2 Exp	
10+16	**AH**	0.00	187.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+40		23.90	90.29	0.33	123.07	0.15	0.18	123.07	0.15	0.18	122.92
10+49	**BK**	8.90	84.93	0.45	28.88	0.13	0.15	151.95	0.27	0.33	151.67
					151.95	0.27	0.33				

PROJECT ID 2984-00-73
DIVISION 3 - 20TH STREET (NSG)

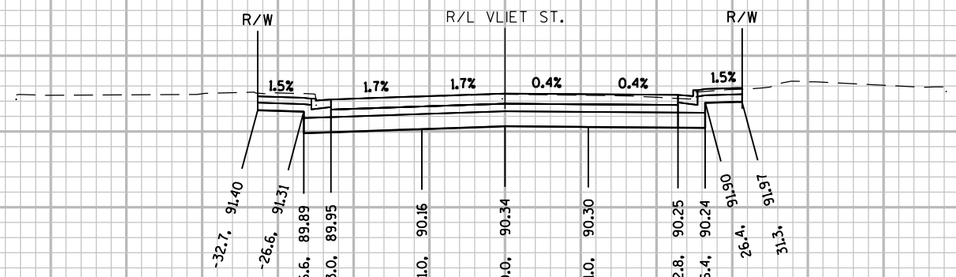
STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
10+16	**AH**	0.00	136.16	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+50		33.90	99.34	0.41	147.84	0.26	0.32	147.84	0.26	0.32	147.58
10+64	**BK**	13.90	98.34	0.23	50.88	0.16	0.20	198.73	0.43	0.51	198.30
					198.73	0.43	0.51				

PROJECT ID 2984-00-73
DIVISION 4 - 18TH STREET (NSH)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Incremental Vol (CY) Fill 1.2 Exp	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) Fill 1.2 Exp	Mass Ordinate
10+16	**AH**	0.00	107.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+40		23.90	87.39	0.24	86.25	0.11	0.13	86.25	0.11	0.13	86.14
10+50		10.00	89.78	0.47	32.81	0.13	0.16	119.06	0.24	0.29	118.82
10+52	**BK**	1.90	89.76	0.36	6.32	0.03	0.04	125.37	0.27	0.32	125.11
					125.37	0.27	0.32				



11VL+00



10VL+69
STA AHEAD

5 FT
10 FT

STA 10VL+69 TO 11VL+00

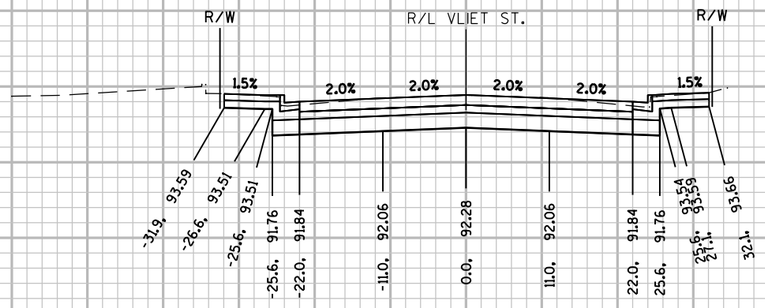
9

9

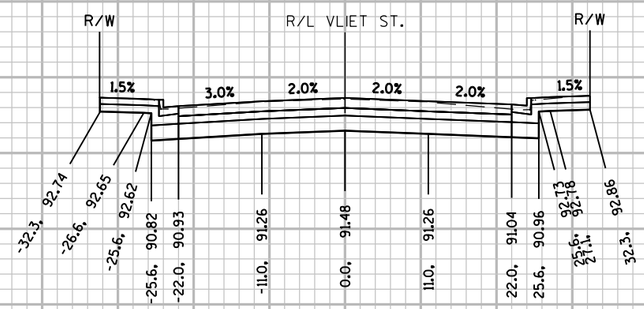
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 400	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\20190318_xs2VLTdgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

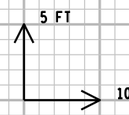
WISDOT/CADDS SHEET 21



12VL+00



11VL+50

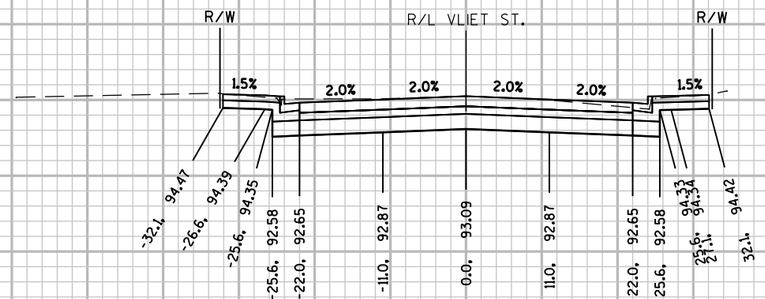


STA 11VL+50 TO 12VL+00

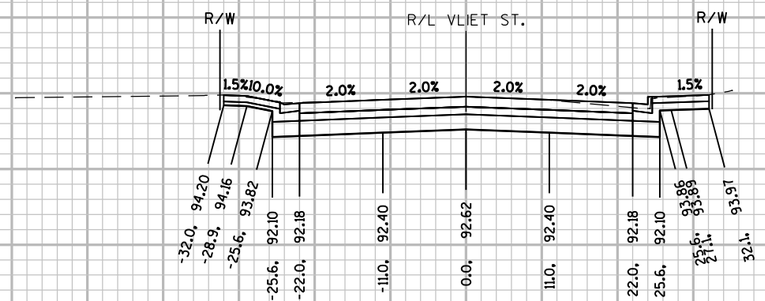
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 401	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\2984000_xs2VLTd.dgn PLOT DATE : 29 Jan 2018 08:29:00 BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



12VL+50



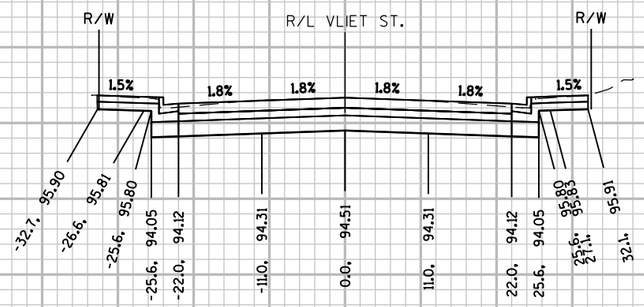
12VL+21
DWY LT

5 FT
10 FT

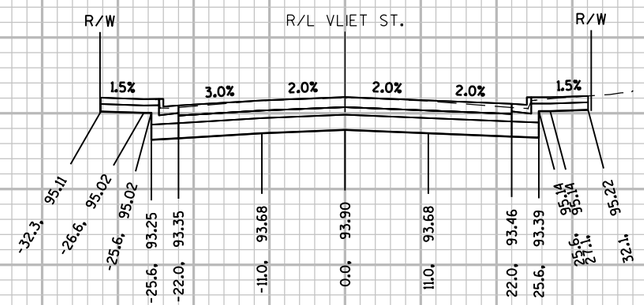
STA 12VL+21 TO 12VL+50

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 402	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Data Files\20181203_2984000_xs2VLTdgn USER NAME : dbaumann PLOT NAME : PLOT SCALE : 20:1
WISDOT/CADDS SHEET 21



13VL+50



13VL+00

5 FT
10 FT

STA 13VL+00 TO 13VL+50

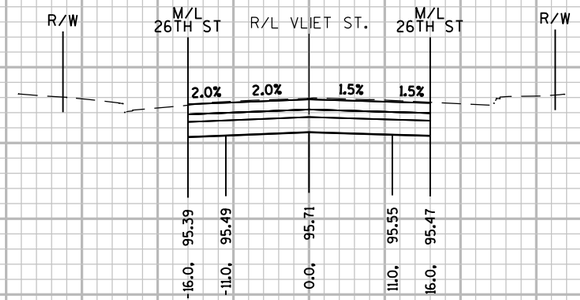
9

9

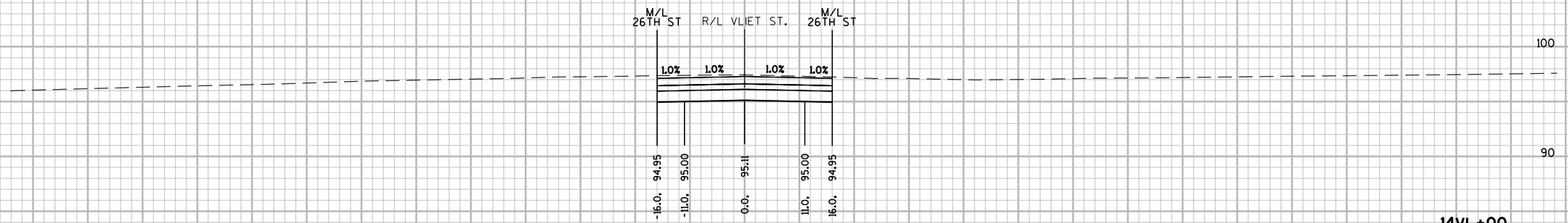
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 403	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Proposed\20181128_250000_xs2VL.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



14VL+50



14VL+00

5 FT
10 FT

STA 14VL+00 TO 14VL+50

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 404	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Details\Preliminary\20181228_250000_xs2VLT.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

15VL+27
DWY RT

15VL+00

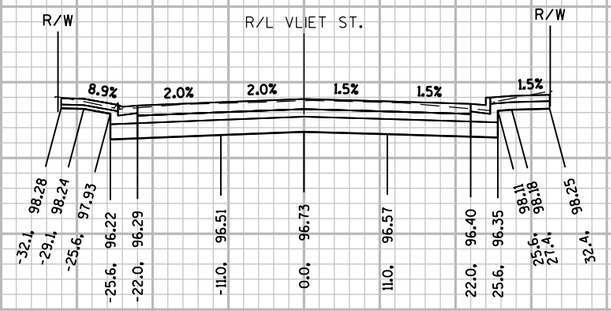
5 FT
10 FT

STA 15VL+00 TO 15VL+27

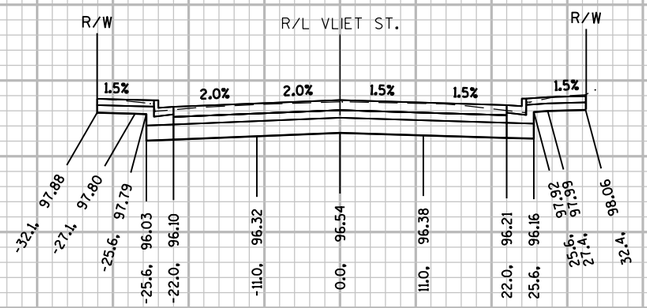
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 405	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\2984-00-73_xs2VLTdgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



15VL+74
DWY LT



15VL+50

5 FT
10 FT

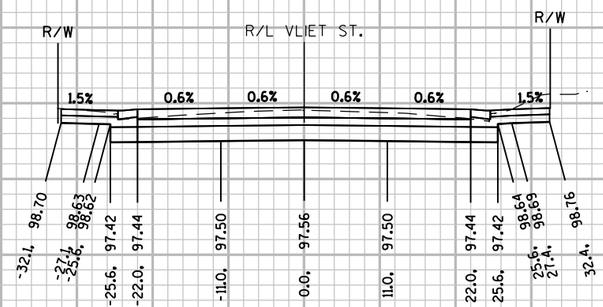
STA 15VL+50 TO 15VL+74

9

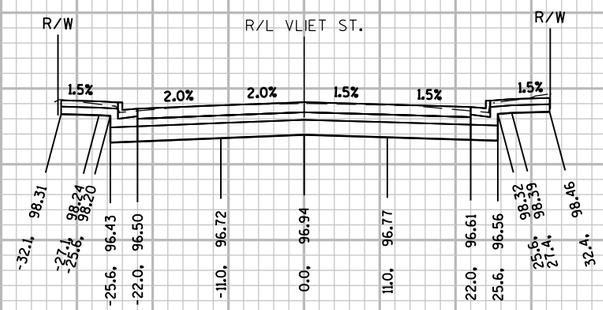
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 406	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Data Prep\20181203_D60200_xs2VLT.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



16VL+50



16VL+00

5 FT
10 FT

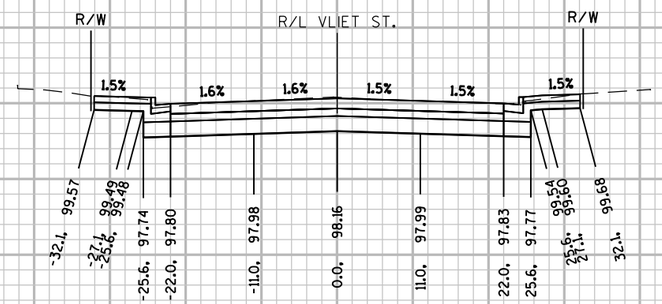
STA 16VL+00 TO 16VL+50

9

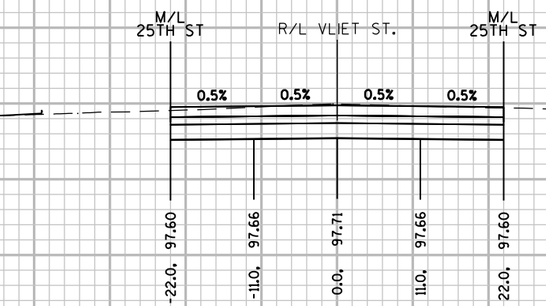
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 407	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Sheets\260200_xs2VLT.dgn PLOT DATE : 29 Jan 2018 08:39:00 BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

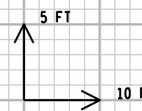
WISDOT/CADDS SHEET 21



17VL+50



17VL+00



STA 17VL+00 TO 17VL+50

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 408	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\20181203_D70200_xs2VLT.dgn PLOT DATE : 20181203 PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

18VL+50

18VL+00

5 FT
10 FT

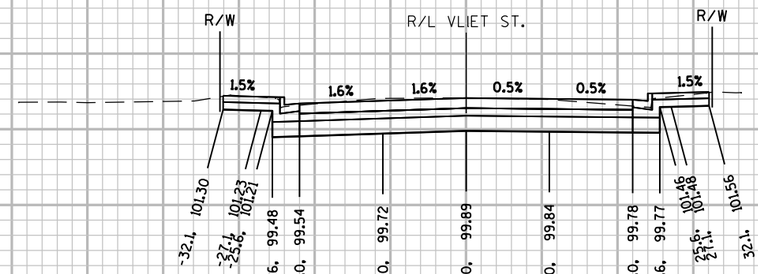
STA 18VL+00 TO 18VL+50

9

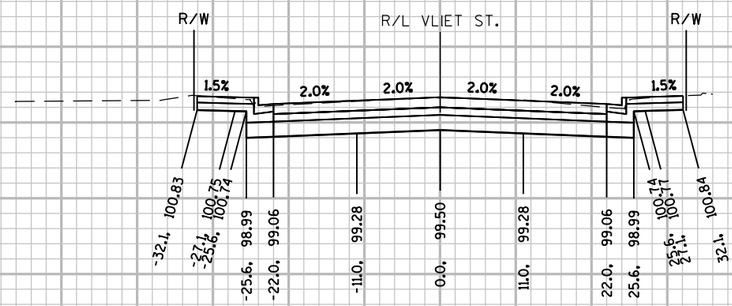
9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 409	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\20181203_D70200_xs2VLTdgn : dbaumann PLOT NAME : PLOT SCALE : 20:1



19VL+50



19VL+00

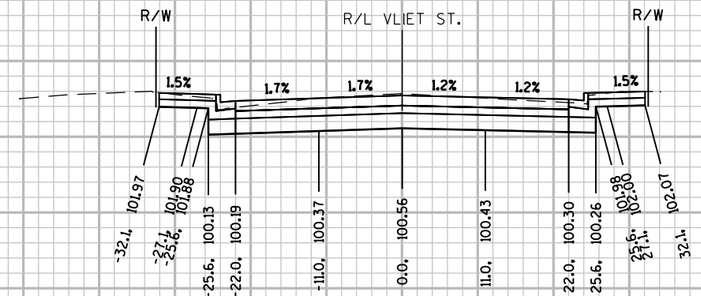
5 FT
10 FT

STA 19VL+00 TO 19VL+50

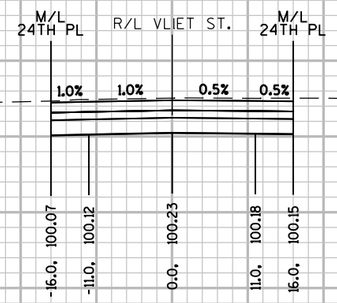
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 410	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\20181228_xsVLT.dgn PLOT DATE : 29 DEC 2018 PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



20VL+50



20VL+00

5 FT

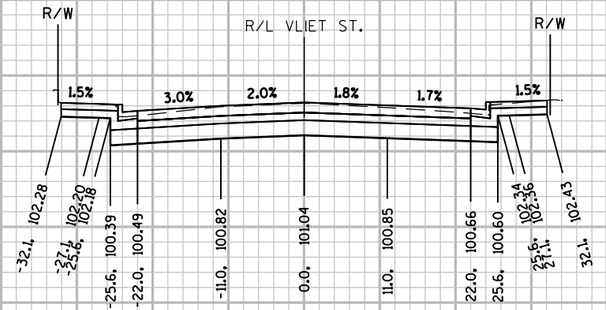
10 FT

STA 20VL+00 TO 20VL+50

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 411	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\20190318_xs20VL00_xs20VL50.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



21VL+50

21VL+00

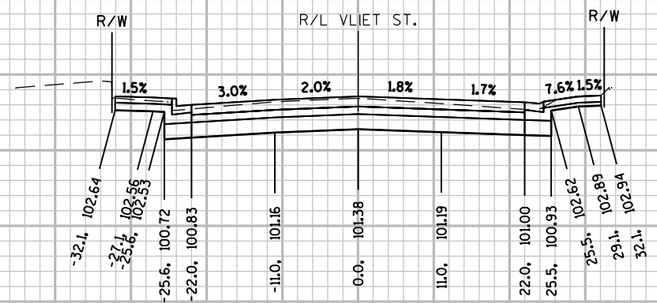
5 FT
10 FT

STA 21VL+00 TO 21VL+50

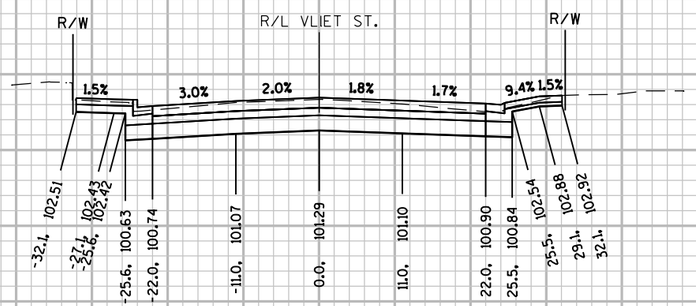
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 412	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Data Prep\20181203_290200_xs21VL.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



22VL+19
DWY RT



22VL+00
DWY RT

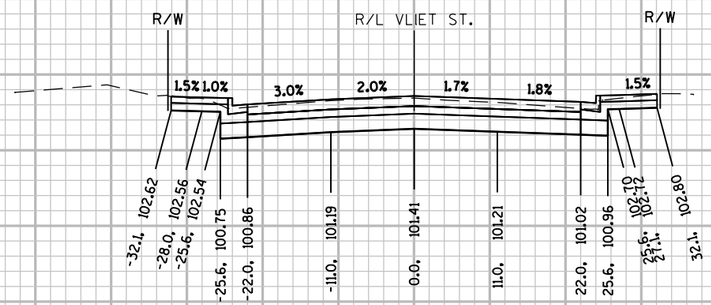
5 FT
10 FT

STA 22VL+00 TO 22VL+19

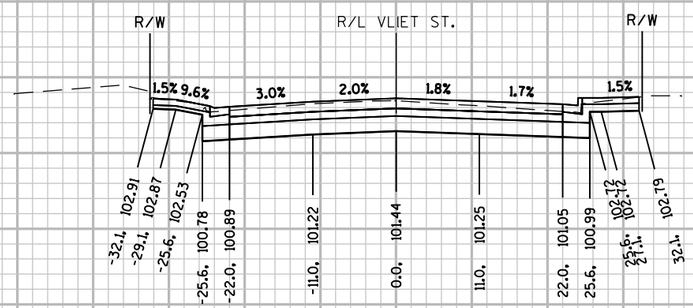
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Data Prep\20181203_290200_xs22VL19.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



22VL+50



22VL+41
DWY LT

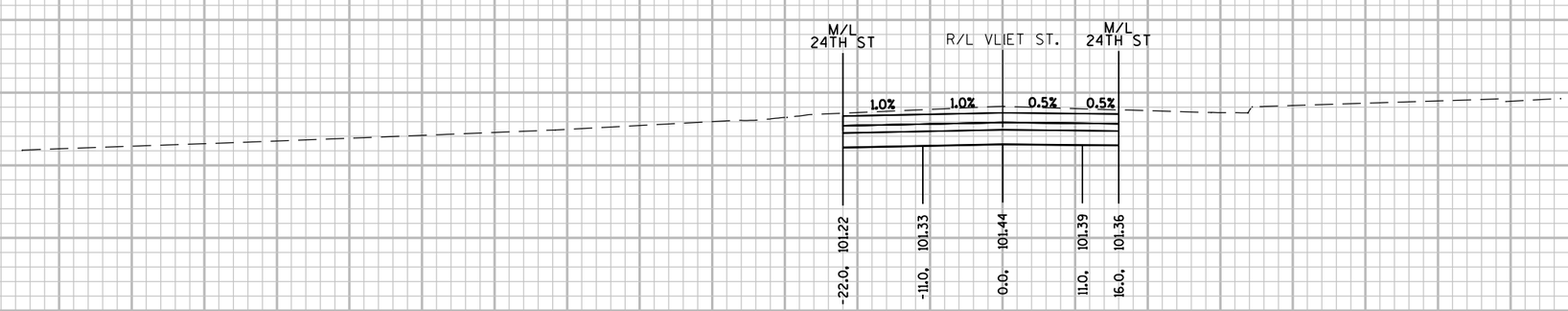
5 FT
10 FT

STA 22VL+41 TO 22VL+50

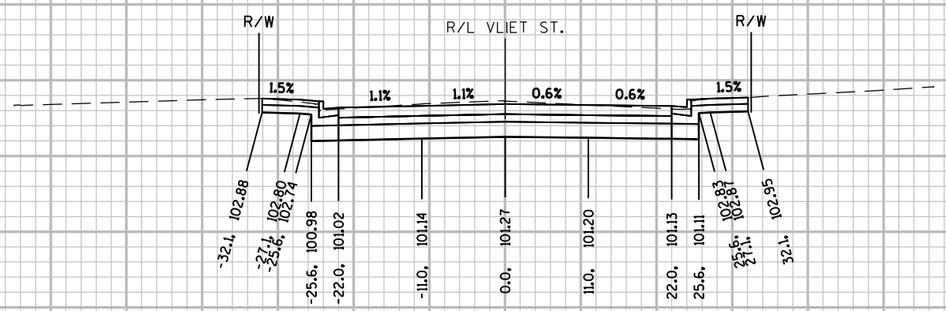
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 414	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Data Prep\20181203_290800_xs2VLTdgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



23VL+50



23VL+00

5 FT

10 FT

STA 23VL+00 TO 23VL+50

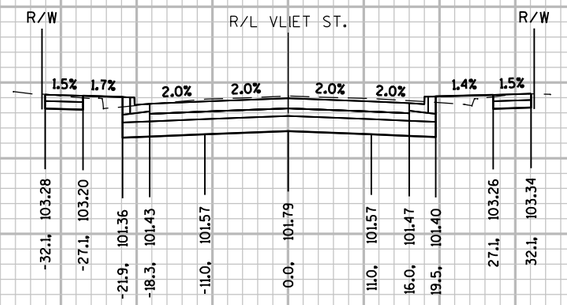
9

9

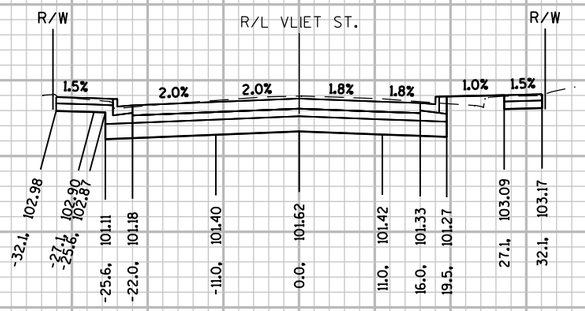
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 415	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\2984000_xs2VLTdgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



24VL+50

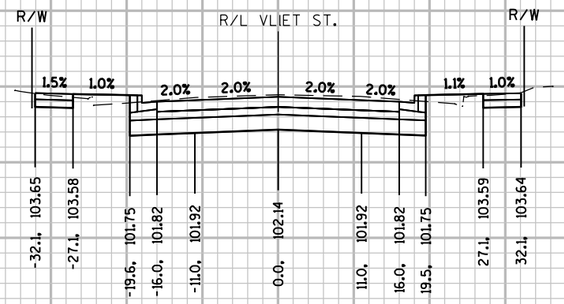


24VL+00

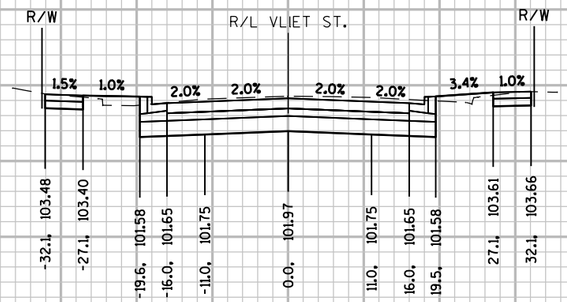
5 FT
10 FT

STA 24VL+00 TO 24VL+50

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 416	E



25VL+50

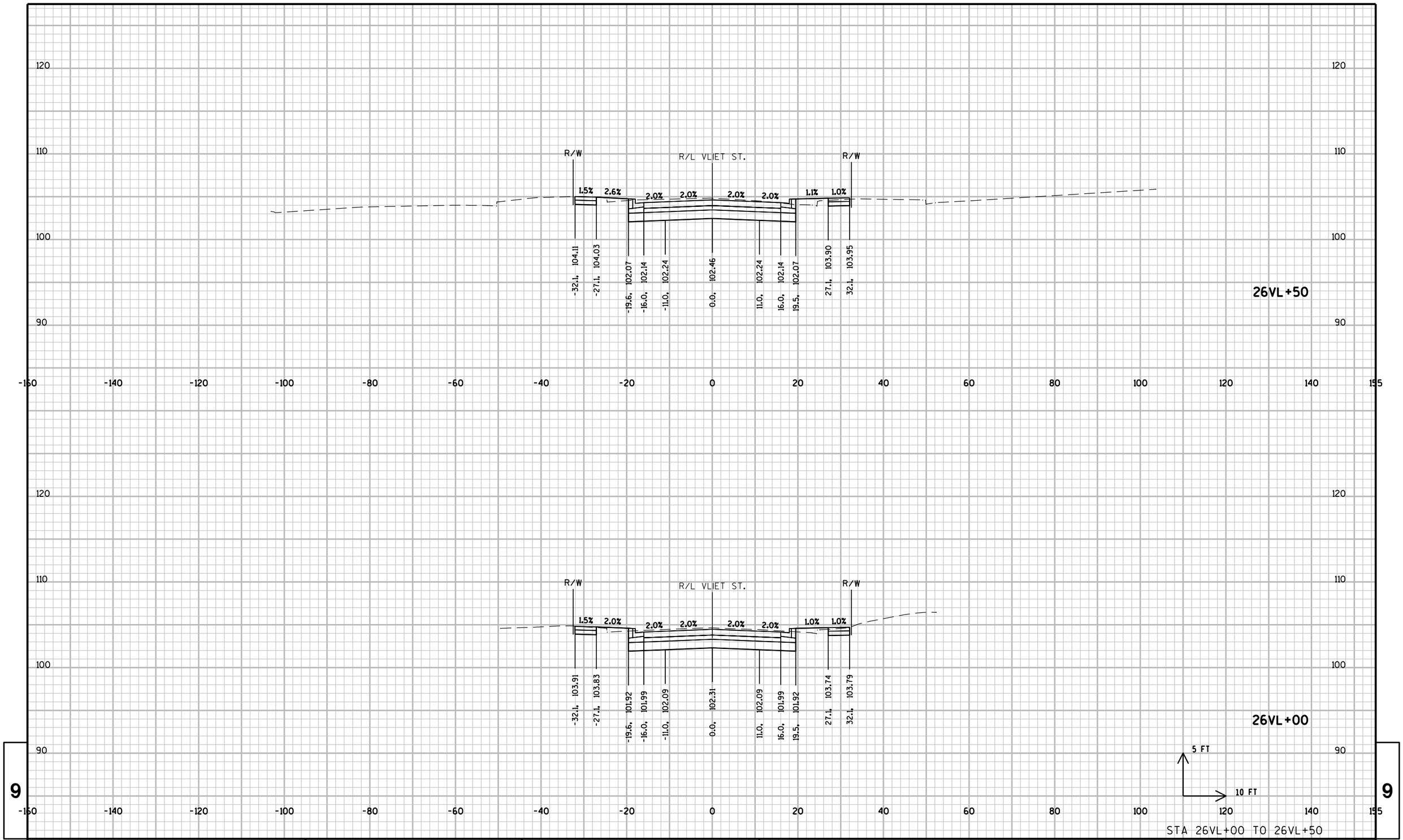


25VL+00

5 FT
10 FT

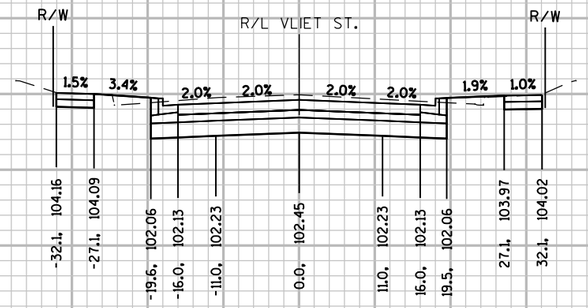
STA 25VL+00 TO 25VL+50

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 417	E

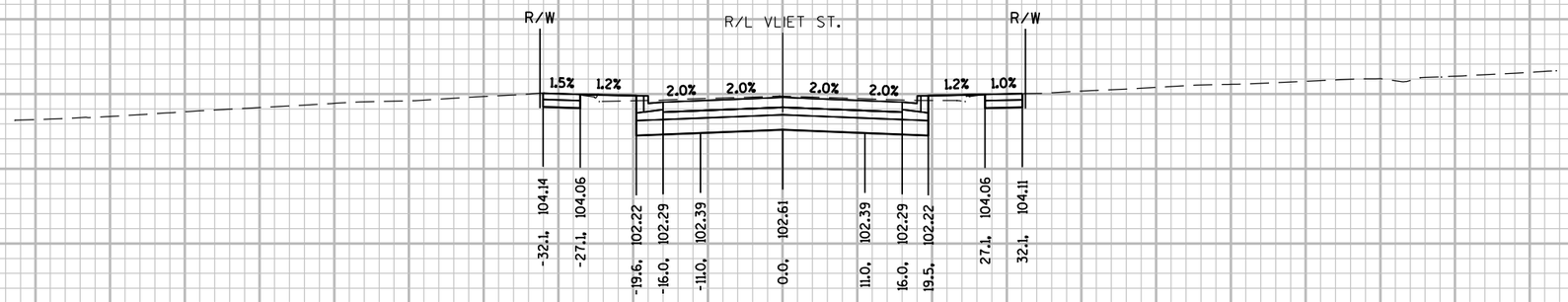


STA 26VL+00 TO 26VL+50

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 418	E



27VL+50



27VL+00

5 FT

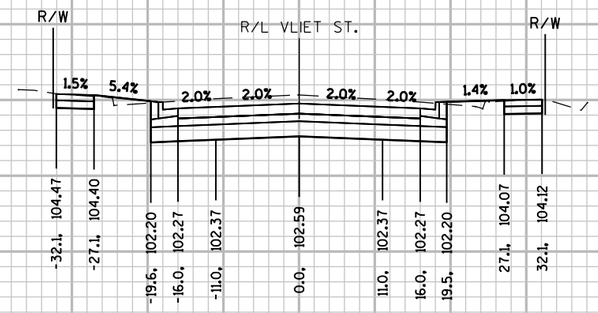
10 FT

STA 27VL+00 TO 27VL+50

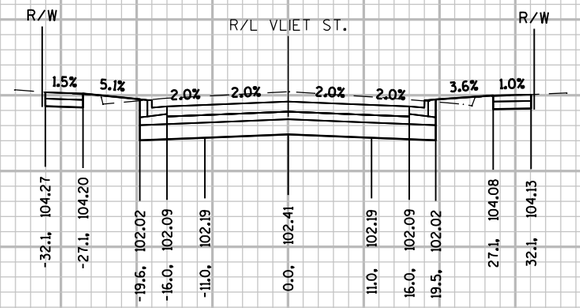
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 419	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\20180828_D90000_xs27VL+50.dgn PLOT DATE : 20181129 PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

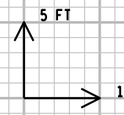
WISDOT/CADDS SHEET 21



28VL+50



28VL+00



STA 28VL+00 TO 28VL+50

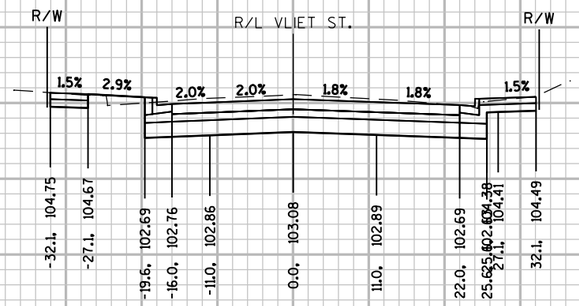
9

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 420	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\20181203_D90200_xs2VLTdgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



29VL+50

29VL+00

5 FT
10 FT

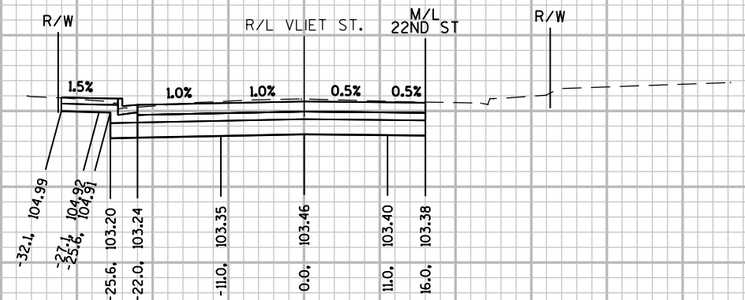
STA 29VL+00 TO 29VL+50

9

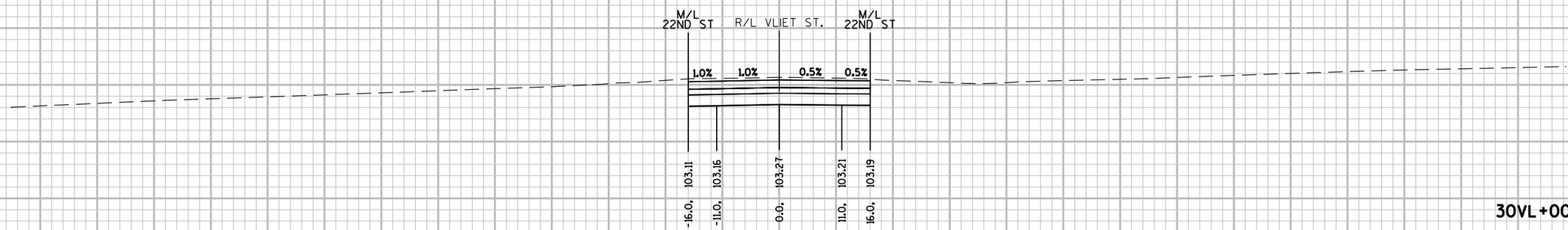
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 421	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Data Prep\29_20181203_xs29VL00_xs29VL50.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



30VL+50



30VL+00

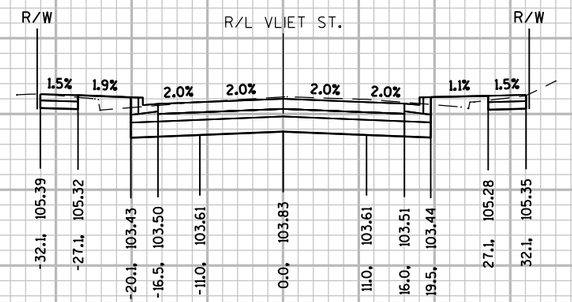
5 FT
10 FT

STA 30VL+00 TO 30VL+50

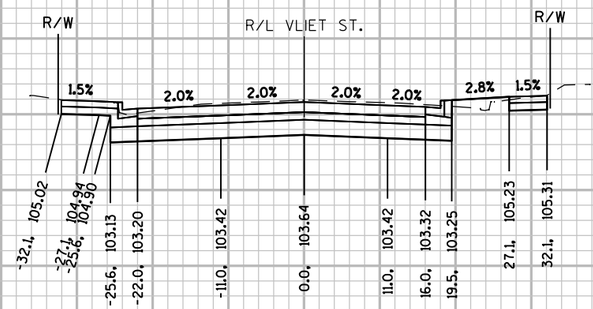
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 422	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\20181203_63342_xs2VOT.dgn PLOT DATE : 20181203 PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



31VL+50



31VL+00

5 FT
10 FT

STA 31VL+00 TO 31VL+50

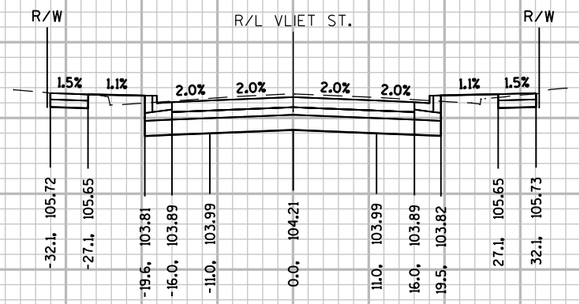
9

9

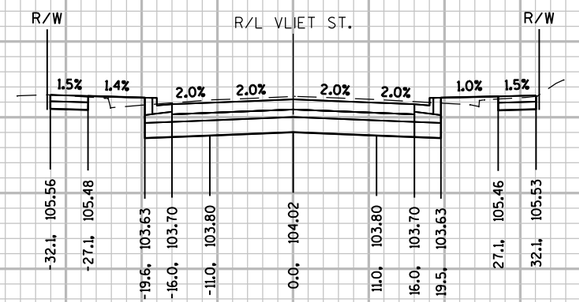
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 423	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\20181128_D20200_xs2VLTdgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



32VL+50



32VL+00

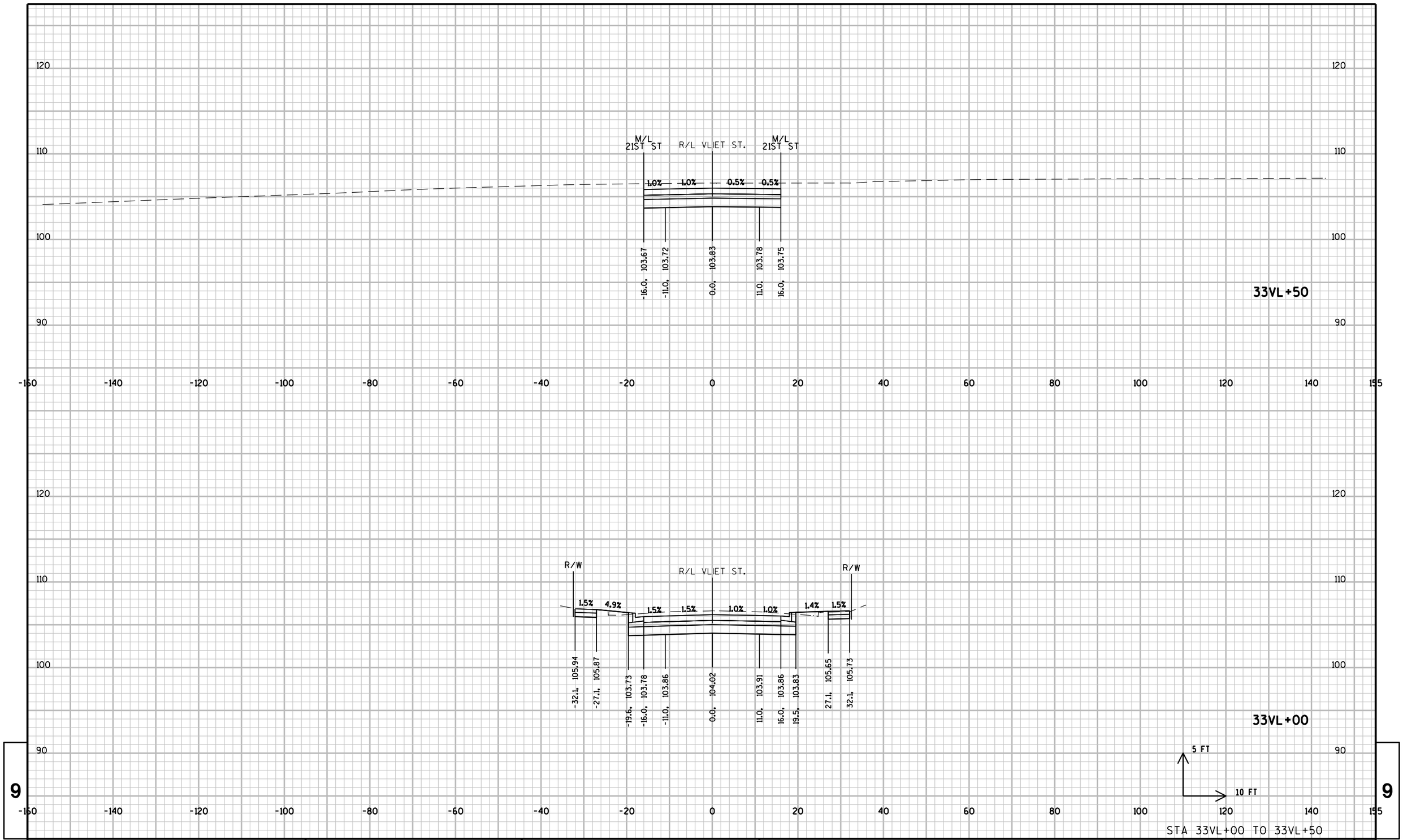
5 FT
10 FT

STA 32VL+00 TO 32VL+50

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 424	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Presentation\20181128_D30200_xs2VOT.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 33VL+00 TO 33VL+50

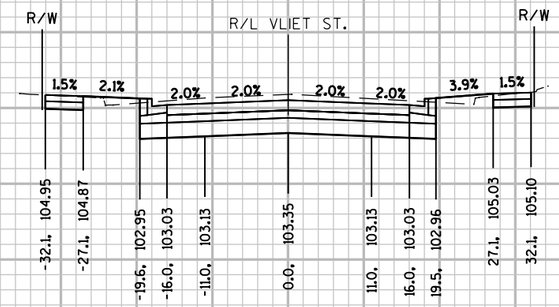
9

9

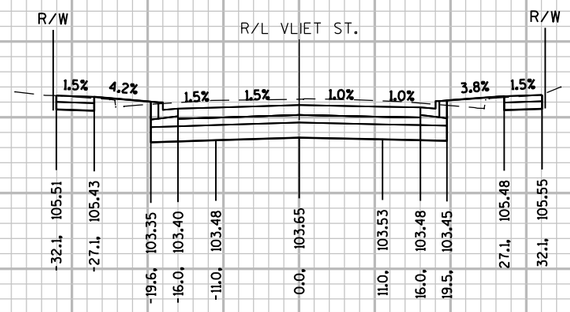
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 425	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\xs20180823.dgn PLOT DATE : 29 AUG 2018 PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



34VL+50



34VL+00

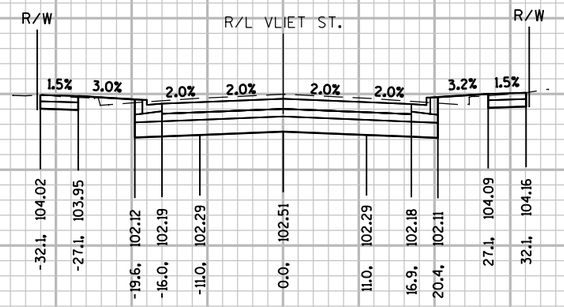
5 FT
10 FT

STA 34VL+00 TO 34VL+50

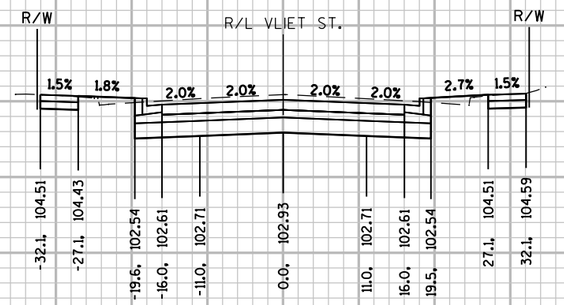
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 426	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\20181203_D30000_xs2VLTdgn : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



35VL+50



35VL+00

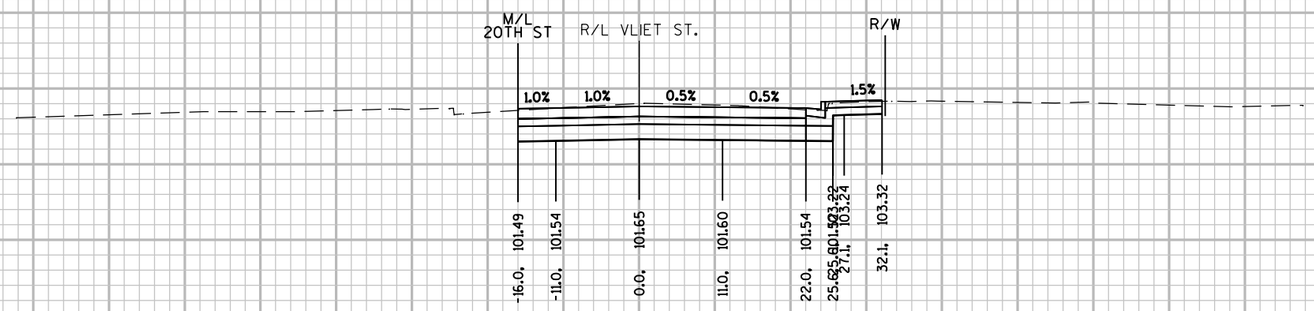
5 FT
10 FT

STA 35VL+00 TO 35VL+50

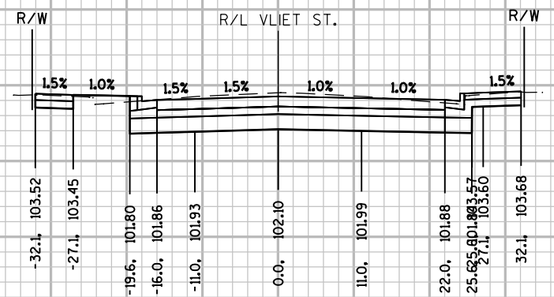
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 427	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\xs20180228.c02.D90000_xs2VOT.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



36VL+50



36VL+00

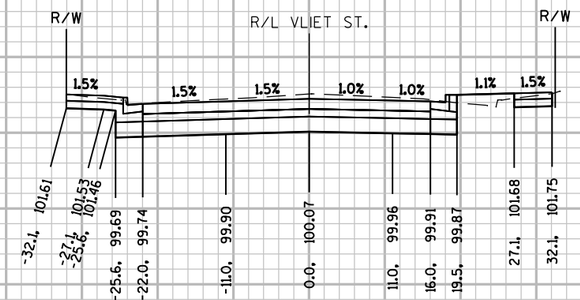
5 FT
10 FT

STA 36VL+00 TO 36VL+50

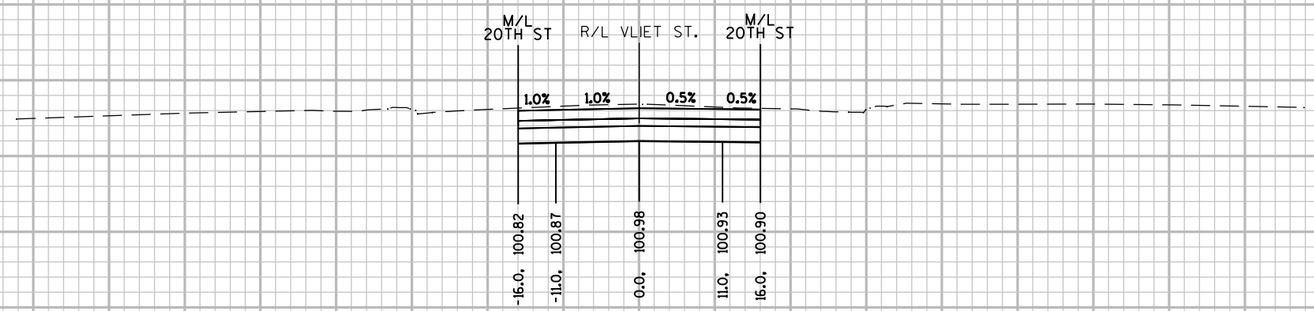
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\63342_xs2VLTdgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



37VL+50

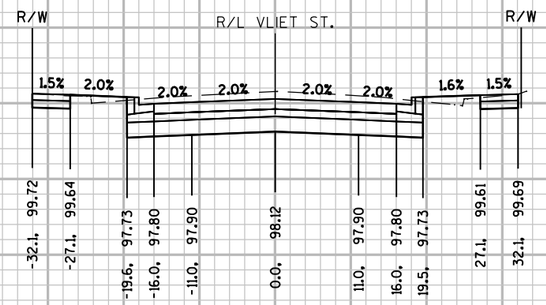


37VL+00

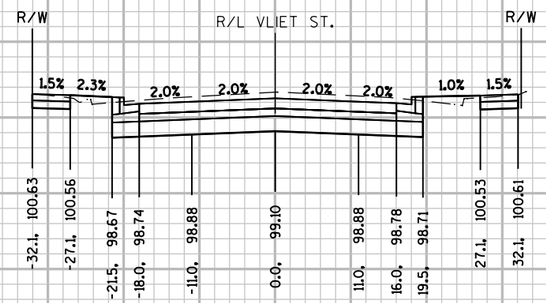
5 FT
10 FT

STA 37VL+00 TO 37VL+50

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 429	E



38VL+50



38VL+00

5 FT

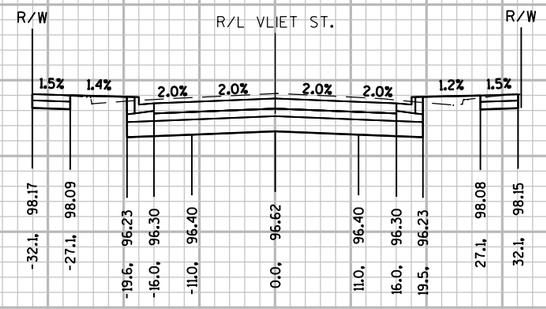
10 FT

STA 38VL+00 TO 38VL+50

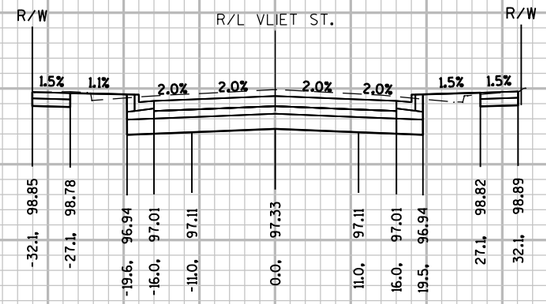
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 430	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\xs20181203_DS0200_xs2VLTdgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



39VL+50



39VL+00

5 FT

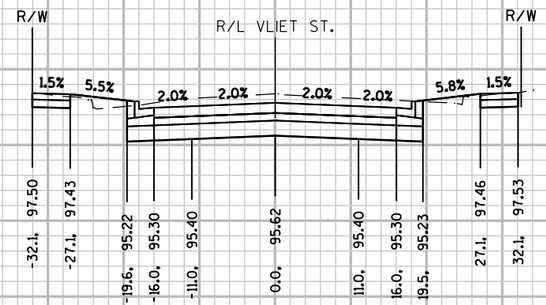
10 FT

STA 39VL+00 TO 39VL+50

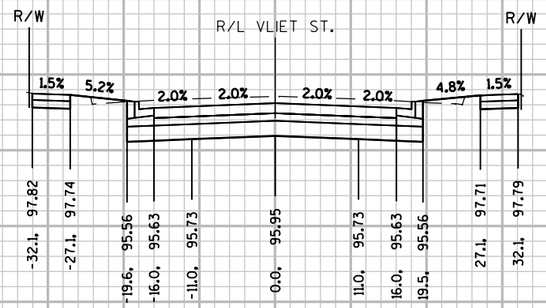
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 431	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Data Prep\20181203_D50200_xs2VLTdgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



40VL+50



40VL+00

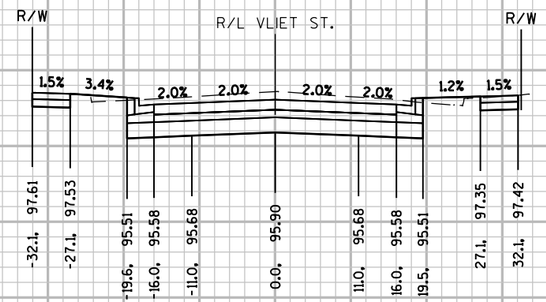
5 FT
10 FT

STA 40VL+00 TO 40VL+50

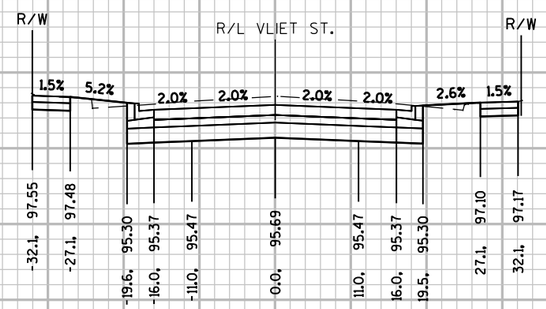
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 432	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\xs2VLT.dgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



41VL+50



41VL+00

5 FT
10 FT

STA 41VL+00 TO 41VL+50

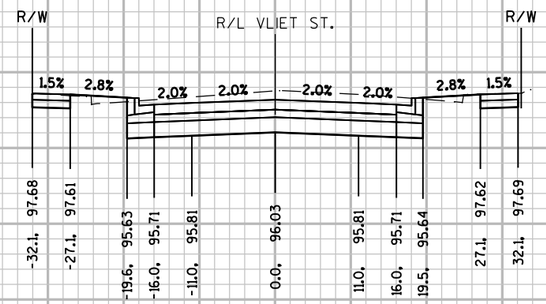
9

9

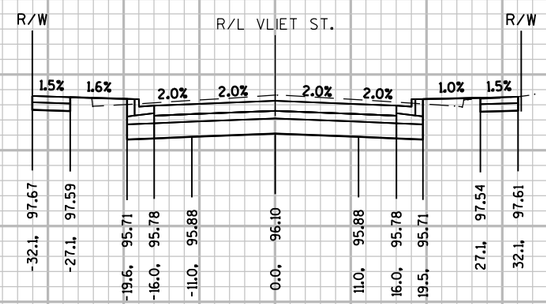
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 433	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\xs2VLTdgn PLOT DATE : 20-29-2018 08:59:00 USER : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



42VL+50



42VL+00

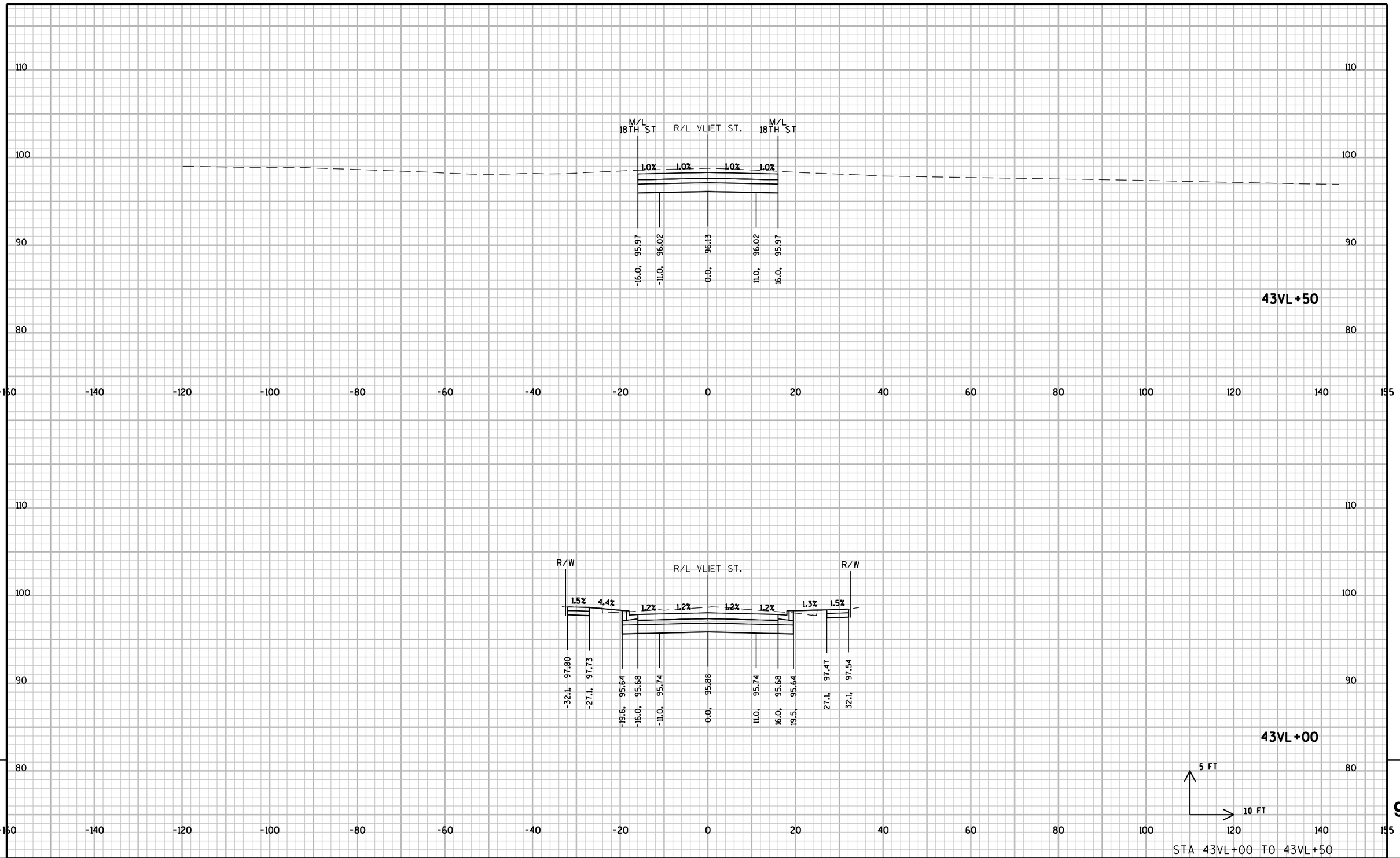
5 FT
10 FT

STA 42VL+00 TO 42VL+50

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 434	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Data Prep\20181203_D70200_xs2VLTdgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

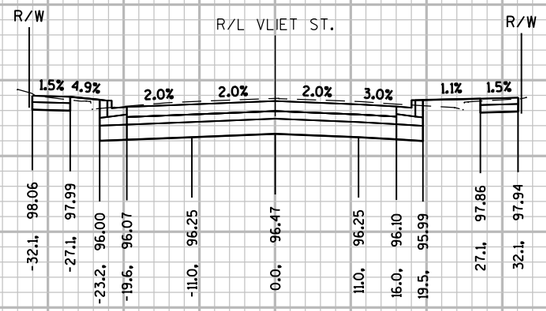


STA 43VL+00 TO 43VL+50

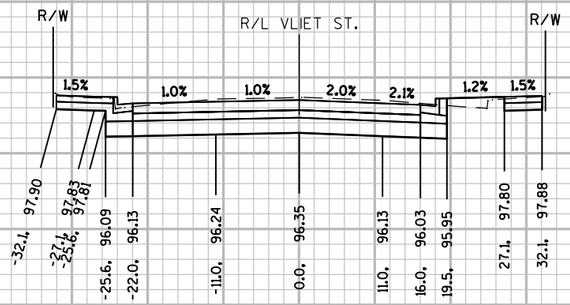
9

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 435	E



44VL+50



44VL+00

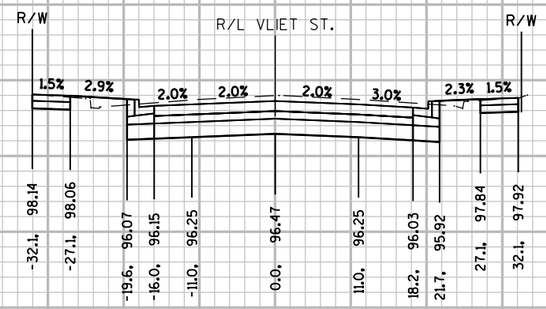
5 FT
10 FT

STA 44VL+00 TO 44VL+50

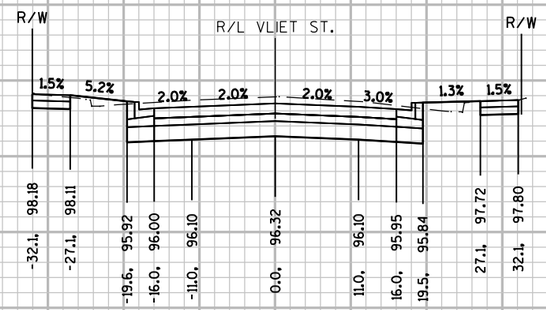
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 436	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Data Prep\20181203_DT0200_xs2VLT.dgn PLOT DATE : 20181203 PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



45VL+50



45VL+00

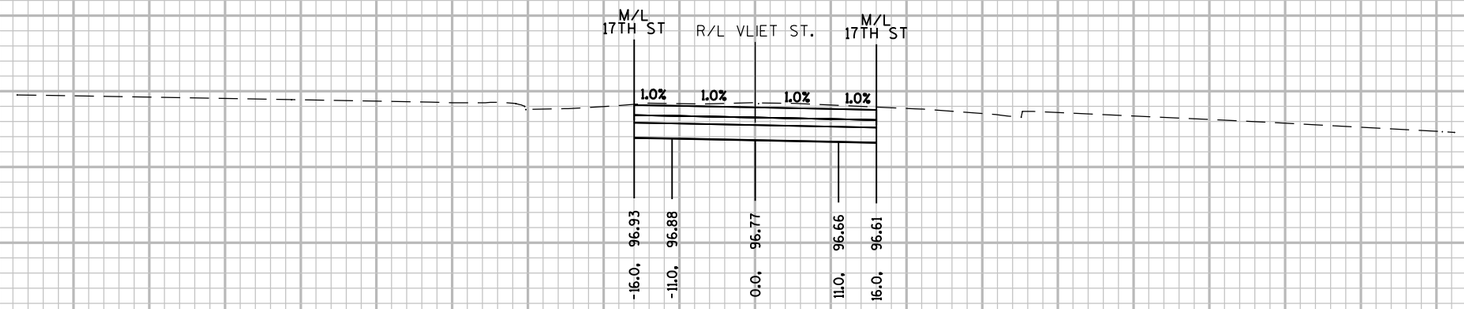
5 FT
10 FT

STA 45VL+00 TO 45VL+50

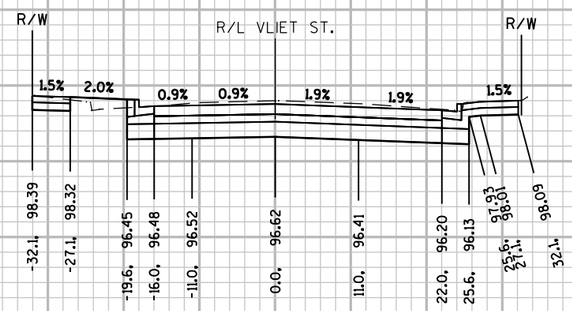
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 437	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\20x29_20181203_63342_xs2VLTdgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



46VL+50



46VL+00

5 FT

10 FT

STA 46VL+00 TO 46VL+50

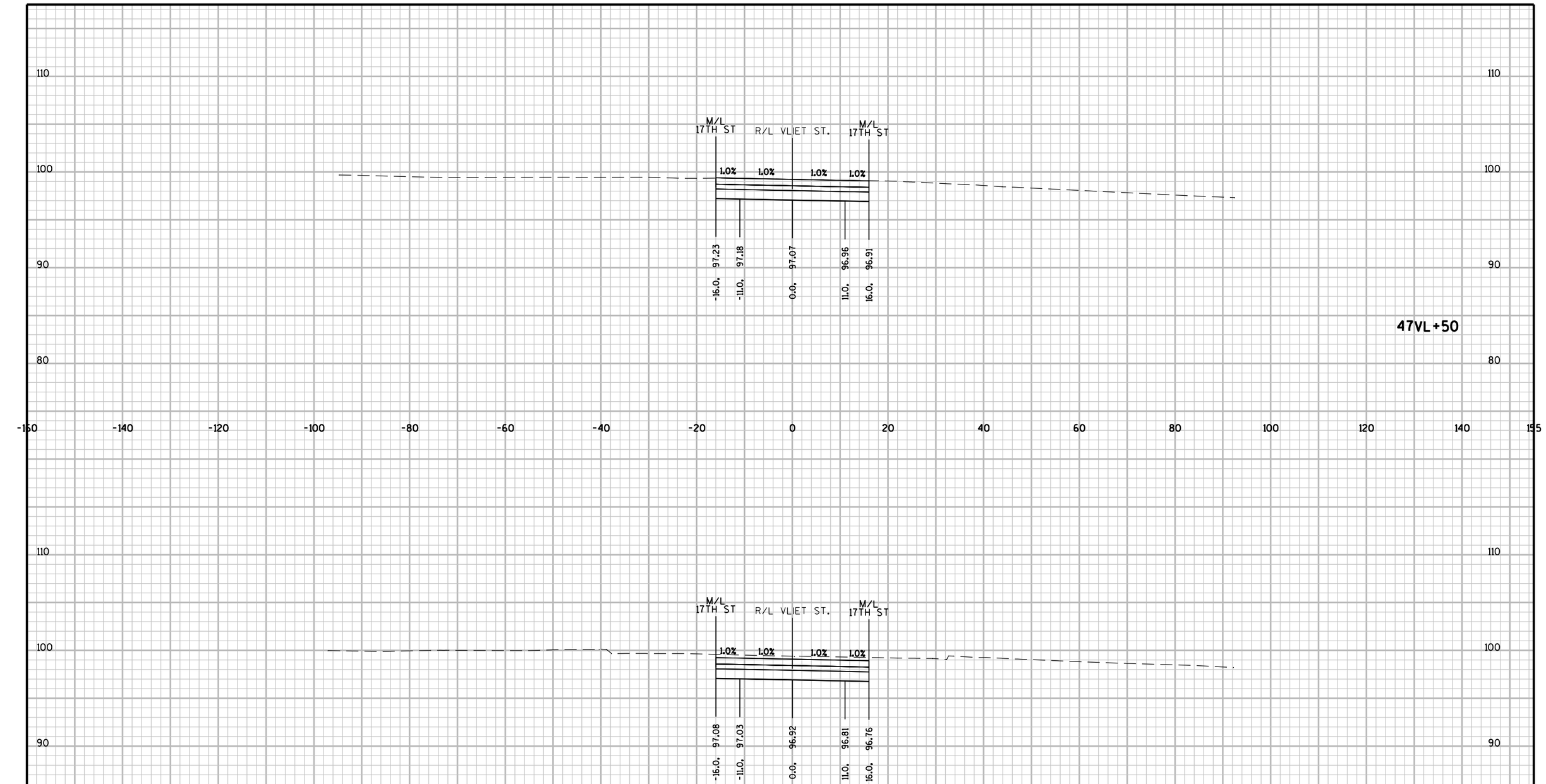
9

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 438	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Proj_20181128_DS0200_xs2VLTdgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

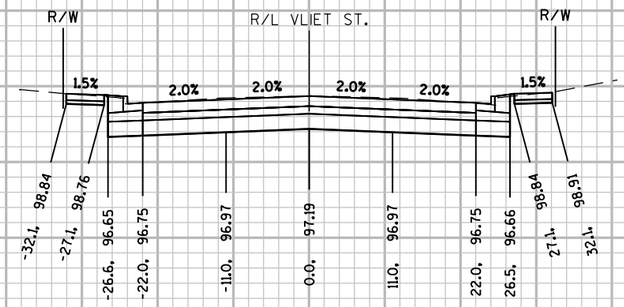
WISDOT/CADDS SHEET 21



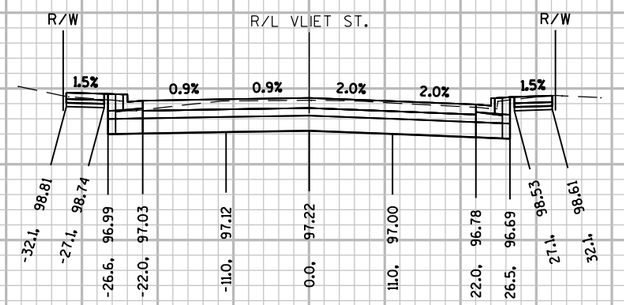
STA 47VL+00 TO 47VL+50

9 9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 439	E



48VL+50



48VL+00

5 FT
10 FT

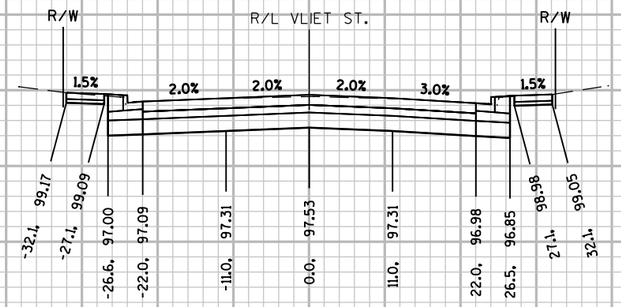
STA 48VL+00 TO 48VL+50

9 9

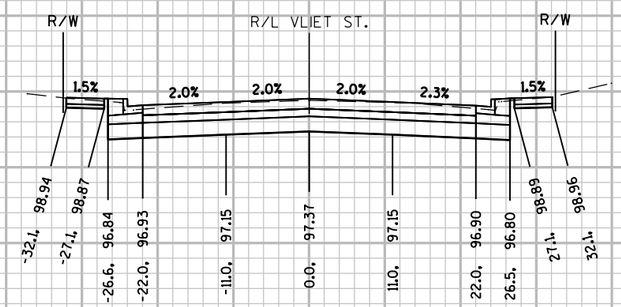
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 440	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Data Prep\20181203_xs2VOT.dgn PLOT DATE : 20181203 PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



49VL+50



49VL+00

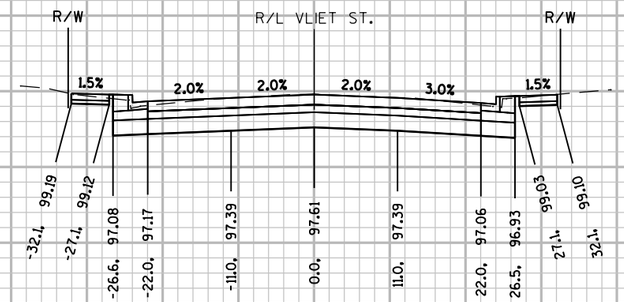
5 FT
10 FT

STA 49VL+00 TO 49VL+50

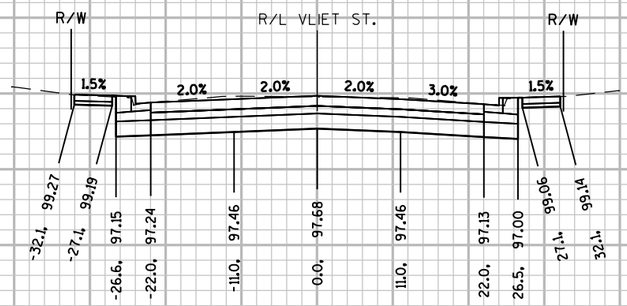
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 441	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Details\20x29_20181203_xs2VOT.dgn PLOT DATE : 12/29/2018 08:39:00 PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



50VL+50



50VL+00

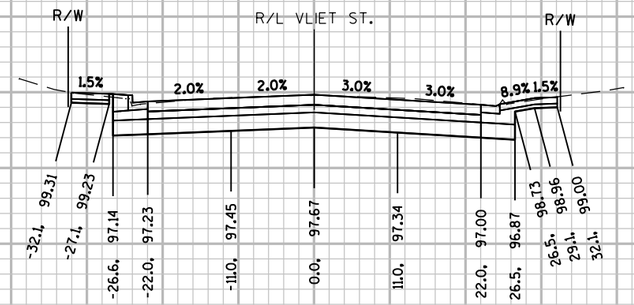
5 FT
10 FT

STA 50VL+00 TO 50VL+50

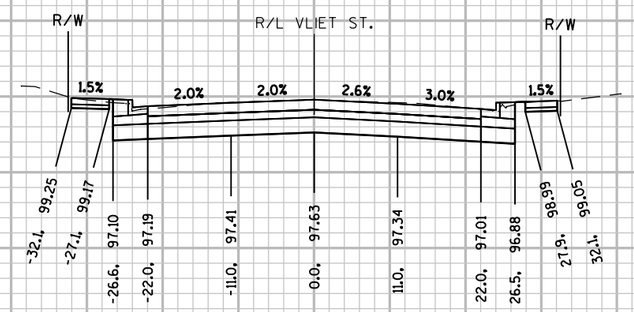
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 442	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Sheets\XS\000200_xs2VLTdgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



51VL+12
DWY RT



51VL+00

5 FT
10 FT

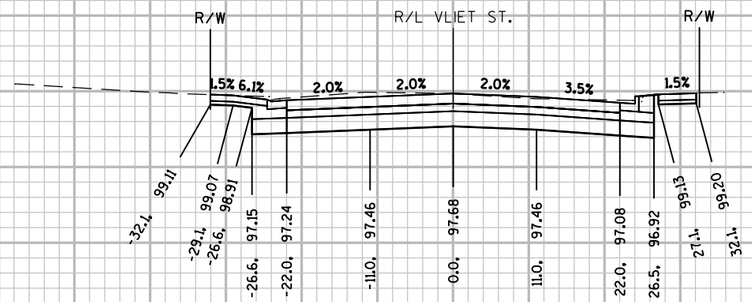
STA 51VL+00 TO 51VL+12

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 443	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Sheets\20190000_xs51VL.dgn PLOT DATE : 29 JAN 2018 08:39:00 PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



51VL+83
DWY LT

51VL+50

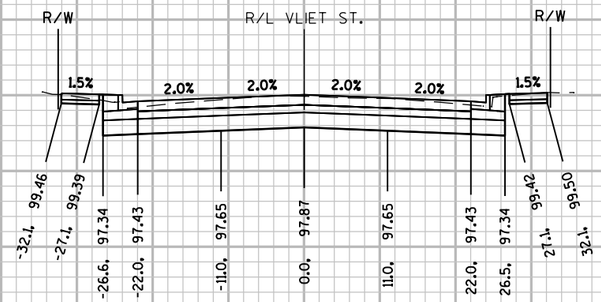
5 FT
10 FT

STA 51VL+50 TO 51VL+83

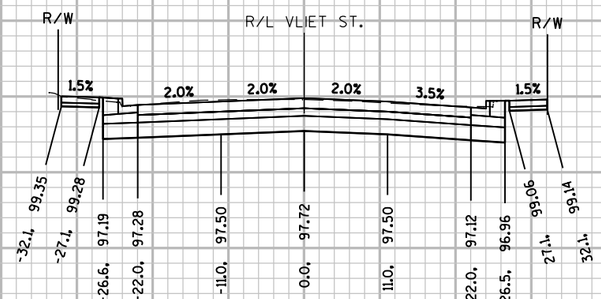
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 444	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Data\Plan Sheets\000000_xs2VLTdgn PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



52VL+50



52VL+00

5 FT
10 FT

STA 52VL+00 TO 52VL+50

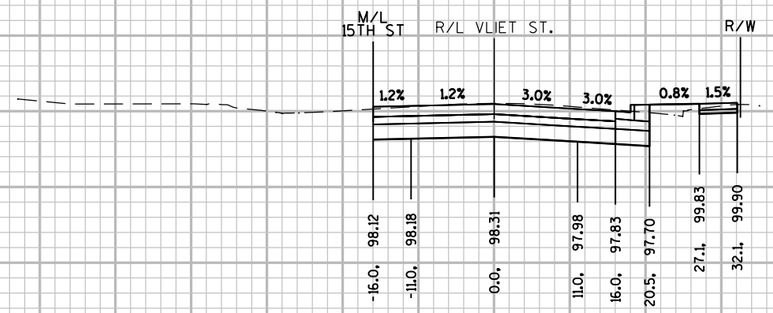
9

9

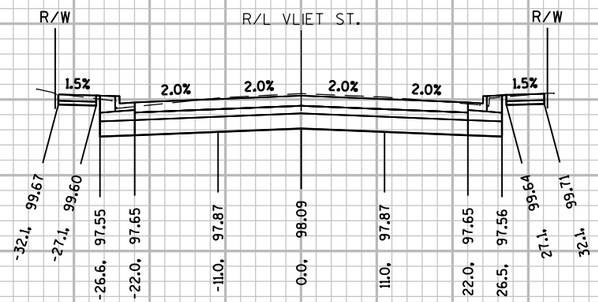
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 445	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Data Prep\20181203_090000_xs2VLTdgn : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



53VL+50



53VL+00

5 FT

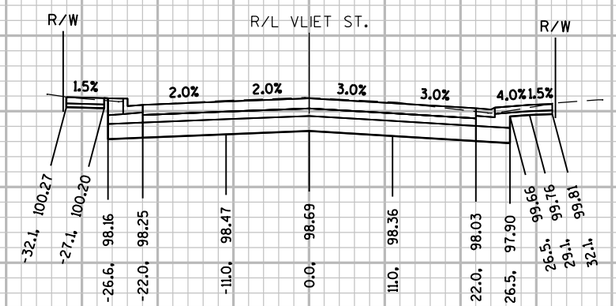
10 FT

STA 53VL+00 TO 53VL+50

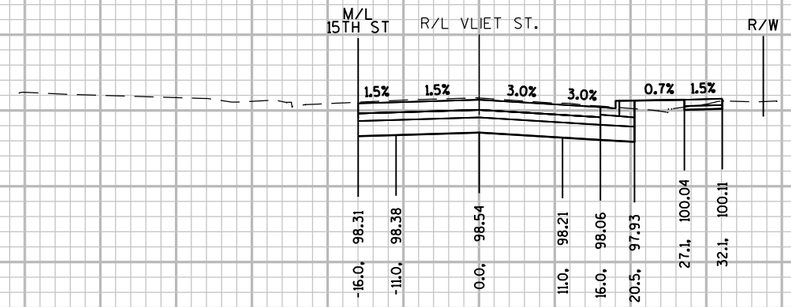
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 446	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\20181203_090000_xs2VLTdgn : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



54VL+28
DWY RT



54VL+00

5 FT
10 FT

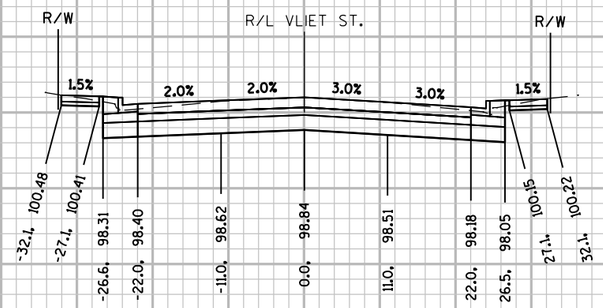
STA 54VL+00 TO 54VL+28

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 447	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\xs\090200_xs2VLTdgn PLOT DATE : 29-Jan-2018 08:09:00 PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

55VL+00



54VL+50

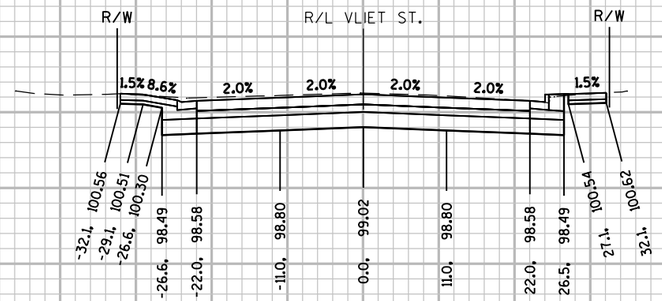
5 FT
10 FT

STA 54VL+50 TO 55VL+00

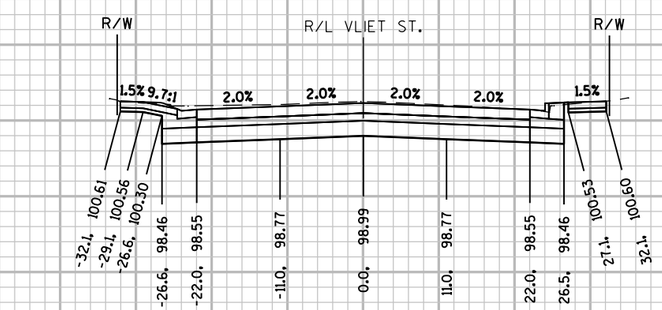
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 448	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\20181228_xs2VLTdgn.dgn PLOT DATE : 29-JAN-2019 08:08:00 PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



55VL+60
DWY LT



55VL+50

5 FT
10 FT

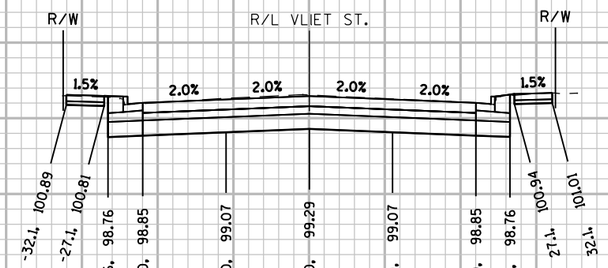
STA 55VL+50 TO 55VL+60

9 9

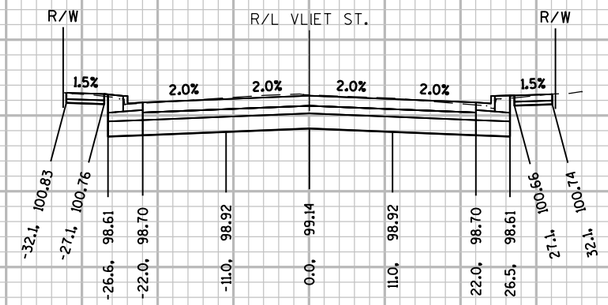
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 449	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Data Prep\xs20180823_020000_xs2VLTdgn : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



56VL+50



56VL+00

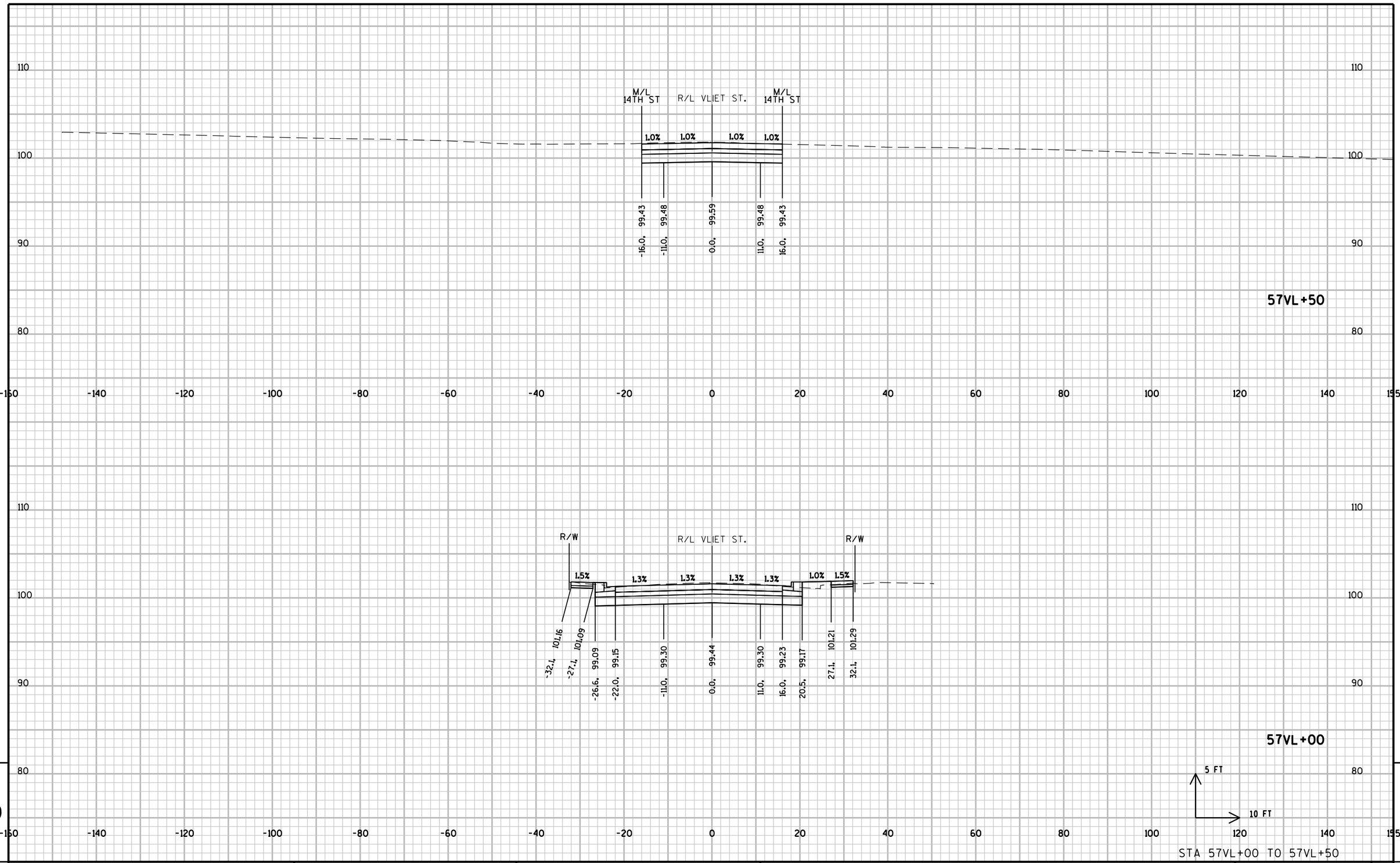
5 FT
10 FT

STA 56VL+00 TO 56VL+50

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 450	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\xs\030200_xs2VLTdgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

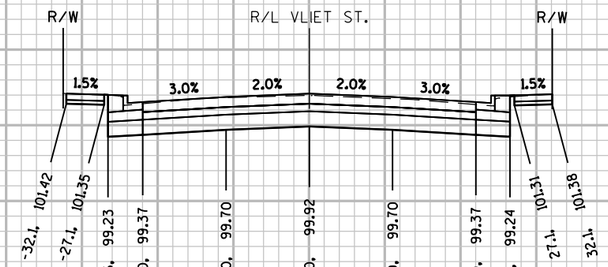


STA 57VL+00 TO 57VL+50

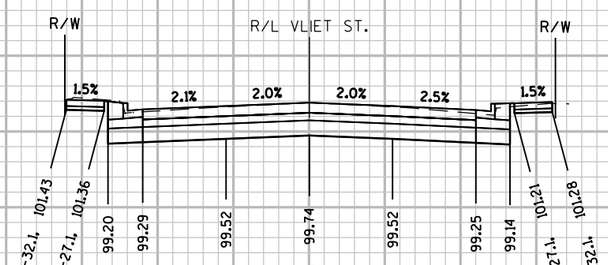
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 451	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\20181203_030000_xs2VLTdgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



58VL+50



58VL+00

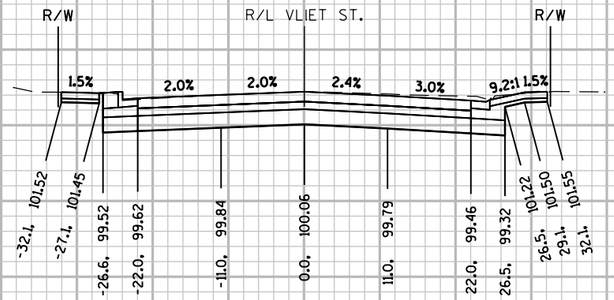
5 FT
10 FT

STA 58VL+00 TO 58VL+50

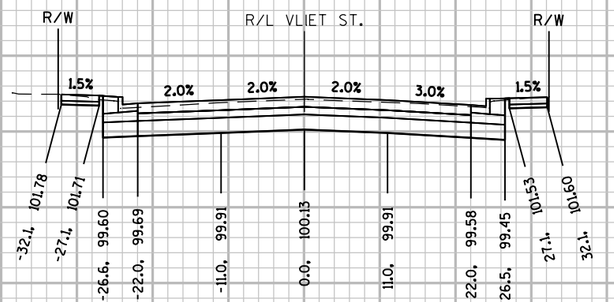
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 452	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\xs\030200_xs2VLT.dgn PLOT DATE : 29 2018 08:03:00 BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



59VL+34



59VL+00

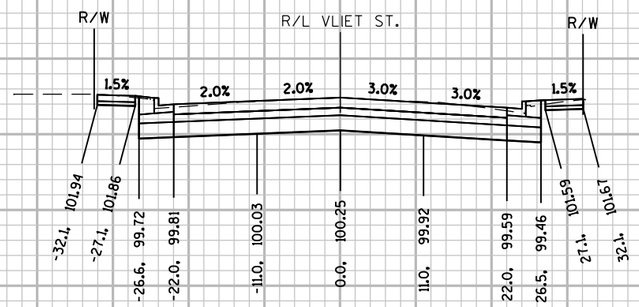
5 FT
10 FT

STA 59VL+00 TO 59VL+34

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 453	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\20181228_xs2VLTdgn.dgn PLOT DATE : 29-JAN-2019 08:08:00 PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



60VL+00

59VL+50

5 FT
10 FT

STA 59VL+50 TO 60VL+00

110 100 90 80

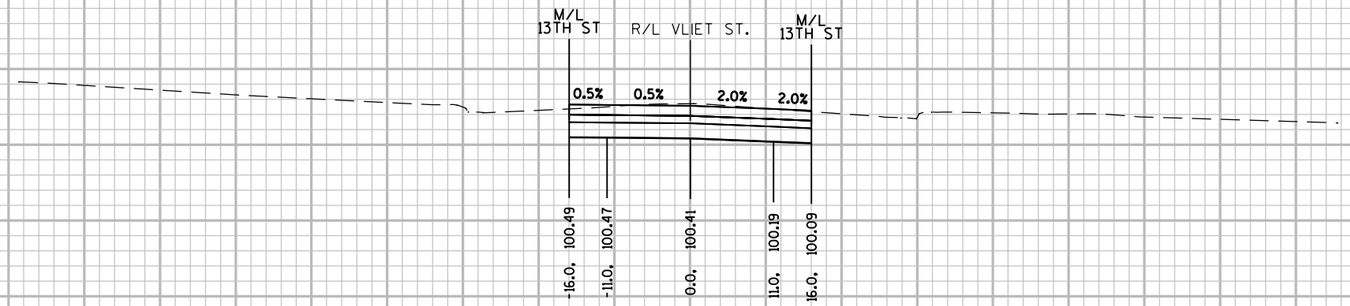
-160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140 155

9

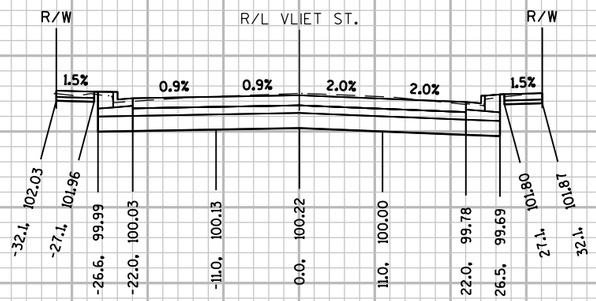
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 454	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\20181203_090000_xs2VLTdgn : dbaumann PLOT NAME : PLOT SCALE : 20:1 PLOT DATE : 12/29/2018

WISDOT/CADDS SHEET 21



61VL+00



60VL+50

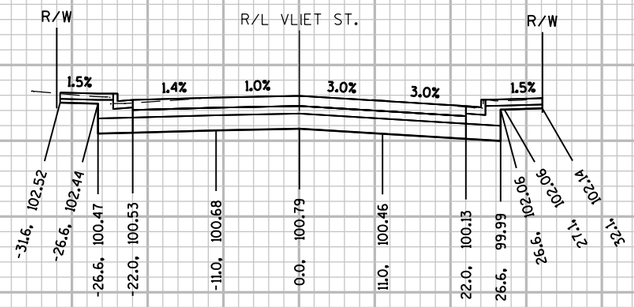
5 FT
10 FT

STA 60VL+50 TO 61VL+00

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 455	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\20181203_090000_xs2VLTdgn PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



62VL+00

61VL+50

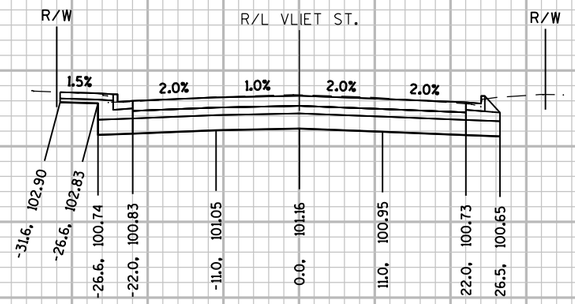
5 FT
10 FT

STA 61VL+50 TO 62VL+00

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 456	E

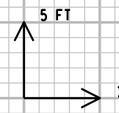
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\63342_xs2VLTdgn PLOT DATE : 20-29-2018 08:09:00 PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



63VL+00

62VL+50

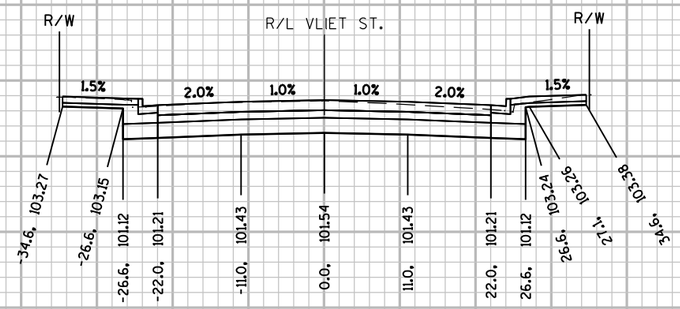


STA 62VL+50 TO 63VL+00

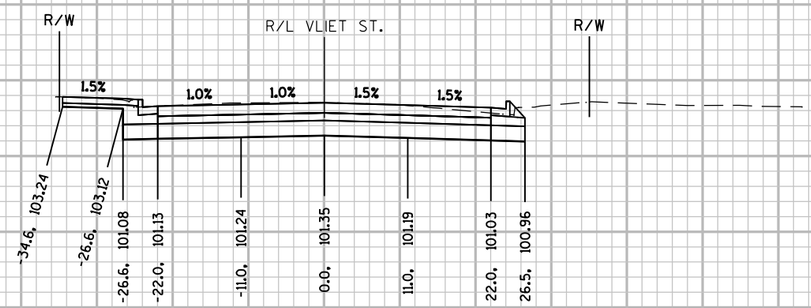
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 457	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\63342_xs2VLTdgn PLOT DATE : 20 : dbaumann PLOT NAME : PLOT SCALE : 20:1

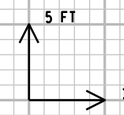
WISDOT/CADDS SHEET 21



64VL+00



63VL+50

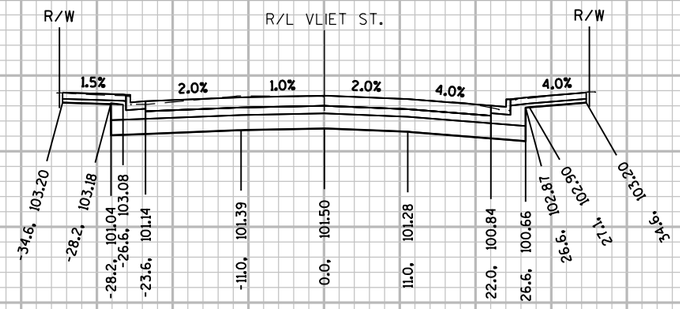


STA 63VL+50 TO 64VL+00

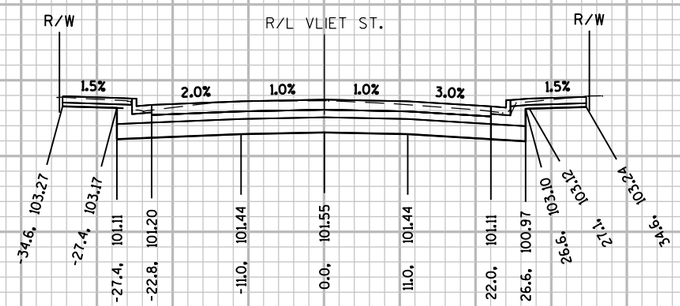
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 458	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Package 2018.02.09\63342_xs2VLTd.dgn PLOT DATE : 20 Feb 2018 PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



64VL+75
STA BACK



64VL+50

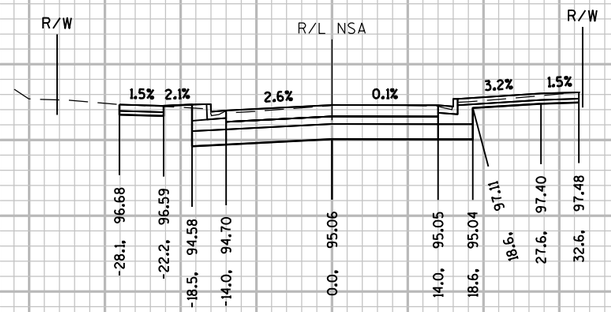
5 FT
10 FT

STA 64VL+50 TO 64VL+75

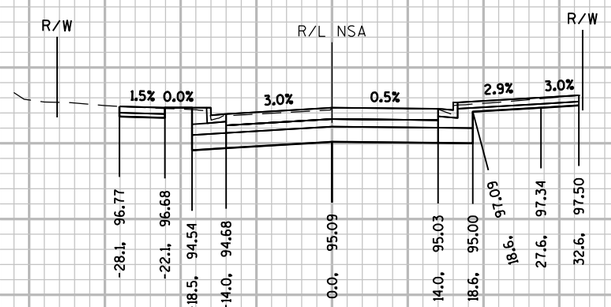
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: VLIET STREET	SHEET 459	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\63342_xs2VLT.dgn PLOT DATE : 29 JAN 2018 08:49:00 PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9NSA+60



9NSA+53
STA AHEAD

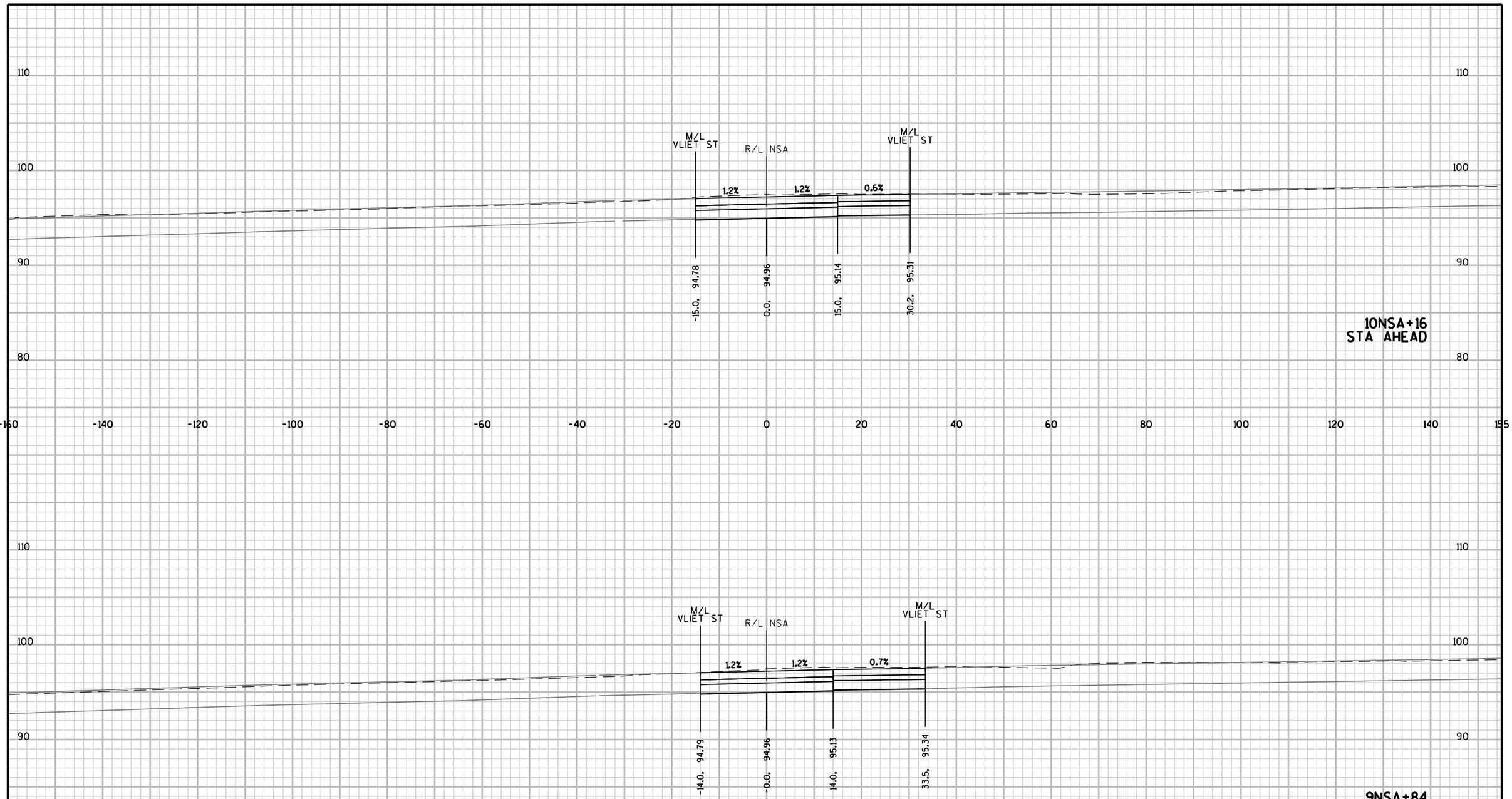
5 FT
10 FT

STA 9NSA+53 TO 9NSA+60

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 26TH STREET	SHEET 460	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\20181203\D53002_xs2NSA.dgn PLOT NAME : PLOT SCALE : 20:1 WISDOT/CADDS SHEET 21

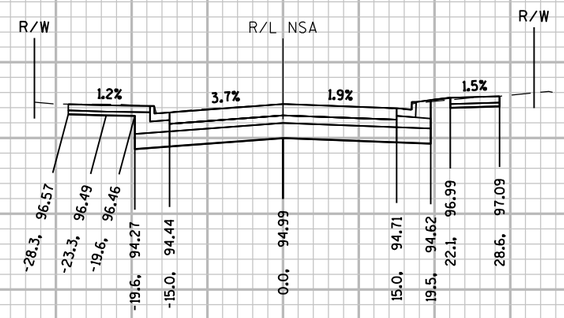


9

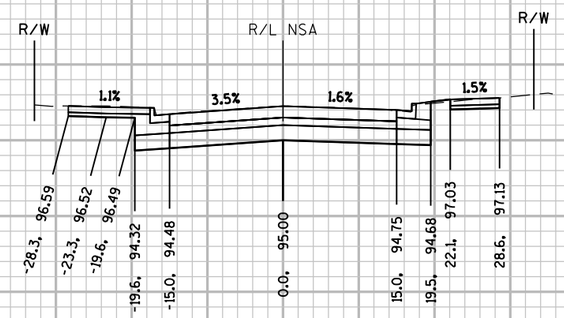
9

STA 9NSA+84 TO 10NSA+16

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 26TH STREET	SHEET 461	E



10NSA+53
STA BACK



10NSA+50

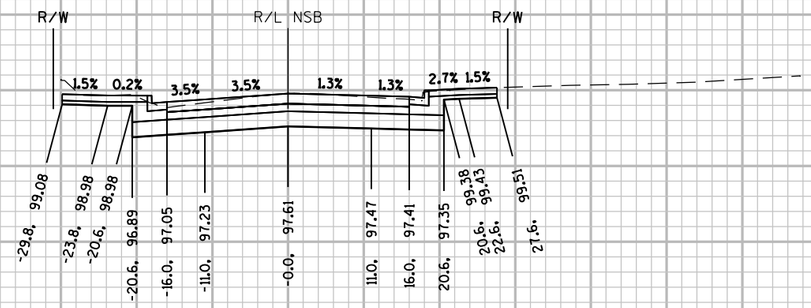
5 FT
10 FT

STA 10NSA+50 TO 10NSA+53

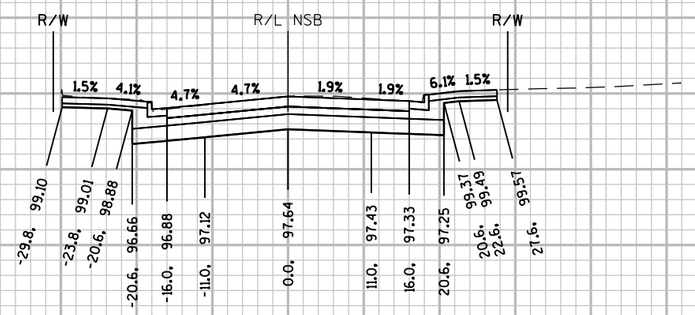
9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 26TH STREET	SHEET 462	E

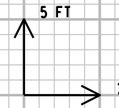
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Package 2018.08.15\D5020202_xs2NSA.dgn PLOT NAME : PLOT SCALE : 20:1 WISDOT/CADDS SHEET 21



9NSB+60



9NSB+53
STA AHEAD



STA 9NSB+53 TO 9NSB+60

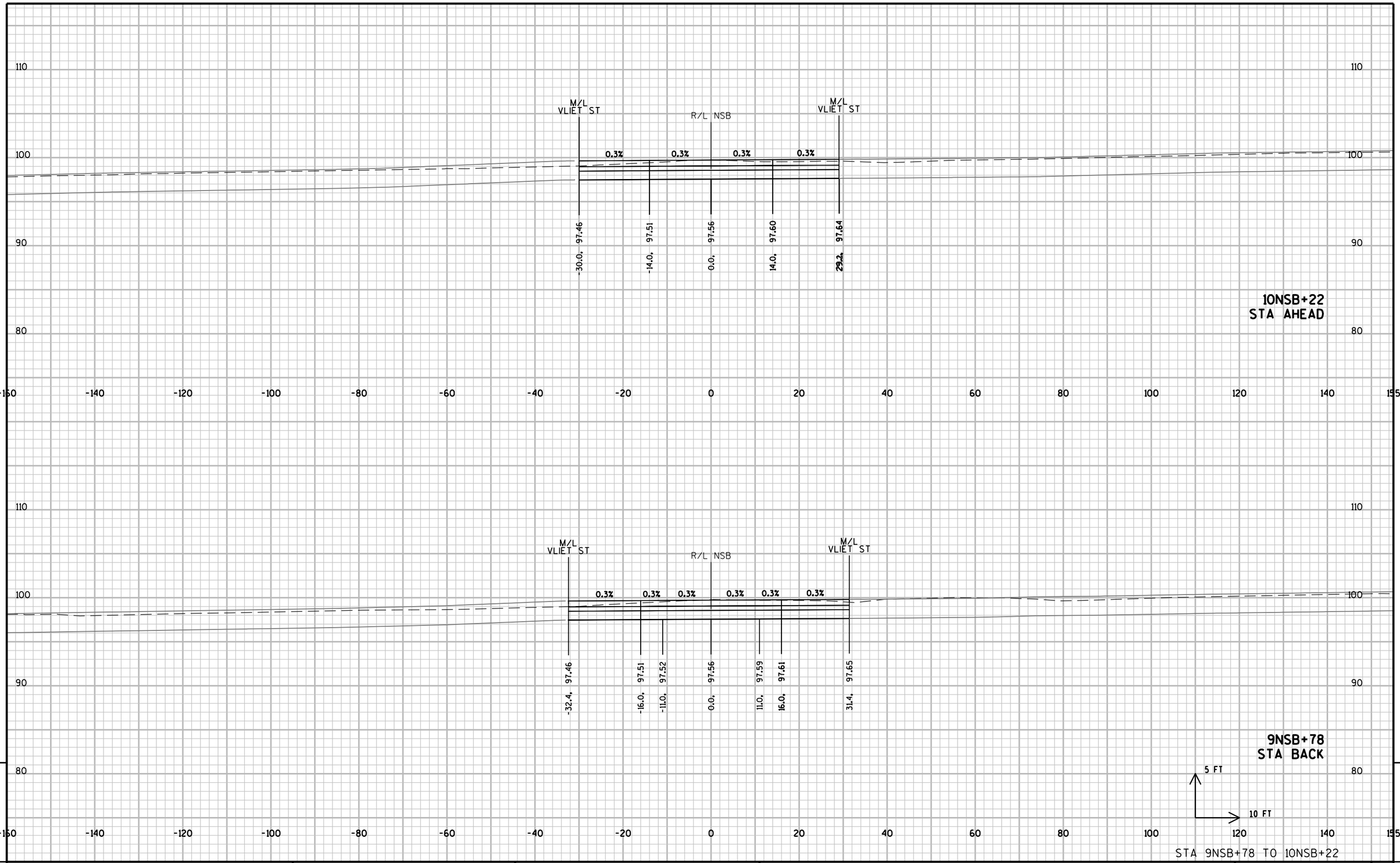
9

9

-160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140 155

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 25TH STREET	SHEET 463	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\Plan Data Prep\20181204\09020002_xs2NSB.dgn PLOT NAME : PLOT SCALE : 20:1 WISDOT/CADDS SHEET 21



9

9

STA 9NSB+78 TO 10NSB+22

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 25TH STREET	SHEET 464	E

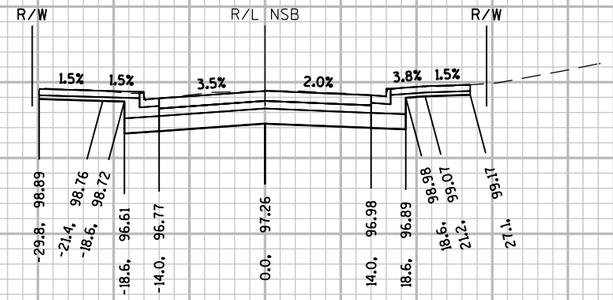
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\20181204\09020002_xs2NSB.dgn

PLOT DATE : 12/29/2018 08:09:02 By: dbaumann

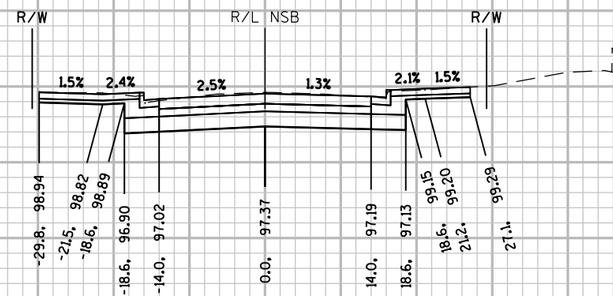
PLOT NAME :

PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



10NSB+48
STA BACK



10NSB+40

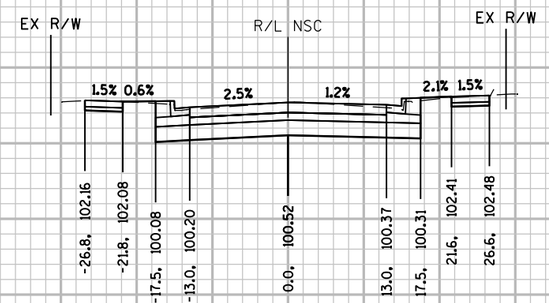
5 FT
10 FT

STA 10NSB+40 TO 10NSB+48

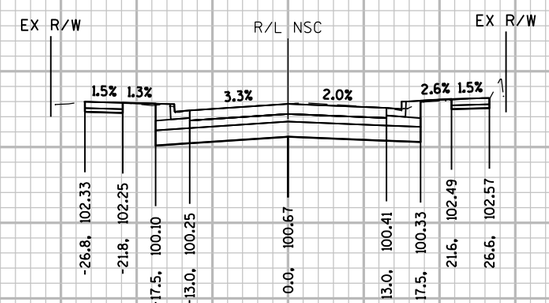
9

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 25TH STREET	SHEET 465	E



9NSC+60



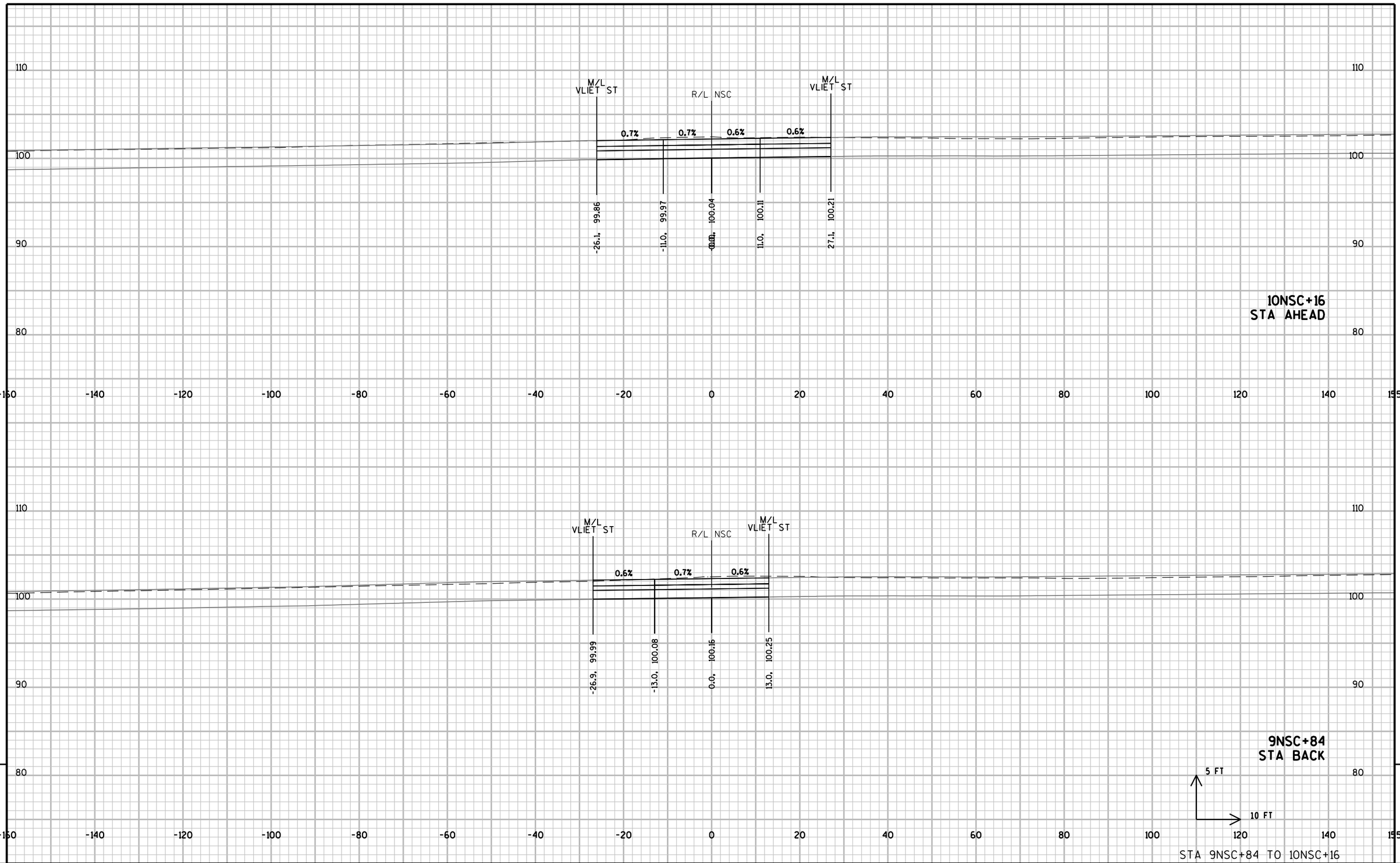
9NSC+50
STA AHEAD

5 FT
10 FT

STA 9NSC+50 TO 9NSC+60

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 24TH PLACE	SHEET	E

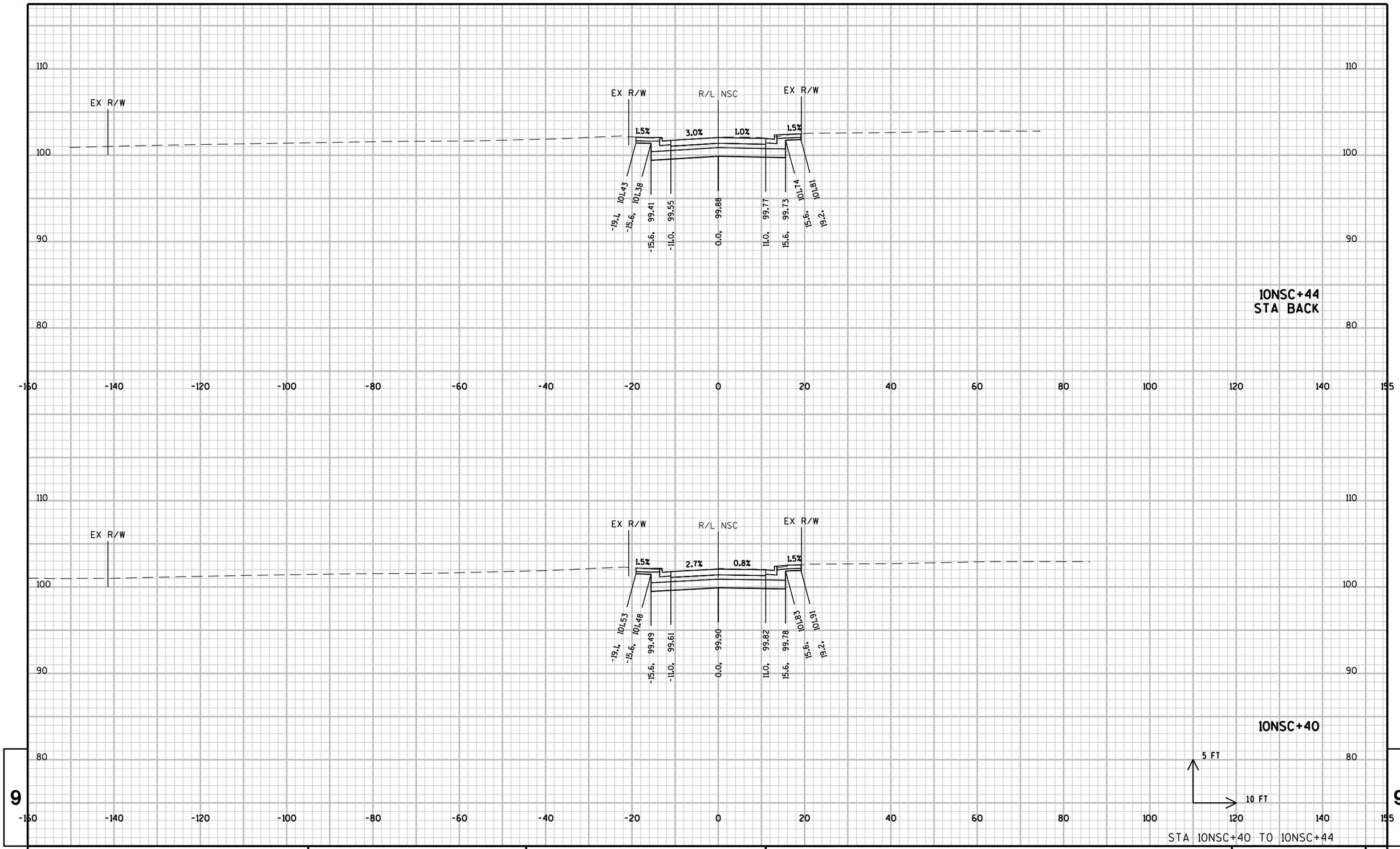
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\20181204\D20202_xs2NSC.dgn PLOT NAME : PLOT SCALE : 20:1 WISDOT/CADDS SHEET 21



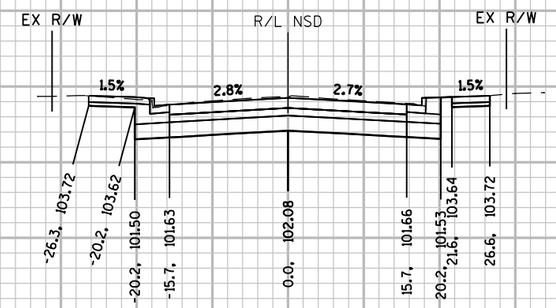
9

STA 9NSC+84 TO 10NSC+16

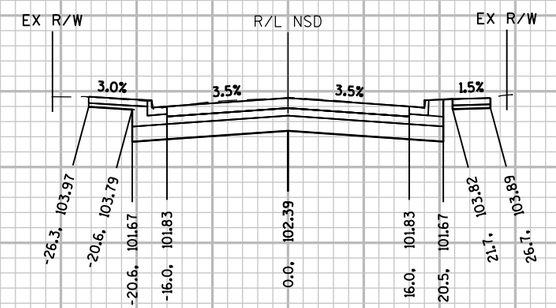
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 24TH PLACE	SHEET 467	E



PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 24TH PLACE	SHEET 468	E



9NSD+50



9NSD+41
STA AHEAD

5 FT
10 FT

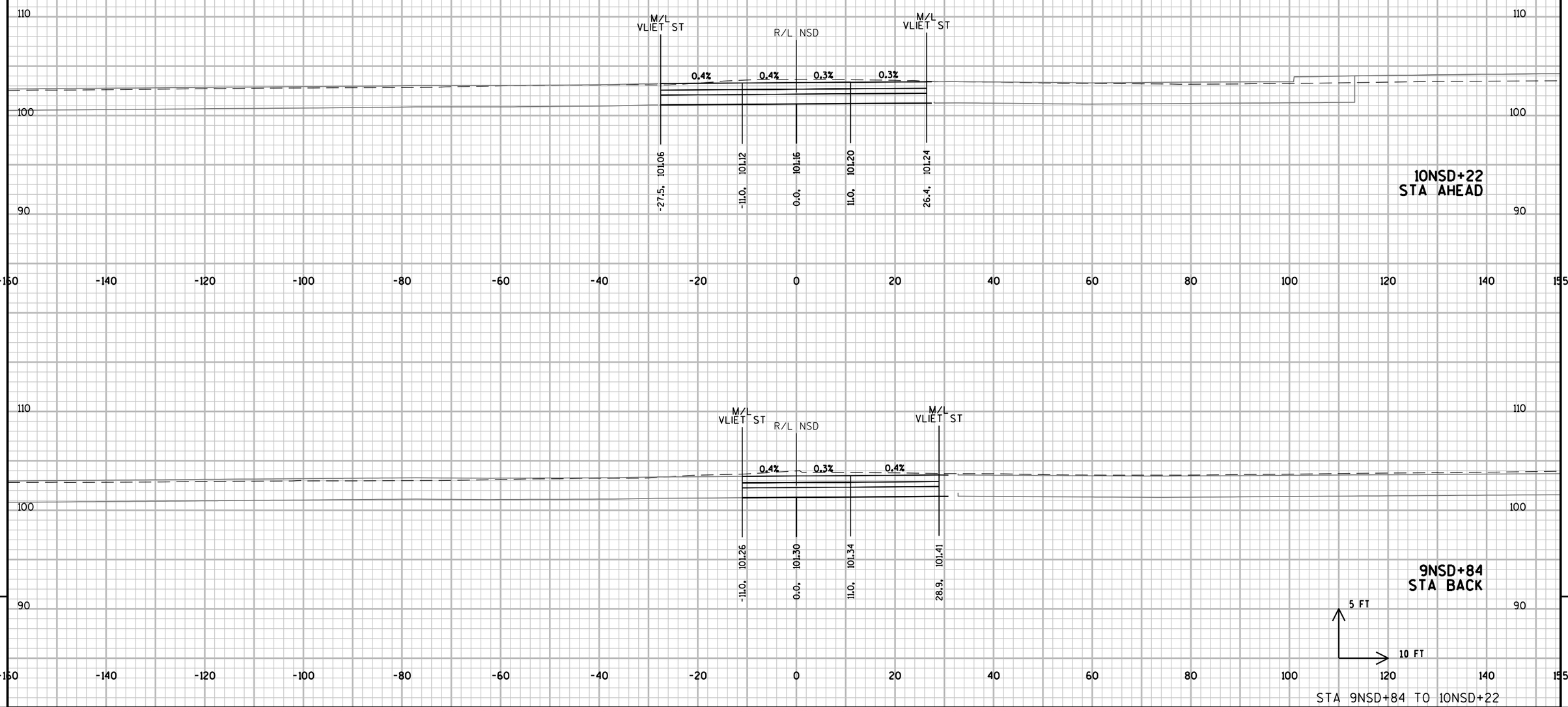
STA 9NSD+41 TO 9NSD+50

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 24TH STREET	SHEET 469	E

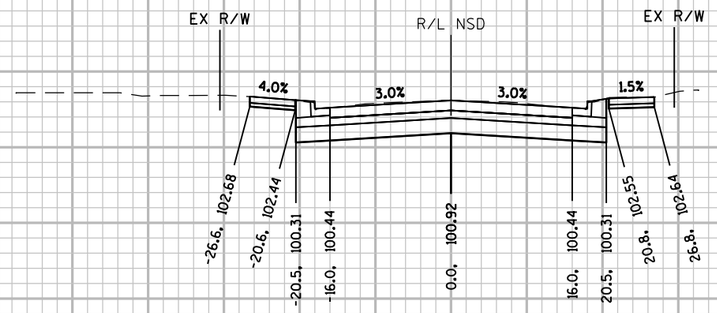
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\D70202_xs2NSD.dgn PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

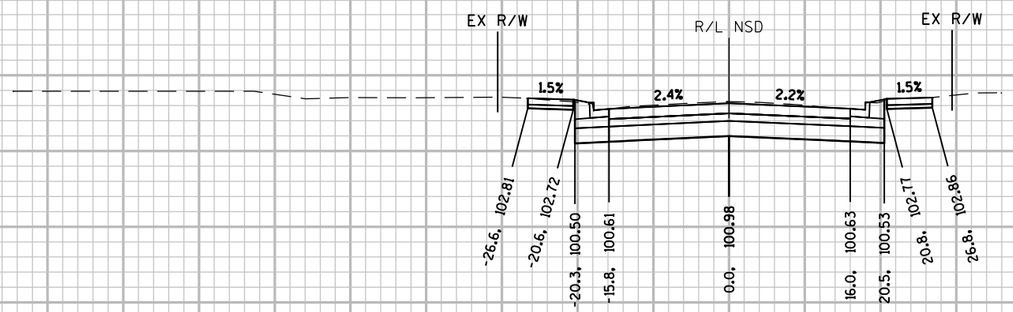


9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 24TH STREET	SHEET 470	E



10NSD+59
STA BACK

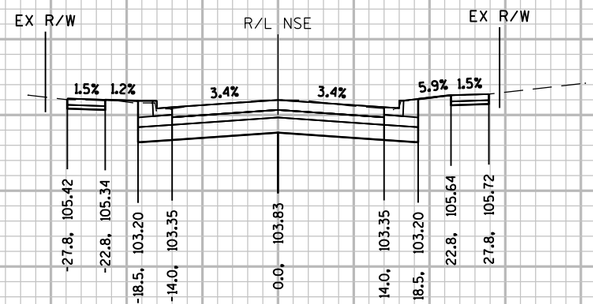


10NSD+50

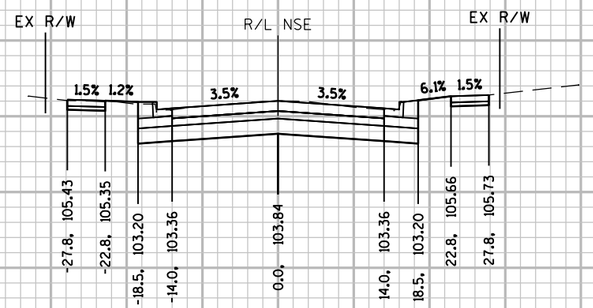
5 FT
10 FT

STA 10NSD+50 TO 10NSD+59

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 24TH STREET	SHEET 471	E



9NSE+50



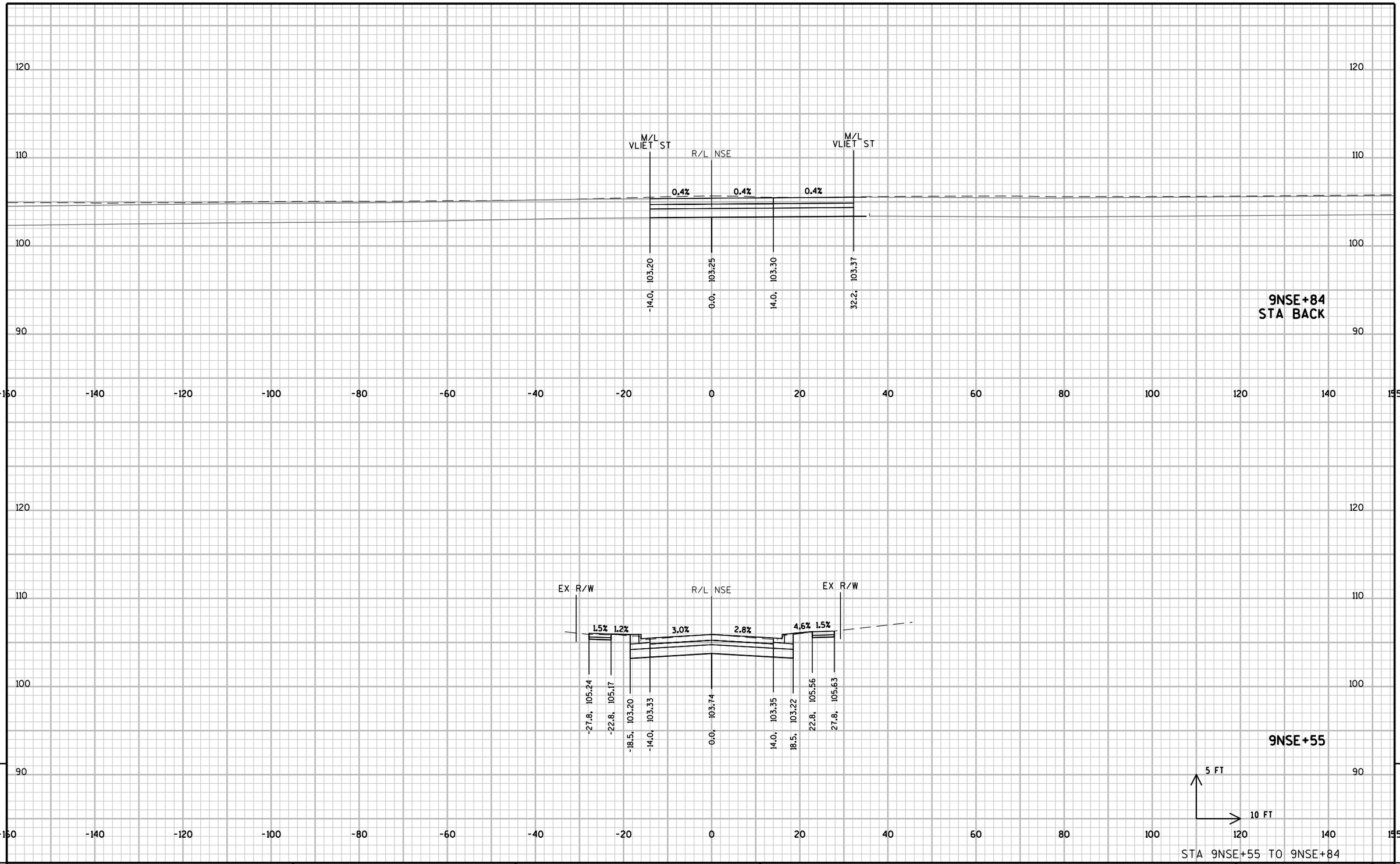
9NSE+49
STA AHEAD

5 FT
10 FT

STA 9NSE+49 TO 9NSE+50

9

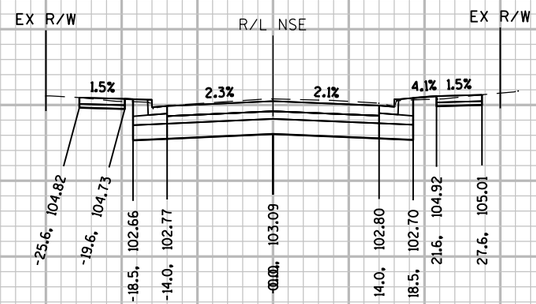
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 22ND STREET	SHEET 472	E



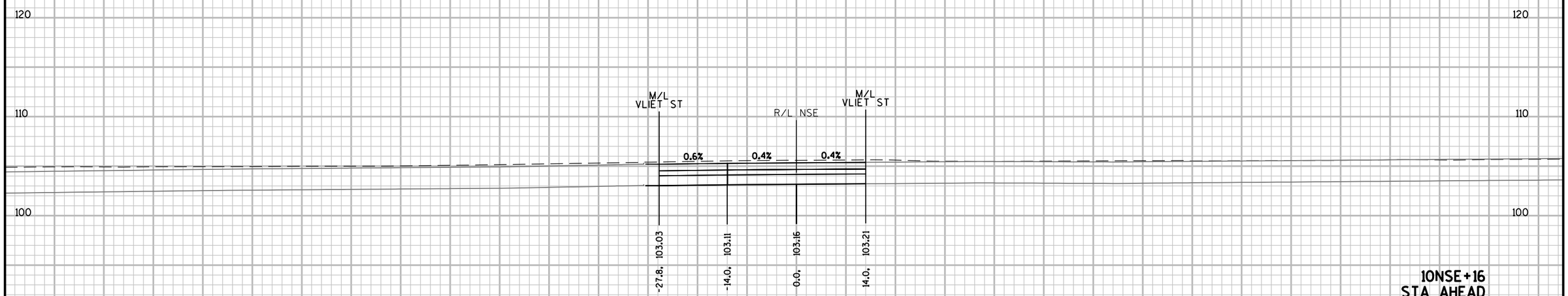
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 22ND STREET	SHEET 473	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\20181204\D20202_xs2NSE.dgn PLOT DATE : 12/29/2018 08:20:02 User: dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



10NSE+40



10NSE+16
STA AHEAD

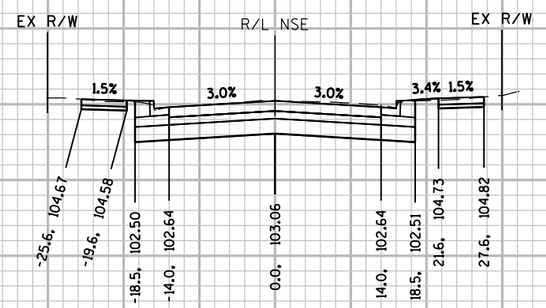
5 FT
10 FT

STA 10NSE+16 TO 10NSE+40

9

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 22ND STREET	SHEET 474	E



10NSE+49
STA BACK

5 FT

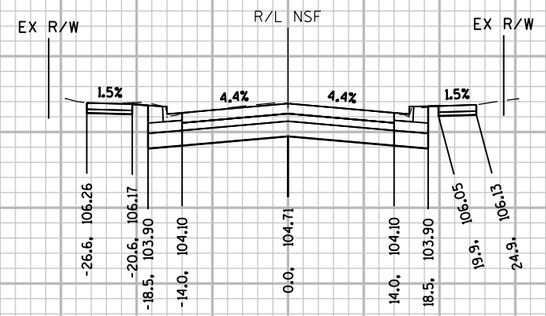
10 FT

STA 10NSE+49 TO 10NSE+49

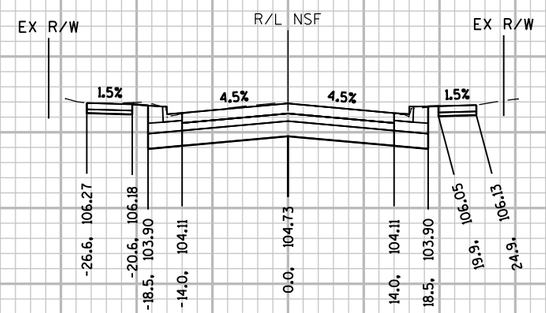
9

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 22ND STREET	SHEET 475	E



9NSF+50



9NSF+49
STA AHEAD

5 FT
10 FT

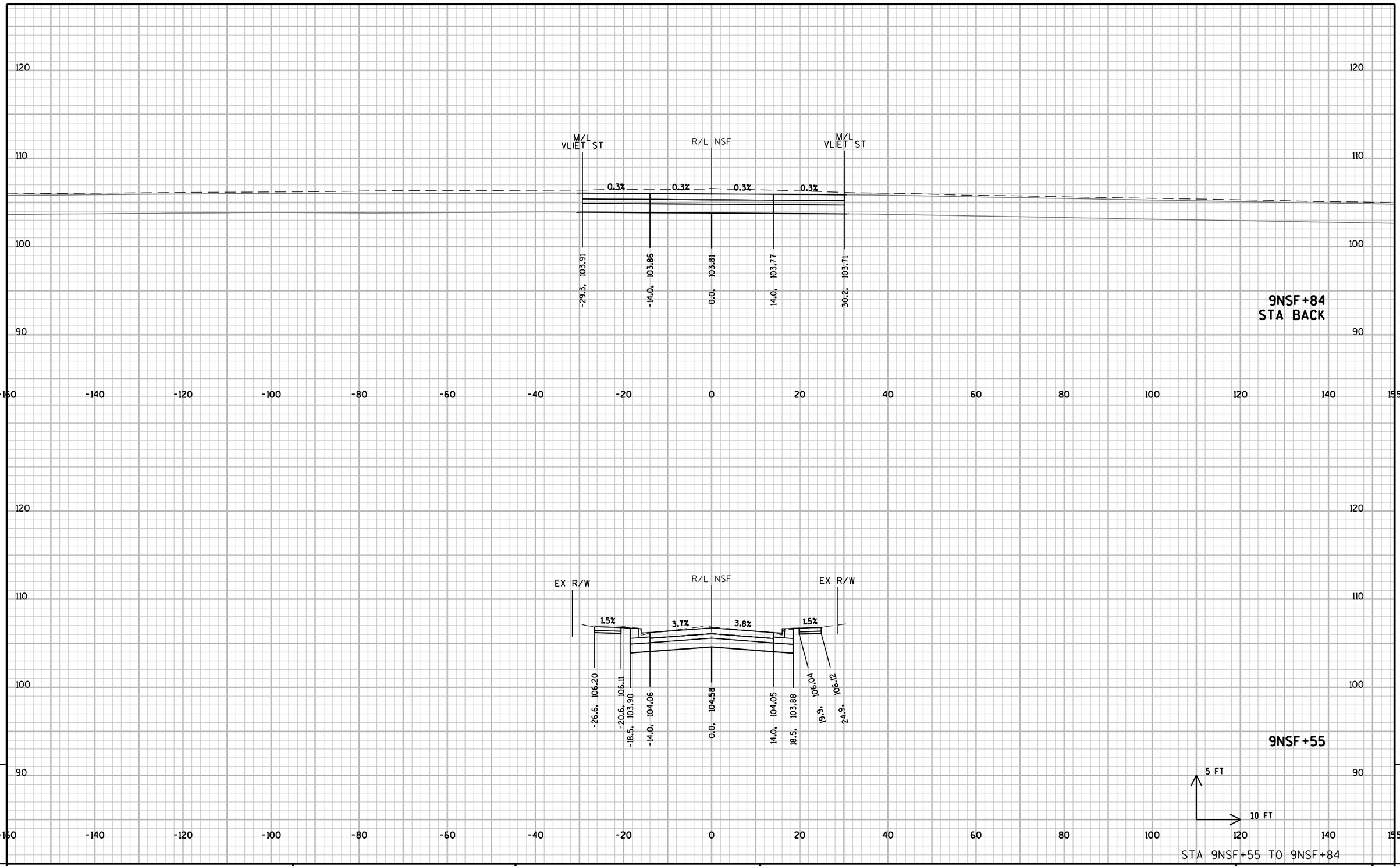
STA 9NSF+49 TO 9NSF+50

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 21ST STREET	SHEET 476	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prelim\Sheets\20181204\D70202_xs21NSF.dgn: dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

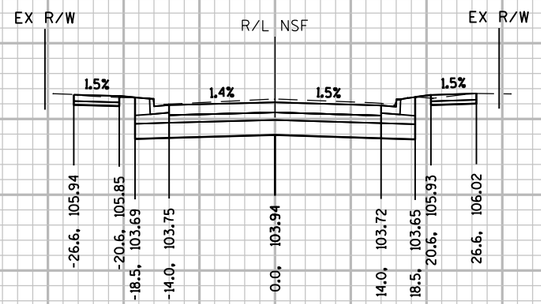


9

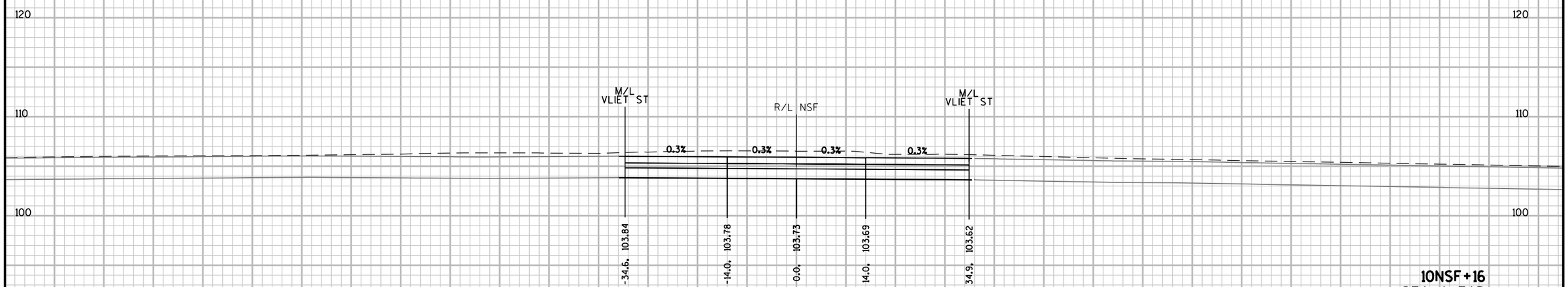
9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 21ST STREET	SHEET 477	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\20181204\D70202_xs2NSF.dgn PLOT NAME : PLOT SCALE : 20:1 WISDOT/CADDS SHEET 21



10NSF+40



10NSF+16
STA AHEAD

5 FT
10 FT

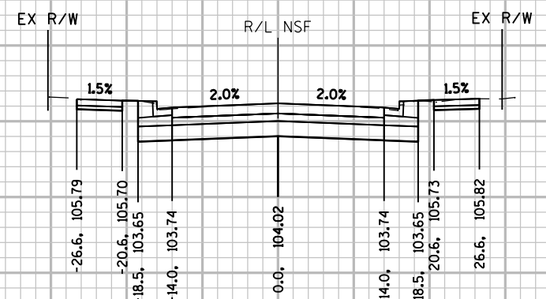
STA 10NSF+16 TO 10NSF+40

9

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 21ST STREET	SHEET 478	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Proposed\20181204\D70202_xs21NSF.dgn PLOT NAME : PLOT SCALE : 20:1 WISDOT/CADDS SHEET 21



10NSF+49
STA BACK

5 FT
10 FT

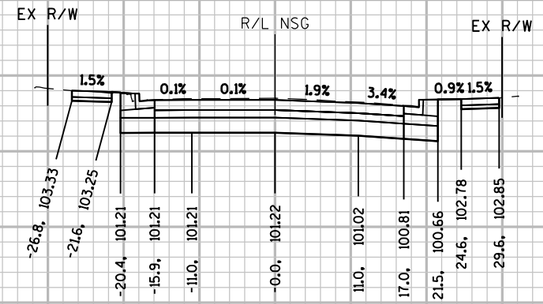
STA 10NSF+49 TO 10NSF+49

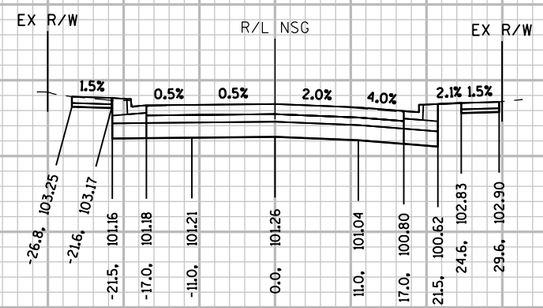
9

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 21ST STREET	SHEET 479	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Proj_20180426_D0002_xs21NSF.dgn PLOT NAME : PLOT SCALE : 20:1 WISDOT/CADDS SHEET 21





9NSG+50

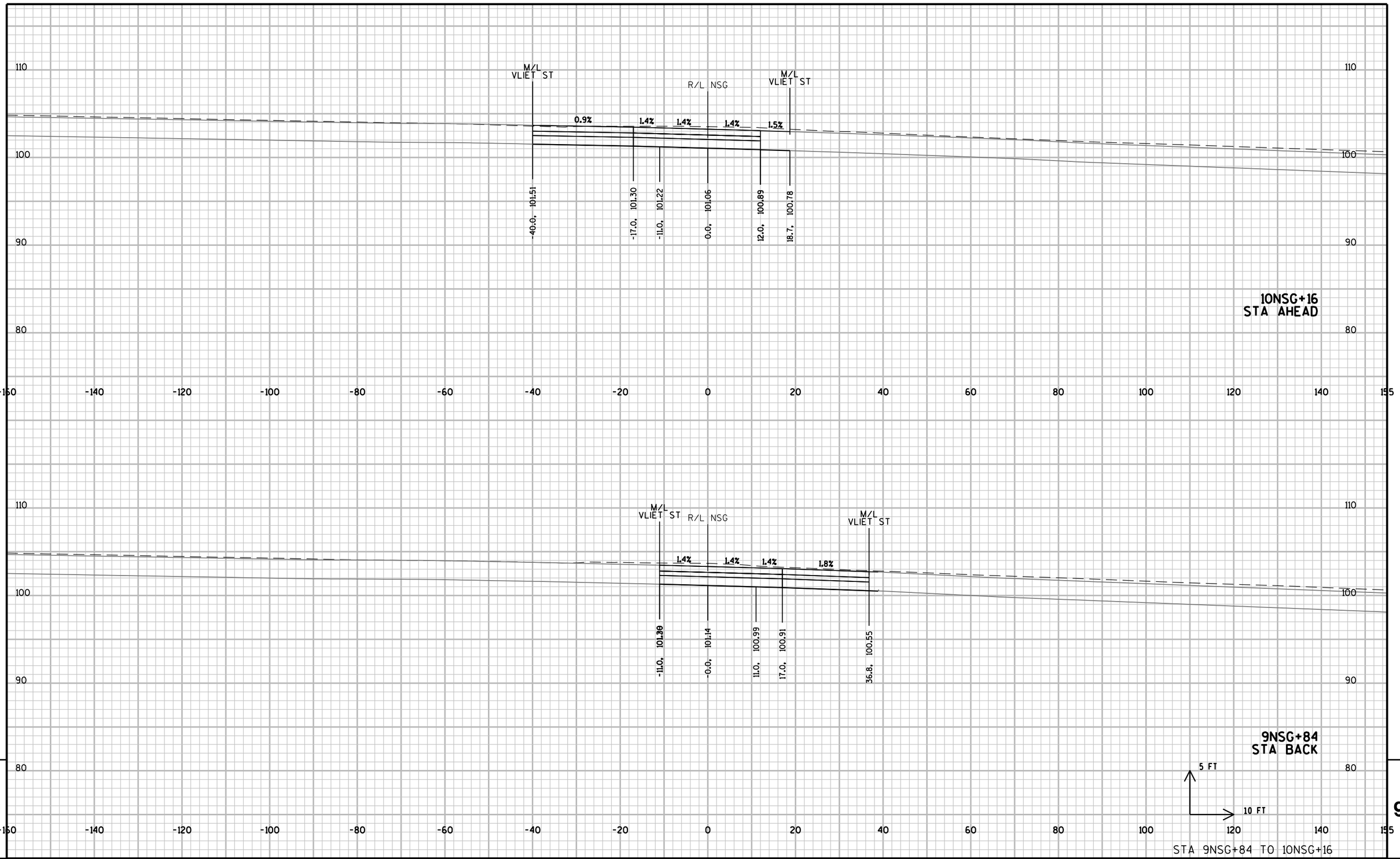
9NSG+40
STA AHEAD

5 FT
10 FT

STA 9NSG+40 TO 9NSG+50

9

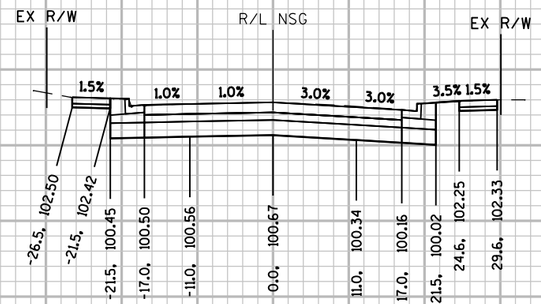
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 20TH STREET	SHEET 480	E



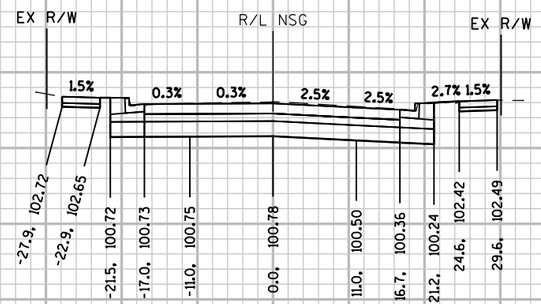
STA 9NSG+84 TO 10NSG+16

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 20TH STREET	SHEET 481	E



10NSG+64
STA BACK



10NSG+50

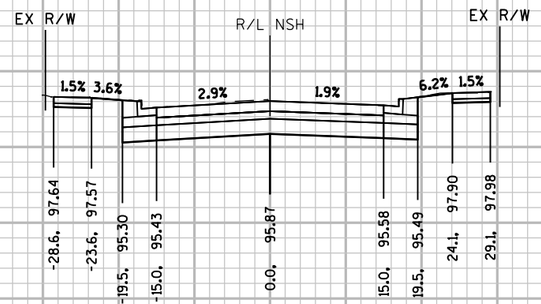
5 FT
10 FT

STA 10NSG+50 TO 10NSG+64

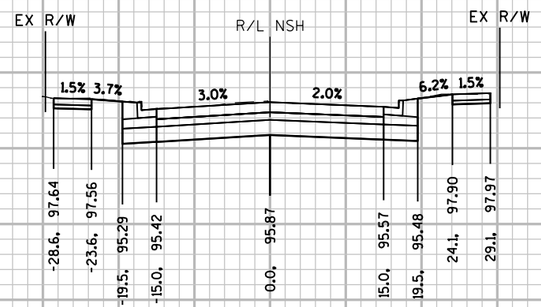
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 20TH STREET	SHEET 482	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Proposed\20180813_xs20NSG.dgn PLOT DATE : 20180829 User: dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9NSH+50



9NSH+49
STA AHEAD

5 FT
10 FT

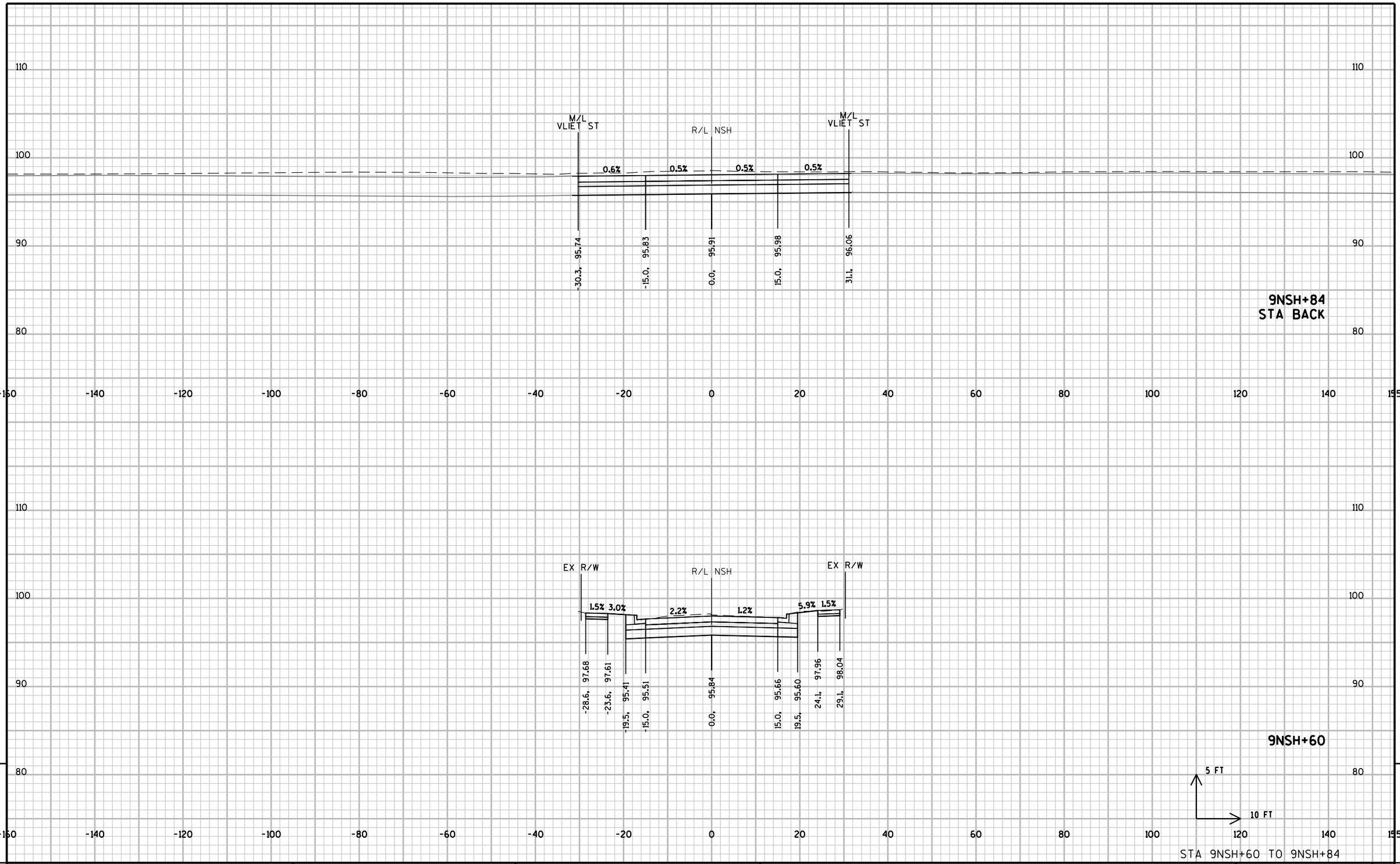
STA 9NSH+49 TO 9NSH+50

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 18TH STREET	SHEET 483	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod 2018.dgn User: dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



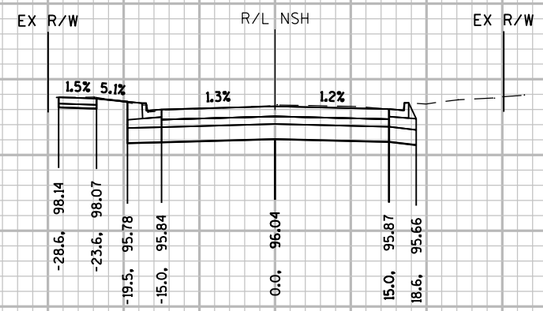
9

9

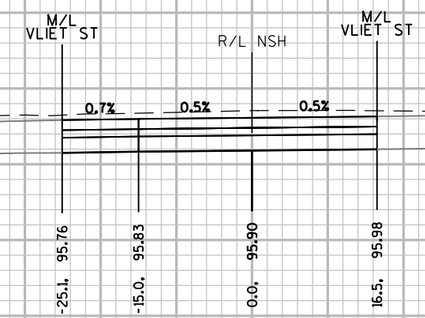
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 18TH STREET	SHEET 484	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod 12/29/2018 08:04:07 AM by: dbaumann PLOT NAME : PLOT SCALE : 20:1

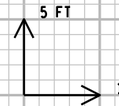
WISDOT/CADDS SHEET 21



10NSH+40



10NSH+16
STA AHEAD

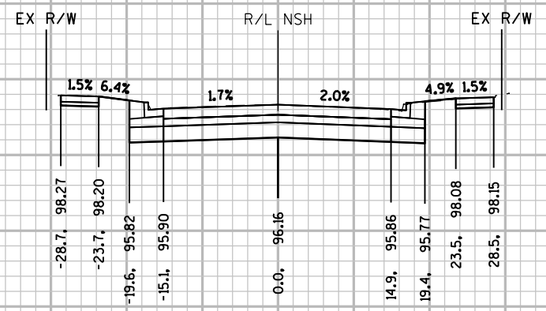


STA 10NSH+16 TO 10NSH+40

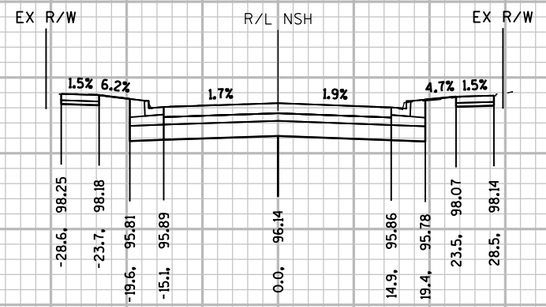
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 18TH STREET	SHEET 485	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\20181204_D70202_xs2NSH.dgn PLOT DATE : 12/29/2018 PLOTTED BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



10NSH+52
STA BACK

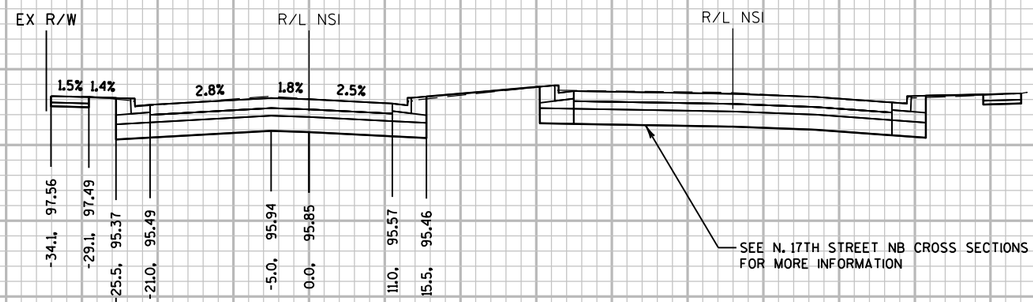


10NSH+50

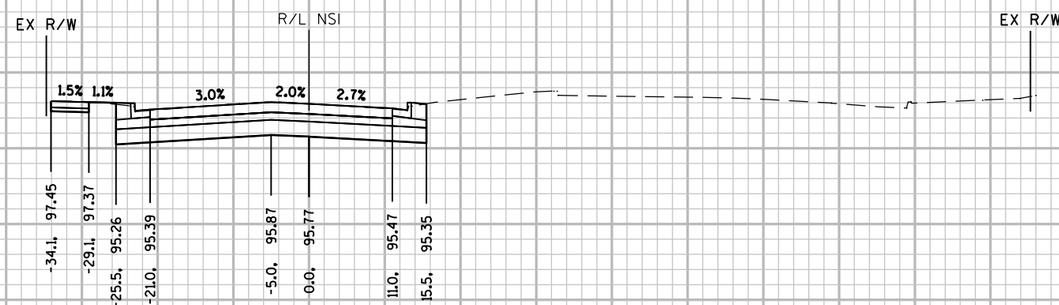
5 FT
10 FT

STA 10NSH+50 TO 10NSH+52

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 18TH STREET	SHEET 486	E



9NSI+30



9NSI+25
STA AHEAD

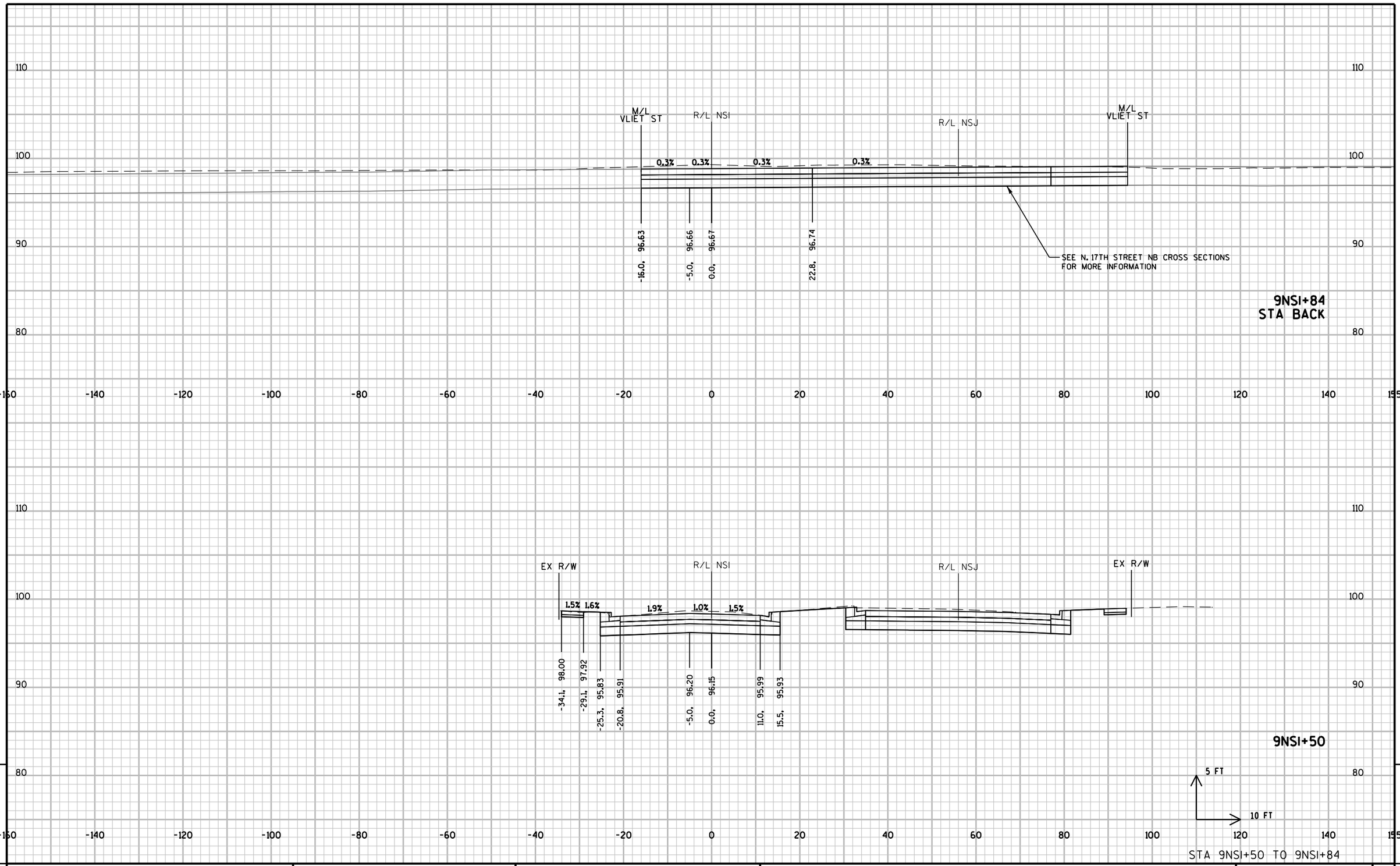
5 FT
10 FT

STA 9NSI+25 TO 9NSI+30

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 17TH STREET SB	SHEET 487	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Presentation\010202_xs2NSI.dgn PLOT DATE : 2/29/2018 8:24:01 AM User: dbaumann PLOT NAME : PLOT SCALE : 20:1

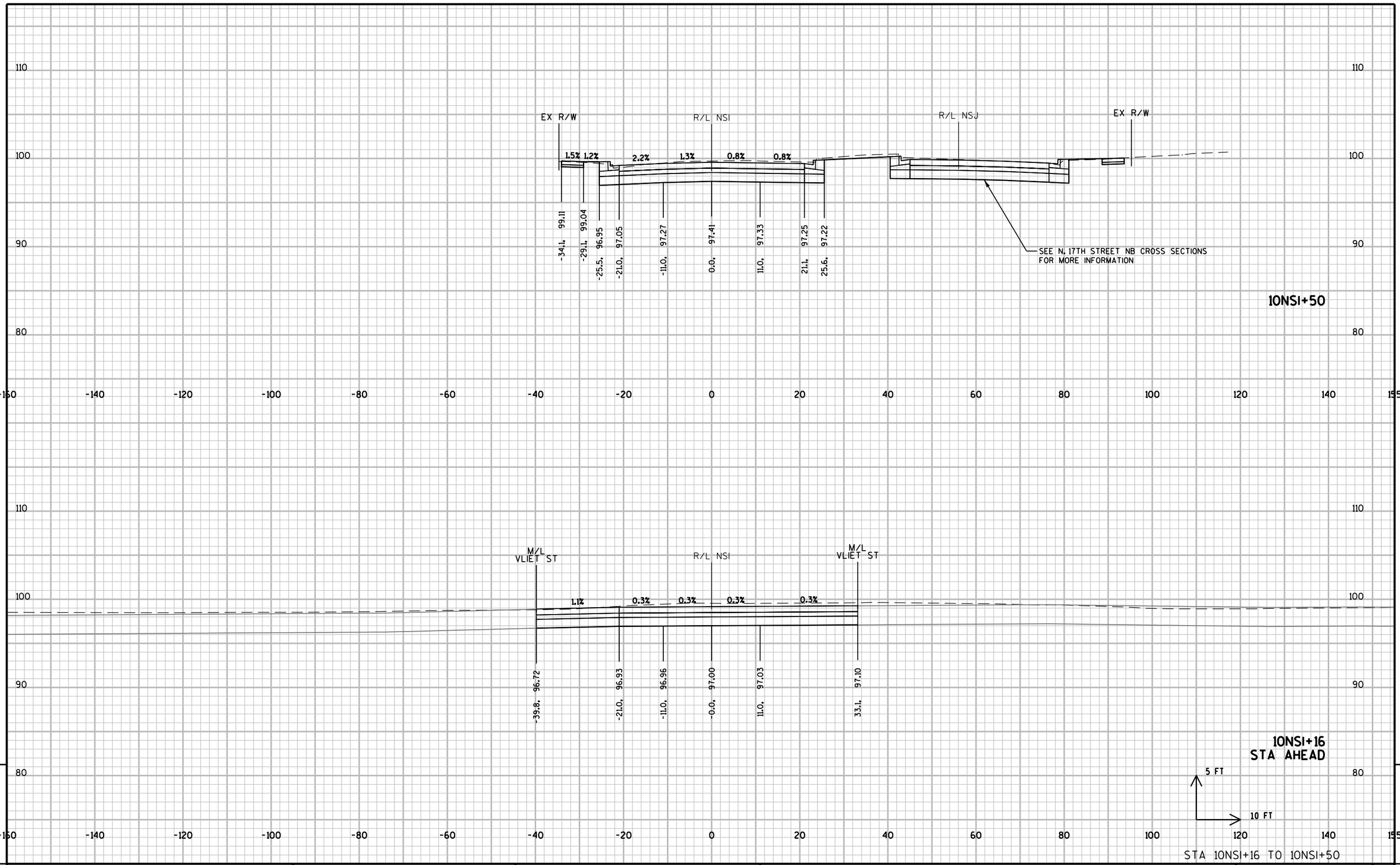
WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 17TH STREET SB	SHEET 488	E



STA 10NSI+16 TO 10NSI+50

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 17TH STREET SB	SHEET 489	E

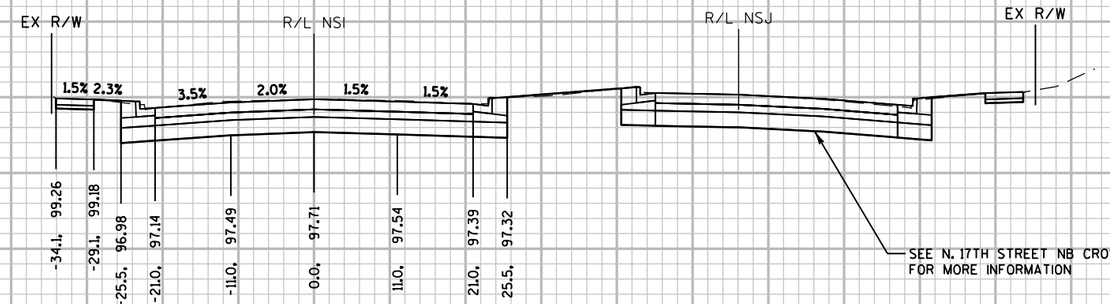
9

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\20181204\020402_xs2NSI.dgn

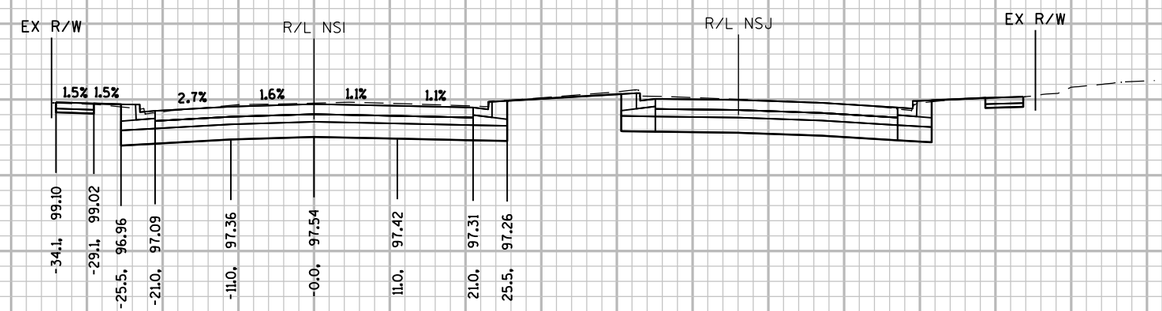
PLOT NAME :

PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



10NSI+74
STA BACK



10NSI+60

5 FT
10 FT

STA 10NSI+60 TO 10NSI+74

110 100 90 80

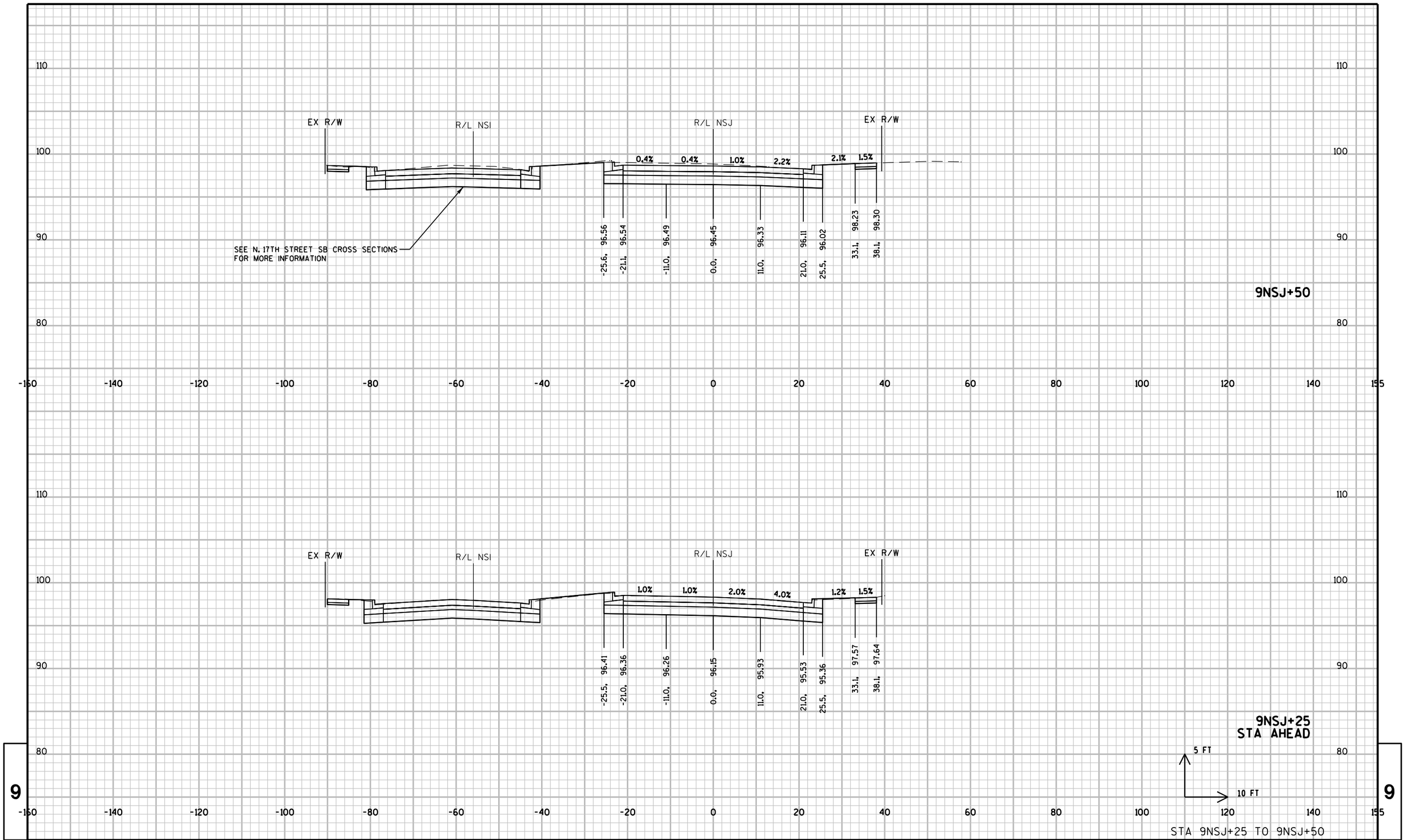
-160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140 155

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 17TH STREET SB	SHEET 490	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Presentation\20181204\020402_xs2NSI.dgn PLOT DATE : 20181204 PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

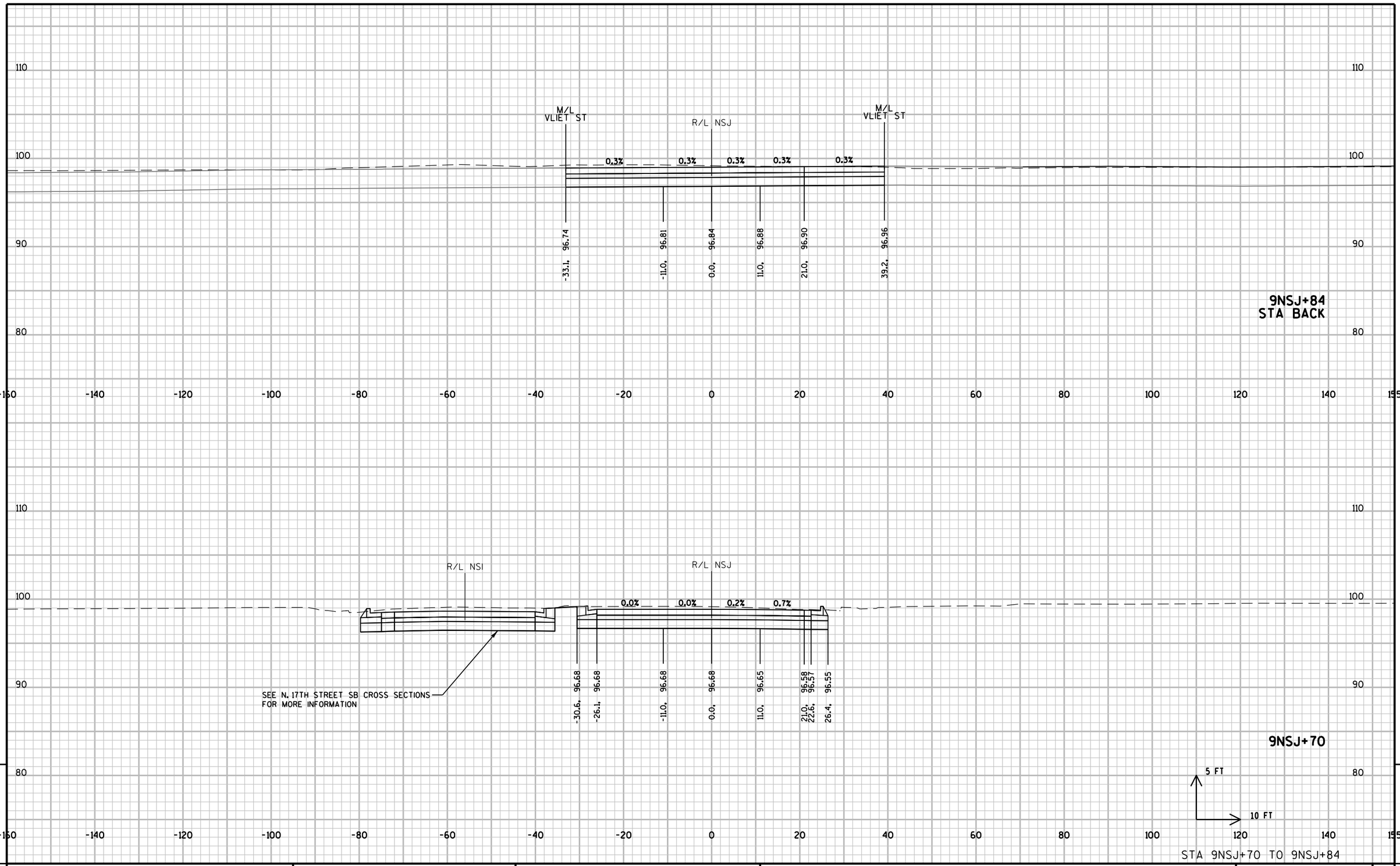


9

STA 9NSJ+25 TO 9NSJ+50

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 17TH STREET NB	SHEET 491	E

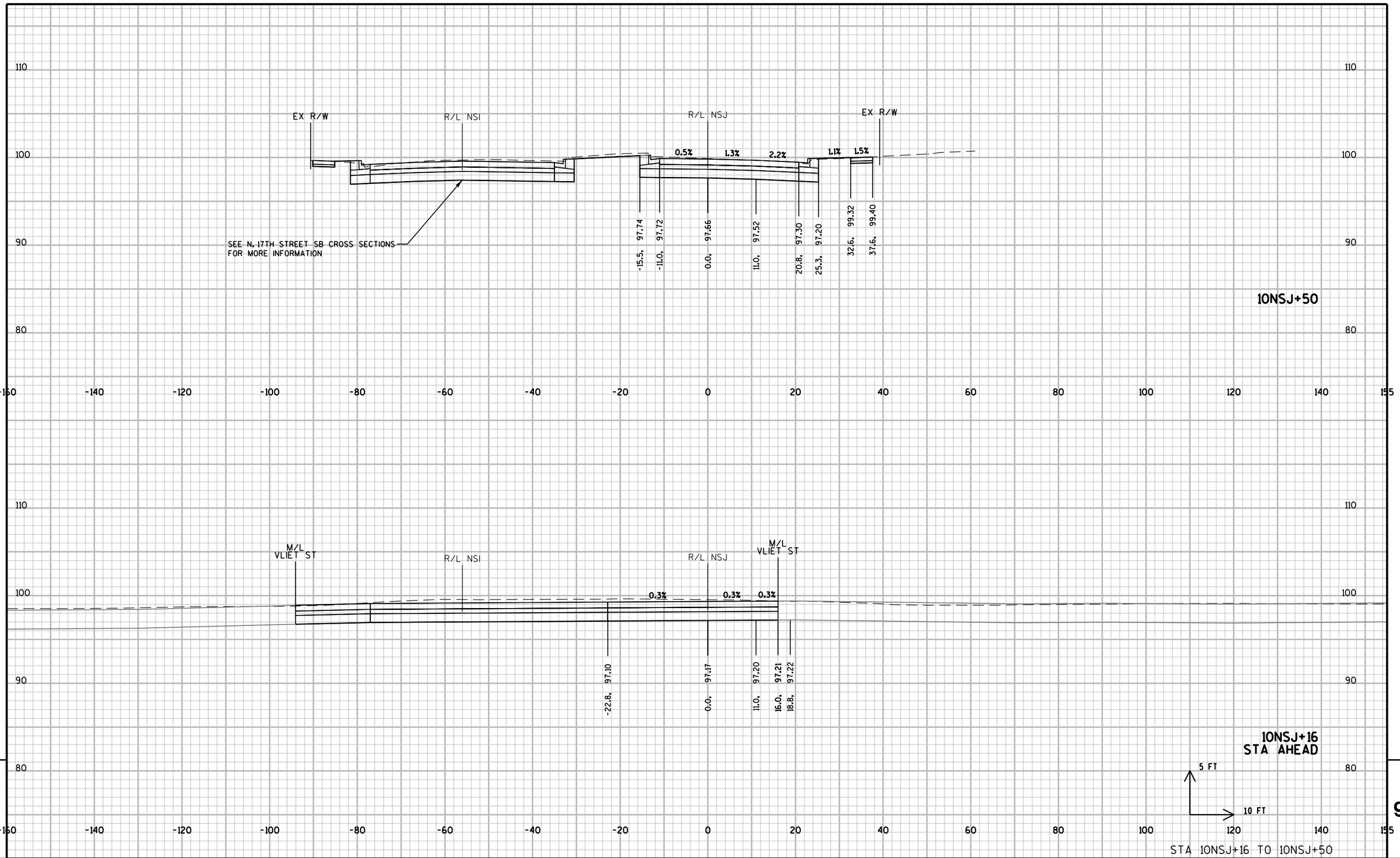


9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 17TH STREET NB	SHEET 492	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prep\20181204\690202_xs2NSJ.dgn PLOT DATE : 20181205 PLOT BY : dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

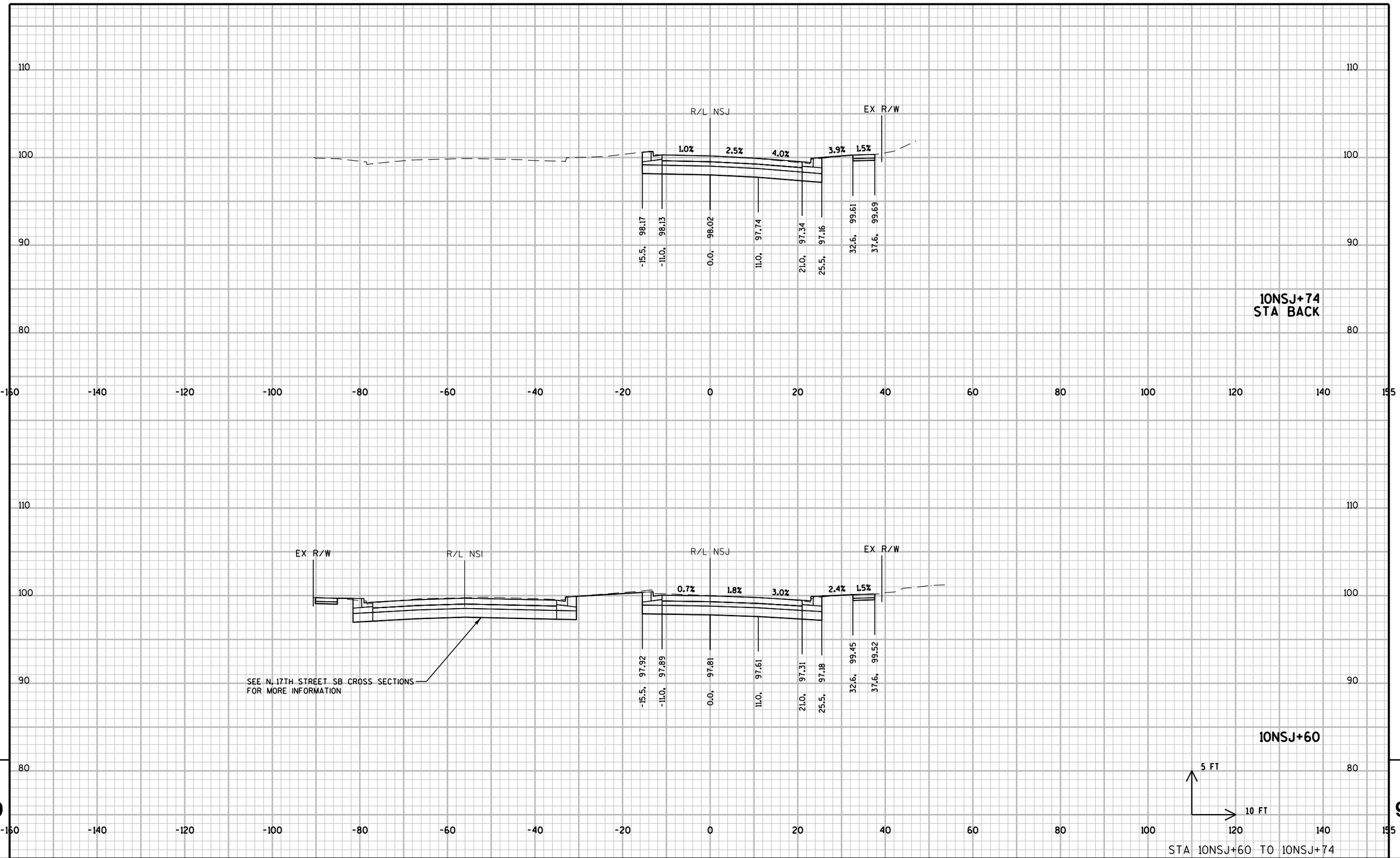


STA 10NSJ+16 TO 10NSJ+50

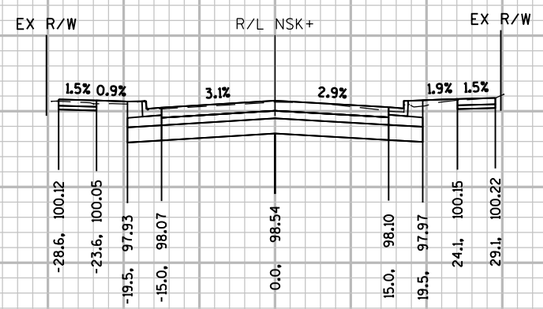
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 17TH STREET NB	SHEET 493	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\20190218_xs2NSJ.dgn PLOT DATE : 20190218 PLOT BY: dbaumann PLOT NAME : PLOT SCALE : 20:1

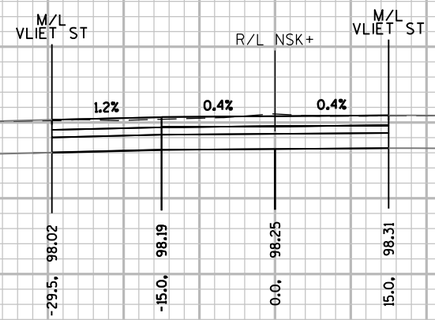
WISDOT/CADDS SHEET 21



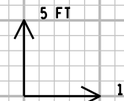
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 17TH STREET NB	SHEET 494	E



10NSK+40



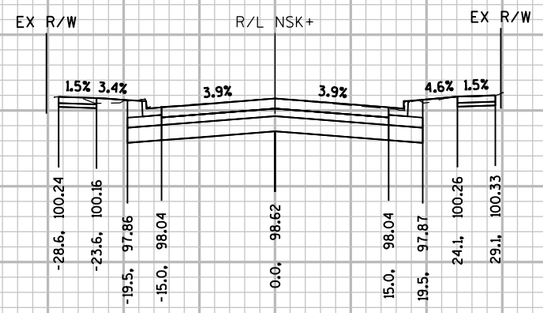
10NSK+16
STA AHEAD

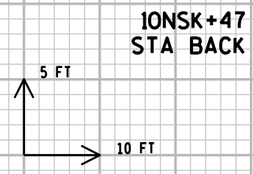


STA 10NSK+16 TO 10NSK+40

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 15TH STREET	SHEET 495	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Proposed\10NSK_xs2NSK.dgn PLOT NAME : PLOT SCALE : 20:1 WISDOT/CADDS SHEET 21





STA 10NSK+47 TO 10NSK+47

9

9

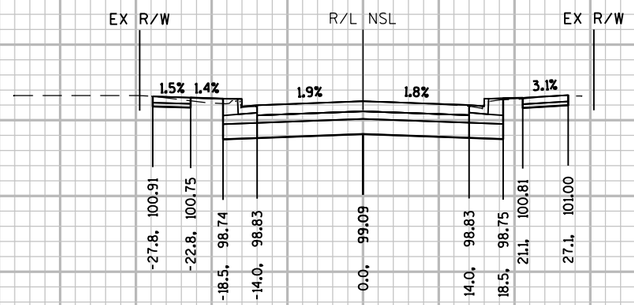
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 15TH STREET	SHEET 496	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Package 2018.04.09\0902_xs2NSK.dgn

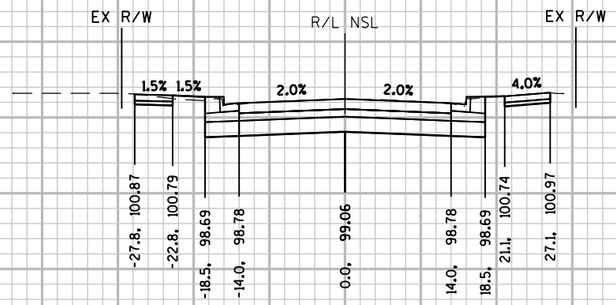
PLOT NAME :

PLOT SCALE : 20:1

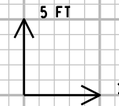
WISDOT/CADDS SHEET 21



9NSL+50



9NSL+47
STA AHEAD



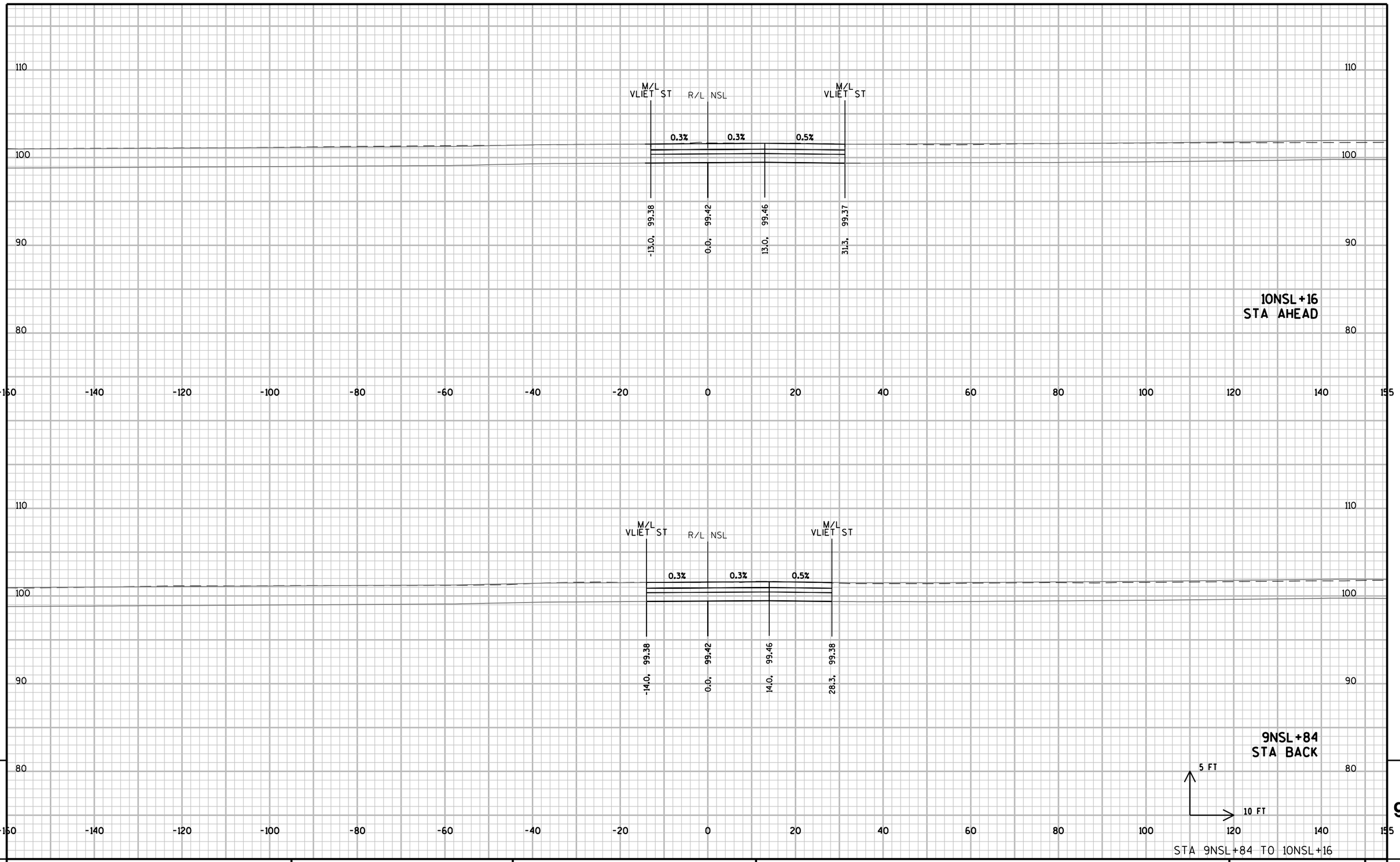
STA 9NSL+47 TO 9NSL+50

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 14TH STREET	SHEET 497	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Printed: Jan 29, 2018 - 08:59:02 xsENGL.dgn: dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



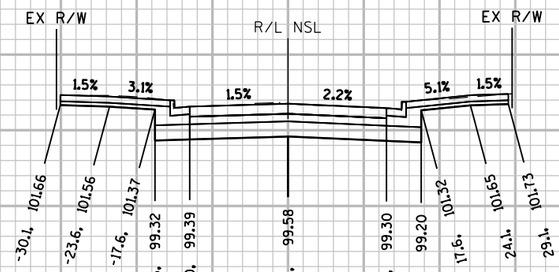
9

9

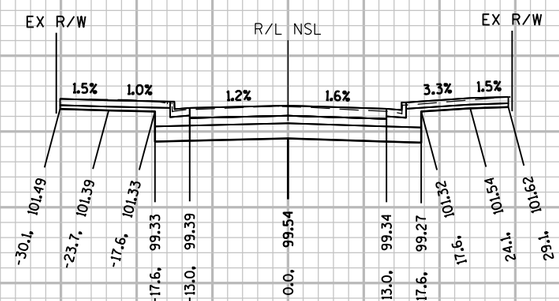
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 14TH STREET	SHEET 498	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Presentation\59080202_xs2NSL.dgn PLOT DATE : 29 JAN 2018 08:55:00 User: dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



10NSL+48
STA BACK



10NSL+40

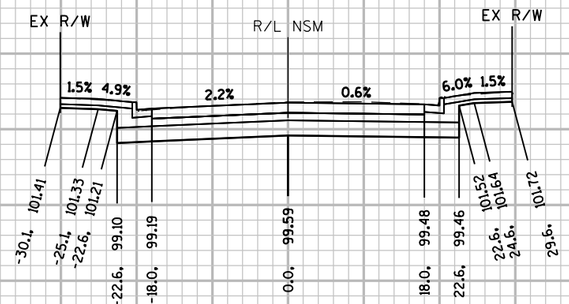
5 FT
10 FT

STA 10NSL+40 TO 10NSL+48

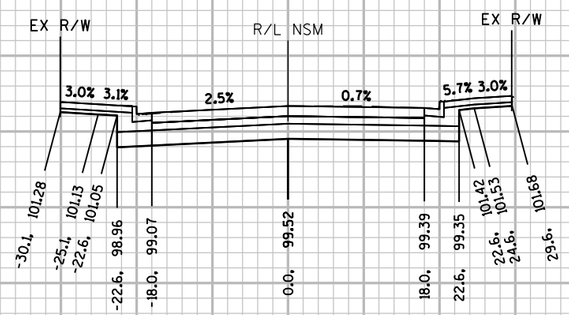
PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 14TH STREET	SHEET 499	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Plan Data Prepared 12/29/2018 08:56:59 AM by: dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9NSM+40



9NSM+32
STA AHEAD

5 FT
10 FT

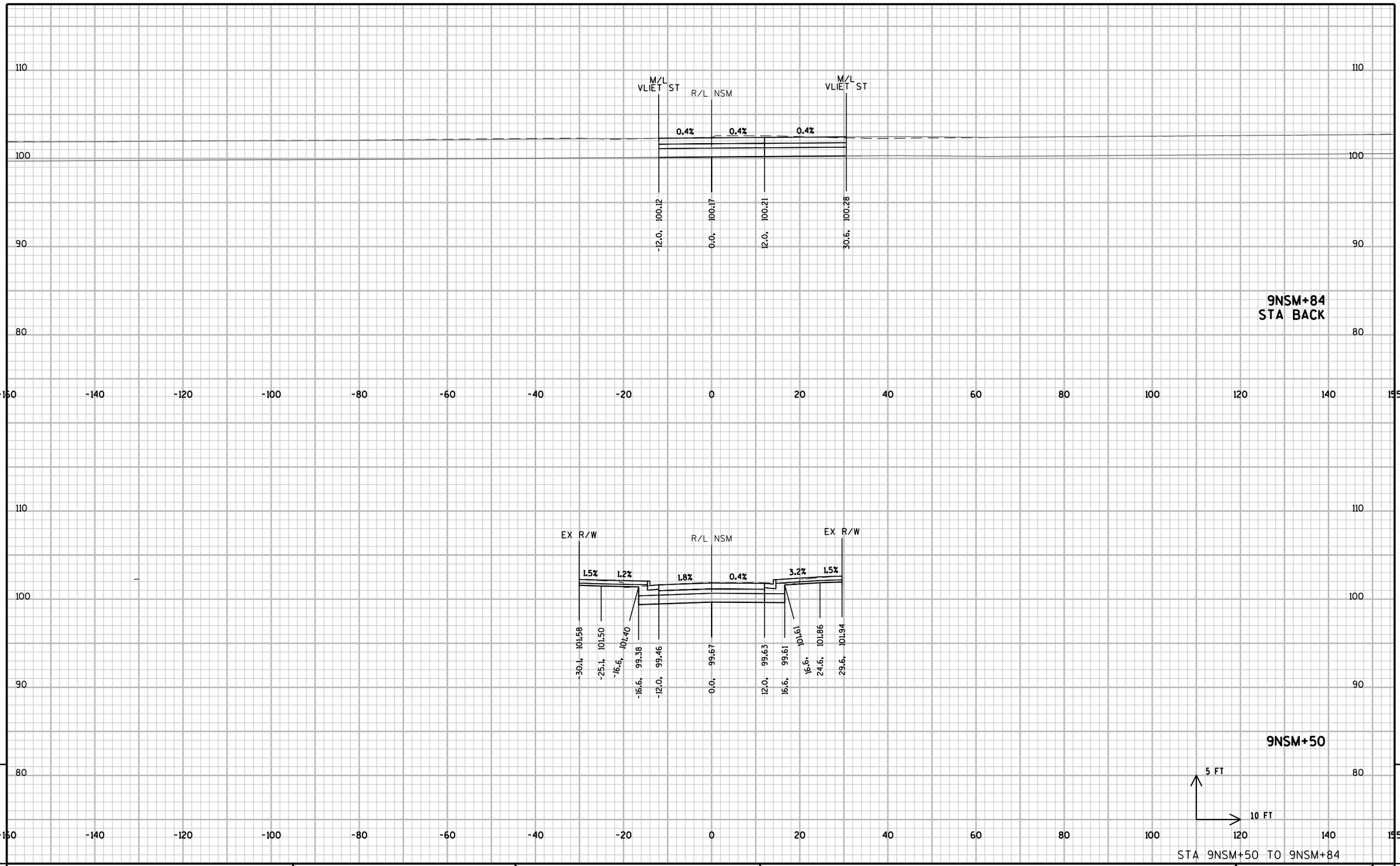
STA 9NSM+32 TO 9NSM+40

9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 13TH STREET	SHEET 500	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Proj_20180813_xs2NSM.dgn User: dbaumann PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

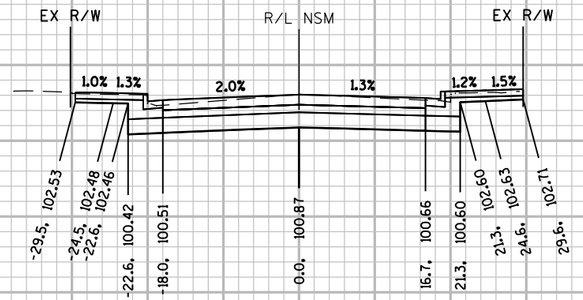


9

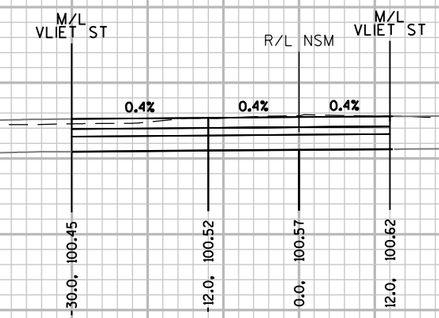
9

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 13TH STREET	SHEET 501	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Proj_20181205_09002_xs2NSM.dgn PLOT NAME : PLOT SCALE : 20:1 WISDOT/CADDS SHEET 21



10NSM+50



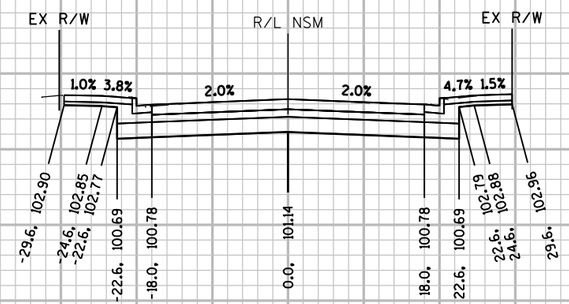
10NSM+16
STA AHEAD

5 FT
10 FT

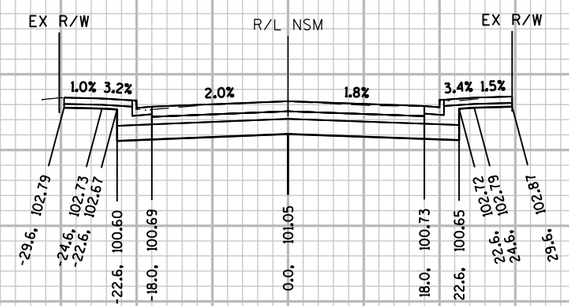
STA 10NSM+16 TO 10NSM+50

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 13TH STREET	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Proj_20181205_09020_xs2NSM.dgn PLOT NAME : PLOT SCALE : 20:1 WISDOT/CADDS SHEET 21



10NSM+65
STA BACK



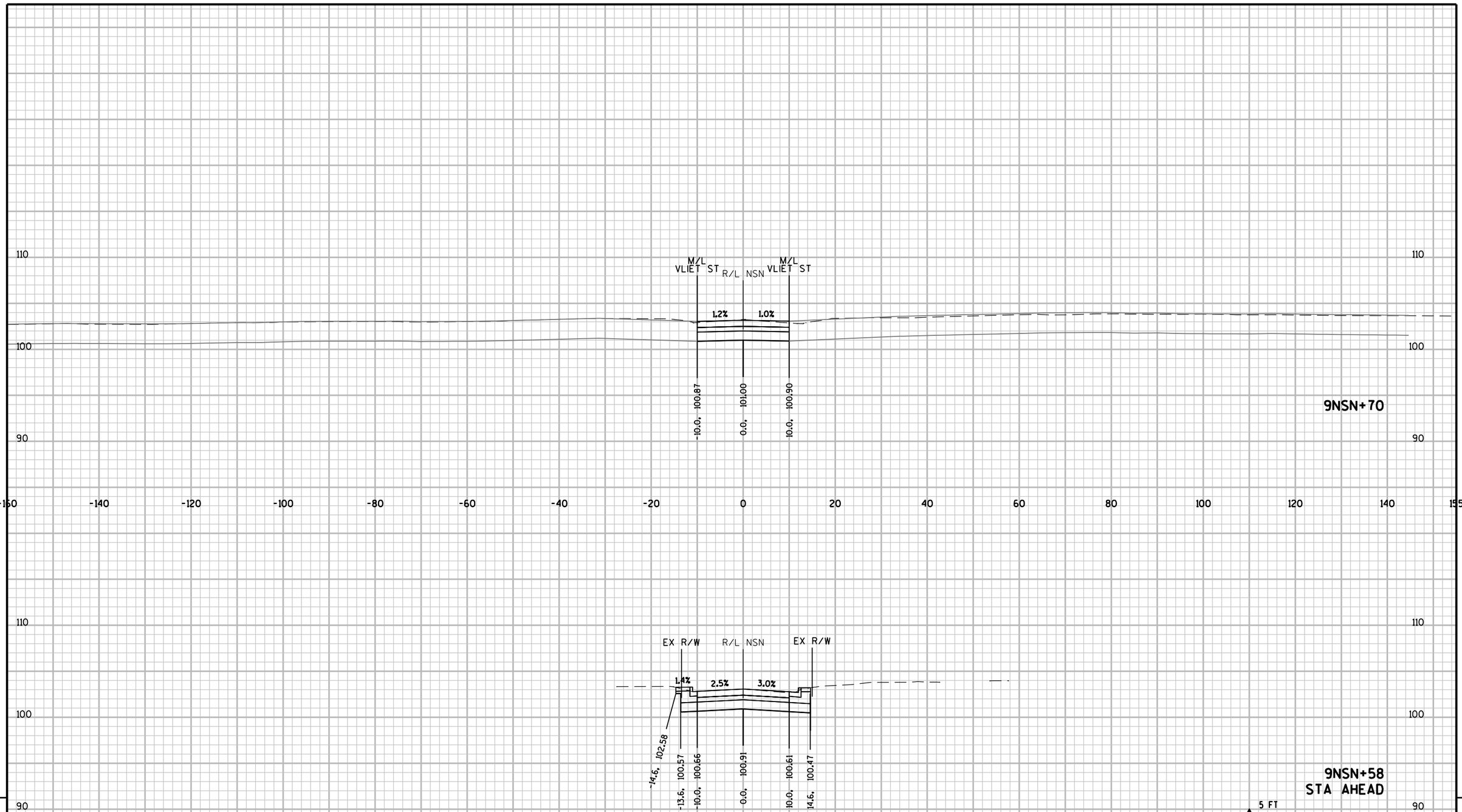
10NSM+60

5 FT
10 FT

STA 10NSM+60 TO 10NSM+65

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 13TH STREET	SHEET	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Preliminary\20181025_0902_xs2NSM.dgn PLOT NAME : PLOT SCALE : 20:1 WISDOT/CADDS SHEET 21

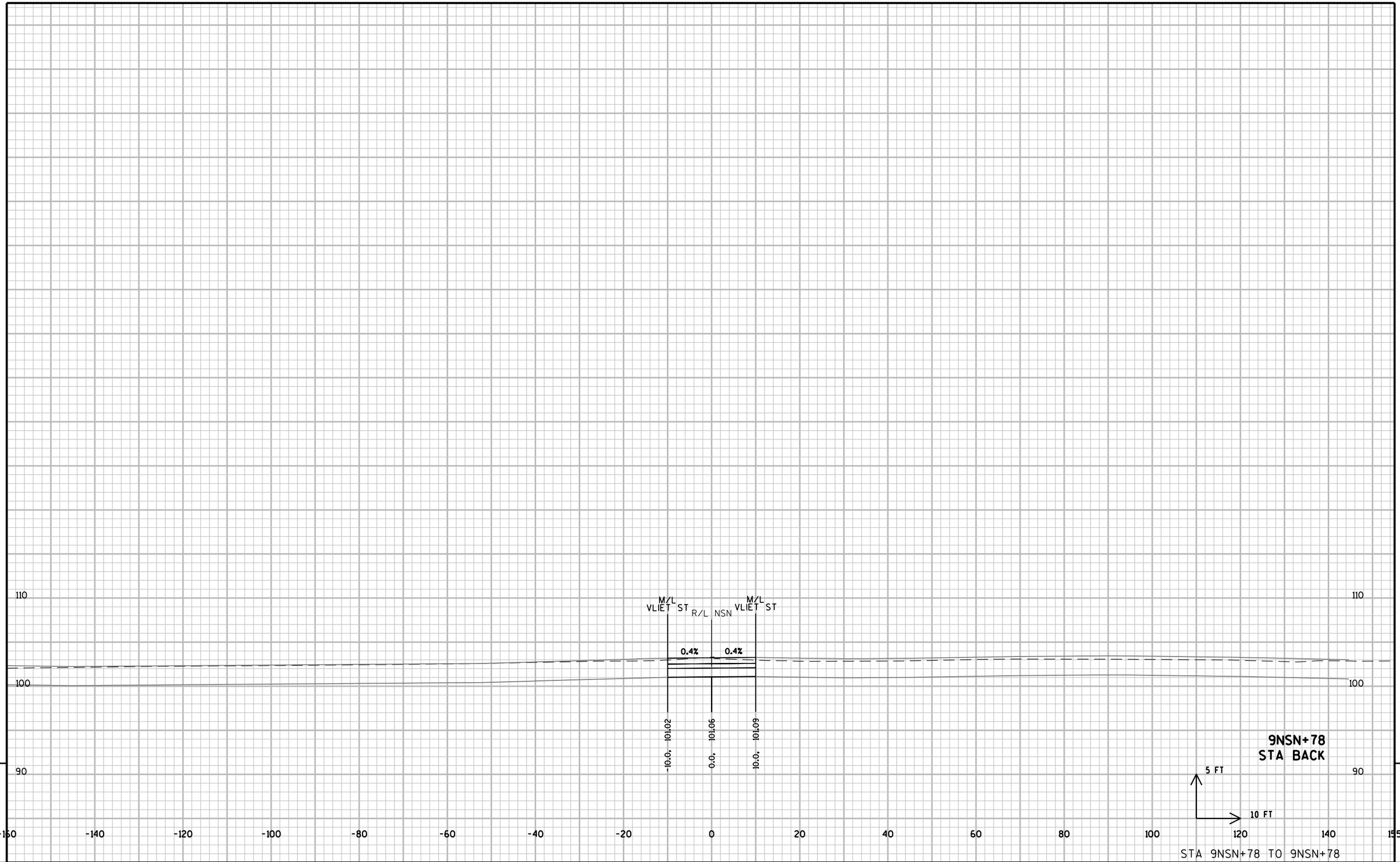


STA 9NSN+58 TO 9NSN+70

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 12TH LANE	SHEET 504	E

9

9



STA 9NSN+78 TO 9NSN+78

PROJECT NO: 2984-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CROSS SECTIONS: N. 12TH LANE	SHEET 505	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\63342 W.Vliet St. Reconstruction Project\Project Design\Roadway\E Prod\x_20181205040202_xs2NSN.dgn PLOT NAME : PLOT SCALE : 20:1 WISDOT/CADDS SHEET 21

Wisconsin Department of Transportation

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