WKE JULY 2013

PROJECT ID 2265-09-70 / 2265-17-70

WITH: N/A

COUNTY MILWAUKEE

ORDER OF SHEETS

SECTION NO.	1	TITLE
SECTION NO.	2	TYPICAL SECTIONS AND DETAILS
SECTION NO.	3	ESTIMATE OF QUANTITIES
SECTION NO.	3	MISCELLANEOUS QUANTITIES
~~SECTION NO.~~	~~4~~	~~RIGHT OF WAY PLAT~~
SECTION NO.	5	PLAN AND PROFILE
SECTION NO.	6	STANDARD DETAIL DRAWINGS
SECTION NO.	7	SIGN PLATES
~~SECTION NO.~~	~~8~~	~~STRUCTURE PLANS~~
SECTION NO.	9	COMPUTER EARTHWORK DATA
~~SECTION NO.~~	~~9~~	~~CROSS SECTIONS~~

TOTAL: 234



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

NORTH 27TH STREET NORTH 27TH STREET STREETSCAPE

CITY OF MILWAUKEE

WEST ST. PAUL AVENUE TO
WEST HIGHLAND BOULEVARD
STH 57
MILWAUKEE COUNTY

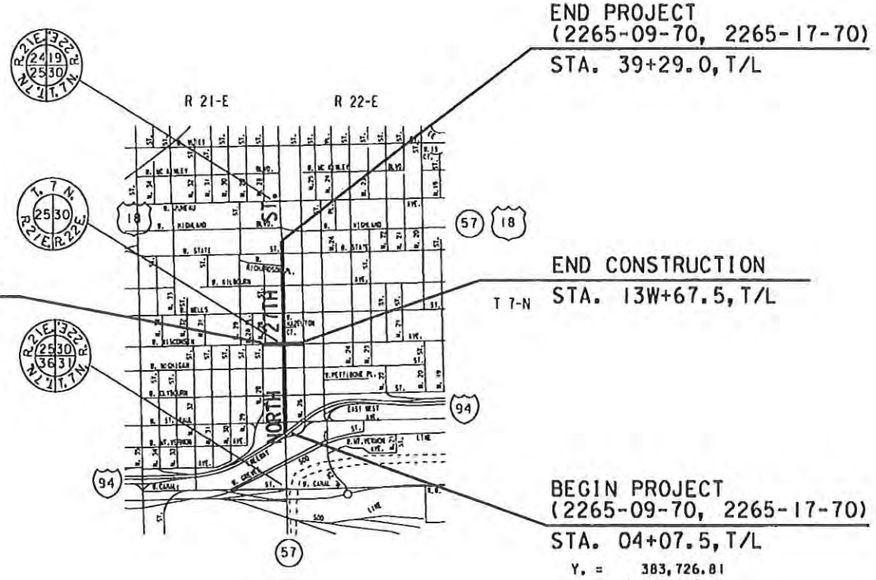
STATE PROJECT NUMBER
2265-09-70

WEST ST. PAUL AVENUE TO
WEST HIGHLAND BOULEVARD
STH 57
MILWAUKEE COUNTY

STATE PROJECT NUMBER
2265-17-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2265-09-70	WISC 2013268	1
2265-17-70	WISC 2013269	1

N



END PROJECT
(2265-09-70, 2265-17-70)
STA. 39+29.0, T/L

END CONSTRUCTION
STA. 13W+67.5, T/L

BEGIN CONSTRUCTION
STA. 06W+80.5, T/L

BEGIN PROJECT
(2265-09-70, 2265-17-70)
STA. 04+07.5, T/L
Y. = 383,726.81
X. = 2,548,668.78

DESIGN DESIGNATION

A.O.T. (CURRENT)	=	19,200
A.O.T. (2032)	=	22,100
D.H.V.	=	1,900
D.	=	63%
T.	=	6.1%
DESIGN SPEED	=	35 M.P.H.
ESALS	=	3,423,700

CONVENTIONAL SYMBOLS

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
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

LAYOUT
SCALE 1/2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.667 MI (N. 27TH ST.) (URBAN)
0.130 MI (W. WISCONSIN AVE.)(URBAN)

THE COORDINATES ON THIS PLAN ARE BASED ON THE WISCONSIN STATE PLANE COORDINATE SYSTEM, MILWAUKEE COUNTY, NAO 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 GEODEOIC VERTICAL DATUM OF 1929, ADD 580.603 TO ELEVATIONS SHOWN ON THIS PLAN.

Accepted For
City of Milwaukee

1/31/13 Gheesan Khan
(Date) Commissioner of Public Works

Original Plans Prepared By

WISCONSIN PROFESSIONAL ENGINEER
JEFFREY S. POLENSKE
E-55...18
MILWAUKEE
WIS.

1/31/13
(Date) City Engineer

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	City of Milwaukee
Designer	City of Milwaukee
Project Manager	Mohammed Hossain
Region Examiner	
Region Supervisor	
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 1/31/2013 M Hossain
(Signature)

E

FILE NAME: W:\SPR\N_ST PAUL_HIGH\TITLE.DGN

PLOT DATE:

GENERAL NOTES

1. ALL OPENINGS BELOW SUBGRADE, RESULTING FROM REMOVALS OR ABANDONMENTS, SHALL BE BACKFILLED WITH GRANULAR MATERIAL TO SUBGRADE ELEVATION.

2. ALL DISTURBED AREAS, NOT SURFACED, ARE TO BE COVERED WITH 4"OF TOPSOIL, SODDED AND FERTILIZED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. TOPSOILED AREAS SHALL BE SODDED AND FERTILIZED WITHIN 5 CALENDAR DAYS.

3. WHEN THE QUANTITY OF ITEMS OF BASE & / OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLAN IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIALS AS DIRECTED BY THE ENGINEER.

4. NO TREES OR SHRUBS SHALL BE REMOVED UNLESS DESIGNATED FOR REMOVAL BY THE ENGINEER.

5. ALL ELEVATIONS ARE REFERENCED TO CITY OF MILWAUKEE DATUM.

6. ALL CURB AND GUTTER IS LOW SIDE UNLESS OTHERWISE INDICATED ON THE PLAN.

7. TRANSVERSE JOINTS IN THE CONCRETE WALK SHALL BE CONSTRUCTED AT INTERVALS EQUAL TO THE WIDTH OF THE CONCRETE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

8. ALL LONGITUDINAL AND TRANSVERSE JOINTS REQUIRING SEALING SHALL BE SEALED IN ACCORDANCE WITH THE DETAIL.

9. "PAVEMENT TIES" AS SHOWN ON STANDARD DETAIL DRAWING "CONCRETE GUTTER,CURB AND GUTTER AND PAVEMENT TIES" ARE REQUIRED TO TIE EXISTING CONCRETE TO NEW CONCRETE CURB AND GUTTER.

10. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.

11. ALL COORDINATES SHOWN ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COORDINATE SYSTEM, SOUTH ZONE. THE CONTROL SURVEY FOR THIS IMPROVEMENT PROJECT WAS CONDUCTED UNDER AND MET SPECIFICATIONS FOR THIRD ORDER CONTROL SURVEYS.

12. REPLACE ALL CONCRETE CURB AND GUTTER INDICATED FOR REMOVAL AND REPLACEMENT IN EXISTING LOCATION UNLESS OTHERWISE NOTED ON PLAN.

13. CONSTRUCTION PERMITS FOR CONCRETE WALK &/ OR CONCRETE DRIVEWAY WORK HAVE BEEN OBTAINED, WHICH RIGHTS SHALL BE EXTENDED TO THE CONTRACTORS.

14. INLET SCREENS ARE TO BE PLACED BETWEEN THE FRAME AND GRATE OF CATCH BASINS / INLETS TO PREVENT SOIL FROM ENTERING THE SEWERS.

15. ALL CURB AND GUTTER SHOULD HAVE A FLANGE THICKNESS OF 9 INCHES.

16. CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER AND SEWRPC AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

STANDARD ABBREVIATIONS

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

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PLAN OVERVIEW
TYPICAL SECTIONS
ALIGNMENT PLAN
CONSTRUCTION DETAILS
LANDMARK REFERENCE PLANS
DRAINAGE DETAILS
UTILITIES & DRAINAGE PLANS
PAVEMENT MARKING
TRAFFIC CONTROL

2

UTILITIES WITHIN PROJECT LIMITS

CITY OF MILWAUKEE
841 N. BROADWAY, RM 710 MILW.,WI 53202
TONY KOTECKI TEL. (414) 286-2433
UTILITY COORDINATOR

WE ENERGIES (GAS)
5400 N. GREEN BAY AVE., MILW., WI 53209
TOM MINESAL, TEL. 944-5755

WE ENERGIES (ELECTRIC)
KEN FRANECKI
500 S. 116TH ST.
WEST ALLIS, WI 53214
PHONE: 414-944-5531

AT&T WISCONSIN
7721 W. FOND DU LAC AVE. FL.1, MILW., WI 53218
CHARLES CONLEY, TEL. (608) 338-3015

MMSD
260 W. SEEBOTH ST., MILW., WI 53204
ROBERT REBITSKI, TEL. (414) 225-2214

AMERICAN TRANSMISSION COMPANY
RON LATUS
W234 N2000 RIDGEVIEW PARKWAY CT.
WAUKESHA, WI 53188
TEL. (262) 364-9048

TIME WARNER CABLE

CHRISTOPHER CROSBY
1320 N. DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212
PHONE: 414-908-4890

TDS METROCOM

MICHAEL JOHNSON
PHONE: 262-754-3052

AT&T LEGACY
WILLIAM KOENIG
TEL. (608) 628-0575

AT&T MI-TECH
LORI WITTHUHN
TEL. (920) 288-8935

OTHER CONTACTS

MILW. CO. TRANSIT SYSTEM
1942 N. 17TH ST., MILW., WI 53205
DAVE ZIAREK, TEL. (414) 343-1764

STATE OF WISCONSIN DEPT. OF NATURAL RESOURCES
2300 N. DR. MARTIN LUTHER KING JR. DR.
MILW., WI 53212
KRISTINA BETZOLD,
TEL. (414) 263-8517
Kristina.Betzold@Wisconsin.gov

DESIGN CONSULTANT
CITY OF MILWAUKEE
841 N. BROADWAY, RM 902 MILW.,WI 53202
SAMUEL MEDHIN
TEL. (414) 286-0474
samuelmedhin@milwaukee.gov

STATE OF WISCONSIN DEPT. OF TRANSPORTATION

141 NW BARSTOW ST. WAUKESHA, WI 53188
MOHAMMAD HOSSAIN, PROJECT MANAGER
TEL. (262) 548-8783

SEWRPC

W239 N1812 ROCKWOOD DR.
KURT BAUER/ DONALD SIMON
P.O. BOX 1607 WAUKESHA, WI 53187-1607
TEL. (262) 547-6721, FAX (262) 547-1103

DIGGERS HOTLINE

Call 811 3 Work Days Before You Dig
Or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

2

CONSTRUCTION PERMIT LOCATIONS		
NUMBER	STATION	ADDRESS OF PROPERTY
1	6+55 TO 7+30, RT AND 8+12 TO 8+25, RT	418 N 27TH ST
2	6+35 TO 6+62, LT AND 7+00 TO 7+32, LT	405 N 27TH ST
3	8+28 TO 8+60, RT	2601 W CLYBOURN ST
4	9+25 TO 9+50, LT	431 N 27TH ST
5	9+48 TO 9+71, RT	2631-2639 W CLYBOURN ST
6	11+63 TO 11+84, LT	505 N 27TH ST
7	11+80 TO 12+10, RT	510 N 27TH ST
8	12+15 TO 12+40, LT	509-511 N 27TH ST
9	12+40 TO 13+08, LT AND 13+72 TO 13+90, LT	527 N 27TH ST
10	12+60 TO 12+85, RT	528 N 27TH ST
11	14+42 TO 14+98, RT	540 N 27TH ST
12	16+31 TO 16+50, LT AND 16+93 TO 17+17, LT	605 N 27TH ST
13	17+60 TO 18+27, LT	625 N 27TH ST
14	18+81 TO 19+07, LT	2701-2703 W WISCONSIN AVE
15	21+25 TO 22+25, RT	2630 W WISCONSIN AVE
16	22+30 TO 22+76, LT	2708 W WISCONSIN AVE
17	24+48 TO 24+80, RT	760 N 27TH ST
18	27+22 TO 27+63, RT	2632 W WELLS ST
19	28+54 TO 28+78, LT	801-831 N 27TH ST
20	28+78 TO 28+96, LT	839 N 27TH ST
21	29+41 TO 29+82, RT AND 30+06 TO 30+35, RT	848 N 27TH ST
22	29+50 TO 30+54, LT	853 N 27TH ST
23	31+50 TO 31+75, RT AND 32+40 TO 32+54, RT	914 N 27TH ST
24	32+45 TO 32+72, LT	901-917 N 27TH ST
25	32+90 TO 33+55, RT	930 N 27TH ST
26	07W+25 TO 07W+56, RT	2729-2731 W WISCONSIN AVE
27	10W+92 TO 11W+22, LT	2630 W WISCONSIN AVE
28	11W+82 TO 11W+91, LT	2616 W WISCONSIN AVE
29	10W+33 TO 13W+40, RT	2601 W WISCONSIN AVE

2

N

BEGIN CONSTRUCTION
STA. 06W+80.5

END PROJECT
2265-09-70 & 2265-17-70
STA. 39+29.0

BEGIN PROJECT
2265-09-70 & 2265-17-70
STA. 04+07.5

W. WISCONSIN AVE.

N. 29TH ST.

REF LINE

M 50

VACATED

W. RICHARDSON PL.

(USH 18)

N. 28TH ST.

I-94 FREEWAY

T/L N. 27TH ST.(STH 57)

05 10 15 20 25 30 35 40

M 10

RAMPS/ACCESS
TO/FROM I-94

W. ST. PAUL AVE.

W. CLYBOURN ST.

N. 26TH ST.

W. MICHIGAN ST.

W. HAZELTON CT.

W. WELLS ST.

W. KILBOURN AVE.

W. STATE ST.

W. HIGHLAND BLVD. (STH 57/ USH 18)

M 15

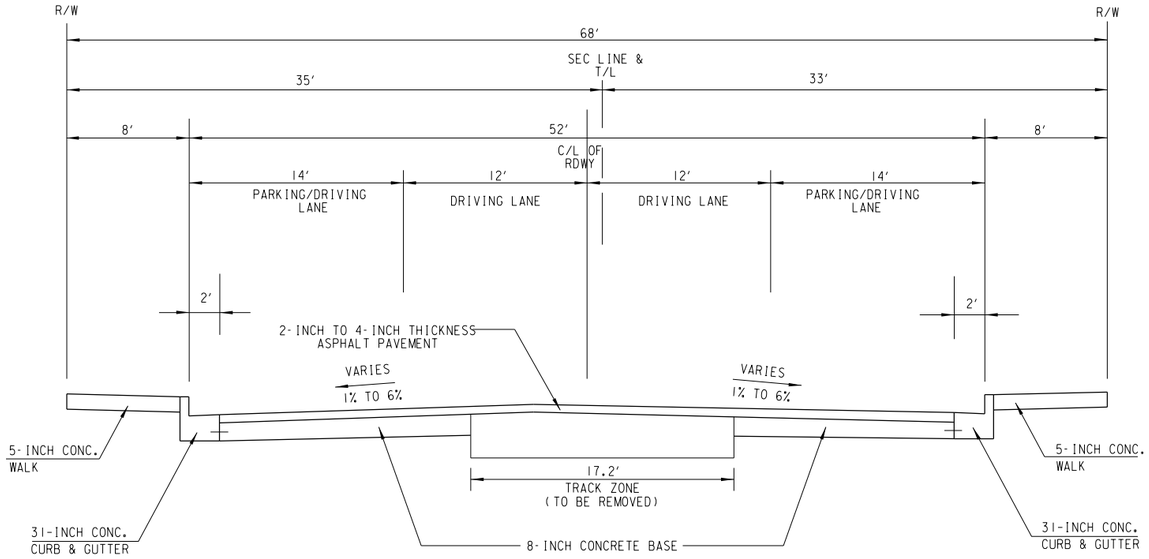
W. WISCONSIN AVE.

N. 25TH ST.

END CONSTRUCTION
STA. 13W+67.5

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: HWY 190	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0' 300'	SHEET NO: 5	E

FILE NAME: W:\SPR\27 N_STPAUL_HIGH\OVERVIEW27.DGN

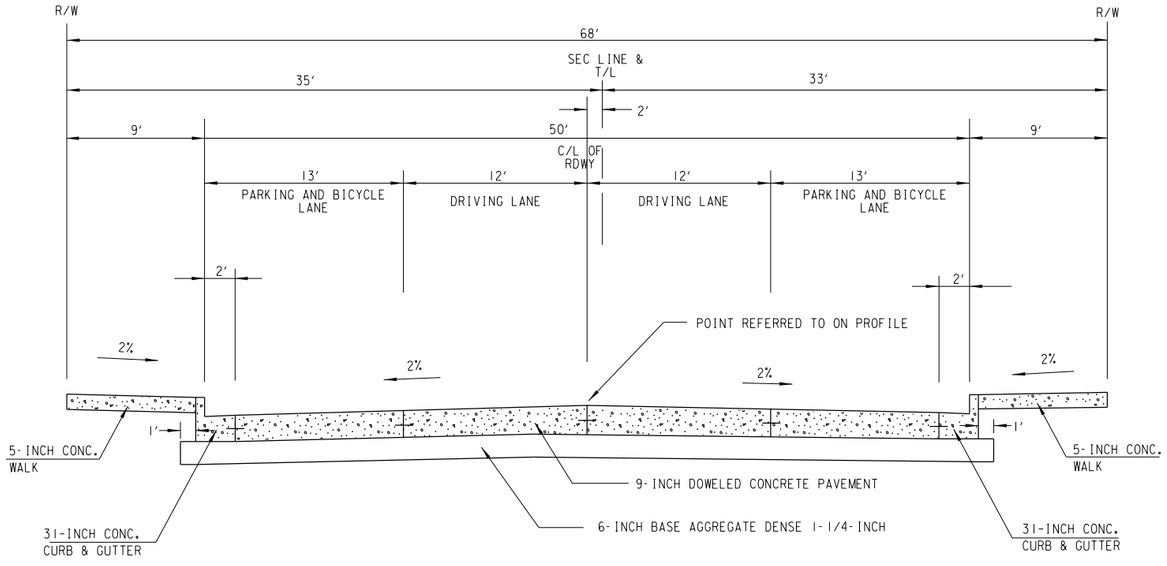


TYPICAL EXISTING SECTION

NORTH 27TH STREET

WEST ST. PAUL AVENUE TO WEST WISCONSIN AVENUE

STA. 04+07.5 TO STA. 20+00.0



TYPICAL FINISHED SECTION

NORTH 27TH STREET

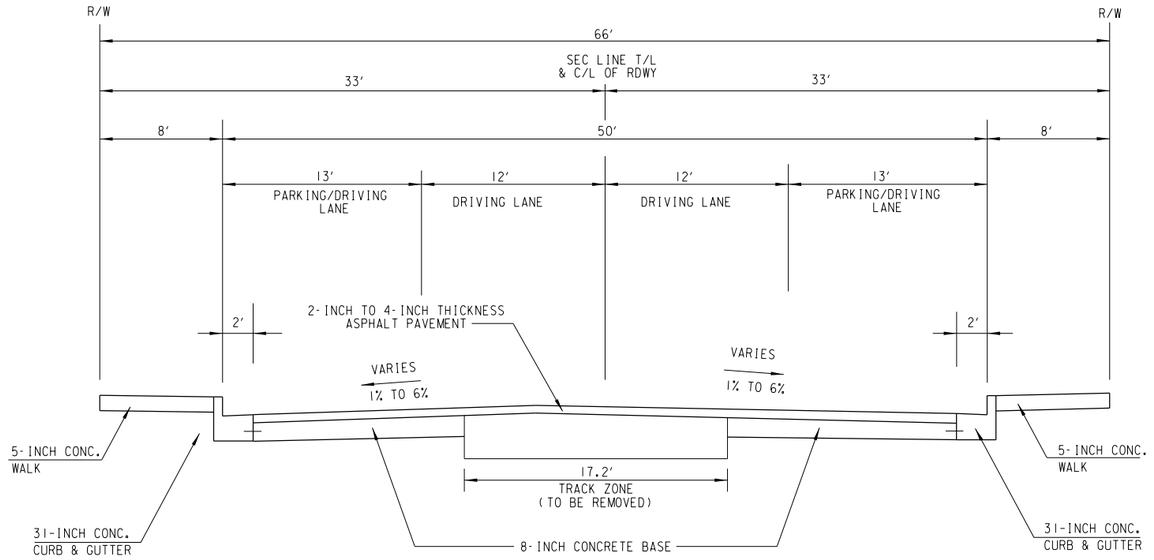
WEST ST. PAUL AVENUE TO WEST WISCONSIN AVENUE

STA. 04+07.5 TO STA. 20+00.0

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SCALE FEET	SHEET NO: 6	E

FILE NAME: W:\SPR\27 N_STPAUL_HIGH\TYPSEC\DGN

2

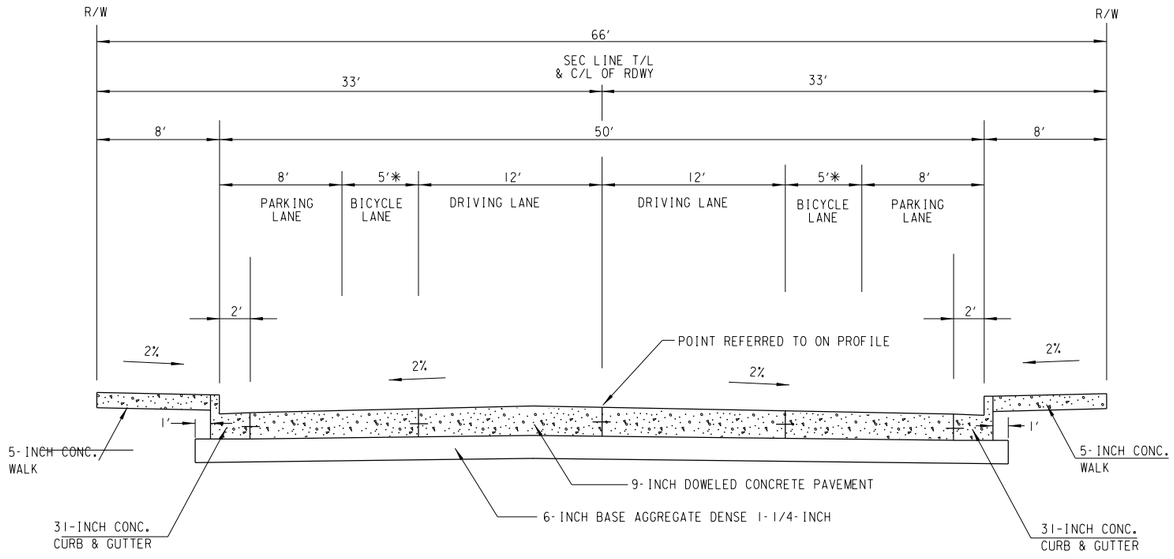


TYPICAL EXISTING SECTION

NORTH 27TH STREET

WEST WISCONSIN AVENUE TO WEST HIGHLAND BOULEVARD

STA. 20+00.0 TO STA. 39+29.0



TYPICAL FINISHED SECTION

NORTH 27TH STREET

WEST WISCONSIN AVENUE TO WEST HIGHLAND BOULEVARD

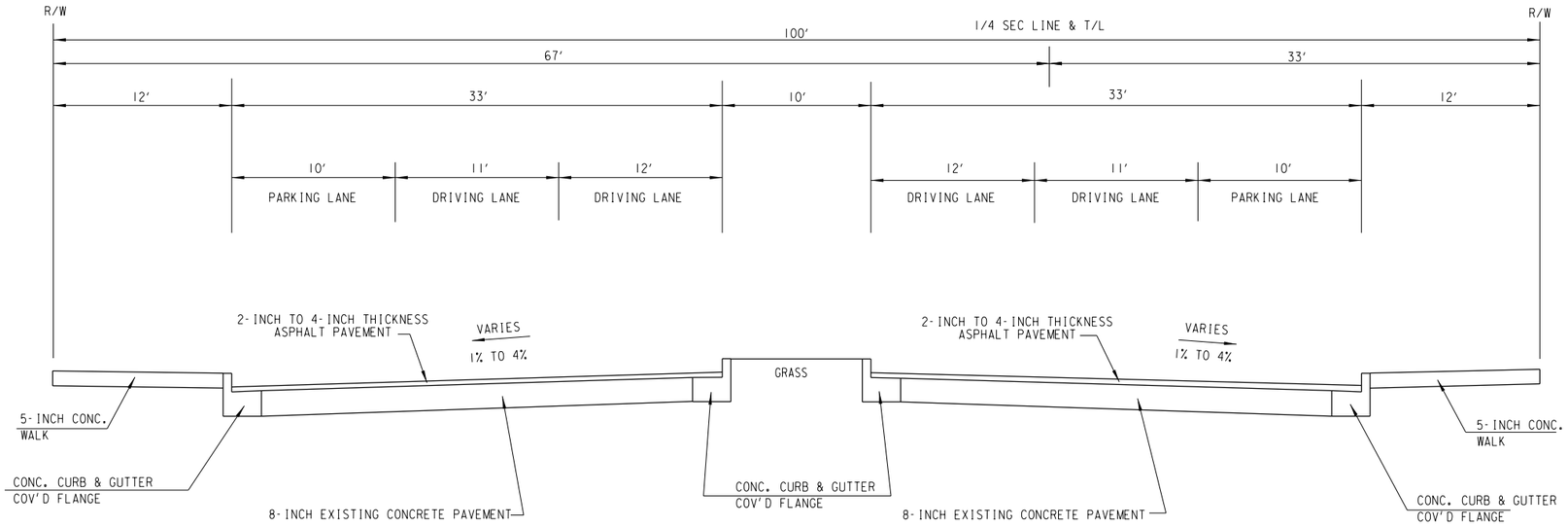
STA. 20+00.0 TO STA. 39+29.0

* BICYCLE LANE SHALL BE MARKED BETWEEN W. HAZELTON CT. & W. RICHARDSON PL.

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SCALE FEET	SHEET NO: 7	E

FILE NAME: W:\SPR\27 N_STPAUL_HIGH\TYPSEC.DGN

REVISED: 10/19/2012

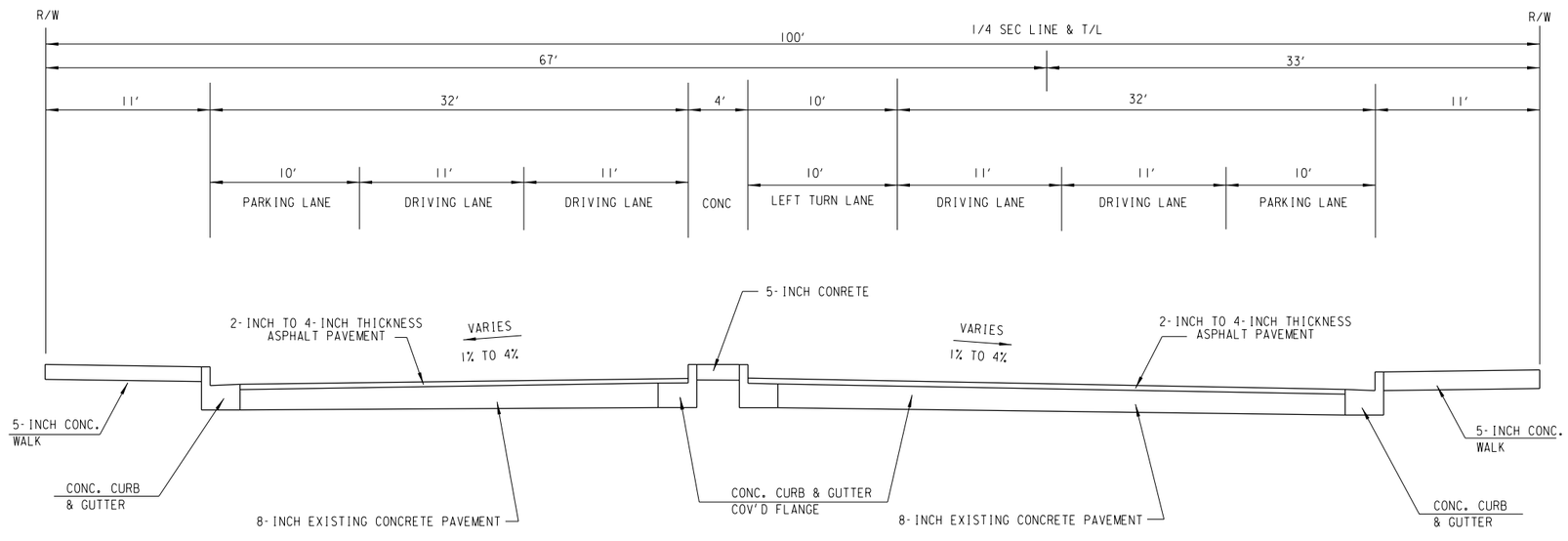


TYPICAL EXISTING SECTION

WEST WISCONSIN AVENUE

NORTH 27TH STREET TO NORTH 28TH STREET

STA. 06W+80.5 TO STA. 10W+00.0



TYPICAL EXISTING SECTION

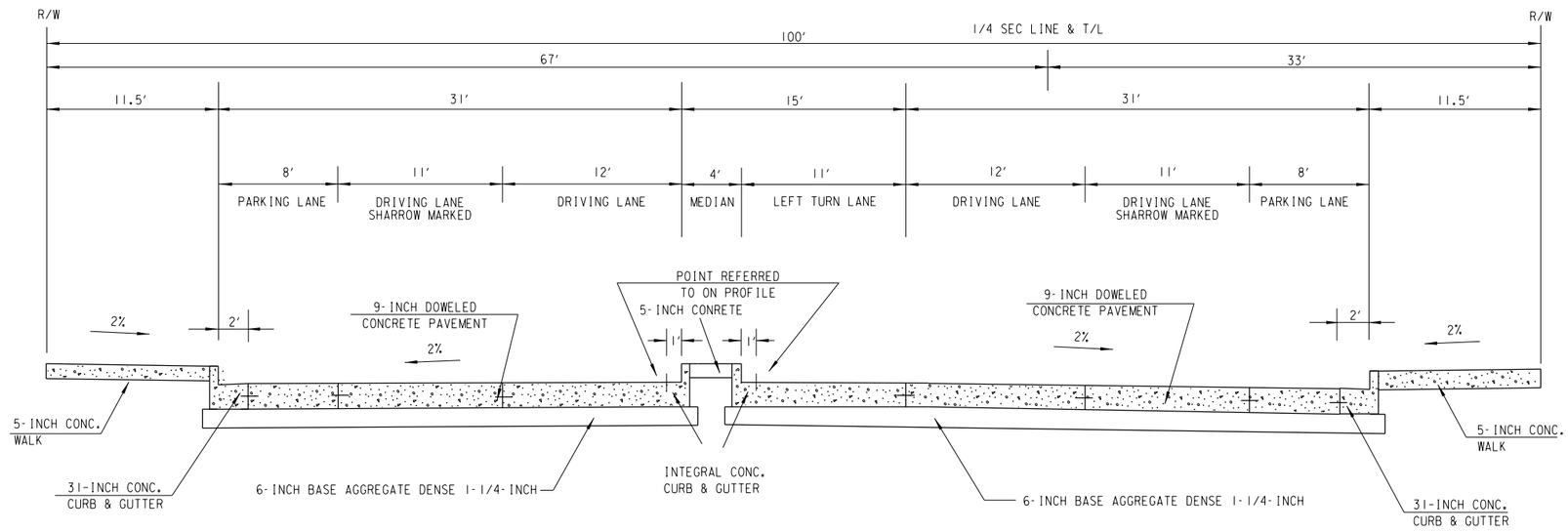
WEST WISCONSIN AVENUE

NORTH 26TH STREET TO NORTH 27TH STREET

STA. 10W+00.0 TO STA. 13W+67.5

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SCALE FEET	SHEET NO: 8	E

FILE NAME: W:\SPR\27 N STPAUL HIGH\TYPSEC.DGN



TYPICAL FINISHED SECTION

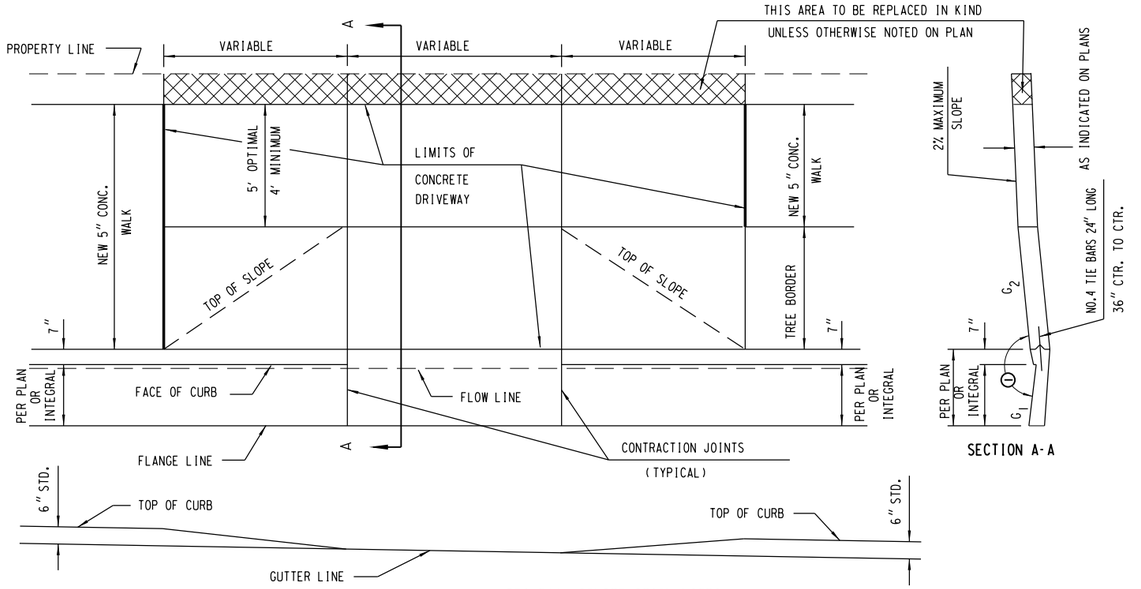
WEST WISCONSIN AVENUE

NORTH 26TH STREET TO NORTH 28TH STREET

STA. 06W+80.5 TO STA. 13W+67.5

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SCALE FEET	SHEET NO: 9	E

FILE NAME: W:\SPR\27 N STPAUL HIGH\TYPSEC.DGN



HEAVY LINE INDICATES 1/2" EXPANSION JOINT MATERIAL

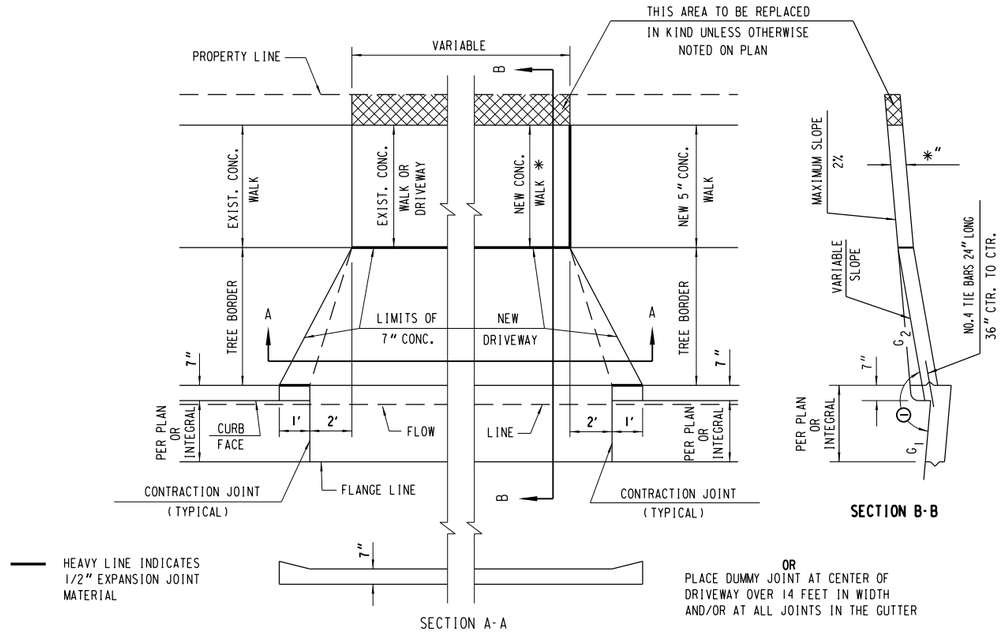
DRIVEWAY CONSTRUCTION NOTES

CONSTRUCT DRIVEWAY TO PROPERTY LINE ONLY WHEN MATCHING EXISTING DRIVEWAY AND INSTALL 1/2" EXPANSION JOINT MATERIAL BETWEEN NEW AND OLD DRIVEWAY. PLACE DUMMY JOINT AT CENTER OF DRIVEWAY AND AT ALL JOINTS IN THE GUTTER

① MAXIMUM DIFFERENCE BETWEEN G_1 & G_2 NOT TO EXCEED 14%

DEPRESSED CONCRETE DRIVEWAY (MODIFIED)

(E) (E2)



HEAVY LINE INDICATES 1/2" EXPANSION JOINT MATERIAL

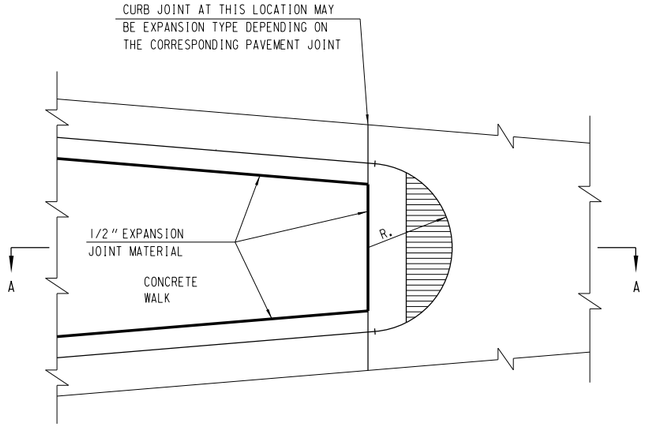
OR
PLACE DUMMY JOINT AT CENTER OF DRIVEWAY OVER 14 FEET IN WIDTH AND/OR AT ALL JOINTS IN THE GUTTER

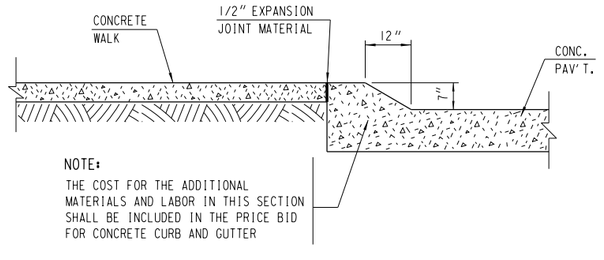
FLARED CONCRETE DRIVEWAY

(DD)

① MAXIMUM DIFFERENCE BETWEEN G_1 & G_2 NOT TO EXCEED 14%

* LOCATIONS AS PLAN: USE 7" CONC. FOR BUSINESS PROPERTY OR 5" CONC. FOR RESIDENTIAL PROPERTY.



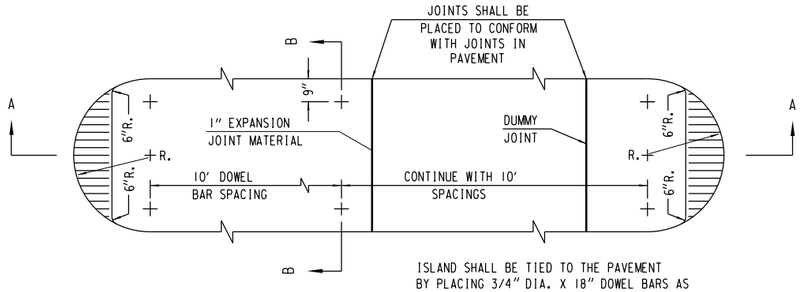


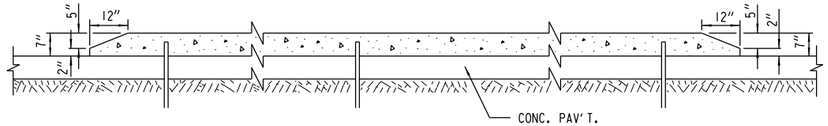
SECTION A-A

SNOWPLOWABLE MEDIAN ISLAND NOSE

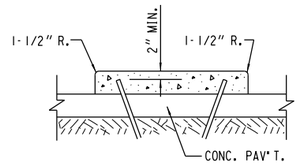
(TYPICAL SECTION OF CONCRETE CURB & GUTTER
TO BE CONSTRUCTED AT END OF MEDIAN ISLAND)

N





SECTION A - A



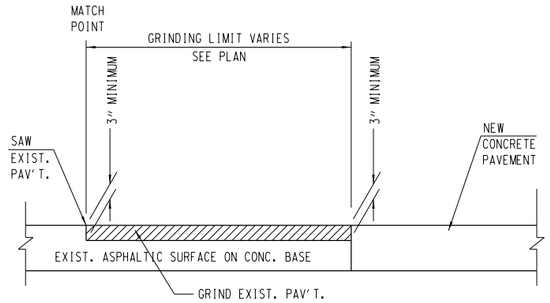
SECTION B - B

NOTE :
SIZE AND LOCATION OF CITY OF MILWAUKEE
ELECTRICAL SERVICES BOXOUTS IN CONCRETE
ISLANDS ON BASE TO BE DETERMINED IN FIELD
AT THE TIME OF CONSTRUCTION

CONCRETE LOADING ZONE

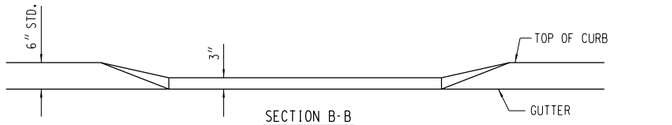
(WITH SNOWPLOWABLE NOSE)

W

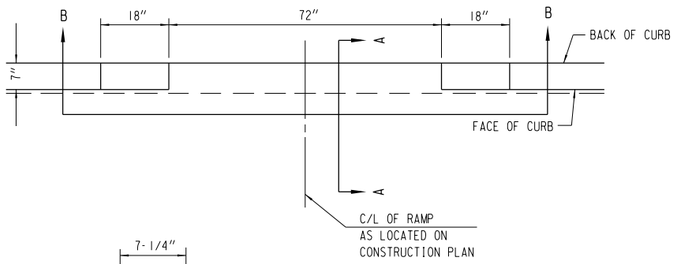


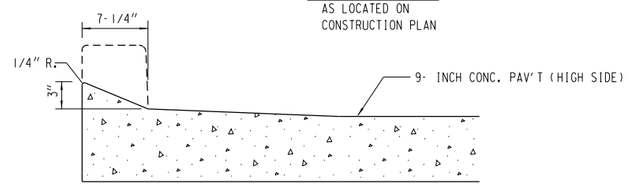
REMOVING ASPHALTIC SURFACE BUTT JOINTS

IN ROADWAY AT INTERSECTIONS AND ABUTTING PAVEMENT



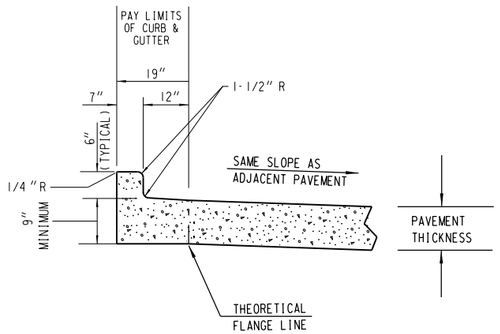
SECTION B-B





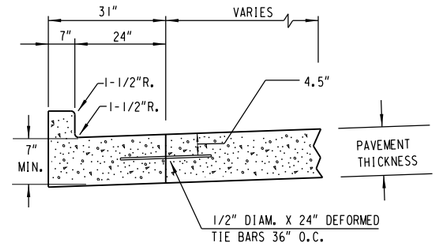
SECTION A-A

MAINTENANCE RAMP



CONCRETE CURB & GUTTER INTEGRAL 19-INCH HIGH SIDE

(BB)

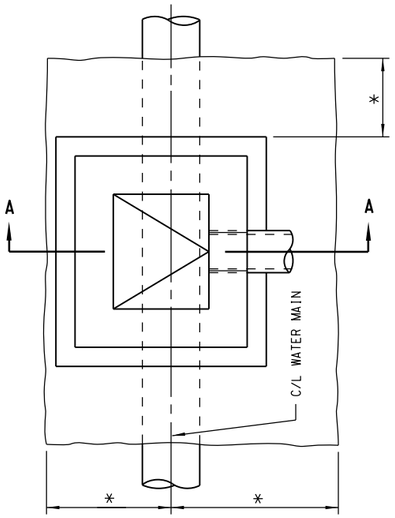


CONCRETE CURB & GUTTER 31-INCH

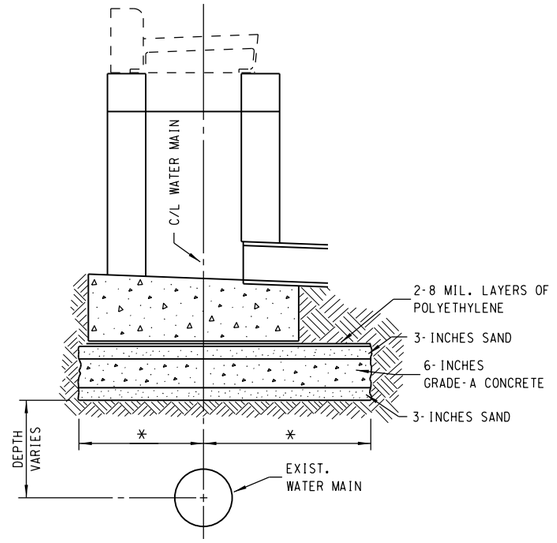
(B)

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 12	E

FILE NAME: W:\SPR\27 N ST PAUL HIGH\CONDET.DGN



PLAN VIEW

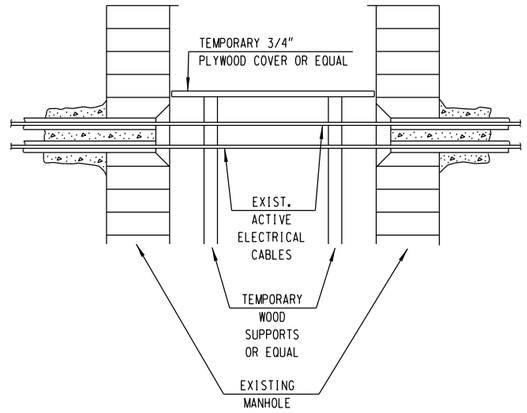


SECTION A-A

* LIMITS OF EXCAVATION FOR DRAINAGE STRUCTURE OR 2' MAXIMUM

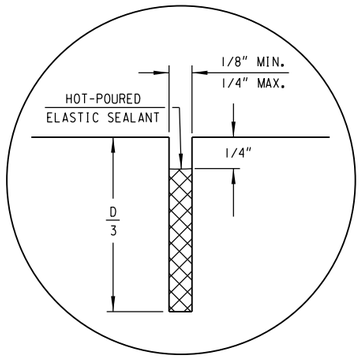
WATER MAIN PROTECTION

ADJUSTING TES MANHOLE FRAMES AND LIDS



BLOCK OR BRICK ROUND MANHOLE

TRANSVERSE DOWELED, REINFORCED CONCRETE PAVEMENT JOINTS



DETAIL "A"

PAVEMENT DEPTH AND JOINT SPACING TABLE	
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6"	12'
7"	14'
8"	15'
9"	15'
10" & ABOVE	18'

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

CONTRACTION JOINTS

CONTRACTION JOINTS SHALL BE LOCATED AT A UNIFORM SPACING SHOWN IN TABLE.

EXCEPTIONS SHALL BE AS DIRECTED BY THE ENGINEER.

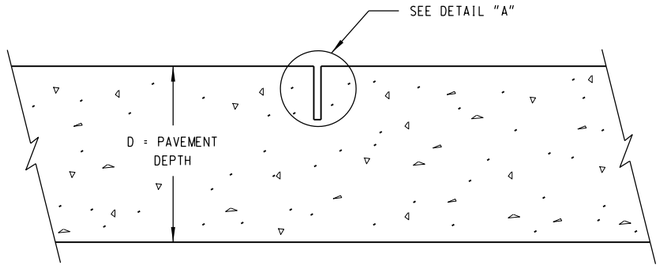
THE SAWCUT SHALL BE TO THE DEPTH OF D/3 AND THE WIDTH OF 1/8 INCH MIN. & 1/4 INCH MAX.

CONSTRUCTION JOINTS

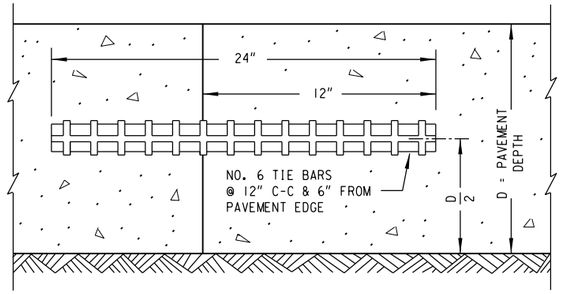
CONSTRUCTION JOINTS MAY BE LOCATED IN ANY PANEL AND BE A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT. CONSTRUCTION JOINTS MAY BE CONSTRUCTED EITHER PARALLEL TO CONTRACTION JOINTS OR AT 90° TO THE CENTERLINE.

TIE BARS MAY BE INSERTED THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN POURED.

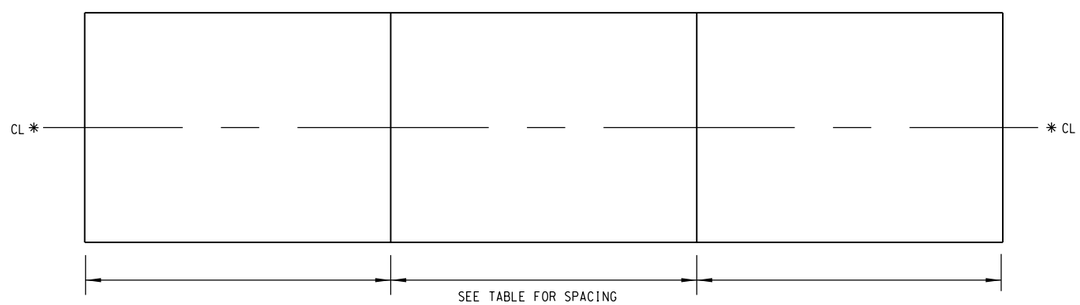
TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



CONTRACTION JOINT



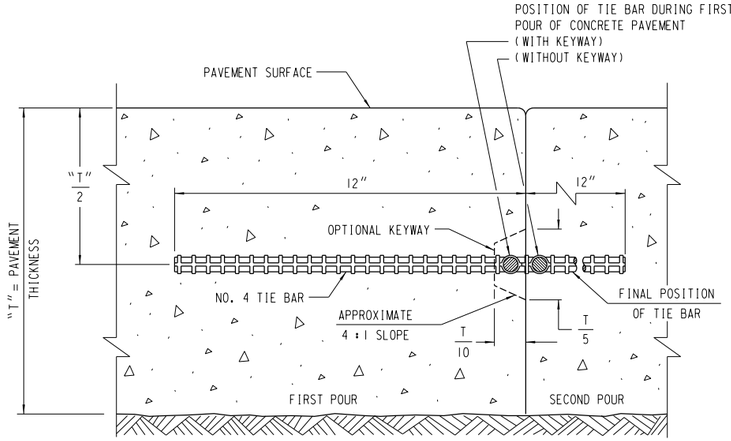
CONSTRUCTION JOINT



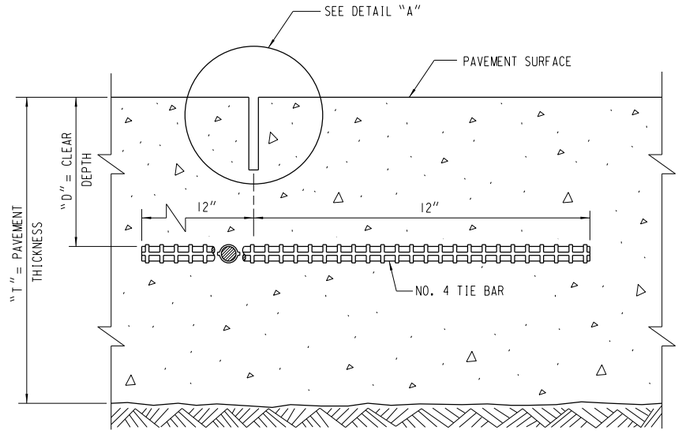
CONTRACTION JOINT LOCATIONS

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 14	E

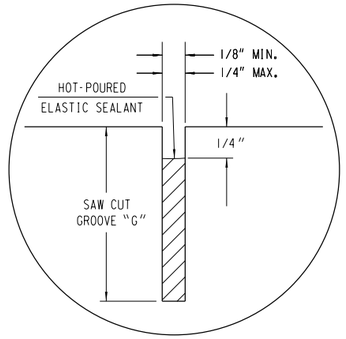
FILE NAME: W:\SPR\27 N ST PAUL HIGH\CONDET.DGN



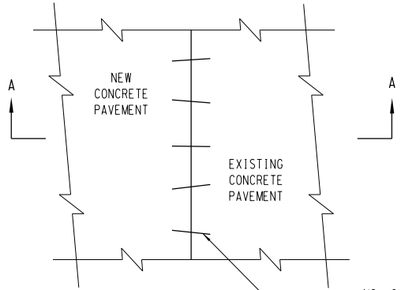
CONSTRUCTION JOINT



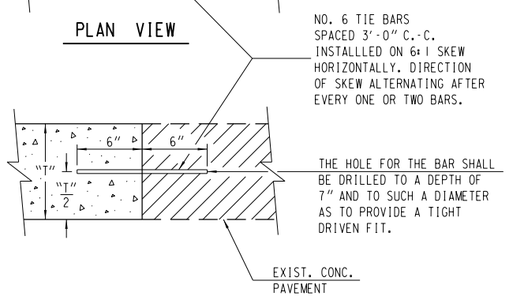
SAWED JOINT



DETAIL "A"



PLAN VIEW



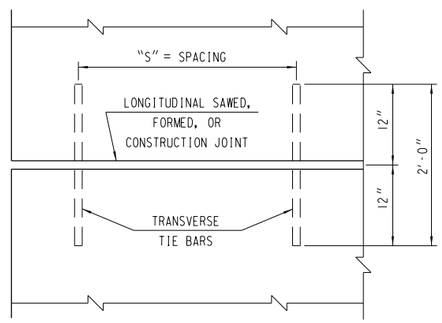
SECTION A-A
PAVEMENT TIES

PAVEMENT THICKNESS "T"	CLEAR DEPTH "D"	SAW CUT GROOVE "G"	MAXIMUM TIE BAR SPACING "S"	
			PAVEMENT WIDTH	
			LESS THAN 30'	30' OR MORE
6"	3" ± 1/2"	1-1/2"	48"	42"
7"	3-1/4" ± 1"	1-3/4"	45"	36"
8"	3-3/4" ± 1"	2"	39"	30"
9"	4-1/4" ± 1"	2-1/4"	33"	27"
10"	4-3/4" ± 1"	2-1/2"	30"	24"
11"	5-1/4" ± 1"	2-3/4"	27"	21"
12"	5-3/4" ± 1"	3"	24"	21"

GENERAL NOTES

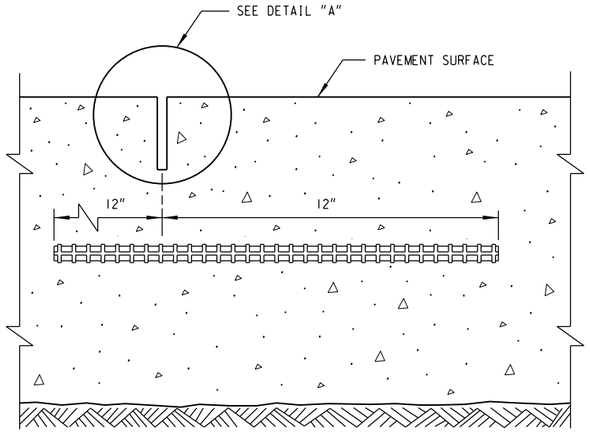
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TIE BARS AND PAVEMENT TIES SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



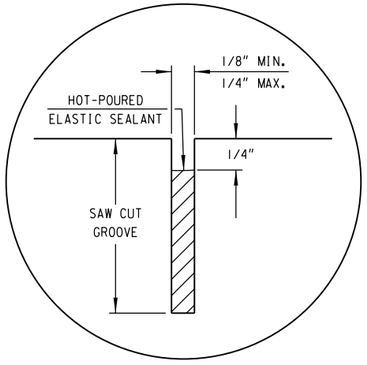
PLAN VIEW
SHOWING LOCATION OF TIE BARS

JOINTS WITH HOT POURED SEALANT

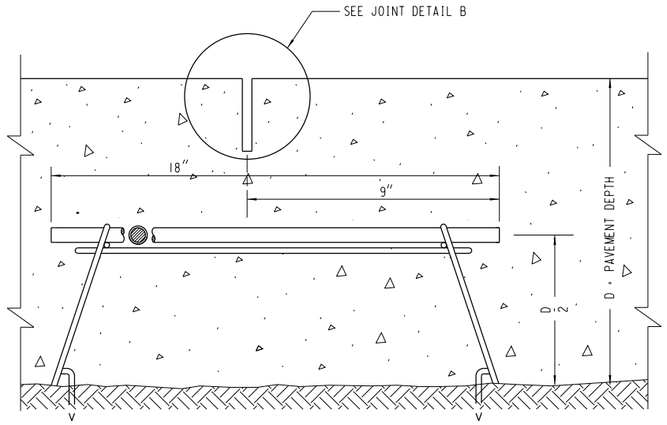


SAWED JOINT

NOTE: DETAIL 'A' SHOWN IN S.D.D. "CONCRETE PAVEMENT LONGITUDINAL JOINTS AND PAVEMENT TIES" HAS BEEN REVISED AND SHOWN AS 'JOINT DETAIL A'.

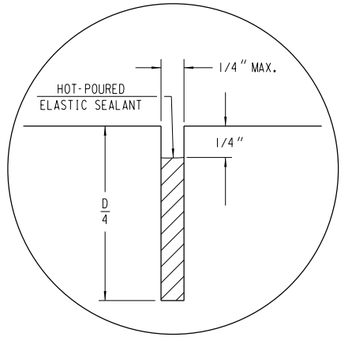


JOINT DETAIL "A"



DOWELED CONTRACTION JOINT

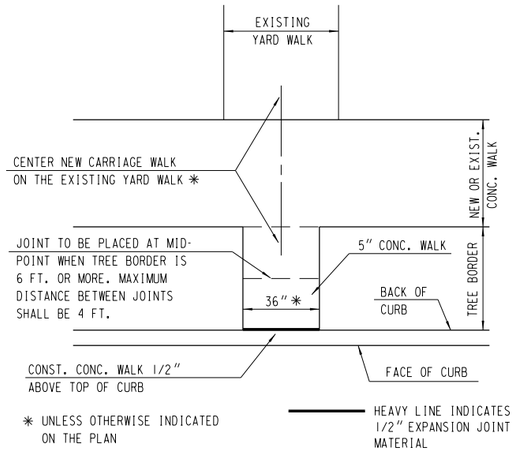
NOTE: 'JOINT DETAIL' SHOWN IN S.D.D. "URBAN DOWELED CONCRETE PAVEMENT" HAS BEEN REVISED AND SHOWN AS 'JOINT DETAIL B'.



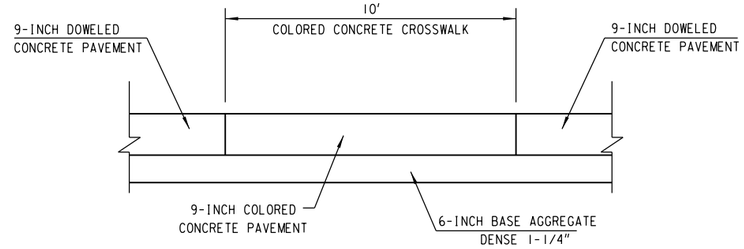
JOINT DETAIL "B"

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 16	E

FILE NAME: W:\SPR\27 N ST PAUL HIGH\CONDET.DGN



CARRIAGE WALK

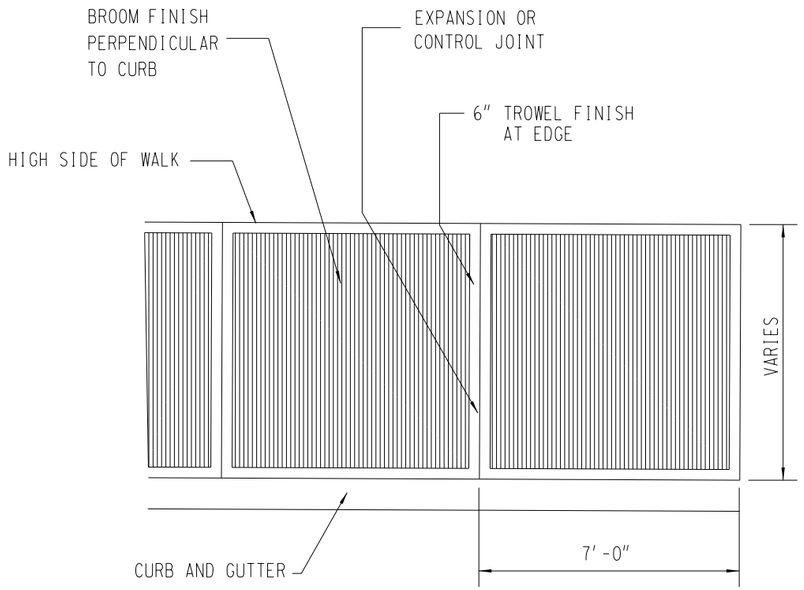


COLORED CONCRETE CROSSWALK

(HH)

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 17	E

FILE NAME: W:\SPR\27 N ST PAUL HIGH\CONDET.DGN



DETAIL FOR ARCHITECTURAL FINISH ON CONCRETE WALK 5-INCH
NOT TO SCALE

(X)

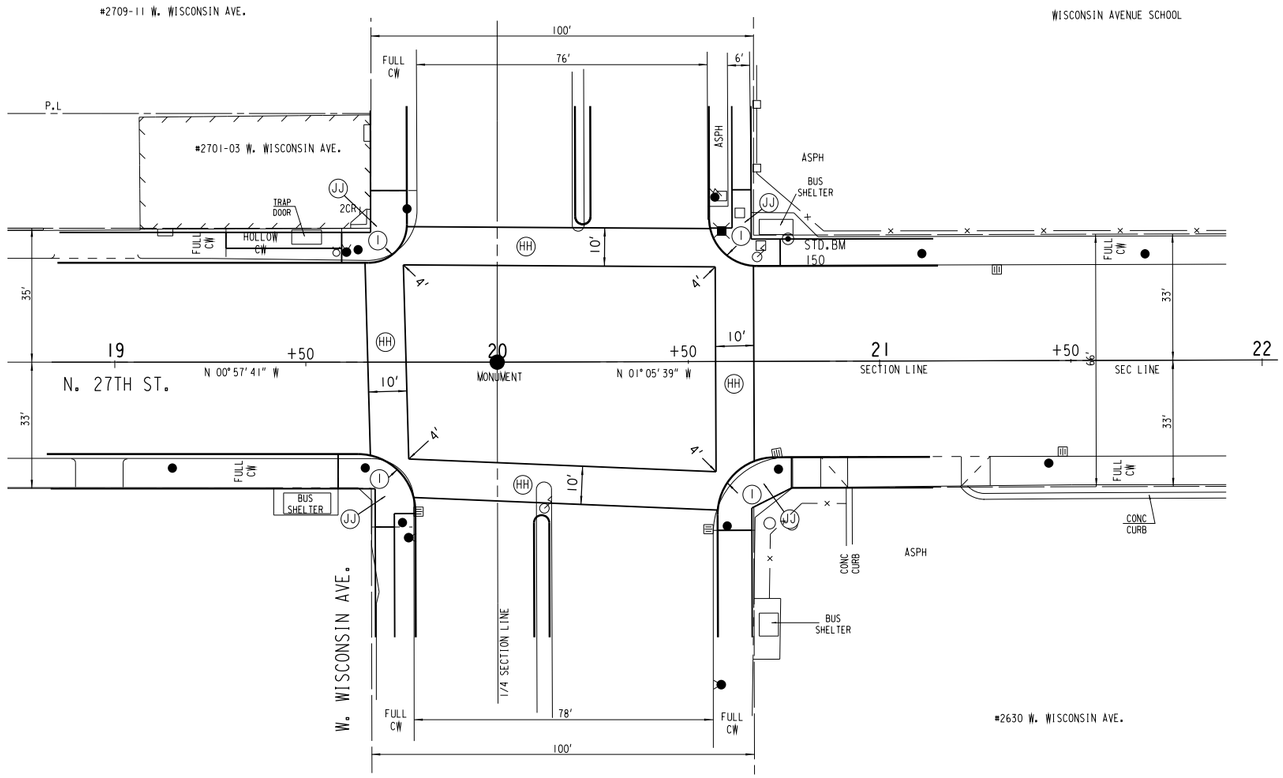
2

2

N

BM: STD #150 NW CORNER
N. 27TH ST. & W. WISCONSIN AVE.
7' W. & 21' N. OF CURBS IN WATER GATE
VALVE BOX ELEV. = 109.836

#2708 W. WISCONSIN AVE.



(I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD

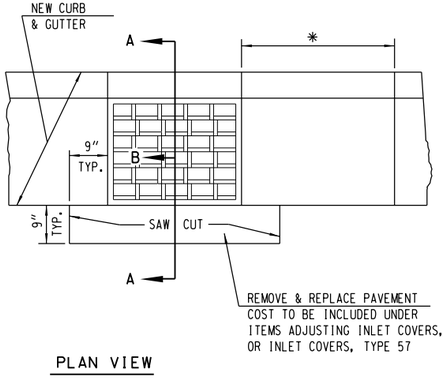
(HH) CONST. COLORED CONCRETE CROSSWALK (SEE DETAIL)

(JJ) CONST. 5-INCH COLORED CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	CROSSWALK	SCALE FEET 0' 40'	SHEET NO: 19	E

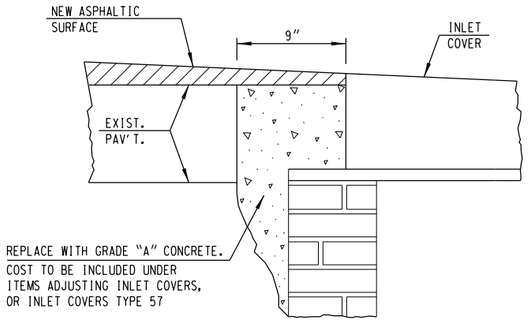
FILE NAME: W:\SPR\27 N STPAUL HIGHL\XWALK.DGN

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

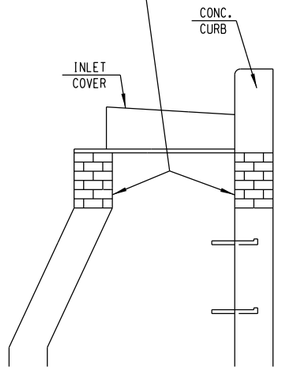


PLAN VIEW

REPAIR BY REMOVING & REPLACING DAMAGED OR LOOSE BRICK OR BLOCK TO DEPTH AS DIRECTED BY ENGINEER. WORK UNDER ADJUSTING CATCH BASIN 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 CATCH BASINS. DEPTHS OF BRICKWORK TO BE REPAIRED, AS INDICATED ON THE PLAN, ARE ESTIMATES ONLY AND MAY VARY AT TIME OF CONSTRUCTION.

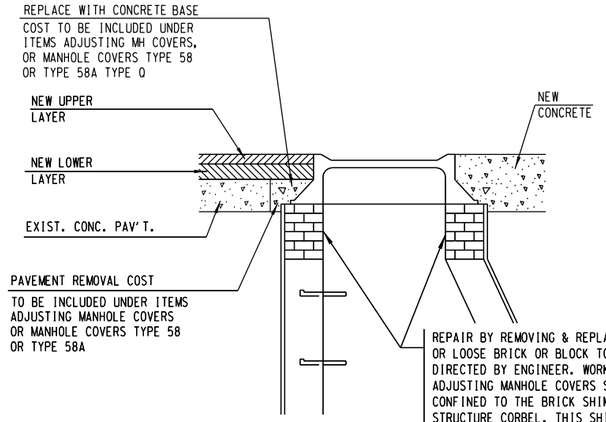


SECTION A-B

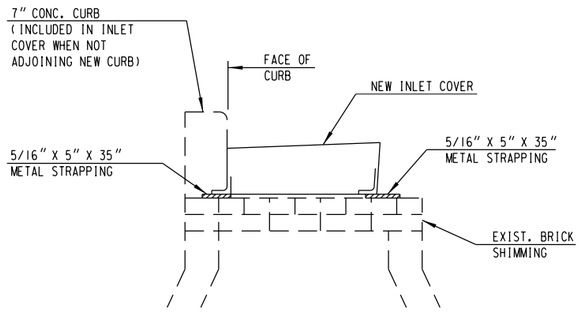


SECTION A-A

ADJUSTING INLET COVERS



ADJUSTING MANHOLE COVERS OR MANHOLE COVERS TYPE 58 OR TYPE 58A

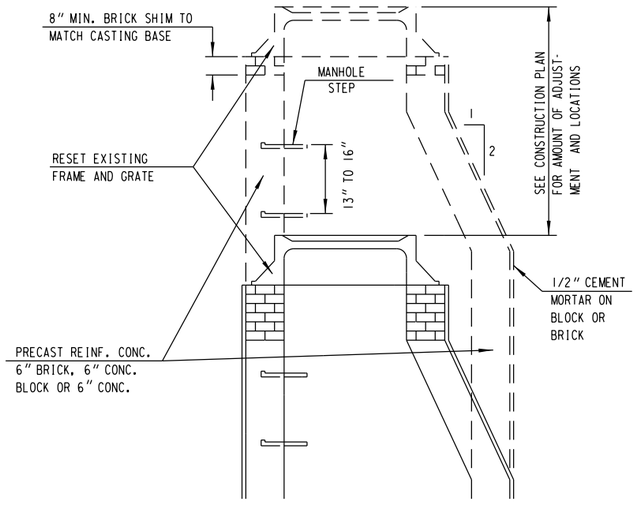


EXIST. DRAINAGE STRUCTURE

NOTES:

1. METAL STRAPPING TO BE 5/16" X 5" X 35" FLAT STEEL, HOT ROLLED (ASTM A36).
2. METAL STRAPPING TO BE PLACED ACROSS EXISTING DRAINAGE STRUCTURE TO SUPPORT NEW COVER. THE METAL STRAPPING SHALL BE SET ON A BED OF MORTAR.
3. PRECAST CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURE. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.
4. COST OF MATERIALS AND LABOR TO BE INCLUDED IN PRICE BID FOR INLET COVER, TYPE 57.

DETAIL FOR PLACING NEW INLET COVER ON EXISTING INLET USING METAL STRAPPING MATERIALS



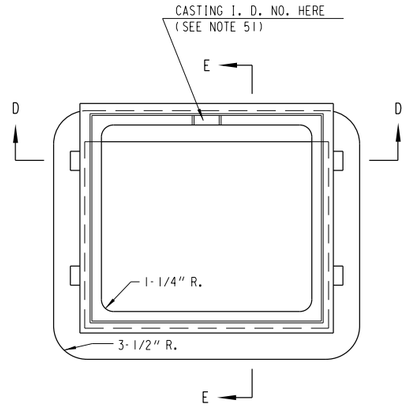
CORBEL MAY BE REVERSED STRAIGHT SIDE LEANED SLIGHTLY TO CLEAR CURB HEAD.

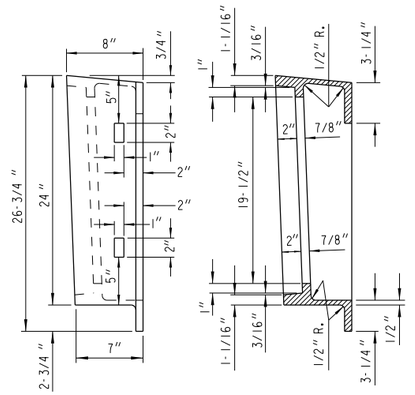
REPAIR BY REMOVING AND REPLACING DAMAGED OR LOOSE BRICK OR BLOCK TO THE DEPTH AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER. DEPTHS AS INDICATED ON PLAN ARE ESTIMATES ONLY AND MAY VARY AT TIME OF CONSTRUCTION.

RECONSTRUCTING MANHOLES AND INLETS

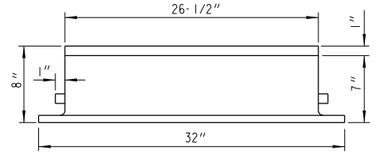
CONSTRUCTION NOTES

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.

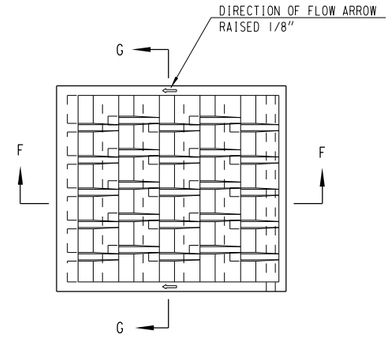


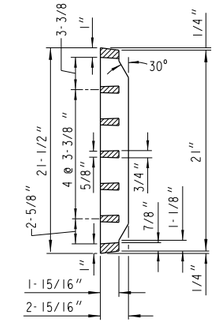


SECTION E-E

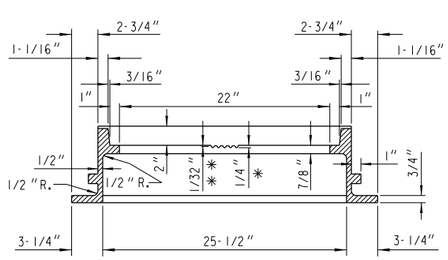


FRAME





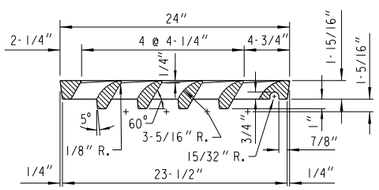
SECTION G-G



SECTION D-D

* DEPRESSION FOR LETTERS

* * CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT



SECTION F-F

GRATE

GENERAL NOTES

ALL EDGES ARE TO BE GROUND

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

ON THE FRAME

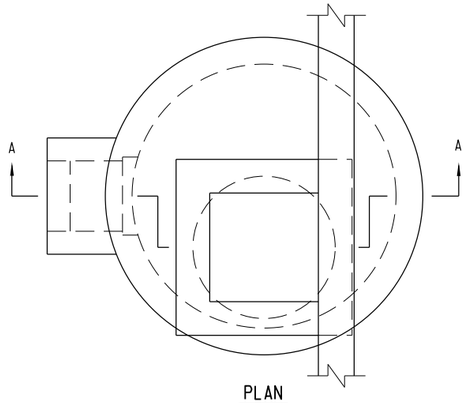
1. ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.
2. ON THE SEAT OF THE FRAME IN 1 INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (51).

ON THE GRATE

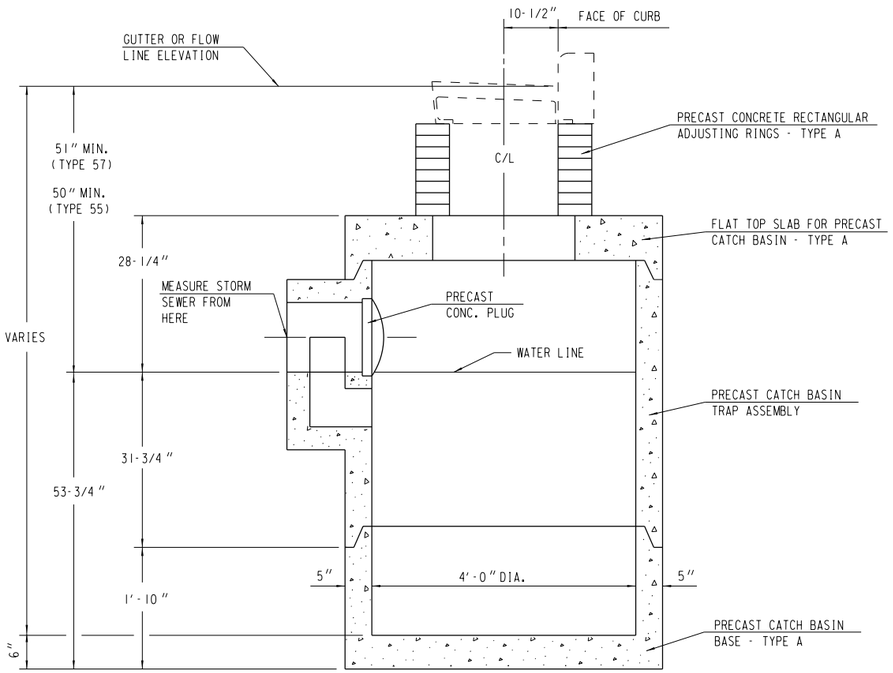
1. ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (57) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

INLET COVER - TYPE 57

LID-145 LBS., FRAME-204 LBS.



PLAN

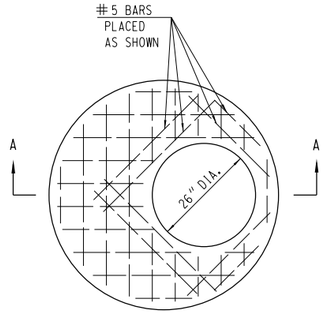


SECTION A-A

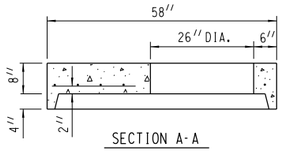
CATCH BASIN - TYPE 44A

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



PLAN



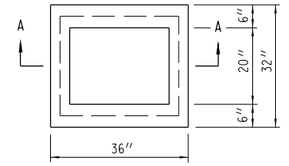
SECTION A-A

TOP SLAB - TYPE A

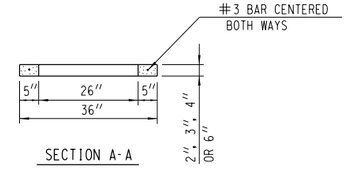
FLAT TOP SLAB SHALL BE 8" THICK REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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



PLAN

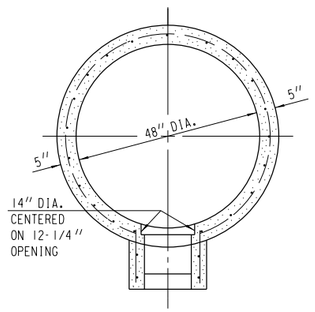


SECTION A-A

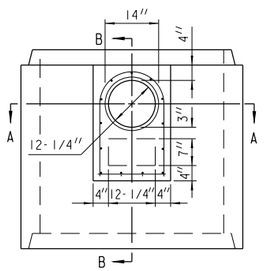
RECTANGULAR ADJUSTING RING - TYPE A

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

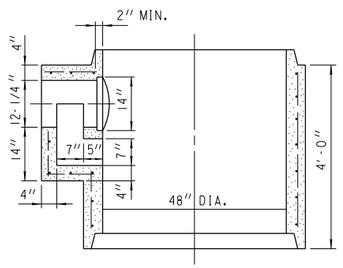
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.



SECTION A-A



PLAN



SECTION B-B

TRAP ASSEMBLY

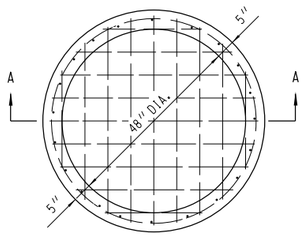
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

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

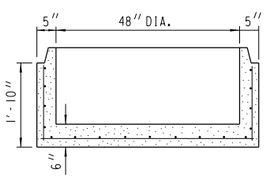
CIRCUMFERENTIAL AND TRAP ASSEMBLY REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

THE 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 A-A

BASE - TYPE A

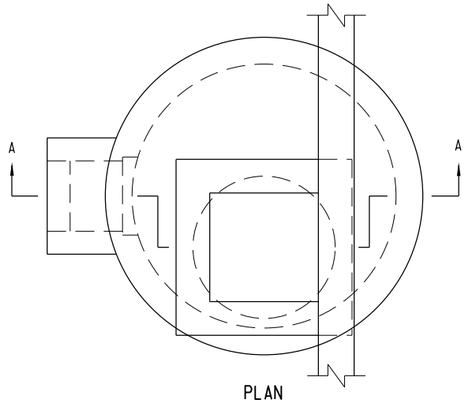
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

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.

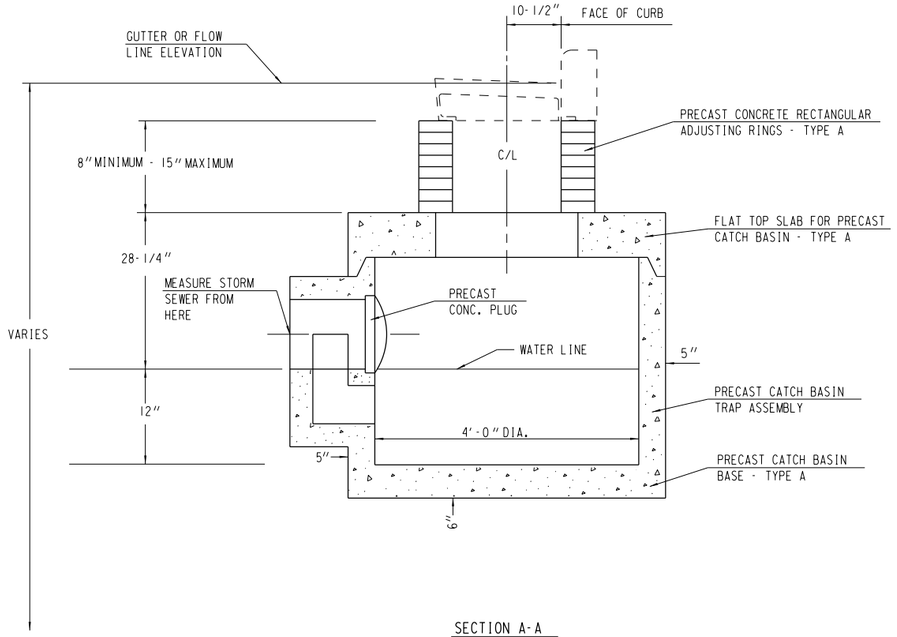
CIRCUMFERENTIAL AND BOTTOM SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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.



PLAN



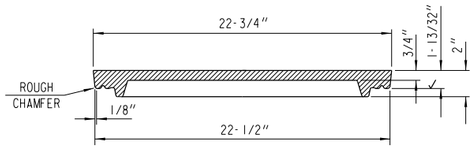
SECTION A-A

CATCH BASIN - TYPE 44B

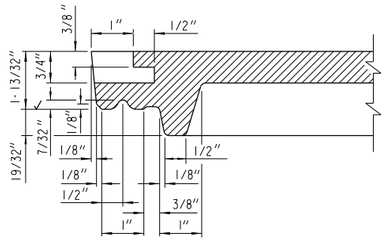
GENERAL NOTES

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

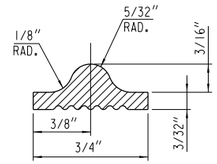
2



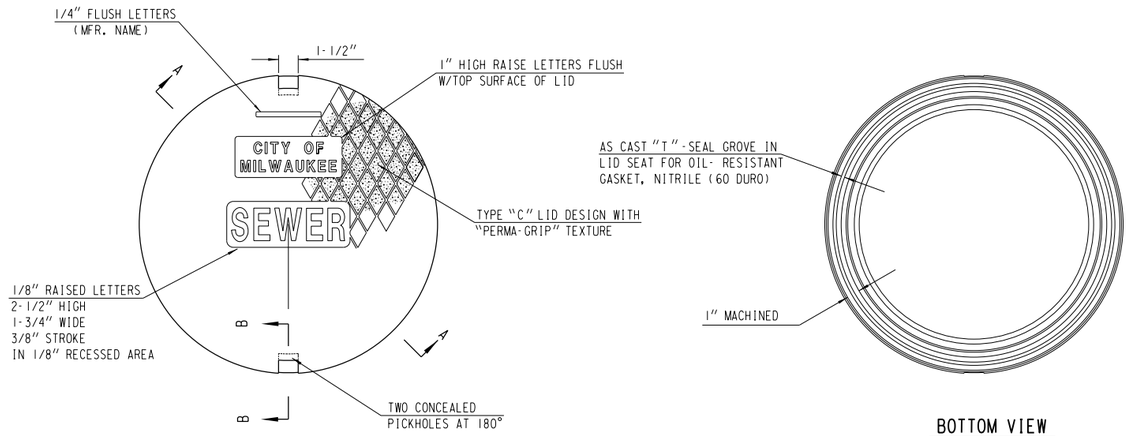
SECTION A-A



SECTION B-B



"T" GASKET DETAIL



TOP VIEW

BOTTOM VIEW

MANHOLE COVER - TYPE 58-A

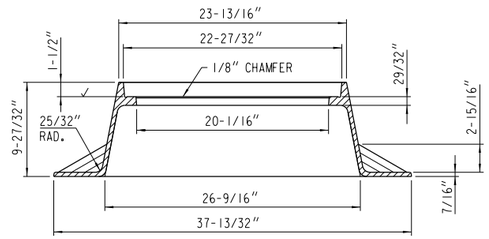
LID - 107 LBS.

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:

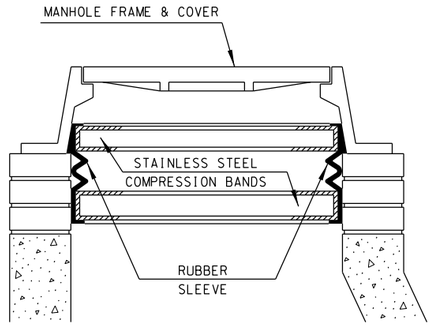
1. THE INITIALS OR MONOGRAM OF THE FOUNDRY.
2. THE CONTRACT NUMBER AND YEAR MADE.
3. THE CASTING IDENTIFICATION NUMBER.
4. THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

NOTE: ALL EXTERIOR EDGES SHALL BE GROUND.

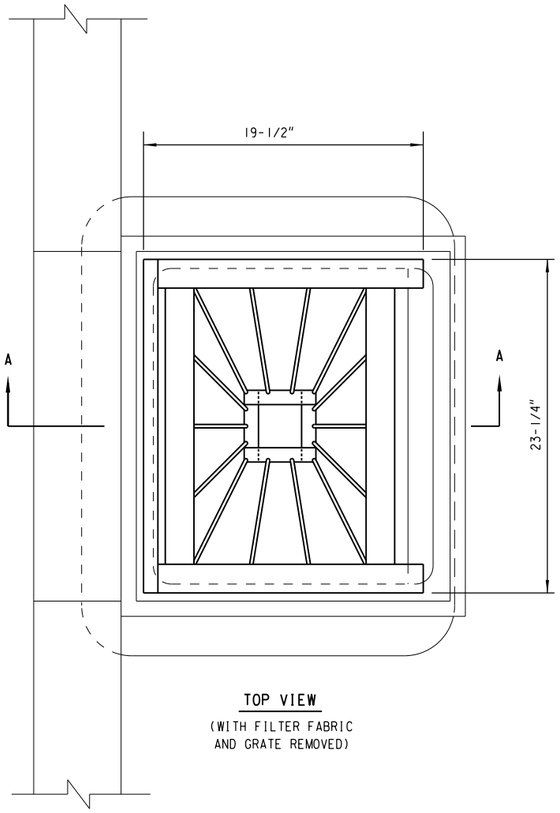


MANHOLE FRAME - TYPE MS21

FRAME - 182 LBS.

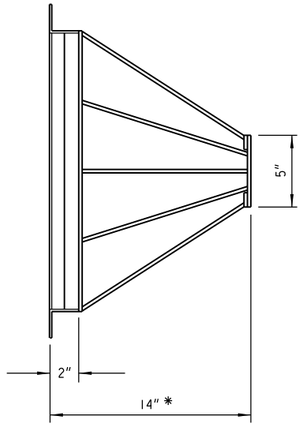


INTERNAL SANITARY MANHOLE SEAL



TOP VIEW

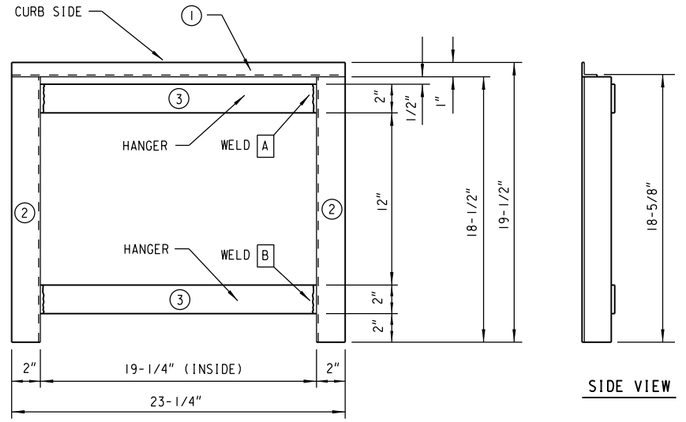
(WITH FILTER FABRIC AND GRATE REMOVED)



FRONT VIEW

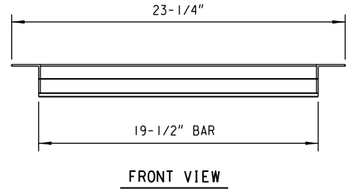
(BASKET ONLY)

* MAY BE DECREASED IF INLET IS OF INSUFFICIENT DEPTH

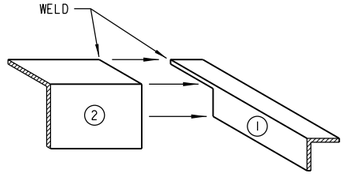


TOP VIEW

SIDE VIEW

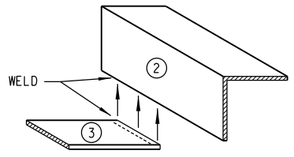


FRONT VIEW



WELD CONNECTION - A

TOP FRAME

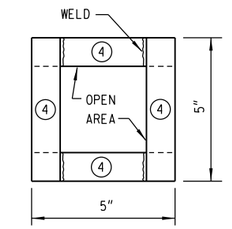


WELD CONNECTION - B

BASKET HANGER TO TOP FRAME

BAR SCHEDULE

NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
1	ANGLE	1" X 1"	1/8"	23-1/4"	1
2	ANGLE	2" X 2"	1/8"	18-1/2"	2
3	BAR	2"	1/4"	19-1/2"	2



TOP VIEW

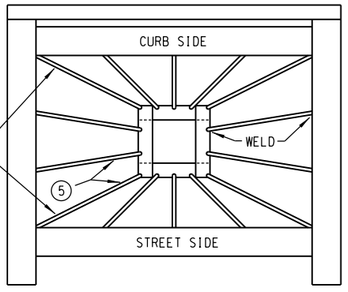


SIDE VIEW

BAR SCHEDULE

NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
4	BAR	1"	1/4"	5"	4

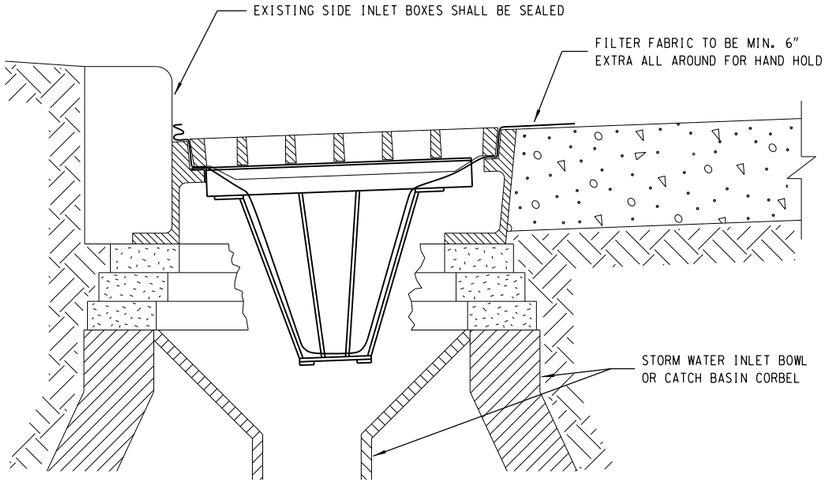
BASKET BOTTOM



ROD PLACEMENT

ROD SCHEDULE

NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
5	ROD	1/4" MIN.	1/8"	12" TO 14" (CUT TO FIT)	14

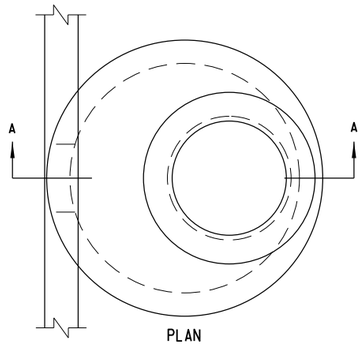


SECTION A-A

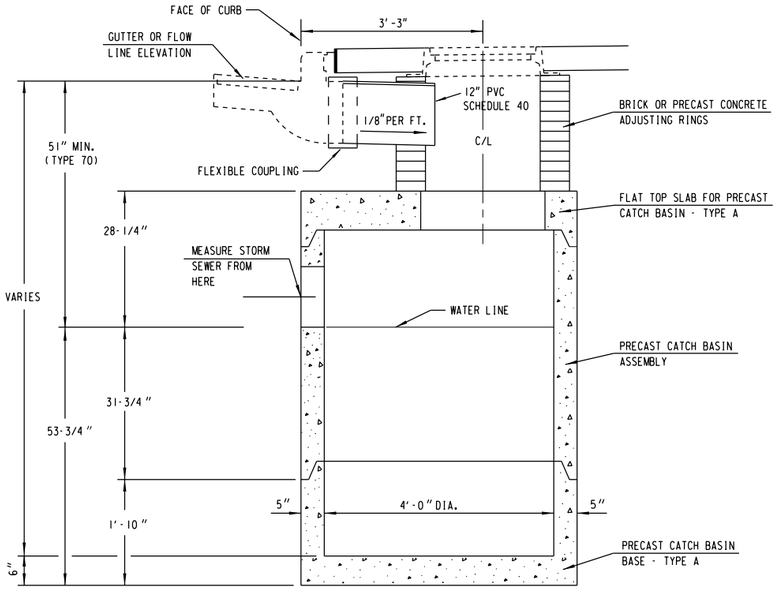
TYPE M
INLET / CATCH BASIN BASKET

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	DRAINAGE DETAILS	SCALE FEET	SHEET NO: 25	E

FILE NAME: W:\SPR\27 ST PAUL HIGH \DRAINDET.DGN



PLAN



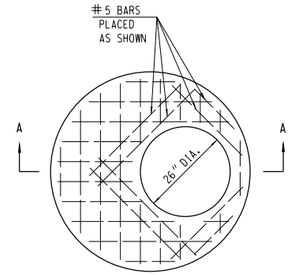
SECTION A-A

CATCH BASIN - TYPE 44M

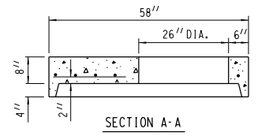
WITH CURB INLET TYPE 70
MANHOLE COVER TYPE 71

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 0.04 FT. LOWER THAN ELEVATION INDICATED ON PLAN.
5. FLEXIBLE COUPLING TO BE COMPATIBLE FOR CAST IRON TO PLASTIC CONNECTION.



PLAN



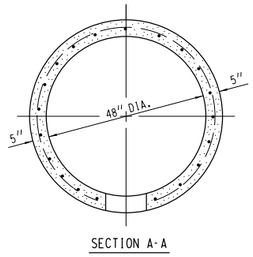
SECTION A-A

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.



SECTION A-A

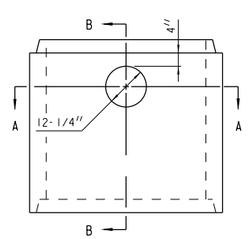
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

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.

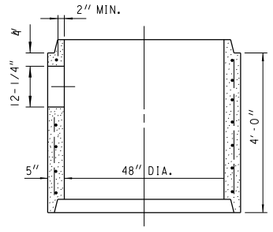
CIRCUMFERENTIAL AND TRAP ASSEMBLY REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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.

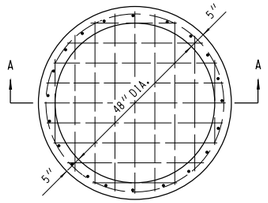


PLAN



SECTION B-B

CATCH BASIN ASSEMBLY



PLAN

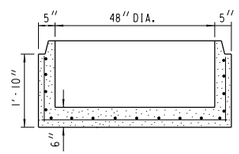
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

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

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

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

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



SECTION A-A

BASE - TYPE A

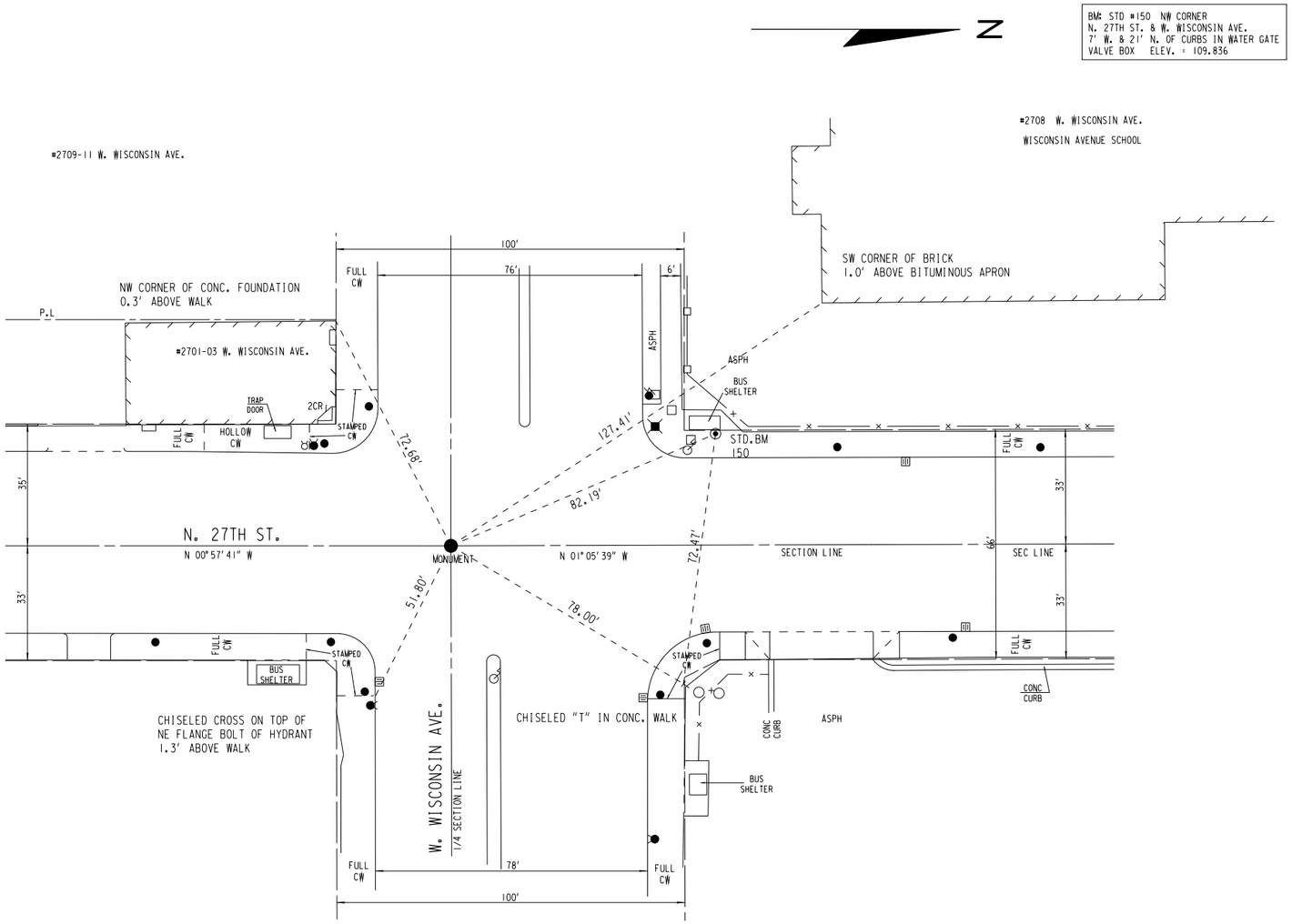
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TOWNSHIP 7 NORTH, RANGE 21/22 EAST
MILWAUKEE COUNTY
CONCRETE MONUMENT W/SEWRPC BRASS CAP

STATE PLANE COORDINATES OF CENTER OF SECTION
NORTH: 385,298.31
EAST: 2,548,642.08

SURVEY DATE: AUGUST 19, 1997



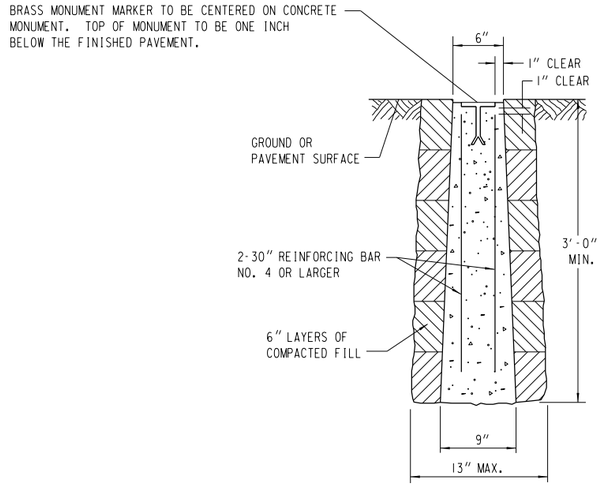
U.S PUBLIC SURVEY LAND CORNER

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

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	LANDMARK REFERENCE MONUMENT	SCALE FEET 0' 40'	SHEET NO: 27	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGHL\LANDMARK.DGN

2



PRECAST

CONCRETE MONUMENT



MONUMENT MARKER LOGO

(TO BE FURNISHED BY OTHERS)

GENERAL NOTES

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

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE CITY OF MILWAUKEE, INFRASTRUCTURE SERVICES DIVISION, CONSTRUCTION SECTION.

INSTALLATION OF PRECAST MONUMENT TO BE SUPERVISED BY CITY OF MILWAUKEE, INFRASTRUCTURE SERVICES DIVISION, CONSTRUCTION SECTION FOR ACCURACY OF LOCATION.

LANDMARK REFERENCE MONUMENTS TO BE REPLACED

LOCATION	MONUMENT	STATION	REMARKS
N. 27TH ST..			
AT W. WISCONSIN AVE.	I	20+00.00 ON T/L	SEE SPECIAL PROVISIONS FOR INFORMATION ON RESTORATION OF MONUMENTS

LANDMARK REFERENCE MONUMENT

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	LANDMARK REFERENCE MONUMENT	SCALE FEET	SHEET NO: 28	E

FILE NAME: W:\SPR\27 N STPAUL HIGHL\LANDMARK.DGN

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

STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 385,298.31
(X) EAST: 2,548,642.08



N

W. HIGHLAND BLVD.

STA. 41+35.2, T/L, C/L OF W. HIGHLAND BLVD.(WEST SIDE)

N 88° 53' 05" E

1/4 SECTION LINE = R/L W.WISCONSIN AVE.

M50

89° 50' 45"

90° 01' 17"

END PROJECT 2265-09-70
STA. 39+29.0

STA. 10W+00.0, R/L W. WISCONSIN AVE.

STA. 05+80.2, T/L, C/L OF W.ST. PAUL AVE.

SECTION LINE &
T/L N. 27TH ST.

05 10 15 20 25 30 35 40

N 00° 57' 41" W

M01

SECTION LINE = T/L N.27TH ST.

N 01° 05' 39" W

STA. 20+00.0, T/L N. 27TH ST.

STA. 41+19.4, T/L, C/L OF W. HIGHLAND BLVD.(EAST SIDE)

BEGIN PROJECT 2265-09-70
STA. 04+07.5

W. ST. PAUL AVE.

90° 18' 08"

W. WISCONSIN AVE.

M51

89° 49' 50"

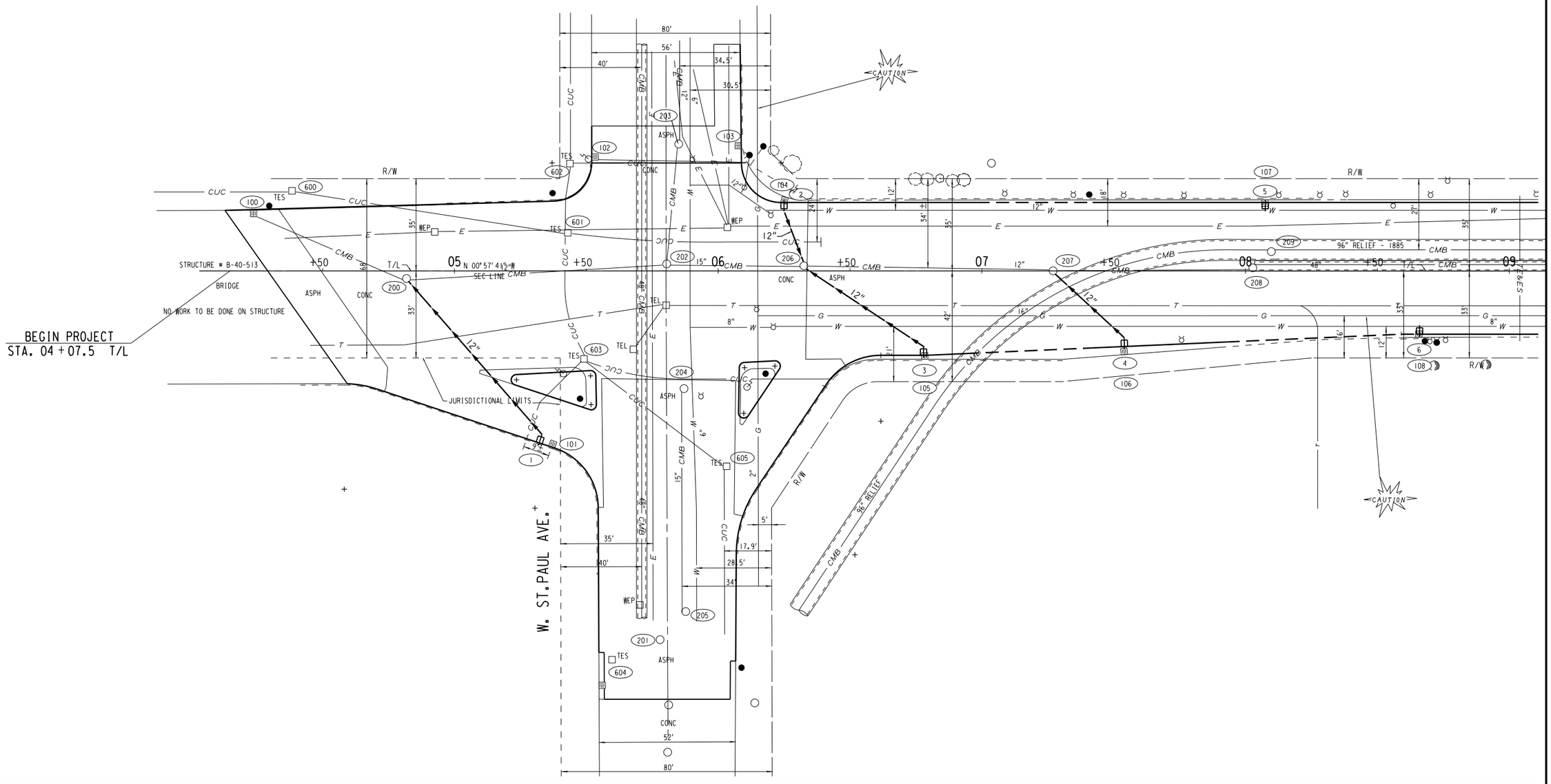
N 88° 44' 23" E

W. HIGHLAND BLVD.

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: HWY 190	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SCALE FEET 0' 300'	SHEET NO: 29	E

FILE NAME: W:\SPR\27 N_STPAUL_HIGH\ALIGN27.DGN

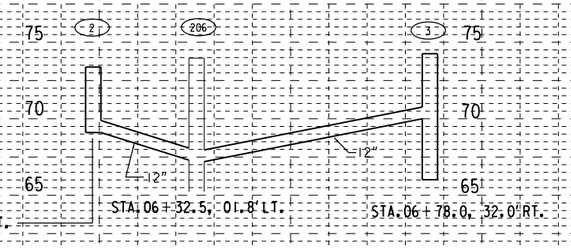
NORTH 27TH STREET

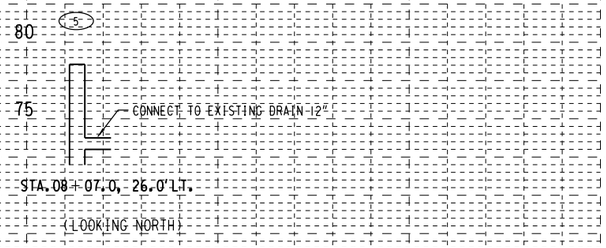


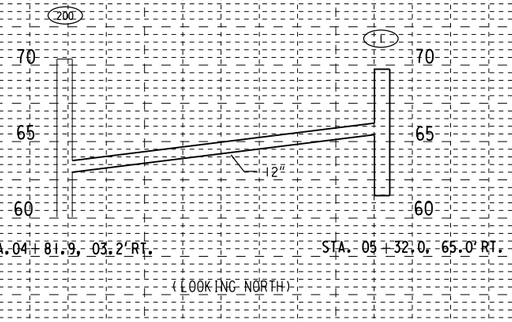
STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 30	E

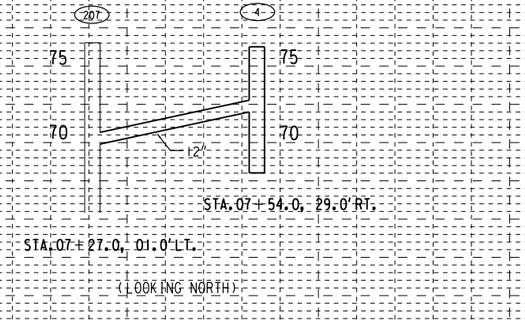
FILE NAME: W:\SPR\27_N_STPAUL_HIGH\UTIL 05-09.DGN

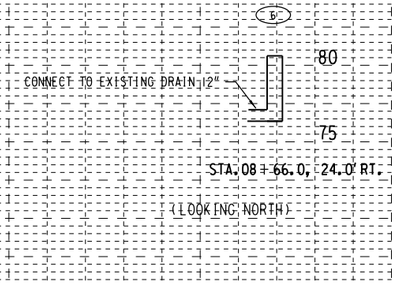
NORTH 27TH STREET







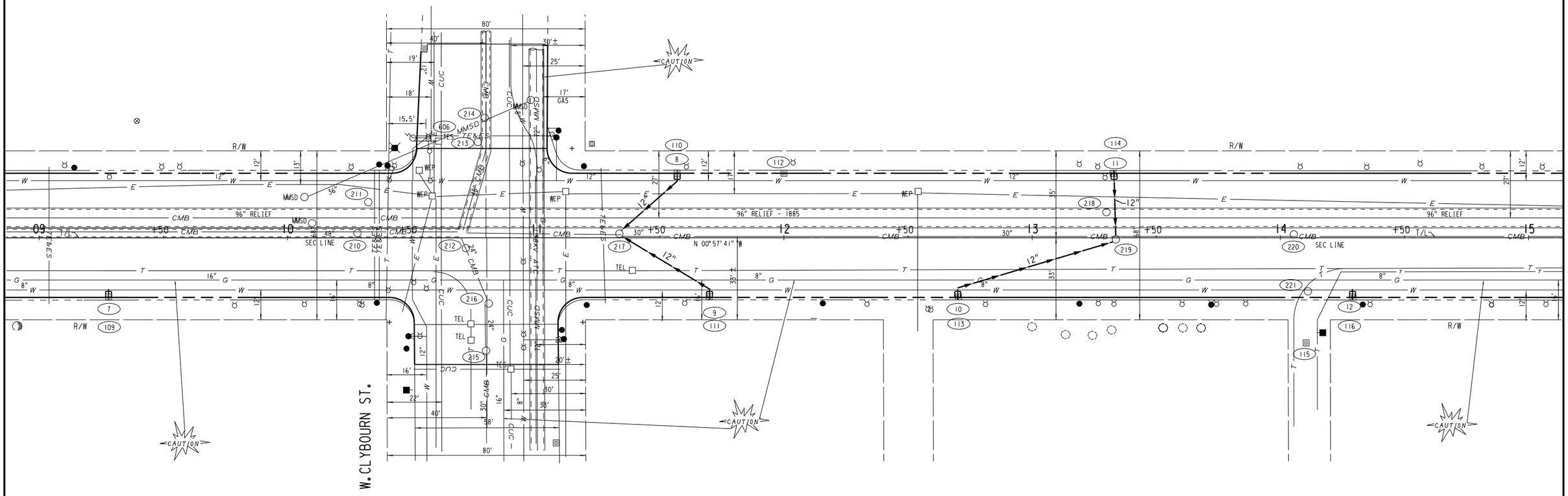




STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 31	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\UTIL 05-09.DGN

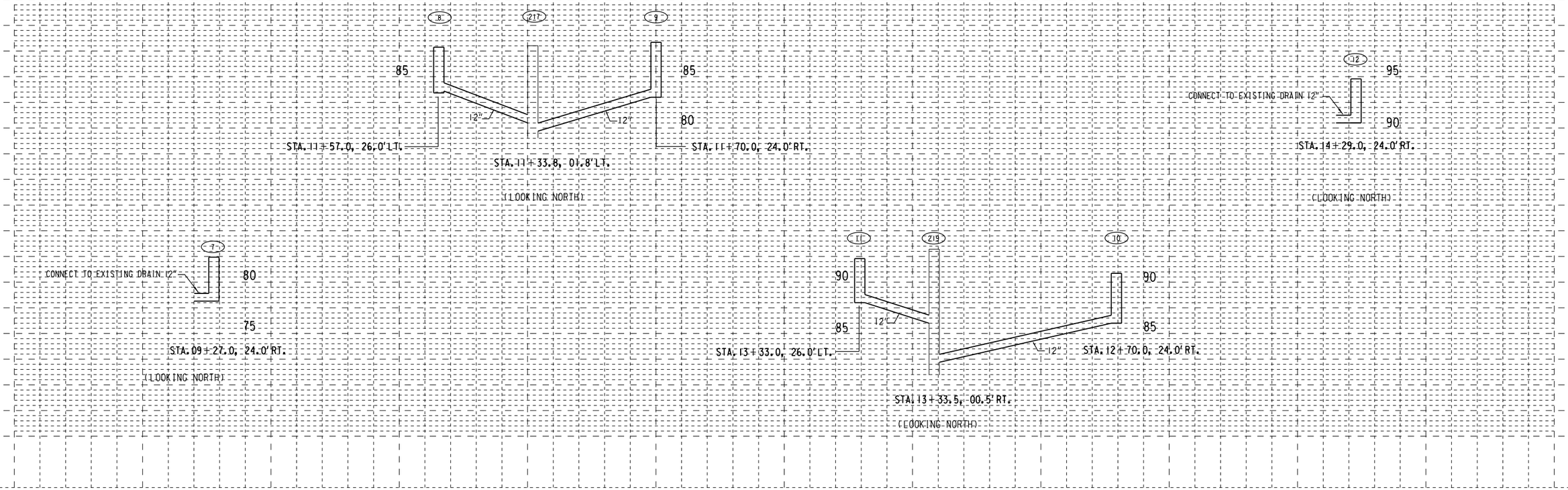
NORTH 27TH STREET



STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 32	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\UTIL 09-15.DGN

NORTH 27TH STREET



STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITES AND DRAINAGE	SCALE FEET	SHEET NO: 33	E

FILE NAME: W:\SPR\27 N STPAUL HIGH UTIL 09-15.DGN

NORTH 27TH STREET

N

W. MICHIGAN ST.

W. WISCONSIN AVE.

CAUTION

MONUMENT

N 88°53'05" E 1/4 SEC LINE

N 00°57'41" W SEC LINE

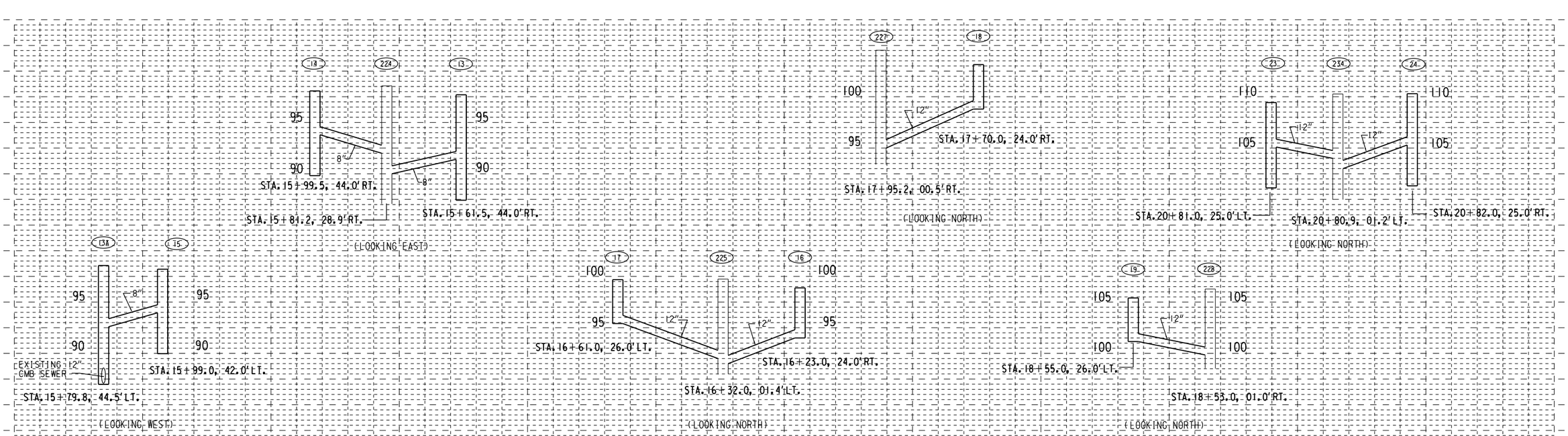
N 01°05'39" W SEC LINE

N 88°44'23" E 1/4 SEC LINE

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 34	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\UTIL 15-21.DGN

NORTH 27TH STREET



STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 35	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\UTIL 15-21.DGN

NORTH 27TH STREET

N

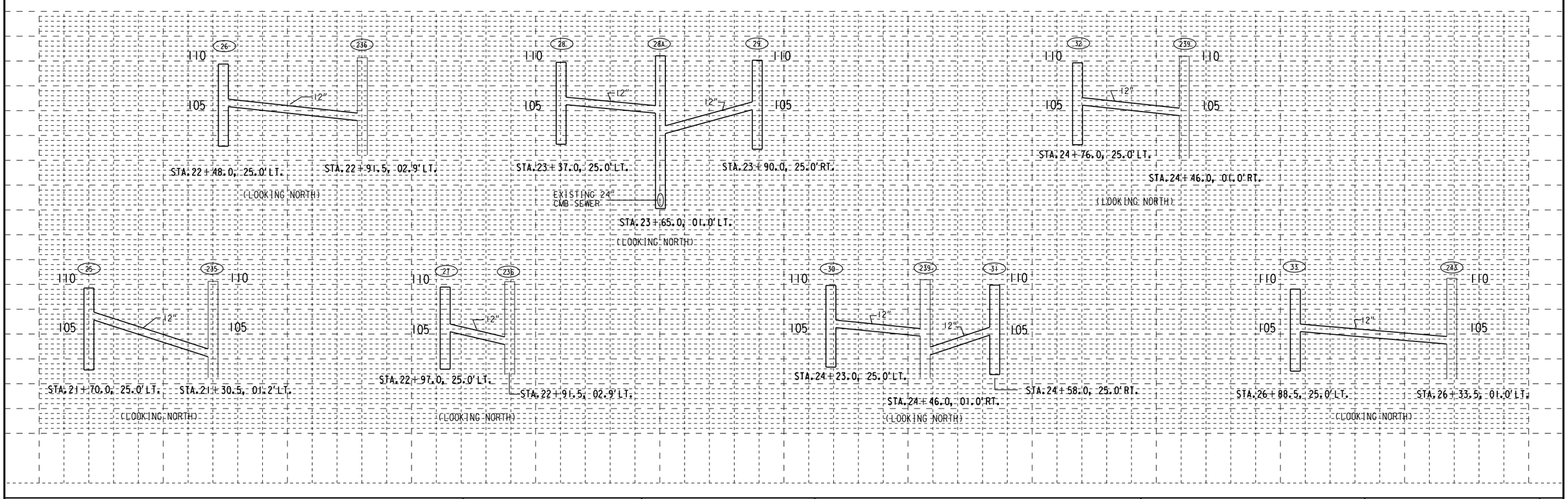
W. HAZELTON CT.

W. WELLS ST.

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 36	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\UTIL 21-27.DGN

2



STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 37	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\UTIL 21-27.DGN

NORTH 27TH STREET

2

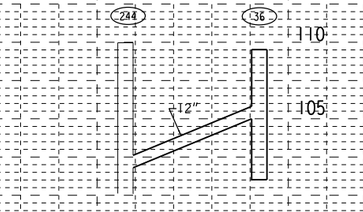
N

W. KILBOURN AVE.

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 38	E

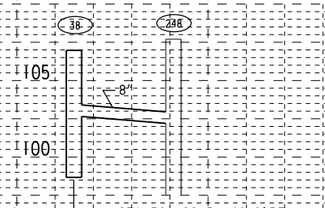
FILE NAME: W:\SPR\27_N_STPAUL_HIGH\UTIL 27-33.DGN

2



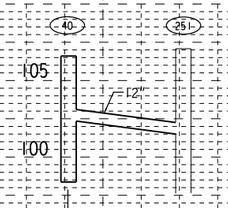
STA.27+86.5, 01.0' RT. STA.28+08.0, 25.0' RT.

(LOOKING NORTH)



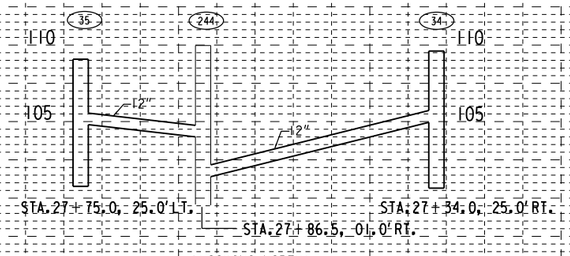
STA.31+05.2, 61.0' RT. STA.30+88.5, 46.9' RT.

(LOOKING EAST)



STA.32+93.0, 25.0' LT. STA.32+98.1, 01.8' RT.

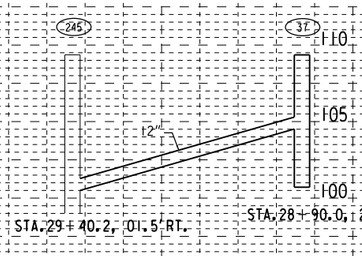
(LOOKING NORTH)



STA.27+75.0, 25.0' LT. STA.27+34.0, 25.0' RT.

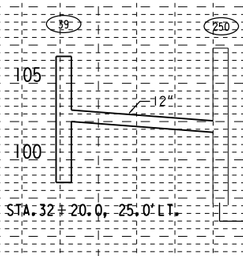
STA.27+86.5, 01.0' RT.

(LOOKING NORTH)



STA.29+40.2, 01.5' RT. STA.28+90.0, 25.0' RT.

(LOOKING NORTH)



STA.32+20.0, 25.0' LT. STA.32+47.5, 01.1' RT.

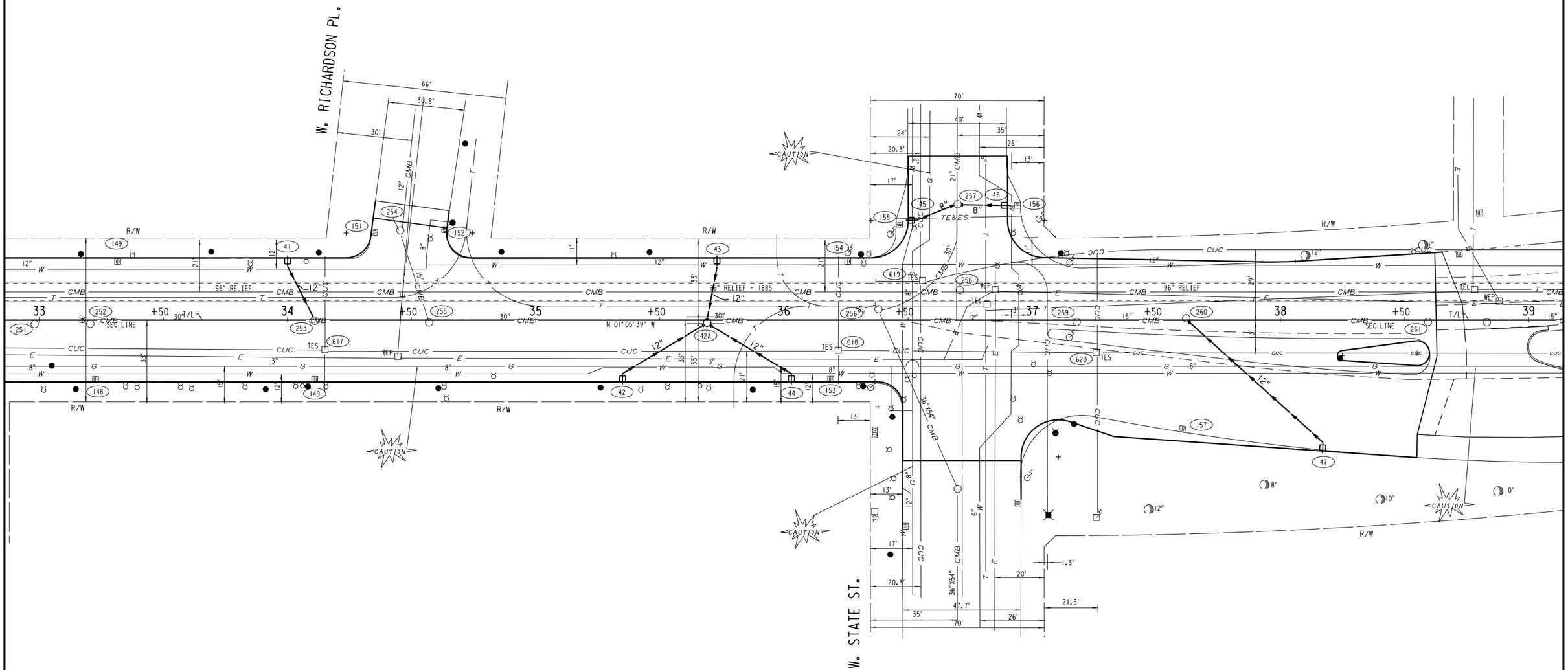
(LOOKING NORTH)

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 39	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\UTIL 27-33.DGN

NORTH 27TH STREET

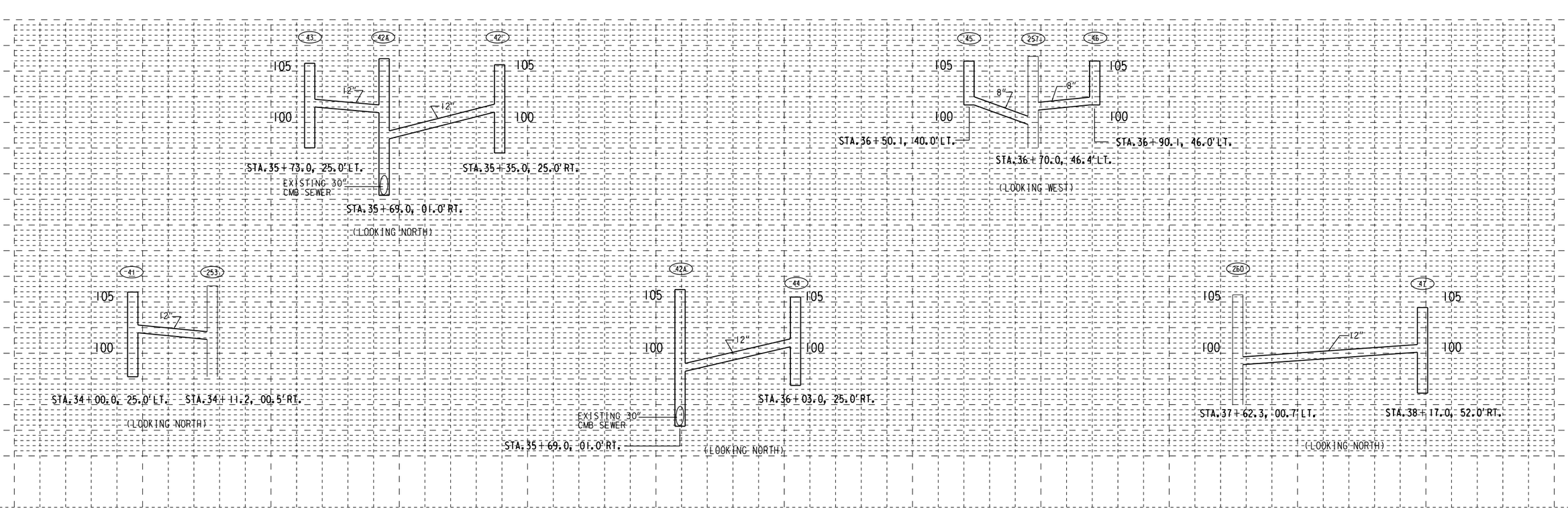
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STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 40	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\UTIL 33-39.DGN

2



STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 41	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\UTIL 33-39.DGN

2

NORTH

27TH STREET

W. HIGHLAND BLVD.

N

#2707-09 W. HIGHLAND BLVD.

#2701-03 W. HIGHLAND BLVD.

#2710 W. HIGHLAND BLVD.

#2600 W. HIGHLAND BLVD.

#1032

P.L.

R/W

END PROJECT
STA. 39+29.0 T/L

39 +50 40 +50 41 +50 42 +50 T/L 43 +50 44

SEC LINE N 01°05'39" W

ON SEC LINE

96" RELIEF - 1885

96" RELIEF

15' ALLEY

WATER MAIN IS 76' NORTH OF SOUTH R.O.W. LINE OF W. HIGHLAND BLVD. EAST OF N.26TH ST.

WATER MAIN IS 25' SOUTH OF NORTH R.O.W. LINE OF W. HIGHLAND BLVD. EAST OF N.26TH ST.

GAS MAIN IS 52' SOUTH OF NORTH R.O.W. LINE OF W. HIGHLAND BLVD. EAST OF N.26TH ST.

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 42	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\UTIL39-43.DGN

WEST WISCONSIN AVENUE

N

BEGIN CONSTRUCTION
STA. 06W+80.5 T/L

04W +50 05W +50 06W +50 07W +50 08W +50 09W +50 10W

1/4 SEC LINE

N 88°53'05" E

1/4 SEC LINE

N 01°05'39" W

SEC LINE

N 00°57'41" W

SEC LINE

N. 28TH ST.

N. 27TH ST.

CAUTION

TE&ES

TES

CUC

CMB

SAN

W

G

E

WEP

T

96" RELIEF

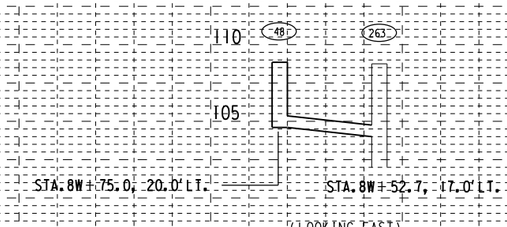
MONUMENT

2

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 43	E

FILE NAME: W:\SPR\27 N_STPAUL_HIGH\UTIL 04W-10W.DGN

2



04W +50 05W +50 06W +50 07W +50 08W +50 09W +50 10W

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 44	E

FILE NAME: W:\SPR\27_N STPAUL_HIGH\UTIL 04W-10W.DGN

WEST WISCONSIN AVENUE

2

N

N. 27TH ST.

N. 26TH ST.

10W MONUMENT

11W

12W

13W

14W T/L

15W

+50

1/4 SEC LINE

SEC LINE

N 88°44'23" E

N 01°05'39" W

N 00°57'41" W

END CONSTRUCTION
STA. 13W+67.5 T/L

ABANDONED

CAUTION

R/W

ASPH

CONC

TES

WEP

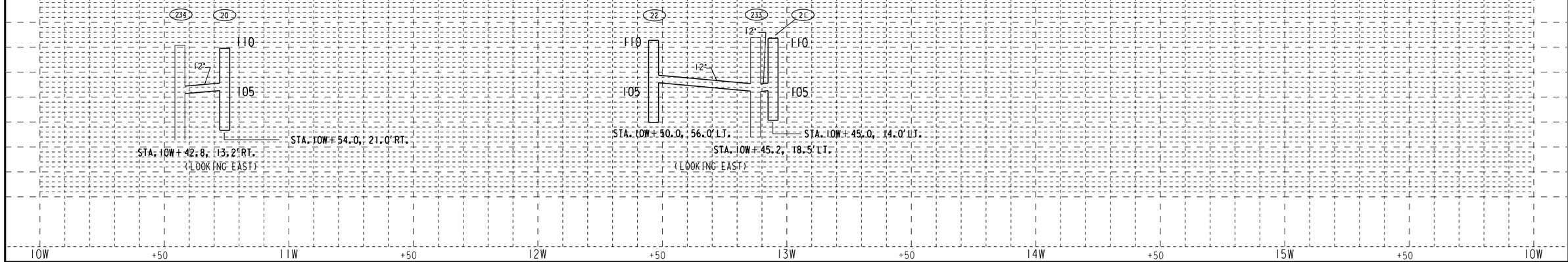
CUC

CMB

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 45	E

FILE NAME: W:\SPR\27 N_STPAUL_HIGH\UTIL 10W-15W.DGN

2



10W +50 11W +50 12W +50 13W +50 14W +50 15W +50 10W

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 46	E

FILE NAME: W:\SPR\27 N_STPAUL_HIGH\UTIL 10W-15W.DGN

NORTH 27TH STREET

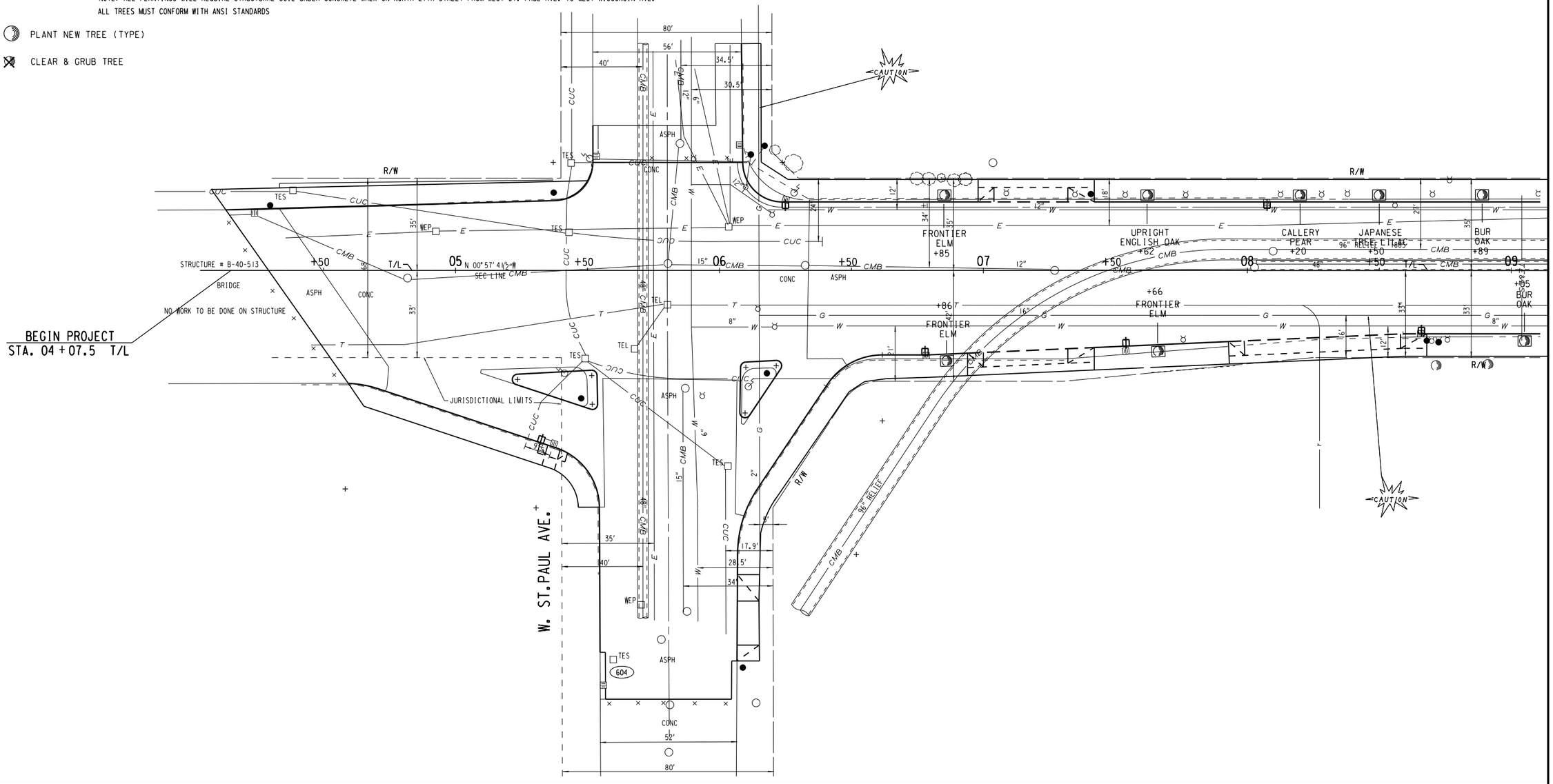
PLANTING DATA CHART													
				MINIMUM SIZE									
				BALL / POT		ROOT	PLANT HOLE		BRACE	FERT.	RODENT	MULCH	
COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	DIA.	DEPTH	SPREAD *	DIA.	DEPTH	OR GUY	UNITS REQ'D	PROTECT REQ'D	RING DIA.	REMARKS
SHADEMASTER HONEYLOCUST	GLENDITSIA TRIACANTHOS "INERMIS"	3.0" CAL.	B & B	24" MIN	18" MIN	INDEFINITE	36" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
AUTUMN BLAZE MAPLE	ACER FREEMANI "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
FRONTIER ELM	ULMUS PARVIFOLIA "FRONTIER"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
JAPANESE TREE LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
UPRIGHT ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BUR OAK	QUERCUS MACROCARPA	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY

NOTE: ALL PLANTINGS WILL REQUIRE STRUCTURAL SOIL UNDER CONCRETE WALK ON NORTH 27TH STREET FROM WEST ST. PAUL AVE. TO WEST WISCONSIN AVE.
ALL TREES MUST CONFORM WITH ANSI STANDARDS

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

PLANT NEW TREE (TYPE)

CLEAR & GRUB TREE

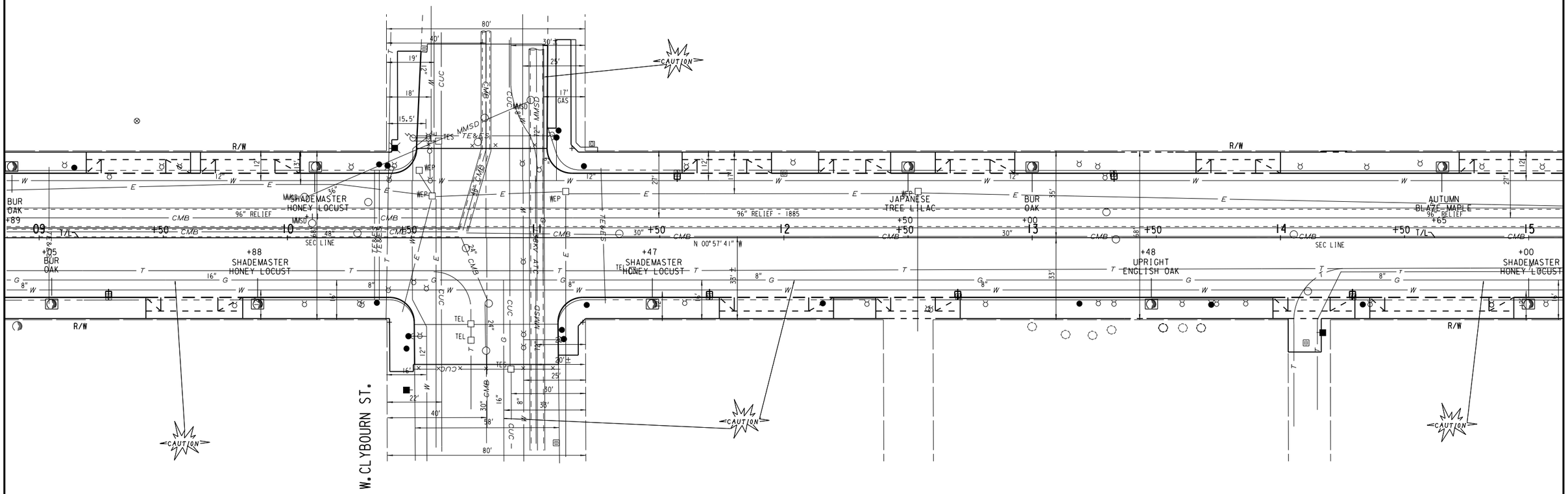


STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	TREE PLANTING	SCALE FEET 0' 40'	SHEET NO: 47	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\TREES 05-09.DGN

NORTH 27TH STREET

N



PLANT NEW TREE (TYPE)

CLEAR & GRUB TREE

PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	BALL / POT DEPTH	ROOT SPREAD *	PLANT HOLE DIA.	PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
SHADEMASTER HONEYLOCUST	GLENDITSIA TRIACANTHOS "INERMIS"	3.0" CAL.	B & B	24" MIN	18" MIN	INDEFINITE	36" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
AUTUMN BLAZE MAPLE	ACER FREEMANI "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
FRONTIER ELM	ULMUS PARVIFOLIA "FRONTIER"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
JAPANESE TREE LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
UPRIGHT ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BUR OAK	QUERCUS MACROCARPA	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY

NOTE: ALL PLANTINGS WILL REQUIRE STRUCTURAL SOIL UNDER CONCRETE WALK ON NORTH 27TH STREET FROM WEST ST. PAUL AVE. TO WEST WISCONSIN AVE.
ALL TREES MUST CONFORM WITH ANSI STANDARDS

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	TREE PLANTING	SCALE FEET 0' 40'	SHEET NO: 48	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\TREES 09-15.DGN

NORTH 27TH STREET

N

CAUTION

MATCH LINE

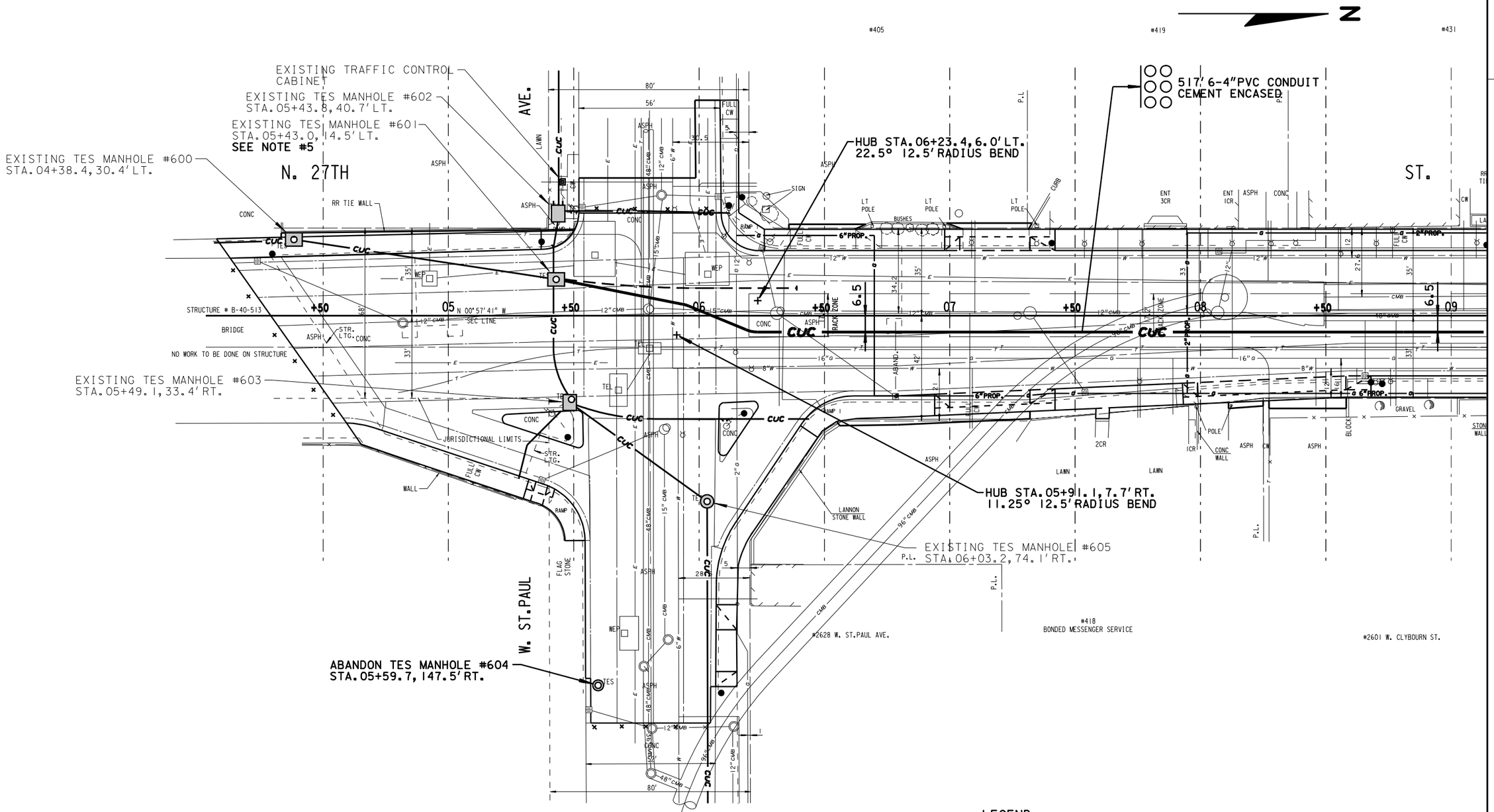
N 88°53'05" E 114 SEC LINE

N 00°57'41" W SEC LINE

N 01°05'39" W SEC LINE

N 88°44'23" E

15	+00	SHADEMASTER HONEY LOCUST	16	+69	JAPANESE TREE LILAC	17	+12	BUR OAK	18	+04	SHADEMASTER HONEY LOCUST	19	+88	AUTUMN BLAZE MAPLE	20	MONUMENT	21



NOTES:

1) 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.
2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GROUND AND TOP OF CONDUIT.
5) SAW CUT AND REMOVE EXISTING CONDUIT FROM WALL OF MANHOLE. INSTALL PROPOSED CONDUIT INTO EXISTING MANHOLE STRUCTURE AT THE SAME LOCATION.

LEGEND

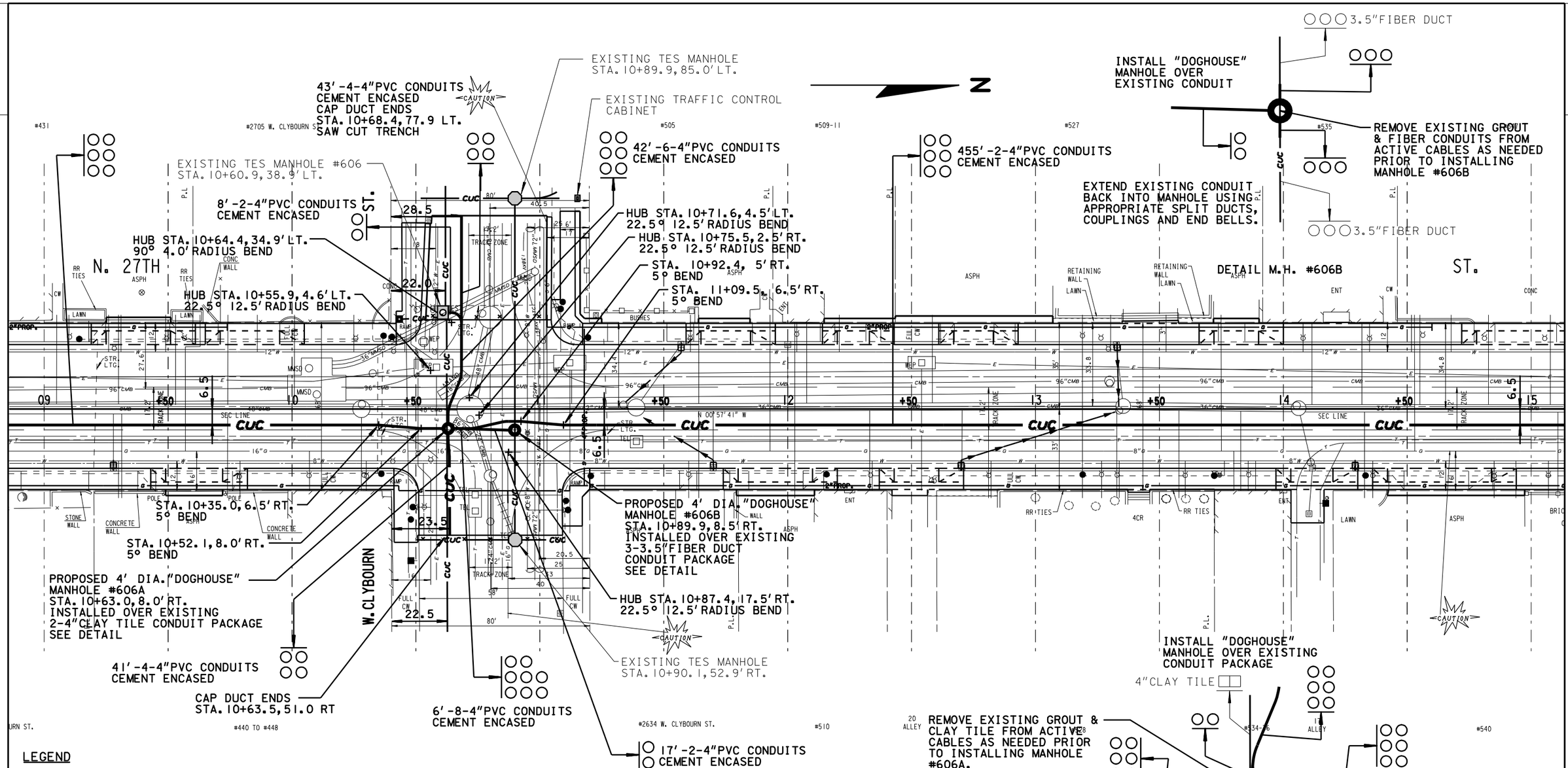
— CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.

PROPOSED TES MANHOLE

— — — — CONDUIT TO BE ABANDONED IN PLACE

SHEET 1 OF 11

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 50	E



LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
— — — —	CONDUIT TO BE ABANDONED IN PLACE

NOTES:

1) 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.
2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
4) MAINTAIN A MINIMUM DEPTH OF 39-INCHES BETWEEN FINISHED GROUND AND TOP OF CONDUIT.

SHEET 2 OF 11

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0 40	SHEET NO: 51 E

45'-2-4"PVC CONDUIT
CEMENT ENCASED W/VENT
SEE INSTALLATION DETAILS

EXISTING TRAFFIC CONTROL CABINET

HUB STA. 15+58.2, 18.9'LT.
22.5° 12.5'RADIUS BEND

492'-6'4"PVC CONDUIT
CEMENT ENCASED

EXISTING TES MANHOLE #608
STA. 20+46.6, 14.1'LT.

15'-2-4"PVC CONDUIT
CEMENT ENCASED

23'-2-4" PVC CONDUIT
CEMENT ENCASED

PROPOSED 4' DIA.
MANHOLE # 606C
STA. 15+45.7, 6.5'RT.

PROPOSED VAULT
STA. 19+56.0, 25.2'RT.
SEE STREET LIGHTING
CONDUIT PLAN
SHEET 17 OF 26

HUB STA. 19+61.0, 162'RT.
90° 5'RADIUS BEND

EXISTING TES
MANHOLE #607
STA. 19+69.8, 11.2'RT.

STA. 20+00.0, 6.5'RT.
5° BEND

STA. 20+17.1, 5.0'RT.
5° BEND

PROPOSED 5' DIAMETER
MANHOLE #608A
STA. 20+41.5, 5.0'RT.

PROPOSED POLICE CALL BOX

EXISTING TRAFFIC CONTROL CABINET

EXISTING TES MANHOLE #610

EXISTING TES MANHOLE #611

EXISTING TES MANHOLE #609
STA. 20+61.8
10.5 RT.

SEE SHEET 7 OF 11

SEE SHEET 8 OF 11

N. 27TH ST.

W. MICHIGAN ST.

W. WISCONSIN AVE.

NOTES:

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2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
4) MAINTAIN A MINIMUM DEPTH OF 39-INCHES BETWEEN FINISHED GROUND AND TOP OF CONDUIT.

LEGEND

— CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.

PROPOSED TES MANHOLE

— — — — CONDUIT TO BE ABANDONED IN PLACE

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 52	E

2

N

#2708 W. WISCONSIN AVE.
WISCONSIN AVENUE SCHOOL

295'-6-4"PVC CONDUIT
CEMENT ENCASED

EXISTING TES MANHOLE #612
STA.23+63.6, 30.1' LT.

N. 27TH

ASPH

CONC WALL

P.L.

CW

CONC

#743-53

252'-6-4"PVC CONDUIT
CEMENT ENCASED

CAP DUCT ENDS
STA.25+77.2, 43.9 LT.

HUB STA.25+84.5, 2.8' LT.
45° 12.5' RADIUS BEND

EXISTING TES MANHOLE #613
STA.25+37.5, 10.7' RT.

ST.

54'-4-4"PVC CONDUIT
CEMENT ENCASED

HUB STA.25+89.7, 32.9' LT.
45° 12.5' RADIUS BEND

ST.

#801 #809

STEEL GRATE

RAMP

BUS SHELTER

21 22 23 24 25 26 27

+50

SEC LINE

N 01°05'39" W

TRACK ZONE

STR. LTG.

8"TO BE ABAND.

8"W

2"PROP.

PROPOSED 4' DIA.
MANHOLE #612A
STA.23+41.0, 5.0' RT.

36'-2-4"PVC CONDUIT
CEMENT ENCASED

CAUTION

W. HAZELTON CT.

CAP DUCT ENDS
STA.23+41.0, 43.0' RT.

2.0

CONC POST

PROPOSED 4' DIA.
MANHOLE #613A
STA.25+96.9, 5.0' RT.

PROPOSED VAULT
STA.25+61.5, 48.9' RT.
SEE STREET LIGHTING
CONDUIT PLAN
SHEET 21 OF 26

W. WELLS

HUB STA.25+91.9, 43.9' RT.
90° 5' RADIUS BEND

38'-2-4"PVC CONDUIT
CEMENT ENCASED

EXISTING TES
MANHOLE #614
STA.26+41.6, 11.0' RT.

37'-8-4"PVC CONDUIT
CEMENT ENCASED

8'-6-4"PVC CONDUIT
CEMENT ENCASED

CAP DUCT ENDS
STA.25+96.9, 51.9 RT.

#800 #802 #804-06 #808

#2630 W. WISCONSIN AVE.

#748

#2639 W. WELLS ST.

NOTES:

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2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
4) MAINTAIN A MINIMUM DEPTH OF 39-INCHES BETWEEN FINISHED GROUND AND TOP OF CONDUIT.

LEGEND

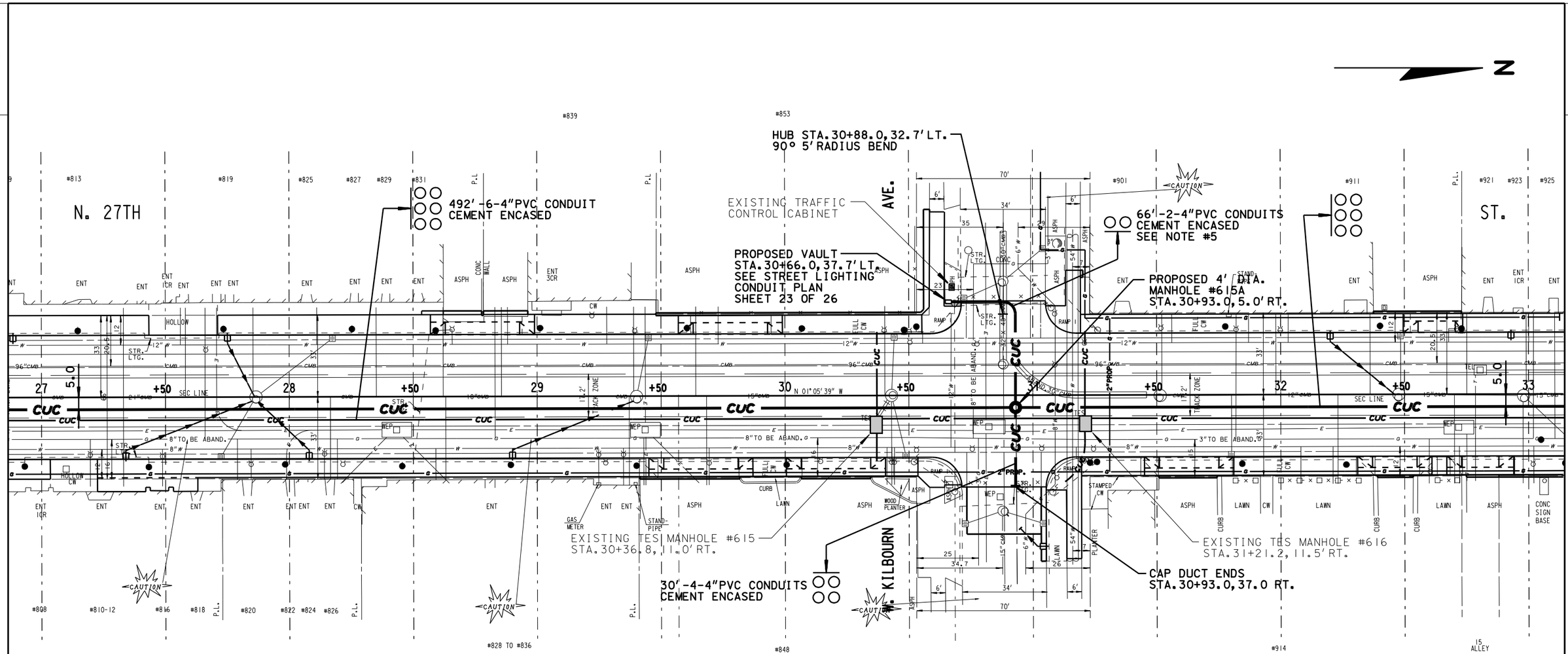
— CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.

PROPOSED TES MANHOLE

— — — — CONDUIT TO BE ABANDONED IN PLACE

SHEET 4 OF 11

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0 40	SHEET NO: 53	E



NOTES:

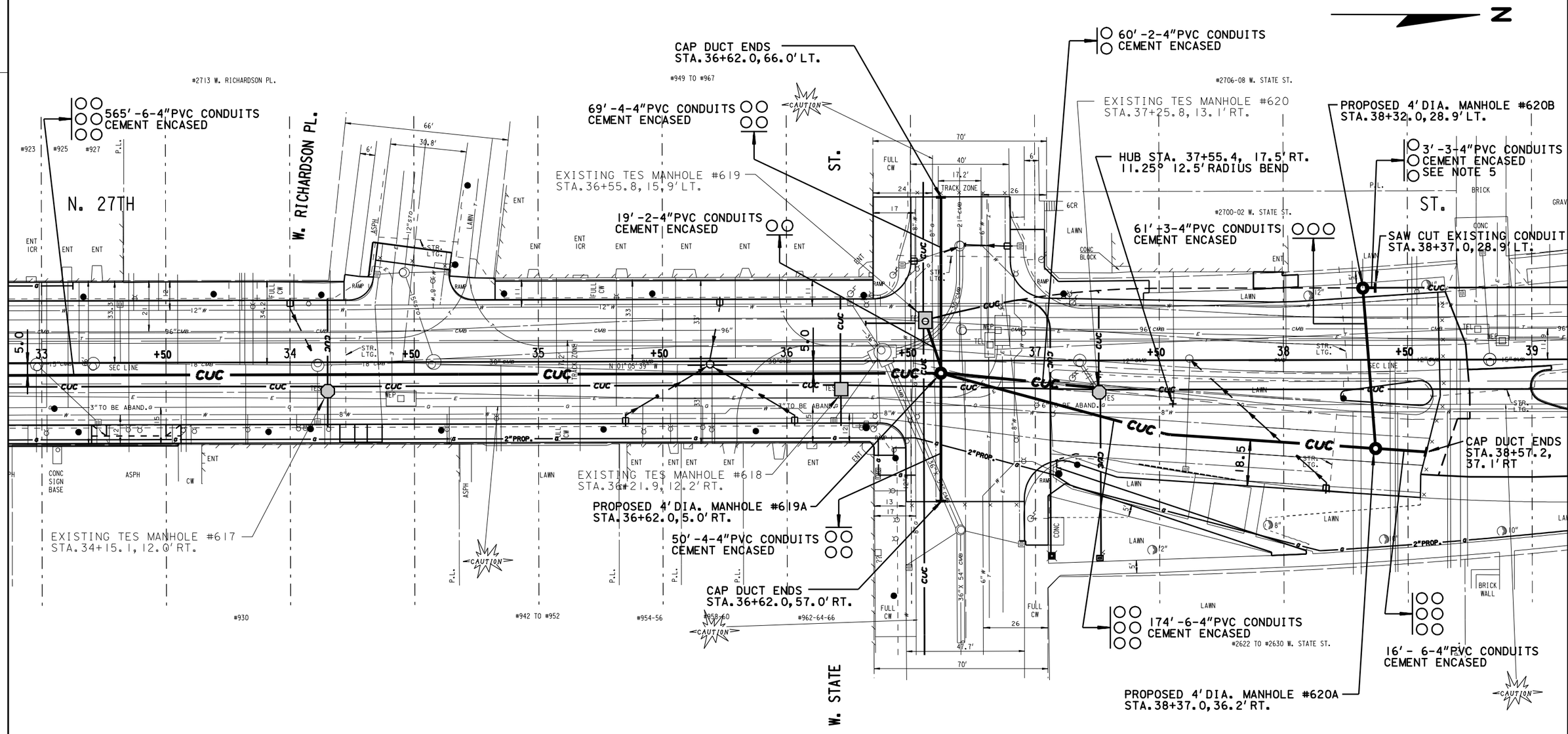
1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
4) MAINTAIN A MINIMUM DEPTH OF 39-INCHES BETWEEN FINISHED GROUND AND TOP OF CONDUIT.
5) INSTALL CITY UNDERGROUND CONDUIT IN THE SAME TRENCH AND BELOW THE PROPOSED STREET LIGHTING CONDUIT. SEE STREET LIGHTING CONDUIT SHEET 23 OF 26.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
○	PROPOSED TES MANHOLE
— — — —	CONDUIT TO BE ABANDONED IN PLACE

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 54	E

2

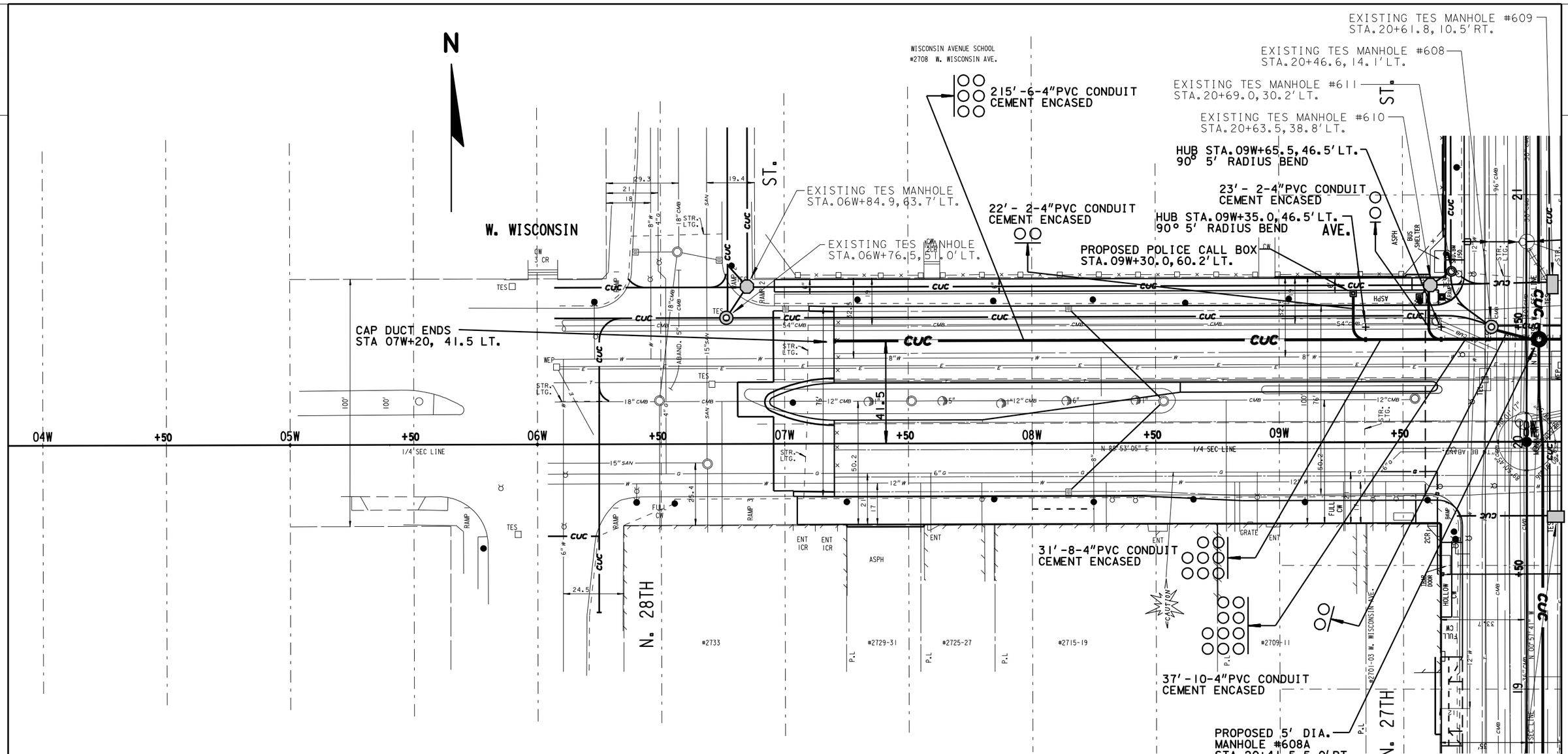


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4) MAINTAIN A MINIMUM DEPTH OF 39-INCHES BETWEEN FINISHED GROUND AND TOP OF CONDUIT.
5) ATTACH PROPOSED 4"PVC TO THE THREE EXISTING 3"FIBER DUCT USING APPROPRIATE ADAPTORS. REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
○	PROPOSED TES MANHOLE
— — — —	CONDUIT TO BE ABANDONED IN PLACE



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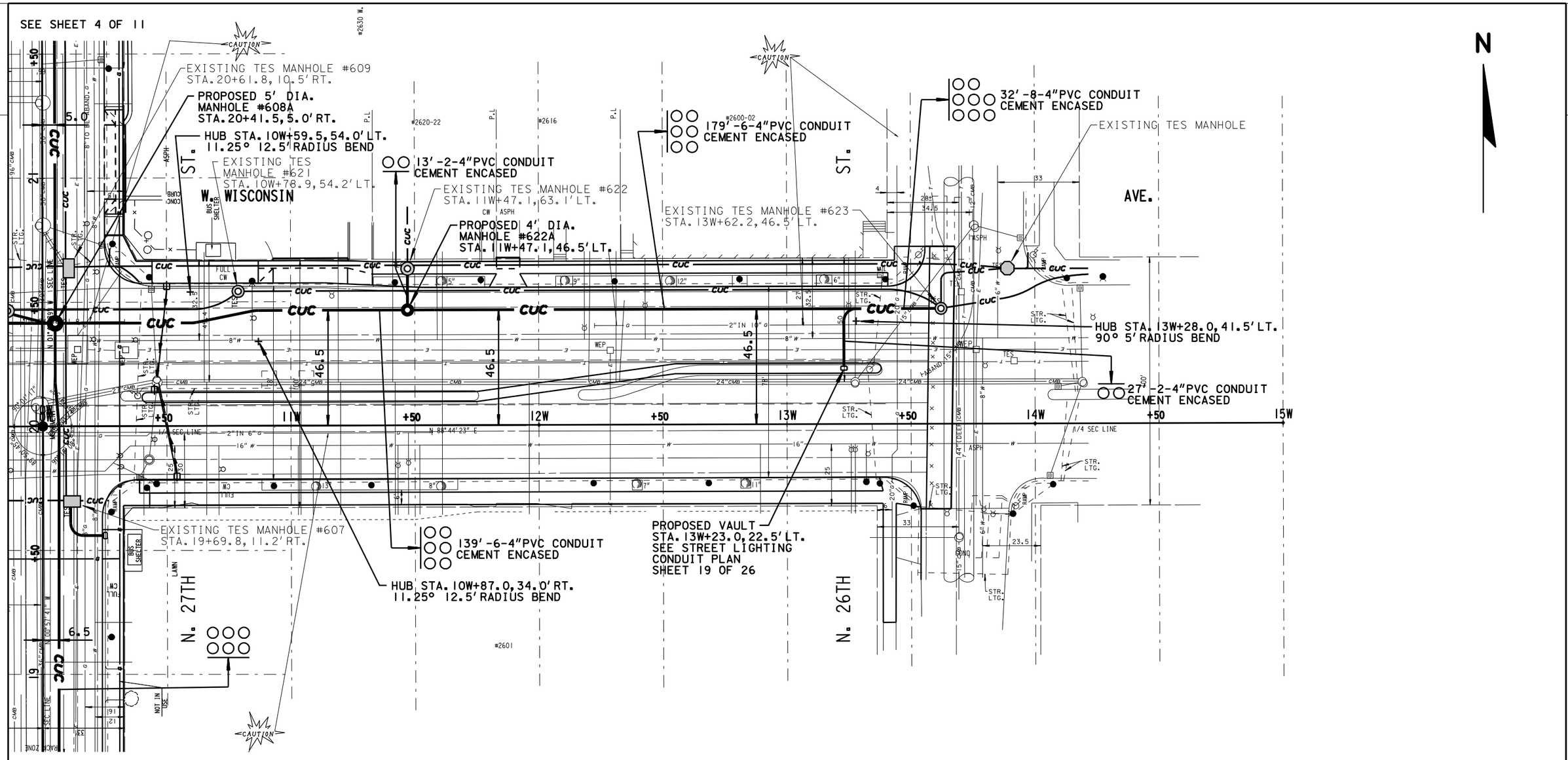
LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
— — — —	CONDUIT TO BE ABANDONED IN PLACE

SHEET 7 OF 11

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 56 E

SEE SHEET 4 OF 11



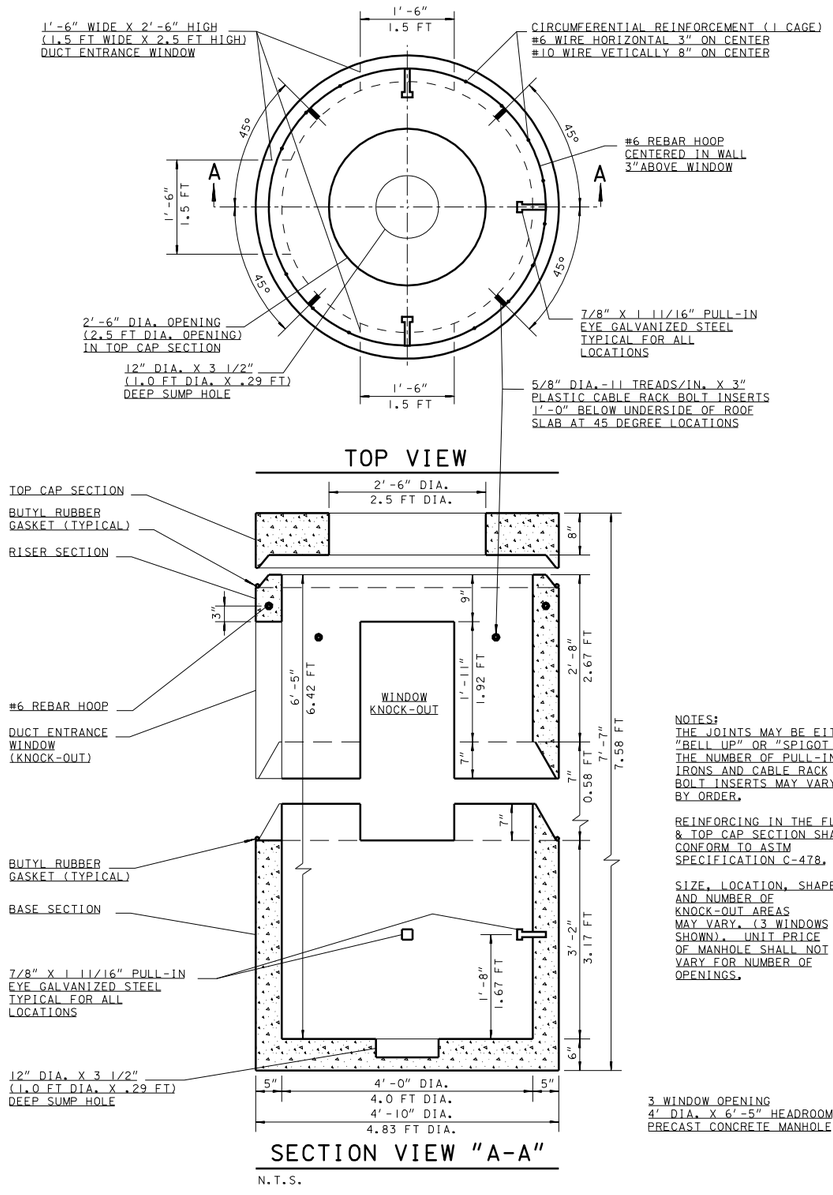
SEE SHEET 3 OF 11

NOTES:

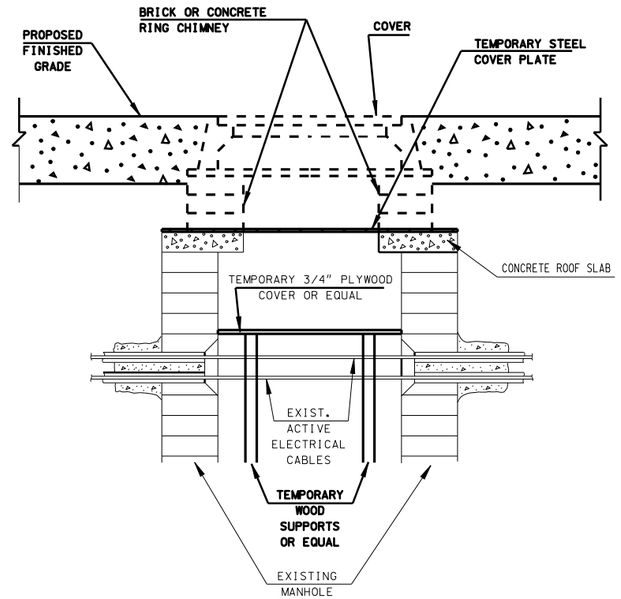
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LEGEND

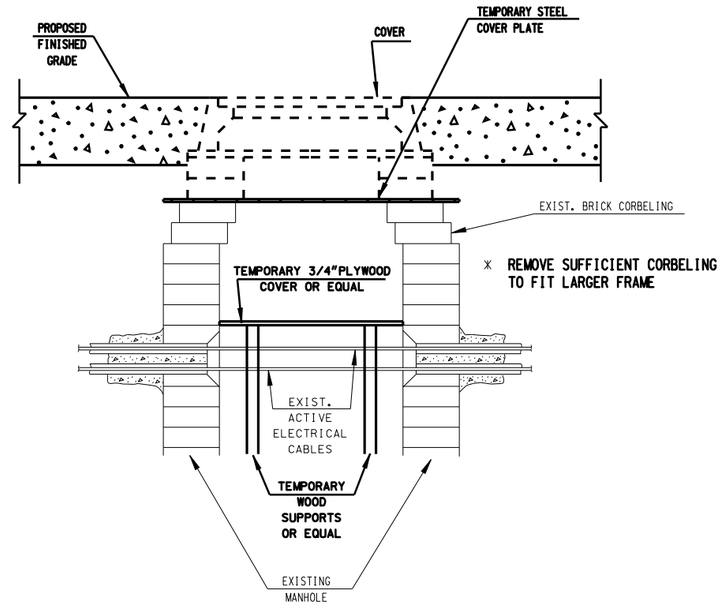
— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
⊙	PROPOSED TES MANHOLE
— — — —	CONDUIT TO BE ABANDONED IN PLACE



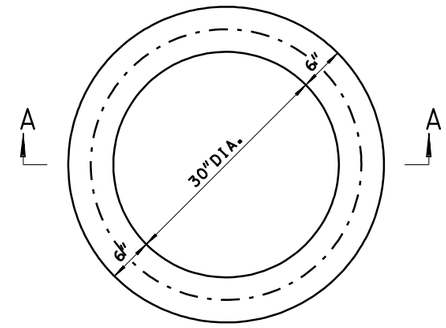
4' DIAMETER "DOGHOUSE" TYPE TES DETAIL



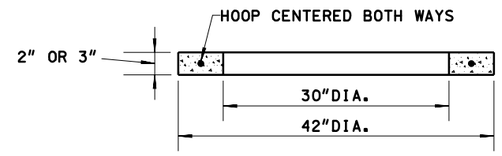
BLOCK OR PRECAST MANHOLE



BRICK ROUND MANHOLE



PLAN



SECTION A-A

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

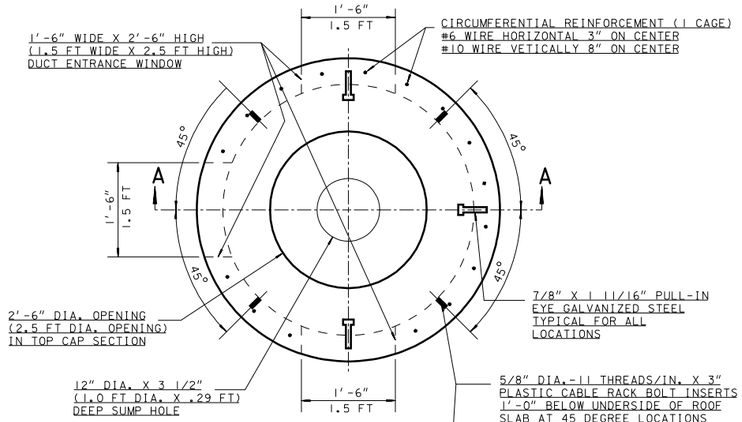
THE CIRCUMFERENTIAL STEEL SHALL BE CENTERED WITHIN THE RING.

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

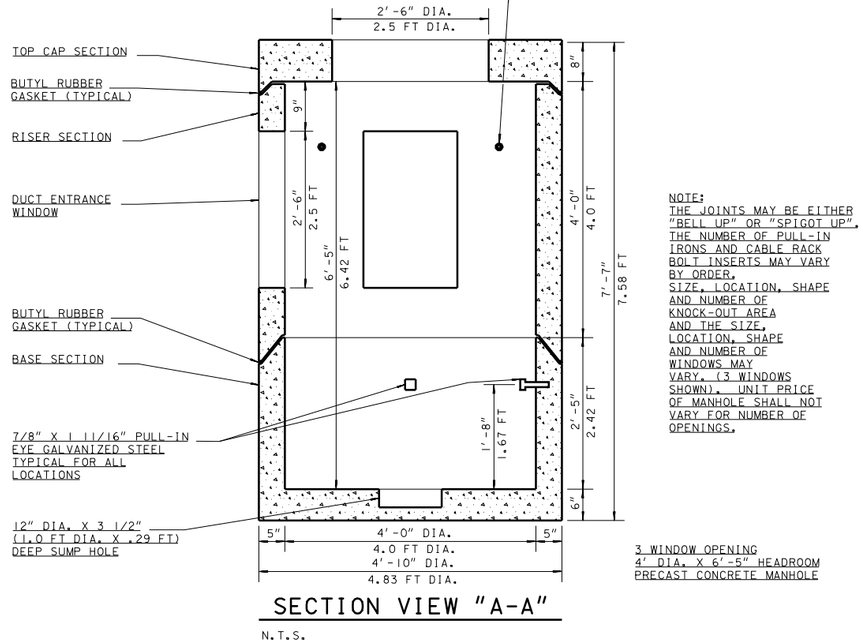
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE CORE SHALL BE 4000 P.S.I.

CONCRETE ADJUSTING RING

ADJUSTING TES MANHOLES



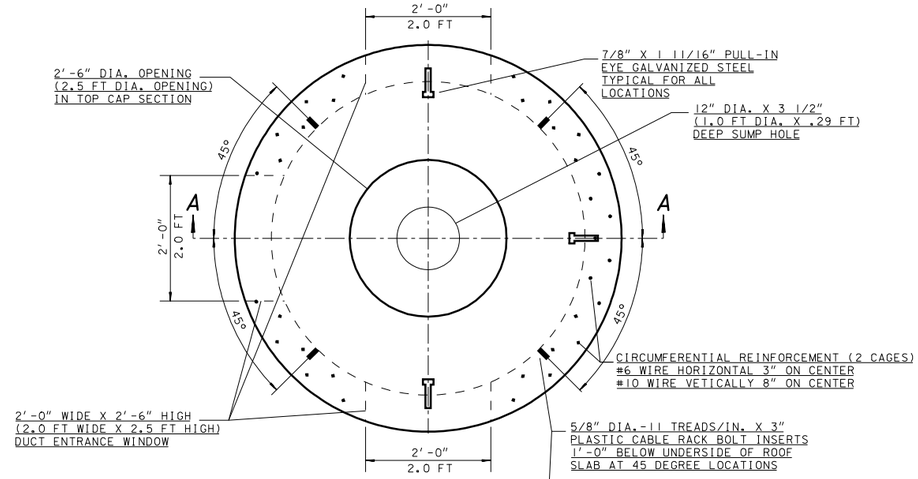
TOP VIEW



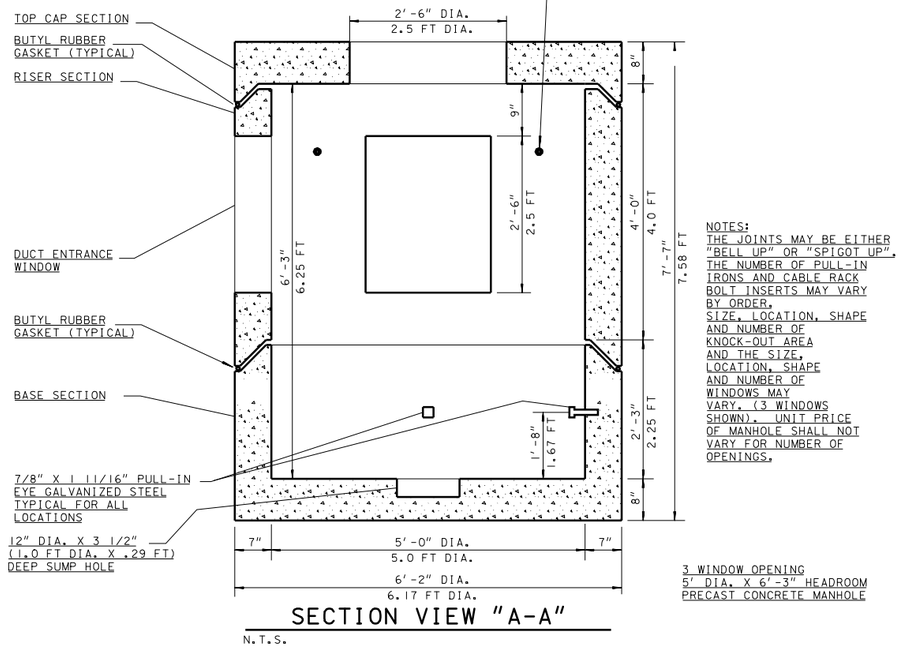
SECTION VIEW "A-A"

N.T.S.

4' DIAMETER MANHOLE TYPE TES DETAIL



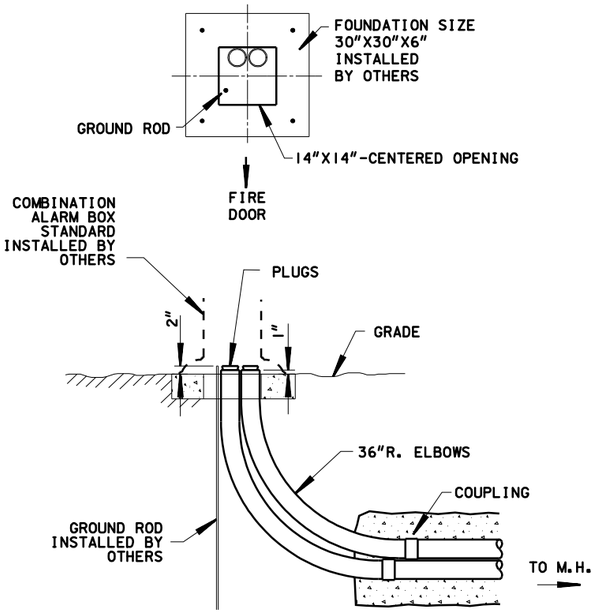
TOP VIEW



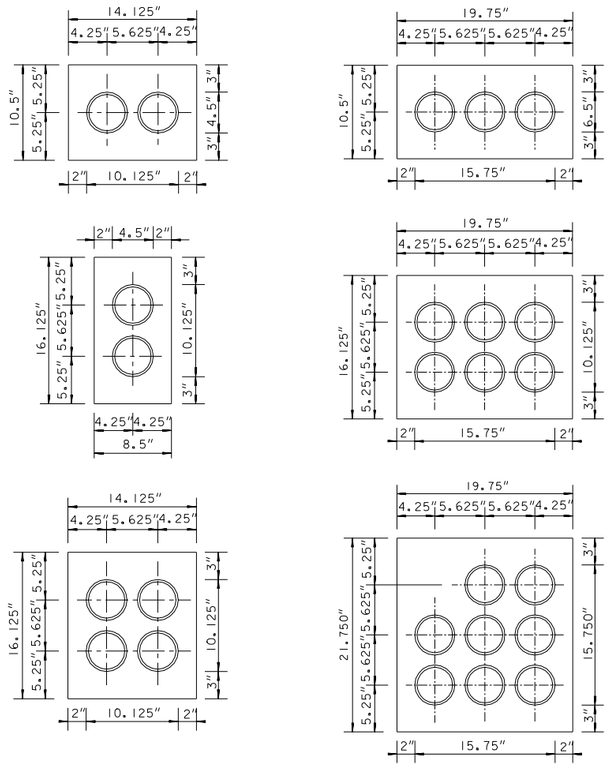
SECTION VIEW "A-A"

N.T.S.

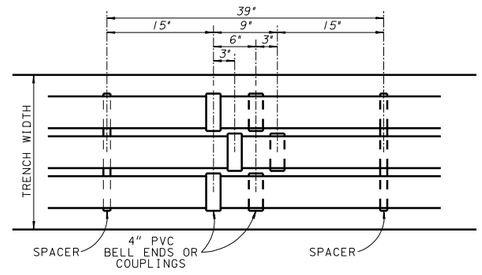
5' DIAMETER MANHOLE TYPE TES DETAIL



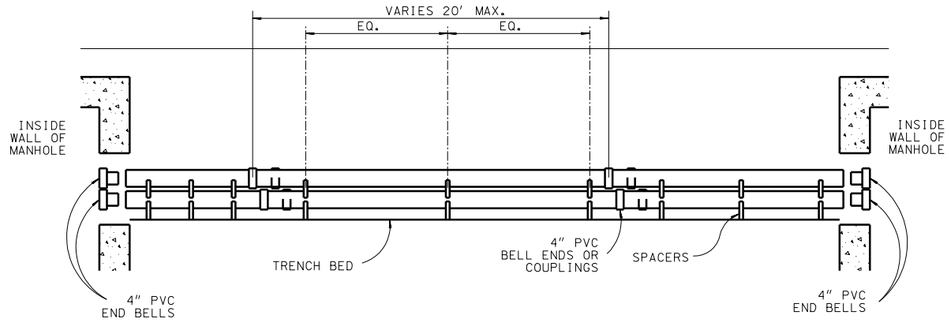
POLICE CALL BOX DETAIL



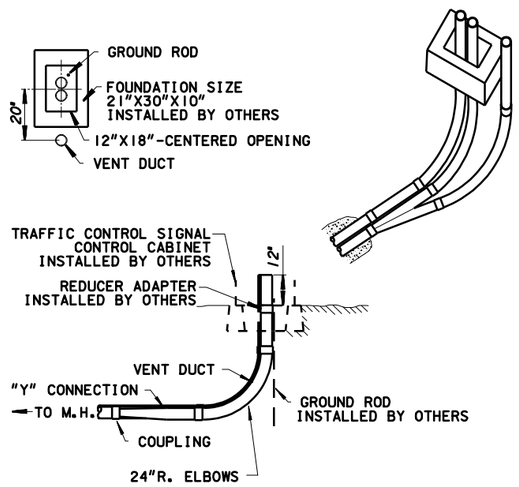
CROSS SECTION VIEW
N.T.S.



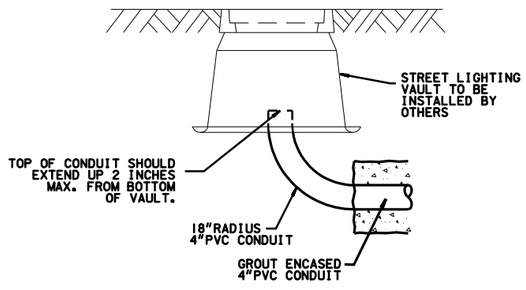
PLAN VIEW
N.T.S.



SECTION VIEW
N.T.S.

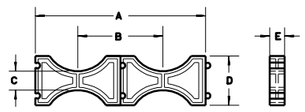


TRAFFIC CONTROL CABINET DETAIL



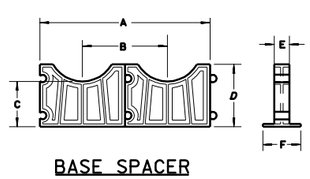
TYPICAL CONDUIT - VAULT ENTRY

COND.	4"
A	11 ½"
B	5 ⅝"
C	1 ½"
D	3 ½"
E	1"



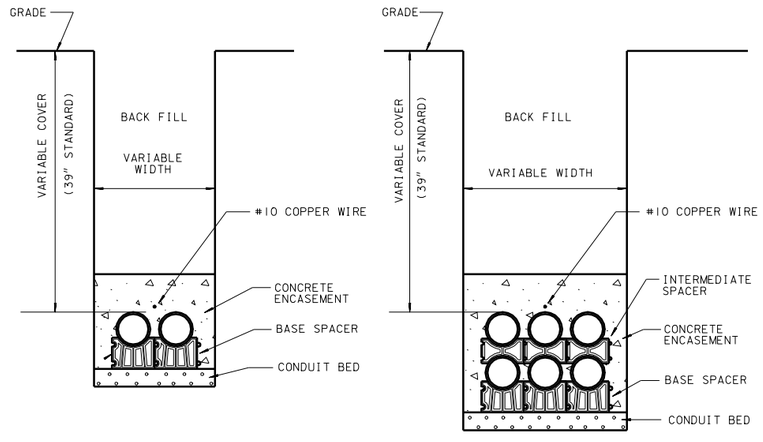
INTERMEDIATE SPACER

COND.	4"
A	11 ½"
B	5 ⅝"
C	3"
D	4 ½"
E	1"
F	2 ½"



BASE SPACER

INTERMEDIATE AND
BASE SPACER DETAIL



CROSS SECTION VIEW, TYP.
N.T.S.

SHEET 11 OF 11

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	CITY UG CONDUIT DETAILS (TES)	SCALE FEET	SHEET NO: 60	E

2

TRAFFIC & STREET LIGHTING GENERAL NOTES:

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

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

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

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

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

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

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

5 CONDUIT INSTALLED BEHIND CURB, AND UNDER DRIVEWAYS SHALL BE INSTALLED AT THE BASE OF THE BACKSIDE OF THE CURB/GUTTER SECTION.

6 WHEN THERE IS MORE THAN ONE CONDUIT TO BE LAID BEHIND THE CURB, 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 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 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 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.

TRAFFIC & STREET LIGHTING GENERAL NOTES:

2

20 COORDINATE NEW CONDUIT CONNECTIONS WITH EXISTING CONDUIT, DUCT PACKAGES, AND 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

21 IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL VAULT, 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 - GEORGE BERDINE (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) 414-286-3687 (CELL) 414-708-5148
TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687

22 CONDUIT WILL ONLY BE INSTALLED AFTER THE CURB IS POURED, UNLESS APPROVED BY BOTH THE ENGINEER & STREET LIGHTING SHOP SUPERVISOR.

23 CONTRACTOR SHALL FURNISH THREE (3) COPIES OF AS-BUILT DRAWINGS FOR ALL WORK DONE. THE AS-BUILT DRAWINGS SHALL MEET ALL THE REQUIREMENTS LISTED BELOW. SUBMIT DRAWINGS TO THE CITY OF MILWAUKEE CITY ENGINEER OFFICE @ 841 N. BROADWAY, MILWAUKEE, WI., 53202, ATTENTION TO ROBERT BRYSON.

ELECTRICAL AS-BUILT REQUIREMENTS:

* LOCATE AND CLEARLY DIMENSION ALL CONDUIT RUNS, FITTINGS, SPLICE VAULTS, PULL BOXES, METER PEDESTALS, LIGHT BASES, TRANSFORMER, POLES AND OTHER APPURTENANCES IN TWO (2) DIRECTIONS. SWING TIES SHOULD BE MADE FROM OBJECTS THAT ARE PERMANENT IN NATURE AND VISIBLE ON THE FINISHED SURFACE.
* STREET NAMES SHALL BE ON ALL SHEETS.
* SHOW ALL SIZES AND MATERIAL TYPES OF PIPES AND CONDUITS.
* ALL HORIZONTAL DISTANCES SHALL BE SHOWN TO THE NEAREST TENTH OF A FOOT (I.E., 205.3'). ALL VERTICAL DISTANCES SHALL BE SHOWN TO THE NEAREST INCH (I.E. 24").
* SHOW LOCATION AND ELEVATIONS OF PIPES AND FITTINGS WHERE CHANGES OR DEFLECTIONS IN DIRECTION OCCUR.
* SPECIAL DETAIL DRAWINGS WILL BE SUPPLIED WHERE REQUIRED FOR CLARITY.
* DEVIATIONS FROM ORIGINAL PLANS OR STANDARD DETAILS SHALL BE NOTED ON AS-BUILT DRAWINGS.

UTILITY LINE CODE

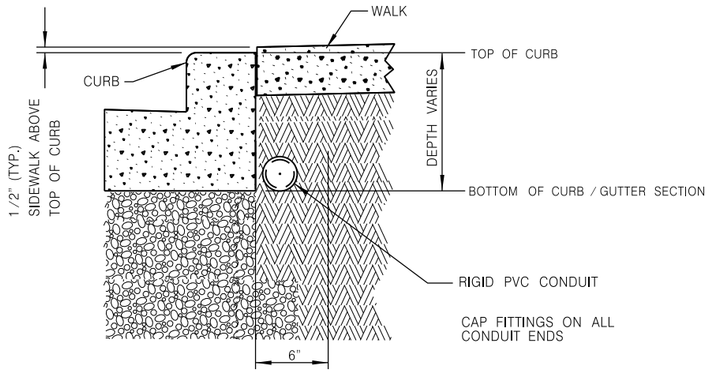
SAN	SANITARY SEWER
STO	STORM SEWER
W	WATER
G	GAS
G	PROPOSED GAS
E	ELECTRIC
TE&ES	TRAFFIC & STREET LIGHTING
	OLD CITY UNDERGROUND CONDUIT
CUC	PROPOSED CITY UNDERGROUND CONDUIT
T	TELEPHONE
TV	CABLE

SHEET 1 OF 26

PROJECT NO: 2265–09–70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLANS	SHEET 61	E

FILE NAME : W:\bes\pavings\2012work\n27thStPaulHighland\PVC\conduitmaster20.dgn PLOT DATE : 18–JAN–2013 13:15 PLOT BY : elee PLOT NAME : PLOT SCALE : 40.000000:1.000000 WISDOT/CADDS SHEET 42

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



100 DETAIL "A"

TYPICAL CONDUIT INSTALLATION
BEHIND CURB

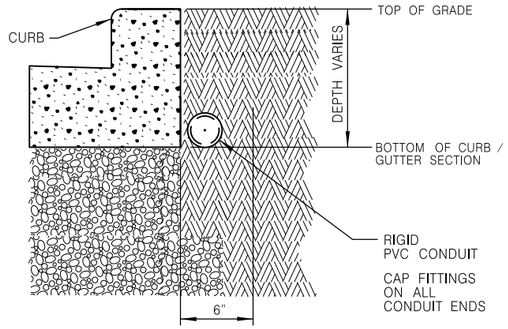
NOT TO SCALE

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

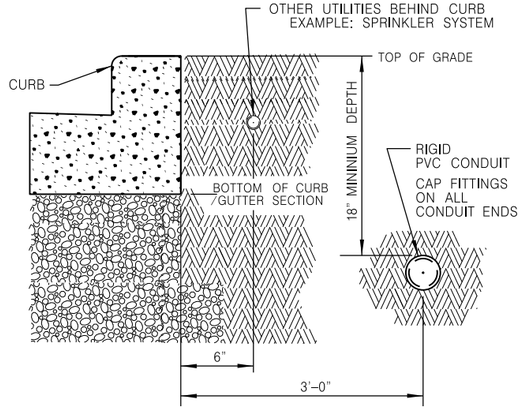
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB,
UNLESS NOTED OR APPROVED BY ENGINEER.



DETAIL "C"

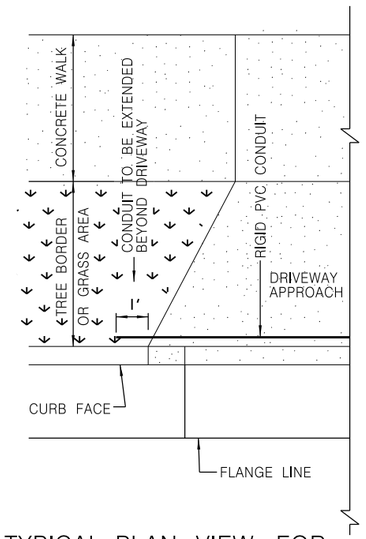


100 DETAIL "B" & "C"

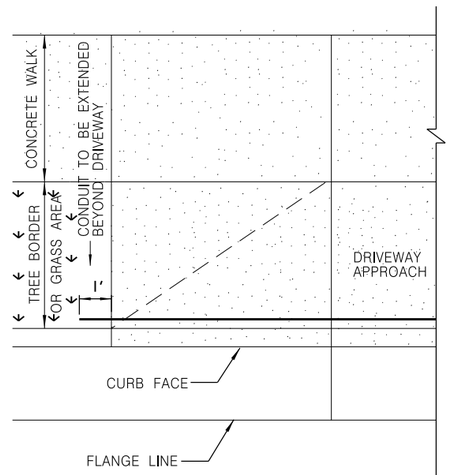
TYPICAL CONDUIT INSTALLATION
BEHIND CURB

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.

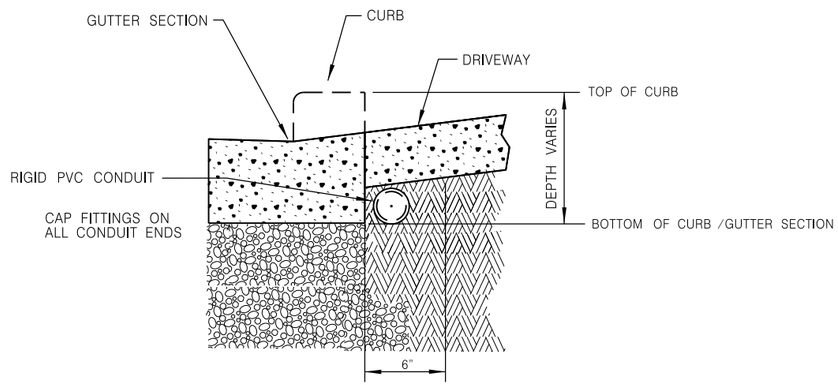


TYPICAL PLAN VIEW FOR
FLARED DRIVEWAY



TYPICAL PLAN VIEW FOR
DEPRESSED DRIVEWAY

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



101 DETAIL

TYPICAL CONDUIT INSTALLATION
UNDER DRIVEWAYS OR PEDESTRIAN RAMPS

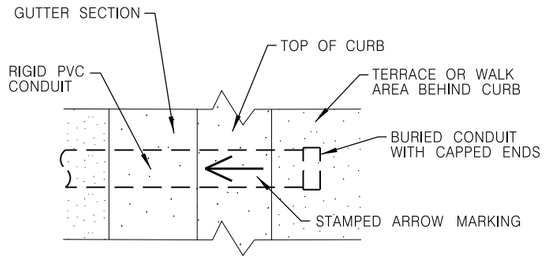
NOT TO SCALE

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

SHEET 2 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLANS	SHEET 62	E

FILE NAME : W:\bes\pavings\2012work\n27thStPaulHighland\PVC\conduitmaster20.dgn PLOT DATE : 18-JAN-2013 13:16 PLOT BY : elee PLOT NAME : PLOT SCALE : 40.000000:1.000000
WISDOT/CADDS SHEET 42

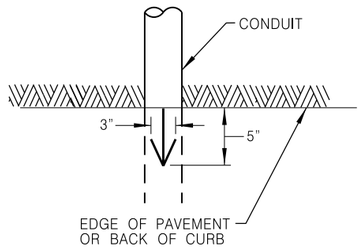


TOP VIEW OF CURB STAMPING

NOT TO SCALE

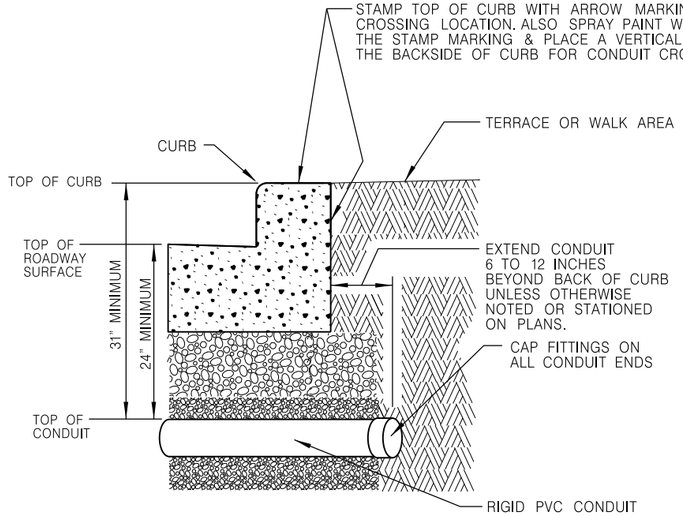
NOTE:

ARROW MARK SHALL BE INSCRIBED IN PAVEMENT SURFACE 1/4-INCH TO 3/8-INCH DEEP AT EACH LOCATION WHERE CONDUITS ARE PLACED UNDER THE PAVEMENT.



ARROW MARK

NOT TO SCALE



102

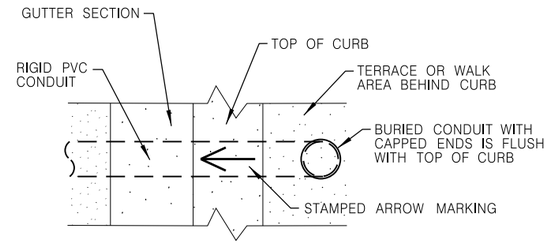
DETAIL VERSION #1

TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS

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

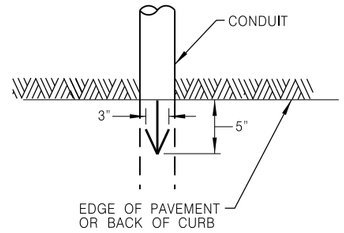


TOP VIEW OF CURB STAMPING

NOT TO SCALE

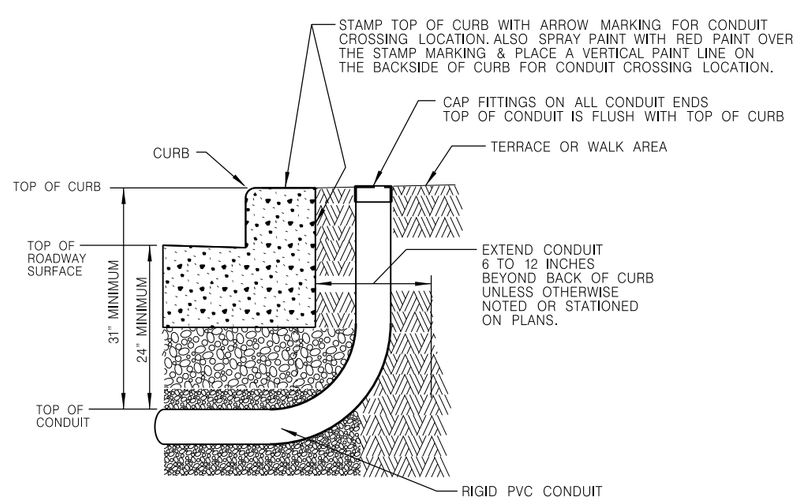
NOTE:

ARROW MARK SHALL BE INSCRIBED IN PAVEMENT SURFACE 1/4-INCH TO 3/8-INCH DEEP AT EACH LOCATION WHERE CONDUITS ARE PLACED UNDER THE PAVEMENT.



ARROW MARK

NOT TO SCALE



102

DETAIL VERSION #2

TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS

NOT TO SCALE

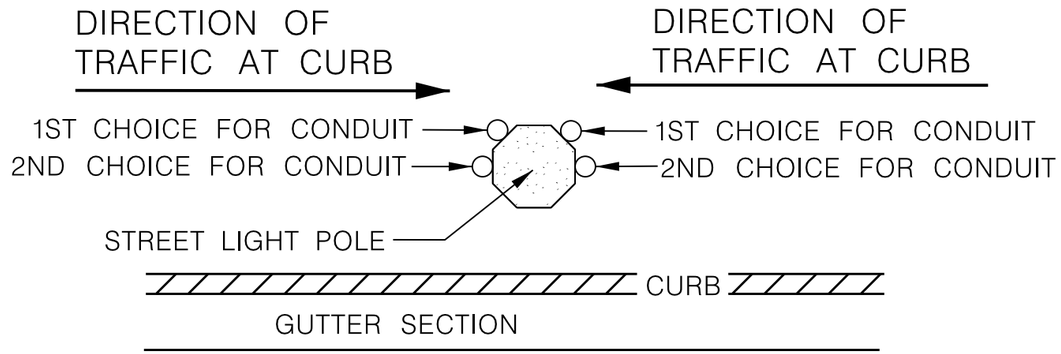
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 3 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLANS	SHEET 63	E

FILE NAME : W:\bes\pavings\2012work\n27thStPaulHighland\PVC\conduitmaster20.dgn PLOT DATE : 18-JAN-2013 13:16 PLOT BY : elee PLOT NAME : PLOT SCALE : 40.000000:1.000000
WISDOT/CADDS SHEET 42

NOTE: CAP FITTINGS ON CONDUIT ENDS



104 DETAIL

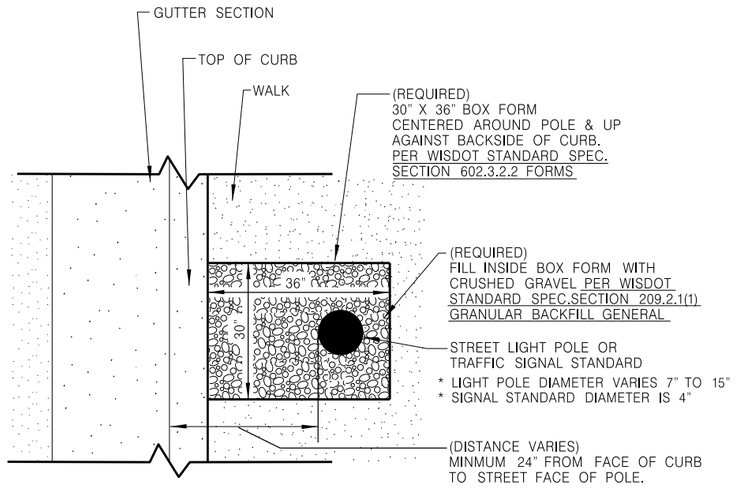
TYPICAL TRAFFIC SIGNAL RISER CONDUIT LOCATIONS ON STREET LIGHT POLE DEPENDING ON DIRECTION OF TRAFFIC AT CURB

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.

THE CONTRACTOR IS REQUIRED TO FORM OUT A OPENING IN THE CONCRETE WALK BEFORE POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN ADJACENT DETAIL)

THE CONTRACTOR IS REQUIRED TO FILL IN THE FORMED OUT AREA OPENING IN THE CONCRETE WALK WITH CRUSHED GRAVEL, AFTER POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN ADJACENT DETAIL)

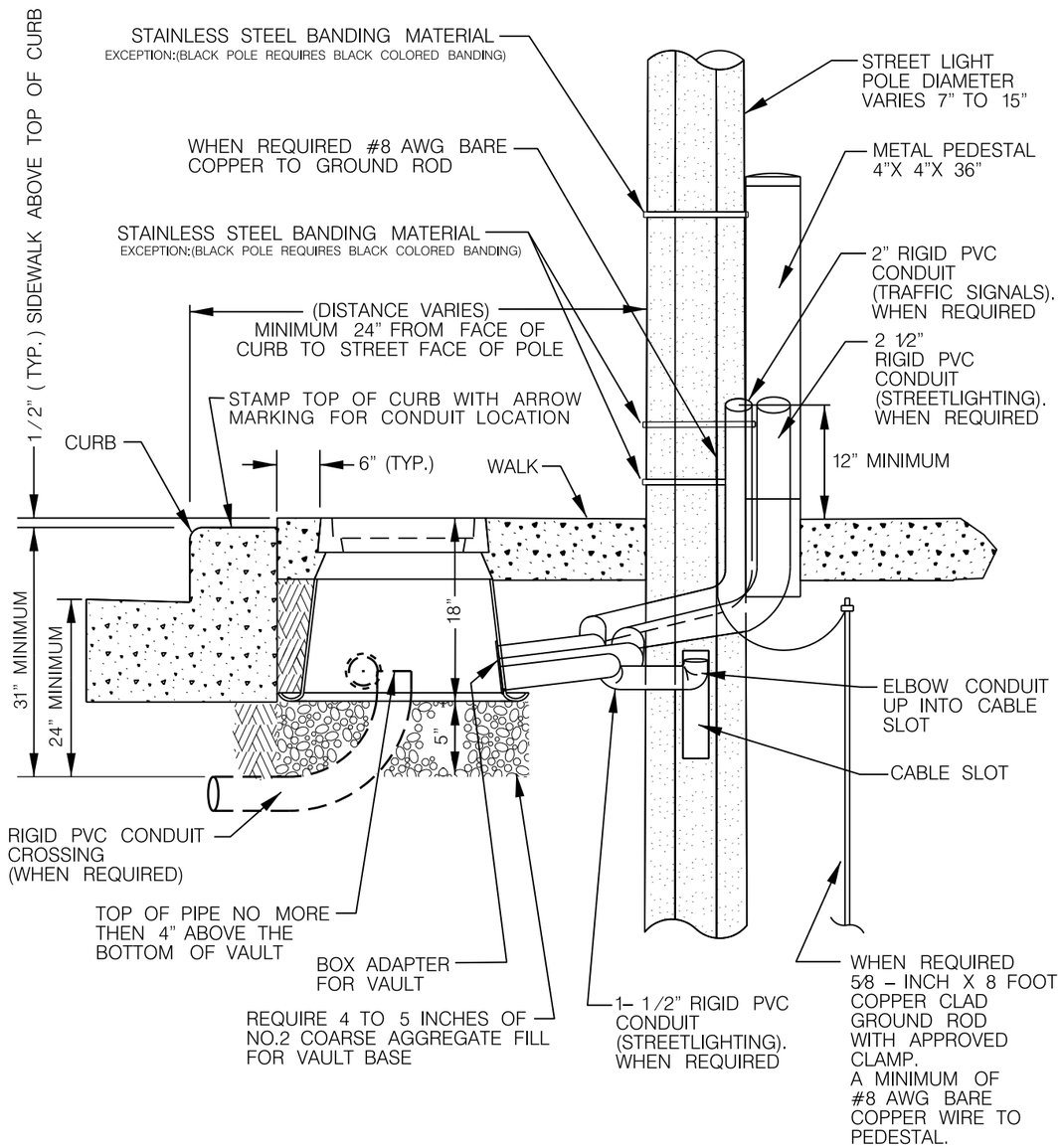


105 DETAIL

TYPICAL 30" X 36" BOX FORM AROUND STREET LIGHTING POLE OR TRAFFIC SIGNAL STANDARD

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

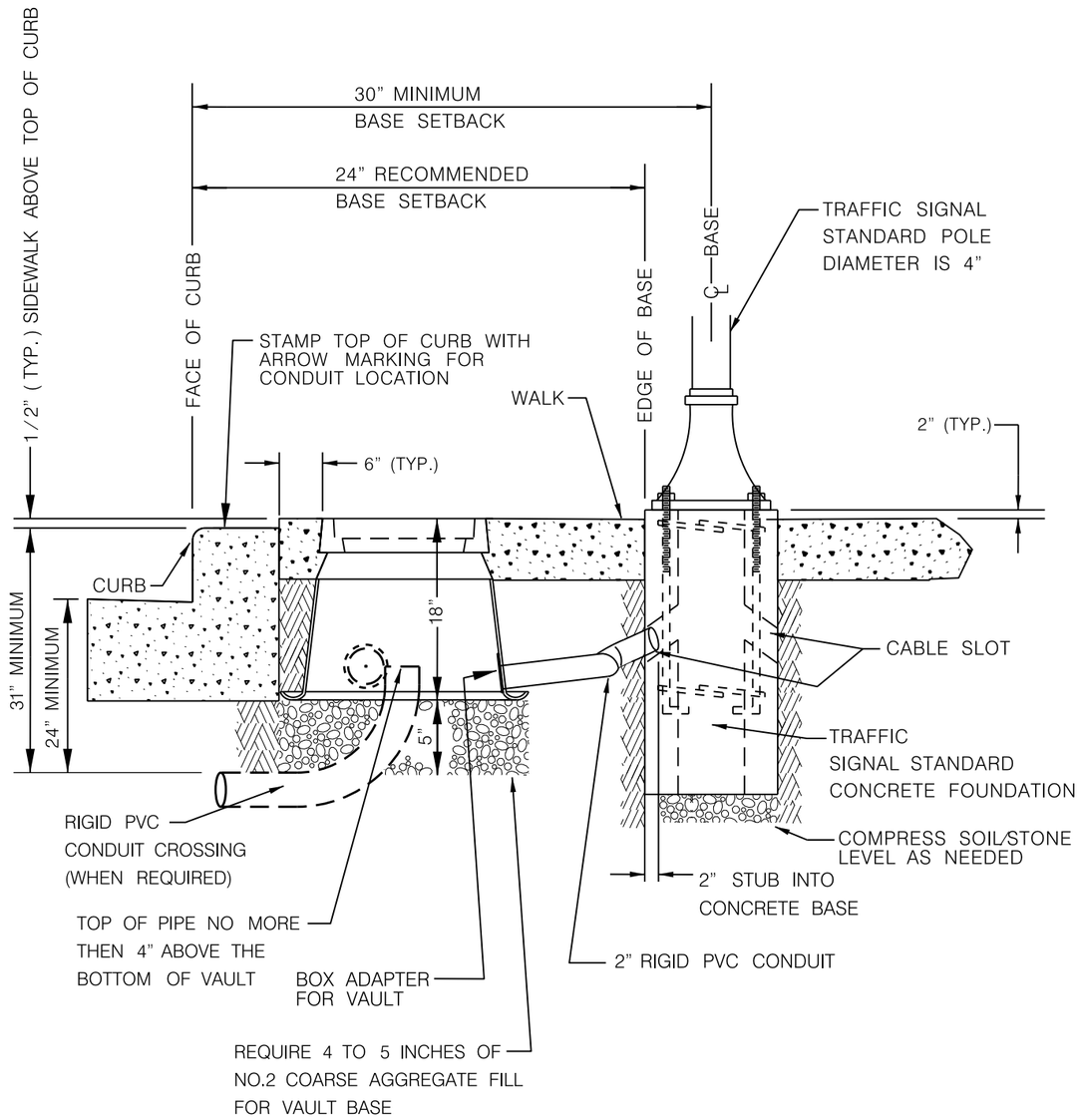
NOT TO SCALE



108 DETAIL

TYPICAL CONDUIT INSTALLATION FROM VAULT TO POLE

NOT TO SCALE



109 DETAIL

TYPICAL CONDUIT INSTALLATION FROM VAULT TO SIGNAL STANDARD AND TYPICAL BASE INSTALLATION

NOT TO SCALE

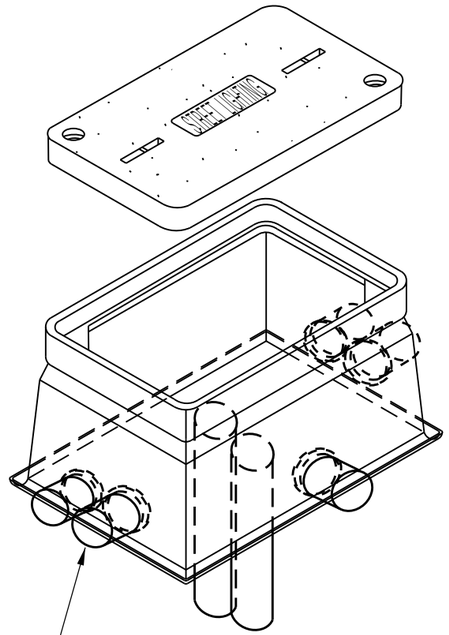
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

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

SHEET 5 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLANS	SHEET 65	E

FILE NAME : W:\bes\pavings\2012work\n27thStPaulHighland\PVC\conduitmaster20.dgn
PLOT DATE : 18-JAN-2013 13:16
PLOT BY : elee
PLOT NAME :
PLOT SCALE : 40.000000:1.000000
WISDOT/CADDS SHEET 42



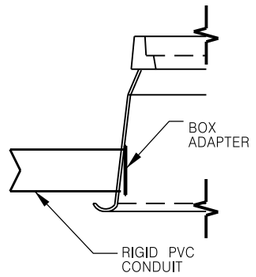
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W /2 BOLTS
COLOR: GRAY

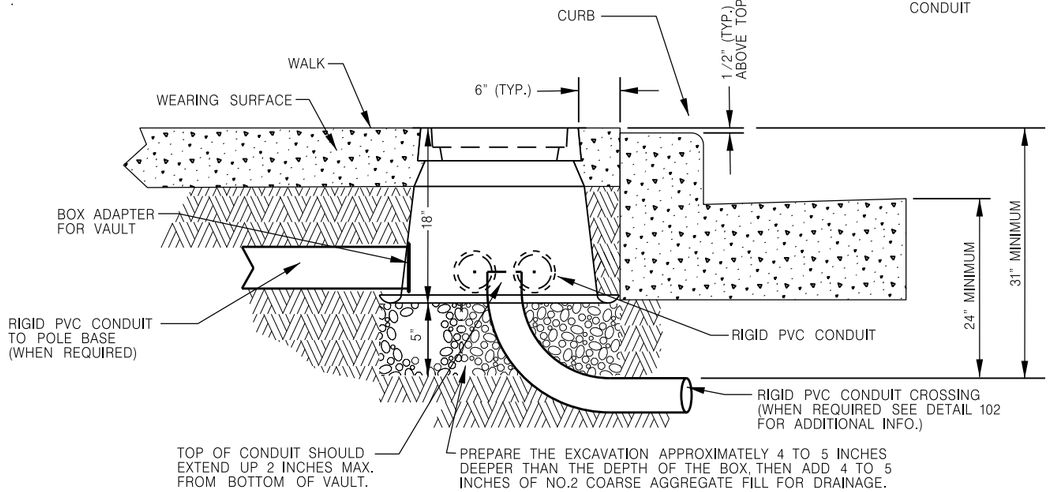
ELECTRICAL VAULT
FLARED WALL
BOX W /NO BASE
COLOR: GRAY

(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL PVC CONDUITS



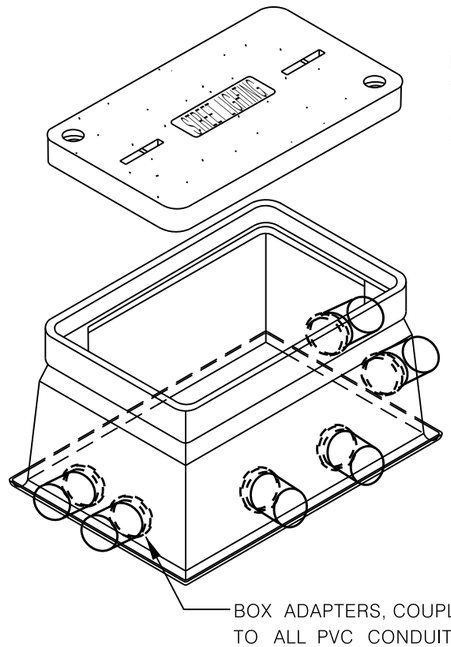


112 DETAIL

TYPICAL VAULT INSTALLATION IN WALK

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.

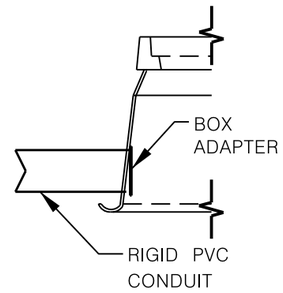


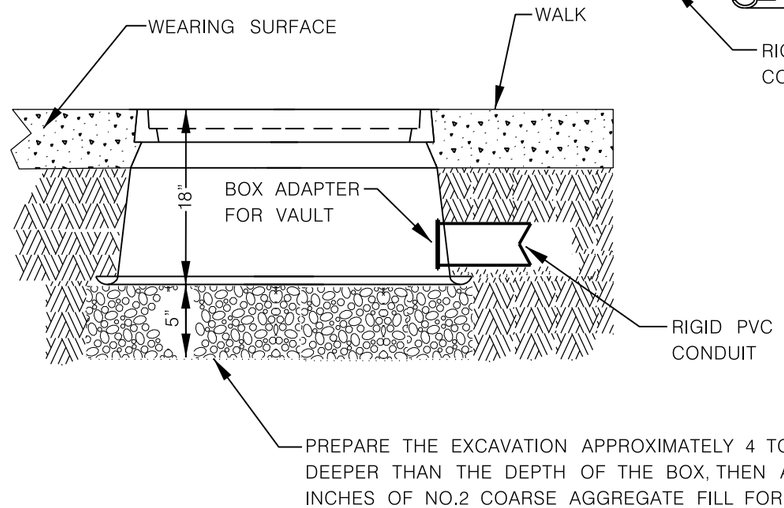
HEAVY DUTY COVER
W/ ELECTRIC LOGO
& W /2 BOLTS
COLOR: GRAY

ELECTRICAL VAULT
FLARED WALL
BOX W /NO BASE
COLOR: GRAY
(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL PVC CONDUITS



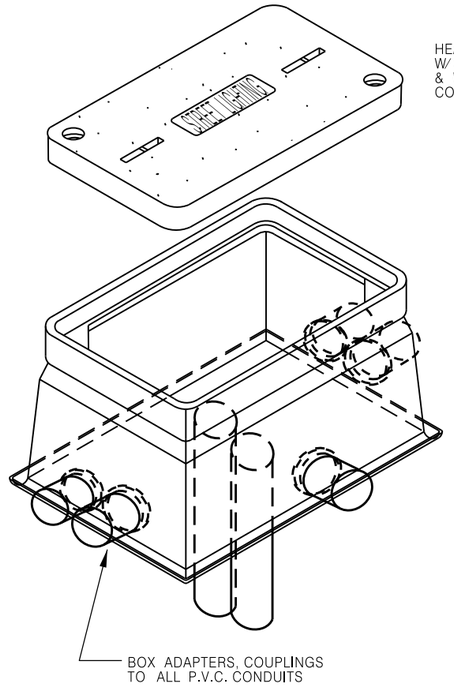


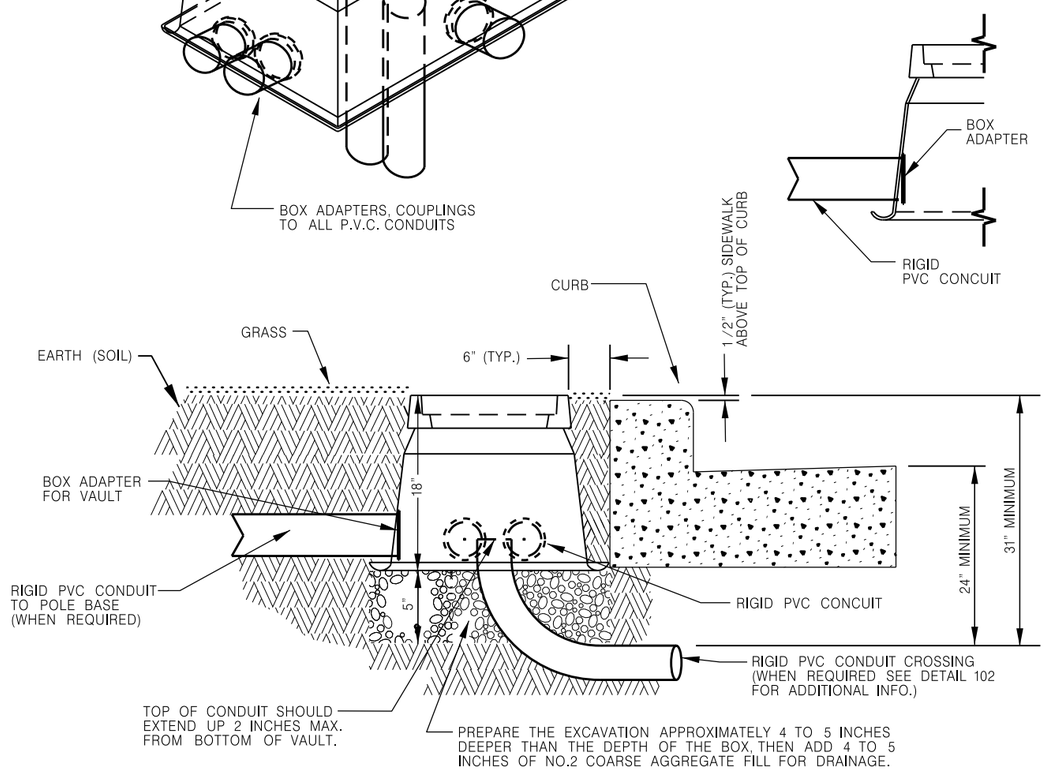
113 DETAIL

TYPICAL VAULT INSTALLATION
IN SIDEWALK

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



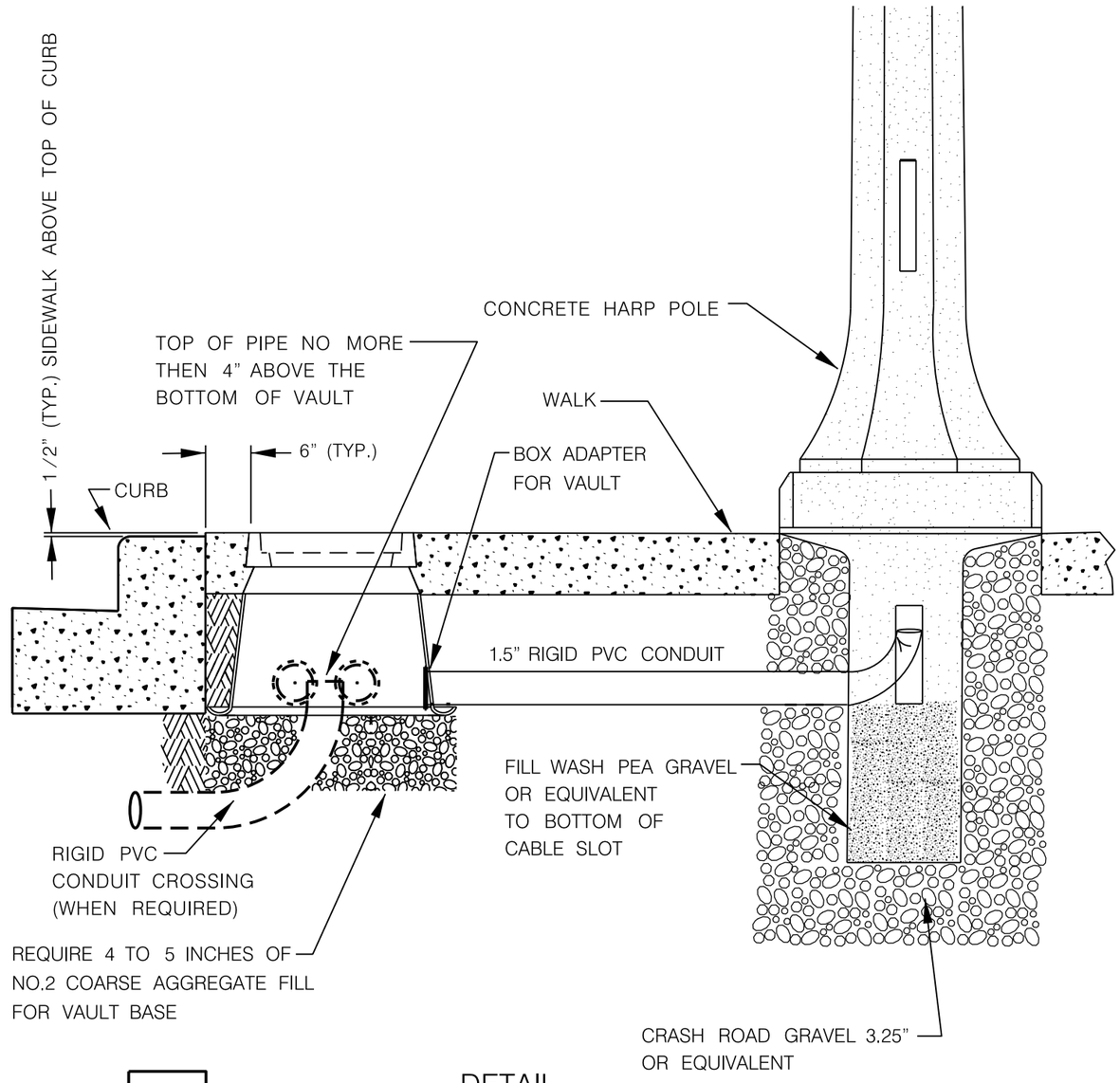


121 DETAIL

TYPICAL VAULT INSTALLATION IN GRASS AREA

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.



123 DETAIL

TYPICAL CONDUIT INSTALLATION
FROM VAULT 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

SHEET 7 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLANS	SHEET 67	E

FILE NAME : W:\bes\pavings\2012work\n27thStPaulHighland\PVC\conduitmaster20.dgn
PLOT DATE : 18-JAN-2013 13:17
PLOT BY : elee
PLOT NAME :
PLOT SCALE : 40.000000:1.000000
WISDOT/CADDS SHEET 42

9C11: Concrete Base Type 10

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).

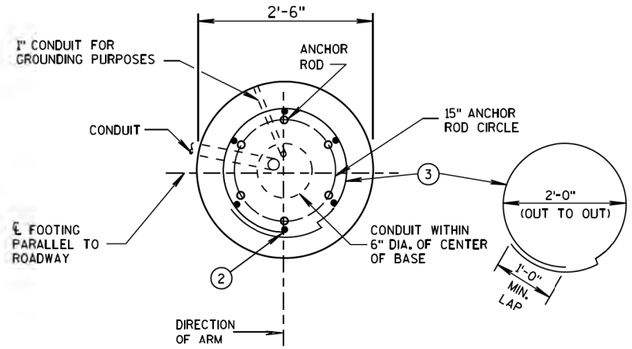
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

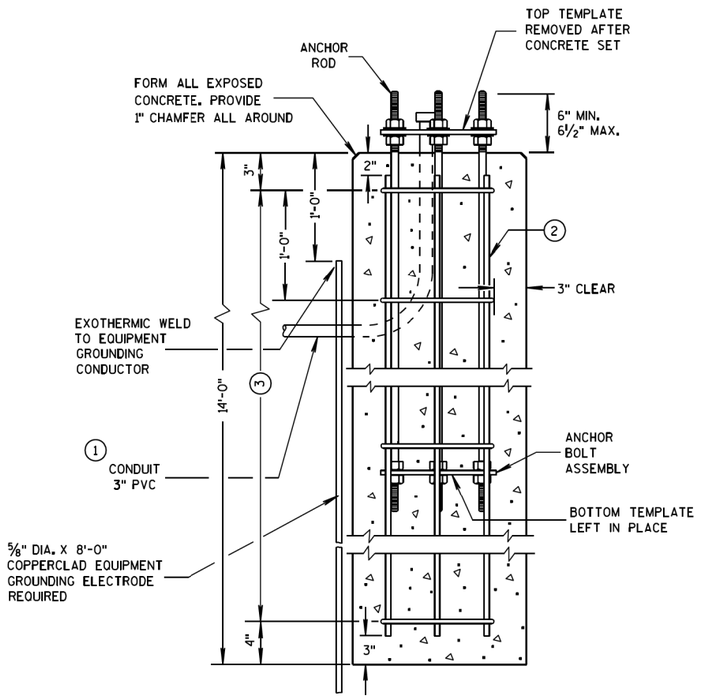
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 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) (15) NO. 4 X 7'-4" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

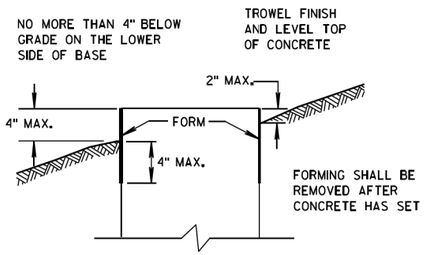
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



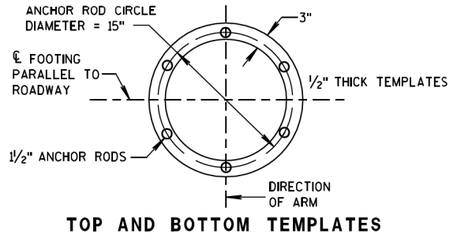


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

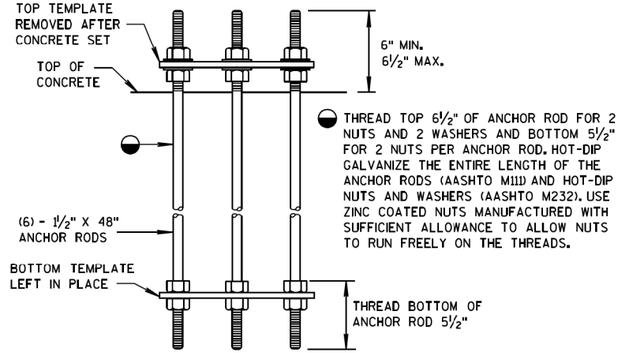
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



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	69
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3-2-11 (DATE) — /S/ Thomas J. Gonring (STATE ELECTRICAL ENGINEER FOR HWYS)

FHWA

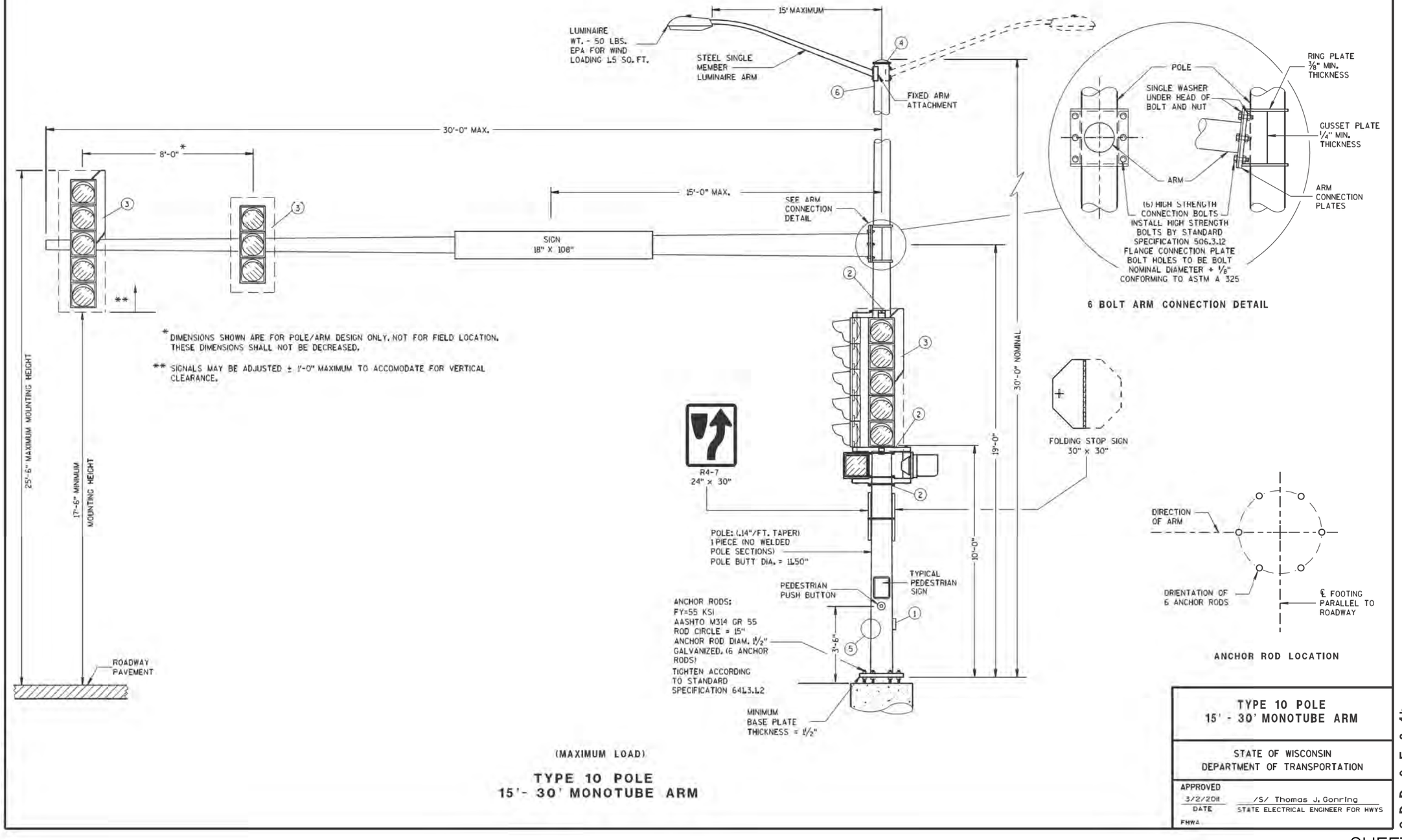
S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

FILE NAME : W:\bes\pavings\2012work\n27thStPaulHighland\PVC\conduitmaster20.dgn PLOT DATE : 18-JAN-2013 13:17 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

9E8 sheet b: Type 10 Pole 15'-30' Monotube Arm



6 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 10 POLE
15'- 30' MONOTUBE ARM

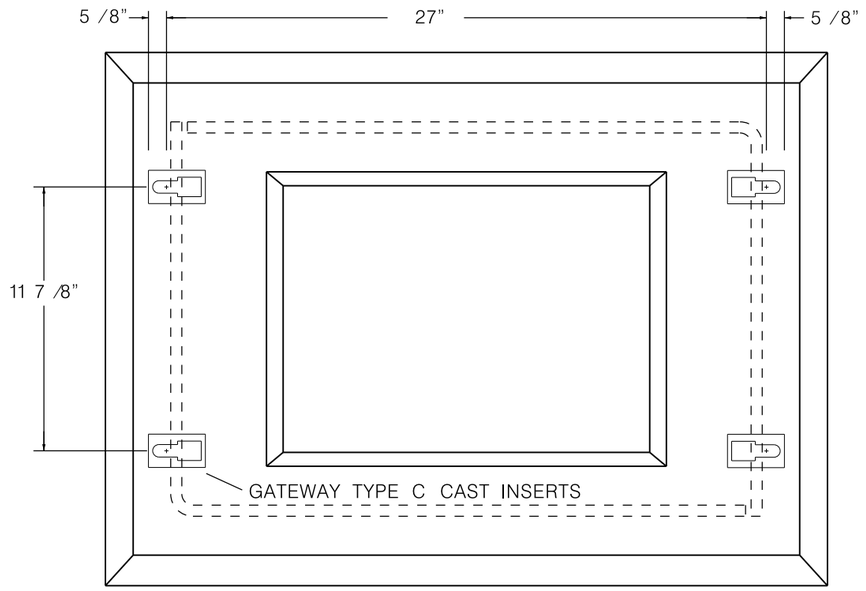
TYPE 10 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/2/2011 DATE	/S/ Thomas J. Gonring STATE ELECTRICAL ENGINEER FOR HWYS
FHWA	

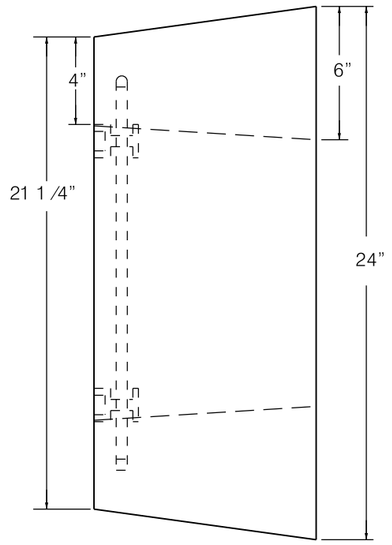
S.D.D. 9 E 8-4b

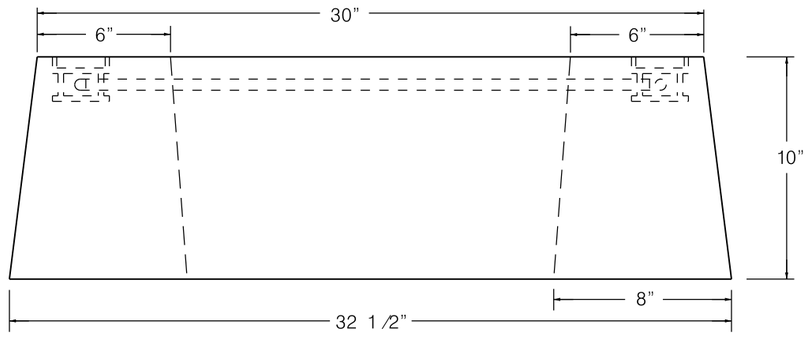
S.D.D. 9 E 8-4b

SHEET 9 OF 26

PROJECT NO: 2265–09–70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 69	E



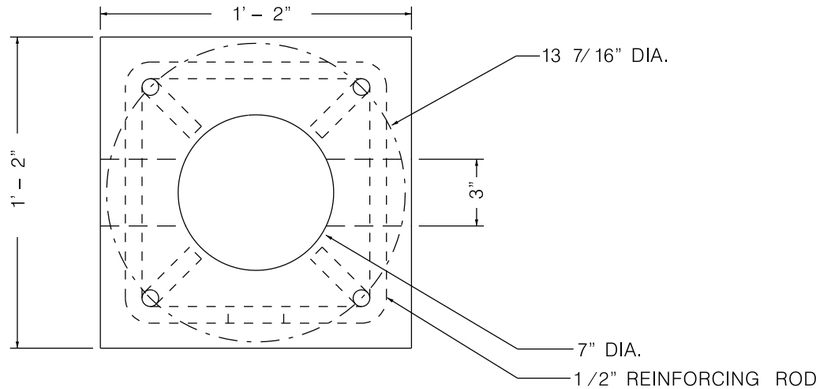


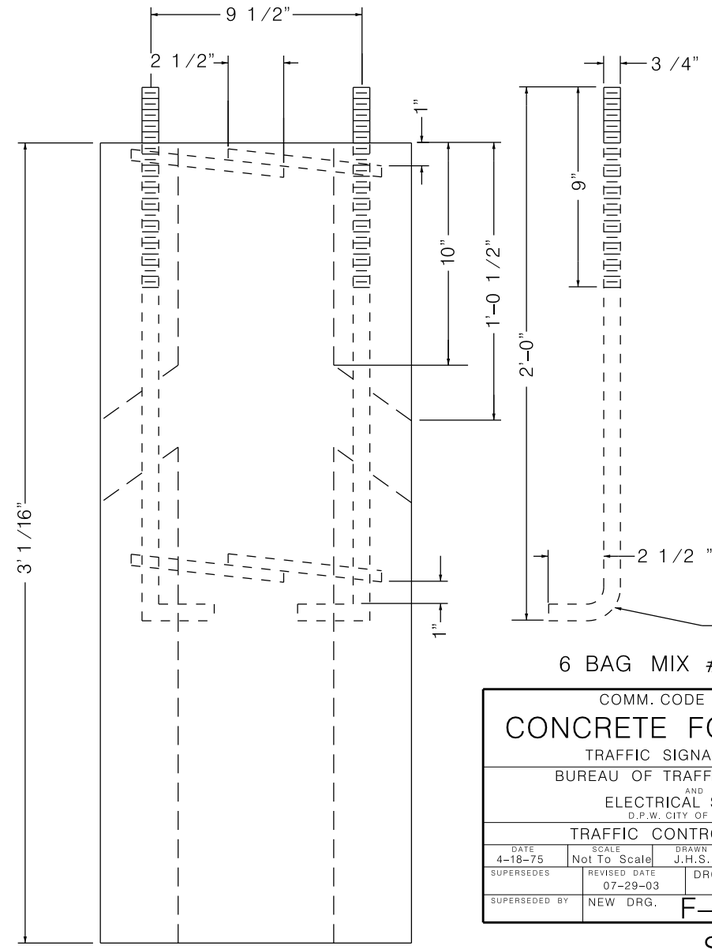


NOT TO SCALE

6 BAG MIX #1 STONE

COMM. CODE 1238-927				
CONCRETE FOUNDATION				
TRAFFIC SIGNAL CONTROL CABINET				
BUREAU OF TRAFFIC ENGINEERING AND ELECTRICAL SERVICES D.P.W. CITY OF MILWAUKEE				
TRAFFIC CONTROL MATERIAL				
DATE 4-22-75	SCALE 1/4"=1"	DRAWN J.H.S.	CHECKED B.J.T.	APPROVED R.J.B.
SUPERSEDES C-65-546-T	REVISED DATE 01-30-02	DRG. C-75-564-T		
SUPERSEDED BY	NEW DRG. F-82-536-T			





NOT TO SCALE

6 BAG MIX #1 STONE

COMM. CODE 1238-936				
CONCRETE FOUNDATION				
TRAFFIC SIGNAL STANDARD				
BUREAU OF TRAFFIC ENGINEERING AND ELECTRICAL SERVICES D.P.W. CITY OF MILWAUKEE				
TRAFFIC CONTROL MATERIAL				
DATE 4-18-75	SCALE Not To Scale	DRAWN J.H.S.	CHECKED B.J.T.	APPROVED R.J.B.
SUPERSEDES	REVISED DATE 07-29-03	DRG. C-75-563-T		
SUPERSEDED BY	NEW DRG. F-82-535-T			

SHEET 10 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 70	E

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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.

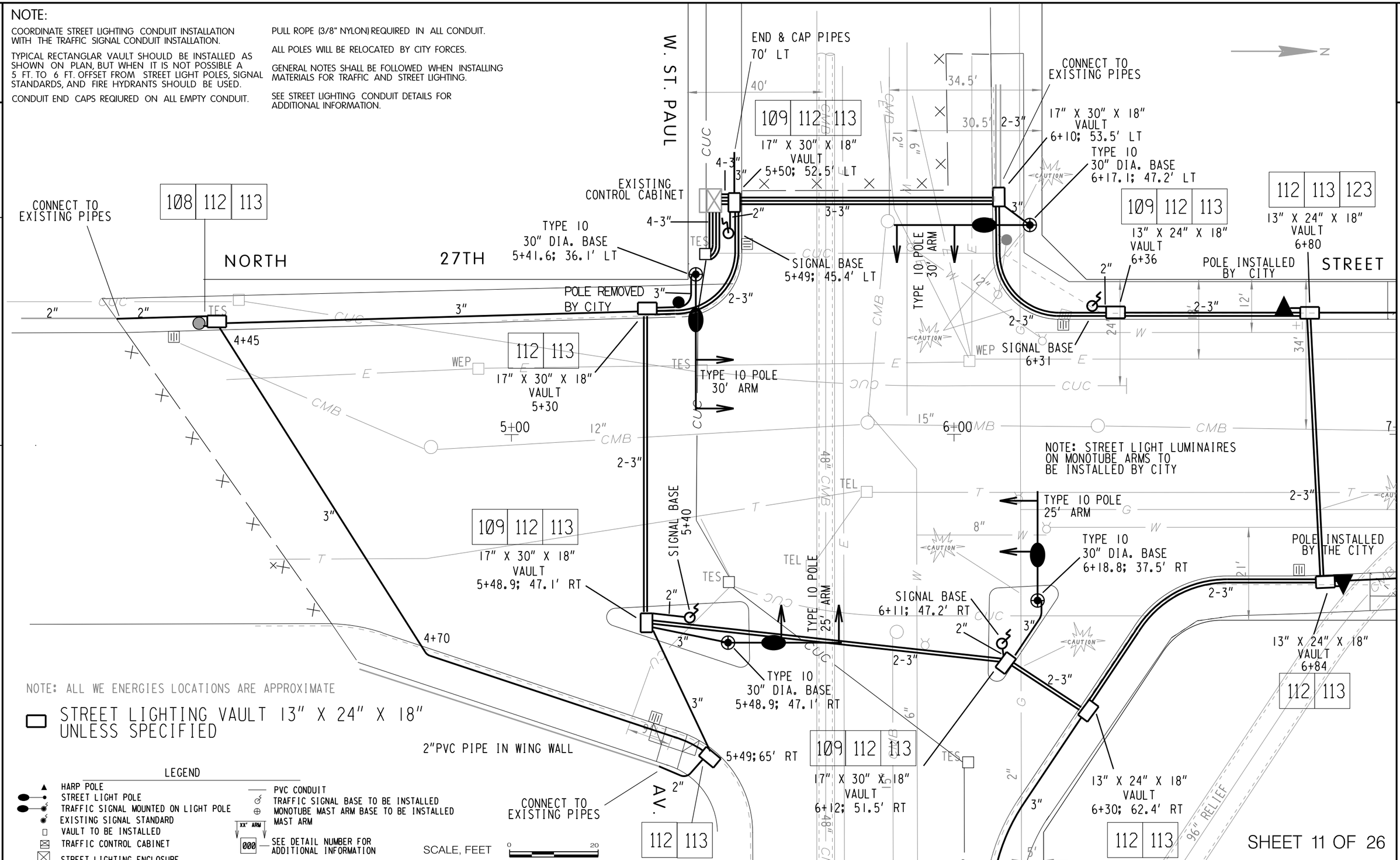
CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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 AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

LEGEND

- HARP POLE
- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM / 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 20

SHEET 11 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 71	E

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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.

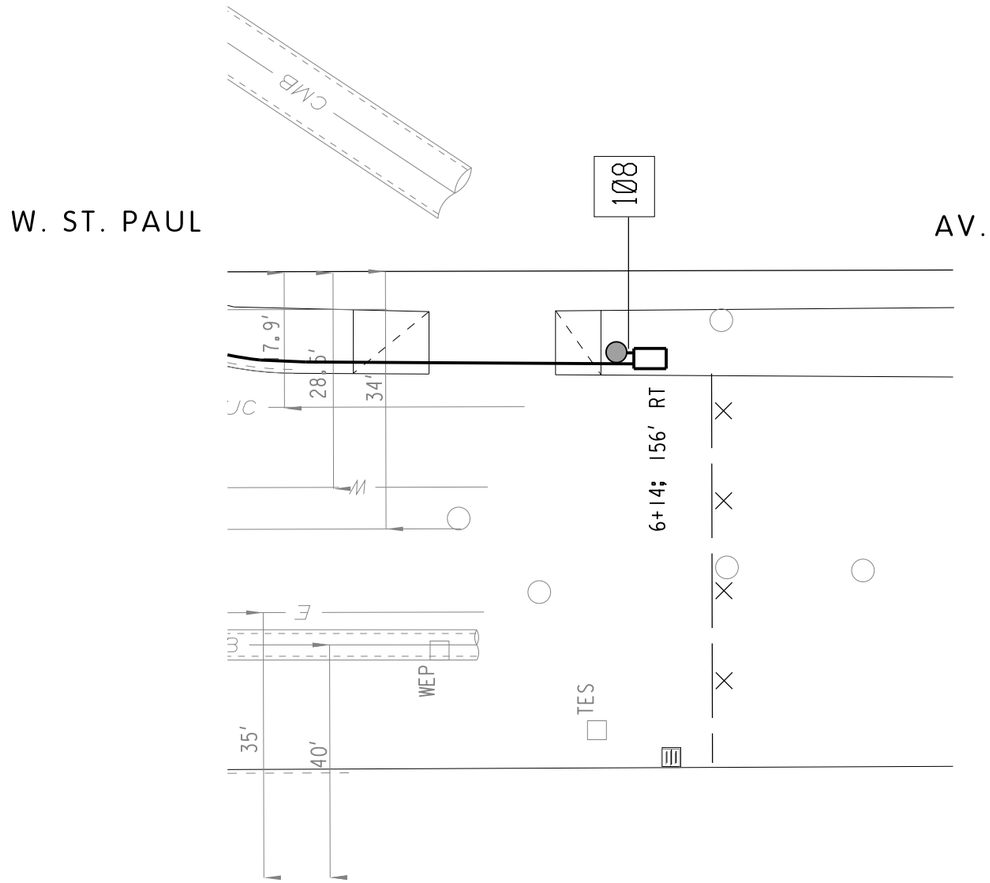
CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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 AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

LEGEND

- HARP POLE
- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM MAST ARM
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 20

SHEET 12 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 72	E

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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.

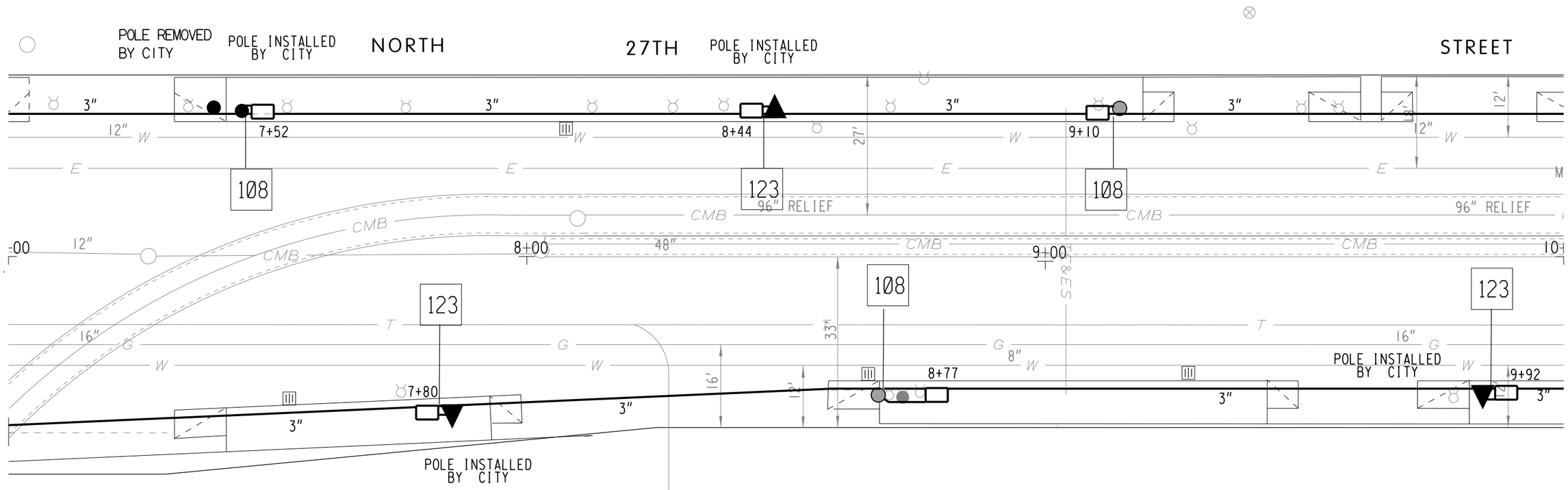
CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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 AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

LEGEND

- HARP POLE
- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM MAST ARM
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 20

SHEET 13 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 73	E

FILE NAME : W:\bes\pavings\2012work\n27thStPaulHighland\PVC\conduitmaster20.dgn PLOT DATE : 18-JAN-2013 13:20 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000 WISDOT/CADDS SHEET 42

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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.

CONDUIT END CAPS REQIURED 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 AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.

N

EXISTING CONTROL CABINET

END & CAP PIPES 80' LT

W. CLYBOURN

109 | 121
13" X 24" X 18" VAULT
10+50.8; 45.6 LT

ROUND CONCRETE POLE INSTALLED BY CITY

109 | 112 | 113
13" X 24" X 18" VAULT
10+21

123

EXISTING SIGNAL

POLE INSTALLED BY THE CITY

15' ARM INSTALLED BY CITY

108 | 121
17" X 30" X 18" VAULT
11+6.1; 47.0 LT

EXISTING 15' ARM

108 | 112 | 113
13" X 24" X 18" VAULT
11+27

NORTH 27TH STREET

POLE INSTALLED BY CITY

12+7

123

96" RELIEF

11+00

12+00

30" 13+

108

12+27

POLE REMOVED BY CITY

POLE INSTALLED BY CITY

123

12+77

POLE INSTALLED BY CITY

15' ARM INSTALLED BY CITY

109 | 112 | 113
13" X 24" X 18" VAULT
11+28

ROUND CONCRETE POLE INSTALLED BY CITY

108 | 112 | 113
13" X 24" X 18" VAULT
10+23

109 | 112 | 113
13" X 24" X 18" VAULT
10+49.2; 49.8 RT

CONNECT TO EXISTING PIPES

108 | 121
13" X 24" X 18" VAULT
11+10.5; 48.7 RT

ST.

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

LEGEND

- HARP POLE
- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM MAST ARM
- ØØØ SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 20

SHEET 14 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 74	E

FILE NAME : W:\bes\pavings\2012work\n27thStPaulHighland\PVC\conduitmaster20.dgn PLOT DATE : 18-JAN-2013 13:21 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

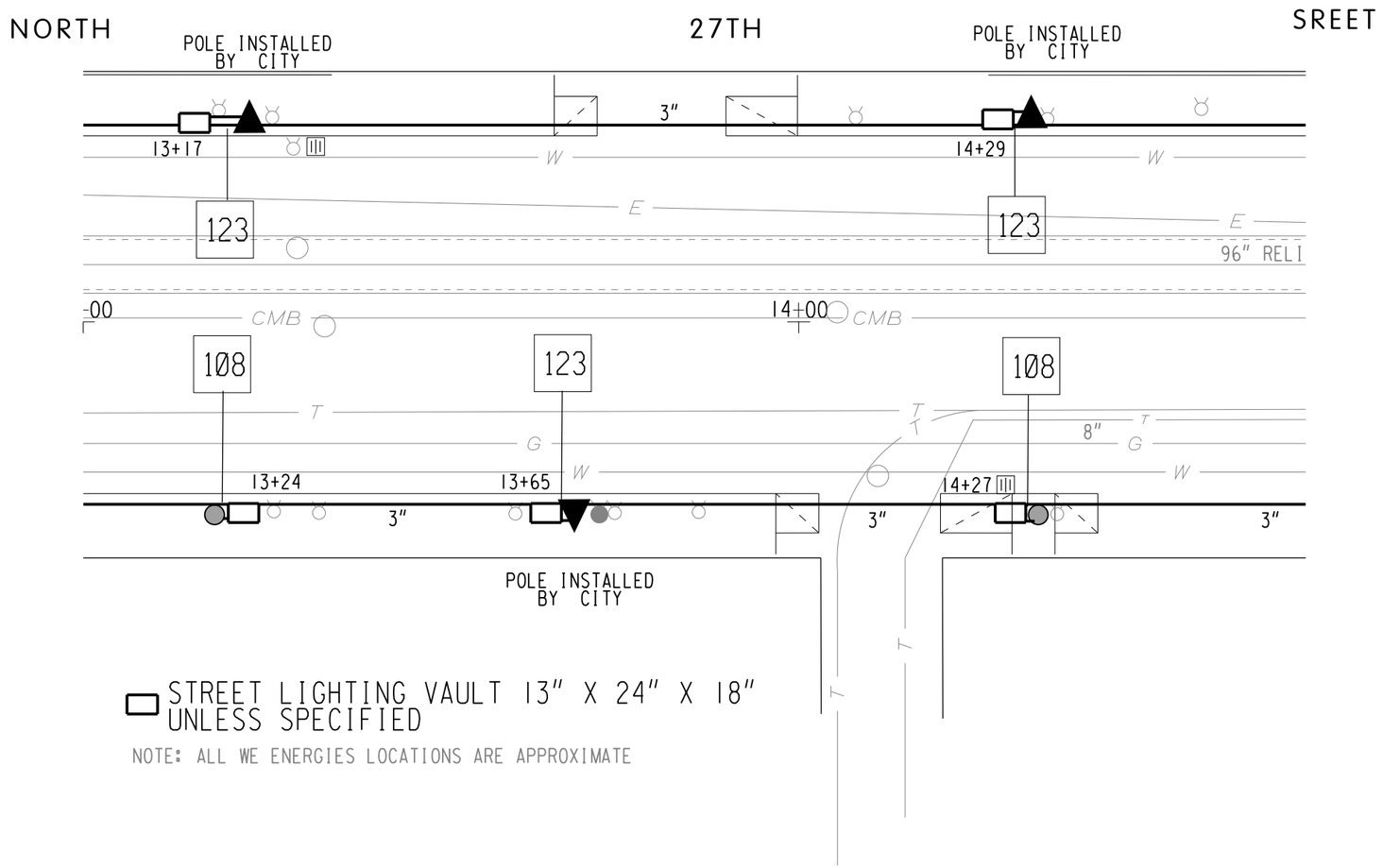
PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

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

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.

N



STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

LEGEND

- HARP POLE
- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- MAST ARM (XX' ARM)
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 20

SHEET 15 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 75	E

FILE NAME : W:\bes\pavings\2012work\n27thStPaulHighland\PVC\conduitmaster20.dgn PLOT DATE : 18-JAN-2013 13:21 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000 WISDOT/CADDS SHEET 42

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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.

CONDUIT END CAPS REQIURED 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 AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.

NORTH

W. MICHIGAN STREET

27TH

13" X 24" X 18" VAULT 15+58; 52.1 LT

EXISTING CONTROL CABINET

13" X 24" X 18" VAULT 16+01; 50.9 LT

13" X 24" X 18" VAULT 16+16

POLE INSTALLED BY CITY

POLE INSTALLED BY CITY

POLE REMOVED BY CITY

13" X 24" X 18" VAULT 15+34

SIGNAL BASE 16+20

SIGNAL BASE 15+42

SIGNAL BASE 16+04; 36.5 RT

13" X 24" X 18" VAULT 15+58; 41.2 RT

13" X 24" X 18" VAULT 16+07.5; 39.2 RT

13" X 24" X 18" VAULT 16+29

POLE INSTALLED BY CITY

END & CAP PIPES 86' RT

LOCATION APPROXIMATE

STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

LEGEND

- HARP POLE
- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- MAST ARM
- XX' ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 20

SHEET 16 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 76	E

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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.

CONDUIT END CAPS REQIURED 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 AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.

NORTH

27TH

W. WISCONSIN

POLE INSTALLED BY CITY

17+97

18+65

18+00

19+00

19+20

20+00

20+77

20+78

21

9W+12

9W+43

9W+61

10W+40.5; 19+74.6

10W+50

10W+53

10W+55

19+21

19+56

19+62

11W+1

123 | 108 | 112 | 113 — 17" X 30" X 18" VAULT 9W+43

112 | 113 — 17" X 30" X 18" VAULT 9W+43

112 | 121 — 17" X 30" X 18" VAULT 9W+43

108 | 112 | 113 — 17" X 30" X 18" VAULT 9W+61

112 | 113 — 13" X 24" X 18" VAULT 19+21

109 | 112 | 113 — 17" X 30" X 18" VAULT

123 | 112 | 113 — 13" X 24" X 18" VAULT

112 | 121 — 17" X 30" X 18" VAULT

112 | 113 — 17" X 30" X 18" VAULT

108 | 112 | 113 — 17" X 30" X 18" VAULT

CONCRETE POLE INSTALLED BY CITY

ROUND CONCRETE POLE INSTALLED BY CITY

EXISTING CONCRETE POLE

TYPE 10 POLE 30' ARM

TYPE 10 30" DIA. BASE 9W+48.5; 20+59.1

EXISTING CONTROL CABINET

STREET SIGNAL BASE 20+72

SIGNAL BASE 19+62

18' ARM INSTALLED BY CITY

NOTE: STREET LIGHT LUMINAIRES ON MONOTUBE ARMS TO BE INSTALLED BY CITY

STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

LEGEND

- HARP POLE
- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM / 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 20

SHEET 17 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 77	E

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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.

CONDUIT END CAPS REQIURED 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 AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.

W. WISCONSIN AV.

N. 28TH ST.

END & CAP PIPES 6W+97

7W+25

7W+82

8W+18

POLE INSTALLED BY CITY 8W+55

POLE REMOVED BY CITY 8W+55

8W+97

CONNECT TO EXISTING 2.5"PVC

7W+18

7W+88

8W+64

8W+58

POLE REMOVED BY CITY

POLE INSTALLED BY CITY

6W+97

7W+00

8W+00

9W+00

LOC APPROXIMATE

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

LEGEND

- HARP POLE
- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 20

SHEET 18 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 78	E

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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.

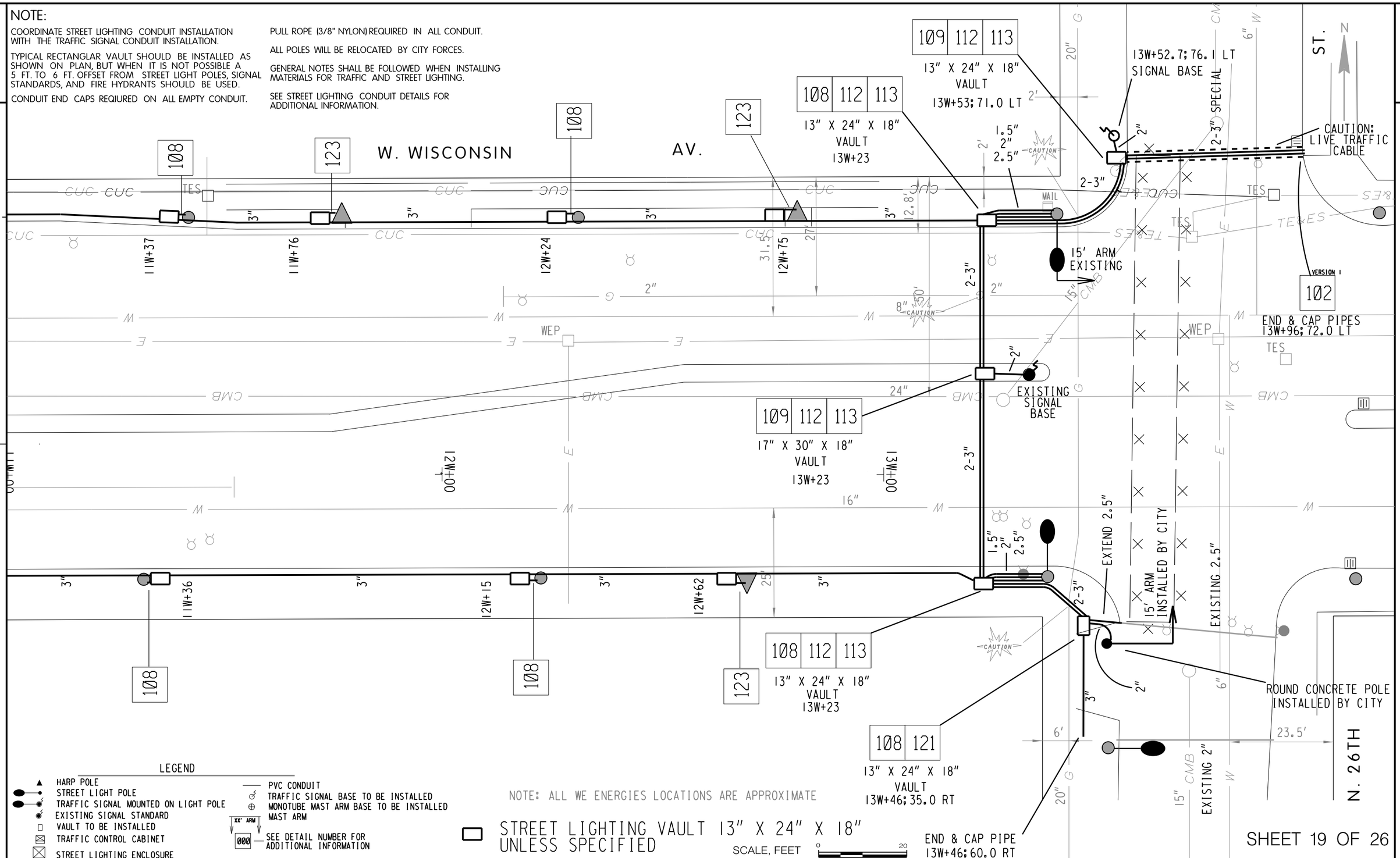
CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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 AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



LEGEND

- HARP POLE
- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM MAST ARM
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

SCALE, FEET 0 20

SHEET 19 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 79	E

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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.

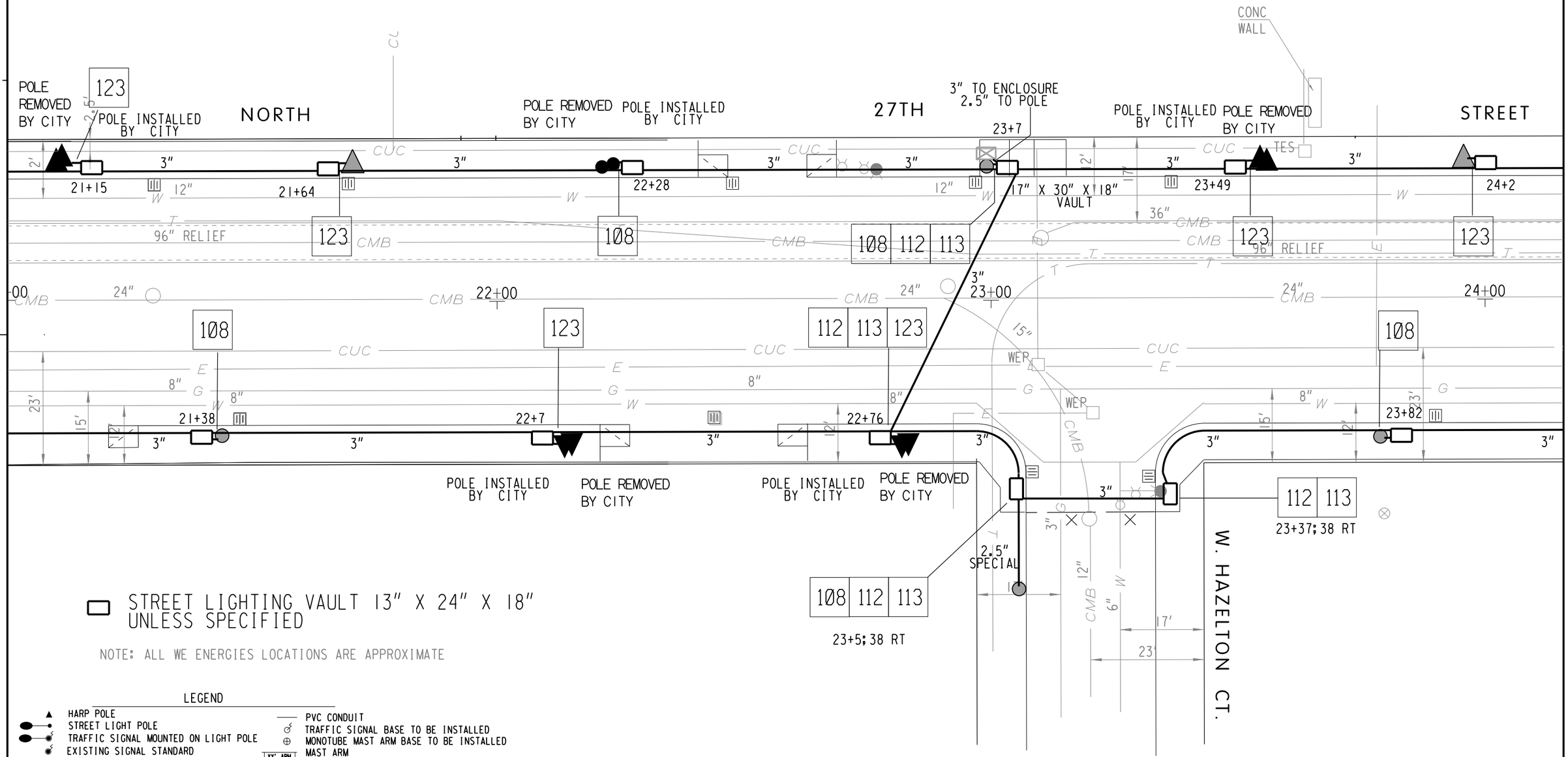
CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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 AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



SHEET 20 OF 26

PROJECT NO: 2265–09–70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 80	E

FILE NAME : W:\bes\pavings\2012work\n27thStPaulHighland\PVC\conduitmaster20.dgn
PLOT DATE : 18–JAN–2013 13:26
PLOT BY : elee
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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.

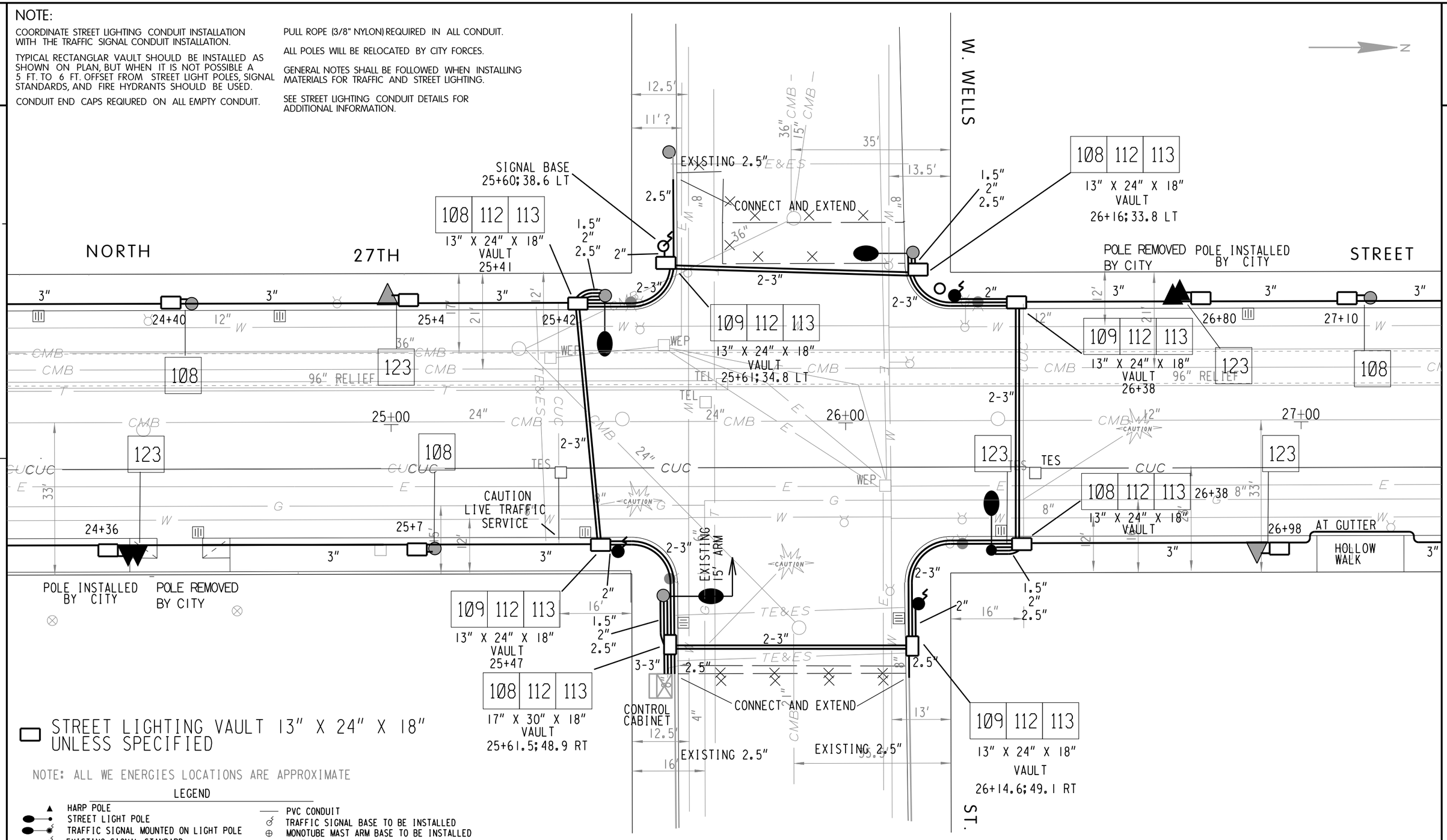
CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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 AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

LEGEND

- HARP POLE
- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED MAST ARM
- XX' ARM / 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 20

SHEET 21 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 81	E

2

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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.

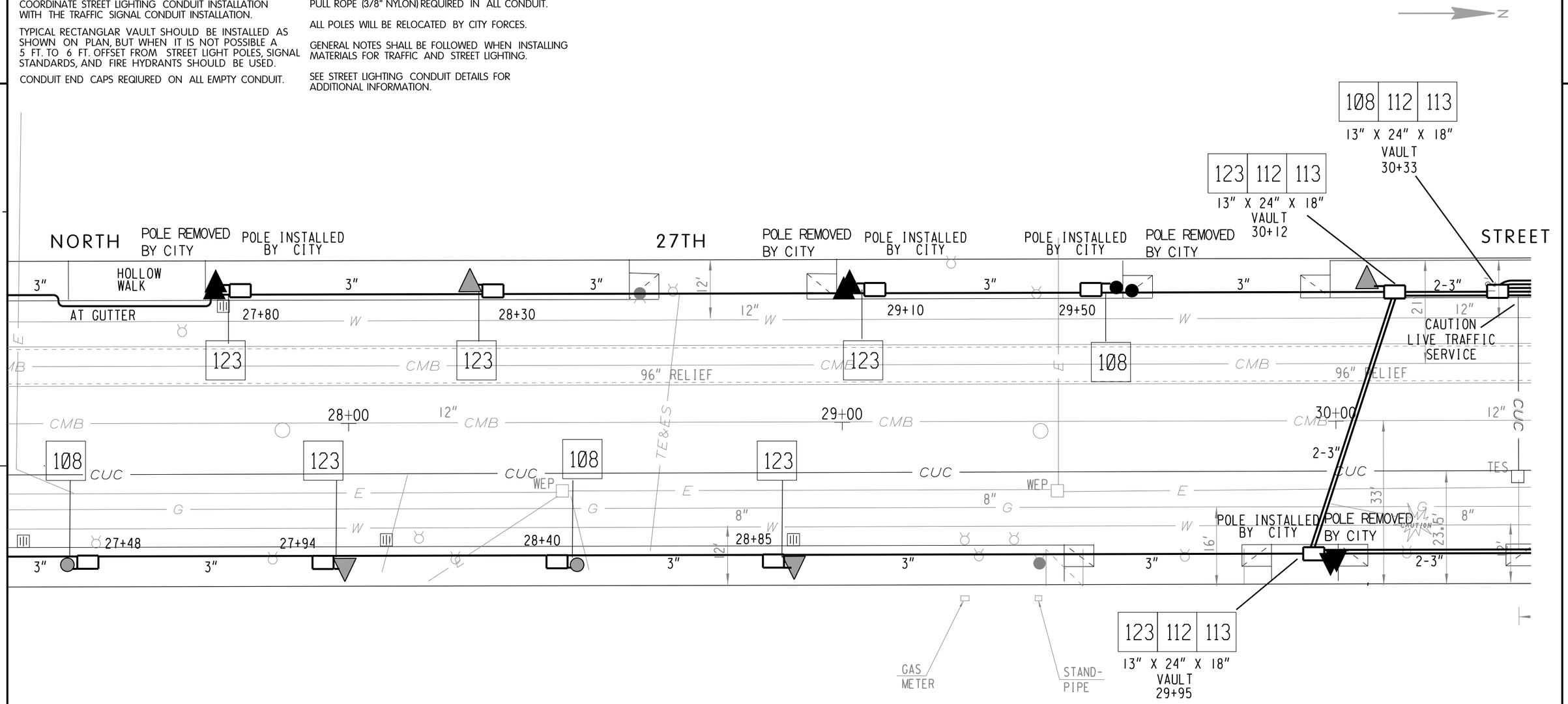
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PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

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

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



LEGEND

- HARP POLE
- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM / 000 — MAST ARM / SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

SCALE, FEET 0 20

SHEET 22 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 82	E

FILE NAME : W:\bes\pavings\2012work\n27thStPaulHighland\PVC\conduitmaster20.dgn PLOT DATE : 18-JAN-2013 13:27 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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.

CONDUIT END CAPS REQIURED 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 AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.

N

NORTH

27TH STREET

W. KILBOURN AV.

RELOCATED CONTROL CABINET

SIGNAL BASE 30+68; 40.7 LT

CONNECT EXISTING PIPE TO NEW VAULT

109 | 112 | 113
13" X 24" X 18" VAULT
31+07; 38.4 LT

SIGNAL BASE 31+11; 37.4 LT

109 | 112 | 113
13" X 24" X 18" VAULT
31+34

POLE REMOVED BY CITY

POLE INSTALLED BY CITY

POLE INSTALLED BY CITY

POLE REMOVED BY CITY

STAND-PIPE

112 | 113
17" X 30" X 18" VAULT
30+66; 37.7 LT

SIGNAL BASE 31+27

31+84

32+32

96" RELIEF

123

123

108

31+00

32+00

109 | 112 | 113
13" X 24" X 18" VAULT
30+47

SIGNAL BASE 30+52

POLE REMOVED BY CITY

POLE REMOVED BY CITY

31+88

32+18

CONCRETE POLE INSTALLED BY CITY

108 | 112 | 113
13" X 24" X 18" VAULT
31+32

109 | 112 | 113
13" X 24" X 18" VAULT
31+08; 36.0 RT

SIGNAL BASE 30+66; 40.3 RT

108 | 109 | 112 | 113
13" X 24" X 18" VAULT
30+66.2; 37.3 RT

2.5" SPECIAL

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

LEGEND

- HARP POLE
- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED MAST ARM
- xx' ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 20

SHEET 23 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 83	E

FILE NAME : W:\bes\pavings\2012work\n27thStPaulHighland\PVC\conduitmaster20.dgn PLOT DATE : 18-JAN-2013 13:27 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000 WISDOT/CADDS SHEET 42

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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.

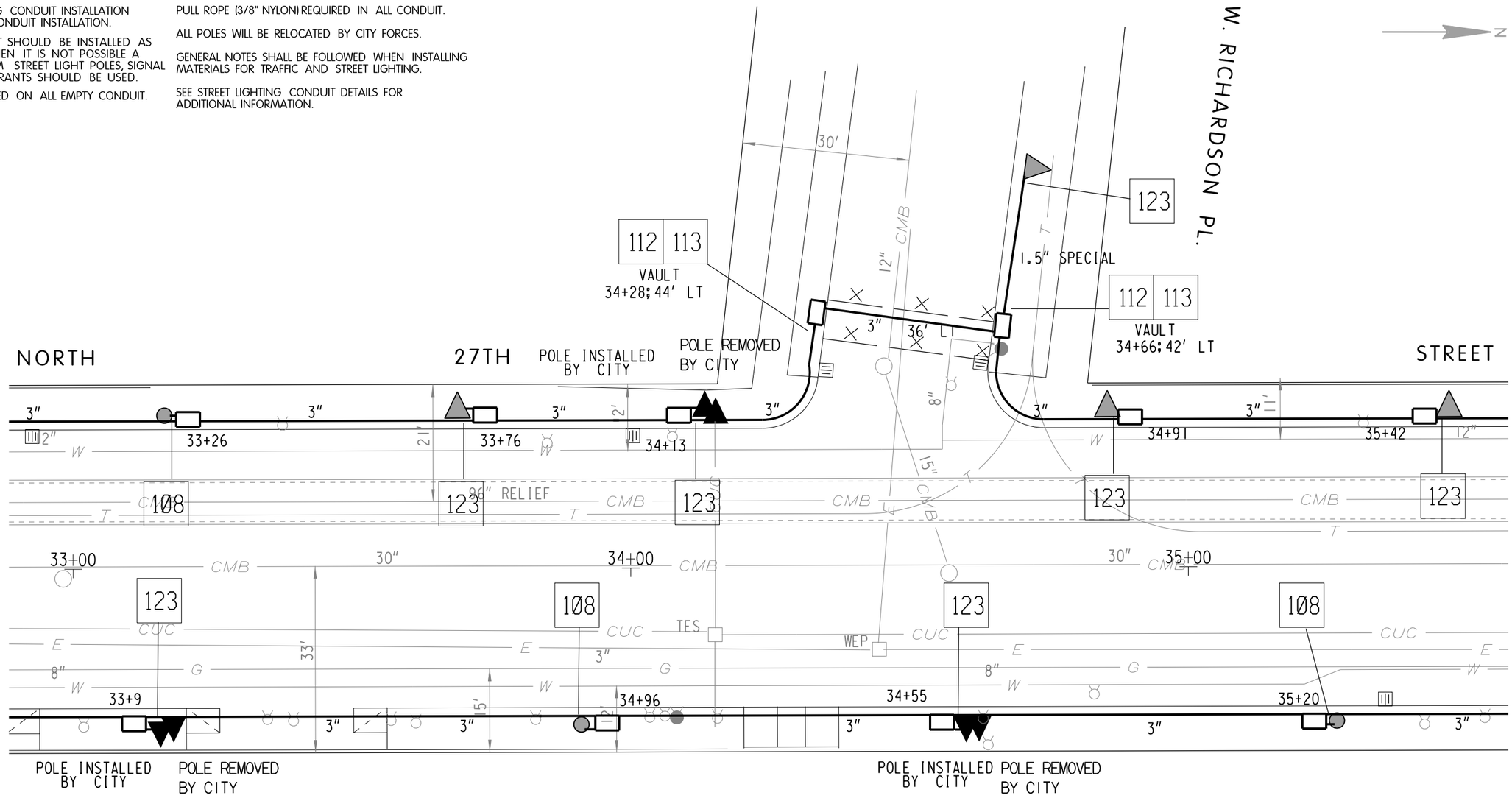
CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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 AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



LEGEND

- HARP POLE
- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

SCALE, FEET 0 20

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 84	E

FILE NAME : W:\bes\pavings\2012work\n27thStPaulHighland\PVC\conduitmaster20.dgn
PLOT DATE : 18-JAN-2013 13:27
PLOT BY : elee
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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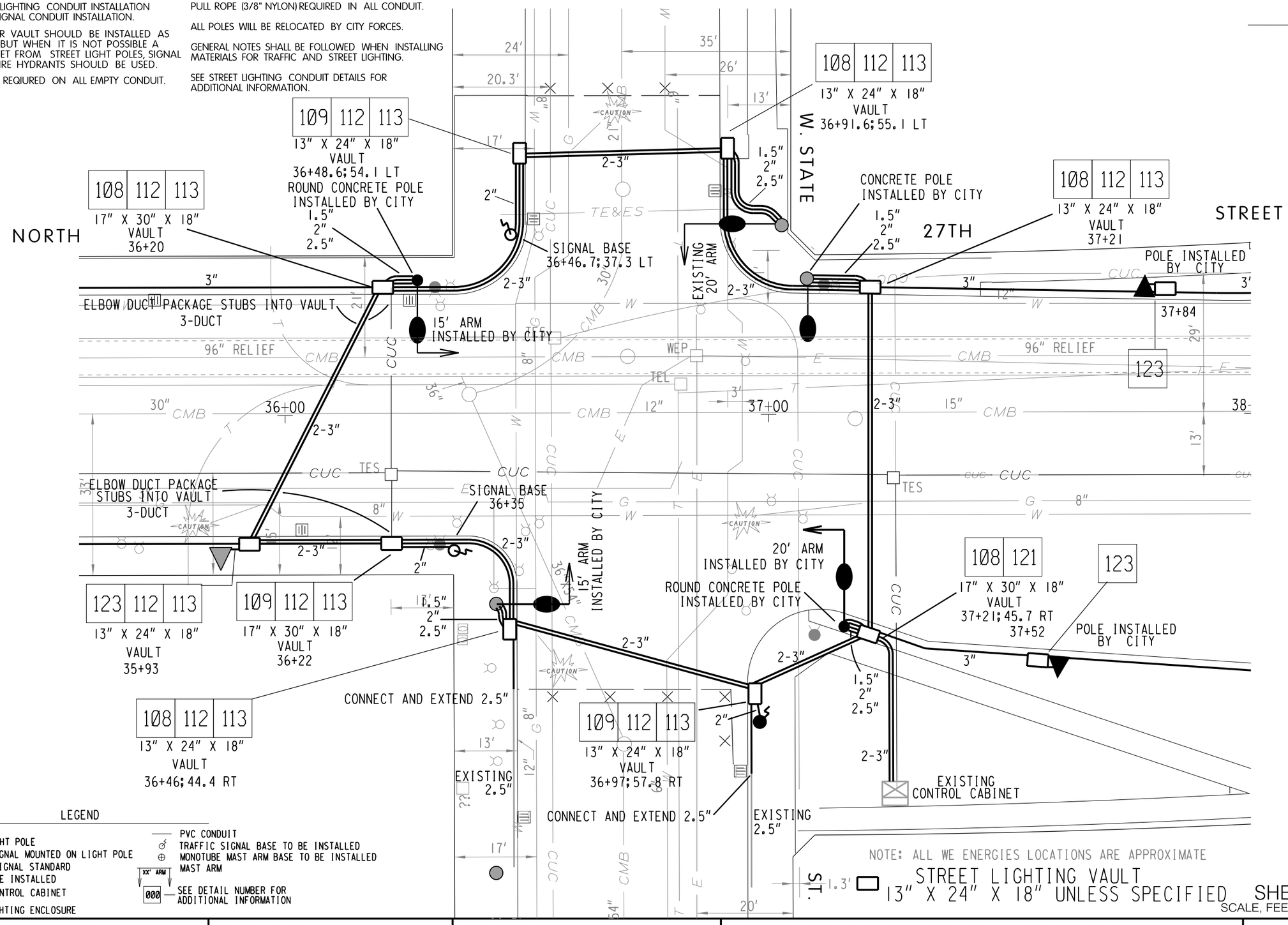
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PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

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

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



LEGEND

- HARP POLE
- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- MAST ARM
- XX' ARM / 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

SCALE, FEET 0 20

SHEET 25 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 85 E

FILE NAME : W:\bes\pavings\2012work\n27thStPaulHighland\PVC\conduitmaster20.dgn
PLOT DATE : 18-JAN-2013 13:28
PLOT BY : elee
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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.

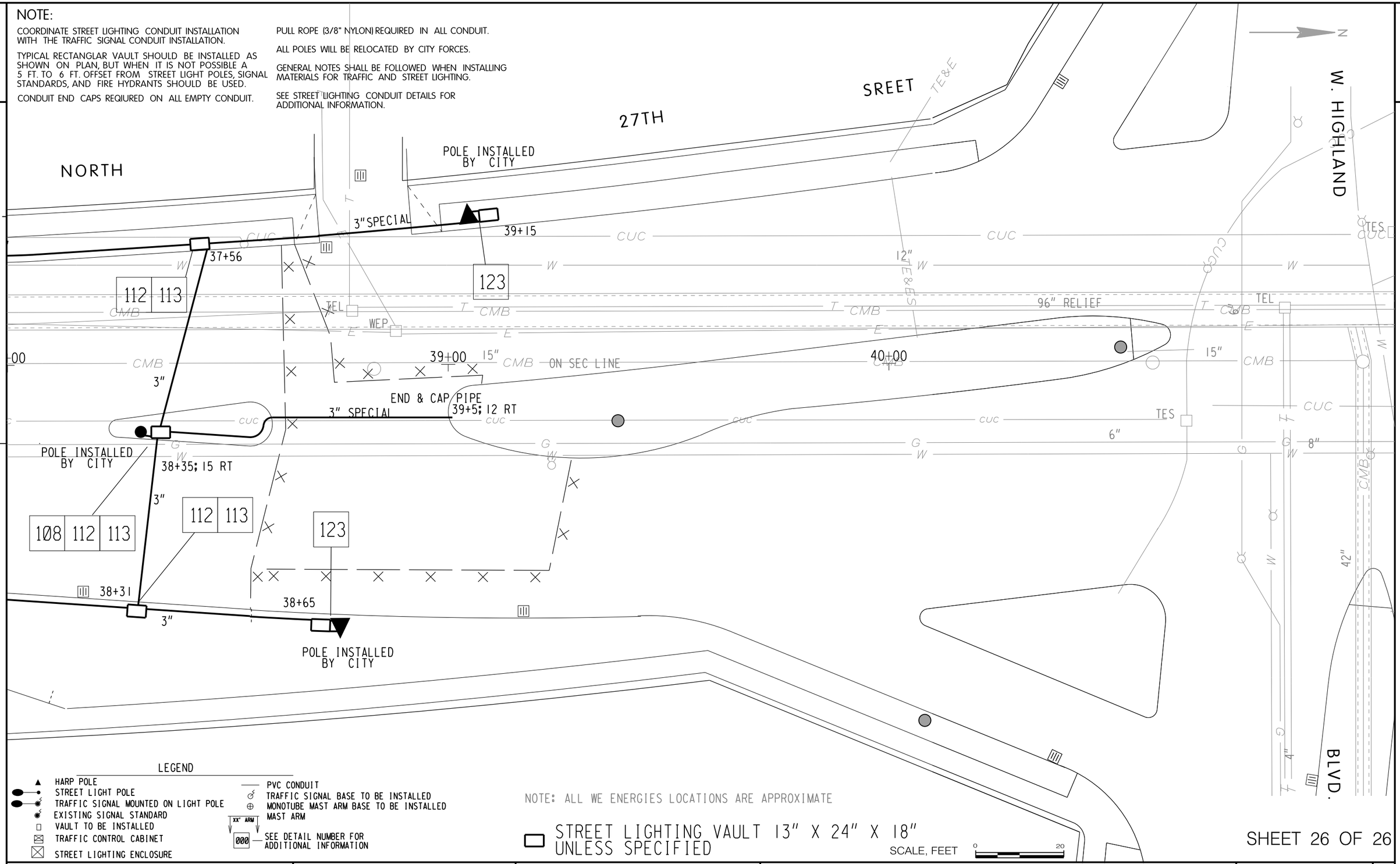
CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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 AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



LEGEND

- HARP POLE
- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

SCALE, FEET 0 20

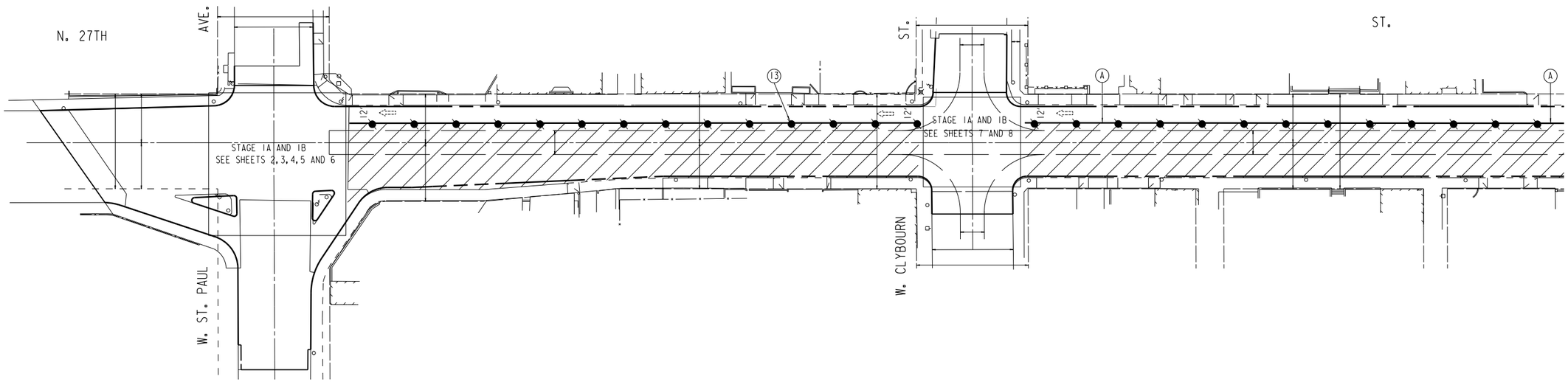
SHEET 26 OF 26

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 86	E

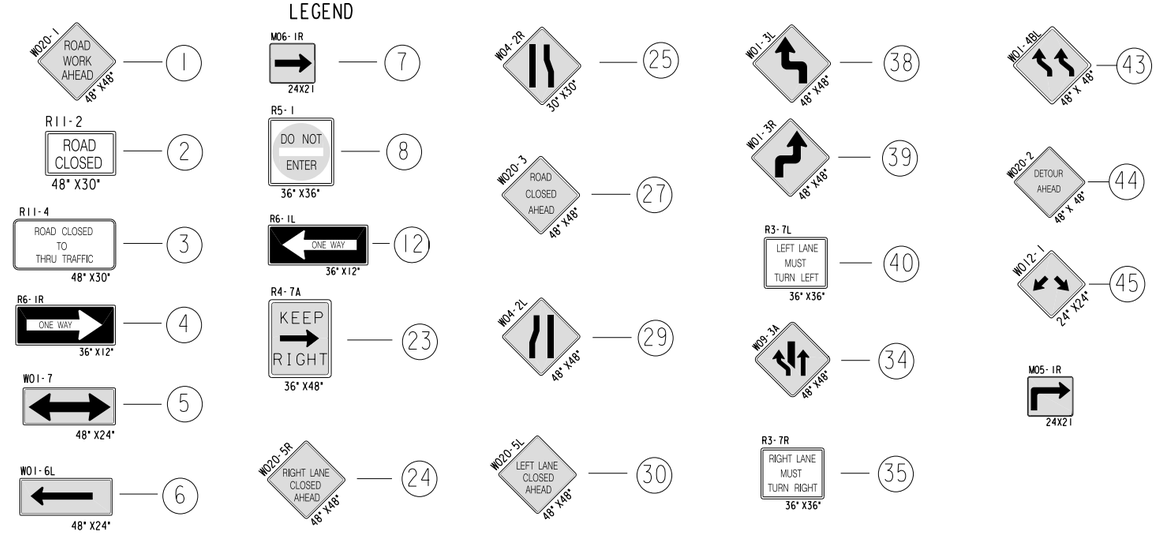
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WISDOT/CADDS SHEET 42

STAGE I



LEGEND



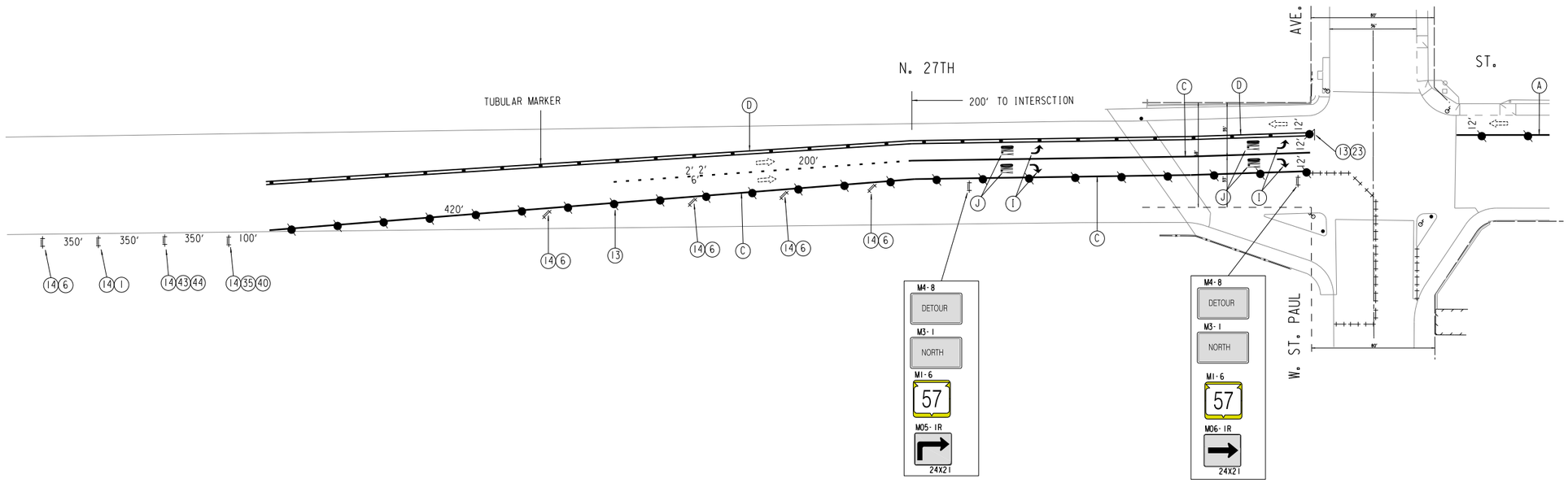
(A) TPM, REFLECTIVE PAINT, 4" WHITE
(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
(C) TPM, REMOVABLE TAPE, 4" WHITE
(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
(I) TPM, ARROWS, REMOVABLE TAPE
(J) TPM, WORDS, REMOVABLE TAPE

SIGNS ATTACHED TO DRUM
WORK AREA
DIRECTION OF TRAFFIC
TUBULAR MARKERS 25' SPACING

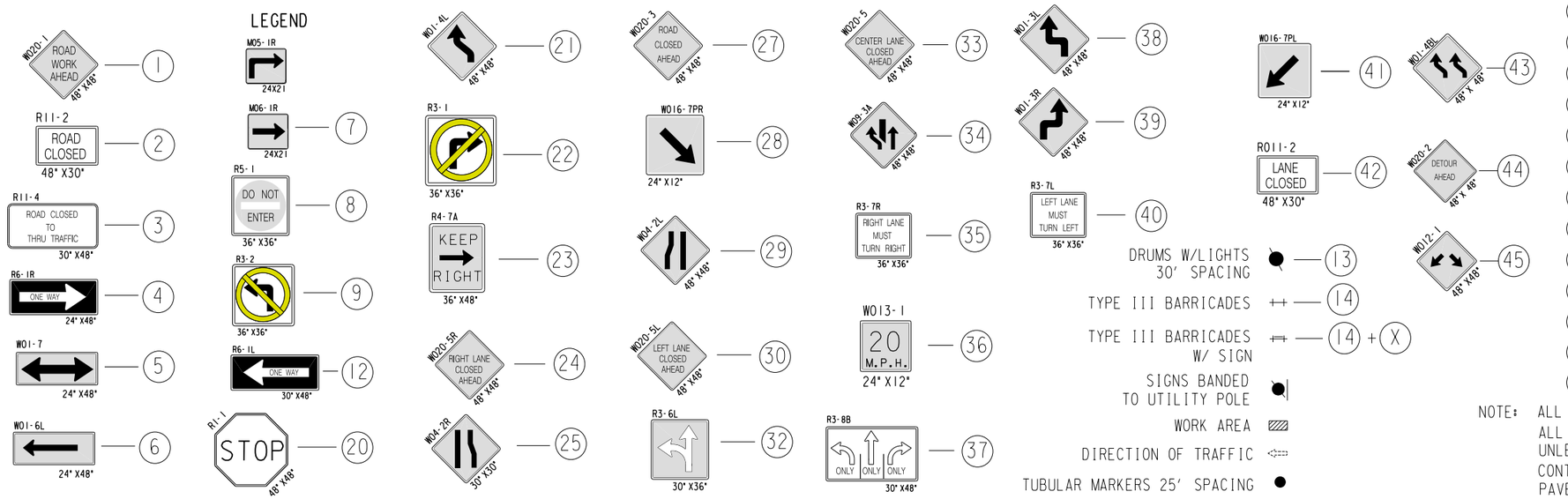
(13) — DRUMS W/LIGHTS 30' SPACING TYPE "C" LIGHTING
(14) — TYPE III BARRICADES
(14) + (X) — TYPE III BARRICADES W/ SIGN

NOTE: ALL TYPE III BARRICADES SHALL HAVE TYPE "A" FLASHING LIGHTS
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STAGE IA



LEGEND



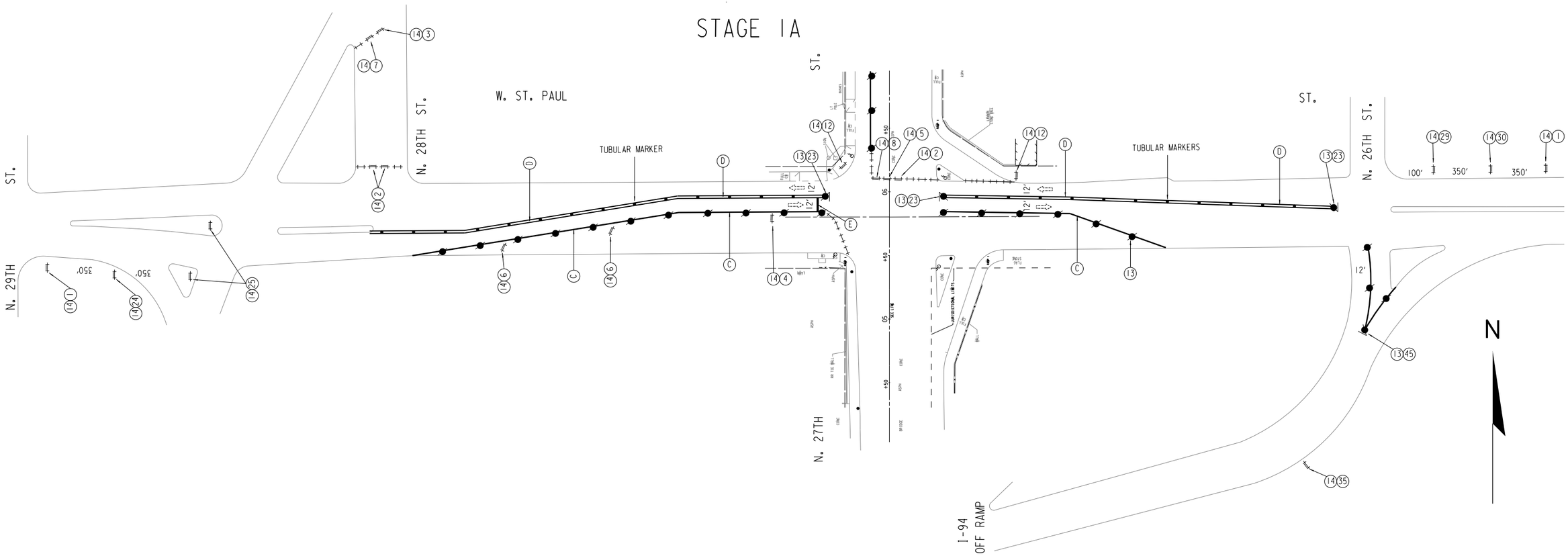
- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE, 8" WHITE
- (L) TPM, STOP LINE, 24" WHITE
- (H) TPM, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS
- (Z) TPM, ARROWS

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 88	E

FILE NAME: W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN

STAGE IA



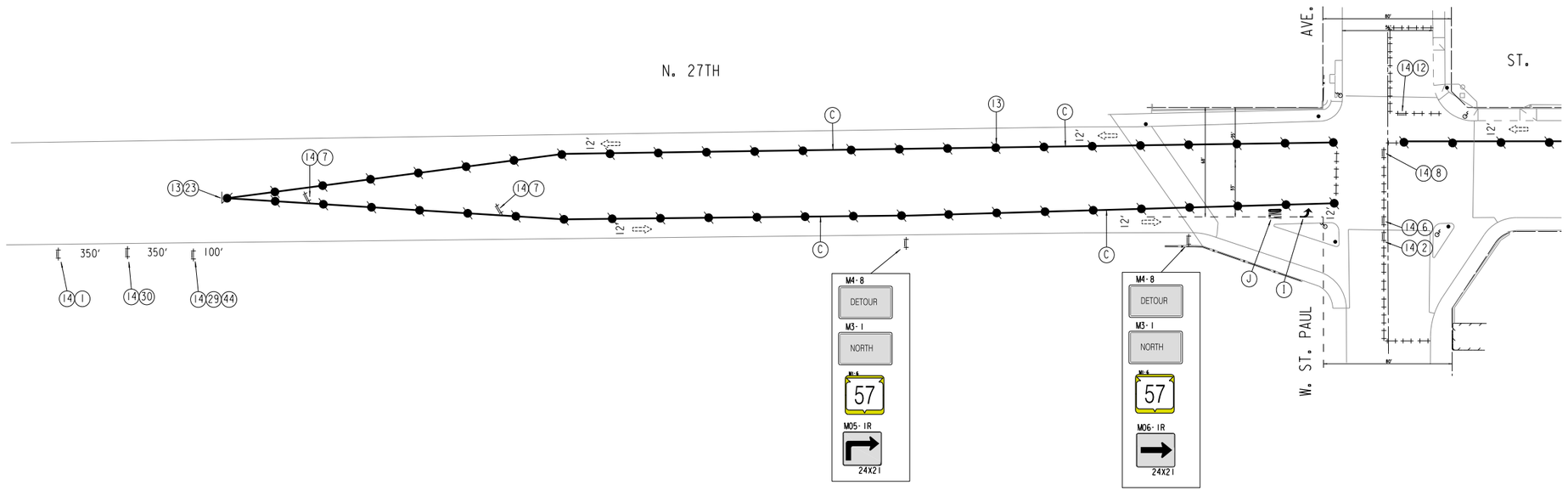
LEGEND

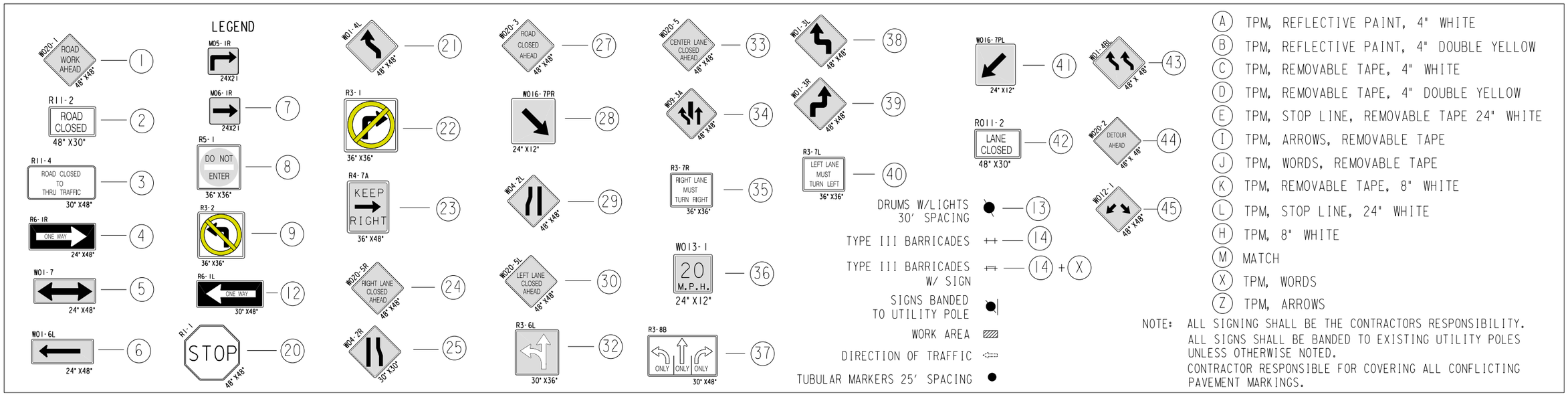
1. W20-1 ROAD WORK AHEAD 48" X48"
2. R11-2 ROAD CLOSED 48" X30"
3. R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48"
4. R6-1R ONE WAY 24" X48"
5. W01-7 24" X48"
6. W01-6L 24" X48"
7. M06-1R 24X21
8. R5-1 DO NOT ENTER 36" X36"
9. R3-2 36" X36"
10. R6-1L ONE WAY 30" X48"
11. R1-1 STOP 48" X48"
12. W01-4L 48" X48"
13. R3-1 36" X36"
14. R4-7A KEEP RIGHT 36" X48"
15. W020-5R RIGHT LANE CLOSED AHEAD 48" X48"
16. W04-2R 30" X30"
17. W020-3 ROAD CLOSED AHEAD 48" X48"
18. W016-7PR 24" X12"
19. W04-2L 48" X48"
20. W020-5L LEFT LANE CLOSED AHEAD 48" X48"
21. R3-6L 30" X36"
22. W020-5 CENTER LANE CLOSED AHEAD 48" X48"
23. W09-3A 48" X48"
24. R3-7R RIGHT LANE MUST TURN RIGHT 36" X36"
25. W013-1 20 M.P.H. 24" X12"
26. R3-8B ONLY ONLY ONLY 30" X48"
27. W01-3L 48" X48"
28. W01-3R 48" X48"
29. R3-7L LEFT LANE MUST TURN LEFT 36" X36"
30. W016-7PL 24" X12"
31. R011-2 LANE CLOSED 48" X30"
32. W01-4R 48" X 48"
33. W020-2 DETOUR AHEAD 48" X 48"
34. W012-1 48" X48"
35. DRUMS W/LIGHTS 30' SPACING
36. TYPE III BARRICADES
37. TYPE III BARRICADES W/ SIGN
38. SIGNS BANDED TO UTILITY POLE
39. WORK AREA
40. DIRECTION OF TRAFFIC
41. TUBULAR MARKERS 25' SPACING

- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
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- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE, 8" WHITE
- (L) TPM, STOP LINE, 24" WHITE
- (H) TPM, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS
- (Z) TPM, ARROWS

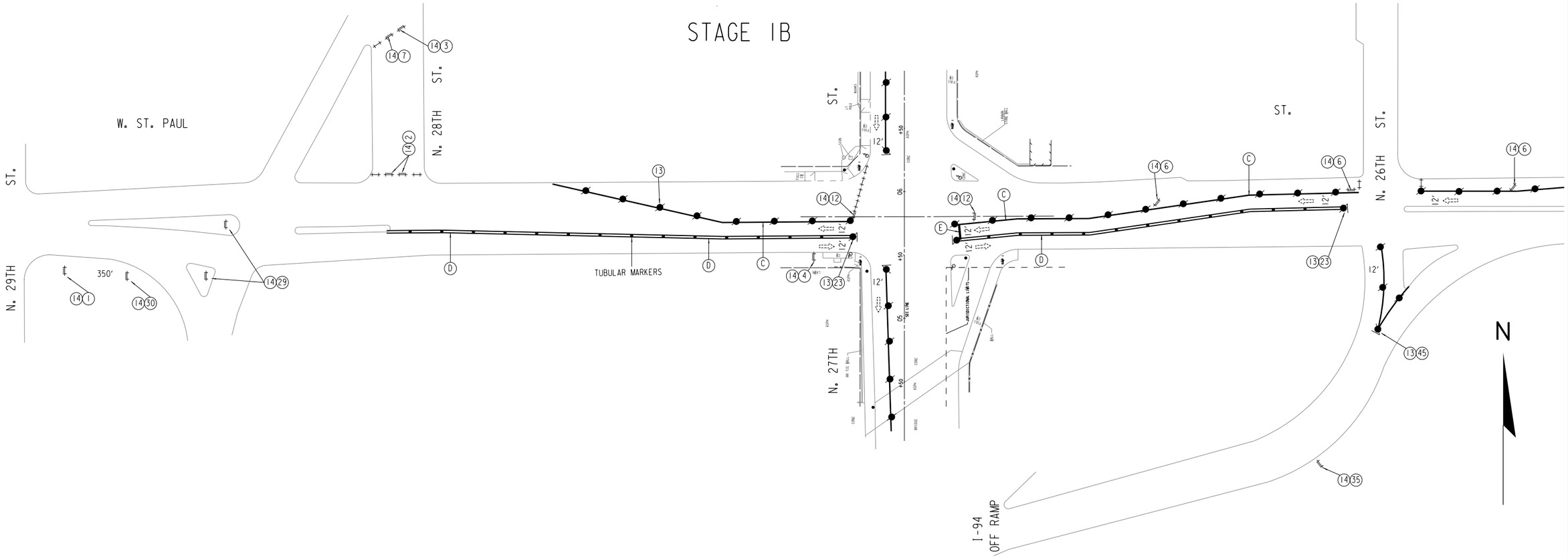
NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STAGE 1B


N. 27TH
AVE.
ST.
W. ST. PAUL
350'
350'
100'
12'
M4-8
DETOUR
M3-1
NORTH
M1-6
57
M05-1R
24X21
M06-1R
24X21


LEGEND
W020-1 ROAD WORK AHEAD 48" X48" — 1
R11-2 ROAD CLOSED 48" X30" — 2
R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48" — 3
R6-1R ONE WAY 24" X48" — 4
W01-7 24" X48" — 5
W01-6L 24" X48" — 6
M06-1R 24X21 — 7
R5-1 DO NOT ENTER 36" X36" — 8
R3-2 36" X36" — 9
R6-1L ONE WAY 30" X48" — 12
R1-1 STOP 48" X48" — 20
W01-4L 48" X48" — 21
R3-1 36" X36" — 22
R4-7A KEEP RIGHT 36" X48" — 23
W020-5R RIGHT LANE CLOSED AHEAD 48" X48" — 24
W04-2R 30" X30" — 25
W020-3 ROAD CLOSED AHEAD 48" X48" — 27
W016-7PR 24" X12" — 28
W04-2L 48" X48" — 29
W020-5L LEFT LANE CLOSED AHEAD 48" X48" — 30
R3-6L 30" X36" — 32
W020-5 CENTER LANE CLOSED AHEAD 48" X48" — 33
W03-3A 48" X48" — 34
R3-7R RIGHT LANE MUST TURN RIGHT 36" X36" — 35
W013-1 20 M.P.H. 24" X12" — 36
R3-8B ONLY ONLY ONLY 30" X48" — 37
W01-3L 48" X48" — 38
W01-3R 48" X48" — 39
R3-7L LEFT LANE MUST TURN LEFT 36" X36" — 40
W016-7PL 24" X12" — 41
R011-2 LANE CLOSED 48" X30" — 42
W01-4BL 48" X 48" — 43
W020-2 DETOUR AHEAD 48" X 48" — 44
W012-1 48" X48" — 45
DRUMS W/LIGHTS 30' SPACING — 13
TYPE III BARRICADES — 14
TYPE III BARRICADES W/ SIGN — 14 + X
SIGNS BANDED TO UTILITY POLE
WORK AREA
DIRECTION OF TRAFFIC
TUBULAR MARKERS 25' SPACING
A TPM, REFLECTIVE PAINT, 4" WHITE
B TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
C TPM, REMOVABLE TAPE, 4" WHITE
D TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
E TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
I TPM, ARROWS, REMOVABLE TAPE
J TPM, WORDS, REMOVABLE TAPE
K TPM, REMOVABLE TAPE, 8" WHITE
L TPM, STOP LINE, 24" WHITE
H TPM, 8" WHITE
M MATCH
X TPM, WORDS
Z TPM, ARROWS
NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

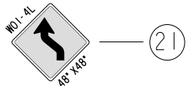
STAGE IB

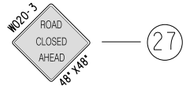


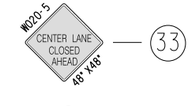
LEGEND



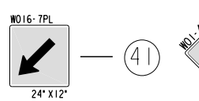


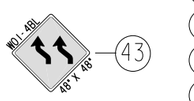












DRUMS W/LIGHTS 30' SPACING — 13

TYPE III BARRICADES — 14

TYPE III BARRICADES W/ SIGN — 14 + X

SIGNS BANDED TO UTILITY POLE

WORK AREA

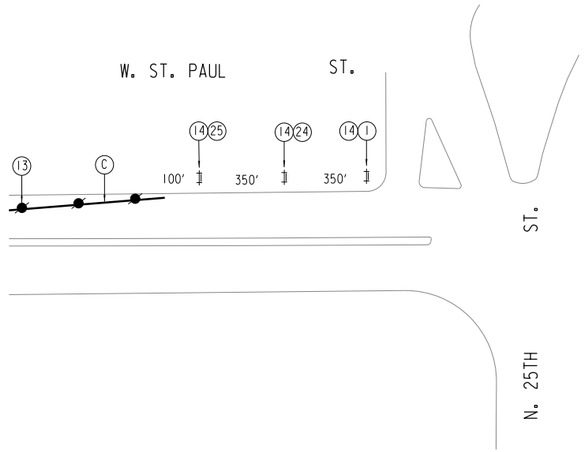
DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING

- A TPM, REFLECTIVE PAINT, 4" WHITE
- B TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
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- J TPM, WORDS, REMOVABLE TAPE
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- L TPM, STOP LINE, 24" WHITE
- H TPM, 8" WHITE
- M MATCH
- X TPM, WORDS
- Z TPM, ARROWS

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
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STAGE 1B



N

LEGEND

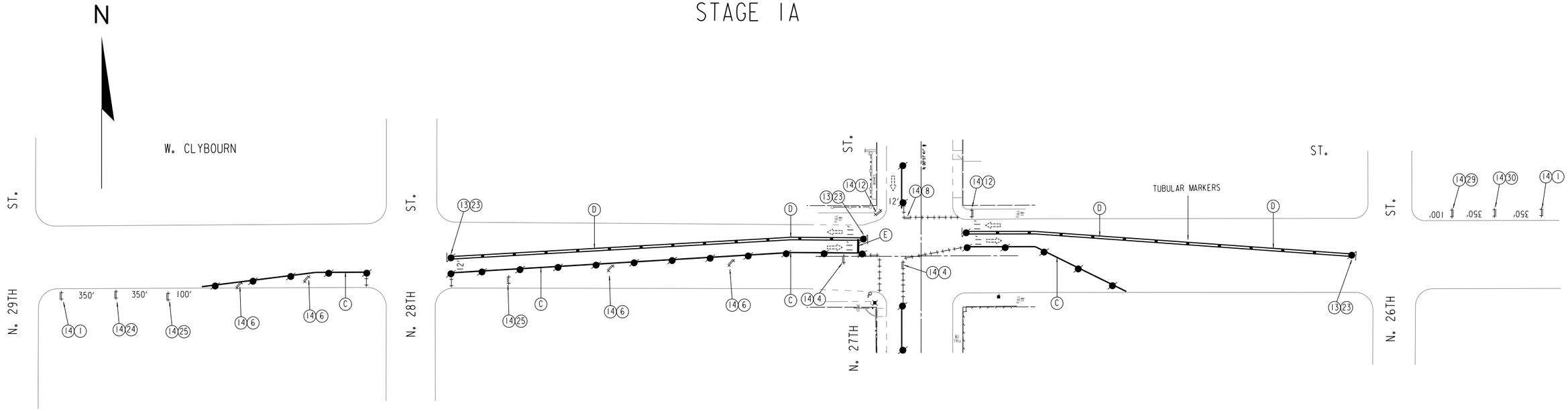
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3 R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48"
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5 W01-7 24" X48"
6 W01-6L 24" X48"
7 M06-1R 24X21
8 R5-1 DO NOT ENTER 36" X36"
9 R3-2 36" X36"
12 R6-1L ONE WAY 30" X48"
20 R1-1 STOP 48" X48"
21 W01-4L 48" X48"
22 R3-1 36" X36"
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25 W04-2R 30" X30"
27 W20-3 ROAD CLOSED AHEAD 48" X48"
28 W016-7PR 24" X12"
29 W04-2L 48" X48"
30 W020-5L LEFT LANE CLOSED AHEAD 48" X48"
32 R3-6L 30" X36"
33 W20-5 CENTER LANE CLOSED AHEAD 48" X48"
34 W09-3A 48" X48"
35 R3-7R RIGHT LANE MUST TURN RIGHT 36" X36"
36 W013-1 20 M.P.H. 24" X12"
37 R3-8B ONLY ONLY ONLY 30" X48"
38 W01-3L 48" X48"
39 W01-3R 48" X48"
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41 W016-7PL 24" X12"
42 R011-2 LANE CLOSED 48" X30"
43 W01-4BL 48" X 48"
44 W020-2 DETOUR AHEAD 48" X 48"
45 W012-1 48" X48"

DRUMS W/LIGHTS 30' SPACING — 13
TYPE III BARRICADES — 14
TYPE III BARRICADES W/ SIGN — 14 + X
SIGNS BANDED TO UTILITY POLE
WORK AREA
DIRECTION OF TRAFFIC
TUBULAR MARKERS 25' SPACING

A TPM, REFLECTIVE PAINT, 4" WHITE
B TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
C TPM, REMOVABLE TAPE, 4" WHITE
D TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
E TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
I TPM, ARROWS, REMOVABLE TAPE
J TPM, WORDS, REMOVABLE TAPE
K TPM, REMOVABLE TAPE, 8" WHITE
L TPM, STOP LINE, 24" WHITE
H TPM, 8" WHITE
M MATCH
X TPM, WORDS
Z TPM, ARROWS

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED. CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STAGE IA



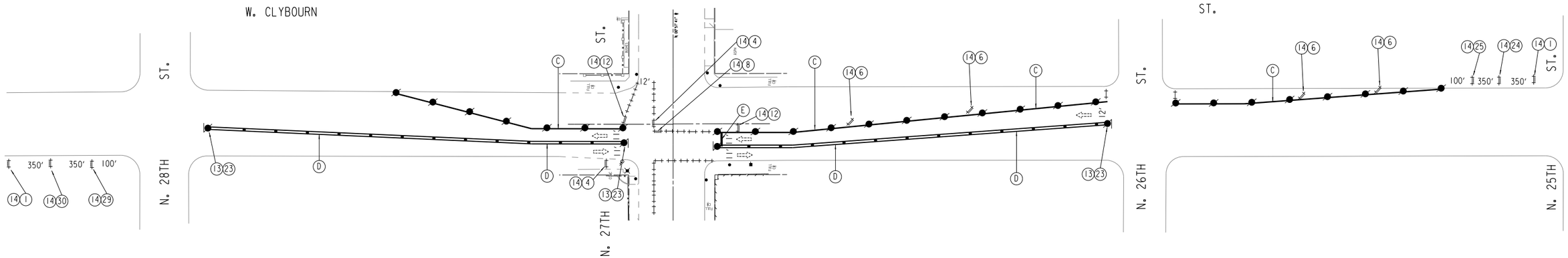
LEGEND

- (1) W020-1 ROAD WORK AHEAD 48" X48"
- (2) R11-2 ROAD CLOSED 48" X30"
- (3) R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48"
- (4) R6-1R ONE WAY 24" X48"
- (5) W01-7 24" X48"
- (6) W01-6L 24" X48"
- (7) W06-1R 24X21
- (8) R5-1 DO NOT ENTER 36" X36"
- (9) R3-2 36" X36"
- (10) R6-1L ONE WAY 30" X48"
- (12) R6-1L ONE WAY 30" X48"
- (13) DRUMS W/LIGHTS 30' SPACING
- (14) TYPE III BARRICADES
- (14)+(X) TYPE III BARRICADES W/ SIGN
- SIGNS BANDED TO UTILITY POLE
- WORK AREA
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING
- (20) R1-1 STOP 48" X48"
- (21) W01-4L 48" X48"
- (22) R3-1 36" X36"
- (23) R4-7A KEEP RIGHT 36" X48"
- (24) W020-5R RIGHT LANE CLOSED AHEAD 48" X48"
- (25) W04-2R 30" X30"
- (27) W020-3 ROAD CLOSED AHEAD 48" X48"
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- (29) W04-2L 48" X48"
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- (34) W09-3A 48" X48"
- (35) R3-7R RIGHT LANE MUST TURN RIGHT 36" X36"
- (36) W013-1 20 M.P.H. 24" X12"
- (37) R3-8B ONLY ONLY ONLY 30" X48"
- (38) W01-3L 48" X48"
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- (43) W01-4BL 48" X 48"
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- (45) W012-1 48" X48"

- (A) TPM, REFLECTIVE PAINT, 4" WHITE
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- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
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- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE, 8" WHITE
- (L) TPM, STOP LINE, 24" WHITE
- (H) TPM, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS
- (Z) TPM, ARROWS

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STAGE 1B



LEGEND

W020-1 ROAD WORK AHEAD 48" X48" — 1
R11-2 ROAD CLOSED 48" X30" — 2
R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48" — 3
R6-1R ONE WAY 24" X48" — 4
W01-7 24" X48" — 5
W01-6L 24" X48" — 6
M05-1R 24X21
M06-1R 24X21 — 7
R5-1 DO NOT ENTER 36" X36" — 8
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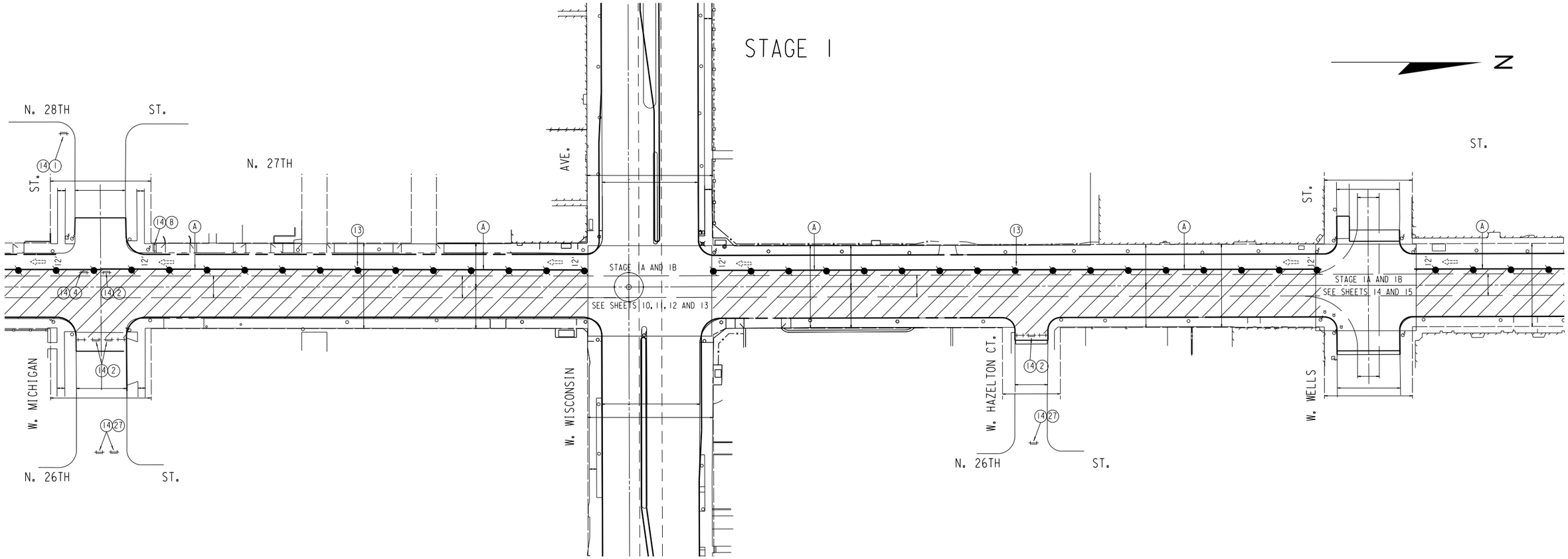
DRUMS W/LIGHTS 30' SPACING — 13
TYPE III BARRICADES — 14
TYPE III BARRICADES W/ SIGN — 14 + X
SIGNS BANDED TO UTILITY POLE
WORK AREA
DIRECTION OF TRAFFIC
TUBULAR MARKERS 25' SPACING

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(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
(C) TPM, REMOVABLE TAPE, 4" WHITE
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(J) TPM, WORDS, REMOVABLE TAPE
(K) TPM, REMOVABLE TAPE, 8" WHITE
(L) TPM, STOP LINE, 24" WHITE
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(X) TPM, WORDS
(Z) TPM, ARROWS

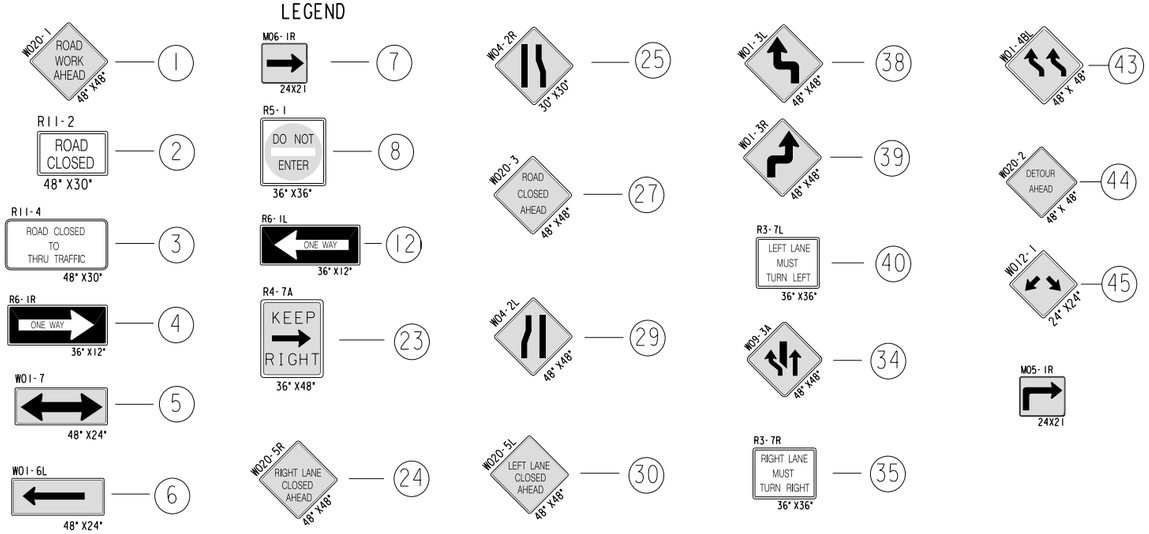
NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

FILE NAME= W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN

STAGE 1



LEGEND



- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE

- SIGNS ATTACHED TO DRUM
- WORK AREA
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING
- (13) — DRUMS W/LIGHTS 30' SPACING TYPE "C" LIGHTING
- (14) — TYPE III BARRICADES
- (14) + (X) — TYPE III BARRICADES W/ SIGN

NOTE: ALL TYPE III BARRICADES SHALL HAVE TYPE "A" FLASHING LIGHTS

ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

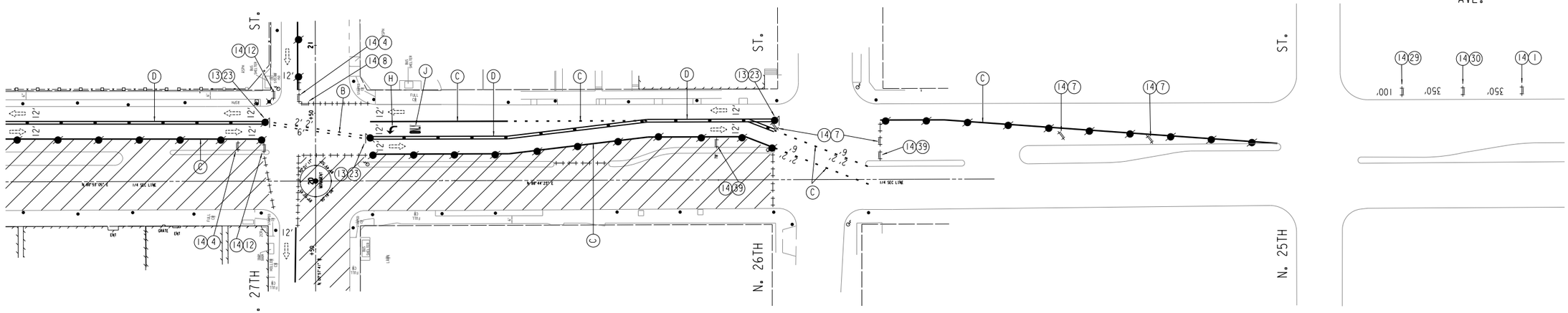
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

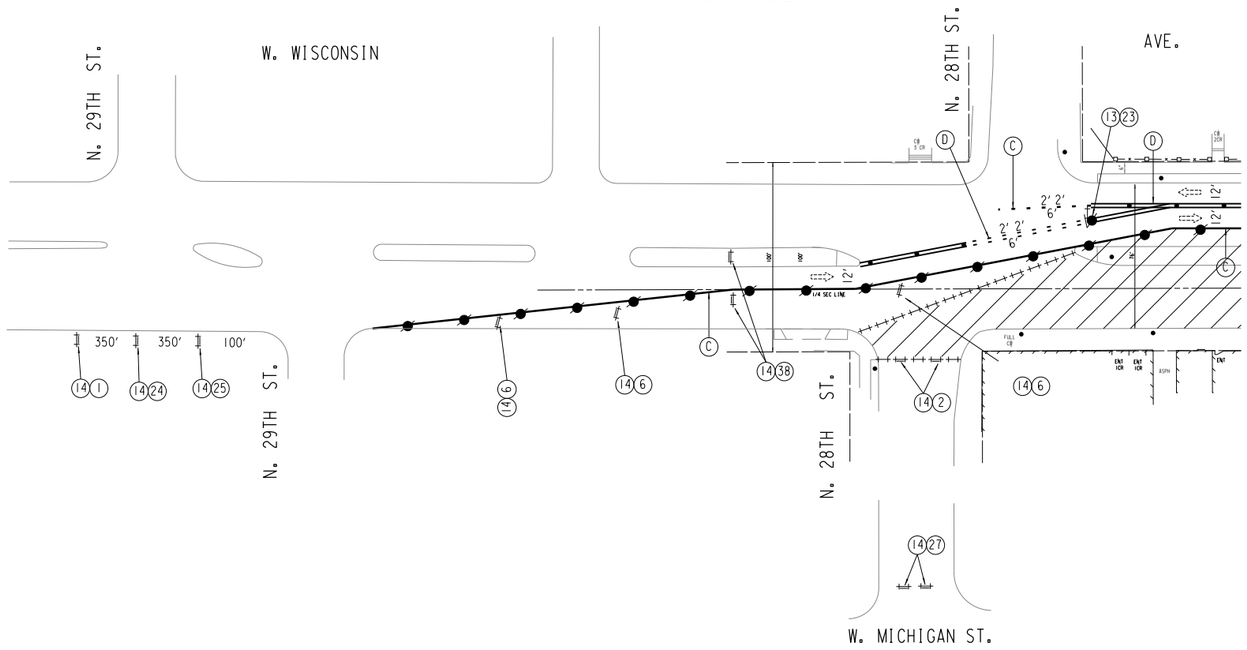
STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 95	E

FILE NAME: W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN

STAGE 1A

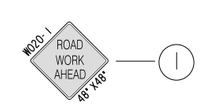

W. WISCONSIN AVE.
ST.
N. 27TH ST.
N. 26TH ST.
N. 25TH ST.
1/4 SEC LINE
GRATE INLET
CURB INLET
FULL CB
12'
21'
2'
6'
2'
2'
6'
2'
2'
6'
2

STAGE IA

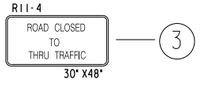


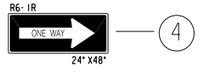
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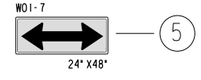
LEGEND

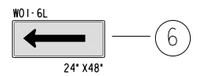




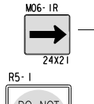






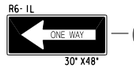








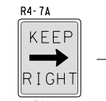














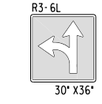








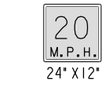


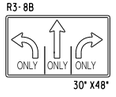


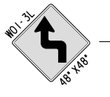


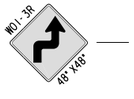


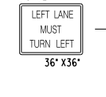












DRUMS W/LIGHTS 30' SPACING — 13

TYPE III BARRICADES — 14

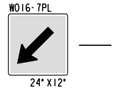
TYPE III BARRICADES W/ SIGN — 14 + X

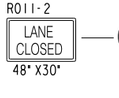
SIGNS BANDED TO UTILITY POLE

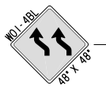
WORK AREA

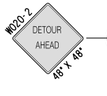
DIRECTION OF TRAFFIC

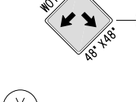
TUBULAR MARKERS 25' SPACING











(A) TPM, REFLECTIVE PAINT, 4" WHITE

(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" WHITE

(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE

(I) TPM, ARROWS, REMOVABLE TAPE

(J) TPM, WORDS, REMOVABLE TAPE

(K) TPM, REMOVABLE TAPE, 8" WHITE

(L) TPM, STOP LINE, 24" WHITE

(H) TPM, 8" WHITE

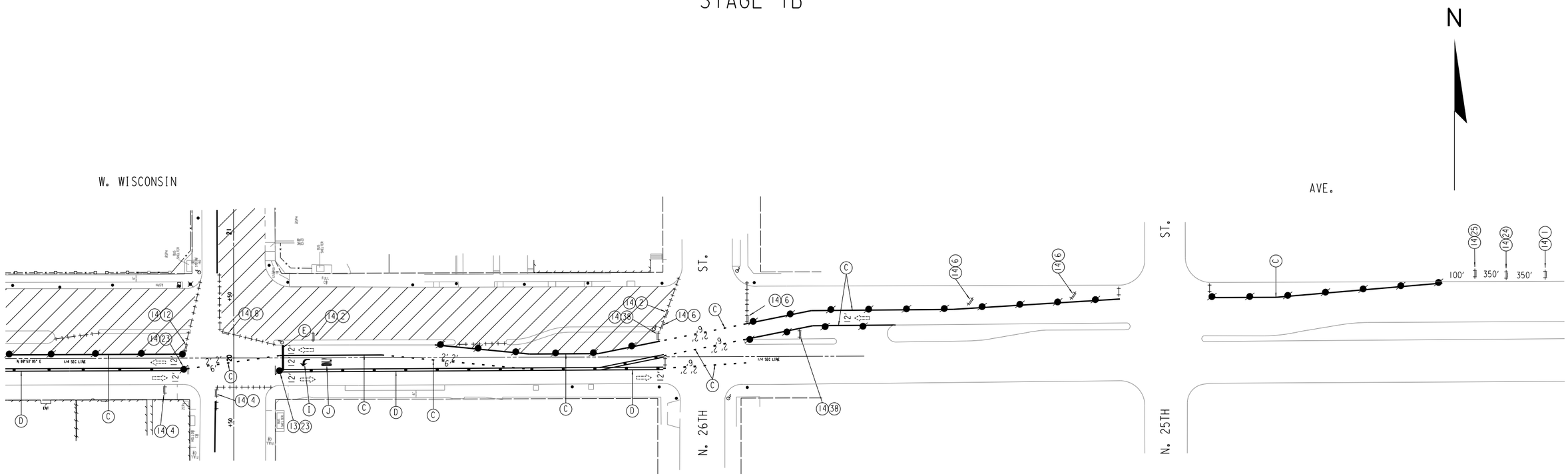
(M) MATCH

(X) TPM, WORDS

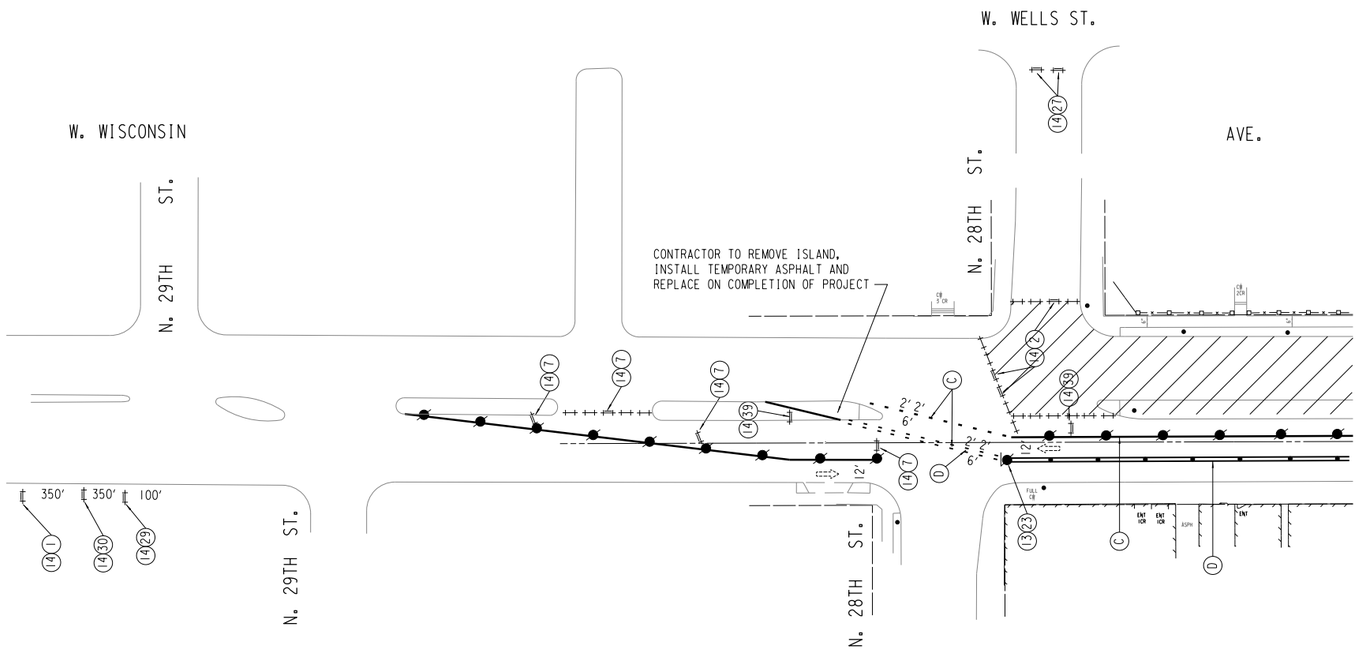
(Z) TPM, ARROWS

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED. CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STAGE IB


N
W. WISCONSIN AVE.
N. 26TH ST.
N. 25TH ST.
100'
350'
350'
1/4 SEC LINE
N 89°51'05" E
12'
21'
20'
6'
2'
2'
2

STAGE IB



N

LEGEND

1. W20-1 ROAD WORK AHEAD 48" X48"
2. R11-2 ROAD CLOSED 48" X30"
3. R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48"
4. R6-1R ONE WAY 24" X48"
5. W01-7 24" X48"
6. W01-6L 24" X48"
7. M06-1R 24X21
8. R5-1 DO NOT ENTER 36" X36"
9. R3-2 36" X36"
10. R6-1L ONE WAY 30" X48"
11. R1-1 STOP 48" X48"
12. W01-4L 48" X48"
13. R3-1 36" X36"
14. R4-7A KEEP RIGHT 36" X48"
15. W20-5R RIGHT LANE CLOSED AHEAD 48" X48"
16. W04-2R 30" X30"
17. W20-3 ROAD CLOSED AHEAD 48" X48"
18. W16-7PR 24" X12"
19. W04-2L 48" X48"
20. W20-5L LEFT LANE CLOSED AHEAD 48" X48"
21. R3-6L 30" X36"
22. W20-5 CENTER LANE CLOSED AHEAD 48" X48"
23. W05-3A 48" X48"
24. R3-7R RIGHT LANE MUST TURN RIGHT 36" X36"
25. W013-1 20 M.P.H. 24" X12"
26. R3-8B ONLY ONLY ONLY 30" X48"
27. W01-3L 48" X48"
28. W01-3R 48" X48"
29. R3-7L LEFT LANE MUST TURN LEFT 36" X36"
30. DRUMS W/LIGHTS 30' SPACING
31. TYPE III BARRICADES
32. TYPE III BARRICADES W/ SIGN
33. SIGNS BANDED TO UTILITY POLE
34. WORK AREA
35. DIRECTION OF TRAFFIC
36. TUBULAR MARKERS 25' SPACING
37. W16-7PL 24" X12"
38. W01-4BL 48" X 48"
39. R011-2 LANE CLOSED 48" X30"
40. W20-2 DETOUR AHEAD 48" X 48"
41. W012-1 48" X48"
42. (A) TPM, REFLECTIVE PAINT, 4" WHITE
43. (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
44. (C) TPM, REMOVABLE TAPE, 4" WHITE
45. (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
46. (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
47. (I) TPM, ARROWS, REMOVABLE TAPE
48. (J) TPM, WORDS, REMOVABLE TAPE
49. (K) TPM, REMOVABLE TAPE, 8" WHITE
50. (L) TPM, STOP LINE, 24" WHITE
51. (H) TPM, 8" WHITE
52. (M) MATCH
53. (X) TPM, WORDS
54. (Z) TPM, ARROWS

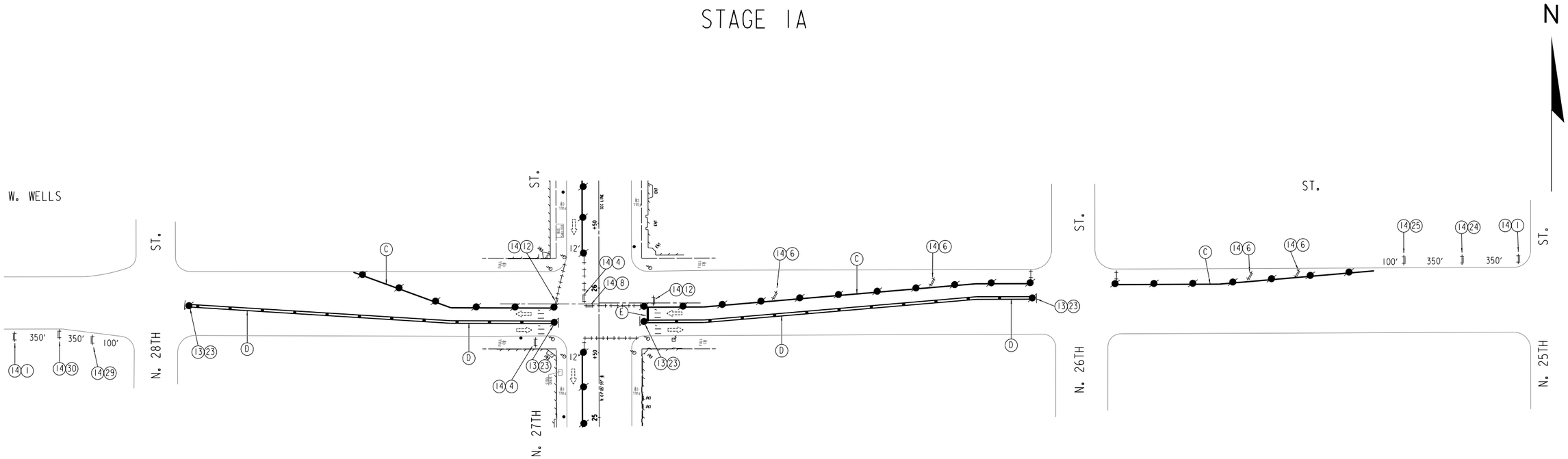
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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

SHEET 13 OF 32

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 99	E

FILE NAME= W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN

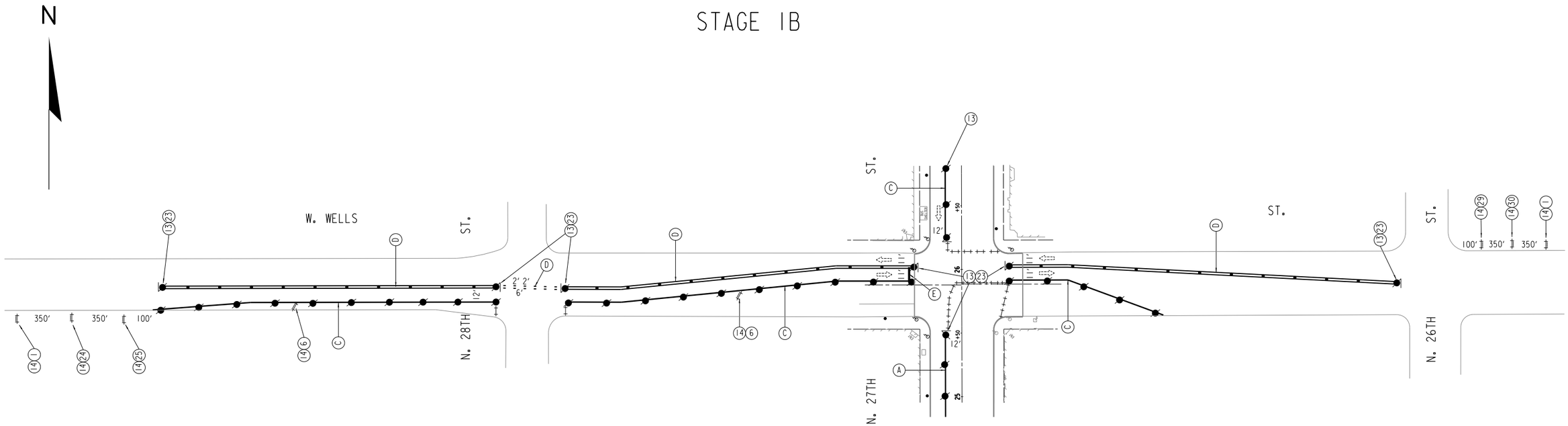
STAGE 1A



LEGEND

| | | |

STAGE 1B



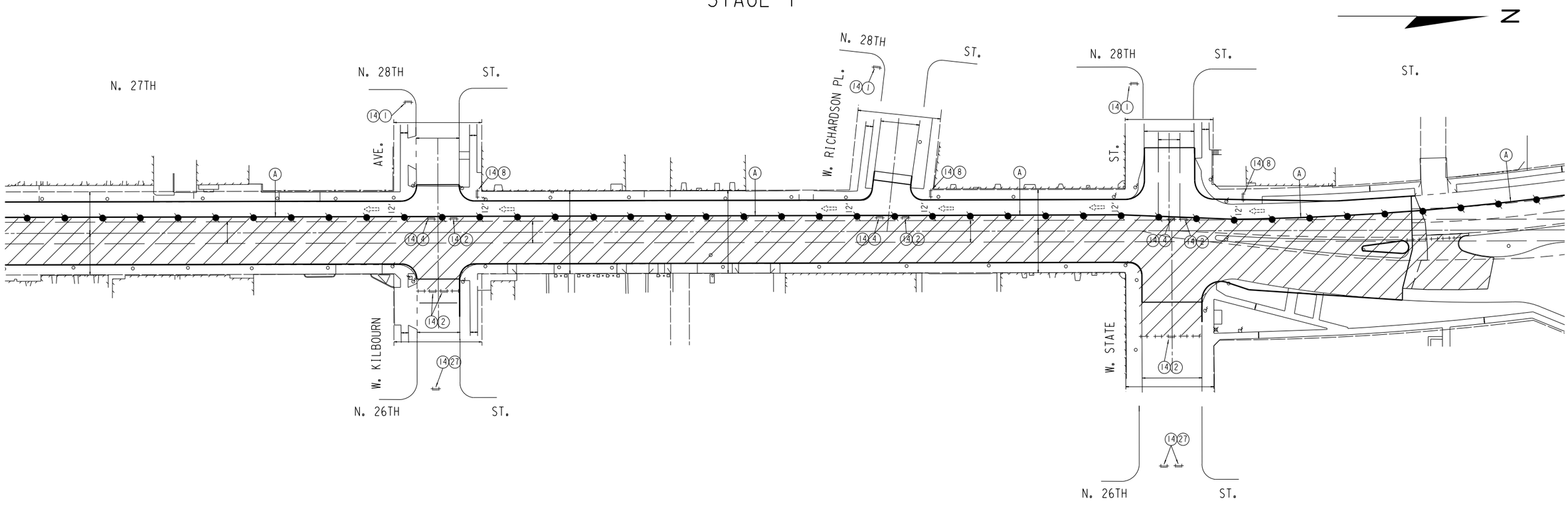
LEGEND

(1) W20-1 ROAD WORK AHEAD 48" X48"
(2) R11-2 ROAD CLOSED 48" X30"
(3) R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48"
(4) R6-1R ONE WAY 24" X48"
(5) W01-7 24" X48"
(6) W01-6L 24" X48"
(7) M06-1R 24X21
(8) R5-1 DO NOT ENTER 36" X36"
(9) R3-2 36" X36"
(10) R6-1L ONE WAY 30" X48"
(11) R1-1 STOP 48" X48"
(12) W01-4L 48" X48"
(13) R3-1 36" X36"
(14) R4-7A KEEP RIGHT 36" X48"
(15) W020-5R RIGHT LANE CLOSED AHEAD 48" X48"
(16) W04-2R 30" X30"
(17) W020-3 ROAD CLOSED AHEAD 48" X48"
(18) W016-7PR 24" X12"
(19) W04-2L 48" X48"
(20) W020-5L LEFT LANE CLOSED AHEAD 48" X48"
(21) R3-6L 30" X36"
(22) W020-5 CENTER LANE CLOSED AHEAD 48" X48"
(23) W03-3A 48" X48"
(24) R3-7R RIGHT LANE MUST TURN RIGHT 36" X36"
(25) W013-1 20 M.P.H. 24" X12"
(26) R3-8B ONLY ONLY ONLY 30" X48"
(27) W01-3L 48" X48"
(28) W01-3R 48" X48"
(29) R3-7L LEFT LANE MUST TURN LEFT 36" X36"
(30) W016-7PL 24" X12"
(31) R011-2 LANE CLOSED 48" X30"
(32) W01-4BR 48" X 48"
(33) W020-2 DETOUR AHEAD 48" X 48"
(34) W012-1 48" X48"
(35) DRUMS W/LIGHTS 30' SPACING
(36) TYPE III BARRICADES
(37) TYPE III BARRICADES W/ SIGN
(38) SIGNS BANDED TO UTILITY POLE
(39) WORK AREA
(40) DIRECTION OF TRAFFIC
(41) TUBULAR MARKERS 25' SPACING

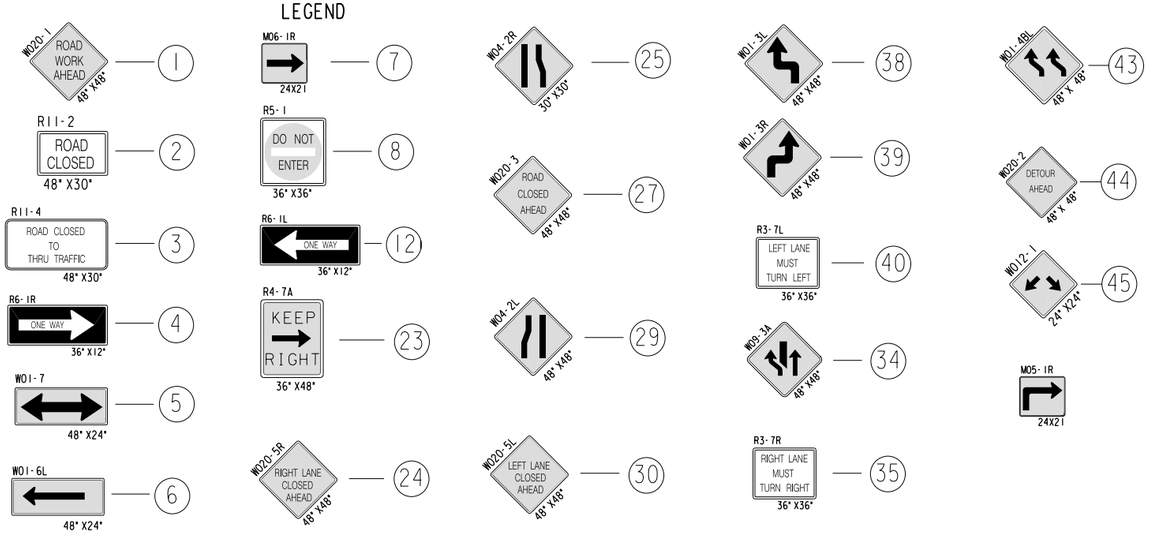
(A) TPM, REFLECTIVE PAINT, 4" WHITE
(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
(C) TPM, REMOVABLE TAPE, 4" WHITE
(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
(I) TPM, ARROWS, REMOVABLE TAPE
(J) TPM, WORDS, REMOVABLE TAPE
(K) TPM, REMOVABLE TAPE, 8" WHITE
(L) TPM, STOP LINE, 24" WHITE
(H) TPM, 8" WHITE
(M) MATCH
(X) TPM, WORDS
(Z) TPM, ARROWS

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STAGE I



LEGEND



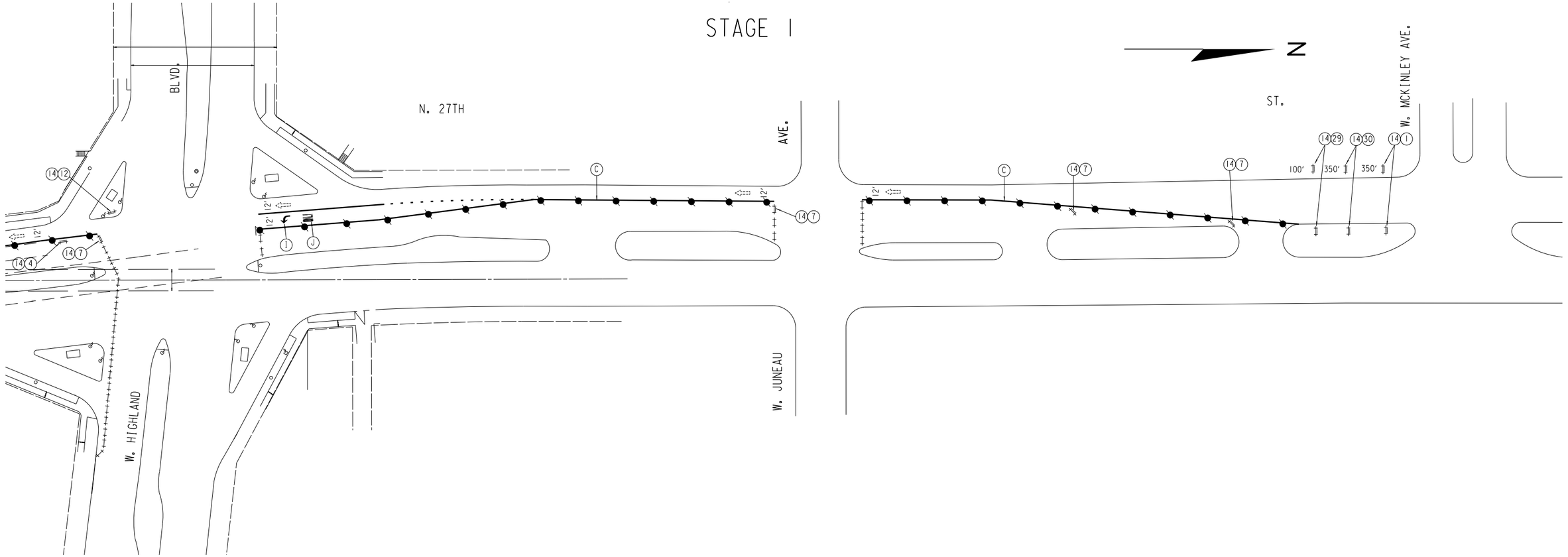
- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE

- SIGNS ATTACHED TO DRUM
- WORK AREA
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING

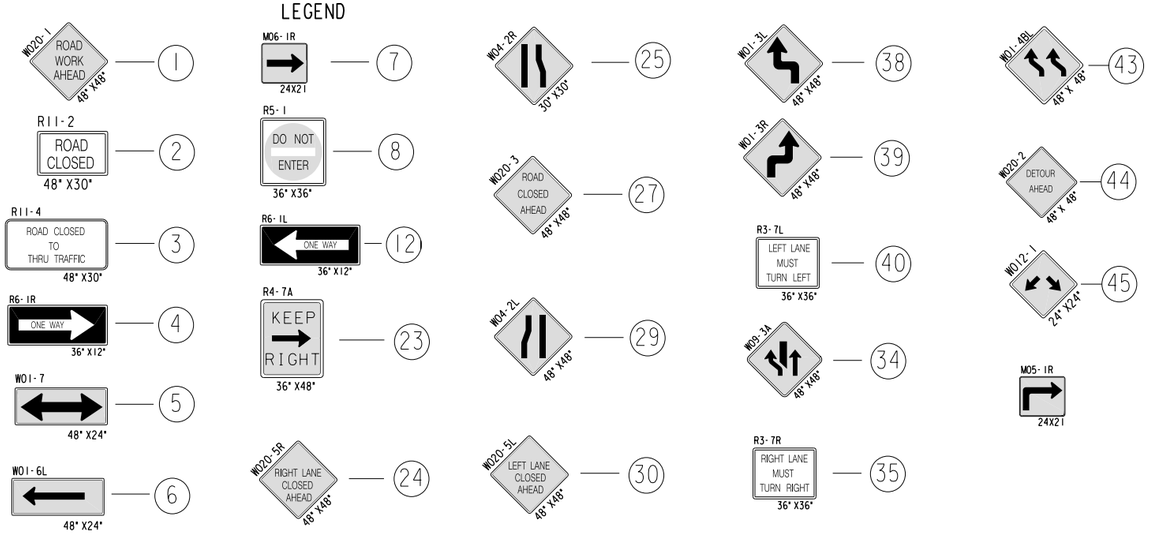
- (13) — DRUMS W/LIGHTS 30' SPACING TYPE "C" LIGHTING
- (14) — TYPE III BARRICADES
- (14) + (X) — TYPE III BARRICADES W/ SIGN

NOTE: ALL TYPE III BARRICADES SHALL HAVE TYPE "A" FLASHING LIGHTS
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STAGE I



LEGEND



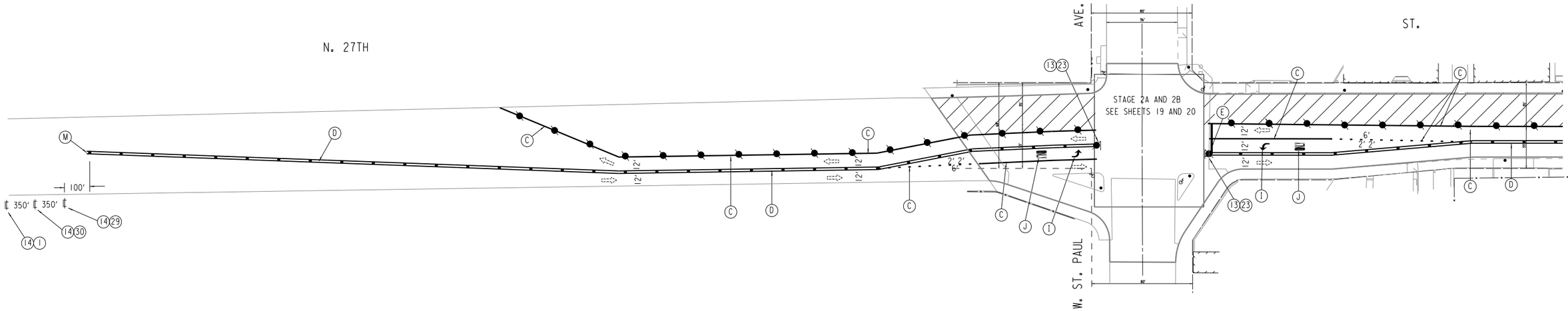
(A) TPM, REFLECTIVE PAINT, 4" WHITE
(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
(C) TPM, REMOVABLE TAPE, 4" WHITE
(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
(I) TPM, ARROWS, REMOVABLE TAPE
(J) TPM, WORDS, REMOVABLE TAPE

SIGNS ATTACHED TO DRUM
WORK AREA
DIRECTION OF TRAFFIC
TUBULAR MARKERS 25' SPACING

(13) — DRUMS W/LIGHTS 30' SPACING TYPE "C" LIGHTING
(14) — TYPE III BARRICADES
(14) + (X) — TYPE III BARRICADES W/ SIGN

NOTE: ALL TYPE III BARRICADES SHALL HAVE TYPE "A" FLASHING LIGHTS
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STAGE 2



LEGEND

W20-1 ROAD WORK AHEAD 48" X48"	1	W1-4L 48" X48"	21
R11-2 ROAD CLOSED 48" X30"	2	R3-1 36" X36"	22
R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48"	3	R4-7A KEEP RIGHT 36" X48"	23
R6-1R ONE WAY 24" X48"	4	W20-5R RIGHT LANE CLOSED AHEAD 48" X48"	24
W1-7 24" X48"	5	W4-2R 30" X30"	25
W1-6L 24" X48"	6	R1-1 STOP 48" X48"	20
W1-6R 24" X48"	7	W20-3 ROAD CLOSED AHEAD 48" X48"	27
R5-1 DO NOT ENTER 36" X36"	8	W16-7PR 24" X12"	28
R3-2 36" X36"	9	W4-2L 48" X48"	29
R6-1L ONE WAY 30" X48"	12	W20-5L LEFT LANE CLOSED AHEAD 48" X48"	30
		R3-6L 30" X36"	32
W20-5 CENTER LANE CLOSED AHEAD 48" X48"	33	W1-3L 48" X48"	38
W20-3A 48" X48"	34	W1-3R 48" X48"	39
R3-7R RIGHT LANE MUST TURN RIGHT 36" X36"	35	R3-7L LEFT LANE MUST TURN LEFT 36" X36"	40
W13-1 20 M.P.H. 24" X12"	36	W16-7PL 24" X12"	41
R3-8B ONLY ONLY ONLY 30" X48"	37	R011-2 LANE CLOSED 48" X30"	42
		W1-4BL 48" X 48"	43
		W20-2 DETOUR AHEAD 48" X 48"	44
		W12-1 48" X48"	45

DRUMS W/LIGHTS 30' SPACING — 13

TYPE III BARRICADES — 14

TYPE III BARRICADES W/ SIGN — 14 + X

SIGNS BANDED TO UTILITY POLE

WORK AREA

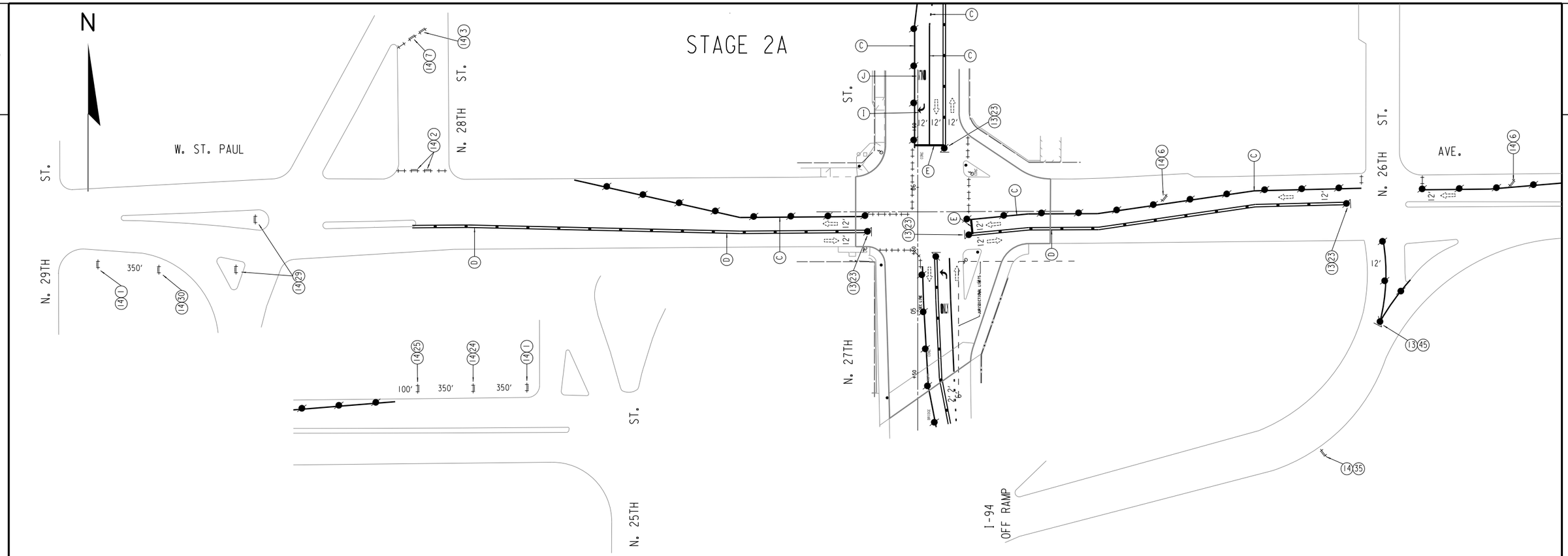
DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING

- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE, 8" WHITE
- (L) TPM, STOP LINE, 24" WHITE
- (H) TPM, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS
- (Z) TPM, ARROWS

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

FILE NAME= W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN



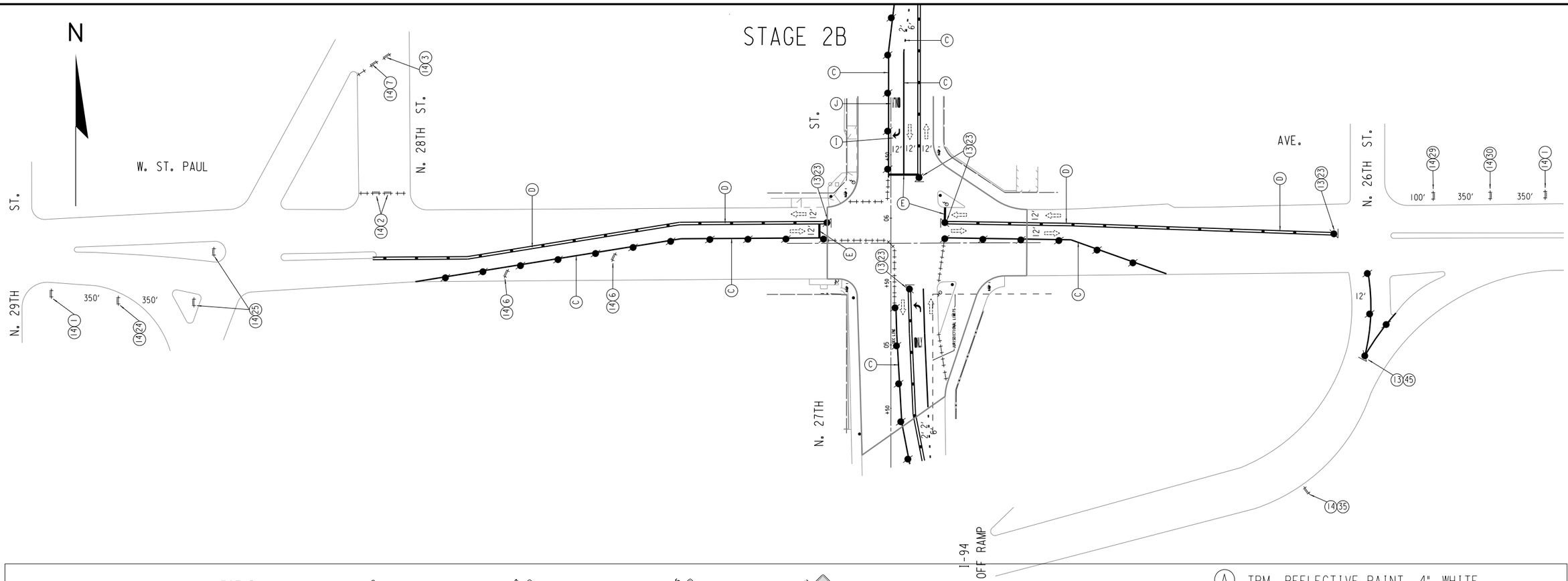
LEGEND

1. W020-1 ROAD WORK AHEAD 48" X48"
2. R11-2 ROAD CLOSED 48" X30"
3. R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48"
4. R6-1R ONE WAY 24" X48"
5. W01-7 24" X48"
6. W01-6L 24" X48"
7. W01-6R 24" X48"
8. R5-1 DO NOT ENTER 36" X36"
9. R3-2 36" X36"
12. R6-1L ONE WAY 30" X48"
20. R1-1 STOP 48" X48"
21. W01-4L 48" X48"
22. R3-1 36" X36"
23. R4-7A KEEP RIGHT 36" X48"
24. W020-5R RIGHT LANE CLOSED AHEAD 48" X48"
25. W04-2R 30" X30"
27. W020-3 ROAD CLOSED AHEAD 48" X48"
28. W016-7PR 24" X12"
29. W04-2L 48" X48"
30. W020-5L LEFT LANE CLOSED AHEAD 48" X48"
32. R3-6L 30" X36"
33. W020-5 CENTER LANE CLOSED AHEAD 48" X48"
34. W09-3A 48" X48"
35. R3-7R RIGHT LANE MUST TURN RIGHT 36" X36"
36. W013-1 20 M.P.H. 24" X12"
37. R3-8B ONLY ONLY ONLY 30" X48"
38. W01-3L 48" X48"
39. W01-3R 48" X48"
40. R3-7L LEFT LANE MUST TURN LEFT 36" X36"
41. W016-7PL 24" X12"
42. R011-2 LANE CLOSED 48" X30"
43. W01-4BL 48" X 48"
44. W020-2 DETOUR AHEAD 48" X 48"
45. W012-1 48" X48"

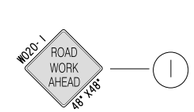
DRUMS W/LIGHTS 30' SPACING — (13)
TYPE III BARRICADES — (14)
TYPE III BARRICADES W/ SIGN — (14) + (X)
SIGNS BANDED TO UTILITY POLE
WORK AREA
DIRECTION OF TRAFFIC
TUBULAR MARKERS 25' SPACING

(A) TPM, REFLECTIVE PAINT, 4" WHITE
(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
(C) TPM, REMOVABLE TAPE, 4" WHITE
(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
(I) TPM, ARROWS, REMOVABLE TAPE
(J) TPM, WORDS, REMOVABLE TAPE
(K) TPM, REMOVABLE TAPE, 8" WHITE
(L) TPM, STOP LINE, 24" WHITE
(H) TPM, 8" WHITE
(M) MATCH
(X) TPM, WORDS
(Z) TPM, ARROWS

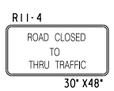
NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

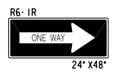


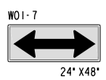
LEGEND

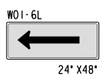




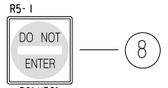


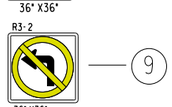


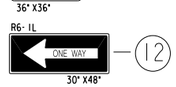


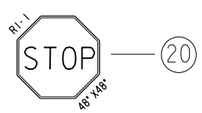


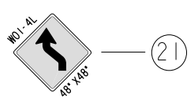




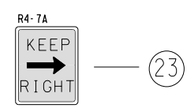


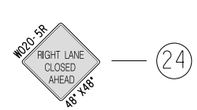


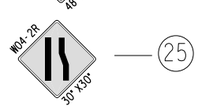


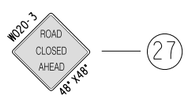


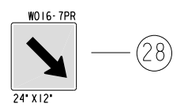


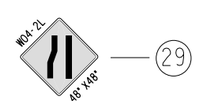


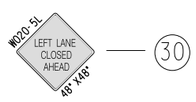


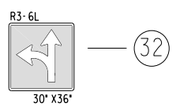




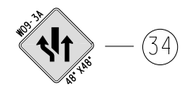


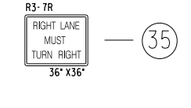


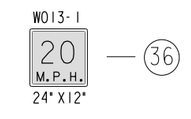


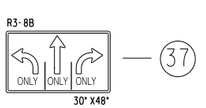


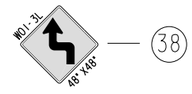


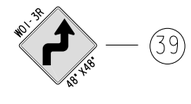


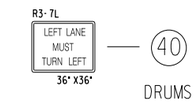




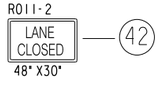












DRUMS W/LIGHTS 30' SPACING — 13

TYPE III BARRICADES — 14

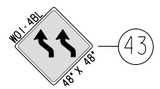
TYPE III BARRICADES W/ SIGN — 14 + X

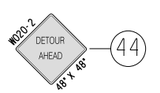
SIGNS BANDED TO UTILITY POLE

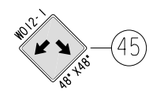
WORK AREA

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING



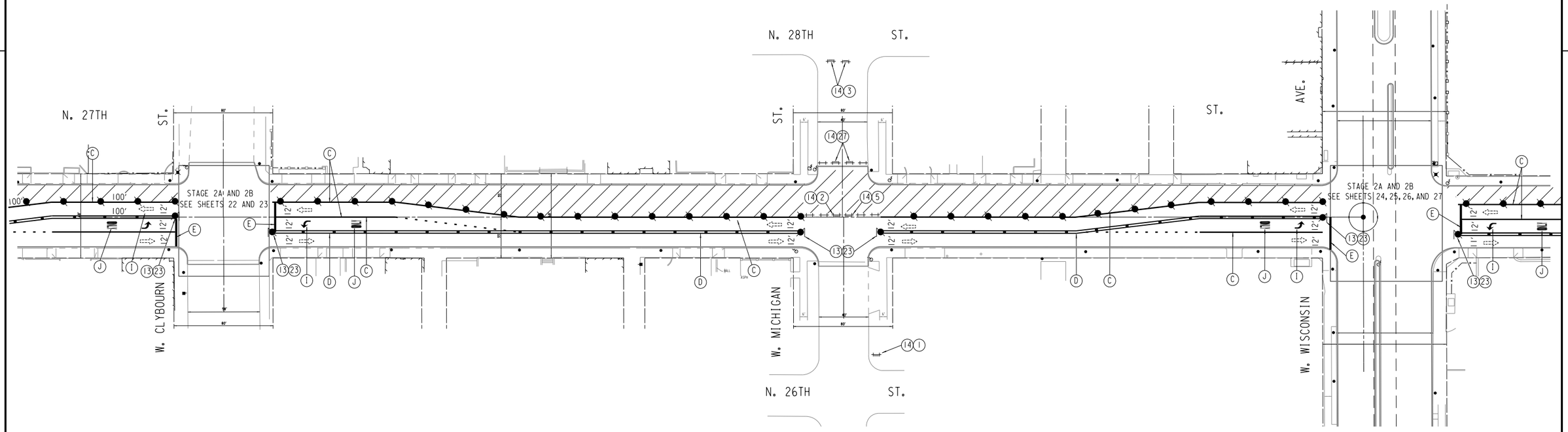




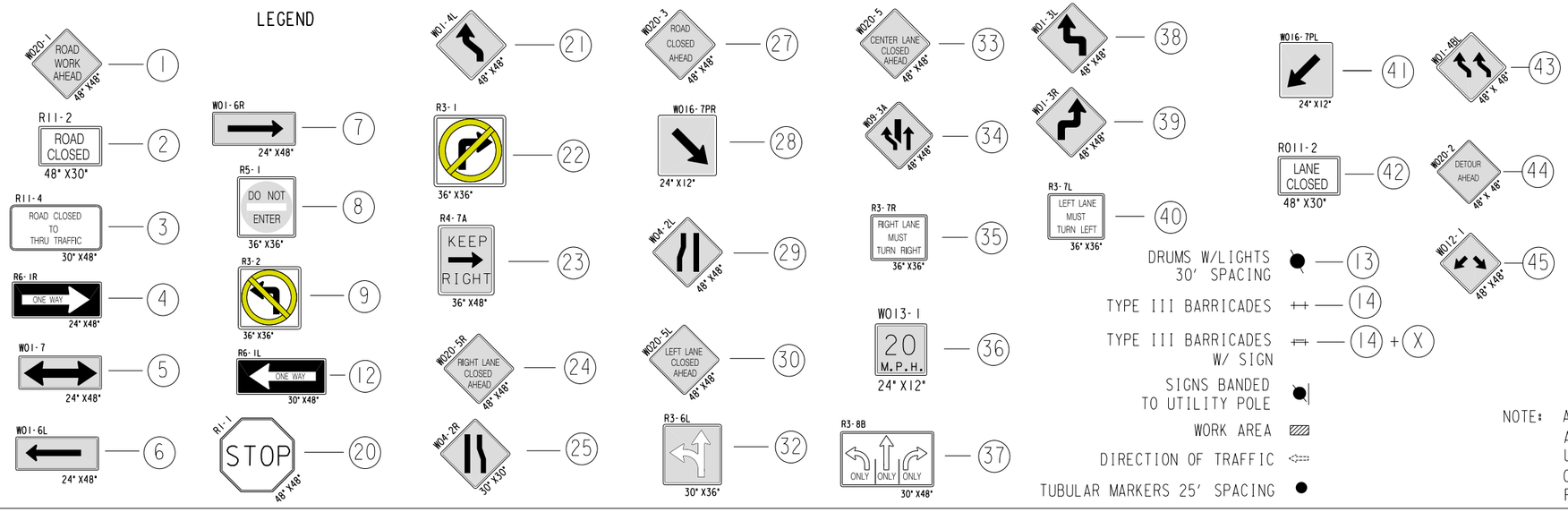
(A) TPM, REFLECTIVE PAINT, 4" WHITE
(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
(C) TPM, REMOVABLE TAPE, 4" WHITE
(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
(I) TPM, ARROWS, REMOVABLE TAPE
(J) TPM, WORDS, REMOVABLE TAPE
(K) TPM, REMOVABLE TAPE, 8" WHITE
(L) TPM, STOP LINE, 24" WHITE
(H) TPM, 8" WHITE
(M) MATCH
(X) TPM, WORDS
(Z) TPM, ARROWS

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STAGE 2



LEGEND



DRUMS W/LIGHTS 30' SPACING — 13

TYPE III BARRICADES — 14

TYPE III BARRICADES W/ SIGN — 14 + X

SIGNS BANDED TO UTILITY POLE

WORK AREA

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING

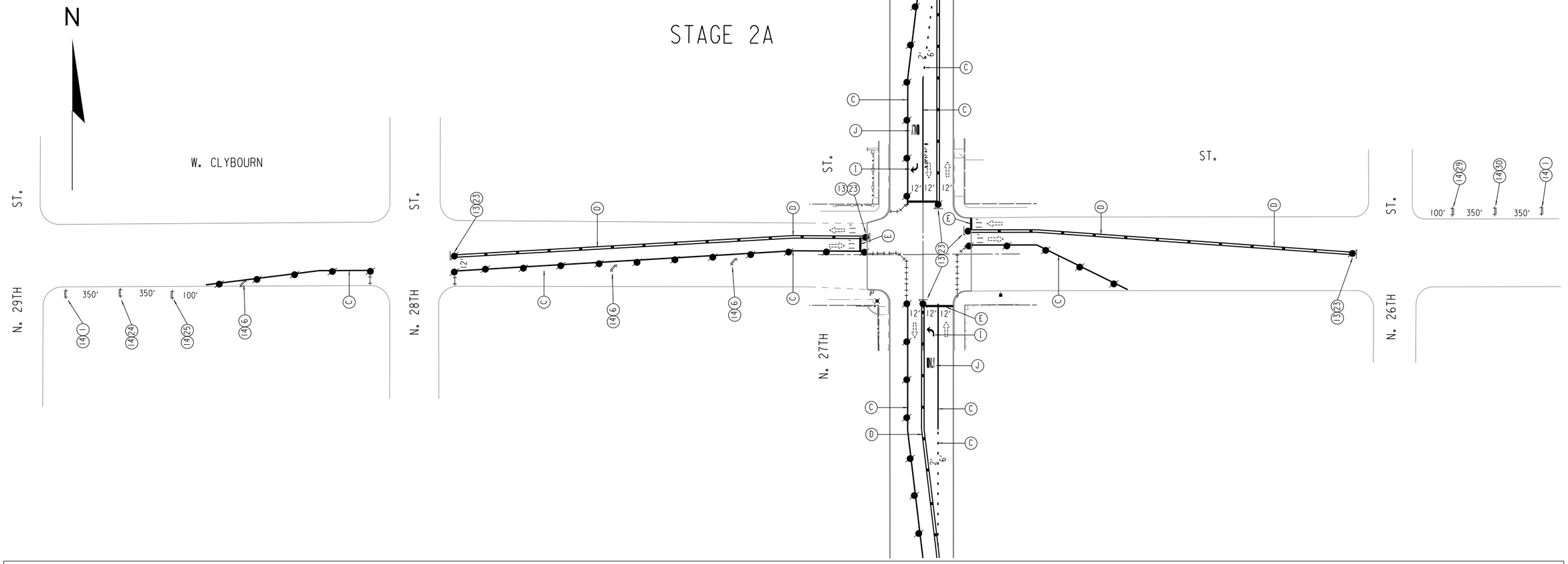
- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE, 8" WHITE
- (L) TPM, STOP LINE, 24" WHITE
- (H) TPM, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS
- (Z) TPM, ARROWS

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED. CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

FILE NAME= W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN

2

STAGE 2A



LEGEND

1. W020-1 ROAD WORK AHEAD 48" X48"
2. R11-2 ROAD CLOSED 48" X30"
3. R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48"
4. R6-1R ONE WAY 24" X48"
5. W01-7 24" X48"
6. W01-6L 24" X48"
7. W01-6R 24" X48"
8. R5-1 DO NOT ENTER 36" X36"
9. R3-2 36" X36"
10. R6-1L ONE WAY 30" X48"
11. R1-1 STOP 48" X48"
12. W01-4L 48" X48"
13. R3-1 36" X36"
14. R4-7A KEEP RIGHT 36" X48"
15. W020-5R RIGHT LANE CLOSED AHEAD 48" X48"
16. W04-2R 30" X30"
17. W020-3 ROAD CLOSED AHEAD 48" X48"
18. W016-7PR 24" X12"
19. W04-2L 48" X48"
20. W020-5L LEFT LANE CLOSED AHEAD 48" X48"
21. R3-6L 30" X36"
22. W020-5 CENTER LANE CLOSED AHEAD 48" X48"
23. W09-3A 48" X48"
24. R3-7R RIGHT LANE MUST TURN RIGHT 36" X36"
25. W013-1 20 M.P.H. 24" X12"
26. R3-8B ONLY ONLY ONLY 30" X48"
27. W01-3L 48" X48"
28. W01-3R 48" X48"
29. R3-7L LEFT LANE MUST TURN LEFT 36" X36"
30. W016-7PL 24" X12"
31. R011-2 LANE CLOSED 48" X30"
32. W01-4BL 48" X48"
33. W020-2 DETOUR AHEAD 48" X 48"
34. W012-1 48" X48"
35. DRUMS W/LIGHTS 30' SPACING
36. TYPE III BARRICADES
37. TYPE III BARRICADES W/ SIGN
38. SIGNS BANDED TO UTILITY POLE
39. WORK AREA
40. DIRECTION OF TRAFFIC
41. TUBULAR MARKERS 25' SPACING

- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE, 8" WHITE
- (L) TPM, STOP LINE, 24" WHITE
- (H) TPM, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS
- (Z) TPM, ARROWS

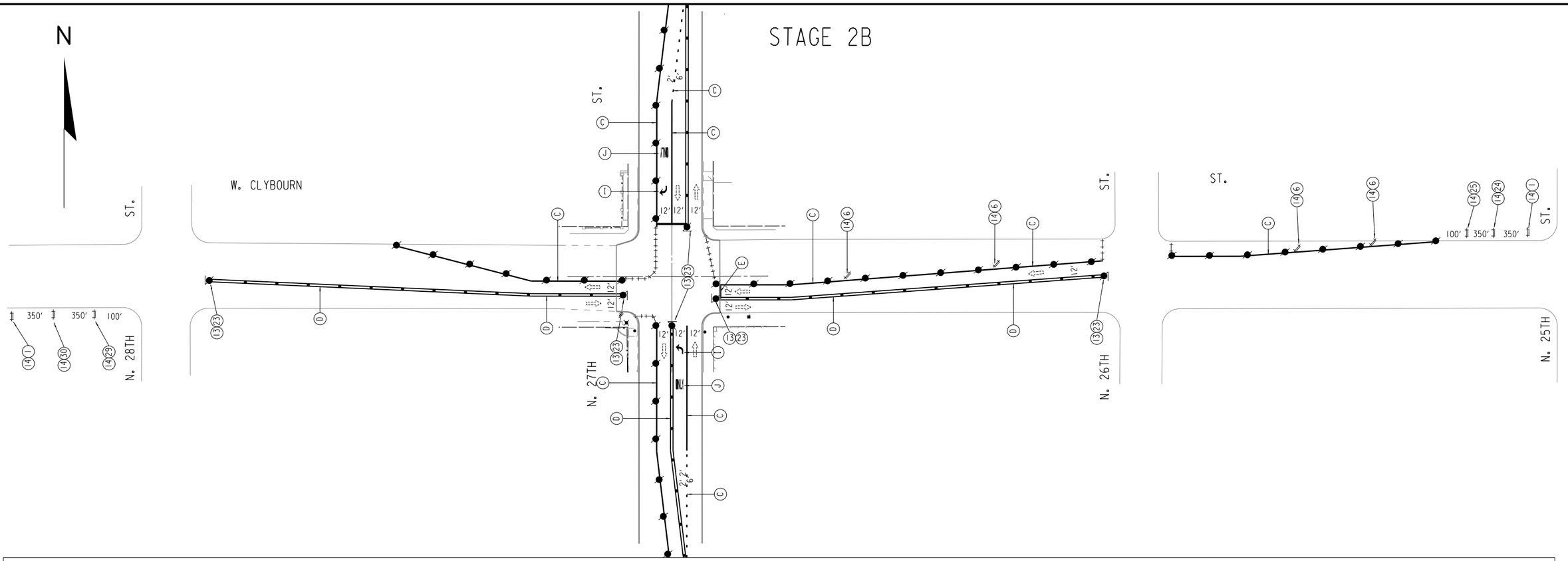
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STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 108	E

FILE NAME = W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN

2

STAGE 2B



LEGEND

- (1) W20-1 ROAD WORK AHEAD 48" X48"
- (2) R11-2 ROAD CLOSED 48" X30"
- (3) R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48"
- (4) R6-1R ONE WAY 24" X48"
- (5) W01-7 24" X48"
- (6) W01-6L 24" X48"
- (7) W01-6R 24" X48"
- (8) R5-1 DO NOT ENTER 36" X36"
- (9) R3-2 36" X36"
- (12) R6-1L ONE WAY 30" X48"
- (20) R1-1 STOP 48" X48"
- (21) W01-4L 48" X48"
- (22) R3-1 36" X36"
- (23) R4-7A KEEP RIGHT 36" X48"
- (24) W20-5R RIGHT LANE CLOSED AHEAD 48" X48"
- (25) W04-2R 30" X30"
- (27) W20-3 ROAD CLOSED AHEAD 48" X48"
- (28) W16-7PR 24" X12"
- (29) W04-2L 48" X48"
- (30) W20-5L LEFT LANE CLOSED AHEAD 48" X48"
- (32) R3-6L 30" X36"
- (33) W20-5 CENTER LANE CLOSED AHEAD 48" X48"
- (34) W09-3A 48" X48"
- (35) R3-7R RIGHT LANE MUST TURN RIGHT 36" X36"
- (36) W013-1 20 M.P.H. 24" X12"
- (37) R3-8B ONLY ONLY ONLY 30" X48"
- (38) W01-3L 48" X48"
- (39) W01-3R 48" X48"
- (40) R3-7L LEFT LANE MUST TURN LEFT 36" X36"
- (41) W016-7PL 24" X12"
- (42) R011-2 LANE CLOSED 48" X30"
- (43) W01-4BL 48" X 48"
- (44) W20-2 DETOUR AHEAD 48" X 48"
- (45) W012-1 48" X48"
- (13) DRUMS W/LIGHTS 30' SPACING
- (14) TYPE III BARRICADES
- (14)+(X) TYPE III BARRICADES W/ SIGN
- SIGNS BANDED TO UTILITY POLE
- WORK AREA
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING

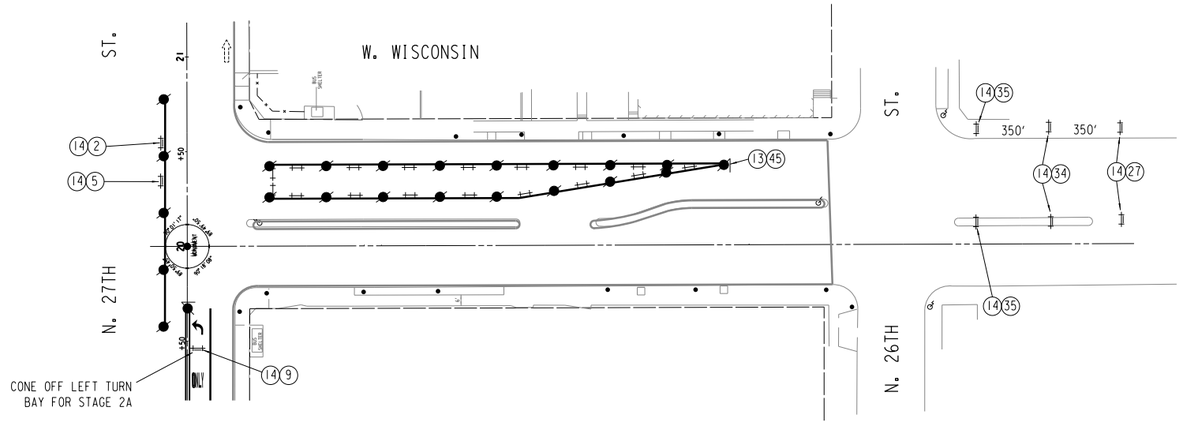
- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE, 8" WHITE
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- (H) TPM, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS
- (Z) TPM, ARROWS

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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 109	E

FILE NAME = W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN

STAGE 2A



N

LEGEND

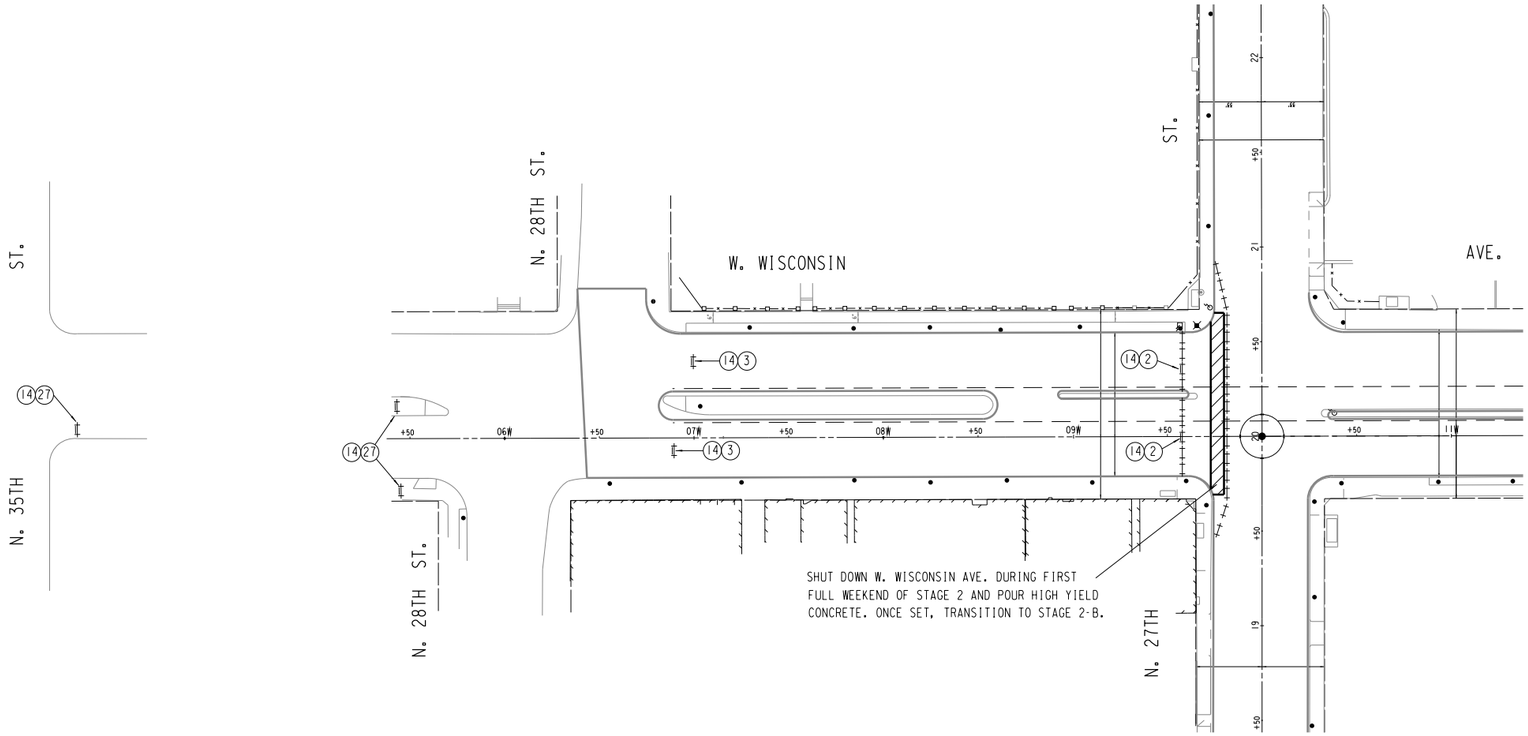
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R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48" — 3
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W01-7 24" X48" — 5
W01-6L 24" X48" — 6
W01-6R 24" X48" — 7
R5-1 DO NOT ENTER 36" X36" — 8
R3-2 36" X36" — 9
R6-1L ONE WAY 30" X48" — 12
R1-1 STOP 48" X48" — 20
W01-4L 48" X48" — 21
R3-1 36" X36" — 22
R4-7A KEEP RIGHT 36" X48" — 23
W20-5R RIGHT LANE CLOSED AHEAD 48" X48" — 24
W04-2R 30" X30" — 25
W20-3 ROAD CLOSED AHEAD 48" X48" — 27
W16-7PR 24" X12" — 28
W04-2L 48" X48" — 29
W20-5L LEFT LANE CLOSED AHEAD 48" X48" — 30
R3-6L 30" X36" — 32
W20-5 CENTER LANE CLOSED AHEAD 48" X48" — 33
W03-3L 48" X48" — 34
R3-7R RIGHT LANE MUST TURN RIGHT 36" X36" — 35
W013-1 20 M.P.H. 24" X12" — 36
R3-8B ONLY ONLY ONLY 30" X48" — 37
W01-3L 48" X48" — 38
W01-3R 48" X48" — 39
R3-7L LEFT LANE MUST TURN LEFT 36" X36" — 40
W16-7PL 24" X12" — 41
R011-2 LANE CLOSED 48" X30" — 42
W01-4BL 48" X 48" — 43
W20-2 DETOUR AHEAD 48" X 48" — 44
W012-1 48" X48" — 45

DRUMS W/LIGHTS 30' SPACING — 13
TYPE III BARRICADES — 14
TYPE III BARRICADES W/ SIGN — 14 + X
SIGNS BANDED TO UTILITY POLE
WORK AREA
DIRECTION OF TRAFFIC
TUBULAR MARKERS 25' SPACING

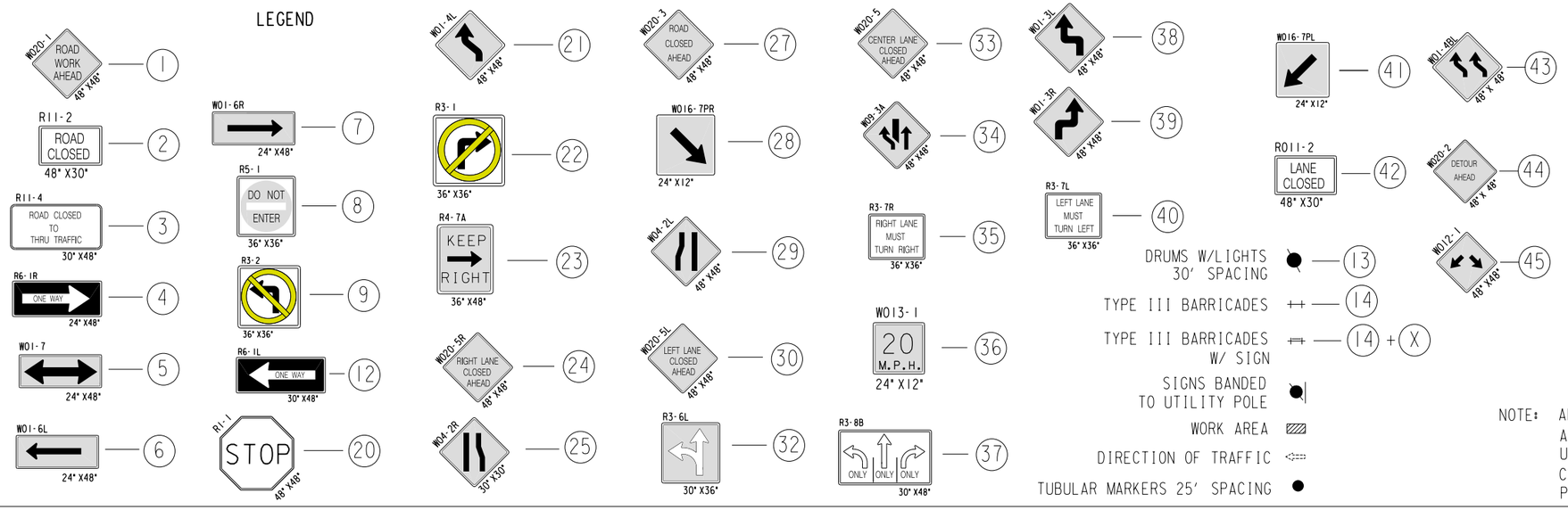
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(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
(I) TPM, ARROWS, REMOVABLE TAPE
(J) TPM, WORDS, REMOVABLE TAPE
(K) TPM, REMOVABLE TAPE, 8" WHITE
(L) TPM, STOP LINE, 24" WHITE
(H) TPM, 8" WHITE
(M) MATCH
(X) TPM, WORDS
(Z) TPM, ARROWS

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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STAGE 2A



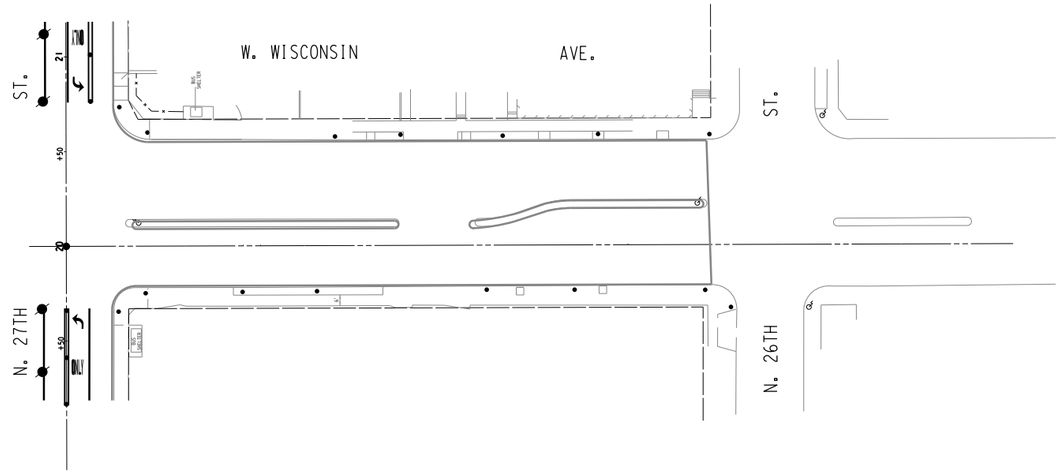
LEGEND



- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
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- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE, 8" WHITE
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- (H) TPM, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS
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STAGE 2B



N

LEGEND

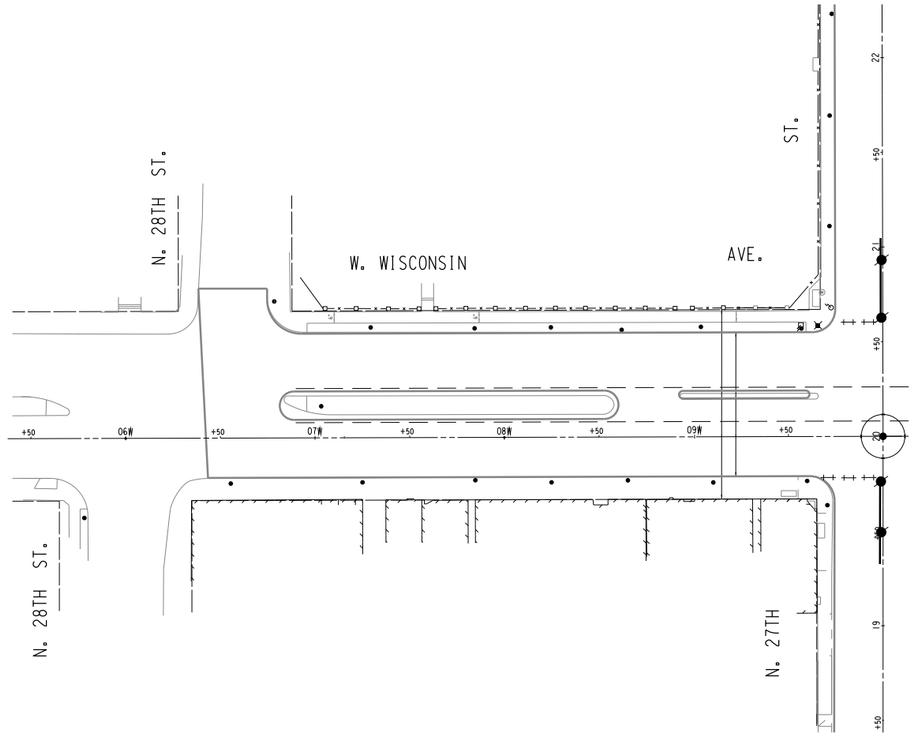
W020-1 ROAD WORK AHEAD 48" X48"	1	W01-6R 24" X48"	7	W01-4L 48" X48"	21	W020-3 ROAD CLOSED AHEAD 48" X48"	27	W020-5 CENTER LANE CLOSED AHEAD 48" X48"	33	W01-3L 48" X48"	38	W016-7PL 24" X12"	41	W01-4R 48" X 48"	43
R11-2 ROAD CLOSED 48" X30"	2	R5-1 DO NOT ENTER 36" X36"	8	R3-1 36" X36"	22	W016-7PR 24" X12"	28	W09-3A 48" X48"	34	W01-3R 48" X48"	39	R011-2 LANE CLOSED 48" X30"	42	W020-2 DETOUR AHEAD 48" X 48"	44
R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48"	3	R3-2 36" X36"	9	R4-7A KEEP RIGHT 36" X48"	23	W04-2L 48" X48"	29	R3-7R RIGHT LANE MUST TURN RIGHT 36" X36"	35	R3-7L LEFT LANE MUST TURN LEFT 36" X36"	40	DRUMS W/LIGHTS 30' SPACING	13	W012-1 48" X48"	45
R6-1R ONE WAY 24" X48"	4	R6-1L ONE WAY 30" X48"	12	W020-5R RIGHT LANE CLOSED AHEAD 48" X48"	24	W020-5L LEFT LANE CLOSED AHEAD 48" X48"	30	W013-1 20 M.P.H. 24" X12"	36			TYPE III BARRICADES	14		
W01-7 24" X48"	5	R1-1 STOP 48" X48"	20	W04-2R 30" X30"	25	R3-6L 30" X36"	32	R3-8B ONLY ONLY ONLY 30" X48"	37			TYPE III BARRICADES W/ SIGN	14 + X		
W01-6L 24" X48"	6											SIGNS BANDED TO UTILITY POLE			
												WORK AREA			
												DIRECTION OF TRAFFIC			
												TUBULAR MARKERS 25' SPACING			

- (A) TPM, REFLECTIVE PAINT, 4" WHITE
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- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE, 8" WHITE
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- (H) TPM, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS
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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

FILE NAME= W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN

STAGE 2B



LEGEND

W020-1 ROAD WORK AHEAD 48" X48" — 1
R11-2 ROAD CLOSED 48" X30" — 2
R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48" — 3
R6-1R ONE WAY 24" X48" — 4
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W016-7PL 24" X12" — 41
R011-2 LANE CLOSED 48" X30" — 42
W01-4RL 48" X 48" — 43
W020-2 DETOUR AHEAD 48" X 48" — 44
W012-1 48" X48" — 45

DRUMS W/LIGHTS 30' SPACING — 13
TYPE III BARRICADES — 14
TYPE III BARRICADES W/ SIGN — 14 + X
SIGNS BANDED TO UTILITY POLE
WORK AREA
DIRECTION OF TRAFFIC
TUBULAR MARKERS 25' SPACING

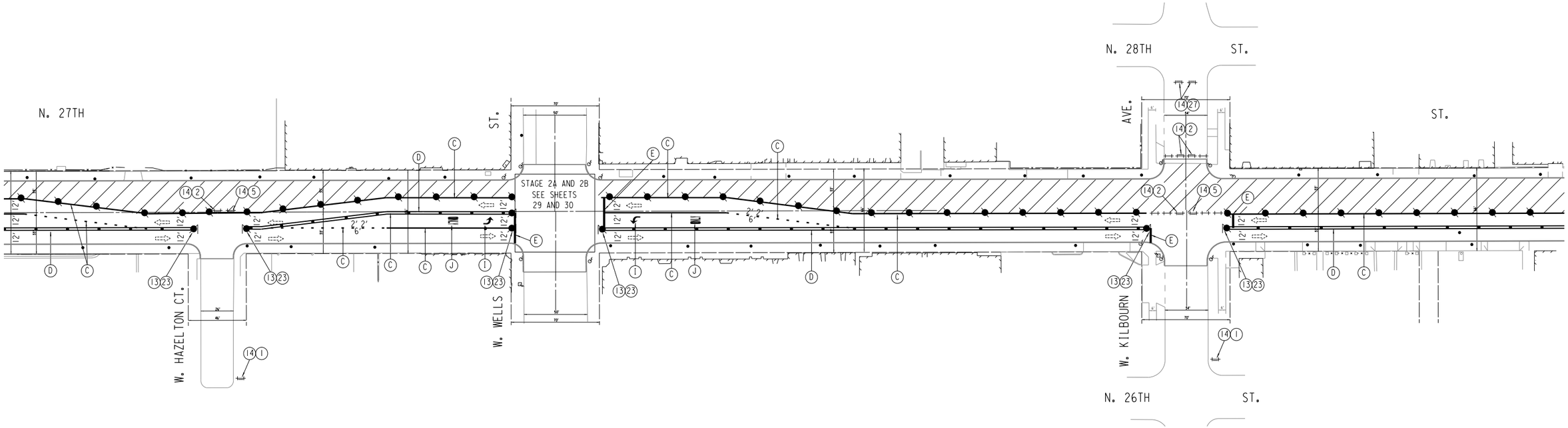
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(J) TPM, WORDS, REMOVABLE TAPE
(K) TPM, REMOVABLE TAPE, 8" WHITE
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(H) TPM, 8" WHITE
(M) MATCH
(X) TPM, WORDS
(Z) TPM, ARROWS

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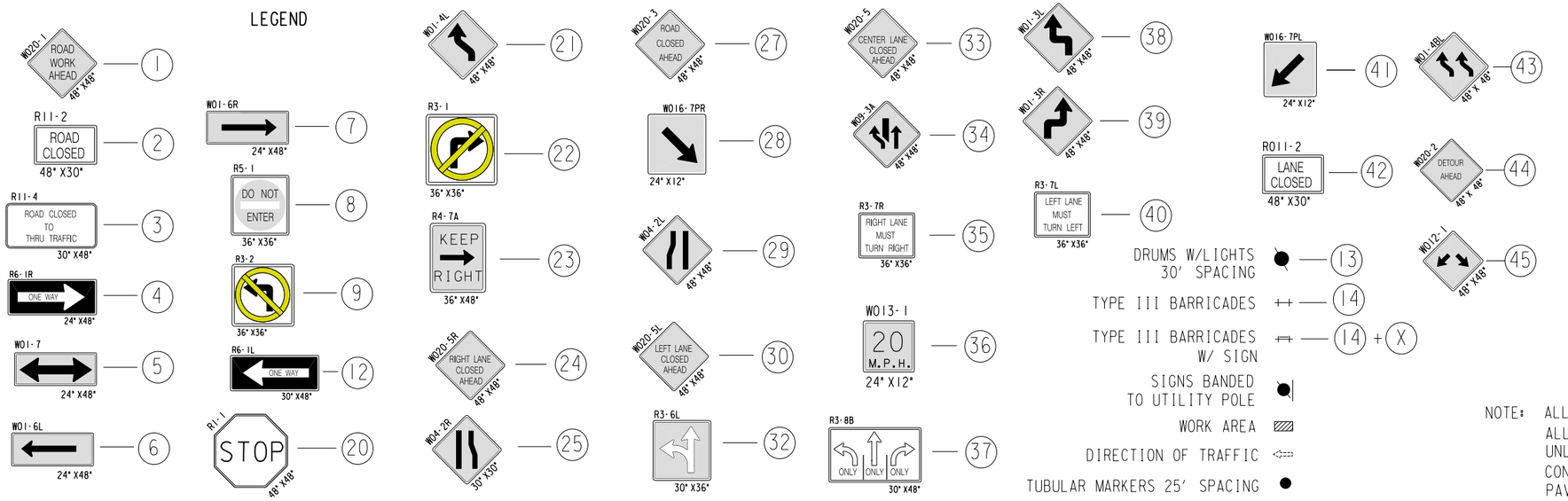
STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 113	E

FILE NAME = W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN

STAGE 2



LEGEND

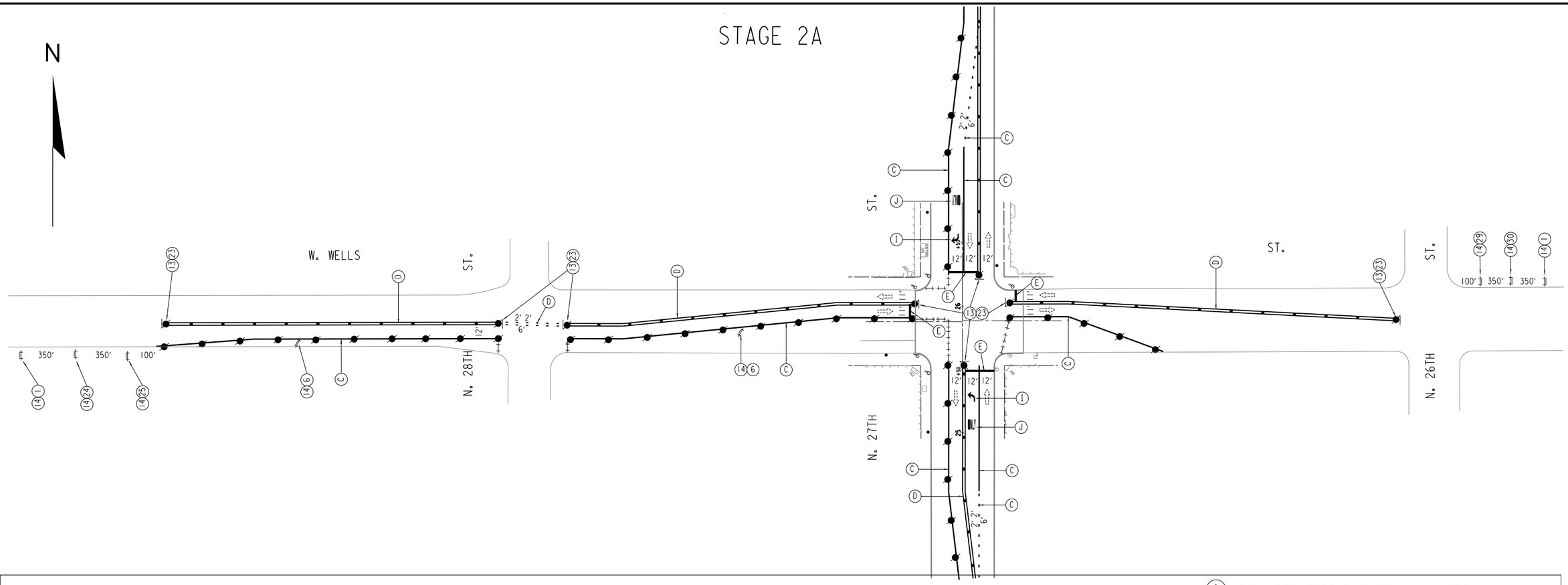


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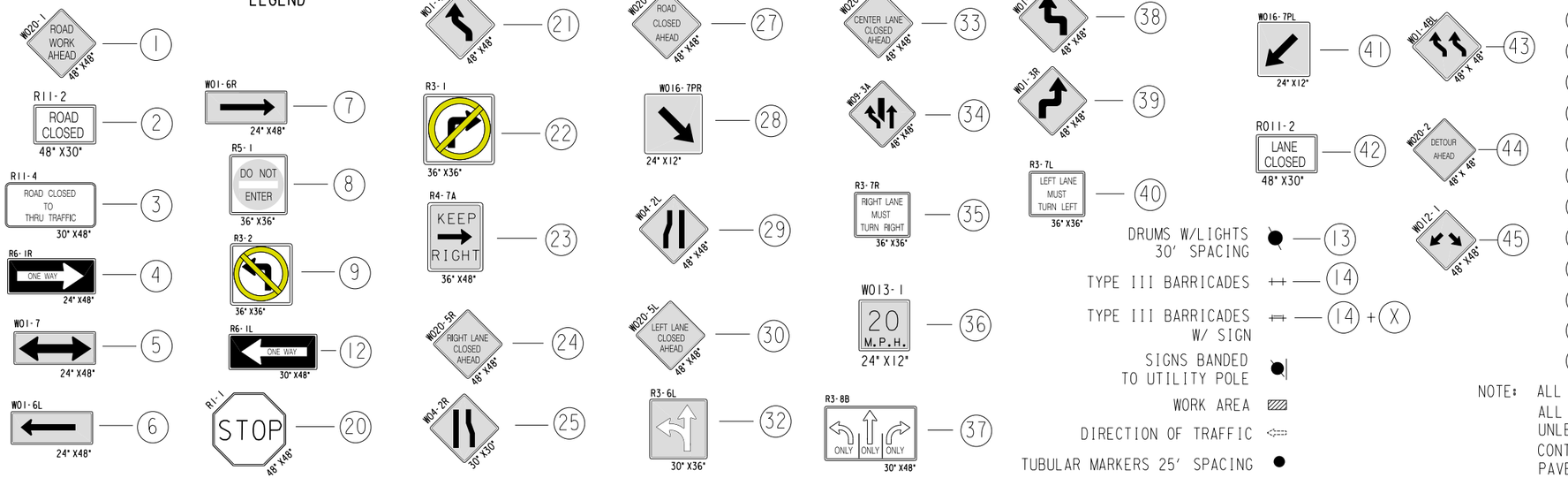
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FILE NAME= W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN

STAGE 2A



LEGEND



DRUMS W/LIGHTS 30' SPACING — 13

TYPE III BARRICADES — 14

TYPE III BARRICADES W/ SIGN — 14 + X

SIGNS BANDED TO UTILITY POLE

WORK AREA

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING

- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
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- (Z) TPM, ARROWS

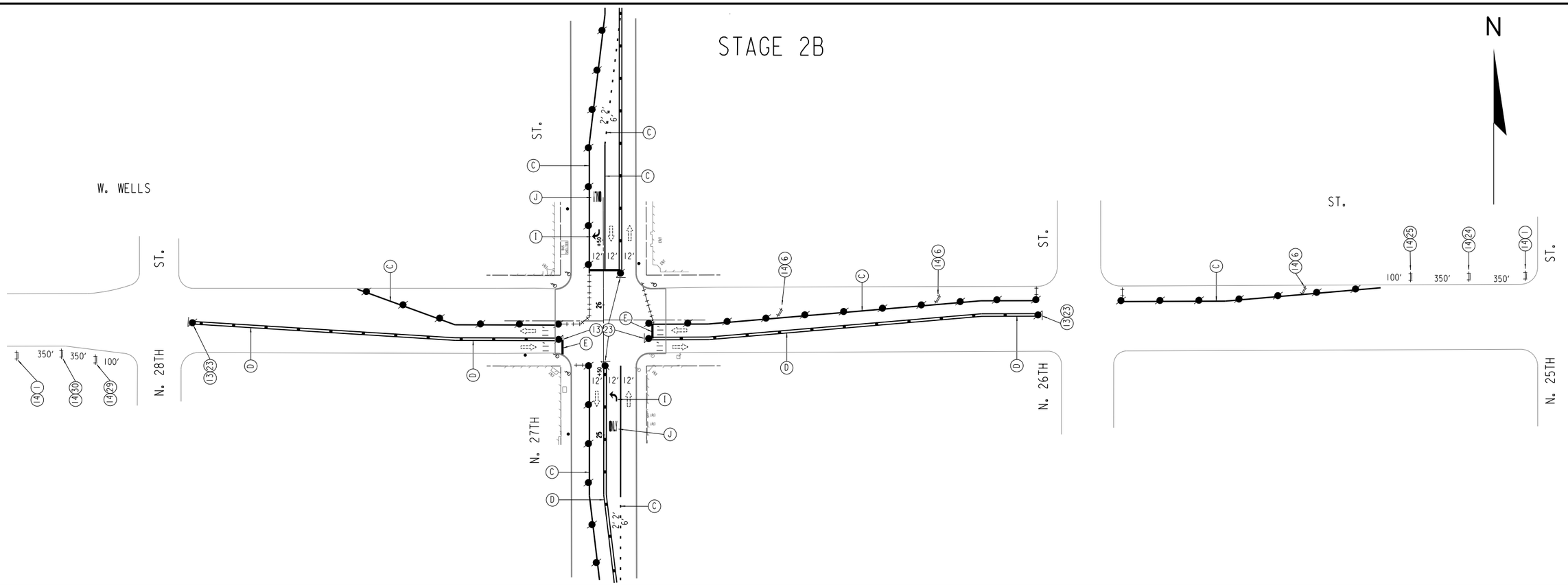
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SHEET 29 OF 32

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 115	E

FILE NAME= W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN

STAGE 2B



LEGEND

W020-1 ROAD WORK AHEAD 48" X48" — 1	W01-6R 24" X48" — 7	W01-4L 48" X48" — 21	W020-3 ROAD CLOSED AHEAD 48" X48" — 27
R11-2 ROAD CLOSED 48" X30" — 2	R5-1 DO NOT ENTER 36" X36" — 8	R3-1 36" X36" — 22	W016-7PR 24" X12" — 28
R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48" — 3	R3-2 36" X36" — 9	R4-7A KEEP RIGHT 36" X48" — 23	W04-2L 48" X48" — 29
R6-1R ONE WAY 24" X48" — 4	R6-1L ONE WAY 30" X48" — 12	W020-5R RIGHT LANE CLOSED AHEAD 48" X48" — 24	W020-5L LEFT LANE CLOSED AHEAD 48" X48" — 30
W01-7 24" X48" — 5	R1-1 STOP 48" X48" — 20	W04-2R 30" X30" — 25	R3-6L 30" X36" — 32
W01-6L 24" X48" — 6			

W020-5 CENTER LANE CLOSED AHEAD 48" X48" — 33	W01-3L 48" X48" — 38	W016-7PL 24" X12" — 41	W01-4R 48" X 48" — 43
W09-3A 48" X48" — 34	W01-3R 48" X48" — 39	R011-2 LANE CLOSED 48" X30" — 42	W020-2 DETOUR AHEAD 48" X 48" — 44
R3-7R RIGHT LANE MUST TURN RIGHT 36" X36" — 35	R3-7L LEFT LANE MUST TURN LEFT 36" X36" — 40	DRUMS W/LIGHTS 30' SPACING — 13	W012-1 48" X48" — 45
W013-1 20 M.P.H. 24" X12" — 36		TYPE III BARRICADES — 14	
R3-8B ONLY ONLY ONLY 30" X48" — 37		TYPE III BARRICADES W/ SIGN — 14 + X	
		SIGNS BANDED TO UTILITY POLE	
		WORK AREA	
		DIRECTION OF TRAFFIC	
		TUBULAR MARKERS 25' SPACING	

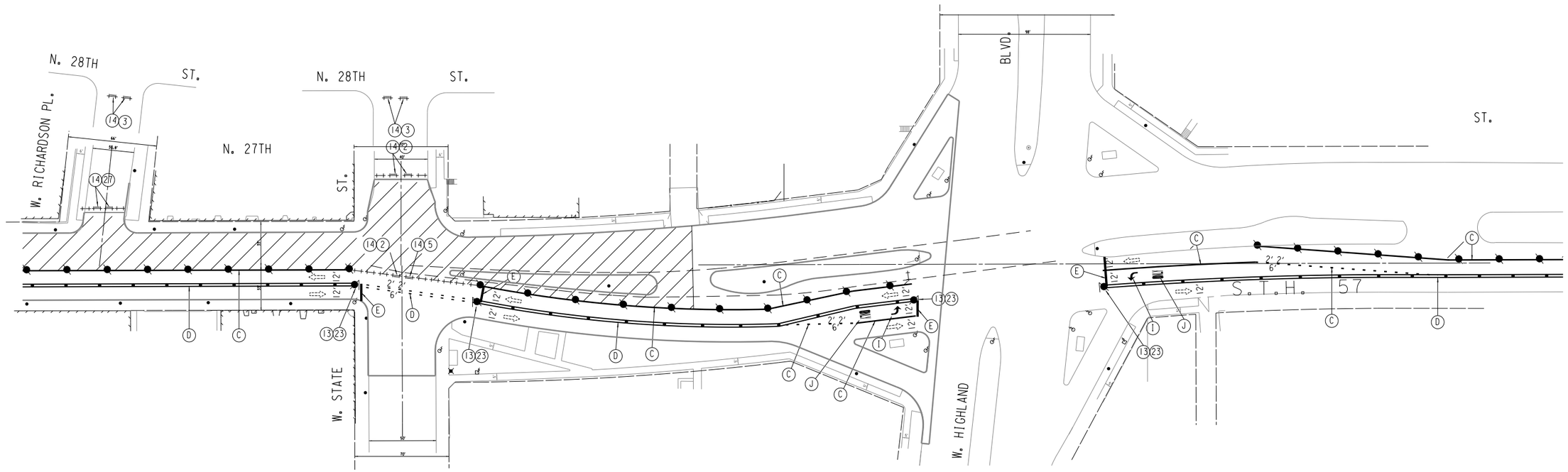
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- (J) TPM, WORDS, REMOVABLE TAPE
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- (H) TPM, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS
- (Z) TPM, ARROWS

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STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 116	E

FILE NAME = W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN

STAGE 2



LEGEND

- (1) W020-1 ROAD WORK AHEAD 48" X48"
- (2) R11-2 ROAD CLOSED 48" X30"
- (3) R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X48"
- (4) R6-1R ONE WAY 24" X48"
- (5) W01-7 24" X48"
- (6) W01-6L 24" X48"
- (7) W01-6R 24" X48"
- (8) R5-1 DO NOT ENTER 36" X36"
- (9) R3-2 36" X36"
- (12) R6-1L ONE WAY 30" X48"
- (20) R1-1 STOP 48" X48"
- (21) W01-4L 48" X48"
- (22) R3-1 36" X36"
- (23) R4-7A KEEP RIGHT 36" X48"
- (24) W020-5R RIGHT LANE CLOSED AHEAD 48" X48"
- (25) W04-2R 30" X30"
- (27) W020-3 ROAD CLOSED AHEAD 48" X48"
- (28) W016-7PR 24" X12"
- (29) W04-2L 48" X48"
- (30) W020-5L LEFT LANE CLOSED AHEAD 48" X48"
- (32) R3-6L 30" X36"
- (33) W020-5 CENTER LANE CLOSED AHEAD 48" X48"
- (34) W09-3A 48" X48"
- (35) R3-7R RIGHT LANE MUST TURN RIGHT 36" X36"
- (36) W013-1 20 M.P.H. 24" X12"
- (37) R3-8B ONLY ONLY ONLY 30" X48"
- (38) W01-3L 48" X48"
- (39) W01-3R 48" X48"
- (40) R3-7L LEFT LANE MUST TURN LEFT 36" X36"
- (41) W016-7PL 24" X12"
- (42) R011-2 LANE CLOSED 48" X30"
- (43) W01-4BL 48" X 48"
- (44) W020-2 DETOUR AHEAD 48" X 48"
- (45) W012-1 48" X48"

DRUMS W/LIGHTS 30' SPACING — (13)

TYPE III BARRICADES — (14)

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

SIGNS BANDED TO UTILITY POLE

WORK AREA

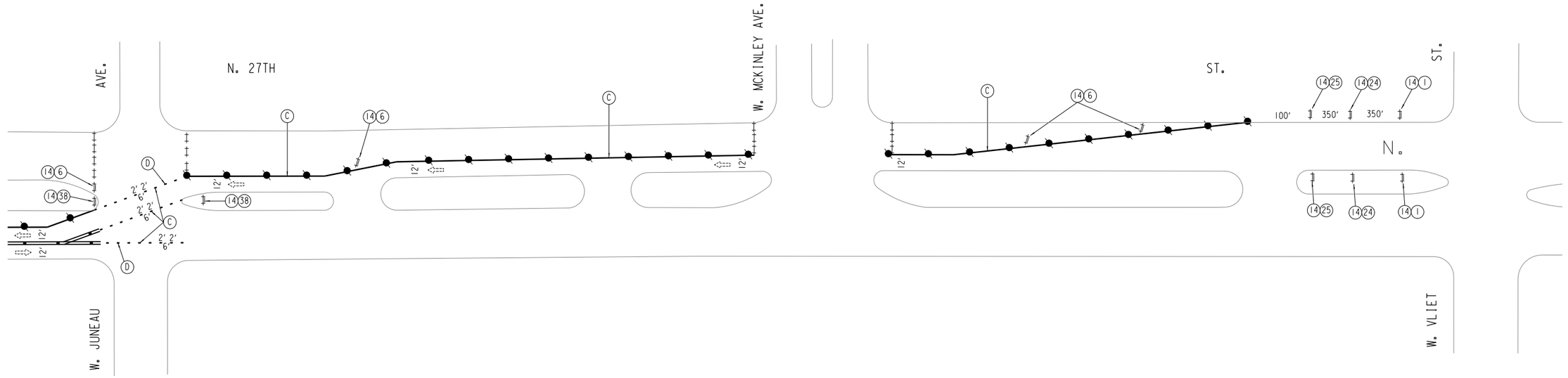
DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING

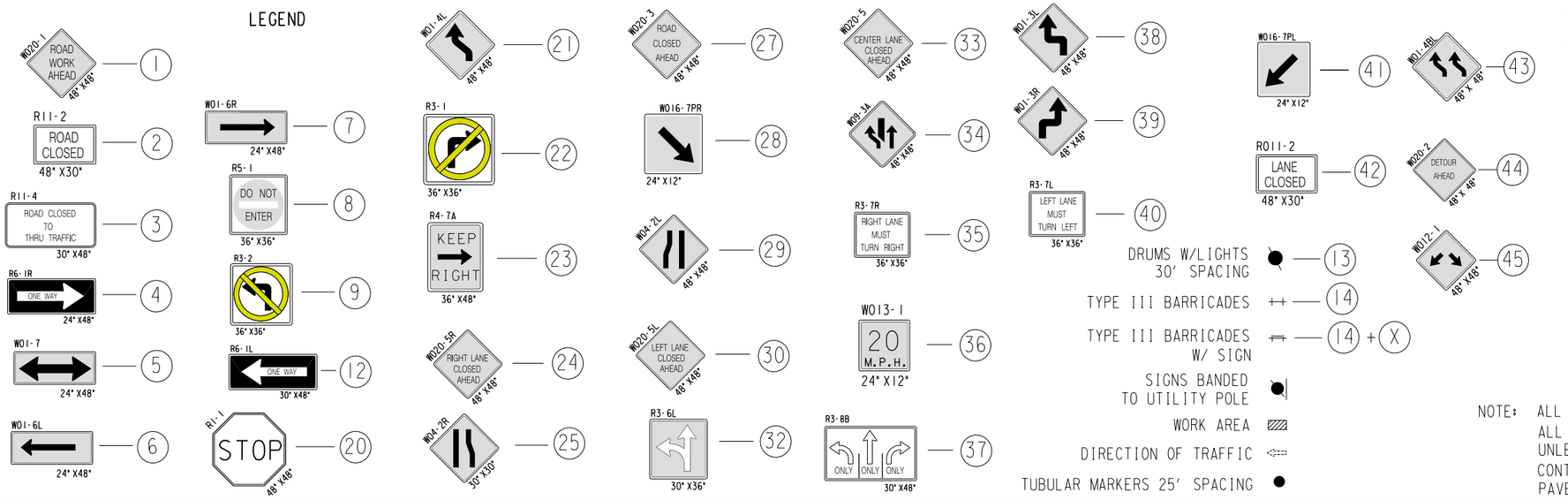
- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE, 8" WHITE
- (L) TPM, STOP LINE, 24" WHITE
- (H) TPM, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS
- (Z) TPM, ARROWS

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED. CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STAGE 2



LEGEND



- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE, 8" WHITE
- (L) TPM, STOP LINE, 24" WHITE
- (H) TPM, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS
- (Z) TPM, ARROWS

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED. CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

SHEET 32 OF 32

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 118	E

FILE NAME: W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN

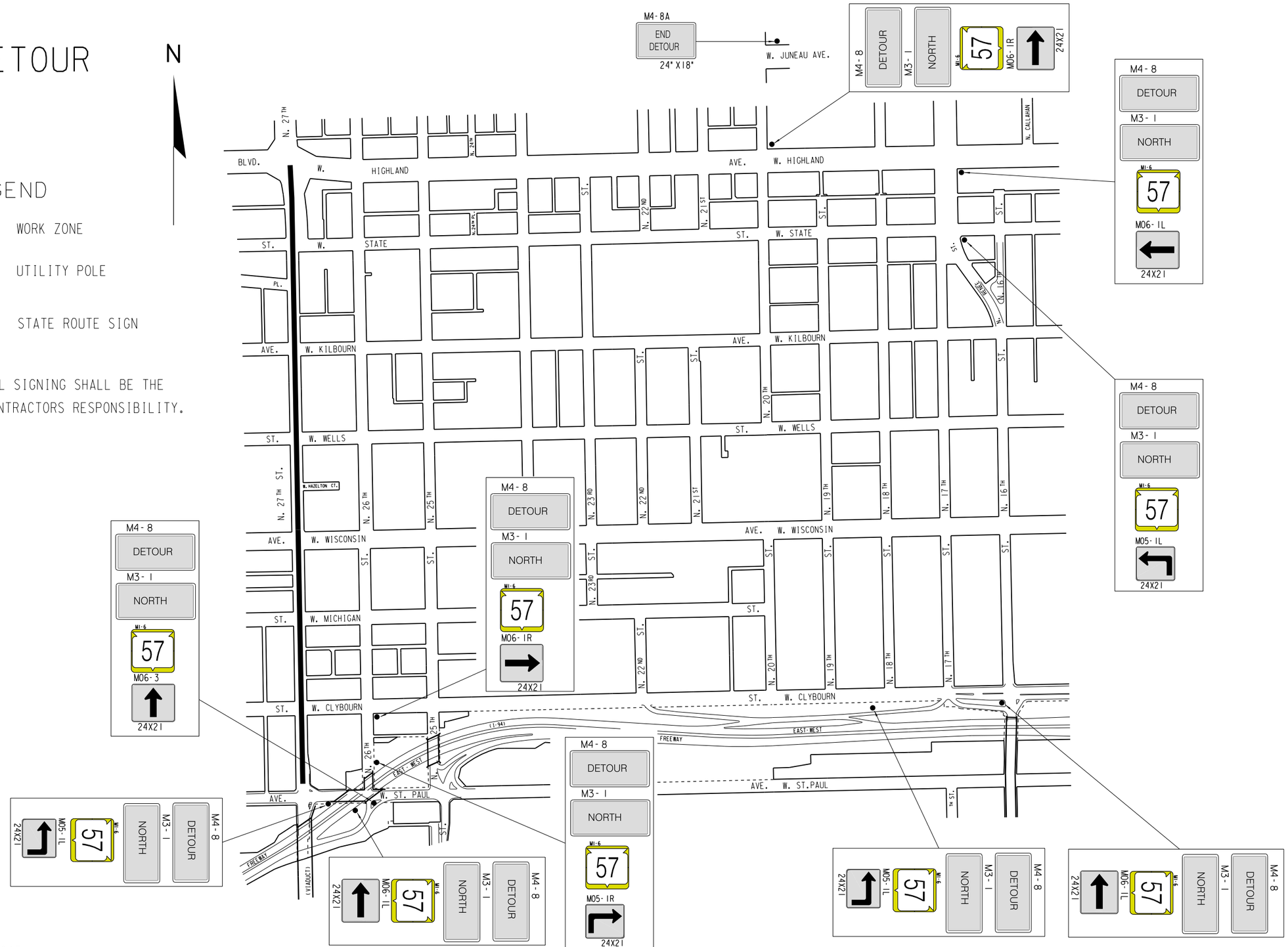
DETOUR

N

LEGEND

- WORK ZONE
- UTILITY POLE
- STATE ROUTE SIGN (MI-6 XX)

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.



REVISED ON 01/18/2013

SHEET 1 OF 1

STATE PROJECT NUMBER 2265-17-70 - -	HWY: S.T.H. 57	COUNTY: MILWAUKEE	DETOUR	SCALE FEET	SHEET NO: 119	E

FILE NAME: W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN

LEGEND

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

N

REMOVE: TO EAST 94

3: TO MB4-5 / EAST MB3-2 / 94 M1-1 / MB6-1 J33-1(2S) ON LIGHT POLE

REMOVE: TO EAST 94

4: WEST MB3-4 / 94 M1-1 / MB5-1L J2-1(2S) ON LIGHT POLE

REMOVE: WEST 94

2: TO MB4-5 / WEST MB3-2 / 94 M1-1 / MB6-1 J33-2(2S) ON LIGHT POLE

REMOVE: SOUTH 57

1: SOUTH M3-3 / 57 M1-6 J4-1(2S) ON LIGHT POLE

W. ST PAUL AVE.

STH 57

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

STH 57

6: TO MB4-5 / WEST MB3-4 / 94 M1-1 / MB5-1L MB5-1R J32-2(2S) ON LIGHT POLE

REMOVE: TO WEST EAST 94

7: TO MB4-5 / WEST MB3-4 / EAST MB3-2 / 94 M1-1 / MB6-1 MB6-1 J33-2(2S) ON SIGNAL POLE

REMOVE: TO WEST EAST 94

W. ST PAUL AVE.

8: TO MB4-5 / WEST MB3-4 / 94 M1-1 / MB6-1 J33-1(2S) ON LIGHT POLE

REMOVE: TO WEST 94

9: NORTH M3-1 / 57 M1-6 J4-1(2S) ON LIGHT POLE

REMOVE: NORTH 57

SHEET 1 OF 9

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	PERMANANT SIGNING PLAN	SHEET	E

FILE NAME : j:\projects\D2_22650957\SIGN\023101_ps.dgn PLOT DATE : 19-SEP-2012 06:05 PLOT BY : MSCMWB PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

N

TO EAST 94 — TO WEST 94
REMOVE

TO EAST 94
REMOVE

TO
MB4-5
EAST
MB3-2
94
M1-1
10
MB6-1
J33-1(2S)
ON WOOD
POLE

TO
MB4-5
94
M1-1
11
MB6-1
J23-1(2S)
ON SIGNAL
POLE
REMOVE

TO EAST 94 — TO WEST 94
MB4-5 — MB4-5
MB3-2 — MB3-4
M1-1 — M1-1
5
MB5-1L — MB5-1R
J32-2(2S)
ON LIGHT
POLE

W. CLYBOURN ST.

STH 57

09 +50 10 +50 11 +50 12 +50 13 +50 14 +50 15

STH 57

TO
MB4-5
94
M1-1
12
MB6-1
J23-1(2S)
ON SIGNAL
POLE
REMOVE

TO
MB4-5
13
94
M1-1
MB6-1
J23-1(2S)
ON SIGNAL
POLE
TO 94
REMOVE

W. CLYBOURN ST.

LEGEND

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

SHEET 2 OF 9

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	PERMANANT SIGNING PLAN	SHEET	E

FILE NAME : j:\projects\D2_22650957\SIGN\023102_ps.dgn PLOT DATE : 19-SEP-2012 06:05 PLOT BY : MSCMWB PLOT NAME : PLOT SCALE : 40:1

2

LEGEND

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

N

15 SOUTH M3-3 / 57 M1-6 / J4-1(2S) ON LIGHT POLE

14 TO MB4-5 / 94 M1-1 / MB6-1 / J23-1(2S) ON LIGHT POLE

TO 94 REMOVE

16 NORTH M3-1 / 57 M1-6 / J4-1(2S) ON LIGHT POLE

W. WISCONSIN AVE.

W. MICHIGAN ST.

STH 57

15 +50 16 +50 17 +50 18 +50 19 +50 20 +50 21

LOC APPROXIMATE

LOCATION APPROXIMATE

96" relief

SHEET 3 OF 9

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	PERMANANT SIGNING PLAN	SHEET	E

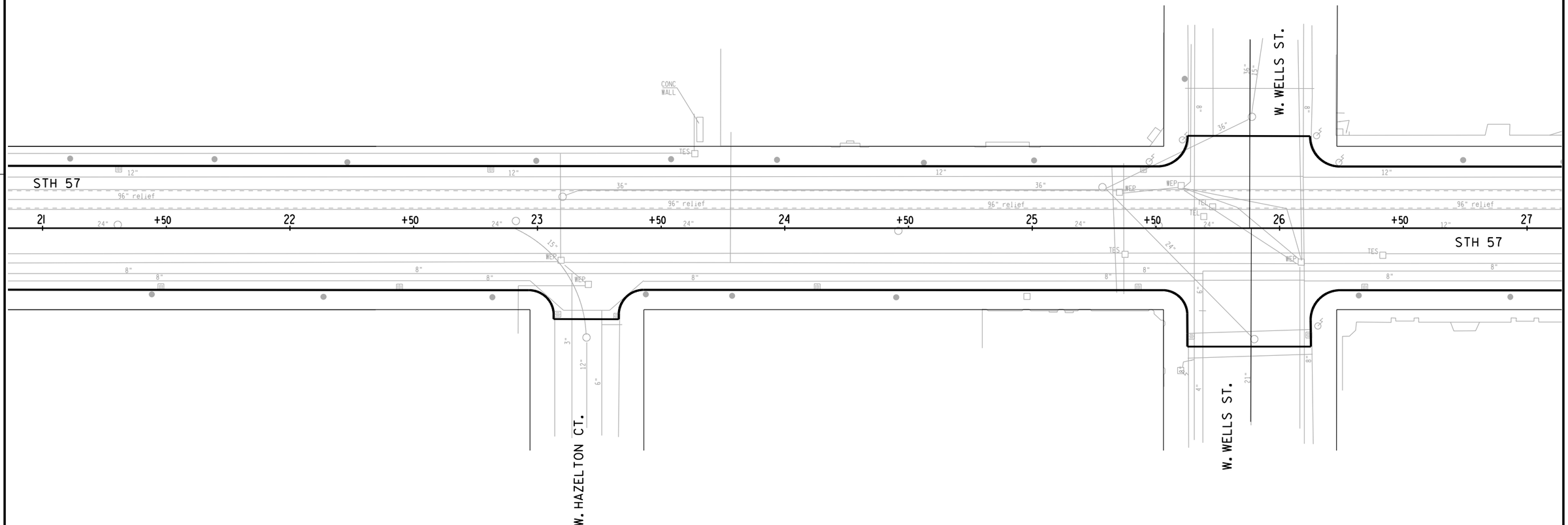
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2

LEGEND

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

N



SHEET 4 OF 9

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	PERMANANT SIGNING PLAN	SHEET	E

FILE NAME : j:\projects\D2_22650957\SIGN\023104_ps.dgn PLOT DATE : 19-SEP-2012 06:05 PLOT BY : MSCMWB PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

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

N

SOUTH
57
REMOVE

SOUTH
M3-3
17 57
M1-6
J4-1(2S)
ON LIGHT
POLE

W. KILBOURN AVE.

STAND-
PIPE

STH 57

27 +50 28 +50 29 +50 30 +50 31 +50 32 +50 33

STH 57

GAS
METER

STAND-
PIPE

W. KILBOURN AVE.

NORTH
M3-1
18 57
M1-6
J4-1(2S)
ON LIGHT
POLE

SHEET 5 OF 9

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	PERMANANT SIGNING PLAN	SHEET	E

FILE NAME : j:\projects\D2_22650957\SIGN\023105_ps.dgn PLOT DATE : 19-SEP-2012 06:06 PLOT BY : MSCMWB 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
- EXISTING LIGHT OR SIGNAL POLE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N

EAST 18 NORTH 57
REMOVE

EAST M3-2 18 M1-4 NORTH M3-1 57 M1-6
M5-2R M5-2R
19
J2-2(2S) ON LIGHT POLE

W. RICHARDSON PL.

W. STATE ST.

STH 57

33 +50 34 +50 35 +50 36 +50 37 +50 38 +50 39

96" relief

TES wep TEL WEP

W. STATE ST.

STH 57

TO
MB4-5
INTERSTATE 94
M1-1
20
MB6-1
J23-1(2S) ON SIGNAL POLE

TO INTERSTATE 94
REMOVE

SHEET 6 OF 9

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	PERMANANT SIGNING PLAN	SHEET	E

FILE NAME : j:\projects\D2_22650957\SIGN\023106_ps.dgn PLOT DATE : 19-SEP-2012 06:06 PLOT BY : MSCMWB 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
- EXISTING LIGHT OR SIGNAL POLE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

21 TO M4-5 SOUTH M3-3 / INTERSTATE 94 M1-1 / 57 M1-6 / MB6-1 M6-1 — J3-2(2S) ON LIGHT POLE

REMOVE: TO INTERSTATE 94 SOUTH 57

22 NORTH M3-1 / SOUTH M3-3 / 57 M1-6 / M6-1 M6-1 — J3-2(2S)

REMOVE: NORTH SOUTH 57

23 WEST M3-4 / 18 M1-4 — J4-1(2S) ON SIGNAL POLE

REMOVE: WEST 18

24 WEST M3-4 / 18 M1-4 / M6-1 — J3-1(2S) ON LIGHT POLE

25 EAST M3-2 / 18 M1-4 / NORTH M3-1 / 57 M1-6 / M6-2 — JV3-1(2S) ON LIGHT POLE

REMOVE: EAST 18 NORTH 57

26 EAST M3-2 / 18 M1-4 / NORTH M3-1 / 57 M1-6 — JV4-1(2S) ON LIGHT POLE

REMOVE: EAST 18 NORTH 57

28 SOUTH M3-3 / 57 M1-6 / M6-1 — J3-1(2S) ON SIGNAL POLE

REMOVE: SOUTH 57

27 NORTH M3-1 / 57 M1-6 / M6-1 — J3-1(2S) ON SIGNAL POLE

REMOVE: NORTH 57

29 SOUTH M3-3 / WEST M3-4 / 57 M1-6 / 18 M1-4 / M5-1L M6-1 — J2-2(2S) ON LIGHT POLE

REMOVE: SOUTH 57 WEST 18

STH 57

W. HIGHLAND BLVD.

N. 27TH ST.

39 +50 40 +50 41 +50 42 +50 43 +50 44

*2710 W. HIGHLAND BLVD.

p.l.

96" relief

note: all we electric locations are uncertain

15' alley

SHEET 7 OF 9

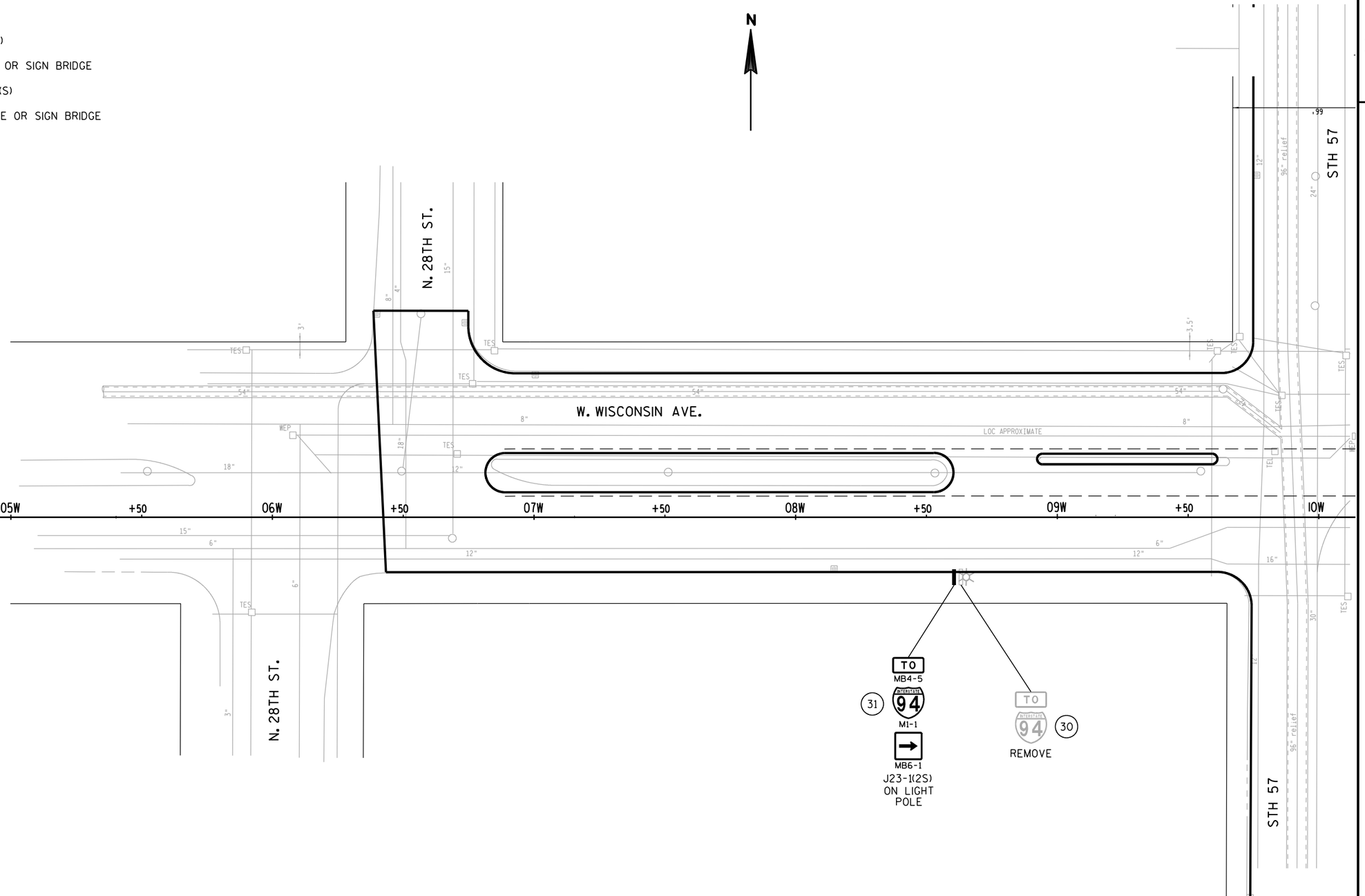
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FILE NAME : j:\projects\D2_22650957\SIGN\023107_ps.dgn PLOT DATE : 19-SEP-2012 06:06 PLOT BY : MSCMWB PLOT NAME : PLOT SCALE : 40:1

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
- EXISTING LIGHT OR SIGNAL POLE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE



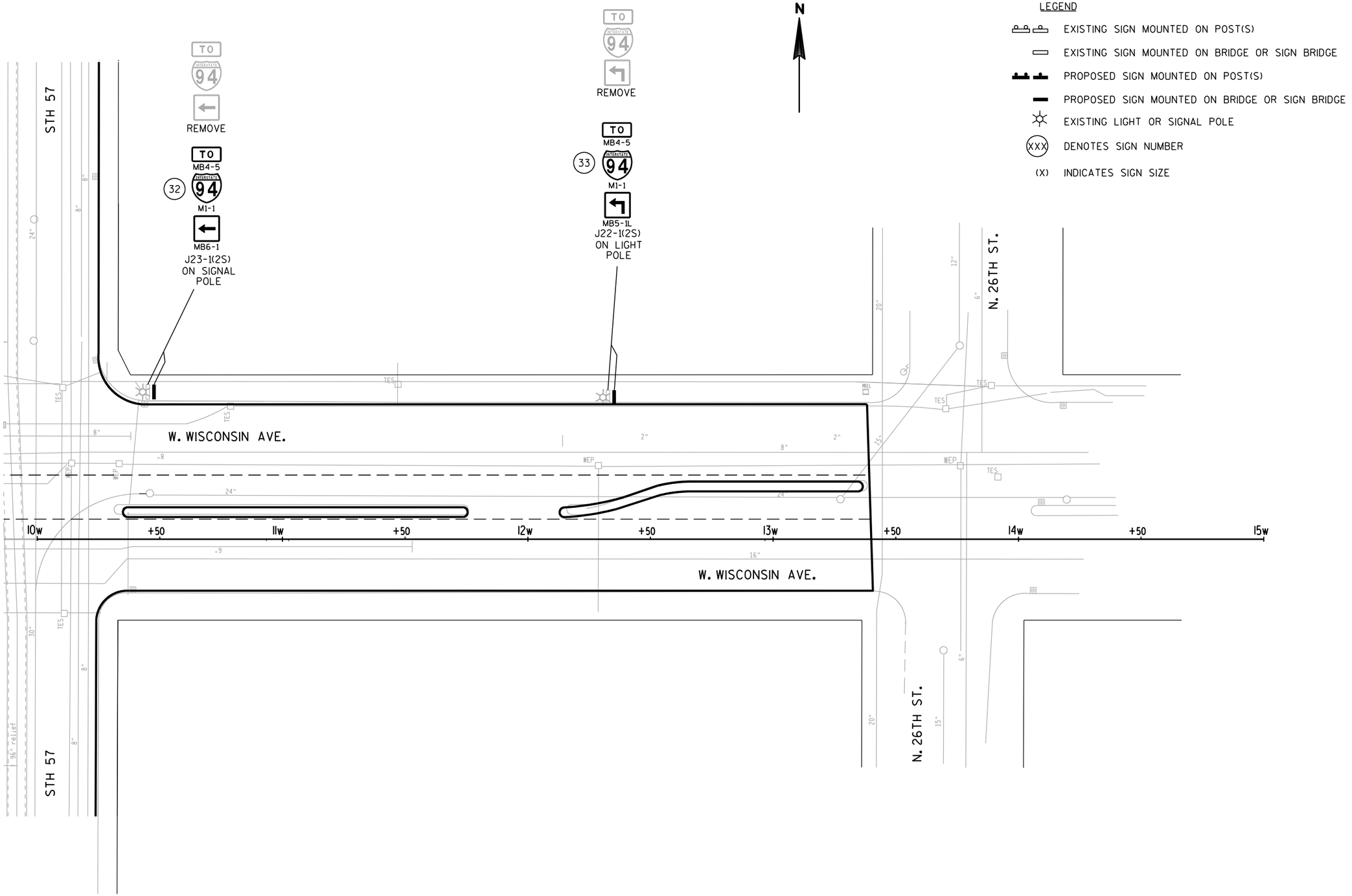
SHEET 8 OF 9

PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	PERMANANT SIGNING PLAN	SHEET E

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WISDOT/CADDS SHEET 42

2



SHEET 9 OF 9

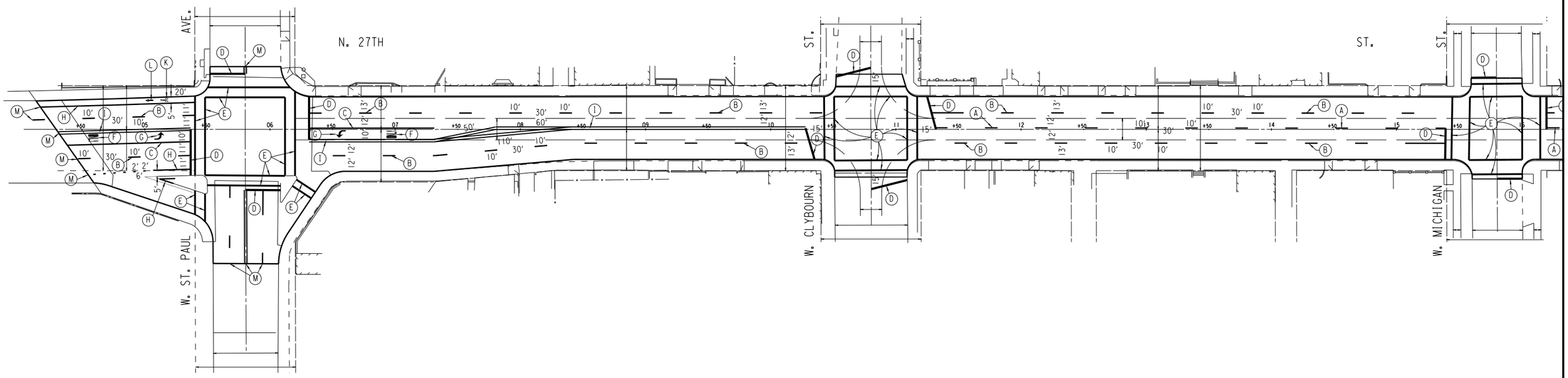
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FILE NAME : j:\projects\D2_22650957\SIGN\023109_ps.dgn PLOT DATE : 19-SEP-2012 06:06 PLOT BY : MSCMWB PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

PAVEMENT MARKING

2



(A) PAVEMENT MARKING EPOXY, 4-INCH DASHED YELLOW
(B) PAVEMENT MARKING EPOXY, 4-INCH WHITE
(C) PAVEMENT MARKING EPOXY, 8-INCH WHITE
(D) PAVEMENT MARKING STOP LINE EPOXY, 24-INCH WHITE
(E) PAVEMENT MARKING CROSS WALK EPOXY, 12-INCH WHITE
(F) PAVEMENT MARKING WORDS EPOXY
(G) PAVEMENT MARKING ARROWS EPOXY, TYPE 2 (LEFT TURN)
(H) PAVEMENT MARKING EPOXY, 6-INCH WHITE
(I) PAVEMENT MARKING EPOXY, 4-INCH DOUBLE YELLOW
(J) PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY
(K) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY
(L) PAVEMENT MARKING ARROWS BIKE LANE EPOXY
(M) MATCH

SHEET 1 OF 6

STATE PROJECT NUMBER: 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 80'	SHEET NO: 129	E

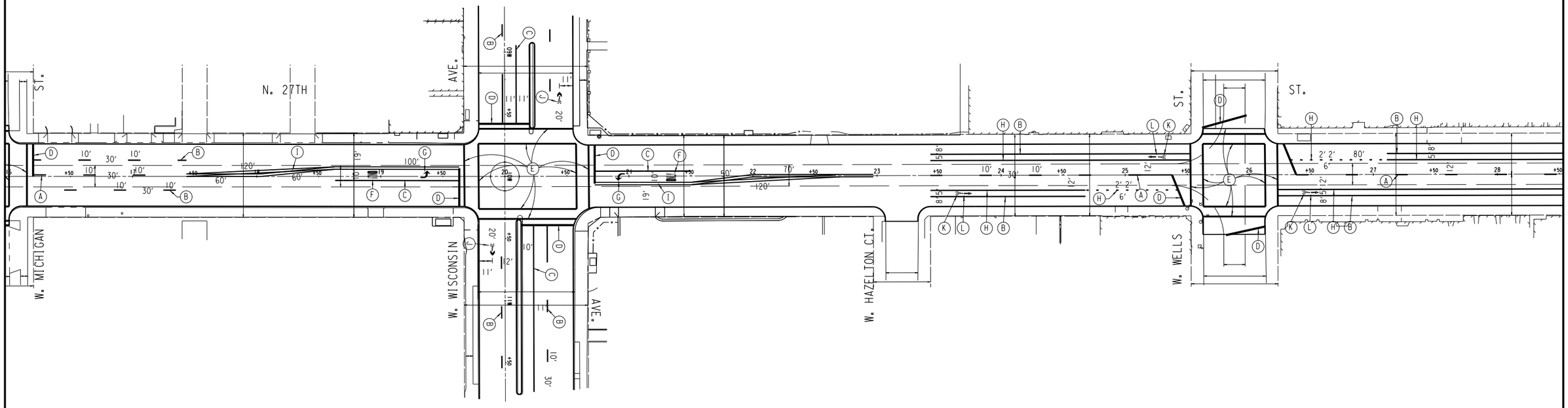
FILE NAME: W:\SPR\27 N_STPAUL_HIGH\PAVEMARK.DGN

REVISED: 10/19/2012

2

PAVEMENT MARKING

2



- (A) PAVEMENT MARKING EPOXY, 4-INCH DASHED YELLOW
- (B) PAVEMENT MARKING EPOXY, 4-INCH WHITE
- (C) PAVEMENT MARKING EPOXY, 8-INCH WHITE
- (D) PAVEMENT MARKING STOP LINE EPOXY, 24-INCH WHITE
- (E) PAVEMENT MARKING CROSS WALK EPOXY, 12-INCH WHITE
- (F) PAVEMENT MARKING WORDS EPOXY
- (G) PAVEMENT MARKING ARROWS EPOXY, TYPE 2 (LEFT TURN)
- (H) PAVEMENT MARKING EPOXY, 6-INCH WHITE
- (I) PAVEMENT MARKING EPOXY, 4-INCH DOUBLE YELLOW
- (J) PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY
- (K) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY
- (L) PAVEMENT MARKING ARROWS BIKE LANE EPOXY
- (M) MATCH

SHEET 2 OF 6

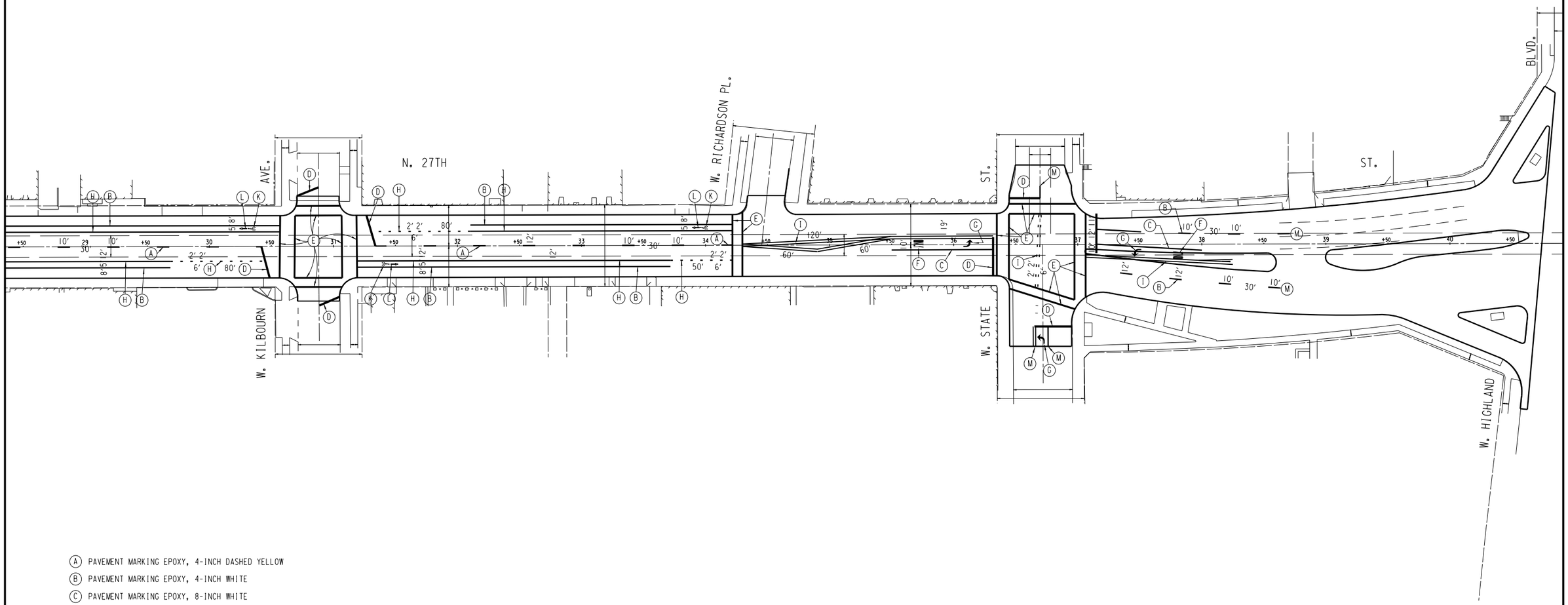
STATE PROJECT NUMBER: 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 80'	SHEET NO: 130	E

FILE NAME: W:\SPR\27 N_STPAUL_HIGH\PAVEMARK.DGN

REVISED: 10/19/2012

2

PAVEMENT MARKING



(A) PAVEMENT MARKING EPOXY, 4-INCH DASHED YELLOW
(B) PAVEMENT MARKING EPOXY, 4-INCH WHITE
(C) PAVEMENT MARKING EPOXY, 8-INCH WHITE
(D) PAVEMENT MARKING STOP LINE EPOXY, 24-INCH WHITE
(E) PAVEMENT MARKING CROSS WALK EPOXY, 12-INCH WHITE
(F) PAVEMENT MARKING WORDS EPOXY
(G) PAVEMENT MARKING ARROWS EPOXY, TYPE 2 (LEFT TURN)
(H) PAVEMENT MARKING EPOXY, 6-INCH WHITE
(I) PAVEMENT MARKING EPOXY, 4-INCH DOUBLE YELLOW
(J) PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY
(K) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY
(L) PAVEMENT MARKING ARROWS BIKE LANE EPOXY
(M) MATCH

SHEET 3 OF 6

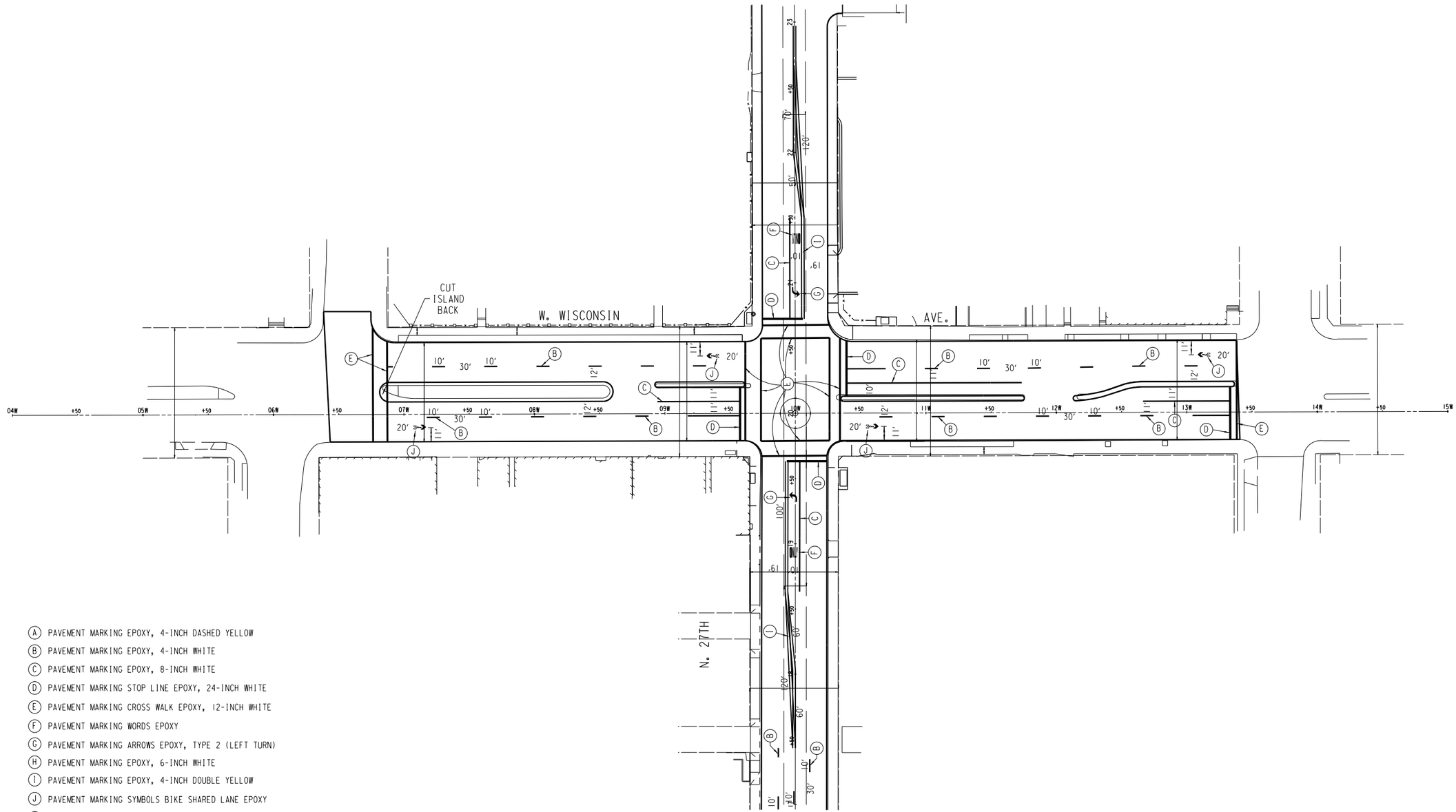
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FILE NAME: W:\SPR\27 N_STPAUL_HIGH\PAVEMARK.DGN

REVISED: 10/19/2012

PAVEMENT MARKING

2



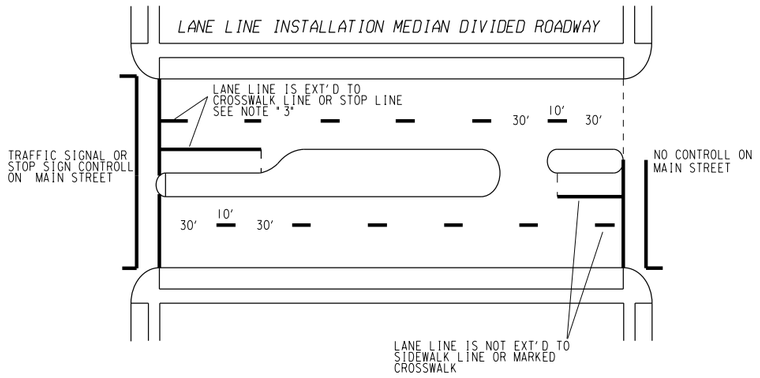
(A) PAVEMENT MARKING EPOXY, 4-INCH DASHED YELLOW
(B) PAVEMENT MARKING EPOXY, 4-INCH WHITE
(C) PAVEMENT MARKING EPOXY, 8-INCH WHITE
(D) PAVEMENT MARKING STOP LINE EPOXY, 24-INCH WHITE
(E) PAVEMENT MARKING CROSS WALK EPOXY, 12-INCH WHITE
(F) PAVEMENT MARKING WORDS EPOXY
(G) PAVEMENT MARKING ARROWS EPOXY, TYPE 2 (LEFT TURN)
(H) PAVEMENT MARKING EPOXY, 6-INCH WHITE
(I) PAVEMENT MARKING EPOXY, 4-INCH DOUBLE YELLOW
(J) PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY
(K) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY
(L) PAVEMENT MARKING ARROWS BIKE LANE EPOXY
(M) MATCH

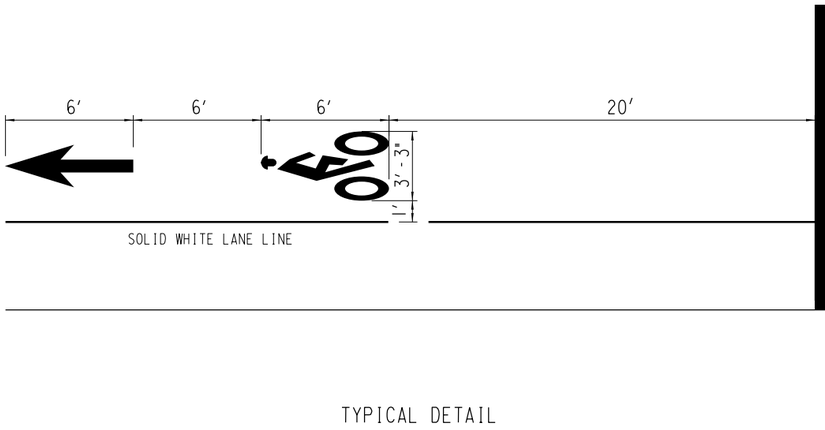
SHEET 4 OF 6

STATE PROJECT NUMBER: 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 80'	SHEET NO: 132	E

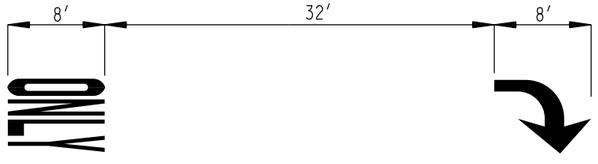
FILE NAME: W:\SPR\27 N_STPAUL_HIGH\PAVEMARK.DGN

REVISED: 10/19/2012

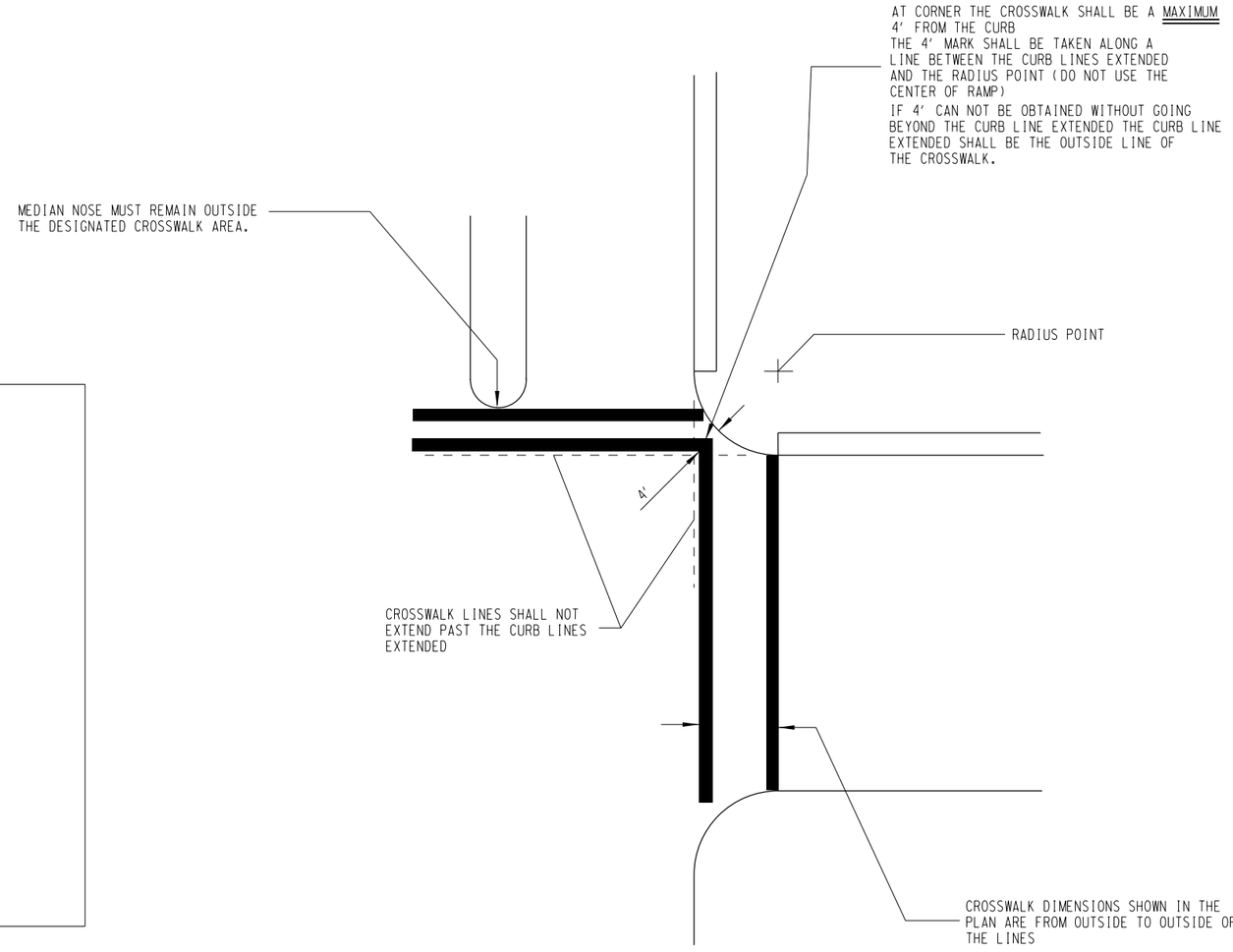




TYPICAL DETAIL
BIKE LANE



TYPICAL DETAIL
ARROW AND ONLY



TYPICAL
CROSSWALK INSTALLATION

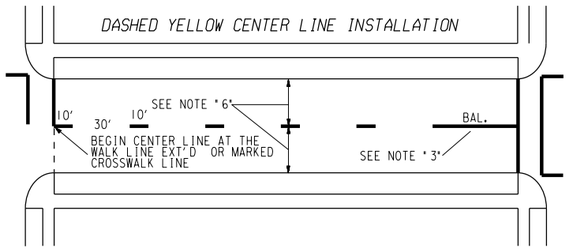
PAVEMENT MARKING NOTES

1. DASHED YELLOW CENTER LINES AND WHITE LANE LINES ARE 10 FEET LONG WITH A 30 FOOT GAP.
2. ALL DASHED CENTER LINES AND LANE LINES ARE 4 INCHES WIDE. ALL DOUBLE YELLOW CENTER LINES HAVE A 4 INCH SPACE BETWEEN TWO 4 INCH LINES.
3. AT CONTROLLED INTERSECTION IF LANE LINE IS LESS THAN 10 FEET, THE PRECEEDING LINE IS EXTENDED TO THE STOP LINE OR CROSSWALK LINE. THIS BALANCE LINE SHOULD NOT EXCEED 49 FEET. THIS POLICY APPLIES TO LANE LINES ONLY AT TRAFFIC SIGNALIZED OR STOP SIGN CONTROLLED INTERSECTIONS AND CENTER LINES AT ALL LOCATIONS.
4. ALL DIMENSIONS ARE FROM THE FACE OF THE CURB TO THE CENTER OF THE MARKING UNLESS OTHERWISE NOTED.
5. TEMPORARY PAVEMENT MARKINGS MUST BE PLACED ON THE PAVEMENT IF PERMANENT MARKINGS ARE NOT INSTALLED AFTER THE COMPLETION OF PAVING.

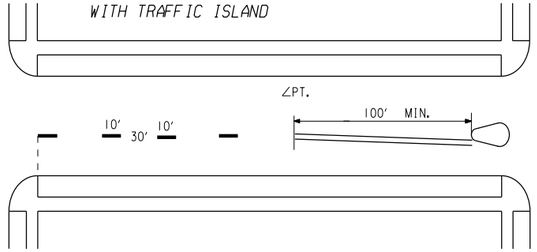
STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 80'	SHEET NO: 133	E

2

DASHED YELLOW CENTER LINE INSTALLATION



DASHED YELLOW CENTER LINE INSTALLATION WITH TRAFFIC ISLAND

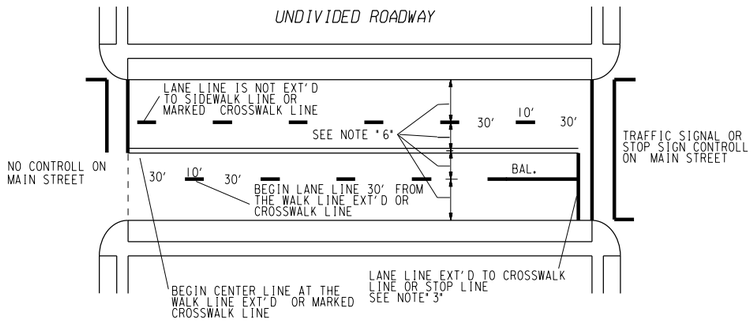


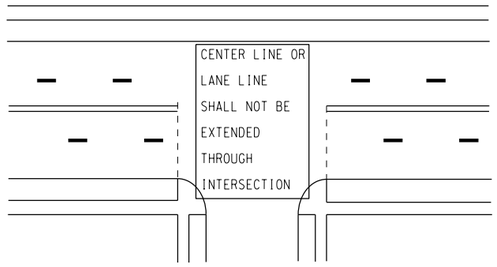
PAVEMENT MARKING NOTES

1. DASHED YELLOW CENTER LINES AND WHITE LANE LINES ARE 10 FEET LONG WITH A 30 FOOT GAP.
2. ALL DASHED CENTER LINES AND LANE LINES ARE 4 INCHES WIDE. ALL DOUBLE YELLOW CENTER LINES HAVE A 4 INCH SPACE BETWEEN TWO 4 INCH LINES.
3. AT CONTROLLED INTERSECTION IF LANE LINE IS LESS THAN 10 FEET, THE PRECEEDING LINE IS EXTENDED TO THE STOP LINE OR CROSSWALK LINE. THIS BALANCE LINE SHOULD NOT EXCEED 49 FEET. THIS POLICY APPLIES TO LANE LINES ONLY AT TRAFFIC SIGNALIZED OR STOP SIGN CONTROLLED INTERSECTIONS AND CENTER LINES AT ALL LOCATIONS.
4. ALL DIMENSIONS ARE FROM THE FACE OF THE CURB TO THE CENTER OF THE MARKING UNLESS OTHERWISE NOTED.
5. TEMPORARY PAVEMENT MARKINGS MUST BE PLACED ON THE PAVEMENT IF PERMANENT MARKINGS ARE NOT INSTALLED AFTER THE COMPLETION OF PAVING.

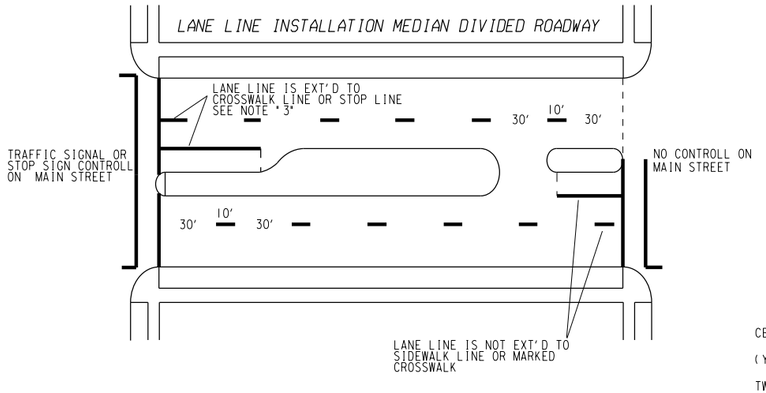
DOUBLE YELLOW CENTER LINE & LANE LINE INSTALLATION

UNDIVIDED ROADWAY



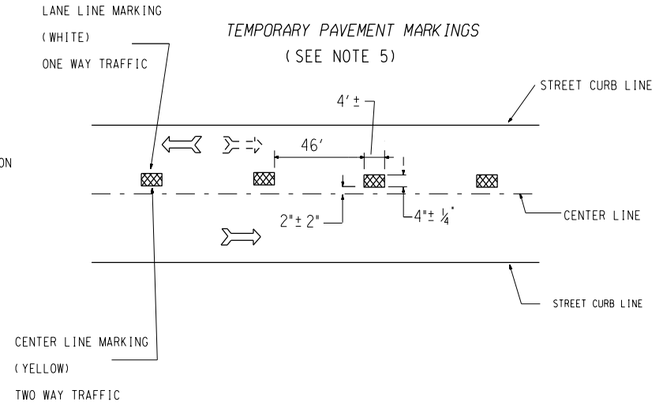


LANE LINE INSTALLATION MEDIAN DIVIDED ROADWAY



TEMPORARY PAVEMENT MARKINGS

(SEE NOTE 5)



SHEET 6 OF 6

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: S.T.H. 57	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET	SHEET NO: 134	E

FILE NAME: W:\SPR\27 N_STPAUL_HIGH\PAVEMARK.DGN

REVISED: 10/19/2012

DATE 30MAY13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2265-09-70 QUANTITY	2265-17-70 QUANTITY
0010	201.0120	CLEARING	ID	7.000	7.000	
0020	201.0220	GRUBBING	ID	7.000	7.000	
0030	204.0100	REMOVING PAVEMENT	SY	16,500.000	16,500.000	
0040	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	780.000	780.000	
0050	204.0150	REMOVING CURB & GUTTER	LF	270.000	270.000	
0060	204.0155	REMOVING CONCRETE SIDEWALK	SY	6,350.000	6,350.000	
0070	204.0200	REMOVING RAILROAD TRACK	LF	6,950.000	6,950.000	
0080	204.0210	REMOVING MANHOLES	EACH	1.000	1.000	
0090	204.0215	REMOVING CATCH BASINS	EACH	18.000	18.000	
0100	204.0250	ABANDONING MANHOLES	EACH	1.000	1.000	
0110	204.0255	ABANDONING CATCH BASINS	EACH	20.000	20.000	
0120	205.0100	EXCAVATION COMMON **P**	CY	10,200.000	10,200.000	
0130	205.0501.S	EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	TON	160.000	160.000	
0140	213.0100	FINISHING ROADWAY (PROJECT) 01. 2265-09-70	EACH	1.000	1.000	
0150	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	9,550.000	9,550.000	
0160	320.0125	CONCRETE BASE 6-INCH	SY	290.000	290.000	
0170	415.0070	CONCRETE PAVEMENT 7-INCH	SY	25.000	25.000	
0180	415.0090	CONCRETE PAVEMENT 9-INCH	SY	24,930.000	24,930.000	
0190	415.0210	CONCRETE PAVEMENT GAPS	EACH	17.000	17.000	
0200	415.1090	CONCRETE PAVEMENT HES 9-INCH	SY	74.000	74.000	
0210	416.0170	CONCRETE DRIVEWAY 7-INCH	SY	310.000	310.000	
0220	416.0270	CONCRETE DRIVEWAY HES 7-INCH	SY	810.000	810.000	
0230	416.0290	CONCRETE DRIVEWAY HES 9-INCH	SY	110.000	110.000	
0240	416.0610	DRILLED TIE BARS	EACH	300.000	300.000	
0250	440.4410.S	INCENTIVE IRI RIDE	DOL	4,000.000	4,000.000	
0260	455.0605	TACK COAT	GAL	30.000	30.000	
0270	465.0105	ASPHALTIC SURFACE	TON	190.000	190.000	
0280	601.0150	CONCRETE CURB INTEGRAL TYPE D	LF	560.000	560.000	
0290	601.0322	CONCRETE CURB & GUTTER 22-INCH	LF	40.000	40.000	
0300	601.0331	CONCRETE CURB & GUTTER 31-INCH	LF	8,070.000	8,070.000	
0310	602.0410	CONCRETE SIDEWALK 5-INCH	SF	45,340.000	45,340.000	
0320	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	304.000	304.000	
0330	602.1000	CONCRETE LOADING ZONE	SF	700.000	700.000	
0340	611.2004	MANHOLES 4-FT DIAMETER	EACH	1.000	1.000	
0350	611.2005	MANHOLES 5-FT DIAMETER	EACH	2.000	2.000	
0360	619.1000	MOBILIZATION	EACH	1.000	1.000	
0370	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	1.000	1.000	
0380	623.0200	DUST CONTROL SURFACE TREATMENT	SY	25,200.000	25,200.000	
0390	625.0100	TOPSOIL	SY	1,080.000	1,080.000	
0400	631.1000	SOD LAWN	SY	1,080.000	1,080.000	
0410	632.0101	TREES (SPECIES, ROOT, SIZE) 01. FRONTIER ELM, B&B, 3" CAL	EACH	3.000	3.000	
0420	632.0101	TREES (SPECIES, ROOT, SIZE) 02. UPRIGHT ENGLISH OAK B&B, 4" CAL	EACH	2.000	2.000	
0430	632.0101	TREES (SPECIES, ROOT, SIZE) 03. CALLERY PEAR, B&B, 4" CAL	EACH	2.000	2.000	
0440	632.0101	TREES (SPECIES, ROOT, SIZE) 04. JAPANESE TREE LILAC, B&B, 4" CAL	EACH	3.000	3.000	
0450	632.0101	TREES (SPECIES, ROOT, SIZE) 05. BUR OAK, B&B, 4" CAL	EACH	4.000	4.000	
0460	632.0101	TREES (SPECIES, ROOT, SIZE) 06. AUTUMN BLAZE MAPLE, B&B, 4" CAL	EACH	3.000	3.000	

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DATE 30MAY13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2265-09-70 QUANTITY	2265-17-70 QUANTITY
0470	632.0101	TREES (SPECIES, ROOT, SIZE) 07. SHADEMASTER HONEYLOCUST, B&B, 4" CAL	EACH	5.000	5.000	
0480	632.9101	LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	EACH	26.000	26.000	
0490	634.0816	POSTS TUBULAR STEEL 2X2-INCH X 16-FT	EACH	2.000	2.000	
0500	637.0202	SIGNS REFLECTIVE TYPE II	SF	387.000	387.000	
0510	638.2602	REMOVING SIGNS TYPE II	EACH	28.000	28.000	
0520	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	2.000	2.000	
0530	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000	
0540	643.0100	TRAFFIC CONTROL (PROJECT) 01. 2265-09-70	EACH	1.000	1.000	
0550	643.0300	TRAFFIC CONTROL DRUMS	DAY	51,957.000	51,957.000	
0560	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	47,336.000	47,336.000	
0570	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	94,672.000	94,672.000	
0580	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	51,957.000	51,957.000	
0590	643.0900	TRAFFIC CONTROL SIGNS	DAY	21,713.000	21,713.000	
0600	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	6,208.000	6,208.000	
0610	646.0116	PAVEMENT MARKING EPOXY 6-INCH	LF	1,696.000	1,696.000	
0620	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	932.000	932.000	
0630	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	6.000	6.000	
0640	647.0206	PAVEMENT MARKING ARROWS BIKE LANE EPOXY	EACH	6.000	6.000	
0650	647.0306	PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY	EACH	6.000	6.000	
0660	647.0336	PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY	EACH	4.000	4.000	
0670	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	5.000	5.000	
0680	647.0576	PAVEMENT MARKING STOP LINE EPOXY 24-INCH	LF	909.000	909.000	
0690	647.0776	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH	LF	3,509.000	3,509.000	
0700	649.0200	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	LF	3,217.000	3,217.000	
0710	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	51,092.000	51,092.000	
0720	649.0701	TEMPORARY PAVEMENT MARKING 8-INCH	LF	190.000	190.000	
0730	649.1400	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 24-INCH	LF	499.000	499.000	
0740	649.1800	TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE	EACH	22.000	22.000	
0750	649.2000	TEMPORARY PAVEMENT MARKING WORDS REMOVABLE TAPE	EACH	21.000	21.000	
0760	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	5,070.000	5,070.000	
0770	650.7000	CONSTRUCTION STAKING CONCRETE PAVEMENT	LF	5,070.000	5,070.000	
0780	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 2265-09-70	LS	1.000	1.000	
0790	652.0220	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/2-INCH	LF	520.000	520.000	
0800	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	515.000	515.000	
0810	652.0230	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 1/2-INCH	LF	390.000	390.000	
0820	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	12,720.000	12,720.000	
0830	652.0610	CONDUIT SPECIAL 2 1/2-INCH	LF	60.000	60.000	
0840	652.0615	CONDUIT SPECIAL 3-INCH	LF	120.000	120.000	
0850	652.0690	CONDUIT SPECIAL (INCH) 01. 1 1/2 INCH	LF	25.000	25.000	
0860	654.0110	CONCRETE BASES TYPE 10	EACH	6.000	6.000	
0870	690.0150	SAWING ASPHALT	LF	2,080.000	2,080.000	
0880	690.0250	SAWING CONCRETE	LF	1,670.000	1,670.000	
0890	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	5,575.000	5,575.000	

3

DATE 30MAY13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2265-09-70 QUANTITY	2265-17-70 QUANTITY
0900	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5.00/HR	HRS	700.000	700.000	
0910	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	750.000	750.000	
0920	SPV.0060	SPECIAL 01. INLET COVERS TYPE 57	EACH	70.000	70.000	
0930	SPV.0060	SPECIAL 02. MANHOLE COVERS TYPE 58A	EACH	67.000	67.000	
0940	SPV.0060	SPECIAL 03. INLET TYPE 44A	EACH	32.000	32.000	
0950	SPV.0060	SPECIAL 04. INLET TYPE 44B	EACH	16.000	16.000	
0960	SPV.0060	SPECIAL 05. ADJUSTING TES MANHOLE COVERS	EACH	33.000	33.000	
0970	SPV.0060	SPECIAL 06. INLET SCREEN TYPE M	EACH	120.000	120.000	
0980	SPV.0060	SPECIAL 07. INLET SCREEN TYPE R	EACH	48.000	48.000	
0990	SPV.0060	SPECIAL 08. ADJUSTING WATER BOXES	EACH	149.000	149.000	
1000	SPV.0060	SPECIAL 09. WATER MAIN PROTECTION	EACH	15.000	15.000	
1010	SPV.0060	SPECIAL 10. TRAFFIC VAULT POLYMER CONCRETE 13"X24" X 18"	EACH	139.000	139.000	
1020	SPV.0060	SPECIAL 11. TRAFFIC VAULT POLYMER CONCRETE 17"X30" X 18"	EACH	20.000	20.000	
1030	SPV.0060	SPECIAL 12. INSTALL TRAFFIC SIGNAL BASE	EACH	17.000	17.000	
1040	SPV.0060	SPECIAL 13. MONOTUBE POLES TYPE 10	EACH	6.000	6.000	
1050	SPV.0060	SPECIAL 14. MONOTUBE ARMS 25-FEET	EACH	2.000	2.000	
1060	SPV.0060	SPECIAL 15. MONOTUBE ARMS 30-FEET	EACH	4.000	4.000	
1070	SPV.0060	SPECIAL 16. SAWING CONCRETE ENCASED DUCT	EACH	1.000	1.000	
1080	SPV.0060	SPECIAL 17. INSTALLING CONDUIT INTO EXISTING MANHOLE	EACH	8.000	8.000	
1090	SPV.0060	SPECIAL 18. 4' DIAMETER TES MANHOLE	EACH	8.000	8.000	
1100	SPV.0060	SPECIAL 19. 4' DIAMETER "DOGHOUSE" TES MANHOLE	EACH	2.000	2.000	
1110	SPV.0060	SPECIAL 20. 5' DIAMETER TES MANHOLE	EACH	1.000	1.000	
1120	SPV.0090	SPECIAL 01. STORM SEWER PIPE CORRUGATED 8" PVC	LF	131.000	131.000	
1130	SPV.0090	SPECIAL 02. STORM SEWER PIPE CORRUGATED 12'" PVC	LF	1,416.000	1,416.000	
1140	SPV.0090	SPECIAL 03. CONSTRUCTION STAKING CONCRETE SIDEWALK	LF	6,720.000	6,720.000	
1150	SPV.0090	SPECIAL 04. CONCRETE CURB & GUTTER INTEGRAL 19 INCH HIGH SIDE	LF	500.000	500.000	
1160	SPV.0090	SPECIAL 05. 2-DUCT CONDUIT CEMENT ENCASED DB-60	LF	412.000	412.000	
1170	SPV.0090	SPECIAL 06. 3-DUCT CONDUIT CEMENT ENCASED DB-60	LF	64.000	64.000	
1180	SPV.0090	SPECIAL 07. 4-DUCT CONDUIT CEMENT ENCASED DB-60	LF	287.000	287.000	
1190	SPV.0090	SPECIAL 08. 6-DUCT CONDUIT CEMENT ENCASED DB-60	LF	3,841.000	3,841.000	
1200	SPV.0090	SPECIAL 09. 8-DUCT CONDUIT CEMENT ENCASED DB-60	LF	106.000	106.000	
1210	SPV.0090	SPECIAL 10. 10-DUCT CONDUIT CEMENT ENCASED DB-60	LF	37.000	37.000	
1220	SPV.0090	SPECIAL 11. EXTRA HES (9-BAG MIX) CONCRETE CURB & GUTTER	LF	60.000	60.000	
1230	SPV.0090	SPECIAL 12.CONCRETE CURB AND GUTTER AND BARRIER, COLD WEATHER COVERING,PLASTIC 1 LAYER	LF	4,400.000	4,400.000	
1240	SPV.0090	SPECIAL 13. CONCRETE CURB AND GUTTER AND BARRIER COLD WEATHER COVERING, PLASTIC 2 LAYERS	LF	4,400.000	4,400.000	

3

DATE 30MAY13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2265-09-70 QUANTITY	2265-17-70 QUANTITY
1250	SPV.0090	SPECIAL 14. CONCRETE CURB AND GUTTER AND BARRIER COLD WEATHER COVERING, PLASTIC/HAY/PLAST	LF	4,400.000	4,400.000	
1260	SPV.0165	SPECIAL 01. COLORED CONCRETE SIDEWALK 5 INCH	SF	780.000	780.000	
1270	SPV.0180	SPECIAL 01. JOINT SEALING	SY	25,100.000	25,100.000	
1280	SPV.0180	SPECIAL 02. COLORED CONCRETE PAVEMENT 9 INCH	SY	284.000		284.000
1290	SPV.0180	SPECIAL 03. ARCHTECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH	SY	3,686.000	3,686.000	
1300	SPV.0180	SPECIAL 04. EXTRA HES (9-BAG MIX) 9" CONCRETE PAVEMENT GAP	SY	167.000	167.000	
1310	SPV.0180	SPECIAL 05. EXTRA HES (9-BAG MIX) 9" CONCRETE DRIVEWAY	SY	40.000	40.000	
1320	SPV.0180	SPECIAL 06. CONCRETE PAVEMENT, COLD WEATHER COVERING, PLASTIC 1 LAYER	SY	12,500.000	12,500.000	
1330	SPV.0180	SPECIAL 07. CONCRETE PAVEMENT, COLD WEARTHER COVERING, PLASTIC 2 LAYERS	SY	12,500.000	12,500.000	
1340	SPV.0180	SPECIAL 08. CONCRETE PAVEMENT, COLD WEATHER COVERING, PLASTIC/HAY/ PLASTIC OR BLANKE	SY	12,500.000	12,500.000	

3

3

REMOVALS

2265-09-70

CATEGORY 0010										
ITEM NO.		CLEARING 201.0120	GRUBBING 201.0220	REMOVING PAVEMENT 204.0100	REMOVING ASPHALTIC SURFACE BUTT JOINTS 204.0115	REMOVING CURB & GUTTER 204.0150	REMOVING CONCRETE SIDEWALK 204.0155	REMOVING R.R. TRACKS 204.0200	SAWING ASPHALT 690.0150	SAWING CONCRETE 690.0250
UNIT PAY		ID	ID	SY	SY	LF	SY	LF	LF	LF
LOCATION										
STA 4+50 TO 9+00	LT	0	0	1240	110	60	370	290	140	0
STA 9+00 TO 15+00	LT	0	0	1110	220	80	550	760	160	50
STA 15+00 TO 21+00	LT	7	7	1540	150	30	940	600	580	40
STA 21+00 TO 27+00	LT	0	0	1110	40	0	450	680	170	320
STA 27+00 TO 33+00	LT	0	0	1190	0	0	450	600	220	330
STA 33+00 TO 38+65	LT	0	0	1320	40	10	340	560	80	230
SUBTOTALS (LEFT)		**7**	**7**	**7510**	**560**	**180**	**3100**	**3490**	**1350**	**970**
STA 4+50 TO 9+00	RT	0	0	2470	0	0	400	290	120	0
STA 9+00 TO 15+00	RT	0	0	1160	0	0	500	720	130	100
STA 15+00 TO 21+00	RT	0	0	1430	120	60	1090	600	140	40
STA 21+00 TO 27+00	RT	0	0	1260	20	0	420	690	150	250
STA 27+00 TO 33+00	RT	0	0	1190	60	30	450	600	130	120
STA 33+00 TO 38+65	RT	0	0	1480	20	0	390	560	60	190
SUBTOTALS (RIGHT)		**0**	**0**	**8990**	**220**	**90**	**3250**	**3460**	**730**	**700**
GRAND TOTALS		**7**	**7**	**16500**	**780**	**270**	**6350**	**6950**	**2080**	**1670**

3

CONCRETE CONSTRUCTION ITEMS

2265-09-70

ITEM NO. / UNIT PAY / CATEGORY / LOCATION		CONCRETE BASE 6-INCH 320.0125 SY 0010	CONCRETE PAVEMENT 7-INCH 415.0070 SY 0010	CONCRETE PAVEMENT 9-INCH 415.0090 SY 0010	CONCRETE PAVEMENT HES 9-INCH 415.1090 SY 0010	CONCRETE DRIVEWAY 7-INCH 416.0170 SY 0010	CONCRETE DRIVEWAY HES 7-INCH 416.0270 SY 0010	CONCRETE DRIVEWAY HES 9-INCH 416.0290 SY 0010	CONCRETE CURB INTEGRAL TYPE D 601.0150 LF 0010	CONCRETE CURB & GUTTER 22-INCH 601.0322 LF 0010
STA 4+50 TO 9+00	LT	30	0	1200	0	0	40	0	0	0
STA 9+00 TO 15+00	LT	40	0	1480	0	0	220	0	0	0
STA 15+00 TO 21+00	LT	40	0	3060	74	100	90	0	170	0
STA 21+00 TO 27+00	LT	20	0	1430	0	0	20	0	20	0
STA 27+00 TO 33+00	LT	30	0	1400	0	40	60	0	0	0
STA 33+00 TO 38+65	LT	0	0	1500	0	0	0	0	0	0
SUBTOTALS (LEFT)		**160**	**0**	**10070**	**74**	**140**	**430**	**0**	**190**	**0**
STA 4+50 TO 9+00	RT	30	0	2285	0	0	30	110	0	0
STA 9+00 TO 15+00	RT	40	25	1455	0	120	80	0	0	0
STA 15+00 TO 21+00	RT	10	0	3647	0	0	70	0	370	0
STA 21+00 TO 27+00	RT	40	0	1535	0	0	80	0	0	40
STA 27+00 TO 33+00	RT	10	0	1405	0	20	120	0	0	0
STA 33+00 TO 38+65	RT	0	0	1803	0	30	0	0	0	0
SUBTOTALS (RIGHT)		**130**	**25**	**12130**	**0**	**170**	**380**	**110**	**370**	**40**
GRAND TOTALS		**290**	**25**	**22,200**	**74**	**310**	**810**	**110**	**560**	**40**

3

CONCRETE CURB & GUTTER 31-INCH 601.0331 LF 0010	CONCRETE SIDEWALK 5-INCH 602.0410 SF 0010	CURB RAMP DETECTABLE WARNING FIELD YELLOW 602.0505 SF 0010	CONCRETE LOADING ZONE 602.1000 SF 0010	CONCRETE CURB & GUTTER INTEGRAL 19-INCH HIGH SIDE SPV.0090.04 LF 0010	COLORED CONCRETE SIDEWALK 5-INCH SPV.0165.01 SF 0030	ARCHITECTURAL FINISH ON CONCRETE SIDEWALK SPV.0180.03 SY 0030	BASE AGGREGATE DENSE 1 ¼-INCH 305.0120 TON 0020	BASE AGGREGATE DENSE 1 ¼-INCH 305.0120 TON 0010	CONCRETE PAVEMENT 9-INCH 415.0090 SY 0020
510	3190	16	0	0	0	319	60	491	148
640	3040	16	0	0	0	304	68	556	183
1100	6140	32	0	290	370	230	146	1195	376
570	3900	16	0	0	0	390	65	532	176
580	3310	16	0	0	0	331	64	524	173
580	3300	32	0	0	0	330	74	606	185
3980	**22880**	**128**	**0**	**290**	**370**	**1904**	**477**	**3903**	**1241**
550	2440	24	410	0	0	244	104	851	281
550	2920	16	0	0	0	292	66	540	179
1270	7660	64	0	210	410	302	171	1399	447
560	3370	32	0	0	0	337	72	589	189
590	3050	16	0	0	0	305	65	532	173
570	3020	24	290	0	0	302	85	696	220
4090	**22460**	**176**	**700**	**210**	**410**	**1782**	**563**	**4607**	**1489**
8,070	**45,340**	**304**	**700**	**500**	**780**	**3,686**	**1,040**	**8,510**	**2,730**

2265-09-70 (CONTINUED)

CATEGORY		ITEM NO.	EXTRA HES (9-BAG MIX) CONC. CURB AND GUTTER	CONC. CURB & GUTTER & BARRIER, COLD WEATHER COVERING 1 LAYER	CONCRETE CURB AND GUTTER AND BARRIER, COLD WEATHER COVERING 2 LAYER	CONCRETE CONC. CURB & GUTTER & BARRIER, COLD WEATHER COVERING, PLASTIC/HAY/ PLASTIC OR BLANKETS	EXTRA HES (9-BAG MIX) 9-INCH CONCRETE PAVEMENT GAP	EXTRA HES (9-BAG MIX) 9-INCH CONCRETE DRIVEWAY	CONCRETE PAVEMENT COLD WEATHER PLASTIC COVERING 1 LAYER	CONCRETE PAVEMENT COLD WEATHER PLASTIC COVERING 2 LAYER	CONCRETE PAVEMENT COLD WEATHER COVERING PLASTIC/HAY PLASTIC OR BLANKETS
		UNIT PAY	LF	LF	LF	LF	SY	SY	SY	SY	SY
LOCATION			0010	0010	0010	0010	0010	0010	0020	0020	0020
STA 4+50 TO 9+00	LT		0	255	255	255	0	0	674	674	674
STA 9+00 TO 15+00	LT		0	320	320	320	0	0	821	821	821
STA 15+00 TO 21+00	LT		0	635	635	635	0	0	1755	1755	1755
STA 21+00 TO 27+00	LT		0	295	295	295	0	0	803	803	803
STA 27+00 TO 33+00	LT		0	290	290	290	0	0	787	787	787
STA 33+00 TO 38+65	LT		0	290	290	290	0	0	842	842	842
SUBTOTALS (LEFT)			**0**	**2085**	**2085**	**2085**	**0**	**0**	**5682**	**5682**	**5682**
STA 4+50 TO 9+00	RT		30	275	275	275	167	27	1279	1279	1279
STA 9+00 TO 15+00	RT		0	275	275	275	0	0	830	830	830
STA 15+00 TO 21+00	RT		0	820	820	820	0	0	2047	2047	2047
STA 21+00 TO 27+00	RT		0	350	350	350	0	0	862	862	862
STA 27+00 TO 33+00	RT		30	310	310	310	0	13	789	789	789
STA 33+00 TO 38+65	RT		0	285	285	285	0	0	1011	1011	1011
SUBTOTALS (RIGHT)			**60**	**2315**	**2315**	**2315**	**167**	**40**	**6818**	**6818**	**6818**
GRAND TOTALS			**60**	**4400**	**4400**	**4400**	**167**	**40**	**12500**	**12500**	**12500**

2265-17-70

CATEGORY		ITEM NO.	COLORED CONCRETE PAVEMENT 9-INCH
		UNIT PAY	SY
LOCATION			0010
STA 4+50 TO 9+00	LT		0
STA 9+00 TO 15+00	LT		0
STA 15+00 TO 21+00	LT		142
STA 21+00 TO 27+00	LT		0
STA 27+00 TO 33+00	LT		0
STA 33+00 TO 38+65	LT		0
SUBTOTALS (LEFT)			**142**
STA 4+50 TO 9+00	RT		0
STA 9+00 TO 15+00	RT		0
STA 15+00 TO 21+00	RT		142
STA 21+00 TO 27+00	RT		0
STA 27+00 TO 33+00	RT		0
STA 33+00 TO 38+65	RT		0
SUBTOTALS (RIGHT)			**142**
GRAND TOTALS			**284**

MISCELLANEOUS ITEMS

2265-09-70

CATEGORY / LOCATION		ITEM NO. / UNIT PAY	EXCAV. HAUL & DISPOSAL OF PETRO CONTAM. SOIL 205.0501.S TON 0010	FINSIHING ROADWAY (PROJECT) 213.0100 EACH 0010	CONCRETE PAVEMENT GAPS 415.0210 EACH 0010	DRILLED TIE BARS 416.0610 EACH 0010	MOBILIZATION 619.100 EACH 0010	LANDMARK REFERENCE MONUMENTS 621.0100 EACH 0010	DUST CONTROL SURFACE TREATMENT 623.0200 SY 0010	FIELD OFFICE TYPE B (PROJECT) 642.5001 EACH 0010	INLET SCREEN TYPE M SPV.0060.06 EACH 0010	INLET SCREEN TYPE R SPV.0060.07 EACH 0010	JOINT SEALING SPV.0180.01 SY 0040
STAGE 1													
STA 4+50 TO 9+00	RT				3	38			1370				
STA 9+00 TO 15+00	RT		19		1	0			1680				
STA 15+00 TO 21+00	RT				3	37			3520				**UNDISTRIBUTED**
STA 21+00 TO 27+00	RT				2	17			1620				
STA 27+00 TO 33+00	RT		48		2	11			1590				
STA 33+00 TO 38+65	RT		71		1	32			1700				
	SUBTOTALS (LEFT)		**138**		**12**	**135**		**0**	**11,480**				
STAGE 2													
STA 4+50 TO 9+00	LT					32			2590				
STA 9+00 TO 15+00	LT				4	20			1650				
STA 15+00 TO 21+00	LT		22			49		1	4110				
STA 21+00 TO 27+00	LT					25			1750				**UNDISTRIBUTED**
STA 27+00 TO 33+00	LT				1	11			1590				
STA 33+00 TO 38+65	LT					28			2030				
	SUBTOTALS (RIGHT)		**22**		**5**	**165**		**1**	**13,720**				
	GRAND TOTALS		**160**	**1**	**17**	**300**	**1**	**1**	**25,200**	**1**	**120**	**48**	**25,100**

3

EARTH WORK SUMMARY

From/To Station	Location	Excavation Common (1) (item # 205.0100)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6)	Mass Ordinate +/- (7)	Waste	Borrow (8)
		Cut (2)	EBS Excavation (3)				1.20 Factor			
		CY	CY	CY	CY	CY	CY	CY	CY	CY
4+28 TO 38+65	N. 27th St/W. Wisconsin Ave.	10200	0	6178	4007	324	389	3618	9796	0

1) No EBS is anticipated, if EBS is required it will be paid as Excavation Common, Item Number 205.0100. Excavation Common is the sum of the Cut and EBS Excavation columns.
2) Salvaged/Unusable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusable Pavement Material
6) Expanded Fill Factor = 1.20
7) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material.
8) To be bid as part of Base Aggregate Dense 1-1/4"

See Section 9 of Plan for Cut & Fill Quantities

Item No	Description	Unit	Quantity
652.0220	Conduit Rigid Nonmetallic Schedule 40 1½-inch	LF	520
652.0225	Conduit Rigid Nonmetallic Schedule 40 2-inch	LF	515
652.0230	Conduit Rigid Nonmetallic Schedule 40 2½-inch	LF	390
652.0235	Conduit Rigid Nonmetallic Schedule 40 3-inch	LF	12,720
652.0610	Conduit Special 2½-inch	LF	60
652.0615	Conduit Special 3-inch	LF	120
652.0690	Conduit Special 1½-inch	LF	25
654.0110	Concrete Bases Type 10	Each	6
SPV.0060.10	Traffic Vault Polymer Concrete 13" x 24" x 18"	Each	139
SPV.0060.11	Traffic Vault Polymer Concrete 17" x 30" x 18"	Each	20
SPV.0060.12	Install Traffic Signal Base	Each	17
SPV.0060.13	Monotube Poles Type 10	Each	6
SPV.0060.14	Monotube Arms 25-FT	Each	2
SPV.0060.15	Monotube Arms 30-FT	Each	4

ALL ITEMS ARE CATEGORY 0010

3

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

CITY UNDERGROUND CONDUIT

LOCATION	CATEGORY 0010 ABANDON MANHOLES 204.0250 EACH	ADJUSTING TES MANHOLE COVERS SPV.0060.05 EACH	SAWING CONCRETE ENCASED DUCT SPV.0060.16 EACH	INSTALLING CONDUIT INTO EXISTING MANHOLE SPV.0060.17 EACH	4' DIAMETER TES MANHOLE SPV.0060.18 EACH	4' DIAMETER "DOGHOUSE" TES MANHOLE SPV.0060.19 EACH	5' DIAMETER TES MANHOLE SPV.0060.20 EACH
MANHOLE 600 - STA 04 + 38.4, 30.4 LT		1 NEW COVER					
MANHOLE 601 - STA 05 + 43.0, 14.5 LT		1 NEW COVER		1			
MANHOLE 602 - STA 05 + 43.8, 40.7 LT		1 NEW COVER					
MANHOLE 603 - STA 05 + 49.1, 33.4 RT		1 NEW COVER					
MANHOLE 604 - STA 05 + 59.7, 147.5 RT	1						
MANHOLE 605 - STA 06 + 03.2, 74.1 RT		1 NEW COVER					
MANHOLE 606 - STA 10 + 60.9, 38.9 LT		1 NEW COVER		1			
MANHOLE 606A - STA 10 + 63.0, 8.0 RT		1				1	
MANHOLE 606B - STA 10 + 89.9, 8.5 RT		1				1	
MANHOLE 606C - STA 15 + 45.7, 6.5 RT		1			1		
MANHOLE 607 - STA 19 + 69.8, 11.2 RT		1 NEW COVER		1			
MANHOLE 608 - STA 20 + 46.6, 14.1 LT		1 NEW COVER		1			
MANHOLE 608A - STA 20 + 41.5, 5.0 RT		1					1
MANHOLE 609 - STA 20 + 61.8, 10.5 RT		1 NEW COVER					
MANHOLE 610 - STA 20 + 63.5, 38.8 LT		1 NEW COVER		1			
MANHOLE 611 - STA 20 + 69.0, 30.2 LT		1 NEW COVER					
MANHOLE 612 - STA 23+ 63.6, 30.1 LT		1 NEW COVER					
MANHOLE 612A - STA 23+ 41.0, 5.0 RT					1		
MANHOLE 613 - STA 25 + 37.5, 10.7 RT		1 NEW COVER					
MANHOLE 613A - STA 25 + 96.9, 5.0 RT		1			1		
MANHOLE 614 - STA 26 + 41.6, 11.0 RT		1 NEW COVER					
MANHOLE 615 - STA 30 + 36.8, 11.0 RT		1 NEW COVER					
MANHOLE 615A - STA 30 + 93.0, 5.0 RT		1			1		
MANHOLE 616 - STA 31 + 21.2, 11.5 RT		1 NEW COVER					
MANHOLE 617 - STA 34 + 15.1, 12.0 RT		1 NEW COVER					
MANHOLE 618 - STA 36 + 21.9, 12.2 RT		1 NEW COVER					
MANHOLE 619 - STA 36 + 55.8, 15.9 LT		1 NEW COVER		1			
MANHOLE 619A - STA 36 + 62.0, 5.0 RT		1			1		
MANHOLE 620 - STA 37 + 25.8, 13.1 RT		1 NEW COVER		1			
MANHOLE 620A - STA 38 + 37.0, 36.2 RT		1			1		
MANHOLE 620B - STA 38 + 32.0, 28.9 LT		1	1		1		
MANHOLE 621 - STA 10W + 78.9, 54.2 LT		1 NEW COVER					
MANHOLE 622 - STA 11W + 47.1, 63.1 LT		1 NEW COVER		1			
MANHOLE 622A - STA 11W + 47.1, 46.5 LT		1			1		
MANHOLE 623 - STA 13W + 62.2, 46.5 LT		1 NEW COVER					
TOTAL	**1**	**33**	**1**	**8**	**8**	**2**	**1**

LOCATION	CATEGORY 0010 2-DUCT CONDUIT CEMENT ENCASED DB-60 SPV0090.05 LF	3-DUCT CONDUIT CEMENT ENCASED DB-60 SPV0090.06 LF	4-DUCT CONDUIT CEMENT ENCASED DB-60 SPV0090.07 LF	6-DUCT CONDUIT CEMENT ENCASED DB-60 SPV0090.08 LF	8-DUCT CONDUIT CEMENT ENCASED DB-60 SPV0090.09 LF	10-DUCT CONDUIT CEMENT ENCASED DB-60 SPV0090.10 LF
MH 601 to MH 606A				517		
MH 606A to STA 10 + 68.4, 34.9 LT				42		
STA 10 + 68.4, 34.9 LT to MH 606	8					
STA 10 + 68.4, 34.9 LT to STA 10 + 68.4, 77.9 LT			43			
MH 606A to STA 10 + 63.5, 51.0 RT			41			
MH 606A to STA 10 + 71.0, 8.0 RT					6	
STA 10 + 71.0, 8.0 RT to MH 606B	17					
STA 10 + 71.0, 8.0 RT to MH 606C				455		
MH 606C to TRAFFIC CONTROL CABINET	45					
MH 606C to MH 608A				492		
MH 607 TO PROPOSED VAULT	23					
MH 608A to MH 608	15					
MH 608A to MH 612A				295		
MH 612A to STA 23 +41.0, 43.0 RT	36					
MH 612A to MH 613A				252		
MH 613A to STA 25 + 77.2, 43.9 LT			54			
MH 613A to STA 25 + 96.9, 43.9 RT					37	
STA 25 + 96.9, 43.9 RT to PROPOSED VAULT	38					
STA 25 + 96.9, 43.9 RT to STA 25 + 96.9, 51.9 RT				8		
MH 613A to MH615A				492		
MH 615A to PROPOSED VAULT	66					
MH 615A to STA 30 + 93.0, 37.0 RT			30			
MH 615A to MH 619A				565		
MH 619A to MH 619	19					
MH 619A to STA 36 + 62.0, 66.0 LT			69			
MH 619A to STA 36 + 62.0, 57.0 RT			50			
MH 619A to MH 620	60					
MH619A to MH 620A				174		
MH 620A to STA 38 + 57.2, 37.1 RT				16		
MH 620A to MH 620B		61				
MH 620B to STA 38+37.0, 28.9 LT		3				
MH 608A to STA 09W + 65.5, 41.5 LT						37
STA 09W + 65.5, 41.5 LT to MH 610	23					
STA 09W + 65.5, 41.5 LT to STA 09W + 35.0, 41.5 LT					31	
STA 09W + 35.0, 41.5 LT to POLICE CALL BOX	22					
STA 09W + 35.0, 41.5 LT to STA 07W + 20.0. 41.5 LT				215		
MH 608A to MH 622A				139		
MH 622A to MH 622	13					
MH 622A TO STA 13W + 28.0, 46.5 LT				179		
STA 13W + 28.0, 46.5 LT to PROPOSED VAULT	27					
STA 13W + 28.0, 46.5 LT to MH 623					32	
TOTAL	**412**	**64**	**287**	**3841**	**106**	**37**

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES - CITY UNDERGROUND CONDUIT (TES)	SHEET: 146 **E**

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

3

ASPHALT ITEMS

2265-09-70

			TACK COAT	ASPHALTIC SURFACE
CATEGORY 0010	ITEM NO.		455.0605	465.0105
	UNIT PAY		GAL	TON
LOCATION				
STA 4+50 TO 9+00		LT	0	20
STA 9+00 TO 15+00		LT	10	40
STA 15+00 TO 21+00		LT	10	40
STA 21+00 TO 27+00		LT	0	10
STA 27+00 TO 33+00		LT	0	10
STA 33+00 TO 38+65		LT	0	10
SUBTOTALS (LEFT)			**20**	**130**
STA 4+50 TO 9+00		RT	0	10
STA 9+00 TO 15+00		RT	0	10
STA 15+00 TO 21+00		RT	10	20
STA 21+00 TO 27+00		RT	0	10
STA 27+00 TO 33+00		RT	0	10
STA 33+00 TO 38+65		RT	0	0
SUBTOTALS (RIGHT)			**10**	**60**
GRAND TOTALS			**30**	**190**

WATER ITEMS

2265-09-70

		ADJUSTING WATER BOX	WATER MAIN PROTECTION
	ITEM NO.	SPV.0060.08	SPV.0060.09
	UNIT PAY	EACH	EACH
CATEGORY		0040	0040
LOCATION			
STA 4+28 TO STA 38+65		149	15

3

CONSTRUCTION STAKING ROADWAY ITEMS

2265-09-70

			CONSTRUCTION STAKING SUBGRADE	CONSTRUCTION STAKING CONCRETE PAVEMENT	CONSTRUCTION STAKING CONCRETE SIDEWALK
	ITEM NO		650.4500	650.7000	SPV.0090.03
	UNIT PAY		LF	LF	LF
CATEGORY			0010	0010	0010
LOCATION					
STA 4+50 TO STA 9+00		LT	250	250	460
STA 9+00 TO STA 15+00		LT	300	300	520
STA 15+00 TO STA 21+00		LT	760	760	970
STA 21+00 TO STA 27+00		LT	300	300	530
STA 27+00 TO STA 33+00		LT	300	300	500
STA 33+00 TO STA 38+65		LT	280	280	270
SUBTOTALS (LEFT)			**2190**	**2190**	**3250**
STA 4+50 TO STA 9+00		RT	250	250	460
STA 9+00 TO STA 15+00		RT	300	300	520
STA 15+00 TO STA 21+00		RT	1450	1450	1050
STA 21+00 TO STA 27+00		RT	300	300	480
STA 27+00 TO STA 33+00		RT	300	300	510
STA 33+00 TO STA 38+65		RT	280	280	450
SUBTOTALS (RIGHT)			**2880**	**2880**	**3470**
	GRAND TOTALS		**5070**	**5070**	**6720**

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

3

MISCELLANEOUS LANDSCAPING ITEMS

2265-09-70

CATEGORY 0010			TOPSOIL	SOD LAWN
		ITEM NO.	625.0100	631.1000
		UNIT PAY	SY	SY
LOCATION				
STA 4+50 TO STA 9+00		LT	0	0
STA 9+00 TO STA 15+00		LT	30	30
STA 15+00 TO STA 21+00		LT	220	220
STA 21+00 TO STA 27+00		LT	0	0
STA 27+00 TO STA 33+00		LT	10	10
STA 33+00 TO STA 38+65		LT	20	20
	SUBTOTALS (LEFT)		**280**	**280**
STA 4+50 TO STA 9+00		RT	40	40
STA 9+00 TO STA 15+00		RT	10	10
STA 15+00 TO STA 21+00		RT	540	540
STA 21+00 TO STA 27+00		RT	10	10
STA 27+00 TO STA 33+00		RT	30	30
STA 33+00 TO STA 38+65		RT	170	170
	SUBTOTALS (RIGHT)		**800**	**800**
	GRAND TOTALS		**1080**	**1080**

2265-09-70

Traffic Control Quantities

Items		Stage 1 (Each)	* (Days)	Stage 2 (Each)	* (Days)	Total
(1)643.0300	Traffic Control, Drums	477	29,097	381	22,860	51,957
(2)643.0420	Traffic Control, Barricades, Type III	476	29,036	305	18,300	47,336
643.0705	Traffic Control, Warning Lights, Type "A" (Flashing)	952	58,072	610	36,600	94,672
643.0715	Traffic Control, Warning Lights, Type "C" (Steady)	477	29,097	381	22,860	51,957
643.0900	Traffic Control, Signs	233	14,213	125	7,500	21,713
(3) Temporary Pavement Marking						
649.0200	Temporary Pavement Marking Reflective Paint 4"		3,217		0	3,217
649.0400	Temporary Pavement Marking Removable Tape 4"		22,904		28,188	51,092
649.1400	Temporary Pavement Marking Stop Line Removable Tape 24"		94		405	499
649.1800	Temporary Pavement Marking Arrows Removable Tape		9		13	22
649.2000	Temporary Pavement Marking Words Removable Tape		11		10	21
649.0701	Temporary Pavement Marking 8"		190		0	190

(1) All Drums have one steady burning yellow light

(2) All Type III Barricades have 2 flashing yellow lights

(3) When placing temporary pavement marking removable tape, the tape shall be sliced or cut across its width every 25 feet. This will limit ravelling.

Items	Stage 1	Stage 2
(1) W020-1	22	17
(6) W01-6L	38	20
(7) W01-6R	20	1
(8) R5-1	11	0
(9) R3-2	0	0
(12) R6-1L	12	0
(20) R1-1	0	0
(21) W01-4L	0	0
(22) R3-1	0	0
(23) R4-7A	29	44
(24) W020-5R	7	6
(25) W04-2R	8	7
(27) W020-3	0	4
(28) W016-7PR	0	0
(29) W04-2L	13	9
(30) W020-5L	12	9
(32) R3-6L	0	0
(33) W020-5	0	0
(34) W09-3A	0	2
(35) R3-7R	1	2
(36) W13-1	0	0
(37) R3-8B	0	0
(38) W01-3L	4	2
(39) W01-3R	2	0
(40) R3-7L	1	0
(41) W016-7PL	0	0
(42) R011-2	0	0
(43) W01-4BL	1	0
(44) W020-2	2	0
(45) W012-1	0	2
Specialty Signs	50	0
	233	125

3

PAVEMENT MARKING QUANTITIES				
GROUP CODE	ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY
0010	646.0106	PAVEMENT MARKING EPOXY 4 - INCH	L.F	6208
0010	646.0116	PAVEMENT MARKING EPOXY 6 - INCH	L.F	1696
0010	646.0126	PAVEMENT MARKING EPOXY 8 - INCH	L.F	932
0010	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE II	EACH	6
0010	647.0206	PAVEMENT MARKING ARROWS BIKE LANE EPOXY	EACH	6
0010	647.0306	PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY	EACH	6
0010	647.0336	PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY	EACH	4
0010	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	5
0010	647.0576	PAVEMENT MARKING STOP LINE EPOXY 24 - INCH	L.F	909
0010	647.0776	PAVEMENT MARKING CROSSWALK EPOXY - 12 INCH	L.F	3509

NEW MANHOLE COVERS				
GROUP CODE	NO.	LOCATION	PROP. ELEV.	REMARKS
0010	200	STA 4 + 81.8 - 2.5 ' RT	72.03	
0010	201	STA 5 + 77.9 - 139.0' RT	65.64	
0010	202	STA 5 + 80.5 - 2.5' LT	72.86	
0010	203	STA 05 + 84.9 - 48.1 ' LT	73.99	
0010	204	STA 05 + 87.5 - 44.5 ' RT	71.80	
0010	205	STA 5 + 87.5 - 129.8' RT	66.11	
0010	206	STA 06 + 32.5 - 1.8 ' LT	73.96	
0010	207	STA 07 + 27.0 - 0.1 ' LT	76.52	
0010	208	STA 08 + 2.9 - 1.0 ' LT	78.84	
0010	209	STA 08 + 9.9 - 7.3 ' LT	78.98	
0010	210	STA 10 + 28.9 - 1.5 ' LT	85.96	
0010	211	STA 10 + 33.2 - 14.1 ' LT	85.86	
0010	212	STA 10 + 72.1 - 3.9 ' RT	86.80	
0010	213	STA 10 + 77.5 - 38.2 ' LT	86.70	
0010	214	STA 10 + 79.5 - 48.1' LT	86.61	
0010	215	STA 10 + 80.5 - 45.0 ' RT	86.63	
0010	216	STA 10 + 81.5 - 26.2 ' RT	86.74	
0010	217	STA 11 + 33.8 - 1.8 ' LT	88.02	
0010	218	STA 13 + 29.5 - 10.5 ' LT	92.78	REPAIR 3" OF BRICKWORK
0010	219	STA 13 + 33.5 - 0.5 ' RT	93.21	
0010	220	STA 14 + 05.1 - 1.2 ' LT	94.99	
0010	221	STA 14 + 11.0 - 21.5 ' RT	94.52	
0010	222	STA 15 + 52.2 - 1.8 ' LT	98.58	
0010	224	STA 15 + 81.2 - 28.9 ' RT	98.57	
0010	225	STA 16 + 32.0 - 1.4 ' LT	99.74	
0010	226	STA 17 + 32.5 - 11.1 ' LT	102.49	
0010	227	STA 17 + 95.2 - 0.5 ' RT	104.53	
0010	228	STA 18 + 53.0 - 1.0 ' RT	106.27	
0010	229	STA 20 + 07.5 - 2.8 ' LT.	110.22	
0010	230	STA 20 + 17.1 - 44.9 ' LT.	109.86	
0010	231	STA 20 + 48.2 - 36.5 ' LT.	109.42	
0010	232	STA 19 + 86.9 - 42.2 ' RT.	110.19	
0010	233	STA 20 + 18.5 - 45.3 ' RT.	110.98	

NEW MANHOLE COVERS				
0010	234	STA 20 + 80.9 - 1.2 ' LT	110.27	
0010	235	STA 21 + 30.5 - 1.2 ' LT	110.28	
0010	236	STA 22 + 91.5 - 2.5 ' LT	110.34	
0010	237	STA 23 + 10.1 - 12.6 ' LT	110.18	
0010	238	STA 23 + 19.8 - 43.9 ' RT	111.70	
0010	239	STA 24 + 46.0 - 1.0 ' RT	110.48	
0010	240	STA 25 + 28.1 - 16.5 ' LT	110.34	
0010	241	STA 25 + 51.0 - 0.9' LT	110.76	
0010	242	STA 25 + 89.5 - 44.2 ' RT	110.95	
0010	243	STA 26 + 33.5 - 1.0 ' LT	110.61	
0010	244	STA 27 + 86.5 - 1.0 ' RT	109.97	
0010	245	STA 29 + 40.2 - 1.5 ' RT	109.36	
0010	246	STA 30 + 43.5 - 0.1 ' RT	108.37	
0010	247	STA 30 + 87.5 - 12.1 ' LT	107.98	
0010	248	STA 30 + 88.5 - 46.9 ' RT	107.70	
0010	249	STA 31 + 51.0 - 1.0 ' RT	107.88	
0010	250	STA 32 + 47.5 - 1.1 ' RT	107.30	
0010	251	STA 32 + 98.1 - 1.8 ' RT	107.08	
0010	252	STA 33 + 20.5 - 1.5 ' RT	107.09	
0010	253	STA 34 + 11.2 - 0.5 ' RT	106.88	
0010	254	STA 34 + 45.5 - 36.1 ' LT.	106.86	
0010	255	STA 34 + 57.5 - 1.1 ' RT	106.91	
0010	256	STA 36 + 38.1 - 4.1 ' LT	106.15	
0010	257	STA 36 + 70.0 - 46.8' LT	106.43	REPAIR 3" OF BRICKWORK
0010	258	STA 36 + 71.1 - 11.9 ' LT	106.50	
0010	259	STA 37 + 17.9 - 0.8 ' RT	106.09	
0010	260	STA 37 + 62.1 - 0.5' LT	105.70	
0010	261	STA 38 + 59.5 - 0.7' RT	105.37	
0010	262	STA 07W + 51.0 - 16.9 ' LT	108.55	
0010	263	STA 08W + 52.5 - 16.5 ' LT	108.75	REPAIR 6" OF BRICKWORK
0010	264	STA 13W + 26.8 - 16.0 ' LT	116.23	

0010 MANHOLE COVERS TYPE 58A (SPV.0060.02) 64

REMOVING MANHOLES			
GROUP CODE	NUMBER	STATION	OFFSET
0010	223	15 + 79.8	45.7 ' LT

0010 REMOVING MANHOLES (204.0210) 1

PLACING NEW INLET COVERS TYPE 57					
GROUP CODE	NO.	LOCATION	PROP. ELEV	COVER TYPE	REMARKS
0010	100	04 + 23.8 - 23.0' LT.	70.90	57	
0010	102	05 + 52.2 - 42.8 ' LT.	72.95	57	
0010	103	06 + 08.8 - 47.5 ' LT.	73.17	57	REPAIR 9" OF BRICKWORK
0010	115	STA 14 + 10.1 - 42.2 ' RT.	94.91	57	
0010	127	21 + 31.0 - 24.9 ' LT.	109.53	57	
0010	128	21 + 47.9 - 24.8 ' RT.	110.20	57	
0010	129	22 + 44.1 - 24.9 ' RT.	110.04	57	
0010	131	23 + 07.0 - 34.5 ' RT.	110.75	57	
0010	132	23 + 33.1 - 35.5 ' RT	110.74	57	REPAIR 3" OF BRICKWORK
0010	137	25 + 63.0 - 43.1 ' RT.	110.25	57	
0010	138	26 + 13.0 - 42.9 ' RT	110.32	57	REPAIR 3" OF BRICKWORK
0010	141	28 + 17.4 - 24.5 ' LT.	109.02	57	
0010	143	30 + 44.2 - 24.2 ' LT.	107.75	57	
0010	144	30 + 48.8 - 25.1 ' RT.	107.82	57	
0010	146	31 + 80.0 - 24.8 ' RT.	107.20	57	
0010	148	33 + 22.6 - 24.9 ' RT.	106.37	57	
0010	150	34 + 11.0 - 24.9 ' RT.	106.36	57	
0010	151	34 + 34.0 - 35.2 ' LT.	106.25	57	
0010	152	34 + 64.8 - 36.0 ' LT.	106.51	57	
0010	154	36 + 25.8 - 24.8 ' LT.	105.67	57	REPAIR 3" OF BRICKWORK
0010	158	08W + 14.5 - 20.9 ' RT.	107.58	57	
0010	159	08W + 15.0 - 54.5 ' LT.	107.48	57	

0010	INLET COVERS TYPE 57 (SPV.0060.01)	22

ABANDONING CATCH BASINS			
GROUP CODE	NO.	LOCATION	REMARKS
0010	112	12 + 00.0 - 26.8 ' LT.	
0010	117	15 + 60.5 - 38.7 ' RT.	
0010	118	16 + 00.5 - 36.7 ' RT.	
0010	119	16 + 00.0 - 37.9 ' LT.	
0010	124	19 + 78.2 - 39.0 ' RT	
0010	125	20 + 55.5 - 43.5' RT.	
0010	126	20 + 73.1 - 24.8 ' RT.	
0010	130	22 + 81.2 - 24.8 ' LT.	
0010	133	24 + 13.1 - 24.5 ' RT.	
0010	134	24 + 60.0 - 24.8 ' LT.	
0010	135	25 + 27.0 - 24.9 ' LT.	
0010	136	25 + 42.7 - 24.9 ' RT.	
0010	139	26 + 34.2 - 24.8 ' RT.	
0010	140	27 + 72.4 - 24.8 ' RT.	
0010	142	29 + 45.0 - 24.5 ' LT.	
0010	145	31 + 05.0 - 52.0 ' RT.	
0010	147	32 + 48.2 - 24.9 ' LT.	
0010	149	33 + 31.5 - 24.6 ' LT.	
0010	153	36 + 19.0 - 24.9 ' RT.	
0010	157	37 + 60.5 - 45.0 ' RT.	

0010 ABANDONING CATCH BASINS (204.0255) 20

REMOVING CATCH BASINS			
GROUP CODE	NO.	LOCATION	REMARKS
0010	101	05 + 36.5 - 66.8 ' RT.	
0010	104	06 + 25.5 - 27.9 ' LT.	
0010	105	06 + 78.2 - 33.4 ' RT.	
0010	106	07 + 54.0 - 31.8 ' RT.	
0010	107	08 + 07.1 - 26 .6' LT.	
0010	108	08 + 65.8 - 25.0' RT.	
0010	109	09 + 27.9 - 24.9 ' RT.	
0010	110	11 + 56.9 - 26.8 ' LT.	
0010	111	11 + 69.9 - 25.0 ' RT.	
0010	113	12 + 70.5 - 24.9 ' RT.	
0010	114	13 + 32.8 - 27.0 ' LT.	
0010	116	14 + 29.1 - 25.0 ' RT.	
0010	120	16 + 22.6 - 25.0 ' RT.	
0010	121	16 + 61.5 - 26.8 ' LT.	
0010	122	17 + 70.5 - 25.1 ' RT.	
0010	123	18 + 54.5 - 26.9 ' LT.	
0010	155	36 + 46.0 - 38.5 ' LT.	
0010	156	36 + 95.2 - 46.2 ' LT.	

0010 REMOVING CATCH BASINS (204.0215) 18

New Structures															
STRUCTURES								PVC PIPE, STORM SEWER							
GROUP CODE	No.	LOCATION STATION	LOCATION OFFSET	COVER ELEV.	STRUCT.	FRAME & LID	DEPTH	CONNECTION STRUCTURE FROM	CONNECTION STRUCTURE TO	SIZE (IN)	LENGTH (FT)	INVERT ELEV. INLET	INVERT ELEV. OUTLET	Slope	REMARKS
0010	1	5 + 32.1	65.0' RT.	69.73	44A	57	8.26	1	200	12	79	65.45	63	3.10%	Protect & Support Telephone Conduit
0010	2	6 + 26.1	25.8' LT.	73.38	44B	57	4.28	2	206	8	23	70.25	68	9.78%	Build trap, Protect & Support 12" WM, Electric Conduit, TE&ES
0010	3	6 + 78.5	32.0' RT.	74.25	44A	57	8.23	3	206	12	57	70	67.2	4.91%	Protect & Support 8" WM, 16" Gas, Telephone Conduit
0010	4	7 + 53.8	28.9' RT.	76.26	44A	57	8.24	4	207	12	39	72	69.9	5.38%	Protect & Support 8" WM, 16" Gas, Telephone Conduit
0010	5	8 +07.5	25.8' LT.	78.56	44B	57	5.56	5	Use existing drains	12	5	73.00			Build Trap, New CB at this point- Would like to keep if possible
0010	6	8 + 66.0	24.0' RT.	80.62	44B	57	4.27	6	Use existing drains	8	5	77.35			Build Trap, Protect & Support 8" Water Main
0010	7	9 +27.0	24.0' RT.	82.43	44B	57	4.28	7	Use existing drains	8	5	79.15			Build Trap, Protect & Support 8" Water Main
0010	8	11 + 57.0	25.5' LT.	87.87	44B	57	4.27	8	217	8	32	84.3	80.5	11.88%	Build Trap, Protect & Support 12" Water Main, Electrical Conduit
0010	9	11 + 70.0	24.0' RT.	88.35	44B	57	5.35	9	217	8	44	84.7	79.7	11.36%	Build Trap, Protect & Support 8" Gas Main, 8" Water Main
0010	10	12 + 70.0	24.0' RT.	90.86	44B	57	4.86	10	219	8	67	87.3	82.2	7.61%	Build Trap, Protect & Support 8" Gas Main, 8" Water Main
0010	11	13 + 33.0	25.9' LT.	92.29	44B	57	4.29	11	219	8	25	88.8	85.2	14.40%	Build Trap, Protect Combined MH, 12" Water Main, Elecrtic Conduit
0010	12	14 + 29.0	24.0' RT.	94.79	44B	57	4.29	12	Use existing drains	12	5	91.5			Build Trap, Existing Drain Built on Sewer PF 213-88 in 2010
0010	13	15 +60.5	44.0 ' RT.	97.69	44A	57	10.27	13	224	8	25	91.4	90	5.60%	Protect & Support Electric, 20" HP Gas Main
0010	13A	15+79.8	44.5' LT.	98.56	4ft Dia.	58A	11.58	13A				86.98	86.98		New 4'-0" Combined MH
0010	14	16 + 00.2	44.0' RT.	98.07	44A	57	8.25	14	224	8	24	93.8	92	7.50%	Protect & Support 6" WM, Light Pole, 138 KV Electric
0010	15	16 + 00.0	42.0' LT.	98.20	44A	57	8.23	15	13A	8	19	93.95	92.6	7.11%	Protect & Support 6" WM, Light Pole, 138 KV Electric
0010	16	16 +23.0	24.0' RT.	98.88	44B	57	4.88	16	225	8	26	95	91.25	14.44%	Build Trap, Protect & Support 8" Gas Main, 8" Water Main
0010	17	16 + 61.0	25.5' LT.	99.68	44B	57	4.28	17	225	8	37	96.4	92.5	10.54%	With Trap, Protect & Support 12" Water Main, Electric Conduit
0010	18	17 + 70.0	24.0' RT.	103.13	44B	57	4.33	18	227	8	34	99.5	95	13.24%	With Trap, Protect & Support 8" Gas Main, 8" Water Main, Electric Conduit
0010	19	18 + 55.0	25.8' LT.	105.40	44B	57	4.25	19	228	8	26	102.25	100	8.65%	With Trap, Protect & Support 12" Water Main
0010	20	19 + 79.0	54.0' RT.	109.90	44A	57	8.23	20	232	12	14	105.65	105.35	2.14%	Protect 6" Gas, 12" WM
0010	21	20 + 14.0	45.2' RT.	110.90	44A	57	8.23	21	233	12	3	106.65	106.55	3.33%	
0010	22	20 + 55.6	50.5' RT.	110.69	44A	57	8.23	22	233	12	37	106.44	105.60	2.27%	Protect TE&ES, 8" WM, Electric Conduit
0010	23	20 + 81.0	24.9' LT.	109.44	44A	57	8.32	23	234	12	22	105.1	104	5.00%	Protect & Support 12" Water Main, Telephone
0010	24	20 + 82.0	24.8' RT.	110.30	44A	57	8.98	24	234	12	25	105.3	103	9.20%	Protect & Support 8" Water Main, 8" Gas, Electric, TE&ES
0010	25	21 + 70.0	24.9' LT.	109.62	44A	57	8.25	25	235	12	46	105.35	102.7	5.76%	Protect & Support 12" Water Main, Telephone
0010	26	22 + 48.0	24.9' LT.	109.69	44A	57	8.27	26	236	12	52	105.4	104	2.69%	Protect & Support 12" Water Main, Telephone
0010	27	22 + 97.0	24.9' LT.	109.79	44A	57	8.27	27	236	12	22	105.5	104	6.82%	Protect & Support 12" Water Main, Telephone
0010	28	23 + 37.0	24.9' LT.	109.87	44A	57	8.25	28	28A	12	36	105.6	104.75	2.36%	Protect 12" Water Main
0010	28A	23 + 65.0	1.0' LT.	110.52	5ft Dia.	58A	15.83	28A				94.69	94.69		New 5'-0" Combined MH. Invert Estimated From As-Built Sewer Plan File 213-90
0010	29	23 + 90.0	24.9' RT.	110.08	44A	57	8.96	29	28A	12	35	105.1	102.8	6.57%	Protect & Support 8" Water Main, 8" Gas,, Electrical, TE&ES
0010	30	24 + 23.0	24.6' LT.	109.90	44A	57	8.23	30	239	12	34	105.65	104.8	2.50%	Protect 12" Water Main, Telephone
0010	31	24 + 58.0	24.8 ' RT.	109.93	44A	57	9.01	31	239	12	24	104.9	102.9	8.33%	Protect & Support 8" Water Main, 8" Gas, Telephone, TE&ES
0010	32	24 + 76.0	24.5' LT.	109.82	44A	57	8.25	32	239	12	39	105.55	104.5	2.69%	Protect 12" Water Main, Telephone
0010	33	26 + 88.5	24.5 ' LT.	109.53	44A	57	8.26	33	243	12	59	105.25	104	2.12%	Protect & Support 12" Water Main
0010	34	27 + 34.0	24.8' RT.	109.61	44A	57	8.64	34	244	12	57	104.95	101.4	6.23%	Protect & Support 8" Water Main, 8" Gas, Electric, CUC
0010	35	27 + 75.0	24.6' LT.	109.13	44A	57	8.31	35	244	12	28	104.8	104	2.86%	Protect & Support 12" Water Main
0010	36	28 + 08.0	24.8' RT.	109.52	44A	57	8.5	36	244	12	31	105	101.8	10.32%	Protect & Support 8" Water Main, 8" Gas, Electric, CUC
0010	37	28 + 90.0	24.8' RT.	109.17	44A	57	8.65	37	245	12	56	104.5	100.5	7.14%	Protect & Support 8" Water Main, 8" Gas, Electric, CUC
0010	38	31 + 05.2	61.0' RT.	106.97	44A	57	8.3	38	248	8	22	102.65	102.2	2.05%	Protect 6" Water Main
0010	39	32 + 20.0	24.8 ' LT.	106.76	44A	57	8.24	39	250	12	37	102.5	101.8	1.89%	Protect 12" Water Main
0010	40	32 + 93.0	24.8 ' LT.	106.60	44A	57	8.23	40	251	12	26	102.35	101.5	3.27%	Protect & Support 12" Water Main, Telephone Conduit
0010	41	34 + 00.0	24.5 ' LT.	106.27	44A	57	8.25	41	253	12	27	102	101.35	0.024074	Protect & Support 12" Water Main, Telephone Conduit
0010	42	35 + 35.0	24.8' RT.	105.62	44A	57	8.6	42	42A	12	41	101	98.4	0.063415	Protect & Support 12" Water Main
0010	42A	35+ 69.0	1.0' RT.	106.21	5 ft Dia.	58A	13.32	42A				92.89	92.89		New 5'-0" Combined MH
0010	43	35 + 73.0	24.8' LT.	105.76	44A	57	8.24	43	42A	12	25	101.5	100.95	0.022	Protect & Support 12" Water Main
0010	44	36 + 03.0	24.9' RT.	105.48	44A	57	8.61	44	42A	12	41	100.85	98.25	0.063415	Protect 8" WM, Electric, TE&ES Conduit & MH, 3" Gas
0010	45	36 + 50.1	40.2' LT.	105.97	44B	57	4.27	45	257	8	21	102.7	99.8	0.1381	With Trap, Protect 8" Water Main, 8" Gas Main, TE&ES
0010	46	36 + 90.1	46.2 ' LT.	105.98	44B	57	4.28	46	257	8	20	102.7	101.2	0.075	Protect 6" Water Main
0010	47	38 + 17.0	52.8' RT.	104.46	44A	57	8.34	47	260	12	68	100.1	98.9	0.017647	Protect 8" WM, TE&ES Conduit, 3" Gas
0010	48	08W + 75.0	19.9 ' LT.	108.85	44B	57	4.25	48	263	12	22	105.60	104.00	7.27%	

48 Type 57 Covers (SPV.0060.01) (0010 - Participating)
3 Type 58A Covers (SPV.0060.02) (0010 - Participating)
32 Type 44A Catch Basins (SPV.0060.03) (0010 - Participating)
131 LF STORM SEWER PIPE CORRUGATED PVC 8" (SPV.0090.01) (0010 - PARTICIPATING)
1,416 LF STORM SEWER PIPE CORRUGATED PVC 12" (SPV.0090.02) (0010 - PARTICIPATING)
1 Mahole 4-FT Diameter (611.2004) (0010-Participating)
2 Maholes 5-FT Diameter (611.2005) (0010-Participating)
16 Type 44B Inlets (SPV.0060.04) (0010-Participating)

3

TREE PLANTING

CATEGORY		LOCATION	0030						
ITEM NUMBER			632.0101.01	632.0101.02	632.0101.03	632.0101.04	632.0101.05	632.0101.06	632.0101.07
DESCRIPTION			FRONTIER ELM, B&B, 3" CAL	UPRIGHT ENGLISH OAK, B&B, 4" CAL	CALLERY PEAR, B&B, 4" CAL	JAPANESE TREE LILAC, B&B, 4" CAL	BUR OAK, B&B, 4" CAL	AUTUMN BLAZE MAPLE, B&B, 4" CAL	SHADEMASTER HONEYLOCUST, B&B, 4" CAL
UNIT PAY			EACH	EACH	EACH	EACH	EACH	EACH	EACH
STATION TO STATION	STA 4+50 TO 9+00	LT	1	1	1	1	1		
	STA 9+00 TO 15+00	LT				1	1	1	1
	STA 15+00 TO 21+00	LT			1			1	
	STA 21+00 TO 27+00	LT							
	STA 27+00 TO 33+00	LT							
	STA 33+00 TO 38+65	LT							
	STA 4+50 TO 9+00	RT	2						
	STA 9+00 TO 15+00	RT		1			1		3
	STA 15+00 TO 21+00	RT				1	1	1	1
	STA 21+00 TO 27+00	RT							
	STA 27+00 TO 33+00	RT							
	STA 33+00 TO 38+65	RT							
TOTALS			**3**	**2**	**2**	**3**	**4**	**3**	**5**

TYPE II PERMANENT SIGNING -

2265-09-70 STH 57

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.0202 SIGNS REFLC TYPE II [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0816 POSTS TUBULAR STEEL 2"x2"x16' [EA]	REMARKS / NEW SIGN LOCATION
1	J4-1(2S)	--	24 x 36	6.000	1	--	--	--
	M3-3	SOUTH	24 x 12					
	M1-6	57	24 x 24					
2	J33-2(2S)	--	48 x 72	24.000	1	--	--	--
	MB4-5	TO	24 x 12					
	MB3-2	EAST	24 x 15					
	M1-1	94	24 x 24					
	MB6-1	(ARROW)	24 x 21					
	MB4-5	TO	24 x 12					
	MB3-4	WEST	24 x 15					
	M1-1	94	24 x 24					
	MB6-1	(ARROW)	21 x 21					
3	J33-1(2S)	--	24 x 69	11.500	1	--	--	--
	MB4-5	TO	24 x 12					
	MB3-2	EAST	24 x 12					
	M1-1	94	24 x 24					
	MB6-1	(ARROW)	21 x 21					
4	J2-1(2S)	--	24 x 57	9.500	1	--	--	--
	MB3-4	WEST	24 x 12					
	M1-1	94	24 x 24					
	MB5-1L	(ARROW)	21 x 21					
5	J32-2(2S)	--	48 x 69	23.000	1	--	--	--
	MB4-5	TO	24 x 12					
	MB3-2	EAST	24 x 12					
	M1-1	94	24 x 24					
	MB5-1L	(ARROW)	21 x 21					
	MB4-5	TO	24 x 12					
	MB3-4	WEST	24 x 12					
	M1-1	94	24 x 24					
	MB5-1R	(ARROW)	21 x 21					
6	J32-2(2S)	--	48 x 69	23.000	1	--	--	--
	MB4-5	TO	24 x 12					
	MB3-4	WEST	24 x 12					
	M1-1	94	24 x 24					
	MB5-1L	(ARROW)	21 x 21					
	MB4-5	TO	24 x 12					
.	MB3-2	EAST	24 x 12					
	M1-1	94	24 x 24					
	MB5-1R	(ARROW)	21 x 21					
7	J33-2(2S)	--	48 x 69	23.000	1	--	--	--
	MB4-5	TO	24 x 12					
	MB3-4	WEST	24 x 12					
	M1-1	94	24 x 24					
	MB6-1	(ARROW)	21 x 21					
	MB4-5	TO	24 x 12					
	MB3-2	EAST	24 x 12					
	M1-1	94	24 x 24					
	MB6-1	(ARROW)	21 x 21					

TYPE II PERMANENT SIGNING -

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.0202 SIGNS REFLC TYPE II [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0816 POSTS TUBULAR STEEL 2"x2"x16' [EA]	REMARKS / NEW SIGN LOCATION
8	J33-1(2S)	--	24	x	69	11.500	1	--	--	--
	MB4-5	TO	24	x	12					
	MB3-4	WEST	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
9	J4-1(2S)	--	24	x	36	6.000	1	--	--	--
	M3-1	NORTH	24	x	12					
	M1-6	57	24	x	24					
10	J33-1(2S)	--	24	x	69	11.500	1	--	--	--
	MB4-5	TO	24	x	12					
	MB3-2	EAST	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
11	J23-1(2S)	--	24	x	57	9.500	1	--	--	--
	MB4-5	TO	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
12	J23-1(2S)	--	24	x	57	9.500	1	--	--	--
	MB4-5	TO	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
13	J23-1(2S)	--	24	x	57	9.500	1	--	--	--
	MB4-5	TO	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
14	J23-1(2S)	--	24	x	57	9.500	1	--	--	--
	MB4-5	TO	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
15	J4-1(2S)	--	24	x	36	6.000	--	--	--	--
	M3-3	SOUTH	24	x	12					
	M1-6	57	24	x	24					
16	J4-1(2S)	--	24	x	36	6.000	--	--	--	--
	M3-1	NORTH	24	x	12					
	M1-6	57	24	x	24					
17	J4-1(2S)	--	24	x	36	6.000	1	--	--	--
	M3-3	SOUTH	24	x	12					
	M1-6	57	24	x	24					
18	J4-1(2S)	--	24	x	36	6.000	--	--	--	--
	M3-1	NORTH	24	x	12					
	M1-6	57	24	x	24					

TYPE II PERMANENT SIGNING -

2265-09-70 STH 57

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.0202 SIGNS REFLC TYPE II [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0816 POSTS TUBULAR STEEL 2"x2"x16' [EA]	REMARKS / NEW SIGN LOCATION
19	J2-2(2S)	--	48 x 57	19.000	1	--	--	--
	M3-2	EAST	24 x 12					
	M1-4	18	24 x 24					
	M5-2R	(ARROW)	21 x 21					
	M3-1	NORTH	24 x 12					
	M1-6	57	24 x 24					
	M5-2R	(ARROW)	21 x 21					
20	J23-1(2S)	--	24 x 57	9.500	1	--	--	--
	MB4-5	TO	24 x 12					
	M1-1	94	24 x 24					
	MB6-1	(ARROW)	21 x 21					
21	J3-2(2S)	--	48 x 57	19.000	1	--	--	--
	MB4-5	TO	24 x 12					
	M1-1	94	24 x 24					
	MB6-1	(ARROW)	21 x 21					
	M3-3	SOUTH	24 x 12					
	M1-6	57	24 x 24					
	M6-1	(ARROW)	24 x 21					
22	J3-2(2S)	--	48 x 57	19.000	1	2	2	--
	M3-1	NORTH	24 x 12					
	M1-6	57	24 x 24					
	M6-1	(ARROW)	24 x 21					
	M3-3	SOUTH	24 x 12					
	M1-6	57	24 x 24					
	M6-1	(ARROW)	21 x 21					
23	J4-1(2S)	--	24 x 36	6.000	1	--	--	--
	M3-4	WEST	24 x 12					
	M1-4	18	24 x 24					
24	J3-1(2S)	--	24 x 57	9.500	--	--	--	--
	M3-4	WEST	24 x 12					
	M1-4	18	24 x 24					
	M6-1	(ARROW)	21 x 21					
25	JV3-1(2S)	--	24 x 93	15.500	1	--	--	--
	M3-2	EAST	24 x 12					
	M1-4	18	24 x 24					
	M3-1	NORTH	24 x 12					
	M1-6	57	21 x 21					
	M6-2	(ARROW)	24 x 21					

TYPE II PERMANENT SIGNING -

2265-09-70 STH 57

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.0202 SIGNS REFLC TYPE II [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0816 POSTS TUBULAR STEEL 2"x2"x16' [EA]	REMARKS / NEW SIGN LOCATION
26	JV4-1(2S)	--	24 x 72	12.000	1	--	--	--
	M3-2	EAST	24 x 12					
	M1-4	18	24 x 24					
	M3-1	NORTH	24 x 12					
	M1-6	57	24 x 24					
27	J3-1(2S)	--	24 x 57	9.500	1	--	--	--
	M3-1	NORTH	24 x 12					
	M1-6	57	24 x 24					
	M6-1	(ARROW)	21 x 21					
28	J3-1(2S)	--	24 x 57	9.500	1	--	--	--
	M3-3	SOUTH	24 x 12					
	M1-6	57	24 x 24					
	M6-1	(ARROW)	21 x 21					
29	J2-2(2S)	--	48 x 57	19.000	1	--	--	--
	M3-3	SOUTH	24 x 12					
	M1-6	57	24 x 24					
	M5-1L	(ARROW)	21 x 21					
	M3-4	WEST	24 x 12					
	M1-4	18	24 x 24					
	M6-1	(ARROW)	21 x 21					
30	J23-1	--	-- x --	--	1	--	--	
	MB4-5	TO	-- x --					
	M1-1	94	-- x --					
31	J23-1(2S)	--	24 x 57	9.500	--	--	--	--
	MB4-5	TO	24 x 12					
	M1-1	94	24 x 24					
	MB6-1	(ARROW)	21 x 21					
32	J23-1(2S)	--	24 x 57	9.500	1	--	--	--
	MB4-5	TO	24 x 12					
	M1-1	94	24 x 24					
	MB6-1	(ARROW)	21 x 21					
33	J22-1(2S)	--	24 x 57	9.500	1	--	--	--
	MB4-5	TO	24 x 12					
	M1-1	94	24 x 24					
	MB5-1L	(ARROW)	21 x 21					
	TOTALS			387.000	28	2	2	--

NORTH 27TH STREET

B.M. N.W. BOLT HYD. NW CORNER
N. 27TH ST. & W. ST. PAUL AVE.
STA. 06 + 12, 44' LT.
ELEV.= 75.87

N

BEGIN PROJECT
STA. 04 + 07.5 T/L

NO WORK TO BE DONE ON STRUCTURE

STRUCTURE # B-40-513
BRIDGE

W. ST. PAUL AVE.

RAMP (SEE DETAIL SHEET)

SEE LOADING ZONE DETAIL "A" ON PROFILE SHEET

SEE LOADING ZONE DETAIL "B" ON PROFILE SHEET

RAMP (SEE DETAIL SHEET1)

JURISDICTIONAL LIMITS

LANNON STONE WALL

RR TIE WALL

FLAG STONE WALL

CAUTION

#405 #419 #431

#418
BONDED MESSENGER SERVICE

B.M. SW CORNER 1ST
CONC. RISER @ #418
S. 27TH ST. ELEV.= 77.87

#2628 W. ST.PAUL AVE.

#2601 W. CLYBOURN ST.

SEE RAMP DETAILS FOR ADDITIONAL INFORMATION

05 T/L +50 SEC LINE N 00°57'41" W

05+44.6 C/L RAMP

05+43.4 50.0' RT C/L RAMP

05+53.6 42.3' RT C/L RAMP

CTR. 02.0' R= 05+51.5-36.3' RT.

CTR. 03.0' R= 05+17.0-38.1' RT.

CTR. 02.0' R= 05+51.8-50.7' RT.

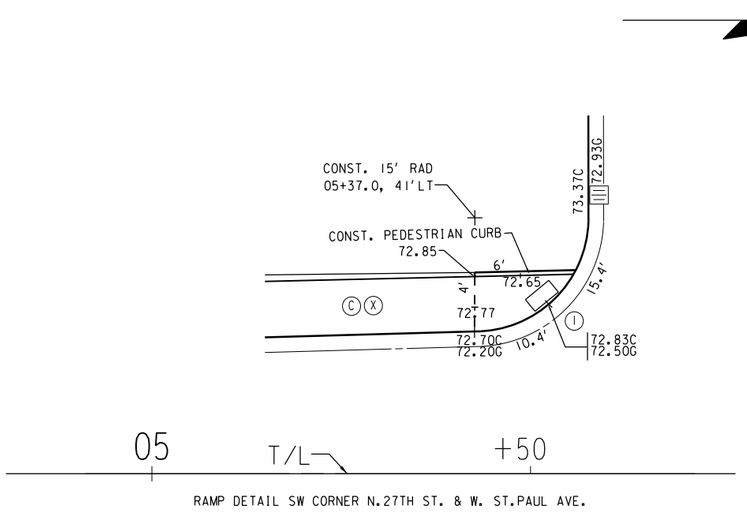
LOADING ZONE DETAIL "A"

(W) CURB FACE VARIES ON THIS ISLAND

(I) CONST. CURB RAMP TYPE 1 WITH DETECTABLE WARNING FIELD
(3) CONST. CURB RAMP TYPE 3 WITH DETECTABLE WARNING FIELD
(6) CONST. CURB RAMP TYPE 6 WITH DETECTABLE WARNING FIELD
(A) CONST. 9-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE
(A1) CONST. 9-INCH H.E.S. CONC. PAVEMENT (9-BAG MIX) ON 6-INCH BASE AGGREGATE DENSE
(B) CONST. CONC. CURB & GUTTER 31-INCH
(B1) CONST. H.E.S. CONC. CURB & GUTTER (9-BAG MIX) 31-INCH
(C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
(D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(E) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
(E2) CONST. H.E.S. CONC. DRIVEWAY (9-BAG MIX) DEPRESSED - MODIFIED (9-INCH)
(F) SAWING ASPHALT
(G) SAWING CONCRETE
(J) REMOVE & CONST. 3-INCH ASPH. ON V.T. CONC. BASE
(N) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
(03) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
(R) REMOVE & CONST. 2-INCH ASPHALT ON V.T. CONC. BASE
(W) CONST. CONC. LOADING ZONE WITH 7-INCH FACE
(X) PLACE ARCHITECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH

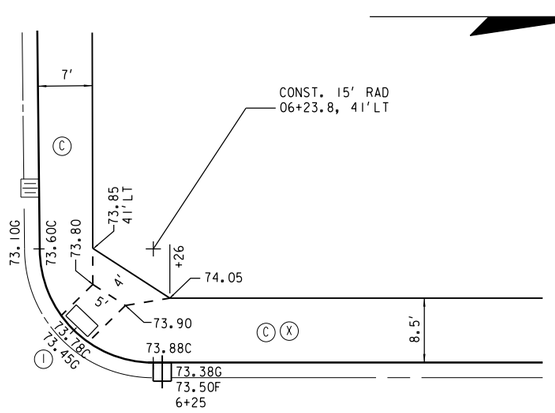
STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 161	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\05-09.DGN



RAMP DETAIL SW CORNER N.27TH ST. & W. ST.PAUL AVE.

1" = 20'



RAMP DETAIL NW CORNER N.27TH ST. & W. ST.PAUL AVE.

1" = 20'

AVENUE

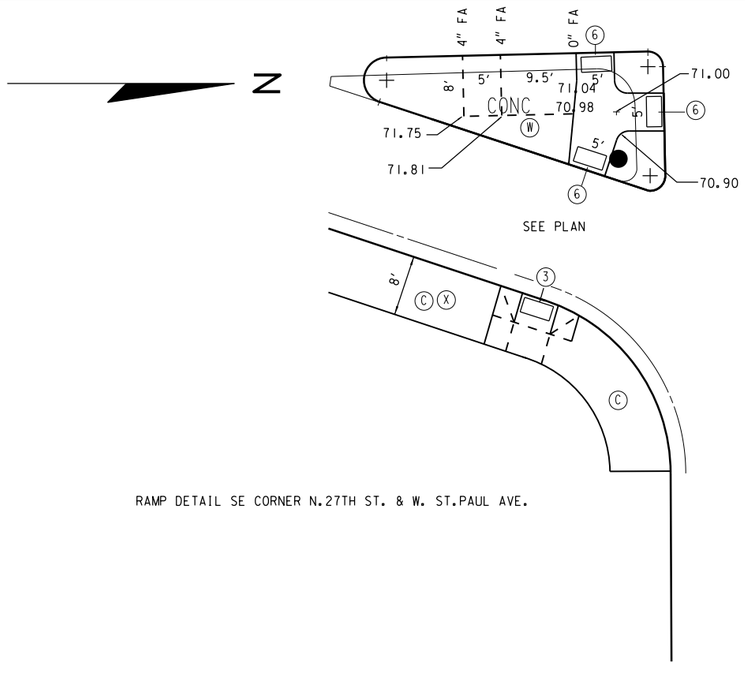
NORTH

27TH

STREET

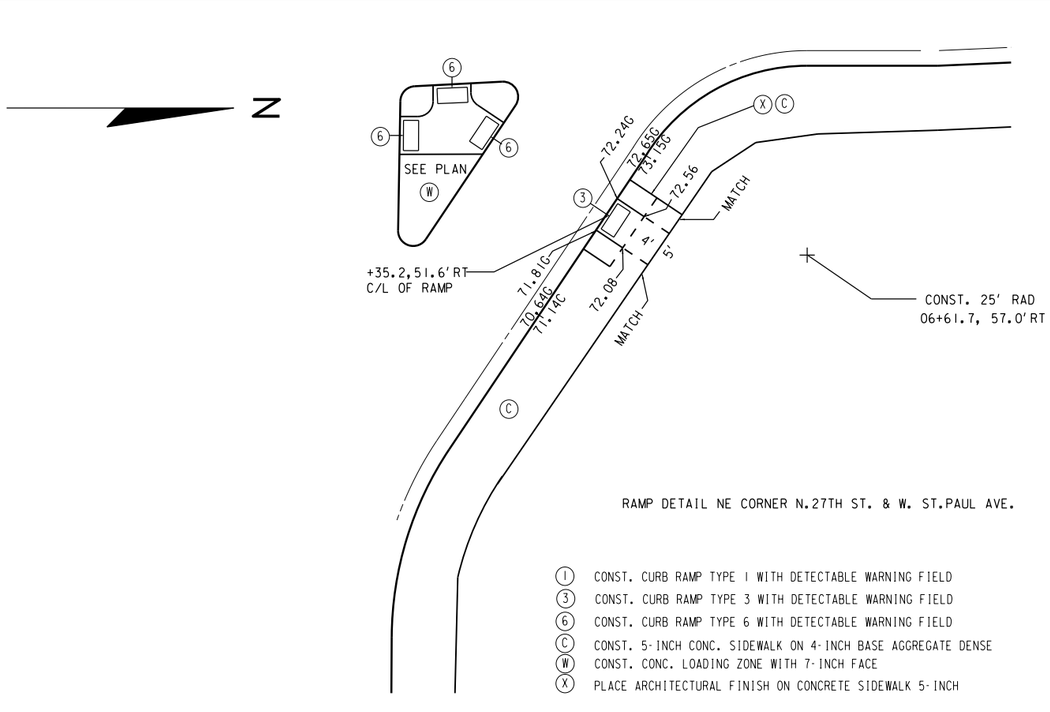
ST. PAUL

WEST



RAMP DETAIL SE CORNER N.27TH ST. & W. ST.PAUL AVE.

1" = 20'



RAMP DETAIL NE CORNER N.27TH ST. & W. ST.PAUL AVE.

(1) CONST. CURB RAMP TYPE 1 WITH DETECTABLE WARNING FIELD
(3) CONST. CURB RAMP TYPE 3 WITH DETECTABLE WARNING FIELD
(6) CONST. CURB RAMP TYPE 6 WITH DETECTABLE WARNING FIELD
(C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
(W) CONST. CONC. LOADING ZONE WITH 7-INCH FACE
(X) PLACE ARCHITECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH

1" = 20'

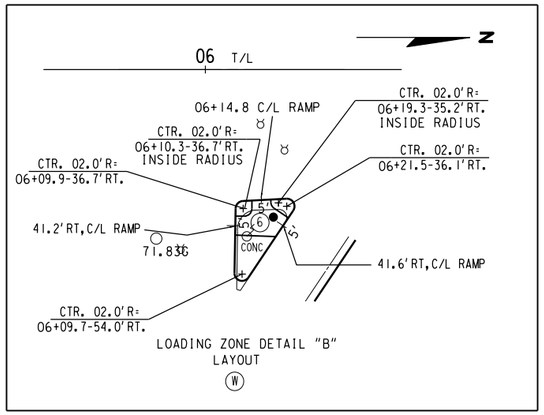
STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET	SHEET NO: 162	E

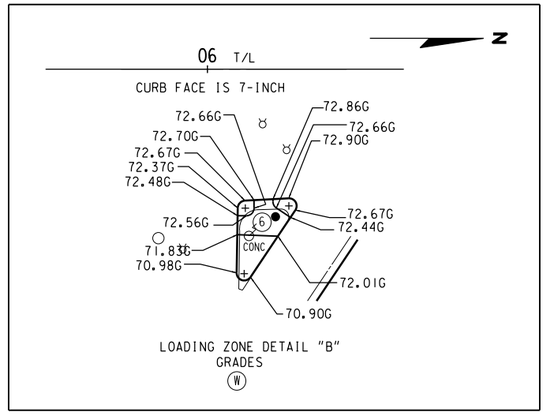
FILE NAME: W:\SPR\27 N STPAUL HIGH 05-09.DGN

NORTH

27TH

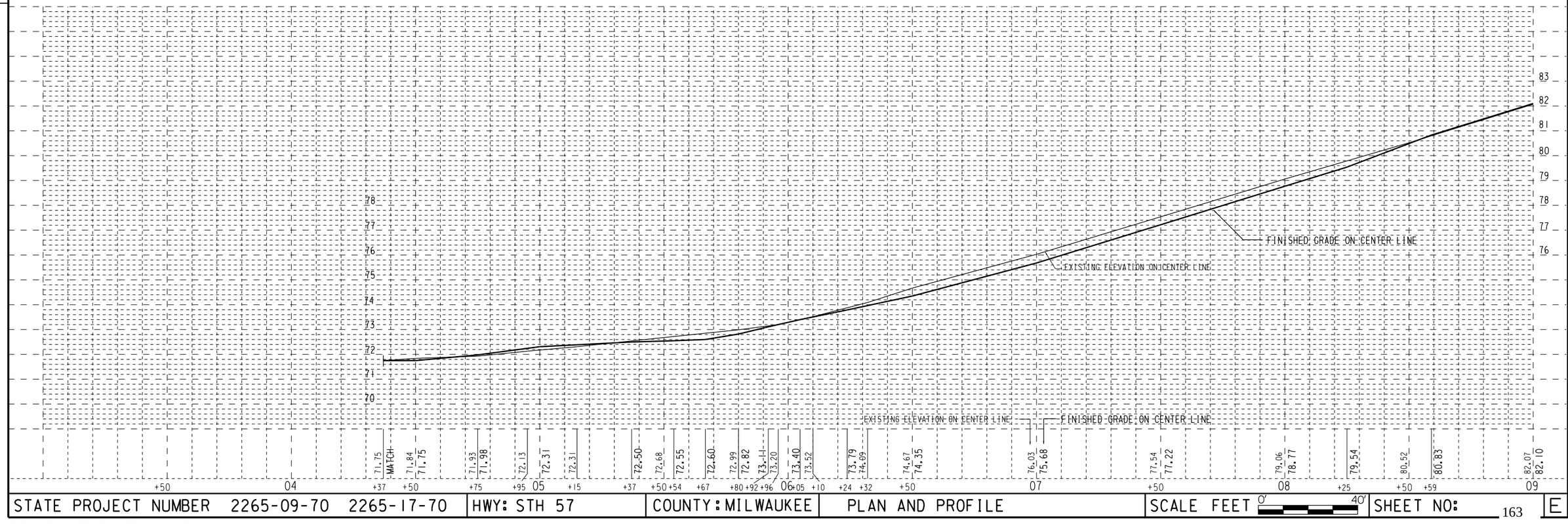
STREET





6 CONST. CURB RAMP TYPE 6 WITH DETECTABLE WARNING FIELD

W CONST. CONC. LOADING ZONE WITH 7-INCH FACE



STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 163 E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\05-09.DGN

5

5

NORTH 27TH STREET

B.M. N. W. BOLT HYD. SW CORNER
N. 27TH ST. & W. CLYBOURN ST.
STA. 10 + 41, 29' LT.
ELEV.= 87.20

N

#431 | #2705 W. CLYBOURN ST. | #505 | #509-11 | #527 | #535 | #547

#440 TO #448 | #2634 W. CLYBOURN ST. | #510 | 20 ALLEY | #528 | #534-36 | 17 ALLEY | #540

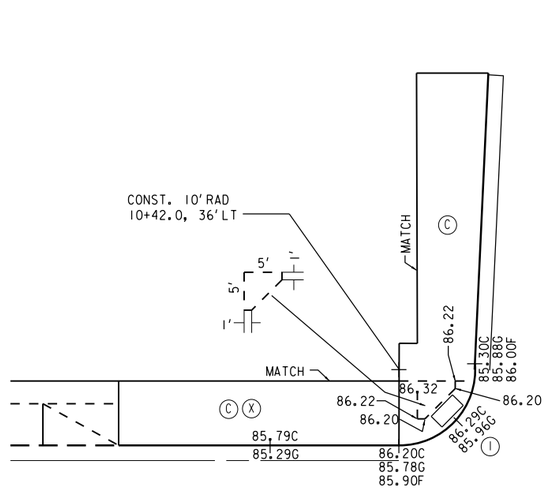
W. CLYBOURN ST.

- (I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
- (A) CONST. 9-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE
- (B) CONST. CONC. CURB & GUTTER 31-INCH
- (C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
- (D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (E) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
- (F) SAWING ASPHALT
- (G) SAWING CONCRETE
- (J) REMOVE & CONST. 3-INCH ASPH. ON V.T. CONC. BASE
- (03) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
- (R) REMOVE & CONST. 2-INCH ASPHALT ON V.T. CONC. BASE
- (X) PLACE ARCHITECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH
- (EE) CONST. 7-INCH CONC. ALLEY PAVEMENT

B.M. N. W. BOLT HYD. EAST SIDE
N. 27TH ST. @ #536
STA. 13 + 72, 27' RT.
ELEV.= 95.98

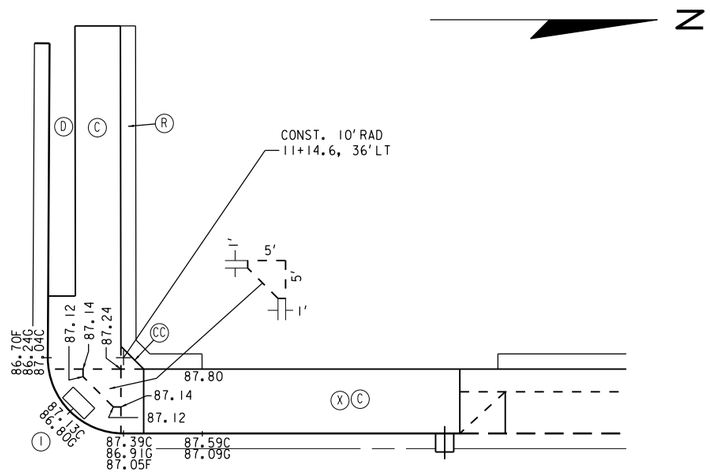
STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 164 E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\09-15.DGN



RAMP DETAIL SW CORNER N.27TH ST. & W. CLYBOURN ST.

1" = 20'



RAMP DETAIL NW CORNER N.27TH ST. & W. CLYBOURN ST.

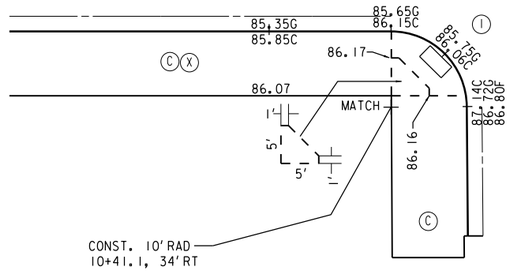
1" = 20'

NORTH

27TH STREET

CLYBOURN

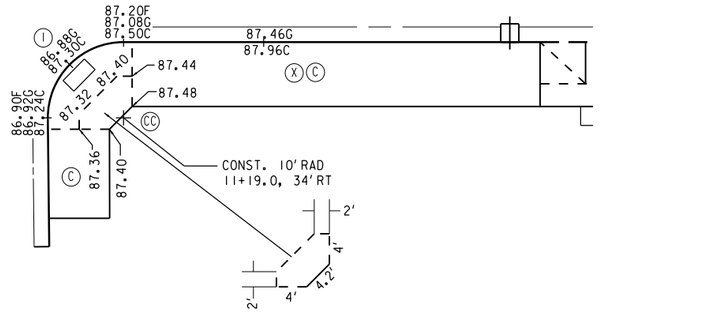
WEST



RAMP DETAIL SE CORNER N.27TH ST. & W. CLYBOURN ST.

1" = 20'

(I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
(C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
(D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(CC) CONST. 3' X 3' 5-INCH CONC. SIDEWALK CUTOFF
(R) REMOVE & CONST. 2-INCH ASPHALT ON V.T. CONC. BASE
(X) PLACE ARCHITECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH



RAMP DETAIL NE CORNER N.27TH ST. & W. CLYBOURN ST.

1" = 20'

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET	SHEET NO: 165 E

FILE NAME: W:\SPR\27 N STPAUL HIGH 09-15.DGN

NORTH 27TH STREET

5 5

98 97 96 95 94 93 92 89 88 87 86 85 84 83 82

FINISHED GRADE ON CENTER LINE

EXISTING ELEVATION ON CENTER LINE

EXISTING ELEVATION ON CENTER LINE — FINISHED GRADE ON CENTER LINE

09	+25	+50	+75	10	+42	+50	+54	+66	+80	+92	11	+05	+17	+50	12	+50	13	+50	14	+50	15
82.07 / 82.10	82.88	83.61 / 83.71	84.42	84.99 / 85.28	86.32 / 86.36	86.55		86.75	86.94 / 86.95		87.15	87.39 / 87.35	87.60	88.31 / 88.46	89.53 / 89.81	90.88 / 91.09	92.14 / 92.29	93.43 / 93.52	94.71 / 94.88	96.01 / 96.01	97.31 / 97.33

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 166	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\09-15.DGN

NORTH 27TH STREET

N

REPLACE LANDMARK REFERENCE MONUMENT
STA. 20+00.00 N.27TH ST.
STA. 10W+00.00 W.WISCONSIN AVE.

W. MICHIGAN ST.

W. WISCONSIN AVE.

SEE W. WISCONSIN AVE. PLAN

MATCH LINE

- (I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
- (A) CONST. 9-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE
- (B) CONST. CONC. CURB & GUTTER 31-INCH
- (C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
- (D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (E) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
- (F) SAWING ASPHALT
- (G) SAWING CONCRETE
- (J) REMOVE & CONST. 3-INCH ASPH. ON V.T. CONC. BASE

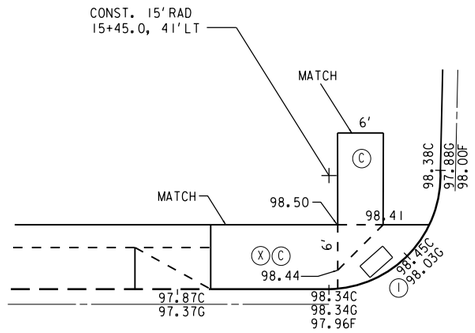
B.M. N. W. BOLT HYD. NE CORNER
N. 27TH ST. & W. MICHIGAN ST.
STA. 16 + 02, 39.5' RT.
ELEV.= 100.79

- (N) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
- (R) REMOVE & CONST. 2-INCH ASPHALT ON V.T. CONC. BASE
- (V) CONST. V.T. CONC. SIDEWALK
- (X) PLACE ARCHITECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH
- (CC) CONST. 3' X 3' 5-INCH CONC. SIDEWALK CUTOFF
- (HH) CONST. COLORED CONCRETE PAVEMENT, 9-INCH (SEE DETAIL)
- (JJ) CONST. 5-INCH COLORED CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE

B.M. N. W. BOLT HYD. EAST SIDE
N. 27TH ST. MID-BLOCK
STA. 16 + 02, 27' RT.
ELEV.= 107.36

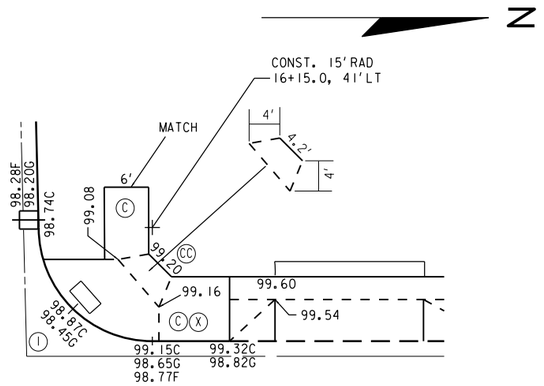
STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 167 E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\15-21.DGN



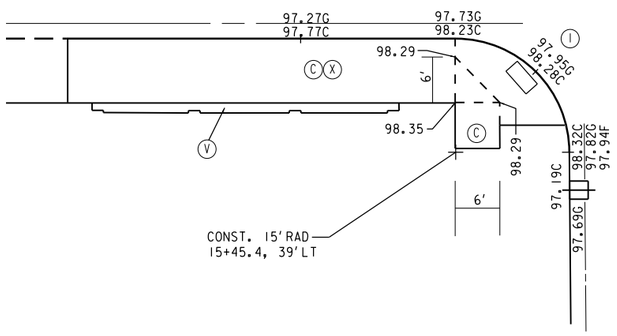
RAMP DETAIL SW CORNER N.27TH ST. & W. MICHIGAN ST.

1" = 20'



RAMP DETAIL NW CORNER N.27TH ST. & W. MICHIGAN ST.

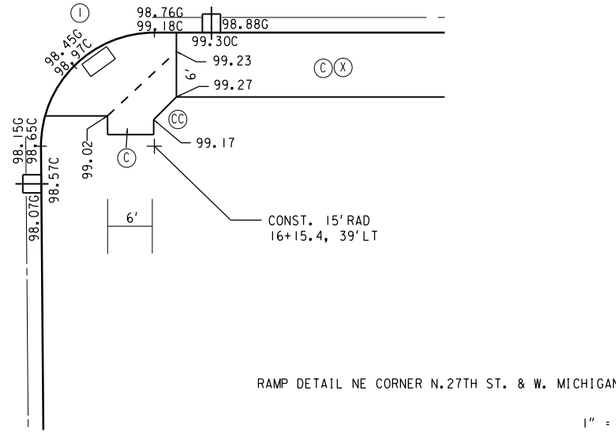
1" = 20'



RAMP DETAIL SE CORNER N.27TH ST. & W. MICHIGAN ST.

1" = 20'

Ⓘ CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
Ⓒ CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
Ⓥ CONST. V.T. CONC. SIDEWALK
Ⓧ PLACE ARCHITECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH
ⓒⓒ CONST. 3' X 3' 5-INCH CONC. SIDEWALK CUTOFF

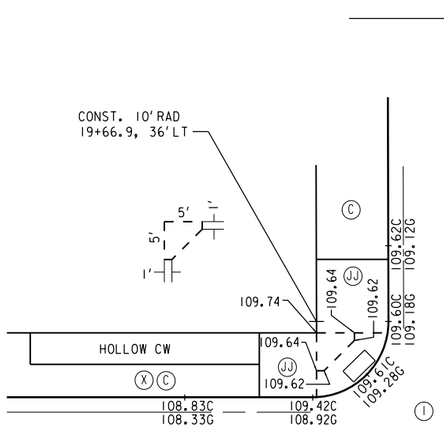


RAMP DETAIL NE CORNER N.27TH ST. & W. MICHIGAN ST.

1" = 20'

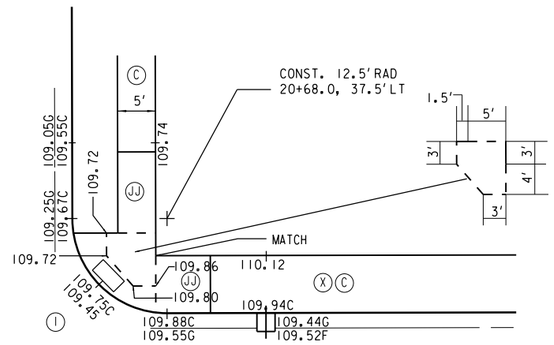
STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET	SHEET NO: 168	E

FILE NAME: W:\SPR\27 N STPAUL HIGH 15-21.DGN



RAMP DETAIL SW CORNER N.27TH ST. & W. WISCONSIN AVE.

1" = 20'



RAMP DETAIL NW CORNER N.27TH ST. & W. WISCONSIN AVE.

1" = 20'

AVENUE

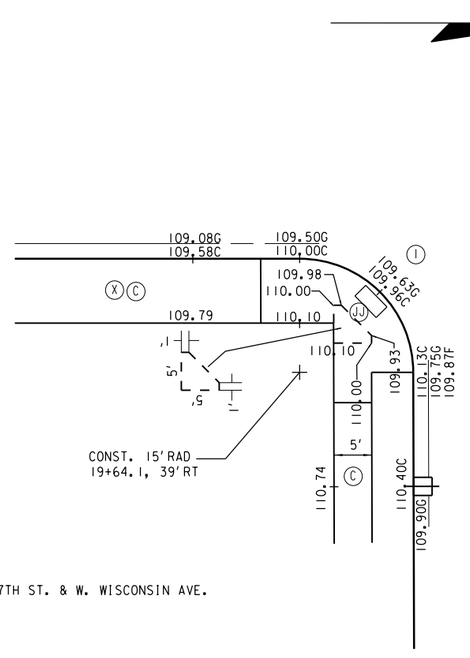
NORTH

27TH

STREET

WISCONSIN

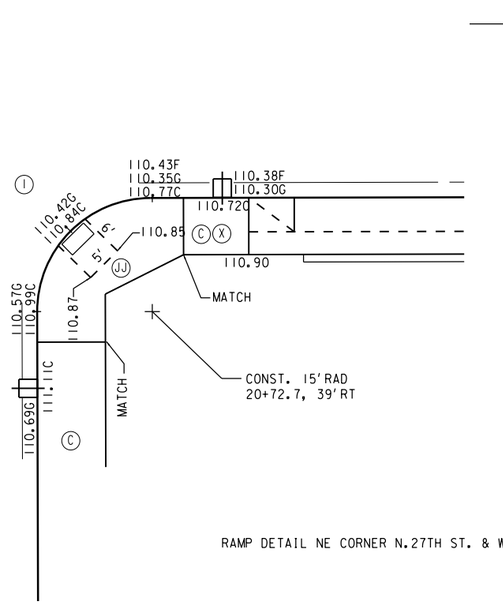
WEST



RAMP DETAIL SE CORNER N.27TH ST. & W. WISCONSIN AVE.

1" = 20'

(I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
(C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
(X) PLACE ARCHITECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH
(JJ) CONST. 5-INCH COLORED CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE



RAMP DETAIL NE CORNER N.27TH ST. & W. WISCONSIN AVE.

1" = 20'

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET	SHEET NO: 169	E

FILE NAME: W:\SPR\27 N STPAUL HIGH 15-21.DGN

NORTH 27TH STREET

5 5

EXISTING ELEVATION ON CENTER LINE

FINISHED GRADE ON CENTER LINE

EXISTING ELEVATION ON CENTER LINE

FINISHED GRADE ON CENTER LINE

15	+25	+45	+50	+60	+80	+98	16	+15	+25	+50	17	+40	+50	18	+50	+60	19	+50	+67	+80	+88	+90	20	+11	+25	+36	+50	+54	+75	21
97.31	97.98	98.46	98.30	98.39	98.72	98.83	98.90	99.14	99.16	99.36	99.57	100.46	100.16	101.91	101.61	102.91	103.42	104.94	104.68	106.28	106.46	107.65	107.75	109.22	109.19	109.55	109.71	109.91	109.83	110.17	109.91	109.99	110.30	110.21	110.43	110.42	110.26	110.34	110.36	110.39	110.32
97.33	97.99	98.46	98.30	98.39	98.72	98.83	98.90	99.14	99.16	99.36	99.57	100.46	100.16	101.91	101.61	102.91	103.42	104.94	104.68	106.28	106.46	107.65	107.75	109.22	109.19	109.55	109.71	109.91	109.83	110.17	109.91	109.99	110.30	110.21	110.43	110.42	110.26	110.34	110.36	110.39	110.32

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 170 E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\15-21.DGN

NORTH 27TH STREET

BM: STD #150 NW CORNER
N. 27TH ST. & W. WISCONSIN AVE.
7' W. & 21' N. OF CURBS
IN WATER VALVE BOX. STA. 20+76, 32' LT.
ELEV = 109.836

#2708 W. WISCONSIN AVE.
WISCONSIN AVENUE SCHOOL

#743-53

#801 #809 #8

N

W. HAZELTON CT.

W. WELLS ST.

B.M. N.W. BOLT HYD. NE CORNER
N.27TH ST. & W.WELLS ST.
STA. 26+26, 26.5' RT.
ELEV.= 112.92

#2630 W. WISCONSIN AVE. #748 #2639 W. WELLS ST.

#800 #802 #804-06 #808

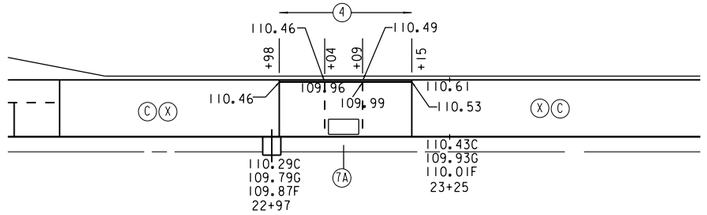
(I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
(4) CONST. PEDESTRIAN CURB
(7A) CONST. CURB RAMP TYPE 7A WITH DETECTABLE WARNING FIELD
(A) CONST. 9-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE
(B) CONST. CONC. CURB & GUTTER 31-INCH

(C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
(E) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
(F) SAWING ASPHALT
(G) SAWING CONCRETE
(J) REMOVE & CONST. 3-INCH ASPH. ON V.T. CONC. BASE

(L) CONST. CONC. CURB & GUTTER 22-INCH
(03) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
(R) REMOVE & CONST. 2-INCH ASPHALT ON V.T. CONC. BASE
(X) PLACE ARCHITECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH
(AA) CONST. 8-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE WITH INTEGRAL CURB

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 171	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\21-27.DGN

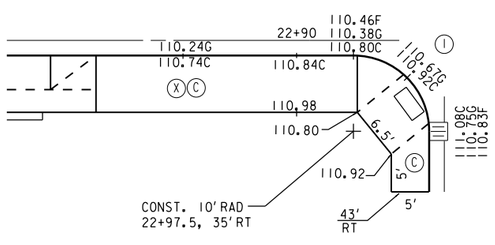


RAMP DETAIL WEST SIDE N.27TH ST. AT W. HAZELTON CT. EXTENDED

1 CONST. CURB RAMP TYPE 1 WITH DETECTABLE WARNING FIELD
4 CONST. PEDESTRIAN CURB
7A CONST. CURB RAMP TYPE 7A WITH DETECTABLE WARNING FIELD
C CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
X PLACE ARCHITECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH

1" = 20'

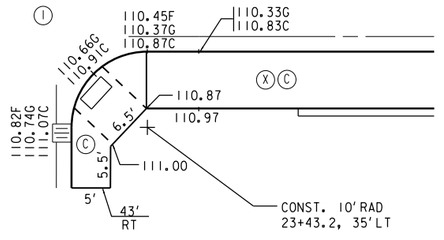
NORTH 27TH STREET



RAMP DETAIL SE CORNER N.27TH ST. & W. HAZELTON CT.

1" = 20'

COURT HAZELTON WEST

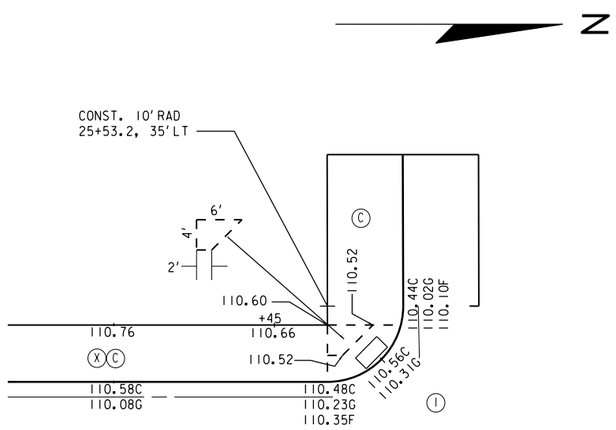


RAMP DETAIL NE CORNER N.27TH ST. & W. HAZELTON CT.

1" = 20'

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET	SHEET NO: 172	E

FILE NAME: W:\SPR\27 N STPAUL HIGH 21-27.DGN

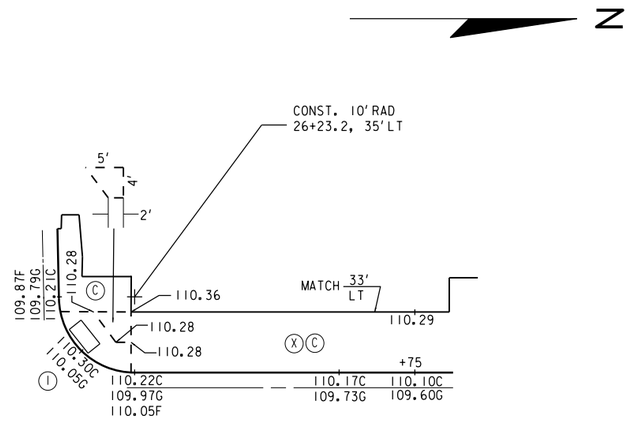


RAMP DETAIL SW CORNER N.27TH ST. & W. WELLS ST.

1" = 20'

NORTH

STREET



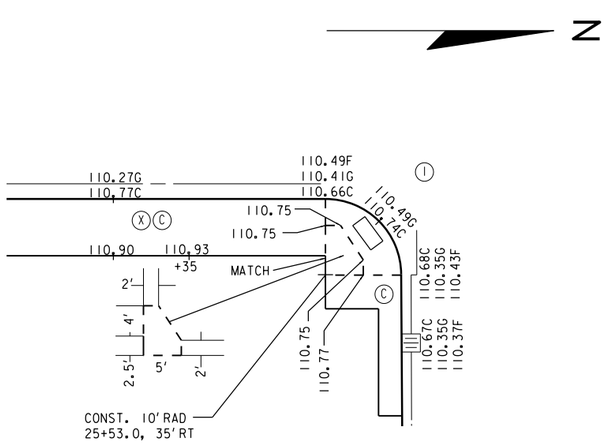
RAMP DETAIL NW CORNER N.27TH ST. & W. WELLS ST.

1" = 20'

27TH

STREET

(I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
(C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
(X) PLACE ARCHITECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH

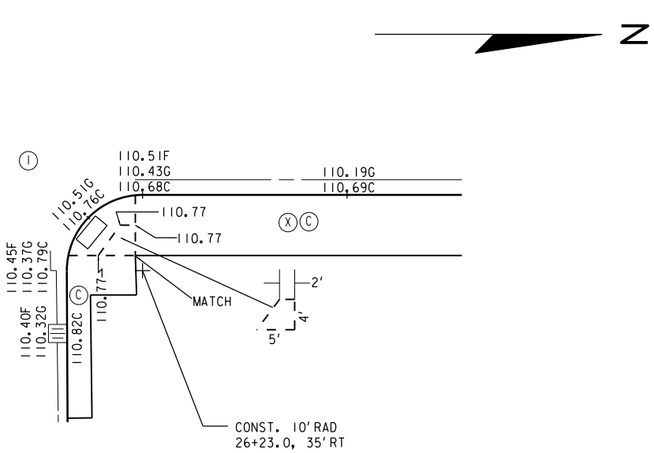


RAMP DETAIL SE CORNER N.27TH ST. & W. WELLS ST.

1" = 20'

WELLS

WEST



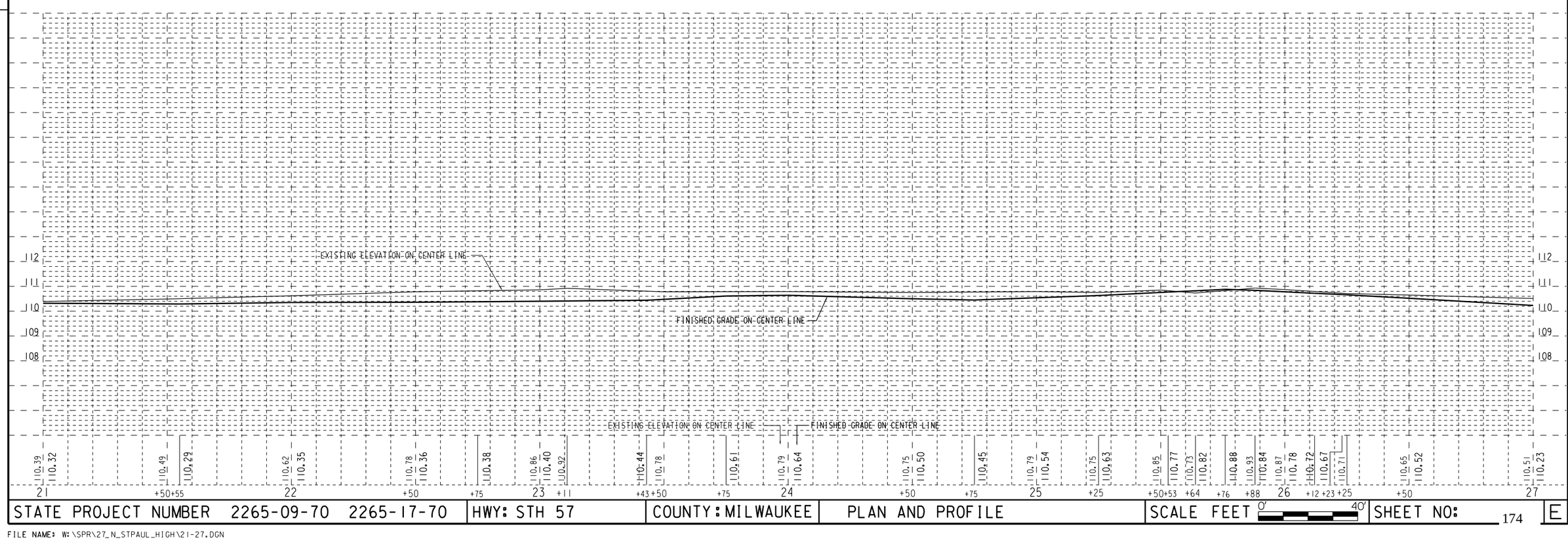
RAMP DETAIL NE CORNER N.27TH ST. & W. WELLS ST.

1" = 20'

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET	SHEET NO: 173 E

FILE NAME: W:\SPR\27 N STPAUL HIGH 21-27.DGN

NORTH 27TH STREET



STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 174 E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\21-27.DGN

NORTH 27TH STREET

B.M. NE CORNER 1ST CONC. STEP #839 N. 27TH ST. ELEV.= 110.02

N

W. KILBOURN AVE.

B.M. N.W. BOLT HYD. NE CORNER N.27TH ST. & W. KILBOURN AVE. STA. 31+23, 27'RT. ELEV.= 109.82

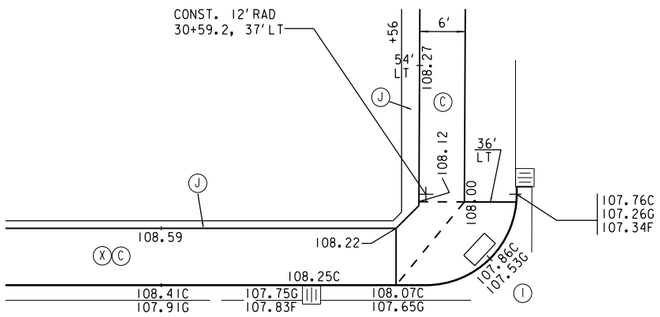
15 ALLEY

DRIVEWAY DETAILS

(I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
(A) CONST. 9-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE
(A1) CONST. 9-INCH H.E.S. CONC. PAVEMENT (9-BAG MIX) ON 6-INCH BASE AGGREGATE DENSE
(B) CONST. CONC. CURB & GUTTER 31-INCH
(B1) CONST. H.E.S. CONC. CURB & GUTTER (9-BAG MIX) 31-INCH
(C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
(D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(E) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
(E2) CONST. H.E.S. CONC. DRIVEWAY (9-BAG MIX) DEPRESSED - MODIFIED (9-INCH)
(F) SAWING ASPHALT
(G) SAWING CONCRETE
(J) REMOVE & CONST. 3-INCH ASPH. ON V.T. CONC. BASE
(D3) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
(X) PLACE ARCHITECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH
(CC) CONST. 3' X 3' 5-INCH CONC. SIDEWALK CUTOFF
(EE) CONST. 7-INCH CONC. ALLEY PAVEMENT

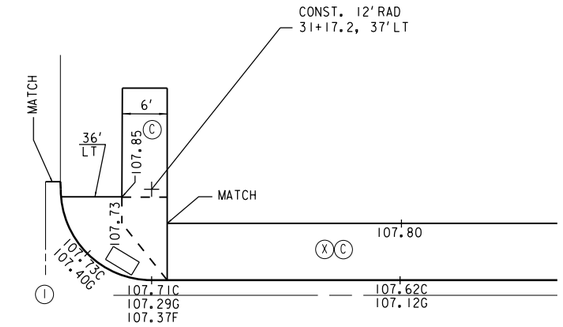
STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 175	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\27-33.DGN



RAMP DETAIL SW CORNER N.27TH ST. & W. KILBOURN AVE.

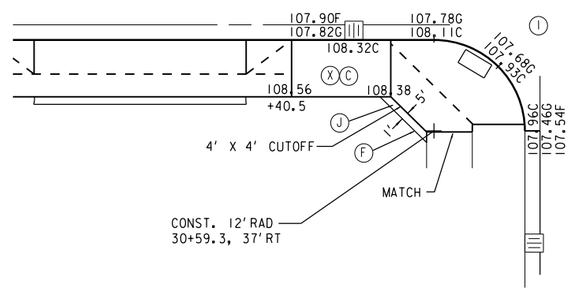
1" = 20'



RAMP DETAIL NW CORNER N.27TH ST. & W. KILBOURN AVE.

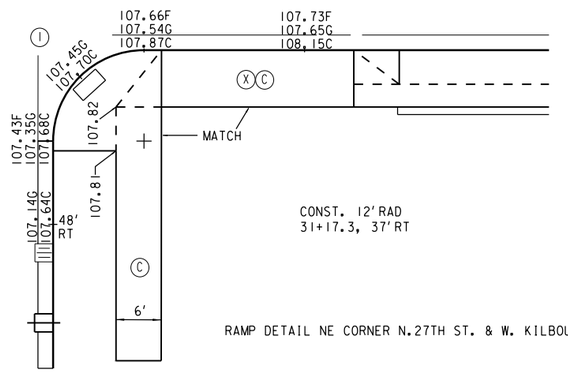
1" = 20'

(I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
(C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
(F) SAWING ASPHALT
(J) REMOVE & CONST. 3-INCH ASPH. ON V.T. CONC. BASE
(X) PLACE ARCHITECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH



RAMP DETAIL SE CORNER N.27TH ST. & W. KILBOURN AVE.

1" = 20'



RAMP DETAIL NE CORNER N.27TH ST. & W. KILBOURN AVE.

1" = 20'

NORTH AVENUE

27TH STREET

KILBOURN

WEST

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET	SHEET NO: 176 E

FILE NAME: W:\SPR\27 N STPAUL HIGH 27-33.DGN

NORTH 27TH STREET

5 5

112
111
110
109
108

EXISTING ELEVATION ON CENTER LINE

FINISHED GRADE ON CENTER LINE

108
107
106
105
104

EXISTING ELEVATION ON CENTER LINE — FINISHED GRADE ON CENTER LINE

27	+25	+34	+50	+75	28	+25	+50	+90	29	+10	+25	+40	+50	30	+25	+50	+59	+73	+82	+88	31	+03	+17	+25	+50	32	+25	+50	+75	33
110.51		110.47		110.39	110.37		110.22		109.88		110.01		109.58	109.68	109.56	109.54		109.46	109.36	109.37	109.26	109.04	108.77	108.53		108.72	108.30	108.22		108.09	108.59	108.50	108.07	108.41	107.94		107.88	108.24	108.15	107.75		107.90	107.55		107.41		107.74	107.31		107.64	107.11
	110.23		110.03	110.02	110.00		109.94		109.79																																							

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 177 E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\27-33.DGN

NORTH 27TH STREET

N

W. RICHARDSON PL.

W. STATE ST.

#2713 W. RICHARDSON PL.

#949 TO #967

#2706-08 W. STATE ST.

#2700-02 W. STATE ST.

#930

#942 TO #952

#954-56

#958-60

#962-64-66

#2622 TO #2630 W. STATE ST.

MATCH LINE 38+00

B.M. N.W. BOLT HYD. E/S N.27TH ST. STA. 34+08, 27'RT. ELEV.= 108.23

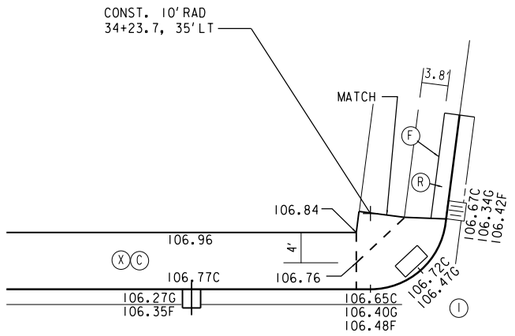
B.W. N.W. BOLT HYD. NE CORNER N.27TH ST. & W. STATE ST. STA. 37+09, 46'RT. ELEV.= 108.23

B.W. NW CORNER CONC. WALL E/S N.27TH ST. STA. 38+87, 84'RT. ELEV.= 108.92

(1) CONST. CURB RAMP TYPE 1 WITH DETECTABLE WARNING FIELD
(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(4) CONST. PEDESTRIAN CURB
(7A) CONST. CURB RAMP TYPE 7A WITH DETECTABLE WARNING FIELD
(9) CONST. CURB RAMP TYPE 9 WITH DETECTABLE WARNING FIELD
(A) CONST. 9-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE
(B) CONST. CONC. CURB & GUTTER 31-INCH
(C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
(D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(E) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
(F) SAWING ASPHALT
(G) SAWING CONCRETE
(H) REMOVE & CONST. 3-INCH ASPH. ON V.T. BASE AGGREGATE DENSE
(J) REMOVE & CONST. 3-INCH ASPH. ON V.T. CONC. BASE
(R) REMOVE & CONST. 2-INCH ASPHALT ON V.T. CONC. BASE
(X) PLACE ARCHITECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH
(Z) GRADE & CONST. 8-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE

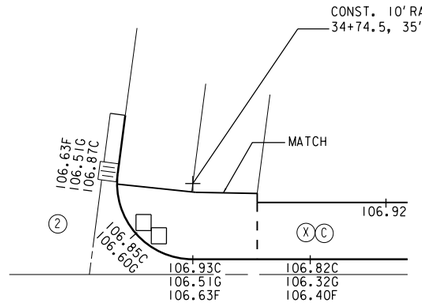
STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 178	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\33-39.DGN



RAMP DETAIL SW CORNER N.27TH ST. & W. RICHARDSON PL.

1" = 20'



RAMP DETAIL NW CORNER N.27TH ST. & W. RICHARDSON PL.

1" = 20'

PLACE

RICHARDSON

WEST

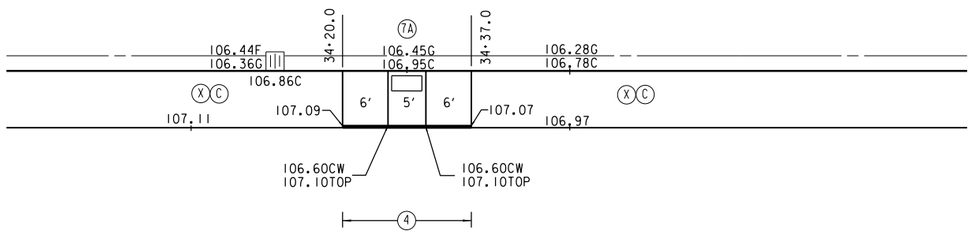
NORTH

27TH

STREET

5

5



RAMP DETAIL AT SOUTH LINE W. RICHARDSON PL. EXTENDED & EAST SIDE OF N.27TH ST.

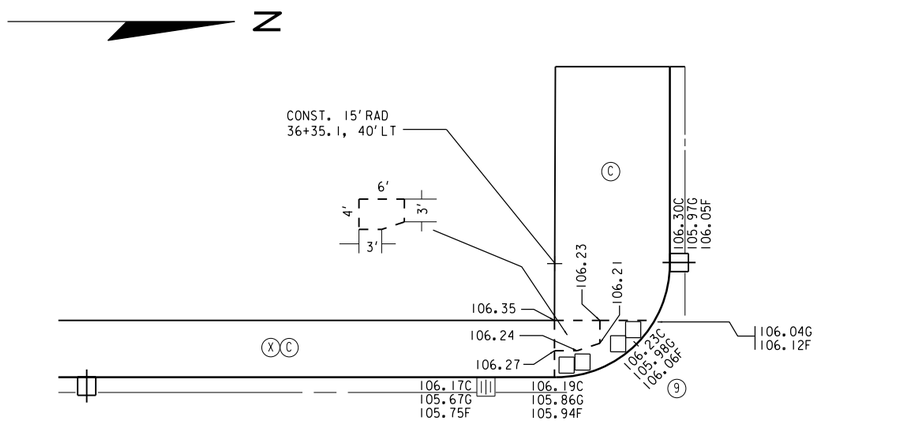
1" = 20'

N

(1) CONST. CURB RAMP TYPE 1 WITH DETECTABLE WARNING FIELD
(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(4) CONST. PEDESTRIAN CURB
(7A) CONST. CURB RAMP TYPE 7A WITH DETECTABLE WARNING FIELD
(C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
(D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(R) REMOVE & CONST. 2-INCH ASPHALT ON V.T. CONC. BASE
(X) PLACE ARCHITECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET	SHEET NO: 179	E

FILE NAME: W:\SPR\27 N STPAUL HIGH 33-39.DGN



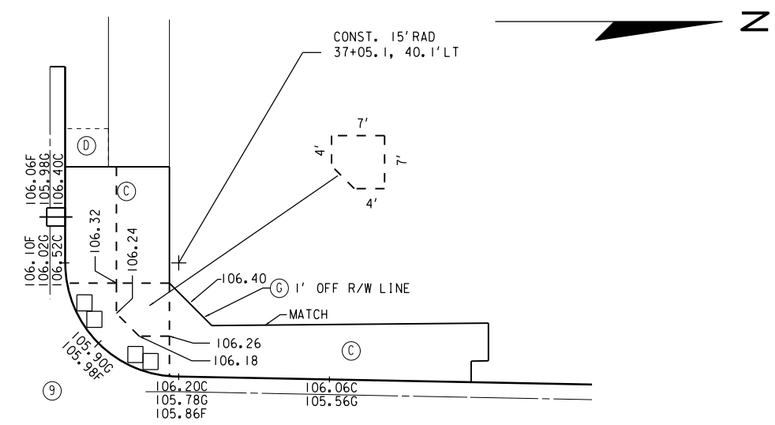
RAMP DETAIL SW CORNER N.27TH ST. & W. STATE ST.

1" = 20'

NORTH

STREET

STATE

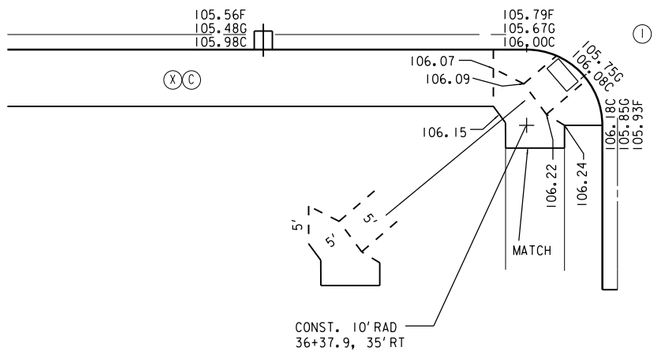


RAMP DETAIL NW CORNER N.27TH ST. & W. STATE ST.

1" = 20'

27TH

STREET

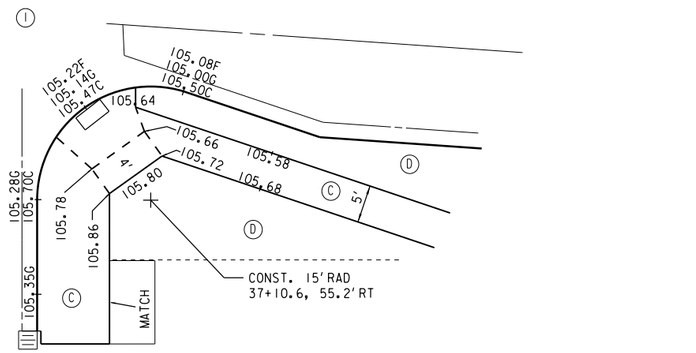


RAMP DETAIL SE CORNER N.27TH ST. & W. STATE ST.

1" = 20'

WEST

(I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
(9) CONST. CURB RAMP TYPE 9 WITH DETECTABLE WARNING FIELD
(C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
(D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(G) SAWING CONCRETE
(X) PLACE ARCHITECTURAL FINISH ON CONCRETE SIDEWALK 5-INCH



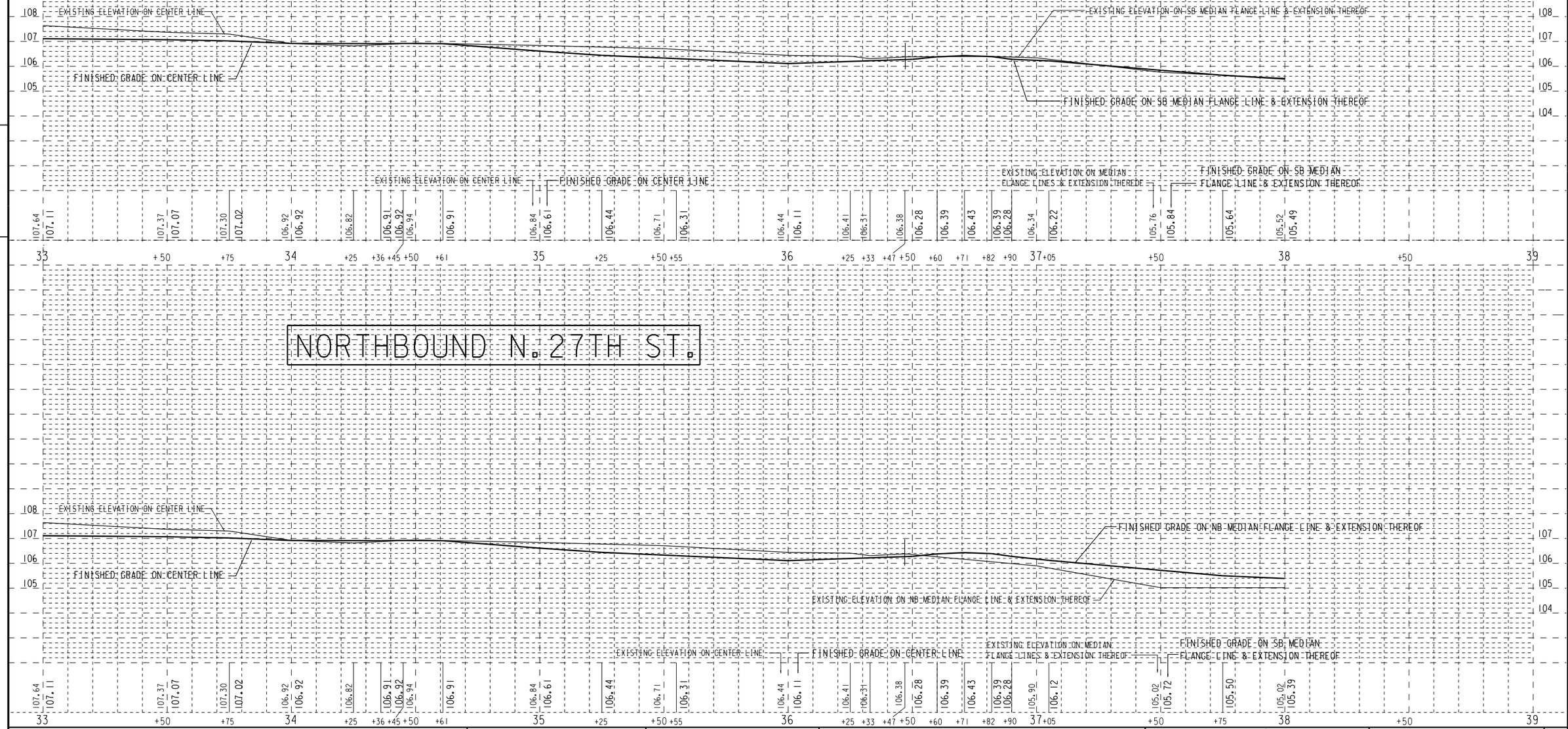
RAMP DETAIL NE CORNER N.27TH ST. & W. STATE ST.

1" = 20'

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET	SHEET NO: 180	E

FILE NAME: W:\SPR\27 N STPAUL HIGH 33-39.DGN

SOUTHBOUND N. 27TH ST.



NORTHBOUND N. 27TH ST.

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 181	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\33-39.DGN

NORTH

W. HIGHLAND BLVD.

27TH STREET

BM: STD #151 IN MEDIAN
87' W. OF C/L OF N. 27TH ST. ON
C/L OF W. HIGHLAND BLVD.
IN CONC. BOX STA. 41+37, 87' LT.
ELEV = 105.735

#2710 W. HIGHLAND BLVD.

#2707-09 W. HIGHLAND BLVD.

#2701-03 W. HIGHLAND BLVD.

W. STATE ST.

38+00 MATCH LINE

105.44C
104.94G
PT +06.1,
23.6'LT
R=188.0'

SB LINE REFERRED TO ON PROFILE

R=989.0' PT +72,9,25.1'LT

R=1000.0' PT +74,3,14.2'LT

R=1012.0'+50 PT +75,8,02,3'LT

+62,25.1LT

+62,14.7'RT

+73' MATCH

+07.8

SEC LINE N 01°05'39" W

NO CURB WORK

SEE LOADING ZONE DETAIL

END PROJECT
STA. 39+29.0 T/L

NB LINE REFERRED TO ON PROFILE

MATCH

46.8' RT

22.8' RT

104.58F
104.46G
104.96C
+17
52.9'RT

TO #2630 W. STATE ST.

#1032

#2600 W. HIGHLAND BLVD.

15' ALLEY

B.W. NW CORNER CONC. WALL E/S N.27TH ST. STA. 38+87, 84'RT. ELEV.= 108.92

B.W. NW CORNER CONC. WALL E/S N.27TH ST. STA. 38+87, 84'RT. ELEV.= 108.92

(A) CONST. 9-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE
(B) CONST. CONC. CURB & GUTTER 31-INCH
(D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(G) SAWING CONCRETE
(J) REMOVE & CONST. 3-INCH ASPH. ON V.T. CONC. BASE
(N) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
(03) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
(W) CONST. CONC. LOADING ZONE WITH 7-INCH FACE

GAS MAIN IS 52' SOUTH OF NORTH R.O.W. LINE OF W. HIGHLAND BLVD. EAST OF N.26TH ST.

CTR. 02.0'R= 38+25.0-14.4'RT.
+25 SEC LINE 38+50 +62
105.49 105.46 105.42
105.52G
105.30 +19.6
105.37 +39.6
105.49 +61.1
CTR. 05.0'R= 38+55.1-13.4'RT.

LOADING ZONE DETAIL

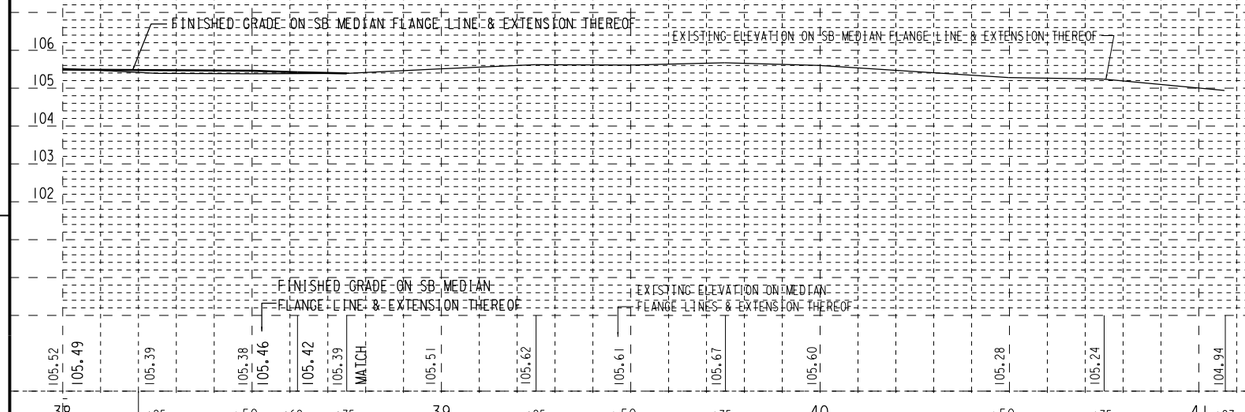
STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40	SHEET NO: 182	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\39-43.DGN

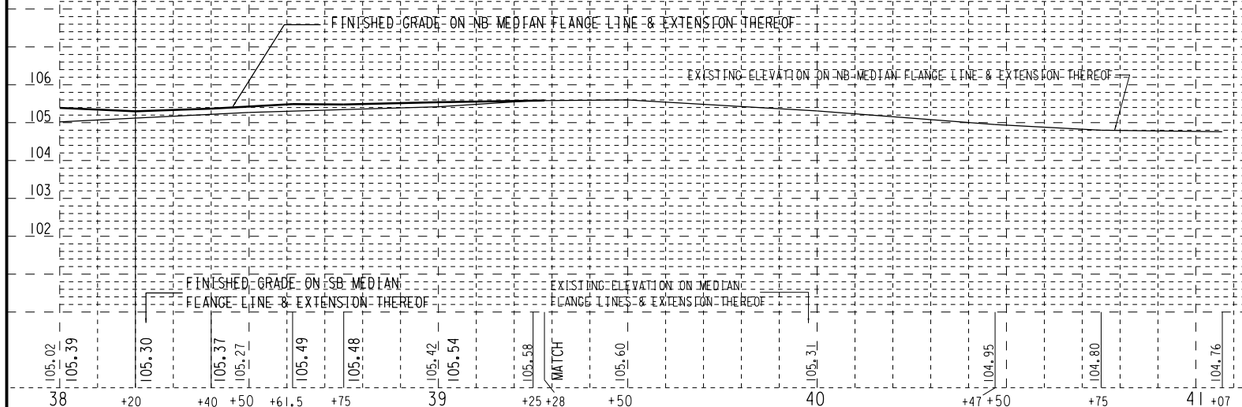
NORTH

SOUTHBOUND N. 27TH ST.

27TH STREET

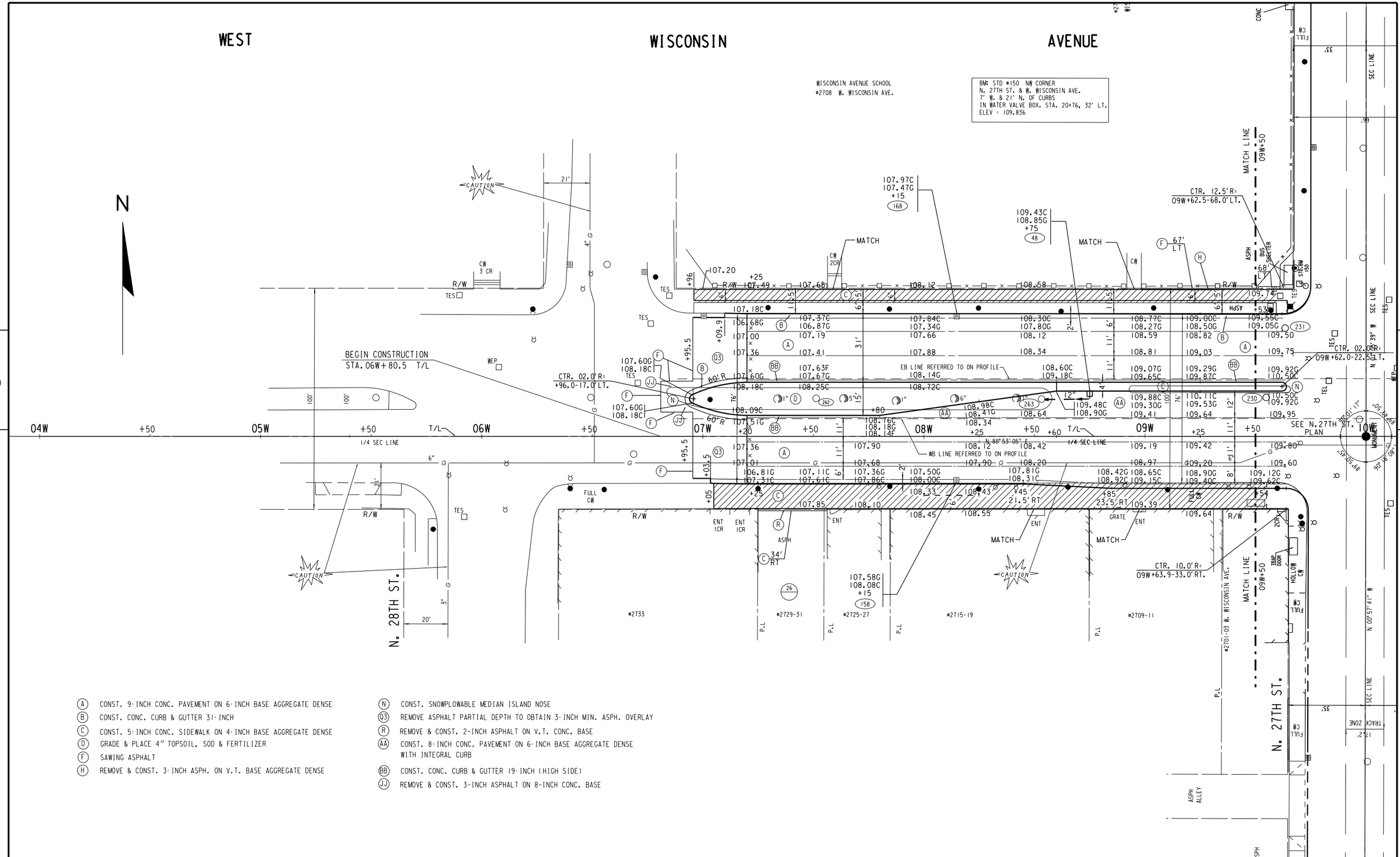


NORTHBOUND N. 27TH ST.



STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 183	E

FILE NAME: W:\SPR\27_N_STPAUL_HIGH\39-43.DGN

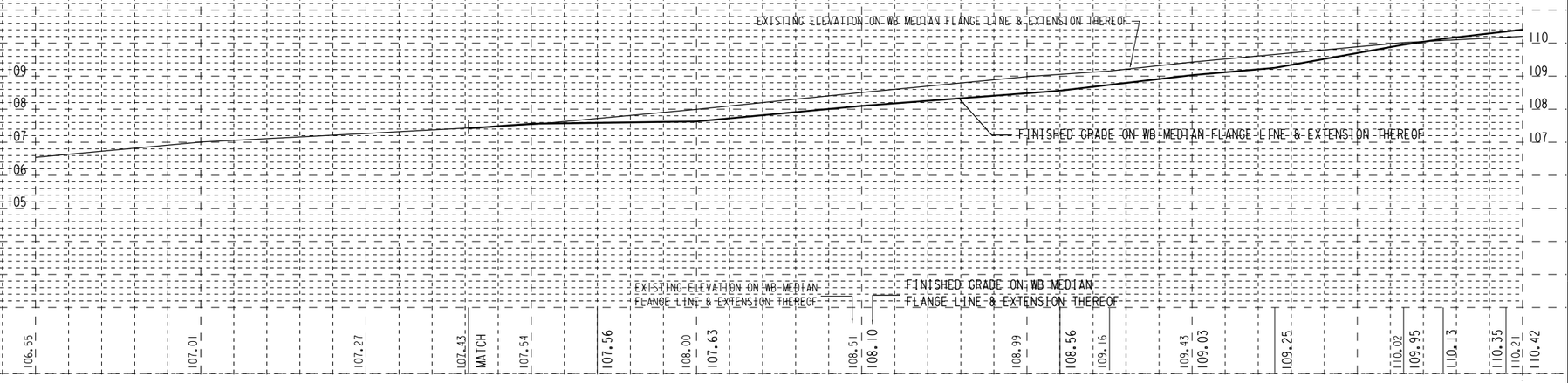


(A) CONST. 9-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE
(B) CONST. CONC. CURB & GUTTER 31-INCH
(C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
(D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(F) SAWING ASPHALT
(H) REMOVE & CONST. 3-INCH ASPH. ON V.T. BASE AGGREGATE DENSE
(N) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
(03) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
(R) REMOVE & CONST. 2-INCH ASPHALT ON V.T. CONC. BASE
(AA) CONST. 8-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE WITH INTEGRAL CURB
(BB) CONST. CONC. CURB & GUTTER 19-INCH (HIGH SIDE)
(JJ) REMOVE & CONST. 3-INCH ASPHALT ON 8-INCH CONC. BASE

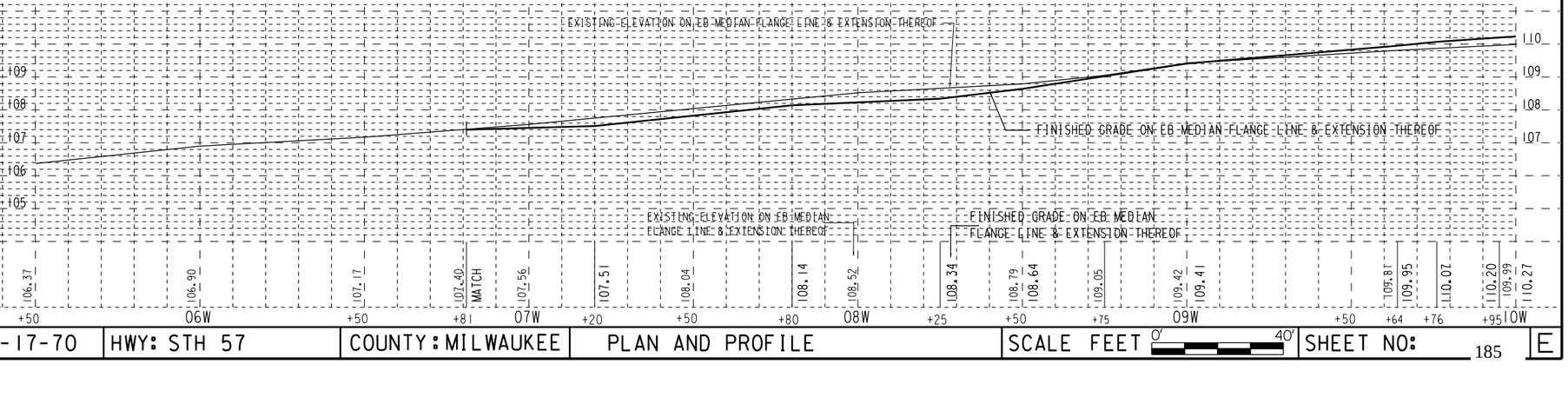
STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 184 E

FILE NAME: W:\SPR\27 N_STPAUL_HIGH\04W-10W.DGN

WESTBOUND W. WISCONSIN AVE.



EASTBOUND W. WISCONSIN AVE.



STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 185 E

FILE NAME: W:\SPR\27_N STPAUL_HIGH\04W-10W.DGN

WEST WISCONSIN AVENUE

N

CAUTION

CTR. 15.0' R= 10W+40.0-72.5' LT.

MATCH LINE 10W+50

#2620-22

#2616

#2600-02

CTR. 15.0' R= 13W+40.8-70.5' LT.

MATCH

R/W

ASPH

CONC

BUS SHELTER

FULL CW

CTR. 02.0' R= 10W+42.0-11.5' LT.

CTR. 02.0' R= 13+36.0-22.5' LT.

END CONSTRUCTION STA. 13W+67.5 T/L

EB LINE REFERRED TO ON PROFILE

WB LINE REFERRED TO ON PROFILE

ABANDONED

10W 11W 12W 13W 14W 15W

1/4 SEC LINE

N 88°44'23" E

N 00°57'41" W SEC LINE

N 01°05'39" W SEC LINE

MONUMENT

TRACK ZONE

NOT IN USE

LAMP

RAMP (SEE DETAIL)

CTR. 15.0' R= 10W+39.0-36.5' RT.

CTR. 15.0' R= 13W+39.0-36.5' RT.

N. 27TH ST.

N. 26TH ST.

MATCH LINE 10W+50

RAMP DETAIL
SW CORNER W. WISCONSIN AVE. AND N.27TH ST.

CONST. 15' RAD
13W+39.0, 36.5' RT

1" = 20'

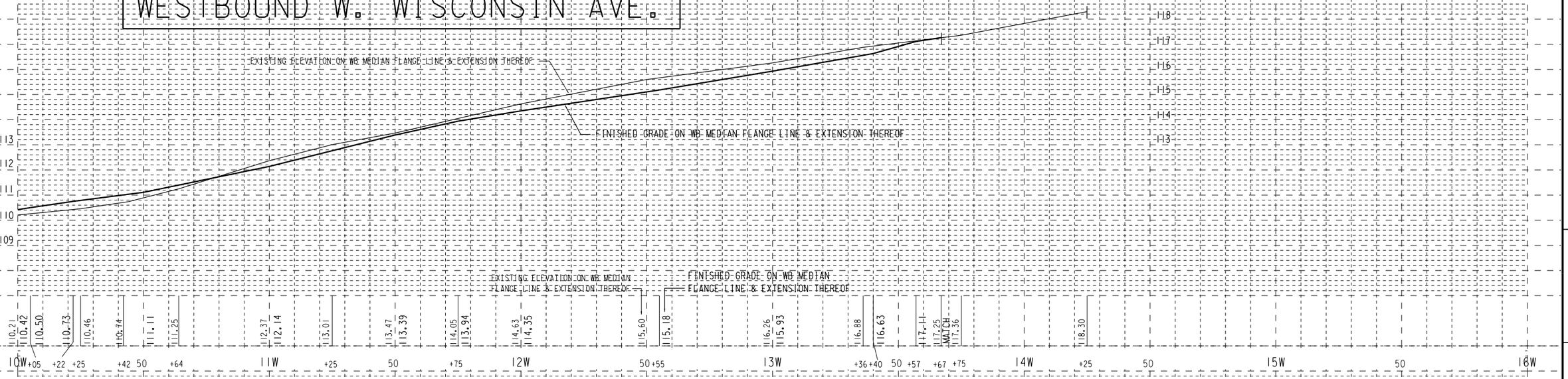
(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(A) CONST. 9-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE
(B) CONST. CONC. CURB & GUTTER 31-INCH
(C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
(D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(E) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
(F) SAWING ASPHALT
(J) REMOVE & CONST. 3-INCH ASPH. ON V.T. CONC. BASE
(N) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
(AA) CONST. 8-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE WITH INTEGRAL CURB
(BB) CONST. CONC. CURB & GUTTER 19-INCH (HIGH SIDE)
(DD) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(03) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY

STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 186	E

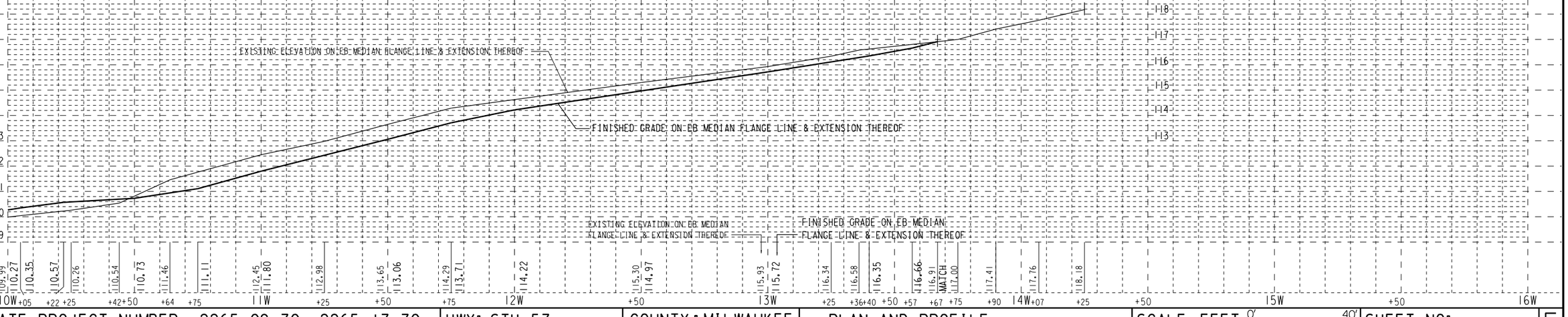
FILE NAME: W:\SPR\27 N_STPAUL_HIGH\10W-15W.DGN

WEST WISCONSIN AVENUE

WESTBOUND W. WISCONSIN AVE.



EASTBOUND W. WISCONSIN AVE.

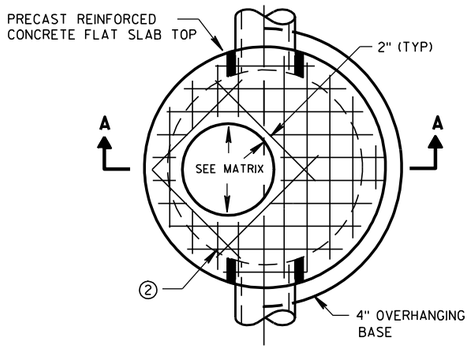


STATE PROJECT NUMBER 2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE FEET 0' 40'	SHEET NO: 187	E

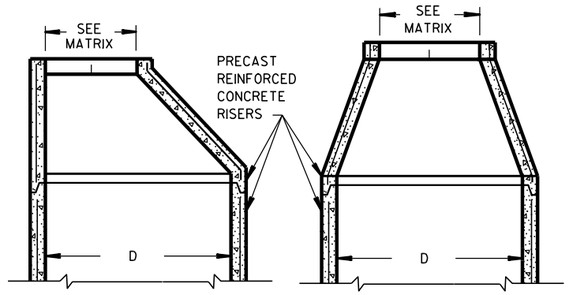
FILE NAME: W:\SPR\27 N_STPAUL_HIGH\10W-15W.DGN

Standard Detail Drawing List

08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D05-14A	CURB RAMPS TYPES 1 AND 1-A
08D05-14B	CURB RAMPS TYPES 2 AND 3
08D05-14C	CURB RAMPS TYPE 4A
08D05-14D	CURB RAMPS TYPE 4B
08D05-14E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
09B02-07	CONDUIT
09C11-02	CONCRETE BASE TYPE 10
09E08-04B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-04E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
13C01-15	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-07	URBAN DOWELED CONCRETE PAVEMENT
13C18-01A	CONCRETE PAVEMENT JOINTING
13C18-01B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-01C	CONCRETE PAVEMENT JOINT TIES
13C18-01D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14A02-01	TREE PLANTING DETAIL
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C08-15B	PAVEMENT MARKING (INTERSECTIONS)
15C08-15F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C29-02A	BICYCLE LANE MARKING
15C29-02B	BICYCLE LANE MARKING
15C29-02C	URBAN BICYCLE LANE MARKING
15C29-02D	URBAN BICYCLE LANE MARKING
15C29-02E	PAVEMENT MARKING FOR BIKE LANES
15C29-02F	PAVEMENT MARKING FOR SHARED LANE
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

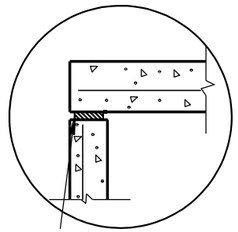


PLAN VIEW CIRCULAR OPENING

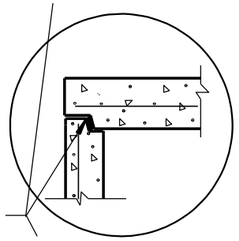


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

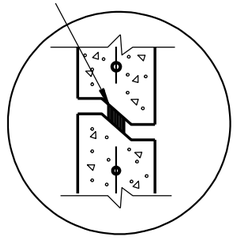


TOP WITH PLAIN END JOINT



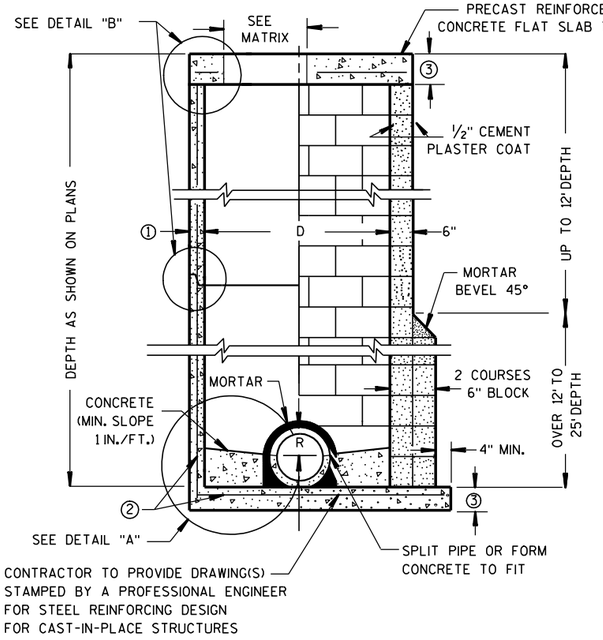
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



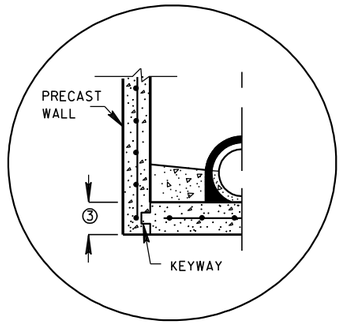
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

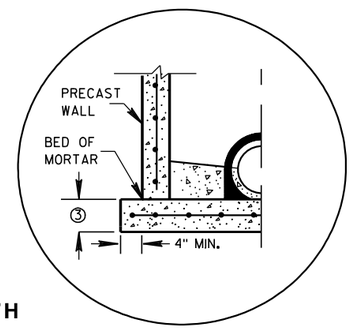


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

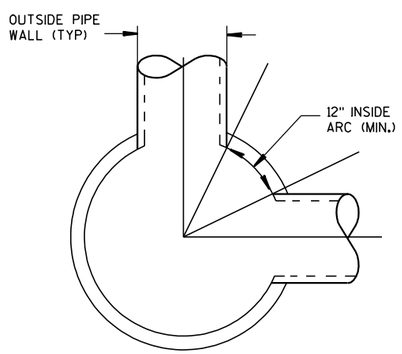


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPERATE 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 GRANULAR 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. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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 SEPERATE 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

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

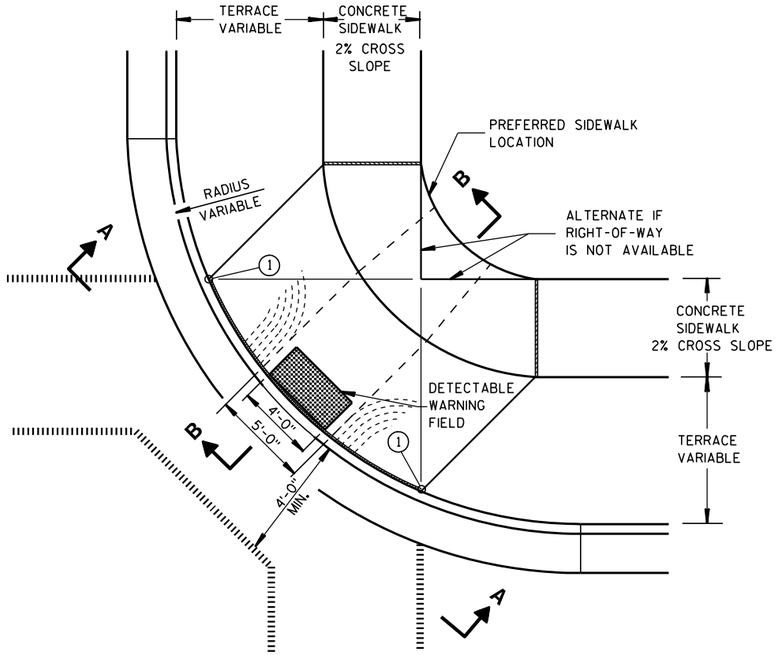
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

6

S.D.D. 8 B 9-1

6

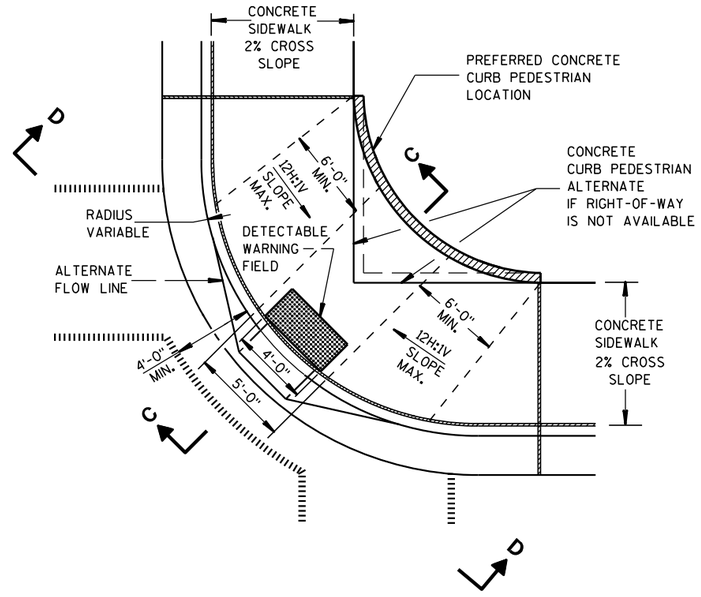
S.D.D. 8 B 9-1



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

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.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. 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".

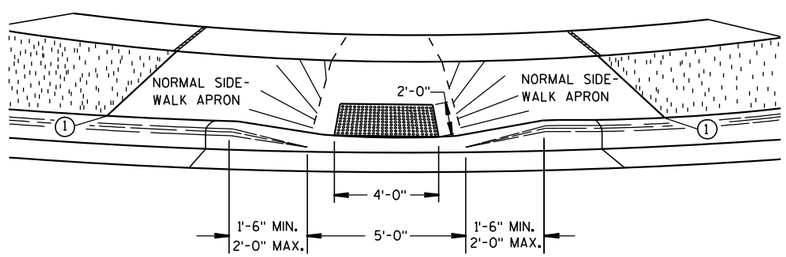
SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

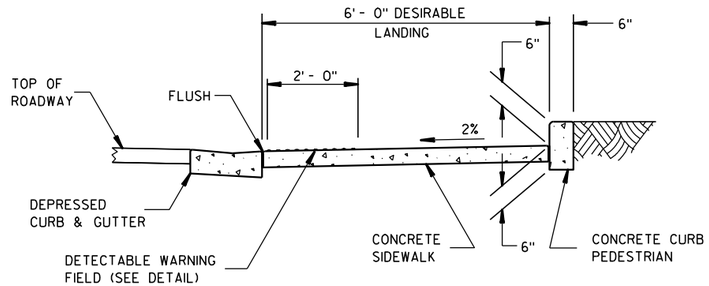
(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

LEGEND

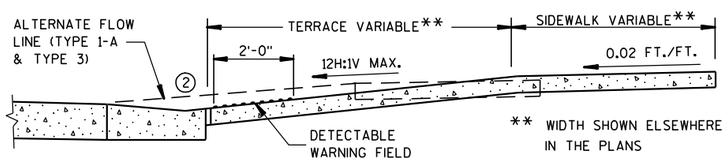
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



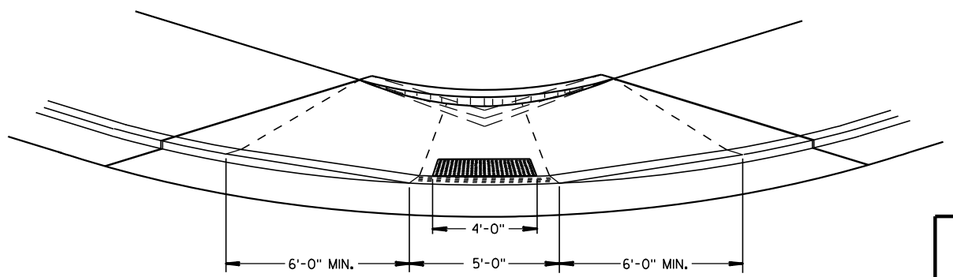
VIEW A-A



SECTION C-C



SECTION B-B



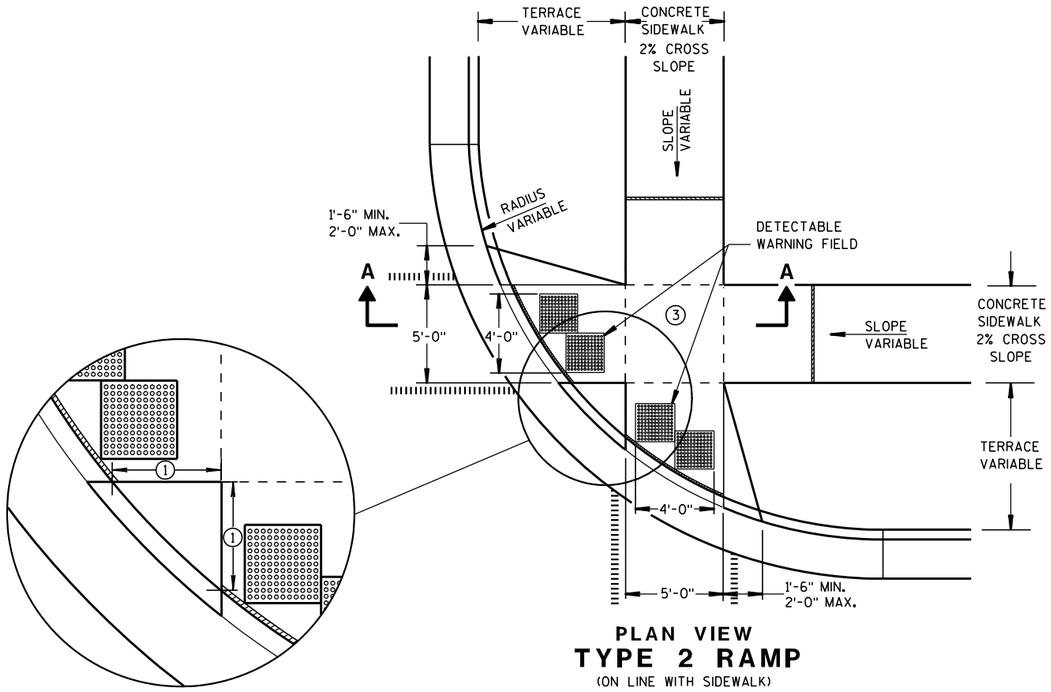
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

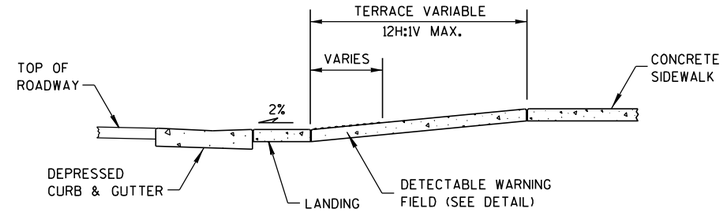
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

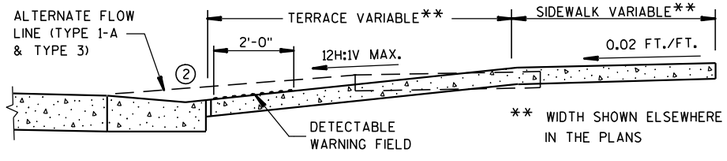
S.D.D. 8 D 5-14a



PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

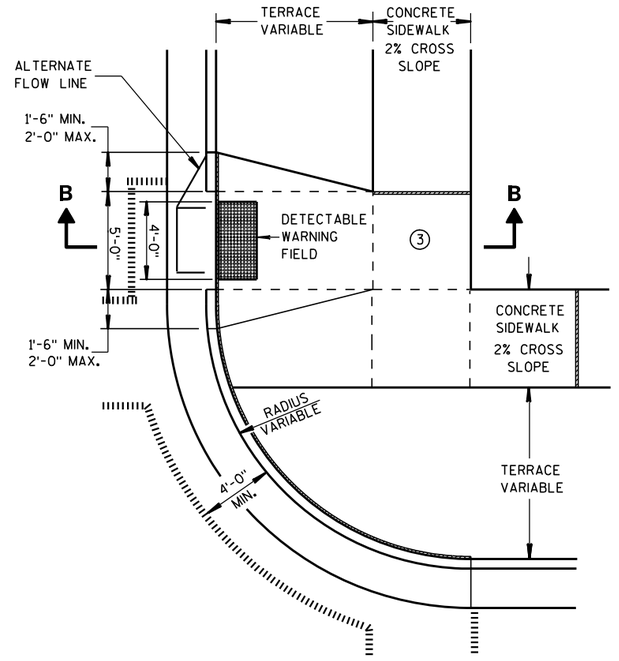
(1) WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

(3) PROVIDE LANDING AT TOP OF RAMP WITH NO MORE THAN 2% SLOPE IN ANY DIRECTION.

LEGEND

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

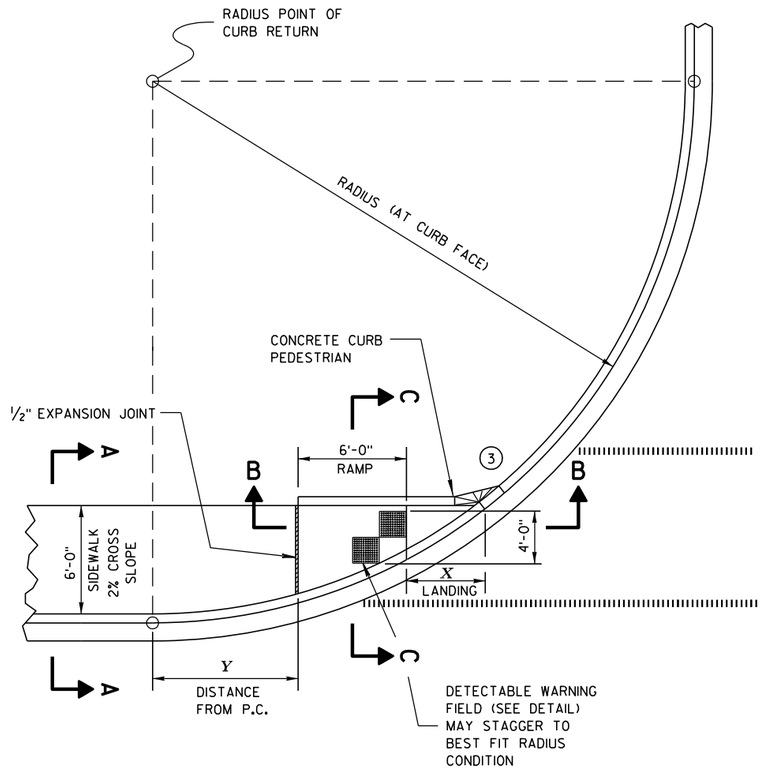


PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

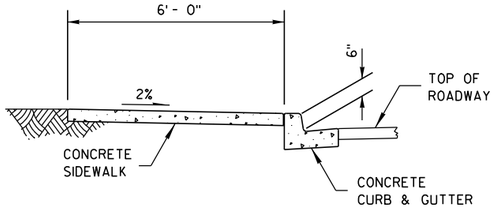
6
S.D.D. 8 D 5-14b



CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1 3/4"	2'-7 1/4"
30 FEET	7'-11 3/4"	4'-8 1/4"
40 FEET	9'-5 1/4"	6'-5"
50 FEET	10'-8 3/4"	7'-11 1/4"
60 FEET	11'-10 1/4"	9'-3 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A

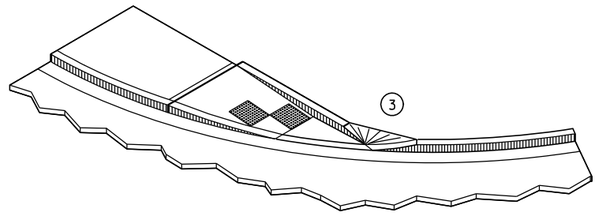
GENERAL NOTES

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

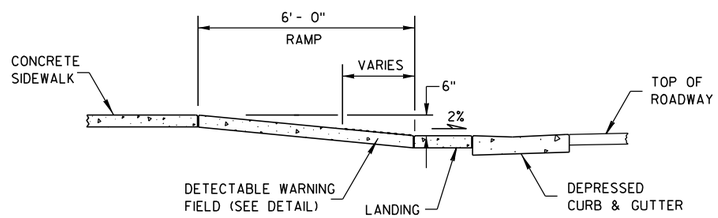
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

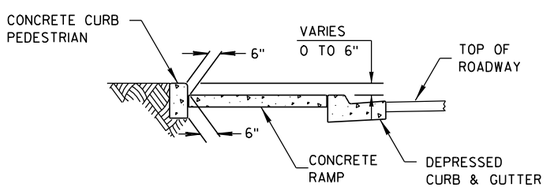
(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW



SECTION B-B



SECTION C-C

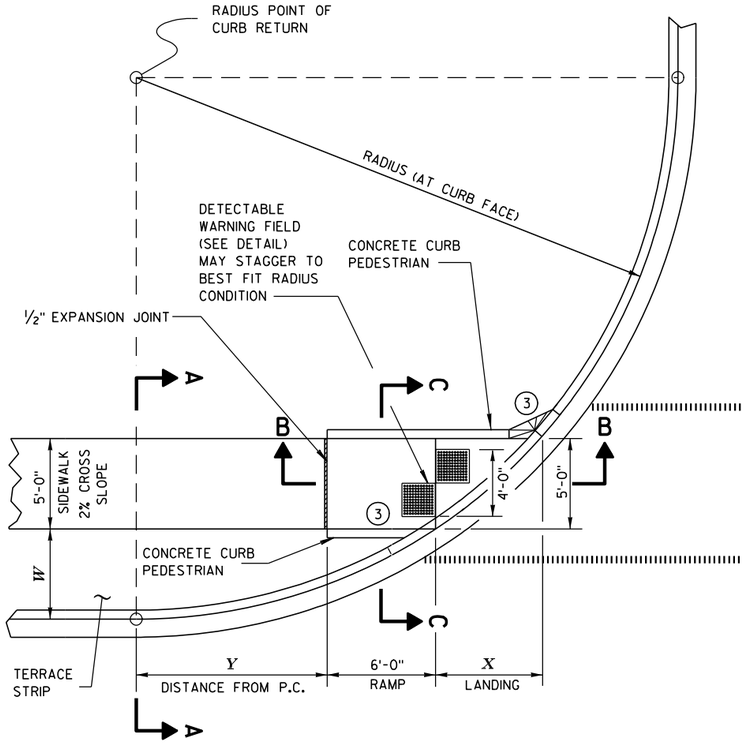
LEGEND

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

CURB RAMPS TYPE 4A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 8 D 5-14c



CURB RAMP TYPE 4B
PLAN VIEW

GENERAL NOTES

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

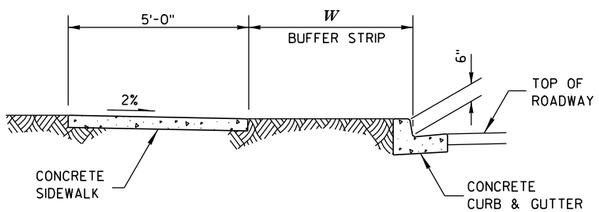
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

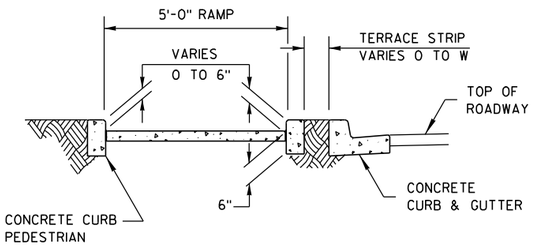
(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

RADIUS (AT CURB FACE)	W = 3'- 0"		W = 4'- 0"		W = 5'- 0"		W = 6'- 0"		W = 7'- 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"
70 FEET	12'-2¾"	14'-3¼"	11'-¼"	17'-4"	10'-1"	19'-11¾"	9'-3¾"	22'-4¼"	8'-8¼"	24'-6¼"
80 FEET	13'-2"	15'-8½"	11'-10½"	18'-11¾"	10'-10¾"	21'-10"	10'-1"	24'-4¾"	9'-5"	26'-8¾"
90 FEET	14'- ½"	17'-½"	12'-8¼"	20'-6½"	11'-7¾"	23'-7"	10'-9¾"	26'-3¾"	10'-1¼"	28'-9½"
100 FEET	14'-10½"	18'-3¾"	13'-5½"	22'-0"	12'-4¼"	25'-2¾"	11'-5¾"	28'-1½"	10'-9"	30'-9"

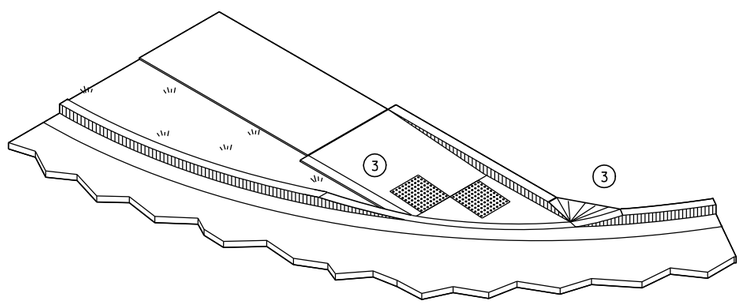
INTERMEDIATE RADII CAN BE INTERPOLATED



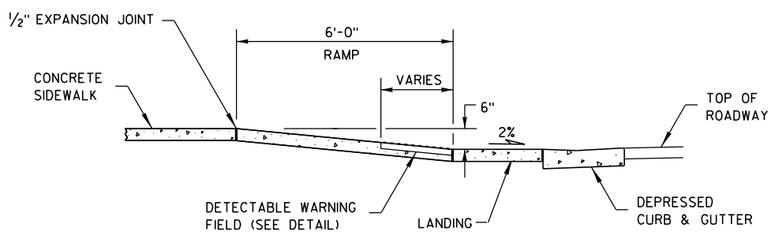
SECTION A-A



SECTION C-C



ISOMETRIC VIEW



SECTION B-B

LEGEND

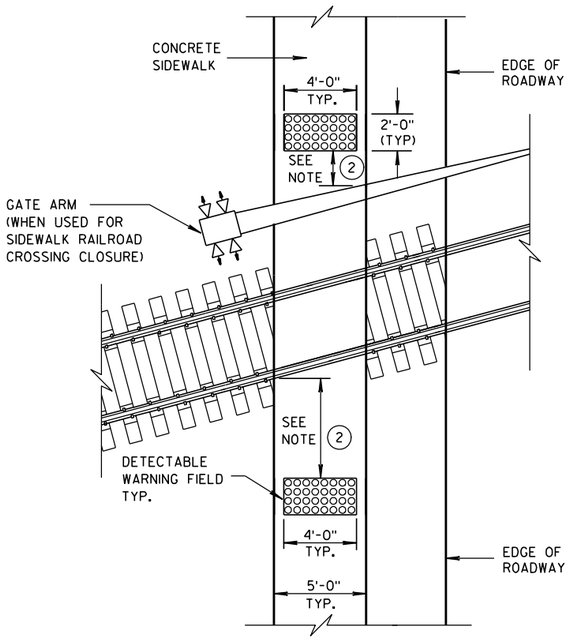
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B

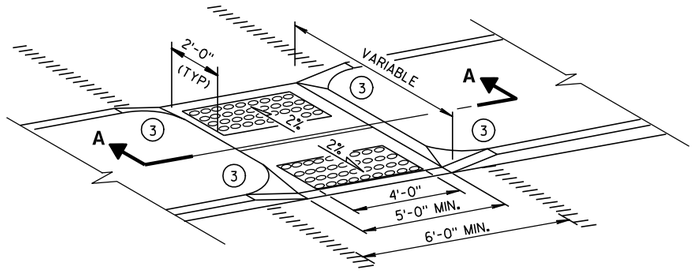
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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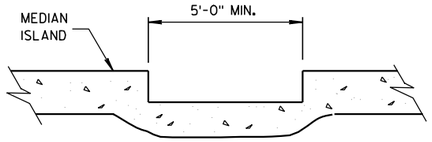
S.D.D. 8 D 5-14d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



SECTION A-A

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

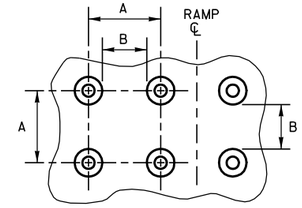
(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(2) 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.

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

LEGEND

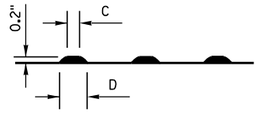
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



PLAN VIEW

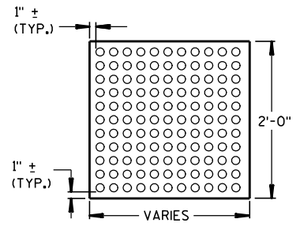
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



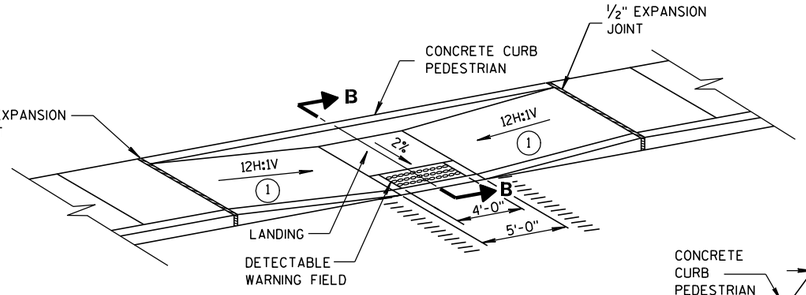
ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

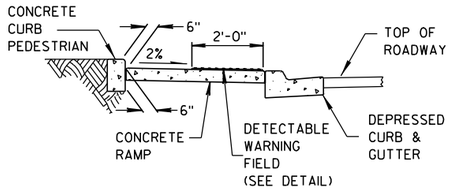


PLAN VIEW

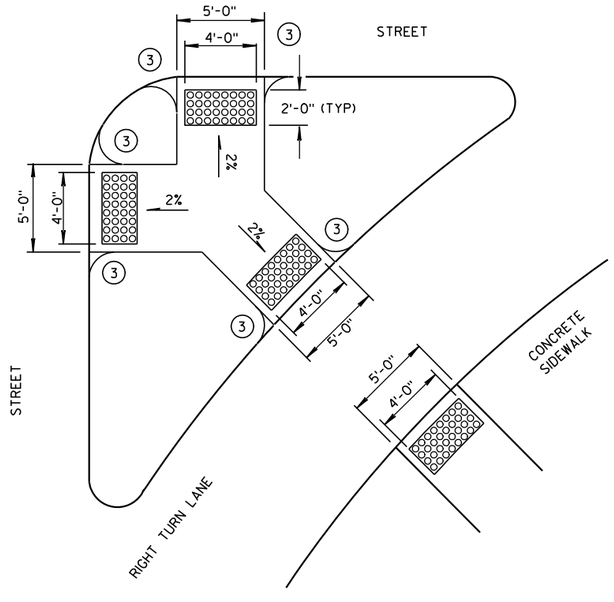
DETECTABLE WARNING FIELD (TYPICAL)



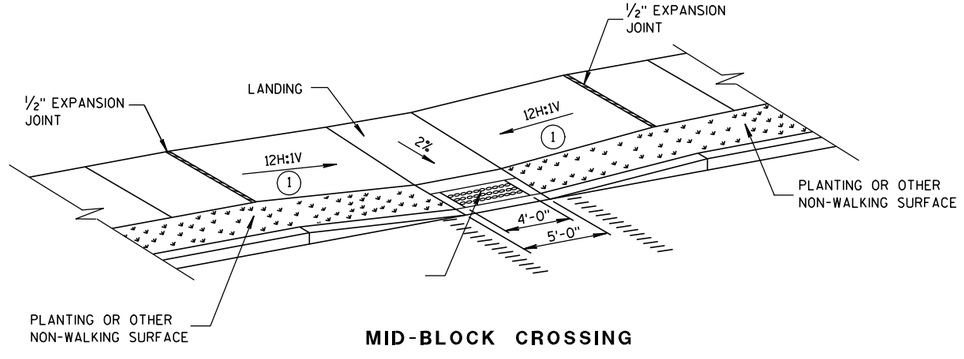
MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



TYPE 6
DETECTABLE WARNING AT ISLANDS



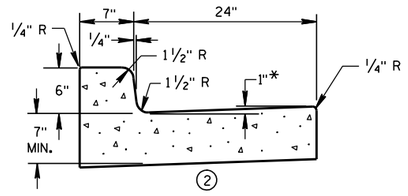
MID-BLOCK CROSSING
TYPE 7B

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

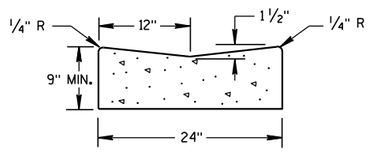
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

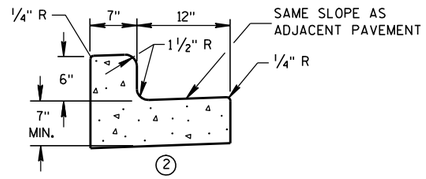
APPROVED
2-9-10 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
194
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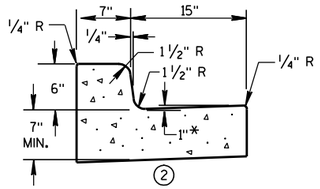
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

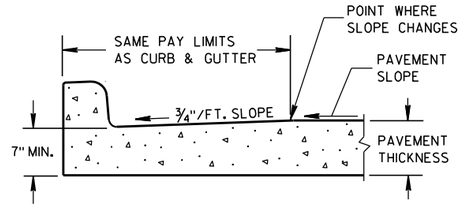


① CONCRETE CURB & GUTTER 19"



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.

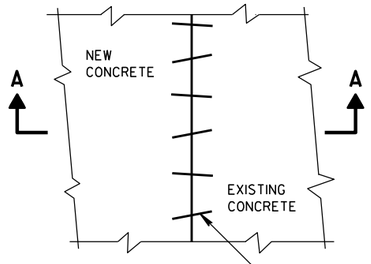
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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.

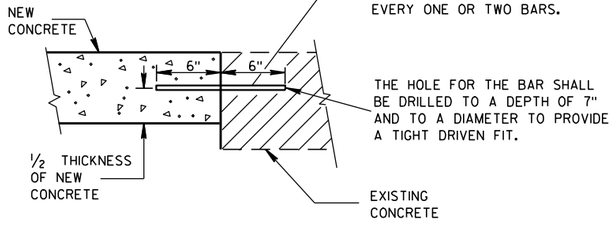
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

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

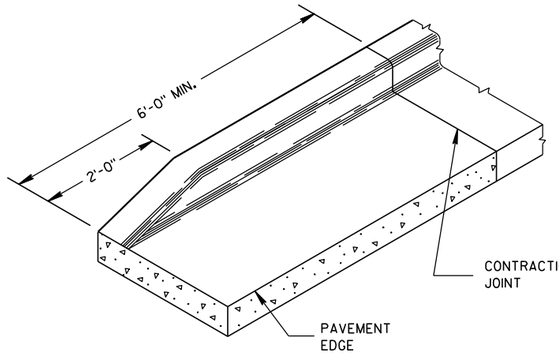
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



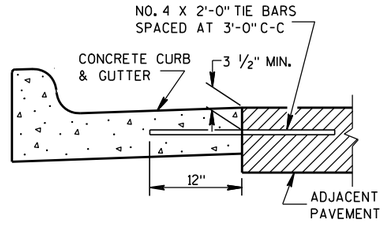
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

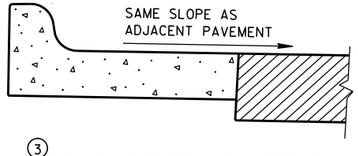
PAVEMENT TIES



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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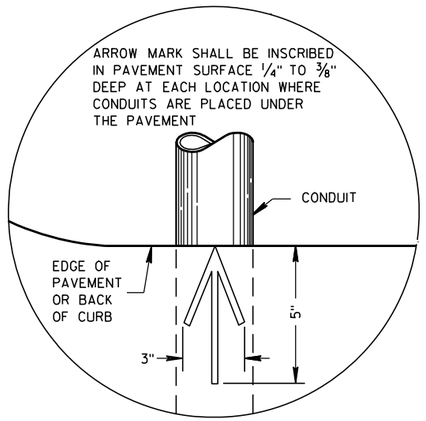
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S.D.D. 8 D 16-10

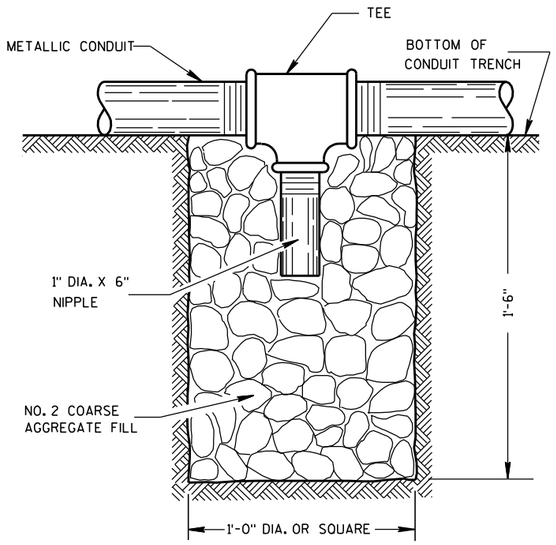
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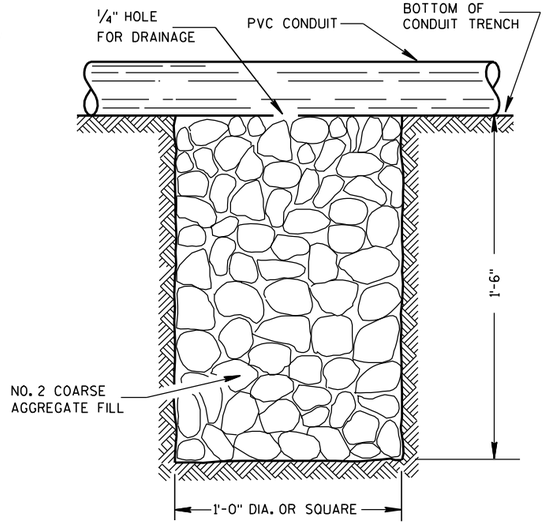
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

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.

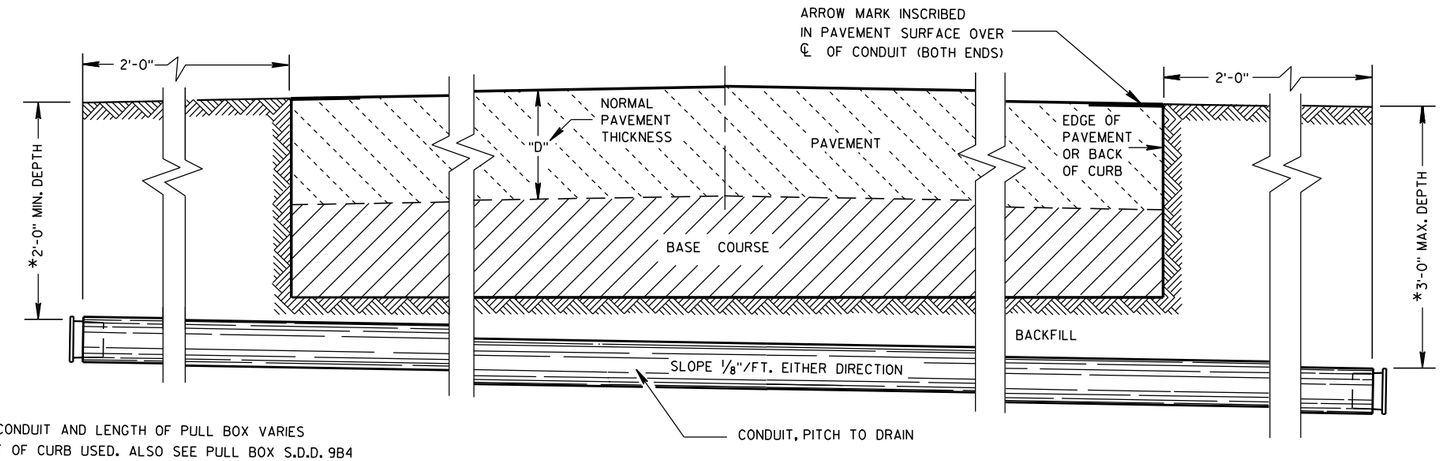
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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.).

POLY ROPE OR A PULL 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.



*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

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 DATE

/S/ Balu Ananthanarayanan STATE ELECTRICAL ENGI

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GENERAL NOTES

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

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).

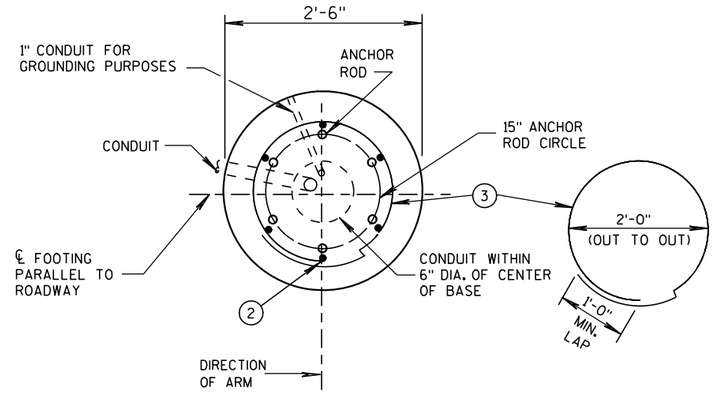
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

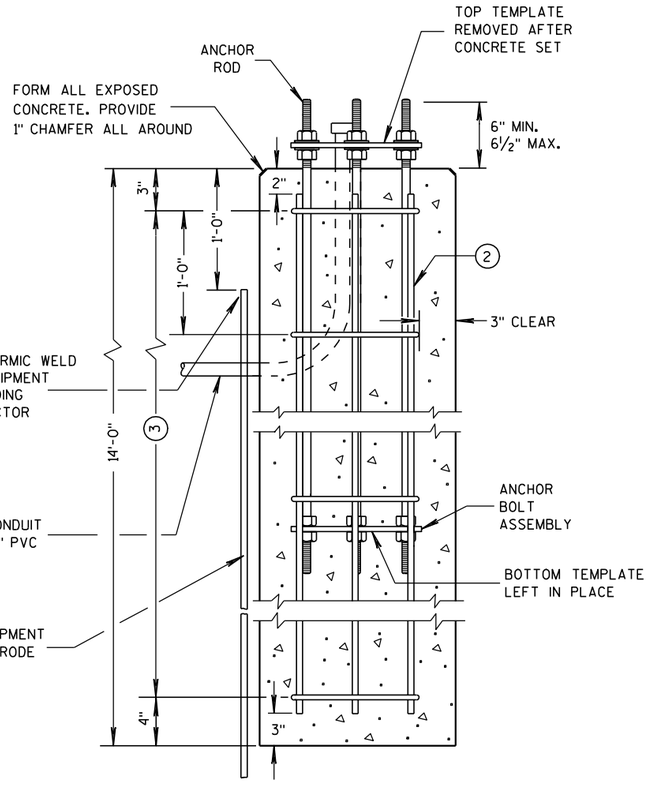
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES. (GREATER THAN 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) (15) NO. 4 X 7'-4" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

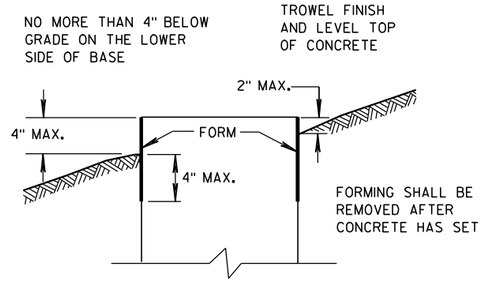
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



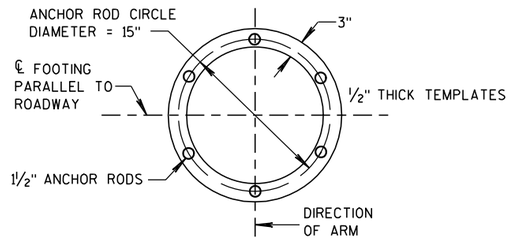


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

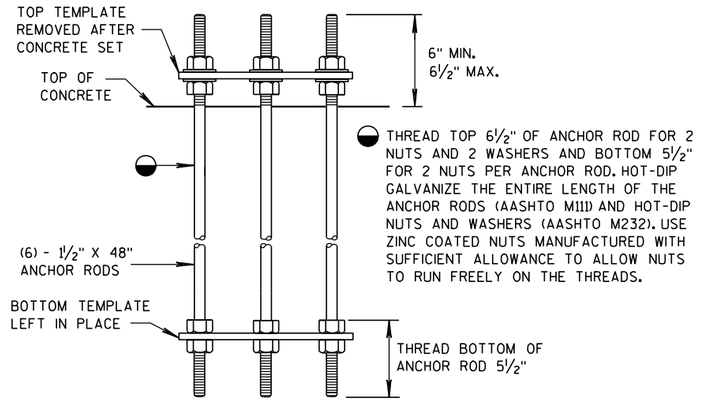
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



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	69
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3-2-11 DATE

/S/ Thomas J. Cornine
STATE ELECTRICAL ENGI

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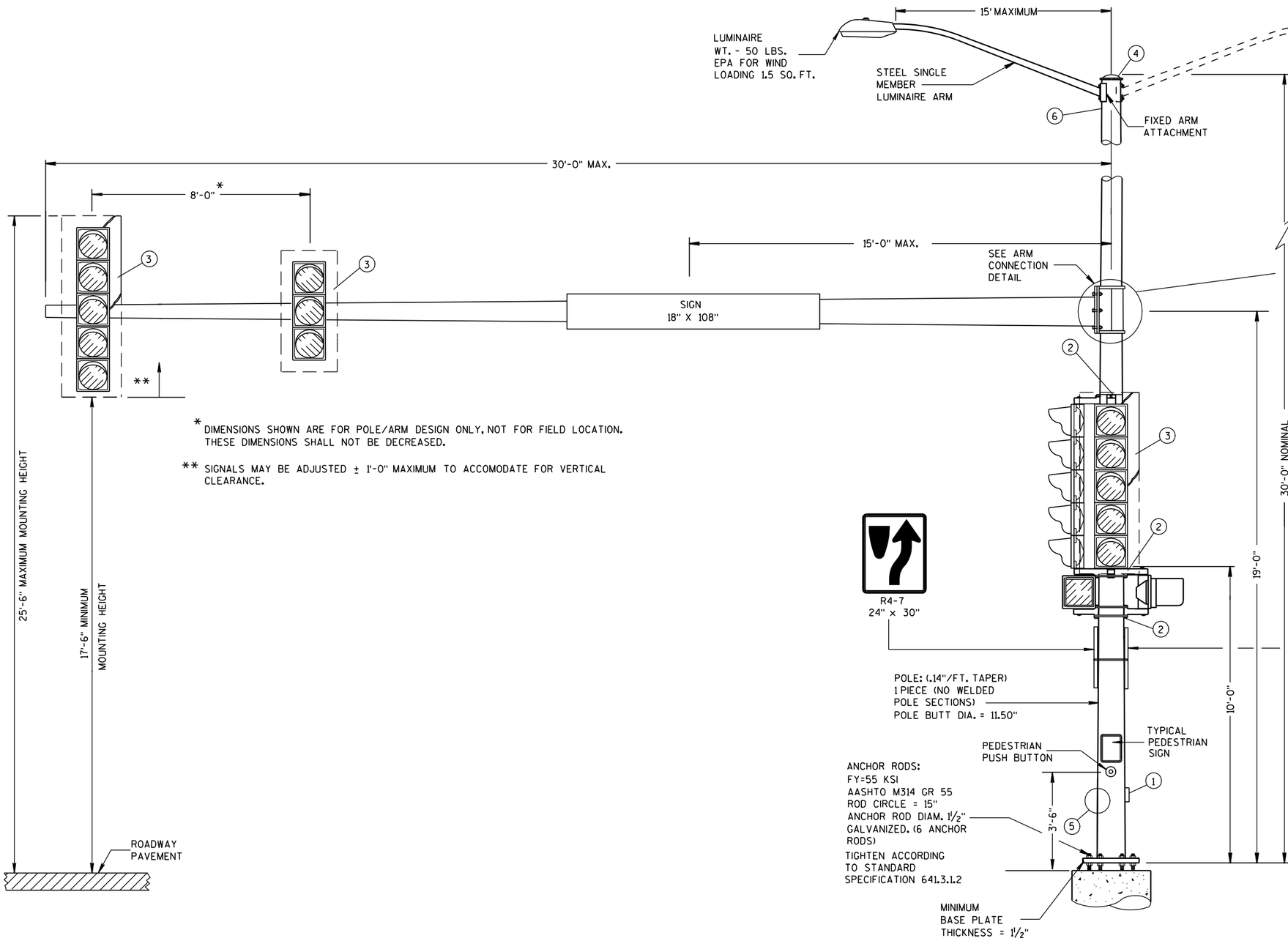
FHWA

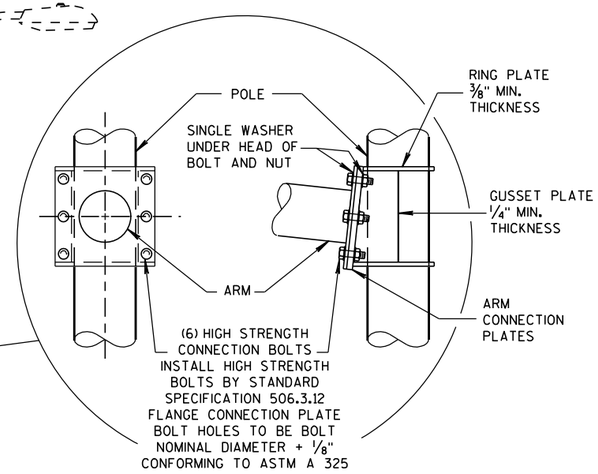
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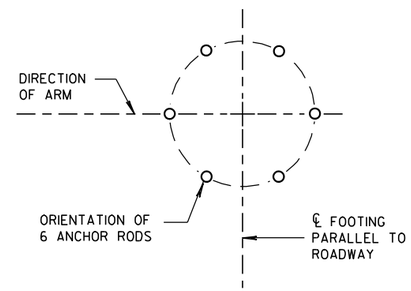
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6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

* 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

3/2/2011 — DATE

/S/ Thomas J. Corrigan — STATE ELECTRICAL ENGI

198 — HWYS

FHWA

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 LATEST AASHTO 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.

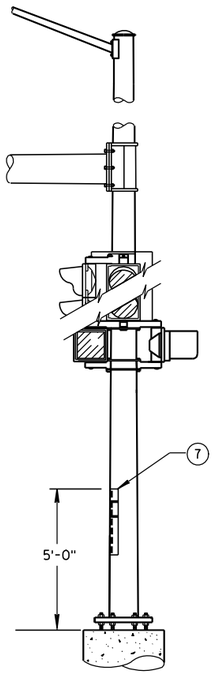
(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

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

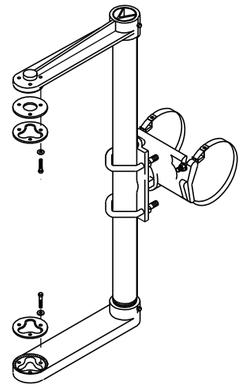
(7) INSTALL DEPARTMENT PROVIDED STRUCTURAL IDENTIFICATION PLAQUES.

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

MOUNTING HEIGHT SHALL BE 5'-0" ABOVE THE CURB OR SHOULDER . ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

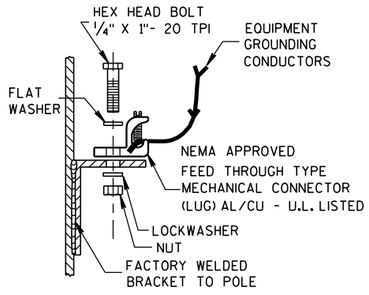


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



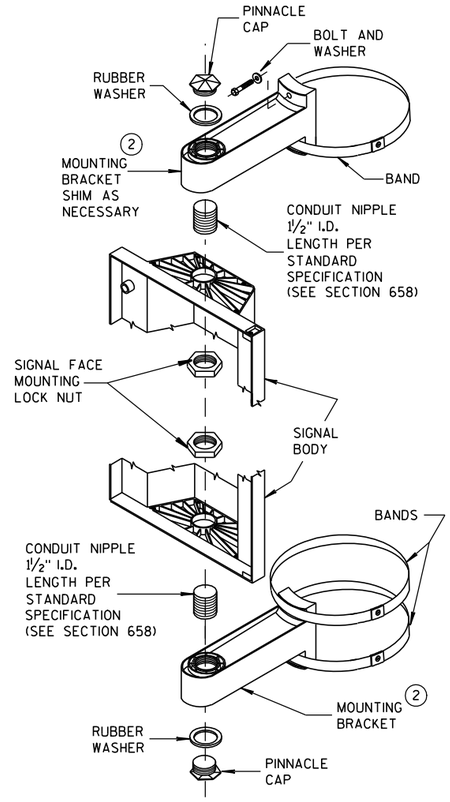
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

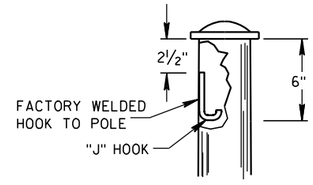


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



"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

3/2/2011 DATE

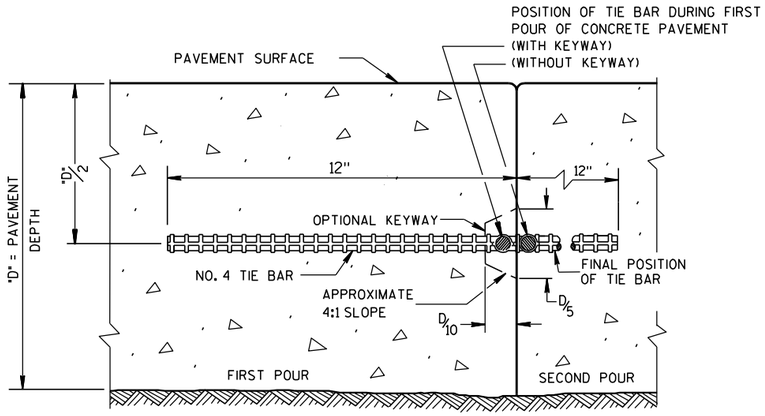
/S/ Thomas J. Corrigan
STATE ELECTRICAL ENGI

HWYS

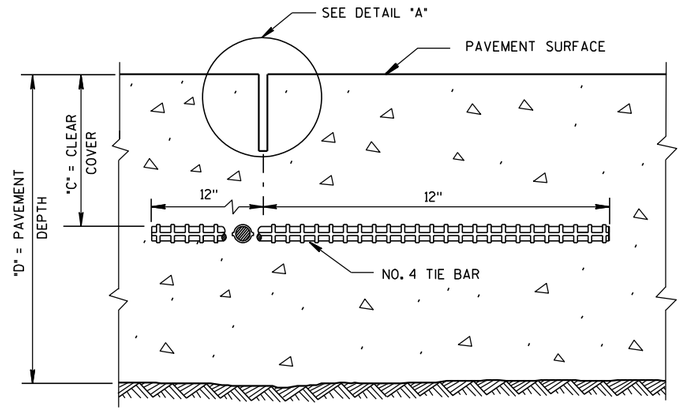
FHWA

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S.D.D. 9 E 8-4e



CONSTRUCTION JOINT



SAWED JOINT

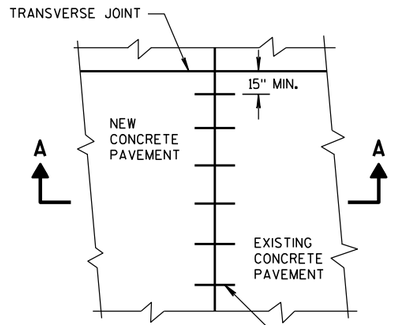
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

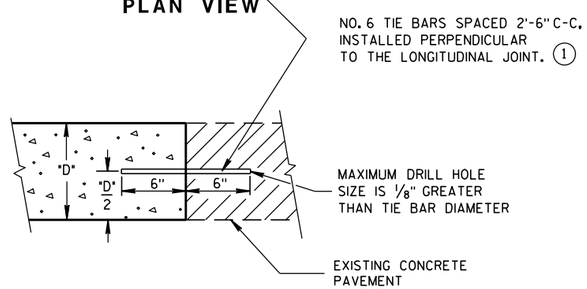
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

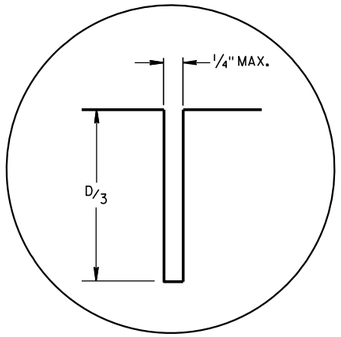
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

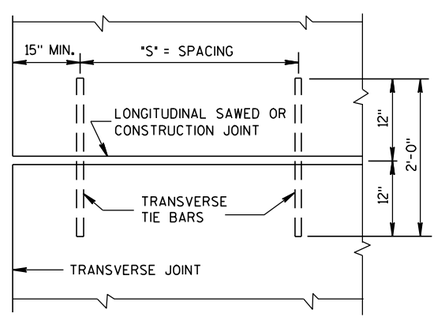


SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
9, 9 1/2"	4 1/4"±1"	33"	27"
10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
12"	5 3/4"±1"	24"	21"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10-5-2010 DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DI 200 INEER

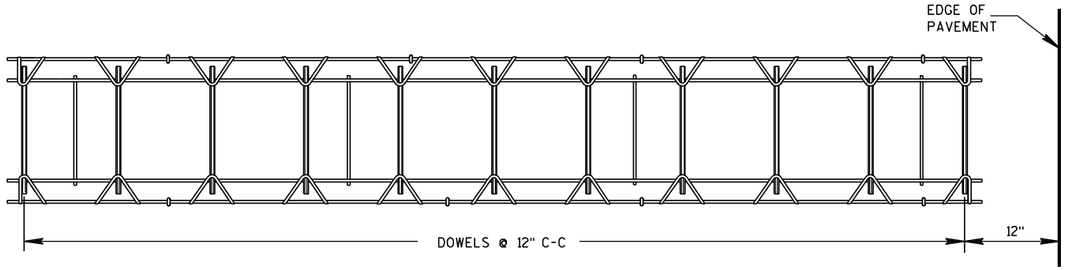
FHWA

6

S.D.D. 13 C 1-15

6

S.D.D. 13 C 1-15

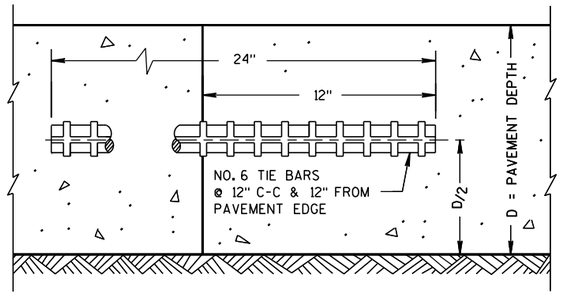


PLAN VIEW



SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



TRANSVERSE CONSTRUCTION JOINT

GENERAL NOTES

CONTRACTION JOINTS

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

DO NOT SEAL OR FILL CONTRACTION JOINTS.

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

FOR PAVEMENT SLABS OF VARYING WIDTHS, CENTER THE DOWEL ASSEMBLY ACROSS THE LANES. LOCATE THE INNER AND OUTER MOST DOWEL BARS SO THAT THE CENTER OF THE BARS ARE A MINIMUM OF 6 INCHES AND A MAXIMUM OF 12 INCHES FROM THE LONGITUDINAL JOINT AND THE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

① THE ENGINEER MAY APPROVE THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. THE CONTRACTOR MAY USE MECHANICAL DOWEL BAR INSERTERS INSTEAD OF DOWEL ASSEMBLIES.

② ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

③ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

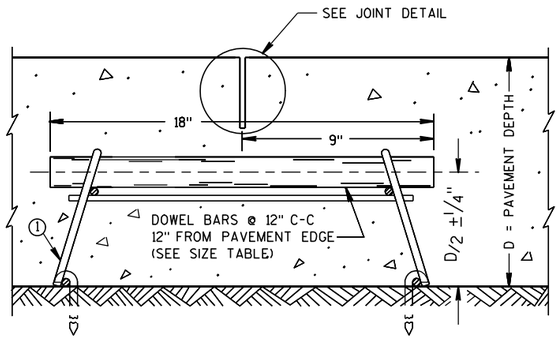
④ SPACE DOWEL BARS INSTALLED BY DRILLING 1'-3" ON CENTER. CENTER THE GROUPING OF DOWEL BARS INSIDE THE SLAB BASED ON ALL THE FOLLOWING SITUATIONS:

BETWEEN THE EDGES OF PAVEMENTS WITHOUT LONGITUDINAL JOINTS OR BETWEEN THE EDGE OF PAVEMENT AND NEAREST LONGITUDINAL JOINT OR BETWEEN TWO ADJACENT LONGITUDINAL JOINTS.

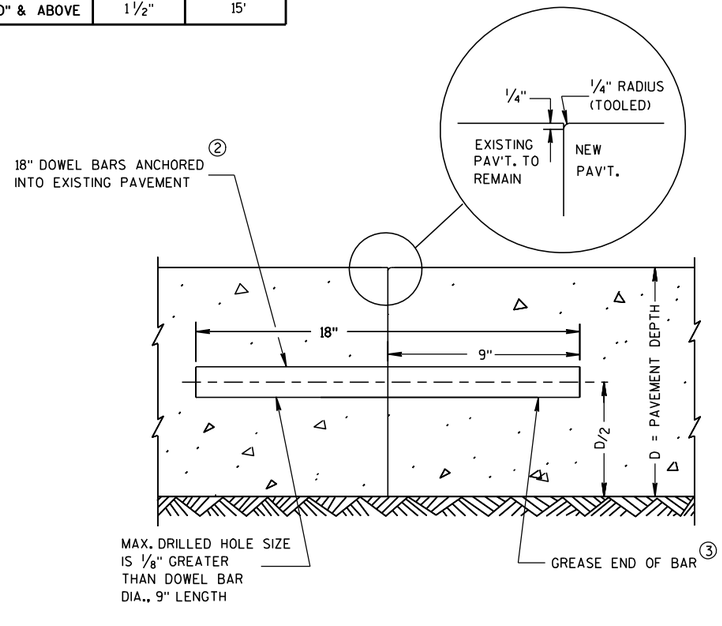
⑤ SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

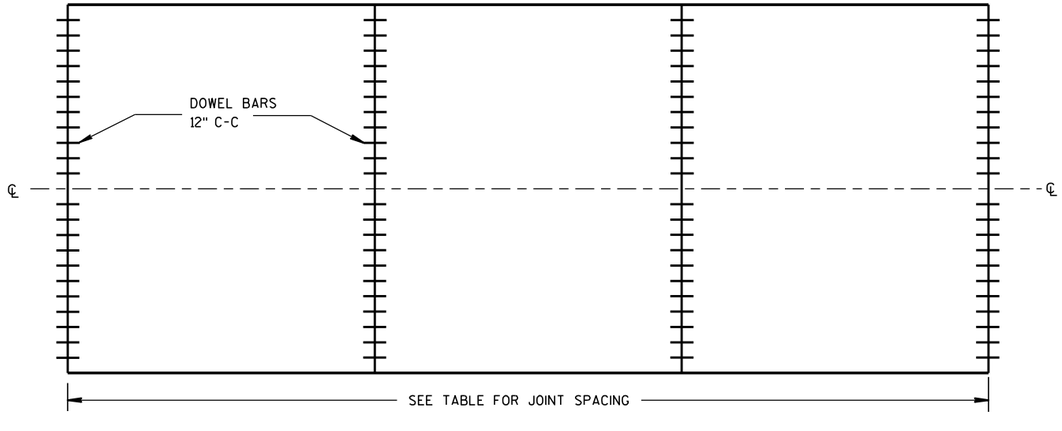


DOWELED CONTRACTION JOINT

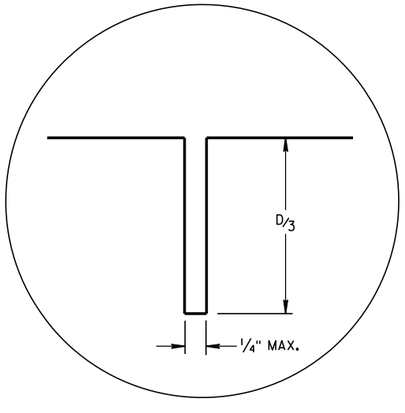


TRANSVERSE CONTRACTION JOINTS ABUTTING EXISTING PAVEMENT

④ DOWEL BAR DETAIL



CONTRACTION JOINT LOCATIONS



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/11/2009 DATE
/S/ Deb Bischoff PAVEMENT POLICY & DE
FHWA

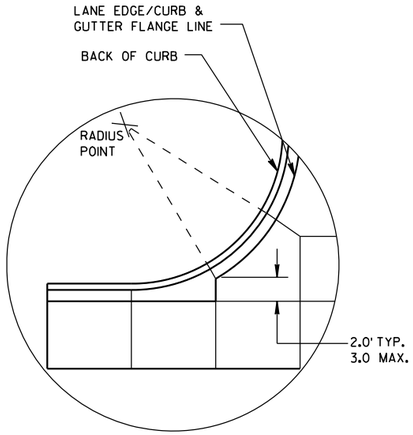
NEER

6

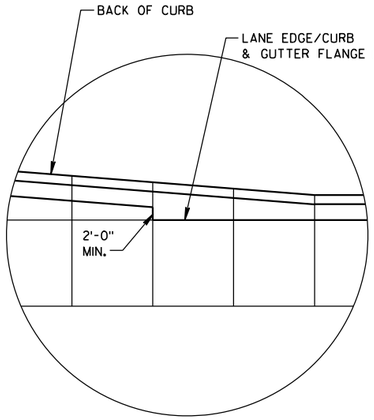
S.D.D. 13 C 13-7

6

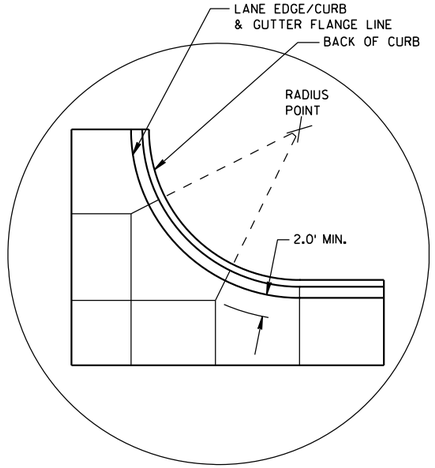
S.D.D. 13 C 13-7



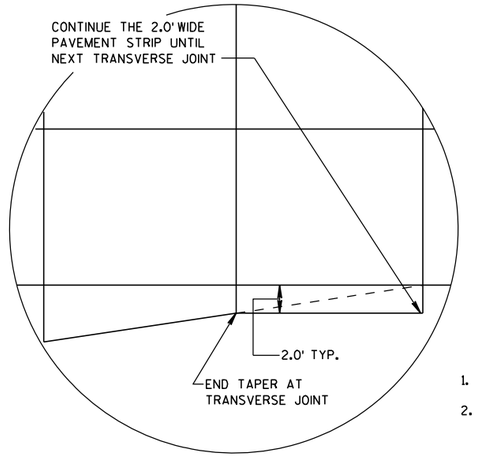
DETAIL "A"



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.

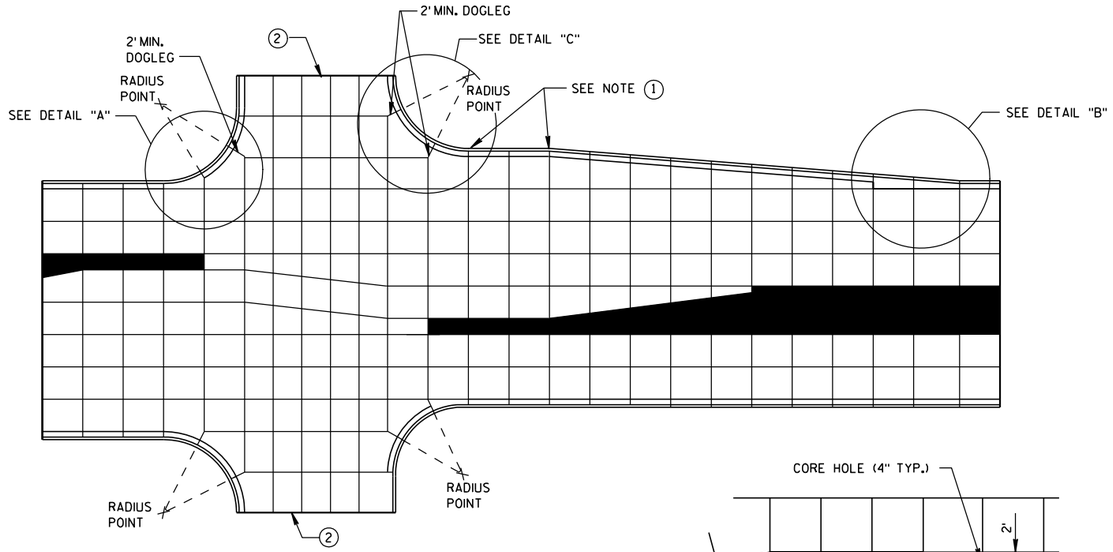
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

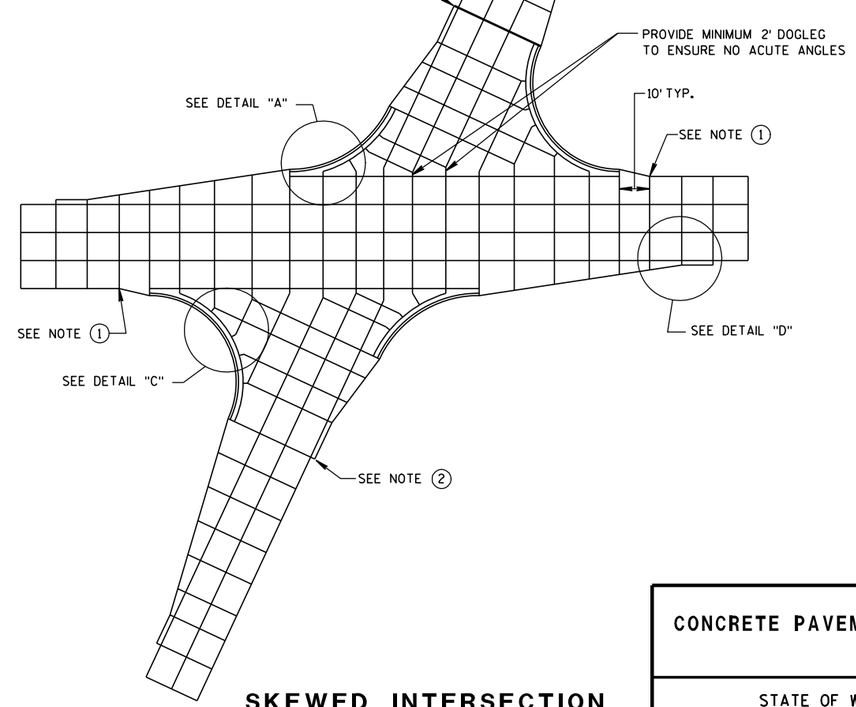
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



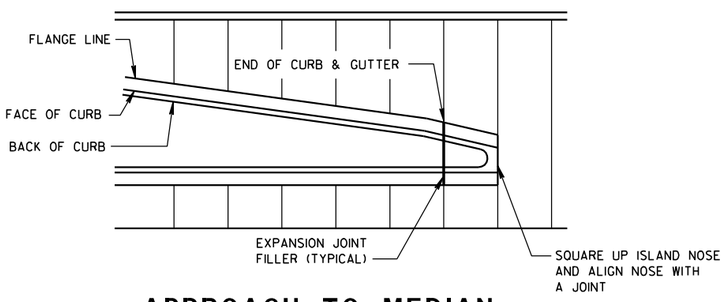
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

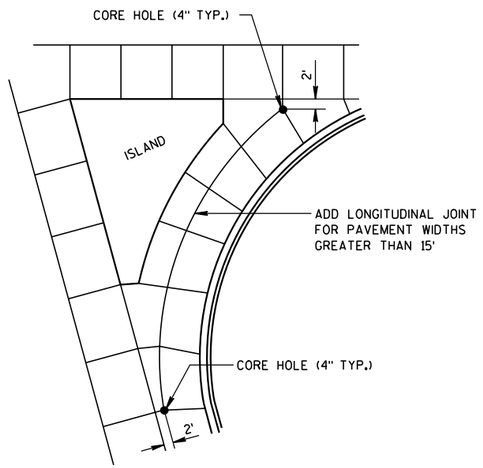
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 13 C 18-1a

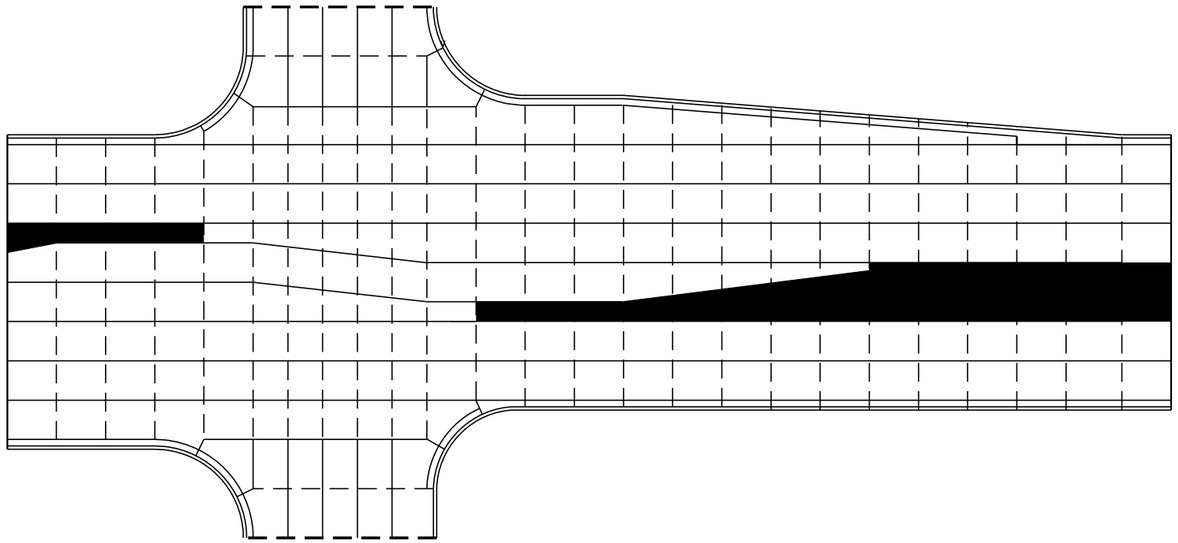
6

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

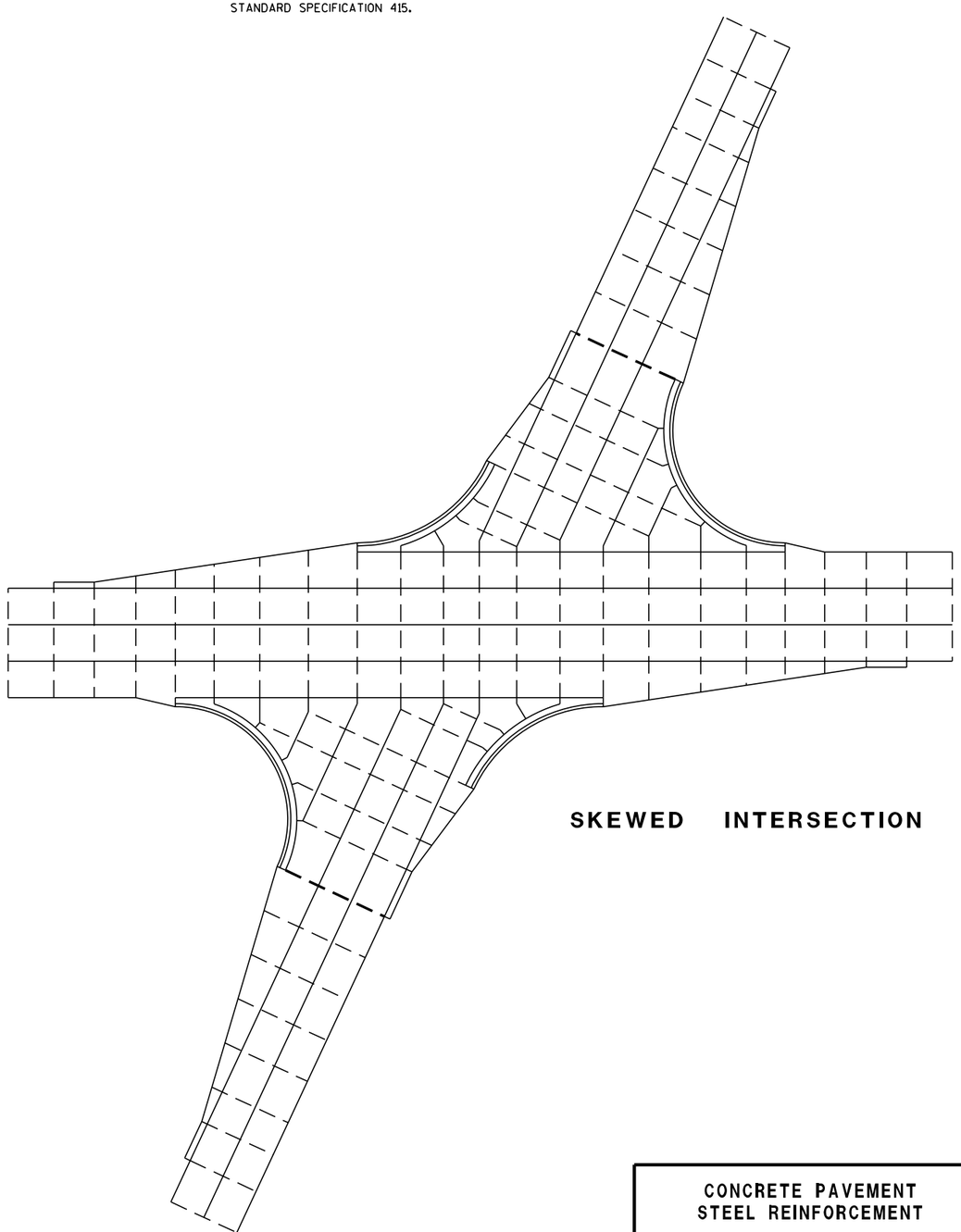
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

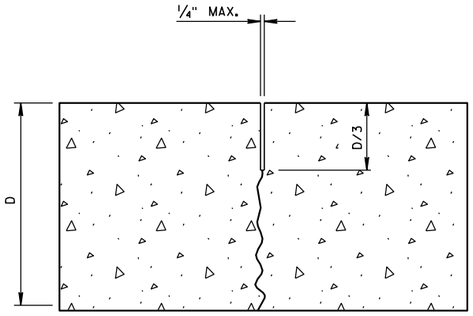
S.D.D. 13 C 18-1b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

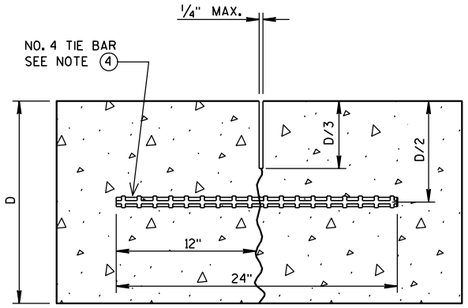
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 18-1b



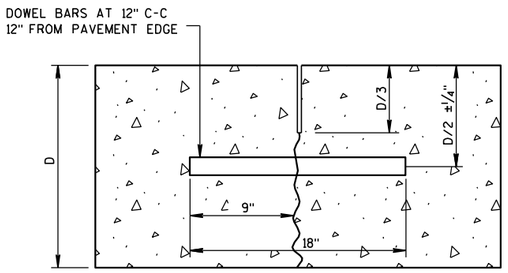
UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

GENERAL NOTES

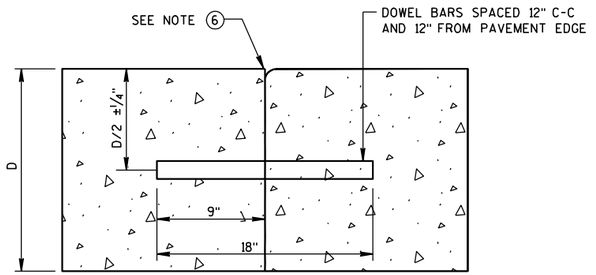
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.
4. SPACE TIE BARS AT LONGITUDINAL CONSTRUCTION OR CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C1.
5. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
6. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.



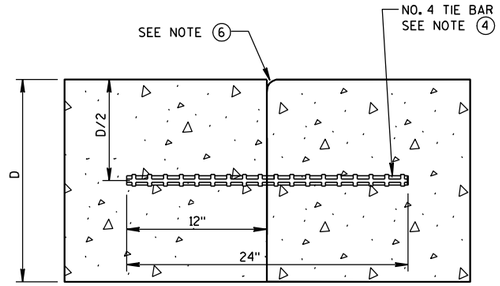
DOWELED-TRANSVERSE

CONTRACTION JOINTS

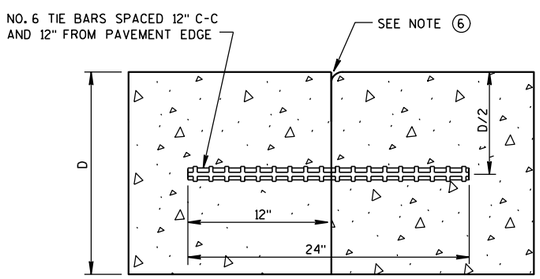
SEE NOTE (2)



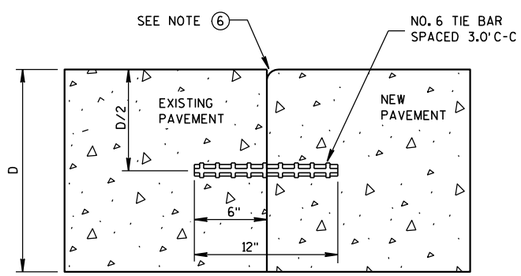
DOWELED TRANSVERSE



TIED LONGITUDINAL



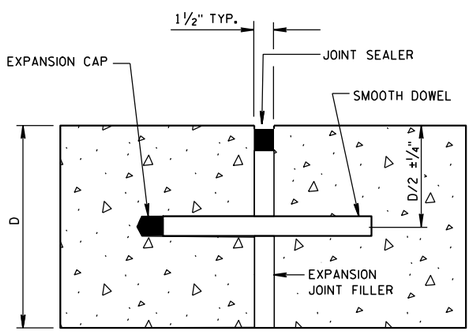
TIED TRANSVERSE
SEE NOTE (3)



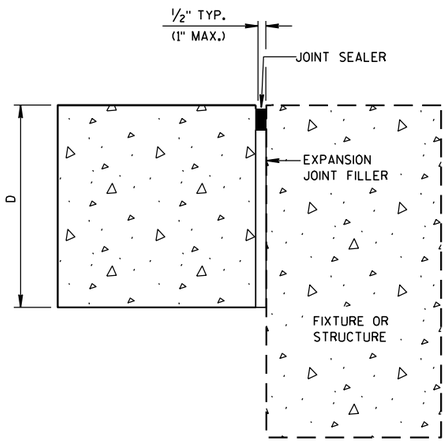
TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS

SEE NOTE (5)



DOWELED-TRANSVERSE
SEE NOTE (1)



UNTIED-LONGITUDINAL

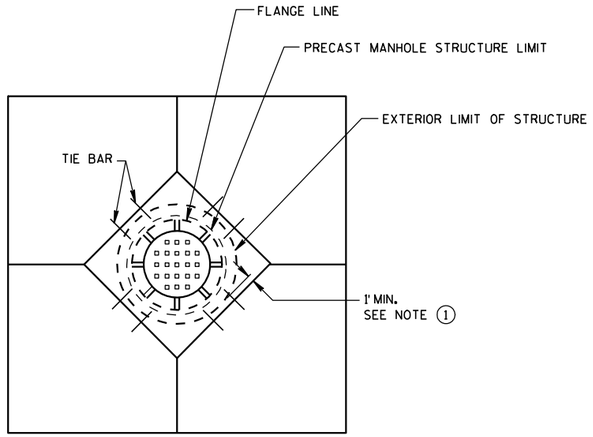
EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

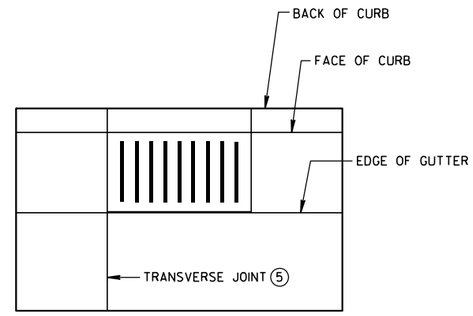
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

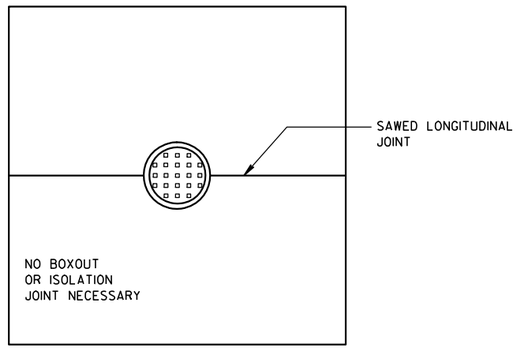
S.D.D. 13 C 18-1c



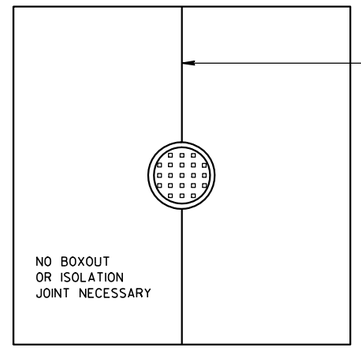
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



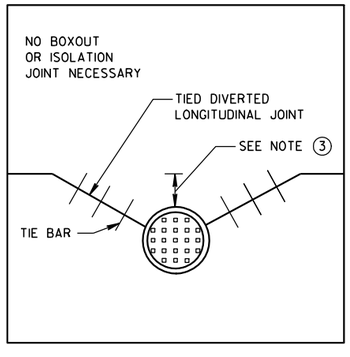
INLET WITH TRANSVERSE JOINT



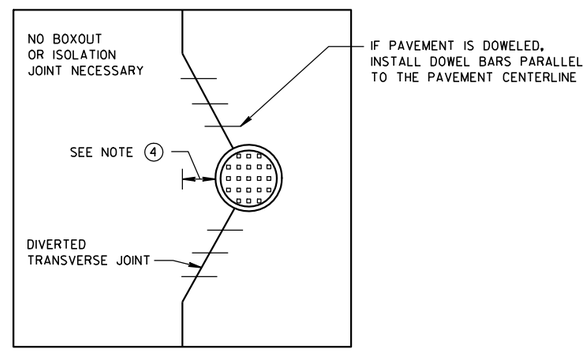
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

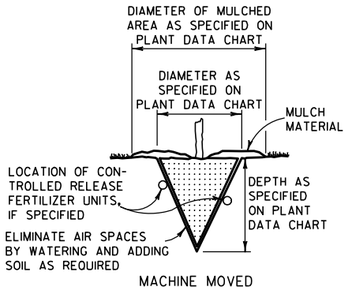
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS GREATER THAN 2 FEET, DO NOT DIVERT JOINT AND SAW LONGITUDINAL JOINT AS NORMAL. IF DISTANCE IS 2 FEET OR LESS, DIVERT LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE.
4. IF DISTANCE FROM THE EDGE OF MANHOLE TO THE NEAREST TRANSVERSE JOINT IS GREATER THAN 4 FEET, REDIRECT JOINT TO INTERSECT MANHOLE. IF DISTANCE IS 4 FEET OR LESS, PLACE REBAR REINFORCEMENT AROUND MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

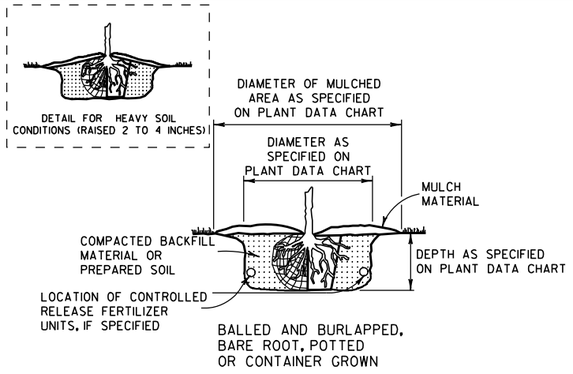
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-5-2010 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & D205 ENGINEER
FHWA

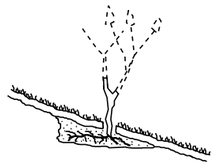
6
S.D.D. 13 C 18-1d



MACHINE MOVED

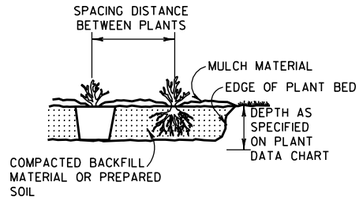


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



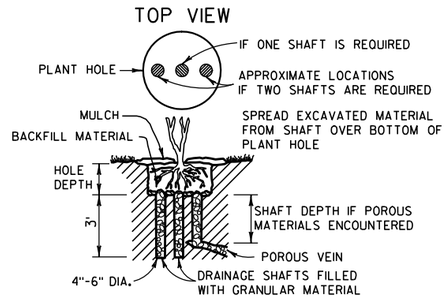
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

NOTE:
1) ENGINEER SHALL REQUIRE 3 SLITS IN POT TO SPEED DETERIORATION
2) METAL, PLASTIC OR OTHER NONDEGRADABLE POTS SHALL BE REMOVED PRIOR TO PLANTING



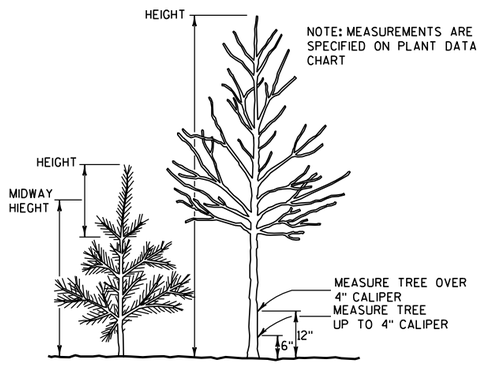
PREPARED BED (BARE ROOT AND POTTED)

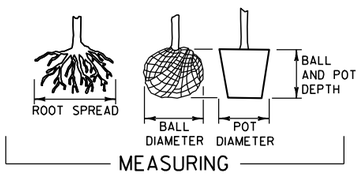
PLANTING



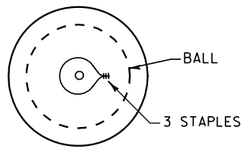
NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

DRAINING

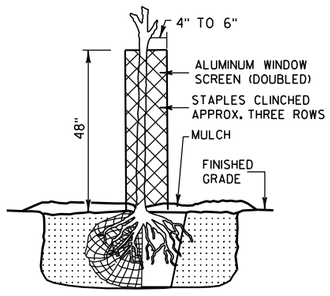




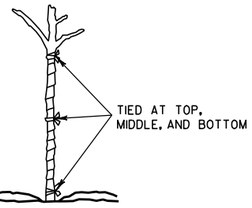
MEASURING



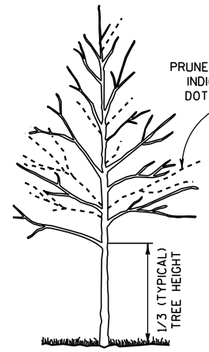
TOP VIEW



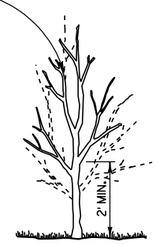
RODENT PROTECTION



WRAPPING



TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)



SINGLE STEMMED LOW DECIDUOUS TREES (CRABS AND OTHER SINGLE STEM TYPE)



MULTI-STEMMED LOW DECIDUOUS TREES OR LARGE SHRUBS (HAWTHORN, SERVICEBERRY)

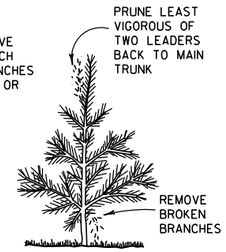
NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES



SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

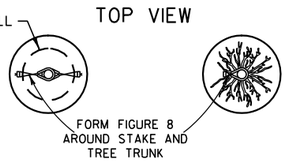


SUMAC

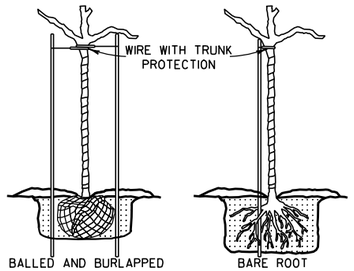


TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

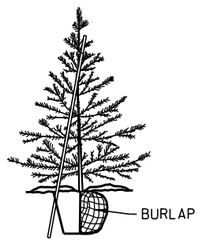
PRUNING







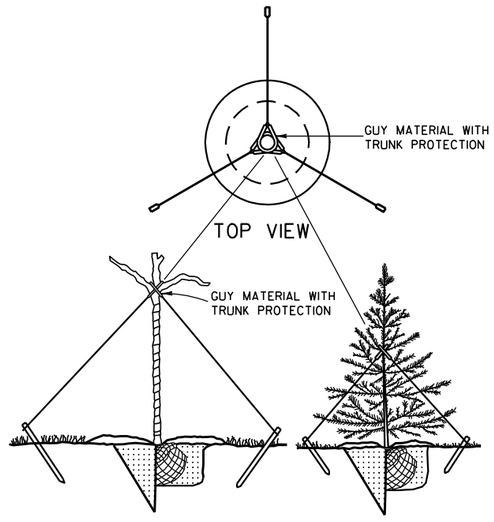
DECIDUOUS TREES



EVERGREENS

NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

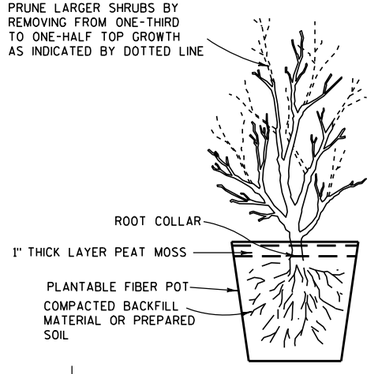
BRACING



DECIDUOUS TREES EVERGREENS

GUYING

PRUNE LARGER SHRUBS BY REMOVING FROM ONE-THIRD TO ONE-HALF TOP GROWTH AS INDICATED BY DOTTED LINE



POTTING

NOTES

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

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/11/94 DATE
/S/ Rory L. Rhinesmith
CHIEF METHODS DEVELOPMENT ENGINEER
FHWA

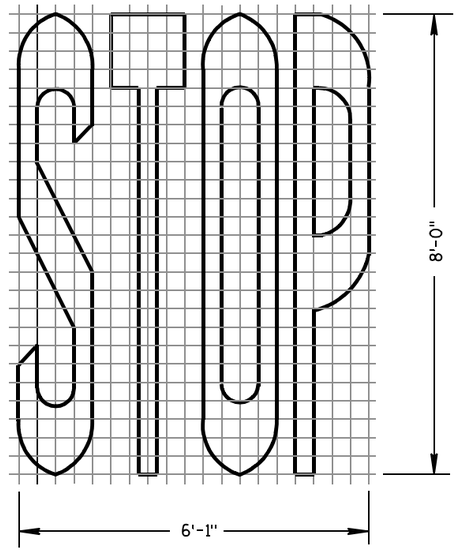
S.D.D. 14 A 2-1

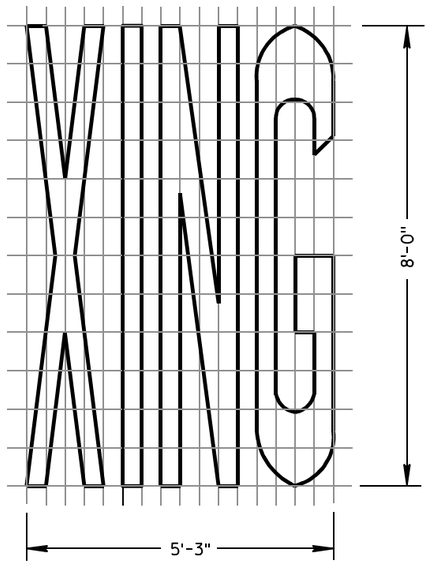
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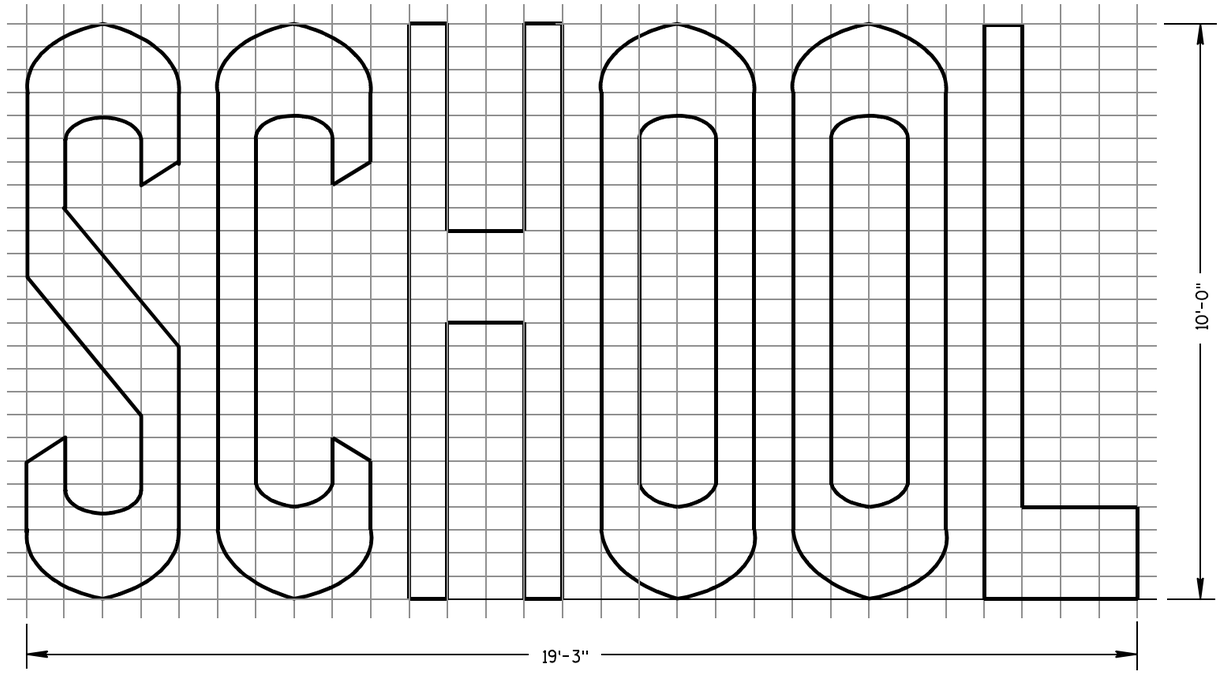
GENERAL NOTES

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.

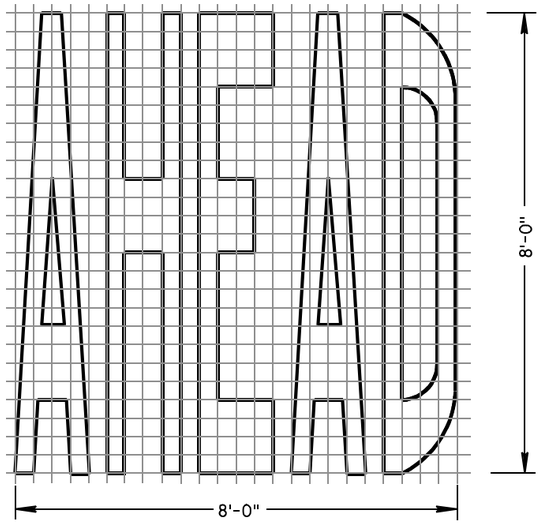
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

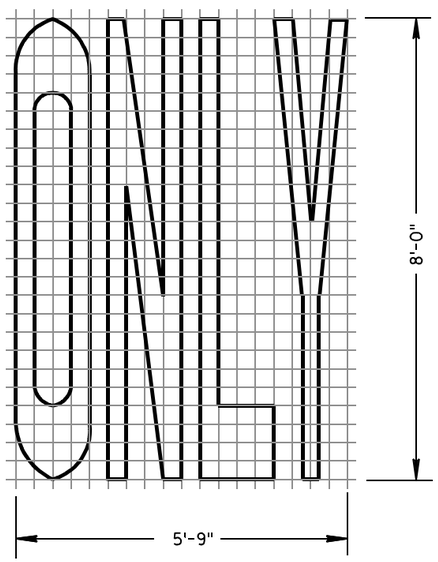


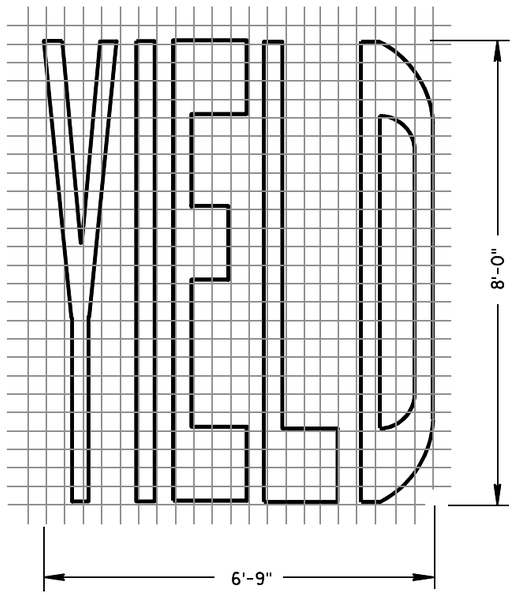


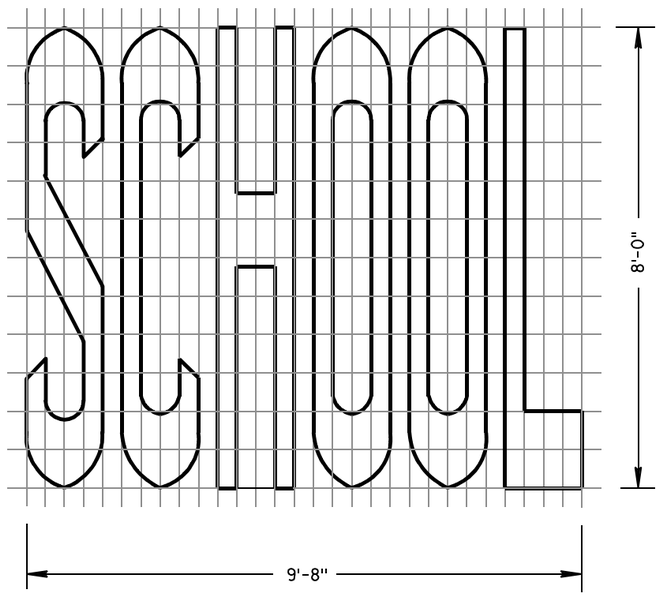


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

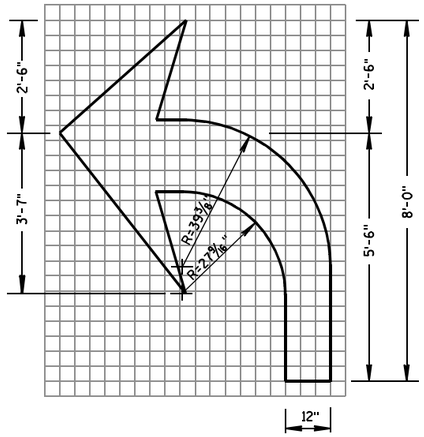
FHWA

6

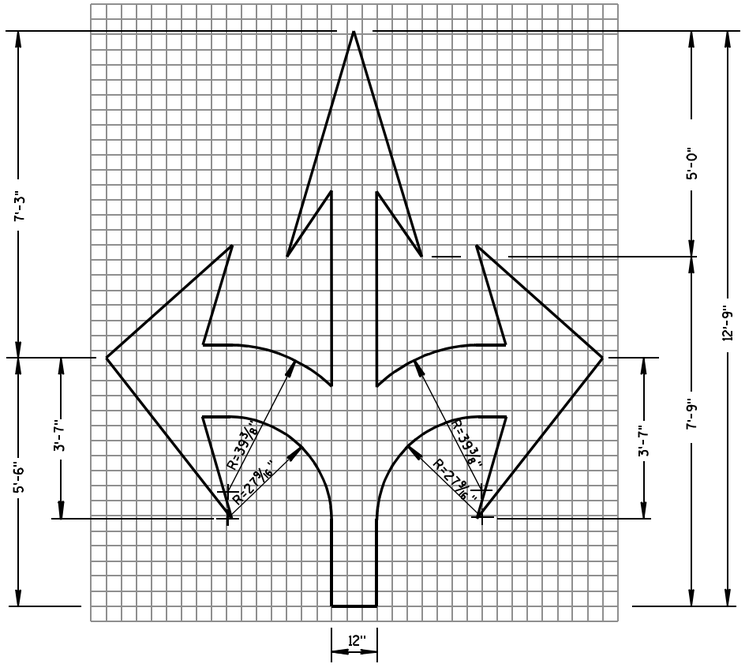
S.D.D. 15 C 7-12b

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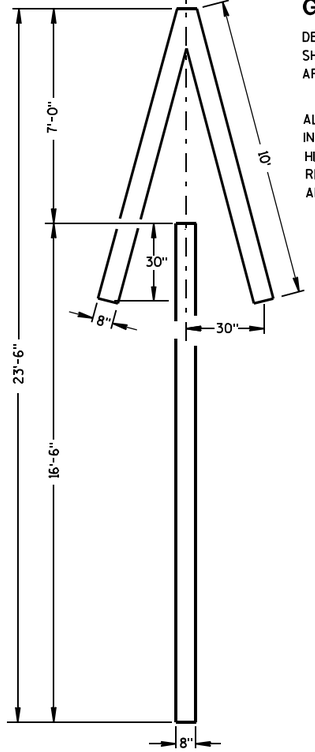
S.D.D. 15 C 7-12b



TYPE 2



TYPE 6

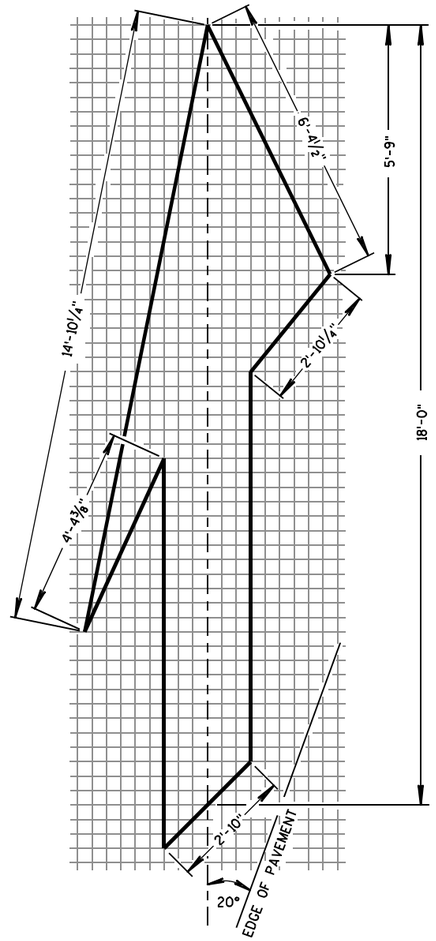


TYPE 4

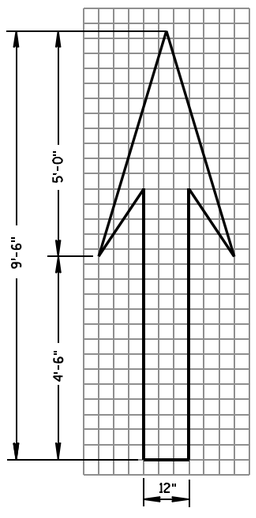
GENERAL NOTES

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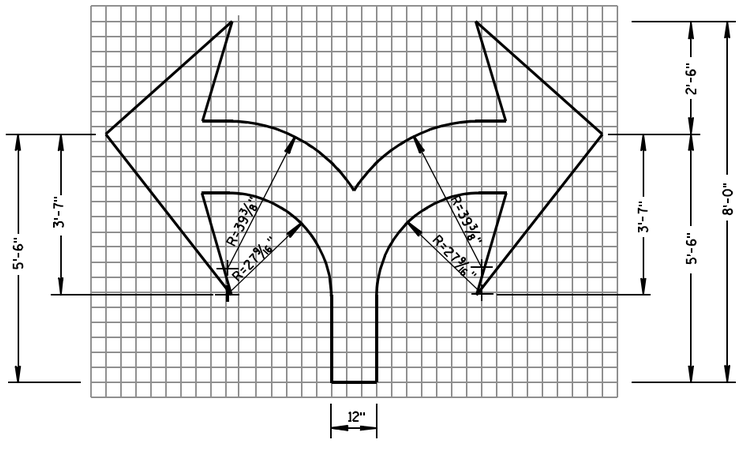
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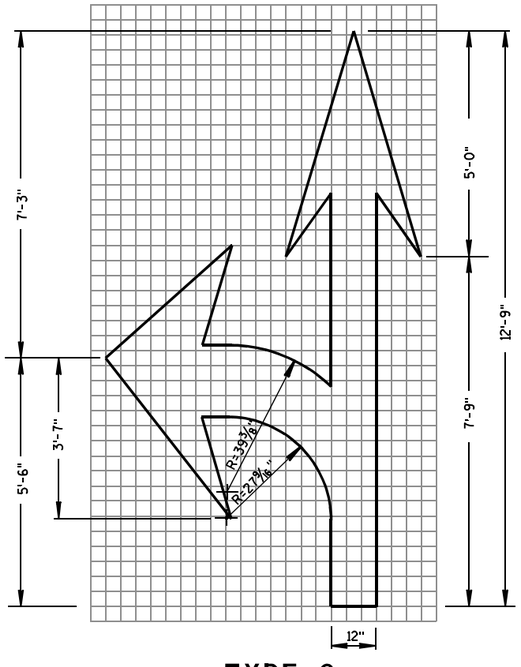
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nathaam — STATE TRAFFIC ENGINEER

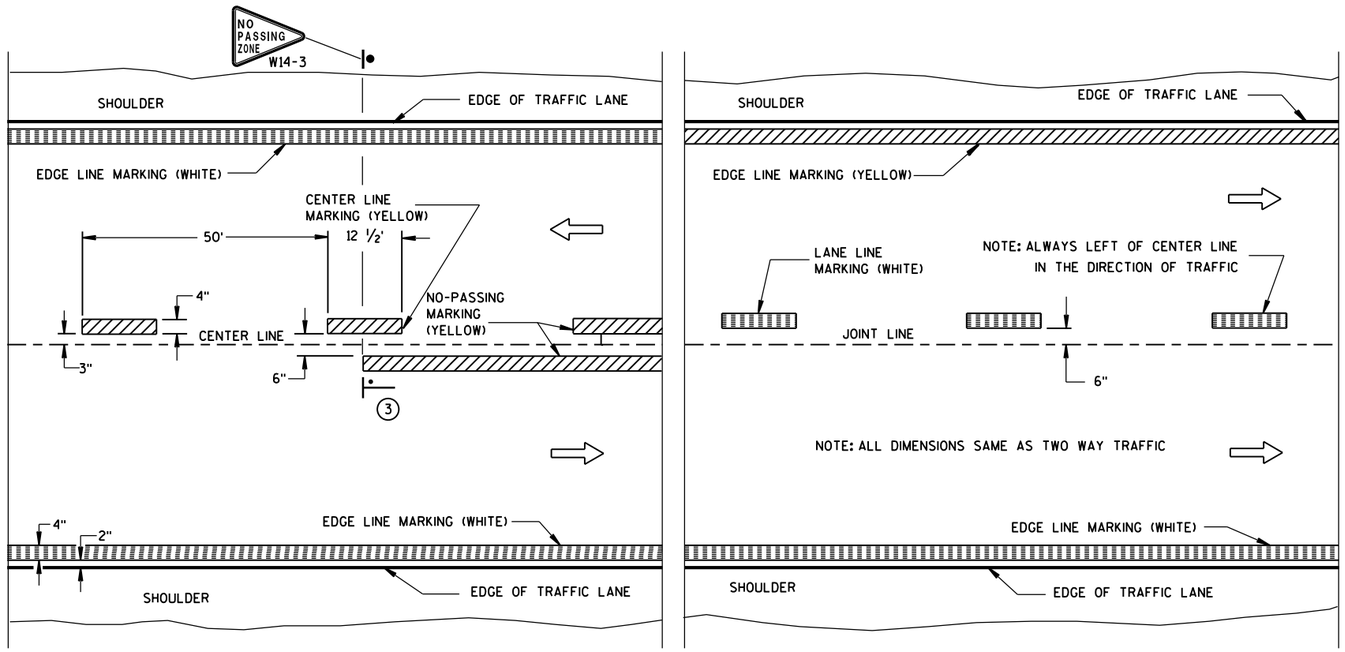
FHWA

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S.D.D. 15 C 7-12c

6

S.D.D. 15 C 7-12c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

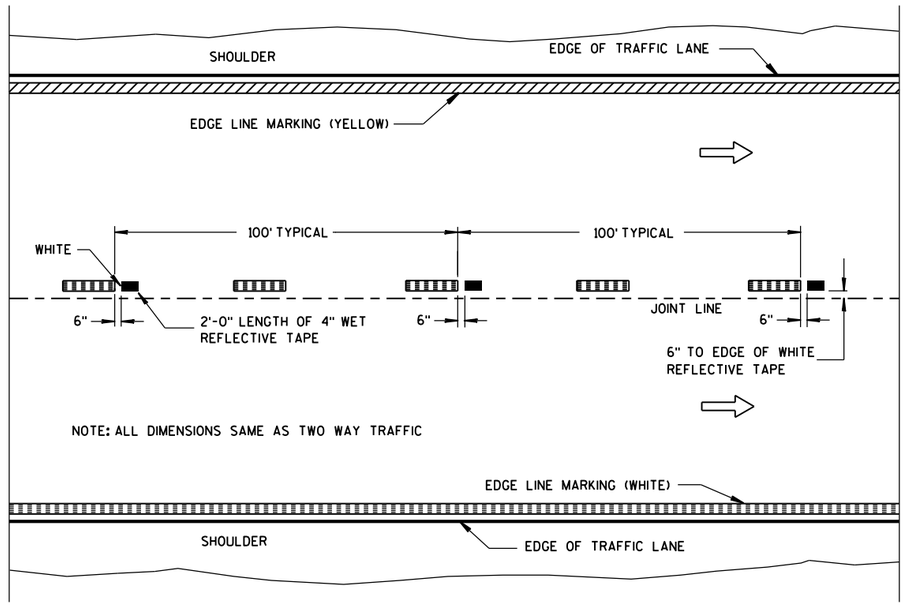
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

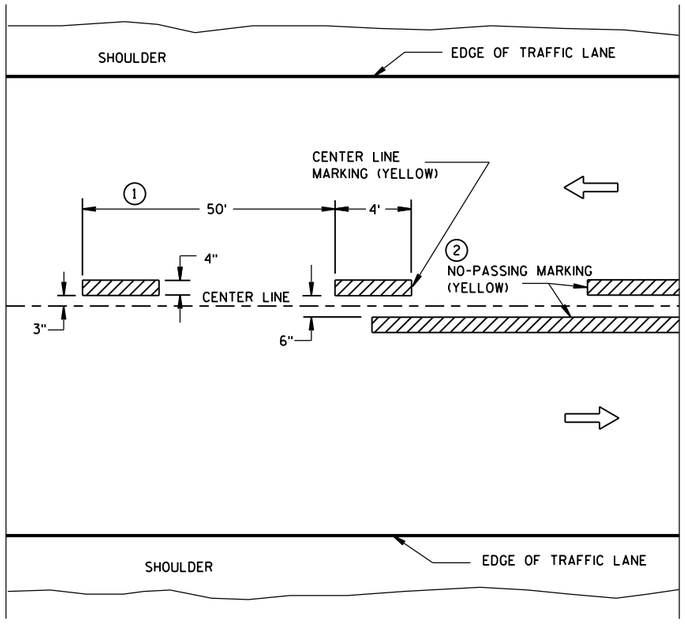
1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

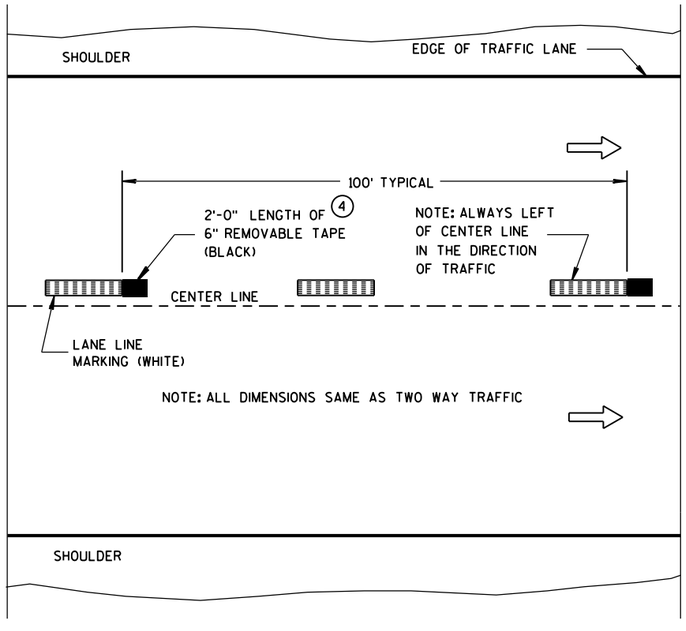
ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

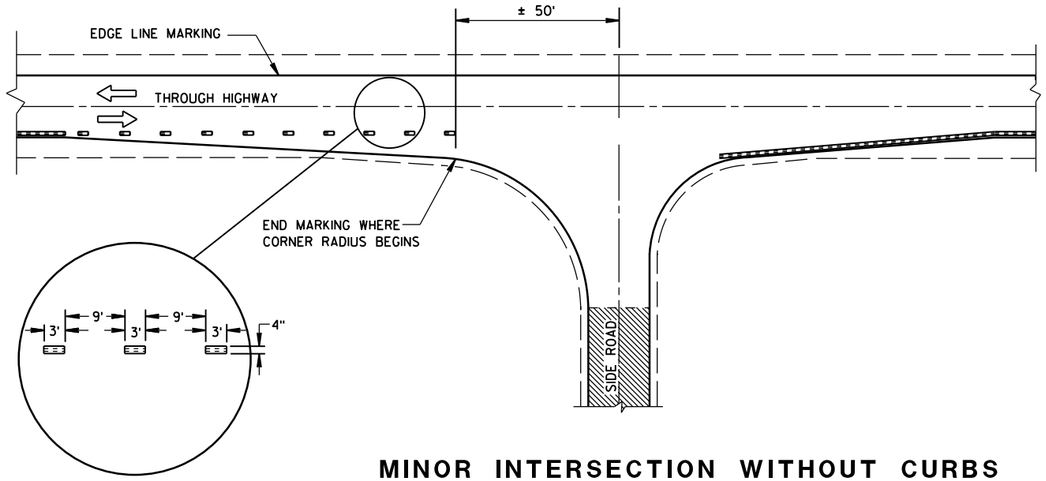
APPROVED
10-1-2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 8-15a

6

S.D.D. 15 C 8-15a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

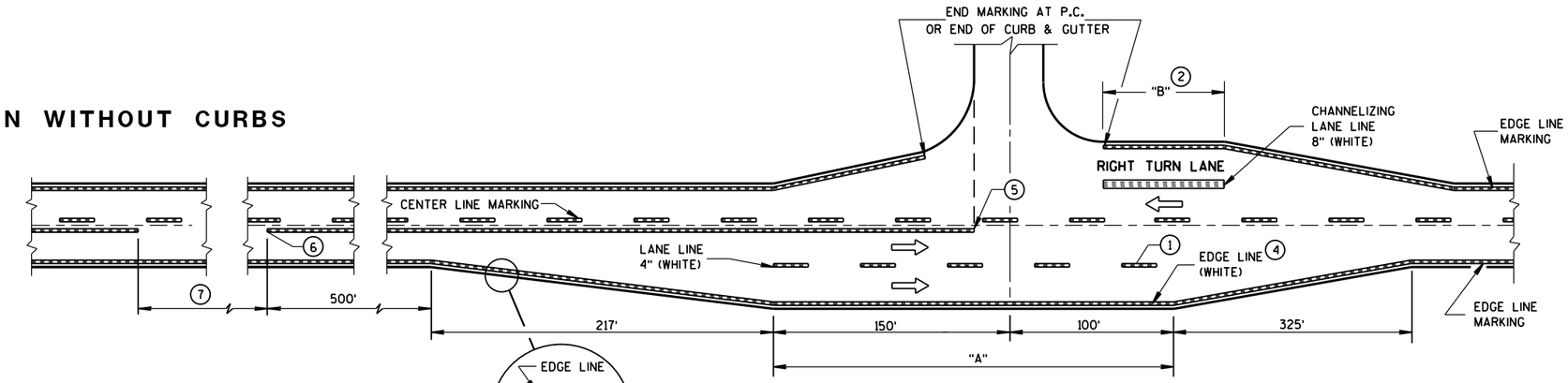
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

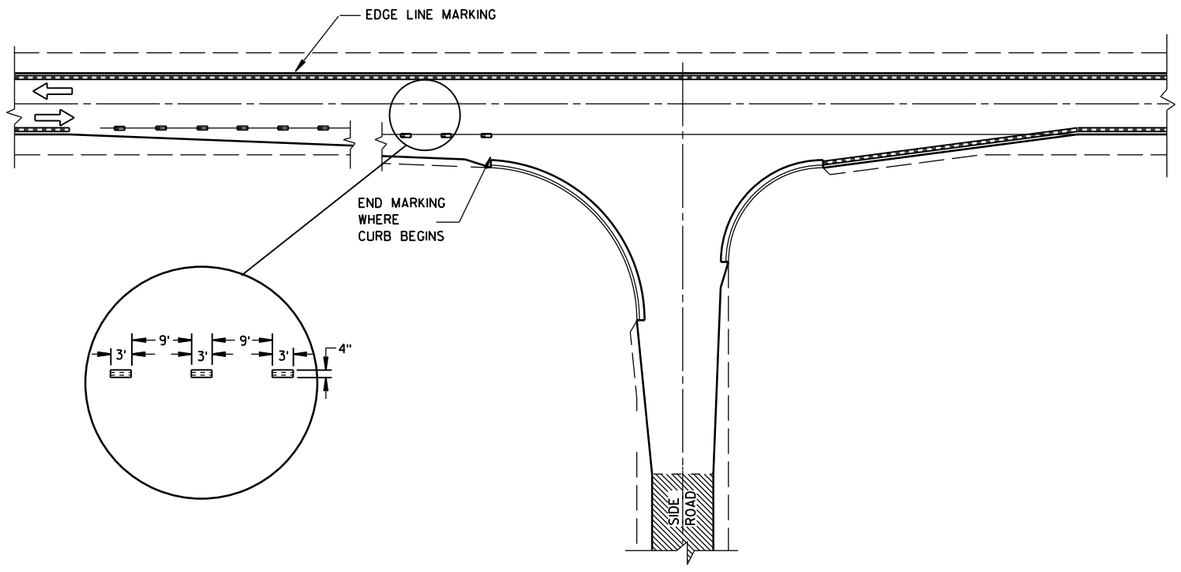
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



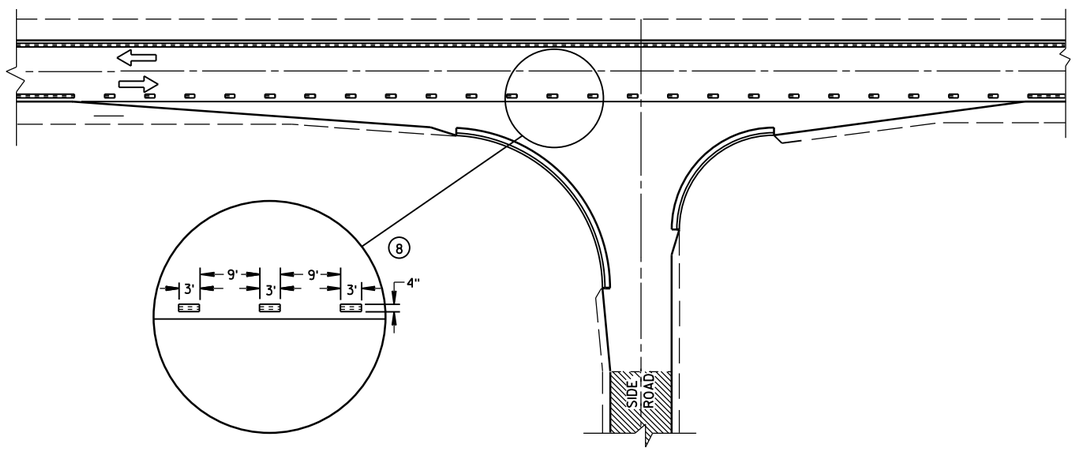
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

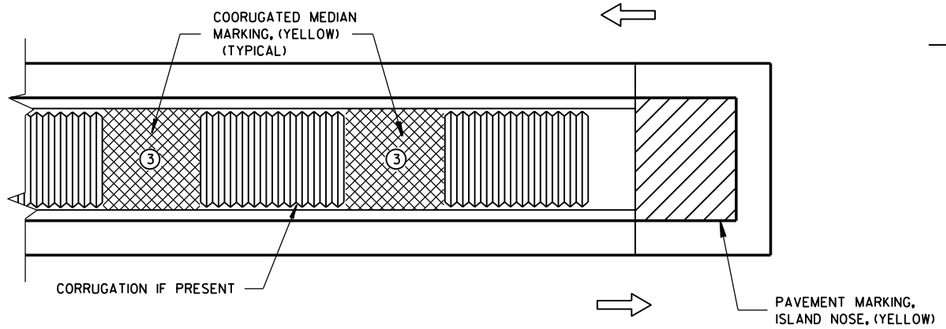
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

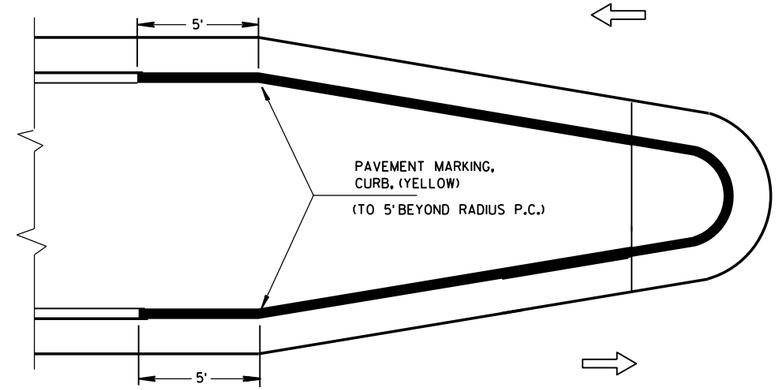
S.D.D. 15 C 8-15b

6

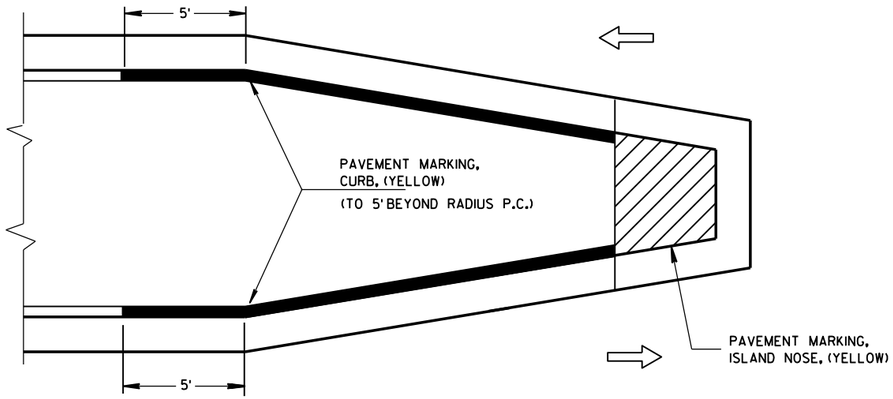
S.D.D. 15 C 8-15b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

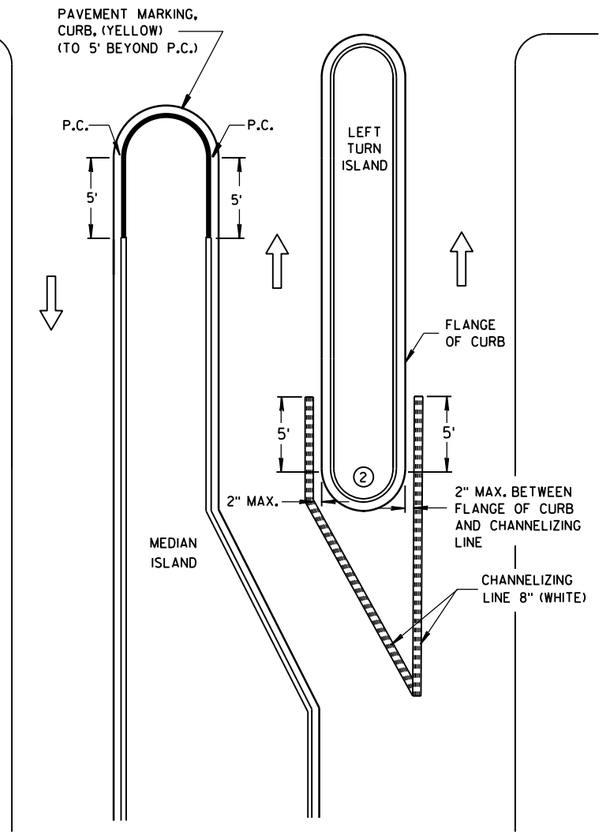


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

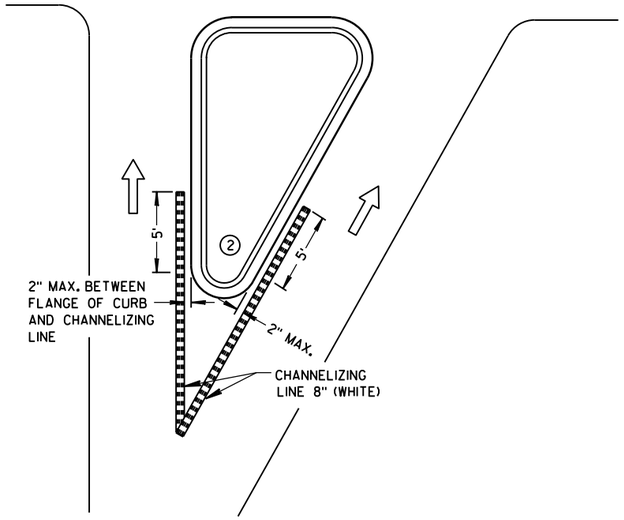
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



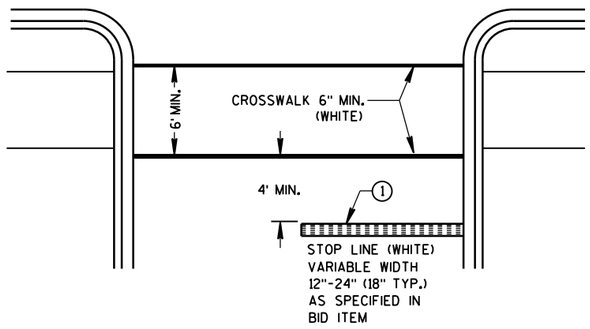
LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
3. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND



STOP LINE AND CROSSWALK

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)

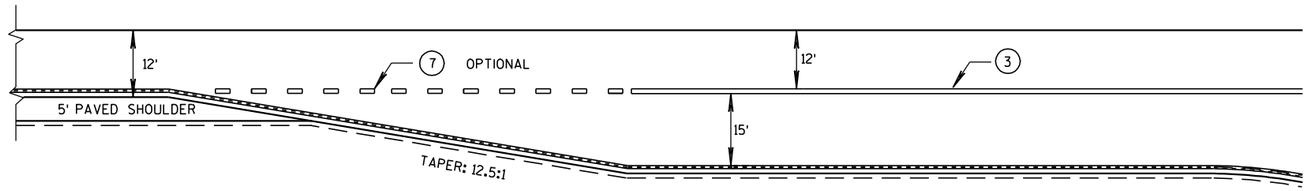
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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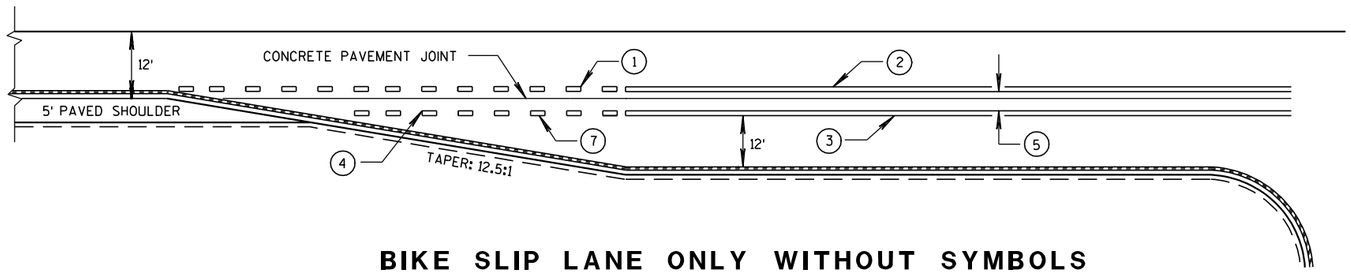
S.D.D. 15 C 8-15f

6

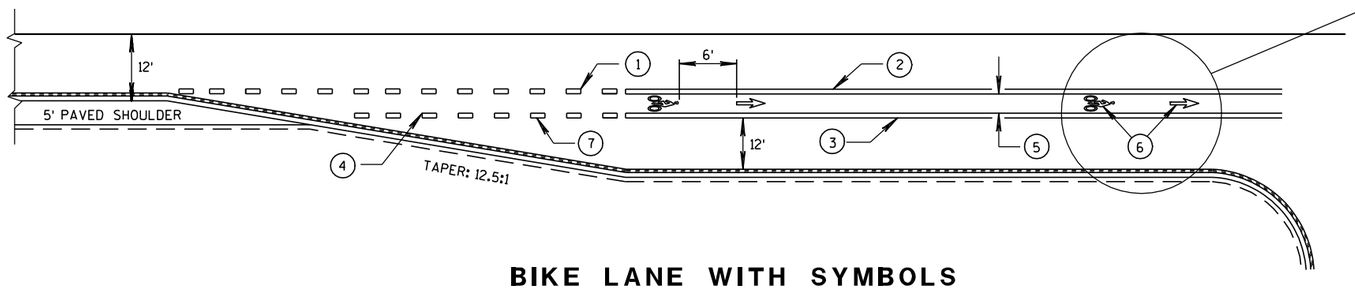
S.D.D. 15 C 8-15f



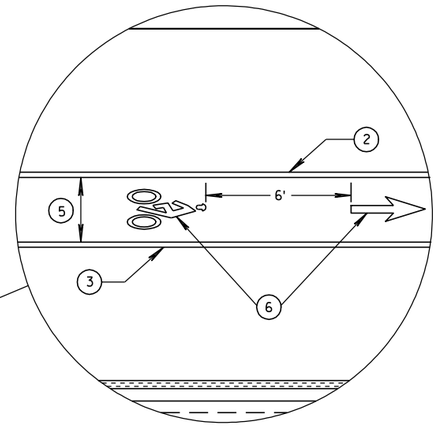
WIDER TURN LANE



BIKE SLIP LANE ONLY WITHOUT SYMBOLS



BIKE LANE WITH SYMBOLS



GENERAL NOTES

1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMMODATION FOR CONCRETE PAVEMENT IS 5' WIDE.
   2 LANE (3' LEFT, 2' RIGHT OF JOINT).
   4 LANE (2' LEFT, 3' RIGHT OF JOINT).
   BIKE ACCOMMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4', 5' AT ≥45 MPH.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/6/2012 DATE
/S/ Thomas N. N[illegible] STATE TRAFFIC ENGINE 212 SIGN
FHWA

6

S.D.D. 15 C 29-2a

6

S.D.D. 15 C 29-2a

GENERAL NOTES

(1) 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.

(2) 4-INCH, WHITE.

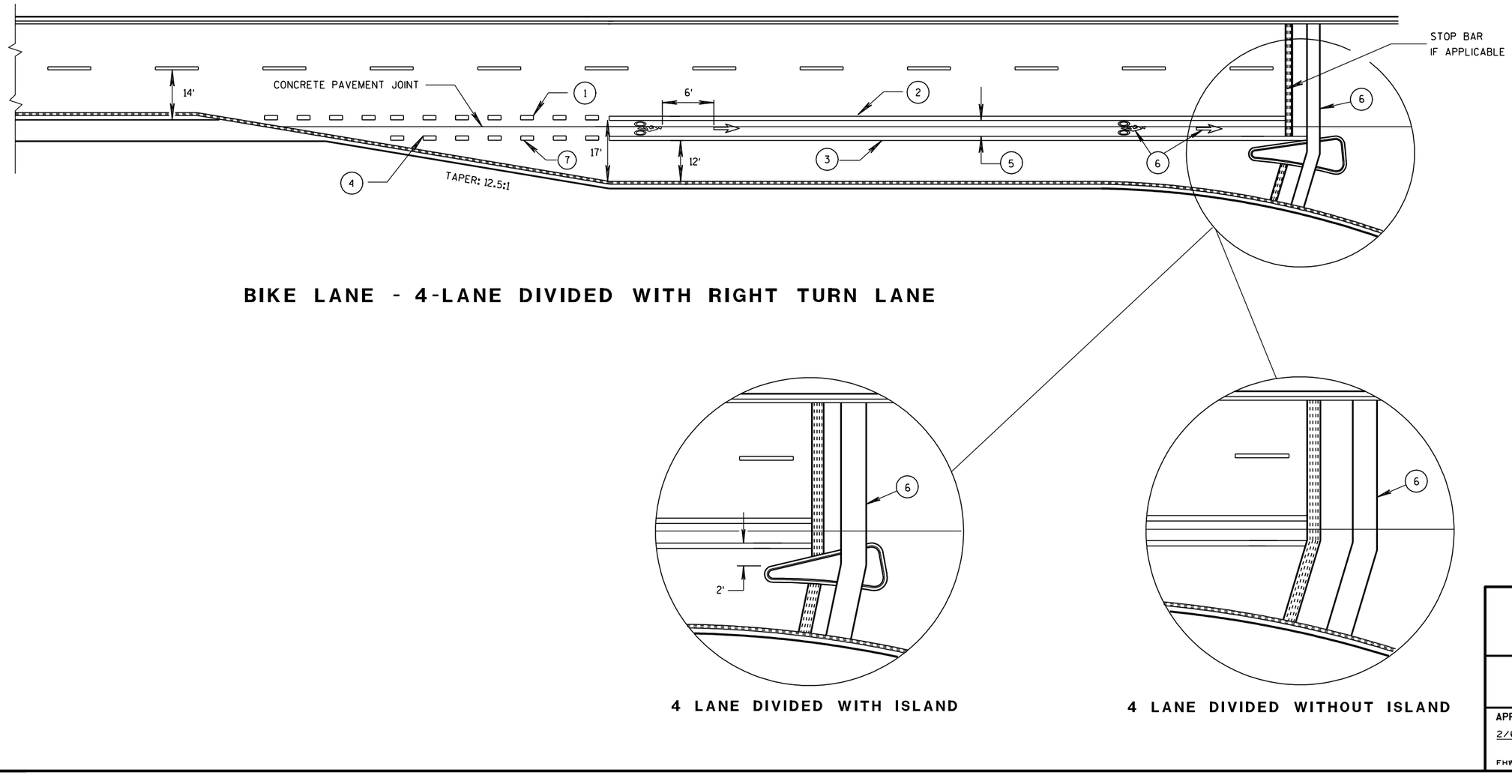
(3) 8-INCH, WHITE.

(4) IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.

(5) BIKE ACCOMMODATION FOR CONCRETE PAVEMENT IS 5' WIDE.
2 LANE (3' LEFT, 2' RIGHT OF JOINT).
4 LANE (2' LEFT, 3' RIGHT OF JOINT).
BIKE ACCOMMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4', 5' AT ≥ 45 MPH.

(6) REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

(7) 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.



BIKE LANE - 4-LANE DIVIDED WITH RIGHT TURN LANE

4 LANE DIVIDED WITH ISLAND

4 LANE DIVIDED WITHOUT ISLAND

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

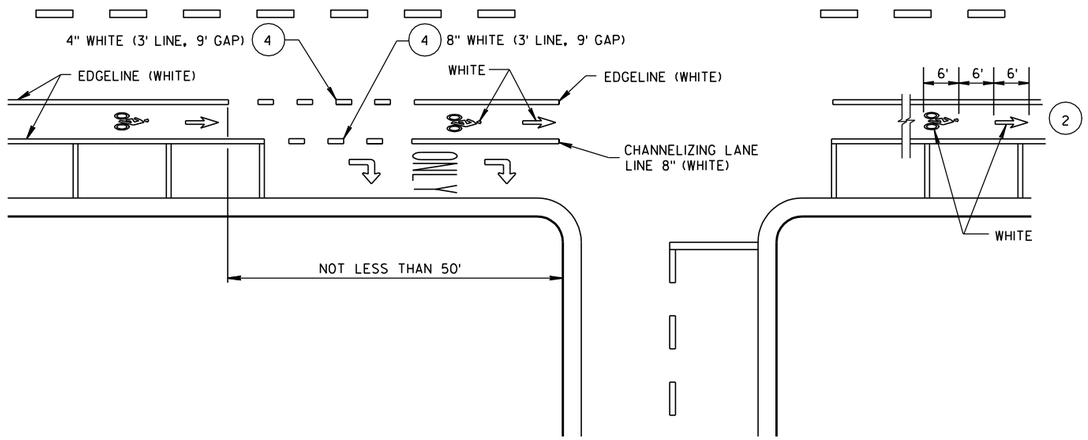
APPROVED
2/6/2012 DATE
/S/ Thomas N. [illegible] STATE TRAFFIC ENGINEER SIGN
FHWA

S.D.D. 15 C 29-2b

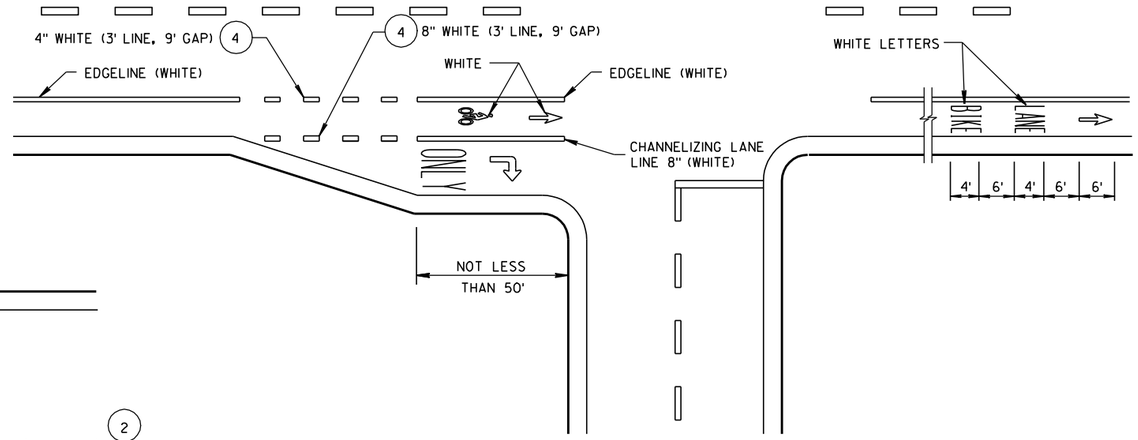
S.D.D. 15 C 29-2b

GENERAL NOTES

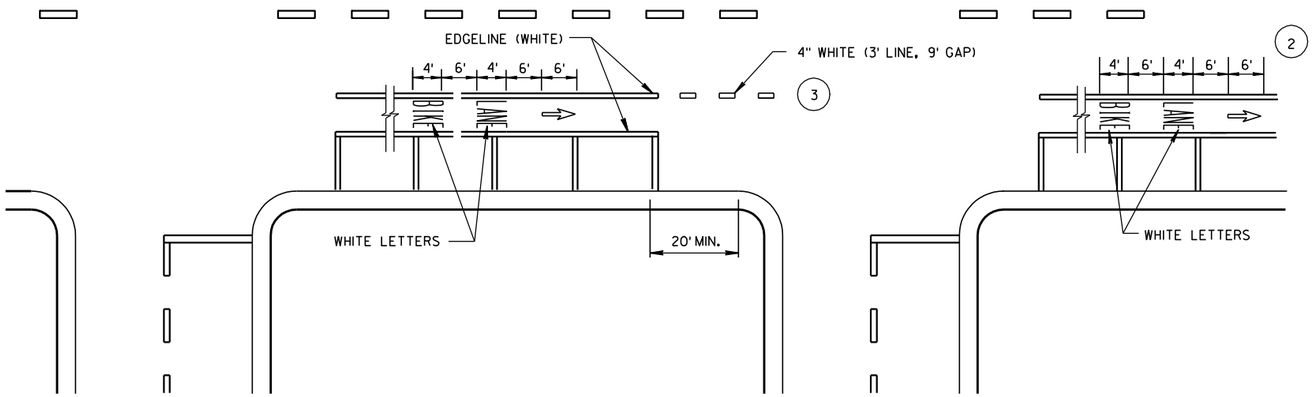
1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' 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. WHEN SPECIFIED IN THE CONTRACT.



DESIGNATED BICYCLE LANE



DESIGNATED BICYCLE LANE
NO PARKING, RIGHT TURN LANE



DESIGNATED BICYCLE LANE
WITH PARKING, NO RIGHT TURN LANE

URBAN BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/6/2012 DATE
/S/ Thomas N. [illegible]
STATE TRAFFIC ENGINEER

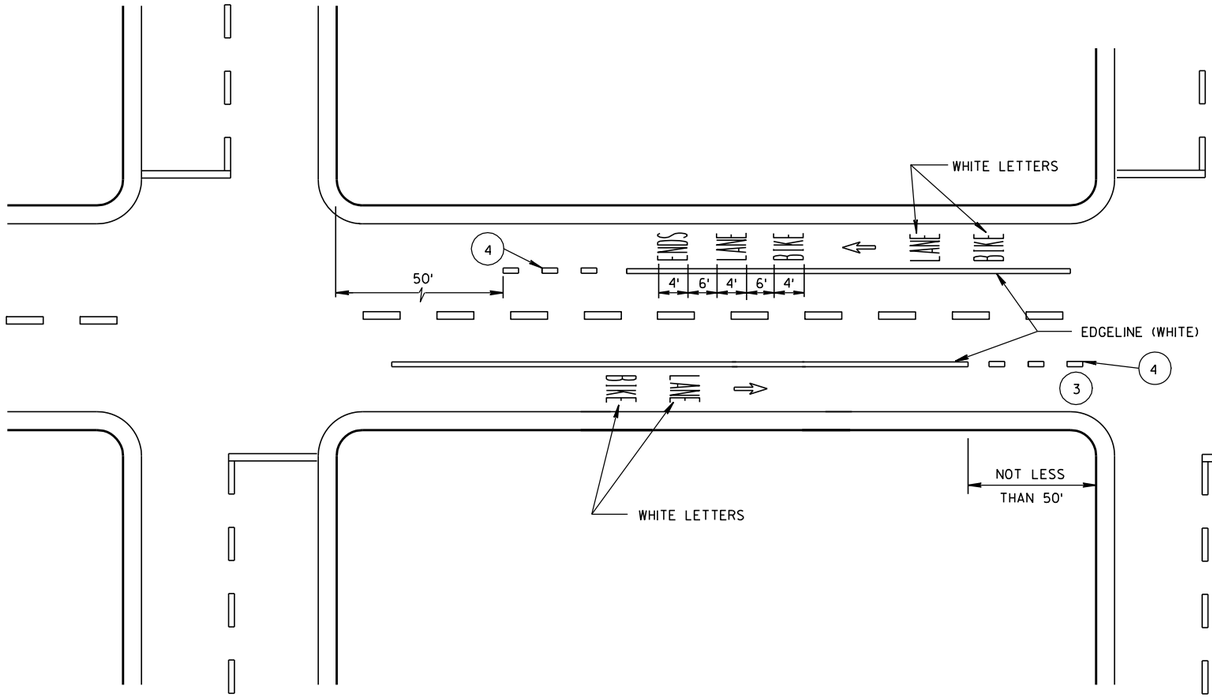
FHWA

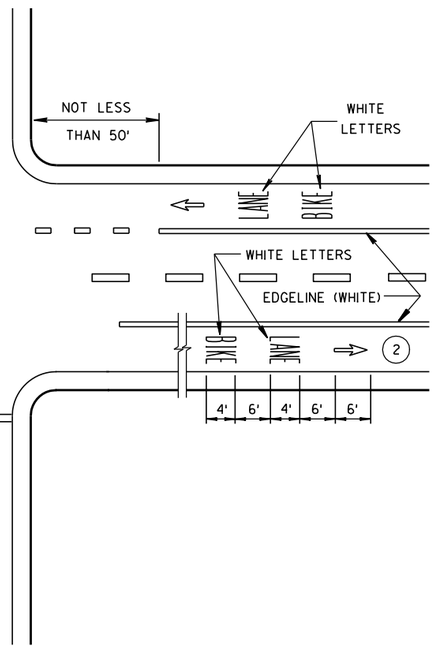
S.D.D. 15 C 29-2c

6

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' 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. 3' LINE, 9' GAP - 4" WIDE, WHITE.





DESIGNATED BICYCLE LANE
NO PARKING

URBAN BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/6/2012 DATE — /S/ Thomas N. [illegible] STATE TRAFFIC ENGINEER — SIGN

FHWA

6

S.D.D. 15 C 29-2d

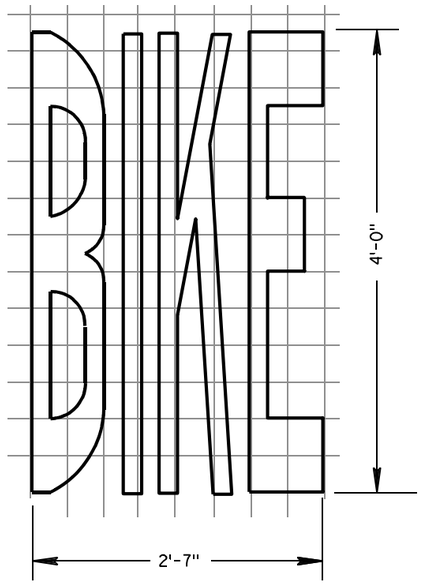
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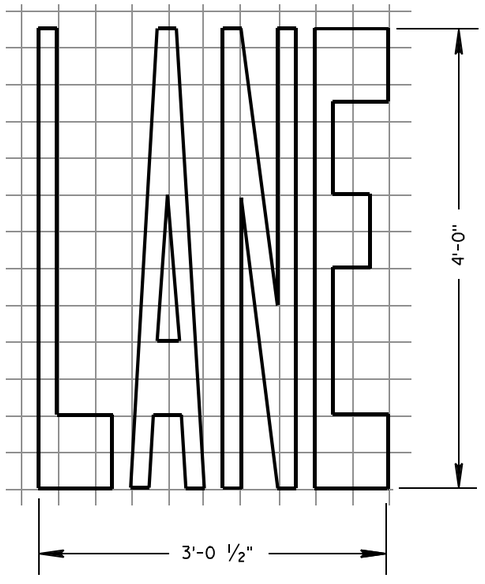
S.D.D. 15 C 29-2d

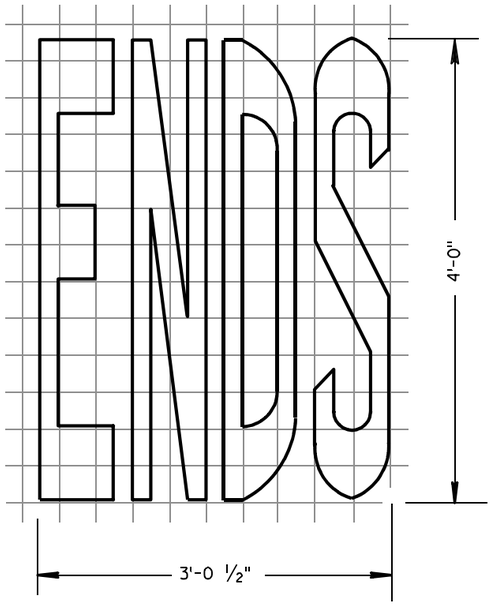
GENERAL NOTES

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.

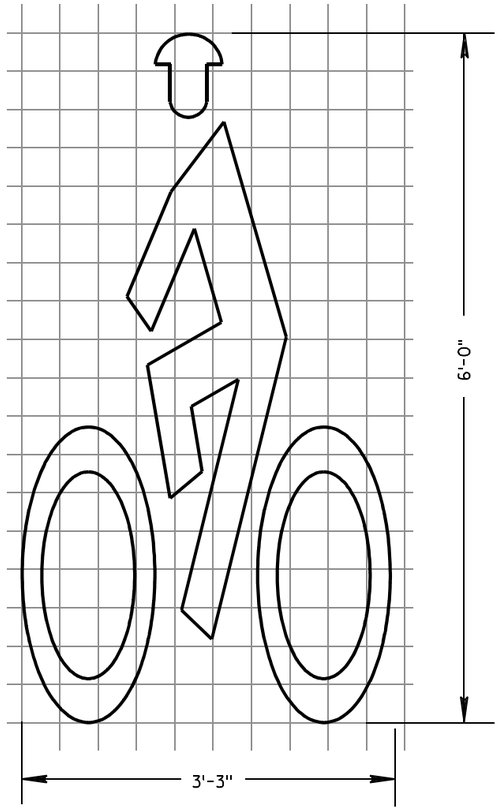
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



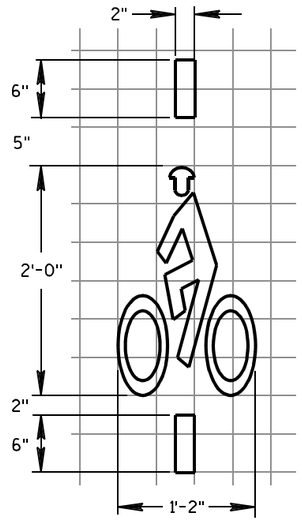




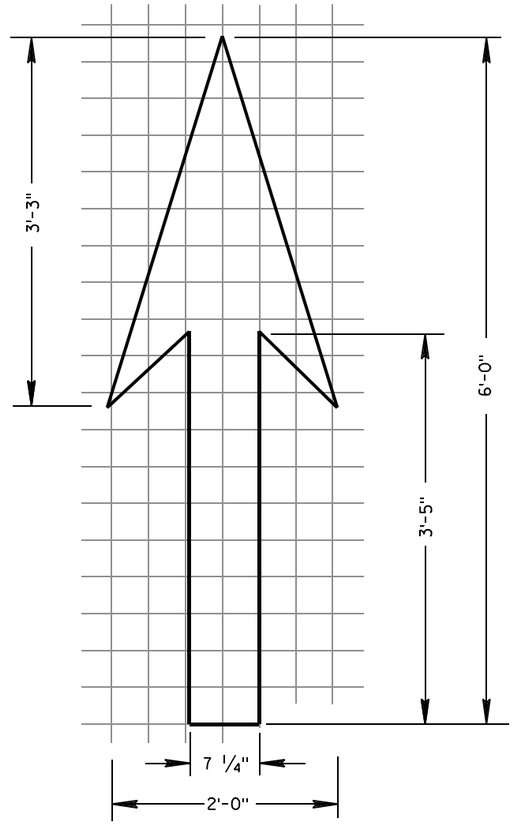
BIKE LANE WORDS



BIKE LANE SYMBOL



BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE ARROW

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-6-2012 DATE

/S/ Thomas N. N[illegible] STATE TRAFFIC ENGINEER

FHWA

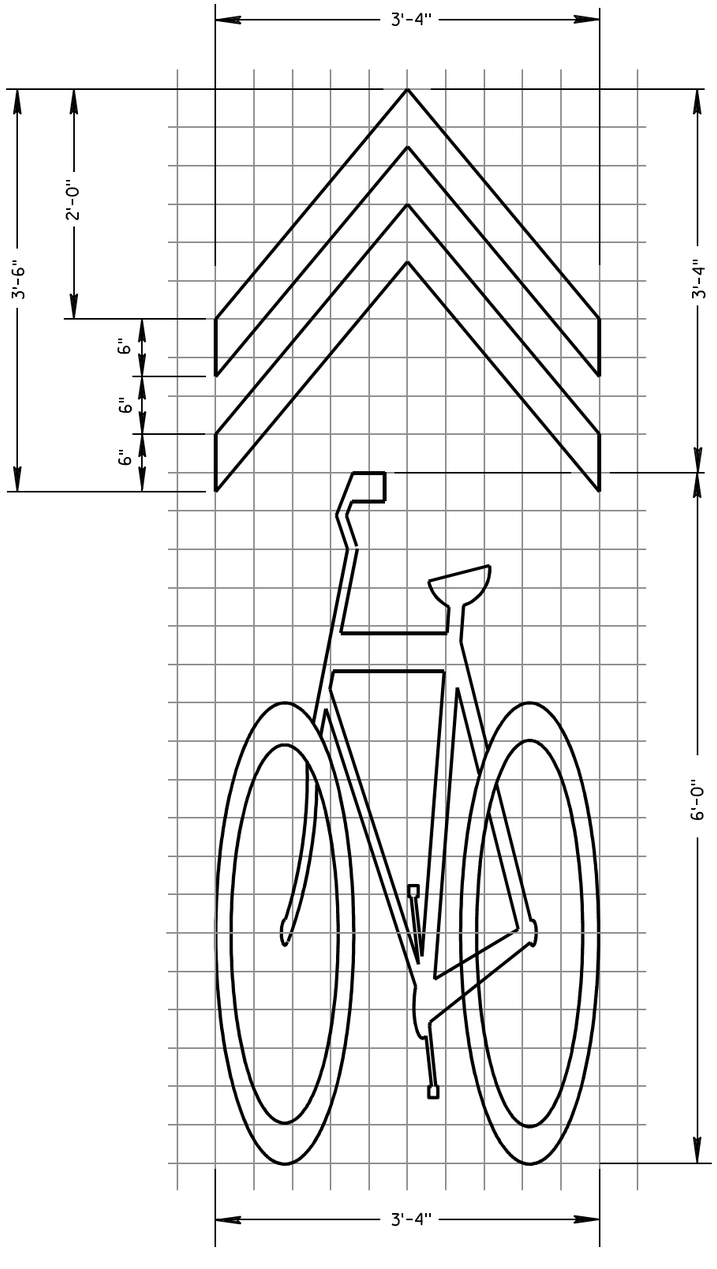
GN

6

S.D.D. 15 C 29-2e

6

S.D.D. 15 C 29-2e



BIKE SYMBOL FOR SHARED LANE

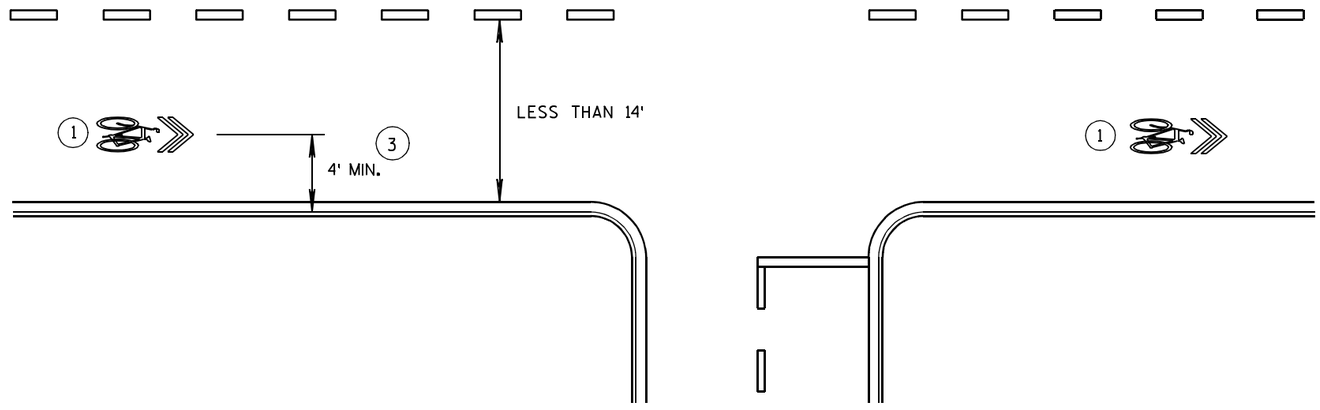
GENERAL NOTES

ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

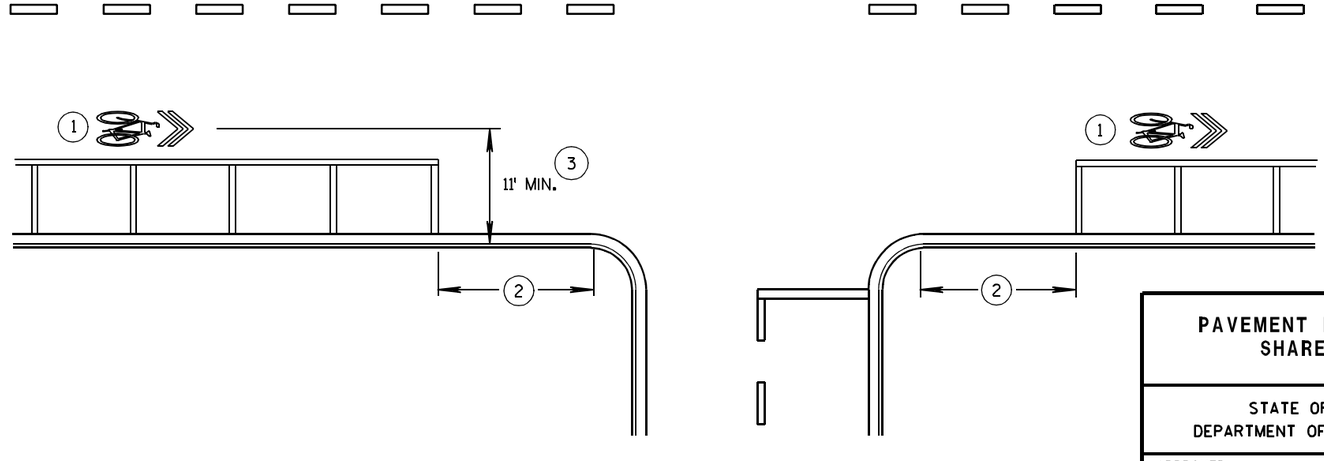
(1) SPACED A MAXIMUM OF 250 FEET.

(2) 20 FOOT MINIMUM FROM CURB RADIUS.

(3) OR TO EDGE OF PAVEMENT WITHOUT CURB.



WITHOUT PARKING



WITH PARKING

PAVEMENT MARKING FOR SHARED LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-6-2012
DATE

/S/ Thomas N. Nothem
STATE TRAFFIC ENGINEER

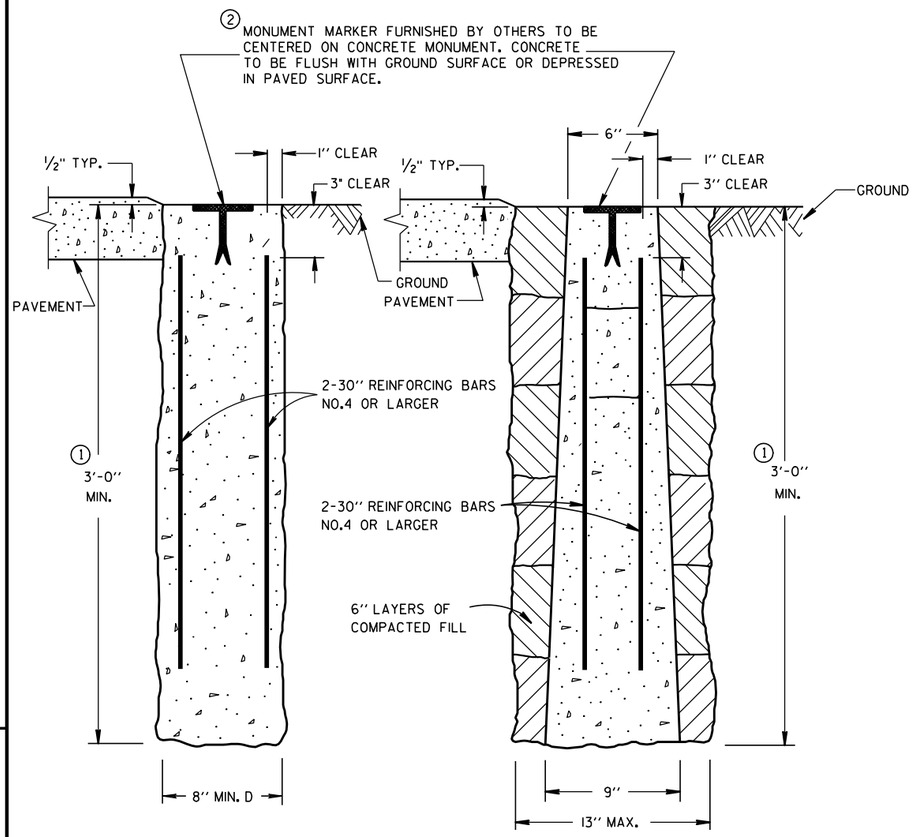
FHWA

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S.D.D. 15 C 29-2f

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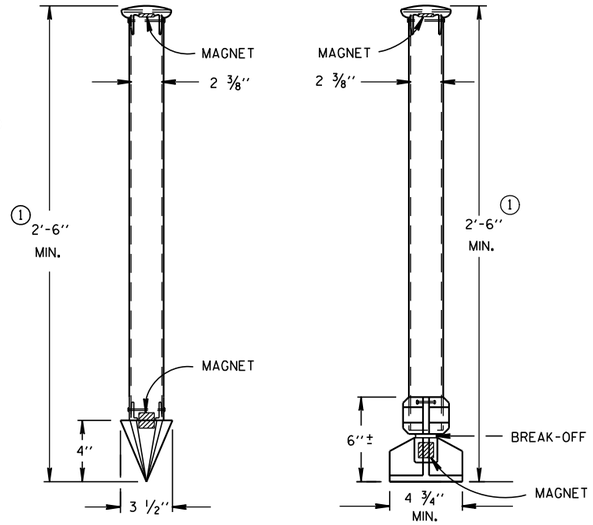
S.D.D. 15 C 29-2f



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C DRIVE-IN MONUMENT

TYPE D BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

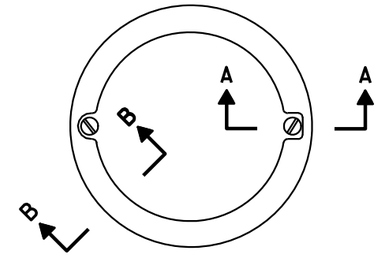
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

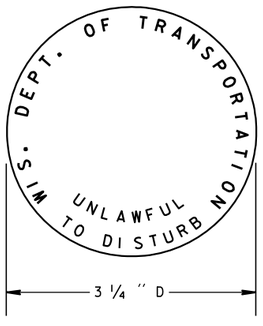
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

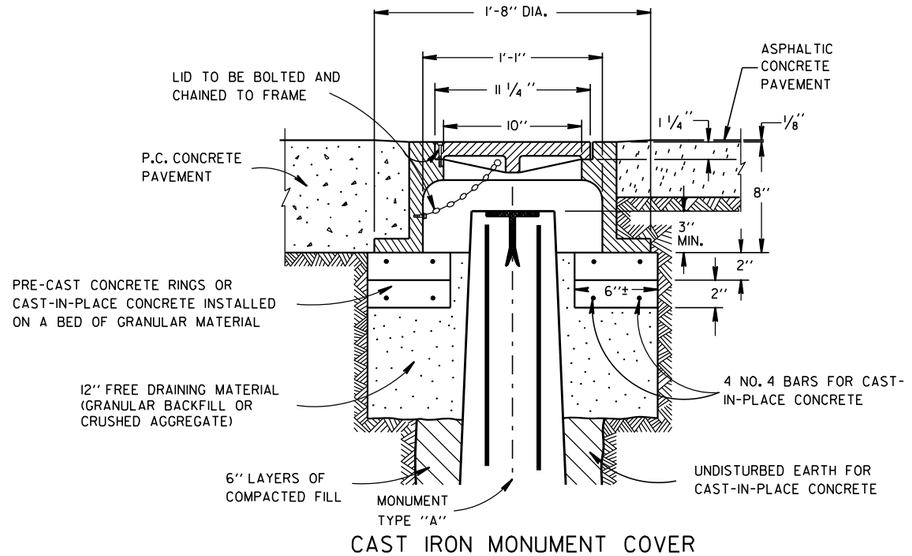
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW

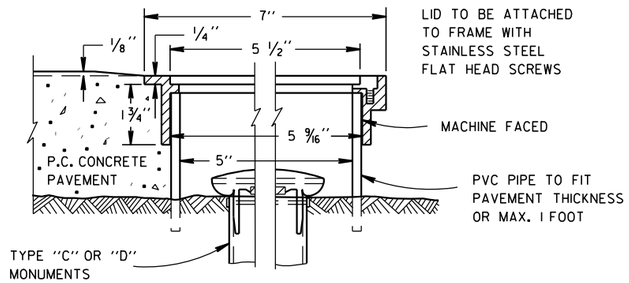


② WIS DOT MONUMENT MARKER LOGO FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)

(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MOUNMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/22/1999 DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 16 A 1-6

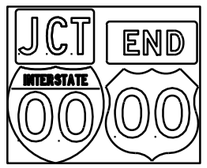
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S.D.D. 16 A 1-6

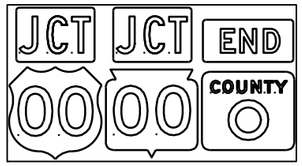
TYPICAL ASSEMBLIES



J1-1



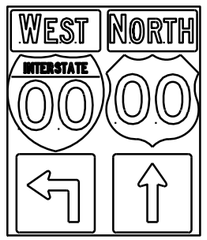
J1-2



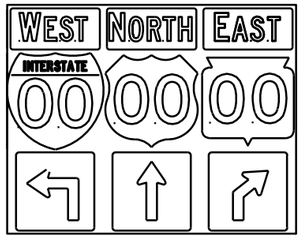
J1-3



J2-1



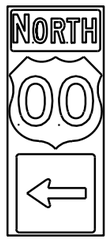
J2-2



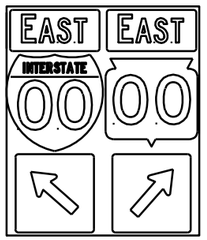
J2-3



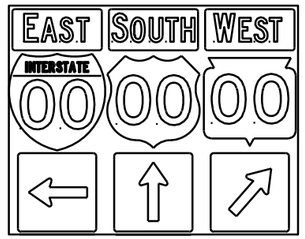
JV



J3-1



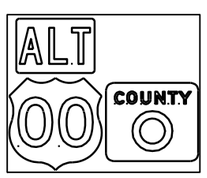
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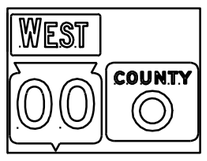
J3-3



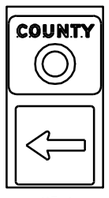
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



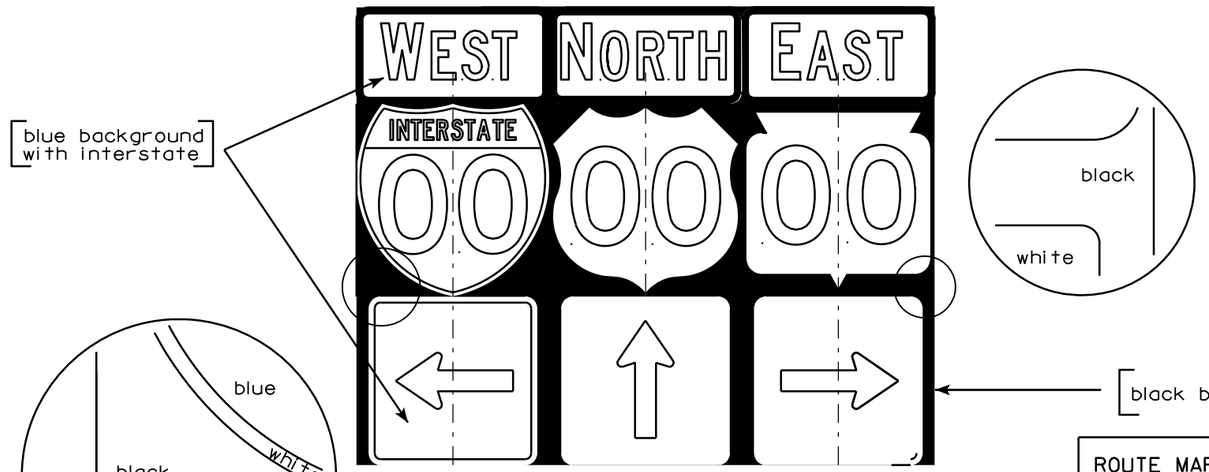
J23-1



J22-1

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 since base material is plywood.
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.



ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/21/09 PLATE NO. A2-1S.6

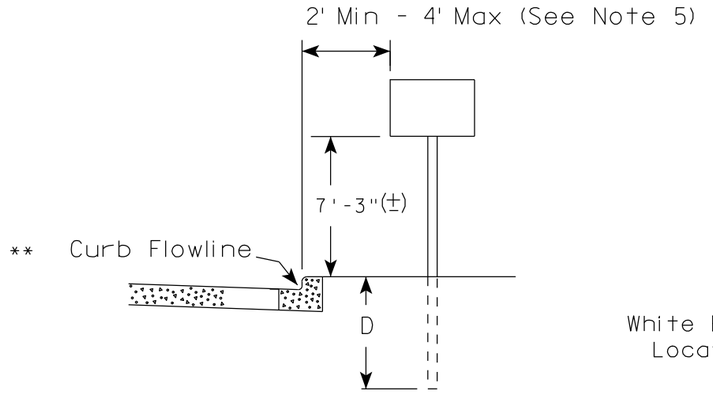
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7

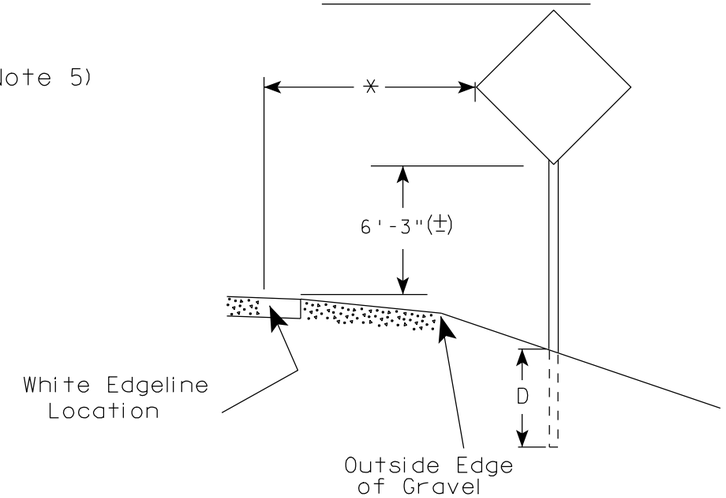
PROJECT NO:

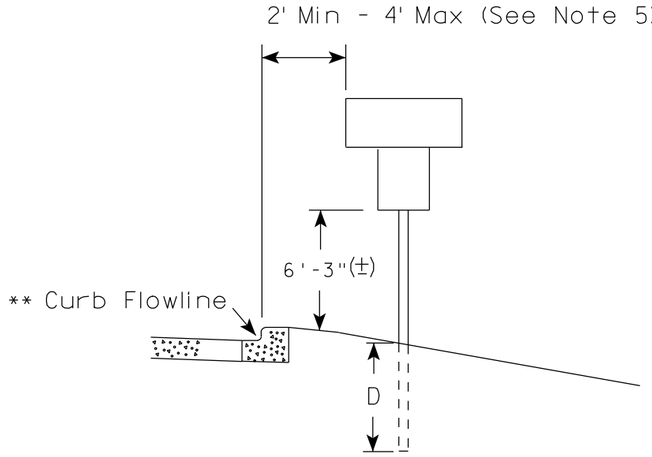
SHEET NO: 219 E

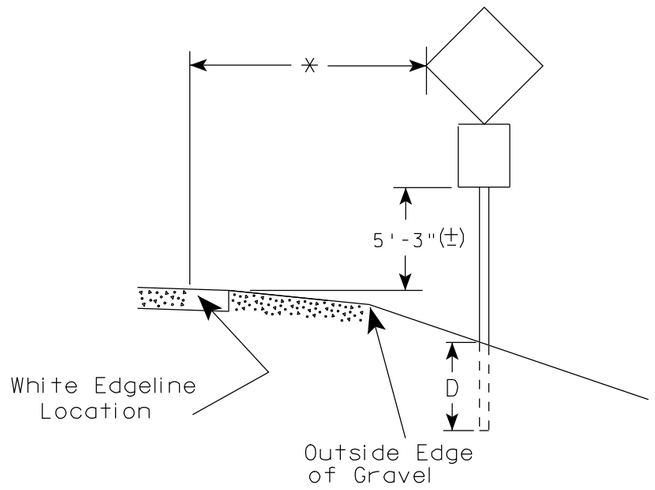
URBAN AREA



RURAL AREA (See Note 2)







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

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

GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. 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. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
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 stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed 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), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) 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'

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

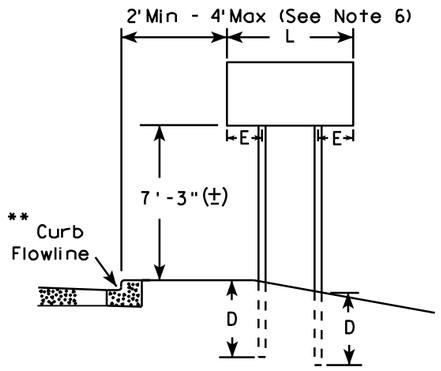
DATE 9/21/2011 PLATE NO. A4-3.16

7

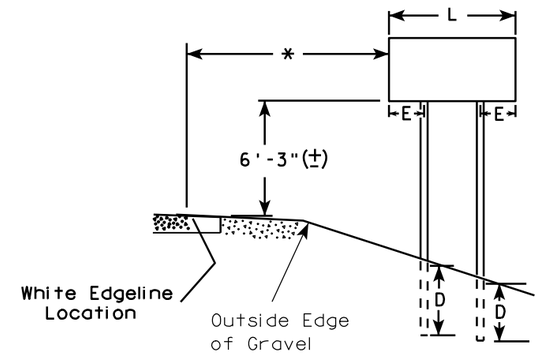
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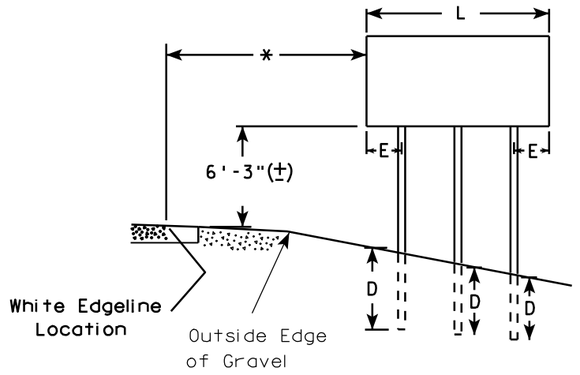
PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 220 | E

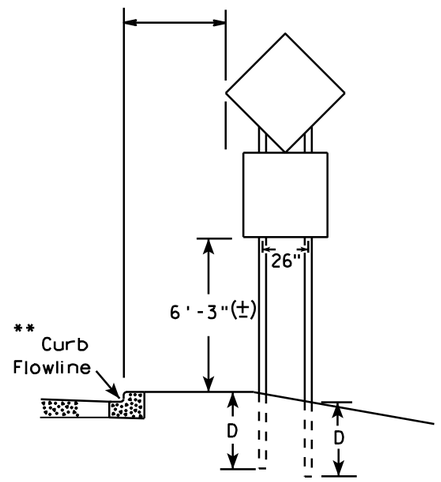
URBAN AREA



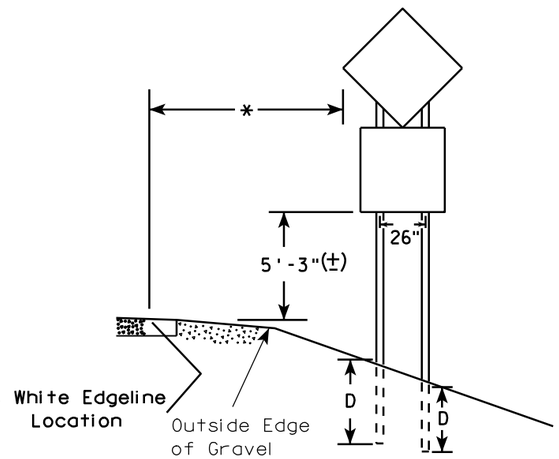
RURAL AREA (See Note 3)







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 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. For multiple 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. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) 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) & End of Road Markers (W5-56 & W5-56A) 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 or 20 S.F. or less in area.

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

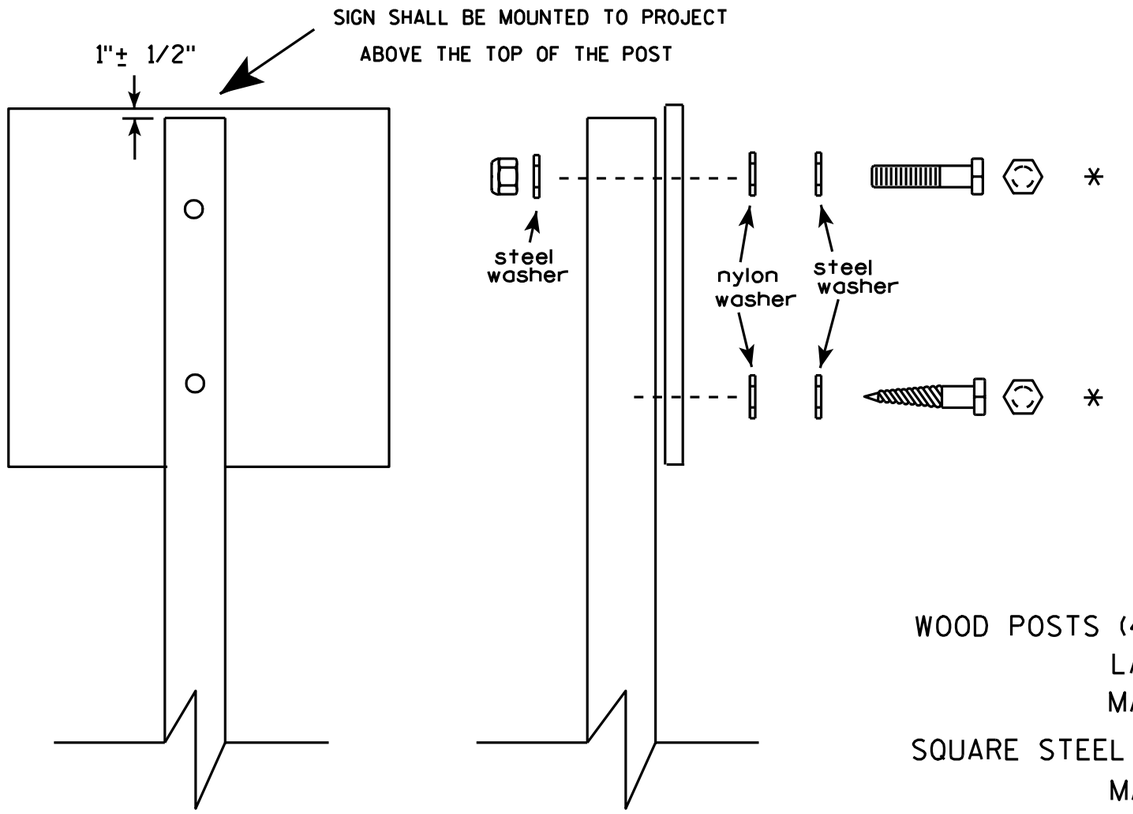
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

7

7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 221	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

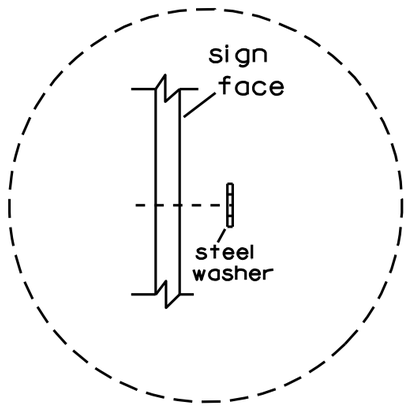
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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.

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.



Washer Placement when Sign Has Other Than Type H or Type F Face

* 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 3/23/10 PLATE NO. A4-8.7

7

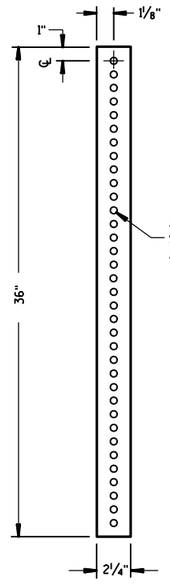
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PROJECT NO:

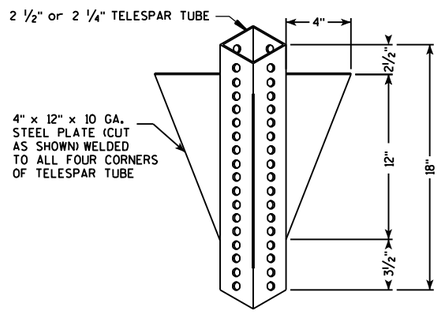
SHEET NO: 222 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

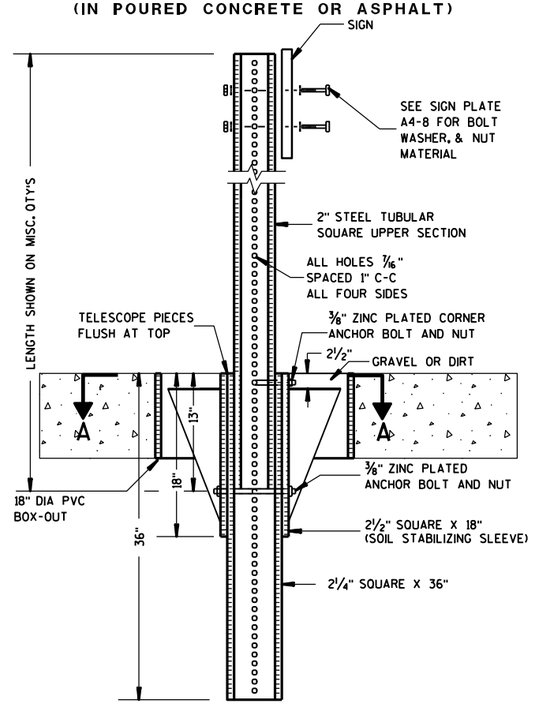
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



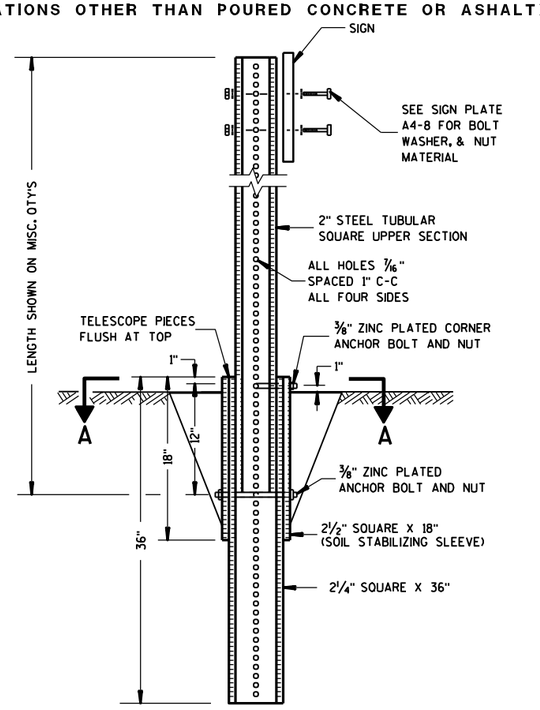
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

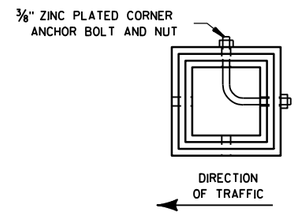


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASHALT)





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).

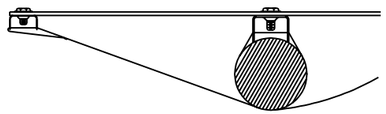
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

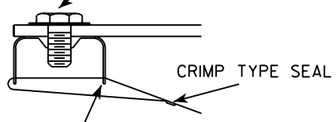
APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 5/30/12 PLATE NO. A4-9.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 223	E

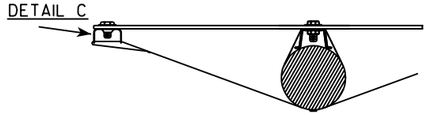
BRACE BANDING

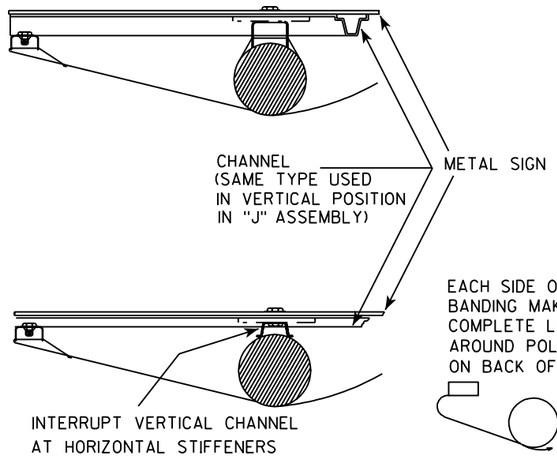


DETAIL C
CADMIUM PLATED STEEL BOLT
THROUGH BLACK BORDER



DETAIL C

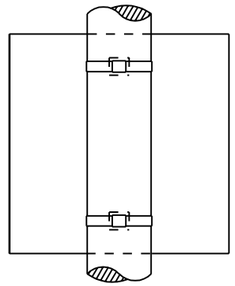


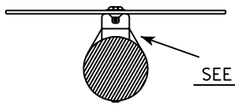


EACH SIDE OF BRACE
BANDING MAKES ONE
COMPLETE LOOP
AROUND POLE-SEAL
ON BACK OF POLE

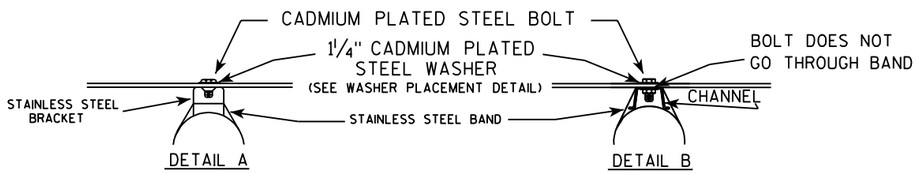
BRACKET BANDING

SINGLE SIGN

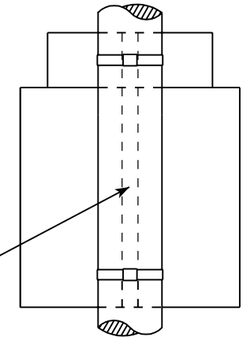




SEE DETAIL A



"J" ASSEMBLY

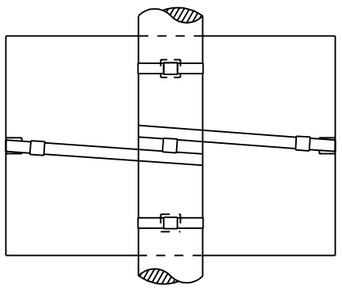


CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

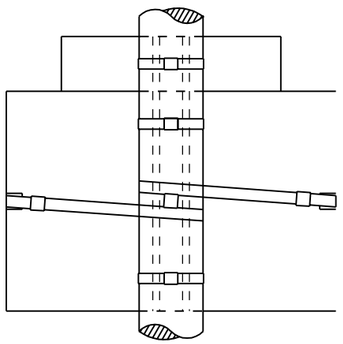
GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' 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.

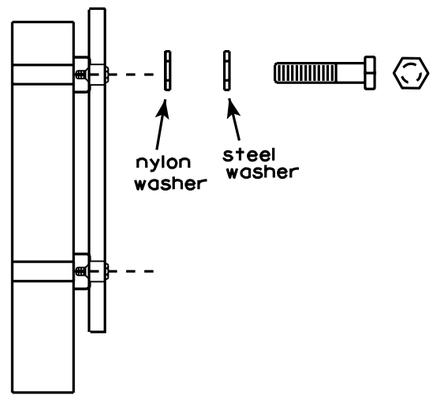


BRACE BANDING

BRACE BANDING SHALL BE TIGHTENED FIRMLY BUT NOT SO TIGHT AS TO APPRECIABLY CURVE FACE OF SIGN.



WASHER PLACEMENT



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

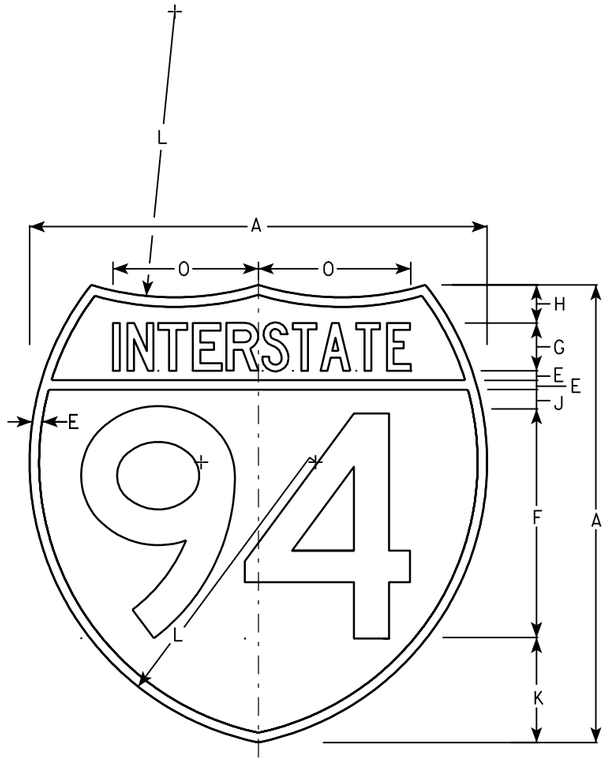
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

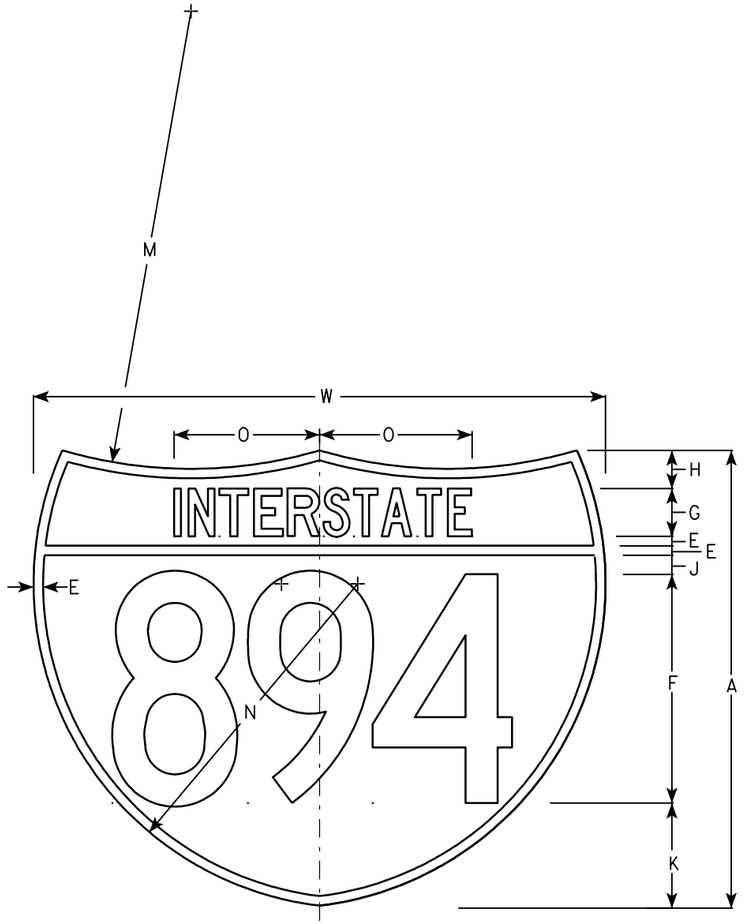
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/08/05 PLATE NO. A5-9.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 224	E



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

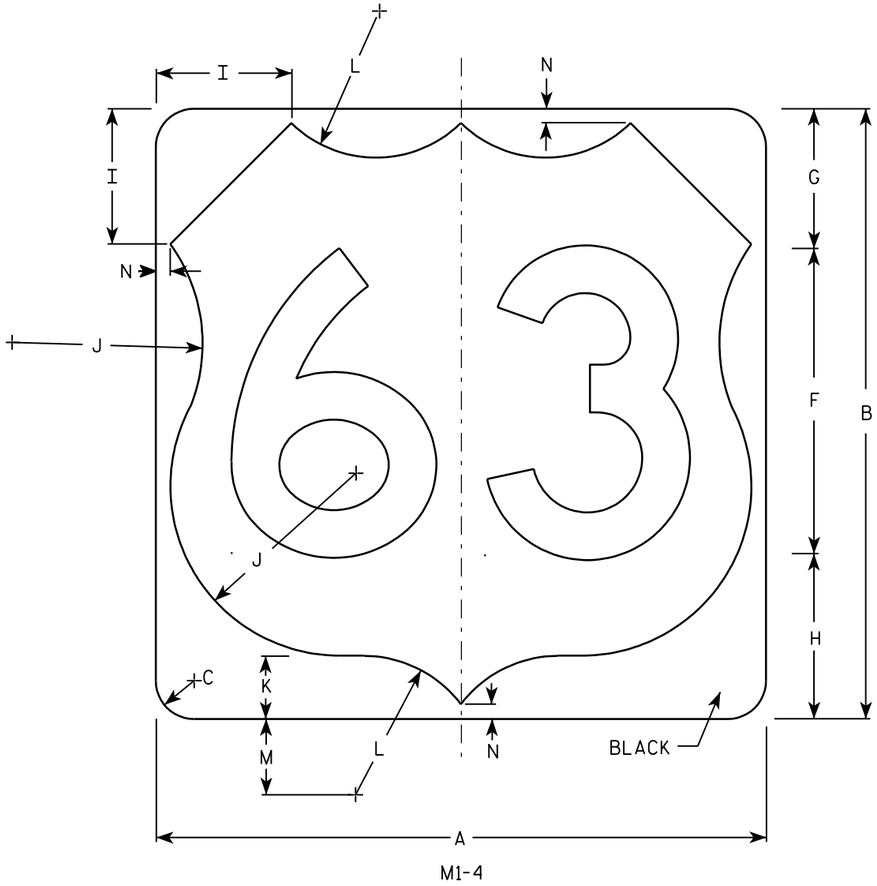
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

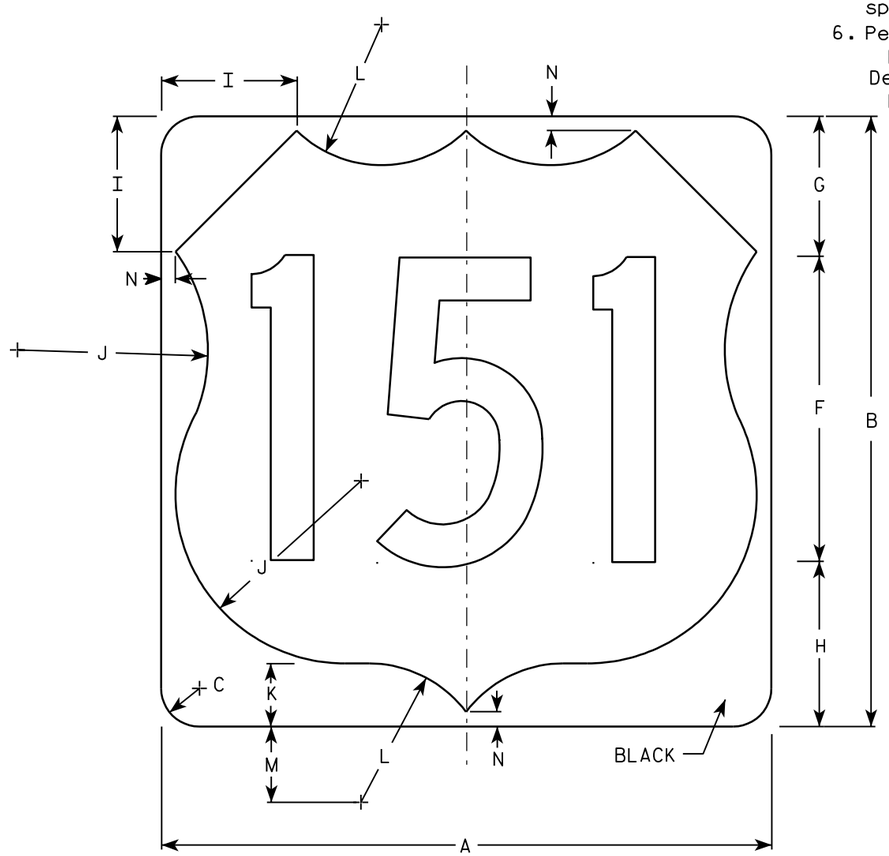
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 225	E



M1-4



M1-4

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   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. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

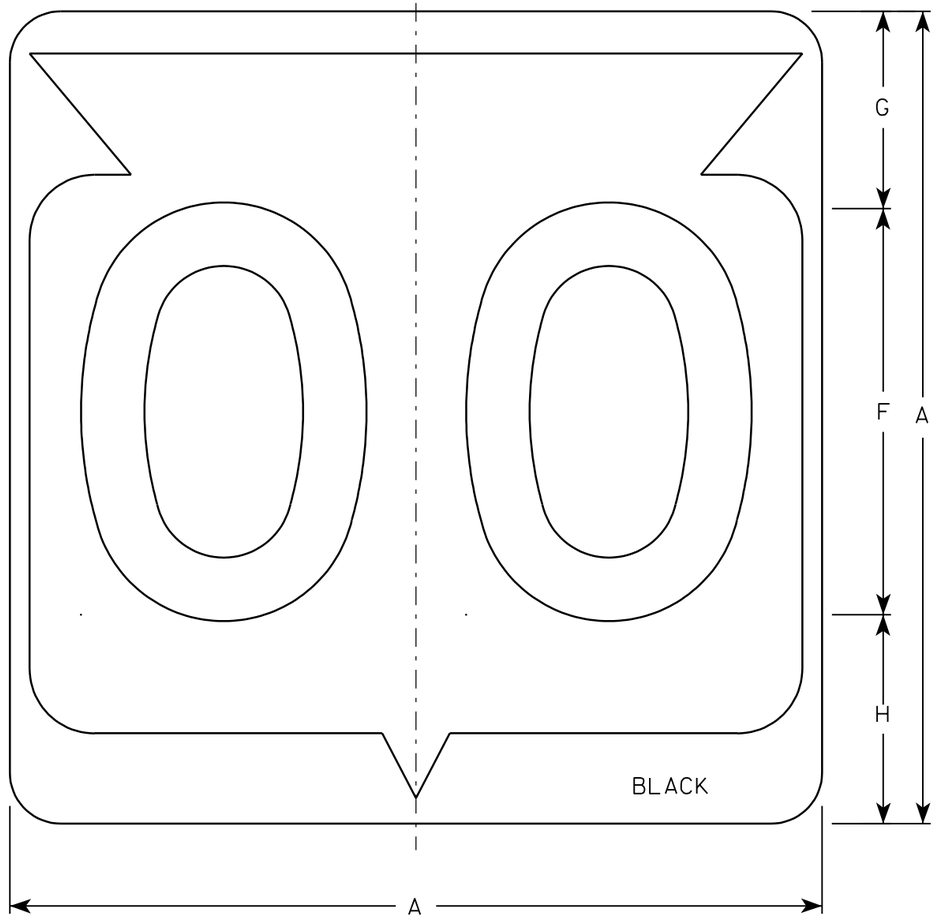
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

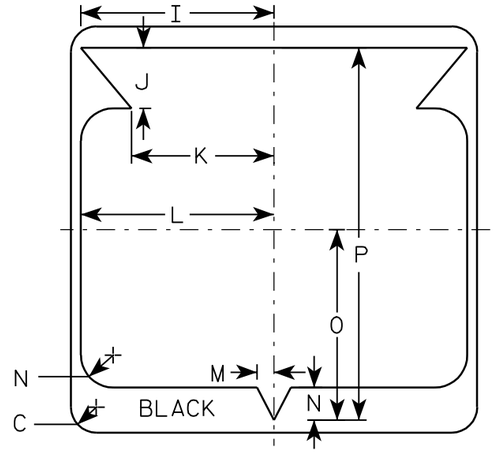
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 226 | E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   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. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 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	.36
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	.81
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	.81
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	.81

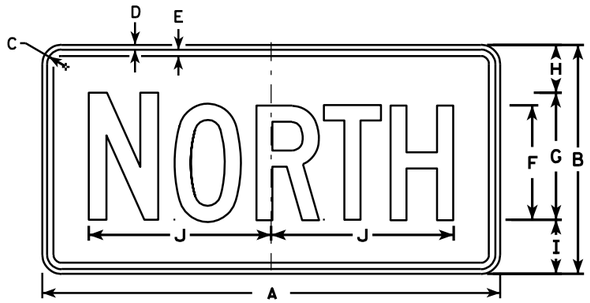
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

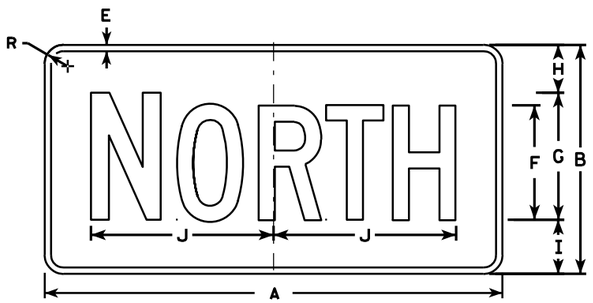
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 227	E



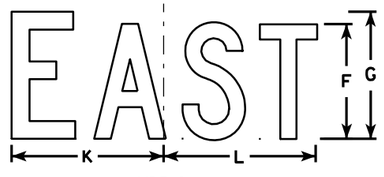
M3-1
MK3-1
MO3-1



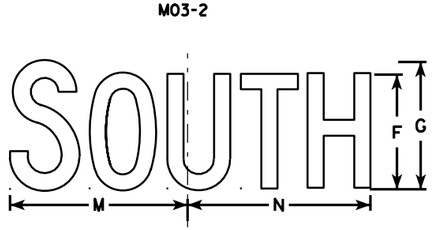
MB3-1
MG3-1
MM3-1
MN3-1



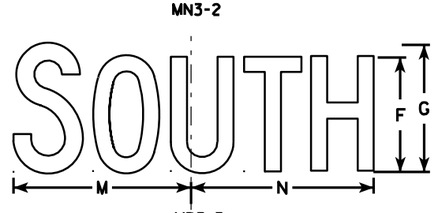
M3-2
MK3-2
MO3-2



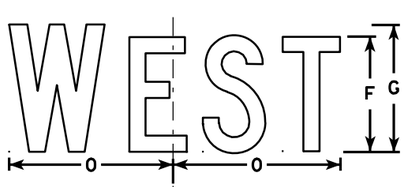
MB3-2
MG3-2
MM3-2
MN3-2



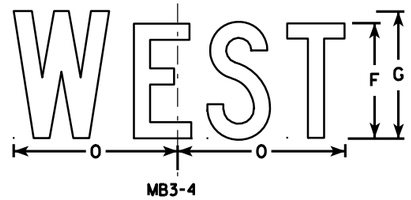
M3-3
MK3-3
MO3-3



MB3-3
MG3-3
MM3-3
MN3-3



M3-4
MK3-4
MO3-4



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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 - Type H Reflective
   (Detour or temporary signs - Reflective)
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   MG3-1 thru MG3-4 Background - Green
   Message - White - Type H Reflective
   MK3-1 thru MK3-4 Background - Green
   Message - White - Type H Reflective
   MM3-1 thru MM3-4 Background - White - Type H Reflective
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White - Type H Reflective
   M03-1 thru M03-4 Background - Orange - Reflective
   Message - Black
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

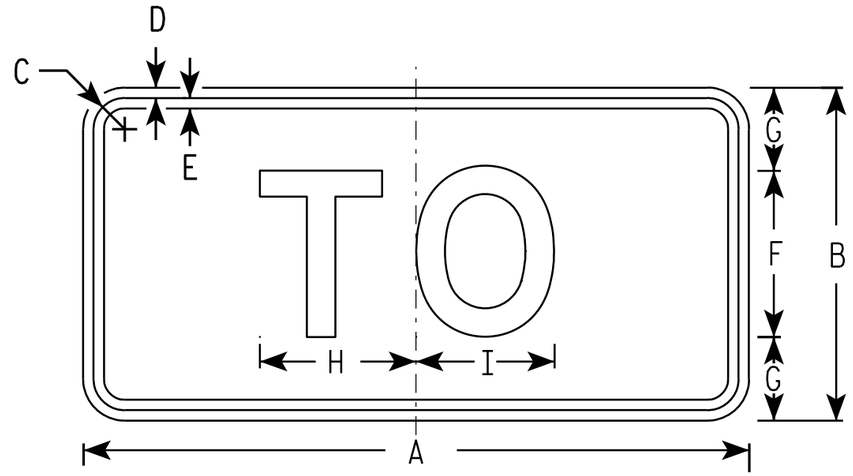
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

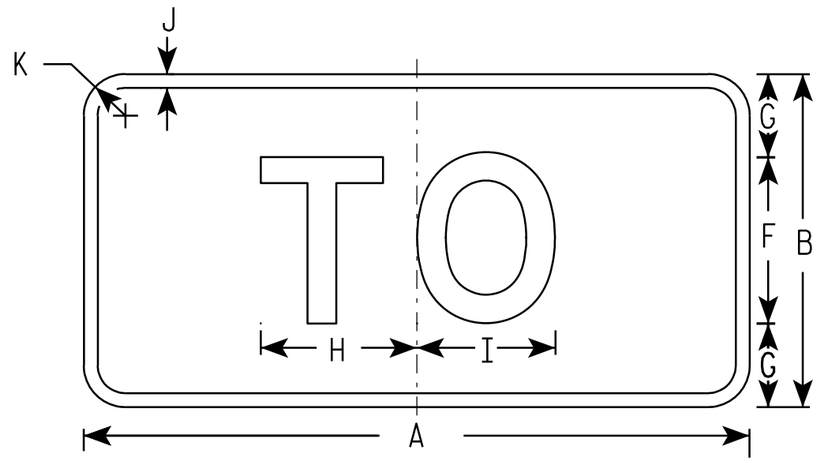
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 228	E



M4-5
MK4-5
MM4-5



MB4-5
MG4-5
MN4-5

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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 - Type H Reflective (Detour or temporary Signs - Reflective)
   Message - Black
   MB4-5 Background - Blue
   Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG4-5 Background - Green
   Message - White - Type H Reflective
   MK4-5 Background - Green
   Message - White - Type H Reflective
   MM4-5 Background - White - Type H Reflective
   Message - Green
   MN4-5 Background - Brown
   Message - White - Type H Reflective

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

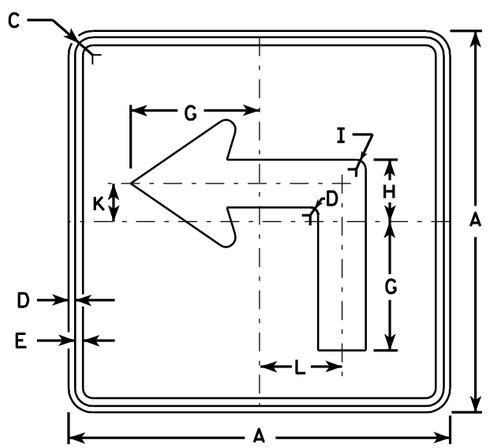
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

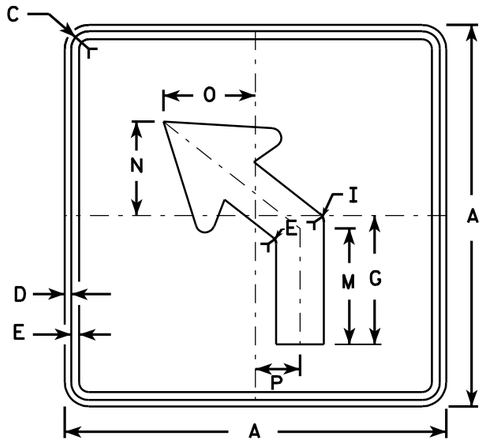
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-5.6

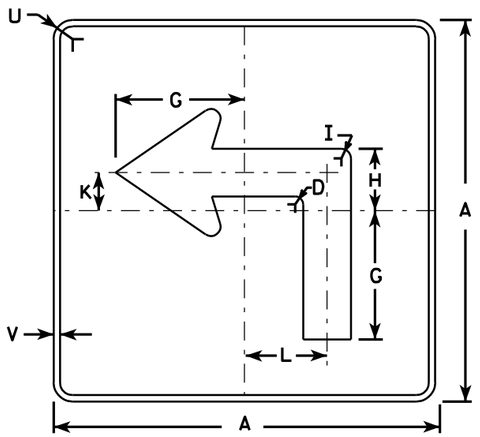
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 229 | E



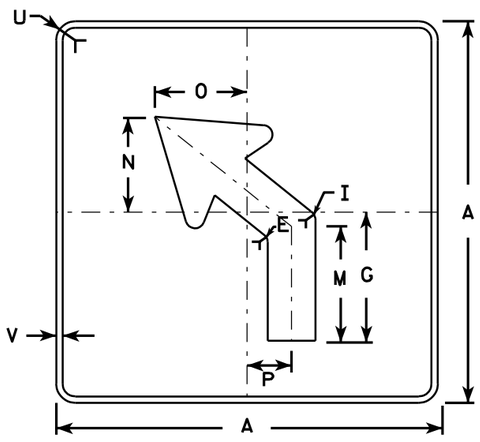
M5-1L
MK5-1L
MM5-1L
MO5-1L
MR5-1L



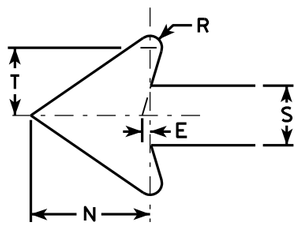
M5-2L
MK5-2L
MM5-2L
MO5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective) Message - Black
   MB5-1 and MB5-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG5-1 and MG5-2 Background - Green Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective Message - Green
   MN5-1 and MN5-2 Background - Brown Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Reflective Message - Black
   MR5-1 and MR5-2 Background - Brown Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56

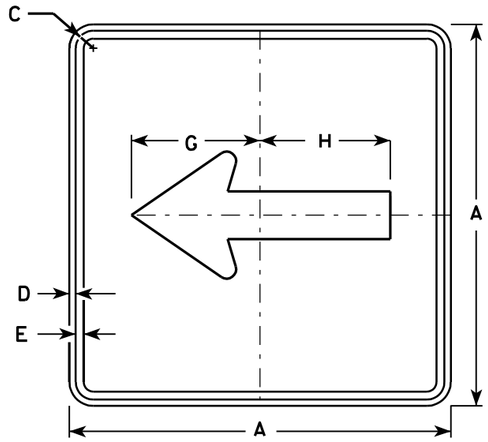
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

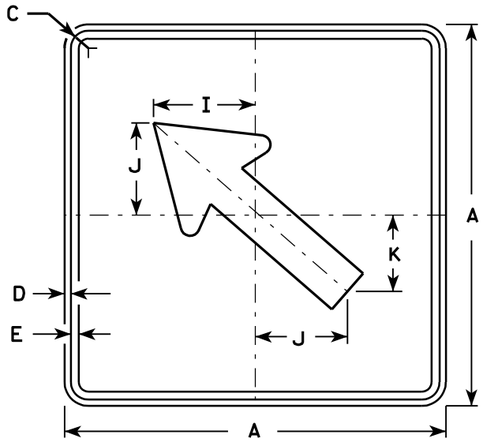
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M5-1.11

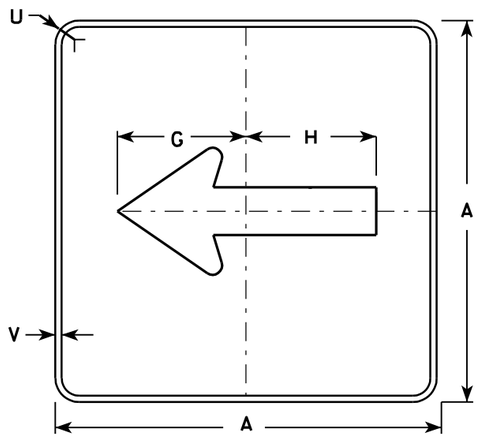
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 230	E



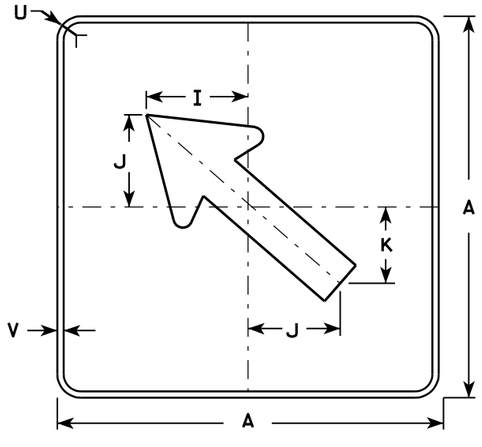
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MR6-2



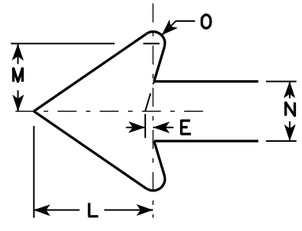
MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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 - Type H Reflective (Detour or temporary Signs - Reflective) Message - Black
   MB6-1 and MB6-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG6-1 and MG6-2 Background - Green Message - White - Type H Reflective
   MK6-1 and MK6-2 Background - Green Message - White - Type H Reflective
   MM6-1 and MM6-2 Background - White - Type H Reflective Message - Green
   MN6-1 and MN6-2 Background - Brown Message - White - Type H Reflective
   MO6-1 and MO6-2 Background - Orange - Reflective Message - Black
   MR6-1 and MR6-2 Background - Brown Message - Yellow - Type H Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	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	0.28
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	0.56
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	0.56
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	0.56

STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M6-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 231	E

STATION	CUT C.Y.	FILL (-) C.Y.	LARGEST CUT IN FEET	LARGEST FILL (-) IN FEET
4+ 28	0	0		
4+ 50	13	0	0.46	
5+ 00	37	2	0.37	0.25
5+ 50	61	7	0.54	0.71
6+ 00	86	17	0.43	0.73
6+ 50	123	10	0.65	0.23
7+ 00	60	2	0.73	0.37
7+ 50	62	2	0.70	0.17
8+ 00	54	4	0.67	0.46
8+ 50	49	7	0.50	0.65
9+ 00	34	7	0.58	0.14
9+ 50	30	4	0.32	0.28
10+ 00	16	6	0.17	0.31
10+ 50	8	12	0.18	0.65
11+ 00	68	11	0.81	0.18
11+ 50	40	4	0.80	0.28
12+ 00	26	1	0.19	0.16
12+ 50	20	2	0.63	0.21
13+ 00	28	2	0.31	0.16
13+ 50	27	1	0.36	0.02
14+ 00	29	1	0.48	0.17
14+ 50	31	1	0.45	0.00
15+ 00	35	1	0.40	0.23
15+ 50	27	1	0.70	0.09
16+ 00	83	2	1.39	0.24
16+ 50	59	1	0.67	0.02
17+ 00	63	1	0.94	0.12
17+ 50	59	1	0.67	0.12
18+ 00	47	1	0.60	0.09
18+ 50	41	1	0.50	0.20
19+ 00	37	2	0.62	0.33
19+ 50	29	2	0.44	0.18

STATION	CUT C.Y.	FILL (-) C.Y.	LARGEST CUT IN FEET	LARGEST FILL (-) IN FEET
20+ 00	484	108	1.35	0.63
20+ 50	419	59	1.37	0.88
21+ 00	57	7	1.36	0.37
21+ 50	35	0	1.44	0.03
22+ 00	39	1	1.32	0.15
22+ 50	49	2	1.42	0.16
23+ 00	57	1	1.42	0.16
23+ 50	51	2	1.20	0.16
24+ 00	43	2	1.32	0.06
24+ 50	40	1	1.50	0.12
25+ 00	49	1	1.36	0.03
25+ 50	66	4	1.40	0.31
26+ 00	33	1	1.80	0.16
26+ 50	38	1	1.43	0.11
27+ 00	43	0	1.42	0.00
27+ 50	52	0	1.37	0.00
28+ 00	53	0	1.39	0.00
28+ 50	45	0	1.35	0.06
29+ 00	40	0	1.38	0.06
29+ 50	33	1	1.30	0.08
30+ 00	40	0	1.48	0.07
30+ 50	51	0	1.36	0.09
31+ 00	55	3	1.13	0.46
31+ 50	58	3	1.38	0.07
32+ 00	58	0	1.52	0.05
32+ 50	58	0	1.33	0.02
33+ 00	58	0	1.39	0.04
33+ 50	51	0	1.29	0.08
34+ 00	41	1	1.35	0.12
34+ 50	36	3	1.23	0.36
35+ 00	49	1	1.37	0.05
35+ 50	65	1	1.33	0.11
36+ 00	65	1	1.35	0.06
36+ 50	59	0	1.50	0.00
37+ 00	63	0	1.50	0.11
37+ 50	34	0	1.44	0.23
38+ 00	25	2	1.18	0.18
38+ 62	33	2	1.34	0.06
TOTAL	4007	324		

EARTHWORK SUMMARY

EXCAVATION COMMON (205.0100)	10,200 C.Y.
(INCLUDES 6170 C.Y. PAV'T. REMOVAL)	
FILL (INCLUDING 20% SHRINKAGE)	324 C.Y.
WASTE	9,876 C.Y.

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov